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All data, including phase data, are available on CD-ROM
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Addendum I

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

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

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

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

The following example illustrates the changes :-

September 2002

```
      NEIC 01 18:45:41.7±1.7,21°.70S×179°.55W,h600km,mb4.6/6,
              Error ellipse: s-maj=75.5km s-min=25.7km az=151.0
       IDC 01 18:45:46.3±2.6,21°.76S×179°.70W,h627km±37km,mb3.5/4,
              mb1 3.7/4,mb1mx3.2/14,Error ellipse: s-maj=83.2km
              s-min=20.6km az=159.0
       ISC 01 18:45:43.1±2.7,22°.3S±0°.2×179°.6W±0°.3,h613km±42km,
              n22,σ1ˢ15/21,mb4.4/9,1C,South of Fiji Islands
Code  Station Name      Δ°   AZ°    Phase ID          Time     Res
                                   Op      ISC       h  m  s    ISC
HBZ   Hicks Bay         15.41 186  eP      P        18 48 53.1 -1.7
URZ   Urewera           16.21 189   P      P        18 49 01.5 -0.9
MRZ   Mangatainoka R    18.81 192  eP      P        18 49 26.7  0.0
DIW   D'Urville Isla    19.30 195  eP      P        18 49 27.3 -3.9
CAW   Cannon Point      19.34 192  eP      P        18 49 31.7 +0.1
OTW   Orongorongo Tu    19.52 192  eP      P        18 49 33.0 -0.2
MOW   Moikau            19.61 192  eP      P        18 49 35.5 +1.5
THZ   Tophouse          20.46 196  eP      P        18 49 42.0 +0.2
KHZ   Kahutara          20.93 194   P      P        18 49 46.2 +0.2
ARMA  Armidale          27.03 246  eP      P        18 50 42.4 +2.3
      4.9nm,0.5s,mb4.4
CTA   Charters Tower    31.93 267⇑iP      P        18 51 22.3 +0.4
      13nm,0.5s,mb4.8
STKA  Stephens Creek    35.75 246  eP      P        18 51 55.3 +1.8
      3.1nm,0.4s,mb4.2
ASAR  Alice Springs     42.74 259   P      P        18 52 50.1 +0.3
      9.8nm,0.5s,mb4.6,baz=92,slow=8.2,SNR=47
ASAR                                S      S        18 58 31.3 -0.1
      1.0nm,0.8s,baz=95,slow=15,SNR=5.7
ASPA  Alice Springs     42.74 259  eP      P        18 52 50.1 +0.2
WRA   Warramunga Arr    42.96 264   P      P        18 52 51.0 -0.7
      1.8nm,0.3s,mb4.0,baz=96,slow=7.8,SNR=93
WRA                                 S      S        18 58 33.0 -1.5
      0.3nm,0.9s,baz=99,slow=14,SNR=3.0
KAKA  Kakadu            46.64 273  eP      P        18 53 18.2 -1.8
      14nm,0.4s,mb4.8
FITZ  Fitzroy Crossi    51.39 264  eP      P        18 53 54.3 -0.7
      12nm,0.3s,mb4.8
MBWA  Marble Bar        56.08 259  eP      P        18 54 27.1 -0.7
      11nm,0.6s,mb4.2
CMAR  Chiang Mai Arr    89.35 290   P      P        18 57 38.1 +1.0
      1.3nm,0.8s,mb3.8,baz=135,slow=3.1,SNR=8.1
ARCES ARCESS Array B   130.36 349   PKP    PKP      19 03 43.7 -0.5
      0.7nm,0.6s,baz=282,slow=4.2,SNR=3.5
FINES FINESS Array B   137.02 342   PKP    PKP      19 03 57.3 +0.5
      3.7nm,1.1s,baz=158,slow=3.2,SNR=3.4
MLR   Muntele Rosu     148.85 324   PKPbc  PKP      19 04 22.7 +5.2
      0.2nm,0.7s,baz=1.2,slow=23,SNR=2.3
```

Epicentral Estimates

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

Observational Data

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

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

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

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

Addendum II

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

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

*ISK **01** 00:08:23.0, 39°.52N×25°.99E, h3^{km}, ML3.6*
*ATH **01** 00:08:23.9, 39°.54N×25°.99E, h30^{km}, MD3.6/8, ML3.0*
*ISCJB **01** 00:08:24.4±0.4, 39°.53N±0°.01×25°.91E±0°.02, h15^{km}±4^{km}, Error ellipse: s-maj=2.6km s-min=2.3km az=142.1*
*DDA **01** 00:08:24.1, 39°.56N×26°.03E, h7^{km}±6^{km}, Md3.8*
*THE **01** 00:08:25.3, 39°.51N×25°.95E, h15^{km}, ML3.9/8, Error ellipse: s-maj=1.0km s-min=0.5km az=213.0*
*NEIC **01** 00:08:25.3, 39°.51N×25°.95E, h14^{km}, MD3.6(ATH), ML3.6(ISK), ML4.0(THE), After THE.*
*CSEM **01** 00:08:25.6±0.1, 39°.50N×25°.92E, h20^{km}, ML3.9/8, Error ellipse: s-maj=2.1km s-min=1.8km az=23.0*
*SKO **01** 00:08:31.8, 39°.96N×25°.37E, h0^{km}*
ISC 01 00:08:24.8±0.4, **39°.53N**±0°.01×**25°.92E**±0°.02, **h11**^{km}±3^{km}, **n207**, σ**0^{s}87**/252, **7C-11D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIGR	SIGRI	0.32	189	P	Pg	00 08 31.8	+0.6
SIGR				S	Sg	00 08 37.0	+1.4
SIGR	SIGRI	0.32	189	P	Pg	00 08 31.8	+0.6
SIGR				S	Sg	00 08 37.0	+1.4
SIGR	SIGRI	0.32	189	P	Pg	00 08 31.8	+0.6
SIGR				S	Sg	00 08 37.0	+1.4
BOZC	Bozcaada	0.33	18	⇑iP	Pg	00 08 30.6	-0.7
BOZC				i S	Sg	00 08 34.9	-0.9
PRK	Paraskevi	0.40	136	P	Pg	00 08 32.7	+0.1
PRK				S	Sg	00 08 38.5	+0.7
PRK	Paraskevi	0.40	136	ePB	Pg	00 08 32.7	+0.1
PRK				eSB	Sg	00 08 38.5	+0.7
PRK	Paraskevi	0.40	136	ePb	Pg	00 08 32.7	+0.1
PRK				eSb	Sg	00 08 38.5	+0.7
EZN	Ezine	0.43	47	PG	Pg	00 08 31.8	-1.5
EZN	Ezine	0.43	47	i Pg	Pg	00 08 31.8	-1.5
AYVA	Ayvalik	0.64	110	eP	Pg	00 08 36.7	-0.5
AYVA				eS	Sg	00 08 47.8	+2.3
AYVA	Ayvalik	0.64	110	eP	Pg	00 08 36.7	-0.4
AYVA				eS	Sg	00 08 47.8	+2.3
LIA	Limnos Island	0.68	303	P	Pg	00 08 38.2	+0.3
LIA				S	Sg	00 08 49.1	+2.4
LIA	Limnos Island	0.68	303	ePN	Pn	00 08 38.1	-2.1
LIA				eSN	Sg	00 08 49.3	+2.6
LIA	Limnos Island	0.68	303	ePn	Pn	00 08 38.1	-2.1
LIA				eSn	Sg	00 08 49.3	+2.6
LPK	Lapseki	1.06	37	PG	Pg	00 08 43.5	-1.7
LPK				eSG	Sg	00 08 58.4	-0.6
LPK	Lapseki	1.06	37	i Pg	Pg	00 08 43.5	-1.7
LPK				eSg	Sg	00 08 58.4	-0.6
CHOS	Chios island	1.15	175	P	Pb	00 08 45.8	-0.8
CHOS				S	Sb	00 09 01.5	+0.1
CHOS	Chios island	1.15	175	ePN	Pn	00 08 46.0	-0.7
CHOS				eSN	Sn	00 09 01.7	-0.7
CHOS	Chios island	1.15	175	ePn	Pn	00 08 46.0	-0.7
CHOS				eSn	Sn	00 09 01.7	-0.7
ENEZ	Enez	1.22	8	PN	Pn	00 08 46.9	-0.8
ENEZ				eSN	Sn	00 09 04.5	+0.4
ENEZ	Enez	1.22	8	i Pn	Pn	00 08 46.9	-0.8
ENEZ				eSn	Sn	00 09 04.5	+0.4
ALN	Alexandroupoli	1.37	4	P	Pn	00 08 48.8	-1.0
ALN				S	Sb	00 09 07.2	-0.6
ALN	Alexandroupoli	1.37	4	ePN	Pn	00 08 48.2	-1.6
ALN				eSN	Sn	00 09 06.9	-0.9
ALN	Alexandroupoli	1.37	4	ePn	Pn	00 08 48.2	-1.6
ALN	Alexandroupoli	1.37	4	P	Pn	00 08 48.8	-1.0
ALN				eSn	Sn	00 09 06.9	-0.9
BLCB	Balcova	1.44	142	ePN	Pn	00 08 49.8	-0.9
BLCB				eSN	Sn	00 09 10.1	+0.5
BLCB	Balcova	1.44	142	P	Pn	00 08 49.7	-1.0
BLCB				S	Sn	00 09 08.9	-0.7
BLCB	Balcova	1.44	142	ePn	Pn	00 08 49.8	-0.9
BLCB				S	Sn	00 09 08.9	-0.7
BLCB				eSn	Sn	00 09 10.1	+0.5
SART	Tekirdag	1.51	40	⇓iP	Pn	00 08 50.8	-0.9
SART				i S	Sn	00 09 10.6	-0.7
SART	Tekirdag	1.51	40	i P	Pn	00 08 50.8	-0.9
SART				i S	Sn	00 09 10.6	-0.7
BALB	Balikesir	1.52	85	ePN	Pn	00 08 51.0	-0.8
BALB				eSN	Sn	00 09 11.5	-0.1
BALB	Balikesir	1.52	85	ePn	Pn	00 08 51.0	-0.8
BALB				eSn	Sn	00 09 11.5	-0.1
IZM	Izmir	1.54	137	ePN	Pn	00 08 51.7	-0.4
IZM	Izmir	1.54	137	ePn	Pn	00 08 51.7	-0.4
AKS	Akhisar	1.61	113	ePN	Pn	00 08 52.3	-0.8
AKS	Akhisar	1.61	113	ePn	Pn	00 08 52.3	-0.8
AKHS	Akhisar	1.61	113	⇓iP	Pn	00 08 52.3	-0.8
AKHS				i S	Sn	00 09 15.5	+1.7
AKHS	Akhisar	1.61	113	i P	Pn	00 08 52.3	-0.8
AKHS				i S	Sn	00 09 15.5	+1.7
MFT	Murefte	1.63	39	ePN	Pn	00 08 53.9	+0.5
MFT	Murefte	1.63	39	ePn	Pn	00 08 53.9	+0.5
RDO	Rodhopi	1.64	350	ePN	Pn	00 08 53.1	-0.4
RDO				eSN	Sn	00 09 13.4	-1.1
RDO	Rodhopi	1.64	350	ePn	Pn	00 08 53.1	-0.4
RDO				eSn	Sn	00 09 13.4	-1.1
MRMT	Marmara Adasi	1.67	50	ePN	Pn	00 08 53.8	-0.2
MRMT	Marmara Adasi	1.67	50	ePn	Pn	00 08 53.8	-0.2
OUR	Ouranopolis	1.69	299	P	Pn	00 08 53.7	-0.5
OUR	Ouranopolis	1.69	299	P	Pn	00 08 53.7	-0.5
EDC	Edincik	1.70	61	ePN	Pn	00 08 54.3	-0.1
EDC	Edincik	1.70	61	ePn	Pn	00 08 54.3	0.0
BNT	Bandirma	1.75	61	ePN	Pn	00 08 53.9	-1.0
PAIG	Paliouri	1.77	284	P	Pn	00 08 54.8	-0.5
PAIG				S	Sn	00 09 18.6	+0.8
PAIG	Paliouri	1.77	284	P	Pn	00 08 54.8	-0.5
PAIG				S	Sn	00 09 18.6	+0.8
TKR	Tekirdag	1.91	40	ePN	Pn	00 08 57.3	+0.1
TKR	Tekirdag	1.91	40	ePn	Pn	00 08 57.3	+0.1
SMG	Samos	1.96	158	ePB	Pb	00 08 57.3	-3.1
SMG	Samos	1.96	158	ePb	Pb	00 08 57.3	-3.1
DURS	Dursunbey	1.98	87	eP	Pn	00 08 57.3	-0.8
DURS				eS	Sn	00 09 23.6	+0.8
DURS	Dursunbey	1.98	87	eP	Pn	00 08 57.3	-0.8
DURS				eS	Sn	00 09 23.6	+0.8
PLG	Polygyros	2.08	295	P	Pn	00 08 58.9	-0.6
PLG	Polygyros	2.08	295	ePB	Pb	00 08 59.7	-2.8
PLG	Polygyros	2.08	295	P	Pn	00 08 58.9	-0.6
PLG	Polygyros	2.08	295	ePb	Pb	00 08 59.7	-2.8
DST	Dursunbey	2.10	87	ePN	Pn	00 08 59.0	-0.7
DST	Dursunbey	2.10	87	ePn	Pn	00 08 59.0	-0.7
NEO	Neokhori	2.10	265	ePN	Pn	00 08 59.5	-0.3
NEO	Neokhori	2.10	265	ePn	Pn	00 08 59.5	-0.3
CRLT	Corlu	2.12	40	ePN	Pn	00 09 00.1	+0.1
CRLT	Corlu	2.12	40	ePn	Pn	00 09 00.1	+0.1
XOR	Xorichti	2.12	266	P	Pn	00 08 59.9	-0.1
XOR				S	Sn	00 09 26.6	+0.3
XOR	Xorichti	2.12	266	P	Pn	00 08 59.9	-0.1
XOR				S	Sn	00 09 26.6	+0.3
PTL	Penteli	2.18	228	ePN	Pn	00 09 00.2	-0.7
PTL	Penteli	2.18	228	ePn	Pn	00 09 00.2	-0.7
ATH	Athens Observa	2.32	229	ePN	Pn	00 09 02.1	-0.7
ATH	Athens Observa	2.32	229	ePn	Pn	00 09 02.1	-0.7
SOH	Sokhos	2.35	304	P	Pn	00 09 03.3	+0.1
SOH				S	Sn	00 09 31.9	-0.2
SOH	Sokhos	2.35	304	ePN	Pn	00 09 03.3	+0.1
SOH				eSN	Sn	00 09 32.2	+0.1
SOH	Sokhos	2.35	304	ePn	Pn	00 09 03.3	+0.1
SOH				eSn	Sn	00 09 32.2	+0.1
KULA	Kula-Manisa	2.37	115	ePN	Pn	00 09 03.0	-0.4
KULA	Kula-Manisa	2.37	115	ePn	Pn	00 09 03.1	-0.3
SRS	Serrai	2.38	312	P	Pn	00 09 03.3	-0.4
SRS	Serrai	2.38	312	P	Pn	00 09 03.3	-0.4
EDRB	Edirne	2.40	15	ePN	Pn	00 09 04.6	+0.7
EDRB	Edirne	2.40	15	ePn	Pn	00 09 04.6	+0.7
NVR	Nevrokopi	2.40	320	P	Pn	00 09 04.0	+0.1
NVR	Nevrokopi	2.40	320	P	Pn	00 09 04.0	+0.1
LKR	Lokris	2.44	250	ePN	Pn	00 09 04.5	+0.1
LKR	Lokris	2.44	250	ePn	Pn	00 09 04.5	+0.1
SLVT	Silivri	2.44	45	ePN	Pn	00 09 04.6	+0.2
SLVT	Silivri	2.44	45	ePn	Pn	00 09 04.6	+0.1
APE	Apeiranthos	2.48	187	P	Pn	00 09 03.6	-1.4
APE	Apeiranthos	2.48	187	ePN	Pn	00 09 04.0	-1.0
APE	Apeiranthos	2.48	187	⇓iP	Pn	00 09 03.7	-1.3
APE	Apeiranthos	2.48	187	P	Pn	00 09 03.6	-1.4
APE	Apeiranthos	2.48	187	ePn	Pn	00 09 04.0	-1.0
ARMT	Armutlu	2.48	64	ePN	Pn	00 09 05.0	-0.1
ARMT	Armutlu	2.48	64	ePn	Pn	00 09 05.0	-0.1
CTT	Catalca	2.51	49	ePN	Pn	00 09 05.6	+0.2
CTT	Catalca	2.51	49	ePn	Pn	00 09 05.6	+0.2
CTKS	Kestanelik-??a	2.61	48	ePN	Pn	00 09 06.7	-0.1
CTKS	Kestanelik-??a	2.61	48	ePn	Pn	00 09 06.7	-0.1
CTYL	Yal??k??y-??at	2.65	42	ePN	Pn	00 09 08.4	+1.0
CTYL	Yal??k??y-??at	2.65	42	ePn	Pn	00 09 08.4	+1.0
MLSB	Milas	2.67	146	ePN	Pn	00 09 07.7	+0.1
MLSB	Milas	2.67	146	ePn	Pn	00 09 07.7	+0.1
GEMT	Gemlik	2.67	69	ePN	Pn	00 09 07.4	-0.3
GEMT	Gemlik	2.67	69	ePn	Pn	00 09 07.4	-0.2
BODT	Bodrum	2.70	156	ePN	Pn	00 09 08.1	+0.1
BODT	Bodrum	2.70	156	ePn	Pn	00 09 08.1	+0.1
LIT	Litokhoron	2.70	283	ePN	Pn	00 09 08.4	+0.3
LIT	Litokhoron	2.70	283	ePn	Pn	00 09 08.4	+0.3
PLD	Plovdiv	2.73	341	P	Pn	00 09 09.1	+0.6
PLD	Plovdiv	2.73	341	P	Pn	00 09 09.1	+0.6
BGKT	Bogazkoy	2.73	52	ePN	Pn	00 09 08.4	-0.1
BGKT	Bogazkoy	2.73	52	ePn	Pn	00 09 08.4	-0.1
LTK	Loutraki	2.75	238	ePN	Pn	00 09 08.4	-0.4
LTK	Loutraki	2.75	238	ePn	Pn	00 09 08.4	-0.4
KNT	Kendrikon	2.83	306	P	Pn	00 09 10.3	+0.5
KNT	Kendrikon	2.83	306	P	Pn	00 09 10.3	+0.5
AGG	Agios Georgios	2.83	261	ePN	Pn	00 09 10.7	+0.8
AGG	Agios Georgios	2.83	261	ePn	Pn	00 09 10.7	+0.8
YLV	Yalova	2.85	68	ePN	Pn	00 09 10.5	+0.5
YLV	Yalova	2.85	68	ePn	Pn	00 09 10.5	+0.4
ISK	Istanbul-Kandi	2.85	56	ePN	Pn	00 09 10.5	+0.4
ISK	Istanbul-Kandi	2.85	56	ePn	Pn	00 09 10.5	+0.4
DID	Didima	2.92	227	ePN	Pn	00 09 10.9	-0.1
DID	Didima	2.92	227	ePn	Pn	00 09 10.9	-0.1
KLYT	Kilyos	2.94	53	ePN	Pn	00 09 11.5	+0.1
KLYT	Kilyos	2.94	53	ePn	Pn	00 09 11.5	+0.1
JMB	Yambol	2.98	10	P	Pn	00 09 11.6	-0.2
JMB	Yambol	2.98	10	P	Pn	00 09 11.6	-0.2
DENT	Denizli	3.02	125	ePN	Pn	00 09 12.4	0.0
DENT	Denizli	3.02	125	ePn	Pn	00 09 12.4	0.0
THL	Klokotos Trika	3.02	272	ePN	Pn	00 09 13.1	+0.7
THL	Klokotos Trika	3.02	272	ePn	Pn	00 09 13.1	+0.7
YER	Yerkesik	3.03	141	ePN	Pn	00 09 12.5	-0.1
YER	Yerkesik	3.03	141	ePn	Pn	00 09 12.5	-0.1
KHL	Karahalli	3.06	112	ePN	Pn	00 09 12.8	-0.2
KHL	Karahalli	3.06	112	ePn	Pn	00 09 12.8	-0.2
ADVT	Abdulvahap	3.07	72	ePN	Pn	00 09 13.6	+0.4
ADVT	Abdulvahap	3.07	72	ePn	Pn	00 09 13.6	+0.5
DAT	Datca	3.09	154	ePN	Pn	00 09 13.6	+0.2
DAT	Datca	3.09	154	ePn	Pn	00 09 13.6	+0.2
CAVI	Cavuskoy	3.09	76	ePN	Pn	00 09 13.6	+0.1
CAVI	Cavuskoy	3.09	76	ePn	Pn	00 09 13.6	+0.1
THR4	Thira Island,	3.09	188	P	Pn	00 09 12.4	-1.1
THR4	Thira Island,	3.09	188	P	Pn	00 09 12.4	-1.1
VAY	Valandovo	3.12	306	ePn	Pn	00 09 14.8	+1.0
VAY	Valandovo	3.12	306	ePn	Pn	00 09 14.8	+1.0
THR5	Thira Island,	3.14	188	P	Pn	00 09 13.1	-1.0
THR5	Thira Island,	3.14	188	P	Pn	00 09 13.1	-1.0
THR3	Thira Island,	3.14	188	P	Pn	00 09 12.8	-1.4
THR3	Thira Island,	3.14	188	P	Pn	00 09 12.8	-1.4
HRT	Hereke	3.15	65	ePN	Pn	00 09 15.2	+1.0
HRT	Hereke	3.15	65	ePn	Pn	00 09 15.2	+1.0
GUR	Goura	3.22	241	ePN	Pn	00 09 15.6	+0.4
GUR	Goura	3.22	241	ePn	Pn	00 09 15.6	+0.4
EVR	Evrytania	3.25	260	P	Pn	00 09 20.5	+4.9
SILT	Sile	3.27	59	ePN	Pn	00 09 17.0	+1.0
SILT	Sile	3.27	59	ePn	Pn	00 09 17.0	+1.0
KZN	Kozani	3.28	285	ePN	Pn	00 09 17.0	+0.9
KZN	Kozani	3.28	285	ePn	Pn	00 09 17.0	+0.9
ALT	Altintas	3.29	97	ePN	Pn	00 09 15.6	-0.5
ALT	Altintas	3.29	97	ePn	Pn	00 09 15.6	-0.5
DALT	Dalyan (Mudla)	3.49	141	ePN	Pn	00 09 18.7	-0.2
DALT	Dalyan (Mudla)	3.49	141	ePn	Pn	00 09 18.7	-0.2
VLX	Vlachokerasia	3.52	233	ePN	Pn	00 09 19.9	+0.6
VLX	Vlachokerasia	3.52	233	ePn	Pn	00 09 19.9	+0.6
VTS	Vitosha	3.68	327	ePn	Pn	00 09 22.2	+0.7
VTS				eSg	Sg	00 10 19.3	-3.6
VTS	Vitosha	3.68	327	ePn	Pn	00 09 22.2	+0.7
SHUT	Suhut-Afyon	3.74	104	ePN	Pn	00 09 22.6	+0.3
SHUT	Suhut-Afyon	3.74	104	ePn	Pn	00 09 22.6	+0.3
ESKT	Eskisehir	3.81	89	ePN	Pn	00 09 23.8	+0.5
ESKT	Eskisehir	3.81	89	ePn	Pn	00 09 23.8	+0.4
FETY	Fethiye	3.82	138	ePN	Pn	00 09 23.5	+0.1
FETY	Fethiye	3.82	138	ePn	Pn	00 09 23.5	0.0
KRUS	Krusevo	4.01	299	ePn	Pn	00 09 25.4	-0.7
KRUS	Krusevo	4.01	299	ePn	Pn	00 09 25.3	-0.7
ELL	Elmali	4.20	130	ePN	Pn	00 09 29.4	+0.8
ELL	Elmali	4.20	130	ePn	Pn	00 09 29.4	+0.8
SVRH	Sivrihisar-ESK	4.34	89	ePN	Pn	00 09 31.5	+0.9
SVRH	Sivrihisar-ESK	4.34	89	ePn	Pn	00 09 31.5	+0.9
ZAPS	Zavoj	4.48	328	ePn	Pn	00 09 34.4	+1.9
ZAPS				eSg	Sg	00 10 48.7	+0.1
BARS	Barje	4.51	318	i Pn	Pn	00 09 33.4	+0.4
BARS	Barje	4.51	318	i Pn	Pn	00 09 33.4	+0.4
KIZT	Kizilcal	4.68	96	ePN	Pn	00 09 35.9	+0.7
KIZT	Kizilcal	4.68	96	ePn	Pn	00 09 35.9	+0.7
NISS		4.88	324	ePn	Pn	00 09 38.8	+0.7
NISS		4.88	324	ePn	Pn	00 09 38.8	+0.7
BOLS	Boljevac	5.22	327	⇑iPn	Pn	00 09 42.8	+0.1
BOLS	Boljevac	5.22	327	⇑iPn	Pn	00 09 42.8	+0.1
KONT	Konya--Tatoy	5.28	105	ePN	Pn	00 09 44.5	+1.0
KONT	Konya--Tatoy	5.28	105	ePn	Pn	00 09 44.5	+1.0
SAFT	Safranbolu	5.44	70	ePN	Pn	00 09 47.2	+1.5
SAFT	Safranbolu	5.44	70	ePn	Pn	00 09 47.2	+1.5
VOIR		5.94	354	⇓iP	Pn	00 09 53.6	+1.1
VOIR		5.94	354	⇓iP	Pn	00 09 53.6	+1.1
MLR	Muntele Rosu	5.96	0	⇑iP	Pn	00 09 55.6	+2.8
MLR	Muntele Rosu	5.96	0	⇑iP	Pn	00 09 55.6	+2.8
GZR	Gura Zlata	6.30	339	⇑iP	Pn	00 09 57.8	+0.3
GZR	Gura Zlata	6.30	339	⇑iP	Pn	00 09 57.8	+0.3
DIVS	Divibare	6.36	318	eSg	Sg	00 11 44.3	-4.5
VRI	Vrincioaia	6.36	5	⇓iP	Pn	00 10 00.4	+2.1
VRI	Vrincioaia	6.36	5	⇓iP	Pn	00 10 00.4	+2.1
BZS	Buzias	6.86	334	ePn	Pn	00 10 04.9	-0.3
BZS	Buzias	6.86	334	⇓iP	Pn	00 10 04.8	-0.4
BZS	Buzias	6.86	334	⇓iP	Pn	00 10 04.8	-0.4
BURAR	Bucovina Array	8.10	357	⇓iP	Pn	00 10 25.1	+3.0
BURAR	Bucovina Array	8.10	357	⇓iP	Pn	00 10 25.1	+3.0

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*CSEM **01** 00:13:43.8±0.1, 36°.93N×27°.94E, h19^{km}, MD3.0, Error ellipse: s-maj=2.4km s-min=1.6km az=11.0*
*ISK **01** 00:13:43.4, 36°.94N×27°.94E, h20^{km}, MD3.0*
*ISCJB **01** 00:13:44.2±0.5, 36°.95N±0°.04×27°.92E±0°.04, h21^{km}±6^{km}, Error ellipse: s-maj=6.6km s-min=5.7km az=175.0*
*DDA **01** 00:13:44.8, 36°.99N×27°.91E, h7^{km}±2^{km}, Md2.8*
ISC 01 00:13:44.3±0.5, **36°.95N**±0°.04×**27°.92E**±0°.04, **h16**^{km}±4^{km}, **n34**, σ**0^{s}87**/48, **2C, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.34	58	ePG	Pg	00 13 51.1	-0.4
YER				eSG	Sg	00 13 56.3	+0.1
YER	Yerkesik	0.34	58	ePg	Pg	00 13 51.1	-0.4
YER				eSg	Sg	00 13 56.3	0.0
DAT	Datca	0.35	231	ePG	Pg	00 13 51.0	-0.7
DAT				eSG	Sg	00 13 57.4	+0.7
DAT	Datca	0.35	231	ePg	Pg	00 13 51.0	-0.7
DAT				eSg	Sg	00 13 57.4	+0.7
MLSB	Milas	0.36	341	ePG	Pg	00 13 52.0	+0.1
MLSB				eSG	Sg	00 13 58.0	+1.1
MLSB	Milas	0.36	341	ePg	Pg	00 13 52.0	+0.2
MLSB				eSg	Sg	00 13 58.0	+1.1
BDRM	Kayabasi	0.40	287	eP	Pg	00 13 52.3	-0.2
BDRM				eS	Sg	00 13 58.3	+0.3
BDRM	Kayabasi	0.40	287	eP	Pg	00 13 52.3	-0.2
BDRM				eS	Sg	00 13 58.3	+0.3
BODT	Bodrum	0.50	283	ePG	Pg	00 13 54.5	+0.2
BODT	Bodrum	0.50	283	ePg	Pg	00 13 54.5	+0.1
TURN	Turunc	0.55	98	⇑iP	Pg	00 13 50.1	-5.2
TURN				i S	Sg	00 13 55.1	-7.5
TURN	Turunc	0.55	98	i P	Pg	00 13 50.1	-5.2
DALT	Dalyan (Mudla)	0.60	107	ePG	Pg	00 13 55.8	-0.4
DALT	Dalyan (Mudla)	0.60	107	ePg	Pg	00 13 55.8	-0.4
AYDN	Tasoluk	0.71	357	⇑iP	Pg	00 13 58.0	-0.2
AYDN				i S	Sg	00 14 07.4	-0.2
AYDN	Tasoluk	0.71	357	i P	Pg	00 13 58.0	-0.2
AYDN				i S	Sg	00 14 07.4	-0.2
FETY	Fethiye	0.98	108	ePG	Pg	00 14 02.6	-0.8
FETY	Fethiye	0.98	108	ePg	Pg	00 14 02.6	-0.8
GOLH	Golhisar	1.34	77	eP	Pn	00 14 10.8	+2.5
GOLH				eS	Sn	00 14 28.8	+3.0
GOLH	Golhisar	1.34	77	eP	Pn	00 14 10.9	+2.6
GOLH				eS	Sn	00 14 28.8	+3.0
AKAS	Kas	1.53	117	eP	Pn	00 14 14.5	+3.5
AKAS				eS	Sn	00 14 36.3	+5.8
AKAS	Kas	1.53	117	eP	Pn	00 14 14.5	+3.5
IZM	Izmir	1.54	340	ePN	Pn	00 14 10.1	-0.9
IZM	Izmir	1.54	340	ePn	Pn	00 14 10.1	-0.9
BLCB	Balcova	1.59	334	ePN	Pn	00 14 11.3	-0.5
BLCB	Balcova	1.59	334	ePn	Pn	00 14 11.3	-0.5
ELL	Elmali	1.61	97	ePN	Pn	00 14 11.5	-0.5
ELL	Elmali	1.61	97	ePn	Pn	00 14 11.5	-0.5
KULA	Kula-Manisa	1.67	20	ePN	Pn	00 14 12.1	-0.7
KULA	Kula-Manisa	1.67	20	ePn	Pn	00 14 12.1	-0.7
KHL	Karahalli	1.87	42	ePN	Pn	00 14 15.2	-0.3
KHL	Karahalli	1.87	42	ePn	Pn	00 14 15.2	-0.4
AKS	Akhisar	1.93	357	ePN	Pn	00 14 16.3	-0.1
AKS	Akhisar	1.93	357	ePn	Pn	00 14 16.3	-0.1

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*ISCJB **01** 00:15:05.0±0.6, 37°.79N±0°.04×23°.57E±0°.05, h9^{km}±5^{km}, Error ellipse: s-maj=7.4km s-min=4.8km az=44.5*
*CSEM **01** 00:15:05.4±0.2, 37°.80N×23°.54E, h10^{km}, ML1.6, Error ellipse: s-maj=6.1km s-min=4.1km az=132.0*
*THE **01** 00:15:05.8, 37°.80N×23°.52E, h2^{km}±4^{km}, ML2.6/1, Error ellipse: s-maj=4.7km s-min=1.0km az=262.0*
*ATH **01** 00:15:05.1, 37°.77N×23°.60E, h5^{km}±2^{km}, MD2.8/3, ML1.6*
ISC 01 00:15:05.4±0.6, **37°.79N**±0°.04×**23°.56E**±0°.05, **h8**^{km}±5^{km}, **n29**, σ**0^{s}59**/38, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NAIG	Nisos Aigina	0.07	241	ePG	Pg	00 15 06.8	-0.4
NAIG	Nisos Aigina	0.07	241	ePg	Pg	00 15 06.8	-0.4
ATH	Athens Observa	0.22	34	ePG	Pg	00 15 09.8	0.0
ATH				eSG	Sg	00 15 13.8	+1.0
ATH	Athens Observa	0.22	34	ePg	Pg	00 15 09.8	0.0
ATH				eSg	Sg	00 15 13.8	+1.0
PTL	Penteli	0.35	43	ePG	Pg	00 15 11.8	-0.5
PTL				eSB	Sg	00 15 16.0	-0.9
PTL	Penteli	0.35	43	ePg	Pg	00 15 11.8	-0.5
PTL				eSb	Sg	00 15 16.0	-0.9
DID	Didima	0.38	222	P	Pg	00 15 12.6	-0.2
DID				S	Sg	00 15 18.3	+0.4
DID	Didima	0.38	222	ePB	Pg	00 15 13.1	+0.3
DID	Didima	0.38	222	P	Pg	00 15 12.6	-0.2
DID	Didima	0.38	222	ePb	Pg	00 15 13.1	+0.3
DID				S	Sg	00 15 18.3	+0.4
LTK	Loutraki	0.53	296	P	Pg	00 15 15.7	+0.2
LTK				S	Sg	00 15 22.1	-0.3
LTK	Loutraki	0.53	296	ePB	Pg	00 15 15.9	+0.4
LTK	Loutraki	0.53	296	ePb	Pg	00 15 15.9	+0.4
LTK				S	Sg	00 15 22.1	-0.3
LKR	Lokris	0.97	333	P	Pg	00 15 23.5	-0.4
LKR				S	Sg	00 15 37.4	+0.9
LKR	Lokris	0.97	333	ePG	Pg	00 15 23.5	-0.4
LKR	Lokris	0.97	333	S	Sg	00 15 37.4	+0.9
LKR	Lokris	0.97	333	ePg	Pg	00 15 23.5	-0.4
GUR	Goura	0.98	279	ePN	Pn	00 15 24.9	-0.4
GUR	Goura	0.98	279	ePn	Pn	00 15 24.9	-0.4
VLX	Vlachokerasia	1.03	246	ePB	Pb	00 15 25.0	-0.4
VLX	Vlachokerasia	1.03	246	ePb	Pb	00 15 25.0	-0.4
AOS	Alonnisos	1.40	10	P	Pn	00 15 30.5	-0.7
AOS	Alonnisos	1.40	10	P	Pn	00 15 30.5	-0.7
AGG	Agios Georgios	1.56	322	P	Pn	00 15 34.0	+0.6
AGG	Agios Georgios	1.56	322	P	Pn	00 15 34.0	+0.6
XOR	Xorichti	1.60	350	P	Pn	00 15 33.7	-0.2
XOR	Xorichti	1.60	350	P	Pn	00 15 33.7	-0.2
APE	Apeiranthos	1.73	114	P	Pn	00 15 36.6	+1.0
APE	Apeiranthos	1.73	114	P	Pn	00 15 36.6	+1.0

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*IDC **01** 00:16:48.2±1.1, 11°.73N×125°.58E, h0^{km}, mb3.7/8, mb1 3.8/8, mb1mx3.7/19, mbtmp3.7/8, MS3.0/3, Ms1 3.0/3, ms1mx2.8/43, Error ellipse: s-maj=59.2km s-min=18.9km az=66.0*
*ISCJB **01** 00:16:52.6±0.9, 11°.75N±0°.04×125°.67E±0°.08, h46^{km}±7^{km}, mb3.8/11, MS2.9/2, Error ellipse: s-maj=13.0km s-min=6.6km az=170.1*
*NEIC **01** 00:16:53.5±0.7, 11°.71N×125°.57E, h35^{km}, mb4.1/2, Error ellipse: s-maj=36.2km s-min=9.3km az=68.0*
*MAN **01** 00:16:54, 11°.81N×125°.47E, h10^{km}, mb4.6, ML3.4, MS3.3*
ISC 01 00:16:53.9±0.9, **11°.77N**±0°.04×**125°.64E**±0°.08, **h39**^{km}±8^{km}, **n29**, σ**1^{s}13**/33, **mb3.8**/11, **MS2.9**/2, **3C, Samar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.26	230	eP	Pn	00 17 01.2	-0.5
BESP				eS	Sn	00 17 06.7	-0.3
PLP	Palo	0.88	227	⇑eP	Pn	00 17 08.3	-1.5
PLP				i S	Sn	00 17 19.1	-2.3
CNP	Catarman	1.21	308	eP	Pn	00 17 13.2	-1.1
CNP				eS	Sn	00 17 29.1	-0.3
OCLP	Ormoc	1.23	235	eP	Pn	00 17 14.9	+0.2
MSLP	Maasin	1.79	205	eP	Pn	00 17 25.8	+3.4
SCPH	Surigao	1.98	184	⇑eP	Pn	00 17 26.9	+1.9
SCPH				eS	Sn	00 17 44.7	-3.8
LLP	Lapu-Lapu	2.18	229	eP	Pn	00 17 30.0	+2.2
LLP				eS	Sn	00 17 54.2	+0.6
PVCP	Virac	2.32	322	eP	Pn	00 17 30.1	+0.4
PVCP				eS	Sn	00 18 01.9	+4.9
TBP	Tagbilaran	2.70	220	eP	Pn	00 17 36.5	+1.6
TBP				eS	Sn	00 18 06.7	+0.3
RCP	Roxas	2.84	266	⇑eP	Pn	00 17 37.0	+0.2
GUIM	Jordan	3.20	250	eP	Pn	00 17 41.7	0.0
OTRP	Odiongan	3.58	280	eP	Pn	00 17 47.3	+0.2
BUKP	Musuan	3.91	188	eP	Pn	00 17 49.2	-2.3
PAGZ	Pagadian	4.48	210	eP	Pn	00 18 02.1	+2.7
DAV	Davao City (W)	4.67	181	LR	LR	00 19 22.3	
	comp=Z,108nm,21.2s,baz=336,slow=33						
CBIJ	Chichi jima	21.78	43	LR	LR	00 28 04.1	
	comp=Z,90nm,21.0s,MS3.1,baz=116,slow=31						
KAKA	Kakadu	25.24	164	P	P	00 22 15.7	-0.8
	16nm,0.6s,mb4.7						
KSRS	Korea Array	25.66	4	LR	LR	00 30 45.4	
	comp=Z,25nm,20.0s,MS2.7,baz=175,slow=33						
CMAR	Chiang Mai Arr	26.59	288	P	P	00 22 28.5	-0.2
	0.4nm,0.3s,mb3.4,baz=93,slow=9.1,SNR=3.6						
FITZ	Fitzroy Crossi	29.68	180	eP	P	00 22 55.7	-0.5
	0.4nm,0.4s,mb3.5						
WRA	Warramunga Arr	32.65	165	P	P	00 23 21.4	-1.0
	0.2nm,0.5s,mb3.3,baz=343,slow=9.4,SNR=2.4						
ASAR	Alice Springs	36.13	167	P	P	00 23 53.1	+0.7
	0.6nm,0.6s,mb3.7,baz=350,slow=8.0,SNR=5.6						
SONM	Songino Array	39.41	340	P	P	00 24 21.0	+1.1
	0.2nm,0.7s,mb3.0,baz=156,slow=11,SNR=2.7						
MKAR	Makanchi Array	50.47	322	P	P	00 25 48.5	+0.7
	1.5nm,0.7s,mb4.1,baz=117,slow=8.3,SNR=19						
ZALV	Zalesovo Beam	53.02	331	P	P	00 26 06.6	-0.2
	0.3nm,0.4s,mb3.6,baz=138,slow=9.7,SNR=2.6						
ZALV	Zalesovo Beam	53.02	331	P	P	00 26 06.6	-0.2
KURK	Kurchatov	54.49	325	eP	P	00 26 18.0	+0.3
	4.4nm,0.6s,mb4.6						
ARCES	ARCESS Array B	82.58	340	P	P	00 29 12.4	-0.1
	3.1nm,0.9s,mb4.3,baz=67,slow=6.9,SNR=3.6						
BRTR	Keskin Array B	84.11	309	P	P	00 29 19.9	-1.2
	0.4nm,0.5s,mb3.8,baz=96,slow=2.9,SNR=3.2						

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*HLW **01** 00:22:41.6, 34°.34N×25°.48E, h22^{km}, Mb4.2*
*CSEM **01** 00:22:42.0±0.2, 34°.21N×25°.38E, h20^{km}, Error ellipse: s-maj=6.0km s-min=3.5km az=62.0*
*THE **01** 00:22:44.8, 34°.41N×25°.33E, h12^{km}±2^{km}, Error ellipse: s-maj=2.6km s-min=1.2km az=345.0*
*ATH **01** 00:22:45.7, 34°.54N×25°.35E, h71^{km}±3^{km}*
ISC 01 00:22:42.3±0.8, **34°.24N**±0°.03×**25°.42E**±0°.04, **h24**^{km}±7^{km}, **n57**, σ**1^{s}03**/73, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LAST	Lasithi	0.92	3	P	Pb	00 22 59.4	-0.2
LAST				S	Sb	00 23 11.2	-0.1
LAST	Lasithi	0.92	3	P	Pb	00 22 59.4	-0.2
LAST				S	Sb	00 23 11.2	-0.1
SIVA	Sivas	0.92	327	P	Pb	00 22 59.1	-0.5
SIVA				S	Sb	00 23 09.9	-1.6
SIVA	Sivas	0.92	327	P	Pb	00 22 59.1	-0.5
SIVA				S	Sb	00 23 09.9	-1.6
NPS	Neapolis	1.03	9	eP	Pn	00 23 01.5	+0.2
NPS				eS	Sb	00 23 13.2	-1.4
NPS	Neapolis	1.03	9	eP	Pn	00 23 01.5	+0.2
NPS				eS	Sb	00 23 13.2	-1.4
ZKR	Zakros	1.09	37	P	Pn	00 23 03.2	+1.1
ZKR				S	Sb	00 23 17.6	+1.3
ZKR	Zakros	1.09	37	P	Pn	00 23 03.2	+1.1
ZKR				S	Sb	00 23 17.6	+1.3

GVD	Gavdhos	1.25	299	P	Pn	00 23 04.8	+0.5
GVD				S	Sn	00 23 20.7	+0.3
GVD	Gavdhos	1.25	299	P	Pn	00 23 04.8	+0.5
GVD				S	Sn	00 23 20.7	+0.3
VAM	Vamos	1.54	320	*e*P	Pn	00 23 09.0	+0.8
VAM	Vamos	1.54	320	*e*P	Pn	00 23 09.0	+0.8
KARN	Karanos	1.69	314	P	Pn	00 23 10.8	+0.4
KARN	Karanos	1.69	314	P	Pn	00 23 10.8	+0.4
KARP	Karpathos	1.94	47	*e*P	Pn	00 23 16.0	+2.3
KARP	Karpathos	1.94	47	*e*P	Pn	00 23 16.0	+2.3
THR6	Thira Island,	2.11	359	P	Pn	00 23 16.2	+0.1
THR6	Thira Island,	2.11	359	P	Pn	00 23 16.2	+0.1
THR1	Thera Island	2.12	1	P	Pn	00 23 16.8	+0.5
THR1				S	Sn	00 23 41.2	-0.7
THR1	Thera Island	2.12	1	P	Pn	00 23 16.8	+0.5
THR1				S	Sn	00 23 41.2	-0.7
THR3	Thira Island,	2.16	360	P	Pn	00 23 17.0	+0.2
THR3	Thira Island,	2.16	360	P	Pn	00 23 17.0	+0.2
THR5	Thira Island,	2.17	358	P	Pn	00 23 17.4	+0.4
THR5	Thira Island,	2.17	358	P	Pn	00 23 17.4	+0.4
THR4	Thira Island,	2.21	360	P	Pn	00 23 18.7	+1.2
THR4	Thira Island,	2.21	360	P	Pn	00 23 18.7	+1.2
APE	Apeiranthos	2.82	2	P	Pn	00 23 26.1	+0.2
APE	Apeiranthos	2.82	2	*e*P	Pn	00 23 26.2	+0.3
APE	Apeiranthos	2.82	2	*e*P	Pn	00 23 26.2	+0.3
ARG	Arkhangelos	2.96	48	*e*P	Pn	00 23 29.9	+2.1
ARG	Arkhangelos	2.96	48	*e*P	Pn	00 23 29.9	+2.1
BDRM	Kayabasi	3.26	30	*e*P	Pn	00 23 24.8	-7.2
TURN	Turunc	3.69	44	*i* P	Pn	00 23 34.9	-2.9
TURN	Turunc	3.69	44	*i* P	Pn	00 23 34.9	-2.9
DID	Didima	3.71	332	P	Pn	00 23 37.1	-1.0
DID	Didima	3.71	332	P	Pn	00 23 37.1	-1.0
AYDN	Tasoluk	3.95	30	*e*P	Pn	00 23 42.4	+1.0
AYDN	Tasoluk	3.95	30	*e*P	Pn	00 23 42.4	+1.0
AYDN				*e*S	Sn	00 24 25.0	-2.0
AKAS	Kas	3.96	59	*e*P	Pn	00 23 42.3	+0.8
AKAS	Kas	3.96	59	*e*P	Pn	00 23 42.3	+0.8
AKAS				*e*S	Sn	00 24 25.8	-1.4
GOLH	Golhisar	4.50	47	*e*P	Pn	00 23 49.6	+0.6
GOLH	Golhisar	4.50	47	*e*P	Pn	00 23 49.6	+0.6
GOLH				*e*S	Sn	00 24 39.9	-0.7
SWA2		4.98	180	P	Pn	00 23 56.1	+0.5
SWA2				S	Sn	00 24 50.1	-2.4
AWBH		6.61	152	P	Pn	00 24 18.0	0.0
AWBH		6.61	152	P	Pn	00 24 18.0	0.0
HSAF	As Saff	6.96	130	P	Pn	00 24 23.1	+0.3
HSAF	As Saff	6.96	130	P	Pn	00 24 23.1	+0.4
GLL	Jalalah	7.08	129	P	Pn	00 24 24.3	-0.1
GLL	Jalalah	7.08	129	P	Pn	00 24 24.3	-0.2
HFRF	Wahat Farafira	7.49	160	P	Pn	00 24 29.6	-0.5
HFRF	Wahat Farafira	7.49	160	P	Pn	00 24 29.6	-0.5
AMAG	Maghara	7.50	116	P	Pn	00 24 28.9	-1.2
AMAG	Maghara	7.50	116	P	Pn	00 24 28.9	-1.2
HNKL	Nakhl	8.44	118	P	Pn	00 24 42.5	-0.5
HNKL	Nakhl	8.44	118	P	Pn	00 24 42.5	-0.6
HDK1	Dakhla	9.33	157	P	Pn	00 24 56.0	+0.6
HDK1	Dakhla	9.33	157	P	Pn	00 24 56.0	+0.7

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*ISCJB **01** 00:36:41.3±0.2,46°.07N±0°.01×2°.91E±0°.02,h15^{km}±1^{km}, Error ellipse: s-maj=1.9km s-min=1.6km az=31.5*

*CSEM **01** 00:36:42.5±0.1,46°.06N×2°.92E,h10^{km},ML3.6/35,Error ellipse: s-maj=1.6km s-min=1.4km az=125.0*

*NEIC **01** 00:36:43.8,46°.05N×2°.93E,h3^{km},ML3.3(STR), ML3.6(LDG),After LDG.*

*STR **01** 00:36:43.5±0.3,46°.02N×2°.93E,h10^{km},Ml3.3,Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*LDG **01** 00:36:43.8±0.0,46°.05N×2°.93E,h3^{km},Md3.6/6,Ml3.6/34, Error ellipse: s-maj=0.8km s-min=0.7km az=130.0*

*MDD **01** 00:36:45.5±1.6,45°.92N×2°.84E,h0^{km},mb3.9/16,Error ellipse: s-maj=14.0km s-min=13.0km az=65.0*

ISC 01 00:36:42.5±0.2**,46°.061N**±0°.009×**2°.90E**±0°.01**,h14**^{km}±1^{km}**, n195,**σ1^{s}.**26**/409**,2C-4D,France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGO	Saint Agoulin	0.16	93	Pg	Pg	00 36 46.8	+0.3
AGO				Sg	Sg	00 36 51.1	+1.8
AGO	Saint Agoulin	0.16	93	Pg	Pg	00 36 46.8	+0.3
PYM	Petit Puy Mans	0.32	166	Pg	Pg	00 36 49.4	+0.3
PYM	Petit Puy Mans	0.32	166	Pg	Pg	00 36 49.4	+0.3
CFF	Clermont-Ferra	0.33	153	Pg	Pg	00 36 49.8	+0.5
CFF				Sg	Sg	00 36 53.3	-0.6
CFF	Clermont-Ferra	0.33	153	Pg	Pg	00 36 49.8	+0.5
CFF				Sg	Sg	00 36 53.3	-0.6
BGF	Bois d'Agland	0.50	356	*e*Pn	Pg	00 36 55.7	+3.4
	SNR=1.0						
BGF				*e*Sg	Sg	00 37 00.6	+1.6
	612nm,0.3s,SNR=1.0						
BGF	Bois d'Agland	0.50	356	*e*Pg	Pg	00 36 53.4	+1.1
BGF				*e*Pn	Pg	00 36 55.7	+3.4
BGF				*e*Sg	Sg	00 37 00.6	+1.6
BGF	Bois d'Agland	0.50	356	*e*Pg	Pg	00 36 53.4	+1.1
	SNR=1.0						
BGF	Bois d'Agland	0.50	356	*e*Pn	Pg	00 36 55.7	+3.4
	SNR=1.0						
BGF				*e*Sg	Sg	00 37 00.6	+1.6
	306nm,0.3s,SNR=1.0						
PLDF	La Plantade	0.51	100	Pg	Pg	00 36 53.2	+0.6
PLDF				Sg	Sg	00 37 00.0	+0.5
PLDF	La Plantade	0.51	100	Pg	Pg	00 36 53.2	+0.6
PLDF				Sg	Sg	00 37 00.0	+0.5
TCF	Toulx Ste Croi	0.53	296	*e*Pg	Pg	00 36 53.9	+1.0
	SNR=1.0						
TCF				*e*Sg	Sg	00 37 01.2	+1.3
TCF	Toulx Ste Croi	0.53	296	*e*Pg	Pg	00 36 53.9	+1.0
	SNR=1.0						
TCF				*e*Sg	Sg	00 37 01.2	+1.3
FRNF	Fournols	0.71	199	Pg	Pg	00 36 57.2	+0.8
FRNF				Sg	Sg	00 37 06.1	+0.3
FRNF	Fournols	0.71	199	Pg	Pg	00 36 57.2	+0.8
FRNF				Sg	Sg	00 37 06.1	+0.3
COLF	Collangettes	0.78	134	Pn	Pn	00 36 58.8	-0.2
COLF				Sg	Sg	00 37 09.0	+1.2
COLF	Collangettes	0.78	134	Pn	Pn	00 36 58.8	-0.2
COLF				Sg	Sg	00 37 09.0	+1.2
AVF	Avril sur Loir	0.80	23	*e*Pg	Pg	00 36 58.7	+0.8
	SNR=1.0						
AVF				*e*Sg	Sg	00 37 09.4	+1.0
	462nm,0.2s,SNR=1.0						
AVF	Avril sur Loir	0.80	23	*e*Pg	Pg	00 36 58.7	+0.8
	SNR=1.0						
AVF				*e*Sg	Sg	00 37 09.4	+1.0
	231nm,0.2s,SNR=1.0						
LBL	Lubilhac	0.86	163	Pg	Pg	00 36 59.4	+0.2
LBL				Sg	Sg	00 37 10.7	+0.2
LBL	Lubilhac	0.86	163	Pg	Pg	00 36 59.4	+0.2
LBL				Sg	Sg	00 37 10.7	+0.2
SMF	Signal de Mont	0.88	48	*e*Pg	Pg	00 37 00.0	+0.5
	SNR=1.0						
SMF				*e*Sg	Sg	00 37 11.4	+0.4
	727nm,0.3s,SNR=1.0						
SMF	Signal de Mont	0.88	48	*e*Pg	Pg	00 37 00.0	+0.5
	SNR=1.0						
SMF				*e*Sg	Sg	00 37 11.4	+0.4
	364nm,0.3s,SNR=1.0						
SSF	Saint Saulge	1.09	23	*e*Pn	Pn	00 37 04.6	+1.4
	SNR=1.0						
SSF				*e*Sg	Sg	00 37 18.1	+0.5
	418nm,0.2s,SNR=1.0						
SSF	Saint Saulge	1.09	23	*e*Pg	Pg	00 37 04.1	+0.7
SSF				*e*Pn	Pn	00 37 04.6	+1.4
SSF				*e*Sg	Sg	00 37 18.1	+0.5
SSF	Saint Saulge	1.09	23	*e*Pg	Pg	00 37 04.1	+0.7
SSF	Saint Saulge	1.09	23	*e*Pn	Pn	00 37 04.6	+1.4
	SNR=1.0						
SSF				*e*Sg	Sg	00 37 18.1	+0.5
	209nm,0.2s,SNR=1.0						
HYF	Humbligny	1.22	352	*e*Pg	Pg	00 37 06.9	+0.9
HYF				*e*Sg	Sg	00 37 23.0	+1.1
HYF	Humbligny	1.22	352	*e*Pg	Pg	00 37 06.9	+0.9
HYF				*e*Sg	Sg	00 37 23.0	+1.1
RJF	Les Rejaudoux	1.23	232	*e*Pg	Pg	00 37 06.8	+0.7
	SNR=1.0						
RJF				*e*Sn	Sn	00 37 22.2	+0.7
	SNR=1.0						
RJF	Les Rejaudoux	1.23	232	*e*Pn	Pn	00 37 06.2	+1.1
RJF				*e*Pg	Pg	00 37 06.8	+0.7
RJF				*e*Sn	Sn	00 37 22.2	+0.7
RJF	Les Rejaudoux	1.23	232	*e*Pn	Pn	00 37 06.2	+1.1
RJF	Les Rejaudoux	1.23	232	*e*Pg	Pg	00 37 06.8	+0.7
	SNR=1.0						
RJF				*e*Sn	Sn	00 37 22.2	+0.7
	SNR=1.0						
CAF	Calviac	1.28	208	*e*Pg	Pg	00 37 07.5	+0.5
	SNR=1.0						
CAF				*e*Sn	Sn	00 37 23.2	+0.5
	484nm,0.2s,SNR=1.0						
CAF	Calviac	1.28	208	*e*Pn	Pn	00 37 06.9	+1.1
CAF				*e*Pg	Pg	00 37 07.5	+0.5
CAF				*e*Sn	Sn	00 37 23.2	+0.5
CAF	Calviac	1.28	208	*e*Pn	Pn	00 37 06.9	+1.1
CAF	Calviac	1.28	208	*e*Pg	Pg	00 37 07.5	+0.5
	SNR=1.0						
CAF				*e*Sn	Sn	00 37 23.2	+0.5
	242nm,0.2s,SNR=1.0						
LOR	Lormes	1.38	28	*e*Pg	Pg	00 37 09.4	+0.4
	baz=212,SNR=1.0						
LOR				*e*Sg	Sg	00 37 27.5	+0.6
	437nm,0.2s,baz=204,SNR=1.0						
LOR	Lormes	1.38	28	*e*Pg	Pg	00 37 09.4	+0.4
	baz=212,SNR=1.0						
LOR				*e*Sg	Sg	00 37 27.5	+0.6
	219nm,0.2s,baz=204,SNR=1.0						
SSB	Saint Sauveur	1.39	124	Pn	Pn	00 37 07.3	-0.1
SSB				*e*P		00 37 09.5	
SSB				Pg	Pg	00 37 11.0	+1.7
SSB				*e*S	Sn	00 37 26.0	+0.5
SSB				Sg	Sg	00 37 27.1	-0.3
SSB	Saint Sauveur	1.39	124	Pn	Pn	00 37 07.3	-0.1
VIVF	Saint-Julien-l	1.74	133	*e*Pg	Pg	00 37 15.8	0.0
	SNR=1.0						
VIVF				*e*Sn	Sn	00 37 34.2	+0.2
VIVF				*e*Sg	Sg	00 37 37.7	-0.6
	142nm,0.2s						
VIVF	Saint-Julien-l	1.74	133	*e*Pn	Pn	00 37 12.3	+0.2
VIVF				*e*Pg	Pg	00 37 15.8	0.0
VIVF				*e*Sn	Sn	00 37 34.2	+0.2
VIVF				*e*Sg	Sg	00 37 37.7	-0.6
VIVF	Saint-Julien-l	1.74	133	*e*Pn	Pn	00 37 12.3	+0.2
VIVF	Saint-Julien-l	1.74	133	*e*Pg	Pg	00 37 15.8	0.0
	SNR=1.0						
VIVF				*e*Sn	Sn	00 37 34.2	+0.2
VIVF				*e*Sg	Sg	00 37 37.7	-0.6
	71nm,0.2s						
LFF	La Frestale	1.89	234	*e*Pg	Pg	00 37 18.6	-0.1
	SNR=1.0						
LFF				*e*Sn	Sn	00 37 38.2	+0.5
LFF				*e*Sg	Sg	00 37 43.5	+0.4
	254nm,0.3s						
LFF	La Frestale	1.89	234	*e*Pn	Pn	00 37 15.5	+1.3
LFF				*e*Pg	Pg	00 37 18.6	-0.1
LFF				*e*Sn	Sn	00 37 38.2	+0.5
LFF				*e*Sg	Sg	00 37 43.5	+0.4
LFF	La Frestale	1.89	234	*e*Pn	Pn	00 37 15.5	+1.3
LFF	La Frestale	1.89	234	*e*Pg	Pg	00 37 18.6	-0.1
	SNR=1.0						
LFF				*e*Sn	Sn	00 37 38.2	+0.5
LFF				*e*Sg	Sg	00 37 43.5	+0.4
	127nm,0.3s						
LASF	Ste Croix	2.10	161	*e*Pg	Pg	00 37 22.5	-0.2
	SNR=1.0						
LASF				*e*Sn	Sn	00 37 43.1	+0.1
LASF				*e*Sg	Sg	00 37 49.2	-0.7
	78nm,0.4s						
LASF	Ste Croix	2.10	161	*e*Pn	Pn	00 37 17.8	+0.7
LASF				*e*Pg	Pg	00 37 22.5	-0.2
LASF				*e*Sn	Sn	00 37 43.1	+0.1
LASF				*e*Sg	Sg	00 37 49.2	-0.7
LASF	Ste Croix	2.10	161	*e*Pn	Pn	00 37 17.8	+0.7
LASF	Ste Croix	2.10	161	*e*Pg	Pg	00 37 22.5	-0.2
	SNR=1.0						
LASF				*e*Sn	Sn	00 37 43.1	+0.1
LASF				*e*Sg	Sg	00 37 49.2	-0.7
	39nm,0.4s						
MFF	Saint Martin d	2.18	285	*e*Pg	Pg	00 37 24.2	0.0
	SNR=1.0						
MFF				*e*Sn	Sn	00 37 45.7	+0.8
MFF				*e*Sg	Sg	00 37 52.6	+0.2
	106nm,0.2s						
MFF	Saint Martin d	2.18	285	*e*Pn	Pn	00 37 19.6	+1.4
MFF				*e*Pg	Pg	00 37 24.2	0.0
MFF				*e*Sn	Sn	00 37 45.7	+0.8
MFF				*e*Sg	Sg	00 37 52.6	+0.2
MFF	Saint Martin d	2.18	285	*e*Pn	Pn	00 37 19.6	+1.4
MFF	Saint Martin d	2.18	285	*e*Pg	Pg	00 37 24.2	0.0
	SNR=1.0						
MFF				*e*Sn	Sn	00 37 45.7	+0.8
MFF				*e*Sg	Sg	00 37 52.6	+0.2
	53nm,0.2s						
CABF	La Chapelle	2.28	75	*e*Pg	Pg	00 37 26.4	+0.2
	SNR=1.0						
CABF				*e*Sn	Sn	00 37 46.5	-0.9
CABF				*e*Sg	Sg	00 37 55.4	-0.3
	73nm,0.3s						
CABF	La Chapelle	2.28	75	*e*Pn	Pn	00 37 20.0	+0.4
CABF				*e*Pg	Pg	00 37 26.4	+0.2
CABF				*e*Sn	Sn	00 37 46.5	-0.9
CABF				*e*Sg	Sg	00 37 55.4	-0.3
CABF	La Chapelle	2.28	75	*e*Pn	Pn	00 37 20.0	+0.4
	SNR=1.0						
CABF	La Chapelle	2.28	75	*e*Pg	Pg	00 37 26.4	+0.2
	SNR=1.0						
CABF				*e*Sn	Sn	00 37 46.5	-0.9
CABF				*e*Sg	Sg	00 37 55.4	-0.3
	37nm,0.3s						
ORIF	Oris-en-Rattie	2.39	117	*e*Pg	Pg	00 37 27.5	-0.8
ORIF				*e*Sn	Sn	00 37 49.7	-0.4
ORIF				*e*Sg	Sg	00 37 56.9	-2.4
	28nm,0.3s						
ORIF	Oris-en-Rattie	2.39	117	*e*Pn	Pn	00 37 22.5	+1.4
ORIF				*e*P		00 37 24.4	
ORIF				*e*Pg	Pg	00 37 27.5	-0.8
ORIF	Oris-en-Rattie	2.39	117	*e*Pn	Pn	00 37 22.5	+1.4
ORIF	Oris-en-Rattie	2.39	117	*e*Pg	Pg	00 37 27.5	-0.8
ORIF				*e*Sn	Sn	00 37 49.7	-0.4
ORIF				*e*Sg	Sg	00 37 56.9	-2.4
	14nm,0.3s						
SFTF	Sexfontaines	2.60	34	*e*Pg	Pg	00 37 31.8	-0.4
	baz=211						
SFTF				*e*Sn	Sn	00 37 54.6	-0.6
	baz=211						
SFTF				*e*Sg	Sg	00 38 05.4	-0.5
	102nm,0.3s						
SFTF	Sexfontaines	2.60	34	*e*Pn	Pn	00 37 24.6	+0.7
SFTF				*e*Pg	Pg	00 37 31.8	-0.4
SFTF				*e*Sn	Sn	00 37 54.6	-0.6
SFTF				*e*Sg	Sg	00 38 05.4	-0.5
SFTF	Sexfontaines	2.60	34	*e*Pn	Pn	00 37 24.6	+0.7
SFTF	Sexfontaines	2.60	34	*e*Pg	Pg	00 37 31.8	-0.4
	baz=211						
SFTF				*e*Sn	Sn	00 37 54.6	-0.6
	baz=211						
SFTF				*e*Sg	Sg	00 38 05.4	-0.5
	51nm,0.3s						
RSL	Roselend	2.63	97	Pn	Pn	00 37 26.0	+1.6
RSL				Pg	Pg	00 37 32.8	-0.1
RSL	Roselend	2.63	97	Pn	Pn	00 37 26.0	+1.6
OG01	Vacheresse	2.64	83	Pg	Pg	00 37 32.7	-0.4
OG01	Vacheresse	2.64	83	Pg	Pg	00 37 32.7	-0.4
LPL	La Plagne	2.74	100	*e*P	Pn	00 37 29.3	+3.4
LPL	La Plagne	2.74	100	*e*Pg	Pg	00 37 34.6	-0.4
LPL				*e*Sg	Sg	00 38 08.8	-1.6
	20nm,0.3s						
LPL	La Plagne	2.74	100	*e*Pn	Pn	00 37 26.8	+0.9
LPL				*e*Pg	Pg	00 37 34.6	-0.4
LPL	La Plagne	2.74	100	*e*Pn	Pn	00 37 26.8	+0.9
LPL	La Plagne	2.74	100	*e*P	Pn	00 37 29.3	+3.4
LPL	La Plagne	2.74	100	*e*Pg	Pg	00 37 34.6	-0.4
LPL				*e*Sg	Sg	00 38 08.8	-1.6
	10nm,0.3s						
LPG	La Plagne	2.76	100	*e*Pn	Pn	00 37 28.0	+1.9
LPG				*e*Pg	Pg	00 37 34.8	-0.5
LPG				*e*Sg	Sg	00 38 08.2	-2.8
LPG	La Plagne	2.76	100	*e*Pn	Pn	00 37 28.0	+1.9
LPG	La Plagne	2.76	100	*e*P	Pn	00 37 29.8	+3.7
LPG	La Plagne	2.76	100	*e*Pg	Pg	00 37 34.8	-0.5
LPG				*e*Sg	Sg	00 38 08.2	-2.8
	20nm,0.3s						
MTLF	Montolieu	2.76	190	*e*Pn	Pn	00 37 27.2	+1.0
MTLF				*e*Pg	Pg	00 37 34.8	-0.6
MTLF				*e*Sn	Sn	00 37 58.9	-0.4
MTLF				*e*Sg	Sg	00 38 10.1	-1.1
MTLF	Montolieu	2.76	190	*e*Pn	Pn	00 37 27.2	+1.0
MTLF	Montolieu	2.76	190	*e*Pg	Pg	00 37 34.8	-0.6
MTLF				*e*Sn	Sn	00 37 58.9	-0.4
MTLF				*e*Sg	Sg	00 38 10.1	-1.1
	29nm,0.4s						
SMRF	Simiane la Rot	2.82	137	*e*Pn	Pn	00 37 27.6	+0.6
SMRF	Simiane la Rot	2.82	137	*e*Pn	Pn	00 37 27.6	+0.6
SMRF	Simiane la Rot	2.82	137	*e*P	Pn	00 37 30.4	+3.4
SMRF				*e*Sg	Sg	00 38 13.1	0.0
	17nm,0.4s						
BNI	Bardonecchia	2.84	109	*e*Pn	Pn	00 37 31.4	+4.1
BNI	Bardonecchia	2.84	109	*e*Pn	Pn	00 37 31.4	+4.1
MEZF	Maizieres J'vi	2.85	30	*e*Pg	Pg	00 37 36.7	-0.4
MEZF				*e*Sn	Sn	00 38 00.9	-0.6
MEZF				*e*Sg	Sg	00 38 13.5	-0.5
MEZF	Maizieres J'vi	2.85	30	*e*Pg	Pg	00 37 36.7	-0.4
	baz=208						
MEZF				*e*Sn	Sn	00 38 00.9	-0.6
MEZF				*e*Sg	Sg	00 38 13.5	-0.5
	85nm,0.4s,baz=213						
LOMF	Lomont	3.00	63	Pg	Pg	00 37 39.5	-0.4
LOMF	Lomont	3.00	63	Pn	Pn	00 37 29.3	-0.2
LOMF				Pg	Pg	00 37 39.5	-0.4
LOMF	Lomont	3.00	63	Pn	Pn	00 37 29.3	-0.2
THEF	They Montfort	3.02	43	Pg	Pg	00 37 40.1	-0.3
THEF	They Montfort	3.02	43	Pn	Pn	00 37 30.1	+0.3
THEF				Pg	Pg	00 37 40.1	-0.3
THEF	They Montfort	3.02	43	Pn	Pn	00 37 30.1	+0.3
THEF	They Montfort	3.02	43	Pg	Pg	00 37 40.1	-0.3
MBDF	Montbardon	3.04	115	*e*Pn	Pn	00 37 30.9	+0.9
MBDF				*e*P		00 37 33.8	
MBDF	Montbardon	3.04	115	*e*Pn	Pn	00 37 30.9	+0.9
MBDF	Montbardon	3.04	115	*e*Pg	Pg	00 37 39.8	-0.9
MBDF				*e*Sg	Sg	00 38 16.3	-3.8
	9.7nm,0.4s						
HAU	Haudompre	3.06	49	*e*Pn	Pn	00 37 30.8	+0.5
HAU				*e*Pg	Pg	00 37 40.4	-0.7
HAU				*e*Sn	Sn	00 38 05.5	-1.1
HAU				*e*Sg	Sg	00 38 19.7	-1.0
HAU	Haudompre	3.06	49	*e*Pn	Pn	00 37 30.8	+0.5
HAU	Haudompre	3.06	49	*e*Pg	Pg	00 37 40.4	-0.7
HAU				*e*Sn	Sn	00 38 05.5	-1.1
HAU				*e*Sg	Sg	00 38 19.7	-1.0
	46nm,0.3s						
RFYF	Reffroy	3.11	33	*e*Pg	Pg	00 37 41.4	-0.6
RFYF				*e*Sg	Sg	00 38 21.1	-1.2
RFYF	Reffroy	3.11	33	*e*Pg	Pg	00 37 41.4	-0.6
	baz=214						
RFYF				*e*Sg	Sg	00 38 21.1	-1.2
	67nm,0.2s,baz=204						
HINF	Hinteralfeld	3.23	56	*e*Pn	Pn	00 37 32.7	0.0
HINF				*e*Pg	Pg	00 37 43.4	-0.9
HINF				*e*Sn	Sn	00 38 09.5	-1.4
HINF				*e*Sg	Sg	00 38 24.7	-1.5
HINF	Hinteralfeld	3.23	56	*e*Pn	Pn	00 37 32.7	0.0
HINF	Hinteralfeld	3.23	56	*e*Pg	Pg	00 37 43.4	-0.9
HINF				*e*Sn	Sn	00 38 09.5	-1.4
HINF				*e*Sg	Sg	00 38 24.7	-1.5
	23nm,0.2s						
LDF	La Druitiere	3.26	322	*e*Pn	Pn	00 37 34.4	+1.3
LDF				*e*Sn	Sn	00 38 11.3	-0.3
LDF				*e*Sg	Sg	00 38 26.9	-0.3
LDF	La Druitiere	3.26	322	*e*Pn	Pn	00 37 34.4	+1.3
LDF				*e*Sn	Sn	00 38 11.3	-0.3
LDF				*e*Sg	Sg	00 38 26.9	-0.3
	10nm,0.2s						
MOF	Molkenrain	3.41	57	Pg	Pg	00 37 47.3	-0.5
MOF	Molkenrain	3.41	57	Pn	Pn	00 37 35.2	+0.1
MOF				Pg	Pg	00 37 47.3	-0.5
MOF	Molkenrain	3.41	57	Pn	Pn	00 37 35.2	+0.1
GRR	Gorron	3.46	314	*e*Pn	Pn	00 37 37.0	+1.2
GRR				*e*Sn	Sn	00 38 16.4	-0.1
GRR				*e*Sg	Sg	00 38 32.2	-1.3
GRR	Gorron	3.46	314	*e*Pn	Pn	00 37 37.0	+1.2
GRR				*e*Sn	Sn	00 38 16.4	-0.1
GRR				*e*Sg	Sg	00 38 32.2	-1.3
	13nm,0.2s						
BBS	Basel-Blauen	3.47	64	Pn	Pn	00 37 37.0	+1.1
BBS				Pg	Pg	00 37 48.2	-0.7
BBS	Basel-Blauen	3.47	64	Pn	Pn	00 37 37.0	+1.1
EPF	Esparros	3.54	212	*e*Pn	Pn	00 37 36.7	-0.2
EPF				*e*Pg	Pg	00 37 49.7	-0.5
EPF				*e*Sn	Sn	00 38 17.3	-1.2
EPF				*e*Sg	Sg	00 38 35.5	-0.6
EPF	Esparros	3.54	212	*e*Pn	Pn	00 37 36.7	-0.2
EPF	Esparros	3.54	212	*e*Pg	Pg	00 37 49.7	-0.5
EPF				*e*Sn	Sn	00 38 17.3	-1.2
EPF				*e*Sg	Sg	00 38 35.5	-0.6
	18nm,0.2s						
FLN	La Foliniere	3.54	321	*e*Pn	Pn	00 37 38.0	+1.0
FLN				*e*Sn	Sn	00 38 18.4	-0.2
FLN				*e*Sg	Sg	00 38 35.0	-1.3
FLN	La Foliniere	3.54	321	*e*Pn	Pn	00 37 38.0	+1.0
	baz=145						
FLN				*e*Sn	Sn	00 38 18.4	-0.2
FLN				*e*Sg	Sg	00 38 35.0	-1.3
	13nm,0.2s,baz=127						
EJON	La Jonquera	3.61	180	Pn	Pn	00 37 38.9	+1.0
	1.7nm,0.4s,SNR=11						
EJON				Pg	Pg	00 37 49.3	-2.3
	1.4nm,0.2s,SNR=7.9						
EJON				Lg		00 38 36.3	
	13nm,0.4s,SNR=5.0						
ECH	Echery	3.62	52	Pg	Pg	00 37 51.1	-0.7
ECH	Echery	3.62	52	Pn	Pn	00 37 39.1	+1.1
ECH				Pg	Pg	00 37 51.1	-0.7
ECH	Echery	3.62	52	Pn	Pn	00 37 39.1	+1.1
FRF	La Foret Royal	3.66	132	*e*Pn	Pn	00 37 39.3	+0.8
FRF				*e*Sn	Sn	00 38 20.0	-1.4
FRF				*e*Sg	Sg	00 38 37.4	-2.5
FRF	La Foret Royal	3.66	132	*e*Pn	Pn	00 37 39.3	+0.8
FRF				*e*Sn	Sn	00 38 20.0	-1.4
FRF				*e*Sg	Sg	00 38 37.4	-2.5
	4.3nm,0.4s						
LMR	La Mourre	3.75	135	*e*Pn	Pn	00 37 40.4	+0.6
LMR				*e*Sn	Sn	00 38 22.3	-1.4
LMR	La Mourre	3.75	135	*e*Pn	Pn	00 37 40.4	+0.6
LMR				*e*Sn	Sn	00 38 22.3	-1.4
CDF	Champ du Feu	3.80	50	*e*Pn	Pn	00 37 41.3	+0.8
CDF				*e*Pg	Pg	00 37 54.0	-1.2
CDF				*e*Sn	Sn	00 38 23.8	-1.1
CDF				*e*Sg	Sg	00 38 43.1	-1.3
CDF	Champ du Feu	3.80	50	*e*Pn	Pn	00 37 41.3	+0.8
CDF	Champ du Feu	3.80	50	*e*Pg	Pg	00 37 54.0	-1.2
CDF				*e*Sn	Sn	00 38 23.8	-1.1
CDF				*e*Sg	Sg	00 38 43.1	-1.3
	16nm,0.3s						
SBF	Sospel	3.90	123	*e*Pn	Pn	00 37 42.4	+0.5
SBF				*e*Sg	Sg	00 38 46.4	-1.3
SBF	Sospel	3.90	123	*e*Pn	Pn	00 37 42.4	+0.5
SBF				*e*Sg	Sg	00 38 46.4	-1.3
	9.9nm,0.5s						
EBIE	Bielsa	3.91	211	Pn	Pn	00 37 44.6	+2.6
	0.9nm,0.1s,SNR=28						
EBIE				Sn	Sn	00 38 30.5	+2.9
	9.3nm,0.2s,SNR=7.9						
EBIE				Lg		00 38 46.0	
	11nm,0.2s,SNR=7.9						
ETSF	Etsaut	4.01	219	*e*Pn	Pn	00 37 44.2	+0.8
ETSF				*e*Pg	Pg	00 37 58.2	-1.1
ETSF				*e*Sn	Sn	00 38 28.7	-1.5
ETSF				*e*Sg	Sg	00 38 49.5	-1.8
ETSF	Etsaut	4.01	219	*e*Pn	Pn	00 37 44.2	+0.8
ETSF	Etsaut	4.01	219	*e*Pg	Pg	00 37 58.2	-1.1
ETSF				*e*Sn	Sn	00 38 28.7	-1.5
ETSF				*e*Sg	Sg	00 38 49.5	-1.8
	17nm,0.4s						
BAIF	Baives	4.10	12	*e*Pn	Pn	00 37 45.7	+1.1
BAIF				*e*Sn	Sn	00 38 30.6	-1.6
BAIF				*e*Sg	Sg	00 38 51.9	-2.0
BAIF	Baives	4.10	12	*e*Pn	Pn	00 37 45.7	+1.1
BAIF				*e*Sn	Sn	00 38 30.6	-1.6
BAIF				*e*Sg	Sg	00 38 51.9	-2.0
	7.1nm,0.3s						
SJPF	Ste Jean	4.17	226	*e*Pn	Pn	00 37 46.8	+1.3
SJPF				*e*Pg	Pg	00 38 00.8	-1.4
SJPF				*e*Sn	Sn	00 38 31.2	-2.7
SJPF				*e*Sg	Sg	00 38 54.9	-1.3
SJPF	Ste Jean	4.17	226	*e*Pn	Pn	00 37 46.8	+1.3
SJPF	Ste Jean	4.17	226	*e*Pg	Pg	00 38 00.8	-1.4
SJPF				*e*Sn	Sn	00 38 31.2	-2.7
SJPF				*e*Sg	Sg	00 38 54.9	-1.3
	10nm,0.4s						
DOU	Dourbes	4.20	15	E	Sn	00 38 29.6	-5.1

WLF	Walferdange	4.22	30	SN	Sn	00 38 46.1	+11
EALK	Alkurruntz	4.24	229	Pn	Pn	00 37 47.8	+1.3
	0.9nm,0.1s,SNR=7.7						
EALK				Pg	Pg	00 38 01.3	-2.2
	5.0nm,0.4s,SNR=7.9						
EALK				Sn	Sn	00 38 33.9	-1.8
	19nm,0.3s,SNR=5.0						
EALK				Lg		00 38 56.3	
	20nm,0.4s,SNR=7.9						
GIVF	Givet	4.25	17	*e*Pn	Pn	00 37 47.4	+0.8
GIVF				*e*Sn	Sn	00 38 34.2	-1.7
GIVF				*e*Sg	Sg	00 38 56.5	-2.2
GIVF	Givet	4.25	17	*e*Pn	Pn	00 37 47.4	+0.8
GIVF				*e*Sn	Sn	00 38 34.2	-1.7
GIVF				*e*Sg	Sg	00 38 56.5	-2.2
	16nm,0.5s						
EMIR	Miracle	4.26	194	Pn	Pn	00 37 47.0	+0.2
	13nm,0.2s,SNR=7.9						
EMIR				Sn	Sn	00 38 38.6	+2.3
	9.4nm,0.3s,SNR=7.9						
EMIR				Lg		00 38 56.8	
	18nm,0.4s,SNR=7.9						
ELIZ	Elizondo	4.29	229	Pn	Pn	00 37 49.9	+2.7
	3.5nm,0.3s,SNR=10						
ELIZ				Pg	Pg	00 38 01.2	-3.3
	2.5nm,0.2s,SNR=7.9						
ELIZ				Sn	Sn	00 38 34.9	-2.0
	5.0nm,0.2s,SNR=7.9						
ELIZ				Lg		00 38 56.3	
	7.4nm,0.2s,SNR=5.0						
SGMF	Saint Gilles	4.32	302	*e*Pn	Pn	00 37 48.7	+1.1
SGMF				*e*Sn	Sn	00 38 36.1	-1.6
SGMF				*e*Sg	Sg	00 39 00.2	-0.9
SGMF	Saint Gilles	4.32	302	*e*Pn	Pn	00 37 48.7	+1.1
SGMF				*e*Sn	Sn	00 38 36.1	-1.6
SGMF				*e*Sg	Sg	00 39 00.2	-0.9
	8.9nm,0.4s						
EORO	Oroz-Betelu	4.37	225	Pn	Pn	00 37 50.6	+2.3
	1.4nm,0.2s,SNR=13						
EORO				Sn	Sn	00 38 36.9	-2.0
	6.9nm,0.1s,SNR=7.8						
IUSE	Utxeti	4.45	227	Pn	Pn	00 37 51.7	+2.3
	0.4nm,0.1s,SNR=7.9						
IUSE				Sn	Sn	00 38 39.7	-1.2
	7.8nm,0.2s,SNR=7.9						
IPRE	Itoiz	4.46	225	Pn	Pn	00 37 51.8	+2.3
	1.5nm,0.2s,SNR=7.9						
IPRE				Sn	Sn	00 38 40.2	-0.9
	3.0nm,0.2s,SNR=7.9						
IZUN	Zunzarren	4.46	226	Pn	Pn	00 37 51.4	+1.8
	1.7nm,0.1s,SNR=7.9						
IZUN				Sn	Sn	00 38 40.4	-0.9
	2.9nm,0.1s,SNR=7.9						
QUIF	Quistinic	4.54	296	*e*Pn	Pn	00 37 51.8	+1.1
QUIF				*e*Sn	Sn	00 38 41.3	-2.0
QUIF				*e*Sg	Sg	00 39 06.6	-1.7
QUIF	Quistinic	4.54	296	*e*Pn	Pn	00 37 51.8	+1.1
QUIF				*e*Sn	Sn	00 38 41.3	-2.0
QUIF				*e*Sg	Sg	00 39 06.6	-1.7
	7.0nm,0.3s						
SNF	Seneffe	4.55	11	SN	Sn	00 38 41.6	-1.6
SNF	Seneffe	4.55	11	Sn	Sn	00 38 41.6	-1.7
IUNC	Unciti	4.56	225	Pn	Pn	00 37 53.5	+2.5
	3.1nm,0.3s,SNR=7.9						
IUNC				Sn	Sn	00 38 42.6	-1.2
	7.0nm,0.2s,SNR=7.9						
EARA	Aranguren	4.59	226	Pn	Pn	00 37 52.6	+1.3
	1.9nm,0.4s,SNR=7.9						
EARA				Sn	Sn	00 38 44.8	+0.4
	17nm,0.3s,SNR=7.9						
BCLA	Clavier	4.65	19	SN	Sn	00 38 43.5	-2.3
BCLA	Clavier	4.65	19	Sn	Sn	00 38 43.5	-2.3
ROSF	Rostrenen	4.78	301	*e*Pn	Pn	00 37 55.0	+1.0
ROSF				*e*Sn	Sn	00 38 46.1	-3.0
ROSF				*e*Sg	Sg	00 39 14.5	-1.4
ROSF	Rostrenen	4.78	301	*e*Pn	Pn	00 37 55.0	+1.0
ROSF				*e*Sn	Sn	00 38 46.1	-3.0
ROSF				*e*Sg	Sg	00 39 14.5	-1.4
	5.9nm,0.3s						
EPOB	Poblet	4.89	196	Pn	Pn	00 37 57.6	+2.2
	0.6nm,0.2s,SNR=7.9						
EPOB				Pg	Pg	00 38 12.3	-3.7
	1.6nm,0.3s,SNR=7.9						
EPOB				Sn	Sn	00 38 49.8	-1.9
	1.4nm,0.3s,SNR=7.9						
EPOB				Lg		00 39 15.6	
	4.4nm,0.3s,SNR=7.9						
DAVA	Damuels	4.96	73	⇑*i*Pn	Pn	00 37 58.4	+1.9
DAVA	Damuels	4.96	73	Pn	Pn	00 37 58.4	+2.0
ESAC	San Caprasio	4.97	210	Pn	Pn	00 37 53.2	-3.4
	1.7nm,0.1s,SNR=7.9						
ESAC				Pg	Pg	00 38 13.2	-4.4
	3.4nm,0.2s,SNR=7.9						
ESAC				Sn	Sn	00 38 52.8	-1.1
	9.0nm,0.3s,SNR=7.9						
ESAC				Lg		00 39 20.3	
	65nm,0.4s,SNR=7.9						
MEM	Membach	5.00	23	SN	Sn	00 38 51.4	-3.1
MEM	Membach	5.00	23	Sn	Sn	00 38 51.4	-3.1
ECRI	Cripan	5.19	230	Pn	Pn	00 37 59.1	-0.5
	1.7nm,0.4s,SNR=7.9						
ECRI				Sn	Sn	00 38 58.3	-0.9
	1.2nm,0.1s,SNR=7.9						
ELAN	Lanestosa	5.33	240	Pn	Pn	00 38 02.7	+1.2
	1.5nm,0.2s,SNR=12						
ELAN				Sn	Sn	00 38 59.4	-3.2
	5.7nm,0.2s,SNR=5.0						
ERTA	Horta de San J	5.43	201	Pn	Pn	00 38 04.4	+1.5
	0.4nm,0.2s,SNR=7.9						
ERTA				Pg	Pg	00 38 23.0	-3.5
	1.2nm,0.2s,SNR=7.9						
ERTA				Sn	Sn	00 39 02.3	-2.9
	1.9nm,0.4s,SNR=7.9						
ERTA				Lg		00 39 32.7	
	6.2nm,0.2s,SNR=7.9						
FETA	Feichten	5.49	77	⇓*i*Pn	Pn	00 38 05.9	+2.2
FETA				⇓*i*Sg	Sg	00 39 40.1	+1.5
	4.0nm,0.8s						
FETA	Feichten	5.49	77	Pn	Pn	00 38 05.9	+2.2
FETA				Sg	Sg	00 39 40.1	+1.5
	4.0nm,0.8s						
PGF	Pioggiola	5.61	127	*e*Pn	Pn	00 38 05.8	+0.4
PGF	Pioggiola	5.61	127	*e*Pn	Pn	00 38 05.8	+0.4
MOTA	Moosalm	5.79	74	⇑*i*Pn	Pn	00 38 09.6	+1.7
MOTA				⇓*i*Sn	Sn	00 39 16.6	+2.7
MOTA	Moosalm	5.79	74	Pn	Pn	00 38 09.6	+1.8
MOTA				Sn	Sn	00 39 16.6	+2.7
WTTA	Wattenberg	6.13	76	⇓*i*Pn	Pn	00 38 14.8	+2.3
WTTA	Wattenberg	6.13	76	Pn	Pn	00 38 14.8	+2.2
EMOS	Mosqueruela	6.20	205	Pn	Pn	00 38 14.4	+0.9
	0.3nm,0.2s,SNR=7.9						
EMOS				Sn	Sn	00 39 21.5	-2.7
	0.7nm,0.3s,SNR=7.9						
EMOS				Lg		00 39 59.2	
	6.0nm,0.4s,SNR=7.9						
ETOR	Torete	6.36	216	Pn	Pn	00 38 18.0	+2.4
	3.5nm,0.1s,SNR=7.9						
ETOR				Sn	Sn	00 39 23.9	-4.0
	3.3nm,0.3s,SNR=7.9						
EARI	Arriondas	6.40	247	Pn	Pn	00 38 18.0	+1.7
	5.7nm,0.5s,SNR=8.6						
EARI				Sn	Sn	00 39 24.3	-4.8
	2.9nm,0.3s,SNR=5.0						
GUD	Guadarrama	7.46	226	Pn	Pn	00 38 33.3	+2.5
	0.5nm,0.2s,SNR=7.9						
GUD				Sn	Sn	00 39 51.6	-3.6
	0.6nm,0.2s,SNR=7.9						
EPON	Pontenova	7.66	253	Pn	Pn	00 38 36.5	+2.9
	3.7nm,0.3s,SNR=7.9						
EPON				Sn	Sn	00 39 53.8	-6.3
	3.2nm,0.2s,SNR=7.9						
ECAL	Calabor	8.07	243	Pn	Pn	00 38 40.1	+1.0
	1.7nm,0.4s,SNR=7.9						
ECAL				Sn	Sn	00 40 07.1	-3.0
	3.1nm,0.4s,SNR=7.9						
ESDC	Sonseca Array	8.13	221	Pn	Pn	00 38 39.2	-0.8
	0.8nm,0.1s,SNR=7.9						
ESDC				Sn	Sn	00 40 07.7	-3.9
	1.9nm,0.2s,SNR=7.9						

MEX 01 00:41:42.5±0.5**, 16°.06N×98°.78W, h16**^{km}±10^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.71	62	*i* P	Pg	00 41 54.3	-2.1
PNIG				*i* S	Sg	00 42 02.4	-3.5
ACX	Acapulco	1.35	307	*i* P	Pn	00 42 07.3	+0.6
ACX				*i* S	Sn	00 42 25.3	+0.9
CAIG	El Cayaco	1.73	305	*i* P	Pn	00 42 08.1	-3.8
CAIG				*i* S	Sn	00 42 29.0	-4.7
UTMO	Huajuapan	2.00	28	*e*P	Pn	00 42 12.3	-3.3
UTMO				*i* S	Sn	00 42 36.2	-4.0
MEIG	Mezcala	2.02	337	*i* P	Pn	00 42 12.0	-3.9
MEIG				*e*S	Sn	00 42 35.3	-5.5
VHO	Vista Hermosa	2.21	63	*i* P	Pn	00 42 15.2	-3.2
VHO				*i* S	Sn	00 42 41.7	-3.7
OXX	Oaxaca	2.22	62	*i* P	Pn	00 42 20.7	+2.1
OXX				*i* S	Sn	00 42 49.8	+4.1
PLIG	Platanillo	2.42	344	*i* P	Pn	00 42 19.3	-2.1
PLIG				*i* S	Sn	00 42 46.5	-4.3
HUIG	Huatulco	2.59	96	*e*P	Pn	00 42 21.6	-2.1
HUIG				*i* S	Sn	00 42 49.6	-5.3
TPIG	Tehuac#an	2.71	30	*e*P	Pn	00 42 28.0	+2.6
TPIG				*i* S	Sn	00 42 54.9	-3.0
PPM	Popocatepetl	3.00	3	*e*P	Pn	00 42 27.2	-2.1
PPM				*i* S	Sn	00 43 01.8	-3.0
MZVM		3.14	352	*i* P	Pn	00 42 29.7	-1.7
MZVM				*i* S	Sn	00 43 05.0	-3.6
IIO	Organos	3.52	1	*e*P	Pn	00 42 34.7	-1.7
IIO				*i* S	Sn	00 43 14.8	-2.9
PTVM	Pico Tres Padr	3.53	355	*e*P	Pn	00 42 33.7	-3.0
PTVM				*i* S	Sn	00 43 15.3	-2.7
CMIG	Matias Romero	3.88	74	*i* P	Pn	00 42 39.2	-2.2
CMIG				*i* S	Sn	00 43 24.1	-2.5
LVIG	Laguna Verde	4.28	31	*i* P	Pn	00 42 44.6	-2.4
LVIG				*i* S	Sn	00 43 33.5	-3.2

ISCJB ***01*** *00:42:29.9±1.6, 7°.0S±0°.2×125°.3E±0°.3, h530*^{km}*±28*^{km}*, mb3.4/6, Error ellipse: s-maj=58.8km s-min=12.7km az=145.6*

NEIC ***01*** *00:42:29.9±1.1, 6°.90S×125°.46E, h511*^{km}*±19*^{km}*, mb3.9/1, Error ellipse: s-maj=39.1km s-min=9.2km az=54.0*

IDC ***01*** *00:42:30.3±4.5, 6°.94S×125°.30E, h516*^{km}*±67*^{km}*, mb3.0/6, mb1 3.1/9, mb1mx3.0/19, mbtmp3.0/9, Error ellipse: s-maj=51.7km s-min=26.0km az=52.0*

ISC 01 00:42:30.0±1.5**, 6°.9S**±0°.2×**125°.5E**±0°.3**, h511**^{km}±25^{km}**, n13, σ0^{s}.66**/13**, mb3.4**/6**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	5.97	288	*e*P	P	00 44 06.9	+0.3
FITZ	Fitzroy Crossi	11.13	179	P	P	00 44 59.4	0.0
	0.5nm,0.3s,baz=4.4,slow=9.7,SNR=18						
WRAB	Tennant Creek	15.57	147	*e*P	P	00 45 44.6	-1.3
	1.6nm,0.4s						
WRA	Warramunga Arr	15.57	147	P	P	00 45 45.8	-0.1
	0.4nm,0.3s,baz=324,slow=11,SNR=5.8						
WB2	Warramunga Arr	15.57	147	*e*P	P	00 45 46.1	+0.1
ASAR	Alice Springs	18.54	155	P	P	00 46 15.3	+0.6
	0.9nm,0.3s,baz=332,slow=7.9,SNR=45						
STKA	Stephens Creek	29.06	151	P	P	00 47 49.2	+0.7
	2.5nm,0.8s,mb3.9,baz=329,slow=7.8,SNR=4.1						
STKA	Stephens Creek	29.06	151	P	P	00 47 49.2	+0.7
SONM	Songino Array	57.04	345	P	P	00 51 27.5	+0.8
	0.4nm,0.7s,mb2.7,baz=157,slow=7.8,SNR=3.7						
PETK	Petropavlovsk-	65.73	21	P	P	00 52 24.1	+0.5
	6.0nm,1.1s,mb4.0,baz=223,slow=5.2,SNR=4.7						
MKAR	Makanchi Array	65.74	329	P	P	00 52 23.8	0.0
	0.3nm,0.5s,mb3.1,baz=130,slow=6.8,SNR=9.3						
ZALV	Zalesovo Beam	69.57	336	P	P	00 52 45.8	-1.2
	0.8nm,0.5s,mb3.5,baz=139,slow=4.8,SNR=4.2						
KURK	Kurchatov	70.15	330	P	P	00 52 50.1	-0.5
	0.2nm,0.3s,mb3.1,baz=135,slow=5.2,SNR=4.2						

IDC ***01*** *00:58:53.6±0.5, 50°.50N×170°.85W, h0*^{km}*, mb4.6/28, mb1 4.7/29, mb1mx4.7/32, mbtmp4.6/29, ML4.3/1, MS3.9/8, Ms1 3.9/8, ms1mx3.5/48, Error ellipse: s-maj=18.8km s-min=10.9km az=174.0*

NEIC ***01*** *00:58:56.1±0.2, 50°.70N×170°.79W, h10*^{km}*, mb4.8/92, Error ellipse: s-maj=5.4km s-min=3.2km az=176.0*

MOS ***01*** *00:58:57.6±1.2, 50°.60N×170°.86W, h33*^{km}*, mb5.0/83, Error ellipse: s-maj=8.6km s-min=5.3km az=94.0*

BJI ***01*** *00:58:58.9, 51°.19N×171°.14W, h31*^{km}*, mB5.1/27, mb4.9/38, Ms4.9/18, Ms7 4.6/18*

ISCJB ***01*** *00:58:58.3±0.1, 50°.80N±0°.03×170°.82W±0°.02, h33*^{km}*, mb4.8/144, MS4.2/15, Error ellipse: s-maj=3.7km s-min=2.1km az=6.7*

SZGRF ***01*** *00:59:08.7, 51°.88N×171°.66W, h33*^{km}*, mb5.1, Fox Islands, Aleutian Islands, United States*

ISC 01 00:59:00.4±0.1**, 50°.83N**±0°.02×**170°.82W**±0°.02**, h35**^{km}**, h35**^{km}±1.1^{km}**:pP-P, n582, σ0^{s}.84**/594**, mb4.8**/144**, MS4.2**/15**, 132C-113D, South of Aleutian Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKO	Nikolski	2.47	29	P	Pn	00 59 36.1	-1.9
NIKO				S	Sn	01 00 05.1	-1.8
ATKA	Atka Island	2.52	304	P	Pn	00 59 37.0	-1.8
ATKA				S	Sn	01 00 04.5	-3.7
GSTR	Great Sitkin T	3.51	293	*e*Pn	Pn	00 59 51.7	-0.7
GSTR				*e*Sn	Sn	01 00 32.2	-0.5
UNV	Unalaska Valle	4.02	40	P	Pn	00 59 58.2	-1.1
UNV				S	Sn	01 00 43.0	-2.2
AKLV	Akutan Long Va	4.47	40	P	Pn	01 00 05.0	-0.5
AKGG	Akutan Green G	4.48	39	P	Pn	01 00 05.2	-0.5
AKUT	Akutan	4.53	41	*e*P	Pn	01 00 06.0	-0.3
FALS	False Pass	6.03	45	P	Pn	01 00 25.7	-1.2
AMKA	Amchitka	6.25	279	P	Pn	01 00 27.4	-2.5
SPIA	Saint Paul Isl	6.37	3	P	Pn	01 00 30.0	-1.6
SDPT	Sand Point	7.70	50	P	Pn	01 00 49.4	-0.4
CHGN	Chignik	9.19	49	*e*P	Pn	01 01 10.3	+0.1
OHAK	Old Harbor	12.11	51	*e*P	Pn	01 01 47.7	-2.5
	7.0nm,0.3s						
KDAK	Kodiak Island	12.70	50	Pn	Pn	01 01 55.5	-2.7
	3.1nm,0.3s,baz=240,slow=10,SNR=30						
KDAK				Sn	Sn	01 04 10.3	-7.8
	0.9nm,0.3s,baz=217,slow=15,SNR=6.1						
KDAK	Kodiak Island	12.70	50	*e*Pn	Pn	01 01 55.6	-2.6
KDAK				Sn	Sn	01 04 18.0	-0.1
GAMB	Gambell	12.99	358	*e*Pn	Pn	01 02 03.3	+1.1
SVW2	Sparrevohn	13.33	34	*e*Pn	Pn	01 02 06.9	+0.1
SVW2				*e*Sn	Sn	01 04 33.0	-0.4
RSO	Redoubt South	13.99	39	*e*Pn	Pn	01 02 14.2	-1.6
TNA	Tin City	14.85	5	*e*Pn	Pn	01 02 28.7	+1.3
	54nm,1.2s						
SEW	Seward	15.20	44	*e*Pn	Pn	01 02 28.9	-3.2
	24nm,0.6s						
SEW				*e*Sn	Sn	01 05 12.2	-6.8
FIB	Fire Island	15.43	40	*e*P	Pn	01 02 33.9	-1.2
FIB				*e*		01 05 19.9	
FIB				pmax	pmax		
	comp=Z,1µm,2.8s						
FIB	Fire Island	15.43	40	*e*Pn	Pn	01 02 33.9	-1.2
	comp=Z,1µm,2.8s						
FIB				*e*Sn	Sn	01 05 19.9	-4.8
RC01	Rabbit Creek A	15.57	41	*e*Pn	Pn	01 02 34.5	-2.4
	comp=Z,17nm,0.7s						
RC01				*e*Sn	Sn	01 05 28.7	+0.6
PPLA	Purkeypile	15.73	33	*e*Pn	Pn	01 02 39.5	+0.6
	comp=Z,25nm,0.7s						
PMR	Palmer	16.09	40	*e*P	Pn	01 02 46.4	+2.9
PMR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
PMR	Palmer	16.09	40	*e*P	Pn	01 02 46.4	+2.9
	comp=Z,3.9nm,0.5s						
CHUM	Lake Minchumin	16.36	30	*e*Pn	Pn	01 02 47.1	+0.1
	comp=Z,33nm,0.8s						
KTH	Kantishna Hill	16.59	32	*e*Pn	Pn	01 02 49.5	-0.4
	comp=Z,36nm,0.8s						
KTH				Sn	Sn	01 05 56.4	+3.6
TRF	Thorofare Moun	16.74	33	*e*Pn	Pn	01 02 52.5	+0.6
	comp=Z,5µm,1.1s						
TRF				*e*Sn	Sn	01 05 56.3	-0.2
BPAW	Bear Paw Mtn.	16.94	31	*e*Pn	Pn	01 02 53.9	-0.4
	comp=Z,39nm,0.7s						
BPAW				*e*Sn	Sn	01 06 01.5	+0.3
MCK	McKinley	17.39	34	*e*P	Pn	01 02 59.8	-0.2
MCK				*e*		01 06 11.8	
MCK				pmax	pmax		
	comp=Z,25nm,1.0s						
MCK	McKinley	17.39	34	*e*Pn	Pn	01 02 59.8	-0.1
	comp=Z,25nm,1.0s						
MCK				*e*Sn	Sn	01 06 11.8	-0.4
PAX	Paxson	18.27	39	*e*P	Pn	01 03 09.0	-1.7
PAX				*e*		01 06 30.9	
PAX				pmax	pmax		
	comp=Z,11nm,0.7s						
PAX	Paxson	18.27	39	*e*Pn	Pn	01 03 09.0	-1.7
	comp=Z,11nm,0.7s						
PAX				*e*Sn	Sn	01 06 30.9	-2.4
COLA	College	18.47	32	*e*P	Pn	01 03 11.0	-2.2
COLA				pmax	pmax		
	comp=Z,15nm,0.8s						
COLA	College	18.47	32	*e*P	Pn	01 03 11.0	-2.2
	comp=Z,15nm,0.8s						
PET	Petropavlovsk	18.89	289	P	Pn	01 03 17.4	-0.9
MENT	Mentasta	18.95	40	*e*P	Pn	01 03 19.3	+0.3
COLD	Coldfoot	19.39	24	*e*P	Pn	01 03 23.5	-0.7
	comp=Z,24nm,0.9s						
PEA0B	Petropavlovsk-	19.45	289	*e*P	Pn	01 03 23.8	-1.2
PETK	Petropavlovsk-	19.45	289	P	Pn	01 03 24.2	-0.9
	comp=Z,0.9nm,0.3s,baz=84,slow=11,SNR=19						
PETK				LR	LR	01 09 59.6	
	comp=Z,65nm,20.4s,baz=84,slow=34						
PNL	Peninsula	19.80	51	*e*P	Pn	01 03 27.2	-1.9
	comp=Z,39nm,0.6s						
BILL	Bilibino	20.59	335	*c i*P	P	01 03 36.5	+0.6
BILL				*e*		01 03 52.7	
BILL				*e*S	S	01 07 28.8	+4.9
BILL				*e*		01 07 43.0	
BILL				pmax	pmax		
	comp=Z,111nm,1.3s						
BILL				MLR	MLR		
	comp=Z,100nm,14.0s,MS3.3						
BILL	Bilibino	20.59	335	*e*P	P	01 03 36.6	+0.7
	comp=Z,57nm,0.6s						
EGAK	Eagle	20.81	37	*e*Pn	P	01 03 39.3	+0.9
	comp=Z,38nm,0.8s						
EGAK				S	S	01 07 27.8	-0.6
HYT	Haines Junctio	20.98	49	*e*Pn	P	01 03 42.6	+2.4
DAWY	Dawson	21.19	39	*e*P	P	01 03 43.9	+1.4
DAWY				S	S	01 07 34.5	-1.3
SKAG	Skagway	21.80	53	*e*P	P	01 03 49.6	+0.6
SEY	Seymchan	23.10	316	⇑*e*P	P	01 04 02.4	-0.3
DLBC	Dease Lake	24.48	56	P	P	01 04 17.6	+1.9
	comp=Z,11nm,0.8s,mb4.3,baz=263,slow=9.5,SNR=16						
ASAJ	Asahikawa	31.76	276	P	P	01 05 20.3	-0.6
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ASAJ	Asahikawa	31.76	276	P	P	01 05 20.3	-0.6
	comp=Z,6.1nm,0.5s,mb4.7,baz=88,slow=13,SNR=5.4						
YKA	Yellowknife Ar	31.95	47	P	P	01 05 23.1	+0.7
YKA						01 08 11.2	
YKA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
YKA	Yellowknife Ar	31.95	47	P	P	01 05 23.1	+0.8
	comp=Z,3.1nm,0.5s,mb4.4,baz=272,slow=7.9,SNR=56						
YKA				PcP	PcP	01 08 11.2	-0.5
	comp=Z,1.9nm,0.7s,baz=280,slow=2.6,SNR=12						
YKA	Yellowknife Ar	31.95	47	P	P	01 05 23.1	+0.8
YKA				PcP	PcP	01 08 11.2	-0.5
B07A	Winthrop	32.39	74	⇑P	P	01 05 27.0	+0.5
	baz=32						
ERM	Erimo	32.46	272	P	P	01 05 27.6	+0.4
D06A	Cle Elum	32.47	77	⇑P	P	01 05 28.4	+1.3
	baz=32						
B08A	Colville Reser	32.91	74	⇓P	P	01 05 31.5	+0.5
	baz=33						
A09A	Danville	33.12	72	⇑P	P	01 05 33.5	+0.7
	baz=33						
C08A	Higginbotham F	33.33	75	⇑P	P	01 05 34.9	+0.3
	baz=33						
YAK	Yakutsk	33.53	313	*e*P	P	01 05 34.6	-1.6
YAK				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
YAK	Yakutsk	33.53	313	*e*P	P	01 05 36.2	0.0
	comp=Z,16nm,0.5s,mb5.2						
B09A	Rice	33.61	73	⇑P	P	01 05 37.9	+0.8
	baz=34						
TIXI	Tiksi	33.61	330	*i* P	P	01 05 37.0	+0.2
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.2s,mb4.2						
HAWA	Hanford	33.63	77	*e*P	P	01 05 38.5	+1.2
	comp=Z,143nm,2.6s,mb5.4						
E08A	Dider Farm, El	33.88	77	⇓P	P	01 05 40.3	+0.8
	baz=34						
NEW	Newport	34.30	73	*e*P	P	01 05 43.1	+0.1
NEW				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NEW	Newport	34.30	73	*e*P	P	01 05 43.1	+0.1
	comp=Z,5.0nm,0.7s,mb4.5						
F08A	Pendleton	34.38	78	⇓P	P	01 05 43.8	+0.1
	baz=34						
E09A	Wood Farm, Sta	34.44	76	⇓P	P	01 05 44.6	+0.4
	baz=34						
A11A	Hall Mountain,	34.47	71	⇑P	P	01 05 45.4	+0.9
	baz=34						
HABR	Khabarovsk	34.47	288	*e*P	P	01 05 42.7	-1.9
HABR				S	S	01 11 13.0	+2.6
HABR				MLR	MLR		
	comp=Z,68nm,16.0s,MS3.5						
G08A	Pilot Rock	34.50	79	⇓P	P	01 05 45.3	+0.4
	baz=34						
EDM	Edmonton	34.63	63	*e*P	P	01 05 45.8	0.0
EDM				*e*	pP	01 05 56.4	+0.5
B11A	Sandpoint	34.68	72	⇑P	P	01 05 46.6	+0.3
	baz=34						
D10A	Wagner Farm, O	34.73	75	⇑P	P	01 05 46.8	+0.1
	baz=35						
I07A	Izee	34.74	81	⇑P	P	01 05 47.8	+0.8
	baz=35						
J06A	Christmas Vall	34.76	82	⇑P	P	01 05 48.1	+1.1
	baz=35						
A12A	Yaak River Ran	34.90	71	⇓P	P	01 05 49.0	+0.8
	baz=35						
H08A	Prairie City	35.05	80	⇓P	P	01 05 50.2	+0.6
	baz=35						
G09A	Cove	35.24	78	⇓P	P	01 05 51.1	-0.1
	baz=35						
I08A	Drewsey	35.41	80	⇓P	P	01 05 53.6	+0.9
	baz=35						
C12B	Naegeli Ranch,	35.53	73	⇓P	P	01 05 54.1	+0.4
	baz=35						
H09A	Durkee	35.61	79	⇓P	P	01 05 54.8	+0.4
	baz=36						
K07A	Rock Creek Ran	35.61	83	⇑P	P	01 05 54.5	+0.1
	baz=36						
E11A	Bogner Ranch,	35.70	75	⇑P	P	01 05 54.9	-0.2
	baz=36						
BMO	Blue Mountains	35.74	78	*e*P	P	01 05 57.7	+2.2
	comp=Z,40nm,2.1s,mb5.0						
J08A	Circle Bar Ran	35.75	81	⇑P	P	01 05 56.5	+0.8
	baz=36						
BSMT	Bassoo Peak	35.89	72	*e*P	P	01 05 56.9	+0.1
WALA	Waterton Lakes	35.89	70	*e*P	P	01 05 56.8	0.0
	comp=Z,0.4nm,1.1s						
C13A	Hot Springs	36.09	72	⇓P	P	01 05 58.6	+0.1
	baz=36						
KLR	Kul'dur	36.13	290	*e*P	P	01 05 52.9	-5.9
J09A	Fry Pan Ranch,	36.21	81	⇑P	P	01 05 59.4	-0.2
	baz=36						
H10A	Noah's Angus R	36.21	78	⇓P	P	01 05 59.8	+0.2
	baz=36,SNR=7.8						
A14A	Double T Ranch	36.22	70	⇓P	P	01 05 59.5	0.0
	baz=36						
N06A	Buffalo Meadow	36.29	86	⇑P	P	01 06 00.1	-0.2
	baz=36						
C14A	Swan Lake	36.55	72	⇑P	P	01 06 01.5	-1.0
	baz=36						
K09A	Rome	36.56	82	⇑P	P	01 06 02.7	+0.1
	baz=36						
H11A	Donnelly	36.61	78	⇓P	P	01 06 02.9	-0.1
	baz=36,SNR=5.3						
A15A	Johnson Ranch,	36.63	70	⇓P	P	01 06 04.4	+1.3
	baz=36						
MSO	Missoula	36.87	73	*e*P	P	01 06 04.5	-0.6
	comp=Z,19nm,2.1s,mb4.6						
MSO				*e*PcP	PcP	01 08 25.6	-0.6
E13A	Victor	36.90	74	⇑P	P	01 06 05.7	+0.3
	baz=37						
D14A	Greenough	37.01	73	⇑P	P	01 06 05.8	-0.5
	baz=37						
B15A	Bradely Ranch,	37.02	71	⇓P	P	01 06 06.3	-0.1
	baz=37						
I11A	Placerville	37.04	79	⇓P	P	01 06 06.8	+0.2
	baz=37						
K10A	MacKenzie Ranc	37.06	81	⇑P	P	01 06 07.1	+0.3
	baz=37						
F13A	Darby	37.12	75	⇑P	P	01 06 07.3	+0.1
	baz=37						

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C15A  Salmond Ranch,   37.24  71 ⇓P      P       01 06 08.2  0.0
      baz=37,SNR=10
A16A  West Butte Ran   37.31  69 ⇑P      P       01 06 08.7 -0.2
      baz=37
E14A  Clinton          37.33  74 ⇓P      P       01 06 08.6 -0.5
      baz=37
N08A  GE Springer Mi   37.34  85 ⇓P      P       01 06 08.8 -0.5
      baz=37
MFID  Camas Ranch      37.38  79 ⇑P      P       01 06 09.3 -0.2
      baz=37
H12A  Diamond D Ranc   37.41  77 ⇑P      P       01 06 09.3 -0.4
      baz=37
B16A  M & M Farms, S   37.49  70 ⇓P      P       01 06 09.5 -0.8
      baz=37
G13A  Cobalt           37.52  76 ⇓P      P       01 06 10.5 -0.2
      baz=37,SNR=5.1
K11A  Parker Ranch,    37.59  80 ⇑P      P       01 06 11.1 -0.2
      baz=37
D15A  Lincoln          37.63  72 ⇑P      P       01 06 11.1 -0.4
      baz=38
L10A  Juniper Basin    37.68  82 ⇓P      P       01 06 11.5 -0.6
      baz=38
F14A  Wisdom           37.70  75 ⇑P      P       01 06 12.2  0.0
      baz=38
C16A  Fuhringer Ranc   37.74  71 ⇓P      P       01 06 12.2 -0.3
      baz=38
H13A  Challis          37.77  77 ⇑P      P       01 06 12.6 -0.1
      baz=38
R06C  Coleville        37.80  89 ⇓P      P       01 06 13.4 +0.3
      baz=38
E15A  Deer Lodge       37.84  73 ⇑P      P       01 06 12.9 -0.5
      baz=38
A17A  Triple J Farms   37.85  69 ⇓P      P       01 06 12.8 -0.6
      baz=38
G14A  Jackson          37.92  75 ⇓P      P       01 06 14.2 +0.2
      baz=38
J12A  Stokes Ranch,    37.92  79 ⇓P      P       01 06 14.4 +0.3
      baz=38,SNR=7.8
M10A  I.L. Ranch, Tu   37.94  83 ⇑P      P       01 06 15.0 +0.8
      baz=38
B17A  L&G Farms, Che   38.08  70 ⇑P      P       01 06 15.1 -0.2
      baz=38
L11A  Cat Creek Ranc   38.08  81 ⇓P      P       01 06 16.1 +0.6
      baz=38,SNR=6.4
RES   Resolute Bay     38.15  25  P      P       01 06 16.7 +1.0
RES                               pmax   pmax
      comp=Z,7.0nm,1.2s,mb4.3
RES                               MLR    MLR
      comp=Z,167nm,21.7s,MS3.8
RES   Resolute Bay     38.15  25  P      P       01 06 16.7 +1.1
      comp=Z,6.6nm,1.2s,mb4.3,baz=270,slow=12,SNR=9.3
RES                               LR     LR      01 22 03.6
      comp=Z,167nm,21.7s,MS3.8,baz=9.9,slow=36
HLID  Hailey           38.18  78 ⇓P      P       01 06 16.5 +0.2
      baz=38,SNR=6.3
HLID  Hailey           38.18  78 eP      P       01 06 16.7 +0.4
      comp=Z,6.6nm,1.0s,mb4.3
HLID                             ePcP    PcP     01 08 30.8 +0.5
I13A  Wildhorse Cree   38.19  78 ⇑P      P       01 06 16.5 +0.2
      baz=38,SNR=15
HRY   Holter Researc   38.20  72 eP      P       01 06 16.1 -0.3
D16A  Dana Ranch, Ca   38.22  72 ⇑P      P       01 06 16.1 -0.5
      baz=38
F15A  Butte            38.22  74 ⇓P      P       01 06 16.9 +0.4
      baz=38
O09A  Fish Creek Ran   38.28  85 ⇓P      P       01 06 17.8 +0.7
      baz=38
K12A  Draper Farm, C   38.37  80 ⇓P      P       01 06 17.9 +0.1
      baz=38
E16A  East Helena      38.38  73 ⇑P      P       01 06 17.5 -0.4
      baz=38
DLMT  Dillon           38.39  75 eP      P       01 06 16.9 -1.2
J13A  Cove Ranch, Pi   38.42  78 ⇓P      P       01 06 18.5 +0.2
      baz=38,SNR=14
G15A  Dillon           38.55  75 ⇑P      P       01 06 19.3 -0.1
      baz=38
L12A  House Creek Ra   38.56  81 ⇓P      P       01 06 20.0 +0.5
      baz=38,SNR=6.7
Q08A  Gabbs            38.57  87 ⇓P      P       01 06 19.4 -0.1
      baz=38
NVAR  Mina Array Bea   38.58  88  P      P       01 06 19.5 -0.2
      comp=Z,2.2nm,0.9s,mb3.9,baz=294,slow=8.8,SNR=9.8
NVAR                              PcP    PcP     01 08 31.6  0.0
      comp=Z,2.8nm,0.8s,baz=290,slow=2.6,SNR=11
NVAR  Mina Array Bea   38.58  88  P      P       01 06 19.5 -0.2
NVAR                              PcP    PcP     01 08 31.6  0.0
I14A  Mackay           38.59  77 ⇓P      P       01 06 20.0 +0.3
      baz=38,SNR=15
H15A  Lima             38.74  76 ⇑P      P       01 06 21.3 +0.4
      baz=39
MAJO  Matsushiro       38.74 269 eP      P       01 06 20.8 -0.3
MAJO                             e               01 07 49.6
MAJO                              pmax   pmax
      comp=Z,23nm,1.1s,mb4.8
MAJO  Matsushiro       38.74 269 eP      P       01 06 20.8 -0.3
      comp=Z,23nm,1.1s,mb4.8
MAJO                             ePP     PP      01 07 49.6 -0.4
MAT   Matsushiro       38.74 269  P      P       01 06 20.5 -0.6
MJAR  Matsushiro Arr   38.74 269  P      P       01 06 20.1 -1.0
MJAR                                             01 08 30.9
MJAR                              pmax   pmax
      comp=Z,3.0nm,0.6s
MJAR  Matsushiro Arr   38.74 269  P      P       01 06 20.1 -1.0
      comp=Z,3.0nm,0.6s,mb4.2,baz=45,slow=7.7,SNR=7.5
MJAR                              PcP    PcP     01 08 30.9 -1.3
      comp=Z,1.0nm,0.4s,baz=68,slow=0.3,SNR=5.0
EGMT  Eagleton         38.83  70 ⇓P      P       01 06 20.8 -0.8
      baz=39,SNR=5.6
EGMT  Eagleton         38.83  70 eP      P       01 06 21.3 -0.3
      comp=Z,14nm,0.6s,mb4.9
J14A  Carey            38.87  78 ⇓P      P       01 06 22.4 +0.4
      baz=39,SNR=11
K13A  Stover Farm, H   38.87  79 ⇓P      P       01 06 22.6 +0.6
      baz=39
E17A  Martinsdale      38.91  72 ⇑P      P       01 06 21.9 -0.4
      baz=39,SNR=5.6
I15A  Monteview        39.15  77 ⇓P      P       01 06 25.1 +0.7
      baz=39
N12A  Clover Valley,   39.26  82 ⇑P      P       01 06 25.7 +0.4
      baz=39
L13A  Double Diamond   39.26  80 ⇑P      P       01 06 25.5 +0.2
      baz=39,SNR=5.7
F17A  Fitzpatrick Pl   39.30  73 ⇓P      P       01 06 25.9 +0.2
      baz=39
E18A  Harlowton        39.43  72 ⇑P      P       01 06 26.4 -0.2
      baz=39
R09A  Tonopah          39.48  87 ⇑P      P       01 06 26.9 -0.2
      baz=39
J15A  Blackfoot        39.50  77 ⇓P      P       01 06 28.5 +1.2
      baz=39
Q10A  Clear Creek Ra   39.56  86 ⇑P      P       01 06 28.0 +0.1
      baz=39
MDJ   Mudanjiang       39.61 285  P      P       01 06 27.2 -1.0
MDJ                               pmax   pmax
      comp=Z,5.0nm,1.2s,mb4.1
MDJ                               pmax   pmax
      comp=Z,150nm,5.2s
VES   Vestal, Richgr   39.66  92 ⇑P      P       01 06 28.3 -0.4
      baz=40
S09A  Goldfield        39.69  88 ⇑P      P       01 06 29.5 +0.6
      baz=40
L14A  Malta            39.73  80 ⇓P      P       01 06 30.1 +0.8
      baz=40
O12A  Currie           39.77  83 ⇓P      P       01 06 29.3 -0.3
      baz=40,SNR=5.8
N13A  Wendover, West   39.78  82 ⇓P      P       01 06 29.9 +0.3
      baz=40
PKM   Peak Mountain    39.79  93 ⇓P      P       01 06 30.8 +1.0
      baz=40
I16A  Newdale          39.83  76 ⇑P      P       01 06 30.5 +0.5
      baz=40
F18A  Big Timber       39.87  72 ⇑P      P       01 06 30.2 -0.2
      baz=40
CWC   Cottonwood Cre   39.92  90 ⇓P      P       01 06 31.2 +0.3
      baz=40
YFT   Old Faithful     39.93  75 eP      P       01 06 32.1 +1.3
      comp=Z,22nm,1.6s,mb4.6
YFT                              ePcP    PcP     01 08 38.1 +2.4
R10A  Warm Springs     39.93  87 ⇓P      P       01 06 31.4 +0.4
      baz=40
M14A  Sheep Mountain   39.95  80 ⇓P      P       01 06 30.7 -0.4
      baz=40,SNR=6.8
S10A  Tonopah Range,   39.97  87 ⇓P      P       01 06 30.9 -0.4
      baz=40,SNR=5.4
Q11A  Duckwater        40.02  85 ⇑P      P       01 06 31.9 +0.2
      baz=40
GRAC  Grapevine Rang   40.03  89 ⇑P      P       01 06 32.5 +0.6
      baz=40
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H17A  Grant Village    40.12  75 ⇑P      P       01 06 33.5 +1.1
      baz=40,SNR=5.2
P12A  McGill           40.12  84 ⇑P      P       01 06 32.9 +0.4
      baz=40
HVU   Hansel Valley    40.16  80 eP      P       01 06 33.3 +0.5
HVU                               pmax   pmax
      comp=Z,8.0nm,0.7s,mb4.6
HVU   Hansel Valley    40.16  80 eP      P       01 06 33.3 +0.5
      comp=Z,8.3nm,0.7s,mb4.6
ISA   Isabella         40.16  91 eP      P       01 06 32.6 -0.3
ISA                               pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.4
ISA   Isabella         40.16  91 ⇑P      P       01 06 32.6 -0.2
      baz=40
ISA   Isabella         40.16  91 eP      P       01 06 32.6 -0.3
      comp=Z,7.2nm,0.8s,mb4.5
RRI2  Red Ridge        40.21  77 eP      P       01 06 34.2 +1.0
      comp=Z,13nm,0.8s,mb4.7
RRI2                             epP     pP      01 06 44.4 +1.0
RRI2                             ePcP    PcP     01 08 36.6 -0.1
L15A  Malad City       40.28  79 ⇑P      P       01 06 34.1 +0.3
      baz=40
FFC   Flin Flon        40.31  57 eP      P       01 06 33.3 -0.6
FFC                              e       pP      01 06 43.7 -0.3
FFC                               pmax   pmax
      comp=Z,11nm,1.1s,mb4.5
FFC   Flin Flon        40.31  57 eP      P       01 06 33.3 -0.6
      comp=Z,11nm,1.1s,mb4.5
FFC                              e       pP      01 06 43.7 -0.3
K16A  Soda Springs     40.32  78 ⇑P      P       01 06 35.6 +1.5
      baz=40,SNR=18
R11A  Troy Canyon, C   40.35  86 ⇑P      P       01 06 34.4  0.0
      baz=40
N14A  Grayback Hills   40.42  81 ⇓P      P       01 06 35.0 +0.1
      baz=40,SNR=6.8
REDW  Red Top Meadow   40.49  76 eP      P       01 06 36.4 +0.8
      comp=Z,14nm,1.0s,mb4.7
REDW                             ePcP    PcP     01 08 38.7 +1.1
LOHW  Long Hollow      40.51  76 eP      P       01 06 36.1 +0.4
      comp=Z,54nm,2.8s,mb4.7
MPMC  Manual Prospec   40.53  90 ⇑P      P       01 06 35.9  0.0
      baz=40
M15A  Larsen Ranch,    40.54  80 ⇑P      P       01 06 36.0 +0.1
      baz=40
RLMT  Red Lodge        40.54  73 ⇓P      P       01 06 36.3 +0.4
      baz=40
RLMT  Red Lodge        40.54  73 eP      P       01 06 36.3 +0.3
      comp=Z,54nm,1.8s,mb4.9
J17A  Brown Place, J   40.58  76 ⇑P      P       01 06 36.9 +0.6
      baz=40,SNR=5.1
FURC  Furnace Creek,   40.68  89 ⇓P      P       01 06 37.4 +0.2
      baz=40
P13A  Bates Ranch, G   40.70  84 ⇓P      P       01 06 37.1 -0.2
      baz=40
BLG   Laguna Peak      40.77  94 ⇓P      P       01 06 37.6 -0.4
      baz=41
N15A  Stansbury Isla   40.81  81 ⇓P      P       01 06 38.7 +0.4
      baz=41
L16A  Fish Haven       40.87  79 ⇑P      P       01 06 38.8 +0.2
      baz=41,SNR=12
U10A  Ash Meadows, A   41.05  89 ⇓P      P       01 06 40.6 +0.4
      baz=41
J18A  Kendall Valley   41.09  76 ⇑P      P       01 06 40.8 +0.3
      baz=41,SNR=10
M16A  Huntsville       41.13  80 ⇑P      P       01 06 40.8  0.0
      baz=41,SNR=23
L17A  Cokeville        41.17  78 ⇑P      P       01 06 41.3 +0.1
      baz=41,SNR=8.5
T11A  Corn Creek, Al   41.25  87 ⇓P      P       01 06 41.7 -0.1
      baz=41,SNR=6.1
S12A  Delamar Landin   41.26  86 ⇑P      P       01 06 42.1 +0.2
      baz=41
K18A  Toltan Ranch,    41.38  77 ⇓P      P       01 06 43.1 +0.2
      baz=41,SNR=6.3
SHOC  Shoshone         41.40  89 ⇑P      P       01 06 42.9 -0.2
      baz=41
Q14A  Sevier Lake (B   41.43  84 ⇑P      P       01 06 43.4  0.0
      baz=41,SNR=7.4
GSC   Goldstone        41.44  91 eP      P       01 06 43.6 +0.1
GSC                              e               01 08 40.6
GSC                               pmax   pmax
      comp=Z,14nm,1.0s,mb4.5
GSC   Goldstone        41.44  91 ⇑P      P       01 06 43.7 +0.3
      baz=41
GSC   Goldstone        41.44  91 eP      P       01 06 43.6 +0.1
      comp=Z,14nm,1.0s,mb4.5
GSC                              ePcP    PcP     01 08 40.6 -0.2
BFSC  Mount Baldy St   41.58  92 ⇑P      P       01 06 44.5 -0.1
      baz=41,SNR=5.6
BW06  Boulder Array    41.61  76 ⇑P      P       01 06 44.7 -0.1
      baz=41,SNR=22
BW06  Boulder Array    41.61  76 eP      P       01 06 44.6 -0.2
      comp=Z,19nm,1.0s,mb4.7
BW06                             epP     pP      01 06 54.8 -0.2
PDAR  Pinedale Array   41.61  76  P      P       01 06 44.5 -0.3
      comp=Z,12nm,0.8s,mb4.5,baz=302,slow=3.8,SNR=84
PDAR                              PcP    PcP     01 08 40.3 -0.9
      comp=Z,0.6nm,0.5s,baz=318,slow=1.2,SNR=3.4
NLU   North Lily Min   41.63  82 eP      P       01 06 45.5 +0.6
      comp=Z,5.6nm,0.9s,mb4.2
M17A  Scullys Gap (B   41.64  79 ⇑P      P       01 06 44.9 -0.1
      baz=42
CIS   Catalina Islan   41.65  94 ⇑P      P       01 06 44.5 -0.7
      baz=42
JLU   Jordanelle       41.65  80 eP      P       01 06 45.5 +0.4
      comp=Z,8.7nm,0.9s,mb4.4
L18A  Fontenelle, Gr   41.78  78 ⇓P      P       01 06 46.0 -0.2
      baz=42,SNR=9.1
N17A  Moffit Pass      41.84  80 ⇓P      P       01 06 46.2 -0.4
      baz=42
O16A  Springville      41.84  81 ⇓P      P       01 06 46.5 -0.1
      baz=42
MPU   Maple Canyon     41.87  81 eP      P       01 06 47.6 +0.7
      comp=Z,4.8nm,0.8s,mb4.2
DAU   Daniels Canyon   41.88  80 eP      P       01 06 47.9 +1.0
DGMT  Dagmar           41.88  66 ⇓P      P       01 06 46.8  0.0
      baz=42
S13A  Holt Ranch, En   41.90  86 ⇓P      P       01 06 47.1 -0.1
      baz=42
V11A  Goodsprings      41.98  89 ⇑P      P       01 06 48.1 +0.3
      baz=42
K19A  Absolon Red Bu   42.02  76 ⇓P      P       01 06 47.5 -0.6
      baz=42
M18A  Lyman            42.04  78 ⇑P      P       01 06 47.8 -0.5
      baz=42
HEC   Hector,Ludlow    42.04  91 ⇑P      P       01 06 48.6 +0.2
      baz=42
L19A  Farson           42.10  77 ⇑P      P       01 06 48.6 -0.2
      baz=42
T13A  Saint George     42.21  86 ⇑P      P       01 06 49.6 -0.2
      baz=42
BOD   Bodaibo          42.27 310 eP      P       01 06 48.7 -1.2
BOD                               pmax   pmax
      comp=Z,15nm,1.1s,mb4.5
MURC  Murrieta         42.28  93 ⇑P      P       01 06 50.2 -0.1
      baz=42
MSU   Marysvale        42.41  83 ePcP    PcP     01 08 50.4 +6.5
V12A  Nelson           42.42  89 ⇑P      P       01 06 51.5 +0.1
      baz=42
K20A  Yellowstone Ra   42.42  76 ⇓P      P       01 06 51.0 -0.4
      baz=42
GMRC  Granite Mounta   42.50  90 ⇑P      P       01 06 52.1  0.0
      baz=42
U13A  Pakoon Wash      42.55  87 ⇓P      P       01 06 52.6 +0.1
      baz=42,SNR=8.1
TMUT  Trail Mountain   42.55  82 eP      P       01 06 53.3 +0.9
      comp=Z,7.2nm,0.9s,mb4.4
CN2   Changchun        42.57 286 eP      P       01 06 50.6 -1.9
CN2                              epP     pP      01 07 00.4 -2.3
CN2                              eS      S       01 13 09.8 -2.7
CN2                              eSS     SS      01 16 13.3 -9.4
CN2                               pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.5
CN2                               pmax   pmax
      comp=Z,300nm,6.0s
CN2                               LR     LR
      comp=N,400nm,22.0s,MS4.4
CN2                               LR     LR
      comp=E,400nm,22.0s,MS4.4
CN2                               LR     LR
      comp=Z,300nm,23.0s,MS4.1
FCC   Fort Churchill   42.63  48 eP      P       01 06 52.9 +0.1
      comp=Z,0.5nm,0.8s
FCC                              epP     pP      01 07 02.5 -0.6
FCC                              ePP     PP      01 08 31.0 -0.7
FCC                              ePcP    PcP     01 08 43.5 -0.9
LDFC  Landfair         42.66  90 eP      P       01 06 53.2 -0.2
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LDFC                             ePcP    PcP     01 08 44.7 -0.1
T14A  Hurricane        42.71  86 ⇑P      P       01 06 54.0 +0.2
      baz=43
P17A  Butcher Ranch,   42.74  81 ⇑P      P       01 06 53.9 -0.1
      baz=43
PFO   Pinyon Flat Ob   42.75  92 ⇓P      P       01 06 53.6 -0.5
      baz=43
BELC  Belle Mtn.       42.78  91 ⇑P      P       01 06 54.0 -0.4
      baz=43
L20A  Wamsutter        42.78  77 ⇓P      P       01 06 54.5 +0.1
      baz=43
Q16A  Castle Valley    42.80  82 ⇓P      P       01 06 54.2 -0.3
      baz=43,SNR=5.0
109C  Camp Elliot, M   42.81  94 ⇑P      P       01 06 54.9 +0.3
      baz=43
V13A  Grand Canyon W   42.89  88 ⇓P      P       01 06 55.6 +0.3
      baz=43
N19A  John Jarvie Ra   42.90  79 ⇑P      P       01 06 54.9 -0.3
      baz=43
P18A  Preston Nutter   42.96  81 ⇓P      P       01 06 56.1 +0.3
      baz=43
R16A  Teasdale         42.98  83 ⇑P      P       01 06 56.6 +0.6
      baz=43
U14A  Mt Trumbull      43.04  87 ⇑P      P       01 06 56.5 +0.1
      baz=43
SRU   San Rafael       43.09  82 eP      P       01 06 57.0 +0.2
SRU                               pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.5
SRU   San Rafael       43.09  82 ⇓P      P       01 06 56.6 -0.2
      baz=43,SNR=13
SRU   San Rafael       43.09  82 eP      P       01 06 57.0 +0.1
      comp=Z,10nm,0.9s,mb4.6
HIA   Hailar           43.11 296 eP      P       01 06 56.2 -0.6
HIA                              e               01 08 45.3
HIA                               pmax   pmax
      comp=Z,9.0nm,0.8s
HIA   Hailar           43.11 296 eP      P       01 06 56.2 -0.6
      comp=Z,9.2nm,0.8s,mb4.6
HIA                              ePcP    PcP     01 08 45.3 -0.8
M20A  Sweetwater, Wa   43.17  77 ⇑P      P       01 06 57.3 -0.1
      baz=43,SNR=7.2
T15A  Red Dirt Ranch   43.18  85 ⇓P      P       01 06 57.5 -0.1
      baz=43
BAR   Barrett          43.22  93 eP      P       01 06 54.6 -3.4
      comp=Z,11nm,0.8s,mb4.6
IRM   Iron Mountain    43.22  91 ⇓P      P       01 06 57.4 -0.5
      baz=43
MONP  Monument Peak    43.24  93 ⇑P      P       01 06 58.4 +0.3
      baz=43
S16A  Weppner Ranch,   43.25  84 ⇓P      P       01 06 58.2 +0.1
      baz=43
O19A  Miners Draw (B   43.27  79 ⇑P      P       01 06 58.5 +0.2
      baz=43
Q18A  Rafter H Ranch   43.34  81 ⇑P      P       01 06 58.6 -0.2
      baz=43,SNR=7.5
BC3   Big Chuckw Mtn   43.35  91 ⇑P      P       01 06 58.7 -0.3
      baz=43
R17A  Hanksville Air   43.39  82 ⇓P      P       01 06 58.9 -0.3
      baz=43,SNR=7.8
L21A  Rawlins          43.41  76 ⇓P      P       01 06 58.7 -0.6
      baz=43
W13A  Hualapai Mount   43.42  89 ⇑P      P       01 06 59.4 -0.1
      baz=43
N20A  Spence Gulch,    43.50  78 ⇓P      P       01 06 59.9 -0.2
      baz=43,SNR=10
V14A  Boquillas Ranc   43.58  87 ⇑P      P       01 07 01.0 +0.1
      baz=43
SWSC  Sam W. Stewart   43.60  92 ⇑P      P       01 07 00.4 -0.6
      baz=44
P19A  Cripple Cowboy   43.75  80 ⇑P      P       01 07 02.1 -0.1
      baz=44
PDMCI Parker Dam,Lak   43.77  90 ⇓P      P       01 07 01.8 -0.6
      baz=44
X13A  Yucca            43.78  89 ⇓P      P       01 07 01.9 -0.5
      baz=44
S17A  Black Ridge (B   43.80  83 ⇓P      P       01 07 02.1 -0.5
      baz=44,SNR=7.3
W14A  Seligman         43.86  88 ⇑P      P       01 07 03.0 -0.1
      baz=44
Y12C  Blythe           43.88  91 ⇓P      P       01 07 02.9 -0.3
      baz=44
O20A  White River Ci   43.92  79 ⇓P      P       01 07 02.8 -0.6
      baz=44,SNR=21
R18A  Canyonlands Na   43.92  82 ⇑P      P       01 07 02.7 -0.9
      baz=44
Q19A  Hogan Spring (   43.97  81 ⇑P      P       01 07 03.3 -0.7
      baz=44,SNR=6.3
N21A  Black Mountain   44.00  78 ⇑P      P       01 07 04.0 -0.2
      baz=44,SNR=9.2
V15A  Kaibab Nationa   44.05  86 ⇓P      P       01 07 04.4 -0.2
      baz=44
GLA   Glamis           44.14  92 eP      P       01 07 05.2 -0.2
GLA                               pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.4
GLA   Glamis           44.14  92 ⇑P      P       01 07 05.1 -0.2
      baz=44
GLA   Glamis           44.14  92 eP      P       01 07 05.2 -0.2
      comp=Z,6.3nm,0.8s,mb4.4
T17A  Navajo Res., N   44.19  84 ⇓P      P       01 07 05.2 -0.5
      baz=44
P20A  De Beque         44.20  80 ⇑P      P       01 07 05.2 -0.5
      baz=44,SNR=9.2
M22A  Cedar Creek Ra   44.20  76 ⇓P      P       01 07 05.1 -0.6
      baz=44,SNR=9.5
RSSD  Black Hills      44.24  72 eP      P       01 07 05.0 -1.0
RSSD                              pmax   pmax
      comp=Z,14nm,1.6s,mb4.4
RSSD  Black Hills      44.24  72 eP      P       01 07 05.0 -1.0
      comp=Z,14nm,1.6s,mb4.4
S18A  Hurst Farm, Bl   44.28  83 ⇓P      P       01 07 05.9 -0.5
      baz=44
O21A  Pagoda           44.35  78 ⇓P      P       01 07 06.7 -0.2
      baz=44
R19A  Curley Farm, L   44.37  82 ⇓P      P       01 07 06.8 -0.4
      baz=44
W15A  Williams         44.40  87 ⇑P      P       01 07 07.2 -0.2
      baz=44
X14A  Yava             44.45  89 ⇑P      P       01 07 07.6 -0.2
      baz=44
U17A  Shonto           44.52  85 ⇓P      P       01 07 07.9 -0.5
      baz=44
PV04  Paradox Valley   44.53  81 eP      P       01 07 08.2 -0.2
Q20A  Ridgley Place,   44.58  80 ⇑P      P       01 07 08.1 -0.7
      baz=44
N22A  Wattenberg Ran   44.64  77 ⇓P      P       01 07 09.2  0.0
      baz=44,SNR=7.7
T18A  Mexican Hat      44.69  83 ⇓P      P       01 07 09.1 -0.6
      baz=44
KSRS  Korea Array      44.69 277  P      P       01 07 08.1 -1.6
KSRS                              pmax   pmax
      comp=Z,3.0nm,0.8s,mb4.2
KSRS  Korea Array      44.69 277  P      P       01 07 08.1 -1.7
      comp=Z,3.0nm,0.8s,mb4.2,baz=54,slow=9.2,SNR=7.8
WUAZ  Wupatki          44.75  86 ⇓P      P       01 07 09.9 -0.3
      baz=45
P21A  Newcastle        44.77  79 ⇑P      P       01 07 10.1 -0.2
      baz=45,SNR=16
S19A  Harvey Farm, M   44.78  82 ⇑P      P       01 07 09.8 -0.6
      baz=45,SNR=8.7
X15A  Humboldt         44.86  88 ⇑P      P       01 07 11.1 +0.1
      baz=45
W16A  Flagstaff        44.92  87 ⇑P      P       01 07 11.5  0.0
      baz=45
R20A  Redvale          44.99  81 ⇓P      P       01 07 11.4 -0.7
      baz=45,SNR=7.1
113A  Mohawk Valley,   45.00  91 ⇓P      P       01 07 12.2  0.0
      baz=45
Q21A  Lamborn Mesa,    45.10  80 ⇑P      P       01 07 12.5 -0.5
      baz=45,SNR=6.4
U18A  Rough Rock, Ch   45.14  84 ⇑P      P       01 07 12.8 -0.4
      baz=45
Y15A  Casa Rosa Ranc   45.14  89 ⇓P      P       01 07 13.0 -0.3
      baz=45
R21A  Cimarron         45.40  80 ⇓P      P       01 07 15.0 -0.3
      baz=45,SNR=6.4
X16A  Lo Mia Camp, P   45.41  87 ⇑P      P       01 07 15.4  0.0
      baz=45
T19A  Beclabito        45.41  83 ⇓P      P       01 07 15.0 -0.5
      baz=45
INCN  Inchon           45.49 278 eP      P       01 07 15.9 -0.1
Q22A  Crested Butte,   45.50  79 ⇑P      P       01 07 15.6 -0.5
      baz=45,SNR=11
MVCO  Mesa Verde       45.51  82 ⇑P      P       01 07 15.8 -0.4
      baz=45,SNR=5.2
MVCO  Mesa Verde       45.51  82 eP      P       01 07 15.8 -0.4
      comp=Z,13nm,1.3s,mb4.7
S21A  Coal Bank Pass   45.68  81 ⇑P      P       01 07 17.3 -0.2
      baz=46,SNR=8.9
```

ULM	**Lac du Bonnet**	**45.69**	**60**	P	**P**	**01 07 16.3**	**-1.1**
	comp=Z,6.2nm,1.0s,mb4.5,baz=309,slow=8.7,SNR=8.3						
ISCO	**Idaho Springs**	**45.75**	**78**	*e*P	**P**	**01 07 18.1**	**+0.1**
ISCO				pmax	pmax		
	comp=Z,29nm,1.8s,mb4.9						
ISCO	**Idaho Springs**	**45.75**	**78**	*e*P	**P**	**01 07 18.1**	**+0.1**
	comp=Z,29nm,1.8s,mb4.9						
AGMN	**Agassiz Refuge**	**46.73**	**62**	*e*P	**P**	**01 07 24.1**	**-1.6**
	comp=Z,7.9nm,0.9s,mb4.6						
W20A	**Ramah**	**46.81**	**85**	⇑P	**P**	**01 07 25.6**	**-0.9**
	baz=47						
SDCO	**Great Sand Dun**	**47.06**	**80**	*e*P	**P**	**01 07 28.3**	**-0.1**
	comp=Z,12nm,1.1s,mb4.8						
TUC	**Tucson**	**47.19**	**89**	*e*P	**P**	**01 07 28.5**	**-1.0**
TUC				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
TUC	**Tucson**	**47.19**	**89**	*e*P	**P**	**01 07 28.5**	**-1.0**
	comp=Z,7.6nm,0.9s,mb4.6						
118A	**Homack Ranch,**	**47.49**	**88**	⇑P	**P**	**01 07 30.9**	**-0.9**
	baz=47						
119A	**Ashpeak Ranch,**	**47.83**	**88**	⇓P	**P**	**01 07 33.7**	**-0.7**
	baz=48						
ANMO	**Albuquerque**	**48.21**	**83**	*e*P	**P**	**01 07 37.2**	**-0.2**
ANMO				pmax	pmax		
	comp=Z,7.0nm,1.3s						
ANMO	**Albuquerque**	**48.21**	**83**	*e*P	**P**	**01 07 37.2**	**-0.1**
	comp=Z,7.3nm,1.3s,mb4.5						
219A	**White Tail Can**	**48.37**	**88**	⇑P	**P**	**01 07 37.6**	**-0.9**
	baz=48						
CBKS	**Cedar Bluff**	**49.96**	**75**	*e*P	**P**	**01 07 50.4**	**-0.3**
CBKS				*e*		01 09 09.5	
CBKS				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.3						
CBKS	**Cedar Bluff**	**49.96**	**75**	*e*P	**P**	**01 07 50.4**	**-0.3**
	comp=Z,27nm,0.8s,mb5.3						
CBKS				*e*PcP	PcP	01 09 09.4	-1.0
BJI	**Beijing**	**50.38**	**288**	P	**P**	**01 07 53.6**	**-0.2**
BJI				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
BJI				pmax	pmax		
	comp=Z,320nm,4.9s						
BJT	**Baijiatuau**	**50.40**	**288**	*e*P	**P**	**01 07 53.4**	**-0.6**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BJT	**Baijiatuau**	**50.40**	**288**	*e*P	**P**	**01 07 53.4**	**-0.6**
	comp=Z,9.7nm,0.7s,mb4.9						
AMTX	**Amarillo**	**51.25**	**80**	*e*P	**P**	**01 07 60.0**	**-0.5**
	comp=Z,15nm,1.2s,mb4.8						
SONM	**Songino Array**	**51.32**	**301**	P	**P**	**01 08 00.9**	**+0.1**
	comp=Z,3.1nm,0.8s,mb4.3,baz=48,slow=7.7,SNR=28						
SONM				PcP	PcP	01 09 14.8	-0.5
	comp=Z,2.2nm,0.7s,baz=63,slow=4.0,SNR=5.4						
SONM				LR	LR	01 28 00.4	
	comp=Z,88nm,19.5s,MS3.8,baz=57,slow=34						
DAG	**Danmarks Havn**	**51.45**	**8**	⇓*i*P	**P**	**01 08 00.2**	**-1.2**
DAG				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
DAG	**Danmarks Havn**	**51.45**	**8**	⇓*i*P	**P**	**01 08 00.2**	**-1.2**
	comp=Z,9.6nm,0.7s,mb4.8						
ZAK	**Zakamensk**	**51.47**	**305**	*e*P	**P**	**01 08 01.5**	**-0.4**
ZAK				*e*		01 09 15.5	
ZAK				*e*		01 17 48.1	
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
KSU1	**Kansas State U**	**51.69**	**73**	*e*P	**P**	**01 08 02.4**	**-1.3**
	comp=Z,16nm,0.8s,mb5.0						
MOY	**Mondy**	**51.87**	**308**	*e*P	**P**	**01 08 05.1**	**+0.2**
SUMG	**Summit**	**52.52**	**16**	*e*P	**P**	**01 08 10.6**	**+1.3**
	comp=Z,415nm,3.0s						
HHC	**Hu-ho-hao-te**	**52.63**	**291**	*e*P	**P**	**01 08 11.0**	**+0.3**
HHC				pP	pP	01 08 21.4	+0.3
HHC				sP	sP	01 08 25.3	+0.1
HHC				PcP	PcP	01 09 21.8	+1.5
HHC				PP	PP	01 10 10.3	+0.6
HHC				PcS	PcS	01 13 18.4	-0.4
HHC				*e*S	**S**	**01 15 32.3**	**-3.1**
HHC				sS	sS	01 15 49.4	-3.2
HHC				ScS	ScS	01 17 59.1	+1.7
HHC				SS	SS	01 19 09.2	-4.3
HHC				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
HHC				pmax	pmax		
	comp=Z,330nm,5.8s						
HHC				LR	LR		
	comp=N,350nm,13.2s,MS4.6						
HHC				LR	LR		
	comp=E,130nm,15.5s,MS4.6						
HHC				LR	LR		
	comp=Z,190nm,14.3s,MS4.3						
WMOK	**Wichita Mounta**	**53.16**	**78**	*e*P	**P**	**01 08 13.6**	**-1.0**
WMOK				*e**PP	pP	01 08 23.6	-1.4
WMOK				*e*		01 09 21.4	
WMOK				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
WMOK	**Wichita Mounta**	**53.16**	**78**	*e*P	**P**	**01 08 13.6**	**-1.0**
	comp=Z,14nm,0.8s,mb5.0						
WMOK				*e*pP	pP	01 08 23.6	-1.4
WMOK				*e*PcP	PcP	01 09 21.4	-1.0
TXAR	**Lajitas Array**	**53.71**	**87**	P	**P**	**01 08 16.2**	**-2.5**
TXAR						01 09 23.7	
TXAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
TXAR	**Lajitas Array**	**53.71**	**87**	P	**P**	**01 08 16.1**	**-2.6**
	comp=Z,4.0nm,0.6s,mb4.5,baz=298,slow=5.0,SNR=65						
TXAR				PcP	PcP	01 09 23.7	-0.9
	comp=Z,2.1nm,0.8s,baz=289,slow=2.8,SNR=3.8						
TXAR	**Lajitas Array**	**53.71**	**87**	P	**P**	**01 08 16.1**	**-2.6**
TXAR				PcP	PcP	01 09 23.7	-0.9
NJ2	**Nanjing**	**53.87**	**278**	*e*P	**P**	**01 08 23.2**	**+3.3**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
JCT	**Junction City**	**55.37**	**83**	*e*P	**P**	**01 08 29.5**	**-1.3**
JCT				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
JCT	**Junction City**	**55.37**	**83**	*e*P	**P**	**01 08 29.5**	**-1.2**
	comp=Z,7.4nm,0.7s,mb4.8						
CCM	**Cathedral Cave**	**55.58**	**70**	*e*P	**P**	**01 08 29.1**	**-3.1**
CCM				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
CCM	**Cathedral Cave**	**55.58**	**70**	*e*P	**P**	**01 08 29.1**	**-3.1**
	comp=Z,6.9nm,0.9s,mb4.7						
MIAR	**Mount Ida**	**56.49**	**75**	*e*P	**P**	**01 08 37.7**	**-1.1**
MIAR				*e*		01 09 34.5	
MIAR				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
MIAR	**Mount Ida**	**56.49**	**75**	*e*P	**P**	**01 08 37.7**	**-1.0**
	comp=Z,14nm,0.8s,mb5.0						
MIAR				*e*PcP	PcP	01 09 34.5	-0.7
SCHQ	**Schefferville**	**57.18**	**42**	P	**P**	**01 08 43.4**	**0.0**
	comp=Z,11nm,0.8s,mb4.9,baz=308,slow=8.4,SNR=8.1						
SCHQ	**Schefferville**	**57.18**	**42**	P	**P**	**01 08 43.4**	**0.0**
SCHQ				*e*pP	pP	01 08 52.8	-1.1
SCHQ				*e*PcP	PcP	01 09 37.4	-0.1
ZAA0	**Zalesovo Array**	**57.95**	**318**	*e*P	**P**	**01 08 48.3**	**-0.4**
ZALV	**Zalesovo Beam**	**57.95**	**318**	P	**P**	**01 08 48.4**	**-0.4**
ZALV				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
ZALV				MLR	MLR		
	comp=Z,78nm,19.1s,MS3.8						
ZALV	**Zalesovo Beam**	**57.95**	**318**	P	**P**	**01 08 48.4**	**-0.4**
	comp=Z,3.6nm,0.9s,mb4.4,baz=46,slow=6.2,SNR=16						
ZALV				LR	LR	01 35 25.7	
	comp=Z,78nm,19.1s,MS3.8,baz=53,slow=38						
NVS	**Novosibirsk**	**58.00**	**319**	*e*P	**P**	**01 08 48.7**	**-0.4**
NVS				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
NVS				pmax	pmax		
	comp=N,8.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,11nm,1.2s						
XAN	**Xi’an**	**58.68**	**287**	P	**P**	**01 08 53.3**	**-0.8**
XAN				pP	pP	01 09 03.5	-1.2
XAN				sP	sP	01 09 08.5	-0.2
XAN				S	**S**	**01 16 50.2**	**-6.0**
XAN				sS	sS	01 17 07.7	-5.8
XAN				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
XAN				pmax	pmax		
	comp=Z,250nm,8.5s						
XAN				LR	LR		
	comp=E,220nm,9.4s						
XAN				LR	LR		
	comp=Z,230nm,10.5s,MS4.6						
WVT	**Waverly**	**58.90**	**70**	*e*P	**P**	**01 08 54.3**	**-1.3**
WVT				pmax	pmax		
	comp=Z,49nm,1.7s,mb5.3						
WVT	**Waverly**	**58.90**	**70**	*e*P	**P**	**01 08 54.3**	**-1.3**
	comp=Z,49nm,1.7s,mb5.3						
KEV	**Kevo**	**59.02**	**353**	*e*P	**P**	**01 08 55.3**	**-0.7**
KEV				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
KEV	**Kevo**	**59.02**	**353**	*e*p	**P**	**01 08 55.3**	**-0.7**
	comp=Z,11nm,0.7s,mb5.0						
OXF	**Oxford**	**59.05**	**72**	*e*P	**P**	**01 08 54.8**	**-1.9**
OXF				*e*		01 09 44.3	
OXF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
OXF	**Oxford**	**59.05**	**72**	*e*P	**P**	**01 08 54.8**	**-1.9**
	comp=Z,30nm,1.0s,mb5.3						
OXF				*e*PcP	PcP	01 09 44.3	-1.0
ARCES	**ARCESS Array B**	**59.35**	**353**	P	**P**	**01 08 59.1**	**+0.8**
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,163nm,19.2s						
ARCES	**ARCESS Array B**	**59.35**	**353**	P	**P**	**01 08 59.1**	**+0.8**
	comp=Z,9.7nm,0.8s,mb4.9,baz=12,slow=6.7,SNR=19						
ARCES				LR	LR	01 34 19.1	
	comp=Z,163nm,19.2s,MS4.2,baz=180,slow=36						
LVZ	**Lovozero**	**60.07**	**349**	⇑*e*P	**P**	**01 09 03.8**	**+0.6**
LVZ				pmax	pmax		
	comp=Z,104nm,2.5s,mb5.4						
LZH	**Lanzhou**	**60.32**	**292**	⇑P	**P**	**01 09 05.5**	**+0.1**
LZH				pP	pP	01 09 15.9	-0.1
LZH				sP	sP	01 09 19.3	-0.8
LZH				PP	PP	01 11 20.0	+1.7
LZH				*e*S	**S**	**01 17 15.1**	**-2.2**
LZH				sS	sS	01 17 32.0	-2.7
LZH				SS	SS	01 21 12.3	-2.3
LZH				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.3						
LZH				pmax	pmax		
	comp=Z,160nm,5.6s						
LZH				LR	LR		
	comp=E,390nm,14.5s						
LZH				LR	LR		
	comp=Z,620nm,16.0s,MS4.8						
GTA	**Gaotai**	**60.38**	**297**	*e*P	**P**	**01 09 05.7**	**-0.1**
GTA				pP	pP	01 09 15.2	-1.1
GTA				sP	sP	01 09 19.0	-1.4
GTA				PP	PP	01 11 20.5	+1.8
GTA				S	**S**	**01 17 16.6**	**-1.3**
GTA				sS	sS	01 17 33.0	-2.3
GTA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
GTA				pmax	pmax		
	comp=Z,220nm,6.8s						
GTA				LR	LR		
	comp=N,210nm,14.3s,MS4.6						
GTA				LR	LR		
	comp=E,210nm,14.6s,MS4.6						
GTA				LR	LR		
	comp=Z,160nm,14.0s,MS4.3						
KURK	**Kurchatov**	**62.92**	**318**	*e*P	**P**	**01 09 22.7**	**0.0**
KURK				*e*		01 11 39.0	
KURK				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.2						
KURK	**Kurchatov**	**62.92**	**318**	P	**P**	**01 09 23.4**	**+0.7**
	comp=Z,11nm,0.7s,mb5.1,baz=45,slow=6.6,SNR=53						
KURK	**Kurchatov**	**62.92**	**318**	*e*P	**P**	**01 09 22.7**	**0.0**
	comp=Z,13nm,0.7s,mb5.2						
KURK				*e*PP	PP	01 11 39.0	-1.8
GOGA	**Godfrey**	**63.37**	**69**	*e*P	**P**	**01 09 23.7**	**-2.3**
GOGA				*e**PP	pP	01 09 36.2	-0.4
GOGA				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.2						
GOGA	**Godfrey**	**63.37**	**69**	*e*P	**P**	**01 09 23.7**	**-2.2**
	comp=Z,16nm,0.8s,mb5.2						
GOGA				*e*pP	pP	01 09 36.2	-0.3
SOKR	**Solikamsk**	**63.39**	**335**	⇑*i*P	**P**	**01 09 27.2**	**+1.5**
SOKR				pmax	pmax		
	comp=Z,50nm,1.7s,mb5.4						
WMQ	**Urumqi**	**63.77**	**308**	*e*P	**P**	**01 09 29.2**	**+0.8**
WMQ				pP	pP	01 09 39.5	+0.5
WMQ				PcP	PcP	01 10 06.5	+2.3
WMQ				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,140nm,6.0s						
CD2	**Chengdu**	**63.98**	**288**	P	**P**	**01 09 29.7**	**-0.3**
CD2				pP	pP	01 09 40.1	-0.6
CD2				sP	sP	01 09 44.0	-0.7
CD2				PcP	PcP	01 10 04.8	-0.5
CD2				PP	PP	01 11 52.3	+1.7
CD2				S	**S**	**01 18 02.0**	**-1.6**
CD2				sS	sS	01 18 22.7	+1.6
CD2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
CD2				pmax	pmax		
	comp=Z,220nm,6.3s						
CD2				LR	LR		
	comp=E,420nm,7.9s						
CD2				LR	LR		
	comp=Z,320nm,6.5s						
PRGR	**Permogore**	**64.17**	**342**	*e*P	**P**	**01 09 31.2**	**+0.4**
PRGR				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.4						
MKAR	**Makanchi Array**	**64.20**	**313**	P	**P**	**01 09 30.6**	**-0.7**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MKAR	**Makanchi Array**	**64.20**	**313**	P	**P**	**01 09 30.6**	**-0.7**
	comp=Z,4.3nm,0.8s,mb4.5,baz=52,slow=6.0,SNR=47						
BRVK	**Borovoye**	**64.44**	**324**	*e*P	**P**	**01 09 33.3**	**+0.6**
BRVK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
BRVK	**Borovoye**	**64.44**	**324**	*e*P	**P**	**01 09 33.3**	**+0.6**
	comp=Z,13nm,1.0s,mb4.9						
AFI	**Afiamalu**	**64.47**	**181**	LR	LR	01 31 28.4	
	comp=Z,195nm,20.8s,MS4.3,baz=66,slow=30						
SVE	**Sverdlovsk**	**64.62**	**332**	⇑*e*P	**P**	**01 09 34.9**	**+1.1**
SVE				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
HNR	**Honiara**	**65.16**	**212**	LR	LR	01 37 32.6	
	comp=Z,130nm,18.1s,MS4.2,baz=6.5,slow=36						
JOF	**Joensuu**	**65.26**	**349**	*e*P	**P**	**01 09 37.5**	**-0.4**
JOF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
JOF	**Joensuu**	**65.26**	**349**	*e*p	**P**	**01 09 37.5**	**-0.4**
	comp=Z,6.1nm,0.6s,mb4.8						
GYA	**Guiyang**	**65.38**	**282**	P	**P**	**01 09 39.5**	**+0.3**
GYA				pP	pP	01 09 50.8	+0.9
GYA				sP	sP	01 09 56.7	+2.8
GYA				PcP	PcP	01 10 11.4	+0.3
GYA				PP	PP	01 12 04.5	+1.5
GYA				ScP		01 14 11.0	
GYA				S	S	01 18 17.5	-3.4
GYA				sS	sS	01 18 35.3	-3.1
GYA				SKS		01 19 27.3	
GYA				SS	SS	01 22 34.8	+0.9
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,60nm,5.7s						
GYA				LR	LR		
	comp=N,440nm,18.6s,MS4.8						
GYA				LR	LR		
	comp=E,310nm,17.9s,MS4.8						
GYA				LR	LR		
	comp=Z,410nm,16.2s,MS4.7						
ARU	**Arti**	**65.58**	**332**	*e*P	**P**	**01 09 40.6**	**+0.6**
ARU				*e*		01 10 08.5	
ARU				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
ARU	**Arti**	**65.58**	**332**	*e*P	**P**	**01 09 40.6**	**+0.6**
	comp=Z,13nm,0.8s,mb5.0						
ARU				*e*PcP	PcP	01 10 08.5	-2.9
KLMR	**Klimovskoe**	**66.03**	**344**	*e*P	**P**	**01 09 41.5**	**-1.4**
KLMR				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.2						
KAF	**Kangasniemi**	**66.58**	**351**	*e*P	**P**	**01 09 46.0**	**-0.4**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
KAF	**Kangasniemi**	**66.58**	**351**	*e*p	**P**	**01 09 46.0**	**-0.4**
	comp=Z,6.1nm,0.7s,mb4.7						
NB2	**NORSAR Subarra**	**68.47**	**359**	P	**P**	**01 09 59.1**	**+0.8**
	comp=Z,5.9nm,0.7s,mb4.7,baz=0.8,slow=6.5						
NOA	**NORSAR Array B**	**68.47**	**359**	P	**P**	**01 09 59.4**	**+1.1**
NOA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NOA	**NORSAR Array B**	**68.47**	**359**	P	**P**	**01 09 59.4**	**+1.1**
	comp=Z,7.0nm,0.7s,mb4.8,baz=0.7,slow=6.3,SNR=22						
NOA	**NORSAR Array B**	**68.47**	**359**	P	**P**	**01 09 59.4**	**+1.1**
KMI	**Kunming**	**68.77**	**284**	P	**P**	**01 10 00.6**	**-0.2**
KMI				pP	pP	01 10 09.2	-2.3
KMI				sP	sP	01 10 13.7	-1.8
KMI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
HFS	**Hagfors**	**69.33**	**358**	P	**P**	**01 10 04.4**	**+0.7**
HFS				pmax	pmax		
	comp=Z,14nm,0.6s						
HFS	**Hagfors**	**69.33**	**358**	P	**P**	**01 10 04.4**	**+0.7**
	comp=Z,14nm,0.6s,mb5.0,baz=20,slow=4.7,SNR=26						
OBN	**Obninsk**	**71.98**	**344**	⇑*e*P	**P**	**01 10 20.2**	**+0.3**
OBN				*e*SS	SS	01 24 20.7	+6.5
OBN				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
OBN	**Obninsk**	**71.98**	**344**	P	**P**	**01 10 19.4**	**-0.6**
LSA	**Lhasa**	**72.30**	**295**	P	**P**	**01 10 22.4**	**+0.2**
LSA	**Lhasa**	**72.30**	**295**	*e*P	**P**	**01 10 22.6**	**+0.4**
LSA				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
LSA	**Lhasa**	**72.30**	**295**	*e*P	**P**	**01 10 22.6**	**+0.3**
	comp=Z,12nm,0.8s,mb4.9						
VRHR	**Novokhopersk**	**74.78**	**339**	*e*P	**P**	**01 10 35.0**	**-1.4**
VRHR				pmax	pmax		
	comp=E,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VRHR				pmax	pmax		
	comp=N,30nm,0.7s						
SUW	**Suwalki**	**74.87**	**351**	*e*P	**P**	**01 10 37.1**	**+0.2**
SUW	**Suwalki**	**74.87**	**351**	*e*P	**P**	**01 10 37.1**	**+0.2**
VSR	**Storozhevoye**	**75.19**	**341**	*e*P	**P**	**01 10 36.8**	**-2.0**
VSR				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.3						
VSR				pmax	pmax		
	comp=N,8.0nm,1.2s						
VSR				pmax	pmax		
	comp=E,10.0nm,1.1s						
VORD	**Divnogorie**	**75.40**	**341**	*e*P	**P**	**01 10 38.6**	**-1.4**
VORD				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
VORD				pmax	pmax		
	comp=N,40nm,0.7s						
VORD				pmax	pmax		
	comp=E,40nm,0.8s						
TAPN	**Taplejung**	**76.05**	**296**	*e*P	**P**	**01 10 44.1**	**0.0**
CMAR	**Chiang Mai Arr**	**76.07**	**282**	P	**P**	**01 10 43.7**	**-0.6**
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**76.07**	**282**	P	**P**	**01 10 43.6**	**-0.7**
	comp=Z,4.4nm,0.8s,mb4.5,baz=26,slow=6.7,SNR=22						
ODAN	**Odare**	**76.60**	**296**	*e*P	**P**	**01 10 47.3**	**0.0**
GUN	**Gumba**	**76.65**	**298**	*e*P	**P**	**01 10 47.6**	**+0.1**
JIRN	**Jiri**	**76.67**	**297**	*e*P	**P**	**01 10 47.9**	**+0.3**
RAMN	**Ramite**	**76.98**	**297**	*e*P	**P**	**01 10 49.3**	**-0.1**
	comp=Z,102nm,0.9s,mb5.7						
KKN	**Kakani**	**77.08**	**298**	*e*P	**P**	**01 10 49.9**	**-0.1**
	comp=Z,68nm,1.2s,mb5.4						
PKI	**Pulchoki**	**77.18**	**298**	*e*P	**P**	**01 10 50.2**	**-0.3**
	comp=Z,68nm,1.1s,mb5.5						
PKIN	**Phulchoki**	**77.18**	**298**	*e*P	**P**	**01 10 49.8**	**-0.7**
GKN	**Gorkha**	**77.28**	**299**	*e*P	**P**	**01 10 50.8**	**-0.2**
DMN	**Daman**	**77.32**	**298**	*e*P	**P**	**01 10 51.4**	**+0.1**
AKASG	**Malin Array Be**	**77.42**	**347**	P	**P**	**01 10 51.2**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.6s						
AKASG	**Malin Array Be**	**77.42**	**347**	P	**P**	**01 10 51.2**	**-0.2**
	comp=Z,6.6nm,0.6s,mb4.8,baz=14,slow=5.6,SNR=17						
AKASG	**Malin Array Be**	**77.42**	**347**	P	**P**	**01 10 51.2**	**-0.2**
DANN	**Dangsing**	**77.49**	**300**	*e*P	**P**	**01 10 52.3**	**0.0**
	comp=Z,70nm,0.7s,mb5.7						
KOLN	**Koldanda**	**78.03**	**299**	*e*P	**P**	**01 10 54.9**	**-0.4**
	comp=Z,47nm,1.0s,mb5.4						
CLL	**Collm**	**78.19**	**358**	⇓*i*P	**P**	**01 10 56.6**	**+0.9**
CLL				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
CLL	**Collm**	**78.19**	**358**	⇓*i*P	**P**	**01 10 56.6**	**+0.9**
	comp=Z,15nm,1.0s,mb4.9						
KSP	**Ksiaz**	**78.53**	**355**	*e*P	**P**	**01 10 58.7**	**+1.1**
BRG	**Berggiesshubel**	**78.59**	**357**	*i* P	**P**	**01 10 59.1**	**+1.1**
BRG				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
BRG	**Berggiesshubel**	**78.59**	**357**	*i* P	**P**	**01 10 59.1**	**+1.1**
	comp=Z,22nm,1.0s,mb5.0						
UPC	**Upice**	**78.88**	**356**	*e*P	**P**	**01 11 00.6**	**+1.1**
PVCC	**Panska Ves**	**78.92**	**356**	*e*P	**P**	**01 11 01.1**	**+1.3**
DPC	**Dobruska-Polom**	**79.02**	**355**	*e*P	**P**	**01 11 01.6**	**+1.3**
KWP	**Kalwaria Pacla**	**79.25**	**351**	*e*P	**P**	**01 11 02.9**	**+1.3**
NKC	**Novy Kostel**	**79.28**	**358**	*e*P	**P**	**01 11 03.0**	**+1.3**
GIVF	**Givet**	**79.38**	**3**	*e*P	**P**	**01 11 03.2**	**+0.9**
BAIF	**Baives**	**79.40**	**3**	*e*P	**P**	**01 11 03.5**	**+1.1**
OKC	**Ostrava-Krasne**	**79.42**	**354**	*e*P	**P**	**01 11 03.7**	**+1.2**
PRU	**Pruhonice**	**79.46**	**356**	*e*P	**P**	**01 11 03.6**	**+0.9**
STHS	**Stebnicka Huta**	**79.60**	**352**	*e*P	**P**	**01 11 05.1**	**+1.6**
STHS				*e*	pP	01 11 14.9	+0.5
STHS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
STHS	**Stebnicka Huta**	**79.60**	**352**	*e*P	**P**	**01 11 05.1**	**+1.6**
	comp=Z,5.0nm,1.0s,mb4.4						
STHS				*e*	pP	01 11 14.9	+0.5
GRA1	**Grafenberg Arr**	**79.84**	**359**	*e*P	**P**	**01 11 06.4**	**+1.6**
	comp=Z,25nm,1.3s,mb5.0						
GRF	**Grafenberg Arr**	**79.84**	**359**	*e*P	**P**	**01 11 06.4**	**+1.6**
GRF				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
GRF	**Grafenberg Arr**	**79.84**	**359**	*e*P	**P**	**01 11 06.4**	**+1.6**
GRF				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
GRF	**Grafenberg Arr**	**79.84**	**359**	*e*P	**P**	**01 11 06.4**	**+1.6**
	comp=Z,25nm,1.3s,mb5.0						
KOLS	**Kolonicke sedl**	**79.99**	**351**	*e*P	**P**	**01 11 06.8**	**+1.2**
KOLS				*e*PCP	PcP	01 11 16.6	+3.6
KBL	**Kabul**	**80.01**	**314**	*e*P	**P**	**01 11 05.2**	**-0.8**
KBL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
KBL	**Kabul**	**80.01**	**314**	*e*P	**P**	**01 11 05.2**	**-0.8**
	comp=Z,7.4nm,1.0s,mb4.6						
VRAC	**Vranov**	**80.04**	**355**	P	**P**	**01 11 07.0**	**+1.1**
VRAC				pmax	pmax		
	comp=Z,8.0nm,0.9s						
VRAC	**Vranov**	**80.04**	**355**	⇑*i*P	**P**	**01 11 07.7**	**+1.8**
VRAC	**Vranov**	**80.04**	**355**	P	**P**	**01 11 07.0**	**+1.1**
	comp=Z,8.3nm,0.9s,mb4.7,baz=36,slow=6.9,SNR=6.7						
CRVS	**Cervenica-Dubn**	**80.09**	**352**	*e*P	**P**	**01 11 07.2**	**+1.0**
CRVS				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
CRVS	**Cervenica-Dubn**	**80.09**	**352**	*e*P	**P**	**01 11 07.2**	**+1.0**
	comp=Z,4.0nm,1.2s,mb4.2						
KHC	**Kasperske Hory**	**80.35**	**357**	*e*P	**P**	**01 11 09.1**	**+1.5**
GERES	**GERESS Array B**	**80.63**	**357**	P	**P**	**01 11 10.1**	**+1.0**
GERES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
GERES	**GERESS Array B**	**80.63**	**357**	P	**P**	**01 11 10.1**	**+1.0**
	comp=Z,2.9nm,0.7s,mb4.3,baz=28,slow=4.4,SNR=16						
VYHS	**Vyhne**	**80.71**	**354**	*e*P	**P**	**01 11 10.6**	**+1.1**
VYHS				*e*PCP	PcP	01 11 18.2	+2.0
TRPA	**Tarpa**	**80.76**	**351**	⇓*i*P	**P**	**01 11 11.1**	**+1.3**
BUR08	**Bucovina Ar. S**	**80.94**	**349**	*e*P	**P**	**01 11 10.5**	**-0.3**
BURAR	**Bucovina Array**	**80.97**	**349**	⇑*i*P	**P**	**01 11 11.9**	**+1.0**
ZST	**Bratislava**	**81.12**	**355**	*e*P	**P**	**01 11 13.8**	**+2.1**
ZST				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
ZST	**Bratislava**	**81.12**	**355**	*e*P	**P**	**01 11 13.8**	**+2.1**
	comp=Z,6.4nm,0.7s,mb4.7						
CDF	**Champ du Feu**	**81.13**	**1**	*e*P	**P**	**01 11 12.6**	**+0.9**
	comp=Z,17nm,1.0s,mb4.6						
CDF	**Champ du Feu**	**81.13**	**1**	*e*P	**P**	**01 11 12.6**	**+0.9**
CDF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CDF	**Champ du Feu**	**81.13**	**1**	*e*P	**P**	**01 11 12.6**	**+0.9**
	comp=Z,8.4nm,1.0s,mb4.6						
PSZ	**Piszkesteto**	**81.20**	**353**	P	**P**	**01 11 11.7**	**-0.4**
KIV	**Kislovodsk**	**81.21**	**336**	⇓*i*P	**P**	**01 11 13.0**	**+0.8**
KIV				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.0						
KIV	**Kislovodsk**	**81.21**	**336**	*e*P	**P**	**01 11 13.3**	**+1.0**
	comp=Z,24nm,1.2s,mb5.0						
CONA	**Conrad Observa**	**81.46**	**355**	⇑*i*pP	**P**	**01 11 14.7**	**+1.2**
	comp=Z,11nm,1.4s,mb4.6						
HAU	**Haudompre**	**81.52**	**2**	*e*P	**P**	**01 11 14.7**	**+0.9**
	comp=Z,31nm,1.1s,mb4.9						
HAU	**Haudompre**	**81.52**	**2**	*e*P	**P**	**01 11 14.7**	**+0.9**
HAU				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
HAU	**Haudompre**	**81.52**	**2**	*e*P	**P**	**01 11 14.7**	**+0.9**

	comp=Z,16nm,1.1s,mb4.8						
RETA	**Reutte**	**82.06**	**359**	⇑*i*pP	**P**	**01 11 17.5**	**+0.8**
	comp=Z,7.6nm,1.0s,mb4.6						
LOR	**Lormes**	**82.18**	**4**	*e*P	**P**	**01 11 18.1**	**+0.8**
	comp=Z,31nm,1.2s,mb4.8						
LOR	**Lormes**	**82.18**	**4**	*e*P	**P**	**01 11 18.1**	**+0.8**
LOR				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
LOR	**Lormes**	**82.18**	**4**	*e*P	**P**	**01 11 18.1**	**+0.8**
	comp=Z,16nm,1.2s,mb4.8						
MOTA	**Moosalm**	**82.19**	**359**	⇑*i*pP	**P**	**01 11 18.8**	**+1.4**
	comp=Z,12nm,0.9s,mb4.8						
WTTA	**Wattenberg**	**82.27**	**358**	⇑*i*pP	**P**	**01 11 19.2**	**+1.4**
	comp=Z,9.9nm,1.1s,mb4.6						
SSF	**Saint Saulge**	**82.37**	**4**	*e*P	**P**	**01 11 19.1**	**+0.8**
	comp=Z,13nm,0.7s,mb4.7						
SSF	**Saint Saulge**	**82.37**	**4**	*e*P	**P**	**01 11 19.1**	**+0.8**
SSF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
SSF	**Saint Saulge**	**82.37**	**4**	*e*P	**P**	**01 11 19.1**	**+0.8**
	comp=Z,6.5nm,0.7s,mb4.7						
KBA	**Koelnbreinsper**	**82.41**	**357**	⇓*i*pP	**P**	**01 11 20.1**	**+1.6**
	comp=Z,24nm,1.3s,mb5.0						
FETA	**Feichten**	**82.52**	**359**	⇑*i*pP	**P**	**01 11 20.2**	**+1.1**
	comp=Z,12nm,0.9s,mb4.9						
AVF	**Avril sur Loir**	**82.63**	**4**	*e*P	**P**	**01 11 20.4**	**+0.7**
	comp=Z,34nm,1.2s,mb5.0						
AVF	**Avril sur Loir**	**82.63**	**4**	*e*P	**P**	**01 11 20.4**	**+0.7**
AVF				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
AVF	**Avril sur Loir**	**82.63**	**4**	*e*P	**P**	**01 11 20.4**	**+0.7**
	comp=Z,17nm,1.2s,mb5.0						
SOKA	**Soboth**	**82.74**	**356**	⇑*i*pP	**P**	**01 11 21.6**	**+1.4**
	comp=Z,7.7nm,1.0s,mb4.7						
SMF	**Signal de Mont**	**82.80**	**4**	*e*P	**P**	**01 11 21.3**	**+0.8**
	comp=Z,23nm,1.0s,mb4.9						
SMF	**Signal de Mont**	**82.80**	**4**	*e*P	**P**	**01 11 21.3**	**+0.8**
SMF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
SMF	**Signal de Mont**	**82.80**	**4**	*e*P	**P**	**01 11 21.3**	**+0.8**
	comp=Z,11nm,1.0s,mb4.9						
BGF	**Bois d'Agland**	**82.84**	**4**	*e*P	**P**	**01 11 21.7**	**+0.9**
CABF	**La Chapelle**	**82.91**	**2**	*e*P	**P**	**01 11 22.6**	**+1.5**
OBKA	**Obir**	**82.93**	**356**	⇑*i*pP	**P**	**01 11 22.3**	**+1.0**
	comp=Z,7.8nm,0.8s,mb4.8						
MLR	**Muntele Rosu**	**82.97**	**348**	⇓*i*P	**P**	**01 11 22.6**	**+1.1**
VOIR		**83.14**	**349**	⇑*i*P	**P**	**01 11 23.6**	**+1.3**
GZR	**Gura Zlata**	**83.44**	**350**	⇓*i*P	**P**	**01 11 24.2**	**+0.3**
HARR	**Harsova**	**83.48**	**347**	⇓*i*P	**P**	**01 11 24.5**	**+0.4**
TIRR	**Tirgusor**	**83.64**	**346**	*e*P	**P**	**01 11 25.5**	**+0.6**
TIRR				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.2						
TIRR	**Tirgusor**	**83.64**	**346**	⇓*i*P	**P**	**01 11 25.9**	**+1.0**
TIRR	**Tirgusor**	**83.64**	**346**	*e*P	**P**	**01 11 25.5**	**+0.6**
	comp=Z,14nm,0.7s,mb5.2						
LPL	**La Plagne**	**84.01**	**2**	*e*P	**P**	**01 11 28.7**	**+1.9**
	comp=Z,18nm,1.1s,mb4.8						
LPL	**La Plagne**	**84.01**	**2**	*e*P	**P**	**01 11 28.7**	**+1.9**
LPL				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
LPL	**La Plagne**	**84.01**	**2**	*e*P	**P**	**01 11 28.7**	**+1.9**
	comp=Z,8.9nm,1.1s,mb4.8						
LPG	**La Plagne**	**84.03**	**2**	*e*P	**P**	**01 11 28.7**	**+1.8**
	comp=Z,29nm,1.3s,mb4.9						
LPG	**La Plagne**	**84.03**	**2**	*e*P	**P**	**01 11 28.7**	**+1.8**
LPG				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.9						
LPG	**La Plagne**	**84.03**	**2**	*e*P	**P**	**01 11 28.7**	**+1.8**
	comp=Z,14nm,1.3s,mb4.9						
GNI	**Garni**	**84.20**	**333**	*e*P	**P**	**01 11 27.3**	**-0.6**
LFF	**La Frestale**	**84.33**	**6**	*e*P	**P**	**01 11 29.2**	**+0.7**
	comp=Z,35nm,0.9s,mb5.2						
LFF	**La Frestale**	**84.33**	**6**	*e*P	**P**	**01 11 29.2**	**+0.7**
LFF				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.2						
LFF	**La Frestale**	**84.33**	**6**	*e*P	**P**	**01 11 29.2**	**+0.7**
	comp=Z,18nm,0.9s,mb5.2						
CAF	**Calviac**	**84.43**	**5**	*e*P	**P**	**01 11 29.7**	**+0.8**
	comp=Z,57nm,1.3s,mb5.2						
CAF	**Calviac**	**84.43**	**5**	*e*P	**P**	**01 11 29.7**	**+0.8**
CAF				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.2						
CAF	**Calviac**	**84.43**	**5**	*e*P	**P**	**01 11 29.7**	**+0.8**
	comp=Z,28nm,1.3s,mb5.2						
BNI	**Bardonecchia**	**84.48**	**2**	*e*P	**P**	**01 11 31.6**	**+2.4**
BNI				*e**PP	pP	01 11 39.4	-0.7
BNI				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.3						
BNI	**Bardonecchia**	**84.48**	**2**	*e*P	**P**	**01 11 31.6**	**+2.4**
	comp=Z,24nm,0.9s,mb5.3						
BNI				*e*pP	pP	01 11 39.4	-0.7
ORIF	**Oris-en-Rattie**	**84.59**	**2**	*e*P	**P**	**01 11 31.1**	**+1.3**
VIVF	**Saint-Julien-l**	**84.62**	**3**	*e*P	**P**	**01 11 30.9**	**+1.0**
	comp=Z,28nm,1.0s,mb5.0						
VIVF	**Saint-Julien-l**	**84.62**	**3**	*e*P	**P**	**01 11 30.9**	**+1.0**
VIVF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
VIVF	**Saint-Julien-l**	**84.62**	**3**	*e*P	**P**	**01 11 30.9**	**+1.0**
	comp=Z,14nm,1.0s,mb5.0						
MBDF	**Montbardon**	**84.80**	**2**	*e*P	**P**	**01 11 32.6**	**+1.8**
	comp=Z,37nm,1.0s,mb5.2						
MBDF	**Montbardon**	**84.80**	**2**	*e*P	**P**	**01 11 32.6**	**+1.8**
MBDF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
MBDF	**Montbardon**	**84.80**	**2**	*e*P	**P**	**01 11 32.6**	**+1.8**
	comp=Z,18nm,1.0s,mb5.2						
WRA	**Warramunga Arr**	**85.33**	**231**	P	**P**	**01 11 30.2**	**-3.4**
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	**Warramunga Arr**	**85.33**	**231**	P	**P**	**01 11 30.2**	**-3.4**
	comp=Z,1.1nm,0.9s,mb4.0,baz=37,slow=5.7,SNR=6.8						
MTLF	**Montolieu**	**86.02**	**5**	*e*P	**P**	**01 11 37.7**	**+0.8**
	comp=Z,9.9nm,0.9s,mb4.8						
MTLF	**Montolieu**	**86.02**	**5**	*e*P	**P**	**01 11 37.7**	**+0.8**
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.7						
MTLF	**Montolieu**	**86.02**	**5**	*e*P	**P**	**01 11 37.7**	**+0.8**
	comp=Z,4.9nm,0.9s,mb4.7						
EPF	**Esparros**	**86.20**	**6**	*e*P	**P**	**01 11 38.7**	**+0.9**
	comp=Z,7.7nm,0.9s,mb4.6						
EPF	**Esparros**	**86.20**	**6**	*e*P	**P**	**01 11 38.7**	**+0.9**
EPF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.7						
EPF	**Esparros**	**86.20**	**6**	*e*P	**P**	**01 11 38.7**	**+0.9**
	comp=Z,3.8nm,0.9s,mb4.6						
ETSF	**Etsaut**	**86.27**	**7**	*e*P	**P**	**01 11 38.5**	**+0.3**
	comp=Z,7.0nm,0.8s,mb4.7						
ETSF	**Etsaut**	**86.27**	**7**	*e*P	**P**	**01 11 38.5**	**+0.3**
ETSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
ETSF	**Etsaut**	**86.27**	**7**	*e*P	**P**	**01 11 38.5**	**+0.3**
	comp=Z,3.5nm,0.8s,mb4.6						
BRTR	**Keskin Array B**	**87.31**	**341**	P	**P**	**01 11 43.5**	**+0.2**
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	**Keskin Array B**	**87.31**	**341**	P	**P**	**01 11 43.5**	**+0.2**
	comp=Z,1.8nm,0.7s,mb4.4,baz=11,slow=2.3,SNR=11						
MALT	**Malatya**	**87.59**	**337**	*e*P	**P**	**01 11 44.2**	**-0.5**
PSI	**Prapat**	**88.01**	**272**	P	**P**	**01 11 46.4**	**-0.6**
PSI				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.4						
PSI	**Prapat**	**88.01**	**272**	P	**P**	**01 11 46.4**	**-0.6**
	comp=Z,18nm,0.7s,mb5.4,baz=8.7,slow=6.9,SNR=9.1						
FITZ	**Fitzroy Crossi**	**88.28**	**238**	*e*P	**P**	**01 11 46.6**	**-1.5**
	comp=Z,5.3nm,0.9s,mb4.8						
ASAR	**Alice Springs**	**88.70**	**229**	P	**P**	**01 11 48.1**	**-1.8**
ASAR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ASAR	**Alice Springs**	**88.70**	**229**	P	**P**	**01 11 48.0**	**-1.9**
	comp=Z,4.6nm,0.8s,mb4.8,baz=38,slow=4.6,SNR=36						
HYB	**Hyderabad**	**89.04**	**297**	*i* P	**P**	**01 11 50.5**	**-1.4**
HYB	**Hyderabad**	**89.04**	**297**	*e*P	**P**	**01 11 50.5**	**-1.4**
ESDC	**Sonseca Array**	**89.14**	**10**	P	**P**	**01 11 52.0**	**0.0**
	comp=Z,1.7nm,0.7s,mb4.5,baz=353,slow=4.1,SNR=6.5						
ESDC	**Sonseca Array**	**89.14**	**10**	P	**P**	**01 11 52.0**	**0.0**
SDV	**Santo Domingo**	**89.55**	**77**	*e*P	**P**	**01 11 53.1**	**-1.2**
	comp=Z,8.1nm,0.9s,mb5.0						
STKA	**Stephens Creek**	**92.43**	**219**	LR	LR	01 51 34.5	
	comp=Z,65nm,18.8s,MS4.1,baz=25,slow=34						
KEST	**Kesra**	**93.81**	**360**	P	**P**	**01 12 12.8**	**-0.9**
	comp=Z,1.6nm,1.0s,mb4.4,baz=354,slow=6.7,SNR=4.3						
TORD	**Torodi Ar. Bea**	**115.96**	**8**	PKP	PKPdf	01 17 37.5	-2.1
	comp=Z,0.7nm,0.9s,baz=356,slow=2.5,SNR=4.8						
TORD				PKKPbc	PKKPbc	01 28 06.4	-2.1
	comp=Z,0.3nm,0.6s,baz=165,slow=2.2,SNR=4.9						
TORD				PKKPab	PKKPab	01 28 11.8	-6.2
	comp=Z,0.9nm,0.7s,baz=174,slow=2.1,SNR=5.4						
CPUP	**Villa Florida**	**124.61**	**90**	PKIKP	PKPdf	01 17 54.3	-1.5
CPUP				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CPUP	**Villa Florida**	**124.61**	**90**	PKP	PKPdf	01 17 54.3	-1.5
	comp=Z,1.2nm,0.6s,baz=327,slow=4.3,SNR=4.8						
PLCA	**Paso Flores**	**126.05**	**112**	PKIKP	PKPdf	01 17 56.9	-1.2
PLCA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
PLCA	**Paso Flores**	**126.05**	**112**	PKP	PKPdf	01 17 56.9	-1.2
	comp=Z,2.8nm,0.9s,baz=249,slow=4.2,SNR=3.9						
PLCA	**Paso Flores**	**126.05**	**112**	PKP	PKPdf	01 17 56.9	-1.2
TSUM	**Tsumeb**	**147.75**	**345**	*e*PKPbc	PKPbc	01 18 40.5	-0.8
BOSA	**Boshof**	**154.71**	**325**	PKIKP	PKPbc	01 18 56.4	-1.0
BOSA						01 19 11.2	
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BOSA	**Boshof**	**154.71**	**325**	PKPbc	PKPbc	01 18 56.4	-1.0
	comp=Z,1.3nm,0.7s,baz=45,slow=1.4,SNR=3.4						
BOSA				PKPab	PKPab	01 19 11.2	-1.1
	comp=Z,3.1nm,0.7s,baz=23,slow=3.3,SNR=6.8						

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*ISCJB **01** 01:08:02.4±1.0, 42°.03N±0°.08×72°.88E±0°.05, h10^{km}, Error ellipse: s-maj=11.8km s-min=5.2km az=5.3*

*KNET **01** 01:08:02.6±0.3, 42°.06N×72°.99E, h16^{km}±1^{km}, ml3.1, Error ellipse: s-maj=2.2km s-min=1.8km az=61.0*

*NNC **01** 01:08:04.8±1.4, 42°.40N×72°.83E, h0^{km}, mb3.9, mpv3.7, Error ellipse: s-maj=19.3km s-min=7.3km az=2.0*

ISC 01 01:08:03.1±0.9**, 42°.09N**±0°.07×**72°.87E**±0°.05**, h10^{km}, n17, σ1^{s}.39**/26**, 18C-8D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	**0.61**	**86**	P	**Pg**	**01 08 13.3**	**-1.7**
	253nm,0.1s,SNR=1025						
AML				⇑S	**Sg**	**01 08 22.0**	**-1.0**
	937nm,0.2s						
EKS2	**Erkin-Say**	**0.88**	**50**	⇑P	**Pg**	**01 08 18.7**	**-1.3**
	35nm,0.1s,SNR=194						
EKS2				⇓S	**Sg**	**01 08 31.4**	**-0.1**
	275nm,0.3s						
UCH	**Uchtor**	**1.23**	**83**	⇑P	**Pn**	**01 08 24.4**	**-1.9**
	24nm,0.2s,SNR=15						
UCH				⇑S	**Sb**	**01 08 41.0**	**-1.3**
	142nm,0.3s						
AAK	**Ala-Archa**	**1.32**	**65**	⇑P	**Pn**	**01 08 26.2**	**-1.4**
	46nm,0.2s,SNR=32						
KBK	**Karagaybulak**	**1.64**	**69**	⇑P	**Pn**	**01 08 32.1**	**+0.2**
	46nm,0.1s,SNR=8.3						
CHMS	**Chumysh**	**1.66**	**56**	⇑P	**Pn**	**01 08 32.3**	**+0.1**
	36nm,0.2s,SNR=36						
CHMS				⇓S	**Sn**	**01 08 55.1**	**+1.6**
	70nm,0.2s						
USP	**Ospenovka**	**1.68**	**45**	⇓P	**Pn**	**01 08 32.3**	**-0.2**
	25nm,0.1s,SNR=139						
USP				⇑S	**Sn**	**01 08 56.1**	**+2.1**
	265nm,0.3s						
KZA	**Kyzart**	**1.77**	**90**	P	**Pn**	**01 08 33.9**	**+0.2**
	80nm,0.2s,SNR=213						
KZA				⇓S	**Sn**	**01 08 57.6**	**+1.3**
	485nm,0.4s						
KK31	**Karatay Array**	**2.01**	**301**	⇑Pn	**Pn**	**01 08 37.4**	**+0.3**
	14nm,0.2s,baz=120,slow=15						
KK31				⇓Sn	**Sn**	**01 09 03.6**	**+1.4**
	115nm,0.3s,baz=108,slow=28						
TKM2	**Tokmak 2**	**2.18**	**67**	⇑P	**Pn**	**01 08 40.5**	**+1.1**
	26nm,0.2s,SNR=37						
TKM2	**Tokmak 2**	**2.18**	**67**	⇑Pn	**Pn**	**01 08 40.4**	**+1.1**
	40nm,0.6s						
TKM2				⇑Sn	**Sn**	**01 09 10.7**	**+4.4**
	52nm,0.4s						
ULHL	**Ulahol**	**2.51**	**85**	⇓P	**Pn**	**01 08 44.5**	**+0.6**
	13nm,0.2s,SNR=60						
KNDC	**Almaty**	**3.22**	**68**	⇑Pn	**Pn**	**01 08 56.9**	**+3.2**
	26nm,0.6s						
KNDC				⇑Sn	**Sn**	**01 09 34.9**	**+2.8**
	75nm,0.6s						
MK31	**Makanchi Array**	**8.21**	**52**	⇑Pn	**Pn**	**01 10 03.4**	**+1.2**
	2.0nm,0.7s,baz=234,slow=14,SNR=8.1						
MK31				⇑Lg		01 12 22.5	
	2.3nm,0.6s,baz=251,slow=29,SNR=3.8						
KURBB	**Kurchatov Arra**	**9.38**	**23**	⇓Lg		01 12 52.9	
	1.4nm,0.8s						
VOSK	**Vostochnaya**	**10.71**	**354**	⇓Sn	**Sn**	**01 12 34.1**	**-2.2**
	0.9nm,0.6s						
BVA0	**Borovoye Array**	**11.06**	**352**	⇑Pn	**Pn**	**01 10 38.5**	**-2.7**
	0.2nm,0.5s,baz=155,slow=13,SNR=7.5						
BVA0				⇑Sn	**Sn**	**01 12 40.1**	**-4.8**
	0.2nm,0.5s,baz=165,slow=23,SNR=4.8						

IDC 01 01:08:20.5±2.0**, 46°.88N**×**155°.47E, h0^{km}, mb3.6**/5**, mb1 3.9**/6**, mb1mx3.6**/24**, mbtmp3.6**/6**, ML3.4**/1**, MS3.8**/1**, Ms1 3.8**/1**, ms1mx2.7**/43**, Error ellipse: s-maj=63.1km s-min=25.9km az=5.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PETK	**Petropavlovsk-**	**6.39**	**12**	Pn	Pn	01 09 55.7	-0.1
	0.8nm,0.3s,baz=199,slow=11,SNR=24						
MKAR	**Makanchi Array**	**48.31**	**298**	P	P	01 17 03.1	-0.2
	0.3nm,0.6s,baz=78,slow=7.2,SNR=3.7						
MKAR				LR	LR	01 37 57.7	
	comp=Z,87nm,19.0s,baz=176,slow=37						
BVAR	**Borovoye Array**	**52.02**	**310**	P	P	01 17 31.6	+0.3
	0.5nm,0.5s,baz=60,slow=8.5,SNR=3.7						
NVAR	**Mina Array Bea**	**60.93**	**64**	P	P	01 18 35.4	+0.4
	0.4nm,0.5s,baz=279,slow=6.3,SNR=3.5						
PDAR	**Pinedale Array**	**63.35**	**55**	P	P	01 18 51.9	+0.7
	1.0nm,1.1s,baz=292,slow=5.9,SNR=3.5						
TXAR	**Lajitas Array**	**76.01**	**62**	P	P	01 20 09.3	-0.1
	0.9nm,0.8s,baz=300,slow=4.7,SNR=9.3						

IDC 01 01:24:06.9±4.1**, 5°.45S**×**146°.79E, h0^{km}, mb3.7**/2**, mb1 4.0**/3**, mb1mx3.6**/16**, mbtmp3.8**/3**, ML4.0**/1**, MS3.1**/1**, Ms1 3.1**/1**, ms1mx2.7**/22**, Error ellipse: s-maj=135.5km s-min=55.4km az=119.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**14.56**	**182**	LR	LR	01 32 43.4	
	comp=Z,70nm,20.8s,baz=52,slow=36						
WRA	**Warramunga Arr**	**18.82**	**219**	P	Pn	01 28 28.3	-0.4
	0.5nm,0.3s,baz=37,slow=11,SNR=27						
ASAR	**Alice Springs**	**21.95**	**213**	P	P	01 29 02.2	-0.1
	0.6nm,0.3s,baz=44,slow=9.1,SNR=9.3						
FITZ	**Fitzroy Crossi**	**24.18**	**237**	P	P	01 29 25.1	-0.1
	3.5nm,0.6s,baz=74,slow=10,SNR=16						
TORD	**Torodi Ar. Bea**	**144.75**	**285**	PKP	PKPdf	01 43 46.9	0.0
	0.8nm,0.8s,baz=79,slow=3.4,SNR=5.1						

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*ISCJB **01** 01:32:25.9±0.3, 14°.15N±0°.05×53°.69E±0°.04, h10^{km}, mb4.5/64, MS4.1/28, Error ellipse: s-maj=7.5km s-min=6.2km az=7.5*

*CSEM **01** 01:32:26.8±0.2, 14°.24N×53°.66E, h2^{km}, mb4.6/30, Ms4.0, Mw5.0, Error ellipse: s-maj=8.8km s-min=7.9km az=169.0*

*IDC **01** 01:32:26.7±0.6, 14°.26N×53°.76E, h0^{km}, mb4.3/25, mb1 4.3/25, mb1mx4.3/31, mbtmp4.3/25, MS4.1/24, Ms1 4.1/24, ms1mx4.0/35, Error ellipse: s-maj=14.1km s-min=14.0km az=160.0*

*BJI **01** 01:32:26.3, 14°.26N×53°.34E, h25^{km}, mB5.3/7, mb4.6/16, Ms5.1/2, Ms7 4.6/2*

*GCMT **01** 01:32:27.8±0.4, 14°.40N×53°.55E, h18^{km}±1^{km}, MW5.0/62, Moment Tensor Solution. s15,c21; s62,c88; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.44±.25; $M_{\theta\theta}$2.40±.15; $M_{\phi\phi}$1.03±.17; $M_{r\theta}$1.56±.33; $M_{\theta\phi}$-1.16±.10; $M_{\phi r}$-0.09±.48; Best double couple: $M_0$3.59800×10^{16} NP1:ϕ_s128.00000°,δ34.00000°,λ-75.00000°. NP2: ϕ_s290.00000°,δ57.00000°,λ-100.00000°. Principal axes: T 3.3560, Plg12.0000°, Azm27.0000°; N 0.4730, Plg9.0000°, Azm295.0000°; P -3.8390, Plg75.0000°, Azm170.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **01** 01:32:27.8±0.3, 14°.21N×53°.68E, h10^{km}, mb4.7/27 Error ellipse: s-maj=7.0km s-min=6.9km az=222.0*

*MOS **01** 01:32:29.4±1.0, 14°.20N×53°.63E, h33^{km}, mb4.9/29, Error ellipse: s-maj=10.0km s-min=5.5km az=109.2*

ISC 01 01:32:27.7±0.3**, 14°.15N**±0°.05×**53°.69E**±0°.04**, h10^{km}, n243, σ1^{s}.00**/233**, mb4.5**/64**, MS4.1**/28**, 15C-13D, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MUKL	**Al Mukalla**	**4.52**	**275**	⇑*e*P	**Pn**	**01 33 33.5**	**-2.8**
MUKL				*e*		01 33 33.8	
	baz=77,slow=10						
MUKL				AML	AML	01 33 52.4	
	comp=E,137nm,0.5s						
MUKL				*i* S	**Sn**	**01 34 20.9**	**-8.0**
DHBB	**Dhamar BB**	**9.02**	**274**	*i* P	**Pn**	**01 34 35.7**	**-2.4**
DHBB	**Dhamar BB**	**9.02**	**274**	*i* P	**Pn**	**01 34 35.7**	**-2.4**
QRN	**Al-Qurain**	**15.48**	**341**	*e*P	**Pn**	**01 36 07.5**	**+1.4**
QRN				AMb	AMB	01 36 10.8	
	comp=Z,183nm,1.0s						
QRN	**Al-Qurain**	**15.48**	**341**	*e*P	**Pn**	**01 36 07.6**	**+1.4**
	comp=Z,183nm,1.0s						
RDF	**Al-Radifah**	**15.77**	**340**	*e*P	**Pn**	**01 36 11.5**	**+1.6**
RDF				AMb	AMB	01 36 14.6	
	comp=Z,310nm,1.0s						
RDF	**Al-Radifah**	**15.77**	**340**	*e*P	**Pn**	**01 36 11.5**	**+1.6**
	comp=Z,310nm,1.0s						
KBD	**Kabd**	**15.95**	**341**	*e*P	**Pn**	**01 36 13.7**	**+1.4**
KBD	**Kabd**	**15.95**	**341**	*e*P	**Pn**	**01 36 13.7**	**+1.4**
NAY	**Al-Naaiem**	**16.17**	**339**	*e*P	**Pn**	**01 36 16.3**	**+1.2**
NAY				AMb	AMB	01 36 18.4	
	comp=Z,67nm,1.2s						
NAY	**Al-Naaiem**	**16.17**	**339**	*e*P	**Pn**	**01 36 16.3**	**+1.2**
	comp=Z,67nm,1.2s						
EIL	**Elat**	**23.20**	**315**	P	**P**	**01 37 35.7**	**+0.8**
	comp=Z,12nm,1.0s,mb4.2,baz=98,slow=3.3,SNR=4.4						
EIL				LR	LR	01 46 52.9	
	comp=Z,578nm,20.2s,MS4.0,baz=350,slow=37						
EIL	**Elat**	**23.20**	**315**	P	**P**	**01 37 35.7**	**+0.8**
EIL				LR	LR	01 46 52.9	
EIL	**Elat**	**23.20**	**315**	P	**P**	**01 37 35.7**	**+0.8**
ASF	**Jabal al Asfar**	**23.61**	**322**	P	**P**	**01 37 39.5**	**+0.4**
	comp=Z,16nm,1.1s,mb4.3,baz=20,slow=5.4,SNR=9.4						
ASF				LR	LR	01 47 10.1	
	comp=Z,460nm,19.0s,MS4.0,baz=186,slow=38						
HYB	**Hyderabad**	**24.14**	**79**	*i* P	**P**	**01 37 46.0**	**+1.9**
KBL	**Kabul**	**24.59**	**32**	*e*P	**P**	**01 37 49.6**	**+1.5**
KBL				pmax	pmax		
	comp=Z,39nm,1.2s,mb4.8						
KBL	**Kabul**	**24.59**	**32**	*e*P	**P**	**01 37 49.5**	**+1.5**
	comp=Z,39nm,1.2s,mb4.8						
KBL	**Kabul**	**24.59**	**32**	*e*P	**P**	**01 37 49.5**	**+1.4**
	comp=Z,39nm,1.2s,mb4.8						
MMAI	**Mount Meron Ar**	**25.09**	**322**	P	**P**	**01 37 54.4**	**+1.7**
	comp=Z,29nm,1.1s,mb4.7,baz=158,slow=5.9,SNR=11						
MMAI				LR	LR	01 47 45.1	
	comp=Z,330nm,18.8s,MS3.9,baz=130,slow=37						
GNI	**Garni**	**27.06**	**345**	⇑*e*P	**P**	**01 38 10.7**	**+0.3**
GNI				pmax	pmax		
	comp=Z,36nm,1.4s						
GNI				MLR	MLR		
	comp=Z,600nm,17.0s						
GNI	**Garni**	**27.06**	**345**	P	**P**	**01 38 11.9**	**+1.5**
	comp=Z,8.9nm,0.8s,mb4.3,baz=36,slow=4.1,SNR=7.9						
GNI				LR	LR	01 50 21.3	
	comp=Z,290nm,21.9s,MS3.8,baz=317,slow=40						
GNI	**Garni**	**27.06**	**345**	*e*P	**P**	**01 38 10.9**	**+0.5**
	comp=Z,60nm,1.4s,mb4.9						
GNI				LR	LR	01 50 21.3	
GNI	**Garni**	**27.06**	**345**	*e*P	**P**	**01 38 10.7**	**+0.3**
	comp=Z,600nm,17.0s						
MALT	**Malatya**	**27.60**	**333**	*e*P	**P**	**01 38 17.1**	**+1.8**
MALT				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.5						
MALT	**Malatya**	**27.60**	**333**	*e*P	**P**	**01 38 17.1**	**+1.8**
	comp=Z,17nm,1.3s,mb4.5						
MALT	**Malatya**	**27.60**	**333**	*e*P	**P**	**01 38 17.1**	**+1.8**
	comp=Z,17nm,1.3s,mb4.5						
MAK	**Makhachkala**	**29.20**	**351**	*e*P	**P**	**01 38 31.8**	**+2.4**
BR131	**Keskin Array S**	**30.97**	**329**	*e*P	**P**	**01 38 45.6**	**+0.4**
	comp=Z,1.2nm,0.8s,mb3.8						
BR131	**Keskin Array S**	**30.97**	**329**	*e*P	**P**	**01 38 45.6**	**+0.4**
	comp=Z,1.2nm,0.8s,mb3.8						
BRTR	**Keskin Array B**	**30.97**	**329**	P	**P**	**01 38 45.8**	**+0.6**
	comp=Z,3.7nm,1.1s,mb4.1,baz=158,slow=7.5,SNR=11						
BRTR				LR	LR	01 52 45.9	
	comp=Z,305nm,18.6s,MS4.0,baz=114,slow=39						
BRTR	**Keskin Array B**	**30.97**	**329**	P	**P**	**01 38 45.8**	**+0.6**
KIV	**Kislovodsk**	**31.16**	**345**	⇑*e*P	**P**	**01 38 47.4**	**+0.7**
KIV				*e*		01 38 55.1	
KIV				*e*		01 39 04.0	
KIV				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.8						
KIV				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.2						
KIV	**Kislovodsk**	**31.16**	**345**	*e*P	**P**	**01 38 47.4**	**+0.7**
	comp=Z,19nm,1.3s,mb4.8						
KSH	**Kashi**	**31.97**	**34**	P	**P**	**01 38 52.5**	**-1.5**
KSH				*e*pP	pP	01 39 01.3	+4.2
KSH				*e*sP	sP	01 39 06.5	+8.2
KSH				*e*PP	PP	01 39 58.2	-8.1
KSH				*e*PcP	PcP	01 41 44.0	-0.1
KSH				*e*S	**S**	**01 43 57.9**	**-7.6**
KSH				*e*ScP	ScP	01 45 22.9	-4.9
KSH				*e*PcS	PcS	01 45 27.0	-1.7
KSH				*e*ScS	ScS	01 49 19.0	-7.2
KSH				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
KSH				pmax	pmax		
	comp=Z,940nm,5.4s						
KSH				LR	LR		
	comp=N,520nm,5.5s						
KSH				LR	LR		
	comp=E,590nm,7.0s						
KSH				LR	LR		
	comp=Z,390nm,5.1s						
ANN	**Anapa**	**33.53**	**339**	*e*P	**P**	**01 39 11.8**	**+4.3**
APE	**Apeiranthos**	**33.91**	**317**	⇓*i*P	**P**	**01 39 10.9**	**-0.1**
APE	**Apeiranthos**	**33.91**	**317**	⇓*i*P	**P**	**01 39 10.9**	**-0.1**
TKM2	**Tokmak 2**	**34.31**	**29**	*e*P	**P**	**01 39 21.4**	**+7.0**
TKM2				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
TKM2	**Tokmak 2**	**34.31**	**29**	*e*P	**P**	**01 39 21.4**	**+7.0**
	comp=Z,3.3nm,1.1s,mb4.2						
AKTK	**Aktyubinsk**	**36.36**	**5**	P	**P**	**01 39 31.5**	**-0.3**
AKTK				LR	LR	01 57 45.5	
AKTK	**Aktyubinsk**	**36.36**	**5**	P	**P**	**01 39 31.5**	**-0.3**
AKTO	**Aktyubinsk**	**36.36**	**5**	P	**P**	**01 39 31.5**	**-0.3**
	comp=Z,6.7nm,0.9s,mb4.5,baz=186,slow=9.1,SNR=7.8						
AKTO				LR	LR	01 57 45.4	
	comp=Z,617nm,18.0s,MS4.4,baz=37,slow=42						
HARR	**Harsova**	**37.49**	**329**	⇑*i*P	**P**	**01 39 42.5**	**+0.9**
HARR	**Harsova**	**37.49**	**329**	⇑*i*P	**P**	**01 39 42.5**	**+0.9**
LSZ	**Lusaka**	**38.61**	**222**	*e*P	**P**	**01 39 50.6**	**-0.8**
LSZ				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
LSZ	**Lusaka**	**38.61**	**222**	P	**P**	**01 39 52.9**	**+1.6**
	comp=Z,0.8nm,0.4s,mb3.8,baz=31,slow=6.4,SNR=4.1						
LSZ	**Lusaka**	**38.61**	**222**	*e*P	**P**	**01 39 50.6**	**-0.7**
	comp=Z,4.5nm,1.0s,mb4.2						
LSZ	**Lusaka**	**38.61**	**222**	*e*P	**P**	**01 39 50.6**	**-0.8**
	comp=Z,4.5nm,1.0s,mb4.2						
VRI	**Vrincioaia**	**38.93**	**330**	⇓*i*P	**P**	**01 39 55.4**	**+1.7**
VRI	**Vrincioaia**	**38.93**	**330**	⇓*i*P	**P**	**01 39 55.4**	**+1.7**
MLR	**Muntele Rosu**	**39.05**	**329**	⇑*i*P	**P**	**01 39 56.0**	**+1.3**
MLR	**Muntele Rosu**	**39.05**	**329**	⇑*i*P	**P**	**01 39 56.0**	**+1.3**
VOIR		**39.47**	**328**	⇑*i*P	**P**	**01 39 59.5**	**+1.3**
VOIR		**39.47**	**328**	⇑*i*P	**P**	**01 39 59.5**	**+1.3**
BARS	**Barje**	**39.59**	**322**	*e*P	**P**	**01 39 58.8**	**-0.5**
NISS		**39.86**	**323**	*e*P	**P**	**01 40 01.3**	**-0.2**
BOLS	**Boljevac**	**40.12**	**324**	*e*P	**P**	**01 40 02.5**	**-1.1**
MK31	**Makanchi Array**	**40.39**	**31**	*e*P	**P**	**01 40 05.7**	**-0.2**
MK31	**Makanchi Array**	**40.39**	**31**	*e*P	**P**	**01 40 05.7**	**-0.2**
MKAR	**Makanchi Array**	**40.39**	**31**	P	**P**	**01 40 05.8**	**-0.1**
	comp=Z,1.7nm,0.6s,mb4.0,baz=212,slow=9.2,SNR=20						
MKAR				LR	LR	01 58 52.9	
	comp=Z,260nm,19.8s,MS4.1,baz=198,slow=39						
MKAR	**Makanchi Array**	**40.39**	**31**	P	**P**	**01 40 05.8**	**-0.1**
GRUS	**Gruza**	**40.87**	**323**	*e*P	**P**	**01 40 09.2**	**-0.7**
BURAR	**Bucovina Array**	**40.90**	**330**	⇓*i*P	**P**	**01 40 10.3**	**+0.2**
BURAR	**Bucovina Array**	**40.90**	**330**	⇓*i*P	**P**	**01 40 10.3**	**+0.2**
BUR08	**Bucovina Ar. S**	**40.93**	**331**	*e*P	**P**	**01 40 11.1**	**+0.8**
BUR08	**Bucovina Ar. S**	**40.93**	**331**	*e*P	**P**	**01 40 11.1**	**+0.8**
BVAR	**Borovoye Array**	**40.99**	**15**	LR	LR	01 59 18.0	
	comp=Z,398nm,19.5s,MS4.3,baz=246,slow=39						
BRVK	**Borovoye**	**40.99**	**15**	*e*P	**P**	**01 40 10.7**	**0.0**
BRVK				pmax	pmax		
	comp=Z,21nm,1.1s,mb4.7						
BRVK	**Borovoye**	**40.99**	**15**	*e*P	**P**	**01 40 10.7**	**-0.1**
	comp=Z,21nm,1.1s,mb4.7						

BRVK	Borovoye	40.99	15	eP	P	01 40 10.6	-0.1
	comp=Z,21nm,1.1s,mb4.7						
BZS	Buzias	41.41	326	⇑iP	P	01 40 14.3	0.0
BZS	Buzias	41.41	326	⇑iP	P	01 40 14.3	0.0
AKASG	Malin Array Be	41.50	337	P	P	01 40 13.9	-1.0
	comp=Z,4.8nm,0.8s,mb4.2,baz=142,slow=7.6,SNR=18						
AKASG				LR	LR	01 58 55.8	
	comp=Z,170nm,20.1s,MS3.9,baz=80,slow=38						
AKASG	Malin Array Be	41.50	337	P	P	01 40 13.9	-1.0
AKBB	Malin Array Si	41.50	337	eP	P	01 40 14.5	-0.4
AKBB	Malin Array Si	41.50	337	eP	P	01 40 14.5	-0.4
KIEV	Kiev	41.50	337	eP	P	01 40 14.8	-0.1
KIEV				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.5						
KIEV	Kiev	41.50	337	eP	P	01 40 14.8	-0.1
	comp=Z,13nm,1.1s,mb4.5						
KIEV	Kiev	41.50	337	eP	P	01 40 14.8	-0.1
	comp=Z,13nm,1.1s,mb4.5						
KURK	Kurchatov	41.69	24	eP	P	01 40 15.7	-0.8
KURK				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.5						
KURK	Kurchatov	41.69	24	LR	LR	01 59 22.9	
	comp=Z,371nm,20.4s,MS4.2,baz=210,slow=39						
KURK	Kurchatov	41.69	24	eP	P	01 40 15.7	-0.8
	comp=Z,18nm,1.4s,mb4.5						
KURK	Kurchatov	41.69	24	eP	P	01 40 15.7	-0.8
	comp=Z,18nm,1.4s,mb4.5						
TRPA	Tarpa	42.56	329	⇑iP	P	01 40 24.3	+0.6
TRPA	Tarpa	42.56	329	⇑iP	P	01 40 24.3	+0.6
OBN	Obninsk	42.99	346	⇓iP	P	01 40 26.9	-0.1
OBN				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.9						
OBN				MLR	MLR		
	comp=Z,400nm,17.0s,MS4.4						
UZH	Uzhgorod	43.02	330	⇑iP	P	01 40 28.4	+1.0
UZH				i		01 40 39.0	
KOLS	Kolonicke sedl	43.23	330	eP	P	01 40 30.5	+1.4
KOLS	Kolonicke sedl	43.23	330	eP	P	01 40 30.5	+1.4
CMAR	Chiang Mai Arr	43.56	78	P	P	01 40 32.6	+0.4
	comp=Z,1.3nm,0.7s,mb3.8,baz=276,slow=8.4,SNR=10						
CMAR				LR	LR	01 56 33.4	
	comp=Z,131nm,21.4s,MS3.8,baz=289,slow=33						
CMAR	Chiang Mai Arr	43.56	78	P	P	01 40 32.6	+0.4
CRVS	Cervenica-Dubn	43.61	329	eP	P	01 40 33.4	+1.2
CRVS				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.3						
CRVS	Cervenica-Dubn	43.61	329	eP	P	01 40 33.4	+1.2
	comp=Z,9.2nm,1.3s,mb4.3						
CRVS	Cervenica-Dubn	43.61	329	eP	P	01 40 33.4	+1.2
	comp=Z,9.2nm,1.3s,mb4.3						
STHS	Stebnicka Huta	44.06	330	eP	P	01 40 36.3	+0.5
STHS				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.0						
STHS	Stebnicka Huta	44.06	330	eP	P	01 40 36.3	+0.5
	comp=Z,5.1nm,1.4s,mb4.1						
STHS	Stebnicka Huta	44.06	330	eP	P	01 40 36.3	+0.5
	comp=Z,5.1nm,1.4s,mb4.1						
VYHS	Vyhne	44.69	327	eP	P	01 40 40.7	-0.1
VYHS	Vyhne	44.69	327	eP	P	01 40 40.7	-0.1
KEST	Kesra	45.11	307	P	P	01 40 46.4	+2.0
	comp=Z,4.4nm,1.0s,mb4.3,baz=53,slow=3.1,SNR=9.2						
ZST	Bratislava	45.44	326	eP	P	01 40 47.1	+0.3
ZST				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
ZST	Bratislava	45.44	326	eP	P	01 40 47.1	+0.3
	comp=Z,2.9nm,0.6s,mb4.3						
ZST	Bratislava	45.44	326	eP	P	01 40 47.1	+0.3
	comp=Z,2.9nm,0.6s,mb4.3						
SOKA	Soboth	45.75	323	⇓iP	P	01 40 49.8	+0.5
	comp=Z,6.7nm,1.6s,mb4.3						
OKC	Ostrava-Krasne	45.88	328	eP	P	01 40 51.0	+0.8
OKC	Ostrava-Krasne	45.88	328	eP	P	01 40 51.0	+0.8
CONA	Conrad Observa	45.96	325	⇓iP	P	01 40 51.3	+0.3
	comp=Z,15nm,1.5s,mb4.7						
CSNA	Conrad Observa	45.97	325	⇓iP	P	01 40 51.2	+0.3
	comp=Z,15nm,1.6s,mb4.7						
MORC	Moravsky Berou	46.15	328	eP	P	01 40 50.9	-1.5
MORC				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
MORC	Moravsky Berou	46.15	328	eP	P	01 40 50.9	-1.4
	comp=Z,9.6nm,1.2s,mb4.6						
MORC	Moravsky Berou	46.15	328	eP	P	01 40 50.9	-1.5
	comp=Z,9.6nm,1.2s,mb4.6						
TAM	Tamanrasset	46.32	288	eP	P	01 40 54.7	+0.6
TAM				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
TAM	Tamanrasset	46.32	288	eP	P	01 40 54.7	+0.5
	comp=Z,5.4nm,1.2s,mb4.3						
TAM	Tamanrasset	46.32	288	eP	P	01 40 54.7	+0.6
	comp=Z,5.4nm,1.2s,mb4.3						
ZAA0	Zalesovo Array	46.62	25	eP	P	01 40 54.6	-1.5
ZAA0	Zalesovo Array	46.62	25	eP	P	01 40 54.6	-1.4
ZALV	Zalesovo Beam	46.62	25	P	P	01 40 54.9	-1.1
	comp=Z,3.4nm,0.7s,mb4.4,baz=243,slow=6.5,SNR=18						
ZALV				LR	LR	02 02 31.6	
	comp=Z,164nm,18.6s,MS4.0,baz=341,slow=39						
ZALV	Zalesovo Beam	46.62	25	P	P	01 40 54.9	-1.1
ZALV				LR	LR	02 02 31.6	
NVS	Novosibirsk	46.66	23	i P	P	01 40 55.6	-0.7
NVS				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.1						
NVS				pmax	pmax		
	comp=N,26nm,1.3s						
DPC	Dobruska-Polom	47.12	328	eP	P	01 40 59.9	-0.1
DPC	Dobruska-Polom	47.12	328	eP	P	01 40 59.9	-0.1
ABTA	Abfaltersbach	47.27	322	⇓iP	P	01 41 01.6	+0.3
	comp=N,4.2nm,0.9s,mb4.4						
LBTB	Lobatse	47.60	215	eP	P	01 41 05.5	+1.5
LBTB				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.1						
LBTB	Lobatse	47.60	215	P	P	01 41 06.1	+2.1
	comp=Z,4.6nm,0.7s,mb4.7,baz=43,slow=8.3,SNR=14						
LBTB	Lobatse	47.60	215	eP	P	01 41 05.5	+1.4
	comp=Z,24nm,1.3s,mb5.1						
LBTB	Lobatse	47.60	215	eP	P	01 41 05.5	+1.5
	comp=Z,24nm,1.3s,mb5.1						
GERES	GERESS Array B	47.67	325	P	P	01 41 04.1	-0.2
	comp=Z,1.0nm,0.9s,mb3.8,baz=118,slow=4.8,SNR=6.2						
GERES				LR	LR	02 02 45.8	
	comp=Z,250nm,21.5s,MS4.2,baz=284,slow=38						
GERES	GERESS Array B	47.67	325	P	P	01 41 04.1	-0.2
PGF	Pioggiola	47.68	315	eP	P	01 41 03.0	-1.5
	comp=Z,85nm,1.3s,mb5.3						
PGF	Pioggiola	47.68	315	eP	P	01 41 03.0	-1.5
PGF				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.3						
PGF	Pioggiola	47.68	315	eP	P	01 41 03.0	-1.5
	comp=Z,42nm,1.3s,mb5.3						
KLMR	Klimovskoe	47.76	351	eP	P	01 41 03.1	-1.6
KLMR				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.0						
KHC	Kasperske Hory	47.89	325	eP	P	01 41 06.3	+0.3
KHC	Kasperske Hory	47.89	325	eP	P	01 41 06.3	+0.3
FETA	Feichten	48.48	321	⇓ipP	pP	01 41 12.8	-0.9
	comp=Z,11nm,1.5s						
TSUM	Tsumeb	48.60	228	eP	P	01 41 12.8	+0.9
	comp=Z,9.0nm,1.4s,mb4.6						
TSUM	Tsumeb	48.60	228	eP	P	01 41 12.8	+0.9
	comp=Z,9.0nm,1.4s,mb4.6						
DAVOX	Davos/Dischmat	48.88	321	P	P	01 41 13.3	-0.4
	comp=Z,4.5nm,0.9s,mb4.5,baz=159,slow=11,SNR=3.0						
DAVOX	Davos/Dischmat	48.88	321	P	P	01 41 13.3	-0.4
DAVOS	Davos	48.96	321	P	P	01 41 13.3	-1.0
DAVA	Damuels	49.12	321	⇓iP	P	01 41 15.4	0.0
	comp=Z,14nm,1.6s,mb4.8						
SBF	Sospel	49.24	316	eP	P	01 41 15.4	-1.1
CLL	Collm	49.39	327	eP	P	01 41 16.0	-1.5
CLL	Collm	49.39	327	eP	P	01 41 16.0	-1.5
FRF	La Foret Royal	49.66	316	eP	P	01 41 18.6	-1.1
	comp=Z,44nm,1.2s,mb5.1						
FRF	La Foret Royal	49.66	316	eP	P	01 41 18.6	-1.1
FRF				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.1						
FRF	La Foret Royal	49.66	316	eP	P	01 41 18.6	-1.1
	comp=Z,22nm,1.2s,mb5.1						
FRF	La Foret Royal	49.66	316	eP	P	01 41 18.6	-1.1
	comp=Z,22nm,1.2s,mb5.1						
MBDF	Montbardon	50.01	317	eP	P	01 41 22.0	-0.3
	comp=Z,8.3nm,0.7s,mb4.5						
MBDF	Montbardon	50.01	317	eP	P	01 41 22.0	-0.3
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
MBDF	Montbardon	50.01	317	eP	P	01 41 22.0	-0.3
	comp=Z,4.2nm,0.7s,mb4.6						
MBDF	Montbardon	50.01	317	eP	P	01 41 22.0	-0.3
	comp=Z,4.2nm,0.7s,mb4.5						
LPG	La Plagne	50.32	318	eP	P	01 41 24.4	-0.2
	comp=Z,15nm,0.8s,mb4.8						
LPG	La Plagne	50.32	318	eP	P	01 41 24.4	-0.2
LPG				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
LPG	La Plagne	50.32	318	eP	P	01 41 24.4	-0.2
	comp=Z,7.5nm,0.8s,mb4.8						
LPG	La Plagne	50.32	318	eP	P	01 41 24.4	-0.2
	comp=Z,7.5nm,0.8s,mb4.8						
LPL	La Plagne	50.34	318	eP	P	01 41 24.6	-0.2
	comp=Z,45nm,1.3s,mb5.0						
LPL	La Plagne	50.34	318	eP	P	01 41 24.6	-0.2
LPL				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.0						
LPL	La Plagne	50.34	318	eP	P	01 41 24.6	-0.2
	comp=Z,22nm,1.3s,mb5.0						
LPL	La Plagne	50.34	318	eP	P	01 41 24.6	-0.2
	comp=Z,22nm,1.3s,mb5.0						
TOA0	Torodi Ar. Sit	50.45	275	eP	P	01 41 25.9	-0.2
TOA0	Torodi Ar. Sit	50.45	275	eP	P	01 41 25.9	-0.2
TORD	Torodi Ar. Bea	50.45	275	P	P	01 41 26.3	+0.2
	comp=Z,3.7nm,0.9s,mb4.4,baz=87,slow=6.9,SNR=21						
TORD				LR	LR	02 02 03.0	
	comp=Z,212nm,20.4s,MS4.1,baz=50,slow=35						
TORD	Torodi Ar. Bea	50.45	275	P	P	01 41 26.3	+0.2
BOSA	Boshof	50.63	213	eP	P	01 41 28.4	+1.2
BOSA				pmax	pmax		
	comp=Z,26nm,1.6s,mb4.9						
BOSA	Boshof	50.63	213	P	P	01 41 28.9	+1.7
	comp=Z,4.6nm,1.1s,mb4.3,baz=24,slow=11,SNR=5.8						
BOSA				LR	LR	02 02 37.8	
	comp=Z,216nm,19.4s,MS4.2,baz=1.4,slow=36						
BOSA	Boshof	50.63	213	eP	P	01 41 28.4	+1.2
	comp=Z,26nm,1.6s,mb4.9						
BOSA				LR	LR	02 02 37.8	
BOSA	Boshof	50.63	213	eP	P	01 41 28.4	+1.2
	comp=Z,26nm,1.6s,mb4.9						
ORIF	Oris-en-Rattie	50.66	317	eP	P	01 41 26.2	-1.1
ORIF	Oris-en-Rattie	50.66	317	eP	P	01 41 26.2	-1.1
GYA	Guiyang	50.85	67	P	P	01 41 29.1	+0.1
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CDF	Champ du Feu	51.19	322	eP	P	01 41 30.0	-1.2
CDF	Champ du Feu	51.19	322	eP	P	01 41 30.0	-1.2
JOF	Joensuu	51.20	347	ep	P	01 41 29.3	-1.7
	comp=Z,1.7nm,0.5s,mb4.2						
JOF	Joensuu	51.20	347	eP	P	01 41 29.3	-1.7
VIVF	Saint-Julien-l	51.44	317	eP	P	01 41 32.0	-1.2
VIVF	Saint-Julien-l	51.44	317	eP	P	01 41 32.0	-1.2
LASF	Ste Croix	51.73	315	eP	P	01 41 34.2	-1.1
LASF	Ste Croix	51.73	315	eP	P	01 41 34.2	-1.1
MEZF	Maizieres J'vi	52.57	321	eP	P	01 41 40.7	-0.8
MEZF	Maizieres J'vi	52.57	321	eP	P	01 41 40.7	-0.8
LOR	Lormes	52.84	319	eP	P	01 41 43.4	-0.1
LOR	Lormes	52.84	319	eP	P	01 41 43.4	-0.1
SSF	Saint Saulge	52.99	319	eP	P	01 41 43.3	-1.3
	comp=Z,21nm,0.9s,mb4.8						
SSF	Saint Saulge	52.99	319	eP	P	01 41 43.3	-1.3
SSF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
SSF	Saint Saulge	52.99	319	eP	P	01 41 43.3	-1.3
	comp=Z,11nm,0.9s,mb4.8						
SSF	Saint Saulge	52.99	319	eP	P	01 41 43.3	-1.3
	comp=Z,11nm,0.9s,mb4.8						
MOY	Mondy	53.15	35	eP	P	01 41 46.5	+0.8
MOY	Mondy	53.15	35	eP	P	01 41 46.5	+0.8
GIVF	Givet	53.36	323	eP	P	01 41 47.3	0.0
GIVF	Givet	53.36	323	eP	P	01 41 47.3	0.0
ZAK	Zakamensk	53.90	37	eP	P	01 41 50.3	-0.9
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
ZAK	Zakamensk	53.90	37	eP	P	01 41 50.3	-0.9
	comp=Z,3.0nm,1.4s,mb4.0						
HFS	Hagfors	54.39	337	P	P	01 41 53.5	-1.2
	comp=Z,8.0nm,0.9s,mb4.6,baz=134,slow=8.5,SNR=7.5						
HFS				LR	LR	02 09 01.8	
	comp=Z,70nm,20.6s,MS3.7,baz=345,slow=40						
HFS	Hagfors	54.39	337	P	P	01 41 53.5	-1.1
TLY	Talaya	54.64	36	eP	P	01 41 56.9	+0.3
TLY				eS	S	01 49 42.1	+5.7
TLY				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.2						
TLY				MLR	MLR		
	comp=Z,138nm,17.0s,MS4.1						
TLY	Talaya	54.64	36	eP	P	01 41 56.9	+0.3
	comp=Z,3.0nm,1.3s,mb4.2						
SONM	Songino Array	54.86	41	P	P	01 41 59.1	+0.8
	comp=Z,4.1nm,1.1s,mb4.4,baz=246,slow=5.8,SNR=21						
SONM				LR	LR	02 07 33.5	
	comp=Z,209nm,21.2s,MS4.2,baz=266,slow=38						
SONM	Songino Array	54.86	41	P	P	01 41 59.1	+0.8
NOA	NORSAR Array B	55.91	337	LR	LR	02 10 26.7	
	comp=Z,275nm,20.7s,MS4.3,baz=105,slow=41						
ESDC	Sonseca Array	56.28	308	P	P	01 42 08.6	-0.1
	comp=Z,3.9nm,0.9s,mb4.5,baz=90,slow=6.9,SNR=9.8						
ESDC	Sonseca Array	56.28	308	P	P	01 42 08.6	-0.1
ESDC	Sonseca Array	56.28	308	P	P	01 42 08.6	-0.1
DBIC	Dimbokro	57.94	269	eP	P	01 42 20.7	-0.1
DBIC				pmax	pmax		
	comp=Z,9.0nm,1.1s						
DBIC	Dimbokro	57.94	269	P	P	01 42 21.9	+1.1
	comp=Z,6.8nm,1.1s,mb4.6,baz=130,slow=13,SNR=3.2						
DBIC				LR	LR	02 06 51.1	
	comp=Z,136nm,18.9s,MS4.1,baz=51,slow=36						
DBIC	Dimbokro	57.94	269	eP	P	01 42 20.7	-0.1
	comp=Z,9.2nm,1.1s,mb4.7						
DBIC				LR	LR	02 06 51.1	
DBIC	Dimbokro	57.94	269	eP	P	01 42 20.7	-0.1
	comp=Z,9.0nm,1.1s,mb4.7						
ARCES	ARCESS Array B	58.12	349	P	P	01 42 19.1	-2.0
	comp=Z,1.5nm,0.5s,mb4.2,baz=49,slow=5.6,SNR=15						
ARCES				LR	LR	02 10 06.0	
	comp=Z,373nm,20.4s,MS4.5,baz=156,slow=39						
ARCES	ARCESS Array B	58.12	349	P	P	01 42 19.1	-2.0
LIC	Lamto	58.20	269	eP	P	01 42 24.3	+1.7
	comp=Z,52nm,1.2s,mb5.1						
LIC				eMLR	MLR		
	comp=Z,207nm,21.5s,MS3.9						
LIC	Lamto	58.20	269	eP	P	01 42 24.3	+1.7
	comp=Z,26nm,1.2s,mb5.1						
LIC				LR	LR		
	comp=Z,100nm,21.5s,MS3.9						
LIC	Lamto	58.20	269	eP	P	01 42 24.3	+1.7
	comp=Z,26nm,1.2s,mb5.1						
BJI	Beijing	60.02	52	P	P	01 42 35.4	+0.6
BJI				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.7						
CN2	Changchun	67.21	48	eP	P	01 43 22.2	-0.1
CN2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
KSRS	Korea Array	69.09	55	P	P	01 43 33.2	-1.0
	comp=Z,2.4nm,0.5s,mb4.4,baz=258,slow=6.3,SNR=5.0						
KSRS				LR	LR	02 14 49.7	
	comp=Z,70nm,19.2s,MS3.9,baz=162,slow=37						
JOW	Kunigami	70.16	66	LR	LR	02 11 43.3	
	comp=Z,99nm,21.9s,MS4.0,baz=155,slow=34						
TIXI	Tiksi	72.00	19	eP	P	01 43 49.9	-1.4
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
TIXI	Tiksi	72.00	19	eP	P	01 43 49.9	-1.4
	comp=Z,7.0nm,1.2s,mb4.5						
MJAR	Matsushiro Arr	77.37	55	LR	LR	02 22 11.6	
	comp=Z,77nm,18.3s,MS4.1,baz=270,slow=39						
SEY	Seymchan	81.43	27	⇑eP	P	01 44 44.8	0.0
SEY	Seymchan	81.43	27	eP	P	01 44 44.8	0.0
BILL	Bilibino	85.12	20	eP	P	01 45 02.7	-1.0
BILL				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.3						
BILL	Bilibino	85.12	20	eP	P	01 45 02.7	-1.0
	comp=Z,3.0nm,1.2s,mb4.3						
WRA	Warramunga Arr	86.22	112	P	P	01 45 10.5	+0.5
	comp=Z,0.9nm,0.6s,mb4.2,baz=297,slow=3.9,SNR=17						
WRA	Warramunga Arr	86.22	112	P	P	01 45 10.5	+0.4
WRAB	Tennant Creek	86.23	112	eP	P	01 45 10.3	+0.2
WRAB				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.8						
WRAB	Tennant Creek	86.23	112	eP	P	01 45 10.3	+0.2
	comp=Z,7.7nm,1.3s,mb4.8						
WRAB	Tennant Creek	86.23	112	eP	P	01 45 10.3	+0.2
	comp=Z,8.0nm,1.3s,mb4.8						
WB2	Warramunga Arr	86.23	112	eP	P	01 45 10.0	-0.2
WB2	Warramunga Arr	86.23	112	eP	P	01 45 10.0	-0.1
ASAR	Alice Springs	86.89	115	P	P	01 45 13.4	+0.1
	comp=Z,0.9nm,0.6s,mb4.2,baz=289,slow=4.8,SNR=15						
ASAR	Alice Springs	86.89	115	P	P	01 45 13.4	+0.1
PETK	Petropavlovsk-	87.01	36	LR	LR	02 26 55.4	
	comp=Z,114nm,21.2s,MS4.2,baz=131,slow=38						
RES	Resolute Bay	89.19	352	eP	P	01 45 22.3	-1.0
RES				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.6						
RES	Resolute Bay	89.19	352	eP	P	01 45 22.3	-1.0
	comp=Z,3.9nm,1.2s,mb4.6						
RES	Resolute Bay	89.19	352	eP	P	01 45 22.3	-1.0
	comp=Z,4.0nm,1.2s,mb4.6						
PDAR	Pinedale Array	121.31	346	PKP	PKPdf	01 51 21.9	+0.4
	comp=Z,0.7nm,1.1s,baz=36,slow=1.7,SNR=4.0						
PDAR	Pinedale Array	121.31	346	PKIKP	PKPdf	01 51 21.9	+0.4
NVAR	Mina Array Bea	127.16	352	PKP	PKPdf	01 51 33.9	+1.0
	comp=Z,0.2nm,0.4s,baz=76,slow=0.4,SNR=3.1						
NVAR	Mina Array Bea	127.16	352	PKIKP	PKPdf	01 51 33.8	+1.0
TXAR	Lajitas Array	131.55	333	PKP	PKPdf	01 51 42.9	+1.4
	comp=Z,0.3nm,0.8s,baz=359,slow=5.4,SNR=2.7						
TXAR	Lajitas Array	131.55	333	PKIKP	PKPdf	01 51 42.9	+1.5

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*ISCJB **01** 01:41:47.1±2.7, 36°.4N±0°.2×70°.8E±0°.2, h208^{km}±22^{km}, mb3.4/2, Error ellipse: s-maj=34.2km s-min=29.2km az=139.3*

*IDC **01** 01:41:48.9±20.0, 36°.33N×70°.93E, h214^{km}±181^{km}, mb3.3/3, mb1 3.3/4, mb1mx2.8/23, mbtmp3.1/4, ML3.3/1, Error ellipse: s-maj=128.3km s-min=30.1km az=41.0*

ISC 01 01:41:48.2±2.9**, 36°.4N**±0°.2×**70°.9E**±0°.2**, h203**^{km}±24^{km}**, n11,** σ**0^{s}65**/13**, mb3.4**/2**, 2C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	6.13	20	P	Pn	01 43 17.2	+0.1
	SNR=60						
EKS2	Erkin-Say	6.64	19	P	Pn	01 43 24.3	+0.6
	SNR=11						
KK31	Karatay Array	6.70	358	⇑Pn	Pn	01 43 23.3	-1.1
	2.1nm,0.3s,baz=179,slow=13,SNR=123						
KK31				⇑Sn	Sn	01 44 34.7	-6.1
	6.7nm,0.6s,baz=181,slow=21,SNR=12						
AAK	Ala-Archa	6.83	23	P	Pn	01 43 26.4	+0.3
	SNR=9.0						
KBK	Karagaybulak	7.00	26	P	Pn	01 43 28.9	+0.6
	SNR=5.7						
TKM2	Tokmak 2	7.46	28	P	Pn	01 43 34.7	+0.3
	SNR=16						
TKM2	Tokmak 2	7.46	28	⇓Pn	Pn	01 43 34.2	-0.1
	17nm,0.9s						
TKM2				⇓Sn	Sn	01 44 57.8	-1.0
	3.3nm,0.8s						
MKAR	Makanchi Array	13.44	36	P	Pn	01 44 51.4	+0.6
	0.1nm,0.3s,baz=222,slow=12,SNR=6.4						
ZALV	Zalesovo Beam	20.05	25	P	P	01 46 06.1	+0.5
	1.8nm,0.3s,baz=215,slow=11,SNR=11						
ARCES	ARCESS Array B	41.19	338	P	P	01 49 12.7	+0.2
	4.1nm,1.0s,mb3.8,baz=110,slow=7.8,SNR=3.6						
WRA	Warramunga Arr	82.03	122	P	P	01 53 44.9	-1.0
	0.4nm,0.9s,mb3.1,baz=330,slow=5.3,SNR=3.2						

IDC 01 01:48:43.7±6.0**, 39°.50N**×**110°.80E, h0**^{km}**, mb3.4**/3**, mb1 3.5**/4**, mb1mx3.3**/23**, mbtmp3.4**/4**, Error ellipse: s-maj=126.0km s-min=25.3km az=83.0, Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	8.92	341	Pn	Pn	01 50 55.6	+1.8
	baz=154,slow=14,SNR=5.9						
SONM				Lg		01 53 23.2	
	0.1nm,0.3s,baz=156,slow=25,SNR=2.7						
MKAR	Makanchi Array	21.96	299	P	P	01 53 39.1	+0.3
	0.9nm,0.8s,baz=96,slow=12,SNR=12						
CMAR	Chiang Mai Arr	23.35	209	P	P	01 53 53.1	-0.6
	0.8nm,0.4s,baz=22,slow=8.2,SNR=5.2						
KURK	Kurchatov	25.13	307	P	P	01 54 10.6	+0.5
	0.6nm,0.9s,baz=113,slow=8.9,SNR=3.8						

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*IDC **01** 01:57:45.5±0.9, 31°.63N×51°.00E, h0^{km}, mb4.0/15, mb1 4.0/20, mb1mx3.9/31, mbtmp4.0/20, ML3.6/5, MS2.9/3, Ms1 2.9/3, ms1mx2.6/33, Error ellipse: s-maj=21.9km s-min=13.8km az=146.0*

*ISCJB **01** 01:57:46.1±0.2, 31°.68N±0°.03×50°.98E±0°.03, h10^{km}, mb4.1/26, Error ellipse: s-maj=4.1km s-min=3.3km az=173.8*

*THR **01** 01:57:46.5±0.8, 31°.64N×51°.23E, h15^{km}, ML3.8*

*CSEM **01** 01:57:47.6±0.2, 31°.69N×50°.99E, h10^{km}, mb4.2/18, Error ellipse: s-maj=5.8km s-min=5.1km az=152.0*

*NEIC **01** 01:57:48.0, 31°.64N×50°.99E, h11^{km}, mb4.1/5, ML3.8(THR), MN3.9(TEH), After TEH.*

*MOS **01** 01:57:48.2±0.9, 31°.60N×50°.91E, h33^{km}, mb4.4/15, Error ellipse: s-maj=11.5km s-min=8.5km az=113.4*

*TEH **01** 01:57:49.6, 31°.63N×50°.95E, h21^{km}*

ISC 01 01:57:47.8±0.2**, 31°.68N**±0°.03×**51°.00E**±0°.03**, h10**^{km}**, n175,** σ**1^{s}27**/190**, mb4.1**/26**, 3C-7D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IPIR	Pirpir	1.01	355	ePg	Pg	01 58 04.8	-2.4
IPIR	Pirpir	1.01	355	e	Sn	01 58 28.2	+6.0
	comp=Z,20µm,0.4s						
IGAR	Gharneh	1.15	50	ePg	Pg	01 58 04.9	-4.9
IGAR	Gharneh	1.15	50	e	Sg	01 58 21.1	-3.6
	comp=Z,63µm,0.2s						
IZEF	Zefreh	1.66	42	e	Pn	01 58 19.6	+2.7
	comp=Z,10µm,0.3s						
IKLH	Kolahrood	1.71	16	Pn	Pn	01 58 16.7	-0.9
IKLH				Sn	Sn	01 58 41.0	+1.4
IKLH	Kolahrood	1.71	16	eSn	Sn	01 58 41.1	+1.5
IKLH				e		01 58 55.6	
	comp=Z,13µm,0.4s						
IKLH	Kolahrood	1.71	16	Pn	Pn	01 58 16.7	-0.9
IKLH				eSn	Sn	01 58 41.1	+1.5
NASN	Na'in	1.90	53	Pg	Pn	01 58 18.0	-2.2
NASN				Sg	Sn	01 58 42.0	-2.2
NASN	Na'in	1.90	53	ePg	Pn	01 58 19.0	-1.2
NASN				eSg	Sn	01 58 42.5	-1.6
SHGR	Shooshtar-Gavs	1.92	284	Pn	Pn	01 58 23.0	+2.5
SHGR	Shooshtar-Gavs	1.92	284	ePN5	Pn	01 58 23.0	+2.5
SHGR				AML	AML	01 59 05.0	
	comp=E,1µm,0.8s						
SHGR				AML	AML	01 59 05.1	
	comp=N,903nm,0.6s						
SHGR	Shooshtar-Gavs	1.92	284	ePn	Pn	01 58 23.4	+2.9
ISAD	Sadrabad	2.30	83	Pn	Pn	01 58 26.3	+0.6
ISAD				Sn	Sn	01 58 55.4	+1.3
ISAD	Sadrabad	2.30	83	ePn	Pn	01 58 26.3	+0.6
ISAD				eSn	Sn	01 58 55.5	+1.4
ISAD				e		01 59 03.0	
	comp=Z,15µm,0.3s						
ISAD	Sadrabad	2.30	83	ePn	Pn	01 58 26.3	+0.6
ISAD				eSn	Sn	01 58 55.5	+1.4
IPAR	Pars	2.54	135	Pn	Pn	01 58 29.6	+0.6
IPAR				Sn	Sn	01 58 59.8	-0.2
IPAR	Pars	2.54	135	ePn	Pn	01 58 29.6	+0.6
IPAR				eSn	Sn	01 58 59.8	-0.2
IPAR				e		01 59 32.0	
	comp=Z,6µm,0.4s						
IPAR	Pars	2.54	135	ePn	Pn	01 58 29.6	+0.6
IPAR				eSn	Sn	01 58 59.8	-0.2
ISFB	Sefidab	2.87	21	ePn	Pn	01 58 34.0	+0.5
ISFB				e		01 58 39.8	
	comp=Z,6µm,0.5s						
ISFB	Sefidab	2.87	21	ePn	Pn	01 58 34.0	+0.5
ICHK	Chekchek	2.95	78	Pn	Pn	01 58 35.1	+0.4
ICHK	Chekchek	2.95	78	ePn	Pn	01 58 35.2	+0.5
ICHK				e		01 59 24.4	
	comp=Z,2µm,0.2s						
ICHK	Chekchek	2.95	78	ePn	Pn	01 58 35.2	+0.5
ASAO	Ashtian	2.98	344	Pn	Pn	01 58 36.0	+0.9
ASAO	Ashtian	2.98	344	ePn	Pn	01 58 37.1	+2.1
ASAO				AML	AML	01 59 33.4	
	comp=N,285nm,0.7s						
ASAO				AML	AML	01 59 37.2	
	comp=E,233nm,0.7s						
ASAO	Ashtian	2.98	344	ePn	Pn	01 58 36.9	+1.8
IMOK	Mouk	3.01	150	ePn	Pn	01 58 34.8	-0.7
IMOK				e		01 59 32.3	
	comp=Z,3µm,0.3s						
IMOK	Mouk	3.01	150	ePn	Pn	01 58 34.8	-0.7
IMEH	Mehriz	3.10	94	Pn	Pn	01 58 37.2	+0.5

IMEH				Sn	Sn	01 59 12.9	-0.9
IMEH	Mehriz	3.10	94	*e*Pn	Pn	01 58 37.3	+0.6
IMEH				*e*Sn	Sn	01 59 13.0	-0.8
IMEH				*e*		01 59 40.8	
	comp=Z,2µm,0.5s						
IMEH	Mehriz	3.10	94	*e*Pn	Pn	01 58 37.3	+0.6
IMEH				*e*Sn	Sn	01 59 13.0	-0.8
IVRN	Varamin	3.37	10	*e*Pn	Pn	01 58 42.6	+2.2
IVRN				*e*		01 59 55.0	
	comp=Z,2µm,0.5s						
IVRN	Varamin	3.37	10	*e*Pn	Pn	01 58 42.6	+2.2
MIB	Mutribah	3.66	240	*e*P	Pn	01 58 46.5	+2.1
MIB				AML	AML	01 59 34.9	
	comp=Z,145nm,0.6s						
MIB	Mutribah	3.66	240	*e*P	Pn	01 58 46.5	+2.1
KBD	Kabd	3.79	230	*e*P	Pn	01 58 48.5	+2.3
KBD				AML	AML	01 59 39.4	
	comp=Z,139nm,0.7s						
KBD	Kabd	3.79	230	*e*P	Pn	01 58 48.5	+2.3
GHIR	Ghir-Karzin	3.79	152	Pn	Pn	01 58 45.0	-1.2
GHIR	Ghir-Karzin	3.79	152	*e*Pn	Pn	01 58 45.1	-1.2
GHIR	Ghir-Karzin	3.79	152	*e*Pn	Pn	01 58 45.1	-1.1
IBAF	Bafgh	3.90	90	Pn	Pn	01 58 48.4	+0.7
IBAF	Bafgh	3.90	90	Pn	Pn	01 58 48.4	+0.7
QRN	Al-Qurain	3.96	223	*e*P	Pn	01 58 50.2	+1.8
QRN	Al-Qurain	3.96	223	*e*P	Pn	01 58 50.2	+1.7
IDMV	Damavand	3.99	12	Pn	Pn	01 58 49.8	+0.9
IDMV	Damavand	3.99	12	*e*Pn	Pn	01 58 49.9	+1.0
IDMV				*e*		01 59 08.9	
	comp=Z,1µm,0.3s						
IDMV	Damavand	3.99	12	*e*Pn	Pn	01 58 49.9	+1.0
DAMV	Damavand	4.03	11	Pn	Pn	01 58 50.0	+0.5
DAMV	Damavand	4.03	11	*e*Pn	Pn	01 58 50.1	+0.7
DAMV				AML	AML	02 00 02.0	
	comp=N,81nm,0.6s						
DAMV				AML	AML	02 00 06.8	
	comp=E,74nm,0.6s						
DAMV	Damavand	4.03	11	*e*Pn	Pn	01 58 50.1	+0.6
NAY	Al-Naaiem	4.04	234	*e*P	Pn	01 58 51.8	+2.1
NAY				AML	AML	01 59 46.7	
	comp=Z,79nm,0.5s						
NAY	Al-Naaiem	4.04	234	*e*P	Pn	01 58 51.8	+2.1
RDF	Al-Radifah	4.05	228	*e*P	Pn	01 58 51.5	+1.7
RDF				AML	AML	01 59 43.9	
	comp=Z,140nm,0.6s						
RDF	Al-Radifah	4.05	228	*e*P	Pn	01 58 51.5	+1.7
CHTH	Charan	4.22	1	Pn	Pn	01 58 53.0	+0.8
CHTH	Charan	4.22	1	*e*Pn	Pn	01 58 53.4	+1.3
CHTH	Charan	4.22	1	*e*Pn	Pn	01 58 53.4	+1.2
KFJS		4.37	218	P	Pn	01 58 54.9	+0.7
KFJS		4.37	218	P	Pn	01 58 54.9	+0.7
IVIS	Veis	4.50	310	Pn	Pn	01 58 55.7	-0.2
IVIS	Veis	4.50	310	*e*Pn	Pn	01 58 56.2	+0.3
IVIS				*e*		02 00 23.6	
	comp=Z,884nm,0.4s						
IVIS	Veis	4.50	310	*e*Pn	Pn	01 58 56.2	+0.3
ISHM	Shahmirzad	4.54	24	*e*Pn	Pn	01 58 56.9	+0.4
ISHM				*e*		02 00 30.0	
	comp=Z,1µm,0.2s						
ISHM	Shahmirzad	4.54	24	*e*Pn	Pn	01 58 56.9	+0.4
IGHG	Ghaleghazi	4.57	307	Pn	Pn	01 58 58.4	+1.5
IGHG	Ghaleghazi	4.57	307	Pn	Pn	01 58 58.4	+1.5
ITEG	Tejag	6.67	77	*e*Pn	Pn	01 59 26.4	+0.6
ITEG				*e*		02 01 34.1	
	comp=Z,240nm,0.3s						
ITEG	Tejag	6.67	77	*e*Pn	Pn	01 59 26.4	+0.6
ASYS		7.13	236	P	Pn	01 59 30.5	-1.7
ASYS		7.13	236	P	Pn	01 59 30.5	-1.6
ASYS				S	Sn	02 00 50.1	-3.1
GNI	Garni	9.86	331	*e*P	Pn	02 00 09.9	+0.4
GNI	Garni	9.86	331	*e*P	Pn	02 00 09.9	+0.4
ASF	Jabal al Asfar	11.99	276	Pn	Pn	02 00 36.7	-2.1
	comp=Z,1.4nm,0.3s,baz=277,slow=3.7,SNR=8.5						
ASF				LR	LR	02 05 08.2	
	comp=Z,61nm,20.8s,baz=119,slow=37						
MMAI	Mount Meron Ar	13.26	280	Pn	Pn	02 00 54.6	-1.4
	comp=Z,0.5nm,0.3s,baz=88,slow=16,SNR=6.2						
MMAI				LR	LR	02 05 34.6	
	comp=Z,24nm,18.6s,baz=35,slow=35						
EIL	Elat	13.96	266	Pn	Pn	02 01 05.5	-0.2
	comp=Z,0.3nm,0.3s,baz=142,slow=15,SNR=3.5						
EIL				LR	LR	02 07 26.6	
	comp=Z,68nm,19.6s,baz=260,slow=42						
EIL	Elat	13.96	266	Pn	Pn	02 01 05.4	-0.2
BR131	Keskin Array S	16.21	304	*e*P	Pn	02 01 36.2	+0.7
	comp=Z,7.3nm,1.0s						
BR131	Keskin Array S	16.21	304	*e*P	Pn	02 01 36.2	+0.6
	comp=Z,7.3nm,1.0s						
BRTR	Keskin Array B	16.21	304	Pn	Pn	02 01 35.4	-0.2
	comp=Z,0.0nm,0.3s,baz=132,slow=8.3,SNR=6.7						
BRTR	Keskin Array B	16.21	304	Pn	Pn	02 01 35.4	-0.2
ISP	Isparta	17.91	296	*i* P	Pn	02 01 57.0	+0.1
AKTK	Aktyubinsk	19.46	14	P	Pn	02 02 14.6	-1.0
AKTK	Aktyubinsk	19.46	14	P	Pn	02 02 14.6	-1.0
AKTO	Aktyubinsk	19.46	14	P	Pn	02 02 14.6	-1.0
	comp=Z,0.2nm,0.3s,baz=190,slow=9.8,SNR=6.4						
KSH	Kashi	21.72	62	P	P	02 02 39.5	+0.5
KSH				*e*pP		02 02 43.5	
KSH				*e*sP	sP	02 02 46.3	+3.1
KSH				*e*PP		02 03 04.0	
KSH				*e*S	S	02 06 33.8	-5.5
KSH				*e*sS	sS	02 06 40.0	-3.8
KSH				*e*PcP	PcP	02 06 44.0	+4.3
KSH				*e*SS		02 07 09.0	
KSH				*e*ScP	ScP	02 10 17.1	+0.2
KSH				*e*PcS	PcS	02 10 18.2	+0.2
KSH				*e*ScS	ScS	02 14 00.7	-0.5
KSH				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.8						
KSH				pmax	pmax		
	comp=Z,100nm,3.3s						
KSH				LR	LR		
	comp=N,300nm,5.6s						
KSH				LR	LR		
	comp=E,380nm,9.6s						
KSH				LR	LR		
	comp=Z,210nm,5.0s						
IDI	Anoyia	22.05	286	P	P	02 02 43.4	+0.8
	comp=Z,9.1nm,0.8s,mb4.3,baz=90,slow=10.0,SNR=8.7						
IDI	Anoyia	22.05	286	P	P	02 02 43.4	+0.8
HARR	Harsova	22.22	312	⇓*i*P	P	02 02 44.7	+0.4
HARR	Harsova	22.22	312	⇓*i*P	P	02 02 44.7	+0.4
MLR	Muntele Rosu	23.83	313	⇓*i*P	P	02 03 03.6	+2.6
VOIR		24.38	312	⇓*i*P	P	02 03 06.7	+0.8
VOIR		24.38	312	⇓*i*P	P	02 03 06.7	+0.8
AKASG	Malin Array Be	24.94	326	P	P	02 03 10.2	-0.8
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG	Malin Array Be	24.94	326	P	P	02 03 10.2	-0.7
	comp=Z,3.1nm,0.6s,mb4.0,baz=134,slow=8.5,SNR=18						
AKASG	Malin Array Be	24.94	326	P	P	02 03 10.2	-0.8
	comp=Z,3.0nm,0.6s,mb4.0						
AKBB	Malin Array Si	24.94	326	*e*P	P	02 03 09.9	-1.1
AKBB	Malin Array Si	24.94	326	*e*P	P	02 03 09.9	-1.1
BURAR	Bucovina Array	25.28	316	⇓*i*P	P	02 03 14.9	+0.8
BURAR	Bucovina Array	25.28	316	⇓*i*P	P	02 03 14.9	+0.8
BUR08	Bucovina Ar. S	25.31	316	*e*P	P	02 03 14.4	0.0
BUR08	Bucovina Ar. S	25.31	316	*e*P	P	02 03 14.4	0.0
BRVK	Borovoye	25.53	28	*e*P	P	02 03 16.8	+0.5
BRVK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.9						
BRVK	Borovoye	25.53	28	*e*P	P	02 03 16.8	+0.5
	comp=Z,3.9nm,1.1s,mb3.9						
BRVK	Borovoye	25.53	28	*e*P	P	02 03 16.8	+0.5
	comp=Z,4.0nm,1.1s,mb3.9						
BVAR	Borovoye Array	25.55	28	P	P	02 03 16.8	+0.3
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	Borovoye Array	25.55	28	P	P	02 03 16.8	+0.3
	comp=Z,1.1nm,0.6s,mb3.6,baz=218,slow=9.3,SNR=12						
BVAR	Borovoye Array	25.55	28	P	P	02 03 16.8	+0.3
	comp=Z,1.0nm,0.6s,mb3.5						
KURK	Kurchatov	27.92	39	*e*P	P	02 03 36.7	-1.2
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
KURK	Kurchatov	27.92	39	P	P	02 03 35.1	-2.8
	comp=Z,1.7nm,0.6s,mb3.8,baz=238,slow=9.8,SNR=5.9						
KURK	Kurchatov	27.92	39	*e*P	P	02 03 36.7	-1.2
	comp=Z,1.9nm,0.7s,mb3.8						
KURK	Kurchatov	27.92	39	*e*P	P	02 03 36.7	-1.2
	comp=Z,2.0nm,0.7s,mb3.9						
MK31	Makanchi Array	28.33	49	*e*P	P	02 03 41.1	-0.5
MK31	Makanchi Array	28.33	49	*e*P	P	02 03 41.1	-0.5
MKAR	Makanchi Array	28.33	49	P	P	02 03 41.1	-0.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	28.33	49	P	P	02 03 41.1	-0.5
	comp=Z,0.6nm,0.7s,mb3.3,baz=240,slow=12,SNR=7.1						
MKAR	Makanchi Array	28.33	49	P	P	02 03 41.1	-0.5
	comp=Z,1.0nm,0.7s,mb3.5						
ZALV	Zalesovo Beam	32.84	37	P	P	02 04 22.6	+1.3
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
ZALV	Zalesovo Beam	32.84	37	P	P	02 04 22.6	+1.3
	comp=Z,1.4nm,0.6s,mb4.1,baz=244,slow=9.1,SNR=8.8						
CLL	Collm	34.05	316	*e*P	P	02 04 34.0	+2.1
FETA	Feichten	34.29	308	⇑*i*P	P	02 04 31.0	-3.0
	comp=Z,3.5nm,0.9s,mb4.3						
KEST	Kesra	34.70	288	P	P	02 04 39.5	+1.8
	comp=Z,1.5nm,0.8s,mb4.0,baz=352,slow=4.6,SNR=4.5						
DAVA	Damuels	34.91	309	⇑*i*P	P	02 04 38.0	-1.4
	comp=Z,3.7nm,0.5s,mb4.5						
DAVA	Damuels	34.91	309	P	P	02 04 38.0	-1.4
	comp=Z,3.7nm,0.5s,mb4.5						
MBDF	Montbardon	36.68	304	*e*P	P	02 04 54.1	-0.5
	comp=Z,8.4nm,0.7s,mb4.3						
MBDF	Montbardon	36.68	304	*e*P	P	02 04 54.1	-0.5
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
MBDF	Montbardon	36.68	304	*e*P	P	02 04 54.1	-0.5
	comp=Z,4.2nm,0.7s,mb4.4						
MBDF	Montbardon	36.68	304	*e*P	P	02 04 54.1	-0.5
	comp=Z,8.0nm,0.7s,mb4.6						
LPG	La Plagne	36.77	305	*e*P	P	02 04 55.0	-0.4
	comp=Z,13nm,0.8s,mb4.5						
LPG	La Plagne	36.77	305	*e*P	P	02 04 55.0	-0.4
LPG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
LPG	La Plagne	36.77	305	*e*P	P	02 04 55.0	-0.4
	comp=Z,6.3nm,0.8s,mb4.5						
LPG	La Plagne	36.77	305	*e*P	P	02 04 55.0	-0.4
	comp=Z,12nm,0.8s,mb4.8						
BNI	Bardonecchia	36.78	304	*e*P	P	02 04 54.4	-1.1
BNI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
BNI	Bardonecchia	36.78	304	*e*P	P	02 04 54.4	-1.1
	comp=Z,5.2nm,0.7s,mb4.5						
BNI	Bardonecchia	36.78	304	*e*P	P	02 04 54.4	-1.1
	comp=Z,5.0nm,0.7s,mb4.5						
LPL	La Plagne	36.79	305	*e*P	P	02 04 54.2	-1.3
	comp=Z,24nm,1.2s,mb4.6						
LPL	La Plagne	36.79	305	*e*P	P	02 04 54.2	-1.3
LPL				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.6						
LPL	La Plagne	36.79	305	*e*P	P	02 04 54.2	-1.3
	comp=Z,12nm,1.2s,mb4.6						
LPL	La Plagne	36.79	305	*e*P	P	02 04 54.2	-1.3
	comp=Z,23nm,1.2s,mb4.9						
CABF	La Chapelle	37.37	307	*e*P	P	02 04 59.2	-1.2
CABF	La Chapelle	37.37	307	*e*P	P	02 04 59.2	-1.2
HFS	Hagfors	37.64	330	P	P	02 05 01.3	-1.3
HFS				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HFS	Hagfors	37.64	330	P	P	02 05 01.3	-1.3
	comp=Z,3.1nm,0.5s,mb4.3,baz=120,slow=8.7,SNR=13						
HFS	Hagfors	37.64	330	P	P	02 05 01.3	-1.3
	comp=Z,3.0nm,0.5s,mb4.3						
SMF	Signal de Mont	38.91	306	*e*P	P	02 05 11.7	-1.7
SMF	Signal de Mont	38.91	306	*e*P	P	02 05 11.7	-1.7
NOA	NORSAR Array B	39.16	330	P	P	02 05 13.5	-1.9
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	39.16	330	P	P	02 05 13.5	-1.9
	comp=Z,1.0nm,0.6s,mb3.7,baz=124,slow=8.5,SNR=3.3						
NOA	NORSAR Array B	39.16	330	P	P	02 05 13.5	-1.9
	comp=Z,1.0nm,0.6s,mb3.7						
GTA	Gaotai	40.06	65	*e*P	P	02 05 23.6	+0.4
GTA				pP	pP	02 05 27.4	+1.1
GTA				sP	sP	02 05 31.0	+3.5
GTA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
ARCES	ARCESS Array B	40.55	347	P	P	02 05 26.0	-0.8
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	40.55	347	P	P	02 05 25.9	-0.9
	comp=Z,4.1nm,0.9s,mb4.1,baz=146,slow=6.7,SNR=7.1						
ARCES	ARCESS Array B	40.55	347	P	P	02 05 26.0	-0.8
	comp=Z,4.0nm,0.9s,mb4.0						
SONM	Songino Array	44.57	52	P	P	02 05 59.2	-0.6
	comp=Z,0.4nm,0.8s,mb3.3,baz=251,slow=9.0,SNR=3.1						
SONM	Songino Array	44.57	52	P	P	02 05 59.2	-0.6
ESDC	Sonseca Array	44.76	296	P	P	02 06 01.8	+0.3
	comp=Z,0.7nm,0.7s,mb3.6,baz=63,slow=9.4,SNR=3.4						
ESDC	Sonseca Array	44.76	296	P	P	02 06 01.8	+0.4
TOA0	Torodi Ar. Sit	48.73	259	*e*P	P	02 06 31.5	-1.2
TOA0	Torodi Ar. Sit	48.73	259	*e*P	P	02 06 31.5	-1.3
TORD	Torodi Ar. Bea	48.73	259	P	P	02 06 31.9	-0.8
	comp=Z,1.7nm,0.6s,mb4.2,baz=57,slow=8.2,SNR=19						
TORD	Torodi Ar. Bea	48.73	259	P	P	02 06 31.9	-0.8
BOD	Bodaibo	49.57	39	*e*P	P	02 06 35.6	-3.1
TIXI	Tiksi	56.47	22	⇑*e*P	P	02 07 30.5	+1.2
TIXI				pmax	pmax		
	comp=Z,6.0nm,2.0s,mb4.3						
TIXI	Tiksi	56.47	22	*e*P	P	02 07 30.5	+1.2
	comp=Z,6.0nm,2.0s,mb4.3						
DBIC	Dimbokro	57.61	257	P	P	02 07 38.3	0.0
DBIC				pmax	pmax		
	comp=Z,1.0nm,0.6s						
DBIC	Dimbokro	57.61	257	P	P	02 07 38.3	0.0
	comp=Z,1.2nm,0.6s,mb4.1,baz=24,slow=11,SNR=4.0						
DBIC	Dimbokro	57.61	257	P	P	02 07 38.3	0.0
	comp=Z,1.0nm,0.6s,mb4.0						
LBTB	Lobatse	61.38	206	*e*P	P	02 08 02.9	-1.0
LBTB				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
LBTB	Lobatse	61.38	206	P	P	02 08 03.2	-0.7
	comp=Z,1.1nm,0.5s,mb4.2,baz=16,slow=7.4,SNR=2.9						
LBTB	Lobatse	61.38	206	*e*P	P	02 08 02.9	-1.1
	comp=Z,3.9nm,1.0s,mb4.5						
LBTB	Lobatse	61.38	206	*e*P	P	02 08 02.9	-1.0
	comp=Z,4.0nm,1.0s,mb4.5						
BOSA	Boshof	64.77	205	P	P	02 08 24.8	-1.6
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
BOSA	Boshof	64.77	205	P	P	02 08 24.8	-1.6
	comp=Z,2.0nm,0.9s,mb4.2,baz=143,slow=5.3,SNR=3.9						
BOSA	Boshof	64.77	205	P	P	02 08 24.8	-1.6
BOSA	Boshof	64.77	205	P	P	02 08 24.8	-1.6
	comp=Z,2.0nm,0.9s,mb4.2						

ISCJB ***01*** *01:58:43.2±0.8, 33°.64S±0°.04×70°.77W±0°.09, h86*^{km}*±7*^{km}*, Error ellipse: s-maj=12.2km s-min=7.1km az=178.5*

GUC ***01*** *01:58:43.3±0.6, 33°.64S×70°.72W, h83*^{km}*±2*^{km}*, MD3.9, ML4.0*

NEIC ***01*** *01:58:43.3, 33°.64S×70°.72W, h83*^{km}*, MD3.9(GUC), After GUC.*

ISC 01 01:58:43.7±0.8**, 33°.64S**±0°.04×**70°.78W**±0°.09**, h83**^{km}±7^{km}**, n24, σ0**^{s}**.31**/38**, 2C-9D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TACH	Talagante	0.13	265	⇓*i*P	Pn	01 58 55.6	+0.1
ANTU	Antumapu	0.15	60	*e*P	Pn	01 58 55.4	-0.2
ANTU				*i* S	Sn	01 59 04.5	0.0
ANTU	Antumapu	0.15	60	*e*P	Pn	01 58 55.4	-0.2
ANTU				*i* S	Sn	01 59 04.5	0.0
ANTU				AML	AML	01 59 05.1	
	comp=E,23µm,0.5s						
RCDM	Rinconada Maip	0.15	353	*e*P	Pn	01 58 55.5	-0.2
RCDM				*i* S	Sn	01 59 04.8	+0.2
RCDM	Rinconada Maip	0.15	353	*e*P	Pn	01 58 55.5	-0.2
RCDM				*i* S	Sn	01 59 04.8	+0.2
RCDM				AML	AML	01 59 05.7	
	comp=N,25µm,0.2s						
SAN	Santiago	0.21	28	*e*P	Pn	01 58 55.5	-0.4
SAN				*i* S	Sn	01 59 04.9	0.0
PCH	Pirque	0.23	85	⇑*i*P	Pn	01 58 55.8	-0.2
PCH				*i* S	Sn	01 59 04.9	-0.1
FSR	Penalolen	0.27	53	*e*P	Pn	01 58 55.9	-0.2
FSR				*i* S	Sn	01 59 05.4	0.0
CHCH	Chadas Angostu	0.31	159	⇓*i*P	Pn	01 58 55.9	-0.5
CACH	El Canelo	0.50	162	⇓*i*P	Pn	01 58 58.1	+0.4
PEL	Peldehue	0.51	9	⇓*i*P	Pn	01 58 57.8	0.0
PEL				*i* S	Sn	01 59 08.4	+0.2
FCH	Farellones	0.52	53	⇓*i*P	Pn	01 58 57.0	-0.8
FCH				*i* S	Sn	01 59 08.0	-0.5
FCH				AML	AML	01 59 08.4	
	comp=N,6µm,0.2s						
LMEL	Las Melosas	0.53	113	⇓*i*P	Pn	01 58 57.8	-0.1
LMEL				S	Sn	01 59 08.9	+0.4
LMEL	Las Melosas	0.53	113	⇓*i*P	Pn	01 58 57.8	-0.1
LMEL				*i* S	Sn	01 59 08.9	+0.4
LMEL				AML	AML	01 59 11.2	
	comp=N,6µm,0.1s						
YECH	El Yeso	0.58	92	⇓*e*P	Pn	01 58 58.6	+0.1
YECH				*i* S	Sn	01 59 10.2	+0.8
ROCH	El Roble	0.70	344	⇓*i*P	Pn	01 58 59.8	+0.3
CICH	Cipreses	0.74	156	⇑*i*P	Pn	01 59 00.0	0.0
IHA	Instituto Hidr	0.94	310	*e*P	Pn	01 59 02.5	+0.2
JACH	Jahuel	0.97	10	*e*P	Pn	01 59 02.6	0.0
NICH	Los Niches	1.41	195	*e*P	Pn	01 59 08.0	+0.1
CHNG	Los Chungos	1.86	341	*e*P	Pn	01 59 14.1	+0.3
TALC	Talca	1.89	202	*e*P	Pn	01 59 14.3	+0.1
TALC				S	Sn	01 59 37.1	-0.2
TALC	Talca	1.89	202	*e*P	Pn	01 59 14.3	+0.1
TALC				*i* S	Sn	01 59 37.1	-0.2
TALC				AML	AML	01 59 40.4	
	comp=N,2µm,0.1s						
TLL	Tololo Astrono	3.46	360	*e*P	Pn	01 59 35.5	+0.1

ISCJB ***01*** *02:02:44.6±1.3, 14°.3N±0°.2×53°.8E±0°.2, h10*^{km}*, mb3.7/11, Error ellipse: s-maj=30.5km s-min=18.0km az=40.9*

IDC ***01*** *02:02:44.3±1.6, 14°.20N×53°.73E, h0*^{km}*, mb3.8/11, mb1 3.9/11, mb1mx3.7/26, mbtmp3.8/11, Error ellipse: s-maj=39.4km s-min=23.7km az=45.0*

NEIC ***01*** *02:02:46.0±1.2, 14°.24N×53°.77E, h10*^{km}*, mb3.7/1, Error ellipse: s-maj=29.9km s-min=17.5km az=220.0*

CSEM ***01*** *02:02:46.0, 14°.24N×53°.77E, h10*^{km}*, mb3.7/1, After NEIC*

ISC 01 02:02:46.1±1.3**, 14°.2N**±0°.2×**53°.8E**±0°.2**, h10**^{km}**, n21, σ1**^{s}**.01**/21**, mb3.7**/11**, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GNI	Garni	27.00	345	P	P	02 08 29.4	+1.2
	4.1nm,0.9s,mb3.9,baz=189,slow=9.1,SNR=3.6						
GNI	Garni	27.00	345	P	P	02 08 29.4	+1.2
IDI	Anoyia	33.37	314	P	P	02 09 25.8	+1.2
	9.9nm,1.1s,mb4.7,baz=37,slow=5.1,SNR=4.0						
IDI	Anoyia	33.37	314	P	P	02 09 25.8	+1.1
MKAR	Makanchi Array	40.27	30	P	P	02 10 23.1	-0.2
	0.2nm,0.6s,mb3.0,baz=222,slow=11,SNR=3.2						
BVAR	Borovoye Array	40.88	15	P	P	02 10 27.7	-0.5
	0.6nm,0.7s,mb3.4,baz=193,slow=6.1,SNR=5.7						
BVAR	Borovoye Array	40.88	15	P	P	02 10 27.7	-0.5
AKASG	Malin Array Be	41.45	336	P	P	02 10 31.2	-1.7
	0.2nm,0.2s,mb3.3,baz=133,slow=7.4,SNR=4.3						
AKASG	Malin Array Be	41.45	336	P	P	02 10 31.2	-1.7
KURK	Kurchatov	41.57	24	P	P	02 10 32.7	-1.3
	1.2nm,0.4s,mb3.9,baz=227,slow=8.3,SNR=4.4						
KURK	Kurchatov	41.57	24	*e*P	P	02 10 33.0	-1.0
	0.7nm,0.4s,mb3.6						
KURK	Kurchatov	41.57	24	*e*P	P	02 10 33.0	-1.0
	0.7nm,0.4s,mb3.6						
CMAR	Chiang Mai Arr	43.46	78	P	P	02 10 51.3	+1.4
	0.9nm,0.3s,mb3.9,baz=277,slow=7.7,SNR=4.3						
CMAR	Chiang Mai Arr	43.46	78	P	P	02 10 51.3	+1.5
ZALV	Zalesovo Beam	46.51	25	P	P	02 11 13.1	-0.4
	0.4nm,0.3s,mb3.8,baz=243,slow=6.3,SNR=3.3						
SONM	Songino Array	54.74	41	P	P	02 12 17.0	+1.2
	0.9nm,1.1s,mb3.7,baz=233,slow=6.7,SNR=5.1						
SONM	Songino Array	54.74	41	P	P	02 12 17.0	+1.2
WRA	Warramunga Arr	86.18	112	P	P	02 15 27.8	-0.5
	0.3nm,0.5s,mb3.7,baz=297,slow=4.0,SNR=6.3						
WRA	Warramunga Arr	86.18	112	P	P	02 15 27.8	-0.5
ASAR	Alice Springs	86.86	115	P	P	02 15 30.9	-0.7
	0.3nm,0.6s,mb3.7,baz=287,slow=5.0,SNR=4.5						
ASAR	Alice Springs	86.86	115	P	P	02 15 30.9	-0.6

ISCJB ***01*** *02:03:37.2±0.8, 14°.3N±0°.1×53°.7E±0°.1, h10*^{km}*, mb3.8/13, Error ellipse: s-maj=20.6km s-min=15.0km az=0.5*

IDC ***01*** *02:03:37.2±1.1, 14°.21N×53°.71E, h0*^{km}*, mb3.8/12, mb1 4.0/12, mb1mx3.8/24, mbtmp3.8/12, Error ellipse: s-maj=28.7km s-min=21.8km az=9.0*

NEIC ***01*** *02:03:38.9±0.7, 14°.26N×53°.66E, h10*^{km}*, mb4.2/1, Error ellipse: s-maj=16.8km s-min=12.5km az=179.0*

CSEM ***01*** *02:03:38.9, 14°.26N×53°.66E, h10*^{km}*, mb4.2/1, After NEIC*

ISC 01 02:03:38.9±0.8**, 14°.3N**±0°.1×**53°.7E**±0°.1**, h10**^{km}**, n26, σ0**^{s}**.81**/26**, mb3.8**/13**, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GNI	Garni	26.96	345	*e*P	P	02 09 20.4	-0.2
	6.1nm,1.0s,mb4.1						
GNI	Garni	26.96	345	*e*P	P	02 09 20.4	-0.2
	6.1nm,1.0s,mb4.1						
MKAR	Makanchi Array	40.29	31	P	P	02 11 16.8	+0.5
	0.3nm,0.6s,mb3.2,baz=214,slow=5.9,SNR=3.7						
MKAR	Makanchi Array	40.29	31	P	P	02 11 16.8	+0.6
BVAR	Borovoye Array	40.88	15	P	P	02 11 21.1	+0.1
	1.0nm,0.8s,mb3.5,baz=193,slow=6.1,SNR=5.3						
BVAR	Borovoye Array	40.88	15	P	P	02 11 21.1	+0.1
AKASG	Malin Array Be	41.40	337	P	P	02 11 25.2	-0.1
	0.2nm,0.2s,mb3.3,baz=142,slow=7.7,SNR=6.0						
AKASG	Malin Array Be	41.40	337	P	P	02 11 25.2	-0.1
KURK	Kurchatov	41.59	24	P	P	02 11 27.2	+0.3
	1.2nm,0.9s,mb3.5,baz=223,slow=7.6,SNR=3.8						
KURK	Kurchatov	41.59	24	P	P	02 11 27.2	+0.3
CMAR	Chiang Mai Arr	43.53	78	P	P	02 11 44.6	+1.4
	0.8nm,0.4s,mb3.9,baz=292,slow=7.4,SNR=4.5						
CMAR	Chiang Mai Arr	43.53	78	P	P	02 11 44.6	+1.4
ZALV	Zalesovo Beam	46.52	25	P	P	02 12 05.1	-1.3
	1.6nm,0.7s,mb4.0,baz=224,slow=6.2,SNR=5.4						
TOA0	Torodi Ar. Sit	50.44	275	*e*P	P	02 12 37.2	-0.1
TOA0	Torodi Ar. Sit	50.44	275	*e*P	P	02 12 37.2	-0.1
TORD	Torodi Ar. Bea	50.44	275	P	P	02 12 38.1	+0.9
	1.3nm,0.9s,mb4.0,baz=91,slow=7.9,SNR=6.4						
TORD	Torodi Ar. Bea	50.44	275	P	P	02 12 38.2	+0.9
SONM	Songino Array	54.78	41	P	P	02 13 10.1	+1.3
	1.4nm,1.0s,mb3.9,baz=244,slow=6.7,SNR=7.3						
SONM	Songino Array	54.78	41	P	P	02 13 10.1	+1.2
ESDC	Sonseca Array	56.22	308	P	P	02 13 19.1	-0.3
	2.0nm,1.1s,mb4.1,baz=69,slow=5.9,SNR=5.2						
ESDC	Sonseca Array	56.22	308	P	P	02 13 19.1	-0.3
KSRS	Korea Array	69.03	55	P	P	02 14 43.5	-1.5
	0.8nm,0.2s,mb4.2,baz=255,slow=6.5,SNR=5.6						
WRA	Warramunga Arr	86.26	112	P	P	02 16 21.1	-0.3
	1.0nm,0.8s,mb4.1,baz=297,slow=3.9,SNR=7.2						
WRA	Warramunga Arr	86.26	112	P	P	02 16 21.1	-0.3
ASAR	Alice Springs	86.94	115	P	P	02 16 24.1	-0.6
	1.2nm,0.9s,mb4.1,baz=294,slow=4.9,SNR=6.3						
ASAR	Alice Springs	86.94	115	P	P	02 16 24.0	-0.7

ISCJB ***01*** *02:04:43.8±0.6, 14°.20N±0°.09×53°.70E±0°.07, h10*^{km}*, mb4.0/19, MS3.7/5, Error ellipse: s-maj=12.9km s-min=9.6km az=174.5*

IDC ***01*** *02:04:44.0±1.0, 14°.18N×53°.72E, h0*^{km}*, mb4.0/18, mb1 4.1/18, mb1mx4.0/28, mbtmp4.0/18, MS3.8/5, Ms1 3.9/5, ms1mx3.5/20, Error ellipse: s-maj=25.2km s-min=16.4km az=19.0*

CSEM ***01*** *02:04:45.1±0.1, 14°.30N×53°.68E, h2*^{km}*, mb4.4/3, Error ellipse: s-maj=4.4km s-min=3.1km az=145.0*

NEIC ***01*** *02:04:45.9±0.5, 14°.23N×53°.73E, h10*^{km}*, mb4.4/3, Error ellipse: s-maj=11.4km s-min=8.9km az=159.0*

MOS ***01*** *02:04:46.3±0.6, 14°.09N×53°.62E, h33*^{km}*, mb4.4/4, Error ellipse: s-maj=25.2km s-min=13.1km az=79.2*

ISC 01 02:04:45.5±0.6**, 14°.18N**±0°.09×**53°.72E**±0°.07**, h10**^{km}**, n57, σ0**^{s}**.67**/52**, mb4.0**/19**, MS3.7**/5**, 1C, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MUKL	Al Mukalla	4.55	274	*i* P	Pn	02 05 53.0	-1.4
ASF	Jabal al Asfar	23.60	322	LR	LR	02 19 39.9	
	comp=Z,151nm,21.1s,MS3.4,baz=166,slow=38						
KBL	Kabul	24.55	32	*e*P	P	02 10 05.5	0.0
KBL				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.4						
KBL	Kabul	24.55	32	*e*P	P	02 10 05.5	0.0
	comp=Z,14nm,1.2s,mb4.4						
KBL	Kabul	24.55	32	*e*P	P	02 10 05.5	0.0
	comp=Z,14nm,1.2s,mb4.4						
MMAI	Mount Meron Ar	25.09	321	P	P	02 10 11.0	+0.5
	comp=Z,4.4nm,0.9s,mb4.0,baz=115,slow=12,SNR=4.5						
GNI	Garni	27.04	345	P	P	02 10 27.7	-0.3
	comp=Z,4.9nm,0.9s,mb4.0,baz=187,slow=3.4,SNR=4.7						
GNI				LR	LR	02 23 03.0	

	comp=Z,213nm,19.2s,MS3.7,baz=110,slow=41						
GNI	**Garni**	**27.04**	**345**	P	**P**	**02 10 27.7**	**-0.3**
MALT	**Malatya**	**27.59**	**333**	*e*P	**P**	**02 10 33.3**	**+0.3**
MALT				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.0						
MALT	**Malatya**	**27.59**	**333**	*e*P	**P**	**02 10 33.3**	**+0.3**
	comp=Z,2.6nm,0.8s,mb3.9						
MALT	**Malatya**	**27.59**	**333**	*e*P	**P**	**02 10 33.3**	**+0.3**
	comp=Z,3.0nm,0.8s,mb4.0						
BRTR	**Keskin Array B**	**30.96**	**329**	P	**P**	**02 11 02.6**	**-0.2**
	comp=Z,0.2nm,0.3s,baz=154,slow=9.6,SNR=3.8						
BRTR				LR	LR	02 25 04.5	
	comp=Z,137nm,18.6s,MS3.6,baz=123,slow=39						
BRTR	**Keskin Array B**	**30.96**	**329**	P	**P**	**02 11 02.7**	**-0.2**
IDI	**Anoyia**	**33.37**	**314**	P	**P**	**02 11 24.8**	**+0.7**
	comp=Z,6.0nm,0.9s,mb4.5,baz=282,slow=23,SNR=4.0						
IDI	**Anoyia**	**33.37**	**314**	P	**P**	**02 11 24.8**	**+0.7**
AAK	**Ala-Archa**	**33.54**	**28**	⇑*e*P	**P**	**02 11 33.1**	**+7.7**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.1						
AKTK	**Aktyubinsk**	**36.32**	**5**	P	**P**	**02 11 49.5**	**+0.2**
AKTK	**Aktyubinsk**	**36.32**	**5**	P	**P**	**02 11 49.5**	**+0.1**
AKTO	**Aktyubinsk**	**36.32**	**5**	P	**P**	**02 11 49.5**	**+0.2**
	comp=Z,1.4nm,0.7s,mb4.0,baz=156,slow=11,SNR=5.1						
MK31	**Makanchi Array**	**40.34**	**31**	*e*P	**P**	**02 12 23.6**	**+0.3**
MK31	**Makanchi Array**	**40.34**	**31**	*e*P	**P**	**02 12 23.6**	**+0.3**
MKAR	**Makanchi Array**	**40.34**	**31**	P	**P**	**02 12 23.7**	**+0.4**
	comp=Z,0.7nm,0.7s,mb3.5,baz=213,slow=7.7,SNR=5.6						
MKAR				LR	LR	02 28 46.6	
	comp=Z,149nm,20.1s,MS3.8,baz=199,slow=36						
BUR08	**Bucovina Ar. S**	**40.92**	**330**	*e*P	**P**	**02 12 29.3**	**+1.3**
BUR08	**Bucovina Ar. S**	**40.92**	**330**	*e*P	**P**	**02 12 29.3**	**+1.3**
BVAR	**Borovoye Array**	**40.95**	**15**	P	**P**	**02 12 28.2**	**0.0**
	comp=Z,2.3nm,0.9s,mb3.8,baz=196,slow=6.7,SNR=9.1						
BVAR				PcP	PcP	02 14 29.6	+1.2
	comp=Z,0.5nm,0.8s,baz=217,slow=4.5,SNR=3.1						
BVAR	**Borovoye Array**	**40.95**	**15**	P	**P**	**02 12 28.2**	**0.0**
BVAR	**Borovoye Array**	**40.95**	**15**	PcP	PcP	02 14 29.6	+1.2
AKASG	**Malin Array Be**	**41.48**	**337**	P	**P**	**02 12 32.2**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=134,slow=7.5,SNR=3.8						
AKASG	**Malin Array Be**	**41.48**	**337**	P	**P**	**02 12 32.2**	**-0.4**
KURK	**Kurchatov**	**41.65**	**24**	P	**P**	**02 12 33.6**	**-0.3**
	comp=Z,0.7nm,0.6s,baz=228,slow=8.3,SNR=3.9						
KURK	**Kurchatov**	**41.65**	**24**	P	**P**	**02 12 33.7**	**-0.3**
CMAR	**Chiang Mai Arr**	**43.53**	**78**	P	**P**	**02 12 49.8**	**+0.1**
	comp=Z,0.6nm,0.4s,mb3.7,baz=283,slow=8.2,SNR=4.0						
CMAR	**Chiang Mai Arr**	**43.53**	**78**	P	**P**	**02 12 49.8**	**+0.1**
KEST	**Kesra**	**45.12**	**307**	P	**P**	**02 13 01.6**	**-0.7**
	comp=Z,1.3nm,0.8s,mb3.8,baz=211,slow=8.6,SNR=3.6						
ZALV	**Zalesovo Beam**	**46.58**	**25**	P	**P**	**02 13 12.8**	**-0.8**
	comp=Z,1.8nm,0.7s,mb4.1,baz=234,slow=7.0,SNR=6.5						
LBTB	**Lobatse**	**47.65**	**215**	*e*P	**P**	**02 13 23.5**	**+1.3**
LBTB				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.5						
LBTB	**Lobatse**	**47.65**	**215**	*e*P	**P**	**02 13 23.5**	**+1.4**
	comp=Z,6.8nm,1.3s,mb4.5						
LBTB	**Lobatse**	**47.65**	**215**	*e*P	**P**	**02 13 23.5**	**+1.3**
	comp=Z,7.0nm,1.3s,mb4.5						
TOA0	**Torodi Ar. Sit**	**50.48**	**275**	*e*P	**P**	**02 13 44.8**	**+0.7**
TOA0	**Torodi Ar. Sit**	**50.48**	**275**	*e*P	**P**	**02 13 44.8**	**+0.7**
TORD	**Torodi Ar. Bea**	**50.48**	**275**	P	**P**	**02 13 43.7**	**-0.5**
	comp=Z,0.8nm,0.9s,mb3.8,baz=87,slow=6.2,SNR=4.3						
TORD	**Torodi Ar. Bea**	**50.48**	**275**	P	**P**	**02 13 43.7**	**-0.5**
TORD	**Torodi Ar. Bea**	**50.48**	**275**	P	**P**	**02 13 43.7**	**-0.4**
SONM	**Songino Array**	**54.82**	**41**	P	**P**	**02 14 16.7**	**+0.9**
	comp=Z,1.1nm,0.9s,mb3.9,baz=248,slow=5.8,SNR=5.9						
SONM	**Songino Array**	**54.82**	**41**	P	**P**	**02 14 16.7**	**+0.9**
NOA	**NORSAR Array B**	**55.90**	**337**	LR	LR	02 39 58.7	
	comp=Z,150nm,19.7s,MS4.1,baz=275,slow=38						
ESDC	**Sonseca Array**	**56.29**	**308**	P	**P**	**02 14 26.4**	**-0.2**
	comp=Z,1.2nm,0.7s,mb4.0,baz=77,slow=7.8,SNR=5.3						
ESDC	**Sonseca Array**	**56.29**	**308**	P	**P**	**02 14 26.4**	**-0.1**
KSRS	**Korea Array**	**69.05**	**55**	P	**P**	**02 15 50.2**	**-1.6**
	comp=Z,1.0nm,0.7s,mb3.9,baz=262,slow=6.0,SNR=3.4						
WRA	**Warramunga Arr**	**86.20**	**112**	P	**P**	**02 17 27.8**	**0.0**
	comp=Z,1.0nm,0.7s,mb4.2,baz=297,slow=4.0,SNR=11						
WRA	**Warramunga Arr**	**86.20**	**112**	P	**P**	**02 17 27.8**	**0.0**
WB2	**Warramunga Arr**	**86.22**	**112**	*e*P	**P**	**02 17 27.5**	**-0.4**
WB2	**Warramunga Arr**	**86.22**	**112**	*e*P	**P**	**02 17 27.5**	**-0.4**
ASAR	**Alice Springs**	**86.88**	**115**	P	**P**	**02 17 30.9**	**-0.2**
	comp=Z,0.5nm,0.7s,mb3.9,baz=289,slow=4.3,SNR=6.5						
ASAR	**Alice Springs**	**86.88**	**115**	P	**P**	**02 17 30.9**	**-0.2**
NVAR	**Mina Array Bea**	**127.14**	**352**	PKP	PKPdf	02 23 52.7	+2.1
	comp=Z,0.8nm,0.9s,baz=12,slow=4.7,SNR=3.5						
NVAR	**Mina Array Bea**	**127.14**	**352**	PKP	PKPdf	02 23 52.7	+2.1

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*ISCJB **01** 02:08:11.5±0.9, 14°.2N±0°.1×53°.8E±0°.1, h10^{km}, mb3.8/17, Error ellipse: s-maj=20.3km s-min=14.0km az=13.0*

*IDC **01** 02:08:11.3±1.1, 14°.22N×53°.88E, h0^{km}, mb3.8/13, mb1 3.9/13, mb1mx3.8/25, mbtmp3.8/13, Error ellipse: s-maj=27.8km s-min=21.1km az=16.0*

*NEIC **01** 02:08:13.3±0.9, 14°.25N×53°.82E, h10^{km}, mb4.1/2, Error ellipse: s-maj=21.1km s-min=15.0km az=192.0*

*CSEM **01** 02:08:13.3, 14°.25N×53°.82E, h10^{km}, mb4.1/2, After NEIC*

ISC 01 02:08:13.3±0.9, 14°.2N±0°.1×53°.8E±0°.1, h10^{km}, n32, σ1^{s}.10/32, mb3.8/17, Owen Fracture Zone region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**24.45**	**32**	*e*P	**P**	**02 13 33.6**	**+1.2**
	7.7nm,1.2s,mb4.0						
KBL	**Kabul**	**24.45**	**32**	*e*P	**P**	**02 13 33.6**	**+1.2**
	7.7nm,1.2s,mb4.0						
GNI	**Garni**	**27.02**	**345**	P	**P**	**02 13 56.8**	**+1.2**
	1.0nm,0.5s,mb3.6,baz=196,slow=15,SNR=2.7						
GNI	**Garni**	**27.02**	**345**	P	**P**	**02 13 56.8**	**+1.2**
MALT	**Malatya**	**27.59**	**333**	*e*P	**P**	**02 14 01.4**	**+0.6**
	2.9nm,1.0s,mb3.9						
MALT	**Malatya**	**27.59**	**333**	*e*P	**P**	**02 14 01.4**	**+0.6**
	2.9nm,1.0s,mb3.9						
IDI	**Anoyia**	**33.41**	**314**	P	**P**	**02 14 53.6**	**+1.4**
	8.2nm,1.0s,mb4.6,baz=129,slow=9.5,SNR=3.5						
IDI	**Anoyia**	**33.41**	**314**	P	**P**	**02 14 53.6**	**+1.3**
MK31	**Makanchi Array**	**40.25**	**30**	*e*P	**P**	**02 15 50.0**	**-0.4**
MK31	**Makanchi Array**	**40.25**	**30**	*e*P	**P**	**02 15 50.0**	**-0.3**
MKAR	**Makanchi Array**	**40.25**	**30**	P	**P**	**02 15 50.1**	**-0.2**
	0.4nm,0.7s,mb3.2,baz=220,slow=7.5,SNR=3.6						
MKAR				PcP	PcP	02 17 52.8	-1.3
	0.2nm,0.8s,baz=231,slow=4.6,SNR=2.6						
BVAR	**Borovoye Array**	**40.87**	**15**	P	**P**	**02 15 53.8**	**-1.6**
	1.1nm,0.8s,mb3.5,baz=193,slow=6.1,SNR=5.5						
BVAR	**Borovoye Array**	**40.87**	**15**	P	**P**	**02 15 53.8**	**-1.6**
AKASG	**Malin Array Be**	**41.48**	**336**	P	**P**	**02 15 59.6**	**-0.8**
	0.4nm,0.4s,mb3.4,baz=155,slow=13,SNR=3.6						
AKASG	**Malin Array Be**	**41.48**	**336**	P	**P**	**02 15 59.6**	**-0.8**
KURK	**Kurchatov**	**41.56**	**24**	P	**P**	**02 16 00.7**	**-0.4**
	0.3nm,0.3s,mb3.5,baz=216,slow=9.2,SNR=4.1						
KURK	**Kurchatov**	**41.56**	**24**	P	**P**	**02 16 00.7**	**-0.4**
CMAR	**Chiang Mai Arr**	**43.41**	**78**	P	**P**	**02 16 18.3**	**+1.7**
	0.6nm,0.4s,mb3.7,baz=278,slow=9.0,SNR=6.0						
CMAR	**Chiang Mai Arr**	**43.41**	**78**	P	**P**	**02 16 18.3**	**+1.7**
ZALV	**Zalesovo Beam**	**46.49**	**25**	P	**P**	**02 16 38.1**	**-2.5**
	1.8nm,0.9s,mb4.0,baz=243,slow=6.5,SNR=5.4						
TORD	**Torodi Ar. Bea**	**50.58**	**275**	P	**P**	**02 17 12.6**	**-0.1**
	0.7nm,0.9s,mb3.6,baz=85,slow=3.9,SNR=5.0						
TORD	**Torodi Ar. Bea**	**50.58**	**275**	P	**P**	**02 17 12.6**	**-0.1**
SONM	**Songino Array**	**54.72**	**41**	P	**P**	**02 17 44.2**	**+1.4**
	1.2nm,1.0s,mb3.9,baz=233,slow=9.1,SNR=6.3						
SONM	**Songino Array**	**54.72**	**41**	P	**P**	**02 17 44.2**	**+1.4**
ESDC	**Sonseca Array**	**56.34**	**308**	P	**P**	**02 17 53.8**	**-0.9**
	0.4nm,0.6s,mb3.6,baz=90,slow=7.9,SNR=4.2						
ESDC	**Sonseca Array**	**56.34**	**308**	P	**P**	**02 17 53.8**	**-0.9**
CN2	**Changchun**	**67.05**	**48**	*e*P	**P**	**02 19 07.5**	**+0.6**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
KSRS	**Korea Array**	**68.94**	**55**	P	**P**	**02 19 17.3**	**-1.5**
	comp=Z,1.1nm,0.8s,mb3.9,baz=277,slow=9.7,SNR=3.4						
WRA	**Warramunga Arr**	**86.13**	**112**	P	**P**	**02 20 55.5**	**+0.3**
	comp=Z,0.7nm,0.7s,mb4.0,baz=295,slow=4.0,SNR=7.1						
WRA	**Warramunga Arr**	**86.13**	**112**	P	**P**	**02 20 55.5**	**+0.3**
ASAR	**Alice Springs**	**86.81**	**115**	P	**P**	**02 20 57.7**	**-0.8**
	comp=Z,0.4nm,0.6s,mb3.8,baz=291,slow=5.0,SNR=4.9						
ASAR	**Alice Springs**	**86.81**	**115**	P	**P**	**02 20 57.7**	**-0.8**

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*ISCJB **01** 02:35:53.4±0.9, 25°.80N±0°.06×99°.0E±0°.1, h10^{km}, mb3.6/4, Error ellipse: s-maj=13.7km s-min=7.7km az=22.5*

*BJI **01** 02:35:56.2, 25°.90N×98°.96E, h27^{km}, mb3.8/1, ML3.5/8, Ms3.7/1, Ms7 3.4/1*

*IDC **01** 02:35:58.7±5.7, 26°.00N×99°.27E, h27^{km}±43^{km}, mb3.4/4, mb1 3.7/4, mb1mx3.3/22, mbtmp3.5/4, Error ellipse: s-maj=51.9km s-min=18.7km az=71.0*

ISC 01 02:35:55.8±0.9, 25°.81N±0°.06×98°.77E±0°.10, h10^{km}, n8, σ1^{s}.21/11, mb3.6/4, Myanmar-China border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	**Kunming**	**3.66**	**100**	Pn	**Pn**	**02 36 53.5**	**+1.1**
KMI				Pg	**Pg**	**02 37 03.3**	**-2.6**
KMI				Sg	**Sn**	**02 37 39.5**	**+3.9**
KMI				smax			
	comp=N,170nm,1.1s						
KMI				smax			
	comp=E,95nm,0.9s						
KMI				LR	LR		
	comp=N,320nm,4.3s						
KMI				LR	LR		
	comp=E,410nm,4.0s						
KMI				LR	LR		
	comp=Z,310nm,5.6s						
CD2	**Chengdu**	**6.72**	**40**	Pg	**Pg**	**02 38 05.7**	**+1.2**
CD2				Sg	**Sg**	**02 39 32.1**	**+0.5**
CD2				smax			
	comp=N,56nm,0.6s						
CD2				smax			
	comp=E,29nm,0.8s						
GYA	**Guiyang**	**7.13**	**83**	Pn	**Pn**	**02 37 39.5**	**-0.7**
CMAR	**Chiang Mai Arr**	**7.31**	**179**	Pg	**Pg**	**02 38 17.0**	**+1.1**
	comp=E,0.9nm,0.3s,baz=359,slow=17,SNR=9.0						
CMAR				Lg		02 39 55.8	
	comp=E,0.6nm,0.3s,baz=359,slow=30,SNR=5.6						
SONM	**Songino Array**	**22.80**	**13**	P	**P**	**02 40 56.5**	**-2.0**
	comp=E,0.3nm,0.6s,mb2.9,baz=202,slow=11,SNR=3.7						
MKAR	**Makanchi Array**	**24.70**	**332**	P	**P**	**02 41 17.6**	**+0.7**
	comp=E,2.3nm,0.8s,mb3.7,baz=146,slow=8.8,SNR=15						
WRA	**Warramunga Arr**	**57.11**	**139**	P	**P**	**02 45 42.0**	**-0.7**
	comp=E,1.1nm,0.6s,mb4.1,baz=329,slow=7.5,SNR=16						
ASAR	**Alice Springs**	**59.80**	**142**	P	**P**	**02 46 01.0**	**-0.4**
	comp=E,0.6nm,0.7s,mb3.7,baz=327,slow=6.6,SNR=6.6						

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*ISK **01** 02:38:11.6, 36°.99N×29°.17E, h5^{km}, MD3.1*

*ISCJB **01** 02:38:13.0±0.5, 37°.00N±0°.03×29°.17E±0°.03, h1^{km}±6^{km}, Error ellipse: s-maj=5.1km s-min=3.5km az=155.6*

*DDA **01** 02:38:12.7, 36°.98N×29°.18E, h7^{km}±3^{km}, Md2.9*

*CSEM **01** 02:38:13.0±0.1, 36°.97N×29°.18E, h5^{km}, MD3.1, Error ellipse: s-maj=2.5km s-min=1.9km az=126.0*

ISC 01 02:38:13.5±0.5, 37°.00N±0°.03×29°.17E±0°.03, h4^{km}±5^{km}, n58, σ0^{s}.87/75, 1C-1D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.37**	**191**	PG	**Pg**	**02 38 19.7**	**-0.9**
FETY				*e*SG	**Sg**	**02 38 25.8**	**+0.5**
FETY	**Fethiye**	**0.37**	**191**	*i* Pg	**Pg**	**02 38 19.7**	**-0.9**
FETY				*e*Sg	**Sg**	**02 38 25.8**	**+0.4**
GOLH	**Golhisar**	**0.39**	**53**	⇑*i*P	**Pg**	**02 38 20.5**	**-0.6**
GOLH				*i* S	**Sg**	**02 38 27.1**	**+0.8**
GOLH	**Golhisar**	**0.39**	**53**	*i* P	**Pg**	**02 38 20.5**	**-0.6**
GOLH				*i* S	**Sg**	**02 38 27.1**	**+0.9**
TURN	**Turunc**	**0.47**	**255**	⇓*i*P	**Pg**	**02 38 27.9**	**+5.3**
TURN				*i* S	**Sg**	**02 38 39.6**	**+11**
DALT	**Dalyan (Mudla)**	**0.48**	**242**	*e*PG	**Pg**	**02 38 22.4**	**-0.4**
DALT				*e*SG	**Sg**	**02 38 30.3**	**+1.2**
DALT	**Dalyan (Mudla)**	**0.48**	**242**	*e*Pg	**Pg**	**02 38 22.4**	**-0.4**
DALT				*e*Sg	**Sg**	**02 38 30.3**	**+1.2**
ELL	**Elmali**	**0.64**	**113**	*e*PG	**Pg**	**02 38 24.6**	**-1.2**
ELL				*e*SG	**Sg**	**02 38 35.6**	**+1.4**
ELL	**Elmali**	**0.64**	**113**	*e*Pg	**Pg**	**02 38 24.6**	**-1.2**
ELL				*e*Sg	**Sg**	**02 38 35.6**	**+1.4**
YER	**Yerkesik**	**0.72**	**281**	*e*PG	**Pg**	**02 38 26.6**	**-0.8**
YER	**Yerkesik**	**0.72**	**281**	*e*Pg	**Pg**	**02 38 26.6**	**-0.7**
DENT	**Denizli**	**0.76**	**352**	*e*PG	**Pg**	**02 38 27.9**	**-0.3**
DENT	**Denizli**	**0.76**	**352**	*e*Pg	**Pg**	**02 38 27.9**	**-0.2**
AKAS	**Kas**	**0.84**	**155**	*e*P	**Pg**	**02 38 28.8**	**-0.7**
AKAS				*e*S	**Sg**	**02 38 43.9**	**+3.4**
AKAS	**Kas**	**0.84**	**155**	*e*P	**Pg**	**02 38 28.8**	**-0.8**
AKAS				*e*S	**Sg**	**02 38 43.9**	**+3.4**
ARG	**Arkhangelos**	**1.15**	**227**	*e*P	**Pg**	**02 38 34.5**	**-1.0**
MLSB	**Milas**	**1.15**	**285**	*e*PN	**Pn**	**02 38 34.5**	**-1.8**
MLSB	**Milas**	**1.15**	**285**	*e*Pn	**Pn**	**02 38 34.5**	**-1.8**
ANTB	**Antalya**	**1.19**	**94**	*e*PN	**Pn**	**02 38 35.6**	**-1.3**
ANTB	**Antalya**	**1.19**	**94**	*e*Pn	**Pn**	**02 38 35.6**	**-1.3**
AYDN	**Tasoluk**	**1.22**	**303**	*e*P	**Pg**	**02 38 36.5**	**-0.5**
AYDN				*e*S	**Sg**	**02 38 54.3**	**+1.5**
AYDN	**Tasoluk**	**1.22**	**303**	*e*P	**Pg**	**02 38 36.5**	**-0.4**
AYDN				*e*S	**Sg**	**02 38 54.3**	**+1.5**
BCK	**Bucak**	**1.22**	**67**	*e*PN	**Pn**	**02 38 35.8**	**-1.5**
BCK	**Bucak**	**1.22**	**67**	*e*Pn	**Pn**	**02 38 35.8**	**-1.5**
DAT	**Datca**	**1.30**	**259**	*e*PN	**Pn**	**02 38 37.8**	**-0.6**
DAT	**Datca**	**1.30**	**259**	*e*Pn	**Pn**	**02 38 37.8**	**-0.6**
KHL	**Karahalli**	**1.35**	**12**	*e*PN	**Pn**	**02 38 38.8**	**-0.3**
KHL	**Karahalli**	**1.35**	**12**	*e*Pn	**Pn**	**02 38 38.8**	**-0.3**
ISP	**Isparta**	**1.36**	**51**	*e*PN	**Pn**	**02 38 39.7**	**+0.5**
ISP	**Isparta**	**1.36**	**51**	*e*Pn	**Pn**	**02 38 39.7**	**+0.5**
BDRM	**Kayabasi**	**1.38**	**273**	*e*P	**Pn**	**02 38 39.2**	**-0.3**
BDRM				*e*S	**Sb**	**02 38 58.0**	**+0.2**
BDRM	**Kayabasi**	**1.38**	**273**	*e*P	**Pn**	**02 38 39.2**	**-0.3**
BDRM				*e*S	**Sb**	**02 38 58.0**	**+0.2**
KHAL	**Karahalli**	**1.39**	**10**	*e*P	**Pn**	**02 38 39.2**	**-0.5**
KHAL				*e*S	**Sb**	**02 38 58.8**	**+0.6**
KHAL	**Karahalli**	**1.39**	**10**	*e*P	**Pn**	**02 38 39.2**	**-0.5**
KHAL				*e*S	**Sb**	**02 38 58.8**	**+0.6**
BODT	**Bodrum**	**1.49**	**273**	*e*PN	**Pn**	**02 38 40.3**	**-0.7**
BODT	**Bodrum**	**1.49**	**273**	*e*Pn	**Pn**	**02 38 40.3**	**-0.7**
KULA	**Kula-Manisa**	**1.57**	**345**	*e*PN	**Pn**	**02 38 41.5**	**-0.6**
KULA	**Kula-Manisa**	**1.57**	**345**	*e*Pn	**Pn**	**02 38 41.5**	**-0.5**
SHUT	**Suhut-Afyon**	**1.90**	**35**	*e*PN	**Pn**	**02 38 46.8**	**+0.2**
SHUT	**Suhut-Afyon**	**1.90**	**35**	*e*Pn	**Pn**	**02 38 46.8**	**+0.2**
SMG	**Samos**	**1.99**	**292**	*e*P	**Pn**	**02 38 48.0**	**+0.2**
IZM	**Izmir**	**2.06**	**313**	*e*PN	**Pn**	**02 38 48.9**	**+0.1**
IZM	**Izmir**	**2.06**	**313**	*e*Pn	**Pn**	**02 38 48.9**	**+0.1**
AKS	**Akhisar**	**2.16**	**331**	*e*PN	**Pn**	**02 38 50.3**	**+0.1**
AKS	**Akhisar**	**2.16**	**331**	*e*Pn	**Pn**	**02 38 50.3**	**+0.1**
KARP	**Karpathos**	**2.17**	**229**	*e*P	**Pn**	**02 38 51.5**	**+1.1**
BLCB	**Balcova**	**2.18**	**310**	*e*PN	**Pn**	**02 38 50.5**	**0.0**
BLCB	**Balcova**	**2.18**	**310**	*e*Pn	**Pn**	**02 38 50.5**	**0.0**
ALT	**Altintas**	**2.18**	**20**	*e*PN	**Pn**	**02 38 50.6**	**+0.1**
ALT	**Altintas**	**2.18**	**20**	*e*Pn	**Pn**	**02 38 50.6**	**+0.1**
HDMB	**Hadim**	**2.66**	**90**	*e*PN	**Pn**	**02 38 58.0**	**+1.0**
HDMB	**Hadim**	**2.66**	**90**	*e*Pn	**Pn**	**02 38 58.0**	**+1.0**
KONT	**Konya--Tatoy**	**2.71**	**69**	*e*PN	**Pn**	**02 38 58.2**	**+0.4**
KONT	**Konya--Tatoy**	**2.71**	**69**	*e*Pn	**Pn**	**02 38 58.2**	**+0.5**
KIZT	**Kizilcal**	**2.85**	**48**	*e*PN	**Pn**	**02 39 00.5**	**+0.8**
KIZT	**Kizilcal**	**2.85**	**48**	*e*Pn	**Pn**	**02 39 00.5**	**+0.8**
APE	**Apeiranthos**	**2.91**	**272**	*e*P	**Pn**	**02 39 01.5**	**+1.0**
NPS	**Neapolis**	**3.36**	**240**	*e*P	**Pn**	**02 39 08.0**	**+1.3**

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*IDC **01** 02:44:20.2±0.8, 27°.98S×177°.02W, h48^{km}±6^{km}, mb3.8/6, mb1 4.1/6, mb1mx3.9/12, mbtmp3.8/6, MS3.5/3, Ms1 3.5/3, ms1mx3.2/21, Error ellipse: s-maj=25.8km s-min=7.5km az=119.0*

*NEIC **01** 02:44:22.6±2.3, 28°.25S×177°.04W, h75^{km}±21^{km}, mb4.0/1, Error ellipse: s-maj=36.5km s-min=16.5km az=181.0*

*ISCJB **01** 02:44:23.5±2.1, 28°.2S±0°.2×177°.2W±0°.2, h82^{km}±17^{km}, mb4.0/10, Error ellipse: s-maj=27.8km s-min=21.3km az=18.2*

ISC 01 02:44:23.9±2.2, 28°.2S±0°.2×177°.1W±0°.2, h73^{km}±19^{km}, n30, σ1^{s}.13/15, mb4.0/10, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.25**	**215**	P	**Pn**	**02 44 44.4**	**-1.2**
	2µm,0.3s,baz=88,slow=6.1,SNR=51						
RAO				S	**Sn**	**02 45 03.1**	**+1.1**
	2µm,0.3s,baz=75,slow=22,SNR=17						
PAE	**Paea**	**27.38**	**73**	*e*T		03 17 53.0	
	302nm,0.3s						
PPT	**Papeete**	**27.43**	**73**	*e*LR	LR	02 56 50.4	
	226nm,26.0s						
VAH	**Vaihoa**	**30.19**	**71**	*e*T		03 21 24.0	
	15nm,0.2s						
CTA	**Charters Tower**	**34.30**	**275**	P	**P**	**02 51 03.4**	**0.0**
	2.1nm,0.5s,mb4.2,baz=90,slow=7.1,SNR=3.0						
CTA				LR	LR	03 02 57.2	
	comp=Z,111nm,20.1s,baz=49,slow=32						
STKA	**Stephens Creek**	**35.78**	**254**	LR	LR	03 04 36.0	
	comp=Z,70nm,18.8s,baz=201,slow=34						
RKT	**Rikitea**	**38.17**	**92**	*e*LR	LR	03 01 40.5	
	146nm,28.8s						
ASAR	**Alice Springs**	**44.05**	**264**	P	**P**	**02 52 24.1**	**-0.6**
	0.7nm,0.4s,mb3.8,baz=97,slow=7.3,SNR=12						
WRAB	**Tennant Creek**	**44.84**	**270**	*e*P	**P**	**02 52 29.8**	**-1.2**
	1.1nm,0.4s,mb3.9						
WRA	**Warramunga Arr**	**44.85**	**269**	P	**P**	**02 52 29.9**	**-1.1**
	0.7nm,0.3s,mb3.9,baz=107,slow=6.2,SNR=29						
WRA				PcP	PcP	02 54 12.3	+0.6
	0.9nm,0.8s,baz=109,slow=3.4,SNR=5.1						
WRA				LR	LR	03 11 17.3	
	comp=Z,34nm,18.1s,baz=75,slow=36						
MJAR	**Matsushiro Arr**	**76.92**	**324**	P	**P**	**02 56 10.0**	**+1.8**
	5.0nm,0.6s,mb4.4,baz=162,slow=5.8,SNR=12						
VNA3	**Neumayer Olymp**	**80.41**	**176**	*e*	**P**	**02 56 27.2**	**+0.2**
VNA2	**Neumayer--Watz**	**80.86**	**177**	*e*	**P**	**02 56 30.1**	**+0.7**
	baz=177,slow=6.6						
KSRS	**Korea Array**	**83.21**	**319**	P	**P**	**02 56 45.4**	**+3.3**
	0.7nm,0.5s,mb3.8,baz=136,slow=5.9,SNR=4.5						
PLCA	**Paso Flores**	**83.41**	**133**	P	**P**	**02 56 43.0**	**-0.3**
	1.8nm,0.9s,mb3.9,baz=294,slow=9.8,SNR=3.2						
PETK	**Petropavlovsk-**	**83.91**	**345**	P	**P**	**02 56 47.1**	**+1.8**
	1.3nm,0.5s,mb4.0,baz=179,slow=11,SNR=2.3						
NVAR	**Mina Array Bea**	**86.11**	**42**	P	**P**	**02 56 56.2**	**-0.5**
	0.8nm,0.7s,mb3.8,baz=220,slow=8.5,SNR=5.1						
NVAR	**Mina Array Bea**	**86.11**	**42**	P	**P**	**02 56 56.2**	**-0.5**
PDAR	**Pinedale Array**	**94.02**	**43**	P	**P**	**02 57 32.5**	**-1.3**
	0.4nm,0.7s,mb3.8,baz=202,slow=3.2,SNR=4.8						
MKAR	**Makanchi Array**	**116.96**	**311**	PKP	PKPdf	03 02 57.9	-2.1
	0.3nm,0.7s,baz=60,slow=3.4,SNR=4.9						
MKAR				pPKP	pPKPdf	03 03 12.7	-8.2
	0.2nm,0.5s,baz=77,slow=1.2,SNR=3.0						
KURK	**Kurchatov**	**120.10**	**315**	PKP	PKPdf	03 03 04.0	-1.8
	0.3nm,0.5s,baz=104,slow=1.8,SNR=3.1						
KURK				pPKP	pPKPdf	03 03 18.6	-8.1
	0.7nm,0.6s,baz=124,slow=1.8,SNR=3.7						
BVAR	**Borovoye Array**	**125.38**	**317**	PKP	PKPdf	03 03 15.0	-0.9
	0.4nm,0.6s,baz=126,slow=2.0,SNR=3.6						
BVAR				pPKP	pPKPdf	03 03 29.3	-7.5
	0.9nm,0.5s,baz=168,slow=1.1,SNR=4.4						
ARCES	**ARCESS Array B**	**136.63**	**349**	PKP	PKPdf	03 03 34.9	-1.8
	1.3nm,0.6s,baz=45,slow=1.9,SNR=8.1						
NB2	**NORSAR Subarra**	**146.72**	**353**	PKP	PKPdf	03 03 54.9	0.0
	comp=Z,1.9nm,0.6s,baz=16,slow=3.2						
NOA	**NORSAR Array B**	**146.72**	**353**	PKPbc	PKPbc	03 03 54.9	-1.8
	comp=Z,2.3nm,0.6s,baz=13,slow=4.4,SNR=6.2						
NOA				pPKPbc	pPKPbc	03 04 10.2	-7.3
	comp=Z,2.5nm,0.6s,baz=15,slow=4.5,SNR=5.3						
AKASG	**Malin Array Be**	**150.00**	**326**	PKPbc	PKPbc	03 04 04.0	-1.5
	comp=Z,1.8nm,0.5s,baz=41,slow=3.0,SNR=6.8						
MMAI	**Mount Meron Ar**	**151.69**	**288**	PKPbc	PKPbc	03 04 09.9	-0.2
	comp=Z,0.7nm,0.4s,baz=71,slow=6.2,SNR=5.2						
EIL	**Elat**	**151.95**	**281**	PKPbc	PKPbc	03 04 10.7	-0.2
	comp=Z,2.5nm,0.6s,baz=108,slow=4.0,SNR=2.8						
BRTR	**Keskin Array B**	**152.18**	**302**	PKPbc	PKPbc	03 04 11.0	0.0
	comp=Z,1.0nm,0.5s,baz=118,slow=3.2,SNR=2.8						
TORD	**Torodi Ar. Bea**	**164.96**	**176**	PKP	PKPdf	03 04 17.1	-3.1
	comp=Z,0.2nm,0.6s,baz=192,slow=0.0,SNR=2.9						
TORD				PKPab	PKPab	03 05 16.6	0.0
	comp=Z,0.7nm,1.0s,baz=190,slow=2.9,SNR=5.7						

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*ISCJB **01** 02:46:48.0±0.6, 14°.1N±0°.1×53°.65E±0°.07, h10^{km}, mb4.0/22, MS3.5/9, Error ellipse: s-maj=15.1km s-min=9.4km az=178.2*

*CSEM **01** 02:46:48.8±0.3, 14°.14N×53°.66E, h2^{km}, mb4.3/6, Error ellipse: s-maj=17.1km s-min=11.6km az=173.0*

*IDC **01** 02:46:48.5±0.9, 14°.12N×53°.74E, h0^{km}, mb3.9/14, mb1 4.0/14, mb1mx3.9/25, mbtmp3.9/14, MS3.6/9, Ms1 3.6/9, ms1mx3.5/26, Error ellipse: s-maj=24.7km s-min=18.0km az=9.0*

*NEIC **01** 02:46:49.7±0.6, 14°.09N×53°.69E, h10^{km}, mb4.1/5, Error ellipse: s-maj=14.6km s-min=11.5km az=187.0*

*MOS **01** 02:47:05.1±1.1, 14°.34N×53°.67E, h33^{km}, mb4.1/6, Error ellipse: s-maj=21.5km s-min=16.9km az=88.3*

ISC 01 02:46:49.6±0.6, 14°.1N±0°.1×53°.67E±0°.07, h10^{km}, n58, σ0^{s}.96/52, mb4.0/22, MS3.5/9, 2D, Owen Fracture Zone region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MUKL	**Al Mukalla**	**4.51**	**275**	⇓*i*P	**Pn**	**02 47 56.3**	**-1.7**
MUKL	**Al Mukalla**	**4.51**	**275**	⇓*i*P	**Pn**	**02 47 56.3**	**-1.7**
EIL	**Elat**	**23.23**	**315**	LR	LR	03 01 15.6	
	comp=Z,151nm,19.9s,MS3.5,baz=111,slow=37						
ASF	**Jabal al Asfar**	**23.65**	**322**	LR	LR	03 01 53.1	
	comp=Z,164nm,19.4s,MS3.5,baz=200,slow=38						
KBL	**Kabul**	**24.66**	**32**	*e*P	**P**	**02 52 11.8**	**+1.2**
KBL				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.0						
KBL	**Kabul**	**24.66**	**32**	*e*P	**P**	**02 52 11.8**	**+1.2**
	comp=Z,5.3nm,0.9s,mb4.1						
KBL	**Kabul**	**24.66**	**32**	*e*P	**P**	**02 52 11.8**	**+1.2**
	comp=Z,5.3nm,0.9s,mb4.1						
MMAI	**Mount Meron Ar**	**25.13**	**322**	LR	LR	03 02 08.1	
	comp=Z,92nm,20.4s,MS3.3,baz=145,slow=37						
GNI	**Garni**	**27.12**	**345**	P	**P**	**02 52 34.8**	**+2.0**
	comp=Z,2.9nm,0.7s,mb3.9,baz=231,slow=6.1,SNR=4.0						
GNI				LR	LR	03 03 34.1	
	comp=Z,122nm,20.1s,MS3.5,baz=132,slow=37						
GNI	**Garni**	**27.12**	**345**	P	**P**	**02 52 34.8**	**+2.0**
MALT	**Malatya**	**27.65**	**334**	*e*P	**P**	**02 52 37.5**	**-0.1**
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.9						
MALT	**Malatya**	**27.65**	**334**	*e*P	**P**	**02 52 37.5**	**-0.1**
	comp=Z,3.5nm,0.9s,mb4.0						
MALT	**Malatya**	**27.65**	**334**	*e*P	**P**	**02 52 37.5**	**-0.1**
	comp=Z,3.5nm,0.9s,mb4.0						
BRTR	**Keskin Array B**	**31.02**	**329**	P	**P**	**02 53 09.9**	**+2.4**
	comp=Z,0.9nm,1.0s,mb3.5,baz=124,slow=8.9,SNR=3.4						
BRTR	**Keskin Array B**	**31.02**	**329**	P	**P**	**02 53 09.9**	**+2.4**
MK31	**Makanchi Array**	**40.45**	**30**	*e*P	**P**	**02 54 28.1**	**-0.2**
MK31	**Makanchi Array**	**40.45**	**30**	*e*P	**P**	**02 54 28.1**	**-0.2**
MKAR	**Makanchi Array**	**40.45**	**30**	P	**P**	**02 54 28.1**	**-0.2**
MKAR						02 56 32.9	
MKAR	**Makanchi Array**	**40.45**	**30**	P	**P**	**02 54 28.1**	**-0.3**
	comp=Z,0.6nm,0.7s,mb3.4,baz=218,slow=7.0,SNR=7.5						
MKAR				PcP	PcP	02 56 32.9	+1.8
	comp=Z,0.3nm,0.8s,baz=241,slow=5.9,SNR=2.9						
MKAR				LR	LR	03 12 53.9	
	comp=Z,136nm,20.1s,MS3.8,baz=181,slow=39						
BVAR	**Borovoye Array**	**41.05**	**15**	P	**P**	**02 54 32.7**	**-0.5**
	comp=Z,1.5nm,0.7s,mb3.7,baz=205,slow=6.2,SNR=9.8						
BVAR	**Borovoye Array**	**41.05**	**15**	P	**P**	**02 54 32.7**	**-0.5**
BRVK	**Borovoye**	**41.06**	**15**	*e*P	**P**	**02 54 33.6**	**+0.4**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
BRVK	**Borovoye**	**41.06**	**15**	*e*P	**P**	**02 54 33.6**	**+0.4**
	comp=Z,2.6nm,0.7s,mb4.0						
BRVK	**Borovoye**	**41.06**	**15**	*e*P	**P**	**02 54 33.6**	**+0.4**
	comp=Z,2.6nm,0.7s,mb4.0						
KURK	**Kurchatov**	**41.76**	**24**	P	**P**	**02 54 37.4**	**-1.5**
	comp=Z,1.6nm,0.9s,mb3.7,baz=225,slow=8.3,SNR=6.8						
KURK	**Kurchatov**	**41.76**	**24**	P	**P**	**02 54 37.5**	**-1.5**
CMAR	**Chiang Mai Arr**	**43.59**	**78**	P	**P**	**02 54 54.9**	**+0.5**
	comp=Z,1.0nm,0.7s,mb3.6,baz=278,slow=8.5,SNR=8.9						
CMAR				LR	LR	03 15 23.3	
	comp=Z,37nm,19.3s,MS3.3,baz=72,slow=39						
CMAR	**Chiang Mai Arr**	**43.59**	**78**	P	**P**	**02 54 54.9**	**+0.5**
KEST	**Kesra**	**45.14**	**307**	P	**P**	**02 55 07.5**	**+1.0**
	comp=Z,1.6nm,0.9s,mb3.8,baz=76,slow=4.2,SNR=4.2						
TAM	**Tamanrasset**	**46.32**	**288**	*e*P	**P**	**02 55 16.4**	**+0.4**
TAM				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
TAM	**Tamanrasset**	**46.32**	**288**	*e*P	**P**	**02 55 16.4**	**+0.4**
	comp=Z,1.8nm,1.0s,mb4.0						
TAM	**Tamanrasset**	**46.32**	**288**	*e*P	**P**	**02 55 16.4**	**+0.4**
	comp=Z,1.8nm,1.0s,mb4.0						
ZALV	**Zalesovo Beam**	**46.69**	**25**	P	**P**	**02 55 16.5**	**-2.0**
	comp=Z,1.0nm,0.3s,mb4.2,baz=218,slow=11,SNR=5.8						
ZALV				LR	LR	03 15 01.4	
	comp=Z,66nm,19.6s,MS3.6,baz=339,slow=36						
NVS	**Novosibirsk**	**46.73**	**23**	*e*P	**P**	**02 55 17.8**	**-0.9**
NVS				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
NVS				pmax	pmax		
	comp=N,19nm,1.9s						
NVS	**Novosibirsk**	**46.73**	**23**	*e*P	**P**	**02 55 17.8**	**-0.9**
	comp=N,19nm,1.9s,mb4.7						
TOA0	**Torodi Ar. Sit**	**50.44**	**276**	*e*P	**P**	**02 55 48.1**	**+0.2**
TOA0	**Torodi Ar. Sit**	**50.44**	**276**	*e*P	**P**	**02 55 48.1**	**+0.2**
TORD	**Torodi Ar. Bea**	**50.44**	**276**	P	**P**	**02 55 48.4**	**+0.4**
	comp=N,1.0nm,0.8s,mb3.9,baz=82,slow=6.4,SNR=7.3						
TORD				PcP	PcP	02 57 07.2	+0.9
	comp=N,0.2nm,1.0s,baz=80,slow=5.3,SNR=2.6						
TORD	**Torodi Ar. Bea**	**50.44**	**276**	P	**P**	**02 55 48.3**	**+0.4**
TORD	**Torodi Ar. Bea**	**50.44**	**276**	PcP	PcP	02 57 07.2	+0.9
BOSA	**Boshof**	**50.57**	**213**	LR	LR	03 17 41.4	
	comp=N,96nm,19.0s,MS3.8,baz=225,slow=37						
GYA	**Guiyang**	**50.90**	**67**	P	**P**	**02 55 51.9**	**+0.6**

GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
SONM	Songino Array	54.93	41	P	P	02 56 20.9	+0.3
	comp=Z,1.5nm,1.0s,mb4.0,baz=246,slow=5.3,SNR=8.8						
SONM	Songino Array	54.93	41	P	P	02 56 20.9	+0.2
NOA	NORSAR Array B	55.96	337	LR	LR	03 23 23.8	
	comp=Z,46nm,18.7s,MS3.6,baz=70,slow=39						
ESDC	Sonseca Array	56.31	308	P	P	02 56 29.6	-1.2
	comp=Z,0.6nm,0.6s,mb3.8,baz=86,slow=6.2,SNR=5.9						
ESDC	Sonseca Array	56.31	308	P	P	02 56 29.6	-1.2
CN2	Changchun	67.26	48	*e*P	P	02 57 44.1	-0.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
KSRS	Korea Array	69.15	55	P	P	02 57 55.6	-0.9
	comp=Z,0.6nm,0.3s,mb4.0,baz=260,slow=6.2,SNR=4.1						
WRA	Warramunga Arr	86.22	112	P	P	02 59 32.3	+0.3
	comp=Z,1.2nm,0.7s,mb4.2,baz=298,slow=3.8,SNR=22						
WRA	Warramunga Arr	86.22	112	P	P	02 59 32.3	+0.3
WRAB	Tennant Creek	86.22	111	*e*P	P	02 59 32.1	+0.1
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
WRAB	Tennant Creek	86.22	111	*e*P	P	02 59 32.1	+0.1
	comp=Z,2.6nm,0.7s,mb4.6						
WRAB	Tennant Creek	86.22	111	*e*P	P	02 59 32.1	+0.1
	comp=Z,2.6nm,0.7s,mb4.6						
WB2	Warramunga Arr	86.23	112	*e*P	P	02 59 32.1	+0.1
WB2	Warramunga Arr	86.23	112	*e*P	P	02 59 32.1	+0.1
ASAR	Alice Springs	86.89	115	P	P	02 59 35.4	+0.2
	comp=Z,0.7nm,0.7s,mb4.0,baz=292,slow=4.8,SNR=8.1						
ASAR	Alice Springs	86.89	115	P	P	02 59 35.4	+0.2

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*ISCJB **01** 03:15:09.6±2.1, 37°.86N±0°.07×27°.1E±0°.2, h14^{km}±15^{km}, Error ellipse: s-maj=28.1km s-min=9.8km az=167.3*
*CSEM **01** 03:15:10.2±0.4, 37°.87N×27°.11E, h15^{km}, MD2.6, Error ellipse: s-maj=10.2km s-min=2.9km az=63.0*
*ISK **01** 03:15:10.0, 37°.89N×27°.16E, h4^{km}, MD2.6*
*DDA **01** 03:15:11.1, 37°.91N×27°.15E, h7^{km}±2^{km}, Md2.5*
ISC 01 03:15:10.3±1.9, **37°.86N**±0°.07×**27°.1E**±0°.1, **h14**^{km}±13^{km}, **n10**, σ**0ˢ.38**/16, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLCB	Balcova	0.53	355	PG	Pg	03 15 20.1	-0.6
BLCB				*e*SG	Sg	03 15 27.9	+0.1
BLCB	Balcova	0.53	355	*i* Pg	Pg	03 15 20.2	-0.5
BLCB				*e*Sg	Sg	03 15 27.9	+0.1
IZM	Izmir	0.55	13	*e*PG	Pg	03 15 20.8	-0.4
IZM				*e*SG	Sg	03 15 29.1	+0.5
IZM	Izmir	0.55	13	*e*Pg	Pg	03 15 20.8	-0.4
IZM				*e*Sg	Sg	03 15 29.1	+0.6
AYDN	Tasoluk	0.65	107	*e*P	Pg	03 15 23.0	+0.1
AYDN				*e*S	Sg	03 15 31.0	-0.4
AYDN	Tasoluk	0.65	107	*e*P	Pg	03 15 23.0	+0.1
AYDN				*e*S	Sg	03 15 31.0	-0.4
MLSB	Milas	0.78	136	*e*PG	Pg	03 15 25.8	+0.5
MLSB	Milas	0.78	136	*e*Pg	Pg	03 15 25.8	+0.5
KULA	Kula-Manisa	1.39	61	*e*PN	Pn	03 15 35.3	0.0
KULA	Kula-Manisa	1.39	61	*e*Pn	Pn	03 15 35.3	0.0

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*CASC **01** 03:28:48.7±2.8, 16°.16N×92°.40W, h3^{km}±195^{km}, MD4.3, mb4.3(NEIC)*
*ISCJB **01** 03:28:49.5±0.3, 15°.60N±0°.04×92°.75W±0°.03, h149^{km}±3^{km}, mb4.0/10, Error ellipse: s-maj=7.6km s-min=2.9km az=30.8*
*IDC **01** 03:28:50.0±1.0, 15°.58N×92°.34W, h142^{km}±8^{km}, mb3.6/8, mb1 4.0/10, mb1mx3.6/24, mbtmp3.7/10, Error ellipse: s-maj=18.8km s-min=12.8km az=50.0*
*NEIC **01** 03:28:52.2, 15°.68N×92°.74W, h148^{km}, mb4.3/7, MD4.5(MEX), After MEX.*
*MEX **01** 03:28:52.0±0.8, 15°.67N×92°.74W, h150^{km}±6^{km}, MD4.5*
ISC 01 03:28:50.3±0.3, **15°.60N**±0°.04×**92°.74W**±0°.03, **h147**^{km}±3^{km}, **n68**, σ**1ˢ.14**/95, **mb4.0**/10, **3C-4D, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		0.47	283	*e*P	Pn	03 29 11.5	+0.4
PCIG				*i* S	Sn	03 29 26.9	0.0
CCIG	Comitan	0.89	41	*i* P	Pn	03 29 14.0	+0.1
CCIG				*i* S	Sn	03 29 31.7	-0.2
SCX	San Cristobal	1.13	5	*i* P	Pn	03 29 17.3	+1.4
SCX				*i* S	Sn	03 29 34.8	-0.8
TGIG		1.23	343	*i* P	Pn	03 29 17.0	+0.2
TGIG				*i* S	Sn	03 29 35.6	-1.6
JAT	Jato	1.66	140	⇓*e*P	Pn	03 29 22.4	+1.0
TP2	Tecpan 2	1.85	116	⇓*e*P	Pn	03 29 23.8	+0.3
TP2				*e*S	Sn	03 29 49.2	+0.3
FG6		2.07	120	*e*P	Pn	03 29 26.9	+0.8
FG6				*e*S	Sn	03 29 55.2	+1.6
FUG	Fuego 3	2.17	122	⇓*e*P	Pn	03 29 27.4	+0.2
NBG	Las Nubes	2.52	113	⇓*e*P	Pn	03 29 31.5	0.0
CMIG	Matias Romero	2.53	306	*i* P	Pn	03 29 32.3	+0.6
CMIG				*i* S	Sn	03 30 03.1	-0.5
CMIG	Matias Romero	2.53	306	P	Pn	03 29 32.4	+0.7
	71nm,0.3s,baz=127,slow=9.5,SNR=675						
CMIG				S	Sn	03 30 03.8	+0.2
	506nm,0.3s,baz=18,slow=19,SNR=48						
CMIG	Matias Romero	2.53	306	P	Pn	03 29 32.4	+0.7
CMIG				*i* S	Sn	03 30 03.1	-0.5
CMIG				S	Sn	03 30 03.8	+0.2
IXG	Ixpaco	2.63	122	⇑*e*P	Pn	03 29 33.4	+0.5
IXG				*e*S	Sn	03 30 07.7	+2.0
TUIG	Tuzandepetl	2.91	327	*i* P	Pn	03 29 36.2	-0.1
TUIG				*i* S	Sn	03 30 11.1	-0.8
MRL	Marmol	2.99	100	⇑*e*P	Pn	03 29 36.5	-1.0
HUIG	Huatulco	3.25	273	*i* P	Pn	03 29 40.6	-0.1
HUIG				*i* S	Sn	03 30 18.3	-1.4
RBDL	Robledal	3.30	116	*e*P	Pn	03 29 41.0	-0.4
RBDL				*e*S	Sn	03 30 14.5	-6.5
RTR	El Retiro	3.44	119	*e*P	Pn	03 29 43.1	-0.1
SNJE	San Jose	3.49	119	*e*P	Pn	03 29 43.1	-0.7
LFRS	El Faro	4.07	118	*e*P	Pn	03 29 51.1	-0.3
VHO	Vista Hermosa	4.10	291	*e*P	Pn	03 29 53.2	+1.4
VHO				*i* S	Sn	03 30 39.4	-0.2
TPIG	Tehuac#an	5.23	303	*i* P	Pn	03 30 07.2	+0.5
TPIG				*i* S	Sn	03 31 06.0	-0.5
PNIG	Pinotepa	5.24	279	*e*P	Pn	03 30 07.8	+0.9
PNIG				*i* S	Sn	03 31 02.8	-3.8
UTMO	Huajuapan	5.33	295	*i* P	Pn	03 30 08.9	+0.8
UTMO				*i* S	Sn	03 31 07.7	-1.0
LVIG	Laguna Verde	5.39	320	*i* P	Pn	03 30 09.1	+0.3
LVIG				*i* S	Sn	03 31 05.8	-4.4
TGUH	Tegucigalpa,Un	5.51	105	*e*Pn	Pn	03 30 09.4	-1.0
	77nm,0.6s						
TEIG	Tepich	6.26	42	*i* P	Pn	03 30 17.4	-3.0
TEIG	Tepich	6.26	42	P	Pn	03 30 17.6	-2.9
	19nm,0.3s,baz=236,slow=2.3,SNR=114						
TEIG				S	Sn	03 31 25.4	-5.7
	15nm,0.3s,baz=260,slow=18,SNR=6.9						
TEIG	Tepich	6.26	42	P	Pn	03 30 17.6	-2.9
TEIG				S	Sn	03 31 25.4	-5.7
PPM	Popocatepetl	6.59	302	*e*P	Pn	03 30 26.3	+1.4
PPM				*i* S	Sn	03 31 38.3	-0.7
PPM	Popocatepetl	6.59	302	*e*P	Pn	03 30 26.3	+1.4
PPM				*i* S	Sn	03 31 36.0	-3.0
IIO	Organos	6.95	306	*i* P	Pn	03 30 34.3	+4.7
MEIG	Mezcala	6.98	290	*e*P	Pn	03 30 33.4	+3.3
MEIG				*i* S	Sn	03 31 47.2	-1.2
PLIG	Platanillo	7.04	294	*i* P	Pn	03 30 33.0	+2.2
PLIG				*i* S	Sn	03 31 48.8	-0.9
MZVM		7.15	301	*i* P	Pn	03 30 36.6	+4.3
PTVM	Pico Tres Padr	7.26	304	*e*P	Pn	03 30 41.3	+7.5
CAIG	El Cayaco	7.37	282	*i* P	Pn	03 30 37.5	+2.2
CAIG				*i* S	Sn	03 31 55.1	-2.5
JTS	JuntasAbangare	9.25	124	P	Pn	03 30 59.6	-0.8
	1.9nm,0.3s,baz=319,slow=10,SNR=11						
JTS				S	Sn	03 32 38.4	-4.6
	2.1nm,0.3s,baz=325,slow=23,SNR=5.7						
JCR	Jicaral	9.38	127	*e*P	Pn	03 31 00.1	-2.1
CGA2	Cerro Gallo 2	9.79	124	*e*P	Pn	03 31 07.7	0.0
PRS1	Puriscal	9.94	123	*e*P	Pn	03 31 09.9	+0.3
PRS1				*e*S	Sn	03 32 52.9	-6.8
LCR2	La Lucha 2	10.32	123	*e*P	Pn	03 31 14.2	-0.6
URSC	Urasca	10.45	122	*e*P	Pn	03 31 16.2	-0.2
BUS	Buena Vista	10.63	123	*e*P	Pn	03 31 18.4	-0.3
BAR1		11.17	123	⇑*e*P	Pn	03 31 24.6	-1.2
VBMS	Vicksburg	16.67	7	*e*P	Pn	03 32 36.1	+0.9
	42nm,0.7s						
TXAR	Lajitas Array	16.97	325	P	Pn	03 32 42.1	+3.1
	0.2nm,0.3s,baz=154,slow=11,SNR=57						
OXF	Oxford	19.07	8	*e*P	P	03 33 05.0	+3.6
	49nm,1.0s						
UALR	University of	19.09	1	*e*P	P	03 33 03.7	+2.0
	20nm,1.0s						
OTAV	Otavalo	20.79	136	*e*P	P	03 33 21.2	+1.1
	7.0nm,1.0s						
AMTX	Amarillo	20.81	339	*e*P	P	03 33 21.0	+0.9
	12nm,0.5s						
WVT	Waverly	20.91	11	*e*P	P	03 33 20.7	-0.4
	6.5nm,0.7s						
ROSC	El Rosal	21.01	119	*e*P	P	03 33 20.9	-1.5
TKL	Tuckaleechee C	21.52	20	P	P	03 33 26.9	-0.7
	4.2nm,0.7s,mb4.0,baz=187,slow=16,SNR=5.6						
TKL	Tuckaleechee C	21.52	20	P	P	03 33 26.9	-0.8
SDV	Santo Domingo	22.60	105	P	P	03 33 36.6	-2.2
	2.8nm,0.5s,mb4.0,baz=22,slow=7.5,SNR=7.1						
ANMO	Albuquerque	22.87	330	P	P	03 33 42.0	+0.9
	2.9nm,0.8s,mb3.8,baz=151,slow=10,SNR=9.0						
ANMO	Albuquerque	22.87	330	*e*P	P	03 33 42.7	+1.6
	3.2nm,0.8s,mb3.8						
KSU1	Kansas State U	23.66	352	*e*P	P	03 33 47.7	-0.5
	19nm,0.7s,mb4.7						
CBKS	Cedar Bluff	23.93	346	*e*P	P	03 33 51.5	+0.8
	13nm,0.9s,mb4.5						
PDAR	Pinedale Array	30.67	335	P	P	03 34 54.4	+3.5
	0.6nm,1.0s,mb3.3,baz=163,slow=7.4,SNR=3.4						
NVAR	Mina Array Bea	31.98	320	P	P	03 35 06.7	+4.2
	5.9nm,0.8s,mb4.4,baz=134,slow=8.8,SNR=35						
NVAR				pP	pP	03 35 36.9	+3.1
	2.3nm,0.8s,baz=140,slow=9.1,SNR=5.4						
NVAR				sP	sP	03 35 52.1	+1.3
	1.4nm,0.8s,baz=131,slow=8.6,SNR=2.7						
NVAR	Mina Array Bea	31.98	320	P	P	03 35 06.7	+4.2
NVAR				pP	pP	03 35 36.9	+3.1
NVAR				sP	sP	03 35 52.1	+1.3
SIV	San Ignacio	44.31	134	P	P	03 36 44.7	-1.1
	2.5nm,0.8s,mb3.9,baz=301,slow=10.0,SNR=14						
YKA	Yellowknife Ar	49.31	347	P	P	03 37 23.7	-0.4
	2.1nm,0.6s,mb4.0,baz=147,slow=7.5,SNR=36						
YKA				pP	pP	03 37 55.9	-1.6
	0.7nm,0.7s,baz=149,slow=7.2,SNR=3.7						
YKA	Yellowknife Ar	49.31	347	P	P	03 37 23.7	-0.4
YKA				pP	pP	03 37 55.9	-1.6
CPUP	Villa Florida	54.06	140	P	P	03 37 56.3	-3.6
	1.7nm,0.6s,mb4.0,baz=330,slow=9.7,SNR=8.1						
WRA	Warramunga Arr	135.07	257	PKP	PKPdf	03 47 54.0	+1.0
	0.1nm,0.5s,baz=78,slow=2.6,SNR=3.9						

IDC 01 03:39:10.8±2.5, **2°.32N**×**127°.40E, h0**^{km}, **mb3.2**/3, **mb1 3.5**/3, **mb1mx3.3**/16, **mbtmp3.3**/3, **MS4.0**/1, **Ms1 4.0**/1, **ms1mx2.6**/14, **Error ellipse: s-maj=205.0km s-min=26.2km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.14	163	P	P	03 44 18.9	0.0
	0.2nm,0.3s,baz=340,slow=9.9,SNR=11						
ASAR	Alice Springs	26.59	167	P	P	03 44 49.9	-1.1
	0.3nm,0.4s,baz=356,slow=8.0,SNR=5.7						
ASAJ	Asahikawa	43.75	16	LR	LR	04 02 18.5	
	comp=Z,193nm,21.1s,baz=50,slow=32						
MKAR	Makanchi Array	59.09	325	P	P	03 49 14.1	+1.1
	0.2nm,0.4s,baz=124,slow=8.7,SNR=4.2						

IDC 01 03:39:15.9±1.3, **19°.47N**×**121°.59E, h0**^{km}, **mb3.3**/4, **mb1 3.5**/4, **mb1mx3.3**/21, **mbtmp3.3**/4, **Error ellipse: s-maj=81.1km s-min=27.0km az=71.0, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	41.11	162	P	P	03 47 00.8	-0.9
	0.1nm,0.6s,baz=342,slow=8.9,SNR=4.5						
MKAR	Makanchi Array	42.07	319	P	P	03 47 09.3	-0.1
	0.2nm,0.6s,baz=112,slow=5.8,SNR=2.9						
ASAR	Alice Springs	44.52	164	P	P	03 47 30.2	+0.8
	0.2nm,0.3s,baz=333,slow=5.4,SNR=4.4						
YKA	Yellowknife Ar	87.15	23	P	P	03 52 03.7	+0.1
	0.3nm,0.5s,baz=309,slow=4.7,SNR=6.2						

PGC 01 04:11:10.7±28.0, **51°.48N**×**131°.08W, h10**^{km}, **ML2.8**/4, **Mw3.6, 3D, 203km Sse of Sandspit, Bc Queen Charlotte Islands Region, Queen Charlotte Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNB	Barry Inlet	1.18	339	⇑P	Pb	04 11 31.1	-1.9
BNB				⇑S	Sb	04 11 45.0	-3.4
MOBC	Moresby Island	1.76	342	⇓P	Pn	04 11 39.0	-2.1
MOBC				⇑S	Sn	04 11 60.0	-3.6
DIB	Dawson Inlet,	1.93	334	⇓S	Sn	04 12 04.0	-3.8
BBB	Bella Bella	1.97	68	⇓P	Pn	04 11 42.2	-1.9
BBB				⇑S	Sn	04 12 04.8	-3.9

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*ISCJB **01** 04:35:30.2±0.4, 36°.62N±0°.03×71°.00E±0°.06, h215^{km}±5^{km}, mb3.4/8, Error ellipse: s-maj=7.3km s-min=4.0km az=170.1*
*IDC **01** 04:35:30.4±5.4, 36°.46N×70°.92E, h212^{km}±52^{km}, mb3.2/7, mb1 3.4/12, mb1mx3.3/26, mbtmp3.3/12, Error ellipse: s-maj=29.3km s-min=16.2km az=28.0*
*BJI **01** 04:35:30.2, 36°.76N×71°.00E, h197^{km}, mb3.9/5*
*NEIC **01** 04:35:31.6±0.8, 36°.60N×70°.97E, h217^{km}±8^{km}, mb4.1/2, Error ellipse: s-maj=12.5km s-min=9.4km az=105.0*
*NNC **01** 04:35:36.9±3.8, 37°.07N×71°.08E, h227^{km}±32^{km}, mb2.9, mpv4.4, Error ellipse: s-maj=34.2km s-min=18.1km az=12.0*
ISC 01 04:35:31.3±0.4, **36°.63N**±0°.03×**71°.03E**±0°.06, **h203**^{km}±5^{km}, **n67**, σ**1ˢ.14**/80, **mb3.4**/8, **4C-8D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	2.64	218	*e*Pn	Pn	04 36 17.9	+1.0
KBL				*e*S	Sn	04 36 52.1	-0.4
KSH	Kashi	4.85	52	P	Pn	04 36 41.0	-2.7
KSH				S	Sn	04 37 32.4	-8.5
KSH				smax			
	comp=N,720nm,0.4s						
KSH				smax			
	comp=E,570nm,0.3s						
AML	Almayashu	5.87	20	P	Pn	04 36 58.2	+1.4
	SNR=205						
AML	Almayashu	5.87	20	*e*Pn	Pn	04 36 57.8	+1.1
AML				*e*S	Sn	04 38 03.6	-0.8
UCH	Uchtor	6.21	25	P	Pn	04 37 03.0	+2.0
	SNR=17						
UCH	Uchtor	6.21	25	*e*Pn	Pn	04 37 03.0	+1.9
UCH				*e*S	Sn	04 38 11.3	-1.0
KZA	Kyzart	6.34	30	P	Pn	04 37 04.2	+1.3
	SNR=46						
EKS2	Erkin-Say	6.38	19	P	Pn	04 37 04.7	+1.3
	SNR=88						
EKS2	Erkin-Say	6.38	19	*e*Pn	Pn	04 37 04.5	+1.1
	comp=E,30nm,0.4s						
EKS2				*e*S	Sn	04 38 15.7	-0.8
KK31	Karatay Array	6.48	357	⇑P	Pn	04 37 04.9	+0.3
	comp=E,8.8nm,0.3s,baz=170,slow=12,SNR=367						
KK31				⇓S	Sn	04 38 15.2	-3.5
	comp=E,19nm,0.4s,baz=174,slow=22,SNR=12						
AAK	Ala-Archa	6.56	23	P	Pn	04 37 07.3	+1.6
	SNR=82						
AAK	Ala-Archa	6.56	23	*e*Pn	Pn	04 37 06.9	+1.2
	comp=E,105nm,0.6s						
AAK				*e*S	Sn	04 38 18.6	-2.1
KBK	Karagaybulak	6.73	25	P	Pn	04 37 09.6	+1.7
	SNR=29						
BHK	Bhakra	6.86	138	*e*S	Sn	04 38 21.8	-5.9
ULHL	Ulahol	6.91	34	P	Pn	04 37 11.2	+1.0
	SNR=34						
CHMS	Chumysh	6.97	23	P	Pn	04 37 11.8	+0.8
	SNR=25						
SDNR	Sundarnagar	7.10	134	*e*PKP	Pn	04 37 13.0	+0.2
SDNR				*e*S	Sn	04 38 27.5	-6.0
USP	Ospenovka	7.14	21	P	Pn	04 37 13.4	+0.2
	SNR=57						
TKM2	Tokmak 2	7.20	28	P	Pn	04 37 14.7	+0.8
	SNR=28						
TKM2	Tokmak 2	7.20	28	*e*Pn	Pn	04 37 14.9	+0.9
	comp=E,47nm,0.8s						
TKM2	Tokmak 2	7.20	28	⇓P	Pn	04 37 14.6	+0.7
	comp=E,22nm,0.6s						
TKM2				⇓S	Sn	04 38 34.2	-1.4
	comp=E,14nm,0.8s						
DDI	Dehra Dun	8.60	135	*e*x	x	04 38 43.0	
JOSI	Joshimath	9.34	128	*e*PKP	Pn	04 37 42.5	+0.6
JOSI				*e*S	Sn	04 39 17.8	-8.8
JOSI				AML	AML	04 39 30.7	
	comp=N,201nm,0.6s						
JOSI				AML	AML	04 39 33.8	
	comp=E,224nm,0.5s						
KHET	Khetri	9.44	153	*e*PKP	Pn	04 37 41.7	-1.5
KHET				*e*S	Sn	04 39 19.2	-10
KHET				AML	AML	04 39 27.1	
	comp=N,27nm,0.5s						
KHET				AML	AML	04 39 27.2	
	comp=E,32nm,0.2s						
NDI	New Delhi	9.48	145	*e*PKP	Pn	04 37 50.0	+6.2
NDI				*e*S	Sn	04 39 24.0	-6.0
AYAN	Aya Nagar	9.61	146	*e*S	Sn	04 39 24.2	-8.9
KUDL	Kundal	9.63	150	*e*PKP	Pn	04 37 44.7	-1.1
KUDL				*e*S	Sn	04 39 25.3	-8.3
SONA	Sohna	9.79	147	*e*S	Sn	04 39 28.6	-8.8
MK01	Makanchi Array	13.16	36	⇑P	Pn	04 38 30.7	+0.3
	comp=E,1.3nm,0.5s						
MK31	Makanchi Array	13.17	36	*e*P	Pn	04 38 30.3	-0.3
MK31	Makanchi Array	13.17	36	⇓P	Pn	04 38 30.4	-0.2
	comp=E,0.8nm,0.3s						
MKAR	Makanchi Array	13.17	36	P	Pn	04 38 30.2	-0.3
	comp=E,0.5nm,0.3s,baz=228,slow=20,SNR=20						
DANN	Dangsing	13.54	124	*e*P	Pn	04 38 34.7	-0.7
	comp=E,51nm,0.3s						
KOLN	Koldanda	13.82	126	*e*P	Pn	04 38 38.2	-0.6
	comp=E,20nm,0.4s						
GKN	Gorkha	14.35	123	*e*P	Pn	04 38 45.2	-0.2
	comp=E,59nm,0.4s						
DMN	Daman	14.92	123	*e*P	Pn	04 38 52.2	-0.2
	comp=E,36nm,0.4s						
KKN	Kakani	14.92	122	*e*P	Pn	04 38 51.1	-1.3
	comp=E,47nm,0.5s						
KURBB	Kurchatov Arra	14.99	19	⇑P	Pn	04 38 51.7	-1.3
	comp=E,0.5nm,0.4s						
AB09	Akbulak array	15.00	331	⇓P	Pn	04 38 51.4	-1.6
	comp=E,0.8nm,0.3s						
AB09				⇓S	S	04 41 34.7	-4.7
	comp=E,1.1nm,0.5s						
KURK	Kurchatov	15.10	19	P	Pn	04 38 52.1	-2.2
	comp=E,0.3nm,0.3s,baz=208,slow=11,SNR=22						
KURK	Kurchatov	15.10	19	*e*P	Pn	04 38 53.3	-1.0
	comp=E,10nm,1.4s						
PKIN	Phulchoki	15.14	123	*e*P	Pn	04 38 54.9	-0.1
PKI	Pulchoki	15.15	123	*e*P	Pn	04 38 54.8	-0.4
GUN	Gumba	15.26	121	*e*P	Pn	04 38 56.0	-0.5
	comp=E,41nm,0.4s						
JIRN	Jiri	15.63	121	*e*P	Pn	04 39 01.2	+0.2
	comp=E,73nm,0.5s						
VOSK	Vostochnaya	16.09	360	⇓P	P	04 39 05.9	+0.2
	comp=E,10nm,0.8s						
RAMN	Ramite	16.36	122	*e*P	P	04 39 09.7	+0.7
	comp=E,21nm,0.3s						
BVA0	Borovoye Array	16.40	359	⇓P	P	04 39 10.2	+1.1
	comp=E,0.8nm,0.6s,baz=160,slow=12,SNR=42						
BVAR	Borovoye Array	16.40	359	P	P	04 39 09.8	+0.7
	comp=E,2.5nm,0.3s,baz=159,slow=12,SNR=43						
BRVK	Borovoye	16.44	358	*e*P	P	04 39 10.3	+0.9
	comp=E,3.7nm,0.4s						
AKTK	Aktyubinsk	16.68	330	P	P	04 39 12.9	+0.7
AKTO	Aktyubinsk	16.68	330	P	P	04 39 12.9	+0.7
	comp=E,1.7nm,0.3s,baz=138,slow=11,SNR=26						
AKTO	Aktyubinsk	16.68	330	⇑P	P	04 39 12.9	+0.6
	comp=E,0.8nm,0.5s						
TAPN	Taplejung	16.88	118	*e*P	P	04 39 16.7	+2.0
	comp=E,37nm,0.5s						
ODAN	Odare	16.96	120	*e*P	P	04 39 17.2	+1.6
LSA	Lhasa	18.19	107	*e*P	P	04 39 31.2	+2.3
ZAA0	Zalesovo Array	19.79	25	*e*P	P	04 39 45.3	-0.6
ZALV	Zalesovo Beam	19.79	25	P	P	04 39 45.9	0.0
	comp=E,1.7nm,0.3s,baz=216,slow=13,SNR=13						
GTA	Gaotai	22.80	74	*e*P	P	04 40 17.2	+0.8
GTA				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.6						
SONM	Songino Array	28.24	55	P	P	04 41 06.3	+1.1
	comp=Z,0.5nm,0.8s,mb3.2,baz=254,slow=9.1,SNR=4.0						
CMAR	Chiang Mai Arr	30.49	119	P	P	04 41 25.7	+0.3
	comp=Z,0.9nm,0.3s,mb3.8,baz=304,slow=6.9,SNR=4.9						
HFS	Hagfors	42.98	322	P	P	04 43 09.8	-0.3
	comp=Z,2.1nm,0.6s,mb3.7,baz=92,slow=13,SNR=4.9						
HFS	Hagfors	42.98	322	P	P	04 43 09.8	-0.3
TORD	Torodi Ar. Bea	65.75	269	P	P	04 45 51.6	-3.0
	comp=Z,0.2nm,0.3s,mb3.2,baz=54,slow=6.1,SNR=7.2						
YKA	Yellowknife Ar	81.12	3	P	P	04 47 22.7	-0.7
	comp=Z,0.2nm,0.4s,mb3.1,baz=353,slow=5.6,SNR=5.6						
WRA	Warramunga Arr	82.04	122	P	P	04 47 25.8	-3.0
	comp=Z,0.7nm,0.8s,mb3.4,baz=326,slow=5.1,SNR=14						
ASAR	Alice Springs	84.31	125	P	P	04 47 38.4	-2.0
	comp=Z,0.4nm,0.7s,mb3.2,baz=310,slow=5.0,SNR=4.8						

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*NEIC **01** 04:42:01.0, 34°.03S×70°.09W, h4^{km}, ML3.3(GUC), After GUC.*
GUC 01 04:42:01.0±0.4, **34°.03S**×**70°.09W, h4**^{km}±2^{km}, **MD3.7, ML3.3, 6C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LMEL	Las Melosas	0.21	332	*i* P	Pg	04 42 05.5	+0.4
LMEL				*i* S	Sg	04 42 08.8	+1.0
LMEL	Las Melosas	0.21	332	*i* P	Pg	04 42 05.5	+0.4
LMEL				*i* S	Sg	04 42 08.8	+1.0
LMEL				AML	AML	04 42 09.2	
	comp=E,18µm,0.3s						
CICH	Cipreses	0.40	224	⇑*i*P	Pg	04 42 08.9	+0.2
CICH				*i* S	Sg	04 42 14.8	+0.9
CACH	El Canelo	0.43	259	*i* P	Pg	04 42 09.6	+0.2
CACH				*i* S	Sg	04 42 15.9	+0.8
CHCH	Chadas Angostu	0.48	282	⇑*i*P	Pg	04 42 10.5	+0.3
CHCH				*i* S	Sg	04 42 17.6	+1.1
PCH	Pirque	0.54	319	⇑*i*P	Pg	04 42 11.5	+0.1
PCH				*i* S	Sg	04 42 19.5	+1.0
FCH	Farellones	0.72	346	⇑*i*P	Pg	04 42 15.5	+0.6
FCH				*i* S	Sg	04 42 26.3	+2.0
TACH	Talagante	0.80	298	⇑*i*P	Pg	04 42 16.2	-0.2
TACH				*i* S	Sg	04 42 27.6	+0.7
PEL	Peldehue	1.02	330	⇑*i*P	Pg	04 42 20.0	-0.5
PEL				*i* S	Sg	04 42 34.0	+0.3
PEL				AML	AML	04 42 36.7	
	comp=N,925nm,0.4s						

NEIC 01 04:44:57.7, 41°.02S×**174°.75E, h38**^{km}, **ML4.0**(WEL), **After WEL., Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIW	Kapiti Island	0.20	38	P	Pn	04 45 04.2	-0.6
KIW				S	Sn	04 45 09.2	-0.4
MRW	Makara Radio	0.21	190	P	Pn	04 45 04.7	-0.2
MRW				S	Sn	04 45 10.0	+0.1
CAW	Cannon Point	0.26	110	P	Pn	04 45 05.2	-0.1
WEL	Wellington	0.27	177	P	Pn	04 45 05.3	-0.1
SNZO	South Karori	0.29	187	P	Pn	04 45 05.5	-0.2
SNZO				S	Sn	04 45 11.6	+0.3
BHW	Baring Head	0.40	167	P	Pn	04 45 06.9	-0.1
TCW	Tory Channel	0.41	242	P	Pn	04 45 06.2	-0.9
MSWZ	Moikau Station	0.55	137	P	Pn	04 45 09.3	+0.3
MTW	Mount Morrison	0.58	104	P	Pn	04 45 09.7	+0.2
PAWZ	Paruwai Farm	0.63	126	P	Pn	04 45 10.2	+0.1
MRZ	Mangatainoka R	0.72	61	P	Pn	04 45 11.4	0.0
CMWZ	Cape Campbell	0.83	209	P	Pn	04 45 16.3	+3.4
BSWZ	Blackbirch Sta	0.96	223	P	Pn	04 45 14.8	+0.2
NNZ	Nelson	1.05	259	P	Pn	04 45 15.5	-0.5
BFZ	Birch Farm	1.18	74	P	Pn	04 45 17.0	-0.7
WAZ	Wanganui	1.27	8	P	Pn	04 45 19.7	+0.7
TSZ	Takapari Road	1.33	44	P	Pn	04 45 19.2	-0.5
THZ	Tophouse	1.57	241	P	Pn	04 45 22.8	-0.3
KHZ	Kahutara	1.67	213	P	Pn	04 45 23.8	-0.5
QRZ	Quartz Range	1.69	276	P	Pn	04 45 24.4	-0.3
RAEZ	Rainy Point	1.75	351	P	Pn	04 45 26.6	+1.1
DFE	Dawson Falls	1.76	343	P	Pn	04 45 26.7	+1.0
MOVZ	Moawhango	1.78	26	P	Pn	04 45 25.5	-0.5
WNVZ	Wahianoa	1.81	21	P	Pn	04 45 26.6	+0.3
NEZ	North Egmont	1.82	344	P	Pn	04 45 27.6	+1.2
FWVZ	Far West T-bar	1.87	19	P	Pn	04 45 27.5	+0.4
TUVZ	Tukino	1.88	22	P	Pn	04 45 27.7	+0.4

VRZ	Vera Road	1.89	0	P	Pn	04 45 28.4	+0.9
PKE	Pukeiti	1.91	342	P	Pn	04 45 28.3	+0.5
NGZ	Ngauruhoe	1.95	20	P	Pn	04 45 28.7	+0.4
WTVZ	West Tongariro	2.01	19	P	Pn	04 45 29.4	+0.3
TWVZ	Taurewa	2.02	15	P	Pn	04 45 29.3	+0.1
KATZ	Kakaramea	2.17	20	P	Pn	04 45 32.0	+0.8
RITZ	Rihia Road	2.21	23	P	Pn	04 45 34.4	+2.6
BKZ	Black Stump Fm	2.28	36	P	Pn	04 45 31.4	-1.4
DSZ	Denniston Nort	2.33	251	P	Pn	04 45 33.0	-0.5
HIZ	Hauiti	2.50	2	P	Pn	04 45 36.5	+0.6
LTZ	Lake Taylor	2.56	226	P	Pn	04 45 35.7	-0.9
MQZ	McQueen's Vall	3.10	209	P	Pn	04 45 41.8	-2.3
MWZ	Matawai	3.43	40	P	Pn	04 45 45.7	-2.9
WVZ	Waitaha Valley	3.63	234	P	Pn	04 45 50.3	-1.0
MKAZ	Moumakai	3.92	5	P	Pn	04 45 55.3	0.0
FOZ	Fox Glacier	4.53	234	P	Pn	04 46 01.5	-2.3

NIED 01 04:48:00, 43°.30N×145°.30E, h68^{km}, Mw3.6 Best double couple: $M_0$2.63000×10^{14} NP1:ϕ_s57.00000°, δ84.00000°, λ-81.00000°. NP2:ϕ_s182.00000°, δ11.00000°, λ-144.00000°.

IDC 01 04:48:26.4±59.0, 43°.91N×145°.50E, h0^{km}, mb3.7/3, mb1 3.9/3, mb1mx3.5/21, mbtmp3.7/3, Error ellipse: s-maj=1392.0km s-min=73.5km az=158.0

ISCJB 01 04:48:33.5±0.9, 43°.25N±0°.07×145°.32E±0°.08, h85^{km}±5^{km}, mb3.5/3, Error ellipse: s-maj=12.4km s-min=8.5km az=145.2

JMA 01 04:48:34.9±0.1, 43°.26N×145°.30E, h76^{km}±1^{km}, M3.7 JMA Felt I J1.

ISC 01 04:48:34.5±0.9, **43°.25N**±0°.07×**145°.31E**±0°.08, **h79**^{km}±5^{km}, **n13**, σ**0^s.43**/21, **mb3.5**/3, **5C-3D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.34	69	⇓P	Pn	04 48 47.0	+0.2
NEM2				eS	Sn	04 48 55.8	-0.1
JAK	Akkeshi	0.52	241	⇓P	Pn	04 48 48.3	+0.1
JAK				eS	Sn	04 48 58.1	-0.3
JNK	Nakash	0.55	308	⇑P	Pn	04 48 48.1	-0.4
JNK				eS	Sn	04 48 58.0	-0.9
JRA	Rausu	0.70	349	⇑P	Pn	04 48 50.3	+0.2
JRA				eS	Sn	04 49 01.9	+0.3
JAR	Ashorobuto	1.13	273	⇑P	Pn	04 48 55.3	+0.3
JAR				eS	Sn	04 49 10.3	0.0
JOB	Onbets	1.14	253	P	Pn	04 48 55.6	+0.5
JOB				eS	Sn	04 49 10.9	+0.4
JTKR	Abashiri--Toko	1.25	306	⇑P	Pn	04 48 56.9	+0.4
JTKR				eS	Sn	04 49 13.1	0.0
JCH	Churui	1.57	247	⇓P	Pn	04 49 00.8	+0.3
JCH				eS	Sn	04 49 19.6	-0.7
JMP	Maruseppu	1.61	299	⇑P	Pn	04 49 01.7	+0.6
SONM	Songino Array	27.44	293	P	P	04 54 12.7	+0.1
	0.4nm,0.5s,mb3.2,baz=86,slow=8.9,SNR=4.8						
MKAR	Makanchi Array	43.63	297	P	P	04 56 30.7	-0.1
	0.6nm,0.7s,mb3.4,baz=79,slow=8.9,SNR=6.5						
NB2	NORSAR Subarra	69.58	338	P	P	04 59 34.0	-0.5
	comp=Z,2.6nm,0.8s,mb4.1,baz=40,slow=6.2						
NOA	NORSAR Array B	69.58	338	P	P	04 59 33.3	-1.2
	comp=Z,0.9nm,0.7s,mb3.7,baz=33,slow=6.4,SNR=3.6						

ISCJB 01 04:56:27.0±1.2, 35°.97N±0°.03×120°.24W±0°.06, h12^{km}±10^{km}, Error ellipse: s-maj=7.5km s-min=4.5km az=173.4

NEIC 01 04:56:28.4, 36°.07N×120°.19W, h18^{km}, ML3.6(NCEDC), After NCEDC.

ISC 01 04:56:27.7±0.7, **36°.01N**±0°.02×**120°.20W**±0°.04, **h8**^{km}±4^{km}, **n37**, σ**1^s.08**/54, **16C-18D, Central California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMMC	Simmler	0.72	167	P	Pg	04 56 43.0	+1.5
	baz=0.7,SNR=141						
SMMC				⇓S	Sg	04 56 53.6	+2.7
	baz=0.7						
RCTC	Rector, Farmer	0.83	69	P	Pg	04 56 43.0	-0.7
	baz=0.8,SNR=146						
RCTC				⇓S	Sg	04 56 53.6	-1.0
	baz=0.8						
VES	Vestal, Richgr	0.92	100	⇓P	Pg	04 56 44.7	-0.7
	baz=0.9,SNR=48						
VES				⇑S	Sg	04 56 56.9	-0.5
	baz=0.9						
PKM	Peak Mountain	1.16	164	⇓P	Pg	04 56 49.9	0.0
	baz=1.2,SNR=43						
PKM				⇑S	Sg	04 57 06.8	+1.9
	baz=1.2						
ISA	Isabella	1.45	103	P	Pn	04 56 53.2	-0.9
	baz=1.4,SNR=446						
ISA				⇓S	Sn	04 57 11.5	-1.8
	baz=1.4						
ISA	Isabella	1.45	103	ePn	Pn	04 56 53.4	-0.7
ISA				eSn	Sn	04 57 11.7	-1.6
CWC	Cottonwood Cre	1.77	75	⇑P	Pn	04 56 58.8	+0.2
	baz=1.8,SNR=355						
CWC				⇑S	Sn	04 57 20.8	-0.3
	baz=1.8						
OSI	Osito Adit	1.85	139	ePn	Pn	04 56 60.0	+0.4
TIN	Tinemaha	1.90	56	P	Pn	04 57 01.1	+0.7
	baz=1.9,SNR=320						
TIN				⇑S	Sn	04 57 25.0	+0.5
	baz=1.9						
CMB	Columbia Colle	2.02	356	ePn	Pn	04 57 00.9	-1.1
CMB				ePg	Pg	04 57 05.5	-1.0
CMB				eSn	Sn	04 57 25.2	-2.3
LRMC	Laurel Mountai	2.11	104	⇓Sb	Sb	04 57 32.2	-0.3
	baz=2.1						
BLG	Laguna Peak	2.12	153	⇑P	Pn	04 57 02.8	-0.5
	baz=2.1,SNR=15						
EDW2	Edwards Air Fo	2.13	121	⇑P	Pn	04 57 03.0	-0.5
	baz=2.1,SNR=32						
EDW2				⇓Sb	Sb	04 57 34.0	+0.9
	baz=2.1						
MPMC	Manual Prospec	2.20	88	⇑P	Pn	04 57 04.7	+0.3
	baz=2.2						
PASC	Pasadena Art C	2.47	137	ePn	Pn	04 57 07.3	-0.9
GRAC	Grapevine Rang	2.49	66	⇑P	Pn	04 57 09.1	+0.7
	baz=2.5						
GRAC				⇓Sb	Sb	04 57 44.1	+0.9
	baz=2.5						
MWC	Mount Wilson	2.50	135	ePn	Pn	04 57 08.5	-0.1
R06C	Coleville	2.58	13	⇓P	Pn	04 57 11.1	+1.5
	baz=2.6,SNR=98						
R06C				⇓S	Sn	04 57 43.7	+2.6
	baz=2.6						
BFSC	Mount Baldy St	2.73	130	⇑P	Pn	04 57 11.7	-0.1
	baz=2.7						
FURC	Furnace Creek,	2.74	79	⇓Sb	Sb	04 57 51.5	+0.9
	baz=2.7						
GSC	Goldstone	2.86	103	⇑P	Pn	04 57 13.2	-0.2
	baz=2.9						
GSC	Goldstone	2.86	103	ePn	Pn	04 57 13.0	-0.5
R08A	Mina	2.87	35	⇑P	Pn	04 57 14.6	+0.9
	baz=2.9						
S09A	Goldfield	2.94	54	⇓P	Pn	04 57 15.1	+0.5
	baz=2.9,SNR=15						
CIS	Catalina Islan	2.99	150	⇓P	Pn	04 57 14.6	-0.8
	baz=3.0,SNR=7.9						
CIS				⇑S	Sn	04 57 48.9	-2.5
	baz=3.0						
Q07A	Schurz	3.12	20	⇓Sb	Sb	04 58 05.3	+3.7
	baz=3.1						
TPH	Tonopah	3.15	48	ePn	Pn	04 57 17.3	-0.2
TPH				ePg	Pg	04 57 25.5	-2.5
U10A	Ash Meadows, A	3.16	81	⇑P	Pn	04 57 18.4	+0.8
	baz=3.1						
BBRC	Big Bear Sol-O	3.21	122	⇓S	Sn	04 57 56.9	+0.2
	baz=3.2						
R09A	Tonopah	3.35	47	⇑P	Pn	04 57 20.8	+0.5
	baz=3.3						
HEC	Hector,Ludlow	3.38	109	⇓P	Pn	04 57 20.1	-0.5
	baz=3.4						
S10A	Tonopah Range,	3.46	56	⇑P	Pn	04 57 22.4	+0.6
	baz=3.4						
S10A				⇓Sb	Sb	04 58 13.5	+2.2
	baz=3.4						
P06A	Stead Airport,	3.67	4	⇓Sb	Sb	04 58 22.6	+5.3
	baz=3.7						
PFO	Pinyon Flat Ob	3.91	127	ePn	Pn	04 57 27.6	-0.3
LDFC	Landfair	4.26	101	ePn	Pn	04 57 31.6	-1.1
BMN	Battle Mountai	5.00	27	ePg	Pg	04 57 57.8	-5.6
MOD	Modoc	5.88	359	ePg	Pg	04 58 13.5	-6.8
MOD				eSg	Sg	04 59 28.9	-7.6

NEIC 01 04:58:16.8, 37°.44S×176°.64E, h232^{km}**, MG4.1**(WEL), **After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.90	156	P	Pn	04 58 49.1	-0.2
MWZ	Matawai	1.14	142	P	Pn	04 58 50.7	0.0
MWZ				S	S	04 59 17.3	0.0
MXZ	Matakaoa Point	1.33	96	P	Pn	04 58 51.7	-0.4
PUZ	Puketiti	1.43	117	P	Pn	04 58 52.7	-0.1
PUZ				S	S	04 59 20.6	-0.4
BKZ	Black Stump Fm	1.73	184	P	Pn	04 58 55.2	0.0
KNZ	Kokohu	1.78	153	P	Pn	04 58 55.6	0.0
TWVZ	Taurewa	1.89	210	P	Pn	04 58 56.9	+0.3
NGZ	Ngauruhoe	1.92	205	P	Pn	04 58 57.3	+0.4
WPVZ	Whakapapa	1.96	206	P	Pn	04 58 57.6	+0.3
TUVZ	Tukino	1.98	203	P	Pn	04 58 57.8	+0.3
FWVZ	Far West T-bar	2.00	205	P	Pn	04 58 57.9	+0.2
WNVZ	Wahianoa	2.06	203	P	Pn	04 58 58.4	+0.2
MOVZ	Moawhango	2.08	199	P	Pn	04 58 58.1	-0.4
VRZ	Vera Road	2.24	221	P	Pn	04 59 00.1	+0.1
TSZ	Takapari Road	2.67	191	P	Pn	04 59 03.4	-1.1
NEZ	North Egmont	2.71	227	P	Pn	04 59 05.9	+1.0
PKE	Pukeiti	2.73	229	P	Pn	04 59 05.9	+0.8
NWEZ	Newall Road	2.85	229	P	Pn	04 59 06.8	+0.4
MRZ	Mangatainoka R	3.32	194	P	Pn	04 59 09.7	-2.0
KIW	Kapiti Island	3.67	201	P	Pn	04 59 13.6	-2.2
CAW	Cannon Point	3.86	198	P	Pn	04 59 15.5	-2.5
PAWZ	Paruwai Farm	4.05	193	P	Pn	04 59 18.3	-2.0
MRW	Makara Radio	4.07	201	P	Pn	04 59 18.1	-2.5
WEL	Wellington	4.11	200	P	Pn	04 59 18.9	-2.1
MSWZ	Moikau Station	4.11	195	P	Pn	04 59 18.1	-3.0
SNZO	South Karori	4.15	201	P	Pn	04 59 18.8	-2.6
TCW	Tory Channel	4.19	205	P	Pn	04 59 19.5	-2.5
NNZ	Nelson	4.54	213	P	Pn	04 59 23.4	-2.9
QRZ	Quartz Range	4.65	222	P	Pn	04 59 23.8	-3.8
BSWZ	Blackbirch Sta	4.77	206	P	Pn	04 59 26.4	-2.7
DSZ	Denniston Nort	5.70	219	P	Pn	04 59 35.9	-4.7
LTZ	Lake Taylor	6.30	211	P	Pn	04 59 44.0	-4.2
WVZ	Waitaha Valley	7.21	217	P	Pn	04 59 55.1	-4.8
FOZ	Fox Glacier	8.09	219	P	Pn	05 00 04.7	-6.3
ODZ	Otahua Downs	8.84	209	P	Pn	05 00 16.9	-3.7

ISCJB 01 04:58:56.9±0.8, 16°.7S±0°.2×173°.6W±0°.2, h41^{km}, mb3.7/8, MS3.8/4, Error ellipse: s-maj=36.1km s-min=12.8km az=136.2

NEIC 01 04:58:57.7±0.7, 16°.79S×173°.53W, h35^{km}, mb3.9/1, Error ellipse: s-maj=34.2km s-min=12.8km az=134.0

IDC 01 04:58:58.2±0.9, 16°.97S×173°.48W, h37^{km}±7^{km}, mb3.5/7, mb1 3.9/7, mb1mx3.7/18, mbtmp3.5/7, MS3.7/5, Ms1 3.7/5, ms1mx3.6/13, Error ellipse: s-maj=38.3km s-min=18.7km az=143.0

ISC 01 04:58:59.3±1.0, **16°.6S**±0°.3×**173°.7W**±0°.2, **h43**^{km}, **h43**^{km}±3.3^{km}**:pP-P, n18,** σ**0^s.92**/11, **mb3.7**/8, **MS3.8**/4, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.21	35	Pn	Pn	04 59 45.4	-1.8
	20nm,0.3s,baz=275,slow=4.1,SNR=9.9						
AFI				Sn	Sn	05 00 14.9	-9.2
	33nm,0.3s,baz=87,slow=20,SNR=4.5						
AFI				LR	LR	05 01 00.1	
	comp=Z,672nm,18.4s,baz=226,slow=35						
URZ	Urewera	23.09	199	P	P	05 03 57.2	-4.1
	3.2nm,0.4s,mb4.1,baz=80,slow=6.1,SNR=6.8						
HNR	Honiara	26.64	282	LR	LR	05 13 40.4	
	comp=Z,272nm,19.9s,MS3.8,baz=118,slow=33						
WRAB	Tennant Creek	49.33	258	eP	P	05 07 44.7	+0.1
	0.6nm,0.5s,mb3.9						
WRA	Warramunga Arr	49.34	258	P	P	05 07 44.6	0.0
	0.3nm,0.4s,mb3.6,baz=96,slow=7.0,SNR=22						
ASAR	Alice Springs	49.51	253	P	P	05 07 46.0	+0.1
	2.6nm,0.6s,mb4.5,baz=87,slow=9.1,SNR=38						
MJAR	Matsushiro Arr	69.65	320	LR	LR	05 35 04.5	
	comp=Z,54nm,21.1s,MS3.8,baz=350,slow=31						
NVAR	Mina Array Bea	75.36	42	P	P	05 10 39.3	+0.9
	0.5nm,0.7s,mb3.5,baz=223,slow=7.4,SNR=2.5						
NVAR				pP	pP	05 10 50.5	-0.5
	1.1nm,0.9s,baz=216,slow=12,SNR=3.8						
KSRS	Korea Array	76.80	316	LR	LR	05 39 48.6	
	comp=Z,41nm,19.1s,MS3.8,baz=32,slow=32						
TXAR	Lajitas Array	81.47	56	P	P	05 11 13.8	+1.5
	0.2nm,0.7s,mb3.2,baz=254,slow=6.5,SNR=2.6						
PDAR	Pinedale Array	83.30	42	P	P	05 11 21.9	+0.4
	0.4nm,0.9s,mb3.5,baz=212,slow=1.4,SNR=3.7						
PDAR				pP	pP	05 11 33.8	-0.6
	0.9nm,0.9s,baz=222,slow=3.2,SNR=6.4						
YKA	Yellowknife Ar	91.26	23	P	P	05 11 59.3	-0.3
	0.1nm,0.5s,mb3.4,baz=239,slow=4.5,SNR=4.5						
YKA				pP	pP	05 12 13.3	+0.7
	0.6nm,0.9s,baz=239,slow=4.1,SNR=3.2						
YKA	Yellowknife Ar	91.26	23	P	P	05 11 59.3	-0.3
YKA				pP	pP	05 12 13.3	+0.7
CMAR	Chiang Mai Arr	92.73	288	LR	LR	05 49 15.8	
	comp=Z,29nm,19.3s,MS3.7,baz=185,slow=32						
CLL	Collm	144.93	353	ePKPbc	PKPbc	05 18 32.0	+1.2
BRTR	Keskin Array B	146.88	320	PKPbc	PKPbc	05 18 37.9	+0.7
	0.7nm,0.8s,baz=108,slow=2.7,SNR=5.0						
GERES	GERESS Array B	147.24	351	pPKPbc	pPKPbc	05 18 51.6	+0.4
	0.9nm,0.8s,baz=34,slow=5.0,SNR=4.0						
TORD	Torodi Ar. Bea	174.38	127	PKPab	PKPab	05 20 35.0	-2.8
	0.5nm,0.8s,baz=247,slow=3.0,SNR=2.9						

NEIC 01 05:13:06.8, 37°.98N×118°.69W, h5^{km}, ML2.9(REN), After REN.

ISCJB 01 05:13:07.3±0.4, 37°.96N±0°.02×118°.77W±0°.03, h10^{km}, Error ellipse: s-maj=3.0km s-min=2.7km az=179.3

ISC 01 05:13:07.2±0.4, **37°.96N**±0°.02×**118°.73W**±0°.03, **h10**^{km}, **n31**, σ**1^s.40**/50, **19C-22D, California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
R08A	Mina	0.63	52	⇑P	Pg	05 13 17.8	-1.6
	baz=0.6,SNR=14						
R08A				⇑S	Sg	05 13 26.1	-1.6
	baz=0.6						
R06C	Coleville	0.80	315	⇑P	Pg	05 13 22.1	-0.5
	baz=0.8						
R06C				⇓S	Sg	05 13 33.2	+0.2
	baz=0.8						
Q07A	Schurz	0.98	357	⇑S	Sg	05 13 38.0	-0.8
	baz=1.0						
TIN	Tinemaha	0.99	156	⇓P	Pg	05 13 25.7	-0.6
	baz=1.0,SNR=9.5						
TIN				⇓S	Sg	05 13 39.5	+0.4
	baz=1.0						
Q08A	Gabbs	1.10	35	⇓P	Pb	05 13 26.6	-1.8
	baz=1.1						
Q08A				⇓S	Sg	05 13 40.9	-1.7
	baz=1.1						
TPH	Tonopah	1.20	84	ePg	Pg	05 13 28.1	-2.2
TPH				eSg	Sg	05 13 43.3	-2.5
S09A	Goldfield	1.22	101	⇑P	Pn	05 13 29.0	-1.3
	baz=1.2,SNR=110						
S09A				⇓S	Sb	05 13 45.0	-1.1
	baz=1.2						
CMB	Columbia Colle	1.31	274	ePg	Pg	05 13 30.8	-1.6
CMB				eSg	Sg	05 13 49.1	-0.2
R09A	Tonopah	1.34	77	P	Pn	05 13 31.0	-1.0
	baz=1.3,SNR=97						
R09A				⇑S	Sb	05 13 48.5	-1.2
	baz=1.3						
GRAC	Grapevine Rang	1.45	131	⇓P	Pn	05 13 34.0	+0.6
	baz=1.4,SNR=33						
GRAC				⇓S	Sn	05 13 53.9	+1.5
	baz=1.4						
Q09A	Carvers	1.50	54	⇑P	Pn	05 13 34.1	-0.1
	baz=1.5,SNR=13						
Q09A				⇑S	Sn	05 13 53.9	+0.1
	baz=1.5						
P07A	Fallon	1.58	356	⇓P	Pn	05 13 36.0	+0.7
	baz=1.6						
P07A				⇑S	Sn	05 13 57.6	+1.7
	baz=1.6						
CWC	Cottonwood Cre	1.60	161	⇑P	Pn	05 13 36.5	+0.9
	baz=1.6,SNR=18						
CWC				⇓S	Sn	05 13 58.1	+1.7
	baz=1.6						
S10A	Tonopah Range,	1.69	91	⇓P	Pn	05 13 37.2	+0.4
	baz=1.7,SNR=16						
RCTC	Rector, Farmer	1.70	194	⇑P	Pn	05 13 38.2	+1.3
	baz=1.7,SNR=7.4						
R10A	Warm Springs	1.95	80	⇓Pb	Pb	05 13 41.8	-1.0
	baz=1.9,SNR=12						
R10A				⇑Sb	Sb	05 14 08.1	+1.0
	baz=1.9						
P09A	Austin	2.02	38	⇓Pb	Pb	05 13 42.8	-1.3
	baz=2.0,SNR=12						
P09A				⇓Sb	Sb	05 14 09.8	+0.6
	baz=2.0						
Q10A	Clear Creek Ra	2.03	64	⇓Pb	Pb	05 13 43.0	-1.1
	baz=2.0,SNR=12						
Q10A				⇓Sb	Sb	05 14 10.3	+0.9
	baz=2.0						
VES	Vestal, Richgr	2.13	188	⇓Pb	Pb	05 13 45.5	-0.4
	baz=2.2,SNR=22						
VES				⇑Sb	Sb	05 14 14.9	+2.4
	baz=2.2						
O07A	Toulon	2.20	357	⇓Pb	Pb	05 13 46.1	-1.0
	baz=2.2,SNR=34						
O07A				⇑Sb	Sb	05 14 16.0	+1.5
	baz=2.2						
ISA	Isabella	2.30	175	⇓Pb	Pb	05 13 49.0	+0.1
	baz=2.3						
ISA	Isabella	2.30	175	ePg	Pg	05 13 48.4	-2.9
ISA				eSg	Sg	05 14 18.6	-2.7
O08A	Rochester Mine	2.37	11	⇑Sb	Sb	05 14 21.1	+1.8
	baz=2.3						
O09A	Fish Creek Ran	2.51	28	⇓Sb	Sb	05 14 24.9	+1.5
	baz=2.5						
R11A	Troy Canyon, C	2.51	80	⇓Sb	Sb	05 14 24.7	+1.3
	baz=2.5						
Q11A	Duckwater	2.58	69	⇑Sb	Sb	05 14 26.6	+1.4
	baz=2.5						
BMN	Battle Mountai	2.73	25	ePg	Pg	05 13 54.7	-4.9
BMN				eSg	Sg	05 14 32.3	-2.7
P11A	Circle Ranch,	2.82	55	⇑Sb	Sb	05 14 33.9	+1.6
	baz=2.8						
N08A	GE Springer Mi	2.86	9	⇑Sb	Sb	05 14 35.8	+2.5
	baz=2.8						
O11A	Cowboy Ranch,	3.23	47	⇓Sb	Sb	05 14 46.1	+2.1
	baz=3.2						
R12A	Pony Springs,	3.27	82	⇑Sb	Sb	05 14 47.8	+2.5
	baz=3.2						

ISK 01 05:36:57.2, 39°.96N×40°.88E, h5^{km}, MD3.5, ML3.4

ISCJB 01 05:36:58.9±0.4, 39°.93N±0°.03×40°.87E±0°.03, h10^{km}, Error ellipse: s-maj=4.4km s-min=3.5km az=1.0

CSEM 01 05:36:58.9±0.1, 39°.98N×40°.87E, h2^{km}, ML3.9, Error ellipse: s-maj=2.5km s-min=1.7km az=9.0

DDA 01 05:36:58.9, 39°.93N×40°.75E, h23^{km}±1^{km}, Md4.0, Ml3.9

ISC 01 05:36:59.4±0.4, **39°.96N**±0°.03×**40°.89E**±0°.03, **h10**^{km}, **n49**, σ**1^s.07**/63, **1C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOPT	Kop Dagi	0.31	281	⇓iP	Pg	05 37 05.0	-0.5
KOPT				eS	Sg	05 37 08.9	-0.8
KOPT	Kop Dagi	0.31	281	i P	Pg	05 37 05.1	-0.4
KOPT				eS	Sg	05 37 08.9	-0.8
EZM	Erzurum	0.37	98	PG	Pg	05 37 04.6	-1.9
ERZM	Erzurum	0.37	98	⇑iP	Pg	05 37 04.6	-2.1
ERZM				eS	Sg	05 37 16.1	+4.5
ERZM	Erzurum	0.37	98	i P	Pg	05 37 04.6	-2.0
EZC	Erzincan	0.85	256	ePN	Sg	05 37 20.2	-6.7
GUMT	Gumushane	1.19	295	ePN	Pn	05 37 20.8	-1.3
GUMT				eSN	Sn	05 37 38.4	+0.1
GUMT	Gumushane	1.19	295	ePn	Pn	05 37 20.8	-1.3
GUMT				eSn	Sn	05 37 38.4	+0.1
PZAR	Pazar-Rize	1.22	0	ePN	Pn	05 37 21.7	-0.8
PZAR				eSN	Sn	05 37 39.7	+0.7
PZAR	Pazar-Rize	1.22	0	ePn	Pn	05 37 21.7	-0.8
PZAR				eSn	Sn	05 37 39.7	+0.7
MACK	Trabzon	1.30	319	⇓iP	Pn	05 37 23.2	-0.4
MACK				eS	Sb	05 37 39.5	-1.3
MACK	Trabzon	1.30	319	i P	Pn	05 37 23.2	-0.4
MACK				eS	Sb	05 37 39.5	-1.3
KTUT	Trabzon	1.34	321	ePN	Pn	05 37 23.6	-0.5
KTUT				eSN	Sg	05 37 44.0	+1.6
KTUT	Trabzon	1.34	321	ePn	Pn	05 37 23.6	-0.5
KTUT				eSn	Sg	05 37 44.0	+1.5
KARS	Kars	1.81	68	ePN	Pn	05 37 30.9	+0.4
KARS	Kars	1.81	68	ePn	Pn	05 37 30.9	+0.4
KEMA	Kemaliye	1.98	250	eP	Pn	05 37 32.9	+0.1
KEMA				eS	Sg	05 38 01.7	-1.1
KEMA	Kemaliye	1.98	250	eP	Pn	05 37 32.9	+0.1
SVRC	Sivrice-ELAZID	2.00	219	ePN	Pn	05 37 33.6	+0.4
SVRC	Sivrice-ELAZID	2.00	219	ePn	Pn	05 37 33.6	+0.4
ELZG	Elazig	2.08	226	eP	Pn	05 37 34.0	-0.3
ELZG				eS	Sn	05 38 04.5	+4.4
ELZG	Elazig	2.08	226	eP	Pn	05 37 34.0	-0.2
GRSN	GIRESUNGRSN	2.22	297	eP	Pn	05 37 38.7	+2.5
GRSN				eS	Sn	05 38 08.1	+4.4
GRSN	GIRESUNGRSN	2.22	297	eP	Pn	05 37 38.7	+2.5
VANB	Van	2.37	124	ePN	Pn	05 37 39.3	+1.0
VANB	Van	2.37	124	ePn	Pn	05 37 39.3	+1.1
VANT	Van	2.46	127	ePN	Pn	05 37 39.8	+0.3
MYA	Malataya	2.52	230	ePN	Pn	05 37 41.3	+1.0
MYA	Malataya	2.52	230	ePn	Pn	05 37 41.3	+1.0
MALT	Malatya	2.52	230	ePN	Pn	05 37 40.6	+0.2
MALT	Malatya	2.52	230	ePn	Pn	05 37 40.6	+0.2
DARE	Darende-Malaty	2.59	248	ePN	Pg	05 37 47.8	-1.2
RSDY	Resadiye-TOKAT	2.77	280	ePN	Pn	05 37 44.3	+0.6
RSDY	Resadiye-TOKAT	2.77	280	ePn	Pn	05 37 44.3	+0.6
GNI	Garni	2.96	85	ePN	Pn	05 37 47.6	+1.3
GNI	Garni	2.96	85	ePn	Pn	05 37 47.7	+1.3
URFA	Urfa	2.99	213	ePN	Pn	05 37 47.5	+0.7
URFA	Urfa	2.99	213	ePn	Pn	05 37 47.5	+0.7
GOR	Gori	3.17	49	P	Pb	05 37 55.4	-0.4
ONI	Oni	3.25	36	P	Pb	05 37 56.8	-0.4
TBLG	Delisi	3.41	57	P	Pb	05 37 59.8	-0.1
SARI	SarD1z-Kayseri	3.49	250	ePN	Pb	05 37 59.1	-2.1
SARI	SarD1z-Kayseri	3.49	250	ePn	Pb	05 37 59.1	-2.2
KVT	Kavak	3.86	288	ePN	Pn	05 38 00.5	+1.8
KVT	Kavak	3.86	288	ePn	Pn	05 38 00.5	+1.8
KMRS	Kahramanmaras	3.97	233	ePN	Pn	05 38 01.0	+0.8
KMRS	Kahramanmaras	3.97	233	ePn	Pn	05 38 01.0	+0.8
BNN	Bunyan	4.06	256	ePN	Pn	05 38 02.9	+1.4
BNN	Bunyan	4.06	256	ePn	Pn	05 38 02.9	+1.4

IDC 01 05:49:11.0±1.9, **23°.09S**×**114°.72W, h0**^{km}**, mb3.6**/4, **mb1 3.9**/4, **mb1mx3.7**/15, **mbtmp3.6**/4, **MS3.4**/5, **Ms1 3.4**/5, **ms1mx3.3**/28, **Error ellipse: s-maj=103.8km s-min=27.5km az=47.0, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPN	Rapa Nui	6.32	131	T		05 57 29.6	
	12nm,0.3s,baz=108,slow=18,SNR=5.6						
ATAH	Atahualpa	38.40	71	LR	LR	06 06 49.9	
	comp=Z,35nm,19.6s,baz=347,slow=28						
PLCA	Paso Flores	40.94	126	P	P	05 56 55.4	+0.1
	2.3nm,1.0s,baz=289,slow=11,SNR=3.3						
PLCA				LR	LR	06 09 45.7	
	comp=Z,90nm,19.7s,baz=88,slow=30						
CFAA	Coronel Fontan	41.89	112	P	P	05 57 03.7	+0.5
	0.2nm,0.8s,baz=234,slow=6.8,SNR=5.2						
CFAA				LR	LR	06 10 07.3	
	comp=Z,21nm,21.9s,baz=281,slow=30						
USHA	Ushuaia	46.67	145	LR	LR	06 12 27.4	
	comp=Z,112nm,21.0s,baz=242,slow=30						
CPUP	Villa Florida	51.87	106	LR	LR	06 15 40.2	
	comp=Z,48nm,21.5s,baz=356,slow=31						
NVAR	Mina Array Bea	61.28	357	P	P	05 59 28.8	+0.8
	0.2nm,0.3s,baz=188,slow=5.0,SNR=2.8						
YKA	Yellowknife Ar	85.28	0	P	P	06 01 49.7	+0.5
	0.5nm,0.7s,baz=175,slow=5.7,SNR=4.4						
BRTR	Keskin Array B	148.52	51	PKPbc	PKPbc	06 08 58.3	-1.6
	0.7nm,0.8s,baz=236,slow=6.8,SNR=2.5						
BVAR	Borovoye Array	149.86	354	PKPbc	PKPbc	06 09 01.0	-1.8
	0.6nm,0.6s,baz=174,slow=1.4,SNR=3.3						
KURK	Kurchatov	150.53	343	PKPbc	PKPbc	06 09 04.0	-0.5
	0.5nm,0.8s,baz=46,slow=2.2,SNR=3.4						
MKAR	Makanchi Array	152.67	334	PKPbc	PKPbc	06 09 11.2	+1.7
	0.3nm,0.6s,baz=41,slow=2.7,SNR=3.0						
MKAR				PKPab	PKPab	06 09 20.0	-0.1
	0.3nm,0.7s,baz=36,slow=5.4,SNR=2.8						

*IGQ **01** 06:02:57.6, 1°.54S×77°.56W, h238^{km}±4^{km}, Mb4.3, Ms4.1, Error ellipse: s-maj=3.2km s-min=2.6km az=43.8*

*IDC **01** 06:02:59.7±2.0, 1°.34S×77°.37W, h168^{km}±19^{km}, mb3.5/9, mb1 3.7/11, mb1mx3.6/21, mbtmp3.6/11, Error ellipse: s-maj=24.1km s-min=13.9km az=63.0*

*ISCJB **01** 06:03:02.1±0.4, 1°.45S±0°.04×77°.64W±0°.07, h211^{km}±4^{km}, mb3.6/9, Error ellipse: s-maj=11.5km s-min=7.1km az=0.8*

ISC 01 06:03:02.9±0.4, **1°.47S**±0°.04×**77°.64W**±0°.07, **h204**^{km}±4^{km}, **n60, σ0^{s}.89**/58, **mb3.6**/9, **25C-10D, Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULBA	Ulba	0.77	272	⇑P	Pn	06 03 31.2	-0.5
BRUN	Tungurahua Vol	0.77	274	⇑P	Pn	06 03 31.3	-0.5
RUN5	Runtun	0.79	274	⇑P	Pn	06 03 31.3	-0.5
BPAT	Tungurahua Vol	0.80	268	⇑P	Pn	06 03 31.5	-0.4
PATA	Patacocha	0.80	268	⇑P	Pn	06 03 31.6	-0.3
RETU	Refugio	0.81	271	⇑P	Pn	06 03 31.7	-0.2
ARRY	Arrayan	0.82	267	⇑P	Pn	06 03 31.3	-0.7
JUI6	Juive	0.83	273	⇑P	Pn	06 03 31.5	-0.6
BMAS	Trigal station	0.84	268	⇑P	Pn	06 03 31.5	-0.6
PISA	Pisayambo	0.85	299	⇓S	Sn	06 03 58.2	+3.4
PISA	Pisayambo	0.85	299	⇓P	Pn	06 03 32.2	0.0
BIL2	Estacion Bilba	0.86	271	⇓P	Pn	06 03 32.2	0.0
IGUA	Igualata	1.00	269	P	Pn	06 03 32.8	-0.2
TAMB	Tambo	1.06	317	P	Pn	06 03 33.8	+0.3
COV1	Cotopaxi Volc	1.07	319	P	Pn	06 03 34.7	+1.1
BTAM	Cotopaxi Volca	1.09	316	⇑P	Pn	06 03 33.9	+0.1
MOV1	Cotopaxi Vol s	1.10	313	⇓P	Pn	06 03 34.4	+0.6
BMOR	Cotopaxi Volca	1.10	312	⇑P	Pn	06 03 33.9	+0.1
BMOR	Cotopaxi Volca	1.10	312	⇑S	Sn	06 03 58.5	+0.7
BVC2	Cotopaxi Volca	1.12	316	⇑P	Pn	06 03 34.1	+0.1
VC1	Cotopaxi 1	1.12	317	⇑P	Pn	06 03 34.1	+0.2
BREF	Cotopaxi Volca	1.13	315	⇑P	Pn	06 03 34.4	+0.4
ANTI	Antisana	1.14	333	⇓P	Pn	06 03 34.3	+0.2
ANTI	Antisana	1.14	333	⇓S	Sn	06 04 00.5	+2.1
BNAS	Cotopaxi Volca	1.16	313	⇑P	Pn	06 03 34.6	+0.4
NAS2	Nasa	1.17	315	⇑P	Pn	06 03 34.8	+0.5
CAMI	Rancho Maria	1.17	312	⇑P	Pn	06 03 34.8	+0.5
PITA	Cotopaxi Volc	1.20	319	P	Pn	06 03 34.1	-0.4
LAV3	Lava3-Reventad	1.36	0	⇓P	Pn	06 03 35.1	-0.7
CHAR	Charly	1.37	359	⇑P	Pn	06 03 35.4	-0.5
CONE	Cono NE Rev Vo	1.39	360	⇓P	Pn	06 03 35.5	-0.5
CAYA	Cayambe	1.57	347	⇓P	Pn	06 03 38.0	+0.4
JUA2	San Juan 2	1.58	322	⇑P	Pn	06 03 37.6	-0.1
GGP	Refugio Guagua	1.60	323	⇑P	Pn	06 03 37.9	0.0
TERV	Terraza Guagua	1.61	323	P	Pn	06 03 38.6	+0.6
PINO	Pino	1.62	323	⇑P	Pn	06 03 38.3	+0.2
YANA	Yana	1.64	325	⇑P	Pn	06 03 38.4	+0.2
OTAV	Otavalo	1.88	334	⇓P	Pn	06 03 40.1	-0.5
COTA	Cotacachi	1.92	339	P	Pn	06 03 40.9	-0.1
JAMA	Jama	2.83	295	S	Sn	06 04 24.6	-3.7
JAMA	Jama	2.83	295	P	Pn	06 03 48.9	-1.9
CHIS	Cerro-Chispas-	3.11	278	⇑S	Sn	06 04 33.2	-1.0
CHIS	Cerro-Chispas-	3.11	278	⇑P	Pn	06 03 52.5	-1.6
ATAH	Atahualpa	5.55	188	P	Pn	06 04 26.2	+1.8
	28nm,0.3s,baz=18,slow=8.9,SNR=140						
ATAH				S	Sn	06 05 28.9	-0.1
	14nm,0.3s,baz=144,slow=20,SNR=11						
NNA	Nana	10.48	176	P	Pn	06 05 27.8	-0.6
	3.0nm,0.3s,baz=333,slow=12,SNR=6.4						
NNA				S	Sn	06 07 15.4	-10
	2.6nm,0.3s,baz=256,slow=19,SNR=4.0						
SDV	Santo Domingo	12.43	34	P	Pn	06 05 52.7	-0.5
	1.9nm,0.3s,baz=263,slow=8.2,SNR=16						
PCRV	Puerto La Cruz	17.36	48	P	P	06 06 51.1	-0.5
	2.2nm,0.3s,baz=344,slow=9.6,SNR=8.2						
SIV	San Ignacio	21.79	132	P	P	06 07 38.5	-0.5
	0.8nm,0.5s,mb3.5,baz=316,slow=12,SNR=7.3						
TXAR	Lajitas Array	39.47	323	P	P	06 10 15.8	+2.1
	0.1nm,0.4s,mb2.7,baz=156,slow=8.5,SNR=4.4						
PLCA	Paso Flores	39.61	172	P	P	06 10 16.1	+1.5
	1.5nm,0.7s,mb3.6,baz=346,slow=8.2,SNR=4.9						
ULM	Lac du Bonnet	53.84	346	P	P	06 12 03.6	-1.1
	5.2nm,0.7s,mb4.2,baz=142,slow=5.9,SNR=9.8						
NVAR	Mina Array Bea	54.56	321	P	P	06 12 12.5	+2.4
	0.4nm,0.5s,mb3.2,baz=134,slow=7.7,SNR=2.8						
YKA	Yellowknife Ar	69.62	343	P	P	06 13 49.6	-0.2
	0.5nm,0.6s,mb3.3,baz=138,slow=5.4,SNR=10						
DBIC	Dimbokro	73.08	83	P	P	06 14 10.7	-0.8
	3.4nm,0.5s,mb4.3,baz=285,slow=5.8,SNR=11						
TORD	Torodi Ar. Bea	79.95	76	P	P	06 14 48.8	-1.3
	0.9nm,0.4s,mb3.7,baz=282,slow=6.0,SNR=32						
QSPA	South Pole Qui	88.59	180	P	P	06 15 34.5	+2.3
	2.1nm,0.9s,mb3.9,baz=100,slow=1.1,SNR=6.0						
ZALV	Zalesovo Beam	125.73	13	PKP	PKPdf	06 21 41.5	+1.4
	0.4nm,0.4s,baz=297,slow=4.2,SNR=2.9						
MKAR	Makanchi Array	131.58	18	PKP	PKPdf	06 21 52.1	+0.6
	0.1nm,0.4s,baz=319,slow=2.2,SNR=4.0						
MKAR				SKPbc	SKPbc	06 25 00.1	+2.2
	0.4nm,0.8s,baz=319,slow=4.8,SNR=4.5						
ASAR	Alice Springs	140.44	229	PKhKP		06 22 02.6	
	0.2nm,0.4s,baz=122,slow=1.2,SNR=3.8						
ASAR				PKP	PKPdf	06 22 09.6	+1.0
	0.3nm,0.4s,baz=108,slow=2.5,SNR=4.5						
WRA	Warramunga Arr	142.10	234	PKhKP		06 22 07.6	
	0.4nm,0.4s,baz=117,slow=2.8,SNR=7.0						
WRA				PKP	PKPdf	06 22 12.4	+0.7
	0.7nm,0.6s,baz=116,slow=1.9,SNR=7.7						

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*ISCJB **01** 06:08:56.5±0.9, 39°.6N±0°.2×29°.8W±0°.2, h10^{km}, mb3.4/3, MS3.7/2, Error ellipse: s-maj=27.0km s-min=10.1km az=37.7*

*IDC **01** 06:08:57.2±1.3, 39°.36N×30°.03W, h0^{km}, mb3.4/4, mb1 3.8/4, mb1mx3.4/23, mbtmp3.4/4, MS3.7/2, Ms1 3.7/2, ms1mx3.2/19, Error ellipse: s-maj=76.0km s-min=23.7km az=20.0*

*PDA **01** 06:09:10.9±0.6, 39°.23N×28°.89W, h10^{km}, MD3.6, ML2.0, Error ellipse: s-maj=5.1km s-min=4.3km az=95.0*

*CSEM **01** 06:09:10.9, 39°.23N×28°.89W, h10^{km}, ML2.0, After PDA*

ISC 01 06:08:58.2±0.9, **39°.4N**±0°.2×**29°.8W**±0°.2, **h10**^{km}, **n21**, σ**0^{s}.93**/26, **mb3.4**/3, **MS3.7**/2, **Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	Cedros	1.15	134	*e*P	Pb	06 09 20.8	+0.6
PCED				*e*S	Sb	06 09 28.6	-6.6
PCED				A		06 09 29.6	
	63nm,0.4s						
PCED	Cedros	1.15	134	*e*P	Pb	06 09 20.8	+0.6
PCED				*e*S	Sb	06 09 28.6	-6.6
CALA	Caldeira	1.19	135	*e*P	Pb	06 09 21.5	+0.7
CALA	Caldeira	1.19	135	*e*P	Pb	06 09 21.5	+0.7
HOR	Horta	1.27	135	*e*P	Pn	06 09 22.2	+0.3
HOR	Horta	1.27	135	*e*P	Pn	06 09 22.2	+0.3
ROSA	Rosais	1.38	120	*e*P	Pn	06 09 22.6	-0.9
ROSA				*e*S	Sb	06 09 30.6	-11
ROSA	Rosais	1.38	120	*e*P	Pn	06 09 22.6	-0.9
ROSA				*e*S	Sb	06 09 30.6	-11
PICO	Pico	1.40	131	*e*P	Pn	06 09 23.9	+0.2
PICO	Pico	1.40	131	*e*P	Pn	06 09 23.9	+0.2
PMAN	Manadas	1.53	121	*e*P	Pn	06 09 24.4	-1.2
PMAN				*e*S	Sn	06 09 34.5	-11
PMAN				A		06 09 37.4	
	21nm,0.3s						
PMAN	Manadas	1.53	121	*e*P	Pn	06 09 24.4	-1.2
PMAN				*e*S	Sn	06 09 34.5	-11
PID	Ribeirinha	1.62	127	*e*P	Pn	06 09 26.4	-0.4
PID	Ribeirinha	1.62	127	*e*P	Pn	06 09 26.4	-0.4
ADH	Angra Heroismo	2.12	111	*e*P	Pn	06 09 31.9	-1.7
ADH	Angra Heroismo	2.12	111	*e*P	Pn	06 09 31.9	-1.7
ESDC	Sonseca Array	19.88	81	P	Pn	06 13 32.6	+1.4
	0.4nm,0.4s,baz=280,slow=13,SNR=4.0						
TORD	Torodi Ar. Bea	38.14	125	P	P	06 16 19.1	+1.5
	0.4nm,0.9s,mb3.1,baz=295,slow=7.8,SNR=2.6						
TORD				LR	LR	06 32 54.6	
	comp=Z,74nm,18.8s,MS3.5,baz=320,slow=38						
TKL	Tuckaleechee C	42.46	283	LR	LR	06 32 22.5	
	comp=Z,121nm,19.8s,MS3.8,baz=41,slow=33						
PDAR	Pinedale Array	58.06	301	P	P	06 18 51.2	-0.1
	0.7nm,0.8s,mb3.7,baz=66,slow=7.2,SNR=6.7						
TXAR	Lajitas Array	60.27	285	P	P	06 19 06.6	-0.3
	0.4nm,0.9s,mb3.5,baz=81,slow=7.7,SNR=3.6						

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*ISCJB **01** 06:09:49.6±0.6, 48°.46N±0°.02×9°.01E±0°.04, h3^{km}±6^{km}, Error ellipse: s-maj=4.3km s-min=3.3km az=36.0*

*CSEM **01** 06:09:50.4±0.2, 48°.49N×9°.00E, h20^{km}, ML2.2, Error ellipse: s-maj=3.9km s-min=3.4km az=149.0*

*NEIC **01** 06:09:51.2, 48°.44N×9°.03E, h2^{km}, ML2.2(STR), ML2.5(LDG), After LDG.*

*LDG **01** 06:09:51.2±0.3, 48°.44N×9°.03E, h2^{km}, Ml2.5/3, Error ellipse: s-maj=5.5km s-min=4.8km az=20.0*

*STR **01** 06:09:52.8±0.2, 48°.43N×8°.90E, h5^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 01 06:09:50.8±0.4, **48°.46N**±0°.02×**9°.01E**±0°.03, **h13**^{km}±4^{km}, **n40**, σ**0^{s}.59**/72, **3C-2D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TUBL	Tuebingen-Lenn	0.08	35	⇑*i*P*	Pg	06 09 53.8	+0.2
TUBL				*i* S*	Sg	06 09 55.3	-0.2
TUBL	Tuebingen-Lenn	0.08	35	Pb	Pg	06 09 53.8	+0.3
TUBL				Sb	Sg	06 09 55.3	-0.2
BUCH	Bad Urach	0.23	91	⇑*i*P*	Pg	06 09 55.6	-0.1
BUCH				S*	Sg	06 09 58.9	-0.1
BUCH	Bad Urach	0.23	91	Pb	Pg	06 09 55.6	-0.1
BUCH				Sb	Sg	06 09 58.9	-0.1
LBG	Lerchenberg	0.25	326	⇓*i*P*	Pg	06 09 56.7	+0.5
LBG				S*	Sg	06 10 00.6	+0.9
LBG	Lerchenberg	0.25	326	Pb	Pg	06 09 56.7	+0.5
LBG				Sb	Sg	06 10 00.6	+0.8
GUT	Gutenstein	0.39	170	⇓*i*P*	Pg	06 09 58.6	0.0
GUT				S*	Sg	06 10 03.7	-0.1
GUT	Gutenstein	0.39	170	Pb	Pg	06 09 58.6	0.0
GUT				Sb	Sg	06 10 03.7	-0.1
BFO	Black Forest	0.47	255	⇑*i*P*	Pg	06 10 00.5	+0.4
BFO				S*	Sg	06 10 07.0	+0.6
BFO				SmS		06 10 10.2	
BFO	Black Forest	0.47	255	Pb	Pg	06 10 00.5	+0.4
BFO				Sb	Sg	06 10 07.0	+0.6
SISB	Singen-Schiene	0.77	182	S*	Sb	06 10 16.1	-0.3
SISB	Singen-Schiene	0.77	182	Sb	Sb	06 10 16.0	-0.4
HDH	Heidenheim-Cha	0.81	80	P*	Pb	06 10 06.5	-0.2
HDH	Heidenheim-Cha	0.81	80	Pb	Pb	06 10 06.5	-0.2
KIZ	Kirchzarten	0.89	236	P*	Pb	06 10 08.3	+0.2
KIZ				S*	Sb	06 10 20.1	+0.3
KIZ	Kirchzarten	0.89	236	Pb	Pb	06 10 08.3	+0.3
KIZ				Sb	Sb	06 10 20.0	+0.3
FELD	Feldberg im Sc	0.89	230	Pg	Pg	06 10 07.6	-0.4
FELD				Sg	Sg	06 10 20.0	+0.4
FELD	Feldberg im Sc	0.89	230	Pg	Pg	06 10 08.0	0.0
FELD				Sg	Sg	06 10 20.0	+0.4
LANF	Langenberg	0.96	304	Pg	Pg	06 10 10.1	+0.8
LANF				Sg	Sg	06 10 22.6	+0.8
LANF	Langenberg	0.96	304	Pg	Pg	06 10 08.9	-0.4
LANF				Sg	Sg	06 10 22.1	+0.3
LANF	Langenberg	0.96	304	Pg	Pg	06 10 08.9	-0.4
LANF				Sg	Sg	06 10 22.1	+0.3
SIND	Sindeldorf	0.98	23	Pg	Pg	06 10 10.0	+0.3
SIND				S	Sg	06 10 21.9	-0.5
SIND	Sindeldorf	0.98	23	Pg	Pg	06 10 10.0	+0.3
SIND				S	Sg	06 10 21.9	-0.5
UBR	Ueberruh	1.07	136	P*	Pb	06 10 11.6	+0.5
UBR				S*	Sb	06 10 25.7	+0.7
UBR	Ueberruh	1.07	136	Pb	Pb	06 10 11.6	+0.5
UBR				Sb	Sb	06 10 25.7	+0.7
CDF	Champ du Feu	1.16	269	*e*Pg	Pg	06 10 13.2	+0.1
CDF				*e*Sg	Sg	06 10 27.9	-0.2
	17nm,0.2s						
CDF	Champ du Feu	1.16	269	*e*Pg	Pg	06 10 13.2	+0.1
CDF				*e*Sg	Sg	06 10 27.9	-0.2
	8.3nm,0.2s						
TOD	Tromm	1.16	353	Pg	Pg	06 10 10.5	-2.6
TOD				Sg	Sg	06 10 28.7	+0.5
TOD	Tromm	1.16	353	Pg	Pg	06 10 10.5	-2.6
TOD				Sg	Sg	06 10 28.7	+0.5
ECH	Echery	1.26	260	Pg	Pg	06 10 15.0	0.0
ECH				Sg	Sg	06 10 31.5	+0.1
ECH	Echery	1.26	260	Pg	Pg	06 10 14.8	-0.2
ECH				Sg	Sg	06 10 31.4	0.0
ECH	Echery	1.26	260	Pg	Pg	06 10 15.0	0.0
ECH				Sg	Sg	06 10 31.5	+0.1
MOF	Molkenrain	1.40	245	Pg	Pg	06 10 17.6	0.0
MOF	Molkenrain	1.40	245	Pg	Pg	06 10 17.6	0.0
HINF	Hinteralfeld	1.58	247	*e*Pg	Pg	06 10 20.5	-0.6
HINF				*e*Sg	Sg	06 10 41.4	-0.3
	6.5nm,0.4s						
HINF	Hinteralfeld	1.58	247	*e*Pg	Pg	06 10 20.5	-0.6
HINF				*e*Sg	Sg	06 10 41.4	-0.3
	3.2nm,0.4s						
HAU	Haudompre	1.84	257	*e*Pg	Pg	06 10 24.5	-1.5
HAU				*e*Sg	Sg	06 10 49.2	-0.7
	6.4nm,0.3s						
HAU	Haudompre	1.84	257	*e*Pg	Pg	06 10 24.5	-1.5
HAU				*e*Sg	Sg	06 10 49.2	-0.7
	3.2nm,0.3s						
LOMF	Lomont	1.84	234	Pg	Pg	06 10 26.3	+0.2
LOMF	Lomont	1.84	234	Pg	Pg	06 10 26.3	+0.2

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*CSEM **01** 06:12:29.6±0.2, 41°.88N×20°.17E, h2^{km}, ML2.4, Error ellipse: s-maj=4.8km s-min=2.9km az=35.0*

*ISCJB **01** 06:12:29.5±0.3, 41°.91N±0°.02×20°.19E±0°.02, h10^{km}, Error ellipse: s-maj=3.3km s-min=2.1km az=30.3*

*NEIC **01** 06:12:30.3, 41°.91N×20°.13E, h12^{km}, ML2.7(PDG), After PDG.*

*SKO **01** 06:12:30.6, 41°.92N×20°.18E, h12^{km}, M2.2, ML2.6*

*PDG **01** 06:12:30.3±0.1, 41°.91N×20°.13E, h12^{km}, MD2.7/2, ML2.7/10, Error ellipse: s-maj=0.4km s-min=0.5km az=0.0*

*BEO **01** 06:12:31.0±0.3, 41°.93N×20°.15E, h4^{km}±3^{km}, ML2.4/4*

ISC 01 06:12:30.1±0.4, **41°.90N**±0°.02×**20°.19E**±0°.02, **h1**^{km}±4^{km}, **n50**, σ**1^{s}.15**/90, **10C-5D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	Tirane	0.60	204	*i* Pg	Pg	06 12 41.9	+0.2
TIR				*e*Sg	Sg	06 12 51.8	+2.4
TIR	Tirane	0.60	204	*i* Pg	Pg	06 12 41.9	+0.2
ULC	Ulcinj	0.70	276	*e*Pg	Pg	06 12 42.7	-0.9
ULC				*e*Sg	Sg	06 12 53.1	+0.4
ULC	Ulcinj	0.70	276	*e*Pg	Pg	06 12 42.7	-0.9
ULC				*e*Sg	Sg	06 12 53.1	+0.4
PVY	Plav	0.71	347	⇑*i*Pg	Pg	06 12 43.4	-0.4
PVY				*e*Sg	Sg	06 12 54.5	+1.4
PDG	Podgorica	0.87	308	*e*Sg	Sg	06 12 58.8	+0.7
TTG	Podgorica	0.87	308	⇑*i*Pg	Pg	06 12 45.2	-1.6
TTG				*e*Sg	Sg	06 12 58.8	+0.7
SKO	Skopje	0.94	85	*e*Pn	Pn	06 12 49.2	-1.2
SKO				*e*Sg	Sg	06 13 01.8	+1.6
SKO	Skopje	0.94	85	*i* Pg	Pg	06 12 47.6	-0.5
SKO				*i* Sg	Sg	06 13 01.6	+1.4
SKO				*e*Lg		06 13 02.8	
	comp=E,132nm,0.4s						
SKO				*e*Lg		06 13 02.9	
	comp=N,176nm,0.3s						
SKO	Skopje	0.94	85	*e*Pn	Pn	06 12 49.2	-1.2
SKO				*i* Sg	Sg	06 13 01.6	+1.4
SKO				*e*Lg		06 13 02.8	
	comp=N,176nm,0.3s						
KRUS	Krusevo	0.95	123	*i* Pg	Pg	06 12 47.8	-0.6
KRUS				*e*Sg	Sg	06 13 01.9	+1.1
KRUS				*e*Lg		06 13 03.1	
	comp=E,61nm,0.4s						
KRUS				*e*Lg		06 13 03.5	
	comp=N,37nm,0.3s						
KRUS	Krusevo	0.95	123	*i* Pg	Pg	06 12 47.8	-0.6
KRUS				*e*Sg	Sg	06 13 01.8	+1.0
KRUS				*e*Lg		06 13 03.1	
	comp=N,61nm,0.4s						
BEY	Berane	1.00	348	⇓*i*Pg	Pg	06 12 48.5	-0.7
BEY				*e*Sg	Sg	06 13 03.8	+1.7
IVA	Berane	1.00	348	⇓*i*Pg	Pg	06 12 48.5	-0.7
IVA				*e*Sg	Sg	06 13 03.8	+1.7
IVA	Berane	1.00	348	⇓*i*Pg	Pg	06 12 48.5	-0.7
IVA				*e*Sg	Sg	06 13 03.8	+1.7
BUM	Brajici-Budva	1.04	293	⇓*i*Pg	Pg	06 12 48.9	-1.2
BUM				*e*Sg	Sg	06 13 04.5	+0.9
BUM	Brajici-Budva	1.04	293	⇓*i*Pg	Pg	06 12 48.9	-1.2
BUM				*e*Sg	Sg	06 13 04.5	+0.9
BIA	Bitola	1.23	135	*i* Pg	Pg	06 12 52.2	-1.4
BIA				*i* Sg	Sg	06 13 11.1	+1.6
BIA				*e*Lg		06 13 12.4	
	comp=E,66nm,0.4s						
BIA				*e*Lg		06 13 13.7	
	comp=N,32nm,0.2s						
BIA	Bitola	1.23	135	*i* Pg	Pg	06 12 52.1	-1.5
BIA				*i* Sg	Sg	06 13 11.1	+1.6
BIA				*e*Lg		06 13 12.4	
	comp=N,66nm,0.4s						
NKY	Niksic	1.27	316	⇑*i*Pg	Pg	06 12 52.8	-1.7
NKY				*e*Sg	Sg	06 13 12.4	+1.5
NKY	Niksic	1.27	316	⇑*i*Pg	Pg	06 12 52.8	-1.7
NKY				*e*Sg	Sg	06 13 12.4	+1.5
HCY	Herceg Novi	1.37	294	⇑*i*Pg	Pg	06 12 54.4	-2.0
HCY				*e*Sg	Sg	06 13 15.8	+1.6
HCY	Herceg Novi	1.37	294	⇑*i*Pg	Pg	06 12 54.4	-2.0
HCY				*e*Sg	Sg	06 13 15.8	+1.6
SJES	Sjenica	1.37	353	*e*Pn	Pn	06 12 55.8	-0.6
SJES				*e*Sg	Sg	06 13 14.0	-0.2
SJES	Sjenica	1.37	353	*e*Pn	Pn	06 12 55.8	-0.6
SJES				*e*Sg	Sg	06 13 14.0	-0.2
STIP	Stip	1.51	97	*e*Pn	Pn	06 12 57.4	-0.8
STIP				*e*Sg	Sg	06 13 18.8	+0.2
STIP				*e*Lg		06 13 19.3	
	comp=E,12nm,0.4s						
STIP				*e*Lg		06 13 19.6	
	comp=N,31nm,0.4s						
STIP	Stip	1.51	97	*e*Pn	Pn	06 12 57.4	-0.8
STIP				*e*Sg	Sg	06 13 18.7	+0.1
STIP				*e*Lg		06 13 19.2	
	comp=N,12nm,0.4s						
BARS	Barje	1.52	52	*e*Pn	Pn	06 12 57.5	-0.8
BARS				*e*Sg	Sg	06 13 18.7	-0.1
PLE	Pljevlja	1.55	338	⇑*i*Pg	Pg	06 12 58.5	-1.3
PLE				*e*Sg	Sg	06 13 20.8	+1.0
PLE	Pljevlja	1.55	338	⇑*i*Pg	Pg	06 12 58.5	-1.3
PLE				*e*Sg	Sg	06 13 20.8	+1.0
BRY	Bratogost	1.58	310	*e*Pg	Pg	06 12 58.6	-1.7
BRY				*e*Sg	Sg	06 13 21.2	+0.4
BRY	Bratogost	1.58	310	*e*Pg	Pg	06 12 58.6	-1.7
BRY				*e*Sg	Sg	06 13 21.2	+0.4
UPM	Unac-Piva	1.61	324	⇑*i*Pn	Pn	06 12 59.1	-0.5
UPM				*e*Sn	Sn	06 13 22.4	+1.4
UPM	Unac-Piva	1.61	324	⇑*i*Pn	Pn	06 12 59.1	-0.5
UPM				*e*Sn	Sn	06 13 22.4	+1.4
VAY	Valandovo	1.88	107	*e*Pn	Pn	06 13 03.0	-0.3
VAY				*e*Sg	Sg	06 13 30.5	+0.1
VAY				*e*Lg		06 13 31.7	
	comp=E,30nm,0.6s						
VAY				*e*Lg		06 13 31.8	
	comp=N,28nm,0.6s						
VAY	Valandovo	1.88	107	*e*Pn	Pn	06 13 03.0	-0.3
VAY				*e*Sg	Sg	06 13 30.5	+0.1
VAY				*e*Lg		06 13 31.6	
	comp=N,30nm,0.6s						
NISS		1.99	40	*e*Pn	Pn	06 13 06.5	+1.7
NISS				*e*Sn	Sn	06 13 30.9	+0.6
NISS		1.99	40	*e*Pn	Pn	06 13 06.5	+1.7
NISS				*e*Sn	Sn	06 13 30.9	+0.6
GRUS	Gruza	2.03	11	*e*Pn	Pn	06 13 04.9	-0.5
GRUS	Gruza	2.03	11	*e*Pn	Pn	06 13 04.9	-0.5
BBLS	Lazići	2.05	344	*e*Pn	Pn	06 13 06.7	+1.0
BBLS				*e*Sg	Sg	06 13 34.0	-1.9
BBLS	Lazići	2.05	344	*e*Pn	Pn	06 13 06.7	+1.0
BBLS				*e*Sg	Sg	06 13 34.0	-1.9
STON	Ston	2.08	299	*e*Pn	Pn	06 13 06.2	+0.1
STON				Sn	Sn	06 13 36.3	+3.6
STON	Ston	2.08	299	*e*Pn	Pn	06 13 06.2	0.0
STON				Sn	Sn	06 13 36.3	+3.6
DIVS	Divibare	2.20	356	*e*Pn	Pn	06 13 07.1	-0.7
DIVS	Divibare	2.20	356	*e*Pn	Pn	06 13 07.1	-0.7
ZAPS	Zavoj	2.27	52	*e*Pn	Pn	06 13 07.4	-1.3
BOLS	Boljevac	2.33	33	*e*Sg	Sg	06 13 45.8	+1.0
BOLS	Boljevac	2.33	33	*e*Sg	Sg	06 13 45.8	+1.0
VTS	Vitosha	2.35	72	*e*Pn	Pn	06 13 13.5	+3.7

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*ISCJB **01** 06:28:32.4±0.3, 49°.35N±0°.02×6°.76E±0°.04, h0^{km}, Error ellipse: s-maj=3.3km s-min=2.4km az=176.3*

*BGR **01** 06:28:34.0±0.6, 49°.34N×6°.81E, h1^{km}, ML2.5, Error ellipse: s-maj=8.9km s-min=5.6km az=29.0*

*CSEM **01** 06:28:33.2±0.1, 49°.36N×6°.78E, h2^{km}, ML2.8/9, Error ellipse: s-maj=3.3km s-min=2.3km az=97.0*

*NEIC **01** 06:28:34.9, 49°.35N×6°.72E, h1^{km}, ML2.5(SZGRF), ML2.8(LDG), After LDG.*

*BNS **01** 06:28:34.5±0.5, 49°.38N×6°.77E, h1^{km}, ML1.8*

*LDG **01** 06:28:34.9±0.2, 49°.35N×6°.72E, h1^{km}, Md2.4/1, Ml2.8/8, Error ellipse: s-maj=4.4km s-min=2.9km az=33.0, Suspected Mining induced.*

ISC 01 06:28:33.4±0.3, **49°.36N**±0°.02×**6°.77E**±0°.04, **h0**^{km}, **n53**, σ**0^{s}.71**/82, **Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLF	Walferdange	0.50	307	P	Pg	06 28 44.4	+1.4
WLF	Walferdange	0.50	307	*e*Pg	Pg	06 28 44.3	+1.3
WLF				*e*Sg	Sg	06 28 50.7	+1.3
WLF	Walferdange	0.50	307	*e*Pg	Pg	06 28 44.2	+1.2
WLF	Walferdange	0.50	307	*e*Pg	Pg	06 28 44.2	+1.2
WLF				Sg	Sg	06 28 50.7	+1.2
BGG	Burgeitz	0.92	23	*e*Pg	Pg	06 28 51.6	+0.5
BGG	Burgeitz	0.92	23	Pg	Pg	06 28 51.6	+0.6
HILG	Hillesheim	0.93	357	*e*Pg	Pg	06 28 52.0	+0.7
HILG	Hillesheim	0.93	357	Pg	Pg	06 28 52.0	+0.8
CDF	Champ du Feu	1.01	160	*e*Pg	Pg	06 28 53.1	+0.5
CDF				*e*Sg	Sg	06 29 07.1	+1.4
	22nm,0.2s						
CDF	Champ du Feu	1.01	160	*e*Pg	Pg	06 28 53.1	+0.5
CDF				*e*Sg	Sg	06 29 07.1	+1.4
	11nm,0.2s						
RFYF	Reffroy	1.12	230	*e*Pg	Pg	06 28 55.4	+0.5
	baz=48						
RFYF				*e*Sg	Sg	06 29 09.3	-0.1
	20nm,0.2s						
RFYF	Reffroy	1.12	230	*e*Pg	Pg	06 28 55.4	+0.5
	baz=48						
RFYF				*e*Sg	Sg	06 29 09.3	-0.1
	9.9nm,0.2s						
ECH	Echery	1.18	167	*e*Pg	Pg	06 28 56.1	+0.2
ECH				*e*Sg	Sg	06 29 11.6	+0.5
ECH	Echery	1.18	167	*e*Pg	Pg	06 28 56.1	+0.2
ECH				*e*Sg	Sg	06 29 11.6	+0.5
KOE	Koeppel	1.23	30	*e*Pg	Pg	06 28 56.9	-0.2
KOE	Koeppel	1.23	30	Pg	Pg	06 28 56.8	-0.2
STB	Steinbach	1.23	2	*e*Pg	Pg	06 28 57.1	+0.1
STB				*e*Sg	Sg	06 29 13.3	+0.2
	16nm,0.4s						
STB	Steinbach	1.23	2	Pg	Pg	06 28 57.1	+0.1
STB				Sg	Sg	06 29 13.3	+0.3
	16nm,0.4s						
KLL	Kalltalsperre	1.32	347	*e*Pg	Pg	06 28 57.6	-1.0
KLL	Kalltalsperre	1.32	347	Pg	Pg	06 28 57.6	-1.0
MEM	Membach	1.34	339	P	Pg	06 28 59.2	+0.1
MEM	Membach	1.34	339	P	Pg	06 28 59.1	0.0
HAU	Haudompre	1.39	192	*e*Pn	Pn	06 29 00.0	+0.1
HAU				*e*Sg	Sg	06 29 18.1	+0.3
	18nm,0.3s						
HAU	Haudompre	1.39	192	*e*Pn	Pn	06 29 00.0	+0.1
HAU				*e*Sg	Sg	06 29 18.1	+0.3
	9.2nm,0.3s						
TNS	Taunus Mts	1.39	51	*e*Pg	Pg	06 28 58.2	-1.7
TNS				*e*Sg	Sg	06 29 18.3	+0.3
TNS	Taunus Mts	1.39	51	*e*Pg	Pg	06 28 58.2	-1.8
TNS				*e*Sg	Sg	06 29 18.3	+0.3
TNS	Taunus Mts	1.39	51	Pg	Pg	06 28 58.2	-1.8
TNS				Sg	Sg	06 29 18.3	+0.3
BCLA	Clavier	1.42	319	P	Pn	06 29 00.3	0.0
BCLA	Clavier	1.42	319	P	Pn	06 29 00.3	-0.1
MEZF	Maizieres J'vi	1.42	233	*e*Pg	Pg	06 29 00.7	+0.1
	baz=51						
MEZF				*e*Sg	Sg	06 29 18.6	-0.4
	13nm,0.2s						
MEZF	Maizieres J'vi	1.42	233	*e*Pg	Pg	06 29 00.7	+0.1
	baz=51						
MEZF				*e*Sg	Sg	06 29 18.6	-0.4
	6.3nm,0.2s						
BFO	Black Forest	1.46	134	*e*Sg	Sg	06 29 19.2	-1.0
BFO	Black Forest	1.46	134	Sg	Sg	06 29 19.2	-1.0
GIVF	Givet	1.46	301	*e*Pg	Pg	06 29 00.7	-0.7
GIVF				*e*Sg	Sg	06 29 20.2	-0.1
	29nm,0.4s						
GIVF	Givet	1.46	301	*e*Pg	Pg	06 29 00.7	-0.7
GIVF				*e*Sg	Sg	06 29 20.2	-0.1
	14nm,0.4s						
HINF	Hinteralfeld	1.55	178	*e*Pn	Pn	06 29 02.8	+0.7
HINF				*e*Sg	Sg	06 29 23.1	+0.1
	38nm,0.3s						
HINF	Hinteralfeld	1.55	178	*e*Pn	Pn	06 29 02.8	+0.7
HINF				*e*Sg	Sg	06 29 23.1	+0.1
	19nm,0.3s						

DOU	**Dourbes**	**1.59**	**298**	P	**Pn**	**06 29 02.8**	**+0.1**
DOU	**Dourbes**	**1.59**	**298**	P	**Pn**	**06 29 02.8**	**+0.1**
SFTF	**Sexfontaines**	**1.63**	**225**	*e*Pg	**Pg**	**06 29 04.7**	**+0.2**
	baz=50						
SFTF				*e*Sg	**Sg**	**06 29 25.4**	**-0.2**
	7.6nm,0.2s						
SFTF	**Sexfontaines**	**1.63**	**225**	*e*Pn	**Pn**	**06 29 02.5**	**-0.7**
SFTF				*e*Pg	**Pg**	**06 29 04.7**	**+0.2**
SFTF				*e*Sg	**Sg**	**06 29 25.4**	**-0.2**
SFTF	**Sexfontaines**	**1.63**	**225**	*e*Pn	**Pn**	**06 29 02.5**	**-0.7**
SFTF	**Sexfontaines**	**1.63**	**225**	*e*Pg	**Pg**	**06 29 04.7**	**+0.2**
	baz=50						
SFTF				*e*Sg	**Sg**	**06 29 25.4**	**-0.2**
	3.8nm,0.2s						
BAIF	**Baives**	**1.80**	**294**	*e*Pg	**Pg**	**06 29 08.4**	**+0.5**
BAIF				*e*Sg	**Sg**	**06 29 30.6**	**-0.6**
	8.4nm,0.3s						
BAIF	**Baives**	**1.80**	**294**	*e*Pn	**Pn**	**06 29 05.9**	**+0.3**
BAIF				*e*Pg	**Pg**	**06 29 08.4**	**+0.5**
BAIF				*e*Sg	**Sg**	**06 29 30.6**	**-0.6**
BAIF	**Baives**	**1.80**	**294**	*e*Pn	**Pn**	**06 29 05.9**	**+0.3**
BAIF	**Baives**	**1.80**	**294**	*e*Pg	**Pg**	**06 29 08.4**	**+0.5**
BAIF				*e*Sg	**Sg**	**06 29 30.6**	**-0.6**
	4.2nm,0.3s						
LOR	**Lormes**	**2.85**	**224**	*e*Pn	**Pn**	**06 29 19.2**	**-0.9**
	baz=49						
LOR	**Lormes**	**2.85**	**224**	*e*Pn	**Pn**	**06 29 19.2**	**-0.9**
	baz=49						
SSF	**Saint Saulge**	**3.17**	**225**	*e*Pn	**Pn**	**06 29 23.3**	**-1.1**
SSF	**Saint Saulge**	**3.17**	**225**	*e*Pn	**Pn**	**06 29 23.3**	**-1.1**
SMF	**Signal de Mont**	**3.35**	**217**	*e*Pn	**Pn**	**06 29 25.5**	**-1.4**
SMF	**Signal de Mont**	**3.35**	**217**	*e*Pn	**Pn**	**06 29 25.5**	**-1.4**

IDC ***01*** *06:30:04.0±1.3, 39°.55N×30°.00W, h0^{km}, mb3.5/5, mb1 3.9/5, mb1mx3.5/23, mbtmp3.6/5, MS3.9/2, Ms1 3.8/2, ms1mx3.2/31, Error ellipse: s-maj=57.4km s-min=24.0km az=14.0*
ISCJB ***01*** *06:30:05.4±2.0, 39°.7N±0°.1×29°.6W±0°.2, h25^{km}±14^{km}, mb3.6/4, MS3.9/2, Error ellipse: s-maj=25.6km s-min=9.3km az=136.1*
PDA ***01*** *06:30:06.2±0.8, 39°.80N×29°.65W, h0^{km}, MD3.9, ML3.1, Error ellipse: s-maj=9.0km s-min=5.0km az=69.0*
CSEM ***01*** *06:30:06.2, 39°.80N×29°.65W, h0^{km}, ML3.1, After PDA*
ISC 01 06:30:05.9±2.5, **39°.63N**±0°.10×**29°.6W**±0°.1, **h17**^{km}±17^{km}, **n25**, σ**0^{s}.85**/33, **mb3.6**/4, **MS3.9**/2, **Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	**Cedros**	**1.20**	**146**	*e*P	**Pn**	**06 30 27.6**	**-0.3**
PCED				A		06 30 42.3	
	50nm,0.3s						
PCED				*e*S	**Sb**	**06 30 44.1**	**+0.7**
PCED	**Cedros**	**1.20**	**146**	*e*P	**Pn**	**06 30 27.6**	**-0.3**
PCED				*e*S	**Sb**	**06 30 44.1**	**+0.7**
CALA	**Caldeira**	**1.24**	**147**	*e*P	**Pn**	**06 30 28.8**	**+0.3**
CALA	**Caldeira**	**1.24**	**147**	*e*P	**Pn**	**06 30 28.8**	**+0.3**
HOR	**Horta**	**1.31**	**147**	*e*P	**Pn**	**06 30 29.4**	**-0.1**
HOR				*e*S	**Sn**	**06 30 46.5**	**-0.1**
HOR	**Horta**	**1.31**	**147**	*e*P	**Pn**	**06 30 29.4**	**-0.1**
HOR				*e*S	**Sn**	**06 30 46.5**	**-0.1**
ROSA	**Rosais**	**1.36**	**131**	*e*P	**Pn**	**06 30 30.0**	**-0.2**
ROSA	**Rosais**	**1.36**	**131**	*e*P	**Pn**	**06 30 30.0**	**-0.2**
PICO	**Pico**	**1.43**	**142**	*e*P	**Pn**	**06 30 31.4**	**+0.3**
PICO				*e*S	**Sn**	**06 30 49.7**	**+0.2**
PICO	**Pico**	**1.43**	**142**	*e*P	**Pn**	**06 30 31.4**	**+0.3**
PICO				*e*S	**Sn**	**06 30 49.7**	**+0.2**
PMAN	**Manadas**	**1.51**	**131**	*e*P	**Pn**	**06 30 31.6**	**-0.6**
PMAN				*e*S	**Sn**	**06 30 51.6**	**+0.1**
PMAN				A		06 30 57.6	
	56nm,0.4s						
PMAN	**Manadas**	**1.51**	**131**	*e*P	**Pn**	**06 30 31.6**	**-0.6**
PMAN				*e*S	**Sn**	**06 30 51.6**	**+0.1**
PID	**Ribeirinha**	**1.63**	**136**	*e*P	**Pn**	**06 30 33.9**	**+0.1**
PID	**Ribeirinha**	**1.63**	**136**	*e*P	**Pn**	**06 30 33.9**	**+0.1**
ADH	**Angra Heroismo**	**2.05**	**118**	*e*P	**Pn**	**06 30 39.4**	**-0.2**
ADH	**Angra Heroismo**	**2.05**	**118**	*e*P	**Pn**	**06 30 39.4**	**-0.2**
CMLA	**Cha da Macela**	**3.66**	**119**	*e*P	**Pn**	**06 31 01.2**	**-0.6**
CMLA				*e*S	**Sn**	**06 31 43.2**	**-1.4**
CMLA				A		06 31 46.3	
	17nm,0.5s						
CMLA	**Cha da Macela**	**3.66**	**119**	*e*P	**Pn**	**06 31 01.2**	**-0.6**
CMLA				*e*S	**Sn**	**06 31 43.2**	**-1.4**
ESDC	**Sonseca Array**	**19.69**	**82**	P	**Pn**	**06 34 40.2**	**+4.5**
	0.2nm,0.3s,baz=281,slow=13,SNR=4.0						
TORD	**Torodi Ar. Bea**	**38.12**	**125**	P	**P**	**06 37 26.1**	**+2.0**
	0.6nm,0.9s,mb3.3,baz=324,slow=7.1,SNR=3.8						
ULM	**Lac du Bonnet**	**46.67**	**306**	LR	LR	06 56 10.7	
	comp=Z,111nm,21.4s,MS3.8,baz=335,slow=34						
PDAR	**Pinedale Array**	**58.10**	**301**	P	**P**	**06 39 57.0**	**-1.3**
	1.1nm,0.9s,mb3.9,baz=72,slow=9.5,SNR=8.2						
TXAR	**Lajitas Array**	**60.38**	**285**	P	**P**	**06 40 13.9**	**-0.4**
	0.5nm,0.8s,mb3.6,baz=79,slow=7.0,SNR=4.7						
CMIG	**Matias Romero**	**60.41**	**268**	LR	LR	07 01 51.3	
	comp=Z,127nm,19.6s,MS4.1,baz=45,slow=32						
MKAR	**Makanchi Array**	**74.69**	**41**	P	**P**	**06 41 46.5**	**+2.1**
	0.7nm,0.9s,mb3.6,baz=337,slow=5.3,SNR=4.5						

IDC 01 06:36:13.9±1.4, **53°.44N**×**154°.01E**, **h492**^{km}±20^{km}, **mb2.9**/5, **mb1 3.1**/6, **mb1mx2.7**/25, **mbtmp2.9**/6, **Error ellipse: s-maj=38.9km s-min=20.7km az=93.0, Sea of Okhotsk**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	**Petropavlovsk-**	**2.24**	**97**	P	P	06 37 19.4	0.0
	2.3nm,0.3s,baz=295,slow=14,SNR=48						
MJAR	**Matsushiro Arr**	**20.18**	**219**	P	P	06 40 15.0	+0.4
	2.5nm,0.8s,baz=18,slow=9.9,SNR=5.3						
MKAR	**Makanchi Array**	**44.67**	**292**	P	P	06 43 41.6	-0.2
	0.3nm,0.4s,baz=56,slow=7.1,SNR=5.0						
EKA	**Eskdalemuir Ar**	**69.97**	**346**	P	P	06 46 34.9	+0.2
	1.3nm,0.7s,baz=21,slow=6.1,SNR=3.0						
WRA	**Warramunga Arr**	**75.03**	**199**	P	P	06 47 04.0	-0.4
	0.3nm,0.6s,baz=14,slow=6.0,SNR=2.7						
ASAR	**Alice Springs**	**78.74**	**199**	P	P	06 47 25.2	+0.6
	0.3nm,0.4s,baz=14,slow=5.0,SNR=4.5						

CSEM ***01*** *06:51:41.3±0.8, 36°.41N×21°.25E, h2^{km}, MD3.5, Error ellipse: s-maj=20.0km s-min=11.3km az=59.0*
THE ***01*** *06:51:41.5, 36°.36N×21°.28E, h2^{km}±3^{km}, Error ellipse: s-maj=3.5km s-min=0.9km az=20.0*
ISCJB ***01*** *06:51:42.8±1.6, 36°.44N±0°.05×21°.29E±0°.09, h15^{km}±9^{km}, Error ellipse: s-maj=12.9km s-min=8.1km az=166.8*
NEIC ***01*** *06:51:42.6, 36°.46N×21°.25E, h18^{km}, MD3.5(ATH), After ATH.*
ATH ***01*** *06:51:42.6, 36°.46N×21°.25E, h18^{km}±4^{km}, MD3.5/5*
ISC 01 06:51:42.3±1.7, **36°.44N**±0°.06×**21°.27E**±0°.10, **h10**^{km}±8^{km}, **n31**, σ**1^{s}.35**/39, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.59**	**40**	P	**Pg**	**06 51 53.8**	**-0.1**
PYL				S	**Sg**	**06 52 03.2**	**+1.5**
PYL	**PYLOS**	**0.59**	**40**	*e*PN	**Pg**	**06 51 53.8**	**-0.1**
PYL				*e*SN	**Sg**	**06 52 02.9**	**+1.2**
PYL	**PYLOS**	**0.59**	**40**	*e*Pn	**Pg**	**06 51 53.8**	**-0.1**
PYL				S	**Sg**	**06 52 03.2**	**+1.5**
ITM	**Ithomi**	**0.91**	**35**	*e*PB	**Pb**	**06 51 59.3**	**-0.9**
ITM				*e*SN	**Sn**	**06 52 12.5**	**-1.8**
ITM	**Ithomi**	**0.91**	**35**	*e*Pb	**Pb**	**06 51 59.3**	**-0.9**
VLX	**Vlachokerasia**	**1.29**	**43**	*e*PN	**Pn**	**06 52 06.2**	**-0.1**
VLX				*e*SN	**Sn**	**06 52 24.5**	**+0.9**
VLX	**Vlachokerasia**	**1.29**	**43**	*e*Pn	**Pn**	**06 52 06.2**	**-0.1**
VLX				*e*Sn	**Sn**	**06 52 24.5**	**+0.9**
VLI	**Veliai**	**1.37**	**78**	*e*PN	**Pn**	**06 52 09.5**	**+2.0**
VLI	**Veliai**	**1.37**	**78**	*e*Pn	**Pn**	**06 52 09.5**	**+2.0**
KYTH	**Kithira**	**1.43**	**96**	*e*PN	**Pn**	**06 52 10.3**	**+2.0**
KYTH	**Kithira**	**1.43**	**96**	*e*Pn	**Pn**	**06 52 10.3**	**+2.0**
RLS	**Riolos of Patr**	**1.62**	**5**	*e*PN	**Pn**	**06 52 11.9**	**+0.9**
RLS	**Riolos of Patr**	**1.62**	**5**	*e*Pn	**Pn**	**06 52 11.9**	**+0.9**
GUR	**Goura**	**1.72**	**29**	*e*PN	**Pn**	**06 52 14.3**	**+2.0**
GUR	**Goura**	**1.72**	**29**	*e*Pn	**Pn**	**06 52 14.3**	**+2.0**
VLS	**Valsamata**	**1.82**	**343**	P	**Pn**	**06 52 14.0**	**+0.3**
VLS	**Valsamata**	**1.82**	**343**	*e*PN	**Pn**	**06 52 15.5**	**+1.8**
VLS	**Valsamata**	**1.82**	**343**	P	**Pn**	**06 52 14.0**	**+0.3**
VLS	**Valsamata**	**1.82**	**343**	*e*Pn	**Pn**	**06 52 15.5**	**+1.8**
DID	**Didima**	**1.90**	**55**	P	**Pn**	**06 52 14.7**	**-0.1**
DID	**Didima**	**1.90**	**55**	*e*PB	**Pb**	**06 52 15.2**	**-1.9**
DID	**Didima**	**1.90**	**55**	P	**Pn**	**06 52 14.7**	**-0.1**
LTK	**Loutraki**	**2.08**	**40**	P	**Pn**	**06 52 17.5**	**+0.2**
LTK	**Loutraki**	**2.08**	**40**	*e*PB	**Pb**	**06 52 18.1**	**-2.1**
LTK	**Loutraki**	**2.08**	**40**	P	**Pn**	**06 52 17.5**	**+0.2**
KARN	**Karanos**	**2.38**	**115**	P	**Pn**	**06 52 21.0**	**-0.4**
KARN				S	**Sn**	**06 52 50.8**	**+0.1**
KARN	**Karanos**	**2.38**	**115**	P	**Pn**	**06 52 21.0**	**-0.4**
KARN				S	**Sn**	**06 52 50.8**	**+0.1**
EVR	**Evrytania**	**2.51**	**10**	*e*PB	**Pb**	**06 52 25.0**	**-2.5**
EVR	**Evrytania**	**2.51**	**10**	*e*Pb	**Pb**	**06 52 25.0**	**-2.5**
GVD	**Gavdhos**	**2.79**	**124**	P	**Pn**	**06 52 25.5**	**-1.6**
GVD	**Gavdhos**	**2.79**	**124**	P	**Pn**	**06 52 25.5**	**-1.6**

NEIC ***01*** *06:52:28.0, 38°.20N×112°.21W, h0^{km}, ML3.6(SLC), After SLC.*
NEIC Felt [III] at Kingston.
ISCJB ***01*** *06:52:29.5±0.1, 38°.21N±0°.01×112°.23W±0°.02, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.7km az=153.7*
IDC ***01*** *06:52:29.3±0.9, 38°.33N×112°.19W, h0^{km}, mb3.2/1, mb1 3.6/5, mb1mx3.5/25, mbtmp3.3/5, ML3.4/4, Error ellipse: s-maj=12.0km s-min=10.7km az=5.0*
ISC 01 06:52:30.3±0.1, **38°.20N**±0°.01×**112°.20W**±0°.02, **h10**^{km}, **n134**, σ**0^{s}.98**/171, **60C-76D, Utah**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
S15A	**Panguitch**	**0.53**	**194**	⇑P	**Pg**	**06 52 38.9**	**-1.8**
	baz=0.5						
S15A				⇓S	**Sg**	**06 52 46.7**	**-1.0**
	baz=0.5						
R16A	**Teasdale**	**0.57**	**81**	P	**Pg**	**06 52 39.6**	**-1.8**
	baz=0.6,SNR=1000						
R16A				⇓S	**Sg**	**06 52 47.0**	**-1.9**
	baz=0.6						
R14A	**James Farms, M**	**0.66**	**279**	⇓P	**Pg**	**06 52 41.6**	**-1.5**
	baz=0.7,SNR=64						
R14A				⇓S	**Sg**	**06 52 50.7**	**-0.9**
	baz=0.7						
S16A	**Weppner Ranch,**	**0.67**	**135**	⇓P	**Pg**	**06 52 41.5**	**-1.8**
	baz=0.6						
S16A				⇓S	**Sg**	**06 52 50.8**	**-1.2**
	baz=0.6						
Q15A	**Fillmore**	**0.81**	**350**	⇑P	**Pg**	**06 52 44.0**	**-2.1**
	baz=0.8						
Q15A				⇑S	**Sg**	**06 52 55.8**	**-0.9**
	baz=0.8						
S14A	**Cedar City**	**0.88**	**241**	⇑P	**Pg**	**06 52 45.4**	**-1.9**
	baz=0.9,SNR=65						
Q16A	**Castle Valley**	**1.08**	**48**	⇓P	**Pg**	**06 52 49.0**	**-2.1**
	baz=1.1,SNR=288						
Q16A				⇑S	**Sg**	**06 53 03.1**	**-2.1**
	baz=1.1						
Q14A	**Sevier Lake (B**	**1.16**	**313**	⇑P	**Pb**	**06 52 50.5**	**-2.0**
	baz=1.2,SNR=511						
T15A	**Red Dirt Ranch**	**1.18**	**187**	⇓P	**Pb**	**06 52 50.4**	**-2.5**
	baz=1.2						
R17A	**Hanksville Air**	**1.19**	**79**	⇓P	**Pb**	**06 52 50.7**	**-2.2**
	baz=1.2,SNR=1000						
R17A				⇑S	**Sb**	**06 53 06.9**	**-1.5**
	baz=1.2						
S17A	**Black Ridge (B**	**1.24**	**116**	⇑P	**Pn**	**06 52 51.7**	**-2.0**
	baz=1.2						
S17A				⇓S	**Sb**	**06 53 08.1**	**-1.7**
	baz=1.2						
T16A	**Glen Canyon Da**	**1.33**	**155**	⇑P	**Pn**	**06 52 53.2**	**-1.7**
	baz=1.3						
T14A	**Hurricane**	**1.33**	**212**	⇓P	**Pn**	**06 52 53.1**	**-1.8**
	baz=1.3						
P15A	**Leamington**	**1.38**	**357**	⇑P	**Pn**	**06 52 54.5**	**-1.0**
	baz=1.4,SNR=28						
R13A	**O'Grain Ranch,**	**1.40**	**270**	⇑P	**Pn**	**06 52 55.3**	**-0.5**
	baz=1.4,SNR=995						
S13A	**Holt Ranch, En**	**1.45**	**245**	⇑P	**Pn**	**06 52 56.2**	**-0.4**
	baz=1.4,SNR=382						
S13A				⇑S	**Sn**	**06 53 15.4**	**-0.3**
	baz=1.4						
P16A	**Fountain Green**	**1.47**	**16**	⇑P	**Pn**	**06 52 56.2**	**-0.7**
	baz=1.5,SNR=148						
P14A	**Drum Mountains**	**1.55**	**334**	⇑P	**Pn**	**06 52 57.2**	**-0.7**
	baz=1.6,SNR=162						
SRU	**San Rafael**	**1.60**	**55**	⇑P	**Pn**	**06 52 58.2**	**-0.5**
	baz=1.6,SNR=1000						
Q13A	**Wheeler Ranch,**	**1.62**	**299**	⇑P	**Pn**	**06 52 58.4**	**-0.5**
	baz=1.6						
T17A	**Navajo Res., N**	**1.63**	**137**	P	**Pn**	**06 52 58.8**	**-0.3**
	baz=1.6,SNR=710						
T17A				⇑S	**Sn**	**06 53 19.7**	**-0.4**
	baz=1.6						
P17A	**Butcher Ranch,**	**1.71**	**41**	⇓P	**Pn**	**06 52 59.6**	**-0.6**
	baz=1.7,SNR=139						
T13A	**Saint George**	**1.79**	**230**	P	**Pn**	**06 53 01.6**	**+0.3**
	baz=1.8,SNR=660						
S18A	**Hurst Farm, Bl**	**1.81**	**105**	⇓P	**Pn**	**06 53 02.0**	**+0.4**
	baz=1.8,SNR=885						
R18A	**Canyonlands Na**	**1.82**	**83**	P	**Pn**	**06 53 02.0**	**+0.3**
	baz=1.8,SNR=481						
Q18A	**Rafter H Ranch**	**1.85**	**60**	⇓P	**Pn**	**06 53 02.6**	**+0.5**
	baz=1.9,SNR=443						
P13A	**Bates Ranch, G**	**1.90**	**312**	⇑P	**Pn**	**06 53 01.8**	**-1.0**
	baz=1.9,SNR=52						
R12A	**Pony Springs,**	**1.90**	**275**	⇓P	**Pn**	**06 53 02.7**	**-0.1**
	baz=1.9,SNR=96						
U14A	**Mt Trumbull**	**1.94**	**204**	⇑P	**Pn**	**06 53 03.9**	**+0.6**
	baz=1.9,SNR=233						
U17A	**Shonto**	**2.01**	**142**	P	**Pn**	**06 53 05.2**	**+0.9**
	baz=2.0,SNR=409						
U17A				⇓Sb	**Sb**	**06 53 31.1**	**-0.9**
	baz=2.0						
O16A	**Springville**	**2.08**	**15**	⇑P	**Pn**	**06 53 05.7**	**+0.5**
	baz=2.1						
P18A	**Preston Nutter**	**2.09**	**46**	⇑P	**Pn**	**06 53 06.7**	**+1.3**
	baz=2.1						
P18A				⇑Sb	**Sb**	**06 53 34.4**	**+0.1**
	baz=2.1						
T18A	**Mexican Hat**	**2.13**	**119**	⇑P	**Pn**	**06 53 06.7**	**+0.9**
	baz=2.1,SNR=442						
T18A				⇓Sb	**Sb**	**06 53 34.6**	**-0.7**
	baz=2.1						
S12A	**Delamar Landin**	**2.18**	**255**	⇓P	**Pn**	**06 53 06.7**	**+0.1**
	baz=2.2,SNR=54						
U16A	**Tuba City**	**2.22**	**157**	⇓P	**Pn**	**06 53 08.2**	**+1.1**
	baz=2.2,SNR=836						
U16A				⇑Sb	**Sb**	**06 53 37.4**	**-0.6**
	baz=2.2						
Q12A	**Willow Creek R**	**2.23**	**293**	⇓P	**Pn**	**06 53 07.3**	**0.0**
	baz=2.2						
U13A	**Pakoon Wash**	**2.27**	**219**	⇓P	**Pn**	**06 53 07.6**	**-0.2**
	baz=2.2,SNR=28						
O17A	**Robinson Place**	**2.30**	**29**	⇓P	**Pn**	**06 53 09.4**	**+1.2**
	baz=2.3						
R19A	**Curley Farm, L**	**2.31**	**87**	⇑P	**Pn**	**06 53 09.5**	**+1.0**
	baz=2.3						
R19A				⇓Sb	**Sb**	**06 53 40.8**	**0.0**
	baz=2.3						
V15A	**Kaibab Nationa**	**2.37**	**180**	⇓P	**Pn**	**06 53 10.6**	**+1.3**
	baz=2.3,SNR=661						
V15A				⇓Sb	**Sb**	**06 53 41.7**	**-0.7**
	baz=2.3						
O13A	**Hicks Ranch, I**	**2.38**	**325**	⇓P	**Pn**	**06 53 08.4**	**-1.0**
	baz=2.4						
Q19A	**Hogan Spring (**	**2.42**	**71**	⇓P	**Pn**	**06 53 10.9**	**+0.9**
	baz=2.4						
Q19A				⇑Sb	**Sb**	**06 53 44.2**	**+0.3**
	baz=2.4						
S19A	**Harvey Farm, M**	**2.46**	**100**	⇑P	**Pn**	**06 53 11.4**	**+0.9**
	baz=2.5,SNR=212						
S19A				⇓Sb	**Sb**	**06 53 45.3**	**+0.3**
	baz=2.5						
P12A	**McGill**	**2.47**	**302**	⇑P	**Pn**	**06 53 10.7**	**+0.1**
	baz=2.5,SNR=9.3						
T12A	**Moapa**	**2.48**	**235**	⇓P	**Pn**	**06 53 10.7**	**0.0**
	baz=2.5						
U12A	**Valley of Fire**	**2.56**	**227**	⇓P	**Pn**	**06 53 12.0**	**+0.1**
	baz=2.5						
U18A	**Rough Rock, Ch**	**2.57**	**133**	⇑P	**Pn**	**06 53 13.3**	**+1.4**
	baz=2.5,SNR=160						
U18A				⇓Sb	**Sb**	**06 53 47.5**	**-0.6**
	baz=2.5						
T11A	**Corn Creek, Al**	**2.58**	**249**	⇑P	**Pn**	**06 53 12.1**	**0.0**
	baz=2.6,SNR=26						
V14A	**Boquillas Ranc**	**2.66**	**196**	⇓P	**Pn**	**06 53 13.8**	**+0.6**
	baz=2.6,SNR=210						
V14A				⇑Sb	**Sb**	**06 53 50.2**	**-0.5**
	baz=2.6						
R11A	**Troy Canyon, C**	**2.67**	**274**	⇑P	**Pn**	**06 53 12.6**	**-0.8**
	baz=2.7,SNR=26						
N15A	**Stansbury Isla**	**2.70**	**355**	⇑P	**Pn**	**06 53 13.3**	**-0.5**
	baz=2.7,SNR=16						
V13A	**Grand Canyon W**	**2.74**	**212**	⇓P	**Pn**	**06 53 15.0**	**+0.6**
	baz=2.7,SNR=11						
V13A				⇑Sb	**Sb**	**06 53 53.1**	**+0.1**
	baz=2.7						
N16A	**Rees Ranch, Co**	**2.75**	**12**	⇓P	**Pn**	**06 53 15.0**	**+0.5**
	baz=2.8						
WUAZ	**Wupatki**	**2.75**	**166**	⇓P	**Pn**	**06 53 15.5**	**+1.0**
	baz=2.7,SNR=83						
WUAZ				⇓Sb	**Sb**	**06 53 53.1**	**-0.3**
	baz=2.7						
N14A	**Grayback Hills**	**2.76**	**344**	⇓P	**Pn**	**06 53 13.5**	**-1.1**
	baz=2.8,SNR=67						
O12A	**Currie**	**2.86**	**317**	⇓P	**Pn**	**06 53 15.1**	**-0.9**
	baz=2.9						
T19A	**Beclabito**	**2.87**	**117**	⇑P	**Pn**	**06 53 17.1**	**+1.0**
	baz=2.9,SNR=46						
T19A				⇑Sb	**Sb**	**06 53 56.7**	**0.0**
	baz=2.9						
P19A	**Cripple Cowboy**	**2.89**	**59**	⇑Sb	**Sb**	**06 53 57.6**	**+0.2**
	baz=2.9						
N17A	**Moffit Pass**	**2.94**	**21**	⇓P	**Pn**	**06 53 17.5**	**+0.5**
	baz=3.0						
R20A	**Redvale**	**3.01**	**89**	⇓P	**Pn**	**06 53 18.9**	**+0.9**
	baz=3.0,SNR=70						
W15A	**Williams**	**3.01**	**181**	⇑P	**Pn**	**06 53 19.0**	**+1.0**
	baz=3.0						
W15A				⇑Sb	**Sb**	**06 54 00.7**	**-0.1**
	baz=3.0						
W14A	**Seligman**	**3.06**	**194**	⇑P	**Pn**	**06 53 19.4**	**+0.6**
	baz=3.0,SNR=27						
V18A	**Ganado**	**3.07**	**143**	⇓P	**Pn**	**06 53 19.9**	**+1.0**
	baz=3.0,SNR=152						
N13A	**Wendover, West**	**3.08**	**330**	⇑P	**Pn**	**06 53 17.8**	**-1.2**
	baz=3.1						
P11A	**Circle Ranch,**	**3.09**	**297**	⇓P	**Pn**	**06 53 19.5**	**+0.4**
	baz=3.1						
MVCO	**Mesa Verde**	**3.10**	**107**	⇓P	**Pn**	**06 53 20.2**	**+1.0**
	baz=3.1						
W16A	**Flagstaff**	**3.14**	**170**	⇓P	**Pn**	**06 53 20.8**	**+1.0**
	baz=3.1,SNR=6.7						
M16A	**Huntsville**	**3.15**	**8**	⇓P	**Pn**	**06 53 20.4**	**+0.5**
	baz=3.2						
Q20A	**Ridgley Place,**	**3.15**	**75**	⇓P	**Pn**	**06 53 21.2**	**+1.2**
	baz=3.2						
O19A	**Miners Draw (B**	**3.18**	**48**	⇑P	**Pn**	**06 53 21.6**	**+1.2**
	baz=3.2						
R10A	**Warm Springs**	**3.23**	**273**	⇓P	**Pn**	**06 53 21.0**	**-0.1**
	baz=3.2						
V12A	**Nelson**	**3.25**	**222**	⇓P	**Pn**	**06 53 21.3**	**0.0**
	baz=3.2						
M15A	**Larsen Ranch,**	**3.27**	**357**	⇓P	**Pn**	**06 53 21.6**	**0.0**
	baz=3.3,SNR=21						
O11A	**Cowboy Ranch,**	**3.31**	**307**	⇓P	**Pn**	**06 53 22.0**	**-0.1**
	baz=3.3						
M14A	**Sheep Mountain**	**3.42**	**345**	⇑P	**Pn**	**06 53 22.3**	**-1.3**
	baz=3.5,SNR=13						
N12A	**Clover Valley,**	**3.44**	**321**	⇓P	**Pn**	**06 53 23.2**	**-0.8**
	baz=3.5						
S10A	**Tonopah Range,**	**3.48**	**267**	⇑P	**Pn**	**06 53 24.1**	**-0.4**
	baz=3.5						
V11A	**Goodsprings**	**3.50**	**229**	⇑P	**Pn**	**06 53 25.0**	**+0.2**
	baz=3.5,SNR=8.1						
M13A	**Montello**	**3.50**	**335**	⇑P	**Pn**	**06 53 23.5**	**-1.3**
	baz=3.5,SNR=5.3						
S21A	**Coal Bank Pass**	**3.52**	**97**	⇓P	**Pn**	**06 53 26.3**	**+1.2**
	baz=3.5,SNR=13						
V19A	**Window Rock**	**3.54**	**133**	⇑P	**Pn**	**06 53 26.3**	**+1.0**
	baz=3.5,SNR=11						
W18A	**Petrified Fore**	**3.65**	**146**	⇑P	**Pn**	**06 53 28.1**	**+1.2**
	baz=3.6,SNR=14						
R21A	**Cimarron**	**3.66**	**86**	⇑P	**Pn**	**06 53 27.8**	**+0.8**
	baz=3.7						
X15A	**Humboldt**	**3.70**	**180**	⇑P	**Pn**	**06 53 28.2**	**+0.6**
	baz=3.7						
U10A	**Ash Meadows, A**	**3.74**	**243**	⇓P	**Pn**	**06 53 28.9**	**+0.8**
	baz=3.7,SNR=10						
X14A	**Yava**	**3.76**	**189**	⇓P	**Pn**	**06 53 29.2**	**+0.8**
	baz=3.7						
N11A	**Elko Archery C**	**3.79**	**315**	⇓P	**Pn**	**06 53 29.5**	**+0.8**
	baz=3.8						
L15A	**Malad City**	**3.81**	**358**	⇓P	**Pn**	**06 53 29.7**	**+0.7**
	baz=3.8						
W19A	**Sanders**	**3.82**	**143**	⇑P	**Pn**	**06 53 30.0**	**+0.8**
	baz=3.8,SNR=7.1						
X16A	**Lo Mia Camp, P**	**3.82**	**171**	⇑P	**Pn**	**06 53 30.1**	**+1.0**
	baz=3.8						
R09A	**Tonopah**	**3.84**	**272**	⇓P	**Pn**	**06 53 29.1**	**-0.4**
	baz=3.8,SNR=7.1						
L16A	**Fish Haven**	**3.86**	**9**	⇓P	**Pn**	**06 53 30.7**	**+1.0**
	baz=3.9						
O10A	**Cortez Mining,**	**3.94**	**303**	⇓P	**Pn**	**06 53 31.7**	**+0.9**
	baz=4.0						
S09A	**Goldfield**	**4.00**	**265**	⇓P	**Pn**	**06 53 31.4**	**-0.3**
	baz=4.0						
X18A	**Snowflake**	**4.08**	**153**	⇓P	**Pn**	**06 53 33.5**	**+0.7**
	baz=4.1,SNR=61						
M11A	**Holland Ranch,**	**4.25**	**321**	⇑P	**Pn**	**06 53 35.2**	**+0.1**
	baz=4.3						
W20A	**Ramah**	**4.27**	**135**	⇓P	**Pn**	**06 53 36.0**	**+0.7**
	baz=4.2,SNR=15						
GRAC	**Grapevine Rang**	**4.28**	**255**	⇓P	**Pn**	**06 53 35.4**	**0.0**
	baz=4.3,SNR=8.0						
Y14A	**Wickenburg**	**4.30**	**189**	⇓P	**Pn**	**06 53 36.1**	**+0.4**
	baz=4.3						
O09A	**Fish Creek Ran**	**4.35**	**298**	⇓P	**Pn**	**06 53 37.0**	**+0.6**
	baz=4.4						
GMRC	**Granite Mounta**	**4.40**	**220**	⇑P	**Pn**	**06 53 37.4**	**+0.2**
	baz=4.4						
L19A	**Farson**	**4.47**	**28**	⇓P	**Pn**	**06 53 38.7**	**+0.6**
	baz=4.5						
Y13A	**Salome**	**4.57**	**197**	⇓P	**Pn**	**06 53 40.1**	**+0.7**
	baz=4.5,SNR=12						
AHID	**Auburn Hatcher**	**4.64**	**10**	*e*Pn	**Pn**	**06 53 41.8**	**+1.3**
GSC	**Goldstone**	**4.69**	**233**	⇓P	**Pn**	**06 53 41.8**	**+0.6**
	baz=4.7						
GSC	**Goldstone**	**4.69**	**233**	*e*Pn	**Pn**	**06 53 41.5**	**+0.3**
GSC				*e*Pg	**Pg**	**06 53 55.9**	**-4.4**
M10A	**I.L. Ranch, Tu**	**4.71**	**316**	⇓P	**Pn**	**06 53 42.1**	**+0.7**
	baz=4.7						
K18A	**Toltan Ranch,**	**4.73**	**20**	⇓P	**Pn**	**06 53 42.6**	**+0.9**
	baz=4.8						
MPMC	**Manual Prospec**	**4.74**	**245**	⇓P	**Pn**	**06 53 41.8**	**+0.1**
	baz=4.7,SNR=16						
NVAR	**Mina Array Bea**	**4.81**	**275**	Pn	**Pn**	**06 53 43.9**	**+1.1**
	0.5nm,0.3s,baz=96,slow=14,SNR=13						
NVAR				Pg	**Pg**	**06 53 57.7**	**-4.7**
	5.2nm,0.3s,baz=93,slow=18,SNR=48						
NVAR				Lg		06 54 58.7	
	2.6nm,0.3s,baz=106,slow=30,SNR=2.9						
NVAR	**Mina Array Bea**	**4.81**	**275**	Pn	**Pn**	**06 53 43.9**	**+1.1**
NVAR				Pg	**Pg**	**06 53 57.7**	**-4.7**
NVAR				Lg		06 54 58.7	
L11A	**Cat Creek Ranc**	**4.81**	**327**	⇑P	**Pn**	**06 53 42.9**	**+0.1**
	baz=4.8						
Y19A	**Nutrioso**	**4.86**	**150**	⇑P	**Pn**	**06 53 43.6**	**+0.2**
	baz=4.8,SNR=11						
K12A	**Draper Farm, C**	**4.89**	**336**	⇑P	**Pn**	**06 53 43.8**	**-0.1**
	baz=4.9						
PDAR	**Pinedale Array**	**4.99**	**23**	Pn	**Pn**	**06 53 46.6**	**+1.4**
	0.4nm,0.3s,baz=195,slow=10.0,SNR=22						
PDAR				Pg	**Pg**	**06 53 58.2**	**-7.7**
	2.0nm,0.3s,baz=192,slow=13,SNR=31						
PDAR				Lg		06 55 00.2	
	0.9nm,0.3s,baz=207,slow=36,SNR=3.9						
L10A	**Juniper Basin**	**5.07**	**321**	⇑P	**Pn**	**06 53 46.7**	**+0.3**
	baz=5.1						
M09A	**Marrel Ranch,**	**5.17**	**310**	⇓P	**Pn**	**06 53 48.8**	**+1.1**
	baz=5.2						
J15A	**Blackfoot**	**5.20**	**358**	⇓P	**Pn**	**06 53 49.4**	**+1.2**
	baz=5.2						
REDW	**Red Top Meadow**	**5.26**	**11**	*e*Pn	**Pn**	**06 53 50.6**	**+1.7**
	30nm,1.0s						
REDW				*e*Pg	**Pg**	**06 54 08.1**	**-3.0**
REDW				*e*Sg	**Sg**	**06 55 15.7**	**-3.5**
N08A	**GE Springer Mi**	**5.27**	**301**	⇓P	**Pn**	**06 53 49.9**	**+0.9**
	baz=5.3						
J18A	**Kendall Valley**	**5.28**	**18**	P	**Pn**	**06 53 49.3**	**+0.1**
	baz=5.3,SNR=6.8						
SDCO	**Great Sand Dun**	**5.31**	**93**	*e*Pn	**Pn**	**06 53 51.5**	**+1.9**
	22nm,0.8s						
SDCO				*e*Pg	**Pg**	**06 54 07.6**	**-4.5**
SNOW	**Snow King Moun**	**5.37**	**11**	*e*Pn	**Pn**	**06 53 51.4**	**+0.8**
	14nm,0.5s						
SNOW				*e*Pg	**Pg**	**06 54 07.6**	**-5.7**
LOHW	**Long Hollow**	**5.54**	**12**	*e*Pn	**Pn**	**06 53 53.5**	**+0.6**
	11nm,0.6s						
LOHW				*e*Pg	**Pg**	**06 54 10.2**	**-6.2**

ISA	Isabella	5.63	245	⇓P	Pn	06 53 54.6	+0.6
	baz=5.6						
ANMO	Albuquerque	5.64	123	Pn	Pn	06 53 54.4	+0.2
	1.4nm,0.3s,baz=318,slow=12,SNR=67						
ANMO				Lg		06 55 23.7	
	3.9nm,0.3s,baz=35,slow=20,SNR=4.3						
ANMO	Albuquerque	5.64	123	ePn	Pn	06 53 54.3	+0.1
	26nm,0.6s						
ANMO				ePg	Pg	06 54 14.7	-3.6
ANMO				eSg	Sg	06 55 29.1	-2.3
MOOW	Moose Ponds	5.66	11	ePn	Pn	06 53 53.6	-0.8
	8.1nm,0.8s						
MOOW				ePg	Pg	06 54 11.9	-6.7
MOOW				eSg	Sg	06 55 35.5	+3.7
I18A	Diamond G Ranc	5.79	17	⇓P	Pn	06 53 56.2	+0.1
	baz=5.8						
K10A	MacKenzie Ranc	5.80	324	⇑P	Pn	06 53 56.9	+0.6
	baz=5.8						
TXAR	Lajitas Array	11.33	139	Pn	Pn	06 55 17.4	+5.2
	0.0nm,0.3s,baz=320,slow=11,SNR=6.5						
TXAR				Lg		06 58 27.2	
	0.1nm,0.3s,baz=317,slow=33,SNR=5.8						
TXAR	Lajitas Array	11.33	139	Pn	Pn	06 55 17.4	+5.2
TXAR				Lg		06 58 27.2	
ULM	Lac du Bonnet	16.75	39	Pn	Pn	06 56 25.3	+0.4
	0.2nm,0.3s,baz=239,slow=7.9,SNR=4.8						
YKA	Yellowknife Ar	24.37	357	P	P	06 57 47.5	-0.8
	0.4nm,0.6s,baz=175,slow=8.5,SNR=6.2						

IDC ***01*** *06:53:49.9±0.9, 11°.83N×86°.18W, h0^{km}, mb3.8/6, mb1 4.1/6, mb1mx3.8/19, mbtmp3.8/6, Error ellipse: s-maj=65.3km s-min=12.3km az=55.0*

ISCJB ***01*** *06:53:51.8±0.6, 10°.99N±0°.05×86°.86W±0°.05, h56^{km}±7^{km}, mb3.9/9, Error ellipse: s-maj=11.2km s-min=4.2km az=137.9*

CASC ***01*** *06:53:51.5±2.1, 11°.02N×86°.86W, h20^{km}±10^{km}, MD4.2, mb4.5(NEIC)*

NEIC ***01*** *06:53:53.3±1.2, 11°.23N×86°.75W, h35^{km}, mb4.5/3, Error ellipse: s-maj=35.4km s-min=12.4km az=222.0*

ISC 01 06:53:53.1±0.6**, 11°.02N**±0°.05×**86°.82W**±0°.05**, h51**^{km}±7^{km}**, n47, σ1^{s}06**/50**, mb3.9**/9**, 4C-1D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSN	San Juan del S	0.98	74	⇑iP	Pn	06 54 09.8	-0.9
SSN				eS	Sn	06 54 24.8	+1.2
COPN	Copaltepe	1.17	11	⇓iP	Pn	06 54 12.4	-0.8
COPN				eS	Sn	06 54 28.7	+0.6
NY14	Universidad de	1.31	106	iP	Pn	06 54 14.6	-0.6
GBS2	Las Lilas	1.35	98	iP	Pn	06 54 15.1	-0.6
GBS2				iS	Sn	06 54 36.5	+4.0
GB1A	Borinquen Arri	1.41	98	iP	Pn	06 54 16.1	-0.2
GPS3	Bodega del ICE	1.45	100	iP	Pn	06 54 16.5	-0.5
HUEN		1.45	26	⇑iP	Pn	06 54 16.1	-0.9
GPS1	Guardaparques	1.46	100	iP	Pn	06 54 16.6	-0.5
GPS2	Hotel Rincˆ‡n	1.46	100	iP	Pn	06 54 16.6	-0.5
VCR	Vista de Mar	1.47	127	eP	Pn	06 54 15.7	-1.5
CNGN	Cerro Negro	1.47	4	⇑eP	Pn	06 54 16.4	-0.9
CNGN				eS	Sn	06 54 36.2	+0.8
JTS	JuntasAbangare	1.97	111	Pg	Pn	06 54 23.7	-0.4
	6.9nm,0.3s,baz=314,slow=21,SNR=71						
JTS				Lg		06 54 53.7	
	29nm,0.3s,baz=261,slow=19,SNR=7.9						
JCR	Jicaral	2.04	125	eP	Pn	06 54 24.1	-0.9
JCR				eS	Sn	06 54 59.7	+10
FORC	Fortuna	2.18	104	eP	Pn	06 54 26.7	-0.3
CNCH	Conchagua	2.45	336	eP	Pn	06 54 30.2	-0.5
CNCH				eS	Sn	06 54 59.9	+0.5
CGA2	Cerro Gallo 2	2.52	113	eP	Pn	06 54 32.0	+0.4
PRS1	Puriscal	2.67	112	eP	Pn	06 54 32.7	-1.0
BLLM	Bellamira	2.78	330	eP	Pn	06 54 34.8	-0.3
VSM	San Miguel	2.78	329	eP	Pn	06 54 35.5	+0.2
LAJ	Bijagual	2.89	113	eP	Pn	06 54 33.9	-2.8
LCR2	La Lucha 2	3.05	114	eP	Pn	06 54 39.8	+1.0
TGUH	Tegucigalpa,Un	3.05	352	ePn	Pn	06 54 38.6	-0.3
TGUH	Tegucigalpa,Un	3.05	352	⇑eP	Pn	06 54 38.9	0.0
QCR	Quepos	3.06	121	eP	Pn	06 54 39.4	+0.5
URSC	Urasca	3.21	111	eP	Pn	06 54 43.7	+2.6
BUS	Buena Vista	3.34	116	eP	Pn	06 54 45.7	+2.8
LFRS	El Faro	3.39	320	eP	Pn	06 54 43.0	-0.6
LBRS	Las Brisas	3.47	321	eP	Pn	06 54 44.4	-0.2
BAR1		3.88	117	eP	Pn	06 54 51.6	+1.4
SBLS	San Blas	3.92	316	eP	Pn	06 54 51.6	+0.8
RTR	El Retiro	3.98	316	eP	Pn	06 54 52.3	+0.7
RBDL	Robledal	4.16	318	eP	Pn	06 54 54.4	+0.3
ACR	Cerro Adams	4.30	123	eP	Pn	06 54 56.9	+0.8
SDV	Santo Domingo	16.08	96	Pn	Pn	06 57 38.0	+2.1
	0.2nm,0.3s,baz=328,slow=10,SNR=3.7						
OXF	Oxford	23.50	355	eP	P	06 58 57.4	-1.1
	8.7nm,0.5s,mb4.4						
TXAR	Lajitas Array	24.07	322	P	P	06 59 06.0	+2.2
	1.3nm,0.4s,mb3.7,baz=140,slow=9.7,SNR=7.6						
TXAR				PcP	PcP	07 02 49.6	+5.2
	0.8nm,0.8s,baz=149,slow=4.8,SNR=7.5						
SWET	Sewanee	24.10	2	eP	P	06 59 04.2	+0.2
MIAR	Mount Ida	24.21	346	eP	P	06 59 04.8	-0.3
	5.9nm,0.8s,mb4.1						
CNNC	Cliffs of the	25.44	17	eP	P	06 59 11.6	-4.6
	26nm,0.9s,mb4.8						
PDAR	Pinedale Array	37.32	332	P	P	07 01 01.4	+0.9
	0.5nm,0.6s,mb3.5,baz=133,slow=10,SNR=3.7						
PDAR				PcP	PcP	07 03 21.9	+3.0
	0.2nm,0.5s,baz=132,slow=4.4,SNR=3.8						
NVAR	Mina Array Bea	39.18	320	P	P	07 01 18.0	+1.8
	0.5nm,0.7s,mb3.4,baz=156,slow=6.9,SNR=3.4						
NVAR				PcP	PcP	07 03 28.9	+4.1
	1.8nm,0.7s,baz=149,slow=4.3,SNR=11						
ULM	Lac du Bonnet	39.82	351	P	P	07 01 19.5	-1.8
	1.0nm,0.3s,mb4.0,baz=176,slow=7.8,SNR=8.1						
YKA	Yellowknife Ar	55.14	345	P	P	07 03 18.8	-1.3
	0.5nm,0.7s,mb3.7,baz=137,slow=7.5,SNR=7.9						
YKA				PcP	PcP	07 04 21.7	+1.0
	0.3nm,0.4s,baz=149,slow=3.4,SNR=4.6						
RES	Resolute Bay	63.80	358	P	P	07 04 18.6	-1.0
	0.4nm,0.4s,mb3.8,baz=182,slow=3.6,SNR=6.9						
SONM	Songino Array	120.24	350	PKP	PKPdf	07 12 41.3	+2.6
	0.2nm,0.3s,baz=4.8,slow=2.4,SNR=4.3						
KSRS	Korea Array	121.81	328	PKP	PKPdf	07 12 44.2	+2.2
	1.1nm,0.7s,baz=12,slow=0.8,SNR=6.9						
CMAR	Chiang Mai Arr	150.16	349	PKPbc	PKPbc	07 13 41.8	+2.5
	0.5nm,0.3s,baz=20,slow=2.9,SNR=7.1						

IDC 01 07:02:31.5±2.1**, 6°.10S**×**129°.97E, h0**^{km}**, mb3.4**/1**, mb1 3.7**/4**, mb1mx3.5**/16**, mbtmp3.5**/4**, ML3.7**/2**, Error ellipse: s-maj=80.4km s-min=27.6km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.66	199	Pn	Pn	07 05 34.1	+1.1
	0.4nm,0.3s,baz=54,slow=12,SNR=26						
FITZ				Sn	Sn	07 07 40.6	-14
	0.3nm,0.3s,baz=251,slow=16,SNR=5.6						
WRA	Warramunga Arr	14.40	163	Pn	Pn	07 05 57.1	+0.2
	0.4nm,0.3s,baz=342,slow=12,SNR=10						
WRA				Sn	Sn	07 08 21.8	-16
	0.6nm,0.3s,baz=345,slow=23,SNR=9.1						
ASAR	Alice Springs	17.88	168	P	Pn	07 06 40.7	-1.0
	0.2nm,0.3s,baz=348,slow=10,SNR=9.4						
ASAR				S	Sn	07 09 48.0	-14
	0.2nm,0.3s,baz=351,slow=27,SNR=4.6						
MKAR	Makanchi Array	67.46	327	P	P	07 13 29.3	+0.2
	0.2nm,0.6s,baz=125,slow=7.1,SNR=2.7						

IDC 01 07:24:01.5±2.7**, 3°.13S**×**100°.74E, h0**^{km}**, mb3.5**/6**, mb1 3.6**/6**, mb1mx3.5**/21**, mbtmp3.5**/6**, Error ellipse: s-maj=112.7km s-min=22.3km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	21.52	355	P	P	07 28 50.4	-2.0
	0.9nm,0.3s,baz=202,slow=9.6,SNR=4.8						
WRA	Warramunga Arr	36.79	120	P	P	07 31 10.0	-1.3
	0.4nm,1.0s,baz=305,slow=8.5,SNR=2.7						
ASAR	Alice Springs	37.99	125	P	P	07 31 22.2	+0.7
	0.4nm,1.0s,baz=304,slow=7.4,SNR=2.8						
SONM	Songino Array	50.99	5	P	P	07 33 06.2	+1.2
	1.1nm,0.7s,baz=188,slow=8.9,SNR=9.0						
MKAR	Makanchi Array	52.31	344	P	P	07 33 15.8	+1.0
	0.2nm,0.4s,baz=158,slow=8.9,SNR=7.2						
BVAR	Borovoye Array	61.49	340	P	P	07 34 19.1	-0.9
	0.4nm,0.6s,baz=132,slow=8.7,SNR=3.2						
TXAR	Lajitas Array	145.12	39	PKPbc	PKPbc	07 43 41.0	-0.2
	0.4nm,0.6s,baz=270,slow=0.9,SNR=7.6						

CRAAG ***01*** *07:33:37.8, 36°.84N×3°.49E, Ml5.2*

ISCJB ***01*** *07:33:38.9±0.1, 36°.92N±0°.01×3°.39E±0°.01, h10^{km}, mb4.5/60, MS4.1/15, Error ellipse: s-maj=2.1km s-min=1.7km az=171.7*

IDC ***01*** *07:33:38.8±0.5, 36°.79N×3°.38E, h0^{km}, mb4.3/21, mb1 4.4/28, mb1mx4.3/34, mbtmp4.3/28, ML3.8/6, MS3.9/15, Ms1 3.9/15, ms1mx3.6/39, Error ellipse: s-maj=12.7km s-min=10.7km az=126.0*

BJI ***01*** *07:33:38.8, 37°.19N×3°.26E, h10^{km}, mB5.2/12, mb4.6/16, Ms5.1/6, Ms7 4.6/7*

MOS ***01*** *07:33:39.6±0.9, 36°.99N×3°.49E, h10^{km}, mb4.6/28, Error ellipse: s-maj=6.6km s-min=3.0km az=86.2*

NEIC ***01*** *07:33:40.5±0.2, 36°.83N×3°.47E, h10^{km}, mb4.6/21, Error ellipse: s-maj=3.4km s-min=2.4km az=155.0*

NEIC Three people slightly injured at Boumerdas. Felt [III] at Algiers. Also felt at Bab Ezzouar and Birkhadem.

CSEM ***01*** *07:33:40.2±0.1, 36°.81N×3°.51E, h10^{km}, mb4.6/35, Error ellipse: s-maj=2.4km s-min=2.0km az=157.0*

SFS ***01*** *07:33:41.0, 36°.91N×3°.46E, h0^{km}, ML4.6*

LDG ***01*** *07:33:41.4±0.2, 36°.84N×3°.31E, h30^{km}, Ml4.3/13, Error ellipse: s-maj=5.3km s-min=3.8km az=155.0*

MDD ***01*** *07:33:41.4±0.6, 36°.82N×3°.53E, h12^{km}±6^{km}, mb5.0/35, Error ellipse: s-maj=4.5km s-min=3.4km az=168.0, PRIMO*

INMG ***01*** *07:33:42.3±1.9, 36°.89N×3°.42E, h10^{km}, ML3.4, Error ellipse: s-maj=6.7km s-min=4.5km az=124.0*

CNRM ***01*** *07:33:43.5, 36°.80N×3°.47E, h30^{km}, MD4.8*

STR ***01*** *07:33:53.8±0.6, 37°.79N×3°.72E, h10^{km}, Ml4.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 01 07:33:40.7±0.1**, 36°.86N**±0°.01×**3°.39E**±0°.01**, h10**^{km}**, (h16**^{km}±1.8^{km}**:pP-P), n596, σ1^{s}30**/743**, mb4.5**/60**, MS4.1**/15**, 7C-7D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABA	Alger-Bouzarea	0.29	259	P	Pg	07 33 48.7	+2.2
ABA	Alger-Bouzarea	0.29	259	P	Pg	07 33 48.7	+2.2
ADJB	Djebel Djouab	0.70	177	P	Pg	07 33 53.7	-0.5
ADJB	Djebel Djouab	0.70	177	P	Pg	07 33 53.7	-0.5
EMHD	Djebel Mahouad	0.75	208	P	Pg	07 33 55.2	+0.1
EMHD	Djebel Mahouad	0.75	208	P	Pg	07 33 55.2	+0.1
AKET	Djebel Ketaf	0.90	154	P	Pg	07 33 57.0	-1.0
AKET	Djebel Ketaf	0.90	154	P	Pg	07 33 57.0	-1.0
AKF	Akfadou	0.97	103	P	Pg	07 33 57.4	-1.9
AKF	Akfadou	0.97	103	P	Pg	07 33 57.4	-1.9
ATAF	Djebel Tarf	1.22	144	P	Px	07 33 53.8	
EBNR	Beni Rached	1.60	250	P	Pn	07 34 08.5	-0.5
EBNR	Beni Rached	1.60	250	P	Pn	07 34 08.5	-0.5
SET	Setif	1.75	112	P	Pn	07 34 09.0	-2.0
SET	Setif	1.75	112	P	Pn	07 34 09.0	-2.0
ECHA	Ech Chlef	1.78	247	P	Pn	07 34 11.0	-0.4
ECHA	Ech Chlef	1.78	247	P	Pn	07 34 11.0	-0.4
ECHF	Ech Chlef	1.80	248	P	Pn	07 34 11.0	-0.7
CKHR	Kef el Ahmar	1.91	116	P	Pn	07 34 19.0	+5.8
DFRA	Djebel Bou Aff	2.02	98	P	Pn	07 34 12.2	-2.6
DFRA	Djebel Bou Aff	2.02	98	P	Pn	07 34 12.2	-2.6
EANR	’Ain N’Sour	2.06	245	P	Pn	07 34 14.2	-1.1
EANR	’Ain N’Sour	2.06	245	P	Pn	07 34 14.2	-1.1
ETRT	Tiaret	2.24	230	P	Pn	07 34 18.2	+0.4
ETRT	Tiaret	2.24	230	P	Pn	07 34 18.2	+0.4
CTEI	Djebel Teioual	2.56	107	P	Pn	07 34 20.1	-2.0
CTEI	Djebel Teioual	2.56	107	P	Pn	07 34 20.1	-2.0
CASM	Ain Smara	2.56	103	P	Pn	07 34 20.0	-2.2
CASM	Ain Smara	2.56	103	P	Pn	07 34 20.0	-2.2
EIBI	Ibiza	2.70	324	⇑P	Pn	07 34 24.7	+0.5
	123nm,0.1s,SNR=18						
EIBI				S	Sn	07 34 55.6	-1.3
	210nm,0.2s,SNR=140						
EIBI	Ibiza	2.70	324	P	Pn	07 34 24.8	+0.7
EIBI				S	Sn	07 34 55.6	-1.3
EIBI	Ibiza	2.70	324	P	Pn	07 34 24.8	+0.7
EIBI				S	Sn	07 34 55.6	-1.3
	210nm,0.2s,SNR=140						
CKFL	Kef-Lekhel	2.72	99	P	Pn	07 34 22.0	-2.3
CKFL	Kef-Lekhel	2.72	99	P	Pn	07 34 22.0	-2.3
OJBR	Djebel Berber	2.77	244	P	Px	07 34 43.0	
CAEH	’Ain El Ouahch	2.77	91	P	Pn	07 34 22.3	-2.8
CAEH	’Ain El Ouahch	2.77	91	P	Pn	07 34 22.3	-2.8
ETOS	Mallorca	2.94	351	⇓P	Pn	07 34 27.4	0.0
	134nm,0.3s,SNR=18						
ETOS				S	Sn	07 35 01.0	-1.7
	60nm,0.2s						
ETOS	Mallorca	2.94	351	P	Pn	07 34 27.4	0.0
ETOS				S	Sn	07 34 59.5	-3.2
ETOS	Mallorca	2.94	351	P	Pn	07 34 27.4	0.0
	134nm,0.3s,SNR=18						
ETOS				S	Sn	07 34 59.5	-3.2
	60nm,0.2s						
MAHO	Mahon	3.11	12	⇑P	Pn	07 34 28.8	-0.9
MAHO				S	Sn	07 35 01.9	-5.0
MAHO	Mahon	3.11	12	iP	Pn	07 34 28.8	-0.9
ABSA	Djebel Ababsia	3.34	99	P	Pn	07 34 28.3	-4.6
CABS	Djebel Ababsia	3.34	99	P	Pn	07 34 28.3	-4.6
USTO	Oran	3.38	252	P	Pn	07 34 42.0	+8.6
EBEN	Beniarda	3.41	304	P	Pn	07 34 34.3	+0.5
	32nm,0.2s,SNR=65						
EBEN				S	Sn	07 35 14.0	-0.3
	40nm,0.2s						
EBEN	Beniarda	3.41	304	P	Pn	07 34 34.3	+0.5
	32nm,0.2s,SNR=65						
EBEN				S	Sn	07 35 13.9	-0.3
CART	Cartagena	3.58	283	⇑P	Pn	07 34 35.2	-1.0
CART				S	Sn	07 35 17.2	-1.4
CART	Cartagena	3.58	283	ePn	Pn	07 34 34.9	-1.3
CART				eSn	Sn	07 35 17.4	-1.1
CART	Cartagena	3.58	283	ePn	Pn	07 34 34.9	-1.3
CART	Cartagena	3.58	283	iP	Pn	07 34 35.2	-1.0
CART				eS	Sn	07 35 17.2	-1.4
CART				eSn	Sn	07 35 17.5	-1.1
EMUR	La Murta	3.82	286	P	Pn	07 34 40.3	+0.8
	44nm,0.3s,SNR=12						
EMUR				S	Sn	07 35 23.4	-1.1
	26nm,0.2s						
EMUR	La Murta	3.82	286	P	Pn	07 34 40.3	+0.8
	44nm,0.3s,SNR=12						
EMUR				S	Sn	07 35 23.4	-1.1
	26nm,0.2s						
ETOB	Tobarra	4.30	296	P	Pn	07 34 47.0	+0.9
	224nm,0.4s,SNR=155						
ETOB				S	Sn	07 35 34.6	-1.7
	36nm,0.2s,SNR=7.9						
ETOB	Tobarra	4.30	296	P	Pn	07 34 47.0	+0.9
	224nm,0.4s,SNR=155						
ETOB				S	Sn	07 35 34.6	-1.7
	36nm,0.2s,SNR=7.9						
ECHE	Chera	4.38	310	P	Pn	07 34 48.7	+1.4
	176nm,0.4s,SNR=211						
ECHE				S	Sn	07 35 37.1	-1.3
	13nm,0.2s						
ECHE	Chera	4.38	310	P	Pn	07 34 48.9	+1.6
ECHE				S	Sn	07 35 37.1	-1.3
ECHE	Chera	4.38	310	P	Pn	07 34 48.7	+1.4
	176nm,0.4s,SNR=211						
ECHE				S	Sn	07 35 37.1	-1.3
	13nm,0.2s						
ENIJ	Nijar	4.49	273	P	Pn	07 34 50.6	+1.9
	35nm,0.4s,SNR=4.0						
ENIJ				S	Sn	07 35 40.0	-1.0
	9.8nm,0.2s,SNR=7.9						
ENIJ	Nijar	4.49	273	P	Pn	07 34 50.6	+1.9
ENIJ				S	Sn	07 35 42.7	+1.8
ENIJ	Nijar	4.49	273	P	Pn	07 34 50.6	+1.9
	35nm,0.4s,SNR=4.0						
ENIJ				S	Sn	07 35 42.7	+1.8
EMOS	Mosqueruela	4.63	320	⇑P	Pn	07 34 51.6	+1.0
	47nm,0.1s,SNR=18						
EMOS				S	Sn	07 35 42.0	-2.3
	11nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	4.63	320	P	Pn	07 34 51.6	+1.0
	47nm,0.1s,SNR=18						
EMOS				S	Sn	07 35 42.0	-2.3
	11nm,0.2s,SNR=7.9						
ERTA	Horta de San J	4.74	331	P	Pn	07 34 52.6	+0.5
	9.9nm,0.2s,SNR=9.4						
ERTA				S	Sn	07 35 44.1	-3.0
	16nm,0.2s,SNR=7.9						
ERTA	Horta de San J	4.74	331	P	Pn	07 34 52.6	+0.5
	9.9nm,0.2s,SNR=9.4						
ERTA				S	Sn	07 35 44.1	-2.9
	16nm,0.2s,SNR=7.9						
EPOB	Poblet	4.83	339	P	Pn	07 34 53.4	-0.1
	67nm,0.3s,SNR=24						
EPOB				S	Sn	07 35 45.7	-3.8
	5.0nm,0.1s,SNR=7.9						
EPOB	Poblet	4.83	339	P	Pn	07 34 53.4	0.0
	67nm,0.3s,SNR=24						
EHUE	Huescar	4.86	283	P	Pn	07 34 55.4	+1.5
	18nm,0.4s,SNR=7.9						
EHUE				S	Sn	07 35 50.5	+0.3
	7.2nm,0.2s,SNR=7.9						
EHUE	Huescar	4.86	283	P	Pn	07 34 55.8	+1.9
EHUE				S	Sn	07 35 50.5	+0.3
EHUE	Huescar	4.86	283	P	Pn	07 34 55.4	+1.5
	18nm,0.4s,SNR=7.9						
EHUE				S	Sn	07 35 50.5	+0.3
	7.2nm,0.2s,SNR=7.9						
KEST	Kesra	4.94	101	Pn	Pn	07 34 53.6	-1.3
	9.9nm,0.3s,baz=259,slow=3.7,SNR=192						
KEST				Sn	Sn	07 35 49.9	-2.2
	19nm,0.3s,baz=202,slow=22,SNR=8.2						
EVIA	Vianos	5.00	293	P	Pn	07 34 56.7	+1.0
	65nm,0.4s,SNR=54						
EVIA				S	Sn	07 35 52.9	-0.6
	15nm,0.2s,SNR=7.9						
EVIA	Vianos	5.00	293	P	Pn	07 34 56.7	+1.0
EVIA				S	Sn	07 35 51.5	-2.0
EVIA	Vianos	5.00	293	P	Pn	07 34 56.7	+1.0
	65nm,0.4s,SNR=54						
EVIA				S	Sn	07 35 51.5	-2.0
EBER	Berja	5.04	272	P	Pn	07 34 57.3	+1.1
	27nm,0.2s,SNR=7.9						
EBER				S	Sn	07 35 54.0	-0.5
	10.0nm,0.2s,SNR=7.9						
EBER	Berja	5.04	272	P	Pn	07 34 57.6	+1.3
EBER				S	Sn	07 35 54.0	-0.5
EBER	Berja	5.04	272	P	Pn	07 34 57.6	+1.4
EBER				S	Sn	07 35 54.0	-0.5
	10.0nm,0.2s,SNR=7.9						
EQES	Quesada	5.24	282	P	Pn	07 35 01.4	+2.4
	132nm,0.4s,SNR=7.9						
EQES				S	Sn	07 35 59.2	-0.2
	8.9nm,0.2s,SNR=7.9						
EQES	Quesada	5.24	282	P	Pn	07 35 01.9	+2.9
EQES				S	Sn	07 35 59.2	-0.2
EQES	Quesada	5.24	282	P	Pn	07 35 01.4	+2.4
	132nm,0.4s,SNR=7.9						
EQES				S	Sn	07 35 59.2	-0.2
	8.9nm,0.2s,SNR=7.9						
EMIR	Miracle	5.25	345	P	Pn	07 34 59.9	+0.8
	7.3nm,0.1s,SNR=4.0						
EMIR				S	Sn	07 35 57.3	-2.4
	37nm,0.2s,SNR=7.9						
EMIR	Miracle	5.25	345	P	Pn	07 34 59.9	+0.8
EMIR				S	Sn	07 35 57.9	-1.9
EMIR	Miracle	5.25	345	P	Pn	07 34 59.9	+0.7
	7.3nm,0.1s,SNR=4.0						
EMIR				S	Sn	07 35 57.3	-2.4
	37nm,0.2s,SNR=7.9						
EALB	Alboran	5.26	262	P	Pn	07 34 58.4	-1.0
	30nm,0.5s,SNR=7.9						
EALB				S	Sn	07 35 58.7	-1.4
	8.7nm,0.2s,SNR=7.9						
EALB	Alboran	5.26	262	P	Pn	07 34 58.4	-1.0
	30nm,0.5s,SNR=7.9						
EALB				S	Sn	07 35 58.7	-1.4
	8.7nm,0.2s,SNR=7.9						
ZAI	Zaio	5.33	251	P	Pn	07 35 02.0	+1.8
ZAI				S	Sn	07 35 57.0	-4.6
ZAI	Zaio	5.33	251	iP	Pn	07 35 02.0	+1.8
MELI	Melilla	5.36	255	P	Pn	07 34 59.3	-1.3
MELI	Melilla	5.36	255	P	Pn	07 34 59.3	-1.3
VSL	Villasalto	5.40	59	ePn	Pn	07 34 59.0	-2.3
VSL	Villasalto	5.40	59	ePn	Pn	07 34 59.0	-2.2
EQUE	Quentar	5.48	276	P	Pn	07 35 02.8	+0.5
	30nm,0.4s,SNR=7.9						
EQUE				S	Sn	07 36 07.0	+1.7
	1.6nm,0.1s,SNR=7.9						
EQUE	Quentar	5.48	276	P	Pn	07 35 02.8	+0.5
	30nm,0.4s,SNR=7.9						
EQUE				S	Sn	07 36 08.9	+3.6
	1.6nm,0.1s,SNR=7.9						
ECOG	Cogollos-Vega	5.58	276	P	Pn	07 35 04.9	+1.2
	40nm,0.4s,SNR=7.9						
ECOG				S	Sn	07 36 11.6	+3.7
	132nm,0.8s,SNR=7.9						
ECOG	Cogollos-Vega	5.58	276	P	Pn	07 35 04.9	+1.2
	40nm,0.4s,SNR=7.9						
ECOG				S	Sn	07 36 11.6	+3.7
	132nm,0.8s,SNR=7.9						
EGUA	Guajares	5.58	272	P	Pn	07 35 03.7	0.0
	103nm,0.6s,SNR=7.9						
EGUA				S	Sn	07 36 07.5	-0.4
	366nm,0.9s,SNR=7.9						
EGUA	Guajares	5.58	272	P	Pn	07 35 03.7	0.0
	103nm,0.6s,SNR=7.9						
EJON	La Jonquera	5.59	356	P	Pn	07 35 04.7	+0.8
	78nm,0.3s,SNR=7.9						
EJON				S	Sn	07 36 02.8	-5.4
	5.6nm,0.2s,SNR=7.9						
EJON	La Jonquera	5.59	356	P	Pn	07 35 04.7	+0.8
EJON				S	Sn	07 36 05.7	-2.5
EJON	La Jonquera	5.59	356	P	Pn	07 35 04.7	+0.8
	78nm,0.3s,SNR=7.9						
SJAF	Saint Jean de	5.63	356	P	Pn	07 35 04.7	+0.3
SJAF	Saint Jean de	5.63	356	P	Pn	07 35 04.7	+0.3
VALF	Valcebollere	5.64	350	P	Pn	07 35 05.5	+1.1
VALF	Valcebollere	5.64	350	P	Pn	07 35 05.5	+1.1
ESAC	San Caprasio	5.70	330	P	Pn	07 35 06.8	+1.4
	79nm,0.2s,SNR=7.9						
ESAC				S	Sn	07 36 09.5	-1.4
	75nm,0.2s,SNR=7.9						
ESAC	San Caprasio	5.70	330	P	Pn	07 35 06.8	+1.4
	79nm,0.2s,SNR=7.9						
FILF	Fillols	5.73	354	P	Pn	07 35 06.4	+0.7
FILF	Fillols	5.73	354	P	Pn	07 35 06.4	+0.7
ERON	Agron	5.77	274	P	Pn	07 35 07.7	+1.4
	28nm,0.8s,SNR=7.9						
ERON				S	Sn	07 36 16.3	+3.8
	28nm,0.6s,SNR=7.9						
ERON	Agron	5.77	274	P	Pn	07 35 07.7	+1.4
	28nm,0.8s,SNR=7.9						
ERON				S	Sn	07 36 16.3	+3.8
	28nm,0.6s,SNR=7.9						
ETOR	Torete	5.81	315	P	Pn	07 35 09.2	+2.4
	160nm,0.4s,SNR=7.9						
ETOR				S	Sn	07 36 12.4	-0.9
	6.9nm,0.2s,SNR=7.9						
ETOR	Torete	5.81	315	P	Pn	07 35 09.2	+2.4
	160nm,0.4s,SNR=7.9						
EBAN	Banos Encina	5.85	285	P	Pn	07 35 08.6	+1.2
	9.2nm,0.3s,SNR=9.4						
EBAN				S	Sn	07 36 13.0	-1.5
	3.1nm,0.2s,SNR=7.9						
EBAN	Banos Encina	5.85	285	P	Pn	07 35 09.6	+2.1
EBAN				S	Sn	07 36 13.0	-1.6
EBAN	Banos Encina	5.85	285	P	Pn	07 35 08.6	+1.2
	9.2nm,0.3s,SNR=9.4						
CARF	Carcanieres	5.93	351	P	Pn	07 35 09.6	+1.1
CARF	Carcanieres	5.93	351	P	Pn	07 35 09.6	+1.1
ELOJ	Sierra Loja	6.04	275	P	Pn	07 35 11.8	+1.7
	36nm,0.7s,SNR=7.9						
ELOJ				S	Sn	07 36 24.2	+4.9
	SNR=7.9						
ELOJ	Sierra Loja	6.04	275	P	Pn	07 35 11.8	+1.7
	36nm,0.7s,SNR=7.9						
ELOJ				S	Sn	07 36 24.2	+4.9
	SNR=7.9						
TOU	Touzarine	6.10	254	P	Pn	07 35 11.0	+0.1
TOU				S	Sn	07 36 16.0	-4.7
TOU	Touzarine	6.10	254	eP	Pn	07 35 11.0	+0.1
LRDF	Laroque-de-Fa	6.11	354	P	Pn	07 35 11.6	+0.7
LRDF	Laroque-de-Fa	6.11	354	P	Pn	07 35 11.6	+0.7
SALF	Salau	6.13	345	P	Pn	07 35 12.8	+1.5
SALF	Salau	6.13	345	P	Pn	07 35 12.8	+1.5
ELUQ	Luque	6.15	279	P	Pn	07 35 13.2	+1.6
	6.2nm,0.2s,SNR=7.9						
ELUQ	Luque	6.15	279	P	Pn	07 35 13.2	+1.6
	6.2nm,0.2s,SNR=7.9						
EMAL	Malaga-Limoner	6.28	271	P	Pn	07 35 11.8	-1.5
EBIE	Bielsa	6.33	338	P	Pn	07 35 14.9	+0.9
	21nm,0.4s,SNR=7.9						

EBIE				S	Sn	07 36 23.2	-3.2
	5.7nm,0.3s,SNR=7.9						
EBIE	Bielsa	6.33	338	P	Pn	07 35 14.9	+0.9
	21nm,0.4s,SNR=7.9						
MLS	Moulis	6.34	345	P	Pn	07 35 16.0	+1.9
MLS	Moulis	6.34	345	P	Pn	07 35 16.0	+1.9
RESF	Ens	6.39	339	P	Pn	07 35 15.9	+1.1
RESF	Ens	6.39	339	P	Pn	07 35 15.9	+1.1
ESDC	Sonseca Array	6.43	298	P	Pn	07 35 16.1	+0.7
	20nm,0.1s,baz=112,slow=13,SNR=52						
ESDC				S	Sn	07 36 25.2	-3.6
	baz=115,slow=24,SNR=7.9						
ESDC	Sonseca Array	6.43	298	Pn	Pn	07 35 16.1	+0.7
	30nm,0.3s,baz=111,slow=13,SNR=103						
ESDC				Sn	Sn	07 36 28.5	-0.3
	8.9nm,0.3s,baz=110,slow=25,SNR=4.6						
ESDC	Sonseca Array	6.43	298	P	Pn	07 35 16.1	+0.7
ESDC				S	Sn	07 36 28.5	-0.4
ESDC	Sonseca Array	6.43	298	P	Pn	07 35 16.1	+0.7
	20nm,0.1s,baz=112,slow=13,SNR=52						
ESLA	Sonseca Array	6.43	298	*e*Pn	Pn	07 35 16.2	+0.8
ESLA	Sonseca Array	6.43	298	*e*Pn	Pn	07 35 16.2	+0.8
EADA	Adamuz	6.47	284	P	Pn	07 35 15.8	0.0
	3.9nm,0.4s,SNR=7.9						
EADA				S	Sn	07 36 28.6	-1.2
	2.7nm,0.2s,SNR=7.9						
EADA	Adamuz	6.47	284	P	Pn	07 35 15.8	-0.1
	3.9nm,0.4s,SNR=7.9						
MTLF	Montolieu	6.54	352	*e*P	Pn	07 35 17.7	+0.9
	SNR=1.0						
MTLF				*e*Sn	Sn	07 36 23.8	-7.6
	23nm,0.4s,SNR=1.0						
MTLF	Montolieu	6.54	352	P	Pn	07 35 17.7	+0.9
MTLF				S	Sn	07 36 23.8	-7.6
	12nm,0.4s						
MTLF	Montolieu	6.54	352	*e*P	Pn	07 35 17.7	+0.9
	SNR=1.0						
EMIJ	Mijas	6.57	270	P	Pn	07 35 17.0	-0.2
	9.3nm,0.4s,SNR=7.9						
EMIJ				S	Sn	07 36 28.9	-3.2
	2.4nm,0.2s,SNR=7.9						
EMIJ	Mijas	6.57	270	P	Pn	07 35 17.4	+0.2
EMIJ				S	Sn	07 36 28.9	-3.2
EMIJ	Mijas	6.57	270	P	Pn	07 35 17.4	+0.2
OSPF	L'Ospedale	6.58	41	P	Pn	07 35 15.3	-2.0
OSPF	L'Ospedale	6.58	41	P	Pn	07 35 15.3	-2.0
EPF	Esparros	6.59	340	*e*P	Pn	07 35 19.1	+1.5
	SNR=1.0						
EPF				*e*Sn	Sn	07 36 23.5	-9.3
	71nm,0.5s						
EPF	Esparros	6.59	340	P	Pn	07 35 19.1	+1.5
EPF				S	Sn	07 36 23.5	-9.3
	36nm,0.5s						
EPF	Esparros	6.59	340	*e*P	Pn	07 35 19.1	+1.5
	SNR=1.0						
PAB	San Pablo	6.66	296	*e*P	Pn	07 35 18.8	+0.3
PAB				pmax	pmax		
	comp=Z,36nm,0.6s						
PAB	San Pablo	6.66	296	*e*Pn	Pn	07 35 18.8	+0.3
	comp=Z,36nm,0.6s						
PAB	San Pablo	6.66	296	*e*P	Pn	07 35 18.8	+0.3
	comp=Z,36nm,0.6s						
BERF	Bertagne	6.68	15	P	Pn	07 35 18.5	-0.3
BERF				S	Sn	07 36 29.5	-5.5
BERF	Bertagne	6.68	15	P	Pn	07 35 18.5	-0.3
LABF	Labassere	6.69	339	P	Pn	07 35 20.7	+1.9
LABF	Labassere	6.69	339	P	Pn	07 35 20.7	+1.9
GELF	Grande-Etoile	6.70	13	P	Pn	07 35 18.8	-0.3
GELF	Grande-Etoile	6.70	13	P	Pn	07 35 18.8	-0.3
ETSF	Etsaut	6.75	334	*e*P	Pn	07 35 21.0	+1.2
	SNR=1.0						
ETSF				*e*Sn	Sn	07 36 27.5	-9.2
	comp=Z,19nm,0.3s						
ETSF	Etsaut	6.75	334	P	Pn	07 35 21.0	+1.2
ETSF				S	Sn	07 36 27.5	-9.2
	comp=Z,9.6nm,0.3s						
ETSF	Etsaut	6.75	334	*e*P	Pn	07 35 21.0	+1.2
	SNR=1.0						
TZK	Tazeka	6.77	248	P	Pn	07 35 21.0	+0.9
TZK				S	Sn	07 36 35.0	-2.2
TZK	Tazeka	6.77	248	*i* P	Pn	07 35 21.0	+0.9
LMR	La Mourre	6.89	19	*e*Pn	Pn	07 35 20.3	-1.4
	SNR=1.0						
LMR				*e*Sn	Sn	07 36 32.6	-7.6
	comp=Z,34nm,0.3s						
LMR	La Mourre	6.89	19	P	Pn	07 35 20.3	-1.4
LMR				S	Sn	07 36 32.6	-7.6
	comp=Z,17nm,0.3s						
LMR	La Mourre	6.89	19	*e*Pn	Pn	07 35 20.3	-1.4
	SNR=1.0						
TREF	Trevaresse	6.93	12	P	Pn	07 35 21.6	-0.6
TREF	Trevaresse	6.93	12	P	Pn	07 35 21.6	-0.6
IPRE	Itoiz	6.97	330	P	Pn	07 35 23.5	+0.7
	comp=Z,6.6nm,0.3s,SNR=7.9						
IPRE				S	Sn	07 36 39.0	-3.1
	comp=Z,2.6nm,0.3s,SNR=7.9						
IPRE	Itoiz	6.97	330	P	Pn	07 35 23.5	+0.7
	comp=Z,6.6nm,0.3s,SNR=7.9						
IUNC	Unciti	6.99	329	P	Pn	07 35 24.1	+1.1
	comp=Z,11nm,0.3s,SNR=7.9						
IUNC				S	Sn	07 36 39.3	-3.2
	comp=Z,4.3nm,0.2s,SNR=7.9						
IUNC	Unciti	6.99	329	P	Pn	07 35 24.1	+1.1
	comp=Z,11nm,0.3s,SNR=7.9						
GUD	Guadarrama	7.00	305	P	Pn	07 35 25.3	+2.1
	comp=Z,32nm,0.6s,SNR=7.9						
GUD				S	Sn	07 36 40.3	-2.6
	comp=Z,1.6nm,0.2s,SNR=7.9						
GUD	Guadarrama	7.00	305	P	Pn	07 35 25.6	+2.4
GUD				S	Sn	07 36 41.9	-1.0
GUD	Guadarrama	7.00	305	P	Pn	07 35 25.3	+2.1
	comp=Z,32nm,0.6s,SNR=7.9						
EORO	Oroz-Betelu	7.03	330	P	Pn	07 35 24.7	+1.1
	comp=Z,6.2nm,0.3s,SNR=7.9						
EORO				S	Sn	07 36 40.6	-2.8
	comp=Z,2.9nm,0.3s,SNR=7.9						
EORO	Oroz-Betelu	7.03	330	P	Pn	07 35 24.7	+1.2
	comp=Z,6.2nm,0.3s,SNR=7.9						
TAVF	Tavernes	7.05	16	P	Pn	07 35 23.7	-0.2
TAVF				S	Sn	07 36 39.7	-4.3
TAVF	Tavernes	7.05	16	P	Pn	07 35 23.7	-0.2
IZUN	Zunzarren	7.06	330	P	Pn	07 35 24.8	+0.8
	comp=Z,9.1nm,0.4s,SNR=7.9						
IZUN				S	Sn	07 36 42.0	-2.2
	comp=Z,2.2nm,0.3s,SNR=7.9						
IZUN	Zunzarren	7.06	330	P	Pn	07 35 24.8	+0.8
	comp=Z,9.1nm,0.4s,SNR=7.9						
PRAF	Pradon	7.07	11	P	Pn	07 35 25.2	+1.1
PRAF	Pradon	7.07	11	P	Pn	07 35 25.2	+1.1
ECAB	El Cabril	7.11	282	P	Pn	07 35 24.6	-0.2
	comp=Z,12nm,0.3s,SNR=16						
ECAB				S	Sn	07 36 43.6	-2.0
	comp=Z,3.4nm,0.2s,SNR=7.9						
ECAB	El Cabril	7.11	282	P	Pn	07 35 25.0	+0.3
ECAB				S	Sn	07 36 43.6	-2.0
ECAB	El Cabril	7.11	282	P	Pn	07 35 25.0	+0.3
PGF	Pioggiola	7.14	36	*e*Pn	Pn	07 35 23.3	-1.8
	SNR=1.0						
PGF				*e*Sn	Sn	07 36 37.4	-8.8
	comp=Z,78nm,0.4s,SNR=1.0						
PGF	Pioggiola	7.14	36	P	Pn	07 35 23.3	-1.8
PGF				S	Sn	07 36 37.4	-8.8
	comp=Z,39nm,0.4s						
PGF	Pioggiola	7.14	36	*e*Pn	Pn	07 35 23.3	-1.8
	SNR=1.0						
FRF	La Foret Royal	7.14	19	*e*Pn	Pn	07 35 23.6	-1.5
	SNR=1.0						
FRF				*e*Sn	Sn	07 36 38.7	-7.5
	comp=Z,69nm,0.4s,SNR=1.0						
FRF	La Foret Royal	7.14	19	P	Pn	07 35 23.6	-1.5
FRF				S	Sn	07 36 38.7	-7.5
	comp=Z,0.0nm,0.4s						
FRF	La Foret Royal	7.14	19	*e*Pn	Pn	07 35 23.6	-1.5
	SNR=1.0						
IUSE	Utxeti	7.17	330	P	Pn	07 35 25.6	+0.1
	comp=Z,6.7nm,0.4s,SNR=7.9						
IUSE				S	Sn	07 36 43.5	-3.4
	comp=Z,1.8nm,0.2s,SNR=7.9						
IUSE	Utxeti	7.17	330	P	Pn	07 35 25.6	+0.1
	comp=Z,6.7nm,0.4s,SNR=7.9						
SJPF	Ste Jean	7.18	332	*e*P	Pn	07 35 27.1	+1.5
	SNR=1.0						
SJPF				*e*Sn	Sn	07 36 37.2	-10
	comp=Z,21nm,0.3s,SNR=1.0						
SJPF	Ste Jean	7.18	332	P	Pn	07 35 27.1	+1.5
SJPF				S	Sn	07 36 37.2	-10
	comp=Z,11nm,0.3s						
SJPF	Ste Jean	7.18	332	*e*P	Pn	07 35 27.1	+1.5
	SNR=1.0						
LASF	Ste Croix	7.22	3	*e*Pn	Pn	07 35 26.8	+0.7
	SNR=1.0						
LASF				*e*Sn	Sn	07 36 39.6	-8.5
	comp=Z,58nm,0.4s,SNR=1.0						
LASF	Ste Croix	7.22	3	P	Pn	07 35 26.8	+0.7
LASF				S	Sn	07 36 39.6	-8.5
	comp=Z,29nm,0.4s						
LASF	Ste Croix	7.22	3	*e*Pn	Pn	07 35 26.8	+0.7
	SNR=1.0						
SMRF	Simiane la Rot	7.30	12	*e*Pn	Pn	07 35 27.3	0.0
	SNR=1.0						
SMRF				*e*Sn	Sn	07 36 42.9	-7.3
	comp=Z,33nm,0.6s						
SMRF	Simiane la Rot	7.30	12	P	Pn	07 35 27.3	0.0
SMRF				S	Sn	07 36 42.9	-7.3
	comp=Z,33nm,0.6s						
SMRF	Simiane la Rot	7.30	12	*e*Pn	Pn	07 35 27.3	0.0
	SNR=1.0						
ECRI	Cripan	7.32	323	P	Pn	07 35 29.0	+1.4
	comp=Z,13nm,0.2s,SNR=7.9						
ECRI				S	Sn	07 36 46.6	-4.1
	comp=Z,2.1nm,0.2s,SNR=7.9						
ECRI	Cripan	7.32	323	P	Pn	07 35 29.0	+1.4
	comp=Z,13nm,0.2s,SNR=7.9						
ELIZ	Elizondo	7.34	331	P	Pn	07 35 29.2	+1.4
	comp=Z,14nm,0.3s,SNR=7.9						
ELIZ				S	Sn	07 36 46.7	-4.5
	comp=Z,2.1nm,0.2s,SNR=7.9						
ELIZ	Elizondo	7.34	331	P	Pn	07 35 29.2	+1.4
	comp=Z,14nm,0.3s,SNR=7.9						
EALK	Alkurruntz	7.38	331	P	Pn	07 35 30.3	+1.9
	comp=Z,2.1nm,0.1s,SNR=7.9						
EALK				S	Sn	07 36 49.6	-2.5
	comp=Z,7.9nm,0.2s,SNR=7.9						
EALK	Alkurruntz	7.38	331	P	Pn	07 35 29.8	+1.5
EALK				S	Sn	07 36 49.6	-2.5
EALK	Alkurruntz	7.38	331	P	Pn	07 35 29.8	+1.4
CALN	Calern	7.38	20	P	Pn	07 35 27.9	-0.5
CALN	Calern	7.38	20	P	Pn	07 35 27.9	-0.5
STOF	St-Etienne Org	7.38	14	P	Pn	07 35 29.2	+0.8
STOF	St-Etienne Org	7.38	14	P	Pn	07 35 29.2	+0.8
MVIF	Mont Vial	7.59	21	P	Pn	07 35 30.8	-0.5
MVIF				S	Sn	07 36 51.6	-5.7
MVIF	Mont Vial	7.59	21	P	Pn	07 35 30.8	-0.5
LUCF	Luceram	7.64	22	P	Pn	07 35 31.7	-0.3
LUCF				S	Sn	07 36 53.5	-5.1
LUCF	Luceram	7.64	22	P	Pn	07 35 31.7	-0.3
SBF	Sospel	7.64	23	*e*Pn	Pn	07 35 30.3	-1.7
	SNR=1.0						
SBF				*e*Sn	Sn	07 36 49.2	-9.4
	comp=Z,75nm,0.4s,SNR=1.0						
SBF	Sospel	7.64	23	P	Pn	07 35 30.3	-1.7
SBF				S	Sn	07 36 49.2	-9.4
	comp=Z,37nm,0.4s						
SBF	Sospel	7.64	23	*e*Pn	Pn	07 35 30.3	-1.7
	SNR=1.0						
MDT	Midelt	7.72	241	Pn	Pn	07 35 34.1	+1.1
	comp=Z,1.3nm,0.3s,baz=71,slow=16,SNR=117						
MDT				Lg		07 37 44.8	
	comp=Z,2.5nm,0.3s,baz=37,slow=20,SNR=2.3						
MDT				LR	LR	07 38 52.7	
	comp=Z,1µm,19.9s,baz=50,slow=41						
MDT	Midelt	7.72	241	Pn	Pn	07 35 34.1	+1.0
TOUF	Mont Tournerai	7.73	21	P	Pn	07 35 32.2	-0.9
TOUF				S	Sn	07 36 54.5	-6.1
TOUF	Mont Tournerai	7.73	21	P	Pn	07 35 32.2	-0.9
IFR	Ifrane	7.73	247	P	Pn	07 35 33.3	+0.1
IFR	Ifrane	7.73	247	P	Pn	07 35 33.3	+0.1
RSA	Sarsar	7.74	258	P	Pn	07 35 35.0	+1.6
RSA				S	Sn	07 36 56.0	-5.1
RSA	Sarsar	7.74	258	*e*P	Pn	07 35 35.0	+1.6
AUTN	L'Aution	7.76	22	P	Pn	07 35 32.6	-1.0
AUTN				S	Sn	07 36 55.2	-6.3
AUTN	L'Aution	7.76	22	P	Pn	07 35 32.6	-1.0
SAOF	Saorge	7.79	23	P	Pn	07 35 32.8	-1.3
SAOF	Saorge	7.79	23	P	Pn	07 35 32.8	-1.3
OCF	Saint Nazaire	7.84	10	P	Pn	07 35 35.4	+0.6
OCF	Saint Nazaire	7.84	10	P	Pn	07 35 35.4	+0.6
OG26	St.-Nazaire-De	7.84	10	P	Pn	07 35 35.4	+0.6
OG26	St.-Nazaire-De	7.84	10	P	Pn	07 35 35.4	+0.6
ALAS	Alassa	7.86	118	*i* P	Pn	07 35 32.7	-2.3
	SNR=43						
MIF	Mishlifen	7.86	247	P	Pn	07 35 36.0	+1.0
MIF				S	Sn	07 37 01.0	-2.9
MIF	Mishlifen	7.86	247	*e*P	Pn	07 35 36.0	+1.0
CZD	Col de Zad	7.91	244	P	Pn	07 35 37.0	+1.3
CZD				S	Sn	07 37 02.0	-3.2
CZD	Col de Zad	7.91	244	*e*P	Pn	07 35 37.0	+1.3
ZFT	Errachidia	8.00	235	P	Pn	07 35 37.0	0.0
ZFT				S	Sn	07 37 02.0	-5.6
ZFT	Errachidia	8.00	235	*i* P	Pn	07 35 37.0	0.0
VIVF	Saint-Julien-l	8.05	7	*e*Pn	Pn	07 35 38.3	+0.8
	SNR=1.0						
VIVF				*e*Sn	Sn	07 37 00.0	-8.5
	comp=Z,16nm,0.3s,SNR=1.0						
VIVF	Saint-Julien-l	8.05	7	P	Pn	07 35 38.3	+0.8
VIVF				S	Sn	07 37 00.0	-8.5
	comp=Z,8.1nm,0.3s						
VIVF	Saint-Julien-l	8.05	7	*e*Pn	Pn	07 35 38.3	+0.8
	SNR=1.0						
EMIN	Mina Concepcio	8.07	279	P	Pn	07 35 38.2	+0.3
	comp=Z,13nm,0.5s,SNR=7.9						
EMIN				S	Sn	07 37 05.5	-3.7
	comp=Z,0.6nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	8.07	279	P	Pn	07 35 38.2	+0.3
EMIN				S	Sn	07 37 07.1	-2.1
EMIN	Mina Concepcio	8.07	279	P	Pn	07 35 38.2	+0.3
	comp=Z,13nm,0.5s,SNR=7.9						
CAF	Calviac	8.12	353	*e*Pn	Pn	07 35 39.2	+0.7
	SNR=1.0						
CAF	Calviac	8.12	353	*e*Pn	Pn	07 35 39.2	+0.7
	SNR=1.0						
ELAN	Lanestosa	8.24	323	P	Pn	07 35 42.1	+1.9
	comp=Z,26nm,0.6s,SNR=7.9						
ELAN				S	Sn	07 37 10.1	-3.1
	comp=Z,1.4nm,0.2s,SNR=7.9						
ELAN	Lanestosa	8.24	323	P	Pn	07 35 40.6	+0.4
ELAN				S	Sn	07 37 10.1	-3.1
ELAN	Lanestosa	8.24	323	P	Pn	07 35 40.6	+0.4
MBDF	Montbardon	8.27	17	*e*Pn	Pn	07 35 39.8	-0.7
	SNR=1.0						
MBDF				*e*Sn	Sn	07 37 06.3	-7.6
	comp=Z,30nm,0.6s						
MBDF	Montbardon	8.27	17	P	Pn	07 35 39.8	-0.7
MBDF				S	Sn	07 37 06.3	-7.6
	comp=Z,15nm,0.6s						
MBDF	Montbardon	8.27	17	*e*Pn	Pn	07 35 39.8	-0.7
	SNR=1.0						
ORIF	Oris-en-Rattie	8.27	12	*e*Pn	Pn	07 35 40.3	-0.3
	SNR=1.0						
ORIF	Oris-en-Rattie	8.27	12	*e*Pn	Pn	07 35 40.3	-0.3
	SNR=1.0						
LFF	La Frestale	8.32	347	*e*Pn	Pn	07 35 39.5	-1.7
	SNR=1.0						
LFF	La Frestale	8.32	347	*e*Pn	Pn	07 35 39.5	-1.7
	SNR=1.0						
LBL	Lubilhac	8.37	359	P	Pn	07 35 42.9	+1.0
LBL	Lubilhac	8.37	359	P	Pn	07 35 42.9	+1.0
EBAD	Badajoz	8.45	286	P	Pn	07 35 43.6	+0.5
	comp=Z,1.9nm,0.3s,SNR=7.9						
EBAD				S	Sn	07 37 15.2	-3.4
	comp=Z,1.5nm,0.2s,SNR=7.9						
EBAD	Badajoz	8.45	286	P	Pn	07 35 42.8	-0.3
EBAD				S	Sn	07 37 16.6	-1.9
EBAD	Badajoz	8.45	286	P	Pn	07 35 43.6	+0.5
	comp=Z,1.9nm,0.3s,SNR=7.9						
SSB	Saint Sauveur	8.46	6	*e*P	Pn	07 35 43.6	+0.5
SSB				*e*		07 37 14.6	
SSB				pmax	pmax		
	comp=Z,20nm,0.6s						
SSB	Saint Sauveur	8.46	6	*e*Pn	Pn	07 35 43.6	+0.4
	comp=Z,20nm,0.6s						
SSB				*e*Sn	Sn	07 37 14.6	-4.0
SSB	Saint Sauveur	8.46	6	*e*P	Pn	07 35 43.6	+0.5
	comp=Z,20nm,0.6s						
LGHD	Ghdames	8.49	142	*i* P	Pn	07 35 42.2	-1.5
	SNR=43						
BNI	Bardonecchia	8.55	16	*e*P	Pn	07 35 45.8	+1.3
BNI	Bardonecchia	8.55	16	*e*P	Pn	07 35 45.8	+1.3
RJF	Les Rejaudoux	8.55	351	*e*Pn	Pn	07 35 43.5	-1.0
RJF	Les Rejaudoux	8.55	351	*e*Pn	Pn	07 35 43.5	-1.0
COLF	Collangettes	8.65	1	P	Pn	07 35 46.3	+0.5
COLF	Collangettes	8.65	1	P	Pn	07 35 46.3	+0.5
EGRO	El Granado	8.71	278	P	Pn	07 35 46.0	-0.6
	comp=Z,5.2nm,0.4s,SNR=7.9						
EGRO				S	Sn	07 37 20.2	-4.6
	comp=Z,0.9nm,0.2s,SNR=7.9						
EGRO	El Granado	8.71	278	P	Pn	07 35 47.0	+0.4
EGRO				S	Sn	07 37 20.2	-4.6
EGRO	El Granado	8.71	278	P	Pn	07 35 47.0	+0.4
VAE	Valguarnera	8.82	83	LR	LR	07 39 47.5	
	comp=Z,974nm,18.5s,baz=61,slow=42						
KIB	El Ksiba	8.86	244	P	Pn	07 35 50.0	+1.3
KIB				S	Sn	07 37 22.0	-6.6
KIB	El Ksiba	8.86	244	*i* P	Pn	07 35 50.0	+1.3
PMRV	Marv??o	8.88	290	*e*Pn	Pn	07 35 52.4	+3.5
PMRV				*e*Sn	Sn	07 37 27.4	-1.5
PMRV				A		07 38 06.5	
	comp=Z,11nm,0.6s						
PMRV	Marv??o	8.88	290	*e*P	Pn	07 35 52.2	+3.3
PMRV	Marv??o	8.88	290	*e*P	Pn	07 35 52.2	+3.3
PYM	Petit Puy Mans	8.89	358	P	Pn	07 35 50.7	+1.6
PYM	Petit Puy Mans	8.89	358	P	Pn	07 35 50.7	+1.6
PVAQ	Vaqueiros	8.89	277	*e*Pn	Pn	07 35 48.6	-0.5
PVAQ				*e*Sn	Sn	07 37 25.5	-3.8
PVAQ				A		07 37 30.0	
	comp=Z,6.9nm,0.9s						
PVAQ	Vaqueiros	8.89	277	P	Pn	07 35 48.6	-0.5
PVAQ				S	Sn	07 37 25.5	-3.8
	comp=Z,6.9nm,0.9s						
PESTR	Estremoz	8.91	286	*e*Pn	Pn	07 35 50.0	+0.5
PESTR				*e*Sn	Sn	07 37 24.7	-5.2
PESTR				A		07 38 08.8	
	comp=Z,12nm,0.7s						
PESTR	Estremoz	8.91	286	P	Pn	07 35 50.0	+0.5
PESTR				S	Sn	07 37 24.7	-5.2
	comp=Z,12nm,0.7s						
LPG	La Plagne	8.99	15	*e*P	Pn	07 35 51.8	+1.3
	SNR=1.0						
LPG	La Plagne	8.99	15	*e*P	Pn	07 35 51.8	+1.3
	SNR=1.0						
LPL	La Plagne	9.01	15	*e*P	Pn	07 35 51.8	+1.1
	SNR=1.0						
LPL				*e*Sn	Sn	07 37 23.9	-8.2
	comp=Z,20nm,0.5s						
LPL	La Plagne	9.01	15	P	Pn	07 35 51.8	+1.1
LPL				S	Sn	07 37 23.9	-8.2
	comp=Z,9.8nm,0.5s						
LPL	La Plagne	9.01	15	*e*P	Pn	07 35 51.8	+1.1
	SNR=1.0						
PBEJ	Beja	9.03	281	*e*Pn	Pn	07 35 51.1	0.0
PBEJ				*e*Sn	Sn	07 37 29.4	-3.4
PBEJ	Beja	9.03	281	*e*P	Pn	07 35 51.1	0.0
PCBR	Castelo Branco	9.04	293	*e*Pn	Pn	07 35 53.1	+1.9
PCBR				*e*Sn	Sn	07 37 28.6	-4.4
PCBR				A		07 38 08.9	
	comp=Z,9.6nm,0.7s						
PCBR	Castelo Branco	9.04	293	P	Pn	07 35 53.1	+1.9
PCBR				S	Sn	07 37 28.6	-4.4
	comp=Z,4.8nm,0.7s						
PCBR	Castelo Branco	9.04	293	*e*P	Pn	07 35 53.1	+1.9
PBDV	Barranco-do-Ve	9.06	276	*e*Pn	Pn	07 35 51.7	+0.2
PBDV				*e*Sn	Sn	07 37 30.9	-2.6
PBDV				A		07 37 36.2	
	comp=Z,6.7nm,0.7s						
PBDV	Barranco-do-Ve	9.06	276	P	Pn	07 35 51.7	+0.2
PBDV				S	Sn	07 37 30.9	-2.6
	comp=Z,6.7nm,0.7s						
PLDF	La Plantade	9.10	1	P	Pn	07 35 52.7	+0.7
PLDF	La Plantade	9.10	1	P	Pn	07 35 52.7	+0.7
MVO	Moncorvo	9.18	301	*e*Pn	Pn	07 35 54.9	+1.8
MVO				*e*Sn	Sn	07 37 32.3	-4.1
MVO				A		07 38 14.6	
	comp=Z,19nm,0.7s						
MVO	Moncorvo	9.18	301	P	Pn	07 35 54.9	+1.8
MVO				S	Sn	07 37 32.3	-4.1
	comp=Z,9.6nm,0.7s						
MVO	Moncorvo	9.18	301	*e*P	Pn	07 35 54.8	+1.7
MVO	Moncorvo	9.18	301	*e*P	Pn	07 35 54.8	+1.7
AGO	Saint Agoulin	9.19	359	P	Pn	07 35 54.4	+1.2
AGO	Saint Agoulin	9.19	359	P	Pn	07 35 54.4	+1.2
EVO	Evora	9.19	284	*e*Pn	Pn	07 35 53.2	-0.1
EVO				*e*Sn	Sn	07 37 31.6	-5.2
EVO				A		07 38 27.3	
	comp=Z,6.6nm,0.5s						
EVO	Evora	9.19	284	P	Pn	07 35 53.2	-0.1
EVO				S	Sn	07 37 31.6	-5.2
	comp=Z,6.6nm,0.5s						
EVO	Evora	9.19	284	P	Pn	07 35 52.7	-0.6
EVO	Evora	9.19	284	P	Pn	07 35 52.7	-0.6
EARI	Arriondas	9.21	317	P	Pn	07 35 56.2	+2.7
	comp=Z,2.8nm,0.3s,SNR=7.9						
EARI				S	Sn	07 37 33.6	-3.5
	comp=Z,0.4nm,0.2s,SNR=7.9						
EARI	Arriondas	9.21	317	P	Pn	07 35 56.3	+2.9
EARI				S	Sn	07 37 33.6	-3.5
EARI	Arriondas	9.21	317	P	Pn	07 35 56.3	+2.8
	comp=Z,26nm,0.4s,SNR=7.9						
MTE	Manteigas	9.26	296	*e*Pn	Pn	07 35 55.6	+1.4
MTE				*e*Sn	Sn	07 37 35.3	-3.0
MTE				A		07 37 38.9	
	comp=Z,15nm,0.6s						
MTE	Manteigas	9.26	296	*e*Pn	Pn	07 35 55.5	+1.4
MTE				*e*Sn	Sn	07 37 38.0	-0.3
MTE	Manteigas	9.26	296	*e*Pn	Pn	07 35 55.5	+1.3
PBRG	Braganca	9.27	305	*e*Pn	Pn	07 35 56.1	+1.8
PBRG	Braganca	9.27	305	*e*P	Pn	07 35 56.1	+1.8
GHAR	Gharyan	9.29	118	*i* P	Pn	07 35 52.3	-2.3
	SNR=43						
OG05	Jujurieux	9.30	9	P	Pn	07 35 55.1	+0.4
OG05	Jujurieux	9.30	9	P	Pn	07 35 55.1	+0.4
ECAL	Calabor	9.34	306	P	Pn	07 35 56.7	+1.4
	comp=Z,39nm,0.2s,SNR=7.9						
ECAL				S	Sn	07 37 35.6	-4.7
	comp=Z,1.1nm,0.2s,SNR=7.9						
ECAL	Calabor	9.34	306	P	Pn	07 35 56.7	+1.5
	comp=Z,39nm,0.2s,SNR=7.9						
TCF	Toulx Ste Croi	9.46	355	*e*Pn	Pn	07 35 57.4	+0.5
TCF	Toulx Ste Croi	9.46	355	*e*Pn	Pn	07 35 57.4	+0.5
AVE	Averroes	9.54	251	P	Pn	07 35 56.2	-1.9
PVIS	Viseu	9.62	297	*e*Pn	Pn	07 36 00.5	+1.4
PVIS				*e*Sn	Sn	07 37 44.1	-3.0
PVIS				A		07 37 48.0	
	comp=Z,13nm,0.7s						
PVIS	Viseu	9.62	297	P	Pn	07 36 00.5	+1.4
PVIS				S	Sn	07 37 44.1	-3.0
	comp=Z,6.4nm,0.7s						
PVIS	Viseu	9.62	297	*e*P	Pn	07 36 00.4	+1.4
PVIS	Viseu	9.62	297	*e*P	Pn	07 36 00.4	+1.4
MORF	Marmelete	9.63	276	*e*Pn	Pn	07 36 01.1	+1.8
MORF				*e*Sn	Sn	07 37 44.3	-3.3
MORF				A		07 37 51.9	
	comp=Z,7.1nm,0.8s						
MORF	Marmelete	9.63	276	P	Pn	07 36 01.1	+1.8
MORF				S	Sn	07 37 44.3	-3.3
	comp=Z,7.1nm,0.8s						
PTEO	Sao Teotonio	9.69	278	*e*Pn	Pn	07 35 58.7	-1.4
PVRL	Vila Real	9.70	300	*e*Pn	Pn	07 36 01.1	+0.9
PVRL				A		07 38 34.7	
	comp=Z,10nm,0.7s						
PVRL	Vila Real	9.70	300	*e*P	Pn	07 36 01.3	+1.1
PVRL	Vila Real	9.70	300	*e*P	Pn	07 36 01.3	+1.1
BGF	Bois d'Agland	9.70	358	*e*Pn	Pn	07 36 00.9	+0.7
	SNR=1.0						
BGF	Bois d'Agland	9.70	358	*e*Pn	Pn	07 36 00.9	+0.7
	SNR=1.0						
PFVI	Vila Bisbo	9.78	275	*e*Pn	Pn	07 36 02.9	+1.6
SMF	Signal de Mont	9.78	2	*e*Pn	Pn	07 36 01.4	+0.1
	SNR=1.0						
SMF	Signal de Mont	9.78	2	*e*Pn	Pn	07 36 01.4	+0.1
	SNR=1.0						
ERUA	La Rua	9.82	307	P	Pn	07 36 03.2	+1.3
	comp=Z,11nm,0.3s,SNR=7.9						
ERUA	La Rua	9.82	307	P	Pn	07 36 03.2	+1.3
	comp=Z,11nm,0.3s,SNR=7.9						
AVF	Avril sur Loir	9.92	360	*e*Pn	Pn	07 36 03.4	+0.2
	SNR=1.0						
AVF	Avril sur Loir	9.92	360	*e*Pn	Pn	07 36 03.4	+0.2
	SNR=1.0						
CABF	La Chapelle	9.95	11	*e*Pn	Pn	07 36 02.9	-0.7
CABF	La Chapelle	9.95	11	*e*Pn	Pn	07 36 02.9	-0.7
MFF	Saint Martin d	10.09	346	*e*Pn	Pn	07 36 05.1	-0.4
MFF	Saint Martin d	10.09	346	*e*Pn	Pn	07 36 05.1	-0.4
PCAB	Cabril	10.09	302	*e*Pn	Pn	07 36 07.1	+1.6
ELOB	Lobios	10.18	303	P	Pn	07 36 07.9	+1.2
	comp=Z,7.8nm,0.4s,SNR=7.9						

ELOB				S	Sn	07 37 53.7	-7.2
	comp=Z,0.4nm,0.2s,SNR=7.9						
ELOB	Lobios	10.18	303	P	Pn	07 36 08.3	+1.6
	comp=Z,3.1nm,0.1s						
ELOB				S	Sn	07 37 53.7	-7.2
ELOB	Lobios	10.18	303	P	Pn	07 36 08.3	+1.5
	comp=Z,3.1nm,0.1s						
SSF	Saint Saulge	10.20	0	ePn	Pn	07 36 06.8	-0.2
	SNR=1.0						
SSF	Saint Saulge	10.20	0	ePn	Pn	07 36 06.8	-0.2
	SNR=1.0						
CUC	Castrocucco	10.24	68	P	Pn	07 36 06.9	-0.7
CUC	Castrocucco	10.24	68	P	Pn	07 36 06.9	-0.7
EPON	Pontenova	10.34	312	P	Pn	07 36 10.9	+2.0
	comp=Z,24nm,0.4s,SNR=7.9						
EPON				S	Sn	07 37 58.6	-6.2
	comp=Z,0.5nm,0.2s,SNR=7.9						
EPON	Pontenova	10.34	312	P	Pn	07 36 10.1	+1.2
	comp=Z,3.6nm,0.2s						
EPON				S	Sn	07 37 58.5	-6.2
EPON	Pontenova	10.34	312	P	Pn	07 36 10.1	+1.2
	comp=Z,3.6nm,0.2s						
LOR	Lormes	10.41	2	ePn	Pn	07 36 10.6	+0.7
	baz=184						
LOR	Lormes	10.41	2	ePn	Pn	07 36 10.6	+0.7
	baz=184						
TUE	Stuetta	10.58	23	ePn	Pn	07 36 13.5	+1.2
	comp=Z,8.9nm,0.7s						
TUE	Stuetta	10.58	23	ePn	Pn	07 36 13.5	+1.2
	comp=Z,8.9nm,0.7s						
LMSR	Misrath	10.59	112	iP	Pn	07 36 09.9	-2.6
	comp=Z,203nm,0.8s,SNR=43						
TIP	Timpagrande	10.80	74	ePn	Pn	07 36 16.4	+1.2
DAVOX	Davos/Dischmat	11.03	24	Pn	Pn	07 36 19.5	+1.2
	comp=Z,0.4nm,0.3s,baz=207,slow=15,SNR=4.8						
DAVOX				LR	LR	07 40 13.5	
	comp=Z,352nm,20.9s,baz=122,slow=36						
DAVOX	Davos/Dischmat	11.03	24	Pn	Pn	07 36 19.5	+1.2
DAVOS	Davos	11.05	24	P	Pn	07 36 19.5	+0.8
DAVOS	Davos	11.05	24	P	Pn	07 36 19.5	+0.8
HINF	Hinteralfeld	11.24	12	ePn	Pn	07 36 19.7	-1.6
	SNR=1.0						
HINF	Hinteralfeld	11.24	12	ePn	Pn	07 36 19.7	-1.6
	SNR=1.0						
HAU	Haudompre	11.35	10	ePn	Pn	07 36 21.7	-1.1
	SNR=1.0						
HAU	Haudompre	11.35	10	ePn	Pn	07 36 21.7	-1.1
	SNR=1.0						
LSHF	Shwairf	11.36	124	iP	Pn	07 36 20.9	-2.1
	comp=Z,50nm,0.6s,SNR=43						
SFTF	Sexfontaines	11.40	6	ePn	Pn	07 36 20.6	-2.9
FETA	Feichten	11.52	26⇓	iP	Pn	07 36 26.8	+1.7
	comp=Z,1.9nm,0.5s						
ECH	Echery	11.68	13	eP	Pn	07 36 27.1	-0.2
ECH				pmax	pmax		
	comp=Z,23nm,1.1s						
ECH	Echery	11.68	13	ePn	Pn	07 36 27.1	-0.2
	comp=Z,22nm,1.1s						
ECH	Echery	11.68	13	eP	Pn	07 36 27.1	-0.2
	comp=Z,23nm,1.1s						
CDF	Champ du Feu	11.89	13	ePn	Pn	07 36 28.2	-2.0
	SNR=1.0						
CDF	Champ du Feu	11.89	13	ePn	Pn	07 36 28.2	-2.0
	SNR=1.0						
MOTA	Moosalm	11.93	26⇑	iP	Pn	07 36 35.3	+4.5
	comp=Z,6.3nm,0.7s						
GRR	Gorron	11.94	346	ePn	Pn	07 36 29.8	-1.0
	SNR=1.0						
GRR	Gorron	11.94	346	ePn	Pn	07 36 29.8	-1.0
	SNR=1.0						
LDF	La Druitiere	12.01	349	ePn	Pn	07 36 30.7	-1.0
LDF	La Druitiere	12.01	349	ePn	Pn	07 36 30.7	-1.0
BFO	Black Forest	12.02	16	eP	Pn	07 36 30.7	-1.3
BFO				pmax	pmax		
	comp=Z,8.0nm,0.5s						
BFO	Black Forest	12.02	16	ePn	Pn	07 36 30.7	-1.2
	comp=Z,7.9nm,0.5s						
BFO	Black Forest	12.02	16	eP	Pn	07 36 30.7	-1.3
	comp=Z,8.0nm,0.5s						
QUIF	Quistinic	12.06	338	ePn	Pn	07 36 32.4	-0.1
	SNR=1.0						
QUIF	Quistinic	12.06	338	ePn	Pn	07 36 32.4	-0.1
	SNR=1.0						
SGMF	Saint Gilles	12.20	341	ePn	Pn	07 36 31.5	-2.8
KBA	Koelnbreinsper	12.60	33	P	Pn	07 36 41.5	+1.6
KBA	Koelnbreinsper	12.60	33	P	Pn	07 36 41.5	+1.6
LJFR	Jufra	12.97	123	iP	Pn	07 36 41.5	-3.6
	comp=Z,58nm,0.7s,SNR=43						
DOU	Dourbes	13.26	3	P	Pn	07 36 50.5	+1.7
MOA	Molln	13.59	33	P	Pn	07 36 54.3	+0.9
MOA	Molln	13.59	33	P	Pn	07 36 54.3	+0.9
SNF	Seneffe	13.66	2	P	Pn	07 36 56.6	+2.3
ARSA	Arzberg	13.73	37	P	Pn	07 36 56.0	+0.7
ARSA	Arzberg	13.73	37	P	Pn	07 36 56.0	+0.7
MEM	Membach	13.87	7	P	Pn	07 36 58.8	+1.5
	comp=Z,15nm,1.2s						
WET	Wettzell	14.09	26	P	Pn	07 37 00.1	0.0
WET	Wettzell	14.09	26	P	Pn	07 37 00.1	0.0
TAM	Tamanrasset	14.14	172	P	Pn	07 37 02.0	+1.0
TAM				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TAM	Tamanrasset	14.14	172	Pn	Pn	07 37 02.0	+1.0
	comp=Z,6.1nm,0.8s						
TAM	Tamanrasset	14.14	172	P	Pn	07 37 02.0	+1.0
	comp=Z,6.0nm,0.8s						
GERES	GERESS Array B	14.15	29	Pn	Pn	07 37 01.8	+0.8
	comp=Z,0.2nm,0.3s,baz=207,slow=14,SNR=7.1						
GERES				LR	LR	07 42 47.2	
	comp=Z,280nm,20.6s,baz=110,slow=39						
GERES	GERESS Array B	14.15	29	P	Pn	07 37 01.8	+0.8
	comp=Z,280nm,20.6s						
KHC	Kasperske Hory	14.33	28	eP	Pn	07 37 02.0	-1.5
KHC				ex	x	07 37 08.0	
KHC				epP	pP	07 37 11.7	-1.8
CLL	Collm	15.99	22	e(P)	Pn	07 37 30.0	+4.5
CLL				e(PPP)		07 37 48.0	
CLL	Collm	15.99	22	eP	Pn	07 37 30.0	+4.5
DPC	Dobruska-Polom	16.38	31	eP	Pn	07 37 38.0	+7.4
PSZ	Piszkesteto	16.42	43	eP	Pn	07 37 32.6	+1.6
PSZ				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PSZ	Piszkesteto	16.42	43	eP	Pn	07 37 32.6	+1.6
	comp=Z,10nm,0.9s						
PSZ	Piszkesteto	16.42	43	eP	Pn	07 37 32.6	+1.6
	comp=Z,10nm,0.9s						
IDI	Anoyia	17.45	89	P	Pn	07 37 44.3	+0.1
	comp=Z,0.2nm,0.3s,baz=284,slow=13,SNR=3.0						
IDI	Anoyia	17.45	89	P	Pn	07 37 44.2	+0.1
RDO	Rodhopi	17.73	69	P	Pn	07 37 47.2	-0.3
RDO	Rodhopi	17.73	69	P	Pn	07 37 47.2	-0.3
VOIR		18.38	55⇓	iP	Pn	07 37 58.5	+3.0
EKA	Eskdalemuir Ar	19.01	348	P	Pn	07 38 02.5	-0.6
	baz=152,slow=11,SNR=2.9						
EKA	Eskdalemuir Ar	19.01	348	P	Pn	07 38 02.5	-0.6
BURAR	Bucovina Array	19.34	49⇑	iP	Pn	07 38 10.5	+3.4
BUR08	Bucovina Ar. S	19.34	49	eP	Pn	07 38 07.5	+0.3
BUR08	Bucovina Ar. S	19.34	49	eP	Pn	07 38 07.5	+0.4
VRI	Vrincioaia	19.64	55⇓	iP	Pn	07 38 12.1	+1.5
HARR	Harsova	20.11	59⇓	iP	P	07 38 20.0	+5.5
TIRR	Tirgusor	20.39	60⇓	iP	P	07 38 18.2	+0.7
TIRR	Tirgusor	20.39	60⇓	iP	P	07 38 18.2	+0.7
LKFR	Kufra	21.20	121	iP	P	07 38 26.1	-0.4
	SNR=34						
KIEV	Kiev	23.06	45	eP	P	07 38 44.2	-1.8
KIEV				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.5						
KIEV	Kiev	23.06	45	eP	P	07 38 44.2	-1.9
	comp=Z,16nm,0.8s,mb4.5						
KIEV	Kiev	23.06	45	eP	P	07 38 44.2	-1.8
	comp=Z,16nm,0.8s,mb4.5						
AKASG	Malin Array Be	23.07	45	P	P	07 38 44.0	-2.2
AKASG				pmax	pmax		
	comp=Z,15nm,0.7s						
AKASG	Malin Array Be	23.07	45	P	P	07 38 44.0	-2.2
	comp=Z,15nm,0.7s,mb4.5,baz=242,slow=11,SNR=20						
AKASG	Malin Array Be	23.07	45	P	P	07 38 44.0	-2.2
	comp=Z,15nm,0.7s,mb4.5						
TOA0	Torodi Ar. Sit	23.66	184	eP	P	07 38 50.8	-1.6
TOA0	Torodi Ar. Sit	23.66	184	eP	P	07 38 50.8	-1.7
TORD	Torodi Ar. Bea	23.66	184	P	P	07 38 50.8	-1.7
	comp=Z,4.5nm,0.6s,mb4.1,baz=3.2,slow=11,SNR=20						
TORD				S	S	07 43 06.0	-1.0
	comp=Z,2.2nm,1.1s,baz=347,slow=12,SNR=3.6						
TORD				Lg		07 46 17.9	
	comp=Z,5.0nm,1.1s,baz=3.7,slow=29,SNR=4.0						
BRTR	Keskin Array B	23.86	74	P	P	07 38 54.0	-0.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	23.86	74	P	P	07 38 54.0	-0.2
	comp=Z,0.9nm,0.9s,mb3.2,baz=302,slow=12,SNR=3.3						
BRTR	Keskin Array B	23.86	74	P	P	07 38 54.0	-0.1
	comp=Z,1.0nm,0.9s,mb3.2						
NACGM	Naroch	24.11	34	e	P	07 38 51.0	-5.3
HFS	Hagfors	24.21	13	P	P	07 38 57.5	+0.4
HFS				pmax	pmax		
	comp=Z,6.0nm,0.8s						
HFS	Hagfors	24.21	13	P	P	07 38 57.5	+0.4
	comp=Z,6.4nm,0.8s,mb4.1,baz=154,slow=8.2,SNR=5.3						
HFS	Hagfors	24.21	13	P	P	07 38 57.5	+0.4
	comp=Z,6.0nm,0.8s,mb4.1						
NB2	NORSAR Subarra	24.70	9	P	P	07 39 01.7	+0.1
	comp=Z,28nm,1.7s,mb4.5,baz=195,slow=9.3						
NB2	NORSAR Subarra	24.70	9	P	P	07 39 01.7	+0.1
	comp=Z,28nm,1.7s,mb4.5,baz=195,slow=9.1,SNR=4.3						
NOA	NORSAR Array B	24.70	9	P	P	07 39 03.1	+1.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	NORSAR Array B	24.70	9	P	P	07 39 03.1	+1.5
	comp=Z,1.8nm,0.6s,mb3.8,baz=196,slow=10,SNR=4.5						
NOA	NORSAR Array B	24.70	9	P	P	07 39 03.1	+1.5
	comp=Z,2.0nm,0.6s,mb3.8						
MMAI	Mount Meron Ar	26.45	89	P	P	07 39 18.4	+0.6
	comp=Z,7.7nm,0.7s,mb4.3,baz=299,slow=8.5,SNR=9.0						
EIL	Elat	27.26	96	LR	LR	07 53 58.4	
	comp=Z,118nm,18.9s,MS3.5,baz=274,slow=45						
MALT	Malatya	27.70	76	eP	P	07 39 29.2	+0.2
MALT				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
MALT	Malatya	27.70	76	eP	P	07 39 29.1	+0.2
	comp=Z,5.7nm,0.9s,mb4.2						
MALT	Malatya	27.70	76	eP	P	07 39 29.1	+0.1
	comp=Z,5.7nm,0.9s,mb4.2						
ASF	Jabal al Asfar	27.91	90	P	P	07 39 32.2	+1.3
ASF				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASF	Jabal al Asfar	27.91	90	P	P	07 39 32.2	+1.2
	comp=Z,2.2nm,0.7s,mb3.9,baz=178,slow=9.0,SNR=4.7						
BBTS	Babate	28.36	224	LR	LR	07 51 27.3	
	comp=Z,310nm,18.5s,MS3.9,baz=64,slow=38						
OBN	Obninsk	29.01	40	eP	P	07 39 40.2	-0.2
OBN				eSS	SS	07 45 56.1	-38
OBN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
OBN	Obninsk	29.01	40	eP	P	07 39 40.2	-0.2
	comp=Z,7.0nm,0.9s,mb4.4						
DBIC	Dimbokro	30.98	196	P	P	07 39 57.6	-0.6
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
DBIC				MLR	MLR		
	comp=Z,160nm,20.5s						
DBIC	Dimbokro	30.98	196	P	P	07 39 57.6	-0.6
	comp=Z,4.0nm,0.9s,mb4.2,baz=330,slow=12,SNR=3.7						
DBIC				LR	LR	07 52 49.5	
	comp=Z,160nm,20.5s,MS3.7,baz=357,slow=37						
DBIC	Dimbokro	30.98	196	P	P	07 39 57.6	-0.6
	comp=Z,160nm,20.5s						
TIC	Toumodi	31.04	196	eP	P	07 39 58.2	-0.5
	comp=Z,4.6nm,0.2s,mb4.9						
KIC	Kosan Boka	31.25	196	eP	P	07 39 59.3	-1.3
	comp=Z,54nm,1.2s,mb5.3						
LIC	Lamto	31.45	196	eP	P	07 40 00.8	-1.5
	comp=Z,6.5nm,0.7s,mb4.3,baz=19						
LIC	Lamto	31.45	196	eP	P	07 40 01.1	-1.2
LIC	Lamto	31.45	196	eP	P	07 40 00.8	-1.5
	comp=Z,3.3nm,0.7s,mb4.3						
LIC	Lamto	31.45	196	eP	P	07 40 00.8	-1.5
	comp=Z,3.2nm,0.7s,mb4.3,baz=19						
KLMR	Klimovskoe	33.08	32	eP	P	07 40 14.9	-1.3
KLMR				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
KLMR	Klimovskoe	33.08	32	eP	P	07 40 14.9	-1.3
	comp=Z,24nm,1.0s,mb5.1						
ARCES	ARCESS Array B	34.87	13	P	P	07 40 32.5	+0.8
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES	ARCESS Array B	34.87	13	P	P	07 40 32.5	+0.8
	comp=Z,2.5nm,0.7s,mb4.3,baz=216,slow=6.0,SNR=8.4						
ARCES	ARCESS Array B	34.87	13	P	P	07 40 32.5	+0.8
	comp=Z,3.0nm,0.7s,mb4.3						
PRGR	Permogore	36.06	33	eP	P	07 40 42.7	+0.7
PRGR				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
PRGR	Permogore	36.06	33	eP	P	07 40 42.7	+0.7
	comp=Z,16nm,0.7s,mb5.1						
AKTK	Aktyubinsk	40.88	53	P	P	07 41 23.1	+0.5
AKTK	Aktyubinsk	40.88	53	P	P	07 41 23.1	+0.5
	comp=Z,5.0nm,0.9s,mb4.1						
AKTO	Aktyubinsk	40.88	53	P	P	07 41 23.1	+0.5
AKTO				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
AKTO	Aktyubinsk	40.88	53	P	P	07 41 23.1	+0.5
	comp=Z,4.9nm,0.9s,mb4.2,baz=273,slow=9.1,SNR=15						
ARU	Arti	41.31	44	eP	P	07 41 26.1	0.0
ARU				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
ARU	Arti	41.31	44	eP	P	07 41 26.1	0.0
	comp=Z,12nm,0.8s,mb4.6						
ARU	Arti	41.31	44	eP	P	07 41 26.1	0.0
	comp=Z,12nm,0.8s,mb4.6						
BRVK	Borovoye	48.23	48	eP	P	07 42 22.6	+1.3
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
BRVK	Borovoye	48.23	48	eP	P	07 42 22.6	+1.3
	comp=Z,8.3nm,1.0s,mb4.7						
BRVK	Borovoye	48.23	48	eP	P	07 42 22.6	+1.3
	comp=Z,8.2nm,1.0s,mb4.7						
BVAR	Borovoye Array	48.29	48	P	P	07 42 22.0	+0.2
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BVAR	Borovoye Array	48.29	48	P	P	07 42 22.0	+0.2
	comp=Z,1.6nm,0.7s,mb4.1,baz=284,slow=7.5,SNR=10						
BVAR	Borovoye Array	48.29	48	P	P	07 42 22.0	+0.2
	comp=Z,2.0nm,0.7s,mb4.3						
SCHQ	Schefferville	49.90	315	P	P	07 42 33.2	-0.9
	comp=Z,4.8nm,0.8s,mb4.6,baz=72,slow=7.4,SNR=4.3						
SCHQ	Schefferville	49.90	315	P	P	07 42 33.2	-0.9
SCHQ	Schefferville	49.90	315	P	P	07 42 33.2	-0.9
KURK	Kurchatov	53.77	50	eP	P	07 43 02.3	-0.7
KURK				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
KURK	Kurchatov	53.77	50	P	P	07 43 02.2	-0.8
	comp=Z,11nm,0.8s,mb4.8,baz=290,slow=8.0,SNR=24						
KURK	Kurchatov	53.77	50	eP	P	07 43 02.3	-0.7
	comp=Z,13nm,0.8s,mb4.9						
KURK	Kurchatov	53.77	50	eP	P	07 43 02.3	-0.7
	comp=Z,13nm,0.8s,mb4.9						
NVS	Novosibirsk	55.32	44	eP	P	07 43 13.7	-0.5
NVS				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
NVS				pmax	pmax		
	comp=E,10.0nm,1.0s						
NVS	Novosibirsk	55.32	44	eP	P	07 43 13.7	-0.5
	comp=E,11nm,0.9s,mb4.9						
KSH	Kashi	55.65	63	eP	P	07 43 16.9	+0.1
KSH				epP	pP	07 43 27.1	+7.1
KSH				esP	sP	07 43 31.1	+10
KSH				ePcP	PcP	07 44 16.1	-0.2
KSH				ePP	PP	07 45 22.8	+2.0
KSH				eScP	ScP	07 48 11.0	-4.3
KSH				ePcS	PcS	07 48 15.0	-1.4
KSH				eS	S	07 50 58.6	-4.3
KSH				esS	sS	07 51 15.2	+7.1
KSH				eScS	ScS	07 53 00.7	-5.5
KSH				eSS	SS	07 54 43.9	-3.8
KSH				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
KSH				pmax	pmax		
	comp=Z,750nm,3.6s						
KSH				LR	LR		
	comp=N,600nm,6.3s						
KSH				LR	LR		
	comp=E,350nm,6.4s						
KSH				LR	LR		
	comp=Z,440nm,7.3s						
ZAA0	Zalesovo Array	56.47	45	eP	P	07 43 21.9	-0.5
ZAA0	Zalesovo Array	56.47	45	eP	P	07 43 21.9	-0.5
ZALV	Zalesovo Beam	56.47	45	P	P	07 43 21.7	-0.7
ZALV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
ZALV				MLR	MLR		
	comp=Z,61nm,19.7s,MS3.7						
ZALV	Zalesovo Beam	56.47	45	P	P	07 43 21.7	-0.8
	comp=Z,5.7nm,0.8s,mb4.7,baz=292,slow=7.8,SNR=19						
ZALV				LR	LR	08 09 27.0	
	comp=Z,61nm,19.7s,MS3.7,baz=74,slow=38						
ZALV	Zalesovo Beam	56.47	45	P	P	07 43 21.7	-0.7
	comp=Z,61nm,19.7s						
MK31	Makanchi Array	57.31	53	eP	P	07 43 28.1	-0.4
MK31	Makanchi Array	57.31	53	eP	P	07 43 28.1	-0.4
MKAR	Makanchi Array	57.31	53	P	P	07 43 27.6	-0.9
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR				MLR	MLR		
	comp=Z,108nm,18.1s						
MKAR	Makanchi Array	57.31	53	P	P	07 43 27.6	-0.9
	comp=Z,2.6nm,0.6s,mb4.4,baz=288,slow=6.0,SNR=34						
MKAR				LR	LR	08 13 17.0	
	comp=Z,108nm,18.1s,MS4.0,baz=170,slow=42						
SADO	Sadowa	60.43	306	LR	LR	08 06 17.6	
	comp=Z,154nm,19.1s,MS4.2,baz=122,slow=32						
WMQ	Urumqi	61.98	55	eP	P	07 44 03.6	+2.8
WMQ				pP	pP	07 44 08.0	+4.0
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,150nm,6.3s						
WMQ				LR	LR		
	comp=Z,310nm,18.2s,MS4.5						
TIXI	Tiksi	65.22	17⇑	eP	P	07 44 21.5	-0.2
TIXI				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.0						
TIXI	Tiksi	65.22	17	eP	P	07 44 21.5	-0.2
	comp=Z,100nm,19.0s						
TKL	Tuckaleechee C	67.73	298	LR	LR	08 11 57.4	
	comp=Z,129nm,20.7s,MS4.1,baz=276,slow=34						
TLY	Talaya	67.76	41	eP	P	07 44 39.0	+0.7
TLY				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
TLY				MLR	MLR		
	comp=Z,164µm,18.0s						
TLY	Talaya	67.76	41	eP	P	07 44 39.6	+1.4
	comp=Z,9.6nm,0.9s,mb4.8						
TLY	Talaya	67.76	41	eP	P	07 44 39.0	+0.7
	comp=Z,64µm,18.0s						
ULM	Lac du Bonnet	67.97	317	P	P	07 44 38.6	-1.0
	comp=Z,2.2nm,0.7s,mb4.3,baz=71,slow=4.9,SNR=6.6						
ULM	Lac du Bonnet	67.97	317	P	P	07 44 38.6	-1.1
HYB	Hyderabad	68.05	84	iP	P	07 44 41.0	+0.4
ZAK	Zakamensk	68.25	43	eP	P	07 44 43.3	+2.0
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
ZAK	Zakamensk	68.25	43	eP	P	07 44 43.3	+2.0
	comp=Z,4.0nm,1.0s,mb4.4						
BOSA	Boshof	68.29	159	P	P	07 44 42.7	+1.0
	comp=Z,4.2nm,1.1s,mb4.4,baz=332,slow=3.6,SNR=3.0						
BOSA				LR	LR	08 13 34.4	
	comp=Z,89nm,19.9s,MS4.0,baz=336,slow=35						
BOSA	Boshof	68.29	159	P	P	07 44 42.7	+1.0
BOSA				LR	LR	08 13 34.4	
BOSA	Boshof	68.29	159	P	P	07 44 42.7	+1.0
	comp=Z,4.0nm,1.1s,mb4.4						
YKA	Yellowknife Ar	69.26	334	P	P	07 44 47.5	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	69.26	334	P	P	07 44 47.5	+0.1
	comp=Z,0.8nm,0.5s,mb3.9,baz=53,slow=6.3,SNR=16						
YKA	Yellowknife Ar	69.26	334	P	P	07 44 47.5	+0.1
YKA	Yellowknife Ar	69.26	334	P	P	07 44 47.5	+0.1
	comp=Z,1.0nm,0.5s,mb4.0						
BOD	Bodaibo	69.30	32	eP	P	07 44 46.3	-1.5
BOD				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
BOD	Bodaibo	69.30	32	eP	P	07 44 46.3	-1.5
	comp=Z,3.0nm,1.3s,mb4.1						
SONM	Songino Array	71.35	44	P	P	07 45 00.5	0.0
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM	Songino Array	71.35	44	P	P	07 45 00.5	0.0
	comp=Z,3.4nm,1.0s,mb4.2,baz=314,slow=4.9,SNR=19						
SONM	Songino Array	71.35	44	P	P	07 45 00.5	0.0
	comp=Z,3.0nm,1.0s,mb4.2						
GTA	Gaotai	72.05	54	eP	P	07 45 06.1	+1.2
GTA				pP	pP	07 45 10.2	+2.0
GTA				sP	sP	07 45 13.7	+4.3
GTA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
EDM	Edmonton	74.92	326	eP	P	07 45 22.2	+0.7
EDM	Edmonton	74.92	326	eP	P	07 45 22.2	+0.7
DAWY	Dawson	75.19	344	eP	P	07 45 24.1	+1.2
DAWY	Dawson	75.19	344	eP	P	07 45 24.0	+1.1
LZH	Lanzhou	76.56	55	eP	P	07 45 29.0	-2.2
LZH				pP	pP	07 45 33.2	-1.3
LZH				sP	sP	07 45 37.0	+1.3
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,55nm,4.3s						
EGMT	Eagleton	76.64	321	eP	P	07 45 33.1	+1.6
	comp=Z,11nm,1.1s,mb4.7						
EGMT	Eagleton	76.64	321	eP	P	07 45 33.1	+1.6
	comp=Z,11nm,1.1s,mb4.7						
CBKS	Cedar Bluff	76.67	309	eP	P	07 45 32.0	+0.2
CBKS				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
CBKS	Cedar Bluff	76.67	309	eP	P	07 45 32.0	+0.1
	comp=Z,17nm,0.8s,mb5.0						
CBKS	Cedar Bluff	76.67	309	eP	P	07 45 32.0	+0.2
	comp=Z,17nm,0.8s,mb5.0						
WMOK	Wichita Mounta	78.49	305	eP	P	07 45 42.6	+0.5
WMOK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
WMOK	Wichita Mounta	78.49	305	eP	P	07 45 42.6	+0.6
	comp=Z,4.6nm,1.0s,mb4.4						
WMOK	Wichita Mounta	78.49	305	eP	P	07 45 42.6	+0.5
	comp=Z,4.6nm,1.0s,mb4.4						
HHC	Hu-ho-hao-te	78.50	47	eP	P	07 45 40.5	-1.5
HHC				pP	pP	07 45 45.1	-0.2
HHC				sP	sP	07 45 47.9	+1.4
HHC				PP	PP	07 48 38.7	-0.3
HHC				eS	S	07 55 32.6	-5.6
HHC				SKS		07 55 48.7	
HHC				ScS	ScS	07 55 57.3	-5.6
HHC				SS	SS	08 00 37.9	-2.7
HHC				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
HHC				pmax	pmax		
	comp=Z,160nm,4.8s						
HHC				LR	LR		
	comp=N,200nm,16.6s,MS4.7						
HHC				LR	LR		
	comp=E,180nm,16.7s,MS4.7						
HHC				LR	LR		
	comp=Z,190nm,17.8s,MS4.5						
PHWY	Pilot Hill	78.61	313	eP	P	07 45 43.9	+1.3
	comp=Z,10nm,0.8s,mb4.8						
PHWY	Pilot Hill	78.61	313	eP	P	07 45 43.8	+1.2
	comp=Z,10nm,0.8s,mb4.8						
BOZ	Bozeman (W)	79.18	320	eP	P	07 45 47.0	+1.4
BOZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BOZ	Bozeman (W)	79.18	320	eP	P	07 45 47.0	+1.3
	comp=Z,3.6nm,0.8s,mb4.3						
BOZ	Bozeman (W)	79.18	320	eP	P	07 45 47.0	+1.4
	comp=Z,3.6nm,0.8s,mb4.3						
CD2	Chengdu	79.56	59	P	P	07 45 47.1	-0.9
CD2				pP	pP	07 45 51.8	+0.5
CD2				sP	sP	07 45 53.0	+0.5
CD2				PP	PP	07 48 48.9	+0.8
CD2				S	S	07 55 46.2	-3.6
CD2				sS	sS	07 55 54.0	-1.3
CD2				SKS		07 55 57.8	
CD2				SS	SS	08 00 56.3	-0.7
CD2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CD2				pmax	pmax		
	comp=Z,240nm,5.1s						
CD2				LR	LR		
	comp=E,390nm,5.6s						
CD2				LR	LR		
	comp=Z,270nm,6.6s						
ISCO	Idaho Springs	79.66	312	eP	P	07 45 49.8	+1.5
ISCO				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
ISCO	Idaho Springs	79.66	312	eP	P	07 45 49.8	+1.4
	comp=Z,5.0nm,0.9s,mb4.4						
ISCO	Idaho Springs	79.66	312	eP	P	07 45 49.8	+1.5
	comp=Z,5.0nm,0.9s,mb4.4						
DLMT	Dillon	79.88	320	eP	P	07 45 51.0	+1.5

	comp=Z,5.3nm,1.2s,mb4.3						
DLMT	Dillon	79.88	320	*e*P	P	07 45 51.0	+1.6
	comp=Z,5.3nm,1.2s,mb4.3						
BW06	Boulder Array	79.99	316	*e*P	P	07 45 50.3	+0.2
	comp=Z,9.1nm,1.5s,mb4.5						
BW06	Boulder Array	79.99	316	*e*P	P	07 45 50.3	+0.2
	comp=Z,9.1nm,1.5s,mb4.5						
PDAR	Pinedale Array	79.99	316	P	P	07 45 49.8	-0.3
	comp=Z,2.7nm,1.0s,mb4.1,baz=58,slow=5.0,SNR=16						
PDAR				LR	LR	08 17 46.2	
	comp=Z,168nm,18.5s,MS4.4,baz=180,slow=33						
PDAR	Pinedale Array	79.99	316	P	P	07 45 49.8	-0.3
SDCO	Great Sand Dun	80.90	311	*e*P	P	07 45 56.0	+0.9
	comp=Z,4.6nm,1.3s,mb4.2						
SDCO	Great Sand Dun	80.90	311	*e*P	P	07 45 56.0	+0.9
	comp=Z,4.6nm,1.3s,mb4.2						
XAN	Xi’an	81.11	54	P	P	07 45 57.4	+1.1
XAN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
XAN				pmax	pmax		
	comp=Z,160nm,6.7s						
KMI	Kunming	82.29	65	P	P	07 46 02.8	+0.1
KMI				sP	sP	07 46 08.7	+1.5
KMI				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
BMO	Blue Mountains	82.61	322	*e*P	P	07 46 04.3	+0.4
	comp=Z,12nm,1.3s,mb4.8						
SRU	San Rafael	82.98	314	*e*P	P	07 46 06.1	+0.1
SRU				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
SRU	San Rafael	82.98	314	*e*P	P	07 46 06.1	+0.1
	comp=Z,3.3nm,0.7s,mb4.5						
GYA	Guiyang	84.28	61	*e*P	P	07 46 12.6	-0.3
GYA				PP	PP	07 49 30.2	+3.1
GYA				SKS		07 56 33.0	
GYA				S	S	07 56 37.8	-0.9
GYA				SS	SS	08 02 08.9	+1.4
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
GYA				pmax	pmax		
	comp=Z,90nm,5.3s						
GYA				LR	LR		
	comp=N,410nm,20.6s,MS4.8						
GYA				LR	LR		
	comp=E,210nm,22.9s,MS4.8						
GYA				LR	LR		
	comp=Z,290nm,21.2s,MS4.6						
CPUP	Villa Florida	84.92	232	P	P	07 46 16.7	+0.8
	comp=Z,4.2nm,0.8s,mb4.6,baz=18,slow=6.3,SNR=13						
CPUP				LR	LR	08 20 50.8	
	comp=Z,64nm,21.1s,MS4.0,baz=220,slow=33						
CPUP	Villa Florida	84.92	232	*e*P	P	07 46 16.4	+0.5
	comp=Z,15nm,0.8s,mb5.2						
TXAR	Lajitas Array	85.09	303	P	P	07 46 18.0	+1.1
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
TXAR	Lajitas Array	85.09	303	P	P	07 46 17.9	+1.0
	comp=Z,1.7nm,0.8s,mb4.2,baz=78,slow=5.8,SNR=19						
MDJ	Mudanjiang	85.42	35	P	P	07 46 17.0	-1.3
MDJ				pmax	pmax		
	comp=Z,4.0nm,2.1s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,150nm,5.4s						
NJ2	Nanjing	88.70	50	*e*P	P	07 46 35.4	+0.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.3						
KSRS	Korea Array	90.01	41	LR	LR	08 33 13.2	
	comp=Z,36nm,21.4s,MS3.8,baz=40,slow=40						
LVC	Limon Verde	90.17	242	*e*P	P	07 46 42.0	+0.7
	comp=Z,4.0nm,0.8s,mb4.8						
ASAR	Alice Springs	135.73	87	PKIKP	PKPdf	07 53 02.8	+1.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	135.73	87	PKP	PKPdf	07 53 02.8	+1.1
	comp=Z,0.5nm,0.7s,baz=298,slow=1.3,SNR=7.2						
STKA	Stephens Creek	145.34	94	PKPbc	PKPbc	07 53 17.9	-0.8
	comp=Z,4.9nm,0.7s,baz=324,slow=5.5,SNR=10						
STKA	Stephens Creek	145.34	94	*e*PKPdf	PKPbc	07 53 17.7	-1.0

NEIC ***01*** *07:46:40.5±1.2, 19°.18N×63°.21W, h36^{km}±12^{km}, mb3.9/1, MD4.1(RSPR), Error ellipse: s-maj=15.6km s-min=7.9km az=210.0*
TRN ***01*** *07:46:40.7, 19°.01N×63°.33W, h34^{km}, MD4.2, M4.4(FDF)*
ISCJB ***01*** *07:46:41.1±0.7, 19°.03N±0°.05×63°.30W±0°.03, h55^{km}±8^{km}, mb3.5/4, Error ellipse: s-maj=9.6km s-min=3.5km az=20.5*
RSPR ***01*** *07:46:42.5, 19°.02N×63°.34W, h85^{km}±12^{km}, MD4.1/20, MD4.1/20*
IDC ***01*** *07:46:42.1±4.1, 18°.95N×63°.11W, h39^{km}±42^{km}, mb3.2/3, mb1 3.7/5, mb1mx3.4/21, mbtmp3.5/5, ML3.0/2, MS3.4/3, Ms1 3.4/3, ms1mx3.0/22, Error ellipse: s-maj=36.4km s-min=26.2km az=48.0*
ISC 01 07:46:42.0±0.7**, 19°.05N**±0°.05×**63°.30W**±0°.03**, h36**^{km}±11^{km}**, n50, σ0^s.90**/63**, mb3.5**/4**, 14C-6D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMRT	St. Maarten	1.02	168	⇑*e*P	Pn	07 46 59.4	-0.4
SMRT				*e*S	Sn	07 47 12.4	-0.4
ABV	Anegada	1.03	252	⇑*e*P	Pn	07 46 59.7	-0.2
TBVI	Tortola	1.40	243	⇓*e*P	Pn	07 47 04.8	-0.3
TBVI				*e*S	Sn	07 47 22.3	0.0
SABA	Saba	1.43	178	⇑*e*P	Pn	07 47 05.6	+0.2
SEUS	St. Eustatius	1.58	169	⇓*e*P	Pn	07 47 05.9	-1.6
STVI	Saint Thomas	1.71	246	⇑*e*P	Pn	07 47 09.3	-0.1
STVI				*e*S	Sn	07 47 30.7	+0.6
SKI	Saint Kitts	1.79	163	*e*P	Pn	07 47 10.8	+0.3
SKI				*e*S	Sn	07 47 32.8	+0.8
CDVI	St. Croix	1.90	227	⇓*e*P	Pn	07 47 13.3	+1.4
CDVI				*e*S	Sn	07 47 35.5	+0.8
ANWB	Willy Bob	1.99	133	*e*Pn	Pn	07 47 11.7	-1.4
MTP	Monte Pirata	2.34	246	⇓*e*P	Pn	07 47 18.2	+0.2
MTP				*e*S	Sn	07 47 45.4	-0.1
BPA	Boggy Peak	2.42	145	*e*P	Pn	07 47 19.7	+0.6
BPA				*e*S	Sn	07 47 46.7	-0.8
CBYP	Canovanas	2.54	253	⇑*e*P	Pn	07 47 20.5	-0.3
CBYP				*e*S	Sn	07 47 48.3	-2.2
HUMP	Col San Antoni	2.58	250	⇓*e*P	Pn	07 47 21.3	0.0
HUMP				*e*S	Sn	07 47 50.8	-0.7
CPD	Cerro la Pandu	2.68	248	⇑*e*P	Pn	07 47 23.1	+0.5
SJG	San Juan	2.86	251	⇑*e*P	Pn	07 47 25.1	0.0
SJG				*e*S	Sn	07 47 57.6	-0.8
SEG	Port Louis	3.14	147	*e*P	Pn	07 47 28.8	-0.2
LZG	Guadaloupe-1	3.24	153	*e*P	Pn	07 47 31.5	+1.2
CELP	Cerrillos	3.26	253	⇑*i*P	Pn	07 47 31.0	+0.4
ICM	Isla Caja Muer	3.27	250	⇑*e*P	Pn	07 47 31.7	+0.9
OBIP	Obispado Ponce	3.29	253	⇑*e*P	Pn	07 47 31.5	+0.4
AOPR	Arecibo Observ	3.35	258	⇑*e*P	Pn	07 47 31.4	-0.4
AOPR				*e*S	Sn	07 48 08.8	-1.6
BCG	Bois Riant Cap	3.36	151	*e*P	Pn	07 47 32.5	+0.5
SCG	Saint Claude	3.38	153	*e*P	Pn	07 47 33.4	+1.1
SCG				*e*S	Sn	07 48 11.2	0.0
DOG	Dongo Capester	3.41	152	*e*P	Pn	07 47 33.3	+0.6
PHG	Guadaloupe-2	3.41	152	*e*P	Pn	07 47 33.6	+0.9
DEG	La Desirade	3.46	142	*e*P	Pn	07 47 32.0	-1.4
TBG	Guadaloupe-3	3.55	153	*e*P	Pn	07 47 35.3	+0.6
GBPR	Guanica, Bosqu	3.56	253	⇑*e*P	Pn	07 47 36.0	+1.3
GBPR	Guanica, Bosqu	3.56	253	⇑*e*P	Pn	07 47 36.3	+1.5
MGG	Marie-Galante	3.65	148	*e*P	Pn	07 47 35.8	-0.2
AGPR	Aguadilla, PR	3.66	261	⇑*e*P	Pn	07 47 35.5	-0.6
LSP	Las Mesas	3.69	257	⇑*e*P	Pn	07 47 36.9	+0.3
CRPR	Cabo Rojo, PR	3.76	255	⇓*e*P	Pn	07 47 38.6	+1.1
DLPL	La Plaine	4.19	152	*e*S	Sn	07 48 31.0	-0.1
FDF	Fort de France	4.76	154	*e*P	Pn	07 47 51.5	+0.1
FDF				*e*S	Sn	07 48 43.7	-1.6
FDF	Fort de France	4.76	154	*e*Pn	Pn	07 47 51.3	0.0
BIM	Bigot	4.99	154	*e*P	Pn	07 47 55.1	+0.6
MVM	Montagne Vaucl	5.03	152	*e*P	Pn	07 47 54.8	-0.2
SDDR	Presa de Saban	7.56	271	*e*Pn	Pn	07 48 29.6	-0.2
GRTK	Grand Turk	7.75	290	*e*Pn	Pn	07 48 29.8	-2.5
PCRV	Puerto La Cruz	8.92	189	LR	LR	07 52 21.8	
	comp=Z,106nm,20.2s,baz=308,slow=38						
SDV	Santo Domingo	12.36	216	Pn	Pn	07 49 35.7	+0.2
	0.2nm,0.3s,baz=43,slow=12,SNR=4.1						
SDV				Sn	Sn	07 51 52.7	+0.7
	0.2nm,0.3s,baz=350,slow=18,SNR=2.6						
SDV	Santo Domingo	12.36	216	*e*Pn	Pn	07 49 38.5	+3.1
SDV				Sn	Sn	07 51 52.7	+0.7
ROSC	El Rosal	17.75	219	P	Pn	07 50 46.5	+0.1
	0.7nm,0.3s,baz=72,slow=9.6,SNR=3.9						
ROSC				LR	LR	07 58 23.5	
	comp=Z,61nm,19.6s,baz=192,slow=39						
OTAV	Otavalo	23.89	220	*e*P	P	07 51 52.5	0.0
	2.9nm,0.8s,mb3.8						
TXAR	Lajitas Array	38.05	293	P	P	07 53 59.5	+2.3
	0.2nm,0.6s,mb3.0,baz=94,slow=10,SNR=5.8						
TXAR				PcP	PcP	07 56 13.6	+1.5
	0.3nm,0.7s,baz=122,slow=6.1,SNR=3.7						
TXAR	Lajitas Array	38.05	293	P	P	07 53 59.5	+2.3
TXAR				PcP	PcP	07 56 13.6	+1.5
ULM	Lac du Bonnet	40.49	328	LR	LR	08 08 07.2	
	comp=Z,178nm,20.4s,baz=310,slow=32						
CPUP	Villa Florida	45.48	172	P	P	07 54 55.7	-2.1
	0.4nm,0.3s,mb3.7,baz=338,slow=7.3,SNR=3.4						
YKA	Yellowknife Ar	55.81	334	P	P	07 56 15.3	0.0
	0.4nm,0.7s,mb3.6,baz=106,slow=7.5,SNR=7.5						

DDA ***01*** *07:51:18.4, 36°.82N×28°.10E, h7^{km}±2^{km}, Md2.8*
CSEM ***01*** *07:51:19.3±0.1, 36°.88N×28°.08E, h2^{km}, MD2.4*
ISCJB ***01*** *07:51:20.7±0.8, 36°.90N±0°.06×27°.91E±0°.06, h33^{km}, Error ellipse: s-maj=8.6km s-min=6.7km az=159.7*
ISK ***01*** *07:51:21.4, 36°.90N×27°.92E, h5^{km}, MD2.4*
ISC 01 07:51:21.5±2.2**, 36°.93N**±0°.05×**27°.94E**±0°.06**, h16**^{km}±34^{km}**, n14, σ0^s.61**/20**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.34	53	*e*PG	Pg	07 51 28.4	-0.2
DAT	Datca	0.35	236	*e*PG	Pg	07 51 28.2	-0.6
DAT				*e*SG	Sg	07 51 33.3	-0.4
DAT	Datca	0.35	236	*e*Pg	Pg	07 51 28.2	-0.6
DAT				*e*Sg	Sg	07 51 33.3	-0.4
MLSB	Milas	0.39	341	*e*PG	Pg	07 51 30.6	+1.1
MLSB	Milas	0.39	341	*e*Pg	Pg	07 51 30.6	+1.1
BDRM	Kayabasi	0.42	289	*i* P	Pg	07 51 29.6	-0.4
BDRM				*i* S	Sg	07 51 36.0	+0.3
BDRM	Kayabasi	0.42	289	*i* P	Pg	07 51 29.6	-0.4
BDRM				*i* S	Sg	07 51 36.0	+0.3
BODT	Bodrum	0.52	285	*e*PG	Pg	07 51 32.0	+0.2
BODT				*e*SG	Sg	07 51 39.5	+0.6
BODT	Bodrum	0.52	285	*e*Pg	Pg	07 51 32.0	+0.1
BODT				*e*Sg	Sg	07 51 39.5	+0.7
TURN	Turunc	0.54	96	*i* P	Px	07 51 27.2	
TURN				*i* S	Sx	07 51 32.4	
TURN	Turunc	0.54	96	*i* P	Px	07 51 27.2	
TURN				*i* S	Sx	07 51 32.4	
DALT	Dalyan (Mudla)	0.58	106	*e*PG	Pg	07 51 33.8	+0.8
AYDN	Tasoluk	0.73	356	*i* P	Pg	07 51 34.9	-0.9
AYDN				*i* S	Sg	07 51 45.1	-0.5
AYDN	Tasoluk	0.73	356	*i* P	Pg	07 51 34.9	-0.9
AYDN				*i* S	Sg	07 51 45.1	-0.4

CSEM ***01*** *07:58:14.4, 36°.89N×3°.66E, h0^{km}, ML3.5, After ALG*
CRAAG 01 07:58:14.4, 36°.89N×3°.66E, Ml3.5, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABA	Alger-Bouzarea	0.51	260	P	Pg	07 58 24.5	+0.3
ABA	Alger-Bouzarea	0.51	260	P	Pg	07 58 24.5	+0.3
AKET	Djebel Ketaf	0.86	168	P	Pg	07 58 37.9	+7.0
AKET	Djebel Ketaf	0.86	168	P	Pg	07 58 37.9	+7.0
EMHD	Djebel Mahouad	0.89	220	P	Pg	07 58 31.0	-0.5
EMHD	Djebel Mahouad	0.89	220	P	Pg	07 58 31.0	-0.5
SET	Setif	1.56	116	P	Pn	07 58 51.0	+7.6
SET	Setif	1.56	116	P	Pn	07 58 51.0	+7.6
EBNR	Beni Rached	1.82	251	P	Pn	07 58 48.2	+1.3
EBNR	Beni Rached	1.82	251	P	Pn	07 58 48.2	+1.3
EANR	’Ain N’Sour	2.27	246	P	Pn	07 58 56.8	+3.7
EANR	’Ain N’Sour	2.27	246	P	Pn	07 58 56.8	+3.7

NEIC 01 08:07:52.4, 44°.78S×167°.29E, h5^{km}**, ML4.0**(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	Milford Sound	0.47	77	P	Pg	08 08 01.2	-0.2
MSZ				S	Sg	08 08 07.2	-0.3
DCZ	Deep Cove	0.70	188	P	Pg	08 08 06.8	+0.9
DCZ				S	Sg	08 08 15.8	+0.7
MLZ	Mavora Lakes	0.84	133	P	Pg	08 08 08.7	+0.1
MLZ				S	Sg	08 08 19.6	0.0
WHZ	Wether Hill Ro	1.21	158	P	Pg	08 08 14.9	-0.6
WHZ				S	Sg	08 08 30.8	-0.4
WKZ	Wanaka	1.23	93	P	Pg	08 08 15.2	-0.8
JCZ	Jackson Bay	1.27	57	P	Pg	08 08 16.7	0.0
EAZ	Earnscleugh	1.50	108	P	Pn	08 08 20.0	0.0
TUZ	Tuapeka	2.03	126	P	Pn	08 08 28.6	+1.4
LBZ	Lake Benmore	2.10	80	P	Pn	08 08 29.7	+1.5
FOZ	Fox Glacier	2.11	56	P	Pn	08 08 29.4	+1.1
ODZ	Otahua Downs	2.40	98	P	Pn	08 08 33.8	+1.5
RPZ	Rata Peaks	2.91	70	P	Pn	08 08 40.6	+1.3
WVZ	Waitaha Valley	3.02	57	P	Pn	08 08 40.7	-0.1
LTZ	Lake Taylor	4.12	63	P	Pn	08 08 56.8	+0.8
DSZ	Denniston Nort	4.48	49	P	Pn	08 09 00.5	-0.4
THZ	Tophouse	5.09	56	P	Pn	08 09 10.0	+0.8
QRZ	Quartz Range	5.52	46	P	Pn	08 09 14.8	-0.4
NNZ	Nelson	5.71	54	P	Pn	08 09 18.0	+0.2

NEIC ***01*** *08:28:18.2, 16°.25N×97°.63W, h5^{km}, MD4.3(MEX), After MEX.*
MEX 01 08:28:18.1±1.0**, 16°.28N×97°.62W, h3**^{km}±12^{km}**, MD4.2, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.50	283	*e*P	Pg	08 28 27.1	-0.5
PNIG				*i* S	Sg	08 28 34.4	+0.3
VHO	Vista Hermosa	1.16	47	*e*P	Pg	08 28 37.3	-3.0
VHO				*i* S	Sg	08 28 52.2	-3.2
HUIG	Huatulco	1.54	109	*e*P	Pn	08 28 43.2	-3.2
HUIG				*i* S	Sn	08 29 02.3	-4.7
UTMO	Huajuapan	1.55	354	*i* P	Pn	08 28 44.3	-2.3
UTMO				*i* S	Sn	08 29 02.4	-4.7
TPIG	Tehuac#an	2.14	7	*i* P	Pn	08 28 52.8	-1.8
TPIG				*i* S	Sn	08 29 16.9	-4.8
MEIG	Mezcala	2.51	311	*i* P	Pn	08 28 58.2	-1.6
MEIG				*i* S	Sn	08 29 25.8	-5.1
CAIG	El Cayaco	2.65	287	*i* P	Pn	08 28 59.3	-2.4
CAIG				*i* S	Sn	08 29 29.9	-4.3
CMIG	Matias Romero	2.75	73	*e*P	Pn	08 28 59.1	-3.9
CMIG				*i* S	Sn	08 29 34.0	-2.7
CMIG	Matias Romero	2.75	73	*e*P	Pn	08 28 59.1	-3.9
CMIG				*i* S	Sn	08 29 33.4	-3.3
PLIG	Platanillo	2.76	320	*i* P	Pn	08 28 58.0	-5.2
PPM	Popocatepetl	2.93	341	*i* P	Pn	08 29 03.7	-1.8
PPM				*i* S	Sn	08 29 35.5	-5.7
PPM	Popocatepetl	2.93	341	*i* P	Pn	08 29 09.2	+3.7
LVIG	Laguna Verde	3.61	18	*i* S	Sn	08 30 02.0	+4.0
PCIG		4.28	97	*i* P	Pn	08 29 27.6	+3.6
PCIG				*i* S	Sn	08 30 04.7	-10
TGIG		4.34	83	*i* P	Pn	08 29 25.9	+0.8
TGIG				*i* S	Sn	08 30 11.9	-4.3
CCIG	Comitan	5.27	89	*i* S	Sn	08 30 36.2	-2.8

ISCJB ***01*** *08:36:08.8±0.6, 36°.28N±0°.04×22°.77E±0°.05, h10^{km}, Error ellipse: s-maj=7.2km s-min=3.5km az=140.6*
CSEM ***01*** *08:36:09.2, 36°.30N×22°.80E, h6^{km}, MD3.5, After ATH*
NEIC ***01*** *08:36:09.2, 36°.30N×22°.80E, h6^{km}, MD3.5(ATH), After ATH.*
ATH ***01*** *08:36:09.2, 36°.30N×22°.80E, h7^{km}±2^{km}, MD3.5/9*
ISC 01 08:36:09.7±0.6**, 36°.29N**±0°.04×**22°.78E**±0°.05**, h10**^{km}**, n28, σ0^s.91**/40**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	0.20	92	*e*PG	Pg	08 36 13.8	-0.2
KYTH	Kithira	0.20	92	*e*Pg	Pg	08 36 13.8	-0.2
VLI	Veliai	0.45	16	*e*PB	Pg	08 36 18.0	-0.4
VLI				*e*SB	Sg	08 36 24.0	-0.3
VLI	Veliai	0.45	16	*e*Pb	Pg	08 36 18.0	-0.4
VLI				*e*Sb	Sg	08 36 24.0	-0.3
PYL	PYLOS	1.03	306	*e*PG	Pg	08 36 28.2	-1.4
PYL				*e*SB	Sg	08 36 43.5	+0.5
PYL	PYLOS	1.03	306	*e*Pg	Pg	08 36 28.2	-1.4
PYL				*e*Sb	Sg	08 36 43.5	+0.5
ITM	Ithomi	1.12	322	*e*PG	Pg	08 36 30.3	-1.0
ITM				*e*SB	Sg	08 36 46.7	+0.8
ITM	Ithomi	1.12	322	*e*Pg	Pg	08 36 30.3	-1.0
ITM				*e*Sb	Sg	08 36 46.7	+0.8
VLX	Vlachokerasia	1.13	343	*e*PB	Pg	08 36 30.5	-0.9
VLX				*e*SB	Sg	08 36 46.1	+0.1
VLX	Vlachokerasia	1.13	343	*e*Pb	Pg	08 36 30.5	-0.9
VLX				*e*Sb	Sg	08 36 46.1	+0.1
DID	Didima	1.27	17	*e*PG	Pn	08 36 32.7	-0.8
DID				*e*SB	Sg	08 36 50.3	-0.2
DID	Didima	1.27	17	*e*Pg	Pn	08 36 32.7	-0.8
DID				*e*Sb	Sg	08 36 50.3	-0.2
VAM	Vamos	1.45	127	*e*PG	Pn	08 36 36.0	0.0
VAM				*e*SB	Sg	08 36 56.0	-0.3
VAM	Vamos	1.45	127	*e*Pg	Pn	08 36 36.0	0.0
VAM				*e*Sb	Sg	08 36 56.0	-0.3
NAIG	Nisos Aigina	1.57	21	*e*PG	Pn	08 36 37.5	-0.1
NAIG	Nisos Aigina	1.57	21	*e*Pg	Pn	08 36 37.5	-0.1
GUR	Goura	1.68	348	*e*PB	Pn	08 36 40.8	+1.6
GUR	Goura	1.68	348	*e*Pb	Pn	08 36 40.8	+1.6
LTK	Loutraki	1.74	5	*e*PG	Pn	08 36 40.4	+0.5
LTK	Loutraki	1.74	5	*e*Pg	Pn	08 36 40.4	+0.5
GVD	Gavdhos	1.80	143	*e*PN	Pg	08 36 43.0	-1.1
GVD	Gavdhos	1.80	143	*e*Pn	Pg	08 36 43.0	-1.1
NPS	Neapolis	2.52	113	*e*PB	Pn	08 36 51.7	+1.0
NPS	Neapolis	2.52	113	*e*Pb	Pn	08 36 51.7	+1.0
EVR	Evrytania	2.73	344	*e*PN	Pn	08 36 57.0	+3.4
EVR	Evrytania	2.73	344	*e*Pn	Pn	08 36 57.0	+3.4
KARP	Karpathos	3.63	100	*e*PN	Pn	08 37 07.6	+1.7
KARP	Karpathos	3.63	100	*e*Pn	Pn	08 37 07.6	+1.7

ISCJB ***01*** *08:41:28.9±0.5, 36°.93N±0°.03×3°.46E±0°.04, h10^{km}, Error ellipse: s-maj=4.9km s-min=3.7km az=145.1*
CSEM ***01*** *08:41:30.7±0.2, 36°.89N×3°.51E, h2^{km}, ML3.4, Error ellipse: s-maj=7.2km s-min=5.7km az=36.0*
CRAAG ***01*** *08:41:30.4, 36°.81N×3°.51E, Ml3.4*
MDD ***01*** *08:41:31.1±0.5, 36°.85N×3°.52E, h0^{km}, mb4.1/10, Error ellipse: s-maj=6.3km s-min=4.7km az=62.0, PRIMO*
NEIC ***01*** *08:41:33.5, 37°.04N×3°.43E, h0^{km}, MN2.7(MDD), After MDD.*
ISC 01 08:41:30.2±0.7**, 36°.91N**±0°.06×**3°.49E**±0°.04**, h10**^{km}±9^{km}**, n50, σ1^s.34**/69**, 1D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABMS	Boumerdes	0.16	183	P	Pg	08 41 32.4	-1.2
ABMS	Boumerdes	0.16	183	P	Pg	08 41 32.4	-1.2
ABA	Alger-Bouzarea	0.38	254	P	Pg	08 41 38.8	+1.1
ABA	Alger-Bouzarea	0.38	254	P	Pg	08 41 38.8	+1.1
ADJB	Djebel Djouab	0.75	183	P	Pg	08 41 44.1	-0.5
ADJB	Djebel Djouab	0.75	183	P	Pg	08 41 44.1	-0.5
EMHD	Djebel Mahouad	0.83	212	P	Pg	08 41 46.0	-0.1
EMHD	Djebel Mahouad	0.83	212	P	Pg	08 41 46.0	-0.1
AKF	Akfadou	0.91	107	P	Pg	08 41 47.7	+0.1
AKF	Akfadou	0.91	107	P	Pg	08 41 47.7	+0.1
AKET	Djebel Ketaf	0.92	160	P	Pg	08 41 47.2	-0.6
AKET	Djebel Ketaf	0.92	160	P	Pg	08 41 47.2	-0.6
EBNR	Beni Rached	1.69	249	P	Pg	08 42 03.8	+1.1
ECHA	Ech Chlef	1.87	247	P	Pg	08 42 06.2	+0.2
ECHF	Ech Chlef	1.89	247	P	Pg	08 42 06.2	-0.2
DFRA	Djebel Bou Aff	1.95	100	P	Pg	08 42 06.8	-0.8
DFRA	Djebel Bou Aff	1.95	100	P	Pg	08 42 06.8	-0.8
EANR	’Ain N’Sour	2.15	244	P	Pg	08 42 09.3	-2.1
EANR	’Ain N’Sour	2.15	244	P	Pg	08 42 09.3	-2.1
ETRT	Tiaret	2.33	230	P	Pg	08 42 11.5	-3.4
ETRT	Tiaret	2.33	230	P	Pg	08 42 11.5	-3.4
OKGL	Djebel Kef Gue	2.46	250	P	Pg	08 42 18.0	+0.8
CASM	Ain Smara	2.50	104	P	Pg	08 42 13.9	-4.2
CASM	Ain Smara	2.50	104	P	Pg	08 42 13.9	-4.2
OJGS	Djebel Guires	2.62	239	P	Pg	08 42 19.0	-1.4
EIBI	Ibiza	2.71	322	P	Pg	08 42 15.4	-6.8
	5.3nm,0.2s,SNR=21						
EIBI				S	Sn	08 42 45.8	-0.8
	52nm,0.3s,SNR=7.9						
EIBI	Ibiza	2.71	322	P	Pg	08 42 15.4	-6.7
	5.3nm,0.2s,SNR=21						
EIBI				S	Sn	08 42 45.8	-0.9
	52nm,0.3s,SNR=7.9						
ETOS	Mallorca	2.91	350	⇓P	Pn	08 42 17.7	+1.3
	3.5nm,0.1s,SNR=18						
ETOS				S	Sn	08 42 50.0	-1.4
	3.5nm,0.1s,SNR=7.9						
ETOS	Mallorca	2.91	350	P	Pn	08 42 17.8	+1.3
ETOS				S	Sn	08 42 50.0	-1.4
	3.5nm,0.1s,SNR=7.9						
CMAH	Djebel Manchou	3.17	94	P	Pn	08 42 19.9	-0.2
CMAH	Djebel Manchou	3.17	94	P	Pn	08 42 19.9	-0.2
EBEN	Beniarda	3.45	302	P	Pn	08 42 25.5	+1.6
	3.4nm,0.2s,SNR=7.9						
EBEN				S	Sn	08 43 03.3	-1.5
	11nm,0.3s,SNR=7.9						
EBEN	Beniarda	3.45	302	P	Pn	08 42 25.5	+1.6
	3.4nm,0.2s,SNR=7.9						
EBEN				S	Sn	08 43 03.3	-1.5
	11nm,0.3s,SNR=7.9						
ETOB	Tobarra	4.35	295	P	Pn	08 42 38.2	+1.9
	6.6nm,0.2s,SNR=17						
ETOB				S	Sn	08 43 26.9	-0.3
	12nm,0.4s,SNR=7.9						
ETOB	Tobarra	4.35	295	P	Pn	08 42 38.2	+1.8
	6.6nm,0.2s,SNR=17						
ETOB				S	Sn	08 43 26.9	-0.2
	12nm,0.4s,SNR=7.9						
ECHE	Chera	4.42	309	P	Pn	08 42 39.6	+2.4
	4.4nm,0.2s,SNR=15						
ECHE				S	Sn	08 43 28.6	-0.1
	SNR=7.9						
ECHE	Chera	4.42	309	P	Pn	08 42 39.8	+2.6
ECHE				S	Sn	08 43 28.6	-0.1
ECHE	Chera	4.42	309	P	Pn	08 42 39.6	+2.4
	4.4nm,0.2s,SNR=15						
ECHE				S	Sn	08 43 28.6	-0.1
	SNR=7.9						
EMOS	Mosqueruela	4.64	319	P	Pn	08 42 42.1	+1.8
	2.7nm,0.2s,SNR=15						
EMOS				S	Sn	08 43 32.8	-1.4
	11nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	4.64	319	P	Pn	08 42 42.1	+1.8
	2.7nm,0.2s,SNR=15						
EMOS				S	Sn	08 43 32.8	-1.4
	11nm,0.3s,SNR=7.9						
ERTA	Horta de San J	4.73	330	S	Sn	08 43 34.2	-2.4
	8.5nm,0.4s,SNR=7.9						
ERTA	Horta de San J	4.73	330	S	Sn	08 43 34.2	-2.3
	8.5nm,0.4s,SNR=7.9						
EPOB	Poblet	4.82	338	P	Pn	08 42 44.4	+1.6
	1.5nm,0.3s,SNR=7.9						
EPOB				S	Sn	08 43 36.6	-2.0
	0.2nm,0.3s,SNR=7.9						
EPOB	Poblet	4.82	338	P	Pn	08 42 44.4	+1.6
	1.5nm,0.3s,SNR=7.9						
EPOB				S	Sn	08 43 36.6	-2.0
	0.2nm,0.3s,SNR=7.9						
EVIA	Vianos	5.05	292	P	Pn	08 42 46.9	+0.9
	1.0nm,0.2s,SNR=7.9						
EVIA				S	Sn	08 43 43.3	-1.2
	2.2nm,0.2s,SNR=7.9						
EVIA	Vianos	5.05	292	P	Pn	08 42 46.9	+0.9
	1.0nm,0.2s,SNR=7.9						
EVIA				S	Sn	08 43 43.3	-1.1
	2.2nm,0.2s,SNR=7.9						
EBER	Berja	5.11	272	P	Pn	08 42 49.4	+2.6
	1.3nm,0.3s,SNR=7.9						
EBER				S	Sn	08 43 46.6	+0.7
	SNR=7.9						
EBER	Berja	5.11	272	P	Pn	08 42 49.4	+2.6
	1.3nm,0.3s,SNR=7.9						
EBER				S	Sn	08 43 46.6	+0.7
	SNR=7.9						
EJON	La Jonquera	5.55	355	P	Pn	08 42 54.9	+2.1
	5.7nm,0.2s,SNR=60						
EJON	La Jonquera	5.55	355	P	Pn	08 42 54.9	+2.1
	5.7nm,0.2s,SNR=60						

IDC 01 09:03:49.4±6.3**, 24°.16S×66°.75W, h282**^{km}±56^{km}**, mb3.2**/2**, mb1 3.4**/4**, mb1mx3.1**/17**, mbtmp3.1**/4**, Error ellipse: s-maj=67.3km s-min=32.3km az=136.0, Salta Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPUP	Villa Florida	8.80	106	P	Pn	09 05 52.6	-0.2
	0.9nm,0.3s,baz=276,slow=11,SNR=7.9						
PLCA	Paso Flores	16.84	190	P	P	09 07 28.0	+0.6
	0.2nm,0.3s,baz=349,slow=8.5,SNR=7.2						
TORD	Torodi Ar. Bea	76.41	69	P	P	09 15 08.4	-0.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	0.4nm,0.5s,baz=248,slow=5.5,SNR=8.2						
YKA	Yellowknife Ar	94.35	340	P	P	09 16 36.2	-0.4
	0.1nm,0.4s,baz=131,slow=4.3,SNR=3.6						
ASAR	Alice Springs	128.41	204	PKP	PKPdf	09 22 22.4	-0.8
	0.3nm,0.6s,baz=153,slow=0.2,SNR=4.5						
WRA	Warramunga Arr	131.59	207	PKP	PKPdf	09 22 29.1	-0.3
	0.3nm,0.3s,baz=179,slow=1.7,SNR=4.3						
MKAR	Makanchi Array	146.50	40	PKPbc	PKPbc	09 22 57.4	-0.1
	0.8nm,0.6s,baz=292,slow=3.7,SNR=7.3						

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*DDA **01** 09:11:03.0,39°.45N×33°.07E,h17^{km}±1^{km},Ml4.4*

*IDC **01** 09:11:04.0±0.9,39°.56N×32°.99E,h0^{km},mb3.7/8, mb1 3.8/12,mb1mx3.7/24,mbtmp3.7/12,ML3.8/4,MS3.2/4, Ms1 3.2/4,ms1mx2.9/37,Error ellipse: s-maj=18.8km s-min=8.6km az=165.0*

*NEIC **01** 09:11:03.0,39°.42N×33°.07E,h5^{km},mb4.1/2,ML4.1(ISK), After ISK.*

*ISK **01** 09:11:03.2,39°.43N×33°.07E,h5^{km},ML4.1*

*ISCJB **01** 09:11:03.5±0.5,39°.45N±0°.02×33°.08E±0°.02,h1^{km}±4^{km}, mb3.8/8,Error ellipse: s-maj=3.2km s-min=2.7km az=151.9*

*CSEM **01** 09:11:04.3±0.1,39°.48N×33°.06E,h2^{km},mb4.0/6,Error ellipse: s-maj=4.3km s-min=3.3km az=166.0*

*MOS **01** 09:11:04.0±2.3,39°.57N×33°.03E,h9^{km},mb4.0/8,Error ellipse: s-maj=11.7km s-min=8.5km az=113.1*

ISC 01 09:11:04.4±0.4,**39°.46N**±0°.02×**33°.06E**±0°.02,**h0**^{km}±3^{km}, **n170,**σ**1^s.01**/197,**mb3.8**/8,**15C-9D,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALAT	Bala	0.11	25	⇓iP	Pg	09 11 06.8	+0.3
BALAT				i S	Sg	09 11 08.8	+0.9
DAD	Ankara	0.51	332	i P	Pg	09 11 14.0	-0.1
DAD				i S	Sg	09 11 21.4	+0.7
DAD	Ankara	0.51	332	i P	Pg	09 11 14.0	-0.1
DAD				i S	Sg	09 11 21.4	+0.7
BR131	Keskin Array S	0.52	59	ePg	Pg	09 11 14.2	-0.2
BR131				eSg	Sg	09 11 21.5	+0.4
BR131	Keskin Array S	0.52	59	ePg	Pg	09 11 14.1	-0.2
BR131				eSg	Sg	09 11 21.5	+0.4
BRTR	Keskin Array B	0.52	59	P	Pg	09 11 13.8	-0.5
BRTR						09 11 21.3	
BRTR				pmax	pmax		
	comp=Z,392nm,0.3s						
BRTR				smax			
	comp=N,1.0nm,0.3s						
BRTR	Keskin Array B	0.52	59	Pg	Pg	09 11 13.8	-0.6
	comp=N,392nm,0.3s,baz=226,slow=19,SNR=2967						
BRTR				Lg		09 11 21.2	
	comp=N,1µm,0.3s,baz=168,slow=34,SNR=56						
BRTR	Keskin Array B	0.52	59	Pg	Pg	09 11 13.8	-0.5
BRTR				Lg		09 11 21.2	
BRTR				S	Sg	09 11 21.3	+0.2
	comp=N,1.0nm,0.3s						
CDAG	Cicekdag	1.03	80	⇑iP	Pg	09 11 22.9	-1.2
CDAG				i S	Sg	09 11 37.5	+0.1
CDAG	Cicekdag	1.03	80	i P	Pg	09 11 22.9	-1.2
CDAG				i S	Sg	09 11 37.5	+0.1
ELDT	Eldivan	1.07	15	⇓iP	Pg	09 11 23.8	-1.0
ELDT				i S	Sg	09 11 39.7	+1.0
ELDT	Eldivan	1.07	15	i P	Pg	09 11 23.8	-1.1
ELDT				i S	Sg	09 11 39.7	+1.0
KIZT	Kizilcal	1.09	238	PG	Pg	09 11 24.3	-0.9
KIZT	Kizilcal	1.09	238	i Pg	Pg	09 11 24.3	-0.9
KDHN	Kadinhani	1.19	219	⇓iP	Pg	09 11 25.8	-1.5
KDHN				i S	Sg	09 11 42.1	-0.6
KDHN	Kadinhani	1.19	219	i P	Pg	09 11 25.8	-1.4
KDHN				i S	Sg	09 11 42.1	-0.6
SVRH	Sivrihisar-ESK	1.19	270	PN	Pn	09 11 27.0	-1.3
SVRH				eSN	Sn	09 11 44.8	-0.3
SVRH	Sivrihisar-ESK	1.19	270	i Pn	Pn	09 11 27.0	-1.2
SVRH				eSn	Sn	09 11 44.8	-0.3
CANT	Cankiri	1.22	20	ePN	Pn	09 11 27.7	-1.0
CANT				eSN	Sn	09 11 46.2	+0.4
SGKT	Sivrigoynuk	1.35	326	i P	Pg	09 11 29.5	-0.9
SGKT	Sivrigoynuk	1.35	326	i P	Pg	09 11 29.5	-0.9
AVNT	Avonos	1.55	115	⇑iP	Px	09 11 27.1	
AVNT				i S	Sx	09 11 48.9	
KONT	Konya--Tatoy	1.61	200	ePN	Pn	09 11 33.0	-1.0
KONT	Konya--Tatoy	1.61	200	ePn	Pn	09 11 33.0	-1.0
ILGA	Ilgaz	1.67	17	⇓iP	Pn	09 11 33.8	-1.0
ILGA				i S	Sn	09 11 55.7	-1.2
ILGA	Ilgaz	1.67	17	i P	Pn	09 11 33.8	-1.0
ILGA				i S	Sn	09 11 55.7	-1.2
ESKT	Eskisehir	1.71	273	ePN	Pn	09 11 35.4	0.0
ESKT	Eskisehir	1.71	273	⇑iP	Pn	09 11 33.6	-1.8
ESKT				i S	Sx	09 12 07.5	
ESKT	Eskisehir	1.71	273	ePn	Pn	09 11 35.4	0.0
SEYT	Eskypehyr	1.71	273	i P	Pn	09 11 33.6	-1.8
TOS	Tosya	1.74	25	ePN	Pn	09 11 35.0	-0.7
TOS	Tosya	1.74	25	ePn	Pn	09 11 35.1	-0.7
YOZ	Yozgat	1.75	83	ePN	Pn	09 11 36.0	0.0
YOZ	Yozgat	1.75	83	ePn	Pn	09 11 36.0	0.0
CTKT	Corum	1.76	48	⇓iP	Pn	09 11 36.0	-0.1
CTKT				i S	Sg	09 12 00.9	-0.2
CTKT	Corum	1.76	48	i P	Pn	09 11 36.0	-0.1
CTKT				i S	Sg	09 12 00.9	-0.2
SAFT	Safranbolu	1.80	351	ePN	Pg	09 11 37.8	-1.2
SAFT	Safranbolu	1.80	351	ePn	Pg	09 11 37.8	-1.1
NIG	Nigde	1.81	138	ePN	Pn	09 11 36.3	-0.5
NIG	Nigde	1.81	138	ePn	Pn	09 11 36.3	-0.4
BALT	Daday	2.09	7	⇓iP	Pn	09 11 39.4	-1.2
BALT				i S	Sg	09 12 12.2	+0.7
BALT	Daday	2.09	7	i P	Pn	09 11 39.4	-1.2
HENT	Hendek	2.15	310	eP	Pn	09 11 40.6	-0.8
HENT	Hendek	2.15	310	eP	Pn	09 11 40.6	-0.8
SHUT	Suhut-Afyon	2.16	246	ePN	Pn	09 11 41.2	-0.3
SHUT	Suhut-Afyon	2.16	246	ePn	Pn	09 11 41.2	-0.3
KDZE	Karadeniz Ereo	2.23	327	ePN	Pn	09 11 43.7	+1.2
KDZE	Karadeniz Ereo	2.23	327	ePn	Pn	09 11 43.7	+1.2
BNN	Bunyan	2.25	105	ePN	Pn	09 11 42.7	0.0
BNN	Bunyan	2.25	105	ePn	Pn	09 11 42.7	-0.1
ALT	Altintas	2.33	261	ePN	Pn	09 11 44.1	+0.3
ALT	Altintas	2.33	261	ePn	Pn	09 11 44.1	+0.2
BOYT	Boyabat	2.41	35	⇓iP	Pn	09 11 44.1	-0.9
BOYT				i S	Sn	09 12 14.4	-0.8
BOYT	Boyabat	2.41	35	i P	Pn	09 11 44.1	-0.9
BOYT				i S	Sn	09 12 14.4	-0.8
HDMB	Hadim	2.53	191	ePN	Pn	09 11 46.9	+0.2
HDMB	Hadim	2.53	191	ePn	Pn	09 11 46.9	+0.2
ISP	Isparta	2.57	232	ePn	Pn	09 11 46.7	-0.5
ISP				eSg	Sg	09 12 27.1	+0.2
ISP	Isparta	2.57	232	ePn	Pn	09 11 46.7	-0.5
ISP				eSg	Sg	09 12 27.1	+0.2
CAVI	Cavuskoy	2.59	288	ePN	Pn	09 11 48.5	+1.0
CAVI	Cavuskoy	2.59	288	ePn	Pn	09 11 48.5	+1.1
BZK	Bozkurt	2.60	16	ePN	Pn	09 11 49.2	+1.7
BZK	Bozkurt	2.60	16	ePn	Pn	09 11 49.3	+1.7
KARA	Karaisali	2.70	144	ePN	Pn	09 11 48.9	-0.1
KARA	Karaisali	2.70	144	ePn	Pn	09 11 48.9	0.0
PINB	Pinarbasi	2.71	106	i P	Pn	09 11 50.2	+1.1
PINB				i S	Sg	09 12 31.7	+0.1
PINB	Pinarbasi	2.71	106	i P	Pn	09 11 50.2	+1.0
ADVT	Abdulvahap	2.73	292	ePN	Pn	09 11 50.8	+1.4
ADVT	Abdulvahap	2.73	292	ePn	Pn	09 11 50.8	+1.3
TOKA	Tokat	2.77	71	i P	Pn	09 11 49.8	-0.1
TOKA				i S	Sg	09 12 27.3	-5.9
TOKA	Tokat	2.77	71	i P	Pn	09 11 49.8	-0.1
TOKA				i S	Sg	09 12 27.3	-6.0
BCK	Bucak	2.78	225	ePN	Pn	09 11 50.0	-0.1
BCK	Bucak	2.78	225	ePn	Pn	09 11 50.0	-0.1
KVT	Kavak	2.80	54	ePN	Pn	09 11 51.2	+0.8
KVT	Kavak	2.80	54	ePn	Pn	09 11 51.2	+0.9
GDZ	Gediz	2.80	264	eP	Pn	09 11 50.1	-0.3
GDZ	Gediz	2.80	264	eP	Pn	09 11 50.1	-0.3
KOZT	Kozan	2.93	131	ePN	Pn	09 11 52.4	+0.2
SARI	SarD1z-Kayseri	2.93	104	ePN	Pn	09 11 51.2	-1.0
SARI	SarD1z-Kayseri	2.93	104	ePn	Pn	09 11 51.2	-1.0
KHL	Karahalli	2.99	249	ePN	Pn	09 11 54.0	+1.1
KHL	Karahalli	2.99	249	ePn	Pn	09 11 54.0	+1.1
KHAL	Karahalli	2.99	250	i P	Pn	09 11 51.8	-1.1
KHAL	Karahalli	2.99	250	i P	Pn	09 11 51.8	-1.2
YLV	Yalova	3.04	292	ePN	Pn	09 11 54.9	+1.2
YLV	Yalova	3.04	292	ePn	Pn	09 11 54.9	+1.2
SILT	Sile	3.11	304	ePN	Pn	09 11 55.6	+0.9
SILT	Sile	3.11	304	ePn	Pn	09 11 55.6	+0.9
GEMT	Gemlik	3.13	289	ePN	Pn	09 11 55.6	+0.6
GEMT	Gemlik	3.13	289	ePn	Pn	09 11 55.6	+0.7
ANDN	Andirin	3.19	125	⇑iP	Pn	09 11 56.5	+0.8
ANDN				i S	Sg	09 12 42.7	-4.0
ANDN	Andirin	3.19	125	i P	Pn	09 11 56.5	+0.8
IKL	Isikli	3.25	171	ePN	Pn	09 11 57.1	+0.6
IKL	Isikli	3.25	171	ePn	Pn	09 11 57.1	+0.5
ARMT	Armutlu	3.41	290	ePN	Pn	09 11 59.9	+1.2
ARMT	Armutlu	3.41	290	ePn	Pn	09 11 59.9	+1.2
RSDY	Resadiye-TOKAT	3.41	73	ePN	Pn	09 11 59.6	+0.9
RSDY	Resadiye-TOKAT	3.41	73	ePn	Pn	09 11 59.6	+0.9
ISK	Istanbul-Kandi	3.46	299	ePN	Pn	09 12 01.1	+1.7
ISK	Istanbul-Kandi	3.46	299	ePn	Pn	09 12 01.1	+1.7
KLYT	Kilyos	3.56	302	ePN	Pn	09 12 01.9	+1.1
KLYT	Kilyos	3.56	302	ePn	Pn	09 12 01.9	+1.1
KULA	Kula-Manisa	3.56	256	ePN	Pn	09 12 01.5	+0.7
KULA	Kula-Manisa	3.56	256	ePn	Pn	09 12 01.5	+0.7
AKCD	Akcadag	3.97	106	i P	Pn	09 12 07.4	+1.0
AKCD				i S	Sg	09 13 05.5	-6.4
AKCD	Akcadag	3.97	106	i P	Pn	09 12 07.4	+1.0
BALB	Balikesir	4.01	274	ePN	Pn	09 12 09.0	+2.0
BALB	Balikesir	4.01	274	ePn	Pn	09 12 09.0	+2.0
BNT	Bandirma	4.05	284	ePN	Pn	09 12 09.5	+1.9
GZT	Gaziantep	4.11	119	i P	Pn	09 12 08.7	+0.3
KEMA	Kemaliye	4.21	91	i P	Pn	09 12 10.5	+0.7
KEMA	Kemaliye	4.21	91	i P	Pn	09 12 10.5	+0.7
MALT	Malatya	4.34	104	⇑iP	Pn	09 12 12.1	+0.6
MALT	Malatya	4.34	104	⇑P	Pn	09 12 12.1	+0.6
MALT	Malatya	4.34	104	P	Pn	09 12 12.1	+0.6
TIRR	Tirgusor	6.08	327	⇓iP	Pn	09 12 39.7	+4.3
TIRR	Tirgusor	6.08	327	⇓P	Pn	09 12 39.7	+4.3
MMAI	Mount Meron Ar	6.70	163	Pn	Pn	09 12 45.3	+1.3
	comp=N,2.0nm,0.3s,baz=347,slow=13,SNR=7.5						
MMAI				LR	LR	09 15 56.4	
	comp=N,250nm,18.9s,baz=290,slow=43						
IDI	Anoyia	7.72	240	Pn	Pn	09 12 58.7	+0.7
	comp=N,0.9nm,0.3s,baz=51,slow=15,SNR=5.5						
IDI	Anoyia	7.72	240	Pn	Pn	09 12 58.7	+0.7
ASF	Jabal al Asfar	7.91	156	Pn	Pn	09 13 07.0	+6.4
	comp=N,0.2nm,0.3s,baz=60,slow=20,SNR=2.4						
ASF				LR	LR	09 16 34.5	
	comp=N,112nm,18.5s,baz=106,slow=41						
VRI	Vrincioaia	7.92	326	⇑iP	Pn	09 13 04.5	+3.8
VRI	Vrincioaia	7.92	326	⇑P	Pn	09 13 04.5	+3.8
MLR	Muntele Rosu	8.00	321	⇑iP	Pn	09 13 03.9	+2.2
MLR	Muntele Rosu	8.00	321	⇑P	Pn	09 13 03.9	+2.2
VOIR		8.41	318	⇑iP	Pn	09 13 07.7	+0.3
VOIR		8.41	318	⇑P	Pn	09 13 07.7	+0.3
VOIR		8.41	318	P	Pn	09 13 07.7	+0.3
GNI	Garni	9.02	82	LR	LR	09 17 21.7	
	comp=N,156nm,18.2s,baz=287,slow=42						
GZR	Gura Zlata	9.64	311	⇑iP	Pn	09 13 23.0	-1.2
GZR	Gura Zlata	9.64	311	⇑P	Pn	09 13 23.1	-1.2
GZR	Gura Zlata	9.64	311	⇑P	Pn	09 13 23.0	-1.2
EIL	Elat	9.89	170	Pn	Pn	09 13 29.9	+2.2
	comp=N,0.5nm,0.3s,baz=14,slow=9.7,SNR=2.8						
EIL				LR	LR	09 18 36.2	
	comp=N,71nm,19.2s,baz=338,slow=45						
EIL	Elat	9.89	170	Pn	Pn	09 13 30.0	+2.3
AKASG	Malin Array Be	11.56	348	P	Pn	09 13 47.0	-3.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	11.56	348	Pn	Pn	09 13 47.0	-3.6
	comp=Z,1.0nm,0.3s,baz=159,slow=11,SNR=2.9						
AKASG	Malin Array Be	11.56	348	P	Pn	09 13 47.0	-3.5
	comp=Z,1.0nm,0.3s						
PGF	Pioggiola	18.41	287	eP	Pn	09 15 18.2	-2.6
	comp=Z,38nm,1.0s						
PGF	Pioggiola	18.41	287	eP	Pn	09 15 18.2	-2.6
PGF				pmax	pmax		
	comp=Z,19nm,1.0s						
PGF	Pioggiola	18.41	287	eP	Pn	09 15 18.2	-2.6
	comp=Z,19nm,1.0s						
PGF	Pioggiola	18.41	287	eP	Pn	09 15 18.2	-2.6
	comp=Z,19nm,1.0s						
MBDF	Montbardon	20.17	294	eP	P	09 15 38.5	-1.6
	comp=Z,13nm,0.9s						
MBDF	Montbardon	20.17	294	eP	P	09 15 38.5	-1.6
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MBDF	Montbardon	20.17	294	eP	P	09 15 38.5	-1.6
	comp=Z,6.7nm,0.9s						
MBDF	Montbardon	20.17	294	eP	P	09 15 38.5	-1.6
	comp=Z,6.7nm,0.9s						
LPG	La Plagne	20.27	296	eP	P	09 15 39.8	-1.5
LPG	La Plagne	20.27	296	eP	P	09 15 39.8	-1.5
AKTK	Aktyubinsk	20.69	50	P	P	09 15 45.9	+0.1
AKTK	Aktyubinsk	20.69	50	P	P	09 15 45.9	+0.1
	comp=Z,3.0nm,0.6s						
AKTO	Aktyubinsk	20.69	50	P	P	09 15 45.9	+0.1
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKTO	Aktyubinsk	20.69	50	P	P	09 15 45.9	+0.1
	comp=Z,2.8nm,0.6s,baz=252,slow=11,SNR=8.6						
JOF	Joensuu	23.52	358	eP	P	09 16 13.2	-2.6
JOF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.0						
JOF	Joensuu	23.52	358	ep	P	09 16 13.2	-2.6
	comp=Z,1.8nm,0.4s,mb4.0						
JOF	Joensuu	23.52	358	eP	P	09 16 13.2	-2.6
	comp=Z,2.0nm,0.4s,mb4.0						
ARCES	ARCESS Array B	30.41	355	P	P	09 17 16.8	-1.0
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	30.41	355	P	P	09 17 16.8	-1.1
	comp=Z,2.5nm,0.9s,mb4.0,baz=172,slow=10,SNR=12						
ARCES	ARCESS Array B	30.41	355	P	P	09 17 16.8	-1.0
	comp=Z,3.0nm,0.9s,mb4.1						
KURK	Kurchatov	33.57	55	P	P	09 17 44.8	-1.0
KURK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
KURK	Kurchatov	33.57	55	P	P	09 17 44.8	-1.0
	comp=Z,1.5nm,0.3s,mb4.3,baz=275,slow=8.8,SNR=4.3						
KURK	Kurchatov	33.57	55	P	P	09 17 44.8	-1.0
	comp=Z,2.0nm,0.4s,mb4.4						
MKAR	Makanchi Array	36.17	62	P	P	09 18 07.5	-0.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	Makanchi Array	36.17	62	P	P	09 18 07.5	-0.8
	comp=Z,0.5nm,0.9s,mb3.4,baz=298,slow=2.6,SNR=5.4						
MKAR	Makanchi Array	36.17	62	P	P	09 18 07.5	-0.8
	comp=Z,1.0nm,0.9s,mb3.6						
ZALV	Zalesovo Beam	37.46	50	P	P	09 18 19.6	+0.5
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ZALV	Zalesovo Beam	37.46	50	P	P	09 18 19.6	+0.4
	comp=Z,0.5nm,0.5s,mb3.5,baz=248,slow=11,SNR=2.4						
TORD	Torodi Ar. Bea	38.10	235	P	P	09 18 23.4	-1.5
	comp=Z,0.8nm,0.7s,mb3.5,baz=33,slow=8.5,SNR=5.8						
KSRS	Korea Array	70.67	57	P	P	09 22 22.0	+0.2
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.1						
KSRS	Korea Array	70.67	57	P	P	09 22 22.0	+0.2
	comp=Z,0.8nm,0.6s,mb4.0,baz=300,slow=4.9,SNR=3.4						
KSRS	Korea Array	70.67	57	P	P	09 22 22.0	+0.2
	comp=Z,1.0nm,0.6s,mb4.1						
YKA	Yellowknife Ar	75.11	345	P	P	09 22 46.7	-1.0
	comp=Z,0.2nm,0.6s,mb3.3,baz=25,slow=5.4,SNR=5.1						
YKA	Yellowknife Ar	75.11	345	P	P	09 22 46.7	-1.0

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*IDC **01** 09:59:49.9±6.2,36°.22N×70°.98E,h154^{km}±57^{km},mb3.2/7, mb1 3.3/11,mb1mx3.1/27,mbtmp3.1/11,Error ellipse: s-maj=32.6km s-min=21.4km az=2.0*

*ISCJB **01** 09:59:53.4±1.2,36°.48N±0°.07×70°.9E±0°.1,h199^{km}±13^{km}, mb3.3/6,Error ellipse: s-maj=17.5km s-min=9.3km az=155.2*

*NNC **01** 10:00:03.1±4.0,37°.19N×70°.71E,h237^{km}±44^{km},mb2.6, mpv3.7,Error ellipse: s-maj=69.5km s-min=32.1km az=66.0*

ISC 01 09:59:54.4±1.1,**36°.48N**±0°.07×**71°.0E**±0°.1,**h194**^{km}±12^{km}, **n24,**σ**1^s.08**/25,**mb3.3**/6,**4C-2D,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DLH	Dalhousie	5.69	132	ePKP	Sn	10 02 23.0	-0.2
AML	Almayashu	6.03	20	P	Pn	10 01 22.5	+0.7
	SNR=183						
UCH	Uchtor	6.36	24	P	Sn	10 02 36.6	-2.2
	SNR=6.7						
EKS2	Erkin-Say	6.54	18	P	Pn	10 01 29.1	+0.6
	SNR=13						
KK31	Karatay Array	6.63	357	⇑P	Pn	10 01 29.6	0.0
	1.6nm,0.2s,baz=185,slow=12,SNR=80						
KK31				⇓S	Sn	10 02 39.5	-5.6
	3.7nm,0.3s,baz=187,slow=20,SNR=12						
AAK	Ala-Archa	6.72	23	P	Pn	10 01 31.7	+0.9
	SNR=11						
KBK	Karagaybulak	6.89	25	P	Pn	10 01 33.6	+0.5
	SNR=5.1						
CHMS	Chumysh	7.13	23	P	Pn	10 01 36.7	+0.5
	SNR=5.7						
USP	Ospenovka	7.30	21	P	Pn	10 01 39.0	+0.5
	SNR=10.0						
TKM2	Tokmak 2	7.35	28	P	Pn	10 01 40.0	+0.9
	SNR=21						
MKAR	Makanchi Array	13.32	36	P	Pn	10 02 55.0	-0.9
	0.1nm,0.3s,baz=217,slow=12,SNR=4.5						
AB09	Akbulak array	15.11	331	⇑P	Pn	10 03 16.8	-1.2
	0.4nm,0.3s						
AB09				⇓S	Sx	10 05 55.8	
	0.1nm,0.3s						
KURK	Kurchatov	15.26	19	P	Pn	10 03 17.9	-1.9
	0.1nm,0.3s,baz=216,slow=7.8,SNR=3.1						
VOSK	Vostochnaya	16.24	0	⇑P	Pn	10 03 28.6	-3.1
	2.1nm,0.7s						
BVAR	Borovoye Array	16.55	359	P	Pn	10 03 36.3	+0.9
	0.4nm,0.3s,baz=161,slow=11,SNR=7.4						
AKTO	Aktyubinsk	16.79	330	P	Pn	10 03 38.6	+0.4
	0.6nm,0.3s,baz=141,slow=10,SNR=9.3						
AKTO	Aktyubinsk	16.79	330	⇑P	Pn	10 03 35.9	-2.4
	1.7nm,1.1s						
ZALV	Zalesovo Beam	19.94	24	P	P	10 04 12.3	+1.0
	0.7nm,0.3s,baz=222,slow=11,SNR=4.6						
MMAI	Mount Meron Ar	29.33	274	P	P	10 05 39.0	0.0
	0.6nm,0.3s,mb3.7,baz=62,slow=6.7,SNR=3.3						
ARCES	ARCESS Array B	41.16	338	P	P	10 07 20.7	+1.5
	1.0nm,0.7s,mb3.4,baz=123,slow=9.8,SNR=3.0						
TORD	Torodi Ar. Bea	65.70	269	P	P	10 10 17.7	-0.7
	0.3nm,0.8s,mb3.0,baz=43,slow=5.8,SNR=3.4						
YKA	Yellowknife Ar	81.27	3	P	P	10 11 49.6	+1.2
	0.3nm,0.4s,mb3.3,baz=351,slow=5.9,SNR=6.4						
WRA	Warramunga Arr	82.00	122	P	P	10 11 51.8	-1.0
	0.3nm,0.4s,mb3.3,baz=329,slow=5.2,SNR=3.3						
ASAR	Alice Springs	84.26	125	P	P	10 12 04.3	0.0
	0.5nm,0.6s,mb3.5,baz=316,slow=4.9,SNR=6.8						

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*IDC **01** 10:03:32.1±1.5,2°.14S×138°.94E,h0^{km},mb3.8/8, mb1 3.9/10,mb1mx3.8/18,mbtmp3.8/10,ML4.0/2,MS2.5/1, Ms1 2.5/1,ms1mx2.1/27,Error ellipse: s-maj=56.0km s-min=18.5km az=83.0*

*NEIC **01** 10:03:37.7±0.8,2°.25S×138°.79E,h35^{km},mb3.9/1,Error ellipse: s-maj=26.8km s-min=9.0km az=86.0*

ISC 01 10:03:40.7±2.3,**2°.42S**±0°.07×**138°.7E**±0°.1,**h66**^{km}±22^{km}, **n16,**σ**1^s.04**/21,**mb3.7**/7,**Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	11.96	211	ePn	Pn	10 06 27.8	-0.7
	21nm,0.5s						
KAKA				eSn	Sn	10 08 40.6	+0.3
WRAB	Tennant Creek	17.92	193	eP	Pn	10 07 46.1	+0.6
	5.6nm,0.6s						
WRAB				eS	S	10 11 01.2	-6.5
WB2	Warramunga Arr	17.93	193	eP	Pn	10 07 46.4	+0.8
WB2				eS	S	10 11 05.0	-3.0
WRA	Warramunga Arr	17.93	193	P	Pn	10 07 45.7	0.0
	0.6nm,0.3s,baz=17,slow=13,SNR=20						
WRA				S	S	10 11 05.3	-2.7
	0.1nm,0.3s,baz=0.1,slow=23,SNR=4.5						
WRA				LR	LR	10 14 25.2	
	comp=Z,17nm,19.8s,baz=180,slow=36						
WRA	Warramunga Arr	17.93	193	P	Pn	10 07 45.7	0.0
WRA				S	S	10 11 05.3	-2.7
CTA	Charters Tower	19.05	158	P	Pn	10 07 59.5	+0.4
	0.2nm,0.3s,baz=319,slow=9.3,SNR=3.4						
FITZ	Fitzroy Crossi	20.18	219	P	P	10 08 13.9	+3.8
	1.0nm,0.5s,baz=76,slow=9.3,SNR=5.9						
FITZ				S	S	10 11 54.9	+1.8
	1.6nm,0.6s,baz=200,slow=12,SNR=3.8						
ASAR	Alice Springs	21.63	192	P	P	10 08 26.6	+1.0
	2.3nm,0.7s,mb3.6,baz=19,slow=10,SNR=14						
CMAR	Chiang Mai Arr	44.29	300	P	P	10 11 44.9	+0.5
	1.0nm,0.7s,mb3.7,baz=121,slow=5.4,SNR=6.2						
SONM	Songino Array	57.45	335	P	P	10 13 22.6	-0.2
	0.5nm,1.0s,mb3.5,baz=148,slow=8.5,SNR=2.7						
MKAR	Makanchi Array	69.56	322	P	P	10 14 42.4	-0.3
	0.7nm,0.5s,mb3.8,baz=97,slow=9.1,SNR=13						
ZALV	Zalesovo Beam	71.68	330	P	P	10 14 54.6	-0.9
	0.3nm,0.3s,mb3.6,baz=104,slow=12,SNR=2.5						
KURK	Kurchatov	73.47	325	P	P	10 15 06.1	-0.1
	0.6nm,0.3s,mb4.0,baz=81,slow=6.3,SNR=11						
KURK	Kurchatov	73.47	325	P	P	10 15 06.1	-0.1
BVAR	Borovoye Array	79.07	325	P	P	10 15 37.6	-0.3
	1.0nm,0.7s,mb3.8,baz=108,slow=4.7,SNR=5.8						
TORD	Torodi Ar. Bea	136.17	286	PKP	PKPdf	10 22 56.4	+0.7
	0.1nm,0.4s,baz=53,slow=3.5,SNR=2.9						

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*DDA **01** 10:05:02.7,37°.37N×28°.03E,h7^{km}±2^{km},Md2.8*

*ISCJB **01** 10:05:03.1±0.7,37°.37N±0°.04×28°.01E±0°.05,h10^{km},Error ellipse: s-maj=6.8km s-min=5.2km az=143.3*

*CSEM **01** 10:05:03.5±0.1,37°.39N×28°.03E,h2^{km},MD2.7,Error ellipse: s-maj=4.0km s-min=2.4km az=43.0*

*ISK **01** 10:05:03.7,37°.30N×28°.00E,h14^{km},MD2.7*

ISC 01 10:05:03.5±0.7,**37°.38N**±0°.04×**28°.02E**±0°.05,**h10**^{km}**,n14,** σ**0^s.55**/20,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLSB	Milas	0.21	247	ePG	Pg	10 05 08.3	+0.5
MLSB	Milas	0.21	247	ePg	Pg	10 05 08.3	+0.5
AYDN	Tasoluk	0.30	339	i P	Pg	10 05 09.2	-0.4
AYDN				i S	Sg	10 05 14.1	+0.4
AYDN	Tasoluk	0.30	339	i P	Pg	10 05 09.2	-0.4
AYDN				i S	Sg	10 05 14.1	+0.4
YER	Yerkesik	0.32	138	ePG	Pg	10 05 09.7	-0.1
YER				eSG	Sg	10 05 14.6	+0.5
YER	Yerkesik	0.32	138	ePg	Pg	10 05 09.7	-0.1
YER				eSg	Sg	10 05 14.6	+0.4
BDRM	Kayabasi	0.55	236	eP	Pg	10 05 13.2	-1.0
BDRM				eS	Sg	10 05 22.2	+0.8
BDRM	Kayabasi	0.55	236	eP	Pg	10 05 13.2	-1.0
BDRM				eS	Sg	10 05 22.2	+0.8
BODT	Bodrum	0.64	241	ePG	Pg	10 05 15.9	0.0
BODT	Bodrum	0.64	241	ePg	Pg	10 05 15.9	0.0
DAT	Datca	0.73	209	ePG	Pg	10 05 16.8	-0.8
DAT	Datca	0.73	209	ePg	Pg	10 05 16.8	-0.8
DALT	Dalyan (Mudla)	0.78	140	ePG	Pg	10 05 18.7	+0.1
DALT	Dalyan (Mudla)	0.78	140	ePg	Pg	10 05 18.7	+0.1

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*ISCJB **01** 10:11:00.8±0.5,42°.06N±0°.02×9°.79W±0°.05,h10^{km},Error ellipse: s-maj=5.0km s-min=3.0km az=21.0*

*CSEM **01** 10:11:03.4±0.3,42°.03N×9°.93W,h20^{km},ML4.1/6,Error ellipse: s-maj=6.9km s-min=3.2km az=104.0*

*MDD **01** 10:11:04.7±0.8,42°.00N×10°.06W,h40^{km},mb4.9/31,Error ellipse: s-maj=8.4km s-min=4.0km az=103.0,PRIMO*

*NEIC **01** 10:11:04.2,42°.01N×9°.93W,h11^{km},ML3.9(LDG), MN3.3(MDD),After MDD.*

*LDG **01** 10:11:05.1±0.2,42°.02N×10°.03W,h25^{km},Md3.9/1, Ml3.9/18,Error ellipse: s-maj=4.7km s-min=2.2km az=100.0*

*INMG **01** 10:11:06.2±1.3,42°.00N×9°.95W,h31^{km}±14^{km},MD2.9, ML3.3,Error ellipse: s-maj=9.6km s-min=4.2km az=98.0*

*IGIL **01** 10:11:06.2,41°.90N×9°.86W,h16^{km},ML3.2*

ISC 01 10:11:03.5±0.5,**41°.97N**±0°.02×**9°.75W**±0°.04,**h10**^{km}**,n193,** σ**1^s.29**/334,**8C-3D,Portugal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZAM	Zamans	0.81	77	⇑P	Pg	10 11 22.0	+2.9
	98nm,0.2s,SNR=18						
EZAM				S	Sg	10 11 33.6	+4.0
	137nm,0.1s,SNR=7.9						
EZAM	Zamans	0.81	77	⇑Pg	Pg	10 11 22.0	+2.9
EZAM				Lg		10 11 30.1	
EZAM	Zamans	0.81	77	P	Pg	10 11 22.0	+2.9
	98nm,0.2s,SNR=18						
EZAM				S	Sg	10 11 33.6	+4.0
	137nm,0.1s,SNR=7.9						
EMAZ	Mazaricos	1.13	30	⇑P	Pb	10 11 25.4	+0.3
	198nm,0.2s,SNR=18						
EMAZ				S	Sb	10 11 39.2	-0.7
	313nm,0.1s,SNR=18						
EMAZ	Mazaricos	1.13	30	P	Pb	10 11 25.4	+0.3
	198nm,0.2s,SNR=18						
EMAZ				S	Sb	10 11 39.2	-0.7

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      313nm,0.1s,SNR=18
EMAZ                          Lg          10 11 39.2
PTO   Porto          1.20 134 eP    Pb    10 11 27.1 +0.8
PTO                           eS    Sb    10 11 43.3 +1.4
PTO                            A          10 11 43.7
      410nm,0.3s
PTO   Porto          1.20 134  P    Pb    10 11 27.1 +0.8
PTO                            S    Sb    10 11 43.3 +1.4
      205nm,0.3s
PTO   Porto          1.20 134 eP    Pb    10 11 27.1 +0.8
PTO                           eS    Sb    10 11 43.3 +1.4
      410nm,0.3s
ELOB  Lobios         1.27  94 ⇓P    Pn    10 11 28.7 +1.5
      152nm,0.1s,SNR=18
ELOB                           S    Sb    10 11 45.7 +2.0
      558nm,0.1s,SNR=18
ELOB  Lobios         1.27  94  P    Pn    10 11 28.7 +1.5
      152nm,0.1s,SNR=18
ELOB                           S    Sb    10 11 45.7 +1.9
      558nm,0.1s,SNR=18
STS   Santiago       1.27  44 ⇑P    Pn    10 11 27.9 +0.5
      118nm,0.1s,SNR=18
STS                            S    Sb    10 11 44.3 +0.3
      90nm,0.2s,SNR=7.9
STS   Santiago       1.27  44  P    Pn    10 11 27.9 +0.6
      118nm,0.1s,SNR=18
STS                            S    Sb    10 11 44.3 +0.3
      90nm,0.2s,SNR=7.9
PCAB  Cabril         1.32 101 i P   Pn    10 11 29.2 +1.3
PCAB                          eS    Sb    10 11 46.7 +1.5
PCAB                           A          10 11 49.4
      439nm,0.1s
PCAB  Cabril         1.32 101 ⇓P    Pn    10 11 29.2 +1.3
PCAB                           S    Sb    10 11 46.7 +1.5
      220nm,0.1s
PVRL  Vila Real      1.68 114 ePn   Pn    10 11 33.7 +0.8
PVRL                          eSn   Sn    10 11 57.8 +3.4
PVRL                           A          10 12 11.1
      161nm,0.1s
PVRL  Vila Real      1.68 114  P    Pn    10 11 33.7 +0.8
PVRL                           S    Sn    10 11 57.8 +3.4
      81nm,0.1s
PVRL  Vila Real      1.68 114 ePn   Pn    10 11 33.7 +0.8
PVRL                          eSn   Sn    10 11 57.8 +3.4
      161nm,0.1s
PVIS  Viseu          1.88 131 ePn   Pn    10 11 36.2 +0.5
PVIS                          eSn   Sn    10 11 59.6 +0.2
PVIS                           A          10 12 12.5
      102nm,0.1s
PVIS  Viseu          1.88 131  P    Pn    10 11 36.2 +0.5
PVIS                           S    Sn    10 11 59.6 +0.2
      51nm,0.1s
PVIS  Viseu          1.88 131 ePn   Pn    10 11 36.2 +0.5
PVIS                          eSn   Sn    10 11 59.6 +0.2
      102nm,0.1s
ERUA  La Rua         1.98  77  P    Pn    10 11 38.2 +1.1
      27nm,0.1s,SNR=7.9
ERUA                           S    Sn    10 12 02.3 +0.3
      146nm,0.1s,SNR=7.9
ERUA  La Rua         1.98  77  Pn   Pn    10 11 38.0 +0.9
ERUA                           Sn   Sn    10 12 02.3 +0.3
ERUA  La Rua         1.98  77  Pn   Pn    10 11 38.0 +0.9
ERUA  La Rua         1.98  77  P    Pn    10 11 38.2 +1.1
      27nm,0.1s,SNR=7.9
ERUA                           S    Sn    10 12 02.3 +0.3
      146nm,0.1s,SNR=7.9
MVO   Moncorvo       2.20 111 ePn   Pn    10 11 40.8 +0.8
MVO                           eSn   Sn    10 12 07.0 -0.3
MVO                            A          10 12 30.4
      135nm,0.7s
MVO   Moncorvo       2.20 111  P    Pn    10 11 40.8 +0.8
MVO                            S    Sn    10 12 07.0 -0.3
      68nm,0.7s
MVO   Moncorvo       2.20 111 ePn   Pn    10 11 40.8 +0.8
MVO                           eSn   Sn    10 12 07.0 -0.3
      135nm,0.7s
ECAL  Calabor        2.25  90  P    Pn    10 11 41.9 +1.2
      7.5nm,0.1s,SNR=22
ECAL                           S    Sn    10 12 09.1 +0.6
      38nm,0.2s,SNR=7.9
ECAL  Calabor        2.25  90  P    Pn    10 11 41.9 +1.2
      7.5nm,0.1s,SNR=22
ECAL                           S    Sn    10 12 09.1 +0.6
      38nm,0.2s,SNR=7.9
PBRG  Braganca       2.26  93 ePn   Pn    10 11 41.9 +1.1
PBRG                          eSn   Sn    10 12 08.8 +0.1
PBRG                           A          10 12 22.0
      106nm,0.6s
PBRG  Braganca       2.26  93  P    Pn    10 11 41.9 +1.1
PBRG                           S    Sn    10 12 08.8 +0.1
      53nm,0.6s
PBRG  Braganca       2.26  93 ePn   Pn    10 11 41.9 +1.1
PBRG                          eSn   Sn    10 12 08.8 +0.1
      106nm,0.6s
MTE   Manteigas      2.29 133 ePn   Pn    10 11 41.7 +0.4
MTE                           eSn   Sn    10 12 09.8 +0.2
MTE                            A          10 12 30.4
      78nm,0.4s
MTE   Manteigas      2.29 133⇓iPn   Pn    10 11 41.7 +0.4
MTE                           eSn   Sn    10 12 13.8 +4.2
MTE   Manteigas      2.29 133 ePn   Pn    10 11 41.7 +0.4
MTE                           eSn   Sn    10 12 09.8 +0.2
      78nm,0.4s
EPON  Pontenova      2.35  54 ⇑P    Pn    10 11 42.6 +0.5
      43nm,0.1s,SNR=18
EPON                           S    Sn    10 12 08.8 -2.1
      141nm,0.2s,SNR=7.9
EPON  Pontenova      2.35  54  P    Pn    10 11 42.6 +0.5
      43nm,0.1s,SNR=18
EPON                           S    Sn    10 12 08.9 -2.1
      141nm,0.2s,SNR=7.9
PCBR  Castelo Branco 2.74 140 ePn   Pn    10 11 47.2 -0.3
PCBR                          eSn   Sn    10 12 18.9 -1.8
PCBR                           A          10 12 19.6
      36nm,0.4s
PCBR  Castelo Branco 2.74 140  P    Pn    10 11 47.2 -0.3
PCBR                           S    Sn    10 12 18.9 -1.8
      18nm,0.4s
PCBR  Castelo Branco 2.74 140 ePn   Pn    10 11 47.2 -0.3
PCBR                          eSn   Sn    10 12 18.9 -1.8
      36nm,0.4s
ALMR  Almeirim       2.95 162 eP    Pn    10 11 50.3 -0.1
ALMR                          eS    Sn    10 12 22.4 -3.5
ALMR                          eS    Sn    10 12 22.5 -3.4
ALMR                           AML  AML   10 12 22.7
      comp=E,93nm,0.1s
ALMR  Almeirim       2.95 162 eP    Pn    10 11 50.3 -0.1
ALMR                          eS    Sn    10 12 22.4 -3.5
ALMR  Almeirim       2.95 162 eP    Pn    10 11 50.3 -0.1
ALMR                          eS    Sn    10 12 22.4 -3.5
PMRV  Marv??o        3.11 144 ePn   Pn    10 11 52.8 +0.2
PMRV                          eSn   Sn    10 12 27.7 -2.1
PMRV                           A          10 12 28.3
      comp=E,30nm,0.3s
PMRV  Marv??o        3.11 144 ePn   Pn    10 11 52.8 +0.2
PMRV                          eSn   Sn    10 12 27.7 -2.1
      comp=E,30nm,0.3s
PESTR Estremoz       3.52 151 ePn   Pn    10 11 58.0 -0.1
PESTR                         eSn   Sn    10 12 36.7 -3.0
PESTR                          A          10 12 39.3
      comp=E,41nm,0.2s
PESTR Estremoz       3.52 151  P    Pn    10 11 58.0 -0.1
PESTR                          S    Sn    10 12 36.7 -3.0
      comp=E,20nm,0.2s
PESTR Estremoz       3.52 151 ePn   Pn    10 11 58.0 -0.1
PESTR                         eSn   Sn    10 12 36.7 -3.0
      comp=E,41nm,0.2s
EARI  Arriondas      3.60  67  P    Pn    10 12 01.2 +1.8
      comp=E,48nm,0.1s,SNR=209
EARI                           S    Sn    10 12 42.5 +0.6
      comp=E,29nm,0.2s,SNR=4.6
EARI  Arriondas      3.60  67  Pn   Pn    10 12 01.1 +1.8
EARI                           Sn   Sn    10 12 42.5 +0.6
EARI  Arriondas      3.60  67  Pn   Pn    10 12 01.1 +1.7
EARI                           S    Sn    10 12 42.5 +0.5
      comp=E,29nm,0.2s,SNR=4.6
MOE   Montemor       3.61 162 ePn   Pn    10 11 58.5 -0.9
MOE                           eSn   Sn    10 12 36.8 -5.3
MOE   Montemor       3.61 162 ePn   Pn    10 11 58.5 -0.9
MOE                           eSn   Sn    10 12 36.8 -5.3
EVOP  Sao Brissos    3.66 160 ePn   Pn    10 11 59.9 -0.2
EVO   Evora          3.69 158 ePn   Pn    10 11 59.9 -0.6
EVO                           eSn   Sn    10 12 37.9 -6.1
      comp=E,93nm,0.3s
EVO   Evora          3.69 158 ePn   Pn    10 12 00.3 -0.2
EVO                           eSn   Sn    10 12 39.4 -4.6
EVO                            A          10 12 42.7
      comp=E,222nm,0.1s
EVO   Evora          3.69 158  P    Pn    10 12 00.3 -0.2
EVO                            S    Sn    10 12 39.4 -4.6
      comp=E,222nm,0.1s
EVO   Evora          3.69 158 ePn   Pn    10 12 00.3 -0.2
EVO                           eSn   Sn    10 12 39.4 -4.6
      comp=E,222nm,0.1s
EBAD  Badajoz        3.84 146  P    Pn    10 12 02.6 +0.1
      comp=E,28nm,0.1s,SNR=92
EBAD                           S    Sn    10 12 45.4 -2.3
      comp=E,49nm,0.1s,SNR=7.9
EBAD  Badajoz        3.84 146  P    Pn    10 12 02.6 +0.1
      comp=E,28nm,0.1s,SNR=92
EBAD                           S    Sn    10 12 45.4 -2.3
      comp=E,49nm,0.1s,SNR=7.9
PBEJ  Beja           4.20 159 ePn   Pn    10 12 07.5 -0.1
PBEJ                          eSn   Sn    10 12 51.4 -5.2
PBEJ                           A          10 12 55.6
      comp=E,46nm,0.4s
PBEJ  Beja           4.20 159  P    Pn    10 12 07.5 -0.1
PBEJ                           S    Sn    10 12 51.4 -5.2
      comp=E,23nm,0.4s
PBEJ  Beja           4.20 159 ePn   Pn    10 12 07.5 -0.1
PBEJ                          eSn   Sn    10 12 51.4 -5.2
      comp=E,46nm,0.4s
GUD   Guadarrama     4.42 106 ⇑P    Pn    10 12 12.3 +1.7
      comp=E,22nm,0.3s,SNR=18
GUD                            S    Sn    10 13 02.4 +0.3
      comp=E,6.8nm,0.3s,SNR=7.9
GUD   Guadarrama     4.42 106  P    Pn    10 12 12.3 +1.7
      comp=E,22nm,0.3s,SNR=18
GUD                            S    Sn    10 13 02.4 +0.3
      comp=E,6.8nm,0.3s,SNR=7.9
PTEO  Sao Teotonio   4.49 169 ePn   Pn    10 12 11.1 -0.5
PTEO                          eSn   Sn    10 12 58.0 -5.9
PTEO                           A          10 13 02.2
      comp=E,60nm,0.6s
PTEO  Sao Teotonio   4.49 169  P    Pn    10 12 11.1 -0.5
PTEO                           S    Sn    10 12 58.0 -5.9
      comp=E,30nm,0.6s
PTEO  Sao Teotonio   4.49 169 ePn   Pn    10 12 11.1 -0.5
PTEO                          eSn   Sn    10 12 58.0 -5.9
      comp=E,60nm,0.6s
MORF  Marmelete      4.74 169 ePn   Pn    10 12 14.4 -0.5
MORF                          eSn   Sn    10 13 03.7 -6.2
MORF                           A          10 13 07.5
      comp=E,103nm,0.4s
MORF  Marmelete      4.74 169  P    Pn    10 12 14.4 -0.5
MORF                           S    Sn    10 13 03.7 -6.2
      comp=E,103nm,0.4s
MORF  Marmelete      4.74 169 ePn   Pn    10 12 14.4 -0.5
EGRO  El Granado     4.77 158  P    Pn    10 12 15.4 +0.1
      comp=E,5.1nm,0.0s,SNR=33
EGRO                           S    Sn    10 13 05.3 -5.3
      comp=E,31nm,0.1s,SNR=7.9
EGRO  El Granado     4.77 158  P    Pn    10 12 15.4 +0.1
      comp=E,5.1nm,0.0s,SNR=33
EMIN  Mina Concepcio 4.82 150  P    Pn    10 12 16.3 +0.2
      comp=E,12nm,0.1s,SNR=161
EMIN                           S    Sn    10 13 07.7 -4.3
      comp=E,7.5nm,0.1s,SNR=7.9
EMIN  Mina Concepcio 4.82 150  Pn   Pn    10 12 16.3 +0.2
EMIN                           Sn   Sn    10 13 08.9 -3.1
EMIN  Mina Concepcio 4.82 150  P    Pn    10 12 16.3 +0.2
      comp=E,12nm,0.1s,SNR=161
EMIN                           Sn   Sn    10 13 08.9 -3.1
PVAQ  Vaqueiros      4.83 160 ePn   Pn    10 12 16.0 -0.2
PVAQ                          eSn   Sn    10 13 05.3 -6.8
PVAQ                           A          10 13 11.1
      comp=E,52nm,0.3s
PVAQ  Vaqueiros      4.83 160  P    Pn    10 12 16.0 -0.2
PVAQ                           S    Sn    10 13 05.3 -6.8
      comp=E,52nm,0.3s
PVAQ  Vaqueiros      4.83 160 ePn   Pn    10 12 16.0 -0.2
ELAN  Lanestosa      4.83  73  P    Pn    10 12 18.6 +2.4
      comp=E,3.9nm,0.1s,SNR=20
ELAN                           S    Sn    10 13 12.0 -0.1
      comp=E,21nm,0.3s,SNR=7.9
ELAN  Lanestosa      4.83  73  Pn   Pn    10 12 18.7 +2.5
ELAN                           Sn   Sn    10 13 12.1 -0.1
ELAN  Lanestosa      4.83  73  Pn   Pn    10 12 18.7 +2.5
ELAN                           Sn   Sn    10 13 12.1 -0.1
PFVI  Vila Bisbo     4.89 171 ePn   Pn    10 12 16.3 -0.7
PFVI                          eSn   Sn    10 13 07.1 -6.5
PFVI                           A          10 13 11.2
      comp=E,32nm,0.1s
PFVI  Vila Bisbo     4.89 171  P    Pn    10 12 16.3 -0.7
PFVI                           S    Sn    10 13 07.1 -6.5
      comp=E,16nm,0.1s
PFVI  Vila Bisbo     4.89 171 ePn   Pn    10 12 16.3 -0.7
PBDV  Barranco-do-Ve 4.93 163 ePn   Pn    10 12 17.5 -0.1
PBDV                          eSn   Sn    10 13 08.4 -6.2
PBDV                           A          10 13 12.6
      comp=E,28nm,0.2s
PBDV  Barranco-do-Ve 4.93 163  P    Pn    10 12 17.5 -0.1
PBDV                           S    Sn    10 13 08.4 -6.2
      comp=E,28nm,0.2s
PBDV  Barranco-do-Ve 4.93 163 ePn   Pn    10 12 17.5 -0.1
ESDC  Sonseca Array  4.96 116  P    Pn    10 12 18.9 +1.0
      comp=E,1.6nm,0.2s,baz=301,slow=13,SNR=20
ESDC                           S    Sn    10 13 13.1 -2.2
      comp=E,7.4nm,0.2s,baz=306,slow=23,SNR=7.9
ESDC  Sonseca Array  4.96 116  Pn   Pn    10 12 18.9 +1.0
ESDC                           Sn   Sn    10 13 14.2 -1.1
ESDC  Sonseca Array  4.96 116  P    Pn    10 12 18.9 +1.0
      comp=E,1.6nm,0.2s,SNR=20
ESDC                           Sn   Sn    10 13 14.2 -1.1
ESLA  Sonseca Array  4.96 116 ePn   Pn    10 12 18.6 +0.7
ESLA                          eSn   Sn    10 13 11.1 -4.2
ESLA  Sonseca Array  4.96 116 ePn   Pn    10 12 18.6 +0.7
ESLA                          eSn   Sn    10 13 11.1 -4.2
ERIP  Rio Piedras    4.98 156 ⇑P    Pn    10 12 18.3  0.0
      comp=E,22nm,0.1s,SNR=18
ERIP                           S    Sn    10 13 10.2 -5.7
      comp=E,46nm,0.2s,SNR=7.9
ERIP  Rio Piedras    4.98 156  P    Pn    10 12 18.3  0.0
      comp=E,22nm,0.1s,SNR=18
ECAB  El Cabril      5.12 138  P    Pn    10 12 20.6 +0.4
      comp=E,6.4nm,0.0s,SNR=39
ECAB                           S    Sn    10 13 15.5 -3.9
      comp=E,16nm,0.2s,SNR=7.9
ECAB  El Cabril      5.12 138  P    Pn    10 12 20.6 +0.4
      comp=E,6.4nm,0.0s,SNR=39
ECRI  Cripan         5.41  81  P    Pn    10 12 26.2 +2.0
      comp=E,1.7nm,0.1s,SNR=7.9
ECRI                           S    Sn    10 13 25.2 -1.3
      comp=E,4.0nm,0.2s,SNR=7.9
ECRI  Cripan         5.41  81  P    Pn    10 12 26.2 +2.0
      comp=E,1.7nm,0.1s,SNR=7.9
ECRI                           S    Sn    10 13 25.2 -1.3
      comp=E,4.0nm,0.2s,SNR=7.9
EADA  Adamuz         5.50 132 ⇑P    Pn    10 12 26.0 +0.7
      comp=E,6.2nm,0.1s,SNR=18
EADA                           S    Sn    10 13 26.2 -2.4
      comp=E,2.4nm,0.2s,SNR=7.9
EADA  Adamuz         5.50 132  P    Pn    10 12 26.0 +0.6
      comp=E,6.2nm,0.1s,SNR=18
ETOR  Torete         5.90  99  P    Pn    10 12 32.9 +2.0
      comp=E,1.3nm,0.1s,SNR=7.9
ETOR                           S    Sn    10 13 33.4 -5.2
      comp=E,4.7nm,0.4s,SNR=7.9
ETOR  Torete         5.90  99  Pn   Pn    10 12 32.9 +2.0
ETOR                           Lg         10 14 15.2
ETOR  Torete         5.90  99  P    Pn    10 12 32.9 +2.0
      comp=E,1.3nm,0.1s,SNR=7.9
ESPR  Espera         5.92 148  P    Pn    10 12 32.2 +1.0
      comp=E,6.7nm,0.2s,SNR=7.9
ESPR                           S    Sn    10 13 36.6 -2.5
      comp=E,14nm,0.2s,SNR=7.9
ESPR  Espera         5.92 148  P    Pn    10 12 32.2 +1.0
      comp=E,6.7nm,0.2s,SNR=7.9
ESPR                           S    Sn    10 13 36.6 -2.5
      comp=E,14nm,0.2s,SNR=7.9
EBAN  Banos Encina   5.95 128  P    Pn    10 12 32.2 +0.6
      comp=E,4.6nm,0.2s,SNR=7.0
EBAN                           S    Sn    10 13 35.7 -4.1
      comp=E,2.4nm,0.2s,SNR=7.9
EBAN  Banos Encina   5.95 128  P    Pn    10 12 32.2 +0.6
      comp=E,4.6nm,0.2s,SNR=7.0
IUSE  Utxeti         6.15  78  P    Pn    10 12 37.2 +2.9
      comp=E,2.7nm,0.3s,SNR=7.9
IUSE                           S    Sn    10 13 45.7 +1.1
      comp=E,3.5nm,0.2s,SNR=7.9
IUNC  Unciti         6.17  80  S    Sn    10 13 46.0 +0.9
      comp=E,5.7nm,0.2s,SNR=7.9
IUNC  Unciti         6.17  80  S    Sn    10 13 46.0 +1.0
      comp=E,5.7nm,0.2s,SNR=7.9
ELIZ  Elizondo       6.19  76  P    Pn    10 12 37.6 +2.7
      comp=E,2.7nm,0.4s,SNR=7.9
ELIZ                           S    Sn    10 13 44.3 -1.4
      comp=E,2.6nm,0.2s,SNR=7.9
IZUN  Zunzarren      6.21  79  P    Pn    10 12 37.4 +2.3
      comp=E,0.9nm,0.1s,SNR=7.9
IZUN                           S    Sn    10 13 44.1 -2.0
      comp=E,2.3nm,0.4s,SNR=7.9
IZUN  Zunzarren      6.21  79  P    Pn    10 12 37.4 +2.3
      comp=E,0.9nm,0.1s,SNR=7.9
IZUN                           S    Sn    10 13 44.1 -1.9
      comp=E,2.3nm,0.4s,SNR=7.9
EALK  Alkurruntz     6.21  76  P    Pn    10 12 37.3 +2.1
      comp=E,1.2nm,0.2s,SNR=7.9
EALK                           S    Sn    10 13 44.4 -1.8
      comp=E,40nm,0.7s,SNR=7.9
EALK  Alkurruntz     6.21  76  Pn   Pn    10 12 37.5 +2.3
EALK                           Sn   Sn    10 13 46.4 +0.2
EALK  Alkurruntz     6.21  76  Pn   Pn    10 12 37.5 +2.3
EALK                           S    Sn    10 13 44.4 -1.8
      comp=E,40nm,0.7s,SNR=7.9
EALK                           Sn   Sn    10 13 46.4 +0.2
EORO  Oroz-Betelu    6.32  79  P    Pn    10 12 38.4 +1.8
      comp=E,1.0nm,0.1s,SNR=7.9
EORO                           S    Sn    10 13 46.5 -2.2
      comp=E,13nm,0.5s,SNR=7.9
EORO  Oroz-Betelu    6.32  79  P    Pn    10 12 38.4 +1.8
      comp=E,1.0nm,0.1s,SNR=7.9
EORO                           S    Sn    10 13 46.5 -2.3
      comp=E,13nm,0.5s,SNR=7.9
SJPF  Ste Jean       6.40  77 ePn   Pn    10 12 37.7 -0.1
SJPF                          eSn   Sn    10 13 48.4 -2.5
      comp=E,11nm,0.4s,SNR=1.0
SJPF  Ste Jean       6.40  77  P    Pn    10 12 37.7 -0.1
SJPF                           S    Sn    10 13 48.4 -2.5
      comp=E,5.4nm,0.4s
SJPF  Ste Jean       6.40  77 ePn   Pn    10 12 37.7 -0.1
SJPF                          eSn   Sn    10 13 48.4 -2.5
      comp=E,5.4nm,0.4s,SNR=1.0
EMIJ  Mijas          6.64 143  P    Pn    10 12 42.7 +1.6
      comp=E,1.0nm,0.1s,SNR=7.9
EMIJ  Mijas          6.64 143  P    Pn    10 12 42.7 +1.6
      comp=E,1.0nm,0.1s,SNR=7.9
ETSF  Etsaut         6.87  79 ePn   Pn    10 12 45.2 +1.1
      SNR=1.0
ETSF                          eSn   Sn    10 13 58.0 -4.3
      comp=E,8.8nm,0.3s,SNR=1.0
ETSF  Etsaut         6.87  79  P    Pn    10 12 45.2 +1.1
ETSF                           S    Sn    10 13 58.0 -4.3
      comp=E,4.4nm,0.3s
ETSF  Etsaut         6.87  79 ePn   Pn    10 12 45.2 +1.1
      SNR=1.0
EGUA  Guajares       7.02 135  P    Pn    10 12 47.4 +1.1
      comp=E,3.7nm,0.2s,SNR=7.9
EGUA  Guajares       7.02 135  P    Pn    10 12 47.4 +1.1
      comp=E,3.7nm,0.2s,SNR=7.9
EMOS  Mosqueruela    7.19 100  P    Pn    10 12 51.5 +2.9
      comp=E,2.5nm,0.4s,SNR=7.7
EMOS                           S    Sn    10 14 09.3 -0.9
      comp=E,3.4nm,0.2s,SNR=7.9
EMOS  Mosqueruela    7.19 100  P    Pn    10 12 51.5 +3.0
      comp=E,2.5nm,0.4s,SNR=7.7
EMOS                           S    Sn    10 14 09.3 -0.9
      comp=E,3.4nm,0.2s,SNR=7.9
EBER  Berja          7.34 131  P    Pn    10 12 53.6 +3.0
      comp=E,1.8nm,0.2s,SNR=8.0
EBER  Berja          7.34 131  P    Pn    10 12 53.6 +2.9
      comp=E,1.8nm,0.2s,SNR=8.0
EBIE  Bielsa         7.37  81  P    Pn    10 12 53.3 +2.3
      comp=E,1.2nm,0.2s,SNR=12
EBIE                           S    Sn    10 14 12.8 -1.8
      comp=E,2.7nm,0.2s,SNR=7.9
EBIE  Bielsa         7.37  81  P    Pn    10 12 53.3 +2.2
      comp=E,1.2nm,0.2s,SNR=12
EBIE                           S    Sn    10 14 12.8 -1.9
      comp=E,2.7nm,0.2s,SNR=7.9
EPF   Esparros       7.53  79 ePn   Pn    10 12 53.7 +0.4
EPF                           eSn   Sn    10 14 15.0 -3.7
      comp=E,6.6nm,0.2s,SNR=1.0
EPF   Esparros       7.53  79  P    Pn    10 12 53.7 +0.4
EPF                            S    Sn    10 14 15.0 -3.7
      comp=E,3.3nm,0.2s
EPF   Esparros       7.53  79 ePn   Pn    10 12 53.7 +0.4
QUIF  Quistinic      7.56  36 ePn   Pn    10 12 52.4 -1.2
      SNR=1.0
QUIF                          eSn   Sn    10 14 11.3 -8.0
      comp=E,12nm,0.2s,SNR=1.0
QUIF  Quistinic      7.56  36  P    Pn    10 12 52.4 -1.2
QUIF                           S    Sn    10 14 11.3 -8.0
      comp=E,6.2nm,0.2s
QUIF  Quistinic      7.56  36 ePn   Pn    10 12 52.4 -1.2
      SNR=1.0
ROSF  Rostrenen      7.84  34 ePn   Pn    10 12 56.2 -1.2
      SNR=1.0
ROSF                          eSn   Sn    10 14 17.4 -8.7
      comp=E,7.4nm,0.2s,SNR=1.0
ROSF  Rostrenen      7.84  34  P    Pn    10 12 56.2 -1.2
ROSF                           S    Sn    10 14 17.4 -8.7
      comp=E,3.7nm,0.2s
ROSF  Rostrenen      7.84  34 ePn   Pn    10 12 56.2 -1.2
      SNR=1.0
SGMF  Saint Gilles   8.08  37 ePn   Pn    10 12 59.5 -1.3
      SNR=1.0
SGMF                          eSn   Sn    10 14 23.1 -9.0
      comp=E,6.7nm,0.2s,SNR=1.0
SGMF  Saint Gilles   8.08  37  P    Pn    10 12 59.5 -1.3
SGMF                           S    Sn    10 14 23.1 -9.0
      comp=E,3.3nm,0.2s
SGMF  Saint Gilles   8.08  37 ePn   Pn    10 12 59.5 -1.3
      SNR=1.0
LFF   La Frestale    8.19  65 ePn   Pn    10 13 02.4 +0.1
LFF                           eSn   Sn    10 14 29.9 -4.9
      comp=E,6.6nm,0.3s
LFF   La Frestale    8.19  65  P    Pn    10 13 02.4 +0.1
LFF                            S    Sn    10 14 29.9 -4.9
      comp=E,3.3nm,0.3s
LFF   La Frestale    8.19  65 ePn   Pn    10 13 02.4 +0.1
MFF   Saint Martin d 8.30  53 ePn   Pn    10 13 03.3 -0.5
      SNR=1.0
MFF                           eSn   Sn    10 14 31.2 -6.3
      comp=E,7.6nm,0.2s,SNR=1.0
MFF   Saint Martin d 8.30  53  P    Pn    10 13 03.3 -0.5
MFF                            S    Sn    10 14 31.2 -6.3
      comp=E,3.8nm,0.2s
MFF   Saint Martin d 8.30  53 eSn   Sn    10 14 31.2 -6.3
      comp=E,3.8nm,0.2s,SNR=1.0
MFF   Saint Martin d 8.30  53 ePn   Pn    10 13 03.3 -0.5
      SNR=1.0
RJF   Les Rejaudoux  8.82  64 ePn   Pn    10 13 09.8 -1.2
      SNR=1.0
RJF                           eSn   Sn    10 14 44.2 -6.2
      comp=E,7.8nm,0.2s,SNR=1.0
RJF   Les Rejaudoux  8.82  64  P    Pn    10 13 09.8 -1.2
RJF                            S    Sn    10 14 44.2 -6.2
      comp=E,3.9nm,0.2s
RJF   Les Rejaudoux  8.82  64 ePn   Pn    10 13 09.8 -1.2
      SNR=1.0
MTLF  Montolieu      8.93  77 ePn   Pn    10 13 13.1 +0.7
MTLF  Montolieu      8.93  77 ePn   Pn    10 13 13.1 +0.7
GRR   Gorron         8.97  41 ePn   Pn    10 13 11.5 -1.5
      SNR=1.0
GRR                           eSn   Sn    10 14 44.2  -10
      comp=E,7.8nm,0.3s,SNR=1.0
GRR   Gorron         8.97  41  P    Pn    10 13 11.5 -1.5
GRR                            S    Sn    10 14 44.2  -10
      comp=E,3.9nm,0.3s
GRR   Gorron         8.97  41 ePn   Pn    10 13 11.5 -1.5
      SNR=1.0
CAF   Calviac        9.09  67 ePn   Pn    10 13 14.1 -0.5
      SNR=1.0
CAF                           eSn   Sn    10 14 50.2 -6.7
      comp=E,11nm,0.6s,SNR=1.0
CAF   Calviac        9.09  67  P    Pn    10 13 14.1 -0.5
CAF                            S    Sn    10 14 50.2 -6.7
      comp=E,5.7nm,0.6s
CAF   Calviac        9.09  67 ePn   Pn    10 13 14.1 -0.5
      SNR=1.0
FLN   La Foliniere   9.41  41 ePn   Pn    10 13 17.7 -1.3
      baz=227
FLN   La Foliniere   9.41  41 ePn   Pn    10 13 17.7 -1.3
      baz=227
LDF   La Druitiere   9.48  42 ePn   Pn    10 13 17.8 -2.1
      SNR=1.0
LDF                           eSn   Sn    10 14 58.2 -8.2
```

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=E,5.0nm,0.2s,SNR=1.0						
LDF	La Druitiere	9.48	42	*e*Pn	Pn	10 13 17.8	-2.1
	SNR=1.0						
TCF	Toulx Ste Croi	9.62	59	*e*Pn	Pn	10 13 21.0	-0.9
TCF				*e*Sn	Sn	10 15 00.7	-9.3
	comp=E,20nm,0.3s						
TCF	Toulx Ste Croi	9.62	59	P	Pn	10 13 21.0	-0.9
TCF				S	Sn	10 15 00.7	-9.3
	comp=E,9.9nm,0.3s						
TCF	Toulx Ste Croi	9.62	59	*e*Pn	Pn	10 13 21.0	-0.9
BGF	Bois d'Agland	10.13	59	*e*Pn	Pn	10 13 28.4	-0.5
	SNR=1.0						
BGF				*e*Sn	Sn	10 15 15.8	-6.7
	comp=E,8.7nm,0.2s,SNR=1.0						
BGF	Bois d'Agland	10.13	59	P	Pn	10 13 28.4	-0.5
BGF				S	Sn	10 15 15.8	-6.7
	comp=E,4.3nm,0.2s						
BGF	Bois d'Agland	10.13	59	*e*Pn	Pn	10 13 28.4	-0.5
	SNR=1.0						
LASF	Ste Croix	10.19	74	*e*Pn	Pn	10 13 29.9	+0.2
	SNR=1.0						
LASF	Ste Croix	10.19	74	*e*Pn	Pn	10 13 29.9	+0.2
	SNR=1.0						
AVF	Avril sur Loir	10.54	58	*e*Pn	Pn	10 13 33.4	-1.1
	SNR=1.0						
AVF				*e*Sn	Sn	10 15 24.8	-7.8
	comp=E,5.1nm,0.4s,SNR=1.0						
AVF	Avril sur Loir	10.54	58	P	Pn	10 13 33.4	-1.1
AVF				S	Sn	10 15 24.8	-7.8
	comp=E,2.6nm,0.4s						
AVF	Avril sur Loir	10.54	58	*e*Pn	Pn	10 13 33.4	-1.1
	SNR=1.0						
SSF	Saint Saulge	10.74	57	*e*Pn	Pn	10 13 36.9	-0.4
	SNR=1.0						
SSF	Saint Saulge	10.74	57	*e*Pn	Pn	10 13 36.9	-0.4
	SNR=1.0						
VIVF	Saint-Julien-l	10.88	70	*e*Pn	Pn	10 13 38.4	-0.8
	SNR=1.0						
VIVF				*e*Sn	Sn	10 15 32.3	-8.7
	comp=E,4.8nm,0.5s,SNR=1.0						
VIVF	Saint-Julien-l	10.88	70	P	Pn	10 13 38.4	-0.8
VIVF				S	Sn	10 15 32.3	-8.7
	comp=E,2.4nm,0.5s						
VIVF	Saint-Julien-l	10.88	70	*e*Pn	Pn	10 13 38.4	-0.8
	SNR=1.0						
LOR	Lormes	11.05	57	*e*Pn	Pn	10 13 40.5	-0.9
	baz=239						
LOR	Lormes	11.05	57	*e*Pn	Pn	10 13 40.5	-0.9
	baz=239						
ORIF	Oris-en-Rattie	11.74	70	*e*Pn	Pn	10 13 51.4	+0.5
ORIF	Oris-en-Rattie	11.74	70	*e*Pn	Pn	10 13 51.4	+0.5
BAIF	Baives	12.62	45	*e*Pn	Pn	10 14 01.5	-1.4
	SNR=1.0						
BAIF	Baives	12.62	45	*e*Pn	Pn	10 14 01.5	-1.4
	SNR=1.0						
GIVF	Givet	12.97	46	*e*Pn	Pn	10 14 06.1	-1.6
	SNR=1.0						
GIVF	Givet	12.97	46	*e*Pn	Pn	10 14 06.1	-1.6
	SNR=1.0						

ISCJB **01** *10:13:49.2±0.9, 33°.26N±0°.04×140°.89E±0°.08, h57^{km}±9^{km}, Error ellipse: s-maj=10.8km s-min=6.9km az=8.9*

NEIC **01** *10:13:49.4, 33°.30N×140°.92E, h47^{km}, MG3.2(JMA), After JMA.*

JMA **01** *10:13:49.3±0.1, 33°.30N×140°.92E, h47^{km}, M3.2*

IDC **01** *10:13:52.1±3.8, 33°.17N×140°.69E, h59^{km}±32^{km}, mb3.2/2, mb1 3.5/3, mb1mx3.1/22, mbtmp3.3/3, ML3.4/1, Error ellipse: s-maj=57.5km s-min=14.6km az=86.0*

ISC 01 10:13:50.1±1.1**, 33°.24N**±0°.05×**140°.89E**±0°.08**, h43**^{km}±13^{km}**, n20, σ0^{s}.95**/33**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	0.91	262	P	Pn	10 14 06.5	0.0
JHJ2				S	Sn	10 14 18.6	+0.2
JHJ	Hachijo jima 2	0.94	263	P	Pn	10 14 06.7	-0.1
	54nm,0.3s,baz=67,slow=23,SNR=38						
JHJ				S	Sn	10 14 18.6	-0.5
	305nm,0.3s,baz=47,slow=22,SNR=62						
BSO1	Boso 1	1.41	3	P	Pn	10 14 12.3	-0.9
BSO1				*e*S	Sn	10 14 29.8	-0.8
JMY	Miyakejima3	1.42	306	P	Pn	10 14 13.1	-0.3
BSO3	Boso 3	1.59	349	P	Pn	10 14 15.0	-0.7
BSO3				S	Sn	10 14 34.5	-0.5
JKO	Kozu shima	1.74	303	P	Pn	10 14 17.5	-0.3
JKO				S	Sn	10 14 38.7	-0.1
NJJJ	Nii jima 2	1.77	311	P	Pn	10 14 18.4	+0.2
NJJJ				S	Sn	10 14 38.5	-1.0
JIM2	Oshima 3	1.91	321	P	Pn	10 14 19.6	-0.5
JIZS	Izushimoda	2.23	312	P	Pn	10 14 25.0	+0.5
JIZS				S	Sn	10 14 49.9	-0.9
KTJJ	Kamata 2	2.26	318	P	Pn	10 14 24.7	-0.3
KTJJ				S	Sn	10 14 50.0	-1.6
JOD2	Odawara 2	2.51	324	P	Pn	10 14 28.1	-0.2
JOD2				S	Sn	10 14 55.1	-2.6
SHZ3	Shizuoka 3	2.87	310	P	Pn	10 14 35.0	+1.7
JYN	Shimob	2.97	320	P	Pn	10 14 35.6	+0.9
MJAR	Matsushiro Arr	3.96	327	P	Pn	10 14 49.8	+1.5
	2.8nm,0.3s,baz=152,slow=11,SNR=19						
MJAR				S	Sn	10 15 34.7	+1.3
	0.9nm,0.3s,baz=83,slow=9.2,SNR=5.2						
MJAR	Matsushiro Arr	3.96	327	P	Pn	10 14 49.8	+1.5
MJAR				S	Sn	10 15 34.7	+1.3
MAJO	Matsushiro	3.96	327	*e*Pn	Pn	10 14 50.4	+2.1
MAJO				*e*Sn	Sn	10 15 35.2	+1.7
MAT	Matsushiro	3.96	327	P	Pn	10 14 48.5	+0.2
MAT				S	Sn	10 15 34.9	+1.4
AAK	Ala-Archa	51.99	301	*e*P	P	10 22 54.7	-0.2
	4.0nm,0.4s						
WRA	Warramunga Arr	53.26	188	P	P	10 23 03.9	-0.5
	0.6nm,0.5s,baz=4.6,slow=7.6,SNR=13						
ASAR	Alice Springs	56.98	188	P	P	10 23 31.1	-0.1
	0.2nm,0.5s,baz=360,slow=6.4,SNR=5.2						

IDC **01** *10:26:04.1±0.5, 15°.54S×174°.90W, h0^{km}, mb4.5/18, mb1 4.6/18, mb1mx4.6/20, mbtmp4.4/18, MS5.0/21, Ms1 5.0/21, ms1mx5.0/22, Error ellipse: s-maj=21.7km s-min=14.8km az=139.0*

ISCJB **01** *10:26:07.4±0.2, 15°.61S±0°.07×174°.98W±0°.05, h32^{km}, mb5.0/88, MS5.2/98, Error ellipse: s-maj=10.3km s-min=4.9km az=153.5*

BJI **01** *10:26:08.8, 15°.28S×174°.58W, h38^{km}, mB5.5/27, mb5.1/36, Ms5.3/29, Ms7 5.1/29*

GCMT **01** *10:26:09.8±0.1, 15°.36S×174°.71W, h13^{km}, MW5.5/98, Moment Tensor Solution. s64,c118; s98,c189; Duration: 1^{s}.3 Moment tensor: Scale 10^{17}Nm; M_{rr}0.42±.03; $M_{\theta\theta}$0.31±.03; $M_{\phi\phi}$-0.73±.03; $M_{r\theta}$0.07±.05; $M_{\theta\phi}$1.75±.03; $M_{\phi r}$-0.31±.06; Best double couple: $M_0$1.85000×10^{17} NP1:ϕ_s278.00000°, δ81.00000°, λ0.00000°. NP2:ϕ_s8.00000°, δ90.00000°, λ-171.00000°. Principal axes: T 1.6280, Plg6.0000°, Azm143.0000°; N 0.4440, Plg81.0000°, Azm9.0000°; P -2.0720, Plg7.0000°, Azm234.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **01** *10:26:09.8±0.2, 15°.55S×175°.07W, mb5.3/58, MS5.3/71, MW5.4 Error ellipse: s-maj=12.7km s-min=6.6km az=142.0, Moment Tensor Solution. s6 Moment tensor: Scale 10^{17}Nm; M_{rr}0.37; $M_{\theta\theta}$-0.46; $M_{\phi\phi}$0.09; $M_{r\theta}$-0.40; $M_{\theta\phi}$1.16; $M_{\phi r}$-0.46; Best double couple: $M_0$1.40000×10^{17} NP1:ϕ_s169.00000°, δ68.00000°, λ157.00000°. NP2: ϕ_s268.00000°, δ69.00000°, λ24.00000°. Principal axes: T 1.3700, Plg31.0000°, Azm128.0000°; N 0.0000, Plg58.0000°, Azm306.0000°; P -1.3800, Plg0.0000°, Azm38.0000°;*

MOS **01** *10:26:10.7±1.5, 15°.02S×175°.36W, h33^{km}, mb5.5/25, MS5.2/14 Error ellipse: s-maj=13.3km s-min=9.9km az=73.8*

DJA **01** *10:26:34, 15°.93S×175°.29W, h237^{km}, mb4.7/6*

ISC 01 10:26:09.4±0.2**, 15°.60S**±0°.07×**174°.98W**±0°.05**, h33**^{km}**, h33**^{km}±.9^{km}**:pP-P, n572, σ0^{s}.69**/412**, mb5.0**/88**, MS5.2**/98**, 160C-132D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.52	62	Pn	Pn	10 26 52.6	-9.2
	26nm,0.3s,baz=224,slow=2.6,SNR=69						
AFI				Sn	Sn	10 27 33.9	-8.5
	36nm,0.3s,baz=146,slow=22,SNR=3.9						
AFI				LR	LR	10 28 02.7	
	comp=Z,33μm,18.0s,baz=308,slow=35						
AFI				T		10 30 19.4	
	66nm,0.3s,baz=80,slow=21,SNR=4.8						
AFI	Afiamalu	3.52	62	*e*Pn	Pn	10 26 52.1	-10
RAO	Raoul Island	13.85	191	LR	LR	10 33 57.2	
	comp=Z,4μm,18.9s,baz=26,slow=34						
DZM	Mont Dzumac	18.72	247	*e*P	Pn	10 30 33.6	+7.7
	346nm,1.8s						
URZ	Urewera	23.63	196	P	P	10 31 17.5	-0.1
	18nm,1.0s,mb4.5,baz=16,slow=3.9,SNR=9.5						
URZ				LR	LR	10 39 53.1	
	comp=Z,6μm,19.1s,MS5.1,baz=23,slow=35						
PAE	Paea	24.42	98	*e*T		10 56 11.1	
	230nm,0.3s						
PPT	Papeete	24.42	98	*e*LQ		10 36 10.7	
	17μm,25.5s						
PPT				*e*LR	LR	10 37 16.3	
	3μm,25.5s						
PPT				*e*T		10 56 09.3	
	17nm,0.3s						
PPT	Papeete	24.42	98	LR	LR	10 37 53.4	
	comp=Z,2μm,20.5s,MS4.5,baz=271,slow=29						
PPT				T		10 56 44.2	
	31nm,0.4s,baz=276,slow=7.4,SNR=4.1						
XMAS	Kiritimati	24.66	46	*e*P	P	10 31 29.6	+2.3
	118nm,0.8s,mb5.5						
HNR	Honiara	25.22	281	P		10 31 40.0	+7.6
HNR				MLR	MLR		
	comp=Z,6μm,21.0s,MS5.1						
HNR	Honiara	25.22	281	LR	LR	10 39 50.6	
	comp=Z,5μm,21.2s,MS5.0,baz=119,slow=33						
HNR	Honiara	25.22	281	PFAKE		10 31 40.0	+7.6
HNR				LR	LR		
	comp=Z,6μm,21.0s,MS5.1						
VAH	Vaihoa	26.36	93	*e*T		10 58 49.3	
	comp=Z,22nm,0.3s						
RPZ	Rata Peaks	30.45	200	LR	LR	10 43 37.6	
	comp=Z,5μm,19.7s,MS5.2,baz=192,slow=34						
EIDS	Eidsvold	33.16	247	*e*P	P	10 32 42.4	-0.6
	comp=Z,46nm,1.7s,mb5.1						
EIDS				*e*pP	pP	10 32 51.4	-1.3
ARMA	Armidale	33.94	238	*e*P	P	10 32 50.5	+0.8
ARMA				*e*S	S	10 38 08.8	-3.7
TAOE	Nuku Hiva Isla	34.66	83	*e*S	S	10 38 14.6	-9.3
	comp=Z,637nm,24.3s						
TAOE				*e*LR	LR	10 41 51.7	
	comp=Z,19μm,26.5s						
TAOE				*e*T		11 09 07.9	
	comp=Z,268nm,0.2s						
CTA	Charters Tower	37.12	257	*e*P	P	10 33 19.2	+2.1
	comp=Z,6.0nm,1.0s,mb4.4						
CTA				*e*S	S	10 39 05.0	+3.6
CTA	Charters Tower	37.12	257	P	P	10 33 17.4	+0.3
	comp=Z,3.9nm,0.9s,mb4.2,baz=106,slow=12,SNR=2.5						
CTA				LR	LR	10 47 08.4	
	comp=Z,2μm,18.0s,MS5.0,baz=76,slow=34						
CTAO	Charters Tower	37.12	257	*e*P	P	10 33 12.2	-4.9
CTAO				*e**PP	pP	10 33 22.5	-4.4
CTAO				pmax	pmax		
	comp=Z,74nm,1.9s,mb5.2						
CTAO				MLR	MLR		
	comp=Z,2μm,19.0s,MS5.0						
CTAO	Charters Tower	37.12	257	*e*P	P	10 33 12.2	-4.9
	comp=Z,74nm,1.9s,mb5.2						
CTAO				*e*pP	pP	10 33 22.4	-4.4
CTAO				LR	LR		
	comp=Z,2μm,19.0s,MS5.0						
CAN	Canberra	37.71	232	P		10 33 30.0	+8.1
CAN				MLR	MLR		
	comp=Z,2μm,19.0s,MS4.9						
CAN	Canberra	37.71	232	PFAKE		10 33 30.0	+8.1
CAN				LR	LR		
	comp=Z,2μm,19.0s,MS4.9						
RKT	Rikitea	38.38	108	*e*LQ		10 42 01.5	
	comp=Z,3μm,28.5s						
RKT				*e*LR	LR	10 43 46.7	
	comp=Z,2μm,28.0s,baz=283						
RKT				*e*T		11 13 47.9	
	comp=Z,12nm,0.3s						
TOO	Toolangi	41.17	230	*e*P	P	10 33 48.1	-2.6
TOO				*e*S	S	10 40 06.9	+4.9
TAU	Tasmania Unive	42.15	222	PFAKE		10 34 10.0	+11
TAU				LR	LR		
	comp=Z,3μm,20.0s,MS5.2						
STKA	Stephens Creek	42.62	240	*e*P	P	10 34 03.1	+0.4
	comp=Z,12nm,1.3s,mb4.5						
STKA				*e*		10 34 40.6	
STKA				*e*S	S	10 40 34.6	+11
STKA	Stephens Creek	42.62	240	P	P	10 34 03.3	+0.6
	comp=Z,12nm,1.0s,mb4.5,baz=75,slow=10,SNR=9.6						
STKA				LR	LR	10 49 44.3	
	comp=Z,3μm,20.4s,MS5.2,baz=73,slow=33						
STKA	Stephens Creek	42.62	240	*e*P	P	10 34 03.1	+0.4
	comp=Z,12nm,1.5s,mb4.4						
WB2	Warramunga Arr	48.31	257	*e*P	P	10 34 46.9	-1.1
WRAB	Tennant Creek	48.31	257	*e*P	P	10 34 47.0	-0.9
WRAB				pmax	pmax		
	comp=Z,137nm,2.2s,mb5.6						
WRAB	Tennant Creek	48.31	257	*e*P	P	10 34 47.0	-0.9
	comp=Z,137nm,2.2s,mb5.6						
WRA	Warramunga Arr	48.32	257	P	P	10 34 47.5	-0.5
	comp=Z,1.8nm,0.9s,mb4.1,baz=93,slow=6.8,SNR=14						
WRA				LR	LR	10 52 24.1	
	comp=Z,2μm,21.6s,MS5.0,baz=95,slow=33						
ASAR	Alice Springs	48.60	252	P	P	10 34 49.5	-0.6
	comp=Z,5.7nm,0.7s,mb4.7,baz=86,slow=8.2,SNR=84						
GUMO	Guam	49.17	304	LR	LR	10 52 33.0	
	comp=Z,950nm,19.2s,MS4.8,baz=91,slow=32						
GUMO	Guam	49.17	304	PFAKE		10 35 10.0	+15
GUMO				LR	LR		
	comp=Z,1μm,20.0s,MS4.9						
KAKA	Kakadu	50.97	266	*e*P	P	10 35 08.1	-0.2
	comp=Z,12nm,0.8s,mb4.9						
FORT	Forrest	53.97	243	*e*P	P	10 35 30.9	+0.6
	comp=Z,15nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	56.68	258	*e*P	P	10 35 50.9	+0.9
	comp=Z,10nm,1.2s,mb4.7						
FITZ				*e*S	S	10 43 47.0	+6.4
FITZ	Fitzroy Crossi	56.68	258	P	P	10 35 50.7	+0.7
	comp=Z,2.5nm,1.0s,mb4.2,baz=92,slow=9.6,SNR=4.6						
FITZ	Fitzroy Crossi	56.68	258	*e*P	P	10 35 47.4	-2.6
FITZ				*e*pP	pP	10 35 57.2	-3.0
VNDA	Vanda	63.03	186	P	P	10 36 33.8	+1.2
	comp=Z,4.8nm,0.9s,mb4.6,baz=11,slow=8.5,SNR=5.6						
VNDA				LR	LR	10 59 21.3	
	comp=Z,395nm,18.9s,MS4.6,baz=28,slow=32						
DAV	Davao City (W)	63.03	286	PFAKE		10 36 50.0	+16
DAV				LR	LR		
	comp=Z,921nm,19.0s,MS5.0						
MJAR	Matsushiro Arr	68.12	321	P	P	10 37 05.0	-1.2
	comp=Z,3.1nm,0.9s,mb4.3,baz=161,slow=5.6,SNR=4.8						
MJAR				LR	LR	11 01 28.8	
	comp=Z,1μm,21.8s,MS5.0,baz=110,slow=31						
MJAR	Matsushiro Arr	68.12	321	P	P	10 37 05.0	-1.2
MJAR				LR	LR	11 01 28.8	
MAJO	Matsushiro	68.12	321	P	P	10 37 07.2	+1.1
MAJO				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.1						
MAJO	Matsushiro	68.12	321	P	P	10 37 07.2	+1.0
	comp=Z,27nm,1.4s,mb5.1						
MAT	Matsushiro	68.12	321	P	P	10 37 01.9	-4.2
ERM	Erimo	69.11	328	PFAKE		10 37 20.0	+7.8
ERM				LR	LR		
	comp=Z,1μm,19.0s,MS5.2						
CASY	Casey	69.59	205	*e*P	P	10 37 13.6	-1.2
CASY				*e*pP	pP	10 37 23.9	-1.4
CASY				LR	LR		
	comp=Z,2μm,19.0s,MS5.3						
PET	Petropavlovsk	72.03	344	*e*P	P	10 37 30.5	+0.8
PET				*e*S	S	10 46 48.4	-0.5
PET				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.6						
PETK	Petropavlovsk-	72.37	343	P	P	10 37 31.2	-0.5
	comp=Z,18nm,0.9s,mb5.0,baz=115,slow=9.2,SNR=11						
PETK				LR	LR	11 02 26.8	
	comp=Z,703nm,21.5s,MS4.9,baz=164,slow=30						
MCCM	Marconi Confer	72.40	41	PFAKE		10 37 40.0	+7.7
MCCM				LR	LR		
	comp=Z,1μm,21.0s,MS5.2						
SAO	San Andreas Ge	72.50	43	PFAKE		10 37 50.0	+17
SAO				LR	LR		
	comp=Z,2μm,20.0s,MS5.4						
YSS	Yuzh-Sakhalins	72.92	331	α*e*P	P	10 37 35.2	0.0
YSS				*e*		10 37 52.6	
YSS				*e*PPS		10 47 46.0	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
YSS	Yuzh-Sakhalins	72.92	331	*e*P	P	10 37 35.5	+0.3
	comp=Z,36nm,1.0s,mb5.2						
CHGN	Chignik	72.97	10	*e*P	P	10 37 32.9	-2.3
MWC	Mount Wilson	73.37	46	*e*P	P	10 37 41.9	+3.8
MWC				pmax	pmax		
	comp=Z,96nm,2.1s,mb5.4						
MWC	Mount Wilson	73.37	46	*e*P	P	10 37 41.9	+3.7
	comp=Z,96nm,2.1s,mb5.4						
VES	Vestal, Richgr	73.55	45	⇓P	P	10 37 40.5	+1.3
	baz=74						
MURC	Murrieta	73.64	47	⇓P	P	10 37 40.8	+1.0
	baz=74						
BFSC	Mount Baldy St	73.66	47	⇑P	P	10 37 41.1	+1.2
	baz=74						
EDW2	Edwards Air Fo	73.77	46	⇓P	P	10 37 41.2	+0.8
	baz=74						
MONP	Monument Peak	73.83	48	⇓P	P	10 37 41.8	+0.9
	baz=74						
YHNB	Yeheng	73.85	302	PFAKE		10 37 50.0	+8.8
YHNB				LR	LR		
	comp=Z,957nm,19.0s,MS5.1						
ISA	Isabella	73.86	45	*e*P	P	10 37 42.2	+1.2
ISA				pmax	pmax		
	comp=Z,107nm,2.0s,mb5.4						
ISA	Isabella	73.86	45	⇓P	P	10 37 42.1	+1.0
	baz=74						
ISA	Isabella	73.86	45	*e*P	P	10 37 42.1	+1.1
	comp=Z,107nm,2.0s,mb5.4						
CMB	Columbia Colle	73.92	42	*e*P	P	10 37 41.5	+0.2
CMB				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
CMB				MLR	MLR		
	comp=Z,2μm,20.0s,MS5.3						
CMB	Columbia Colle	73.92	42	*e*P	P	10 37 41.5	+0.2
	comp=Z,22nm,1.2s,mb5.0						
CMB				LR	LR		
	comp=Z,2μm,20.0s,MS5.3						
OHCM	Honcut	73.99	40	*e*P	P	10 37 43.8	+2.1
WDC	Whiskeytown Da	74.08	39	PFAKE		10 37 50.0	+7.8
WDC				LR	LR		
	comp=Z,2μm,22.0s,MS5.4						
PFO	Pinyon Flat Ob	74.18	48	⇓P	P	10 37 43.2	+0.3
	baz=74						
PFO	Pinyon Flat Ob	74.18	48	PFAKE		10 38 00.0	+17
PFO				LR	LR		
	comp=Z,3μm,20.0s,MS5.5						
BBRC	Big Bear Sol-O	74.19	47	⇑P	P	10 37 43.4	+0.5
	baz=74						
LRMC	Laurel Mountai	74.30	46	⇑P	P	10 37 44.0	+0.4
	baz=74						
QSPA	South Pole Qui	74.44	180	*e*P	P	10 37 44.5	+0.8
	comp=Z,30nm,1.3s,mb5.1						
YBH	Yreka Blue Hor	74.68	38	PFAKE		10 38 00.0	+14
YBH				LR	LR		
	comp=Z,2μm,19.0s,MS5.4						
BELC	Belle Mtn.	74.70	48	⇑P	P	10 37 46.4	+0.5
	baz=75						
MPMC	Manual Prospec	74.75	45	⇓P	P	10 37 46.6	+0.4
	baz=75						
OHAK	Old Harbor	74.76	12	*e*P	P	10 37 45.2	-0.5
DAC	Darwin (Calif)	74.80	45	PFAKE		10 38 00.0	+14
DAC				LR	LR		
	comp=Z,2μm,19.0s,MS5.5						
R06C	Coleville	74.81	42	⇑P	P	10 37 46.6	+0.1
	baz=75						
GSC	Goldstone	74.81	46	*e*P	P	10 37 48.6	+2.0
GSC				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
GSC	Goldstone	74.81	46	⇓P	P	10 37 46.6	0.0
	baz=75						
GSC	Goldstone	74.81	46	*e*P	P	10 37 48.6	+2.0
	comp=Z,19nm,1.1s,mb4.9						
HEC	Hector,Ludlow	74.90	47	⇓P	P	10 37 46.3	-0.8
	baz=75						
BC3	Big Chuckw Mtn	74.92	48	⇑P	P	10 37 46.3	-0.9
	baz=75						
KSRS	Korea Array	75.24	316	P	P	10 37 50.4	+1.4
	comp=Z,1.8nm,0.9s,mb4.0,baz=127,slow=6.1,SNR=6.3						
KSRS				LR	LR	11 08 16.7	
	comp=Z,694nm,19.3s,MS5.0,baz=137,slow=34						
GRAC	Grapevine Rang	75.34	44	⇑P	P	10 37 49.3	-0.2
	baz=76						
GMRC	Granite Mounta	75.34	47	⇓P	P	10 37 49.6	0.0
	baz=76						
IRM	Iron Mountain	75.39	48	⇓P	P	10 37 50.0	+0.1
	baz=76						
FURC	Furnace Creek,	75.40	45	⇓P	P	10 37 49.5	-0.4
	baz=76						
KDAK	Kodiak Island	75.43	12	*e*P	P	10 37 52.7	+3.1
KDAK				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
KDAK				MLR	MLR		
	comp=Z,804nm,20.0s,MS5.0						
KDAK	Kodiak Island	75.43	12	*e*P	P	10 37 52.7	+3.2
	comp=Z,46nm,1.0s,mb5.4						
KDAK				LR	LR		
	comp=Z,804nm,20.0s,MS5.0						
SHOC	Shoshone	75.49	46	⇑P	P	10 37 50.2	-0.2
	baz=76						
NVAR	Mina Array Bea	75.50	43	P	P	10 37 50.0	-0.4
	comp=Z,9.2nm,0.8s,mb4.8,baz=229,slow=9.2,SNR=24						
O06A	Flanigan	75.51	41	⇑P	P	10 37 50.6	+0.2
	baz=76						
PAHR	Pah Rah Range	75.52	41	*e*P	P	10 37 52.3	+1.7
	comp=Z,54nm,1.5s,mb5.2						
Y12C	Blythe	75.63	48	⇑P	P	10 37 51.2	-0.1
	baz=76						
113A	Mohawk Valley,	75.70	50	⇑P	P	10 37 51.7	0.0
	baz=76						
U10A	Ash Meadows, A	75.73	45	⇑P	P	10 37 52.2	+0.4
	baz=76						
S09A	Goldfield	75.83	44	⇓P	P	10 37 52.3	-0.1
	baz=76						
N06A	Buffalo Meadow	75.84	40	⇓P	P	10 37 52.4	+0.1
	baz=76						
LDFC	Landfair	75.89	47	*e*P	P	10 37 52.5	-0.2
Q08A	Gabbs	75.98	42	⇑P	P	10 37 53.2	0.0
	baz=76						
TPH	Tonopah	76.02	43	*e*P	P	10 37 53.9	+0.5
TPH				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.1						
TPH				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.3						
TPH	Tonopah	76.02	43	*e*P	P	10 37 53.9	+0.5
	comp=Z,37nm,1.4s,mb5.1						
TPH				LR	LR		
	comp=Z,1μm,20.0s,MS5.3						
V11A	Goodsprings	76.05	46	⇑P	P	10 37 54.0	+0.4
	baz=76						
O07A	Toulon	76.10	41	⇑P	P	10 37 54.1	+0.3
	baz=76						
INCN	Inchon	76.12	316	PFAKE		10 38 10.0	+16
INCN				LR	LR		
	comp=Z,854nm,20.0s,MS5.0						
Y13A	Salome	76.17	49	⇑P	P	10 37 54.4	0.0
	baz=76						
PDMCI	Parker Dam,Lak	76.18	48	⇑P	P	10 37 54.5	+0.1
	baz=76						
R09A	Tonopah	76.20	43	⇑P	P	10 37 54.5	+0.1
	baz=76						
MOD	Modoc	76.22	39	*e*P	P	10 37 54.8	+0.3
	comp=Z,236nm,2.8s,mb5.6						
MOD				LR	LR		
	comp=Z,2μm,21.0s,MS5.4						
S10A	Tonopah Range,	76.35	44	⇓P	P	10 37 55.5	+0.2
	baz=77						
N07B	Gerlach	76.39	40	⇑P	P	10 37 55.5	0.0
	baz=77						
V12A	Nelson	76.40	47	⇓P	P	10 37 55.7	+0.1
	baz=77						
X13A	Yucca	76.55	48	⇓P	P	10 37 56.3	-0.2
	baz=77						
SHPR	Sheep Range	76.58	46	*e*P	P	10 37 56.7	0.0
Z14A	Wintersburg	76.59	49	⇑P	P	10 37 56.6	-0.1
	baz=77						
M07A	Soldier Meadow	76.62	40	⇑P	P	10 37 57.0	+0.3
	baz=77						
O08A	Rochester Mine	76.63	41	⇓P	P	10 37 56.9	0.0
	baz=77						
R10A	Warm Springs	76.74	44	⇑P	P	10 37 58.2	+0.7
	baz=77						
W13A	Hualapai Mount	76.76	48	⇑P	P	10 37 58.3	+0.6
	baz=77						
H04A	Detroit Lake	76.80	36	⇓P	P	10 37 58.6	+0.9

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      baz=77
L07A  Adell            76.88  39 ⇓P     P      10 37 58.0 -0.2
      baz=77
N08A  GE Springer Mi   76.92  41 ⇑P     P      10 37 59.1 +0.6
      baz=77
T11A  Corn Creek, Al   76.92  45 ⇑P     P      10 37 58.4 -0.1
      baz=77
Q10A  Clear Creek Ra   76.96  43 ⇑P     P      10 37 58.7  0.0
      baz=77
U12A  Valley of Fire   76.97  46 ⇓P     P      10 37 58.9  0.0
      baz=77
V13A  Grand Canyon W   77.07  47 ⇓P     P      10 37 59.5 +0.1
      baz=77
X14A  Yava             77.17  48 ⇓P     P      10 38 00.1 +0.2
      baz=77
O09A  Fish Creek Ran   77.18  42 ⇓P     P      10 37 59.9  0.0
      baz=77
R11A  Troy Canyon, C   77.25  44 ⇑P     P      10 38 00.2 -0.2
      baz=78
BMN   Battle Mountai   77.30  41 eP     P      10 37 55.6 -5.0
BMN                              e*PP   pP     10 38 07.5 -3.6
BMN                               pmax  pmax
      comp=Z,26nm,1.0s,mb5.1
BMN                               MLR   MLR
      comp=Z,2µm,20.0s,MS5.3
BMN   Battle Mountai   77.30  41 eP     P      10 37 55.6 -5.0
      comp=Z,26nm,1.0s,mb5.1
BMN                              epP    pP     10 38 07.5 -3.6
BMN                               LR    LR
      comp=Z,2µm,20.0s,MS5.3
K07A  Rock Creek Ran   77.32  39 ⇑P     P      10 38 00.9 +0.2
      baz=78
Y15A  Casa Rosa Ranc   77.32  49 ⇑P     P      10 38 00.8 -0.1
      baz=78,SNR=13
N09A  Rock Creek Ran   77.34  41 ⇓P     P      10 38 00.8  0.0
      baz=78
S12A  Delamar Landin   77.36  45 ⇓P     P      10 38 00.9 -0.1
      baz=78
U13A  Pakoon Wash      77.36  46 ⇑P     P      10 38 01.0  0.0
      baz=78
W14A  Seligman         77.39  48 ⇓P     P      10 38 00.9 -0.3
      baz=78,SNR=7.9
Q11A  Duckwater        77.47  43 ⇓P     P      10 38 01.5 -0.1
      baz=78
I06A  Prineville       77.48  37 ⇑P     P      10 38 01.9 +0.4
      baz=78
L08A  Fields           77.58  39 ⇓P     P      10 38 01.9 -0.2
      baz=78
V14A  Boquillas Ranc   77.58  47 ⇓P     P      10 38 02.2 -0.1
      baz=78,SNR=9.1
X15A  Humboldt         77.65  49 ⇑P     P      10 38 02.6 -0.1
      baz=78
J07A  Hines            77.68  38 ⇓P     P      10 38 02.8 +0.2
      baz=78
Z16A  Peralta Trail,   77.69  50 ⇓P     P      10 38 03.1 +0.1
      baz=78
TUC   Tucson           77.70  51 eP     P      10 38 05.8 +2.8
TUC                               pmax  pmax
      comp=Z,14nm,1.2s,mb4.8
TUC   Tucson           77.70  51 eP     P      10 38 05.8 +2.8
      comp=Z,14nm,1.2s,mb4.8
HABR  Khabarovsk       77.70 329deP     P      10 38 00.5 -2.2
HABR                             e      pP     10 38 10.6 -2.6
HABR                             e*SP   sP     10 38 14.9 -2.2
HABR                              S     S      10 47 50.1 -2.3
HABR                              *SS   sS     10 48 07.6 -2.2
HABR                             e             10 48 16.2
HABR                              MLR   MLR
      comp=Z,284nm,19.0s,MS4.6
M09A  Marrel Ranch,    77.70  40 ⇓P     P      10 38 03.2 +0.4
      baz=78
T13A  Saint George     77.71  46 ⇑P     P      10 38 03.2 +0.2
      baz=78
117A  Oracle           77.85  51 ⇓P     P      10 38 03.8 -0.1
      baz=78
H06A  Lindquist Farm   77.88  36 ⇑P     P      10 38 03.6 -0.1
      baz=78
RSO   Redoubt South    77.89  11 eP     P      10 38 03.0 -0.3
R12A  Pony Springs,    77.90  44 ⇑P     P      10 38 04.3 +0.3
      baz=78
L09A  Wilkinson Ranc   77.90  40 ⇑P     P      10 38 03.8 -0.1
      baz=78
318A  Bisbee           77.90  52 ⇓P     P      10 38 04.1 -0.1
      baz=78
Y16A  Circle Bar Ran   77.91  50 ⇑P     P      10 38 04.0 -0.1
      baz=78
U14A  Mt Trumbull      77.91  47 ⇑P     P      10 38 04.3 +0.2
      baz=78,SNR=8.0
SVW2  Sparrevohn       78.00   9 eP     P      10 38 03.2 -0.8
S13A  Holt Ranch, En   78.02  45 ⇑P     P      10 38 05.2 +0.5
      baz=78
Q12A  Willow Creek R   78.12  44 ⇓P     P      10 38 05.5 +0.3
      baz=78
O11A  Cowboy Ranch,    78.15  42 ⇑P     P      10 38 05.7 +0.3
      baz=78
J08A  Circle Bar Ran   78.17  38 ⇓P     P      10 38 05.5 +0.2
      baz=78
X16A  Lo Mia Camp, P   78.19  49 ⇑P     P      10 38 06.3 +0.6
      baz=78,SNR=16
H07A  Lands Inn, Kim   78.24  37 ⇓P     P      10 38 06.5 +0.7
      baz=78
K09A  Rome             78.25  39 ⇑P     P      10 38 06.0 +0.2
      baz=78
R13A  O'Grain Ranch,   78.25  45 ⇑P     P      10 38 06.6 +0.6
      baz=78
MDJ   Mudanjiang       78.26 323  P     P      10 38 06.6 +0.7
MDJ                               pP    pP     10 38 15.8 -0.6
MDJ                               sP    sP     10 38 19.9 -0.4
MDJ                               PP    PP     10 41 03.2 -0.1
MDJ                               S     S      10 47 59.6 +1.0
MDJ                               sS    sS     10 48 16.0  0.0
MDJ                               pmax  pmax
      comp=Z,7.0nm,1.5s,mb4.4
MDJ                               pmax  pmax
      comp=Z,190nm,5.2s
MDJ                               LR    LR
      comp=N,500nm,35.0s,MS4.8
MDJ                               LR    LR
      comp=E,690nm,36.3s,MS4.8
MDJ                               LR    LR
      comp=Z,1µm,32.4s,MS5.0
MDJ   Mudanjiang       78.26 323 eP     P      10 38 07.7 +1.8
P12A  McGill           78.29  43 ⇑P     P      10 38 06.7 +0.5
      baz=78
T14A  Hurricane        78.30  46 ⇑P     P      10 38 06.7 +0.5
      baz=78
MID   Middleton Isla   78.31  14 eP     P      10 38 06.8 +1.0
      comp=Z,4µm,2.7s
M10A  I.L. Ranch, Tu   78.33  41 ⇑P     P      10 38 07.1 +0.7
      baz=78
V15A  Kaibab Nationa   78.33  48 ⇓P     P      10 38 07.0 +0.5
      baz=78
319A  Douglas          78.42  53 ⇑P     P      10 38 07.4 +0.4
      baz=79
I08A  Drewsey          78.43  38 ⇓P     P      10 38 07.1 +0.3
      baz=79
118A  Homack Ranch,    78.46  51 ⇓P     P      10 38 07.3  0.0
      baz=79
G07A  Ruggs Ranch, H   78.57  36 ⇓P     P      10 38 07.9 +0.4
      baz=79
S14A  Cedar City       78.59  45 ⇑P     P      10 38 07.9 +0.1
      baz=79
J09A  Fry Pan Ranch,   78.59  39 ⇓P     P      10 38 07.8 +0.1
      baz=79
X17A  Forest Lakes     78.62  49 ⇑P     P      10 38 08.3 +0.2
      baz=79
L10A  Juniper Basin    78.68  40 ⇑P     P      10 38 08.2  0.0
      baz=79
M11A  Holland Ranch,   78.75  41 ⇓P     P      10 38 08.8 +0.1
      baz=79
WUAZ  Wupatki          78.76  48 eP     P      10 38 07.5 -1.4
      comp=Z,42nm,1.4s,mb5.2
T15A  Red Dirt Ranch   78.77  46 ⇓P     P      10 38 08.8 -0.1
      baz=79,SNR=6.6
K10A  MacKenzie Ranc   78.81  40 ⇑P     P      10 38 08.8 -0.1
      baz=79
P13A  Bates Ranch, G   78.87  44 ⇓P     P      10 38 09.1 -0.2
      baz=79
C05A  Tolt Reservoir   78.92  33 ⇓P     P      10 38 09.6 +0.2
      baz=79
N12A  Clover Valley,   78.93  42 ⇓P     P      10 38 09.7 +0.1
      baz=79
G08A  Pilot Rock       78.99  37 ⇑P     P      10 38 09.9  0.0
      baz=79
FIB   Fire Island      79.03  12 eP     P      10 38 10.1 +0.4
FIB                               pmax  pmax
      comp=Z,67nm,0.8s,mb5.6
FIB   Fire Island      79.03  12 eP     P      10 38 10.1 +0.4
      comp=Z,67nm,0.8s,mb5.6
RC01  Rabbit Creek A   79.05  12 eP     P      10 38 09.4 -0.3
      comp=Z,44nm,1.1s,mb5.3
NJ2   Nanjing          79.08 308 eP     P      10 38 01.2 -9.5
NJ2                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.8
S15A  Panguitch        79.10  46 ⇑P     P      10 38 10.6  0.0
      baz=79
Q14A  Sevier Lake (B   79.13  44 ⇑P     P      10 38 10.8  0.0
      baz=79
L11A  Cat Creek Ranc   79.17  41 ⇑P     P      10 38 10.8 -0.1
      baz=79
U16A  Tuba City        79.23  48 ⇓P     P      10 38 11.7 +0.3
      baz=79
E07A  Sunnyside        79.23  35 ⇑P     P      10 38 11.5 +0.4
      baz=79
HAWA  Hanford          79.31  35  PFAKE        10 38 20.0 +8.4
HAWA                              LR    LR
      comp=Z,2µm,20.0s,MS5.4
K11A  Parker Ranch,    79.33  40 ⇑P     P      10 38 11.9 +0.1
      baz=80
X18A  Snowflake        79.33  50 ⇑P     P      10 38 12.1 +0.1
      baz=80
T16A  Glen Canyon Da   79.36  47 ⇓P     P      10 38 12.4 +0.3
      baz=80
H09A  Durkee           79.39  38 ⇑P     P      10 38 12.7 +0.7
      baz=80
N13A  Wendover, West   79.47  42 ⇓P     P      10 38 12.9 +0.3
      baz=80
P14A  Drum Mountains   79.57  44 ⇓P     P      10 38 13.1 -0.1
      baz=80
Y19A  Nutrioso         79.59  50 ⇑P     P      10 38 13.3 -0.1
      baz=80
ETW   Entiat           79.60  34 eP     P      10 38 14.4 +1.3
MVU   Marysvale        79.61  45  PFAKE        10 38 30.0  +17
MVU                               LR    LR
      comp=Z,2µm,20.0s,MS5.4
L12A  House Creek Ra   79.63  41 ⇑P     P      10 38 13.5 +0.1
      baz=80
PMR   Palmer           79.63  12 eP     P      10 38 12.5 -0.4
PMR                               pmax  pmax
      comp=Z,36nm,1.1s,mb5.2
PMR   Palmer           79.63  12 eP     P      10 38 12.5 -0.5
      comp=Z,36nm,1.1s,mb5.2
MSU   Marysvale        79.64  45 eP     P      10 38 14.3 +0.7
S16A  Weppner Ranch,   79.66  46 ⇑P     P      10 38 13.6 -0.1
      baz=80
G09A  Cove             79.67  37 ⇑P     P      10 38 13.6 +0.1
      baz=80
BMO   Blue Mountains   79.71  38 eP     P      10 38 13.4 -0.4
BMO                               pmax  pmax
      comp=Z,10.0nm,1.1s,mb4.7
BMO                               MLR   MLR
      comp=Z,1µm,19.0s,MS5.2
BMO   Blue Mountains   79.71  38 eP     P      10 38 13.4 -0.3
      comp=Z,9.7nm,1.1s,mb4.7
BMO                               LR    LR
      comp=Z,1µm,19.0s,MS5.2
M13A  Montello         79.76  42 ⇑P     P      10 38 13.8 -0.3
      baz=80
U17A  Shonto           79.78  47 ⇓P     P      10 38 14.1 -0.2
      baz=80
MFID  Camas Ranch      79.80  39 ⇓P     P      10 38 14.0 -0.4
      baz=80
T17A  Navajo Res., N   79.86  47 ⇑P     P      10 38 14.5 -0.3
      baz=80,SNR=6.3
KLR   Kul'dur          79.87 328 eP     P      10 38 11.3 -3.2
V18A  Ganado           79.89  49 ⇓P     P      10 38 14.7 -0.3
      baz=80
H10A  Noah's Angus R   79.89  38 ⇑P     P      10 38 14.3 -0.5
      baz=80
K12A  Draper Farm, C   79.96  41 ⇑P     P      10 38 15.0 -0.1
      baz=80
I11A  Placerville      79.99  39 ⇑P     P      10 38 15.1 -0.2
      baz=80
R16A  Teasdale         80.01  46 ⇑P     P      10 38 15.5 -0.1
      baz=80
D08A  Wollman Farm,    80.05  35 ⇓P     P      10 38 15.7 +0.1
      baz=80
J12A  Stokes Ranch,    80.16  40 ⇓P     P      10 38 16.4 +0.1
      baz=80
S17A  Black Ridge (B   80.17  46 ⇓P     P      10 38 16.1 -0.3
      baz=80
B07A  Winthrop         80.23  34 ⇑P     P      10 38 16.9 +0.4
      baz=80
U18A  Rough Rock, Ch   80.26  48 ⇓P     P      10 38 17.1 +0.1
      baz=80
CN2   Changchun        80.27 321 eP     P      10 38 17.6 +0.8
CN2                              esP    sP     10 38 31.9 +0.6
CN2                              ePP    PP     10 41 21.7 +1.7
CN2                              eS     S      10 48 19.3 -0.6
CN2                              eSS    SS     10 53 34.0 +2.0
CN2                               pmax  pmax
      comp=Z,10.0nm,1.2s,mb4.6
CN2                               pmax  pmax
      comp=Z,200nm,3.0s
M14A  Sheep Mountain   80.36  42 ⇑P     P      10 38 17.3 -0.1
      baz=81
F10A  Beach Ranch, E   80.38  37 ⇓P     P      10 38 17.1 -0.3
      baz=81
D09A  Jones Farm, Ri   80.39  35 ⇓P     P      10 38 17.1 -0.3
      baz=81
H11A  Donnelly         80.39  38 ⇓P     P      10 38 17.1 -0.3
      baz=81
C08A  Higginbotham F   80.40  35 ⇑P     P      10 38 17.2 -0.2
      baz=81
A07A  Ashnola River,   80.44  33 ⇓P     P      10 38 17.5 -0.1
      baz=81
K13A  Stover Farm, H   80.48  41 ⇑P     P      10 38 17.8 -0.2
      baz=81
Q16A  Castle Valley    80.52  45 ⇑P     P      10 38 18.3 -0.1
      baz=81
B08A  Colville Reser   80.59  34 ⇓P     P      10 38 18.3 -0.1
      baz=81
T18A  Mexican Hat      80.59  47 ⇑P     P      10 38 18.7  0.0
      baz=81,SNR=20
R17A  Hanksville Air   80.60  46 ⇑P     P      10 38 18.7 -0.1
      baz=81
W20A  Ramah            80.67  50 ⇑P     P      10 38 19.5 +0.3
      baz=81
TMUT  Trail Mountain   80.68  45 eP     P      10 38 20.2 +1.0
      comp=Z,23nm,1.0s,mb5.1
L14A  Malta            80.70  42 ⇑P     P      10 38 19.1 -0.1
      baz=81
MPU   Maple Canyon     80.74  44 eP     P      10 38 20.9 +1.4
      comp=Z,21nm,1.4s,mb4.9
HLID  Hailey           80.75  40 eP     P      10 38 19.5  0.0
      comp=Z,31nm,1.4s,mb5.0
HLID                              LR    LR
      comp=Z,1µm,22.0s,MS5.2
S18A  Hurst Farm, Bl   80.76  47 ⇓P     P      10 38 19.5 -0.1
      baz=81
J13A  Cove Ranch, Pi   80.81  40 ⇓P     P      10 38 19.8 +0.1
      baz=81
HVU   Hansel Valley    80.87  42 eP     P      10 38 21.1 +1.0
HVU                               pmax  pmax
      comp=Z,129nm,2.5s,mb5.4
HVU   Hansel Valley    80.87  42 eP     P      10 38 21.1 +1.0
      comp=Z,129nm,2.5s,mb5.4
M15A  Larsen Ranch,    80.92  42 ⇑P     P      10 38 20.2 -0.2
      baz=81
K14A  Jones Ranch, D   81.00  41 ⇓P     P      10 38 21.1 +0.3
      baz=81
H12A  Diamond D Ranc   81.00  39 ⇑P     P      10 38 20.6 -0.1
      baz=81
T19A  Beclabito        81.05  48 ⇓P     P      10 38 21.4 +0.2
      baz=81
SRU   San Rafael       81.06  45 eP     P      10 38 21.5 +0.3
SRU                               pmax  pmax
      comp=Z,15nm,1.3s,mb4.8
SRU   San Rafael       81.06  45 ⇓P     P      10 38 21.0 -0.2
      baz=81
SRU   San Rafael       81.06  45 eP     P      10 38 21.5 +0.3
      comp=Z,15nm,1.3s,mb4.8
KTH   Kantishna Hill   81.08  11 eP     P      10 38 20.6 -0.1
      comp=Z,122nm,1.8s,mb5.5
TNA   Tin City         81.09   3 eP     P      10 38 21.0 +0.3
      comp=Z,43nm,1.0s,mb5.3
TRF   Thorofare Moun   81.10  11 eP     P      10 38 20.5 -0.3
      comp=Z,25nm,0.9s,mb5.2
I13A  Wildhorse Cree   81.12  40 ⇑P     P      10 38 21.6 +0.2
      baz=81
CHUM  Lake Minchumin   81.15  10 eP     P      10 38 20.1 -1.0
      comp=Z,19nm,1.0s,mb5.0
JLU   Jordanelle       81.15  44 eP     P      10 38 22.3 +0.7
      comp=Z,14nm,1.2s,mb4.8
R18A  Canyonlands Na   81.15  46 ⇑P     P      10 38 22.4 +0.6
      baz=81
E11A  Bogner Ranch,    81.18  37 ⇑P     P      10 38 21.7  0.0
      baz=81
L15A  Malad City       81.23  42 ⇓P     P      10 38 21.8 -0.2
      baz=81
N16A  Rees Ranch, Co   81.30  43 ⇓P     P      10 38 21.9 -0.5
      baz=82
Q18A  Rafter H Ranch   81.32  45 ⇑P     P      10 38 22.1 -0.5
      baz=82
A09A  Danville         81.35  34 ⇑P     P      10 38 22.1 -0.4
      baz=82
H13A  Challis          81.38  39 ⇑P     P      10 38 22.6 -0.1
      baz=82
M16A  Huntsville       81.38  43 ⇓P     P      10 38 22.1 -0.8
      baz=82
S19A  Harvey Farm, M   81.39  47 ⇓P     P      10 38 22.6 -0.4
      baz=82
O17A  Robinson Place   81.43  44 ⇓P     P      10 38 23.2 +0.1
      baz=82
K15A  Arbon            81.48  41 ⇑P     P      10 38 23.4  0.0
      baz=82
R19A  Curley Farm, L   81.55  46 ⇑P     P      10 38 23.5 -0.4
      baz=82
QIZ   Qiongzhong       81.57 292  P     P      10 38 24.0 -0.3
QIZ                               sP    sP     10 38 36.9 -1.9
QIZ                               S     S      10 48 35.2 +0.7
QIZ                               sS    sS     10 48 50.4 -1.6
QIZ                               LR    LR
      comp=E,670nm,19.6s
QIZ                               LR    LR
      comp=Z,720nm,21.3s,MS5.0
MCK   McKinley         81.61  11 eP     P      10 38 23.3 -0.2
MCK                              e             10 38 29.7
MCK                               pmax  pmax
      comp=Z,43nm,1.0s,mb5.3
MCK   McKinley         81.61  11 eP     P      10 38 23.2 -0.3
      comp=Z,43nm,1.0s,mb5.3
MCK                              ePcP   PcP    10 38 29.7 +0.4
PAX   Paxson           81.64  13 eP     P      10 38 23.9 +0.2
PAX                               pmax  pmax
      comp=Z,61nm,1.8s,mb5.2
PAX   Paxson           81.64  13 eP     P      10 38 23.9 +0.2
      comp=Z,61nm,1.8s,mb5.2
G13A  Cobalt           81.67  39 ⇑P     P      10 38 24.0 -0.3
      baz=82
N17A  Moffit Pass      81.73  44 ⇑P     P      10 38 24.4 -0.3
      baz=82
L16A  Fish Haven       81.85  42 ⇑P     P      10 38 25.1 -0.2
      baz=82
Q19A  Hogan Spring (   81.86  46 ⇑P     P      10 38 25.3 -0.1
      baz=82
J15A  Blackfoot        81.90  41 ⇓P     P      10 38 25.5 -0.1
      baz=82
A10A  Northport        81.91  34 ⇑P     P      10 38 24.9 -0.5
      baz=82
F13A  Darby            81.97  38 ⇑P     P      10 38 25.1 -0.8
      baz=82
TXAR  Lajitas Array    81.99  57  P     P      10 38 25.3 -1.0
      comp=Z,2.4nm,1.0s,mb4.1,baz=231,slow=6.0,SNR=12
TXAR                              LR    LR     11 06 45.8
      comp=Z,1µm,21.7s,MS5.2,baz=315,slow=30
MENT  Mentasta         82.00  14 eP     P      10 38 24.9 -0.7
ANMO  Albuquerque      82.10  51 eP     P      10 38 27.1 +0.3
ANMO                              pmax  pmax
      comp=Z,47nm,1.6s
ANMO                              MLR   MLR
      comp=Z,2µm,20.0s
ANMO  Albuquerque      82.10  51 eP     P      10 38 27.1 +0.3
      comp=Z,47nm,1.6s,mb5.2
ANMO                              LR    LR
      comp=Z,2µm,20.0s,MS5.4
R20A  Redvale          82.12  47 ⇓P     P      10 38 26.2 -0.6
      baz=82
K16A  Soda Springs     82.16  42 ⇓P     P      10 38 26.4 -0.5
      baz=82
G14A  Jackson          82.21  39 ⇓P     P      10 38 26.6 -0.5
      baz=82
L17A  Cokeville        82.26  43 ⇓P     P      10 38 27.4  0.0
      baz=82
S21A  Coal Bank Pass   82.30  48 ⇑P     P      10 38 27.5 -0.3
      baz=82
SEY   Seymchan         82.33 346⇑eP     P      10 38 27.3  0.0
SEY   Seymchan         82.33 346⇑eP     P      10 38 27.4 +0.1
C12B  Naegeli Ranch,   82.35  36 ⇑P     P      10 38 27.1 -0.7
      baz=82
H15A  Lima             82.39  40 ⇑P     P      10 38 27.6 -0.4
      baz=83
E13A  Victor           82.41  38 ⇑P     P      10 38 27.1 -1.0
      baz=83
AHID  Auburn Hatcher   82.44  42  PFAKE        10 38 40.0  +12
AHID                              LR    LR
      comp=Z,952nm,19.0s,MS5.2
DLBC  Dease Lake       82.45  22 eP     P      10 38 30.9 +2.8
M18A  Lyman            82.47  43 ⇑P     P      10 38 28.2 -0.3
      baz=83
Q20A  Ridgley Place,   82.53  46 ⇓P     P      10 38 28.7 -0.3
      baz=83
A11A  Hall Mountain,   82.54  35 ⇑P     P      10 38 28.4 -0.3
      baz=83
K17A  Gardner Place,   82.54  42 ⇓P     P      10 38 28.4 -0.5
      baz=83
F14A  Wisdom           82.56  38 ⇑P     P      10 38 28.3 -0.7
      baz=83
GDL2  Guadalupe Moun   82.56  54 eP     P      10 38 30.1 +0.8
O19A  Miners Draw (B   82.57  45 ⇑P     P      10 38 28.5 -0.6
      baz=83
RRI2  Red Ridge        82.58  41 eP     P      10 38 30.4 +1.3
      comp=Z,40nm,1.3s,mb5.3
D13A  Huson            82.59  37 ⇓P     P      10 38 28.5 -0.6
      baz=83
P20A  De Beque         82.71  46 ⇑P     P      10 38 29.1 -0.7
      baz=83
L18A  Fontenelle, Gr   82.72  43 ⇑P     P      10 38 29.1 -0.8
      baz=83
I16A  Newdale          82.73  41 ⇑P     P      10 38 29.5 -0.3
      baz=83
MSO   Missoula         82.75  37 eP     P      10 38 31.0 +1.1
      comp=Z,56nm,2.3s,mb5.2
G15A  Dillon           82.76  39 ⇓P     P      10 38 29.7 -0.3
      baz=83,SNR=16
R21A  Cimarron         82.79  47 ⇑P     P      10 38 30.1 -0.2
      baz=83
DLMT  Dillon           82.80  39 eP     P      10 38 30.4 +0.3
      comp=Z,22nm,1.2s,mb5.1
E14A  Clinton          82.80  38 ⇑P     P      10 38 29.5 -0.6
      baz=83,SNR=9.5
N19A  John Jarvie Ra   82.81  44 ⇑P     P      10 38 29.8 -0.6
      baz=83
BSMT  Bassoo Peak      82.81  36 eP     P      10 38 31.6 +1.4
C13A  Hot Springs      82.84  36 ⇑P     P      10 38 29.7 -0.6
      baz=83
COLA  College          82.85  11 eP     P      10 38 28.9 -1.1
COLA                              pmax  pmax
      comp=Z,37nm,0.9s,mb5.4
COLA                              MLR   MLR
      comp=Z,726nm,20.0s,MS5.0
COLA  College          82.85  11 eP     P      10 38 28.9 -1.1
      comp=Z,37nm,0.9s,mb5.4
COLA                              LR    LR
      comp=Z,726nm,20.0s,MS5.0
REDW  Red Top Meadow   82.89  41 eP     P      10 38 31.0 +0.4
      comp=Z,37nm,1.4s,mb5.2
A12A  Yaak River Ran   82.92  35 ⇑P     P      10 38 30.6 -0.1
      baz=83
J17A  Brown Place, J   82.97  41 ⇓P     P      10 38 30.9 -0.3
      baz=83,SNR=5.4
Q21A  Lamborn Mesa,    82.98  47 ⇑P     P      10 38 30.7 -0.5
      baz=83
SNOW  Snow King Moun   83.00  41 eP     P      10 38 32.2 +1.0
      comp=Z,38nm,1.3s,mb5.3
K18A  Toltan Ranch,    83.06  42 ⇑P     P      10 38 31.6  0.0
      baz=83
O20A  White River Ci   83.10  45 ⇑P     P      10 38 31.5 -0.4
      baz=83
F15A  Butte            83.10  39 ⇓P     P      10 38 31.2 -0.5
      baz=83
M19A  Rock Springs     83.11  44 ⇑P     P      10 38 31.1 -0.8
      baz=83
LRM   Limekiln Ridge   83.12  39 eP     P      10 38 32.1 +0.3
D14A  Greenough        83.14  37 ⇑P     P      10 38 30.9 -1.0
      baz=83
LOHW  Long Hollow      83.16  41 eP     P      10 38 34.0 +1.9
      comp=Z,96nm,2.3s,mb5.4
G16A  Moss Hill, Enn   83.21  39 ⇓P     P      10 38 31.5 -0.8
      baz=83
L19A  Farson           83.25  43 ⇑P     P      10 38 31.7 -0.9
      baz=83
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H16A	**Russell Place,**	**83.29**	**40**	⇓P	**P**	**10 38 32.3**	**-0.5**
	baz=84,SNR=17						
E15A	**Deer Lodge**	**83.31**	**38**	⇑P	**P**	**10 38 32.4**	**-0.4**
	baz=84						
I17A	**Pilgrim Ck.**	**83.33**	**41**	⇓P	**P**	**10 38 32.5**	**-0.5**
	baz=84						
J18A	**Kendall Valley**	**83.34**	**42**	⇑P	**P**	**10 38 32.8**	**-0.3**
	baz=84,SNR=23						
P21A	**Newcastle**	**83.37**	**46**	⇓P	**P**	**10 38 32.5**	**-0.8**
	baz=84						
N20A	**Spence Gulch,**	**83.40**	**45**	⇓P	**P**	**10 38 32.5**	**-0.8**
	baz=84,SNR=6.3						
YFT	**Old Faithful**	**83.42**	**40**	*e*P	**P**	**10 38 34.3**	**+0.9**
	comp=Z,28nm,1.3s,mb5.1						
BW06	**Boulder Array**	**83.43**	**42**	⇓P	**P**	**10 38 32.9**	**-0.7**
	baz=84,SNR=6.8						
BW06	**Boulder Array**	**83.43**	**42**	*e*P	**P**	**10 38 32.6**	**-0.9**
	comp=Z,19nm,1.3s,mb5.0						
BW06				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PDAR	**Pinedale Array**	**83.43**	**42**	P	**P**	**10 38 32.7**	**-0.8**
	comp=Z,7.6nm,0.9s,mb4.7,baz=211,slow=2.9,SNR=17						
PDAR				LR	LR	11 11 09.2	
	comp=Z,945nm,18.2s,MS5.2,baz=249,slow=32						
Q22A	**Crested Butte,**	**83.45**	**47**	⇓P	**P**	**10 38 33.4**	**-0.3**
	baz=84						
BOZ	**Bozeman (W)**	**83.53**	**39**	*e*P	**P**	**10 38 32.8**	**-1.1**
BOZ				pmax	pmax		
	comp=Z,37nm,1.7s,mb5.2						
BOZ				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.3						
BOZ	**Bozeman (W)**	**83.53**	**39**	⇓P	**P**	**10 38 33.0**	**-0.9**
	baz=84						
BOZ	**Bozeman (W)**	**83.53**	**39**	*e*P	**P**	**10 38 32.8**	**-1.2**
	comp=Z,37nm,1.7s,mb5.2						
BOZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
H17A	**Grant Village**	**83.56**	**41**	⇓P	**P**	**10 38 33.9**	**-0.2**
	baz=84						
O21A	**Pagoda**	**83.66**	**45**	⇑P	**P**	**10 38 34.0**	**-0.8**
	baz=84						
D15A	**Lincoln**	**83.70**	**38**	⇑P	**P**	**10 38 34.1**	**-0.7**
	baz=84						
I18A	**Diamond G Ranc**	**83.71**	**41**	⇑P	**P**	**10 38 34.3**	**-0.6**
	baz=84						
M20A	**Sweetwater, Wa**	**83.75**	**44**	⇑P	**P**	**10 38 34.9**	**-0.2**
	baz=84						
LKWY	**Lake**	**83.75**	**40**	*e*P	**P**	**10 38 36.8**	**+1.7**
N21A	**Black Mountain**	**83.87**	**45**	⇑P	**P**	**10 38 35.2**	**-0.6**
	baz=84						
L20A	**Wamsutter**	**83.88**	**43**	⇑P	**P**	**10 38 35.6**	**-0.2**
	baz=84,SNR=16						
G17A	**Pierce Place,**	**83.91**	**40**	⇑P	**P**	**10 38 35.5**	**-0.4**
	baz=84						
K19A	**Absolon Red Bu**	**83.92**	**43**	⇑P	**P**	**10 38 35.5**	**-0.6**
	baz=84						
HRY	**Holter Researc**	**83.94**	**38**	*e*P	**P**	**10 38 35.7**	**-0.3**
E16A	**East Helena**	**83.94**	**38**	⇑P	**P**	**10 38 35.2**	**-0.8**
	baz=84						
SDCO	**Great Sand Dun**	**83.98**	**48**	*e*P	**P**	**10 38 35.9**	**-0.6**
	comp=Z,26nm,1.7s,mb5.1						
DAWY	**Dawson**	**84.00**	**15**	*e*P	**P**	**10 38 35.6**	**-0.3**
C15A	**Salmond Ranch,**	**84.02**	**37**	⇑P	**P**	**10 38 35.6**	**-0.8**
	baz=84						
EGAK	**Eagle**	**84.17**	**14**	*e*P	**P**	**10 38 37.0**	**+0.3**
	comp=Z,39nm,1.2s,mb5.4						
EGAK				LR	LR		
	comp=Z,740nm,19.0s,MS5.1						
K20A	**Yellowstone Ra**	**84.18**	**43**	⇓P	**P**	**10 38 36.7**	**-0.6**
	baz=84						
A14A	**Double T Ranch**	**84.18**	**36**	⇓P	**P**	**10 38 36.2**	**-1.0**
	baz=84						
F17A	**Fitzpatrick Pl**	**84.24**	**39**	⇓P	**P**	**10 38 37.0**	**-0.6**
	baz=84						
D16A	**Dana Ranch, Ca**	**84.27**	**38**	⇓P	**P**	**10 38 37.1**	**-0.6**
	baz=84						
B15A	**Bradely Ranch,**	**84.33**	**36**	⇑P	**P**	**10 38 36.9**	**-1.0**
	baz=84						
E17A	**Martinsdale**	**84.40**	**39**	⇑P	**P**	**10 38 37.8**	**-0.6**
	baz=85						
BJT	**Baijiatuau**	**84.50**	**314**	PFAKE		10 38 50.0	+11
BJT				LR	LR		
	comp=Z,777nm,22.0s,MS5.0						
L21A	**Rawlins**	**84.51**	**44**	⇓P	**P**	**10 38 38.9**	**-0.1**
	baz=85						
BJI	**Beijing**	**84.51**	**314**	P	**P**	**10 38 39.9**	**+0.8**
BJI				pP	pP	10 38 49.4	-0.3
BJI				sP	sP	10 38 53.2	-0.4
BJI				PP	PP	10 41 51.7	-3.3
BJI				S	S	10 49 03.7	+0.2
BJI				sS	sS	10 49 20.8	-0.3
BJI				SS	SS	10 54 36.6	+1.4
BJI				pmax	pmax		
	comp=Z,21nm,1.5s,mb5.0						
BJI				pmax	pmax		
	comp=Z,370nm,6.9s						
BJI				LR	LR		
	comp=N,230nm,20.2s,MS5.0						
BJI				LR	LR		
	comp=E,510nm,19.3s,MS5.0						
BJI				LR	LR		
	comp=Z,650nm,24.0s,MS4.9						
BILL	**Bilibino**	**84.52**	**353**	*d i*P	**P**	**10 38 38.6**	**+0.1**
BILL				*e*		10 41 54.8	
BILL				*e*SS	SS	10 54 32.2	-1.8
BILL				pmax	pmax		
	comp=Z,74nm,2.5s,mb5.4						
BILL				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.6						
BILL	**Bilibino**	**84.52**	**353**	*e*P	**P**	**10 38 38.5**	**0.0**
	comp=Z,41nm,1.3s,mb5.4						
BILL				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
C16A	**Fuhringer Ranc**	**84.54**	**37**	⇑P	**P**	**10 38 38.3**	**-0.7**
	baz=85						
A15A	**Johnson Ranch,**	**84.57**	**36**	⇑P	**P**	**10 38 38.3**	**-0.9**
	baz=85						
COLD	**Coldfoot**	**84.58**	**9**	*e*P	**P**	**10 38 39.6**	**+0.8**
	comp=Z,69nm,1.5s,mb5.6						
N22A	**Wattenberg Ran**	**84.61**	**45**	⇓P	**P**	**10 38 39.1**	**-0.5**
	baz=85						
G18A	**Lazy EL Ranch,**	**84.64**	**40**	⇓P	**P**	**10 38 39.3**	**-0.3**
	baz=85						
RLMT	**Red Lodge**	**84.73**	**40**	⇑P	**P**	**10 38 40.0**	**0.0**
	baz=85						
RLMT	**Red Lodge**	**84.73**	**40**	*e*P	**P**	**10 38 39.8**	**-0.3**
	comp=Z,17nm,1.3s,mb5.0						
ISCO	**Idaho Springs**	**84.76**	**46**	*e*P	**P**	**10 38 43.3**	**+2.9**
ISCO				pmax	pmax		
	comp=Z,76nm,2.5s,mb5.4						
ISCO				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
ISCO	**Idaho Springs**	**84.76**	**46**	*e*P	**P**	**10 38 43.3**	**+2.9**
	comp=Z,76nm,2.5s,mb5.4						
ISCO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
M22A	**Cedar Creek Ra**	**84.78**	**45**	⇓P	**P**	**10 38 40.5**	**+0.1**
	baz=85						
F18A	**Big Timber**	**84.82**	**40**	⇓P	**P**	**10 38 40.4**	**-0.1**
	baz=85						
D17A	**Six Diamond Ra**	**84.84**	**38**	⇓P	**P**	**10 38 40.5**	**-0.1**
	baz=85						
B16A	**M & M Farms, S**	**84.87**	**37**	⇑P	**P**	**10 38 39.9**	**-0.8**
	baz=85						
E18A	**Harlowton**	**85.02**	**39**	⇓P	**P**	**10 38 40.9**	**-0.6**
	baz=85,SNR=5.4						
C17A	**Wharram Farm,**	**85.03**	**38**	⇓P	**P**	**10 38 40.7**	**-0.8**
	baz=85,SNR=28						
A16A	**West Butte Ran**	**85.20**	**36**	⇑P	**P**	**10 38 41.7**	**-0.7**
	baz=85,SNR=16						
B17A	**L&G Farms, Che**	**85.33**	**37**	⇑P	**P**	**10 38 42.3**	**-0.7**
	baz=86						
D18A	**Linhart Farms,**	**85.39**	**38**	⇓P	**P**	**10 38 43.2**	**-0.1**
	baz=86						
PHWY	**Pilot Hill**	**85.51**	**45**	*e*P	**P**	**10 38 45.7**	**+1.6**
	comp=Z,66nm,2.3s,mb5.5						
JCT	**Junction City**	**85.53**	**57**	PFAKE		10 39 00.0	+16
JCT				LR	LR		
	comp=Z,855nm,20.0s,MS5.1						
AMTX	**Amarillo**	**85.67**	**52**	PFAKE		10 39 00.0	+15
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
A17A	**Triple J Farms**	**85.71**	**37**	⇑P	**P**	**10 38 44.4**	**-0.4**
	baz=86,SNR=12						
EGMT	**Eagleton**	**85.81**	**38**	⇓P	**P**	**10 38 45.2**	**-0.2**
	baz=86						
EGMT	**Eagleton**	**85.81**	**38**	*e*P	**P**	**10 38 45.7**	**+0.3**
	comp=Z,103nm,2.1s,mb5.7						
EGMT				LR	LR		
	comp=Z,976nm,20.0s,MS5.2						
B18A	**Beardsley Farm**	**85.98**	**37**	⇑P	**P**	**10 38 46.4**	**+0.1**
	baz=86						
A18A	**Metzger Ranch,**	**86.19**	**37**	⇓P	**P**	**10 38 47.2**	**-0.1**
	baz=86						
HIA	**Hailar**	**86.44**	**323**	PFAKE		10 39 00.0	+12
HIA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
GYA	**Guiyang**	**86.80**	**298**	⇓*i*P	**P**	**10 38 52.6**	**+1.8**
GYA				pP	pP	10 39 03.2	+1.8
GYA				sP	sP	10 39 07.0	+1.7
GYA				PP	PP	10 42 19.8	+5.9
GYA				SKS		10 49 14.6	
GYA				S	S	10 49 29.1	+2.5
GYA				sS	sS	10 49 46.7	+2.5
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.3						
GYA				pmax	pmax		
	comp=Z,120nm,5.2s						
GYA				LR	LR		
	comp=N,5µm,19.6s,MS6.1						
GYA				LR	LR		
	comp=E,4µm,18.9s,MS6.1						
GYA				LR	LR		
	comp=Z,3µm,19.8s,MS5.7						
MAW	**Mawson**	**87.11**	**199**	LR	LR	11 15 46.1	
	comp=Z,2µm,18.1s,MS5.5,baz=115,slow=34						
LAO	**LASA Array**	**87.33**	**40**	*e*P	**P**	**10 38 53.0**	**+0.2**
	comp=Z,25nm,1.3s,mb5.3						
XAN	**Xi'an**	**87.52**	**306**	P	**P**	**10 38 55.1**	**+1.0**
XAN				pP	pP	10 39 05.8	+1.0
XAN				sP	sP	10 39 11.2	+2.6
XAN				PP	PP	10 42 22.8	+3.3
XAN				SKS		10 49 17.3	
XAN				S	S	10 49 31.5	-1.7
XAN				sS	sS	10 49 48.7	-2.2
XAN				SS	SS	10 55 24.3	+4.7
XAN				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.2						
XAN				pmax	pmax		
	comp=Z,70nm,4.3s						
XAN				LR	LR		
	comp=N,190nm,18.1s						
XAN				LR	LR		
	comp=E,420nm,25.1s						
XAN				LR	LR		
	comp=Z,600nm,21.2s,MS5.0						
NRGR	**Nerungri**	**87.66**	**331**	*e*P	**P**	**10 38 55.0**	**+0.8**
NRGR				S	SKSac	10 49 12.9	-6.5
NRGR				smax			
	comp=N,12nm,0.5s						
HHC	**Hu-ho-hao-te**	**88.05**	**313**	*e*P	**P**	**10 38 57.1**	**+0.6**
HHC				pP	pP	10 39 07.3	+0.1
HHC				sP	sP	10 39 11.6	+0.6
HHC				PP	PP	10 42 26.1	+2.5
HHC				SKS		10 49 20.2	
HHC				*e*S	S	10 49 36.2	-1.8
HHC				sS	sS	10 49 53.4	-2.3
HHC				SS	SS	10 55 28.8	+1.7
HHC				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.5						
HHC				pmax	pmax		
	comp=Z,240nm,6.3s						
HHC				LR	LR		
	comp=N,350nm,16.6s,MS5.0						
HHC				LR	LR		
	comp=E,410nm,16.7s,MS5.0						
HHC				LR	LR		
	comp=Z,590nm,21.4s,MS5.0						
CBKS	**Cedar Bluff**	**88.57**	**49**	PFAKE		10 39 10.0	+11
CBKS				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
HKT	**Hockley**	**88.58**	**58**	PFAKE		10 39 10.0	+11
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
YAK	**Yakutsk**	**88.70**	**337**	*e*P	**P**	**10 38 57.0**	**-2.0**
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.1						
DGMT	**Dagmar**	**89.33**	**39**	⇑P	**P**	**10 39 01.5**	**-0.9**
	baz=90						
DGMT	**Dagmar**	**89.33**	**39**	*e*P	**P**	**10 39 02.6**	**+0.2**
	comp=Z,39nm,1.1s,mb5.7						
DGMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
KMI	**Kunming**	**89.75**	**296**	P	**P**	**10 39 05.3**	**+0.5**
KMI				pP	pP	10 39 13.1	-2.4
KMI				SKS		10 49 31.4	
KMI				S	S	10 49 53.5	-1.1
KMI				SS	SS	10 55 51.1	-1.3
KMI				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.3						
KMI				pmax	pmax		
	comp=Z,200nm,6.6s						
KMI				LR	LR		
	comp=N,250nm,20.9s,MS4.9						
KMI				LR	LR		
	comp=E,440nm,22.0s,MS4.9						
KMI				LR	LR		
	comp=Z,660nm,24.1s,MS5.0						
PLCA	**Paso Flores**	**90.50**	**133**	P	**P**	**10 39 08.6**	**+0.4**
	comp=Z,1.0nm,0.5s,mb4.4,baz=275,slow=5.0,SNR=3.0						
PLCA				LR	LR	11 10 08.8	
	comp=Z,763nm,21.5s,MS5.1,baz=219,slow=29						
CD2	**Chengdu**	**90.62**	**302**	P	**P**	**10 39 09.2**	**+0.4**
CD2				pP	pP	10 39 19.8	+0.3
CD2				sP	sP	10 39 23.7	+0.4
CD2				PP	PP	10 42 46.8	+2.4
CD2				SKS		10 49 36.2	
CD2				S	S	10 50 00.2	-2.3
CD2				sS	sS	10 50 17.6	-2.6
CD2				SS	SS	10 56 05.4	+0.5
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.7						
CD2				pmax	pmax		
	comp=Z,220nm,7.5s						
CD2				LR	LR		
	comp=N,740nm,18.4s						
CD2				LR	LR		
	comp=Z,740nm,20.2s,MS5.1						
YKA	**Yellowknife Ar**	**90.89**	**24**	P	**P**	**10 39 08.7**	**-0.5**
	comp=Z,4.2nm,1.1s,mb4.7,baz=238,slow=4.4,SNR=16						
YKA	**Yellowknife Ar**	**90.89**	**24**	P	**P**	**10 39 08.7**	**-0.5**
CMAR	**Chiang Mai Arr**	**91.24**	**289**	P	**P**	**10 39 13.5**	**+1.6**
	comp=Z,2.3nm,0.8s,mb4.5,baz=111,slow=2.5,SNR=14						
CMAR				LR	LR	11 15 48.4	
	comp=Z,307nm,20.4s,MS4.7,baz=274,slow=33						
CHTO	**Chiang Mai**	**91.33**	**289**	PFAKE		10 39 20.0	+7.7
CHTO				LR	LR		
	comp=Z,453nm,20.0s,MS4.9						
LZH	**Lanzhou**	**92.12**	**307**	⇓P	**P**	**10 39 17.1**	**+1.5**
LZH				pP	pP	10 39 27.0	+0.7
LZH				sP	sP	10 39 30.6	+0.4
LZH				PP	PP	10 42 59.8	+3.7
LZH				*e*SKS		10 49 45.8	
LZH				*e*S	S	10 50 13.0	-2.9
LZH				sS	sS	10 50 32.4	-1.3
LZH				SS	SS	10 56 26.1	-0.2
LZH				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.5						
LZH				pmax	pmax		
	comp=Z,170nm,4.8s						
LZH				LR	LR		
	comp=E,390nm,17.9s						
LZH				LR	LR		
	comp=Z,860nm,19.0s,MS5.2						
FFC	**Flin Flon**	**93.11**	**34**	*e*P	**P**	**10 39 25.4**	**+5.7**
FFC				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
EFI	**East Falkland**	**93.58**	**146**	PFAKE		10 39 30.0	+7.9
EFI				LR	LR		
	comp=Z,783nm,20.0s,MS5.2						
SONM	**Songino Array**	**93.98**	**319**	P	**P**	**10 39 24.5**	**+0.6**
	comp=Z,1.1nm,0.8s,mb4.3,baz=90,slow=4.3,SNR=6.9						
SONM				LR	LR	11 16 09.3	
	comp=Z,524nm,20.3s,MS5.0,baz=91,slow=32						
AGMN	**Agassiz Refuge**	**94.44**	**41**	PFAKE		10 39 40.0	+14
AGMN				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
CCM	**Cathedral Cave**	**94.65**	**52**	PFAKE		10 39 40.0	+13
CCM				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
TIXI	**Tiksi**	**94.79**	**345**	*e*P	**P**	**10 39 26.6**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.1						
TIXI	**Tiksi**	**94.79**	**345**	*e*P	**P**	**10 39 26.9**	**-0.1**
ULM	**Lac du Bonnet**	**95.05**	**39**	P	**P**	**10 39 29.9**	**+1.2**
	comp=Z,1.8nm,0.6s,mb4.7,baz=228,slow=7.5,SNR=2.8						
ULM				LR	LR	11 15 31.2	
	comp=Z,1µm,19.7s,MS5.4,baz=82,slow=31						
GTA	**Gaotai**	**96.12**	**309**	*e*P	**P**	**10 39 35.0**	**+1.1**
GTA				pP	pP	10 39 44.6	0.0
GTA				sP	sP	10 39 49.7	+1.2
GTA				PP	PP	10 43 30.4	+3.1
GTA				SKS		10 50 06.3	
GTA				S	S	10 50 47.4	-3.4
GTA				sS	sS	10 51 07.3	-1.4
GTA				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.9						
GTA				pmax	pmax		
	comp=Z,200nm,6.8s						
GTA				LR	LR		
	comp=N,360nm,22.6s,MS5.1						
GTA				LR	LR		
	comp=E,620nm,19.3s,MS5.1						
GTA				LR	LR		
	comp=Z,890nm,23.5s,MS5.2						
JFWS	**Jewell Farm**	**96.68**	**47**	PFAKE		10 39 50.0	+14
JFWS				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
ZAK	**Zakamensk**	**96.70**	**320**	*e*P	**P**	**10 39 34.4**	**-1.9**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb4.3						
HDIL	**Hopedale**	**96.77**	**50**	PFAKE		10 39 50.0	+13
HDIL				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
TLY	**Talaya**	**96.85**	**322**	*i* P	**P**	**10 39 36.7**	**-0.2**
EYMN	**Ely**	**97.14**	**42**	PFAKE		10 39 50.0	+12
EYMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BCIP	**Isla Barro Col**	**97.33**	**83**	PFAKE		10 39 50.0	+10
BCIP				LR	LR		
	comp=Z,460nm,21.0s,MS4.9						
GOGA	**Godfrey**	**99.66**	**58**	PFAKE		10 40 00.0	+10
GOGA				LR	LR		
	comp=Z,935nm,20.0s,MS5.3						
GLMI	**Grayling**	**101.07**	**46**	PFAKE		10 40 10.0	+14
GLMI				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
AAM	**Ann Arbor**	**101.28**	**49**	PFAKE		10 40 10.0	+13
AAM				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
ACSO	**Alum Creek Sta**	**101.40**	**51**	PFAKE		10 40 10.0	+13
ACSO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
BLA	**Blacksburg**	**102.83**	**55**	PFAKE		10 40 20.0	+16
BLA				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
GTBY	**Guantanamo Bay**	**104.23**	**73**	PFAKE		10 40 20.0	+10
GTBY				LR	LR		
	comp=Z,584nm,20.0s,MS5.1						
CNNC	**Cliffs of the**	**104.53**	**57**	PFAKE		10 40 20.0	+8.8
CNNC				LR	LR		
	comp=Z,829nm,21.0s,MS5.2						
CBN	**Corbin**	**105.37**	**54**	PFAKE		10 44 40.0	+11
CBN				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
BINY	**Binghamton**	**106.90**	**50**	PFAKE		10 44 40.0	+8.2
BINY				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
MKAR	**Makanchi Array**	**109.88**	**315**	PKiKP	PKiKP	10 44 35.1	-2.1
	comp=Z,0.2nm,0.6s,baz=73,slow=4.8,SNR=2.9						
KURK	**Kurchatov**	**112.29**	**319**	PFAKE		10 44 50.0	+8.4
KURK				LR	LR		
	comp=Z,930nm,19.0s,MS5.4						
AAK	**Ala-Archa**	**115.45**	**310**	PFAKE		10 45 00.0	+12
AAK				LR	LR		
	comp=Z,836nm,21.0s,MS5.3						
AML	**Almayashu**	**116.06**	**310**	PFAKE		10 45 00.0	+11
AML				LR	LR		
	comp=Z,991nm,21.0s,MS5.4						
BRVK	**Borovoye**	**117.16**	**322**	⇑*e*PKIKP	PKPdf	10 44 51.1	+0.2
BRVK				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.5						
ARU	**Arti**	**122.71**	**328**	PFAKE		10 45 10.0	+8.5
ARU				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
LVZ	**Lovozero**	**124.36**	**347**	PFAKE		10 45 20.0	+16
LVZ				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
ARCES	**ARCESS Array B**	**124.59**	**351**	PKP	PKPdf	10 45 05.2	+0.5
	comp=Z,3.0nm,0.8s,baz=337,slow=5.8,SNR=3.8						
ABPO	**Ambohimpanom**	**126.07**	**232**	PFAKE		10 45 20.0	+11
ABPO				LR	LR		
	comp=Z,826nm,20.0s,MS5.4						
GNI	**Garni**	**137.71**	**313**	PFAKE		10 45 40.0	+10
GNI				LR	LR		
	comp=Z,475nm,20.0s,MS5.2						
AKASG	**Malin Array Be**	**139.92**	**336**	PKP	PKPdf	10 45 33.5	-0.6
	comp=Z,0.3nm,0.4s,baz=35,slow=3.4,SNR=3.7						
CLL	**Collm**	**143.81**	**352**	*e*PKPdf	PKPdf	10 45 44.0	+3.0
CLL				LmV		10 53 00.0	
	comp=Z,600nm,19.2s						
BURAR	**Bucovina Array**	**143.97**	**337**	⇓*i*P	PKPdf	10 45 37.7	-3.7
BURAR	**Bucovina Array**	**143.97**	**337**	⇓P	PKPdf	10 45 37.7	-3.8
UPC	**Upice**	**144.07**	**348**	*e*PKP	PKPdf	10 45 41.5	0.0
UPC	**Upice**	**144.07**	**348**	*e*PKP	PKPdf	10 45 37.3	-4.2
UPC				*e*		10 45 41.5	
UZH	**Uzhgorod**	**144.14**	**340**	*e*PKHKP		10 45 35.4	
DPC	**Dobruska-Polom**	**144.15**	**348**	*e*PKP	PKPdf	10 45 44.4	+2.7
OKC	**Ostrava-Krasne**	**144.22**	**345**	*e*PKP	PKPdf	10 45 39.8	-2.0
OKC				*e*x	x	10 45 44.7	
OKC	**Ostrava-Krasne**	**144.22**	**345**	*e*PKP	PKPdf	10 45 39.8	-2.0
OKC				*e*		10 45 44.7	
PVCC	**Panska Ves**	**144.32**	**350**	*e*PKP	PKPdf	10 45 40.4	-1.5
MORC	**Moravsky Berou**	**144.43**	**346**	*e*PKIKP	PKPdf	10 45 40.8	-1.4
TRPA	**Tarpa**	**144.49**	**340**	⇓*i*P	PKPdf	10 45 38.1	-4.2
PRU	**Pruhonice**	**144.84**	**349**	*e*PKP	PKPdf	10 45 42.0	-0.9
NKC	**Novy Kostel**	**144.94**	**352**	*e*PKP	PKPdf	10 45 42.2	-0.8
NKC				*e*pPKP	pPKPdf	10 45 49.1	-4.9
MEM	**Membach**	**145.07**	**359**	PKP	PKPdf	10 45 47.4	+4.2
TIRR	**Tirgusor**	**145.08**	**330**	⇑*i*P	PKPbc	10 45 43.7	+0.8
TIRR	**Tirgusor**	**145.08**	**330**	*e*PKPbc	PKPbc	10 45 43.1	+0.2
VRAC	**Vranov**	**145.08**	**347**	⇓*i*P	PKPbc	10 45 43.2	+0.4
VRAC	**Vranov**	**145.08**	**347**	⇓P	PKPbc	10 45 43.2	+0.4
HARR	**Harsova**	**145.13**	**331**	⇑*i*P	PKPbc	10 45 43.8	+0.7
HARR	**Harsova**	**145.13**	**331**	⇑P	PKPbc	10 45 43.8	+0.7
TREC	**Trest**	**145.33**	**348**	*e*PKP	PKPdf	10 45 43.6	-0.1
BR131	**Keskin Array S**	**145.34**	**319**	*e*PKPbc	PKPbc	10 45 44.4	+0.4
BRTR	**Keskin Array B**	**145.34**	**319**	PKPbc	PKPbc	10 45 44.4	+0.4
	comp=Z,6.6nm,1.0s,baz=78,slow=4.9,SNR=26						
MLR	**Muntele Rosu**	**145.40**	**334**	⇑*i*P	PKPbc	10 45 44.9	+1.0
MLR	**Muntele Rosu**	**145.40**	**334**	⇑P	PKPbc	10 45 44.9	+1.0
PSZ	**Piszkesteto**	**145.51**	**342**	⇓*i*P	PKPdf	10 45 44.6	+0.5
PSZ	**Piszkesteto**	**145.51**	**342**	⇑*e*PKP	PKPdf	10 45 45.3	+1.2
PSZ	**Piszkesteto**	**145.51**	**342**	*e*PKPbc	PKPbc	10 45 45.0	+0.8
DRGR		**145.59**	**338**	⇑*i*P	PKPdf	10 45 44.9	+0.6
DRGR		**145.59**	**338**	⇑P	PKPdf	10 45 44.9	+0.7
GIVF	**Givet**	**145.59**	**0**	*e*PKP1	PKPbc	10 45 43.5	-0.9
BAIF	**Baives**	**145.63**	**1**	*e*PKP1	PKPbc	10 45 43.9	-0.6
	comp=Z,159nm,1.4s						
GRA1	**Grafenberg Arr**	**145.63**	**353**	*e*PKP	PKPdf	10 45 44.5	+0.3
GRF	**Grafenberg Arr**	**145.63**	**353**	*e*PKP	PKPdf	10 45 44.5	+0.3
SMOL	**Smolenice**	**145.63**	**345**	*e*PKHKP		10 45 25.5	
ABH	**Alteburg**	**145.75**	**357**	PKP	PKPdf	10 45 46.0	+1.6
VOIR		**145.82**	**335**	⇑*i*P	PKPdf	10 45 46.2	+1.5
VOIR		**145.82**	**335**	⇑P	PKPdf	10 45 46.2	+1.5
KHC	**Kasperske Hory**	**145.84**	**350**	*e*PKP	PKPdf	10 45 45.6	+1.0
KHC				*e*x	x	10 45 50.5	
TOD	**Tromm**	**145.95**	**356**	PKIKP	PKPdf	10 45 46.2	+1.4
RUP	**Ruppelstein**	**145.95**	**358**	PKIKP	PKPdf	10 45 46.7	+1.9
WLF	**Walferdange**	**146.01**	**359**	PKP	PKPdf	10 45 46.4	+1.5
WLF	**Walferdange**	**146.01**	**359**	*e*PKPbc	PKPbc	10 45 46.3	+0.6
GERES	**GERESS Array B**	**146.09**	**350**	PKPbc	PKPbc	10 45 46.0	+0.1
	comp=Z,4.1nm,0.8s,baz=18,slow=2.1,SNR=21						
CONA	**Conrad Observa**	**146.54**	**347**	⇓*i*PKPab	PKPab	10 45 47.4	-1.0
	comp=Z,36nm,1.2s						
CSNA	**Conrad Observa**	**146.54**	**347**	⇑*i*PKPab	PKPab	10 45 47.4	-0.9
	comp=Z,35nm,1.2s						
SOP	**Sopron**	**146.62**	**346**	⇑*e*PKP	PKPab	10 45 48.4	-0.2
FLN	**La Foliniere**	**146.62**	**7**	*e*PKP1	PKPdf	10 45 45.0	-1.0
	comp=Z,76nm,1.1s						
GZR	**Gura Zlata**	**146.75**	**337**	⇓*i*P	PKPab	10 45 48.6	-0.6
GZR	**Gura Zlata**	**146.75**	**337**	⇓P	PKPab	10 45 48.6	-0.6
GRR	**Gorron**	**146.95**	**7**	*e*PKP1	PKPdf	10 45 45.5	-1.0
	comp=Z,56nm,1.0s						
MOA	**Molln**	**146.95**	**349**	⇓*i*PKPab	PKPab	10 45 48.9	-1.0
	comp=Z,33nm,1.8s						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEZF	Maizieres J'vi	147.19	360	*e*PKP1	PKPbc	10 45 48.1	-1.0
CDF	Champ du Feu	147.23	357	*e*PKP1	PKPdf	10 45 46.7	-0.3
	comp=Z,91nm,1.1s						
BFO	Black Forest	147.25	356	*i* PKP2	PKPab	10 45 49.8	-1.3
BFO	Black Forest	147.25	356	*e*PKPbc	PKPbc	10 45 49.3	0.0
ARSA	Arzberg	147.26	347	⇑*i*PKPab	PKPab	10 45 50.2	-0.9
	comp=Z,22nm,1.3s						
PKSM	Moragy	147.42	342	⇓*i*P	PKPab	10 45 51.5	-0.3
PKSM	Moragy	147.42	342	⇓P	PKPab	10 45 51.5	-0.4
ECH	Echery	147.43	357	PKP	PKPbc	10 45 50.1	+0.3
SPAK	Spaichingen-Ko	147.44	355	PKP	PKPab	10 45 50.8	-1.0
HAU	Haudompre	147.67	358	*e*PKP1	PKPdf	10 45 47.8	+0.1
	comp=Z,109nm,1.4s						
FELD	Feldberg im Sc	147.72	356	PKP	PKPbc	10 45 50.1	-0.5
HINF	Hinteralfeld	147.84	358	*e*PKP1	PKPdf	10 45 47.9	-0.1
	comp=Z,123nm,1.6s						
RETA	Reutte	147.85	353	⇑*i*PKPbc	PKPbc	10 45 50.9	-0.1
	comp=Z,22nm,1.0s						
KBA	Koelnbreinsper	147.86	349	⇑*i*PKPbc	PKPbc	10 45 50.6	-0.5
	comp=Z,34nm,1.7s						
SOKA	Soboth	147.91	347	⇓*i*PKPbc	PKPbc	10 45 50.8	-0.4
	comp=Z,17nm,1.1s						
PERS	Pernice	147.93	347	*e*PKPbc	PKPbc	10 45 50.3	-0.9
MOTA	Moosalm	147.95	352	⇓*i*PKPbc	PKPbc	10 45 51.3	+0.1
	comp=Z,13nm,0.8s						
WTTA	Wattenberg	147.96	351	⇑*i*PKPbc	PKPbc	10 45 50.8	-0.5
	comp=Z,29nm,1.1s						
CSS	Prodhromos	148.13	312	PFAKE		10 46 00.0	+11
CSS				LR	LR		
	comp=Z,305nm,20.0s,MS5.1						
DAVA	Damuels	148.15	354	⇑*i*PKiKP	PKiKP	10 45 52.2	-1.3
	comp=Z,38nm,1.2s						
OBKA	Obir	148.17	347	⇓*i*PKPbc	PKPbc	10 45 51.0	-0.9
	comp=Z,11nm,1.0s						
MYKA	Terra Mystica	148.24	349	⇓*i*PKPbc	PKPbc	10 45 51.6	-0.5
	comp=Z,25nm,1.6s						
FETA	Feichten	148.31	353	⇓*i*PKPbc	PKPdf	10 45 50.2	+1.4
	comp=Z,22nm,1.5s						
ABTA	Abfaltersbach	148.32	350	⇓*i*PKPbc	PKPbc	10 45 51.9	-0.4
	comp=Z,14nm,0.9s						
LOR	Lormes	148.41	2	*e*PKP1	PKPdf	10 45 49.9	+0.9
	comp=Z,95nm,1.5s						
SSF	Saint Saulge	148.61	2	*e*PKP1	PKPdf	10 45 50.6	+1.3
	comp=Z,65nm,1.0s						
LJU	Ljubljana	148.62	347	*i* PKPbc	PKPbc	10 45 52.3	-0.8
AVF	Avril sur Loir	148.87	2	*e*PKP1	PKPbc	10 45 51.9	-1.8
	comp=Z,37nm,1.1s						
BOJS	Bojanci	148.97	346	*e*PKPbc	PKPbc	10 45 53.8	-0.2
TUE	Stuetta	149.01	354	*e*PKPbc	PKPbc	10 45 54.5	+0.5
SMF	Signal de Mont	149.03	2	*e*PKP1	PKPbc	10 45 52.0	-2.1
	comp=Z,122nm,1.4s						
CABF	La Chapelle	149.07	359	*e*PKP1	PKPbc	10 45 52.2	-2.0
	comp=Z,115nm,1.2s						
TCF	Toulx Ste Croi	149.32	4	*e*PKP1	PKPbc	10 45 52.1	-2.7
LPL	La Plagne	150.14	358	*e*PKP1	PKPbc	10 45 55.9	-1.0
LPG	La Plagne	150.16	358	*e*PKP1	PKPbc	10 45 55.5	-1.4
	comp=Z,55nm,1.1s						
RJF	Les Rejaudoux	150.24	5	*e*PKP1	PKPbc	10 45 54.5	-2.6
	comp=Z,214nm,1.7s						
LBL	Lubilhac	150.42	3	PKP	PKPbc	10 45 57.6	+0.1
LFF	La Frestale	150.53	6	*e*PKP1	PKPbc	10 45 55.2	-2.6
	comp=Z,113nm,1.3s						
BNI	Bardonecchia	150.61	358	*e*PKIKP	PKPbc	10 45 57.6	-0.4
ORIF	Oris-en-Rattie	150.77	359	*e*PKP1	PKPbc	10 45 55.9	-2.5
MBDF	Montbardon	150.93	357	*e*PKP1	PKPbc	10 45 56.6	-2.2
	comp=Z,53nm,1.2s						
PCAB	Cabril	151.65	21	*e*PKP	PKPbc	10 46 03.5	+3.0
MVO	Moncorvo	152.47	20	*e*PKP	PKPbc	10 46 02.9	+0.5
MTE	Manteigas	152.98	21	*e*PKP	PKPbc	10 46 04.1	+0.5
PCBR	Castelo Branco	153.50	22	*e*PKP	PKPbc	10 46 03.7	-1.0
PMRV	Marv??o	153.89	22	*e*PKP	PKPbc	10 46 05.0	-0.6
CUC	Castrocucco	153.94	341	PFAKE		10 46 10.0	+12
CUC				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
ESDC	Sonseca Array	154.76	16	PKPab	PKPab	10 46 22.3	0.0
	comp=Z,0.3nm,0.3s,baz=318,slow=2.1,SNR=4.6						
CEL	Celeste	155.48	339	PFAKE		10 46 10.0	+10
CEL				LR	LR		
	comp=Z,887nm,22.0s,MS5.5						
TORD	Torodi Ar. Bea	175.96	127	PKP	PKPdf	10 46 15.8	-1.3
	comp=Z,1.5nm,1.1s,baz=335,slow=4.0,SNR=6.0						
TORD				PKPab	PKPab	10 47 55.5	-0.6
	comp=Z,1.7nm,1.2s,baz=230,slow=1.4,SNR=3.8						
TORD				PP	PP	10 51 57.3	+8.7
	comp=Z,0.8nm,0.9s,baz=130,slow=1.6,SNR=4.0						

IDC 01 10:33:10.2±3.9**, 16°.16S×174°.53W, h0^{km}, mb3.8**/3**, mb1 4.2**/3**, mb1mx3.8**/16**, mbtmp3.8**/3**, Error ellipse: s-maj=270.1km s-min=32.3km az=151.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.48	50	Pn	Pn	10 33 58.4	-7.2
	5.4nm,0.3s,baz=47,slow=5.6,SNR=5.1						
ASAR	Alice Springs	48.84	253	P	P	10 41 57.6	-0.1
	0.8nm,0.7s,baz=86,slow=8.1,SNR=9.5						
NVAR	Mina Array Bea	75.62	42	P	P	10 44 56.9	-0.3
	0.9nm,0.9s,baz=221,slow=11,SNR=3.8						
TXAR	Lajitas Array	81.94	56	P	P	10 45 37.1	+5.0
	0.5nm,0.9s,baz=181,slow=6.9,SNR=3.6						
PDAR	Pinedale Array	83.56	42	P	P	10 45 41.3	+1.0
	0.7nm,0.9s,baz=212,slow=3.2,SNR=4.1						
BRTR	Keskin Array B	146.04	319	PKPbc	PKPbc	10 52 51.9	-0.5
	0.9nm,0.8s,baz=350,slow=6.3,SNR=3.3						

IDC 01 10:39:10.2±3.4**, 15°.44S×175°.32W, h0^{km}, mb3.8**/4**, mb1 4.2**/4**, mb1mx3.8**/17**, mbtmp3.8**/4**, Error ellipse: s-maj=236.4km s-min=25.8km az=151.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.75	67	Pn	Pn	10 39 57.0	-12
	3.2nm,0.3s,baz=93,slow=8.5,SNR=4.1						
AFI				T		10 43 20.7	
	6.3nm,0.3s,baz=301,slow=22,SNR=4.4						
WRA	Warramunga Arr	48.03	257	P	P	10 47 51.5	0.0
	0.4nm,0.8s,baz=89,slow=7.8,SNR=4.2						
ASAR	Alice Springs	48.34	252	P	P	10 47 54.0	+0.1
	1.6nm,0.7s,baz=85,slow=8.1,SNR=23						
NVAR	Mina Array Bea	75.61	43	P	P	10 50 57.9	+0.8
	1.5nm,0.8s,baz=228,slow=11,SNR=6.5						
PDAR	Pinedale Array	83.54	43	P	P	10 51 40.5	+0.4
	0.7nm,0.8s,baz=204,slow=2.6,SNR=6.1						
BRTR	Keskin Array B	145.00	319	PKPbc	PKPbc	10 58 47.7	-1.4
	0.9nm,0.9s,baz=33,slow=0.6,SNR=3.8						

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*ISK **01** 10:49:16.4, 37°.31N×28°.23E, h5^{km}, MD2.8*
*ISCJB **01** 10:49:17.5±0.4, 37°.28N±0°.03×28°.26E±0°.03, h7^{km}±10^{km}, Error ellipse: s-maj=5.3km s-min=4.2km az=11.5*
*DDA **01** 10:49:17.3, 37°.22N×28°.20E, h7^{km}±4^{km}, Md3.1, Ml3.3*
*CSEM **01** 10:49:18.2±0.1, 37°.26N×28°.22E, h5^{km}, MD2.8, Error ellipse: s-maj=2.3km s-min=1.6km az=24.0*

ISC 01 10:49:18.1±0.5**, 37°.27N**±0°.03×**28°.26E**±0°.03**, h12**^{km}±8^{km}**, n30, $\sigma 0^{s}81$**/44**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.14	171	PG	Pg	10 49 20.4	-1.0
YER	Yerkesik	0.14	171	*i* Pg	Pg	10 49 20.4	-1.0
MLSB	Milas	0.38	274	*e*PG	Pg	10 49 25.0	-0.7
MLSB	Milas	0.38	274	*e*Pg	Pg	10 49 25.0	-0.7
TURN	Turunc	0.48	145	*i* P	Pg	10 49 26.5	-1.0
TURN				*e*S	Sg	10 49 33.4	-0.6
TURN	Turunc	0.48	145	*i* P	Pg	10 49 26.5	-1.0
TURN				*e*S	Sg	10 49 33.4	-0.5
AYDN	Tasoluk	0.49	323	*i* P	Pg	10 49 27.5	-0.2
AYDN				*e*S	Sg	10 49 34.6	+0.3
AYDN	Tasoluk	0.49	323	*i* P	Pg	10 49 27.5	-0.2
AYDN				*e*S	Sg	10 49 34.6	+0.3
DALT	Dalyan (Mudla)	0.58	148	*e*PG	Pg	10 49 29.8	+0.4
DALT	Dalyan (Mudla)	0.58	148	*e*Pg	Pg	10 49 29.8	+0.3
BDRM	Kayabasi	0.68	253	*i* P	Pg	10 49 29.9	-1.3
BDRM				*i* S	Sg	10 49 41.2	+1.0
BDRM	Kayabasi	0.68	253	*i* P	Pg	10 49 30.0	-1.2
BDRM				*i* S	Sg	10 49 41.2	+1.0
DAT	Datca	0.77	225	*e*PG	Pg	10 49 32.6	-0.3
DAT				*e*SG	Sg	10 49 44.5	+1.6
DAT	Datca	0.77	225	*e*Pg	Pg	10 49 32.6	-0.3
DAT				*e*Sg	Sg	10 49 44.5	+1.6
BODT	Bodrum	0.78	255	*e*PG	Pg	10 49 32.6	-0.6
BODT				*e*SG	Sg	10 49 43.9	+0.5
BODT	Bodrum	0.78	255	*e*Pg	Pg	10 49 32.6	-0.6
BODT				*e*Sg	Sg	10 49 43.9	+0.4
FETY	Fethiye	0.92	133	*e*PG	Pg	10 49 36.4	+0.6
FETY	Fethiye	0.92	133	*e*Pg	Pg	10 49 36.4	+0.7
GOLH	Golhisar	1.04	91	*e*P	Pb	10 49 38.7	+0.6
GOLH				*e*S	Sn	10 50 00.6	+7.6
GOLH	Golhisar	1.04	91	*e*P	Pb	10 49 38.7	+0.7
KULA	Kula-Manisa	1.28	14	*e*PN	Pn	10 49 41.0	-0.8
KULA	Kula-Manisa	1.28	14	*e*Pn	Pn	10 49 41.0	-0.8
IZM	Izmir	1.37	325	*e*PN	Pn	10 49 42.9	-0.2
IZM	Izmir	1.37	325	*e*Pn	Pn	10 49 42.9	-0.2
ELL	Elmali	1.42	111	*e*PN	Pg	10 49 45.5	+0.1
ELL	Elmali	1.42	111	*e*Pn	Pg	10 49 45.5	+0.1
KHAL	Karahalli	1.47	41	*i* P	Pg	10 49 45.6	-0.7
KHAL				*i* S	Sg	10 50 07.0	+1.5
KHAL	Karahalli	1.47	41	*i* P	Pg	10 49 45.6	-0.7
KHAL				*i* S	Sg	10 50 07.0	+1.5
AKAS	Kas	1.50	133	*e*P	Pg	10 49 47.6	+0.8
AKAS				*e*S	Sg	10 50 11.1	+4.9
AKAS	Kas	1.50	133	*e*P	Pg	10 49 47.6	+0.8

GUC 01 11:01:44.6±0.6**, 23°.30S×70°.37W, h48**^{km}±2^{km}**, MD3.5, ML2.9, 3C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEN1	Los Morros	0.18	121	*e*P	Pn	11 01 53.4	+0.8
CEN1				*i* S	Sn	11 02 00.1	+1.9
CEN1				AML	AML	11 02 00.7	
	comp=E,774nm,0.4s						
MECH	Mejillones	0.21	338	⇑*i*P	Pn	11 01 52.8	0.0
MECH				*i* S	Sn	11 01 58.8	+0.2
MECH				AML	AML	11 01 59.2	
	comp=N,3µm,0.3s						
PECH	Pedro de Valdi	0.94	43	*i* P	Pn	11 02 02.8	+1.3
PECH				*i* S	Sn	11 02 15.5	+1.6
PECH				AML	AML	11 02 17.1	
	comp=E,798nm,0.4s						
TOCH	Tocopilla	1.21	7	⇑*i*P	Pn	11 02 05.6	+0.5
TOCH				*i* S	Sn	11 02 21.4	+1.0
TOCH				AML	AML	11 02 23.9	
	comp=E,602nm,0.1s						
CPN1	Cerro Paranal	1.32	182	⇑*i*P	Pn	11 02 07.9	+1.3
CPN1				*i* S	Sn	11 02 25.6	+2.5
CPN1				AML	AML	11 02 32.5	
	comp=E,178nm,0.6s						

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*ISCJB **01** 11:40:46.6±0.7, 41°.15N±0°.08×20°.27E±0°.05, h10^{km}, Error ellipse: s-maj=11.5km s-min=4.4km az=19.1*
*CSEM **01** 11:40:46.4±0.3, 41°.13N×20°.27E, h2^{km}, ML3.5/1, Error ellipse: s-maj=11.0km s-min=5.2km az=21.0*
*SKO **01** 11:40:46.3, 41°.11N×20°.21E, h20^{km}*
*THE **01** 11:40:46.7, 41°.20N×20°.31E, h0^{km}±2^{km}, ML3.5/1, Error ellipse: s-maj=3.0km s-min=0.6km az=205.0*

ISC 01 11:40:46.6±1.1**, 41°.09N**±0°.09×**20°.24E**±0°.06**, h3**^{km}±13^{km}**, n16, $\sigma 0^{s}79$**/25**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.38	313	P	Pg	11 40 53.6	-0.3
TIR				S	Sg	11 40 59.5	+0.7
TIR	Tirane	0.38	313	P	Pg	11 40 53.6	-0.3
TIR				S	Sg	11 40 59.5	+0.7
KRUS	Krusevo	0.81	70	*e*Pg	Pg	11 41 01.6	-0.7
KRUS				*e*Sg	Sg	11 41 13.7	+0.9
KRUS				*e*Lg		11 41 14.0	
	comp=N,0.0nm,0.2s						
KRUS				*e*Lg		11 41 14.1	
	comp=E,0.0nm,0.2s						
KRUS	Krusevo	0.81	70	*e*Pg	Pg	11 41 01.5	-0.7
KRUS				*e*Sg	Sg	11 41 13.6	+0.8
BIA	Bitola	0.83	95	P	Pg	11 41 02.1	-0.4
BIA				S	Sg	11 41 13.3	+0.1
BIA	Bitola	0.83	95	*e*Pg	Pg	11 41 00.8	-1.7
BIA				*e*Sg	Sg	11 41 13.4	+0.3
BIA				*e*Lg		11 41 14.0	
	comp=N,0.0nm,0.5s						
BIA				*e*Lg		11 41 15.4	
	comp=E,0.0nm,0.3s						
BIA	Bitola	0.83	95	*e*Pg	Pg	11 41 00.7	-1.8
BIA	Bitola	0.83	95	P	Pg	11 41 02.1	-0.4
BIA				*e*Sg	Sg	11 41 13.4	+0.2
BIA				*e*Lg		11 41 14.0	
FNA	Florina	0.92	109	P	Pg	11 41 03.4	-0.8
FNA				S	Sg	11 41 17.1	+1.0
FNA	Florina	0.92	109	P	Pg	11 41 03.4	-0.8
FNA				S	Sg	11 41 17.1	+1.0
MEV	Metsovon	1.51	150	P	Pn	11 41 15.5	+1.0
MEV	Metsovon	1.51	150	P	Pn	11 41 15.5	+1.0
GRG	Griva	1.65	94	P	Pn	11 41 15.4	-1.0
GRG	Griva	1.65	94	P	Pn	11 41 15.4	-1.0
LIT	Litokhoron	1.98	119	P	Pn	11 41 21.0	0.0
LIT	Litokhoron	1.98	119	P	Pn	11 41 21.0	0.0

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*ISCJB **01** 11:46:40.3±0.7, 21°.8S±0°.1×68°.77W±0°.07, h101^{km}±9^{km}, mb3.6/4, Error ellipse: s-maj=16.9km s-min=11.4km az=4.1*
*GUC **01** 11:46:42.9±0.5, 22°.09S×69°.02W, h114^{km}±4^{km}, MD3.6, ML4.1*
*NEIC **01** 11:46:42.0, 22°.09S×69°.02W, h114^{km}, MD3.6(GUC), After GUC.*
*IDC **01** 11:46:42.2±0.6, 22°.22S×68°.86W, h114^{km}±5^{km}, mb3.3/4, mb1 3.6/5, mb1mx3.5/16, mbtmp3.3/5, Error ellipse: s-maj=24.7km s-min=17.2km az=104.0*

ISC 01 11:46:41.0±0.6**, 21°.75S**±0°.09×**68°.74W**±0°.06**, h91**^{km}±8^{km}**, n21, $\sigma 1^{s}07$**/23**, mb3.6**/4**, 2C-1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.88	191	P	Pn	11 47 00.3	+0.9
	758nm,0.3s,baz=15,slow=6.4						
LVC				S	Sn	11 47 13.6	+0.5
	902nm,0.3s,baz=184,slow=18,SNR=105						
MACH	Maria Elena	1.05	245	⇑*i*P	Pn	11 47 02.1	+0.8
MACH				*i* S	Sn	11 47 17.0	+0.5
PECH	Pedro de Valdi	1.21	226	*i* P	Pn	11 47 03.1	-0.2
PECH				*i* S	Sn	11 47 18.4	-1.6
PECH				AML	AML	11 47 19.4	
	comp=E,10µm,0.3s						
TOCH	Tocopilla	1.40	255	⇓*i*P	Pn	11 47 05.7	+0.1
TOCH				*i* S	Sn	11 47 22.9	-1.3
TOCH				AML	AML	11 47 23.9	
	comp=E,8µm,0.1s						
MECH	Mejillones	2.08	229	AML	AML	11 48 06.9	
	comp=N,1µm,0.1s						
CEN1	Los Morros	2.12	219	⇑*i*P	Pn	11 47 15.8	+1.0
CEN1				*i* S	Sn	11 47 40.5	-0.2
CPN1	Cerro Paranal	3.25	208	AML	AML	11 48 29.8	
	comp=E,532nm,0.6s						
SIV	San Ignacio	9.24	53	P	Pn	11 48 53.2	+1.8
	comp=E,1.3nm,0.3s,baz=263,slow=11,SNR=19						
SIV				S	Sn	11 50 31.6	-2.1
	comp=E,0.1nm,0.3s,baz=301,slow=23,SNR=2.7						
CFAA	Coronel Fontan	9.83	178	P	Pn	11 48 52.8	-6.6
	comp=E,0.1nm,0.3s,baz=345,slow=16,SNR=3.3						
CFAA				S	Sn	11 50 31.7	-16
	comp=E,0.0nm,0.3s,baz=220,slow=16,SNR=1.8						
CFAA	Coronel Fontan	9.83	178	P	Pn	11 48 52.8	-6.6
CFAA				S	Sn	11 50 31.7	-16
CPUP	Villa Florida	11.38	116	P	Pn	11 49 19.5	-1.0
	comp=E,0.3nm,0.3s,baz=318,slow=14,SNR=2.1						
TXAR	Lajitas Array	60.92	325	P	P	11 56 45.1	+0.6
	comp=E,0.2nm,0.6s,mb3.3,baz=162,slow=6.5,SNR=3.3						
PDAR	Pinedale Array	74.40	330	P	P	11 58 10.2	+1.2
	comp=E,0.3nm,0.5s,mb3.2,baz=134,slow=8.5,SNR=4.1						
TORD	Torodi Ar. Bea	77.29	70	P	P	11 58 25.9	-0.1
	comp=E,1.5nm,0.4s,mb4.1,baz=256,slow=5.7,SNR=13						
TORD				pP	pP	11 58 55.2	+5.6
	comp=E,1.3nm,0.8s,baz=255,slow=5.5,SNR=4.7						
TORD				sP	sP	11 59 06.5	+7.1
	comp=E,1.0nm,0.7s,baz=252,slow=5.2,SNR=3.4						
TORD	Torodi Ar. Bea	77.29	70	P	P	11 58 25.9	-0.1
TORD				pP	pP	11 58 55.2	+5.5
TORD				sP	sP	11 59 06.5	+7.1
YKA	Yellowknife Ar	91.47	341	P	P	11 59 35.0	-1.7
	comp=E,0.4nm,0.6s,mb3.7,baz=133,slow=4.6,SNR=6.8						
YKA				pP	pP	12 00 06.5	+5.7
	comp=E,0.4nm,0.6s,baz=142,slow=4.0,SNR=5.0						
YKA	Yellowknife Ar	91.47	341	P	P	11 59 35.0	-1.7
YKA				pP	pP	12 00 06.5	+5.7
WRA	Warramunga Arr	132.82	210	PKP	PKPdf	12 05 45.1	-1.3
	comp=E,0.4nm,0.9s,baz=157,slow=2.0,SNR=4.8						
ZALV	Zalesovo Beam	142.11	25	PKP	PKPdf	12 06 02.9	+0.6
	comp=E,0.4nm,0.4s,baz=336,slow=3.3,SNR=3.2						
MKAR	Makanchi Array	145.74	36	PKPbc	PKPbc	12 06 09.2	-0.2
	comp=E,0.6nm,0.8s,baz=316,slow=3.3,SNR=7.0						
MKAR				pPKPbc	pPKPbc	12 06 39.7	+5.4
	comp=E,0.2nm,0.6s,baz=8.1,slow=2.0,SNR=2.4						
MKAR	Makanchi Array	145.74	36	PKPbc	PKPbc	12 06 09.2	-0.2
MKAR				pPKPbc	pPKPbc	12 06 39.7	+5.4

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*ATH **01** 11:59:03.7, 36°.53N×27°.07E, h20^{km}±1^{km}, MD4.0/13, ML4.0*
*NEIC **01** 11:59:03.7, 36°.53N×27°.07E, h20^{km}, mb4.4/4, ML3.7(ATH), ML4.5(THE), After ATH.*
*DDA **01** 11:59:04.2, 36°.37N×27°.53E, h12^{km}±4^{km}, Md3.7*
*ISCJB **01** 11:59:04.7±0.5, 36°.49N±0°.02×27°.21E±0°.02, h32^{km}±4^{km}, mb4.2/15, Error ellipse: s-maj=3.2km s-min=2.4km az=30.3*
*THE **01** 11:59:05.0, 36°.55N×27°.16E, h10^{km}±1^{km}, ML4.5/4, Error ellipse: s-maj=2.3km s-min=0.6km az=103.0*
*ISK **01** 11:59:05.5, 36°.50N×27°.21E, h4^{km}, ML3.9*
*CSEM **01** 11:59:05.4±0.1, 36°.53N×27°.13E, h20^{km}, mb4.1/8, Error ellipse: s-maj=2.6km s-min=2.3km az=21.0*
*MOS **01** 11:59:05.6±1.1, 36°.54N×27°.11E, h33^{km}, mb4.3/10, Error ellipse: s-maj=9.9km s-min=7.6km az=36.9*
*HLW **01** 11:59:07.3, 36°.45N×27°.25E, h33^{km}, Mb4.0*
*IDC **01** 11:59:07.1±4.3, 36°.48N×27°.18E, h31^{km}±35^{km}, mb3.8/9, mb1 3.9/15, mb1mx3.8/27, mbtmp3.8/15, ML3.6/5, MS3.2/1, Ms1 3.2/1, ms1mx2.7/42, Error ellipse: s-maj=18.3km s-min=13.0km az=159.0*
*GII **01** 11:59:10.5±0.0, 35°.97N×27°.54E, h1^{km}±1^{km}, Mb4.1/3, Md3.8/4*

ISC 01 11:59:05.9±0.5**, 36°.50N**±0°.02×**27°.14E**±0°.02**, h24**^{km}±4^{km}**, n233, $\sigma 1^{s}14$**/291**, mb4.2**/15**, 2C-6D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAT	Datca	0.42	57	*e*PG	Pb	11 59 13.6	-1.3
DAT				*e*SG	Sb	11 59 19.8	-1.0
DAT	Datca	0.42	57	*e*Pg	Pb	11 59 13.6	-1.2
DAT				*e*Sg	Sb	11 59 19.8	-1.1
BDRM	Kayabasi	0.62	23	*i* P	Pb	11 59 16.6	-1.5
BDRM				*e*S	Sb	11 59 25.1	-1.3
BDRM	Kayabasi	0.62	23	*i* P	Pb	11 59 16.6	-1.5
BDRM				*e*S	Sb	11 59 25.1	-1.3
ARG	Arkhangelos	0.85	109	*e*PN	Pn	11 59 21.1	-1.2
ARG				*e*SN	Sn	11 59 34.4	+0.4
ARG	Arkhangelos	0.85	109	P	Pb	11 59 21.5	-0.4
ARG	Arkhangelos	0.85	109	*e*Pn	Pn	11 59 21.1	-1.2
ARG				*e*Sn	Sn	11 59 34.4	+0.4
KARP	Karpathos	0.95	179	*e*PN	Pn	11 59 23.2	-0.5
KARP				*e*SN	Sn	11 59 35.9	-0.6
KARP	Karpathos	0.95	179	P	Pb	11 59 23.4	-0.3
KARP	Karpathos	0.95	179	*e*Pn	Pn	11 59 23.2	-0.5
KARP				*e*Sn	Sn	11 59 35.9	-0.6
MLSB	Milas	0.95	33	*e*PG	Pb	11 59 23.9	+0.2
MLSB				*e*SG	Sb	11 59 37.3	+1.5
MLSB	Milas	0.95	33	*e*Pg	Pb	11 59 23.9	+0.2
MLSB				*e*Sg	Sb	11 59 37.3	+1.5
YER	Yerkesik	1.12	55	*e*PG	Pn	11 59 26.9	+0.8
YER				*e*SG	Sb	11 59 42.1	+1.4
YER	Yerkesik	1.12	55	*e*Pg	Pn	11 59 26.9	+0.8
YER				*e*Sg	Sb	11 59 42.1	+1.4
SMG	Samos	1.23	349	*e*PN	Pn	11 59 26.4	-1.3
SMG				*e*SN	Sn	11 59 42.7	-0.9
SMG	Samos	1.23	349	P	Pn	11 59 26.7	-1.0
SMG	Samos	1.23	349	*e*Pn	Pn	11 59 26.4	-1.3
SMG				*e*Sn	Sn	11 59 42.7	-0.9
DALT	Dalyan (Mudla)	1.24	77	*e*PN	Pn	11 59 28.7	+0.9
DALT	Dalyan (Mudla)	1.24	77	*e*Pn	Pn	11 59 28.7	+1.0
TURN	Turunc	1.24	72	*i* P	Pn	11 59 22.9	-4.9
TURN				*i* S	Sn	11 59 37.3	-6.4
TURN	Turunc	1.24	72	*i* P	Pn	11 59 22.9	-4.8
AYDN	Tasoluk	1.30	27	*i* P	Pn	11 59 29.4	+0.7
AYDN				*e*S	Sn	11 59 48.3	+2.9
AYDN	Tasoluk	1.30	27	*i* P	Pn	11 59 29.4	+0.7
AYDN				*e*S	Sn	11 59 48.3	+3.0
THR3	Thira Island,	1.40	267	P	Pn	11 59 29.0	-1.0
THR3	Thira Island,	1.40	267	P	Pn	11 59 29.0	-1.0
THR4	Thira Island,	1.40	269	P	Pn	11 59 29.7	-0.3
THR4	Thira Island,	1.40	269	P	Pn	11 59 29.7	-0.3
APE	Apeiranthos	1.41	294	P	Pn	11 59 28.8	-1.3
APE				S	Sn	11 59 47.7	-0.2
APE	Apeiranthos	1.41	294	*e*PN	Pn	11 59 29.0	-1.1
APE	Apeiranthos	1.41	294	P	Pn	11 59 28.8	-1.3
APE				S	Sn	11 59 45.8	-2.1
APE	Apeiranthos	1.41	294	*e*Pn	Pn	11 59 29.0	-1.1
APE				S	Sn	11 59 47.7	-0.2
THR6	Thira Island,	1.41	265	P	Pn	11 59 29.4	-0.7
THR6	Thira Island,	1.41	265	P	Pn	11 59 29.4	-0.7
THR5	Thira Island,	1.44	267	P	Pn	11 59 29.8	-0.8
THR5	Thira Island,	1.44	267	P	Pn	11 59 29.8	-0.8
ZKR	Zakros	1.57	209	P	Pn	11 59 32.4	+0.1
ZKR				S	Sn	11 59 53.3	+1.5
ZKR	Zakros	1.57	209	P	Pn	11 59 32.4	+0.1
ZKR				S	Sn	11 59 52.4	+0.6
ZKR	Zakros	1.57	209	P	Pn	11 59 32.4	+0.1
ZKR				S	Sn	11 59 52.4	+0.6
FETY	Fethiye	1.57	84	*e*PN	Pn	11 59 34.2	+1.8
FETY	Fethiye	1.57	84	*e*Pn	Pn	11 59 34.2	+1.9
NPS	Neapolis	1.75	226	*e*PN	Pn	11 59 34.3	-0.4
NPS	Neapolis	1.75	226	P	Pn	11 59 35.1	+0.4
NPS	Neapolis	1.75	226	*e*Pn	Pn	11 59 34.3	-0.4
NPS	Neapolis	1.75	226	P	Pn	11 59 35.1	+0.4
BLCB	Balcova	1.89	358	*e*PN	Pn	11 59 39.7	+3.0
BLCB	Balcova	1.89	358	P	Pn	11 59 35.1	-1.6
BLCB	Balcova	1.89	358	P	Pn	11 59 36.2	-0.5
BLCB	Balcova	1.89	358	P	Pn	11 59 36.2	-0.5
LAST	Lasithi	1.90	226	P	Pn	11 59 36.7	-0.1
LAST				S	Sn	12 00 01.5	+1.6
LAST	Lasithi	1.90	226	P	Pn	11 59 36.7	-0.1
LAST				S	Sn	12 00 01.5	+1.6
IZM	Izmir	1.90	3	*e*PN	Pn	11 59 39.7	+2.8
DENT	Denizli	1.97	50	*e*PN	Pn	11 59 39.9	+2.1
KSL	Kastellorizon	2.01	99	*e*PN	Pn	11 59 39.5	+1.2
CHOS	Chios island	2.07	336	P	Pn	11 59 37.3	-1.9
CHOS				S	Sn	12 00 04.1	-0.2
CHOS	Chios island	2.07	336	*e*PB	Pn	11 59 38.1	-1.1
CHOS	Chios island	2.07	336	P	Pn	11 59 37.3	-1.9
CHOS	Chios island	2.07	336	*e*Pb	Pn	11 59 38.1	-1.1
CHOS				S	Sn	12 00 04.1	-0.2
IDI	Anoyia	2.19	237	Pn	Pn	11 59 40.7	-0.1
	6.3nm,0.3s,baz=61,slow=15,SNR=25						
IDI				Sn	Sn	12 00 09.2	+2.1
	28nm,0.3s,baz=109,slow=21,SNR=8.5						
IDI	Anoyia	2.19	237	Pn	Pn	11 59 40.7	-0.1
IDI				Sn	Sn	12 00 09.1	+2.0
ELL	Elmali	2.24	83	*e*PN	Pn	11 59 44.0	+2.4
KULA	Kula-Manisa	2.35	31	*e*PN	Pn	11 59 46.1	+3.0
AKS	Akhisar	2.44	13	*e*PN	Pn	11 59 47.5	+3.3
VAM	Vamos	2.62	246	*e*PN	Pn	11 59 47.0	+0.3
VAM	Vamos	2.62	246	*e*Pn	Pn	11 59 47.0	+0.3
PRK	Paraskevi	2.83	346	P	Pn	11 59 48.6	-1.0
PRK				S	Sn	12 00 21.5	-1.4
PRK	Paraskevi	2.83	346	*e*PN	Pn	11 59 50.0	+0.4
PRK	Paraskevi	2.83	346	P	Pn	11 59 48.6	-1.0
PRK				S	Sn	12 00 20.8	-2.1
PRK	Paraskevi	2.83	346	P	Pn	11 59 48.6	-1.0
PRK	Paraskevi	2.83	346	*e*Pn	Pn	11 59 50.0	+0.4
PRK				S	Sn	12 00 21.5	-1.4
KARN	Karanos	2.83	248	P	Pn	11 59 49.6	-0.1
KARN				S	Sn	12 00 24.0	+1.0
KARN	Karanos	2.83	248	P	Pn	11 59 49.6	-0.1
KARN				S	Sn	12 00 24.0	+1.0
ANTB	Antalya	2.85	81	*e*PN	Pn	11 59 52.9	+2.9
SIGR	SIGRI	2.89	340	P	Pn	11 59 49.3	-1.2
SIGR				S	Sn	12 00 23.9	-0.6
SIGR	SIGRI	2.89	340	P	Pn	11 59 49.3	-1.2
SIGR				S	Sn	12 00 22.8	-1.7
SIGR	SIGRI	2.89	340	P	Pn	11 59 49.3	-1.2
SIGR				S	Sn	12 00 23.9	-0.6
BCK	Bucak	2.93	70	*e*PN	Pn	11 59 53.6	+2.6
GVD	Gavdhos	2.98	237	*e*Pn	Pn	11 59 52.7	+0.9
GVD	Gavdhos	2.98	237	*e*Pn	Pn	11 59 52.7	+1.0
ISP	Isparta	3.01	62	*e*P	Pn	11 59 55.9	+3.8

ISP	Isparta	3.01	62	*e*Pn	Pn	11 59 55.9	+3.8
PTL	Penteli	3.04	302	*e*PN	Pn	11 59 52.5	+0.1
PTL	Penteli	3.04	302	*e*Pn	Pn	11 59 52.5	+0.1
ATH	Athens Observa	3.10	299	*e*PN	Pn	11 59 52.8	-0.6
ATH	Athens Observa	3.10	299	*e*Pn	Pn	11 59 52.8	-0.6
BALB	Balikesir	3.19	10	*e*PN	Pn	11 59 57.5	+2.9
DID	Didima	3.28	289	P	Pn	11 59 55.4	-0.4
DID	Didima	3.28	289	P	Pn	11 59 55.4	-0.4
KYTH	Kithira	3.31	267	*e*PN	Pn	11 59 57.0	+0.7
KYTH	Kithira	3.31	267	*e*Pn	Pn	11 59 57.0	+0.7
EZN	Ezine	3.38	349	*e*PN	Pn	12 00 00.9	+3.7
VLI	Veliai	3.39	275	*e*PN	Pn	11 59 57.6	+0.3
VLI	Veliai	3.39	275	*e*Pn	Pn	11 59 57.6	+0.3
LTK	Loutraki	3.66	296	P	Pn	12 00 00.9	-0.1
LTK	Loutraki	3.66	296	P	Pn	12 00 00.9	-0.1
AOS	Alonnisos	3.71	317	P	Pn	12 00 01.0	-0.7
AOS	Alonnisos	3.71	317	P	Pn	12 00 01.0	-0.7
LIA	Limnos Island	3.73	336	P	Pn	12 00 00.3	-1.7
LIA				S	Sn	12 00 44.5	-0.6
LIA	Limnos Island	3.73	336	P	Pn	12 00 00.3	-1.7
LIA				S	Sn	12 00 42.7	-2.4
LIA	Limnos Island	3.73	336	P	Pn	12 00 00.3	-1.7
LIA				S	Sn	12 00 44.5	-0.6
KCT	Karacabey	3.88	14	*e*PN	Pn	12 00 07.3	+3.2
LKR	Lokris	3.93	304	P	Pn	12 00 04.0	-0.7
LKR	Lokris	3.93	304	P	Pn	12 00 04.0	-0.7
XOR	Xorichti	4.23	314	P	Pn	12 00 08.5	-0.4
XOR	Xorichti	4.23	314	P	Pn	12 00 08.5	-0.4
CAVI	Cavuskoy	4.27	29	*e*PN	Pn	12 00 12.8	+3.5
ARMT	Armutlu	4.28	18	*e*PN	Pn	12 00 13.7	+4.1
HDMB	Hadim	4.32	82	*e*PN	Pn	12 00 14.1	+4.0
KONT	Konya--Tatoy	4.41	69	*e*PN	Pn	12 00 14.1	+2.7
KIZT	Kizilcal	4.45	56	*e*PN	Pn	12 00 15.3	+3.4
AGG	Agios Georgios	4.57	305	P	Pn	12 00 12.9	-0.6
AGG	Agios Georgios	4.57	305	P	Pn	12 00 12.9	-0.6
RDO	Rodhopi	4.81	345	P	Pn	12 00 17.0	+0.2
RDO	Rodhopi	4.81	345	P	Pn	12 00 17.0	+0.2
EVR	Evrytania	4.87	301	*e*PN	Pn	12 00 18.0	+0.4
EVR	Evrytania	4.87	301	*e*Pn	Pn	12 00 18.0	+0.4
CSS	Prodhromos	5.27	105	*e*Pn	Pn	12 00 23.8	+0.6
	35nm,0.6s						
CSS				*e*Sn	Sn	12 01 25.2	+2.1
CSS	Prodhromos	5.27	105	*e*Pn	Pn	12 00 23.8	+0.7
	35nm,0.6s						
BRTR	Keskin Array B	6.05	56	P	Pn	12 00 34.6	+0.7
BRTR						12 01 42.0	
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRTR	Keskin Array B	6.05	56	Pn	Pn	12 00 34.6	+0.7
	comp=Z,0.7nm,0.3s,baz=239,slow=16,SNR=12						
BRTR				Sn	Sn	12 01 42.0	-0.5
	baz=314,slow=18,SNR=1.9						
BRTR	Keskin Array B	6.05	56	Pn	Pn	12 00 34.6	+0.7
BRTR				Sn	Sn	12 01 42.0	-0.5
SWA2		7.37	192	⇓P	Pn	12 00 52.6	+0.5
SWA2				S	Sn	12 02 10.1	-4.8
BHL	Bhannes	7.44	108	*e*Pn	Pn	12 00 52.8	-0.1
BHL	Bhannes	7.44	108	*e*Pn	Pn	12 00 52.8	-0.1
HNTI	Hanita	7.44	115	Pn	Pn	12 00 53.1	+0.2
HNTI				Sn	Sn	12 02 13.2	-3.3
OFRI	‘Ofer	7.54	119	Pn	Pn	12 00 55.1	+0.7
MMC7	Mount Meron ar	7.63	115	Pn	Pn	12 00 55.8	+0.3
MMA0B	Mount Meron ar	7.64	115	Pn	Pn	12 00 55.9	+0.2
MMA0B				Sn	Sn	12 02 19.8	-1.7
MMAI	Mount Meron Ar	7.64	115	Pn	Pn	12 00 55.7	0.0
	comp=Z,18nm,0.3s,baz=313,slow=12,SNR=51						
MMAI				Sn	Sn	12 02 19.1	-2.4
	comp=Z,10.0nm,0.3s,baz=303,slow=27,SNR=8.7						
MMAI				LR	LR	12 04 47.5	
	comp=Z,177nm,18.9s,baz=50,slow=45						
HRSH	Kfar Ka’horesh	7.71	117	⇓P	Pn	12 00 57.7	+1.0
AMAG	Maghara	7.73	137	⇓P	Pn	12 00 56.9	0.0
AMAG	Maghara	7.73	137	P	Pn	12 00 56.9	-0.1
RCY	Rachaya	7.73	110	*e*Pn	Pn	12 00 56.3	-0.7
RCY	Rachaya	7.73	110	*e*Pn	Pn	12 00 56.3	-0.7
KSDI	Kefar Szold	7.74	113	Pn	Pn	12 00 56.1	-1.0
KSDI				Sn	Sn	12 02 21.3	-2.8
RSH		7.78	133	P	Pn	12 00 57.7	0.0
GLL	Jalalah	7.89	150	⇓P	Pn	12 00 59.4	+0.2
GLL	Jalalah	7.89	150	P	Pn	12 00 59.4	+0.2
MMLI	Mount Malkishu	7.95	118	Pn	Pn	12 01 00.4	+0.4
MMLI				Sn	Sn	12 02 25.9	-3.2
KSHT	Keshet	7.95	114	Pn	Pn	12 01 01.0	+1.0
HMDT	Nahal Hemdat	8.12	119	Pn	Pn	12 01 02.8	+0.4
SUZ		8.17	143	⇑P	Pn	12 01 03.4	+0.3
SUZ		8.17	143	P	Pn	12 01 03.4	+0.3
DSI	Dead Sea	8.42	123	Pn	Pn	12 01 05.7	-0.8
DSI				Sn	Sn	12 02 37.0	-3.8
ZAF		8.51	146	⇓P	Pn	12 01 07.8	+0.1
ZAF		8.51	146	P	Pn	12 01 07.8	+0.1
MZDA	Masada	8.57	125	Pn	Pn	12 01 07.5	-1.0
MZDA				Sn	Sn	12 02 40.5	-4.0
ZNM		8.58	144	⇓P	Pn	12 01 08.8	+0.2
ZNM		8.58	144	P	Pn	12 01 08.8	+0.1
TIP	Timpagrande	8.64	291	*e*Pn	Pn	12 01 10.1	+0.7
	comp=Z,12nm,0.7s						
TIP	Timpagrande	8.64	291	*e*Pn	Pn	12 01 10.1	+0.7
	comp=Z,12nm,0.7s						
HNKL	Nakhl	8.70	137	⇑P	Pn	12 01 10.3	0.0
HNKL				S	Sn	12 02 40.4	-7.3
HNKL	Nakhl	8.70	137	P	Pn	12 01 10.3	0.0
HNKL				S	Sn	12 02 40.4	-7.3
ZFRI	Zfri	8.95	129	Pn	Pn	12 01 13.7	0.0
KRMI	Paran Flat	8.99	133	Pn	Pn	12 01 13.0	-1.2
PRNI	Paran	8.99	131	Pn	Pn	12 01 12.9	-1.3
PRNI				Sn	Sn	12 02 49.6	-5.0
ASF	Jabal al Asfar	9.15	115	P	Pn	12 01 17.0	+0.6
ASF						12 02 56.9	
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF				smax			
	comp=N,1.0nm,0.3s						
ASF	Jabal al Asfar	9.15	115	Pn	Pn	12 01 17.0	+0.6
	comp=N,1.2nm,0.3s,baz=184,slow=7.2,SNR=8.5						
ASF				Sn	Sn	12 02 56.9	-1.8
	comp=N,0.6nm,0.3s,baz=85,slow=17,SNR=2.6						
HRFI	Mount Harif	9.23	132	Pn	Pn	12 01 16.3	-1.3
MBRI	Mt Berech	9.33	134	Pn	Pn	12 01 18.8	-0.2
MBRI				Sn	Sn	12 02 59.1	-4.1
EIL	Elat	9.45	134	Pn	Pn	12 01 20.3	-0.3
	comp=N,1.4nm,0.3s,baz=325,slow=5.1,SNR=7.4						
EIL				Sn	Sn	12 03 01.9	-4.1
	comp=N,1.0nm,0.3s,baz=354,slow=17,SNR=4.6						
EIL	Elat	9.45	134	Pn	Pn	12 01 20.3	-0.3
EIL				Sn	Sn	12 03 01.9	-4.1
EIL	Elat	9.45	134	Pn	Pn	12 01 20.1	-0.4
EIL	Elat	9.45	134	Pn	Pn	12 01 20.3	-0.2
CUC	Castrocucco	9.56	295	*e*Pn	Pn	12 01 23.4	+1.3
	comp=N,34nm,0.8s						
CUC	Castrocucco	9.56	295	*e*Pn	Pn	12 01 23.4	+1.3
	comp=N,34nm,0.8s						
KEST	Kesra	14.41	272	Pn	Pn	12 02 32.2	+3.9
	comp=N,0.1nm,0.3s,baz=146,slow=4.7,SNR=2.4						
GERES	GERESS Array B	15.78	326	Pn	Pn	12 02 50.4	+4.0
	comp=N,0.1nm,0.3s,baz=146,slow=13,SNR=5.6						
GERES	GERESS Array B	15.78	326	P	Pn	12 02 50.4	+4.0
DAVOX	Davos/Dischmat	16.46	314	Pn	Pn	12 02 59.6	+4.4
	comp=N,0.2nm,0.3s,baz=127,slow=8.0,SNR=4.2						
DAVOS	Davos	16.54	314	P	Pn	12 02 59.6	+3.4
DAVOS	Davos	16.54	314	P	Pn	12 02 59.6	+3.4
MBDF	Montbardon	17.48	304	*e*P	Pn	12 03 07.1	-0.9
	comp=N,13nm,1.0s						
MBDF	Montbardon	17.48	304	*e*P	Pn	12 03 07.1	-0.9
MBDF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
MBDF	Montbardon	17.48	304	*e*P	Pn	12 03 07.1	-0.9
	comp=Z,6.7nm,1.0s						
MBDF	Montbardon	17.48	304	*e*P	Pn	12 03 07.1	-0.9
	comp=Z,6.7nm,1.0s						
LPG	La Plagne	17.78	307	*e*P	Pn	12 03 13.5	+1.8
LPG	La Plagne	17.78	307	*e*P	Pn	12 03 13.5	+1.8
CABF	La Chapelle	18.66	309	*e*P	Pn	12 03 22.4	-0.1
CABF	La Chapelle	18.66	309	*e*P	Pn	12 03 22.4	-0.1
SMF	Signal de Mont	20.09	308	*e*P	P	12 03 38.2	+0.5
	comp=Z,40nm,1.2s						
SMF	Signal de Mont	20.09	308	*e*P	P	12 03 38.2	+0.5
SMF				pmax	pmax		
	comp=Z,20nm,1.2s						
SMF	Signal de Mont	20.09	308	*e*P	P	12 03 38.2	+0.5
	comp=Z,20nm,1.2s						
SMF	Signal de Mont	20.09	308	*e*P	P	12 03 38.2	+0.5
	comp=Z,20nm,1.2s						
LOR	Lormes	20.32	309	*e*P	P	12 03 40.4	+0.2
LOR	Lormes	20.32	309	*e*P	P	12 03 40.4	+0.2
AVF	Avril sur Loir	20.46	308	*e*P	P	12 03 41.6	-0.1
AVF	Avril sur Loir	20.46	308	*e*P	P	12 03 41.6	-0.1
SSF	Saint Saulge	20.47	308	*e*P	P	12 03 41.1	-0.6
	comp=Z,48nm,1.2s						
SSF	Saint Saulge	20.47	308	*e*P	P	12 03 41.1	-0.6
SSF				pmax	pmax		
	comp=Z,24nm,1.2s						
SSF	Saint Saulge	20.47	308	*e*P	P	12 03 41.1	-0.6
	comp=Z,24nm,1.2s						
SSF	Saint Saulge	20.47	308	*e*P	P	12 03 41.1	-0.6
	comp=Z,24nm,1.2s						
GRR	Gorron	23.69	309	*e*P	P	12 04 13.4	-2.4
	comp=Z,20nm,0.8s,mb4.3						
GRR	Gorron	23.69	309	*e*P	P	12 04 13.4	-2.4
GRR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
GRR	Gorron	23.69	309	*e*P	P	12 04 13.4	-2.4
	comp=Z,10nm,0.8s,mb4.3						
GRR	Gorron	23.69	309	*e*P	P	12 04 13.4	-2.4
	comp=Z,10nm,0.8s,mb4.3						
ESDC	Sonseca Array	24.62	287	P	P	12 04 24.2	-0.2
	comp=Z,2.1nm,0.6s,mb3.8,baz=78,slow=9.4,SNR=5.1						
ESDC	Sonseca Array	24.62	287	P	P	12 04 24.2	-0.2
AKTK	Aktyubinsk	26.16	48	P	P	12 04 38.1	-0.2
AKTK	Aktyubinsk	26.16	48	P	P	12 04 38.1	-0.2
	comp=Z,2.0nm,0.7s,mb3.8						
AKTO	Aktyubinsk	26.16	48	P	P	12 04 38.1	-0.2
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
AKTO	Aktyubinsk	26.16	48	P	P	12 04 38.1	-0.2
	comp=Z,1.9nm,0.7s,mb3.8,baz=270,slow=12,SNR=6.3						
TOA0	Torodi Ar. Sit	32.58	231	*e*P	P	12 05 35.8	+0.3
TOA0	Torodi Ar. Sit	32.58	231	*e*P	P	12 05 35.8	+0.3
TORD	Torodi Ar. Bea	32.58	231	P	P	12 05 35.4	-0.1
	comp=Z,2.4nm,0.5s,mb4.3,baz=33,slow=8.5,SNR=13						
TORD	Torodi Ar. Bea	32.58	231	P	P	12 05 35.4	-0.1
ARCES	ARCESS Array B	33.11	359	P	P	12 05 39.2	-0.4
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES	ARCESS Array B	33.11	359	P	P	12 05 39.2	-0.5
	comp=Z,6.8nm,1.1s,mb4.5,baz=205,slow=10,SNR=4.5						
ARCES	ARCESS Array B	33.11	359	P	P	12 05 39.2	-0.4
	comp=Z,7.0nm,1.1s,mb4.5						
MKAR	Makanchi Array	41.70	58	P	P	12 06 53.0	+0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	41.70	58	P	P	12 06 53.0	+0.3
	comp=Z,0.7nm,0.7s,mb3.4,baz=276,slow=6.0,SNR=7.7						
MKAR	Makanchi Array	41.70	58	P	P	12 06 53.0	+0.3
	comp=Z,1.0nm,0.7s,mb3.5						
ZALV	Zalesovo Beam	42.92	47	P	P	12 07 02.2	-0.3
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ZALV	Zalesovo Beam	42.92	47	P	P	12 07 02.1	-0.3
	comp=Z,0.8nm,0.5s,mb3.8,baz=276,slow=7.6,SNR=4.3						
ZALV	Zalesovo Beam	42.92	47	P	P	12 07 02.2	-0.3
	comp=Z,1.0nm,0.5s,mb3.8						
PYUN	Piuthan	47.39	83	*e*P	P	12 07 38.3	0.0
	comp=Z,12nm,0.6s,mb5.0						
DANN	Dangsing	47.90	83	*e*P	P	12 07 43.4	+1.1
	comp=Z,31nm,0.7s,mb5.5						
KOLN	Koldanda	48.02	84	*e*P	P	12 07 43.7	+0.5
GKN	Gorkha	48.74	83	*e*P	P	12 07 49.0	+0.2
DMN	Daman	49.29	83	*e*P	P	12 07 53.6	+0.6
GUN	Gumba	49.78	82	*e*P	P	12 07 57.0	+0.3
RAMN	Ramite	50.77	83	*e*P	P	12 08 03.1	-1.2
	comp=Z,10nm,0.8s,mb4.8						
TAPN	Taplejung	51.48	82	*e*P	P	12 08 09.2	-0.4
ZAK	Zakamensk	54.66	50	*e*P	P	12 08 32.0	-0.6
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
ZAK	Zakamensk	54.66	50	*e*P	P	12 08 32.0	-0.6
	comp=Z,2.0nm,1.1s,mb4.1						
SONM	Songino Array	57.40	52	P	P	12 08 53.2	+0.9
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	57.40	52	P	P	12 08 53.2	+0.9
	comp=Z,0.7nm,0.7s,mb3.8,baz=291,slow=8.3,SNR=7.1						
SONM	Songino Array	57.40	52	P	P	12 08 53.2	+0.9
	comp=Z,1.0nm,0.7s,mb4.0						
BOD	Bodaibo	58.41	39	*e*P	P	12 08 56.4	-2.8
BOSA	Boshof	64.79	182	P	P	12 09 43.9	+1.4
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
BOSA	Boshof	64.79	182	P	P	12 09 43.9	+1.4
	comp=Z,0.8nm,0.3s,mb4.2,baz=14,slow=6.1,SNR=3.6						
BOSA	Boshof	64.79	182	P	P	12 09 43.9	+1.4
	comp=Z,1.0nm,0.3s,mb4.3						
CMAR	Chiang Mai Arr	64.84	85	P	P	12 09 42.4	-0.8
	comp=Z,0.4nm,0.4s,mb3.8,baz=291,slow=7.3,SNR=4.1						
CMAR	Chiang Mai Arr	64.84	85	P	P	12 09 42.4	-0.8

DJA ***01*** *12:08:45,22°.31S×175°.07W,h20*^{km}*,Mw6.8/10*

BJI ***01*** *12:10:05.1,21°.28S×178°.75W,h617*^{km}*,mB5.6/33, mb5.7/56*

MOS ***01*** *12:10:05.1±0.6,21°.34S×179°.34W,h598*^{km}*,mb5.9/54, Error ellipse: s-maj=14.8km s-min=11.0km az=151.6*

ISCJB ***01*** *12:10:06.9±0.1,21°.60S±0°.02×179°.42W±0°.02,h624*^{km}*, mb5.5/175,Error ellipse: s-maj=3.0km s-min=2.0km az=135.9*

NEIC ***01*** *12:10:06.4±0.4,21°.50S×179°.35W,h604*^{km}*±5*^{km}*, mb5.6/122,MW5.9,MW6.0,Error ellipse: s-maj=5.0km s-min=3.5km az=122.0,Moment Tensor Solution. s46 Moment tensor: Scale 10*^{18}*Nm;* M_{rr}*-0.04;* $M_{\theta\theta}$*0.04;* $M_{\phi\phi}$*0.00;* $M_{r\theta}$*-1.06;* $M_{\theta\phi}$*-0.01;* $M_{\phi r}$*-0.77; Best double couple:* M_0*1.30000×10*^{18} *NP1:*ϕ_s*54.00000°,δ89.00000°, λ-91.00000°. NP2:*ϕ_s*288.00000°,δ1.00000°,λ-36.00000°. Principal axes: T 1.3000, Plg44.0000°, Azm145.0000°; N 0.0200, Plg0.0000°, Azm54.0000°; P -1.3200, Plg45.0000°, Azm323.0000°;*

GCMT ***01*** *12:10:06.4±0.1,21°.53S×179°.27W,h630*^{km}*±1*^{km}*, MW6.0/96,Moment Tensor Solution. s96,c196; s62,c68; Duration: 2*^{s}*4 Moment tensor: Scale 10*^{18}*Nm;* M_{rr}*0.05±.01;* $M_{\theta\theta}$*-0.11±.01;* $M_{\phi\phi}$*0.06±.01;* $M_{r\theta}$*-0.99±.01;* $M_{\theta\phi}$*-0.01±.01;* $M_{\phi r}$*-0.78±.01; Best double couple:* M_0*1.26600×10*^{18} *NP1:*ϕ_s*123.00000°,δ4.00000°, λ162.00000°. NP2:*ϕ_s*232.00000°,δ89.00000°,λ86.00000°. Principal axes: T 1.2610, Plg46.0000°, Azm138.0000°; N 0.0120, Plg4.0000°, Azm232.0000°; P -1.2720, Plg44.0000°, Azm325.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.*

BGS ***01*** *12:10:06.4±4.9,21°.50S×179°.35W,h604*^{km}*,mb5.6(NEIC)*

IDC ***01*** *12:10:07.6±0.3,21°.46S×179°.37W,h615*^{km}*±2*^{km}*,mb5.1/36, mb1 5.1/36,mb1mx5.1/36,mbtmp5.1/36,Error ellipse: s-maj=6.2km s-min=5.2km az=34.0*

SZGRF ***01*** *12:10:07.6,21°.58S×178°.52W,h624*^{km}*,Fiji Islands region*

ISC 01 12:10:08.5±0.1,**21°.59S**±0°.02×**179°.38W**±0°.02,**h626**^{km}, **h626**^{km}±1.6^{km}**:pP-P,n1612,**σ**0^{s}79**/856,**mb5.6**/172, **290C-332D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	7.74	170	P	P	12 12 04.9	-1.3
	4μm,0.3s,baz=289,slow=3.2,SNR=111						
RAO				S	S	12 13 39.6	-3.1
	2μm,0.3s,baz=247,slow=23,SNR=14						
AFI	Afiamalu	10.52	45	P	P	12 12 27.3	-5.7
AFI				S	S	12 14 20.8	-11
AFI				pmax	pmax		
	comp=Z,75nm,0.3s						
AFI				smax			
	comp=N,119nm,0.3s						
AFI	Afiamalu	10.52	45	P	P	12 12 27.3	-5.6
	comp=N,75nm,0.3s,baz=15,slow=2.6,SNR=65						
AFI				S	S	12 14 20.8	-11
	comp=N,119nm,0.3s,baz=62,slow=17,SNR=11						
AFI	Afiamalu	10.52	45	*e*P	P	12 12 27.0	-6.0
	comp=N,807nm,0.9s						
AFI				*e*S	S	12 14 22.1	-9.4
LASL	Noumea	13.09	265	*e*P	P	12 12 57.7	-0.3
NORM	Noumea	13.14	265	*e*P	P	12 12 58.1	-0.4
DZM	Mont Dzumac	13.18	265	*e*P	P	12 12 58.5	-0.4
DZM	Mont Dzumac	13.18	265	*e*P	P	12 12 59.1	+0.3
	comp=N,176nm,0.6s						
DZM				*e*S	S	12 15 20.6	+2.5
NOUC	Port Laguerre	13.31	265	*e*P	P	12 12 59.6	-0.4
OUZ	Omahuta	14.91	203	P	P	12 13 17.5	+2.8
WCZ	Waipu Caves	15.32	200	P	P	12 13 21.2	+2.9
MXZ	Matakaoa Point	16.05	187	P	P	12 13 23.5	-1.5
MXZ				S	S	12 16 00.3	-4.6
OTAZ	Otara	16.09	197	P	P	12 13 28.4	+3.0
WTAZ	Waiatarua	16.17	198	P	P	12 13 29.0	+2.9
MKAZ	Moumakai	16.18	196	P	P	12 13 28.0	+1.8
TGRZ	Tauranga	16.52	192	*e*P	P	12 13 30.3	+0.9
PUZ	Puketiti	16.55	187	P	P	12 13 28.3	-1.3
MARZ	Manawahe	16.69	191	P	P	12 13 30.4	-0.5
EDRZ	Edgecumbe	16.80	191	P	P	12 13 30.6	-1.3
KARZ	Kaharoa	16.81	192	P	P	12 13 32.1	+0.1
URZ	Urewera	16.89	190	P	P	12 13 30.2	-2.5
	comp=N,224nm,0.3s,baz=291,slow=2.4,SNR=274						
URZ				S	S	12 16 13.3	-5.4
	comp=N,32nm,0.3s,baz=14,slow=18,SNR=5.9						
URZ				ScP	ScP	12 20 18.1	-0.3
	comp=N,5.1nm,0.3s,baz=253,slow=3.0,SNR=7.0						
URZ				ScS	ScS	12 23 53.6	-4.9
	comp=N,2.3nm,0.3s,baz=148,slow=23,SNR=21						
URZ	Urewera	16.89	190	P	P	12 13 30.2	-2.5
MWZ	Matawai	16.90	188	P	P	12 13 31.0	-1.8
KNZ	Kokohu	17.56	188	P	P	12 13 36.9	-1.9
HIZ	Hauiti	17.58	195	P	P	12 13 41.2	+2.2
RATZ	Rangitukua	17.72	193	P	P	12 13 39.9	-0.4
BKZ	Black Stump Fm	17.88	191	P	P	12 13 38.7	-3.0
NGZ	Ngauruhoe	18.05	193	P	P	12 13 43.0	-0.3
TUVZ	Tukino	18.13	192	P	P	12 13 43.1	-0.9
FWVZ	Far West T-bar	18.14	193	P	P	12 13 43.4	-0.6
VRZ	Vera Road	18.19	195	P	P	12 13 45.5	+1.0
WNVZ	Wahianoa	18.20	193	P	P	12 13 43.3	-1.3
MOVZ	Moawhango	18.24	192	P	P	12 13 43.4	-1.6
RAR	Rarotonga	18.26	92	*e*P	P	12 13 44.0	-1.5
RAR				pmax	pmax		
	comp=Z,920nm,1.1s						
RAR	Rarotonga	18.26	92	*e*P	P	12 13 44.0	-1.5
	comp=Z,920nm,1.1s						
PKE	Pukeiti	18.45	196	P	P	12 13 49.8	+2.9
TSZ	Takapari Road	18.84	191	P	P	12 13 48.7	-1.7
BFZ	Birch Farm	19.39	190	P	P	12 13 53.7	-1.7
MRZ	Mangatainoka R	19.49	192	P	P	12 13 53.8	-2.5
KIW	Kapiti Island	19.82	193	P	P	12 13 58.1	-1.1
MTW	Mount Morrison	19.99	191	P	P	12 13 59.4	-1.3
CAW	Cannon Point	20.02	192	P	P	12 13 59.7	-1.3
MRW	Makara Radio	20.21	193	P	P	12 14 01.3	-1.5
PAWZ	Paruwai Farm	20.22	191	P	P	12 14 01.7	-1.1
MSWZ	Moikau Station	20.28	192	P	P	12 14 02.3	-1.1
SNZO	South Karori	20.29	193	P	P	12 14 02.4	-1.0
TCW	Tory Channel	20.29	194	P	P	12 14 02.9	-0.5
QRZ	Quartz Range	20.37	198	P	P	12 14 04.7	+0.5
NNZ	Nelson	20.51	196	P	P	12 14 04.5	-0.9
BSWZ	Blackbirch Sta	20.86	194	P	P	12 14 08.1	-0.4
THZ	Tophouse	21.14	196	P	P	12 14 10.2	-0.9
DSZ	Denniston Nort	21.43	198	P	P	12 14 13.7	+0.1
KHZ	Kahutara	21.60	194	P	P	12 14 14.2	-1.0
LTZ	Lake Taylor	22.26	196	P	P	12 14 19.6	-1.4
CRLZ	Canterbury Las	22.92	195	P	P	12 14 26.0	-0.8
WVZ	Waitaha Valley	22.96	199	P	P	12 14 26.7	-0.5
MQZ	McQueen’s Vall	23.03	195	P	P	12 14 26.9	-0.9
HNR	Honiara	23.26	298	*e*P	P	12 14 29.0	-1.3
HNR				*e*S	S	12 17 59.2	-1.3
HNR				pmax	pmax		
	comp=Z,951nm,0.8s,mb6.5						
HNR	Honiara	23.26	298	P	P	12 14 28.7	-1.7
	comp=Z,712nm,0.5s,mb6.6,baz=174,slow=5.5,SNR=47						
HNR				S	S	12 17 58.8	-1.7
	comp=Z,288nm,1.1s,baz=150,slow=18,SNR=6.0						
HNR	Honiara	23.26	298	*e*P	P	12 14 28.9	-1.4
	comp=Z,951nm,0.8s,mb6.5						
HNR				*e*S	S	12 17 59.2	-1.3
RPZ	Rata Peaks	23.46	198	P	P	12 14 31.4	-0.2
	comp=Z,107nm,0.5s,mb5.8,baz=2.2,slow=1.3,SNR=97						
RPZ				S	S	12 17 59.1	-3.6
	comp=Z,10nm,0.5s,baz=210,slow=23,SNR=2.0						
RPZ				ScP	ScP	12 20 34.7	+0.5
	comp=Z,22nm,0.5s,baz=330,slow=3.2,SNR=9.0						
RPZ				ScS	ScS	12 24 21.4	-0.2
	comp=Z,14nm,0.9s,baz=311,slow=23,SNR=4.5						
RPZ	Rata Peaks	23.46	198	P	P	12 14 30.3	-1.3
FOZ	Fox Glacier	23.73	200	P	P	12 14 32.7	-1.3
TARA	Tarawa	24.01	341	⇓*i*Pn	P	12 14 35.2	-1.8
	comp=Z,2μm,0.8s,mb6.7						
LBZ	Lake Benmore	24.32	198	P	P	12 14 38.0	-1.2
JCZ	Jackson Bay	24.49	201	P	P	12 14 40.8	+0.1
ODZ	Otahua Downs	24.80	197	P	P	12 14 42.6	-0.8
WKZ	Wanaka	25.08	200	P	P	12 14 45.1	-0.8
MSZ	Milford Sound	25.30	202	P	P	12 14 48.6	+0.8
EAZ	Earnscleugh	25.35	199	P	P	12 14 47.6	-0.7
MLZ	Mavora Lakes	25.81	200	P	P	12 14 53.2	+0.9
TUZ	Tuapeka	25.91	198	P	P	12 14 53.5	+0.3
WHZ	Wether Hill Ro	26.37	200	P	P	12 14 57.5	+0.3
WHZ				S	S	12 18 48.6	+0.4
EIDS	Eidsvold	27.33	256	⇓*i*Pn	P	12 15 06.9	+1.0
	comp=Z,413nm,0.8s,mb6.1						
ARMA	Armidale	27.44	245	⇓*i*P	P	12 15 09.1	+2.3
ARMA				*e*S	S	12 19 08.2	+2.9
ARMA				*e*SCP	ScP	12 20 49.8	+3.6
ARMA				*e*sS	sS	12 22 11.8	+5.4
ARMA				*e*SCS	ScS	12 24 45.1	+5.8
PPT	Papeete	28.34	87	*e*P	P	12 15 13.5	-1.3
	comp=Z,405nm,1.2s,mb5.9						
PPT				*e*pP		12 16 46.9	
	comp=Z,286nm,1.5s						
PPT				*e*ScP	ScP	12 20 49.9	+0.7
	comp=Z,97nm,1.2s						
PPT	Papeete	28.34	87	P	P	12 15 13.5	-1.3
PPT				pmax	pmax		
	comp=Z,186nm,0.6s						
PPT	Papeete	28.34	87	P	P	12 15 13.5	-1.2
	comp=Z,186nm,0.6s,mb5.9,baz=229,slow=3.9,SNR=25						
PPT				ScP	ScP	12 20 50.3	+1.1
	comp=Z,77nm,1.0s,baz=196,slow=3.1,SNR=3.9						
PPT	Papeete	28.34	87	*e*P	P	12 15 13.5	-1.3
	comp=Z,405nm,1.2s,mb5.9						
PPT				*e*pP		12 16 46.9	
PPT				*e*ScP	ScP	12 20 49.9	+0.7
RIV	Riverview	28.69	239	*e*P	P	12 15 17.1	-0.5
CNB	Canberra Magne	30.55	237	⇓*i*P	P	12 15 35.6	+2.1
CNB				*e*SCP	ScP	12 20 59.6	+3.5
PMOR	Pomariorio Ree	30.56	83	*e*P	P	12 15 32.4	-1.5
	comp=Z,1μm,1.0s,mb6.4						
PMOR				*e*ScP	ScP	12 20 57.5	+1.0
	comp=Z,141nm,1.0s						
PMOR				*e*ScS	ScS	12 24 54.3	-0.5
	comp=Z,103nm,1.0s						
PMOR	Pomariorio Ree	30.56	83	*e*P	P	12 15 32.4	-1.5
	comp=Z,1μm,1.0s,mb6.4						
PMOR				*e*ScP	ScP	12 20 57.5	+1.0
PMOR				*e*ScS	ScS	12 24 54.3	-0.5
VAH	Vaihoa	30.74	84	*e*P	P	12 15 33.7	-1.7
	comp=Z,899nm,0.9s,mb6.4						
VAH				*e*ScP	ScP	12 20 57.9	+0.8
	comp=Z,106nm,0.9s						
VAH	Vaihoa	30.74	84	*e*P	P	12 15 33.7	-1.7
	comp=Z,899nm,0.9s,mb6.4						
VAH				*e*ScP	ScP	12 20 57.9	+0.8
CAN	Canberra	30.84	237	*e*P	P	12 15 36.8	+0.8
CAN				pmax	pmax		
	comp=Z,194nm,1.1s,mb5.7						
CAN	Canberra	30.84	237	*e*P	P	12 15 36.8	+0.8
	comp=Z,194nm,1.1s,mb5.7						
XMAS	Kiritimati	31.81	45	*e*P	P	12 15 42.9	-1.6
	comp=Z,234nm,0.8s,mb5.9						
XMAS				*e*PcP	PcP	12 18 13.3	-2.3
CTA	Charters Tower	32.12	266	P	P	12 15 47.8	+0.8
CTA				S	S	12 20 18.2	+0.9
CTA						12 25 04.1	
CTA				pmax	pmax		
	comp=Z,649nm,0.6s						
CTA				smax			
	comp=N,14nm,0.7s						
CTA	Charters Tower	32.12	266	⇓*i*P	P	12 15 48.0	+1.0
	comp=N,571nm,0.6s,mb6.4						
CTA				*e*S	S	12 20 18.0	+0.7
CTA				*e*SCP	ScP	12 21 04.5	+2.8
CTA				*e*sS	sS	12 23 19.1	-4.2
CTA				*e*SCS	ScS	12 25 03.6	+0.9
CTA	Charters Tower	32.12	266	P	P	12 15 47.8	+0.8
	comp=N,648nm,0.6s,mb6.4,baz=95,slow=11,SNR=653						
CTA				S	S	12 20 18.2	+0.9
	comp=N,14nm,0.7s,baz=240,slow=18,SNR=5.1						
CTA				ScP	ScP	12 21 05.0	+3.2
	comp=N,37nm,0.8s,baz=356,slow=1.4,SNR=5.0						
CTA				ScS	ScS	12 25 04.1	+1.4
	comp=N,5.9nm,0.9s,baz=162,slow=23,SNR=6.3						

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CTA                                P3KPbc            12 46 59.9
      comp=N,3.4nm,0.6s,baz=270,slow=5.3,SNR=5.8
CTA   Charters Tower   32.12 266   P       P         12 15 47.8 +0.8
CTA                                S       S         12 20 18.2 +0.9
CTA                                ScP     ScP       12 21 05.0 +3.2
CTA                                ScS     ScS       12 25 04.1 +1.4
CTA                               e                  12 46 59.9
CTAO  Charters Tower   32.12 266  eP       P         12 15 47.1 +0.1
CTAO                              e                  12 18 16.9
CTAO                               pmax    pmax
      comp=Z,711nm,0.8s,mb6.3
CTAO  Charters Tower   32.12 266  eP       P         12 15 47.1 +0.1
      comp=Z,711nm,0.8s,mb6.3
CTAO                              ePcP     PcP       12 18 16.9 +0.5
CTAO                              eScP     ScP       12 21 02.8 +1.1
KWAJ  Kwajalein Atol   32.79 336  eP       P         12 15 51.8 -0.9
      comp=Z,1µm,1.4s,mb6.4
TOO   Toolangi         34.22 234⇓iP       P         12 16 05.9 +1.6
TOO                               eS       S         12 20 48.7 +0.2
TOO                               eSCP     ScP       12 21 11.9 +3.0
TOO                               esS      sS        12 24 00.6 +4.7
MOO   Moorlands        34.83 226  eP       P         12 16 10.6 +1.3
MOO                               eS       S         12 20 58.6 +1.1
TAU   Tasmania Unive   34.95 225  eP       P         12 16 11.2 +0.9
TAU                                pmax    pmax
      comp=Z,38nm,0.7s,mb5.1
TAU   Tasmania Unive   34.95 225  eP       P         12 16 11.2 +0.9
      comp=Z,38nm,0.7s,mb5.1
TAU                               e                  12 17 42.4
STKA  Stephens Creek   36.16 245⇓iP       P         12 16 22.0 +1.6
      comp=Z,229nm,0.8s,mb5.8
STKA                              eS       S         12 21 16.8 -0.8
STKA                              eSCS     ScS       12 25 23.7 -0.7
STKA  Stephens Creek   36.16 245   P       P         12 16 22.0 +1.5
      comp=Z,216nm,0.7s,mb5.8,baz=90,slow=9.2,SNR=302
STKA                               S       S         12 21 19.6 +1.9
      comp=Z,36nm,0.8s,baz=198,slow=7.3,SNR=6.2
STKA                               ScS     ScS       12 25 26.1 +1.7
      comp=Z,2.7nm,0.8s,baz=234,slow=23,SNR=3.2
STKA                               P3KPbc            12 46 41.8
      comp=Z,6.3nm,0.8s,baz=278,slow=6.2,SNR=8.7
STKA  Stephens Creek   36.16 245  eP       P         12 16 22.1 +1.6
      comp=Z,72nm,0.9s,mb5.2
STKA                              e                  12 18 04.2
STKA                              eS       S         12 21 18.2 +0.6
MCQ   Macquarie Isla   36.71 201  eP       P         12 16 26.9 +2.4
MCQ   Macquarie Isla   36.71 201⇑iP       P         12 16 26.9 +2.4
MCQ   Macquarie Isla   36.71 201  eP       P         12 16 26.9 +2.4
      comp=Z,6µm,0.8s
TAOE  Nuku Hiva Isla   39.79  78  eP       P         12 16 49.0 -1.0
      comp=Z,538nm,0.9s,mb6.1
RKT   Rikitea          40.98 101  eP       P         12 16 58.7 -0.6
      comp=Z,462nm,1.0s,mb6.0
RKT   Rikitea          40.98 101  eP       P         12 16 58.7 -0.6
RKT                                pmax    pmax
      comp=Z,463nm,1.0s,mb6.0
RKT   Rikitea          40.98 101  eP       P         12 16 58.7 -0.6
      comp=Z,462nm,1.0s,mb6.0
ASAR  Alice Springs    43.02 258   P       P         12 17 15.9 +0.7
ASAR                                                 12 18 51.2
ASAR                               S       S         12 22 57.0 -0.4
ASAR                                                 12 26 09.0
ASAR                               pmax    pmax
      comp=Z,727nm,0.8s
ASAR                               smax
      comp=N,81nm,0.9s
ASAR  Alice Springs    43.02 258   P       P         12 17 15.9 +0.7
      comp=N,727nm,0.8s,mb6.2,baz=100,slow=7.6,SNR=4132
ASAR                               PcP     PcP       12 18 51.2 +0.5
      comp=N,66nm,0.7s,baz=111,slow=3.8,SNR=7.3
ASAR                               ScP     ScP       12 21 45.5 +2.2
      comp=N,46nm,0.8s,baz=104,slow=4.5,SNR=8.9
ASAR                               S       S         12 22 57.0 -0.4
      comp=N,81nm,0.9s,baz=95,slow=16,SNR=27
ASAR                               PKiKP   PKiKP     12 25 50.1 -1.7
      comp=N,1.6nm,0.6s,baz=114,slow=1.5,SNR=3.6
ASAR                               ScS     ScS       12 26 08.9 +2.8
      comp=N,13nm,0.9s,baz=45,slow=5.5,SNR=4.6
ASAR                               P3KPbc            12 46 11.9
      comp=N,0.7nm,0.6s,baz=286,slow=4.1,SNR=13
ASAR                               PKP2bc            12 49 18.1
      comp=N,1.5nm,1.1s,baz=294,slow=3.6,SNR=4.8
ASAR                               P4KPbc            12 55 03.2
      comp=N,0.5nm,0.5s,baz=106,slow=4.4,SNR=20
ASAR  Alice Springs    43.02 258   P       P         12 17 15.9 +0.7
ASAR                               PcP     PcP       12 18 51.2 +0.5
ASAR                               ScP     ScP       12 21 45.5 +2.2
ASAR                               S       S         12 22 57.0 -0.4
WB2   Warramunga Arr   43.17 263  eP       P         12 17 16.5 +0.1
WB2                               eS       S         12 23 01.1 +1.5
WRAB  Tennant Creek    43.18 263  eP       P         12 17 16.5 +0.1
WRAB                              eS       S         12 22 58.2 -1.4
WRAB                               pmax    pmax
      comp=Z,859nm,0.8s,mb6.3
WRAB  Tennant Creek    43.18 263  eP       P         12 17 16.5  0.0
      comp=Z,859nm,0.8s,mb6.3
WRAB                              eS       S         12 22 58.2 -1.4
WRA   Warramunga Arr   43.19 263   P       P         12 17 16.5  0.0
WRA                                S       S         12 22 57.8 -1.9
WRA                                                  12 26 10.1
WRA                                pmax    pmax
      comp=Z,820nm,1.0s
WRA                                smax
      comp=N,104nm,1.0s
WRA   Warramunga Arr   43.19 263   P       P         12 17 16.5  0.0
      comp=N,820nm,1.0s,mb6.2,baz=97,slow=7.8,SNR=1268
WRA                                ScP     ScP       12 21 47.1 +3.1
      comp=N,29nm,0.9s,baz=89,slow=4.2,SNR=6.5
WRA                                S       S         12 22 57.8 -1.9
      comp=N,104nm,1.0s,baz=98,slow=13,SNR=9.0
WRA                                PKiKP   PKiKP     12 25 50.3 -1.7
      comp=N,3.3nm,0.9s,baz=51,slow=0.4,SNR=4.9
WRA                                ScS     ScS       12 26 10.1 +2.8
      comp=N,7.7nm,1.1s,baz=92,slow=9.0,SNR=5.9
WRA                                P3KPbc            12 46 11.8
      comp=N,0.8nm,0.5s,baz=296,slow=2.7,SNR=20
WRA                                PKP2bc            12 49 16.4
      comp=N,1.5nm,1.0s,baz=293,slow=3.8,SNR=5.5
WRA                                P4KPbc            12 55 04.1
      comp=N,0.7nm,0.8s,baz=92,slow=4.0,SNR=8.8
WRA   Warramunga Arr   43.19 263   P       P         12 17 16.5  0.0
WRA                                ScP     ScP       12 21 47.1 +3.1
WRA                                S       S         12 22 57.8 -1.9
PTCN  Pitcairn Islan   45.19 104  eP       P         12 17 32.3 +0.5
      comp=N,776nm,0.9s,mb6.2
PTCN                              epP      pP        12 19 16.0 -5.0
KAKA  Kakadu           46.72 273⇓iP       P         12 17 43.3 -0.2
      comp=N,781nm,0.6s,mb6.4
KAKA                              eSCP     ScP       12 22 00.4 +1.6
KAKA                              eS       S         12 23 48.5 -0.8
KAKA  Kakadu           46.72 273  eP       P         12 17 43.4 -0.1
      comp=N,252nm,0.6s,mb5.9
KAKA                              eScP     ScP       12 22 00.9 +2.1
KAKA                              eS       S         12 23 48.7 -0.6
POHA  Pohakuloa        47.25  31  eP       P         12 17 46.1 -1.2
      comp=N,234nm,0.9s,mb5.7
HON   Honolulu         47.48  27  eP       P         12 17 47.9 -1.1
KIP   Kipapa           47.57  27  eP       P         12 17 47.8 -1.8
      comp=N,370nm,1.0s,mb5.9
FORT  Forrest          47.69 248⇓iP       P         12 17 50.7 +0.3
      comp=N,545nm,0.6s,mb6.3
FORT                              eSCP     ScP       12 22 05.9 +3.3
FORT                              eS       S         12 24 00.3 -1.8
FORT  Forrest          47.69 248  eP       P         12 17 50.7 +0.3
      comp=N,632nm,0.7s,mb6.3
FORT                              eScP     ScP       12 22 06.6 +4.0
GUMO  Guam             49.53 312   P       P         12 18 03.7 -0.5
GUMO                               S       S         12 24 26.1 -1.4
GUMO                               smax
      comp=N,61nm,0.9s
GUMO  Guam             49.53 312   P       P         12 18 03.7 -0.5
      comp=N,1µm,0.7s,mb6.4,baz=168,slow=8.6,SNR=53
GUMO                               S       S         12 24 26.1 -1.4
      comp=N,61nm,0.9s,baz=358,slow=23,SNR=1.7
GUMO  Guam             49.53 312  eP       P         12 18 02.9 -1.3
      comp=N,1µm,0.9s,mb6.4
GUMO                              eScP     ScP       12 22 12.1 +1.5
MIDW  Midway           49.55   2  eP       P         12 18 01.9 -2.2
      comp=N,608nm,1.1s,mb5.9
FITZ  Fitzroy Crossi   51.62 264⇓iP       P         12 18 19.8 +0.5
      comp=N,1µm,1.5s,mb6.0
FITZ                              eS       S         12 24 55.8 +0.4
FITZ                              eSCS     ScS       12 27 04.0 -0.2
FITZ                              esS      sS        12 28 21.0 +0.1
FITZ  Fitzroy Crossi   51.62 264   S       S         12 24 56.3 +0.8
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      comp=N,18nm,0.9s,baz=263,slow=19,SNR=11
FITZ                               ScS     ScS       12 27 05.9 +1.7
      comp=N,9.3nm,0.9s,baz=123,slow=7.8,SNR=2.1
FITZ  Fitzroy Crossi   51.62 264  eP       P         12 18 19.9 +0.6
      comp=N,1.4nm,0.4s
FITZ                              ePcP     PcP       12 19 28.8 +6.9
FITZ                              e                  12 20 03.3
FITZ                              eS       S         12 24 54.4 -1.0
AAI   Ambon            53.86 282⇓eP       P         12 18 35.1 -0.2
MBWA  Marble Bar       56.37 258  eP       P         12 18 52.4 -0.1
      comp=N,592nm,0.8s,mb5.9
MBWA                              ePcP     PcP       12 19 40.8 +0.4
MBWA                              epP      pP        12 20 47.9 -1.9
KLBR  Kellerberrin     56.43 246⇓iP       P         12 18 53.2 +0.4
      comp=N,489nm,0.8s,mb5.8
KLBR                              eSCP     pP        12 20 54.6 +4.5
TNE   Ternate          56.51 286⇓eP       P         12 18 49.5 -4.1
SBA   Scott Base       56.71 183  eP       P         12 18 57.2 +3.3
SBA                                pmax    pmax
      comp=Z,562nm,1.1s,mb5.7
SBA   Scott Base       56.71 183  eP       P         12 18 57.1 +3.3
      comp=Z,562nm,1.1s,mb5.7
SBA                               epP      pP        12 20 57.6 +6.3
VNDA  Vanda            56.72 185   P       P         12 18 56.2 +2.3
VNDA                                                 12 22 43.5
VNDA                               S       S         12 26 02.5 +2.4
VNDA                                                 12 27 41.8
VNDA                               pmax    pmax
      comp=Z,86nm,0.9s
VNDA                               smax
      comp=N,3.0nm,1.0s
VNDA  Vanda            56.72 185   P       P         12 18 56.2 +2.2
      comp=N,86nm,0.8s,mb5.0,baz=360,slow=7.3,SNR=163
VNDA                               ScP     ScP       12 22 43.5 +2.5
      comp=N,11nm,0.8s,baz=322,slow=3.1,SNR=4.4
VNDA                               S       S         12 26 02.5 +2.4
      comp=N,2.7nm,1.0s,baz=12,slow=15,SNR=1.8
VNDA                               ScS     ScS       12 27 41.8 +2.8
      comp=N,1.8nm,0.9s,baz=71,slow=20,SNR=2.0
VNDA  Vanda            56.72 185  eP       P         12 18 55.8 +1.8
      comp=N,301nm,1.3s,mb5.4
VNDA                               ScP     ScP       12 22 43.5 +2.5
VNDA                               S       S         12 26 02.5 +2.4
VNDA                               ScS     ScS       12 27 41.8 +2.8
NWAO  Narrogin (SRO)   56.73 244  eP       P         12 18 55.0 +0.2
NWAO                               pmax    pmax
      comp=Z,201nm,1.1s
NWAO  Narrogin (SRO)   56.73 244  eP       P         12 18 55.0 +0.2
      comp=Z,201nm,1.1s,mb5.3
NWAO                              epP      pP        12 20 56.4 +4.1
MUN   Mundaring        57.70 245⇓iP       P         12 19 02.1 +0.7
KDI   Kendari          58.86 279⇓eP       P         12 19 09.1 -0.4
WSI   Waingapu         58.98 272⇓eP       P         12 19 08.3 -1.9
MNI   Manado           59.07 285⇓eP       P         12 19 10.0 -0.8
DAV   Davao City (W)   61.02 292   P       P         12 19 23.1 -0.5
      comp=Z,899nm,0.9s,mb6.0,baz=99,slow=1.1,SNR=22
DAV                                S       S         12 26 55.9  0.0
      comp=Z,170nm,0.4s,baz=79,slow=17,SNR=1.6
DAV   Davao City (W)   61.02 292⇓eP       P         12 19 21.6 -2.0
DAV   Davao City (W)   61.02 292  eP       P         12 19 23.9 +0.2
      comp=Z,730nm,0.7s,mb6.0
DAV                                ScP     ScP       12 23 03.1 +1.8
DAV   Davao City (W)   61.02 292   P       P         12 19 24.2 +0.6
      SNR=12
DAV                                P                 12 19 24.2
      SNR=12
CBIJ  Chichi jima      61.04 321   P       P         12 19 22.6 -0.9
      comp=Z,924nm,0.8s,mb6.1,baz=209,slow=1.9,SNR=39
BUKP  Musuan           61.86 292  eP       P         12 19 29.1  0.0
BUTP  Butuan           61.92 293  eP       P         12 19 29.0 -0.4
CTBH  Cotabato--PC H   62.25 291⇓iP       P         12 19 31.6  0.0
CASY  Casey            62.43 205⇑iP       P         12 19 32.9 +1.0
CASY                              eS       S         12 27 12.3 +0.8
CASY  Casey            62.43 205  eP       P         12 19 32.8 +1.0
      comp=Z,230nm,1.0s,mb5.4
CASY                              epP      pP        12 21 31.8 -1.1
SCPH  Surigao          62.44 294⇑eP       P         12 19 32.0 -0.8
MSLP  Maasin           63.15 294  eP       P         12 19 36.9 -0.5
PAGZ  Pagadian         63.30 291  eP       P         12 19 38.5 +0.2
RPN   Rapa Nui         63.32 110  i P      P         12 19 39.5 +1.2
RPN   Rapa Nui         63.32 110   P       P         12 19 39.3 +1.0
      comp=Z,284nm,0.8s,mb5.6,baz=296,slow=4.1,SNR=27
RPN                                S       S         12 27 26.2 +2.7
      comp=Z,7.5nm,0.4s,baz=39,slow=22,SNR=2.0
PLP   Palo             63.57 295⇓iP       P         12 19 38.6 -1.4
TBP   Tagbilaran       63.78 293⇑eP       P         12 19 43.1 +1.7
OCLP  Ormoc            63.83 295  eP       P         12 19 41.3 -0.3
IPIL  Ipil             63.98 291  eP       P         12 19 42.7 +0.1
LLP   Lapu-Lapu        64.00 294⇑eP       P         12 19 42.9 +0.1
CNP   Catarman         64.53 296  eP       P         12 19 45.6 -0.4
GUIM  Jordan           65.33 293  eP       P         12 19 49.2 -1.8
PVCP  Virac            65.52 297  eP       P         12 19 52.3 +0.1
RCP   Roxas            65.66 294⇓iP       P         12 19 52.7 -0.4
MYLDM Lahad Datu       66.38 286   P       P         12 20 00.0 +2.4
TSM   Tawau            66.56 285   P       P         12 19 59.8 +1.1
AUQP  San Andres       66.61 296  eP       P         12 20 00.5 +1.6
OTRP  Odiongan         66.67 295  eP       P         12 19 58.5 -0.9
TRT   Tretes           66.77 271⇓eP       P         12 20 00.0  0.0
CUYO  Cuyo Island      66.78 293  eP       P         12 19 59.8 -0.3
JHJ   Hachijo jima 2   66.92 323   P       P         12 19 60.0 -0.5
      comp=Z,577nm,0.5s,mb6.3,baz=190,slow=11,SNR=42
SJMP  San Jose         67.49 294  eP       P         12 20 04.1 -0.2
SDKM  Sandakan         67.75 286   P       P         12 20 06.7 +0.7
POLP  Polilio Island   67.94 297  eP       P         12 20 06.5 -0.5
BUSP  Coron            68.04 293  eP       P         12 20 07.6 -0.1
PPR   Puerto Princes   68.25 291⇑iP       P         12 20 09.4 +0.4
ENPP  El Nido          68.33 292  eP       P         12 20 09.5 +0.1
TGY   Tagaytay City    68.45 296   P       P         12 20 10.5 +0.4
TGY                                pmax    pmax
      comp=Z,648nm,0.8s
TGY   Tagaytay City    68.45 296   P       P         12 20 10.5 +0.3
      comp=Z,648nm,0.8s,mb6.1,baz=264,slow=1.7,SNR=19
QSPA  South Pole Qui   68.48 180   P       P         12 20 11.0 +1.7
      comp=Z,488nm,0.9s,mb5.9,baz=33,slow=1.9,SNR=639
QSPA                               pP      pP        12 22 13.2 -0.4
      comp=Z,93nm,1.0s,baz=42,slow=2.7,SNR=5.9
QSPA                               S       S         12 28 26.0 +3.5
      comp=Z,5.7nm,1.0s,baz=354,slow=23,SNR=14
QSPA  South Pole Qui   68.48 180  eP       P         12 20 11.1 +1.9
      comp=Z,618nm,1.0s,mb6.0
QSPA                              epP      pP        12 22 16.2 +2.5
BATP  Bataraza         68.62 289  eP       P         12 20 11.5 +0.3
KDM   Kudat            68.63 287   P       P         12 20 12.0 +0.7
PALP  Palanan          68.75 299  eP       P         12 20 12.1 +0.2
BALP  Baler            68.75 298  eP       P         12 20 11.6 -0.3
KKM   Kota Kinabalu    68.80 286   P       P         12 20 13.2 +0.9
KKM   Kota Kinabalu    68.80 286  eP       P         12 20 12.3 -0.1
      comp=Z,478nm,1.1s,mb5.8
KKM                               epP      pP        12 22 15.5 -1.5
KKM                               ePP      PP        12 22 50.7 -5.4
LUBP  Lubang           68.85 295  eP       P         12 20 11.1 -1.4
CAUP  Cauayan          69.17 299  eP       P         12 20 14.9 +0.5
MIR   Mirnyy           69.46 205αiP       P         12 20 17.0 +1.7
MIR                               i S      S         12 28 37.0 +2.9
MIR                               i PS               12 29 16.0
MIR                                pmax    pmax
      comp=Z,600nm,1.0s,mb6.0
MIR                                pmax    pmax
      comp=Z,1µm,3.0s
JOW   Kunigami         69.89 311   P       P         12 20 18.9 +0.5
      comp=Z,289nm,0.8s,mb5.8,baz=142,slow=6.7,SNR=53
JOW                                PP      PP        12 23 06.3 +1.1
      comp=Z,72nm,1.0s,baz=118,slow=10,SNR=6.1
APYP  Conner           70.12 299  eP       P         12 20 19.9 -0.1
SCZP  Santa Cruz       70.15 297  eP       P         12 20 18.4 -1.9
MJAR  Matsushiro Arr   70.33 325   P       P         12 20 19.8 -1.1
MJAR                               *PP     pP        12 22 24.0 -2.4
MJAR                               S       S         12 28 46.6 +1.8
MJAR                               pmax    pmax
      comp=Z,160nm,0.9s
MJAR                               smax
      comp=N,1.0nm,0.5s
MJAR  Matsushiro Arr   70.33 325   P       P         12 20 19.8 -1.1
      comp=N,160nm,0.8s,mb5.5,baz=153,slow=5.3,SNR=251
MJAR                               pP      pP        12 22 24.0 -2.5
      comp=N,2.2nm,0.8s,baz=130,slow=35,SNR=3.1
MJAR                               S       S         12 28 46.6 +1.8
      comp=N,0.7nm,0.5s,baz=237,slow=2.8,SNR=2.6
MJAR                               PKP2bc            12 48 11.7
      comp=N,10.0nm,1.2s,baz=300,slow=3.2,SNR=8.8
MJAR  Matsushiro Arr   70.33 325   P       P         12 20 19.8 -1.1
MJAR                               pP      pP        12 22 24.0 -2.5
MJAR                               S       S         12 28 46.6 +1.8
MJAR                             ⇑e                  12 48 11.7
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MAJO  Matsushiro       70.34 325  eP       P         12 20 19.9 -1.0
MAJO                               pmax    pmax
      comp=Z,306nm,1.0s,mb5.7
MAJO  Matsushiro       70.34 325  eP       P         12 20 19.9 -1.0
      comp=Z,306nm,1.0s,mb5.7
MAJO                              epP      pP        12 22 29.2 +2.8
MAT   Matsushiro       70.34 325   P       P         12 20 20.1 -0.8
MAT                                S       S         12 28 47.0 +2.2
BTM   Bintulu          70.44 282   P       P         12 20 23.1 +1.1
ABRA  Dolores          70.45 299  eP       P         12 20 21.9  0.0
BOLP  Bolinao          70.45 297  eP       P         12 20 21.1 -0.9
SBUM  Sibu             70.93 281   P       P         12 20 26.1 +1.2
ERM   Erimo            72.15 332  i P      P         12 20 32.0 +0.7
ERM   Erimo            72.15 332  eP       P         12 20 31.7 +0.4
      comp=Z,145nm,0.8s,mb5.6
KSM   Kuching          72.30 279   P       P         12 20 33.9 +1.0
KSM   Kuching          72.30 279  eP       P         12 20 32.5 -0.3
      comp=Z,426nm,0.8s,mb6.0
KSM                               ePcP     PcP       12 20 45.5 -1.0
KSM                               epP      pP        12 22 38.4 -0.9
XMIS  Christmas Isla   72.33 265  eP       P         12 20 33.2 +0.2
XMIS  Christmas Isla   72.33 265  eP       P         12 20 32.5 -0.5
      comp=Z,150nm,0.7s,mb5.6
XMIS                              epP      pP        12 22 38.2 -1.3
YUK   Yuzh-Kuril'sk    72.66 334⇓iP       P         12 20 33.5 -0.7
YUK                                pmax    pmax
      comp=Z,4µm,2.0s,mb6.6
YUK                                pmax    pmax
      comp=Z,230nm,0.5s,mb6.0
TWG   Pinlang          72.89 304  eP       P         12 20 34.0 -2.0
      comp=Z,440nm,0.6s,mb6.2
YULB  Yu-li            73.03 304  eP       P         12 20 34.8 -2.0
      comp=Z,254nm,0.8s,mb5.8
YULB                              ePP      PP        12 23 34.5 +2.9
NACB  Ninganchiao      73.23 305  eP       P         12 20 36.6 -1.3
      comp=Z,856nm,1.0s,mb6.2
TPUB  Ta-pu            73.50 304  eP       P         12 20 38.1 -1.3
      comp=Z,1µm,0.8s,mb6.5
TPUB                              epP      pP        12 22 45.9 -0.6
SSLB  Suanglung        73.51 304  eP       P         12 20 38.1 -1.4
      comp=Z,746nm,0.9s,mb6.2
YHNB  Yeheng           73.67 305  eP       P         12 20 40.2 -0.2
      comp=Z,468nm,0.9s,mb6.0
YHNB                              epP      pP        12 22 47.5  0.0
YHNB                              ePP      PP        12 23 35.4 -1.5
TATO  Taipei           73.75 306  eP       P         12 20 40.3 -0.6
      comp=Z,519nm,0.7s,mb6.2
ASAJ  Asahikawa        74.08 333   P       P         12 20 43.2 +1.0
ASAJ                               S       S         12 29 29.5 +3.6
ASAJ                               pmax    pmax
      comp=Z,258nm,0.9s
ASAJ                               smax
      comp=N,3.0nm,0.8s
ASAJ  Asahikawa        74.08 333   P       P         12 20 43.2 +1.0
      comp=N,258nm,0.9s,mb5.8,baz=215,slow=7.7,SNR=159
ASAJ                               S       S         12 29 29.5 +3.6
      comp=N,2.8nm,0.8s,baz=276,slow=17,SNR=2.2
SMY   Shemya           74.22 356  eP       P         12 20 41.6 -1.2
SMY                                pmax    pmax
      comp=Z,1µm,1.4s,mb6.2
SMY   Shemya           74.22 356  eP       P         12 20 41.6 -1.2
      comp=Z,1µm,1.4s,mb6.2
UNV   Unalaska Valle   75.94   8  eP       P         12 20 50.4 -1.9
      comp=Z,184nm,0.8s,mb5.6
QZH   Quanzhou         75.94 304⇓iP       P         12 20 54.1 +1.1
QZH                                S       S         12 29 46.4 -0.4
QZH                                ScS     ScS       12 30 09.6 -1.1
QZH                                pmax    pmax
      comp=Z,890nm,0.9s,mb6.2
YSS   Yuzh-Sakhalins   76.30 334κiP       P         12 20 54.0 -0.4
YSS                               e*PP     pP        12 23 02.0 -1.0
YSS                               e*SP     sP        12 23 55.0  -11
YSS                               ePPP               12 25 44.0
YSS                               eS       S         12 29 52.0 +2.4
YSS                               e                  12 30 09.0
YSS                               eSSS               12 38 28.0
YSS                                pmax    pmax
      comp=N,90nm,1.0s
YSS                                pmax    pmax
      comp=Z,280nm,1.0s,mb5.7
YSS   Yuzh-Sakhalins   76.30 334  eP       P         12 20 54.8 +0.3
      comp=Z,276nm,0.9s,mb5.7
YSS                               epP      pP        12 23 03.6 +0.7
AKUT  Akutan           76.32   8  eP       P         12 20 52.4 -2.0
      comp=Z,83nm,0.3s,mb5.6
PET   Petropavlovsk    76.71 347⇓iP       P         12 20 55.1 -1.4
PET                               e*SP     sP        12 24 06.3 -2.4
PET                               eS       S         12 29 51.6 -2.1
PET                               e                  12 30 13.6
PET                               eSS      SS        12 35 08.9 -0.1
PET                               eSSS               12 38 28.0
PET                                pmax    pmax
      comp=Z,207nm,1.0s,mb5.5
PET                                pmax    pmax
      comp=Z,1µm,11.1s
PET                                MLR     MLR
      comp=Z,300nm,16.0s
PET   Petropavlovsk    76.71 347  eP       P         12 20 54.9 -1.6
      comp=Z,106nm,0.7s,mb5.4
KSRS  Korea Array      76.86 319   P       P         12 20 58.0 +0.3
KSRS                               *PP     pP        12 23 03.9 -2.6
KSRS                                                 12 24 03.9
KSRS                               S       S         12 29 59.1 +3.2
KSRS                               pmax    pmax
      comp=Z,52nm,0.9s,mb5.0
KSRS  Korea Array      76.86 319   P       P         12 20 58.0 +0.3
      comp=Z,52nm,0.9s,mb5.0,baz=142,slow=6.1,SNR=179
KSRS                               pP      pP        12 23 03.9 -2.6
      comp=Z,1.1nm,0.8s,baz=49,slow=29,SNR=3.0
KSRS                               PP      PP        12 24 03.9 +0.8
      comp=Z,9.0nm,0.8s,baz=140,slow=7.9,SNR=4.3
KSRS                               S       S         12 29 59.1 +3.2
      comp=Z,0.3nm,0.4s,baz=186,slow=27,SNR=2.7
PETK  Petropavlovsk-   77.00 346   P       P         12 20 57.2 -0.9
PETK                               *PP     pP        12 23 04.2 -2.8
PETK                               pmax    pmax
      comp=Z,242nm,0.8s,mb5.7
PETK                               pmax    pmax
      comp=Z,30nm,1.0s,mb4.7
PETK  Petropavlovsk-   77.00 346   P       P         12 20 57.2 -0.9
      comp=Z,242nm,0.8s,mb5.7,baz=165,slow=3.0,SNR=434
PETK                               pP      pP        12 23 04.2 -2.8
      comp=Z,30nm,1.0s,baz=161,slow=3.9,SNR=5.6
FALS  False Pass       77.35   9  eP       P         12 20 58.0 -2.0
      comp=Z,172nm,0.8s,mb5.5
FALS                              ePP      PP        12 24 05.0 -1.7
SSE   Sheshan          77.41 311   P       P         12 21 00.3 -0.5
SSE                                pP      pP        12 23 04.9 -5.0
SSE                                sP      sP        12 24 10.7 -2.6
SSE                                S       S         12 30 02.0  0.0
SSE                                pmax    pmax
      comp=Z,120nm,0.9s,mb5.3
SSE                                pmax    pmax
      comp=Z,570nm,9.7s
INCN  Inchon           77.66 319  eP       P         12 21 02.3 +0.2
      comp=Z,199nm,1.0s,mb5.5
INCN  Inchon           77.66 319 ⇓P       P         12 21 02.2 +0.1
      SNR=20
INCN                             ⇓P                 12 21 02.2
      SNR=20
SDPT  Sand Point       78.31  11  eP       P         12 21 03.5 -1.6
      comp=Z,354nm,1.0s,mb5.8
MYKOM Kota Tinggi      78.37 277   P       P         12 21 07.5 +1.1
KGM   Kluang           78.95 277   P       P         12 21 10.6 +1.1
BSC   Santa Cruz Isl   79.28  47 ⇑P       P         12 21 11.4 +0.7
      baz=79
SCI   San Clemente I   79.45  48 ⇓P       P         12 21 11.9 +0.3
      baz=80
CHGN  Chignik          79.59  12  eP       P         12 21 10.1 -1.7
NJ2   Nanjing          79.59 310  eP       P         12 21 13.1 +0.7
NJ2                                pP      pP        12 23 19.5 -2.9
NJ2                                sP      sP        12 24 18.7 -6.9
NJ2                                PP      PP        12 24 24.2 -1.3
NJ2                                S       S         12 30 21.5 -3.0
NJ2                                SKS               12 30 27.0
NJ2                                pmax    pmax
      comp=Z,180nm,0.8s,mb5.5
NJ2                                pmax    pmax
      comp=Z,670nm,10.2s
PKM   Peak Mountain    79.67  46 ⇑P       P         12 21 12.8 +0.1
      baz=80,SNR=6.4
SAO   San Andreas Ge   79.70  44  eP       P         12 21 13.4 +0.6
SAO                                pmax    pmax
      comp=Z,47nm,1.1s,mb4.7
SAO   San Andreas Ge   79.70  44  eP       P         12 21 13.4 +0.5
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	comp=Z,47nm,1.1s,mb4.7						
CIS	**Catalina Islan**	79.79	48	⇓P	P	12 21 13.1	-0.3
	baz=80						
COCO	**West Island**	79.91	261	_e_P	P	12 21 16.1	+1.6
COCO				pmax	pmax		
	comp=Z,292nm,1.1s,mb5.5						
COCO	**West Island**	79.91	261	_e_P	P	12 21 16.1	+1.6
	comp=Z,292nm,1.1s,mb5.5						
HOPS	**Hopland**	80.03	41	_e_P	P	12 21 14.8	+0.3
	comp=Z,88nm,0.8s,mb5.1						
FMP	**Fort Macarthur**	80.04	48	⇑P	P	12 21 15.0	+0.3
	baz=80						
MAW	**Mawson**	80.11	200	_e_P	P	12 21 15.8	+1.3
MAW				S	S	12 30 31.0	+2.4
MAW				pmax	pmax		
	comp=Z,16nm,1.0s						
MAW	**Mawson**	80.11	200	P	P	12 21 15.2	+0.8
	comp=Z,51nm,0.9s,mb4.9,baz=117,slow=7.6,SNR=8.1						
MAW				S	S	12 30 31.0	+2.4
	comp=Z,19nm,1.1s,baz=278,slow=20,SNR=1.5						
MAW	**Mawson**	80.11	200	_e_P	P	12 21 15.8	+1.3
	comp=Z,16nm,1.0s,mb4.3						
MAW				_e_pP	pP	12 23 29.4	+4.8
MAW				S	S	12 30 31.0	+2.4
QIZ	**Qiongzhong**	80.14	295	P	P	12 21 15.2	-0.3
QIZ				pP	pP	12 23 23.5	-2.2
QIZ				PP	PP	12 24 28.8	-1.3
QIZ				S	S	12 30 28.5	-2.1
QIZ				sS	sS	12 34 20.3	-2.3
QIZ				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.0						
QIZ				pmax	pmax		
	comp=Z,560nm,7.1s						
DECC	**Green Verdugo**	80.31	47	⇑P	P	12 21 15.9	-0.2
	baz=80						
PASC	**Pasadena Art C**	80.37	47	_e_P	P	12 21 16.3	-0.1
	comp=Z,157nm,0.8s,mb5.4						
KTGM	**Kuala Trenggan**	80.39	280	P	P	12 21 18.2	+1.2
109C	**Camp Elliot, M**	80.41	49	⇓P	P	12 21 16.2	-0.4
	baz=80,SNR=5.5						
MWC	**Mount Wilson**	80.48	47	_e_P	P	12 21 16.8	-0.2
MWC				pmax	pmax		
	comp=Z,46nm,0.9s,mb4.8						
MWC	**Mount Wilson**	80.48	47	_e_P	P	12 21 16.8	-0.2
	comp=Z,46nm,0.9s,mb4.8						
BAR	**Barrett**	80.60	49	_e_P	P	12 21 17.3	-0.3
MDJ	**Mudanjiang**	80.68	326	P	P	12 21 18.1	+0.4
MDJ				pP	pP	12 23 32.4	+4.2
MDJ				sP	sP	12 24 30.2	-1.0
MDJ				S	S	12 30 36.7	+1.7
MDJ				pmax	pmax		
	comp=Z,180nm,1.1s,mb5.4						
MDJ				pmax	pmax		
	comp=Z,910nm,8.0s						
MDJ	**Mudanjiang**	80.68	326	_e_P	P	12 21 18.1	+0.3
	comp=Z,268nm,1.1s,mb5.6						
MDJ				_e_pP	pP	12 23 33.2	+5.0
VES	**Vestal, Richgr**	80.71	46	⇑P	P	12 21 17.5	-0.6
	baz=81,SNR=20						
MURC	**Murrieta**	80.73	48	⇑P	P	12 21 18.0	-0.3
	baz=81,SNR=15						
HABR	**Khabarovsk**	80.76	331	_d i_P	P	12 21 19.0	+0.9
HABR				_e_*PP	pP	12 23 25.3	-3.3
HABR				_e_		12 24 30.0	
HABR				_e_S	S	12 30 31.6	-4.1
HABR				_e_		12 30 42.9	
HABR				_e_SS	SS	12 36 05.5	-3.5
HABR				_e_SSS		12 39 37.9	
HABR				MLR	MLR		
	comp=Z,58nm,18.0s						
BFSC	**Mount Baldy St**	80.77	48	⇑P	P	12 21 17.9	-0.5
	baz=81,SNR=14						
PMSA	**Palmer Station**	80.80	157	P	P	12 21 19.0	+0.9
	comp=Z,208nm,0.8s,mb5.6,baz=232,slow=3.5,SNR=40						
KHMM	**Horse Mountain**	80.81	39	_e_P	P	12 21 20.0	+1.5
RCTC	**Rector, Farmer**	80.87	45	⇓P	P	12 21 18.4	-0.5
	baz=81						
MONP	**Monument Peak**	80.89	49	⇑P	P	12 21 19.4	+0.2
	baz=81,SNR=41						
EDW2	**Edwards Air Fo**	80.90	47	⇑P	P	12 21 18.9	-0.2
	baz=81,SNR=34						
FRIM	**Kepong**	80.98	277	P	P	12 21 20.6	+0.6
DVTC	**Desert V Tower**	80.99	50	⇓P	P	12 21 19.7	+0.1
	baz=81,SNR=16						
ISA	**Isabella**	81.01	46	_e_P	P	12 21 19.7	0.0
ISA				_e_*PP	pP	12 23 30.4	+0.1
ISA				pmax	pmax		
	comp=Z,57nm,0.8s,mb5.0						
ISA	**Isabella**	81.01	46	⇑P	P	12 21 19.7	0.0
	baz=81,SNR=46						
ISA	**Isabella**	81.01	46	_e_P	P	12 21 19.7	+0.1
	comp=Z,57nm,0.8s,mb5.1						
ISA				_e_pP	pP	12 23 30.4	0.0
LPIG	**La Paz**	81.07	60	P	P	12 21 20.2	0.0
	comp=Z,15nm,0.3s,mb4.9,baz=329,slow=3.0,SNR=3.9						
LPIG				S	S	12 30 36.4	-3.3
	comp=Z,37nm,0.9s,baz=198,slow=6.0,SNR=2.9						
CMB	**Columbia Colle**	81.13	43	_e_P	P	12 21 20.0	-0.2
CMB				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.0						
CMB	**Columbia Colle**	81.13	43	_e_P	P	12 21 20.0	-0.2
	comp=Z,45nm,0.8s,mb5.0						
CMB				_e_pP	pP	12 23 35.6	+4.6
OHCM	**Honcut**	81.22	42	_e_P	P	12 21 20.7	+0.1
PFO	**Pinyon Flat Ob**	81.26	49	_e_P	P	12 21 20.8	-0.2
PFO				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.5						
PFO	**Pinyon Flat Ob**	81.26	49	⇓P	P	12 21 20.8	-0.1
	baz=81,SNR=12						
PFO	**Pinyon Flat Ob**	81.26	49	_e_P	P	12 21 20.8	-0.2
	comp=Z,16nm,0.7s,mb4.5						
PFO				_e_pP	pP	12 23 35.4	+3.6
BBRC	**Big Bear Sol-O**	81.29	48	⇑P	P	12 21 21.3	+0.2
	baz=81						
WDC	**Whiskeytown Da**	81.33	40	_e_P	P	12 21 21.6	+0.4
WDC				_e_*PP	pP	12 23 31.2	-0.8
WDC				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.1						
WDC	**Whiskeytown Da**	81.33	40	_e_P	P	12 21 21.6	+0.5
	comp=Z,75nm,1.0s,mb5.1						
WDC				_e_pP	pP	12 23 31.2	-0.8
SWSC	**Sam W. Stewart**	81.36	50	⇑P	P	12 21 21.5	0.0
	baz=81,SNR=20						
LRMC	**Laurel Mountai**	81.44	47	⇑P	P	12 21 21.8	0.0
	baz=82,SNR=6.8						
OHAK	**Old Harbor**	81.50	14	_e_P	P	12 21 20.7	-0.9
	comp=Z,162nm,1.1s,mb5.5						
RRX	**Edison Barstow**	81.58	47	⇓P	P	12 21 22.4	-0.2
	baz=82						
DL2	**Dalian**	81.65	317	P	P	12 21 22.3	-0.5
DL2				pP	pP	12 23 31.8	-2.0
DL2				sP	sP	12 24 28.4	-8.3
DL2				S	S	12 30 40.6	-4.4
DL2				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.3						
DL2				pmax	pmax		
	comp=Z,450nm,5.7s						
BELC	**Belle Mtn.**	81.79	49	⇓P	P	12 21 23.8	+0.2
	baz=82,SNR=42						
MPMC	**Manual Prospec**	81.90	46	⇑P	P	12 21 24.2	0.0
	baz=82,SNR=39						
MTUM	**Tungsten Hills**	81.91	45	_e_P	P	12 21 24.5	+0.3
GSC	**Goldstone**	81.94	47	_e_P	P	12 21 24.4	0.0
GSC				_e_*PP	pP	12 23 34.3	-1.2
GSC				pmax	pmax		
	comp=Z,33nm,0.8s,mb4.9						
GSC	**Goldstone**	81.94	47	⇓P	P	12 21 24.3	-0.1
	baz=82,SNR=18						
GSC	**Goldstone**	81.94	47	_e_P	P	12 21 24.4	0.0
	comp=Z,33nm,0.8s,mb4.9						
GSC				_e_pP	pP	12 23 34.3	-1.2
YBH	**Yreka Blue Hor**	81.94	39	P	P	12 21 25.0	+0.8
YBH				pmax	pmax		
	comp=Z,60nm,0.9s						
YBH	**Yreka Blue Hor**	81.94	39	P	P	12 21 25.0	+0.8
	comp=Z,60nm,0.9s,mb5.1,baz=191,slow=1.3,SNR=63						
YBH	**Yreka Blue Hor**	81.94	39	_e_P	P	12 21 25.2	+1.0
	comp=Z,62nm,0.9s,mb5.1						
YBH				_e_pP	pP	12 23 38.9	+3.6
TIN	**Tinemaha**	81.97	45	⇑P	P	12 21 24.6	+0.2
	baz=82,SNR=18						
BC3	**Big Chuckw Mtn**	81.98	49	⇑P	P	12 21 24.9	+0.2
	baz=82,SNR=23						
IPM	**Ipoh**	82.00	278	P	P	12 21 26.2	+1.0
HEC	**Hector,Ludlow**	82.01	48	⇓P	P	12 21 24.5	-0.2
	baz=82,SNR=34						
112A	**Yuma**	82.01	51	⇓P	P	12 21 25.2	+0.4
	baz=82,SNR=20						
R06C	**Coleville**	82.01	43	⇑P	P	12 21 25.1	+0.4
	baz=82,SNR=33						
WHN	**Wuhan**	82.06	307	⇑P	P	12 21 25.5	+0.4
GLA	**Glamis**	82.11	50	_e_P	P	12 21 25.8	+0.5
GLA				pmax	pmax		
	comp=Z,80nm,0.8s,mb5.3						
GLA	**Glamis**	82.11	50	⇓P	P	12 21 25.8	+0.5
	baz=82,SNR=49						
GLA	**Glamis**	82.11	50	_e_P	P	12 21 25.8	+0.5
	comp=Z,80nm,0.8s,mb5.3						
GLA				_e_pP	pP	12 23 40.7	+4.2
KDAK	**Kodiak Island**	82.17	14	_e_P	P	12 21 24.2	-0.8
KDAK				pmax	pmax		
	comp=Z,177nm,1.4s,mb5.4						
KDAK	**Kodiak Island**	82.17	14	P	P	12 21 24.1	-0.9
	comp=Z,48nm,0.8s,mb5.1,baz=199,slow=3.5,SNR=33						
KDAK				S	S	12 30 47.0	-2.4
	comp=Z,6.8nm,1.1s,baz=345,slow=22,SNR=6.0						
KDAK	**Kodiak Island**	82.17	14	_e_P	P	12 21 24.2	-0.8
	comp=Z,177nm,1.4s,mb5.4						
KDAK				_e_pP	pP	12 23 37.7	+1.5
LBCM	**Butte Creek Ri**	82.20	41	P	P	12 21 25.7	+0.1
SNY	**Shenyang**	82.22	321	⇓P	P	12 21 25.4	-0.2
SNY				pP	pP	12 23 36.2	-0.7
SNY				sP	sP	12 24 38.3	-1.4
SNY				S	S	12 30 45.4	-5.1
SNY				pmax	pmax		
	comp=Z,150nm,0.7s,mb5.6						
HUMO	**Hull Mountain**	82.34	38	_e_P	P	12 21 27.1	+0.9
	comp=Z,157nm,1.2s,mb5.4						
CN2	**Changchun**	82.38	323	_e_P	P	12 21 26.4	0.0
CN2				_e_pP	pP	12 23 34.4	-3.3
CN2				_e_sP	sP	12 24 34.0	-6.5
CN2				SKS		12 30 48.1	
CN2				SS	SS	12 36 38.8	+5.9
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
P06A	**Stead Airport,**	82.41	42	⇑P	P	12 21 26.9	+0.2
	baz=82,SNR=12						
GMRC	**Granite Mounta**	82.44	48	⇓P	P	12 21 26.9	-0.1
	baz=82,SNR=31						
IRM	**Iron Mountain**	82.47	49	⇑P	P	12 21 27.3	+0.2
	baz=82,SNR=42						
GRAC	**Grapevine Rang**	82.50	45	⇑P	P	12 21 27.3	+0.1
	baz=83,SNR=30						
FURC	**Furnace Creek,**	82.55	46	⇑P	P	12 21 27.2	-0.2
	baz=83,SNR=39						
BUOR	**Burton Butte**	82.55	39	P	P	12 21 28.0	+0.7
TUQ	**Turquoise Moun**	82.62	47	⇓P	P	12 21 27.7	-0.1
	baz=83,SNR=11						
SHOC	**Shoshone**	82.63	47	⇓P	P	12 21 27.4	-0.4
	baz=83,SNR=20						
KULM	**Kulim**	82.65	279	P	P	12 21 29.8	+1.3
KULM	**Kulim**	82.65	279	_e_P	P	12 21 29.3	+0.8
	comp=Z,320nm,0.9s,mb5.8						
KULM				_e_pP	pP	12 23 43.0	+3.2
Q07A	**Schurz**	82.66	43	⇑P	P	12 21 27.9	-0.1
	baz=83						
Y12C	**Blythe**	82.69	50	⇑P	P	12 21 28.3	+0.1
	baz=83,SNR=37						
NVAR	**Mina Array Bea**	82.70	44	P	P	12 21 28.2	+0.1
	comp=Z,38nm,0.8s,mb5.0,baz=222,slow=9.0,SNR=215						
NVAR				pP	pP	12 23 37.1	-2.4
	comp=Z,8.6nm,0.9s,baz=225,slow=8.5,SNR=4.0						
NVAR				PKKPbc	PKKPbc	12 39 49.6	+1.1
	comp=Z,1.1nm,0.7s,baz=69,slow=3.4,SNR=6.0						
NVAR				SKKPbc		12 42 22.3	
	comp=Z,0.5nm,0.4s,baz=327,slow=2.5,SNR=4.1						
NVAR				PKPPKP		12 47 57.8	
	comp=Z,0.8nm,0.7s,baz=76,slow=8.4,SNR=3.9						
113A	**Mohawk Valley,**	82.72	51	⇑P	P	12 21 28.3	0.0
	baz=83,SNR=24						
O06A	**Flanigan**	82.74	42	⇑P	P	12 21 28.3	0.0
	baz=83,SNR=56						
PAHR	**Pah Rah Range**	82.75	42	_e_P	P	12 21 28.7	+0.4
R08A	**Mina**	82.78	44	⇑P	P	12 21 28.6	+0.1
	baz=83						
KLR	**Kul’dur**	82.82	330	α _i_P	P	12 21 25.0	-3.4
KLR				_e_	pP	12 23 36.0	-3.9
KLR				_e_		12 24 47.0	
KLR				pmax	pmax		
	comp=E,150nm,1.8s						
KLR				pmax	pmax		
	comp=Z,530nm,1.8s,mb5.8						
KLR				pmax	pmax		
	comp=Z,1µm,8.0s						
HOG	**Hogback Mounta**	82.84	39	P	P	12 21 29.4	+0.7
U10A	**Ash Meadows, A**	82.88	46	⇑P	P	12 21 29.4	+0.4
	baz=83,SNR=27						
P07A	**Fallon**	82.96	43	⇑P	P	12 21 29.6	+0.2
	baz=83						
LDFC	**Landfair**	82.98	48	_e_P	P	12 21 30.1	+0.5
	comp=Z,91nm,0.6s,mb5.5						
214A	**Organ Pipe Nat**	83.00	52	⇓P	P	12 21 30.1	+0.3
	baz=83,SNR=21						
S09A	**Goldfield**	83.00	45	⇑P	P	12 21 29.2	-0.5
	baz=83,SNR=23						
N06A	**Buffalo Meadow**	83.08	41	⇓P	P	12 21 29.9	0.0
	baz=83,SNR=31						
NEE2	**Needles Airpor**	83.16	49	⇑P	P	12 21 30.6	+0.1
	baz=83						
V11A	**Goodsprings**	83.17	47	⇑P	P	12 21 30.4	-0.1
	baz=83,SNR=6.8						
Q08A	**Gabbs**	83.18	44	⇓P	P	12 21 30.3	-0.2
	baz=83,SNR=52						
MPOR	**Mary’s Peak**	83.19	37	P	P	12 21 31.6	+1.1
TPH	**Tonopah**	83.20	45	_e_pP	pP	12 23 41.7	-0.5
	comp=Z,59nm,1.4s						
Y13A	**Salome**	83.22	50	⇓P	P	12 21 31.3	+0.4
	baz=83,SNR=27						
PDMCI	**Parker Dam,Lak**	83.25	49	⇓P	P	12 21 31.1	+0.2
	baz=83,SNR=30						
W12A	**Cal Nev Ari**	83.27	48	⇑P	P	12 21 31.3	+0.2
	baz=83						
O07A	**Toulon**	83.33	42	⇑P	P	12 21 31.0	-0.2
	baz=83,SNR=34						
R09A	**Tonopah**	83.39	45	⇑P	P	12 21 31.3	-0.3
	baz=84,SNR=42						
SNG	**Songkhla**	83.40	280	P	P	12 21 34.0	+1.8
	comp=Z,1µm,1.0s,mb6.3						
MOD	**Modoc**	83.47	40	_e_P	P	12 21 32.3	+0.4
	comp=Z,54nm,0.9s,mb5.1						
MOD				_e_pP	pP	12 23 46.9	+3.3
V12A	**Nelson**	83.51	48	⇑P	P	12 21 32.1	-0.1
	baz=84,SNR=24						
U11A	**Corn Creek**	83.52	47	⇑P	P	12 21 32.4	+0.1
	baz=84						
S10A	**Tonopah Range,**	83.53	45	⇓P	P	12 21 32.2	-0.1
	baz=84,SNR=76						
P08A	**Dixie Valley**	83.56	43	⇓P	P	12 21 32.7	+0.3
	baz=84						
Z14A	**Wintersburg**	83.61	51	⇓P	P	12 21 33.0	+0.2
	baz=84,SNR=32						
X13A	**Yucca**	83.62	49	⇓P	P	12 21 32.8	0.0
	baz=84,SNR=46						
N07B	**Gerlach**	83.63	42	⇓P	P	12 21 32.9	+0.2
	baz=84						
Q09A	**Carvers**	83.65	44	⇑P	P	12 21 32.7	-0.1
	baz=84,SNR=8.9						
SHPR	**Sheep Range**	83.71	47	_e_P	P	12 21 33.3	+0.1
115A	**Sonoran Desert**	83.80	51	⇓P	P	12 21 33.9	+0.2
	baz=84,SNR=17						
W13A	**Hualapai Mount**	83.85	49	⇓P	P	12 21 34.2	+0.3
	baz=84,SNR=35						
O08A	**Rochester Mine**	83.85	42	⇑P	P	12 21 33.8	0.0
	baz=84,SNR=37						
M07A	**Soldier Meadow**	83.86	41	⇑P	P	12 21 33.8	+0.1
	baz=84,SNR=22						
Y14A	**Wickenburg**	83.87	50	⇑P	P	12 21 33.9	-0.2
	baz=84,SNR=40						
R10A	**Warm Springs**	83.92	45	⇑P	P	12 21 34.3	+0.1
	baz=84,SNR=26						
USHA	**Ushuaia**	83.92	147	P	P	12 21 34.7	+0.7
	comp=Z,84nm,0.9s,mb5.3,baz=212,slow=7.1,SNR=16						
USHA				S	S	12 30 59.1	-7.9
	comp=Z,16nm,1.1s,baz=221,slow=8.0,SNR=2.3						
216A	**Three Points,**	84.01	52	⇑P	P	12 21 35.4	+0.6
	baz=84,SNR=22						
H04A	**Detroit Lake**	84.07	37	⇓P	P	12 21 34.3	-0.4
	baz=84,SNR=11						
T11A	**Corn Creek, Al**	84.07	46	⇓P	P	12 21 35.1	+0.2
	baz=84,SNR=35						
P09A	**Austin**	84.08	43	⇓P	P	12 21 34.7	-0.3
	baz=84,SNR=12						
U12A	**Valley of Fire**	84.10	47	⇑P	P	12 21 35.1	0.0
	baz=84,SNR=18						
116A	**Eloy**	84.11	52	⇑P	P	12 21 35.5	+0.3
	baz=84,SNR=35						
L07A	**Adell**	84.12	40	⇑P	P	12 21 35.3	+0.2
	baz=84,SNR=20						
T12A	**Moapa**	84.14	47	⇑P	P	12 21 35.3	0.0
	baz=84,SNR=6.8						
Z15A	**Gila River Ind**	84.14	51	⇓P	P	12 21 35.8	+0.4
	baz=84						
N08A	**GE Springer Mi**	84.15	42	⇓P	P	12 21 35.2	0.0
	baz=84,SNR=38						
Q10A	**Clear Creek Ra**	84.15	44	⇓P	P	12 21 35.2	-0.1
	baz=84,SNR=11						
V13A	**Grand Canyon W**	84.17	48	⇑P	P	12 21 35.5	0.0
	baz=84,SNR=33						
X14A	**Yava**	84.22	50	⇓P	P	12 21 36.1	+0.3
	baz=84,SNR=52						
G04A	**Mulino**	84.23	37	⇓P	P	12 21 35.9	+0.4
	baz=84,SNR=6.1						
Y15A	**Casa Rosa Ranc**	84.36	50	⇓P	P	12 21 36.5	0.0
	baz=84,SNR=44						
J06A	**Christmas Vall**	84.36	39	⇑P	P	12 21 36.4	+0.2
	baz=84,SNR=19						
217A	**Green Valley**	84.37	53	⇓P	P	12 21 37.1	+0.6
	baz=84,SNR=49						
M08A	**Happy Creek Ra**	84.38	41	⇑P	P	12 21 36.5	+0.2
	baz=84,SNR=18						
O09A	**Fish Creek Ran**	84.39	43	⇓P	P	12 21 36.2	-0.2
	baz=84,SNR=20						
R11A	**Troy Canyon, C**	84.42	45	⇑P	P	12 21 36.2	-0.4
	baz=84,SNR=20						
W14A	**Seligman**	84.47	49	⇓P	P	12 21 37.3	+0.4
	baz=84,SNR=46						
E03A	**Lebam**	84.48	35	⇑P	P	12 21 37.3	+0.6
	baz=85,SNR=5.2						
U13A	**Pakoon Wash**	84.48	47	⇑P	P	12 21 37.2	+0.2
	baz=85,SNR=51						
S12A	**Delamar Landin**	84.52	46	⇓P	P	12 21 37.8	+0.7
	baz=85,SNR=40						
BMN	**Battle Mountai**	84.52	43	_e_P	P	12 21 37.3	+0.2
BMN				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.0						
BMN	**Battle Mountai**	84.52	43	_e_P	P	12 21 37.3	+0.3
	comp=Z,22nm,0.6s,mb5.0						
BMN				_e_pP	pP	12 23 53.0	+3.8
N09A	**Rock Creek Ran**	84.57	42	⇓P	P	12 21 37.3	0.0
	baz=85,SNR=15						
K07A	**Rock Creek Ran**	84.57	40	⇓P	P	12 21 37.7	+0.4
	baz=85,SNR=26						
RSO	**Redoubt South**	84.58	13	_e_P	P	12 21 35.1	-1.7
Q11A	**Duckwater**	84.65	45	⇑P	P	12 21 37.5	-0.2
	baz=85,SNR=25						
TUC	**Tucson**	84.66	52	_e_P	P	12 21 38.5	+0.6
TUC				_e_*PP	pP	12 23 51.6	+1.4
TUC				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.0						
TUC	**Tucson**	84.66	52	_e_P	P	12 21 38.5	+0.6
	comp=Z,36nm,0.8s,mb5.1						
TUC				_e_pP	pP	12 23 51.6	+1.4
V14A	**Boquillas Ranc**	84.67	49	⇓P	P	12 21 38.3	+0.4
	baz=85,SNR=58						
X15A	**Humboldt**	84.69	50	⇑P	P	12 21 38.4	+0.3
	baz=85,SNR=32						
Z16A	**Peralta Trail,**	84.70	51	⇑P	P	12 21 38.4	+0.3
	baz=85,SNR=11						
F04A	**Amboy**	84.71	36	⇓P	P	12 21 38.2	+0.3
	baz=85,SNR=8.5						
I06A	**Prineville**	84.74	39	⇓P	P	12 21 38.9	+0.9
	baz=85,SNR=30						
HOOD	**Mount Hood Mea**	84.76	37	_e_P	P	12 21 38.6	+0.5
WVOR	**Wild Horse Val**	84.79	40	_e_P	P	12 21 38.6	+0.3
WVOR				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.1						
WVOR	**Wild Horse Val**	84.79	40	_e_P	P	12 21 38.6	+0.3
	comp=Z,48nm,1.0s,mb5.1						
WVOR				_e_pP	pP	12 23 53.4	+2.7
117A	**Oracle**	84.82	52	⇑P	P	12 21 39.2	+0.5
	baz=85,SNR=31						
L08A	**Fields**	84.82	41	⇓P	P	12 21 38.9	+0.4
	baz=85,SNR=31						
318A	**Bisbee**	84.83	53	⇑P	P	12 21 39.6	+0.8
	baz=85,SNR=67						
T13A	**Saint George**	84.84	47	⇓P	P	12 21 38.8	+0.1
	baz=85,SNR=26						
G05A	**Wamic**	84.90	37	⇑P	P	12 21 39.4	+0.6
	baz=85						
O10A	**Cortez Mining,**	84.90	43	⇓P	P	12 21 39.1	+0.2
	baz=85,SNR=9.5						
Y16A	**Circle Bar Ran**	84.93	51	⇑P	P	12 21 39.6	+0.4
	baz=85,SNR=39						
J07A	**Hines**	84.93	39	⇓P	P	12 21 39.3	+0.3
	baz=85,SNR=20						
M09A	**Marrel Ranch,**	84.94	42	⇓P	P	12 21 39.2	+0.1
	baz=85,SNR=17						
E04A	**Onalaska**	84.96	35	⇑P	P	12 21 39.8	+0.8
	baz=85						
P11A	**Circle Ranch,**	84.97	44	⇑P	P	12 21 39.4	+0.1
	baz=85,SNR=7.6						
SEW	**Seward**	84.98	15	_e_P	P	12 21 37.1	-1.7
	comp=Z,111nm,1.0s,mb5.5						
SEW				_e_pP	pP	12 23 53.3	+2.1
U14A	**Mt Trumbull**	85.02	48	⇓P	P	12 21 40.2	+0.6
	baz=85,SNR=47						
W15A	**Williams**	85.03	49	⇑P	P	12 21 40.1	+0.4
	baz=85						
KKTK	**Khon Kaen**	85.03	290	⇓P	P	12 21 41.7	+1.6
	comp=Z,4µm,0.5s						
218A	**Dragoon**	85.04	53	⇑P	P	12 21 40.6	+0.8
	baz=85,SNR=16						
R12A	**Pony Springs,**	85.06	46	⇓P	P	12 21 40.1	+0.4
	baz=85,SNR=49						
TDL	**Tradedollar La**	85.08	36	P	P	12 21 40.2	+0.6
N10A	**Dunphy**	85.13	43	⇓P	P	12 21 40.3	+0.3
	baz=85,SNR=5.9						
L09A	**Wilkinson Ranc**	85.14	41	⇑P	P	12 21 40.2	+0.2
	baz=85,SNR=32						
H06A	**Lindquist Farm**	85.14	38	⇑P	P	12 21 40.2	+0.2
	baz=85,SNR=27						
S13A	**Holt Ranch, En**	85.17	47	⇑P	P	12 21 40.5	+0.2
	baz=85,SNR=27						
X16A	**Lo Mia Camp, P**	85.23	50	⇑P	P	12 21 41.2	+0.5
	baz=85,SNR=38						
I07A	**Izee**	85.24	39	⇓P	P	12 21 40.9	+0.5
	baz=85,SNR=21						
G06A	**Carlson Farm,**	85.28	37	⇓P	P	12 21 40.9	+0.4
	baz=85,SNR=6.1						
GAMB	**Gambell**	85.29	3	_e_P	P	12 21 39.5	-0.7
	comp=Z,112nm,1.1s,mb5.4						
GAMB				_e_pP	pP	12 23 52.1	-0.6
GAMB				_e_PP	PP	12 25 05.9	-4.8
Q12A	**Willow Creek R**	85.30	45	⇑P	P	12 21 40.8	0.0
	baz=85,SNR=19						
Y17A	**Roosevelt**	85.30	51	⇓P	P	12 21 40.9	-0.1
	baz=85						
319A	**Douglas**	85.33	54	⇑P	P	12 21 42.0	+0.8
	baz=85,SNR=62						
O11A	**Cowboy Ranch,**	85.35	44	⇓P	P	12 21 41.2	+0.1
	baz=85,SNR=15						
Z17A	**San Carlos Hig**	85.37	52	⇑P	P	12 21 41.8	+0.4
	baz=85,SNR=9.0						
SYO	**Syowa Base**	85.38	193	⇓_i_P	P	12 21 39.2	-1.6
R13A	**O’Grain Ranch,**	85.41	46	⇑P	P	12 21 41.8	+0.4
	baz=86,SNR=19						
V15A	**Kaibab Nationa**	85.42	49	⇑P	P	12 21 42.1	+0.6
	baz=86,SNR=37						
J08A	**Circle Bar Ran**	85.42	40	⇓P	P	12 21 41.7	+0.4
	baz=86,SNR=17						
118A	**Homack Ranch,**	85.42	52	⇓P	P	12 21 42.3	+0.7
	baz=86						
T14A	**Hurricane**	85.42	47	⇓P	P	12 21 41.7	+0.2
	baz=86,SNR=31						
B04A	**Port Angeles**	85.47	34	⇓P	P	12 21 41.9	+0.4
	baz=86						
P12A	**McGill**	85.48	44	⇑P	P	12 21 41.8	+0.1
	baz=86,SNR=9.2						
K09A	**Rome**	85.49	41	⇑P	P	12 21 41.9	+0.2
	baz=86,SNR=33						
H07A	**Lands Inn, Kim**	85.50	38	⇓P	P	12 21 42.0	+0.3
	baz=86,SNR=31						
W16A	**Flagstaff**	85.50	50	⇑P	P	12 21 42.4	+0.5
	baz=86,SNR=13						
GNW	**Green Mountain**	85.51	35	_e_P	P	12 21 42.1	+0.5
	comp=Z,52nm,0.9s,mb5.2						
F06A	**Goldendale**	85.51	37	⇓P	P	12 21 42.1	+0.4
	baz=86,SNR=8.9						
C04A	**Brinnon**	85.53	34	⇓P	P	12 21 42.3	+0.6
	baz=86,SNR=12						
LON	**Longmire**	85.55	36	_e_P	P	12 21 41.9	+0.1

LON				pmax	pmax		
	comp=Z,108nm,1.5s,mb5.3						
LON	**Longmire**	**85.55**	**36**	*e*P	**P**	**12 21 41.9**	**+0.1**
	comp=Z,108nm,1.5s,mb5.3						
M10A	**I.L. Ranch, Tu**	**85.56**	**42**	⇓P	**P**	**12 21 42.4**	**+0.4**
	baz=86,SNR=24						
Z18A	**Geronimo**	**85.59**	**52**	⇑P	**P**	**12 21 42.7**	**+0.3**
	baz=86						
X17A	**Forest Lakes**	**85.64**	**51**	⇑P	**P**	**12 21 43.0**	**+0.4**
	baz=86,SNR=14						
N11A	**Elko Archery C**	**85.67**	**43**	⇑P	**P**	**12 21 43.1**	**+0.5**
	baz=86						
I08A	**Drewsey**	**85.68**	**39**	⇑P	**P**	**12 21 42.9**	**+0.4**
	baz=86,SNR=42						
D05A	**Enumclaw**	**85.72**	**35**	⇓P	**P**	**12 21 43.3**	**+0.6**
	baz=86,SNR=20						
S14A	**Cedar City**	**85.73**	**47**	⇑P	**P**	**12 21 43.2**	**+0.3**
	baz=86,SNR=12						
BJT	**Baijiatuau**	**85.76**	**316**	*e*P	**P**	**12 21 43.3**	**+0.3**
BJT				pmax	pmax		
	comp=Z,226nm,0.8s						
BJT	**Baijiatuau**	**85.76**	**316**	*e*P	**P**	**12 21 43.3**	**+0.3**
	comp=Z,226nm,0.8s,mb5.8						
BJT				*e*pP	pP	12 23 58.6	+2.8
FIB	**Fire Island**	**85.76**	**14**	*e*P	**P**	**12 21 41.8**	**-0.7**
FIB				pmax	pmax		
	comp=Z,182nm,0.8s,mb5.8						
FIB	**Fire Island**	**85.76**	**14**	*e*P	**P**	**12 21 41.8**	**-0.7**
	comp=Z,182nm,0.8s,mb5.8						
BJI	**Beijing**	**85.77**	**316**	P	**P**	**12 21 43.3**	**+0.3**
BJI				pP	pP	12 23 54.4	-1.4
BJI				sP	sP	12 24 56.7	-1.5
BJI				PP	PP	12 25 11.7	-3.3
BJI				sS	sS	12 35 18.1	-3.3
BJI				SS	SS	12 37 23.1	+0.9
BJI				pmax	pmax		
	comp=Z,270nm,0.8s,mb5.9						
BJI				pmax	pmax		
	comp=Z,1µm,4.3s						
Q13A	**Wheeler Ranch,**	**85.78**	**45**	⇓P	**P**	**12 21 43.2**	**+0.1**
	baz=86,SNR=23						
RC01	**Rabbit Creek A**	**85.79**	**14**	*e*P	**P**	**12 21 41.3**	**-1.3**
	comp=Z,216nm,1.2s,mb5.7						
RC01				*e*pP	pP	12 24 02.4	+7.0
RC01				*e*PP	PP	12 25 17.6	+2.9
WUAZ	**Wupatki**	**85.83**	**49**	⇑P	**P**	**12 21 43.3**	**-0.1**
	baz=86,SNR=9.1						
WUAZ	**Wupatki**	**85.83**	**49**	*e*P	**P**	**12 21 44.0**	**+0.5**
	comp=Z,32nm,1.0s,mb4.9						
G07A	**Ruggs Ranch, H**	**85.84**	**38**	⇑P	**P**	**12 21 43.6**	**+0.4**
	baz=86,SNR=16						
J09A	**Fry Pan Ranch,**	**85.84**	**40**	⇓P	**P**	**12 21 43.8**	**+0.4**
	baz=86,SNR=42						
E06A	**Yakima**	**85.88**	**36**	⇑P	**P**	**12 21 43.7**	**+0.4**
	baz=86,SNR=9.3						
T15A	**Red Dirt Ranch**	**85.88**	**48**	⇑P	**P**	**12 21 43.9**	**+0.2**
	baz=86,SNR=29						
L10A	**Juniper Basin**	**85.91**	**42**	⇑P	**P**	**12 21 43.8**	**+0.2**
	baz=86,SNR=41						
119A	**Ashpeak Ranch,**	**85.97**	**53**	⇓P	**P**	**12 21 44.6**	**+0.4**
	baz=86,SNR=14						
M11A	**Holland Ranch,**	**85.98**	**42**	⇑P	**P**	**12 21 44.4**	**+0.4**
	baz=86,SNR=22						
H08A	**Prairie City**	**85.98**	**39**	⇑P	**P**	**12 21 44.1**	**+0.2**
	baz=86,SNR=14						
O12A	**Currie**	**86.01**	**44**	⇑P	**P**	**12 21 44.1**	**-0.1**
	baz=86,SNR=23						
P13A	**Bates Ranch, G**	**86.05**	**45**	⇓P	**P**	**12 21 44.4**	**0.0**
	baz=86,SNR=19						
K10A	**MacKenzie Ranc**	**86.06**	**41**	⇓P	**P**	**12 21 44.5**	**+0.2**
	baz=86,SNR=37						
F07A	**Phinny Hill Vi**	**86.07**	**37**	⇓P	**P**	**12 21 44.4**	**+0.1**
	baz=86,SNR=10						
GYA	**Guiyang**	**86.08**	**300**	⇓*i*P	**P**	**12 21 44.7**	**-0.1**
GYA				pP	pP	12 23 57.9	+0.2
GYA				PP	PP	12 25 20.6	+3.0
GYA				SKS		12 31 11.2	
GYA				S	S	12 31 28.9	+0.5
GYA				sS	sS	12 35 23.6	-1.5
GYA				SS	SS	12 37 29.0	+1.9
GYA				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.5						
GYA				pmax	pmax		
	comp=Z,10µm,10.2s						
W17A	**Winslow**	**86.08**	**50**	⇓P	**P**	**12 21 45.2**	**+0.6**
	baz=86						
N12A	**Clover Valley,**	**86.14**	**43**	⇓P	**P**	**12 21 44.8**	**+0.1**
	baz=86,SNR=34						
C05A	**Tolt Reservoir**	**86.19**	**35**	⇓P	**P**	**12 21 45.1**	**+0.2**
	baz=86,SNR=23						
I09A	**Lost Marbles R**	**86.21**	**40**	⇑P	**P**	**12 21 45.2**	**+0.1**
	baz=86,SNR=22						
COYC	**Coyhaique**	**86.22**	**138**	⇑*i*P	**P**	**12 21 46.5**	**+1.3**
CRAG	**Craig**	**86.23**	**24**	*e*P	**P**	**12 21 45.5**	**+0.7**
	comp=Z,60nm,0.8s,mb5.3						
S15A	**Panguitch**	**86.23**	**47**	⇑P	**P**	**12 21 46.4**	**+1.1**
	baz=86,SNR=24						
Z19A	**T-Link Ranch,**	**86.25**	**52**	⇑P	**P**	**12 21 45.9**	**+0.4**
	baz=86						
G08A	**Pilot Rock**	**86.26**	**38**	⇓P	**P**	**12 21 45.7**	**+0.5**
	baz=86,SNR=39						
NNT	**Nongplab**	**86.29**	**285**	P	**P**	**12 21 48.3**	**+2.2**
	comp=Z,49nm,17.4s						
Q14A	**Sevier Lake (B**	**86.29**	**46**	⇓P	**P**	**12 21 45.8**	**+0.3**
	baz=86,SNR=35						
A04A	**Legoe Bay, Lum**	**86.30**	**34**	⇓P	**P**	**12 21 46.0**	**+0.7**
	baz=86,SNR=8.5						
U16A	**Tuba City**	**86.31**	**49**	⇓P	**P**	**12 21 46.0**	**+0.3**
	baz=86,SNR=52						
B05A	**Bryant**	**86.33**	**34**	⇑P	**P**	**12 21 45.9**	**+0.4**
	baz=86,SNR=16						
D06A	**Cle Elum**	**86.34**	**36**	⇑P	**P**	**12 21 45.8**	**+0.3**
	baz=86,SNR=27						
X18A	**Snowflake**	**86.35**	**51**	⇓P	**P**	**12 21 46.2**	**+0.2**
	baz=86,SNR=22						
JCW	**Jim Creek**	**86.38**	**34**	*e*P	**P**	**12 21 45.8**	**+0.1**
PMR	**Palmer**	**86.38**	**14**	*e*P	**P**	**12 21 41.4**	**-4.0**
PMR				pmax	pmax		
	comp=Z,186nm,1.3s,mb5.6						
PMR	**Palmer**	**86.38**	**14**	*e*P	**P**	**12 21 41.4**	**-4.0**
	comp=Z,186nm,1.3s,mb5.5						
L11A	**Cat Creek Ranc**	**86.40**	**42**	⇓P	**P**	**12 21 46.2**	**+0.3**
	baz=86,SNR=34						
O13A	**Hicks Ranch, I**	**86.43**	**44**	⇑P	**P**	**12 21 46.4**	**+0.2**
	baz=86,SNR=7.4						
T16A	**Glen Canyon Da**	**86.47**	**48**	⇑P	**P**	**12 21 46.8**	**+0.4**
	baz=86,SNR=34						
J10A	**Berg Farm, Mel**	**86.48**	**40**	⇓P	**P**	**12 21 46.6**	**+0.3**
	baz=87,SNR=10						
E07A	**Sunnyside**	**86.50**	**37**	⇓P	**P**	**12 21 46.9**	**+0.5**
	baz=87,SNR=32						
K11A	**Parker Ranch,**	**86.56**	**41**	⇑P	**P**	**12 21 47.2**	**+0.5**
	baz=87,SNR=31						
Y19A	**Nutrioso**	**86.58**	**52**	⇓P	**P**	**12 21 47.6**	**+0.5**
	baz=87,SNR=21						
HAWA	**Hanford**	**86.58**	**37**	*e*P	**P**	**12 21 47.1**	**+0.4**
	comp=Z,80nm,0.8s,mb5.5						
HAWA				*e*pP	pP	12 24 06.8	+6.9
H09A	**Durkee**	**86.65**	**39**	⇑P	**P**	**12 21 47.5**	**+0.4**
	baz=87,SNR=28						
N13A	**Wendover, West**	**86.67**	**44**	⇑P	**P**	**12 21 47.7**	**+0.4**
	baz=87,SNR=15						
WRW	**Wenatchee Ridg**	**86.73**	**35**	P	**P**	**12 21 47.4**	**0.0**
P14A	**Drum Mountains**	**86.75**	**45**	⇑P	**P**	**12 21 47.7**	**+0.1**
	baz=87,SNR=14						
RPW	**Rockport**	**86.75**	**34**	*e*P	**P**	**12 21 47.5**	**0.0**
S16A	**Weppner Ranch,**	**86.78**	**47**	⇑P	**P**	**12 21 47.9**	**0.0**
	baz=87,SNR=17						
MSU	**Marysvale**	**86.78**	**46**	*e*P	**P**	**12 21 48.8**	**+0.9**
W18A	**Petrified Fore**	**86.79**	**50**	⇓P	**P**	**12 21 48.3**	**+0.3**
	baz=87						
B06A	**Marblemount**	**86.81**	**34**	⇑P	**P**	**12 21 47.7**	**-0.1**
	baz=87,SNR=7.6						
D07A	**Quincy**	**86.82**	**36**	⇓P	**P**	**12 21 48.1**	**+0.3**
	baz=87,SNR=19						
I10A	**Payette**	**86.83**	**40**	⇑P	**P**	**12 21 48.6**	**+0.7**
	baz=87,SNR=9.5						
L12A	**House Creek Ra**	**86.85**	**42**	⇓P	**P**	**12 21 48.7**	**+0.6**
	baz=87,SNR=33						
U17A	**Shonto**	**86.86**	**49**	⇓P	**P**	**12 21 48.6**	**+0.3**
	baz=87,SNR=16						
ETW	**Entiat**	**86.87**	**36**	P	**P**	**12 21 48.2**	**+0.2**
Q15A	**Fillmore**	**86.90**	**46**	⇓P	**P**	**12 21 48.8**	**+0.4**
	baz=87,SNR=18						
PPLA	**Purkeypile**	**86.90**	**12**	*e*P	**P**	**12 21 45.5**	**-2.3**
	comp=Z,127nm,1.5s,mb5.4						
E08A	**Dider Farm, El**	**86.91**	**37**	⇑P	**P**	**12 21 48.6**	**+0.4**
	baz=87,SNR=28						
G09A	**Cove**	**86.93**	**38**	⇑P	**P**	**12 21 48.5**	**+0.1**
	baz=87,SNR=33						
V18A	**Ganado**	**86.94**	**50**	⇑P	**P**	**12 21 48.8**	**+0.1**
	baz=87,SNR=18						
T17A	**Navajo Res., N**	**86.96**	**48**	⇓P	**P**	**12 21 49.1**	**+0.4**
	baz=87,SNR=30						
BMO	**Blue Mountains**	**86.97**	**39**	*e*P	**P**	**12 21 48.5**	**-0.1**
BMO				e*PP	pP	12 24 01.3	-0.6
BMO				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.1						
BMO	**Blue Mountains**	**86.97**	**39**	*e*P	**P**	**12 21 48.5**	**0.0**
	comp=Z,31nm,0.8s,mb5.1						
BMO				*e*pP	pP	12 24 01.2	-0.6
M13A	**Montello**	**86.97**	**43**	⇓P	**P**	**12 21 48.6**	**-0.1**
	baz=87,SNR=37						
MFID	**Camas Ranch**	**87.04**	**41**	⇑P	**P**	**12 21 49.0**	**0.0**
	baz=87,SNR=54						
C07A	**Waterville**	**87.07**	**36**	⇑P	**P**	**12 21 48.9**	**-0.1**
	baz=87,SNR=29						
WTV	**Waterville**	**87.13**	**36**	P	**P**	**12 21 49.2**	**-0.1**
NST	**Nakhon Sawan**	**87.14**	**288**	⇑P	**P**	**12 21 52.0**	**+2.0**
	comp=Z,133nm,1.0s,mb5.6						
R16A	**Teasdale**	**87.14**	**47**	⇓P	**P**	**12 21 49.9**	**+0.4**
	baz=87,SNR=10						
VNA3	**Neumayer Olymp**	**87.14**	**177**	*e*P	**P**	**12 21 48.9**	**-0.1**
VNA3				*e*	pP	12 24 01.5	-0.7
SEY	**Seymchan**	**87.14**	**347**	*d* *i*P	**P**	**12 21 48.3**	**-0.7**
SEY	**Seymchan**	**87.14**	**347**	*i* P	**P**	**12 21 48.3**	**-0.7**
H10A	**Noah’s Angus R**	**87.15**	**39**	⇓P	**P**	**12 21 49.4**	**0.0**
	baz=87,SNR=38						
A06A	**Chilliwack**	**87.17**	**34**	⇓P	**P**	**12 21 49.6**	**+0.2**
	baz=87,SNR=36						
K12A	**Draper Farm, C**	**87.19**	**42**	⇑P	**P**	**12 21 50.0**	**+0.3**
	baz=87,SNR=39						
WRAK	**Wrangell Islan**	**87.23**	**24**	*e*P	**P**	**12 21 49.9**	**+0.4**
	comp=Z,97nm,1.0s,mb5.5						
WRAK				*e*pP	pP	12 24 04.9	+2.0
DUG	**Dugway**	**87.23**	**45**	*e*pP	pP	12 23 58.2	-5.0
I11A	**Placerville**	**87.24**	**40**	⇑P	**P**	**12 21 50.1**	**+0.3**
	baz=87,SNR=41						
P15A	**Leamington**	**87.26**	**45**	⇓P	**P**	**12 21 50.2**	**+0.1**
	baz=87,SNR=13						
S17A	**Black Ridge (B**	**87.28**	**48**	⇓P	**P**	**12 21 49.9**	**-0.3**
	baz=87,SNR=25						
TNA	**Tin City**	**87.31**	**5**	*e*P	**P**	**12 21 48.1**	**-1.5**
	comp=Z,96nm,1.3s,mb5.4						
TNA				*e*pP	pP	12 24 01.9	-1.2
TNA				*e*PP	PP	12 25 22.6	-3.9
D08A	**Wollman Farm,**	**87.32**	**37**	⇓P	**P**	**12 21 50.4**	**+0.3**
	baz=87,SNR=49						
PNL	**Peninsula**	**87.32**	**19**	*e*P	**P**	**12 21 48.7**	**-1.1**
	comp=Z,151nm,0.9s,mb5.7						
N14A	**Grayback Hills**	**87.33**	**44**	⇑P	**P**	**12 21 50.1**	**-0.3**
	baz=87,SNR=8.6						
U18A	**Rough Rock, Ch**	**87.33**	**49**	⇓P	**P**	**12 21 50.5**	**+0.1**
	baz=87,SNR=22						
J12A	**Stokes Ranch,**	**87.40**	**41**	⇓P	**P**	**12 21 51.0**	**+0.4**
	baz=88,SNR=71						
E09A	**Wood Farm, Sta**	**87.43**	**37**	⇓P	**P**	**12 21 50.9**	**+0.2**
	baz=88,SNR=9.0						
B07A	**Winthrop**	**87.50**	**35**	⇑P	**P**	**12 21 51.2**	**+0.2**
	baz=88,SNR=45						
MAIT	**Maitri**	**87.56**	**184**	⇑*i*P	**P**	**12 21 50.1**	**-0.9**
MAIT				*e*pP	PcP	12 21 57.1	+4.9
MAIT				*e*PP	pP	12 24 09.0	+4.6
MAIT				*e*S	S	12 31 33.4	-7.3
NVL	**N’lazarevskaya**	**87.56**	**184**	*e*P	**P**	**12 21 50.9**	**-0.1**
NVL				*e*	pP	12 24 05.1	+0.7
NVL				*e*		12 31 38.5	
NVL				pmax	pmax		
	comp=Z,169nm,1.0s,mb5.7						
M14A	**Sheep Mountain**	**87.56**	**43**	⇓P	**P**	**12 21 51.5**	**0.0**
	baz=88,SNR=42						
VNA2	**Neumayer--Watz**	**87.57**	**177**	*e*P	**P**	**12 21 50.9**	**-0.1**
VNA2				*e*	pP	12 24 04.0	-0.4
V19A	**Window Rock**	**87.58**	**50**	⇑P	**P**	**12 21 51.6**	**-0.1**
	baz=88						
NLU	**North Lily Min**	**87.59**	**45**	*e*P	**P**	**12 21 52.3**	**+0.7**
OD2	**Odessa Site #2**	**87.63**	**36**	*e*P	**P**	**12 21 51.6**	**0.0**
H11A	**Donnelly**	**87.64**	**40**	⇓P	**P**	**12 21 52.0**	**+0.2**
	baz=88,SNR=83						
F10A	**Beach Ranch, E**	**87.65**	**38**	⇑P	**P**	**12 21 51.5**	**-0.2**
	baz=88,SNR=48						
D09A	**Jones Farm, Ri**	**87.66**	**37**	⇑P	**P**	**12 21 51.9**	**+0.2**
	baz=88,SNR=44						
Q16A	**Castle Valley**	**87.67**	**46**	⇓P	**P**	**12 21 52.1**	**+0.1**
	baz=88,SNR=28						
C08A	**Higginbotham F**	**87.67**	**36**	⇓P	**P**	**12 21 51.8**	**0.0**
	baz=88,SNR=30						
T18A	**Mexican Hat**	**87.68**	**49**	⇑P	**P**	**12 21 52.2**	**+0.1**
	baz=88,SNR=72						
W20A	**Ramah**	**87.69**	**51**	⇓P	**P**	**12 21 52.5**	**+0.4**
	baz=88,SNR=34						
P16A	**Fountain Green**	**87.69**	**46**	⇓P	**P**	**12 21 52.2**	**+0.1**
	baz=88						
K13A	**Stover Farm, H**	**87.70**	**42**	⇓P	**P**	**12 21 52.3**	**+0.3**
	baz=88,SNR=52						
A07A	**Ashnola River,**	**87.71**	**34**	⇓P	**P**	**12 21 52.1**	**+0.1**
	baz=88,SNR=28						
R17A	**Hanksville Air**	**87.73**	**47**	⇓P	**P**	**12 21 52.0**	**-0.3**
	baz=88,SNR=32						
KTH	**Kantishna Hill**	**87.75**	**12**	*e*P	**P**	**12 21 49.6**	**-2.1**
	comp=Z,130nm,0.9s,mb5.7						
KTH				*e*pP	pP	12 24 03.4	-1.9
XAN	**Xi’an**	**87.77**	**308**	P	**P**	**12 21 53.4**	**+0.8**
XAN				pP	pP	12 24 08.2	+2.0
XAN				SKS		12 31 20.1	
XAN				S	S	12 31 46.9	+3.0
XAN				pmax	pmax		
	comp=Z,230nm,1.0s,mb5.9						
XAN				pmax	pmax		
	comp=Z,590nm,9.3s						
CHUM	**Lake Minchumin**	**87.78**	**12**	*e*P	**P**	**12 21 49.9**	**-2.0**
	comp=Z,140nm,1.0s,mb5.7						
CHUM				*e*pP	pP	12 24 03.9	-1.6
TRF	**Thorofare Moun**	**87.78**	**13**	*e*P	**P**	**12 21 50.0**	**-1.9**
	comp=Z,2.8nm,0.8s						
TRF				*e*pP	pP	12 24 03.3	-2.3
VNA1	**Neumayer--Stat**	**87.80**	**177**	*e*P	**P**	**12 21 52.6**	**+0.5**
VNA1				*e*	pP	12 24 06.8	+1.2
TMUT	**Trail Mountain**	**87.83**	**46**	*e*P	**P**	**12 21 53.5**	**+0.8**
B08A	**Colville Reser**	**87.86**	**35**	⇑P	**P**	**12 21 52.3**	**-0.3**
	baz=88,SNR=44						
S18A	**Hurst Farm, Bl**	**87.86**	**48**	⇓P	**P**	**12 21 52.8**	**-0.1**
	baz=88,SNR=10.0						
L14A	**Malta**	**87.91**	**43**	⇑P	**P**	**12 21 53.1**	**0.0**
	baz=88,SNR=32						
MPU	**Maple Canyon**	**87.91**	**45**	*e*P	**P**	**12 21 53.6**	**+0.5**
NOQ	**North Oquirrh**	**87.92**	**45**	*e*P	**P**	**12 21 53.8**	**+0.7**
HLID	**Hailey**	**87.99**	**41**	*e*P	**P**	**12 21 53.8**	**+0.4**
	comp=Z,42nm,0.9s,mb5.2						
HLID				*e*pP	pP	12 24 06.8	-0.2
E10A	**Myers Farm, Un**	**88.00**	**38**	⇓P	**P**	**12 21 53.2**	**-0.2**
	baz=88,SNR=14						
SPUT	**South Promonto**	**88.04**	**44**	*e*P	**P**	**12 21 54.5**	**+0.8**
J13A	**Cove Ranch, Pi**	**88.05**	**41**	⇑P	**P**	**12 21 54.0**	**+0.3**
	baz=88,SNR=68						
HVU	**Hansel Valley**	**88.07**	**43**	*e*P	**P**	**12 21 54.2**	**+0.4**
O16A	**Springville**	**88.10**	**45**	⇑P	**P**	**12 21 54.2**	**+0.3**
	baz=88,SNR=31						
C09A	**Chrisman Ranch**	**88.11**	**36**	⇑P	**P**	**12 21 53.9**	**+0.1**
	baz=88,SNR=28						
M15A	**Larsen Ranch,**	**88.12**	**44**	⇑P	**P**	**12 21 53.9**	**-0.1**
	baz=88,SNR=19						
T19A	**Beclabito**	**88.12**	**49**	⇓P	**P**	**12 21 54.5**	**+0.3**
	baz=88,SNR=12						
SRU	**San Rafael**	**88.20**	**47**	⇓P	**P**	**12 21 54.5**	**0.0**
	baz=88,SNR=68						
SRU	**San Rafael**	**88.20**	**47**	*e*P	**P**	**12 21 54.4**	**0.0**
K14A	**Jones Ranch, D**	**88.22**	**43**	⇓P	**P**	**12 21 54.8**	**+0.3**
	baz=88,SNR=33						
BPAW	**Bear Paw Mtn.**	**88.23**	**12**	*e*P	**P**	**12 21 51.5**	**-2.5**
	comp=Z,43nm,1.1s,mb5.1						
BPAW				*e*pP	pP	12 24 05.7	-2.0
D10A	**Wagner Farm, O**	**88.23**	**37**	⇑P	**P**	**12 21 54.3**	**-0.1**
	baz=88,SNR=21						
P17A	**Butcher Ranch,**	**88.24**	**46**	⇓P	**P**	**12 21 55.0**	**+0.3**
	baz=88,SNR=21						
H12A	**Diamond D Ranc**	**88.25**	**40**	⇑P	**P**	**12 21 54.8**	**+0.3**
	baz=88,SNR=92						
R18A	**Canyonlands Na**	**88.27**	**47**	⇓P	**P**	**12 21 54.8**	**0.0**
	baz=88,SNR=32						
W21A	**San Fidel**	**88.30**	**51**	⇓P	**P**	**12 21 55.2**	**+0.2**
	baz=88,SNR=7.6						
MCK	**McKinley**	**88.31**	**13**	*e*P	**P**	**12 21 52.7**	**-1.7**
MCK				e*PP	pP	12 24 06.7	-1.5
MCK				pmax	pmax		
	comp=Z,105nm,0.8s,mb5.6						
MCK	**McKinley**	**88.31**	**13**	*e*P	**P**	**12 21 52.7**	**-1.7**
	comp=Z,105nm,0.8s,mb5.6						
MCK				*e*pP	pP	12 24 06.7	-1.5
JLU	**Jordanelle**	**88.33**	**45**	*e*P	**P**	**12 21 55.1**	**0.0**
Y22D	**IRIS PASSCAL I**	**88.35**	**52**	⇑P	**P**	**12 21 55.6**	**+0.4**
	baz=88,SNR=6.9						
LENM	**Lemitar**	**88.35**	**52**	*e*P	**P**	**12 21 55.5**	**+0.2**
I13A	**Wildhorse Cree**	**88.36**	**41**	⇓P	**P**	**12 21 55.4**	**+0.3**
	baz=88,SNR=23						
DAU	**Daniels Canyon**	**88.36**	**45**	*e*P	**P**	**12 21 55.8**	**+0.6**
PAX	**Paxson**	**88.42**	**15**	*e*P	**P**	**12 21 53.3**	**-1.6**
PAX				e*PP	pP	12 24 07.6	-1.2
PAX				pmax	pmax		
	comp=Z,72nm,1.2s,mb5.3						
PAX	**Paxson**	**88.42**	**15**	*e*P	**P**	**12 21 53.3**	**-1.6**
	comp=Z,72nm,1.2s,mb5.3						
PAX				*e*pP	pP	12 24 07.6	-1.1
L15A	**Malad City**	**88.44**	**43**	⇓P	**P**	**12 21 55.6**	**+0.1**
	baz=88,SNR=44						
SKAG	**Skagway**	**88.45**	**21**	*e*P	**P**	**12 21 55.7**	**+0.6**
	comp=Z,149nm,0.9s,mb5.7						
SKAG				*e*pP	pP	12 24 09.8	+0.8
SKAG				*e*sP	PP	12 25 36.8	+1.2
E11A	**Bogner Ranch,**	**88.45**	**38**	⇑P	**P**	**12 21 54.3**	**-1.1**
	baz=88,SNR=16						
Q18A	**Rafter H Ranch**	**88.46**	**47**	⇑P	**P**	**12 21 55.4**	**-0.3**
	baz=88,SNR=47						
N16A	**Rees Ranch, Co**	**88.48**	**45**	⇓P	**P**	**12 21 56.1**	**+0.3**
	baz=89,SNR=30						
S19A	**Harvey Farm, M**	**88.49**	**48**	⇓P	**P**	**12 21 55.6**	**-0.3**
	baz=89,SNR=18						
B09A	**Rice**	**88.53**	**36**	⇑P	**P**	**12 21 55.9**	**+0.1**
	baz=89,SNR=37						
M16A	**Huntsville**	**88.57**	**44**	⇓P	**P**	**12 21 56.4**	**+0.2**
	baz=89,SNR=25						
O17A	**Robinson Place**	**88.60**	**46**	⇑P	**P**	**12 21 57.0**	**+0.7**
	baz=89,SNR=146						
A09A	**Danville**	**88.62**	**35**	⇑P	**P**	**12 21 56.2**	**0.0**
	baz=89,SNR=43						
H13A	**Challis**	**88.62**	**40**	⇑P	**P**	**12 21 56.7**	**+0.4**
	baz=89,SNR=80						
P18A	**Preston Nutter**	**88.64**	**46**	⇑P	**P**	**12 21 56.8**	**+0.3**
	baz=89,SNR=16						
R19A	**Curley Farm, L**	**88.66**	**48**	⇑P	**P**	**12 21 56.4**	**-0.2**
	baz=89,SNR=23						
LPM	**Los Pinos Moun**	**88.67**	**52**	*e*P	**P**	**12 21 56.8**	**0.0**
MVCO	**Mesa Verde**	**88.67**	**49**	⇑P	**P**	**12 21 56.6**	**-0.2**
	baz=89						
MVCO	**Mesa Verde**	**88.67**	**49**	*e*P	**P**	**12 21 56.6**	**-0.1**
	comp=Z,3.2nm,0.5s,mb4.4						
K15A	**Arbon**	**88.70**	**43**	⇑P	**P**	**12 21 56.9**	**+0.2**
	baz=89,SNR=33						
KMI	**Kunming**	**88.70**	**298**	⇓P	**P**	**12 21 58.9**	**+1.8**
KMI				pP	pP	12 24 12.7	+1.7
KMI				sP	sP	12 25 13.6	+0.4
KMI				PP	PP	12 25 40.3	+2.0
KMI				SKS		12 31 27.1	
KMI				S	S	12 31 51.1	-1.7
KMI				sS	sS	12 35 49.3	-2.2
KMI				SS	SS	12 38 06.1	+1.2
KMI				pmax	pmax		
	comp=Z,140nm,1.1s,mb5.7						
KMI				pmax	pmax		
	comp=Z,790nm,6.3s						
TXAR	**Lajitas Array**	**88.72**	**58**	P	**P**	**12 21 57.4**	**+0.3**
TXAR				*PP	pP	12 24 09.0	-2.0
TXAR				pmax	pmax		
	comp=Z,44nm,0.8s						
TXAR	**Lajitas Array**	**88.72**	**58**	P	**P**	**12 21 57.4**	**+0.3**
	comp=Z,44nm,0.8s,mb5.3,baz=217,slow=5.7,SNR=376						
TXAR				pP	pP	12 24 09.0	-2.0
	comp=Z,7.4nm,1.0s,baz=224,slow=5.2,SNR=3.5						
TXAR				PKKPbc	PKKPbc	12 39 34.5	+0.8
	comp=Z,2.1nm,0.6s,baz=157,slow=3.1,SNR=38						
TXAR				SKKP		12 42 00.5	
	comp=Z,1.2nm,0.9s,baz=100,slow=3.7,SNR=4.4						
TXAR	**Lajitas Array**	**88.72**	**58**	P	**P**	**12 21 57.4**	**+0.3**
TXAR				pP	pP	12 24 09.0	-2.0
TXAR				PKKPbc	PKKPbc	12 39 34.5	+0.8
TXAR				SKKP		12 42 00.5	
BDT	**Bhumibol Dam**	**88.75**	**289**	⇑P	**P**	**12 21 59.0**	**+1.5**
	comp=Z,156nm,1.0s,mb5.8						
I14A	**Mackay**	**88.77**	**41**	⇓P	**P**	**12 21 57.7**	**+0.7**
	baz=89,SNR=91						
HYT	**Haines Junctio**	**88.81**	**19**	*e*P	**P**	**12 21 56.4**	**-0.3**
MENT	**Mentasta**	**88.82**	**15**	*e*P	**P**	**12 21 55.6**	**-1.2**
HIA	**Hailar**	**88.84**	**325**	*e*P	**P**	**12 21 56.7**	**-0.5**
HIA				e*PP	pP	12 24 09.8	-1.3
HIA				pmax	pmax		
	comp=Z,80nm,1.0s						
HIA	**Hailar**	**88.84**	**325**	*e*P	**P**	**12 21 56.7**	**-0.5**
	comp=Z,80nm,1.0s,mb5.5						
HIA				*e*pP	pP	12 24 09.8	-1.3
W22A	**Albuquerque**	**88.84**	**51**	⇓P	**P**	**12 21 58.1**	**+0.5**
	baz=89,SNR=7.9						
N17A	**Moffit Pass**	**88.91**	**45**	⇑P	**P**	**12 21 57.8**	**+0.1**
	baz=89,SNR=31						
G13A	**Cobalt**	**88.92**	**40**	⇓P	**P**	**12 21 57.7**	**0.0**
	baz=89,SNR=25						
PV04	**Paradox Valley**	**88.96**	**48**	*e*P	**P**	**12 21 58.2**	**+0.2**
B10A	**Chitwood Farm,**	**88.97**	**36**	⇓P	**P**	**12 21 57.7**	**-0.1**
	baz=89						
Q19A	**Hogan Spring (**	**88.98**	**47**	⇑P	**P**	**12 21 57.8**	**-0.3**
	baz=89,SNR=11						
NEW	**Newport**	**89.01**	**36**	*e*P	**P**	**12 21 57.6**	**-0.4**
NEW				e*PP	pP	12 24 12.5	+0.5
NEW				pmax	pmax		
	comp=Z,11nm,0.8s						
NEW	**Newport**	**89.01**	**36**	*e*P	**P**	**12 21 57.6**	**-0.4**
	comp=Z,11nm,0.8s,mb4.7						
NEW				*e*pP	pP	12 24 12.5	+0.5
L16A	**Fish Haven**	**89.06**	**44**	⇑P	**P**	**12 21 58.2**	**-0.2**
	baz=89,SNR=114						
ANMO	**Albuquerque**	**89.08**	**52**	*e*P	**P**	**12 21 58.6**	**-0.1**
ANMO				e*PP	pP	12 24 12.5	-0.2
ANMO				pmax	pmax		
	comp=Z,22nm,0.8s						
ANMO	**Albuquerque**	**89.08**	**52**	*e*P	**P**	**12 21 58.6**	**-0.1**
	comp=Z,22nm,0.8s,mb5.0						
ANMO				*e*pP	pP	12 24 12.5	-0.2
J15A	**Blackfoot**	**89.13**	**42**	⇓P	**P**	**12 21 59.1**	**+0.5**
	baz=89,SNR=70						
A10A	**Northport**	**89.18**	**36**	⇓P	**P**	**12 21 58.7**	**-0.1**
	baz=89,SNR=14						
HHC	**Hu-ho-hao-te**	**89.20**	**315**	⇓P	**P**	**12 21 59.9**	**+0.8**
HHC				pP	pP	12 24 08.3	-4.8
HHC				sP	sP	12 25 10.5	-4.7
HHC				PP	PP	12 25 44.0	+2.1
HHC				SKS		12 31 30.8	
HHC				S	S	12 31 58.5	+1.9
HHC				sS	sS	12 35 48.5	-7.2
HHC				SS	SS	12 38 14.2	+2.8
HHC				pmax	pmax		
	comp=Z,170nm,0.8s,mb5.9						
HHC				pmax	pmax		
	comp=Z,570nm,4.5s						
R20A	**Redvale**	**89.22**	**48**	⇑P	**P**	**12 21 58.8**	**-0.5**
	baz=89,SNR=13						
F13A	**Darby**	**89.23**	**39**	⇓P	**P**	**12 21 58.7**	**-0.4**
	baz=89,SNR=34						
CMAR	**Chiang Mai Arr**	**89.27**	**290**	P	**P**	**12 22 01.6**	**+1.7**
CMAR				*PP	pP	12 24 11.1	-2.8
CMAR						12 25 36.8	
CMAR				S	SKSac	12 31 33.0	+1.6
CMAR				pmax	pmax		
	comp=Z,200nm,0.9s						
CMAR				smax			
	comp=N,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**89.27**	**290**	P	**P**	**12 22 01.6**	**+1.7**
	comp=N,200nm,0.9s,mb6.0,baz=131,slow=3.2,SNR=655						
CMAR				pP	pP	12 24 11.1	-2.9
	comp=N,6.0nm,1.0s,baz=151,slow=3.3,SNR=3.1						
CMAR				PP	PP	12 25 36.8	-6.1
	comp=N,14nm,0.9s,baz=124,slow=6.5,SNR=4.5						
CMAR				S	SKSac	12 31 33.0	+1.6
	comp=N,0.3nm,0.3s,baz=199,slow=29,SNR=2.7						
CMAR				PKKPbc	PKKPbc	12 39 32.2	+0.2
	comp=N,2.2nm,0.5s,baz=292,slow=4.3,SNR=11						
CMAR				SKKPbc		12 42 12.2	
	comp=N,0.5nm,0.3s,baz=290,slow=3.8,SNR=5.0						
CMAR				PKPPKP		12 47 38.2	
	comp=N,0.8nm,0.9s,baz=268,slow=4.4,SNR=4.5						
M17A	**Scullys Gap (B**	**89.28**	**44**	⇓P	**P**	**12 21 59.2**	**-0.2**

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      baz=89,SNR=26
K16A  Soda Springs      89.37  43 ⇓P        P         12 22 00.2 +0.4
      baz=89,SNR=73
S21A  Coal Bank Pass    89.38  49 ⇑P        P         12 21 59.9 -0.1
      baz=90,SNR=21
I15A  Monteview         89.41  42 ⇑P        P         12 22 00.6 +0.7
      baz=90
CHTO  Chiang Mai        89.41 290 eP        P         12 22 01.9 +1.4
CHTO                              e*PP      pP        12 24 10.9 -3.7
CHTO                               pmax     pmax
      comp=Z,255nm,0.9s,mb6.0
CHTO  Chiang Mai        89.41 290 eP        P         12 22 01.9 +1.4
      comp=Z,254nm,0.9s,mb6.0
CHTO                              epP       pP        12 24 10.9 -3.7
GDL2  Guadalupe Moun    89.42  55 eP        P         12 22 00.6 +0.3
PLCA  Paso Flores       89.45 134  P        P         12 22 01.3 +0.9
      comp=Z,88nm,1.0s,mb5.5,baz=234,slow=4.9,SNR=128
PLCA                               pP       pP        12 24 13.0 -1.4
      comp=Z,9.4nm,1.0s,baz=216,slow=11,SNR=4.8
PLCA                               PP       PP        12 25 40.5 -2.6
      comp=Z,9.4nm,1.1s,baz=219,slow=5.6,SNR=3.0
PLCA                               S        SKSac     12 31 33.7 +1.8
      comp=Z,0.8nm,1.0s,baz=132,slow=21,SNR=2.2
PLCA                               PKKPbc   PKKPbc    12 39 32.2 -0.1
      comp=Z,1.9nm,0.6s,baz=339,slow=3.5,SNR=4.7
PLCA                               PKPPKP             12 47 40.9
      comp=Z,1.9nm,1.0s,baz=100,slow=5.5,SNR=3.6
PLCA  Paso Flores       89.45 134 eP        P         12 22 01.3 +0.9
      comp=Z,110nm,1.0s,mb5.6
PLCA                              epP       pP        12 24 13.3 -1.1
PLCA                              ePP       PP        12 25 44.0 +0.9
L17A  Cokeville         89.46  44 ⇓P        P         12 21 59.7 -0.6
      baz=90,SNR=29
G14A  Jackson           89.46  40 ⇑P        P         12 22 00.6 +0.5
      baz=90,SNR=11
P19A  Cripple Cowboy    89.50  47 ⇓P        P         12 22 00.6 +0.1
      baz=90,SNR=7.8
COLA  College           89.55  13 eP        P         12 21 57.0 -3.1
COLA                              e*PP      pP        12 24 11.8 -2.5
COLA                              e                   12 25 40.3
COLA                               pmax     pmax
      comp=Z,197nm,1.1s,mb5.8
COLA  College           89.55  13 eP        P         12 21 57.0 -3.1
      comp=Z,197nm,1.1s,mb5.8
COLA                              epP       pP        12 24 11.8 -2.4
COLA                              ePP       PP        12 25 40.3 -3.8
DLBC  Dease Lake        89.55  24 eP        P         12 22 00.3  0.0
C12B  Naegeli Ranch,    89.61  37 ⇑P        P         12 22 00.7 -0.1
      baz=90,SNR=32
H15A  Lima              89.63  41 ⇑P        P         12 22 01.5 +0.5
      baz=90,SNR=39
Q20A  Ridgley Place,    89.64  48 ⇑P        P         12 22 00.9 -0.3
      baz=90,SNR=25
AHID  Auburn Hatcher    89.64  43 eP        P         12 22 01.1  0.0
M18A  Lyman             89.65  45 ⇓P        P         12 22 01.1  0.0
      baz=90,SNR=81
E13A  Victor            89.67  39 ⇑P        P         12 22 00.2 -0.9
      baz=90,SNR=8.2
O19A  Miners Draw (B    89.72  46 ⇓P        P         12 22 01.2 -0.3
      baz=90,SNR=12
K17A  Gardner Place,    89.75  43 ⇑P        P         12 22 01.8 +0.3
      baz=90,SNR=40
RRI2  Red Ridge         89.80  43 epP       pP        12 24 16.6 +0.6
      comp=Z,44nm,1.3s
A11A  Hall Mountain,    89.81  36 ⇓P        P         12 22 02.1 +0.4
      baz=90,SNR=27
F14A  Wisdom            89.81  40 ⇑P        P         12 22 01.7 -0.1
      baz=90,SNR=18
P20A  De Beque          89.84  47 ⇑P        P         12 22 01.8 -0.3
      baz=90,SNR=45
D13A  Huson             89.86  38 ⇑P        P         12 22 01.6 -0.3
      baz=90,SNR=11
R21A  Cimarron          89.88  48 ⇑P        P         12 22 02.6 +0.3
      baz=90,SNR=40
L18A  Fontenelle, Gr    89.91  44 ⇓P        P         12 22 02.0 -0.3
      baz=90,SNR=17
I16A  Newdale           89.96  42 ⇑P        P         12 22 03.3 +0.7
      baz=90,SNR=15
N19A  John Jarvie Ra    89.97  46 ⇓P        P         12 22 02.1 -0.5
      baz=90,SNR=32
BILL  Bilibino          89.99 355⇑eP        P         12 22 01.1 -1.0
BILL                              e*PP      pP        12 24 14.7 -1.6
BILL                              e                   12 25 47.8
BILL                              e                   12 31 32.6
BILL                               pmax     pmax
      comp=Z,103nm,0.7s,mb5.8
BILL  Bilibino          89.99 355 eP        P         12 22 01.1 -1.0
      comp=Z,116nm,0.9s,mb5.7
BILL                              epP       pP        12 24 14.9 -1.5
G15A  Dillon            90.01  41 ⇓P        P         12 22 02.8 +0.1
      baz=90,SNR=41
MSO   Missoula          90.02  39 eP        P         12 22 01.8 -0.9
DLMT  Dillon            90.04  40 eP        P         12 22 03.1 +0.3
DLMT                              epP       pP        12 24 19.1 +2.0
E14A  Clinton           90.06  39 ⇓P        P         12 22 02.6 -0.3
      baz=90,SNR=21
BSMT  Bassoo Peak       90.08  37 eP        P         12 22 02.7 -0.3
Q21A  Lamborn Mesa,     90.08  48 ⇑P        P         12 22 03.3  0.0
      baz=90,SNR=9.9
REDW  Red Top Meadow    90.10  43 eP        P         12 22 03.1  0.0
      comp=Z,36nm,0.8s,mb5.2
REDW                              epP       pP        12 24 17.9 +0.5
BTO   Baotou            90.10 314 eP        P         12 22 03.6 +0.3
C13A  Hot Springs       90.11  38 ⇓P        P         12 22 02.4 -0.7
      baz=90,SNR=7.3
A12A  Yaak River Ran    90.19  36 ⇑P        P         12 22 03.5  0.0
      baz=90,SNR=30
J17A  Brown Place, J    90.19  43 ⇓P        P         12 22 03.8 +0.2
      baz=90,SNR=56
SNOW  Snow King Moun    90.21  43 eP        P         12 22 04.0 +0.3
      comp=Z,44nm,0.8s,mb5.3
O20A  White River Ci    90.24  47 ⇓P        P         12 22 03.7 -0.2
      baz=90,SNR=17
K18A  Toltan Ranch,     90.26  44 ⇓P        P         12 22 04.3 +0.4
      baz=90,SNR=50
M19A  Rock Springs      90.28  45 ⇓P        P         12 22 03.9 -0.1
      baz=90,SNR=18
CD2   Chengdu           90.30 303  P        P         12 22 05.2 +0.8
CD2                                pP       pP        12 24 16.3 -2.4
CD2                                sP       sP        12 25 14.6 -6.0
CD2                                PP       PP        12 25 53.2 +2.5
CD2                                SKS                12 31 35.7
CD2                                S        S         12 32 09.3 +2.4
CD2                                sS       sS        12 35 59.3 -7.5
CD2                                SS       SS        12 38 31.3 +3.8
CD2                                pmax     pmax
      comp=Z,80nm,1.1s,mb5.5
CD2                                pmax     pmax
      comp=Z,620nm,10.6s
JTMT  Jette             90.31  38 eP        P         12 22 03.3 -0.7
SWMT  Swartz Lake       90.35  38 eP        P         12 22 03.4 -0.8
F15A  Butte             90.35  40 ⇑P        P         12 22 04.1 -0.2
      baz=90,SNR=10.0
LRM   Limekiln Ridge    90.37  40 eP        P         12 22 04.7 +0.3
LOHW  Long Hollow       90.38  43 eP        P         12 22 04.8 +0.3
      comp=Z,12nm,0.7s,mb4.8
D14A  Greenough         90.40  39 ⇓P        P         12 22 03.5 -1.0
      baz=90,SNR=13
L19A  Farson            90.44  44 ⇓P        P         12 22 04.7  0.0
      baz=90,SNR=91
G16A  Moss Hill, Enn    90.45  41 ⇓P        P         12 22 04.8 +0.1
      baz=90,SNR=22
P21A  Newcastle         90.49  47 ⇑P        P         12 22 05.0 -0.1
      baz=91,SNR=12
H16A  Russell Place,    90.53  41 ⇑P        P         12 22 05.9 +0.8
      baz=91,SNR=44
I17A  Pilgrim Ck.       90.55  42 ⇑P        P         12 22 05.9 +0.7
      baz=91,SNR=17
J18A  Kendall Valley    90.56  43 ⇓P        P         12 22 05.6 +0.4
      baz=91,SNR=131
N20A  Spence Gulch,     90.56  46 ⇑P        P         12 22 05.4 +0.1
      baz=91,SNR=34
Q22A  Crested Butte,    90.56  48 ⇑P        P         12 22 05.5 +0.1
      baz=91,SNR=25
E15A  Deer Lodge        90.57  39 ⇓P        P         12 22 04.8 -0.5
      baz=91,SNR=9.5
BW06  Boulder Array     90.63  44 ⇑P        P         12 22 05.4 -0.3
      baz=91,SNR=30
BW06  Boulder Array     90.63  44 eP        P         12 22 05.1 -0.5
PDAR  Pinedale Array    90.63  44  P        P         12 22 05.0 -0.6
      comp=Z,16nm,0.7s,mb5.0,baz=201,slow=3.1,SNR=126
PDAR                               pP       pP        12 24 17.9 -2.2
      comp=Z,3.5nm,1.1s,baz=310,slow=1.2,SNR=3.7
PDAR                               PKKPbc   PKKPbc    12 39 29.2 -0.3
      comp=Z,0.7nm,0.8s,baz=72,slow=4.8,SNR=6.0
PDAR                               PKPPKP             12 47 38.5
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      comp=Z,0.7nm,1.0s,baz=110,slow=3.9,SNR=4.4
YFT   Old Faithful      90.66  42 eP        P         12 22 07.5 +1.7
BOZ   Bozeman (W)       90.77  40 eP        P         12 22 05.9 -0.3
BOZ                               e                   12 25 51.5
BOZ                                pmax     pmax
      comp=Z,13nm,0.7s,mb5.0
BOZ   Bozeman (W)       90.77  40 ⇑P        P         12 22 06.4 +0.2
      baz=91,SNR=32
BOZ   Bozeman (W)       90.77  40 eP        P         12 22 05.9 -0.3
      comp=Z,13nm,0.7s,mb5.0
BOZ                               epP       pP        12 24 22.4 +1.8
BOZ                               ePP       PP        12 25 51.5 -2.6
H17A  Grant Village     90.79  42 ⇓P        P         12 22 07.6 +1.3
      baz=91,SNR=13
O21A  Pagoda            90.80  47 ⇑P        P         12 22 06.2 -0.3
      baz=91
DAWY  Dawson            90.86  16 eP        P         12 22 05.4 -0.8
DAWY                              epP       pP        12 24 19.5 -1.1
EFI   East Falkland     90.86 148 eP        P         12 22 06.9 +0.3
EFI                                pmax     pmax
      comp=Z,145nm,1.0s,mb5.9
EFI   East Falkland     90.86 148 eP        P         12 22 06.9 +0.2
      comp=Z,145nm,1.0s,mb5.9
YNR   Norris Junctio    90.89  42 eP        P         12 22 11.4 +4.6
M20A  Sweetwater, Wa    90.92  45 ⇓P        P         12 22 07.3 +0.3
      baz=91,SNR=34
I18A  Diamond G Ranc    90.92  43 ⇑P        P         12 22 07.0 +0.1
      baz=91
D15A  Lincoln           90.96  39 ⇓P        P         12 22 06.9 -0.1
      baz=91,SNR=15
NRGR  Nerungri          90.96 333 eP        P         12 22 07.0 +0.2
NRGR                               S        SKSac     12 31 39.0 -0.3
NRGR                               smax
      comp=N,69nm,1.0s
EGAK  Eagle             90.99  15 eP        P         12 22 05.5 -1.2
      comp=N,68nm,1.0s,mb5.5
EGAK                              eP                  12 22 05.8
CLNS  Chul'man          91.01 333 eP        P         12 22 06.8 -0.2
CLNS                               pmax     pmax
      comp=Z,61nm,1.1s,mb5.4
CLNS                               pmax     pmax
      comp=E,16nm,1.3s
CLNS                               pmax     pmax
      comp=N,32nm,1.3s
N21A  Black Mountain    91.02  46 ⇓P        P         12 22 07.5 +0.1
      baz=91,SNR=45
SDCO  Great Sand Dun    91.04  50 eP        P         12 22 07.4 -0.2
      comp=N,17nm,0.9s,mb5.0
SDCO                              epP       pP        12 24 22.9 +0.8
SDCO                              ePP       PP        12 25 53.1 -3.2
L20A  Wamsutter         91.06  45 ⇑P        P         12 22 07.8 +0.1
      baz=91,SNR=80
K19A  Absolon Red Bu    91.12  44 ⇓P        P         12 22 07.2 -0.7
      baz=91,SNR=19
G17A  Pierce Place,     91.15  41 ⇑P        P         12 22 08.2 +0.3
      baz=91,SNR=5.5
COLD  Coldfoot          91.18  11 eP        P         12 22 06.8 -0.8
      comp=N,64nm,1.1s,mb5.5
COLD                              epP       pP        12 24 21.5 -0.6
COLD                              esP       sP        12 25 11.9  -12
COLD                              ePP       PP        12 25 52.5 -4.2
HRY   Holter Researc    91.19  40 eP        P         12 22 08.0 -0.1
E16A  East Helena       91.19  40 ⇓P        P         12 22 07.9 -0.2
      baz=91,SNR=9.8
WALA  Waterton Lakes    91.22  37 epP       pP        12 24 24.1 +1.5
CMIG  Matias Romero     91.23  72  S        SKSac     12 31 43.6 +1.1
      comp=N,0.6nm,0.3s,baz=104,slow=9.2,SNR=3.1
C15A  Salmond Ranch,    91.29  38 ⇓P        P         12 22 07.8 -0.7
      baz=91,SNR=11
K20A  Yellowstone Ra    91.37  44 ⇑P        P         12 22 08.1 -0.9
      baz=91,SNR=14
A14A  Double T Ranch    91.45  37 ⇑P        P         12 22 08.9 -0.3
      baz=92,SNR=27
F17A  Fitzpatrick Pl    91.49  41 ⇑P        P         12 22 09.6 +0.1
      baz=92,SNR=9.4
D16A  Dana Ranch, Ca    91.52  39 ⇑P        P         12 22 09.5 -0.1
      baz=92,SNR=10.0
B15A  Bradely Ranch,    91.59  38 ⇑P        P         12 22 08.6 -1.3
      baz=92,SNR=18
E17A  Martinsdale       91.65  40 ⇓P        P         12 22 10.0 -0.2
      baz=92
L21A  Rawlins           91.68  45 ⇓P        P         12 22 10.0 -0.5
      baz=92
N22A  Wattenberg Ran    91.76  47 ⇑P        P         12 22 11.0 +0.1
      baz=92,SNR=17
C16A  Fuhringer Ranc    91.80  39 ⇓P        P         12 22 10.5 -0.4
      baz=92,SNR=13
A15A  Johnson Ranch,    91.84  37 ⇑P        P         12 22 10.4 -0.7
      baz=92,SNR=18
G18A  Lazy EL Ranch,    91.87  41 ⇑P        P         12 22 11.4 +0.2
      baz=92,SNR=7.8
ISCO  Idaho Springs     91.88  48 eP        P         12 22 11.3 -0.2
ISCO                               pmax     pmax
      comp=Z,8.0nm,0.8s,mb4.8
ISCO  Idaho Springs     91.88  48 eP        P         12 22 11.3 -0.1
      comp=Z,8.1nm,0.8s,mb4.8
ISCO                              epP       pP        12 24 32.4 +6.5
M22A  Cedar Creek Ra    91.94  46 ⇓P        P         12 22 11.4 -0.3
      baz=92,SNR=25
RLMT  Red Lodge         91.96  42 ⇓P        P         12 22 11.8 +0.1
      baz=92,SNR=16
RLMT  Red Lodge         91.96  42 eP        P         12 22 11.4 -0.2
      comp=Z,9.9nm,0.9s,mb4.8
RLMT                              epP       pP        12 24 31.7 +5.5
F18A  Big Timber        92.06  41 ⇓P        P         12 22 12.3 +0.1
      baz=92,SNR=8.7
D17A  Six Diamond Ra    92.09  40 ⇓P        P         12 22 12.3 +0.1
      baz=92,SNR=28
B16A  M & M Farms, S    92.13  38 ⇑P        P         12 22 11.7 -0.7
      baz=92,SNR=16
JCT   Junction City     92.25  58 eP        P         12 22 12.2 -1.2
JCT                                pmax     pmax
      comp=Z,18nm,0.6s,mb5.3
JCT   Junction City     92.25  58 eP        P         12 22 12.2 -1.2
      comp=Z,18nm,0.6s,mb5.3
E18A  Harlowton         92.27  40 ⇑P        P         12 22 13.3 +0.2
      baz=92,SNR=9.1
C17A  Wharram Farm,     92.29  39 ⇑P        P         12 22 12.9 -0.3
      baz=92,SNR=40
LZH   Lanzhou           92.41 308 ⇑P        P         12 22 15.1 +1.1
LZH                                pP       pP        12 24 28.3 -0.2
LZH                                sP       sP        12 25 30.3 -0.1
LZH                                PP       PP        12 26 09.0 +2.1
LZH                                SKS                12 31 47.1
LZH                                S        S         12 32 26.0 +0.8
LZH                                SS       SS        12 38 59.8 +2.6
LZH                                pmax     pmax
      comp=Z,200nm,1.0s,mb6.1
LZH                                pmax     pmax
      comp=Z,600nm,4.2s
A16A  West Butte Ran    92.47  38 ⇑P        P         12 22 13.7 -0.2
      baz=92,SNR=47
B17A  L&G Farms, Che    92.59  38 ⇓P        P         12 22 14.1 -0.4
      baz=93,SNR=24
D18A  Linhart Farms,    92.64  40 ⇓P        P         12 22 14.9 +0.2
      baz=93,SNR=8.9
YAK   Yakutsk           92.64 339 i P       P         12 22 12.9 -1.5
YAK                               e*PP      pP        12 24 25.4 -3.6
YAK                               e                   12 26 09.5
YAK                               eS        SKSac     12 31 44.2 -4.1
YAK                                pmax     pmax
      comp=E,30nm,1.1s
YAK                                pmax     pmax
      comp=Z,145nm,0.8s,mb6.1
YAK                                pmax     pmax
      comp=N,35nm,1.5s
YAK                                pmax     pmax
      comp=N,129nm,2.0s
YAK                                pmax     pmax
      comp=Z,573nm,5.0s
YAK                                pmax     pmax
      comp=E,124nm,1.8s
YAK                                smax
      comp=N,482nm,2.2s
YAK                                smax
      comp=E,195nm,1.8s
YAK   Yakutsk           92.64 339 i P       P         12 22 12.9 -1.5
PHWY  Pilot Hill        92.65  46 eP        P         12 22 14.4 -0.5
      comp=E,9.7nm,0.9s,mb4.8
PHWY                              epP       pP        12 24 30.9 +1.3
PHWY                              ePP       PP        12 26 06.1 -2.5
A17A  Triple J Farms    92.98  38 ⇓P        P         12 22 16.0 -0.3
      baz=93,SNR=34
EGMT  Eagleton          93.07  39 ⇓P        P         12 22 16.2 -0.5
      baz=93,SNR=8.4
EGMT  Eagleton          93.07  39 eP        P         12 22 16.3 -0.4
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      comp=E,14nm,1.0s,mb4.9
EGMT                              epP       pP        12 24 33.1 +1.8
EGMT                              ePP       PP        12 26 07.8 -3.9
B18A  Beardsley Farm    93.24  39 ⇑P        P         12 22 17.1 -0.4
      baz=93,SNR=22
A18A  Metzger Ranch,    93.45  38 ⇑P        P         12 22 17.9 -0.5
      baz=94,SNR=17
EDM   Edmonton          93.72  33 eP        P         12 22 18.3 -1.2
TLL   Tololo Astrono    94.23 125⇑iP        P         12 22 22.6 +0.1
LAO   LASA Array        94.57  41 eP        P         12 22 23.5 -0.1
      comp=E,21nm,0.8s,mb5.3
LAO                               epP       pP        12 24 40.9 +2.6
RSSD  Black Hills       94.83  44 eP        P         12 22 23.9 -0.9
RSSD                              e*PP      pP        12 24 39.2 -0.4
RSSD                               pmax     pmax
      comp=Z,16nm,0.8s,mb5.2
RSSD  Black Hills       94.83  44 eP        P         12 22 23.9 -0.9
      comp=Z,16nm,0.8s,mb5.2
RSSD                              epP       pP        12 24 39.2 -0.3
LCO   Las Campanas      94.85 124 eP        P         12 22 25.6 +0.2
      comp=Z,18nm,0.6s,mb5.4
LCO                               epP       pP        12 24 38.7 -1.3
LCO   Las Campanas      94.85 124⇑iP        P         12 22 25.6 +0.2
CFAA  Coronel Fontan    95.49 127  P        P         12 22 27.9 -0.3
      comp=Z,5.6nm,0.9s,mb4.7,baz=246,slow=3.7,SNR=64
CFAA                               pP       pP        12 24 40.8 -2.1
      comp=Z,1.5nm,1.2s,baz=206,slow=4.4,SNR=2.9
CFAA                               PP       PP        12 26 24.0 -5.8
      comp=Z,1.2nm,0.9s,baz=236,slow=8.0,SNR=11
CFAA                               S        SKSac     12 32 03.0 -2.1
      comp=Z,0.1nm,0.3s,baz=209,slow=23,SNR=9.8
CFAA                               PKKP     PKKPbc    12 39 12.7 -4.1
      comp=Z,0.3nm,0.3s,baz=59,slow=3.0,SNR=3.2
CFAA  Coronel Fontan    95.49 127  P        P         12 22 27.9 -0.3
CFAA                               pP       pP        12 24 40.8 -2.1
CFAA                               PP       PP        12 26 24.0 -5.8
CFAA                               S        SKSac     12 32 03.0 -2.2
CFAA                               PKKP     PKKPbc    12 39 12.7 -4.1
SONM  Songino Array     95.73 319  P        P         12 22 27.7 -1.1
SONM                               *PP      pP        12 24 41.3 -2.3
SONM                                                  12 26 24.8
SONM                               S        SKSac     12 32 03.4 -1.9
SONM                               pmax     pmax
      comp=Z,15nm,0.9s
SONM                               smax
      comp=N,3.0nm,1.0s
SONM  Songino Array     95.73 319  P        P         12 22 27.7 -1.1
      comp=N,15nm,0.9s,mb5.2,baz=120,slow=3.5,SNR=55
SONM                               pP       pP        12 24 41.3 -2.3
      comp=N,2.9nm,1.0s,baz=105,slow=2.5,SNR=2.5
SONM                               PP       PP        12 26 24.8 -7.2
      comp=N,9.1nm,0.8s,baz=136,slow=6.0,SNR=3.6
SONM                               PKiKP    PKiKP     12 27 03.4 -0.5
      comp=N,4.7nm,0.9s,baz=36,slow=1.5,SNR=6.5
SONM                               S        SKSac     12 32 03.4 -1.8
      comp=N,3.2nm,1.0s,baz=144,slow=2.8,SNR=9.7
SONM                               PKKPbc   PKKPbc    12 39 15.6 -1.0
      comp=N,3.7nm,0.9s,baz=272,slow=2.6,SNR=14
SONM                               PKPPKP             12 47 27.0
      comp=N,0.4nm,0.8s,baz=180,slow=1.5,SNR=3.6
SONM  Songino Array     95.73 319  P        P         12 22 27.7 -1.1
SONM                               pP       pP        12 24 41.3 -2.3
SONM                               PP       PP        12 26 24.8 -7.2
BOD   Bodaibo           96.39 330 eP        P         12 22 27.8 -3.7
BOD                               e         pP        12 24 40.5 -5.9
BOD                                pmax     pmax
      comp=Z,13nm,1.5s,mb4.9
DGMT  Dagmar            96.58  40 ⇑P        P         12 22 32.5 -0.1
      baz=97,SNR=9.3
DGMT  Dagmar            96.58  40 eP        P         12 22 32.6  0.0
      comp=Z,20nm,0.8s,mb5.4
DGMT                              epP       pP        12 24 47.9 +0.4
GTA   Gaotai            96.67 310  P        P         12 22 33.4 +0.2
GTA                                pP       pP        12 24 45.2 -3.0
GTA                                sP       sP        12 25 42.0 -7.9
GTA                                SKS                12 32 05.8
GTA                                S        S         12 32 59.1 -2.4
GTA                                pmax     pmax
      comp=Z,37nm,1.7s,mb5.3
GTA                                pmax     pmax
      comp=Z,350nm,9.2s
ATAH  Atahualpa         97.57 101  P        Pdif      12 22 39.4 +2.3
      comp=Z,4.5nm,0.7s,baz=274,slow=5.6,SNR=8.1
ATAH                               pP       pP        12 24 50.8 -2.1
      comp=Z,4.4nm,0.8s,baz=40,slow=5.5,SNR=2.1
JTS   JuntasAbangare    97.79  82⇑eP        Pdif      12 22 38.7 +0.6
SHL   Shillong          97.96 294⇓iP        Pdif      12 22 40.0 +1.1
SHL                               ex        x         12 25 46.0
SHL                               ex        x         12 32 16.5
KSU1  Kansas State U    97.97  51 ePdif     Pdif      12 22 39.4 +0.5
YKA   Yellowknife Ar    98.04  25  P        Pdif      12 22 37.2 -2.0
YKA                                *PP      pP        12 24 49.8 -4.1
YKA                                pmax     pmax
      comp=Z,4.0nm,0.8s
YKA   Yellowknife Ar    98.04  25  P        Pdif      12 22 37.2 -2.0
      comp=Z,3.9nm,0.8s,baz=246,slow=4.5,SNR=48
YKA                                pP       pP        12 24 49.8 -4.1
      comp=Z,1.9nm,1.1s,baz=254,slow=7.0,SNR=2.0
YKA                                PP       PP        12 26 42.1 -6.9
      comp=Z,7.1nm,1.1s,baz=240,slow=7.3,SNR=9.3
YKA                                PKiKP    PKiKP     12 27 06.6 -0.9
      comp=Z,0.5nm,0.4s,baz=254,slow=1.1,SNR=6.2
YKA                                PKKPbc   PKKPbc    12 39 08.4 -2.4
      comp=Z,0.7nm,0.5s,baz=40,slow=2.3,SNR=11
YKA                                SKKPbc             12 41 56.1
      comp=Z,2.3nm,1.0s,baz=51,slow=4.8,SNR=15
YKA                                PKPPKP             12 47 25.2
      comp=Z,0.1nm,0.3s,baz=37,slow=1.8,SNR=4.4
YKA   Yellowknife Ar    98.04  25  P        Pdif      12 22 37.2 -2.0
YKA                                pP       pP        12 24 49.8 -4.1
YKA                                PP       PP        12 26 42.1 -6.9
ZAK   Zakamensk         98.65 321⇑iP        Pdif      12 22 39.4 -2.6
ZAK                               e                   12 32 19.1
ZAK                                pmax     pmax
      comp=Z,8.0nm,1.1s,mb5.0
IRK   Irkutsk           98.83 323 eP        Pdif      12 22 39.4 -3.3
IRK                               eS        SKSac     12 32 19.5 -1.1
IRK                                pmax     pmax
      comp=Z,20nm,1.7s,mb5.2
TLY   Talaya            98.96 322 eP        Pdif      12 22 41.6 -1.7
TLY                               eS        SKSac     12 32 23.1 +1.8
TLY                                pmax     pmax
      comp=Z,12nm,1.1s,mb5.1
TLY   Talaya            98.96 322⇓eP        Pdif      12 22 41.8 -1.5
TLY   Talaya            98.96 322  P        Pdif      12 22 42.1 -1.2
      SNR=7.3
TLY                                P                  12 22 42.1
      SNR=7.3
LVC   Limon Verde       99.26 119  P        Pdif      12 22 46.9 +2.3
      comp=Z,7.5nm,0.9s,baz=186,slow=1.6,SNR=6.4
LVC                                PP       PP        12 26 59.4 +1.0
      comp=Z,13nm,1.2s,baz=266,slow=6.3,SNR=6.0
LVC                                S        SKSac     12 32 24.7 +0.3
      comp=Z,1.7nm,0.7s,baz=148,slow=20,SNR=2.5
LVC                                PKKPbc   PKKPbc    12 39 06.7 +0.3
      comp=Z,6.0nm,0.6s,baz=323,slow=0.6,SNR=8.2
LVC   Limon Verde       99.26 119  P        Pdif      12 22 46.9 +2.3
LVC                                PP       PP        12 26 59.4 +1.0
LVC                                S        SKSac     12 32 24.7 +0.3
LVC                                PKKPbc   PKKPbc    12 39 06.7 +0.3
TIXI  Tiksi             99.47 345 eP        Pdif      12 22 42.8 -2.8
TIXI                               pmax     pmax
      comp=Z,14nm,1.4s,mb5.1
TIXI  Tiksi             99.47 345⇓iP        Pdif      12 22 42.9 -2.7
LSA   Lhasa             99.95 298 eP        Pdif      12 22 49.3 +1.6
LSA                                pmax     pmax
      comp=Z,6.0nm,0.4s,mb5.3
LSA   Lhasa             99.95 298 ePdif     Pdif      12 22 49.3 +1.6
      comp=Z,6.0nm,0.4s
MOY   Mondy            100.48 321 eP        Pdif      12 22 48.9 -1.2
PALK  Pallekele        101.83 273 i P       Pdif      12 22 59.2 +3.1
TAPN  Taplejung        102.08 295 eP        Pdif      12 22 56.9 -0.3
      comp=Z,15nm,0.8s
ODAN  Odare            102.20 294 eP        Pdif      12 22 57.7  0.0
ULM   Lac du Bonnet    102.29  41 pP                  12 25 10.3
      comp=Z,0.9nm,0.5s,baz=87,slow=3.1,SNR=1.3
ULM                                PKiKP    PKiKP     12 27 14.2 -1.4
      comp=Z,7.0nm,0.9s,baz=266,slow=6.5,SNR=7.5
RAMN  Ramite           102.89 294 eP        Pdif      12 23 01.1 +0.3
      comp=Z,14nm,0.7s
RAMN  Ramite           102.89 294 eP        PKiKP     12 27 16.8 -0.6
      comp=Z,196nm,1.3s
JIRN  Jiri             103.46 295 eP        Pdif      12 23 03.3  0.0
JIRN  Jiri             103.46 295 eP        PKiKP     12 27 17.0 -1.4
GUN   Gumba            103.79 295 eP        Pdif      12 23 04.5 -0.3
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	comp=Z,30nm,0.8s						
GUN	**Gumba**	**103.79**	**295**	*e*P	PKiKP	12 27 17.7	-1.3
	comp=Z,172nm,1.2s						
PKI	**Pulchoki**	**104.09**	**294**	*e*P	Pdif	12 23 06.6	+0.5
	comp=Z,24nm,0.8s						
PKI	**Pulchoki**	**104.09**	**294**	*e*P	PKiKP	12 27 18.0	-1.6
PKIN	**Phulchoki**	**104.10**	**294**	*e*P	Pdif	12 23 06.6	+0.4
	comp=Z,9.7nm,0.5s						
PKIN	**Phulchoki**	**104.10**	**294**	*e*P	PKiKP	12 27 18.4	-1.2
KKN	**Kakani**	**104.27**	**294**	*e*P	Pdif	12 23 07.4	+0.5
	comp=Z,25nm,0.7s						
KKN	**Kakani**	**104.27**	**294**	*e*P	PKiKP	12 27 18.8	-1.1
DMN	**Daman**	**104.36**	**294**	*e*P	Pdif	12 23 08.0	+0.7
	comp=Z,43nm,0.8s						
DMN	**Daman**	**104.36**	**294**	*e*P	PKiKP	12 27 18.9	-1.2
	comp=Z,214nm,1.4s						
GKN	**Gorkha**	**104.87**	**295**	*e*P	Pdif	12 23 09.5	-0.1
	comp=Z,16nm,0.5s						
GKN	**Gorkha**	**104.87**	**295**	*e*P	PKiKP	12 27 19.4	-1.6
	comp=Z,190nm,1.4s						
KOLN	**Koldanda**	**105.69**	**294**	*e*P	Pdif	12 23 13.7	+0.5
	comp=Z,30nm,0.8s						
KOLN	**Koldanda**	**105.69**	**294**	*e*P	PKiKP	12 27 21.2	-1.3
DANN	**Dangsing**	**105.71**	**295**	*e*P	Pdif	12 23 13.3	0.0
	comp=Z,24nm,0.9s						
DANN	**Dangsing**	**105.71**	**295**	*e*P	PKiKP	12 27 21.5	-1.1
PYUN	**Piuthan**	**106.30**	**294**	*e*P	Pdif	12 23 15.8	-0.1
PYUN	**Piuthan**	**106.30**	**294**	*e*P	PKiKP	12 27 21.3	-2.4
CPUP	**Villa Florida**	**106.37**	**128**	PKiKP	PKiKP	12 27 21.9	-2.0
	comp=Z,1.4nm,0.7s,baz=62,slow=8.8,SNR=3.3						
CPUP				PP	PP	12 27 42.7	-7.6
	comp=Z,3.3nm,0.9s,baz=206,slow=9.8,SNR=3.0						
CPUP				PKKPab	PKKPab	12 39 01.7	-4.3
	comp=Z,2.5nm,0.8s,baz=4.0,slow=4.0,SNR=4.0						
CPUP	**Villa Florida**	**106.37**	**128**	PKPdf	PKiKP	12 27 21.9	-2.0
CPUP				PP	PP	12 27 42.7	-7.6
CPUP				PKKPab	PKKPab	12 39 01.7	-4.3
WMQ	**Urumqi**	**106.67**	**311**	Pdif	Pdif	12 23 16.8	-0.8
WMQ				PP	PP	12 27 52.0	-0.8
WMQ				S	Sdif	12 34 22.5	-2.4
WMQ				SS	SS	12 42 12.0	-0.5
WMQ				AMB	AMB		
	comp=Z,470nm,5.6s						
SIV	**San Ignacio**	**108.92**	**116**	Pdiff	Pdif	12 23 27.4	-0.2
	comp=Z,0.4nm,0.7s,baz=342,slow=22,SNR=2.6						
SIV				PKiKP	PKiKP	12 27 27.3	-1.6
	comp=Z,0.7nm,0.5s,baz=268,slow=8.6,SNR=3.2						
SIV				PP	PP	12 27 59.1	-10
	comp=Z,2.6nm,0.9s,baz=255,slow=12,SNR=5.4						
SIV				PKKPbc	PKKPbc	12 38 37.4	-0.5
	comp=Z,3.8nm,0.5s,baz=87,slow=3.6,SNR=16						
SIV				PKKPab	PKKPab	12 38 53.1	-1.0
	comp=Z,4.4nm,0.8s,baz=97,slow=8.9,SNR=7.6						
SIV				SKKPbc		12 41 17.8	
	comp=Z,0.7nm,0.6s,baz=55,slow=16,SNR=2.2						
RES	**Resolute Bay**	**109.20**	**16**	*e*PKPdf	PKiKP	12 27 26.4	-1.3
ZAA0	**Zalesovo Array**	**110.53**	**321**	*e*PKPdf	PKiKP	12 27 28.9	-1.9
ZALV	**Zalesovo Beam**	**110.53**	**321**	P	Pdif	12 23 32.1	-2.7
ZALV				*i*		12 27 29.0	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZALV	**Zalesovo Beam**	**110.53**	**321**	Pdiff	Pdif	12 23 32.1	-2.6
	comp=Z,0.5nm,0.4s,baz=85,slow=3.1,SNR=5.3						
ZALV				PKiKP	PKiKP	12 27 29.0	-1.8
	comp=Z,6.4nm,0.3s,baz=134,slow=2.1,SNR=33						
ZALV				PP	PP	12 28 13.2	-6.8
	comp=Z,7.9nm,0.9s,baz=106,slow=8.3,SNR=6.3						
ZALV				PKKPbc	PKKPbc	12 38 32.1	-1.3
	comp=Z,0.6nm,0.3s,baz=262,slow=1.7,SNR=3.5						
ZALV				PKKPab	PKKPab	12 38 44.6	+0.3
	comp=Z,1.7nm,0.5s,baz=98,slow=13,SNR=8.3						
ZALV				SKKPbc		12 41 15.5	
	comp=Z,1.0nm,0.6s,baz=267,slow=3.5,SNR=4.0						
ZALV	**Zalesovo Beam**	**110.53**	**321**	Pdif	Pdif	12 23 32.1	-2.6
ZALV				PKPdf	PKiKP	12 27 29.0	-1.8
ZALV				PP	PP	12 28 13.2	-6.8
ZALV				PKKPbc	PKKPbc	12 38 32.1	-1.3
ZALV				PKKPab	PKKPab	12 38 44.6	+0.3
ZALV				SKKPbc		12 41 15.6	
MK31	**Makanchi Array**	**111.00**	**313**	*e*PKIKP	PKiKP	12 27 30.2	-1.7
MK31				pmax	pmax		
	comp=Z,6.0nm,0.3s						
MK31	**Makanchi Array**	**111.00**	**313**	*e*Pdif	Pdif	12 23 36.6	-0.2
MK31				*e*PKPdf	PKiKP	12 27 30.4	-1.5
MKAR	**Makanchi Array**	**111.00**	**313**	P	Pdif	12 23 36.4	-0.5
MKAR				*i*		12 27 30.4	
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MKAR	**Makanchi Array**	**111.00**	**313**	Pdiff	Pdif	12 23 36.4	-0.5
	comp=Z,3.7nm,0.7s,baz=91,slow=5.4,SNR=27						
MKAR				PKiKP	PKiKP	12 27 30.4	-1.5
	comp=Z,7.6nm,0.4s,baz=68,slow=2.4,SNR=104						
MKAR				PP	PP	12 28 14.4	-9.2
	comp=Z,7.4nm,0.9s,baz=104,slow=10,SNR=5.8						
MKAR				PKKPbc	PKKPbc	12 38 30.9	-0.8
	comp=Z,10nm,0.8s,baz=281,slow=3.0,SNR=11						
MKAR				PKKPab	PKKPab	12 38 42.6	+0.2
	comp=Z,12nm,1.0s,baz=290,slow=3.6,SNR=10						
MKAR				SKKPbc		12 41 14.6	
	comp=Z,1.0nm,0.7s,baz=284,slow=2.6,SNR=3.5						
MKAR	**Makanchi Array**	**111.00**	**313**	Pdif	Pdif	12 23 36.4	-0.5
MKAR				PKPdf	PKiKP	12 27 30.4	-1.5
MKAR				PP	PP	12 28 14.4	-9.2
MKAR				PKKPbc	PKKPbc	12 38 30.9	-0.8
MKAR				PKKPab	PKKPab	12 38 42.6	+0.2
MKAR				SKKPbc		12 41 14.6	
NVS	**Novosibirsk**	**111.57**	**322**	*i*	PKiKP	12 27 30.8	-1.9
NVS				*i*		12 33 15.2	
NVS				pmax	pmax		
	comp=Z,60nm,1.6s						
NVS				pmax	pmax		
	comp=N,23nm,1.7s						
NVS				pmax	pmax		
	comp=E,62nm,1.7s						
POO	**Poona**	**111.74**	**282**	*e*PKP	PKiKP	12 27 28.0	-6.1
SDDR	**Presa de Saban**	**113.06**	**78**	*e*PKPdf	PKiKP	12 27 33.5	-3.1
KURK	**Kurchatov**	**113.92**	**317**	P	Pdif	12 23 50.6	+0.8
KURK				*i*		12 27 35.9	
KURK						12 38 29.6	
KURK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
KURK	**Kurchatov**	**113.92**	**317**	Pdiff	Pdif	12 23 50.6	+0.8
	comp=Z,0.8nm,0.8s,baz=99,slow=4.2,SNR=3.2						
KURK				PKiKP	PKiKP	12 27 35.9	-1.4
	comp=Z,12nm,0.5s,baz=110,slow=1.9,SNR=75						
KURK				PP	PP	12 28 35.5	-8.4
	comp=Z,20nm,1.1s,baz=96,slow=5.8,SNR=10						
KURK				SKP		12 30 13.7	
	comp=Z,2.3nm,0.5s,baz=101,slow=1.6,SNR=3.6						
KURK				PKKPbc	PKKPbc	12 38 21.2	-1.0
	comp=Z,8.3nm,0.9s,baz=275,slow=4.1,SNR=17						
KURK				PKKPab	PKKPab	12 38 29.6	+0.2
	comp=Z,10nm,0.8s,baz=272,slow=4.8,SNR=15						
KURK				SKKPbc		12 41 06.2	
	comp=Z,2.0nm,0.7s,baz=279,slow=3.7,SNR=5.7						
KSH	**Kashi**	**114.45**	**305**	*e*PKP	PKPdf	12 27 39.1	+0.3
KSH				*e*PKS		12 31 14.6	
KSH				*e*SKS	SKSdf	12 33 50.6	-1.9
KSH				AMB	AMB		
	comp=Z,650nm,6.8s						
ULHL	**Ulahol**	**114.62**	**308**	P	PKPdf	12 27 38.7	-0.3
	SNR=6.8						
TKM2	**Tokmak 2**	**115.18**	**308**	*e*PKIKP	PKPdf	12 27 39.0	-1.0
TKM2	**Tokmak 2**	**115.18**	**308**	P	PKPdf	12 27 38.9	-1.2
	SNR=15						
TKM2	**Tokmak 2**	**115.18**	**308**	*e*PKPdf	PKPdf	12 27 39.0	-1.1
KZA	**Kyzart**	**115.33**	**307**	P	PKPdf	12 27 40.5	+0.1
	SNR=13						
KBK	**Karagaybulak**	**115.62**	**308**	P	PKPdf	12 27 40.1	-0.8
	SNR=12						
CHMS	**Chumysh**	**115.80**	**308**	P	PKPdf	12 27 40.2	-1.0
	SNR=10						
UCH	**Uchtor**	**115.89**	**308**	*e*PKPdf	PKPdf	12 27 41.8	+0.4
UCH				*e*PP	PP	12 28 58.1	+0.3
AAK	**Ala-Archa**	**115.95**	**308**	⇑*i*PKIKP	PKPdf	12 27 40.7	-0.8
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AAK	**Ala-Archa**	**115.95**	**308**	P	PKPdf	12 27 40.9	-0.6
	SNR=10						
AAK	**Ala-Archa**	**115.95**	**308**	⇑*e*PKP	PKPdf	12 27 40.7	-0.8
USP	**Ospenovka**	**116.02**	**309**	P	PKPdf	12 27 40.7	-1.0
	SNR=16						
EKS2	**Erkin-Say**	**116.48**	**308**	P	PKPdf	12 27 42.0	-0.6
	SNR=14						
AML	**Almayashu**	**116.49**	**307**	P	PKPdf	12 27 42.4	-0.2
	SNR=30						
AML	**Almayashu**	**116.49**	**307**	*e*Pdif	Pdif	12 24 06.0	+4.7
AML				*e*PKPdf	PKPdf	12 27 42.3	-0.3
AML				*e*PP	PP	12 29 00.9	-0.9
VOSK	**Vostochnaya**	**118.73**	**319**	PKIKP	PKPdf	12 27 45.0	-1.6
VOSK				pmax	pmax		
	comp=Z,16nm,0.5s						
KK31	**Karatay Array**	**118.91**	**308**	*i* PKIKP	PKPdf	12 27 46.1	-1.1
KK31				pmax	pmax		
	comp=Z,13nm,0.5s						
BVA0	**Borovoye Array**	**119.08**	**320**	*i* PKIKP	PKPdf	12 27 46.0	-1.2
BVA0				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BVAR	**Borovoye Array**	**119.08**	**320**	PKIKP	PKPdf	12 27 46.0	-1.2
BVAR						12 38 03.0	
BVAR				pmax	pmax		
	comp=Z,43nm,0.3s						
BVAR	**Borovoye Array**	**119.08**	**320**	PKP	PKPdf	12 27 46.0	-1.2
	comp=Z,42nm,0.3s,baz=120,slow=2.4,SNR=283						
BVAR				PP	PP	12 29 11.0	-8.0
	comp=Z,15nm,0.9s,baz=87,slow=7.6,SNR=4.9						
BVAR				PKKPbc	PKKPbc	12 38 03.0	-1.5
	comp=Z,2.3nm,0.5s,baz=278,slow=2.6,SNR=11						
BRVK	**Borovoye**	**119.14**	**320**	⇑*e*PKIKP	PKPdf	12 27 45.5	-1.8
KBL	**Kabul**	**119.28**	**298**	*e*PKIKP	PKPdf	12 27 48.2	0.0
OPO	**Ambohidratompo**	**119.42**	**232**	PKP	PKPdf	12 27 49.0	0.0
	comp=Z,5.3nm,0.6s,baz=168,slow=2.6,SNR=12						
SCHQ	**Schefferville**	**120.32**	**38**	PKP	PKPdf	12 27 48.0	-1.5
	comp=Z,4.8nm,0.8s,baz=353,slow=2.0,SNR=5.1						
KBS	**Kingsbay**	**122.37**	**357**	*e*P	PKPdf	12 27 52.3	-0.7
SPB4	**Spitsbergen Ar**	**122.86**	**356**	*e*PKPdf	PKPdf	12 27 53.0	-0.9
SUR	**Sutherland**	**122.97**	**200**	PKP	PKPdf	12 27 55.8	+0.3
	comp=Z,24nm,0.8s,baz=156,slow=3.9,SNR=8.4						
SUR				PP	PP	12 29 43.5	-0.4
	comp=Z,15nm,1.0s,baz=93,slow=2.6,SNR=4.1						
SUR				SKP		12 30 34.0	
	comp=Z,9.2nm,0.6s,baz=149,slow=6.0,SNR=4.4						
DAG	**Danmarks Havn**	**123.94**	**5**	⇑*e*PKIKP	PKPdf	12 27 54.0	-2.0
DAG				pmax	pmax		
	comp=Z,22nm,0.8s						
DAG	**Danmarks Havn**	**123.94**	**5**	⇑*i*P	PKPdf	12 27 54.0	-2.0
	comp=Z,22nm,0.8s						
DAG	**Danmarks Havn**	**123.94**	**5**	⇑*e*P	PKPdf	12 27 54.0	-2.0
SVE	**Sverdlovsk**	**124.14**	**325**	*e*PKIKP	PKPdf	12 27 56.2	-0.6
SVE				pmax	pmax		
	comp=Z,42nm,0.6s						
SUMG	**Summit**	**124.50**	**13**	*e*PKPdf	PKPdf	12 27 56.8	-0.4
BOSA	**Boshof**	**124.72**	**206**	PKP	PKPdf	12 27 59.5	+0.6
	comp=Z,10nm,1.0s,baz=142,slow=3.3,SNR=7.4						
BOSA				PP	PP	12 30 02.0	+6.4
	comp=Z,5.8nm,0.9s,baz=151,slow=12,SNR=3.5						
BOSA				PKKPbc	PKKPbc	12 37 41.9	-2.2
	comp=Z,5.5nm,0.8s,baz=350,slow=3.6,SNR=9.4						
ARU	**Arti**	**125.35**	**325**	*e*PKIKP	PKPdf	12 27 58.5	-0.6
ARU	**Arti**	**125.35**	**325**	*e*PKP	PKPdf	12 27 58.5	-0.6
SOKR	**Solikamsk**	**125.35**	**329**	*c i*PKIKP	PKPdf	12 27 58.5	-0.6
SOKR				pmax	pmax		
	comp=Z,70nm,0.8s						
AB31	**Akbulak array**	**125.98**	**316**	PKIKP	PKPdf	12 27 59.8	-0.8
AB31				pmax	pmax		
	comp=Z,6.0nm,0.4s						
AKTK	**Aktyubinsk**	**127.01**	**318**	PKP	PKPdf	12 28 01.5	-1.0
AKTK				PKKPbc		12 37 33.7	
AKTO	**Aktyubinsk**	**127.01**	**318**	PKIKP	PKPdf	12 28 02.0	-0.5
AKTO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AKTO	**Aktyubinsk**	**127.01**	**318**	PKP	PKPdf	12 28 01.5	-1.0
	comp=Z,17nm,0.6s,baz=85,slow=4.1,SNR=40						
AKTO				PKKPbc		12 37 33.7	
	comp=Z,6.8nm,0.9s,baz=241,slow=3.7,SNR=9.0						
LBTB	**Lobatse**	**127.71**	**209**	PKIKP	PKPdf	12 28 05.1	+0.4
LBTB						12 30 23.0	
LBTB				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LBTB				pmax	pmax		
	comp=Z,8.0nm,0.9s						
LBTB	**Lobatse**	**127.71**	**209**	PKP	PKPdf	12 28 05.1	+0.4
	comp=Z,5.7nm,0.6s,baz=153,slow=2.3,SNR=8.9						
LBTB				PP	PP	12 30 23.0	+7.8
	comp=Z,7.9nm,0.9s,baz=165,slow=10.0,SNR=4.6						
LBTB	**Lobatse**	**127.71**	**209**	PKP	PKPdf	12 28 05.1	+0.4
LBTB				*e*PKPdf	PKPdf	12 28 05.6	+0.8
LBTB				*e*PP	PP	12 30 15.1	-0.2
LBTB				PP	PP	12 30 23.0	+7.8
LBTB				*e*pPKPdf	pPKPdf	12 30 27.6	-0.7
KEV	**Kevo**	**129.28**	**348**	*e*PKIKP	PKPdf	12 28 05.3	-1.0
KEV	**Kevo**	**129.28**	**348**	*e*pkp	PKPdf	12 28 05.3	-1.0
KEV	**Kevo**	**129.28**	**348**	*e*PKP	PKPdf	12 28 05.3	-1.0
PRGR	**Permogore**	**129.47**	**334**	⇑*i*PKIKP	PKPdf	12 28 06.1	-0.7
PRGR				*e*		12 30 30.3	
PRGR				pmax	pmax		
	comp=Z,27nm,0.6s						
APA	**Apatity**	**129.65**	**344**	*e*PKIKP	PKPdf	12 28 06.8	-0.2
APA				*i*		12 30 22.3	
APA				*i*		12 30 32.4	
ARCES	**ARCESS Array B**	**129.75**	**349**	PKIKP	PKPdf	12 28 05.9	-1.3
ARCES						12 30 32.9	
ARCES				pmax	pmax		
	comp=Z,26nm,0.4s						
ARCES	**ARCESS Array B**	**129.75**	**349**	PKP	PKPdf	12 28 05.9	-1.3
	comp=Z,26nm,0.4s,baz=48,slow=1.1,SNR=56						
ARCES				PP	PP	12 30 25.3	-3.0
	comp=Z,9.3nm,0.9s,baz=12,slow=6.7,SNR=5.2						
ARCES				SKPbc	SKPbc	12 30 32.9	+0.6
	comp=Z,66nm,0.9s,baz=26,slow=3.1,SNR=27						
ARCES				SKP		12 30 44.6	
	comp=Z,12nm,0.7s,baz=355,slow=1.6,SNR=3.6						
ARCES				PKKPbc		12 37 22.4	
	comp=Z,4.1nm,0.9s,baz=203,slow=1.8,SNR=5.2						
ARCES				SKKPbc		12 40 14.2	
	comp=Z,1.2nm,0.5s,baz=195,slow=1.9,SNR=8.8						
ARCES	**ARCESS Array B**	**129.75**	**349**	PKP	PKPdf	12 28 05.9	-1.3
ARCES				PP	PP	12 30 25.3	-3.0
ARCES				SKPbc	SKPbc	12 30 32.9	+0.6
ARCES				SKP		12 30 44.6	
ARCES				PKKPbc		12 37 22.4	
ARCES				SKKPbc		12 40 14.2	
ARE0	**ARCESS Array S**	**129.75**	**349**	*e*PKPdf	PKPdf	12 28 06.0	-1.2
KTK1	**Kautokeino**	**130.60**	**349**	*e*P	PKPdf	12 27 55.6	-13
TRO	**Tromso**	**130.69**	**352**	*e*P	PKPdf	12 28 07.6	-1.4
TRO				AMB	AMB	12 28 09.7	
	comp=Z,126nm,2.3s						
KLMR	**Klimovskoe**	**132.34**	**335**	*e*PKHKP	PKPdf	12 28 03.6	-8.7
KLMR				pmax	pmax		
	comp=Z,82nm,1.5s						
STEI	**Steigen**	**132.77**	**353**	*e*P		12 28 02.5	
JOF	**Joensuu**	**133.75**	**341**	*e*PKIKP	PKPdf	12 28 12.5	-2.4
JOF	**Joensuu**	**133.75**	**341**	*e*pkp	PKPdf	12 28 12.5	-2.4
JOF	**Joensuu**	**133.75**	**341**	*e*PKP	PKPdf	12 28 12.5	-2.4
LSZ	**Lusaka**	**134.47**	**219**	PKHKP		12 28 10.0	
LSZ						12 28 18.7	
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LSZ	**Lusaka**	**134.47**	**219**	PKhKP		12 28 10.0	
	comp=Z,3.9nm,0.6s,baz=148,slow=3.3,SNR=7.7						
LSZ				PKP	PKPdf	12 28 18.7	+1.0
	comp=Z,12nm,0.5s,baz=165,slow=2.9,SNR=17						
LSZ				SKPbc	SKPbc	12 30 52.0	+1.9
	comp=Z,33nm,1.0s,baz=145,slow=3.2,SNR=9.2						
KAF	**Kangasniemi**	**135.82**	**343**	*e*PKIKP	PKPdf	12 28 17.6	-1.2
KAF	**Kangasniemi**	**135.82**	**343**	*e*pkp	PKPdf	12 28 17.6	-1.2
KAF	**Kangasniemi**	**135.82**	**343**	*e*PKP	PKPdf	12 28 17.6	-1.2
TSUM	**Tsumeb**	**136.19**	**203**	PKhKP		12 28 09.3	
	comp=Z,1.3nm,0.4s,baz=232,slow=21,SNR=2.7						
TSUM				PKP	PKPdf	12 28 21.5	+0.7
	comp=Z,3.9nm,0.5s,baz=142,slow=4.0,SNR=7.2						
TSUM				SKPbc	SKPbc	12 30 57.0	+1.7
	comp=Z,9.7nm,0.8s,baz=129,slow=4.0,SNR=8.4						
TSUM	**Tsumeb**	**136.19**	**203**	*e*PKPdf		12 28 16.1	
TSUM				PKP	PKPdf	12 28 21.5	+0.7
TSUM				SKPbc	SKPbc	12 30 57.0	+1.7
NSS	**Namsos**	**136.42**	**353**	*e*P	PKPdf	12 28 06.5	-13
NSS				AMB	AMB	12 28 12.7	
	comp=Z,234nm,3.7s						
VRHR	**Novokhopersk**	**136.62**	**323**	*e*PKIKP	PKPdf	12 28 21.0	+0.4
VRHR				pmax	pmax		
	comp=Z,60nm,0.5s						
VRHR				pmax	pmax		
	comp=N,30nm,0.7s						
VRHR				pmax	pmax		
	comp=E,20nm,0.6s						
QRN	**Al-Qurain**	**136.83**	**289**	*e*P	PKPdf	12 28 10.2	-11
QRN				AMb	AMB	12 28 23.9	
	comp=Z,183nm,1.1s						
OBN	**Obninsk**	**137.08**	**330**	⇓*e*PKHKP		12 28 13.1	
OBN				*i*		12 28 20.0	
OBN				*e*		12 31 37.2	
OBN				*e*PS		12 41 49.4	
OBN				pmax	pmax		
	comp=Z,22nm,1.2s						
OBN				pmax	pmax		
	comp=Z,52nm,1.0s						
OBN	**Obninsk**	**137.08**	**330**	⇓*e*PKP	PKPdf	12 28 20.1	-1.2
RDF	**Al-Radifah**	**137.15**	**290**	*e*P	PKPdf	12 28 10.8	-11
RDF				AMb	AMB	12 28 24.3	
	comp=Z,148nm,0.4s						
MIB	**Mutribah**	**137.35**	**291**	*e*P	PKPdf	12 28 11.2	-11
MIB				AMb	AMB	12 28 27.1	
	comp=Z,78nm,1.1s						
NAY	**Al-Naaiem**	**137.43**	**290**	*e*P	PKPdf	12 28 11.5	-11
VSR	**Storozhevoye**	**137.92**	**324**	⇓*i*PKIKP	PKPdf	12 28 21.9	-1.1
VORD	**Divnogorie**	**137.98**	**324**	*e*PKIKP	PKPdf	12 28 23.4	+0.3
VORD				pmax	pmax		
	comp=Z,70nm,1.5s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,30nm,0.9s						
GNI	**Garni**	**138.34**	**307**	*e*P	PKPdf	12 28 24.0	-0.1
GNI	**Garni**	**138.34**	**307**	PKhKP		12 28 15.2	
	comp=E,5.5nm,0.5s,baz=174,slow=6.2,SNR=7.4						
GNI				PKP	PKPdf	12 28 24.1	0.0
	comp=E,28nm,0.8s,baz=345,slow=2.4,SNR=14						
GNI				SKPbc	SKPbc	12 31 01.5	+0.7
	comp=E,26nm,0.9s,baz=152,slow=13,SNR=8.9						
GNI				SKKPbc		12 39 47.4	
	comp=E,1.7nm,0.3s,baz=188,slow=15,SNR=4.2						
VSU	**Vasula**	**138.63**	**340**	⇓*e*PKIKP	PKPdf	12 28 21.3	-2.7
KIV	**Kislovodsk**	**138.77**	**313**	⇓*e*PKHKP		12 28 17.4	
KIV				*i*		12 28 23.4	
KIV				pmax	pmax		
	comp=Z,14nm,1.2s						
KIV				pmax	pmax		
	comp=Z,21nm,1.0s						
KIV	**Kislovodsk**	**138.77**	**313**	*e*PKPdf		12 28 17.8	
KIV				⇓*e*PKP	PKPdf	12 28 23.5	-1.3
MOL	**Molde**	**138.77**	**355**	*e*P	PKPdf	12 28 16.0	-8.2
DOMB	**Dombas**	**139.16**	**354**	*e*P	PKPdf	12 28 16.4	-8.5
CLDR	**Caldiran**	**139.18**	**305**	*e*P	PKPdf	12 28 16.8	-8.9
DYDN	**Diyadin**	**139.26**	**306**	⇑*i*P	PKPdf	12 28 16.6	-9.2
HAKT	**HAKKARI**	**139.66**	**303**	⇓*i*P	PKPdf	12 28 35.6	+9.0
NB2	**NORSAR Subarra**	**139.89**	**352**	PKP		12 28 18.4	
	comp=Z,5.5nm,0.4s,baz=16,slow=3.2						
NOA	**NORSAR Array B**	**139.89**	**352**	PKHKP		12 28 18.3	
NOA						12 28 27.9	
NOA				pmax	pmax		
	comp=Z,42nm,0.9s						
NOA				pmax	pmax		
	comp=Z,11nm,0.5s						
NOA	**NORSAR Array B**	**139.89**	**352**	PKhKP		12 28 18.2	
	comp=Z,42nm,0.9s,baz=16,slow=4.6,SNR=56						
NOA				PKP	PKPdf	12 28 27.9	+1.6
	comp=Z,11nm,0.5s,baz=14,slow=4.0,SNR=8.2						
NOA				SKPbc	SKPbc	12 31 04.6	+0.4
	comp=Z,12nm,0.7s,baz=14,slow=4.3,SNR=7.6						
NAO01	**NORSAR Array S**	**140.12**	**352**	*e*P	PKPdf	12 28 19.1	-7.6
HFS	**Hagfors**	**140.39**	**350**	PKHKP		12 28 19.4	
HFS						12 31 28.8	
HFS				pmax	pmax		
	comp=Z,48nm,0.3s						
HFS	**Hagfors**	**140.39**	**350**	PKhKP		12 28 19.4	
	comp=Z,48nm,0.3s,baz=64,slow=3.7,SNR=192						
HFS				SKPbc	SKPbc	12 31 05.8	+0.2
	comp=Z,25nm,0.8s,baz=108,slow=0.5,SNR=7.5						
HFS				PP	PP	12 31 28.8	-5.4
	comp=Z,26nm,1.1s,baz=96,slow=4.5,SNR=4.1						
ERZM	**Erzurum**	**140.91**	**307**	⇑*i*P	PKPdf	12 28 24.9	-3.9
EZM	**Erzurum**	**140.91**	**307**	*e*P	PKPdf	12 28 24.8	-3.9
SOC	**Sochi**	**140.91**	**313**	*i* PKIKP	PKPdf	12 28 30.2	+1.6
SOC				*e*		12 30 45.3	
SOC				*e*		12 31 36.7	
SOC				*e*		12 34 44.4	
SOC				*e*SS	SS	12 49 14.4	-2.9
SOC				pmax	pmax		
	comp=Z,27nm,0.9s						
NACGM	**Naroch**	**141.36**	**336**	*e*		12 28 20.0	
KONO	**Kongsberg**	**141.44**	**353**	*e*P	PKPdf	12 28 23.9	-5.2
KONO	**Kongsberg**	**141.44**	**353**	*e*PKPdf	PKPdf	12 28 23.6	-5.5
KONO				*e*SKPdf	SKPdf	12 31 06.8	+1.4
KONO				*e*SKPbc	SKPbc	12 31 09.1	+0.9
ODD1	**Odda**	**141.47**	**355**	*e*P	PKPdf	12 28 22.7	-6.4
ODD1				AMB	AMB	12 28 27.0	
	comp=Z,444nm,4.1s						
BEST	**Besiri**	**141.48**	**304**	⇑*i*P	PKPdf	12 28 25.9	-4.0
KOPT	**Kop Dagi**	**141.52**	**308**	⇑*i*P	PKPdf	12 28 27.0	-2.8
ANN	**Anapa**	**141.94**	**316**	*i* PKHKP		12 28 21.6	
ANN				pmax	pmax		
	comp=N,71nm,1.5s						
ANN				pmax	pmax		
	comp=E,55nm,1.5s						
ANN				pmax	pmax		
	comp=Z,237nm,1.5s						
BLS5	**Blasjo**	**141.97**	**355**	*e*P	PKPdf	12 28 26.3	-3.7
MARD	**Mardin**	**141.99**	**303**	⇑*i*P	PKPdf	12 28 27.5	-3.3
EZC	**Erzincan**	**142.10**	**308**	*e*P	PKPdf	12 28 29.4	-1.5
GUMT	**Gumushane**	**142.13**	**309**	*e*P	PKPdf	12 28 28.4	-2.5
SHEL	**Horse Pasture**	**142.17**	**170**	*i* PKIKP	PKPdf	12 28 30.0	-1.7
SHEL	**Horse Pasture**	**142.17**	**170**	*e*PKPdf	PKPdf	12 28 29.7	-2.1
DIYA	**Diyarbakir**	**142.36**	**305**	⇓*i*P	PKPdf	12 28 28.9	-2.5
ESPY	**Espiye-Giresun**	**142.53**	**310**	*e*P	PKPdf	12 28 27.6	-4.0
GRSN	**GIRESUNGRSN**	**142.85**	**310**	⇑*i*P	PKPdf	12 28 29.2	-3.0
SVRC	**Sivrice-ELAZID**	**142.86**	**306**	*e*P	PKPdf	12 28 31.1	-1.2
SNART	**Snartemo**	**142.98**	**354**	*e*P	PKPdf	12 28 28.7	-3.1
SNART				AMb	AMB	12 28 30.6	
	comp=Z,187nm,1.4s						
ELZG	**Elazig**	**143.07**	**306**	⇓*i*P	PKPdf	12 28 32.2	-0.4
MLA1	**Latheron**	**143.21**	**4**	⇓*e*P	PKPdf	12 28 29.4	-2.8
MLA1	**Latheron**	**143.21**	**4**	P	PKPdf	12 28 29.4	-2.8
KEMA	**Kemaliye**	**143.22**	**307**	⇓*i*P	PKPdf	12 28 32.1	-0.8
MBAR	**Mbarara**	**143.24**	**237**	*d i*PKIKP	PKPdf	12 28 32.3	-1.4
MBAR	**Mbarara**	**143.24**	**237**	*i* PKP	PKPdf	12 28 32.4	-1.3
AKASG	**Malin Array Be**	**143.31**	**329**	PKP	PKPdf	12 28 29.9	-2.8
	comp=Z,73nm,0.3s,baz=42,slow=4.2,SNR=815						
AKASG				pPKP	pPKPdf	12 30 53.7	-2.9
	comp=Z,3.1nm,0.7s,baz=55,slow=36,SNR=1.7						
AKASG				SKPbc	SKPbc	12 31 13.1	0.0
	comp=Z,27nm,0.8s,baz=42,slow=3.0,SNR=48						
AKBB	**Malin Array Si**	**143.31**	**329**	*e*PKPbc	PKPdf	12 28 29.9	-2.7
AKBB				*e*SKPbc	SKPbc	12 31 13.6	+0.5
RRH	**Rhenigidale**	**143.32**	**7**	⇓*e*P	PKPdf	12 28 29.8	-2.6
RRH	**Rhenigidale**	**143.32**	**7**	P	PKPdf	12 28 29.8	-2.6
KIEV	**Kiev**	**143.33**	**329**	*e*PKPbc	PKPdf	12 28 29.6	-3.0
KIEV				*e*SKPbc	SKPbc	12 31 13.7	+0.5
SUW	**Suwalki**	**143.38**	**338**	*e*PKPd	PKPdf	12 28 30.6	-2.1
SUW	**Suwalki**	**143.38**	**338**	⇓*e*PKIKP	PKPdf	12 28 30.5	-2.2
SUW	**Suwalki**	**143.38**	**338**	⇓*e*PKP	PKPdf	12 28 30.5	-2.2
RRR	**Rubha Reidh**	**143.47**	**6**	*e*P	PKPdf	12 28 30.1	-2.6
RRR	**Rubha Reidh**	**143.47**	**6**	P	PKPdf	12 28 30.1	-2.6
URFA	**Urfa**	**143.47**	**304**	*e*P	PKPdf	12 28 32.3	-1.1
MYA	**Malataya**	**143.54**	**306**	*e*P	PKPdf	12 28 33.0	-0.5
MALT	**Malatya**	**143.54**	**306**	*e*P	PKPdf	12 28 32.6	-0.9
MALT	**Malatya**	**143.54**	**306**	⇓PKIKP	PKPdf	12 28 33.1	-0.4
MALT	**Malatya**	**143.54**	**306**	⇓*i*P	PKPdf	12 28 33.1	-0.4
MALT	**Malatya**	**143.54**	**306**	⇓P	PKPdf	12 28 33.1	-0.3
RSDY	**Resadiye-TOKAT**	**143.71**	**310**	*e*P	PKPdf	12 28 33.6	-0.1
KSK	**Scoval**	**143.77**	**7**	⇓*e*P	PKPdf	12 28 31.4	-1.8
KSK	**Scoval**	**143.77**	**7**	P	PKPdf	12 28 31.4	-1.8
DARE	**Darende-Malaty**	**143.82**	**307**	*e*P	PKPdf	12 28 35.4	+1.5
KAC	**Achnashellach**	**143.87**	**5**	⇓*e*P	PKPdf	12 28 31.2	-2.2
KAC	**Achnashellach**	**143.87**	**5**	P	PKPdf	12 28 31.2	-2.2
ATAB	**Bozova**	**143.87**	**304**	*i* P	PKPdf	12 28 33.6	-0.4
AKCD	**Akcadag**	**143.93**	**306**	*i* P	PKPdf	12 28 34.1	0.0
MCD	**Coleburn Disti**	**143.94**	**4**	⇓*e*P	PKPdf	12 28 31.4	-2.1
MCD	**Coleburn Disti**	**143.94**	**4**	P	PKPdf	12 28 31.4	-2.1
KPL	**Plockton**	**144.00**	**6**	⇓*e*P	PKPdf	12 28 31.9	-1.7
KPL	**Plockton**	**144.00**	**6**	P	PKPdf	12 28 31.9	-1.7
MDO	**Dochfour**	**144.01**	**5**	⇓*e*P	PKPdf	12 28 32.0	-1.7
MDO	**Dochfour**	**144.01**	**5**	P	PKPdf	12 28 32.0	-1.7
TOKT	**Tokat**	**144.29**	**310**	*e*P	PKPdf	12 28 35.5	+0.8
TOKA	**Tokat**	**144.34**	**310**	⇑*i*P	PKPdf	12 28 35.0	+0.2
KVT	**Kavak**	**144.37**	**311**	*e*P	PKPdf	12 28 35.6	+0.8
KAR1	**Arisaig**	**144.40**	**6**	*e*P	PKPdf	12 28 33.3	-1.1
KAR1	**Arisaig**	**144.40**	**6**	P	PKPdf	12 28 33.3	-1.1
MUD	**Monsted U'grnd**	**144.61**	**352**	⇓*i*PKIKP	PKPdf	12 28 34.4	-0.3
MUD				pmax	pmax		
	comp=Z,110nm,0.7s						
MUD	**Monsted U'grnd**	**144.61**	**352**	⇓*i*P	PKPdf	12 28 34.4	-0.3
	comp=Z,111nm,0.7s						
MUD	**Monsted U'grnd**	**144.61**	**352**	⇓*i*P	PKPdf	12 28 34.4	-0.3

SARI	**SarD1z-Kayseri**	**144.73**	**307**	*e*P	PKPdf	12 28 36.3	+0.8
GAZ	**Gaziantep**	**144.78**	**304**	*e*P	PKPdf	12 28 36.2	+0.5
COP	**Copenhagen**	**144.83**	**348**	⇓*i*PKIKP	PKPdf	12 28 35.0	-0.1
COP				pmax	pmax		
	comp=Z,80nm,0.9s						
COP	**Copenhagen**	**144.83**	**348**	⇓*i*P	PKPdf	12 28 35.0	-0.1
	comp=Z,80nm,0.9s						
COP	**Copenhagen**	**144.83**	**348**	⇓*i*P	PKPdf	12 28 35.0	-0.1
BSD	**Bornholm Skovb**	**144.84**	**346**	⇓*i*PKIKP	PKPdf	12 28 34.8	-0.4
BSD				pmax	pmax		
	comp=Z,250nm,0.9s						
BSD	**Bornholm Skovb**	**144.84**	**346**	⇓*i*P	PKPdf	12 28 34.8	-0.4
	comp=Z,252nm,0.9s						
BSD	**Bornholm Skovb**	**144.84**	**346**	⇓*i*P	PKPdf	12 28 34.8	-0.4
KMRS	**Kahramanmaras**	**144.93**	**305**	*e*P	PKPdf	12 28 37.0	+1.2
PINB	**Pinarbasi**	**144.95**	**307**	⇑*i*P	PKPdf	12 28 35.6	-0.2
KUZU	**Kuzuini**	**145.00**	**304**	⇑*i*P	PKPdf	12 28 37.1	+1.1
BOYT	**Boyabat**	**145.03**	**312**	⇑*i*P	PKPdf	12 28 37.5	+1.6
BYBT	**Boyabat**	**145.10**	**312**	*e*P	PKPdf	12 28 37.7	+1.7
EAB	**Aberfoyle**	**145.25**	**5**	⇓*e*P	PKPdf	12 28 36.0	+0.1
EAB	**Aberfoyle**	**145.25**	**5**	P	PKPdf	12 28 36.0	+0.1
EBH	**Black Hill**	**145.25**	**4**	⇓*e*P	PKPdf	12 28 36.0	+0.2
EBH	**Black Hill**	**145.25**	**4**	P	PKPdf	12 28 36.0	+0.2
BNN	**Bunyan**	**145.30**	**308**	*e*P	PKPdf	12 28 38.1	+1.6
ANDN	**Andirin**	**145.33**	**305**	⇑*i*P	PKPdf	12 28 38.2	+1.6
BZK	**Bozkurt**	**145.42**	**314**	*e*P	PKPdf	12 28 38.4	+1.8
CTKT	**Corum**	**145.43**	**311**	⇓*i*P	PKPdf	12 28 38.5	+1.9
WAR	**Warsaw**	**145.57**	**338**	*e*PKPd	PKPbc	12 28 38.2	0.0
WAR	**Warsaw**	**145.57**	**338**	⇓*e*PKP2	PKPbc	12 28 38.2	+0.1
WAR	**Warsaw**	**145.57**	**338**	⇓*e*PKP	PKPbc	12 28 38.2	+0.1
EDI	**Edinburgh**	**145.60**	**4**	*e*P	PKPdf	12 28 36.6	+0.2
EDI	**Edinburgh**	**145.60**	**4**	P	PKPdf	12 28 36.6	+0.2
PGBU	**Glenifferbraes**	**145.61**	**5**	⇓*e*P	PKPdf	12 28 36.9	+0.4
PGBU	**Glenifferbraes**	**145.61**	**5**	P	PKPdf	12 28 36.9	+0.4
ESY	**Stoneypath**	**145.63**	**3**	⇓*e*P	PKPdf	12 28 36.9	+0.5
ESY	**Stoneypath**	**145.63**	**3**	P	PKPdf	12 28 36.9	+0.5
COBT	**Iskenderun**	**145.70**	**304**	⇓*i*P	PKPdf	12 28 39.6	+2.4
KOZT	**Kozan**	**145.75**	**305**	*e*P	PKPdf	12 28 38.1	+0.8
EBL	**Broad Law**	**145.75**	**4**	⇓*e*P	PKPdf	12 28 37.1	+0.4
EBL	**Broad Law**	**145.75**	**4**	P	PKPdf	12 28 37.1	+0.4
GKP	**Gorka Klasztor**	**145.91**	**342**	*e*PKPd	PKPdf	12 28 38.7	+1.7
GKP	**Gorka Klasztor**	**145.91**	**342**	⇓*e*PKP2	PKPdf	12 28 38.7	+1.7
GKP	**Gorka Klasztor**	**145.91**	**342**	⇓*e*PKP	PKPdf	12 28 38.7	+1.7
BEL	**Belsk**	**145.99**	**338**	*e*PKPdfd	PKPbc	12 28 39.3	0.0
ILGA	**Ilgaz**	**146.00**	**312**	⇑*i*P	PKPdf	12 28 39.9	+2.3
BALT	**Daday**	**146.02**	**313**	⇓*i*P	PKPbc	12 28 40.1	+0.3
XSO	**Sourhope Farm**	**146.08**	**3**	⇓*e*P	PKPdf	12 28 38.5	+1.2
XSO	**Sourhope Farm**	**146.08**	**3**	P	PKPdf	12 28 38.5	+1.2
CDAG	**Cicekdag**	**146.10**	**310**	⇓*i*P	PKPdf	12 28 39.7	+1.9
ASF	**Jabal al Asfar**	**146.11**	**296**	PKP	PKPdf	12 28 37.2	-0.8
	comp=Z,84nm,0.8s,baz=331,slow=1.6,SNR=106						
ASF				PKPbc	PKPbc	12 28 40.4	+0.1
	comp=Z,84nm,0.8s,baz=332,slow=1.6,SNR=106						
ASF				pPKPbc		12 30 59.0	
	comp=Z,10nm,0.9s,baz=222,slow=5.9,SNR=2.8						
ASF				SKPbc	SKPbc	12 31 21.0	+0.8
	comp=Z,12nm,1.0s,baz=190,slow=5.7,SNR=3.2						
FKH	**Fakeheh**	**146.14**	**300**	*e*P	PKPbc	12 28 40.8	+0.5
EKA	**Eskdalemuir Ar**	**146.19**	**4**	PKPbc	PKPbc	12 28 38.5	-1.2
	comp=Z,58nm,0.8s,baz=337,slow=2.9,SNR=80						
EKA				pPKPbc		12 30 58.9	
	comp=Z,9.0nm,0.8s,baz=353,slow=2.4,SNR=6.3						
EKA				SKPbc	SKPbc	12 31 20.0	+0.5
	comp=Z,6.0nm,0.8s,baz=332,slow=2.5,SNR=3.5						
ESK	**Eskdalemuir**	**146.20**	**4**	⇓*e*P	PKPdf	12 28 38.3	+0.9
ESK	**Eskdalemuir**	**146.20**	**4**	P	PKPdf	12 28 38.3	+0.9
ESK	**Eskdalemuir**	**146.20**	**4**	*e*PKPbc	PKPbc	12 28 38.9	-0.9
CANT	**Cankiri**	**146.25**	**312**	*e*P	PKPbc	12 28 40.7	+0.3
LVV	**L'vov**	**146.30**	**332**	*i* PKIKP	PKPdf	12 28 38.9	+1.1
KRTS	**Karatas**	**146.37**	**304**	*e*P	PKPbc	12 28 41.0	+0.1
KARA	**Karaisali**	**146.41**	**305**	*e*P	PKPbc	12 28 40.9	0.0
ELDT	**Eldivan**	**146.43**	**312**	⇓*i*P	PKPbc	12 28 41.2	+0.3
GAL1	**Galloway**	**146.53**	**6**	⇓*e*P	PKPdf	12 28 39.6	+1.6
GAL1	**Galloway**	**146.53**	**6**	P	PKPdf	12 28 39.6	+1.6
BRTR	**Keskin Array B**	**146.59**	**310**	PKIKP	PKPdf	12 28 37.1	-1.5
BRTR						12 28 40.8	
BRTR				pmax	pmax		
	comp=Z,89nm,0.7s						
BRTR	**Keskin Array B**	**146.59**	**310**	PKP	PKPdf	12 28 37.1	-1.5
	comp=Z,89nm,0.7s,baz=171,slow=1.8,SNR=118						
BRTR				PKPbc	PKPbc	12 28 40.8	-0.6
	comp=Z,88nm,0.7s,baz=146,slow=3.7,SNR=264						
BRTR				pPKPbc		12 30 57.3	
	comp=Z,8.1nm,1.0s,baz=148,slow=3.4,SNR=2.7						
BRTR				SKKPbc		12 39 11.6	
	comp=Z,2.8nm,0.7s,baz=235,slow=4.8,SNR=8.4						
GCD	**Castle Douglas**	**146.60**	**5**	⇓*e*P	PKPdf	12 28 39.4	+1.3
GCD	**Castle Douglas**	**146.60**	**5**	P	PKPdf	12 28 39.4	+1.3
GULE	**Gulek**	**146.61**	**306**	⇓*i*P	Px	12 28 11.9	
SAFT	**Safranbolu**	**146.62**	**313**	*e*P	PKPbc	12 28 41.3	-0.1
XAL	**Allendale**	**146.71**	**3**	⇓*e*P	PKPdf	12 28 39.8	+1.5
XAL	**Allendale**	**146.71**	**3**	P	PKPdf	12 28 39.8	+1.5
RCY	**Rachaya**	**146.77**	**298**	*e*P	PKPbc	12 28 42.2	+0.2
BHL	**Bhannes**	**146.82**	**299**	*e*P	PKPbc	12 28 42.1	0.0
BSEG	**Bad Segeberg**	**146.87**	**350**	*e*PKPbc	PKPbc	12 28 41.1	-0.5
MERS	**Mersin**	**146.93**	**305**	*e*P	PKPbc	12 28 41.9	-0.4
KWP	**Kalwaria Pacla**	**147.00**	**333**	*e*PKPd	PKPbc	12 28 42.0	-0.1
KWP	**Kalwaria Pacla**	**147.00**	**333**	⇓*e*PKP2	PKPbc	12 28 42.0	-0.1
KWP	**Kalwaria Pacla**	**147.00**	**333**	⇓*e*PKP	PKPbc	12 28 42.0	-0.1
TLCR		**147.00**	**322**	⇑PKP2	PKPbc	12 28 42.0	-0.3
TLCR		**147.00**	**322**	⇑*i*P	PKPbc	12 28 42.0	-0.3
TLCR		**147.00**	**322**	⇑P	PKPbc	12 28 42.0	-0.3
BALAT	**Bala**	**147.02**	**310**	⇑*i*P	PKPbc	12 28 42.4	-0.2
GMM	**Mts of Mourne**	**147.02**	**7**	⇓*e*P	PKPdf	12 28 40.6	+1.7
GMM	**Mts of Mourne**	**147.02**	**7**	P	PKPdf	12 28 40.6	+1.7
MMAI	**Mount Meron Ar**	**147.21**	**298**	PKP	PKPdf	12 28 39.6	-0.3
	comp=Z,7.2nm,0.5s,baz=306,slow=34,SNR=12						
MMAI				PKPbc	PKPbc	12 28 43.4	+0.2
	comp=Z,106nm,0.6s,baz=69,slow=5.6,SNR=205						
MMAI				pPKPbc	pPKPbc	12 31 01.0	-3.8
	comp=Z,37nm,0.8s,baz=66,slow=2.8,SNR=5.4						
WIM	**Isle of Man**	**147.25**	**6**	⇓*e*P	PKPdf	12 28 41.4	+2.2
WIM	**Isle of Man**	**147.25**	**6**	P	PKPdf	12 28 41.4	+2.2
BUR08	**Bucovina Ar. S**	**147.33**	**329**	*e*PKPdf	PKPdf	12 28 40.4	+0.8
BUR08				*e*PKPbc	PKPbc	12 28 42.7	-0.3
BUR08				*e*PKPab	PKPab	12 28 46.3	-0.9
BUR08				*e*pPKPdf	pPKPdf	12 31 08.6	+4.9
SGKT	**Sivrigoynuk**	**147.34**	**313**	⇑*i*P	PKPbc	12 28 43.4	+0.1
BURAR	**Bucovina Array**	**147.34**	**329**	⇑PKP2	PKPbc	12 28 43.0	-0.1
BURAR	**Bucovina Array**	**147.34**	**329**	⇑*i*P	PKPbc	12 28 43.0	-0.1
BURAR	**Bucovina Array**	**147.34**	**329**	⇑P	PKPbc	12 28 43.0	-0.1
RUE	**Ruedersdorf**	**147.53**	**345**	*e*PKPbc	PKPbc	12 28 42.7	-0.7
RUE	**Ruedersdorf**	**147.53**	**345**	*e*PKPbc	PKPbc	12 28 43.1	-0.3
RUE				*e*PKPab	PKPab	12 28 47.3	-0.5
EREN	**Erenkoy**	**147.60**	**303**	*e*P	PKPbc	12 28 44.2	0.0
HPK	**Haverah Park**	**147.64**	**2**	⇓*e*P	PKPbc	12 28 42.8	-0.8
HPK	**Haverah Park**	**147.64**	**2**	P	PKPbc	12 28 42.8	-0.8
TIRR	**Tirgusor**	**147.66**	**321**	*e*PKPdf	PKPdf	12 28 38.8	-1.5
TIRR				*e*PKPbc	PKPbc	12 28 43.7	-0.3
TIRR				*e*PKPab	PKPab	12 28 48.0	-0.7
OJC	**Ojcow**	**147.68**	**337**	*e*PKPdf	PKPdf	12 28 39.8	-0.3
OJC				*e*PKPbc	PKPbc	12 28 43.1	-0.7
OJC				*e*PKPab	PKPab	12 28 47.7	-0.8
OJC				*e*pPKPdf	pPKPdf	12 31 04.0	-0.2
OJC	**Ojcow**	**147.68**	**337**	*e*PKP2	PKPab	12 28 47.7	-0.8
OJC	**Ojcow**	**147.68**	**337**	*e*PKPdf	PKPdf	12 28 39.8	-0.3
OJC				*e*PKPbc	PKPbc	12 28 43.1	-0.7
OJC				*e*PKPab	PKPab	12 28 47.7	-0.8
OJC				*e*pPKPdf	pPKPdf	12 31 04.0	-0.2
KOLS	**Kolonicke sedl**	**147.72**	**333**	*i* PKP2	PKPbc	12 28 43.8	-0.2
KOLS	**Kolonicke sedl**	**147.72**	**333**	*i* PKP	PKPbc	12 28 43.8	-0.2
KOLS				*e*		12 31 03.6	
KOLS	**Kolonicke sedl**	**147.72**	**333**	*i* PKP	PKPbc	12 28 43.8	-0.2
KOLS				*e*		12 31 03.6	
VRI	**Vrincioaia**	**147.74**	**325**	⇓PKP2	PKPbc	12 28 43.5	-0.7
VRI	**Vrincioaia**	**147.74**	**325**	⇓*i*P	PKPbc	12 28 43.5	-0.7
VRI	**Vrincioaia**	**147.74**	**325**	⇓P	PKPbc	12 28 43.5	-0.7
IKL	**Isikli**	**147.77**	**304**	*e*P	PKPbc	12 28 44.1	-0.4
STHS	**Stebnicka Huta**	**147.77**	**334**	*i* PKP2	PKPbc	12 28 44.1	0.0
STHS	**Stebnicka Huta**	**147.77**	**334**	*i* PKP	PKPbc	12 28 44.1	0.0
STHS				*e*		12 31 04.5	
STHS	**Stebnicka Huta**	**147.77**	**334**	*i* PKP	PKPbc	12 28 44.1	0.0
STHS				*e*		12 31 04.5	
PLOR	**Plostina**	**147.79**	**325**	⇓*i*P	PKPbc	12 28 43.3	-1.0
HARR	**Harsova**	**147.81**	**322**	⇑PKP2	PKPbc	12 28 43.7	-0.7
HARR	**Harsova**	**147.81**	**322**	⇑*i*P	PKPbc	12 28 43.7	-0.7
HARR	**Harsova**	**147.81**	**322**	⇑P	PKPbc	12 28 43.7	-0.7
PHNC	**Paralimni**	**147.85**	**302**	P	PKPbc	12 28 44.8	0.0
	comp=Z,4.0nm,0.8s						
PHNC	**Paralimni**	**147.85**	**302**	P	PKPbc	12 28 44.8	0.0
UZH	**Uzhgorod**	**147.94**	**333**	*e*PKP2	PKPbc	12 28 44.0	-0.6
DSB	**Dublin**	**147.94**	**8**	*e*PKPdf	PKPdf	12 28 40.6	+0.2
DSB				*e*PKPbc	PKPbc	12 28 44.9	+0.5
DSB				*e*PKPab	PKPab	12 28 48.5	-1.0
DSB				*e*pPKPdf	pPKPdf	12 31 07.7	+3.1
HENT	**Hendek**	**148.01**	**314**	⇑*i*P	PKPdf	12 28 42.7	+1.8
WME	**Myndd Eilian**	**148.02**	**6**	*e*P	PKPbc	12 28 43.4	-1.2
WME	**Myndd Eilian**	**148.02**	**6**	P	PKPbc	12 28 43.4	-1.2
LHO	**Holmfirth**	**148.04**	**3**	⇓*e*P	PKPbc	12 28 43.5	-1.1
LHO	**Holmfirth**	**148.04**	**3**	P	PKPbc	12 28 43.5	-1.1
CRVS	**Cervenica-Dubn**	**148.08**	**334**	*i* PKP2	PKPbc	12 28 44.7	-0.2
CRVS	**Cervenica-Dubn**	**148.08**	**334**	*i* PKP	PKPbc	12 28 44.7	-0.2
CRVS				*e*		12 31 06.6	
CRVS	**Cervenica-Dubn**	**148.08**	**334**	*i* PKP	PKPbc	12 28 44.7	-0.2
CRVS				*e*		12 31 06.6	
EIL	**Elat**	**148.11**	**292**	PKP	PKPdf	12 28 40.1	-1.3
	comp=Z,16nm,0.8s,baz=308,slow=9.6,SNR=8.5						
EIL				PKPbc	PKPbc	12 28 45.7	+0.1
	comp=Z,93nm,0.8s,baz=48,slow=2.3,SNR=29						
EIL				pPKP	pPKPdf	12 31 02.3	-3.3
	comp=Z,28nm,1.1s,baz=322,slow=22,SNR=1.5						
EIL	**Elat**	**148.11**	**292**	PKP	PKPdf	12 28 40.1	-1.3
EIL				PKPbc	PKPbc	12 28 45.7	+0.1
EIL				pPKP	pPKPdf	12 31 02.3	-3.3
NIE	**Niedzica**	**148.13**	**335**	*e*PKPbc	PKPbc	12 28 45.4	+0.4
NIE				*e*pPKP	pPKPdf	12 31 06.1	+1.1
NIE	**Niedzica**	**148.13**	**335**	*e*PKP2	PKPbc	12 28 45.4	+0.4
NIE	**Niedzica**	**148.13**	**335**	*e*PKPbc	PKPbc	12 28 45.4	+0.4
NIE				*e*pPKPbc	pPKPbc	12 31 06.1	-0.9
YRC	**Rhoscolyn**	**148.14**	**6**	⇓*e*P	PKPdf	12 28 43.3	+2.6
YRC	**Rhoscolyn**	**148.14**	**6**	P	PKPdf	12 28 43.3	+2.6
KDHN	**Kadinhani**	**148.15**	**309**	⇑*i*P	PKPdf	12 28 40.2	-1.0
KIZT	**Kizilcal**	**148.17**	**310**	*e*P	PKPbc	12 28 45.1	-0.3
KONT	**Konya--Tatoy**	**148.19**	**308**	*e*P	PKPbc	12 28 44.8	-0.8
SVRH	**Sivrihisar-ESK**	**148.19**	**311**	*e*P	PKPbc	12 28 45.0	-0.5
WPM1	**Penmaenmawr**	**148.19**	**5**	⇓*e*P	PKPdf	12 28 43.2	+2.4
WPM1	**Penmaenmawr**	**148.19**	**5**	P	PKPdf	12 28 43.2	+2.4
NRDL	**Niedersach Rie**	**148.29**	**349**	*e*PKPbc	PKPbc	12 28 44.6	-0.7
KSP	**Ksiaz**	**148.32**	**341**	*e*PKPd	PKPbc	12 28 45.6	+0.2
KSP	**Ksiaz**	**148.32**	**341**	*e*PKP2	PKPab	12 28 51.1	0.0
KSP	**Ksiaz**	**148.32**	**341**	*e*PKPdf	PKPdf	12 28 40.5	-0.6
KSP				*i* PKPdf	PKPbc	12 28 45.5	+0.1
KSP				*e*PKPab	PKPab	12 28 51.1	0.0
KSP				*e*pPKP	pPKPdf	12 31 06.1	+0.8
KBI1	**Birley Grange**	**148.34**	**2**	⇓*e*P	PKPdf	12 28 44.3	+3.3
KBI1	**Birley Grange**	**148.34**	**2**	P	PKPdf	12 28 44.3	+3.3
RAC	**Raciborz**	**148.36**	**338**	*e*PKP2	PKPab	12 28 50.8	-0.5
RAC	**Raciborz**	**148.36**	**338**	*e*PKPdf	PKPdf	12 28 42.3	+1.1
RAC				*e*PKPbc	PKPbc	12 28 45.3	-0.2
RAC				*e*PKPab	PKPab	12 28 50.8	-0.5
RAC				*e*pPKPdf	pPKPdf	12 31 05.9	+0.5
MLR	**Muntele Rosu**	**148.40**	**325**	⇑PKHKP	PKPbc	12 28 44.8	-1.0
MLR	**Muntele Rosu**	**148.40**	**325**	⇑*i*P	PKPbc	12 28 44.8	-1.0
MLR	**Muntele Rosu**	**148.40**	**325**	⇑P	PKPbc	12 28 44.8	-1.1
CSS	**Prodhromos**	**148.41**	**302**	P	PKPbc	12 28 45.8	-0.4
CSS	**Prodhromos**	**148.41**	**302**	*e*P	PKPbc	12 28 45.9	-0.3
CSS	**Prodhromos**	**148.41**	**302**	*e*PKPdf	PKPdf	12 28 40.3	-1.5
CSS				*e*PKPbc	PKPbc	12 28 45.8	-0.4
CSS				*e*PKPab	PKPab	12 28 52.2	+0.1
HDMB	**Hadim**	**148.44**	**306**	*e*P	PKPbc	12 28 45.5	-0.7
MAMC	**Mammari**	**148.44**	**303**	P	PKPbc	12 28 45.4	-0.9
MAMC	**Mammari**	**148.44**	**303**	P	PKPbc	12 28 45.4	-0.9
KWE	**Weaver Farm**	**148.57**	**3**	⇓*e*P	PKPbc	12 28 44.9	-1.1
KWE	**Weaver Farm**	**148.57**	**3**	P	PKPbc	12 28 44.9	-1.1
OKC	**Ostrava-Krasne**	**148.59**	**338**	⇑*e*PKP	PKPbc	12 28 45.9	-0.2
OKC				*e*PKPAB	PKPab	12 28 52.1	-0.1
OKC				*e*pPKP	pPKPdf	12 31 07.1	+1.4
SBD1	**Bryn Du**	**148.59**	**5**	⇓*e*P	PKPbc	12 28 45.1	-1.0
SBD1	**Bryn Du**	**148.59**	**5**	P	PKPbc	12 28 45.1	-1.0
ESKT	**Eskisehir**	**148.63**	**312**	⇑*i*P	PKPdf	12 28 43.8	+1.8
SILT	**Sile**	**148.69**	**315**	*e*P	PKPbc	12 28 46.1	-0.5
UPC	**Upice**	**148.70**	**341**	⇑*e*PKP	PKPbc	12 28 46.4	0.0
UPC				*e*PKPAB	PKPab	12 28 52.2	-0.5
UPC				*e*pPKP	pPKPdf	12 31 09.0	+3.1
LEF	**Lefka**	**148.72**	**303**	*e*P	PKPbc	12 28 46.3	-0.6
DPC	**Dobruska-Polom**	**148.75**	**340**	⇑*e*PKP	PKPbc	12 28 46.7	+0.2
DPC				*e*PKPAB	PKPab	12 28 53.0	+0.1
DPC				*e*pPKP	pPKPdf	12 31 09.9	+3.9
CLL	**Collm**	**148.80**	**345**	⇓*e*PKHKP	PKPdf	12 28 42.0	+0.2
CLL				*i*		12 28 52.1	
CLL				pmax	pmax		
	comp=Z,32nm,1.4s						
CLL	**Collm**	**148.80**	**345**	*e*PKPbc	PKPbc	12 28 46.0	-0.6
CLL				*e*PKPab	PKPab	12 28 52.1	-1.0
CLL				*e*pPKPab	pPKPab	12 31 10.6	+0.2
CLL	**Collm**	**148.80**	**345**	*e*PKPdf	PKPdf	12 28 42.0	+0.2
	comp=Z,32nm,1.4s						
CLL				⇓*i*PKPbc	PKPbc	12 28 46.2	-0.4
	comp=Z,266nm,1.0s						
CLL				*i* PKiKP	PKiKP	12 28 48.3	+0.8
	comp=Z,208nm,1.1s						
CLL				*i* PKPab	PKPab	12 28 52.1	-1.0
	comp=Z,210nm,1.1s						
CLL				*e*pPKPbc	pPKPbc	12 31 06.0	-2.8
CLL				*i* pPKPmax		12 31 10.5	
	comp=Z,217nm,1.2s						
CLL				*e*		12 31 42.0	
CLL				*e*PP	PP	12 32 22.0	-1.4
CLL	**Collm**	**148.80**	**345**	*e*PKP	PKPdf	12 28 42.0	+0.2
CLL				⇓*i*PKP	PKPbc	12 28 46.2	-0.4
SZAC	**Souni-Zanaja**	**148.83**	**302**	P	PKPbc	12 28 46.9	-0.3
SZAC	**Souni-Zanaja**	**148.83**	**302**	P	PKPbc	12 28 46.9	-0.3
HRT	**Hereke**	**148.84**	**315**	*e*P	PKPbc	12 28 46.4	-0.6
IBBN	**Ibbenburen**	**148.84**	**352**	*e*PKPbc	PKPbc	12 28 46.2	-0.5
MORC	**Moravsky Berou**	**148.84**	**339**	*e*PKIKP	PKPdf	12 28 40.7	-1.3
MORC				*e*		12 28 53.1	
MORC	**Moravsky Berou**	**148.84**	**339**	⇓*i*P	PKPbc	12 28 46.2	-0.5
MORC	**Moravsky Berou**	**148.84**	**339**	*e*PKPdf	PKPdf	12 28 40.7	-1.3
MORC				*e*PKPbc	PKPbc	12 28 46.2	-0.5
MORC				*e*PKPab	PKPab	12 28 53.1	-0.2
CLZ	**Clausthal**	**148.87**	**348**	*e*PKPbc	PKPbc	12 28 46.4	-0.3
CWF	**Charnwood Fore**	**148.87**	**2**	*e*P	PKPbc	12 28 44.0	-2.7
CWF	**Charnwood Fore**	**148.87**	**2**	P	PKPbc	12 28 44.0	-2.7
VOIR		**148.91**	**326**	⇑PKHKP	PKPbc	12 28 46.7	-0.4
VOIR		**148.91**	**326**	⇑*i*P	PKPbc	12 28 46.7	-0.4
VOIR		**148.91**	**326**	⇑P	PKPbc	12 28 46.7	-0.4
ALFC	**Alevga**	**148.93**	**303**	P	PKPbc	12 28 46.6	-0.9
ALFC	**Alevga**	**148.93**	**303**	P	PKPbc	12 28 46.6	-0.9
BRG	**Berggiesshubel**	**148.96**	**344**	*i* PKHKP	PKPdf	12 28 41.8	-0.3
BRG				pmax	pmax		
	comp=Z,40nm,1.8s						
BRG	**Berggiesshubel**	**148.96**	**344**	*e*PKPbc	PKPbc	12 28 46.6	-0.4
BRG	**Berggiesshubel**	**148.96**	**344**	*i* PKP	PKPdf	12 28 41.8	-0.3
	comp=Z,67nm,1.8s						
BRG				*i*		12 28 46.7	
	comp=Z,222nm,1.1s						
BRG				*i*		12 31 05.3	
	comp=Z,109nm,1.2s						
BRG	**Berggiesshubel**	**148.96**	**344**	*i* PKP	PKPdf	12 28 41.8	-0.3
BRG				*i*		12 28 46.7	
BRG				*i*		12 31 05.3	
ADVT	**Abdulvahap**	**148.98**	**314**	*e*P	PKPbc	12 28 46.9	-0.5
CAVI	**Cavuskoy**	**149.02**	**313**	*e*P	PKPbc	12 28 47.2	-0.3
KLYT	**Kilyos**	**149.03**	**316**	*e*P	PKPbc	12 28 46.7	-0.7
FBE	**Freiberg**	**149.07**	**344**	*e*PKPbc	PKPbc	12 28 47.1	-0.1
PVCC	**Panska Ves**	**149.10**	**343**	⇑*e*PKP	PKPbc	12 28 47.4	+0.1
PVCC				*e*pPKP	pPKPdf	12 31 11.3	+4.7
ISK	**Istanbul-Kandi**	**149.12**	**315**	*e*P	PKPbc	12 28 47.0	-0.7
DRGR		**149.13**	**330**	⇓PKHKP	PKPbc	12 28 46.7	-0.8
DRGR		**149.13**	**330**	⇓*i*P	PKPbc	12 28 46.7	-0.8
DRGR		**149.13**	**330**	⇓P	PKPbc	12 28 46.6	-0.9
YLV	**Yalova**	**149.16**	**314**	*e*P	PKPbc	12 28 46.6	-1.2
PPCY	**Paphos**	**149.21**	**302**	P	PKPbc	12 28 47.0	-1.1
PPCY	**Paphos**	**149.21**	**302**	P	PKPbc	12 28 47.0	-1.1
BGKT	**Bogazkoy**	**149.24**	**316**	*e*P	PKPbc	12 28 47.2	-0.8
SHUT	**Suhut-Afyon**	**149.26**	**310**	*e*P	PKPbc	12 28 48.2	+0.1
CTKS	**Kestanelik-??a**	**149.39**	**316**	*e*P	PKPbc	12 28 48.6	+0.2
CTYL	**Yal??k??y-??at**	**149.40**	**317**	*e*P	PKPbc	12 28 47.0	-1.3
HTR	**Trewern Hill**	**149.42**	**5**	⇓*e*P	PKPbc	12 28 46.8	-1.3
HTR	**Trewern Hill**	**149.42**	**5**	P	PKPbc	12 28 46.8	-1.3
VYHS	**Vyhne**	**149.45**	**336**	*i* PKHKP	PKPbc	12 28 47.9	-0.3
VYHS	**Vyhne**	**149.45**	**336**	*i* PKP	PKPbc	12 28 47.9	-0.3
VYHS				*e*		12 31 12.2	
VYHS	**Vyhne**	**149.45**	**336**	*i* PKP	PKPbc	12 28 47.9	-0.3
VYHS				*e*		12 31 12.2	
PSZ	**Piszkesteto**	**149.50**	**334**	*e*PKIKP	PKPdf	12 28 42.3	-0.8
PSZ				*e*		12 28 56.6	
PSZ	**Piszkesteto**	**149.50**	**334**	⇓*i*P	PKPbc	12 28 47.5	-0.9
PSZ	**Piszkesteto**	**149.50**	**334**	⇓*e*PKP	PKPbc	12 28 48.0	-0.4
PSZ	**Piszkesteto**	**149.50**	**334**	*e*PKPdf	PKPdf	12 28 42.3	-0.8
PSZ				*e*PKPbc	PKPbc	12 28 47.9	-0.5
PSZ				*e*PKPab	PKPab	12 28 56.6	+0.5
MCH1	**Michaelchurch**	**149.52**	**4**	⇓*e*P	PKPbc	12 28 46.9	-1.4
MCH1	**Michaelchurch**	**149.52**	**4**	P	PKPbc	12 28 46.9	-1.4
ULDT	**Uludag**	**149.52**	**314**	⇑*i*P	PKPbc	12 28 48.3	-0.4
VRAC	**Vranov**	**149.56**	**339**	⇑*i*P	PKPbc	12 28 48.1	-0.4
VRAC	**Vranov**	**149.56**	**339**	PKP	PKPdf	12 28 41.4	-1.7
	comp=Z,2.1nm,0.4s,baz=61,slow=5.9,SNR=3.1						
VRAC				PKPbc	PKPbc	12 28 48.3	-0.2
	comp=Z,68nm,0.9s,baz=35,slow=1.7,SNR=39						
VRAC				PKPab	PKPab	12 28 56.1	-0.2
	comp=Z,152nm,1.0s,baz=42,slow=4.9,SNR=27						
VRAC				pPKP	pPKPdf	12 31 04.6	-2.8
	comp=Z,6.0nm,0.8s,baz=212,slow=17,SNR=1.3						
ISP	**Isparta**	**149.58**	**309**	*e*P	PKPbc	12 28 47.8	-1.1
ISP	**Isparta**	**149.58**	**309**	PKHKP	PKPbc	12 28 47.9	-1.0
ISP	**Isparta**	**149.58**	**309**	P	PKPbc	12 28 47.9	-1.0
ISP	**Isparta**	**149.58**	**309**	⇑*i*P	PKPbc	12 28 47.7	-1.2
ISP	**Isparta**	**149.58**	**309**	P	PKPbc	12 28 47.9	-1.0
PRU	**Pruhonice**	**149.60**	**342**	*e*PKHKP	PKPbc	12 28 48.3	-0.2
PRU				*e*		12 28 56.3	
PRU	**Pruhonice**	**149.60**	**342**	⇑*e*PKP	PKPbc	12 28 48.3	-0.2
PRU				*e*PKPAB	PKPab	12 28 56.3	-0.1
PRU				*e*pPKP	pPKPbc	12 31 11.9	+0.9
BCK	**Bucak**	**149.67**	**308**	*e*P	PKPbc	12 28 47.5	-1.6
MOX	**Moxa**	**149.74**	**346**	*e*PKP	PKPbc	12 28 48.4	-0.4
	comp=Z,284nm,1.6s						
MOX				*e*		12 28 56.1	
MOX				*e*		12 31 11.4	
MOX	**Moxa**	**149.74**	**346**	*e*PKHKP	PKPbc	12 28 48.4	-0.4
MOX				*e*		12 28 56.1	
MOX				pmax	pmax		
	comp=Z,284nm,1.6s						
MOX	**Moxa**	**149.74**	**346**	*e*PKPbc	PKPbc	12 28 48.1	-0.7
MOX	**Moxa**	**149.74**	**346**	*e*PKP	PKPbc	12 28 48.4	-0.4
MOX				*e*		12 28 56.1	
MOX				*e*		12 31 11.4	
TANN	**Tannenbergstha**	**149.76**	**345**	*e*PKPbc	PKPbc	12 28 48.6	-0.3
WERD	**Werda**	**149.76**	**345**	*e*PKPbc	PKPbc	12 28 48.7	-0.2
GDZ	**Gediz**	**149.78**	**312**	⇓*i*P	PKPbc	12 28 48.8	-0.5
GUNZ	**Gunzen**	**149.84**	**345**	*e*PKPbc	PKPbc	12 28 49.1	0.0
GUNZ				*e*PKPab	PKPab	12 28 57.1	-0.3
HGH	**Gray Hill**	**149.89**	**4**	⇓*e*P	PKPbc	12 28 47.7	-1.4
HGH	**Gray Hill**	**149.89**	**4**	P	PKPbc	12 28 47.7	-1.4
WERN	**Wernitzgruen**	**149.90**	**345**	*e*PKPbc	PKPbc	12 28 49.1	-0.1
JMB	**Yambol**	**149.91**	**320**	PKHKP	PKPbc	12 28 49.8	+0.3
JMB	**Yambol**	**149.91**	**320**	P	PKPbc	12 28 49.8	+0.3
JMB	**Yambol**	**149.91**	**320**	P	PKPbc	12 28 49.8	+0.3
UBBA	**Unterbreizbach**	**149.91**	**348**	*e*PKPbc	PKPbc	12 28 48.2	-1.0
NKC	**Novy Kostel**	**149.93**	**345**	*e*PKHKP	PKPbc	12 28 49.2	-0.1
NKC				*e*		12 28 56.1	
NKC	**Novy Kostel**	**149.93**	**345**	⇑*e*PKP	PKPbc	12 28 49.2	-0.1
NKC				*e*PKPAB	PKPab	12 28 56.1	-1.7
NKC				*e*pPKP	pPKPab	12 31 13.5	-1.3
TREC	**Trest**	**149.93**	**340**	*e*PKHKP	PKPbc	12 28 49.1	-0.2
TREC				*e*		12 28 57.2	
TREC	**Trest**	**149.93**	**340**	⇑*e*PKP	PKPbc	12 28 49.1	-0.2
TREC				*e*PKPAB	PKPab	12 28 57.2	-0.6
TREC				*e*pPKP	pPKPab	12 31 14.0	-0.9
KHAL	**Karahalli**	**150.09**	**310**	⇑*i*P	PKPbc	12 28 49.7	-0.3
GZR	**Gura Zlata**	**150.10**	**328**	⇓PKIKP	PKPbc	12 28 49.3	-0.6
GZR	**Gura Zlata**	**150.10**	**328**	⇓*i*P	PKPbc	12 28 49.3	-0.6
GZR	**Gura Zlata**	**150.10**	**328**	⇓P	PKPbc	12 28 49.3	-0.5
MODS	**Modra-Piesok**	**150.13**	**337**	*i* PKHKP	PKPbc	12 28 49.5	-0.3
MODS	**Modra-Piesok**	**150.13**	**337**	*i* PKP	PKPbc	12 28 49.5	-0.3
MODS				*e*		12 31 12.2	
MODS	**Modra-Piesok**	**150.13**	**337**	*i* PKP	PKPbc	12 28 49.5	-0.3
MODS				*e*		12 31 12.3	
TKR	**Tekirdag**	**150.14**	**317**	*e*P	PKPbc	12 28 49.9	-0.2
EDRB	**Edirne**	**150.17**	**319**	*e*P	PKPbc	12 28 49.7	-0.5
BUD	**Budapest**	**150.20**	**334**	⇓*e*PKP	PKPbc	12 28 49.6	-0.4
BNT	**Bandirma**	**150.22**	**315**	*e*P	PKPbc	12 28 49.8	-0.5
MANZ	**Manzenberg**	**150.24**	**345**	*e*PKPbc	PKPbc	12 28 49.9	-0.1
WOL	**Wolverton**	**150.30**	**2**	*e*P	PKPbc	12 28 49.1	-1.0
WOL	**Wolverton**	**150.30**	**2**	P	PKPbc	12 28 49.1	-1.0
MRMT	**Marmara Adasi**	**150.31**	**316**	*e*P	PKPbc	12 28 49.6	-0.9
ZST	**Bratislava**	**150.34**	**337**	*i* PKIKP	PKPbc	12 28 50.3	0.0
ZST	**Bratislava**	**150.34**	**337**	*i* PKP	PKPbc	12 28 50.3	0.0
ZST				*e*		12 31 16.9	
ZST	**Bratislava**	**150.34**	**337**	*i* PKP	PKPbc	12 28 50.3	0.0
ZST				*e*		12 31 16.9	
HTL	**Hartland**	**150.38**	**7**	*e*P	PKPbc	12 28 49.3	-1.0
HTL	**Hartland**	**150.38**	**7**	P	PKPbc	12 28 49.3	-1.0
ROTZ	**Rotzenmuhle**	**150.42**	**345**	*e*PKPbc	PKPbc	12 28 50.0	-0.5
ELL	**Elmali**	**150.45**	**307**	*e*P	PKPbc	12 28 50.7	-0.3
BZS	**Buzias**	**150.51**	**329**	⇑PKIKP	PKPbc	12 28 50.1	-0.7
BZS	**Buzias**	**150.51**	**329**	⇑*i*P	PKPbc	12 28 50.1	-0.7
BZS	**Buzias**	**150.51**	**329**	⇑P	PKPbc	12 28 50.1	-0.7
GOLH	**Golhisar**	**150.51**	**308**	⇑*i*P	PKPbc	12 28 50.3	-0.8
SART	**Tekirdag**	**150.53**	**316**	⇑*i*P	PKPbc	12 28 50.2	-0.8
BEBN	**Eben Emael**	**150.58**	**353**	PKPbc	PKPbc	12 28 50.4	-0.3
BEBN				PKPab	PKPab	12 28 59.4	-1.2
BEBN				APKPab		12 31 17.0	
KULA	**Kula-Manisa**	**150.61**	**311**	*e*P	PKPbc	12 28 51.1	-0.2
BALB	**Balikesir**	**150.61**	**314**	*e*P	PKPbc	12 28 50.5	-0.7
KHC	**Kasperske Hory**	**150.64**	**343**	*e*PKIKP	PKPdf	12 28 44.0	-0.8
KHC				*e*		12 29 00.5	
KHC	**Kasperske Hory**	**150.64**	**343**	⇑*e*PKP	PKPbc	12 28 50.9	-0.1
KHC				*e*PKPAB	PKPab	12 29 00.5	-0.3
KHC				*e*pPKP	pPKPdf	12 31 13.6	+4.5
KHC	**Kasperske Hory**	**150.64**	**343**	*e*PKPdf	PKPdf	12 28 44.0	-0.8
KHC				*e*PKPbc	PKPbc	12 28 50.8	-0.2
KHC				*e*PKP	PKPbc	12 28 50.9	-0.1
KHC				*e*		12 29 00.5	
KHC				*e*PKPab	PKPab	12 29 01.1	+0.2
KHC				*e*		12 31 13.6	
KHC				*e*SKPdf	SKPdf	12 31 18.7	-1.3
DENT	**Denizli**	**150.68**	**310**	*e*P	PKPbc	12 28 51.3	-0.2
MANT	**Manisa**	**150.69**	**311**	⇓*i*P	PKPbc	12 28 51.2	-0.3
UCC	**Uccle**	**150.70**	**355**	PKPbc	PKPbc	12 28 50.6	-0.5
UCC				PKPab	PKPab	12 28 59.9	-1.1
GRA1	**Grafenberg Arr**	**150.72**	**346**	*e*PKPbc	PKPbc	12 28 50.9	-0.2
GRA1				*e*PKPab	PKPab	12 29 00.8	-0.3
GRF	**Grafenberg Arr**	**150.72**	**346**	*e*PKPbc	PKPbc	12 28 50.9	-0.2
GRF				*e*PKPab	PKPab	12 29 00.8	-0.3
GRFO	**Grafenberg**	**150.72**	**346**	*e*PKPbc	PKPbc	12 28 50.8	-0.3
MEM	**Membach**	**150.73**	**353**	PKP	PKPdf	12 28 43.2	-1.6
MEM				PKPbc	PKPbc	12 28 50.6	-0.5
MEM				PKPab	PKPab	12 29 01.0	-0.2
MEM				APKPbc		12 31 13.4	
TNS	**Taunus Mts**	**150.76**	**350**	*e*PKPbc	PKPbc	12 28 50.5	-0.7
WET	**Wettzell**	**150.82**	**343**	*e*PKPbc	PKPbc	12 28 50.8	-0.6
WET				*e*PKPab	PKPab	12 29 01.5	-0.1
GEC2	**GERESS Array S**	**150.87**	**342**	*e*PKIKP	PKPdf	12 28 44.5	-0.6
GEC2				*e*		12 28 51.0	
GEC2				*e*		12 29 01.6	
GEC2	**GERESS Array S**	**150.87**	**342**	*e*PKPbc	PKPbc	12 28 51.0	-0.5
GEC2	**GERESS Array S**	**150.87**	**342**	*e*PKPdf	PKPdf	12 28 44.5	-0.6
GEC2				*e*PKPbc	PKPbc	12 28 51.0	-0.5
GEC2				*e*PKPbc	PKPbc	12 28 51.1	-0.4
GEC2				*e*PKPab	PKPab	12 29 01.6	-0.2
GEC2				*e*SKPdf	SKPdf	12 31 18.5	-1.9
GERES	**GERESS Array B**	**150.87**	**342**	PKP	PKPdf	12 28 44.2	-0.9
	comp=Z,2.2nm,0.7s,baz=106,slow=2.9,SNR=13						
GERES				PKPbc	PKPbc	12 28 51.1	-0.4
	comp=Z,51nm,0.7s,baz=27,slow=2.0,SNR=141						
GERES				PKPab	PKPab	12 29 01.4	-0.3
	comp=Z,15nm,0.6s,baz=15,slow=5.5,SNR=10						
GERES				pPKPbc	pPKPbc	12 31 13.5	-0.8
	comp=Z,34nm,1.2s,baz=51,slow=26,SNR=4.2						
AKAS	**Kas**	**150.87**	**306**	*i* P	PKPbc	12 28 50.8	-1.1
KSL	**Kastellorizon**	**150.92**	**306**	*e*P	PKPbc	12 28 50.0	-2.0
CSA1	**St Austell**	**150.97**	**7**	⇓*e*P	PKPbc	12 28 50.5	-1.1
CSA1	**St Austell**	**150.97**	**7**	P	PKPbc	12 28 50.5	-1.1
LPK	**Lapseki**	**150.97**	**316**	*e*P	PKPbc	12 28 51.5	-0.5
SOP	**Sopron**	**150.97**	**338**	⇓*e*PKP	PKPbc	12 28 51.6	-0.2
DYA	**Yadsworthy**	**150.99**	**6**	*e*P	PKPbc	12 28 50.5	-1.3
DYA	**Yadsworthy**	**150.99**	**6**	P	PKPbc	12 28 50.5	-1.3
BCLA	**Clavier**	**150.99**	**354**	PKPbc	PKPbc	12 28 51.0	-0.7
BCLA				PKPab	PKPab	12 29 01.1	-1.2
BCLA				APKPab		12 31 16.5	
SNF	**Seneffe**	**150.99**	**355**	PKPbc	PKPbc	12 28 51.2	-0.5
SNF				PKPab	PKPab	12 29 01.3	-1.0
SNF				APKPbc		12 31 13.9	
CONA	**Conrad Observa**	**151.00**	**339**	⇑*i*PKPdf	PKPdf	12 28 44.8	-0.5
	comp=Z,7.7nm,0.8s,SNR=34						
CONA				⇓*i*PKiKP	PKiKP	12 28 51.9	-0.3
	comp=Z,173nm,1.1s						
CONA				⇑*i*PKPab	PKPab	12 29 02.9	+0.5
	comp=Z,154nm,0.9s						
CSNA	**Conrad Observa**	**151.00**	**339**	⇑*i*PKPdf	PKPdf	12 28 44.9	-0.4
	comp=Z,6.8nm,0.7s						
CSNA				⇓*i*PKiKP	PKiKP	12 28 52.0	-0.2

	comp=Z,158nm,1.0s						
CSNA				⇑*i*PKPab	PKPab	12 29 02.9	+0.5
	comp=Z,148nm,0.9s						
AKS	**Akhisar**	**151.02**	**313**	*e*P	PKPbc	12 28 51.7	-0.5
MENF	**Mencas**	**151.06**	**358**	PKP	PKPbc	12 28 51.1	-0.8
MENF	**Mencas**	**151.06**	**358**	PKP	PKPbc	12 28 51.1	-0.8
CCA1	**Carnmenellis**	**151.09**	**8**	*e*P	PKPbc	12 28 50.3	-1.7
CCA1	**Carnmenellis**	**151.09**	**8**	P	PKPbc	12 28 50.3	-1.7
FETY	**Fethiye**	**151.10**	**308**	*e*P	PKPbc	12 28 52.0	-0.4
ALN	**Alexandroupoli**	**151.14**	**318**	P	PKPbc	12 28 50.6	-1.8
ALN	**Alexandroupoli**	**151.14**	**318**	*e*P	PKPbc	12 28 51.0	-1.4
ENEZ	**Enez**	**151.16**	**317**	*e*P	PKPbc	12 28 51.6	-0.8
ABH	**Alteburg**	**151.24**	**351**	PKP	PKPbc	12 28 51.4	-0.9
PLD	**Plovdiv**	**151.24**	**321**	PKIKP	PKPbc	12 28 51.4	-1.2
PLD	**Plovdiv**	**151.24**	**321**	P	PKPbc	12 28 51.4	-1.2
PLD	**Plovdiv**	**151.24**	**321**	P	PKPbc	12 28 51.4	-1.2
RDO	**Rodhopi**	**151.31**	**318**	*e*P	PKPbc	12 28 52.0	-0.8
GIVF	**Givet**	**151.35**	**354**	*e*PKIKP	PKPdf	12 28 45.9	+0.1
TURN	**Turunc**	**151.36**	**308**	⇑*i*P	PKPbc	12 28 53.1	+0.1
DALT	**Dalyan (Mudla)**	**151.38**	**308**	*e*P	PKPbc	12 28 52.9	-0.1
DOU	**Dourbes**	**151.38**	**355**	PKPbc	PKPbc	12 28 52.2	-0.4
DOU				PKPab	PKPab	12 29 02.9	-1.0
DOU				APKP		12 31 12.0	
DOU				APKPbc		12 31 16.8	
PKSM	**Moragy**	**151.38**	**333**	⇓PKIKP	PKPbc	12 28 50.3	-2.4
PKSM	**Moragy**	**151.38**	**333**	⇓*i*P	PKPbc	12 28 50.3	-2.4
PKSM	**Moragy**	**151.38**	**333**	⇓P	PKPbc	12 28 50.3	-2.4
BAIF	**Baives**	**151.45**	**355**	*e*PKIKP	PKPdf	12 28 46.6	+0.6
RUP	**Ruppelstein**	**151.49**	**351**	PKIKP	PKPbc	12 28 51.6	-1.3
EZN	**Ezine**	**151.54**	**315**	*e*P	PKPbc	12 28 52.6	-0.7
MOA	**Molln**	**151.59**	**340**	⇓*i*PKPdf	PKPdf	12 28 45.7	-0.5
	comp=Z,18nm,1.4s,SNR=9.8						
MOA				⇓*i*PKPbc	PKPbc	12 28 52.5	-0.6
	comp=Z,69nm,1.0s						
MOA				⇑*i*PKPab	PKPab	12 29 05.1	+0.2
	comp=Z,160nm,1.2s						
IZM	**Izmir**	**151.63**	**312**	*e*P	PKPbc	12 28 52.8	-0.7
WLF	**Walferdange**	**151.64**	**352**	PKPbc	PKPbc	12 28 53.3	+0.1
WLF				PKPab	PKPab	12 29 04.6	-0.5
WLF				APKPbc		12 31 15.8	
WLF				E		12 31 17.6	
WLF	**Walferdange**	**151.64**	**352**	*e*PKIKP	PKPbc	12 28 53.1	-0.1
WLF				*e*		12 29 04.6	
WLF	**Walferdange**	**151.64**	**352**	*e*PKPab	PKPab	12 29 04.5	-0.5
WLF				*e*pPKPab	pPKPbc	12 31 18.1	+2.0
WLF	**Walferdange**	**151.64**	**352**	*e*PKPbc	PKPbc	12 28 53.1	-0.1
WLF				*e*PKPab	PKPab	12 29 04.6	-0.4
KTD	**Kalmit**	**151.70**	**350**	PKIKP	PKPbc	12 28 53.1	-0.2
ARSA	**Arzberg**	**151.70**	**338**	⇑*i*PKPdf	PKPdf	12 28 45.5	-0.9
	comp=Z,14nm,1.5s						
ARSA				⇓*i*PKPbc	PKPbc	12 28 52.6	-0.8
	comp=Z,57nm,1.2s						
ARSA				⇓*i*PKPab	PKPab	12 29 05.3	-0.1
	comp=Z,42nm,0.8s						
BOZC	**Bozcaada**	**151.71**	**316**	⇓*i*P	PKPbc	12 28 52.5	-1.2
MLSB	**Milas**	**151.78**	**310**	*e*P	PKPbc	12 28 53.7	-0.2
BLCB	**Balcova**	**151.79**	**312**	P	PKPbc	12 28 53.0	-0.9
BLCB	**Balcova**	**151.79**	**312**	P	PKPbc	12 28 53.0	-0.9
VTS	**Vitosha**	**151.79**	**323**	PKIKP	PKPbc	12 28 51.9	-1.9
VTS	**Vitosha**	**151.79**	**323**	P	PKPbc	12 28 51.9	-1.9
VTS	**Vitosha**	**151.79**	**323**	P	PKPbc	12 28 51.9	-1.9
PRK	**Paraskevi**	**151.88**	**315**	PKIKP	PKPbc	12 28 52.9	-1.2
PRK	**Paraskevi**	**151.88**	**315**	P	PKPbc	12 28 52.9	-1.2
PRK	**Paraskevi**	**151.88**	**315**	*e*P	PKPbc	12 28 53.0	-1.1
PRK	**Paraskevi**	**151.88**	**315**	P	PKPbc	12 28 52.9	-1.2
ARG	**Arkhangelos**	**151.98**	**307**	*e*P	PKPbc	12 28 54.0	-0.4
STU	**Stuttgart**	**152.02**	**348**	*e*PKPbc	PKPbc	12 28 53.6	-0.5
STU	**Stuttgart**	**152.02**	**348**	*e*PKPdf	PKPdf	12 28 46.5	-0.4
STU				*e*PKPbc	PKPbc	12 28 53.8	-0.3
STU				*e*PKPab	PKPab	12 29 05.7	-1.0
LANF	**Langenberg**	**152.07**	**350**	PKP	PKPbc	12 28 53.4	-0.8
LANF	**Langenberg**	**152.07**	**350**	PKIKP	PKPbc	12 28 53.4	-0.8
LANF	**Langenberg**	**152.07**	**350**	PKP	PKPbc	12 28 53.4	-0.8
BDRM	**Kayabasi**	**152.12**	**309**	⇑*i*P	PKPbc	12 28 53.7	-1.0
RJOB	**Jochberg**	**152.13**	**342**	*e*PKPab	PKPab	12 29 06.7	-0.5
KOGS	**Kog**	**152.13**	**337**	*e*PKPdf	PKPdf	12 28 46.4	-0.7
KOGS				*i* PKPbc	PKPbc	12 28 53.4	-1.0
KOGS				*e*PKPab	PKPab	12 29 06.7	-0.5
KOGS				*e*pPKPbc	pPKPbc	12 31 20.3	+2.9
KOGS	**Kog**	**152.13**	**337**	*e*PKPdf	PKPdf	12 28 46.4	-0.7
KOGS				*i* PKPbc	PKPbc	12 28 53.4	-1.0
KOGS				*e*PKPab	PKPab	12 29 06.7	-0.5
KOGS				*e*pPKPbc	pPKPbc	12 31 20.3	+2.9
DAT	**Datca**	**152.16**	**309**	*e*P	PKPbc	12 28 53.7	-1.1
SIGR	**SIGRI**	**152.18**	**315**	P	PKPbc	12 28 53.4	-1.3
SIGR	**SIGRI**	**152.18**	**315**	P	PKPbc	12 28 53.4	-1.3
NVR	**Nevrokopi**	**152.20**	**320**	*e*P	PKPbc	12 28 54.0	-0.7
BODT	**Bodrum**	**152.21**	**310**	*e*P	PKPbc	12 28 54.1	-0.8
LIA	**Limnos Island**	**152.24**	**317**	P	PKPdf	12 28 50.4	+2.9
LIA	**Limnos Island**	**152.24**	**317**	*e*P	PKPbc	12 28 53.5	-1.4
LIA	**Limnos Island**	**152.24**	**317**	P	PKPdf	12 28 50.4	+2.9
SMG	**Samos**	**152.25**	**311**	*e*P	PKPbc	12 28 54.0	-1.0
SOKA	**Soboth**	**152.37**	**338**	⇑*i*PKPdf	PKPdf	12 28 46.3	-1.1
	comp=Z,18nm,1.4s						
SOKA				⇓*i*PKPbc	PKPbc	12 28 54.1	-0.8
	comp=Z,86nm,1.2s						
SOKA				⇑*i*PKPab	PKPab	12 29 08.0	-0.2
	comp=Z,93nm,1.0s						
PERS	**Pernice**	**152.38**	**338**	*e*PKPdf	PKPdf	12 28 46.1	-1.4
PERS				*i* PKPbc	PKPbc	12 28 53.8	-1.1
PERS				*i* PKPab	PKPab	12 29 07.6	-0.6
PERS				*i* pPKPbc	pPKPbc	12 31 20.8	+2.8
PERS	**Pernice**	**152.38**	**338**	*e*PKPdf	PKPdf	12 28 46.1	-1.4
PERS				*i* PKPbc	PKPbc	12 28 53.8	-1.1
PERS				*i* PKPab	PKPab	12 29 07.6	-0.6
PERS				*i* pPKPbc	pPKPbc	12 31 20.8	+2.8
CHOS	**Chios island**	**152.47**	**313**	P	PKPdf	12 28 48.5	+0.7
CHOS	**Chios island**	**152.47**	**313**	*e*P	PKPbc	12 28 54.5	-0.9
SRS	**Serrai**	**152.51**	**320**	PKIKP	PKPbc	12 28 53.2	-2.2
SRS	**Serrai**	**152.51**	**320**	P	PKPbc	12 28 53.2	-2.2
SRS	**Serrai**	**152.51**	**320**	P	PKPbc	12 28 53.2	-2.2
KBA	**Koelnbreinsper**	**152.56**	**341**	⇑*i*PKPdf	PKPdf	12 28 46.4	-1.3
	comp=Z,13nm,1.5s,SNR=17						
KBA				⇑*i*PKPbc	PKPbc	12 28 54.4	-0.9
	comp=Z,55nm,0.9s						
KBA				⇑*i*PKPab	PKPab	12 29 08.8	-0.2
	comp=Z,46nm,0.5s						
BFO	**Black Forest**	**152.61**	**349**	*e*PKIKP	PKPbc	12 28 54.8	-0.6
BFO				*e*		12 29 08.2	
OBKA	**Obir**	**152.68**	**339**	⇑*i*PKPdf	PKPdf	12 28 49.8	+1.9
	comp=Z,5.7nm,0.9s,SNR=9.6						
OBKA				⇓*i*PKPbc	PKPbc	12 28 54.5	-1.1
	comp=Z,27nm,0.8s						
OBKA				⇑*i*PKPab	PKPab	12 29 09.0	-0.6
	comp=Z,60nm,0.9s						
OUR	**Ouranopolis**	**152.74**	**319**	P	PKPbc	12 28 54.3	-1.6
SPAK	**Spaichingen-Ko**	**152.75**	**348**	PKP	PKPbc	12 28 53.8	-1.9
WATA	**Walderalm**	**152.83**	**344**	⇓*i*PKPdf	PKPdf	12 28 47.6	-0.5
	comp=Z,7.8nm,0.9s,SNR=12						
WATA				⇓*i*PKPbc	PKPbc	12 28 55.1	-0.8
	comp=Z,26nm,0.4s						
WATA				⇑*i*PKPab	PKPab	12 29 09.7	-0.4
	comp=Z,47nm,0.7s						
SOH	**Sokhos**	**152.83**	**320**	P	PKPbc	12 28 54.2	-1.9
SOH	**Sokhos**	**152.83**	**320**	*e*P	PKPab	12 29 10.0	-0.4
MYKA	**Terra Mystica**	**152.87**	**340**	⇑*i*PKPdf	PKPdf	12 28 47.3	-0.9
	comp=Z,8.1nm,0.9s						
MYKA				⇓*i*PKPbc	PKPbc	12 28 54.7	-1.3
	comp=Z,43nm,0.8s						
MYKA				⇑*i*PKPab	PKPab	12 29 09.5	-0.8
	comp=Z,84nm,0.9s						
FLN	**La Foliniere**	**152.87**	**2**	*e*PKIKP	PKPdf	12 28 47.5	-0.6
WTTA	**Wattenberg**	**152.88**	**343**	⇑*i*PKPdf	PKPdf	12 28 47.7	-0.4
	comp=Z,20nm,1.0s,SNR=11						
WTTA				⇓*i*PKPbc	PKPbc	12 28 55.6	-0.4
	comp=Z,39nm,0.4s						
WTTA				⇑*i*PKPab	PKPab	12 29 10.4	+0.1
	comp=Z,214nm,1.1s						
KNT	**Kendrikon**	**152.89**	**321**	PKIKP	PKPbc	12 28 54.5	-1.7
KNT	**Kendrikon**	**152.89**	**321**	P	PKPbc	12 28 54.5	-1.7
KNT	**Kendrikon**	**152.89**	**321**	P	PKPbc	12 28 54.5	-1.7
RETA	**Reutte**	**152.90**	**345**	⇑*i*PKPdf	PKPdf	12 28 47.6	-0.6
	comp=Z,8.2nm,1.0s						
RETA				⇓*i*PKPbc	PKPbc	12 28 55.2	-0.8
	comp=Z,22nm,0.6s						
RETA				⇑*i*PKPab	PKPab	12 29 09.8	-0.6
	comp=Z,121nm,1.1s						
MEZF	**Maizieres J’vi**	**152.91**	**354**	*e*PKIKP	PKPdf	12 28 48.5	+0.4
ECH	**Echery**	**152.92**	**350**	PKP	PKPbc	12 28 55.5	-0.5
ECH	**Echery**	**152.92**	**350**	PKIKP	PKPbc	12 28 55.5	-0.5
ECH	**Echery**	**152.92**	**350**	PKP	PKPbc	12 28 55.5	-0.5
MOTA	**Moosalm**	**152.94**	**344**	*i* PKPdf	PKPdf	12 28 47.4	-0.8
	comp=Z,10.0nm,0.8s,SNR=11						
MOTA				⇑*i*PKPbc	PKPbc	12 28 54.9	-1.2
	comp=Z,44nm,0.8s						
MOTA				⇓*i*PKPab	PKPab	12 29 10.2	-0.5
	comp=Z,173nm,1.2s						
STIP	**Stip**	**152.95**	**323**	P	PKPdf	12 28 43.1	-5.3
KARP	**Karpathos**	**152.96**	**307**	*e*P	PKPbc	12 28 56.0	-0.6
VAY	**Valandovo**	**152.98**	**322**	PKIKP	PKPbc	12 28 54.7	-1.7
VAY	**Valandovo**	**152.98**	**322**	P	PKPbc	12 28 54.7	-1.7
VAY	**Valandovo**	**152.98**	**322**	*e*PKP	PKPab	12 29 10.3	-0.7
VAY	**Valandovo**	**152.98**	**322**	P	PKPbc	12 28 54.7	-1.7
PLG	**Polygyros**	**153.05**	**319**	P	PKPbc	12 28 54.6	-2.0
PLG	**Polygyros**	**153.05**	**319**	*e*P	PKPab	12 29 11.0	-0.4
LDF	**La Druitiere**	**153.05**	**1**	*e*PKIKP	PKPdf	12 28 48.0	-0.3
LJU	**Ljubljana**	**153.09**	**338**	*i* PKIKP	PKPdf	12 28 48.1	-0.4
LJU				*i*		12 28 55.8	
LJU				*i*		12 29 10.2	
LJU	**Ljubljana**	**153.09**	**338**	*i* PKPdf	PKPdf	12 28 48.1	-0.4
LJU				*i* PKPbc	PKPbc	12 28 55.8	-0.7
LJU				*i* PKPab	PKPab	12 29 10.2	-1.1
LJU				*e*pPKPbc	pPKPbc	12 31 22.6	+3.0
LJU	**Ljubljana**	**153.09**	**338**	*i* PKPdf	PKPdf	12 28 48.1	-0.4
LJU				*i* PKPbc	PKPbc	12 28 55.8	-0.7
LJU				*i* PKPab	PKPab	12 29 10.2	-1.1
LJU				*e*pPKPbc	pPKPbc	12 31 22.6	+3.0
ABTA	**Abfaltersbach**	**153.11**	**342**	⇑*i*PKPdf	PKPdf	12 28 47.3	-1.2
	comp=Z,20nm,1.2s,SNR=9.9						
ABTA				⇑*i*PKPbc	PKPbc	12 28 55.2	-1.3
	comp=Z,86nm,1.2s						
ABTA				⇑*i*PKPab	PKPab	12 29 09.7	-1.6
	comp=Z,66nm,0.6s						
FELD	**Feldberg im Sc**	**153.11**	**349**	PKP	PKPbc	12 28 55.1	-1.4
HORT	**Hortiatis**	**153.12**	**320**	P	PKPbc	12 28 55.2	-1.5
PAIG	**Paliouri**	**153.17**	**318**	PKIKP	PKPbc	12 28 53.6	-3.3
PAIG	**Paliouri**	**153.17**	**318**	P	PKPbc	12 28 53.6	-3.3
PAIG	**Paliouri**	**153.17**	**318**	P	PKPbc	12 28 53.6	-3.3
THE	**Thessaloniki**	**153.18**	**320**	P	PKPbc	12 28 54.8	-2.1
SKO	**Skopje**	**153.18**	**324**	PKIKP	PKPbc	12 28 56.7	-0.1
SKO	**Skopje**	**153.18**	**324**	P	PKPbc	12 28 56.7	-0.1
SKO	**Skopje**	**153.18**	**324**	P	PKPbc	12 28 56.7	-0.1
GRR	**Gorron**	**153.23**	**2**	*e*PKIKP	PKPdf	12 28 49.3	+0.7
PLE	**Pljevlja**	**153.27**	**329**	⇓*i*PKP	PKPbc	12 28 56.7	-0.3
PLE	**Pljevlja**	**153.27**	**329**	⇓*i*PKP	PKPbc	12 28 56.8	-0.2
MOF	**Molkenrain**	**153.28**	**350**	PKP	PKPbc	12 28 56.4	-0.4
MOF	**Molkenrain**	**153.28**	**350**	PKIKP	PKPbc	12 28 56.4	-0.4
MOF	**Molkenrain**	**153.28**	**350**	PKP	PKPbc	12 28 56.4	-0.4
DAVA	**Damuels**	**153.29**	**346**	⇑*i*PKPdf	PKPdf	12 28 50.0	+1.3
	comp=Z,12nm,0.9s						
DAVA				⇓*i*PKPbc	PKPbc	12 28 56.4	-0.4
	comp=Z,31nm,0.8s						
DAVA				⇑*i*PKPab	PKPab	12 29 11.8	-0.3
	comp=Z,84nm,0.9s						
GRG	**Griva**	**153.31**	**321**	PKIKP	PKPbc	12 28 55.0	-2.1
GRG	**Griva**	**153.31**	**321**	P	PKPbc	12 28 55.0	-2.1
GRG	**Griva**	**153.31**	**321**	P	PKPbc	12 28 55.0	-2.1
VOY	**Vojsko**	**153.32**	**339**	*e*PKPdf	PKPdf	12 28 47.3	-1.5
VOY				*e*		12 28 50.5	
VOY				*e*PKPbc	PKPbc	12 28 55.9	-1.1
VOY				*e*PKPab	PKPab	12 29 10.3	-2.0
VOY				*e*		12 31 24.2	
VOY	**Vojsko**	**153.32**	**339**	*e*PKPdf	PKPdf	12 28 47.3	-1.5
VOY				*e*		12 28 50.5	
VOY				*e*PKPbc	PKPbc	12 28 55.9	-1.1
VOY				*e*PKPab	PKPab	12 29 10.3	-2.0
VOY				*e*		12 31 24.2	
FETA	**Feichten**	**153.34**	**344**	*i* PKPdf	PKPdf	12 28 48.3	-0.5
	comp=Z,25nm,0.8s,SNR=27						
FETA				⇓*i*PKPbc	PKPbc	12 28 56.8	-0.2
	comp=Z,62nm,1.2s						
FETA				⇑*i*PKPab	PKPab	12 29 12.3	-0.1
	comp=Z,92nm,1.1s						
IVA	**Berane**	**153.36**	**327**	⇓*i*PKP	PKPbc	12 28 56.4	-0.8
IVA	**Berane**	**153.36**	**327**	⇓*i*PKP	PKPbc	12 28 56.5	-0.7
PVY	**Plav**	**153.52**	**327**	⇓*i*PKP	PKPbc	12 28 55.6	-1.9
PVY	**Plav**	**153.52**	**327**	⇓*i*PKP	PKPbc	12 28 55.7	-1.9
BBS	**Basel-Blauen**	**153.59**	**349**	PKIKP	PKPbc	12 28 55.3	-2.2
BBS	**Basel-Blauen**	**153.59**	**349**	PKP	PKPbc	12 28 55.3	-2.2
UPM	**Unac-Piva**	**153.60**	**329**	⇓*i*PKP	PKPbc	12 28 56.3	-1.4
UPM	**Unac-Piva**	**153.60**	**329**	⇓*i*PKP	PKPbc	12 28 56.4	-1.3
KRUS	**Krusevo**	**153.69**	**323**	*e*PKP	PKPbc	12 28 56.6	-1.3
KRUS				*e*PKP	PKPab	12 29 13.3	-0.8
SKDS	**Skadanscina**	**153.70**	**338**	*i* PKPdf	PKPdf	12 28 49.7	+0.3
SKDS				*i* PKPbc	PKPbc	12 28 56.8	-1.0
SKDS				*i* PKPab	PKPab	12 29 12.4	-1.6
SKDS	**Skadanscina**	**153.70**	**338**	*i* PKPdf	PKPdf	12 28 49.7	+0.3
SKDS				*i* PKPbc	PKPbc	12 28 56.8	-1.0
SKDS				*i* PKPab	PKPab	12 29 12.4	-1.6
DAVOS	**Davos**	**153.73**	**346**	PKIKP	PKPdf	12 28 49.2	-0.2
DAVOS						12 28 57.9	
DAVOS						12 29 14.2	
DAVOX	**Davos/Dischmat**	**153.77**	**346**	PKP	PKPdf	12 28 49.2	-0.2
	comp=Z,14nm,0.8s,baz=338,slow=0.8,SNR=14						
DAVOX				PKPbc	PKPbc	12 28 57.9	0.0
	comp=Z,23nm,0.4s,baz=234,slow=2.6,SNR=5.8						
DAVOX				PKPab	PKPab	12 29 14.1	0.0
	comp=Z,71nm,0.8s,baz=343,slow=5.4,SNR=13						
DAVOX				pPKP	pPKPdf	12 31 11.1	-2.9
	comp=Z,9.9nm,0.9s,baz=20,slow=8.0,SNR=1.9						
LIT	**Litokhoron**	**153.79**	**320**	P	PKPbc	12 28 56.5	-1.7
LIT	**Litokhoron**	**153.79**	**320**	*e*P	PKPab	12 29 14.0	-0.6
XOR	**Xorichti**	**153.81**	**318**	P	PKPbc	12 28 56.2	-2.0
XOR	**Xorichti**	**153.81**	**318**	P	PKPbc	12 28 56.2	-2.0
LOMF	**Lomont**	**153.81**	**350**	PKP	PKPbc	12 28 57.3	-0.7
LOMF	**Lomont**	**153.81**	**350**	PKIKP	PKPbc	12 28 57.3	-0.7
LOMF	**Lomont**	**153.81**	**350**	PKP	PKPbc	12 28 57.3	-0.7
ZKR	**Zakros**	**153.84**	**307**	P	PKPbc	12 28 58.1	-0.4
NKY	**Niksic**	**153.85**	**328**	⇓*i*PKP	PKPbc	12 28 56.3	-1.9
NKY	**Niksic**	**153.85**	**328**	⇓*i*PKP	PKPbc	12 28 56.4	-1.9
THR1	**Thera Island**	**153.85**	**310**	P	PKPbc	12 28 56.8	-1.6
BIA	**Bitola**	**153.89**	**323**	*e*PKP	PKPdf	12 28 52.3	+2.6
BIA				*e*PKP	PKPbc	12 28 57.6	-0.7
BIA				*e*PKP	PKPab	12 29 14.0	-1.0
THR6	**Thira Island,**	**153.90**	**310**	P	PKPbc	12 28 56.6	-1.9
THR6	**Thira Island,**	**153.90**	**310**	P	PKPbc	12 28 56.6	-1.9
TTG	**Podgorica**	**154.00**	**327**	⇓*i*PKP	PKPbc	12 28 56.1	-2.4
BRY	**Bratogost**	**154.00**	**329**	⇓*i*PKP	PKPbc	12 28 57.2	-1.3
BRY	**Bratogost**	**154.00**	**329**	⇓*i*PKP	PKPbc	12 28 57.2	-1.3
FNA	**Florina**	**154.01**	**322**	PKIKP	PKPbc	12 28 55.6	-3.0
FNA	**Florina**	**154.01**	**322**	P	PKPbc	12 28 55.6	-3.0
FNA	**Florina**	**154.01**	**322**	P	PKPbc	12 28 55.6	-3.0
KZN	**Kozani**	**154.09**	**321**	*e*P	PKPab	12 29 15.5	-0.4
PTL	**Penteli**	**154.11**	**314**	*e*P	PKPbc	12 28 57.5	-1.4
TUE	**Stuetta**	**154.18**	**346**	*e*PKPdf	PKPdf	12 28 49.6	-0.4
TUE				*e*PKPbc	PKPbc	12 28 58.8	+0.1
TUE				*e*PKPab	PKPab	12 29 15.7	-0.2
NPS	**Neapolis**	**154.23**	**307**	*e*P	PKPbc	12 29 00.0	+0.7
LOR	**Lormes**	**154.25**	**355**	*e*PKIKP	PKPdf	12 28 50.0	-0.1
	comp=Z,29nm,1.0s						
ATH	**Athens Observa**	**154.25**	**314**	*e*P	PKPab	12 29 15.5	-1.1
BUM	**Brajici-Budva**	**154.28**	**328**	⇓*i*PKP	PKPbc	12 28 57.4	-1.7
LKR	**Lokris**	**154.34**	**316**	P	PKPbc	12 28 57.7	-1.7
LKR	**Lokris**	**154.34**	**316**	*e*P	PKPbc	12 28 58.0	-1.4
LKR	**Lokris**	**154.34**	**316**	P	PKPbc	12 28 57.7	-1.7
ULC	**Ulcinj**	**154.35**	**327**	⇓*i*PKP	PKPbc	12 28 57.4	-1.9
HCY	**Herceg Novi**	**154.37**	**328**	⇓*i*PKP	PKPbc	12 28 56.6	-2.7
HCY	**Herceg Novi**	**154.37**	**328**	⇓*i*PKP	PKPbc	12 28 56.7	-2.6
LAST	**Lasithi**	**154.37**	**307**	P	PKPdf	12 28 50.1	-0.5
LAST	**Lasithi**	**154.37**	**307**	P	PKPdf	12 28 50.1	-0.5
THL	**Klokotos Trika**	**154.41**	**319**	P	PKPdf	12 28 45.2	-5.3
TIR	**Tirane**	**154.47**	**325**	PKIKP	PKPbc	12 28 57.9	-1.6
TIR	**Tirane**	**154.47**	**325**	P	PKPbc	12 28 57.9	-1.6
TIR	**Tirane**	**154.47**	**325**	P	PKPbc	12 28 57.9	-1.6
SSF	**Saint Saulge**	**154.48**	**355**	*e*PKIKP	PKPdf	12 28 50.2	-0.2
NAIG	**Nisos Aigina**	**154.52**	**314**	*e*P	PKPdf	12 28 57.5	+6.7
AGG	**Agios Georgios**	**154.55**	**318**	P	PKPdf	12 28 58.3	+7.6
AGG	**Agios Georgios**	**154.55**	**318**	*e*P	PKPdf	12 28 58.0	+7.3
CABF	**La Chapelle**	**154.65**	**351**	*e*PKIKP	PKPdf	12 28 50.0	-0.6
	comp=Z,47nm,1.0s						
LTK	**Loutraki**	**154.72**	**315**	P	PKPdf	12 28 58.1	+7.1
LTK	**Loutraki**	**154.72**	**315**	*e*P	PKPdf	12 28 58.5	+7.5
MEV	**Metsovon**	**154.75**	**321**	P	PKPdf	12 28 52.0	+1.0
MEV	**Metsovon**	**154.75**	**321**	P	PKPdf	12 28 52.0	+1.0
IDI	**Anoyia**	**154.75**	**308**	PKP	PKPdf	12 28 50.9	-0.3
	comp=Z,26nm,1.1s,baz=335,slow=1.6,SNR=8.2						
IDI				PKPbc	PKPdf	12 29 00.7	+10
	comp=Z,16nm,0.4s,baz=20,slow=9.0,SNR=21						
IDI				PKPab	PKPab	12 29 18.1	-0.8
	comp=Z,20nm,0.4s,baz=337,slow=5.5,SNR=8.8						
IDI				pPKP	pPKPdf	12 31 12.9	-2.8
	comp=Z,7.2nm,0.8s,baz=357,slow=17,SNR=1.3						
AVF	**Avril sur Loir**	**154.76**	**356**	*e*PKIKP	PKPdf	12 28 50.6	-0.2
DID	**Didima**	**154.82**	**314**	P	PKPdf	12 28 58.7	+7.5
DID	**Didima**	**154.82**	**314**	*e*P	PKPdf	12 28 58.5	+7.3
SIVA	**Sivas**	**154.93**	**307**	P	PKPdf	12 28 59.8	+8.4
EVR	**Evrytania**	**154.94**	**318**	*e*P	PKPdf	12 29 03.0	+12
BGF	**Bois d’Agland**	**155.03**	**356**	*e*PKIKP	PKPdf	12 28 51.1	0.0
MFF	**Saint Martin d**	**155.04**	**1**	*e*PKIKP	PKPdf	12 28 51.4	+0.2
	comp=Z,32nm,1.0s						
JAN	**Janina**	**155.05**	**321**	*e*P	PKPab	12 29 20.5	+0.5
VAM	**Vamos**	**155.20**	**309**	*e*P	PKPab	12 29 34.0	+13
OG05	**Jujurieux**	**155.29**	**352**	PKP	PKPdf	12 29 00.6	+9.1
TCF	**Toulx Ste Croi**	**155.33**	**357**	*e*PKIKP	PKPdf	12 28 51.4	-0.2
	comp=Z,15nm,0.7s						
KARN	**Karanos**	**155.41**	**309**	P	PKPdf	12 29 02.6	+11
VLI	**Veliai**	**155.45**	**313**	*e*P	PKPdf	12 29 01.0	+9.0
RSL	**Roselend**	**155.46**	**350**	PKP	PKPdf	12 29 01.2	+9.4
VLX	**Vlachokerasia**	**155.47**	**315**	*e*P	PKPab	12 29 21.0	-0.9
GVD	**Gavdhos**	**155.54**	**308**	P	PKPdf	12 29 00.4	+8.2
GVD	**Gavdhos**	**155.54**	**308**	*e*PKPdf	PKPdf	12 28 51.6	-0.6
GVD				*e*PKPab	PKPab	12 29 21.9	-0.4
PLDF	**La Plantade**	**155.56**	**355**	PKP	PKPdf	12 29 01.8	+10
KEK	**Kerkira**	**155.62**	**322**	*e*P	PKPab	12 29 22.0	-0.5
RLS	**Riolos of Patr**	**155.67**	**317**	*e*P	PKPab	12 29 22.5	-0.2
ITM	**Ithomi**	**155.88**	**315**	*e*P	PKPab	12 29 23.0	-0.7
BNI	**Bardonecchia**	**156.07**	**349**	*e*PKIKP	PKPdf	12 28 52.5	-0.1
BNI				*e*		12 29 03.0	
BNI				*e*		12 29 24.2	
VLS	**Valsamata**	**156.14**	**318**	PKIKP	PKPdf	12 28 58.1	+5.2
VLS	**Valsamata**	**156.14**	**318**	P	PKPdf	12 28 58.1	+5.2
VLS	**Valsamata**	**156.14**	**318**	*e*P	PKPab	12 29 24.0	-0.8
VLS	**Valsamata**	**156.14**	**318**	P	PKPdf	12 28 58.1	+5.2
PYL	**PYLOS**	**156.16**	**314**	P	PKPdf	12 29 01.5	+8.6
PYL	**PYLOS**	**156.16**	**314**	*e*P	PKPab	12 29 23.5	-1.4
LBL	**Lubilhac**	**156.32**	**355**	PKP	PKPdf	12 29 05.7	+13
RJF	**Les Rejaudoux**	**156.33**	**358**	*e*PKIKP	PKPdf	12 28 52.7	-0.2
	comp=Z,21nm,0.9s						
MBDF	**Montbardon**	**156.37**	**349**	*e*PKIKP	PKPdf	12 28 53.0	0.0
	comp=Z,24nm,1.0s						
OG26	**St.-Nazaire-De**	**156.75**	**352**	PKP	PKPdf	12 29 06.4	+13
SAOF	**Saorge**	**156.93**	**347**	PKP	PKPdf	12 29 04.2	+11
AUTN	**L’Aution**	**156.95**	**347**	PKP	PKPdf	12 29 06.0	+12
MVIF	**Mont Vial**	**157.10**	**348**	PKP	PKPdf	12 29 03.1	+9.2
MVIF	**Mont Vial**	**157.10**	**348**	PKIKP	PKPdf	12 29 03.1	+9.2
MVIF	**Mont Vial**	**157.10**	**348**	PKP	PKPdf	12 29 03.1	+9.2
SMRF	**Simiane la Rot**	**157.30**	**351**	*e*PKIKP	PKPdf	12 28 54.2	+0.1
	comp=Z,19nm,0.9s						
LASF	**Ste Croix**	**157.41**	**354**	*e*PKIKP	PKPdf	12 28 54.4	+0.1
	comp=Z,21nm,1.1s						
FRF	**La Foret Royal**	**157.52**	**348**	*e*PKIKP	PKPdf	12 28 54.1	-0.3
TIP	**Timpagrande**	**157.68**	**325**	*e*PKPdf	PKPdf	12 28 54.2	-0.6
TIP				*e*PKPdif		12 29 05.9	
TIP				*e*PKPab	PKPab	12 29 31.3	-0.1
MTLF	**Montolieu**	**158.27**	**357**	*e*PKIKP	PKPdf	12 28 55.3	0.0
SJPF	**Ste Jean**	**158.48**	**4**	*e*PKIKP	PKPdf	12 28 55.4	-0.2
	comp=Z,46nm,1.1s						
EPF	**Esparros**	**158.62**	**1**	*e*PKIKP	PKPdf	12 28 55.6	-0.2
PCAB	**Cabril**	**158.65**	**18**	*e*PKPab	PKPab	12 29 34.8	-0.7
ETSF	**Etsaut**	**158.73**	**2**	*e*PKIKP	PKPdf	12 28 55.6	-0.3
	comp=Z,31nm,1.0s						
PVRL	**Vila Real**	**159.15**	**18**	*e*PKPab	PKPab	12 29 37.4	-0.2
MVO	**Moncorvo**	**159.44**	**17**	*e*PKPdf	PKPdf	12 28 57.5	+0.7
MVO	**Moncorvo**	**159.44**	**17**	*e*PKPab	PKPab	12 29 38.1	-0.8
PVIS	**Viseu**	**159.61**	**19**	*e*PKPab	PKPab	12 29 39.6	-0.1
PCBR	**Castelo Branco**	**160.54**	**19**	*e*PKPdf	PKPdf	12 28 57.6	-0.4
PCBR	**Castelo Branco**	**160.54**	**19**	*e*PKPab	PKPab	12 29 43.8	0.0
PMAFR	**Mafra**	**160.72**	**24**	*e*PKPab	PKPab	12 29 43.9	-0.7
PMRV	**Marv??o**	**160.94**	**19**	*e*PKPdf	PKPdf	12 28 58.7	+0.2
PMRV	**Marv??o**	**160.94**	**19**	*e*PKPab	PKPab	12 29 44.7	-0.9
PESTR	**Estremoz**	**161.39**	**20**	*e*PKPdf	PKPdf	12 29 00.6	+1.7
PESTR	**Estremoz**	**161.39**	**20**	*e*PKPab	PKPab	12 29 47.0	-0.5
EVO	**Evora**	**161.55**	**22**	*e*PKIKP	PKPdf	12 28 58.5	-0.6
	comp=Z,23nm,0.9s						
EVO	**Evora**	**161.55**	**22**	*e*PKPdf	PKPdf	12 28 59.7	+0.6
EVO	**Evora**	**161.55**	**22**	*e*PKPab	PKPab	12 29 47.3	-1.0
ESDC	**Sonseca Array**	**161.55**	**11**	PKP	PKPdf	12 28 58.7	-0.3
	comp=Z,0.8nm,0.5s,baz=12,slow=5.0,SNR=4.2						
ESDC				PKPab	PKPab	12 29 46.4	-1.8
	comp=Z,18nm,0.8s,baz=345,slow=4.3,SNR=34						
ESDC				pPKPab	pPKPab	12 32 02.9	-1.1
	comp=Z,0.2nm,0.3s,baz=147,slow=9.0,SNR=1.7						
ESDC				PP	PP	12 33 34.0	+0.9
	comp=Z,0.7nm,0.4s,baz=350,slow=4.9,SNR=4.5						
ESDC	**Sonseca Array**	**161.55**	**11**	PKP	PKPdf	12 28 58.7	-0.3
ESDC				PKPab	PKPab	12 29 46.4	-1.8
ESDC				pPKPab	pPKPab	12 32 02.9	-1.1
ESDC				PP	PP	12 33 34.0	+0.9
PBEJ	**Beja**	**162.06**	**22**	*e*PKPdf	PKPdf	12 28 59.5	-0.1
PBEJ	**Beja**	**162.06**	**22**	*e*PKPab	PKPab	12 29 49.2	-1.3
PTEO	**Sao Teotonio**	**162.16**	**25**	*e*PKPdf	PKPdf	12 29 02.3	+2.5
PTEO	**Sao Teotonio**	**162.16**	**25**	*e*PKPab	PKPab	12 29 50.2	-0.8
BBTS	**Babate**	**162.31**	**110**	PKPab	PKPab	12 29 52.7	+0.3
	comp=Z,91nm,0.9s,baz=287,slow=1.2,SNR=15						
MORF	**Marmelete**	**162.40**	**25**	*e*PKPdf	PKPdf	12 29 02.4	+2.4
MORF	**Marmelete**	**162.40**	**25**	*e*PKPab	PKPab	12 29 51.3	-0.7
PVAQ	**Vaqueiros**	**162.66**	**23**	*e*PKPab	PKPab	12 29 52.4	-0.8
PBDV	**Barranco-do-Ve**	**162.73**	**24**	*e*PKPab	PKPab	12 29 52.8	-0.7
LIC	**Lamto**	**163.78**	**159**	⇑*i*PKIKP	PKPdf	12 29 00.9	-1.1
	comp=Z,53nm,1.0s						
LIC	**Lamto**	**163.78**	**159**	*e*PKIKP	PKPdf	12 29 00.9	-1.1
	comp=Z,118nm,1.4s						
LIC	**Lamto**	**163.78**	**159**	⇑*i*PKPdf	PKPdf	12 29 00.9	-1.1
KEST	**Kesra**	**163.98**	**333**	PKP	PKPdf	12 29 01.1	-0.4
	comp=Z,1.8nm,1.0s,baz=274,slow=2.4,SNR=5.2						
KEST				PKPab	PKPab	12 29 58.7	-0.3
	comp=Z,29nm,0.8s,baz=296,slow=1.5,SNR=54						
KEST				pPKPab	pPKPab	12 32 10.8	-3.9
	comp=Z,3.1nm,0.9s,baz=75,slow=12,SNR=3.0						
KEST				PP	PP	12 33 43.7	-2.4
	comp=Z,5.6nm,1.1s,baz=352,slow=4.7,SNR=4.2						
KIC	**Kosan Boka**	**164.00**	**160**	*e*PKIKP	PKPdf	12 29 01.1	-1.1
	comp=Z,94nm,0.9s						
TIC	**Toumodi**	**164.17**	**159**	*e*PKIKP	PKPdf	12 29 01.3	-1.1
	comp=Z,91nm,0.9s						
DBIC	**Dimbokro**	**164.25**	**160**	PKIKP	PKPdf	12 29 01.4	-1.0
DBIC						12 30 01.2	
DBIC						12 32 14.9	
DBIC						12 33 46.5	
DBIC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
DBIC	**Dimbokro**	**164.25**	**160**	PKP	PKPdf	12 29 01.4	-1.0
	comp=Z,9.3nm,0.6s,baz=156,slow=0.1,SNR=21						
DBIC				PKPab	PKPab	12 30 01.2	+0.5
	comp=Z,30nm,0.7s,baz=174,slow=5.6,SNR=24						
DBIC				pPKPab	pPKPab	12 32 14.9	-1.3
	comp=Z,18nm,0.9s,baz=132,slow=7.3,SNR=3.5						
DBIC				PP	PP	12 33 46.5	-0.7
	comp=Z,16nm,1.1s,baz=185,slow=6.1,SNR=5.4						
DBIC	**Dimbokro**	**164.25**	**160**	PKP	PKPdf	12 29 01.4	-1.0
DBIC				PKPab	PKPab	12 30 01.2	+0.5
DBIC				pPKPab	pPKPab	12 32 14.9	-1.3
DBIC				PP	PP	12 33 46.5	-0.7
OKGL	**Djebel Kef Gue**	**165.60**	**360**	P	PKPab	12 30 05.0	-1.1
OJGS	**Djebel Guires**	**166.13**	**360**	P	PKPab	12 30 06.0	-2.5
ODJA	**Bouhanifia**	**166.29**	**3**	P	PKPab	12 30 09.0	-0.2
MDT	**Midelt**	**167.89**	**21**	PKP	PKPdf	12 29 05.2	+0.6
	comp=Z,5.3nm,0.9s						
MDT				PKPab	PKPab	12 30 15.9	-0.5
	comp=Z,31nm,1.1s,baz=4.1,slow=3.8,SNR=25						
MDT				pPKPab	pPKPab	12 32 29.9	-2.0
	comp=Z,8.3nm,1.0s,baz=272,slow=3.9,SNR=3.0						
MDT				PP	PP	12 34 04.3	-1.5
	comp=Z,7.2nm,1.2s,baz=344,slow=4.2,SNR=4.6						
TOA0	**Torodi Ar. Sit**	**171.54**	**187**	*e*PKPdf	PKPdf	12 29 06.2	-1.0
TORD	**Torodi Ar. Bea**	**171.54**	**187**	PKP	PKPdf	12 29 06.3	-0.9
	comp=Z,4.9nm,0.8s,baz=340,slow=0.6,SNR=26						
TORD				PKPab	PKPab	12 30 32.7	-0.2
	comp=Z,23nm,0.9s,baz=170,slow=3.9,SNR=38						
TORD				pPKP	pPKPdf	12 31 29.1	-3.5
	comp=Z,4.8nm,0.9s,baz=159,slow=0.9,SNR=1.8						
TORD				pPKPab	pPKPab	12 32 47.1	-1.1
	comp=Z,6.6nm,0.7s,baz=180,slow=3.6,SNR=4.1						
TORD				PP	PP	12 34 23.4	0.0
	comp=Z,15nm,1.1s,baz=190,slow=4.1,SNR=6.2						
TORD	**Torodi Ar. Bea**	**171.54**	**187**	PKP	PKPdf	12 29 06.3	-0.9
TORD				PKPab	PKPab	12 30 32.7	-0.2
TORD				pPKP	pPKPdf	12 31 29.1	-3.5
TORD				pPKPab	pPKPab	12 32 47.0	-1.1
TORD				PP	PP	12 34 23.4	0.0
TAM	**Tamanrasset**	**175.30**	**286**	*e*PKIKP	PKPdf	12 29 08.9	+0.4
TAM				*e*		12 31 31.5	
TAM				*e*		12 34 46.1	

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*NEIC **01** 12:23:10.3±4.4, 21°.41S×179°.23W, h568^{km}±52^{km}, mb4.4/2,*
Error ellipse: s-maj=27.1km s-min=18.9km az=213.0

IDC ***01*** *12:23:13.2±2.9, 21°.33S×179°.34W, h598^{km}±33^{km}, mb3.3/12, mb1 3.5/12, mb1mx3.4/19, mbtmp3.3/12, Error ellipse: s-maj=20.3km s-min=18.4km az=154.0*
ISCJB ***01*** *12:23:15.3±3.1, 21°.4S±0°.2×179°.5W±0°.1, h638^{km}±40^{km}, mb3.8/13, Error ellipse: s-maj=26.9km s-min=19.1km az=163.9*
ISC 01 12:23:16.3±3.1**, 21°.3S**±0°.2×**179°.5W**±0°.1**, h632**^{km}±38^{km}**, n26, σ0^s.69**/23**, mb3.8**/13**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	17.13	189	P	P	12 26 36.8	-5.7
	2.5nm,0.3s,baz=269,slow=2.2,SNR=15						
EIDS	Eidsvold	27.31	256	eP	P	12 28 13.6	+0.4
ARMA	Armidale	27.47	245	eP	P	12 28 15.4	+0.8
CTA	Charters Tower	32.05	266	eP	P	12 28 54.1	+0.2
	5.4nm,0.4s,mb4.5						
CTA	Charters Tower	32.05	266	P	P	12 28 54.3	+0.4
	7.8nm,0.5s,mb4.6,baz=88,slow=11,SNR=10						
CTAO	Charters Tower	32.05	266	eP	P	12 28 54.3	+0.3
	7.7nm,0.6s,mb4.5						
STKA	Stephens Creek	36.19	245	eP	P	12 29 28.3	+0.1
	3.4nm,1.0s,mb3.8						
STKA	Stephens Creek	36.19	245	P	P	12 29 28.5	+0.3
	2.7nm,0.5s,mb4.0,baz=91,slow=12,SNR=8.5						
STKA	Stephens Creek	36.19	245	eP	P	12 29 28.3	+0.1
ASAR	Alice Springs	42.99	258	P	P	12 30 22.3	-0.1
	8.7nm,0.8s,mb4.3,baz=93,slow=7.6,SNR=58						
ASAR				ScP	ScP	12 34 53.3	+3.4
	0.7nm,0.8s,baz=106,slow=3.7,SNR=5.4						
ASAR				S	S	12 36 03.9	-0.2
	0.7nm,0.8s,baz=92,slow=16,SNR=4.8						
WB2	Warramunga Arr	43.12	263	eP	P	12 30 22.8	-0.7
WRAB	Tennant Creek	43.12	263	eP	P	12 30 22.4	-1.1
	8.0nm,0.8s,mb4.3						
WRA	Warramunga Arr	43.13	263	P	P	12 30 22.9	-0.6
	3.5nm,0.3s,mb4.3,baz=97,slow=7.6,SNR=120						
FITZ	Fitzroy Crossi	51.56	263	eP	P	12 31 26.2	-0.1
	2.2nm,0.3s,mb4.0						
FITZ	Fitzroy Crossi	51.56	263	P	P	12 31 26.1	-0.2
	1.4nm,0.4s,mb3.7,baz=108,slow=6.4,SNR=12						
DRV	Dumont d'Urvil	52.12	199	L		12 32 00.0	
VNDA	Vanda	56.97	185	P	P	12 32 03.3	+0.3
	0.7nm,0.5s,mb3.1,baz=45,slow=7.1,SNR=4.5						
QSPA	South Pole Qui	68.74	180	P	P	12 33 17.6	-0.6
	4.7nm,0.7s,mb4.0,baz=72,slow=3.1,SNR=8.6						
PETK	Petropavlovsk-	76.73	346	P	P	12 34 03.6	-0.3
	3.0nm,0.9s,mb3.7,baz=201,slow=4.1,SNR=6.7						
NVAR	Mina Array Bea	82.57	44	P	P	12 34 35.0	+0.2
	0.3nm,0.4s,mb3.1,baz=230,slow=7.0,SNR=3.1						
TXAR	Lajitas Array	88.66	58	P	P	12 35 04.2	+0.1
	0.8nm,0.8s,mb3.6,baz=206,slow=5.4,SNR=5.3						
CMAR	Chiang Mai Arr	89.10	290	P	P	12 35 08.7	+2.2
	0.8nm,0.7s,mb3.7,baz=126,slow=2.4,SNR=4.2						
PDAR	Pinedale Array	90.51	44	P	P	12 35 11.9	-0.4
	0.3nm,0.8s,mb3.3,baz=260,slow=5.0,SNR=2.9						
ARCES	ARCESS Array B	129.47	349	PKP	PKPdf	12 41 13.0	-0.9
	6.3nm,0.9s,baz=7.1,slow=2.2,SNR=4.2						
HFS	Hagfors	140.12	350	PKhKP		12 41 26.3	
	3.5nm,0.8s,baz=69,slow=8.1,SNR=4.2						
BRTR	Keskin Array B	146.35	311	PKPbc	PKPbc	12 41 47.7	-0.3
	0.5nm,0.6s,baz=117,slow=3.5,SNR=2.7						

NSSP ***01*** *12:52:25.9, 39°.25N×44°.42E, h10^{km}, Ms3.0*
TEH ***01*** *12:52:29.4, 39°.27N×43°.99E, h4^{km}*
CSEM ***01*** *12:52:30.3±0.5, 39°.36N×44°.22E, h2^{km}, ML3.0, Error ellipse: s-maj=14.6km s-min=5.5km az=112.0*
ISK ***01*** *12:52:30.9, 39°.34N×44°.20E, h8^{km}, ML3.1*
ISC 01 12:52:31.3±0.5**, 39°.34N**±0°.02×**44°.18E**±0°.04**, h2**^{km}±5^{km}**, n34, σ1^s.25**/58**, 13C-10D, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLDR	Caldiran	0.28	225	ePG	Pg	12 52 36.7	0.0
CLDR	Caldiran	0.28	225	ePg	Pg	12 52 36.7	-0.1
DYDN	Diyadin	0.43	298	i P	Pg	12 52 38.5	-1.0
VNNZ	Vanand	0.81	340	⇑iP	Pg	12 52 44.2	-2.5
VNNZ				⇓iS	Sg	12 52 58.1	+0.9
VNNZ	Vanand	0.81	340	⇑P	Pg	12 52 44.2	-2.6
VNNZ				S	Sg	12 52 58.1	+0.9
GNI	Garni	0.91	28	ePG	Pg	12 52 48.0	-0.8
GNI				eSG	Sg	12 53 02.4	+1.7
GNI	Garni	0.91	28	⇓iP	Pg	12 52 47.6	-1.3
GNI				⇑iS	Sg	12 53 01.5	+0.8
GNI	Garni	0.91	28	⇓P	Pg	12 52 47.6	-1.2
GNI	Garni	0.91	28	ePg	Pg	12 52 48.0	-0.8
GNI				S	Sg	12 53 01.5	+0.8
GNI				eSg	Sg	12 53 02.4	+1.7
ARUZ	Aruch	0.94	356	⇓iP	Pg	12 52 46.2	-3.1
ARUZ				⇓iS	Sg	12 53 00.7	-0.8
ARUZ	Aruch	0.94	356	⇓P	Pg	12 52 46.2	-3.1
ARUZ				S	Sg	12 53 00.7	-0.8
VANB	Van	0.97	220	ePG	Pg	12 52 49.8	-0.1
VANB				eSG	Sg	12 53 04.5	+2.1
VANB	Van	0.97	220	ePg	Pg	12 52 49.8	0.0
VANB				eSg	Sg	12 53 04.5	+2.1
TVAN	Van	1.01	217	i P	Pg	12 52 50.7	0.0
AMBZ	Amberd	1.04	3	⇑iP	Pg	12 52 50.8	-0.5
AMBZ				⇑iS	Sg	12 53 06.8	+2.0
AMBZ	Amberd	1.04	3	⇑P	Pg	12 52 50.8	-0.5
AMBZ				S	Sg	12 53 06.8	+1.9
KAPZ	Kaputan	1.06	22	⇑iP	Pg	12 52 48.4	-3.2
KAPZ				⇑iS	Sg	12 53 03.7	-1.6
KAPZ	Kaputan	1.06	22	⇑P	Pg	12 52 48.4	-3.1
KAPZ				S	Sg	12 53 03.7	-1.5
NARZ	Nor Artik	1.17	343	⇓iP	Pg	12 52 54.0	+0.2
NARZ				⇓iS	Sg	12 53 14.3	+5.2
HARI	Harich	1.27	354	⇑iP	Pg	12 52 55.1	-0.6
HARI				⇓iS	Sg	12 53 18.7	+6.6
HARI	Harich	1.27	354	⇑P	Pg	12 52 55.1	-0.5
HARI				S	Sg	12 53 18.7	+6.6
IMRD	Marand	1.34	117	ePg	Pg	12 52 54.9	-2.2
IMRD				eSg	Sg	12 53 15.3	+0.8
IMRD				e		12 53 23.7	
	comp=Z,7μm,0.2s						
VADZ	Vardenis	1.46	55	eP	Pn	12 52 59.0	+0.3
VADZ				eS	Sg	12 53 20.0	+1.7
KAMZ	Kamo	1.49	353	⇑iP	Pn	12 52 58.7	-0.4
KAMZ				⇓iS	Sg	12 53 21.8	+2.6
KAMZ	Kamo	1.49	353	⇑P	Pn	12 52 58.7	-0.4
KAMZ				S	Sg	12 53 21.8	+2.6
ISHB	Shabestar	1.54	133	e	Pn	12 53 05.5	+5.6
	comp=Z,3μm,0.2s						
ISHB				eSn	Sn	12 53 20.4	-0.1
STEZ	Stepenevan	1.66	6	e	Pn	12 52 58.0	-3.5
STEZ				eS	Sn	12 53 25.0	+1.6
HKR	Hakkari	1.80	191	ePN	Pn	12 53 03.2	-0.1
HKR	Hakkari	1.80	191	ePn	Pn	12 53 03.2	-0.1
HAKT	HAKKARI	1.82	192	i P	Px	12 53 20.0	
HAKT				i S	Sx	12 53 41.7	
ITBZ	Tabriz	1.90	125	e	Pg	12 53 08.2	+0.6
	comp=Z,1μm,0.1s						
ITBZ				ePn	Pn	12 53 04.0	-0.7
ITBZ				eSn	Sn	12 53 28.6	-0.6
IAZR	Azarshahr	2.18	139	e	Pg	12 53 14.7	+1.5
	comp=Z,2μm,0.2s						
EZM	Erzurum	2.25	285	ePN	Pn	12 53 09.9	+0.5
IBST	Bostanabad	2.69	127	ePn	Pn	12 53 14.9	-0.7
IBST				e		12 53 26.4	
	comp=Z,301nm,0.2s						

ISCJB ***01*** *12:59:58.5±0.6, 7°.98N±0°.05×73°.02W±0°.05, h150^{km}±7^{km}, mb3.4/2, Error ellipse: s-maj=9.8km s-min=6.5km az=39.5*
IDC ***01*** *12:59:59.5±1.1, 7°.92N×73°.05W, h146^{km}±22^{km}, mb3.2/2, mb1 3.4/4, mb1mx3.2/20, mbtmp3.2/4, Error ellipse: s-maj=39.6km s-min=9.0km az=132.0*
FUNV ***01*** *12:59:59.0, 7°.90N×73°.24W, h136^{km}, MW3.5*
ISC 01 12:59:59.6±0.6**, 7°.97N**±0°.05×**73°.02W**±0°.05**, h145**^{km}±7^{km}**, n16, σ0^s.94**/27**, mb3.4**/2**, 1C, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	0.70	99	⇑iP	Pn	13 00 21.4	-0.2
CAPV				eS	Sn	13 00 37.8	-0.4
SOCV	Socops	2.16	82	eP	Pn	13 00 38.0	+1.6
SOCV				eS	Sn	13 01 05.0	+0.4
SDV	Santo Domingo	2.53	69	P	Pn	13 00 42.5	+1.6
	4.8nm,0.3s,baz=284,slow=4.8,SNR=35						
SDV				S	Sn	13 01 14.3	+1.7
	20nm,0.3s,baz=16,slow=22,SNR=27						
VIRV	Villa del Rosa	2.58	13	eP	Pn	13 00 40.7	-0.9
VIRV				eS	Sn	13 01 12.5	-1.5
QARV	Quebrada Arrib	3.31	48	eP	Pn	13 00 52.4	+1.6
QARV				eS	Sn	13 01 31.0	+0.6
ROSC	El Rosal	3.36	203	P	Pn	13 00 51.5	0.0
	7.2nm,0.3s,baz=312,slow=12,SNR=4.5						
ROSC				S	Sn	13 01 31.2	-0.4
	7.8nm,0.3s,baz=286,slow=21,SNR=6.3						
ELOV	Elorza	3.63	105	eP	Pn	13 00 55.6	+0.6
ELOV				eS	Sn	13 01 37.2	-0.7
CURV	Curarigua	3.63	56	eP	Pn	13 00 55.9	+0.9
CURV				eS	Sn	13 01 37.3	-0.7
SIQV	Siquisique	4.13	50	eP	Pn	13 01 02.0	+0.4
SIQV				eS	Sn	13 01 48.9	-0.8
MONV	Montecano	4.96	37	eP	Pn	13 01 12.8	+0.3
BAUV	El Baul	5.01	79	eP	Pn	13 01 13.1	-0.1
BAUV				eS	Sn	13 02 08.8	-1.7
CAOV	Caicara del Or	6.67	95	eP	Pn	13 01 34.6	-0.6
CAOV				eS	Sn	13 02 46.1	-3.9
CUPV	Cœpira	7.43	73	eP	Pn	13 01 44.5	-1.1
CUPV				eS	Sn	13 03 04.1	-4.4
TXAR	Lajitas Array	35.79	310	P	P	13 06 44.8	-0.2
	0.5nm,1.0s,mb3.1,baz=99,slow=5.6,SNR=3.1						
YKA	Yellowknife Ar	62.23	340	P	P	13 10 05.8	+0.2
	0.6nm,0.5s,mb3.7,baz=129,slow=6.8,SNR=10						
WRA	Warramunga Arr	150.97	243	PKPbc	PKPbc	13 19 35.6	-0.6
	0.5nm,0.5s,baz=106,slow=2.8,SNR=7.0						

MOS ***01*** *13:45:28.5±1.8, 46°.14N×141°.80E, h24^{km}, mb4.2/1, Error ellipse: s-maj=37.8km s-min=22.8km az=89.5*
MOS Felt (III) at Nevel'sk.
JMA ***01*** *13:45:30.7±0.4, 46°.92N×141°.72E, h8^{km}, M3.8*
ISCJB ***01*** *13:45:31.3±0.4, 46°.90N±0°.02×141°.71E±0°.05, h10^{km}, Error ellipse: s-maj=5.5km s-min=3.4km az=10.0*
SKHL ***01*** *13:45:31.5±0.1, 46°.90N×141°.70E, h10^{km}, mb4.0/4*
SKHL Felt (III) at Nevel'sk.
ISC 01 13:45:32.5±0.4**, 46°.85N**±0°.02×**141°.68E**±0°.06**, h10**^{km}**, n22, σ0^s.93**/27**, 1C-1D, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	Yuzh-Sakhalins	0.75	81	⇑ePN	Pg	13 45 46.0	-0.9
YSS				e	Sg	13 45 57.0	+0.3
YSS				pmax	pmax		
	comp=N,50nm,0.6s						
YSS				pmax	pmax		
	comp=E,100nm,0.6s						
YSS				pmax	pmax		
	comp=Z,130nm,0.6s						
YSS				smax			
	comp=N,1μm,0.6s						
YSS				smax			
	comp=E,1μm,0.6s						
YSS	Yuzh-Sakhalins	0.75	81	⇓ePg	Pg	13 45 46.0	-0.9
YSS				AMB	AMB	13 45 47.5	
	comp=E,50nm,0.6s						
YSS				AMB	AMB	13 45 47.5	
	comp=E,100nm,0.6s						
YSS				AMB	AMB	13 45 47.5	
	comp=E,130nm,0.6s						
YSS				eSg	Sg	13 45 57.0	+0.3
YSS				A		13 45 58.1	
	comp=E,1μm,0.6s						
YSS				A		13 45 58.1	
	comp=E,1μm,0.6s						
YSS				AMS	AMS	13 46 13.0	
	comp=E,1μm,6.0s						
YSS				AMS	AMS	13 46 13.0	
	comp=E,1μm,6.0s						
JWK2	Keihoku	1.54	174	P	Pn	13 45 59.5	-0.5
JWK2				eS	Sn	13 46 20.1	+0.1
JRR	Rishiri	1.73	189	eS	Sn	13 46 26.1	+1.4
JSE	Soyaes	1.99	161	P	Pn	13 46 05.5	-0.7
UGL	Uglegorsk	2.25	7	eP	Pn	13 46 09.0	-0.7
UGL				ePg	Pg	13 46 15.0	-0.6
UGL				AMB	AMB	13 46 19.0	
	comp=E,60nm,0.8s						
UGL				eSg	Sg	13 46 44.3	-0.4
UGL				A		13 46 46.0	
	comp=E,108nm,0.8s						
UGL				A		13 46 46.0	
	comp=E,32nm,0.6s						
UGL				A		13 46 46.0	
	comp=E,95nm,0.6s						
JYG	Yagishiri	2.43	184	P	Pn	13 46 12.9	+0.7
JSS	Shosan	2.45	177	P	Pn	13 46 13.0	+0.5
ASAJ	Asahikawa	2.81	166	P	Pn	13 46 17.4	0.0
JKK2	Kamakawa 2	3.07	165	P	Pn	13 46 21.1	+0.1
JMP	Maruseppu	3.08	157	P	Pn	13 46 19.8	-1.3
JTKR	Abashiri--Toko	3.28	151	P	Pn	13 46 22.6	-1.3
TEY	Ternei	3.98	245	eSg	Sg	13 47 46.0	+5.8
TEY				A		13 47 47.5	
	comp=E,11nm,0.5s						
TYV	Tymovskoe	4.07	9	ePg	Pg	13 46 51.7	+1.2
TYV				eSg	Sg	13 47 44.0	+0.8
TYV				A		13 47 45.0	
	comp=E,4.0nm,0.6s						
HABR	Khabarovsk	4.76	292	PN	Pn	13 46 44.4	+0.1
HABR				MLR	MLR		
	comp=Z,124nm,11.0s						
GRNR	Gornyy	5.24	320	ePg	Pg	13 47 10.0	-2.8
GRNR				AMB	AMB	13 47 10.8	
	comp=Z,6.0nm,0.3s						
GRNR				eSg	Sg	13 48 20.3	-0.4
GRNR				A		13 48 22.0	
	comp=Z,17nm,0.5s						
KLR	Kul'dur	7.07	293	erx	rx	13 49 10.0	
EKMR	Ekimchan	8.39	321	ePg	Px	13 48 07.3	
EKMR				AMB	AMB	13 49 07.6	
	comp=Z,2.0nm,0.2s						
EKMR				eSg	Sx	13 50 12.8	
EKMR				A		13 50 17.2	
	comp=Z,14nm,0.9s						
EKMR				A		13 50 17.2	
	comp=Z,6.0nm,0.9s						
EKMR				A		13 50 17.2	
	comp=Z,5.0nm,0.9s						
YAK	Yakutsk	16.69	340	i P	Pn	13 49 32.8	+6.6
BILL	Bilibino	24.69	22	i P	P	13 50 55.2	+2.0
BILL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	Makanchi Array	39.78	292	i P	P	13 53 05.9	+0.6
YKA	Yellowknife Ar	55.35	33	i P	P	13 55 06.8	+0.8

ISCJB ***01*** *13:56:14.8±0.6, 40°.27N±0°.03×28°.36E±0°.05, h10^{km}, Error ellipse: s-maj=5.4km s-min=4.2km az=141.2*
ISK ***01*** *13:56:14.5, 40°.26N×28°.35E, h5^{km}, MD2.4*
DDA ***01*** *13:56:14.5, 40°.25N×28°.36E, h4^{km}±1^{km}, Md2.8*
CSEM ***01*** *13:56:15.1±0.1, 40°.25N×28°.36E, h2^{km}, MD2.4, Error ellipse: s-maj=2.1km s-min=1.8km az=44.0*
ISC 01 13:56:15.3±0.6**, 40°.26N**±0°.03×**28°.36E**±0°.05**, h1**^{km}±11^{km}**, n18, σ0^s.36**/28**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCT	Karacabey	0.01	340	PG	Pg	13 56 15.5	-0.2
KCT	Karacabey	0.01	340	i Pg	Pg	13 56 15.5	-0.2
EDC	Edincik	0.39	284	ePG	Pg	13 56 22.5	-0.4
EDC				eSG	Sg	13 56 28.4	+0.4
EDC	Edincik	0.39	284	ePg	Pg	13 56 22.5	-0.4
EDC				eSg	Sg	13 56 28.4	+0.5
ARMT	Armutlu	0.49	51	ePG	Pg	13 56 24.4	-0.4
ARMT	Armutlu	0.49	51	ePg	Pg	13 56 24.4	-0.4
ULDT	Uludag	0.60	101	i P	Pg	13 56 22.4	-4.5
ULDT				i S	Sg	13 56 34.8	+0.1
ULDT	Uludag	0.60	101	i P	Pg	13 56 22.4	-4.5
ULDT				i S	Sg	13 56 34.8	+0.1
DURS	Dursunbey	0.66	172	i P	Pg	13 56 27.4	-0.6
DURS				i S	Sg	13 56 36.9	+0.4
DURS	Dursunbey	0.66	172	i P	Pg	13 56 27.4	-0.6
DURS				i S	Sg	13 56 36.8	+0.3
YLV	Yalova	0.83	68	ePG	Pg	13 56 31.4	0.0
YLV	Yalova	0.83	68	ePg	Pg	13 56 31.4	+0.1
ELBA	Catalca	0.89	3	i P	Pg	13 56 32.4	0.0
ELBA				i S	Sg	13 56 44.5	+0.5
ELBA	Catalca	0.89	3	i P	Pg	13 56 32.4	-0.1
ELBA				i S	Sg	13 56 44.5	+0.5
MFT	Murefte	0.98	303	ePG	Pg	13 56 34.1	-0.1
MFT	Murefte	0.98	303	ePg	Pg	13 56 34.1	0.0
GDZ	Gediz	1.45	143	i P	Pn	13 56 42.4	-0.3
GDZ				i S	Sg	13 57 02.4	+0.5
GDZ	Gediz	1.45	143	i P	Pn	13 56 42.4	-0.2
GDZ				i S	Sg	13 57 02.4	+0.5

NIED ***01*** *14:12:00, 29°.00N×142°.10E, h8^{km}, Mw5.1 Best double couple: $M_0$5.39000×10^{16} NP1:ϕ_s72.00000°, δ86.00000°, λ118.00000°. NP2:ϕ_s170.00000°, δ29.00000°, λ9.00000°.*
ISCJB ***01*** *14:12:17.9±0.7, 29°.11N±0°.02×142°.19E±0°.02, h11^{km}±4^{km}, mb5.4/178, MS5.0/45, Error ellipse: s-maj=2.8km s-min=2.5km az=7.2*
GCMT ***01*** *14:12:18.4±0.2, 28°.92N×142°.63E, h19^{km}, MW5.2/90, Moment Tensor Solution. s43,c57; s90,c138; Duration: 1^s.0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.61±.23; $M_{\theta\theta}$-0.55±.13; $M_{\phi\phi}$-5.05±.16; $M_{r\theta}$1.37±.30; $M_{\theta\phi}$1.20±.10; $M_{\phi r}$5.55±.34; Best double couple: $M_0$7.88800×10^{16} NP1:ϕ_s152.00000°, δ25.00000°, λ60.00000°. NP2: ϕ_s5.00000°, δ69.00000°, λ103.00000°. Principal axes: T 8.3140, Plg64.0000°, Azm296.0000°; N -0.8420, Plg12.0000°, Azm180.0000°; P -7.4630, Plg22.0000°, Azm85.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC ***01*** *14:12:18.4±0.2, 28°.98N×142°.33E, h10^{km}, mb5.5/93, MS5.3/1, MW5.2, MW5.1(NIED) Error ellipse: s-maj=4.8km s-min=4.0km az=147.0, Moment Tensor Solution. s18 Moment tensor: Scale 10^{16}Nm; M_{rr}3.35; $M_{\theta\theta}$-2.58; $M_{\phi\phi}$-0.77; $M_{r\theta}$-0.16; $M_{\theta\phi}$3.43; $M_{\phi r}$5.42; Best double couple: $M_0$7.10000×10^{16} NP1:ϕ_s98.00000°, δ34.00000°, λ30.00000°. NP2:ϕ_s343.00000°, δ74.00000°, λ121.00000°. Principal axes: T 7.4400, Plg51.0000°, Azm287.0000°; N -0.7500, Plg29.0000°, Azm153.0000°; P -6.7000, Plg22.0000°, Azm49.0000°;*
IDC ***01*** *14:12:19.5±4.0, 29°.04N×142°.28E, h16^{km}±24^{km}, mb4.9/24, mb1 5.0/27, mb1mx5.0/29, mbtmp4.9/27, ML3.8/4, MS4.8/19, Ms1 4.9/19, ms1mx4.7/26 Error ellipse: s-maj=13.7km s-min=11.1km az=103.0*
BJI ***01*** *14:12:19.4, 29°.09N×142°.19E, h25^{km}, mB5.2/40, mb5.0/62, Ms5.1/63, Ms7 4.9/55*
MOS ***01*** *14:12:20.3±1.0, 29°.04N×142°.30E, h33^{km}, mb5.5/84, MS4.8/24, Error ellipse: s-maj=8.0km s-min=4.5km az=110.5*
JMA ***01*** *14:12:20.0±0.1, 29°.00N×142°.12E, h45^{km}, M4.8*
SZGRF ***01*** *14:12:33.5, 31°.57N×142°.02E, h33^{km}, mb5.2, Southeast of Honshu, Japan*
DJA ***01*** *14:13:57, 24°.24N×138°.77E, h650^{km}, mb5.0/9*
ISC 01 14:12:21.6±0.7**, 29°.09N**±0°.02×**142°.21E**±0°.02**, h25**^{km}±5^{km}**, h34**^{km}±1.4^{km}**:pP-P, n789, σ0^s.83**/814**, mb5.4**/178**, MS5.0**/45**, 187C-171D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	1.99	181	P	Pn	14 12 50.9	-2.6
CBIJ				eS	Sn	14 13 13.1	-4.5
CBIJ	Chichi jima	1.99	181	Pn	Pn	14 12 51.1	-2.4
	34nm,0.3s,baz=18,slow=6.7,SNR=13						
CBIJ				Sn	Sn	14 13 13.1	-4.5
	230nm,0.3s,baz=233,slow=22,SNR=34						
JHHJ	Haha-jima-NKT	2.45	181	P	Pn	14 12 57.5	-2.4
JHHJ				eS	Sn	14 13 24.9	-4.2
JHJ2	Mitsune	4.50	333	P	Pn	14 13 28.4	+0.3
JHJ2				eS	Sn	14 14 19.6	0.0
JHJ	Hachijo jima 2	4.52	333	Pn	Pn	14 13 28.5	+0.1
	13nm,0.3s,baz=84,slow=6.1,SNR=7.0						
JHJ				Sn	Sn	14 14 18.6	-1.5
	37nm,0.3s,baz=66,slow=18,SNR=3.2						
JHJ				LR	LR	14 15 27.2	
	comp=Z,13μm,18.1s,baz=161,slow=41						
BSO1	Boso 1	5.64	350	P	Pn	14 13 42.6	-1.2
BSO1				eS	Sn	14 14 47.3	-0.4
JIM2	Oshima 3	6.09	338	P	Pn	14 13 51.1	+1.2
JIZS	Izushimoda	6.28	334	P	Pn	14 13 53.5	+0.9
JYO	Yokosk	6.48	341	P	Pn	14 13 56.0	+0.7
JOD2	Odawara 2	6.70	338	P	Pn	14 13 59.1	+0.8
SHZ3	Shizuoka 3	6.86	331	P	Pn	14 14 02.4	+2.0
HMMJ	Hamamatsu 2	6.90	328	P	Pn	14 14 03.2	+2.2
JYN	Shimob	7.10	335	P	Pn	14 14 07.0	+3.2
JHU	Hanno	7.18	341	P	Pn	14 14 05.1	+0.2
JHU				eS	Sn	14 15 24.6	-1.0
JNY	Yasuok	7.25	331	P	Pn	14 14 07.3	+1.4
JYT	Yasato	7.32	347	P	Pn	14 14 06.3	-0.4
JYT				eS	Sn	14 15 28.2	-0.7
JRY	Ryogami san	7.45	339	P	Pn	14 14 08.9	+0.3
JRY				eS	Sn	14 15 31.8	-0.4
JNT	Takato	7.59	334	P	Pn	14 14 13.4	+2.9
JHO	Hitachi	7.62	350	P	Pn	14 14 09.2	-1.8
JAG	Ashikaga	7.67	343	P	Pn	14 14 10.6	-1.0
JAG				eS	Sn	14 15 34.2	-3.5
JGF	Kuroka	7.68	329	P	Pn	14 14 14.3	+2.6
JGK	Kuni	8.03	339	P	Pn	14 14 18.4	+1.8
JKT	Katashina	8.05	343	P	Pn	14 14 17.2	+0.4
JKT				eS	Sn	14 15 46.4	-0.5
JNG	Nsakai	8.07	336	P	Pn	14 14 18.7	+1.6
ONAJ	Iwakimizuishiy	8.07	352	P	Pn	14 14 15.0	-2.2
JSB	Shiboa	8.09	347	P	Pn	14 14 16.1	-1.2
MJAR	Matsushiro Arr	8.16	337	P	Pn	14 14 18.3	0.0
MJAR				pmax	pmax		
	comp=Z,8.0nm,0.3s						
MJAR	Matsushiro Arr	8.16	337	Pn	Pn	14 14 18.3	+0.1
	comp=Z,8.1nm,0.3s,baz=160,slow=10,SNR=64						
MAJO	Matsushiro	8.16	337	eP	Pn	14 14 18.9	+0.6
MAT	Matsushiro	8.16	337	P	Pn	14 14 18.2	-0.1
MAT				S	Sn	14 15 50.7	+1.1
MAT	Matsushiro	8.16	337	P	Pn	14 14 18.5	+0.2
MAT				eS	Sn	14 15 50.7	+1.1
JGN	Niukaw	8.22	331	P	Pn	14 14 22.7	+3.5
JFK	Kawauchi	8.33	353	P	Pn	14 14 18.8	-1.8
JWT	Wachi	8.45	319	P	Pn	14 14 26.1	+3.8
JFT	Otama	8.55	350	P	Pn	14 14 22.3	-1.3
JFT				eS	Sn	14 15 56.0	-3.2
JFY	Yanaizu	8.55	346	P	Pn	14 14 22.8	-0.9
JFY				eS	Sn	14 15 55.4	-4.0
JHK	Hiroka	8.56	343	P	Pn	14 14 23.1	-0.7
JHK				eS	Sn	14 15 57.0	-2.6
JJN	Nakama	8.68	338	P	Pn	14 14 26.3	+0.9
JMM	Marumori	8.83	353	P	Pn	14 14 25.6	-1.9
JMM				eS	Sn	14 16 02.1	-4.1
JAD	Aida	8.98	313	P	Pn	14 14 32.4	+2.9
JHS	Saijyo	9.71	310	P	Pn	14 14 43.6	+4.1
JMK	Ichinoseki	9.87	355	P	Pn	14 14 38.6	-3.1
JMK				eS	Sn	14 16 22.0	-10
JYK	Kaneyama	9.92	352	P	Pn	14 14 43.2	+0.8
JYK				eS	Sn	14 16 27.4	-5.5
JHT	Toyohira	10.00	306	P	Pn	14 14 48.5	+4.9
JOW	Kunigami	12.53	263	Pn	Pn	14 15 18.8	+0.6
	comp=Z,0.4nm,0.3s,baz=176,slow=19,SNR=2.4						
JOW				LR	LR	14 19 24.7	
	comp=Z,5μm,21.6s,baz=66,slow=34						
KSRS	Korea Array	14.56	309	P	Pn	14 15 48.3	+2.4
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,4μm,18.4s						
KSRS	Korea Array	14.56	309	Pn	Pn	14 15 48.2	+2.4
	comp=Z,0.9nm,0.3s,baz=116,slow=12,SNR=22						
KSRS				LR	LR	14 21 30.6	
	comp=Z,4μm,18.4s,baz=118,slow=38						
KS15	Wonju Array Si	14.58	309	ePn	Pn	14 15 49.1	+3.0
ASAJ	Asahikawa	15.00	1	P	Pn	14 15 47.9	-3.8
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	15.00	1	Pn	Pn	14 15 47.9	-3.8
	comp=Z,1.8nm,0.3s,baz=219,slow=11,SNR=10						
INCN	Inchon	15.47	307	eP	Pn	14 16 02.5	+4.5
	comp=Z,142nm,1.0s						
INCN	Inchon	15.47	307	P	Pn	14 16 03.3	+5.3
	SNR=10						
INCN				P		14 16 03.3	
	SNR=10						
GUMO	Guam	15.62	170	eP	Pn	14 15 54.6	-5.5
GUMO				pmax	pmax		
	comp=Z,829nm,1.6s						
GUMO	Guam	15.62	170	LR	LR	14 21 00.2	
	comp=Z,878nm,20.2s,baz=272,slow=34						
GUMO	Guam	15.62	170	ePn	Pn	14 15 54.6	-5.5
	comp=Z,829nm,1.6s						
KUR	Kuril'sk	16.72	14	P	Pn	14 16 12.0	-2.0

KUR				S	**Sn**	**14 19 27.0**	**+8.1**
KUR				smax			
	comp=E,4µm,5.0s						
YSS	**Yuzh-Sakhalins**	**17.84**	**1**	*e*P	**Pn**	**14 16 24.8**	**-3.0**
YSS				*e*S	**Sn**	**14 19 44.0**	**-1.9**
YSS				MLR	MLR		
	comp=Z,2µm,17.0s						
YSS				MLR	MLR		
	comp=N,2µm,16.0s						
YSS				MLR	MLR		
	comp=E,2µm,13.0s						
YSS	**Yuzh-Sakhalins**	**17.84**	**1**	*e*Pn	**Pn**	**14 16 25.5**	**-2.4**
	comp=E,116nm,1.1s						
SSE	**Sheshan**	**18.30**	**281**	P	**Pn**	**14 16 32.8**	**-0.9**
SSE				S	**Sn**	**14 19 55.9**	**-1.5**
SSE				pmax	pmax		
	comp=Z,27nm,1.0s						
SSE				pmax	pmax		
	comp=Z,870nm,12.0s						
SSE				LR	LR		
	comp=N,1µm,19.6s						
SSE				LR	LR		
	comp=E,1µm,19.6s						
SSE				LR	LR		
	comp=Z,2µm,16.9s						
MDJ	**Mudanjiang**	**18.46**	**330**	P	**Pn**	**14 16 34.2**	**-1.3**
MDJ				pP	pP	14 16 42.1	-0.1
MDJ				S	**Sn**	**14 19 58.7**	**-2.2**
MDJ				ScP	ScP	14 24 38.1	-0.7
MDJ				PcS	PcS	14 24 41.8	+0.4
MDJ				pmax	pmax		
	comp=Z,19nm,1.9s						
MDJ				pmax	pmax		
	comp=Z,970nm,5.7s						
MDJ				LR	LR		
	comp=N,3µm,13.5s						
MDJ				LR	LR		
	comp=E,2µm,15.0s						
MDJ				LR	LR		
	comp=Z,3µm,18.1s						
MDJ	**Mudanjiang**	**18.46**	**330**	*e*Pn	**Pn**	**14 16 33.4**	**-2.1**
	comp=Z,210nm,1.4s						
TATO	**Taipei**	**18.91**	**262**	*e*Pn	**Pn**	**14 16 45.6**	**+4.6**
	comp=Z,533nm,1.1s						
NACB	**Ninganchiao**	**19.07**	**260**	*e*P	**Pn**	**14 16 38.4**	**-4.6**
	comp=Z,172nm,1.1s						
YHNB	**Yeheng**	**19.10**	**262**	*e*P	**Pn**	**14 16 43.3**	**0.0**
	comp=Z,529nm,1.6s						
YULB	**Yu-li**	**19.59**	**258**	*e*P	**Pn**	**14 16 49.1**	**-0.2**
	comp=Z,643nm,1.3s						
DL2	**Dalian**	**19.64**	**305**	P	**Pn**	**14 16 48.1**	**-1.6**
DL2				S	**Sn**	**14 20 29.6**	**+0.1**
DL2				pmax	pmax		
	comp=Z,20nm,1.2s						
DL2				pmax	pmax		
	comp=Z,250nm,4.0s						
DL2				LR	LR		
	comp=N,2µm,18.0s						
DL2				LR	LR		
	comp=E,3µm,15.6s						
DL2				LR	LR		
	comp=Z,1µm,12.7s						
SNY	**Shenyang**	**19.74**	**315**	⇓P	**Pn**	**14 16 49.2**	**-1.7**
SNY				S	**Sn**	**14 20 29.5**	**-2.5**
SNY				pmax	pmax		
	comp=Z,27nm,1.2s						
SNY				LR	LR		
	comp=N,2µm,13.8s						
SNY				LR	LR		
	comp=E,2µm,13.5s						
SNY				LR	LR		
	comp=Z,2µm,12.9s						
SSLB	**Suanglung**	**19.75**	**259**	*e*P	**Pn**	**14 16 51.7**	**+0.6**
	comp=Z,609nm,1.1s						
CN2	**Changchun**	**19.88**	**322**	*e*P	**Pn**	**14 16 50.6**	**-1.9**
CN2				*e*PP		14 17 08.7	
CN2				*e*S	**Sn**	**14 20 27.6**	**-7.6**
CN2				*e*SS		14 20 55.6	
CN2				pmax	pmax		
	comp=Z,50nm,1.3s						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,5µm,15.0s						
CN2				LR	LR		
	comp=E,4µm,15.0s						
CN2				LR	LR		
	comp=Z,5µm,17.0s						
TWG	**Pinlang**	**20.00**	**257**	*e*P	**Pn**	**14 16 52.2**	**-1.9**
	comp=Z,314nm,1.4s						
HABR	**Khabarovsk**	**20.12**	**346**	*i* P	**P**	**14 16 51.7**	**-1.7**
HABR				*e**SP	sP	14 17 05.1	+1.4
HABR						14 17 08.7	
HABR				*e*S	**S**	**14 20 36.6**	**-1.5**
HABR				*e**SS	sS	14 20 51.1	+1.9
HABR				*e*SSS		14 21 10.0	
HABR				pmax	pmax		
	comp=E,28nm,1.0s						
HABR				pmax	pmax		
	comp=Z,128nm,1.0s						
HABR				pmax	pmax		
	comp=N,61nm,1.0s						
HABR				MLR	MLR		
	comp=E,2µm,14.0s,MS4.6						
HABR				MLR	MLR		
	comp=Z,1µm,14.0s,MS4.4						
HABR				MLR	MLR		
	comp=N,633nm,12.0s,MS4.6						
TPUB	**Ta-pu**	**20.20**	**258**	*e*P	**P**	**14 16 56.0**	**+1.6**
	comp=N,482nm,1.3s						
NJ2	**Nanjing**	**20.32**	**284**	*e*P	**P**	**14 16 56.1**	**+0.4**
NJ2				pP		14 17 04.3	
NJ2				sP	sP	14 17 08.0	+2.0
NJ2				PP		14 17 18.6	
NJ2				S	**S**	**14 20 35.5**	**-6.8**
NJ2				sS	sS	14 20 47.5	-5.9
NJ2				pmax	pmax		
	comp=Z,140nm,1.2s						
NJ2				pmax	pmax		
	comp=Z,640nm,5.8s						
NJ2				LR	LR		
	comp=N,490nm,14.5s,MS4.7						
NJ2				LR	LR		
	comp=E,3µm,16.0s,MS4.7						
NJ2				LR	LR		
	comp=Z,2µm,12.9s,MS4.7						
QZH	**Quanzhou**	**21.43**	**264**	⇑*i*P	**P**	**14 17 08.4**	**+0.6**
QZH				S	**S**	**14 21 03.0**	**-1.4**
QZH				pmax	pmax		
	comp=Z,330nm,1.5s,mb5.4						
QZH				pmax	pmax		
	comp=Z,1µm,5.0s						
QZH				LR	LR		
	comp=N,2µm,12.5s,MS4.9						
QZH				LR	LR		
	comp=E,3µm,15.7s,MS4.9						
QZH				LR	LR		
	comp=Z,2µm,16.4s,MS4.7						
KLR	**Kul'dur**	**21.64**	**341**	*e*P	**P**	**14 17 05.2**	**-4.6**
KLR				*e*		14 17 45.0	
KLR				*e*S	**S**	**14 21 08.5**	**+0.4**
KLR				pmax	pmax		
	comp=N,64nm,1.8s						
KLR				pmax	pmax		
	comp=E,140nm,1.8s						
KLR				pmax	pmax		
	comp=Z,400nm,1.8s,mb5.5						
KLR				pmax	pmax		
	comp=Z,2µm,8.5s						
KLR				MLR	MLR		
	comp=E,2µm,15.0s						
PALP	**Palanan**	**21.75**	**241**	*e*P	**P**	**14 17 12.7**	**+1.5**
CAUP	**Cauayan**	**22.28**	**242**	*e*P	**P**	**14 17 19.1**	**+2.2**
PVCP	**Virac**	**22.77**	**231**	*e*P	**P**	**14 17 23.2**	**+1.1**
BJT	**Baijiatuau**	**23.98**	**304**	*e*P	**P**	**14 17 32.2**	**-1.7**
BJT				pmax	pmax		
	comp=Z,89nm,1.3s						
BJT	**Baijiatuau**	**23.98**	**304**	*e*P	**P**	**14 17 32.2**	**-1.8**
	comp=Z,89nm,1.3s,mb5.0						
BJI	**Beijing**	**23.98**	**304**	P	**P**	**14 17 32.3**	**-1.7**
BJI				S	**S**	**14 21 48.2**	**-1.0**
BJI				pmax	pmax		
	comp=Z,52nm,1.5s,mb4.7						
BJI				pmax	pmax		
	comp=Z,640nm,8.5s						
BJI				LR	LR		
	comp=N,1µm,16.6s,MS5.2						
BJI				LR	LR		
	comp=E,6µm,16.6s,MS5.2						
BJI				LR	LR		
	comp=Z,4µm,15.7s,MS5.0						
WHN	**Wuhan**	**24.20**	**280**	P	**P**	**14 17 35.6**	**-0.4**
WHN				LR	LR		
	comp=N,2µm,11.8s,MS5.1						
WHN				LR	LR		
	comp=E,3µm,13.0s,MS5.1						
WHN				LR	LR		
	comp=Z,3µm,14.3s,MS5.0						
TGY	**Tagaytay City**	**24.71**	**237**	P	**P**	**14 17 41.4**	**+0.6**
	comp=Z,358nm,0.4s,mb6.2,baz=138,slow=4.8,SNR=14						
MSLP	**Maasin**	**24.89**	**224**	*e*P	**P**	**14 17 41.9**	**-0.6**
OTRP	**Odiongan**	**25.11**	**233**	*e*P	**P**	**14 17 44.4**	**0.0**
BUTP	**Butuan**	**25.37**	**221**	*e*P	**P**	**14 17 47.1**	**+0.3**
LUBP	**Lubang**	**25.46**	**238**	*e*P	**P**	**14 17 47.2**	**-0.4**
SJMP	**San Jose**	**25.67**	**234**	*e*P	**P**	**14 17 49.8**	**+0.2**
TBP	**Tagbilaran**	**25.85**	**225**	*e*P	**P**	**14 17 51.0**	**-0.2**
GUIM	**Jordan**	**25.97**	**229**	*e*P	**P**	**14 17 51.0**	**-1.2**
HIA	**Hailar**	**26.46**	**326**	*e*P	**P**	**14 17 56.8**	**+0.4**
	comp=Z,244nm,1.2s,mb5.6						
PETK	**Petropavlovsk-**	**26.57**	**21**	P	**P**	**14 17 56.5**	**-0.8**
PETK				pmax	pmax		
	comp=Z,40nm,1.1s,mb4.9						
PETK	**Petropavlovsk-**	**26.57**	**21**	P	**P**	**14 17 56.5**	**-0.8**
	comp=Z,3.8nm,1.1s,mb3.9,baz=64,slow=44,SNR=3.2						
BUKP	**Musuan**	**26.57**	**221**	*e*P	**P**	**14 17 56.9**	**-0.7**
BUSP	**Coron**	**26.64**	**235**	*e*P	**P**	**14 17 58.2**	**-0.1**
MATI	**Mati**	**26.68**	**217**	*e*P	**P**	**14 17 57.6**	**-1.1**
PET	**Petropavlovsk**	**26.80**	**22**	*e*P	**P**	**14 17 58.6**	**-0.8**
PET				*e*S	**S**	**14 22 29.6**	**-4.3**
PET				pmax	pmax		
	comp=Z,40nm,1.7s,mb4.7						
PET				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.6						
CUYO	**Cuyo Island**	**26.86**	**232**	*e*P	**P**	**14 18 02.8**	**+2.5**
HHC	**Hu-ho-hao-te**	**27.58**	**303**	*e*P	**P**	**14 18 06.6**	**+0.1**
HHC				pP	pP	14 18 15.7	+1.6
HHC				sP	sP	14 18 20.4	+3.2
HHC				PP		14 18 54.4	
HHC				PcP	PcP	14 21 21.6	-2.2
HHC				S	**S**	**14 22 43.4**	**-3.0**
HHC				sS	sS	14 22 57.7	-1.2
HHC				SS		14 24 00.8	
HHC				PcS	PcS	14 25 06.8	+1.2
HHC				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.0						
HHC				pmax	pmax		
	comp=Z,210nm,7.7s						
HHC				LR	LR		
	comp=N,2µm,16.0s,MS5.2						
HHC				LR	LR		
	comp=E,4µm,15.7s,MS5.2						
HHC				LR	LR		
	comp=Z,6µm,15.3s,MS5.3						
ENPP	**El Nido**	**27.73**	**235**	*e*P	**P**	**14 18 08.2**	**0.0**
BTO	**Baotou**	**28.65**	**302**	*e*P	**P**	**14 18 15.3**	**-0.8**
XAN	**Xi'an**	**28.71**	**288**	P	**P**	**14 18 15.3**	**-1.4**
XAN				pP	pP	14 18 26.4	+2.1
XAN				sP	sP	14 18 29.6	+2.2
XAN				PP	PP	14 19 14.4	-7.3
XAN				S	**S**	**14 23 07.1**	**+2.7**
XAN				pmax	pmax		
	comp=Z,29nm,1.5s,mb4.8						
XAN				pmax	pmax		
	comp=Z,290nm,9.5s						
XAN				LR	LR		
	comp=N,720nm,15.6s,MS5.0						
XAN				LR	LR		
	comp=E,3µm,16.4s,MS5.0						
XAN				LR	LR		
	comp=Z,4µm,17.1s,MS5.0						
NRGR	**Nerungri**	**30.20**	**341**	*e*P	**P**	**14 18 31.5**	**+1.9**
NRGR				S	**S**	**14 23 26.7**	**-0.6**
NRGR				smax			
	comp=E,31nm,0.5s						
CLNS	**Chul'man**	**30.31**	**341**	*e*P	**P**	**14 18 31.4**	**+0.8**
CLNS				*e*		14 19 30.0	
CLNS				*e*		14 21 26.3	
CLNS				*e*S	**S**	**14 23 34.6**	**+5.7**
CLNS				*e*		14 25 07.9	
CLNS				*e*SS	SS	14 25 27.2	-11
CLNS				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.0						
CLNS				pmax	pmax		
	comp=N,36nm,1.4s						
CLNS				pmax	pmax		
	comp=E,12nm,1.4s						
CLNS				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
CLNS				pmax	pmax		
	comp=N,13nm,1.0s						
CLNS				smax			
	comp=E,314nm,14.6s						
CLNS				smax			
	comp=N,390nm,12.4s						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.7						
CLNS				MLR	MLR		
	comp=E,550nm,15.0s,MS4.6						
CLNS				MLR	MLR		
	comp=N,934nm,15.0s,MS4.6						
BATP	**Bataraza**	**30.55**	**233**	*e*P	**P**	**14 18 32.6**	**-0.5**
QIZ	**Qiongzhong**	**31.12**	**259**	P	**P**	**14 18 37.9**	**-0.3**
QIZ				S	**S**	**14 23 41.8**	**-0.6**
QIZ				sS	sS	14 23 57.0	+2.1
QIZ				LR	LR		
	comp=E,1µm,18.9s						
QIZ				LR	LR		
	comp=Z,1µm,18.9s,MS4.7						
CIT	**Chita**	**31.25**	**325**	*e*P	**P**	**14 18 40.0**	**+1.0**
CIT				*e*		14 18 49.3	
CIT				*e*		14 18 54.4	
GYA	**Guiyang**	**31.49**	**274**	⇑*i*P	**P**	**14 18 41.2**	**-0.2**
GYA				pP	pP	14 18 51.8	+2.8
GYA				sP	sP	14 18 57.3	+5.2
GYA				PP	PP	14 19 47.2	-5.5
GYA				PcP	PcP	14 21 36.5	+2.4
GYA				S	**S**	**14 23 45.3**	**-2.8**
GYA				sS	sS	14 24 03.4	+2.8
GYA				ScP	ScP	14 25 13.6	-2.0
GYA				SS	SS	14 25 34.0	-29
GYA				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
GYA				pmax	pmax		
	comp=Z,140nm,4.9s						
GYA				LR	LR		
	comp=N,2µm,16.2s,MS4.9						
GYA				LR	LR		
	comp=E,1µm,15.9s,MS4.9						
GYA				LR	LR		
	comp=Z,2µm,16.8s,MS4.8						
MYLDM	**Lahad Datu**	**32.70**	**228**	P	**P**	**14 18 53.0**	**+0.9**
FX1	**Attu Island--F**	**32.90**	**35**	P	**P**	**14 18 53.1**	**-0.3**
FX1				pmax	pmax		
	comp=Z,58nm,0.9s						
FX1	**Attu Island--F**	**32.90**	**35**	P	**P**	**14 18 53.1**	**-0.3**
	comp=Z,58nm,0.9s,mb5.5						
LZH	**Lanzhou**	**32.91**	**292**	⇑P	**P**	**14 18 53.4**	**-0.4**
LZH				pP	pP	14 19 03.5	+2.1
LZH				sP	sP	14 19 07.9	+3.4
LZH				PP	PP	14 20 03.3	-5.0
LZH				PcP	PcP	14 21 39.5	+1.7
LZH				*e*S	**S**	**14 24 03.2**	**-6.9**
LZH				sS	sS	14 24 19.0	-3.6
LZH				ScP	ScP	14 25 20.0	-0.3
LZH				PcS	PcS	14 25 21.0	-2.2
LZH				SS	SS	14 26 03.5	-29
LZH				ScS	ScS	14 29 17.5	-2.9
LZH				pmax	pmax		
	comp=Z,58nm,1.5s,mb5.3						
LZH				pmax	pmax		
	comp=Z,330nm,5.5s						
LZH				LR	LR		
	comp=E,4µm,14.8s						
LZH				LR	LR		
	comp=Z,4µm,15.8s,MS5.2						
SDKM	**Sandakan**	**33.22**	**230**	P	**P**	**14 18 57.6**	**+0.9**
CD2	**Chengdu**	**33.24**	**283**	P	**P**	**14 18 55.8**	**-0.9**
CD2				pP	pP	14 19 05.4	+1.1
CD2				sP	sP	14 19 09.3	+1.9
CD2				PP	PP	14 20 07.4	-4.7
CD2				PcP	PcP	14 21 38.1	-0.8
CD2				S	**S**	**14 24 12.3**	**-3.1**
CD2				sS	sS	14 24 28.4	+0.5
CD2				SS	SS	14 26 16.8	-22
CD2				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.3						
CD2				pmax	pmax		
	comp=Z,290nm,7.1s						
CD2				LR	LR		
	comp=N,3µm,14.9s						
CD2				LR	LR		
	comp=Z,3µm,15.5s,MS5.1						
SONM	**Songino Array**	**33.32**	**314**	P	**P**	**14 18 57.8**	**+0.6**
	comp=Z,37nm,0.9s,mb5.3,baz=120,slow=8.0,SNR=118						
SONM				PcP	PcP	14 21 39.5	+0.7
	comp=Z,6.4nm,1.0s,baz=98,slow=3.0,SNR=3.9						
SONM				ScP	ScP	14 25 22.1	+0.6
	comp=Z,3.4nm,1.2s,baz=136,slow=3.0,SNR=4.6						
SONM				LR	LR	14 33 23.9	
	comp=Z,1µm,18.5s,MS4.7,baz=122,slow=38						
KKM	**Kota Kinabalu**	**33.60**	**232**	P	**P**	**14 19 01.4**	**+1.5**
TSM	**Tawau**	**33.78**	**228**	P	**P**	**14 19 01.6**	**+0.1**
YAK	**Yakutsk**	**33.96**	**349**	*e*P	**P**	**14 19 01.3**	**-1.3**
YAK				*e**PP	pP	14 19 10.3	+0.1
YAK				*e*		14 20 14.8	
YAK				*e*		14 21 39.2	
YAK				*e*S	**S**	**14 24 28.2**	**+2.4**
YAK				*e**SS	sS	14 24 41.1	+2.8
YAK				*e*SS	SS	14 26 35.1	-18
YAK				*e*SSS		14 27 04.2	
YAK				*e*		14 29 20.9	
YAK				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.1						
YAK				pmax	pmax		
	comp=E,7.0nm,1.3s						
YAK				pmax	pmax		
	comp=N,19nm,1.2s						
YAK				pmax	pmax		
	comp=Z,71nm,3.1s						
YAK				smax			
	comp=N,79nm,2.1s						
YAK				smax			
	comp=E,59nm,2.3s						
YAK				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.6						
YAK				MLR	MLR		
	comp=N,655nm,17.0s,MS4.6						
YAK				MLR	MLR		
	comp=E,705nm,18.0s,MS4.6						
YAK	**Yakutsk**	**33.96**	**349**	*e*P	**P**	**14 19 01.8**	**-0.8**
	comp=E,56nm,1.2s,mb5.4						
SEY	**Seymchan**	**34.49**	**8**	⇑*e*P	**P**	**14 19 06.8**	**-0.3**
SEY	**Seymchan**	**34.49**	**8**	⇑*e*P	**P**	**14 19 06.9**	**-0.2**
BOD	**Bodaibo**	**34.78**	**334**	⇓*i*P	**P**	**14 19 09.7**	**0.0**
BOD				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.3						
KMI	**Kunming**	**35.25**	**273**	⇑P	**P**	**14 19 14.3**	**+0.2**
KMI				pP	pP	14 19 24.8	+3.0
KMI				sP	sP	14 19 28.9	+4.0
KMI				PP	PP	14 20 33.9	-0.4
KMI				PcP	PcP	14 21 44.5	-0.2
KMI				S	**S**	**14 24 45.0**	**-1.4**
KMI				sS	sS	14 25 02.6	+3.6
KMI				SS	SS	14 27 03.0	-17
KMI				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.1						
KMI				LR	LR		
	comp=N,910nm,19.5s,MS4.8						
KMI				LR	LR		
	comp=E,1µm,18.4s,MS4.8						
KMI				LR	LR		
	comp=Z,2µm,17.3s,MS4.9						
ZAK	**Zakamensk**	**36.15**	**317**	⇑*i*P	**P**	**14 19 22.6**	**+1.0**
ZAK				*e*		14 24 58.5	
ZAK				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.5						
GTA	**Gaotai**	**36.24**	**298**	P	**P**	**14 19 21.4**	**-1.1**
GTA				pP	pP	14 19 30.7	+0.6
GTA				sP	sP	14 19 34.7	+1.5
GTA				PP	PP	14 20 43.2	-1.8
GTA				PcP	PcP	14 21 47.9	+0.5
GTA				S	**S**	**14 24 56.6**	**-4.7**
GTA				sS	sS	14 25 10.8	-3.1
GTA				ScP	ScP	14 25 32.6	+0.5
GTA				PcS	PcS	14 25 35.2	+0.3
GTA				pmax	pmax		
	comp=Z,25nm,1.9s,mb4.8						
GTA				pmax	pmax		
	comp=Z,320nm,8.3s						
GTA				LR	LR		
	comp=N,2µm,17.2s,MS4.9						
GTA				LR	LR		
	comp=E,880nm,18.1s,MS4.9						
GTA				LR	LR		
	comp=Z,1µm,20.2s,MS4.8						
IRK	**Irkutsk**	**36.30**	**320**	⇑*i*P	**P**	**14 19 24.3**	**+1.4**
IRK				*e*		14 19 42.2	
IRK				*e*		14 25 09.6	
IRK				pmax	pmax		
	comp=Z,188nm,1.4s,mb5.8						
TLY	**Talaya**	**36.43**	**319**	P	**P**	**14 19 25.7**	**+1.7**
	comp=Z,714nm,1.1s,mb6.5,SNR=56						
TLY	**Talaya**	**36.43**	**319**	*c i*P	**P**	**14 19 25.4**	**+1.4**
TLY				*e*S	**S**	**14 25 03.7**	**-0.3**
TLY				pmax	pmax		
	comp=Z,186nm,1.1s,mb5.9						
TLY				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.2						
TLY	**Talaya**	**36.43**	**319**	*e*P	**P**	**14 19 25.9**	**+2.0**
	comp=Z,173nm,1.1s,mb5.9						
TLY	**Talaya**	**36.43**	**319**	P	**P**	**14 19 26.0**	**+2.1**
	SNR=107						
TLY				P		14 19 26.0	
	SNR=107						
BTM	**Bintulu**	**37.80**	**232**	P	**P**	**14 19 36.6**	**+0.6**
KDI	**Kendari**	**37.87**	**213**	⇑*e*P	**P**	**14 19 36.0**	**-0.5**
MOY	**Mondy**	**37.96**	**318**	*e*P	**P**	**14 19 37.7**	**+0.8**
MOY				pmax	pmax		
	comp=Z,169nm,1.2s,mb5.7						
SBUM	**Sibu**	**38.93**	**233**	P	**P**	**14 19 45.1**	**-0.4**
CHRT	**Chiangrai**	**39.52**	**266**	⇑P	**P**	**14 19 51.0**	**+0.6**
	comp=Z,558nm,1.2s,mb6.2						
CHG	**Chiang Mai**	**40.65**	**265**	⇑P	**P**	**14 19 59.7**	**-0.1**
	comp=Z,10nm,1.0s,mb4.4						
CHTO	**Chiang Mai**	**40.65**	**265**	*e*P	**P**	**14 19 59.1**	**-0.7**
CHTO				pmax	pmax		
	comp=Z,133nm,1.2s,mb5.4						
CHTO	**Chiang Mai**	**40.65**	**265**	*e*P	**P**	**14 19 59.1**	**-0.7**
	comp=Z,133nm,1.2s,mb5.5						
CHTO	**Chiang Mai**	**40.65**	**265**	P	**P**	**14 20 00.0**	**+0.2**
	SNR=24						
CHTO				P		14 20 00.0	
	SNR=24						
CMAR	**Chiang Mai Arr**	**40.79**	**265**	P	**P**	**14 20 01.0**	**+0.1**
CMAR						14 22 02.5	
CMAR				pmax	pmax		
	comp=Z,21nm,1.0s						
CMAR				MLR	MLR		
	comp=Z,1µm,19.6s						
CMAR	**Chiang Mai Arr**	**40.79**	**265**	P	**P**	**14 20 00.9**	**0.0**
	comp=Z,21nm,1.0s,mb4.7,baz=52,slow=8.5,SNR=114						
CMAR				PcP	PcP	14 22 02.5	+0.6
	comp=Z,4.4nm,1.1s,baz=55,slow=4.7,SNR=3.5						
CMAR				LR	LR	14 37 47.8	
	comp=Z,1µm,19.6s,MS4.7,baz=50,slow=37						
CMAR	**Chiang Mai Arr**	**40.79**	**265**	P	**P**	**14 20 00.9**	**0.0**
CMAR				PcP	PcP	14 22 02.5	+0.6
CMAR				LR	LR	14 37 47.8	
BDT	**Bhumibol Dam**	**41.23**	**263**	⇑P	**P**	**14 20 06.0**	**+1.4**
	comp=Z,20nm,1.0s,mb4.7						
BILL	**Bilibino**	**41.51**	**13**	*c i*P	**P**	**14 20 05.6**	**-0.7**
BILL				*e*		14 22 02.9	
BILL				*e*S	**S**	**14 26 21.7**	**+1.6**
BILL				pmax	pmax		
	comp=Z,52nm,1.7s,mb4.9						
BILL				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.5						
KAKA	**Kakadu**	**42.62**	**194**	*e*P	**P**	**14 20 14.1**	**-1.7**
	comp=Z,19nm,0.6s,mb5.0						
KAKA	**Kakadu**	**42.62**	**194**	*e*P	**P**	**14 20 13.6**	**-2.2**
	comp=Z,86nm,0.8s,mb5.5						
TIXI	**Tiksi**	**43.23**	**354**	*e*P	**P**	**14 20 18.9**	**-1.3**
TIXI				*e*S	**S**	**14 26 46.6**	**+1.2**

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TIXI                               pmax   pmax
       comp=Z,26nm,1.5s,mb4.7
TIXI                               MLR    MLR
       comp=Z,639nm,12.0s,MS4.7
TIXI   Tiksi             43.23 354 eP     P       14 20 19.5 -0.7
KTGM   Kuala Trenggan    43.85 245 P      P       14 20 27.1 +1.2
KRAR   Krasnoyarsk       43.90 322⇓eP     P       14 20 27.1 +1.3
KRAR                               pmax   pmax
       comp=Z,48nm,0.8s,mb5.3
KRAR                               MLR    MLR
       comp=Z,1µm,14.0s,MS4.9
LSA    Lhasa             44.19 284 P      P       14 20 29.4 +0.9
LSA    Lhasa             44.19 284 eP     P       14 20 27.0 -1.5
LSA                                e              14 22 12.0
LSA                                pmax   pmax
       comp=Z,3.0nm,0.4s,mb4.4
LSA    Lhasa             44.19 284 eP     P       14 20 27.0 -1.5
       comp=Z,3.4nm,0.4s,mb4.4
LSA                                e              14 22 12.0
SHL    Shillong          44.58 278⇑iP     P       14 20 32.0 +0.3
SHL                                ex     x       14 30 26.0
GAMB   Gambell           45.33  27 eP     P       14 20 36.2 -0.8
       comp=Z,30nm,1.3s,mb5.0
WMQ    Urumqi            45.45 304⇑iP     P       14 20 38.5 +0.1
WMQ                                pP     pP      14 20 48.5 +2.3
WMQ                                sP     sP      14 20 52.5 +3.3
WMQ                                PcP    PcP     14 22 17.0 -0.1
WMQ                                PP     PP      14 22 26.0 +1.1
WMQ                                S      S       14 27 18.0 -0.3
WMQ                                SS     SS      14 30 34.0 -8.1
WMQ                                pmax   pmax
       comp=Z,84nm,1.2s,mb5.5
WMQ                                pmax   pmax
       comp=Z,450nm,6.0s
WMQ                                LR     LR
       comp=N,2µm,8.0s
WMQ                                LR     LR
       comp=E,2µm,7.8s
WMQ                                LR     LR
       comp=Z,4µm,18.4s,MS5.3
MYKOM  Kota Tinggi       45.50 240 P      P       14 20 39.9 +0.9
KULM   Kulim             45.86 247 P      P       14 20 42.6 +0.6
KULM   Kulim             45.86 247⇑iP     P       14 20 41.8 -0.2
       comp=Z,86nm,1.2s,mb5.6
IPM    Ipoh              46.04 246 P      P       14 20 43.2 -0.1
FRIM   Kepong            46.31 244 P      P       14 20 46.0 +0.5
TNA    Tin City          47.58  26 eP     P       14 20 54.0 -0.7
       comp=Z,20nm,1.2s,mb5.0
TAPN   Taplejung         47.69 282 eP     P       14 20 55.9 -0.3
       comp=Z,38nm,1.0s,mb5.4
ZAA0   Zalesovo Array    48.02 318 eP     P       14 20 58.3 +0.1
ZAA0                               ePcP   PcP     14 22 23.8 -2.2
ZALV   Zalesovo Beam     48.02 318 P      P       14 20 58.6 +0.3
ZALV                                              14 22 25.1
ZALV                               pmax   pmax
       comp=Z,31nm,0.8s,mb5.4
ZALV                               MLR    MLR
       comp=Z,1µm,18.3s,MS5.0
ZALV   Zalesovo Beam     48.02 318 P      P       14 20 58.6 +0.3
       comp=Z,30nm,0.8s,mb5.4,baz=104,slow=6.3,SNR=123
ZALV                               PcP    PcP     14 22 25.1 -0.9
       comp=Z,13nm,0.8s,baz=74,slow=5.1,SNR=3.3
ZALV                               LR     LR      14 42 05.5
       comp=Z,1µm,18.3s,MS5.0,baz=91,slow=37
ODAN   Odare             48.10 281 eP     P       14 20 59.2 -0.1
       comp=Z,149nm,1.3s,mb5.8
RAMN   Ramite            48.75 282 eP     P       14 21 04.1 -0.3
       comp=Z,205nm,1.2s,mb6.0
JIRN   Jiri              48.91 283 eP     P       14 21 06.3 +0.7
NVS    Novosibirsk       49.04 319⇑iP     P       14 21 06.6 +0.4
NVS                                i S    S       14 28 10.6 +1.5
NVS                                e              14 30 54.4
NVS                                pmax   pmax
       comp=Z,162nm,1.7s,mb5.8
NVS                                pmax   pmax
       comp=N,29nm,1.6s
NVS                                pmax   pmax
       comp=E,130nm,1.6s
NVS                                smax
       comp=N,43nm,2.0s
NVS                                smax
       comp=E,35nm,2.0s
CTA    Charters Tower    49.05 175 eP     P       14 21 04.6 -1.9
       comp=E,8.9nm,0.8s,mb4.8
CTAO   Charters Tower    49.05 175 eP     P       14 21 04.1 -2.4
CTAO                               pmax   pmax
       comp=Z,99nm,1.8s,mb5.5
CTAO   Charters Tower    49.05 175 eP     P       14 21 04.1 -2.4
       comp=Z,98nm,1.8s,mb5.5
GUN    Gumba             49.11 283 eP     P       14 21 07.3 +0.2
       comp=Z,225nm,1.2s,mb6.1
MK31   Makanchi Array    49.24 308 eP     P       14 21 07.9 +0.1
MKAR   Makanchi Array    49.24 308 P      P       14 21 08.1 +0.3
MKAR                               pmax   pmax
       comp=Z,24nm,0.9s
MKAR                               MLR    MLR
       comp=Z,2µm,19.4s
MKAR   Makanchi Array    49.24 308 P      P       14 21 08.1 +0.3
       comp=Z,24nm,0.9s,mb5.2,baz=91,slow=9.7,SNR=91
MKAR                               LR     LR      14 43 02.4
       comp=Z,2µm,19.4s,MS5.0,baz=89,slow=37
WRAB   Tennant Creek     49.33 190⇑iP     P       14 21 06.7 -1.9
WRAB                                              14 22 26.1
WRAB                               pmax   pmax
       comp=Z,151nm,1.0s,mb6.0
WRAB   Tennant Creek     49.33 190⇑iP     P       14 21 06.7 -1.9
       comp=Z,151nm,1.0s,mb6.0
WRAB                               PcP    PcP     14 22 26.1 -5.1
WB2    Warramunga Arr    49.33 190⇑iP     P       14 21 06.7 -2.0
WRA    Warramunga Arr    49.34 190 P      P       14 21 06.8 -1.9
WRA                                S      S       14 28 07.3 -6.5
WRA                                pmax   pmax
       comp=Z,80nm,0.9s
WRA                                smax
       comp=N,7.0nm,1.1s
WRA    Warramunga Arr    49.34 190 P      P       14 21 06.8 -1.9
       comp=N,80nm,0.9s,mb5.7,baz=10,slow=8.1,SNR=296
WRA                                S      S       14 28 07.3 -6.6
       comp=N,6.8nm,1.1s,baz=10,slow=14,SNR=6.6
FITZ   Fitzroy Crossi    49.57 201⇑iP     P       14 21 09.1 -1.5
       comp=N,54nm,1.0s,mb5.5
FITZ                               eS     S       14 28 10.7 -6.5
FITZ   Fitzroy Crossi    49.57 201 eP     P       14 21 08.2 -2.3
       comp=N,37nm,1.0s,mb5.4
PKI    Pulchoki          49.60 283 eP     P       14 21 10.4 -0.5
       comp=N,127nm,1.2s,mb5.8
PKIN   Phulchoki         49.61 283 eP     P       14 21 10.5 -0.4
       comp=N,91nm,1.3s,mb5.7
KKN    Kakani            49.65 283 eP     P       14 21 11.0 -0.2
       comp=N,174nm,1.2s,mb6.0
DMN    Daman             49.85 283 eP     P       14 21 12.4 -0.4
       comp=N,132nm,1.2s,mb5.8
GKN    Gorkha            50.14 284 eP     P       14 21 14.7 -0.3
       comp=N,281nm,1.3s,mb6.1
BOK    Bokaro            50.31 278 ePKP   P       14 21 16.6 +0.3
BOK                                AMb    AMB     14 21 20.4
       comp=Z,85nm,1.3s,mb5.6
DANN   Dangsing          50.79 284 eP     P       14 21 20.0 +0.1
       comp=Z,326nm,1.2s,mb6.1
KOLN   Koldanda          51.09 284 eP     P       14 21 22.1  0.0
       comp=Z,293nm,1.2s,mb6.1
PYUN   Piuthan           51.52 284 eP     P       14 21 25.5 +0.2
       comp=Z,262nm,1.1s,mb6.1
SVW2   Sparrevohn        51.61  33 eP     P       14 21 25.3 -0.2
KURK   Kurchatov         51.62 313⇑iP     P       14 21 26.1 +0.4
KURK   Kurchatov         51.62 313 P      P       14 21 26.5 +0.7
       SNR=89
KURK                               P              14 21 26.5
       SNR=89
OHAK   Old Harbor        52.35  38 eP     P       14 21 31.2 +0.2
       comp=Z,112nm,1.6s,mb5.5
KDAK   Kodiak Island     52.77  38 i P    P       14 21 32.9 -1.2
KDAK   Kodiak Island     52.77  38 P      P       14 21 34.6 +0.5
       comp=Z,45nm,1.1s,mb5.3,baz=303,slow=2.6,SNR=13
RSO    Redoubt South     52.90  34 eP     P       14 21 35.8 +0.7
ASAR   Alice Springs     53.06 190 P      P       14 21 34.5 -2.1
ASAR                               S      S       14 29 00.1 -5.1
ASAR                               pmax   pmax
       comp=Z,11nm,1.1s
ASAR                               smax
       comp=N,1.0nm,0.9s
ASAR   Alice Springs     53.06 190 P      P       14 21 34.5 -2.1
       comp=N,11nm,1.1s,mb4.7,baz=7.6,slow=5.4,SNR=51
ASAR                               S      S       14 29 00.1 -5.1
       comp=N,0.5nm,0.8s,baz=10,slow=7.6,SNR=4.3
PPLA   Purkeypile        53.45  31 eP     P       14 21 38.2 -0.8
       comp=N,80nm,1.4s,mb5.5
PTH    Pithoragarh       53.46 287 ePKP   P       14 21 39.5 -0.2
PTH                                ex     x       14 23 19.0
LGTI   Lohaghat          53.46 287 ex     P       14 21 37.5 -2.2
CHUM   Lake Minchumin    53.52  30 eP     P       14 21 39.2 -0.4
       comp=N,74nm,1.8s,mb5.3
ULHL   Ulahol            53.94 303 P      P       14 21 43.8 +0.7
       SNR=9.1
KTH    Kantishna Hill    54.09  31 eP     P       14 21 43.7 -0.1
       comp=N,78nm,1.6s,mb5.4
BPAW   Bear Paw Mtn.     54.13  30 eP     P       14 21 43.2 -0.8
       comp=N,56nm,1.6s,mb5.2
TKM2   Tokmak 2          54.31 304 eP     P       14 21 46.4 +0.7
TKM2                               pmax   pmax
       comp=Z,37nm,1.1s,mb5.2
TKM2   Tokmak 2          54.31 304 P      P       14 21 46.7 +1.0
       SNR=28
TKM2   Tokmak 2          54.31 304 eP     P       14 21 46.4 +0.7
       comp=Z,37nm,1.1s,mb5.2
TRF    Thorofare Moun    54.36  31 eP     P       14 21 44.0 -1.8
       comp=Z,125nm,1.8s,mb5.5
RC01   Rabbit Creek A    54.43  34 eP     P       14 21 46.1 -0.2
       comp=Z,69nm,1.7s,mb5.3
MBWA   Marble Bar        54.46 206 eP     P       14 21 44.4 -2.6
       comp=Z,18nm,0.9s,mb5.0
SEW    Seward            54.52  35 eP     P       14 21 46.2 -0.7
       comp=Z,293nm,1.9s,mb6.0
KSH    Kashi             54.60 300⇑iP     P       14 21 51.4 +3.6
KSH                                pP     pP      14 22 01.2 +5.4
KSH                                sP     sP      14 22 05.1 +6.3
KSH                                ePcP   PcP     14 22 53.1 +2.4
KSH                                ePP    PP      14 23 54.1 +3.9
KSH                                eScP   ScP     14 26 48.2 +0.7
KSH                                ePcS   PcS     14 26 52.0 +1.7
KSH                                eS     S       14 29 27.2 +1.2
KSH                                esS    sS      14 29 43.6 +4.6
KSH                                eScS   ScS     14 31 35.1 -0.4
KSH                                eSS    SS      14 33 09.1 +0.5
KSH                                pmax   pmax
       comp=Z,44nm,1.0s,mb5.4
KSH                                pmax   pmax
       comp=Z,470nm,4.3s
KSH                                LR     LR
       comp=N,1µm,11.5s
KSH                                LR     LR
       comp=E,2µm,17.0s
KSH                                LR     LR
       comp=Z,3µm,15.4s,MS5.5
KZA    Kyzart            54.70 303 P      P       14 21 50.3 +1.8
       SNR=20
VIS    Vishakhapatnam    54.73 272 ePKP   P       14 21 49.5 +0.4
VIS                                AMb    AMB     14 21 51.5
       comp=Z,93nm,0.9s,mb5.8
PMR    Palmer            54.75  33 eP     P       14 21 49.1 +0.5
PMR                                pmax   pmax
       comp=Z,142nm,2.0s,mb5.7
PMR    Palmer            54.75  33 eP     P       14 21 49.1 +0.5
       comp=Z,142nm,2.0s,mb5.7
EIDS   Eidsvold          54.81 170 eP     P       14 21 48.0 -1.4
       comp=Z,53nm,1.1s,mb5.5
KBK    Karagaybulak      54.82 304 P      P       14 21 50.1 +0.6
       SNR=52
COLD   Coldfoot          54.87  26 eP     P       14 21 49.0 -0.4
       comp=Z,24nm,1.1s,mb5.1
CHMS   Chumysh           54.91 304 P      P       14 21 50.5 +0.4
       SNR=12
MCK    McKinley          54.99  30 eP     P       14 21 51.1 +0.8
MCK                                pmax   pmax
       comp=Z,62nm,1.3s,mb5.5
MCK    McKinley          54.99  30 eP     P       14 21 51.1 +0.8
       comp=Z,62nm,1.3s,mb5.5
FRU    Bishkek           55.04 304 eP     P       14 21 51.0  0.0
FRU                                e              14 22 02.0
FRU                                pmax   pmax
       comp=Z,80nm,1.4s,mb5.6
DDI    Dehra Dun         55.05 288 ePKP   P       14 21 51.2 -0.1
USP    Ospenovka         55.05 304 P      P       14 21 51.5 +0.4
       SNR=20
AAK    Ala-Archa         55.16 304⇑iP     P       14 21 52.3 +0.4
AAK                                pmax   pmax
       comp=Z,11nm,0.8s,mb4.9
AAK                                MLR    MLR
       comp=Z,600nm,15.0s,MS4.8
AAK    Ala-Archa         55.16 304 P      P       14 21 52.5 +0.6
       SNR=21
AAK    Ala-Archa         55.16 304⇑iP     P       14 21 52.4 +0.5
AAK    Ala-Archa         55.16 304 P      P       14 21 52.8 +0.9
       SNR=9.4
AAK                                P              14 21 52.8
       SNR=9.4
UCH    Uchtor            55.21 303 P      P       14 21 54.1 +1.8
       SNR=7.0
UCH    Uchtor            55.21 303 eP     P       14 21 53.6 +1.3
       comp=Z,14nm,0.9s,mb5.0
COLA   College           55.56  29 eP     P       14 21 54.7 +0.3
COLA                               pmax   pmax
       comp=Z,16nm,1.3s,mb4.9
COLA   College           55.56  29 eP     P       14 21 54.7 +0.3
       comp=Z,16nm,1.3s,mb4.9
EKS2   Erkin-Say         55.67 304 P      P       14 21 56.2 +0.6
       SNR=12
AML    Almayashu         55.83 303 P      P       14 21 58.3 +1.6
       SNR=93
AML    Almayashu         55.83 303 eP     P       14 21 56.3 -0.4
       comp=Z,66nm,0.9s,mb5.7
NDI    New Delhi         56.22 287 ePKP   P       14 21 59.0 -0.7
NDI                                eS     S       14 29 52.0 +4.0
NDI                                ex     x       14 31 43.0
PAX    Paxson            56.51  31 eP     P       14 22 00.6 -0.6
PAX                                pmax   pmax
       comp=Z,84nm,1.6s,mb5.5
PAX    Paxson            56.51  31 eP     P       14 22 00.6 -0.6
       comp=Z,84nm,1.6s,mb5.5
BVA0   Borovoye Array    56.60 317 i P    P       14 22 02.7 +0.7
BVA0                               pmax   pmax
       comp=Z,17nm,1.2s,mb5.0
BRVK   Borovoye          56.67 317⇑iP     P       14 22 03.1 +0.6
BRVK   Borovoye          56.67 317 P      P       14 22 03.6 +1.1
       SNR=29
BRVK                               P              14 22 03.6
       SNR=29
MENT   Mentasta          57.31  32 eP     P       14 22 06.7 -0.2
BHPL   Bhopal            57.81 280 ePKP   P       14 22 10.4 -0.7
BHPL                               AMb    AMB     14 22 12.1
       comp=Z,63nm,1.0s,mb5.6
KK31   Karatay Array     57.95 305 P      P       14 22 12.1 +0.4
KK31                               pmax   pmax
       comp=Z,92nm,1.2s,mb5.7
KK31   Karatay Array     57.95 305 i P    P       14 22 12.2 +0.5
HYB    Hyderabad         59.02 274 i P    P       14 22 19.0 -0.6
DAWY   Dawson            59.21  30 eP     P       14 22 19.7 -0.5
ARMA   Armidale          59.85 171 eP     P       14 22 24.4 -0.5
STKA   Stephens Creek    60.63 181⇑iP     P       14 22 28.6 -1.6
       comp=Z,9.4nm,0.7s,mb5.0
STKA   Stephens Creek    60.63 181 P      P       14 22 28.9 -1.4
       comp=Z,9.1nm,0.9s,mb4.9,baz=1.4,slow=9.8,SNR=10.0
STKA   Stephens Creek    60.63 181 eP     P       14 22 28.2 -2.0
       comp=Z,3.8nm,1.0s,mb4.5
FORT   Forrest           61.05 194 eP     P       14 22 31.5 -1.5
       comp=Z,41nm,1.0s,mb5.5
KBL    Kabul             61.17 296 eP     P       14 22 33.6 -0.5
KBL                                pmax   pmax
       comp=Z,26nm,1.1s,mb5.3
KBL    Kabul             61.17 296 eP     P       14 22 33.6 -0.5
       comp=Z,26nm,1.1s,mb5.3
PALK   Pallekele         61.64 262 i P    P       14 22 38.4 +0.9
SVE    Sverdlovsk        61.67 322⇓eP     P       14 22 37.7 +0.6
SVE                                eS     S       14 30 51.8 -6.0
SVE                                pmax   pmax
       comp=Z,84nm,1.4s,mb5.7
POO    Poona             62.68 277 ePKP   P       14 22 44.1 -0.3
POO                                AMb    AMB     14 22 46.6
       comp=Z,91nm,1.1s,mb5.8
ARU    Arti              62.87 322 P      P       14 22 45.8 +0.7
       comp=Z,428nm,1.1s,mb6.5,SNR=14
ARU    Arti              62.87 322 eP     P       14 22 45.2 +0.1
ARU    Arti              62.87 322 eP     P       14 22 45.1  0.0
KAD    Karad             62.88 276 ePKP   P       14 22 45.3 -0.5
KAD                                AMb    AMB     14 22 47.0
       comp=Z,79nm,0.8s,mb5.9
KOD    Kodaikanal        63.07 267 ePKP   P       14 22 47.4 +0.3
KOD                                AMb    AMB     14 22 48.4
       comp=Z,98nm,1.1s,mb5.8
SOKR   Solikamsk         63.13 325⇑iP     P       14 22 48.4 +1.6
SOKR                               pmax   pmax
       comp=Z,20nm,1.1s,mb5.2
SOKR                               MLR    MLR
       comp=Z,2µm,19.0s,MS5.2
AB31   Akbulak array     63.73 314 P      P       14 22 51.2 +0.3
AB31                               pmax   pmax
       comp=Z,68nm,1.1s,mb5.6
CAN    Canberra          64.39 174 eP     P       14 22 49.3 -5.9
CAN                                pmax   pmax
       comp=Z,72nm,1.5s,mb5.5
CAN    Canberra          64.39 174 eP     P       14 22 49.3 -5.9
       comp=Z,72nm,1.5s,mb5.5
DLBC   Dease Lake        64.57  36 P      P       14 22 56.0 -0.3
       comp=Z,11nm,1.0s,mb4.8,baz=293,slow=6.3,SNR=10.0
KLBR   Kellerberrin      64.68 203 eP     P       14 22 56.0 -1.2
       comp=Z,46nm,1.1s,mb5.4
NWAO   Narrogin (SRO)    66.07 203 eP     P       14 23 04.5 -1.7
NWAO                               pmax   pmax
       comp=Z,151nm,1.8s
NWAO   Narrogin (SRO)    66.07 203 eP     P       14 23 04.5 -1.7
       comp=Z,150nm,1.8s,mb5.7
TOO    Toolangi          66.38 177 eP     P       14 23 07.7 -0.4
PRGR   Permogore         67.85 329 eP     P       14 23 17.1 -0.1
PRGR                               pmax   pmax
       comp=Z,28nm,0.8s,mb5.3
ALE    Alert             67.98   3 P      P       14 23 18.0 +0.2
       comp=Z,90nm,1.1s,mb5.7,SNR=11
ABKT   Ailbek            68.45 302 P      P       14 23 22.0 +0.5
       comp=Z,151nm,1.3s,mb5.9,SNR=6.5
KBS    Kingsbay          68.58 351⇓eP     P       14 23 22.1 +0.5
KBS                                pmax   pmax
       comp=Z,38nm,1.3s,mb5.2
LVZ    Lovozero          69.65 337⇓eP     P       14 23 28.7 +0.4
LVZ                                pmax   pmax
       comp=Z,42nm,1.4s,mb5.2
LVZ                                MLR    MLR
       comp=Z,800nm,21.0s,MS4.9
RES    Resolute Bay      70.12  14 P      P       14 23 30.1 -1.1
RES                                pmax   pmax
       comp=Z,13nm,0.9s,mb4.9
RES    Resolute Bay      70.12  14 P      P       14 23 30.1 -1.0
       comp=Z,13nm,0.9s,mb4.8,baz=318,slow=6.0,SNR=27
APA    Apatity           70.22 337⇑eP     P       14 23 31.7 -0.2
APA                                i              14 23 53.0
APA                                pmax   pmax
       comp=Z,26nm,1.0s,mb5.1
YKA    Yellowknife Ar    70.38  29 P      P       14 23 32.0 -0.9
YKA                                pmax   pmax
       comp=Z,16nm,0.8s
YKA    Yellowknife Ar    70.38  29 P      P       14 23 32.0 -0.9
       comp=Z,16nm,0.8s,mb5.0,baz=293,slow=6.3,SNR=66
YKA    Yellowknife Ar    70.38  29 P      P       14 23 32.0 -0.9
KLMR   Klimovskoe        70.88 330 P      P       14 23 33.6 -2.4
KLMR                               pmax   pmax
       comp=Z,55nm,1.6s,mb5.2
KEV    Kevo              71.11 341 eP     P       14 23 35.3 -2.0
KEV                                pmax   pmax
       comp=Z,7.0nm,0.8s,mb4.6
KEV    Kevo              71.11 341 ep     P       14 23 35.3 -2.0
       comp=Z,6.9nm,0.8s,mb4.6
ARCES  ARCESS Array B    71.67 341 P      P       14 23 40.2 -0.4
ARCES                              pmax   pmax
       comp=Z,18nm,0.9s
ARCES                              MLR    MLR
       comp=Z,839nm,19.0s
ARCES  ARCESS Array B    71.67 341 P      P       14 23 40.2 -0.4
       comp=Z,18nm,0.9s,mb5.0,baz=34,slow=8.8,SNR=14
ARCES                              LR     LR      14 58 39.3
       comp=Z,839nm,19.0s,MS5.0,baz=63,slow=39
NLWA   Neilton Lookou    71.68  46 eP     P       14 23 39.8 -1.4
       comp=Z,230nm,1.9s,mb5.8
D03A   Wishkah Elem.     71.85  46 ⇓P     P       14 23 42.9 +0.8
       baz=72
C04A   Brinnon           72.11  45 ⇓P     P       14 23 44.2 +0.5
       baz=72
GNW    Green Mountain    72.26  45 eP     P       14 23 44.6  0.0
       comp=Z,114nm,1.5s,mb5.6
GNW                                e              14 23 59.7
MBW    Mount Baker       72.34  44 P      P       14 23 45.4 +0.3
B05A   Bryant            72.43  44 ⇑P     P       14 23 46.2 +0.7
       baz=72,SNR=6.4
A06A   Chilliwack        72.46  43 ⇓P     P       14 23 46.0 +0.3
       baz=72,SNR=9.1
JCW    Jim Creek         72.56  44 P      P       14 23 46.8 +0.5
C05A   Tolt Reservoir    72.91  45 ⇑P     P       14 23 49.3 +0.9
       baz=73,SNR=6.3
D05A   Enumclaw          72.94  45 ⇑P     P       14 23 48.9 +0.3
       baz=73
A07A   Ashnola River,    73.14  43 ⇑P     P       14 23 50.4 +0.6
       baz=73,SNR=14
F04A   Amboy             73.19  47 ⇑P     P       14 23 50.2 +0.1
       baz=73
JOF    Joensuu           73.31 333 eP     P       14 23 49.3 -1.2
JOF                                pmax   pmax
       comp=Z,21nm,1.0s,mb5.0
JOF    Joensuu           73.31 333 ep     P       14 23 49.3 -1.2
       comp=Z,20nm,1.0s,mb5.0
G04A   Mulino            73.45  47 ⇑P     P       14 23 51.9 +0.2
       baz=73
B07A   Winthrop          73.55  43 ⇓P     P       14 23 52.8 +0.6
       baz=74,SNR=8.5
D06A   Cle Elum          73.64  45 ⇓P     P       14 23 53.5 +0.7
       baz=74,SNR=7.7
E06A   Yakima            73.84  46 ⇑P     P       14 23 54.4 +0.5
       baz=74
H04A   Detroit Lake      73.86  48 ⇓P     P       14 23 54.9 +0.8
       baz=74,SNR=5.9
C07A   Waterville        73.91  44 ⇓P     P       14 23 54.5 +0.1
       baz=74,SNR=6.6
EBG    Ellensburg        73.94  45 P      P       14 23 54.8 +0.3
MAK    Makhachkala       74.00 310 eP     P       14 23 55.9 +1.0
MAK                                eS     S       14 33 27.7 +2.0
MAK                                e              14 34 06.5
MAK                                pmax   pmax
       comp=Z,158nm,1.5s,mb5.7
MAK                                MLR    MLR
       comp=Z,3µm,17.0s,MS5.6
B08A   Colville Reser    74.06  43 ⇑P     P       14 23 55.5 +0.2
       baz=74,SNR=12
MOS    Moscow            74.08 325 eP     P       14 23 53.4 -1.8
MOS                                e              14 24 05.7
MOS                                pmax   pmax
       comp=Z,53nm,0.7s,mb5.6
VRHR   Novokhopersk      74.10 320 eP     P       14 23 56.5 +1.1
VRHR                               pmax   pmax
       comp=Z,30nm,0.9s,mb5.2
VRHR                               pmax   pmax
       comp=N,50nm,0.8s
VRHR                               pmax   pmax
       comp=E,70nm,0.6s
D07A   Quincy            74.18  45 ⇑P     P       14 23 55.9  0.0
       baz=74,SNR=6.4
A09A   Danville          74.24  43 ⇑P     P       14 23 56.7 +0.5
       baz=74,SNR=7.3
F06A   Goldendale        74.29  46 ⇑P     P       14 23 56.8 +0.2
       baz=74
C08A   Higginbotham F    74.49  44 ⇓P     P       14 23 57.9 +0.2
       baz=74,SNR=12
URZ    Urewera           74.53 152 P      P       14 23 57.8  0.0
       comp=E,7.3nm,1.0s,mb4.6,baz=304,slow=14,SNR=2.6
E07A   Sunnyside         74.53  45 ⇓P     P       14 23 58.3 +0.3
       baz=74,SNR=8.6
G06A   Carlson Farm,     74.62  47 ⇑P     P       14 23 59.1 +0.6
       baz=74,SNR=5.8
VTHM   Trough            74.69  47 P      P       14 24 00.7 +1.8
B09A   Rice              74.74  43 ⇓P     P       14 23 59.9 +0.7
       baz=75,SNR=9.5
YBH    Yreka Blue Hor    74.76  51 P      P       14 23 59.5 +0.1
YBH                                pmax   pmax
       comp=Z,13nm,1.0s
YBH    Yreka Blue Hor    74.76  51 P      P       14 23 59.5  0.0
       comp=Z,13nm,0.9s,mb4.8,baz=283,slow=6.9,SNR=9.2
F07A   Phinny Hill Vi    74.78  46 ⇓P     P       14 23 59.9 +0.5
       baz=75,SNR=6.0
A10A   Northport         74.84  42 ⇓P     P       14 24 00.2 +0.5
       baz=75,SNR=11
OD2    Odessa Site #2    74.86  44 P      P       14 24 01.1 +1.2
LAMM   Antelope Mount    74.87  51 P      P       14 24 00.3 +0.2
D08A   Wollman Farm,     74.89  44 ⇓P     P       14 24 00.6 +0.6
       baz=75,SNR=7.6
OBN    Obninsk           74.91 325⇓eP     P       14 24 00.5 +0.5
OBN                                e              14 24 13.0
OBN                                e              14 26 48.7
OBN                                eSS    SS      14 38 25.2 +2.0
OBN                                pmax   pmax
       comp=Z,57nm,1.7s,mb5.2
OBN                                MLR    MLR
       comp=Z,1µm,17.0s,MS5.3
```

OBN	**Obninsk**	**74.91**	**325**	⇓*e*P	**P**	**14 24 00.6**	**+0.6**
OBN				LR	LR		
	comp=Z,1µm,17.0s,MS5.3						
VIPM	**Ingram Point**	**74.94**	**47**	P	**P**	**14 24 00.6**	**+0.2**
C09A	**Chrisman Ranch**	**74.95**	**44**	⇑P	**P**	**14 24 00.6**	**+0.2**
	baz=75,SNR=7.1						
RAR	**Rarotonga**	**75.01**	**125**	LR	LR	14 50 53.7	
	comp=Z,966nm,19.2s,MS5.1,baz=292,slow=31						
H06A	**Lindquist Farm**	**75.03**	**47**	⇓P	**P**	**14 24 01.2**	**+0.3**
	baz=75,SNR=8.1						
E08A	**Dider Farm, El**	**75.05**	**45**	⇑P	**P**	**14 24 01.5**	**+0.5**
	baz=75,SNR=5.3						
EDM	**Edmonton**	**75.21**	**37**	*e*P	**P**	**14 24 01.0**	**-0.8**
G07A	**Ruggs Ranch, H**	**75.22**	**46**	⇑P	**P**	**14 24 02.4**	**+0.4**
	baz=75,SNR=5.7						
D09A	**Jones Farm, Ri**	**75.26**	**44**	⇓P	**P**	**14 24 02.5**	**+0.3**
	baz=75,SNR=7.7						
VSR	**Storozhevoye**	**75.42**	**321**	*e*P	**P**	**14 24 03.1**	**+0.1**
VSR				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
VSR				pmax	pmax		
	comp=N,10.0nm,1.3s						
VSR				pmax	pmax		
	comp=E,20nm,0.9s						
NEW	**Newport**	**75.42**	**43**	*e*P	**P**	**14 24 02.1**	**-1.0**
NEW				*e*		14 24 17.7	
NEW				pmax	pmax		
	comp=Z,47nm,1.3s						
NEW	**Newport**	**75.42**	**43**	*e*P	**P**	**14 24 02.1**	**-1.0**
	comp=Z,47nm,1.3s,mb5.3						
NEW				*e*		14 24 17.7	
I06A	**Prineville**	**75.45**	**48**	⇑P	**P**	**14 24 04.0**	**+0.7**
	baz=75,SNR=7.1						
VORD	**Divnogorie**	**75.46**	**320**	*e*P	**P**	**14 24 03.5**	**+0.2**
VORD				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,20nm,0.9s						
ARQ	**Araqi**	**75.47**	**289**	P	**P**	**14 24 05.0**	**+1.3**
	SNR=6.4						
C10A	**Spilker Farm,**	**75.52**	**43**	⇑P	**P**	**14 24 03.7**	**+0.1**
	baz=75						
A11A	**Hall Mountain,**	**75.55**	**42**	⇓P	**P**	**14 24 04.5**	**+0.7**
	baz=76,SNR=15						
E09A	**Wood Farm, Sta**	**75.61**	**45**	⇓P	**P**	**14 24 04.9**	**+0.7**
	baz=76,SNR=6.0						
G08A	**Pilot Rock**	**75.65**	**46**	⇑P	**P**	**14 24 05.2**	**+0.7**
	baz=76,SNR=11						
KAF	**Kangasniemi**	**75.69**	**334**	*e*P	**P**	**14 24 03.2**	**-1.2**
KAF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KAF	**Kangasniemi**	**75.69**	**334**	*e*p	**P**	**14 24 03.2**	**-1.2**
	comp=Z,20nm,1.0s,mb5.0						
J06A	**Christmas Vall**	**75.80**	**48**	⇓P	**P**	**14 24 05.9**	**+0.5**
	baz=76,SNR=5.9						
I07A	**Izee**	**75.85**	**47**	⇑P	**P**	**14 24 05.8**	**+0.2**
	baz=76						
D10A	**Wagner Farm, O**	**75.89**	**44**	⇑P	**P**	**14 24 06.1**	**+0.3**
	baz=76						
A12A	**Yaak River Ran**	**75.98**	**42**	⇓P	**P**	**14 24 07.0**	**+0.7**
	baz=76,SNR=20						
H08A	**Prairie City**	**76.19**	**47**	⇑P	**P**	**14 24 07.6**	**+0.1**
	baz=76,SNR=9.5						
E10A	**Myers Farm, Un**	**76.25**	**44**	⇑P	**P**	**14 24 07.8**	**-0.1**
	baz=76						
J07A	**Hines**	**76.30**	**48**	⇓P	**P**	**14 24 08.6**	**+0.4**
	baz=76,SNR=16						
G09A	**Cove**	**76.40**	**46**	⇑P	**P**	**14 24 08.9**	**+0.2**
	baz=76,SNR=9.5						
F10A	**Beach Ranch, E**	**76.42**	**45**	⇓P	**P**	**14 24 08.6**	**-0.2**
	baz=76						
I08A	**Drewsey**	**76.53**	**47**	⇑P	**P**	**14 24 09.4**	**-0.1**
	baz=76,SNR=14						
K07A	**Rock Creek Ran**	**76.65**	**49**	⇓P	**P**	**14 24 10.5**	**+0.3**
	baz=77,SNR=13						
KIV	**Kislovodsk**	**76.71**	**313**	P	**P**	**14 24 12.8**	**+2.3**
	comp=Z,303nm,1.3s,mb6.1,SNR=5.6						
KIV	**Kislovodsk**	**76.71**	**313**	*c i*P	**P**	**14 24 11.5**	**+1.0**
KIV				*e*		14 24 23.1	
KIV				*e*		14 27 01.3	
KIV				*e*S	S	14 34 00.3	+4.5
KIV				*e*SS	SS	14 38 58.6	+7.6
KIV				pmax	pmax		
	comp=Z,106nm,1.7s,mb5.5						
KIV				MLR	MLR		
	comp=Z,600nm,17.0s,MS5.0						
KIV	**Kislovodsk**	**76.71**	**313**	P	**P**	**14 24 11.9**	**+1.5**
	SNR=12						
KIV				P		14 24 11.9	
	SNR=12						
H09A	**Durkee**	**76.76**	**46**	⇓P	**P**	**14 24 10.8**	**0.0**
	baz=77,SNR=7.3						
ONI	**Oni**	**76.84**	**311**	P	**P**	**14 24 12.7**	**+1.4**
J08A	**Circle Bar Ran**	**76.84**	**48**	⇑P	**P**	**14 24 11.2**	**-0.1**
	baz=77,SNR=19						
E11A	**Bogner Ranch,**	**76.86**	**44**	⇓P	**P**	**14 24 11.6**	**+0.3**
	baz=77,SNR=11						
L07A	**Adell**	**76.89**	**49**	⇓P	**P**	**14 24 12.0**	**+0.4**
	baz=77,SNR=17						
BMO	**Blue Mountains**	**76.89**	**46**	*e*P	**P**	**14 24 10.6**	**-0.9**
BMO				pmax	pmax		
	comp=Z,96nm,1.6s,mb5.5						
BMO	**Blue Mountains**	**76.89**	**46**	*e*P	**P**	**14 24 10.6**	**-1.0**
	comp=Z,96nm,1.6s,mb5.5						
I09A	**Lost Marbles R**	**77.03**	**47**	⇑P	**P**	**14 24 12.1**	**-0.2**
	baz=77,SNR=10						
GNI	**Garni**	**77.09**	**309**	*c i*P	**P**	**14 24 14.0**	**+1.3**
GNI				pmax	pmax		
	comp=Z,87nm,1.7s						
GNI				MLR	MLR		
	comp=Z,1µm,21.0s						
GNI	**Garni**	**77.09**	**309**	⇓P	**P**	**14 24 14.9**	**+2.2**
	SNR=12						
GNI				⇓P		14 24 14.9	
	SNR=12						
N06A	**Buffalo Meadow**	**77.14**	**51**	⇑P	**P**	**14 24 13.1**	**+0.1**
	baz=77,SNR=15						
WVOR	**Wild Horse Val**	**77.17**	**49**	*e*P	**P**	**14 24 12.4**	**-0.7**
WVOR				pmax	pmax		
	comp=Z,46nm,1.4s,mb5.2						
WVOR	**Wild Horse Val**	**77.17**	**49**	*e*P	**P**	**14 24 12.4**	**-0.7**
	comp=Z,46nm,1.4s,mb5.2						
C13A	**Hot Springs**	**77.21**	**42**	⇓P	**P**	**14 24 13.2**	**-0.1**
	baz=77,SNR=23						
A14A	**Double T Ranch**	**77.25**	**41**	⇓P	**P**	**14 24 13.2**	**-0.2**
	baz=77,SNR=32						
M07A	**Soldier Meadow**	**77.30**	**50**	⇓P	**P**	**14 24 13.4**	**-0.5**
	baz=77,SNR=14						
J09A	**Fry Pan Ranch,**	**77.31**	**47**	⇑P	**P**	**14 24 13.7**	**-0.2**
	baz=77,SNR=19						
H10A	**Noah's Angus R**	**77.37**	**46**	⇑P	**P**	**14 24 13.7**	**-0.5**
	baz=77,SNR=11						
O06A	**Flanigan**	**77.42**	**51**	⇓P	**P**	**14 24 13.9**	**-0.6**
	baz=77,SNR=17						
L08A	**Fields**	**77.47**	**49**	⇑P	**P**	**14 24 14.7**	**-0.1**
	baz=77,SNR=31						
D13A	**Huson**	**77.56**	**43**	⇓P	**P**	**14 24 15.0**	**-0.2**
	baz=78,SNR=14						
I10A	**Payette**	**77.57**	**46**	⇑P	**P**	**14 24 15.0**	**-0.3**
	baz=78,SNR=7.6						
P06A	**Stead Airport,**	**77.59**	**52**	⇑P	**P**	**14 24 15.4**	**-0.1**
	baz=78						
K09A	**Rome**	**77.64**	**48**	⇑P	**P**	**14 24 15.6**	**-0.1**
	baz=78,SNR=13						
A15A	**Johnson Ranch,**	**77.64**	**41**	⇑P	**P**	**14 24 15.5**	**-0.1**
	baz=78,SNR=33						
VSU	**Vasula**	**77.67**	**331**	⇑*e*P	**P**	**14 24 16.8**	**+1.2**
N07B	**Gerlach**	**77.71**	**50**	⇓P	**P**	**14 24 15.8**	**-0.4**
	baz=78,SNR=7.7						
H11A	**Donnelly**	**77.78**	**46**	⇑P	**P**	**14 24 16.5**	**0.0**
	baz=78,SNR=13						
M08A	**Happy Creek Ra**	**77.80**	**49**	⇓P	**P**	**14 24 17.0**	**+0.4**
	baz=78,SNR=8.1						
L09A	**Wilkinson Ranc**	**78.00**	**49**	⇓P	**P**	**14 24 17.9**	**+0.1**
	baz=78,SNR=15						
MSO	**Missoula**	**78.00**	**43**	*e*P	**P**	**14 24 16.4**	**-1.3**
	comp=Z,30nm,1.5s,mb5.0						
CMB	**Columbia Colle**	**78.01**	**53**	*e*P	**P**	**14 24 16.8**	**-1.1**
CMB				pmax	pmax		
	comp=Z,84nm,1.4s,mb5.5						
CMB	**Columbia Colle**	**78.01**	**53**	*e*P	**P**	**14 24 16.8**	**-1.1**
	comp=Z,84nm,1.4s,mb5.5						
E13A	**Victor**	**78.05**	**43**	⇑P	**P**	**14 24 17.7**	**-0.2**
	baz=78,SNR=5.4						
O07A	**Toulon**	**78.06**	**51**	⇓P	**P**	**14 24 17.6**	**-0.5**
	baz=78,SNR=12						
B15A	**Bradely Ranch,**	**78.07**	**41**	⇓P	**P**	**14 24 18.0**	**-0.1**
	baz=78,SNR=57						
D14A	**Greenough**	**78.14**	**43**	⇓P	**P**	**14 24 18.2**	**-0.2**
	baz=78,SNR=12						
K10A	**MacKenzie Ranc**	**78.15**	**48**	⇓P	**P**	**14 24 18.2**	**-0.4**
	baz=78,SNR=23						
I11A	**Placerville**	**78.19**	**46**	⇓P	**P**	**14 24 18.9**	**+0.1**
	baz=78						
N08A	**GE Springer Mi**	**78.27**	**50**	⇓P	**P**	**14 24 19.2**	**-0.1**
	baz=78,SNR=12						
F13A	**Darby**	**78.28**	**44**	⇑P	**P**	**14 24 18.9**	**-0.3**
	baz=78,SNR=12						
A16A	**West Butte Ran**	**78.30**	**40**	⇓P	**P**	**14 24 19.1**	**-0.2**
	baz=78,SNR=32						
C15A	**Salmond Ranch,**	**78.32**	**42**	⇑P	**P**	**14 24 19.2**	**-0.2**
	baz=78,SNR=34						
M09A	**Marrel Ranch,**	**78.42**	**49**	⇓P	**P**	**14 24 20.1**	**0.0**
	baz=78,SNR=10						
R06C	**Coleville**	**78.44**	**52**	⇑P	**P**	**14 24 20.1**	**-0.2**
	baz=78,SNR=14						
E14A	**Clinton**	**78.48**	**43**	⇑P	**P**	**14 24 20.2**	**-0.1**
	baz=78						
O08A	**Rochester Mine**	**78.49**	**50**	⇓P	**P**	**14 24 20.4**	**-0.1**
	baz=78,SNR=14						
B16A	**M & M Farms, S**	**78.51**	**41**	⇑P	**P**	**14 24 20.5**	**0.0**
	baz=78,SNR=8.5						
MFID	**Camas Ranch**	**78.52**	**47**	⇑P	**P**	**14 24 20.7**	**+0.1**
	baz=78,SNR=36						
H12A	**Diamond D Ranc**	**78.57**	**45**	⇓P	**P**	**14 24 20.9**	**0.0**
	baz=78,SNR=14						
SUMG	**Summit**	**78.61**	**0**	*e*P	**P**	**14 24 21.1**	**+0.5**
	comp=Z,54nm,1.0s,mb5.4						
N09A	**Rock Creek Ran**	**78.64**	**50**	⇑P	**P**	**14 24 21.5**	**+0.1**
	baz=79,SNR=22						
G13A	**Cobalt**	**78.69**	**45**	⇑P	**P**	**14 24 21.3**	**-0.2**
	baz=79,SNR=26						
K11A	**Parker Ranch,**	**78.70**	**47**	⇑P	**P**	**14 24 21.4**	**-0.3**
	baz=79,SNR=27						
D15A	**Lincoln**	**78.74**	**42**	⇓P	**P**	**14 24 21.8**	**0.0**
	baz=79,SNR=9.0						
L10A	**Juniper Basin**	**78.75**	**48**	⇓P	**P**	**14 24 21.7**	**-0.3**
	baz=79,SNR=18						
SOC	**Sochi**	**78.77**	**314**	*c i*P	**P**	**14 24 21.9**	**-0.1**
SOC				*e*		14 24 27.5	
SOC				*e**PP	pP	14 24 29.9	-0.3
SOC				*e*		14 27 14.6	
SOC				*e*S	S	14 34 14.8	-3.3
SOC				*e*		14 34 44.0	
SOC				*e*SSS		14 42 46.3	
SOC				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
SOC				MLR	MLR		
	comp=Z,530nm,17.0s,MS4.9						
SOC	**Sochi**	**78.77**	**314**	*i* P	**P**	**14 24 23.9**	**+1.9**
C16A	**Fuhringer Ranc**	**78.80**	**41**	⇓P	**P**	**14 24 21.9**	**-0.2**
	baz=79,SNR=36						
A17A	**Triple J Farms**	**78.81**	**40**	⇑P	**P**	**14 24 22.0**	**-0.1**
	baz=79,SNR=34						
F14A	**Wisdom**	**78.86**	**44**	⇓P	**P**	**14 24 22.5**	**+0.1**
	baz=79,SNR=6.2						
H13A	**Challis**	**78.94**	**45**	⇓P	**P**	**14 24 23.1**	**+0.2**
	baz=79,SNR=37						
M10A	**I.L. Ranch, Tu**	**78.97**	**49**	⇑P	**P**	**14 24 23.1**	**0.0**
	baz=79,SNR=14						
E15A	**Deer Lodge**	**78.98**	**43**	⇑P	**P**	**14 24 23.4**	**+0.3**
	baz=79,SNR=12						
HAKT	**HAKKARI**	**79.00**	**307**	*i* P	sP	14 24 39.8	+5.2
BMN	**Battle Mountai**	**79.05**	**50**	*e*P	**P**	**14 24 23.9**	**+0.3**
BMN				pmax	pmax		
	comp=Z,64nm,1.5s,mb5.3						
BMN	**Battle Mountai**	**79.05**	**50**	*e*P	**P**	**14 24 23.9**	**+0.3**
	comp=Z,64nm,1.5s,mb5.3						
J12A	**Stokes Ranch,**	**79.06**	**47**	⇓P	**P**	**14 24 23.6**	**0.0**
	baz=79,SNR=13						
G14A	**Jackson**	**79.09**	**44**	⇑P	**P**	**14 24 23.7**	**0.0**
	baz=79						
B17A	**L&G Farms, Che**	**79.09**	**41**	⇑P	**P**	**14 24 24.1**	**+0.4**
	baz=79,SNR=73						
L11A	**Cat Creek Ranc**	**79.17**	**48**	⇑P	**P**	**14 24 24.5**	**+0.2**
	baz=79,SNR=25						
O09A	**Fish Creek Ran**	**79.20**	**50**	⇓P	**P**	**14 24 24.6**	**+0.2**
	baz=79,SNR=14						
NVAR	**Mina Array Bea**	**79.27**	**52**	P	**P**	**14 24 24.8**	**-0.1**
	comp=Z,12nm,0.9s,mb4.8,baz=276,slow=5.2,SNR=49						
A18A	**Metzger Ranch,**	**79.30**	**40**	⇑P	**P**	**14 24 24.9**	**+0.2**
	baz=79,SNR=36						
D16A	**Dana Ranch, Ca**	**79.31**	**42**	⇓P	**P**	**14 24 25.2**	**+0.3**
	baz=79,SNR=16						
Q08A	**Gabbs**	**79.32**	**52**	⇓P	**P**	**14 24 25.3**	**+0.2**
	baz=79,SNR=20						
I13A	**Wildhorse Cree**	**79.35**	**46**	⇓P	**P**	**14 24 25.1**	**0.0**
	baz=79,SNR=20						
F15A	**Butte**	**79.37**	**43**	⇓P	**P**	**14 24 25.0**	**-0.2**
	baz=79,SNR=38						
N10A	**Dunphy**	**79.39**	**49**	⇓P	**P**	**14 24 25.5**	**+0.1**
	baz=79						
R08A	**Mina**	**79.45**	**52**	⇓P	**P**	**14 24 25.6**	**-0.2**
	baz=79,SNR=7.2						
C17A	**Wharram Farm,**	**79.46**	**41**	⇑P	**P**	**14 24 25.4**	**-0.2**
	baz=79,SNR=24						
K12A	**Draper Farm, C**	**79.49**	**47**	⇓P	**P**	**14 24 25.8**	**-0.1**
	baz=79,SNR=17						
E16A	**East Helena**	**79.50**	**42**	⇓P	**P**	**14 24 25.9**	**0.0**
	baz=79,SNR=26						
M11A	**Holland Ranch,**	**79.51**	**48**	⇓P	**P**	**14 24 26.3**	**+0.2**
	baz=79,SNR=20						
P09A	**Austin**	**79.53**	**51**	⇑P	**P**	**14 24 26.4**	**+0.2**
	baz=80						
DLMT	**Dillon**	**79.55**	**44**	*e*P	**P**	**14 24 26.0**	**-0.2**
	comp=Z,67nm,1.5s,mb5.3						
J13A	**Cove Ranch, Pi**	**79.57**	**46**	⇑P	**P**	**14 24 26.5**	**+0.1**
	baz=80,SNR=13						
ANN	**Anapa**	**79.59**	**316**	*e*P	**P**	**14 24 25.7**	**-0.7**
ANN				*e**PP	pP	14 24 35.9	+1.3
ANN				*e*		14 27 28.2	
ANN				*e*S	S	14 34 26.8	0.0
ANN				pmax	pmax		
	comp=Z,66nm,1.4s,mb5.4						
O10A	**Cortez Mining,**	**79.60**	**50**	⇓P	**P**	**14 24 27.3**	**+0.7**
	baz=80,SNR=5.7						
B18A	**Beardsley Farm**	**79.62**	**40**	⇑P	**P**	**14 24 26.8**	**+0.3**
	baz=80,SNR=28						
L12A	**House Creek Ra**	**79.66**	**47**	⇑P	**P**	**14 24 27.1**	**+0.2**
	baz=80,SNR=33						
G15A	**Dillon**	**79.72**	**44**	⇓P	**P**	**14 24 27.1**	**0.0**
	baz=80,SNR=15						
D17A	**Six Diamond Ra**	**79.75**	**42**	⇑P	**P**	**14 24 27.5**	**+0.2**
	baz=80,SNR=60						
I14A	**Mackay**	**79.76**	**45**	⇓P	**P**	**14 24 27.7**	**+0.3**
	baz=80,SNR=73						
NACGM	**Naroch**	**79.76**	**328**	*e*	**P**	**14 24 23.0**	**-4.2**
EGMT	**Eagleton**	**79.83**	**40**	⇑P	**P**	**14 24 27.7**	**0.0**
	baz=80,SNR=13						
EGMT	**Eagleton**	**79.83**	**40**	*e*P	**P**	**14 24 27.2**	**-0.5**
	comp=Z,124nm,1.7s,mb5.6						
Q09A	**Carvers**	**79.85**	**51**	⇓P	**P**	**14 24 28.2**	**+0.2**
	baz=80						
PKM	**Peak Mountain**	**79.88**	**56**	⇓P	**P**	**14 24 28.2**	**0.0**
	baz=80,SNR=7.3						
H15A	**Lima**	**79.91**	**44**	⇓P	**P**	**14 24 28.1**	**0.0**
	baz=80,SNR=8.0						
MIB	**Mutribah**	**79.95**	**298**	*e*P	**P**	**14 24 28.6**	**-0.1**
MIB				AMb	AMB	14 24 30.2	
	comp=Z,256nm,1.0s,mb6.1						
VES	**Vestal, Richgr**	**79.96**	**55**	⇓P	**P**	**14 24 28.2**	**-0.4**
	baz=80,SNR=12						
KBD	**Kabd**	**79.96**	**298**	*e*P	**P**	**14 24 28.7**	**-0.1**
KBD				AMb	AMB	14 24 30.4	
	comp=Z,179nm,1.2s,mb5.9						
BOZ	**Bozeman (W)**	**79.99**	**43**	⇑P	**P**	**14 24 28.3**	**-0.3**
	baz=80						
QRN	**Al-Qurain**	**79.99**	**297**	*e*P	**P**	**14 24 28.8**	**-0.1**
QRN				AMb	AMB	14 24 30.4	
	comp=Z,219nm,1.2s,mb6.0						
K13A	**Stover Farm, H**	**80.01**	**47**	⇓P	**P**	**14 24 29.0**	**+0.2**
	baz=80,SNR=7.1						
E17A	**Martinsdale**	**80.02**	**42**	⇑P	**P**	**14 24 28.8**	**+0.1**
	baz=80,SNR=32						
FFC	**Flin Flon**	**80.04**	**32**	*e*P	**P**	**14 24 27.0**	**-1.7**
FFC				pmax	pmax		
	comp=Z,122nm,1.6s,mb5.6						
FFC	**Flin Flon**	**80.04**	**32**	*e*P	**P**	**14 24 27.0**	**-1.7**
	comp=Z,122nm,1.6s,mb5.6						
G16A	**Moss Hill, Enn**	**80.10**	**44**	⇑P	**P**	**14 24 28.8**	**-0.4**
	baz=80,SNR=15						
TPH	**Tonopah**	**80.19**	**52**	*e*P	**P**	**14 24 30.1**	**+0.3**
TPH				pmax	pmax		
	comp=Z,84nm,1.4s,mb5.5						
TPH	**Tonopah**	**80.19**	**52**	*e*P	**P**	**14 24 30.1**	**+0.2**
	comp=Z,84nm,1.4s,mb5.5						
R09A	**Tonopah**	**80.21**	**52**	⇓P	**P**	**14 24 30.0**	**+0.1**
	baz=80,SNR=35						
O11A	**Cowboy Ranch,**	**80.24**	**50**	⇓P	**P**	**14 24 30.0**	**-0.1**
	baz=80,SNR=14						
D18A	**Linhart Farms,**	**80.24**	**41**	⇓P	**P**	**14 24 30.2**	**+0.2**
	baz=80,SNR=16						
NAY	**Al-Naaiem**	**80.28**	**298**	*e*P	**P**	**14 24 30.3**	**-0.1**
NAY				AMb	AMB	14 24 32.0	
	comp=Z,238nm,1.1s,mb6.0						
N12A	**Clover Valley,**	**80.29**	**49**	⇓P	**P**	**14 24 30.6**	**+0.3**
	baz=80,SNR=18						
I15A	**Monteview**	**80.32**	**45**	⇓P	**P**	**14 24 30.8**	**+0.3**
	baz=80						
S09A	**Goldfield**	**80.36**	**52**	⇓P	**P**	**14 24 30.8**	**0.0**
	baz=80,SNR=23						
Q10A	**Clear Creek Ra**	**80.39**	**51**	⇑P	**P**	**14 24 30.7**	**-0.2**
	baz=80,SNR=9.7						
F17A	**Fitzpatrick Pl**	**80.43**	**43**	⇑P	**P**	**14 24 31.1**	**+0.1**
	baz=80,SNR=19						
P11A	**Circle Ranch,**	**80.46**	**50**	⇓P	**P**	**14 24 31.0**	**-0.3**
	baz=80,SNR=6.1						
ISA	**Isabella**	**80.48**	**55**	⇑P	**P**	**14 24 31.5**	**0.0**
	baz=80,SNR=6.0						
E18A	**Harlowton**	**80.52**	**42**	⇓P	**P**	**14 24 31.5**	**+0.1**
	baz=80,SNR=36						
PPT	**Papeete**	**80.52**	**116**	*e*S	S	14 34 34.9	-2.2
	comp=Z,490nm,30.0s						
PPT				*e*LR	LR	14 49 27.1	
	comp=Z,672nm,23.2s,baz=302						
PPT	**Papeete**	**80.52**	**116**	LR	LR	14 59 27.5	
	comp=Z,516nm,18.1s,MS4.9,baz=276,slow=35						
M13A	**Montello**	**80.61**	**48**	⇓P	**P**	**14 24 32.2**	**+0.2**
	baz=80,SNR=20						
GRAC	**Grapevine Rang**	**80.61**	**53**	⇓P	**P**	**14 24 32.6**	**+0.4**
	baz=80,SNR=5.4						
K14A	**Jones Ranch, D**	**80.64**	**46**	⇓P	**P**	**14 24 32.5**	**+0.3**
	baz=81,SNR=26						
J15A	**Blackfoot**	**80.66**	**45**	⇑P	**P**	**14 24 33.2**	**+0.9**
	baz=81,SNR=26						
G17A	**Pierce Place,**	**80.69**	**43**	⇑P	**P**	**14 24 32.8**	**+0.5**
	baz=81						
S10A	**Tonopah Range,**	**80.69**	**52**	⇑P	**P**	**14 24 32.8**	**+0.3**
	baz=81,SNR=40						
H16A	**Russell Place,**	**80.71**	**44**	⇑P	**P**	**14 24 33.1**	**+0.6**
	baz=81,SNR=23						
R10A	**Warm Springs**	**80.72**	**51**	⇓P	**P**	**14 24 32.7**	**0.0**
	baz=81,SNR=12						
O12A	**Currie**	**80.78**	**49**	⇑P	**P**	**14 24 33.2**	**+0.3**
	baz=81,SNR=26						
N13A	**Wendover, West**	**80.83**	**48**	⇓P	**P**	**14 24 33.4**	**+0.2**
	baz=81,SNR=6.4						
Q11A	**Duckwater**	**80.88**	**51**	⇑P	**P**	**14 24 33.9**	**+0.4**
	baz=81,SNR=16						
K15A	**Arbon**	**80.97**	**46**	⇑P	**P**	**14 24 35.0**	**+1.1**
	baz=81,SNR=9.2						
MPMC	**Manual Prospec**	**80.98**	**54**	⇑P	**P**	**14 24 34.1**	**-0.1**
	baz=81,SNR=12						
F18A	**Big Timber**	**80.99**	**42**	⇑P	**P**	**14 24 34.3**	**+0.3**
	baz=81,SNR=24						
I16A	**Newdale**	**81.00**	**45**	⇑P	**P**	**14 24 35.0**	**+0.9**
	baz=81,SNR=13						
AKASG	**Malin Array Be**	**81.03**	**324**	P	**P**	**14 24 33.0**	**-1.1**
AKASG						14 27 38.5	
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,8.0nm,1.1s						
AKASG				MLR	MLR		
	comp=Z,2µm,19.1s						
AKASG	**Malin Array Be**	**81.03**	**324**	P	**P**	**14 24 33.0**	**-1.0**
	comp=Z,8.5nm,0.8s,mb4.7,baz=46,slow=5.6,SNR=23						
AKASG				PP	PP	14 27 38.5	0.0
	comp=Z,7.7nm,1.1s,baz=50,slow=8.6,SNR=4.7						
AKASG				LR	LR	15 03 05.6	
	comp=Z,2µm,19.1s,MS5.4,baz=50,slow=38						
GRSN	**GIRESUNGRSN**	**81.04**	**312**	*i* P	**P**	**14 24 34.2**	**-0.1**
KIEV	**Kiev**	**81.04**	**324**	*e*P	**P**	**14 24 33.0**	**-1.1**
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
KIEV	**Kiev**	**81.04**	**324**	*e*P	**P**	**14 24 33.0**	**-1.1**
	comp=Z,8.5nm,0.7s,mb4.8						
M14A	**Sheep Mountain**	**81.06**	**47**	⇓P	**P**	**14 24 34.5**	**+0.1**
	baz=81,SNR=39						
P12A	**McGill**	**81.07**	**50**	⇓P	**P**	**14 24 34.8**	**+0.3**
	baz=81,SNR=17						
LRMC	**Laurel Mountai**	**81.13**	**54**	⇓P	**P**	**14 24 34.8**	**-0.1**
	baz=81,SNR=13						
R11A	**Troy Canyon, C**	**81.17**	**51**	⇓P	**P**	**14 24 35.4**	**+0.3**
	baz=81,SNR=43						
EDW2	**Edwards Air Fo**	**81.20**	**55**	⇑P	**P**	**14 24 35.7**	**+0.4**
	baz=81,SNR=15						
FURC	**Furnace Creek,**	**81.23**	**53**	⇑P	**P**	**14 24 35.8**	**+0.4**
	baz=81,SNR=14						
H17A	**Grant Village**	**81.28**	**44**	⇑P	**P**	**14 24 37.0**	**+1.4**
	baz=81,SNR=36						
LKWY	**Lake**	**81.30**	**44**	*e*P	**P**	**14 24 36.8**	**+1.2**
LKWY				pmax	pmax		
	comp=Z,59nm,1.3s,mb5.4						
LKWY	**Lake**	**81.30**	**44**	*e*P	**P**	**14 24 36.8**	**+1.2**
	comp=Z,59nm,1.3s,mb5.4						
Q12A	**Willow Creek R**	**81.34**	**50**	⇑P	**P**	**14 24 36.5**	**+0.5**
	baz=81,SNR=15						
O13A	**Hicks Ranch, I**	**81.35**	**49**	⇓P	**P**	**14 24 36.8**	**+0.8**
	baz=81,SNR=6.6						
RRI2	**Red Ridge**	**81.38**	**45**	*e*P	**P**	**14 24 36.6**	**+0.5**
	comp=Z,73nm,1.5s,mb5.4						
G18A	**Lazy EL Ranch,**	**81.39**	**43**	⇑P	**P**	**14 24 36.3**	**+0.2**
	baz=81						
L15A	**Malad City**	**81.42**	**47**	⇓P	**P**	**14 24 36.5**	**+0.2**
	baz=81,SNR=22						
K16A	**Soda Springs**	**81.49**	**46**	⇓P	**P**	**14 24 37.5**	**+0.8**
	baz=81,SNR=45						
N14A	**Grayback Hills**	**81.50**	**48**	⇓P	**P**	**14 24 37.3**	**+0.5**
	baz=81,SNR=18						
I17A	**Pilgrim Ck.**	**81.53**	**44**	⇑P	**P**	**14 24 37.6**	**+0.7**
	baz=81,SNR=18						
U10A	**Ash Meadows, A**	**81.62**	**53**	⇓P	**P**	**14 24 37.9**	**+0.4**
	baz=82						
M15A	**Larsen Ranch,**	**81.66**	**47**	⇑P	**P**	**14 24 37.8**	**+0.2**
	baz=82,SNR=16						
REDW	**Red Top Meadow**	**81.66**	**45**	*e*P	**P**	**14 24 37.9**	**+0.3**
	comp=Z,52nm,1.5s,mb5.2						
P13A	**Bates Ranch, G**	**81.67**	**49**	⇑P	**P**	**14 24 38.0**	**+0.3**
	baz=82,SNR=30						
RLMT	**Red Lodge**	**81.67**	**43**	⇑P	**P**	**14 24 37.9**	**+0.3**
	baz=82,SNR=28						
RLMT	**Red Lodge**	**81.67**	**43**	*e*P	**P**	**14 24 37.6**	**0.0**
	comp=Z,74nm,1.4s,mb5.4						
KEMA	**Kemaliye**	**81.73**	**310**	*i* P	**P**	**14 24 39.1**	**+1.0**
J17A	**Brown Place, J**	**81.75**	**45**	⇑P	**P**	**14 24 38.6**	**+0.5**
	baz=82,SNR=5.7						
BFSC	**Mount Baldy St**	**81.76**	**55**	⇓P	**P**	**14 24 38.1**	**-0.1**
	baz=82,SNR=6.7						
NB2	**NORSAR Subarra**	**81.77**	**338**	P	**P**	**14 24 37.3**	**-0.5**
	comp=Z,5.3nm,0.8s,mb4.5,baz=42,slow=5.3						
NOA	**NORSAR Array B**	**81.77**	**338**	P	**P**	**14 24 37.3**	**-0.5**
	comp=Z,10nm,0.9s,mb4.8,baz=41,slow=5.2,SNR=16						
NOA				LR	LR	15 06 06.5	
	comp=Z,769nm,18.8s,MS5.1,baz=35,slow=39						
NOA	**NORSAR Array B**	**81.77**	**338**	P	**P**	**14 24 37.3**	**-0.5**
NOA				LR	LR	15 06 06.5	
AHID	**Auburn Hatcher**	**81.83**	**45**	*e*P	**P**	**14 24 39.7**	**+1.2**
	comp=Z,47nm,1.4s,mb5.2						
GSC	**Goldstone**	**81.84**	**54**	⇓P	**P**	**14 24 38.5**	**-0.2**
	baz=82,SNR=7.3						
R12A	**Pony Springs,**	**81.85**	**51**	⇓P	**P**	**14 24 38.3**	**-0.4**
	baz=82,SNR=31						
N15A	**Stansbury Isla**	**81.91**	**48**	⇑P	**P**	**14 24 39.5**	**+0.5**
	baz=82						
Q13A	**Wheeler Ranch,**	**81.92**	**50**	⇓P	**P**	**14 24 39.0**	**-0.1**
	baz=82,SNR=7.9						
SUW	**Suwalki**	**81.96**	**329**	*e*P	**P**	**14 24 39.4**	**+0.4**
SUW	**Suwalki**	**81.96**	**329**	*e*P	**P**	**14 24 39.4**	**+0.4**
T11A	**Corn Creek, Al**	**81.98**	**52**	⇓P	**P**	**14 24 38.9**	**-0.5**
	baz=82,SNR=17						
L16A	**Fish Haven**	**82.02**	**46**	⇑P	**P**	**14 24 39.8**	**+0.3**
	baz=82,SNR=23						
S12A	**Delamar Landin**	**82.05**	**51**	⇓P	**P**	**14 24 39.6**	**-0.1**
	baz=82,SNR=13						
P14A	**Drum Mountains**	**82.23**	**49**	⇑P	**P**	**14 24 40.5**	**-0.1**
	baz=82,SNR=33						
J18A	**Kendall Valley**	**82.26**	**45**	⇓P	**P**	**14 24 40.9**	**+0.2**
	baz=82,SNR=19						
M16A	**Huntsville**	**82.26**	**47**	⇑P	**P**	**14 24 40.7**	**-0.1**

	baz=82,SNR=7.9						
O15A	The Old Anders	82.26	48	⇑P	P	14 24 41.2	+0.4
	baz=82,SNR=5.8						
MALT	Malatya	82.27	310	⇓*i*P	P	14 24 42.5	+1.6
MALT	Malatya	82.27	310	⇓P	P	14 24 42.5	+1.6
L17A	Cokeville	82.32	46	⇓P	P	14 24 41.0	-0.1
	baz=82,SNR=14						
R13A	O’Grain Ranch,	82.36	51	⇑P	P	14 24 41.5	+0.1
	baz=82,SNR=14						
TUQ	Turquoise Moun	82.40	54	⇓P	P	14 24 41.5	-0.1
	baz=82						
MURC	Murrieta	82.40	56	⇓P	P	14 24 41.3	-0.4
	baz=82						
Q14A	Sevier Lake (B	82.40	50	⇓P	P	14 24 41.7	+0.1
	baz=82,SNR=40						
HEC	Hector,Ludlow	82.42	54	⇓P	P	14 24 41.3	-0.4
	baz=82						
V11A	Goodsprings	82.54	53	⇓P	P	14 24 42.2	-0.1
	baz=82,SNR=6.3						
K18A	Toltan Ranch,	82.55	45	⇑P	P	14 24 42.2	-0.1
	baz=82,SNR=8.0						
LAO	LASA Array	82.57	40	*e*P	P	14 24 41.7	-0.5
	comp=Z,84nm,1.3s,mb5.6						
N16A	Rees Ranch, Co	82.61	47	⇑P	P	14 24 42.6	0.0
	baz=82						
AKCD	Akcadag	82.61	310	*i* P	P	14 24 44.1	+1.4
DGMT	Dagmar	82.65	38	⇑P	P	14 24 42.8	+0.2
	baz=82,SNR=7.4						
DGMT	Dagmar	82.65	38	*e*P	P	14 24 41.8	-0.8
	comp=Z,141nm,1.7s,mb5.7						
S13A	Holt Ranch, En	82.74	51	⇓P	P	14 24 43.5	+0.1
	baz=83,SNR=20						
P15A	Leamington	82.76	49	⇑P	P	14 24 43.5	+0.1
	baz=83,SNR=16						
BW06	Boulder Array	82.78	45	⇓P	P	14 24 43.2	-0.2
	baz=83,SNR=13						
PDAR	Pinedale Array	82.78	45	P	P	14 24 42.9	-0.6
	comp=Z,7.7nm,1.0s,mb4.7,baz=277,slow=3.1,SNR=30						
PDAR				LR	LR	15 04 52.6	
	comp=Z,499nm,18.2s,MS4.9,baz=317,slow=38						
M17A	Scullys Gap (B	82.79	46	⇑P	P	14 24 44.0	+0.5
	baz=83,SNR=9.0						
U12A	Valley of Fire	82.86	52	⇑P	P	14 24 44.1	+0.1
	baz=83						
GMRC	Granite Mounta	82.92	54	⇓P	P	14 24 44.5	+0.2
	baz=83,SNR=9.1						
O16A	Springville	82.93	48	⇑P	P	14 24 44.9	+0.6
	baz=83,SNR=12						
PFO	Pinyon Flat Ob	82.94	56	*e*P	P	14 24 42.4	-2.0
PFO				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.3						
PFO	Pinyon Flat Ob	82.94	56	⇓P	P	14 24 44.4	0.0
	baz=83,SNR=8.2						
PFO	Pinyon Flat Ob	82.94	56	*e*P	P	14 24 42.4	-2.0
	comp=Z,49nm,1.4s,mb5.3						
L18A	Fontenelle, Gr	82.94	46	⇓P	P	14 24 44.7	+0.4
	baz=83,SNR=21						
N17A	Moffit Pass	82.97	47	⇑P	P	14 24 45.2	+0.8
	baz=83,SNR=9.0						
Q15A	Fillmore	83.00	49	⇑P	P	14 24 45.0	+0.4
	baz=83,SNR=6.5						
T13A	Saint George	83.00	52	⇓P	P	14 24 44.9	+0.2
	baz=83,SNR=17						
V12A	Nelson	83.01	53	⇓P	P	14 24 45.1	+0.4
	baz=83,SNR=6.7						
BELC	Belle Mtn.	83.07	55	⇑P	P	14 24 44.9	-0.3
	baz=83,SNR=7.2						
S14A	Cedar City	83.11	51	⇑P	P	14 24 45.2	-0.1
	baz=83,SNR=5.4						
K19A	Absolon Red Bu	83.19	44	⇑P	P	14 24 45.5	-0.1
	baz=83						
M18A	Lyman	83.19	46	⇓P	P	14 24 45.8	+0.1
	baz=83,SNR=5.3						
BAR	Barrett	83.25	56	*e*P	P	14 24 45.4	-0.6
	comp=Z,20nm,1.3s,mb5.0						
U13A	Pakoon Wash	83.27	52	⇑P	P	14 24 46.5	+0.4
	baz=83,SNR=19						
L19A	Farson	83.27	45	⇑P	P	14 24 45.9	-0.1
	baz=83,SNR=17						
MONP	Monument Peak	83.32	56	⇑P	P	14 24 46.3	-0.2
	baz=83						
GZT	Gaziantep	83.35	309	*i* P	P	14 24 48.2	+1.7
PINB	Pinarbasi	83.43	311	*i* P	P	14 24 48.0	+1.1
O17A	Robinson Place	83.43	47	⇓P	P	14 24 47.4	+0.5
	baz=83,SNR=18						
CTKT	Corum	83.44	313	*i* P	P	14 24 47.9	+1.0
T14A	Hurricane	83.54	51	⇑P	P	14 24 47.6	+0.1
	baz=84,SNR=18						
V13A	Grand Canyon W	83.55	53	⇑P	P	14 24 47.8	+0.2
	baz=84,SNR=15						
K20A	Yellowstone Ra	83.59	44	⇓P	P	14 24 47.8	+0.1
	baz=84,SNR=9.8						
IRM	Iron Mountain	83.59	55	⇑P	P	14 24 47.5	-0.4
	baz=84,SNR=14						
TAOE	Nuku Hiva Isla	83.62	104	*e*LR	LR	14 51 02.8	
	comp=Z,2µm,24.6s						
BC3	Big Chuckw Mtn	83.64	55	⇓P	P	14 24 47.9	-0.2
	baz=84,SNR=12						
M19A	Rock Springs	83.72	46	⇓P	P	14 24 48.5	+0.1
	baz=84						
SWSC	Sam W. Stewart	83.75	56	⇓P	P	14 24 48.6	0.0
	baz=84						
U14A	Mt Trumbull	83.81	52	⇓P	P	14 24 49.1	+0.2
	baz=84,SNR=13						
P17A	Butcher Ranch,	83.82	48	⇓P	P	14 24 48.7	-0.1
	baz=84,SNR=12						
Q16A	Castle Valley	83.84	49	⇓P	P	14 24 49.2	+0.2
	baz=84,SNR=27						
L20A	Wamsutter	83.95	45	⇑P	P	14 24 49.6	+0.1
	baz=84,SNR=17						
R16A	Teasdale	83.97	49	⇑P	P	14 24 50.0	+0.3
	baz=84,SNR=18						
W13A	Hualapai Mount	84.00	53	⇑P	P	14 24 49.9	0.0
	baz=84,SNR=7.8						
T15A	Red Dirt Ranch	84.04	51	⇓P	P	14 24 50.1	+0.1
	baz=84,SNR=20						
N19A	John Jarvie Ra	84.05	46	⇑P	P	14 24 49.6	-0.4
	baz=84,SNR=15						
ANDN	Andirin	84.05	310	*i* P	P	14 24 51.0	+0.8
P18A	Preston Nutter	84.06	48	⇑P	P	14 24 50.3	+0.2
	baz=84,SNR=9.6						
SRU	San Rafael	84.16	48	⇑P	P	14 24 50.5	-0.2
	baz=84,SNR=14						
S16A	Weppner Ranch,	84.19	50	⇓P	P	14 24 50.8	0.0
	baz=84,SNR=13						
LVV	L’vov	84.22	325	*e*P	P	14 24 50.5	-0.2
LVV				*e*	pP	14 24 56.3	-2.6
PDMCI	Parker Dam,Lak	84.24	54	⇑P	P	14 24 51.4	+0.3
	baz=84,SNR=6.5						
Y12C	Blythe	84.25	55	⇑P	P	14 24 51.3	+0.1
	baz=84,SNR=5.5						
CDAG	Cicekdag	84.25	312	*i* P	P	14 24 51.5	+0.5
V14A	Boquillas Ranc	84.27	52	⇓P	P	14 24 51.3	+0.1
	baz=84,SNR=27						
X13A	Yucca	84.31	54	⇓P	P	14 24 51.7	+0.2
	baz=84,SNR=14						
M20A	Sweetwater, Wa	84.34	45	⇑P	P	14 24 51.5	0.0
	baz=84,SNR=31						
GLA	Glamis	84.39	55	*e*P	P	14 24 50.5	-1.4
GLA				pmax	pmax		
	comp=Z,55nm,1.5s,mb5.5						
GLA	Glamis	84.39	55	⇑P	P	14 24 51.7	-0.2
	baz=84,SNR=8.0						
GLA	Glamis	84.39	55	*e*P	P	14 24 50.5	-1.4
	comp=Z,54nm,1.5s,mb5.5						
R17A	Hanksville Air	84.41	49	⇓P	P	14 24 51.6	-0.3
	baz=84,SNR=31						
O19A	Miners Draw (B	84.41	47	⇓P	P	14 24 51.6	-0.3
	baz=84,SNR=10.0						
Q18A	Rafter H Ranch	84.42	48	⇑P	P	14 24 51.8	-0.2
	baz=84,SNR=6.9						
W14A	Seligman	84.51	53	⇓P	P	14 24 52.3	-0.2
	baz=84,SNR=12						
L21A	Rawlins	84.58	45	⇑P	P	14 24 52.5	-0.2
	baz=84,SNR=28						
T16A	Glen Canyon Da	84.65	51	⇑P	P	14 24 53.1	-0.1
	baz=85,SNR=5.9						
N20A	Spence Gulch,	84.66	46	⇓P	P	14 24 53.1	0.0
	baz=85,SNR=38						
BR131	Keskin Array S	84.67	313	*e*P	P	14 24 53.6	+0.4
	comp=Z,21nm,0.9s,mb5.3						
BRTR	Keskin Array B	84.67	313	P	P	14 24 53.4	+0.2
BRTR						14 28 13.9	
BRTR				pmax	pmax		
	comp=Z,22nm,1.0s						
BRTR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BRTR				MLR	MLR		
	comp=Z,234nm,19.7s						
BRTR	Keskin Array B	84.67	313	P	P	14 24 53.4	+0.2
	comp=Z,22nm,1.0s,mb5.3,baz=116,slow=2.9,SNR=63						
BRTR				PP	PP	14 28 13.8	+5.2
	comp=Z,4.6nm,1.1s,baz=83,slow=4.5,SNR=3.8						
BRTR				LR	LR	15 07 10.5	
	comp=Z,234nm,19.7s,MS4.6,baz=221,slow=39						
S17A	Black Ridge (B	84.77	50	⇓P	P	14 24 53.7	-0.1
	baz=85,SNR=11						
V15A	Kaibab Nationa	84.82	52	⇑P	P	14 24 54.0	-0.1
	baz=85,SNR=17						
RWWY	Rawlins	84.83	45	*e*P	P	14 24 52.8	-1.2
	comp=Z,129nm,1.8s,mb5.8						
P19A	Cripple Cowboy	84.87	47	⇓P	P	14 24 54.3	+0.1
	baz=85,SNR=33						
R18A	Canyonlands Na	84.96	49	⇓P	P	14 24 54.5	-0.2
	baz=85,SNR=22						
BURAR	Bucovina Array	84.99	323	⇑*i*P	P	14 24 55.2	+0.6
BURAR	Bucovina Array	84.99	323	⇑P	P	14 24 55.2	+0.6
X14A	Yava	85.03	53	⇓P	P	14 24 55.2	+0.1
	baz=85,SNR=13						
O20A	White River Ci	85.06	46	⇓P	P	14 24 55.0	-0.2
	baz=85,SNR=10						
Q19A	Hogan Spring (	85.06	48	⇓P	P	14 24 55.1	-0.1
	baz=85,SNR=11						
W15A	Williams	85.09	52	⇓P	P	14 24 56.0	+0.6
	baz=85,SNR=12						
T17A	Navajo Res., N	85.11	50	⇓P	P	14 24 55.7	+0.2
	baz=85,SNR=9.8						
TIRR	Tirgusor	85.14	319	⇑*i*P	P	14 24 55.7	+0.2
TIRR	Tirgusor	85.14	319	⇑P	P	14 24 55.7	+0.2
N21A	Black Mountain	85.17	46	⇓P	P	14 24 55.4	-0.3
	baz=85,SNR=26						
Y14A	Wickenburg	85.23	54	⇓P	P	14 24 56.1	-0.1
	baz=85,SNR=7.2						
VRI	Vrincioaia	85.25	321	⇑*i*P	P	14 24 57.3	+1.3
VRI	Vrincioaia	85.25	321	⇑P	P	14 24 57.3	+1.3
S18A	Hurst Farm, Bl	85.28	49	⇓P	P	14 24 55.9	-0.4
	baz=85,SNR=20						
113A	Mohawk Valley,	85.30	55	⇑P	P	14 24 56.3	-0.2
	baz=85,SNR=8.8						
RSSD	Black Hills	85.31	41	*e*P	P	14 24 55.0	-1.3
RSSD				pmax	pmax		
	comp=Z,56nm,1.6s,mb5.4						
RSSD	Black Hills	85.31	41	*e*P	P	14 24 55.0	-1.3
	comp=Z,56nm,1.6s,mb5.4						
P20A	De Beque	85.32	47	⇓P	P	14 24 56.3	-0.2
	baz=85,SNR=8.8						
U16A	Tuba City	85.36	51	⇓P	P	14 24 57.3	+0.6
	baz=85,SNR=5.3						
M22A	Cedar Creek Ra	85.37	45	⇑P	P	14 24 57.4	+0.7
	baz=85,SNR=18						
U17A	Shonto	85.43	50	⇑P	P	14 24 57.1	+0.1
	baz=85,SNR=8.5						
R19A	Curley Farm, L	85.43	48	⇓P	P	14 24 56.5	-0.6
	baz=85,SNR=9.9						
X15A	Humboldt	85.48	53	⇑P	P	14 24 57.3	-0.1
	baz=85,SNR=16						
O21A	Pagoda	85.50	46	⇑P	P	14 24 57.4	+0.1
	baz=85,SNR=5.3						
WUAZ	Wupatki	85.53	52	⇓P	P	14 24 57.7	+0.2
	baz=86,SNR=8.2						
WUAZ	Wupatki	85.53	52	*e*P	P	14 24 57.7	+0.1
	comp=Z,65nm,1.3s,mb5.7						
Z14A	Wintersburg	85.58	54	⇑P	P	14 24 57.5	-0.3
	baz=86						
W16A	Flagstaff	85.64	52	⇓P	P	14 24 58.2	0.0
	baz=86,SNR=5.7						
T18A	Mexican Hat	85.66	50	⇓P	P	14 24 57.5	-0.7
	baz=86,SNR=18						
KOLS	Kolonicke sedl	85.67	325	*i* P	P	14 24 58.3	+0.3
KOLS				pmax	pmax		
	comp=Z,620nm,4.6s						
KOLS	Kolonicke sedl	85.67	325	*i* P	P	14 24 58.2	+0.2
KOLS				*e*PP	PP	14 28 16.3	-0.1
KOLS	Kolonicke sedl	85.67	325	*i* P	P	14 24 58.3	+0.3
	comp=Z,620nm,4.6s						
KOLS				*e*PP	PP	14 28 16.3	-0.1
Q20A	Ridgley Place,	85.69	47	⇑P	P	14 24 58.1	-0.2
	baz=86,SNR=28						
Y15A	Casa Rosa Ranc	85.70	53	⇑P	P	14 24 58.1	-0.3
	baz=86,SNR=15						
ULM	Lac du Bonnet	85.77	33	P	P	14 24 57.6	-0.9
	comp=Z,6.1nm,0.9s,mb4.8,baz=293,slow=5.6,SNR=8.4						
ULM				LR	LR	15 03 44.7	
	comp=Z,473nm,18.3s,MS4.9,baz=275,slow=36						
S19A	Harvey Farm, M	85.81	49	⇑P	P	14 24 58.6	-0.3
	baz=86,SNR=11						
UZH	Uzhgorod	85.85	325	*e*P	P	14 24 59.0	+0.1
UZH				*e*		14 25 12.0	
STHS	Stebnicka Huta	85.86	326	*i* P	P	14 24 59.2	+0.3
STHS				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.7						
STHS	Stebnicka Huta	85.86	326	*i* P	P	14 24 59.2	+0.3
	comp=Z,5.0nm,1.1s,mb4.7						
MLR	Muntele Rosu	85.91	321	⇓*i*P	P	14 25 02.3	+3.0
MLR	Muntele Rosu	85.91	321	⇓P	P	14 25 02.3	+3.0
P21A	Newcastle	85.91	47	⇑P	P	14 24 59.5	+0.1
	baz=86,SNR=10						
OJC	Ojcow	86.03	327	*e*P	P	14 24 59.3	-0.4
U18A	Rough Rock, Ch	86.06	50	⇓P	P	14 25 00.4	+0.2
	baz=86,SNR=12						
R20A	Redvale	86.06	48	⇑P	P	14 25 00.5	+0.3
	baz=86,SNR=9.5						
X16A	Lo Mia Camp, P	86.07	53	⇑P	P	14 25 00.2	-0.1
	baz=86,SNR=13						
CRVS	Cervenica-Dubn	86.09	325	*i* P	P	14 24 59.5	-0.6
PHWY	Pilot Hill	86.13	44	*e*P	P	14 25 00.8	+0.3
	comp=Z,86nm,1.7s,mb5.7						
Q21A	Lamborn Mesa,	86.22	47	⇓P	P	14 25 01.2	+0.3
	baz=86,SNR=12						
Y16A	Circle Bar Ran	86.33	53	⇑P	P	14 25 01.5	-0.1
	baz=86,SNR=9.0						
T19A	Beclabito	86.40	50	⇓P	P	14 25 01.9	0.0
	baz=86,SNR=20						
V18A	Ganado	86.41	51	⇓P	P	14 25 01.8	-0.1
	baz=86,SNR=14						
214A	Organ Pipe Nat	86.42	55	⇑P	P	14 25 02.2	+0.1
	baz=86,SNR=12						
VOIR		86.44	321	⇑*i*P	P	14 25 06.7	+4.8
VOIR		86.44	321	⇑P	P	14 25 06.7	+4.8
115A	Sonoran Desert	86.44	54	⇓P	P	14 25 02.3	+0.2
	baz=86						
R21A	Cimarron	86.50	48	⇓P	P	14 25 02.5	+0.2
	baz=86,SNR=28						
MVCO	Mesa Verde	86.53	49	⇓P	P	14 25 03.1	+0.5
	baz=86,SNR=8.4						
X17A	Forest Lakes	86.56	52	⇑P	P	14 25 03.0	+0.3
	baz=86,SNR=6.7						
Q22A	Crested Butte,	86.63	47	⇑P	P	14 25 02.9	-0.1
	baz=86,SNR=24						
S21A	Coal Bank Pass	86.75	48	⇓P	P	14 25 03.5	-0.1
	baz=87,SNR=7.8						
Y17A	Roosevelt	86.88	53	⇑P	P	14 25 04.4	+0.1
	baz=87,SNR=6.3						
116A	Eloy	86.89	54	⇓P	P	14 25 04.1	-0.2
	baz=87						
ISCO	Idaho Springs	86.91	46	*e*P	P	14 25 04.3	0.0
ISCO				pmax	pmax		
	comp=Z,43nm,1.6s,mb5.4						
ISCO	Idaho Springs	86.91	46	*e*P	P	14 25 04.3	0.0
	comp=Z,43nm,1.6s,mb5.4						
X18A	Snowflake	87.04	52	⇑P	P	14 25 05.0	-0.1
	baz=87						
AGMN	Agassiz Refuge	87.08	35	*e*P	P	14 25 03.5	-1.4
	comp=Z,62nm,1.6s,mb5.6						
W19A	Sanders	87.11	51	⇓P	P	14 25 04.8	-0.6
	baz=87						
MORC	Moravsky Berou	87.39	328	*e*P	P	14 25 05.5	-0.9
MORC				pmax	pmax		
	comp=Z,13nm,1.4s,mb5.0						
MORC	Moravsky Berou	87.39	328	*e*P	P	14 25 05.5	-0.9
	comp=Z,13nm,1.4s,mb5.0						
CSS	Prodhromos	87.52	309	*e*P	P	14 25 06.6	-0.7
	comp=Z,24nm,1.0s,mb5.4						
CSS				*e*		14 25 18.1	
DPC	Dobruska-Polom	87.55	329	*e*P	P	14 25 06.7	-0.5
DPC				*e*x	x	14 25 18.7	
117A	Oracle	87.56	54	⇑P	P	14 25 07.7	+0.1
	baz=88,SNR=6.2						
UPC	Upice	87.58	329	*e*P	P	14 25 08.9	+1.6
VYHS	Vyhne	87.66	326	*i* P	P	14 25 07.1	-0.6
VYHS				*e*PP	PP	14 28 32.6	+0.1
TUC	Tucson	87.67	54	*e*P	P	14 25 07.4	-0.8
TUC				*e*		14 25 23.9	
TUC				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.3						
TUC	Tucson	87.67	54	*e*P	P	14 25 07.4	-0.7
	comp=Z,31nm,1.6s,mb5.3						
TUC				*e*PcP	PcP	14 25 10.0	0.0
TUC				*e*		14 25 23.9	
W20A	Ramah	87.70	51	⇑P	P	14 25 08.2	0.0
	baz=88,SNR=6.7						
Y19A	Nutrioso	87.84	52	⇑P	P	14 25 09.0	+0.1
	baz=88,SNR=6.0						
217A	Green Valley	87.94	55	⇓P	P	14 25 09.2	-0.3
	baz=88,SNR=12						
KHAL	Karahalli	88.09	313	*i* P	P	14 25 09.4	-0.6
PVCC	Panska Ves	88.21	330	*e*P	P	14 25 12.1	+1.8
PVCC				smax			
	comp=N,28nm,0.2s						
BRG	Berggiesshubel	88.24	330	*e*P	P	14 25 12.5	+2.1
BRG				*e*		14 28 38.6	
BRG				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.7						
BRG				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.7						
BRG	Berggiesshubel	88.24	330	*e*P	P	14 25 12.5	+2.1
	comp=Z,10nm,1.2s,mb4.9						
BRG				*e*		14 28 38.6	
	comp=Z,10nm,1.2s						
CLL	Collm	88.32	331	*e*P	P	14 25 10.0	-0.8
CLL				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.2						
CLL				MLR	MLR		
	comp=Z,1µm,16.4s,MS5.4						
CLL	Collm	88.32	331	*e*P	P	14 25 10.0	-0.8
	comp=Z,23nm,1.4s,mb5.2						
CLL				*e*PP	PP	14 28 36.0	-1.7
	comp=Z,30nm,1.5s						
218A	Dragoon	88.38	54	⇓P	P	14 25 11.6	+0.1
	baz=88,SNR=11						
OGNE	Ogallala	88.41	43	*e*P	sP	14 25 23.1	+0.3
119A	Ashpeak Ranch,	88.47	53	⇑P	P	14 25 12.0	+0.1
	baz=88,SNR=6.2						
MODS	Modra-Piesok	88.49	327	*e*P	P	14 25 08.7	-3.0
MODS				pmax	pmax		
	comp=Z,954nm,6.7s						
MODS	Modra-Piesok	88.49	327	*e*P	P	14 25 08.7	-3.0
	comp=Z,954nm,6.7s						
PRU	Pruhonice	88.61	329	*e*P	P	14 25 12.8	+0.6
318A	Bisbee	88.72	54	⇓P	P	14 25 13.3	+0.2
	baz=89,SNR=9.5						
319A	Douglas	89.26	54	⇓P	P	14 25 15.5	-0.2
	baz=89						
NKC	Novy Kostel	89.36	330	*e*P	P	14 25 17.6	+1.9
EYMN	Ely	89.44	33	*e*P	P	14 25 14.9	-1.3
	comp=Z,82nm,1.8s,mb5.8						
EYMN				*e*		14 25 27.7	
KHC	Kasperske Hory	89.67	329	*e*P	P	14 25 19.4	+2.2
KHC				*e*x	x	14 25 44.5	
KHC				AMS	AMS	15 09 50.0	
	comp=Z,1µm,21.1s						
GERES	GERESS Array B	89.82	329	P	P	14 25 16.8	-1.1
	comp=Z,2.1nm,0.9s,mb4.4,baz=90,slow=5.3,SNR=7.6						
GERES				LR	LR	15 09 53.2	
	comp=Z,621nm,18.6s,MS5.1,baz=288,slow=38						
GRA1	Grafenberg Arr	90.29	331	*e*P	P	14 25 19.5	-0.6
	comp=Z,13nm,1.1s,mb5.2						
GRF	Grafenberg Arr	90.29	331	*e*P	P	14 25 19.5	-0.6
GRF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.2						
GRF	Grafenberg Arr	90.29	331	*e*P	P	14 25 19.5	-0.6
GRF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.2						
GRF	Grafenberg Arr	90.29	331	*e*P	P	14 25 19.5	-0.6
	comp=Z,13nm,1.1s,mb5.2						
GRF	Grafenberg Arr	90.29	331	*e*P	P	14 25 19.5	-0.6
	comp=Z,13nm,1.1s,mb5.2						
CBKS	Cedar Bluff	91.12	44	*e*P	P	14 25 22.6	-1.6
CBKS				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.3						
CBKS	Cedar Bluff	91.12	44	*e*P	P	14 25 22.6	-1.6
	comp=Z,17nm,1.0s,mb5.3						
AMTX	Amarillo	92.36	48	*e*P	P	14 25 31.0	+0.9
	comp=Z,16nm,0.8s,mb5.4						
BFO	Black Forest	92.56	331	*i* P	P	14 25 30.5	-0.1
SCHQ	Schefferville	92.76	16	LR	LR	15 08 22.9	
	comp=Z,361nm,19.8s,MS4.8,baz=313,slow=36						
KSU1	Kansas State U	92.79	42	*e*P	P	14 25 31.3	-0.7
	comp=Z,6.5nm,0.4s,mb5.4						
CDF	Champ du Feu	92.93	332	*e*P	P	14 25 31.4	-1.0
	comp=Z,54nm,1.4s,mb5.5						
CDF	Champ du Feu	92.93	332	*e*P	P	14 25 31.4	-1.0
CDF				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.5						
CDF	Champ du Feu	92.93	332	*e*P	P	14 25 31.4	-1.0
	comp=Z,27nm,1.4s,mb5.5						
WMOK	Wichita Mounta	94.31	46	*e*P	P	14 25 37.9	-1.1
WMOK				pmax	pmax		
	comp=Z,53nm,1.6s,mb5.7						
WMOK	Wichita Mounta	94.31	46	*e*P	P	14 25 37.9	-1.1
	comp=Z,53nm,1.6s,mb5.7						
TXAR	Lajitas Array	94.39	53	P	P	14 25 39.3	-0.2
	comp=Z,12nm,1.1s,mb5.2,baz=300,slow=2.5,SNR=35						
TXAR				LR	LR	15 04 12.4	
	comp=Z,531nm,19.9s,MS5.0,baz=355,slow=33						
RKT	Rikitea	95.05	114	*e*LR	LR	14 55 57.5	
	comp=Z,458nm,25.2s,baz=305						
LPL	La Plagne	95.44	330	*e*P	P	14 25 43.2	-0.7
LPG	La Plagne	95.45	330	*e*P	P	14 25 43.2	-0.8
	comp=Z,24nm,1.0s,mb5.3						
LPG	La Plagne	95.45	330	*e*P	P	14 25 43.2	-0.8
LPG				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.3						
LPG	La Plagne	95.45	330	*e*P	P	14 25 43.2	-0.8
	comp=Z,12nm,1.0s,mb5.3						
LSZ	Lusaka	118.07	267	*e*PKIKP	PKPdf	14 31 06.1	-0.7
LSZ				*e*		14 31 19.1	
QSPA	South Pole Qui	118.86	180	*e*PKPdf	PKPdf	14 31 05.4	-1.0
TOA0	Torodi Ar. Sit	123.28	312	*e*PKPdf	PKPdf	14 31 15.7	-1.2
TORD	Torodi Ar. Bea	123.28	312	PKP	PKPdf	14 31 15.7	-1.2
	comp=Z,7.5nm,1.0s,baz=13,slow=1.9,SNR=27						
TORD				PP	PP	14 32 55.9	-0.7
	comp=Z,2.2nm,1.1s,baz=30,slow=7.2,SNR=3.8						
LBTB	Lobatse	124.00	258	*e*PKIKP	PKPdf	14 31 17.4	-0.5
DBIC	Dimbokro	132.37	313	PKIKP	PKPdf	14 31 34.7	+0.4
DBIC				pmax	pmax		
	comp=Z,8.0nm,0.8s						
DBIC	Dimbokro	132.37	313	PKP	PKPdf	14 31 34.7	+0.4
	comp=Z,8.3nm,0.8s,baz=30,slow=1.8,SNR=11						
TIC	Toumodi	132.49	313	*e*PKIKP	PKPdf	14 31 34.6	+0.1
	comp=Z,11nm,0.2s						
KIC	Kosan Boka	132.53	313	*e*PKIKP	PKPdf	14 31 34.6	0.0
	comp=Z,77nm,1.1s						
LIC	Lamto	132.82	313	*e*PKIKP	PKPdf	14 31 34.1	-1.0
	comp=Z,29nm,1.0s						
LIC	Lamto	132.82	313	*e*PKIKP	PKPdf	14 31 35.1	0.0
	comp=Z,40nm,1.0s						
VNA2	Neumayer--Watz	134.83	194	*e*PKPdf	PKPdf	14 31 35.9	-1.2
	baz=39,slow=0.7						
VNA3	Neumayer Olymp	135.03	192	*e*PKPdf	PKPdf	14 31 35.2	-2.3
USHA	Ushuaia	146.12	148	PKPbc	PKPbc	14 31 59.7	+0.9
	comp=Z,21nm,1.0s,baz=309,slow=8.1,SNR=3.1						
ARE	Arequipa	146.60	75	*e*PKP2	PKPab	14 32 04.0	+1.5
SHEL	Horse Pasture	147.76	287	*i* PKP2	PKPab	14 32 05.0	-2.1
PLCA	Paso Flores	150.89	122	PKIKP	PKPbc	14 32 12.0	+0.2
PLCA				pmax	pmax		
	comp=Z,19nm,1.1s						
PLCA	Paso Flores	150.89	122	PKPbc	PKPbc	14 32 12.0	+0.2
	comp=Z,19nm,1.1s,baz=253,slow=2.6,SNR=12						
LCO	Las Campanas	151.28	98	*e*PKPdf	PKPbc	14 32 12.2	-0.9
LVC	Limon Verde	151.31	84	PKPbc	PKPbc	14 32 13.5	+0.1
	comp=Z,7.4nm,0.8s,baz=217,slow=19,SNR=12						
CFAA	Coronel Fontan	153.64	103	PKPbc	PKPbc	14 32 17.6	-0.7
	comp=Z,0.6nm,1.0s,baz=305,slow=0.4,SNR=8.3						
SIV	San Ignacio	154.91	64	PKP	PKPdf	14 32 12.5	-0.2
	comp=Z,1.7nm,1.1s						
SIV				PKPab	PKPab	14 32 36.9	+0.1
	comp=Z,12nm,1.2s,baz=312,slow=4.5,SNR=5.6						
SIV				PP	PP	14 36 11.2	-1.4
	comp=Z,2.9nm,1.2s,baz=210,slow=19,SNR=3.6						

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*CSEM **01** 14:13:51.5±0.3, 40°.38N×27°.84E, h5^{km}, MD2.4, Error ellipse: s-maj=5.1km s-min=4.1km az=135.0*
*ISK **01** 14:13:51.8, 40°.36N×27°.91E, h5^{km}, MD2.4*
*ISCJB **01** 14:13:52.2±0.8, 40°.36N±0°.06×27°.89E±0°.04, h1^{km}±11^{km}, Error ellipse: s-maj=10.5km s-min=4.9km az=171.9*
*DDA **01** 14:13:52.4, 40°.34N×27°.90E, h7^{km}±3^{km}, Md3.0*
ISC 01 14:13:52.8±0.9**, 40°.37N**±0°.06×**27°.90E**±0°.04**, h0**^{km}±18^{km}**, n14, σ0ˢ.48**/23**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNT	Bandirma	0.02	116	PG	Pg	14 13 52.7	-0.5
EDC	Edincik	0.03	233	PG	Pg	14 13 53.2	-0.2
EDC	Edincik	0.03	233	*i* Pg	Pg	14 13 53.2	-0.2
KCT	Karacabey	0.37	106	*e*PG	Pg	14 13 59.2	-0.7
KCT				*e*SG	Sg	14 14 04.6	0.0
KCT	Karacabey	0.37	106	*e*Pg	Pg	14 13 59.2	-0.6
KCT				*e*Sg	Sg	14 14 04.6	0.0
ARMT	Armutlu	0.76	74	*e*PG	Pg	14 14 06.9	-0.5
ARMT				*e*SG	Sg	14 14 17.7	+0.4
ARMT	Armutlu	0.76	74	*e*Pg	Pg	14 14 06.9	-0.6
ARMT				*e*Sg	Sg	14 14 17.7	+0.3
DURS	Dursunbey	0.88	150	*i* P	Pg	14 14 09.1	-0.7
DURS				*i* S	Sg	14 14 21.4	+0.2
DURS	Dursunbey	0.88	150	*i* P	Pg	14 14 09.1	-0.6
DURS				*i* S	Sg	14 14 21.4	+0.2
ULDT	Uludag	0.97	103	*i* P	Pg	14 14 11.9	+0.4
ULDT				*i* S	Sg	14 14 25.0	+0.9
ULDT	Uludag	0.97	103	*i* P	Pg	14 14 11.9	+0.4
ULDT				*i* S	Sg	14 14 25.0	+0.9
YLV	Yalova	1.15	79	*e*PN	Pg	14 14 14.8	+0.1
YLV	Yalova	1.15	79	*e*Pn	Pg	14 14 14.9	+0.1
BOZC	Bozcaada	1.51	250	*i* P	Pn	14 14 20.9	-0.1
BOZC				*i* S	Sg	14 14 41.9	+0.7

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*IDC **01** 14:40:21.5±1.2, 34.°08N×135.°08E, h0^{km}, mb3.4/3, mb1 3.4/5, mb1mx3.3/24, mbtmp3.2/5, ML2.8/1, Error ellipse: s-maj=27.1km s-min=17.3km az=126.0*

*ISCJB **01** 14:40:22.1±0.6, 34.°19N±0.°03×135.°07E±0.°03, h18^{km}±6^{km}, mb3.3/3, Error ellipse: s-maj=6.0km s-min=4.6km az=22.9*

*NEIC **01** 14:40:22.3, 34.°21N×135.°08E, h10^{km}, MG3.4(JMA), After JMA.*

*JMA **01** 14:40:22.3, 34.°21N×135.°08E, h10^{km}±1^{km}, M3.4 Broadband fault plane solution: P waves. NP1: φ$_s$234.00000°, δ55.00000°, λ153.00000°. NP2: φ$_s$341.00000°, δ68.00000°, λ38.00000°. Principal axes: T Plg42.0000°, Azm202.0000°; N Plg47.0000°, Azm6.0000°; P Plg8.0000°, Azm105.0000°;*

JMA Felt III J1.

ISC 01 14:40:22.2±0.5, 34.°20N±0.°03×135.°08E±0.°03, h5^{km}±4^{km}, n15, σ0.^{s}65/24, mb3.3/3, 7D, Near south coast of western Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAJ2	Tsuna	0.27	324	⇓P	Pg	14 40 28.0	+0.6
JAJ2				S	Sg	14 40 31.9	+0.9
JWM	Minabe	0.42	147	⇓P	Pg	14 40 30.8	+0.5
JWM				S	Sg	14 40 36.4	+0.6
JWY	Kouya	0.43	88	⇓P	Pg	14 40 30.3	-0.2
JWY				S	Sg	14 40 36.3	+0.2
JAI	Aioi	0.66	232	⇓P	Pg	14 40 34.9	0.0
JHE	Heguri	0.68	48	P	Pg	14 40 35.0	-0.2
JHE				S	Sg	14 40 44.0	0.0
JWZ	Kozaga	0.85	141	⇓P	Pg	14 40 38.3	-0.3
JJS	Sakaide	0.96	281	⇓P	Pg	14 40 40.0	-0.7
JAD	Aida	1.05	315	⇓P	Pg	14 40 41.6	-0.8
JAD				S	Sg	14 40 55.5	-0.5
MAJO	Matsushiro	3.46	47	*e*Pn	Pn	14 41 16.4	-0.4
MAJO				*e*Sn	Sn	14 41 58.4	+0.2
MAT	Matsushiro	3.46	47	P	Pn	14 41 17.4	+0.6
MAT				S	Sn	14 41 57.9	-0.3
MJAR	Matsushiro Arr	3.46	47	Pn	Pn	14 41 17.6	+0.8
	0.8nm,0.3s,baz=237,slow=13,SNR=9.2						
MJAR				Pg	Pg	14 41 27.3	-1.3
	1.3nm,0.3s,baz=227,slow=16,SNR=8.9						
MJAR				Lg		14 42 14.1	
	0.5nm,0.3s,baz=221,slow=27,SNR=4.2						
KSRS	Korea Array	6.65	301	Pn	Pn	14 42 02.1	+1.5
	0.3nm,0.3s,baz=115,slow=14,SNR=4.6						
KSRS				Sn	Sn	14 43 16.6	-0.2
	0.2nm,0.3s,baz=120,slow=24,SNR=5.8						
SONM	Songino Array	25.40	311	P	P	14 45 51.0	+0.6
	0.4nm,0.7s,mb3.1,baz=108,slow=4.7,SNR=3.9						
WRA	Warramunga Arr	53.85	181	P	P	14 49 45.4	-0.8
	0.5nm,0.9s,mb3.5,baz=359,slow=7.9,SNR=5.7						
ASAR	Alice Springs	57.56	181	P	P	14 50 12.0	-0.8
	0.2nm,0.6s,mb3.4,baz=11,slow=13,SNR=6.0						

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*ISCJB **01** 15:37:26.9±0.6, 36.°32N±0.°03×22.°75E±0.°03, h2^{km}±4^{km}, mb3.9/7, Error ellipse: s-maj=5.6km s-min=3.1km az=43.9*

*THE **01** 15:37:27.9, 36.°30N×22.°77E, h0^{km}±2^{km}, ML4.0/2, Error ellipse: s-maj=3.2km s-min=1.1km az=219.0*

*CSEM **01** 15:37:27.7±0.2, 36.°32N×22.°78E, h2^{km}, ML3.1, Error ellipse: s-maj=4.7km s-min=2.5km az=42.0*

*NEIC **01** 15:37:28.1, 36.°36N×22.°82E, h3^{km}, ML3.1(ATH), After ATH.*

*ATH **01** 15:37:28.1, 36.°37N×22.°82E, h3^{km}, MD3.6/12, ML3.1*

*IDC **01** 15:37:32.2±3.1, 35.°98N×22.°72E, h70^{km}±29^{km}, mb3.6/7, mb1 3.5/10, mb1mx3.3/27, mbtmp3.5/10, Error ellipse: s-maj=58.8km s-min=22.4km az=26.0*

ISC 01 15:37:27.6±0.6, 36.°31N±0.°03×22.°77E±0.°03, h1^{km}±4^{km}, n89, σ0.^{s}98/120, mb4.0/7, 2C, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	0.22	98	*e*PG	Pg	15 37 32.5	+0.7
KYTH	Kithira	0.22	98	*e*Pg	Pg	15 37 32.5	+0.7
VLI	Veliai	0.43	19	⇑*i*PG	Pg	15 37 35.8	0.0
VLI				*e*SG	Sg	15 37 41.0	-0.4
VLI	Veliai	0.43	19	⇑*i*Pg	Pg	15 37 35.8	0.0
VLI				*e*Sg	Sg	15 37 41.0	-0.4
PYL	PYLOS	1.01	306	P	Pg	15 37 46.5	-0.4
PYL				S	Sg	15 38 01.4	+1.4
PYL	PYLOS	1.01	306	*e*PB	Pg	15 37 47.0	+0.1
PYL				*e*SG	Sg	15 38 01.5	+1.5
PYL	PYLOS	1.01	306	P	Pg	15 37 46.5	-0.4
PYL	PYLOS	1.01	306	*e*Pg	Pg	15 37 47.0	+0.1
PYL				*e*Sg	Sg	15 38 01.5	+1.5
ITM	Ithomi	1.10	322	*e*PG	Pg	15 37 48.5	-0.1
ITM				*e*SG	Sg	15 38 03.7	+0.8
ITM	Ithomi	1.10	322	*e*Pg	Pg	15 37 48.5	-0.1
ITM				*e*Sg	Sg	15 38 03.7	+0.8
VLX	Vlachokerasia	1.10	344	*e*PG	Pg	15 37 48.8	+0.1
VLX	Vlachokerasia	1.10	344	*e*Pg	Pg	15 37 48.8	+0.1
KARN	Karanos	1.30	134	P	Pg	15 37 51.4	-1.1
KARN	Karanos	1.30	134	P	Pg	15 37 51.4	-1.1
VAM	Vamos	1.47	127	*e*PG	Pn	15 37 55.0	-0.2
VAM				*e*SB	Sb	15 38 15.5	+0.6
VAM	Vamos	1.47	127	*e*Pg	Pn	15 37 55.0	-0.2
VAM				*e*Sb	Sb	15 38 15.5	+0.6
NAIG	Nisos Aigina	1.56	22	*e*PB	Pb	15 37 56.3	-0.9
NAIG	Nisos Aigina	1.56	22	*e*Pb	Pb	15 37 56.3	-0.9
GUR	Goura	1.66	348	*e*PB	Pb	15 37 58.5	-0.4
GUR				*e*SB	Sb	15 38 20.4	+0.1
GUR	Goura	1.66	348	*e*Pb	Pb	15 37 58.5	-0.4
GUR				*e*Sb	Sb	15 38 20.4	+0.1
LTK	Loutraki	1.72	5	P	Pb	15 37 59.4	-0.5
LTK				S	Sg	15 38 23.0	+0.3
LTK	Loutraki	1.72	5	*e*PB	Pb	15 37 59.4	-0.5
LTK	Loutraki	1.72	5	*e*Pb	Pb	15 37 59.4	-0.5
LTK				S	Sg	15 38 23.0	+0.3
GVD	Gavdhos	1.82	143	*e*PB	Pb	15 38 03.0	+1.3
GVD	Gavdhos	1.82	143	*e*Pb	Pb	15 38 03.0	+1.3
ATH	Athens Observa	1.82	24	*e*PB	Pb	15 38 01.3	-0.4
ATH	Athens Observa	1.82	24	*e*Pb	Pb	15 38 01.3	-0.4
PTL	Penteli	1.94	26	*e*Pb	Pn	15 38 02.5	+0.8
PTL				P		15 38 05.8	
PTL	Penteli	1.94	26	*e*Pb	Pn	15 38 02.5	+0.8
IDI	Anoyia	2.00	120	P	Pn	15 38 02.4	-0.1
	9.7nm,0.3s,baz=299,slow=19,SNR=32						
IDI				S	Sn	15 38 29.3	+1.0
	14nm,0.3s,baz=339,slow=23,SNR=7.4						
IDI	Anoyia	2.00	120	P	Pn	15 38 02.4	-0.2
SIVA	Sivas	2.11	127	P	Pn	15 38 04.2	+0.3
SIVA				S	Sn	15 38 32.1	+1.3
SIVA	Sivas	2.11	127	P	Pn	15 38 04.2	+0.3
THR6	Thira Island,	2.12	88	P	Pn	15 38 03.7	-0.5
THR6	Thira Island,	2.12	88	P	Pn	15 38 03.7	-0.5
THR3	Thira Island,	2.13	87	P	Pn	15 38 03.5	-0.8
THR3				S	Sn	15 38 32.6	+1.3
THR3	Thira Island,	2.13	87	P	Pn	15 38 03.5	-0.8
THR3				S	Sn	15 38 32.6	+1.3
THR4	Thira Island,	2.13	85	P	Pn	15 38 04.4	+0.1
THR4				S	Sn	15 38 32.1	+0.8
THR4	Thira Island,	2.13	85	P	Pn	15 38 04.4	+0.1
THR4				S	Sn	15 38 32.1	+0.8
THR1	Thera Island	2.17	88	P	Pn	15 38 05.0	+0.1
THR1				S	Sn	15 38 33.6	+1.1
THR1	Thera Island	2.17	88	P	Pn	15 38 05.0	+0.1
THR1				S	Sn	15 38 33.6	+1.1
LKR	Lokris	2.34	4	P	Pn	15 38 07.5	+0.3
LKR				S	Sn	15 38 37.2	+0.6
LKR	Lokris	2.34	4	P	Pn	15 38 08.1	+0.9
LKR	Lokris	2.34	4	P	Pn	15 38 07.5	+0.3
LKR				S	Sn	15 38 37.2	+0.6
APE	Apeiranthos	2.35	70	P	Pn	15 38 07.1	-0.2
APE				S	Sn	15 38 36.5	-0.2
APE	Apeiranthos	2.35	70	*e*PB	Pb	15 38 07.8	-2.8
APE	Apeiranthos	2.35	70	P	Pn	15 38 07.1	-0.2
APE				S	Sn	15 38 36.5	-0.2
VLS	Valsamata	2.55	318	P	Pn	15 38 11.0	+1.0
VLS				S	Sn	15 38 41.6	-0.1
VLS	Valsamata	2.55	318	*e*PB	Pn	15 38 11.9	+1.9
VLS	Valsamata	2.55	318	P	Pn	15 38 11.0	+1.0
VLS				S	Sn	15 38 41.6	-0.1
EVR	Evrytania	2.71	344	*e*Pg	Pn	15 38 16.0	+3.7
EVR				P	Pg	15 38 19.6	+0.1
AGG	Agios Georgios	2.73	353	P	Pn	15 38 14.0	+1.5
AGG				S	Sn	15 38 47.5	+1.3
AGG	Agios Georgios	2.73	353	P	Pn	15 38 14.0	+1.5
AGG				S	Sn	15 38 47.5	+1.3
ZKR	Zakros	3.05	112	P	Pn	15 38 16.5	-0.4
ZKR	Zakros	3.05	112	P	Pn	15 38 16.5	-0.4
XOR	Xorichti	3.07	6	P	Pn	15 38 17.7	+0.5
XOR	Xorichti	3.07	6	P	Pn	15 38 17.7	+0.5
CHOS	Chios island	3.34	51	P	Pn	15 38 19.8	-1.1
CHOS	Chios island	3.34	51	P	Pn	15 38 19.8	-1.1
KARP	Karpathos	3.65	101	*e*PN	Pn	15 38 26.0	+0.9
KARP	Karpathos	3.65	101	*e*Pn	Pn	15 38 26.0	+0.9
PAIG	Paliouri	3.68	11	P	Pn	15 38 25.3	-0.3
PAIG	Paliouri	3.68	11	P	Pn	15 38 25.3	-0.3
SIGR	SIGRI	3.79	39	P	Pn	15 38 26.1	-1.0
SIGR	SIGRI	3.79	39	P	Pn	15 38 26.1	-1.0
PLG	Polygyros	4.09	7	P	Pn	15 38 31.5	+0.3
PLG	Polygyros	4.09	7	P	Pn	15 38 31.5	+0.3
OUR	Ouranopolis	4.13	13	P	Pn	15 38 31.6	-0.2
OUR	Ouranopolis	4.13	13	P	Pn	15 38 31.6	-0.2
HORT	Hortiatis	4.29	3	P	Pn	15 38 36.2	+2.3
HORT	Hortiatis	4.29	3	P	Pn	15 38 36.2	+2.3
ALN	Alexandroupoli	5.25	28	P	Pn	15 38 47.1	-0.1
ALN	Alexandroupoli	5.25	28	P	Pn	15 38 47.1	-0.1
TIP	Timpagrande	5.55	303	*e*Pn	Pn	15 38 51.4	+0.1
	5.9nm,0.5s						
TIP				*e*Sn	Sn	15 39 52.7	-3.1
TIP	Timpagrande	5.55	303	*e*Pn	Pn	15 38 51.4	0.0
	5.9nm,0.5s						
CEL	Celeste	5.81	292	P	Pn	15 38 55.5	+0.6
CEL	Celeste	5.81	292	P	Pn	15 38 55.5	+0.6
CUC	Castrocucco	6.60	306	*e*Pn	Pn	15 39 05.1	-0.5
	16nm,0.4s						
CUC	Castrocucco	6.60	306	*e*Pn	Pn	15 39 05.1	-0.5
	16nm,0.4s						
BRTR	Keskin Array B	9.23	65	P	Pn	15 39 46.4	+4.5
	0.1nm,0.3s,baz=246,slow=17,SNR=4.3						
MMAI	Mount Meron Ar	10.91	104	P	Pn	15 40 03.8	-1.1
	0.7nm,0.3s,baz=305,slow=14,SNR=4.5						
AKASG	Malin Array Be	15.12	16	P	Pn	15 41 06.0	+3.8
	0.9nm,0.3s,baz=200,slow=9.7,SNR=4.2						
HFS	Hagfors	24.55	349	P	P	15 42 47.0	-1.5
	3.4nm,0.6s,mb4.3,baz=153,slow=11,SNR=8.9						
NOA	NORSAR Array B	25.82	347	P	P	15 43 00.3	+0.2
	0.6nm,0.6s,mb3.4,baz=148,slow=8.4,SNR=3.0						
EKA	Eskdalemuir Ar	25.98	325	P	P	15 43 01.0	-0.6
	6.2nm,1.2s,mb4.1,baz=26,slow=29,SNR=2.7						
ARCES	ARCESS Array B	33.31	2	P	P	15 44 04.6	-1.9
	3.8nm,1.1s,mb4.3,baz=187,slow=11,SNR=5.5						
KURK	Kurchatov	41.98	52	P	P	15 45 17.2	-2.8
	0.6nm,0.5s,mb3.6,baz=276,slow=8.6,SNR=5.1						
MKAR	Makanchi Array	44.78	57	P	P	15 45 40.9	-1.7
	1.0nm,0.3s,mb4.2,baz=270,slow=7.9,SNR=27						
ZALV	Zalesovo Beam	45.63	47	P	P	15 45 47.3	-2.0
	0.3nm,0.3s,mb3.8,baz=259,slow=11,SNR=2.3						

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*IDC **01** 16:01:25.3±0.9, 29.°01N×142.°42E, h0^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.8/21, mbtmp3.7/10, ML3.4/1, MS3.2/2, Ms1 3.4/2, ms1mx2.7/29, Error ellipse: s-maj=28.3km s-min=17.4km az=84.0*

*ISCJB **01** 16:01:28.5±1.4, 29.°01N±0.°05×142.°4E±0.°2, h35^{km}±13^{km}, mb3.7/9, Error ellipse: s-maj=26.5km s-min=7.4km az=170.1*

*NEIC **01** 16:01:30.5±0.7, 29.°01N×142.°36E, h35^{km}, Error ellipse: s-maj=21.7km s-min=12.2km az=77.0*

ISC 01 16:01:30.2±3.4, 28.°96N±0.°05×142.°5E±0.°2, h32^{km}±24^{km}, n18, σ0.^{s}95/19, mb3.7/9, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.87	187	Pn	Pn	16 02 00.1	+0.2
	7.2nm,0.3s,baz=284,slow=19,SNR=3.2						
CBIJ				Sn	Sn	16 02 22.2	-0.1
	27nm,0.3s,baz=276,slow=24,SNR=8.3						
MJAR	Matsushiro Arr	8.36	336	Pn	Pn	16 03 28.0	-1.1
	0.5nm,0.3s,baz=159,slow=10,SNR=9.6						
MAJO	Matsushiro	8.36	336	*e*Pn	Pn	16 03 28.3	-0.8
	8.6nm,0.8s						
MAT	Matsushiro	8.36	336	P	Pn	16 03 29.9	+0.8
MAT				*e*S	Sn	16 05 02.8	+0.4
JOW	Kunigami	12.71	264	LR	LR	16 08 24.3	
	comp=Z,117nm,19.8s,baz=318,slow=33						
KSRS	Korea Array	14.81	309	Pn	Pn	16 04 58.9	+1.7
	0.1nm,0.3s,baz=119,slow=11,SNR=6.7						
SONM	Songino Array	33.56	314	P	P	16 08 05.6	-1.4
	1.2nm,0.8s,mb3.9,baz=110,slow=7.6,SNR=9.6						
CMAR	Chiang Mai Arr	40.98	265	P	P	16 09 09.7	-0.6
	0.3nm,0.3s,mb3.4,baz=88,slow=6.8,SNR=4.3						
CMAR				LR	LR	16 29 19.6	
	comp=Z,32nm,18.4s,baz=70,slow=41						
ZALV	Zalesovo Beam	48.25	318	P	P	16 10 07.8	+0.1
	0.3nm,0.3s,mb3.8,baz=97,slow=7.6,SNR=4.0						
ZALV	Zalesovo Beam	48.25	318	P	P	16 10 07.8	+0.1
WRA	Warramunga Arr	49.24	190	P	P	16 10 15.3	-0.3
	2.0nm,0.7s,mb4.3,baz=12,slow=8.3,SNR=17						
MKAR	Makanchi Array	49.49	308	P	P	16 10 15.8	-1.5
	0.6nm,0.7s,mb3.7,baz=91,slow=9.9,SNR=4.7						
MKAR	Makanchi Array	49.49	308	P	P	16 10 15.8	-1.5
ASAR	Alice Springs	52.96	190	P	P	16 10 44.2	+0.7
	0.2nm,0.5s,mb3.3,baz=19,slow=12,SNR=5.6						
YKA	Yellowknife Ar	70.40	29	P	P	16 12 40.5	-0.2
	0.7nm,0.6s,mb3.8,baz=293,slow=6.5,SNR=9.4						
YKA	Yellowknife Ar	70.40	29	P	P	16 12 40.5	-0.2
NVAR	Mina Array Bea	79.19	52	P	P	16 13 32.3	+0.3
	0.4nm,0.6s,mb3.5,baz=286,slow=3.7,SNR=3.0						
BRTR	Keskin Array B	84.91	313	P	P	16 14 04.1	+2.1
	0.7nm,0.6s,mb3.9,baz=90,slow=2.9,SNR=4.1						

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*ISCJB **01** 16:11:13.9±1.0, 30.°31S±0.°10×179.°7W±0.°2, h287^{km}±15^{km}, mb2.9/3, Error ellipse: s-maj=27.5km s-min=11.0km az=26.0*

*NEIC **01** 16:11:14.6±0.7, 30.°25S×179.°70W, h278^{km}±12^{km}, mb3.8/2, Error ellipse: s-maj=21.3km s-min=12.2km az=133.0*

*IDC **01** 16:11:14.4±1.4, 30.°39S×179.°42W, h294^{km}±19^{km}, mb2.8/3, mb1 3.1/5, mb1mx3.0/16, mbtmp3.0/5, Error ellipse: s-maj=36.4km s-min=21.1km az=99.0*

ISC 01 16:11:14.6±0.9, 30.°3S±0.°1×179.°7W±0.°2, h279^{km}±16^{km}, n10, σ0.^{s}42/12, mb2.9/3, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.86	55	P	Pn	16 11 58.3	-0.1
	31nm,0.3s,baz=90,slow=20,SNR=4.2						
RAO				S	S	16 12 24.7	-8.4
	64nm,0.3s,baz=198,slow=20,SNR=3.4						
URZ	Urewera	8.35	198	P	Pn	16 13 12.6	+0.4
	1.4nm,0.3s,baz=32,slow=22,SNR=26						
URZ				S	S	16 14 47.1	-0.3
	1.2nm,0.3s,baz=120,slow=8.1,SNR=5.9						
RPZ	Rata Peaks	15.27	206	P	Pn	16 14 36.7	+0.1
	0.1nm,0.3s,baz=76,slow=8.3,SNR=2.9						
RPZ				S	S	16 17 17.5	-4.8
	0.3nm,0.3s,baz=39,slow=18,SNR=3.6						
RAR	Rarotonga	20.06	68	P	P	16 15 27.4	0.0
	4.6nm,0.4s						
STKA	Stephens Creek	33.09	257	P	P	16 17 25.7	+1.0
	0.7nm,0.6s,mb3.4,baz=90,slow=16,SNR=2.8						
STKA	Stephens Creek	33.09	257	P	P	16 17 25.1	+0.4
	2.0nm,1.7s,mb3.4						
ASAR	Alice Springs	41.68	268	P	P	16 18 36.0	-0.4
	0.2nm,0.6s,mb2.5,baz=106,slow=6.9,SNR=6.2						
WB2	Warramunga Arr	42.65	273	P	P	16 18 43.6	-0.7
WRA	Warramunga Arr	42.66	273	P	P	16 18 44.6	+0.3
	0.3nm,0.4s,mb2.9,baz=111,slow=7.6,SNR=16						
TORD	Torodi Ar. Bea	162.85	184	PKPab	PKPab	16 31 32.0	-2.4
	0.4nm,0.5s,baz=193,slow=2.8,SNR=4.0						

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*NEIC **01** 16:44:48.6, 18.°33N×100.°45W, h18^{km}, MD3.8(MEX), After MEX.*

MEX 01 16:44:48.6±0.8, 18.°33N×100.°45W, h18^{km}±11^{km}, MD3.8, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	Mezcala	0.88	117	*i* P	Pb	16 45 02.5	-2.9
MEIG				*i* S	Sb	16 45 14.1	-2.8
PLIG	Platanillo	0.90	86	*i* P	Pb	16 45 02.5	-3.2
PLIG				*i* S	Sb	16 45 13.4	-3.9
CAIG	El Cayaco	1.29	172	*i* P	Pn	16 45 08.8	-2.9
CAIG				*i* S	Sn	16 45 22.7	-5.8
MZVM		1.43	53	*i* P	Pn	16 45 11.1	-2.7
MZVM				*i* S	Sn	16 45 27.3	-4.9
ACX	Acapulco	1.54	161	*e*P	Pn	16 45 12.5	-2.7
ACX				*i* S	Sn	16 45 30.0	-4.8
PPM	Popocatepetl	1.87	67	*i* P	Pn	16 45 16.9	-2.9
PPM				*i* S	Sn	16 45 40.4	-2.6
IIO	Organos	2.06	52	*e*P	Pn	16 45 19.4	-2.9
IIO				*i* S	Sn	16 45 44.3	-3.2
UTMO	Huajuapan	2.56	101	*i* P	Pn	16 45 26.3	-3.0
UTMO				*i* S	Sn	16 45 59.2	-0.8
MMIG	Aquila	2.75	270	*e*P	Pn	16 45 32.1	+0.2
MMIG				*i* S	Sn	16 46 01.7	-3.1
PNIG	Pinotepa	2.94	131	*i* P	Pn	16 45 31.6	-2.8
PNIG				*i* S	Sn	16 46 06.0	-3.3

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*ISK **01** 16:45:41.6, 38.°88N×25.°94E, h5^{km}, MD3.2*

*NEIC **01** 16:45:41.0, 38.°87N×25.°93E, h4^{km}, MD3.2(ATH), MD3.2(ISK), After ISK.*

*DDA **01** 16:45:42.2, 38.°87N×25.°98E, h21^{km}±2^{km}, Md3.1*

*ATH **01** 16:45:42.7, 38.°90N×26.°04E, h28^{km}±1^{km}, MD3.2/3*

*THE **01** 16:45:43.8, 38.°90N×26.°01E, h9^{km}±1^{km}, ML3.4/5, Error ellipse: s-maj=1.3km s-min=0.5km az=82.0*

*ISCJB **01** 16:45:43.2±0.5, 38.°89N±0.°02×25.°99E±0.°03, h9^{km}±3^{km}, Error ellipse: s-maj=4.7km s-min=3.0km az=156.6*

*CSEM **01** 16:45:44.0±0.2, 38.°88N×25.°97E, h15^{km}, ML3.4/5, Error ellipse: s-maj=5.2km s-min=3.4km az=60.0*

ISC 01 16:45:43.7±0.5, 38.°89N±0.°02×25.°98E±0.°04, h10^{km}±3^{km}, n60, σ0.^{s}79/95, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIGR	SIGRI	0.34	344	P	Pg	16 45 50.6	+0.2
SIGR				S	Sg	16 45 55.4	+0.4
SIGR	SIGRI	0.34	344	P	Pg	16 45 50.6	+0.2
SIGR				S	Sg	16 45 55.4	+0.4
PRK	Paraskevi	0.42	32	P	Pg	16 45 51.6	-0.4
PRK				S	Sg	16 45 57.2	-0.5
PRK	Paraskevi	0.42	32	*e*PB	Pg	16 45 51.6	-0.4
PRK				*e*SB	Sg	16 45 57.5	-0.2
PRK	Paraskevi	0.42	32	*e*Pb	Pg	16 45 51.6	-0.4
PRK				*e*Sb	Sg	16 45 57.5	-0.2
CHOS	Chios island	0.50	173	P	Pg	16 45 53.9	+0.4
CHOS				S	Sg	16 46 01.4	+1.3
CHOS	Chios island	0.50	173	*e*PN	Pg	16 45 53.9	+0.4
CHOS				*e*SN	Sg	16 46 01.3	+1.2
CHOS	Chios island	0.50	173	*e*Pn	Pg	16 45 53.9	+0.4
CHOS				S	Sg	16 46 01.4	+1.3
AYVA	Ayvalik	0.69	53	*i* P	Pg	16 45 56.5	-0.7
AYVA				*i* S	Sg	16 46 05.5	-0.8
AYVA	Ayvalik	0.69	53	*i* P	Pg	16 45 56.5	-0.6
AYVA				*i* S	Sg	16 46 05.4	-0.8
BOZC	Bozcaada	0.95	3	*i* P	Pg	16 46 01.0	-1.1
BOZC				*i* S	Sg	16 46 14.1	-0.4
BLCB	Balcova	0.97	121	*e*PG	Pg	16 46 01.8	-0.6
BLCB				*e*SG	Sg	16 46 16.3	+1.3
BLCB	Balcova	0.97	121	P	Pg	16 46 02.0	-0.4
BLCB				S	Sg	16 46 15.2	+0.2
BLCB	Balcova	0.97	121	*e*Pg	Pg	16 46 01.8	-0.6
BLCB				S	Sg	16 46 15.2	+0.2
BLCB				*e*Sg	Sg	16 46 16.3	+1.3
EZN	Ezine	0.97	16	PG	Pg	16 46 01.5	-1.0
EZN				*e*SG	Sg	16 46 16.1	+0.9
EZN	Ezine	0.97	16	*i* Pg	Pg	16 46 01.5	-1.0
EZN				*e*Sg	Sg	16 46 16.1	+0.9
IZM	Izmir	1.12	116	*e*PN	Pn	16 46 04.4	-0.9
LIA	Limnos Island	1.18	329	P	Pb	16 46 05.6	-0.6
LIA				S	Sb	16 46 22.5	+1.0
LIA	Limnos Island	1.18	329	*e*PN	Pn	16 46 05.7	-0.5
LIA				*e*SN	Sn	16 46 21.3	-1.1
LIA	Limnos Island	1.18	329	*e*Pn	Pn	16 46 05.7	-0.5
LIA				*e*Sn	Sn	16 46 21.3	-1.1
LIA				S	Sb	16 46 22.5	+1.0
LOS	Limnos	1.26	327	P	Pn	16 46 07.1	-0.1
LOS				S	Sb	16 46 24.6	+1.0
LOS	Limnos	1.26	327	P	Pn	16 46 07.1	-0.1
LOS				S	Sb	16 46 24.6	+1.0
SMG	Samos	1.36	150	*e*PN	Pn	16 46 07.5	-1.1
SMG				*e*SN	Sn	16 46 25.7	-0.9
SMG	Samos	1.36	150	*e*Pn	Pn	16 46 07.5	-1.1
SMG				*e*Sn	Sn	16 46 25.7	-0.9
AKHS	Akhisar	1.43	90	*i* P	Pn	16 46 10.7	+1.0
AKHS				*i* S	Sn	16 46 29.5	+1.0
AKHS	Akhisar	1.43	90	*i* P	Pn	16 46 10.7	+1.1
AKHS				*i* S	Sn	16 46 29.5	+1.0
AKS	Akhisar	1.43	90	*e*PN	Pn	16 46 09.6	0.0
AKS	Akhisar	1.43	90	*e*Pn	Pn	16 46 09.6	0.0
LPK	Lapseki	1.60	22	*e*PN	Pn	16 46 12.1	+0.1
LPK	Lapseki	1.60	22	*e*Pn	Pn	16 46 12.1	+0.1
BALB	Balikesir	1.66	62	*e*PN	Pn	16 46 13.0	+0.3
BALB	Balikesir	1.66	62	*e*Pn	Pn	16 46 13.0	+0.3
APE	Apeiranthos	1.85	191	P	Pn	16 46 14.5	-0.9
APE				S	Sn	16 46 38.6	-0.2
APE	Apeiranthos	1.85	191	*e*PB	Pn	16 46 14.6	-0.8
APE	Apeiranthos	1.85	191	*e*Pb	Pn	16 46 14.6	-0.8
APE				S	Sn	16 46 38.6	-0.2
ENEZ	Enez	1.85	4	*e*PN	Pn	16 46 15.2	-0.2
ENEZ	Enez	1.85	4	*e*Pn	Pn	16 46 15.2	-0.2
ALN	Alexandroupoli	2.01	1	P	Pn	16 46 16.6	-1.0
ALN				S	Sn	16 46 42.7	0.0
ALN	Alexandroupoli	2.01	1	P	Pn	16 46 16.6	-1.0
ALN				S	Sn	16 46 42.7	0.0
RKY	Sarkoy-Tekirda	2.02	27	*e*PN	Pn	16 46 18.5	+0.7
RKY	Sarkoy-Tekirda	2.02	27	*e*Pn	Pn	16 46 18.5	+0.7
PAIG	Paliouri	2.06	301	P	Pn	16 46 17.9	-0.4
PAIG				S	Sn	16 46 44.2	+0.2
PAIG	Paliouri	2.06	301	P	Pn	16 46 17.9	-0.4
PAIG				S	Sn	16 46 44.2	+0.2
DURS	Dursunbey	2.06	69	*i* P	Pn	16 46 17.5	-0.9
DURS				*i* S	Sn	16 46 42.6	-1.5
DURS	Dursunbey	2.06	69	*i* P	Pn	16 46 17.5	-0.8
DURS				*i* S	Sn	16 46 42.6	-1.5
BNT	Bandirma	2.10	45	*e*PN	Pn	16 46 19.3	+0.5
MRMT	Marmara Adasi	2.12	36	*e*PN	Pn	16 46 20.4	+1.3
MRMT	Marmara Adasi	2.12	36	*e*Pn	Pn	16 46 20.4	+1.3
KULA	Kula-Manisa	2.13	99	*e*PN	Pn	16 46 19.9	+0.6
KULA	Kula-Manisa	2.13	99	*e*Pn	Pn	16 46 19.9	+0.6
MFT	Murefte	2.15	27	*e*PN	Pn	16 46 20.1	+0.6
MFT	Murefte	2.15	27	*e*Pn	Pn	16 46 20.1	+0.6
RDO	Rodhopi	2.28	352	*e*PN	Pn	16 46 20.9	-0.4
RDO	Rodhopi	2.28	352	*e*Pn	Pn	16 46 20.9	-0.4
EDRB	Edirne	3.01	11	*e*PN	Pn	16 46 32.4	+1.0
EDRB	Edirne	3.01	11	*e*Pn	Pn	16 46 32.4	+1.0
CTKS	Kestanelik-??a	3.04	39	*e*PN	Pn	16 46 33.0	+1.2
CTKS	Kestanelik-??a	3.04	39	*e*Pn	Pn	16 46 33.0	+1.2
YLV	Yalova	3.11	56	*e*PN	Pn	16 46 34.1	+1.5
YLV	Yalova	3.11	56	*e*Pn	Pn	16 46 34.2	+1.5

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*CSEM **01** 16:56:01.5, 36.°06N×2.°76E, h0^{km}, ML3.6, After ALG*

CRAAG 01 16:56:01.5, 36.°06N×2.°76E, Ml3.6, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMHD	Djebel Mahouad	0.21	48	P	Pg	16 56 07.3	+1.7
EMHD	Djebel Mahouad	0.21	48	P	Pg	16 56 07.3	+1.7
ADJB	Djebel Djouab	0.56	80	P	Pg	16 56 14.3	+2.1

ADJB	Djebel Djouab	0.56	80	P	Pg	16 56 14.3	+2.1
ABA	Alger-Bouzarea	0.77	17	P	Pg	16 56 19.0	+2.7
ABA	Alger-Bouzarea	0.77	17	P	Pg	16 56 19.0	+2.7
AKET	Djebel Ketaf	0.91	90	P	Pg	16 56 22.0	+3.1
AKET	Djebel Ketaf	0.91	90	P	Pg	16 56 22.0	+3.1
EBNR	Beni Rached	1.02	283	P	Pg	16 56 22.8	+1.7
EBNR	Beni Rached	1.02	283	P	Pg	16 56 22.8	+1.7
ECHA	Ech Chlef	1.13	275	P	Pg	16 56 25.0	+1.8
ECHA	Ech Chlef	1.13	275	P	Pg	16 56 25.0	+1.8
EANR	'Ain N'Sour	1.35	266	P	Pg	16 56 28.8	+1.4
EANR	'Ain N'Sour	1.35	266	P	Pg	16 56 28.8	+1.4
ETRT	Tiaret	1.36	241	P	Pg	16 56 29.0	+1.4
ETRT	Tiaret	1.36	241	P	Pg	16 56 29.0	+1.4

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*ISCJB **01** 17:19:24.5±0.5, 40°.77N±0°.04×29°.14E±0°.09, h11^{km}±10^{km}, Error ellipse: s-maj=12.9km s-min=4.7km az=151.4*

*CSEM **01** 17:19:24.6±0.1, 40°.76N×29°.14E, h15^{km}, MD2.5, Error ellipse: s-maj=1.8km s-min=1.2km az=44.0*

*ISK **01** 17:19:24.3, 40°.77N×29°.14E, h14^{km}, MD2.5*

*DDA **01** 17:19:24.4, 40°.75N×29°.11E, h7^{km}±2^{km}, Md2.8*

ISC 01 17:19:24.8±0.6, **40°.77N**±0°.05×**29°.14E**±0°.07, **h14**^{km}±9^{km}, **n24**, σ**0^{s}.21**/32, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YLV	Yalova	0.27	138	ePg	Pg	17 19 30.0	-0.5
YLV				eSg	Sg	17 19 34.6	+0.3
YLV				eSG	Sg	17 19 34.6	+0.2
YLV	Yalova	0.27	138	ePG	Pg	17 19 30.0	-0.5
ISK	Istanbul-Kandi	0.30	349	ePG	Pg	17 19 31.1	0.0
ISK				eSG	Sg	17 19 35.6	+0.3
ISK	Istanbul-Kandi	0.30	349	ePg	Pg	17 19 31.1	0.0
ISK				eSg	Sg	17 19 35.6	+0.3
HRT	Hereke	0.41	82	ePG	Pg	17 19 32.8	-0.1
HRT	Hereke	0.41	82	ePg	Pg	17 19 32.8	-0.1
KLYT	Kilyos	0.49	351	ePG	Pg	17 19 34.5	+0.1
KLYT	Kilyos	0.49	351	ePg	Pg	17 19 34.5	0.0
SILT	Sile	0.54	45	ePG	Pg	17 19 35.6	+0.2
SILT	Sile	0.54	45	ePg	Pg	17 19 35.6	+0.2
ADVT	Abdulvahap	0.57	126	ePG	Pg	17 19 35.9	0.0
ADVT	Abdulvahap	0.57	126	ePg	Pg	17 19 35.9	0.0
ELBA	Catalca	0.66	305	i P	Pg	17 19 37.3	-0.3
ELBA				i S	Sg	17 19 46.2	-0.1
ELBA	Catalca	0.66	305	i P	Pg	17 19 37.3	-0.3
ELBA				i S	Sg	17 19 46.2	-0.1
CTKS	Kestanelik-??a	0.67	315	ePG	Pg	17 19 37.9	+0.1
CTKS	Kestanelik-??a	0.67	315	ePg	Pg	17 19 37.9	+0.1
SLVT	Silivri	0.84	304	ePG	Pg	17 19 41.1	+0.1
SLVT	Silivri	0.84	304	ePg	Pg	17 19 41.1	0.0
CTYL	Yal??k??y-??at	0.95	318	ePG	Pg	17 19 43.1	-0.1
CTYL	Yal??k??y-??at	0.95	318	ePg	Pg	17 19 43.1	-0.1
MRMT	Marmara Adasi	1.19	262	ePN	Pn	17 19 46.9	+0.1
MRMT	Marmara Adasi	1.19	262	ePn	Pn	17 19 46.9	+0.1
DURS	Dursunbey	1.27	204	i P	Pn	17 19 47.8	-0.3
DURS				i S	Sb	17 20 05.0	+0.4
DURS	Dursunbey	1.27	204	i P	Pn	17 19 47.8	-0.2
DURS				i S	Sb	17 20 05.0	+0.4

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*ISCJB **01** 17:24:39.2±3.0, 32°.70S±0°.07×177°.6W±0°.1, h7^{km}±19^{km}, mb4.2/11, MS3.9/4, Error ellipse: s-maj=21.2km s-min=9.5km az=20.3*

*IDC **01** 17:24:39.5±0.8, 32°.66S×177°.45W, h0^{km}, mb4.2/8, mb1 4.4/11, mb1mx4.2/20, mbtmp4.2/11, ML4.1/3, MS3.9/4, Ms1 3.9/4, ms1mx3.3/22, Error ellipse: s-maj=25.2km s-min=22.0km az=53.0*

*NEIC **01** 17:24:44.2±0.6, 32°.60S×177°.63W, h35^{km}, mb4.1/2, Error ellipse: s-maj=16.1km s-min=8.6km az=108.0*

ISC 01 17:24:40.5±3.5, **32°.63S**±0°.07×**177°.6W**±0°.1, **h5**^{km}±22^{km}, **n29**, σ**0^{s}.96**/27, **mb4.2**/11, **MS3.9**/4, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	3.38	355	Pn	Pn	17 25 32.8	-1.1
	72nm,0.3s,baz=112,slow=16,SNR=5.1						
RAO				Sn	Sn	17 26 09.1	-5.3
	220nm,0.3s,baz=359,slow=22,SNR=6.5						
RAO	Raoul Island	3.38	355	ePn	Pn	17 25 32.6	-1.3
RAO				Pn	Pn	17 25 32.8	-1.1
RAO				eSn	Sn	17 26 08.1	-6.4
RAO				Sn	Sn	17 26 09.1	-5.3
MXZ	Matakaoa Point	5.96	213	eP	Pn	17 26 10.2	+0.9
MWZ	Matawai	6.94	214	P	Pn	17 26 22.8	-0.1
URZ	Urewera	7.08	216	Pn	Pn	17 26 23.8	-1.0
	0.9nm,0.3s,baz=174,slow=10.0,SNR=8.0						
URZ				Sn	Sn	17 27 44.5	-1.2
	4.1nm,0.3s,baz=254,slow=20,SNR=9.4						
URZ	Urewera	7.08	216	P	Pn	17 26 26.0	+1.2
KNZ	Kokohu	7.44	210	eP	Pn	17 26 30.0	+0.3
RPZ	Rata Peaks	14.20	216	Pn	Pn	17 28 01.3	-0.9
	0.6nm,0.3s,baz=64,slow=16,SNR=3.7						
RPZ				Sn	Sn	17 30 28.0	-12
	0.3nm,0.3s,baz=331,slow=19,SNR=2.7						
PPT	Papeete	29.36	66	eLR	LR	17 37 56.0	
	219nm,27.0s						
STKA	Stephens Creek	34.37	260	LR	LR	17 42 48.4	
	comp=Z,127nm,18.5s,MS3.7,baz=207,slow=32						
STKA	Stephens Creek	34.37	260	P	P	17 31 32.8	+4.3
	1.2nm,1.1s,mb3.7						
CTA	Charters Tower	34.55	282	P	P	17 31 32.7	+2.6
	6.1nm,0.8s,mb4.6,baz=99,slow=7.7,SNR=4.0						
CTA	Charters Tower	34.55	282	P	P	17 31 32.7	+2.6
RKT	Rikitea	38.63	87	eLR	LR	17 42 19.6	
	218nm,30.2s						
ASAR	Alice Springs	43.38	269	P	P	17 32 44.4	+0.4
	1.8nm,0.6s,mb4.0,baz=108,slow=7.4,SNR=12						
WB2	Warramunga Arr	44.56	274	eP	P	17 32 52.9	-0.6
WRAB	Tennant Creek	44.56	274	eP	P	17 32 53.1	-0.4
	8.5nm,1.1s,mb4.5						
WRA	Warramunga Arr	44.57	274	P	P	17 32 53.6	-0.1
	2.6nm,0.5s,mb4.4,baz=114,slow=7.6,SNR=39						
WRA				ScP	ScP	17 38 34.6	+5.0
	1.0nm,1.0s,baz=116,slow=4.0,SNR=5.1						
QSPA	South Pole Qui	57.49	180	P	P	17 34 30.9	+0.9
	4.7nm,1.0s,mb4.5,baz=20,slow=5.7,SNR=7.1						
QSPA				LR	LR	17 56 34.8	
	comp=Z,99nm,18.4s,MS4.0,baz=176,slow=33						
PLCA	Paso Flores	80.74	133	P	P	17 36 54.4	-0.6
	2.4nm,1.0s,mb4.1,baz=206,slow=2.5,SNR=3.7						
KSRS	Korea Array	86.27	320	P	P	17 37 22.6	-0.5
	0.6nm,0.7s,mb4.0,baz=147,slow=5.4,SNR=3.2						
KSRS				LR	LR	18 11 17.0	
	comp=Z,34nm,18.7s,MS3.8,baz=35,slow=32						
NVAR	Mina Array Bea	89.64	42	P	P	17 37 39.0	-0.2
	0.8nm,0.8s,mb4.1,baz=225,slow=9.0,SNR=4.6						
CN2	Changchun	92.12	323	eP	P	17 37 55.2	+4.6
CN2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
TXAR	Lajitas Array	93.30	57	LR	LR	18 13 24.7	
	comp=Z,99nm,18.6s,MS4.3,baz=0.0,slow=31						
CMAR	Chiang Mai Arr	94.46	289	P	P	17 38 03.7	+1.7
	comp=Z,0.3nm,0.6s,mb3.9,baz=127,slow=5.6,SNR=3.4						
NB2	NORSAR Subarra	151.00	351	PKP	PKPbc	17 44 35.8	+2.1
	comp=Z,9.0nm,1.0s,baz=14,slow=4.1						
DBIC	Dimbokro	153.30	164	PKPbc	PKPbc	17 44 39.1	-1.3
	comp=Z,2.0nm,0.8s,baz=143,slow=5.1,SNR=3.5						
BRTR	Keskin Array B	153.90	295	PKPbc	PKPbc	17 44 43.0	+2.1
	comp=Z,1.8nm,0.9s,baz=149,slow=5.0,SNR=6.9						
TORD	Torodi Ar. Bea	160.59	178	PKPab	PKPab	17 45 22.1	-1.2
	comp=Z,0.3nm,0.7s,baz=221,slow=4.4,SNR=2.2						

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*NEIC **01** 17:25:24.7, 35°.83N×21°.73E, h4^{km}, ML3.3(ATH), After ATH.*

*ATH **01** 17:25:24.7, 35°.83N×21°.72E, h4^{km}±2^{km}, MD3.7/13, ML3.3*

*CSEM **01** 17:25:28.5±0.2, 36°.02N×21°.94E, h10^{km}, ML3.6/1, Error ellipse: s-maj=5.2km s-min=1.8km az=51.0*

*THE **01** 17:25:29.9, 36°.05N×21°.98E, h20^{km}±3^{km}, ML3.6/1, Error ellipse: s-maj=3.7km s-min=1.1km az=238.0*

ISC 01 17:25:30.0±1.1, **36°.03N**±0°.05×**21°.95E**±0°.07, **h20**^{km}±8^{km}, **n70**, σ**1^{s}.19**/91, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.88	349	P	Pb	17 25 45.7	-0.9
PYL				S	Sb	17 25 58.0	+0.1
PYL	PYLOS	0.88	349	ePG	Pb	17 25 45.4	-1.2
PYL				eSG	Sb	17 25 59.3	+1.4
PYL	PYLOS	0.88	349	ePg	Pb	17 25 45.4	-1.2
PYL	PYLOS	0.88	349	P	Pb	17 25 45.7	-0.9
PYL				S	Sb	17 25 58.0	+0.1
PYL				eSg	Sb	17 25 59.3	+1.4
KYTH	Kithira	0.92	74	ePB	Pb	17 25 46.5	-0.7
KYTH	Kithira	0.92	74	ePb	Pb	17 25 46.5	-0.7
VLI	Veliai	1.05	49	ePB	Pb	17 25 49.5	0.0
VLI				eSB	Sb	17 26 08.0	+5.1
VLI	Veliai	1.05	49	ePb	Pb	17 25 49.5	0.0
ITM	Ithomi	1.15	359	ePG	Pn	17 25 49.9	-1.0
ITM				eSB	Sb	17 26 09.0	+3.4
ITM	Ithomi	1.15	359	ePg	Pn	17 25 49.9	-1.0
ITM				eSb	Sb	17 26 09.0	+3.4
VLX	Vlachokerasia	1.38	14	ePN	Pn	17 25 54.5	+0.4
VLX				eSB	Sb	17 26 17.3	+4.9
VLX	Vlachokerasia	1.38	14	ePn	Pn	17 25 54.5	+0.4
VLX				eSb	Sb	17 26 17.3	+4.9
KARN	Karanos	1.72	111	P	Pn	17 25 58.3	-0.5
KARN				S	Sn	17 26 19.1	-1.1
KARN	Karanos	1.72	111	P	Pn	17 25 58.3	-0.5
KARN				S	Sn	17 26 19.1	-1.1
DID	Didima	1.80	35	P	Pn	17 25 58.6	-1.3
DID				S	Sn	17 26 21.0	-1.1
DID	Didima	1.80	35	ePN	Pn	17 26 02.1	+2.2
DID	Didima	1.80	35	P	Pn	17 25 58.6	-1.3
DID	Didima	1.80	35	ePn	Pn	17 26 02.1	+2.2
DID				S	Sn	17 26 21.0	-1.1
GUR	Goura	1.93	9	ePG	Pn	17 26 04.2	+2.6
GUR	Goura	1.93	9	ePg	Pn	17 26 04.2	+2.6
VAM	Vamos	1.94	108	ePN	Pn	17 26 02.5	+0.8
VAM	Vamos	1.94	108	ePn	Pn	17 26 02.5	+0.8
GVD	Gavdhos	2.12	124	ePN	Pn	17 26 04.0	-0.2
GVD	Gavdhos	2.12	124	ePn	Pn	17 26 04.0	-0.2
NAIG	Nisos Aigina	2.12	35	ePN	Pn	17 26 07.0	+2.7
NAIG	Nisos Aigina	2.12	35	ePn	Pn	17 26 07.0	+2.7
LTK	Loutraki	2.15	22	P	Pn	17 26 04.6	-0.1
LTK				S	Sn	17 26 29.7	-1.1
LTK	Loutraki	2.15	22	ePN	Pn	17 26 06.8	+2.1
LTK	Loutraki	2.15	22	P	Pn	17 26 04.6	-0.1
LTK	Loutraki	2.15	22	ePn	Pn	17 26 06.8	+2.1
LTK				S	Sn	17 26 29.7	-1.1
ATH	Athens Observa	2.40	36	ePN	Pn	17 26 10.0	+1.9
ATH	Athens Observa	2.40	36	ePn	Pn	17 26 10.0	+1.9
VLS	Valsamata	2.40	334	P	Pn	17 26 06.9	-1.2
VLS				S	Sn	17 26 37.0	+0.1
VLS	Valsamata	2.40	334	ePB	Pb	17 26 08.5	-4.0
VLS	Valsamata	2.40	334	P	Pn	17 26 06.9	-1.2
VLS	Valsamata	2.40	334	ePb	Pb	17 26 08.5	-4.0
VLS				S	Sn	17 26 37.0	+0.1
PTL	Penteli	2.53	37	ePB	Pb	17 26 12.7	-2.1
PTL	Penteli	2.53	37	ePb	Pb	17 26 12.7	-2.1
LKR	Lokris	2.75	17	P	Pn	17 26 12.8	-0.1
LKR	Lokris	2.75	17	P	Pn	17 26 12.8	-0.1
EVR	Evrytania	2.88	358	ePN	Pn	17 26 17.0	+2.2
EVR	Evrytania	2.88	358	ePn	Pn	17 26 17.0	+2.2
AGG	Agios Georgios	3.00	6	P	Pn	17 26 16.5	+0.1
AGG				S	Sn	17 26 51.6	-0.2
AGG	Agios Georgios	3.00	6	P	Pn	17 26 16.5	+0.1
AGG				S	Sn	17 26 51.6	-0.2
LAST	Lasithi	3.01	106	P	Pn	17 26 16.0	-0.5
LAST	Lasithi	3.01	106	P	Pn	17 26 16.0	-0.5
APE	Apeiranthos	3.07	69	P	Pn	17 26 15.3	-2.0
APE				S	Sn	17 26 53.8	+0.4
APE	Apeiranthos	3.07	69	ePN	Pn	17 26 19.5	+2.2
APE	Apeiranthos	3.07	69	P	Pn	17 26 15.3	-2.0
APE	Apeiranthos	3.07	69	ePn	Pn	17 26 19.5	+2.2
APE				S	Sn	17 26 53.8	+0.4
NPS	Neapolis	3.08	103	ePN	Pn	17 26 18.0	+0.5
NPS	Neapolis	3.08	103	ePn	Pn	17 26 18.0	+0.5
XOR	Xorichti	3.47	16	P	Pn	17 26 22.8	-0.1
XOR	Xorichti	3.47	16	P	Pn	17 26 22.8	-0.1
THL	Klokotos Trika	3.53	1	P	Pn	17 26 23.3	-0.3
THL	Klokotos Trika	3.53	1	P	Pn	17 26 23.3	-0.3
MEV	Metsovon	3.79	352	P	Pn	17 26 27.7	+0.5
MEV	Metsovon	3.79	352	P	Pn	17 26 27.7	+0.5
LIT	Litokhoron	4.09	6	P	Pn	17 26 31.2	-0.1
LIT	Litokhoron	4.09	6	P	Pn	17 26 31.2	-0.1
PAIG	Paliouri	4.12	19	P	Pn	17 26 30.7	-1.1
PAIG	Paliouri	4.12	19	P	Pn	17 26 30.7	-1.1
KARP	Karpathos	4.27	95	ePN	Pn	17 26 36.0	+2.2
KARP	Karpathos	4.27	95	ePn	Pn	17 26 36.0	+2.2
FNA	Florina	4.77	355	P	Pn	17 26 39.9	-0.7
FNA	Florina	4.77	355	P	Pn	17 26 39.9	-0.7
KNT	Kendrikon	5.18	8	P	Pn	17 26 46.0	-0.3
KNT	Kendrikon	5.18	8	P	Pn	17 26 46.0	-0.3
KRUS	Krusevo	5.36	354	ePn	Pn	17 26 46.9	-1.8
KRUS	Krusevo	5.36	354	ePn	Pn	17 26 46.9	-1.9

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*ISCJB **01** 18:04:09.5±0.5, 38°.68N±0°.03×43°.27E±0°.05, h10^{km}, Error ellipse: s-maj=5.4km s-min=4.6km az=6.2*

*CSEM **01** 18:04:09.1±0.2, 38°.69N×43°.25E, h2^{km}, MD3.0, Error ellipse: s-maj=7.3km s-min=4.2km az=84.0*

*ISK **01** 18:04:09.0, 38°.69N×43°.28E, h4^{km}, MD3.0*

*DDA **01** 18:04:11.1, 38°.80N×43°.25E, h1^{km}, Md3.1*

ISC 01 18:04:09.9±0.7, **38°.68N**±0°.04×**43°.28E**±0°.06, **h5**^{km}±8^{km}, **n19**, σ**0^{s}.65**/24, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VANB	Van	0.12	135	PG	Pg	18 04 12.5	0.0
VANB	Van	0.12	135	i Pg	Pg	18 04 12.5	+0.1
TVAN	Van	0.18	146	i P	Pg	18 04 12.4	-1.1
TVAN				i S	Sg	18 04 15.9	-0.1
TVAN	Van	0.18	146	i P	Pg	18 04 12.4	-1.1
TVAN				i S	Sg	18 04 15.9	-0.1
VANT	Van	0.25	160	ePG	Pg	18 04 14.3	-0.5
VANT				eSG	Sg	18 04 19.3	+1.1
VANT	Van	0.25	160	ePg	Pg	18 04 14.3	-0.5
VANT				eSg	Sg	18 04 19.3	+1.1
CLDR	Caldiran	0.68	47	ePG	Pg	18 04 22.1	-0.8
CLDR				eSG	Sg	18 04 32.8	+0.9
CLDR	Caldiran	0.68	47	ePg	Pg	18 04 22.1	-0.9
CLDR				eSg	Sg	18 04 32.8	+1.0
AGRB	Hanur-Agry	0.92	346	ePG	Pg	18 04 27.4	-0.2
AGRB	Hanur-Agry	0.92	346	ePg	Pg	18 04 27.4	-0.2
HAKT	HAKKARI	1.17	163	i P	Px	18 04 45.1	
HAKT				i S	Sx	18 05 00.9	
HAKT	HAKKARI	1.17	163	i P	Px	18 04 45.1	
HAKT				i S	Sx	18 05 00.9	
CUKT	Cukurca	1.46	170	ePN	Pn	18 04 37.2	+0.4
CUKT	Cukurca	1.46	170	ePn	Pn	18 04 37.2	+0.4
BEST	Besiri	1.77	244	eP	Pn	18 04 40.2	-0.9
BEST				i S	Sg	18 05 07.3	+0.7
GNI	Garni	1.85	37	ePN	Pn	18 04 42.5	+0.2
GNI	Garni	1.85	37	ePn	Pn	18 04 42.5	+0.2
EZM	Erzurum	1.92	310	ePN	Pn	18 04 43.5	+0.2
KARS	Kars	1.93	356	ePN	Pn	18 04 43.6	+0.2

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*ISCJB **01** 18:06:00.2±0.6, 50°.20N±0°.04×18°.38E±0°.04, h0^{km}, Error ellipse: s-maj=6.0km s-min=3.3km az=4.8*

*CSEM **01** 18:06:01.6±0.3, 50°.13N×18°.42E, h2^{km}, ML2.7/5, Error ellipse: s-maj=6.9km s-min=3.2km az=177.0*

*PRU **01** 18:06:01.9, 50°.13N×18°.39E, h0^{km}*

*IPEC **01** 18:06:02.0±0.5, 50°.11N×18°.43E, h7^{km}±2^{km}, ML1.7/3, Error ellipse: s-maj=2.9km s-min=1.7km az=66.0*

*WAR **01** 18:06:02.1, 50°.09N×18°.44E, ML2.3, Mining Induced*

ISC 01 18:06:01.4±0.6, **50°.14N**±0°.04×**18°.39E**±0°.03, **h0**^{km}, **n20**, σ**1^{s}.04**/33, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.14	246	ePg	Pg	18 06 05.7	+1.7
RAC				eSg	Sg	18 06 08.5	+2.7
RAC	Raciborz	0.14	246	ePg	Pg	18 06 05.7	+1.7
RAC				eSg	Sg	18 06 08.6	+2.8
OKC	Ostrava-Krasne	0.34	207	ePG	Pg	18 06 08.5	+0.6
OKC				eSG	Sg	18 06 13.1	+0.8
	comp=Z,28nm,0.3s						
OKC	Ostrava-Krasne	0.34	207	ePg	Pg	18 06 08.4	+0.5
OKC				Sg	Sg	18 06 13.1	+0.8
	comp=Z,28nm,0.3s						
MORC	Moravsky Berou	0.66	237	ePg	Pg	18 06 14.4	+0.4
MORC				eSg	Sg	18 06 23.6	+1.1
	comp=Z,18nm,0.2s						
OJC	Ojcow	0.91	84	ePg	Pg	18 06 18.9	0.0
OJC				eSg	Sg	18 06 31.1	+0.4
OJC	Ojcow	0.91	84	ePg	Pg	18 06 18.9	0.0
OJC				eSg	Sg	18 06 31.1	+0.4
DPC	Dobruska-Polom	1.34	280	ePG	Pg	18 06 27.5	+0.3
DPC				eSG	Sg	18 06 44.7	+0.1
	comp=Z,19nm,0.4s						
DPC	Dobruska-Polom	1.34	280	Pg	Pg	18 06 27.5	+0.3
DPC				eSg	Sg	18 06 45.5	+0.9
VRAC	Vranov	1.43	235	ePn	Pn	18 06 28.2	-0.4
VRAC				eSg	Sg	18 06 46.6	-0.8
	comp=Z,16nm,0.3s						
NIE	Niedzica	1.44	119	ePg	Pg	18 06 28.5	-0.5
NIE				eSg	Sg	18 06 46.8	-0.9
NIE	Niedzica	1.44	119	ePg	Pg	18 06 28.5	-0.5
NIE				eSg	Sg	18 06 46.8	-0.9
UPC	Upice	1.57	285	eSG	Sg	18 06 52.2	+0.4
UPC	Upice	1.57	285	Sg	Sg	18 06 52.2	+0.4
KRUC	Moravsky	1.69	231	ePn	Pn	18 06 32.3	+0.2
KRUC				eSg	Sg	18 06 54.0	-1.6
	comp=Z,4.3nm,0.2s						
PVCC	Panska Ves	2.48	281	eSG	Sg	18 07 20.5	-0.5
	comp=Z,12nm,0.2s						
PVCC	Panska Ves	2.48	281	Sg	Sg	18 07 20.5	-0.5
	comp=Z,12nm,0.2s						
PRU	Pruhonice	2.48	268	eSG	Sg	18 07 19.0	-2.2
BRG	Berggiesshubel	2.93	286	SG	Sg	18 07 35.7	+0.1
	comp=Z,3.0nm,0.5s						
KHC	Kasperske Hory	3.29	254	eSG	Sg	18 07 44.9	-2.0

CASC 01 18:47:35.2±2.1, **10°.44N**×**86°.24W**, **h4**^{km}±10^{km}, **MD3.6**, **ML2.8**, **1C**, **Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VCR	Vista de Mar	0.68	117	⇑eP	Pg	18 47 48.8	+0.6
NY14	Universidad de	0.73	73	i P	Pg	18 47 50.3	+1.2
NY14				i S	Sg	18 48 02.1	+3.5
GBS3	Finca Las Imˆ¡	0.84	66	i P	Pg	18 47 51.8	+0.3
GBS2	Las Lilas	0.87	63	i P	Pg	18 47 52.1	+0.2
GB1A	Borinquen Arri	0.91	65	i P	Pg	18 47 52.8	+0.1
GPS3	Bodega del ICE	0.92	70	i P	Pg	18 47 52.9	+0.1
GPS3				i S	Sg	18 48 06.2	+1.5
GPS2	Hotel Rincˆ‡n	0.93	70	i P	Pg	18 47 53.1	+0.1
GPS2				i S	Sg	18 48 06.4	+1.3
GPS1	Guardaparques	0.94	69	i P	Pg	18 47 53.2	0.0
GPS1				i S	Sg	18 48 06.4	+0.9
SSN	San Juan del S	0.94	24	eP	Pg	18 47 53.1	-0.2
SSN				eS	Sg	18 48 10.3	+4.9
AMAS	Alto Masis	1.24	82	i P	Pg	18 47 57.6	-1.4
JCR	Jicaral	1.26	118	eP	Pg	18 47 57.7	-1.6
PTEN	Parque Tenorio	1.26	77	i P	Pg	18 47 58.5	-0.9
CONN	Concepcion	1.27	28	eP	Pg	18 47 59.0	-0.7
BANL	Banca Lucia	1.39	86	i P	Pn	18 48 00.3	-1.1
APON	Apoyo	1.48	7	eP	Pn	18 48 03.6	+1.0
TICN	Ticuantepe	1.59	0	eP	Pn	18 48 03.4	-0.8
TISN	Laguna Tiscapa	1.69	359	eP	Pn	18 48 05.7	0.0
MGAN	Managua	1.70	360	eP	Pn	18 48 05.7	0.0
WILN	Americas 2	1.71	2	eP	Pn	18 48 04.8	-1.1
WILN				eS	Sn	18 48 30.8	+2.6
CSAN		1.75	354	eP	Pn	18 48 06.0	-0.3
COPN	Copaltepe	1.77	349	eP	Pn	18 48 05.5	-1.2
CGA2	Cerro Gallo 2	1.80	103	eP	Pn	18 48 05.8	-1.2
HUEN		1.89	2	eP	Pn	18 48 07.2	-1.1
PRS1	Puriscal	1.95	103	eP	Pn	18 48 10.4	+1.2
MOMN	Momotombo	1.98	352	eP	Pn	18 48 08.9	-0.7
MIRN	Miramar	2.04	347	eP	Pn	18 48 10.8	+0.3
BOAB	BOACO BROADBAN	2.08	16	eP	Pn	18 48 09.6	-1.3
LAJ	Bijagual	2.16	105	eP	Pn	18 48 08.1	-4.0
TEL3	Telica 3	2.20	344	eP	Pn	18 48 11.7	-0.9
LCR2	La Lucha 2	2.31	107	eP	Pn	18 48 14.8	+0.8
URSC	Urasca	2.50	104	eP	Pn	18 48 16.8	+0.1
BUS	Buena Vista	2.60	109	eP	Pn	18 48 17.9	-0.2
BAR1		3.12	112	eP	Pn	18 48 24.7	-0.5

MAN 01 19:03:52, **6°.66N**×**126°.11E**, **h135**^{km}, **mb4.0**, **ML2.8**, **MS2.5**, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	0.32	28	eP	Pn	19 04 12.9	+2.1
MATI				eS	Sn	19 04 28.5	+3.4
GSPH	General Santos	1.28	244	eP	Pn	19 04 17.0	-1.1
BUKP	Musuan	1.59	320	eP	Pn	19 04 23.3	+1.8

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*ISCJB **01** 19:07:48.8±0.5, 43°.78N±0°.04×105°.09W±0°.07, h0^{km}, Error ellipse: s-maj=7.7km s-min=5.5km az=38.9*

*IDC **01** 19:07:49.5±1.9, 43°.43N×105°.30W, h0^{km}, mb4.5/1, mb1 4.0/5, mb1mx3.6/24, mbtmp3.7/5, ML3.6/4, Error ellipse: s-maj=44.9km s-min=7.6km az=151.0*

*NEIC **01** 19:07:51.0±0.5, 43°.70N×105°.19W, h0^{km}, ML3.2, Error ellipse: s-maj=7.3km s-min=5.7km az=139.0, Suspected Mining explosion.*

NEIC 70 km [45 miles] SSE of Gillette.

ISC 01 19:07:51.2±0.5, **43°.75N**±0°.04×**105°.21W**±0°.06, **h0**^{km}, **n27**, σ**1^{s}.10**/29, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.93	66	ePg	Pg	19 08 10.7	+1.7
PHWY	Pilot Hill	2.45	184	ePn	Pn	19 08 32.5	+0.1
PHWY				eS	Sn	19 09 05.8	+2.7
RWWY	Rawlins	2.53	216	ePn	Pn	19 08 34.4	+0.9
LAO	LASA Array	3.03	347	ePn	Pn	19 08 41.0	+0.6
RLMT	Red Lodge	3.22	297	ePn	Pn	19 08 43.3	+0.3
BW06	Boulder Array	3.33	254	ePn	Pn	19 08 44.1	-0.4
PDAR	Pinedale Array	3.33	254	Pn	Pn	19 08 44.4	-0.1
	6.0nm,0.3s,baz=72,slow=15,SNR=66						
PDAR				Lg		19 09 29.0	
	26nm,0.3s,baz=60,slow=30,SNR=15						
LKWY	Lake	3.83	284	ePn	Pn	19 08 52.0	+0.7
LOHW	Long Hollow	3.92	270	ePn	Pn	19 08 54.0	+1.4
ISCO	Idaho Springs	3.95	185	ePn	Pn	19 08 53.7	+0.6
SNOW	Snow King Moun	4.04	268	ePn	Pn	19 08 54.2	-0.1
REDW	Red Top Meadow	4.12	267	ePn	Pn	19 08 55.1	-0.3
AHID	Auburn Hatcher	4.41	259	ePn	Pn	19 08 59.7	+0.3
RRI2	Red Ridge	4.46	267	ePn	Pn	19 08 60.0	-0.1
DGMT	Dagmar	4.78	8	ePn	Pn	19 09 07.1	+2.7
BOZ	Bozeman (W)	4.96	295	ePn	Pn	19 09 05.7	-1.2
EGMT	Eagleton	5.33	325	ePn	Pn	19 09 12.0	0.0
	15nm,0.4s						
SDCO	Great Sand Dun	6.00	182	ePn	Pn	19 09 19.4	-1.8
	0.9nm,0.3s						
DUG	Dugway	6.69	241	ePn	Pn	19 09 30.3	-0.3
	78nm,0.8s						
MVCO	Mesa Verde	6.99	202	ePn	Pn	19 09 32.0	-2.8
ULM	Lac du Bonnet	9.11	41	Pn	Pn	19 10 03.8	0.0
	5.0nm,0.3s,baz=230,slow=11,SNR=23						
ULM				Sn	Sn	19 11 46.2	-0.7
	0.7nm,0.3s,baz=173,slow=7.5,SNR=5.0						
ULM				Lg		19 12 40.0	
	0.3nm,0.3s,baz=145,slow=21,SNR=3.0						
EYMN	Ely	10.45	62	ePn	Pn	19 10 19.6	-2.5
NVAR	Mina Array Bea	11.21	246	Pn	Pn	19 10 31.8	-1.0
NVAR	Mina Array Bea	11.21	246	Pn	Pn	19 10 31.8	-0.9
	0.1nm,0.3s,baz=54,slow=14,SNR=2.9						
YKA	Yellowknife Ar	19.57	347	P	Pn	19 12 21.4	-0.2
	0.1nm,0.3s,baz=156,slow=11,SNR=6.8						
ARCES	ARCESS Array B	61.40	18	P	P	19 18 08.0	-0.5
ARCES	ARCESS Array B	61.40	18	P	P	19 18 08.0	-0.5
	5.1nm,0.9s,baz=326,slow=6.3,SNR=6.9						

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*NEIC **01** 19:32:03.5, 37°.90N×118°.68W, h5^{km}, MD2.9(NCEDC), After NCEDC.*

*ISCJB **01** 19:32:04.2±0.3, 37°.86N±0°.02×118°.75W±0°.03, h10^{km}, Error ellipse: s-maj=2.9km s-min=2.4km az=0.1*

ISC 01 19:32:04.4±0.3, **37°.88N**±0°.02×**118°.73W**±0°.03, **h10**^{km}, **n42**, σ**1^{s}.40**/71, **20C-30D**, **California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
R08A	Mina	0.68	47	⇑P	Pg	19 32 15.8	-1.8
	baz=0.6,SNR=18						
R08A				⇑S	Sg	19 32 24.7	-1.7
	baz=0.6						
R06C	Coleville	0.85	319	⇓P	Pg	19 32 20.2	-0.7
	baz=0.8,SNR=24						
R06C				⇓S	Sg	19 32 32.1	+0.2
	baz=0.8						
TIN	Tinemaha	0.92	154	⇑P	Pg	19 32 21.0	-1.1
	baz=0.9,SNR=8.9						
TIN				⇓S	Sg	19 32 33.5	-0.5

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
	baz=0.9						
Q08A	Gabbs	1.16	33	P	Pb	19 32 25.2	-1.4
	baz=1.1,SNR=20						
Q08A				⇑S	Sb	19 32 40.4	-1.3
	baz=1.1						
S09A	Goldfield	1.21	97	⇑P	Pb	19 32 25.7	-1.6
	baz=1.2,SNR=236						
S09A				⇑S	Sb	19 32 42.0	-0.9
	baz=1.2						
TPH	Tonopah	1.21	80	ePn	Pn	19 32 25.1	-2.2
TPH				eSn	Sn	19 32 41.9	-1.9
CMB	Columbia Colle	1.31	277	ePn	Pn	19 32 27.9	-0.9
CMB				eSn	Sn	19 32 45.4	-0.9
R09A	Tonopah	1.36	74	⇓P	Pn	19 32 28.3	-1.1
	baz=1.3,SNR=100						
R09A				⇓S	Sb	19 32 46.3	-1.1
	baz=1.3						
GRAC	Grapevine Rang	1.40	129	⇓P	Pn	19 32 30.3	+0.3
	baz=1.4,SNR=112						
GRAC				⇓S	Sn	19 32 48.6	+0.2
	baz=1.4						
CWC	Cottonwood Cre	1.53	160	P	Pn	19 32 32.0	+0.2
	baz=1.6,SNR=18						
CWC				⇑S	Sn	19 32 52.2	+0.4
	baz=1.6						
Q09A	Carvers	1.55	52	⇑P	Pn	19 32 31.9	-0.1
	baz=1.5,SNR=16						
Q09A				⇑S	Sn	19 32 52.5	+0.4
	baz=1.5						
RCTC	Rector, Farmer	1.62	195	P	Pn	19 32 33.9	+0.8
	baz=1.7,SNR=16						
P07A	Fallon	1.66	356	⇓P	Pn	19 32 34.5	+0.9
	baz=1.6,SNR=8.3						
P07A				⇓Sb	Sb	19 32 57.8	+1.8
	baz=1.6						
S10A	Tonopah Range,	1.69	88	⇓P	Pn	19 32 34.2	+0.2
	baz=1.7,SNR=216						
S10A				⇑S	Sn	19 32 56.0	+0.3
	baz=1.7						
P08A	Dixie Valley	1.88	16	⇓Pb	Pb	19 32 38.0	-0.8
	baz=1.8						
R10A	Warm Springs	1.96	77	⇑Pb	Pb	19 32 39.1	-1.1
	baz=1.9						
R10A				⇓Sb	Sb	19 33 05.8	+1.1
	baz=1.9						
VES	Vestal, Richgr	2.06	188	⇓Pb	Pb	19 32 41.4	-0.4
	baz=2.1,SNR=65						
VES				⇓Sb	Sb	19 33 09.8	+2.3
	baz=2.1						
Q10A	Clear Creek Ra	2.06	62	⇓Pb	Pb	19 32 40.6	-1.3
	baz=2.0						
Q10A				⇑Sb	Sb	19 33 08.2	+0.6
	baz=2.0						
P09A	Austin	2.08	36	⇓Pb	Pb	19 32 41.1	-1.1
	baz=2.0						
P09A				⇓Sb	Sb	19 33 09.2	+1.1
	baz=2.0						
P09A				⇑Sb	Sb	19 33 09.2	+1.1
	baz=2.0						
ISA	Isabella	2.23	175	⇓Pb	Pb	19 32 44.4	-0.3
	baz=2.3						
ISA				⇓Sb	Sb	19 33 13.8	+1.6
	baz=2.3						
ISA	Isabella	2.23	175	ePn	Pn	19 32 44.1	+2.8
ISA				eSn	Sn	19 33 13.1	+4.2
O07A	Toulon	2.28	357	⇓Pb	Pb	19 32 44.8	-0.8
	baz=2.2						
O07A				⇑Sb	Sb	19 33 15.7	+1.9
	baz=2.2						
O06A	Flanigan	2.43	340	⇑Sb	Sb	19 33 20.9	+2.6
	baz=2.4						
O08A	Rochester Mine	2.45	10	⇑P	Pn	19 32 44.3	-0.1
	baz=2.4						
O08A				⇓Sb	Sb	19 33 20.6	+1.9
	baz=2.4						
P10A	Eureka	2.48	45	⇑Sb	Sb	19 33 20.8	+1.1
	baz=2.4						
R11A	Troy Canyon, C	2.53	78	⇓Pb	Pb	19 32 48.4	-1.4
	baz=2.5,SNR=17						
R11A				⇓Sb	Sb	19 33 22.1	+1.1
	baz=2.5						
Q11A	Duckwater	2.60	67	⇑Sb	Sb	19 33 25.0	+1.8
	baz=2.6						
BMN	Battle Mountai	2.80	24	ePn	Pn	19 32 47.1	-2.1
BMN				ePg	Pg	19 32 54.5	-3.6
BMN				eSg	Sg	19 33 29.4	-5.0
T11A	Corn Creek, Al	2.87	102	⇓P	Pn	19 32 49.6	-0.5
	baz=2.8,SNR=8.0						
P11A	Circle Ranch,	2.87	54	⇓Sb	Sb	19 33 32.9	+2.2
	baz=2.8						
N07B	Gerlach	2.90	356	⇓Sb	Sb	19 33 34.8	+3.2
	baz=2.9						
N08A	GE Springer Mi	2.93	9	⇑Sb	Sb	19 33 35.4	+2.8
	baz=2.9						
O10A	Cortez Mining,	2.97	35	⇓Sb	Sb	19 33 36.2	+2.6
	baz=2.9						
GSC	Goldstone	3.01	148	ePn	Pn	19 32 51.2	-0.8
GSC				ePg	Pg	19 33 01.7	-0.4
EDW2	Edwards Air Fo	3.06	168	⇓Sb	Sb	19 33 39.7	+3.5
	baz=3.1						
OSI	Osito Adit	3.26	180	⇑Sb	Sb	19 33 46.4	+4.3
	baz=3.3						
R12A	Pony Springs,	3.29	81	⇓Sb	Sb	19 33 45.0	+2.2
	baz=3.2						
P12A	McGill	3.39	61	⇓Sb	Sb	19 33 47.9	+2.1
	baz=3.3						
MOD	Modoc	4.19	344	ePb	Pb	19 33 16.4	-1.8
MOD				ePg	Pg	19 33 22.9	-1.8
CCUT	Cedar City	4.27	93	Pn	Pn	19 33 10.2	+0.7
CCUT				ePg	Pg	19 33 23.5	-2.7
CCUT				eSg	Sg	19 34 17.6	-4.0
PFO	Pinyon Flat Ob	4.65	156	ePg	Pg	19 33 35.1	+1.7
MSU	Marysvale	5.20	81	ePg	Pg	19 33 39.0	-5.0

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*CSEM **01** 19:48:42.9±0.1, 38°.43N×39°.11E, h5^{km}, MD3.1, Error ellipse: s-maj=3.2km s-min=1.6km az=15.0*

*ISK **01** 19:48:42.0, 38°.41N×39°.10E, h5^{km}, MD2.8*

*DDA **01** 19:48:42.3, 38°.45N×39°.11E, h17^{km}±1^{km}, Md3.1*

*ISCJB **01** 19:48:43.0±0.5, 38°.42N±0°.05×39°.09E±0°.04, h7^{km}±4^{km}, Error ellipse: s-maj=8.2km s-min=4.3km az=23.3*

ISC 01 19:48:43.3±0.5**, 38°.43N**±0°.04×**39°.10E**±0°.04**, h4**^{km}±7^{km}**, n18, σ0^{s}.74**/29**, Turkey**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
ELZG	Elazig	0.11	306	i P	Pg	19 48 46.2	+0.7
ELZG				i S	Sg	19 48 48.6	+1.5
ELZG	Elazig	0.11	306	i P	Pg	19 48 46.2	+0.7
ELZG				i S	Sg	19 48 48.6	+1.5
SVRC	Sivrice-ELAZID	0.17	109	ePG	Pg	19 48 46.1	-0.6
SVRC				eSG	Sg	19 48 49.2	+0.3
SVRC	Sivrice-ELAZID	0.17	109	ePg	Pg	19 48 46.1	-0.6
SVRC				eSg	Sg	19 48 49.2	+0.3
MYA	Malataya	0.54	259	ePG	Pg	19 48 53.7	0.0
MYA	Malataya	0.54	259	ePg	Pg	19 48 53.7	0.0
MALT	Malatya	0.54	257	ePG	Pg	19 48 53.5	-0.2
MALT	Malatya	0.54	257	ePg	Pg	19 48 53.5	-0.2
AKCD	Akcadag	0.94	262	i P	Pg	19 49 00.5	-0.8
AKCD				i S	Sg	19 49 13.8	+0.4
AKCD	Akcadag	0.94	262	i P	Pg	19 49 00.5	-0.8
AKCD				i S	Sg	19 49 13.8	+0.4
DIYA	Diyarbakir	0.95	122	i P	Pg	19 49 01.1	-0.5
DIYA				i S	Sg	19 49 14.0	+0.1
DIYA	Diyarbakir	0.95	122	i P	Pg	19 49 01.1	-0.5
DIYA				i S	Sg	19 49 14.0	+0.1
KEMA	Kemaliye	0.96	331	i P	Pg	19 49 00.8	-0.9
KEMA				i S	Sg	19 49 13.8	-0.3
KEMA	Kemaliye	0.96	331	i P	Pg	19 49 00.8	-0.9
KEMA				i S	Sg	19 49 13.8	-0.4
URFA	Urfa	1.01	193	ePG	Pg	19 49 02.3	-0.4
URFA	Urfa	1.01	193	ePg	Pg	19 49 02.3	-0.5
EZC	Erzincan	1.43	23	ePN	Pn	19 49 09.2	-0.8
BEST	Besiri	1.79	107	eP	Pn	19 49 15.1	0.0
BEST				i S	Sn	19 49 40.1	+1.8

MAN 01 19:49:29, 8°.57N×124°.75E, h34^{km}, mb4.7, ML3.6, MS3.5, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
BUKP	Musuan	0.75	156	eP	Pn	19 49 44.3	+1.0
BUTP	Butuan	0.94	65	eP	Pn	19 49 48.6	+2.8
SCPH	Surigao	1.41	31	⇑eP	Pn	19 49 52.2	0.0
SCPH				eS	Sn	19 50 10.7	+1.1
TBP	Tagbilaran	1.42	322	eP	Pn	19 49 54.2	+1.8
TBP				eS	Sn	19 50 10.6	+0.6
PAGZ	Pagadian	1.54	242	eP	Pn	19 49 54.5	+0.5
MSLP	Maasin	1.56	4	eP	Pn	19 49 55.4	+1.1
MSLP				eS	Sn	19 50 17.1	+3.7
LLP	Lapu-Lapu	1.90	336	⇓eP	Pn	19 49 59.8	+0.8
LLP				eS	Sn	19 50 22.9	+1.1

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*ISCJB **01** 20:06:31.9±1.5, 18°.4S±0°.2×177°.6W±0°.1, h333^{km}±18^{km}, mb4.0/15, Error ellipse: s-maj=28.6km s-min=13.6km az=158.2*

*NEIC **01** 20:06:33.5±1.3, 18°.30S×177°.60W, h337^{km}±14^{km}, mb4.2/6, Error ellipse: s-maj=28.9km s-min=10.6km az=155.0*

*IDC **01** 20:06:34.3±2.2, 18°.32S×177°.57W, h342^{km}±23^{km}, mb3.7/9, mb1 4.0/10, mb1mx3.7/20, mbtmp3.8/10, Error ellipse: s-maj=28.2km s-min=13.2km az=154.0*

ISC 01 20:06:33.9±1.6**, 18°.4S**±0°.2×**177°.6W**±0°.1**, h340**^{km}±19^{km}**, n34, σ0^{s}.91**/33**, mb4.0**/15**, 4C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
AFI	Afiamalu	7.11	52	P	Pn	20 08 17.4	0.0
	26nm,0.3s,baz=69,slow=1.8,SNR=25						
AFI				S	S	20 09 34.9	-6.6
	4.7nm,0.3s,baz=45,slow=20,SNR=3.9						
AFI	Afiamalu	7.11	52	ePn	Pn	20 08 16.7	-0.7
AFI				eS	S	20 09 32.6	-8.8
AFI				S	S	20 09 34.9	-6.6
EIDS	Eidsvold	29.88	251	eP	P	20 12 11.0	-0.2
	8.1nm,0.7s,mb4.1						
ARMA	Armidale	30.42	241	eP	P	20 12 17.6	+1.7
CNB	Canberra Magne	33.80	233	eP	P	20 12 46.5	+1.5
CTA	Charters Tower	34.17	261	⇑iP	P	20 12 48.9	+0.5
	11nm,0.8s,mb4.2						
CTA	Charters Tower	34.17	261	P	P	20 12 49.0	+0.6
	14nm,0.7s,mb4.3,baz=102,slow=9.9,SNR=17						
CTA	Charters Tower	34.17	261	P	P	20 12 49.0	+0.6
CTAO	Charters Tower	34.17	261	eP	P	20 12 48.7	+0.3
	16nm,0.8s,mb4.3						
TOO	Toolangi	37.52	232	eP	P	20 13 17.4	+1.1
STKA	Stephens Creek	39.12	242	⇑iP	P	20 13 30.6	+0.9
	4.5nm,0.5s,mb4.0						
STKA	Stephens Creek	39.12	242	P	P	20 13 30.8	+1.1
	3.8nm,0.3s,mb4.1,baz=87,slow=7.1,SNR=30						
STKA	Stephens Creek	39.12	242	eP	P	20 13 30.3	+0.6
	1.9nm,0.9s,mb3.3						
WB2	Warramunga Arr	45.33	260	eP	P	20 14 18.2	-1.3
WRAB	Tennant Creek	45.34	260	eP	P	20 14 18.3	-1.2
	2.4nm,0.4s,mb3.7						
WRA	Warramunga Arr	45.34	260	P	P	20 14 18.7	-0.9
	3.8nm,0.4s,mb3.8,baz=98,slow=6.2,SNR=118						
ASAR	Alice Springs	45.45	255	P	P	20 14 20.3	0.0
	19nm,0.4s,mb4.5,baz=89,slow=8.6,SNR=722						
KAKA	Kakadu	48.38	269	⇑iP	P	20 14 42.5	-0.5
	8.5nm,0.4s,mb4.3						
KAKA	Kakadu	48.38	269	eP	P	20 14 42.2	-0.7
	21nm,0.6s,mb4.5						
FORT	Forrest	50.54	245	eP	P	20 14 58.5	-0.4
	25nm,0.6s,mb4.6						
FITZ	Fitzroy Crossi	53.75	261	⇑iP	P	20 15 22.8	+0.3
	6.0nm,0.4s,mb4.3						
FITZ	Fitzroy Crossi	53.75	261	P	P	20 15 23.0	+0.5
	2.8nm,0.4s,mb4.0,baz=126,slow=3.6,SNR=30						
MBWA	Marble Bar	58.75	256	eP	P	20 15 57.0	-0.5
	8.0nm,0.8s,mb4.2						
KLBR	Kellerberrin	59.35	244	eP	P	20 16 00.7	-0.7
	8.8nm,0.7s,mb4.3						
VNDA	Vanda	60.06	185	P	P	20 16 05.4	-0.1
	4.0nm,1.1s,mb3.8,baz=82,slow=7.1,SNR=4.9						
NVAR	Mina Array Bea	79.19	43	P	P	20 18 02.1	+0.3
	0.8nm,0.7s,mb3.6,baz=216,slow=11,SNR=5.7						
TXAR	Lajitas Array	85.56	57	P	P	20 18 36.2	+1.5
	0.9nm,0.9s,mb3.6,baz=226,slow=5.0,SNR=6.7						
CMAR	Chiang Mai Arr	89.79	289	P	P	20 18 55.8	+0.8
	1.0nm,0.9s,mb3.7,baz=119,slow=2.8,SNR=6.4						
VNA3	Neumayer Olymp	90.24	176	e	P	20 18 54.8	-1.3
VNA2	Neumayer--Watz	90.69	177	e	P	20 18 57.2	-0.9
	baz=242,slow=3.1						
BVAR	Borovoye Array	117.70	321	PKP	PKPdf	20 24 38.0	-1.6
	0.2nm,0.4s,baz=40,slow=2.5,SNR=3.4						
MMAI	Mount Meron Ar	147.06	303	PKPbc	PKPbc	20 25 37.4	-0.1
	0.6nm,0.5s,baz=56,slow=5.4,SNR=4.1						
GERES	GERESS Array B	148.25	346	PKPbc	PKPbc	20 25 39.2	-0.9
	0.3nm,0.6s,baz=312,slow=6.3,SNR=3.2						
TORD	Torodi Ar. Bea	174.77	172	PKPab	PKPab	20 27 40.4	+0.3
	0.2nm,0.6s,baz=160,slow=4.6,SNR=3.3						

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*ISCJB **01** 20:11:59.5±0.6, 24°.64N±0°.06×122°.56E±0°.02, h9^{km}±5^{km}, Error ellipse: s-maj=10.2km s-min=2.8km az=13.7*

*TAP **01** 20:11:59.9, 24°.71N×122°.48E, h4^{km}±2^{km}, ML3.1, C*

*JMA **01** 20:12:00.0±0.3, 24°.46N×122°.51E, h19^{km}, M2.1*

ISC 01 20:11:59.8±0.5**, 24°.63N**±0°.06×**122°.56E**±0°.02**, h14**^{km}±4^{km}**, n18, σ0^{s}.62**/31**, Taiwan region**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
YOJ	Yonaguni jima	0.45	112	P	Pg	20 12 09.0	+0.2
YOJ				S	Sg	20 12 15.3	+0.5
TWB1	Santiao Chiao	0.64	306	eP	Pg	20 12 12.7	+0.4
	baz=304						
TWB1				eS	Sg	20 12 20.3	-0.5
	baz=304						
TWC	Suao	0.64	268	P	Pg	20 12 11.5	-1.0
	baz=260						
TWC				eS	Sg	20 12 21.8	+0.8
	baz=260						
ENA	Nanau	0.77	255	P	Pg	20 12 14.3	-0.5
	baz=248						
TWE	Neicheng	0.81	276	i P	Pg	20 12 14.9	-0.7
	baz=271						
TWE				eS	Sg	20 12 26.6	+0.2
	baz=271						
NWF	Wu-fen Shan	0.83	302	i P	Pg	20 12 16.1	+0.2
	baz=284						
NWF				eS	Sg	20 12 27.3	+0.4
	baz=284						
ENTT	Nioudou	0.90	271	P	Pb	20 12 16.5	-0.7
	baz=254						
ENTT				eS	Sb	20 12 29.0	-0.1
	baz=254						
TWA	Mucha	0.95	292	P	Pb	20 12 18.2	+0.2
	baz=287						
TWA				eS	Sb	20 12 30.6	+0.1
	baz=287						
TWD	Chiawan	1.03	238	eP	Pb	20 12 19.5	0.0
	baz=242						
HWA	Hwalien	1.09	233	eP	Pb	20 12 20.4	0.0
	baz=237						
NSK	Sanguang	1.09	273	P	Pb	20 12 20.5	+0.1
	baz=258						
NSK				eS	Sb	20 12 33.8	-0.7
	baz=258						
NNS	Nan Shan	1.09	260	eP	Pb	20 12 20.7	+0.2
	baz=243						
NNS				eS	Sb	20 12 34.5	-0.1
	baz=243						
IRIF	Iriomote-Funau	1.11	105	P	Pb	20 12 19.6	-1.2
IRIF				S	Sb	20 12 35.6	+0.5
HATJ	Hateruma jima	1.27	116	P	Pn	20 12 22.4	-0.8
HATJ				eS	Sb	20 12 40.3	+0.5
TWT	Tachien	1.31	254	eP	Pn	20 12 24.5	+0.8
	baz=249						
JKRS	Kuro-shima	1.38	106	P	Pn	20 12 24.1	-0.5
JKRS				S	Sn	20 12 42.5	-0.2
NSTT	Nanjuang	1.42	270	eP	Pn	20 12 27.1	+2.1
	baz=285						
JIJ	Ishigaki jima	1.47	100	P	Pn	20 12 25.3	-0.5
JIJ				S	Sn	20 12 45.2	+0.3

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*ISCJB **01** 20:13:43.7±1.2, 25°.88S±0°.09×178°.87W±0°.08, h352^{km}±12^{km}, mb4.2/21, Error ellipse: s-maj=15.0km s-min=11.3km az=153.2*

*NEIC **01** 20:13:45.1±1.2, 25°.78S×178°.83W, h356^{km}±14^{km}, mb4.4/12, Error ellipse: s-maj=17.9km s-min=11.1km az=150.0*

*IDC **01** 20:13:46.1±1.5, 25°.79S×178°.87W, h358^{km}±14^{km}, mb3.9/10, mb1 4.2/12, mb1mx4.0/19, mbtmp4.0/12, Error ellipse: s-maj=20.6km s-min=12.8km az=170.0*

ISC 01 20:13:44.6±1.2**, 25°.9S**±0°.1×**178°.83W**±0°.09**, h349**^{km}±12^{km}**, n51, σ1^{s}.10**/45**, mb4.2**/21**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
RAO	Raoul Island	3.43	167	P	Pn	20 14 51.8	+4.0
	76nm,0.3s,baz=261,slow=23,SNR=5.0						
RAO				S	S	20 15 38.8	0.0
	153nm,0.3s,baz=88,slow=21,SNR=7.4						
URZ	Urewera	12.79	195	P	Pn	20 16 35.4	-0.2
	3.8nm,0.3s,baz=2.9,slow=8.5,SNR=12						
URZ				S	S	20 18 52.7	-3.1
	9.0nm,0.3s,baz=246,slow=23,SNR=21						
AFI	Afiamalu	13.64	30	P	Pn	20 16 41.1	-4.7
	6.7nm,0.3s,baz=29,slow=19,SNR=5.3						
AFI				S	S	20 19 00.7	-13
	2.5nm,0.3s,baz=210,slow=20,SNR=4.0						
AFI	Afiamalu	13.64	30	P	Pn	20 16 41.1	-4.8
AFI				S	S	20 19 00.7	-13
RPZ	Rata Peaks	19.59	202	P	P	20 17 47.0	-1.2
	0.8nm,0.3s,baz=90,slow=1.0,SNR=5.0						
ARMA	Armidale	26.39	253	eP	P	20 18 53.6	+3.2
EIDS	Eidsvold	27.11	264	eP	P	20 18 58.0	+1.2
	30nm,0.7s,mb4.6						
CNB	Canberra Magne	28.84	243	eP	P	20 19 15.8	+3.9
TOO	Toolangi	32.32	240	eP	P	20 19 44.4	+2.2
CTA	Charters Tower	32.59	273	eP	P	20 19 46.9	+2.0
	24nm,0.8s,mb4.5						
CTA	Charters Tower	32.59	273	P	P	20 19 46.6	+1.8
	13nm,0.4s,mb4.6,baz=98,slow=11,SNR=25						
CTAO	Charters Tower	32.59	273	eP	P	20 19 46.4	+1.6
	21nm,0.7s,mb4.5						
STKA	Stephens Creek	35.02	251	eP	P	20 20 05.9	+0.5
	7.1nm,0.8s,mb4.0						
STKA	Stephens Creek	35.02	251	P	P	20 20 06.2	+0.8
	4.8nm,0.4s,mb4.1,baz=87,slow=8.9,SNR=39						
STKA	Stephens Creek	35.02	251	eP	P	20 20 05.8	+0.4
	4.0nm,0.9s,mb3.6						
ASAR	Alice Springs	42.79	262	P	P	20 21 09.2	-0.2
	24nm,0.8s,mb4.4,baz=105,slow=8.1,SNR=127						
ASAR				ScP	ScP	20 26 09.9	-0.7
	1.1nm,0.9s,baz=108,slow=5.1,SNR=4.7						
ASAR				S	S	20 27 06.9	0.0
	1.8nm,0.9s,baz=103,slow=17,SNR=9.0						
WB2	Warramunga Arr	43.35	268	eP	P	20 21 13.3	-0.6
WRAB	Tennant Creek	43.36	268	eP	P	20 21 12.5	-1.4
	34nm,0.8s,mb4.5						
WRA	Warramunga Arr	43.36	268	P	P	20 21 13.2	-0.8
	31nm,0.7s,mb4.5,baz=102,slow=7.6,SNR=42						
WRA				ScP	ScP	20 26 13.6	+0.6
	1.0nm,1.0s,baz=99,slow=4.3,SNR=4.9						
FORT	Forrest	46.64	251	eP	P	20 21 38.3	-1.1
	27nm,0.7s,mb4.6						
KAKA	Kakadu	47.57	276	eP	P	20 21 45.5	-1.1
	12nm,0.8s,mb4.2						
KAKA	Kakadu	47.57	276	eP	P	20 21 45.0	-1.7
	37nm,0.8s,mb4.7						
FITZ	Fitzroy Crossi	51.76	267	eP	P	20 22 17.9	0.0
	27nm,0.9s,mb4.6						
FITZ	Fitzroy Crossi	51.76	267	P	P	20 22 18.3	+0.4
	13nm,0.7s,mb4.3,baz=120,slow=5.0,SNR=27						
VNDA	Vanda	52.48	185	P	P	20 22 24.3	+2.0
	2.6nm,0.8s,mb3.6,baz=10,slow=5.0,SNR=9.2						
KLBR	Kellerberrin	55.22	248	eP	P	20 22 41.4	-1.2
	6.4nm,0.7s,mb4.1						
MBWA	Marble Bar	56.09	261	eP	P	20 22 47.6	-1.4
	13nm,1.0s,mb4.2						
CASY	Casey	58.79	207	eP	P	20 23 06.7	-0.1
CASY	Casey	58.79	207	eP	P	20 23 06.4	-0.4
	8.3nm,0.6s,mb4.3						
VNA3	Neumayer Olymp	82.82	176	e	P	20 25 29.9	-0.2
VNA2	Neumayer--Watz	83.25	177	e	P	20 25 32.5	+0.3
	baz=187,slow=4.3						
CMB	Columbia Colle	83.94	43	eP	P	20 25 35.8	-0.4
	6.1nm,0.9s,mb4.4						
NVAR	Mina Array Bea	85.46	43	P	P	20 25 43.8	+0.2
	2.3nm,0.8s,mb4.1,baz=222,slow=8.7,SNR=15						
TPH	Tonopah	85.92	44	eP	P	20 25 44.9	-1.0
	3.8nm,0.8s,mb4.3						
TXAR	Lajitas Array	90.59	58	P	P	20 26 08.3	+0.2
	1.1nm,0.8s,mb3.8,baz=217,slow=6.0,SNR=9.3						
TXAR	Lajitas Array	90.59	58	P	P	20 26 08.3	+0.2
CMAR	Chiang Mai Arr	91.21	290	P	P	20 26 12.3	+1.1
	1.4nm,0.9s,mb3.9,baz=146,slow=3.5,SNR=12						
ANMO	Albuquerque	91.36	52	P	P	20 26 12.2	+0.7
	2.3nm,0.9s,mb4.1						
CHTO	Chiang Mai	91.37	290	eP	P	20 26 12.8	+0.9
	3.6nm,0.9s,mb4.3						
PDAR	Pinedale Array	93.39	44	P	P	20 26 20.2	-0.4
	1.0nm,0.8s,mb3.9,baz=237,slow=3.1,SNR=3.8						
ARCES	ARCESS Array B	134.06	348	PKP	PKPdf	20 32 19.8	-0.1
	3.5nm,0.9s,baz=46,slow=2.6,SNR=4.5						
NB2	NORSAR Subarra	144.21	352	PKP	PKPdf	20 32 36.3	-2.3
	comp=Z,1.4nm,0.7s,baz=12,slow=3.8						
NOA	NORSAR Array B	144.21	352	PKP	PKPdf	20 32 36.7	-1.9
	comp=Z,3.1nm,0.8s,baz=17,slow=2.5,SNR=6.3						
NOA	NORSAR Array B	144.21	352	PKP	PKPdf	20 32 36.7	-1.9
MALT	Malatya	146.32	301	ePKPbc	PKPbc	20 32 44.3	-0.5
AKASG	Malin Array Be	147.22	326	PKPbc	PKPbc	20 32 48.7	+1.8
	comp=Z,1.8nm,0.6s,baz=45,slow=4.8,SNR=5.1						
AKASG	Malin Array Be	147.22	326	PKPbc	PKPbc	20 32 48.7	+1.8
ASF	Jabal al Asfar	148.25	290	PKPbc	PKPbc	20 32 49.4	-0.8
	comp=Z,1.3nm,0.7s,baz=124,slow=7.3,SNR=2.8						
MMAI	Mount Meron Ar	149.46	292	PKPbc	PKPbc	20 32 53.5	+0.3
	comp=Z,2.5nm,0.6s,baz=76,slow=7.0,SNR=7.1						
BRTR	Keskin Array B	149.61	305	PKPab	PKPab	20 32 59.3	-0.5
	comp=Z,1.1nm,0.6s,baz=142,slow=4.1,SNR=6.2						
TORD	Torodi Ar. Bea	167.30	182	PKPab	PKPab	20 34 16.4	-0.3
	comp=Z,0.9nm,0.9s,baz=170,slow=4.2,SNR=5.9						

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*ISCJB **01** 20:14:02.6±0.4, 50°.10N±0°.03×18°.39E±0°.03, h0^{km}, Error ellipse: s-maj=4.4km s-min=2.5km az=14.7*

*IPEC **01** 20:14:03.6±0.5, 50°.09N×18°.54E, h6^{km}±2^{km}, ML1.8/3, Error ellipse: s-maj=2.9km s-min=2.0km az=60.0*

*CSEM **01** 20:14:03.8±0.3, 50°.06N×18°.44E, h2^{km}, ML2.8/6, Error ellipse: s-maj=7.0km s-min=3.8km az=7.0*

*NEIC **01** 20:14:04.9±0.7, 49°.96N×18°.44E, h5^{km}, MG2.5(WAR), Error ellipse: s-maj=10.5km s-min=7.3km az=185.0*

*WAR **01** 20:14:04.8, 50°.06N×18°.49E, ML2.4, Mining Induced*

*PRU **01** 20:14:05.3, 50°.05N×18°.40E, h0^{km}*

ISC 01 20:14:04.1±0.4**, 50°.07N**±0°.03×**18°.42E**±0°.03**, h0**^{km}**, n37, σ1^{s}.14**/68**, Poland**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
RAC	Raciborz	0.14	276	ePg	Pg	20 14 09.1	+2.3
RAC				eSg	Sg	20 14 12.8	+4.1
RAC	Raciborz	0.14	276	ePg	Pg	20 14 09.1	+2.3
RAC				eSg	Sg	20 14 12.8	+4.1
OKC	Ostrava-Krasne	0.29	217	ePG	Pg	20 14 11.1	+1.5
OKC				eSG	Sg	20 14 14.5	+1.1
	comp=Z,79nm,0.5s						
OKC	Ostrava-Krasne	0.29	217	ePg	Pg	20 14 11.0	+1.4
OKC				Sg	Sg	20 14 14.5	+1.1
	comp=Z,79nm,0.5s						
MORC	Moravsky Berou	0.64	243	ePg	Pg	20 14 16.6	+0.3
MORC				eSg	Sg	20 14 26.7	+2.2
MORC	Moravsky Berou	0.64	243	ePg	Pg	20 14 16.6	+0.3
MORC				eSg	Sg	20 14 26.7	+2.2
OJC	Ojcow	0.90	80	ePg	Pg	20 14 21.0	-0.4
OJC				eSg	Sg	20 14 32.8	-0.2
OJC	Ojcow	0.90	80	ePg	Pg	20 14 21.0	-0.4
OJC				eSg	Sg	20 14 32.8	-0.2
JAVC	Velka Javorina	1.30	202	ePn	Pn	20 14 29.8	+0.3
DPC	Dobruska-Polom	1.38	283	ePG	Pg	20 14 30.7	+0.3
DPC				eSG	Sg	20 14 49.1	+0.9
	comp=Z,40nm,0.6s						
DPC	Dobruska-Polom	1.38	283	Pg	Pg	20 14 30.7	+0.3
DPC				Sg	Sg	20 14 49.1	+0.9
	comp=Z,40nm,0.6s						
NIE	Niedzica	1.39	117	ePg	Pg	20 14 30.3	-0.4
NIE				eSg	Sg	20 14 48.7	-0.1
NIE	Niedzica	1.39	117	ePg	Pg	20 14 30.3	-0.4
NIE				eSg	Sg	20 14 48.7	-0.1
VRAC	Vranov	1.41	238	ePn	Pn	20 14 30.9	0.0
VRAC				eSg	Sg	20 14 50.3	+1.0
	comp=Z,17nm,0.3s						
KSP	Ksiaz	1.56	301	ePn	Pg	20 14 33.0	-1.0
KSP				eSn	Sg	20 14 55.3	+1.0
KSP	Ksiaz	1.56	301	ePg	Pg	20 14 33.0	-1.0
KSP				eSg	Sg	20 14 55.0	+0.7
VYHS	Vyhne	1.60	170	ePG	Pg	20 14 33.0	-1.7
VYHS				eSG	Sg	20 14 55.3	-0.1
VYHS	Vyhne	1.60	170	ePg	Pg	20 14 33.0	-1.7
VYHS				eSg	Sg	20 14 55.3	-0.1

UPC	Upice	1.60	287	*e*PG	Pg	20 14 34.2	-0.6
UPC				*e*SG	Sg	20 14 56.7	+1.1
UPC	Upice	1.60	287	Pg	Pg	20 14 34.2	-0.6
UPC				Sg	Sg	20 14 56.7	+1.1
KRUC	Moravsky	1.66	233	*e*Pn	Pn	20 14 33.7	-0.7
KRUC	Moravsky	1.66	233	*e*Pg	Pg	20 14 34.9	-0.9
KRUC				*e*Sg	Sg	20 14 57.3	0.0
	comp=Z,7.0nm,0.3s						
MODS	Modra-Piesok	1.85	204	*e*PG	Pg	20 14 36.8	-2.8
MODS	Modra-Piesok	1.85	204	*e*Pg	Pg	20 14 36.8	-2.8
STHS	Stebnicka Huta	1.95	109	*e*PN	Pn	20 14 40.5	+2.2
STHS				*e*SN	Sn	20 15 03.5	0.0
STHS	Stebnicka Huta	1.95	109	*e*Pn	Pn	20 14 40.6	+2.3
STHS				*e*Sn	Sn	20 15 03.5	0.0
STHS	Stebnicka Huta	1.95	109	*e*Pn	Pn	20 14 40.6	+2.3
STHS				*e*Sn	Sn	20 15 03.5	0.0
CRVS	Cervenica-Dubn	2.30	119	*e*PN	Pn	20 14 46.5	+3.2
CRVS				*e*SN	Sn	20 15 15.6	+3.3
CRVS	Cervenica-Dubn	2.30	119	*e*Pn	Pn	20 14 46.5	+3.2
CRVS				*e*Sn	Sn	20 15 15.6	+3.3
PRU	Pruhonice	2.50	270	*e*PG	Pg	20 14 50.6	-1.4
PRU				*e*SG	Sg	20 15 23.1	-1.3
	comp=Z,6.2nm,0.4s						
PRU	Pruhonice	2.50	270	Pg	Pg	20 14 50.6	-1.4
PRU				Sg	Sg	20 15 23.1	-1.3
	comp=Z,6.2nm,0.4s						
PVCC	Panska Ves	2.51	282	*e*SG	Sg	20 15 25.1	+0.4
PVCC	Panska Ves	2.51	282	Sg	Sg	20 15 25.1	+0.4
BRG	Berggiesshubel	2.97	287	PG	Pg	20 15 00.2	-0.8
BRG				SG	Sg	20 15 38.8	-0.6
	comp=Z,5.5nm,0.6s						
KHC	Kasperske Hory	3.29	255	*e*PN	Pn	20 14 57.1	+0.4
KHC				*e*PG	Pg	20 15 05.6	-1.4
KHC				*e*SN	Sn	20 15 35.0	-1.5
KHC				*e*SG	Sg	20 15 48.2	-1.4
	comp=Z,5.1nm,0.3s						
KHC	Kasperske Hory	3.29	255	Pn	Pn	20 14 57.1	+0.4
CLL	Collm	3.66	292	*e*Sg	Sg	20 16 02.0	+0.4

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*NIED **01** 20:25:00, 29°.00N×142°.20E, h17^{km}, Mw4.1 Best double couple: M$_0$1.59000×10^{15} NP1:ϕ$_s$141.00000°, δ84.00000°, λ-95.00000°. NP2:ϕ$_s$0.00000°, δ7.00000°, λ-52.00000°.*
*NEIC **01** 20:25:18.8±4.7, 28°.99N×142°.58E, h10^{km}±29^{km}, mb4.4/7, Error ellipse: s-maj=13.7km s-min=7.5km az=91.0*
*ISCJB **01** 20:25:19.5±1.6, 29°.10N±0°.03×142°.5E±0°.1, h25^{km}±12^{km}, mb4.2/20, Error ellipse: s-maj=16.7km s-min=4.6km az=171.9*
*MOS **01** 20:25:20.7±0.8, 29°.08N×142°.57E, h33^{km}, mb4.3/12, Error ellipse: s-maj=19.2km s-min=9.0km az=120.1*
*JMA **01** 20:25:21.4±0.1, 29°.03N×142°.21E, h95^{km}, M3.8*
*IDC **01** 20:25:22.6±5.8, 29°.01N×142°.50E, h30^{km}±42^{km}, mb3.7/11, mb1 3.8/14, mb1mx3.7/26, mbtmp3.7/14, ML3.6/2, MS3.1/1, Ms1 3.1/1, ms1mx2.4/39, Error ellipse: s-maj=27.0km s-min=13.5km az=83.0*
ISC 01 20:25:22.0±1.7**, 29°.06N**±0°.03×**142°.5E**±0°.1**, h28**^{km}±13^{km}**, n60, σ0^{s}75**/67**, mb4.2**/20**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	1.97	188	P	Pn	20 25 53.2	-0.4
CBIJ				*e*S	Sn	20 26 17.3	-0.1
CBIJ	Chichi jima	1.97	188	Pn	Pn	20 25 53.0	-0.5
	8.3nm,0.3s,baz=294,slow=20,SNR=4.3						
CBIJ				Sn	Sn	20 26 17.3	-0.1
	38nm,0.3s,baz=92,slow=23,SNR=11						
JHHJ	Haha-jima-NKT	2.43	186	P	Pn	20 25 59.4	-0.5
JHHJ				S	Sn	20 26 28.4	-0.4
JHJ2	Mitsune	4.64	331	P	Pn	20 26 29.1	-1.2
JHJ2				*e*S	Sn	20 27 22.5	-0.8
JHJ	Hachijo jima 2	4.67	331	Pn	Pn	20 26 30.9	+0.2
	4.1nm,0.3s,baz=66,slow=20,SNR=4.1						
JHJ				Sn	Sn	20 27 23.2	-0.6
	11nm,0.3s,baz=250,slow=21,SNR=6.1						
BSO3	Boso 3	5.97	344	P	Pn	20 26 48.3	-0.2
BSO4	Boso 4	6.19	343	P	Pn	20 26 52.0	+0.5
JOD2	Odawara 2	6.82	336	P	Pn	20 27 00.4	+0.1
JOD2				*e*S	Sn	20 28 16.1	-0.9
JHU	Hanno	7.29	339	P	Pn	20 27 07.6	+0.9
JRY	Ryogami san	7.57	337	P	Pn	20 27 11.2	+0.7
JHO	Hitachi	7.70	348	P	Pn	20 27 11.1	-1.2
JAG	Ashikaga	7.78	342	P	Pn	20 27 12.8	-0.5
MJAR	Matsushiro Arr	8.28	335	P	Pn	20 27 21.0	+0.7
MJAR						20 28 50.9	
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	8.28	335	Pn	Pn	20 27 21.0	+0.7
	comp=N,1.4nm,0.3s,baz=66,slow=19,SNR=13						
MJAR				Sn	Sn	20 28 50.9	-2.0
	comp=N,0.5nm,0.3s,baz=151,slow=16,SNR=3.4						
MAJO	Matsushiro	8.29	335	*e*P	Pn	20 27 19.7	-0.6
MAJO				pmax	pmax		
	comp=Z,12nm,0.7s						
MAJO	Matsushiro	8.29	335	*e*Pn	Pn	20 27 19.7	-0.6
	comp=Z,12nm,0.7s						
MAT	Matsushiro	8.29	335	P	Pn	20 27 21.1	+0.8
MAT				S	Sn	20 28 48.7	-4.3
KSRS	Korea Array	14.77	308	Pn	Pn	20 28 50.1	+1.1
	baz=122,slow=13,SNR=2.7						
KSRS				LR	LR	20 33 51.3	
	comp=Z,75nm,19.8s,baz=150,slow=34						
TGY	Tagaytay City	24.89	238	P	P	20 30 43.9	+1.2
	comp=Z,33nm,0.3s,mb5.4,baz=222,slow=5.9,SNR=3.2						
SONM	Songino Array	33.52	314	P	P	20 31 59.8	+0.8
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM	Songino Array	33.52	314	P	P	20 31 59.8	+0.8
	comp=Z,2.2nm,0.9s,mb4.1,baz=106,slow=7.5,SNR=18						
BOD	Bodaibo	34.91	334	*e*P	P	20 32 10.7	-0.3
ZAK	Zakamensk	36.34	317	*e*P	P	20 32 23.6	+0.2
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.1						
MOY	Mondy	38.14	318	*e*P	P	20 32 40.1	+1.5
CM31	Chiang Mai Arr	41.02	265	P	P	20 33 03.0	-0.1
CMAR	Chiang Mai Arr	41.02	265	P	P	20 33 03.0	-0.1
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	41.02	265	P	P	20 33 03.0	-0.1
	comp=Z,0.8nm,0.7s,mb3.5,baz=49,slow=8.5,SNR=9.1						
BILL	Bilibino	41.49	13	*e*P	sP	20 33 16.4	-1.6
BILL				pmax	pmax		
	comp=Z,2.0nm,1.5s,mb3.5						
KULM	Kulim	46.07	247	P	P	20 33 42.9	-0.8
	comp=Z,4.0nm,0.7s,mb4.5						
ZALV	Zalesovo Beam	48.20	318	P	P	20 34 00.5	+0.6
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
ZALV	Zalesovo Beam	48.20	318	P	P	20 34 00.5	+0.6
	comp=Z,0.5nm,0.3s,mb4.0,baz=113,slow=5.3,SNR=6.3						
NVS	Novosibirsk	49.23	319	*e*P	P	20 34 08.5	+0.8
WRAB	Tennant Creek	49.33	190	*e*P	P	20 34 05.8	-3.1
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
WRAB	Tennant Creek	49.33	190	*e*P	P	20 34 05.8	-3.1
	comp=Z,3.5nm,0.8s,mb4.4						
WB2	Warramunga Arr	49.34	190	*e*P	P	20 34 08.4	-0.5
WRA	Warramunga Arr	49.34	190	P	P	20 34 08.5	-0.4
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA	Warramunga Arr	49.34	190	P	P	20 34 08.5	-0.5
	comp=Z,2.5nm,0.7s,mb4.4,baz=11,slow=8.2,SNR=26						
MK31	Makanchi Array	49.45	308	*e*P	P	20 34 09.3	-0.3
MKAR	Makanchi Array	49.45	308	P	P	20 34 09.9	+0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	49.45	308	P	P	20 34 09.9	+0.3
	comp=Z,1.1nm,0.6s,mb4.0,baz=90,slow=9.7,SNR=14						
FITZ	Fitzroy Crossi	49.63	201	*e*P	P	20 34 11.1	-0.1
	comp=Z,5.5nm,1.3s,mb4.4						
KURK	Kurchatov	51.82	313	*e*P	P	20 34 27.5	+0.1
KURK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
KURK	Kurchatov	51.82	313	*e*P	P	20 34 27.5	+0.1
	comp=Z,12nm,1.0s,mb4.8						
ASAR	Alice Springs	53.06	190	P	P	20 34 36.3	-0.5
	comp=Z,0.2nm,0.5s,mb3.3,baz=7.5,slow=7.0,SNR=5.5						
AML	Almayashu	56.05	303	*e*P	P	20 34 59.3	+0.9
	comp=Z,2.5nm,0.6s,mb4.4						
BVAR	Borovoye Array	56.79	317	P	P	20 35 04.3	+0.8
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BVAR	Borovoye Array	56.79	317	P	P	20 35 04.3	+0.8
	comp=Z,1.9nm,0.6s,mb4.3,baz=91,slow=8.2,SNR=17						
BRVK	Borovoye	56.85	317	*e*P	P	20 35 04.1	+0.1
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
BRVK	Borovoye	56.85	317	*e*P	P	20 35 04.1	+0.1
	comp=Z,3.1nm,0.8s,mb4.4						
INK	Inuvik	61.14	25	P	P	20 35 33.3	-0.2
INK				pmax	pmax		
	comp=Z,4.0nm,1.2s						
INK	Inuvik	61.14	25	P	P	20 35 34.8	+1.3
	comp=Z,0.8nm,0.8s,mb3.9,baz=342,slow=6.4,SNR=2.6						
INK	Inuvik	61.14	25	P	P	20 35 33.3	-0.2
	comp=Z,3.7nm,1.2s,mb4.4						
AKTK	Aktyubinsk	64.82	315	P	P	20 35 58.6	+0.4
AKTO	Aktyubinsk	64.82	315	P	P	20 35 58.6	+0.4
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
AKTO	Aktyubinsk	64.82	315	P	P	20 35 58.6	+0.4
	comp=Z,2.0nm,0.7s,mb4.3,baz=81,slow=14,SNR=8.4						
RES	Resolute Bay	70.10	14	P	P	20 36 31.0	-0.2
YKA	Yellowknife Ar	70.30	29	P	P	20 36 32.7	+0.2
	comp=Z,0.4nm,0.6s,mb3.5,baz=295,slow=6.6,SNR=5.6						
YKA	Yellowknife Ar	70.30	29	P	P	20 36 32.7	+0.2
BRTR	Keskin Array B	84.87	313	P	P	20 37 54.7	+0.4
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	84.87	313	P	P	20 37 54.7	+0.4
	comp=Z,0.5nm,0.7s,mb3.8,baz=101,slow=3.9,SNR=3.6						

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*BJI **01** 20:26:58.1, 21°.93N×143°.85E, h111^{km}, mB4.9/5, mb4.6/13*
*MOS **01** 20:27:03.6±0.9, 22°.54N×143°.29E, h112^{km}, mb4.6/19, Error ellipse: s-maj=14.0km s-min=6.8km az=112.5*
*ISCJB **01** 20:27:03.5±0.3, 22°.53N±0°.03×143°.43E±0°.06, h114^{km}, mb4.5/66, Error ellipse: s-maj=7.3km s-min=4.4km az=178.0*
*NEIC **01** 20:27:04.8±0.2, 22°.55N×143°.44E, mb4.6/26, Error ellipse: s-maj=7.4km s-min=5.9km az=96.0*
*IDC **01** 20:27:05.6±0.6, 22°.54N×143°.39E, h119^{km}±5^{km}, mb4.0/20, mb1 4.2/23, mb1mx4.1/28, mbtmp4.1/23, MS3.2/2, Ms1 3.2/2, ms1mx2.5/45, Error ellipse: s-maj=13.8km s-min=8.3km az=82.0*
*JMA **01** 20:27:08.4±0.1, 23°.03N×144°.02E, h157^{km}, M5.3*
ISC 01 20:27:05.5±0.3**, 22°.57N**±0°.03×**143°.45E**±0°.05**, h116**^{km}**, h116**^{km}±2.3^{km}**:pP-P, n153, σ0^{s}95**/160**, mb4.5**/66**, 1C-1D, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	Haha-jima-NKT	4.20	344	P	Pn	20 28 09.1	+1.4
JHHJ				*e*S	Sn	20 28 55.8	-0.1
CBIJ	Chichi jima	4.65	346	P	Pn	20 28 14.2	+0.5
CBIJ				*e*S	Sn	20 29 05.7	-0.9
CBIJ	Chichi jima	4.65	346	P	Pn	20 28 14.3	+0.7
	189nm,0.3s,baz=257,slow=19,SNR=29						
CBIJ				S	Sn	20 29 06.1	-0.5
	360nm,0.3s,baz=277,slow=21,SNR=8.6						
GUMO	Guam	9.03	171	LR	LR	20 31 38.2	
	comp=Z,91nm,20.4s,baz=14,slow=30						
JHJ	Hachijo jima 2	11.00	344	P	Pn	20 29 38.5	-0.9
	32nm,0.3s,baz=241,slow=18,SNR=9.5						
JHJ				S	Sn	20 31 34.5	-6.0
	8.0nm,0.3s,baz=90,slow=20,SNR=2.5						
BSO1	Boso 1	12.23	350	P	Pn	20 29 56.0	+0.3
BSO3	Boso 3	12.46	349	P	Pn	20 29 59.2	+0.5
BSO4	Boso 4	12.67	348	P	Pn	20 30 01.5	0.0
JWZ	Kozaga	12.87	330	P	Pn	20 30 04.4	+0.3
JOD2	Odawara 2	13.21	344	P	Pn	20 30 07.3	-1.2
JOD2				*e*S	Sn	20 32 28.7	-5.2
JKN2	Miekihoku	13.22	333	P	Pn	20 30 09.4	+0.7
HMMJ	Hamamatsu 2	13.23	339	P	Pn	20 30 08.6	-0.2
JHU	Hanno	13.72	346	P	Pn	20 30 12.3	-2.8
JHU				*e*S	Sn	20 32 38.2	-8.2
JYT	Yasato	13.90	349	P	Pn	20 30 15.3	-2.1
JYT				*e*S	Sn	20 32 42.7	-8.0
JOW	Kunigami	14.43	290	P	Pn	20 30 29.9	+5.7
	1.7nm,0.3s,baz=98,slow=15,SNR=4.5						
JOW				LR	LR	20 34 28.5	
	comp=Z,150nm,21.2s,baz=97,slow=31						
MJAR	Matsushiro Arr	14.65	343	P	Pn	20 30 25.6	-1.3
	2.3nm,0.3s,baz=158,slow=12,SNR=12						
MAJO	Matsushiro	14.65	343	*e*P	Pn	20 30 26.0	-1.0
MAJO				*e*		20 32 56.7	
MAJO				pmax	pmax		
	comp=Z,11nm,0.4s						
MAJO	Matsushiro	14.65	343	*e*Pn	Pn	20 30 26.0	-0.9
	comp=Z,11nm,0.4s						
MAJO				*e*Sn	Sn	20 32 56.7	-12
MAT	Matsushiro	14.65	343	P	Pn	20 30 25.0	-2.0
MAT				*e*S	Sn	20 33 01.0	-7.7
KSRS	Korea Array	19.98	321	P	P	20 31 32.6	+4.0
	comp=Z,2.5nm,0.3s,baz=144,slow=9.0,SNR=62						
KSRS				ScP	ScP	20 39 03.5	-2.5
	comp=Z,0.1nm,0.3s,baz=169,slow=2.6,SNR=4.5						
NACB	Ninganchiao	20.13	279	*e*P	P	20 31 30.6	+0.1
TATO	Taipei	20.24	281	P	P	20 31 26.7	-4.9
YHNB	Yeheng	20.33	280	*e*P	P	20 31 32.8	+0.2
	comp=Z,47nm,0.8s						
SSLB	Suanglung	20.72	278	*e*P	P	20 31 38.7	+1.9
	comp=Z,86nm,0.7s						
ASAJ	Asahikawa	21.50	358	P	P	20 31 49.8	+4.9
	comp=Z,6.9nm,0.9s,mb4.0,baz=215,slow=18,SNR=2.7						
TGY	Tagaytay City	22.95	252	P	P	20 32 01.0	+1.0
	comp=Z,71nm,0.4s,mb5.3,baz=110,slow=9.4,SNR=4.3						
HABR	Khabarovsk	26.70	348	*e*P	P	20 32 33.9	+0.2
HABR				*e*		20 33 14.7	
HABR				*e*		20 35 54.9	
HABR				S	S	20 37 07.6	+7.1
HABR				MLR	MLR		
	comp=Z,48nm,17.0s						
KKM	Kota Kinabalu	30.99	242	*e*P	P	20 33 12.2	0.0
	comp=Z,16nm,0.8s,mb4.8						
XAN	Xi’an	32.33	298	P	P	20 33 22.8	-0.9
XAN				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.8						
PETK	Petropavlovsk-	32.37	16	P	P	20 33 22.0	-1.8
	comp=Z,4.4nm,0.9s,mb4.2,baz=156,slow=9.0,SNR=3.4						
HIA	Hailar	32.57	331	P	P	20 33 25.7	+0.1
HIA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HIA	Hailar	32.57	331	P	P	20 33 25.7	+0.1
	comp=Z,3.1nm,0.6s,mb4.3						
COEN	Coen	36.30	180	*e*P	P	20 33 58.8	+0.8
SONM	Songino Array	38.83	320	P	P	20 34 19.6	+0.6
	comp=Z,2.1nm,0.5s,mb4.3,baz=122,slow=8.3,SNR=22						
GTA	Gaotai	40.58	305	*e*P	P	20 34 34.3	+0.7
GTA				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.0						
SEY	Seymchan	40.79	6	*i* P	P	20 34 36.4	+1.3
CMAR	Chiang Mai Arr	41.77	273	P	P	20 34 44.2	+0.5
	comp=Z,2.9nm,0.7s,mb4.1,baz=63,slow=7.4,SNR=24						
CMAR				ScP	ScP	20 40 14.8	-2.8
	comp=Z,0.3nm,0.4s,baz=78,slow=3.0,SNR=3.1						
ZAK	Zakamensk	41.81	322	*e*P	P	20 34 43.9	+0.3
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.0						
TLY	Talaya	42.21	324	*e*P	P	20 34 46.7	-0.1
TLY				*e*	pP	20 35 13.2	0.0
TLY				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
TLY	Talaya	42.21	324	*e*P	P	20 34 46.7	-0.1
	comp=Z,2.8nm,0.9s,mb4.0						
TLY				*e*	pP	20 35 13.2	0.0
CTA	Charters Tower	42.49	176	*e*P	P	20 34 49.6	+0.3
	comp=Z,5.6nm,0.9s,mb4.3						
CTA	Charters Tower	42.49	176	P	P	20 34 49.5	+0.2
	comp=Z,5.5nm,0.7s,mb4.4,baz=351,slow=11,SNR=8.2						
CTAO	Charters Tower	42.49	176	*e*P	P	20 34 49.1	-0.2
CTAO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
CTAO	Charters Tower	42.49	176	*e*P	P	20 34 49.1	-0.2
	comp=Z,10nm,0.9s,mb4.6						
WRAB	Tennant Creek	43.17	193	*e*P	P	20 34 53.6	-1.2
WRAB				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.6						
WRAB	Tennant Creek	43.17	193	*e*P	P	20 34 53.6	-1.2
	comp=Z,4.8nm,0.4s,mb4.6						
WB2	Warramunga Arr	43.18	193	*e*P	P	20 34 53.4	-1.5
WRA	Warramunga Arr	43.18	193	P	P	20 34 54.4	-0.5
	comp=Z,2.5nm,0.4s,mb4.3,baz=17,slow=9.0,SNR=19						
WRA				ScP	ScP	20 40 20.8	-2.3
	comp=Z,3.0nm,0.8s,baz=6.2,slow=4.2,SNR=13						
WRA				S	S	20 41 08.7	-4.3
	comp=Z,0.7nm,0.9s,baz=18,slow=15,SNR=3.0						
FITZ	Fitzroy Crossi	44.02	205	*e*P	P	20 35 01.2	-0.5
	comp=Z,4.3nm,0.4s,mb4.5						
FITZ	Fitzroy Crossi	44.02	205	*e*P	P	20 35 00.5	-1.1
KULM	Kulim	44.74	254	*e*P	P	20 35 08.1	+0.5
ASAR	Alice Springs	46.89	192	P	P	20 35 23.8	-0.4
ASAR						20 36 55.0	
ASAR				S	S	20 42 01.6	-4.8
ASAR	Alice Springs	46.89	192	P	P	20 35 23.8	-0.5
	comp=Z,2.2nm,0.5s,mb4.1,baz=16,slow=13,SNR=36						
ASAR				PcP	PcP	20 36 55.0	-0.3
	comp=Z,0.4nm,0.6s,baz=19,slow=4.6,SNR=4.7						
ASAR				ScP	ScP	20 40 36.5	-1.8
	comp=Z,0.8nm,0.7s,baz=15,slow=3.8,SNR=6.1						
ASAR				S	S	20 42 01.6	-4.8
	comp=Z,0.8nm,0.8s,baz=20,slow=22,SNR=6.2						
LSA	Lhasa	47.16	290	*e*P	P	20 35 28.0	+1.5
LSA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
LSA	Lhasa	47.16	290	*e*P	P	20 35 28.0	+1.5
	comp=Z,5.8nm,0.6s,mb4.5						
BILL	Bilibino	47.62	11	*e*P	P	20 35 31.1	+1.7
BILL				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb4.0						
EIDS	Eidsvold	48.23	171	*e*P	P	20 35 33.7	-0.8
MBWA	Marble Bar	49.24	210	*e*P	P	20 35 41.2	-1.1
	comp=Z,15nm,1.3s,mb4.8						
TIXI	Tiksi	49.81	354	*e*P	P	20 35 51.3	+5.2
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
TAPN	Taplejung	50.41	287	*e*P	P	20 35 52.0	+0.6
	comp=Z,18nm,0.4s,mb5.3						
ODAN	Odare	50.76	287	*e*P	P	20 35 54.3	+0.3
	comp=Z,16nm,0.4s,mb5.4						
RAMN	Ramite	51.45	287	*e*P	P	20 35 59.0	-0.1
JIRN	Jiri	51.71	288	*e*P	P	20 36 01.9	+0.9
	comp=Z,7.9nm,0.2s,mb5.4						
PKI	Pulchoki	52.41	288	*e*P	P	20 36 05.8	-0.4
KKN	Kakani	52.49	288	*e*P	P	20 36 07.0	+0.2
DMN	Daman	52.67	288	*e*P	P	20 36 08.3	+0.2
GKN	Gorkha	53.02	289	*e*P	P	20 36 10.9	+0.2
	comp=Z,10nm,0.3s,mb5.3						
ZAA0	Zalesovo Array	53.69	321	*e*P	P	20 36 13.8	-1.4
ZAA0				*e*PcP	PcP	20 37 18.0	-1.8
ZALV	Zalesovo Beam	53.69	321	P	P	20 36 14.7	-0.4
	comp=Z,7.7nm,0.5s,mb5.0,baz=110,slow=7.6,SNR=17						
ZALV				PcP	PcP	20 37 18.9	-1.0
	comp=Z,2.2nm,0.5s,baz=109,slow=4.5,SNR=4.7						
DANN	Dangsing	53.74	289	*e*P	P	20 36 16.8	+0.8
KOLN	Koldanda	53.97	289	*e*P	P	20 36 17.9	+0.3
STKA	Stephens Creek	54.17	182	*e*P	P	20 36 18.2	-0.6
	comp=Z,1.3nm,0.4s,mb4.3						
STKA	Stephens Creek	54.17	182	P	P	20 36 18.3	-0.5
	comp=Z,1.6nm,0.4s,mb4.4,baz=352,slow=9.2,SNR=11						
STKA	Stephens Creek	54.17	182	*e*P	P	20 36 17.1	-1.7
MK31	Makanchi Array	54.29	312	*e*P	P	20 36 20.0	+0.3
MKAR	Makanchi Array	54.29	312	P	P	20 36 20.2	+0.5
	comp=Z,11nm,0.5s,mb5.1,baz=87,slow=9.2,SNR=125						
MKAR				ScP	ScP	20 41 08.4	-1.5
	comp=Z,0.8nm,0.9s,baz=90,slow=5.8,SNR=3.7						
MKAR				S	S	20 43 47.8	-0.7
	comp=Z,0.8nm,0.9s,baz=94,slow=16,SNR=6.7						
PYUN	Piuthan	54.45	289	*e*P	P	20 36 21.3	+0.2
	comp=Z,16nm,0.4s,mb5.5						
NVS	Novosibirsk	54.77	322	*e*P	P	20 36 22.3	-0.7
KURK	Kurchatov	57.01	317	P	P	20 36 38.7	-0.3
KURK				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
KURK	Kurchatov	57.01	317	*e*P	P	20 36 38.6	-0.4
	comp=Z,15nm,0.8s,mb5.1						
KDAK	Kodiak Island	57.34	35	P	P	20 36 42.0	+0.8
	comp=Z,3.0nm,0.5s,mb4.6,baz=297,slow=8.8,SNR=7.5						
TKM2	Tokmak 2	59.01	307	*e*P	P	20 36 54.1	+1.0
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
TKM2	Tokmak 2	59.01	307	P	P	20 36 54.5	+1.4
	SNR=7.6						
TKM2	Tokmak 2	59.01	307	*e*P	P	20 36 54.1	+1.0
	comp=Z,5.2nm,0.5s,mb4.8						
KZA	Kyzart	59.31	307	P	P	20 36 57.5	+2.3
	SNR=7.2						
KBK	Karagaybulak	59.50	307	P	P	20 36 57.7	+1.2
	SNR=5.2						
PMR	Palmer	59.67	31	*e*P	P	20 36 56.6	-0.7
PMR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
PMR	Palmer	59.67	31	*e*P	P	20 36 56.6	-0.7
	comp=Z,8.5nm,1.0s,mb4.7						
USP	Ospenovka	59.79	308	P	P	20 36 59.1	+0.6
	SNR=5.0						
AAK	Ala-Archa	59.84	307	*e*P	P	20 36 58.8	0.0
AAK				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.8						
AAK	Ala-Archa	59.84	307	P	P	20 36 59.7	+0.9
	SNR=5.5						
AAK	Ala-Archa	59.84	307	*e*P	P	20 36 58.8	0.0
	comp=Z,3.5nm,0.4s,mb4.7						
UCH	Uchtor	59.85	307	*e*P	P	20 37 00.7	+1.8
	comp=Z,2.8nm,0.6s,mb4.5						
MCK	McKinley	60.11	28	P	P	20 37 00.4	+0.1
MCK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
MCK	McKinley	60.11	28	P	P	20 37 00.4	+0.1
	comp=Z,5.4nm,0.9s,mb4.6						
EKS2	Erkin-Say	60.36	307	*e*P	P	20 37 02.1	-0.2
	comp=Z,4.2nm,0.9s,mb4.5						
AML	Almayashu	60.47	307	P	P	20 37 04.8	+1.7
	SNR=7.0						
AML	Almayashu	60.47	307	*e*P	P	20 37 04.2	+1.1
	comp=Z,4.5nm,0.7s,mb4.6						
AML				*e*pP	pP	20 37 30.5	-0.7
VOSK	Vostochnaya	61.82	319	P	P	20 37 11.5	-0.5
VOSK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
PALK	Pallekele	62.10	266	*e*P	P	20 37 12.6	-2.0
PALK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
PALK	Pallekele	62.10	266	*e*P	P	20 37 12.6	-1.9
	comp=Z,10nm,1.0s,mb4.8						
BVA0	Borovoye Array	62.17	319	*i* P	P	20 37 14.6	+0.2
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
BVAR	Borovoye Array	62.17	319	P	P	20 37 14.7	+0.3
	comp=Z,9.1nm,0.4s,mb5.2,baz=97,slow=8.4,SNR=94						
BVAR				pP	pP	20 37 41.6	-1.0
	comp=Z,8.1nm,0.6s,baz=91,slow=7.9,SNR=4.9						
BRVK	Borovoye	62.24	319	*e*P	P	20 37 14.8	0.0
BRVK				*e**PP	pP	20 37 42.5	-0.5
BRVK				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
BRVK	Borovoye	62.24	319	*e*P	P	20 37 14.8	0.0
	comp=Z,15nm,1.0s,mb5.0						
BRVK				*e*pP	pP	20 37 42.5	-0.6
KK31	Karatay Array	62.71	308	P	P	20 37 18.3	+0.1
KK31				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
KBL	Kabul	65.14	299	*e*P	P	20 37 34.1	-0.1
KBL				*e**PP	pP	20 38 00.6	-2.1
KBL				*e**SP	sP	20 38 18.7	+3.4
KBL				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
KBL	Kabul	65.14	299	*e*P	P	20 37 34.1	-0.1
	comp=Z,18nm,0.8s,mb5.0						
KBL				*e*pP	pP	20 38 00.6	-2.1
KBL				*e*sP	sP	20 38 18.7	+3.4
INK	Inuvik	66.67	24	P	P	20 37 43.7	+0.2
	comp=Z,1.5nm,0.5s,mb4.1,baz=286,slow=9.0,SNR=5.0						
INK	Inuvik	66.67	24	P	P	20 37 43.7	+0.2
ARU	Arti	68.71	324	*e*P	P	20 37 55.7	-0.7
ARU				*e**PP	pP	20 38 23.7	-1.4
ARU				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.7						
ARU	Arti	68.71	324	*e*P	P	20 37 55.7	-0.7
	comp=Z,5.1nm,0.4s,mb4.7						
ARU				*e*pP	pP	20 38 23.7	-1.5
DLBC	Dease Lake	69.26	34	P	P	20 38 01.4	+1.6
AKTK	Aktyubinsk	70.10	317	P	P	20 38 04.5	-0.6
AKTO	Aktyubinsk	70.10	317	P	P	20 38 04.5	-0.6
	comp=Z,1.7nm,0.6s,mb4.1,baz=88,slow=7.7,SNR=5.3						
YKA	Yellowknife Ar	75.57	28	P	P	20 38 37.5	+0.3
	comp=Z,2.2nm,0.4s,mb4.2,baz=292,slow=5.9,SNR=24						
YKA				pP	pP	20 39 07.4	+1.1
	comp=Z,0.6nm,0.5s,baz=293,slow=6.0,SNR=2.6						
YKA	Yellowknife Ar	75.57	28	P	P	20 38 37.5	+0.3
YKA				pP	pP	20 39 07.5	+1.1

RES	Resolute Bay	76.17	13	*e*P	P	20 38 40.2	-0.2
RES				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.9						
RES	Resolute Bay	76.17	13	*e*P	P	20 38 40.2	-0.2
	comp=Z,2.2nm,0.9s,mb3.9						
KEV	Kevo	77.61	341	*e*p	P	20 38 47.3	-1.2
ARCES	ARCESS Array B	78.18	341	P	P	20 38 52.1	+0.4
	comp=Z,2.5nm,0.7s,mb4.1,baz=70,slow=7.7,SNR=14						
JOF	Joensuu	79.64	334	*e*p	P	20 38 58.2	-1.5
	comp=Z,2.7nm,0.4s,mb4.4						
OBN	Obninsk	80.90	326	*i* P	P	20 39 06.5	-0.2
OBN				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.3						
CMB	Columbia Colle	81.04	53	*e*P	P	20 39 08.7	+0.9
CMB				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
CMB	Columbia Colle	81.04	53	*e*P	P	20 39 08.7	+1.0
	comp=Z,3.6nm,0.6s,mb4.4						
WALA	Waterton Lakes	81.12	41	P	P	20 39 09.2	+1.3
	comp=Z,0.3nm,1.4s						
VSR	Storozhevoye	81.18	322⇓	*e*P	P	20 39 07.9	-0.3
KIV	Kislovodsk	81.99	314	*i* P	P	20 39 14.3	+1.6
KIV				*e*	pP	20 39 44.5	+2.2
KIV				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
KIV	Kislovodsk	81.99	314	P	P	20 39 14.1	+1.5
	comp=Z,5.1nm,0.8s,mb4.4						
NVAR	Mina Array Bea	82.41	52	P	P	20 39 16.5	+1.5
	comp=Z,2.8nm,0.8s,mb4.2,baz=276,slow=4.9,SNR=16						
NVAR				pP	pP	20 39 44.9	+0.3
	comp=Z,1.5nm,0.8s,baz=259,slow=6.1,SNR=3.5						
HLID	Hailey	83.06	46	P	P	20 39 18.9	+0.7
QRN	Al-Qurain	84.01	298	*e*P	P	20 39 22.9	-0.5
QRN				AMb	AMB	20 39 23.9	
	comp=Z,117nm,1.3s,mb5.5						
KBD	Kabd	84.03	299	*e*P	P	20 39 23.2	-0.3
KBD				AMb	AMB	20 39 27.4	
	comp=Z,35nm,1.5s,mb5.0						
RDF	Al-Radifah	84.24	299	*e*P	P	20 39 24.1	-0.4
RDF				AMb	AMB	20 39 29.2	
	comp=Z,79nm,1.6s,mb5.3						
NAY	Al-Naaiem	84.37	299	*e*P	P	20 39 24.7	-0.4
NAY				AMb	AMB	20 39 25.4	
	comp=Z,36nm,0.8s,mb5.2						
FFC	Flin Flon	84.96	32⇑	*e*P	P	20 39 29.3	+1.7
ANN	Anapa	85.04	317	*e*P	P	20 39 28.3	+0.1
ANN				*e*		20 42 45.1	
ANN				*e*S	S	20 49 48.0	0.0
ANN				*e*SS	SS	20 55 21.1	-1.8
ANN				*e*SSS		20 58 52.0	
ANN				pmax	pmax		
	comp=Z,77nm,1.2s,mb5.5						
DUG	Dugway	85.57	48	*e*P	P	20 39 31.8	+0.8
DUG				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
DUG	Dugway	85.57	48	*e*P	P	20 39 31.8	+0.8
	comp=Z,4.0nm,0.6s,mb4.5						
PFO	Pinyon Flat Ob	85.70	55	*i* P	P	20 39 35.3	+3.6
PDAR	Pinedale Array	86.60	45	P	P	20 39 34.8	-1.2
	comp=Z,0.4nm,0.6s,mb3.5,baz=298,slow=1.9,SNR=3.9						
AKASG	Malin Array Be	86.94	324	P	P	20 39 35.8	-1.7
	comp=Z,0.6nm,0.3s,mb4.0,baz=52,slow=4.9,SNR=3.6						
MALT	Malatya	87.30	310	*e*P	P	20 39 38.7	-0.7
MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
MALT	Malatya	87.30	310	*e*P	P	20 39 38.7	-0.7
	comp=Z,2.0nm,0.8s,mb4.1						
NOA	NORSAR Array B	88.22	339	P	P	20 39 41.5	-1.9
	comp=Z,0.5nm,0.6s,mb3.7,baz=56,slow=6.4,SNR=2.8						
NOA				pP	pP	20 40 15.2	+1.8
	comp=Z,3.0nm,1.2s,baz=52,slow=4.2,SNR=1.9						
BRTR	Keskin Array B	89.92	313	P	P	20 39 50.8	-1.0
	comp=Z,1.1nm,0.7s,mb4.1,baz=100,slow=4.1,SNR=5.1						
BRTR				pP	pP	20 40 22.0	+0.2
	comp=Z,1.7nm,0.8s,baz=82,slow=3.1,SNR=4.0						
CLL	Collm	94.55	331	*e*P	P	20 40 13.0	+0.1
TORD	Torodi Ar. Bea	128.38	310	PKP	PKPdf	20 45 58.0	-1.3
	comp=Z,0.2nm,0.4s,baz=76,slow=0.1,SNR=5.1						
VNA2	Neumayer--Watz	128.74	192	*e*PKPdf	PKPdf	20 46 00.2	+1.9
VNA3	Neumayer Olymp	128.89	191	*e*PKPdf	PKPdf	20 45 59.5	+0.9
PLCA	Paso Flores	146.14	130	PKPbc	PKPbc	20 46 33.0	+0.7
	comp=Z,4.7nm,0.5s,baz=238,slow=4.4,SNR=23						
PLCA	Paso Flores	146.14	130	*e*PKPdf	PKPdf	20 46 32.3	+1.2
PLCA				PKPbc	PKPbc	20 46 33.0	+0.7
LVC	Limon Verde	150.15	96	*e*PKPbc	PKPbc	20 46 44.1	+0.8

ISCJB ***01*** *20:38:25.0±0.8, 24°.90N±0°.04×122°.92E±0°.02, h7^{km}±5^{km}, mb3.8/9, Error ellipse: s-maj=6.2km s-min=2.8km az=10.5*

NEIC ***01*** *20:38:24.3±3.9, 24°.86N×122°.92E, h1^{km}±22^{km}, mb4.1/4, Error ellipse: s-maj=21.7km s-min=11.8km az=80.0*

IDC ***01*** *20:38:25.1±1.9, 24°.74N×122°.72E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/21, mbtmp3.7/5, MS2.9/2, Ms1 2.9/2, ms1mx2.3/33, Error ellipse: s-maj=150.4km s-min=19.3km az=65.0*

JMA ***01*** *20:38:26.4±0.3, 24°.83N×122°.91E, h18^{km}, M3.0*

TAP ***01*** *20:38:27.3, 24°.77N×122°.79E, h2^{km}, ML3.6, D*

ISC 01 20:38:25.2±0.5, **24°.88N**±0°.04×**122°.91E**±0°.02, **h2**^{km}±3^{km}, **n64,** σ**1^{s}07**/80, **mb3.8**/9, **3C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.43	168	P	Pg	20 38 34.1	+0.7
YOJ				S	Sg	20 38 39.3	+0.3
YOJ	Yonaguni jima	0.43	168⇑	*i*P	Pg	20 38 34.1	+0.7
	baz=147						
YOJ				*e*S	Sg	20 38 39.1	+0.1
	baz=147						
TWB1	Santiao Chiao	0.85	279	P	Pg	20 38 42.2	+0.7
	baz=288						
TWB1				*e*S	Sg	20 38 53.1	+0.6
	baz=288						
IRIF	Iriomote-Funau	0.92	126	P	Pg	20 38 42.8	-0.1
IRIF				S	Sg	20 38 56.3	+1.4
TWC	Suao	1.00	254⇑	*i*P	Pg	20 38 44.2	-0.3
	baz=259						
TWC				S	Sg	20 38 56.1	-1.3
	baz=259						
NWF	Wu-fen Shan	1.04	281	*e*P	Pg	20 38 45.7	+0.5
	baz=288						
ILA	Ilan	1.06	264	*e*P	Pg	20 38 45.7	+0.1
	baz=269						
TWE	Neicheng	1.14	262	*i* P	Pg	20 38 46.6	-0.5
	baz=267						
TWE				*e*S	Sg	20 39 02.9	+1.0
	baz=267						
HATJ	Hateruma jima	1.16	135	P	Pg	20 38 47.0	-0.4
HATJ				S	Sg	20 39 02.9	+0.5
ENA	Nanau	1.16	247⇑	*i*P	Pg	20 38 46.7	-0.7
	baz=250						
ENA				*e*S	Sg	20 39 00.9	-1.6
	baz=250						
JKRS	Kuro-shima	1.19	123	P	Pg	20 38 47.2	-0.8
JKRS				S	Sg	20 39 03.9	+0.5
TWA	Mucha	1.21	275	*e*P	Pg	20 38 47.7	-0.7
	baz=280						
JIJ	Ishigaki jima	1.23	115	P	Pg	20 38 47.6	-1.2
JIJ				S	Sg	20 39 04.6	-0.2
ENTT	Nioudou	1.25	259	*i* P	Pg	20 38 48.4	-0.7
	baz=263						
ENTT				*e*S	Sg	20 39 05.5	+0.2
	baz=263						
TATO	Taipei	1.30	274	*e*Pg	Pg	20 38 49.2	-0.9
TWS1	Kuangyinshan	1.37	279	*e*P	Pn	20 38 50.8	-0.5
	baz=284						
NACB	Ninganchiao	1.39	240	*e*Pn	Pn	20 38 50.6	-1.0
NACB				*e*Sn	Sn	20 39 08.8	-1.8
YHNB	Yeheng	1.41	262	*e*Pn	Pn	20 38 51.2	-0.7
YHNB				*e*Sn	Sn	20 39 10.1	-1.0
NSK	Sanguang	1.43	262	P	Pn	20 38 51.5	-0.5
	baz=265						
TWD	Chiawan	1.44	237	*e*P	Pn	20 38 51.9	-0.4
	baz=237						
NNS	Nan Shan	1.47	253	P	Pn	20 38 52.3	-0.3
	baz=255						
NNS				*e*S	Sb	20 39 11.7	-0.5
	baz=255						
JTJ	Tarama	1.65	98	P	Pn	20 38 55.0	-0.1
JTJ				S	Sn	20 39 14.9	-1.9
TWT	Tachien	1.70	249	*e*P	Pn	20 38 56.8	+0.9
	baz=251						
TWT				*e*S	Sn	20 39 18.6	+0.4
	baz=251						
ESL	Shilin	1.72	232	P	Pn	20 38 54.9	-1.2
	baz=232						
NSTT	Nanjuang	1.76	262	*e*P	Pn	20 38 56.4	-0.2
	baz=265						
EHY	Hungye	2.00	227	*e*P	Pn	20 38 58.9	-1.0
	baz=226						
NSY	Sanyi	2.01	257	*e*P	Pn	20 39 02.5	+2.4
	baz=259						
TWQ1	Liyutan	2.02	255	*e*P	Pn	20 39 02.7	+2.5
	baz=257						
SMLT	Sun Moon Lake	2.09	242	*e*P	Pn	20 39 01.9	+0.8
	baz=242						
SSLB	Suanglung	2.09	239	*e*Pn	Pn	20 39 01.1	-0.2
YULB	Yu-li	2.09	225	*e*Pn	Pn	20 38 59.5	-1.7
TYC	Yuchr	2.11	243	*e*P	Pn	20 39 02.3	+0.8
	baz=244						
TWF1	Yuli	2.12	224	*e*P	Pn	20 39 00.5	-1.1
	baz=224						
TCU	Taichung	2.17	251	*e*P	Pn	20 39 05.5	+3.3
	baz=252						
WNT	Mingjian	2.27	244	*e*P	Pn	20 39 05.4	+1.8
	baz=245						
YUS	Yu-Shan	2.27	233	*e*P	Pn	20 39 03.8	+0.2
	baz=232						
CHKT	Chengkung	2.27	219	*e*P	Pn	20 39 03.9	+0.2
	baz=218						
ALS	Alishan	2.36	235	*e*P	Pn	20 39 05.8	+0.9
	baz=235						
CHN5	Tsauling	2.41	238	*e*P	Pn	20 39 06.5	+0.9
	baz=238						
ELDTW	Lidau	2.42	226	*e*P	Pn	20 39 04.8	-0.9
	baz=225						
CHN4	Tsaushan	2.61	235	*e*P	Pn	20 39 09.8	+1.5
	baz=234						
CHN4				*e*S	Sn	20 39 42.4	+1.7
	baz=234						
STYT	Tauyuan	2.61	229	*e*P	Pn	20 39 08.2	-0.1
	baz=229						
STYT				*e*S	Sn	20 39 38.4	-2.2
	baz=229						
TPUB	Ta-pu	2.61	233	*e*Pn	Pn	20 39 08.4	0.0
TWG	Pinlang	2.66	220	*e*P	Pn	20 39 08.9	-0.1
	baz=219						
WTP	Ta-pu	2.66	233	*e*P	Pn	20 39 09.3	+0.3
	baz=232						
TWK	Hsinying	2.74	235	*e*P	Pn	20 39 11.6	+1.5
	baz=234						
CHN1	Nanshi	2.76	233	*e*P	Pn	20 39 11.8	+1.4
	baz=232						
SGST	Jiashian	2.79	230	*e*P	Pn	20 39 09.9	-0.8
	baz=230						
ECL	Taimali	2.90	219	*e*P	Pn	20 39 13.9	+1.6
	baz=217						
SSD	Sandimen	2.98	225	*e*P	Pn	20 39 14.8	+1.4
	baz=224						
TWM1	Shoushan	3.07	229	*e*P	Pn	20 39 17.5	+2.9
	baz=228						
KSRS	Korea Array	13.24	18	LR	LR	20 47 54.4	
	comp=Z,22nm,18.8s,baz=210,slow=42						
SONM	Songino Array	26.38	334	P	P	20 44 03.9	+1.2
	1.0nm,0.9s,mb3.4,baz=145,slow=6.8,SNR=6.4						
MKAR	Makanchi Array	38.95	315	P	P	20 45 53.0	+0.5
	0.9nm,0.8s,mb3.5,baz=105,slow=11,SNR=8.2						
ZALV	Zalesovo Beam	40.53	326	P	P	20 46 05.4	-0.1
	0.4nm,0.5s,mb3.3,baz=104,slow=6.1,SNR=3.6						
KURK	Kurchatov	42.58	319	P	P	20 46 20.8	-1.6
	2.1nm,1.1s,mb3.8						
TKM2	Tokmak 2	42.59	307	*e*P	P	20 46 19.3	-3.3
	3.0nm,0.9s,mb4.0						
FITZ	Fitzroy Crossi	42.81	176	LR	LR	21 06 50.3	
	comp=Z,40nm,19.9s,baz=325,slow=40						
EKS2	Erkin-Say	43.87	306	P	P	20 46 38.3	+5.4
	3.8nm,1.2s,mb4.0						
WRAB	Tennant Creek	45.91	165	*e*P	P	20 46 47.5	-1.9
	4.8nm,1.1s,mb4.3						
WRA	Warramunga Arr	45.92	165	P	P	20 46 48.8	-0.6
	1.9nm,0.8s,mb4.1,baz=346,slow=8.5,SNR=15						
KBL	Kabul	47.29	295	P	P	20 47 01.0	+0.8
ASAR	Alice Springs	49.42	167	P	P	20 47 16.3	-0.3
	0.4nm,0.6s,mb3.6,baz=348,slow=12,SNR=7.4						
CLL	Collm	82.44	323	*e*P	P	20 50 50.0	+1.1

IGQ 01 20:39:28.7, 2°.24S×79°.44W, h24^{km}±3^{km}, Mb4.1, Ms3.9, 3C-11D, Error ellipse: s-maj=4.5km s-min=2.7km az=76.7, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGUA	Igualata	1.09	47	⇓P	Pn	20 39 50.2	+1.6
ARRY	Arrayan	1.23	53	⇓P	Pn	20 39 51.7	+1.3
PATA	Patacocha	1.24	54	⇓P	Pn	20 39 52.2	+1.6
PATA	Patacocha	1.24	54	⇓S	Sn	20 40 11.8	+5.1
JUI6	Juive	1.27	50	⇑P	Pn	20 39 52.8	+1.9
RETU	Refugio	1.27	52	P	Pn	20 39 52.9	+2.0
ULBA	Ulba	1.30	53	⇓P	Pn	20 39 53.4	+2.0
RUN5	Runtun	1.30	51	⇓P	Pn	20 39 52.7	+1.2
PISA	Pisayambo	1.58	42	S	Sn	20 40 18.9	+4.0
PISA	Pisayambo	1.58	42	P	Pn	20 39 58.1	+2.9
CAMI	Rancho Maria	1.81	31	⇑P	Pn	20 40 01.7	+3.2
MOV1	Cotopaxi Vol s	1.82	33	P	Pn	20 40 02.1	+3.6
NAS2	Nasa	1.86	31	P	Pn	20 40 03.0	+3.9
VC1	Cotopaxi 1	1.90	33	⇓P	Pn	20 40 02.7	+3.1
COV1	Cotopaxi Volc	1.91	35	P	Pn	20 40 04.2	+4.3
PITA	Cotopaxi Volc	1.95	31	⇓P	Pn	20 40 04.8	+4.4
JUA2	San Juan 2	2.18	22	P	Pn	20 40 06.9	+3.4
ANTI	Antisana	2.19	36	⇓P	Pn	20 40 06.2	+2.5
TERV	Terraza Guagua	2.22	22	P	Pn	20 40 07.4	+3.3
GGP	Refugio Guagua	2.22	22	⇓P	Pn	20 40 07.3	+3.3
PINO	Pino	2.23	22	P	Pn	20 40 06.9	+2.7
YANA	Yana	2.28	22	⇑P	Pn	20 40 07.4	+2.4
OTAV	Otavalo	2.65	22	⇓P	Pn	20 40 12.6	+2.6
CAYA	Cayambe	2.72	32	P	Pn	20 40 13.9	+3.0
COTA	Cotacachi	2.79	23	P	Pn	20 40 15.3	+3.4

IDC 01 20:47:33.1±2.3, **6°.22S**×**130°.02E, h0**^{km}**, mb3.7**/1, **mb1 3.5**/4, **mb1mx3.3**/17, **mbtmp3.4**/4, **ML3.0**/3, **Error ellipse: s-maj=99.3km s-min=26.4km az=75.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.56	200	Pn	Pn	20 50 32.1	-1.1
	0.1nm,0.3s,baz=26,slow=9.3,SNR=3.1						
WRA	Warramunga Arr	14.27	163	Pn	Pn	20 50 56.1	-0.5
	0.1nm,0.3s,baz=349,slow=12,SNR=3.7						
WRA				Sn	Sn	20 53 34.7	-1.1
	0.1nm,0.3s,baz=333,slow=22,SNR=4.6						
ASAR	Alice Springs	17.75	168	P	Pn	20 51 43.6	+1.9
	0.1nm,0.3s,baz=345,slow=9.9,SNR=8.7						
MKAR	Makanchi Array	67.59	327	P	P	20 58 31.6	+0.1
	0.7nm,0.8s,baz=124,slow=6.4,SNR=5.8						

ISCJB ***01*** *21:22:15.9±2.6, 51°.6S±0°.1×161°.3E±0°.1, h15^{km}±19^{km}, mb3.8/6, MS4.3/15, Error ellipse: s-maj=18.8km s-min=10.0km az=151.7*

NEIC ***01*** *21:22:15.4±0.8, 51°.94S×161°.28E, h10^{km}, Error ellipse: s-maj=15.9km s-min=8.1km az=150.0*

GCMT ***01*** *21:22:15.4±0.3, 51°.67S×160°.96E, h30^{km}±1^{km}, MW5.2/61, Moment Tensor Solution. s30,c38; s61,c87; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.08±.29; $M_{\theta\theta}$5.14±.22; $M_{\phi\phi}$-6.22±.23; $M_{r\theta}$-2.51±.41; $M_{\theta\phi}$2.55±.21; $M_{\phi r}$0.61±.38; Best double couple: $M_0$6.80200×10^{16} NP1:ϕ_s211.00000°, δ68.00000°, λ169.00000°. NP2: ϕ_s305.00000°, δ80.00000°, λ23.00000°. Principal axes: T 6.6700, Plg23.0000°, Azm170.0000°; N 0.2630, Plg65.0000°, Azm327.0000°; P -6.9340, Plg8.0000°, Azm76.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***01*** *21:22:16.5±1.5, 51°.66S×161°.17E, h0^{km}, mb3.9/4, mb1 4.2/5, mb1mx4.0/13, mbtmp4.0/5, ML4.2/1, MS4.3/17, Ms1 4.3/17, ms1mx4.3/21 Error ellipse: s-maj=46.0km s-min=27.7km az=72.0*

ISC 01 21:22:19.3±2.3, **51°.63S**±0°.10×**161°.2E**±0°.1, **h20**^{km}±17^{km}, **n36,** σ**1^{s}10**/29, **mb3.8**/6, **MS4.3**/15, **North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCQ	Macquarie Isla	3.18	205	*e*Pn	Pn	21 23 01.6	-6.5
WHZ	Wether Hill Ro	7.26	40	P	Pn	21 24 03.1	-1.0
WHZ				S	Sn	21 25 20.6	-5.3
MLZ	Mavora Lakes	7.80	39	P	Pn	21 24 11.2	-0.3
MLZ				S	Sn	21 25 35.6	-3.6
TUZ	Tuapeka	7.94	48	P	Pn	21 24 12.9	-0.6
MSZ	Milford Sound	8.28	35	P	Pn	21 24 20.4	+2.3
MSZ				S	Sn	21 25 51.3	+0.3
EAZ	Earnscleugh	8.36	43	P	Pn	21 24 18.8	-0.4
ODZ	Otahua Downs	9.10	47	*e*Pn	Pn	21 24 28.6	-0.7
	31nm,0.6s						
ODZ				*e*Sn	Sn	21 25 57.4	-14
JCZ	Jackson Bay	9.10	37	P	Pn	21 24 31.4	+2.1
RPZ	Rata Peaks	10.32	44	Pn	Pn	21 24 46.4	+0.3
	1.9nm,0.3s,baz=213,slow=4.7,SNR=4.4						
RPZ				Sn	Sn	21 26 32.1	-9.0
	3.9nm,0.3s,baz=355,slow=14,SNR=4.0						
RPZ				LR	LR	21 28 26.4	
	comp=Z,3μm,19.3s,baz=197,slow=36						
RPZ	Rata Peaks	10.32	44	Pn	Pn	21 24 46.4	+0.3
RPZ				*e*Pn	Pn	21 24 47.5	+1.4
RPZ				Sn	Sn	21 26 32.1	-9.0
RPZ				LR	LR	21 28 26.4	
TAU	Tasmania Unive	12.84	307	*e*Pn	Pn	21 25 19.3	-1.1
	24nm,0.6s						
TAU				*e*Sn	Sn	21 27 36.2	-6.4
URZ	Urewera	17.42	46	LR	LR	21 33 34.6	
	comp=Z,2μm,18.7s,baz=229,slow=39						
CAN	Canberra	18.52	327	Pn	Pn	21 26 36.7	+2.2
	2.0nm,0.4s						
OUZ	Omahuta	18.66	33	*e*Pn	Pn	21 26 36.5	+0.3
	1.3nm,0.5s						
STKA	Stephens Creek	24.44	316	P	P	21 27 40.3	+3.9
	1.8nm,0.8s,mb3.6,baz=127,slow=12,SNR=4.2						
STKA				LR	LR	21 35 45.5	
	comp=Z,1μm,19.2s,MS4.4,baz=62,slow=33						
VNDA	Vanda	25.99	180	LR	LR	21 35 48.8	
	comp=Z,1μm,20.9s,MS4.3,baz=2.5,slow=31						
CTA	Charters Tower	33.60	334	LR	LR	21 42 02.8	
	comp=Z,679nm,18.0s,MS4.4,baz=158,slow=35						
ASAR	Alice Springs	34.93	313	P	P	21 29 08.8	-0.7
	1.3nm,0.8s,mb3.9,baz=146,slow=7.6,SNR=6.4						
NWAO	Narrogin (SRO)	36.85	283	LR	LR	21 42 06.4	
	comp=Z,139nm,18.5s,MS3.8,baz=326,slow=32						
WB2	Warramunga Arr	37.98	316	*e*P	P	21 29 41.1	+5.5
WRA	Warramunga Arr	37.99	316	P	P	21 29 35.7	0.0
	3.1nm,1.0s,mb4.0,baz=149,slow=7.8,SNR=11						
WRAB	Tennant Creek	37.99	316	*e*P	P	21 29 34.9	-0.9
	0.8nm,0.6s,mb3.6						
QSPA	South Pole Qui	38.48	180	P	P	21 29 39.1	-0.2
	2.7nm,0.9s,mb4.0,baz=348,slow=5.4,SNR=4.9						
HNR	Honiara	42.09	358	LR	LR	21 44 00.3	
	comp=Z,526nm,20.8s,MS4.4,baz=15,slow=31						
FITZ	Fitzroy Crossi	43.65	307	LR	LR	21 47 53.2	
	comp=Z,287nm,18.0s,MS4.2,baz=156,slow=35						
MAW	Mawson	46.56	211	LR	LR	21 48 12.9	
	comp=Z,477nm,18.9s,MS4.5,baz=112,slow=34						
PPT	Papeete	51.46	67	*e*S	S	21 38 42.6	+0.6
	201nm,30.2s						
PPT				*e*LR	LR	21 46 38.9	
	480nm,23.0s,baz=225						
PPT	Papeete	51.46	67	LR	LR	21 49 50.6	
	comp=Z,386nm,19.7s,MS4.4,baz=328,slow=32						
DAV	Davao City (W)	65.98	321	LR	LR	22 01 44.7	
	comp=Z,104nm,19.7s,MS4.0,baz=299,slow=36						
PLCA	Paso Flores	77.57	142	LR	LR	22 00 37.3	
	comp=Z,185nm,19.2s,MS4.4,baz=194,slow=30						
CMAR	Chiang Mai Arr	88.33	303	P	P	21 35 10.0	+0.7
	0.2nm,0.4s,mb3.7,baz=160,slow=3.5,SNR=3.8						
CMAR				LR	LR	22 15 16.3	
	comp=Z,60nm,18.5s,MS4.0,baz=340,slow=36						
MJAR	Matsushiro Arr	90.09	342	LR	LR	22 16 53.0	
	comp=Z,68nm,18.1s,MS4.1,baz=175,slow=36						
BOSA	Boshof	91.23	218	LR	LR	22 10 30.4	
	comp=Z,130nm,19.1s,MS4.4,baz=301,slow=32						
KSRS	Korea Array	93.38	334	LR	LR	22 15 19.5	
	comp=Z,91nm,18.4s,MS4.3,baz=330,slow=34						
CPUP	Villa Florida	95.31	146	LR	LR	22 13 01.2	
	comp=Z,224nm,18.9s,MS4.7,baz=184,slow=32						
AKASG	Malin Array Be	150.31	287	PKPab	PKPab	21 42 16.3	+1.9
	0.3nm,0.3s,baz=73,slow=3.1,SNR=4.1						

IDC ***01*** *21:25:05.6±2.0, 43°.85N×105°.50W, h0^{km}, mb1 3.6/4, mb1mx3.4/24, mbtmp3.3/4, ML2.9/3, Error ellipse: s-maj=57.8km s-min=9.3km az=147.0*

ISCJB ***01*** *21:25:06.3±0.6, 43°.82N±0°.04×105°.25W±0°.07, h0^{km}, Error ellipse: s-maj=7.1km s-min=5.6km az=178.8*

NEIC ***01*** *21:25:07.1±0.4, 43°.81N×105°.20W, h0^{km}, ML3.3, Error ellipse: s-maj=6.3km s-min=5.5km az=125.0, Suspected Mining explosion.*

NEIC 60 km [35 miles] SSE of Gillette.

ISC 01 21:25:07.2±0.5, **43°.83N**±0°.04×**105°.21W**±0°.06, **h0**^{km}**, n24,** σ**0^{s}98**/28, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.89	71	*e*Pg	Pg	21 25 25.3	+1.0
PHWY	Pilot Hill	2.54	184	*e*Pn	Pn	21 25 49.2	-0.4
PHWY				*e*Sn	Sn	21 26 22.2	+1.1
RWWY	Rawlins	2.60	215	*e*Pn	Pn	21 25 50.5	0.0
RWWY				*e*Sn	Sn	21 26 22.4	-0.3
LAO	LASA Array	2.94	346	*e*Pn	Pn	21 25 55.6	+0.4
LAO				*e*Sn	Sn	21 26 37.5	+6.3
RLMT	Red Lodge	3.18	295	*e*Pn	Pn	21 25 58.4	0.0
BW06	Boulder Array	3.35	253	*e*Pn	Pn	21 26 00.5	-0.3
BW06				*e*Sn	Sn	21 26 46.0	+4.7
PDAR	Pinedale Array	3.35	253	Pn	Pn	21 25 59.6	-1.1
	5.3nm,0.3s,baz=68,slow=16,SNR=76						
PDAR				Lg		21 26 43.9	
	5.4nm,0.3s,baz=62,slow=38,SNR=4.4						
OGNE	Ogallala	3.72	140	*e*Pn	Pn	21 26 06.5	+0.6
LKWY	Lake	3.81	283	Pn	Pn	21 26 08.6	+1.5
LOHW	Long Hollow	3.92	269	*e*Pn	Pn	21 26 09.1	+0.5
ISCO	Idaho Springs	4.04	184	*e*Pn	Pn	21 26 10.2	-0.1
SNOW	Snow King Moun	4.04	267	*e*Pn	Pn	21 26 16.3	+6.0
REDW	Red Top Meadow	4.13	265	*e*Pn	Pn	21 26 12.4	+0.9
RRI2	Red Ridge	4.47	266	*e*Pn	Pn	21 26 16.3	+0.1
DGMT	Dagmar	4.69	8	*e*Pn	Pn	21 26 21.1	+1.9
DGMT				S	Sn	21 27 29.4	+15
BOZ	Bozeman (W)	4.92	294	*e*Pn	Pn	21 26 22.7	+0.3
EGMT	Eagleton	5.26	324	*e*Pn	Pn	21 26 27.2	+0.3
	25nm,0.4s						
SDCO	Great Sand Dun	6.08	182	*e*Pn	Pn	21 26 37.4	-0.9
	1.9nm,0.6s						
ULM	Lac du Bonnet	9.04	41	Pn	Pn	21 27 17.1	-1.7
	1.2nm,0.3s,baz=226,slow=14,SNR=7.2						
ULM				Lg		21 29 44.1	
	0.4nm,0.3s,baz=148,slow=19,SNR=1.6						
FFC	Flin Flon	11.10	10	*e*Pn	Pn	21 27 45.9	-1.2
	2.9nm,0.6s						
NVAR	Mina Array Bea	11.25	246	Pn	Pn	21 27 48.2	-1.0
NVAR	Mina Array Bea	11.25	246	Pn	Pn	21 27 48.2	-1.0
	0.2nm,0.3s,baz=48,slow=12,SNR=3.8						
TXAR	Lajitas Array	14.52	175	Pg	Px	21 29 37.0	
	0.1nm,0.3s,baz=6.3,slow=18,SNR=3.8						
YKA	Yellowknife Ar	19.48	347	P	Pn	21 29 34.0	-2.6
	0.1nm,0.3s,baz=159,slow=13,SNR=3.9						
YKA				Lg		21 35 17.6	
	0.0nm,0.3s,baz=153,slow=29,SNR=3.7						

ISK ***01*** *21:34:00.8, 36°.95N×29°.23E, h9^{km}, MD3.0*

ISCJB ***01*** *21:34:01.3±0.6, 36°.96N±0°.04×29°.21E±0°.05, h1^{km}±9^{km}, Error ellipse: s-maj=7.5km s-min=4.5km az=136.4*

CSEM ***01*** *21:34:01.2±0.1, 36°.94N×29°.25E, h8^{km}, MD3.0, Error ellipse: s-maj=2.0km s-min=1.6km az=138.0*

DDA ***01*** *21:34:01.9, 37°.01N×29°.22E, h7^{km}±4^{km}, Md3.3*

ISC 01 21:34:01.7±0.5, **36°.95N**±0°.04×**29°.22E**±0°.05, **h7**^{km}±7^{km}, **n30,** σ**0^{s}47**/44, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	199	*e*PG	Pg	21 34 07.9	-0.4
FETY				*e*SG	Sg	21 34 13.2	+0.5
FETY	Fethiye	0.34	199	*e*Pg	Pg	21 34 07.9	-0.3
FETY				*e*Sg	Sg	21 34 13.2	+0.5
GOLH	Golhisar	0.39	44	*i* P	Pg	21 34 08.8	-0.5
GOLH				*i* S	Sg	21 34 15.3	+0.9
GOLH	Golhisar	0.39	44	*i* P	Pg	21 34 08.8	-0.5
GOLH				*i* S	Sg	21 34 15.4	+0.9
TURN	Turunc	0.50	261	*i* P	Pg	21 34 16.2	+4.8
TURN				*i* S	Sg	21 34 27.4	+9.4
TURN	Turunc	0.50	261	*i* P	Pg	21 34 16.2	+4.8
DALT	Dalyan (Mudla)	0.50	249	*e*PG	Pg	21 34 11.4	0.0
DALT				*e*SG	Sg	21 34 17.8	-0.2

DALT	Dalyan (Mudla)	0.50	249	*e*Pg	Pg	21 34 11.4	0.0
DALT				*e*Sg	Sg	21 34 17.8	-0.2
ELL	Elmali	0.59	110	*e*PG	Pg	21 34 12.2	-0.8
ELL	Elmali	0.59	110	*e*Pg	Pg	21 34 12.3	-0.7
YER	Yerkesik	0.77	284	*e*PG	Pg	21 34 16.4	-0.2
YER	Yerkesik	0.77	284	*e*Pg	Pg	21 34 16.4	-0.1
AKAS	Kas	0.78	157	*i* P	Pg	21 34 17.3	+0.5
AKAS				*i* S	Sg	21 34 31.0	+4.1
AKAS	Kas	0.78	157	*i* P	Pg	21 34 17.3	+0.6
DENT	Denizli	0.81	349	*e*PG	Pg	21 34 17.0	-0.3
DENT	Denizli	0.81	349	*e*Pg	Pg	21 34 17.0	-0.3
MLSB	Milas	1.20	287	*e*PN	Pn	21 34 24.6	-0.4
MLSB	Milas	1.20	287	*e*Pn	Pn	21 34 24.6	-0.4
AYDN	Tasoluk	1.28	304	*i* P	Pn	21 34 25.9	-0.1
AYDN				*i* S	Sb	21 34 43.5	+0.7
AYDN	Tasoluk	1.28	304	*i* P	Pn	21 34 25.9	-0.1
AYDN				*i* S	Sb	21 34 43.5	+0.7
DAT	Datca	1.34	261	*e*PN	Pn	21 34 26.5	-0.3
DAT	Datca	1.34	261	*e*Pn	Pn	21 34 26.5	-0.3
BDRM	Kayabasi	1.43	275	*i* P	Pn	21 34 28.7	+0.7
BDRM				*i* S	Sb	21 34 47.1	+0.1
BDRM	Kayabasi	1.43	275	*i* P	Pn	21 34 28.7	+0.7
BDRM				*i* S	Sb	21 34 47.1	+0.1
KHAL	Karahalli	1.43	9	*i* P	Pn	21 34 28.0	-0.1
KHAL				*i* S	Sb	21 34 47.3	+0.2
KHAL	Karahalli	1.43	9	*i* P	Pn	21 34 28.0	-0.1
KHAL				*i* S	Sb	21 34 47.3	+0.2
BODT	Bodrum	1.53	275	*e*PN	Pn	21 34 29.2	-0.3
BODT	Bodrum	1.53	275	*e*Pn	Pn	21 34 29.2	-0.3
KULA	Kula-Manisa	1.62	344	*e*PN	Pn	21 34 30.4	-0.3
KULA	Kula-Manisa	1.62	344	*e*Pn	Pn	21 34 30.4	-0.3

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*ISCJB **01** 21:36:53.0±0.5,41°.90N±0°.04×112°.44W±0°.04,h10^{km}, Error ellipse: s-maj=5.6km s-min=3.9km az=147.2*
*IDC **01** 21:36:54.5±0.9,41°.87N×112°.13W,h0^{km},mb3.1/1, mb1 3.8/4,mb1mx3.5/24,mbtmp3.6/4,ML3.4/1,Error ellipse: s-maj=37.9km s-min=7.0km az=151.0*
*NEIC **01** 21:36:54.0,41°.81N×112°.22W,h6^{km},ML3.5(SLC),After SLC.*
NEIC Felt [III] at Clarkson, Garland, Plymouth, Tremonton and [II] at Brigham City. Also felt at Clearfield, Corinne, Cornish, Fielding, Logan, Mendon, Portage and Smithfield. Felt at Malad City, Idaho.
ISC 01 21:36:55.3±0.5**,41°.92N**±0°.03×**112°.32W**±0°.04**,h10**^{km}**,n28,** σ**1^{s}.39**/43**,4D,Utah**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AHID	Auburn Hatcher	1.24	47	*e*Pg	Pg	21 37 17.6	-1.5
AHID				*e*Sn	Sn	21 37 34.7	-0.7
RRI2	Red Ridge	1.61	27	⇓*i*Pn	Pn	21 37 24.0	+0.3
RRI2				*e*Sg	Sg	21 37 49.1	+2.1
REDW	Red Top Meadow	1.81	36	⇓*i*Pn	Pn	21 37 26.6	+0.1
DCID1	Drake Creek	1.87	26	*e*Pg	Pn	21 37 28.6	+1.2
SNOW	Snow King Moun	1.93	36	⇓*i*Pn	Pn	21 37 28.5	+0.4
LOHW	Long Hollow	2.11	36	⇓*i*Pn	Pn	21 37 31.1	+0.4
LOHW				*e*S	Sn	21 37 55.2	-1.8
BW06	Boulder Array	2.22	67	*e*Pn	Pn	21 37 32.4	+0.3
BW06				*e*S	Sg	21 38 03.3	-3.2
PDAR	Pinedale Array	2.22	67	Pn	Pn	21 37 32.2	+0.1
	31nm,0.3s,baz=236,slow=12,SNR=1024						
PDAR				Lg		21 38 01.6	
	106nm,0.3s,baz=272,slow=28,SNR=36						
HLID	Hailey	2.25	318	*e*Pn	Pn	21 37 35.2	+2.5
HLID				*e*Sg	Sg	21 38 07.9	+0.2
ELK	Elko	2.49	243	*e*Pn	Pn	21 37 38.0	+2.1
ELK				*e*Sg	Sg	21 38 12.4	-2.9
MCMT	McKenzie Canyo	2.93	353	P	Pn	21 37 47.1	+5.1
DLMT	Dillon	3.45	357	*e*Pg	Pn	21 37 55.2	+6.2
DLMT				*e*Sg	Sg	21 38 45.8	-0.2
BOZ	Bozeman (W)	3.76	7	*e*Pg	Pn	21 37 59.5	+6.1
BOZ				*e*Sg	Sg	21 38 51.6	-4.5
RWWY	Rawlins	3.83	92	*e*Pn	Pn	21 37 54.9	+0.7
RLMT	Red Lodge	3.90	34	*e*Pn	Pn	21 37 53.1	-2.1
LCCM	Lewis and Clar	3.93	5	P	Pn	21 38 02.2	+6.5
BMN	Battle Mountai	3.99	250	*e*Pn	Pg	21 38 06.8	-4.9
BMN				*e*Sg	Sg	21 39 01.7	-1.6
BMO	Blue Mountains	4.67	311	*e*Pn	Pn	21 38 12.5	+6.7
WVOR	Wild Horse Val	4.72	278	*e*Pn	Pn	21 38 12.6	+6.0
WVOR				*e*Sg	Sg	21 39 22.9	-3.9
MSO	Missoula	5.04	347	*e*Pg	Pg	21 38 27.1	-4.8
	5.0nm,0.5s						
MSO				*e*Sg	Sg	21 39 33.1	-4.1
PHWY	Pilot Hill	5.18	95	*e*Pn	Pn	21 38 13.2	+0.3
	17nm,0.4s						
ISCO	Idaho Springs	5.51	110	*e*Pn	Pn	21 38 18.9	+1.5
	14nm,0.7s						
ISCO				*e*Sg	Sg	21 39 38.6	-14
MVCO	Mesa Verde	5.55	147	*e*Pn	Pn	21 38 18.2	+0.2
	37nm,0.5s						
MVCO				*e*Sg	Sg	21 39 41.5	-12
NVAR	Mina Array Bea	5.76	235	Pn	Pn	21 38 22.8	+2.0
	1.0nm,0.3s,baz=55,slow=11,SNR=18						
NVAR				Pg	Pg	21 38 38.3	-7.2
	1.5nm,0.3s,baz=46,slow=16,SNR=14						
NVAR				Lg		21 39 54.5	
	3.2nm,0.3s,baz=333,slow=8.7,SNR=8.4						
NVAR	Mina Array Bea	5.76	235	Pn	Pn	21 38 22.8	+2.0
NVAR				Pg	Pg	21 38 38.3	-7.2
RSSD	Black Hills	6.46	67	*e*Pn	Pn	21 38 29.3	-1.1
	8.6nm,0.4s						
ULM	Lac du Bonnet	14.11	48	Pn	Pn	21 40 11.9	-3.1
	0.3nm,0.3s,baz=233,slow=14,SNR=2.5						
YKA	Yellowknife Ar	20.65	357	P	P	21 41 36.0	+1.2
	0.8nm,0.8s,baz=176,slow=10,SNR=13						

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*IDC **01** 21:54:18.8±3.1,23°.44S×179°.98E,h510^{km}±33^{km},mb3.5/7, mb1 3.8/7,mb1mx3.5/16,mbtmp3.5/7,Error ellipse: s-maj=31.7km s-min=22.1km az=165.0*
*NEIC **01** 21:54:21.0±2.7,24°.10S×179°.85W,h553^{km}±29^{km},mb4.7/7, Error ellipse: s-maj=28.4km s-min=22.5km az=178.0*
*ISCJB **01** 21:54:22.5±2.7,24°.1S±0°.2×180°.0W±0°.2,h587^{km}±34^{km}, mb4.3/15,Error ellipse: s-maj=31.2km s-min=22.1km az=9.7*
ISC 01 21:54:22.0±2.7**,24°.1S**±0°.2×**179°.9W**±0°.2**,h568**^{km}±30^{km}**, n25,** σ**0^{s}.77**/24**,mb4.3**/15**,2D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	12.75	276	P	P	21 57 08.5	+0.3
SNZO	South Karori	17.79	193	*e*P	P	21 57 56.0	-0.8
	5.0nm,0.4s						
RPZ	Rata Peaks	20.97	199	P	P	21 58 30.7	+4.9
	6.5nm,0.5s,baz=158,slow=10,SNR=8.6						
EIDS	Eidsvold	26.39	261	*e*P	P	21 59 14.7	+0.6
	7.5nm,0.4s,mb4.7						
RMQ	Roma	28.43	258	*e*P	P	21 59 33.5	+1.5
	6.5nm,0.7s,mb4.4						
CTAO	Charters Tower	31.59	270	P	P	21 59 59.4	+0.2
	21nm,0.4s,mb5.0						
QLP	Quilpie	32.47	258	*e*P	P	22 00 06.8	+0.2
MTSU	Mount Surprise	33.86	273	*e*P	P	22 00 18.1	-0.3
	19nm,0.7s,mb4.7						
STKA	Stephens Creek	34.77	248	⇓*i*P	P	22 00 27.0	+1.2
	2.0nm,0.4s,mb4.0						
STKA	Stephens Creek	34.77	248	P	P	22 00 27.1	+1.3
	3.5nm,0.6s,mb4.1,baz=104,slow=11,SNR=13						
COEN	Coen	36.25	279	*e*P	P	22 00 37.4	-0.9
ASAR	Alice Springs	42.12	261	P	P	22 01 25.6	+0.2
	6.3nm,0.5s,mb4.4,baz=95,slow=7.4,SNR=76						
ASAR				ScP	ScP	22 06 08.8	+5.3
	1.0nm,0.8s,baz=112,slow=4.1,SNR=7.6						
WB2	Warramunga Arr	42.50	266	*e*P	P	22 01 27.7	-0.7
WRAB	Tennant Creek	42.50	266	*e*P	P	22 01 27.8	-0.6
	8.6nm,0.5s,mb4.5						
WRA	Warramunga Arr	42.51	266	P	P	22 01 27.7	-0.8
	5.5nm,0.3s,mb4.5,baz=90,slow=5.9,SNR=315						
FORT	Forrest	46.36	250	*e*P	P	22 01 58.2	+0.2
	26nm,0.6s,mb4.9						
KAKA	Kakadu	46.44	275	*e*P	P	22 01 57.2	-1.5
	5.7nm,0.5s,mb4.4						
KAKA	Kakadu	46.44	275	*e*P	P	22 01 57.3	-1.4
	18nm,0.6s,mb4.8						
KNA	Kununurra	48.77	270	⇓*i*P	P	22 02 15.9	-0.2
	6.1nm,0.3s,mb4.6						
FITZ	Fitzroy Crossi	50.93	266	*e*P	P	22 02 31.8	-0.1
	9.7nm,0.8s,mb4.2						
FITZ	Fitzroy Crossi	50.93	266	*e*P	P	22 02 32.0	+0.1
	1.7nm,0.4s,mb3.7						
CMAR	Chiang Mai Arr	89.69	290	P	P	22 06 21.8	+1.3
	0.9nm,0.9s,mb3.6,baz=120,slow=2.2,SNR=6.8						
TXAR	Lajitas Array	90.42	58	P	P	22 06 24.4	+0.7
	0.7nm,0.7s,mb3.6,baz=212,slow=7.6,SNR=7.1						
PDAR	Pinedale Array	92.73	44	P	P	22 06 33.5	-0.5
	0.4nm,0.9s,mb3.4,baz=299,slow=6.6,SNR=3.7						
BRTR	Keskin Array B	147.76	307	PKPbc	PKPab	22 13 06.9	-1.2
	0.8nm,0.7s,baz=112,slow=3.5,SNR=4.6						

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*NEIC **01** 21:55:17.3,17°.24N×100°.35W,h44^{km},MD3.8(MEX),After MEX.*
MEX 01 21:55:17.3±0.6**,17°.24N**×**100°.35W,h44**^{km}±8^{km}**,MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.20	156	*i* P	Pn	21 55 23.7	-1.4
CAIG				*i* S	Sn	21 55 28.9	-1.7
ACX	Acapulco	0.56	131	*i* P	Pn	21 55 27.0	-1.9
ACX				*i* S	Sn	21 55 36.0	-1.2
MEIG	Mezcala	0.98	45	*i* P	Pn	21 55 32.8	-1.9
MEIG				*i* S	Sn	21 55 45.0	-2.4
PLIG	Platanillo	1.41	35	*i* P	Pn	21 55 39.5	-1.0
PLIG				*i* S	Sn	21 55 56.0	-1.9
MZVM		2.22	29	*i* P	Pn	21 55 50.4	-1.2
MZVM				*i* S	Sn	21 56 16.6	-1.2
PNIG	Pinotepa	2.29	111	*e*P	Pn	21 55 51.5	-1.1
PNIG				*i* S	Sn	21 56 18.2	-1.4
PPM	Popocatepetl	2.45	42	*i* P	Pn	21 55 54.4	-0.4
PPM				*i* S	Sn	21 56 22.7	-0.9
UTMO	Huajuapan	2.50	76	*i* P	Pn	21 55 54.5	-1.0
UTMO				*i* S	Sn	21 56 22.6	-2.2
VHO	Vista Hermosa	3.46	92	*e*P	Pn	21 56 07.3	-1.5
VHO				*i* S	Sn	21 56 52.7	+4.2

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*NEIC **01** 21:58:31.4,14°.93N×60°.59W,h19^{km},MD3.6(TRN),After TRN.*
TRN 01 21:58:29.9,15°.05N×**60°.38W,h35**^{km}**,MD3.7,M3.7**(FDF)**, 8C-2D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MVM	Montagne Vaucl	0.70	226	⇑*e*P	Pn	21 58 44.6	+1.3
MVM				⇑*e*S	Sn	21 58 54.4	+1.5
FDF	Fort de France	0.81	247	⇓*e*P	Pn	21 58 45.9	+1.1
FDF				⇓*e*S	Sn	21 58 57.3	+1.7
FDF	Fort de France	0.81	247	*e*Pg	Pn	21 58 45.8	+1.0
FDF				*e*Sg	Sn	21 58 57.1	+1.6
BIM	Bigot	0.85	232	*e*P	Pn	21 58 46.7	+1.3
BIM				*e*S	Sn	21 58 58.9	+2.3
DLPL	La Plaine	0.88	289	*e*P	Pn	21 58 47.6	+1.7
DLPL				*e*S	Sn	21 58 59.8	+2.2
DSTT	Stowe	0.91	283	⇑*i*P	Pn	21 58 48.6	+2.3
DSTT				*e*S	Sn	21 59 01.1	+2.8
DBCT	Belle View Cho	0.96	284	*e*P	Pn	21 58 48.6	+1.7
DBCT				*e*S	Sn	21 59 02.6	+3.3
DBCT	Belle View Cho	0.96	284	*e*P	Pn	21 58 49.8	+2.8
DBCT				*e*S	Sn	21 59 03.0	+3.7
DFBT	Forest Bistro	0.96	282	⇑*e*P	Pn	21 58 49.3	+2.3
DFBT				*e*S	Sn	21 59 01.7	+2.3
DSHT	Scott’s Head	0.97	280	*e*P	Pn	21 58 49.1	+2.0
DSHT				*e*S	Sn	21 59 03.1	+3.4
DSHT	Scott’s Head	0.97	280	*e*P	Pn	21 58 49.8	+2.7
DSHT				*e*S	Sn	21 59 03.1	+3.4
SLW	Petit Monier	1.15	208	⇑*i*P	Pn	21 58 51.8	+2.2
SLW				*e*S	Sn	21 59 06.4	+2.3
MGG	Marie-Galante	1.25	314	*e*P	Pn	21 58 51.7	+0.7
SLB	Belfond	1.37	208	⇑*i*P	Pn	21 58 54.0	+1.4
SLB				*e*S	Sn	21 59 12.1	+2.6
SLB	Belfond	1.37	208	⇑*i*P	Pn	21 58 54.0	+1.4
SLB				*e*S	Sn	21 59 10.4	+0.9
SLDE	Delcer	1.40	208	*e*S	Sn	21 59 12.3	+2.1
DEG	La Desirade	1.42	333	*e*P	Pn	21 58 54.3	+1.0
DEG				*e*S	Sn	21 59 11.8	+1.1
MCLT	Moule a Chique	1.43	202	*e*P	Pn	21 58 55.2	+1.7
MCLT				*e*S	Sn	21 59 13.7	+2.5
TBG	Guadaloupe-3	1.46	304	*e*P	Pn	21 58 54.7	+0.9
DOG	Dongo Capester	1.54	310	*e*P	Pn	21 58 56.8	+1.8
PHG	Guadaloupe-2	1.55	309	*e*P	Pn	21 58 56.6	+1.6
BCG	Bois Riant Cap	1.58	311	*e*P	Pn	21 58 56.9	+1.4
SCG	Saint Claude	1.59	308	*e*P	Pn	21 58 57.4	+1.8
LZG	Guadaloupe-1	1.73	309	*e*P	Pn	21 58 59.7	+2.1
SEG	Port Louis	1.73	321	*e*P	Pn	21 58 59.8	+2.2
SSV	Crater Summit	1.88	205	⇑*e*P	Pn	21 59 01.0	+1.4
SSV				*e*S	Sn	21 59 23.4	+1.3
BHS	Barnard House	1.88	203	*e*P	Pn	21 59 01.4	+1.8
BHS				*e*S	Sn	21 59 24.9	+2.7
BHS	Barnard House	1.88	203	*e*P	Pn	21 59 00.4	+0.7
BHS				*e*S	Sn	21 59 24.9	+2.7
SVV	Soufriere Volc	1.90	205	*e*P	Pn	21 59 02.3	+2.4
SVV				*e*S	Sn	21 59 24.1	+1.5
SVB	Belmont	1.95	206	*e*P	Pn	21 59 04.1	+3.4
SVB				*e*S	Sn	21 59 27.0	+3.1
FCV	Fort Charlotte	2.06	204	*e*P	Pn	21 59 03.3	+1.2
FCV				*e*S	Sn	21 59 28.7	+2.3
FCV	Fort Charlotte	2.06	204	*e*P	Pn	21 59 03.3	+1.2
FCV				*e*S	Sn	21 59 26.0	-0.5
TOSP	Speyside	3.73	182	*e*P	Pn	21 59 28.4	+3.4

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*DDA **01** 22:02:35.6,39°.32N×33°.20E,h7^{km}±7^{km},Md3.5*
*ISCJB **01** 22:02:36.6±0.5,39°.33N±0°.03×33°.20E±0°.04,h10^{km},Error ellipse: s-maj=4.6km s-min=3.6km az=43.1*
*CSEM **01** 22:02:36.1±0.1,39°.34N×33°.20E,h2^{km},MD3.5,Error ellipse: s-maj=3.5km s-min=2.2km az=139.0*
*ISK **01** 22:02:38.0,39°.27N×33°.09E,h13^{km},MD3.2*
ISC 01 22:02:36.6±0.6**,39°.33N**±0°.03×**33°.21E**±0°.04**,h3**^{km}±6^{km}**, n29,** σ**1^{s}.02**/44**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALAT	Bala	0.23	343	*i* P	Pg	22 02 40.7	-0.4
BALAT				*i* S	Sg	22 02 44.3	+0.1
DAD	Ankara	0.67	329	*e*P	Pg	22 02 48.1	-1.5
DAD				*i* S	Sg	22 02 59.7	+1.4
DAD	Ankara	0.67	329	*e*P	Pg	22 02 48.1	-1.4
DAD				*i* S	Sg	22 02 59.7	+1.4
CDAG	Cicekdag	0.95	72	*i* P	Pg	22 02 54.1	-0.7
CDAG				*i* S	Sg	22 03 07.7	+0.6
CDAG	Cicekdag	0.95	72	*i* P	Pg	22 02 54.1	-0.7
CDAG				*i* S	Sg	22 03 07.7	+0.6
KIZT	Kizilcal	1.13	247	*e*PG	Pg	22 02 57.9	-0.3
KIZT				*e*SG	Sg	22 03 12.5	-0.3
KIZT	Kizilcal	1.13	247	*e*Pg	Pg	22 02 57.9	-0.3
KIZT				*e*Sg	Sg	22 03 12.5	-0.3
SULT	Sultanhani-AKS	1.16	168	*e*PN	Pg	22 02 59.8	+1.0
SULT	Sultanhani-AKS	1.16	168	*e*Pn	Pg	22 02 59.8	+1.0
ELDT	Eldivan	1.17	8	*i* P	Pg	22 02 58.7	-0.4
ELDT				*i* S	Sg	22 03 14.5	+0.3
ELDT	Eldivan	1.17	8	*i* P	Pg	22 02 58.7	-0.3
ELDT				*i* S	Sg	22 03 14.5	+0.3
KDHN	Kadinhani	1.18	227	*i* P	Pg	22 02 58.4	-0.7
KDHN				*i* S	Sg	22 03 15.0	+0.6
KDHN	Kadinhani	1.18	227	*i* P	Pg	22 02 58.4	-0.7
KDHN				*i* S	Sg	22 03 15.0	+0.6
SVRH	Sivrihisar-ESK	1.31	276	*e*PN	Pn	22 03 01.1	-0.8
SVRH				*e*SN	Sn	22 03 18.5	-1.3
SVRH	Sivrihisar-ESK	1.31	276	*e*Pn	Pn	22 03 01.1	-0.7
SVRH				*e*Sn	Sn	22 03 18.5	-1.3
KONT	Konya--Tatoy	1.54	206	*e*PN	Pn	22 03 04.5	-0.5
KONT	Konya--Tatoy	1.54	206	*e*Pn	Pn	22 03 04.5	-0.4
ESKT	Eskisehir	1.83	277	*e*PN	Pn	22 03 09.0	-0.1
ESKT	Eskisehir	1.83	277	*i* P	Pn	22 03 07.1	-2.0
ESKT				*i* S	Sg	22 03 36.9	+1.4
ESKT	Eskisehir	1.83	277	*e*Pn	Pn	22 03 09.0	-0.1
SEYT	Eskypehyr	1.83	277	*i* P	Pn	22 03 07.1	-2.0
MDU	Mudurnu	1.91	307	*e*PN	Pn	22 03 10.7	+0.7
MDU	Mudurnu	1.91	307	*e*Pn	Pn	22 03 10.7	+0.7
SAFT	Safranbolu	1.95	348	*e*PN	Pn	22 03 12.4	+1.8
SAFT	Safranbolu	1.95	348	*e*Pn	Pn	22 03 12.4	+1.8
HDMB	Hadim	2.43	194	*e*PN	Pn	22 03 17.3	+0.1
HDMB	Hadim	2.43	194	*e*Pn	Pn	22 03 17.3	0.0
BOYT	Boyabat	2.46	31	*i* P	Pn	22 03 19.5	+1.9
BOYT				*i* S	Sg	22 03 53.4	-2.1
BOYT	Boyabat	2.46	31	*i* P	Pn	22 03 19.5	+1.9

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*ISCJB **01** 22:07:18.2±1.1,17°.5S±0°.2×178°.6W±0°.2,h606^{km}±35^{km}, mb4.4/8,Error ellipse: s-maj=38.2km s-min=26.5km az=28.6*
*NEIC **01** 22:07:18.3±0.8,17°.44S×178°.82W,h557^{km}±16^{km},mb4.0/4, Error ellipse: s-maj=28.0km s-min=14.0km az=148.0*
*IDC **01** 22:07:18.1±2.1,17°.28S×178°.98W,h542^{km}±32^{km},mb3.9/3, mb1 4.1/4,mb1mx3.3/18,mbtmp4.0/4,Error ellipse: s-maj=98.9km s-min=21.4km az=149.0*
ISC 01 22:07:18.6±1.1**,17°.5S**±0°.2×**178°.7W**±0°.2**,h569**^{km}±29^{km}**, n21,** σ**0^{s}.46**/19**,mb4.4**/8**,2D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.57	63	P	P	22 09 12.7	-0.1
	5.4nm,0.3s,baz=113,slow=13,SNR=4.9						
DZM	Mont Dzumac	14.70	250	*e*Pn	P	22 10 24.7	-0.1
	4.5nm,0.6s						
OUZ	Omahuta	18.93	200	*e*P	P	22 11 04.4	+0.5
	0.8nm,0.4s						
ARMA	Armidale	29.90	239	*e*P	P	22 12 41.1	0.0
CNB	Canberra Magne	33.45	232	*e*P	P	22 13 11.2	0.0
CMSA	Cobar Meteorol	35.10	240	⇓*i*P	P	22 13 24.8	-0.3
COEN	Coen	36.82	270	*e*P	P	22 13 40.8	+1.3
TOO	Toolangi	37.21	230	*e*P	P	22 13 42.1	-0.2
STKA	Stephens Creek	38.58	241	⇓*i*P	P	22 13 53.7	+0.1
	7.9nm,0.6s,mb4.4						
STKA	Stephens Creek	38.58	241	P	P	22 13 53.8	+0.2
	9.3nm,0.5s,mb4.6,baz=92,slow=9.7,SNR=40						
BBOO	Buckleboo	43.36	241	*e*P	P	22 14 31.0	-0.4
	13nm,0.3s,mb4.9						
WB2	Warramunga Arr	44.42	259	*e*P	P	22 14 39.2	-0.5
WRAB	Tennant Creek	44.42	259	*e*P	P	22 14 39.3	-0.5
	2.8nm,0.8s,mb3.8						
WRA	Warramunga Arr	44.43	259	P	P	22 14 39.3	-0.5
	2.6nm,0.5s,mb4.0,baz=91,slow=6.8,SNR=88						
WRA				PcP	PcP	22 16 11.4	+0.4
	0.5nm,0.4s,baz=96,slow=3.5,SNR=4.9						
ASAR	Alice Springs	44.63	254	P	P	22 14 41.5	+0.1
	33nm,0.6s,mb5.1,baz=88,slow=8.2,SNR=330						
KAKA	Kakadu	47.31	269	*e*P	P	22 15 02.2	+0.4
	3.9nm,0.3s,mb4.4						
KAKA	Kakadu	47.31	269	*e*P	P	22 15 01.8	+0.1
	14nm,0.6s,mb4.7						
KNA	Kununurra	50.23	264	*e*P	P	22 15 23.2	-0.2
	3.7nm,0.3s,mb4.3						
FITZ	Fitzroy Crossi	52.82	260	*e*P	P	22 15 42.5	+0.5
	1.8nm,0.3s,mb3.9						
BRTR	Keskin Array B	144.30	315	PKP	PKPdf	22 25 51.4	+0.9
	0.7nm,0.6s,baz=57,slow=5.3,SNR=5.2						
GERES	GERESS Array B	147.15	345	PKPbc	PKPbc	22 25 59.8	+1.6
	0.4nm,0.5s,baz=40,slow=3.8,SNR=5.1						

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*ISCJB **01** 22:20:37.6±0.6,39°.60N±0°.03×35°.44E±0°.04,h9^{km}±8^{km}, Error ellipse: s-maj=5.8km s-min=4.5km az=37.8*
*ISK **01** 22:20:37.6,39°.59N×35°.45E,h4^{km},MD2.9*
*DDA **01** 22:20:37.9,39°.58N×35°.41E,h7^{km}±4^{km},Md3.2*
*CSEM **01** 22:20:38.6±0.3,39°.57N×35°.41E,h2^{km},MD2.9,Error ellipse: s-maj=6.5km s-min=4.9km az=39.0*
ISC 01 22:20:38.7±0.5**,39°.58N**±0°.03×**35°.41E**±0°.04**,h3**^{km}±11^{km}**, n18,** σ**0^{s}.87**/31**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOZ	Yozgat	0.09	311	*e*PG	Pg	22 20 40.7	+0.2
YOZ				*e*SG	Sg	22 20 42.5	+0.8
YOZ	Yozgat	0.09	311	*e*Pg	Pg	22 20 40.7	+0.2
YOZ				*e*Sg	Sg	22 20 42.5	+0.8
BNN	Bunyan	0.80	155	*e*PG	Pg	22 20 53.3	-0.7
BNN				*e*SG	Sg	22 21 04.9	+0.5
BNN	Bunyan	0.80	155	*e*Pg	Pg	22 20 53.3	-0.7
BNN				*e*Sg	Sg	22 21 04.9	+0.5
CDAG	Cicekdag	0.80	273	*i* P	Pg	22 20 53.4	-0.6
CDAG				*i* S	Sg	22 21 04.3	-0.1
CDAG	Cicekdag	0.80	273	*i* P	Pg	22 20 53.4	-0.6
CDAG				*i* S	Sg	22 21 04.3	-0.2
TOKA	Tokat	1.11	48	*i* P	Pg	22 20 59.2	-0.7
TOKA				*i* S	Sg	22 21 15.6	+1.4
TOKA	Tokat	1.11	48	*i* P	Pg	22 20 59.2	-0.7
TOKA				*i* S	Sg	22 21 15.6	+1.3
PINB	Pinarbasi	1.19	139	*i* P	Pg	22 21 00.1	-1.3
PINB				*i* S	Sg	22 21 17.6	+0.8
PINB	Pinarbasi	1.19	139	*i* P	Pg	22 21 00.1	-1.3
PINB				*i* S	Sg	22 21 17.6	+0.8
SARI	SarD1z-Kayseri	1.35	132	*e*PN	Pg	22 21 05.1	+0.6
SARI	SarD1z-Kayseri	1.35	132	*e*Pn	Pg	22 21 05.1	+0.6
BOYT	Boyabat	1.88	348	*i* P	Pg	22 21 14.8	+0.1
BOYT				*i* S	Sg	22 21 38.4	-0.6
BOYT	Boyabat	1.88	348	*i* P	Pg	22 21 14.8	+0.1
BOYT				*i* S	Sg	22 21 38.4	-0.6
SULT	Sultanhani-AKS	2.02	228	*e*PN	Pn	22 21 14.7	+1.1
SULT	Sultanhani-AKS	2.02	228	*e*Pn	Pn	22 21 14.7	+1.1
KEMA	Kemaliye	2.41	96	*e*P	Pg	22 21 22.8	-2.1
KEMA				*i* S	Sg	22 21 56.4	+0.4
KEMA	Kemaliye	2.41	96	*e*P	Pg	22 21 22.8	-2.0

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*NEIC **01** 22:29:00.4,15°.08N×92°.98W,h77^{km},MD4.0(MEX),After MEX.*
MEX 01 22:29:00.4±1.0**,15°.08N**×**92°.98W,h77**^{km}±13^{km}**,MD4.0, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		0.67	340	*i* P	Pn	22 29 13.5	-2.0
PCIG				*i* S	Sn	22 29 25.6	-1.0
CCIG	Comitan	1.45	34	*i* P	Pn	22 29 24.5	-0.4
CCIG				*i* S	Sn	22 29 41.1	-2.2
SCX	San Cristobal	1.68	11	*i* P	Pn	22 29 28.0	0.0
SCX				*i* S	Sn	22 29 48.0	-0.9
TGIG		1.70	355	*i* P	Pn	22 29 26.6	-1.6
TGIG				*i* S	Sn	22 29 47.3	-1.9
CMIG	Matias Romero	2.71	318	*i* P	Pn	22 29 40.6	-1.2
CMIG				*i* S	Sn	22 30 12.6	-1.0
HUIG	Huatulco	3.10	283	*e*P	Pn	22 29 45.5	-1.4
HUIG				*i* S	Sn	22 30 19.8	-3.2
VHO	Vista Hermosa	4.12	299	*e*P	Pn	22 29 59.8	-1.1
VHO				*i* S	Sn	22 30 47.1	-0.8
PNIG	Pinotepa	5.13	285	*e*P	Pn	22 30 15.9	+1.2
PNIG				*i* S	Sn	22 31 12.2	-0.3
UTMO	Huajuapan	5.38	301	*i* P	Pn	22 30 19.8	+1.7
UTMO				*i* S	Sn	22 31 17.7	-1.0
PPM	Popocatepetl	6.70	307	*e*P	Pn	22 30 37.0	+0.8
PPM				*i* S	Sn	22 31 55.3	+4.2

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*NEIC **01** 23:12:44.4,29°.94S×71°.47W,h40^{km},MD3.5(GUC),After GUC.*
GUC 01 23:12:44.4±0.7**,29°.94S**×**71°.47W,h40**^{km}±2^{km}**,MD3.5, ML2.9,3C-1D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSCH	La Serena	0.20	80	⇑*i*P	Pn	23 12 52.0	+0.4
LSCH				*i* S	Sn	23 12 57.0	+0.3
LSCH				AML	AML	23 12 57.5	
	comp=E,1µm,0.3s						
TLL	Tololo Astrono	0.62	111	*e*P	Pn	23 12 57.6	+0.9
TLL				*i* S	Sn	23 13 07.5	+2.1
TLL	Tololo Astrono	0.62	111	*e*P	Pn	23 12 57.6	+0.9
TLL				*i* S	Sn	23 13 07.5	+2.1
TLL				AML	AML	23 13 11.7	
	comp=E,601nm,0.5s						
OVCH	Ovalle	0.70	161	*i* P	Pn	23 12 57.9	0.0
OVCH				*i* S	Sn	23 13 07.9	+0.4
OVCH	Ovalle	0.70	161	*i* P	Pn	23 12 57.9	0.0
OVCH				*i* S	Sn	23 13 07.9	+0.4
OVCH				AML	AML	23 13 08.4	
	comp=N,898nm,0.2s						
LCO	Las Campanas	1.14	36	⇓*i*P	Pn	23 13 05.3	+1.4
LCO				*i* S	Sn	23 13 21.1	+2.8
CMCH	Combarbala	1.29	162	⇑*i*P	Pn	23 13 07.4	+1.5
CMCH				*i* S	Sn	23 13 24.4	+2.4
CMCH	Combarbala	1.29	162	⇑*i*P	Pn	23 13 07.4	+1.5
CMCH				*i* S	Sn	23 13 24.4	+2.4
CMCH				AML	AML	23 13 27.1	
	comp=N,610nm,0.7s						
FCH	Farellones	3.52	164	AML	AML	23 14 38.9	
	comp=E,31nm,0.3s						

KRSC 01 23:52:40.9±0.8**,53°.56N**×**160°.62E,h32**^{km}±31^{km}**,ML3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLC	**Nalytchevo**	**0.86**	**243**	*e*P	Pn	23 52 57.9	+1.2
NLC				*e*S	Sn	23 53 10.4	+2.3
AVH	**Avacha**	**1.17**	**256**	*e*P	Pn	23 53 03.0	+2.1
AVH				*e*S	Sn	23 53 19.2	+3.5
PET	**Petropavlovsk**	**1.30**	**246**	*e*P	Pn	23 53 04.5	+1.8
PET				*e*S	Sn	23 53 21.5	+2.6
GNL	**Ganaly**	**1.60**	**276**	*e*P	Pn	23 53 09.2	+2.3
GNL				*e*S	Sn	23 53 30.2	+3.8
RUS	**Russkaya**	**1.70**	**229**	*e*S	Sn	23 53 30.3	+1.4
ZLN	**Zelenaya**	**2.46**	**2**	*e*P	Pn	23 53 20.7	+1.9
ZLN				*e*S	Sn	23 53 49.5	+1.8
CIRR	**Tsirk**	**2.56**	**2**	*e*P	Pn	23 53 23.0	+2.9
CIRR				*e*S	Sn	23 53 53.1	+3.0
MIPR	**Malaya Ipel'ka**	**2.67**	**243**	*e*P	Pn	23 53 24.7	+3.1
KBTR	**Krutoberegovo**	**2.94**	**25**	*e*P	Pn	23 53 28.7	+3.4
KBTR				*e*S	Sn	23 54 04.5	+5.0
BDR	**Baidarnaya**	**3.03**	**6**	*e*P	Pn	23 53 29.5	+2.9
SMKR	**Semkarok**	**3.07**	**9**	*e*P	Pn	23 53 30.4	+3.3
SRKR	**Sorokina**	**3.12**	**6**	*e*P	Pn	23 53 31.0	+3.3
SRKR				*e*S	Sn	23 54 07.7	+3.9

IDC ***01*** *23:52:42.2±2.9, 5°.99S×102°.53E, h0^{km}, mb3.7/8, mb1 3.8/8, mb1mx3.7/22, mbtmp3.7/8, Error ellipse: s-maj=126.8km s-min=19.9km az=52.0*

ISCJB ***01*** *23:52:45.5±0.6, 5°.86S±0°.09×102°.7E±0°.1, h33^{km}, mb3.8/9, Error ellipse: s-maj=17.7km s-min=12.1km az=152.0*

NEIC ***01*** *23:52:48.1±0.4, 5°.84S×102°.76E, h35^{km}, mb4.0/1, Error ellipse: s-maj=12.3km s-min=8.4km az=61.0*

ISC 01 23:52:48.0±0.6**, 5°.85S**±0°.10×**102°.8E**±0°.1**, h35^{km}, n13, σ0^{s}42**/12**, mb3.8**/9**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COCO	**West Island**	**8.60**	**222**	*e*Pn	**Pn**	**23 54 50.2**	**+0.1**
CMAR	**Chiang Mai Arr**	**24.44**	**351**	P	**P**	**23 58 03.4**	**-0.2**
	0.6nm,0.3s,mb3.5,baz=180,slow=9.6,SNR=5.8						
WRA	**Warramunga Arr**	**33.73**	**117**	P	**P**	**23 59 26.4**	**0.0**
	0.5nm,0.6s,mb3.7,baz=304,slow=9.0,SNR=5.7						
WRAB	**Tennant Creek**	**33.74**	**117**	*e*P	**P**	**23 59 26.6**	**+0.1**
	1.0nm,0.5s,mb4.0						
WB2	**Warramunga Arr**	**33.74**	**117**	*e*P	**P**	**23 59 26.2**	**-0.3**
ASAR	**Alice Springs**	**34.81**	**124**	P	**P**	**23 59 35.9**	**+0.1**
	0.4nm,0.5s,mb3.6,baz=307,slow=8.2,SNR=7.2						
SONM	**Songino Array**	**53.55**	**3**	P	**P**	**00 02 06.2**	**+1.0**
	0.7nm,0.6s,mb3.8,baz=181,slow=8.9,SNR=9.2						
MK31	**Makanchi Array**	**55.47**	**343**	*e*P	**P**	**00 02 19.4**	**+0.1**
MKAR	**Makanchi Array**	**55.47**	**343**	P	**P**	**00 02 19.6**	**+0.4**
	0.4nm,0.5s,mb3.7,baz=146,slow=8.5,SNR=7.8						
KURK	**Kurchatov**	**60.06**	**343**	P	**P**	**00 02 50.6**	**-0.9**
	0.3nm,0.4s,mb3.7,baz=152,slow=7.3,SNR=2.4						
ZALV	**Zalesovo Beam**	**61.45**	**348**	P	**P**	**00 03 00.6**	**-0.2**
	0.5nm,0.4s,mb4.0,baz=158,slow=4.8,SNR=5.9						
BVAR	**Borovoye Array**	**64.73**	**339**	P	**P**	**00 03 22.4**	**-0.2**
	0.6nm,0.5s,mb3.9,baz=146,slow=8.5,SNR=3.5						
TXAR	**Lajitas Array**	**145.82**	**44**	PKPbc	PKPbc	00 12 25.5	+1.2
	0.4nm,0.7s,baz=332,slow=1.3,SNR=5.5						

IDC ***01*** *23:52:54.3±1.8, 5°.82S×102°.78E, h0^{km}, mb4.0/10, mb1 4.1/10, mb1mx4.0/22, mbtmp4.0/10, Error ellipse: s-maj=74.7km s-min=16.8km az=55.0*

ISCJB ***01*** *23:52:56.8±0.6, 5°.83S±0°.09×102°.8E±0°.1, h33^{km}, mb4.1/12, Error ellipse: s-maj=16.2km s-min=10.4km az=148.4*

NEIC ***01*** *23:52:59.4±0.3, 5°.82S×102°.82E, h35^{km}, mb4.4/2, Error ellipse: s-maj=11.1km s-min=6.9km az=56.0*

ISC 01 23:52:59.4±0.6**, 5°.82S**±0°.09×**102°.8E**±0°.1**, h35^{km}, n19, σ0^{s}46**/17**, mb4.1**/12**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COCO	**West Island**	**8.67**	**223**	*e*Pn	**Pn**	**23 55 02.2**	**-0.2**
CMAR	**Chiang Mai Arr**	**24.43**	**351**	P	**P**	**23 58 13.9**	**-1.0**
	1.4nm,0.4s,mb3.8,baz=182,slow=8.9,SNR=11						
KAKA	**Kakadu**	**29.99**	**105**	*e*P	**P**	**23 59 04.2**	**-0.8**
	11nm,0.8s,mb4.6						
WRA	**Warramunga Arr**	**33.68**	**118**	P	**P**	**23 59 37.1**	**-0.2**
	2.6nm,0.7s,mb4.2,baz=294,slow=10.0,SNR=12						
WRAB	**Tennant Creek**	**33.69**	**118**	*e*P	**P**	**23 59 37.6**	**+0.2**
	1.4nm,0.6s,mb4.1						
WB2	**Warramunga Arr**	**33.69**	**118**	P	**P**	**23 59 37.6**	**+0.2**
ASAR	**Alice Springs**	**34.76**	**124**	P	**P**	**23 59 46.8**	**0.0**
	2.8nm,0.9s,mb4.2,baz=302,slow=7.6,SNR=6.1						
STKA	**Stephens Creek**	**44.53**	**131**	P	**P**	**00 01 08.5**	**+0.6**
	3.0nm,0.7s,mb4.2,baz=309,slow=6.1,SNR=4.7						
KSRS	**Korea Array**	**49.00**	**27**	P	**P**	**00 01 42.7**	**0.0**
	0.6nm,0.5s,mb3.9,baz=225,slow=8.0,SNR=4.5						
SONM	**Songino Array**	**53.52**	**3**	P	**P**	**00 02 17.3**	**+0.9**
	2.0nm,0.8s,mb4.1,baz=179,slow=9.0,SNR=15						
MK31	**Makanchi Array**	**55.46**	**343**	*e*P	**P**	**00 02 31.0**	**+0.5**
MKAR	**Makanchi Array**	**55.46**	**343**	P	**P**	**00 02 30.8**	**+0.3**
	1.0nm,0.6s,mb4.0,baz=143,slow=7.9,SNR=14						
KURK	**Kurchatov**	**60.06**	**342**	P	**P**	**00 03 02.5**	**-0.3**
	0.7nm,0.6s,mb3.9,baz=162,slow=6.3,SNR=3.1						
ZAA0	**Zalesovo Array**	**61.44**	**348**	*e*P	**P**	**00 03 12.1**	**0.0**
ZALV	**Zalesovo Beam**	**61.44**	**348**	P	**P**	**00 03 12.0**	**-0.1**
	0.8nm,0.3s,mb4.3,baz=160,slow=4.7,SNR=9.5						
ZALV	**Zalesovo Beam**	**61.44**	**348**	P	**P**	**00 03 12.0**	**-0.1**
BVAR	**Borovoye Array**	**64.73**	**339**	P	**P**	**00 03 33.9**	**-0.1**
	1.0nm,0.6s,mb4.0,baz=143,slow=9.8,SNR=4.4						
TXAR	**Lajitas Array**	**145.75**	**44**	PKPbc	PKPbc	00 12 36.4	+1.0
	1.2nm,0.9s,baz=266,slow=1.2,SNR=9.1						
TXAR	**Lajitas Array**	**145.75**	**44**	PKPbc	PKPbc	00 12 36.4	+1.0

IDC 02 00:06:19.6±11.0**, 6°.46S**×**130°.45E, h305^{km}**±124^{km}**, mb2.9**/1**, mb1 3.0**/4**, mb1mx2.8**/16**, mbtmp2.9**/4**, Error ellipse: s-maj=90.2km s-min=42.2km az=54.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.49**	**202**	P	Pn	00 09 07.0	-0.9
	0.1nm,0.3s,baz=17,slow=11,SNR=4.5						
WRA	**Warramunga Arr**	**13.92**	**165**	P	Pn	00 09 23.4	-1.7
	0.3nm,0.3s,baz=347,slow=11,SNR=15						
WRA				S	S	00 12 02.7	+4.7
	0.2nm,0.3s,baz=341,slow=22,SNR=5.6						
ASAR	**Alice Springs**	**17.43**	**169**	P	P	00 10 03.0	+0.2
	0.7nm,0.3s,baz=349,slow=10,SNR=31						
MKAR	**Makanchi Array**	**68.02**	**326**	P	P	00 16 46.6	+0.2
	0.3nm,0.3s,baz=108,slow=4.7,SNR=5.2						

GUC 02 00:15:43.1±0.4**, 22°.07S**×**69°.20W, h90^{km}**±2^{km}**, MD3.4, ML3.7, 4C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB04	**Plate Boundary**	**0.34**	**234**	⇑*i*P	Pn	00 16 02.4	+5.7
PB04				*i* S	Sn	00 16 16.9	+10
PB04				AML	AML	00 16 19.2	
	comp=N,2µm,0.1s						
MACH	**Maria Elena**	**0.54**	**256**	⇑*i*P	Pn	00 15 58.9	+0.8
MACH				*i* S	Sn	00 16 10.8	+1.4
LVC	**Limon Verde**	**0.61**	**154**	*e*P	Pn	00 15 59.7	+0.9
LVC				*e*S	Sn	00 16 11.9	+1.5
LVC				AML	AML	00 16 14.1	
	comp=N,3µm,0.3s						
PECH	**Pedro de Valdi**	**0.69**	**220**	⇑*i*P	Pn	00 16 00.1	+0.6
PECH				*i* S	Sn	00 16 13.1	+1.4
PECH				AML	AML	00 16 14.5	
	comp=N,6µm,0.1s						
TOCH	**Tocopilla**	**0.93**	**268**	⇓*i*P	Pn	00 16 02.2	+0.2
TOCH				*i* S	Sn	00 16 16.8	+0.6
TOCH				AML	AML	00 16 18.2	
	comp=E,3µm,0.1s						
PB01	**Plate Boundary**	**1.05**	**345**	*i* P	Pn	00 16 03.7	+0.3
PB01				*i* S	Sn	00 16 19.5	+0.8
PB01				AML	AML	00 16 20.2	
	comp=N,3µm,0.5s						
HMBC	**Humberston**	**1.89**	**340**	⇑*i*P	Pn	00 16 13.3	-0.6
HMBC				*i* S	Sn	00 16 37.6	+0.2
HMBC				AML	AML	00 16 44.5	
	comp=E,534nm,0.7s						
MNMC	**Miæe Miæ**	**2.94**	**353**	AML	AML	00 17 30.0	
	comp=N,302nm,0.4s						

MOS ***02*** *00:22:05.4±1.1, 22°.02S×68°.42W, h89^{km}, mb5.3/18, Error ellipse: s-maj=16.0km s-min=7.1km az=117.4*

GUC ***02*** *00:22:07.6±0.6, 22°.21S×68°.58W, h104^{km}±4^{km}, ML5.3*

NEIC ***02*** *00:22:07.8±0.4, 22°.14S×68°.33W, h102^{km}±3^{km}, mb5.3/43, Error ellipse: s-maj=5.9km s-min=3.8km az=57.0*

NEIC Felt at Iquique.

GCMT ***02*** *00:22:07.8±0.2, 22°.12S×68°.71W, h131^{km}±1^{km}, MW5.2/76, Moment Tensor Solution. s45,c57; s76,c108; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.74±.02; $M_{\theta\theta}$0.10±.03; $M_{\phi\phi}$0.63±.03; $M_{r\theta}$-0.02±.02; $M_{\theta\phi}$-0.56±.02; $M_{\phi r}$-0.05±.02; Best double couple: $M_0$0.86600×10^{17} NP1:ϕ_s142.00000°, δ44.00000°, λ-98.00000°. NP2: ϕ_s333.00000°, δ46.00000°, λ-82.00000°. Principal axes: T 0.9910, Plg1.0000°, Azm58.0000°; N -0.2500, Plg5.0000°, Azm148.0000°; P -0.7410, Plg84.0000°, Azm316.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB ***02*** *00:22:07.5±0.2, 22°.24S±0°.03×68°.47W±0°.03, h112^{km}, mb5.2/73 Error ellipse: s-maj=4.8km s-min=4.0km az=44.9*

BJI ***02*** *00:22:08.8, 22°.10S×68°.30W, h102^{km}, mB5.2/20*

IDC ***02*** *00:22:08.5±0.3, 22°.15S×68°.52W, h111^{km}±2^{km}, mb4.9/21, mb1 5.0/22, mb1mx5.0/23, mbtmp4.9/22, MS4.1/13, Ms1 4.1/13, ms1mx3.9/28, Error ellipse: s-maj=11.3km s-min=9.3km az=73.0*

ISC 02 00:22:09.4±0.2**, 22°.17S**±0°.04×**68°.29W**±0°.04**, h114^{km}, h114^{km}**±.5^{km}**:pP-P, n707, σ0^{s}66**/590**, mb5.2**/73**, 189C-191D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**0.72**	**232**	P	**Pn**	**00 22 25.3**	**-3.2**
	4µm,0.3s,baz=33,slow=6.0,SNR=5164						
LVC				S	**Sn**	**00 22 36.2**	**-6.6**
	10µm,0.3s,baz=90,slow=20,SNR=110						
LVC	**Limon Verde**	**0.72**	**232**	*e*Pn	**Pn**	**00 22 25.3**	**-3.1**
LVC	**Limon Verde**	**0.72**	**232**	*e*P	**Pn**	**00 22 24.9**	**-3.5**
LVC				*i* S	**Sn**	**00 22 37.6**	**-5.2**
LVC				AML	AML	00 22 38.9	
	comp=E,93µm,0.3s						
PB04	**Plate Boundary**	**1.11**	**265**	⇑*i*P	**Pn**	**00 22 34.2**	**+2.1**
PB04				*i* S	**Sn**	**00 22 54.8**	**+5.5**
PB04				AML	AML	00 22 56.9	
	comp=E,64µm,0.5s						
PB04				AML	AML	00 23 04.2	
	comp=Z,32µm,0.5s						
PECH	**Pedro de Valdi**	**1.35**	**251**	⇑*e*P	**Pn**	**00 22 30.3**	**-4.5**
PECH				*i* S	**Sn**	**00 22 47.0**	**-6.9**
PECH				AML	AML	00 22 48.6	
	comp=E,191µm,0.6s						
MACH	**Maria Elena**	**1.36**	**268**	⇑*i*P	**Pn**	**00 22 30.4**	**-4.4**
MACH				*i* S	**Sn**	**00 22 47.5**	**-6.6**
PB01	**Plate Boundary**	**1.57**	**315**	⇓*i*P	**Pn**	**00 22 34.1**	**-3.4**
PB01				*i* S	**Sn**	**00 22 53.7**	**-5.0**
TOCH	**Tocopilla**	**1.77**	**272**	⇑*i*P	**Pn**	**00 22 34.6**	**-5.1**
TOCH				*i* S	**Sn**	**00 22 55.2**	**-7.7**
TOCH				AML	AML	00 23 01.7	
	comp=N,60µm,0.6s						
MECH	**Mejillones**	**2.20**	**244**	⇑*i*P	**Pn**	**00 22 40.0**	**-5.1**
MECH				*i* S	**Sn**	**00 23 05.5**	**-7.0**
MECH				AML	AML	00 23 13.6	
	comp=N,36µm,0.4s						
HMBC	**Humberston**	**2.40**	**321**	*i* P	**Pn**	**00 22 43.9**	**-3.8**
HMBC				*i* S	**Sn**	**00 23 12.6**	**-4.5**
HMBC				AML	AML	00 23 17.5	
	comp=E,16µm,0.7s						
PSGC	**Pisagua**	**3.08**	**326**	AML	AML	00 23 37.2	
	comp=N,8µm,0.3s						
ARE	**Arequipa**	**6.43**	**331**	*e*P	**Pn**	**00 23 37.0**	**-4.7**
ARE				*e*		00 23 46.0	
ARE				*e*S	**Sn**	**00 24 54.0**	**+0.4**
LCO	**Las Campanas**	**7.15**	**197**	*e*Pn	**Pn**	**00 23 43.1**	**-8.3**
SIV	**San Ignacio**	**9.18**	**49**	P	**Pn**	**00 24 17.3**	**-1.8**
	comp=N,106nm,0.3s,baz=248,slow=12,SNR=1386						
SIV				S	**Sn**	**00 25 55.5**	**-5.0**
	comp=N,4.3nm,0.3s,baz=267,slow=16,SNR=4.6						
SIV				LR	LR	00 28 43.4	
	comp=N,1µm,19.1s,baz=158,slow=42						
CFAA	**Coronel Fontan**	**9.40**	**180**	P	**Pn**	**00 24 16.6**	**-5.4**
	comp=N,0.9nm,0.3s,baz=351,slow=13,SNR=102						
CFAA				S	**Sn**	**00 25 57.2**	**-8.5**
	comp=N,1.3nm,0.3s,baz=232,slow=19,SNR=2.5						
CFAA	**Coronel Fontan**	**9.40**	**180**	P	**Pn**	**00 24 16.6**	**-5.4**
CFAA				S	**Sn**	**00 25 57.2**	**-8.5**
CPUP	**Villa Florida**	**10.83**	**115**	*e*P	**Pn**	**00 24 40.1**	**-1.1**
CPUP				pmax	pmax		
	comp=Z,170nm,0.8s						
CPUP	**Villa Florida**	**10.83**	**115**	P	**Pn**	**00 24 40.3**	**-0.9**
	comp=Z,3.5nm,0.3s,baz=270,slow=11,SNR=37						
CPUP				LR	LR	00 29 47.4	
	comp=Z,819nm,18.1s,baz=290,slow=42						
CPUP	**Villa Florida**	**10.83**	**115**	*e*Pn	**Pn**	**00 24 40.1**	**-1.0**
	comp=Z,170nm,0.8s						
NNA	**Nana**	**13.00**	**320**	P	**Pn**	**00 25 15.3**	**+5.3**
	comp=Z,0.6nm,0.3s,baz=162,slow=11,SNR=12						
NNA				S	**Sn**	**00 27 36.8**	**+3.5**
	comp=Z,1.1nm,0.3s,baz=58,slow=19,SNR=2.8						
NNA	**Nana**	**13.00**	**320**	*e*Pn	**Pn**	**00 25 15.5**	**+5.6**
ATAH	**Atahualpa**	**17.95**	**326**	P	**Pn**	**00 26 07.5**	**-4.3**
	comp=Z,0.3nm,0.3s,baz=66,slow=10.0,SNR=3.7						
PLCA	**Paso Flores**	**18.61**	**185**	*e*P	**P**	**00 26 16.5**	**-1.3**
PLCA				pmax	pmax		
	comp=Z,103nm,0.8s						
PLCA	**Paso Flores**	**18.61**	**185**	P	**P**	**00 26 16.4**	**-1.4**
	comp=Z,1.7nm,0.3s,baz=4.4,slow=13,SNR=52						
PLCA				PcP	PcP	00 30 42.2	+0.3
	comp=Z,0.7nm,0.3s,baz=35,slow=0.9,SNR=8.9						
PLCA				LR	LR	00 34 32.2	
	comp=Z,573nm,20.3s,baz=15,slow=40						
PLCA	**Paso Flores**	**18.61**	**185**	*e*P	**P**	**00 26 16.5**	**-1.3**
	comp=Z,103nm,0.8s						
OTAV	**Otavalo**	**24.37**	**335**	*e*P	**P**	**00 27 17.9**	**+0.9**
	comp=Z,108nm,1.9s,mb4.9						
ROSC	**El Rosal**	**27.50**	**347**	P	**P**	**00 27 42.0**	**-3.3**
	comp=Z,5.5nm,0.4s,mb4.5,baz=102,slow=18,SNR=2.8						
ROSC				LR	LR	00 40 29.7	
	comp=Z,237nm,19.7s,baz=181,slow=40						
ROSC	**El Rosal**	**27.50**	**347**	*e*P	**P**	**00 27 46.3**	**+1.1**
ROSC				LR	LR	00 40 29.7	
SDV	**Santo Domingo**	**30.94**	**356**	*e*P	**P**	**00 28 13.4**	**-2.3**
	comp=Z,21nm,0.9s,mb4.9						
USHA	**Ushuaia**	**32.62**	**180**	P	**P**	**00 28 29.2**	**-0.8**
	comp=Z,45nm,0.8s,mb5.3,baz=353,slow=6.4,SNR=13						
TPP	**Pointe-a-Pierr**	**32.97**	**12**	*e*	**P**	**00 28 40.6**	**+7.1**
TBH	**Brigand Hill**	**33.21**	**13**	*e*	**P**	**00 28 40.0**	**+4.4**
TPR	**Prospect**	**33.95**	**13**	*e*	**P**	**00 28 44.9**	**+2.9**
GRGR	**Grenville**	**34.70**	**11**	*e*P	**P**	**00 28 47.0**	**-1.5**
	comp=Z,84nm,0.6s,mb5.7						
RCBR	**Riachuelo**	**35.26**	**67**	*e*P	**P**	**00 28 53.6**	**+0.2**
	comp=Z,133nm,0.8s,mb5.8						
JTS	**JuntasAbangare**	**36.16**	**331**	⇓*e*P	**P**	**00 29 01.8**	**+0.9**
JTS	**JuntasAbangare**	**36.16**	**331**	*e*P	**P**	**00 29 01.7**	**+0.8**
JTS				*e*pP	pP	00 29 28.1	+1.6
BIM	**Bigot**	**37.14**	**12**	*e*P	**P**	**00 29 11.0**	**+1.8**
MVM	**Montagne Vaucl**	**37.21**	**12**	⇑*e*P	**P**	**00 29 08.7**	**-1.1**
FDF	**Fort de France**	**37.33**	**11**	⇑*e*P	**P**	**00 29 11.9**	**+1.0**
RPN	**Rapa Nui**	**37.51**	**254**	P	**P**	**00 29 10.2**	**-2.2**
	comp=Z,41nm,0.8s,mb5.3,baz=33,slow=5.3,SNR=2.7						
CRPR	**Cabo Rojo, PR**	**39.94**	**2**	*e*P	**P**	**00 29 36.1**	**+3.5**
	comp=Z,42nm,1.1s,mb5.2						
OBIP	**Obispado Ponce**	**39.99**	**2**	*e*P	**P**	**00 29 32.8**	**-0.3**
	comp=Z,40nm,0.7s,mb5.4						
OBIP				*e*pP	pP	00 29 58.9	-0.1
CELP	**Cerrillos**	**40.03**	**3**	*e*P	**P**	**00 29 32.6**	**-0.7**
TGUH	**Tegucigalpa,Un**	**40.52**	**331**	*e*P	**P**	**00 29 37.3**	**-0.2**
	comp=Z,63nm,1.0s,mb5.4						
PMSA	**Palmer Station**	**42.69**	**177**	P	**P**	**00 29 54.6**	**+0.1**
	comp=Z,46nm,0.8s,mb5.2,baz=14,slow=9.1,SNR=9.0						
TEIG	**Tepich**	**46.43**	**334**	*e*P	**P**	**00 30 23.6**	**-1.3**
	comp=Z,608nm,2.7s,mb5.8						
BRAL	**Brewton**	**55.85**	**341**	*e*P	**P**	**00 31 35.2**	**+0.1**
	comp=Z,82nm,1.0s,mb5.7						
BRAL				*e*pP	pP	00 32 03.1	+0.6
HKT	**Hockley**	**58.19**	**332**	*e*P	**P**	**00 31 50.7**	**-0.9**
HKT				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.6						
HKT	**Hockley**	**58.19**	**332**	*e*P	**P**	**00 31 50.7**	**-0.9**
	comp=Z,100nm,1.6s,mb5.6						
VNA3	**Neumayer Olymp**	**59.27**	**161**	*e*P	**P**	**00 31 58.5**	**0.0**
VNA3				*e*	pP	00 32 25.7	-0.5
CPCT	**Cooper Cave**	**59.33**	**345**	*e*P	**P**	**00 31 58.2**	**-1.1**
TKL	**Tuckaleechee C**	**59.35**	**345**	*e*P	**P**	**00 31 58.2**	**-1.3**
SWET	**Sewanee**	**59.47**	**343**	*e*P	**P**	**00 31 59.0**	**-1.3**
SWET				*e*pP	pP	00 32 27.1	-0.9
VNA1	**Neumayer--Stat**	**59.47**	**160**	*e*P	**P**	**00 32 00.5**	**+0.6**
OXF	**Oxford**	**59.83**	**340**	*e*P	**P**	**00 32 00.8**	**-2.0**
OXF				pmax	pmax		
	comp=Z,67nm,1.0s,mb5.6						
OXF	**Oxford**	**59.83**	**340**	*e*P	**P**	**00 32 00.8**	**-2.0**
	comp=Z,67nm,1.0s,mb5.6						
VNA2	**Neumayer--Watz**	**59.84**	**161**	*e*P	**P**	**00 32 02.8**	**+0.4**
	baz=282,slow=8.3						
VNA2				*e*	pP	00 32 30.0	-0.1
VWCC	**Virginia Weste**	**60.11**	**349**	*e*P	**P**	**00 32 04.3**	**-0.3**
BLA	**Blacksburg**	**60.15**	**349**	*e*P	**P**	**00 32 04.7**	**-0.3**
BLA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
BLA	**Blacksburg**	**60.15**	**349**	*e*P	**P**	**00 32 04.7**	**-0.2**
	comp=Z,30nm,0.8s,mb5.4						
JCT	**Junction City**	**60.46**	**329**	*e*P	**P**	**00 32 05.9**	**-1.3**
WVT	**Waverly**	**60.85**	**342**	*e*P	**P**	**00 32 07.5**	**-2.2**
MIAR	**Mount Ida**	**61.30**	**336**	*e*P	**P**	**00 32 11.5**	**-1.3**
TXAR	**Lajitas Array**	**61.50**	**325**	P	**P**	**00 32 12.9**	**-1.4**
	comp=Z,10nm,0.9s,mb4.9,baz=148,slow=8.5,SNR=83						
TXAR				pP	pP	00 32 40.3	-1.8
	comp=Z,13nm,0.9s,baz=149,slow=8.2,SNR=12						
TXAR				PKP2bc		01 01 32.2	
	comp=Z,0.8nm,0.9s,baz=252,slow=0.9,SNR=5.1						
TXAR	**Lajitas Array**	**61.50**	**325**	P	**P**	**00 32 12.9**	**-1.4**
TXAR				pP	pP	00 32 40.3	-1.8
TXAR				⇑*e*		01 01 32.2	
PARMO	**Parma**	**61.92**	**341**	*e*pP	pP	00 32 44.1	-0.8
MVL	**Millersville**	**62.30**	**353**	*e*P	**P**	**00 32 19.1**	**-0.2**
WCI	**Wyandotte Cave**	**62.41**	**344**	*e*P	**P**	**00 32 17.7**	**-2.4**
WCI				*e**PP	pP	00 32 46.2	-1.9
BBTS	**Babate**	**62.55**	**59**	P	**P**	**00 32 21.9**	**+0.3**
	comp=Z,89nm,1.1s,mb5.6,baz=217,slow=1.8,SNR=9.2						
BBTS				LR	LR	00 57 47.9	
	comp=Z,142nm,18.3s,baz=212,slow=34						
ACSO	**Alum Creek Sta**	**63.57**	**347**	*e*P	**P**	**00 32 26.5**	**-1.3**
ACSO				*e*pP	pP	00 32 54.4	-1.4
WMOK	**Wichita Mounta**	**63.57**	**332**	*e*P	**P**	**00 32 26.3**	**-1.6**
CCM	**Cathedral Cave**	**63.67**	**340**	*e*P	**P**	**00 32 26.7**	**-1.8**
CCM				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.2						
CCM	**Cathedral Cave**	**63.67**	**340**	*e*P	**P**	**00 32 26.7**	**-1.8**
	comp=Z,35nm,0.8s,mb5.2						
GDL2	**Guadalupe Moun**	**64.13**	**326**	*e*P	**P**	**00 32 31.1**	**-0.5**
GDL2				*e*pP	pP	00 32 59.3	-0.4
ERPA	**Erie**	**64.87**	**350**	*e*P	**P**	**00 32 35.4**	**-0.8**
	comp=Z,55nm,0.8s,mb5.4						
AMTX	**Amarillo**	**64.99**	**330**	*e*P	**P**	**00 32 36.0**	**-1.2**
AMTX				*e*pP	pP	00 33 04.0	-1.3
122A	**Conniff Cattle**	**65.91**	**325**	⇑P	**P**	**00 32 43.6**	**+0.5**
	baz=66						
MAIT	**Maitri**	**65.98**	**159**	*e*P	**P**	**00 32 42.6**	**-0.5**
MAIT				*e*E		00 32 46.7	
NVL	**N'lazarevskaya**	**66.01**	**159**	*e*P	**P**	**00 32 43.6**	**+0.3**
NVL				pmax	pmax		
	comp=Z,109nm,1.1s,mb5.6						
319A	**Douglas**	**66.16**	**322**	⇓P	**P**	**00 32 45.0**	**+0.2**
	baz=66,SNR=26						
KSU1	**Kansas State U**	**66.46**	**336**	*e*P	**P**	**00 32 45.2**	**-1.3**
KSU1				*e*pP	pP	00 33 11.2	-3.5
318A	**Bisbee**	**66.61**	**322**	⇓P	**P**	**00 32 47.7**	**0.0**
	baz=67,SNR=34						
Y22D	**IRIS PASSCAL I**	**66.92**	**326**	⇓P	**P**	**00 32 49.7**	**+0.1**
	baz=67						
LPM	**Los Pinos Moun**	**66.96**	**326**	*e*P	**P**	**00 32 49.7**	**-0.1**
LPM				*e*pP	pP	00 33 18.0	-0.1
LENM	**Lemitar**	**67.02**	**326**	*e*P	**P**	**00 32 50.4**	**+0.2**
LENM				*e*pP	pP	00 33 18.4	-0.1
218A	**Dragoon**	**67.04**	**322**	⇑P	**P**	**00 32 50.4**	**0.0**
	baz=67,SNR=24						
119A	**Ashpeak Ranch,**	**67.21**	**323**	⇑P	**P**	**00 32 51.5**	**+0.1**
	baz=67,SNR=14						
X22A	**Bernardo**	**67.31**	**326**	⇓P	**P**	**00 32 52.5**	**+0.5**
	baz=68						
217A	**Green Valley**	**67.34**	**321**	⇓P	**P**	**00 32 52.3**	**+0.1**
	baz=68,SNR=44						
ANMO	**Albuquerque**	**67.37**	**327**	*e*P	**P**	**00 32 52.2**	**-0.2**
CBKS	**Cedar Bluff**	**67.44**	**334**	*e*P	**P**	**00 32 52.1**	**-0.6**
CBKS				*e**PP	pP	00 33 20.3	-0.7
118A	**Homack Ranch,**	**67.49**	**323**	⇓P	**P**	**00 32 53.2**	**0.0**
	baz=68,SNR=36						
Z19A	**T-Link Ranch,**	**67.59**	**324**	⇑P	**P**	**00 32 54.3**	**+0.5**
	baz=68,SNR=12						
W22A	**Albuquerque**	**67.67**	**326**	⇑P	**P**	**00 32 54.9**	**+0.6**
	baz=68,SNR=34						
TUC	**Tucson**	**67.71**	**322**	*e*P	**P**	**00 32 54.3**	**-0.3**
TUC				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.1						
TUC	**Tucson**	**67.71**	**322**	*e*P	**P**	**00 32 54.3**	**-0.2**
	comp=Z,49nm,1.4s,mb5.1						
SCIA	**State Center**	**67.80**	**340**	*e*P	**P**	**00 32 53.8**	**-1.1**
SCIA				*e*pP	pP	00 33 21.9	-1.3
JFWS	**Jewell Farm**	**67.84**	**343**	*e*P	**P**	**00 32 53.6**	**-1.6**
JFWS				*e**PP	pP	00 33 20.5	-3.0
Z18A	**Geronimo**	**67.86**	**323**	⇓P	**P**	**00 32 55.5**	**0.0**
	baz=68						
216A	**Three Points,**	**67.87**	**321**	⇓P	**P**	**00 32 55.7**	**+0.1**
	baz=68,SNR=28						
117A	**Oracle**	**67.88**	**322**	⇓P	**P**	**00 32 55.6**	**0.0**
	baz=68,SNR=55						
LIC	**Lamto**	**68.03**	**73**	⇑*i*P	**P**	**00 32 57.0**	**0.0**
	comp=Z,24nm,0.7s,mb4.9						
LIC	**Lamto**	**68.03**	**73**	*e*P	**P**	**00 32 57.0**	**0.0**
	comp=Z,54nm,0.7s,mb5.5						
LIC	**Lamto**	**68.03**	**73**	⇑*i*P	**P**	**00 32 57.0**	**0.0**
	comp=Z,12nm,0.7s,mb4.8						
QSPA	**South Pole Qui**	**68.03**	**180**	P	**P**	**00 32 56.1**	**+0.1**
	comp=Z,127nm,0.6s,mb6.0,baz=162,slow=1.3,SNR=499						
Y19A	**Nutrioso**	**68.08**	**324**	⇓P	**P**	**00 32 57.8**	**+1.0**
	baz=68,SNR=90						
W21A	**San Fidel**	**68.11**	**326**	⇑P	**P**	**00 32 57.4**	**+0.4**
	baz=68,SNR=23						
TIC	**Toumodi**	**68.22**	**73**	*e*P	**P**	**00 32 58.3**	**+0.1**
	comp=Z,160nm,1.1s,mb5.8						
Z17A	**San Carlos Hig**	**68.26**	**323**	⇓P	**P**	**00 32 57.8**	**-0.2**
	baz=68,SNR=7.0						
KIC	**Kosan Boka**	**68.34**	**73**	*e*P	**P**	**00 32 59.2**	**+0.2**
	comp=Z,139nm,0.6s,mb6.0						
DBIC	**Dimbokro**	**68.38**	**73**	P	**P**	**00 32 58.9**	**-0.3**
DBIC				*PP	pP	00 33 27.7	+0.1
DBIC	**Dimbokro**	**68.38**	**73**	P	**P**	**00 32 58.9**	**-0.3**
	comp=Z,41nm,0.7s,mb5.3,baz=216,slow=6.8,SNR=74						
DBIC				pP	pP	00 33 27.6	+0.1
	comp=Z,54nm,1.0s,baz=217,slow=6.4,SNR=7.9						
DBIC				LR	LR	01 03 53.6	
	comp=Z,98nm,18.3s,baz=160,slow=36						
DBIC	**Dimbokro**	**68.38**	**73**	P	**P**	**00 32 58.9**	**-0.3**
DBIC				pP	pP	00 33 27.6	+0.1
DBIC				LR	LR	01 03 53.6	
116A	**Eloy**	**68.42**	**321**	⇓P	**P**	**00 32 59.1**	**+0.1**
	baz=69,SNR=17						
W20A	**Ramah**	**68.56**	**325**	⇓P	**P**	**00 33 00.1**	**+0.2**
	baz=69,SNR=49						
214A	**Organ Pipe Nat**	**68.64**	**320**	⇓P	**P**	**00 33 00.6**	**+0.2**
	baz=69,SNR=43						
Y17A	**Roosevelt**	**68.76**	**323**	⇓P	**P**	**00 33 01.5**	**+0.3**
	baz=69,SNR=50						
115A	**Sonoran Desert**	**68.83**	**321**	⇑P	**P**	**00 33 01.7**	**+0.2**
	baz=69,SNR=10.0						
Z16A	**Peralta Trail,**	**68.83**	**322**	⇑P	**P**	**00 33 01.6**	**+0.1**
	baz=69						
X18A	**Snowflake**	**68.89**	**324**	⇑P	**P**	**00 33 02.2**	**+0.3**
	baz=69,SNR=8.3						
W19A	**Sanders**	**69.02**	**325**	⇑P	**P**	**00 33 02.8**	**+0.1**
	baz=69,SNR=7.7						
SDCO	**Great Sand Dun**	**69.11**	**329**	*e*P	**P**	**00 33 03.6**	**+0.5**
	comp=Z,56nm,0.9s,mb5.4						
Z15A	**Gila River Ind**	**69.21**	**322**	⇓P	**P**	**00 33 03.9**	**0.0**
	baz=69						
W18A	**Petrified Fore**	**69.22**	**325**	⇑P	**P**	**00 33 04.0**	**+0.1**
	baz=69,SNR=14						
X17A	**Forest Lakes**	**69.22**	**323**	⇓P	**P**	**00 33 04.7**	**+0.8**
	baz=69,SNR=22						
Y16A	**Circle Bar Ran**	**69.26**	**322**	⇓P	**P**	**00 33 04.6**	**+0.4**
	baz=69,SNR=23						
V19A	**Window Rock**	**69.30**	**325**	⇓P	**P**	**00 33 04.7**	**+0.3**
	baz=70,SNR=32						
X16A	**Lo Mia Camp, P**	**69.63**	**323**	⇑P	**P**	**00 33 06.9**	**+0.5**
	baz=70,SNR=46						
W17A	**Winslow**	**69.72**	**324**	⇓P	**P**	**00 33 07.3**	**+0.3**
	baz=70						
Z14A	**Wintersburg**	**69.72**	**321**	⇑P	**P**	**00 33 07.0**	**0.0**
	baz=70,SNR=6.0						
V18A	**Ganado**	**69.77**	**325**	⇑P	**P**	**00 33 07.2**	**0.0**
	baz=70,SNR=14						

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113A  Mohawk Valley,    69.78 320 ⇓P    P      00 33 07.3 -0.2
      baz=70,SNR=7.2
Y15A  Casa Rosa Ranc    69.80 322 ⇑P    P      00 33 07.7 +0.2
      baz=70,SNR=50
112A  Yuma              70.10 320 ⇑P    P      00 33 09.4  0.0
      baz=70
X15A  Humboldt          70.13 322 ⇓P    P      00 33 10.0 +0.5
      baz=70,SNR=37
T19A  Beclabito         70.14 326 ⇓P    P      00 33 09.3 -0.2
      baz=70,SNR=21
S21A  Coal Bank Pass    70.16 328 ⇓P    P      00 33 09.8 +0.2
      baz=70,SNR=47
MVCO  Mesa Verde        70.16 327 ⇑P    P      00 33 09.8 +0.1
      baz=70,SNR=48
MVCO  Mesa Verde        70.16 327 eP    P      00 33 09.8 +0.2
      comp=Z,74nm,0.9s,mb5.5
Y14A  Wickenburg        70.17 322 ⇓P    P      00 33 09.7 -0.1
      baz=70,SNR=17
W16A  Flagstaff         70.18 323 ⇓P    P      00 33 10.5 +0.7
      baz=70,SNR=32
OGNE  Ogallala          70.18 333 eP    P      00 33 09.2 -0.4
U18A  Rough Rock, Ch    70.27 325 ⇓P    P      00 33 10.5 +0.2
      baz=70,SNR=49
WUAZ  Wupatki           70.40 324 eP    P      00 33 11.7 +0.5
X14A  Yava              70.49 322 ⇓P    P      00 33 11.9 +0.2
      baz=71,SNR=37
COWI  Conover           70.53 345 eP    P      00 33 10.5 -1.1
Y13A  Salome            70.56 321 ⇑P    P      00 33 12.4 +0.3
      baz=71,SNR=20
R21A  Cimarron          70.59 328 ⇓P    P      00 33 12.6 +0.4
      baz=71,SNR=55
GLA   Glamis            70.61 320 ⇓P    P      00 33 12.7 +0.2
      baz=71,SNR=10
GLA   Glamis            70.61 320 eP    P      00 33 12.7 +0.2
GLA                               epP   pP     00 33 33.1 -7.9
W15A  Williams          70.65 323 ⇑P    P      00 33 13.2 +0.5
      baz=71,SNR=9.1
Q22A  Crested Butte,    70.67 329 ⇓P    P      00 33 13.0 +0.3
      baz=71,SNR=17
U16A  Tuba City         70.73 324 ⇓P    P      00 33 13.5 +0.4
      baz=71,SNR=23
ISCO  Idaho Springs     70.81 330 eP    P      00 33 12.8 -0.7
T18A  Mexican Hat       70.81 326 ⇓P    P      00 33 13.7 +0.1
      baz=71,SNR=85
U17A  Shonto            70.82 325 ⇓P    P      00 33 14.2 +0.6
      baz=71,SNR=21
R20A  Redvale           70.86 328 ⇑P    P      00 33 14.4 +0.5
      baz=71,SNR=64
S19A  Harvey Farm, M    70.90 327 ⇓P    P      00 33 14.2 +0.1
      baz=71,SNR=57
Y12C  Blythe            70.92 320 ⇓P    P      00 33 14.3  0.0
      baz=71,SNR=17
Q21A  Lamborn Mesa,     70.96 328 ⇑P    P      00 33 14.7 +0.2
      baz=71,SNR=8.3
V15A  Kaibab Nationa    71.06 323 ⇑P    P      00 33 15.9 +0.7
      baz=71,SNR=44
PDMCI Parker Dam,Lak    71.08 321 ⇓P    P      00 33 15.2 -0.2
      baz=71,SNR=7.6
DVTC  Desert V Tower    71.11 319 ⇓P    P      00 33 15.4 -0.1
      baz=71
X13A  Yucca             71.11 322 ⇓P    P      00 33 15.6 +0.1
      baz=71,SNR=28
SWSC  Sam W. Stewart    71.12 319 ⇓P    P      00 33 15.9 +0.3
      baz=71
W14A  Seligman          71.13 322 ⇑P    P      00 33 16.0 +0.5
      baz=71,SNR=30
T17A  Navajo Res., N    71.20 325 ⇓P    P      00 33 16.8 +0.9
      baz=71,SNR=44
PV04  Paradox Valley    71.28 327 eP    P      00 33 16.6 +0.2
S18A  Hurst Farm, Bl    71.30 326 ⇓P    P      00 33 17.0 +0.5
      baz=72,SNR=130
R19A  Curley Farm, L    71.38 327 ⇑P    P      00 33 17.0  0.0
      baz=72,SNR=28
BC3   Big Chuckw Mtn    71.41 320 ⇑P    P      00 33 17.5 +0.2
      baz=72,SNR=20
Q20A  Ridgley Place,    71.41 328 ⇓P    P      00 33 17.0 -0.2
      baz=72,SNR=6.9
P21A  Newcastle         71.44 329 ⇑P    P      00 33 17.9 +0.6
      baz=72,SNR=79
V14A  Boquillas Ranc    71.45 323 ⇑P    P      00 33 18.1 +0.6
      baz=72,SNR=54
MONP  Monument Peak     71.47 319 ⇑P    P      00 33 17.9 +0.3
      baz=72
BAR   Barrett           71.48 318 eP    P      00 33 18.1 +0.4
BAR                               epP   pP     00 33 46.2 -0.1
W13A  Hualapai Mount    71.51 322 ⇓P    P      00 33 18.5 +0.6
      baz=72,SNR=28
T16A  Glen Canyon Da    71.56 325 ⇑P    P      00 33 18.6 +0.5
      baz=72,SNR=14
IRM   Iron Mountain     71.58 320 ⇓P    P      00 33 18.5 +0.2
      baz=72,SNR=22
S17A  Black Ridge (B    71.67 326 ⇓P    P      00 33 19.1 +0.3
      baz=72,SNR=30
NEE2  Needles Airpor    71.69 321 ⇓P    P      00 33 18.9 -0.1
      baz=72
R18A  Canyonlands Na    71.77 327 ⇑P    P      00 33 19.3 -0.1
      baz=72,SNR=38
P20A  De Beque          71.88 328 ⇑P    P      00 33 20.1 +0.2
      baz=72,SNR=22
109C  Camp Elliot, M    71.89 318 ⇓P    P      00 33 19.8 -0.4
      baz=72
Q19A  Hogan Spring (    71.89 327 ⇓P    P      00 33 20.2 +0.2
      baz=72,SNR=16
PHWY  Pilot Hill        71.94 331 eP    P      00 33 20.2 -0.1
PHWY                              epP   pP     00 33 48.9 -0.1
BELC  Belle Mtn.        71.97 320 ⇑P    P      00 33 20.8 +0.1
      baz=72,SNR=7.2
PFO   Pinyon Flat Ob    71.98 319 i P   P      00 33 21.4 +0.7
PFO   Pinyon Flat Ob    71.98 319 ⇓P    P      00 33 21.1 +0.4
      baz=72
N22A  Wattenberg Ran    71.99 330 ⇓P    P      00 33 20.9 +0.3
      baz=72,SNR=29
O21A  Pagoda            72.00 329 ⇓P    P      00 33 21.4 +0.7
      baz=72,SNR=14
T15A  Red Dirt Ranch    72.06 324 ⇑P    P      00 33 21.9 +0.8
      baz=72,SNR=56
U14A  Mt Trumbull       72.06 323 ⇓P    P      00 33 22.0 +0.8
      baz=72,SNR=66
V13A  Grand Canyon W    72.10 322 ⇓P    P      00 33 21.7 +0.3
      baz=72,SNR=38
S16A  Weppner Ranch,    72.16 325 ⇓P    P      00 33 21.8 +0.2
      baz=72,SNR=23
LDFC  Landfair          72.20 321 eP    P      00 33 23.2 +1.2
LDFC                              epP   pP     00 33 51.4 +0.7
R17A  Hanksville Air    72.22 326 ⇓P    P      00 33 22.2 +0.2
      baz=72,SNR=78
W12A  Cal Nev Ari       72.22 321 ⇓P    P      00 33 22.1  0.0
      baz=72
P19A  Cripple Cowboy    72.27 328 ⇑P    P      00 33 22.9 +0.6
      baz=72,SNR=173
O20A  White River Ci    72.30 329 ⇑P    P      00 33 22.8 +0.3
      baz=72,SNR=58
GMRC  Granite Mounta    72.31 321 ⇑P    P      00 33 23.0 +0.3
      baz=72,SNR=30
MURC  Murrieta          72.43 319 ⇓P    P      00 33 23.5 +0.1
      baz=73
Q18A  Rafter H Ranch    72.44 327 ⇓P    P      00 33 23.5 +0.2
      baz=73,SNR=22
N21A  Black Mountain    72.45 330 ⇓P    P      00 33 23.9 +0.6
      baz=73,SNR=14
T14A  Hurricane         72.47 324 ⇑P    P      00 33 24.1 +0.6
      baz=73,SNR=23
U13A  Pakoon Wash       72.49 323 ⇑P    P      00 33 24.1 +0.4
      baz=73,SNR=11
V12A  Nelson            72.51 322 ⇓P    P      00 33 23.6 -0.2
      baz=73,SNR=19
R16A  Teasdale          72.52 326 ⇓P    P      00 33 24.1 +0.3
      baz=73,SNR=11
S15A  Panguitch         72.53 325 ⇑P    P      00 33 24.3 +0.4
      baz=73,SNR=5.6
M22A  Cedar Creek Ra    72.53 331 ⇓P    P      00 33 24.1 +0.2
      baz=73,SNR=16
SRU   San Rafael        72.64 327 ⇓P    P      00 33 24.5  0.0
      baz=73,SNR=72
SRU   San Rafael        72.64 327 eP    P      00 33 24.6 +0.1
BBRC  Big Bear Sol-O    72.71 319 ⇓P    P      00 33 25.4 +0.4
      baz=73
HEC   Hector,Ludlow     72.74 320 ⇓P    P      00 33 25.5 +0.3
      baz=73,SNR=9.9
Q16A  Castle Valley     72.83 326 ⇑P    P      00 33 25.7 +0.1
      baz=73,SNR=25
U12A  Valley of Fire    72.83 322 ⇑P    P      00 33 26.0 +0.3
      baz=73,SNR=24
EYMN  Ely               72.83 344 eP    P      00 33 24.1 -1.3
SCI   San Clemente I    72.84 317 ⇓P    P      00 33 25.6 -0.2
      baz=73
O19A  Miners Draw (B    72.85 328 ⇓P    P      00 33 25.8  0.0
      baz=73,SNR=22
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N20A  Spence Gulch,     72.86 329 ⇑P    P      00 33 25.9 +0.1
      baz=73,SNR=32
P18A  Preston Nutter    72.89 327 ⇑P    P      00 33 26.5 +0.5
      baz=73,SNR=64
T13A  Saint George      72.90 323 ⇓P    P      00 33 26.7 +0.6
      baz=73,SNR=19
V11A  Goodsprings       72.92 321 ⇓P    P      00 33 26.3 +0.1
      baz=73,SNR=7.2
TUQ   Turquoise Moun    72.92 321 ⇓P    P      00 33 26.5 +0.2
      baz=73,SNR=10.0
P17A  Butcher Ranch,    73.03 327 ⇑P    P      00 33 26.8  0.0
      baz=73,SNR=32
S14A  Cedar City        73.03 324 ⇓P    P      00 33 27.7 +0.9
      baz=73,SNR=5.4
RWWY  Rawlins           73.04 331 eP    P      00 33 26.3 -0.5
MSU   Marysvale         73.05 325 eP    P      00 33 27.4 +0.5
TMUT  Trail Mountain    73.13 326 eP    P      00 33 28.1 +0.7
BFSC  Mount Baldy St    73.14 319 ⇑P    P      00 33 27.7 +0.1
      baz=73,SNR=5.4
SHPR  Sheep Range       73.23 322 eP    P      00 33 28.5 +0.4
S13A  Holt Ranch, En    73.27 324 ⇓P    P      00 33 29.0 +0.7
      baz=74,SNR=32
L21A  Rawlins           73.33 331 ⇓P    P      00 33 28.5  0.0
      baz=74,SNR=48
M20A  Sweetwater, Wa    73.34 330 ⇑P    P      00 33 28.6 +0.1
      baz=74,SNR=30
N19A  John Jarvie Ra    73.34 329 ⇓P    P      00 33 28.5 -0.1
      baz=74,SNR=49
R14A  James Farms, M    73.34 325 ⇓P    P      00 33 29.3 +0.6
      baz=74,SNR=7.2
GSC   Goldstone         73.35 320 ⇑P    P      00 33 28.9 +0.1
      baz=74,SNR=7.3
GSC   Goldstone         73.35 320 eP    P      00 33 29.1 +0.3
GSC                               epP   pP     00 33 57.8 +0.3
SHOC  Shoshone          73.45 321 ⇓P    P      00 33 29.3 -0.1
      baz=74
Q15A  Fillmore          73.52 326 ⇓P    P      00 33 30.2 +0.5
      baz=74,SNR=12
O17A  Robinson Place    73.57 327 ⇑P    P      00 33 30.4 +0.5
      baz=74,SNR=93
P16A  Fountain Green    73.60 326 ⇑P    P      00 33 30.5 +0.4
      baz=74
SNCC  San Nicolas Is    73.64 317 ⇑P    P      00 33 30.6 +0.1
      baz=74
RSSD  Black Hills       73.64 334 eP    P      00 33 30.0 -0.3
RSSD                               pmax pmax
      comp=Z,35nm,1.0s,mb5.0
RSSD  Black Hills       73.64 334 eP    P      00 33 30.0 -0.3
      comp=Z,34nm,1.0s,mb5.0
R13A  O'Grain Ranch,    73.77 324 ⇓P    P      00 33 31.8 +0.7
      baz=74,SNR=19
EDW2  Edwards Air Fo    73.77 319 ⇓P    P      00 33 31.0 -0.2
      baz=74,SNR=6.3
T11A  Corn Creek, Al    73.79 323 ⇑P    P      00 33 31.8 +0.5
      baz=74,SNR=33
M19A  Rock Springs      73.80 329 ⇑P    P      00 33 30.9 -0.4
      baz=74,SNR=7.1
L20A  Wamsutter         73.81 330 ⇑P    P      00 33 31.4 +0.1
      baz=74,SNR=20
S12A  Delamar Landin    73.84 323 ⇑P    P      00 33 32.0 +0.4
      baz=74,SNR=7.1
U10A  Ash Meadows, A    73.84 321 ⇑P    P      00 33 32.1 +0.4
      baz=74,SNR=7.8
MPU   Maple Canyon      73.89 327 eP    P      00 33 32.5 +0.6
MPU                               epP   pP     00 34 01.0 +0.5
P15A  Leamington        73.89 326 ⇓P    P      00 33 32.1 +0.2
      baz=74,SNR=6.0
O16A  Springville       73.96 327 ⇓P    P      00 33 32.6 +0.3
      baz=74,SNR=18
Q14A  Sevier Lake (B    73.98 325 ⇑P    P      00 33 33.1 +0.7
      baz=74,SNR=45
DAU   Daniels Canyon    73.99 327 eP    P      00 33 32.9 +0.5
LRMC  Laurel Mountai    74.00 320 ⇓P    P      00 33 32.3 -0.2
      baz=74
NLU   North Lily Min    74.07 326 eP    P      00 33 33.4 +0.5
NLU                               epP   pP     00 34 02.5 +0.9
M18A  Lyman             74.18 329 ⇑P    P      00 33 33.0 -0.5
      baz=74,SNR=19
N17A  Moffit Pass       74.18 328 ⇑P    P      00 33 33.9 +0.4
      baz=74,SNR=96
FURC  Furnace Creek,    74.19 321 ⇑P    P      00 33 33.8 +0.2
      baz=74,SNR=8.2
R12A  Pony Springs,     74.22 324 ⇑P    P      00 33 34.7 +0.9
      baz=74,SNR=21
JLU   Jordanelle        74.23 327 eP    P      00 33 34.2 +0.4
MPMC  Manual Prospec    74.28 320 ⇓P    P      00 33 34.1  0.0
      baz=74,SNR=10
P14A  Drum Mountains    74.31 326 ⇑P    P      00 33 35.2 +0.9
      baz=74,SNR=52
K20A  Yellowstone Ra    74.32 330 ⇑P    P      00 33 33.8 -0.4
      baz=74
Q13A  Wheeler Ranch,    74.35 325 ⇑P    P      00 33 34.9 +0.4
      baz=74,SNR=17
L19A  Farson            74.36 329 ⇑P    P      00 33 34.7 +0.2
      baz=75,SNR=33
AGMN  Agassiz Refuge    74.36 341 eP    P      00 33 32.6 -1.8
N16A  Rees Ranch, Co    74.44 327 ⇓P    P      00 33 35.3 +0.3
      baz=75,SNR=14
M17A  Scullys Gap (B    74.50 328 ⇑P    P      00 33 34.9 -0.5
      baz=75,SNR=15
O15A  The Old Anders    74.51 326 ⇑P    P      00 33 35.6 +0.2
      baz=75,SNR=8.5
L18A  Fontenelle, Gr    74.55 329 ⇑P    P      00 33 35.6 +0.1
      baz=75,SNR=70
ISA   Isabella          74.59 320 ⇓P    P      00 33 36.0  0.0
      baz=75,SNR=12
ISA   Isabella          74.59 320 eP    P      00 33 36.3 +0.3
DUG   Dugway            74.62 326 eP    P      00 33 35.7 -0.4
DUG                                pmax pmax
      comp=Z,48nm,1.1s,mb5.1
DUG   Dugway            74.62 326 eP    P      00 33 35.7 -0.3
      comp=Z,48nm,1.1s,mb5.1
K19A  Absolon Red Bu    74.68 330 ⇑P    P      00 33 35.9 -0.4
      baz=75,SNR=43
P13A  Bates Ranch, G    74.71 325 ⇓P    P      00 33 37.1 +0.4
      baz=75,SNR=28
R11A  Troy Canyon, C    74.78 323 ⇑P    P      00 33 37.6 +0.6
      baz=75,SNR=26
GRAC  Grapevine Rang    74.85 321 ⇑P    P      00 33 37.5  0.0
      baz=75,SNR=5.8
Q12A  Willow Creek R    74.85 324 ⇓P    P      00 33 37.7 +0.3
      baz=75,SNR=12
M16A  Huntsville        74.86 328 ⇓P    P      00 33 37.3 -0.1
      baz=75,SNR=7.6
CWC   Cottonwood Cre    74.88 320 ⇑P    P      00 33 38.0 +0.3
      baz=75,SNR=11
PKM   Peak Mountain     74.90 318 ⇓P    P      00 33 38.0 +0.2
      baz=75,SNR=5.4
BW06  Boulder Array     74.97 330 ⇑P    P      00 33 37.6 -0.4
      baz=75
PDAR  Pinedale Array    74.97 330  P    P      00 33 36.9 -1.1
      comp=Z,5.8nm,0.7s,mb4.4,baz=151,slow=5.9,SNR=44
PDAR                               pP   pP     00 34 05.2 -1.6
      comp=Z,10.0nm,0.9s,baz=139,slow=7.9,SNR=7.3
PDAR                               LR   LR     01 07 07.5
      comp=Z,89nm,19.0s,baz=325,slow=36
N15A  Stansbury Isla    74.99 327 ⇑P    P      00 33 38.0 -0.2
      baz=75,SNR=23
S10A  Tonopah Range,    75.04 322 ⇑P    P      00 33 38.9 +0.4
      baz=75,SNR=24
VES   Vestal, Richgr    75.08 319 ⇓P    P      00 33 38.5 -0.4
      baz=75,SNR=8.2
L17A  Cokeville         75.08 329 ⇓P    P      00 33 38.2 -0.4
      baz=75,SNR=15
K18A  Toltan Ranch,     75.10 329 ⇑P    P      00 33 39.1 +0.4
      baz=75,SNR=42
R10A  Warm Springs      75.13 323 ⇓P    P      00 33 39.8 +0.7
      baz=75,SNR=20
Q11A  Duckwater         75.17 324 ⇑P    P      00 33 39.6 +0.3
      baz=75,SNR=24
O13A  Hicks Ranch, I    75.19 325 ⇓P    P      00 33 39.5 +0.2
      baz=75,SNR=5.3
P12A  McGill            75.20 324 ⇑P    P      00 33 39.7 +0.3
      baz=75,SNR=27
S09A  Goldfield         75.26 322 ⇓P    P      00 33 39.8  0.0
      baz=75,SNR=12
SPUT  South Promonto    75.26 327 eP    P      00 33 39.6 -0.1
SMMC  Simmler           75.29 318 ⇑P    P      00 33 40.3 +0.3
      baz=76
L16A  Fish Haven        75.29 328 ⇑P    P      00 33 39.6 -0.3
      baz=76,SNR=28
N14A  Grayback Hills    75.30 326 ⇓P    P      00 33 39.8 -0.2
      baz=76,SNR=26
M15A  Larsen Ranch,     75.38 327 ⇓P    P      00 33 40.0 -0.4
      baz=76,SNR=47
TIN   Tinemaha          75.39 321 ⇑P    P      00 33 40.4 -0.1
      baz=76
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TPH   Tonopah           75.50 322 eP    P      00 33 41.5 +0.3
TPH                                pmax pmax
      comp=Z,32nm,1.3s,mb4.9
TPH   Tonopah           75.50 322 eP    P      00 33 41.5 +0.3
      comp=Z,32nm,1.3s,mb4.9
J18A  Kendall Valley    75.53 330 ⇓P    P      00 33 40.9 -0.3
      baz=76,SNR=27
R09A  Tonopah           75.53 322 ⇓P    P      00 33 41.6 +0.2
      baz=76,SNR=16
Q10A  Clear Creek Ra    75.56 323 ⇑P    P      00 33 41.8 +0.3
      baz=76,SNR=12
K17A  Gardner Place,    75.60 329 ⇑P    P      00 33 41.4 -0.2
      baz=76,SNR=22
SYO   Syowa Base        75.68 159⇑iP    P      00 33 40.6 -1.2
O12A  Currie            75.69 325 ⇓P    P      00 33 42.5 +0.3
      baz=76,SNR=7.5
AHID  Auburn Hatcher    75.70 329 eP    P      00 33 42.1 -0.1
P11A  Circle Ranch,     75.72 324 ⇓P    P      00 33 43.0 +0.6
      baz=76
L15A  Malad City        75.75 328 ⇑P    P      00 33 42.2 -0.3
      baz=76,SNR=47
HVU   Hansel Valley     75.78 327 eP    P      00 33 42.8 +0.1
MTUM  Tungsten Hills    75.79 321 eP    P      00 33 43.3 +0.5
MTUM                              epP   pP     00 34 11.9 +0.2
I18A  Diamond G Ranc    75.81 330 ⇓P    P      00 33 43.1 +0.3
      baz=76,SNR=35
N13A  Wendover, West    75.83 326 ⇓P    P      00 33 42.9 -0.1
      baz=76,SNR=9.7
M14A  Sheep Mountain    75.86 327 ⇑P    P      00 33 42.9 -0.2
      baz=76,SNR=40
J17A  Brown Place, J    75.97 330 ⇑P    P      00 33 44.0 +0.3
      baz=76,SNR=13
K16A  Soda Springs      75.98 329 ⇑P    P      00 33 44.2 +0.4
      baz=76,SNR=87
Q09A  Carvers           76.01 323 ⇑P    P      00 33 44.4 +0.4
      baz=76
REDW  Red Top Meadow    76.03 329 eP    P      00 33 44.1  0.0
SNOW  Snow King Moun    76.06 330 eP    P      00 33 44.7 +0.4
O11A  Cowboy Ranch,     76.08 324 ⇓P    P      00 33 44.6 +0.2
      baz=76,SNR=7.5
LOHW  Long Hollow       76.11 330 eP    P      00 33 44.5  0.0
ULM   Lac du Bonnet     76.12 342  P    P      00 33 42.4 -2.0
      comp=Z,16nm,0.7s,mb4.9,baz=156,slow=6.0,SNR=32
ULM                                LR   LR     01 06 02.5
      comp=Z,127nm,18.7s,baz=202,slow=35
ULM   Lac du Bonnet     76.12 342  P    P      00 33 42.4 -2.0
ULM                                LR   LR     01 06 02.5
MLAC  Mammoth Lakes     76.13 321 ⇑P    P      00 33 45.5 +0.8
      baz=76
P10A  Eureka            76.16 324 ⇑P    P      00 33 45.3 +0.4
      baz=76,SNR=11
M13A  Montello          76.18 326 ⇑P    P      00 33 44.4 -0.5
      baz=76,SNR=16
R08A  Mina              76.20 322 ⇓P    P      00 33 44.9 -0.3
      baz=76
L14A  Malta             76.20 327 ⇓P    P      00 33 44.7 -0.3
      baz=76,SNR=15
RRI2  Red Ridge         76.24 329 eP    P      00 33 45.7 +0.5
N12A  Clover Valley,    76.26 325 ⇓P    P      00 33 45.1 -0.3
      baz=76,SNR=5.8
ELK   Elko              76.29 325 eP    P      00 33 45.6  0.0
ELK                                pmax pmax
      comp=Z,20nm,1.0s
ELK   Elko              76.29 325 eP    P      00 33 45.6  0.0
      comp=Z,20nm,1.0s,mb4.8
VNDA  Vanda             76.30 190  P    P      00 33 45.7 +0.5
      comp=Z,18nm,0.9s,mb4.8,baz=137,slow=4.8,SNR=22
VNDA                               LR   LR     01 10 55.1
      comp=Z,140nm,18.5s,baz=228,slow=38
VNDA  Vanda             76.30 190  P    P      00 33 45.7 +0.5
VNDA                               LR   LR     01 10 55.1
K15A  Arbon             76.33 328 ⇑P    P      00 33 45.7  0.0
      baz=76,SNR=41
I17A  Pilgrim Ck.       76.33 330 ⇑P    P      00 33 46.6 +0.8
      baz=76,SNR=63
NVAR  Mina Array Bea    76.37 322  P    P      00 33 45.8 -0.3
      comp=Z,7.2nm,0.8s,mb4.5,baz=154,slow=7.0,SNR=45
NVAR                               pP   pP     00 34 13.9 -1.1
      comp=Z,6.1nm,0.9s,baz=144,slow=7.2,SNR=5.1
DCID1 Drake Creek       76.37 329 eP    P      00 33 46.4 +0.4
      comp=Z,112nm,1.4s,mb5.4
Q08A  Gabbs             76.45 322 ⇑P    P      00 33 46.2 -0.3
      baz=77,SNR=13
K14A  Jones Ranch, D    76.54 328 ⇓P    P      00 33 46.7 -0.3
      baz=77,SNR=10
L13A  Double Diamond    76.59 327 ⇑P    P      00 33 47.5 +0.2
      baz=77,SNR=30
N11A  Elko Archery C    76.61 325 ⇓P    P      00 33 47.5 +0.1
      baz=77
LAO   LASA Array        76.63 334 eP    P      00 33 46.7 -0.6
      comp=Z,91nm,1.2s,mb5.4
O10A  Cortez Mining,    76.65 324 ⇑P    P      00 33 48.0 +0.3
      baz=77
RLMT  Red Lodge         76.67 332 ⇑P    P      00 33 48.3 +0.7
      baz=77
RLMT  Red Lodge         76.67 332 eP    P      00 33 47.6  0.0
      comp=Z,12nm,0.7s,mb4.7
SCHQ  Schefferville     76.69   1  P    P      00 33 46.4 -1.1
      comp=Z,17nm,0.8s,mb4.8,baz=183,slow=4.2,SNR=28
H17A  Grant Village     76.69 330 ⇓P    P      00 33 49.0 +1.2
      baz=77,SNR=10
I16A  Newdale           76.72 329 ⇑P    P      00 33 48.1 +0.2
      baz=77,SNR=20
J15A  Blackfoot         76.82 329 ⇑P    P      00 33 48.7 +0.3
      baz=77,SNR=42
YFT   Old Faithful      76.86 330 eP    P      00 33 50.7 +2.0
G18A  Lazy EL Ranch,    76.95 331 ⇓P    P      00 33 49.2  0.0
      baz=77,SNR=40
N10A  Dunphy            76.95 324 ⇓P    P      00 33 49.4 +0.1
      baz=77
YNR   Norris Junctio    76.99 330 eP    P      00 33 50.8 +1.4
TOA0  Torodi Ar. Sit    77.04  70⇓iP    P      00 33 50.1 -0.3
TORD  Torodi Ar. Bea    77.04  70  P    P      00 33 50.1 -0.3
      comp=Z,51nm,0.6s,mb5.5,baz=256,slow=5.5,SNR=193
TORD                               pP   pP     00 34 19.3 -0.1
      comp=Z,43nm,0.7s,baz=250,slow=5.5,SNR=9.3
TORD  Torodi Ar. Bea    77.04  70  P    P      00 33 50.1 -0.3
TORD                               pP   pP     00 34 19.3 -0.1
K13A  Stover Farm, H    77.08 327 ⇑P    P      00 33 50.1 +0.2
      baz=77,SNR=13
M11A  Holland Ranch,    77.08 325 ⇑P    P      00 33 50.3 +0.3
      baz=77,SNR=21
R06C  Coleville         77.09 321 ⇓P    P      00 33 50.4 +0.3
      baz=77,SNR=7.8
P08A  Dixie Valley      77.11 323 ⇑P    P      00 33 50.3 +0.1
      baz=77,SNR=9.1
L12A  House Creek Ra    77.18 326 ⇑P    P      00 33 51.1 +0.5
      baz=77,SNR=7.2
H16A  Russell Place,    77.24 330 ⇓P    P      00 33 51.6 +0.8
      baz=77,SNR=25
I15A  Monteview         77.29 329 ⇓P    P      00 33 51.7 +0.6
      baz=78,SNR=10
DGMT  Dagmar            77.31 336 ⇑P    P      00 33 51.1  0.0
      baz=78,SNR=16
DGMT  Dagmar            77.31 336 eP    P      00 33 51.3 +0.2
      comp=Z,68nm,0.9s,mb5.4
QLMT  Earthquake Lak    77.42 330 eP    P      00 33 52.7 +0.9
F18A  Big Timber        77.47 332 ⇑P    P      00 33 51.9 -0.2
      baz=78,SNR=64
G17A  Pierce Place,     77.48 331 ⇓P    P      00 33 52.9 +0.7
      baz=78,SNR=7.6
K12A  Draper Farm, C    77.48 327 ⇓P    P      00 33 52.8 +0.5
      baz=78,SNR=51
M10A  I.L. Ranch, Tu    77.54 325 ⇓P    P      00 33 52.6 +0.1
      baz=78,SNR=8.1
O08A  Rochester Mine    77.56 323 ⇓P    P      00 33 52.4 -0.3
      baz=78,SNR=9.7
L11A  Cat Creek Ranc    77.58 326 ⇑P    P      00 33 53.0 +0.2
      baz=78,SNR=29
N09A  Rock Creek Ran    77.60 324 ⇓P    P      00 33 52.4 -0.5
      baz=78
J13A  Cove Ranch, Pi    77.67 328 ⇑P    P      00 33 53.6 +0.4
      baz=78,SNR=24
I14A  Mackay            77.70 328 ⇓P    P      00 33 54.3 +0.8
      baz=78,SNR=40
SUR   Sutherland        77.75 120  P    P      00 33 56.5 +2.3
      comp=Z,223nm,0.8s,mb5.9,SNR=8.8
SUR   Sutherland        77.75 120  P    P      00 33 55.6 +1.4
      comp=Z,19nm,0.6s,mb5.0,baz=234,slow=6.5,SNR=19
SUR                                pP   pP     00 34 23.8 +0.6
      comp=Z,28nm,1.0s,baz=318,slow=3.7,SNR=4.2
SUR   Sutherland        77.75 120  P    P      00 33 55.6 +1.4
SUR                                pP   pP     00 34 23.8 +0.6
WCN   Washoe City       77.79 322 ⇑P    P      00 33 53.8 -0.2
      baz=78
H15A  Lima              77.83 329 ⇑P    P      00 33 54.7 +0.6
      baz=78,SNR=12
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PAHR  Pah Rah Range    77.85 322  eP      P        00 33 54.8 +0.4
O07A  Toulon           77.87 323 ⇓P       P        00 33 54.1 -0.3
      baz=78,SNR=12
N08A  GE Springer Mi   77.88 324 ⇑P       P        00 33 53.9 -0.6
      baz=78
L10A  Juniper Basin    77.89 325 ⇑P       P        00 33 54.9 +0.4
      baz=78,SNR=66
F17A  Fitzpatrick Pl   77.89 331 ⇓P       P        00 33 54.8 +0.3
      baz=78,SNR=30
G16A  Moss Hill, Enn   77.90 330 ⇑P       P        00 33 54.5 +0.1
      baz=78,SNR=6.5
HLID  Hailey           77.91 328 ⇓P       P        00 33 55.3 +0.7
      baz=78,SNR=89
HLID  Hailey           77.91 328  eP      P        00 33 55.1 +0.6
      comp=Z,62nm,1.0s,mb5.3
M09A  Marrel Ranch,    77.95 324 ⇓P       P        00 33 54.9  0.0
      baz=78,SNR=19
I13A  Wildhorse Cree   78.02 328 ⇑P       P        00 33 55.9 +0.7
      baz=78,SNR=44
J12A  Stokes Ranch,    78.02 327 ⇑P       P        00 33 55.6 +0.4
      baz=78,SNR=43
E18A  Harlowton        78.08 332 ⇑P       P        00 33 55.3 -0.1
      baz=78,SNR=15
P06A  Stead Airport,   78.12 322 ⇑P       P        00 33 55.8  0.0
      baz=78
BOZ   Bozeman (W)      78.13 331 ⇓P       P        00 33 55.5 -0.3
      baz=78
K11A  Parker Ranch,    78.16 326 ⇑P       P        00 33 56.1 +0.1
      baz=78,SNR=26
G15A  Dillon           78.17 330 ⇓P       P        00 33 56.1 +0.2
      baz=78,SNR=27
N07B  Gerlach          78.34 323 ⇓P       P        00 33 56.9 -0.2
      baz=78,SNR=20
DLMT  Dillon           78.36 330  eP      P        00 33 57.1 +0.1
      comp=Z,54nm,1.3s,mb5.1
DLMT                              epP     pP       00 34 26.2 +0.1
LCCM  Lewis and Clar   78.39 331  P       P        00 33 57.5 +0.3
E17A  Martinsdale      78.41 331 ⇓P       P        00 33 57.4 +0.2
      baz=79,SNR=23
O06A  Flanigan         78.41 322 ⇑P       P        00 33 57.4  0.0
      baz=79,SNR=5.5
M08A  Happy Creek Ra   78.47 324 ⇑P       P        00 33 57.7 -0.1
      baz=79,SNR=5.9
L09A  Wilkinson Ranc   78.48 325 ⇑P       P        00 33 57.7 -0.1
      baz=79,SNR=11
MFID  Camas Ranch      78.51 327 ⇓P       P        00 33 58.2 +0.3
      baz=79,SNR=19
BEKR  Beckwourth       78.51 322  P       P        00 33 57.9 -0.1
      baz=79
D18A  Linhart Farms,   78.52 333 ⇓P       P        00 33 57.7 -0.1
      baz=79,SNR=9.6
H13A  Challis          78.56 328 ⇓P       P        00 33 58.6 +0.5
      baz=79,SNR=58
K10A  MacKenzie Ranc   78.60 326 ⇑P       P        00 33 58.4  0.0
      baz=79,SNR=28
LRM   Limekiln Ridge   78.64 330  eP      P        00 33 58.8 +0.3
F15A  Butte            78.68 330 ⇑P       P        00 33 59.0 +0.3
      baz=79,SNR=28
G14A  Jackson          78.68 329 ⇑P       P        00 33 59.2 +0.4
      baz=79,SNR=8.7
N06A  Buffalo Meadow   78.81 323 ⇓P       P        00 33 59.7 +0.2
      baz=79,SNR=19
OHCM  Honcut           78.82 321  eP      P        00 33 59.7  0.0
E16A  East Helena      78.83 331 ⇑P       P        00 33 59.7 +0.1
      baz=79,SNR=13
H12A  Diamond D Ranc   78.84 328 ⇓P       P        00 34 00.0 +0.3
      baz=79,SNR=36
D17A  Six Diamond Ra   78.87 332 ⇑P       P        00 33 59.6 -0.1
      baz=79,SNR=33
M07A  Soldier Meadow   78.87 323 ⇓P       P        00 33 59.9 -0.1
      baz=79,SNR=15
I11A  Placerville      78.93 327 ⇑P       P        00 34 00.2  0.0
      baz=79
G13A  Cobalt           78.94 329 ⇓P       P        00 34 00.6 +0.4
      baz=79,SNR=145
L08A  Fields           78.97 325 ⇓P       P        00 34 00.2 -0.3
      baz=79,SNR=23
K09A  Rome             78.99 325 ⇓P       P        00 34 00.3 -0.2
      baz=79,SNR=21
J10A  Berg Farm, Mel   79.00 326 ⇓P       P        00 34 00.3 -0.3
      baz=79
HRY   Holter Researc   79.03 331  eP      P        00 34 00.9 +0.2
F14A  Wisdom           79.06 330 ⇑P       P        00 34 01.4 +0.6
      baz=79,SNR=40
EGMT  Eagleton         79.14 333 ⇓P       P        00 34 00.6 -0.7
      baz=79,SNR=17
EGMT  Eagleton         79.14 333  eP      P        00 34 00.7 -0.6
      comp=Z,57nm,1.4s,mb5.2
D16A  Dana Ranch, Ca   79.15 331 ⇑P       P        00 34 01.5 +0.2
      baz=79,SNR=32
E15A  Deer Lodge       79.18 331 ⇓P       P        00 34 01.6 +0.1
      baz=79,SNR=25
C17A  Wharram Farm,    79.27 332 ⇓P       P        00 34 01.4 -0.5
      baz=80,SNR=21
TSUM  Tsumeb           79.30 106  P       P        00 34 03.7 +0.9
      comp=Z,64nm,0.8s,mb5.5,baz=229,slow=5.7,SNR=92
TSUM                              pP      pP       00 34 32.2 +0.2
      comp=Z,20nm,1.1s,baz=204,slow=2.7,SNR=2.7
L07A  Adell            79.39 324 ⇑P       P        00 34 02.9 +0.1
      baz=80,SNR=12
K08A  Mann Creek Ran   79.42 325 ⇑P       P        00 34 02.7 -0.1
      baz=80
B18A  Beardsley Farm   79.44 333 ⇓P       P        00 34 02.5 -0.3
      baz=80,SNR=23
J09A  Fry Pan Ranch,   79.46 326 ⇑P       P        00 34 02.9 -0.2
      baz=80
I10A  Payette          79.48 327 ⇑P       P        00 34 03.0 -0.2
      baz=80
F13A  Darby            79.50 329 ⇑P       P        00 34 03.5 +0.3
      baz=80,SNR=79
H11A  Donnelly         79.53 328 ⇑P       P        00 34 03.2 -0.2
      baz=80,SNR=14
E14A  Clinton          79.57 330 ⇑P       P        00 34 04.0 +0.5
      baz=80,SNR=17
D15A  Lincoln          79.59 331 ⇓P       P        00 34 04.0 +0.3
      baz=80,SNR=19
B17A  L&G Farms, Che   79.79 333 ⇓P       P        00 34 04.1 -0.7
      baz=80,SNR=9.0
K07A  Rock Creek Ran   79.80 324 ⇑P       P        00 34 05.2 +0.3
      baz=80,SNR=12
H10A  Noah’s Angus R   79.81 327 ⇑P       P        00 34 04.5 -0.5
      baz=80,SNR=19
C16A  Fuhringer Ranc   79.83 332 ⇓P       P        00 34 04.6 -0.4
      baz=80,SNR=19
CHMT  Chamberlain Mo   79.83 331  eP      P        00 34 05.5 +0.5
MOD   Modoc            79.84 323  eP      P        00 34 05.2  0.0
J08A  Circle Bar Ran   79.84 325 ⇑P       P        00 34 05.0 -0.1
      baz=80,SNR=12
A18A  Metzger Ranch,   79.88 334 ⇓P       P        00 34 04.3 -0.9
      baz=80,SNR=13
I09A  Lost Marbles R   79.89 326 ⇑P       P        00 34 05.4  0.0
      baz=80,SNR=6.4
E13A  Victor           79.91 330 ⇑P       P        00 34 05.6 +0.2
      baz=80,SNR=29
D14A  Greenough        80.07 331 ⇓P       P        00 34 06.1 -0.2
      baz=80,SNR=11
MSO   Missoula         80.08 330  eP      P        00 34 06.4 +0.1
      comp=Z,9.1nm,1.0s,mb4.6
SLMT  Seeley Lake      80.18 331  eP      P        00 34 06.9  0.0
C15A  Salmond Ranch,   80.18 331 ⇑P       P        00 34 07.0 +0.1
      baz=80,SNR=47
WDC   Whiskeytown Da   80.24 321  eP      P        00 34 05.6 -1.8
WDC                                pmax    pmax
      comp=Z,21nm,0.7s,mb5.1
WDC   Whiskeytown Da   80.24 321  eP      P        00 34 05.6 -1.7
      comp=Z,21nm,0.7s,mb5.1
A17A  Triple J Farms   80.26 333 ⇓P       P        00 34 06.7 -0.5
      baz=80,SNR=15
I08A  Drewsey          80.27 326 ⇑P       P        00 34 07.6 +0.2
      baz=80,SNR=27
B16A  M & M Farms, S   80.28 332 ⇑P       P        00 34 06.6 -0.7
      baz=80,SNR=7.6
BMO   Blue Mountains   80.28 327  eP      P        00 34 07.2 -0.3
BMO                                pmax    pmax
      comp=Z,47nm,1.1s,mb5.2
BMO   Blue Mountains   80.28 327  eP      P        00 34 07.2 -0.3
      comp=Z,47nm,1.1s,mb5.2
J07A  Hines            80.30 325 ⇑P       P        00 34 07.6  0.0
      baz=80,SNR=14
H09A  Durkee           80.33 327 ⇑P       P        00 34 07.8 +0.1
      baz=80
D13A  Huson            80.52 330 ⇓P       P        00 34 08.7  0.0
      baz=81,SNR=39
B15A  Bradely Ranch,   80.57 332 ⇓P       P        00 34 08.1 -0.8
      baz=81,SNR=23
SWMT  Swartz Lake      80.61 331  eP      P        00 34 09.1  0.0
A16A  West Butte Ran   80.64 333 ⇓P       P        00 34 09.0 -0.3
      baz=81,SNR=52
J06A  Christmas Vall   80.67 324 ⇑P       P        00 34 09.4 -0.2
      baz=81,SNR=21
C14A  Swan Lake        80.69 331 ⇑P       P        00 34 09.7 +0.2
      baz=81
K05A  Summer Lake      80.72 324 ⇓P       P        00 34 10.4 +0.5
      baz=81,SNR=14
H08A  Prairie City     80.75 326 ⇑P       P        00 34 10.2 +0.2
      baz=81,SNR=10
E11A  Bogner Ranch,    80.81 329 ⇓P       P        00 34 09.6 -0.6
      baz=81,SNR=11
G09A  Cove             80.82 327 ⇓P       P        00 34 10.4 +0.1
      baz=81,SNR=46
YBMT  Yellow Bay       80.88 331  eP      P        00 34 11.0 +0.5
I07A  Izee             80.88 325 ⇑P       P        00 34 10.8 +0.1
      baz=81,SNR=11
JTMT  Jette            80.92 331  eP      P        00 34 10.9 +0.1
C13A  Hot Springs      81.00 330 ⇑P       P        00 34 11.2  0.0
      baz=81,SNR=22
F10A  Beach Ranch, E   81.03 328 ⇑P       P        00 34 11.2 -0.3
      baz=81,SNR=13
A15A  Johnson Ranch,   81.15 332 ⇑P       P        00 34 11.0 -1.0
      baz=81,SNR=8.2
I06A  Prineville       81.16 325 ⇓P       P        00 34 12.6 +0.4
      baz=81,SNR=15
BSMT  Bassoo Peak      81.22 330  eP      P        00 34 12.5 +0.1
H07A  Lands Inn, Kim   81.26 326 ⇓P       P        00 34 12.7  0.0
      baz=82
E10A  Myers Farm, Un   81.34 328 ⇓P       P        00 34 12.9 -0.2
      baz=82,SNR=24
D11A  Klaveano Farm,   81.36 329 ⇑P       P        00 34 12.4 -0.8
      baz=82
G08A  Pilot Rock       81.43 326 ⇑P       P        00 34 13.2 -0.4
      baz=82,SNR=8.6
C12B  Naegeli Ranch,   81.44 330 ⇑P       P        00 34 13.5  0.0
      baz=82,SNR=7.8
A14A  Double T Ranch   81.44 332 ⇓P       P        00 34 12.7 -0.8
      baz=82,SNR=14
B13A  Whitefish        81.46 331 ⇑P       P        00 34 13.5 -0.2
      baz=82,SNR=22
KTRM  Thompson Ridge   81.58 322  P       P        00 34 14.6 +0.2
PTEO  Sao Teotonio     81.63  44  eP      P        00 34 17.6 +2.8
      comp=Z,62nm,1.6s,mb5.2
PTEO                              epP     pP       00 34 46.4 +2.3
F08A  Pendleton        81.68 327 ⇑P       P        00 34 13.9 -1.0
      baz=82
WALA  Waterton Lakes   81.72 332  eP      P        00 34 14.4 -0.6
      comp=Z,1.2nm,1.1s
MDT   Midelt           81.73  50  P       P        00 34 16.3 +0.9
      comp=Z,5.4nm,0.8s,mb4.4,baz=242,slow=4.4,SNR=10
MDT                               pP      pP       00 34 44.9 +0.2
      comp=Z,14nm,0.9s,baz=226,slow=5.4,SNR=10
H06A  Lindquist Farm   81.76 325 ⇓P       P        00 34 15.7 +0.3
      baz=82,SNR=8.1
G07A  Ruggs Ranch, H   81.78 326 ⇓P       P        00 34 15.7 +0.3
      baz=82,SNR=11
FFC   Flin Flon        81.84 341  P       P        00 34 14.7 -0.8
      comp=Z,91nm,1.1s,mb5.5,SNR=9.9
FFC   Flin Flon        81.84 341  i P     P        00 34 14.7 -0.8
FFC   Flin Flon        81.84 341  eP      P        00 34 14.8 -0.7
      comp=Z,28nm,1.3s,mb4.9
E09A  Wood Farm, Sta   81.87 328 ⇓P       P        00 34 15.0 -0.8
      baz=82,SNR=5.6
PBDV  Barranco-do-Ve   81.97  44  eP      P        00 34 18.1 +1.5
      comp=Z,31nm,1.8s,mb4.8
PBDV                              epP     pP       00 34 47.9 +2.0
PVAQ  Vaqueiros        82.20  44  eP      P        00 34 18.4 +0.6
      comp=Z,26nm,2.0s,mb4.7
PVAQ                              epP     pP       00 34 48.9 +1.8
G06A  Carlson Farm,    82.26 326 ⇓P       P        00 34 17.8 -0.1
      baz=82
CROR  Criterion Ridg   82.27 325  P       P        00 34 18.7 +0.7
D09A  Jones Farm, Ri   82.33 328 ⇓P       P        00 34 17.7 -0.5
      baz=82,SNR=18
F07A  Phinny Hill Vi   82.34 326 ⇑P       P        00 34 18.1 -0.2
      baz=82
C10A  Spilker Farm,    82.38 329 ⇑P       P        00 34 18.0 -0.5
      baz=83
A12A  Yaak River Ran   82.41 331 ⇓P       P        00 34 18.3 -0.3
      baz=83,SNR=27
PBEJ  Beja             82.46  44  eP      P        00 34 20.5 +1.3
      comp=Z,27nm,1.7s,mb4.8
PBEJ                              epP     pP       00 34 50.3 +1.8
HAWA  Hanford          82.47 327  eP      P        00 34 18.6 -0.4
      comp=Z,19nm,0.8s,mb5.0
G05A  Wamic            82.62 325 ⇑P       P        00 34 18.7 -1.1
      baz=83
D08A  Wollman Farm,    82.63 328 ⇓P       P        00 34 19.4 -0.4
      baz=83,SNR=7.5
BOSA  Boshof           82.63 118  P       P        00 34 20.5 +0.1
BOSA                              *PP     pP       00 34 49.5 -0.2
BOSA  Boshof           82.63 118  P       P        00 34 20.4  0.0
      comp=Z,49nm,0.9s,mb5.3,baz=256,slow=4.3,SNR=58
BOSA                              pP      pP       00 34 49.5 -0.2
      comp=Z,26nm,1.0s,baz=246,slow=7.1,SNR=4.6
BOSA                              LR      LR       01 08 26.6
      comp=Z,73nm,18.5s,baz=328,slow=34
EVO   Evora            82.66  43  eP      P        00 34 20.4 +0.2
      comp=Z,16nm,0.9s,mb4.5
EVO   Evora            82.66  43  epP     pP       00 34 50.8 +1.3
F06A  Goldendale       82.69 326 ⇑P       P        00 34 19.9 -0.2
      baz=83
H04A  Detroit Lake     82.71 324 ⇓P       P        00 34 19.4 -0.8
      baz=83
VFP   Flag Point       82.75 325  P       P        00 34 20.6 +0.1
A11A  Hall Mountain,   82.75 330 ⇓P       P        00 34 20.0 -0.4
      baz=83,SNR=30
E07A  Sunnyside        82.75 327 ⇓P       P        00 34 20.4  0.0
      baz=83
OD2   Odessa Site #2   82.75 328  P       P        00 34 20.2 -0.2
C09A  Chrisman Ranch   82.83 329 ⇑P       P        00 34 20.6 -0.2
      baz=83,SNR=24
PESTR Estremoz         83.13  43  eP      P        00 34 24.4 +1.8
      comp=Z,37nm,1.3s,mb5.1
PESTR                             epP     pP       00 34 53.2 +1.3
C08A  Higginbotham F   83.19 328 ⇑P       P        00 34 22.0 -0.7
      baz=83
B09A  Rice             83.20 329 ⇓P       P        00 34 21.8 -0.9
      baz=83,SNR=10
G04A  Mulino           83.21 325 ⇓P       P        00 34 22.0 -0.8
      baz=83
D07A  Quincy           83.24 327 ⇓P       P        00 34 22.9 -0.1
      baz=83,SNR=7.7
E06A  Yakima           83.31 326 ⇑P       P        00 34 22.7 -0.6
      baz=84
A10A  Northport        83.32 330 ⇑P       P        00 34 22.6 -0.7
      baz=84,SNR=5.8
FCC   Fort Churchill   83.41 347  eP      P        00 34 22.7 -0.8
      comp=Z,1.0nm,0.9s
MAW   Mawson           83.53 163  ePDIF   P        00 34 24.6 +0.3
      comp=Z,40nm,0.9s,mb5.2
MAW   Mawson           83.53 163  P       P        00 34 24.1 -0.2
      comp=Z,73nm,1.0s,mb5.5,baz=211,slow=5.2,SNR=22
PMRV  Marv??o          83.58  43  eP      P        00 34 25.9 +1.0
      comp=Z,45nm,1.7s,mb5.0
C07A  Waterville       83.62 328 ⇓P       P        00 34 24.3 -0.6
      baz=84,SNR=18
F04A  Amboy            83.66 325 ⇓P       P        00 34 24.4 -0.7
      baz=84
D06A  Cle Elum         83.68 327 ⇓P       P        00 34 24.8 -0.4
      baz=84,SNR=5.8
B08A  Colville Reser   83.73 329 ⇑P       P        00 34 24.4 -1.0
      baz=84,SNR=5.0
A09A  Danville         83.80 329 ⇓P       P        00 34 24.6 -1.1
      baz=84,SNR=11
B07A  Winthrop         84.18 328 ⇑P       P        00 34 26.7 -1.0
      baz=84,SNR=17
LBTB  Lobatse          84.22 115  eP      P        00 34 29.2 +0.6
LBTB                               pmax    pmax
      comp=Z,64nm,1.0s,mb5.4
LBTB  Lobatse          84.22 115  eP      P        00 34 29.2 +0.5
      comp=Z,64nm,1.0s,mb5.4
D05A  Enumclaw         84.26 326 ⇑P       P        00 34 27.2 -0.9
      baz=84
C05A  Tolt Reservoir   84.44 327 ⇓P       P        00 34 28.4 -0.7
      baz=85,SNR=5.5
EDM   Edmonton         84.60 335  eP      P        00 34 27.8 -1.9
A07A  Ashnola River,   84.71 329 ⇓P       P        00 34 29.8 -0.5
      baz=85,SNR=29
MVO   Moncorvo         84.81  42  epP     pP       00 35 01.7 +1.2
B06A  Marblemount      84.89 328 ⇓P       P        00 34 29.9 -1.3
      baz=85,SNR=5.6
B05A  Bryant           85.02 327 ⇓P       P        00 34 30.3 -1.7
      baz=85,SNR=5.9
C04A  Brinnon          85.11 326 ⇓P       P        00 34 31.6 -0.8
      baz=85
A06A  Chilliwack       85.27 328 ⇓P       P        00 34 31.8 -1.4
      baz=86,SNR=5.4
NLWA  Neilton Lookou   85.36 326 ⇓P       P        00 34 33.0 -0.7
      baz=86
A05A  Maple Falls      85.50 328 ⇑P       P        00 34 33.2 -1.1
      baz=86,SNR=7.2
PAB   San Pablo        85.59  44  eP      P        00 34 35.4 +0.4
PAB                                pmax    pmax
      comp=Z,18nm,1.1s,mb4.9
PAB   San Pablo        85.59  44  eP      P        00 34 35.4 +0.5
      comp=Z,18nm,1.1s,mb4.9
ESDC  Sonseca Array    85.91  44  P       P        00 34 37.1 +0.6
      comp=Z,7.7nm,1.0s,mb4.6,baz=240,slow=5.2,SNR=16
ESDC                              pP      pP       00 35 05.2 -0.8
      comp=Z,9.3nm,0.9s,baz=242,slow=4.6,SNR=7.4
ESDC                              LR      LR       01 14 11.7
      comp=Z,96nm,18.6s,baz=255,slow=36
ESDC  Sonseca Array    85.91  44  P       P        00 34 37.1 +0.6
ESDC                              pP      pP       00 35 05.2 -0.8
ESDC                              LR      LR       01 14 11.7
ETSF  Etsaut           89.79  43  eP      P        00 34 53.8 -1.2
      comp=Z,22nm,1.2s,mb4.9
ETSF  Etsaut           89.79  43  eP      P        00 34 53.8 -1.2
ETSF                               pmax    pmax
      comp=Z,11nm,1.2s,mb4.9
ETSF  Etsaut           89.79  43  eP      P        00 34 53.8 -1.2
      comp=Z,11nm,1.2s,mb4.9
LSZ   Lusaka           90.16 106  eP      P        00 34 59.6 +2.2
LSZ                                pmax    pmax
      comp=Z,15nm,1.2s,mb5.0
LSZ   Lusaka           90.16 106  eP      P        00 34 59.6 +2.2
      comp=Z,15nm,1.2s,mb5.0
CASY  Casey            91.83 180  ePDIF   P        00 35 04.9 +0.7
CASY  Casey            91.83 180  eP      P        00 35 04.2  0.0
      comp=Z,97nm,0.9s,mb6.0
YKA   Yellowknife Ar   92.00 340  P       P        00 35 03.5 -1.3
YKA                                                00 52 20.6
YKA   Yellowknife Ar   92.00 340  P       P        00 35 03.5 -1.3
      comp=Z,23nm,0.8s,mb5.4,baz=134,slow=4.5,SNR=252
YKA                               sP      sP       00 35 45.3 -1.2
      comp=Z,6.3nm,0.9s,baz=137,slow=4.4,SNR=3.0
YKA                               PKKP    PKKPbc   00 52 20.5 -3.5
      comp=Z,0.2nm,0.6s,baz=267,slow=3.1,SNR=3.8
YKA                               LR      LR       01 19 21.8
      comp=Z,83nm,20.3s,baz=50,slow=37
YKA   Yellowknife Ar   92.00 340  P       P        00 35 03.5 -1.3
YKA                               sP      sP       00 35 45.4 -1.2
YKA                               PKKP    PKKPbc   00 52 20.6 -3.5
YKA                               LR      LR       01 19 21.8
KEST  Kesra            93.25  53  P       P        00 35 12.1 +0.9
      comp=Z,2.7nm,0.8s,mb4.6,baz=268,slow=2.2,SNR=7.5
AVF   Avril sur Loir   94.13  41  eP      P        00 35 13.4 -1.6
      comp=Z,37nm,1.4s,mb5.2
AVF   Avril sur Loir   94.13  41  eP      P        00 35 13.4 -1.6
AVF                                pmax    pmax
      comp=Z,19nm,1.4s,mb5.2
AVF   Avril sur Loir   94.13  41  eP      P        00 35 13.4 -1.6
      comp=Z,18nm,1.4s,mb5.2
URZ   Urewera          94.15 226  LR      LR       01 08 22.7
      comp=Z,116nm,20.1s,baz=107,slow=30
SMF   Signal de Mont   94.36  41  eP      P        00 35 15.0 -1.0
      comp=Z,30nm,1.2s,mb5.2
SMF   Signal de Mont   94.36  41  eP      P        00 35 15.0 -1.0
SMF                                pmax    pmax
      comp=Z,15nm,1.2s,mb5.2
SMF   Signal de Mont   94.36  41  eP      P        00 35 15.0 -1.0
      comp=Z,15nm,1.2s,mb5.2
AKASG Malin Array Be  111.51  43  PKIKP   PKiKP    00 40 28.7 -1.3
AKASG                                              00 41 14.4
AKASG Malin Array Be  111.51  43  PKiKP   PKiKP    00 40 28.7 -1.3
      comp=Z,1.1nm,0.5s,baz=271,slow=2.8,SNR=7.3
AKASG                             PP      PP       00 41 14.4 +1.3
      comp=Z,0.4nm,0.3s,baz=255,slow=7.6,SNR=4.5
AKASG                             PKKPbc  PKKPbc   00 51 25.3 -1.0
      comp=Z,0.2nm,0.3s,baz=94,slow=2.5,SNR=4.3
AKASG Malin Array Be  111.51  43  PKPdf   PKiKP    00 40 28.7 -1.3
AKASG                             PP      PP       00 41 14.4 +1.3
AKASG                             PKKPbc  PKKPbc   00 51 25.3 -1.0
ARCES ARCESS Array B  111.89  22  PKKPbc  PKKPbc   00 51 21.4 -4.1
      comp=Z,1.7nm,0.7s,baz=83,slow=4.5,SNR=6.8
ARCES                             PKKPab  PKKPab   00 51 29.7 -1.0
      comp=Z,5.6nm,0.8s,baz=91,slow=4.5,SNR=7.2
BRTR  Keskin Array B  112.74  55  PKiKP   PKiKP    00 40 32.5 -0.2
      comp=Z,2.0nm,0.8s,baz=225,slow=1.2,SNR=11
BRTR                              PP      PP       00 41 19.7 -2.5
      comp=Z,3.2nm,1.0s,baz=243,slow=8.2,SNR=9.6
MMAI  Mount Meron Ar  112.82  62  PKiKP   PKiKP    00 40 32.9 -0.2
      comp=Z,0.7nm,0.4s,baz=331,slow=5.6,SNR=8.2
ASF   Jabal al Asfar  113.88  64  PKiKP   PKiKP    00 40 35.3 +0.2
      comp=Z,3.5nm,0.9s,baz=270,slow=3.0,SNR=4.6
MALT  Malatya         116.19  57  ePKIKP  PKPdf    00 40 39.8 +0.4
OBN   Obninsk         116.34  38  i PKIKP PKPdf    00 40 38.1 -1.0
OBN                               i                00 41 48.6
OBN                                pmax    pmax
      comp=Z,12nm,1.1s
OBN   Obninsk         116.34  38⇓ePKP     PKPdf    00 40 39.3 +0.2
KLMR  Klimovskoe      117.77  32  ePKIKP  PKPdf    00 40 40.7 -1.0
KLMR                               pmax    pmax
      comp=Z,40nm,1.8s
VSR   Storozhevoye    117.81  43⇑iPKIKP   PKPdf    00 40 41.6 -0.5
STKA  Stephens Creek  119.12 209  ePKP    PKPdf    00 40 44.7 -0.7
      comp=Z,3.8nm,0.9s
STKA  Stephens Creek  119.12 209  PKP     PKPdf    00 40 44.2 -1.1
      comp=Z,4.2nm,0.8s,baz=92,slow=1.0,SNR=7.0
STKA  Stephens Creek  119.12 209  PKP     PKPdf    00 40 44.2 -1.1
KIV   Kislovodsk      119.94  51c iPKIKP  PKPdf    00 40 46.5 +0.1
KIV                                pmax    pmax
      comp=Z,10.0nm,1.0s
KIV   Kislovodsk      119.94  51⇑iPKP     PKPdf    00 40 46.6 +0.2
PRGR  Permogore       120.60  30⇑iPKIKP   PKPdf    00 40 47.3 +0.2
PRGR                               pmax    pmax
      comp=Z,19nm,0.8s
GNI   Garni           121.26  56  PKP     PKPdf    00 40 49.1  0.0
      comp=Z,7.8nm,0.8s,baz=260,slow=0.8,SNR=12
GNI   Garni           121.26  56  PKP     PKPdf    00 40 49.1  0.0
NAY   Al-Naaiem       122.11  69  eP      PKPdf    00 40 50.5 -0.5
NAY                               AMb     AMB      00 40 51.6
      comp=Z,19nm,1.6s
MIB   Mutribah        122.28  68  eP      PKPdf    00 40 51.3 -0.1
MIB                               AMb     AMB      00 40 55.3
      comp=Z,31nm,2.6s
RDF   Al-Radifah      122.33  69  eP      PKPdf    00 40 50.5 -0.9
RDF                               AMb     AMB      00 40 53.7
      comp=Z,80nm,1.7s
BILL  Bilibino        123.35 338  i PKIKP PKPdf    00 40 51.8 -0.4
BILL                               pmax    pmax
      comp=Z,9.0nm,1.1s
BILL  Bilibino        123.35 338⇑ePKP     PKPdf    00 40 52.4 +0.2
FORT  Forrest         125.07 197  ePKP    PKPdf    00 40 55.5 -1.3
      comp=Z,30nm,0.7s
MUN   Mundaring       125.99 185  ePKP    PKPdf    00 40 57.9 -0.7
CTA   Charters Tower  126.13 221  ePKP    PKPdf    00 40 58.7 -0.4
      comp=Z,6.0nm,0.8s
KLBR  Kellerberrin    126.24 186  ePKP    PKPdf    00 40 58.4 -0.6
      comp=Z,22nm,0.6s
ARU   Arti            128.37  35⇑ePKIKP   PKPdf    00 41 02.9 +0.7
SVE   Sverdlovsk      129.31  34  ePKIKP  PKPdf    00 41 04.6 +0.7
SVE                                pmax    pmax
      comp=Z,13nm,1.1s
TIXI  Tiksi           129.52 353  ePKIKP  PKPdf    00 41 02.6 -1.4
TIXI                               pmax    pmax
      comp=Z,15nm,1.0s
TIXI  Tiksi           129.52 353⇑iPKP     PKPdf    00 41 03.1 -0.9
ASAR  Alice Springs   129.59 207  PKP     PKPdf    00 41 04.5 -1.1
      comp=Z,23nm,0.8s,baz=141,slow=1.9,SNR=82
ASAR                              pPKP    pPKPdf   00 41 34.5 -2.2
      comp=Z,4.5nm,0.9s,baz=137,slow=2.3,SNR=3.0
AKTK  Aktyubinsk      129.75  42  PKP     PKPdf    00 41 05.3 +0.3
AKTO  Aktyubinsk      129.75  42  PKP     PKPdf    00 41 05.3 +0.3
      comp=Z,7.9nm,0.8s,baz=252,slow=1.8,SNR=21
SEY   Seymchan        130.93 337⇑iPKIKP   PKPdf    00 41 06.4 -0.4
SEY   Seymchan        130.93 337⇑iPKP     PKPdf    00 41 06.5 -0.3
WB2   Warramunga Arr  132.66 210  ePKPdf  PKPdf    00 41 11.1 -0.4
WRA   Warramunga Arr  132.67 209  PKP     PKPdf    00 41 10.9 -0.7
      comp=Z,17nm,0.8s,baz=160,slow=1.7,SNR=74
WRA                               pPKP    pPKPdf   00 41 40.7 -1.9
      comp=Z,2.5nm,0.8s,baz=154,slow=1.5,SNR=3.2
WRAB  Tennant Creek   132.67 210  ePKIKP  PKPdf    00 41 11.1 -0.4
PETK  Petropavlovsk-  133.44 323  PKP     PKPdf    00 41 11.6 -0.3
      comp=Z,4.4nm,0.8s,baz=77,slow=4.6,SNR=6.1
PETK  Petropavlovsk-  133.44 323  PKP     PKPdf    00 41 11.6 -0.3
BRVK  Borovoye        135.94  35  i PKIKP PKPdf    00 41 17.1 +0.5
BRVK  Borovoye        135.94  35  i PKP   PKPdf    00 41 17.1 +0.5
BVA0  Borovoye Array  136.01  35  i PKIKP PKPdf    00 41 16.9 +0.2
BVA0                               pmax    pmax
      comp=Z,1.0nm,0.8s
BVAR  Borovoye Array  136.01  35  PKP     PKPdf    00 41 16.8 +0.1
      comp=Z,7.4nm,0.8s,baz=290,slow=2.1,SNR=8.8
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FITZ	**Fitzroy Crossi**	**137.72**	**200**	*e*PKP	PKPdf	00 41 20.9	-0.1
	comp=Z,23nm,0.7s						
FITZ	**Fitzroy Crossi**	**137.72**	**200**	*e*PKPdf	PKPdf	00 41 20.9	-0.1
YAK	**Yakutsk**	**138.29**	**347**	*e*PKIKP	PKPdf	00 41 19.6	-1.0
YAK				pmax	pmax		
	comp=Z,19nm,0.9s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
YAK	**Yakutsk**	**138.29**	**347**	⇓*e*PKP	PKPdf	00 41 20.9	+0.3
KAKA	**Kakadu**	**139.81**	**212**	*e*PKP	PKPdf	00 41 17.3	-7.6
	comp=E,10nm,0.7s						
NVS	**Novosibirsk**	**141.02**	**26**	*i* PKIKP	PKPdf	00 41 21.1	-4.7
NVS				*e*		00 41 50.9	
NVS				*e*		00 44 36.8	
NVS				pmax	pmax		
	comp=Z,27nm,1.2s						
NVS				pmax	pmax		
	comp=N,11nm,1.4s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.4s						
KURK	**Kurchatov**	**141.56**	**34**	⇓*e*PKIKP	PKPdf	00 41 25.4	-1.5
ZAA0	**Zalesovo Array**	**142.31**	**26**	*e*PKPdf	PKPdf	00 41 24.5	-3.7
ZALV	**Zalesovo Beam**	**142.31**	**26**	PKhKP		00 41 23.6	
	comp=E,36nm,0.8s,baz=299,slow=2.4,SNR=33						
ZALV				PKP	PKPdf	00 41 28.3	+0.2
	comp=E,36nm,0.8s,baz=303,slow=3.2,SNR=45						
AAK	**Ala-Archa**	**142.94**	**48**	*i* PKIKP	PKPdf	00 41 30.8	+1.2
AAK	**Ala-Archa**	**142.94**	**48**	*i* PKP	PKPdf	00 41 30.8	+1.2
CLNS	**Chul'man**	**144.04**	**348**	*e*PKIKP	PKPdf	00 41 28.7	-2.4
CLNS				pmax	pmax		
	comp=Z,32nm,1.0s						
CLNS				pmax	pmax		
	comp=E,7.0nm,1.0s						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.2s						
BOD	**Bodaibo**	**144.35**	**358**	⇓*i*PKIKP	PKPdf	00 41 29.2	-2.4
BOD				pmax	pmax		
	comp=Z,60nm,0.9s						
POO	**Poona**	**144.38**	**89**	*e*PKP	PKPdf	00 41 30.5	-2.4
KAD	**Karad**	**144.41**	**91**	*e*PKP	PKPdf	00 41 29.4	-3.6
YSS	**Yuzh-Sakhalins**	**144.82**	**322**	⇓*i*PKIKP	PKPdf	00 41 31.0	-1.8
YSS				pmax	pmax		
	comp=E,40nm,1.0s						
YSS				pmax	pmax		
	comp=Z,90nm,1.0s						
YSS	**Yuzh-Sakhalins**	**144.82**	**322**	*i* PKP	PKPdf	00 41 31.5	-1.3
KOD	**Kodaikanal**	**145.14**	**104**	*e*PKP	PKPbc	00 41 34.4	+0.3
MK31	**Makanchi Array**	**145.83**	**37**	*e*PKP2	PKPab	00 41 34.9	-0.9
MKAR	**Makanchi Array**	**145.83**	**37**	PKPbc	PKPbc	00 41 34.8	-0.5
	comp=Z,46nm,0.8s,baz=321,slow=2.4,SNR=252						
MKAR				pPKPbc	pPKPbc	00 42 05.2	-0.6
	comp=Z,5.1nm,0.6s,baz=317,slow=4.0,SNR=1.9						
AJM	**Ajmer**	**146.03**	**75**	*e*PKP	PKPdf	00 41 35.4	-0.1
PALK	**Pallekele**	**146.66**	**112**	*i* PKP2	PKPab	00 41 39.5	-0.5
PALK	**Pallekele**	**146.66**	**112**	*e*PKPbc	PKPbc	00 41 38.7	0.0
KHET	**Khetri**	**147.05**	**72**	*e*PKP	PKPdf	00 41 37.5	+0.3
ERM	**Erimo**	**147.08**	**314**	*e*PKP2	PKPab	00 41 39.1	-1.8
KUDL	**Kundal**	**147.65**	**72**	*e*PKP	PKPdf	00 41 38.5	+0.3
HABR	**Khabarovsk**	**147.82**	**330**	*e*PKP2	PKPbc	00 41 39.7	-1.1
HABR				*e*		00 45 12.2	
HABR				*e*		00 48 36.2	
HABR				*e*SS	SS	01 04 04.0	+0.1
SONA	**Sohna**	**148.17**	**72**	*e*PKP	PKPdf	00 41 38.7	-0.3
AYAN	**Aya Nagar**	**148.19**	**71**	*e*PKP	PKPdf	00 41 38.9	-0.2
NDI	**New Delhi**	**148.26**	**71**	*e*PKP	PKPdf	00 41 38.0	-1.2
BHPL	**Bhopal**	**148.40**	**81**	*e*PKP	PKPdf	00 41 38.4	-1.2
HYB	**Hyderabad**	**148.49**	**93**	*i* PKP	PKPdf	00 41 40.0	+0.2
KLR	**Kul'dur**	**148.66**	**334**	*e*PKHKP		00 41 33.9	
ASOR	**Ausora**	**148.74**	**71**	*e*PKP	PKPdf	00 41 39.8	-0.1
DDI	**Dehra Dun**	**148.83**	**68**	*e*PKP	PKPdf	00 41 40.0	0.0
AGRA	**Agra**	**148.97**	**74**	*e*PKP	PKPdf	00 41 39.8	-0.5
MOY	**Mondy**	**149.40**	**13**	*e*PKP2	PKPbc	00 41 45.7	+0.9
MOY				pmax	pmax		
	comp=Z,64nm,1.4s						
IRK	**Irkutsk**	**149.43**	**9**	*e*PKP2	PKPbc	00 41 44.5	-0.3
IRK				pmax	pmax		
	comp=Z,90nm,1.6s						
TLY	**Talaya**	**149.88**	**10**	*e*PKPdf	PKPdf	00 41 41.8	+0.8
TLY				*e*PKPbc	PKPbc	00 41 46.6	+0.6
TLY				*e*PKPab	PKPab	00 41 52.9	+1.1
JOSI	**Joshimath**	**150.09**	**67**	*e*PKP	PKPdf	00 41 42.7	+0.7
WMQ	**Urumqi**	**150.66**	**37**	PKPbc	PKPbc	00 41 48.5	+0.4
WMQ				PKPab	PKPab	00 42 03.0	+7.7
WMQ				pPKP	pPKPdf	00 42 15.0	+1.4
WMQ				sPKP		00 42 26.0	
WMQ				PP	PP	00 45 34.0	+8.8
WMQ				SKKS	SKKSac	00 52 13.0	+7.6
WMQ				AMB	AMB		
	comp=Z,340nm,6.2s						
WMQ				LR	LR		
	comp=N,200nm,16.4s						
WMQ				LR	LR		
	comp=E,200nm,18.0s						
WMQ				LR	LR		
	comp=Z,180nm,21.2s						
LGTI	**Lohaghat**	**150.83**	**69**	*e*x	x	00 41 46.3	
ZAK	**Zakamensk**	**151.07**	**11**	*e*PKIKP	PKPdf	00 41 43.7	+0.8
ZAK				pmax	pmax		
	comp=Z,20nm,0.9s						
HIA	**Hailar**	**152.21**	**349**	*e*PKPdf	PKPdf	00 41 44.4	-0.3
HIA				*e*PKPbc	PKPbc	00 41 50.5	-0.9
HIA				*e*PKPab	PKPab	00 42 00.5	-1.1
MJAR	**Matsushiro Arr**	**152.93**	**308**	PKP	PKPdf	00 41 45.4	-0.8
	comp=Z,0.6nm,0.4s,baz=42,slow=2.0,SNR=4.5						
MJAR				PKPbc	PKPbc	00 41 52.1	-1.4
	comp=Z,16nm,0.9s,baz=89,slow=0.9,SNR=27						
MJAR				PKPab	PKPab	00 42 03.1	-2.0
	comp=Z,10nm,0.9s,baz=80,slow=2.1,SNR=5.5						
MJAR				pPKPbc	pPKPbc	00 42 23.0	-1.4
	comp=Z,4.6nm,0.9s,baz=70,slow=2.3,SNR=2.0						
MAJO	**Matsushiro**	**152.93**	**308**	*e*PKIKP	PKPbc	00 41 52.6	-0.9
MAJO				*e*		00 42 04.0	
MAT	**Matsushiro**	**152.93**	**308**	PKP	PKPbc	00 41 52.4	-1.1
VIS	**Vishakhapatnam**	**152.98**	**94**	*e*x	PKPbc	00 41 52.9	-1.2
VIS				AMb	AMB	00 41 55.3	
	comp=Z,57nm,1.1s						
MDJ	**Mudanjiang**	**153.20**	**331**	PKPbc	PKPdf	00 41 45.8	-0.5
MDJ				PP	PP	00 45 39.8	+0.4
MDJ				AMB	AMB		
	comp=Z,83nm,8.2s						
PYUN	**Piuthan**	**153.38**	**71**	*e*P	PKPdf	00 41 45.7	-1.4
KOLN	**Koldanda**	**153.95**	**72**	*e*P	PKPdf	00 41 47.5	-0.4
	comp=Z,18nm,0.9s						
DANN	**Dangsing**	**154.02**	**71**	*e*P	PKPdf	00 41 48.2	+0.2
	comp=Z,67nm,0.9s						
SONM	**Songino Array**	**154.03**	**8**	PKP	PKPdf	00 41 47.8	+0.4
	comp=Z,9.8nm,0.8s,baz=312,slow=1.1,SNR=92						
SONM				PKPbc	PKPbc	00 41 54.5	-1.0
	comp=Z,12nm,0.9s,baz=332,slow=1.7,SNR=23						
SONM				PKPab	PKPab	00 42 09.4	+0.1
	comp=Z,5.1nm,0.8s,baz=318,slow=2.7,SNR=6.7						
GKN	**Gorkha**	**154.83**	**71**	*e*P	PKPdf	00 41 48.4	-0.7
KKN	**Kakani**	**155.43**	**71**	*e*P	PKPdf	00 41 49.3	-0.6
PKIN	**Phulchoki**	**155.55**	**72**	*e*P	PKPdf	00 41 49.1	-1.0
PKI	**Pulchoki**	**155.56**	**72**	*e*P	PKPdf	00 41 49.1	-1.0
	comp=Z,22nm,0.9s						
CN2	**Changchun**	**155.60**	**335**	*e*PKP	PKPdf	00 41 48.7	-1.0
CN2				*e*pPKP	pPKPdf	00 42 15.4	-5.4
CN2				*e*sPKP		00 42 26.1	
CN2				PP	PP	00 45 55.0	+2.3
BOK	**Bokaro**	**156.18**	**81**	*e*PKP	PKPdf	00 41 50.7	-0.4
RAMN	**Ramite**	**156.69**	**73**	*e*P	PKPdf	00 41 51.6	0.0
	comp=Z,25nm,0.8s						
PSI	**Prapat**	**157.09**	**145**	PKP	PKPdf	00 41 52.5	-0.1
	comp=Z,5.9nm,0.9s,baz=265,slow=7.5,SNR=3.7						
PSI				PKPab	PKPab	00 42 23.2	-0.2
	comp=Z,21nm,0.8s,baz=222,slow=2.0,SNR=15						
PSI	**Prapat**	**157.09**	**145**	PKP	PKPdf	00 41 52.5	-0.1
PSI				PKPab	PKPab	00 42 23.2	-0.2
ODAN	**Odare**	**157.40**	**73**	*e*P	PKPdf	00 41 52.0	-0.5
	comp=Z,28nm,0.9s						
TAPN	**Taplejung**	**157.62**	**72**	*e*P	PKPdf	00 41 52.5	-0.3
	comp=Z,24nm,1.1s						
KSRS	**Korea Array**	**159.31**	**321**	PKP	PKPdf	00 41 54.2	-0.3
	comp=Z,7.1nm,1.0s,baz=57,slow=0.9,SNR=27						
KSRS				PKPab	PKPab	00 42 31.6	-0.7
	comp=Z,7.1nm,0.8s,baz=57,slow=4.5,SNR=16						
GTA	**Gaotai**	**160.04**	**28**	PKP	PKPdf	00 41 55.6	+0.3
GTA				pPKP	pPKPdf	00 42 22.0	-4.4
GTA				sPKP		00 42 36.0	
GTA				PKS		00 45 27.7	
GTA				PP	PP	00 46 19.2	+2.1
GTA				SKS	SKSdf	00 48 49.2	-0.9
GTA				SS	SS	01 06 18.3	+1.6
GTA				AMB	AMB		
	comp=Z,150nm,5.9s						
GTA				LR	LR		
	comp=N,94nm,11.9s						
GTA				LR	LR		
	comp=E,160nm,11.0s						
GTA				LR	LR		
	comp=Z,150nm,12.2s						
LSA	**Lhasa**	**160.07**	**64**	*e*PKIKP	PKPdf	00 41 56.6	+1.0
HHC	**Hu-ho-hao-te**	**161.37**	**0**	*e*PKP	PKPdf	00 41 57.6	+0.9
HHC				pPKP	pPKPdf	00 42 23.6	-4.3
HHC				sPKP		00 42 35.0	
HHC				PKPab	PKPab	00 42 44.2	+3.0
HHC				PKS		00 45 29.7	
HHC				PP	PP	00 46 28.5	+4.8
HHC				SKS	SKSdf	00 48 51.1	-0.1
HHC				SKKS	SKKSac	00 53 05.0	+2.8
HHC				AMB	AMB		
	comp=Z,71nm,4.4s						
HHC				LR	LR		
	comp=N,140nm,16.7s						
HHC				LR	LR		
	comp=E,240nm,14.3s						
HHC				LR	LR		
	comp=Z,150nm,14.3s						
SHL	**Shillong**	**161.56**	**76**	*e*x	x	00 42 44.0	
BJI	**Beijing**	**161.78**	**349**	PKP	PKPdf	00 41 57.7	+0.6
LZH	**Lanzhou**	**164.53**	**25**	*e*PKP	PKPdf	00 42 00.5	+0.6
LZH				pPKP	pPKPdf	00 42 27.8	-3.3
LZH				sPKP		00 42 36.0	
LZH				PKPab	PKPab	00 42 56.5	+1.3
LZH				PP	PP	00 46 45.1	+4.3
LZH				SKKS	SKKSac	00 53 21.0	+2.4
LZH				AMB	AMB		
	comp=Z,90nm,4.0s						
LZH				LR	LR		
	comp=N,210nm,17.4s						
LZH				LR	LR		
	comp=Z,330nm,18.5s						
CMAR	**Chiang Mai Arr**	**167.47**	**105**	PKIKP	PKPdf	00 42 02.5	-0.2
CMAR						00 43 08.7	
CMAR						00 46 57.8	
CMAR	**Chiang Mai Arr**	**167.47**	**105**	PKP	PKPdf	00 42 02.5	-0.2
	comp=Z,4.1nm,0.9s,baz=282,slow=2.2,SNR=25						
CMAR				PKPab	PKPab	00 43 08.7	-0.2
	comp=Z,4.1nm,0.7s,baz=254,slow=5.5,SNR=14						
CMAR				pPKPab	pPKPab	00 43 38.4	-0.4
	comp=Z,3.3nm,0.9s,baz=247,slow=4.3,SNR=2.9						
CMAR				PP	PP	00 46 57.8	0.0
	comp=Z,0.8nm,0.3s,baz=250,slow=5.1,SNR=7.3						
XAN	**Xi'an**	**167.92**	**11**	PKP	PKPdf	00 42 02.5	-0.1
XAN				pPKP	pPKPdf	00 42 30.9	-2.9
XAN				PKPab	PKPab	00 43 12.2	+2.1
XAN				PP	PP	00 47 01.6	+3.6
XAN				SKS	SKSdf	00 48 55.0	-1.0
XAN				SKKS	SKKSac	00 53 33.1	-2.3
XAN				AMB	AMB		
	comp=Z,73nm,5.3s						
XAN				LR	LR		
	comp=E,140nm,13.4s						
XAN				LR	LR		
	comp=Z,140nm,14.4s						
NJ2	**Nanjing**	**168.28**	**329**	*e*PKP	PKPdf	00 42 02.4	-0.5
CD2	**Chengdu**	**168.76**	**38**	PKP	PKPdf	00 42 03.7	+0.5
CD2				pPKP	pPKPdf	00 42 30.7	-3.8
CD2				sPKP		00 42 41.2	
CD2				PKPab	PKPab	00 43 15.7	+1.6
CD2				PKS		00 45 35.0	
CD2				PP	PP	00 47 07.6	+4.6
CD2				SKS	SKSdf	00 48 56.1	-0.5
CD2				SKKS	SKKSac	00 53 42.2	+2.2
CD2				AMB	AMB		
	comp=Z,130nm,5.4s						
CD2				LR	LR		
	comp=N,280nm,4.5s						
CD2				LR	LR		
	comp=Z,230nm,5.3s						
KMI	**Kunming**	**171.27**	**69**	PKP	PKPdf	00 42 05.4	+0.6
WHN	**Wuhan**	**171.33**	**345**	*e*PKP	PKPdf	00 42 05.2	+0.5
WHN				PKPab	PKPab	00 43 24.1	-1.2
GYA	**Guiyang**	**173.72**	**46**	⇑*i*PKP	PKPdf	00 42 06.1	+0.2
GYA				PKPab	PKPab	00 43 36.3	0.0
GYA				PKS		00 45 37.0	
GYA				PP	PP	00 47 31.4	+3.4
GYA				SKKS	SKKSac	00 54 06.5	+2.2
GYA				AMB	AMB		
	comp=Z,150nm,5.1s						
GYA				LR	LR		
	comp=N,330nm,25.2s						
GYA				LR	LR		
	comp=E,240nm,22.9s						
GYA				LR	LR		
	comp=Z,270nm,25.8s						

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*ISCJB **02** 00:22:58.9±0.7, 67°.83N±0°.03×20°.3E±0°.1, h0^{km}, Error ellipse: s-maj=7.1km s-min=4.4km az=178.0*

*CSEM **02** 00:23:00.3, 67°.84N×20°.19E, h1^{km}, ML2.4, Mining explosion. After UPP*

*UPP **02** 00:23:00.3, 67°.84N×20°.19E, h1^{km}, ML2.4, Mining explosion.*

*HEL **02** 00:23:00.4±0.2, 67°.85N×20°.36E, h0^{km}, ML1.4, ML2.4(UPP), Explosion*

ISC 02 00:22:59.6±0.7**, 67°.83N**±0°.03×**20°.4E**±0°.1**, h0**^{km}**, n22, σ1^{s}.30**/31**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.14**	**344**	*i* P	**Pg**	**00 23 02.7**	**+0.5**
KUA				*i* S	**Sg**	**00 23 04.5**	**+0.5**
LANU	**Lannavaara**	**0.63**	**68**	*e*P	**Pg**	**00 23 11.3**	**-0.3**
	baz=259						
LANU				*e*S	**Sg**	**00 23 20.7**	**+0.9**
LANU	**Lannavaara**	**0.63**	**68**	Pg	**Pg**	**00 23 11.3**	**-0.3**
LANU				Sg	**Sg**	**00 23 20.7**	**+0.9**
LANU	**Lannavaara**	**0.63**	**68**	P	**Pg**	**00 23 13.6**	**+2.0**
LANU				S	**Sg**	**00 23 23.0**	**+3.2**
DUNU	**Dundret**	**0.71**	**176**	*i* P	**Pg**	**00 23 13.9**	**+0.8**
DUNU	**Dundret**	**0.71**	**176**	P	**Pg**	**00 23 11.6**	**-1.6**
DUNU	**Dundret**	**0.71**	**176**	P	**Pg**	**00 23 13.9**	**+0.7**
SALU	**Saltoluokta**	**0.86**	**240**	*i* P	**Pg**	**00 23 15.1**	**-1.0**
SALU	**Saltoluokta**	**0.86**	**240**	P	**Pg**	**00 23 12.9**	**-3.2**
SALU	**Saltoluokta**	**0.86**	**240**	P	**Pg**	**00 23 15.1**	**-1.0**
KIF	**Kilpisjarvi**	**1.19**	**6**	*e*P	**Pg**	**00 23 21.0**	**-1.5**
	baz=196						
KIF				*e*SB	**Sb**	**00 23 38.2**	**-0.8**
KIF				MSG		00 23 38.2	
	comp=Z,4.2nm,0.2s						
KIF				*e*RG		00 23 42.9	
KIF	**Kilpisjarvi**	**1.19**	**6**	Pg	**Pg**	**00 23 20.9**	**-1.6**
KIF				Sg	**Sg**	**00 23 38.2**	**+0.3**
PAJU	**Pajala**	**1.31**	**127**	P	**Pg**	**00 23 23.4**	**-1.3**
HEF	**Hetta**	**1.34**	**63**	*e*P	**Pg**	**00 23 23.9**	**-1.4**
	baz=246						
HEF				*e*SN	**Sn**	**00 23 48.3**	**+4.2**
HEF				MSG		00 23 48.3	
	comp=Z,2.1nm,0.2s						
HEF	**Hetta**	**1.34**	**63**	Pg	**Pg**	**00 23 23.9**	**-1.4**
SGF	**Sodankyl**	**2.36**	**97**	*e*P	**Pn**	**00 23 41.2**	**+1.6**
SJUU	**Sjulsmark**	**2.37**	**168**	*e*P	**Pn**	**00 23 40.8**	**+1.1**
SJUU	**Sjulsmark**	**2.37**	**168**	P	**Pn**	**00 23 40.8**	**+1.1**
RNF	**Rovaniemi**	**2.49**	**117**	*e*P	**Pn**	**00 23 43.2**	**+1.9**
RNF				*e*SG	**Sg**	**00 24 18.0**	**-1.5**
RNF				MSG		00 24 18.0	
	comp=Z,0.6nm,0.1s						
RNF	**Rovaniemi**	**2.49**	**117**	Sg	**Sg**	**00 24 18.0**	**-1.5**
ARA0	**ARCESS Array S**	**2.53**	**45**	*e*P	**Pn**	**00 23 42.8**	**+1.0**
	baz=227						
ARA0				MSG		00 24 17.5	
	comp=Z,2.3nm,0.3s						
ARA0				*e*SG	**Sg**	**00 24 17.5**	**-3.2**
ARA0	**ARCESS Array S**	**2.53**	**45**	Pn	**Pn**	**00 23 42.8**	**+1.0**

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*ISCJB **02** 00:33:30.2±2.9, 37°.6N±0°.3×72°.4E±0°.5, h197^{km}±49^{km}, Error ellipse: s-maj=75.8km s-min=9.5km az=140.4*

*NNC **02** 00:33:35.6±3.2, 38°.01N×70°.66E, h0^{km}, mb3.6, mpv3.0, Error ellipse: s-maj=36.4km s-min=24.2km az=98.0*

ISC 02 00:33:29.9±3.5**, 37°.5N**±0°.3×**72°.2E**±0°.5**, h172**^{km}±56^{km}**, n14, σ0^{s}.84**/16**, 4C-1D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**5.80**	**347**	⇑Pn	**Pn**	**00 34 56.1**	**+2.0**
	0.4nm,0.2s,baz=152,slow=10						
KK31				⇑Sn	**Sn**	**00 35 59.2**	**-1.0**
	11nm,0.3s,baz=178,slow=24						
PYUN	**Piuthan**	**12.98**	**133**	*e*P	**Pn**	**00 36 26.9**	**-1.2**
	9.2nm,0.4s						
DANN	**Dangsing**	**13.26**	**130**	*e*P	**Pn**	**00 36 31.3**	**-0.3**
	6.2nm,0.3s						
KOLN	**Koldanda**	**13.58**	**132**	*e*P	**Pn**	**00 36 35.2**	**-0.5**
	5.5nm,0.3s						
GKN	**Gorkha**	**14.04**	**129**	*e*P	**Pn**	**00 36 41.9**	**+0.4**
	12nm,0.3s						
KKN	**Kakani**	**14.60**	**128**	*e*P	**Pn**	**00 36 48.7**	**+0.3**
	7.9nm,0.5s						
AB09	**Akbulak array**	**14.80**	**327**	⇑Pn	**Pn**	**00 36 49.9**	**-0.7**
	0.8nm,0.6s						
AB09				⇓Sn	**Sn**	**00 39 23.2**	**-12**
	0.8nm,0.6s						
PKIN	**Phulchoki**	**14.82**	**128**	*e*P	**Pn**	**00 36 51.4**	**+0.3**
PKI	**Pulchoki**	**14.83**	**128**	*e*P	**Pn**	**00 36 51.8**	**+0.5**
JIRN	**Jiri**	**15.27**	**126**	*e*P	**Pn**	**00 36 57.9**	**+1.2**
RAMN	**Ramite**	**16.02**	**127**	*e*P	**Pn**	**00 37 05.0**	**-0.8**
TAPN	**Taplejung**	**16.47**	**123**	*e*P	**Pn**	**00 37 11.8**	**+0.5**
	4.1nm,0.4s						
AKTO	**Aktyubinsk**	**16.50**	**326**	⇑Pn	**Pn**	**00 37 11.8**	**+0.4**
	0.6nm,0.5s						
ODAN	**Odare**	**16.59**	**125**	*e*P	**Pn**	**00 37 12.0**	**-0.7**

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*ROM **02** 00:41:51.8±2.1, 43°.18N×15°.53E, h10^{km}, Md2.8/4, Ml2.6/1, Error ellipse: s-maj=36.0km s-min=8.0km az=52.0*

*ISCJB **02** 00:41:52.5±0.5, 43°.12N±0°.03×15°.41E±0°.07, h2^{km}, Error ellipse: s-maj=7.0km s-min=4.8km az=169.3*

*CSEM **02** 00:41:52.6±0.3, 43°.10N×15°.43E, h2^{km}, MD2.8/4, Error ellipse: s-maj=8.5km s-min=6.1km az=88.0*

ISC 02 00:41:52.9±0.5**, 43°.09N**±0°.04×**15°.41E**±0°.07**, h2**^{km}**, n23, σ0^{s}.78**/32**, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FG2	**Serracapriola**	**1.30**	**188**	Pn	**Pn**	**00 42 18.7**	**+0.7**
	53nm,0.2s						
FG2	**Serracapriola**	**1.30**	**188**	Pn	**Pn**	**00 42 18.7**	**+0.7**
	53nm,0.2s						
RGNG	**Rignano Grg**	**1.42**	**175**	Pn	**Pn**	**00 42 18.9**	**-0.8**
RGNG	**Rignano Grg**	**1.42**	**175**	Pn	**Pn**	**00 42 18.9**	**-0.8**
NVLJ	**Novalja**	**1.52**	**345**	*e*Pn	**Pn**	**00 42 18.8**	**-2.2**
NVLJ				Sn	**Sn**	**00 42 41.7**	**+0.2**
NVLJ	**Novalja**	**1.52**	**345**	*e*Pn	**Pn**	**00 42 18.8**	**-2.3**
NVLJ				Sn	**Sn**	**00 42 41.6**	**+0.2**
FAGN	**Fagnano**	**1.58**	**239**	Pn	**Pn**	**00 42 21.8**	**-0.1**
	54nm,0.5s						
FAGN	**Fagnano**	**1.58**	**239**	Pn	**Pn**	**00 42 21.8**	**-0.1**
	54nm,0.5s						
STON	**Ston**	**1.70**	**97**	*e*Pn	**Pn**	**00 42 22.7**	**-0.8**
STON				Sn	**Sn**	**00 42 46.4**	**+0.6**
STON	**Ston**	**1.70**	**97**	*e*Pn	**Pn**	**00 42 22.7**	**-0.8**
STON				Sn	**Sn**	**00 42 46.4**	**+0.6**
NRCA	**Norcia**	**1.70**	**262**	Pn	**Pn**	**00 42 23.5**	**-0.1**
	9.0nm,0.6s						
NRCA	**Norcia**	**1.70**	**262**	Pn	**Pn**	**00 42 23.5**	**-0.1**
	9.0nm,0.6s						
SDI	**San Donato**	**1.82**	**221**	Pn	**Pn**	**00 42 24.8**	**-0.4**
	8.0nm,0.5s						
SDI	**San Donato**	**1.82**	**221**	Pn	**Pn**	**00 42 24.8**	**-0.4**
	8.0nm,0.5s						
PTQR	**Pietraquaria**	**1.83**	**235**	Pn	**Pn**	**00 42 26.6**	**+1.3**
	17nm,0.6s						
PTQR	**Pietraquaria**	**1.83**	**235**	Pn	**Pn**	**00 42 26.6**	**+1.3**
	17nm,0.6s						
FSSB	**Fossombrone**	**2.01**	**288**	Pn	**Pn**	**00 42 27.5**	**-0.3**
	8.0nm,0.5s						
FSSB	**Fossombrone**	**2.01**	**288**	Pn	**Pn**	**00 42 27.5**	**-0.3**
	8.0nm,0.5s						
KNDS	**Knezji Dol**	**2.54**	**344**	*i* Pn	**Pn**	**00 42 35.1**	**0.0**
KNDS				*i* Sn	**Sn**	**00 43 06.5**	**-0.1**
KNDS	**Knezji Dol**	**2.54**	**344**	*i* Pn	**Pn**	**00 42 35.1**	**0.0**
KNDS				*i* Sn	**Sn**	**00 43 06.5**	**-0.1**
VISS	**Visnje**	**2.74**	**352**	*i* Pn	**Pn**	**00 42 38.8**	**+1.0**
VISS				*i* Sn	**Sn**	**00 43 12.3**	**+0.8**
VISS	**Visnje**	**2.74**	**352**	*i* Pn	**Pn**	**00 42 38.8**	**+1.0**
VISS				*i* Sn	**Sn**	**00 43 12.3**	**+0.8**
VOY	**Vojsko**	**3.13**	**340**	*e*	**Pn**	**00 42 52.0**	**+8.8**
VOY				*e*Sn	**Sn**	**00 43 20.9**	**-0.2**

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*IDC **02** 01:13:04.4±1.0, 35°.98N×70°.93E, h0^{km}, mb3.8/8, mb1 3.9/12, mb1mx3.7/27, mbtmp3.8/12, ML3.5/4, Error ellipse: s-maj=23.7km s-min=21.8km az=68.0*

*ISCJB **02** 01:13:15.8±0.5, 36°.38N±0°.03×71°.34E±0°.05, h97^{km}±7^{km}, mb3.7/10, Error ellipse: s-maj=7.4km s-min=4.9km az=10.0*

*NEIC **02** 01:13:17.3±0.8, 36°.36N×71°.26E, h95^{km}±7^{km}, mb3.6/4, Error ellipse: s-maj=11.4km s-min=7.7km az=130.0*

*BJI **02** 01:13:17.5, 36°.55N×71°.27E, h77^{km}*

*NNC **02** 01:13:21.7±6.9, 36°.83N×70°.54E, h82^{km}±93^{km}, mb3.4, mpv4.1, Error ellipse: s-maj=50.5km s-min=33.2km az=15.0*

ISC 02 01:13:17.1±0.5**, 36°.35N**±0°.03×**71°.34E**±0°.06**, h99**^{km}±7^{km}**, n59, σ1^{s}.20**/71**, mb3.7**/10**, 10C-3D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.60**	**227**	*e*Pn	**Pn**	**01 13 57.1**	**-0.4**
KBL				*e*Sn	**Sn**	**01 14 29.1**	**+0.5**
KSH	**Kashi**	**4.84**	**48**	P	**Pn**	**01 14 25.0**	**-2.6**
KSH				S	**Sn**	**01 15 15.2**	**-7.2**
KSH				smax			
	comp=N,670nm,0.4s						
KSH				smax			
	comp=E,590nm,0.8s						
AML	**Almayashu**	**6.06**	**17**	P	**Pn**	**01 14 45.0**	**+0.9**
	SNR=46						
AML	**Almayashu**	**6.06**	**17**	*e*Pn	**Pn**	**01 14 44.3**	**+0.2**
	comp=E,35nm,0.4s						
AML				*e*Sn	**Sn**	**01 15 51.0**	**-1.0**
UCH	**Uchtor**	**6.37**	**22**	P	**Sn**	**01 15 59.6**	**+0.1**
	SNR=9.5						
UCH	**Uchtor**	**6.37**	**22**	*e*Pn	**Pn**	**01 14 49.8**	**+1.5**
KZA	**Kyzart**	**6.48**	**27**	P	**Pn**	**01 14 51.1**	**+1.3**
	SNR=7.8						
EKS2	**Erkin-Say**	**6.58**	**16**	P	**Pn**	**01 14 52.0**	**+0.7**
	SNR=40						
EKS2	**Erkin-Say**	**6.58**	**16**	*e*Pn	**Pn**	**01 14 51.6**	**+0.4**
	comp=E,7.4nm,0.5s						
EKS2				*e*Sn	**Sn**	**01 16 03.8**	**-1.0**
AAK	**Ala-Archa**	**6.74**	**20**	P	**Pn**	**01 14 54.4**	**+1.1**
	SNR=25						
AAK	**Ala-Archa**	**6.74**	**20**	*e*Pn	**Pn**	**01 14 54.4**	**+1.1**
	comp=E,26nm,0.4s						
AAK				*e*Sn	**Sn**	**01 16 08.0**	**-0.4**
KK31	**Karatay Array**	**6.78**	**355**	⇓P	**Pn**	**01 14 52.4**	**-1.5**
	comp=E,3.4nm,0.2s,baz=174,slow=12						
KK31				⇑S	**Sn**	**01 16 03.9**	**-5.6**
	comp=E,15nm,0.6s,baz=183,slow=24						
KBK	**Karagaybulak**	**6.89**	**23**	P	**Pn**	**01 14 56.8**	**+1.4**
	SNR=14						
CHMS	**Chumysh**	**7.14**	**21**	P	**Pn**	**01 14 59.5**	**+0.7**
	SNR=23						
USP	**Ospenovka**	**7.33**	**18**	P	**Pn**	**01 15 01.6**	**+0.3**
	SNR=16						
TKM2	**Tokmak 2**	**7.34**	**25**	P	**Pn**	**01 15 02.8**	**+1.3**
	SNR=10						
TKM2	**Tokmak 2**	**7.34**	**25**	*e*Pn	**Pn**	**01 15 02.4**	**+0.9**
	comp=E,11nm,0.5s						
TKM2	**Tokmak 2**	**7.34**	**25**	⇑P	**Pn**	**01 15 02.5**	**+1.0**
	comp=E,7.1nm,0.5s						
TKM2				⇑S	**Sn**	**01 16 24.5**	**+1.4**
	comp=E,13nm,0.8s						
JOSI	**Joshimath**	**8.97**	**128**	*e*PKP	**Pn**	**01 15 29.6**	**+5.8**
JOSI				*e*S	**Sn**	**01 16 58.3**	**-4.7**
JOSI				AML	AML	01 17 12.3	
	comp=E,29nm,0.3s						
JOSI				AML	AML	01 17 12.7	
	comp=N,43nm,0.7s						
KHET	**Khetri**	**9.07**	**154**	*e*S	**Sn**	**01 16 59.1**	**-6.4**
KHET				AML	AML	01 17 06.1	
	comp=N,15nm,0.3s						
KHET				AML	AML	01 17 07.6	
	comp=E,13nm,0.3s						

AYAN	Aya Nagar	9.24	146	eS	Sn	01 17 04.6	-5.0
KUDL	Kundal	9.27	151	eS	Sn	01 17 02.4	-7.8
SONA	Sohna	9.42	147	eS	Sn	01 17 06.1	-7.9
SONA				AML	AML	01 17 45.5	
	comp=N,13nm,0.0s						
SONA				AML	AML	01 17 57.5	
	comp=E,21nm,0.5s						
AGRA	Agra	10.68	146	eS	Sn	01 17 37.4	-7.3
AGRA				AML	AML	01 18 28.5	
	comp=E,58nm,0.2s						
AGRA				AML	AML	01 18 30.3	
	comp=N,66nm,0.3s						
PYUN	Piuthan	12.83	127	eP	Pn	01 16 14.6	-1.2
DANN	Dangsing	13.17	124	eP	Pn	01 16 18.8	-1.5
	comp=N,4.4nm,0.4s						
MK31	Makanchi Array	13.26	35	ePn	Pn	01 16 20.8	-0.4
MK31	Makanchi Array	13.26	35	⇑P	Pn	01 16 30.3	+9.1
	comp=N,1.3nm,0.6s,baz=213,slow=10.0,SNR=11						
MKAR	Makanchi Array	13.26	35	Pn	Pn	01 16 21.3	+0.1
	comp=N,0.1nm,0.3s,baz=218,slow=15,SNR=4.6						
GKN	Gorkha	13.99	123	eP	Pn	01 16 29.7	-1.2
	comp=N,9.8nm,0.5s						
PKIN	Phulchoki	14.78	122	eP	Pn	01 16 40.7	-0.3
	comp=N,3.9nm,0.3s						
PKI	Pulchoki	14.79	122	eP	Pn	01 16 41.1	-0.1
	comp=N,2.8nm,0.3s						
KURBB	Kurchatov Arra	15.18	18	⇓P	Pn	01 16 44.8	-1.1
	comp=N,0.5nm,0.8s						
JIRN	Jiri	15.27	120	eP	Pn	01 16 47.9	+0.6
KURK	Kurchatov	15.29	18	Pn	Pn	01 16 44.7	-2.6
	comp=N,0.0nm,0.3s,baz=214,slow=12,SNR=4.0						
KURK	Kurchatov	15.29	18	eP	Pn	01 16 51.2	+3.9
	comp=N,4.1nm,1.1s						
KURK	Kurchatov	15.29	18	⇑P	Pn	01 16 47.8	+0.5
	comp=N,2.3nm,0.9s						
AB01	Akbulak array	15.35	331	⇑P	Pn	01 16 43.7	-4.4
	comp=N,0.7nm,0.3s						
AB01				⇑S	S	01 19 22.1	-25
	comp=N,3.3nm,0.6s						
VOSK	Vostochnaya	16.38	359	⇑P	Pn	01 17 04.0	+3.2
	comp=N,1.7nm,0.8s						
TAPN	Taplejung	16.53	118	eP	Pn	01 17 04.8	+1.8
BVA0	Borovoye Array	16.69	358	⇓P	Pn	01 17 03.9	-0.8
	comp=N,0.5nm,0.9s,baz=156,slow=13,SNR=20						
BVAR	Borovoye Array	16.69	358	P	Pn	01 17 04.0	-0.7
	comp=N,0.6nm,0.3s,baz=155,slow=11,SNR=17						
BVAR				S	S	01 19 60.0	-14
	comp=N,0.2nm,0.3s,baz=170,slow=24,SNR=5.4						
BRVK	Borovoye	16.73	358	eP	Pn	01 17 07.1	+2.0
	comp=N,2.5nm,0.5s						
AKTK	Aktyubinsk	17.05	330	P	Pn	01 17 07.7	-1.4
AKTK				S	S	01 20 03.1	-16
AKTO	Aktyubinsk	17.05	330	P	Pn	01 17 07.7	-1.4
	comp=N,0.5nm,0.3s,baz=135,slow=14,SNR=15						
AKTO				S	S	01 20 03.1	-16
	comp=N,0.3nm,0.3s,baz=335,slow=16,SNR=6.6						
AKTO	Aktyubinsk	17.05	330	⇑P	Pn	01 17 07.3	-1.8
	comp=N,0.6nm,0.7s						
AKTO				⇑S	S	01 20 03.2	-16
	comp=N,0.5nm,0.7s						
ZAA0	Zalesovo Array	19.94	24	eP	Pn	01 17 42.0	-1.5
ZALV	Zalesovo Beam	19.94	24	P	Pn	01 17 41.1	-2.4
	comp=N,2.2nm,0.3s,baz=219,slow=10,SNR=19						
GNI	Garni	21.20	288	eP	P	01 17 55.9	+1.3
	comp=N,2.4nm,0.8s,mb3.6						
ARU	Arti	21.87	341	eP	P	01 18 02.6	+1.1
	comp=N,2.4nm,0.6s,mb3.7						
AKASG	Malin Array Be	33.26	309	P	P	01 19 44.0	-0.6
	comp=N,0.1nm,0.3s,mb3.2,baz=82,slow=7.4,SNR=3.8						
JOF	Joensuu	36.14	330	ep	P	01 20 08.7	-0.6
	comp=N,3.3nm,0.4s,mb4.6						
ARCES	ARCESS Array B	41.39	338	P	P	01 20 53.8	+0.7
	comp=N,2.1nm,0.7s,mb4.1,baz=111,slow=8.7,SNR=11						
NB2	NORSAR Subarra	44.67	323	P	P	01 21 19.5	-0.1
	comp=Z,1.1nm,0.3s,mb4.1,baz=100,slow=7.9						
NOA	NORSAR Array B	44.67	323	P	P	01 21 19.1	-0.5
	comp=Z,0.8nm,0.7s,mb3.5,baz=104,slow=7.3,SNR=7.2						
TORD	Torodi Ar. Bea	65.99	269	P	P	01 23 50.0	-3.2
	comp=Z,0.2nm,0.5s,mb3.2,baz=48,slow=6.6,SNR=8.5						
YKA	Yellowknife Ar	81.39	3	P	P	01 25 23.6	+1.2
	comp=Z,0.8nm,0.5s,mb3.9,baz=349,slow=5.3,SNR=17						
WRA	Warramunga Arr	81.68	122	P	P	01 25 25.7	+1.1
	comp=Z,0.4nm,0.7s,mb3.3,baz=317,slow=4.9,SNR=4.6						
ASAR	Alice Springs	83.94	125	P	P	01 25 37.5	+1.3
	comp=Z,0.3nm,0.6s,mb3.3,baz=301,slow=5.9,SNR=5.7						

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*CSEM **02** 01:14:29.9±0.1, 39.°14N×41.°05E, h8^{km}, MD3.3, Error ellipse: s-maj=4.1km s-min=2.7km az=122.0*

*ISK **02** 01:14:29.0, 39.°14N×41.°04E, h7^{km}, MD3.3*

*DDA **02** 01:14:29.1, 39.°12N×41.°08E, h18^{km}±1^{km}, Md3.1*

ISC 02 01:14:29.8±0.7**, 39.°13N**±0.°02×**41.°06E**±0.°05**, h3**^{km}±6^{km}**, n29, σ0.^{s}75**/41**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZM	Erzurum	0.81	17	PG	Pg	01 14 45.1	-0.4
EZM				eSG	Sg	01 14 56.0	0.0
ERZM	Erzurum	0.81	17	iP	Pg	01 14 45.2	-0.3
ERZM				iS	Sg	01 14 56.2	+0.2
ERZM	Erzurum	0.81	17	iP	Pg	01 14 45.2	-0.3
ERZM				iS	Sg	01 14 56.2	+0.2
KOPT	Kop Dagi	0.99	334	iP	Pg	01 14 48.7	-0.2
KOPT				iS	Sg	01 15 02.7	+1.0
KOPT	Kop Dagi	0.99	334	iP	Pg	01 14 48.7	-0.2
KOPT				iS	Sg	01 15 02.7	+0.9
EZC	Erzincan	1.15	303	ePN	Pn	01 14 56.0	+3.2
BEST	Besiri	1.24	172	iP	Pg	01 14 52.9	-0.8
BEST				iS	Sg	01 15 10.2	+0.5
DIY	Diyarbakir	1.39	208	ePN	Pn	01 14 55.0	-1.1
DIY				eSN	Sn	01 15 14.7	-0.3
DIY	Diyarbakir	1.39	208	ePn	Pn	01 14 55.0	-1.1
DIY				eSn	Sn	01 15 14.7	-0.3
DIYA	Diyarbakir	1.41	212	iP	Pn	01 14 55.7	-0.7
DIYA				iS	Sg	01 15 15.6	+0.5
DIYA	Diyarbakir	1.41	212	iP	Pn	01 14 55.7	-0.7
DIYA				iS	Sg	01 15 15.6	+0.5
SVRC	Sivrice-ELAZID	1.56	242	ePN	Pn	01 14 57.9	-0.6
SVRC	Sivrice-ELAZID	1.56	242	ePn	Pn	01 14 57.9	-0.6
AGRB	Hanur-Agry	1.56	73	ePN	Pn	01 14 57.7	-0.9
AGRB	Hanur-Agry	1.56	73	ePn	Pn	01 14 57.7	-0.8
GUMT	Gumushane	1.81	318	ePN	Pn	01 15 01.2	-0.7
GUMT	Gumushane	1.81	318	ePn	Pn	01 15 01.2	-0.7
MARD	Mardin	1.82	187	iP	Pn	01 15 01.9	-0.1
MARD				iS	Sn	01 15 27.6	+1.9
KEMA	Kemaliye	2.00	275	iP	Pn	01 15 05.0	+0.4
KEMA				iS	Sn	01 15 29.7	-0.4
KEMA	Kemaliye	2.00	275	iP	Pn	01 15 05.0	+0.5
KEMA				iS	Sn	01 15 29.7	-0.4
KARS	Kars	2.16	46	ePN	Pn	01 15 06.8	+0.1
KARS	Kars	2.16	46	ePn	Pn	01 15 06.8	+0.1
MALT	Malatya	2.21	249	ePN	Pn	01 15 07.3	-0.1
MALT	Malatya	2.21	249	ePn	Pn	01 15 07.3	-0.2
CLDR	Caldiran	2.22	89	ePN	Pn	01 15 08.0	+0.4
CLDR	Caldiran	2.22	89	ePn	Pn	01 15 08.0	+0.4
HAKT	HAKKARI	2.60	126	eP	Px	01 15 29.4	
HAKT				iS	Sx	01 16 10.2	
GNI	Garni	3.02	69	ePN	Pn	01 15 19.2	+0.7
GNI	Garni	3.02	69	ePn	Pn	01 15 19.2	+0.6

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*NEIC **02** 01:16:04.2, 18.°67N×66.°45W, h85^{km}, MD3.5(RSPR), After RSPR.*

NEIC Felt [II] at Adjuntas.

RSPR 02 01:16:04.2, 18.°67N×66.°45W, h85^{km}±1^{km}**, MD3.5**/19**, MD3.5**/19**, 9C-10D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AOPR	Arecibo Observ	0.43	222	⇓iP	Pn	01 16 17.5	-0.4
AOPR				eS	Sn	01 16 27.8	-0.3
LRS	Lares	0.53	225	⇓iP	Pn	01 16 18.3	-0.4
CELP	Cerrillos	0.60	192	⇓eP	Pn	01 16 18.7	-0.7
CELP				eS	Sn	01 16 30.0	-0.7
SJG	San Juan	0.62	153	⇓iP	Pn	01 16 19.3	-0.3
SJG	San Juan	0.62	153	⇓eP	Pn	01 16 19.2	-0.4
SJG				eS	Sn	01 16 31.0	0.0
OBIP	Obispado Ponce	0.64	193	⇓eP	Pn	01 16 19.0	-0.8
OBIP				eS	Sn	01 16 30.6	-0.7
AGPR	Aguadilla, PR	0.66	252	⇑eP	Pn	01 16 19.5	-0.4
AGPR				eS	Sn	01 16 31.4	-0.2
CBYP	Canovanas	0.69	125	⇑eP	Pn	01 16 20.6	+0.3
CBYP				eS	Sn	01 16 32.8	+0.6
ICM	Isla Caja Muer	0.77	185	⇓eP	Pn	01 16 20.6	-0.5
ICM				eS	Sn	01 16 33.6	0.0
HUMP	Col San Antoni	0.78	132	⇓eP	Pn	01 16 20.8	-0.3
HUMP				eS	Sn	01 16 33.6	-0.1
LSP	Las Mesas	0.78	231	⇓eP	Pn	01 16 20.6	-0.5
MPR	Mayaguez	0.80	235	⇓eP	Pn	01 16 20.8	-0.5
MPR				eS	Sn	01 16 33.4	-0.7
GBPR	Guanica, Bosqu	0.80	211	⇑eP	Pn	01 16 20.8	-0.5
GBPR	Guanica, Bosqu	0.80	211	eS	Sn	01 16 33.8	-0.4
CPD	Cerro la Pandu	0.81	141	⇑eP	Pn	01 16 20.9	-0.6
CPD				eS	Sn	01 16 33.8	-0.6
CRPR	Cabo Rojo, PR	0.91	224	⇑eP	Pn	01 16 22.6	+0.1
CRPR				eS	Sn	01 16 36.2	0.0
MTP	Monte Pirata	1.03	123	⇑eP	Pn	01 16 23.6	-0.4
MTP				eS	Sn	01 16 38.6	-0.1
STVI	Saint Thomas	1.46	102	⇑eP	Pn	01 16 28.4	-0.8
STVI				eS	Sn	01 16 47.5	-0.6
TBVI	Tortola	1.76	98	⇑eP	Pn	01 16 32.4	-0.7
TBVI				eS	Sn	01 16 54.1	-1.0
ABV	Anegada	2.01	88	⇑eP	Pn	01 16 36.7	+0.3
ABV	Anegada	2.01	88	eS	Sn	01 17 00.8	-0.2
SDDR	Presa de Saban	4.59	275	ePn	Pn	01 17 10.7	-0.6
SDDR				eSn	Sn	01 18 02.9	-0.5
GRTK	Grand Turk	5.23	304	ePn	Pn	01 17 18.0	-1.9

CASC 02 01:17:18.7±2.1**, 12.°25N×87.°85W, h69**^{km}±86^{km}**, MD3.6, ML3.2, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRIN	San Cristobal	0.90	60	eS	Sn	01 17 50.1	+1.6
CRIN				AML	AML	01 17 53.7	
	comp=N,993nm,0.3s						
CNCH	Conchagua	1.02	1	eP	Pn	01 17 38.0	+0.7
MIRN	Miramar	1.13	80	eP	Pn	01 17 38.6	-0.1
COPN	Copaltepe	1.23	93	eP	Pn	01 17 39.2	-0.8
COPN				eS	Sn	01 17 52.7	-3.4
COPN				AML	AML	01 18 00.8	
	comp=Z,196nm,0.5s						
BLLM	Bellamira	1.24	342	eP	Pn	01 17 40.2	-0.1
MOMN	Momotombo	1.29	83	eP	Pn	01 17 40.9	+0.1
CAHU	Cacacuatique	1.55	347	eP	Pn	01 17 46.0	+1.6
CAHU				eS	Sn	01 18 04.2	+0.5
TICN	Ticuantepe	1.59	98	eP	Pn	01 17 44.5	-0.3

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*ISCJB **02** 01:44:11.0±1.5, 25.°54N±0.°04×56.°5E±0.°2, h10^{km}±7^{km}, Error ellipse: s-maj=24.2km s-min=5.7km az=8.5*

*CSEM **02** 01:44:12.3±1.8, 25.°50N×56.°42E, h2^{km}, ML2.9/2, Error ellipse: s-maj=58.6km s-min=13.9km az=99.0*

*TEH **02** 01:44:14.4, 25.°58N×56.°21E, h2^{km}*

ISC 02 01:44:12.7±1.4**, 25.°53N**±0.°05×**56.°4E**±0.°2**, h5**^{km}±8^{km}**, n19, σ0.^{s}81**/22**, 2C-4D, Eastern Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BANOM	Banah	0.40	351	⇓P	Pg	01 44 20.9	+0.6
	SNR=543						
BANOM				⇓P		01 44 20.9	
	SNR=543						
BANOM	Banah	0.40	351	Pg	Pg	01 44 20.7	+0.3
	SNR=45						
BANOM				Sg	Sg	01 44 26.0	+0.4
HATD	Hatta, Dubai	0.73	197	⇑P	Pg	01 44 26.4	-0.3
	SNR=71						
HATD				⇑P		01 44 26.4	
	SNR=71						
HATD	Hatta, Dubai	0.73	197	Pg	Pg	01 44 26.1	-0.6
	SNR=14						
NAZ	Nazwa, Dubai	0.83	230	⇓P	Pg	01 44 30.3	+1.7
	SNR=9.1						
NAZ	Nazwa, Dubai	0.83	230	Pg	Pg	01 44 27.0	-1.7
	SNR=9.1						
NAZ	Nazwa, Dubai	0.83	230	P	Pg	01 44 30.3	+1.6
	SNR=9.1						
ASUD	Al Ashush, Dub	1.30	227	⇓P	Pn	01 44 37.3	-0.2
	SNR=62						
ASUD	Al Ashush, Dub	1.30	227	P	Pn	01 44 37.3	-0.2
	SNR=62						
IBND	Bandar-abas	1.92	5	ePn	Pn	01 44 46.5	+0.5
IBND				ePn	Pn	01 44 47.5	+1.5
IBND				eSg	Sg	01 45 13.3	-1.1
IBND				e		01 45 28.1	
	comp=Z,4μm,0.1s						
IBND				e		01 45 28.4	
	comp=Z,4μm,0.1s						
IMOK	Mouk	4.78	318	ePn	Pn	01 45 24.9	-0.4
IMOK				e		01 46 21.0	
	comp=Z,419nm,0.1s						
ISRV	Sarvestan	4.80	324	ePn	Pn	01 45 26.5	+0.8
ISRV				e		01 45 27.0	
	comp=Z,486nm,0.0s						
IPAR	Pars	5.21	326	ePn	Pn	01 45 31.2	0.0
IPAR				e		01 46 35.5	
	comp=Z,103nm,0.2s						
IMEH	Mehriz	6.04	346	ePn	Pn	01 45 43.6	+0.9
IMEH				e		01 45 50.8	
	comp=Z,204nm,0.1s						
IBAF	Bafgh	6.08	354	ePn	Pn	01 45 43.6	+0.4
IBAF				e		01 45 51.7	
	comp=Z,106nm,0.1s						
ISAD	Sadrabad	6.78	340	ePn	Pn	01 45 52.9	0.0
ISAD				e		01 47 12.5	
	comp=Z,185nm,0.2s						
IZEF	Zefreh	8.14	335	ePn	Pn	01 46 10.5	-1.1
IZEF				e		01 46 16.2	
	comp=Z,65nm,0.1s						
IPIR	Pirpir	8.59	327	e	Pn	01 46 23.1	+5.4
	comp=Z,156nm,0.1s						
IKLH	Kolahrood	8.81	333	ePn	Pn	01 46 19.6	-1.1
IKLH				e		01 46 29.1	
	comp=Z,60nm,0.1s						

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*ISCJB **02** 01:46:00.8±0.3, 49.°35N±0.°01×6.°72E±0.°03, h0^{km}, Error ellipse: s-maj=2.5km s-min=2.1km az=10.8*

*CSEM **02** 01:46:01.9±0.1, 49.°35N×6.°75E, h2^{km}, ML2.6/15, Error ellipse: s-maj=2.9km s-min=2.3km az=94.0*

*NEIC **02** 01:46:02.5, 49.°37N×6.°82E, h1^{km}, ML2.1(SZGRF), ML2.4(STR), ML2.5(LDG), After STR.*

*LDG **02** 01:46:02.9±0.1, 49.°39N×6.°79E, h1^{km}, Ml2.5/18, Error ellipse: s-maj=1.6km s-min=1.3km az=20.0, Suspected Mining induced.*

*BGR **02** 01:46:03.3±0.4, 49.°37N×6.°83E, h1^{km}, ML2.1/2, Error ellipse: s-maj=7.8km s-min=4.4km az=37.0*

*BNS **02** 01:46:04.6±0.6, 49.°44N×6.°89E, h1^{km}, ML1.6*

ISC 02 01:46:01.6±0.2**, 49.°36N**±0.°01×**6.°68E**±0.°03**, h0**^{km}**, n77, σ1.^{s}07**/141**, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUP	Ruppelstein	0.42	35	Pg	Pg	01 46 09.7	0.0
RUP	Ruppelstein	0.42	35	Pg	Pg	01 46 09.7	0.0
WLF	Walferdange	0.46	312	P	Pg	01 46 13.4	+3.0
WLF	Walferdange	0.46	312	ePg	Pg	01 46 13.4	+2.9
	SNR=5.7						
WLF				eSg	Sg	01 46 20.2	+3.8
	SNR=3.6						
WLF	Walferdange	0.46	312	ePg	Pg	01 46 12.9	+2.5
WLF	Walferdange	0.46	312	ePg	Pg	01 46 12.9	+2.5
WLF	Walferdange	0.46	312	P	Pg	01 46 13.4	+3.0
WLF				Sg	Sg	01 46 20.2	+3.8
	SNR=3.6						
ABH	Alteburg	0.77	47	Pg	Pg	01 46 15.9	-0.4
ABH				Sg	Sg	01 46 24.9	-1.4
ABH	Alteburg	0.77	47	Pg	Pg	01 46 15.9	-0.4
ABH				Sg	Sg	01 46 24.9	-1.4
LANF	Langenberg	0.83	117	Pg	Pg	01 46 16.6	-0.8
LANF				Sg	Sg	01 46 28.2	+0.1
LANF	Langenberg	0.83	117	Pg	Pg	01 46 16.6	-0.8
LANF				Sg	Sg	01 46 28.2	+0.1
HILG	Hillesheim	0.93	360	ePg	Pg	01 46 20.7	+1.2
HILG				eSg	Sg	01 46 33.2	+1.6
HILG	Hillesheim	0.93	360	Pg	Pg	01 46 20.7	+1.2
HILG				Sg	Sg	01 46 33.2	+1.6
BGG	Burgeitz	0.95	26	ePg	Pg	01 46 20.4	+0.6
BGG				eSg	Sg	01 46 31.4	-0.6
BGG	Burgeitz	0.95	26	Pg	Pg	01 46 20.4	+0.6
BGG				Sg	Sg	01 46 31.4	-0.6
CDF	Champ du Feu	1.02	157	ePg	Pg	01 46 22.0	+0.8
CDF				eSg	Sg	01 46 35.7	+1.2
	16nm,0.2s						
CDF	Champ du Feu	1.02	157	ePg	Pg	01 46 22.0	+0.8
CDF				eSg	Sg	01 46 35.7	+1.2
	7.9nm,0.2s						
RFYF	Reffroy	1.08	228	ePg	Pg	01 46 25.0	+2.7
	baz=48						
RFYF				eSg	Sg	01 46 40.1	+3.8
	25nm,0.3s						
RFYF	Reffroy	1.08	228	ePg	Pg	01 46 25.0	+2.7
	baz=48						
RFYF				eSg	Sg	01 46 40.1	+3.8
	13nm,0.3s						
ECH	Echery	1.19	164	Pg	Pg	01 46 25.2	+0.9
ECH				Sg	Sg	01 46 41.2	+1.6
ECH	Echery	1.19	164	Pg	Pg	01 46 25.2	+0.9
ECH				Sg	Sg	01 46 41.2	+1.6
THEF	They Montfort	1.22	202	Pg	Pg	01 46 26.2	+1.2
THEF				Sg	Sg	01 46 43.4	+2.6
THEF	They Montfort	1.22	202	Pg	Pg	01 46 26.2	+1.2
THEF				Sg	Sg	01 46 43.4	+2.6
STB	Steinbach	1.24	5	ePg	Pg	01 46 25.9	+0.5
STB	Steinbach	1.24	5	Pg	Pg	01 46 25.9	+0.5
MEM	Membach	1.33	341	P	Pg	01 46 28.2	+1.2
MEM	Membach	1.33	341	P	Pg	01 46 28.2	+1.2
LIBD	Limburg	1.35	153	Pg	Pg	01 46 28.1	+0.6
LIBD				Sg	Sg	01 46 46.1	+1.1
LIBD	Limburg	1.35	153	Pg	Pg	01 46 28.1	+0.6
LIBD				Sg	Sg	01 46 46.1	+1.1
HAU	Haudompre	1.37	189	ePn	Pn	01 46 28.8	+0.9
	SNR=1.0						
HAU				eSn	Sn	01 46 46.4	-0.4
	20nm,0.3s,SNR=1.0						
HAU	Haudompre	1.37	189	ePn	Pn	01 46 28.8	+0.9
	SNR=1.0						
HAU				eSn	Sn	01 46 46.4	-0.4
	9.9nm,0.3s,SNR=1.0						
MEZF	Maizieres J’vi	1.38	232	ePn	Pn	01 46 28.8	+0.8
	baz=51						
MEZF				eSn	Sn	01 46 47.2	+0.3
	16nm,0.4s						
MEZF	Maizieres J’vi	1.38	232	ePn	Pn	01 46 28.8	+0.8
	baz=51						
MEZF				eSn	Sn	01 46 47.2	+0.3
	8.2nm,0.4s						
BCLA	Clavier	1.39	320	P	Pn	01 46 28.9	+0.7
BCLA	Clavier	1.39	320	P	Pn	01 46 28.8	+0.6
TOD	Tromm	1.41	79	Pg	Pg	01 46 27.0	-1.5
TOD				Sg	Sg	01 46 44.8	-1.9
TOD	Tromm	1.41	79	Pg	Pg	01 46 27.0	-1.5
TOD				Sg	Sg	01 46 44.8	-1.9
GIVF	Givet	1.42	302	ePn	Pn	01 46 28.9	+0.3
	SNR=1.0						
GIVF				eSn	Sn	01 46 47.5	-0.4
	23nm,0.4s						
GIVF	Givet	1.42	302	ePn	Pn	01 46 28.9	+0.3
	SNR=1.0						
GIVF				eSn	Sn	01 46 47.5	-0.4
	12nm,0.4s						
TNS	Taunus Mts	1.43	52	ePn	Pn	01 46 27.4	-1.4
	SNR=6.1						
TNS				eSg	Sg	01 46 47.4	-0.2
	SNR=3.3						
TNS	Taunus Mts	1.43	52	ePn	Pn	01 46 27.4	-1.4
TNS				eSg	Sg	01 46 47.4	-0.2
TNS	Taunus Mts	1.43	52	Pn	Pn	01 46 27.4	-1.4
	SNR=6.1						
TNS				Sg	Sg	01 46 47.4	-0.2
	SNR=3.3						
BFO	Black Forest	1.50	133	ePn	Pn	01 46 29.1	-0.6
	SNR=3.2						
BFO				eSg	Sg	01 46 48.7	-0.9
	SNR=6.8						
BFO	Black Forest	1.50	133	ePn	Pn	01 46 29.1	-0.6
BFO				eSg	Sg	01 46 48.7	-0.9
BFO	Black Forest	1.50	133	Pn	Pn	01 46 29.1	-0.6
	SNR=3.2						
BFO				Sg	Sg	01 46 48.7	-0.9
	SNR=6.8						
MOF	Molkenrain	1.54	169	Pg	Pg	01 46 31.7	+0.7
MOF				Sg	Sg	01 46 51.7	+0.8
MOF	Molkenrain	1.54	169	Pg	Pg	01 46 31.7	+0.7
MOF				Sg	Sg	01 46 51.7	+0.8
DOU	Dourbes	1.54	299	P	Pn	01 46 31.6	+1.3
DOU	Dourbes	1.54	299	P	Pn	01 46 31.6	+1.3
HINF	Hinteralfeld	1.55	176	ePn	Pn	01 46 31.5	+1.2
HINF				eSn	Sn	01 46 50.2	-0.9
	34nm,0.3s,SNR=1.0						
HINF	Hinteralfeld	1.55	176	ePn	Pn	01 46 31.5	+1.2
HINF				eSn	Sn	01 46 50.2	-0.9
	17nm,0.3s,SNR=1.0						
SFTF	Sexfontaines	1.59	224	ePn	Pn	01 46 31.8	+0.9
	baz=43						
SFTF				eSn	Sn	01 46 52.1	0.0
	8.8nm,0.4s						
SFTF	Sexfontaines	1.59	224	ePn	Pn	01 46 31.8	+0.9
	baz=43						
SFTF				eSn	Sn	01 46 52.1	0.0
	4.4nm,0.4s						
FELD	Feldberg im Sc	1.72	149	Pg	Pg	01 46 34.9	+0.3
FELD				Sg	Sg	01 46 56.8	-0.1
FELD	Feldberg im Sc	1.72	149	Pg	Pg	01 46 34.9	+0.3
FELD				Sg	Sg	01 46 56.8	-0.1
BAIF	Baives	1.75	295	ePn	Pn	01 46 33.2	0.0
BAIF				eSn	Sn	01 46 55.7	-0.5
	5.8nm,0.3s,SNR=1.0						
BAIF	Baives	1.75	295	ePn	Pn	01 46 33.2	0.0
BAIF				eSn	Sn	01 46 55.7	-0.5
	2.9nm,0.3s,SNR=1.0						
CABF	La Chapelle	2.78	189	ePn	Pn	01 46 47.1	-0.2
CABF				eSn	Sn	01 47 20.3	-1.2
	12nm,0.7s						
CABF	La Chapelle	2.78	189	ePn	Pn	01 46 47.1	-0.2
CABF				eSn	Sn	01 47 20.3	-1.2
	6.2nm,0.7s						
LOR	Lormes	2.82	223	ePn	Pn	01 46 48.0	+0.2
	baz=48,SNR=1.0						
LOR				eSn	Sn	01 47 21.4	-1.0
	5.2nm,0.4s,SNR=1.0						
LOR	Lormes	2.82	223	ePn	Pn	01 46 48.0	+0.2
	baz=48,SNR=1.0						
LOR				eSn	Sn	01 47 21.4	-1.0
	2.6nm,0.4s,SNR=1.0						
SSF	Saint Saulge	3.13	224	ePn	Pn	01 46 52.1	0.0
	SNR=1.0						
SSF				eSn	Sn	01 47 29.0	-1.1
	8.6nm,0.7s						
SSF	Saint Saulge	3.13	224	ePn	Pn	01 46 52.1	0.0
	SNR=1.0						
SSF				eSn	Sn	01 47 29.0	-1.1
	4.3nm,0.7s						
SMF	Signal de Mont	3.32	216	ePn	Pn	01 46 53.9	-0.8
	SNR=1.0						
SMF				eSn	Sn	01 47 33.2	-1.6
	2.5nm,0.3s						
SMF	Signal de Mont	3.32	216	ePn	Pn	01 46 53.9	-0.8
	SNR=1.0						
SMF				eSn	Sn	01 47 33.2	-1.6
	1.2nm,0.3s						
AVF	Avril sur Loir	3.40	222	ePn	Pn	01 46 55.3	-0.6
AVF				eSn	Sn	01 47 35.6	-1.3
	1.8nm,0.3s						
AVF	Avril sur Loir	3.40	222	ePn	Pn	01 46 55.3	-0.6
AVF				eSn	Sn	01 47 35.6	-1.3
	0.9nm,0.3s						
HYF	Humbligny	3.41	234	ePn	Pn	01 46 56.4	+0.4
HYF				eSn	Sn	01 47 36.0	-1.2
HYF	Humbligny	3.41	234	ePn	Pn	01 46 56.4	+0.4
HYF				eSn	Sn	01 47 36.0	-1.2
BGF	Bois d’Agland	3.81	224	ePn	Pn	01 47 01.3	-0.1
BGF				eSn	Sn	01 47 45.4	-1.5
	8.3nm,0.6s						
BGF	Bois d’Agland	3.81	224	ePn	Pn	01 47 01.3	-0.1
BGF				eSn	Sn	01 47 45.4	-1.5
	4.2nm,0.6s						
TCF	Toulx Ste Croi	4.30	226	ePn	Pn	01 47 07.8	-0.4
TCF				eSn	Sn	01 47 57.2	-1.9
	0.7nm,0.3s						
TCF	Toulx Ste Croi	4.30	226	ePn	Pn	01 47 07.8	-0.4
TCF				eSn	Sn	01 47 57.2	-1.9
	0.3nm,0.3s						
LDF	La Druitiere	4.55	263	ePn	Pn	01 47 11.9	+0.3
LDF				eSn	Sn	01 48 03.1	-2.0
	1.6nm,0.4s						
LDF	La Druitiere	4.55	263	ePn	Pn	01 47 11.9	+0.3
LDF				eSn	Sn	01 48 03.1	-2.0
	0.8nm,0.4s						

FLN	**La Foliniere**	**4.75**	**265**	*e*Pn	**Pn**	**01 47 14.5**	**+0.2**
	baz=86						
FLN				*e*Sn	**Sn**	**01 48 07.7**	**-2.3**
	1.1nm,0.3s,baz=86						
FLN	**La Foliniere**	**4.75**	**265**	*e*Pn	**Pn**	**01 47 14.5**	**+0.2**
FLN				*e*Sn	**Sn**	**01 48 07.7**	**-2.3**
	0.6nm,0.3s						

CASC 02 01:50:17.6±1.8**, 12°.91N**×**90°.28W, h19**^{km}±8^{km}**, MD3.5, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	**1.12**	**35**	*e*P	Pn	01 50 37.7	-0.5
SNJE	**San Jose**	**1.15**	**34**	*e*P	Pn	01 50 38.3	-0.4
RTR	**El Retiro**	**1.15**	**32**	*e*P	Pn	01 50 38.5	-0.2
IXG	**Ixpaco**	**1.27**	**352**	*e*P	Pn	01 50 40.0	-0.2
BOQS	**Boqueron**	**1.27**	**50**	*e*P	Pn	01 50 40.0	-0.2
RBDL	**Robledal**	**1.32**	**26**	*e*P	Pn	01 50 41.1	+0.1
RBDL				*e*S	Sn	01 51 00.3	+2.2
LFRS	**El Faro**	**1.38**	**59**	*e*P	Pn	01 50 41.0	-0.7
LFRS				*e*S	Sn	01 51 00.4	+0.9
LBRS	**Las Brisas**	**1.45**	**56**	*e*P	Pn	01 50 42.9	+0.1
FUG	**Fuego 3**	**1.62**	**340**	*e*P	Pn	01 50 45.0	-0.2
NBG	**Las Nubes**	**1.67**	**358**	*e*P	Pn	01 50 47.2	+1.5

IDC 02 01:59:31.4±1.6**, 16°.94S**×**178°.14W, h0**^{km}**, mb4.1**/6**, mb1 4.5**/6**, mb1mx4.2**/17**, mbtmp4.1**/6**, Error ellipse: s-maj=154.8km s-min=20.5km az=152.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**39.32**	**240**	P	P	02 07 02.8	+0.4
	3.1nm,0.6s,baz=93,slow=7.2,SNR=6.9						
WRA	**Warramunga Arr**	**45.07**	**259**	P	P	02 07 49.2	-0.2
	1.3nm,0.5s,baz=95,slow=7.0,SNR=25						
ASAR	**Alice Springs**	**45.30**	**253**	P	P	02 07 51.0	-0.3
	11nm,0.7s,baz=88,slow=8.5,SNR=116						
NVAR	**Mina Array Bea**	**78.55**	**44**	P	P	02 11 36.6	+1.9
	0.6nm,0.6s,baz=224,slow=7.6,SNR=5.0						
TXAR	**Lajitas Array**	**85.26**	**58**	P	P	02 12 09.9	-0.4
	0.7nm,0.7s,baz=216,slow=5.2,SNR=10						
PDAR	**Pinedale Array**	**86.48**	**43**	P	P	02 12 15.4	-0.6
	0.5nm,0.6s,baz=227,slow=4.1,SNR=5.5						

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*ISCJB **02** 02:01:39.6±1.3, 23°.6S±0°.2×180°.0W±0°.2, h500^{km}, mb4.0/7, Error ellipse: s-maj=28.0km s-min=23.1km az=179.8*

*NEIC **02** 02:01:43.8±5.0, 23°.83S×179°.94W, h544^{km}±65^{km}, mb4.0/1, Error ellipse: s-maj=57.7km s-min=19.2km az=187.0*

*IDC **02** 02:01:43.3±6.2, 23°.75S×179°.92W, h537^{km}±72^{km}, mb3.4/5, mb1 3.6/6, mb1mx3.3/17, mbtmp3.4/6, Error ellipse: s-maj=50.4km s-min=29.1km az=14.0*

ISC 02 02:01:40.5±1.3**, 23°.6S**±0°.2×**179°.9W**±0°.2**, h500**^{km}**, n10,** σ**0s.55**/9**, mb4.0**/7**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**14.84**	**189**	P	**P**	**02 04 48.9**	**0.0**
	0.8nm,0.3s,baz=246,slow=10.0,SNR=4.6						
CTA	**Charters Tower**	**31.54**	**270**	P	**P**	**02 07 22.4**	**+1.2**
	9.2nm,0.3s,mb4.6,baz=97,slow=11,SNR=7.9						
CTAO	**Charters Tower**	**31.54**	**270**	*e*P	**P**	**02 07 22.0**	**+0.7**
	9.8nm,0.4s,mb4.6						
STKA	**Stephens Creek**	**34.90**	**248**	P	**P**	**02 07 50.1**	**+0.6**
	0.9nm,0.4s,mb3.5,baz=87,slow=9.6,SNR=4.0						
ASAR	**Alice Springs**	**42.15**	**260**	P	**P**	**02 08 48.8**	**+0.1**
	3.0nm,0.6s,mb3.9,baz=93,slow=7.8,SNR=14						
WRAB	**Tennant Creek**	**42.48**	**266**	*e*P	**P**	**02 08 50.6**	**-0.8**
	3.6nm,0.8s,mb3.9						
WRA	**Warramunga Arr**	**42.49**	**266**	P	**P**	**02 08 51.0**	**-0.5**
	2.2nm,0.3s,mb4.1,baz=102,slow=8.2,SNR=52						
FORT	**Forrest**	**46.48**	**249**	*e*P	**P**	**02 09 21.5**	**-0.6**
	15nm,0.6s,mb4.6						
TXAR	**Lajitas Array**	**90.22**	**58**	P	**P**	**02 13 47.5**	**+0.1**
	0.4nm,0.8s,mb3.3,baz=213,slow=6.0,SNR=4.6						
TORD	**Torodi Ar. Bea**	**169.50**	**189**	PKPab	PKPab	02 22 05.4	-1.9
	0.4nm,0.9s,baz=161,slow=4.4,SNR=2.4						

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*ISCJB **02** 02:03:16.3±0.8, 30°.95S±0°.03×71°.66W±0°.09, h41^{km}±8^{km}, mb3.7/7, Error ellipse: s-maj=13.7km s-min=4.4km az=9.2*

*GUC **02** 02:03:16.0±0.8, 30°.95S×71°.68W, h19^{km}±5^{km}, MD4.2, ML4.1*

*NEIC **02** 02:03:16.0, 30°.95S×71°.68W, h19^{km}, mb3.9/2, ML4.1(GUC), After GUC.*

*IDC **02** 02:03:18.4±2.8, 30°.95S×71°.63W, h51^{km}±23^{km}, mb3.4/5, mb1 3.6/10, mb1mx3.6/19, mbtmp3.4/10, ML3.7/5, MS3.2/2, Ms1 3.2/2, ms1mx3.0/10, Error ellipse: s-maj=27.0km s-min=21.1km az=85.0*

ISC 02 02:03:17.6±0.6**, 30°.98S**±0°.03×**71°.57W**±0°.07**, h37**^{km}±7^{km}**, n37,** σ**1s.08**/45**, mb3.7**/7**, 3C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	**Ovalle**	**0.48**	**41**	⇓*i*P	**Pn**	**02 03 26.8**	**-1.3**
OVCH				*i* S	**Sn**	**02 03 34.0**	**-1.4**
OVCH	**Ovalle**	**0.48**	**41**	⇓*i*P	**Pn**	**02 03 26.8**	**-1.3**
OVCH				*i* S	**Sn**	**02 03 34.0**	**-1.4**
OVCH				AML	AML	02 03 35.4	
	comp=N,10µm,0.3s						
CMCH	**Combarbala**	**0.53**	**112**	⇑*i*P	**Pn**	**02 03 27.8**	**-0.8**
CMCH				*i* S	**Sn**	**02 03 36.8**	**+0.5**
CMCH	**Combarbala**	**0.53**	**112**	⇑*i*P	**Pn**	**02 03 27.8**	**-0.8**
CMCH				*i* S	**Sn**	**02 03 36.8**	**+0.5**
CMCH				AML	AML	02 03 37.4	
	comp=N,39µm,0.3s						
CHNG	**Los Chungos**	**0.91**	**176**	*e*P	**Pn**	**02 03 32.6**	**-1.2**
CHNG				*e*S	**Sn**	**02 03 45.1**	**-0.6**
CHNG				AML	AML	02 03 48.1	
	comp=E,5µm,0.4s						
TLL	**Tololo Astrono**	**1.04**	**39**	⇓*i*P	**Pn**	**02 03 35.5**	**-0.2**
TLL				*i* S	**Sn**	**02 03 50.4**	**+1.4**
TLL	**Tololo Astrono**	**1.04**	**39**	⇓*i*P	**Pn**	**02 03 35.5**	**-0.2**
TLL				*i* S	**Sn**	**02 03 50.4**	**+1.4**
TLL				AML	AML	02 03 53.6	
	comp=E,3µm,0.4s						
LSCH	**La Serena**	**1.10**	**15**	*i* P	**Pn**	**02 03 35.5**	**-1.0**
LSCH				*i* S	**Sn**	**02 03 49.7**	**-0.7**
JACH	**Jahuel**	**1.89**	**154**	*i* P	**Pn**	**02 03 49.1**	**+1.7**
IHA	**Instituto Hidr**	**2.04**	**182**	*i* P	**Pn**	**02 03 48.7**	**-0.7**
IHA				*i* S	**Sn**	**02 04 14.8**	**+1.0**
LCO	**Las Campanas**	**2.10**	**21**	*e*Pn	**Pn**	**02 03 50.0**	**-0.3**
LCO				*e*Pg	**Pn**	**02 03 59.2**	**+9.0**
LCO				*e*Sn	**Sn**	**02 04 17.2**	**+2.2**
LCO	**Las Campanas**	**2.10**	**21**	⇑*e*P	**Pn**	**02 03 49.9**	**-0.3**
LCO				*e*S	**Sn**	**02 04 17.1**	**+2.0**
LCO				AML	AML	02 04 22.5	
	comp=N,923nm,0.3s						
PEL	**Peldehue**	**2.29**	**161**	⇓*i*P	**Pn**	**02 03 54.2**	**+1.4**
PEL				*i* S	**Sn**	**02 04 24.2**	**+4.5**
PEL				AML	AML	02 04 34.0	
	comp=E,3µm,0.8s						
FCH	**Farellones**	**2.58**	**156**	AML	AML	02 04 44.6	
	comp=N,718nm,0.2s						
RCDM	**Rinconada Maip**	**2.59**	**166**	AML	AML	02 04 45.0	
	comp=E,933nm,0.4s						
ANTU	**Antumapu**	**2.70**	**163**	AML	AML	02 04 44.2	
	comp=E,2µm,0.4s						
CFAA	**Coronel Fontan**	**2.92**	**103**	P	**Pn**	**02 04 05.1**	**+3.6**
	comp=E,2.8nm,0.3s,baz=297,slow=8.9,SNR=293						
CFAA				S	**Sn**	**02 04 46.5**	**+11**
	comp=E,12nm,0.3s,baz=163,slow=17,SNR=17						
LMEL	**Las Melosas**	**3.09**	**158**	AML	AML	02 04 57.4	
	comp=N,866nm,0.3s						
LVC	**Limon Verde**	**8.66**	**17**	P	**Pn**	**02 05 22.0**	**+1.6**
	comp=N,0.3nm,0.3s,baz=197,slow=14,SNR=4.1						
LVC				S	**Sn**	**02 06 58.5**	**+1.7**
	comp=N,0.5nm,0.3s,baz=258,slow=18,SNR=2.4						
LVC	**Limon Verde**	**8.66**	**17**	P	**Pn**	**02 05 22.0**	**+1.6**
LVC				S	**Sn**	**02 06 58.5**	**+1.7**
PLCA	**Paso Flores**	**9.77**	**175**	P	**Pn**	**02 05 35.5**	**0.0**
	comp=N,0.1nm,0.3s,baz=342,slow=6.4,SNR=2.2						
PLCA				LR	LR	02 09 42.0	
	comp=N,83nm,19.7s,baz=343,slow=39						
CPUP	**Villa Florida**	**13.33**	**73**	P	**Pn**	**02 06 24.1**	**-0.2**
	comp=N,0.4nm,0.3s,baz=231,slow=13,SNR=3.9						
CPUP				S	**Sn**	**02 08 50.1**	**-1.2**
	comp=N,0.2nm,0.3s,baz=198,slow=19,SNR=1.8						
SIV	**San Ignacio**	**17.73**	**35**	P	**Pn**	**02 07 20.4**	**-1.3**
	comp=N,0.1nm,0.3s,baz=214,slow=12,SNR=7.1						
SIV				pP	pP	02 07 32.7	+1.0
	comp=N,0.1nm,0.3s,baz=233,slow=10,SNR=15						
USHA	**Ushuaia**	**23.95**	**176**	LR	LR	02 17 29.3	
	comp=N,100nm,20.0s,baz=36,slow=36						
TXAR	**Lajitas Array**	**67.31**	**330**	P	**P**	**02 14 07.4**	**-1.3**
	comp=N,0.2nm,0.6s,mb3.4,baz=140,slow=5.7,SNR=2.9						
DBIC	**Dimbokro**	**73.85**	**72**	P	**P**	**02 14 48.2**	**-0.7**
	comp=N,2.7nm,0.8s,mb4.2,baz=216,slow=7.6,SNR=6.6						
DBIC	**Dimbokro**	**73.85**	**72**	P	**P**	**02 14 48.2**	**-0.7**
SDCO	**Great Sand Dun**	**75.36**	**333**	*e*P	**P**	**02 14 57.8**	**+0.7**
	comp=N,0.5nm,0.6s,mb3.6						
PDAR	**Pinedale Array**	**81.26**	**333**	P	**P**	**02 15 29.2**	**-0.4**
	comp=N,0.3nm,0.8s,mb3.3,baz=142,slow=4.6,SNR=2.7						
NVAR	**Mina Array Bea**	**81.64**	**325**	P	**P**	**02 15 31.2**	**-0.4**
	comp=N,0.3nm,0.5s,mb3.5,baz=158,slow=5.7,SNR=3.4						
ELK	**Elko**	**82.01**	**328**	*e*P	**P**	**02 15 33.7**	**+0.2**
	comp=N,1.5nm,0.8s,mb4.0						
TOA0	**Torodi Ar. Sit**	**82.81**	**70**	*e*P	**P**	**02 15 39.7**	**+1.3**
TORD	**Torodi Ar. Bea**	**82.81**	**70**	P	**P**	**02 15 38.4**	**0.0**
	comp=N,0.6nm,0.8s,mb3.7,baz=243,slow=5.6,SNR=10						
TORD				pP	pP	02 15 51.2	+1.3
	comp=N,1.0nm,0.8s,baz=262,slow=5.9,SNR=5.2						
WRA	**Warramunga Arr**	**123.59**	**210**	PKP	PKPdf	02 22 10.0	-1.7
	comp=N,0.5nm,0.7s,baz=175,slow=1.6,SNR=10						
ZALV	**Zalesovo Beam**	**151.44**	**30**	PKPbc	PKPbc	02 23 06.1	-0.8
	comp=N,1.0nm,0.6s,baz=298,slow=3.2,SNR=6.2						
MKAR	**Makanchi Array**	**154.41**	**44**	PKPab	PKPab	02 23 27.5	-0.6
	comp=N,0.3nm,0.8s,baz=306,slow=2.9,SNR=3.9						
MKAR	**Makanchi Array**	**154.41**	**44**	PKPab	PKPab	02 23 27.5	-0.6

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*IDC **02** 03:19:13.5±0.6, 1°.24N×97°.01E, h0^{km}, mb4.4/13, mb1 4.5/15, mb1mx4.3/24, mbtmp4.4/15, ML4.2/2, MS4.2/22, Ms1 4.2/22, ms1mx4.0/43, Error ellipse: s-maj=20.4km s-min=15.2km az=55.0*

*BJI **02** 03:19:13.7, 0°.95N×97°.35E, h30^{km}, mB5.1/19, mb4.8/31, Ms4.8/21, Ms7 4.7/19*

*ISCJB **02** 03:19:15.3±0.3, 1°.25N±0°.05×97°.15E±0°.05, h23^{km}, mb4.7/60, MS4.4/36, Error ellipse: s-maj=7.9km s-min=5.8km az=41.4*

*NEIC **02** 03:19:17.9±2.7, 1°.24N×97°.14E, h28^{km}±18^{km}, mb4.6/22, Error ellipse: s-maj=9.7km s-min=5.8km az=223.0*

*MOS **02** 03:19:17.0±1.1, 1°.33N×97°.11E, h33^{km}, mb4.9/22, MS4.7/4, Error ellipse: s-maj=11.7km s-min=6.6km az=102.2*

ISC 02 03:19:17.5±0.4**, 1°.26N**±0°.05×**97°.18E**±0°.05**, h23**^{km}**, h23**^{km}±2.0^{km}**: pP-P, n131,** σ**0s.95**/119**, mb4.7**/60**, MS4.4**/36**, 9C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.32**	**49**	Pn	**Pn**	**03 19 54.9**	**+0.5**
	23nm,0.3s,baz=248,slow=6.7,SNR=152						
KULM	**Kulim**	**5.29**	**41**	*e*Pn	**Pn**	**03 20 35.9**	**+0.6**
	55nm,0.7s						
SNG	**Songkhla**	**6.80**	**30**	P	**Pn**	**03 20 57.0**	**+1.0**
	140nm,0.9s						
CMAR	**Chiang Mai Arr**	**17.18**	**6**	P	**Pn**	**03 23 14.2**	**-1.9**
	0.6nm,0.3s,baz=195,slow=13,SNR=18						
CMAR				LR	LR	03 30 51.6	
	comp=Z,843nm,19.5s,baz=190,slow=41						
PALK	**Pallekele**	**17.48**	**290**	*e*P	**Pn**	**03 23 20.2**	**+0.3**
PALK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
PALK	**Pallekele**	**17.48**	**290**	*e*P	**Pn**	**03 23 20.2**	**+0.3**
	comp=Z,7.0nm,0.6s						
CHG	**Chiang Mai**	**17.53**	**6**	⇓P	**Pn**	**03 23 20.8**	**+0.3**
	comp=Z,12nm,1.1s						
CHTO	**Chiang Mai**	**17.53**	**6**	*e*P	**Pn**	**03 23 18.9**	**-1.6**
CHTO				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CHTO	**Chiang Mai**	**17.53**	**6**	*e*P	**Pn**	**03 23 18.9**	**-1.7**
	comp=Z,9.5nm,0.9s						
CHRT	**Chiangrai**	**18.67**	**8**	P	**Pn**	**03 23 34.0**	**-0.5**
KKM	**Kota Kinabalu**	**19.58**	**75**	*e*P	**Pn**	**03 23 44.6**	**-0.9**
	comp=Z,30nm,1.0s						
QIZ	**Qiongzhong**	**21.58**	**34**	P	**P**	**03 24 04.2**	**-1.6**
QIZ				S	**S**	**03 28 00.4**	**-3.6**
QIZ				pmax	pmax		
	comp=Z,240nm,4.2s						
QIZ				LR	LR		
	comp=E,870nm,9.7s						
QIZ				LR	LR		
	comp=Z,730nm,15.2s,MS4.2						
KMI	**Kunming**	**24.32**	**12**	P	**P**	**03 24 35.1**	**+1.5**
KMI				pP		03 24 41.3	
KMI				PP		03 25 14.1	
KMI				S	**S**	**03 28 57.4**	**+5.8**
KMI				sS	sS	03 29 07.8	+4.8
KMI				pmax	pmax		
	comp=Z,55nm,1.5s,mb4.8						
KMI				pmax	pmax		
	comp=Z,310nm,4.1s						
KMI				LR	LR		
	comp=N,2µm,15.2s,MS4.8						
KMI				LR	LR		
	comp=E,1µm,14.0s,MS4.8						
KMI				LR	LR		
	comp=Z,2µm,14.5s,MS4.8						
HYB	**Hyderabad**	**24.36**	**312**	*i* P	**P**	**03 24 35.5**	**+1.5**
SHL	**Shillong**	**24.70**	**348**	⇑*i*P	**P**	**03 24 38.0**	**+1.0**
SHL				*e*S	**S**	**03 29 02.5**	**+4.8**
GYA	**Guiyang**	**26.66**	**19**	⇑*i*P	**P**	**03 24 54.3**	**-0.5**
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.6						
GYA				pmax	pmax		
	comp=Z,100nm,5.0s						
GYA				LR	LR		
	comp=N,2µm,13.2s,MS4.8						
GYA				LR	LR		
	comp=E,690nm,12.0s,MS4.8						
GYA				LR	LR		
	comp=Z,2µm,14.1s,MS4.8						
ODAN	**Odare**	**27.13**	**341**	*e*P	**P**	**03 24 59.7**	**+0.7**
	comp=Z,54nm,0.7s,mb5.2						
TAPN	**Taplejung**	**27.48**	**342**	*e*P	**P**	**03 25 03.3**	**+1.1**
	comp=Z,130nm,0.9s,mb5.4						
RAMN	**Ramite**	**27.49**	**339**	*e*P	**P**	**03 25 03.3**	**+1.1**
JIRN	**Jiri**	**28.28**	**339**	*e*P	**P**	**03 25 10.7**	**+1.4**
PKI	**Pulchoki**	**28.49**	**338**	*e*P	**P**	**03 25 11.6**	**+0.4**
PKIN	**Phulchoki**	**28.50**	**338**	*e*P	**P**	**03 25 12.3**	**+1.1**
GUN	**Gumba**	**28.62**	**339**	*e*P	**P**	**03 25 13.1**	**+0.8**
	comp=Z,116nm,1.1s,mb5.5						
DMN	**Daman**	**28.64**	**337**	*e*P	**P**	**03 25 12.7**	**+0.2**
KKN	**Kakani**	**28.74**	**338**	*e*P	**P**	**03 25 13.8**	**+0.5**
	comp=Z,43nm,0.8s,mb5.2						
LSA	**Lhasa**	**28.86**	**349**	P	**P**	**03 25 15.8**	**+1.4**
LSA	**Lhasa**	**28.86**	**349**	*e*P	**P**	**03 25 15.9**	**+1.5**
LSA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.7						
LSA	**Lhasa**	**28.86**	**349**	*e*P	**P**	**03 25 15.9**	**+1.5**
	comp=Z,14nm,0.8s,mb4.7						
GKN	**Gorkha**	**29.18**	**337**	*e*P	**P**	**03 25 18.0**	**+0.8**
KOLN	**Koldanda**	**29.39**	**335**	*e*P	**P**	**03 25 20.1**	**+0.9**
	comp=Z,44nm,0.8s,mb5.2						
DANN	**Dangsing**	**29.84**	**336**	*e*P	**P**	**03 25 23.6**	**+0.5**
	comp=Z,30nm,0.8s,mb5.0						
WHN	**Wuhan**	**33.37**	**28**	⇑P	**P**	**03 25 54.9**	**+0.7**
WHN				*e*S	**S**	**03 31 21.3**	**+7.4**
WHN				LR	LR		
	comp=N,1µm,12.4s,MS5.0						
WHN				LR	LR		
	comp=E,2µm,12.8s,MS5.0						
WHN				LR	LR		
	comp=Z,2µm,12.0s,MS5.0						
FITZ	**Fitzroy Crossi**	**33.98**	**126**	*e*P	**P**	**03 25 59.3**	**-0.4**
	comp=Z,5.0nm,0.6s,mb4.6						
FITZ	**Fitzroy Crossi**	**33.98**	**126**	*e*P	**P**	**03 25 59.2**	**-0.4**
	comp=Z,2.8nm,0.7s,mb4.3						
DDI	**Dehra Dun**	**34.13**	**330**	*e*x	**P**	**03 26 00.0**	**-0.8**
XAN	**Xi'an**	**34.41**	**17**	P	**P**	**03 26 02.5**	**-0.7**
XAN				pP	pP	03 26 08.9	-1.3
XAN				S	**S**	**03 31 34.5**	**+4.5**
XAN				sS	sS	03 31 45.2	+3.7
XAN				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
XAN				pmax	pmax		
	comp=Z,150nm,5.9s						
XAN				LR	LR		
	comp=N,620nm,14.0s,MS4.7						
XAN				LR	LR		
	comp=E,820nm,16.2s,MS4.7						
XAN				LR	LR		
	comp=Z,1µm,14.5s,MS4.8						
LZH	**Lanzhou**	**35.20**	**9**	*e*P	**P**	**03 26 10.2**	**+0.3**
LZH				pP	pP	03 26 17.0	+0.1
LZH				sP	sP	03 26 20.4	+0.6
LZH				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
LZH				pmax	pmax		
	comp=Z,150nm,4.0s						
LZH				LR	LR		
	comp=E,1µm,17.7s						
LZH				LR	LR		
	comp=Z,1µm,16.9s,MS4.8						
KAKA	**Kakadu**	**37.64**	**113**	*e*P	**P**	**03 26 30.3**	**-0.9**
	comp=Z,9.2nm,0.9s,mb4.5						
KAKA	**Kakadu**	**37.64**	**113**	*e*P	**P**	**03 26 29.8**	**-1.4**
	comp=Z,20nm,0.8s,mb4.9						
GTA	**Gaotai**	**38.05**	**3**	*e*P	**P**	**03 26 34.1**	**-0.1**
GTA				pP	pP	03 26 41.5	+0.3
GTA				sP	sP	03 26 45.1	+1.1
GTA				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.5						
WRA	**Warramunga Arr**	**42.08**	**122**	P	**P**	**03 27 07.9**	**-0.1**
	comp=Z,3.7nm,0.7s,mb4.1,baz=301,slow=9.1,SNR=26						
WRA				LR	LR	03 48 10.3	
	comp=Z,238nm,19.9s,MS4.1,baz=290,slow=41						
WRAB	**Tennant Creek**	**42.09**	**122**	*e*P	**P**	**03 27 08.1**	**0.0**
WRAB				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
WRAB	**Tennant Creek**	**42.09**	**122**	*e*P	**P**	**03 27 08.1**	**0.0**
	comp=Z,4.6nm,0.6s,mb4.3						
WB2	**Warramunga Arr**	**42.09**	**122**	*e*P	**P**	**03 27 08.1**	**0.0**
BJT	**Baijiatuau**	**42.27**	**22**	*e*P	**P**	**03 27 10.3**	**+1.1**
BJT				*e**PP	pP	03 27 17.0	+0.7
BJT				pmax	pmax		
	comp=Z,27nm,0.6s						
BJT	**Baijiatuau**	**42.27**	**22**	*e*P	**P**	**03 27 10.2**	**+1.1**
	comp=Z,27nm,0.6s,mb5.0						
BJT				*e*pP	pP	03 27 17.0	+0.7
WMQ	**Urumqi**	**43.21**	**350**	P	**P**	**03 27 16.7**	**-0.1**
WMQ				pP	pP	03 27 26.5	+2.6
WMQ				sP	sP	03 27 30.5	+3.8
WMQ				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,220nm,5.2s						
WMQ				LR	LR		
	comp=N,560nm,24.6s						
WMQ				LR	LR		
	comp=E,350nm,18.8s						
WMQ				LR	LR		
	comp=Z,320nm,24.7s,MS4.1						
ASAR	**Alice Springs**	**43.45**	**127**	P	**P**	**03 27 19.5**	**+0.5**
ASAR						03 29 08.0	
ASAR	**Alice Springs**	**43.45**	**127**	P	**P**	**03 27 19.5**	**+0.5**
	comp=Z,3.1nm,0.8s,mb4.1,baz=302,slow=7.3,SNR=29						
ASAR				PcP	PcP	03 29 08.0	+0.8
	comp=Z,1.3nm,0.9s,baz=313,slow=3.5,SNR=5.6						
ASAR				ScP	ScP	03 32 58.8	+1.4
	comp=Z,0.6nm,0.8s,baz=316,slow=6.5,SNR=4.5						
TKM2	**Tokmak 2**	**45.75**	**338**	*e*P	**P**	**03 27 37.4**	**+0.3**
TKM2				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
TKM2	**Tokmak 2**	**45.75**	**338**	*e*P	**P**	**03 27 37.4**	**+0.3**
	comp=Z,10nm,1.1s,mb4.7						
KSRS	**Korea Array**	**45.81**	**35**	P	**P**	**03 27 37.4**	**-0.3**
	comp=Z,12nm,0.9s,mb4.8,baz=224,slow=9.0,SNR=53						
KSRS				LR	LR	03 48 23.5	
	comp=Z,168nm,18.0s,MS4.0,baz=227,slow=38						
AML	**Almayashu**	**45.84**	**336**	*e*P	**P**	**03 27 39.3**	**+1.5**
	comp=Z,16nm,1.0s,mb4.9						
AML				*e*pP	pP	03 27 43.5	-1.4
AAK	**Ala-Archa**	**45.94**	**337**	⇑*e*P	**P**	**03 27 39.8**	**+1.2**
AAK				pmax	pmax		
	comp=Z,8.0nm,2.5s,mb4.2						
AAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.8						
AAK	**Ala-Archa**	**45.94**	**337**	*e*P	**P**	**03 27 39.2**	**+0.7**
	comp=Z,0.7nm,0.4s,mb3.9						
AAK				*e*pP	pP	03 27 44.6	-1.1
EKS2	**Erkin-Say**	**46.25**	**336**	*e*P	**P**	**03 27 41.6**	**+0.6**
	comp=Z,3.8nm,0.7s,mb4.4						
SONM	**Songino Array**	**47.07**	**8**	P	**P**	**03 27 47.6**	**+0.2**
	comp=Z,8.3nm,0.7s,mb4.8,baz=188,slow=8.7,SNR=84						
SONM				PcP	PcP	03 29 19.8	+0.6
	comp=Z,1.2nm,0.6s,baz=195,slow=3.6,SNR=3.4						
MK31	**Makanchi Array**	**47.18**	**346**	*e*P	**P**	**03 27 48.5**	**+0.3**
MKAR	**Makanchi Array**	**47.18**	**346**	P	**P**	**03 27 48.2**	**0.0**
	comp=Z,4.4nm,0.6s,mb4.6,baz=158,slow=8.2,SNR=61						
MKAR				LR	LR	03 51 22.3	
	comp=Z,180nm,19.7s,MS4.0,baz=159,slow=41						
KK31	**Karatay Array**	**47.99**	**334**	*i* P	**P**	**03 27 54.2**	**-0.4**
KK31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
COEN	**Coen**	**48.01**	**110**	*e*P	**P**	**03 27 55.4**	**+0.2**
ZAK	**Zakamensk**	**49.21**	**5**	⇑*i*P	**P**	**03 28 04.0**	**+0.1**
ZAK				*e*		03 29 23.2	
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
CN2	**Changchun**	**49.26**	**27**	*e*P	**P**	**03 28 03.9**	**-0.5**
CN2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.7						
CN2				LR	LR		
	comp=E,400nm,15.0s,MS4.7						
CN2				LR	LR		
	comp=Z,500nm,14.0s,MS4.7						
TLY	**Talaya**	**50.53**	**5**	*e*P	**P**	**03 28 14.6**	**+0.7**
TLY				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
TLY				MLR	MLR		
	comp=Z,403nm,16.0s,MS4.5						
TLY	**Talaya**	**50.53**	**5**	*e*P	**P**	**03 28 14.3**	**+0.4**
	comp=Z,3.5nm,0.6s,mb4.5						
HIA	**Hailar**	**51.59**	**19**	*e*P	**P**	**03 28 21.8**	**-0.1**
HIA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HIA	**Hailar**	**51.59**	**19**	*e*P	**P**	**03 28 21.8**	**-0.1**
	comp=Z,7.9nm,0.8s,mb4.7						
MJAR	**Matsushiro Arr**	**51.66**	**42**	P	**P**	**03 28 22.9**	**+0.2**
	comp=Z,0.6nm,0.4s,mb3.9,baz=226,slow=6.4,SNR=6.7						
MJAR				LR	LR	03 50 37.9	
	comp=Z,153nm,19.6s,MS4.0,baz=245,slow=36						
KURK	**Kurchatov**	**51.73**	**345**	*e*P	**P**	**03 28 23.2**	**+0.3**
KURK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
KURK	**Kurchatov**	**51.73**	**345**	*e*P	**P**	**03 28 23.1**	**+0.2**
	comp=Z,11nm,1.1s,mb4.7						
MDJ	**Mudanjiang**	**51.82**	**29**	P	**P**	**03 28 18.7**	**-5.0**
MDJ				S	**S**	**03 35 50.4**	**+5.6**
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.8s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,64nm,3.7s						
MDJ				LR	LR		
	comp=N,180nm,21.8s,MS4.2						
MDJ				LR	LR		
	comp=E,160nm,19.4s,MS4.2						
MDJ				LR	LR		
	comp=Z,250nm,17.8s,MS4.3						
CTA	**Charters Tower**	**52.55**	**117**	LR	LR	03 55 17.2	
	comp=Z,284nm,18.1s,MS4.3,baz=49,slow=41						
OPO	**Ambohidratompo**	**52.93**	**246**	P	**P**	**03 28 30.8**	**-1.6**
	comp=Z,4.5nm,1.0s,mb4.4,baz=90,slow=20,SNR=3.2						
STKA	**Stephens Creek**	**53.41**	**132**	*e*P	**P**	**03 28 37.0**	**+1.3**
	comp=Z,3.8nm,0.7s,mb4.4						
STKA	**Stephens Creek**	**53.41**	**132**	P	**P**	**03 28 36.9**	**+1.1**
	comp=Z,7.0nm,1.0s,mb4.6,baz=309,slow=5.1,SNR=8.4						
STKA				LR	LR	03 53 11.5	
	comp=Z,378nm,19.0s,MS4.5,baz=280,slow=38						
ZAA0	**Zalesovo Array**	**53.49**	**351**	*e*P	**P**	**03 28 35.6**	**-0.3**
ZALV	**Zalesovo Beam**	**53.49**	**351**	P	**P**	**03 28 35.6**	**-0.3**
	comp=Z,18nm,0.6s,mb5.2,baz=179,slow=7.0,SNR=86						
ZALV				LR	LR	03 56 15.7	
	comp=Z,148nm,18.9s,MS4.1,baz=180,slow=42						
NVS	**Novosibirsk**	**54.61**	**350**	⇑*i*P	**P**	**03 28 42.8**	**-1.3**
NVS				*e*S	**S**	**03 36 14.9**	**-7.4**
NVS				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.8						
NVS				pmax	pmax		
	comp=N,11nm,1.5s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.5s						

NVS				smax			
	comp=N,15nm,2.0s						
NVS				smax			
	comp=E,8.0nm,1.8s						
VOSK	Vostochnaya	55.74	341	P	P	03 28 50.7	-1.5
VOSK				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
BVA0	Borovoye Array	56.19	341	iP	P	03 28 53.0	-2.4
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
KLR	Kul’dur	56.21	27	eP	P	03 28 52.0	-3.7
KLR				pmax	pmax		
	comp=E,200nm,1.0s						
KLR				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
KLR				MLR	MLR		
	comp=E,500nm,13.0s						
KLR				MLR	MLR		
	comp=Z,900nm,13.0s,MS5.0						
BRVK	Borovoye	56.25	341	eP	P	03 28 55.2	-0.7
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
BRVK	Borovoye	56.25	341	eP	P	03 28 55.2	-0.7
	comp=Z,4.7nm,0.6s,mb4.7						
CMSA	Cobar Meteorol	56.35	130	eP	P	03 28 58.7	+1.7
AB31	Akbulak array	57.45	332	P	P	03 29 03.6	-0.9
AB31				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
BOD	Bodaibo	57.95	11	eP	P	03 29 08.0	+0.1
BOD				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
EIDS	Eidsvold	58.43	121	eP	P	03 29 13.5	+1.7
AKTO	Aktyubinsk	59.17	332	P	P	03 29 13.9	-2.6
AKTO				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
AKTO	Aktyubinsk	59.17	332	LR	LR	03 58 40.0	
	comp=Z,147nm,19.5s,MS4.1,baz=313,slow=40						
YSS	Yuzh-Sakhalins	60.31	34	⇑eP	P	03 29 24.2	-0.2
YSS				e		03 29 36.0	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
YSS				MLR	MLR		
	comp=Z,300nm,15.0s,MS4.6						
YSS	Yuzh-Sakhalins	60.31	34	eP	P	03 29 24.6	+0.2
	comp=Z,28nm,1.1s,mb5.2						
GNI	Garni	61.24	316	⇑eP	P	03 29 32.4	+1.5
GNI				pmax	pmax		
	comp=Z,7.0nm,1.3s						
GNI	Garni	61.24	316	LR	LR	03 58 18.8	
	comp=Z,82nm,20.3s,MS3.9,baz=353,slow=38						
SVE	Sverdlovsk	62.62	338	⇑eP	P	03 29 39.3	-0.5
SVE				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
ARU	Arti	63.12	337	eP	P	03 29 42.5	-0.7
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
ARU	Arti	63.12	337	eP	P	03 29 42.5	-0.7
	comp=Z,6.2nm,0.8s,mb4.8						
KIV	Kislovodsk	64.25	319	iP	P	03 29 50.3	-0.6
KIV				eS	S	03 38 36.0	+8.7
KIV				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
KIV	Kislovodsk	64.25	319	eP	P	03 29 50.8	0.0
	comp=Z,9.8nm,0.9s,mb4.8						
ASF	Jabal al Asfar	64.41	305	LR	LR	04 00 29.5	
	comp=Z,154nm,18.2s,MS4.2,baz=147,slow=38						
MALT	Malatya	65.07	312	eP	P	03 29 56.6	+0.2
MALT				e*PP	pP	03 30 02.8	-1.0
MALT				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
MALT	Malatya	65.07	312	eP	P	03 29 56.6	+0.2
	comp=Z,3.3nm,1.0s,mb4.3						
MALT				epP	pP	03 30 02.8	-1.0
YAK	Yakutsk	65.37	16	eP	P	03 29 56.1	-1.7
YAK				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.3						
YAK				pmax	pmax		
	comp=E,13nm,1.3s						
YAK				pmax	pmax		
	comp=N,11nm,1.2s						
YAK				MLR	MLR		
	comp=Z,620nm,21.0s,MS4.8						
YAK				MLR	MLR		
	comp=N,344nm,23.0s,MS4.6						
YAK				MLR	MLR		
	comp=E,331nm,22.0s,MS4.6						
EIL	Elat	65.41	302	LR	LR	03 59 23.0	
	comp=E,180nm,18.2s,MS4.3,baz=354,slow=37						
ANN	Anapa	68.04	318	e*PP	pP	03 30 22.4	-0.2
ANN				pmax	pmax		
	comp=Z,79nm,1.5s,mb5.5						
BR131	Keskin Array S	69.06	312	eP	P	03 30 20.7	-0.9
	comp=Z,1.2nm,0.6s,mb4.0						
BRTR	Keskin Array B	69.06	312	P	P	03 30 20.6	-1.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=136,slow=7.3,SNR=6.6						
VSR	Storozhevoye	69.51	325	iP	P	03 30 22.7	-1.5
VSR				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
PRGR	Permogore	71.57	337	eP	P	03 30 35.5	-1.1
PRGR				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
OBN	Obninsk	72.56	328	eP	P	03 30 41.8	-0.8
OBN				e		03 30 50.7	
OBN				pmax	pmax		
	comp=Z,45nm,2.5s,mb5.0						
MAW	Mawson	72.77	193	LR	LR	03 59 01.2	
	comp=Z,149nm,18.1s,MS4.3,baz=206,slow=33						
TIXI	Tiksi	73.13	10	eP	P	03 30 44.4	-1.3
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,374nm,14.0s,MS4.8						
TIXI	Tiksi	73.13	10	eP	P	03 30 44.6	-1.1
	comp=Z,4.8nm,0.8s,mb4.5						
SEY	Seymchan	73.71	23	⇓eP	P	03 30 49.5	+0.2
BOSA	Boshof	74.79	240	LR	LR	04 02 13.8	
	comp=Z,145nm,18.1s,MS4.3,baz=250,slow=35						
AKASG	Malin Array Be	75.20	322	P	P	03 30 56.8	-1.4
	comp=Z,0.4nm,0.2s,mb3.9,baz=89,slow=5.4,SNR=6.7						
BUR08	Bucovina Ar. S	76.98	319	eP	P	03 31 08.8	+0.4
RPZ	Rata Peaks	79.26	135	LR	LR	04 03 09.3	
	comp=Z,215nm,20.3s,MS4.5,baz=353,slow=33						
ARCES	ARCESS Array B	82.47	340	P	P	03 31 37.5	-0.3
	comp=Z,4.3nm,0.9s,mb4.4,baz=84,slow=3.8,SNR=4.5						
ARCES				LR	LR	04 13 05.3	
	comp=Z,185nm,18.3s,MS4.5,baz=305,slow=39						
ARCES	ARCESS Array B	82.47	340	P	P	03 31 37.5	-0.3
ARCES				LR	LR	04 13 05.3	
GERES	GERESS Array B	84.75	319	P	P	03 31 49.9	0.0
	comp=Z,1.4nm,0.8s,mb4.1,baz=132,slow=2.0,SNR=6.8						
VNDA	Vanda	85.89	169	LR	LR	04 04 46.3	
	comp=Z,134nm,21.2s,MS4.3,baz=57,slow=32						
SPITS	Spitsbergen Ar	86.89	348	LR	LR	04 19 01.5	
	comp=Z,131nm,18.3s,MS4.4,baz=115,slow=41						
NOA	NORSAR Array B	86.94	331	LR	LR	04 18 35.3	
	comp=Z,103nm,18.1s,MS4.3,baz=10.0,slow=41						
TORD	Torodi Ar. Bea	95.06	283	LR	LR	04 11 48.8	
	comp=Z,117nm,18.1s,MS4.4,baz=40,slow=33						
ESDC	Sonseca Array	97.77	310	LR	LR	04 20 54.9	
	comp=Z,116nm,19.0s,MS4.4,baz=345,slow=38						
MDT	Midelt	99.22	303	LR	LR	04 18 46.8	
	comp=Z,77nm,19.5s,MS4.2,baz=275,slow=36						
NVAR	Mina Array Bea	128.75	36	PKP	PKPdf	03 38 24.7	+1.2
	comp=Z,0.7nm,0.9s,baz=283,slow=1.6,SNR=3.4						
ANMO	Albuquerque	137.72	29	ePKIKP	PKPdf	03 38 40.0	-0.5
TXAR	Lajitas Array	143.63	32	PKP	PKPdf	03 38 49.0	-2.3
	comp=Z,0.7nm,0.7s,baz=24,slow=1.3,SNR=9.5						
JCT	Junction City	144.53	26	ePKIKP	PKPdf	03 38 51.9	-0.9
CPUP	Villa Florida	145.04	222	PKP	PKPdf	03 38 53.0	-0.9
	comp=Z,0.5nm,0.4s,baz=66,slow=5.7,SNR=4.2						

MAN 02 03:32:23, 18°.25N×120°.50E, h33^{km}, mb3.7, ML2.4, MS1.9, 2C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.14	56	⇑iP	Pb	03 32 30.7	+1.7
PIP				iS	Sb	03 32 35.2	+2.1
SIPP	Brgy, Tapao	0.33	187	⇑iP	Pb	03 32 33.2	+2.2
SIPP				eS	Sb	03 32 39.9	+3.3
ABRA	Dolores	0.63	161	eP	Pn	03 32 36.8	+1.2
ABRA				eS	Sb	03 32 46.0	+1.7
APYP	Conner	0.81	118	eP	Pn	03 32 38.3	+0.3
APYP				eS	Sn	03 32 49.3	+0.5

NEIC ***02*** *03:43:55.3±5.1, 4°.27S×140°.73E, h60^{km}±39^{km}, mb3.8/2, Error ellipse: s-maj=55.2km s-min=18.3km az=78.0*

ISCJB ***02*** *03:44:00.0±1.8, 4°.46S±0°.07×140°.4E±0°.1, h110^{km}±19^{km}, mb3.6/2, Error ellipse: s-maj=21.2km s-min=10.6km az=19.5*

IDC ***02*** *03:44:02.6±4.2, 4°.46S×140°.26E, h111^{km}±42^{km}, mb3.3/2, mb1 3.4/4, mb1mx3.2/14, mbtmp3.3/4, Error ellipse: s-maj=43.6km s-min=16.4km az=103.0*

ISC 02 03:44:01.7±1.8**, 4°.44S**±0°.09×**140°.3E**±0°.1**, h105^{km}**±17^{km}**, n14, σ1ˢ.05**/22**, mb3.6**/2**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	Coen	9.88	163	eP	Pn	03 46 17.5	-3.2
KAKA	Kakadu	11.29	223	eP	Pn	03 46 40.5	+0.6
	48nm,0.6s						
KAKA				eS	Sn	03 48 42.8	-1.4
KAKA	Kakadu	11.29	223	ePn	Pn	03 46 40.2	+0.3
	130nm,0.6s						
KAKA				eSn	Sn	03 48 43.5	-0.6
MTSU	Mount Surprise	14.17	164	eP	Pn	03 47 17.8	+0.2
	4.7nm,0.5s						
KNA	Kununurra	15.95	224	eP	Pn	03 47 42.2	+2.1
	36nm,0.7s						
WRAB	Tennant Creek	16.45	200	eP	Pn	03 47 46.1	-0.2
	3.1nm,0.6s						
WRAB				eSn	Sn	03 50 44.4	-4.4
WB2	Warramunga Arr	16.45	200	ePn	Pn	03 47 46.3	0.0
WB2				eSn	Sn	03 50 42.6	-6.4
WRA	Warramunga Arr	16.46	200	P	Pn	03 47 46.3	-0.1
	1.0nm,0.3s,baz=18,slow=13,SNR=21						
WRA				S	S	03 50 45.4	-8.7
	0.4nm,0.3s,baz=29,slow=30,SNR=5.1						
FITZ	Fitzroy Crossi	19.73	225	eP	P	03 48 24.8	+1.6
	6.1nm,0.6s						
FITZ				eS	S	03 51 57.7	-2.4
FITZ	Fitzroy Crossi	19.73	225	P	P	03 48 24.9	+1.7
	0.1nm,0.3s,baz=44,slow=11,SNR=4.8						
FITZ				S	S	03 51 60.0	-0.1
	0.1nm,0.3s,baz=215,slow=7.8,SNR=3.0						
ASAR	Alice Springs	20.08	197	P	P	03 48 27.4	+0.6
	1.8nm,0.6s,baz=27,slow=9.8,SNR=16						
ASAR				S	S	03 52 07.8	+1.1
	1.0nm,0.5s,baz=10.0,slow=27,SNR=5.0						
MK31	Makanchi Array	72.11	322	eP	P	03 55 14.2	-0.4
MKAR	Makanchi Array	72.11	322	P	P	03 55 14.7	+0.1
	0.6nm,0.7s,mb3.6,baz=112,slow=6.0,SNR=5.1						
KURK	Kurchatov	76.03	325	eP	P	03 55 36.4	-0.9
	0.7nm,0.5s,mb3.6						

ISCJB ***02*** *03:49:08.2±0.2, 51°.50N±0°.01×16°.12E±0°.02, h0^{km}, mb3.5/3, Error ellipse: s-maj=2.2km s-min=1.9km az=44.5*

NEIC ***02*** *03:49:10.5±0.3, 51°.51N×16°.13E, h5^{km}, ML3.1(SZGRF), Error ellipse: s-maj=4.6km s-min=4.0km az=212.0*

IPEC ***02*** *03:49:10.6±0.4, 51°.51N×16°.39E, h0^{km}, ML2.8/3, Error ellipse: s-maj=3.8km s-min=2.2km az=85.0*

CSEM ***02*** *03:49:10.3±0.1, 51°.50N×16°.10E, h2^{km}, ML3.6/14, Error ellipse: s-maj=2.0km s-min=1.7km az=70.0*

BGR ***02*** *03:49:10.6±0.5, 51°.50N×16°.11E, h1^{km}, ML3.1, Error ellipse: s-maj=7.8km s-min=3.3km az=12.0*

IDC ***02*** *03:49:11.2±0.6, 51°.46N×16°.05E, h0^{km}, mb3.6/3, mb1 3.6/10, mb1mx3.4/26, mbtmp3.5/10, ML3.3/6, Error ellipse: s-maj=10.5km s-min=6.7km az=105.0*

WAR ***02*** *03:49:12.0, 51°.47N×16°.10E, ML3.1, Mining Induced*

PRU ***02*** *03:49:12.1, 51°.43N×16°.09E, h0^{km}, Felt In Harrachov*

VIE ***02*** *03:49:13.4±0.6, 51°.29N×15°.96E, h0^{km}, mb2.8/7, ML3.1/8, Error ellipse: s-maj=3.9km s-min=2.9km az=35.0 76 km WNW of Wroclaw Suspected Mining induced.*

UPP ***02*** *03:49:19.9, 51°.84N×15°.56E, h29^{km}, ML1.9, Suspected Mining explosion.*

ISC 02 03:49:10.2±0.2**, 51°.49N**±0°.01×**16°.10E**±0°.02**, h0^{km}, n139, σ0ˢ.93**/222**, mb3.5**/3**, 15C-3D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.66	169	iPg	Pg	03 49 23.7	+0.9
KSP				eSg	Sg	03 49 32.3	+0.9
KSP				eL		03 49 35.5	
KSP	Ksiaz	0.66	169	ePg	Pg	03 49 23.7	+0.9
KSP	Ksiaz	0.66	169	⇓iPg	Pg	03 49 23.7	+0.9
KSP				eSg	Sg	03 49 32.3	+0.9
KSP				e		03 49 35.5	
KSP	Ksiaz	0.66	169	Pg	Pg	03 49 23.7	+0.9
KSP				eSg	Sg	03 49 32.3	+0.9
UPC	Upice	0.98	183	ePG	Pg	03 49 29.7	+0.6
UPC				eSG	Sg	03 49 42.6	+0.8
	comp=Z,64nm,0.4s						
UPC	Upice	0.98	183	Pg	Pg	03 49 29.7	+0.6
UPC				Sg	Sg	03 49 42.6	+0.8
	comp=Z,64nm,0.4s						
DPC	Dobruska-Polom	1.15	173	ePg	Pg	03 49 32.5	+0.3
DPC				eSg	Sg	03 49 47.0	-0.1
DPC	Dobruska-Polom	1.15	173	ePG	Pg	03 49 32.5	+0.3
DPC				eSG	Sg	03 49 47.1	0.0
	comp=Z,88nm,0.6s						
DPC	Dobruska-Polom	1.15	173	Pg	Pg	03 49 32.5	+0.3
DPC				Sg	Sg	03 49 47.1	0.0
	comp=Z,88nm,0.6s						
PVCC	Panska Ves	1.36	226	ePG	Pg	03 49 36.6	+0.2
PVCC				eSG	Sg	03 49 54.8	+0.8
	comp=Z,176nm,0.3s						
PVCC	Panska Ves	1.36	226	Pg	Pg	03 49 36.6	+0.2
PVCC				Sg	Sg	03 49 54.8	+0.8
	comp=Z,176nm,0.3s						
BRG	Berggiesshubel	1.49	246	PN	Pn	03 49 38.1	-0.1
BRG				PG	Pg	03 49 39.8	+1.0
BRG				SG	Sg	03 49 59.4	+1.3
	comp=Z,134nm,0.5s						
BRG	Berggiesshubel	1.49	246	Pn	Pn	03 49 38.1	-0.1
BRG	Berggiesshubel	1.49	246	Pg	Pg	03 49 39.8	+1.0
BRG				Sg	Sg	03 49 58.7	+0.6
RUE	Ruedersdorf	1.74	306	ePn	Pn	03 49 41.1	-0.6
RUE				eSg	Sg	03 50 06.8	+0.5
RUE	Ruedersdorf	1.74	306	ePn	Pn	03 49 41.2	-0.5
RUE				eSg	Sg	03 50 06.8	+0.6
PRU	Pruhonice	1.80	214	ePG	Pg	03 49 44.3	-0.4
PRU				eSG	Sg	03 50 07.2	-0.8
	comp=Z,50nm,0.4s						
PRU	Pruhonice	1.80	214	Pg	Pg	03 49 44.3	-0.4
PRU				Sg	Sg	03 50 07.2	-0.8
	comp=Z,50nm,0.4s						
FBE	Freiberg	1.82	253	eSg	Sg	03 50 08.8	+0.2
FBE	Freiberg	1.82	253	Sg	Sg	03 50 08.8	+0.2
RAC	Raciborz	1.94	136	ePn	Pn	03 49 43.2	-1.1
RAC				ePg	Pg	03 49 47.3	0.0
RAC				eSg	Sg	03 50 11.9	-0.5
RAC	Raciborz	1.94	136	ePn	Pn	03 49 43.2	-1.1
RAC				ePg	Pg	03 49 47.2	-0.1
RAC				eSg	Sg	03 50 11.9	-0.5
RAC	Raciborz	1.94	136	ePn	Pn	03 49 43.2	-1.1
MORC	Moravsky Berou	1.94	151	ePn	Pn	03 49 43.8	-0.6
MORC	Moravsky Berou	1.94	151	⇑iP	Pn	03 49 44.7	+0.2
MORC	Moravsky Berou	1.94	151	ePn	Pn	03 49 43.8	-0.7
MORC				eSg	Sg	03 50 11.0	-1.6
MORC	Moravsky Berou	1.94	151	ePn	Pn	03 49 44.4	-0.1
	baz=338						
MORC				eSg	Sg	03 50 11.0	-1.7
CLL	Collm	1.95	266	ePn	Pn	03 49 43.9	-0.6
CLL				ePg	Pg	03 49 47.0	-0.6
CLL				eSg	Sg	03 50 13.3	+0.5
CLL	Collm	1.95	266	ePn	Pn	03 49 44.0	-0.5
CLL				ePg	Pg	03 49 47.0	-0.6
CLL				i		03 49 51.5	
CLL				i		03 50 02.2	
CLL				eSg	Sg	03 50 13.0	+0.2
	comp=Z,75nm,0.8s						
CLL	Collm	1.95	266	ePn	Pn	03 49 44.0	-0.5
CLL				ePg	Pg	03 49 47.0	-0.6
CLL				eSg	Sg	03 50 13.0	+0.2
CLL	Collm	1.95	266	ePn	Pn	03 49 44.0	-0.5
OKC	Ostrava-Krasne	2.10	141	ePN	Pn	03 49 46.4	-0.3
OKC				ePG	Pg	03 49 50.2	-0.4
OKC				eSG	Sg	03 50 16.6	-1.2
	comp=Z,103nm,0.6s						
OKC	Ostrava-Krasne	2.10	141	Pn	Pn	03 49 46.4	-0.3
VRAC	Vranov	2.21	172	⇑iP	Pn	03 49 49.0	+0.9
VRAC	Vranov	2.21	172	Pn	Pn	03 49 48.4	+0.3
	comp=Z,4.6nm,0.3s,baz=333,slow=14,SNR=35						
VRAC				Lg		03 50 19.7	
	comp=Z,8.9nm,0.3s,baz=262,slow=23,SNR=9.3						
VRAC	Vranov	2.21	172	ePn	Pn	03 49 48.3	+0.2
VRAC	Vranov	2.21	172	⇑iP	Pn	03 49 49.0	+0.9
VRAC				Lg		03 50 19.6	
VRAC				eSg	Sg	03 50 20.2	-0.9
	comp=Z,35nm,0.3s,baz=357						
TREC	Trest	2.23	190	ePN	Pn	03 49 49.1	+0.7
TREC				ePG	Pg	03 49 52.6	-0.4
TREC	Trest	2.23	190	Pn	Pn	03 49 49.1	+0.7
KRUC	Moravsky	2.44	175	ePg	Pg	03 49 55.6	-1.3
	baz=360						
KRUC				eSg	Sg	03 50 27.3	-1.2
	baz=360						
TANN	Tannenbergstha	2.54	246	ePn	Pn	03 49 53.4	+0.8
TANN	Tannenbergstha	2.54	246	Pn	Pn	03 49 53.4	+0.7
WERD	Werda	2.62	248	ePn	Pn	03 49 54.2	+0.5
WERD	Werda	2.62	248	Pn	Pn	03 49 54.2	+0.5
NKC	Novy Kostel	2.63	243	ePN	Pn	03 49 54.6	+0.7
NKC				ePG	Pg	03 50 00.8	+0.1
NKC				eSG	Sg	03 50 35.4	+0.6
	comp=Z,63nm,0.3s						
NKC	Novy Kostel	2.63	243	Pn	Pn	03 49 54.6	+0.7
OJC	Ojcow	2.67	117	ePn	Pn	03 49 52.9	-1.5
OJC				ePg	Pg	03 50 02.5	+1.2
OJC				eSg	Sg	03 50 37.0	+1.2
OJC	Ojcow	2.67	117	ePn	Pn	03 49 52.8	-1.6
OJC				eSg	Sg	03 50 36.5	+0.6
OJC	Ojcow	2.67	117	ePn	Pn	03 49 52.9	-1.5
OJC				ePg	Pg	03 50 02.5	+1.2
OJC				eSg	Sg	03 50 37.0	+1.2
OJC	Ojcow	2.67	117	ePn	Pn	03 49 52.9	-1.5
OJC	Ojcow	2.67	117	ePg	Pg	03 50 02.5	+1.2
OJC				Sg	Sg	03 50 36.5	+0.7
JAVC	Velka Javorina	2.82	158	eSg	Sg	03 50 41.6	+0.8
	comp=Z,66nm,0.8s						
KHC	Kasperske Hory	2.86	215	ePN	Pn	03 49 57.0	-0.1
KHC				ePG	Pg	03 50 03.7	-1.4
KHC				eSN	Sn	03 50 30.5	-1.7
KHC				eSG	Sg	03 50 40.4	-1.7
	comp=Z,26nm,0.5s						
KHC	Kasperske Hory	2.86	215	Pn	Pn	03 49 57.0	-0.1
MANZ	Manzenberg	2.95	241	ePn	Pn	03 49 58.9	+0.7
MANZ	Manzenberg	2.95	241	Pn	Pn	03 49 58.9	+0.6
MOX	Moxa	2.95	255	ePN	Pn	03 49 59.2	+0.9
MOX				ePG	Pg	03 50 07.0	+0.2
MOX				eSG	Sg	03 50 46.6	+1.5
MOX	Moxa	2.95	255	ePn	Pn	03 49 58.8	+0.5
MOX				⇑ePg	Pg	03 50 07.0	+0.2
MOX				eSg	Sg	03 50 45.2	+0.1
MOX	Moxa	2.95	255	ePn	Pn	03 49 59.2	+0.9
MOX				ePg	Pg	03 50 07.0	+0.2
MOX				eSg	Sg	03 50 46.6	+1.5
MOX	Moxa	2.95	255	Pn	Pn	03 49 58.8	+0.5
MOX	Moxa	2.95	255	Pg	Pg	03 50 07.0	+0.2
MOX				Sg	Sg	03 50 45.2	+0.1
ROTZ	Rotzenmuhle	3.02	237	ePn	Pn	03 49 59.0	-0.2
ROTZ	Rotzenmuhle	3.02	237	Pn	Pn	03 49 59.0	-0.2
GEC2	GERESS Array S	3.06	211	ePn	Pn	03 50 00.3	+0.5
GEC2	GERESS Array S	3.06	211	ePn	Pn	03 50 00.3	+0.5
GEC2	GERESS Array S	3.06	211	Pn	Pn	03 50 00.3	+0.5
GERES	GERESS Array B	3.06	211	Pn	Pn	03 49 60.0	+0.1
	comp=Z,2.8nm,0.3s,baz=26,slow=12,SNR=70						
GERES				Pg	Pg	03 50 06.9	-2.1
	comp=Z,6.6nm,0.3s,baz=28,slow=15,SNR=49						
GERES				Sn	Sn	03 50 34.0	-3.1
	comp=Z,3.6nm,0.3s,baz=30,slow=26,SNR=6.0						
GERES				Lg		03 50 48.0	
	comp=Z,4.8nm,0.3s,baz=31,slow=27,SNR=5.5						
GERES	GERESS Array B	3.06	211	Pn	Pn	03 50 00.0	+0.2
GERES	GERESS Array B	3.06	211	Pg	Pg	03 50 06.9	-2.0
WET	Wettzell	3.13	223	ePn	Pn	03 50 01.1	+0.3
WET	Wettzell	3.13	223	ePn	Pn	03 50 01.1	+0.4
WET	Wettzell	3.13	223	Pn	Pn	03 50 01.1	+0.4
MODS	Modra-Piesok	3.21	166	ePN	Pn	03 50 04.1	+2.2
MODS	Modra-Piesok	3.21	166	ePn	Pn	03 50 04.1	+2.2
ZST	Bratislava	3.36	168	ePG	Pg	03 50 14.7	+0.1
ZST				eSG	Sg	03 50 56.5	-1.6
ZST	Bratislava	3.36	168	ePg	Pg	03 50 14.7	+0.1
ZST				eSg	Sg	03 50 56.5	-1.6
NIE	Niedzica	3.40	126	ePn	Pn	03 50 05.0	+0.6
NIE				ePg	Pg	03 50 14.9	-0.4
NIE				eSg	Sg	03 50 59.5	+0.2
NIE	Niedzica	3.40	126	ePn	Pn	03 50 05.0	+0.6
VYHS	Vyhne	3.48	148	ePN	Pn	03 50 04.3	-1.3
VYHS				ePG	Pg	03 50 16.6	-0.3
VYHS	Vyhne	3.48	148	ePn	Pn	03 50 04.3	-1.3
VYHS				ePg	Pg	03 50 16.7	-0.2
VYHS	Vyhne	3.48	148	ePn	Pn	03 50 04.3	-1.3
CONA	Conrad Observa	3.57	183	⇓iPn	Pn	03 50 07.7	+0.9
	SNR=11						
CONA				⇓iSg	Sg	03 51 04.1	-0.7
	comp=Z,39nm,0.5s						
CONA	Conrad Observa	3.57	183	Pn	Pn	03 50 07.7	+0.9
	SNR=11						
CONA				Sg	Sg	03 51 04.1	-0.7
	comp=Z,39nm,0.5s						
CSNA	Conrad Observa	3.57	183	⇑iPn	Pn	03 50 07.7	+0.9
CSNA				⇑iSg	Sg	03 51 04.2	-0.6
	comp=Z,38nm,0.5s						
CSNA	Conrad Observa	3.57	183	Pn	Pn	03 50 07.7	+0.9
CSNA				Sg	Sg	03 51 04.2	-0.6
	comp=Z,38nm,0.5s						
GRA1	Grafenberg Arr	3.59	242	ePn	Pn	03 50 07.9	+0.8
GRA1				eSg	Sg	03 51 05.1	-0.5
GRA1	Grafenberg Arr	3.59	242	Pn	Pn	03 50 07.9	+0.8
GRA1				Sg	Sg	03 51 05.1	-0.5
GRF	Grafenberg Arr	3.59	242	ePn	Pn	03 50 07.9	+0.8
GRF				eSg	Sg	03 51 05.1	-0.5
GRF	Grafenberg Arr	3.59	242	ePn	Pn	03 50 07.9	+0.8
GRF				eSg	Sg	03 51 05.1	-0.5
GRF	Grafenberg Arr	3.59	242	ePn	Pn	03 50 07.9	+0.8
GRF				eSg	Sg	03 51 05.1	-0.5
BSD	Bornholm Skovb	3.70	349	iP	Pn	03 50 08.2	-0.4
BSD				iS	Sn	03 50 49.0	-3.8
BSD	Bornholm Skovb	3.70	349	iP	Pn	03 50 08.2	-0.4
BSD				iS	Sn	03 50 49.0	-3.8
MOA	Molln	3.83	199	⇑iPn	Pn	03 50 11.1	+0.7
	SNR=12						
MOA				⇑iSg	Sg	03 51 14.3	+1.0
	comp=Z,39nm,0.6s						
MOA	Molln	3.83	199	Pn	Pn	03 50 11.1	+0.7
	SNR=12						
MOA				Sg	Sg	03 51 14.3	+1.0
	comp=Z,39nm,0.6s						
STHS	Stebnicka Huta	3.89	120	ePN	Pn	03 50 11.3	+0.1
STHS				ePG	Pg	03 50 25.6	+0.9
STHS				eSG	Sg	03 51 18.5	+3.5
STHS	Stebnicka Huta	3.89	120	ePn	Pn	03 50 11.3	+0.1
ARSA	Arzberg	4.26	185	⇑iPn	Pn	03 50 16.9	+0.6
ARSA				⇑iSg	Sg	03 51 27.5	+0.5
	comp=Z,33nm,0.7s						
ARSA	Arzberg	4.26	185	Pn	Pn	03 50 16.9	+0.6
ARSA				Sg	Sg	03 51 27.5	+0.5
	comp=Z,33nm,0.7s						
CRVS	Cervenica-Dubn	4.31	125	ePN	Pn	03 50 17.9	+0.9
CRVS				ePG	Pg	03 50 33.8	+1.0
CRVS				e		03 51 22.6	
CRVS	Cervenica-Dubn	4.31	125	ePn	Pn	03 50 17.9	+0.9
KOLS	Kolonicke sedl	4.72	120	ePN	Pn	03 50 22.6	0.0
KOLS				ePG	Pg	03 50 41.8	+1.2
KOLS	Kolonicke sedl	4.72	120	ePn	Pn	03 50 22.6	0.0
WATA	Walderalm	5.10	217	⇑iPn	Pn	03 50 28.3	+0.5
WATA	Walderalm	5.10	217	Pn	Pn	03 50 28.3	+0.5
WTTA	Wattenberg	5.14	216	⇑iPn	Pn	03 50 28.8	+0.4
WTTA				⇑iSg	Sg	03 51 55.9	+0.8
	comp=Z,13nm,0.7s						
WTTA	Wattenberg	5.14	216	Pn	Pn	03 50 28.8	+0.5
WTTA				Sg	Sg	03 51 55.9	+0.7
	comp=Z,13nm,0.7s						
VXJU	Vaexsjoe	5.49	353	P	Pn	03 50 33.1	0.0
OSKU	Oskarshamn	5.72	360	P	Pn	03 50 36.3	0.0
BYXU	Byxelkrok	5.84	5	P	Pn	03 50 38.2	+0.3
VSTU	Vaestervik	6.19	2	P	Pn	03 50 43.0	+0.3
DAVOX	Davos/Dischmat	6.23	223	Pn	Pn	03 50 42.2	-1.2
	comp=Z,0.5nm,0.3s,baz=60,slow=3.6,SNR=6.5						
DAVOX				Lg		03 52 27.4	
	comp=Z,0.3nm,0.3s,baz=338,slow=19,SNR=2.8						
DAVOX	Davos/Dischmat	6.23	223	Pn	Pn	03 50 42.2	-1.2
LNKU	Linkoeping	6.76	357	P	Pn	03 50 49.8	-0.7
VIKU	Vikbolandet	7.04	3	P	Pn	03 50 54.2	-0.2
BUR08	Bucovina Ar. S	7.06	119	ePn	Pn	03 50 55.4	+0.7

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
BUR08	**Bucovina Ar. S**	7.06	119	*e*Pn	Pn	03 50 55.4	+0.7
BURAR	**Bucovina Array**	7.08	120	⇑*i*P	Pn	03 50 55.5	+0.4
BURAR	**Bucovina Array**	7.08	120	⇑*i*P	Pn	03 50 55.5	+0.4
NYNU	**Nynaeshamn**	7.61	7	P	Pn	03 51 02.2	0.0
NASU	**Vaermlandsnaes**	7.64	349	P	Pn	03 51 03.0	+0.4
ESKU	**Eskilstuna**	7.76	1	P	Pn	03 51 04.4	+0.1
STRU	**Stroemstad**	8.06	342	P	Pn	03 51 06.8	-1.7
AKASG	**Malin Array Be**	8.30	90	Pn	Pn	03 51 09.2	-2.6
	comp=Z,1.5nm,0.3s,baz=281,slow=12,SNR=6.2						
AKASG				Sn	Sn	03 52 39.5	-6.6
	comp=Z,0.8nm,0.3s,baz=270,slow=23,SNR=4.3						
AKASG				Lg		03 53 40.3	
	comp=Z,0.3nm,0.3s,baz=273,slow=27,SNR=3.5						
NRTU	**Norrtaelje**	8.33	9	P	Pn	03 51 11.6	-0.5
BACU	**Backbrunna**	8.40	3	P	Pn	03 51 13.1	0.0
FLYU	**Flymyra**	8.72	6	P	Pn	03 51 16.9	-0.5
HFS	**Hagfors**	8.77	352	Pn	Pn	03 51 17.2	-0.9
	comp=Z,0.3nm,0.3s,baz=164,slow=16,SNR=7.9						
HFS				Sn	Sn	03 52 53.3	-4.2
	comp=Z,0.2nm,0.3s,baz=170,slow=26,SNR=3.3						
HFS	**Hagfors**	8.77	352	Pn	Pn	03 51 17.2	-0.9
OSTU	**Oestervaala**	8.78	3	P	Pn	03 51 17.8	-0.5
NOA	**NORSAR Array B**	9.95	346	Pn	Pn	03 51 32.7	-1.6
	comp=Z,0.3nm,0.3s,baz=163,slow=12,SNR=4.3						
NOA	**NORSAR Array B**	9.95	346	Pn	Pn	03 51 32.7	-1.6
NOA	**NORSAR Array B**	9.95	346	Pn	Pn	03 51 32.7	-1.6
EKA	**Eskdalemuir Ar**	12.11	296	Pn	Pn	03 52 00.6	-3.2
	baz=99,slow=14,SNR=4.5						
ARCES	**ARCESS Array B**	18.64	10	Pn	Pn	03 53 25.2	-4.1
	comp=Z,0.3nm,0.3s,baz=191,slow=14,SNR=18						
AKTK	**Aktyubinsk**	26.17	76	P	P	03 54 48.9	+2.9
AKTO	**Aktyubinsk**	26.17	76	P	P	03 54 48.9	+2.9
	comp=Z,0.7nm,0.5s,mb3.5,baz=274,slow=12,SNR=3.7						
TORD	**Torodi Ar. Bea**	39.98	202	P	P	03 56 46.4	0.0
	comp=Z,0.8nm,1.0s,mb3.3,baz=9.1,slow=9.9,SNR=4.8						
YKA	**Yellowknife Ar**	59.88	336	P	P	03 59 18.1	+1.0
	comp=Z,0.4nm,0.6s,mb3.6,baz=27,slow=6.9,SNR=5.2						
YKA	**Yellowknife Ar**	59.88	336	P	P	03 59 18.1	+1.0

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*NIED **02** 04:07:00, 36.°20N×141.°10E, h32^{km}, Mw3.8 Best double couple: M$_0$5.26000×10^{14} NP1:φ$_s$205.00000°, δ87.00000°, λ-90.00000°. NP2:φ$_s$20.00000°, δ3.00000°, λ-95.00000°.*

*IDC **02** 04:07:16.5±0.8, 36.°16N×141.°10E, h0^{km}, mb3.7/9, mb1 4.0/11, mb1mx3.8/24, mbtmp3.8/11, ML4.0/2, MS3.0/2, Ms1 3.0/2, ms1mx2.5/35, Error ellipse: s-maj=20.3km s-min=18.9km az=28.0*

*JMA **02** 04:07:20.9±0.1, 36.°22N×141.°05E, h45^{km}±2^{km}, M4.3*

JMA Felt II J1.

*ISCJB **02** 04:07:20.3±0.7, 36.°24N±0.°03×141.°11E±0.°06, h36^{km}±7^{km}, mb3.8/12, Error ellipse: s-maj=8.5km s-min=5.3km az=179.8*

*MOS **02** 04:07:22.1±0.7, 36.°70N×141.°06E, h33^{km}, mb4.1/6, Error ellipse: s-maj=24.1km s-min=14.2km az=16.8*

*NEIC **02** 04:07:22.4±1.5, 36.°16N×141.°04E, h42^{km}±13^{km}, mb4.2/3, Error ellipse: s-maj=12.2km s-min=9.6km az=74.0*

NEIC Recorded [2 JMA] in Ibaraki and Tochigi; [1 JMA] in Fukushima and Gumma.

ISC 02 04:07:20.4±0.8**, 36.°25N**±0.°03×**141.°11E**±0.°05**, h24**^{km}±5^{km}**, h39**^{km}±1.2^{km}**:pP-P, n38, σ0^{s}86**/48**, mb3.8**/12**, 2C-4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	**Hitachi**	0.56	310	⇓P	Pb	04 07 32.1	+0.5
JHO				S	Sb	04 07 39.9	+0.7
CHOJ	**Chosi**	0.58	200	⇓P	Pb	04 07 32.2	+0.2
CHOJ				S	Sb	04 07 40.0	+0.2
JYT	**Yasato**	0.74	268	⇑P	Pb	04 07 34.4	-0.1
JYT				S	Sb	04 07 43.6	-0.6
ONAJ	**Iwakimizuishiy**	0.88	344	⇓P	Pb	04 07 36.7	-0.3
ONAJ				S	Sb	04 07 47.7	-0.7
JFK	**Kawauchi**	1.13	351	⇓P	Pn	04 07 40.1	-0.5
JFK				S	Sn	04 07 53.5	-1.8
JAG	**Ashikaga**	1.34	278	⇑P	Pn	04 07 43.1	-0.5
JAG				S	Sn	04 07 59.2	-1.5
MJAR	**Matsushiro Arr**	2.35	278	P	Pn	04 07 57.7	+0.2
MJAR						04 08 24.9	
MJAR				pmax	pmax		
	comp=Z,40nm,0.3s						
MJAR				smax			
	comp=N,28nm,0.3s						
MJAR	**Matsushiro Arr**	2.35	278	Pn	Pn	04 07 57.7	+0.2
	comp=N,40nm,0.3s,baz=85,slow=10.0,SNR=210						
MJAR				Sn	Sn	04 08 24.9	-0.7
	comp=N,28nm,0.3s,baz=88,slow=28,SNR=9.8						
MJAR				LR	LR	04 09 04.2	
	comp=N,378nm,20.0s,baz=140,slow=46						
MAJO	**Matsushiro**	2.36	278	*e*P	Pn	04 07 58.4	+0.9
MAT	**Matsushiro**	2.36	278	P	Pn	04 07 58.2	+0.7
MAT				S	Sn	04 08 27.8	+2.2
JHJ	**Hachijo jima 2**	3.31	200	Pn	Pn	04 08 11.8	+1.1
	comp=N,14nm,0.3s,baz=72,slow=20,SNR=4.4						
JHJ				Sn	Sn	04 08 48.8	-0.4
	comp=N,39nm,0.3s,baz=90,slow=23,SNR=6.6						
CBIJ	**Chichi jima**	9.18	174	Pn	Pn	04 09 28.6	-2.7
	comp=N,4.8nm,0.3s,baz=270,slow=20,SNR=2.5						
CBIJ				Sn	Sn	04 11 03.9	-10
	comp=N,3.1nm,0.3s,baz=287,slow=22,SNR=1.9						
KSRS	**Korea Array**	10.63	280	P	Pn	04 09 55.7	+4.6
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,81nm,19.0s						
KSRS	**Korea Array**	10.63	280	Pn	Pn	04 09 55.7	+4.6
	comp=Z,0.5nm,0.3s,baz=101,slow=14,SNR=5.7						
KSRS				LR	LR	04 13 38.6	
	comp=Z,80nm,19.0s,baz=166,slow=36						
SONM	**Songino Array**	28.02	305	P	P	04 13 08.9	-0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	28.02	305	P	P	04 13 08.9	-0.4
	comp=Z,0.5nm,0.5s,mb3.4,baz=108,slow=9.3,SNR=5.8						
ZAA0	**Zalesovo Array**	42.26	313	*e*P	P	04 15 11.4	-0.1
ZAA0				*e*pP	pP	04 15 22.2	+3.4
ZALV	**Zalesovo Beam**	42.26	313	P	P	04 15 11.7	+0.2
	comp=Z,0.4nm,0.3s,mb3.6,baz=88,slow=7.1,SNR=3.1						
MK31	**Makanchi Array**	44.33	303	*e*P	P	04 15 28.5	+0.2
MK31				e*PP	pP	04 15 39.3	+3.6
MKAR	**Makanchi Array**	44.33	303	P	P	04 15 28.8	+0.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	44.33	303	P	P	04 15 28.8	+0.5
	comp=Z,0.7nm,0.7s,mb3.5,baz=84,slow=9.9,SNR=7.7						
KURK	**Kurchatov**	46.22	309	*e*P	P	04 15 42.6	-0.6
KURK				e*PP	pP	04 15 53.9	+3.2
KURK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
KURK	**Kurchatov**	46.22	309	*e*P	P	04 15 42.6	-0.7
	comp=Z,2.6nm,0.6s,mb4.3						
KURK				*e*pP	pP	04 15 53.9	+3.2
TKM2	**Tokmak 2**	49.79	299	*e*P	P	04 16 12.1	+1.2
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
TKM2	**Tokmak 2**	49.79	299	*e*P	P	04 16 12.1	+1.1
	comp=Z,1.6nm,0.6s,mb4.2						
WRAB	**Tennant Creek**	56.24	188	*e*P	P	04 16 57.4	-1.2
WRAB				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
WRAB	**Tennant Creek**	56.24	188	*e*P	P	04 16 57.4	-1.2
	comp=Z,1.0nm,0.7s,mb4.0						
WRA	**Warramunga Arr**	56.25	188	P	P	04 16 57.7	-1.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	**Warramunga Arr**	56.25	188	P	P	04 16 57.7	-1.0
	comp=Z,0.7nm,0.5s,mb4.0,baz=6.0,slow=7.5,SNR=13						
ASAR	**Alice Springs**	59.98	188	P	P	04 17 24.2	-0.5
	comp=Z,0.4nm,0.7s,mb3.5,baz=20,slow=6.2,SNR=5.4						
RES	**Resolute Bay**	63.42	14	*e*P	P	04 17 47.7	+0.3
YKA	**Yellowknife Ar**	64.61	30	P	P	04 17 55.6	+0.3
	comp=Z,0.4nm,0.7s,mb3.6,baz=298,slow=6.8,SNR=6.1						
FCC	**Fort Churchill**	74.81	26	*e*P	P	04 18 58.2	0.0
NVAR	**Mina Array Bea**	75.66	53	P	P	04 19 04.7	+1.2
	comp=Z,0.7nm,0.7s,mb3.7,baz=290,slow=5.2,SNR=5.8						
PDAR	**Pinedale Array**	78.39	45	P	P	04 19 19.6	+0.8
	comp=Z,0.5nm,0.6s,mb3.6,baz=276,slow=1.5,SNR=6.2						
CLL	**Collm**	81.65	330	*e*P	P	04 19 37.0	+0.8
TXAR	**Lajitas Array**	90.80	52	P	P	04 20 22.3	+0.5
	comp=Z,0.3nm,0.8s,mb3.7,baz=290,slow=3.6,SNR=4.3						
TXAR	**Lajitas Array**	90.80	52	P	P	04 20 22.3	+0.5

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*NEIC **02** 04:16:03.5, 15.°42N×92.°09W, h221^{km}, MD4.0(MEX), After MEX.*

MEX 02 04:16:03.5±0.8**, 15.°42N×92.°09W, h221**^{km}±8^{km}**, MD4.0, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	**Comitan**	0.85	357	*i* P	Pn	04 16 33.3	-1.3
CCIG				*i* S	S	04 16 55.8	-3.3
PCIG		1.12	285	*i* P	Pn	04 16 34.9	-1.3
PCIG				*i* S	S	04 16 59.5	-2.2
SCX	**San Cristobal**	1.41	338	*i* P	Pn	04 16 37.5	-0.8
SCX				*i* S	S	04 17 04.5	-1.2
TGIG		1.67	324	*i* P	Pn	04 16 39.5	-1.1
TGIG				*i* S	S	04 17 07.5	-2.1
CMIG	**Matias Romero**	3.15	302	*i* P	Pn	04 16 55.1	-0.9
CMIG				*i* S	S	04 17 33.7	-3.7
HUIG	**Huatulco**	3.88	276	*i* P	Pn	04 17 03.6	-1.1
HUIG				*i* S	S	04 17 48.2	-4.7
VHO	**Vista Hermosa**	4.75	291	*i* P	Pn	04 17 13.8	-1.6
VHO				*i* S	S	04 18 08.6	-3.5
PNIG	**Pinotepa**	5.89	280	*i* P	Pn	04 17 30.5	+0.9
PNIG				*i* S	S	04 18 35.5	-2.6
UTMO	**Huajuapan**	5.97	294	*e*P	Pn	04 17 30.1	-0.6
UTMO				*i* S	S	04 18 37.0	-3.2
PPM	**Popocatepetl**	7.22	301	*e*P	Pn	04 17 48.7	+2.0
PPM				*i* S	S	04 19 02.9	-6.2

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*BJI **02** 05:06:38.5, 4.°39S×153.°44E, h64^{km}, mB5.2/26, mb5.0/44, Ms4.9/28, Ms7 4.4/30*

*MOS **02** 05:06:39.3±1.3, 4.°40S×152.°82E, h50^{km}, mb5.2/20, Error ellipse: s-maj=12.0km s-min=8.1km az=104.4*

*ISCJB **02** 05:06:39.2±0.2, 4.°58S±0.°03×153.°01E±0.°04, h59^{km}, mb5.0/73, MS4.3/32, Error ellipse: s-maj=6.2km s-min=4.4km az=173.2*

*GCMT **02** 05:06:40.8±0.2, 4.°79S×152.°98E, h61^{km}±1^{km}, MW5.1/66, Moment Tensor Solution. s66,c93; s66,c97; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$5.07±.17; M$_{\theta\theta}$-5.51±.12; M$_{\phi\phi}$0.43±.14; M$_{r\theta}$1.69±.13; M$_{\theta\phi}$-0.48±.15; M$_{\phi r}$0.57±.11; Best double couple: M$_0$5.60400×10^{16} NP1:φ$_s$271.00000°, δ36.00000°, λ98.00000°. NP2: φ$_s$80.00000°, δ54.00000°, λ84.00000°. Principal axes: T 5.3830, Plg80.0000°, Azm326.0000°; N 0.4330, Plg5.0000°, Azm84.0000°; P -5.8240, Plg9.0000°, Azm175.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **02** 05:06:40.9±0.2, 4.°58S×152.°95E, mb5.1/30 Error ellipse: s-maj=8.4km s-min=5.4km az=103.0*

*IDC **02** 05:06:40.8±0.4, 4.°61S×152.°98E, h59^{km}±2^{km}, mb4.4/15, mb1 4.6/16, mb1mx4.5/19, mbtmp4.4/16, MS4.1/19, Ms1 4.1/19, ms1mx4.1/19, Error ellipse: s-maj=13.3km s-min=8.8km az=100.0*

*DJA **02** 05:07:24, 4.°91S×151.°14E, h389^{km}, mb4.6/8*

ISC 02 05:06:41.3±0.2**, 4.°59S**±0.°03×**152.°96E**±0.°04**, h61**^{km}**, h61**^{km}±.8^{km}**:pP-P, n214, σ0^{s}98**/174**, mb5.0**/73**, 3C-4D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	8.44	125	P	Pn	05 08 45.5	+4.6
	20nm,0.3s,baz=211,slow=12,SNR=2.6						
HNR				S	Sn	05 10 16.2	+1.6
	4.5nm,0.3s,baz=261,slow=20,SNR=2.9						
COEN	**Coen**	13.40	225	*e*P	Pn	05 09 49.8	+1.1
MTSU	**Mount Surprise**	15.89	211	*e*P	Pn	05 10 22.5	+1.3
	155nm,1.0s						
MTSU				*e*		05 10 39.5	
CTA	**Charters Tower**	16.73	202	*e*P	Pn	05 10 32.8	+1.1
	21nm,0.8s						
CTA				*e*S	S	05 14 04.6	+20
CTA	**Charters Tower**	16.73	202	P	Pn	05 10 32.5	+0.8
	0.8nm,0.3s,baz=27,slow=13,SNR=22						
CTA				LR	LR	05 16 03.0	
	comp=Z,1μm,21.9s,baz=22,slow=34						
CTA	**Charters Tower**	16.73	202	P	Pn	05 10 32.5	+0.8
CTA				LR	LR	05 16 03.0	
CTAO	**Charters Tower**	16.73	202	*e*P	Pn	05 10 33.2	+1.5
CTAO				pmax	pmax		
	comp=Z,35nm,0.9s						
CTAO	**Charters Tower**	16.73	202	*e*P	Pn	05 10 33.2	+1.5
	comp=Z,35nm,0.9s						
GUMO	**Guam**	19.77	336	LR	LR	05 17 59.8	
	comp=Z,292nm,18.5s,baz=4.6,slow=34						
EIDS	**Eidsvold**	20.74	185	*e*P	P	05 11 17.5	+0.5
EIDS	**Eidsvold**	20.74	185	*e*P	P	05 11 17.6	+0.7
	comp=Z,59nm,0.9s						
NOUC	**Port Laguerre**	21.68	145	*e*P	P	05 11 26.1	-1.0
DZM	**Mont Dzumac**	21.74	144	*e*P	P	05 11 26.6	-1.2
KAKA	**Kakadu**	21.82	247	⇑*i*P	P	05 11 27.6	-1.1
	comp=Z,148nm,1.0s,mb5.4						
KAKA				*e*S	S	05 15 22.6	-4.0
KAKA	**Kakadu**	21.82	247	*e*P	P	05 11 27.5	-1.1
	comp=Z,383nm,0.7s,mb5.9						
RMQ	**Roma**	22.14	190	*e*P	P	05 11 32.1	+0.2
	comp=Z,111nm,1.2s,mb5.2						
WRAB	**Tennant Creek**	23.69	228	P	P	05 11 47.0	-0.6
	comp=Z,466nm,0.7s,mb6.0,SNR=63						
WRAB	**Tennant Creek**	23.69	228	*e*P	P	05 11 47.5	-0.1
WRAB				*e*		05 12 03.1	
WRAB				*e*S	S	05 15 56.1	-2.2
WRAB				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.1						
WRAB	**Tennant Creek**	23.69	228	*e*P	P	05 11 47.5	-0.2
	comp=Z,88nm,1.0s,mb5.1						
WRAB				*e*		05 12 03.1	
WRAB				*e*S	S	05 15 56.1	-2.2
WRA	**Warramunga Arr**	23.70	228	P	P	05 11 47.6	-0.2
WRA				*PP		05 12 01.7	
WRA				S	S	05 15 55.7	-2.9
WRA	**Warramunga Arr**	23.70	228	P	P	05 11 47.6	-0.2
	comp=Z,41nm,0.7s,mb5.0,baz=51,slow=10.0,SNR=125						
WRA				pP		05 12 01.7	
	comp=Z,30nm,0.5s,baz=53,slow=9.7,SNR=9.6						
WRA				S	S	05 15 55.7	-2.9
	comp=Z,3.1nm,0.9s,baz=56,slow=15,SNR=7.1						
WRA				LR	LR	05 21 23.4	
	comp=Z,304nm,20.4s,baz=65,slow=37						
ARMA	**Armidale**	25.72	183	*e*P	P	05 12 07.2	+1.2
ARMA				*e*S	S	05 16 22.0	-8.6
KNA	**Kununurra**	26.23	243	*e*P	P	05 12 10.8	0.0
	comp=Z,98nm,0.8s,mb5.4						
ASAR	**Alice Springs**	26.41	222	P	P	05 12 11.8	-0.6
	comp=Z,2.7nm,0.6s,mb4.0,baz=53,slow=8.9,SNR=37						
ASAR				pP	pP	05 12 28.0	+0.9
	comp=Z,26nm,0.8s,baz=57,slow=9.1,SNR=13						
ASAR				S	S	05 16 47.1	+5.5
	comp=Z,2.6nm,1.1s,baz=45,slow=16,SNR=3.5						
STKA	**Stephens Creek**	29.16	200	*e*P	P	05 12 36.4	-0.4
	comp=Z,7.9nm,0.6s,mb4.6						
STKA	**Stephens Creek**	29.16	200	P	P	05 12 36.2	-0.6
	comp=Z,8.9nm,0.8s,mb4.5,baz=33,slow=8.1,SNR=9.3						
STKA				pP	pP	05 12 51.2	-0.5
	comp=Z,12nm,0.8s,baz=25,slow=12,SNR=5.4						
STKA				LR	LR	05 23 54.6	
	comp=Z,685nm,21.1s,baz=34,slow=36						
STKA	**Stephens Creek**	29.16	200	*e*P	P	05 12 36.4	-0.4
	comp=Z,3.0nm,0.9s,mb4.0						
DAV	**Davao City (W)**	29.68	293	LR	LR	05 22 28.9	
	comp=Z,241nm,21.3s,baz=38,slow=32						
FITZ	**Fitzroy Crossi**	29.90	241	*e*P	P	05 12 42.6	-0.9
	comp=Z,52nm,0.7s,mb5.4						
FITZ				*e*	pP	05 12 55.6	-2.9
FITZ	**Fitzroy Crossi**	29.90	241	P	P	05 12 42.7	-0.9
	comp=Z,28nm,0.7s,mb5.1,baz=67,slow=7.1,SNR=80						
FITZ				pP	pP	05 12 57.1	-1.4
	comp=Z,44nm,0.6s,baz=73,slow=6.6,SNR=11						
FITZ				LR	LR	05 26 26.7	
	comp=Z,200nm,18.2s,baz=71,slow=40						
FITZ	**Fitzroy Crossi**	29.90	241	*e*P	P	05 12 42.3	-1.2
	comp=Z,37nm,0.6s,mb5.3						
FITZ				*e*pP	pP	05 12 57.1	-1.4
CAN	**Canberra**	30.80	186	*e*P	P	05 12 51.0	-0.2
CAN				e*PP	pP	05 13 06.9	+0.7
CAN				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
CAN	**Canberra**	30.80	186	*e*P	P	05 12 51.0	-0.2
	comp=Z,2.0nm,0.5s,mb4.2						
CAN				*e*pP	pP	05 13 06.9	+0.7
ARPS	**Mount Arapiles**	33.61	196	*e*P	P	05 13 14.5	-1.4
	comp=Z,45nm,1.0s,mb5.4						
FORT	**Forrest**	35.05	219	*e*P	P	05 13 27.8	-0.6
	comp=Z,50nm,0.7s,mb5.6						
FORT	**Forrest**	35.05	219	*e*P	P	05 13 28.0	-0.4
	comp=Z,57nm,0.7s,mb5.6						
FORT				*e*pP	pP	05 13 43.5	-0.1
MBWA	**Marble Bar**	36.21	240	*e*P	P	05 13 37.4	-1.1
MBWA	**Marble Bar**	36.21	240	*e*P	P	05 13 37.5	-1.0
	comp=Z,72nm,1.4s,mb5.4						
MBWA				*e*pP	pP	05 13 52.4	-1.3
KKM	**Kota Kinabalu**	38.18	286	*e*P	P	05 13 55.2	-0.2
	comp=Z,38nm,1.1s,mb5.0						
MEEK	**Meekatharra**	39.46	233	*e*P	P	05 14 05.3	-0.5
	comp=Z,33nm,0.6s,mb5.2						
KMBL	**Kambalda**	39.51	224	*e*P	P	05 14 05.2	-1.0
	comp=Z,69nm,1.0s,mb5.3						
URZ	**Urewera**	40.08	150	P	P	05 14 11.6	+0.7
	comp=Z,4.1nm,0.3s,mb4.6,baz=281,slow=4.1,SNR=3.2						
URZ				pP	pP	05 14 25.1	-1.1
	comp=Z,11nm,0.6s,baz=71,slow=2.8,SNR=3.2						
NACB	**Ninganchiao**	41.84	315	*e*P	P	05 14 26.0	+0.4
	comp=Z,49nm,1.0s,mb5.1						
RPZ	**Rata Peaks**	42.11	160	P	P	05 14 28.2	+0.8
	comp=Z,19nm,0.6s,mb4.9,baz=126,slow=3.1,SNR=12						
RPZ				pP	pP	05 14 41.8	-1.1
	comp=Z,23nm,0.6s,baz=9.8,slow=4.7,SNR=4.6						
RPZ	**Rata Peaks**	42.11	160	P	P	05 14 28.2	+0.8
RPZ				pP	pP	05 14 41.8	-1.1
KLBR	**Kellerberrin**	42.56	227	*e*P	P	05 14 32.4	+1.1
	comp=Z,35nm,1.3s,mb4.9						
MORW	**Morawa**	42.60	231	*e*P	P	05 14 30.9	-0.8
	comp=Z,12nm,0.6s,mb4.8						
KSM	**Kuching**	43.04	277	*e*P	P	05 14 35.9	+0.4
	comp=Z,8.5nm,0.6s,mb4.7						
KSM				*e*pP	pP	05 14 51.9	+1.0
MJAR	**Matsushiro Arr**	43.18	343	LR	LR	05 30 18.5	
	comp=Z,291nm,21.9s,baz=175,slow=33						
NWAO	**Narrogin (SRO)**	43.65	225	LR	LR	05 32 43.7	
	comp=Z,310nm,20.9s,baz=44,slow=36						
KSRS	**Korea Array**	47.89	333	P	P	05 15 13.3	0.0
	comp=Z,6.5nm,0.9s,mb4.7,baz=152,slow=8.4,SNR=27						
KSRS				pP	pP	05 15 29.4	+0.4
	comp=Z,8.4nm,0.9s,baz=149,slow=7.6,SNR=5.7						
KSRS				LR	LR	05 34 45.8	
	comp=Z,92nm,18.8s,baz=160,slow=35						
QIZ	**Qiongzhong**	48.50	300	P	P	05 15 20.7	+2.3
QIZ				S	S	05 22 19.5	+3.9
QIZ				LR	LR		
	comp=Z,460nm,22.0s						
INCN	**Inchon**	48.51	332	*e*P	P	05 15 19.0	+0.8
	comp=Z,64nm,0.8s,mb5.7						
INCN				*e*pP	pP	05 15 35.2	+1.3
NJ2	**Nanjing**	48.79	321	*e*P	P	05 15 22.4	+2.0
NJ2				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.5						
YSS	**Yuzh-Sakhalins**	52.11	351	*e*P	pP	05 16 00.0	-1.1
YSS				MLR	MLR		
	comp=Z,200nm,19.0s						
KULM	**Kulim**	53.16	280	*e*P	P	05 15 52.9	-0.7
	comp=Z,11nm,0.8s,mb4.8						
MDJ	**Mudanjiang**	53.28	339	P	P	05 15 53.6	-0.3
MDJ				pP	pP	05 16 09.1	-0.7
MDJ				PP	PP	05 17 53.6	-1.1
MDJ				ScP	ScP	05 20 54.3	+0.7
MDJ				S	S	05 23 20.7	-0.2
MDJ				sS	sS	05 23 43.7	-4.1
MDJ				pmax	pmax		
	comp=Z,13nm,1.9s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,100nm,5.9s						
MDJ				LR	LR		
	comp=N,140nm,31.7s						
MDJ				LR	LR		
	comp=E,80nm,34.4s						
MDJ				LR	LR		
	comp=Z,210nm,31.7s						
MDJ	**Mudanjiang**	53.28	339	*e*P	P	05 15 54.4	+0.5
	comp=Z,11nm,0.9s,mb4.8						
CN2	**Changchun**	54.18	336	⇓P	P	05 16 00.7	+0.2
CN2				*e*pP	pP	05 16 16.7	+0.3
CN2				*e*sP	sP	05 16 22.4	-0.9
CN2				PcP	PcP	05 17 03.9	-0.4
CN2				PP	PP	05 18 04.9	+2.1
CN2				*e*S	S	05 23 32.5	-0.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,300nm,21.0s						
CN2				LR	LR		
	comp=E,300nm,21.0s						
CN2				LR	LR		
	comp=Z,300nm,24.0s						
GYA	**Guiyang**	54.40	307	P	P	05 16 04.6	+2.2
GYA				pP	pP	05 16 20.3	+1.9
GYA				sP	sP	05 16 27.4	+2.1
GYA				PcP	PcP	05 17 06.8	+1.2
GYA				PP	PP	05 18 08.3	+3.2
GYA				ScP	ScP	05 20 59.1	+0.2
GYA				PcS	PcS	05 21 05.7	+0.4
GYA				S	S	05 23 36.3	-0.3
GYA				sS	sS	05 24 04.0	+0.4
GYA				SS	SS	05 27 19.0	-0.9
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GYA				pmax	pmax		
	comp=Z,220nm,6.3s						
GYA				LR	LR		
	comp=N,700nm,15.0s						
GYA				LR	LR		
	comp=E,670nm,14.8s						
GYA				LR	LR		
	comp=Z,890nm,14.4s						
HABR	**Khabarovsk**	55.12	346	*e*P	P	05 16 05.0	-2.2
HABR				e*PP	pP	05 16 21.2	-2.0
HABR						05 18 08.5	
HABR				S	S	05 23 43.0	-2.5
HABR				e*SS	sS	05 24 10.6	-1.9
HABR				*e*		05 25 47.0	
HABR				*e*SS	SS	05 27 27.0	-3.5
HABR				MLR	MLR		
	comp=Z,31nm,15.0s						
BJI	**Beijing**	55.81	326	P	P	05 16 12.5	+0.2
BJI				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BJI				LR	LR		
	comp=N,160nm,21.2s						
BJI				LR	LR		
	comp=E,300nm,18.2s						
BJI				LR	LR		
	comp=Z,310nm,26.8s						
XAN	**Xi'an**	56.58	316	P	P	05 16 17.6	-0.4
XAN				pP	pP	05 16 33.2	-0.8
XAN				sP	sP	05 16 41.0	+0.1
XAN				ScS	ScS	05 26 00.3	-1.8
XAN				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
XAN				pmax	pmax		
	comp=Z,130nm,5.5s						
XAN				LR	LR		
	comp=N,110nm,19.8s						
XAN				LR	LR		
	comp=E,170nm,16.7s						
XAN				LR	LR		
	comp=Z,300nm,20.1s						
KLR	**Kul'dur**	56.69	344	*e*P	P	05 16 13.8	-4.6
KLR				*e*	pP	05 16 29.7	-4.8
KLR				pmax	pmax		
	comp=E,24nm,1.4s						
KLR				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.5						
KMI	**Kunming**	57.01	304	P	P	05 16 22.5	+1.4
KMI				pP	pP	05 16 39.1	+1.9
KMI				PP	PP	05 18 34.0	+5.6
KMI				S	S	05 24 13.5	+2.1
KMI				SS	SS	05 28 02.9	+1.9
KMI				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
KMI				LR	LR		
	comp=N,100nm,13.2s						
KMI				LR	LR		
	comp=E,250nm,19.8s						
KMI				LR	LR		
	comp=Z,320nm,21.7s						
PETK	**Petropavlovsk-**	57.62	3	P	P	05 16 25.1	+0.2
PETK				*PP	pP	05 16 41.9	+0.9

PETK	**Petropavlovsk-**	**57.62**	**3**	P	**P**	**05 16 25.1**	**+0.2**
	comp=Z,16nm,1.0s,mb5.0,baz=130,slow=6.0,SNR=5.4						
PETK				pP	pP	05 16 41.9	+0.9
	comp=Z,13nm,0.8s,baz=173,slow=6.6,SNR=5.7						
PETK				LR	LR	05 37 24.0	
	comp=Z,133nm,20.6s,baz=210,slow=32						
PPT	**Papeete**	**57.63**	**108**	*e*S	**S**	**05 24 25.3**	**+5.4**
	comp=Z,127nm,30.2s						
PPT				*e*LR	LR	05 33 28.0	
	comp=Z,112nm,24.0s						
CMAR	**Chiang Mai Arr**	**57.94**	**295**	P	**P**	**05 16 28.3**	**+0.5**
CMAR				*PP	pP	05 16 45.0	+1.1
CMAR	**Chiang Mai Arr**	**57.94**	**295**	P	**P**	**05 16 28.3**	**+0.5**
	comp=Z,7.3nm,0.8s,mb4.7,baz=112,slow=5.1,SNR=38						
CMAR				pP	pP	05 16 45.0	+1.1
	comp=Z,10nm,0.9s,baz=118,slow=5.2,SNR=8.1						
CMAR				LR	LR	05 39 42.3	
	comp=Z,97nm,21.0s,baz=290,slow=34						
CHTO	**Chiang Mai**	**58.04**	**295**	*e*P	**P**	**05 16 28.9**	**+0.4**
CHTO				*e**PP	pP	05 16 45.3	+0.6
CHTO				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
CHTO	**Chiang Mai**	**58.04**	**295**	*e*P	**P**	**05 16 28.9**	**+0.4**
	comp=Z,25nm,1.4s,mb5.0						
CHTO				*e*pP	pP	05 16 45.3	+0.6
CD2	**Chengdu**	**58.73**	**310**	P	**P**	**05 16 33.5**	**+0.4**
CD2				pP	pP	05 16 49.6	+0.4
CD2				sP	sP	05 16 56.4	+0.3
CD2				PcP	PcP	05 17 22.5	+0.1
CD2				PP	PP	05 18 47.4	+3.8
CD2				S	**S**	**05 24 32.6**	**-1.1**
CD2				sS	sS	05 25 00.0	-1.0
CD2				SS	SS	05 28 27.3	-0.6
CD2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
CD2				pmax	pmax		
	comp=Z,180nm,5.5s						
CD2				LR	LR		
	comp=N,420nm,26.8s						
CD2				LR	LR		
	comp=Z,390nm,23.2s						
HHC	**Hu-ho-hao-te**	**58.97**	**324**	*e*P	**P**	**05 16 35.4**	**+0.8**
HHC				pP	pP	05 16 50.7	-0.1
HHC				sP	sP	05 16 58.8	+1.2
HHC				PcP	PcP	05 17 23.5	+0.4
HHC				PP	PP	05 18 47.7	+2.1
HHC				PcS	PcS	05 21 23.5	-1.4
HHC				*e*S	**S**	**05 24 35.7**	**-0.9**
HHC				sS	sS	05 25 02.9	-0.9
HHC				ScS	ScS	05 26 15.8	-3.5
HHC				SS	SS	05 28 31.9	+0.5
HHC				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
HHC				pmax	pmax		
	comp=Z,71nm,4.6s						
HHC				LR	LR		
	comp=N,230nm,17.8s						
HHC				LR	LR		
	comp=E,200nm,16.7s						
HHC				LR	LR		
	comp=Z,250nm,22.6s						
LZH	**Lanzhou**	**61.20**	**316**	⇓P	**P**	**05 16 51.0**	**+1.1**
LZH				pP	pP	05 17 06.9	+0.7
LZH				sP	sP	05 17 14.0	+1.0
LZH				PP	PP	05 19 08.9	+3.5
LZH				*e*S	**S**	**05 25 05.0**	**-0.2**
LZH				sS	sS	05 25 34.0	+1.3
LZH				SS	SS	05 29 05.0	-1.5
LZH				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.5						
LZH				pmax	pmax		
	comp=Z,170nm,5.2s						
LZH				LR	LR		
	comp=N,690nm,14.4s						
LZH				LR	LR		
	comp=Z,940nm,16.0s						
NRGR	**Nerungri**	**65.25**	**343**	*e*P	**P**	**05 17 17.0**	**+0.7**
NRGR				S	S	05 25 52.0	-3.0
NRGR				smax			
	comp=N,30nm,0.5s						
GTA	**Gaotai**	**65.61**	**317**	*e*P	**P**	**05 17 20.0**	**+0.9**
GTA				pP	pP	05 17 36.3	+0.8
GTA				sP	sP	05 17 43.0	+0.8
GTA				PcP	PcP	05 17 50.8	+0.6
GTA				PP	PP	05 19 50.0	+5.8
GTA				S	S	05 26 04.4	+4.2
GTA				sS	sS	05 26 30.9	+3.0
GTA				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.9						
GTA				pmax	pmax		
	comp=Z,170nm,7.4s						
GTA				LR	LR		
	comp=N,120nm,14.0s						
GTA				LR	LR		
	comp=E,130nm,14.3s						
GTA				LR	LR		
	comp=Z,190nm,16.4s						
SONM	**Songino Array**	**66.24**	**328**	P	**P**	**05 17 23.7**	**+0.8**
SONM				*PP	pP	05 17 39.5	+0.2
SONM	**Songino Array**	**66.24**	**328**	P	**P**	**05 17 23.7**	**+0.9**
	comp=Z,3.1nm,0.7s,mb4.4,baz=142,slow=6.0,SNR=19						
SONM				pP	pP	05 17 39.5	+0.2
	comp=Z,3.2nm,0.7s,baz=151,slow=6.1,SNR=9.0						
SONM				LR	LR	05 46 47.9	
	comp=Z,143nm,18.0s,baz=152,slow=36						
SHL	**Shillong**	**66.34**	**300**	*e*PKP	**P**	**05 17 25.5**	**+1.5**
SEY	**Seymchan**	**67.34**	**360**	⇓*e*P	**P**	**05 17 29.4**	**-0.2**
LSA	**Lhasa**	**68.25**	**304**	*e*P	**P**	**05 17 37.4**	**+1.4**
LSA				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
LSA	**Lhasa**	**68.25**	**304**	*e*P	**P**	**05 17 37.4**	**+1.3**
	comp=Z,6.9nm,0.8s,mb4.7						
CASY	**Casey**	**68.26**	**197**	*e*P	**P**	**05 17 34.7**	**-0.7**
	comp=Z,9.9nm,0.9s,mb4.8						
CASY				*e*pP	pP	05 17 50.3	-1.5
YAK	**Yakutsk**	**68.80**	**348**	*e*P	**P**	**05 17 37.6**	**-1.2**
YAK				*e*	pP	05 17 53.9	-1.4
YAK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
YAK				pmax	pmax		
	comp=E,4.0nm,1.5s						
YAK				pmax	pmax		
	comp=N,9.0nm,1.3s						
ZAK	**Zakamensk**	**69.40**	**329**	⇑*i*P	**P**	**05 17 42.5**	**-0.2**
ZAK				*e*	pP	05 17 57.8	-1.4
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BOD	**Bodaibo**	**69.66**	**339**	*e*P	**P**	**05 17 43.0**	**-1.1**
BOD				*e*	pP	05 17 54.9	-5.8
BOD				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.3						
BOD				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
TLY	**Talaya**	**69.98**	**330**	*e*P	**P**	**05 17 46.7**	**+0.4**
TLY				*e*	pP	05 18 03.0	+0.2
TLY				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.4						
TLY				MLR	MLR		
	comp=Z,44nm,11.0s						
TLY	**Talaya**	**69.98**	**330**	*e*P	**P**	**05 17 46.5**	**+0.2**
	comp=Z,4.0nm,1.1s,mb4.3						
TAPN	**Taplejung**	**70.44**	**301**	*e*P	**P**	**05 17 49.8**	**+0.2**
ODAN	**Odare**	**70.58**	**300**	*e*P	**P**	**05 17 50.9**	**+0.5**
	comp=Z,17nm,0.5s,mb5.2						
RAMN	**Ramite**	**71.28**	**300**	*e*P	**P**	**05 17 54.9**	**+0.2**
MOY	**Mondy**	**71.32**	**329**	*e*P	**P**	**05 17 54.9**	**+0.5**
JIRN	**Jiri**	**71.82**	**301**	*e*P	**P**	**05 17 58.5**	**+0.6**
GUN	**Gumba**	**72.15**	**301**	*e*P	**P**	**05 18 00.1**	**+0.2**
PKI	**Pulchoki**	**72.47**	**301**	*e*P	**P**	**05 18 01.3**	**-0.5**
PKIN	**Phulchoki**	**72.48**	**301**	*e*P	**P**	**05 18 01.2**	**-0.7**
KKN	**Kakani**	**72.63**	**301**	*e*P	**P**	**05 18 02.9**	**+0.1**
DMN	**Daman**	**72.74**	**301**	*e*P	**P**	**05 18 03.4**	**0.0**
	comp=Z,71nm,1.1s,mb5.5						
VNDA	**Vanda**	**73.03**	**178**	P	**P**	**05 18 04.4**	**+0.2**
VNDA				*PP	pP	05 18 21.1	+0.2
VNDA	**Vanda**	**73.03**	**178**	P	**P**	**05 18 04.4**	**+0.1**
	comp=Z,5.8nm,0.7s,mb4.6,baz=338,slow=7.4,SNR=15						
VNDA				pP	pP	05 18 21.1	+0.2
	comp=Z,18nm,1.0s,baz=325,slow=7.3,SNR=8.9						
VNDA				LR	LR	05 46 21.2	
	comp=Z,122nm,19.2s,baz=333,slow=33						
BILL	**Bilibino**	**73.07**	**5**	⇓*i*P	**P**	**05 18 04.5**	**0.0**
BILL				*i*	pP	05 18 20.6	-0.6
BILL				pmax	pmax		
	comp=Z,35nm,2.5s,mb4.8						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s						
BILL	**Bilibino**	**73.07**	**5**	*e*P	**P**	**05 18 04.7**	**+0.1**
	comp=Z,6.8nm,0.9s,mb4.6						
BILL				*e*pP	pP	05 18 21.1	-0.1
GKN	**Gorkha**	**73.24**	**301**	*e*P	**P**	**05 18 06.0**	**-0.4**
KOLN	**Koldanda**	**74.07**	**300**	*e*P	**P**	**05 18 11.0**	**-0.3**
	comp=Z,19nm,0.8s,mb5.1						
DANN	**Dangsing**	**74.07**	**301**	*e*P	**P**	**05 18 10.8**	**-0.5**
WMQ	**Urumqi**	**75.70**	**317**	P	**P**	**05 18 21.2**	**+0.9**
WMQ				PcP	PcP	05 18 34.0	+1.2
WMQ				pP	pP	05 18 38.0	+0.9
WMQ				sP	sP	05 18 44.5	+0.7
WMQ				*e*S	S	05 27 56.5	-0.8
WMQ				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,260nm,7.2s						
WMQ				LR	LR		
	comp=N,440nm,17.6s						
WMQ				LR	LR		
	comp=E,650nm,19.6s						
WMQ				LR	LR		
	comp=Z,670nm,28.4s						
SVW2	**Sparrevohn**	**76.57**	**23**	*e*P	**P**	**05 18 24.9**	**0.0**
HYB	**Hyderabad**	**76.58**	**289**	*i* P	**P**	**05 18 26.0**	**+0.2**
TIXI	**Tiksi**	**77.71**	**352**	*e*P	**P**	**05 18 30.0**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
TIXI	**Tiksi**	**77.71**	**352**	*e*P	**P**	**05 18 30.6**	**-0.5**
	comp=Z,3.1nm,0.8s,mb4.3						
TIXI				*e*pP	pP	05 18 47.3	-0.6
CHUM	**Lake Minchumin**	**79.43**	**22**	*e*P	**P**	**05 18 41.0**	**+0.3**
	comp=Z,29nm,1.2s,mb5.1						
CHUM				*e*pP	pP	05 18 57.2	-0.3
PMR	**Palmer**	**79.43**	**24**	*e*P	**P**	**05 18 39.7**	**-1.0**
PMR				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
PMR	**Palmer**	**79.43**	**24**	*e*P	**P**	**05 18 39.7**	**-1.0**
	comp=Z,16nm,1.2s,mb4.8						
MK31	**Makanchi Array**	**80.28**	**319**	*e*P	**P**	**05 18 45.3**	**-0.3**
MK31				*e**PP	pP	05 18 59.9	-2.6
MKAR	**Makanchi Array**	**80.28**	**319**	P	**P**	**05 18 45.6**	**0.0**
MKAR				*PP	pP	05 19 02.3	-0.2
MKAR	**Makanchi Array**	**80.28**	**319**	P	**P**	**05 18 45.6**	**-0.1**
	comp=Z,8.4nm,0.9s,mb4.7,baz=101,slow=6.3,SNR=51						
MKAR				pP	pP	05 19 02.3	-0.2
	comp=Z,4.7nm,0.6s,baz=92,slow=6.9,SNR=8.3						
MKAR				LR	LR	05 53 15.6	
	comp=Z,93nm,18.2s,baz=146,slow=35						
MKAR	**Makanchi Array**	**80.28**	**319**	P	**P**	**05 18 45.6**	**-0.1**
MKAR				pP	pP	05 19 02.3	-0.2
MKAR				LR	LR	05 53 15.6	
MCK	**McKinley**	**80.61**	**23**	*e*P	**P**	**05 18 45.7**	**-1.3**
MCK				*e**PP	pP	05 19 00.9	-3.0
ZAA0	**Zalesovo Array**	**81.07**	**326**	*e*P	**P**	**05 18 48.8**	**-0.9**
ZALV	**Zalesovo Beam**	**81.07**	**326**	P	**P**	**05 18 49.2**	**-0.5**
ZALV				*PP	pP	05 19 05.8	-0.8
ZALV	**Zalesovo Beam**	**81.07**	**326**	P	**P**	**05 18 49.2**	**-0.5**
	comp=Z,3.1nm,0.6s,mb4.4,baz=105,slow=5.7,SNR=18						
ZALV				pP	pP	05 19 05.8	-0.8
	comp=Z,3.8nm,0.6s,baz=110,slow=6.5,SNR=5.8						
ZALV				LR	LR	05 51 00.3	
	comp=Z,111nm,21.6s,baz=244,slow=33						
ZALV	**Zalesovo Beam**	**81.07**	**326**	P	**P**	**05 18 49.2**	**-0.5**
ZALV				pP	pP	05 19 05.8	-0.8
ZALV				LR	LR	05 51 00.3	
COLA	**College**	**81.60**	**22**	*e*P	**P**	**05 18 50.7**	**-1.6**
COLA				*e**PP	pP	05 19 05.9	-3.3
COLA				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
COLA	**College**	**81.60**	**22**	*e*P	**P**	**05 18 50.7**	**-1.6**
	comp=Z,17nm,1.1s,mb4.9						
COLA				*e*pP	pP	05 19 05.9	-3.3
NVS	**Novosibirsk**	**82.25**	**327**	*i* P	**P**	**05 18 54.1**	**-1.8**
NVS				*e*	pP	05 19 15.0	+2.2
NVS				pmax	pmax		
	comp=Z,27nm,1.7s,mb4.9						
NVS				pmax	pmax		
	comp=N,14nm,1.7s						
NVS				pmax	pmax		
	comp=E,21nm,1.7s						
KSH	**Kashi**	**82.92**	**311**	*e*P	**P**	**05 19 01.6**	**+1.8**
KSH				*e*pP	pP	05 19 18.5	+1.8
KSH				*e*sP	sP	05 19 25.0	+1.6
KSH				*e*PP	PP	05 22 13.9	+2.8
KSH				*e*S	S	05 29 13.7	-0.4
KSH				sS	sS	05 29 42.3	-0.5
KSH				*e*SS	SS	05 34 40.3	+1.7
KSH				pmax	pmax		
	comp=Z,39nm,1.5s,mb5.2						
KSH				pmax	pmax		
	comp=Z,430nm,5.4s						
KSH				LR	LR		
	comp=N,450nm,6.0s						
KSH				LR	LR		
	comp=E,430nm,5.7s						
KSH				LR	LR		
	comp=Z,440nm,6.6s						
KURK	**Kurchatov**	**83.70**	**322**	P	**P**	**05 19 03.3**	**-0.2**
	comp=Z,105nm,1.5s,mb5.8,SNR=5.3						
KURK	**Kurchatov**	**83.70**	**322**	*e*P	**P**	**05 19 03.3**	**-0.2**
KURK				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.4						
KURK	**Kurchatov**	**83.70**	**322**	*e*P	**P**	**05 19 03.3**	**-0.2**
	comp=Z,40nm,1.4s,mb5.3						
TKM2	**Tokmak 2**	**83.90**	**314**	*e*P	**P**	**05 19 05.4**	**+0.7**
TKM2				*e**PP	pP	05 19 20.6	-1.1
TKM2				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.2						
TKM2	**Tokmak 2**	**83.90**	**314**	P	**P**	**05 19 05.7**	**+0.9**
	SNR=8.6						
TKM2	**Tokmak 2**	**83.90**	**314**	*e*P	**P**	**05 19 05.3**	**+0.6**
	comp=Z,28nm,1.3s,mb5.2						
TKM2				*e*pP	pP	05 19 20.6	-1.1
KZA	**Kyzart**	**83.98**	**313**	P	**P**	**05 19 06.9**	**+1.7**
	SNR=19						
HYT	**Haines Junctio**	**84.18**	**27**	*e*P	**P**	**05 19 06.7**	**+1.0**
HYT				*e*pP	pP	05 19 23.3	+0.6
VIB	**Van Inlet**	**84.46**	**36**	T		06 52 16.6	
	SNR=5.9						
DIB	**Dawson Inlet,**	**84.49**	**36**	T		06 52 21.0	
	SNR=7.8						
CHMS	**Chumysh**	**84.53**	**314**	P	**P**	**05 19 08.3**	**+0.4**
	SNR=14						
DAWY	**Dawson**	**84.53**	**24**	*e*P	**P**	**05 19 07.8**	**+0.3**
UCH	**Uchtor**	**84.55**	**313**	P	**P**	**05 19 10.1**	**+2.1**
	SNR=5.4						
UCH	**Uchtor**	**84.55**	**313**	*e*P	**P**	**05 19 09.5**	**+1.5**
	comp=Z,20nm,1.3s,mb5.1						
FRU	**Bishkek**	**84.59**	**314**	*e*P	**P**	**05 19 08.0**	**-0.2**
FRU				pmax	pmax		
	comp=Z,80nm,1.9s,mb5.5						
AAK	**Ala-Archa**	**84.64**	**313**	P	**P**	**05 19 09.5**	**+1.0**
	comp=Z,93nm,0.8s,mb6.0,SNR=7.7						
AAK	**Ala-Archa**	**84.64**	**313***c*	*i*P	**P**	**05 19 09.6**	**+1.1**
AAK				pmax	pmax		
	comp=Z,20nm,1.7s,mb5.0						
AAK	**Ala-Archa**	**84.64**	**313**	P	**P**	**05 19 09.2**	**+0.7**
	SNR=11						
AAK	**Ala-Archa**	**84.64**	**313**	*e*P	**P**	**05 19 08.7**	**+0.2**
	comp=Z,22nm,1.1s,mb5.2						
AAK				*e*pP	pP	05 19 25.7	+0.3
USP	**Ospenovka**	**84.76**	**314**	P	**P**	**05 19 09.4**	**+0.3**
	SNR=25						
AML	**Almayashu**	**85.13**	**313**	P	**P**	**05 19 12.1**	**+1.1**
	SNR=31						
AML	**Almayashu**	**85.13**	**313**	*e*P	**P**	**05 19 12.0**	**+1.1**
	comp=Z,76nm,1.2s,mb5.7						
AML				*e*pP	pP	05 19 28.9	+1.0
EKS2	**Erkin-Say**	**85.17**	**313**	P	**P**	**05 19 11.9**	**+0.8**
	SNR=11						
MAW	**Mawson**	**85.82**	**203**	LR	LR	05 52 02.2	
	comp=Z,259nm,18.9s,baz=264,slow=32						
KK31	**Karatay Array**	**87.61**	**313**	*i* P	**P**	**05 19 22.2**	**-0.9**
VOSK	**Vostochnaya**	**88.77**	**323**	P	**P**	**05 19 26.0**	**-2.4**
VOSK				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.3						
BVA0	**Borovoye Array**	**89.17**	**323**	*i* P	**P**	**05 19 28.7**	**-1.5**
BVA0				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
BVAR	**Borovoye Array**	**89.17**	**323**	LR	LR	05 57 38.9	
	comp=Z,231nm,19.3s,baz=103,slow=34						
BRVK	**Borovoye**	**89.24**	**323**	P	**P**	**05 19 29.8**	**-0.7**
	comp=Z,115nm,1.1s,mb6.1,SNR=11						
BRVK	**Borovoye**	**89.24**	**323**	*e*P	**P**	**05 19 29.0**	**-1.5**
BRVK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.4						
BRVK	**Borovoye**	**89.24**	**323**	*e*P	**P**	**05 19 29.0**	**-1.5**
	comp=Z,21nm,1.0s,mb5.4						
NVAR	**Mina Array Bea**	**91.83**	**52**	P	**P**	**05 19 43.4**	**+0.4**
	comp=Z,0.7nm,0.9s,mb4.0,baz=300,slow=2.9,SNR=5.6						
NVAR				pP	pP	05 19 59.4	-0.7
	comp=Z,1.1nm,0.8s,baz=246,slow=6.3,SNR=4.8						
YKA	**Yellowknife Ar**	**95.17**	**28**	P	**P**	**05 19 56.8**	**-1.0**
YKA				*PP	pP	05 20 12.9	-2.0
YKA	**Yellowknife Ar**	**95.17**	**28**	P	**P**	**05 19 56.8**	**-1.0**
	comp=Z,1.2nm,0.9s,mb4.3,baz=270,slow=4.4,SNR=14						
YKA				pP	pP	05 20 12.8	-2.1
	comp=Z,0.9nm,0.7s,baz=273,slow=4.7,SNR=5.1						
YKA				LR	LR	05 56 48.6	
	comp=Z,137nm,20.1s,baz=10.0,slow=32						
YKA	**Yellowknife Ar**	**95.17**	**28**	P	**P**	**05 19 56.8**	**-1.0**
YKA				pP	pP	05 20 12.8	-2.1
YKA				LR	LR	05 56 48.6	
AB31	**Akbulak array**	**95.42**	**319**	P	**P**	**05 19 56.5**	**-2.7**
AB31				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.9						
ARU	**Arti**	**96.24**	**326**	*e*P	**P**	**05 20 00.7**	**-2.0**
ARU				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb5.1						
ARU	**Arti**	**96.24**	**326**	*e*P	**P**	**05 20 00.7**	**-2.0**
	comp=Z,10.0nm,1.2s,mb5.1						
PDAR	**Pinedale Array**	**98.59**	**48**	LR	LR	05 56 09.1	
	comp=Z,168nm,20.4s,baz=266,slow=30						
AKASG	**Malin Array Be**	**114.42**	**324**	PKP	PKiKP	05 25 13.3	-1.0
	comp=Z,2.3nm,0.6s,baz=63,slow=2.3,SNR=8.3						
AKASG				pPKP		05 25 30.6	
	comp=Z,3.6nm,0.7s,baz=60,slow=2.3,SNR=6.0						
AKASG	**Malin Array Be**	**114.42**	**324**	PKP	PKiKP	05 25 13.3	-1.1
AKASG				pPKP		05 25 30.6	
BRTR	**Keskin Array B**	**115.29**	**312**	PKP	PKPdf	05 25 15.7	-0.6
	comp=Z,0.6nm,0.6s,baz=242,slow=2.7,SNR=4.8						
BRTR				pPKP		05 25 34.6	
	comp=Z,1.1nm,0.6s,baz=86,slow=1.7,SNR=3.7						
NB2	**NORSAR Subarra**	**116.77**	**340**	PKPdf	PKPdf	05 25 17.8	-0.7
	comp=Z,1.2nm,0.7s,baz=39,slow=1.8						
NOA	**NORSAR Array B**	**116.77**	**340**	PKP	PKPdf	05 25 17.7	-0.8
	comp=Z,1.9nm,0.8s,baz=45,slow=1.9,SNR=5.1						
NOA				pPKP	pPKPdf	05 25 35.0	-1.3
	comp=Z,1.5nm,0.7s,baz=40,slow=1.6,SNR=2.2						
PLCA	**Paso Flores**	**119.85**	**143**	PKP	PKPdf	05 25 23.8	-1.3
	comp=Z,3.6nm,0.9s,baz=308,slow=0.8,SNR=8.7						
PLCA				pPKP	pPKPdf	05 25 41.3	-1.6
	comp=Z,1.4nm,0.6s,baz=26,slow=3.1,SNR=2.4						
PLCA	**Paso Flores**	**119.85**	**143**	PKP	PKPdf	05 25 23.8	-1.4
PLCA				pPKP	pPKPdf	05 25 41.3	-1.6
BOSA	**Boshof**	**119.88**	**233**	PKP	PKPdf	05 25 22.9	-2.7
	comp=Z,1.5nm,0.7s,baz=124,slow=3.6,SNR=2.4						
BOSA				pPKP	pPKPdf	05 25 40.9	-2.4
	comp=Z,2.4nm,0.9s,baz=350,slow=8.6,SNR=2.0						
BOSA	**Boshof**	**119.88**	**233**	PKP	PKPdf	05 25 22.9	-2.7
BOSA				pPKP	pPKPdf	05 25 40.9	-2.4
SCHQ	**Schefferville**	**120.53**	**25**	PKP	PKPdf	05 25 25.2	-0.7
	comp=Z,1.7nm,0.8s,baz=345,slow=14,SNR=4.3						
SCHQ				pPKP	pPKPdf	05 25 42.0	-1.7
	comp=Z,1.2nm,0.6s,baz=21,slow=14,SNR=1.6						
OKC	**Ostrava-Krasne**	**121.03**	**328**	*e*PKPdf	PKPdf	05 25 33.2	+6.1
OKC				*e*x	x	05 25 44.6	
UPC	**Upice**	**121.76**	**329**	*e*PKPdf	PKPdf	05 25 28.4	-0.1
LSZ	**Lusaka**	**121.86**	**249**	*e*PKIKP	PKPdf	05 25 30.3	+0.7
LSZ				*e*		05 25 47.7	
BRG	**Berggiesshubel**	**122.57**	**330**	*e*PKIKP	PKPdf	05 25 30.8	+0.8
BRG				*e*		05 25 45.4	
BRG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRG	**Berggiesshubel**	**122.57**	**330**	*e*P	PKPdf	05 25 30.8	+0.8
	comp=Z,5.5nm,0.8s						
BRG				*e*		05 25 45.4	
	comp=Z,17nm,1.4s						
CLL	**Collm**	**122.75**	**331**	*i* PKPdf	PKPdf	05 25 31.1	+0.8
CLL				*i* pPKPdf	pPKPdf	05 25 47.7	-0.4
CLL				*e*sPKPdf		05 25 54.0	
CLL	**Collm**	**122.75**	**331**	*i* PKP	PKPdf	05 25 31.1	+0.8
CLL				*i* pPKP	pPKPdf	05 25 47.7	-0.4
TREC	**Trest**	**122.76**	**328**	*e*PKPdf	PKPdf	05 25 31.7	+1.3
TREC				*e*x	x	05 25 46.1	
NKC	**Novy Kostel**	**123.71**	**331**	*e*PKPdf	PKPdf	05 25 33.6	+1.4
NKC				*e*x	x	05 25 49.3	
KHC	**Kasperske Hory**	**123.85**	**329**	*e*PKPdf	PKPdf	05 25 33.6	+1.1
KHC				*e*x	x	05 25 39.0	
KHC				*e*x	x	05 25 48.4	
GERES	**GERESS Array B**	**123.96**	**329**	PKP	PKPdf	05 25 32.4	-0.4
	comp=Z,3.1nm,0.6s,baz=72,slow=2.1,SNR=23						
GERES				pPKP	pPKPdf	05 25 50.2	-0.3
	comp=Z,4.1nm,0.8s,baz=65,slow=1.8,SNR=11						
GRA1	**Grafenberg Arr**	**124.67**	**331**	*e*PKP	PKPdf	05 25 34.7	+0.6
GRA1				*e*pPKP	pPKPdf	05 25 50.4	-1.4
GRF	**Grafenberg Arr**	**124.67**	**331**	*e*PKP	PKPdf	05 25 34.7	+0.6
GRF				*e*pPKP	pPKPdf	05 25 50.4	-1.4
LCO	**Las Campanas**	**126.39**	**131**	*e*PKPdf	PKPdf	05 25 38.5	+0.5
CDF	**Champ du Feu**	**127.44**	**332**	*e*PKIKP	PKPdf	05 25 38.5	-0.9
HINF	**Hinteralfeld**	**128.06**	**331**	*e*PKIKP	PKPdf	05 25 40.8	+0.2
	comp=Z,7.3nm,0.7s						
HAU	**Haudompre**	**128.16**	**332**	*e*PKIKP	PKPdf	05 25 41.1	+0.3
CABF	**La Chapelle**	**129.28**	**331**	*e*PKIKP	PKPdf	05 25 44.1	+1.1
	comp=Z,18nm,0.9s						
LPL	**La Plagne**	**129.73**	**329**	*e*PKIKP	PKPdf	05 25 44.6	+0.7
LPG	**La Plagne**	**129.73**	**329**	*e*PKIKP	PKPdf	05 25 44.9	+1.0
	comp=Z,4.6nm,0.6s						
LOR	**Lormes**	**129.85**	**333**	*e*PKIKP	PKPdf	05 25 42.6	-1.4
MBDF	**Montbardon**	**130.26**	**329**	*e*PKIKP	PKPdf	05 25 46.8	+1.9
	comp=Z,5.4nm,0.7s						
SMF	**Signal de Mont**	**130.32**	**332**	*e*PKIKP	PKPdf	05 25 44.4	-0.6
ORIF	**Oris-en-Rattie**	**130.58**	**329**	*e*PKIKP	PKPdf	05 25 46.8	+1.3
	comp=Z,6.8nm,0.8s						
VIVF	**Saint-Julien-l**	**131.23**	**330**	*e*PKIKP	PKPdf	05 25 45.6	-1.1
	comp=Z,4.6nm,0.7s						
TCF	**Toulx Ste Croi**	**131.33**	**333**	*e*PKIKP	PKPdf	05 25 45.3	-1.6
	comp=Z,89nm,1.6s						
ROSC	**El Rosal**	**132.88**	**88**	PKP	PKPdf	05 25 50.3	-0.4
	comp=Z,3.4nm,0.5s,baz=283,slow=12,SNR=3.8						
SDV	**Santo Domingo**	**136.52**	**82**	*e*PKPdf	PKPdf	05 25 58.0	+0.5
CPUP	**Villa Florida**	**137.51**	**138**	PKP	PKPdf	05 25 59.2	+0.1
	comp=Z,3.4nm,0.7s,baz=153,slow=0.7,SNR=11						
CPUP				pPKP	pPKPdf	05 26 14.8	-2.0
	comp=Z,1.7nm,0.7s,baz=356,slow=2.0,SNR=2.7						
CPUP	**Villa Florida**	**137.51**	**138**	*e*PKPdf	PKPdf	05 25 59.6	+0.5
TAM	**Tamanrasset**	**143.70**	**303**	*e*PKIKP	PKPdf	05 26 07.4	-2.9
TOA0	**Torodi Ar. Sit**	**150.40**	**289**	*e*PKPbc	PKPbc	05 26 25.9	-1.0
TORD	**Torodi Ar. Bea**	**150.40**	**289**	PKP	PKPdf	05 26 21.1	-0.6
	comp=Z,13nm,1.0s,baz=4.9,slow=2.0,SNR=5.1						
TORD				PKPbc	PKPbc	05 26 26.1	-0.9
	comp=Z,30nm,0.8s,baz=92,slow=2.4,SNR=103						
TORD				pPKPbc	pPKPbc	05 26 42.9	-1.8
	comp=Z,49nm,1.1s,baz=61,slow=1.9,SNR=9.7						
TORD	**Torodi Ar. Bea**	**150.40**	**289**	PKP	PKPdf	05 26 21.1	-0.6
TORD				PKPbc	PKPbc	05 26 26.1	-0.9
TORD				pPKPbc	pPKPbc	05 26 42.9	-1.8
KIC	**Kosan Boka**	**157.74**	**276**	*e*P	PKPab	05 27 02.7	-2.1
	comp=Z,123nm,1.0s						
DBIC	**Dimbokro**	**157.83**	**276**	PKPab	PKPab	05 27 04.5	-0.6
	comp=Z,7.7nm,0.8s,baz=46,slow=2.7,SNR=9.4						
TIC	**Toumodi**	**157.99**	**276**	*e*P	PKPab	05 27 03.8	-2.1
	comp=Z,107nm,1.0s						
LIC	**Lamto**	**158.03**	**275**	*e*P	PKPab	05 27 04.6	-1.4
	comp=Z,49nm,1.0s						

KRSC 02 05:23:36.8±0.7, 50.°94N×157.°57E, h87^{km}±92^{km}, ML3.7, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MIPR	**Malaya Ipel'ka**	**1.43**	**340**	*e*P	Pn	05 24 03.2	+1.7
MIPR				*e*S	Sn	05 24 22.9	+2.8
RUS	**Russkaya**	**1.61**	**21**	*e*P	Pn	05 24 07.3	+3.6
RUS				*i* S	Sn	05 24 29.4	+5.3
PET	**Petropavlovsk**	**2.19**	**17**	P	Pn	05 24 14.4	+3.0
PET				*i* S	Sn	05 24 41.8	+4.0
AVH	**Avacha**	**2.44**	**17**	*e*P	Pn	05 24 18.3	+3.7
AVH				*i* S	Sn	05 24 47.8	+4.2
NLC	**Nalytchevo**	**2.49**	**25**	P	Pn	05 24 17.6	+2.3
NLC				*i* S	Sn	05 24 47.2	+2.3
GNL	**Ganaly**	**2.77**	**5**	*e*P	Pn	05 24 21.3	+2.2
KBTR	**Krutoberegovo**	**6.13**	**29**	P	Pn	05 25 07.9	+3.2

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*BGS **02** 05:33:10.1±1.6, 25.°03N×53.°74E, h10^{km}, mb5.4*

BJI ***02*** *05:33:16.0, 26°.67N×52°.32E, h10^{km}, mB5.1/21, mb4.7/33, Ms4.9/15, Ms7 4.5/15*
THR ***02*** *05:33:18.8±0.8, 26°.18N×52°.90E, h26^{km}±10^{km}, ML4.6*
IDC ***02*** *05:33:20.0±0.5, 26°.44N×53°.10E, h0^{km}, mb4.7/23, mb1 4.7/27, mb1mx4.7/31, mbtmp4.7/27, ML3.9/1, MS3.5/4, Ms1 3.5/4, ms1mx3.0/31, Error ellipse: s-maj=14.5km s-min=12.0km az=173.0*
ISCJB ***02*** *05:33:19.6±0.2, 26°.36N±0°.02×52°.99E±0°.02, h10^{km}, mb4.9/177, MS4.2/5, Error ellipse: s-maj=2.8km s-min=2.5km az=152.6*
NEIC ***02*** *05:33:21.6±0.2, 26°.41N×52°.98E, h10^{km}, mb4.9/96, ML4.6(THR), MN4.9(TEH), Error ellipse: s-maj=4.3km s-min=3.4km az=147.0*
NEIC Felt in Qatar. Also felt at Khawr Fakkan and Ra's al Khaymah, United Arab Emirates.
MOS ***02*** *05:33:23.3±0.8, 26°.47N×53°.00E, h33^{km}, mb5.0/76, Error ellipse: s-maj=6.6km s-min=3.8km az=121.2*
CSEM ***02*** *05:33:23.5±0.1, 26°.48N×53°.04E, h20^{km}, mb4.9/99, Ms4.0, Error ellipse: s-maj=3.3km s-min=3.0km az=173.0*
TEH ***02*** *05:33:25.1, 26°.48N×52°.86E, h20^{km}*
UPP ***02*** *05:33:28.4, 25°.35N×53°.52E, h29^{km}*
ISC 02 05:33:21.6±0.1**, 26°.36N**±0°.02×**53°.00E**±0°.02**, h10^{km}, (h14^{km}**±1.0^{km}**:pP-P), n761,** σ**0^{s}.96**/776**, mb4.9**/177**, MS4.2**/5**, 101C-23D, Persian Gulf**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHIR	Ghir-Karzin	1.92	360	Pg	Pn	05 33 56.0	+1.7
GHIR				Sg	Sg	05 34 23.0	-0.3
GHIR	Ghir-Karzin	1.92	360	ePg	Pn	05 33 56.2	+1.9
GHIR				eSg	Sg	05 34 23.6	+0.2
GHIR				AML	AML	05 34 29.3	
	comp=N,5µm,0.5s						
GHIR	Ghir-Karzin	1.92	360	Pg	Pn	05 33 56.0	+1.7
GHIR				eSg	Sg	05 34 23.6	+0.2
SLWS		2.63	234	P	Pn	05 34 07.9	+3.8
SLWS		2.63	234	P	Pn	05 34 07.9	+3.8
ASUD	Al Ashush, Dub	2.72	129	⇓P	Pn	05 34 07.9	+2.5
	SNR=145						
ASUD				⇓P		05 34 07.9	
	SNR=145						
ASUD	Al Ashush, Dub	2.72	129	P	Pn	05 34 07.9	+2.5
	SNR=145						
NAZ	Nazwa, Dubai	2.77	119	P	Pn	05 34 08.5	+2.5
	SNR=15						
BANOM	Banah	3.00	98	P	Pn	05 34 09.5	+0.3
	SNR=64						
BANOM				P		05 34 09.5	
	SNR=64						
BANOM	Banah	3.00	98	P	Pn	05 34 09.5	+0.3
	SNR=64						
ISRV	Sarvestan	3.01	2	Pn	Pn	05 34 11.0	+1.6
ISRV	Sarvestan	3.01	2	ePn	Pn	05 34 11.0	+1.6
ISRV				e	Sg	05 35 15.1	+17
	comp=Z,26µm,0.4s						
ISRV	Sarvestan	3.01	2	ePn	Pn	05 34 11.0	+1.6
BTHS		3.02	221	P	Pn	05 34 13.6	+4.2
BTHS		3.02	221	P	Pn	05 34 13.6	+4.2
HATD	Hatta, Dubai	3.22	118	P	Pn	05 34 13.9	+1.7
	SNR=8.3						
BOQSS		3.29	262	P	Pn	05 34 16.1	+3.0
SHI	Shiraz	3.30	353	e	Sg	05 35 19.0	+11
	comp=E,31µm,0.4s						
IBND	Bandar-abas	3.35	70	ePn	Pn	05 34 15.3	+1.4
IBND				e		05 35 00.2	
	comp=Z,42µm,0.1s						
IBND	Bandar-abas	3.35	70	ePn	Pn	05 34 15.3	+1.4
IPAR	Pars	3.47	1	Pn	Pn	05 34 16.7	+1.0
IPAR	Pars	3.47	1	ePn	Pn	05 34 16.7	+1.0
IPAR				e	Sg	05 35 31.4	+18
	comp=Z,14µm,0.5s						
IPAR	Pars	3.47	1	ePn	Pn	05 34 16.7	+1.0
KFJS		4.85	293	P	Pn	05 34 36.3	+1.6
KFJS		4.85	293	P	Pn	05 34 36.3	+1.6
KRBR	Kerman	4.91	42	Pn	Pn	05 34 36.0	+0.6
KRBR	Kerman	4.91	42	ePn	Pn	05 34 36.3	+0.9
KRBR				AML	AML	05 35 50.7	
	comp=E,392nm,0.6s						
KRBR				AML	AML	05 35 55.5	
	comp=N,398nm,0.7s						
KRBR	Kerman	4.91	42	ePn	Pn	05 34 36.0	+0.6
QRN	Al-Qurain	5.10	299	eP	Pn	05 34 39.4	+1.4
QRN				AML	AML	05 35 41.5	
	comp=Z,402nm,0.3s						
QRN	Al-Qurain	5.10	299	eP	Pn	05 34 39.4	+1.4
IMEH	Mehriz	5.21	15	Pn	Pn	05 34 40.8	+1.2
IMEH	Mehriz	5.21	15	e	Sn	05 35 40.9	+1.2
	comp=Z,10µm,0.3s						
IMEH	Mehriz	5.21	15	Pn	Pn	05 34 40.8	+1.2
RDF	Al-Radifah	5.47	299	eP	Pn	05 34 44.4	+1.3
RDF	Al-Radifah	5.47	299	eP	Pn	05 34 44.4	+1.3
KBD	Kabd	5.47	302	eP	Pn	05 34 44.8	+1.7
KBD				AML	AML	05 35 51.8	
	comp=Z,104nm,0.3s						
KBD	Kabd	5.47	302	eP	Pn	05 34 44.8	+1.6
ISAD	Sadrabad	5.57	6	Pn	Pn	05 34 45.5	+1.0
ISAD	Sadrabad	5.57	6	e	Pn	05 34 51.0	+6.5
	comp=Z,5µm,0.1s						
ISAD	Sadrabad	5.57	6	Pn	Pn	05 34 45.5	+1.0
IBAF	Bafgh	5.68	23	Pn	Pn	05 34 46.4	+0.4
IBAF				Sn	Sn	05 35 47.7	-3.6
IBAF	Bafgh	5.68	23	ePn	Pn	05 34 46.4	+0.4
IBAF				e		05 34 48.3	
	comp=Z,4µm,0.0s						
IBAF				eSn	Sn	05 35 47.7	-3.6
IBAF	Bafgh	5.68	23	ePn	Pn	05 34 46.4	+0.4
IBAF				eSn	Sn	05 35 47.7	-3.6
NAY	Al-Naaiem	5.85	301	eP	Pn	05 34 49.5	+1.1
NAY				AML	AML	05 36 06.5	
	comp=Z,120nm,0.7s						
NAY	Al-Naaiem	5.85	301	eP	Pn	05 34 49.5	+1.1
ICHK	Chekchek	5.99	12	Pn	Pn	05 34 50.8	+0.5
ICHK	Chekchek	5.99	12	⇑ePn	Pn	05 34 50.8	+0.5
ICHK				e		05 34 57.7	
	comp=Z,5µm,0.2s						
ICHK	Chekchek	5.99	12	⇑ePn	Pn	05 34 50.8	+0.5
MIB	Mutribah	6.06	306	eP	Pn	05 34 52.1	+0.8
MIB				AML	AML	05 36 03.8	
	comp=Z,234nm,0.5s						
MIB	Mutribah	6.06	306	eP	Pn	05 34 52.1	+0.8
IGAR	Gharneh	6.08	352	e	Sn	05 36 02.5	+1.3
	comp=N,2µm,0.2s						
NASN	Na'in	6.42	359	Pn	Pn	05 34 55.0	-1.2
NASN	Na'in	6.42	359	ePn	Pn	05 34 56.2	0.0
NASN	Na'in	6.42	359	ePn	Pn	05 34 55.9	-0.3
IZEF	Zefreh	6.54	355	Pn	Pn	05 34 57.5	-0.3
IZEF	Zefreh	6.54	355	e	Pg	05 35 31.8	+4.9
	comp=Z,926nm,0.3s						
IZEF	Zefreh	6.54	355	Pn	Pn	05 34 57.5	-0.3
IPIR	Pirpir	6.56	344	Pn	Pn	05 34 57.6	-0.6
IPIR	Pirpir	6.56	344	ePn	Pn	05 34 58.2	0.0
IPIR				e	Sn	05 36 12.5	-0.6
	comp=Z,4µm,0.4s						
IPIR	Pirpir	6.56	344	ePn	Pn	05 34 58.2	0.0
WBK	Wadi Bani Khal	6.60	123	⇓P	Pn	05 35 00.5	+1.8
	SNR=32						
LYLS		6.79	232	P	Pn	05 35 03.6	+2.3
LYLS		6.79	232	P	Pn	05 35 03.6	+2.4
LYLS				S	Sn	05 36 20.4	+1.8
SHGR	Shooshtar-Gavs	6.80	328	Pn	Pn	05 35 01.0	-0.4
SHGR	Shooshtar-Gavs	6.80	328	ePn	Pn	05 35 01.7	+0.3
SHGR				Sn	Sn	05 36 15.6	-3.4
SHGR	Shooshtar-Gavs	6.80	328	ePn	Pn	05 35 01.7	+0.3
IKLH	Kolahrood	7.05	350	Pn	Pn	05 35 04.8	0.0
IKLH	Kolahrood	7.05	350	e	Pn	05 35 13.8	+9.0
	comp=Z,1µm,0.1s						
IKLH				⇓ePn	Pn	05 35 04.8	0.0
ASYS		7.81	280	P	Pn	05 35 16.0	+0.7
GHVR	GHOM	8.23	350	Pn	Pn	05 35 21.0	0.0
GHVR	GHOM	8.23	350	ePn	Pn	05 35 21.5	+0.5
GHVR	GHOM	8.23	350	ePn	Pn	05 35 21.5	+0.5
WHFO	Wadi Hawf	8.43	175	P	Pn	05 35 25.7	+1.9
	SNR=12						
WHFO	Wadi Hawf	8.43	175	P	Pn	05 35 25.7	+1.9
	SNR=12						
ASAO	Ashtian	8.56	343	Pn	Pn	05 35 24.0	-1.5
ASAO	Ashtian	8.56	343	ePn	Pn	05 35 25.2	-0.3
ASAO	Ashtian	8.56	343	ePn	Pn	05 35 24.9	-0.6
IVRN	Varamin	8.68	353	Pn	Pn	05 35 26.0	-1.2
IVRN	Varamin	8.68	353	ePn	Pn	05 35 26.4	-0.8
IVRN				e		05 35 31.0	
	comp=Z,967nm,0.1s						
IVRN	Varamin	8.68	353	ePn	Pn	05 35 26.4	-0.8
ABTO	Aybut	8.96	178	⇓P	Pn	05 35 32.8	+1.6
	SNR=12						
ABTO	Aybut	8.96	178	P	Pn	05 35 32.8	+1.6
	SNR=12						
IANJ	Anjilo	9.11	5	Pn	Pn	05 35 32.6	-0.6
IANJ	Anjilo	9.11	5	e	Pn	05 35 36.4	+3.2
	comp=Z,1µm,0.2s						
IANJ	Anjilo	9.11	5	Pn	Pn	05 35 32.6	-0.6
SNGE	Sanandaj	9.97	332	ePn	Pn	05 35 44.0	-0.9
ILIN	Lien	9.99	330	Pn	Pn	05 35 44.2	-0.9
ILIN	Lien	9.99	330	e	Pn	05 35 52.1	+7.0
	comp=Z,2µm,0.1s						
ILIN	Lien	9.99	330	Pn	Pn	05 35 44.2	-0.9
MUKL	Al Mukalla	12.39	198	eP	Pn	05 36 15.9	-2.2
IAZR	Azarshahr	12.75	334	e	Px	05 36 42.4	
	comp=Z,993nm,0.3s						
HAKT	HAKKARI	13.66	327	i P	Px	05 36 47.1	
HAJJ	Hajjah	13.76	221	⇑eP	Pn	05 36 35.0	-1.8
HAJJ				i S	Sn	05 39 08.1	-1.6
HAJJ	Hajjah	13.76	221	⇑eP	Pn	05 36 35.0	-1.8
HAJJ				i S	Sn	05 39 08.1	-1.6
BDHA	Al Bayda'	14.15	211	eP	Pn	05 36 40.0	-2.1
BDHA				AMb	AMB	05 36 41.0	
	comp=Z,8.4nm,0.7s						
BDHA				i S	Sn	05 39 17.9	-1.4
DHBB	Dhamar BB	14.22	216	i P	Pn	05 36 41.3	-1.8
DHBB				AMb	AMB	05 36 42.6	
	comp=Z,166nm,1.4s						
DHBB				i S	Sn	05 39 19.7	-1.4
UDYN	Al 'Udayn	14.95	216	i P	Pn	05 36 50.9	-2.2
UDYN				i S	Sn	05 39 36.9	-2.0
UDYN	Al 'Udayn	14.95	216	i P	Pn	05 36 50.9	-2.2
UDYN				i S	Sn	05 39 36.9	-1.9
ASF	Jabal al Asfar	15.19	296	P	Pn	05 36 54.8	-1.4
ASF						05 39 37.6	
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF				smax			
	comp=N,1.0nm,0.3s						
ASF				MLR	MLR		
	comp=Z,112nm,18.2s						
ASF	Jabal al Asfar	15.19	296	Pn	Pn	05 36 54.8	-1.5
	comp=Z,1.2nm,0.3s,baz=339,slow=9.2,SNR=19						
ASF				Sn	Sn	05 39 37.6	-7.0
	comp=Z,0.5nm,0.3s,baz=158,slow=19,SNR=2.5						
ASF				Lg		05 41 45.2	
	comp=Z,0.1nm,0.3s,baz=174,slow=20,SNR=1.8						
ASF				LR	LR	05 43 57.4	
	comp=Z,112nm,18.2s,baz=174,slow=42						
GNI	Garni	15.38	335	c iP	Pn	05 36 58.5	-0.1
GNI				pmax	pmax		
	comp=Z,24nm,0.8s						
GNI				MLR	MLR		
	comp=Z,200nm,15.0s						
GNI	Garni	15.38	335	Pn	Pn	05 36 58.5	-0.1
	comp=Z,0.4nm,0.3s,baz=348,slow=1.3,SNR=17						
GNI	Garni	15.38	335	eP	Pn	05 36 58.4	-0.2
	comp=Z,29nm,0.8s						
KBL	Kabul	16.05	56	eP	Pn	05 37 08.4	+1.0
KBL				pmax	pmax		
	comp=Z,43nm,1.2s						
KBL	Kabul	16.05	56	eP	Pn	05 37 08.4	+1.0
	comp=Z,43nm,1.2s						
KBL	Kabul	16.05	56	eP	Pn	05 37 08.4	+1.0
	comp=Z,43nm,1.2s						
EIL	Elat	16.27	286	Pn	Pn	05 37 10.4	+0.1
	comp=Z,0.5nm,0.3s,baz=57,slow=7.0,SNR=14						
EIL				Sn	Sn	05 40 22.6	+12
	comp=Z,0.7nm,0.3s,baz=132,slow=16,SNR=2.9						
EIL				Lg		05 42 16.6	
	comp=Z,0.1nm,0.3s,baz=36,slow=21,SNR=2.6						
EIL				LR	LR	05 44 30.5	
	comp=Z,128nm,22.0s,baz=294,slow=41						
EIL	Elat	16.27	286	Pn	Pn	05 37 10.4	+0.1
ERZM	Erzurum	16.63	327	i P	Pn	05 37 14.9	+0.1
ERZM	Erzurum	16.63	327	i P	Pn	05 37 14.9	+0.1
MMAI	Mount Meron Ar	16.66	298	Pn	Pn	05 37 14.4	-0.7
	comp=Z,1.8nm,0.3s,baz=107,slow=13,SNR=18						
MMAI				Lg		05 42 38.7	
	baz=120,slow=24,SNR=2.9						
MMAI				LR	LR	05 45 04.8	
	comp=Z,149nm,18.4s,baz=110,slow=42						
TBLG	Delisi	16.78	338	P	Pn	05 37 16.8	+0.2
TBLG	Delisi	16.78	338	P	Pn	05 37 16.8	+0.2
MALT	Malatya	17.11	318	eP	Pn	05 37 20.0	-0.8
MALT				pmax	pmax		
	comp=Z,48nm,0.9s						
MALT	Malatya	17.11	318	eP	Pn	05 37 20.0	-0.9
	comp=Z,48nm,0.9s						
MALT	Malatya	17.11	318	eP	Pn	05 37 20.0	-0.8
	comp=Z,48nm,0.9s						
GOR	Gori	17.22	337	P	Pn	05 37 24.5	+2.3
AKCD	Akcadag	17.41	317	i P	Pn	05 37 24.2	-0.3
AKCD	Akcadag	17.41	317	i P	Pn	05 37 24.2	-0.3
COBT	Iskenderun	17.49	309	i P	Pn	05 37 25.4	-0.2
COBT	Iskenderun	17.49	309	i P	Pn	05 37 25.4	-0.2
KEMA	Kemaliye	17.70	320	i P	Pn	05 37 27.5	-0.7
KEMA	Kemaliye	17.70	320	i P	Pn	05 37 27.5	-0.7
ONI	Oni	17.97	337	P	Pn	05 37 32.1	+0.6
PINB	Pinarbasi	18.58	315	i P	Pn	05 37 38.9	-0.1
PINB	Pinarbasi	18.58	315	i P	Pn	05 37 38.9	-0.1
CSS	Prodhromos	18.94	302	eP	Pn	05 37 42.4	-1.0
	comp=Z,29nm,0.8s						
CSS	Prodhromos	18.94	302	eP	Pn	05 37 42.4	-1.0
	comp=Z,29nm,0.8s						
KIV	Kislovodsk	19.45	337	eP	Pn	05 37 49.4	0.0
KIV				pmax	pmax		
	comp=Z,44nm,1.0s						
KIV	Kislovodsk	19.45	337	eP	Pn	05 37 49.3	-0.1
	comp=Z,33nm,0.7s						
KIV	Kislovodsk	19.45	337	eP	Pn	05 37 49.4	0.0
	comp=Z,44nm,1.0s						
SOC	Sochi	20.30	331	eP	P	05 37 56.6	-0.9
SOC				e		05 38 13.4	
SOC				eS	S	05 41 45.7	+0.7
SOC				eSS		05 42 03.6	
SOC				pmax	pmax		
	comp=Z,39nm,0.8s						
SOC	Sochi	20.30	331	eP	P	05 37 56.6	-0.9
	comp=Z,39nm,0.8s						
CDAG	Cicekdag	20.42	315	i P	P	05 37 59.4	+0.6
CDAG	Cicekdag	20.42	315	i P	P	05 37 59.4	+0.6
CTKT	Corum	20.75	318	i P	P	05 38 03.5	+1.1
CTKT	Corum	20.75	318	i P	P	05 38 03.5	+1.1
BR131	Keskin Array S	20.94	314	eP	P	05 38 05.0	+0.4
	comp=Z,29nm,0.8s						
BR131	Keskin Array S	20.94	314	eP	P	05 38 05.0	+0.5
	comp=Z,29nm,0.8s						
BRTR	Keskin Array B	20.94	314	P	P	05 38 05.3	+0.8
BRTR						05 42 12.6	
BRTR				pmax	pmax		
	comp=Z,29nm,0.7s						
BRTR	Keskin Array B	20.94	314	P	P	05 38 05.3	+0.8
	comp=Z,29nm,0.7s,baz=138,slow=11,SNR=85						
BRTR				PcP	PcP	05 42 12.6	+0.5
	comp=Z,1.2nm,0.8s,baz=159,slow=5.4,SNR=4.0						
BRTR	Keskin Array B	20.94	314	P	P	05 38 05.3	+0.8
	comp=Z,29nm,0.7s						
BRTR	Keskin Array B	20.94	314	PcP	PcP	05 42 12.6	+0.5
BOYT	Boyabat	21.18	320	i P	P	05 38 07.9	+0.8
BOYT	Boyabat	21.18	320	i P	P	05 38 07.9	+0.8
KDHN	Kadinhani	21.34	310	i P	P	05 38 10.2	+1.4
KDHN	Kadinhani	21.34	310	i P	P	05 38 10.2	+1.4
NDI	New Delhi	21.60	78	ePKP	P	05 38 13.0	+1.3
ILGA	Ilgaz	21.66	317	i P	P	05 38 12.8	+0.6
ILGA	Ilgaz	21.66	317	i P	P	05 38 12.8	+0.6
KK31	Karatay Array	21.98	36	i P	P	05 38 14.0	-1.6
KK31				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.0						
KK31	Karatay Array	21.98	36	i P	P	05 38 14.0	-1.6
	comp=Z,3.0nm,0.5s,mb4.0						
ISP	Isparta	22.17	307	i P	P	05 38 19.9	+2.2
AKAS	Kas	22.23	302	i P	P	05 38 18.6	+0.2
AKAS	Kas	22.23	302	i P	P	05 38 18.6	+0.2
ANN	Anapa	22.27	330	eP	P	05 38 18.8	+0.1
ANN				e*PP		05 38 23.1	
ANN				eS	S	05 42 26.7	+3.0
ANN				pmax	pmax		
	comp=Z,144nm,1.9s,mb5.1						
ANN	Anapa	22.27	330	eP	P	05 38 18.8	+0.1
	comp=Z,144nm,1.9s,mb5.1						
ESKT	Eskisehir	22.68	311	i P	P	05 38 23.6	+0.5
SEYT	Eskypehyr	22.68	311	i P	P	05 38 23.6	+0.5
KHAL	Karahalli	23.12	307	i P	P	05 38 28.4	+0.6
KHAL	Karahalli	23.12	307	i P	P	05 38 28.4	+0.6
AML	Almayashu	23.15	42	eP	P	05 38 28.3	+0.2
	comp=Z,26nm,0.9s,mb4.7						
AML	Almayashu	23.15	42	P	P	05 38 28.5	+0.4
TURN	Turunc	23.21	303	i P	P	05 38 31.8	+3.0
KSH	Kashi	23.25	50	eP	P	05 38 24.5	-4.6
KSH				ePcP	PcP	05 42 17.2	+0.5
KSH				ePcS	PcS	05 45 54.3	-1.5
KSH				eScS	ScS	05 49 37.0	-3.9
KSH				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.1						
KSH				LR	LR		
	comp=N,450nm,5.4s						
KSH				LR	LR		
	comp=E,380nm,6.6s						
KSH				LR	LR		
	comp=Z,660nm,5.6s						
HENT	Hendek	23.30	314	i P	P	05 38 30.6	+0.9
HENT	Hendek	23.30	314	i P	P	05 38 30.6	+0.9
GDZ	Gediz	23.43	309	i P	P	05 38 31.4	+0.3
GDZ	Gediz	23.43	309	i P	P	05 38 31.4	+0.4
AB31	Akbulak array	23.49	11	P	P	05 38 30.0	-1.5
AB31				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.4						
AB31	Akbulak array	23.49	11	P	P	05 38 30.0	-1.5
	comp=Z,6.0nm,0.4s,mb4.4						
AAK	Ala-Archa	23.93	42	d iP	P	05 38 38.4	+2.7
AAK				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.2						
AAK	Ala-Archa	23.93	42	eP	P	05 38 38.2	+2.5
	comp=Z,34nm,1.3s,mb4.6						
SIM	Simferopol'	23.97	326	eP	P	05 38 37.7	+1.6
SIM				pmax	pmax		
	comp=Z,31nm,0.8s,mb4.8						
SIM	Simferopol'	23.97	326	eP	P	05 38 37.7	+1.6
	comp=Z,31nm,0.8s,mb4.8						
ULDT	Uludag	24.14	311	i P	P	05 38 38.9	+1.2
ULDT	Uludag	24.14	311	i P	P	05 38 38.9	+1.2
AKTK	Aktyubinsk	24.35	8	P	P	05 38 40.6	+1.2
AKTK	Aktyubinsk	24.35	8	P	P	05 38 38.9	-0.6
	comp=Z,4.0nm,1.0s,mb3.8						
AKTO	Aktyubinsk	24.35	8	P	P	05 38 38.9	-0.6
AKTO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.8						
AKTO	Aktyubinsk	24.35	8	P	P	05 38 40.6	+1.2
	comp=Z,7.9nm,0.5s,mb4.4,baz=186,slow=8.8,SNR=15						
TKM2	Tokmak 2	24.76	42	eP	P	05 38 43.1	-0.2
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
TKM2	Tokmak 2	24.76	42	eP	P	05 38 43.1	-0.2
	comp=Z,6.1nm,0.8s,mb4.2						
TKM2	Tokmak 2	24.76	42	eP	P	05 38 43.1	-0.2
	comp=Z,6.0nm,0.8s,mb4.2						
APE	Apeiranthos	25.61	301	⇓iP	P	05 38 51.5	+0.4
APE	Apeiranthos	25.61	301	⇓iP	P	05 38 51.5	+0.4
IDI	Anoyia	25.66	297	P	P	05 38 53.0	+1.4
	comp=Z,50nm,0.7s,mb5.2,baz=104,slow=9.1,SNR=75						
IDI	Anoyia	25.66	297	P	P	05 38 53.0	+1.4
VRHR	Novokhopersk	26.18	344	eP	P	05 38 57.4	+1.3
VRHR				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.2						
VRHR				pmax	pmax		
	comp=N,40nm,0.8s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.4s						
VRHR	Novokhopersk	26.18	344	eP	P	05 38 57.4	+1.3
	comp=E,40nm,0.8s,mb5.0						
VORD	Divnogorie	26.71	341	eP	P	05 38 59.7	-1.2
VORD				pmax	pmax		
	comp=N,110nm,0.9s						
VORD				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.0						
VORD				pmax	pmax		
	comp=E,30nm,0.8s						
VORD	Divnogorie	26.71	341	eP	P	05 38 59.7	-1.2
TIRR	Tirgusor	26.81	319	⇓iP	P	05 39 01.9	0.0
TIRR	Tirgusor	26.81	319	⇓iP	P	05 39 01.9	0.0
VSR	Storozhevoye	26.97	341	eP	P	05 39 02.6	-0.6
VSR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
VSR				pmax	pmax		
	comp=N,20nm,1.0s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.5s						
VSR	Storozhevoye	26.97	341	eP	P	05 39 02.6	-0.6
	comp=E,20nm,1.0s,mb4.6						
KOLN	Koldanda	27.26	80	eP	P	05 39 06.5	+0.4
	comp=E,36nm,1.3s,mb4.8						
DANN	Dangsing	27.36	79	eP	P	05 39 07.9	+0.9
	comp=E,109nm,1.2s,mb5.3						
DMN	Daman	28.60	80	eP	P	05 39 18.2	+0.1
KKN	Kakani	28.74	80	eP	P	05 39 19.7	+0.4
MLR	Muntele Rosu	28.84	318	⇓iP	P	05 39 22.7	+2.6
PKIN	Phulchoki	28.86	80	eP	P	05 39 20.3	-0.1
PKI	Pulchoki	28.87	80	eP	P	05 39 19.8	-0.7
	comp=E,25nm,0.8s,mb5.0						
VTS	Vitosha	29.22	311	eP	P	05 39 23.2	-0.2
GUN	Gumba	29.26	79	eP	P	05 39 24.5	+0.5
	comp=E,68nm,0.9s,mb5.4						
VOIR		29.35	318	⇑iP	P	05 39 25.5	+0.9
VOIR		29.35	318	⇑iP	P	05 39 25.5	+0.9
VOSK	Vostochnaya	29.59	22	P	P	05 39 25.4	-1.2
VOSK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
VOSK	Vostochnaya	29.59	22	P	P	05 39 25.4	-1.2
	comp=Z,14nm,1.0s,mb4.7						
BRVK	Borovoye	29.64	21	eP	P	05 39 26.5	-0.5
BRVK				e		05 42 31.2	
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
BRVK	Borovoye	29.64	21	eP	P	05 39 26.5	-0.5
	comp=Z,6.5nm,0.6s,mb4.5						
BRVK				ePcP	PcP	05 42 31.2	-0.1
BRVK	Borovoye	29.64	21	eP	P	05 39 26.5	-0.5
	comp=Z,6.0nm,0.6s,mb4.5						
BVA0	Borovoye Array	29.64	21	i P	P	05 39 25.9	-1.2
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.6						
BVA0	Borovoye Array	29.64	21	i P	P	05 39 25.9	-1.2
	comp=Z,1.0nm,0.8s,mb3.6						
BVAR	Borovoye Array	29.64	21	P	P	05 39 26.7	-0.4
BVAR						05 42 31.5	
BVAR						05 46 11.5	
BVAR				pmax	pmax		
	comp=Z,6.0nm,0.5s						
BVAR	Borovoye Array	29.64	21	P	P	05 39 26.7	-0.3
	comp=Z,5.5nm,0.5s,mb4.5,baz=218,slow=7.9,SNR=36						
BVAR				PcP	PcP	05 42 31.5	+0.2
	comp=Z,2.0nm,0.4s,baz=192,slow=2.6,SNR=12						
BVAR				ScP	ScP	05 46 11.5	-2.0
	comp=Z,1.0nm,0.8s,baz=222,slow=1.9,SNR=3.6						
BVAR	Borovoye Array	29.64	21	P	P	05 39 26.7	-0.4
	comp=Z,6.0nm,0.5s,mb4.6						
BVAR	Borovoye Array	29.64	21	PcP	PcP	05 42 31.5	+0.2
BIA	Bitola	29.95	307	eP	P	05 39 30.3	+0.4
BIA	Bitola	29.95	307	eP	P	05 39 30.2	+0.3
RAMN	Ramite	29.99	81	eP	P	05 39 30.1	-0.3
	comp=Z,23nm,0.8s,mb4.9						
KRUS	Krusevo	30.12	308	eP	P	05 39 32.2	+0.8
KRUS	Krusevo	30.12	308	eP	P	05 39 32.2	+0.8
BARS	Barje	30.25	311	eP	P	05 39 32.7	+0.2
AKASG	Malin Array Be	30.35	330	P	P	05 39 32.4	-0.9
AKASG						05 42 33.1	
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.6s						
AKASG	Malin Array Be	30.35	330	P	P	05 39 32.4	-1.0
	comp=Z,9.5nm,0.6s,mb4.7,baz=133,slow=7.7,SNR=32						
AKASG				PcP	PcP	05 42 33.1	-0.1
	comp=Z,1.3nm,0.4s,baz=104,slow=2.3,SNR=9.7						
AKASG	Malin Array Be	30.35	330	P	P	05 39 32.4	-0.9
	comp=Z,10.0nm,0.6s,mb4.7						
AKASG	Malin Array Be	30.35	330	PcP	PcP	05 42 33.1	-0.1
AKBB	Malin Array Si	30.35	330	eP	P	05 39 32.3	-1.0
AKBB				e		05 42 32.7	
AKBB	Malin Array Si	30.35	330	eP	P	05 39 32.3	-1.0
AKBB	Malin Array Si	30.35	330	ePcP	PcP	05 42 32.7	-0.5
KIEV	Kiev	30.35	329	eP	P	05 39 32.1	-1.3
KIEV				e		05 42 32.9	
KIEV				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.8						
KIEV	Kiev	30.35	329	eP	P	05 39 32.1	-1.3
	comp=Z,13nm,0.6s,mb4.8						
KIEV				ePcP	PcP	05 42 32.9	-0.4
KIEV	Kiev	30.35	329	eP	P	05 39 32.1	-1.3

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      comp=Z,13nm,0.6s,mb4.8
NISS                     30.39 312  eP     P      05 39 33.4 -0.4
BURAR Bucovina Array     30.43 321⇓iP     P      05 39 35.0 +0.9
BURAR Bucovina Array     30.43 321⇓iP     P      05 39 35.0 +0.9
BUR08 Bucovina Ar. S     30.46 322  eP     P      05 39 34.4 +0.1
BUR08 Bucovina Ar. S     30.46 322  eP     P      05 39 34.4 +0.1
BOLS  Boljevac           30.56 313⇓iP     P      05 39 35.6 +0.3
ODAN  Odare              30.70  81  eP     P      05 39 36.0 -0.7
GZR   Gura Zlata         30.73 316⇓iP     P      05 39 37.4 +0.7
GZR   Gura Zlata         30.73 316⇓iP     P      05 39 37.4 +0.7
MK31  Makanchi Array     30.86  41  i P    P      05 39 37.3 -0.5
MK31                                pmax   pmax
      comp=Z,7.0nm,0.7s,mb4.6
MK31  Makanchi Array     30.86  41  eP     P      05 39 37.2 -0.6
MK31  Makanchi Array     30.86  41  i P    P      05 39 37.3 -0.5
      comp=Z,7.0nm,0.7s,mb4.6
MKAR  Makanchi Array     30.86  41   P     P      05 39 37.6 -0.2
MKAR                                              05 42 34.2
MKAR                                pmax   pmax
      comp=Z,5.0nm,0.7s
MKAR  Makanchi Array     30.86  41   P     P      05 39 37.5 -0.3
      comp=Z,5.4nm,0.7s,mb4.5,baz=226,slow=8.6,SNR=51
MKAR                                PcP    PcP    05 42 34.2 -0.4
      comp=Z,1.0nm,0.7s,baz=248,slow=4.8,SNR=3.5
MKAR  Makanchi Array     30.86  41   P     P      05 39 37.5 -0.3
MKAR                                PcP    PcP    05 42 34.2 -0.4
MKAR  Makanchi Array     30.86  41   P     P      05 39 37.6 -0.2
      comp=Z,5.0nm,0.7s,mb4.5
MKAR  Makanchi Array     30.86  41  PcP    PcP    05 42 34.2 -0.4
TAPN  Taplejung          30.93  80  eP     P      05 39 37.5 -1.2
OBN   Obninsk            31.14 342c iP     P      05 39 39.8 -0.5
OBN                                 pmax   pmax
      comp=Z,41nm,1.2s,mb5.1
OBN   Obninsk            31.14 342  i P    P      05 39 39.8 -0.5
      comp=Z,41nm,1.2s,mb5.1
KURK  Kurchatov          31.22  32   P     P      05 39 39.4 -1.6
KURK                                pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.6
KURK  Kurchatov          31.22  32  eP     P      05 39 41.0  0.0
      comp=Z,8.7nm,0.9s,mb4.6
KURK  Kurchatov          31.22  32   P     P      05 39 39.4 -1.6
      comp=Z,10.0nm,1.0s,mb4.6
KMBO  Kilima Mbogo       31.27 212   P     P      05 39 44.3 +2.5
KMBO                                pmax   pmax
      comp=Z,4.0nm,0.9s
KMBO  Kilima Mbogo       31.27 212   P     P      05 39 44.3 +2.6
      comp=Z,3.7nm,0.8s,mb4.2,baz=23,slow=12,SNR=7.1
KMBO  Kilima Mbogo       31.27 212   P     P      05 39 44.3 +2.5
      comp=Z,4.0nm,0.9s,mb4.2
GRUS  Gruza              31.41 312  eP     P      05 39 42.4 -0.3
MOS   Moscow             31.41 343  eP     P      05 39 42.4 -0.2
MOS                                 pmax   pmax
      comp=Z,53nm,0.7s,mb5.5
MOS   Moscow             31.41 343  eP     P      05 39 42.4 -0.2
      comp=Z,53nm,0.7s,mb5.5
BZS   Buzias             31.55 316⇓iP     P      05 39 44.6 +0.6
BZS   Buzias             31.55 316  eP     P      05 39 43.2 -0.8
DIVS  Divibare           31.97 312⇓iP     P      05 39 46.9 -0.8
BBLS  Lazi&#263;i        32.27 311  eP     P      05 39 50.4  0.0
UZH   Uzhgorod           32.63 321  eP     P      05 39 53.6 +0.2
UZH                                 e             05 41 07.0
UZH   Uzhgorod           32.63 321  eP     P      05 39 53.6 +0.2
KOLS  Kolonicke sedl     32.80 322  i P    P      05 39 55.8 +0.9
KOLS                                pmax   pmax
      comp=Z,25nm,1.4s,mb5.0
KOLS  Kolonicke sedl     32.80 322  i P    P      05 39 55.8 +0.9
      comp=Z,25nm,1.4s,mb5.0
KOLS  Kolonicke sedl     32.80 322  i P    P      05 39 55.8 +0.9
      comp=Z,25nm,1.4s,mb5.0
TIP   Timpagrande        32.83 302  eP     P      05 39 55.8 +0.5
      comp=Z,15nm,0.9s,mb4.9
TIP   Timpagrande        32.83 302  eP     P      05 39 55.8 +0.5
      comp=Z,15nm,0.9s,mb4.9
WMQ   Urumqi             33.01  49⇑iP     P      05 39 57.0 +0.2
WMQ                                 pP     pP     05 40 01.5 +1.6
WMQ                                 sP     sP     05 40 04.0 +2.9
WMQ                                 PcP    PcP    05 42 40.0 -0.5
WMQ                                 eS     S      05 45 14.0 -1.2
WMQ                                 pmax   pmax
      comp=Z,11nm,0.7s,mb4.9
WMQ                                 pmax   pmax
      comp=Z,290nm,6.4s
WMQ                                 LR     LR
      comp=N,290nm,14.8s,MS4.4
WMQ                                 LR     LR
      comp=E,360nm,12.0s,MS4.4
WMQ                                 LR     LR
      comp=Z,390nm,17.3s
CRVS  Cervenica-Dubn     33.24 321  i P    P      05 39 58.7  0.0
CRVS                                pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.7
CRVS  Cervenica-Dubn     33.24 321  i P    P      05 39 58.7  0.0
      comp=Z,10nm,1.1s,mb4.7
CRVS  Cervenica-Dubn     33.24 321  i P    P      05 39 58.7  0.0
      comp=Z,10nm,1.1s,mb4.7
STHS  Stebnicka Huta     33.63 322  eP     P      05 40 01.7 -0.4
STHS  Stebnicka Huta     33.63 322  eP     P      05 40 01.7 -0.4
PKSM  Moragy             33.68 315⇓iP     P      05 40 03.1 +0.4
PKSM  Moragy             33.68 315⇑iP     P      05 40 02.4 -0.3
CUC   Castrocucco        33.71 303  eP     P      05 40 04.9 +1.9
      comp=Z,20nm,0.8s,mb5.1
CUC   Castrocucco        33.71 303  eP     P      05 40 04.9 +1.9
      comp=Z,20nm,0.8s,mb5.1
BLY   Banja Luka         34.08 312  eP     P      05 40 06.2 +0.1
MBAR  Mbarara            34.34 222⇓eP     P      05 40 09.8 +1.1
MBAR  Mbarara            34.34 222  eP     P      05 40 09.8 +1.1
VYHS  Vyhne              34.56 319  i P    P      05 40 09.8 -0.4
VYHS  Vyhne              34.56 319  i P    P      05 40 09.8 -0.4
OJC   Ojcow              34.84 322  eP     P      05 40 12.7  0.0
OJC   Ojcow              34.84 322  eP     P      05 40 12.7  0.0
SUW   Suwalki            35.32 329  eP     P      05 40 16.6 -0.2
SUW   Suwalki            35.32 329  eP     P      05 40 16.6 -0.1
SUW   Suwalki            35.32 329  eP     P      05 40 16.6 -0.1
OKC   Ostrava-Krasne     35.58 321  eP     P      05 40 19.0  0.0
OKC   Ostrava-Krasne     35.58 321  eP     P      05 40 19.0  0.0
BOJS  Bojanci            35.62 312  i P    P      05 40 19.9 +0.5
BOJS  Bojanci            35.62 312   P     P      05 40 20.0 +0.6
KLMR  Klimovskoe         35.69 349  eP     P      05 40 18.2 -1.6
KLMR                                pmax   pmax
      comp=Z,50nm,0.9s,mb5.4
KLMR  Klimovskoe         35.69 349  eP     P      05 40 18.2 -1.6
      comp=Z,50nm,0.9s,mb5.4
MORC  Moravsky Berou     35.90 320  eP     P      05 40 20.1 -1.7
MORC                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.5
MORC  Moravsky Berou     35.90 320⇓iP     P      05 40 21.2 -0.6
MORC  Moravsky Berou     35.90 320  eP     P      05 40 20.1 -1.7
      comp=Z,3.9nm,0.6s,mb4.5
MORC  Moravsky Berou     35.90 320  eP     P      05 40 20.1 -1.7
      comp=Z,4.0nm,0.6s,mb4.5
VISS  Visnje             35.99 313  i P    P      05 40 23.4 +0.8
VISS  Visnje             35.99 313  i P    P      05 40 23.4 +0.8
NVS   Novosibirsk        36.04  30  eP     P      05 40 22.4 -0.5
NVS                                 pmax   pmax
      comp=Z,17nm,1.7s,mb4.7
NVS                                 pmax   pmax
      comp=N,8.0nm,1.6s
NVS                                 pmax   pmax
      comp=E,5.0nm,1.3s
NVS   Novosibirsk        36.04  30  eP     P      05 40 22.4 -0.5
      comp=E,8.0nm,1.6s,mb4.4
PERS  Pernice            36.10 314  i P    P      05 40 24.0 +0.4
PERS  Pernice            36.10 314  i P    P      05 40 24.0 +0.5
ZAA0  Zalesovo Array     36.22  32  eP     P      05 40 23.4 -1.0
ZAA0  Zalesovo Array     36.22  32  eP     P      05 40 23.4 -1.0
ZALV  Zalesovo Beam      36.22  32   P     P      05 40 23.6 -0.8
ZALV                                              05 42 48.6
ZALV                                pmax   pmax
      comp=Z,12nm,0.6s,mb5.0
ZALV  Zalesovo Beam      36.22  32   P     P      05 40 23.6 -0.8
      comp=Z,12nm,0.6s,mb5.0,baz=237,slow=9.3,SNR=37
ZALV                                PcP    PcP    05 42 48.6 -0.9
      comp=Z,1.7nm,0.4s,baz=229,slow=4.7,SNR=4.5
LJU   Ljubljana          36.28 313  i P    P      05 40 26.0 +1.0
LJU   Ljubljana          36.28 313  i P    P      05 40 26.0 +0.9
JAVS  Javornik           36.54 313  i P    P      05 40 27.5 +0.2
JAVS  Javornik           36.54 313  i P    P      05 40 27.5 +0.2
DPC   Dobruska-Polom     36.86 320  eP     P      05 40 29.5 -0.5
DPC   Dobruska-Polom     36.86 320  eP     P      05 40 29.5 -0.5
MOA   Molln              37.08 316⇑iP     P      05 40 32.2 +0.3
      comp=Z,17nm,0.9s,mb4.9,SNR=12
MOA   Molln              37.08 316   P     P      05 40 32.2 +0.4
      comp=Z,17nm,0.9s,mb4.9,SNR=12
UPC   Upice              37.11 320  eP     P      05 40 29.1 -3.0
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KBA   Koelnbreinsper     37.39 314  i P    P      05 40 35.0 +0.5
      comp=Z,23nm,0.8s,mb5.0,SNR=20
KBA   Koelnbreinsper     37.39 314   P     P      05 40 35.0 +0.5
      comp=Z,23nm,0.8s,mb5.0,SNR=20
PRU   Pruhonice          37.74 319  eP     P      05 40 37.0 -0.4
PRU   Pruhonice          37.74 319  eP     P      05 40 37.0 -0.4
GERES GERESS Array B     37.80 317   P     P      05 40 37.6 -0.3
GERES                                             05 42 54.0
GERES                               pmax   pmax
      comp=Z,1.0nm,0.7s
GERES                               pmax   pmax
      comp=Z,2.0nm,0.7s
GERES GERESS Array B     37.80 317   P     P      05 40 37.6 -0.3
      comp=Z,1.1nm,0.7s,mb3.7,baz=114,slow=6.2,SNR=8.1
GERES                               PcP    PcP    05 42 54.0 -0.5
      comp=Z,1.5nm,0.7s,baz=151,slow=3.0,SNR=5.8
GERES GERESS Array B     37.80 317   P     P      05 40 37.6 -0.3
      comp=Z,1.0nm,0.7s,mb3.6
GERES GERESS Array B     37.80 317  PcP    PcP    05 42 54.0 -0.5
      comp=Z,2.0nm,0.7s
ABTA  Abfaltersbach      37.83 313⇑iP     P      05 40 38.7 +0.5
      comp=Z,18nm,0.8s,mb4.9,SNR=6.1
ABTA  Abfaltersbach      37.83 313   P     P      05 40 38.7 +0.5
      comp=Z,18nm,0.8s,mb4.9,SNR=6.1
KHC   Kasperske Hory     37.98 317  eP     P      05 40 38.8 -0.7
KHC   Kasperske Hory     37.98 317  eP     P      05 40 38.8 -0.7
KEST  Kesra              38.29 295   P     P      05 40 44.1 +1.9
      comp=Z,5.6nm,0.9s,mb4.3,baz=309,slow=1.4,SNR=12
BRG   Berggiesshubel     38.46 320  eP     P      05 40 43.1 -0.4
BRG                                 e             05 43 00.1
BRG                                 pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.2
BRG   Berggiesshubel     38.46 320  eP     P      05 40 43.1 -0.4
      comp=Z,8.7nm,0.9s,mb4.5
BRG                                 e             05 43 00.1
      comp=Z,17nm,1.6s
BRG   Berggiesshubel     38.46 320  eP     P      05 40 43.1 -0.4
      comp=Z,5.0nm,0.9s,mb4.2
WTTA  Wattenberg         38.56 314⇑iP     P      05 40 44.3 -0.1
      comp=Z,42nm,0.8s,mb5.2,SNR=14
WTTA  Wattenberg         38.56 314   P     P      05 40 44.3 -0.1
      comp=Z,42nm,0.8s,mb5.2,SNR=14
WATA  Walderalm          38.62 314  i P    P      05 40 44.5 -0.4
      comp=Z,30nm,0.5s,mb5.3,SNR=17
WATA  Walderalm          38.62 314   P     P      05 40 44.5 -0.4
      comp=Z,30nm,0.5s,mb5.3,SNR=17
MOTA  Moosalm            38.93 314  i P    P      05 40 46.9 -0.6
      comp=Z,27nm,0.7s,mb5.1,SNR=22
MOTA  Moosalm            38.93 314   P     P      05 40 46.9 -0.6
      comp=Z,27nm,0.7s,mb5.1,SNR=22
FETA  Feichten           39.08 313  i P    P      05 40 48.5 -0.3
      comp=Z,37nm,1.0s,mb5.1,SNR=29
FETA  Feichten           39.08 313   P     P      05 40 48.5 -0.2
      comp=Z,37nm,1.0s,mb5.1,SNR=29
CLL   Collm              39.18 320⇑iP     P      05 40 49.8 +0.3
CLL                                 pmax   pmax
      comp=Z,17nm,1.1s,mb4.7
CLL   Collm              39.18 320⇑iP     P      05 40 49.8 +0.3
      comp=Z,17nm,1.1s,mb4.7
CLL   Collm              39.18 320  i P    P      05 40 49.8 +0.3
      comp=Z,17nm,1.1s,mb4.7
RETA  Reutte             39.19 314⇑iP     P      05 40 49.0 -0.6
      comp=Z,15nm,0.5s,mb4.9,SNR=17
RETA  Reutte             39.19 314   P     P      05 40 49.0 -0.7
      comp=Z,15nm,0.5s,mb4.9,SNR=17
JOF   Joensuu            39.27 345  eP     P      05 40 48.6 -1.5
JOF                                 pmax   pmax
      comp=Z,22nm,0.9s,mb4.9
JOF   Joensuu            39.27 345  ep     P      05 40 48.6 -1.5
      comp=Z,22nm,0.9s,mb4.9
JOF   Joensuu            39.27 345  eP     P      05 40 48.6 -1.5
      comp=Z,22nm,0.9s,mb4.9
DAVA  Damuels            39.71 313  i P    P      05 40 53.7 -0.3
      comp=Z,46nm,0.6s,mb5.4,SNR=9.8
DAVA  Damuels            39.71 313   P     P      05 40 53.7 -0.3
      comp=Z,46nm,0.6s,mb5.4,SNR=9.8
KAF   Kangasniemi        39.95 341  eP     P      05 40 54.4 -1.4
KAF                                 pmax   pmax
      comp=Z,13nm,1.0s,mb4.6
KAF   Kangasniemi        39.95 341  ep     P      05 40 54.4 -1.4
      comp=Z,13nm,1.0s,mb4.6
KAF   Kangasniemi        39.95 341  eP     P      05 40 54.4 -1.4
      comp=Z,13nm,1.0s,mb4.6
SBF   Sospel             40.60 307  eP     P      05 41 00.7 -0.7
      comp=Z,56nm,1.0s,mb4.8
SBF   Sospel             40.60 307  eP     P      05 41 00.7 -0.7
SBF                                 pmax   pmax
      comp=Z,28nm,1.0s,mb4.8
SBF   Sospel             40.60 307  eP     P      05 41 00.7 -0.7
      comp=Z,28nm,1.0s,mb4.8
SBF   Sospel             40.60 307  eP     P      05 41 00.7 -0.7
      comp=Z,28nm,1.0s,mb4.8
GTA   Gaotai             40.98  59  eP     P      05 41 04.6 -0.1
GTA                                 pP     pP     05 41 09.1 +1.3
GTA                                 sP     sP     05 41 12.5 +3.5
GTA                                 pmax   pmax
      comp=Z,5.0nm,1.2s,mb4.0
BFO   Black Forest       41.00 314  eP     P      05 41 04.2 -0.5
BFO                                 pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.3
BFO   Black Forest       41.00 314  eP     P      05 41 04.2 -0.5
      comp=Z,5.7nm,0.7s,mb4.3
BFO   Black Forest       41.00 314  eP     P      05 41 04.2 -0.5
      comp=Z,6.0nm,0.7s,mb4.3
MBDF  Montbardon         41.22 309  eP     P      05 41 06.1 -0.5
      comp=Z,23nm,0.7s,mb4.7
MBDF  Montbardon         41.22 309  eP     P      05 41 06.1 -0.5
MBDF                                pmax   pmax
      comp=Z,12nm,0.7s,mb4.6
MBDF  Montbardon         41.22 309  eP     P      05 41 06.1 -0.5
      comp=Z,12nm,0.7s,mb4.6
MBDF  Montbardon         41.22 309  eP     P      05 41 06.1 -0.5
      comp=Z,12nm,0.7s,mb4.7
KRAR  Krasnoyarsk        41.23  33  i P    P      05 41 07.7 +1.2
KRAR  Krasnoyarsk        41.23  33  i P    P      05 41 07.7 +1.2
BNI   Bardonecchia       41.35 309  eP     P      05 41 07.1 -0.5
BNI                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.5
BNI   Bardonecchia       41.35 309  eP     P      05 41 07.1 -0.5
      comp=Z,10nm,0.8s,mb4.5
BNI   Bardonecchia       41.35 309  eP     P      05 41 07.1 -0.5
      comp=Z,10.0nm,0.8s,mb4.5
LPG   La Plagne          41.38 310  eP     P      05 41 07.4 -0.5
      comp=Z,21nm,0.7s,mb4.6
LPG   La Plagne          41.38 310  eP     P      05 41 07.4 -0.5
LPG                                 pmax   pmax
      comp=Z,11nm,0.7s,mb4.6
LPG   La Plagne          41.38 310  eP     P      05 41 07.4 -0.5
      comp=Z,11nm,0.7s,mb4.6
LPG   La Plagne          41.38 310  eP     P      05 41 07.4 -0.5
      comp=Z,11nm,0.7s,mb4.6
LPL   La Plagne          41.40 310  eP     P      05 41 07.4 -0.6
      comp=Z,21nm,0.7s,mb4.6
LPL   La Plagne          41.40 310  eP     P      05 41 07.4 -0.6
LPL                                 pmax   pmax
      comp=Z,11nm,0.7s,mb4.6
LPL   La Plagne          41.40 310  eP     P      05 41 07.4 -0.6
      comp=Z,11nm,0.7s,mb4.6
LPL   La Plagne          41.40 310  eP     P      05 41 07.4 -0.6
      comp=Z,11nm,0.7s,mb4.6
CDF   Champ du Feu       41.70 314  eP     P      05 41 09.4 -1.0
      comp=Z,9.4nm,0.6s,mb4.3
CDF   Champ du Feu       41.70 314  eP     P      05 41 09.4 -1.0
CDF                                 pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.3
CDF   Champ du Feu       41.70 314  eP     P      05 41 09.4 -1.0
      comp=Z,4.7nm,0.6s,mb4.3
CDF   Champ du Feu       41.70 314  eP     P      05 41 09.4 -1.0
      comp=Z,4.7nm,0.6s,mb4.3
ECH   Echery             41.73 314  eP     P      05 41 09.5 -1.1
ECH                                 pmax   pmax
      comp=Z,17nm,1.0s,mb4.6
ECH   Echery             41.73 314  eP     P      05 41 09.5 -1.1
      comp=Z,17nm,1.0s,mb4.6
ECH   Echery             41.73 314  eP     P      05 41 09.5 -1.1
      comp=Z,17nm,1.0s,mb4.6
HINF  Hinteralfeld       41.82 313⇑iP     P      05 41 10.5 -1.0
      comp=Z,17nm,0.8s,mb4.4
HINF  Hinteralfeld       41.82 313⇑iP     P      05 41 10.5 -1.0
HINF                                pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.4
HINF  Hinteralfeld       41.82 313⇑iP     P      05 41 10.5 -1.0
      comp=Z,8.3nm,0.8s,mb4.4
HINF  Hinteralfeld       41.82 313⇑iP     P      05 41 10.5 -1.0
      comp=Z,8.3nm,0.8s,mb4.4
CABF  La Chapelle        42.06 311⇑iP     P      05 41 13.0 -0.4
      comp=Z,24nm,0.6s,mb4.7
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CABF  La Chapelle        42.06 311⇑iP     P      05 41 13.0 -0.4
CABF                                pmax   pmax
      comp=Z,12nm,0.6s,mb4.7
CABF  La Chapelle        42.06 311⇑iP     P      05 41 13.0 -0.4
      comp=Z,12nm,0.6s,mb4.7
CABF  La Chapelle        42.06 311⇑iP     P      05 41 13.0 -0.4
      comp=Z,12nm,0.6s,mb4.7
HAU   Haudompre          42.20 313  eP     P      05 41 13.4 -1.1
      comp=Z,15nm,0.7s,mb4.5
HAU   Haudompre          42.20 313  eP     P      05 41 13.4 -1.1
HAU                                 pmax   pmax
      comp=Z,8.0nm,0.7s,mb4.5
HAU   Haudompre          42.20 313  eP     P      05 41 13.4 -1.1
      comp=Z,7.6nm,0.7s,mb4.4
HAU   Haudompre          42.20 313  eP     P      05 41 13.4 -1.1
      comp=Z,7.6nm,0.7s,mb4.5
VIVF  Saint-Julien-l     42.72 308  eP     P      05 41 18.1 -0.7
      comp=Z,14nm,0.8s,mb4.5
VIVF  Saint-Julien-l     42.72 308  eP     P      05 41 18.1 -0.7
VIVF                                pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.4
VIVF  Saint-Julien-l     42.72 308  eP     P      05 41 18.1 -0.7
      comp=Z,7.1nm,0.8s,mb4.5
VIVF  Saint-Julien-l     42.72 308  eP     P      05 41 18.1 -0.7
      comp=Z,7.1nm,0.8s,mb4.5
WLF   Walferdange        42.74 316   P     P      05 41 18.2 -0.7
WLF   Walferdange        42.74 316   P     P      05 41 18.1 -0.8
APA   Apatity            42.93 349⇑iP     P      05 41 20.0 -0.2
APA                                 pmax   pmax
      comp=Z,40nm,1.2s,mb5.0
APA   Apatity            42.93 349  i P    P      05 41 20.0 -0.2
      comp=Z,40nm,1.2s,mb5.0
CMAR  Chiang Mai Arr     43.02  91   P     P      05 41 21.4 -0.2
CMAR                                              05 43 11.5
CMAR                                pmax   pmax
      comp=Z,2.0nm,0.6s
CMAR  Chiang Mai Arr     43.02  91   P     P      05 41 21.4 -0.2
      comp=Z,1.8nm,0.6s,mb4.0,baz=286,slow=9.9,SNR=6.3
CMAR                                PcP    PcP    05 43 11.4 -0.4
      comp=Z,1.9nm,0.7s,baz=288,slow=4.3,SNR=6.8
CMAR  Chiang Mai Arr     43.02  91   P     P      05 41 21.4 -0.2
      comp=Z,2.0nm,0.6s,mb4.0
CMAR  Chiang Mai Arr     43.02  91  PcP    PcP    05 43 11.5 -0.4
TAM   Tamanrasset        43.13 276  eP     P      05 41 23.9 +1.4
TAM                                 pmax   pmax
      comp=Z,11nm,0.9s,mb4.6
TAM   Tamanrasset        43.13 276  eP     P      05 41 23.9 +1.4
      comp=Z,11nm,0.9s,mb4.6
TAM   Tamanrasset        43.13 276  eP     P      05 41 23.9 +1.4
      comp=Z,11nm,0.9s,mb4.6
MEZF  Maizieres J’vi     43.16 314⇑iP     P      05 41 22.0 -0.3
      comp=Z,30nm,0.7s,mb4.8
MEZF  Maizieres J’vi     43.16 314⇑iP     P      05 41 22.0 -0.3
      comp=Z,30nm,0.7s,mb5.1
MEZF  Maizieres J’vi     43.16 314⇑iP     P      05 41 22.0 -0.3
      comp=Z,15nm,0.7s,mb4.8
LASF  Ste Croix          43.18 307  eP     P      05 41 22.5 -0.1
      comp=Z,32nm,1.1s,mb4.7
LASF  Ste Croix          43.18 307  eP     P      05 41 22.5 -0.1
      comp=Z,16nm,1.1s,mb4.7
BCLA  Clavier            43.47 317   P     P      05 41 25.1 +0.3
      comp=Z,23nm,1.9s,mb4.6
BCLA  Clavier            43.47 317   P     P      05 41 25.0 +0.2
      comp=Z,23nm,1.9s,mb4.6
SMF   Signal de Mont     43.59 311⇑iP     P      05 41 25.0 -0.8
      comp=Z,34nm,0.7s,mb4.9
SMF   Signal de Mont     43.59 311⇑iP     P      05 41 25.0 -0.8
SMF                                 pmax   pmax
      comp=Z,17nm,0.7s,mb4.9
SMF   Signal de Mont     43.59 311⇑iP     P      05 41 25.0 -0.8
      comp=Z,17nm,0.7s,mb4.9
SMF   Signal de Mont     43.59 311⇑iP     P      05 41 25.0 -0.8
      comp=Z,17nm,0.7s,mb4.9
GIVF  Givet              43.69 316  eP     P      05 41 26.7 +0.2
GIVF  Givet              43.69 316  eP     P      05 41 26.7 +0.2
LOR   Lormes             43.69 312⇑iP     P      05 41 25.7 -0.9
      comp=Z,11nm,0.7s,mb4.4
LOR   Lormes             43.69 312⇑iP     P      05 41 25.7 -0.9
LOR                                 pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.4
LOR   Lormes             43.69 312⇑iP     P      05 41 25.7 -0.9
      comp=Z,5.7nm,0.7s,mb4.4
LOR   Lormes             43.69 312⇑iP     P      05 41 25.7 -0.9
      comp=Z,5.7nm,0.7s,mb4.4
DOU   Dourbes            43.83 316   P     P      05 41 28.1 +0.5
DOU                                 XP     sP     05 41 32.0  0.0
DOU   Dourbes            43.83 316   P     P      05 41 28.1 +0.4
SSF   Saint Saulge       43.89 311⇑iP     P      05 41 27.6 -0.6
      comp=Z,40nm,1.0s,mb4.8
SSF   Saint Saulge       43.89 311⇑iP     P      05 41 27.6 -0.6
SSF                                 pmax   pmax
      comp=Z,20nm,1.0s,mb4.8
SSF   Saint Saulge       43.89 311⇑iP     P      05 41 27.6 -0.6
      comp=Z,20nm,1.0s,mb4.8
SSF   Saint Saulge       43.89 311⇑iP     P      05 41 27.6 -0.6
      comp=Z,20nm,1.0s,mb4.8
AVF   Avril sur Loir     43.94 311⇑iP     P      05 41 27.7 -0.9
      comp=Z,14nm,0.8s,mb4.4
AVF   Avril sur Loir     43.94 311⇑iP     P      05 41 27.7 -0.9
AVF                                 pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.4
AVF   Avril sur Loir     43.94 311⇑iP     P      05 41 27.7 -0.9
      comp=Z,7.0nm,0.8s,mb4.4
AVF   Avril sur Loir     43.94 311⇑iP     P      05 41 27.7 -0.9
      comp=Z,7.0nm,0.8s,mb4.4
MOY   Mondy              43.99  42  eP     P      05 41 29.8 +0.8
MOY   Mondy              43.99  42  eP     P      05 41 29.8 +0.8
BAIF  Baives             44.06 316  eP     P      05 41 29.9 +0.4
      comp=Z,76nm,0.9s,mb5.2
BAIF  Baives             44.06 316  eP     P      05 41 29.9 +0.4
BAIF                                pmax   pmax
      comp=Z,38nm,0.9s,mb5.1
BAIF  Baives             44.06 316  eP     P      05 41 29.9 +0.4
      comp=Z,38nm,0.9s,mb5.1
BAIF  Baives             44.06 316  eP     P      05 41 29.9 +0.4
      comp=Z,38nm,0.9s,mb5.2
LZH   Lanzhou            44.13  64  eP     P      05 41 30.6 +0.3
LZH                                 pP     pP     05 41 33.5 +0.1
LZH                                 sP     sP     05 41 35.0 +0.3
LZH                                 pmax   pmax
      comp=Z,18nm,1.0s,mb4.8
LZH                                 pmax   pmax
      comp=Z,80nm,4.8s
UCC   Uccle              44.15 317   P     P      05 41 30.9 +0.6
UCC   Uccle              44.15 317   P     P      05 41 30.8 +0.6
BGF   Bois d’Agland      44.25 311⇑iP     P      05 41 30.6 -0.5
      comp=Z,34nm,0.9s,mb4.8
BGF   Bois d’Agland      44.25 311⇑iP     P      05 41 30.6 -0.5
BGF                                 pmax   pmax
      comp=Z,17nm,0.9s,mb4.8
BGF   Bois d’Agland      44.25 311⇑iP     P      05 41 30.6 -0.5
      comp=Z,17nm,0.9s,mb4.8
BGF   Bois d’Agland      44.25 311⇑iP     P      05 41 30.6 -0.5
      comp=Z,17nm,0.9s,mb4.8
MTLF  Montolieu          44.28 306  eP     P      05 41 32.1 +0.7
      comp=Z,39nm,0.9s,mb4.8
MTLF  Montolieu          44.28 306  eP     P      05 41 32.1 +0.7
MTLF                                pmax   pmax
      comp=Z,20nm,0.9s,mb4.8
MTLF  Montolieu          44.28 306  eP     P      05 41 32.1 +0.7
      comp=Z,20nm,0.9s,mb4.8
MTLF  Montolieu          44.28 306  eP     P      05 41 32.1 +0.7
      comp=Z,20nm,0.9s,mb4.8
CD2   Chengdu            44.48  72   P     P      05 41 32.6 -0.6
CD2                                 pP     pP     05 41 36.5 +0.2
CD2                                 sP     sP     05 41 38.7 +1.1
CD2                                 PP     PP     05 43 17.8 +0.9
CD2                                 S      S      05 48 06.5 -2.0
CD2                                 pmax   pmax
      comp=Z,10.0nm,0.5s,mb4.8
CD2                                 pmax   pmax
      comp=Z,210nm,4.9s
CD2                                 LR     LR
      comp=N,430nm,4.7s
CD2                                 LR     LR
      comp=Z,190nm,9.5s
HYF   Humbligny          44.51 312  eP     P      05 41 33.2 +0.1
HYF   Humbligny          44.51 312  eP     P      05 41 33.2 +0.1
CAF   Calviac            44.56 308  eP     P      05 41 33.8 +0.2
      comp=Z,40nm,0.8s,mb5.0
CAF   Calviac            44.56 308  eP     P      05 41 33.8 +0.2
CAF                                 pmax   pmax
      comp=Z,20nm,0.8s,mb5.0
CAF   Calviac            44.56 308  eP     P      05 41 33.8 +0.2
      comp=Z,20nm,0.8s,mb5.0
CAF   Calviac            44.56 308  eP     P      05 41 33.8 +0.2
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           comp=Z,20nm,0.8s,mb5.0
KMI   Kunming          44.60  80  P      P      05 41 34.8 +0.6
KMI                               pmax   pmax
           comp=Z,15nm,1.3s,mb4.7
TCF   Toulx Ste Croi   44.64 310⇑iP      P      05 41 34.0 -0.3
           comp=Z,36nm,0.8s,mb5.0
TCF   Toulx Ste Croi   44.64 310⇑iP      P      05 41 34.0 -0.3
TCF                               pmax   pmax
           comp=Z,18nm,0.8s,mb5.0
TCF   Toulx Ste Croi   44.64 310⇑iP      P      05 41 34.0 -0.3
           comp=Z,18nm,0.8s,mb5.0
TCF   Toulx Ste Croi   44.64 310⇑iP      P      05 41 34.0 -0.3
           comp=Z,18nm,0.8s,mb5.0
KONO  Kongsberg        44.65 330 i P     P      05 41 37.3 +3.2
NB2   NORSAR Subarra   44.65 333  P      P      05 41 33.0 -1.1
           comp=Z,15nm,0.7s,mb4.9,baz=122,slow=8.6
NB2   NORSAR Subarra   44.65 333  P      P      05 41 33.0 -1.1
           comp=Z,15nm,0.7s,mb4.9,baz=122,slow=8.2,SNR=7.7
NOA   NORSAR Array B   44.65 333  P      P      05 41 33.3 -0.8
NOA                               pmax   pmax
           comp=Z,13nm,0.7s
NOA   NORSAR Array B   44.65 333  P      P      05 41 33.3 -0.8
           comp=Z,13nm,0.7s,mb4.9,baz=121,slow=8.1,SNR=38
NOA   NORSAR Array B   44.65 333  P      P      05 41 33.3 -0.8
           comp=Z,13nm,0.7s,mb4.9
NAO01 NORSAR Array S   44.69 332 eP      P      05 41 32.9 -1.4
           comp=Z,9.7nm,0.7s,mb4.7
NAO01 NORSAR Array S   44.69 332 eP      P      05 41 32.9 -1.5
           comp=Z,9.6nm,0.7s,mb4.7
EPOB  Poblet           44.99 303  P      P      05 41 35.6 -1.4
           comp=Z,39nm,1.2s,mb5.1
EPOB  Poblet           44.99 303  P      P      05 41 35.6 -1.5
           comp=Z,39nm,1.2s,mb5.1
RJF   Les Rejaudoux    44.99 309⇑iP      P      05 41 37.4 +0.3
           comp=Z,65nm,1.0s,mb5.1
RJF   Les Rejaudoux    44.99 309⇑iP      P      05 41 37.4 +0.3
RJF                               pmax   pmax
           comp=Z,33nm,1.0s,mb5.1
RJF   Les Rejaudoux    44.99 309⇑iP      P      05 41 37.4 +0.3
           comp=Z,33nm,1.0s,mb5.1
RJF   Les Rejaudoux    44.99 309⇑iP      P      05 41 37.4 +0.3
           comp=Z,33nm,1.0s,mb5.1
ZAK   Zakamensk        45.07  44⇑iP      P      05 41 37.3 -0.3
ZAK                              e              05 43 14.5
ZAK                               pmax   pmax
           comp=Z,4.0nm,1.0s,mb4.2
ZAK   Zakamensk        45.07  44 i P     P      05 41 37.3 -0.3
           comp=Z,4.0nm,1.0s,mb4.2
LFF   La Frestale      45.50 308⇑iP      P      05 41 41.5 +0.4
           comp=Z,49nm,0.7s,mb5.1
LFF   La Frestale      45.50 308⇑iP      P      05 41 41.5 +0.4
LFF                               pmax   pmax
           comp=Z,24nm,0.7s,mb5.1
LFF   La Frestale      45.50 308⇑iP      P      05 41 41.5 +0.4
           comp=Z,24nm,0.7s,mb5.1
LFF   La Frestale      45.50 308⇑iP      P      05 41 41.5 +0.4
           comp=Z,24nm,0.7s,mb5.1
ERTA  Horta de San J   45.53 302  P      P      05 41 41.2 -0.3
           comp=Z,82nm,1.1s,mb5.6
ERTA  Horta de San J   45.53 302  P      P      05 41 41.2 -0.2
           comp=Z,82nm,1.1s,mb5.6
EPF   Esparros         45.63 305 eP      P      05 41 41.6 -0.5
EPF   Esparros         45.63 305 eP      P      05 41 41.6 -0.5
EBIE  Bielsa           45.75 305  P      P      05 41 43.5 +0.4
           comp=Z,22nm,0.9s,mb5.1
EBIE  Bielsa           45.75 305  P      P      05 41 43.5 +0.4
           comp=Z,22nm,0.9s,mb5.1
ARCES ARCESS Array B   46.11 347  P      P      05 41 44.5 -1.0
ARCES                                           05 43 20.3
ARCES                             pmax   pmax
           comp=Z,6.0nm,0.8s
ARCES ARCESS Array B   46.11 347  P      P      05 41 44.5 -1.0
           comp=Z,6.2nm,0.8s,mb4.6,baz=150,slow=6.7,SNR=30
ARCES                             PcP    PcP    05 43 20.3 -1.2
           comp=Z,3.1nm,0.8s,baz=160,slow=5.6,SNR=3.5
ARCES ARCESS Array B   46.11 347  P      P      05 41 44.5 -1.0
           comp=Z,6.0nm,0.8s,mb4.6
ARCES ARCESS Array B   46.11 347  PcP    PcP    05 43 20.3 -1.2
EMOS  Mosqueruela      46.14 302  P      P      05 41 47.2 +1.0
           comp=Z,53nm,1.1s,mb5.4
EMOS  Mosqueruela      46.14 302  P      P      05 41 47.2 +1.0
           comp=Z,53nm,1.1s,mb5.4
ETSF  Etsaut           46.28 305 eP      P      05 41 48.1 +0.8
           comp=Z,38nm,1.0s,mb5.0
ETSF  Etsaut           46.28 305 eP      P      05 41 48.1 +0.8
ETSF                              pmax   pmax
           comp=Z,19nm,1.0s,mb5.0
ETSF  Etsaut           46.28 305 eP      P      05 41 48.1 +0.8
           comp=Z,19nm,1.0s,mb5.0
ETSF  Etsaut           46.28 305 eP      P      05 41 48.1 +0.8
           comp=Z,19nm,1.0s,mb5.0
MFF   Saint Martin d   46.30 310 eP      P      05 41 46.8 -0.6
MFF   Saint Martin d   46.30 310 eP      P      05 41 46.8 -0.6
ECHE  Chera            46.52 301  P      P      05 41 47.7 -1.5
ECHE                              pmax   pmax
           comp=Z,6.0nm,0.8s,mb4.6
ECHE  Chera            46.52 301  P      P      05 41 47.7 -1.5
           comp=Z,6.2nm,0.8s,mb4.6
ECHE  Chera            46.52 301  P      P      05 41 47.7 -1.5
           comp=Z,6.0nm,0.8s,mb4.6
LDF   La Druitiere     46.55 313⇑iP      P      05 41 48.3 -1.0
           comp=Z,21nm,0.7s,mb4.9
LDF   La Druitiere     46.55 313⇑iP      P      05 41 48.3 -1.0
LDF                               pmax   pmax
           comp=Z,10.0nm,0.7s,mb4.8
LDF   La Druitiere     46.55 313⇑iP      P      05 41 48.3 -1.0
           comp=Z,10nm,0.7s,mb4.9
LDF   La Druitiere     46.55 313⇑iP      P      05 41 48.3 -1.0
           comp=Z,10nm,0.7s,mb4.9
SONM  Songino Array    46.63  48  P      P      05 41 50.0 +0.1
SONM                              pmax   pmax
           comp=Z,3.0nm,0.6s
SONM  Songino Array    46.63  48  P      P      05 41 50.0  0.0
           comp=Z,2.6nm,0.6s,mb4.3,baz=267,slow=9.5,SNR=24
SONM  Songino Array    46.63  48  P      P      05 41 50.0 +0.1
           comp=Z,3.0nm,0.6s,mb4.4
EMUR  La Murta         46.77 298  P      P      05 41 51.4 +0.1
           comp=Z,3.3nm,0.5s,mb4.5
EMUR  La Murta         46.77 298  P      P      05 41 51.4 +0.2
           comp=Z,3.3nm,0.5s,mb4.5
SJPF  Ste Jean         46.78 305⇑iP      P      05 41 52.0 +0.8
           comp=Z,30nm,0.7s,mb5.0
SJPF  Ste Jean         46.78 305⇑iP      P      05 41 52.0 +0.8
SJPF                              pmax   pmax
           comp=Z,15nm,0.7s,mb5.0
SJPF  Ste Jean         46.78 305⇑iP      P      05 41 52.0 +0.8
           comp=Z,15nm,0.7s,mb5.0
SJPF  Ste Jean         46.78 305⇑iP      P      05 41 52.0 +0.8
           comp=Z,15nm,0.7s,mb5.0
FLN   La Foliniere     46.81 313⇑iP      P      05 41 50.4 -1.0
           comp=Z,41nm,0.9s,mb5.1
FLN   La Foliniere     46.81 313⇑iP      P      05 41 50.4 -1.0
FLN                               pmax   pmax
           comp=Z,20nm,0.9s,mb5.0
FLN   La Foliniere     46.81 313⇑iP      P      05 41 50.4 -1.0
           comp=Z,20nm,0.9s,mb5.1
FLN   La Foliniere     46.81 313⇑iP      P      05 41 50.4 -1.0
           comp=Z,20nm,0.9s,mb5.1
ETOB  Tobarra          46.98 299  P      P      05 41 53.1 +0.2
           comp=Z,44nm,1.1s,mb5.3
ETOB  Tobarra          46.98 299  P      P      05 41 53.1 +0.2
           comp=Z,44nm,1.1s,mb5.3
GRR   Gorron           47.01 313 eP      P      05 41 53.2 +0.3
GRR   Gorron           47.01 313 eP      P      05 41 53.2 +0.3
ETOR  Torete           47.34 302  P      P      05 41 55.8 +0.1
ETOR                              pmax   pmax
           comp=Z,7.0nm,0.9s,mb4.6
ETOR  Torete           47.34 302  P      P      05 41 55.8 +0.2
           comp=Z,7.0nm,0.9s,mb4.6
ETOR  Torete           47.34 302  P      P      05 41 55.8 +0.1
           comp=Z,7.0nm,0.9s,mb4.6
ENIJ  Nijar            47.59 297  P      P      05 41 57.2 -0.4
ENIJ  Nijar            47.59 297  P      P      05 41 57.2 -0.4
WOL   Wolverton        47.70 316⇑eP      P      05 41 58.0 -0.2
WOL                               AMb    AMB    05 42 02.8
           comp=Z,166nm,1.9s,mb5.7
WOL   Wolverton        47.70 316⇑eP      P      05 41 58.0 -0.2
           comp=Z,166nm,1.9s,mb5.7
EVIA  Vianos           47.73 299  P      P      05 41 59.1 +0.4
EVIA                              pmax   pmax
           comp=Z,13nm,0.6s,mb5.1
EVIA  Vianos           47.73 299  P      P      05 41 59.1 +0.4
           comp=Z,13nm,0.6s,mb5.1
EVIA  Vianos           47.73 299  P      P      05 41 59.1 +0.4
           comp=Z,13nm,0.6s,mb5.1
GYA   Guiyang          47.76  77 eP      P      05 42 01.2 +2.1
GYA                               PcP    PcP    05 43 29.7 +1.5
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GYA                               PP     PP     05 43 51.2 +0.4
GYA                               ScP    ScP    05 47 22.4 -0.3
GYA                               S      S      05 48 55.3 -0.4
GYA                               pmax   pmax
           comp=Z,10.0nm,0.8s,mb4.9
GYA                               pmax   pmax
           comp=Z,90nm,4.9s
GYA                               LR     LR
           comp=N,460nm,15.3s,MS4.7
GYA                               LR     LR
           comp=E,440nm,14.5s,MS4.7
GYA                               LR     LR
           comp=Z,420nm,14.9s,MS4.5
EHUE  Huescar          47.84 298  P      P      05 41 58.6 -1.0
EHUE                              pmax   pmax
           comp=Z,7.0nm,0.9s,mb4.7
EHUE  Huescar          47.84 298  P      P      05 41 58.6 -1.0
           comp=Z,6.7nm,0.9s,mb4.7
EHUE  Huescar          47.84 298  P      P      05 41 58.6 -1.0
           comp=Z,7.0nm,0.9s,mb4.7
LSZ   Lusaka           47.90 213 eP      P      05 42 01.7 +1.5
LSZ                               pmax   pmax
           comp=Z,3.0nm,0.8s,mb4.4
LSZ   Lusaka           47.90 213 eP      P      05 42 01.7 +1.5
           comp=Z,3.1nm,0.8s,mb4.4
LSZ   Lusaka           47.90 213 eP      P      05 42 01.7 +1.5
           comp=Z,3.0nm,0.8s,mb4.4
CWF   Charnwood Fore   48.02 318 eP      P      05 42 00.2 -0.4
CWF                               AMb    AMB    05 42 01.2
           comp=Z,63nm,1.8s,mb5.3
CWF   Charnwood Fore   48.02 318 eP      P      05 42 00.2 -0.5
           comp=Z,63nm,1.8s,mb5.3
SGMF  Saint Gilles     48.11 312 eP      P      05 42 00.9 -0.6
           comp=Z,55nm,0.9s,mb5.3
SGMF  Saint Gilles     48.11 312 eP      P      05 42 00.9 -0.6
SGMF                              pmax   pmax
           comp=Z,28nm,0.9s,mb5.3
SGMF  Saint Gilles     48.11 312 eP      P      05 42 00.9 -0.6
           comp=Z,28nm,0.9s,mb5.3
SGMF  Saint Gilles     48.11 312 eP      P      05 42 00.9 -0.6
           comp=Z,28nm,0.9s,mb5.3
EBER  Berja            48.14 297  P      P      05 42 02.6 +0.7
           comp=Z,42nm,0.9s,mb5.5
EBER  Berja            48.14 297  P      P      05 42 02.6 +0.7
           comp=Z,42nm,0.9s,mb5.5
EQES  Quesada          48.22 298  P      P      05 42 02.8 +0.3
           comp=Z,62nm,1.3s,mb5.5
EQES  Quesada          48.22 298  P      P      05 42 02.8 +0.3
           comp=Z,62nm,1.3s,mb5.5
KWE   Weaver Farm      48.39 319 eP      P      05 42 03.1 -0.5
KWE   Weaver Farm      48.39 319 eP      P      05 42 03.1 -0.5
QUIF  Quistinic        48.48 312 eP      P      05 42 03.4 -1.0
           comp=Z,37nm,0.9s,mb5.1
QUIF  Quistinic        48.48 312 eP      P      05 42 03.4 -1.0
QUIF                              pmax   pmax
           comp=Z,19nm,0.9s,mb5.1
QUIF  Quistinic        48.48 312 eP      P      05 42 03.4 -1.0
           comp=Z,19nm,0.9s,mb5.1
QUIF  Quistinic        48.48 312 eP      P      05 42 03.4 -1.0
           comp=Z,19nm,0.9s,mb5.1
LHO   Holmfirth        48.50 319 eP      P      05 42 03.8 -0.7
LHO   Holmfirth        48.50 319 eP      P      05 42 03.8 -0.6
ROSF  Rostrenen        48.60 312 eP      P      05 42 04.3 -0.9
           comp=Z,126nm,1.2s,mb5.5
ROSF  Rostrenen        48.60 312 eP      P      05 42 04.3 -0.9
ROSF                              pmax   pmax
           comp=Z,63nm,1.2s,mb5.5
ROSF  Rostrenen        48.60 312 eP      P      05 42 04.3 -0.9
           comp=Z,63nm,1.2s,mb5.5
ROSF  Rostrenen        48.60 312 eP      P      05 42 04.3 -0.9
           comp=Z,63nm,1.2s,mb5.5
ECOG  Cogollos-Vega    48.65 298  P      P      05 42 05.2 -0.6
ECOG                              pmax   pmax
           comp=Z,5.0nm,0.6s,mb4.7
ECOG  Cogollos-Vega    48.65 298  P      P      05 42 05.2 -0.6
           comp=Z,4.5nm,0.6s,mb4.7
ECOG  Cogollos-Vega    48.65 298  P      P      05 42 05.2 -0.6
           comp=Z,5.0nm,0.6s,mb4.7
EGUA  Guajares         48.68 297  P      P      05 42 06.1  0.0
EGUA                              pmax   pmax
           comp=Z,42nm,0.6s,mb5.7
EGUA  Guajares         48.68 297  P      P      05 42 06.1  0.0
           comp=Z,42nm,0.6s,mb5.6
EGUA  Guajares         48.68 297  P      P      05 42 06.1  0.0
           comp=Z,42nm,0.6s,mb5.7
EBAN  Banos Encina     48.76 299  P      P      05 42 07.2 +0.5
EBAN                              pmax   pmax
           comp=Z,9.0nm,0.6s,mb5.0
EBAN  Banos Encina     48.76 299  P      P      05 42 07.2 +0.5
           comp=Z,8.7nm,0.6s,mb5.0
EBAN  Banos Encina     48.76 299  P      P      05 42 07.2 +0.5
           comp=Z,9.0nm,0.6s,mb5.0
ESDC  Sonseca Array    48.83 301  P      P      05 42 07.1  0.0
           comp=Z,8.1nm,0.8s,mb4.8,baz=80,slow=7.6,SNR=31
ESDC  Sonseca Array    48.83 301  P      P      05 42 07.4 +0.2
           comp=Z,6.4nm,0.8s,mb4.7
ESDC  Sonseca Array    48.83 301  P      P      05 42 07.4 +0.3
           comp=Z,6.4nm,0.8s,mb4.7
ERON  Agron            48.86 297  P      P      05 42 07.0 -0.4
ERON  Agron            48.86 297  P      P      05 42 07.0 -0.4
MCH1  Michaelchurch    48.91 317⇑eP      P      05 42 06.9 -0.6
MCH1                              AMb    AMB    05 42 08.4
           comp=Z,111nm,1.4s,mb5.7
MCH1  Michaelchurch    48.91 317⇑eP      P      05 42 06.9 -0.6
           comp=Z,111nm,1.4s,mb5.7
GUD   Guadarrama       48.94 302  P      P      05 42 08.3 +0.3
GUD                               pmax   pmax
           comp=Z,10.0nm,0.8s,mb4.9
GUD   Guadarrama       48.94 302  P      P      05 42 08.3 +0.3
           comp=Z,9.9nm,0.8s,mb4.9
GUD   Guadarrama       48.94 302  P      P      05 42 08.3 +0.3
           comp=Z,10.0nm,0.8s,mb4.9
XAL   Allendale        48.98 321 eP      P      05 42 07.7 -0.4
XAL   Allendale        48.98 321 eP      P      05 42 07.7 -0.4
HTR   Trewern Hill     49.08 317⇑eP      P      05 42 08.0 -1.0
HTR   Trewern Hill     49.08 317⇑eP      P      05 42 08.0 -0.9
ELOJ  Sierra Loja      49.12 297  P      P      05 42 08.4 -1.1
ELOJ                              pmax   pmax
           comp=Z,10.0nm,0.8s,mb4.9
ELOJ  Sierra Loja      49.12 297  P      P      05 42 08.4 -1.0
           comp=Z,9.7nm,0.8s,mb4.9
ELOJ  Sierra Loja      49.12 297  P      P      05 42 08.4 -1.1
           comp=Z,10.0nm,0.8s,mb4.9
ELUQ  Luque            49.18 298  P      P      05 42 09.1 -0.8
ELUQ                              pmax   pmax
           comp=Z,6.0nm,0.5s,mb4.9
ELUQ  Luque            49.18 298  P      P      05 42 09.1 -0.8
           comp=Z,5.6nm,0.5s,mb4.8
ELUQ  Luque            49.18 298  P      P      05 42 09.1 -0.8
           comp=Z,6.0nm,0.5s,mb4.9
SBD1  Bryn Du          49.21 318 eP      P      05 42 09.9  0.0
SBD1  Bryn Du          49.21 318 eP      P      05 42 09.9  0.0
HEX   Exmoor           49.26 316⇑eP      P      05 42 09.4 -0.9
HEX   Exmoor           49.26 316⇑eP      P      05 42 09.4 -0.9
EADA  Adamuz           49.39 299  P      P      05 42 11.0 -0.4
           comp=Z,13nm,0.6s,mb5.2
EADA  Adamuz           49.39 299  P      P      05 42 11.0 -0.5
           comp=Z,13nm,0.6s,mb5.2
ESY   Stoneypath       49.44 322⇑eP      P      05 42 11.3 -0.2
ESY   Stoneypath       49.44 322⇑eP      P      05 42 11.3 -0.3
TZK   Tazeka           49.46 293 i P     P      05 42 13.5 +1.4
EBL   Broad Law        49.64 322⇑eP      P      05 42 12.8 -0.3
EBL   Broad Law        49.64 322⇑eP      P      05 42 12.8 -0.3
WPM1  Penmaenmawr      49.66 319 eP      P      05 42 11.9 -1.4
WPM1  Penmaenmawr      49.66 319 eP      P      05 42 11.9 -1.4
EMIJ  Mijas            49.67 297  P      P      05 42 13.3 -0.3
           comp=Z,19nm,0.7s,mb5.2
EMIJ  Mijas            49.67 297  P      P      05 42 13.3 -0.4
           comp=Z,19nm,0.7s,mb5.2
TORD  Torodi Ar. Bea   49.74 265  P      P      05 42 14.8 +0.4
           comp=Z,23nm,0.9s,mb5.2,baz=60,slow=7.4,SNR=155
EDI   Edinburgh        49.76 322⇑eP      P      05 42 13.5 -0.5
EDI                               AMb    AMB    05 42 28.9
           comp=Z,136nm,1.7s,mb5.7
EDI   Edinburgh        49.76 322⇑eP      P      05 42 13.5 -0.5
           comp=Z,136nm,1.7s,mb5.7
LRW   Lerwick          49.83 328 eP      P      05 42 14.2 -0.3
LRW   Lerwick          49.83 328  P      P      05 42 14.2 -0.3
LRW   Lerwick          49.83 328 eP      P      05 42 14.2 -0.2
ZFT   Errachidia       49.89 291 i P     P      05 42 17.0 +1.6
EBH   Black Hill       50.00 323 eP      P      05 42 15.0 -0.8
EBH   Black Hill       50.00 323 eP      P      05 42 15.0 -0.8
HHC   Hu-ho-hao-te     50.01  58 eP      P      05 42 16.5 +0.3
HHC                               pP     pP     05 42 21.0 +1.7
HHC                               sP     sP     05 42 23.8 +3.2
HHC                               PP     PP     05 44 10.7 -0.3
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HHC                               PcS    PcS    05 47 32.9  0.0
HHC                              eS      S      05 49 24.3 -2.7
HHC                               ScS    ScS    05 52 04.6 -3.2
HHC                               pmax   pmax
           comp=Z,9.0nm,0.7s,mb4.9
HHC                               pmax   pmax
           comp=Z,180nm,5.0s
HHC                               LR     LR
           comp=N,130nm,17.8s,MS4.2
HHC                               LR     LR
           comp=E,150nm,15.5s,MS4.2
HHC                               LR     LR
           comp=Z,97nm,15.5s,MS3.9
YRC   Rhoscolyn        50.05 319 eP      P      05 42 16.1 -0.2
YRC   Rhoscolyn        50.05 319 eP      P      05 42 16.1 -0.2
ECAB  El Cabril        50.05 299  P      P      05 42 16.4 -0.2
           comp=Z,35nm,0.6s,mb5.6
ECAB  El Cabril        50.05 299  P      P      05 42 16.4 -0.2
           comp=Z,35nm,0.6s,mb5.6
MCD   Coleburn Disti   50.17 324 eP      P      05 42 16.7 -0.4
MCD   Coleburn Disti   50.17 324 eP      P      05 42 16.7 -0.4
EJIF  Jimena Fronter   50.24 297  P      P      05 42 18.0  0.0
EJIF                              pmax   pmax
           comp=Z,9.0nm,0.8s,mb4.8
EJIF  Jimena Fronter   50.24 297  P      P      05 42 18.0  0.0
           comp=Z,9.2nm,0.8s,mb4.9
EJIF  Jimena Fronter   50.24 297  P      P      05 42 18.0  0.0
           comp=Z,9.0nm,0.8s,mb4.8
CZD   Col de Zad       50.32 292 i P     P      05 42 21.0 +2.4
GAL1  Galloway         50.40 321⇑eP      P      05 42 18.1 -0.8
GAL1                              AMb    AMB    05 42 27.8
           comp=Z,49nm,1.9s,mb5.2
GAL1  Galloway         50.40 321⇑eP      P      05 42 18.1 -0.8
           comp=Z,49nm,1.9s,mb5.2
MIF   Mishlifen        50.42 293 i P     P      05 42 21.0 +1.6
EAB   Aberfoyle        50.44 322 eP      P      05 42 18.5 -0.7
EAB   Aberfoyle        50.44 322 eP      P      05 42 18.5 -0.7
RSA   Sarsar           50.71 295 i P     P      05 42 22.5 +0.9
MDO   Dochfour         50.72 324 eP      P      05 42 20.6 -0.7
MDO   Dochfour         50.72 324 eP      P      05 42 20.6 -0.7
ECAL  Calabor          50.84 304  P      P      05 42 22.5 +0.1
           comp=Z,49nm,1.2s,mb5.3
ECAL  Calabor          50.84 304  P      P      05 42 22.5  0.0
           comp=Z,49nm,1.2s,mb5.3
PBRG  Braganca         50.85 304 eP      P      05 42 23.3 +0.8
           comp=Z,26nm,2.5s,mb4.7
PBRG  Braganca         50.85 304 eP      P      05 42 23.3 +0.8
           comp=Z,26nm,2.5s,mb4.7
GMM   Mts of Mourne    51.01 320 eP      P      05 42 22.9 -0.6
GMM   Mts of Mourne    51.01 320 eP      P      05 42 22.9 -0.6
EMIN  Mina Concepcio   51.07 298  P      P      05 42 22.9 -1.3
           comp=Z,18nm,0.8s,mb5.0
EMIN  Mina Concepcio   51.07 298  P      P      05 42 22.9 -1.3
           comp=Z,18nm,0.8s,mb5.0
MVO   Moncorvo         51.10 303 eP      P      05 42 25.3 +0.9
           comp=Z,61nm,1.3s,mb5.4
MVO   Moncorvo         51.10 303 eP      P      05 42 25.3 +0.9
           comp=Z,61nm,1.3s,mb5.4
EPON  Pontenova        51.11 306  P      P      05 42 23.8 -0.7
           comp=Z,74nm,1.3s,mb5.5
EPON  Pontenova        51.11 306  P      P      05 42 23.8 -0.6
           comp=Z,74nm,1.3s,mb5.5
ERUA  La Rua           51.13 304  P      P      05 42 24.8 +0.2
ERUA                              pmax   pmax
           comp=Z,10.0nm,0.6s,mb4.9
ERUA  La Rua           51.13 304  P      P      05 42 24.8 +0.2
           comp=Z,10nm,0.6s,mb4.9
ERUA  La Rua           51.13 304  P      P      05 42 24.8 +0.2
           comp=Z,10.0nm,0.6s,mb4.9
KIB   El Ksiba         51.22 292 i P     P      05 42 27.0 +1.6
KAC   Achnashellach    51.23 324⇑eP      P      05 42 24.1 -1.0
KAC   Achnashellach    51.23 324⇑eP      P      05 42 24.1 -1.0
EBAD  Badajoz          51.25 300  P      P      05 42 24.6 -1.0
           comp=Z,14nm,0.6s,mb5.1
EBAD  Badajoz          51.25 300  P      P      05 42 24.6 -1.0
           comp=Z,14nm,0.6s,mb5.1
KPL   Plockton         51.38 324⇑eP      P      05 42 26.1 -0.1
KPL                               AMb    AMB    05 42 27.4
           comp=Z,145nm,1.5s,mb5.7
KPL   Plockton         51.38 324⇑eP      P      05 42 26.1 -0.1
           comp=Z,145nm,1.5s,mb5.7
KAR1  Arisaig          51.39 323⇑eP      P      05 42 26.1 -0.2
KAR1  Arisaig          51.39 323⇑eP      P      05 42 26.1 -0.2
PMRV  Marv??o          51.49 301 eP      P      05 42 27.5 +0.2
           comp=Z,31nm,1.8s,mb4.9
PMRV  Marv??o          51.49 301 eP      P      05 42 27.5 +0.2
           comp=Z,31nm,1.8s,mb4.9
PVRL  Vila Real        51.61 303 eP      P      05 42 29.3 +1.1
           comp=Z,36nm,1.9s,mb5.0
PVRL  Vila Real        51.61 303 eP      P      05 42 29.3 +1.1
           comp=Z,36nm,1.9s,mb5.0
PESTR Estremoz         51.69 300 eP      P      05 42 29.0 +0.2
           comp=Z,27nm,1.4s,mb5.0
PESTR Estremoz         51.69 300 eP      P      05 42 29.0 +0.2
           comp=Z,27nm,1.4s,mb5.0
EGRO  El Granado       51.73 298  P      P      05 42 28.1 -1.1
           comp=Z,63nm,1.2s,mb5.4
EGRO  El Granado       51.73 298  P      P      05 42 28.1 -1.1
           comp=Z,63nm,1.2s,mb5.4
PVIS  Viseu            51.78 302 eP      P      05 42 30.7 +1.2
           comp=Z,52nm,1.9s,mb5.1
PVIS  Viseu            51.78 302 eP      P      05 42 30.7 +1.2
           comp=Z,52nm,1.9s,mb5.1
ELOB  Lobios           51.84 304  P      P      05 42 30.2 +0.3
           comp=Z,42nm,1.0s,mb5.3
ELOB  Lobios           51.84 304  P      P      05 42 30.2 +0.3
           comp=Z,42nm,1.0s,mb5.3
PVAQ  Vaqueiros        51.93 298 eP      P      05 42 30.9 +0.2
PVAQ  Vaqueiros        51.93 298 eP      P      05 42 30.9 +0.2
PBEJ  Beja             51.98 299 eP      P      05 42 31.4 +0.3
           comp=Z,31nm,1.0s,mb5.2
PBEJ  Beja             51.98 299 eP      P      05 42 31.4 +0.3
           comp=Z,31nm,1.0s,mb5.2
EVO   Evora            52.05 300⇑iP      P      05 42 32.1 +0.6
           comp=Z,60nm,1.1s,mb5.1
EVO   Evora            52.05 300 eP      P      05 42 32.1 +0.6
           comp=Z,22nm,1.3s,mb4.9
EVO   Evora            52.05 300 eP      P      05 42 32.1 +0.6
           comp=Z,22nm,1.3s,mb4.9
PBDV  Barranco-do-Ve   52.12 298 eP      P      05 42 32.7 +0.6
           comp=Z,28nm,1.5s,mb5.0
PBDV  Barranco-do-Ve   52.12 298 eP      P      05 42 32.7 +0.6
           comp=Z,28nm,1.5s,mb5.0
EVOP  Sao Brissos      52.13 300⇑iP      P      05 42 32.1 -0.1
           comp=Z,30nm,1.1s,mb5.1
EMAZ  Mazaricos        52.46 305  P      P      05 42 34.3 -0.2
           comp=Z,40nm,0.8s,mb5.4
EMAZ  Mazaricos        52.46 305  P      P      05 42 34.3 -0.2
           comp=Z,40nm,0.8s,mb5.4
MORF  Marmelete        52.68 298 eP      P      05 42 37.0 +0.7
           comp=Z,50nm,1.8s,mb5.1
MORF  Marmelete        52.68 298 eP      P      05 42 37.0 +0.7
           comp=Z,50nm,1.8s,mb5.1
PTEO  Sao Teotonio     52.71 298 eP      P      05 42 37.1 +0.6
           comp=Z,75nm,1.4s,mb5.4
PTEO  Sao Teotonio     52.71 298 eP      P      05 42 37.1 +0.6
           comp=Z,75nm,1.4s,mb5.4
BOD   Bodaibo          52.72  36 eP      P      05 42 35.2 -1.0
BOD                               pmax   pmax
           comp=Z,11nm,1.1s,mb4.7
BOD   Bodaibo          52.72  36 eP      P      05 42 35.2 -1.0
           comp=Z,11nm,1.1s,mb4.7
PFVI  Vila Bisbo       52.84 298 eP      P      05 42 38.0 +0.5
           comp=Z,77nm,1.5s,mb5.4
PFVI  Vila Bisbo       52.84 298 eP      P      05 42 38.0 +0.5
           comp=Z,77nm,1.5s,mb5.4
TSUM  Tsumeb           56.86 221 eP      P      05 43 08.0 +1.3
           comp=Z,11nm,1.2s,mb4.8
TSUM  Tsumeb           56.86 221 eP      P      05 43 08.0 +1.4
           comp=Z,11nm,1.2s,mb4.8
NJ2   Nanjing          56.99  68 eP      P      05 43 09.8 +2.2
NJ2                               pmax   pmax
           comp=Z,20nm,0.6s,mb5.3
DBIC  Dimbokro         58.32 261 eP      P      05 43 17.6 +0.4
DBIC                              pmax   pmax
           comp=Z,25nm,0.9s
DBIC  Dimbokro         58.32 261  P      P      05 43 17.9 +0.7
           comp=Z,16nm,0.7s,mb5.2,baz=44,slow=7.9,SNR=33
DBIC  Dimbokro         58.32 261 eP      P      05 43 17.6 +0.4
           comp=Z,25nm,0.9s,mb5.2
DBIC  Dimbokro         58.32 261 eP      P      05 43 17.6 +0.4
           comp=Z,25nm,0.9s,mb5.2
KIC   Kosan Boka       58.36 261 eP      P      05 43 17.7 +0.3
           comp=Z,92nm,0.9s,mb5.8
TIC   Toumodi          58.48 261 eP      P      05 43 18.8 +0.5
           comp=Z,85nm,0.8s,mb5.8
LIC   Lamto            58.67 261⇑iP      P      05 43 20.1 +0.5
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              comp=Z,60nm,0.8s,mb5.4
LIC   Lamto              58.67 261  eP     P       05 43 20.0 +0.4
              comp=Z,95nm,0.8s,mb5.9
LIC   Lamto              58.67 261⇑ iP     P       05 43 20.1 +0.5
              comp=Z,30nm,0.8s,mb5.4
LIC   Lamto              58.67 261⇑ iP     P       05 43 20.1 +0.5
              comp=Z,30nm,0.8s,mb5.4
CN2   Changchun          59.97  53  eP     P       05 43 27.6 -0.6
CN2                                 epP    pP      05 43 31.0 -0.4
CN2                                 esP    sP      05 43 33.4 +0.8
CN2                                 eS     S       05 51 36.7 -3.9
CN2                                  pmax  pmax
              comp=Z,10.0nm,0.8s,mb4.9
CN2                                  pmax  pmax
              comp=Z,200nm,4.0s
CN2                                  LR    LR
              comp=N,200nm,20.0s,MS4.5
CN2                                  LR    LR
              comp=E,300nm,20.0s,MS4.5
CN2                                  LR    LR
              comp=Z,200nm,24.0s,MS4.2
EBAJ  Bajamar            60.77 289   P     P       05 43 33.8 -0.1
              comp=Z,35nm,0.9s,mb5.5
EBAJ  Bajamar            60.77 289   P     P       05 43 33.8 -0.1
              comp=Z,35nm,0.9s,mb5.5
TIXI  Tiksi              60.78  21  eP     P       05 43 33.2  0.0
TIXI                                 pmax  pmax
              comp=Z,2.0nm,1.0s,mb4.2
TIXI  Tiksi              60.78  21  eP     P       05 43 33.2  0.0
              comp=Z,2.0nm,1.0s,mb4.2
BOSA  Boshof             60.80 208  eP     P       05 43 35.2 +1.3
BOSA                                 pmax  pmax
              comp=Z,16nm,0.9s,mb5.2
BOSA  Boshof             60.80 208   P     P       05 43 35.3 +1.4
              comp=Z,12nm,0.8s,mb5.1,baz=41,slow=5.5,SNR=16
BOSA                                 LR    LR      06 11 27.5
              comp=Z,78nm,20.0s,MS3.9,baz=157,slow=38
BOSA  Boshof             60.80 208  eP     P       05 43 35.2 +1.3
              comp=Z,16nm,0.9s,mb5.1
BOSA  Boshof             60.80 208  eP     P       05 43 35.2 +1.3
              comp=Z,16nm,0.9s,mb5.2
MDJ   Mudanjiang         62.77  51   P     P       05 43 45.6 -1.5
MDJ                                  pmax  pmax
              comp=Z,6.0nm,2.5s,mb4.3
MDJ                                  pmax  pmax
              comp=Z,86nm,5.6s
KSRS  Korea Array        63.06  60   P     P       05 43 47.7 -1.5
KSRS                                 pmax  pmax
              comp=Z,2.0nm,0.7s,mb4.4
KSRS  Korea Array        63.06  60   P     P       05 43 47.7 -1.5
              comp=Z,1.8nm,0.7s,mb4.3,baz=279,slow=6.5,SNR=9.6
KSRS  Korea Array        63.06  60   P     P       05 43 47.7 -1.5
              comp=Z,2.0nm,0.7s,mb4.4
KLR   Kul'dur            63.37  46  eP     P       05 43 45.6 -5.4
SUMG  Summit             65.53 341  eP     P       05 44 05.5 +0.7
              comp=Z,25nm,1.1s,mb5.2
SUMG  Summit             65.53 341  eP     P       05 44 05.5 +0.7
              comp=Z,25nm,1.1s,mb5.2
SEY   Seymchan           70.99  29⇑ eP     P       05 44 38.8 -0.3
SEY   Seymchan           70.99  29  eP     P       05 44 38.8 -0.3
YSS   Yuzh-Sakhalins     71.08  46⇓ eP     P       05 44 38.5 -1.5
YSS   Yuzh-Sakhalins     71.08  46  eP     P       05 44 38.5 -1.5
BILL  Bilibino           73.99  21⇓ eP     P       05 44 57.2 +0.3
BILL                                 pmax  pmax
              comp=Z,13nm,2.5s,mb4.4
BILL  Bilibino           73.99  21  eP     P       05 44 57.2 +0.3
              comp=Z,13nm,2.5s,mb4.4
FITZ  Fitzroy Crossi     83.21 114  eP     P       05 45 47.9 -0.6
              comp=Z,6.9nm,0.8s,mb4.7
FITZ  Fitzroy Crossi     83.21 114  eP     P       05 45 47.9 -0.6
              comp=Z,6.9nm,0.8s,mb4.7
SCHQ  Schefferville      84.15 330   P     P       05 45 52.3 -0.5
              comp=Z,10nm,0.7s,mb5.0,baz=43,slow=5.3,SNR=26
SCHQ  Schefferville      84.15 330  eP     P       05 45 52.2 -0.5
              comp=Z,14nm,0.9s,mb5.1
SCHQ  Schefferville      84.15 330  eP     P       05 45 52.2 -0.6
              comp=Z,14nm,0.9s,mb5.1
KAKA  Kakadu             86.34 106  eP     P       05 46 03.8 -0.6
              comp=Z,42nm,0.7s,mb5.8
CHUM  Lake Minchumin     87.88  11  eP     P       05 46 10.8 -0.2
              comp=Z,6.6nm,0.8s,mb4.9
CHUM  Lake Minchumin     87.88  11  eP     P       05 46 10.9 -0.1
              comp=Z,6.6nm,0.8s,mb4.9
BPAW  Bear Paw Mtn.      87.90  10  eP     P       05 46 10.4 -0.7
              comp=Z,9.9nm,0.9s,mb5.0
BPAW  Bear Paw Mtn.      87.90  10  eP     P       05 46 10.4 -0.7
              comp=Z,9.9nm,0.9s,mb5.0
YKA   Yellowknife Ar     90.90 354   P     P       05 46 25.1 -0.1
YKA                                  pmax  pmax
              comp=Z,3.0nm,0.6s
YKA   Yellowknife Ar     90.90 354   P     P       05 46 25.1 -0.2
              comp=Z,2.7nm,0.6s,mb4.8,baz=6.1,slow=5.0,SNR=62
YKA   Yellowknife Ar     90.90 354   P     P       05 46 25.1 -0.2
YKA   Yellowknife Ar     90.90 354   P     P       05 46 25.1 -0.1
              comp=Z,3.0nm,0.6s,mb4.8
WRA   Warramunga Arr     91.30 112   P     P       05 46 26.2 -1.6
WRA                                  pmax  pmax
              comp=Z,2.0nm,0.7s
WRA   Warramunga Arr     91.30 112   P     P       05 46 26.2 -1.6
              comp=Z,1.6nm,0.7s,mb4.5,baz=312,slow=4.2,SNR=23
WRA   Warramunga Arr     91.30 112   P     P       05 46 26.2 -1.6
              comp=Z,2.0nm,0.7s,mb4.6
ASAR  Alice Springs      92.65 115   P     P       05 46 33.0 -1.0
ASAR                                 pmax  pmax
              comp=Z,2.0nm,0.6s
ASAR  Alice Springs      92.65 115   P     P       05 46 33.0 -1.0
              comp=Z,1.6nm,0.6s,mb4.6,baz=304,slow=4.6,SNR=28
ASAR  Alice Springs      92.65 115   P     P       05 46 33.0 -1.0
              comp=Z,2.0nm,0.6s,mb4.7
NVAR  Mina Array Bea    115.04 352   PKP   PKiKP   05 52 03.8 +0.6
              comp=Z,0.4nm,0.7s,baz=20,slow=2.9,SNR=3.6
TXAR  Lajitas Array     120.27 336   PKP   PKPdf   05 52 12.8 -0.7
              comp=Z,0.4nm,0.6s,baz=56,slow=1.5,SNR=6.9
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*BJI **02** 05:59:44.4, 17°.73N×95°.05E, $h73^{km}$, mB4.9/24, mb4.7/36, Ms4.3/25, Ms7 4.1/23*

*ISCJB **02** 05:59:47.4±0.3, 18°.02N±0°.04×95°.22E±0°.03, $h73^{km}$, mb4.4/61, Error ellipse: s-maj=5.3km s-min=3.4km az=0.0*

*IDC **02** 05:59:48.9±0.6, 18°.01N×95°.32E, $h73^{km}$±5^{km}, mb4.1/17, mb1 4.2/19, mb1mx4.1/24, mbtmp4.1/19, MS3.4/7, Ms1 3.4/7, ms1mx3.1/39, Error ellipse: s-maj=13.2km s-min=9.3km az=30.0*

*MOS **02** 05:59:48.2±0.8, 18°.08N×95°.34E, $h79^{km}$, mb4.9/31, Error ellipse: s-maj=10.4km s-min=6.0km az=117.3*

*NEIC **02** 05:59:49.2±0.2, 18°.02N×95°.29E, mb4.6/25, Error ellipse: s-maj=6.2km s-min=4.2km az=218.0*

ISC 02 05:59:49.7±0.3**, 18°.10N**±0°.04×**95°.22E**±0°.03**, $h75^{km}$, $h75^{km}$**±1.1^{km}**:pP-P, n167,** $\sigma 1^{s}14$/179**, mb4.4**/61**, 12C-7D, Myanmar**

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Code  Station Name          Δ°   AZ°    Phase ID            Time    Res
                                      Op     ISC         h  m  s   ISC
CM31  Chiang Mai Arr      3.56  84   ePn    Pn         06 00 41.6 -1.0
CM31                                 eSn    Sn         06 01 20.6 -2.9
CMAR  Chiang Mai Arr      3.56  84    P     Pn         06 00 41.6 -1.0
              7.5nm,0.3s,baz=264,slow=15,SNR=87
CMAR                                  S     Sn         06 01 19.7 -3.8
              18nm,0.3s,baz=253,slow=17,SNR=15
CHG   Chiang Mai          3.61  78    PG    Pn         06 00 43.0 -0.3
CHG                                   SG    Sn         06 01 20.9 -3.8
CHTO  Chiang Mai          3.61  78   ePn    Pn         06 00 42.4 -0.9
CHTO                                 eSn    Sn         06 01 23.2 -1.5
BDT   Bhumibol Dam        3.71 103    PG    Pn         06 00 42.2 -2.4
BDT                                   SG    Sn         06 01 21.5 -5.7
CHRT  Chiangrai           4.67  67    PG    Pn         06 00 58.5 +0.8
CHRT                                  SG    Sn         06 01 50.5 -0.1
NST   Nakhon Sawan        5.29 116    PN    Px         06 01 40.0
NST                                   SG    Sn         06 02 17.0  +11
IMP   Imphal              6.76 350   ePKP   Pn         06 01 28.0 +1.7
IMP                                  ex     Sn         06 02 46.0 +4.2
AGT   Agartala            6.85 328   ePKP   Pn         06 01 23.0 -4.5
AGT                                  eS     Sn         06 02 28.0  -16
NNT   Nongplab            7.00 141    P     Sn         06 02 40.0 -7.7
SHL   Shillong            8.05 338   ePKP   Pn         06 01 45.5 +1.6
SHL                                  eS     Sn         06 03 10.5 -3.0
KMI   Kunming             9.89  44    P     Pn         06 02 15.1 +6.0
KMI                                   pmax  pmax
              comp=Z,60nm,1.1s
BOK   Bokaro             10.40 305   ePKP   Pn         06 02 17.0 +1.1
BOK                                   AMb   AMB        06 02 18.1
              comp=Z,43nm,1.3s
BOK                                  eS     Sn         06 04 01.5 -9.3
VIS   Vishakhapatnam     11.32 270   ePKP   Pn         06 02 27.0 -1.7
VIS                                   AMb   AMB        06 02 33.6
              comp=Z,19nm,1.0s
VIS                                  eS     Sn         06 04 20.8  -13
ODAN  Odare              11.33 322   eP     Pn         06 02 26.2 -2.4
TAPN  Taplejung          11.52 324   eP     Pn         06 02 29.7 -1.6
RAMN  Ramite             11.87 319   eP     Pn         06 02 34.2 -1.9
              comp=Z,30nm,0.3s
LSA   Lhasa              12.13 343    P     Pn         06 02 37.0 -2.6
LSA   Lhasa              12.13 343   eP     Pn         06 02 40.4 +0.8
LSA                                   pmax  pmax
              comp=Z,51nm,0.6s
LSA   Lhasa              12.13 343   ePn    Pn         06 02 40.4 +0.8
              comp=Z,51nm,0.6s
JIRN  Jiri               12.63 320   eP     Pn         06 02 45.3 -1.2
              comp=Z,21nm,0.2s
GUN   Gumba              13.01 320   eP     Pn         06 02 49.6 -1.9
              comp=Z,51nm,0.8s
PKI   Pulchoki           13.06 318   eP     Pn         06 02 50.0 -2.1
              comp=Z,58nm,0.7s
PKIN  Phulchoki          13.07 318   eP     Pn         06 02 50.1 -2.2
              comp=Z,61nm,0.8s
DMN   Daman              13.28 317   eP     Pn         06 02 53.3 -1.8
              comp=Z,69nm,0.9s
KKN   Kakani             13.29 318   eP     Pn         06 02 53.0 -2.2
GYA   Guiyang            13.47  50    P     Pn         06 02 57.8 +0.2
GYA                                   pP               06 03 09.2
GYA                                   S     Sn         06 05 26.5 +1.0
GYA                                   SS               06 05 43.4
GYA                                   pmax  pmax
              comp=Z,10.0nm,0.7s
GYA                                   pmax  pmax
              comp=Z,70nm,4.8s
GYA                                   LR    LR
              comp=N,710nm,10.6s
GYA                                   LR    LR
              comp=E,520nm,9.4s
GYA                                   LR    LR
              comp=Z,740nm,11.0s
GKN   Gorkha             13.85 317   eP     Pn         06 03 00.6 -2.0
              comp=Z,42nm,0.5s
KOLN  Koldanda           14.38 314   eP     Pn         06 03 08.0 -1.6
DANN  Dangsing           14.65 316   eP     Pn         06 03 11.6 -1.5
              comp=Z,80nm,0.7s
CD2   Chengdu            14.93  30    P     Pn         06 03 17.8 +1.2
CD2                                   pP    pP         06 03 28.6 -6.8
CD2                                   PP               06 03 31.3
CD2                                   sP    sP         06 03 39.7 -5.2
CD2                                   S     Sn         06 06 01.5 +0.5
CD2                                   SS               06 06 21.3
CD2                                   pmax  pmax
              comp=Z,20nm,0.5s
CD2                                   pmax  pmax
              comp=Z,180nm,4.2s
CD2                                   LR    LR
              comp=N,350nm,4.0s
CD2                                   LR    LR
              comp=Z,190nm,9.5s
PYUN  Piuthan            15.01 314   eP     Pn         06 03 16.6 -1.1
              comp=Z,62nm,0.7s
PSI   Prapat             15.63 166    P     Pn         06 03 26.8 +1.1
              comp=Z,0.5nm,0.3s,baz=293,slow=13,SNR=4.6
PSI                                   LR    LR         06 09 57.7
              comp=Z,74nm,20.9s,baz=201,slow=39
PSI   Prapat             15.63 166    P     Pn         06 03 26.8 +1.1
PSI                                   LR    LR         06 09 57.7
HYB   Hyderabad          15.89 270   i P    Pn         06 03 32.5 +3.6
PALK  Pallekele          17.77 235   i P    Pn         06 03 54.5 +2.3
LZH   Lanzhou            19.48  21   eP     Pn         06 04 12.0 -0.5
LZH                                   pP    pP         06 04 28.5 +2.7
LZH                                   PP               06 04 33.2
LZH                                   sP    sP         06 04 41.0 +5.7
LZH                                  eS     S          06 07 43.7 -3.0
LZH                                   sS    sS         06 08 06.0 -5.6
LZH                                   SS               06 08 14.5
LZH                                   pmax  pmax
              comp=Z,56nm,1.0s
LZH                                   pmax  pmax
              comp=Z,220nm,4.0s
LZH                                   LR    LR
              comp=E,480nm,11.6s
LZH                                   LR    LR
              comp=Z,810nm,12.2s
DDI   Dehra Dun          19.80 311   ePKP   Pn         06 04 14.8 -1.5
KAD   Karad              20.05 271   eS     S          06 07 58.1 -0.3
XAN   Xi'an              20.06  35    P     P          06 04 16.2 -0.7
XAN                                   pP               06 04 31.2
XAN                                   S     S          06 07 51.2 -7.0
XAN                                   pmax  pmax
              comp=Z,18nm,1.0s
XAN                                   LR    LR
              comp=E,140nm,10.2s
XAN                                   LR    LR
              comp=Z,170nm,8.3s
WHN   Wuhan              21.35  51   eP     P          06 04 37.4 +6.5
WHN                                   pP               06 04 44.5
GTA   Gaotai             21.61  10   eP     P          06 04 33.7 +0.2
GTA                                   pP               06 04 50.1
GTA                                   sP    sP         06 04 59.1 +0.7
GTA                                   S     S          06 08 31.3 +2.7
GTA                                   sS    sS         06 08 59.2 +5.0
GTA                                   pmax  pmax
              comp=Z,17nm,1.0s,mb4.3
GTA                                   pmax  pmax
              comp=Z,130nm,5.7s
GTA                                   LR    LR
              comp=N,110nm,13.4s
GTA                                   LR    LR
              comp=E,99nm,13.1s
GTA                                   LR    LR
              comp=Z,130nm,10.7s
NJ2   Nanjing            25.45  52   eP     P          06 05 11.2 +0.5
NJ2                                   pmax  pmax
              comp=Z,20nm,0.6s,mb4.7
WMQ   Urumqi             26.42 348⇓ iP      P          06 05 20.8 +1.5
WMQ                                   pP    pP         06 05 35.0 -1.8
WMQ                                   sP    sP         06 05 43.0 -2.6
WMQ                                   PP               06 06 05.0
WMQ                                  eS     S          06 09 48.5 +1.1
WMQ                                   sS    sS         06 10 14.0 -3.6
WMQ                                   pmax  pmax
              comp=Z,10.0nm,1.4s,mb4.0
WMQ                                   pmax  pmax
              comp=Z,180nm,5.2s
WMQ                                   LR    LR
              comp=N,210nm,14.3s
WMQ                                   LR    LR
              comp=E,450nm,16.5s
WMQ                                   LR    LR
              comp=Z,510nm,17.3s
HHC   Hu-ho-hao-te       26.68  28   eP     P          06 05 22.5 +0.8
HHC                                   pP    pP         06 05 40.0 +0.8
HHC                                   sP    sP         06 05 49.0 +1.0
HHC                                   PP               06 06 10.2
HHC                                   PcP   PcP        06 08 43.5 -0.1
HHC                                  eS     S          06 09 50.5 -1.1
HHC                                   sS    sS         06 10 20.2 -1.6
HHC                                   SS               06 11 08.7
HHC                                   PcS   PcS        06 12 23.6 -1.2
HHC                                   pmax  pmax
              comp=Z,17nm,1.1s,mb4.5
HHC                                   pmax  pmax
              comp=Z,130nm,5.0s
HHC                                   LR    LR
              comp=N,130nm,12.0s
HHC                                   LR    LR
              comp=E,96nm,10.9s
HHC                                   LR    LR
              comp=Z,190nm,9.8s
KSH   Kashi              27.09 326   eP     P          06 05 25.6 +0.2
KSH                                  epP    pP         06 05 42.4 -0.5
KSH                                  esP    sP         06 05 52.0 +0.3
KSH                                  ePP               06 06 14.1
KSH                                  eS     S          06 09 55.9 -2.1
KSH                                  esS    sS         06 10 26.9 -1.4
KSH                                  eSS               06 11 16.9
KSH                                  ePcS   PcS        06 12 23.9 -2.2
KSH                                  eScS   ScS        06 16 06.0 -3.6
KSH                                   pmax  pmax
              comp=Z,6.0nm,0.6s,mb4.3
AAK   Ala-Archa          30.13 329⇓ eP      P          06 05 54.6 +2.2
AAK                                   pmax  pmax
              comp=Z,4.0nm,1.1s,mb4.0
AAK   Ala-Archa          30.13 329   eP     P          06 05 54.2 +1.9
              comp=Z,9.3nm,1.3s,mb4.2
MK31  Makanchi Array     30.54 342   eP     P          06 05 56.2 +0.3
MKAR  Makanchi Array     30.54 342    P     P          06 05 56.6 +0.7
MKAR                                                   06 08 53.4
MKAR  Makanchi Array     30.54 342    P     P          06 05 56.6 +0.7
              comp=Z,7.7nm,0.7s,mb4.5,baz=153,slow=9.5,SNR=92
MKAR                                  PcP   PcP        06 08 53.4 +0.2
              comp=Z,0.7nm,0.7s,baz=217,slow=3.0,SNR=4.1
MKAR                                  LR    LR         06 18 49.9
              comp=Z,43nm,18.0s,baz=172,slow=37
SONM  Songino Array      31.04  15    P     P          06 06 01.0 +0.7
SONM                                                   06 08 55.3
SONM  Songino Array      31.04  15    P     P          06 06 01.0 +0.7
              comp=Z,4.4nm,0.8s,mb4.2,baz=203,slow=9.1,SNR=27
SONM                                  PcP   PcP        06 08 55.3 +0.8
              comp=Z,0.4nm,0.5s,baz=190,slow=4.9,SNR=3.3
SONM                                  ScP   ScP        06 12 30.9 +0.1
              comp=Z,0.6nm,0.8s,baz=206,slow=5.4,SNR=3.8
ZAK   Zakamensk          32.85  10⇑ eP      P          06 06 17.0 +0.9
ZAK                                  e      pP         06 06 34.7 +0.8
ZAK                                   pmax  pmax
              comp=Z,8.0nm,1.0s,mb4.5
TLY   Talaya             34.17   9   eP     P          06 06 28.7 +1.1
TLY                                  e      pP         06 06 47.6 +2.2
TLY                                   pmax  pmax
              comp=Z,8.0nm,1.0s,mb4.5
KSRS  Korea Array        34.53  49    LR    LR         06 22 58.7
              comp=Z,64nm,18.0s,baz=346,slow=40
KURK  Kurchatov          35.14 342   eP     P          06 06 36.0 +0.1
KURK                                  pmax  pmax
              comp=Z,21nm,0.7s,mb5.1
KURK  Kurchatov          35.14 342    LR    LR         06 21 29.4
              comp=Z,26nm,21.5s,baz=125,slow=37
KURK  Kurchatov          35.14 342   eP     P          06 06 36.0 +0.1
              comp=Z,21nm,0.7s,mb5.1
CN2   Changchun          36.10  38   eP     P          06 06 45.8 +1.5
CN2                                  eS     S          06 12 19.7 +1.4
CN2                                   pmax  pmax
              comp=Z,10.0nm,0.6s,mb4.9
CN2                                   pmax  pmax
              comp=Z,200nm,4.0s
ZAA0  Zalesovo Array     36.68 350   eP     P          06 06 48.9 -0.1
ZAA0                                 epP    pP         06 07 07.8 +0.7
ZALV  Zalesovo Beam      36.68 350    P     P          06 06 49.4 +0.3
ZALV                                  *PP   pP         06 07 07.8 +0.8
ZALV  Zalesovo Beam      36.68 350    P     P          06 06 49.4 +0.3
              comp=Z,8.7nm,0.6s,mb4.9,baz=172,slow=8.9,SNR=56
ZALV                                  pP    pP         06 07 07.8 +0.7
              comp=Z,6.8nm,0.7s,baz=170,slow=9.0,SNR=7.9
ZALV                                  LR    LR         06 22 42.5
              comp=Z,38nm,18.5s,baz=57,slow=37
NVS   Novosibirsk        37.81 349   i P    P          06 06 58.4 -0.2
NVS                                  i      pP         06 07 16.1 -0.6
NVS                                   pmax  pmax
              comp=Z,13nm,1.1s,mb4.7
NVS                                   pmax  pmax
              comp=N,8.0nm,1.2s
NVS                                   pmax  pmax
              comp=E,5.0nm,1.2s
KRAR  Krasnoyarsk        37.89 358   i P    P          06 07 01.9 +2.6
MDJ   Mudanjiang         39.04  40    P     P          06 07 09.2 +0.1
MDJ                                   sP    sP         06 07 34.5 -1.4
MDJ                                   PcP   PcP        06 09 17.4 -0.4
MDJ                                   S     S          06 13 04.3 +1.5
MDJ                                   pmax  pmax
              comp=Z,4.0nm,1.0s,mb4.2
MDJ                                   pmax  pmax
              comp=Z,66nm,5.0s
MDJ                                   LR    LR
              comp=N,48nm,19.9s
MDJ                                   LR    LR
              comp=E,42nm,21.0s
MDJ                                   LR    LR
              comp=Z,57nm,23.2s
VOSK  Vostochnaya        39.41 337    P     P          06 07 11.9 -0.2
VOSK                                  pmax  pmax
              comp=Z,19nm,0.6s,mb5.1
BVAR  Borovoye Array     39.87 337    LR    LR         06 26 05.7
              comp=Z,68nm,18.3s,baz=160,slow=39
BRVK  Borovoye           39.94 337   eP     P          06 07 16.7 +0.3
BRVK                                  pmax  pmax
              comp=Z,5.0nm,0.6s,mb4.5
BRVK  Borovoye           39.94 337   eP     P          06 07 16.7 +0.2
              comp=Z,5.1nm,0.6s,mb4.5
BOD   Bodaibo            42.04  15   eP     P          06 07 33.2 -0.4
BOD                                   pmax  pmax
              comp=Z,4.0nm,1.4s,mb4.0
AB31  Akbulak array      42.10 326    P     P          06 07 34.5 +0.3
AB31                                  pmax  pmax
              comp=Z,5.0nm,0.6s,mb4.4
AKTO  Aktyubinsk         43.79 326    P     P          06 07 47.5 -0.4
AKTO                                  pmax  pmax
              comp=Z,1.0nm,0.7s,mb3.6
ARU   Arti               47.11 333   eP     P          06 08 13.8 -0.2
ARU                                   pmax  pmax
              comp=Z,15nm,1.3s,mb4.6
ARU   Arti               47.11 333   eP     P          06 08 13.8 -0.2
              comp=Z,15nm,1.3s,mb4.6
KIV   Kislovodsk         50.84 312   eP     P          06 08 44.0 +1.2
KIV                                   pmax  pmax
              comp=Z,9.0nm,1.0s,mb4.8
WRA   Warramunga Arr     53.88 133    P     P          06 09 03.3 -2.2
              comp=Z,3.8nm,0.6s,mb4.6,baz=320,slow=7.3,SNR=62
WRA                                   pP    pP         06 09 22.7 -1.8
              comp=Z,1.8nm,0.6s,baz=318,slow=7.3,SNR=6.2
WRA                                   PcP   PcP        06 10 09.5 -0.8
              comp=Z,0.6nm,0.6s,baz=313,slow=4.0,SNR=6.5
WRAB  Tennant Creek      53.88 133   eP     P          06 09 03.8 -1.7
WRAB                                 e*PP   pP         06 09 22.5 -2.0
WRAB                                  pmax  pmax
              comp=Z,4.0nm,0.6s,mb4.6
WRAB  Tennant Creek      53.88 133   eP     P          06 09 03.8 -1.8
              comp=Z,4.3nm,0.6s,mb4.7
WRAB                                 epP    pP         06 09 22.5 -2.0
VSR   Storozhevoye       54.96 320   i P    P          06 09 13.0  0.0
ASAR  Alice Springs      56.12 136    P     P          06 09 20.4 -1.2
              comp=Z,3.0nm,0.7s,mb4.5,baz=316,slow=7.1,SNR=59
ASAR                                  pP    pP         06 09 39.1 -1.6
              comp=Z,1.8nm,0.8s,baz=314,slow=7.1,SNR=7.0
ASAR                                  PcP   PcP        06 10 18.1 -0.7
              comp=Z,0.6nm,0.6s,baz=318,slow=3.1,SNR=4.9
BRTR  Keskin Array B     56.93 306    P     P          06 09 27.1 -0.2
              comp=Z,0.9nm,0.7s,mb3.9,baz=134,slow=11,SNR=6.3
BRTR                                  PcP   PcP        06 10 21.6 -0.3
              comp=Z,0.8nm,0.8s,baz=134,slow=5.3,SNR=3.8
TIXI  Tiksi              57.07  12   eP     P          06 09 26.7 -1.0
TIXI                                  pmax  pmax
              comp=Z,10.0nm,0.8s,mb4.9
OBN   Obninsk            57.52 324   eP     P          06 09 31.4 +0.3
OBN                                  e                 06 10 23.5
OBN                                   pmax  pmax
              comp=Z,9.0nm,1.5s,mb4.6
SEY   Seymchan           59.31  27⇓ eP      P          06 09 42.9 -0.5
AKASG Malin Array Be     61.03 318    P     P          06 09 54.5 -0.9
              comp=Z,2.2nm,0.5s,mb4.4,baz=84,slow=6.4,SNR=14
AKASG                                 pP    pP         06 10 13.7 -1.1
              comp=Z,0.4nm,0.4s,baz=82,slow=6.5,SNR=2.5
JOF   Joensuu            62.23 332   ep     P          06 10 03.1 -0.1
              comp=Z,9.9nm,0.5s,mb5.1
VRI   Vrincioaia         62.32 313⇓ iP      P          06 10 06.5 +2.3
MLR   Muntele Rosu       62.85 312⇓ iP      P          06 10 09.3 +1.5
BURAR Bucovina Array     63.42 315⇓ iP      P          06 10 12.2 +0.7
KOLS  Kolonicke sedl     65.41 316   eP     P          06 10 26.3 +1.8
CRVS  Cervenica-Dubn     65.95 316   i P    P          06 10 28.9 +1.0
CRVS                                  pmax  pmax
              comp=Z,38nm,2.2s,mb4.8
CRVS  Cervenica-Dubn     65.95 316   i P    P          06 10 28.9 +1.0
              comp=Z,38nm,2.2s,mb4.8
ARCES ARCESS Array B     66.11 339    P     P          06 10 29.1 +0.6
              comp=Z,3.9nm,0.6s,mb4.4,baz=90,slow=7.3,SNR=17
BILL  Bilibino           66.28  23⇓ eP      P          06 10 29.4 -0.3
BILL                                  pmax  pmax
              comp=Z,14nm,2.5s,mb4.3
BILL  Bilibino           66.28  23   eP     P          06 10 29.1 -0.6
              comp=Z,2.8nm,0.6s,mb4.3
BILL                                 epP    pP         06 10 47.6 -1.7
STKA  Stephens Creek     66.67 138    P     P          06 10 31.9 -0.8
              comp=Z,1.8nm,0.6s,mb4.1,baz=326,slow=12,SNR=4.4
STKA  Stephens Creek     66.67 138   eP     P          06 10 32.4 -0.3
              comp=Z,0.3nm,0.7s,mb3.2
NIE   Niedzica           66.70 317   eP     P          06 10 34.2 +1.5
OJC   Ojcow              67.02 318   eP     P          06 10 35.5 +0.8
VYHS  Vyhne              67.70 316   eP     P          06 10 39.1 +0.1
MORC  Moravsky Berou     68.49 317   eP     P          06 10 44.5 +0.6
MORC                                  pmax  pmax
              comp=Z,2.0nm,0.7s,mb4.1
MORC  Moravsky Berou     68.49 317⇑ iP      P          06 10 45.0 +1.1
MORC  Moravsky Berou     68.49 317   eP     P          06 10 44.5 +0.5
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	comp=Z,2.0nm,0.7s,mb4.1						
VRAC	Vranov	69.13	317	LR	LR	06 45 25.1	
	comp=Z,91nm,19.7s,baz=260,slow=40						
BRG	Berggiesshubel	70.72	318	*i* P	P	06 10 58.6	+1.0
BRG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
BRG	Berggiesshubel	70.72	318	*i* P	P	06 10 58.5	+0.9
	comp=Z,9.4nm,0.7s,mb4.7						
GERES	GERESS Array B	71.07	316	P	P	06 11 00.6	+0.8
	comp=Z,4.7nm,0.7s,mb4.5,baz=79,slow=6.0,SNR=30						
NB2	NORSAR Subarra	71.45	329	P	P	06 11 01.7	-0.2
	comp=Z,3.4nm,0.6s,mb4.3,baz=86,slow=6.2						
NOA	NORSAR Array B	71.45	329	P	P	06 11 01.9	+0.1
	comp=Z,4.2nm,0.6s,mb4.4,baz=86,slow=6.0,SNR=12						
LSZ	Lusaka	73.89	248	*e*P	P	06 11 16.9	-0.2
LSZ				*e**PP	pP	06 11 36.7	-0.3
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.5						
LSZ	Lusaka	73.89	248	*e*P	P	06 11 16.9	-0.2
	comp=Z,4.8nm,0.5s,mb4.5						
LSZ				*e*pP	pP	06 11 36.7	-0.3
CDF	Champ du Feu	75.34	317	⇑*i*P	P	06 11 25.3	+0.3
	comp=Z,5.4nm,0.7s,mb4.1						
CDF	Champ du Feu	75.34	317	⇑*i*P	P	06 11 25.3	+0.3
CDF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
CDF	Champ du Feu	75.34	317	⇑*i*P	P	06 11 25.3	+0.3
	comp=Z,2.7nm,0.7s,mb4.1						
HAU	Haudompre	76.03	316	⇑*i*P	P	06 11 29.2	+0.2
	comp=Z,4.3nm,0.4s,mb4.2						
LPG	La Plagne	76.27	314	*e*P	P	06 11 31.3	+1.0
	comp=Z,9.6nm,0.9s,mb4.2						
LPG	La Plagne	76.27	314	*e*P	P	06 11 31.3	+1.0
LPG				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
LPG	La Plagne	76.27	314	*e*P	P	06 11 31.3	+1.0
	comp=Z,4.8nm,0.9s,mb4.2						
LPL	La Plagne	76.28	314	*e*P	P	06 11 31.1	+0.7
	comp=Z,7.4nm,0.7s,mb4.2						
LPL	La Plagne	76.28	314	*e*P	P	06 11 31.1	+0.7
LPL				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
LPL	La Plagne	76.28	314	*e*P	P	06 11 31.1	+0.7
	comp=Z,3.7nm,0.7s,mb4.2						
KEST	Kesra	76.40	303	P	P	06 11 31.6	+0.3
	comp=Z,0.8nm,0.5s,mb3.7,baz=58,slow=6.1,SNR=6.6						
CABF	La Chapelle	76.49	315	*e*P	P	06 11 32.2	+0.6
	comp=Z,9.5nm,0.8s,mb4.3						
CABF	La Chapelle	76.49	315	*e*P	P	06 11 32.2	+0.6
CABF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
CABF	La Chapelle	76.49	315	*e*P	P	06 11 32.2	+0.6
	comp=Z,4.8nm,0.8s,mb4.3						
FRF	La Foret Royal	76.75	312	*e*P	P	06 11 33.4	+0.3
	comp=Z,18nm,0.8s,mb4.5						
FRF	La Foret Royal	76.75	312	*e*P	P	06 11 33.4	+0.3
FRF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
FRF	La Foret Royal	76.75	312	*e*P	P	06 11 33.4	+0.3
	comp=Z,8.9nm,0.8s,mb4.5						
MEZF	Maizieres J'vi	76.78	317	*e*P	P	06 11 33.8	+0.6
	comp=Z,6.7nm,0.5s,mb4.3						
MEZF	Maizieres J'vi	76.78	317	*e*P	P	06 11 33.8	+0.6
	comp=Z,6.7nm,0.5s,mb4.6						
BAIF	Baives	76.98	319	*e*P	P	06 11 35.2	+0.9
	comp=Z,20nm,1.0s,mb4.5						
BAIF	Baives	76.98	319	*e*P	P	06 11 35.2	+0.9
BAIF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
BAIF	Baives	76.98	319	*e*P	P	06 11 35.2	+0.9
	comp=Z,9.9nm,1.0s,mb4.5						
LOR	Lormes	77.84	316	*e*P	P	06 11 39.2	+0.1
VIVF	Saint-Julien-l	77.84	313	*e*P	P	06 11 39.5	+0.3
SMF	Signal de Mont	77.99	315	⇑*i*P	P	06 11 40.1	+0.1
	comp=Z,5.9nm,0.5s,mb4.2						
SMF	Signal de Mont	77.99	315	⇑*i*P	P	06 11 40.1	+0.1
SMF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
SMF	Signal de Mont	77.99	315	⇑*i*P	P	06 11 40.1	+0.1
	comp=Z,3.0nm,0.5s,mb4.3						
SSF	Saint Saulge	78.12	316	⇑*i*P	P	06 11 41.0	+0.3
	comp=Z,7.3nm,0.7s,mb4.2						
SSF	Saint Saulge	78.12	316	⇑*i*P	P	06 11 41.0	+0.3
SSF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
SSF	Saint Saulge	78.12	316	⇑*i*P	P	06 11 41.0	+0.3
	comp=Z,3.7nm,0.6s,mb4.3						
AVF	Avril sur Loir	78.28	315	*e*P	P	06 11 41.7	+0.1
	comp=Z,8.9nm,0.6s,mb4.3						
AVF	Avril sur Loir	78.28	315	*e*P	P	06 11 41.7	+0.1
AVF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
AVF	Avril sur Loir	78.28	315	*e*P	P	06 11 41.7	+0.1
	comp=Z,4.4nm,0.6s,mb4.4						
TCF	Toulx Ste Croi	79.17	315	*e*P	P	06 11 47.3	+0.8
	comp=Z,7.8nm,0.7s,mb4.3						
TCF	Toulx Ste Croi	79.17	315	*e*P	P	06 11 47.3	+0.8
TCF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
TCF	Toulx Ste Croi	79.17	315	*e*P	P	06 11 47.3	+0.8
	comp=Z,3.9nm,0.7s,mb4.3						
LDF	La Druitiere	80.09	318	*e*P	P	06 11 51.7	+0.3
	comp=Z,16nm,0.8s,mb4.6						
LDF	La Druitiere	80.09	318	*e*P	P	06 11 51.7	+0.3
LDF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
LDF	La Druitiere	80.09	318	*e*P	P	06 11 51.7	+0.3
	comp=Z,8.1nm,0.8s,mb4.6						
BOSA	Boshof	81.98	237	*e*P	P	06 12 01.1	-0.6
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
BOSA	Boshof	81.98	237	P	P	06 12 01.4	-0.3
	comp=Z,3.8nm,0.5s,mb4.5,baz=72,slow=3.2,SNR=19						
BOSA	Boshof	81.98	237	*e*P	P	06 12 01.1	-0.7
	comp=Z,4.4nm,0.6s,mb4.5						
SUMG	Summit	84.46	347	*e*P	P	06 12 14.3	+0.5
	comp=Z,3.9nm,0.7s,mb4.3						
MCK	McKinley	84.72	24	*e*P	P	06 12 15.0	-0.2
MCK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
MCK	McKinley	84.72	24	*e*P	P	06 12 15.0	-0.3
	comp=Z,7.6nm,0.9s,mb4.6						
ESDC	Sonseca Array	85.46	310	P	P	06 12 20.0	+0.6
	comp=Z,0.7nm,0.6s,mb3.8,baz=55,slow=4.8,SNR=5.7						
EVO	Evora	88.81	310	*e*P	P	06 12 35.3	-0.3
	comp=Z,8.8nm,0.9s,mb4.5						
TORD	Torodi Ar. Bea	89.26	284	P	P	06 12 37.8	-0.4
	comp=Z,0.6nm,0.7s,mb3.8,baz=64,slow=3.2,SNR=6.6						
YKA	Yellowknife Ar	96.30	13	P	P	06 13 09.1	-0.6
	comp=Z,0.9nm,0.6s,mb4.4,baz=333,slow=4.4,SNR=18						
YKA				pP	pP	06 13 29.0	-1.2
	comp=Z,0.8nm,0.7s,baz=328,slow=4.4,SNR=5.8						
DBIC	Dimbokro	97.45	279	P	P	06 13 15.3	-0.5
	comp=Z,2.9nm,1.0s,mb4.7,baz=270,slow=1.0,SNR=2.6						
TXAR	Lajitas Array	129.45	21	PKP	PKPdf	06 18 50.4	-0.1
	comp=Z,0.3nm,0.5s,baz=84,slow=0.7,SNR=7.1						
SDV	Santo Domingo	149.77	331	PKPbc	PKPbc	06 19 31.4	-0.7
	comp=Z,5.5nm,0.7s,baz=339,slow=7.7,SNR=5.6						
CPUP	Villa Florida	153.34	247	PKPbc	PKPbc	06 19 38.7	-1.2
	comp=Z,1.3nm,0.5s,baz=113,slow=4.0,SNR=6.8						
CPUP				PKPab	PKPab	06 19 50.2	-1.9
	comp=Z,0.8nm,0.6s,baz=84,slow=7.7,SNR=3.3						
CPUP	Villa Florida	153.34	247	*e*PKPbc	PKPbc	06 19 38.4	-1.5
CFAA	Coronel Fontan	159.88	225	PKPab	PKPab	06 20 18.6	-1.5
	baz=140,slow=3.9						

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*NEIC **02** 06:06:55.7, 34°.02S×70°.10W, h6^{km}, ML3.2(GUC), After GUC.*

GUC 02 06:06:55.7±0.7**, 34°.03S×70°.05W, h11**^{km}±7^{km}**, MD4.0, ML3.2, 13C-3D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMEL	Las Melosas	0.22	325	⇑*i*P	Pg	06 07 00.5	+0.2
LMEL				*i* S	Sg	06 07 04.0	+0.5
LMEL	Las Melosas	0.22	325	⇑*i*P	Pg	06 07 00.5	+0.1
LMEL				*i* S	Sg	06 07 04.0	+0.5
YECH	El Yeso	0.36	355	⇑*e*P	Pg	06 07 03.2	+0.3
YECH				*i* S	Sg	06 07 08.8	+1.0
YECH				AML	AML	06 07 09.7	
	comp=N,6µm,0.5s						
CICH	Cipreses	0.42	227	⇑*i*P	Pg	06 07 04.0	0.0
CICH				*i* S	Sg	06 07 10.0	+0.3
SJCH	San Jose de Ma	0.46	327	*e*P	Pg	06 07 04.9	+0.1
SJCH				*i* S	Sg	06 07 11.5	+0.6
SJCH	San Jose de Ma	0.46	327	*e*P	Pg	06 07 04.9	+0.1
SJCH				*i* S	Sg	06 07 11.4	+0.5
SJCH				AML	AML	06 07 12.1	
	comp=E,3µm,0.5s						
CACH	El Canelo	0.47	259	⇓*i*P	Pg	06 07 04.6	-0.2
CACH				*i* S	Sg	06 07 11.1	0.0
CHCH	Chadas Angostu	0.51	281	⇑*i*P	Pg	06 07 05.6	-0.1
CHCH				*i* S	Sg	06 07 12.4	0.0
CHCH	Chadas Angostu	0.51	281	⇑*i*P	Pg	06 07 05.6	-0.1
CHCH				*i* S	Sg	06 07 12.4	0.0
PCH	Pirque	0.56	316	⇑*i*P	Pg	06 07 06.6	-0.1
PCH				*i* S	Sg	06 07 14.7	+0.7
PCH	Pirque	0.56	316	⇑*i*P	Pg	06 07 06.6	-0.1
PCH				*i* S	Sg	06 07 14.6	+0.6
ANTU	Antumapu	0.67	313	⇓*i*P	Pg	06 07 08.5	-0.2
ANTU				*i* S	Sg	06 07 18.1	+0.6
ANTU	Antumapu	0.67	313	*e*P	Pg	06 07 08.3	-0.3
ANTU				*i* S	Sg	06 07 17.9	+0.4
ANTU				AML	AML	06 07 18.4	
	comp=E,2µm,0.3s						
FSR	Penalolen	0.68	324	*e*P	Pg	06 07 08.5	-0.4
FSR				*e*S	Sg	06 07 18.2	+0.4
FCH	Farellones	0.73	344	*e*P	Pg	06 07 07.5	-2.3
FCH				*i* S	Sg	06 07 18.2	-1.1
FCH				AML	AML	06 07 19.5	
	comp=N,2µm,0.3s						
CLCH	Cerro Calan	0.75	327	AML	AML	06 07 22.8	
	comp=E,3µm,0.8s						
TACH	Talagante	0.83	297	⇑*i*P	Pg	06 07 11.2	-0.5
TACH				*i* S	Sg	06 07 22.6	+0.1
TACH	Talagante	0.83	297	⇑*i*P	Pg	06 07 11.2	-0.5
TACH				*i* S	Sg	06 07 22.5	0.0
RCDM	Rinconada Maip	0.83	310	⇓*i*P	Pg	06 07 11.6	-0.1
RCDM				*i* S	Sg	06 07 23.1	+0.6
RCDM	Rinconada Maip	0.83	310	*e*P	Pg	06 07 11.5	-0.2
RCDM				*i* S	Sg	06 07 23.1	+0.6
RCDM				AML	AML	06 07 23.4	
	comp=N,2µm,0.2s						
PEL	Peldehue	1.03	329	⇑*e*P	Pg	06 07 14.6	-1.0
PEL				*i* S	Sg	06 07 28.8	-0.1
PEL				AML	AML	06 07 29.8	
	comp=E,1µm,0.3s						
IHA	Instituto Hidr	1.67	307	⇑*i*P	Pn	06 07 25.3	+0.5
IHA				*i* S	Sn	06 07 47.2	+0.9
IHA	Instituto Hidr	1.67	307	⇑*i*P	Pn	06 07 25.3	+0.5
IHA				*i* S	Sn	06 07 46.7	+0.5
CHNG	Los Chungos	2.46	330	*e*P	Pn	06 07 38.3	+2.5
CHNG				*i* S	Sn	06 08 09.9	+4.0
CHNG				AML	AML	06 08 12.1	
	comp=E,239nm,0.5s						

IDC 02 06:10:04.1±1.3**, 14°.13S×76°.38W, h0**^{km}**, mb3.9**/5**, mb1 3.9**/9**, mb1mx3.8**/21**, mbtmp3.8**/9**, ML3.4**/3**, MS3.4**/4**, Ms1 3.4**/4**, ms1mx3.1**/26**, Error ellipse: s-maj=42.9km s-min=13.5km az=66.0, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	Nana	2.18	348	Pn	Pn	06 10 41.4	-0.2
	20nm,0.3s,baz=180,slow=13,SNR=38						
NNA				Pg	Pg	06 10 44.6	-1.2
	20nm,0.3s,baz=178,slow=14,SNR=38						
NNA				Lg		06 11 13.5	
	166nm,0.3s,baz=216,slow=12,SNR=30						
ATAH	Atahualpa	7.36	344	Pn	Pn	06 11 52.9	0.0
	0.4nm,0.3s,baz=180,slow=20,SNR=3.1						
ATAH				Sn	Sn	06 13 26.4	+9.3
	1.2nm,0.3s,baz=100,slow=21,SNR=5.1						
LVC	Limon Verde	11.02	141	Pn	Pn	06 12 43.6	+0.5
	0.6nm,0.3s,baz=307,slow=5.8,SNR=10						
LVC				LR	LR	06 16 29.9	
	comp=Z,72nm,19.5s,baz=343,slow=35						
SIV	San Ignacio	14.90	99	Pn	Pn	06 13 38.4	+2.3
	0.1nm,0.3s,baz=277,slow=19,SNR=3.6						
CFAA	Coronel Fontan	18.93	158	P	Pn	06 14 28.6	+1.4
	0.0nm,0.3s,baz=331,slow=3.7,SNR=3.5						
ROSC	El Rosal	18.97	6	LR	LR	06 23 05.2	
	comp=Z,147nm,18.1s,baz=173,slow=41						
CPUP	Villa Florida	21.57	127	LR	LR	06 22 55.4	
	comp=Z,58nm,21.0s,baz=209,slow=36						
SDV	Santo Domingo	23.57	14	P	P	06 15 17.3	+0.6
	1.4nm,0.5s,baz=195,slow=12,SNR=6.5						
TXAR	Lajitas Array	50.61	329	P	P	06 19 05.6	+0.7
	0.4nm,0.8s,baz=146,slow=8.5,SNR=4.7						
DBIC	Dimbokro	73.89	79	P	P	06 21 41.0	-0.6
	2.4nm,0.8s,baz=260,slow=5.4,SNR=4.4						
TORD	Torodi Ar. Bea	81.92	74	P	P	06 22 25.9	-0.3
	3.5nm,1.0s,baz=260,slow=4.0,SNR=11						
YKA	Yellowknife Ar	82.01	343	P	P	06 22 24.2	-1.4
	0.2nm,0.4s,baz=142,slow=6.7,SNR=4.8						
MDT	Midelt	82.83	54	LR	LR	06 57 35.9	
	comp=Z,69nm,18.4s,baz=242,slow=34						
SONM	Songino Array	146.32	357	PKPbc	PKPbc	06 29 46.2	-0.6
	0.8nm,0.7s,baz=340,slow=2.3,SNR=6.7						

NNC 02 06:16:08.7±4.0**, 53°.81N×87°.01E, h0**^{km}**, mb3.5, mpv3.4, 7C-2D, Error ellipse: s-maj=31.0km s-min=17.6km az=60.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	Kurchatov	6.01	242	⇑Pn	Pn	06 17 39.9	+1.1
	3.1nm,0.8s						
KURK				⇑Sn	Sn	06 18 50.6	+2.4
	2.5nm,0.9s						
KURK				⇓Lg		06 19 20.9	
	14nm,0.8s						
MK31	Makanchi Array	7.64	205	⇓Pn	Pn	06 18 05.1	+3.9
	baz=26,slow=14,SNR=12						
MK31				⇑Sn	Sn	06 19 34.4	+6.0
	2.6nm,0.8s,baz=26,slow=25						
MK31				⇑Lg		06 20 10.7	
	17nm,1.1s,baz=20,slow=29,SNR=8.6						
VOSK	Vostochnaya	9.67	270	⇑Pn	Pn	06 18 27.1	-1.8
	1.5nm,0.7s						
VOSK				⇑Sn	Sn	06 20 17.2	-1.0
	6.1nm,1.1s						
BVA0	Borovoye Array	9.96	272	Pn	Pn	06 18 33.3	+0.4
	0.3nm,1.1s,baz=70,slow=15,SNR=5.2						
BVA0				⇑Sn	Sn	06 20 24.6	-0.7
	1.1nm,0.9s,baz=75,slow=26,SNR=6.3						

IDC 02 06:24:04.2±6.6**, 9°.21S×120°.50E, h224**^{km}±59^{km}**, mb3.5**/1**, mb1 3.0**/4**, mb1mx2.8**/18**, mbtmp2.8**/4**, 1D, Error ellipse: s-maj=113.3km s-min=52.7km az=49.0, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	0.49	204	⇓*e*P	Pn	06 24 22.0	-12
WSI				*e*S	S	06 24 42.3	-15
FITZ	Fitzroy Crossi	10.15	151	P	Pn	06 26 25.1	+0.1
	0.1nm,0.3s,baz=342,slow=13,SNR=3.7						
FITZ				S	S	06 28 19.9	+1.0
	0.2nm,0.3s,baz=236,slow=11,SNR=3.9						
WRA	Warramunga Arr	17.11	130	P	P	06 27 47.4	-1.4
	0.1nm,0.3s,baz=311,slow=10,SNR=12						
WRA				S	S	06 30 56.2	+0.7
	0.2nm,0.3s,baz=298,slow=20,SNR=7.1						
ASAR	Alice Springs	19.26	140	P	P	06 28 12.8	+0.7
	0.1nm,0.3s,baz=314,slow=9.8,SNR=7.2						
STKA	Stephens Creek	29.86	142	P	P	06 29 51.2	+0.3
	0.7nm,0.3s,baz=300,slow=13,SNR=3.2						

NNC 02 06:25:48.2±2.3**, 53°.87N×86°.97E, h0**^{km}**, mb3.8, mpv3.3, 6C-4D, Error ellipse: s-maj=17.4km s-min=13.9km az=63.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	Kurchatov	6.02	242	⇑Pn	Pn	06 27 18.4	+0.1
	7.2nm,0.9s						
KURK				⇓Sn	Sn	06 28 29.6	+1.7
	3.5nm,1.0s						
KURK				⇑Lg		06 29 02.2	
	13nm,0.9s						
KURBB	Kurchatov Arra	6.12	241	⇑Pn	Pn	06 27 19.5	-0.3
	1.3nm,0.8s						
KURBB				⇓Sn	Sn	06 28 31.7	+1.4
	1.2nm,0.7s						
KURBB				⇑Lg		06 29 04.0	
	2.0nm,0.7s						
MK31	Makanchi Array	7.69	205	⇑Pn	Pn	06 27 44.9	+3.6
	1.0nm,0.7s,baz=25,slow=13,SNR=14						
MK31				⇓Sn	Sn	06 29 14.9	+6.0
	4.0nm,1.1s,baz=24,slow=26,SNR=4.8						
MK31				⇑Lg		06 29 51.9	
	8.3nm,0.9s,baz=26,slow=30,SNR=5.1						
VOSK	Vostochnaya	9.65	270	⇓Pn	Pn	06 28 05.8	-2.3
	1.6nm,0.6s						

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*NEIC **02** 06:28:43.8±1.9, 23°.10N×121°.48E, h10^{km}, Error ellipse: s-maj=20.8km s-min=10.0km az=120.0*

*ISCJB **02** 06:28:44.6±0.4, 23°.07N±0°.02×121°.46E±0°.03, h20^{km}±4^{km}, Error ellipse: s-maj=4.5km s-min=3.0km az=4.4*

*TAP **02** 06:28:45.5, 23°.12N×121°.34E, h20^{km}, ML3.7, B*

ISC 02 06:28:44.6±0.4**, 23°.07N**±0°.02×**121°.44E**±0°.03**, h17**^{km}±2^{km}**, n56, σ0^{s}.88**/84**, 9C-1D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHKT	Chengkung	0.07	294	*i* P	Pg	06 28 49.4	+1.5
	baz=131						
CHKT				*i* S	Sg	06 28 52.1	+2.0
	baz=131						
TWF1	Yuli	0.31	335	⇑*i*P	Pg	06 28 51.5	+0.2
	baz=339						
TWF1				S	Sg	06 28 56.1	+0.3
	baz=339						
YULB	Yu-li	0.35	338	*e*P	Pg	06 28 51.5	-0.5
ELDTW	Lidau	0.41	287	⇑*i*P	Pg	06 28 52.3	-0.7
	baz=288						
ELDTW				S	Sg	06 28 57.0	-1.6
	baz=288						
TTN	Taitung	0.41	221	P	Pg	06 28 54.7	+1.6
	baz=209						
TTN				*e*S	Sg	06 29 01.5	+2.7
	baz=209						
TWG	Pinlang	0.42	234	*e*P	Pg	06 28 53.2	0.0
TWG				*e*S	Sg	06 28 58.9	-0.1
TWG	Pinlang	0.42	234	⇓*i*P	Pg	06 28 53.6	+0.4
	baz=231						
TWG				*i* S	Sg	06 28 59.3	+0.4
	baz=231						
EHY	Hungye	0.45	346	P	Pg	06 28 53.5	-0.2
	baz=342						
EHY				*e*S	Sg	06 29 00.6	+0.7
	baz=342						
YUS	Yu-Shan	0.61	313	⇑*i*P	Pg	06 28 56.3	-0.4
	baz=313						
YUS				*e*S	Sg	06 29 03.2	-1.8
	baz=313						
STYT	Tauyuan	0.64	279	⇑*i*P	Pg	06 28 56.4	-0.8
	baz=275						
STYT				*e*S	Sg	06 29 03.7	-2.0
	baz=275						
ECL	Taimali	0.65	224	*e*P	Pb	06 28 56.6	-0.9
	baz=215						
ALS	Alishan	0.73	307	⇑*i*P	Pb	06 28 58.5	-0.4
	baz=307						
ESL	Shilin	0.74	359	*e*P	Pb	06 28 58.5	-0.6
	baz=4.0						
TPUB	Ta-pu	0.78	287	*e*Pg	Pg	06 28 58.8	-1.1
WTP	Ta-pu	0.78	283	⇑*i*P	Pb	06 28 59.3	-0.5
	baz=281						
WTP				*e*S	Sb	06 29 09.9	-0.1
	baz=281						
SGST	Jiashian	0.79	271	P	Pb	06 28 59.7	-0.2
	baz=267						
SGST				*e*S	Sb	06 29 09.3	-0.9
	baz=267						
SSD	Sandimen	0.81	247	*e*P	Pb	06 28 59.2	-1.0
	baz=238						
CHN4	Tsaushan	0.83	290	⇑*i*P	Pb	06 29 00.4	-0.2
	baz=292						
CHN4				S	Sb	06 29 11.1	-0.3
	baz=292						
SSLB	Suanglung	0.84	328	*e*Pg	Pg	06 28 59.4	-1.7
CHN1	Nanshi	0.85	278	⇑*i*P	Pb	06 29 00.9	0.0
	baz=284						
CHN1				*e*S	Sb	06 29 12.2	+0.2
	baz=284						
TAW	Tawu	0.87	215	*e*P	Pb	06 29 00.2	-1.0
	baz=218						
TAW				*e*S	Sb	06 29 11.4	-1.2
	baz=218						
EAST	Anshuo	0.88	219	*e*P	Pb	06 28 59.7	-1.6
	baz=214						
CHN5	Tsauling	0.88	307	⇑*i*P	Pb	06 29 01.4	0.0
	baz=307						
CHN5				*e*S	Sb	06 29 12.8	0.0
	baz=307						
TWK	Hsinying	0.90	283	P	Pb	06 29 01.5	-0.2
	baz=280						
TWK				*e*S	Sb	06 29 13.7	+0.3
	baz=280						
SGLT	Jiouru	0.94	249	*e*P	Pb	06 29 03.3	+0.9
	baz=245						
SMLT	Sun Moon Lake	0.95	329	P	Pb	06 29 02.3	-0.4
	baz=334						
SMLT				*e*S	Sb	06 29 15.4	+0.5
	baz=334						
TWM1	Shoushan	0.97	256	*e*P	Pb	06 29 03.8	+0.8
	baz=252						
TYC	Yuchr	0.99	327	P	Pb	06 29 03.1	-0.2
	baz=338						
TYC				S	Sb	06 29 16.8	+0.8
	baz=338						
CHN3	Shinhua	0.99	271	*e*P	Pb	06 29 03.9	+0.5
	baz=276						
CHN3				*e*S	Sb	06 29 18.8	+2.7
	baz=276						
CHN2	Minshiung	1.00	298	*e*P	Pb	06 29 03.5	+0.1
	baz=296						
CHN2				*e*S	Sb	06 29 17.6	+1.2
	baz=296						
WGK	Gukeng	1.01	307	*e*P	Pb	06 29 03.4	-0.4
	baz=306						
TWD	Chiawan	1.02	8	*e*P	Pb	06 29 02.4	-1.4
	baz=357						
CHY	Chiayi	1.03	295	*i* P	Pb	06 29 04.3	+0.3
	baz=293						
CHY				*e*S	Sb	06 29 17.1	-0.1
	baz=293						
SCZT	Fangliau	1.03	228	*e*P	Pb	06 29 03.5	-0.4
	baz=220						
LAY	Lan-yu	1.03	174	*e*P	Pb	06 29 03.5	-0.5
	baz=163						
LAY				*e*S	Sb	06 29 17.4	+0.1
	baz=163						
WNT	Mingjian	1.06	319	*e*P	Pb	06 29 04.5	0.0
	baz=318						
WNT				*e*S	Sb	06 29 19.0	+0.8
	baz=318						
NACB	Ninganchiao	1.11	7	*e*Pn	Pn	06 29 04.0	-1.3
NACB				*e*Sn	Sn	06 29 19.3	-1.0
SCLT	Jiali	1.15	276	*e*P	Pn	06 29 06.6	+0.6
	baz=273						
SCLT				*e*S	Sb	06 29 21.9	+1.2
	baz=273						
CHN8	Yiju	1.16	284	*e*P	Pn	06 29 06.0	-0.1
	baz=282						
CHN8				*e*S	Sb	06 29 21.7	+0.6
	baz=282						
TWT	Tachien	1.20	348	*e*P	Pn	06 29 06.1	-0.5
	baz=347						
TWP	Hsiaoliuchiu	1.23	234	*e*P	Pn	06 29 08.0	+1.0
	baz=213						
WSF	Szhu	1.25	297	*e*P	Pn	06 29 07.2	-0.2
	baz=296						
WSF				*e*S	Sb	06 29 23.8	0.0
	baz=296						
TWK1	Hengchun	1.27	208	*e*P	Pn	06 29 07.7	+0.2
	baz=193						
TSEB	Hengchuen, Pin	1.27	203	*e*P	Pn	06 29 07.9	+0.3
	baz=193						
TCU	Taichung	1.28	327	*e*P	Pn	06 29 07.6	-0.1
	baz=326						
NNS	Nan Shan	1.37	357	*e*P	Pn	06 29 08.6	-0.3
	baz=8.0						
ENA	Nanau	1.38	11	*e*P	Pn	06 29 09.1	-0.1
	baz=359						
TWQ1	Liyutan	1.41	334	*e*P	Pn	06 29 10.7	+1.2
	baz=332						
TWQ1				S	Sn	06 29 29.8	+2.0
	baz=332						
ENTT	Nioudou	1.57	4	*e*P	Pn	06 29 12.3	+0.6
	baz=17						
TWC	Suao	1.58	14	*e*P	Pn	06 29 12.6	+0.8
YHNB	Yeheng	1.59	358	*e*Pn	Pn	06 29 12.4	+0.4

NSK	Sanguang	1.60	357	*e*P	Pn	06 29 12.6	+0.5
	baz=11						
NSTT	Nanjuang	1.61	346	*e*P	Pn	06 29 12.6	+0.4
	baz=351						
WDGT	Dungji	1.65	277	*e*P	Pn	06 29 12.9	+0.2
	baz=274						
PNG	Penghu	1.80	286	*e*P	Pn	06 29 14.0	-0.9
	baz=284						
NWF	Wu-fen Shan	2.02	9	*e*P	Pn	06 29 18.9	+1.0
	baz=7.0						

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*IDC **02** 06:32:08.8±0.8, 36°.34N×22°.83E, h0^{km}, mb3.9/13, mb1 3.9/18, mb1mx3.9/30, mbtmp3.8/18, ML3.7/4, MS3.0/1, Ms1 3.0/1, ms1mx2.3/35, Error ellipse: s-maj=18.9km s-min=10.6km az=31.0*

*ISCJB **02** 06:32:09.6±0.6, 36°.25N±0°.03×22°.72E±0°.03, h13^{km}±3^{km}, mb3.9/16, Error ellipse: s-maj=4.9km s-min=3.1km az=38.4*

*NEIC **02** 06:32:10.0, 36°.28N×22°.82E, h21^{km}, mb4.2/6, ML3.6(ATH), After ATH.*

*ATH **02** 06:32:10.0, 36°.28N×22°.82E, h21^{km}±1^{km}, MD3.9/15, ML3.6*

*THE **02** 06:32:10.8, 36°.32N×22°.84E, h0^{km}±1^{km}, ML4.4/2, Error ellipse: s-maj=2.2km s-min=0.8km az=235.0*

*CSEM **02** 06:32:11.3±0.2, 36°.26N×22°.80E, h15^{km}, mb4.2/11, Error ellipse: s-maj=4.7km s-min=3.3km az=36.0*

*MOS **02** 06:32:12.4±0.9, 36°.37N×22°.82E, h33^{km}, mb4.3/12, Error ellipse: s-maj=10.1km s-min=6.8km az=104.1*

ISC 02 06:32:10.6±0.6**, 36°.26N**±0°.03×**22°.78E**±0°.03**, h8**^{km}±4^{km}**, n208,** σ**1^{s}01**/242**, mb3.9**/16**, 6D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	0.21	85	*e*PB	Pg	06 32 15.2	+0.4
KYTH	Kithira	0.21	85	*e*Pb	Pg	06 32 15.2	+0.4
VLI	Veliai	0.47	16	⇓*i*PB	Pg	06 32 19.2	-0.5
VLI	Veliai	0.47	16	⇓*i*Pb	Pg	06 32 19.2	-0.5
PYL	PYLOS	1.05	307	P	Pg	06 32 29.8	-0.8
PYL				S	Sg	06 32 45.5	+1.3
PYL	PYLOS	1.05	307	*e*PB	Pg	06 32 29.5	-1.1
PYL				*e*SN	Sg	06 32 45.5	+1.3
PYL	PYLOS	1.05	307	*e*Pb	Pg	06 32 29.5	-1.1
PYL				*e*Sn	Sg	06 32 45.5	+1.3
ITM	Ithomi	1.14	323	*e*PN	Pg	06 32 31.3	-1.2
ITM				*e*SN	Sg	06 32 48.3	+1.0
ITM	Ithomi	1.14	323	*e*Pn	Pg	06 32 31.3	-1.2
ITM				*e*Sn	Sg	06 32 48.3	+1.0
VLX	Vlachokerasia	1.15	344	*e*PN	Pg	06 32 31.3	-1.3
VLX				*e*SN	Sg	06 32 47.5	-0.1
VLX	Vlachokerasia	1.15	344	*e*Pn	Pg	06 32 31.3	-1.3
VLX				*e*Sn	Sg	06 32 47.5	-0.1
KARN	Karanos	1.26	133	P	Pn	06 32 34.3	-0.2
KARN				S	Sb	06 32 52.2	+1.2
KARN	Karanos	1.26	133	P	Pn	06 32 34.3	-0.2
KARN				S	Sb	06 32 52.2	+1.2
DID	Didima	1.29	16	P	Pn	06 32 34.1	-0.8
DID				S	Sb	06 32 51.7	-0.2
DID	Didima	1.29	16	*e*PN	Pn	06 32 34.2	-0.7
DID				*e*SN	Sb	06 32 51.7	-0.2
DID	Didima	1.29	16	*e*Pn	Pn	06 32 34.2	-0.7
DID				*e*Sn	Sb	06 32 51.7	-0.2
VAM	Vamos	1.44	126	*e*PN	Pn	06 32 37.0	+0.2
VAM	Vamos	1.44	126	*e*Pn	Pn	06 32 37.0	+0.2
NAIG	Nisos Aigina	1.60	21	*e*PN	Pn	06 32 38.6	-0.5
NAIG	Nisos Aigina	1.60	21	*e*Pn	Pn	06 32 38.6	-0.5
GUR	Goura	1.71	348	*e*PN	Pn	06 32 41.1	+0.5
GUR				*e*SN	Sn	06 33 02.9	+0.4
GUR	Goura	1.71	348	*e*Pn	Pn	06 32 41.1	+0.5
GUR				*e*Sn	Sn	06 33 02.9	+0.4
LTK	Loutraki	1.76	5	P	Pn	06 32 41.6	+0.3
LTK				S	Sn	06 33 04.3	+0.4
LTK	Loutraki	1.76	5	*e*PN	Pn	06 32 41.7	+0.4
LTK				*e*SN	Sn	06 33 04.6	+0.7
LTK	Loutraki	1.76	5	*e*Pn	Pn	06 32 41.7	+0.4
LTK				*e*Sn	Sn	06 33 04.6	+0.7
ATH	Athens Observa	1.86	23	*e*PB	Pn	06 32 41.8	-0.9
ATH	Athens Observa	1.86	23	*e*Pb	Pn	06 32 41.8	-0.9
IDI	Anoyia	1.97	119	Pg	Pg	06 32 43.8	-4.6
	14nm,0.3s,baz=296,slow=17,SNR=60						
IDI				Lg		06 33 13.8	
	91nm,0.3s,baz=56,slow=17,SNR=14						
IDI	Anoyia	1.97	119	Pg	Pg	06 32 43.8	-4.6
IDI				Lg		06 33 13.8	
PTL	Penteli	1.98	26	*e*PN	Pn	06 32 43.8	-0.6
PTL	Penteli	1.98	26	*e*Pn	Pn	06 32 43.8	-0.6
SIVA	Sivas	2.07	126	P	Pn	06 32 47.0	+1.4
SIVA	Sivas	2.07	126	P	Pn	06 32 47.0	+1.4
RLS	Riolos of Patr	2.08	330	*e*PN	Pn	06 32 47.3	+1.7
RLS	Riolos of Patr	2.08	330	*e*Pn	Pn	06 32 47.3	+1.7
THR3	Thira Island,	2.12	85	P	Pn	06 32 46.1	-0.2
THR3	Thira Island,	2.12	85	P	Pn	06 32 46.1	-0.2
APE	Apeiranthos	2.35	69	P	Pn	06 32 49.0	-0.5
APE				S	Sn	06 33 18.8	+0.3
APE	Apeiranthos	2.35	69	*e*PN	Pn	06 32 49.0	-0.5
APE	Apeiranthos	2.35	69	*e*Pn	Pn	06 32 49.0	-0.5
APE				S	Sn	06 33 18.8	+0.3
LKR	Lokris	2.39	4	P	Pn	06 32 50.0	0.0
LKR				S	Sn	06 33 19.6	+0.2
LKR	Lokris	2.39	4	*e*PN	Pn	06 32 50.1	+0.1
LKR	Lokris	2.39	4	*e*Pn	Pn	06 32 50.1	+0.1
LKR				S	Sn	06 33 19.6	+0.2
LAST	Lasithi	2.46	116	P	Pn	06 32 50.9	0.0
LAST				S	Sn	06 33 22.6	+1.5
LAST	Lasithi	2.46	116	P	Pn	06 32 50.9	0.0
LAST				S	Sn	06 33 22.6	+1.5
NPS	Neapolis	2.51	113	*e*PN	Pn	06 32 51.5	-0.1
NPS	Neapolis	2.51	113	*e*Pn	Pn	06 32 51.5	-0.1
VLS	Valsamata	2.59	318	P	Pn	06 32 54.1	+1.4
VLS	Valsamata	2.59	318	*e*PN	Pn	06 32 53.6	+0.9
VLS	Valsamata	2.59	318	*e*Pn	Pn	06 32 53.6	+0.9
VLS	Valsamata	2.59	318	P	Pn	06 32 54.1	+1.4
EVR	Evrytania	2.76	344	*e*PN	Pn	06 32 55.7	+0.7
EVR	Evrytania	2.76	344	*e*Pn	Pn	06 32 55.7	+0.7
AGG	Agios Georgios	2.78	353	P	Pn	06 32 56.1	+0.8
AGG	Agios Georgios	2.78	353	*e*PB	Pn	06 32 56.4	+1.1
AGG	Agios Georgios	2.78	353	*e*Pb	Pn	06 32 56.4	+1.1
ZKR	Zakros	3.02	111	P	Pn	06 32 59.4	+0.7
ZKR				S	Sn	06 33 37.2	+2.1
ZKR	Zakros	3.02	111	P	Pn	06 32 59.4	+0.7
ZKR				S	Sn	06 33 37.2	+2.1
AOS	Alonnisos	3.03	16	P	Pn	06 32 58.2	-0.6
AOS	Alonnisos	3.03	16	P	Pn	06 32 58.2	-0.6
NEO	Neokhori	3.06	6	*e*PN	Pn	06 32 59.3	+0.2
NEO	Neokhori	3.06	6	*e*Pn	Pn	06 32 59.3	+0.2
XOR	Xorichti	3.11	6	P	Pn	06 33 00.0	+0.1
XOR				S	Sn	06 33 39.0	+1.7
XOR	Xorichti	3.11	6	P	Pn	06 33 00.0	+0.1
XOR				S	Sn	06 33 39.0	+1.7
THL	Klokotos Trika	3.35	350	*e*PN	Pn	06 33 04.6	+1.4
THL	Klokotos Trika	3.35	350	*e*Pn	Pn	06 33 04.6	+1.4
CHOS	Chios island	3.36	50	P	Pn	06 33 02.8	-0.5
CHOS	Chios island	3.36	50	P	Pn	06 33 02.8	-0.5
KARP	Karpathos	3.63	100	*e*PN	Pn	06 33 07.6	+0.6
KARP	Karpathos	3.63	100	*e*Pn	Pn	06 33 07.6	+0.6
PAIG	Paliouri	3.73	11	P	Pn	06 33 08.1	-0.2
PAIG	Paliouri	3.73	11	P	Pn	06 33 08.1	-0.2
IGT	Igoumenitsa	3.79	330	P	Pn	06 33 10.6	+1.3
IGT	Igoumenitsa	3.79	330	P	Pn	06 33 10.6	+1.3
SIGR	SIGRI	3.82	39	P	Pn	06 33 08.9	-0.7
SIGR	SIGRI	3.82	39	P	Pn	06 33 08.9	-0.7
LIT	Litokhoron	3.84	357	P	Pn	06 33 10.8	+0.9
LIT	Litokhoron	3.84	357	P	Pn	06 33 10.8	+0.9
PRK	Paraskevi	4.07	42	*e*PN	Pn	06 33 12.4	-0.6
PRK	Paraskevi	4.07	42	*e*Pn	Pn	06 33 12.4	-0.6
LIA	Limnos Island	4.09	27	P	Pn	06 33 12.5	-0.9
LIA	Limnos Island	4.09	27	P	Pn	06 33 12.5	-0.9
PLG	Polygyros	4.14	7	P	Pn	06 33 14.1	+0.1
PLG	Polygyros	4.14	7	*e*PN	Pn	06 33 13.9	-0.1
PLG	Polygyros	4.14	7	*e*Pn	Pn	06 33 13.9	-0.1
KEK	Kerkira	4.17	327	*e*PN	Pn	06 33 14.7	+0.3
KEK	Kerkira	4.17	327	*e*Pn	Pn	06 33 14.7	+0.3
OUR	Ouranopolis	4.17	13	P	Pn	06 33 14.3	-0.2
OUR	Ouranopolis	4.17	13	P	Pn	06 33 14.3	-0.2
HORT	Hortiatis	4.33	3	P	Pn	06 33 16.5	-0.2
HORT	Hortiatis	4.33	3	P	Pn	06 33 16.5	-0.2
SOH	Sokhos	4.57	5	P	Pn	06 33 20.8	+0.8
SOH	Sokhos	4.57	5	P	Pn	06 33 20.8	+0.8
GRG	Griva	4.70	357	P	Pn	06 33 22.7	+1.1
GRG	Griva	4.70	357	P	Pn	06 33 22.7	+1.1
SRS	Serrai	4.89	7	P	Pn	06 33 24.5	+0.2
SRS	Serrai	4.89	7	P	Pn	06 33 24.5	+0.2
KNT	Kendrikon	4.89	1	P	Pn	06 33 25.6	+1.3
KNT	Kendrikon	4.89	1	P	Pn	06 33 25.6	+1.3
VAY	Valandovo	5.05	358	*e*Pn	Pn	06 33 27.8	+1.2
VAY				*e*Sg	Sn	06 34 24.9	-0.1
VAY	Valandovo	5.05	358	*e*Pn	Pn	06 33 27.7	+1.1
KRUS	Krusevo	5.24	347	*e*Pn	Pn	06 33 31.2	+2.2
KRUS	Krusevo	5.24	347	*e*Pn	Pn	06 33 31.2	+2.1
ALN	Alexandroupoli	5.29	28	P	Pn	06 33 29.2	-0.6
ALN	Alexandroupoli	5.29	28	P	Pn	06 33 29.2	-0.6
RDO	Rodhopi	5.33	23	*e*PN	Pn	06 33 30.5	+0.1
RDO	Rodhopi	5.33	23	*e*Pn	Pn	06 33 30.5	+0.1
TIP	Timpagrande	5.59	303	P	Pn	06 33 35.6	+1.7
TIP	Timpagrande	5.59	303	P	Pn	06 33 35.6	+1.7
CEL	Celeste	5.84	292	P	Pn	06 33 38.0	+0.6
CEL	Celeste	5.84	292	P	Pn	06 33 38.0	+0.6
TAR1	Taranto	6.06	316	*e*Pn	Pn	06 33 40.1	-0.3
PE1	Pezze di Greco	6.18	319	*e*Pn	Pn	06 33 42.2	+0.2
PE1				*e*Sn	Sn	06 34 50.8	-2.0
VTS	Vitosha	6.33	3	P	Pn	06 33 49.0	+4.9
BARS	Barje	6.59	354	⇓*i*Pn	Pn	06 33 50.2	+2.6
SG1	Sgolgore (BA)	6.61	316	*e*Pn	Pn	06 33 47.7	-0.3
CUC	Castrocucco	6.63	306	*e*Pn	Pn	06 33 49.3	+1.1
	84nm,0.6s						
CUC				*e*Sn	Sn	06 35 05.8	+1.9
CUC	Castrocucco	6.63	306	*e*Pn	Pn	06 33 49.3	+1.1
	84nm,0.6s						
CUC				*e*Sn	Sn	06 35 05.8	+1.8
BBLS	Lazići	8.02	342	⇓*i*Pn	Pn	06 34 07.4	+0.1
DIVS	Divibare	8.11	346	*e*Pn	Pn	06 34 07.9	-0.6
BRTR	Keskin Array B	9.24	65	Pn	Pn	06 34 23.4	-0.7
	0.2nm,0.3s,baz=219,slow=29,SNR=6.1						
BRTR	Keskin Array B	9.24	65	Pn	Pn	06 34 23.4	-0.7
MLR	Muntele Rosu	9.52	14	⇓*i*P	Pn	06 34 29.3	+1.4
PLOR	Plostina	10.01	16	⇓*i*P	Pn	06 34 37.7	+3.1
MMAI	Mount Meron Ar	10.89	104	Pn	Pn	06 34 44.6	-2.1
	baz=295,slow=14,SNR=2.1						
MMAI				Sn	Sn	06 36 42.7	-6.0
	0.8nm,0.3s,baz=297,slow=29,SNR=3.6						
CRES	Cresnjev	11.03	332	*i* Pn	Pn	06 34 47.8	-0.7
CRES				*i* Sn	Sn	06 36 45.7	-6.3
CRES	Cresnjev	11.03	332	Pn	Pn	06 34 47.8	-0.7
VISS	Visnje	11.25	330	*i* Pn	Pn	06 34 50.4	-1.1
VISS				*i* Sn	Sn	06 36 52.0	-5.4
VISS	Visnje	11.25	330	*i* Pn	Pn	06 34 50.4	-1.1
JAVS	Javornik	11.64	328	*i* Pn	Pn	06 34 56.7	-0.2
JAVS				*i* Sn	Sn	06 37 04.4	-2.6
JAVS	Javornik	11.64	328	*i* Pn	Pn	06 34 56.7	-0.2
EIL	Elat	12.15	119	Pn	Pn	06 35 02.5	-1.4
	0.5nm,0.3s,baz=348,slow=20,SNR=6.2						
EIL				Sn	Sn	06 37 13.2	-6.3
	1.1nm,0.3s,baz=342,slow=13,SNR=5.4						
EIL	Elat	12.15	119	Pn	Pn	06 35 02.5	-1.4
OKC	Ostrava-Krasne	13.98	348	*e*P	Pn	06 35 38.4	+10
OKC	Ostrava-Krasne	13.98	348	*e*P	Pn	06 35 38.4	+10
GERES	GERESS Array B	14.23	335	Pn	Pn	06 35 31.7	-0.5
	0.3nm,0.3s,baz=165,slow=12,SNR=7.2						
GERES	GERESS Array B	14.23	335	Pn	Pn	06 35 31.7	-0.5
KHC	Kasperske Hory	14.51	335	*e*P	Pn	06 35 44.2	+8.1
KHC				*e*x	x	06 35 49.5	
KHC	Kasperske Hory	14.51	335	P	Pn	06 35 44.2	+8.1
DPC	Dobruska-Polom	14.83	344	*e*P	Pn	06 35 47.7	+7.3
DPC	Dobruska-Polom	14.83	344	P	Pn	06 35 47.7	+7.3
PRU	Pruhonice	14.96	339	*e*P	Pn	06 35 49.1	+6.9
PRU	Pruhonice	14.96	339	P	Pn	06 35 49.1	+6.9
AKASG	Malin Array Be	15.16	16	Pn	Pn	06 35 42.0	-2.8
	0.3nm,0.3s,baz=199,slow=8.8,SNR=3.2						
CLL	Collm	16.59	338	*e*P	Pn	06 36 09.0	+5.7
CLL				pmax	pmax		
	comp=Z,21nm,1.4s						
CLL	Collm	16.59	338	*e*sP	sP	06 36 09.0	-0.2
	comp=Z,21nm,1.4s						
KIV	Kislovodsk	17.03	57	*e*P	Pn	06 36 12.0	+3.0
KIV				pmax	pmax		
	comp=Z,13nm,1.1s						
KIV	Kislovodsk	17.03	57	*e*P	Pn	06 36 12.0	+3.0
	comp=Z,11nm,0.8s						
KIV	Kislovodsk	17.03	57	*e*P	Pn	06 36 12.0	+3.0
	comp=Z,13nm,1.1s						
GNI	Garni	17.68	71	LR	LR	06 42 57.9	
	comp=Z,52nm,19.0s,baz=269,slow=37						
SSF	Saint Saulge	17.94	313	*e*P	Pn	06 36 18.6	-1.7
SSF	Saint Saulge	17.94	313	*e*P	Pn	06 36 18.6	-1.7
LDF	La Druitiere	20.82	313	*e*P	P	06 36 52.3	0.0
	comp=Z,15nm,0.5s						
LDF	La Druitiere	20.82	313	*e*P	P	06 36 52.3	0.0
LDF				pmax	pmax		
	comp=Z,7.0nm,0.5s						
LDF	La Druitiere	20.82	313	*e*P	P	06 36 52.3	0.0
	comp=Z,7.4nm,0.5s						
LDF	La Druitiere	20.82	313	*e*P	P	06 36 52.3	0.0
	comp=Z,14nm,0.5s						
FLN	La Foliniere	21.11	313	*e*P	P	06 36 55.6	+0.1
	comp=Z,12nm,0.6s,mb4.1						
FLN	La Foliniere	21.11	313	*e*P	P	06 36 55.6	+0.1
FLN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.1						
FLN	La Foliniere	21.11	313	*e*P	P	06 36 55.6	+0.1
	comp=Z,6.1nm,0.6s,mb4.1						
FLN	La Foliniere	21.11	313	*e*P	P	06 36 55.6	+0.1
	comp=Z,12nm,0.6s,mb4.4						
GRR	Gorron	21.17	312	*e*P	P	06 36 56.3	+0.3
	comp=Z,11nm,0.6s,mb4.0						
GRR	Gorron	21.17	312	*e*P	P	06 36 56.3	+0.3
GRR				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.1						
GRR	Gorron	21.17	312	*e*P	P	06 36 56.3	+0.3
	comp=Z,5.6nm,0.6s,mb4.1						
GRR	Gorron	21.17	312	*e*P	P	06 36 56.3	+0.3
	comp=Z,11nm,0.6s,mb4.3						
ESDC	Sonseca Array	21.33	287	P	P	06 36 57.2	-0.7
	comp=Z,0.9nm,0.5s,mb3.3,baz=79,slow=9.3,SNR=4.3						
ESDC	Sonseca Array	21.33	287	P	P	06 36 57.2	-0.7
ESDC	Sonseca Array	21.33	287	P	P	06 36 57.2	-0.6
SGMF	Saint Gilles	22.14	311	*e*P	P	06 37 06.0	-0.5
SGMF	Saint Gilles	22.14	311	*e*P	P	06 37 06.0	-0.5
QUIF	Quistinic	22.39	309	*e*P	P	06 37 08.0	-1.1
	comp=Z,20nm,0.8s,mb4.3						
QUIF	Quistinic	22.39	309	*e*P	P	06 37 08.0	-1.1
QUIF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
QUIF	Quistinic	22.39	309	*e*P	P	06 37 08.0	-1.1
	comp=Z,10nm,0.8s,mb4.3						
QUIF	Quistinic	22.39	309	*e*P	P	06 37 08.0	-1.1
	comp=Z,20nm,0.8s,mb4.6						
ROSF	Rostrenen	22.61	310	*e*P	P	06 37 10.9	-0.6
ROSF	Rostrenen	22.61	310	*e*P	P	06 37 10.9	-0.6
MDT	Midelt	22.80	269	P	P	06 37 13.6	0.0
	comp=Z,0.9nm,0.7s,mb3.3,baz=94,slow=16,SNR=2.4						
MDT	Midelt	22.80	269	P	P	06 37 13.6	0.0
HFS	Hagfors	24.59	349	P	P	06 37 29.7	-1.1
HFS				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HFS	Hagfors	24.59	349	P	P	06 37 29.7	-1.1
	comp=Z,4.0nm,0.6s,mb4.2,baz=152,slow=13,SNR=18						
HFS	Hagfors	24.59	349	P	P	06 37 29.7	-1.1
	comp=Z,4.0nm,0.6s,mb4.1						
NB2	NORSAR Subarra	25.86	347	P	P	06 37 41.4	-0.9
	comp=Z,4.6nm,1.1s,mb3.9,baz=158,slow=10						
NB2	NORSAR Subarra	25.86	347	P	P	06 37 41.4	-0.9
	comp=Z,4.6nm,1.1s,mb3.9,baz=158,slow=9.8,SNR=4.3						
NOA	NORSAR Array B	25.86	347	P	P	06 37 41.2	-1.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	25.86	347	P	P	06 37 41.2	-1.1
	comp=Z,1.4nm,0.6s,mb3.6,baz=148,slow=9.4,SNR=5.5						
NOA	NORSAR Array B	25.86	347	P	P	06 37 41.2	-1.1
	comp=Z,1.0nm,0.6s,mb3.5						
EKA	Eskdalemuir Ar	26.03	325	P	P	06 37 43.8	-0.1
EKA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
EKA	Eskdalemuir Ar	26.03	325	P	P	06 37 43.8	-0.1
	comp=Z,4.7nm,0.8s,mb4.1,baz=127,slow=7.5,SNR=12						
EKA	Eskdalemuir Ar	26.03	325	P	P	06 37 43.8	-0.1
	comp=Z,5.0nm,0.8s,mb4.1						
TORD	Torodi Ar. Bea	29.81	225	P	P	06 38 18.2	+0.1
	comp=Z,0.2nm,0.6s,mb3.1,baz=34,slow=10,SNR=3.5						
ARCES	ARCESS Array B	33.36	2	P	P	06 38 47.4	-1.4
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	ARCESS Array B	33.36	2	P	P	06 38 47.4	-1.4
	comp=Z,1.5nm,0.6s,mb4.1,baz=184,slow=10,SNR=15						
ARCES	ARCESS Array B	33.36	2	P	P	06 38 47.4	-1.4
	comp=Z,2.0nm,0.6s,mb4.2						
MK31	Makanchi Array	44.80	57	*e*P	P	06 40 23.2	-1.4
MK31	Makanchi Array	44.80	57	*e*P	P	06 40 23.2	-1.4
MKAR	Makanchi Array	44.80	57	P	P	06 40 23.6	-1.0
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
MKAR	Makanchi Array	44.80	57	P	P	06 40 23.6	-1.0
	comp=Z,2.4nm,0.4s,mb4.4,baz=280,slow=7.1,SNR=38						
MKAR	Makanchi Array	44.80	57	P	P	06 40 23.6	-1.0
	comp=Z,2.0nm,0.4s,mb4.3						
ZALV	Zalesovo Beam	45.65	47	P	P	06 40 29.6	-1.7
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
ZALV	Zalesovo Beam	45.65	47	P	P	06 40 29.6	-1.8
	comp=Z,0.9nm,0.4s,mb4.0,baz=286,slow=7.6,SNR=5.5						
SONM	Songino Array	60.28	50	P	P	06 42 18.4	-1.0
	comp=Z,0.3nm,0.3s,mb3.8,baz=292,slow=6.5,SNR=5.5						
SONM	Songino Array	60.28	50	P	P	06 42 18.4	-1.0
SCHQ	Schefferville	61.09	319	P	P	06 42 24.4	-0.3
	comp=Z,1.9nm,0.8s,mb4.3,baz=334,slow=12,SNR=6.0						
YKA	Yellowknife Ar	75.79	341	P	P	06 43 56.0	-0.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	75.79	341	P	P	06 43 56.0	-0.6
	comp=Z,0.5nm,0.5s,mb3.7,baz=32,slow=5.4,SNR=10						
YKA	Yellowknife Ar	75.79	341	P	P	06 43 56.0	-0.6
	comp=Z,1.0nm,0.5s,mb4.0						
KSRS	Korea Array	79.13	51	P	P	06 44 14.5	-1.2
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KSRS	Korea Array	79.13	51	P	P	06 44 14.5	-1.2
	comp=Z,1.9nm,0.6s,mb4.2,baz=305,slow=4.8,SNR=7.1						
KSRS	Korea Array	79.13	51	P	P	06 44 14.5	-1.2
	comp=Z,2.0nm,0.6s,mb4.2						

IDC 02 06:36:53.3±3.9**, 24°.37N**×**109°.00W, h0**^{km}**, mb1 3.5**/3**, mb1mx3.4**/19**, mbtmp3.0**/3**, ML3.3**/2**, Error ellipse: s-maj=67.2km s-min=12.0km az=149.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.22	258	Pg	Pg	06 37 17.7	+0.8
	35nm,0.3s,baz=76,slow=4.0,SNR=34						
LPIG				Lg		06 37 31.9	
	83nm,0.3s,baz=318,slow=18,SNR=23						
TXAR	Lajitas Array	6.86	43	Pn	Pn	06 38 36.5	+1.3
	0.1nm,0.3s,baz=212,slow=14,SNR=11						
TXAR				Sn	Sn	06 39 52.0	-2.1
	0.5nm,0.3s,baz=213,slow=18,SNR=4.7						
TXAR				Lg		06 40 27.9	
	0.9nm,0.3s,baz=227,slow=21,SNR=4.8						
NVAR	Mina Array Bea	16.09	333	Pn	Pn	06 40 44.5	+3.5
	0.1nm,0.3s,baz=157,slow=12,SNR=2.6						
PDAR	Pinedale Array	18.35	359	P	Pn	06 41 10.4	+1.2
	0.0nm,0.3s,baz=166,slow=10,SNR=5.6						

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*ISCJB **02** 06:46:45.6±0.5, 38°.96N±0°.03×28°.66E±0°.03, h4^{km}±12^{km}, Error ellipse: s-maj=5.1km s-min=3.9km az=16.9*

*CSEM **02** 06:46:45.9±0.1, 38°.97N×28°.64E, h2^{km}, MD2.9, Error ellipse: s-maj=2.0km s-min=1.6km az=138.0*

*DDA **02** 06:46:45.3, 38°.97N×28°.62E, h7^{km}±6^{km}, Md3.0*

*ISK **02** 06:46:46.7, 38°.90N×28°.57E, h6^{km}, MD2.9*

ISC 02 06:46:46.2±0.5**, 38°.95N**±0°.03×**28°.64E**±0°.03**, h13**^{km}±10^{km}**, n20,** σ**0^{s}77**/37**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KULA	Kula-Manisa	0.44	178	*e*PG	Pg	06 46 54.8	0.0
KULA				*e*SG	Sg	06 47 00.4	-0.3
KULA	Kula-Manisa	0.44	178	*e*Pg	Pg	06 46 54.8	0.0
KULA				*e*Sg	Sg	06 47 00.4	-0.3
AKHS	Akhisar	0.65	264	*i* P	Pg	06 46 58.0	-0.8
AKHS				*i* S	Sg	06 47 07.1	-0.3
AKHS	Akhisar	0.65	264	*i* P	Pg	06 46 58.0	-0.8
AKHS				*i* S	Sg	06 47 07.1	-0.3
AKS	Akhisar	0.65	264	*e*PG	Pg	06 46 58.8	-0.1
AKS				*e*SG	Sg	06 47 07.3	-0.1
AKS	Akhisar	0.65	264	*e*Pg	Pg	06 46 58.8	0.0
AKS				*e*Sg	Sg	06 47 07.3	-0.1
DURS	Dursunbey	0.66	349	*i* P	Pg	06 46 58.4	-0.7
DURS				*i* S	Sg	06 47 06.8	-0.9
DURS	Dursunbey	0.66	349	*i* P	Pg	06 46 58.3	-0.7
DURS				*i* S	Sg	06 47 06.8	-0.9
GDZ	Gediz	0.67	78	*i* P	Pg	06 46 59.1	0.0
GDZ				*i* S	Sg	06 47 07.7	-0.2
GDZ	Gediz	0.67	78	*i* P	Pg	06 46 59.1	0.0
GDZ				*i* S	Sg	06 47 07.7	-0.2
KHAL	Karahalli	0.88	131	*i* P	Pg	06 47 04.1	+0.8
KHAL				*i* S	Sg	06 47 14.1	-0.7
KHAL	Karahalli	0.88	131	*i* P	Pg	06 47 04.1	+0.9
KHAL				*i* S	Sg	06 47 14.1	-0.7
BALB	Balikesir	0.91	319	*e*PG	Pg	06 47 04.3	+0.6
BALB				*e*SG	Sg	06 47 17.8	+2.3
BALB	Balikesir	0.91	319	*e*Pg	Pg	06 47 04.3	+0.6
KHL	Karahalli	0.93	132	*e*PG	Pg	06 47 05.6	+1.4
KHL	Karahalli	0.93	132	*e*Pg	Pg	06 47 05.6	+1.4
ULDT	Uludag	1.25	18	*i* P	Pn	06 47 09.6	+0.3
ULDT				*i* S	Sb	06 47 25.0	-0.5
ULDT	Uludag	1.25	18	*i* P	Pn	06 47 09.6	+0.3
ULDT				*i* S	Sb	06 47 25.0	-0.6
ESKT	Eskisehir	1.81	71	*e*P	Pg	06 47 20.1	-0.7
ESKT				*e*S	Sg	06 47 44.8	+0.6
SEYT	Eskypehyr	1.81	71	*e*P	Pg	06 47 20.1	-0.7
SEYT				*e*S	Sg	06 47 44.8	+0.6

MAN 02 06:59:16, 13°.53N×**120°.67E, h75**^{km}**, mb3.6, ML2.3, MS1.8, 2D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGP	Puerto Galera	0.28	96	⇓*i*P	Pn	06 59 30.7	+3.1
PGP				*i* S	Sn	06 59 41.2	+5.1
LUBP	Lubang	0.46	296	*e*P	Pn	06 59 31.9	+3.0
LUBP				*e*S	Sn	06 59 42.5	+4.1
TGY	Tagaytay City	0.62	25	⇓*i*P	Pn	06 59 39.1	+8.6
TGY				*i* S	Sn	06 59 46.2	+5.0
SJMP	San Jose	1.15	158	*e*P	Pn	06 59 39.1	+2.5
BUSP	Coron	1.58	197	*e*P	Pn	06 59 43.9	+1.6
POLP	Polilio Island	1.71	46	*e*P	Pn	06 59 45.5	+1.5
OTRP	Odiongan	1.76	131	*e*P	Pn	06 59 46.1	+1.6
OTRP				*e*S	Sn	07 00 07.8	+1.6
ENPP	El Nido	2.61	208	*e*P	Pn	06 59 57.7	+1.7

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*KISR **02** 07:15:24.6±0.8, 32°.25N×49°.06E, h34^{km}±104^{km}, ML2.9*

*ISCJB **02** 07:15:26.2±0.9, 32°.31N±0°.03×48°.93E±0°.05, h9^{km}±6^{km}, Error ellipse: s-maj=7.3km s-min=4.5km az=27.2*

*CSEM **02** 07:15:26.1±0.1, 32°.30N×49°.00E, h2^{km}, ML2.9, Error ellipse: s-maj=6.6km s-min=2.6km az=113.0*

*TEH **02** 07:15:28.0, 32°.34N×48°.91E, h11^{km}*

ISC 02 07:15:26.9±1.0**, 32°.32N**±0°.03×**48°.92E**±0°.05**, h7**^{km}±7^{km}**, n21,** σ**0^{s}67**/29**, 1C-1D, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHGR	Shooshtar-Gavs	0.23	206	*e*Pg	Pg	07 15 31.9	+0.4
IPIR	Pirpir	1.71	77	⇑*e*Pn	Pn	07 15 57.6	+0.5
IPIR				*e*Sg	Sg	07 16 21.5	-0.2
IPIR				*e*		07 16 23.4	
	comp=Z,4μm,0.3s						
ASAO	Ashtian	2.41	22	*e*Pn	Pn	07 16 07.1	+0.4
ASAO				*e*Sg	Sg	07 16 42.8	-1.4
IKLH	Kolahrood	2.45	65	*e*Sn	Sn	07 16 37.6	0.0
IKLH				*e*		07 16 47.5	
	comp=N,2μm,0.2s						
IVIS	Veis	2.80	322	⇓*e*Sn	Sn	07 16 45.4	-0.8
IVIS				*e*		07 17 08.4	
	comp=E,733nm,0.3s						
MIB	Mutribah	2.85	209	*e*P	Pn	07 16 12.6	-0.2
MIB	Mutribah	2.85	209	*e*P	Pn	07 16 12.6	-0.2
IZEF	Zefreh	2.93	78	*e*Pn	Pn	07 16 14.1	+0.1
IZEF				*e*		07 17 02.2	
	comp=Z,371nm,0.2s						
SNGE	Sanandaj	3.06	335	*e*Pn	Pn	07 16 16.4	+0.7
ILIN	Lien	3.06	328	*e*Pn	Pn	07 16 16.2	+0.4
ILIN				*e*		07 16 56.6	
	comp=Z,388nm,0.2s						
IRAZ	Razeghan	3.19	15	*e*	Sg	07 17 12.6	+3.3

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       comp=N,874nm,0.2s
KBD    Kabd              3.31 199  eP     Pn     07 16 18.6  -0.5
KBD                                eS     Sn     07 16 59.7  +1.0
KBD                                 AML   AML    07 17 02.1
       comp=Z,16nm,0.3s
KBD    Kabd              3.31 199  eP     Pn     07 16 18.6  -0.5
KBD                                eS     Sn     07 16 59.7  +1.0
       comp=Z,16nm,0.3s
NASN   Na'in             3.32  81  ePn    Pn     07 16 18.9  -0.4
NAY    Al-Naaiem         3.38 206  eP     Pn     07 16 20.0  -0.2
NAY    Al-Naaiem         3.38 206  eP     Pn     07 16 20.0  -0.2
ISFB   Sefidab           3.44  53  ePn    Pn     07 16 21.3  +0.4
ISFB                               e             07 17 17.0
       comp=Z,207nm,0.2s
RDF    Al-Radifah        3.58 200  eP     Pn     07 16 22.6  -0.3
RDF                                eS     Sn     07 17 05.6  +0.1
RDF                                 AML   AML    07 17 06.3
       comp=Z,12nm,0.3s
RDF    Al-Radifah        3.58 200  eP     Pn     07 16 22.6  -0.3
RDF                                eS     Sn     07 17 05.6  +0.1
QRN    Al-Qurain         3.67 194  eP     Pn     07 16 23.4  -0.7
QRN                                eS     Sn     07 17 07.1  -0.4
QRN                                 AML   AML    07 17 09.4
       comp=Z,29nm,0.3s
QRN    Al-Qurain         3.67 194  eP     Pn     07 16 23.4  -0.7
QRN                                eS     Sn     07 17 07.1  -0.5
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NIED **02** *07:42:00, 46°.50N×153°.10E, h14^{km}, Mw4.4 Best double couple: M$_0$4.74000×10^{15} NP1:ϕ_s108.00000°, δ71.00000°, λ-53.00000°. NP2:ϕ_s222.00000°, δ41.00000°, λ-150.00000°.*

JMA **02** *07:42:12.8±0.8, 46°.45N×153°.14E, h30^{km}, M4.8*

SKHL **02** *07:42:13.0±2.5, 46°.10N×153°.00E, h39^{km}±9^{km}, mb5.0/6, mbh5.2/1, mbv5.5/1, msh5.4/1*

MOS **02** *07:42:15.5±1.1, 46°.47N×152°.74E, h46^{km}, mb4.4/13, Error ellipse: s-maj=14.7km s-min=8.5km az=54.8*

ISCJB **02** *07:42:15.3±0.3, 46°.22N±0°.05×152°.80E±0°.05, h49^{km}, mb4.5/41, MS3.6/11, Error ellipse: s-maj=7.6km s-min=3.1km az=152.0*

BJI **02** *07:42:15.8, 46°.27N×152°.75E, h49^{km}, mB4.8/17, mb4.5/21, Ms4.3/9, Ms7 4.2/10*

NEIC **02** *07:42:17.3±0.4, 46°.38N×152°.71E, mb4.5/10, Error ellipse: s-maj=14.1km s-min=6.5km az=146.0*

IDC **02** *07:42:18.0±0.6, 46°.57N×152°.61E, h50^{km}±4^{km}, mb3.6/15, mb1 3.9/17, mb1mx3.8/28, mbtmp3.7/17, MS3.5/10, Ms1 3.5/10, ms1mx3.2/45, Error ellipse: s-maj=19.3km s-min=11.0km az=155.0*

ISC 02 07:42:17.6±0.3**, 46°.23N**±0°.05×**152°.82E**±0°.05**, h51**^{km}**, h51**^{km}±1.2^{km}**: pP-P, n131,** σ1ˢ33/144**, mb4.5**/41**, MS3.6**/11**, 3C-2D, Kuril Islands**

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Code   Station Name       Δ°   AZ°     Phase ID          Time      Res
                                   Op     ISC         h  m  s      ISC
KUR    Kuril'sk          3.60 256⇓iPN     Pn     07 43 08.5  -2.4
KUR                                eS     Sn     07 43 52.0  -0.2
KUR                                 pmax  pmax
       comp=N,150nm,0.5s
KUR                                 pmax  pmax
       comp=E,80nm,0.5s
KUR                                 pmax  pmax
       comp=Z,460nm,0.5s
KUR                                 smax
       comp=N,1µm,0.7s
KUR                                 smax
       comp=E,530nm,0.7s
KUR                                 smax
       comp=N,4µm,2.0s
KUR                                 smax
       comp=E,2µm,2.0s
KUR    Kuril'sk          3.60 256⇓iP      Pn     07 43 08.5  -2.4
KUR                                 AMB   AMB    07 43 09.0
       comp=E,150nm,0.5s
KUR                                 AMB   AMB    07 43 09.0
       comp=E,80nm,0.5s
KUR                                 AMB   AMB    07 43 09.0
       comp=E,460nm,0.5s
KUR                                eS     Sn     07 43 52.0  -0.2
KUR                                 A            07 43 59.5
       comp=E,1µm,0.5s
KUR                                 A            07 43 59.5
       comp=E,530nm,0.5s
KUR                                 A            07 44 04.8
       comp=E,4µm,2.0s
KUR                                 A            07 44 04.8
       comp=E,2µm,2.0s
SKR    Severo-Kuril's    4.97  25  ePN    Pn     07 43 27.5  -2.1
SKR                                eS     Sn     07 44 21.5  -4.2
SKR                                 pmax  pmax
       comp=N,60nm,0.5s
SKR                                 pmax  pmax
       comp=E,80nm,0.5s
SKR                                 pmax  pmax
       comp=Z,150nm,0.5s
SKR                                 smax
       comp=N,90nm,0.5s
SKR                                 smax
       comp=E,140nm,0.5s
SKR                                 smax
       comp=Z,80nm,0.5s
SKR    Severo-Kuril's    4.97  25  eP     Pn     07 43 27.5  -2.1
SKR                                 AMB   AMB    07 43 29.4
       comp=Z,60nm,0.5s
SKR                                 AMB   AMB    07 43 29.4
       comp=Z,80nm,0.5s
SKR                                 AMB   AMB    07 43 29.4
       comp=Z,150nm,0.5s
SKR                                eS     Sn     07 44 21.5  -4.2
SKR                                 A            07 44 36.5
       comp=Z,90nm,0.5s
SKR                                 A            07 44 36.5
       comp=Z,140nm,0.5s
SKR                                 A            07 44 36.5
       comp=Z,80nm,0.5s
YUK    Yuzh-Kuril'sk     5.38 248  eP     Pn     07 43 37.0  +1.7
YUK                                 AMB   AMB    07 43 44.0
       comp=Z,2µm,0.6s
YUK                                 AMB   AMB    07 43 44.0
       comp=Z,1µm,0.6s
YUK                                 AMB   AMB    07 43 44.0
       comp=Z,1µm,0.6s
YUK                                 AMB   AMB    07 43 44.4
       comp=Z,330nm,0.5s
YUK                                 AMB   AMB    07 43 44.4
       comp=Z,360nm,0.5s
YUK                                 AMB   AMB    07 43 44.4
       comp=Z,470nm,0.5s
YUK                                 A            07 45 02.6
       comp=Z,3µm,1.0s
YUK                                 A            07 45 02.6
       comp=Z,4µm,1.0s
YUK                                 A            07 45 05.0
       comp=Z,1µm,0.6s
YUK                                 A            07 45 05.0
       comp=Z,820nm,0.6s
NEM2   Nemuro 2          5.79 243   P     Pn     07 43 40.1  -0.7
NEM2                               eS     Sn     07 44 44.9  -0.9
JRA    Rausu             5.91 250   P     Pn     07 43 43.9  +1.4
JNK    Nakash            6.33 248   P     Pn     07 43 49.1  +0.9
JAK    Akkeshi           6.63 244   P     Pn     07 43 51.8  -0.6
JAK                                eS     Sn     07 45 05.3  -1.3
JTKR   Abashiri--Toko    6.70 254   P     Pn     07 43 54.8  +1.5
YSS    Yuzh-Sakhalins    6.97 280⇑ePN     Pn     07 43 57.2  +0.2
YSS                                 pmax  pmax
       comp=Z,20nm,0.8s
YSS                                 pmax  pmax
       comp=E,20nm,1.0s
YSS                                 MLR   MLR
       comp=E,400nm,18.0s
YSS                                 MLR   MLR
       comp=Z,500nm,18.0s
YSS    Yuzh-Sakhalins    6.97 280⇑eP      Pn     07 43 57.2  +0.2
YSS                                 AMB   AMB    07 43 58.2
       comp=Z,20nm,0.8s
YSS                                 AMB   AMB    07 43 58.2
       comp=Z,20nm,1.0s
YSS                                eS     Sn     07 45 10.2  -4.7
YSS                                 AMS   AMS    07 46 09.0
       comp=Z,400nm,18.0s
YSS                                 AMS   AMS    07 46 09.0
       comp=Z,500nm,18.0s
YSS    Yuzh-Sakhalins    6.97 280  ePn    Pn     07 43 58.0  +0.9
JMP    Maruseppu         7.05 255   P     Pn     07 43 59.9  +1.8
JAR    Ashorobuto        7.07 249   P     Pn     07 43 59.4  +1.0
JOB    Onbets            7.22 246   P     Pn     07 44 00.5   0.0
JOB                                eS     Sn     07 45 19.5  -1.6
JSE    Soyaes            7.29 264   P     Pn     07 44 04.8  +3.4
JKK2   Kamakawa 2        7.51 255   P     Pn     07 44 06.5  +2.1
ASAJ   Asahikawa         7.52 257   PN    Pn     07 44 07.2  +2.6
ASAJ                                pmax  pmax
       comp=Z,11nm,0.3s
ASAJ   Asahikawa         7.52 257   P     Pn     07 44 07.1  +2.5
ASAJ   Asahikawa         7.52 257   P     Pn     07 44 07.2  +2.5
       comp=Z,11nm,0.3s,baz=88,slow=12,SNR=40
PEA0B  Petropavlovsk-    7.58  23  ePn    Pn     07 44 02.0  -3.3
PETK   Petropavlovsk-    7.58  23   PN    Pn     07 44 03.1  -2.3
PETK                                pmax  pmax
       comp=Z,1.0nm,0.3s
PETK                                MLR   MLR
       comp=Z,234nm,21.2s
PETK   Petropavlovsk-    7.58  23   P     Pn     07 44 03.1  -2.3
       comp=Z,0.9nm,0.3s,baz=189,slow=13,SNR=17
PETK                                LR    LR     07 46 54.3
       comp=Z,234nm,21.2s,baz=63,slow=38
JCH    Churui            7.67 245   P     Pn     07 44 06.3  -0.3
JCH                                eS     Sn     07 45 29.7  -2.3
JWK2   Keihoku           7.69 267   P     Pn     07 44 10.9  +4.0
PET    Petropavlovsk     7.79  27   PN    Pn     07 44 05.8  -2.4
UGL    Uglegorsk         7.80 295  eP     Pn     07 44 09.0  +0.6
UGL                                 AMB   AMB    07 44 15.0
       comp=Z,35nm,0.5s
UGL                                eS     Sn     07 45 35.0  -0.2
UGL                                 A            07 45 40.5
       comp=Z,65nm,0.7s
UGL                                 A            07 45 40.5
       comp=Z,47nm,0.7s
UGL                                 A            07 45 40.5
       comp=Z,36nm,0.8s
JFR    Furan             7.90 251   P     Pn     07 44 11.1  +1.3
JAB    Ashibetsu         8.00 254   P     Pn     07 44 13.6  +2.4
JEM    Erimo             8.12 242   P     Pn     07 44 14.1  +1.3
ERM    Erimo             8.12 242c iPN    Pn     07 44 14.1  +1.3
ERM    Erimo             8.12 242  ePn    Pn     07 44 13.7  +0.9
TYV    Tymovskoe         8.18 308  eP     Pn     07 44 13.0  -0.6
TYV                                 AMB   AMB    07 44 36.5
       comp=Z,26nm,1.0s
TYV                                 AMB   AMB    07 44 36.5
       comp=Z,40nm,1.0s
TYV                                 AMB   AMB    07 44 44.0
       comp=Z,400nm,4.0s
TYV                                 AMB   AMB    07 44 44.0
       comp=Z,600nm,4.0s
TYV                                 AMB   AMB    07 44 44.0
       comp=Z,300nm,5.0s
JBT2   Biratori 2        8.23 249   P     Pn     07 44 14.3  +0.1
JNBK   Urakawa-nobuka    8.23 245   P     Pn     07 44 13.6  -0.7
JNB    Noboribetsu       9.23 250   P     Pn     07 44 27.7  -0.3
JKB    Kayabe            9.52 247   P     Pn     07 44 31.0  -1.0
JSH    Shimam            9.81 253   P     Pn     07 44 36.8  +0.9
JYM2   Yakumo 2          9.84 250   P     Pn     07 44 36.2  -0.1
JANG   Nango            10.10 239   P     Pn     07 44 36.6  -3.2
JANG                               eS     Sn     07 46 24.5  -7.1
JSR    Shiriuchi        10.10 247   P     Pn     07 44 38.6  -1.3
JTM    Tenmabayashi     10.11 242   P     Pn     07 44 38.3  -1.8
JTH    Tanohata         10.18 236   P     Pn     07 44 37.9  -3.0
JTH                                eS     Sn     07 46 26.2  -7.3
JOSM   Okushiri--Mats   10.44 251   P     Pn     07 44 43.7  -0.8
OFUJ   Ofunato          10.87 233   P     Pn     07 44 47.9  -2.5
JRG    Rokugo           11.24 237   P     Pn     07 44 53.7  -1.8
JIO    Ouri             11.49 232   P     Pn     07 44 56.9  -2.0
JFY    Yanaizu          13.15 233   P     Pn     07 45 20.1  -1.4
MJAR   Matsushiro Arr   14.60 234  eP     Pn     07 45 48.9  +7.8
MJAR                                pmax  pmax
       comp=Z,1.0nm,0.3s
MJAR   Matsushiro Arr   14.60 234   P     Pn     07 45 38.5  -2.6
       comp=Z,0.4nm,0.3s,baz=29,slow=14,SNR=11
MAJO   Matsushiro       14.60 234  ePn    Pn     07 45 38.6  -2.5
MAJO                               e             07 45 48.8
MAT    Matsushiro       14.60 234   P     Pn     07 45 39.6  -1.5
MAT                                eS     Sn     07 48 14.0  -7.5
FX1    Attu Island--F   14.76  56   P     Pn     07 45 41.2  -1.9
FX1                                 pmax  pmax
       comp=Z,5.0nm,0.3s
FX1    Attu Island--F   14.76  56   P     Pn     07 45 41.2  -1.9
       comp=Z,4.5nm,0.3s,baz=227,slow=24,SNR=6.2
FX1    Attu Island--F   14.76  56   P     Pn     07 45 41.2  -1.9
MDJ    Mudanjiang       16.38 273   P     Pn     07 46 02.8  -1.0
MDJ                                 pP    pP     07 46 14.9  -2.5
MDJ                                 S     S      07 49 03.1   -11
MDJ                                 pmax  pmax
       comp=Z,8.0nm,1.0s
MDJ                                 pmax  pmax
       comp=Z,58nm,6.0s
MDJ    Mudanjiang       16.38 273  eP     Pn     07 46 03.6  -0.2
       comp=Z,7.2nm,0.9s
JHJ    Hachijo jima 2   16.46 222   LR    LR     07 52 14.7
       comp=Z,101nm,18.0s,baz=92,slow=36
SEY    Seymchan         16.75 359  eP     Pn     07 46 15.1  +6.8
CN2    Changchun        19.46 273  eP     Pn     07 46 43.0  +1.5
CN2                                epP    pP     07 46 53.0  +1.5
CN2                                 pmax  pmax
       comp=Z,10.0nm,0.7s
CN2                                 pmax  pmax
       comp=Z,200nm,4.0s
CN2                                 LR    LR
       comp=N,200nm,12.0s
CN2                                 LR    LR
       comp=E,200nm,12.0s
CN2                                 LR    LR
       comp=Z,200nm,14.0s
KSRS   Korea Array      20.45 254  eP     P      07 46 52.1  +1.4
KSRS                                pmax  pmax
       comp=Z,11nm,0.9s
KSRS   Korea Array      20.45 254   P     P      07 46 51.4  +0.7
       comp=Z,11nm,0.9s,baz=57,slow=11,SNR=32
KSRS                                pP           07 47 02.3
       comp=Z,5.9nm,0.7s,baz=59,slow=11,SNR=7.2
NJ2    Nanjing          29.65 254  eP     P      07 48 20.2  +2.0
NJ2                                 pmax  pmax
       comp=Z,20nm,0.5s,mb5.1
HHC    Hu-ho-hao-te     30.13 275  eP     P      07 48 23.6  +1.2
HHC                                 pP    pP     07 48 35.2  -0.2
HHC                                 sP    sP     07 48 40.9  -0.6
HHC                                 PP    PP     07 49 22.4  -8.5
HHC                                 PcP   PcP    07 51 23.7  +1.1
HHC                                eS     S      07 53 17.0  -0.5
HHC                                 sS    sS     07 53 36.9  -2.7
HHC                                 PcS   PcS    07 55 07.1  +1.1
HHC                                 pmax  pmax
       comp=Z,12nm,0.8s,mb4.7
HHC                                 pmax  pmax
       comp=Z,180nm,4.6s
HHC                                 LR    LR
       comp=N,130nm,16.7s,MS3.9
HHC                                 LR    LR
       comp=E,150nm,14.3s,MS3.9
HHC                                 LR    LR
       comp=Z,180nm,17.8s,MS3.8
SONM   Songino Array    31.32 290   P     P      07 48 32.9  +0.1
SONM                                pmax  pmax
       comp=Z,1.0nm,0.8s
SONM                                MLR   MLR
       comp=Z,81nm,21.1s
SONM   Songino Array    31.32 290   P     P      07 48 32.9  +0.1
       comp=Z,0.6nm,0.8s,mb3.5,baz=75,slow=7.9,SNR=4.9
SONM                                LR    LR     08 01 36.1
       comp=Z,81nm,21.1s,MS3.4,baz=226,slow=37
TLY    Talaya           32.24 298  eP     P      07 48 34.5  -6.3
TLY                                 pmax  pmax
       comp=Z,4.0nm,0.7s,mb4.4
TLY                                 MLR   MLR
       comp=Z,36nm,11.0s,MS3.3
WHN    Wuhan            33.60 256   P     P      07 48 53.2  +0.3
KDAK   Kodiak Island    34.60  50   P     P      07 49 00.6  -0.6
KDAK                                pmax  pmax
       comp=Z,5.0nm,0.7s,mb4.5
KDAK   Kodiak Island    34.60  50   P     P      07 49 00.6  -0.6
       comp=Z,4.6nm,0.7s,mb4.5,baz=254,slow=7.4,SNR=3.9
XAN    Xi'an            35.27 266   P     P      07 49 07.4  +0.1
XAN                                 pP    pP     07 49 19.0  -1.5
XAN                                 sP    sP     07 49 24.7  -1.8
XAN                                 pmax  pmax
       comp=Z,7.0nm,0.9s,mb4.6
XAN                                 pmax  pmax
       comp=Z,72nm,6.7s
MCK    McKinley         36.19  40  eP     P      07 49 14.1  -0.7
MCK                                 pmax  pmax
       comp=Z,4.0nm,0.8s,mb4.4
MCK    McKinley         36.19  40  eP     P      07 49 14.1  -0.7
       comp=Z,4.3nm,0.8s,mb4.4
COLA   College          36.68  38  eP     P      07 49 19.1  +0.1
COLA                               e      pP     07 49 31.3  -0.9
COLA                                pmax  pmax
       comp=Z,11nm,1.1s,mb4.6
COLA   College          36.68  38  eP     P      07 49 19.1  +0.1
       comp=Z,11nm,1.1s,mb4.6
COLA                               e      pP     07 49 31.3  -0.9
LZH    Lanzhou          37.70 272  eP     P      07 49 28.5  +0.5
LZH                                 pP    pP     07 49 41.0  -0.3
LZH                                 sP    sP     07 49 46.4  -0.9
LZH                                 pmax  pmax
       comp=Z,22nm,1.5s,mb4.7
LZH                                 pmax  pmax
       comp=Z,110nm,5.2s
CD2    Chengdu          40.63 266   P     P      07 49 53.0  +0.5
CD2                                 pP    pP     07 50 05.3  -0.6
CD2                                 sP    sP     07 50 10.7  -1.2
CD2                                 PP    PP     07 51 30.6  +3.9
CD2                                 PcP   PcP    07 51 55.6  +2.0
CD2                                 S     S      07 55 58.6   0.0
CD2                                 sS    sS     07 56 19.1  -2.1
CD2                                 pmax  pmax
       comp=Z,30nm,0.5s,mb5.2
CD2                                 pmax  pmax
       comp=Z,120nm,4.7s
CD2                                 LR    LR
       comp=N,220nm,9.5s
CD2                                 LR    LR
       comp=Z,250nm,5.9s
GYA    Guiyang          41.40 258   P     P      07 49 58.8  -0.1
GYA                                 pP    pP     07 50 12.2  -0.1
GYA                                 sP    sP     07 50 18.6  +0.3
GYA                                 PP    PP     07 51 38.7  +3.5
GYA                                 ScP   ScP    07 55 41.6  -0.1
GYA                                 PcS   PcS    07 55 48.5  +0.9
GYA                                 S     S      07 56 10.2  +0.1
GYA                                 sS    sS     07 56 33.9  +1.2
GYA                                 pmax  pmax
       comp=Z,10.0nm,1.0s,mb4.4
GYA                                 pmax  pmax
       comp=Z,80nm,4.8s
GYA                                 LR    LR
       comp=N,310nm,18.6s,MS4.3
GYA                                 LR    LR
       comp=E,220nm,17.4s,MS4.3
GYA                                 LR    LR
       comp=Z,340nm,18.0s,MS4.3
ZALV   Zalesovo Beam    42.75 306   LR    LR     08 10 16.7
       comp=Z,19nm,19.4s,MS3.0,baz=78,slow=40
WMQ    Urumqi           44.93 292  eP     P      07 50 29.0  +1.9
WMQ                                 pP    pP     07 50 46.0  +5.3
WMQ                                 pmax  pmax
       comp=Z,7.0nm,0.6s,mb4.7
WMQ                                 pmax  pmax
       comp=Z,96nm,5.0s
KMI    Kunming          44.95 260   P     P      07 50 29.0  +1.5
KMI                                 pP    pP     07 50 42.5  +1.4
KMI                                 pmax  pmax
       comp=Z,14nm,1.2s,mb4.7
DLBC   Dease Lake       46.11  45   P     P      07 50 36.9  +0.6
       comp=Z,2.1nm,0.9s,mb4.1,baz=336,slow=7.6,SNR=4.1
MK31   Makanchi Array   47.00 298  eP     P      07 50 41.6  -1.8
MKAR   Makanchi Array   47.00 298   P     P      07 50 40.5  -2.9
       comp=Z,1.1nm,0.8s,mb3.8,baz=66,slow=7.1,SNR=7.5
MKAR                                PcP   PcP    07 52 14.7  -0.2
       comp=Z,0.5nm,0.7s,baz=63,slow=5.2,SNR=3.6
MKAR                                LR    LR     08 09 29.2
       comp=Z,52nm,20.1s,MS3.5,baz=249,slow=35
KURK   Kurchatov        47.48 304   P     P      07 50 44.6  -2.5
KURK                                *PP   pP     07 50 59.0  -1.8
KURK                                pmax  pmax
       comp=Z,1.0nm,0.8s,mb3.8
KURK                                pmax  pmax
       comp=Z,1.0nm,0.5s,mb4.0
KURK   Kurchatov        47.48 304   P     P      07 50 44.6  -2.5
       comp=Z,0.8nm,0.8s,mb3.7,baz=68,slow=8.5,SNR=5.2
KURK                                pP    pP     07 50 59.0  -1.8
       comp=Z,0.7nm,0.5s,baz=70,slow=8.5,SNR=3.6
KURK   Kurchatov        47.48 304   P     P      07 50 44.6  -2.5
KURK                                pP    pP     07 50 59.0  -1.8
BVAR   Borovoye Array   51.03 310   P     P      07 51 11.9  -2.3
       comp=Z,0.2nm,0.3s,mb3.5,baz=51,slow=20,SNR=2.9
YKA    Yellowknife Ar   51.47  36   P     P      07 51 15.1  -2.2
YKA                                 *PP   pP     07 51 29.4  -1.7
YKA                                 pmax  pmax
       comp=Z,1.0nm,0.6s
YKA    Yellowknife Ar   51.47  36   P     P      07 51 15.1  -2.2
       comp=Z,0.6nm,0.6s,mb3.7,baz=298,slow=7.0,SNR=8.6
YKA                                 pP    pP     07 51 29.4  -1.7
       comp=Z,2.2nm,0.7s,baz=297,slow=7.1,SNR=14
CHTO   Chiang Mai       51.80 257  eP     P      07 51 21.3  +1.0
CHTO                               e      pP     07 51 34.1   0.0
CHTO                                pmax  pmax
       comp=Z,5.0nm,0.8s,mb4.5
CHTO   Chiang Mai       51.80 257  eP     P      07 51 21.3  +1.0
       comp=Z,5.3nm,0.8s,mb4.5
CHTO                               e      pP     07 51 34.0  -0.1
CMAR   Chiang Mai Arr   52.05 256   P     P      07 51 23.6  +1.4
CMAR                                *PP   pP     07 51 36.1  +0.1
CMAR                                pmax  pmax
       comp=Z,4.0nm,0.7s
CMAR                                MLR   MLR
       comp=Z,41nm,20.9s
CMAR   Chiang Mai Arr   52.05 256   P     P      07 51 23.6  +1.4
       comp=Z,3.8nm,0.7s,mb4.4,baz=36,slow=7.8,SNR=24
CMAR                                pP    pP     07 51 36.1  +0.1
       comp=Z,1.1nm,0.5s,baz=35,slow=7.6,SNR=2.5
CMAR                                LR    LR     08 16 16.0
       comp=Z,41nm,20.9s,MS3.4,baz=250,slow=39
AAK    Ala-Archa        53.88 297  eP     P      07 51 37.0  +1.6
AAK                                 pmax  pmax
       comp=Z,1.0nm,0.7s,mb3.9
TAPN   Taplejung        53.92 273  eP     P      07 51 36.4  +0.5
       comp=Z,9.7nm,0.7s,mb4.8
GUN    Gumba            54.84 275  eP     P      07 51 43.3  +0.7
       comp=Z,11nm,0.6s,mb5.0
RAMN   Ramite           54.94 274  eP     P      07 51 43.8  +0.5
       comp=Z,22nm,0.6s,mb5.4
KKN    Kakani           55.33 275  eP     P      07 51 46.8  +0.7
       comp=Z,19nm,0.7s,mb5.2
PKI    Pulchoki         55.38 275  eP     P      07 51 47.0  +0.5
DMN    Daman            55.56 275  eP     P      07 51 48.7  +0.9
GKN    Gorkha           55.64 276  eP     P      07 51 49.0  +0.6
       comp=Z,32nm,0.9s,mb5.4
DANN   Dangsing         56.03 277  eP     P      07 51 52.3  +1.1
       comp=Z,28nm,0.6s,mb5.5
KOLN   Koldanda         56.50 277  eP     P      07 51 55.2  +0.7
       comp=Z,23nm,0.8s,mb5.2
PYUN   Piuthan          56.72 277  eP     P      07 51 57.0  +1.0
       comp=Z,22nm,1.0s,mb5.2
WALA   Waterton Lakes   58.94  50  eP     P      07 52 11.0  -0.3
WALA                               e      pP     07 52 25.4  +0.1
SLMT   Seeley Lake      60.24  52   P     P      07 52 20.5  +0.2
SLMT                               e      pP     07 52 34.3  -0.1
FFC    Flin Flon        61.27  40  i P    P      07 52 28.5  +1.3
KAKA   Kakadu           61.46 203  eP     P      07 52 27.1  -1.7
LRM    Limekiln Ridge   61.68  52  eP     P      07 52 31.4  +1.3
LRM                                e      pP     07 52 43.9  -0.3
EGMT   Eagleton         61.76  49   P     P      07 52 31.2  +0.7
       comp=Z,10.0nm,1.2s,mb4.8
FCC    Fort Churchill   61.81  33  eP     P      07 52 29.6  -1.2
       comp=Z,0.1nm,0.7s
NVAR   Mina Array Bea   62.86  62   P     P      07 52 38.8  +0.7
       comp=Z,0.7nm,0.7s,mb3.9,baz=286,slow=6.4,SNR=3.7
NVAR                                pP    pP     07 52 53.5  +1.3
       comp=Z,1.4nm,0.9s,baz=292,slow=7.2,SNR=5.1
RRI2   Red Ridge        63.86  54  eP     P      07 52 45.9  +1.2
       comp=Z,5.1nm,0.8s,mb4.6
RRI2                               e      pP     07 53 00.2  +1.4
LOHW   Long Hollow      64.09  53   P     P      07 52 46.7  +0.5
       comp=Z,4.8nm,1.5s,mb4.3
LOHW                               e      pP     07 53 00.4   0.0
BW06   Boulder Array    65.22  54   P     P      07 52 52.6  -0.9
       comp=Z,3.8nm,1.0s,mb4.4
BW06                               e      pP     07 53 07.2  -0.5
PDAR   Pinedale Array   65.22  54   P     P      07 52 54.0  +0.5
       comp=Z,0.3nm,0.8s,mb3.4,baz=270,slow=1.5,SNR=4.7
PDAR                                pP    pP     07 53 08.3  +0.6
       comp=Z,1.8nm,0.8s,baz=302,slow=2.3,SNR=12
WRAB   Tennant Creek    67.94 199  eP     P      07 53 12.1  +1.2
WRAB                                pmax  pmax
       comp=Z,4.0nm,1.0s,mb4.4
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WRAB	Tennant Creek	67.94	199	eP	P	07 53 12.1	+1.2
	comp=Z,3.8nm,1.0s,mb4.4						
WRA	Warramunga Arr	67.95	199	P	P	07 53 11.9	+0.9
	comp=Z,1.3nm,0.7s,mb4.0,baz=16,slow=6.6,SNR=10						
WRA				LR	LR	08 21 03.1	
	comp=Z,39nm,20.4s,MS3.6,baz=215,slow=34						
NB2	NORSAR Subarra	68.66	341	P	P	07 53 13.6	-1.4
	comp=Z,2.3nm,0.6s,mb4.3,baz=29,slow=6.2						
NOA	NORSAR Array B	68.66	341	P	P	07 53 13.9	-1.1
NOA				*PP	pP	07 53 26.8	-2.5
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	68.66	341	P	P	07 53 13.9	-1.1
	comp=Z,0.9nm,0.6s,mb3.9,baz=26,slow=6.5,SNR=3.2						
NOA				pP	pP	07 53 26.8	-2.6
	comp=Z,2.4nm,0.8s,baz=27,slow=6.1,SNR=2.9						
NOA				LR	LR	08 30 05.3	
	comp=Z,57nm,18.9s,MS3.8,baz=215,slow=42						
SDCO	Great Sand Dun	70.90	55	P	P	07 53 30.2	+1.0
	comp=Z,23nm,2.4s,mb4.7						
SDCO				e	pP	07 53 44.1	+0.5
ASAR	Alice Springs	71.64	198	eP	P	07 53 36.5	+2.9
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	71.64	198	P	P	07 53 36.2	+2.6
	comp=Z,0.8nm,0.6s,mb3.9,baz=12,slow=5.1,SNR=14						
SCHQ	Schefferville	73.87	23	LR	LR	08 27 48.9	
	comp=Z,53nm,18.2s,MS3.9,baz=40,slow=37						
TXAR	Lajitas Array	77.93	60	eP	P	07 54 11.1	+0.9
TXAR	Lajitas Array	77.93	60	P	P	07 54 10.7	+0.5
	comp=Z,0.4nm,0.6s,mb3.5,baz=278,slow=3.6,SNR=6.9						
TXAR				pP	pP	07 54 24.6	-0.2
	comp=Z,1.2nm,0.8s,baz=304,slow=4.6,SNR=6.5						
TKL	Tuckaleechee C	83.89	43	LR	LR	08 30 44.9	
	comp=Z,73nm,20.7s,MS4.0,baz=309,slow=35						

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*IDC **02** 07:58:11.0±1.1, 12°.04N×85°.95W, h0^{km}, mb3.4/5, mb1 3.8/6, mb1mx3.6/20, mbtmp3.5/6, ML3.6/1, MS3.1/1, Ms1 3.1/1, ms1mx2.5/23, Error ellipse: s-maj=82.2km s-min=12.5km az=58.0*

*ISCJB **02** 07:58:15.3±0.8, 11°.35N±0°.06×86°.69W±0°.08, h57^{km}±11^{km}, mb3.3/5, Error ellipse: s-maj=15.4km s-min=5.7km az=146.6*

*CASC **02** 07:58:15.4±2.1, 11°.35N×86°.70W, h27^{km}±7^{km}, MD4.2, ML4.1*

ISC 02 07:58:16.6±0.7**, 11°.41N**±0°.05×**86°.65W**±0°.08**, h50**^{km}±10^{km}**, n36, σ1^s.01**/39**, mb3.3**/5**, 1D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TICN	Ticuantepe	0.74	33	eP	Pn	07 58 30.8	-0.1
MASN	Masaya	0.75	40	eP	Pn	07 58 30.5	-0.5
APON	Apoyo	0.76	48	eP	Pn	07 58 31.4	+0.3
COPN	Copaltepe	0.77	4	eP	Pn	07 58 30.6	-0.6
SSN	San Juan del S	0.79	98	eP	Pn	07 58 29.6	-1.8
XAVN	Gruta Xavier	0.80	23	eP	Pn	07 58 31.4	-0.2
CSAN		0.80	16	eP	Pn	07 58 31.3	-0.4
TISN	Laguna Tiscapa	0.82	27	eP	Pn	07 58 30.6	-1.3
MGAN	Managua	0.83	28	eP	Pn	07 58 31.9	-0.1
MGAN				eS	Sn	07 58 46.5	+3.1
WILN	Americas 2	0.87	31	eP	Pn	07 58 32.3	-0.3
MOMN	Momotombo	1.00	6	eP	Pn	07 58 34.3	0.0
CONN	Concepcion	1.01	81	⇓iP	Pn	07 58 34.0	-0.5
MIRN	Miramar	1.03	357	eP	Pn	07 58 34.3	-0.3
HUEN		1.03	27	eP	Pn	07 58 34.9	+0.1
CNGN	Cerro Negro	1.09	357	eP	Pn	07 58 34.6	-0.8
TEL3	Telica 3	1.17	351	eP	Pn	07 58 36.4	-0.3
CRIN	San Cristobal	1.34	343	eP	Pn	07 58 38.6	-0.3
CRIN				eS	Sn	07 58 58.6	+3.0
CRIN				AML	AML	07 59 04.3	
	comp=E,3μm,0.3s						
BOAB	BOACO BROADBAN	1.41	43	eP	Pn	07 58 39.8	-0.1
BOAB				eS	Sn	07 58 59.0	+1.6
JTS	JuntasAbangare	2.00	124	Pg	Pn	07 58 46.6	-1.4
	comp=E,10nm,0.3s,baz=317,slow=17,SNR=37						
JTS				Lg		07 59 15.6	
	comp=E,25nm,0.3s,baz=266,slow=21,SNR=5.7						
JTS	JuntasAbangare	2.00	124	eP	Pn	07 58 47.1	-0.8
FORC	Fortuna	2.16	116	eP	Pn	07 58 49.5	-0.6
JCR	Jicaral	2.16	136	eP	Pn	07 58 52.1	+1.9
JCR				eS	Sn	07 59 21.3	+5.5
PRS1	Puriscal	2.70	121	eP	Pn	07 58 59.1	+1.6
TGUH	Tegucigalpa,Un	2.70	347	eP	Pn	07 58 58.4	+0.8
LAJ	Bijagual	2.92	121	eP	Pn	07 58 56.9	-3.7
LCR2	La Lucha 2	3.08	122	eP	Pn	07 59 03.1	+0.3
URSC	Urasca	3.23	119	eP	Pn	07 59 05.3	+0.6
BUS	Buena Vista	3.39	123	eP	Pn	07 59 07.6	+0.7
BAR1		3.93	123	eP	Pn	07 59 14.3	-0.1
CMIG	Matias Romero	9.78	306	Pn	Pn	08 00 35.2	+0.6
	comp=E,0.6nm,0.3s,baz=112,slow=9.7,SNR=16						
ATAH	Atahualpa	20.05	155	LR	LR	08 09 07.9	
	comp=E,49nm,20.0s,baz=59,slow=32						
TXAR	Lajitas Array	23.87	321	P	P	08 03 25.9	+0.4
	comp=E,0.4nm,0.3s,mb3.3,baz=143,slow=9.4,SNR=20						
ANMO	Albuquerque	29.56	326	P	P	08 04 16.2	-0.5
	comp=E,0.3nm,0.5s,mb3.3,baz=112,slow=5.4,SNR=3.0						
PDAR	Pinedale Array	37.06	332	P	P	08 05 21.2	-0.5
	comp=E,0.3nm,0.7s,mb3.2,baz=124,slow=7.7,SNR=3.7						
NVAR	Mina Array Bea	39.00	319	P	P	08 05 40.3	+2.1
	comp=E,0.2nm,0.4s,mb3.2,baz=132,slow=7.4,SNR=2.1						
YKA	Yellowknife Ar	54.82	345	P	P	08 07 39.2	-2.1
	comp=E,0.3nm,0.7s,mb3.5,baz=141,slow=6.3,SNR=4.5						

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*IDC **02** 08:04:51.3±1.5, 9°.19S×108°.96E, h0^{km}, mb4.0/9, mb1 4.1/10, mb1mx3.9/20, mbtmp3.9/10, ML3.6/1, Error ellipse: s-maj=63.7km s-min=15.2km az=53.0*

*ISCJB **02** 08:04:54.3±1.1, 9°.54S±0°.09×108°.64E±0°.07, h51^{km}±11^{km}, mb3.9/8, Error ellipse: s-maj=14.9km s-min=11.4km az=22.3*

*DJA **02** 08:04:54, 9°.64S×108°.66E, h35^{km}, MLv4.1/6*

ISC 02 08:04:55.5±1.1**, 9°.55S**±0°.09×**108°.63E**±0°.07**, h41**^{km}±11^{km}**, n17, σ0^s.89**/16**, mb3.9**/8**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLJI	Cilicap	1.86	12	P	Px	08 05 35.2	
UGM	Wanagama	2.48	49	P	Pn	08 05 32.7	-0.7
LEM	Lembang	2.88	340	P	Pn	08 05 40.6	+1.6
SMRI	Semarang	3.06	36	P	Pn	08 05 41.9	+0.5
XMIS	Christmas Isla	3.08	252	P	Pn	08 05 40.9	-0.8
SJI	Sawahan	3.58	60	P	Pn	08 05 48.2	-0.4
IGBI	Denpasar	6.47	84	P	Pn	08 06 28.5	+0.2
FITZ	Fitzroy Crossi	18.56	119	P	Pn	08 09 08.5	-1.1
	0.1nm,0.3s,baz=308,slow=6.3,SNR=4.6						
WRA	Warramunga Arr	26.88	116	P	P	08 10 33.2	+0.4
	1.8nm,0.8s,mb3.6,baz=288,slow=12,SNR=13						
ASAR	Alice Springs	27.92	123	P	P	08 10 43.1	+1.1
	0.4nm,0.5s,baz=299,slow=8.1,SNR=9.1						
ASAR				PcP	PcP	08 13 58.9	+1.9
	0.3nm,0.4s,baz=300,slow=2.3,SNR=5.8						
CMAR	Chiang Mai Arr	29.43	341	P	P	08 10 54.8	-0.5
	0.6nm,0.3s,mb3.8,baz=181,slow=8.3,SNR=4.2						
STKA	Stephens Creek	37.75	131	P	P	08 12 08.8	+1.1
	2.5nm,0.6s,mb4.2,baz=317,slow=7.1,SNR=9.3						
MJAR	Matsushiro Arr	53.62	30	P	P	08 14 10.6	-2.2
	0.4nm,0.4s,mb3.7,baz=197,slow=9.6,SNR=3.2						
SONM	Songino Array	57.16	358	P	P	08 14 38.5	+0.5
	1.2nm,0.9s,mb3.9,baz=181,slow=8.0,SNR=9.1						
MKAR	Makanchi Array	60.82	340	P	P	08 15 03.8	+0.3
	2.0nm,0.8s,mb4.3,baz=146,slow=7.3,SNR=15						
KURK	Kurchatov	65.43	340	P	P	08 15 33.9	-0.1
	1.4nm,0.8s,mb4.0,baz=156,slow=5.2,SNR=6.2						
ZALV	Zalesovo Beam	66.39	345	P	P	08 15 39.8	-0.3
	0.5nm,0.4s,mb3.9,baz=116,slow=3.4,SNR=6.6						

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*ISK **02** 08:42:31.6, 40°.43N×42°.40E, h5^{km}, MD2.9*

*ISCJB **02** 08:42:32.5±1.1, 40°.41N±0°.08×42°.38E±0°.04, h10^{km}, Error ellipse: s-maj=10.9km s-min=4.0km az=0.9*

*CSEM **02** 08:42:32.2±0.7, 40°.39N×42°.40E, h2^{km}, MD2.9, Error ellipse: s-maj=17.2km s-min=6.6km az=2.0*

*DDA **02** 08:42:36.1, 39°.77N×42°.34E, h7^{km}±1^{km}, Md2.9*

ISC 02 08:42:32.4±2.2**, 40°.4N**±0°.1×**42°.43E**±0°.06**, h3**^{km}±17^{km}**, n11, σ0^s.90**/21**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGRB	Hanur-Agry	0.97	153	ePG	Pg	08 42 49.9	-1.1
AGRB				eSG	Sg	08 43 04.8	+1.2
AGRB	Hanur-Agry	0.97	153	ePg	Pg	08 42 49.9	-1.1
AGRB				eSg	Sg	08 43 04.8	+1.3
ERZM	Erzurum	0.97	237	i P	Pg	08 42 50.8	-0.3
ERZM				eS	Sg	08 43 02.6	-1.1
ERZM	Erzurum	0.97	237	i P	Pg	08 42 50.8	-0.3
ERZM				eS	Sg	08 43 02.7	-1.0
EZM	Erzurum	0.98	237	ePG	Pg	08 42 50.9	-0.2
EZM				eSG	Sg	08 43 03.6	-0.1
DYDN	Diyadin	1.32	132	eP	Pn	08 42 56.4	-1.2
DYDN				eS	Sg	08 43 15.0	+0.1
DYDN	Diyadin	1.32	132	eP	Pn	08 42 56.4	-1.3
DYDN				eS	Sg	08 43 15.0	+0.1
KOPT	Kop Dagi	1.54	255	eP	Pg	08 43 01.9	0.0
KOPT				eS	Sg	08 43 23.9	+2.1
KOPT	Kop Dagi	1.54	255	eP	Pg	08 43 01.9	+0.1
GNI	Garni	1.79	99	ePN	Pn	08 43 04.4	+0.2
GNI				eSN	Sn	08 43 28.0	+0.6
GNI	Garni	1.79	99	ePn	Pn	08 43 04.4	+0.2
GNI				eSn	Sn	08 43 28.0	+0.6

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*ISCJB **02** 09:03:25.0±1.8, 36°.35N±0°.08×70°.6E±0°.2, h142^{km}±25^{km}, Error ellipse: s-maj=22.9km s-min=5.7km az=149.7*

*NNC **02** 09:03:29.9±2.5, 37°.19N×70°.08E, h0^{km}, mb4.2, mpv4.2, Error ellipse: s-maj=20.6km s-min=19.5km az=113.0*

ISC 02 09:03:25.9±1.7**, 36°.33N**±0°.08×**70°.6E**±0°.2**, h138**^{km}±24^{km}**, n24, σ0^s.70**/28**, 5C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DLH	Dalhousie	5.82	129	ePKP	Sn	09 05 56.0	+0.2
AML	Almayashu	6.28	22	P	Pn	09 04 56.2	+0.1
	SNR=63						
KK31	Karatay Array	6.77	359	Pn	Pn	09 05 01.9	-0.8
	14nm,0.5s,baz=180,slow=13,SNR=132						
KK31				⇑Sn	Sn	09 06 13.8	-4.6
	14nm,0.7s,baz=190,slow=22,SNR=6.8						
KZA	Kyzart	6.78	31	P	Pn	09 05 03.2	+0.3
	SNR=7.8						
EKS2	Erkin-Say	6.79	20	P	Pn	09 05 02.9	0.0
	SNR=11						
AAK	Ala-Archa	6.98	24	P	Pn	09 05 05.7	+0.1
	SNR=9.2						
KBK	Karagaybulak	7.16	27	P	Pn	09 05 08.9	+1.0
	SNR=5.1						
CHMS	Chumysh	7.39	24	P	Pn	09 05 10.6	-0.4
	SNR=8.8						
USP	Ospenovka	7.55	22	P	Pn	09 05 14.1	+0.9
	SNR=8.6						
TKM2	Tokmak 2	7.63	29	P	Pn	09 05 15.3	+1.1
	SNR=5.2						
TKM2	Tokmak 2	7.63	29	⇑Pn	Pn	09 05 14.1	-0.1
	6.4nm,0.6s						
TKM2				⇑Sn	Sn	09 06 38.2	-1.0
	2.9nm,0.5s						
DANN	Dangsing	13.67	122	eP	Pn	09 06 32.8	-1.2
	9.8nm,0.5s						
KOLN	Koldanda	13.93	124	eP	Pn	09 06 35.7	-1.6
GKN	Gorkha	14.49	121	eP	Pn	09 06 44.0	-0.4
DMN	Daman	15.06	121	eP	Pn	09 06 51.3	-0.2
KKN	Kakani	15.06	120	eP	Pn	09 06 51.4	-0.2
	24nm,0.6s						
AB08	Akbulak array	15.08	332	⇓Pn	Pn	09 06 51.1	-0.5
	2.5nm,0.4s						
AB08				⇑Sn	Sn	09 09 25.9	-13
	1.4nm,0.5s						
PKIN	Phulchoki	15.28	121	eP	Pn	09 06 54.7	+0.4
PKI	Pulchoki	15.29	121	eP	Pn	09 06 55.1	+0.7
GUN	Gumba	15.41	119	eP	Pn	09 06 55.8	-0.1
JIRN	Jiri	15.78	119	eP	Pn	09 07 01.5	+1.0
	6.1nm,0.2s						
RAMN	Ramite	16.50	120	eP	Pn	09 07 09.1	-0.2
	11nm,0.7s						
AKTO	Aktyubinsk	16.77	331	⇓Pn	Pn	09 07 12.8	+0.4
	0.7nm,0.8s						
AKTO				⇑Sn	Sn	09 10 12.5	-6.8
	0.8nm,1.2s						
TAPN	Taplejung	17.05	117	eP	Pn	09 07 17.0	+1.0

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*ISCJB **02** 09:08:07.0±0.5, 24°.77N±0°.03×122°.23E±0°.02, h86^{km}±4^{km}, Error ellipse: s-maj=4.6km s-min=3.0km az=161.1*

*TAP **02** 09:08:07.1, 24°.78N×122°.19E, h86^{km}, ML4.3, C*

*JMA **02** 09:08:07.1±0.4, 24°.84N×122°.25E, h84^{km}, M3.0*

ISC 02 09:08:07.7±0.5**, 24°.77N**±0°.03×**122°.23E**±0°.02**, h83**^{km}±4^{km}**, n61, σ0^s.90**/120**, 8D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.32	317	i P	Pn	09 08 20.2	-0.2
	baz=316						
TWB1				i S	Sn	09 08 29.6	-0.2
	baz=316						
TWC	Suao	0.38	245	i P	Pn	09 08 20.6	-0.2
	baz=242						
TWC				i S	Sn	09 08 30.1	-0.5
	baz=242						
ILA	Ilan	0.44	269	i P	Pn	09 08 21.4	+0.2
	baz=264						
ILA				i S	Sn	09 08 31.7	+0.5
	baz=264						
NWF	Wu-fen Shan	0.51	306	i P	Pn	09 08 21.6	-0.1
	baz=300						
NWF				i S	Sn	09 08 32.1	0.0
	baz=300						
TWE	Neicheng	0.51	265	⇓iP	Pn	09 08 21.8	0.0
	baz=268						
TWE				S	Sn	09 08 32.0	-0.3
	baz=268						
ENA	Nanau	0.56	233	⇓iP	Pn	09 08 22.4	+0.2
	baz=225						
ENA				S	Sn	09 08 33.9	+0.9
	baz=225						
ENTT	Nioudou	0.62	258	⇓iP	Pn	09 08 22.9	+0.1
	baz=260						
ENTT				S	Sn	09 08 34.1	+0.2
	baz=260						
TWA	Mucha	0.62	290	⇓iP	Pn	09 08 22.5	-0.3
	baz=283						
TWA				S	Sn	09 08 33.4	-0.7
	baz=283						
TAP1	Taipei	0.69	293	eP	Pn	09 08 22.7	-0.8
	baz=293						
TAP1				S	Sn	09 08 34.6	-0.7
	baz=293						
TWY	Chenhua	0.76	311	i P	Pn	09 08 23.9	-0.3
	baz=312						
TWY				S	Sn	09 08 36.5	0.0
	baz=312						
YOJ	Yonaguni jima	0.78	113	P	Pn	09 08 24.2	-0.1
YOJ				eS	Sn	09 08 36.8	0.0
NSK	Sanguang	0.80	263	⇓iP	Pn	09 08 24.4	-0.2
	baz=270						
NSK				S	Sn	09 08 37.3	+0.1
	baz=270						
TWS1	Kuangyinshan	0.81	294	i P	Pn	09 08 24.5	-0.2
	baz=294						
TWS1				S	Sn	09 08 37.2	-0.2
	baz=294						
NNS	Nan Shan	0.85	247	⇓iP	Pn	09 08 25.6	+0.4
	baz=236						
NNS				eS	Sn	09 08 38.8	+0.6
	baz=236						
PCYT	Pengchaiyu	0.87	351	P	Pn	09 08 25.2	-0.2
	baz=346						
PCYT				S	Sn	09 08 38.3	-0.3
	baz=346						
TWD	Chiawan	0.90	220	P	Pn	09 08 25.3	-0.4
	baz=218						
TWD				eS	Sn	09 08 39.4	+0.2
	baz=218						
NCU	National Centr	0.97	282	eP	Pn	09 08 26.6	+0.1
	baz=289						
NCU				eS	Sn	09 08 40.6	+0.1
	baz=289						
HWA	Hwalien	0.97	216	eP	Pn	09 08 26.8	+0.2
	baz=207						
HWA				eS	Sn	09 08 41.5	+0.7
	baz=207						
TWT	Tachien	1.09	242	i P	Pn	09 08 28.7	+0.8
	baz=234						
TWT				eS	Sn	09 08 44.0	+0.8
	baz=234						
NSTT	Nanjuang	1.13	263	P	Pn	09 08 28.2	-0.2
	baz=261						
NSTT				eS	Sn	09 08 43.8	-0.1
	baz=261						
HSN	Hsinchu	1.15	272	P	Pn	09 08 28.3	-0.3
	baz=272						
HSN				S	Sn	09 08 43.8	-0.6
	baz=272						
ESL	Shilin	1.20	217	P	Pn	09 08 28.2	-1.1
	baz=222						
ESL				eS	Sn	09 08 43.8	-1.8
	baz=222						
NSY	Sanyi	1.38	255	P	Pn	09 08 31.8	+0.2
	baz=253						
NSY				eS	Sn	09 08 50.0	+0.3
	baz=253						
TWQ1	Liyutan	1.39	253	i P	Pn	09 08 31.8	+0.1
	baz=250						
TWQ1				eS	Sn	09 08 50.1	+0.3
	baz=250						
IRIF	Iriomote-Funau	1.43	107	P	Pn	09 08 31.7	-0.5
IRIF				eS	Sn	09 08 51.0	+0.2
SMLT	Sun Moon Lake	1.50	234	i P	Pn	09 08 33.8	+0.7
	baz=228						
SMLT				eS	Sn	09 08 53.9	+1.5
	baz=228						
EHY	Hungye	1.51	214	eP	Pn	09 08 31.6	-1.6
	baz=212						
EHY				eS	Sn	09 08 50.8	-1.7
	baz=212						
TYC	Yuchr	1.52	236	i P	Pn	09 08 33.8	+0.4
	baz=233						
TYC				eS	Sn	09 08 53.2	+0.4
	baz=233						
TCU	Taichung	1.55	247	eP	Pn	09 08 33.5	-0.1
	baz=243						
TCU				eS	Sn	09 08 52.7	-0.6
	baz=243						
HATJ	Hateruma jima	1.60	116	P	Pn	09 08 34.7	+0.3
HATJ				eS	Sn	09 08 55.3	+0.6
TWF1	Yuli	1.65	211	P	Pn	09 08 33.6	-1.4
	baz=218						
TWF1				eS	Sn	09 08 54.5	-1.2
	baz=218						
WNT	Mingjian	1.67	238	P	Pn	09 08 35.6	+0.3
	baz=244						
WNT				eS	Sn	09 08 57.0	+0.8
	baz=244						
JKRS	Kuro-shima	1.71	108	P	Pn	09 08 35.9	+0.1
YUS	Yu-Shan	1.73	223	P	Pn	09 08 36.9	+0.8
	baz=213						
YUS				eS	Sn	09 08 58.2	+0.5
	baz=213						
JIJ	Ishigaki jima	1.79	103	P	Pn	09 08 36.3	-0.5
JIJ				eS	Sn	09 08 58.7	-0.3
ALS	Alishan	1.81	226	⇓iP	Pn	09 08 38.1	+1.0
	baz=233						
ALS				eS	Sn	09 09 02.1	+2.7
	baz=233						
CHN5	Tsauling	1.84	231	⇓iP	Pn	09 08 37.9	+0.4
	baz=237						
CHN5				S	Sn	09 09 01.5	+1.4
	baz=237						
CHKT	Chengkung	1.84	206	eP	Pn	09 08 36.2	-1.4
	baz=197						
CHKT				eS	Sn	09 08 57.6	-2.7
	baz=197						
WGK	Gukeng	1.87	235	eP	Pn	09 08 37.9	+0.1
	baz=231						
WGK				eS	Sn	09 09 01.0	+0.1
	baz=231						
ELDTW	Lidau	1.93	215	eP	Pn	09 08 37.8	-0.9
	baz=214						
ELDTW				eS	Sn	09 09 01.3	-1.0
	baz=214						
CHN2	Minshiung	2.02	233	eP	Pn	09 08 40.9	+0.9
	baz=239						
CHN2				eS	Sn	09 09 06.5	+1.9
	baz=239						
CHN4	Tsaushan	2.06	227	i P	Pn	09 08 41.0	+0.5
	baz=223						
CHN4				S	Sn	09 09 07.9	+2.5
	baz=223						
CHY	Chiayi	2.08	233	P	Pn	09 08 40.9	+0.2
	baz=238						
CHY				S	Sn	09 09 07.0	+1.1
	baz=238						
STYT	Tauyuan	2.09	220	P	Pn	09 08 41.6	+0.7
	baz=212						
STYT				eS	Sn	09 09 06.8	+0.5
	baz=212						
WTP	Ta-pu	2.12	225	P	Pn	09 08 41.8	+0.5
	baz=231						
WTP				eS	Sn	09 09 07.0	+0.2
	baz=231						
WSF	Szhu	2.15	239	eP	Pn	09 08 42.0	+0.3
	baz=235						
WSF				eS	Sn	09 09 07.6	0.0
	baz=235						
TWK	Hsinying	2.19	227	P	Pn	09 08 42.4	+0.3
	baz=223						
TWK				eS	Sn	09 09 08.9	+0.4
	baz=223						
TWG	Pinlang	2.21	209	eP	Pn	09 08 41.3	-1.1
	baz=204						
TWG				eS	Sn	09 09 06.5	-2.6
	baz=204						
CHN1	Nanshi	2.22	225	eP	Pn	09 08 42.7	+0.2
	baz=231						
CHN1				eS	Sn	09 09 09.8	+0.6
	baz=231						
TTN	Taitung	2.24	207	eP	Pn	09 08 43.3	+0.5
	baz=207						
TTN				eS	Sn	09 09 08.6	-1.1
	baz=207						
JTJ	Tarama	2.25	93	P	Pn	09 08 43.7	+0.7
JTJ				eS	Sn	09 09 12.1	+2.1
SGST	Jiashian	2.26	222	eP	Pn	09 08 43.8	+0.7
	baz=220						
SGST				eS	Sn	09 09 11.3	+1.1
	baz=220						
ECL	Taimali	2.46	209	eP	Pn	09 08 43.9	-1.9
	baz=206						
ECL				eS	Sn	09 09 12.4	-2.6
	baz=206						
SSD	Sandimen	2.49	216	P	Pn	09 08 47.2	+1.0
	baz=214						
SSD				eS	Sn	09 09 15.9	+0.2
	baz=214						
TWM1	Shoushan	2.55	221	eP	Pn	09 08 48.8	+1.8
	baz=219						
TWM1				eS	Sn	09 09 21.8	+4.7
	baz=219						
TAW	Tawu	2.70	207	eP	Pn	09 08 51.3	+2.4
	baz=202						
PNG	Penghu	2.72	244	eP	Pn	09 08 47.7	-1.6
	baz=240						
PNG				eS	Sn	09 09 18.7	-2.6
	baz=240						
WDGT	Dungji	2.79	238	P	Pn	09 08 49.2	-1.0
	baz=234						
WDGT				eS	Sn	09 09 22.3	-0.7
	baz=234						
LAY	Lan-yu	2.79	193	eP	Pn	09 08 49.1	-1.2
	baz=199						
LAY				eS	Sn	09 09 18.9	-4.1
	baz=199						
TWK1	Hengchun	3.10	205	eP	Pn	09 08 53.6	-0.9
	baz=214						
TWK1				eS	Sn	09 09 29.9	-0.7
	baz=214						
KNM	Kinmen	3.47	265	P	Pn	09 08 59.7	+0.2
	baz=262						
KNM				eS	Sn	09 09 38.3	-1.2
	baz=262						

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*TEH **02** 09:14:00.9, 38°.67N×43°.97E, h5^{km}*

*CSEM **02** 09:14:03.6±0.4, 38°.62N×44°.15E, h2^{km}, MD2.8, Error ellipse: s-maj=8.7km s-min=4.4km az=106.0*

*ISK **02** 09:14:03.7, 38°.61N×44°.11E, h7^{km}, MD2.8*

ISC 02 09:14:03.9±0.6**, 38°.62N**±0°.04×**44°.22E**±0°.04**, h0**^{km}±7^{km}**, n18, σ1^s.02**/24**, 1C, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLDR	Caldiran	0.57	336	ePG	Pg	09 14 14.5	-0.3
CLDR				eSG	Sg	09 14 23.3	+1.1
CLDR	Caldiran	0.57	336	ePg	Pg	09 14 14.5	-0.4

CLDR				eSg	Sg	09 14 23.3	+1.1
TVAN	Van	0.64	262	i P	Pg	09 14 15.7	-0.6
TVAN	Van	0.64	262	i P	Pg	09 14 15.7	-0.6
VANT	Van	0.68	255	ePG	Pg	09 14 17.6	+0.7
VANT				eSG	Sg	09 14 27.3	+1.7
DYDN	Diyadin	1.01	336	eP	Pg	09 14 22.2	-1.1
DYDN	Diyadin	1.01	336	eP	Pg	09 14 22.2	-1.0
DYDN				eS	Sg	09 14 36.3	0.0
HKR	Hakkari	1.11	200	ePG	Pg	09 14 24.6	-0.6
HKR	Hakkari	1.11	200	ePg	Pg	09 14 24.6	-0.6
HAKT	HAKKARI	1.14	201	eP	Px	09 14 39.4	
HAKT				eS	Sx	09 14 57.4	
ISHB	Shabestar	1.15	107	ePg	Pg	09 14 24.8	-1.2
ISHB				e		09 14 28.5	
	comp=Z,2µm,0.2s						
IMRD	Marand	1.17	85	⇑ePg	Pg	09 14 25.4	-0.9
IMRD				eSg	Sg	09 14 43.7	+2.3
IMRD				e		09 14 48.3	
	comp=Z,4µm,0.2s						
AGRB	Hanur-Agry	1.35	315	ePN	Pn	09 14 28.7	-1.3
AGRB	Hanur-Agry	1.35	315	ePn	Pn	09 14 28.7	-1.2
GNI	Garni	1.58	15	ePN	Pn	09 14 33.7	+0.6
GNI	Garni	1.58	15	ePn	Pn	09 14 33.7	+0.6
IAZR	Azarshahr	1.68	124	ePn	Pn	09 14 33.4	-1.1
IAZR				e		09 14 37.5	
	comp=Z,1µm,0.1s						
IAZR				eSn	Sn	09 14 58.0	+1.3
IHRS	Heris	2.24	97	ePn	Pn	09 14 41.8	-0.4
IHRS				e		09 14 46.7	
	comp=Z,463nm,0.1s						
IHRS				eSn	Sn	09 15 10.6	+0.1

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*CSEM **02** 09:18:21.9±0.2, 41°.65N×16°.17E, h20km, ML3.6/11, Error ellipse: s-maj=5.1km s-min=2.5km az=43.0*

*ROM **02** 09:18:21.9±0.2, 41°.67N×16°.13E, h26km±1km, Md2.7/32, Ml2.7/17, Error ellipse: s-maj=2.6km s-min=1.8km az=54.0*

*ISCJB **02** 09:18:22.1±0.6, 41°.69N±0°.03×16°.15E±0°.04, h26km±3km, Error ellipse: s-maj=6.5km s-min=3.7km az=40.6*

ISC 02 09:18:22.3±0.6**, 41°.68N**±0°.03×**16°.15E**±0°.04**, h24**km±3km**, n69, σ0ˢ77**/104**, 4C-8D, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MS1	Monte Sant'Ang	0.15	279	ePg	Pb	09 18 27.7	+0.3
MS1				eSg	Sb	09 18 31.3	+0.5
MSAG	Monte S. Angel	0.18	280	⇓iPg	Pb	09 18 28.1	+0.5
MSAG				Sg	Sb	09 18 32.2	+1.0
	2µm,0.2s						
MSAG	Monte S. Angel	0.18	280	⇓iPg	Pb	09 18 28.1	+0.5
MSAG				Sg	Sb	09 18 32.2	+1.0
	2µm,0.2s						
SGRT	San Giovanni R	0.31	284	⇓iPg	Pb	09 18 29.5	+0.1
SGRT				Sg	Sb	09 18 34.9	+0.7
	954nm,0.4s						
SGRT	San Giovanni R	0.31	284	⇓iPg	Pb	09 18 29.5	+0.1
SGRT				Sg	Sb	09 18 34.9	+0.7
	954nm,0.4s						
RGNG	Rignano Grg	0.42	269	⇓iPg	Pb	09 18 30.9	-0.2
RGNG				Sg	Sb	09 18 37.0	-0.1
RGNG	Rignano Grg	0.42	269	⇓iPg	Pb	09 18 30.9	-0.2
RGNG				Sg	Sb	09 18 37.0	-0.1
MRVN	Minervino Murg	0.62	177	Pg	Pb	09 18 33.8	-0.7
MRVN				Sg	Sb	09 18 43.0	+0.2
	280nm,0.4s						
MRVN	Minervino Murg	0.62	177	Pg	Pb	09 18 33.8	-0.7
MRVN				Sg	Sb	09 18 43.0	+0.2
	280nm,0.4s						
FG2	Serracapriola	0.75	280	Pg	Pb	09 18 36.6	0.0
FG2				Sg	Sb	09 18 45.9	-0.5
	748nm,0.4s						
FG2	Serracapriola	0.75	280	Pg	Pb	09 18 36.6	0.0
FG2				Sg	Sb	09 18 45.9	-0.5
	748nm,0.4s						
PALZ	Palazzo San Ge	0.75	191	Pg	Pb	09 18 36.3	-0.4
PALZ				Sg	Sb	09 18 45.7	-0.8
	390nm,0.3s						
PALZ	Palazzo San Ge	0.75	191	Pg	Pb	09 18 36.3	-0.4
PALZ				Sg	Sb	09 18 45.7	-0.8
	390nm,0.3s						
FG5	Orsara di Pugl	0.77	239	Pg	Pb	09 18 37.0	0.0
FG5				Sg	Sb	09 18 46.5	-0.6
	115nm,0.2s						
FG5	Orsara di Pugl	0.77	239	Pg	Pb	09 18 37.0	0.0
FG5				Sg	Sb	09 18 46.5	-0.6
	115nm,0.2s						
SGTA	Sant Agata di	0.80	227	Pg	Pb	09 18 37.2	-0.4
SGTA				Sg	Sb	09 18 47.2	-0.8
	244nm,0.3s						
SGTA	Sant Agata di	0.80	227	Pg	Pb	09 18 37.2	-0.4
SGTA				Sg	Sb	09 18 47.2	-0.8
	244nm,0.3s						
MOCO	Biccari - m.te	0.81	248	Pg	Pb	09 18 37.3	-0.3
MOCO				Sg	Sb	09 18 47.8	-0.3
	145nm,0.4s						
VULT	Monte Vulture	0.83	209	Pg	Pb	09 18 38.1	+0.1
	372nm,0.4s						
VULT	Monte Vulture	0.83	209	Pg	Pb	09 18 38.1	+0.1
	372nm,0.4s						
AMUR	Altamura	0.85	156	⇓iPg	Pb	09 18 37.4	-0.9
AMUR				Sg	Sb	09 18 49.4	+0.1
	223nm,0.3s						
AMUR	Altamura	0.85	156	⇓iPg	Pb	09 18 37.4	-0.9
AMUR				Sg	Sb	09 18 49.4	+0.1
	223nm,0.3s						
ACER	Acerenza	0.91	190	⇑iPg	Pb	09 18 39.3	-0.1
ACER				Sg	Sb	09 18 49.8	-1.2
	435nm,0.5s						
ACER	Acerenza	0.91	190	⇑iPg	Pb	09 18 39.3	-0.1
ACER				Sg	Sb	09 18 49.8	-1.2
	435nm,0.5s						
CIGN	Sant'Elia a Pi	0.93	269	Pn	Pn	09 18 39.1	-0.7
CIGN	Sant'Elia a Pi	0.93	269	Pn	Pn	09 18 39.1	-0.7
SG1	Sgolgore (BA)	0.93	154	ePg	Pb	09 18 38.6	-1.2
SG1				eSg	Sb	09 18 52.9	+1.2
CAFE	Carife	0.95	227	Pg	Pn	09 18 40.0	-0.1
CAFE				Sg	Sb	09 18 53.5	+1.4
	139nm,0.6s						
CAFE	Carife	0.95	227	Pg	Pn	09 18 40.0	-0.1
CAFE				Sg	Sb	09 18 53.5	+1.4
	139nm,0.6s						
SNAL	S. Angelo Dei	1.03	223	Pn	Pn	09 18 40.8	-0.5
SNAL	S. Angelo Dei	1.03	223	Pn	Pn	09 18 40.8	-0.5
MRLC	Muro Lucano	1.05	208	Pg	Pn	09 18 41.6	+0.1
MRLC				Sg	Sb	09 18 55.9	+0.8
	61nm,0.4s						
MRLC	Muro Lucano	1.05	208	Pg	Pn	09 18 41.6	+0.1
MRLC				Sg	Sb	09 18 55.9	+0.8
	61nm,0.4s						
MIGL	Miglionico	1.10	168	Pg	Pn	09 18 41.3	-0.9
MIGL				Sg	Sn	09 18 57.9	+1.4
MIGL	Miglionico	1.10	168	Pg	Pn	09 18 41.3	-0.9
MIGL				Sg	Sn	09 18 57.9	+1.4
NOCI	Noci	1.13	142	Pg	Pn	09 18 41.5	-1.1
NOCI				Sg	Sn	09 18 58.7	+1.4
NOCI	Noci	1.13	142	Pg	Pn	09 18 41.5	-1.1
NOCI				Sg	Sn	09 18 58.7	+1.4
PTRP	Pietrapertosa	1.16	183	Pn	Pn	09 18 44.3	+1.3
	207nm,0.5s						
PTRP	Pietrapertosa	1.16	183	Pn	Pn	09 18 44.3	+1.3
	207nm,0.5s						
MCRV	Calabrutti - M	1.16	220	Pn	Pn	09 18 42.0	-1.0
MCRV				Sn	Sn	09 18 59.4	+1.3
MCRV	Calabrutti - M	1.16	220	Pn	Pn	09 18 42.0	-1.0
MCRV				Sn	Sn	09 18 59.4	+1.3
CSSN	Cassano Irpino	1.18	226	⇑iPg	Pn	09 18 43.5	+0.3
	24nm,0.3s						
CSSN	Cassano Irpino	1.18	226	⇑iPg	Pn	09 18 43.5	+0.3
	24nm,0.3s						
SGO	Sicignano	1.29	210	Pn	Pn	09 18 45.3	+0.6
	27nm,0.2s						
SGO	Sicignano	1.29	210	Pn	Pn	09 18 45.3	+0.6
	27nm,0.2s						
PE1	Pezze di Greco	1.30	132	ePg	Pn	09 18 44.2	-0.7
PE1				eSg	Sn	09 19 04.6	+3.1
CRAC	Craco	1.33	170	Pn	Pn	09 18 44.8	-0.6
	187nm,0.3s						
CRAC	Craco	1.33	170	Pn	Pn	09 18 44.8	-0.6
	187nm,0.3s						
CDRU	Civita di Ruta	1.35	208	Pn	Pn	09 18 45.6	0.0
CDRU	Civita di Ruta	1.35	208	Pn	Pn	09 18 45.6	0.0
SGG	Gregorio Mates	1.36	258	Pn	Pn	09 18 45.5	-0.2
	50nm,0.5s						
SGG	Gregorio Mates	1.36	258	Pn	Pn	09 18 45.5	-0.2
	50nm,0.5s						
TAR1	Taranto	1.44	143	ePn	Pn	09 18 45.9	-0.9
TAR1				eSn	Sn	09 19 08.9	+3.9
VAGA	Valle Agricola	1.46	260	Pn	Pn	09 18 47.1	0.0
VAGA	Valle Agricola	1.46	260	Pn	Pn	09 18 47.1	0.0
SCHR	S. Chirico Rap	1.48	182	Pn	Pn	09 18 48.7	+1.3
	23nm,0.4s						
SCHR	S. Chirico Rap	1.48	182	Pn	Pn	09 18 48.7	+1.3
	23nm,0.4s						
CMPR	Campora	1.50	205	Pn	Pn	09 18 47.7	0.0
CMPR	Campora	1.50	205	Pn	Pn	09 18 47.7	0.0
SIRI	Monte Sirino -	1.51	188	Pn	Pn	09 18 47.2	-0.6
	56nm,0.3s						
SIRI	Monte Sirino -	1.51	188	Pn	Pn	09 18 47.2	-0.6
	56nm,0.3s						
MGR	Morigerati	1.61	196	Pn	Pn	09 18 48.3	-0.8
	44nm,0.4s						
MGR	Morigerati	1.61	196	Pn	Pn	09 18 48.3	-0.8
	44nm,0.4s						
INTR	Introdacqua	1.71	282	Pn	Pn	09 18 50.6	+0.1
INTR	Introdacqua	1.71	282	Pn	Pn	09 18 50.6	+0.1
SDI	San Donato	1.75	272	Pn	Pn	09 18 51.6	+0.5
	17nm,0.3s						
SDI	San Donato	1.75	272	Pn	Pn	09 18 51.6	+0.5
	17nm,0.3s						
NRCA	Norcia	2.53	298	Pn	Pn	09 19 02.3	+0.5
	3.0nm,0.2s						
NRCA	Norcia	2.53	298	Pn	Pn	09 19 02.3	+0.5
	3.0nm,0.2s						

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*NEIC **02** 09:33:27.2, 63°.89N×131°.46W, h5km, mb3.4/1, ML3.7(PGC), ML3.7(AEIC), After PGC.*

PGC 02 09:33:27.2±0.7**, 63°.89N×131°.47W, h5**km**, ML3.7**/4**, 12D, 276km Wsw of Norman Wells, Nt Southern Yukon Territory, Canada, Southern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAWY	Dawson	3.50	277	⇓Pn	Pn	09 34 20.9	-1.3
DAWY				⇓Pg	Pg	09 34 29.7	-4.5
DAWY				⇓Sg	Sg	09 35 15.2	-4.3
DAWY	Dawson	3.50	277	P	Pn	09 34 20.7	-1.5
DAWY				S	Sn	09 35 03.4	-0.5
WHY	Whitehorse	3.61	208	⇑Pn	Pn	09 34 22.7	-1.0
WHY				⇑Pg	Pg	09 34 33.0	-3.3
WHY				⇑Sg	Sg	09 35 16.9	-6.1
WHY	Whitehorse	3.61	208	P	Pn	09 34 23.1	-0.6
HYT	Haines Junctio	4.17	225	⇑Pn	Pn	09 34 30.9	-0.5
HYT				⇓Pg	Pg	09 34 42.3	-4.7
HYT				⇑Sg	Sg	09 35 33.1	-7.7
EGAK	Eagle	4.31	286	P	Pn	09 34 32.3	-1.1
EGAK				S	Sn	09 35 21.6	-2.3
BCA3	Beaver Creek A	4.70	265	P	Pn	09 34 37.1	-1.6
BCA3				S	Sn	09 35 32.3	-1.2
SKAG	Skagway	4.81	204	P	Pn	09 34 39.0	-1.1
PLBC	Pleasant Camp	5.02	210	⇓Pn	Pn	09 34 42.7	-0.3
PLBC				⇓Pg	Pg	09 34 58.0	-5.3
PLBC				⇓Sg	Sg	09 36 00.3	-7.9
DLBC	Dease Lake	5.51	172	⇓Pn	Pn	09 34 49.0	-0.8
DLBC				⇓Sg	Sg	09 36 16.5	-7.6
DLBC	Dease Lake	5.51	172	P	Pn	09 34 49.2	-0.7
BESE	Bessie Mountai	5.57	199	P	Pn	09 34 50.8	+0.2
MENT	Mentasta	5.59	266	P	Pn	09 34 49.3	-1.5
PNL	Peninsula	5.66	225	P	Pn	09 34 51.1	-0.8
FNBB	Fort Nelson	6.45	137	⇓Pn	Pn	09 35 01.3	-1.3
CTLN	Castor Lake	6.78	78	⇓Pn	Pn	09 35 05.1	-2.0
CTLN				⇓Sn	Sn	09 36 16.3	-8.2
RES	Resolute Bay	16.47	34	ePn	Pn	09 37 13.6	-5.0
	1.5nm,0.4s						
RES				eSn	Sn	09 40 03.9	-18

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*ISCJB **02** 09:45:20.7±0.5, 10°.69N±0°.04×61°.82W±0°.03, h50km±6km, Error ellipse: s-maj=7.3km s-min=4.1km az=166.8*

*NEIC **02** 09:45:21.9, 10°.70N×61°.77W, h39km, MD3.0(TRN), After TRN.*

*TRN **02** 09:45:21.7, 10°.69N×61°.79W, h40km, MD3.0*

*FUNV **02** 09:45:21.5, 10°.78N×61°.75W, h29km, MW3.2*

ISC 02 09:45:21.7±0.5**, 10°.69N**±0°.04×**61°.80W**±0°.02**, h42**km±7km**, n17, σ0ˢ72**/32**, 2C-2D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	Chacachacare	0.05	87	⇑iP	Pn	09 45 28.5	+0.1
TCE				eS	Sn	09 45 33.0	0.0
TRN	Trinidad (W)	0.40	97	⇓iP	Pn	09 45 30.7	-0.5
TRN				eS	Sn	09 45 36.9	-1.0
GUIV	Guiria	0.41	264	⇓iP	Pn	09 45 31.3	-0.1
GUIV				eS	Sn	09 45 38.5	+0.3
TPP	Pointe-a-Pierr	0.51	137	eP	Pn	09 45 32.6	0.0
TPP				eS	Sn	09 45 40.8	+0.4
TBH	Brigand Hill	0.75	106	eP	Pn	09 45 35.7	-0.2
TBH				eS	Sn	09 45 46.6	+0.4
TPR	Prospect	1.12	64	⇑iP	Pn	09 45 41.2	+0.3
TPR				eS	Sn	09 45 55.0	-0.2
BOT	Bacolet	1.17	66	eP	Pn	09 45 41.6	+0.1
BOT				eS	Sn	09 45 56.3	0.0
GUNV	Guanoco	1.24	245	eP	Pn	09 45 44.4	+1.8
GUNV				eS	Sn	09 46 00.7	+2.6
TOSP	Speyside	1.38	64	eP	Pn	09 45 43.9	-0.6
TOSP				eS	Sn	09 46 02.3	+0.7
CRUV	Carupano	1.41	269	eP	Pn	09 45 44.4	-0.5
CRUV				eS	Sn	09 46 01.9	-0.3
ITEV	Isla Los Testi	1.46	297	eP	Pn	09 45 45.8	+0.2
ITEV				eS	Sn	09 46 03.6	+0.1
GRW	Mount Saint Ca	1.46	5	eP	Pn	09 45 45.8	+0.1
GRW				eS	Sn	09 46 04.1	+0.5
SVB	Belmont	2.62	12	eP	Pn	09 46 01.9	+0.3
SVB				eS	Sn	09 46 31.7	-0.4
PCRV	Puerto La Cruz	2.83	260	eP	Pn	09 46 04.7	+0.3
CUPV	Cœpira	3.97	261	eP	Pn	09 46 20.5	+0.4
CUPV				eS	Sn	09 47 03.8	-1.7
CAOV	Caicara del Or	5.58	234	eP	Pn	09 46 41.2	-1.0
BAUV	El Baul	6.39	255	eP	Pn	09 46 52.4	-1.0
BAUV				eS	Sn	09 47 59.9	-5.2

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*NEIC **02** 10:20:23.4, 15°.80N×96°.42W, h40km, MD3.7(MEX), After MEX.*

MEX 02 10:20:23.4±1.0**, 15°.80N×96°.42W, h40**km±16km**, MD3.7, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	0.30	95	i P	Pn	10 20 30.8	-0.9
HUIG				i S	Sn	10 20 35.2	-2.3
VHO	Vista Hermosa	1.30	347	i P	Pn	10 20 42.7	-2.4
VHO				i S	Sn	10 21 00.0	-1.4
PNIG	Pinotepa	1.75	290	i P	Pn	10 20 50.5	-0.7
PNIG				i S	Sn	10 21 09.8	-2.4
CMIG	Matias Romero	1.96	49	i P	Pn	10 20 53.0	-1.1
CMIG				i S	Sn	10 21 15.6	-1.8
UTMO	Huajuapan	2.42	327	i P	Pn	10 20 59.8	-0.7
UTMO				i S	Sn	10 21 27.1	-1.8
TGIG		3.31	72	i P	Pn	10 21 11.6	-1.1
TGIG				i S	Sn	10 21 48.6	-2.3
PPM	Popocatepetl	3.88	327	eP	Pn	10 21 20.9	+0.4
PPM				i S	Sn	10 22 04.8	+0.1
CCIG	Comitan	4.14	83	eP	Pn	10 21 23.4	-0.8
CCIG				i S	Sn	10 22 09.2	-2.2

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*IDC **02** 10:40:18.7±8.4, 34°.43N×136°.96E, h333km±26km, mb2.8/2, mb1 2.8/4, mb1mx2.6/25, mbtmp2.7/4, Error ellipse: s-maj=182.1km s-min=48.1km az=175.0*

*ISCJB **02** 10:40:19.5±0.8, 34°.78N±0°.10×136°.98E±0°.07, h342km±5km, mb2.8/2, Error ellipse: s-maj=16.4km s-min=7.1km az=155.7*

*JMA **02** 10:40:19.3±0.2, 34°.75N×136°.88E, h345km±2km, M2.8*

ISC 02 10:40:20.4±0.7**, 34°.77N**±0°.10×**136°.99E**±0°.07**, h335**km±5km**, n26, σ0ˢ85**/40**, mb2.8**/2**, Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAA	Atsumi	0.19	139	P	Pn	10 41 03.0	+0.4
JAA				eS	S	10 41 36.7	+0.4
JIE	Ise	0.45	212	P	Pn	10 41 03.2	+0.2
JIE				eS	S	10 41 36.7	-0.3
TSUJ	Tsu 2	0.48	262	P	Pn	10 41 03.2	+0.2
HMMJ	Hamamatsu 2	0.61	82	P	Pn	10 41 03.7	+0.4
HMMJ				eS	S	10 41 38.1	+0.6
JKN2	Miekihoku	0.80	228	P	Pn	10 41 03.8	-0.1
JKN2				eS	S	10 41 37.5	-1.1
JNY	Yasuok	0.92	51	P	Pn	10 41 04.8	+0.6
JNY				eS	S	10 41 40.1	+0.8
JGM	Miyama	0.95	346	P	Pn	10 41 04.8	+0.5
JGM				eS	S	10 41 40.0	+0.5
JWY	Kouya	1.28	245	P	Pn	10 41 05.7	-0.2
JWT	Wachi	1.40	292	P	Pn	10 41 06.5	0.0
JWT				eS	S	10 41 41.8	-1.6
JYN	Shimob	1.46	60	P	Pn	10 41 07.7	+0.9
JWZ	Kozaga	1.63	221	P	Pn	10 41 07.1	-0.9
JOD2	Odawara 2	1.79	74	P	Pn	10 41 09.6	+0.7
JRY	Ryogami san	1.99	51	P	Pn	10 41 11.3	+1.1
JRY				eS	S	10 41 52.8	+2.6
MAT	Matsushiro	2.02	29	P	Pn	10 41 11.2	+0.7
MAT				S	S	10 41 51.0	+0.4
MAT	Matsushiro	2.02	29	P	Pn	10 41 11.1	+0.6
MJAR	Matsushiro Arr	2.02	29	P	Pn	10 41 11.1	+0.6
	2.5nm,0.3s,baz=206,slow=8.4,SNR=44						
JHU	Hanno	2.16	59	P	Pn	10 41 12.1	+0.6
JHU				eS	S	10 41 52.1	-0.3
JAI	Aioi	2.32	246	P	Pn	10 41 11.8	-1.0
JAG	Ashikaga	2.60	50	P	Pn	10 41 14.6	-0.4
BSO4	Boso 4	2.76	85	P	Pn	10 41 16.8	+0.3
BSO4				eS	S	10 42 01.3	-0.2
JYT	Yasato	2.99	60	P	Pn	10 41 18.0	-0.5
JYT				eS	S	10 42 02.8	-2.4
JHO	Hitachi	3.44	57	P	Pn	10 41 22.5	-0.3
JHO				eS	S	10 42 11.5	-1.5
JFK	Kawauchi	4.07	49	P	Pn	10 41 28.9	-0.3
JFK				eS	S	10 42 22.1	-2.6
KSRS	Korea Array	7.81	293	P	Pn	10 42 11.9	-0.1
	0.2nm,0.3s,baz=106,slow=12,SNR=7.7						
SONM	Songino Array	26.24	309	P	P	10 45 26.0	+0.4
	0.4nm,0.4s,mb3.0,baz=115,slow=9.6,SNR=3.9						
MKAR	Makanchi Array	42.32	304	P	P	10 47 42.0	-0.2
	0.4nm,0.7s,mb2.7,baz=91,slow=9.2,SNR=5.3						

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*BJI **02** 10:52:36.5, 5°.76N×124°.14E, h548km, mB4.8/17, mb4.5/32*

*MAN **02** 10:52:38, 6°.13N×123°.96E, h567km, mb5.2, ML4.2, MS4.4*

*ISCJB **02** 10:52:40.8±0.2, 6°.30N±0°.03×123°.90E±0°.04, h547km±3km, mb4.5/78, Error ellipse: s-maj=6.2km s-min=4.3km az=164.5*

*MOS **02** 10:52:41.7±1.0, 6°.35N×123°.87E, h562km, mb4.6/19, Error ellipse: s-maj=14.2km s-min=7.1km az=117.0*

*IDC **02** 10:52:42.3±0.7, 6°.29N×123°.83E, h549km±7km, mb3.9/30, mb1 3.9/30, mb1mx3.9/32, mbtmp3.9/30, Error ellipse: s-maj=10.1km s-min=5.7km az=72.0*

*NEIC **02** 10:52:42.0±0.5, 6°.30N×123°.84E, h549km±6km, mb4.6/18, Error ellipse: s-maj=8.6km s-min=5.3km az=68.0*

NEIC Felt at Davao.

*DJA **02** 10:52:43, 6°.39N×123°.65E, h544km, mb4.7/12*

ISC 02 10:52:41.7±0.2**, 6°.30N**±0°.03×**123°.90E**±0°.04**, h542**km±3km**, h539**km±1.3km**:pP-P, n187, σ0ˢ99**/192**, mb4.5**/77**, 1C-5D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTBH	Cotabato--PC H	0.98	21	⇓iP	P	10 53 47.0	-0.1
GSPH	General Santos	1.07	101	⇓iP	P	10 53 43.0	-4.4
PAGZ	Pagadian	1.62	342	eP	P	10 53 48.9	-0.2
DAV	Davao City (W)	1.83	65	P	P	10 53 50.1	+0.2
	87nm,0.3s,baz=206,slow=3.4,SNR=18						
DAV	Davao City (W)	1.83	65	ePn	P	10 53 50.5	+0.5
BUKP	Musuan	1.95	36	eP	P	10 53 50.6	+0.2
MATI	Mati	2.43	75	eP	P	10 53 51.5	-1.3
BUTP	Butuan	3.15	33	eP	P	10 53 57.8	+0.8
SCPH	Surigao	3.80	24	⇓eP	P	10 54 00.9	-0.7
SCPH	Surigao	3.80	24	eS	P	10 54 02.9	+1.3
MSLP	Maasin	3.92	14	eP	P	10 54 02.8	+0.3
LLP	Lapu-Lapu	3.99	1	⇓eP	P	10 54 02.4	-0.6
GUIM	Jordan	4.49	343	eP	P	10 54 04.4	-2.5
OCLP	Ormoc	4.77	8	eP	P	10 54 09.1	0.0
CUYO	Cuyo Island	5.34	328	eP	P	10 54 13.4	-0.6
RCP	Roxas	5.35	348	⇓eP	P	10 54 12.9	-1.2
MYLDM	Lahad Datu	5.49	259	P	P	10 54 16.5	+1.1
CNP	Catarman	6.22	7	eP	P	10 54 21.8	-0.2
TSM	Tawau	6.32	252	P	P	10 54 22.6	-0.4
BATP	Bataraza	6.53	293	eP	P	10 54 24.6	-0.3
ENPP	El Nido	6.58	318	eP	P	10 54 25.1	-0.3
SDKM	Sandakan	6.70	265	P	P	10 54 25.7	-0.9
SJMP	San Jose	6.71	336	eP	P	10 54 26.9	+0.3
KDM	Kudat	7.05	275	P	P	10 54 29.0	-0.9
AUQP	San Andres	7.08	350	eP	P	10 54 31.9	+1.7
PVCP	Virac	7.25	2	eP	P	10 54 31.1	-0.8
KKM	Kota Kinabalu	7.64	268	P	P	10 54 34.8	-0.9
KKM	Kota Kinabalu	7.64	268	eP	P	10 54 34.7	-1.0
	465nm,0.7s						
LUBP	Lubang	8.21	334	eP	P	10 54 41.3	-0.1
BALP	Baler	9.65	347	eP	P	10 54 55.2	-0.8
KDI	Kendari	10.27	187	⇑eP	P	10 55 04.5	+2.1
KDI				eS	S	10 57 00.5	+2.5
BTM	Bintulu	11.21	255	P	P	10 55 12.4	+0.3
SBUM	Sibu	12.26	252	P	P	10 55 23.3	+0.3
KSM	Kuching	14.38	251	P	P	10 55 44.1	-0.9
KSM	Kuching	14.38	251	eP	P	10 55 44.0	-1.0
	22nm,0.6s						
TWG	Pinlang	16.65	351	eP	P	10 56 06.9	-0.7
	20nm,0.3s						
YHNB	Yeheng	18.42	353	eP	P	10 56 25.1	+1.2
MYKOM	Kota Tinggi	20.49	258	P	P	10 56 42.9	0.0
KGM	Kluang	20.96	259	P	P	10 56 46.4	-0.6
FRIM	Kepong	22.40	263	P	P	10 57 00.1	+0.1
IPM	Ipoh	22.84	267	P	P	10 57 03.0	-1.0
FITZ	Fitzroy Crossi	24.31	176	eP	ScP	11 03 25.1	-0.6
	5.0nm,0.6s						
FITZ	Fitzroy Crossi	24.31	176	ScP	ScP	11 03 25.2	-0.6
	3.8nm,0.8s,baz=50,slow=3.1,SNR=5.0						
FITZ	Fitzroy Crossi	24.31	176	eP	P	10 57 17.1	+0.2
	13nm,1.0s,mb4.5						
PSI	Prapat	25.13	263	P	P	10 57 24.2	-0.1
PSI						11 00 39.9	
PSI	Prapat	25.13	263	P	P	10 57 24.2	-0.1
	21nm,1.1s,mb4.7,baz=38,slow=3.9,SNR=15						
PSI				PcP	PcP	11 00 39.9	-0.3
	6.1nm,0.8s,baz=84,slow=3.5,SNR=5.6						
PSI				ScP	ScP	11 03 27.1	-1.2
	9.2nm,0.8s,baz=154,slow=3.2,SNR=8.9						
GYA	Guiyang	25.92	323	P	P	10 57 32.1	+1.0
GYA				sP	sP	11 00 02.4	0.0
GYA				S	S	11 01 25.4	+2.1
GYA				ScP	ScP	11 03 30.7	+0.4
GYA				PcS	PcS	11 04 22.8	-0.5
GYA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
NJ2	Nanjing	26.05	350	eP	P	10 57 34.4	+2.3
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.0						
CBIJ	Chichi jima	27.02	38	P	P	10 57 40.2	-0.6
	comp=Z,34nm,0.4s,mb5.3,baz=285,slow=19,SNR=8.0						
CMAR	Chiang Mai Arr	27.16	299	P	P	10 57 43.0	+0.9
CMAR						11 00 45.2	
CMAR				S	S	11 01 38.3	-4.6
CMAR	Chiang Mai Arr	27.16	299	P	P	10 57 43.0	+0.9
	comp=Z,4.3nm,0.7s,mb4.2,baz=117,slow=7.3,SNR=26						
CMAR				PcP	PcP	11 00 45.2	+0.4
	comp=Z,1.8nm,0.8s,baz=150,slow=0.4,SNR=8.9						
CMAR				S	S	11 01 38.3	-4.6
	comp=Z,0.3nm,0.3s,baz=108,slow=18,SNR=3.0						
CMAR				ScP	ScP	11 03 34.7	+0.5
	comp=Z,7.3nm,1.1s,baz=138,slow=1.4,SNR=21						
CMAR	Chiang Mai Arr	27.16	299	P	P	10 57 43.0	+0.9
CMAR				PcP	PcP	11 00 45.2	+0.4
CMAR				S	S	11 01 38.3	-4.6
CMAR				ScP	ScP	11 03 34.7	+0.5
CHTO	Chiang Mai	27.30	299	eP	P	10 57 43.7	+0.4
CHTO				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.4						
CHTO	Chiang Mai	27.30	299	eP	P	10 57 43.7	+0.4
	comp=Z,10.0nm,1.0s,mb4.4						
KMI	Kunming	27.58	315	P	P	10 57 47.3	+1.6
KMI				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.4						
MBWA	Marble Bar	27.59	188	eP	P	10 57 45.2	-0.6
MBWA	Marble Bar	27.59	188	eP	P	10 57 45.2	-0.6
	comp=Z,16nm,0.6s,mb4.8						
COEN	Coen	27.77	137	eP	P	10 57 46.9	-0.5
WRAB	Tennant Creek	28.02	159	eP	P	10 57 49.3	-0.3

WRAB				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.7						
WRAB	**Tennant Creek**	**28.02**	**159**	*e*P	**P**	**10 57 49.3**	**-0.3**
	comp=Z,11nm,0.6s,mb4.7						
WRA	**Warramunga Arr**	**28.03**	**159**	P	**P**	**10 57 49.4**	**-0.2**
WRA						11 00 46.7	
WRA				S	**S**	**11 01 52.9**	**-3.5**
WRA	**Warramunga Arr**	**28.03**	**159**	P	**P**	**10 57 49.4**	**-0.3**
	comp=Z,8.3nm,0.5s,mb4.6,baz=340,slow=9.3,SNR=39						
WRA				PcP	PcP	11 00 46.7	-0.2
	comp=Z,3.0nm,0.9s,baz=339,slow=2.9,SNR=6.0						
WRA				S	**S**	**11 01 52.9**	**-3.5**
	comp=Z,2.8nm,0.7s,baz=332,slow=14,SNR=6.2						
WRA				ScP	ScP	11 03 35.6	-1.2
	comp=Z,4.9nm,0.8s,baz=346,slow=3.4,SNR=15						
WB2	**Warramunga Arr**	**28.03**	**159**	*e*P	**P**	**10 57 49.4**	**-0.3**
XAN	**Xi'an**	**30.89**	**335**	P	**P**	**10 58 14.4**	**+0.1**
XAN				pP		10 59 44.7	
XAN				S	**S**	**11 02 40.9**	**+0.6**
XAN				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
XAN				pmax	pmax		
	comp=Z,75nm,4.8s						
CD2	**Chengdu**	**30.92**	**325**	P	**P**	**10 58 15.4**	**+0.8**
CD2				pP		10 59 46.5	
CD2				sP	sP	11 00 48.7	+0.9
CD2				PcP	PcP	11 00 55.7	+1.3
CD2				S	**S**	**11 02 43.5**	**+2.6**
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.9						
CD2				pmax	pmax		
	comp=Z,230nm,4.8s						
KSRS	**Korea Array**	**31.23**	**6**	P	**P**	**10 58 17.9**	**+0.8**
	comp=Z,1.8nm,0.8s,mb3.7,baz=179,slow=8.3,SNR=9.1						
KSRS				ScP	ScP	11 03 47.2	+0.3
	comp=Z,1.2nm,0.6s,baz=185,slow=2.9,SNR=7.4						
ASAR	**Alice Springs**	**31.35**	**162**	P	**P**	**10 58 19.1**	**+0.8**
ASAR						11 00 55.6	
ASAR				S	**S**	**11 02 45.6**	**-1.9**
ASAR	**Alice Springs**	**31.35**	**162**	P	**P**	**10 58 19.1**	**+0.8**
	comp=Z,11nm,0.6s,mb4.6,baz=343,slow=7.4,SNR=91						
ASAR				PcP	PcP	11 00 55.6	0.0
	comp=Z,2.7nm,0.7s,baz=345,slow=2.8,SNR=10.0						
ASAR				S	**S**	**11 02 45.5**	**-1.9**
	comp=Z,19nm,0.9s,baz=349,slow=23,SNR=46						
ASAR				ScP	ScP	11 03 47.0	-0.6
	comp=Z,3.9nm,0.8s,baz=342,slow=2.5,SNR=8.6						
MTSU	**Mount Surprise**	**31.55**	**141**	*e*P	**P**	**10 58 20.8**	**+0.7**
	comp=Z,7.0nm,0.6s,mb4.4						
MAJO	**Matsushiro**	**32.83**	**22**	*e*P	**P**	**10 58 30.0**	**-0.7**
MAJO				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.6						
MAJO	**Matsushiro**	**32.83**	**22**	*e*P	**P**	**10 58 30.0**	**-0.7**
	comp=Z,12nm,0.6s,mb4.6						
MAT	**Matsushiro**	**32.83**	**22**	P	**P**	**10 58 29.8**	**-0.9**
MJAR	**Matsushiro Arr**	**32.83**	**22**	P	**P**	**10 58 30.0**	**-0.7**
	comp=Z,10nm,0.7s,mb4.5,baz=195,slow=9.7,SNR=45						
MJAR				S	**S**	**11 03 07.5**	**-2.3**
	comp=Z,1.4nm,0.9s,baz=248,slow=23,SNR=4.7						
MEEK	**Meekatharra**	**33.14**	**189**	*e*P	**P**	**10 58 33.2**	**-0.3**
	comp=Z,35nm,0.7s,mb5.0						
CTA	**Charters Tower**	**34.22**	**141**	*e*P	**P**	**10 58 43.5**	**+0.8**
	comp=Z,5.5nm,0.6s,mb4.3						
CTA	**Charters Tower**	**34.22**	**141**	P	**P**	**10 58 44.2**	**+1.6**
	comp=Z,9.1nm,0.7s,mb4.4,baz=330,slow=9.6,SNR=14						
LZH	**Lanzhou**	**34.89**	**331**	*e*P	**P**	**10 58 50.0**	**+2.0**
LZH				pP		11 00 24.9	
LZH				PP	PP	11 00 28.2	-2.9
LZH				sP	sP	11 01 25.0	+2.3
LZH				*e*S	**S**	**11 03 44.0**	**+3.1**
LZH				SS	SS	11 06 41.0	-14
LZH				pmax	pmax		
	comp=Z,31nm,1.5s,mb4.6						
LZH				pmax	pmax		
	comp=Z,160nm,5.4s						
MORW	**Morawa**	**35.97**	**192**	*e*P	**P**	**10 58 56.8**	**-0.3**
	comp=Z,20nm,0.5s,mb4.9						
SHL	**Shillong**	**36.09**	**306**	*e*PKP	**P**	**10 59 00.5**	**+2.3**
HHC	**Hu-ho-hao-te**	**36.13**	**344**	*e*P	**P**	**10 58 59.8**	**+1.6**
HHC				pP	pP	11 00 34.4	+3.1
HHC				PP	PP	11 00 40.6	-1.9
HHC				sP	sP	11 01 34.9	+1.4
HHC				S	**S**	**11 04 02.6**	**+3.2**
HHC				PcS	PcS	11 04 57.9	+0.3
HHC				sS	sS	11 06 52.0	+1.0
HHC				SS	SS	11 07 04.9	-6.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.3						
HHC				pmax	pmax		
	comp=Z,150nm,5.1s						
FORT	**Forrest**	**37.08**	**174**	*e*P	**P**	**10 59 06.9**	**+0.7**
	comp=Z,80nm,0.6s,mb5.4						
CN2	**Changchun**	**37.37**	**2**	*e*P	**P**	**10 59 11.0**	**+2.6**
CN2				*e*S	**S**	**11 04 23.1**	**+5.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
KLBR	**Kellerberrin**	**38.13**	**189**	*e*P	**P**	**10 59 14.1**	**-0.7**
	comp=Z,17nm,0.5s,mb4.8						
MDJ	**Mudanjiang**	**38.49**	**7**	P	**P**	**10 59 18.0**	**+0.5**
MDJ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
MDJ				pmax	pmax		
	comp=Z,110nm,5.2s						
LSA	**Lhasa**	**38.63**	**311**	P	**P**	**10 59 20.0**	**+1.1**
LSA	**Lhasa**	**38.63**	**311**	*e*P	**P**	**10 59 20.8**	**+1.9**
LSA				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.6						
LSA	**Lhasa**	**38.63**	**311**	*e*P	**P**	**10 59 20.8**	**+1.9**
	comp=Z,12nm,0.6s,mb4.6						
MUN	**Mundaring**	**38.77**	**190**	*e*P	**P**	**10 59 20.1**	**+0.2**
HNR	**Honiara**	**39.17**	**113**	P	**P**	**10 59 23.7**	**+0.2**
	comp=Z,50nm,0.4s,mb5.4,baz=210,slow=19,SNR=4.6						
ERM	**Erimo**	**39.47**	**23**	*e*P	**P**	**10 59 21.3**	**-4.1**
ERM				pmax	pmax		
	comp=Z,37nm,1.3s,mb4.8						
NWAO	**Narrogin (SRO)**	**39.52**	**189**	*e*P	**P**	**10 59 26.3**	**+0.3**
	comp=Z,154nm,0.5s,mb5.8						
NWAO	**Narrogin (SRO)**	**39.52**	**189**	P	**P**	**10 59 26.6**	**+0.6**
	comp=Z,34nm,0.7s,mb5.0,baz=12,slow=8.3,SNR=23						
TAPN	**Taplejung**	**40.23**	**306**	*e*P	**P**	**10 59 32.0**	**+0.1**
ODAN	**Odare**	**40.29**	**305**	*e*P	**P**	**10 59 32.5**	**+0.2**
RAMN	**Ramite**	**40.98**	**304**	*e*P	**P**	**10 59 37.9**	**+0.1**
ASAJ	**Asahikawa**	**41.08**	**21**	P	**P**	**10 59 39.4**	**+1.1**
	comp=Z,13nm,0.5s,mb4.7,baz=232,slow=12,SNR=21						
EIDS	**Eidsvold**	**41.10**	**141**	*e*P	**P**	**10 59 39.0**	**+0.2**
RKGY	**Rocky Gully**	**41.21**	**189**	*e*P	**P**	**10 59 40.6**	**+1.1**
	comp=Z,20nm,0.5s,mb4.9						
STKA	**Stephens Creek**	**41.55**	**157**	*e*P	**P**	**10 59 42.8**	**+0.6**
	comp=Z,6.5nm,0.6s,mb4.3						
STKA	**Stephens Creek**	**41.55**	**157**	P	**P**	**10 59 43.1**	**+0.9**
	comp=Z,8.2nm,0.6s,mb4.4,baz=344,slow=6.8,SNR=20						
STKA				S	**S**	**11 05 19.9**	**+0.8**
	comp=Z,7.2nm,1.1s,baz=235,slow=22,SNR=7.9						
JIRN	**Jiri**	**41.59**	**305**	*e*P	**P**	**10 59 43.0**	**+0.3**
	comp=Z,13nm,0.2s,mb5.1						
GUN	**Gumba**	**41.94**	**305**	*e*P	**P**	**10 59 45.5**	**+0.1**
	comp=Z,43nm,0.4s,mb5.3						
PKI	**Pulchoki**	**42.19**	**305**	*e*P	**P**	**10 59 47.2**	**-0.2**
PKIN	**Phulchoki**	**42.21**	**305**	*e*P	**P**	**10 59 46.9**	**-0.6**
	comp=Z,9.1nm,0.4s,mb4.7						
KKN	**Kakani**	**42.38**	**305**	*e*P	**P**	**10 59 48.7**	**-0.2**
	comp=Z,16nm,0.4s,mb5.0						
DMN	**Daman**	**42.46**	**305**	*e*P	**P**	**10 59 49.5**	**0.0**
GKN	**Gorkha**	**42.99**	**305**	*e*P	**P**	**10 59 53.4**	**-0.2**
	comp=Z,17nm,0.4s,mb4.9						
HABR	**Khabarovsk**	**43.08**	**11**	*e*P	**P**	**10 59 53.1**	**-0.8**
HABR				*e*	pP	11 01 31.2	-0.2
HABR				S	**S**	**11 05 38.8**	**-1.8**
HABR				*e*SS	SS	11 09 08.2	-1.1
KOLN	**Koldanda**	**43.75**	**304**	*e*P	**P**	**10 59 59.8**	**+0.2**
DANN	**Dangsing**	**43.84**	**305**	*e*P	**P**	**11 00 00.2**	**0.0**
SONM	**Songino Array**	**44.00**	**343**	P	**P**	**11 00 01.9**	**+0.8**
SONM						11 01 34.7	
SONM	**Songino Array**	**44.00**	**343**	P	**P**	**11 00 01.9**	**+0.8**
	comp=Z,4.8nm,1.0s,mb4.0,baz=158,slow=7.7,SNR=25						
SONM				PcP	PcP	11 01 34.7	-0.1
	comp=Z,1.4nm,0.5s,baz=170,slow=3.0,SNR=7.8						
SONM				ScP	ScP	11 04 34.7	-0.5
	comp=Z,1.3nm,0.8s,baz=158,slow=4.8,SNR=6.5						
PYUN	**Piuthan**	**44.38**	**304**	*e*P	**P**	**11 00 03.7**	**-0.7**
	comp=Z,43nm,0.5s,mb5.2						
WMQ	**Urumqi**	**49.02**	**326**	P	**P**	**11 00 40.4**	**+1.3**
WMQ				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.5						
WMQ				pmax	pmax		
	comp=Z,160nm,5.6s						
MOY	**Mondy**	**49.04**	**341**	*e*P	**P**	**11 00 40.2**	**+1.1**
DDI	**Dehra Dun**	**49.19**	**305**	*e*x	**P**	**11 00 39.3**	**-1.4**
BOD	**Bodaibo**	**51.96**	**353**	*e*P	**P**	**11 01 00.7**	**+0.4**
BOD				pmax	pmax		
	comp=Z,20nm,0.6s,mb4.6						
MK31	**Makanchi Array**	**53.85**	**326**	*e*P	**P**	**11 01 14.3**	**+0.3**
MKAR	**Makanchi Array**	**53.85**	**326**	P	**P**	**11 01 14.2**	**+0.2**
MKAR						11 02 10.5	
MKAR	**Makanchi Array**	**53.85**	**326**	P	**P**	**11 01 14.2**	**+0.1**
	comp=Z,17nm,0.5s,mb4.7,baz=121,slow=7.7,SNR=167						
MKAR				PcP	PcP	11 02 10.5	-0.6
	comp=Z,3.8nm,0.5s,baz=116,slow=4.4,SNR=10						
MKAR				ScP	ScP	11 05 15.8	-1.5
	comp=Z,1.7nm,0.6s,baz=125,slow=4.4,SNR=9.7						
MKAR	**Makanchi Array**	**53.85**	**326**	P	**P**	**11 01 14.2**	**+0.1**
MKAR				PcP	PcP	11 02 10.5	-0.6
MKAR				ScP	ScP	11 05 15.8	-1.5
PETK	**Petropavlovsk-**	**54.20**	**24**	P	**P**	**11 01 17.4**	**+1.1**
	comp=Z,4.2nm,0.6s,mb4.0,baz=199,slow=3.9,SNR=20						
KSH	**Kashi**	**54.24**	**315**	*e*P	**P**	**11 01 18.4**	**+1.5**
KSH				*e*PcP	PcP	11 02 15.0	+2.2
KSH				*e*pP	pP	11 03 02.2	+1.1
KSH				*e*PP	PP	11 03 29.1	+2.4
KSH				*e*sP	sP	11 04 00.2	+0.3
KSH				*e*S	**S**	**11 08 12.2**	**-1.5**
KSH				*e*ScS	ScS	11 10 08.0	-1.8
KSH				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.2						
KSH				pmax	pmax		
	comp=Z,200nm,4.7s						
KRAR	**Krasnoyarsk**	**55.35**	**339**	*e*P	**P**	**11 01 26.5**	**+2.2**
KRAR				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.2						
KZA	**Kyzart**	**55.83**	**318**	P	**P**	**11 01 29.6**	**+1.6**
	SNR=12						
TKM2	**Tokmak 2**	**55.96**	**319**	*e*P	**P**	**11 01 29.3**	**+0.4**
TKM2				*e*		11 02 19.2	
TKM2				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.2						
TKM2	**Tokmak 2**	**55.96**	**319**	P	**P**	**11 01 29.5**	**+0.6**
	SNR=12						
TKM2	**Tokmak 2**	**55.96**	**319**	*e*P	**P**	**11 01 29.3**	**+0.5**
	comp=Z,21nm,1.2s,mb4.2						
TKM2				*e*PcP	PcP	11 02 19.2	-0.3
AAK	**Ala-Archa**	**56.57**	**318**	*e*P	**P**	**11 01 33.1**	**0.0**
AAK				pmax	pmax		
	comp=Z,25nm,1.8s,mb4.1						
AAK	**Ala-Archa**	**56.57**	**318**	*e*P	**P**	**11 01 33.1**	**0.0**
	comp=Z,25nm,1.8s,mb4.1						
USP	**Ospenovka**	**56.84**	**319**	P	**P**	**11 01 35.4**	**+0.5**
	SNR=18						
AML	**Almayashu**	**56.90**	**317**	P	**P**	**11 01 36.4**	**+1.1**
	SNR=21						
AML	**Almayashu**	**56.90**	**317**	*e*P	**P**	**11 01 36.3**	**+1.0**
	comp=Z,19nm,0.9s,mb4.3						
AML				*e*PcP	PcP	11 02 23.7	+0.6
AML				*e*ScP	ScP	11 05 29.9	-1.0
ZALV	**Zalesovo Beam**	**57.04**	**334**	P	**P**	**11 01 35.2**	**-0.9**
	comp=Z,2.8nm,0.5s,mb3.7,baz=116,slow=6.8,SNR=21						
ZALV				PcP	PcP	11 02 21.9	-1.5
	comp=Z,0.9nm,0.3s,baz=95,slow=5.7,SNR=3.3						
ZALV	**Zalesovo Beam**	**57.04**	**334**	P	**P**	**11 01 35.2**	**-0.9**
ZALV				PcP	PcP	11 02 21.9	-1.5
EKS2	**Erkin-Say**	**57.06**	**318**	P	**P**	**11 01 37.3**	**+0.9**
	SNR=17						
EKS2	**Erkin-Say**	**57.06**	**318**	*e*P	**P**	**11 01 37.1**	**+0.7**
	comp=Z,10nm,0.7s,mb4.2						
EKS2				*e*PcP	PcP	11 02 22.6	-1.2
KBL	**Kabul**	**57.73**	**307**	*e*P	**P**	**11 01 41.1**	**-0.1**
KBL				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.3						
KBL	**Kabul**	**57.73**	**307**	*e*P	**P**	**11 01 41.1**	**-0.1**
	comp=Z,15nm,0.7s,mb4.3						
KURK	**Kurchatov**	**58.07**	**328**	*e*P	**P**	**11 01 42.9**	**-0.2**
KURK				pmax	pmax		
	comp=Z,48nm,0.6s,mb4.9						
KURK	**Kurchatov**	**58.07**	**328**	P	**P**	**11 01 43.1**	**-0.1**
	comp=Z,30nm,0.7s,mb4.6,baz=130,slow=6.5						
KURK	**Kurchatov**	**58.07**	**328**	*e*P	**P**	**11 01 42.9**	**-0.3**
	comp=Z,48nm,0.6s,mb4.9						
NVS	**Novosibirsk**	**58.33**	**334**	*e*P	**P**	**11 01 43.4**	**-1.4**
NVS				*e*S	**S**	**11 09 00.7**	**-5.0**
NVS				pmax	pmax		
	comp=N,6.0nm,0.9s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.9s						
NVS				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.1						
NVS				smax			
	comp=N,8.0nm,1.6s						
NVS				smax			
	comp=E,14nm,1.6s						
KK31	**Karatay Array**	**59.44**	**317**	*i* P	**P**	**11 01 52.1**	**-0.4**
KK31				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.1						
VOSK	**Vostochnaya**	**63.19**	**327**	P	**P**	**11 02 15.8**	**-1.0**
VOSK				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.5						
BVA0	**Borovoye Array**	**63.64**	**327**	*i* P	**P**	**11 02 19.6**	**-0.1**
BRVK	**Borovoye**	**63.72**	**327**	*e*P	**P**	**11 02 20.1**	**-0.1**
BRVK				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.6						
BRVK	**Borovoye**	**63.72**	**327**	*e*P	**P**	**11 02 20.1**	**-0.1**
	comp=Z,22nm,0.9s,mb4.6						
TIXI	**Tiksi**	**65.35**	**2**	*e*P	**P**	**11 02 28.2**	**-2.0**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.8						
TIXI	**Tiksi**	**65.35**	**2**	*e*P	**P**	**11 02 29.6**	**-0.6**
	comp=Z,5.5nm,0.4s,mb4.3						
URZ	**Urewera**	**66.33**	**137**	P	**P**	**11 02 37.1**	**+0.1**
	comp=Z,6.8nm,0.9s,mb4.2,baz=105,slow=12,SNR=3.8						
AB31	**Akbulak array**	**68.39**	**321**	P	**P**	**11 02 48.6**	**-0.7**
AB31				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
AKTK	**Aktyubinsk**	**69.91**	**322**	P	**P**	**11 02 58.0**	**-0.4**
AKTO	**Aktyubinsk**	**69.91**	**322**	P	**P**	**11 02 58.0**	**-0.4**
	comp=Z,6.4nm,0.5s,mb4.5,baz=109,slow=5.7,SNR=41						
SVE	**Sverdlovsk**	**70.31**	**329**	*e*P	**P**	**11 03 00.5**	**-0.2**
SVE				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.6						
ARU	**Arti**	**71.27**	**328**	*e*P	**P**	**11 03 05.5**	**-0.8**
ARU	**Arti**	**71.27**	**328**	*e*P	**P**	**11 03 05.5**	**-0.8**
OPO	**Ambohidratompo**	**79.50**	**250**	P	**P**	**11 03 52.2**	**-0.7**
	comp=Z,2.1nm,0.6s,mb3.7,baz=280,slow=6.1,SNR=4.2						
KDAK	**Kodiak Island**	**81.25**	**33**	P	**P**	**11 04 02.3**	**+1.2**
	comp=Z,14nm,1.1s,mb4.3,baz=183,slow=11,SNR=4.0						
KLMR	**Klimovskoe**	**81.80**	**331**	*e*P	**P**	**11 04 02.2**	**-1.7**
KLMR				pmax	pmax		
	comp=Z,48nm,2.0s,mb4.6						
MCK	**McKinley**	**83.14**	**27**	*e*P	**P**	**11 04 10.4**	**-0.2**
OBN	**Obninsk**	**83.35**	**325**	*e*P	**P**	**11 04 11.2**	**-0.7**
OBN				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.3						
MAW	**Mawson**	**85.19**	**200**	P	**P**	**11 04 20.3**	**-0.3**
	comp=Z,6.7nm,0.7s,mb4.3,baz=73,slow=11,SNR=3.3						
JOF	**Joensuu**	**85.62**	**333**	*e*p	**P**	**11 04 20.5**	**-2.3**
	comp=Z,9.8nm,0.6s,mb4.6						
BR131	**Keskin Array S**	**86.22**	**309**	*e*P	**P**	**11 04 24.9**	**-1.3**
VNDA	**Vanda**	**86.33**	**172**	P	**P**	**11 04 25.7**	**-0.2**
	comp=Z,2.9nm,0.9s,mb3.9,baz=25,slow=9.4,SNR=3.7						
VNDA	**Vanda**	**86.33**	**172**	P	**P**	**11 04 25.7**	**-0.2**
KMBO	**Kilima Mbogo**	**86.79**	**269**	P	**P**	**11 04 28.2**	**-1.2**
	comp=Z,3.5nm,0.8s,mb4.0,baz=229,slow=23,SNR=7.1						
ARCES	**ARCESS Array B**	**87.08**	**340**	P	**P**	**11 04 28.4**	**-1.2**
	comp=Z,4.7nm,0.9s,mb4.1,baz=86,slow=6.9,SNR=12						
SPITS	**Spitsbergen Ar**	**87.42**	**349**	P	**P**	**11 04 30.5**	**-0.6**
	comp=Z,4.4nm,0.5s,mb4.3,baz=348,slow=7.7,SNR=18						
KAF	**Kangasniemi**	**88.03**	**332**	*e*P	**P**	**11 04 31.3**	**-2.9**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
KAF	**Kangasniemi**	**88.03**	**332**	*e*p	**P**	**11 04 31.3**	**-2.9**
	comp=Z,6.0nm,0.6s,mb4.5						
AKASG	**Malin Array Be**	**88.13**	**321**	P	**P**	**11 04 32.8**	**-2.1**
	comp=Z,0.3nm,0.3s,mb3.5,baz=76,slow=3.9,SNR=5.2						
NOA	**NORSAR Array B**	**95.24**	**333**	P	**P**	**11 05 05.6**	**-1.8**
	comp=Z,1.2nm,0.9s,mb4.0,baz=206,slow=15,SNR=2.8						
LSZ	**Lusaka**	**97.12**	**255**	P	**P**	**11 05 15.3**	**-1.5**
	comp=Z,0.8nm,0.4s,mb4.3,baz=128,slow=5.0,SNR=3.8						
YKA	**Yellowknife Ar**	**98.31**	**24**	pP	pP	11 07 22.3	+1.3
	comp=Z,0.7nm,1.0s,baz=294,slow=5.2,SNR=4.9						
GERES	**GERESS Array B**	**98.33**	**321**	P	Pdif	11 05 20.9	-0.5
	comp=Z,0.3nm,0.6s,baz=52,slow=19,SNR=4.1						
SCHQ	**Schefferville**	**118.43**	**7**	PKP	PKPdf	11 10 27.5	-0.3
	comp=Z,2.3nm,0.9s,baz=245,slow=14,SNR=3.3						
SCHQ	**Schefferville**	**118.43**	**7**	PKP	PKPdf	11 10 27.5	-0.3
TORD	**Torodi Ar. Bea**	**119.43**	**289**	PKP	PKPdf	11 10 29.9	-0.9
	comp=Z,4.0nm,0.9s,baz=63,slow=1.5,SNR=24						
TORD				SKP		11 13 13.7	
	comp=Z,1.2nm,0.8s,baz=52,slow=2.1,SNR=6.3						
TORD	**Torodi Ar. Bea**	**119.43**	**289**	PKP	PKPdf	11 10 29.9	-0.9
TORD				SKP		11 13 13.7	
TXAR	**Lajitas Array**	**122.18**	**50**	SKP		11 13 19.8	
	comp=Z,0.5nm,0.7s,baz=349,slow=0.9,SNR=5.9						
KIC	**Kosan Boka**	**127.22**	**283**	*e*P	PKPdf	11 10 45.2	-0.7
	comp=Z,36nm,0.9s						
DBIC	**Dimbokro**	**127.27**	**283**	PKP	PKPdf	11 10 46.1	+0.2
	comp=Z,1.7nm,0.7s,baz=64,slow=5.7,SNR=6.4						
TIC	**Toumodi**	**127.43**	**283**	*e*P	PKPdf	11 10 43.0	-3.2
	comp=Z,7.8nm,0.2s						
LIC	**Lamto**	**127.53**	**283**	*e*P	PKPdf	11 10 46.1	-0.3
	comp=Z,9.4nm,0.4s						
PLCA	**Paso Flores**	**143.36**	**161**	PKP	PKPdf	11 11 14.2	-0.7
	comp=Z,3.8nm,0.9s,baz=232,slow=4.8,SNR=7.0						
PLCA				SKPbc	SKPbc	11 14 03.0	+0.6
	comp=Z,1.7nm,0.6s,baz=217,slow=3.5,SNR=6.0						

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*NEIC **02** 11:02:48.7, 16°.85N×100°.07W, h14^{km}, MD3.9(MEX), After MEX.*

MEX 02 11:02:48.7±1.2**, 16°.86N×100°.07W, h14^{km}**±5^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	**0.15**	**86**	*i* P	Pg	11 02 51.5	-1.0
ACX				*i* S	Sg	11 02 55.0	-0.2
CAIG	**El Cayaco**	**0.27**	**316**	*i* P	Pg	11 02 54.7	+0.3
CAIG				*e*S	Sg	11 02 57.5	-0.7
MEIG	**Mezcala**	**1.15**	**22**	*i* P	Pb	11 03 06.9	-3.4
MEIG				*i* S	Sb	11 03 20.2	-4.9
PLIG	**Platanillo**	**1.62**	**20**	*i* P	Pn	11 03 13.1	-3.7
PLIG				*i* S	Sn	11 03 33.3	-4.3
PNIG	**Pinotepa**	**1.92**	**104**	*i* P	Pn	11 03 17.6	-3.4
PNIG				*e*S	Sn	11 03 40.1	-4.9
UTMO	**Huajuapan**	**2.38**	**66**	*i* P	Pn	11 03 24.1	-3.1
UTMO				*i* S	Sn	11 03 52.7	-3.5
MZVM		**2.46**	**19**	*e*P	Pn	11 03 25.4	-3.0
MZVM				*i* S	Sn	11 03 53.8	-4.4
PPM	**Popocatepetl**	**2.59**	**32**	*e*P	Pn	11 03 32.3	+2.1
PPM				*i* S	Sn	11 04 05.5	+3.9
PBVM	**Pinon**	**2.74**	**20**	*e*P	Pn	11 03 30.3	-2.0
PBVM				*i* S	Sn	11 04 01.6	-3.5
PTVM	**Pico Tres Padr**	**2.87**	**18**	*e*P	Pn	11 03 31.1	-2.9
PTVM				*i* S	Sn	11 04 04.5	-3.9
IIO	**Organos**	**3.01**	**25**	*i* P	Pn	11 03 33.5	-2.5
IIO				*i* S	Sn	11 04 09.0	-2.8
TPIG	**Tehuac#an**	**3.02**	**59**	*e*P	Pn	11 03 43.3	+7.2
TPIG				*i* S	Sn	11 04 08.5	-3.6
VHO	**Vista Hermosa**	**3.20**	**86**	*e*P	Pn	11 03 35.7	-2.9
VHO				*i* S	Sn	11 04 15.1	-1.5
CMIG	**Matias Romero**	**4.97**	**87**	*e*P	Pn	11 04 03.9	+0.9
CMIG				*i* S	Sn	11 04 58.1	-2.1

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*TRN **02** 11:03:04.9, 12°.74N×60°.69W, h65^{km}, MD3.9, M4.0(FDF)*

*ISCJB **02** 11:03:05.2±0.4, 12°.74N±0°.02×60°.86W±0°.05, h88^{km}±5^{km}, Error ellipse: s-maj=7.6km s-min=2.7km az=7.7*

*NEIC **02** 11:03:05.5, 12°.73N×60°.70W, h57^{km}, MD3.9(TRN), After TRN.*

*FUNV **02** 11:03:07.0, 12°.68N×60°.70W, h36^{km}, MW3.6*

ISC 02 11:03:06.1±0.4**, 12°.73N**±0°.02×**60°.82W**±0°.05**, h80^{km}**±5^{km}**, n52, σ0^{s}.76**/80**, 10C-5D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FCV	**Fort Charlotte**	**0.60**	**315**	*e*P	**Pn**	**11 03 20.8**	**+0.1**
FCV				*e*S	**Sn**	**11 03 31.6**	**+0.1**
BHS	**Barnard House**	**0.64**	**332**	⇑*i*P	**Pn**	**11 03 21.3**	**+0.2**
BHS				*e*S	**Sn**	**11 03 32.0**	**-0.3**
SVB	**Belmont**	**0.69**	**322**	*e*P	**Pn**	**11 03 21.2**	**-0.4**
SVB				*e*S	**Sn**	**11 03 33.6**	**+0.5**
SSV	**Crater Summit**	**0.70**	**328**	*e*P	**Pn**	**11 03 20.9**	**-0.8**
SSV				*i* S	**Sn**	**11 03 34.1**	**+0.7**
SVV	**Soufriere Volc**	**0.70**	**326**	⇑*i*P	**Pn**	**11 03 22.0**	**+0.2**
SVV				*i* S	**Sn**	**11 03 33.6**	**+0.2**
MCLT	**Moule a Chique**	**0.98**	**353**	*e*P	**Pn**	**11 03 23.8**	**-1.2**
MCLT				*e*S	**Sn**	**11 03 38.2**	**-0.7**
GRW	**Mount Saint Ca**	**1.00**	**236**	⇓*i*P	**Pn**	**11 03 25.9**	**+0.8**
GRW				*e*S	**Sn**	**11 03 40.3**	**+0.9**
GRGR	**Grenville**	**1.01**	**234**	⇓*i*Pn	**Pn**	**11 03 24.9**	**-0.4**
GRGR				*e*Sn	**Sn**	**11 03 39.9**	**+0.3**
SLDE	**Delcer**	**1.09**	**347**	⇓*i*P	**Pn**	**11 03 26.4**	**+0.1**
SLDE				*e*S	**Sn**	**11 03 41.2**	**-0.1**
SLB	**Belfond**	**1.11**	**349**	⇑*e*P	**Pn**	**11 03 27.5**	**+0.9**
SLB	**Belfond**	**1.11**	**349**	⇑*i*P	**Pn**	**11 03 26.4**	**-0.1**
SLW	**Petit Monier**	**1.29**	**355**	*e*P	**Pn**	**11 03 27.4**	**-1.3**
SLW	**Petit Monier**	**1.29**	**355**	*e*P	**Pn**	**11 03 28.5**	**-0.2**
SLW				*e*S	**Sn**	**11 03 45.3**	**-0.4**
SLW	**Petit Monier**	**1.29**	**355**	*e*P	**Pn**	**11 03 28.5**	**-0.2**
SLW				*e*S	**Sn**	**11 03 45.3**	**-0.4**
TOSP	**Speyside**	**1.45**	**169**	*e*P	**Pn**	**11 03 30.1**	**-0.7**
TOSP				*e*S	**Sn**	**11 03 48.3**	**-1.0**
TPR	**Prospect**	**1.53**	**179**	⇑*i*P	**Pn**	**11 03 32.1**	**+0.2**
BOT	**Bacolet**	**1.56**	**177**	⇑*i*P	**Pn**	**11 03 32.6**	**+0.5**
BOT				*e*S	**Sn**	**11 03 51.3**	**-0.5**
BIM	**Bigot**	**1.79**	**352**	⇓*e*P	**Pn**	**11 03 34.8**	**-0.5**
MVM	**Montagne Vaucl**	**1.82**	**358**	⇑*e*P	**Pn**	**11 03 34.9**	**-0.7**
MVM				⇑*e*S	**Sn**	**11 03 57.7**	**-0.2**
FDF	**Fort de France**	**2.02**	**351**	⇑*e*P	**Pn**	**11 03 38.0**	**-0.2**
FDF	**Fort de France**	**2.02**	**351**	⇑*i*Pn	**Pn**	**11 03 38.0**	**-0.2**
FDF				*e*Sn	**Sn**	**11 04 01.0**	**-1.7**
TRN	**Trinidad (W)**	**2.15**	**196**	*e*P	**Pn**	**11 03 40.8**	**+0.9**
TRN				*e*S	**Sn**	**11 04 07.1**	**+1.3**
TCE	**Chacachacare**	**2.22**	**205**	*e*P	**Pn**	**11 03 41.5**	**+0.6**
TCE				*e*S	**Sn**	**11 04 08.2**	**+0.7**
TBH	**Brigand Hill**	**2.25**	**186**	*e*P	**Pn**	**11 03 41.3**	**+0.1**
TBH				*e*S	**Sn**	**11 04 08.7**	**+0.6**
TBH	**Brigand Hill**	**2.25**	**186**	*e*P	**Pn**	**11 03 42.7**	**+1.4**
TBH				*e*S	**Sn**	**11 04 08.7**	**+0.6**
TPP	**Pointe-a-Pierr**	**2.48**	**195**	*e*P	**Pn**	**11 03 44.5**	**+0.1**
TPP				*e*S	**Sn**	**11 04 14.9**	**+1.2**
GUIV	**Guiria**	**2.49**	**214**	*e*P	**Pn**	**11 03 43.9**	**-0.6**
GUIV				*e*S	**Sn**	**11 04 12.5**	**-1.5**
DSHT	**Scott's Head**	**2.53**	**348**	*e*P	**Pn**	**11 03 45.5**	**+0.5**
DSHT				*e*S	**Sn**	**11 04 15.4**	**+0.5**
DSHT	**Scott's Head**	**2.53**	**348**	*e*P	**Pn**	**11 03 46.9**	**+1.8**
DSHT				*e*S	**Sn**	**11 04 16.6**	**+1.7**
DSTT	**Stowe**	**2.55**	**349**	*e*P	**Pn**	**11 03 45.3**	**0.0**
DSTT				*e*S	**Sn**	**11 04 15.6**	**+0.2**
DSTT	**Stowe**	**2.55**	**349**	*e*P	**Pn**	**11 03 46.9**	**+1.6**
DSTT				*e*S	**Sn**	**11 04 15.6**	**+0.2**
DBCT	**Belle View Cho**	**2.58**	**349**	*e*S	**Sn**	**11 04 16.2**	**0.0**
ITEV	**Isla Los Testi**	**2.65**	**239**	⇓*e*P	**Pn**	**11 03 46.5**	**-0.2**
ITEV				*e*S	**Sn**	**11 04 16.7**	**-1.2**
CRUV	**Carupano**	**3.13**	**230**	*e*P	**Pn**	**11 03 53.9**	**+0.7**
CRUV				*e*S	**Sn**	**11 04 27.7**	**-1.8**
TBG	**Guadaloupe-3**	**3.21**	**346**	*e*P	**Pn**	**11 03 55.0**	**+0.7**
GUNV	**Guanoco**	**3.30**	**219**	*e*P	**Pn**	**11 03 56.0**	**+0.6**
GUNV				*e*S	**Sn**	**11 04 32.1**	**-1.4**
SCG	**Saint Claude**	**3.39**	**346**	*e*P	**Pn**	**11 03 57.1**	**+0.5**
LZG	**Guadaloupe-1**	**3.52**	**345**	*e*P	**Pn**	**11 03 58.9**	**+0.5**
DEG	**La Desirade**	**3.57**	**356**	*e*P	**Pn**	**11 03 58.7**	**-0.5**
SEG	**Port Louis**	**3.71**	**350**	*e*P	**Pn**	**11 04 01.9**	**+0.8**
IBAV	**Isla La Blanqu**	**3.79**	**257**	*e*P	**Pn**	**11 04 02.0**	**-0.1**
ORIV	**Oritupano**	**4.44**	**215**	*e*P	**Pn**	**11 04 11.7**	**+0.6**
PCRV	**Puerto La Cruz**	**4.52**	**236**	*e*P	**Pn**	**11 04 12.4**	**+0.2**
RIOV	**Rio Grande**	**4.73**	**192**	*e*P	**Pn**	**11 04 14.5**	**-0.6**
CUPV	**Cœpira**	**5.55**	**242**	*e*P	**Pn**	**11 04 26.8**	**+0.5**
BIRV	**Birongo**	**5.79**	**248**	*e*P	**Pn**	**11 04 29.6**	**+0.1**
MERV	**Las Mercedes**	**6.40**	**238**	*e*P	**Pn**	**11 04 38.0**	**+0.3**
LUEV	**Luepa**	**6.87**	**185**	*e*P	**Pn**	**11 04 41.6**	**-2.6**
TURV	**Turiamo**	**7.25**	**253**	*e*P	**Pn**	**11 04 49.4**	**+0.1**
CAOV	**Caicara del Or**	**7.63**	**226**	*e*P	**Pn**	**11 04 54.5**	**-0.1**
BAUV	**El Baul**	**8.03**	**243**	*e*P	**Pn**	**11 05 00.1**	**0.0**
MONV	**Montecano**	**8.98**	**266**	*e*P	**Pn**	**11 05 12.9**	**-0.1**

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*ISCJB **02** 11:08:33.0±5.2, 6°.43S±0°.07×129°.4E±0°.2, h15^{km}±34^{km}, mb3.8/5, MS3.2/2, Error ellipse: s-maj=32.0km s-min=11.6km az=176.9*

*IDC **02** 11:08:32.9±1.3, 6°.28S×129°.45E, h0^{km}, mb3.7/4, mb1 3.8/6, mb1mx3.6/17, mbtmp3.7/6, ML3.7/2, MS3.3/3, Ms1 3.4/3, ms1mx2.8/30, Error ellipse: s-maj=62.8km s-min=22.7km az=66.0*

*NEIC **02** 11:08:38.0±0.7, 6°.35S×129°.49E, h35^{km}, mb4.6/1, Error ellipse: s-maj=25.1km s-min=10.5km az=69.0*

ISC 02 11:08:32.9±6.2, **6°.39S**±0°.07×**129°.5E**±0°.2, **h1**^{km}±40^{km}, **n14**, σ**1ˢ.50**/15, **mb4.0**/5, **MS3.2**/2, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.93**	**155**	ePn	**Pn**	**11 10 16.7**	**+1.1**
	42nm,0.5s						
KAKA				eSn	Sx	11 11 32.5	
FITZ	**Fitzroy Crossi**	**12.23**	**198**	Pn	**Pn**	**11 11 31.1**	**+2.7**
	0.3nm,0.3s,baz=43,slow=13,SNR=10						
FITZ				Sn	**Sn**	**11 13 45.2**	**-0.3**
	0.4nm,0.3s,baz=112,slow=13,SNR=3.9						
FITZ				LR	LR	11 16 33.5	
	comp=Z,126nm,21.5s,baz=41,slow=39						
FITZ	**Fitzroy Crossi**	**12.23**	**198**	Pn	**Pn**	**11 11 31.1**	**+2.7**
FITZ				Sn	**Sn**	**11 13 45.2**	**-0.4**
WRAB	**Tennant Creek**	**14.27**	**161**	Pn	**Pn**	**11 11 53.6**	**-2.6**
	3.6nm,0.5s						
WRA	**Warramunga Arr**	**14.28**	**161**	Pn	**Pn**	**11 11 53.8**	**-2.5**
	0.3nm,0.3s,baz=339,slow=13,SNR=21						
WRA				Sn	Sx	11 14 28.6	
	0.3nm,0.3s,baz=329,slow=22,SNR=8.0						
WB2	**Warramunga Arr**	**14.28**	**161**	ePn	**Pn**	**11 11 53.8**	**-2.6**
ASAR	**Alice Springs**	**17.70**	**167**	P	**Pn**	**11 12 41.1**	**+0.3**
	0.3nm,0.3s,baz=339,slow=7.8,SNR=17						
ASAR				S	Sx	11 15 53.1	
	0.1nm,0.3s,baz=350,slow=25,SNR=5.1						
CTA	**Charters Tower**	**21.23**	**131**	P	**P**	**11 13 22.4**	**+1.9**
	3.1nm,0.8s,mb3.7,baz=330,slow=14,SNR=3.1						
CTA				LR	LR	11 22 04.9	
	comp=Z,129nm,19.1s,MS3.3,baz=244,slow=38						
STKA	**Stephens Creek**	**27.77**	**157**	P	**P**	**11 14 24.2**	**+0.9**
	1.7nm,0.8s,mb3.9,baz=340,slow=12,SNR=2.3						
CMAR	**Chiang Mai Arr**	**38.95**	**310**	LR	LR	11 31 51.1	
	comp=Z,33nm,19.5s,MS3.2,baz=125,slow=36						
MKAR	**Makanchi Array**	**67.44**	**327**	P	**P**	**11 19 30.1**	**0.0**
	0.4nm,0.6s,mb3.8,baz=150,slow=9.2,SNR=3.7						
ZALV	**Zalesovo Beam**	**70.81**	**334**	P	**P**	**11 19 50.2**	**-0.8**
	0.2nm,0.3s,mb3.7,baz=116,slow=3.4,SNR=2.7						
ZALV	**Zalesovo Beam**	**70.81**	**334**	P	**P**	**11 19 50.2**	**-0.8**
KURK	**Kurchatov**	**71.73**	**329**	eP	**P**	**11 19 56.5**	**-0.1**
	7.8nm,1.3s,mb4.7						

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*ISCJB **02** 11:20:31.2±0.4, 33°.96N±0°.04×48°.53E±0°.04, h10^{km}, Error ellipse: s-maj=5.5km s-min=4.5km az=12.5*

*CSEM **02** 11:20:31.0±0.2, 34°.01N×48°.53E, h2^{km}, ML3.8, Error ellipse: s-maj=5.0km s-min=4.0km az=9.0*

*THR **02** 11:20:31.1±0.8, 34°.03N×48°.51E, h17^{km}±7^{km}, ML4.0*

*TEH **02** 11:20:32.3, 33°.98N×48°.52E, h10^{km}*

ISC 02 11:20:32.2±0.4, **34°.01N**±0°.04×**48°.53E**±0°.04, **h10**^{km}, **n50**, σ**0ˢ.76**/57, **Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IKOM	**Komasi**	**0.87**	**282**	ePg	**Pg**	**11 20 47.6**	**-1.3**
IKOM				e		11 21 06.3	
	comp=Z,20µm,0.1s						
IKOM	**Komasi**	**0.87**	**282**	ePg	**Pg**	**11 20 47.6**	**-1.3**
SNGE	**Sanandaj**	**1.46**	**318**	ePg	**Pn**	**11 20 57.7**	**-0.9**
SNGE				AML	AML	11 21 24.5	
	comp=Z,3µm,0.6s						
SNGE	**Sanandaj**	**1.46**	**318**	ePg	**Pn**	**11 20 57.7**	**-0.9**
IVIS	**Veis**	**1.49**	**291**	ePn	**Pn**	**11 20 58.7**	**-0.3**
IVIS				e		11 21 26.4	
	comp=Z,9µm,0.2s						
IVIS	**Veis**	**1.49**	**291**	ePn	**Pn**	**11 20 58.7**	**-0.3**
ILIN	**Lien**	**1.59**	**306**	ePn	**Pn**	**11 21 00.7**	**+0.4**
ILIN				e		11 21 02.3	
	comp=Z,9µm,0.2s						
ILIN	**Lien**	**1.59**	**306**	ePn	**Pn**	**11 21 00.7**	**+0.4**
IGHG	**Ghaleghazi**	**1.66**	**282**	e	**Pg**	**11 21 03.8**	**-0.3**
	comp=Z,15µm,0.1s						
IGHG				ePn	**Pn**	**11 21 02.2**	**+0.9**
IRAZ	**Razeghan**	**1.81**	**39**	e	**Pn**	**11 21 05.2**	**+1.9**
	comp=Z,7µm,0.2s						
IRAZ				ePn	**Pn**	**11 21 02.4**	**-1.0**
SHGR	**Shooshtar-Gavs**	**1.91**	**173**	ePN5	**Pn**	**11 21 05.2**	**+0.5**
GHVR	**GHOM**	**2.34**	**78**	ePn	**Pn**	**11 21 10.8**	**+0.2**
GHVR				eSg	**Sg**	**11 21 43.5**	**-3.8**
GHVR	**GHOM**	**2.34**	**78**	ePn	**Pn**	**11 21 10.8**	**+0.2**
GHVR				eSg	**Sg**	**11 21 43.5**	**-3.8**
IPIR	**Pirpir**	**2.37**	**123**	ePn	**Pn**	**11 21 12.3**	**+1.2**
IPIR				eSn	**Sn**	**11 21 39.5**	**-0.7**
IPIR				e		11 21 52.3	
	comp=N,4µm,0.2s						
IPIR	**Pirpir**	**2.37**	**123**	ePn	**Pn**	**11 21 12.3**	**+1.2**
IPIR				eSn	**Sn**	**11 21 39.5**	**-0.7**
IMHD	**Mahdasht**	**2.43**	**46**	ePn	**Pn**	**11 21 12.4**	**+0.5**
IMHD				e		11 21 46.6	
	comp=Z,4µm,0.1s						
IMHD	**Mahdasht**	**2.43**	**46**	ePn	**Pn**	**11 21 12.4**	**+0.5**
IKLH	**Kolahrood**	**2.63**	**104**	ePn	**Pn**	**11 21 15.3**	**+0.6**
IKLH				e		11 21 57.5	
	comp=Z,4µm,0.1s						
IKLH	**Kolahrood**	**2.63**	**104**	ePn	**Pn**	**11 21 15.3**	**+0.6**
IVRN	**Varamin**	**2.82**	**69**	ePn	**Pn**	**11 21 17.1**	**-0.1**
IVRN				ePn	**Pn**	**11 21 17.2**	**0.0**
IVRN				e		11 22 00.2	
	comp=Z,4µm,0.3s						
IVRN				e		11 22 00.4	
	comp=Z,4µm,0.2s						
IVRN	**Varamin**	**2.82**	**69**	ePn	**Pn**	**11 21 17.2**	**0.0**
CHTH	**Charan**	**2.85**	**48**	ePn	**Pn**	**11 21 18.3**	**+0.5**
CHTH				AML	AML	11 22 08.0	
	comp=Z,494nm,0.7s						
CHTH	**Charan**	**2.85**	**48**	ePn	**Pn**	**11 21 18.3**	**+0.6**
ISFB	**Sefidab**	**3.09**	**83**	ePn	**Pn**	**11 21 21.6**	**+0.6**
ISFB				e		11 22 09.7	
	comp=Z,3µm,0.4s						
ISFB	**Sefidab**	**3.09**	**83**	ePn	**Pn**	**11 21 21.6**	**+0.6**
DAMV	**Damavand**	**3.26**	**59**	ePn	**Pn**	**11 21 23.4**	**+0.1**
DAMV				AML	AML	11 22 07.0	
	comp=Z,382nm,0.5s						
IDMV	**Damavand**	**3.28**	**60**	ePn	**Pn**	**11 21 23.7**	**+0.1**
IDMV				e		11 22 08.1	
	comp=Z,2µm,0.2s						
IDMV	**Damavand**	**3.28**	**60**	ePn	**Pn**	**11 21 23.7**	**+0.1**
IZEF	**Zefreh**	**3.36**	**108**	ePn	**Pn**	**11 21 24.9**	**+0.2**
IZEF				e		11 22 22.4	
	comp=Z,1µm,0.4s						
IZEF	**Zefreh**	**3.36**	**108**	ePn	**Pn**	**11 21 24.9**	**+0.2**
IPRN	**Peran**	**3.83**	**53**	e	**Sg**	**11 22 32.9**	**-2.5**
	comp=Z,2µm,0.3s						
IFIR	**Firoozkooh**	**3.84**	**64**	ePn	**Pn**	**11 21 31.0**	**-0.2**
IFIR				e		11 22 33.7	
	comp=Z,1µm,0.2s						
IFIR	**Firoozkooh**	**3.84**	**64**	ePn	**Pn**	**11 21 31.0**	**-0.2**
ISRB	**Sarab**	**3.88**	**350**	ePn	**Pn**	**11 21 32.7**	**+0.9**
ISRB				e		11 21 36.2	
	comp=N,640nm,0.2s						
ILAS	**Lasjerd**	**3.90**	**68**	ePn	**Pn**	**11 21 32.0**	**-0.1**
ILAS	**Lasjerd**	**3.90**	**68**	ePn	**Pn**	**11 21 32.0**	**-0.1**
ISHM	**Shahmirzad**	**4.30**	**64**	ePn	**Pn**	**11 21 38.4**	**+0.7**
ISHM				e		11 22 52.1	
	comp=E,4µm,0.3s						
ISHM	**Shahmirzad**	**4.30**	**64**	ePn	**Pn**	**11 21 38.4**	**+0.7**
KBD	**Kabd**	**4.87**	**189**	eP	**Pn**	**11 21 45.1**	**-0.3**
KBD				AML	AML	11 22 39.0	
	comp=Z,9.2nm,0.4s						
KBD	**Kabd**	**4.87**	**189**	eP	**Pn**	**11 21 45.1**	**-0.3**
NAY	**Al-Naaiem**	**4.87**	**193**	eP	**Pn**	**11 21 45.2**	**-0.2**
NAY				AML	AML	11 22 40.8	
	comp=Z,11nm,0.5s						
NAY	**Al-Naaiem**	**4.87**	**193**	eP	**Pn**	**11 21 45.2**	**-0.2**
RDF	**Al-Radifah**	**5.13**	**190**	eP	**Pn**	**11 21 49.0**	**-0.1**
RDF				AML	AML	11 22 46.7	
	comp=Z,15nm,0.4s						
RDF	**Al-Radifah**	**5.13**	**190**	eP	**Pn**	**11 21 49.0**	**-0.1**
QRN	**Al-Qurain**	**5.27**	**186**	eP	**Pn**	**11 21 51.0**	**+0.1**
QRN				AML	AML	11 22 49.3	
	comp=Z,11nm,0.4s						
QRN	**Al-Qurain**	**5.27**	**186**	eP	**Pn**	**11 21 51.0**	**0.0**
IPAR	**Pars**	**5.65**	**136**	ePn	**Pn**	**11 21 55.6**	**-0.6**
IPAR				e		11 23 08.1	
	comp=Z,213nm,0.3s						
IPAR	**Pars**	**5.65**	**136**	ePn	**Pn**	**11 21 55.6**	**-0.6**
ISRV	**Sarvestan**	**6.04**	**139**	ePn	**Pn**	**11 22 00.7**	**-0.8**
ISRV				e		11 22 03.4	
	comp=Z,265nm,0.1s						
ISRV	**Sarvestan**	**6.04**	**139**	ePn	**Pn**	**11 22 00.7**	**-0.8**

IDC 02 11:42:04.1±4.8, **21°.19S**×**175°.58W**, **h0**^{km}, **mb4.0**/3, **mb1 4.3**/3, **mb1mx3.8**/17, **mbtmp4.0**/3, **Error ellipse: s-maj=137.0km s-min=48.8km az=131.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**46.57**	**257**	P	P	11 50 34.5	+0.5
	2.2nm,0.8s,baz=93,slow=8.0,SNR=26						
WRA	**Warramunga Arr**	**46.75**	**262**	P	P	11 50 34.8	-0.6
	1.1nm,0.4s,baz=95,slow=5.3,SNR=29						
MJAR	**Matsushiro Arr**	**72.12**	**322**	P	P	11 53 30.5	+0.1
	1.0nm,0.7s,baz=145,slow=5.4,SNR=5.3						
AKASG	**Malin Array Be**	**144.69**	**333**	PKP	PKPdf	12 01 41.8	-0.8
	1.4nm,0.6s,baz=45,slow=5.0,SNR=4.4						

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*ISCJB **02** 12:27:41.6±0.7, 40°.46N±0°.03×21°.87E±0°.04, h7^{km}±7^{km}, Error ellipse: s-maj=5.7km s-min=5.1km az=163.7*

*CSEM **02** 12:27:41.4±0.2, 40°.47N×21°.85E, h10^{km}, ML2.5/6, Error ellipse: s-maj=5.5km s-min=4.9km az=78.0*

*THE **02** 12:27:41.9, 40°.44N×21°.89E, h0^{km}±1^{km}, ML2.5/6, Error ellipse: s-maj=1.9km s-min=0.6km az=341.0*

ISC 02 12:27:41.9±0.5, **40°.47N**±0°.03×**21°.86E**±0°.04, **h11**^{km}±5^{km}, **n31**, σ**0ˢ.95**/46, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FNA	**Florina**	**0.49**	**311**	P	**Pg**	**12 27 51.4**	**0.0**
FNA				S	**Sg**	**12 27 59.5**	**+1.6**
FNA	**Florina**	**0.49**	**311**	P	**Pg**	**12 27 51.4**	**0.0**
FNA				S	**Sg**	**12 27 59.5**	**+1.6**
LIT	**Litokhoron**	**0.60**	**127**	P	**Pg**	**12 27 52.4**	**-1.2**
LIT				S	**Sg**	**12 28 01.1**	**-0.4**
LIT	**Litokhoron**	**0.60**	**127**	P	**Pg**	**12 27 52.4**	**-1.2**
LIT				S	**Sg**	**12 28 01.1**	**-0.4**
GRG	**Griva**	**0.64**	**40**	P	**Pg**	**12 27 54.5**	**+0.2**
GRG				S	**Sg**	**12 28 03.7**	**+1.1**
GRG	**Griva**	**0.64**	**40**	P	**Pg**	**12 27 54.5**	**+0.2**
GRG				S	**Sg**	**12 28 03.7**	**+1.1**
MEV	**Metsovon**	**0.84**	**216**	P	**Pg**	**12 27 57.8**	**-0.2**
MEV	**Metsovon**	**0.84**	**216**	P	**Pg**	**12 27 57.8**	**-0.2**
THL	**Klokotos Trika**	**0.91**	**173**	P	**Pg**	**12 27 58.2**	**-1.2**
THL				S	**Sg**	**12 28 11.5**	**+0.3**
THL	**Klokotos Trika**	**0.91**	**173**	P	**Pg**	**12 27 58.2**	**-1.2**
THL				S	**Sg**	**12 28 11.5**	**+0.3**
HORT	**Hortiatis**	**0.95**	**82**	P	**Pg**	**12 27 59.7**	**-0.5**
HORT				S	**Sg**	**12 28 13.7**	**+1.1**
HORT	**Hortiatis**	**0.95**	**82**	P	**Pg**	**12 27 59.7**	**-0.5**
HORT				S	**Sg**	**12 28 13.7**	**+1.1**
VAY	**Valandovo**	**1.01**	**32**	P	**Pg**	**12 28 00.7**	**-0.6**
VAY	**Valandovo**	**1.01**	**32**	ePn	**Pn**	**12 28 00.3**	**-1.6**
VAY				eSg	**Sg**	**12 28 20.4**	**+6.0**
VAY	**Valandovo**	**1.01**	**32**	ePn	**Pn**	**12 28 00.3**	**-1.6**
KRUS	**Krusevo**	**1.01**	**333**	ePn	**Pn**	**12 28 00.2**	**-1.9**
KRUS				eSg	**Sg**	**12 28 19.8**	**+5.2**
KRUS	**Krusevo**	**1.01**	**333**	ePn	**Pn**	**12 28 00.1**	**-1.9**
KRUS				eSg	**Sg**	**12 28 19.8**	**+5.1**
SOH	**Sokhos**	**1.19**	**72**	P	**Pb**	**12 28 04.2**	**-0.2**
SOH	**Sokhos**	**1.19**	**72**	P	**Pb**	**12 28 04.2**	**-0.2**
PLG	**Polygyros**	**1.21**	**94**	P	**Pn**	**12 28 04.4**	**-0.3**
PLG	**Polygyros**	**1.21**	**94**	P	**Pn**	**12 28 04.4**	**-0.3**
SRS	**Serrai**	**1.46**	**63**	P	**Pn**	**12 28 08.4**	**+0.2**
SRS	**Serrai**	**1.46**	**63**	P	**Pn**	**12 28 08.4**	**+0.2**
AGG	**Agios Georgios**	**1.49**	**166**	P	**Pn**	**12 28 09.4**	**+0.9**
AGG				S	**Sn**	**12 28 30.1**	**+2.2**
AGG	**Agios Georgios**	**1.49**	**166**	P	**Pn**	**12 28 09.4**	**+0.9**
AGG				S	**Sn**	**12 28 30.1**	**+2.2**
PAIG	**Paliouri**	**1.49**	**111**	P	**Pn**	**12 28 08.8**	**+0.2**
PAIG	**Paliouri**	**1.49**	**111**	P	**Pn**	**12 28 08.8**	**+0.2**
XOR	**Xorichti**	**1.50**	**137**	P	**Pn**	**12 28 08.4**	**-0.3**
XOR	**Xorichti**	**1.50**	**137**	P	**Pn**	**12 28 08.4**	**-0.3**
OUR	**Ouranopolis**	**1.62**	**94**	P	**Pn**	**12 28 11.0**	**+0.6**
OUR	**Ouranopolis**	**1.62**	**94**	P	**Pn**	**12 28 11.0**	**+0.6**

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*NEIC **02** 12:29:18.0±0.7, 79°.24N×3°.65E, h10^{km}, Error ellipse: s-maj=24.5km s-min=9.4km az=195.0*

*CSEM **02** 12:29:18.3±0.5, 79°.09N×3°.63E, h10^{km}, ML2.7, Error ellipse: s-maj=30.4km s-min=11.1km az=9.0*

*BER **02** 12:29:18.3±3.9, 79°.50N×3°.65E, h15^{km}±355^{km}, MD2.4, ML2.7, ML2.7(NAO)*

*IDC **02** 12:29:18.1±1.2, 79°.10N×2°.71E, h0^{km}, mb3.5/3, mb1 3.8/5, mb1mx3.4/24, mbtmp3.6/5, ML3.7/2, MS3.1/1, Ms1 3.1/1, ms1mx2.5/29, Error ellipse: s-maj=47.8km s-min=16.1km az=33.0*

*NAO **02** 12:29:19.8±4.0, 79°.40N×4°.60E, ML2.7*

ISC 02 12:29:17.5±1.8, **79°.04N**±0°.09×**3°.7E**±0°.3, **h4**^{km}±12^{km}, **n23**, σ**1ˢ.54**/36, **mb3.4**/3, **3C, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBS	**Kingsbay**	**1.58**	**90**	Pg	**Pg**	**12 29 45.4**	**-2.3**
KBS				Lg		12 30 06.6	
KBS	**Kingsbay**	**1.58**	**90**	eP	**Pn**	**12 29 45.4**	**-0.8**
KBS				eS	**Sn**	**12 30 03.7**	**-3.3**
KBS	**Kingsbay**	**1.58**	**90**	⇑iPn	**Pn**	**12 29 45.3**	**-0.9**
KBS				eSn	**Sn**	**12 30 11.5**	**+4.6**
KBS	**Kingsbay**	**1.58**	**90**	⇑iPn	**Pn**	**12 29 45.3**	**-0.9**
KBS				eS	**Sn**	**12 30 03.7**	**-3.3**
	SNR=55						
KBS				eSn	**Sn**	**12 30 11.5**	**+4.5**
SPB4	**Spitsbergen Ar**	**2.65**	**103**	ePn	**Pn**	**12 30 02.0**	**+1.2**
SPB4				eSn	**Sn**	**12 30 34.9**	**+1.7**
SPB4	**Spitsbergen Ar**	**2.65**	**103**	ePn	**Pn**	**12 30 02.0**	**+1.2**
SPB4				eSn	**Sn**	**12 30 34.9**	**+1.7**
SPA0	**Spitsbergen Ar**	**2.65**	**103**	Pn	**Pn**	**12 30 01.9**	**+1.1**
	baz=307,slow=9.3						
SPA0				Sn	**Sn**	**12 30 33.7**	**+0.4**
	baz=301,slow=28						
SPA0	**Spitsbergen Ar**	**2.65**	**103**	Pn	**Pn**	**12 30 02.0**	**+1.1**
	SNR=350						
SPA0				Sn	**Sn**	**12 30 33.7**	**+0.4**
	SNR=6.2						
HSP	**Hornsund**	**3.19**	**124**	ePn	**Pn**	**12 30 09.5**	**+1.2**
HSP				eSn	**Sn**	**12 30 45.3**	**-1.4**
HOPEN	**Hopen**	**5.16**	**109**	eP	**Pn**	**12 30 34.8**	**-0.5**
HOPEN				eS	**Sn**	**12 31 31.9**	**-3.1**
HOPEN				AML	AML	12 31 33.7	
	comp=Z,24nm,0.2s						
HOPEN	**Hopen**	**5.16**	**109**	eP	**Pn**	**12 30 34.8**	**-0.5**
	SNR=53						
DAG	**Danmarks Havn**	**5.20**	**255**	⇑iP	**Pn**	**12 30 35.7**	**-0.2**
	comp=Z,10nm,0.4s						
DAG				i		12 31 30.4	
ARA0	**ARCESS Array S**	**11.09**	**137**	Pn	**Pn**	**12 31 59.1**	**+2.5**
	baz=352,slow=12						
ARA0				Sn	**Sn**	**12 33 59.9**	**-0.9**
	baz=1.5,slow=22						
ARA0	**ARCESS Array S**	**11.09**	**137**	Pn	**Pn**	**12 31 59.1**	**+2.5**
	SNR=8.4						
ARA0				Sn	**Sn**	**12 33 59.9**	**-0.9**
	SNR=55						
ARCES	**ARCESS Array B**	**11.09**	**137**	Pn	**Pn**	**12 31 59.0**	**+2.4**
	comp=Z,0.5nm,0.3s,baz=353,slow=13,SNR=26						
ARCES				Sn	**Sn**	**12 33 59.0**	**-1.8**
	comp=Z,0.1nm,0.3s,baz=342,slow=22,SNR=2.5						
ARCES	**ARCESS Array B**	**11.09**	**137**	Pn	**Pn**	**12 31 59.0**	**+2.4**
ARCES				Sn	**Sn**	**12 33 59.0**	**-1.8**
RES	**Resolute Bay**	**20.18**	**310**	P	**P**	**12 33 50.2**	**-2.3**
	comp=Z,0.5nm,0.3s,baz=20,slow=12,SNR=20						
RES	**Resolute Bay**	**20.18**	**310**	P	**P**	**12 33 50.2**	**-2.3**
SCHQ	**Schefferville**	**33.14**	**267**	P	**P**	**12 35 53.6**	**-0.5**
	comp=Z,0.4nm,0.4s,mb3.7,baz=239,slow=12,SNR=3.2						
ZALV	**Zalesovo Beam**	**35.98**	**84**	LR	LR	12 53 47.4	
	comp=Z,32nm,20.5s,baz=138,slow=41						
MKAR	**Makanchi Array**	**42.33**	**90**	P	**P**	**12 37 14.9**	**+3.1**
	comp=Z,0.3nm,0.8s,mb3.0,baz=356,slow=7.9,SNR=3.4						
TXAR	**Lajitas Array**	**64.64**	**293**	P	**P**	**12 39 56.4**	**+0.7**
	comp=Z,0.4nm,0.7s,mb3.6,baz=30,slow=4.3,SNR=7.0						
TXAR	**Lajitas Array**	**64.64**	**293**	P	**P**	**12 39 56.4**	**+0.7**

IDC 02 12:29:59.3±3.9, **4°.91S**×**102°.08E**, **h0**^{km}, **mb3.6**/4, **mb1 3.7**/4, **mb1mx3.4**/20, **mbtmp3.6**/4, **Error ellipse: s-maj=153.7km s-min=59.6km az=62.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**23.43**	**352**	P	P	12 35 11.7	+1.2
	0.7nm,0.5s,baz=185,slow=8.2,SNR=8.0						
SONM	**Songino Array**	**52.66**	**4**	P	P	12 39 13.5	-1.8
	0.4nm,0.6s,baz=183,slow=8.9,SNR=4.9						
MKAR	**Makanchi Array**	**54.38**	**343**	P	P	12 39 28.2	+0.3
	0.6nm,0.7s,baz=141,slow=7.8,SNR=7.4						
ZALV	**Zalesovo Beam**	**60.41**	**348**	P	P	12 40 09.7	-0.7
	0.6nm,0.4s,baz=167,slow=5.6,SNR=5.7						
TXAR	**Lajitas Array**	**145.60**	**42**	PKPbc	PKPbc	12 49 41.2	+0.7
	0.5nm,0.8s,baz=316,slow=2.5,SNR=5.7						

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*NNC **02** 12:40:37.0±4.2, 40°.21N×72°.93E, h0^{km}, mb3.6, mpv3.4, Error ellipse: s-maj=41.2km s-min=17.5km az=171.0*

ISC 02 12:40:37.4±2.8, **40°.2N**±0°.2×**72°.6E**±0°.1, **h10**^{km}, **n15**, σ**0ˢ.67**/15, **6C-2D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	**Almayashu**	**2.10**	**22**	P	**Pn**	**12 41 11.7**	**-0.9**
	SNR=697						
UCH	**Uchtor**	**2.48**	**34**	P	**Pn**	**12 41 17.9**	**0.0**
	SNR=19						
EKS2	**Erkin-Say**	**2.61**	**19**	P	**Pn**	**12 41 20.7**	**+1.1**
	SNR=216						
KZA	**Kyzart**	**2.73**	**46**	P	**Pn**	**12 41 21.3**	**0.0**
	SNR=181						
AAK	**Ala-Archa**	**2.81**	**29**	P	**Pn**	**12 41 23.0**	**+0.6**
	SNR=84						
KBK	**Karagaybulak**	**3.02**	**35**	P	**Pn**	**12 41 26.0**	**+0.8**
	SNR=47						
CHMS	**Chumysh**	**3.22**	**29**	P	**Pn**	**12 41 28.8**	**+0.7**
	SNR=31						
KK31	**Karatay Array**	**3.31**	**332**	⇑Pn	**Pn**	**12 41 34.3**	**+5.0**
	0.5nm,0.2s,baz=123,slow=13,SNR=216						
KK31				⇑Pg	**Pg**	**12 41 40.4**	**-0.5**
	4.6nm,0.3s						
KK31				⇑Lg		12 42 20.5	
	28nm,0.4s,baz=136,slow=29,SNR=6.2						
USP	**Ospenovka**	**3.38**	**24**	P	**Pn**	**12 41 30.3**	**+0.2**
	SNR=29						
ULHL	**Ulahol**	**3.41**	**52**	P	**Pn**	**12 41 30.6**	**-0.1**
	SNR=32						
TKM2	**Tokmak 2**	**3.52**	**38**	P	**Pn**	**12 41 32.1**	**-0.1**
	SNR=44						
TKM2	**Tokmak 2**	**3.52**	**38**	⇑Pn	**Pn**	**12 41 31.9**	**-0.2**
	22nm,0.5s						
TKM2				⇑Sn	**Sn**	**12 42 13.6**	**-0.2**
	40nm,0.4s						
MK31	**Makanchi Array**	**9.63**	**44**	Pn	**Pn**	**12 42 54.5**	**-1.6**
	0.4nm,0.4s,baz=223,slow=14,SNR=9.7						
MK31				⇓Lg		12 45 31.8	
	2.0nm,0.6s,baz=211,slow=20,SNR=3.7						
KURBB	**Kurchatov Arra**	**11.22**	**20**	⇑Lg		12 46 26.3	
	3.3nm,0.7s						
KURK	**Kurchatov**	**11.33**	**20**	⇓Lg		12 46 30.3	
	14nm,1.1s						

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*IDC **02** 12:56:40.1±0.7, 6°.21S×129°.84E, h0^{km}, mb4.1/12, mb1 4.2/15, mb1mx4.1/21, mbtmp4.1/15, ML3.9/1, MS3.6/11, Ms1 3.6/11, ms1mx3.3/31, Error ellipse: s-maj=37.6km s-min=10.9km az=73.0*

*BJI **02** 12:56:41.6, 6°.22S×130°.38E, h19^{km}, mB5.1/10, mb4.6/19, Ms5.0/1, Ms7 4.8/1*

*MOS **02** 12:56:42.9±1.6, 6°.30S×129°.75E, h33^{km}, mb4.9/13, Error ellipse: s-maj=23.2km s-min=8.0km az=112.6*

*NEIC **02** 12:56:43.1±0.3, 6°.22S×129°.80E, mb4.7/15, Error ellipse: s-maj=13.3km s-min=5.4km az=69.0*

*DJA **02** 12:56:48, 6°.22S×129°.40E, h10^{km}, mb4.7/8*

ISC 02 12:56:42.3±2.6, **6°.20S**±0°.04×**129°.88E**±0°.06, **h13**^{km}±16^{km}, **h20**^{km}±1.5^{km}**:pP-P**, **n85**, σ**1ˢ.06**/82, **mb4.5**/31, **MS3.6**/10, **2C-1D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	**Ambon**	**3.01**	**326**	⇓eP	**Pn**	**12 57 31.3**	**+1.6**
AAI				eS	**Sn**	**12 58 00.7**	**-5.0**
AAI	**Ambon**	**3.01**	**326**	P	**Pn**	**12 57 30.8**	**+1.1**
LBMI	**Labuha**	**6.02**	**337**	P	**Pn**	**12 58 11.3**	**+0.2**
	173nm,1.2s,0.5nm						
KAKA	**Kakadu**	**6.94**	**159**	eP	**Pn**	**12 58 24.9**	**+1.1**
	56nm,0.6s						
KAKA	**Kakadu**	**6.94**	**159**	ePn	**Pn**	**12 58 25.1**	**+1.4**
	165nm,0.6s						
TNTI	**Ternate**	**7.37**	**340**	P	**Pn**	**12 58 35.0**	**+5.3**
	117nm,1.2s,0.4nm						
KDI	**Kendari**	**7.57**	**287**	⇑eP	**Pn**	**12 58 34.2**	**+1.8**
KDI				eS	**Sn**	**12 59 58.2**	**0.0**
KDI	**Kendari**	**7.57**	**287**	P	**Pn**	**12 58 31.9**	**-0.5**
	17nm,1.3s,0.1nm						
PCI	**Palu**	**11.32**	**297**	P	**Pn**	**12 59 27.2**	**+3.3**
	75nm,1.0s						
FITZ	**Fitzroy Crossi**	**12.53**	**199**	eP	**Pn**	**12 59 39.3**	**-1.1**
	38nm,1.8s						
FITZ	**Fitzroy Crossi**	**12.53**	**199**	Pn	**Pn**	**12 59 39.5**	**-0.9**
	0.5nm,0.3s,baz=36,slow=12,SNR=14						
FITZ				Sn	**Sn**	**13 01 53.1**	**-6.9**
	0.5nm,0.3s,baz=90,slow=15,SNR=3.8						
FITZ				LR	LR	13 05 04.4	
	comp=Z,266nm,18.8s,baz=20,slow=40						
FITZ	**Fitzroy Crossi**	**12.53**	**199**	P	**Pn**	**12 59 41.4**	**+1.0**
	37nm,1.1s						
WRAB	**Tennant Creek**	**14.32**	**163**	eP	**Pn**	**13 00 04.2**	**-0.7**
WRAB				e		13 02 38.3	
WRAB				pmax	pmax		
	comp=Z,17nm,0.7s						
WRAB	**Tennant Creek**	**14.32**	**163**	ePn	**Pn**	**13 00 04.2**	**-0.7**
	comp=Z,17nm,0.7s						
WRAB				eSn	**Sn**	**13 02 38.3**	**-5.4**
WRAB	**Tennant Creek**	**14.32**	**163**	P	**Pn**	**13 00 09.8**	**+4.9**
	comp=Z,35nm,1.2s						
WRA	**Warramunga Arr**	**14.33**	**163**	Pn	**Pn**	**13 00 02.9**	**-2.0**
	comp=Z,0.4nm,0.3s,baz=340,slow=13,SNR=17						
WRA				Sn	**Sn**	**13 02 36.1**	**-7.7**
	comp=Z,0.4nm,0.3s,baz=344,slow=22,SNR=3.7						
WB2	**Warramunga Arr**	**14.33**	**163**	ePn	**Pn**	**13 00 04.8**	**-0.2**
WB2				eSn	**Sn**	**13 02 37.2**	**-6.7**
ASAR	**Alice Springs**	**17.79**	**168**	P	**Pn**	**13 00 48.2**	**-1.5**
	comp=Z,0.2nm,0.3s,baz=344,slow=14,SNR=17						
ASAR				S	**Sn**	**13 04 08.0**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=358,slow=27,SNR=3.2						
MBWA	**Marble Bar**	**17.82**	**213**	ePn	**Pn**	**13 00 50.2**	**0.0**
	comp=Z,11nm,0.8s						
SBUM	**Sibu**	**19.62**	**295**	P	**Pn**	**13 01 11.5**	**-0.6**
	comp=Z,22nm,0.9s						
KSM	**Kuching**	**20.98**	**291**	eP	**P**	**13 01 24.5**	**-1.0**
	comp=Z,6.7nm,0.9s						
CTA	**Charters Tower**	**21.05**	**132**	eP	**P**	**13 01 29.6**	**+3.4**
	comp=Z,21nm,0.9s,mb4.5						
CTA	**Charters Tower**	**21.05**	**132**	P	**P**	**13 01 26.4**	**+0.2**
	comp=Z,4.1nm,0.9s,mb3.8,baz=256,slow=21,SNR=2.5						
CTAO	**Charters Tower**	**21.05**	**132**	eP	**P**	**13 01 27.0**	**+0.8**
CTAO				pmax	pmax		
	comp=Z,33nm,0.9s,mb4.7						
CTAO	**Charters Tower**	**21.05**	**132**	eP	**P**	**13 01 27.0**	**+0.7**
	comp=Z,33nm,0.9s,mb4.7						
CTAO	**Charters Tower**	**21.05**	**132**	P	sP	13 01 38.9	+7.3
FORT	**Forrest**	**24.51**	**184**	eP	sP	13 02 10.5	+3.6
	comp=Z,42nm,0.9s						
STKA	**Stephens Creek**	**27.79**	**158**	eP	**P**	**13 02 33.2**	**+2.1**
	comp=Z,7.1nm,0.9s,mb4.3						
STKA	**Stephens Creek**	**27.79**	**158**	P	**P**	**13 02 32.6**	**+1.5**
	comp=Z,2.1nm,0.9s,mb3.8,baz=14,slow=4.2,SNR=4.0						
STKA				LR	LR	13 15 02.0	
	comp=Z,78nm,18.1s,MS3.3,baz=24,slow=40						
STKA	**Stephens Creek**	**27.79**	**158**	eP	**P**	**13 02 32.2**	**+1.0**
	comp=Z,2.5nm,0.9s,mb3.8						
STKA				LR	LR	13 15 02.0	
NWAO	**Narrogin (SRO)**	**29.08**	**202**	LR	LR	13 13 51.2	
	comp=Z,137nm,20.7s,MS3.5,baz=267,slow=36						
HNR	**Honiara**	**29.95**	**98**	LR	LR	13 15 20.4	
	comp=Z,104nm,18.9s,MS3.5,baz=276,slow=37						
PSI	**Prapat**	**32.18**	**285**	LR	LR	13 17 05.5	
	comp=Z,141nm,18.5s,MS3.7,baz=157,slow=38						
JOW	**Kunigami**	**32.88**	**357**	LR	LR	13 14 17.0	
	comp=Z,124nm,20.1s,MS3.6,baz=71,slow=32						
CAN	**Canberra**	**33.90**	**151**	P	**P**	**13 03 28.0**	**+3.0**
CAN				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
CAN	**Canberra**	**33.90**	**151**	P	**P**	**13 03 28.0**	**+3.0**
	comp=Z,17nm,1.0s,mb4.9						
CMAR	**Chiang Mai Arr**	**39.14**	**309**	P	**P**	**13 04 08.8**	**-1.1**
	comp=Z,0.5nm,0.5s,mb3.5,baz=126,slow=6.6,SNR=5.3						
WHN	**Wuhan**	**39.45**	**339**	eP	**P**	**13 04 13.2**	**+0.8**
MAJO	**Matsushiro**	**43.23**	**10**	eP	**P**	**13 04 43.2**	**-0.1**
MAJO				pmax	pmax		

	comp=Z,11nm,0.8s,mb4.6						
MAJO	Matsushiro	43.23	10	eP	P	13 04 43.2	-0.1
	comp=Z,11nm,0.8s,mb4.6						
MAJO				epP	pP	13 04 48.1	+0.8
MAT	Matsushiro	43.23	10	P	P	13 04 42.6	-0.7
MJAR	Matsushiro Arr	43.23	10	P	P	13 04 41.9	-1.4
	comp=Z,2.2nm,0.7s,mb4.0,baz=185,slow=9.6,SNR=11						
MJAR				LR	LR	13 19 31.9	
	comp=Z,83nm,21.1s,MS3.6,baz=275,slow=32						
MJAR	Matsushiro Arr	43.23	10	P	P	13 04 41.9	-1.4
MJAR				LR	LR	13 19 31.9	
KSRS	Korea Array	43.47	358	P	P	13 04 45.7	+0.5
	comp=Z,0.7nm,0.7s,mb3.5,baz=177,slow=8.9,SNR=2.8						
KSRS				LR	LR	13 20 14.0	
	comp=Z,42nm,20.4s,MS3.3,baz=239,slow=32						
XAN	Xi'an	44.67	335	P	P	13 04 53.5	-1.4
XAN				pP	pP	13 05 02.9	+3.9
XAN				sP	sP	13 05 07.5	+7.0
XAN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
XAN				pmax	pmax		
	comp=Z,53nm,5.3s						
LZH	Lanzhou	48.65	332	eP	P	13 05 32.0	+5.9
LZH				pP	pP	13 05 37.5	+7.3
LZH				sP	sP	13 05 40.1	+8.4
LZH				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,79nm,4.5s						
LSA	Lhasa	51.55	316	eP	P	13 05 48.4	+0.2
LSA				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
LSA	Lhasa	51.55	316	eP	P	13 05 48.4	+0.2
	comp=Z,8.4nm,0.7s,mb4.8						
GTA	Gaotai	53.22	331	eP	P	13 06 05.5	+5.0
GTA				pP	pP	13 06 09.9	+5.3
GTA				sP	sP	13 06 13.0	+6.9
GTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
KLR	Kul'dur	55.23	1	eP	P	13 06 12.8	-2.1
SONM	Songino Array	57.65	341	P	P	13 06 32.3	+0.1
	comp=Z,0.9nm,0.5s,mb4.1,baz=160,slow=7.7,SNR=12						
SONM				LR	LR	13 36 59.3	
	comp=Z,52nm,18.1s,MS3.7,baz=324,slow=42						
ZAK	Zakamensk	60.88	341	eP	P	13 06 56.7	+2.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.1						
TLY	Talaya	61.88	342	eP	P	13 07 07.9	+6.6
TLY				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
WMQ	Urumqi	62.67	327	P	P	13 07 12.8	+6.1
WMQ				pP	pP	13 07 19.0	+8.2
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,170nm,7.0s						
MOY	Mondy	62.73	340	eP	P	13 07 13.5	+6.5
BOD	Bodaibo	65.10	351	eP	P	13 07 25.3	+2.9
BOD				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
MK31	Makanchi Array	67.50	327	eP	P	13 07 38.0	-0.1
MKAR	Makanchi Array	67.50	327	P	P	13 07 37.6	-0.4
	comp=Z,4.0nm,0.5s,mb4.7,baz=120,slow=7.9,SNR=51						
YAK	Yakutsk	68.03	360	eP	P	13 07 44.6	+3.5
YAK				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,6.0nm,1.4s						
YAK	Yakutsk	68.03	360	eP	P	13 07 42.0	+0.9
	comp=N,19nm,0.6s,mb5.3						
TKM2	Tokmak 2	69.30	320	eP	P	13 07 49.6	+0.2
TKM2				e*PP	pP	13 07 55.5	+1.9
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
TKM2	Tokmak 2	69.30	320	eP	P	13 07 49.6	+0.2
	comp=Z,6.3nm,0.7s,mb4.7						
TKM2				epP	pP	13 07 55.5	+1.9
AAK	Ala-Archa	69.86	320	eP	P	13 07 52.7	-0.2
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
AAK	Ala-Archa	69.86	320	eP	P	13 07 52.6	-0.2
	comp=Z,5.4nm,0.8s,mb4.5						
AML	Almayashu	70.14	319	eP	P	13 07 55.3	+0.7
	comp=Z,8.5nm,0.8s,mb4.7						
AML				epP	pP	13 08 01.1	+2.3
EKS2	Erkin-Say	70.34	319	eP	P	13 07 55.5	-0.4
	comp=Z,4.8nm,0.6s,mb4.6						
ZAA0	Zalesovo Array	70.82	334	eP	P	13 07 57.8	-0.7
ZAA0				epP	pP	13 08 03.9	+1.2
ZALV	Zalesovo Beam	70.82	334	P	P	13 07 57.8	-0.7
	comp=Z,1.5nm,0.5s,mb4.2,baz=135,slow=6.0,SNR=11						
SEY	Seymchan	71.05	11	⇑eP	P	13 07 59.5	-0.2
KURK	Kurchatov	71.78	329	P	P	13 08 04.0	-0.4
	comp=Z,5.9nm,0.6s,mb4.7,baz=129,slow=5.1,SNR=40						
NVS	Novosibirsk	72.11	334	eP	P	13 08 10.9	+4.6
NVS				pmax	pmax		
	comp=N,7.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.3s						
NVS				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
VNDA	Vanda	73.25	173	P	P	13 08 14.2	+1.4
	comp=Z,4.3nm,1.2s,mb4.3,baz=7.1,slow=9.5,SNR=2.4						
VNDA				LR	LR	13 35 38.1	
	comp=Z,95nm,19.8s,MS4.1,baz=334,slow=32						
MSEY	Mahe Island	74.03	267	i P	P	13 08 14.3	-4.3
BVAR	Borovoye Array	77.33	328	P	P	13 08 37.3	+0.7
	comp=Z,3.3nm,0.7s,mb4.3,baz=142,slow=7.5,SNR=8.1						
BVAR				LR	LR	13 45 37.0	
	comp=Z,49nm,18.7s,MS3.9,baz=195,slow=38						
BRVK	Borovoye	77.40	328	eP	P	13 08 37.1	+0.1
BRVK				e*PP	pP	13 08 43.1	+1.9
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
BRVK	Borovoye	77.40	328	eP	P	13 08 37.1	+0.1
	comp=Z,5.8nm,1.0s,mb4.5						
BRVK				epP	pP	13 08 43.0	+1.8
TIXI	Tiksi	77.70	360	eP	P	13 08 36.8	-1.5
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
TIXI	Tiksi	77.70	360	eP	P	13 08 38.3	0.0
	comp=Z,3.8nm,0.8s,mb4.4						
AKTK	Aktyubinsk	83.38	322	P	P	13 09 09.1	-0.1
AKTO	Aktyubinsk	83.38	322	P	P	13 09 09.1	-0.1
	comp=Z,1.4nm,0.7s,mb4.1,baz=124,slow=11,SNR=4.2						
SVE	Sverdlovsk	84.03	329	eP	P	13 09 18.6	+6.2
SVE				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.0						
TORD	Torodi Ar. Bea	128.54	282	PKP	PKPdf	13 15 52.0	+1.9
	comp=Z,0.9nm,0.6s,baz=54,slow=2.0,SNR=4.2						
SHEL	Horse Pasture	130.87	243	i PKIKP	PKPdf	13 15 57.5	+3.0
LVC	Limon Verde	145.96	148	ePKPbc	PKPbc	13 16 31.0	+8.4
CPUP	Villa Florida	146.91	168	PKPbc	PKPbc	13 16 32.0	+6.8
	comp=Z,6.0nm,0.9s,baz=202,slow=3.1,SNR=12						

*MOS **02** 13:01:18.9±1.8, 47°.51N×153°.96E, h40^{km}, mb4.0/5, Error ellipse: s-maj=24.5km s-min=11.8km az=71.6*

*ISCJB **02** 13:01:19.3±1.7, 47°.5N±0°.1×153°.9E±0°.2, h42^{km}±15^{km}, mb3.6/9, Error ellipse: s-maj=24.2km s-min=10.9km az=40.4*

*NEIC **02** 13:01:20.3±0.8, 47°.51N×153°.99E, h35^{km}, mb3.9/1, Error ellipse: s-maj=21.9km s-min=10.3km az=130.0*

*IDC **02** 13:01:23.5±4.1, 47°.57N×153°.97E, h63^{km}±37^{km}, mb3.3/8, mb1 3.5/9, mb1mx3.3/26, mbtmp3.3/9, ML3.3/1, MS2.7/1, Ms1 2.7/1, ms1mx2.1/31, Error ellipse: s-maj=25.5km s-min=22.4km az=132.0*

ISC 02 13:01:22.0±1.3**, 47°.6N**±0°.1×**154°.0E**±0°.2**, h48**^{km}±12^{km}**, n26,** σ**0^{s}.93**/26**, mb3.6**/9**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.44	24	ePN	Pn	13 02 14.7	+1.7
SKR				eS	Sn	13 02 51.0	-1.5
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,80nm,0.4s						
SKR				smax			
	comp=E,90nm,0.3s						
PEA0B	Petropavlovsk-	6.06	22	ePn	Pn	13 02 48.7	-0.1
PETK	Petropavlovsk-	6.06	22	PN	Pn	13 02 49.7	+0.8
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK	Petropavlovsk-	6.06	22	P	Pn	13 02 49.7	+0.8
	comp=Z,0.8nm,0.3s,baz=175,slow=11,SNR=17						
PET	Petropavlovsk	6.25	27	ePN	Pn	13 02 47.3	-4.2
PET				pmax	pmax		
	comp=Z,10.0nm,0.7s						
PET	Petropavlovsk	6.25	27	ePn	Pn	13 02 47.3	-4.2
	comp=Z,10nm,0.7s						
ERM	Erimo	9.46	238	PN	Pn	13 03 34.3	-1.3
ERM				pmax	pmax		
	comp=Z,27nm,1.0s						
ERM	Erimo	9.46	238	Pn	Pn	13 03 34.3	-1.2
	comp=Z,27nm,1.0s						
KSRS	Korea Array	21.59	252	P	P	13 06 09.5	+1.9
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.4						
KSRS	Korea Array	21.59	252	P	P	13 06 09.5	+2.0
	comp=Z,0.6nm,0.6s,mb3.2,baz=60,slow=12,SNR=3.3						
COLA	College	35.15	39	eP	P	13 08 10.5	-0.1
COLA				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
COLA	College	35.15	39	eP	P	13 08 10.5	-0.1
	comp=Z,0.8nm,0.5s,mb3.9						
TGY	Tagaytay City	43.18	231	LR	LR	13 24 12.8	
	comp=Z,9.1nm,21.2s,baz=145,slow=32						
MK31	Makanchi Array	47.09	297	P	P	13 09 48.6	-0.1
MKAR	Makanchi Array	47.09	297	P	P	13 09 48.8	+0.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	47.09	297	P	P	13 09 48.8	+0.1
	comp=Z,0.7nm,0.7s,mb3.7,baz=69,slow=7.9,SNR=2.5						
KURK	Kurchatov	47.40	303	P	P	13 09 50.9	-0.2
KURK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
KURK	Kurchatov	47.40	303	P	P	13 09 50.9	-0.3
	comp=Z,0.7nm,0.7s,mb3.7,baz=66,slow=7.7,SNR=3.7						
BVAR	Borovoye Array	50.80	309	P	P	13 10 16.4	-0.6
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	Borovoye Array	50.80	309	P	P	13 10 16.4	-0.7
	comp=Z,0.5nm,0.6s,mb3.6,baz=64,slow=6.7,SNR=3.2						
HFS	Hagfors	67.91	340	P	P	13 12 15.6	+0.6
HFS				pmax	pmax		
	comp=Z,3.0nm,1.0s						
HFS	Hagfors	67.91	340	P	P	13 12 15.6	+0.6
	comp=Z,3.3nm,1.0s,mb4.3,baz=46,slow=4.2,SNR=8.5						
WRA	Warramunga Arr	69.46	200	P	P	13 12 24.0	-1.1
	comp=Z,0.4nm,1.1s,mb3.3,baz=14,slow=6.3,SNR=3.0						
ASAR	Alice Springs	73.15	199	P	P	13 12 47.6	+0.4
	comp=Z,0.4nm,0.8s,mb3.4,baz=11,slow=5.7,SNR=5.7						
TXAR	Lajitas Array	76.60	61	eP	P	13 13 07.4	0.0
TXAR	Lajitas Array	76.60	61	P	P	13 13 07.4	0.0
	comp=Z,0.4nm,0.6s,mb3.5,baz=302,slow=4.2,SNR=6.9						

*ISCJB **02** 13:27:54.6±0.5, 6°.07N±0°.05×126°.09E±0°.09, h158^{km}±5^{km}, mb4.1/16, Error ellipse: s-maj=14.2km s-min=7.9km az=169.2*

*NEIC **02** 13:27:55.8±0.7, 6°.03N×125°.96E, h152^{km}±7^{km}, mb4.3/8, Error ellipse: s-maj=17.5km s-min=5.8km az=71.0*

*MAN **02** 13:27:55, 6°.12N×126°.16E, h146^{km}, mb4.4, ML3.2, MS3.1*

*IDC **02** 13:27:55.9±0.8, 6°.07N×126°.01E, h147^{km}±6^{km}, mb3.7/11, mb1 3.9/11, mb1mx3.7/23, mbtmp3.7/11, MS3.1/1, Ms1 3.1/1, ms1mx2.2/39, Error ellipse: s-maj=29.7km s-min=10.4km az=77.0*

ISC 02 13:27:55.7±0.5**, 6°.05N**±0°.05×**126°.08E**±0°.09**, h150**^{km}±5^{km}**, n39,** σ**0^{s}.87**/42**, mb4.1**/16**, 3C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	0.91	11	eP	Pn	13 28 19.4	-0.4
MATI				eS	Sn	13 28 38.9	+0.8
GSPH	General Santos	1.13	272	eP	Pn	13 28 20.0	-1.6
DAV	Davao City (W)	1.13	334	P	Pn	13 28 21.7	+0.1
	174nm,0.3s,baz=53,slow=2.0,SNR=10						
DAV				S	Sn	13 28 40.5	-0.9
	249nm,0.3s,baz=74,slow=20,SNR=4.4						
DAV	Davao City (W)	1.13	334	P	Pn	13 28 21.7	+0.1
DAV				S	Sn	13 28 40.5	-0.9
BUKP	Musuan	2.08	331	eP	Pn	13 28 33.0	+1.2
BIPH	Bislig	2.14	7	⇑eP	Pn	13 28 31.0	-1.5
BIPH				i S	Sn	13 28 59.6	-1.1
BUTP	Butuan	2.93	351	eP	Pn	13 28 42.9	+0.6
PAGZ	Pagadian	3.22	304	eP	Pn	13 28 46.5	+0.6
SCPH	Surigao	3.75	351	⇓eP	Pn	13 28 53.9	+1.1
IPIL	Ipil	3.89	297	eP	Pn	13 28 56.4	+1.9
MSLP	Maasin	4.23	343	eP	Pn	13 28 59.7	+0.7
YHNB	Yeheng	19.05	347	P	P	13 32 06.4	-0.2
	9.0nm,0.8s						
KAKA	Kakadu	19.68	161	⇑iP	P	13 32 14.0	+0.6
	22nm,0.6s						
KAKA	Kakadu	19.68	161	eP	P	13 32 13.6	+0.2
	61nm,0.6s						
FITZ	Fitzroy Crossi	24.00	181	eP	P	13 32 56.9	+0.1
	6.7nm,0.9s,mb4.2						
FITZ	Fitzroy Crossi	24.00	181	P	P	13 32 57.4	+0.6
	6.1nm,0.7s,mb4.2,baz=2.1,slow=6.9,SNR=31						
WRAB	Tennant Creek	27.07	163	eP	P	13 33 23.7	-0.8
WRA	Warramunga Arr	27.08	163	P	P	13 33 24.4	-0.1
	1.6nm,0.4s,mb4.0,baz=330,slow=11,SNR=34						
WB2	Warramunga Arr	27.08	163	eP	P	13 33 23.6	-1.0
MBWA	Marble Bar	27.75	193	eP	P	13 33 29.1	-1.4
	5.8nm,0.8s,mb4.4						
CM31	Chiang Mai Arr	29.19	297	eP	P	13 33 42.0	-1.4
	1.8nm,0.6s,mb4.0						
CMAR	Chiang Mai Arr	29.19	297	P	P	13 33 42.5	-0.9
	0.3nm,0.5s,mb3.3,baz=130,slow=8.6,SNR=2.9						
CMAR				ScP	ScP	13 40 16.8	+1.7
	0.6nm,0.8s,baz=96,slow=2.3,SNR=5.4						
JHJ	Hachijo jima 2	29.80	24	LR	LR	13 43 05.3	
	comp=Z,36nm,22.0s,baz=306,slow=30						
ASAR	Alice Springs	30.51	166	P	P	13 33 55.3	+0.4
	2.8nm,0.4s,mb4.3,baz=344,slow=7.4,SNR=51						
KSRS	Korea Array	31.30	3	P	P	13 34 02.6	+0.9
	0.6nm,0.5s,mb3.5,baz=182,slow=9.7,SNR=4.9						
FORT	Forrest	36.67	177	eP	P	13 34 48.8	+0.7
	21nm,0.5s,mb5.0						
KLBR	Kellerberrin	38.27	192	eP	P	13 35 01.9	+0.4
	9.1nm,0.4s,mb4.8						
MUN	Mundaring	38.97	193	⇑iP	P	13 35 08.0	+0.6
NWAO	Narrogin (SRO)	39.66	192	P	P	13 35 14.2	+1.1
	14nm,0.6s,mb4.8,baz=35,slow=7.6,SNR=23						
NWAO	Narrogin (SRO)	39.66	192	eP	P	13 35 13.3	+0.1
	9.5nm,0.6s,mb4.6						
STKA	Stephens Creek	40.52	159	P	P	13 35 20.9	+0.7
	4.6nm,0.5s,mb4.3,baz=330,slow=9.2,SNR=6.9						
STKA	Stephens Creek	40.52	159	eP	P	13 35 20.5	+0.3
	1.5nm,0.8s,mb3.7						
SONM	Songino Array	44.90	341	P	P	13 35 55.7	+0.4
	0.2nm,0.3s,mb3.2,baz=154,slow=7.5,SNR=3.6						
PETK	Petropavlovsk-	53.55	23	P	P	13 37 01.3	+0.4
	8.0nm,1.1s,mb4.4,baz=225,slow=9.4,SNR=2.4						
PETK	Petropavlovsk-	53.55	23	P	P	13 37 01.3	+0.4
MKAR	Makanchi Array	55.29	325	P	P	13 37 13.5	-0.2
	0.9nm,0.4s,mb3.9,baz=123,slow=8.8,SNR=5.7						
KURK	Kurchatov	59.45	327	P	P	13 37 42.4	-0.3
	1.8nm,0.5s,mb4.2,baz=128,slow=6.8,SNR=11						
KURK	Kurchatov	59.45	327	eP	P	13 37 42.0	-0.6
	3.5nm,0.6s,mb4.4						
BRVK	Borovoye	65.11	327	eP	P	13 38 19.2	-1.1
	3.0nm,0.8s,mb4.2						

MAN 02 13:37:36, 18°.33N×120°.80E, h32^{km}**, mb3.9, ML2.7, MS2.3, 2D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.17	268	⇓iP	Pb	13 37 43.7	+1.6
PIP				eS	Sb	13 37 47.9	+1.5
SIPP	Brgy, Tapao	0.52	218	⇓iP	Pb	13 37 49.0	+2.1
SIPP				i S	Sb	13 37 57.1	+2.9
APYP	Conner	0.63	138	eP	Pb	13 37 49.4	+0.8
APYP				eS	Sb	13 37 58.8	+1.5
ABRA	Dolores	0.68	187	eP	Pn	13 37 49.9	+0.4
CAUP	Cauayan	1.69	145	eP	Pn	13 38 08.3	+5.0

*ISK **02** 13:46:59.3, 40°.04N×42°.37E, h5^{km}, MD3.1*

*ISCJB **02** 13:47:01.0±0.4, 39°.99N±0°.03×42°.35E±0°.03, h10^{km}, Error ellipse: s-maj=4.3km s-min=3.5km az=3.9*

*CSEM **02** 13:47:00.4±0.1, 40°.06N×42°.40E, h1^{km}±1^{km}, MD3.1, Error ellipse: s-maj=2.8km s-min=1.8km az=36.0*

*DDA **02** 13:47:00.3, 39°.99N×42°.37E, h7^{km}±6^{km}, Md3.3*

ISC 02 13:47:01.2±0.6**, 40°.02N**±0°.03×**42°.37E**±0°.03**, h4**^{km}±6^{km}**, n32,** σ**0^{s}.99**/43**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGRB	Hanur-Agry	0.66	133	ePG	Pg	13 47 13.2	-0.6
AGRB				eSG	Sg	13 47 23.3	+1.0
AGRB	Hanur-Agry	0.66	133	ePg	Pg	13 47 13.2	-0.6
AGRB				eSg	Sg	13 47 23.3	+1.1
ERZM	Erzurum	0.78	262	i P	Pg	13 47 14.4	-1.7
ERZM				i S	Sg	13 47 27.0	+0.8
ERZM	Erzurum	0.78	262	i P	Pg	13 47 14.4	-1.7
ERZM				i S	Sg	13 47 27.0	+0.8
EZM	Erzurum	0.78	262	ePG	Pg	13 47 15.3	-0.9
KARS	Kars	0.81	43	ePG	Pg	13 47 15.5	-1.2
KARS				eSG	Sg	13 47 28.1	+0.8
KARS	Kars	0.81	43	ePg	Pg	13 47 15.5	-1.3
DYDN	Diyadin	1.12	115	i P	Pg	13 47 21.2	-1.6
DYDN				i S	Sg	13 47 38.3	+1.0
DYDN	Diyadin	1.12	115	i P	Pg	13 47 21.2	-1.5
DYDN				i S	Sg	13 47 38.3	+1.0
KOPT	Kop Dagi	1.44	271	i P	Pn	13 47 26.2	-1.8
KOPT				i S	Sg	13 47 49.1	+1.7
KOPT	Kop Dagi	1.44	271	i P	Pn	13 47 26.2	-1.8
KOPT				i S	Sg	13 47 49.1	+1.7
CLDR	Caldiran	1.48	126	ePN	Pn	13 47 28.7	+0.1
CLDR	Caldiran	1.48	126	ePn	Pn	13 47 28.7	+0.1
PZAR	Pazar-Rize	1.61	316	ePN	Pn	13 47 29.4	-1.0
PZAR	Pazar-Rize	1.61	316	ePn	Pn	13 47 29.4	-1.0
VANB	Van	1.63	151	ePN	Pn	13 47 30.5	-0.1
VANB	Van	1.63	151	ePn	Pn	13 47 30.5	-0.1
TVAN	Van	1.69	151	i P	Pn	13 47 31.6	0.0
TVAN				i S	Sg	13 48 02.0	+6.4
TVAN	Van	1.69	151	i P	Pn	13 47 31.6	+0.1
VANT	Van	1.76	153	ePN	Pn	13 47 32.4	0.0
GNI	Garni	1.82	85	ePN	Pn	13 47 33.7	+0.4
GNI	Garni	1.82	85	ePn	Pn	13 47 33.7	+0.4
EZC	Erzincan	1.98	263	ePN	Pg	13 47 40.7	+1.5
GUMT	Gumushane	2.25	282	ePN	Pn	13 47 39.4	+0.1
GUMT	Gumushane	2.25	282	ePn	Pn	13 47 39.4	+0.2
BEST	Besiri	2.29	202	eP	Pn	13 47 40.6	+0.9
BEST				i S	Sg	13 48 14.1	-0.8
HAKT	HAKKARI	2.67	157	i P	Px	13 48 03.6	
HAKT				i S	Sx	13 48 36.5	
ONI	Oni	2.68	17	P	Pn	13 47 45.6	+0.5
ONI	Oni	2.68	17	P	Pn	13 47 45.7	+0.5
ONI				S	Sg	13 48 33.2	+5.8
ONI	Oni	2.68	17	P	Pn	13 47 45.6	+0.5
ESPY	Espiye-Giresun	2.92	289	ePN	Pn	13 47 49.0	+0.7
ESPY	Espiye-Giresun	2.92	289	ePn	Pn	13 47 49.1	+0.7

*ISCJB **02** 13:49:29.7±1.2, 6°.59S±0°.08×75°.8W±0°.1, h138^{km}±14^{km}, mb3.9/10, Error ellipse: s-maj=18.1km s-min=11.9km az=159.0*

*IDC **02** 13:49:30.0±1.9, 6°.62S×75°.81W, h124^{km}±20^{km}, mb3.7/11, mb1 4.0/14, mb1mx3.9/22, mbtmp3.8/14, Error ellipse: s-maj=21.5km s-min=11.5km az=58.0*

*NEIC **02** 13:49:30.6±1.0, 6°.56S×75°.77W, h128^{km}±9^{km}, mb4.3/1, Error ellipse: s-maj=12.2km s-min=7.3km az=86.0*

ISC 02 13:49:30.5±1.2**, 6°.62S**±0°.07×**75°.8W**±0°.1**, h127**^{km}±14^{km}**, n23,** σ**0^{s}.76**/19**, mb4.0**/10**, Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	2.63	262	P	Pn	13 50 12.8	+0.6
	116nm,0.3s,baz=83,slow=6.0,SNR=531						
ATAH				S	Sn	13 50 44.3	0.0
	52nm,0.3s,baz=308,slow=11,SNR=5.0						
NNA	Nana	5.43	191	P	Pn	13 50 50.4	+1.0
	8.0nm,0.3s,baz=348,slow=9.1,SNR=26						
NNA				S	Sn	13 51 48.5	-2.4
	37nm,0.3s,baz=198,slow=22,SNR=18						
SDV	Santo Domingo	16.23	18	P	Pn	13 53 10.9	-0.5
	2.7nm,0.3s,baz=231,slow=15,SNR=18						
SDV	Santo Domingo	16.23	18	ePn	Pn	13 53 10.4	-0.9
	14nm,0.8s						
PCRV	Puerto La Cruz	20.04	34	P	P	13 53 53.9	+0.3
	8.7nm,0.8s,baz=207,slow=4.5,SNR=3.3						
CPUP	Villa Florida	26.33	140	P	P	13 54 55.3	+0.7
	0.8nm,0.4s,mb3.5,baz=308,slow=8.8,SNR=7.1						
TEIG	Tepich	29.37	336	P	P	13 55 21.7	0.0
	2.9nm,0.5s,mb4.2,baz=225,slow=2.9,SNR=2.4						
PLCA	Paso Flores	34.28	173	P	P	13 56 05.0	+0.5
	2.3nm,0.9s,mb4.0,baz=305,slow=7.1,SNR=4.0						
TXAR	Lajitas Array	44.70	324	P	P	13 57 31.4	+0.5
	1.1nm,0.6s,mb3.8,baz=147,slow=8.4,SNR=14						
PDAR	Pinedale Array	57.96	331	P	P	13 59 09.3	-0.2
	0.5nm,0.6s,mb3.7,baz=133,slow=9.7,SNR=5.4						
ULM	Lac du Bonnet	59.26	345	P	P	13 59 17.2	-1.2
	2.8nm,0.6s,mb4.5,baz=160,slow=8.1,SNR=6.6						
NVAR	Mina Array Bea	59.73	322	P	P	13 59 22.3	+0.5
	1.2nm,0.9s,mb3.9,baz=139,slow=7.3,SNR=6.2						
DBIC	Dimbokro	71.98	81	P	P	14 00 41.0	+0.1
	2.0nm,0.4s,mb4.3,baz=246,slow=4.6,SNR=4.0						
YKA	Yellowknife Ar	75.06	342	P	P	14 00 57.3	-0.6
	1.6nm,0.4s,mb4.1,baz=140,slow=6.1,SNR=50						
YKA				pP	pP	14 01 23.5	-6.1
	0.7nm,0.6s,baz=136,slow=5.7,SNR=6.0						
YKA	Yellowknife Ar	75.06	342	P	P	14 00 57.3	-0.6
YKA				pP	pP	14 01 23.5	-6.1
TORD	Torodi Ar. Bea	79.40	75	P	P	14 01 23.0	-0.1
	0.9nm,0.8s,mb3.7,baz=262,slow=5.0,SNR=6.0						
TORD				pP	pP	14 01 51.5	-3.6
	0.7nm,0.6s,baz=276,slow=5.9,SNR=4.5						
TORD	Torodi Ar. Bea	79.40	75	P	P	14 01 23.0	-0.1
TORD				pP	pP	14 01 51.5	-3.6
ZALV	Zalesovo Beam	130.26	15	PKP	PKPdf	14 08 25.4	-0.1
	0.4nm,0.4s,baz=321,slow=1.9,SNR=4.9						
MKAR	Makanchi Array	135.76	22	PKP	PKPdf	14 08 36.3	+0.1
	0.4nm,0.7s,baz=48,slow=2.1,SNR=3.6						
ASAR	Alice Springs	138.21	223	PKhKP		14 08 32.7	
	0.3nm,0.8s,baz=134,slow=2.7,SNR=4.1						
ASAR				PKP	PKPdf	14 08 40.5	-0.9
	0.6nm,0.7s,baz=118,slow=2.1,SNR=8.2						
SONM	Songino Array	138.89	358	PKP	PKPdf	14 08 42.7	+0.8
	0.3nm,0.6s,baz=295,slow=1.6,SNR=2.8						
WRA	Warramunga Arr	140.32	228	PKhKP		14 08 38.4	
	0.2nm,0.3s,baz=132,slow=2.6,SNR=9.4						
WRA				PKP	PKPdf	14 08 45.4	0.0
	1.0nm,0.5s,baz=121,slow=2.0,SNR=18						
FITZ	Fitzroy Crossi	147.59	220	ePKPbc	PKPbc	14 09 00.8	-0.1

*NEIC **02** 13:49:53.1±4.7, 5°.90S×129°.83E, h10^{km}, mb3.8/1, Error ellipse: s-maj=57.6km s-min=31.0km az=155.0*

*IDC **02** 13:50:00.2±1.7, 6°.55S×130°.10E, h0^{km}, mb3.8/2, mb1 3.7/5, mb1mx3.5/18, mbtmp3.6/5, ML3.3/3, Error ellipse: s-maj=56.3km s-min=25.2km az=67.0*

*ISCJB **02** 13:50:07.3±2.3, 6°.83S±0°.09×130°.0E±0°.1, h84^{km}±25^{km}, mb3.6/2, Error ellipse: s-maj=21.6km s-min=14.4km az=166.9*

ISC 02 13:50:09.0±2.5**, 6°.9S**±0°.1×**130°.0E**±0°.1**, h80**^{km}±27^{km}**, n10,** σ**1^{s}.08**/15**, mb3.6**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.31	157	ePn	Pn	13 51 39.9	+0.4
	36nm,0.6s						
FITZ	Fitzroy Crossi	11.95	200	Pn	Pn	13 52 55.3	-1.1
	0.1nm,0.3s,baz=37,slow=13,SNR=3.6						
FITZ				Sn	Sn	13 55 10.4	+2.5
	0.1nm,0.3s,baz=50,slow=18,SNR=3.3						
FITZ	Fitzroy Crossi	11.95	200	ePn	Pn	13 52 55.6	-0.9
	6.8nm,1.1s						
FITZ				Sn	Sn	13 55 06.3	-1.6
WRAB	Tennant Creek	13.68	162	ePn	Pn	13 53 18.7	-0.9
	3.0nm,0.8s						
WRAB				eSn	Sn	13 55 51.0	+0.9
WRA	Warramunga Arr	13.69	162	Pn	Pn	13 53 20.2	+0.5
	0.1nm,0.3s,baz=344,slow=13,SNR=5.8						
WRA				Sn	Sn	13 55 54.1	+3.9
	0.2nm,0.3s,baz=345,slow=22,SNR=4.9						
WB2	Warramunga Arr	13.69	162	ePn	Pn	13 53 19.9	+0.2
WB2				eSn	Sn	13 55 49.4	-0.9
ASAR	Alice Springs	17.14	168	P	Pn	13 54 06.7	+3.2
	0.1nm,0.3s,baz=354,slow=10,SNR=13						
CTA	Charters Tower	20.57	131	P	P	13 54 40.9	-0.5
	3.6nm,0.9s,baz=318,slow=14,SNR=1.6						
STKA	Stephens Creek	27.16	158	eP	P	13 55 44.0	-1.0
	2.1nm,1.3s,mb3.5						
MKAR	Makanchi Array	68.08	327	P	P	14 01 00.8	+0.7

0.6nm,0.6s,mb3.6,baz=128,slow=7.6,SNR=4.8

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*NEIC **02** 14:11:48.5±2.3, 24.°20N×122.°02E, h5^{km}, Error ellipse: s-maj=24.9km s-min=8.7km az=88.0*
*JMA **02** 14:11:50.6±0.6, 23.°91N×121.°77E, h12^{km}, M2.8*
*ISCJB **02** 14:11:51.5±0.4, 24.°26N±0.°01×121.°85E±0.°02, h6^{km}±3^{km}, Error ellipse: s-maj=3.5km s-min=2.3km az=20.4*
*TAP **02** 14:11:52.0, 24.°28N×121.°75E, h18^{km}, ML3.5, C*
ISC 02 14:11:51.9±0.3**, 24.°25N**±0.°01×**121.°84E**±0.°02**, h6**^{km}±2^{km}**, n59, σ0ˢ.93**/97**, 8C, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENA	Nanau	0.20	334	⇑iP	Pg	14 11 56.5	+0.7
	baz=354						
ENA				eS	Sg	14 11 59.3	+0.8
	baz=354						
NACB	Ninganchiao	0.23	251	eP	Pg	14 11 56.1	-0.4
TWD	Chiawan	0.28	232	⇑iP	Pg	14 11 57.8	+0.6
	baz=223						
TWD				iS	Sg	14 12 01.9	+1.0
	baz=223						
HWA	Hwalien	0.34	218	eP	Pg	14 11 59.1	+0.5
	baz=211						
HWA				eS	Sg	14 12 05.0	+2.0
	baz=211						
TWC	Suao	0.36	2	⇑iP	Pg	14 11 59.5	+0.7
	baz=8.0						
TWC				S	Sg	14 12 04.4	+0.9
	baz=8.0						
ENTT	Nioudou	0.46	328	⇑iP	Pg	14 12 00.5	-0.2
	baz=333						
ENTT				S	Sg	14 12 06.7	0.0
	baz=333						
NNS	Nan Shan	0.46	294	⇑iP	Pg	14 12 00.5	-0.3
	baz=299						
NNS				S	Sg	14 12 06.3	-0.6
	baz=299						
ESF	Shoufeng Towns	0.48	219	eP	Pg	14 12 01.3	+0.1
	baz=220						
TWE	Neicheng	0.49	342	⇑iP	Pg	14 12 01.4	0.0
	baz=348						
TWE				eS	Sg	14 12 07.5	-0.3
	baz=348						
ILA	Ilan	0.52	351	eP	Pg	14 12 02.1	+0.2
	baz=351						
ILA				eS	Sg	14 12 09.6	+0.8
	baz=351						
ESL	Shilin	0.57	220	⇑iP	Pg	14 12 02.9	0.0
	baz=221						
ESL				eS	Sg	14 12 11.8	+1.6
	baz=221						
YHNB	Yeheng	0.59	315	eP	Pg	14 12 02.4	-0.9
YHNB				eS	Sg	14 12 09.7	-1.3
NSK	Sanguang	0.61	314	⇑iP	Pg	14 12 03.0	-0.6
	baz=317						
NSK				iS	Sg	14 12 10.4	-1.1
	baz=317						
TWA	Mucha	0.76	343	eP	Pg	14 12 07.0	+0.4
	baz=346						
TWB1	Santiao Chiao	0.77	10	P	Pg	14 12 07.0	+0.3
	baz=14						
TWB1				eS	Sg	14 12 16.6	-0.1
	baz=14						
TATO	Taipei	0.79	336	eP	Pg	14 12 06.5	-0.6
NWF	Wu-fen Shan	0.82	357	eP	Pg	14 12 07.7	0.0
	baz=352						
NWF				eS	Sg	14 12 18.8	+0.5
	baz=352						
TAP1	Taipei	0.84	340	eP	Pg	14 12 07.7	-0.2
	baz=343						
NSTT	Nanjuang	0.85	297	iP	Pg	14 12 07.7	-0.6
	baz=297						
NSTT				eS	Sg	14 12 17.6	-1.7
	baz=297						
EHY	Hungye	0.88	213	eP	Pg	14 12 07.3	-1.4
	baz=220						
EHY				eS	Sg	14 12 21.6	+1.5
	baz=220						
SSLB	Suanglung	0.93	240	eP	Pg	14 12 08.7	-1.0
SSLB				eS	Sg	14 12 18.2	-3.6
NCU	National Centr	0.93	321	eP	Pg	14 12 09.8	+0.1
	baz=317						
NCU				eS	Sg	14 12 22.6	+0.8
	baz=317						
TWS1	Kuangyinshan	0.93	336	eP	Pg	14 12 09.7	0.0
	baz=338						
TWS1				eS	Sg	14 12 22.4	+0.6
	baz=338						
SMLT	Sun Moon Lake	0.93	247	P	Pg	14 12 09.3	-0.5
	baz=238						
SMLT				eS	Sg	14 12 21.2	-0.6
	baz=238						
TYC	Yuchr	0.96	249	P	Pg	14 12 09.4	-0.9
	baz=240						
TYC				S	Sg	14 12 22.3	-0.4
	baz=240						
HSN	Hsinchu	0.96	305	eP	Pg	14 12 10.7	+0.3
	baz=301						
HSN				eS	Sg	14 12 23.0	+0.1
	baz=301						
TWQ1	Liyutan	0.97	276	eP	Pg	14 12 10.3	-0.3
	baz=275						
YULB	Yu-li	0.98	210	eP	Pg	14 12 08.8	-2.0
YULB				eS	Sg	14 12 24.3	+0.7
NSY	Sanyi	0.99	280	eP	Pg	14 12 11.2	+0.3
	baz=279						
NSY				eS	Sg	14 12 25.4	+1.5
	baz=279						
TWF1	Yuli	1.02	209	eP	Pg	14 12 09.2	-2.2
	baz=217						
TWY	Chenhua	1.04	348	eP	Pg	14 12 13.2	+1.3
	baz=336						
TCU	Taichung	1.06	265	eP	Pg	14 12 12.5	+0.2
	baz=263						
TCU				eS	Sg	14 12 26.6	+0.5
	baz=263						
YOJ	Yonaguni jima	1.09	79	P	Pg	14 12 13.8	+0.9
YOJ				eS	Sg	14 12 30.4	+3.4
YUS	Yu-Shan	1.11	227	eP	Pg	14 12 12.0	-1.2
	baz=224						
WNT	Mingjian	1.11	251	eP	Pg	14 12 13.3	0.0
	baz=245						
WNT				eS	Sg	14 12 29.2	+1.4
	baz=245						
ALS	Alishan	1.20	232	eP	Pg	14 12 14.0	-0.8
	baz=217						
CHKT	Chengkung	1.22	201	eP	Pg	14 12 13.2	-2.1
	baz=183						
CHN5	Tsauling	1.24	239	iP	Pg	14 12 15.0	-0.7
	baz=237						
CHN5				S	Sg	14 12 33.1	+1.3
	baz=237						
WGK	Gukeng	1.29	245	eP	Pn	14 12 15.3	-1.2
	baz=242						
WGK				eS	Sb	14 12 35.2	+1.7
	baz=242						
ELDTW	Lidau	1.29	216	eP	Pn	14 12 13.7	-2.9
	baz=205						
CHN2	Minshiung	1.44	240	eP	Pn	14 12 18.3	-0.2
	baz=224						
CHN4	Tsaushan	1.45	232	eP	Pn	14 12 18.5	-0.1
	baz=231						
CHN4				eS	Sn	14 12 39.0	+1.0
	baz=231						
TPUB	Ta-pu	1.45	230	ePn	Pn	14 12 18.1	-0.7
STYT	Tauyuan	1.47	223	eP	Pn	14 12 17.8	-1.1
	baz=222						
STYT				eS	Sn	14 12 38.5	+0.1
	baz=222						
WTCT	Ta-ch’eng	1.47	255	eP	Pn	14 12 17.6	-1.4
	baz=266						
WTCT				eS	Sn	14 12 38.4	-0.2
	baz=266						
CHY	Chiayi	1.49	240	eP	Pn	14 12 19.3	+0.1
	baz=225						
WTP	Ta-pu	1.50	229	eP	Pn	14 12 19.3	0.0
	baz=219						
WTP				eS	Sn	14 12 40.2	+0.9
	baz=219						
TWK	Hsinying	1.57	232	eP	Pn	14 12 19.7	-0.7
	baz=230						
TWG	Pinlang	1.58	206	ePn	Pn	14 12 16.8	-3.7
TWG	Pinlang	1.58	206	eP	Pn	14 12 18.9	-1.6
	baz=190						
WSF	Szhu	1.60	248	eP	Pn	14 12 18.9	-1.8
	baz=255						
WSF				eS	Sn	14 12 42.4	+0.7
	baz=255						
CHN1	Nanshi	1.60	229	eP	Pn	14 12 21.2	+0.5
	baz=228						
CHN1				eS	Sn	14 12 43.2	+1.5
	baz=228						
SGST	Jiashian	1.63	225	eP	Pn	14 12 20.7	-0.5
	baz=215						
SGST				eS	Sn	14 12 43.6	+1.0
	baz=215						
IRIF	Iriomote-Funau	1.73	87	P	Pn	14 12 22.2	-0.4
CHN8	Yiju	1.74	239	eP	Pn	14 12 22.6	-0.1
	baz=224						
CHN8				eS	Sn	14 12 45.9	+0.8
	baz=224						
ECL	Taimali	1.83	206	eP	Pn	14 12 23.0	-0.9
	baz=194						
SSD	Sandimen	1.86	217	eP	Pn	14 12 25.0	+0.7
	baz=218						
SSD				eS	Sn	14 12 49.0	+0.9
	baz=218						
JKRS	Kuro-shima	1.98	90	P	Pn	14 12 26.6	+0.6
JIJ	Ishigaki jima	2.11	86	P	Pn	14 12 27.7	0.0
JIJ				eS	Sn	14 12 54.3	0.0

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*ISCJB **02** 14:17:04.2±0.6, 37.°75S±0.°03×176.°77E±0.°04, h16^{km}±5^{km}, mb3.9/4, Error ellipse: s-maj=5.8km s-min=5.7km az=150.1*
*NEIC **02** 14:17:04.3, 37.°80S×176.°77E, h1^{km}, mb4.2/1, ML4.1(WEL), After WEL.*
*IDC **02** 14:17:04.6±1.3, 37.°96S×176.°55E, h0^{km}, mb3.9/3, mb1 4.1/4, mb1mx3.9/15, mbtmp3.9/4, ML2.9/1, Error ellipse: s-maj=42.2km s-min=8.2km az=27.0*
ISC 02 14:17:04.4±0.6**, 37.°76S**±0.°03×**176.°78E**±0.°04**, h12**^{km}±4^{km}**, n48, σ0ˢ.96**/50**, mb3.9**/4**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARZ	Manawahe	0.24	201	P	Pg	14 17 09.2	-0.3
MARZ				S	Sg	14 17 12.8	-0.2
EDRZ	Edgecumbe	0.35	186	P	Pg	14 17 11.2	-0.2
WIZ	White Island	0.40	55	P	Pg	14 17 13.2	+1.0
LIRZ	Lichensteins R	0.40	232	P	Pg	14 17 12.6	+0.3
LIRZ				S	Sg	14 17 18.0	+0.3
TGRZ	Tauranga	0.41	274	P	Pg	14 17 13.1	+0.5
MKRZ	Makatiti	0.46	213	P	Pg	14 17 13.8	+0.4
KARZ	Kaharoa	0.50	238	P	Pg	14 17 14.4	+0.2
URZ	Urewera	0.56	153	Pg	Pg	14 17 14.9	-0.5
	218nm,0.3s,baz=335,slow=13,SNR=1294						
URZ				Lg		14 17 22.6	
	498nm,0.3s,baz=149,slow=19,SNR=31						
URZ	Urewera	0.56	153	P	Pg	14 17 14.2	-1.2
UTU	Utuhina	0.63	228	P	Pg	14 17 17.2	+0.6
MWZ	Matawai	0.82	135	P	Pg	14 17 19.5	-0.8
TOZ	Tahuroa Road	1.02	271	P	Pb	14 17 22.6	-1.2
PUZ	Puketiti	1.21	106	P	Pn	14 17 26.9	-0.1
MXZ	Matakaoa Point	1.22	81	P	Pn	14 17 26.8	-0.4
WATZ	Wairara	1.26	221	P	Pn	14 17 26.5	-1.2
RATZ	Rangitukua	1.36	215	P	Pn	14 17 29.5	+0.3
RITZ	Rihia Road	1.42	211	P	Pn	14 17 29.7	-0.2
BKZ	Black Stump Fm	1.43	189	P	Pn	14 17 28.5	-1.5
MKAZ	Moumakai	1.44	296	P	Pn	14 17 28.8	-1.4
KNZ	Kokohu	1.44	151	P	Pn	14 17 30.8	+0.6
OTAZ	Otara	1.69	298	P	Pn	14 17 33.0	-0.6
NGZ	Ngauruhoe	1.69	213	P	Pn	14 17 33.7	0.0
HIZ	Hauiti	1.70	243	P	Pn	14 17 32.8	-0.9
FWVZ	Far West T-bar	1.78	212	P	Pn	14 17 36.8	+1.9
MTAZ	Motutapu	1.78	302	P	Pn	14 17 34.3	-0.6
WNVZ	Wahianoa	1.82	210	eP	Pn	14 17 35.4	-0.1
MOVZ	Moawhango	1.83	206	P	Pn	14 17 35.3	-0.3
KAAZ	Kauri Point	1.90	299	P	Pn	14 17 36.2	-0.3
WTAZ	Waiatarua	1.94	294	P	Pn	14 17 36.5	-0.6
TSZ	Takapari Road	2.39	195	P	Pn	14 17 43.7	+0.5
RAEZ	Rainy Point	2.42	230	P	Pn	14 17 49.7	+6.1
WAZ	Wanganui	2.44	215	P	Pn	14 17 46.1	+2.2
NEZ	North Egmont	2.59	234	P	Pn	14 17 47.3	+1.3
WCZ	Waipu Caves	2.67	312	P	Pn	14 17 46.4	-0.7
MRZ	Mangatainoka R	3.05	198	P	Pn	14 17 51.7	-0.6
KIW	Kapiti Island	3.42	205	P	Pn	14 17 57.0	-0.5
OUZ	Omahuta	3.61	314	P	Pn	14 17 59.7	-0.3
SNZO	South Karori	3.89	204	ePn	Pn	14 18 06.7	+2.8
SNZO				eSn	Sn	14 19 01.8	+12
QRZ	Quartz Range	4.50	226	P	Pn	14 18 13.6	+1.3
THZ	Tophouse	4.99	216	P	Pn	14 18 18.2	-0.8
RPZ	Rata Peaks	7.37	214	Pn	Pn	14 18 49.8	-1.8
	0.2nm,0.3s,baz=315,slow=20,SNR=2.0						
RPZ				Sn	Sn	14 20 12.3	-2.9
	0.8nm,0.3s,baz=181,slow=17,SNR=3.3						
ASAR	Alice Springs	39.11	279	P	P	14 24 33.2	+1.6
	0.9nm,0.8s,mb3.6,baz=124,slow=8.2,SNR=12						
WRAB	Tennant Creek	40.80	284	eP	P	14 24 46.5	+0.9
	4.7nm,1.0s,mb4.1						
WRA	Warramunga Arr	40.80	284	P	P	14 24 46.4	+0.8
	2.4nm,0.8s,mb3.9,baz=124,slow=7.5,SNR=8.9						
FITZ	Fitzroy Crossi	48.60	279	P	P	14 25 48.9	+0.9
	1.1nm,0.7s,mb4.0,baz=135,slow=10.0,SNR=4.2						
VNA2	Neumayer--Watz	71.58	179	e	P	14 28 25.3	+0.5
	baz=168,slow=4.2						
TORD	Torodi Ar. Bea	155.10	191	PKPbc	PKPdf	14 37 09.3	+12
	0.3nm,0.6s,baz=178,slow=3.5,SNR=3.1						
TORD				PKPab	PKPab	14 37 21.5	-0.5
	0.7nm,0.7s,baz=173,slow=3.5,SNR=4.8						
TORD	Torodi Ar. Bea	155.10	191	PKPbc	PKPdf	14 37 09.3	+12
TORD				PKPab	PKPab	14 37 21.5	-0.6

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*ISCJB **02** 14:28:07.6±0.4, 51.°45N±0.°02×16.°10E±0.°02, h0^{km}, Error ellipse: s-maj=3.4km s-min=2.1km az=14.4*
*CSEM **02** 14:28:08.8±0.2, 51.°50N×16.°08E, h2^{km}, ML3.6/9, Error ellipse: s-maj=3.4km s-min=2.5km az=16.0*
*NEIC **02** 14:28:09.0±0.4, 51.°53N×16.°11E, h5^{km}, ML3.1(SZGRF), Error ellipse: s-maj=5.4km s-min=4.2km az=206.0*
*IDC **02** 14:28:09.9±0.9, 51.°48N×15.°93E, h0^{km}, mb3.3/1, mb1 3.6/7, mb1mx3.4/24, mbtmp3.4/7, ML3.0/6, Error ellipse: s-maj=12.6km s-min=8.7km az=108.0*
*IPEC **02** 14:28:09.3±0.4, 51.°50N×16.°59E, h0^{km}, ML2.7/4, Error ellipse: s-maj=3.4km s-min=2.1km az=88.0*
*BGR **02** 14:28:09.4±0.6, 51.°48N×16.°10E, h1^{km}, ML3.1, Error ellipse: s-maj=7.8km s-min=3.3km az=20.0*
*WAR **02** 14:28:10.3, 51.°48N×16.°11E, ML2.9, Mining Induced*
*VIE **02** 14:28:11.4±0.5, 51.°30N×16.°13E, h0^{km}, mb2.6/4, ML3.2/4, Error ellipse: s-maj=3.1km s-min=2.8km az=172.0 65 km WNW of Wroclaw Suspected Mining induced.*
*PRU **02** 14:28:11.2, 51.°41N×16.°06E, h0^{km}, Felt In Harrachov*
ISC 02 14:28:08.7±0.4**, 51.°50N**±0.°02×**16.°09E**±0.°02**, h0**^{km}**, n94, σ0ˢ.95**/158**, 4C-2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.67	169	iPg	Pg	14 28 22.2	+0.8
KSP				eSg	Sg	14 28 30.7	+0.6
KSP				eL		14 28 34.2	
KSP	Ksiaz	0.67	169	ePg	Pg	14 28 22.1	+0.6
KSP	Ksiaz	0.67	169	⇓iPg	Pg	14 28 22.2	+0.8
KSP				eSg	Sg	14 28 30.9	+0.8
KSP				e		14 28 34.2	
KSP	Ksiaz	0.67	169	Pg	Pg	14 28 22.1	+0.7
KSP				eSg	Sg	14 28 30.9	+0.8
UPC	Upice	0.99	183	ePG	Pg	14 28 28.2	+0.5
UPC	Upice	0.99	183	Pg	Pg	14 28 28.2	+0.5
DPC	Dobruska-Polom	1.16	173	ePg	Pg	14 28 30.9	+0.1
DPC				eSg	Sg	14 28 45.9	+0.1
DPC	Dobruska-Polom	1.16	173	ePG	Pg	14 28 31.0	+0.2
DPC				eSG	Sg	14 28 45.5	-0.3
	comp=Z,78nm,0.6s						
DPC	Dobruska-Polom	1.16	173	Pg	Pg	14 28 31.0	+0.2
DPC				Sg	Sg	14 28 45.9	+0.1
PVCC	Panska Ves	1.37	225	ePG	Pg	14 28 35.1	+0.3
PVCC				eSG	Sg	14 28 53.8	+1.3
	comp=Z,176nm,0.2s						
PVCC	Panska Ves	1.37	225	Pg	Pg	14 28 35.1	+0.3
PVCC				Sg	Sg	14 28 53.8	+1.3
	comp=Z,176nm,0.2s						
BRG	Berggiesshubel	1.49	246	PN	Pn	14 28 35.6	-1.1
BRG				PG	Pg	14 28 37.6	+0.4
BRG				SG	Sg	14 28 57.9	+1.4
	comp=Z,90nm,0.5s						
BRG	Berggiesshubel	1.49	246	Pn	Pn	14 28 35.6	-1.1
RUE	Ruedersdorf	1.74	305	ePn	Pn	14 28 38.5	-1.6
RUE	Ruedersdorf	1.74	305	ePn	Pn	14 28 38.5	-1.5
PRU	Pruhonice	1.80	214	ePN	Pn	14 28 40.8	-0.2
PRU				ePG	Pg	14 28 42.7	-0.5
PRU				eSG	Sg	14 29 05.5	-1.1
	comp=Z,55nm,0.5s						
PRU	Pruhonice	1.80	214	Pn	Pn	14 28 40.8	-0.2
FBE	Freiberg	1.82	253	ePg	Pg	14 28 43.0	-0.4
FBE				eSg	Sg	14 29 07.3	+0.3
FBE	Freiberg	1.82	253	Pg	Pg	14 28 43.0	-0.5
FBE				Sg	Sg	14 29 07.3	+0.3
CLL	Collm	1.94	266	ePn	Pn	14 28 42.5	-0.4
CLL				ePg	Pg	14 28 46.0	+0.1
CLL				eSg	Sg	14 29 11.0	-0.1
CLL	Collm	1.94	266	ePn	Pn	14 28 43.0	+0.1
CLL				ePg	Pg	14 28 46.0	+0.1
CLL				i		14 28 48.8	
CLL				e		14 29 01.0	
CLL				iSg	Sg	14 29 11.4	+0.3
	comp=Z,53nm,0.6s						
CLL	Collm	1.94	266	ePn	Pn	14 28 43.0	+0.1
CLL				ePg	Pg	14 28 46.0	+0.1
CLL				iSg	Sg	14 29 11.4	+0.3
CLL	Collm	1.94	266	ePn	Pn	14 28 43.0	+0.1
RAC	Raciborz	1.94	136	ePg	Pg	14 28 45.7	-0.2
RAC				eSg	Sg	14 29 11.3	+0.2
RAC	Raciborz	1.94	136	ePg	Pg	14 28 45.7	-0.2
RAC				eSg	Sg	14 29 11.3	+0.2
MORC	Moravsky Berou	1.95	151	ePn	Pn	14 28 42.4	-0.6
MORC	Moravsky Berou	1.95	151	ePn	Pn	14 28 42.0	-1.0
MORC				eSn	Sn	14 29 06.5	-1.8
MORC	Moravsky Berou	1.95	151	ePn	Pn	14 28 42.7	-0.3
	baz=341						
MORC				eSn	Sn	14 29 06.4	-1.8
OKC	Ostrava-Krasne	2.11	141	ePN	Pn	14 28 44.9	-0.3
OKC				ePG	Pg	14 28 48.6	-0.6
OKC				eSG	Sg	14 29 14.9	-1.7
OKC	Ostrava-Krasne	2.11	141	Pn	Pn	14 28 44.9	-0.3
VRAC	Vranov	2.21	171	Pn	Pn	14 28 47.9	+1.2
	comp=Z,2.1nm,0.3s,baz=337,slow=13,SNR=20						
VRAC				Lg		14 29 18.5	
	comp=Z,5.9nm,0.3s,baz=262,slow=18,SNR=12						
VRAC	Vranov	2.21	171	ePn	Pn	14 28 47.0	+0.4
VRAC				eSg	Sg	14 29 18.5	-1.3
	comp=Z,39nm,0.4s						
VRAC				Lg		14 29 18.5	
TREC	Trest	2.24	190	ePN	Pn	14 28 48.2	+1.2
TREC				ePG	Pg	14 28 50.9	-0.7
TREC	Trest	2.24	190	Pn	Pn	14 28 48.2	+1.2
KRUC	Moravsky	2.45	175	ePg	Pg	14 28 54.1	-1.4
	baz=2.9						
KRUC				eSg	Sg	14 29 26.5	-0.7
	comp=Z,30nm,0.5s,baz=2.9						
TANN	Tannenbergstha	2.54	246	ePn	Pn	14 28 51.2	+0.1
TANN				eSg	Sg	14 29 29.3	-0.9
TANN	Tannenbergstha	2.54	246	Pn	Pn	14 28 51.2	+0.1
TANN				Sg	Sg	14 29 29.3	-0.9
NKC	Novy Kostel	2.63	243	ePN	Pn	14 28 53.2	+0.8
NKC				ePG	Pg	14 28 59.5	+0.4
NKC				eSG	Sg	14 29 34.0	+0.8
	comp=Z,62nm,0.4s						
NKC	Novy Kostel	2.63	243	Pn	Pn	14 28 53.2	+0.8
OJC	Ojcow	2.67	117	ePg	Pg	14 29 00.1	+0.2
OJC				eSg	Sg	14 29 34.9	+0.4
OJC	Ojcow	2.67	117	ePg	Pg	14 29 00.1	+0.2
OJC				eSg	Sg	14 29 34.9	+0.4
JAVC	Velka Javorina	2.83	158	eSg	Sg	14 29 39.3	-0.2
	comp=Z,60nm,0.8s						
KHC	Kasperske Hory	2.87	215	ePN	Pn	14 28 55.5	-0.1
KHC				ePG	Pg	14 29 02.1	-1.5
KHC				eSN	Sn	14 29 30.9	+0.2
KHC				eSG	Sg	14 29 40.4	-0.3
	comp=Z,38nm,0.7s						
KHC	Kasperske Hory	2.87	215	Pn	Pn	14 28 55.5	-0.1
MANZ	Manzenberg	2.95	241	ePn	Pn	14 28 57.2	+0.5
MANZ	Manzenberg	2.95	241	Pn	Pn	14 28 57.2	+0.5
MOX	Moxa	2.95	255	ePN	Pn	14 28 58.0	+1.3
MOX				ePG	Pg	14 29 05.6	+0.4
MOX				eSG	Sg	14 29 45.2	+1.8
MOX	Moxa	2.95	255	ePn	Pn	14 28 56.8	0.0
MOX				⇑ePg	Pg	14 29 05.6	+0.4
MOX				eSg	Sg	14 29 42.4	-1.0
MOX	Moxa	2.95	255	ePn	Pn	14 28 58.0	+1.3
MOX				ePg	Pg	14 29 05.6	+0.4
MOX				eSg	Sg	14 29 45.2	+1.8
MOX	Moxa	2.95	255	Pn	Pn	14 28 56.8	+0.1
MOX	Moxa	2.95	255	Pg	Pg	14 29 05.6	+0.4
MOX				Sg	Sg	14 29 42.4	-1.0
ROTZ	Rotzenmuhle	3.02	237	ePn	Pn	14 28 58.3	+0.6
ROTZ	Rotzenmuhle	3.02	237	Pn	Pn	14 28 58.3	+0.6
GEC2	GERESS Array S	3.07	211	ePn	Pn	14 28 59.6	+1.2
GEC2	GERESS Array S	3.07	211	ePn	Pn	14 28 59.6	+1.3
GEC2	GERESS Array S	3.07	211	Pn	Pn	14 28 59.6	+1.3
GERES	GERESS Array B	3.07	211	Pn	Pn	14 28 58.3	-0.1
	comp=Z,1.7nm,0.3s,baz=31,slow=12,SNR=39						
GERES				Pg	Pg	14 29 05.2	-2.3
	comp=Z,4.0nm,0.3s,baz=26,slow=17,SNR=35						
GERES				Sn	Sn	14 29 30.8	-4.9
	comp=Z,2.1nm,0.3s,baz=32,slow=17,SNR=6.4						
GERES				Lg		14 29 44.8	
	comp=Z,3.8nm,0.3s,baz=30,slow=28,SNR=5.5						
GERES	GERESS Array B	3.07	211	Pn	Pn	14 28 58.3	0.0
WET	Wettzell	3.13	222	ePn	Pn	14 28 59.4	+0.2
WET	Wettzell	3.13	222	ePn	Pn	14 28 59.4	+0.2
WET	Wettzell	3.13	222	Pn	Pn	14 28 59.4	+0.2
MODS	Modra-Piesok	3.22	166	ePN	Pg	14 29 10.4	+0.1
MODS				eSN	Sn	14 29 45.6	+6.2
ZST	Bratislava	3.37	168	ePN	Pn	14 29 04.7	+2.2
ZST				eSG	Sg	14 29 56.9	+0.1
ZST	Bratislava	3.37	168	ePn	Pn	14 29 04.7	+2.2
ZST				eSg	Sg	14 29 56.9	+0.1
NIE	Niedzica	3.41	126	eP	Pg	14 29 12.4	-1.5
NIE				eS	Sg	14 29 59.0	+1.0
VYHS	Vyhne	3.49	148	ePN	Pn	14 29 09.2	+5.1
CONA	Conrad Observa	3.58	182	⇓iPn	Pn	14 29 06.1	+0.7
CONA				⇑iSg	Sg	14 30 02.9	-0.6
	comp=Z,26nm,0.4s						
CONA	Conrad Observa	3.58	182	Pn	Pn	14 29 06.1	+0.8
CONA				Sg	Sg	14 30 02.9	-0.6
	comp=Z,26nm,0.4s						
CLZ	Clausthal	3.58	278	ePn	Pn	14 29 06.8	+1.5
CLZ	Clausthal	3.58	278	ePn	Pn	14 29 06.8	+1.4
CLZ	Clausthal	3.58	278	Pn	Pn	14 29 06.8	+1.4
GRA1	Grafenberg Arr	3.59	242	Sg	Sg	14 30 02.4	-1.6
GRF	Grafenberg Arr	3.59	242	eSg	Sg	14 30 02.4	-1.6
BSD	Bornholm Skovb	3.69	349	iP	Pn	14 29 06.2	-0.7
BSD				iS	Sn	14 29 48.1	-3.0
BSD	Bornholm Skovb	3.69	349	iP	Pn	14 29 06.2	-0.7
BSD	Bornholm Skovb	3.69	349	iP	Pn	14 29 06.3	-0.6
	SNR=49						
BSD				iS	Sn	14 29 48.1	-3.0
BSD				iS	Sn	14 29 48.1	-3.0
	comp=Z,15nm,0.8s,SNR=49						
MOA	Molln	3.84	199	⇑iPn	Pn	14 29 09.5	+0.6
MOA				⇑iSg	Sg	14 30 12.2	+0.3
	comp=Z,24nm,0.4s						
MOA	Molln	3.84	199	Pn	Pn	14 29 09.5	+0.6
MOA				Sg	Sg	14 30 12.2	+0.2
	comp=Z,24nm,0.4s						
STHS	Stebnicka Huta	3.90	120	ePN	Pn	14 29 10.2	+0.5
STHS				ePG	Pg	14 29 23.8	+0.5
STHS				eSG	Sg	14 30 18.4	+4.7
STHS	Stebnicka Huta	3.90	120	ePn	Pn	14 29 10.3	+0.6
STHS				ePg	Pg	14 29 23.8	+0.5
STHS				eSg	Sg	14 30 18.4	+4.7
STHS	Stebnicka Huta	3.90	120	ePn	Pn	14 29 10.3	+0.6
CRVS	Cervenica-Dubn	4.32	125	ePN	Pn	14 29 16.3	+0.8
CRVS				ePG	Pg	14 29 34.2	+2.8
CRVS				e		14 30 17.8	
CRVS	Cervenica-Dubn	4.32	125	ePn	Pn	14 29 16.3	+0.8
KOLS	Kolonicke sedl	4.73	120	ePN	Pn	14 29 21.4	+0.3
KOLS				ePG	Pg	14 29 40.9	+1.7
KOLS	Kolonicke sedl	4.73	120	ePn	Pn	14 29 21.4	+0.3
COP	Copenhagen	4.73	334	eSg	Sn	14 30 10.8	-5.8
	SNR=90						
DAVOX	Davos/Dischmat	6.24	223	Pn	Pn	14 29 41.9	0.0
	comp=Z,0.3nm,0.3s,baz=3.4,slow=17,SNR=4.0						
DAVOX				Lg		14 31 25.4	
	comp=Z,0.4nm,0.3s,baz=347,slow=24,SNR=3.4						
DAVOX	Davos/Dischmat	6.24	223	Pn	Pn	14 29 41.9	0.0
AKASG	Malin Array Be	8.31	90	Pn	Pn	14 30 10.0	-0.3
	comp=Z,0.7nm,0.3s,baz=280,slow=12,SNR=4.0						

AKASG				Lg		14 32 38.1	
	comp=Z,0.3nm,0.3s,baz=271,slow=24,SNR=4.0						
AKASG	Malin Array Be	8.31	90	Pn	Pn	14 30 10.0	-0.3
HFS	Hagfors	8.76	352	Pn	Pn	14 30 15.0	-1.4
	comp=Z,0.1nm,0.3s,baz=173,slow=36,SNR=2.9						
HFS	Hagfors	8.76	352	Pn	Pn	14 30 15.0	-1.4
ARCES	ARCESS Array B	18.64	10	Pn	Pn	14 32 24.0	-3.7
	comp=Z,0.2nm,0.3s,baz=196,slow=13,SNR=7.4						
YKA	Yellowknife Ar	59.87	336	P	P	14 38 16.2	+0.8
	comp=Z,0.2nm,0.7s,baz=28,slow=6.9,SNR=4.1						

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*NEIC **02** 14:35:26.2±1.7, 3°.64S×141°.02E, h35km, mb4.0/2, Error ellipse: s-maj=39.3km s-min=14.8km az=94.0*

*ISCJB **02** 14:35:35.4±2.5, 4°.2S±0°.1×140°.5E±0°.1, h76km±30km, mb3.6/2, Error ellipse: s-maj=19.8km s-min=17.1km az=146.6*

*IDC **02** 14:35:40.4±4.8, 4°.10S×140°.98E, h176km±59km, mb3.4/3, mb1 3.7/4, mb1mx3.2/14, mbtmp3.5/4, Error ellipse: s-maj=64.6km s-min=17.7km az=110.0*

ISC 02 14:35:38.4±2.4, **4°.3S**±0°.1×**140°.4E**±0°.1, **h79**km±19km, **n11**, σ**1s.00**/18, **mb3.6**/2, **Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	Coen	9.98	165	eP	Pn	14 37 59.6	+0.6
COEN				eS	Sn	14 39 49.9	+0.5
KAKA	Kakadu	11.52	223	eP	Pn	14 38 20.4	+0.4
	17nm,0.4s						
KAKA				eS	Sn	14 40 27.6	+0.8
KAKA	Kakadu	11.52	223	ePn	Pn	14 38 20.4	+0.5
	48nm,0.5s						
KAKA				eSn	Sn	14 40 27.9	+1.1
WRAB	Tennant Creek	16.65	200	ePn	Pn	14 39 26.4	-0.5
	10nm,0.6s						
WB2	Warramunga Arr	16.66	200	ePn	Pn	14 39 27.4	+0.4
WB2				eSn	Sn	14 42 29.3	-2.3
WRA	Warramunga Arr	16.66	200	P	Pn	14 39 27.3	+0.2
	1.9nm,0.3s,baz=25,slow=12,SNR=24						
WRA				S	S	14 42 30.9	-7.4
	0.2nm,0.3s,baz=18,slow=22,SNR=3.5						
FITZ	Fitzroy Crossi	19.96	225	eP	Pn	14 40 04.2	-2.5
	2.5nm,0.4s						
FITZ				eS	S	14 43 45.7	+0.9
FITZ	Fitzroy Crossi	19.96	225	P	Pn	14 40 04.4	-2.3
	1.7nm,0.5s,baz=49,slow=12,SNR=16						
FITZ				S	S	14 43 46.0	+1.2
	3.7nm,0.7s,baz=199,slow=13,SNR=5.6						
ASAR	Alice Springs	20.28	198	P	P	14 40 07.8	0.0
	5.9nm,0.6s,baz=30,slow=10,SNR=110						
MBWA	Marble Bar	26.20	228	eP	P	14 41 05.9	0.0
	1.3nm,0.4s,mb3.7						
MKAR	Makanchi Array	72.08	322	P	P	14 46 46.0	-8.2
	0.4nm,0.6s,mb3.4,baz=101,slow=7.6,SNR=6.5						

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*CSEM **02** 14:37:41.8±0.1, 40°.07N×42°.28E, h12km, MD2.7, Error ellipse: s-maj=2.4km s-min=1.5km az=2.0*

*ISK **02** 14:37:42.3, 40°.06N×42°.35E, h15km, MD2.7*

*ISCJB **02** 14:37:43.1±0.8, 40°.09N±0°.06×42°.38E±0°.04, h10km, Error ellipse: s-maj=8.8km s-min=4.4km az=9.2*

*DDA **02** 14:37:43.9, 39°.89N×42°.33E, h7km±4km, Md2.7*

ISC 02 14:37:43.2±0.9, **40°.09N**±0°.06×**42°.38E**±0°.05, **h4**km±9km, **n12**, σ**0s.92**/19, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGRB	Hanur-Agry	0.70	138	ePG	Pg	14 37 56.5	-0.1
AGRB				eSG	Sg	14 38 06.1	+0.5
AGRB	Hanur-Agry	0.70	138	ePg	Pg	14 37 56.5	-0.1
AGRB				eSg	Sg	14 38 06.1	+0.5
KARS	Kars	0.75	46	ePG	Pg	14 37 58.1	+0.4
KARS	Kars	0.75	46	ePg	Pg	14 37 58.1	+0.5
EZM	Erzurum	0.81	257	ePG	Pg	14 37 57.9	-0.8
EZM				eSG	Sg	14 38 08.9	-0.3
DYDN	Diyadin	1.15	118	i P	Pg	14 38 06.0	+0.9
DYDN				i S	Sg	14 38 20.0	0.0
DYDN	Diyadin	1.15	118	i P	Pg	14 38 06.0	+0.8
DYDN				i S	Sg	14 38 20.0	0.0
KOPT	Kop Dagi	1.45	268	i P	Pn	14 38 10.6	+0.4
KOPT				i S	Sb	14 38 30.4	+0.9
KOPT	Kop Dagi	1.45	268	i P	Pn	14 38 10.6	+0.4
CLDR	Caldiran	1.52	128	ePN	Pn	14 38 08.6	-2.5
CLDR	Caldiran	1.52	128	ePn	Pn	14 38 08.6	-2.5
BEST	Besiri	2.36	202	eP	Pn	14 38 21.4	-1.3
BEST				i S	Sn	14 38 53.1	+1.0

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*IDC **02** 15:15:13.5±3.3, 4°.70S×152°.89E, h0km, mb3.6/6, mb1 3.8/6, mb1mx3.6/17, mbtmp3.6/6, Error ellipse: s-maj=98.5km s-min=28.2km az=109.0*

*NEIC **02** 15:15:20.0±1.7, 4°.69S×152°.59E, h35km, mb4.1/4, Error ellipse: s-maj=49.4km s-min=13.1km az=113.0*

ISC 02 15:15:21.1±2.7, **4°.6S**±0°.2×**152°.4E**±0°.5, **h35**km, **n14**, σ**0s.48**/11, **mb3.7**/9, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	21.31	247	eP	P	15 20 04.6	-0.5
	8.5nm,0.5s,mb4.3						
WRAB	Tennant Creek	23.26	228	eP	P	15 20 25.9	+0.1
	3.6nm,1.0s,mb3.8						
WB2	Warramunga Arr	23.27	228	eP	P	15 20 26.0	+0.1
WRA	Warramunga Arr	23.28	228	P	P	15 20 25.8	-0.2
	0.8nm,0.6s,mb3.4,baz=53,slow=9.8,SNR=14						
ASAR	Alice Springs	26.02	222	P	P	15 20 51.6	+0.5
	0.2nm,0.5s,mb3.0,baz=56,slow=9.1,SNR=8.5						
FITZ	Fitzroy Crossi	29.42	241	P	P	15 21 21.5	0.0
	0.7nm,0.4s,mb3.8,baz=31,slow=8.9,SNR=3.8						
FITZ	Fitzroy Crossi	29.42	241	eP	P	15 21 21.0	-0.6
	0.7nm,0.4s,mb3.7						
CMAR	Chiang Mai Arr	57.48	295	P	P	15 25 08.3	+1.2
	0.6nm,0.8s,mb3.6,baz=112,slow=4.7,SNR=4.9						
TLY	Talaya	69.75	330	eP	P	15 26 27.2	-0.3
	8.4nm,0.8s,mb4.7						
MKAR	Makanchi Array	79.96	319	P	P	15 27 26.5	-0.2
	0.1nm,0.5s,mb3.0,baz=109,slow=6.0,SNR=3.2						
ZALV	Zalesovo Beam	80.81	326	P	P	15 27 30.9	-0.3
	0.4nm,0.4s,mb3.7,baz=113,slow=5.7,SNR=2.8						
TKL	Tuckaleechee C	119.88	51	eP	Pdif	15 30 36.6	+5.6
TORD	Torodi Ar. Bea	149.91	288	PKPbc	PKPbc	15 35 07.3	-1.5
	0.6nm,0.8s,baz=77,slow=2.7,SNR=3.4						
TORD				PKPab	PKPab	15 35 13.6	-0.8
	0.8nm,0.5s,baz=77,slow=3.2,SNR=7.3						
TORD	Torodi Ar. Bea	149.91	288	PKPbc	PKPbc	15 35 07.2	-1.5
TORD				PKPab	PKPab	15 35 13.6	-0.8

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*ATH **02** 15:30:42.9, 40°.00N×25°.45E, h22km, MD2.9/3*

*ISCJB **02** 15:30:42.6±0.6, 40°.02N±0°.02×25°.46E±0°.03, h6km±4km, Error ellipse: s-maj=3.9km s-min=3.4km az=27.0*

*THE **02** 15:30:43.6, 40°.00N×25°.49E, h10km, ML3.1/6, Error ellipse: s-maj=0.8km s-min=0.4km az=97.0*

*CSEM **02** 15:30:43.1±0.2, 40°.02N×25°.46E, h10km, MD3.0, Error ellipse: s-maj=4.4km s-min=3.5km az=9.0*

*DDA **02** 15:30:44.7, 40°.02N×25°.59E, h24km, Md3.0*

*NEIC **02** 15:30:48.0, 40°.14N×26°.01E, h4km, MD2.9(ATH), MD3.0(ISK), After ISK.*

*ISK **02** 15:30:48.1, 40°.13N×26°.02E, h2km, MD3.0*

ISC 02 15:30:43.2±0.4, **40°.02N**±0°.02×**25°.47E**±0°.03, **h10**km±3km, **n52**, σ**1s.05**/77, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIA	Limnos Island	0.26	241	P	Pg	15 30 48.6	+0.2
LIA				S	Sg	15 30 52.7	+0.8
LIA	Limnos Island	0.26	241	ePB	Pg	15 30 48.7	+0.3
LIA				eSB	Sg	15 30 52.7	+0.8
LIA	Limnos Island	0.26	241	ePb	Pg	15 30 48.7	+0.3
LIA				eSb	Sg	15 30 52.7	+0.8
GADA	Gvkgeada	0.37	63	ePG	Pg	15 30 51.1	+0.6
GADA	Gvkgeada	0.37	63	ePg	Pg	15 30 51.1	+0.6
BOZC	Bozcaada	0.48	112	i P	Pg	15 30 53.0	+0.4
BOZC				i S	Sg	15 30 59.9	+0.9
EZN	Ezine	0.69	106	ePG	Pg	15 30 56.4	-0.1
EZN				eSG	Sg	15 31 03.2	-2.3
EZN	Ezine	0.69	106	ePg	Pg	15 30 56.4	-0.1
SIGR	SIGRI	0.86	160	P	Pg	15 30 59.5	-0.4
SIGR				S	Sg	15 31 11.7	+0.6
SIGR	SIGRI	0.86	160	P	Pg	15 30 59.5	-0.4
SIGR				S	Sg	15 31 11.7	+0.6
ENEZ	Enez	0.88	36	ePG	Pg	15 31 00.6	+0.4
ENEZ				eSG	Sg	15 31 10.5	-1.3
ENEZ	Enez	0.88	36	ePg	Pg	15 31 00.6	+0.4
ENEZ				eSg	Sg	15 31 10.5	-1.2
ALN	Alexandroupoli	0.98	26	P	Pg	15 31 02.2	+0.2
ALN				S	Sg	15 31 16.1	+1.3
ALN	Alexandroupoli	0.98	26	ePN	Pg	15 31 02.2	+0.2
ALN				eSN	Sn	15 31 15.8	-1.1
ALN	Alexandroupoli	0.98	26	ePn	Pg	15 31 02.2	+0.2
ALN				eSn	Sn	15 31 15.8	-1.1
PRK	Paraskevi	0.99	141	P	Pg	15 31 01.7	-0.6
PRK				S	Sg	15 31 15.6	+0.4
PRK	Paraskevi	0.99	141	ePN	Pn	15 31 02.2	-1.0
PRK				eSN	Sn	15 31 15.4	-1.9
PRK	Paraskevi	0.99	141	ePn	Pn	15 31 02.2	-1.0
PRK				eSn	Sn	15 31 15.4	-1.9
LPK	Lapseki	1.05	70	ePG	Pg	15 31 01.3	-2.1
LPK	Lapseki	1.05	70	ePg	Pg	15 31 01.3	-2.1
RDO	Rodhopi	1.12	3	ePN	Pn	15 31 04.9	-0.1
RDO				eSN	Sn	15 31 20.6	+0.1
RDO	Rodhopi	1.12	3	ePn	Pn	15 31 04.9	-0.1
RDO				eSn	Sn	15 31 20.6	+0.1
AYVA	Ayvalik	1.18	127	i P	Pb	15 31 05.7	0.0
AYVA				i S	Sb	15 31 21.5	+0.5
AYVA	Ayvalik	1.18	127	i P	Pb	15 31 05.7	0.0
AYVA				i S	Sb	15 31 21.5	+0.4
OUR	Ouranopolis	1.18	286	P	Pb	15 31 05.2	-0.6
OUR	Ouranopolis	1.18	286	P	Pb	15 31 05.2	-0.6
PAIG	Paliouri	1.38	267	P	Pn	15 31 07.7	-0.9
PAIG				S	Sb	15 31 27.3	+0.5
PAIG	Paliouri	1.38	267	P	Pn	15 31 07.7	-0.9
PAIG				S	Sb	15 31 27.3	+0.5
RKY	Sarkoy-Tekirda	1.46	62	ePG	Pg	15 31 08.4	-2.9
AOS	Alonnisos	1.50	236	P	Pn	15 31 09.6	-0.5
AOS	Alonnisos	1.50	236	P	Pn	15 31 09.6	-0.5
PLG	Polygyros	1.59	283	P	Pn	15 31 11.1	-0.4
PLG	Polygyros	1.59	283	ePN	Pn	15 31 11.2	-0.3
PLG	Polygyros	1.59	283	ePn	Pn	15 31 11.2	-0.3
CHOS	Chios island	1.69	164	P	Pn	15 31 11.7	-1.2
CHOS				S	Sn	15 31 34.3	-0.3
CHOS	Chios island	1.69	164	ePN	Pn	15 31 12.7	-0.2
CHOS	Chios island	1.69	164	ePn	Pn	15 31 12.7	-0.2
CHOS				S	Sn	15 31 34.3	-0.3
SRS	Serrai	1.80	308	P	Pn	15 31 14.0	-0.3
SRS	Serrai	1.80	308	P	Pn	15 31 14.0	-0.3
SOH	Sokhos	1.80	297	P	Pn	15 31 14.2	-0.2
SOH	Sokhos	1.80	297	P	Pn	15 31 14.2	-0.2
HORT	Hortiatis	1.90	288	P	Pn	15 31 15.7	0.0
HORT	Hortiatis	1.90	288	P	Pn	15 31 15.7	0.0
BNT	Bandirma	1.91	79	ePN	Pn	15 31 16.4	+0.7
EDRB	Edirne	2.06	27	ePN	Pn	15 31 20.9	+3.0
KNT	Kendrikon	2.27	301	P	Pn	15 31 21.2	+0.5
KNT	Kendrikon	2.27	301	P	Pn	15 31 21.2	+0.5
DURS	Dursunbey	2.35	99	i P	Pn	15 31 24.3	+2.4
DURS				i S	Sn	15 31 52.6	+1.8
DURS	Dursunbey	2.35	99	i P	Pn	15 31 24.3	+2.4
DURS				i S	Sn	15 31 52.6	+1.8
KULA	Kula-Manisa	2.90	120	ePN	Pn	15 31 32.8	+3.4
YLV	Yalova	3.03	78	ePN	Pn	15 31 32.6	+1.4
YLV	Yalova	3.03	78	ePn	Pn	15 31 32.7	+1.4

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*ISCJB **02** 15:38:17.6±0.5, 40°.50N±0°.04×42°.40E±0°.03, h10km, Error ellipse: s-maj=5.4km s-min=3.6km az=174.7*

*CSEM **02** 15:38:17.7±0.3, 40°.41N×42°.45E, h0km±3km, MD3.3, Error ellipse: s-maj=5.2km s-min=3.8km az=15.0*

*ISK **02** 15:38:17.0, 40°.42N×42°.45E, h2km, MD3.3*

*DDA **02** 15:38:21.1, 39°.97N×42°.40E, h14km±2km, Md3.2*

ISC 02 15:38:18.3±0.6, **40°.45N**±0°.04×**42°.44E**±0°.03, **h4**km±7km, **n24**, σ**0s.99**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARS	Kars	0.53	72	ePG	Pg	15 38 28.0	-0.4
KARS				eSG	Sg	15 38 36.3	+1.0
KARS	Kars	0.53	72	ePg	Pg	15 38 28.0	-0.5
KARS				eSg	Sg	15 38 36.3	+1.0
AGRB	Hanur-Agry	0.97	154	ePG	Pg	15 38 35.9	-1.0
AGRB	Hanur-Agry	0.97	154	ePg	Pg	15 38 35.9	-1.0
EZM	Erzurum	0.98	237	ePG	Pg	15 38 36.7	-0.5
DYDN	Diyadin	1.32	133	i P	Pn	15 38 41.7	-1.8
DYDN				i S	Sg	15 39 01.3	+0.6
DYDN	Diyadin	1.32	133	i P	Pn	15 38 41.7	-1.8
DYDN				i S	Sg	15 39 01.3	+0.6
PZAR	Pazar-Rize	1.38	303	ePN	Pn	15 38 44.0	-0.2
PZAR	Pazar-Rize	1.38	303	ePn	Pn	15 38 44.1	-0.2
KOPT	Kop Dagi	1.54	255	i P	Pg	15 38 48.7	+0.8
KOPT				i S	Sg	15 39 09.4	+1.5
KOPT	Kop Dagi	1.54	255	i P	Pg	15 38 48.7	+0.8
KOPT				i S	Sg	15 39 09.4	+1.5
CLDR	Caldiran	1.73	138	ePN	Pn	15 38 48.6	-0.6
CLDR	Caldiran	1.73	138	ePn	Pn	15 38 48.6	-0.6
GNI	Garni	1.79	99	ePN	Pn	15 38 50.2	+0.2
GNI	Garni	1.79	99	ePn	Pn	15 38 50.2	+0.2
MACK	Trabzon	2.09	285	i P	Pg	15 38 57.5	-0.8
MACK				i S	Sg	15 39 23.9	-1.5
MACK	Trabzon	2.09	285	i P	Pg	15 38 57.5	-0.8
MACK				i S	Sg	15 39 23.9	-1.5
EZC	Erzincan	2.13	252	ePN	Pg	15 38 59.4	+0.3
GUMT	Gumushane	2.25	271	ePN	Pn	15 38 56.6	+0.2
GUMT	Gumushane	2.25	271	ePn	Pn	15 38 56.6	+0.2
ONI	Oni	2.26	19	P	Pg	15 39 00.3	-1.4
ONI				S	Sg	15 39 32.3	+1.3
BEST	Besiri	2.71	200	i P	Pn	15 39 04.3	+1.7
BEST				i S	Sn	15 39 30.7	-5.1
ESPY	Espiye-Giresun	2.86	281	ePN	Pn	15 39 05.2	+0.5
ESPY	Espiye-Giresun	2.86	281	ePn	Pn	15 39 05.2	+0.5

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*MEX **02** 15:42:44.9±0.7, 14°.27N×94°.15W, h16km±20km, MD4.9*

*NEIC **02** 15:42:44.9, 14°.27N×94°.15W, h16km, mb5.0/75, MD4.9(MEX), After MEX.*

*BJI **02** 15:42:45.9, 14°.30N×94°.10W, h16km, mB5.6/4, Ms5.0/3, Ms7 4.6/5*

*MOS **02** 15:42:46.8±1.1, 14°.46N×93°.86W, h33km, mb5.1/36, Error ellipse: s-maj=11.4km s-min=5.9km az=99.6*

*ISCJB **02** 15:42:47.9±0.6, 14°.48N±0°.03×93°.78W±0°.03, h38km±4km, mb4.8/89, MS4.2/23, Error ellipse: s-maj=6.5km s-min=3.2km az=40.0*

*IDC **02** 15:42:48.8±2.1, 14°.56N×93°.85W, h41km±19km, mb4.1/22, mb1 4.3/27, mb1mx4.2/31, mbtmp4.2/27, ML4.5/5, MS4.2/21, Ms1 4.2/21, ms1mx4.0/32, Error ellipse: s-maj=18.5km s-min=10.2km az=62.0*

ISC 02 15:42:50.8±0.5, **14°.57N**±0°.03×**93°.68W**±0°.03, **h44**km±4km, **n494**, σ**0s.85**/487, **mb4.8**/88, **MS4.2**/23, **112C-119D**, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		1.21	22	i P	Pn	15 43 09.7	-1.7
PCIG				i S	Sn	15 43 29.5	+2.9
TGIG		2.26	14	i P	Pn	15 43 25.3	-0.4
TGIG				i S	Sn	15 43 56.1	+3.8
CCIG	Comitan	2.26	41	i P	Pn	15 43 26.5	+0.7
CCIG				i S	Sn	15 43 59.3	+6.9
SCX	San Cristobal	2.38	25	i P	Pn	15 43 28.0	+0.7
SCX				i S	Sn	15 44 00.0	+4.8
HUIG	Huatulco	2.63	297	i P	Pn	15 43 21.0	-10
HUIG				i S	Sn	15 43 47.5	-14
CMIG	Matias Romero	2.76	335	i P	Pn	15 43 28.1	-4.4
CMIG				i S	Sn	15 44 01.9	-2.8
CMIG	Matias Romero	2.76	335	P	Pn	15 43 28.1	-4.4
	25nm,0.3s,baz=152,slow=11,SNR=298						
CMIG				S	Sn	15 43 57.4	-7.3
	64nm,0.3s,baz=107,slow=19,SNR=21						
CMIG				LR	LR	15 44 10.7	
	comp=Z,1µm,21.7s,baz=171,slow=30						
CMIG	Matias Romero	2.76	335	P	Pn	15 43 28.1	-4.4
CMIG				S	Sn	15 43 57.4	-7.3
CMIG				i S	Sn	15 44 01.9	-2.8
CMIG				LR	LR	15 44 10.7	
TUIG	Tuzandepetl	3.52	348	eP	Pn	15 43 40.0	-2.9
TUIG				i S	Sn	15 44 22.2	-1.1
VHO	Vista Hermosa	3.85	311	i P	Pn	15 43 39.2	-8.3
VHO				i S	Sn	15 44 22.3	-9.1
RBDL	Robledal	3.90	96	eP	Pn	15 43 48.6	+0.3
RTR	El Retiro	3.97	99	eP	Pn	15 43 49.2	-0.1
SNJE	San Jose	4.02	100	eP	Pn	15 43 49.2	-0.6
BOQS	Boqueron	4.35	100	eP	Pn	15 43 55.0	+0.5
LFRS	El Faro	4.58	101	eP	Pn	15 43 58.1	+0.5
PNIG	Pinotepa	4.65	293	eP	Pn	15 43 49.2	-9.3
PNIG				i S	Sn	15 44 35.9	-15
SNVI	San Vicente	4.80	101	eP	Pn	15 44 00.7	+0.2
SCIG	Sabancuy	4.98	28	i P	Pn	15 44 03.5	+0.4
SCIG				i S	Sn	15 45 05.9	+6.4
UTMO	Huajuapan	5.11	310	eP	Pn	15 43 57.0	-7.9
UTMO				i S	Sn	15 44 54.7	-8.0
TPIG	Tehuac#an	5.20	318	eP	Pn	15 44 00.9	-5.3
TPIG				i S	Sn	15 44 59.2	-5.7
CAHU	Cacacuatique	5.37	98	eP	Pn	15 44 06.3	-2.1
LVIG	Laguna Verde	5.75	333	eP	Pn	15 44 08.9	-4.7
LVIG				i S	Sn	15 45 14.1	-4.3
CNCH	Conchagua	5.83	102	eP	Pn	15 44 13.7	-1.0
TGUH	Tegucigalpa,Un	6.24	94	ePn	Pn	15 44 29.2	+8.9
PPM	Popocatepetl	6.51	314	eP	Pn	15 44 17.1	-6.9
PPM				i S	Sn	15 45 28.8	-8.2
MEIG	Mezcala	6.60	301	eP	Pn	15 44 16.9	-8.5
MEIG				i S	Sn	15 45 27.3	-12
PLIG	Platanillo	6.75	305	eP	Pn	15 44 19.2	-8.2
PLIG				i S	Sn	15 45 38.4	-4.6
CAIG	El Cayaco	6.80	292	i P	Pn	15 44 18.4	-10
CAIG				i S	Sn	15 45 31.3	-13
IIO	Organos	6.94	317	eP	Pn	15 44 28.8	-1.2
IIO				i S	Sn	15 45 48.5	+0.9
MZVM		7.02	312	eP	Pn	15 44 30.0	-1.0
MZVM				i S	Sn	15 45 39.9	-10
PTVM	Pico Tres Padr	7.20	315	eP	Pn	15 44 26.5	-7.1
PTVM				i S	Sn	15 45 46.1	-8.0
TEIG	Tepich	7.63	42	i P	Pn	15 44 41.4	+1.9
TEIG				i S	Sn	15 46 07.8	+3.1
TEIG	Tepich	7.63	42	P	Pn	15 44 38.7	-0.8
	22nm,0.3s,baz=234,slow=2.0,SNR=67						
TEIG				S	Sn	15 46 02.3	-2.4
	5.7nm,0.3s,baz=184,slow=23,SNR=3.0						
TEIG				LR	LR	15 48 01.6	
	comp=Z,4µm,19.6s,baz=17,slow=40						
TEIG	Tepich	7.63	42	ePn	Pn	15 44 39.5	+0.1
MOIG	Morelia	8.79	306	eP	Pn	15 44 53.6	-1.7
JTS	JuntasAbangare	9.53	116	P	Pn	15 45 06.6	+1.1
	2.2nm,0.3s,baz=295,slow=19,SNR=5.1						
JTS	JuntasAbangare	9.53	116	P	Pn	15 45 06.6	+1.1
LCR2	La Lucha 2	10.61	116	eP	Pn	15 45 23.0	+2.7
URSC	Urasca	10.77	115	eP	Pn	15 45 22.9	+0.5
BUS	Buena Vista	10.91	116	eP	Pn	15 45 26.9	+2.4
BAR1		11.45	116	eP	Pn	15 45 33.1	+1.3
ZAIG	Zacatecas	11.71	315	eP	Pn	15 45 32.2	-3.2
CJM	Chamela	11.91	296	eP	Pn	15 45 34.7	-3.5
MGV	Manicaragua	15.01	58	eP	Pn	15 46 15.3	-4.8
PAYG	Puerto Ayora	15.52	167	ePn	Pn	15 46 26.6	-0.1
	91nm,1.4s						
JCT	Junction City	16.80	341	eP	Pn	15 46 43.5	+0.6
JCT				pmax	pmax		
	comp=Z,89nm,1.3s						
JCT	Junction City	16.80	341	eP	Pn	15 46 43.5	+0.6
	comp=Z,89nm,1.3s						
TXAR	Lajitas Array	17.35	329	P	Pn	15 46 48.1	-1.6
	comp=Z,0.1nm,0.3s,baz=153,slow=11,SNR=24						
LPIG	La Paz	18.31	304	P	Pn	15 46 59.2	-2.4
	comp=Z,14nm,0.3s,baz=157,slow=5.4,SNR=3.6						
LPIG				LR	LR	15 54 18.1	
	comp=Z,1µm,18.5s,baz=118,slow=38						
LRAL	Lakeview Retre	19.36	17	ePn	Pn	15 47 09.4	-4.8
	comp=Z,70nm,1.5s						
MIAR	Mount Ida	19.89	0	eP	Pn	15 47 16.3	-4.1
MIAR				pmax	pmax		
	comp=Z,40nm,1.1s						
MIAR	Mount Ida	19.89	0	ePn	Pn	15 47 16.3	-4.1
	comp=Z,40nm,1.1s						
GDL2	Guadalupe Moun	20.07	333	ePn	P	15 47 19.9	-0.7
WMOK	Wichita Mounta	20.60	348	eP	P	15 47 24.9	-1.3
WMOK				pmax	pmax		
	comp=Z,20nm,1.0s						
WMOK	Wichita Mounta	20.60	348	ePn	P	15 47 24.9	-1.3
	comp=Z,20nm,1.0s						
OTAV	Otavalo	20.73	132	eP	P	15 47 28.8	+1.0
	comp=Z,24nm,1.2s						
GOGA	Godfrey	20.92	25	eP	P	15 47 22.2	-7.5
GOGA				pmax	pmax		
	comp=Z,32nm,1.1s						
GOGA	Godfrey	20.92	25	ePn	P	15 47 22.1	-7.6
	comp=Z,32nm,1.1s						
ROSC	El Rosal	21.36	115	P	P	15 47 35.6	+1.0
	comp=Z,12nm,0.4s,mb4.5,baz=153,slow=17,SNR=17						
ROSC	El Rosal	21.36	115	eP	P	15 47 38.9	+4.3
AMTX	Amarillo	21.47	342	eP	P	15 47 34.2	-1.4
	comp=Z,110nm,1.1s,mb5.1						
SWET	Sewanee	21.71	17	eP	P	15 47 36.7	-1.4
122A	Conniff Cattle	21.74	328	⇓P	P	15 47 39.0	+0.4
	baz=22						
SDDR	Presa de Saban	21.88	75	eP	P	15 47 46.5	+6.4
	comp=Z,50nm,1.3s,mb4.8						
319A	Douglas	22.00	322	⇓P	P	15 47 41.3	0.0
	baz=22,SNR=5.8						
WVT	Waverly	22.10	13	eP	P	15 47 41.5	-0.8
WVT				pmax	pmax		
	comp=Z,39nm,1.4s,mb4.6						
WVT	Waverly	22.10	13	ePn	P	15 47 41.5	-0.8
	comp=Z,39nm,1.4s,mb4.7						
219A	White Tail Can	22.44	323	⇑P	P	15 47 45.9	0.0
	baz=22						
318A	Bisbee	22.47	321	⇑P	P	15 47 46.3	+0.1
	baz=22,SNR=18						
TKL	Tuckaleechee C	22.80	21	P	P	15 47 47.7	-2.1
	comp=Z,1.9nm,0.7s,baz=116,slow=12,SNR=3.0						
TKL				LR	LR	15 58 59.3	
	comp=Z,483nm,18.2s,MS4.0,baz=116,slow=42						
TKL	Tuckaleechee C	22.80	21	eP	P	15 47 49.7	-0.1
LPM	Los Pinos Moun	22.87	332	eP	P	15 47 50.7	+0.2
218A	Dragoon	22.88	322	⇓P	P	15 47 50.4	-0.2
	baz=23						
LENM	Lemitar	22.91	331	eP	P	15 47 50.5	-0.4
LHS	Liberty Hill	22.98	28	eP	P	15 47 49.5	-2.1
119A	Ashpeak Ranch,	23.03	325	⇓P	P	15 47 52.4	+0.3
	baz=23,SNR=5.8						
217A	Green Valley	23.21	320	⇓P	P	15 47 54.5	+0.5
	baz=23,SNR=14						
X22A	Bernardo	23.21	331	⇓P	P	15 47 53.5	-0.5
	baz=23						
SDV	Santo Domingo	23.26	102	P	P	15 47 55.8	+1.0
	comp=Z,8.6nm,0.7s,mb4.3,baz=319,slow=6.9,SNR=12						
118A	Homack Ranch,	23.31	323	⇓P	P	15 47 54.7	-0.4
	baz=23						
ANMO	Albuquerque	23.33	333	eP	P	15 47 54.4	-0.9
ANMO				pmax	pmax		
	comp=Z,11nm,1.0s						
ANMO	Albuquerque	23.33	333	P	P	15 47 53.2	-2.0
	comp=Z,1.6nm,0.6s,mb3.7,baz=151,slow=17,SNR=6.7						
ANMO				LR	LR	15 58 44.7	
	comp=Z,290nm,18.1s,MS3.8,baz=30,slow=41						
ANMO	Albuquerque	23.33	333	eP	P	15 47 54.4	-0.9
	comp=Z,11nm,1.0s,mb4.2						
CCM	Cathedral Cave	23.49	5	eP	P	15 47 54.5	-2.2
CCM				pmax	pmax		
	comp=Z,193nm,2.4s,mb5.1						
CCM	Cathedral Cave	23.49	5	eP	P	15 47 54.5	-2.2
	comp=Z,193nm,2.4s,mb5.1						
TUC	Tucson	23.56	321	eP	P	15 47 57.0	-0.4
TUC				pmax	pmax		
	comp=Z,174nm,2.2s,mb5.1						
TUC	Tucson	23.56	321	eP	P	15 47 57.0	-0.4
	comp=Z,174nm,2.2s,mb5.1						
Z18A	Geronimo	23.68	324	⇓P	P	15 47 58.9	+0.5
	baz=24						
TZTN	Tazewell	23.68	21	eP	P	15 47 57.2	-1.3
	comp=Z,47nm,1.5s,mb4.7						
117A	Oracle	23.72	322	⇑P	P	15 47 59.0	+0.1
	baz=24,SNR=10						
216A	Three Points,	23.76	320	⇓P	P	15 47 59.4	+0.1
	baz=24						
Y19A	Nutrioso	23.90	327	⇑P	P	15 48 01.4	+0.9
	baz=24,SNR=5.1						
W21A	San Fidel	24.01	331	⇑P	P	15 48 01.5	0.0
	baz=24						
W20A	Ramah	24.43	330	⇓P	P	15 48 05.1	-0.2
	baz=24						
WCI	Wyandotte Cave	24.46	14	eP	P	15 48 05.1	-0.4
WCI				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.7						
WCI	Wyandotte Cave	24.46	14	eP	P	15 48 05.1	-0.4
	comp=Z,28nm,0.9s,mb4.7						
Y17A	Roosevelt	24.58	324	⇑P	P	15 48 07.6	+0.9
	baz=24,SNR=5.1						
214A	Organ Pipe Nat	24.59	318	⇑P	P	15 48 06.9	0.0

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      baz=24
Z16A  Peralta Trail,    24.67 322 ⇑P      P      15 48 07.4 -0.1
      baz=24
X18A  Snowflake         24.71 326 ⇑P      P      15 48 07.8  0.0
      baz=25
115A  Sonoran Desert    24.71 320 ⇑P      P      15 48 08.4 +0.5
      baz=25
CBKS  Cedar Bluff       24.73 349 eP      P      15 48 06.7 -1.3
CBKS                               pmax   pmax
      comp=Z,69nm,1.3s,mb5.0
CBKS  Cedar Bluff       24.73 349 eP      P      15 48 06.7 -1.3
      comp=Z,69nm,1.3s,mb5.0
X17A  Forest Lakes      25.03 325 ⇑P      P      15 48 11.2 +0.4
      baz=25
Y16A  Circle Bar Ran    25.08 323 ⇓P      P      15 48 11.9 +0.6
      baz=25,SNR=11
V19A  Window Rock       25.16 330 ⇓P      P      15 48 12.1 +0.1
      baz=25
SDCO  Great Sand Dun    25.35 338 eP      P      15 48 13.8 +0.1
      comp=Z,18nm,1.2s,mb4.5
X16A  Lo Mia Camp, P    25.45 324 ⇓P      P      15 48 14.8 +0.2
      baz=25
Z14A  Wintersburg       25.60 320 ⇓P      P      15 48 16.7 +0.6
      baz=26
V18A  Ganado            25.61 328 ⇑P      P      15 48 16.0  0.0
      baz=26
Y15A  Casa Rosa Ranc    25.64 322 ⇑P      P      15 48 16.8 +0.5
      baz=26
113A  Mohawk Valley,    25.73 318 ⇓P      P      15 48 17.9 +0.7
      baz=26
X15A  Humboldt          25.95 323 ⇓P      P      15 48 19.3 +0.1
      baz=26
W16A  Flagstaff         25.99 325 ⇑P      P      15 48 19.4 -0.1
      baz=26
Y14A  Wickenburg        26.03 321 ⇓P      P      15 48 19.6 -0.2
      baz=26
T19A  Beclabito         26.05 331 ⇑P      P      15 48 20.2 +0.2
      baz=26
MVCO  Mesa Verde        26.12 332 ⇑P      P      15 48 21.1 +0.4
      baz=26
MVCO  Mesa Verde        26.12 332 eP      P      15 48 21.2 +0.6
      comp=Z,34nm,1.2s,mb4.8
U18A  Rough Rock, Ch    26.13 329 ⇑P      P      15 48 20.2 -0.5
      baz=26
S21A  Coal Bank Pass    26.19 334 ⇑P      P      15 48 21.4 +0.2
      baz=26,SNR=6.6
WUAZ  Wupatki           26.22 326 ⇑P      P      15 48 21.7 +0.1
      baz=26
WUAZ  Wupatki           26.22 326 eP      P      15 48 21.4 -0.1
      comp=Z,29nm,1.0s,mb4.8
ATAH  Atahualpa         26.25 144  P      P      15 48 24.4 +2.4
      comp=Z,21nm,1.1s,mb4.6,baz=330,slow=6.3,SNR=10
ATAH                               LR     LR     15 56 56.6
      comp=Z,372nm,18.5s,MS4.0,baz=314,slow=32
X14A  Yava              26.33 322 ⇓P      P      15 48 22.7 +0.1
      baz=26
W15A  Williams          26.46 324 ⇑P      P      15 48 24.0 +0.3
      baz=26
U16A  Tuba City         26.56 327 ⇓P      P      15 48 24.7 +0.1
      baz=26
GLA   Glamis            26.60 317 ⇑P      P      15 48 25.7 +0.7
      baz=26
U17A  Shonto            26.67 328 ⇑P      P      15 48 26.6 +1.0
      baz=26
R21A  Cimarron          26.69 335 ⇑P      P      15 48 25.6 -0.2
      baz=27
T18A  Mexican Hat       26.70 330 ⇓P      P      15 48 26.1 +0.2
      baz=27
S19A  Harvey Farm, M    26.85 332 ⇓P      P      15 48 27.5 +0.3
      baz=27
Y12C  Blythe            26.85 319 ⇓P      P      15 48 27.7 +0.4
      baz=27
V15A  Kaibab Nationa    26.88 325 ⇓P      P      15 48 27.6 +0.1
      baz=27
R20A  Redvale           26.88 334 ⇑P      P      15 48 28.1 +0.6
      baz=27
W14A  Seligman          26.96 323 ⇑P      P      15 48 28.4 +0.1
      baz=27
PDMCI Parker Dam,Lak    26.97 320 ⇑P      P      15 48 28.2 -0.2
      baz=27
X13A  Yucca             26.98 321 ⇑P      P      15 48 28.3 -0.1
      baz=27,SNR=5.2
T17A  Navajo Res., N    27.05 329 ⇑P      P      15 48 29.1 +0.1
      baz=27
SWSC  Sam W. Stewart    27.18 316 ⇑P      P      15 48 30.5 +0.3
      baz=27
S18A  Hurst Farm, Bl    27.20 331 ⇓P      P      15 48 30.6 +0.2
      baz=27
ISCO  Idaho Springs     27.22 340 eP      P      15 48 30.9 +0.3
ISCO                               pmax   pmax
      comp=Z,14nm,0.9s,mb4.5
ISCO  Idaho Springs     27.22 340 eP      P      15 48 30.9 +0.3
      comp=Z,14nm,0.9s,mb4.5
SCIA  State Center      27.24   1 eP      P      15 48 28.8 -1.9
      comp=Z,38nm,0.6s,mb5.1
V14A  Boquillas Ranc    27.27 324 ⇑P      P      15 48 31.3 +0.3
      baz=27,SNR=7.2
PV04  Paradox Valley    27.28 333 eP      P      15 48 31.4 +0.3
R19A  Curley Farm, L    27.35 333 ⇓P      P      15 48 31.6 -0.2
      baz=27
W13A  Hualapai Mount    27.35 322 ⇓P      P      15 48 32.7 +0.9
      baz=27
BC3   Big Chuckw Mtn    27.39 318 ⇑P      P      15 48 32.2 +0.1
      baz=27,SNR=6.5
IRM   Iron Mountain     27.51 319 ⇓P      P      15 48 33.3 +0.1
      baz=27
S17A  Black Ridge (B    27.55 330 ⇓P      P      15 48 33.5  0.0
      baz=27
P21A  Newcastle         27.64 337 ⇓P      P      15 48 35.1 +0.8
      baz=28
R18A  Canyonlands Na    27.72 332 ⇓P      P      15 48 36.2 +1.2
      baz=28
U14A  Mt Trumbull       27.87 325 ⇓P      P      15 48 36.6 +0.1
      baz=28
T15A  Red Dirt Ranch    27.88 327 ⇑P      P      15 48 36.8 +0.4
      baz=28
V13A  Grand Canyon W    27.93 323 ⇓P      P      15 48 37.0  0.0
      baz=28,SNR=8.0
BELC  Belle Mtn.        27.96 318 ⇓P      P      15 48 37.6 +0.4
      baz=28
P20A  De Beque          27.99 335 ⇑P      P      15 48 37.9 +0.5
      baz=28
S16A  Weppner Ranch,    28.01 329 ⇑P      P      15 48 38.1 +0.5
      baz=28
LDFC  Landfair          28.08 320 eP      P      15 48 37.7 -0.6
R17A  Hanksville Air    28.12 331 ⇓P      P      15 48 39.2 +0.6
      baz=28
GMRC  Granite Mounta    28.23 319 ⇑P      P      15 48 39.8 +0.2
      baz=28
T14A  Hurricane         28.29 326 ⇓P      P      15 48 40.9 +0.8
      baz=28
U13A  Pakoon Wash       28.31 324 ⇓P      P      15 48 40.6 +0.3
      baz=28,SNR=7.4
P19A  Cripple Cowboy    28.35 335 ⇑P      P      15 48 40.7 +0.1
      baz=28
V12A  Nelson            28.36 322 ⇓P      P      15 48 40.8 +0.1
      baz=28,SNR=7.1
R16A  Teasdale          28.39 330 ⇓P      P      15 48 42.0 +1.0
      baz=28
N22A  Wattenberg Ran    28.41 339 ⇓P      P      15 48 41.9 +0.8
      baz=28
Q18A  Rafter H Ranch    28.41 332 ⇑P      P      15 48 41.9 +0.7
      baz=28
PHWY  Pilot Hill        28.53 341 eP      P      15 48 41.5 -0.7
      comp=Z,24nm,1.5s,mb4.7
SRU   San Rafael        28.59 332 eP      P      15 48 43.3 +0.5
SRU                                pmax   pmax
      comp=Z,77nm,2.5s,mb5.0
SRU   San Rafael        28.59 332 ⇓P      P      15 48 43.0 +0.2
      baz=28
SRU   San Rafael        28.59 332 eP      P      15 48 43.3 +0.6
      comp=Z,77nm,2.5s,mb5.0
U12A  Valley of Fire    28.66 323 ⇑P      P      15 48 43.9 +0.5
      baz=28
HEC   Hector,Ludlow     28.69 319 ⇑P      P      15 48 44.2 +0.5
      baz=29
PCRV  Puerto La Cruz    28.69  95  LR     LR     16 02 10.0
      comp=Z,556nm,18.4s,MS4.2,baz=112,slow=40
T13A  Saint George      28.71 325 ⇓P      P      15 48 44.3 +0.4
      baz=29
Q16A  Castle Valley     28.74 331 ⇑P      P      15 48 44.6 +0.5
      baz=29
V11A  Goodsprings       28.78 321 ⇑P      P      15 48 44.6 +0.1
      baz=29
TUQ   Turquoise Moun    28.82 320 ⇑P      P      15 48 45.3 +0.4
      baz=29
S14A  Cedar City        28.85 327 ⇑P      P      15 48 45.8 +0.8
      baz=29
P18A  Preston Nutter    28.89 333 ⇑P      P      15 48 45.8 +0.4
      baz=29
MSU   Marysvale         28.91 329 eP      P      15 48 43.2 -2.4
T12A  Moapa             28.96 323 ⇓P      P      15 48 46.5 +0.4
      baz=29
O19A  Miners Draw (B    28.97 335 ⇑P      P      15 48 46.5 +0.4
      baz=29
P17A  Butcher Ranch,    28.98 332 ⇑P      P      15 48 46.6 +0.4
      baz=29
M22A  Cedar Creek Ra    28.99 340 ⇑P      P      15 48 46.6 +0.3
      baz=29
TMUT  Trail Mountain    29.05 331 eP      P      15 48 45.2 -1.7
      comp=Z,140nm,2.7s,mb5.2
SHPR  Sheep Range       29.07 323 eP      P      15 48 47.4 +0.3
SHPR                              epP     pP     15 48 55.9 -3.0
N20A  Spence Gulch,     29.09 337 ⇑P      P      15 48 47.8 +0.6
      baz=29
S13A  Holt Ranch, En    29.09 326 ⇑P      P      15 48 47.6 +0.4
      baz=29,SNR=5.7
Q15A  Fillmore          29.38 329 ⇑P      P      15 48 50.6 +0.8
      baz=29
RWWY  Rawlins           29.45 339 eP      P      15 48 51.3 +0.9
      comp=Z,53nm,1.3s,mb5.1
O17A  Robinson Place    29.57 333 ⇓P      P      15 48 51.6 +0.1
      baz=29
R13A  O'Grain Ranch,    29.58 326 ⇓P      P      15 48 52.4 +0.8
      baz=30,SNR=6.5
T11A  Corn Creek, Al    29.61 324 ⇓P      P      15 48 52.4 +0.5
      baz=30
M20A  Sweetwater, Wa    29.63 338 ⇓P      P      15 48 52.9 +1.0
      baz=30
S12A  Delamar Landin    29.66 325 ⇑P      P      15 48 53.4 +1.2
      baz=30
L21A  Rawlins           29.75 339 ⇓P      P      15 48 53.5 +0.5
      baz=30,SNR=5.6
Q14A  Sevier Lake (B    29.82 328 ⇓P      P      15 48 53.1 -0.6
      baz=30
MPU   Maple Canyon      29.83 332 eP      P      15 48 50.8 -2.9
      comp=Z,14nm,1.3s,mb4.5
DAU   Daniels Canyon    29.98 333 eP      P      15 48 55.6 +0.6
R12A  Pony Springs,     30.04 326 ⇓P      P      15 48 56.1 +0.5
      baz=30
P14A  Drum Mountains    30.18 329 ⇑P      P      15 48 57.4 +0.5
      baz=30
MPMC  Manual Prospec    30.20 319 ⇓P      P      15 48 57.6 +0.6
      baz=30
P13A  Bates Ranch, G    30.55 328 ⇓P      P      15 49 00.9 +0.8
      baz=30
M17A  Scullys Gap (B    30.59 334 ⇑P      P      15 49 01.3 +0.9
      baz=30
R11A  Troy Canyon, C    30.59 325 ⇑P      P      15 49 01.2 +0.7
      baz=30
S10A  Tonopah Range,    30.87 323 ⇓P      P      15 49 03.4 +0.4
      baz=31,SNR=6.4
R10A  Warm Springs      30.95 324 ⇓P      P      15 49 03.9 +0.2
      baz=31
Q11A  Duckwater         30.98 325 ⇓P      P      15 49 04.0  0.0
      baz=31
K19A  Absolon Red Bu    31.03 338 ⇑P      P      15 49 04.0 -0.4
      baz=31
VES   Vestal, Richgr    31.09 318 ⇓P      P      15 49 04.9  0.0
      baz=31
S09A  Goldfield         31.11 322 ⇑P      P      15 49 05.1 +0.1
      baz=31,SNR=5.7
N14A  Grayback Hills    31.21 331 ⇑P      P      15 49 06.3 +0.4
      baz=31
NNA   Nana              31.22 147 eP      P      15 49 03.2 -3.0
      comp=Z,8.5nm,0.6s,mb4.8
BW06  Boulder Array     31.24 337 epP     pP     15 49 16.8 -1.3
PDAR  Pinedale Array    31.24 337  P      P      15 49 03.7 -2.5
      comp=Z,0.2nm,0.6s,baz=122,slow=1.2,SNR=3.8
PDAR                               PcP    PcP    15 51 56.8 -3.1
      comp=Z,0.4nm,0.8s,baz=198,slow=2.7,SNR=2.1
PDAR                               LR     LR     16 02 42.9
      comp=Z,326nm,18.3s,MS4.0,baz=316,slow=38
K18A  Toltan Ranch,     31.32 336 ⇓P      P      15 49 07.2 +0.4
      baz=31
M15A  Larsen Ranch,     31.36 332 ⇑P      P      15 49 07.1 -0.1
      baz=31
L16A  Fish Haven        31.36 334 ⇓P      P      15 49 07.1 -0.1
      baz=31
R09A  Tonopah           31.36 323 ⇓P      P      15 49 07.1 -0.2
      baz=31
Q10A  Clear Creek Ra    31.38 325 ⇑P      P      15 49 07.2 -0.2
      baz=31
O12A  Currie            31.53 328 ⇑P      P      15 49 08.9 +0.2
      baz=31,SNR=6.9
N13A  Wendover, West    31.71 330 ⇓P      P      15 49 10.6 +0.3
      baz=32
HVU   Hansel Valley     31.75 332 eP      P      15 49 11.7 +1.0
HVU                                pmax   pmax
      comp=Z,31nm,1.3s,mb5.0
HVU   Hansel Valley     31.75 332 eP      P      15 49 11.7 +0.9
      comp=Z,31nm,1.3s,mb5.0
L15A  Malad City        31.76 333 ⇓P      P      15 49 10.7 -0.1
      baz=32
M14A  Sheep Mountain    31.80 331 ⇓P      P      15 49 11.2 +0.1
      baz=32,SNR=8.4
J18A  Kendall Valley    31.80 337 ⇓P      P      15 49 11.3 +0.2
      baz=32,SNR=5.2
O11A  Cowboy Ranch,     31.90 327 ⇓P      P      15 49 12.2 +0.2
      baz=32,SNR=5.6
R08A  Mina              32.04 322 ⇓P      P      15 49 13.6 +0.3
      baz=32
M13A  Montello          32.07 330 ⇓P      P      15 49 13.9 +0.4
      baz=32,SNR=7.1
ELK   Elko              32.14 328 eP      P      15 49 13.3 -0.8
ELK                                pmax   pmax
      comp=Z,11nm,1.0s
ELK   Elko              32.14 328 eP      P      15 49 13.3 -0.8
      comp=Z,11nm,1.0s,mb4.7
I18A  Diamond G Ranc    32.15 338 ⇓P      P      15 49 14.3 +0.2
      baz=32
L14A  Malta             32.17 332 ⇓P      P      15 49 15.0 +0.6
      baz=32
NVAR  Mina Array Bea    32.21 322  P      P      15 49 14.3 -0.5
      comp=Z,4.3nm,0.7s,mb4.4,baz=137,slow=8.5,SNR=36
NVAR                               PcP    PcP    15 52 02.5 -0.1
      comp=Z,1.6nm,0.8s,baz=125,slow=3.8,SNR=4.0
REDW  Red Top Meadow    32.25 336 eP      P      15 49 15.2 +0.2
      comp=Z,50nm,1.4s,mb5.2
Q08A  Gabbs             32.28 323 ⇓P      P      15 49 16.0 +0.7
      baz=32
SNOW  Snow King Moun    32.29 336 eP      P      15 49 16.9 +1.5
      comp=Z,68nm,1.4s,mb5.3
LOHW  Long Hollow       32.36 337 eP      P      15 49 16.7 +0.7
      comp=Z,28nm,1.4s,mb4.9
K15A  Arbon             32.38 334 ⇑P      P      15 49 16.5 +0.4
      baz=32
RRI2  Red Ridge         32.42 336 eP      P      15 49 18.0 +1.5
      comp=Z,42nm,1.5s,mb5.0
O10A  Cortez Mining,    32.47 326 ⇑P      P      15 49 17.9 +0.9
      baz=32
L13A  Double Diamond    32.53 331 ⇑P      P      15 49 18.4 +0.9
      baz=32
K14A  Jones Ranch, D    32.55 333 ⇓P      P      15 49 18.4 +0.8
      baz=32
I17A  Pilgrim Ck.       32.62 337 ⇓P      P      15 49 18.8 +0.6
      baz=32
P08A  Dixie Valley      32.92 324 ⇓P      P      15 49 21.0  0.0
      baz=33
M11A  Holland Ranch,    32.93 329 ⇑P      P      15 49 21.5 +0.5
      baz=33
I16A  Newdale           32.93 336 ⇓P      P      15 49 21.3 +0.4
      baz=33
R06C  Coleville         32.96 321 ⇓P      P      15 49 21.7 +0.4
      baz=33
H17A  Grant Village     33.02 338 ⇑P      P      15 49 22.6 +0.9
      baz=33
L12A  House Creek Ra    33.08 330 ⇓P      P      15 49 23.0 +0.6
      baz=33
LKWY  Lake              33.10 338 eP      P      15 49 24.8 +2.3
LKWY                               pmax   pmax
      comp=Z,16nm,1.2s,mb4.8
LKWY  Lake              33.10 338 eP      P      15 49 24.8 +2.3
      comp=Z,16nm,1.2s,mb4.8
YFT   Old Faithful      33.16 337 eP      P      15 49 24.9 +1.8
      comp=Z,25nm,1.5s,mb4.9
RLMT  Red Lodge         33.19 340 ⇑P      P      15 49 23.5 +0.2
      baz=33
RLMT  Red Lodge         33.19 340 eP      P      15 49 23.3  0.0
      comp=Z,74nm,1.8s,mb5.3
CMB   Columbia Colle    33.23 320 eP      P      15 49 23.7  0.0
CMB                               e*PP    pP     15 49 30.8 -4.8
CMB                                pmax   pmax
      comp=Z,8.0nm,1.1s,mb4.6
CMB   Columbia Colle    33.23 320 eP      P      15 49 23.7 -0.1
      comp=Z,7.8nm,1.1s,mb4.5
CMB                               epP     pP     15 49 30.8 -4.8
O08A  Rochester Mine    33.37 325 ⇓P      P      15 49 25.3 +0.4
      baz=33
M10A  I.L. Ranch, Tu    33.38 328 ⇓P      P      15 49 25.8 +0.9
      baz=33
K12A  Draper Farm, C    33.41 331 ⇓P      P      15 49 24.8 -0.4
      baz=33
N09A  Rock Creek Ran    33.41 326 ⇓P      P      15 49 25.8 +0.5
      baz=33
L11A  Cat Creek Ranc    33.46 330 ⇑P      P      15 49 25.7 +0.1
      baz=33,SNR=6.3
G18A  Lazy EL Ranch,    33.46 340 ⇑P      P      15 49 25.3 -0.3
      baz=33
H16A  Russell Place,    33.53 337 ⇑P      P      15 49 26.0 -0.3
      baz=33
J13A  Cove Ranch, Pi    33.67 333 ⇓P      P      15 49 27.9 +0.5
      baz=34
AGMN  Agassiz Refuge    33.68 357 eP      P      15 49 25.5 -1.9
      comp=Z,46nm,1.6s,mb5.2
O07A  Toulon            33.69 324 ⇑P      P      15 49 27.4 -0.2
      baz=34
N08A  GE Springer Mi    33.70 325 ⇓P      P      15 49 27.3 -0.4
      baz=34
QLMT  Earthquake Lak    33.71 337 epP     pP     15 49 37.0 -2.7
L10A  Juniper Basin     33.75 329 ⇑P      P      15 49 28.1  0.0
      baz=34,SNR=8.7
I14A  Mackay            33.78 334 ⇑P      P      15 49 28.9 +0.5
      baz=34
M09A  Marrel Ranch,     33.78 327 ⇑P      P      15 49 28.5 +0.1
      baz=34,SNR=5.3
HLID  Hailey            33.91 333 ⇑P      P      15 49 29.6 +0.1
      baz=34
HLID  Hailey            33.91 333 eP      P      15 49 26.3 -3.2
      comp=Z,8.4nm,1.1s,mb4.6
J12A  Stokes Ranch,     33.97 331 ⇑P      P      15 49 30.7 +0.6
      baz=34
H15A  Lima              34.01 335 ⇓P      P      15 49 31.2 +0.9
      baz=34
F18A  Big Timber        34.03 340 ⇓P      P      15 49 29.9 -0.6
      baz=34,SNR=5.5
K11A  Parker Ranch,     34.05 330 ⇓P      P      15 49 31.2 +0.5
      baz=34
I13A  Wildhorse Cree    34.05 333 ⇑P      P      15 49 31.4 +0.6
      baz=34
O06A  Flanigan          34.24 323 ⇓P      P      15 49 32.6 +0.1
      baz=34
M08A  Happy Creek Ra    34.29 326 ⇑P      P      15 49 33.2 +0.4
      baz=34
F17A  Fitzpatrick Pl    34.35 339 ⇓P      P      15 49 33.4 +0.1
      baz=34,SNR=5.8
BEKR  Beckwourth        34.36 322 ⇑P      P      15 49 33.7 +0.3
      baz=34
G15A  Dillon            34.40 336 ⇑P      P      15 49 34.4 +0.6
      baz=34
MFID  Camas Ranch       34.44 331 ⇑P      P      15 49 34.4 +0.2
      baz=34
K10A  MacKenzie Ranc    34.46 329 ⇑P      P      15 49 34.8 +0.5
      baz=34
DLMT  Dillon            34.61 336 eP      P      15 49 37.1 +1.6
      comp=Z,52nm,1.5s,mb5.2
N06A  Buffalo Meadow    34.62 324 ⇓P      P      15 49 35.3 -0.5
      baz=34,SNR=6.7
H13A  Challis           34.63 334 ⇑P      P      15 49 36.0 +0.2
      baz=34
E18A  Harlowton         34.67 340 ⇓P      P      15 49 35.3 -0.8
      baz=34,SNR=6.5
M07A  Soldier Meadow    34.68 325 ⇑P      P      15 49 36.0 -0.2
      baz=35
L08A  Fields            34.79 327 ⇑P      P      15 49 37.2  0.0
      baz=35
K09A  Rome              34.84 328 ⇑P      P      15 49 37.2 -0.4
      baz=35,SNR=6.0
G14A  Jackson           34.85 335 ⇑P      P      15 49 37.7 +0.1
      baz=35
H12A  Diamond D Ranc    34.88 333 ⇑P      P      15 49 37.1 -0.8
      baz=35
I11A  Placerville       34.88 331 ⇓P      P      15 49 37.7 -0.3
      baz=35,SNR=13
DGMT  Dagmar            34.90 348 ⇓P      P      15 49 38.1 +0.1
      baz=35
DGMT  Dagmar            34.90 348 eP      P      15 49 39.8 +1.8
      comp=Z,24nm,1.0s,mb5.1
E17A  Martinsdale       34.90 339 ⇑P      P      15 49 38.0  0.0
      baz=35
LRM   Limekiln Ridge    34.94 337 eP      P      15 49 39.1 +0.7
F15A  Butte             34.97 337 ⇑P      P      15 49 38.1 -0.5
      baz=35,SNR=6.0
G13A  Cobalt            35.05 334 ⇓P      P      15 49 39.7 +0.4
      baz=35
WVOR  Wild Horse Val    35.12 327 eP      P      15 49 38.9 -1.1
WVOR                               pmax   pmax
      comp=Z,19nm,1.1s,mb4.9
WVOR  Wild Horse Val    35.12 327 eP      P      15 49 38.9 -1.1
      comp=Z,19nm,1.1s,mb4.9
D18A  Linhart Farms,    35.20 341 ⇓P      P      15 49 40.4 -0.2
      baz=35
L07A  Adell             35.20 326 ⇓P      P      15 49 41.1 +0.4
      baz=35
E16A  East Helena       35.25 338 ⇑P      P      15 49 40.7 -0.4
      baz=35,SNR=6.4
F14A  Wisdom            35.28 336 ⇓P      P      15 49 42.0 +0.6
      baz=35
J09A  Fry Pan Ranch,    35.32 329 ⇑P      P      15 49 42.3 +0.6
      baz=35
I10A  Payette           35.41 331 ⇑P      P      15 49 42.8 +0.4
      baz=35
D17A  Six Diamond Ra    35.45 340 ⇑P      P      15 49 42.2 -0.5
      baz=35,SNR=7.8
HRY   Holter Researc    35.46 338 eP      P      15 49 43.4 +0.5
E15A  Deer Lodge        35.51 337 ⇓P      P      15 49 42.9 -0.4
      baz=35
H11A  Donnelly          35.51 332 ⇓P      P      15 49 43.0 -0.4
      baz=35,SNR=7.7
K07A  Rock Creek Ran    35.62 327 ⇓P      P      15 49 44.2 -0.1
      baz=36
ULM   Lac du Bonnet     35.63 358  P      P      15 49 41.4 -2.8
      comp=Z,3.6nm,0.8s,mb4.4,baz=178,slow=10,SNR=7.2
ULM                                LR     LR     16 06 10.6
      comp=Z,206nm,20.8s,MS3.9,baz=202,slow=39
ULM   Lac du Bonnet     35.63 358 eP      P      15 49 41.2 -3.0
      comp=Z,16nm,1.3s,mb4.8
D16A  Dana Ranch, Ca    35.63 339 ⇑P      P      15 49 44.4 +0.1
      baz=36
F13A  Darby             35.65 335 ⇓P      P      15 49 44.4 -0.1
      baz=36
MOD   Modoc             35.66 325 eP      P      15 49 44.7 +0.1
J08A  Circle Bar Ran    35.69 328 ⇓P      P      15 49 44.6 -0.3
      baz=36
H10A  Noah's Angus R    35.76 331 ⇓P      P      15 49 44.7 -0.8
      baz=36
I09A  Lost Marbles R    35.77 330 ⇓P      P      15 49 45.2 -0.4
      baz=36
E14A  Clinton           35.83 336 ⇓P      P      15 49 46.4 +0.4
      baz=36
C17A  Wharram Farm,     35.89 340 ⇑P      P      15 49 46.4 -0.1
      baz=36,SNR=6.2
EGMT  Eagleton          35.91 342 ⇑P      P      15 49 46.2 -0.5
      baz=36
EGMT  Eagleton          35.91 342 eP      P      15 49 46.7 -0.1
D15A  Lincoln           35.99 338 ⇑P      P      15 49 47.0 -0.4
      baz=36
E13A  Victor            36.12 336 ⇓P      P      15 49 48.8 +0.2
      baz=36
BMO   Blue Mountains    36.22 331 epP     pP     15 49 56.9 -4.5
B18A  Beardsley Farm    36.25 342 ⇓P      P      15 49 49.5 -0.2
      baz=36
MSO   Missoula          36.34 336 eP      P      15 49 49.6 -0.9
      comp=Z,13nm,1.3s,mb4.7
C16A  Fuhringer Ranc    36.37 339 ⇑P      P      15 49 50.4 -0.1
      baz=36,SNR=6.0
D14A  Greenough         36.39 337 ⇓P      P      15 49 50.0 -0.8
      baz=36,SNR=5.1
J06A  Christmas Vall    36.49 327 ⇓P      P      15 49 52.6 +0.9
      baz=36
C15A  Salmond Ranch,    36.64 338 ⇑P      P      15 49 52.1 -0.9
      baz=36
A18A  Metzger Ranch,    36.74 342 ⇑P      P      15 49 53.3 -0.5
      baz=37
G09A  Cove              36.76 331 ⇑P      P      15 49 53.2 -0.9
      baz=37
D13A  Huson             36.77 336 ⇓P      P      15 49 53.5 -0.5
      baz=37
B16A  M & M Farms, S    36.88 340 ⇑P      P      15 49 54.5 -0.5
      baz=37
E11A  Bogner Ranch,     36.89 334 ⇓P      P      15 49 55.1  0.0
      baz=37
SWMT  Swartz Lake       36.93 337 eP      P      15 49 56.5 +1.1
A17A  Triple J Farms    37.02 341 ⇓P      P      15 49 56.2  0.0
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	baz=37						
F10A	**Beach Ranch, E**	**37.04**	**332**	⇑P	**P**	**15 49 56.4**	**0.0**
	baz=37						
C14A	**Swan Lake**	**37.05**	**337**	⇓P	**P**	**15 49 56.9**	**+0.5**
	baz=37						
JTMT	**Jette**	**37.23**	**337**	*e*P	**P**	**15 49 58.9**	**+0.9**
C13A	**Hot Springs**	**37.29**	**337**	⇑P	**P**	**15 49 58.7**	**+0.2**
	baz=37						
A16A	**West Butte Ran**	**37.31**	**340**	⇓P	**P**	**15 49 59.1**	**+0.5**
	baz=37						
G08A	**Pilot Rock**	**37.33**	**330**	⇑P	**P**	**15 49 59.6**	**+0.7**
	baz=37						
E09A	**Wood Farm, Sta**	**37.86**	**332**	⇑P	**P**	**15 50 03.3**	**0.0**
	baz=38						
A14A	**Double T Ranch**	**37.95**	**339**	⇑P	**P**	**15 50 04.1**	**+0.1**
	baz=38						
WALA	**Waterton Lakes**	**38.19**	**338**	*e*pP	pP	15 50 12.9	-5.2
D09A	**Jones Farm, Ri**	**38.35**	**333**	⇑P	**P**	**15 50 07.3**	**-0.1**
	baz=38						
F06A	**Goldendale**	**38.56**	**329**	⇓P	**P**	**15 50 08.5**	**-0.8**
	baz=38						
D08A	**Wollman Farm,**	**38.62**	**332**	⇓P	**P**	**15 50 09.3**	**-0.4**
	baz=38						
E07A	**Sunnyside**	**38.69**	**331**	⇓P	**P**	**15 50 09.7**	**-0.5**
	baz=38						
A12A	**Yaak River Ran**	**38.73**	**337**	⇑P	**P**	**15 50 10.3**	**-0.3**
	baz=39						
OD2	**Odessa Site #2**	**38.78**	**333**	*e*pP	pP	15 50 18.5	-4.6
A11A	**Hall Mountain,**	**39.03**	**336**	⇓P	**P**	**15 50 12.7**	**-0.4**
	baz=39						
D07A	**Quincy**	**39.21**	**331**	⇓P	**P**	**15 50 14.6**	**0.0**
	baz=39						
E06A	**Yakima**	**39.21**	**330**	⇑P	**P**	**15 50 14.9**	**+0.2**
	baz=39						
C08A	**Higginbotham F**	**39.23**	**333**	⇑P	**P**	**15 50 15.1**	**+0.4**
	baz=39						
B09A	**Rice**	**39.33**	**334**	⇑P	**P**	**15 50 16.3**	**+0.7**
	baz=39						
LON	**Longmire**	**39.76**	**330**	*e*P	**P**	**15 50 26.7**	**+7.5**
LON				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
LON	**Longmire**	**39.76**	**330**	*e*P	**P**	**15 50 26.7**	**+7.4**
	comp=Z,9.6nm,0.9s,mb4.5						
FFC	**Flin Flon**	**40.59**	**353**	*e*P	**P**	**15 50 24.8**	**-1.1**
FFC				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.5						
FFC	**Flin Flon**	**40.59**	**353**	*e*P	**P**	**15 50 24.8**	**-1.1**
	comp=Z,18nm,1.4s,mb4.5						
A07A	**Ashnola River,**	**40.77**	**333**	⇓P	**P**	**15 50 27.2**	**-0.3**
	baz=41						
EDM	**Edmonton**	**41.58**	**342**	*e*P	**P**	**15 50 33.4**	**-0.7**
FCC	**Fort Churchill**	**44.11**	**360**	*e*P	**P**	**15 50 52.4**	**-2.1**
	comp=Z,0.4nm,1.1s						
RPN	**Rapa Nui**	**44.15**	**200**	P	**P**	**15 50 51.9**	**-3.3**
	comp=Z,28nm,0.7s,mb5.1,baz=64,slow=3.4,SNR=3.1						
RPN	**Rapa Nui**	**44.15**	**200**	P	**P**	**15 50 51.9**	**-3.3**
LVC	**Limon Verde**	**44.21**	**146**	*e*P	**P**	**15 50 54.7**	**-1.1**
	comp=Z,5.4nm,0.8s,mb4.3						
SIV	**San Ignacio**	**44.28**	**132**	P	**P**	**15 50 55.0**	**-1.4**
	comp=Z,4.5nm,0.9s,mb4.2,baz=305,slow=8.1,SNR=16						
SCHQ	**Schefferville**	**45.27**	**22**	P	**P**	**15 51 02.0**	**-1.8**
	comp=Z,2.4nm,0.8s,mb4.1,baz=200,slow=9.8,SNR=3.1						
SCHQ				LR	LR	16 11 18.6	
	comp=Z,476nm,18.9s,MS4.5,baz=73,slow=38						
YKA	**Yellowknife Ar**	**50.11**	**348**	P	**P**	**15 51 40.0**	**-1.2**
	comp=Z,3.2nm,0.6s,mb4.5,baz=156,slow=7.1,SNR=51						
YKA	**Yellowknife Ar**	**50.11**	**348**	P	**P**	**15 51 40.0**	**-1.2**
DLBC	**Dease Lake**	**51.48**	**337**	*e*P	**P**	**15 51 52.2**	**+0.7**
CFAA	**Coronel Fontan**	**52.00**	**152**	P	**P**	**15 51 54.9**	**-1.0**
	comp=Z,1.9nm,0.8s,mb4.1,baz=319,slow=5.7,SNR=21						
CPUP	**Villa Florida**	**53.88**	**139**	P	**P**	**15 52 07.0**	**-2.8**
	comp=Z,2.4nm,0.7s,mb4.2,baz=300,slow=10,SNR=5.2						
CPUP				LR	LR	16 16 05.0	
	comp=Z,128nm,19.7s,MS4.0,baz=97,slow=37						
CPUP	**Villa Florida**	**53.88**	**139**	*e*P	**P**	**15 52 06.6**	**-3.2**
DAWY	**Dawson**	**58.54**	**338**	*e*P	**P**	**15 52 37.8**	**-4.7**
PLCA	**Paso Flores**	**59.06**	**160**	*e*P	**P**	**15 52 44.4**	**-2.0**
PLCA				pmax	pmax		
	comp=Z,21nm,1.4s						
PLCA	**Paso Flores**	**59.06**	**160**	P	**P**	**15 52 44.3**	**-2.1**
	comp=Z,10.0nm,1.1s,mb4.8,baz=348,slow=9.1,SNR=9.2						
PLCA	**Paso Flores**	**59.06**	**160**	*e*P	**P**	**15 52 44.4**	**-2.0**
	comp=Z,21nm,1.4s,mb5.0						
EGAK	**Eagle**	**59.58**	**339**	*e*P	**P**	**15 52 48.7**	**-1.0**
	comp=Z,12nm,1.1s,mb4.8						
RES	**Resolute Bay**	**60.11**	**360**	*e*P	**P**	**15 52 51.5**	**-1.7**
RES				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.0						
RES	**Resolute Bay**	**60.11**	**360**	*e*P	**P**	**15 52 51.5**	**-1.8**
	comp=Z,24nm,1.4s,mb5.0						
PAX	**Paxson**	**60.26**	**336**	*e*P	**P**	**15 52 53.3**	**-1.1**
PAX				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
PAX	**Paxson**	**60.26**	**336**	*e*P	**P**	**15 52 53.3**	**-1.1**
	comp=Z,12nm,1.1s,mb4.8						
RCBR	**Riachuelo**	**60.77**	**105**	*e*P	**P**	**15 52 59.4**	**+0.7**
	comp=Z,24nm,1.0s,mb5.3						
RC01	**Rabbit Creek A**	**61.23**	**333**	*e*P	**P**	**15 53 06.8**	**+5.8**
	comp=Z,19nm,1.0s,mb5.2						
MCK	**McKinley**	**62.00**	**336**	*e*P	**P**	**15 53 04.8**	**-1.4**
MCK				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.1						
MCK	**McKinley**	**62.00**	**336**	*e*P	**P**	**15 53 04.8**	**-1.4**
	comp=Z,19nm,1.1s,mb5.1						
COLA	**College**	**62.09**	**337**	*e*P	**P**	**15 53 05.0**	**-1.8**
COLA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
COLA	**College**	**62.09**	**337**	*e*P	**P**	**15 53 05.0**	**-1.8**
	comp=Z,9.9nm,1.0s,mb4.9						
TRF	**Thorofare Moun**	**62.43**	**335**	*e*P	**P**	**15 53 07.7**	**-1.3**
	comp=Z,60nm,1.6s,mb5.5						
KTH	**Kantishna Hill**	**62.73**	**335**	*e*P	**P**	**15 53 08.7**	**-2.4**
	comp=Z,12nm,0.9s,mb5.0						
BPAW	**Bear Paw Mtn.**	**62.98**	**335**	*e*P	**P**	**15 53 10.9**	**-1.8**
	comp=Z,14nm,1.0s,mb5.0						
PPT	**Papeete**	**63.71**	**242**	LR	LR	16 15 50.5	
	comp=Z,13nm,18.4s,MS3.1,baz=276,slow=31						
DAG	**Danmarks Havn**	**72.49**	**13**	⇓*e*P	**P**	**15 54 11.7**	**-0.7**
DAG				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
DAG	**Danmarks Havn**	**72.49**	**13**	⇓*i*P	**P**	**15 54 11.7**	**-0.7**
	comp=Z,6.3nm,0.5s,mb4.8						
DAG	**Danmarks Havn**	**72.49**	**13**	⇓*e*P	**P**	**15 54 11.7**	**-0.7**
	comp=Z,6.3nm,0.5s,mb4.8						
EVO	**Evora**	**77.74**	**53**	*e*P	**P**	**15 54 43.3**	**-0.1**
	comp=Z,52nm,1.5s,mb4.9						
EKA	**Eskdalemuir Ar**	**78.46**	**36**	P	**P**	**15 54 44.4**	**-2.6**
	comp=Z,3.1nm,0.8s,mb4.3,baz=277,slow=5.7,SNR=2.7						
BILL	**Bilibino**	**80.32**	**338**	*e*P	**P**	**15 54 55.1**	**-1.8**
BILL				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
BILL	**Bilibino**	**80.32**	**338**	*e*P	**P**	**15 54 55.1**	**-1.8**
	comp=Z,16nm,1.0s,mb4.9						
ESDC	**Sonseca Array**	**80.64**	**51**	P	**P**	**15 54 58.5**	**-0.7**
	comp=Z,0.6nm,0.5s,mb3.8,baz=287,slow=5.0,SNR=8.6						
GRR	**Gorron**	**81.11**	**42**	*e*P	**P**	**15 55 01.8**	**+0.3**
	comp=Z,104nm,1.5s,mb5.2						
GRR	**Gorron**	**81.11**	**42**	*e*P	**P**	**15 55 01.8**	**+0.3**
GRR				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.2						
GRR	**Gorron**	**81.11**	**42**	*e*P	**P**	**15 55 01.8**	**+0.3**
	comp=Z,52nm,1.5s,mb5.2						
FLN	**La Foliniere**	**81.28**	**42**	*e*P	**P**	**15 55 02.9**	**+0.5**
	comp=Z,86nm,1.5s,mb5.2						
FLN	**La Foliniere**	**81.28**	**42**	*e*P	**P**	**15 55 02.9**	**+0.5**
FLN				pmax	pmax		
	comp=Z,43nm,1.5s,mb5.2						
FLN	**La Foliniere**	**81.28**	**42**	*e*P	**P**	**15 55 02.9**	**+0.5**
	comp=Z,43nm,1.5s,mb5.2						
LDF	**La Druitiere**	**81.55**	**42**	*e*P	**P**	**15 55 05.0**	**+1.2**
TCF	**Toulx Ste Croi**	**83.62**	**44**	*e*P	**P**	**15 55 14.6**	**-0.1**
	comp=Z,18nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	**83.62**	**44**	*e*P	**P**	**15 55 14.6**	**-0.1**
TCF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	**83.62**	**44**	*e*P	**P**	**15 55 14.6**	**-0.1**
	comp=Z,9.1nm,1.1s,mb4.8						
BAIF	**Baives**	**83.95**	**40**	*e*P	**P**	**15 55 16.8**	**+0.5**
BGF	**Bois d’Agland**	**83.98**	**44**	*e*P	**P**	**15 55 16.6**	**+0.1**
	comp=Z,29nm,1.0s,mb5.1						
BGF	**Bois d’Agland**	**83.98**	**44**	*e*P	**P**	**15 55 16.6**	**+0.1**
BGF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
BGF	**Bois d’Agland**	**83.98**	**44**	*e*P	**P**	**15 55 16.6**	**+0.1**
	comp=Z,14nm,1.0s,mb5.1						
AVF	**Avril sur Loir**	**84.25**	**43**	*e*P	**P**	**15 55 17.6**	**-0.3**
	comp=Z,11nm,0.9s,mb4.7						
AVF	**Avril sur Loir**	**84.25**	**43**	*e*P	**P**	**15 55 17.6**	**-0.3**
AVF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
AVF	**Avril sur Loir**	**84.25**	**43**	*e*P	**P**	**15 55 17.6**	**-0.3**
	comp=Z,5.6nm,0.9s,mb4.7						
SSF	**Saint Saulge**	**84.28**	**43**	*e*P	**P**	**15 55 18.0**	**0.0**
	comp=Z,27nm,1.1s,mb5.0						
SSF	**Saint Saulge**	**84.28**	**43**	*e*P	**P**	**15 55 18.0**	**0.0**
SSF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.0						
SSF	**Saint Saulge**	**84.28**	**43**	*e*P	**P**	**15 55 18.0**	**0.0**
	comp=Z,13nm,1.1s,mb5.0						
MTLF	**Montolieu**	**84.36**	**47**	*e*P	**P**	**15 55 18.8**	**+0.3**
	comp=Z,12nm,0.9s,mb4.8						
MTLF	**Montolieu**	**84.36**	**47**	*e*P	**P**	**15 55 18.8**	**+0.3**
MTLF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
MTLF	**Montolieu**	**84.36**	**47**	*e*P	**P**	**15 55 18.8**	**+0.3**
	comp=Z,6.2nm,0.9s,mb4.7						
NOA	**NORSAR Array B**	**84.42**	**28**	P	**P**	**15 55 19.1**	**+0.6**
	comp=Z,3.2nm,0.8s,mb4.5,baz=292,slow=4.9,SNR=8.9						
NOA				LR	LR	16 31 42.7	
	comp=Z,150nm,18.3s,MS4.4,baz=295,slow=35						
LOR	**Lormes**	**84.46**	**43**	*e*P	**P**	**15 55 19.2**	**+0.3**
	comp=Z,8.3nm,0.7s,mb4.7						
LOR	**Lormes**	**84.46**	**43**	*e*P	**P**	**15 55 19.2**	**+0.3**
LOR				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
LOR	**Lormes**	**84.46**	**43**	*e*P	**P**	**15 55 19.2**	**+0.3**
	comp=Z,4.2nm,0.7s,mb4.7						
SMF	**Signal de Mont**	**84.61**	**43**	*e*P	**P**	**15 55 19.5**	**-0.2**
	comp=Z,29nm,1.2s,mb5.0						
SMF	**Signal de Mont**	**84.61**	**43**	*e*P	**P**	**15 55 19.5**	**-0.2**
SMF				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.0						
SMF	**Signal de Mont**	**84.61**	**43**	*e*P	**P**	**15 55 19.5**	**-0.2**
	comp=Z,15nm,1.3s,mb5.0						
MEZF	**Maizieres J’vi**	**84.90**	**41**	*e*P	**P**	**15 55 20.9**	**-0.2**
HAU	**Haudompre**	**85.87**	**42**	*e*P	**P**	**15 55 25.6**	**-0.4**
	comp=Z,49nm,1.2s,mb5.3						
HAU	**Haudompre**	**85.87**	**42**	*e*P	**P**	**15 55 25.6**	**-0.4**
HAU				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.3						
HAU	**Haudompre**	**85.87**	**42**	*e*P	**P**	**15 55 25.6**	**-0.4**
	comp=Z,25nm,1.2s,mb5.3						
ARCES	**ARCESS Array B**	**86.10**	**18**	P	**P**	**15 55 26.1**	**-0.5**
	comp=Z,4.7nm,1.0s,mb4.7,baz=286,slow=4.4,SNR=11						
ARCES				LR	LR	16 32 04.5	
	comp=Z,173nm,21.2s,MS4.4,baz=270,slow=34						
HINF	**Hinteralfeld**	**86.25**	**42**	*e*P	**P**	**15 55 27.3**	**-0.6**
	comp=Z,21nm,1.0s,mb5.0						
HINF	**Hinteralfeld**	**86.25**	**42**	*e*P	**P**	**15 55 27.3**	**-0.6**
HINF				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.0						
HINF	**Hinteralfeld**	**86.25**	**42**	*e*P	**P**	**15 55 27.3**	**-0.6**
	comp=Z,11nm,1.0s,mb5.0						
CDF	**Champ du Feu**	**86.34**	**41**	*e*P	**P**	**15 55 28.3**	**0.0**
BFO	**Black Forest**	**87.04**	**41**	*i* P	**P**	**15 55 41.5**	**+10**
TIC	**Toumodi**	**87.07**	**84**	*e*PKP2	**P**	**15 55 35.0**	**+2.5**
	comp=Z,14nm,0.2s,mb5.8						
LIC	**Lamto**	**87.16**	**84**	*e*P	**P**	**15 55 31.0**	**-2.0**
	comp=Z,43nm,1.1s,mb5.3						
LIC	**Lamto**	**87.16**	**84**	*e*PKP2	**P**	**15 55 35.4**	**+2.4**
	comp=Z,51nm,1.1s,mb5.7						
LIC	**Lamto**	**87.16**	**84**	*e*P	**P**	**15 55 31.0**	**-2.0**
	comp=Z,22nm,1.1s,mb5.3						
DBIC	**Dimbokro**	**87.22**	**84**	P	**P**	**15 55 33.1**	**-0.2**
	comp=Z,3.4nm,0.8s,mb4.6,baz=287,slow=4.2,SNR=6.8						
DBIC				LR	LR	16 31 25.5	
	comp=Z,62nm,19.2s,MS4.0,baz=262,slow=33						
KIC	**Kosan Boka**	**87.41**	**84**	*e*PKP2	**P**	**15 55 34.2**	**0.0**
	comp=Z,94nm,1.1s,mb5.9						
GRA1	**Grafenberg Arr**	**88.38**	**39**	*e*P	**P**	**15 55 38.0**	**-0.1**
	comp=Z,22nm,1.7s,mb5.1						
GRF	**Grafenberg Arr**	**88.38**	**39**	*e*P	**P**	**15 55 38.0**	**-0.1**
GRF				pmax	pmax		
	comp=Z,22nm,1.7s,mb5.1						
GRF	**Grafenberg Arr**	**88.38**	**39**	*e*P	**P**	**15 55 38.0**	**-0.1**
GRF				pmax	pmax		
	comp=Z,22nm,1.7s,mb5.1						
GRF	**Grafenberg Arr**	**88.38**	**39**	*e*P	**P**	**15 55 38.0**	**-0.1**
	comp=Z,22nm,1.7s,mb5.1						
DAVOX	**Davos/Dischmat**	**88.54**	**42**	LR	LR	16 30 20.1	
	comp=Z,147nm,21.1s,MS4.4,baz=268,slow=32						
CLL	**Collm**	**88.85**	**37**	*e*sP	pP	15 55 49.0	-4.5
TIXI	**Tiksi**	**89.36**	**348**	*e*P	**P**	**15 55 41.7**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,13nm,1.5s,mb5.0						
TIXI	**Tiksi**	**89.36**	**348**	*e*P	**P**	**15 55 41.4**	**-0.9**
	comp=Z,12nm,1.3s,mb5.1						
BRG	**Berggiesshubel**	**89.56**	**37**	*e*(P)	pP	15 55 59.0	+2.1
	comp=Z,24nm,1.6s						
GERES	**GERESS Array B**	**90.20**	**39**	P	**P**	**15 55 46.0**	**-0.6**
	comp=Z,1.3nm,1.0s,mb4.2,baz=306,slow=3.3,SNR=4.5						
GERES				LR	LR	16 35 55.2	
	comp=Z,123nm,18.1s,MS4.4,baz=289,slow=35						
GERES	**GERESS Array B**	**90.20**	**39**	P	**P**	**15 55 46.0**	**-0.6**
GERES				LR	LR	16 35 55.2	
VRAC	**Vranov**	**91.75**	**38**	LR	LR	16 37 26.5	
	comp=Z,114nm,20.6s,MS4.3,baz=297,slow=36						
TORD	**Torodi Ar. Bea**	**91.83**	**76**	P	**P**	**15 55 53.3**	**-1.6**
	comp=Z,0.7nm,0.8s,mb4.0,baz=273,slow=4.5,SNR=3.9						
TORD				LR	LR	16 32 27.4	
	comp=Z,104nm,18.5s,MS4.3,baz=255,slow=32						
TORD	**Torodi Ar. Bea**	**91.83**	**76**	P	**P**	**15 55 53.3**	**-1.6**
TORD				LR	LR	16 32 27.4	
KEST	**Kesra**	**91.85**	**52**	LR	LR	16 36 51.9	
	comp=Z,38nm,18.1s,MS3.9,baz=292,slow=35						
TAM	**Tamanrasset**	**92.68**	**66**	*e*P	**P**	**15 55 59.5**	**+0.8**
TAM				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
TAM	**Tamanrasset**	**92.68**	**66**	*e*P	**P**	**15 55 59.5**	**+0.8**
	comp=Z,3.9nm,0.9s,mb4.8						
VAE	**Valguarnera**	**95.04**	**49**	LR	LR	16 37 34.2	
	comp=Z,292nm,19.0s,MS4.8,baz=136,slow=34						
AKASG	**Malin Array Be**	**98.14**	**33**	LR	LR	16 43 53.7	
	comp=Z,128nm,19.0s,MS4.4,baz=280,slow=37						
MDJ	**Mudanjiang**	**109.18**	**329**	P	Pdif	15 57 11.8	-0.2
MDJ				pmax	pmax		
	comp=Z,3.0nm,2.2s						
MDJ				pmax	pmax		
	comp=Z,82nm,4.5s						
CN2	**Changchun**	**111.80**	**331**	*e*PKP	PKiKP	16 01 19.5	-1.6
CN2				PP	PP	16 02 04.3	+1.1
HHC	**Hu-ho-hao-te**	**120.10**	**338**	*e*PKP	PKPdf	16 01 36.9	-0.2
HHC				PP	PP	16 03 04.4	+3.3
HHC				PKS		16 05 12.1	
HHC				SKS	SKSdf	16 08 44.6	-1.2
HHC				SKKS	SKKSac	16 09 51.9	-6.7
HHC				AMB	AMB		
	comp=Z,140nm,5.3s						
HHC				LR	LR		
	comp=N,83nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=E,220nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,130nm,15.5s,MS4.7						
WMQ	**Urumqi**	**121.88**	**359**	*e*PKP	PKPdf	16 01 40.9	+0.5
WMQ				LR	LR		
	comp=Z,200nm,22.2s,MS4.7						
NJ2	**Nanjing**	**124.13**	**327**	*e*PKP	PKPdf	16 01 46.2	+1.1
GTA	**Gaotai**	**124.84**	**347**	*e*PKPbc	PKPdf	16 01 53.7	+7.4
GTA				sPKP		16 02 07.8	
STKA	**Stephens Creek**	**126.91**	**241**	PKP	PKPdf	16 01 48.0	-2.3
	comp=Z,4.1nm,0.8s,baz=23,slow=0.7,SNR=6.4						
XAN	**Xi’an**	**127.08**	**336**	PKP	PKPdf	16 01 49.4	-1.3
CD2	**Chengdu**	**131.77**	**340**	PKP	PKPdf	16 02 00.0	+0.3
WRA	**Warramunga Arr**	**133.95**	**256**	PKP	PKPdf	16 02 01.9	-2.1
	comp=Z,1.7nm,0.7s,baz=93,slow=2.4,SNR=6.9						
ASAR	**Alice Springs**	**134.31**	**251**	PKP	PKPdf	16 02 02.5	-2.2
	comp=Z,2.2nm,1.2s,baz=117,slow=2.2,SNR=4.9						
GYA	**Guiyang**	**134.67**	**334**	*e*Pdif	Pdif	15 59 02.6	-2.7
GYA				PP	PP	16 04 41.2	+3.8
GYA				PKS		16 05 41.0	
GYA				SKS	SKSdf	16 09 11.2	-2.0
GYA				SKKS	SKKSac	16 11 28.4	-2.4
GYA				AMB	AMB		
	comp=Z,110nm,7.8s						
GYA				LR	LR		
	comp=N,120nm,19.6s,MS4.8						
GYA				LR	LR		
	comp=E,110nm,18.4s,MS4.8						
GYA				LR	LR		
	comp=Z,110nm,19.0s,MS4.6						
KMI	**Kunming**	**137.42**	**338**	PKP	PKPdf	16 02 10.5	+0.1
KMI				PP	PP	16 04 58.8	+4.2
KMI				LR	LR		
	comp=Z,54nm,20.0s,MS4.3						
CHTO	**Chiang Mai**	**144.57**	**339**	*e*PKIKP	PKPdf	16 02 20.4	-3.0
POO	**Poona**	**144.89**	**21**	*e*PKP	PKPdf	16 02 20.0	-4.0
CMAR	**Chiang Mai Arr**	**144.90**	**339**	PKP	PKPdf	16 02 21.6	-2.4
	comp=Z,7.2nm,0.9s,baz=345,slow=4.1,SNR=44						
HYB	**Hyderabad**	**147.31**	**14**	*i* P	PKPab	16 02 33.0	+0.8
KSM	**Kuching**	**151.39**	**302**	*e*PKPdf	PKPbc	16 02 39.4	-1.5

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*ISCJB **02** 15:44:28.7±0.4, 22°.54N±0°.03×97°.00E±0°.04, h10^{km}, mb3.8/7, MS3.4/4, Error ellipse: s-maj=6.6km s-min=3.7km az=147.8*

*IDC **02** 15:44:28.8±1.1, 22°.40N×96°.64E, h0^{km}, mb3.8/8, mb1 3.9/9, mb1mx3.7/25, mbtmp3.8/9, ML4.5/1, MS3.4/6, Ms1 3.4/6, ms1mx3.0/39, Error ellipse: s-maj=47.7km s-min=12.6km az=63.0*

*BJI **02** 15:44:29.9, 22°.48N×96°.37E, h7^{km}, mB4.3/1, mb3.9/3, ML4.1/5, Ms4.0/2, Ms7 3.6/2*

*NEIC **02** 15:44:33.2±0.6, 22°.33N×96°.52E, h35^{km}, mb4.0/1, Error ellipse: s-maj=25.9km s-min=6.4km az=62.0*

ISC 02 15:44:30.8±0.4**, 22°.49N**±0°.04×**96°.85E**±0°.04**, h10**^{km}**, n28, σ1ˢ.15**/34**, mb3.8**/7**, MS3.4**/4**, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMP	**Imphal**	**3.51**	**311**	*e*PKP	**Pn**	**15 45 25.0**	**-0.5**
IMP				*e*S	**Sn**	**15 46 10.0**	**+2.9**
CHRT	**Chiangrai**	**3.78**	**133**	PG	**Pg**	**15 45 39.0**	**-4.3**
CHRT				SG	**Sg**	**15 46 32.0**	**-0.3**
CHG	**Chiang Mai**	**4.15**	**151**	PG	**Pn**	**15 45 34.9**	**+0.6**
CHG				SG	**Sg**	**15 46 47.0**	**+2.8**
CHTO	**Chiang Mai**	**4.15**	**151**	*e*P	**Pn**	**15 45 34.4**	**+0.1**
CHTO				*e*		15 45 48.7	
CHTO				*e*Sn	**Sg**	**15 46 42.1**	**-2.1**
CM31	**Chiang Mai Arr**	**4.47**	**154**	*e*P	**Pn**	**15 45 38.5**	**-0.1**
CM31				*e*		15 45 52.9	
CM31				Sn	**Sn**	**15 46 34.4**	**+3.7**
CMAR	**Chiang Mai Arr**	**4.47**	**154**	Pn	**Pn**	**15 45 39.0**	**+0.3**
	6.2nm,0.3s,baz=328,slow=13,SNR=204						
CMAR				Pg	**Pg**	**15 45 51.8**	**-4.6**
	9.3nm,0.3s,baz=330,slow=17,SNR=88						
CMAR				Sn	**Sn**	**15 46 30.1**	**-0.5**
	5.4nm,0.3s,baz=335,slow=16,SNR=4.6						
CMAR				Lg		15 46 54.0	
	23nm,0.3s,baz=308,slow=16,SNR=7.7						
SHL	**Shillong**	**5.47**	**305**	*e*PN	**Pn**	**15 45 53.2**	**+0.7**
SHL				*e*SN	**Sn**	**15 46 54.2**	**-1.3**
BDT	**Bhumibol Dam**	**5.60**	**158**	PN	**Pn**	**15 45 54.8**	**+0.6**
BDT	**Bhumibol Dam**	**5.60**	**158**	PG	**Pg**	**15 46 14.2**	**-3.9**
BDT				SG	**Sg**	**15 47 34.0**	**+3.3**
KMI	**Kunming**	**6.00**	**63**	Pg	**Pg**	**15 46 24.3**	**-1.5**
KMI				Sg	**Sg**	**15 47 44.1**	**+0.5**
KMI				smax			
	comp=N,97nm,1.0s						
KMI				smax			
	comp=E,53nm,1.1s						
KMI				LR	LR		
	comp=N,510nm,6.4s						
KMI				LR	LR		
	comp=E,250nm,8.2s						
KMI				LR	LR		
	comp=Z,340nm,11.8s						
NST	**Nakhon Sawan**	**7.46**	**155**	P	**Pn**	**15 46 20.0**	**+0.2**
LSA	**Lhasa**	**8.82**	**326**	P	**Pn**	**15 46 39.0**	**+0.6**
LSA	**Lhasa**	**8.82**	**326**	*e*Pn	**Pn**	**15 46 38.1**	**-0.2**
	comp=Z,8.7nm,0.4s						
XAN	**Xi’an**	**15.65**	**40**	P	**Pn**	**15 48 15.7**	**+4.2**
XAN				pP	pP	15 48 25.3	+6.8
XAN				pmax	pmax		
	comp=Z,5.0nm,0.9s						
XAN				pmax	pmax		
	comp=Z,90nm,6.7s						
PSI	**Prapat**	**19.67**	**174**	LR	LR	15 56 02.3	
	comp=Z,35nm,20.4s,baz=182,slow=35						
SONM	**Songino Array**	**26.42**	**15**	P	**P**	**15 50 09.6**	**+2.0**
	comp=Z,0.2nm,0.4s,baz=215,slow=9.8,SNR=2.5						
SONM				LR	LR	16 01 28.4	
	comp=Z,69nm,18.0s,baz=148,slow=38						
MK31	**Makanchi Array**	**26.95**	**338**	*e*P	**P**	**15 50 11.8**	**-0.6**
MKAR	**Makanchi Array**	**26.95**	**338**	P	**P**	**15 50 12.2**	**-0.2**
	comp=Z,2.2nm,0.9s,mb3.7,baz=143,slow=11,SNR=14						
JOW	**Kunigami**	**28.85**	**75**	LR	LR	16 02 51.4	
	comp=Z,57nm,19.2s,MS3.2,baz=129,slow=38						
KSRS	**Korea Array**	**30.61**	**54**	LR	LR	16 03 08.5	
	comp=Z,35nm,19.3s,MS3.0,baz=270,slow=36						
KURK	**Kurchatov**	**31.57**	**338**	P	**P**	**15 50 52.5**	**-0.8**
	comp=Z,1.0nm,0.7s,mb3.7,baz=147,slow=9.4,SNR=5.5						
KURK	**Kurchatov**	**31.57**	**338**	P	**P**	**15 50 50.8**	**-2.5**
	comp=Z,2.7nm,1.2s,mb4.0						
ZALV	**Zalesovo Beam**	**32.71**	**347**	P	**P**	**15 51 03.4**	**+0.1**
	comp=Z,1.3nm,0.6s,mb4.1,baz=156,slow=7.8,SNR=10						
BVAR	**Borovoye Array**	**36.56**	**333**	P	**P**	**15 51 36.1**	**-0.5**
	comp=Z,1.6nm,0.8s,mb3.9,baz=141,slow=7.6,SNR=7.9						
MJAR	**Matsushiro Arr**	**38.33**	**59**	P	**P**	**15 51 53.2**	**+1.3**
	comp=Z,0.7nm,0.7s,mb3.5,baz=290,slow=5.3,SNR=4.1						
MJAR				LR	LR	16 09 12.1	
	comp=Z,75nm,18.7s,MS3.5,baz=25,slow=38						
JHJ	**Hachijo jima 2**	**39.19**	**65**	LR	LR	16 06 33.3	
	comp=Z,256nm,22.0s,MS4.0,baz=350,slow=34						
WRA	**Warramunga Arr**	**55.85**	**136**	P	**P**	**15 54 07.1**	**-1.6**
	comp=Z,0.7nm,0.8s,mb3.7,baz=322,slow=7.5,SNR=4.5						
ASAR	**Alice Springs**	**58.34**	**140**	P	**P**	**15 54 26.4**	**0.0**
	comp=Z,1.0nm,0.9s,mb3.8,baz=318,slow=6.9,SNR=11						

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*BJI **02** 15:49:57.4, 1°.73N×124°.45E, h371^{km}, mB4.4/6, mb4.0/16*

*ISCJB **02** 15:49:59.0±0.3, 2°.27N±0°.04×124°.09E±0°.04, h335^{km}±3^{km}, mb4.2/43, Error ellipse: s-maj=7.2km s-min=4.5km az=137.0*

*NEIC **02** 15:50:00.7±0.7, 2°.24N×123°.99E, h341^{km}±7^{km}, mb4.3/16, Error ellipse: s-maj=9.2km s-min=4.9km az=62.0*

*DJA **02** 15:50:00, 2°.17N×124°.07E, h321^{km}, mb4.7/14*

*IDC **02** 15:50:01.4±1.2, 2°.23N×124°.00E, h347^{km}±12^{km}, mb3.9/17, mb1 4.0/19, mb1mx3.8/28, mbtmp3.9/19, Error ellipse: s-maj=15.4km s-min=6.2km az=70.0*

ISC 02 15:49:59.9±0.3**, 2°.25N**±0°.04×**124°.06E**±0°.04**, h327**^{km}±3^{km}**, n117, σ0ˢ.99**/122**, mb4.2**/43**, 2D, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	**Manado**	**1.11**	**136**	⇓*e*P	**Pn**	**15 50 43.0**	**-0.8**
MNI	**Manado**	**1.11**	**136**	P	**Pn**	**15 50 43.9**	**+0.1**
MNI				S	**S**	**15 51 19.0**	**+0.3**
SGSI	**Sangihe**	**2.05**	**46**	P	**Pn**	**15 50 49.5**	**0.0**
TNE	**Ternate**	**3.61**	**114**	⇓*e*P	**Pn**	**15 50 59.0**	**-4.6**
TNTI	**Ternate**	**3.61**	**114**	P	**Pn**	**15 51 03.0**	**-0.6**
TNTI				S	**S**	**15 51 44.1**	**-11**
LBMI	**Labuha**	**4.47**	**130**	P	**Pn**	**15 51 12.0**	**-0.8**
LBMI				S	**S**	**15 52 08.8**	**-2.6**
DAV	**Davao City (W)**	**5.02**	**17**	P	**Pn**	**15 51 19.9**	**+1.0**
	13nm,0.3s,baz=240,slow=16,SNR=4.3						
PCI	**Palu**	**5.26**	**234**	P	**Pn**	**15 51 20.0**	**-1.5**
	66nm,0.7s,0.2nm						
MYLDM	**Lahad Datu**	**6.27**	**298**	P	**Pn**	**15 51 33.4**	**+0.2**
	236nm,1.0s,2µm0.6nm						
TSM	**Tawau**	**6.51**	**288**	P	**Pn**	**15 51 35.9**	**-0.1**
SDKM	**Sandakan**	**7.64**	**296**	P	**Pn**	**15 51 49.5**	**0.0**
KKM	**Kota Kinabalu**	**8.69**	**296**	P	**Pn**	**15 52 01.7**	**-0.5**
KKM	**Kota Kinabalu**	**8.69**	**296**	*e*Pn	**Pn**	**15 52 01.0**	**-1.2**
	33nm,0.8s						
BBKI	**Banjar Baru**	**10.82**	**238**	P	**Pn**	**15 52 30.3**	**+2.3**
	76nm,1.0s						
BTM	**Bintulu**	**11.01**	**275**	P	**Pn**	**15 52 33.5**	**+3.3**
PLKI	**Palangkaraya**	**11.05**	**246**	P	**Pn**	**15 52 30.6**	**-0.1**
	164nm,0.9s						
SBUM	**Sibu**	**11.84**	**271**	P	**Pn**	**15 52 43.8**	**+3.7**
SBUM	**Sibu**	**11.84**	**271**	P	**Pn**	**15 52 42.4**	**+2.2**
	83nm,1.2s,716nm						
TGY	**Tagaytay City**	**12.18**	**345**	P	**Pn**	**15 52 46.0**	**+1.7**
	3.9nm,0.3s,baz=301,slow=22,SNR=4.5						
BAKI	**Biak**	**12.52**	**106**	P	**Pn**	**15 52 51.7**	**+3.4**
	268nm,0.7s						
PBKI	**Pangkalan Bun**	**13.33**	**248**	P	**Pn**	**15 52 58.6**	**+0.6**
KHKI	**Kahang-Kahang**	**13.50**	**219**	P	**Pn**	**15 52 59.6**	**-0.4**
KSM	**Kuching**	**13.77**	**267**	P	**Pn**	**15 53 05.1**	**+1.9**
KSM	**Kuching**	**13.77**	**267**	*e*P	**Pn**	**15 53 02.6**	**-0.6**
	36nm,0.8s						
KSM	**Kuching**	**13.77**	**267**	P	**Pn**	**15 53 03.4**	**+0.2**
	51nm,1.1s						
SJI	**Sawahan**	**15.77**	**231**	P	**P**	**15 53 22.0**	**-2.2**
KAKA	**Kakadu**	**17.03**	**151**	*e*P	**P**	**15 53 38.6**	**+0.8**

	86nm,0.6s						
KAKA	**Kakadu**	**17.03**	**151**	*e*P	**P**	**15 53 37.9**	**+0.1**
	239nm,0.6s						
KAKA	**Kakadu**	**17.03**	**151**	P	**P**	**15 53 38.4**	**+0.6**
	198nm,0.7s,2µm						
KNA	**Kununurra**	**18.48**	**166**	*e*P	**P**	**15 53 53.0**	**-0.3**
	13nm,0.6s						
LEM	**Lembang**	**18.73**	**241**	P	**P**	**15 53 56.6**	**+0.6**
	158nm,0.8s						
DBJI	**Dramaga**	**19.37**	**243**	P	**P**	**15 54 03.2**	**+0.4**
MYKOM	**Kota Tinggi**	**20.21**	**269**	P	**P**	**15 54 13.0**	**+1.4**
MYKOM	**Kota Tinggi**	**20.21**	**269**	P	**P**	**15 54 11.8**	**+0.2**
	41nm,1.1s						
FITZ	**Fitzroy Crossi**	**20.28**	**176**	*e*P	**P**	**15 54 13.1**	**+0.9**
	15nm,0.6s						
FITZ				*e*		15 54 57.9	
FITZ				*e*S	**S**	**15 57 37.7**	**-1.3**
FITZ	**Fitzroy Crossi**	**20.28**	**176**	P	**P**	**15 54 12.1**	**-0.2**
	7.1nm,0.5s,baz=6.4,slow=8.0,SNR=56						
FITZ				S	**S**	**15 57 37.7**	**-1.3**
	5.4nm,1.0s,baz=144,slow=18,SNR=6.4						
FITZ	**Fitzroy Crossi**	**20.28**	**176**	P	**P**	**15 54 12.2**	**0.0**
	19nm,0.6s						
KGM	**Kluang**	**20.73**	**270**	P	**P**	**15 54 17.5**	**+1.0**
KTGM	**Kuala Trenggan**	**21.10**	**279**	P	**P**	**15 54 20.6**	**+0.7**
FRIM	**Kepong**	**22.43**	**273**	P	**P**	**15 54 32.5**	**+0.5**
IPM	**Ipoh**	**23.10**	**276**	P	**P**	**15 54 38.7**	**+0.6**
IPM	**Ipoh**	**23.10**	**276**	P	**P**	**15 54 37.5**	**-0.6**
	25nm,0.7s,mb4.5						
KULM	**Kulim**	**23.55**	**278**	P	**P**	**15 54 42.4**	**+0.2**
KULM	**Kulim**	**23.55**	**278**	*e*P	**P**	**15 54 41.3**	**-0.9**
	13nm,1.2s,mb4.0						
MBWA	**Marble Bar**	**23.64**	**190**	*e*P	**P**	**15 54 41.9**	**-1.0**
	7.8nm,0.6s,mb4.1						
WRAB	**Tennant Creek**	**24.24**	**156**	*e*P	**P**	**15 54 48.0**	**-0.3**
	15nm,0.6s,mb4.4						
WRAB	**Tennant Creek**	**24.24**	**156**	P	**P**	**15 54 48.0**	**-0.3**
WRA	**Warramunga Arr**	**24.25**	**156**	P	**P**	**15 54 48.2**	**-0.1**
	12nm,0.4s,mb4.4,baz=336,slow=9.6,SNR=183						
WRA				S	**S**	**15 58 39.2**	**-3.4**
	7.8nm,1.1s,baz=332,slow=16,SNR=7.9						
WRA				ScP	ScP	16 01 25.4	-0.6
	1.2nm,0.5s,baz=333,slow=3.1,SNR=6.1						
WB2	**Warramunga Arr**	**24.25**	**156**	*e*P	**P**	**15 54 47.9**	**-0.5**
COEN	**Coen**	**24.86**	**131**	*e*P	**P**	**15 54 53.7**	**-0.2**
PSI	**Prapat**	**25.12**	**272**	P	**P**	**15 54 55.8**	**-0.6**
	5.3nm,0.3s,mb4.2,baz=94,slow=5.8,SNR=7.9						
GSI	**Gunungsitoli**	**26.49**	**268**	P	**P**	**15 55 06.9**	**-1.6**
ASAR	**Alice Springs**	**27.48**	**160**	P	**P**	**15 55 16.9**	**-0.3**
	2.3nm,0.5s,mb3.7,baz=341,slow=7.3,SNR=71						
ASAR				S	**S**	**15 59 32.6**	**-0.8**
	3.7nm,0.8s,baz=350,slow=20,SNR=6.8						
ASAR				ScP	ScP	16 01 34.7	-0.7
	0.9nm,0.5s,baz=350,slow=2.8,SNR=5.8						
MTSU	**Mount Surprise**	**28.43**	**136**	*e*P	**P**	**15 55 26.4**	**+0.8**
	9.0nm,0.5s,mb4.3						
CMAR	**Chiang Mai Arr**	**29.42**	**305**	P	**P**	**15 55 34.4**	**0.0**
	1.7nm,1.0s,mb3.2,baz=130,slow=7.0,SNR=9.8						
CMAR				PcP	PcP	15 58 31.6	+0.4
	0.5nm,0.5s,baz=89,slow=1.5,SNR=4.8						
CHTO	**Chiang Mai**	**29.60**	**306**	*e*P	**P**	**15 55 35.1**	**-0.8**
	2.7nm,0.8s,mb3.5						
CBIJ	**Chichi jima**	**30.20**	**33**	P	**P**	**15 55 40.4**	**-0.7**
	64nm,0.6s,mb5.0,baz=288,slow=15,SNR=5.6						
CTA	**Charters Tower**	**31.09**	**137**	*e*P	**P**	**15 55 50.1**	**+1.2**
	3.5nm,0.8s,mb3.6						
CTA	**Charters Tower**	**31.09**	**137**	P	**P**	**15 55 49.5**	**+0.5**
	3.9nm,0.6s,mb3.8,baz=342,slow=10.0,SNR=4.2						
CTA	**Charters Tower**	**31.09**	**137**	P	**P**	**15 55 49.5**	**+0.5**
XAN	**Xi'an**	**34.65**	**338**	P	**P**	**15 56 19.1**	**-0.3**
XAN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb3.9						
XAN				pmax	pmax		
	comp=Z,50nm,6.1s						
XAN				LR	LR		
	comp=E,110nm,6.5s						
XAN				LR	LR		
	comp=Z,180nm,11.8s						
QLP	**Quilpie**	**34.65**	**147**	*e*P	**P**	**15 56 19.9**	**+0.4**
NWAO	**Narrogin (SRO)**	**35.57**	**190**	P	**P**	**15 56 27.2**	**0.0**
	comp=Z,3.4nm,0.3s,mb4.0,baz=2.2,slow=14,SNR=12						
NWAO	**Narrogin (SRO)**	**35.57**	**190**	*e*P	**P**	**15 56 26.9**	**-0.3**
	comp=Z,2.7nm,0.3s,mb4.0						
MJAR	**Matsushiro Arr**	**36.54**	**19**	P	**P**	**15 56 34.6**	**-0.7**
	comp=Z,0.6nm,0.5s,mb3.1,baz=192,slow=8.7,SNR=4.0						
STKA	**Stephens Creek**	**37.80**	**155**	*e*P	**P**	**15 56 46.9**	**+1.0**
	comp=Z,8.8nm,0.5s,mb4.2						
STKA	**Stephens Creek**	**37.80**	**155**	P	**P**	**15 56 47.0**	**+1.2**
	comp=Z,16nm,0.6s,mb4.4,baz=328,slow=8.9,SNR=42						
STKA	**Stephens Creek**	**37.80**	**155**	*e*P	**P**	**15 56 46.9**	**+1.0**
	comp=Z,4.0nm,0.8s,mb3.7						
EIDS	**Eidsvold**	**37.93**	**138**	*e*P	**P**	**15 56 48.0**	**+0.9**
CMSA	**Cobar Meteorol**	**39.39**	**150**	*e*P	**P**	**15 57 00.5**	**+1.5**
LSA	**Lhasa**	**41.49**	**314**	P	**P**	**15 57 17.4**	**+1.3**
LSA	**Lhasa**	**41.49**	**314**	*e*P	**P**	**15 57 17.4**	**+1.2**
	comp=Z,7.5nm,0.7s,mb4.0						
ARMA	**Armidale**	**41.79**	**143**	*e*P	**P**	**15 57 20.9**	**+2.4**
TAPN	**Taplejung**	**42.81**	**309**	*e*P	**P**	**15 57 26.8**	**+0.1**
	comp=Z,9.9nm,0.3s,mb4.4						
ODAN	**Odare**	**42.82**	**308**	*e*P	**P**	**15 57 26.9**	**0.0**
	comp=Z,24nm,0.7s,mb4.4						
YNG	**Young**	**42.95**	**150**	*e*P	**P**	**15 57 29.7**	**+2.0**
	comp=Z,3.2nm,0.6s,mb3.6						
GTA	**Gaotai**	**43.08**	**332**	*e*P	**P**	**15 57 29.1**	**+0.5**
GTA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.0						
PALK	**Pallekele**	**43.48**	**278**	*e*P	**P**	**15 57 31.2**	**-1.1**
	comp=Z,15nm,1.1s,mb4.0						
RAMN	**Ramite**	**43.49**	**308**	*e*P	**P**	**15 57 32.6**	**+0.5**
	comp=Z,33nm,0.7s,mb4.5						
JIRN	**Jiri**	**44.14**	**309**	*e*P	**P**	**15 57 37.7**	**+0.4**
	comp=Z,11nm,0.2s,mb4.6						
GUN	**Gumba**	**44.50**	**309**	*e*P	**P**	**15 57 40.3**	**+0.2**
	comp=Z,38nm,0.7s,mb4.6						
PKI	**Pulchoki**	**44.71**	**308**	*e*P	**P**	**15 57 41.5**	**-0.3**
PKIN	**Phulchoki**	**44.73**	**308**	*e*P	**P**	**15 57 41.4**	**-0.5**
KKN	**Kakani**	**44.91**	**308**	*e*P	**P**	**15 57 42.7**	**-0.6**
DMN	**Daman**	**44.97**	**308**	*e*P	**P**	**15 57 43.6**	**-0.2**
	comp=Z,35nm,1.0s,mb4.4						
GKN	**Gorkha**	**45.52**	**308**	*e*P	**P**	**15 57 47.7**	**-0.3**
KOLN	**Koldanda**	**46.23**	**307**	*e*P	**P**	**15 57 53.8**	**+0.2**
DANN	**Dangsing**	**46.37**	**308**	*e*P	**P**	**15 57 54.6**	**0.0**
	comp=Z,34nm,0.7s,mb4.6						
PYUN	**Piuthan**	**46.86**	**307**	*e*P	**P**	**15 57 58.5**	**+0.1**
	comp=Z,47nm,0.7s,mb4.8						
HYB	**Hyderabad**	**47.15**	**292**	*i* P	**P**	**15 58 01.0**	**+0.2**
SONM	**Songino Array**	**47.91**	**344**	P	**P**	**15 58 06.8**	**+0.7**
	comp=Z,2.6nm,0.6s,mb3.7,baz=157,slow=8.8,SNR=22						
MK31	**Makanchi Array**	**57.30**	**327**	*e*P	**P**	**15 59 13.4**	**-0.9**
MKAR	**Makanchi Array**	**57.30**	**327**	P	**P**	**15 59 14.5**	**+0.2**
	comp=Z,14nm,0.4s,mb4.7,baz=123,slow=7.9,SNR=390						
MKAR				PcP	PcP	16 00 03.0	-1.4
	comp=Z,1.7nm,0.7s,baz=128,slow=4.0,SNR=5.0						
MKAR				ScP	ScP	16 03 28.8	-3.5
	comp=Z,0.8nm,0.8s,baz=134,slow=3.0,SNR=4.5						
MKAR	**Makanchi Array**	**57.30**	**327**	P	**P**	**15 59 14.5**	**+0.2**
MKAR				PcP	PcP	16 00 03.0	-1.4
MKAR				ScP	ScP	16 03 28.8	-3.5
PETK	**Petropavlovsk-**	**57.82**	**23**	P	**P**	**15 59 19.1**	**+1.3**
	comp=Z,2.5nm,0.8s,mb3.6,baz=212,slow=5.1,SNR=3.2						
KZA	**Kyzart**	**58.94**	**319**	P	**P**	**15 59 27.5**	**+1.7**
	SNR=11						
TKM2	**Tokmak 2**	**59.13**	**320**	P	**P**	**15 59 28.0**	**+1.0**
	SNR=11						
TKM2	**Tokmak 2**	**59.13**	**320**	*e*P	**P**	**15 59 25.8**	**-1.2**
	comp=Z,10.0nm,0.6s,mb4.4						
AAK	**Ala-Archa**	**59.70**	**319**	P	**P**	**15 59 32.0**	**+1.1**
	SNR=6.7						
AAK	**Ala-Archa**	**59.70**	**319**	*e*P	**P**	**15 59 30.6**	**-0.3**
	comp=Z,3.7nm,0.6s,mb4.0						
AML	**Almayashu**	**59.99**	**319**	P	**P**	**15 59 34.2**	**+1.4**
	SNR=15						
AML	**Almayashu**	**59.99**	**319**	*e*P	**P**	**15 59 33.4**	**+0.5**
	comp=Z,11nm,0.8s,mb4.3						
USP	**Ospenovka**	**60.00**	**320**	P	**P**	**15 59 33.4**	**+0.5**
	SNR=11						
EKS2	**Erkin-Say**	**60.18**	**319**	P	**P**	**15 59 35.2**	**+1.1**
	SNR=10						
EKS2	**Erkin-Say**	**60.18**	**319**	*e*P	**P**	**15 59 33.2**	**-0.9**
	comp=Z,6.3nm,0.7s,mb4.2						
KBL	**Kabul**	**60.34**	**309**	*e*P	**P**	**15 59 34.8**	**-0.6**
	comp=Z,15nm,0.7s,mb4.5						
ZAA0	**Zalesovo Array**	**60.73**	**335**	*e*P	**P**	**15 59 36.4**	**-1.2**
ZALV	**Zalesovo Beam**	**60.73**	**335**	P	**P**	**15 59 36.9**	**-0.7**
	comp=Z,2.5nm,0.4s,mb4.0,baz=132,slow=5.5,SNR=18						
KURK	**Kurchatov**	**61.59**	**329**	P	**P**	**15 59 42.2**	**-1.2**
	comp=Z,9.5nm,0.5s,mb4.6,baz=129,slow=6.5,SNR=19						
RPZ	**Rata Peaks**	**62.13**	**143**	P	**P**	**15 59 47.9**	**+0.8**
	comp=Z,5.4nm,0.7s,mb4.2,baz=0.0,slow=0.0						
BVAR	**Borovoye Array**	**67.13**	**328**	P	**P**	**16 00 17.9**	**-1.1**
	comp=Z,3.3nm,0.5s,mb4.3,baz=132,slow=8.3,SNR=23						
BRVK	**Borovoye**	**67.21**	**328**	*e*P	**P**	**16 00 17.1**	**-2.3**
	comp=Z,12nm,1.1s,mb4.5						
AKTK	**Aktyubinsk**	**73.18**	**322**	P	**P**	**16 00 54.4**	**-1.1**
AKTO	**Aktyubinsk**	**73.18**	**322**	P	**P**	**16 00 54.4**	**-1.1**
	comp=Z,3.7nm,0.3s,mb4.6,baz=109,slow=7.3,SNR=21						
ARCES	**ARCESS Array B**	**90.91**	**340**	P	**P**	**16 02 24.1**	**-2.6**
	comp=Z,3.6nm,0.8s,mb4.3,baz=49,slow=5.6,SNR=12						
TORD	**Torodi Ar. Bea**	**120.82**	**287**	PKP	PKPdf	16 08 13.3	-1.2
	comp=Z,0.9nm,0.3s,baz=88,slow=1.7,SNR=19						
SCHQ	**Schefferville**	**122.41**	**7**	PKP	PKPdf	16 08 15.2	-1.3
	comp=Z,2.9nm,0.9s,baz=270,slow=6.1,SNR=3.8						

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*ISCJB **02** 15:54:15.7±0.6, 40°.31N±0°.05×27°.84E±0°.05, h5km±9km, Error ellipse: s-maj=8.8km s-min=5.5km az=30.5*
*ISK **02** 15:54:15.3, 40°.29N×27°.85E, h2km, MD2.5*
*DDA **02** 15:54:15.8, 40°.32N×27°.83E, h7km±3km, Md2.7*
*CSEM **02** 15:54:16.1±0.1, 40°.33N×27°.85E, h2km, MD2.5, Error ellipse: s-maj=3.9km s-min=2.0km az=29.0*
ISC 02 15:54:16.3±0.6**, 40°.32N**±0°.05×**27°.85E**±0°.05**, h4**km±7km**, n21, σ0s.46**/28**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EDC	**Edincik**	**0.03**	**26**	PG	**Pg**	**15 54 16.7**	**-0.4**
EDC				*e*SG	**Sg**	**15 54 17.8**	**+0.1**
EDC	**Edincik**	**0.03**	**26**	*i* Pg	**Pg**	**15 54 16.7**	**-0.4**
EDC				*e*Sg	**Sg**	**15 54 17.8**	**0.0**
BNT	**Bandirma**	**0.06**	**59**	PG	**Pg**	**15 54 17.2**	**-0.5**
BNT				*e*SG	**Sg**	**15 54 18.7**	**+0.1**
KCT	**Karacabey**	**0.39**	**98**	*e*PG	**Pg**	**15 54 23.5**	**-0.3**
KCT	**Karacabey**	**0.39**	**98**	*e*Pg	**Pg**	**15 54 23.5**	**-0.3**
SART	**Tekirdag**	**0.63**	**306**	*i* P	**Pg**	**15 54 27.8**	**-0.6**
SART				*i* S	**Sg**	**15 54 36.9**	**+0.5**
SART	**Tekirdag**	**0.63**	**306**	*i* P	**Pg**	**15 54 27.8**	**-0.5**
SART				*i* S	**Sg**	**15 54 36.9**	**+0.4**
ARMT	**Armutlu**	**0.81**	**72**	*e*PG	**Pg**	**15 54 32.5**	**+0.6**
ARMT	**Armutlu**	**0.81**	**72**	*e*Pg	**Pg**	**15 54 32.5**	**+0.7**
LPK	**Lapseki**	**0.83**	**274**	*e*PG	**Pg**	**15 54 32.4**	**+0.1**
LPK	**Lapseki**	**0.83**	**274**	*e*Pg	**Pg**	**15 54 32.4**	**+0.1**
DURS	**Dursunbey**	**0.87**	**146**	*i* P	**Pg**	**15 54 32.7**	**-0.2**
DURS				*i* S	**Sg**	**15 54 44.9**	**+0.7**
DURS	**Dursunbey**	**0.87**	**146**	*i* P	**Pg**	**15 54 32.7**	**-0.2**
DURS				*i* S	**Sg**	**15 54 44.9**	**+0.7**
DST	**Dursunbey**	**0.94**	**140**	*e*PG	**Pg**	**15 54 33.9**	**-0.3**
DST	**Dursunbey**	**0.94**	**140**	*e*Pg	**Pg**	**15 54 33.9**	**-0.3**
GEMT	**Gemlik**	**1.03**	**83**	*e*PG	**Pg**	**15 54 36.1**	**+0.1**
GEMT	**Gemlik**	**1.03**	**83**	*e*Pg	**Pg**	**15 54 36.1**	**+0.1**
CTKS	**Kestanelik-??a**	**1.04**	**29**	*e*PG	**Pg**	**15 54 37.0**	**+0.7**
CTKS	**Kestanelik-??a**	**1.04**	**29**	*e*Pg	**Pg**	**15 54 37.0**	**+0.8**
YLV	**Yalova**	**1.19**	**78**	*e*PN	**Pn**	**15 54 39.1**	**-0.6**
YLV	**Yalova**	**1.19**	**78**	*e*Pn	**Pn**	**15 54 39.1**	**-0.6**

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*IDC **02** 15:54:20.1±1.7, 0°.09N×125°.18E, h0km, mb3.9/4, mb1 4.0/4, mb1mx3.6/18, mbtmp3.9/4, Error ellipse: s-maj=215.0km s-min=22.9km az=63.0*
*ISCJB **02** 15:54:28.2±5.8, 0°.4S±0°.2×124°.3E±0°.6, h78km±61km, mb3.8/4, Error ellipse: s-maj=106.0km s-min=23.2km az=160.9*
ISC 02 15:54:28.6±5.8**, 0°.5S**±0°.2×**124°.3E**±0°.6**, h60**km±61km**, n5, σ0s.67**/6**, mb3.9**/4**, 1D, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	**Manado**	**1.98**	**17**	⇓*e*P	**Pn**	**15 55 00.0**	**+0.2**
MNI				*e*S	**Sn**	**15 55 23.5**	**-0.1**
WRA	**Warramunga Arr**	**21.73**	**154**	P	**P**	**15 59 14.3**	**-0.7**
	0.9nm,0.4s,mb3.6,baz=336,slow=12,SNR=3.5						
ASAR	**Alice Springs**	**24.89**	**159**	P	**P**	**15 59 46.4**	**+0.5**
	0.9nm,0.6s,mb3.5,baz=329,slow=7.3,SNR=4.7						
STKA	**Stephens Creek**	**35.28**	**154**	P	**P**	**16 01 18.0**	**+0.3**
	2.4nm,0.4s,mb4.4,baz=332,slow=8.0,SNR=7.9						
MKAR	**Makanchi Array**	**59.67**	**328**	P	**P**	**16 04 26.5**	**-0.2**
	0.4nm,0.3s,mb3.9,baz=125,slow=7.6,SNR=11						

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*ISCJB **02** 16:26:06.9±0.6, 22°.25S±0°.03×70°.32W±0°.06, h41km±7km, mb3.8/2, Error ellipse: s-maj=9.2km s-min=5.5km az=177.3*
*GUC **02** 16:26:07.2±0.9, 22°.23S×70°.25W, h37km±2km, ML4.2*
*NEIC **02** 16:26:07.2, 22°.23S×70°.25W, h37km, MG4.2(GUC), After GUC.*
*IDC **02** 16:26:08.8±6.7, 21°.77S×70°.01W, h38km±59km, mb3.6/2, mb1 3.6/3, mb1mx3.4/15, mbtmp3.5/3, ML3.1/1, Error ellipse: s-maj=56.8km s-min=45.8km az=13.0*
ISC 02 16:26:07.4±0.7**, 22°.27S**±0°.03×**70°.31W**±0°.05**, h30**km±4km**, n21, σ0s.87**/32**, mb3.8**/2**, 2C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOCH	**Tocopilla**	**0.20**	**30**	*e*P	**Pb**	**16 26 13.4**	**-0.2**
TOCH				*i* S	**Sb**	**16 26 18.0**	**+0.2**
TOCH				AML	AML	16 26 18.5	
	comp=E,65µm,0.1s						
MACH	**Maria Elena**	**0.52**	**82**	*e*P	**Pb**	**16 26 17.7**	**-0.4**
MACH				*e*S	**Sb**	**16 26 25.1**	**-0.2**
PECH	**Pedro de Valdi**	**0.67**	**119**	*e*P	**Pb**	**16 26 20.0**	**-0.6**
PECH				*i* S	**Sb**	**16 26 29.7**	**0.0**
PB04	**Plate Boundary**	**0.76**	**90**	⇑*e*P	**Pn**	**16 26 14.0**	**-8.1**
PB04				*i* S	**Sb**	**16 26 18.6**	**-14**
PB04				AML	AML	16 26 18.9	
	comp=E,62µm,0.2s						
MECH	**Mejillones**	**0.84**	**189**	*e*P	**Pn**	**16 26 23.5**	**+0.2**
MECH				*e*S	**Sb**	**16 26 35.5**	**+1.0**
LVC	**Limon Verde**	**1.34**	**105**	Pn	**Pn**	**16 26 30.8**	**+0.8**
	comp=E,170nm,0.3s,baz=292,slow=9.1,SNR=963						
LVC				Sn	**Sn**	**16 26 48.2**	**+1.3**
	comp=E,164nm,0.3s,baz=17,slow=20,SNR=20						
LVC	**Limon Verde**	**1.34**	**105**	Pn	**Pn**	**16 26 30.8**	**+0.8**
LVC				Sn	**Sn**	**16 26 48.2**	**+1.3**
LVC	**Limon Verde**	**1.34**	**105**	*e*P	**Pn**	**16 26 30.6**	**+0.5**
LVC				*i* S	**Sn**	**16 26 47.7**	**+0.8**
PB01	**Plate Boundary**	**1.44**	**32**	*e*P	**Pn**	**16 26 30.8**	**-0.6**
PB01				*e*S	**Sn**	**16 26 49.5**	**+0.2**
CPN1	**Cerro Paranal**	**2.35**	**182**	⇑*i*P	**Pn**	**16 26 43.7**	**-0.2**
CPN1				AML	AML	16 27 22.9	
	comp=E,874nm,0.3s						
PSGC	**Pisagua**	**2.66**	**4**	*e*P	**Pn**	**16 26 47.1**	**-1.2**
PSGC				*e*S	**Sn**	**16 27 19.7**	**+0.2**
MNMC	**Miæe Miæ**	**3.19**	**12**	*e*P	**Pn**	**16 26 57.0**	**+1.5**
MNMC				*i* S	**Sn**	**16 27 34.3**	**+1.7**
ARE	**Arequipa**	**5.88**	**349**	*e*P	**Pn**	**16 27 33.0**	**+0.5**
LCO	**Las Campanas**	**6.72**	**183**	*e*Pn	**Pn**	**16 27 38.9**	**-5.2**
	comp=E,6.9nm,0.3s						
LCO				*e*Sn	**Sn**	**16 29 11.9**	**+12**
CFAA	**Coronel Fontan**	**9.48**	**169**	Pn	**Pn**	**16 28 29.1**	**+7.2**
	comp=E,0.2nm,0.3s,baz=356,slow=14,SNR=10.0						
CFAA				Sn	**Sn**	**16 30 19.9**	**+12**
	comp=E,0.1nm,0.3s,baz=247,slow=20,SNR=3.1						
SIV	**San Ignacio**	**10.73**	**56**	Pn	**Pn**	**16 28 37.9**	**-1.1**
	comp=E,1.9nm,0.3s,baz=250,slow=11,SNR=43						
NVAR	**Mina Array Bea**	**75.30**	**323**	pP	pP	16 37 57.6	+0.5
	comp=E,0.3nm,0.6s,baz=129,slow=7.1,SNR=3.3						
TORD	**Torodi Ar. Bea**	**78.84**	**71**	P	**P**	**16 38 06.4**	**-1.7**
	comp=E,0.9nm,0.6s,mb3.9,baz=255,slow=5.5,SNR=9.3						
TORD				pP	pP	16 38 16.6	-1.0
	comp=E,0.5nm,0.5s,baz=252,slow=5.3,SNR=4.9						
YKA	**Yellowknife Ar**	**91.48**	**341**	P	**P**	**16 39 09.2**	**-1.2**
	comp=E,0.2nm,0.6s,mb3.6,baz=140,slow=5.1,SNR=4.3						
YKA				pP	pP	16 39 18.4	-1.5
	comp=E,2.8nm,1.4s,baz=141,slow=4.0,SNR=4.1						
YKA	**Yellowknife Ar**	**91.48**	**341**	P	**P**	**16 39 09.2**	**-1.2**
YKA				pP	pP	16 39 18.4	-1.5
MKAR	**Makanchi Array**	**147.01**	**36**	PKPbc	PKPbc	16 45 44.4	-2.7
	comp=E,0.8nm,0.8s,baz=306,slow=2.9,SNR=4.1						

IDC 02 16:30:58.0±1.9**, 40°.35S**×**75°.14W, h0**km**, mb3.8**/4**, mb1 3.8**/6**, mb1mx3.7**/16**, mbtmp3.6**/6**, ML3.2**/2**, MS3.3**/3**, Ms1 3.2**/3**, ms1mx2.8**/24**, Error ellipse: s-maj=39.7km s-min=29.7km az=34.0, Off coast of southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLCA	**Paso Flores**	**3.52**	**98**	Pn	Pn	16 31 54.6	+0.9
	0.7nm,0.3s,baz=272,slow=13,SNR=15						
PLCA				Sn	Sn	16 32 37.8	+1.7
	4.7nm,0.3s,baz=14,slow=19,SNR=5.1						
PLCA				LR	LR	16 33 22.8	
	comp=Z,391nm,19.8s,baz=244,slow=41						
CFAA	**Coronel Fontan**	**10.36**	**35**	Pn	Pn	16 33 26.1	-1.8
	0.1nm,0.3s,baz=208,slow=13,SNR=5.5						
CFAA				Sn	Sn	16 35 18.9	-5.7
	0.0nm,0.3s,baz=61,slow=18,SNR=3.9						
USHA	**Ushuaia**	**15.16**	**165**	LR	LR	16 40 58.8	
	comp=Z,89nm,18.1s,baz=340,slow=40						
CPUP	**Villa Florida**	**20.37**	**52**	P	P	16 35 37.0	+1.0
	0.8nm,0.5s,baz=214,slow=8.6,SNR=4.6						
CPUP				LR	LR	16 44 12.7	
	comp=Z,76nm,19.3s,baz=14,slow=39						
SIV	**San Ignacio**	**27.18**	**31**	P	P	16 36 43.0	-0.2
	0.5nm,0.5s,baz=219,slow=9.6,SNR=4.9						
TXAR	**Lajitas Array**	**74.22**	**334**	P	P	16 42 37.2	+0.7
	0.2nm,0.6s,baz=168,slow=9.2,SNR=3.2						
BOSA	**Boshof**	**79.28**	**118**	P	P	16 43 05.1	-0.2
	2.7nm,0.8s,baz=204,slow=8.6,SNR=5.7						

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*IDC **02** 16:34:12.9±1.6, 6°.46S×129°.57E, h0km, mb3.6/2, mb1 3.6/5, mb1mx3.4/18, mbtmp3.5/5, ML3.5/3, Error ellipse: s-maj=67.5km s-min=16.8km az=76.0*
*NEIC **02** 16:34:14.1±0.9, 6°.37S×129°.62E, h10km, mb3.8/1, Error ellipse: s-maj=32.0km s-min=12.0km az=68.0*
*ISCJB **02** 16:34:22.4±2.1, 6°.57S±0°.07×129°.8E±0°.1, h108km±23km, mb3.5/2, Error ellipse: s-maj=17.9km s-min=12.1km az=171.9*
ISC 02 16:34:22.8±2.0**, 6°.58S**±0°.09×**129°.8E**±0°.1**, h91**km±22km**, n14, σ1s.22**/23**, mb3.5**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.62**	**157**	*e*P	**Pn**	**16 35 58.4**	**+1.0**
	5.3nm,0.4s						
KAKA				*e*S	**Sn**	**16 37 18.4**	**+7.0**
KAKA	**Kakadu**	**6.62**	**157**	*e*Pn	**Pn**	**16 35 57.5**	**+0.1**
	27nm,0.6s						
KAKA				*e*Sn	**Sn**	**16 37 09.0**	**-2.4**
KNA	**Kununurra**	**9.17**	**186**	*e*P	**Pn**	**16 36 34.3**	**+2.1**
	35nm,1.2s						
KNA				*e*S	**Sn**	**16 38 17.3**	**+3.6**
FITZ	**Fitzroy Crossi**	**12.15**	**199**	*e*P	**Pn**	**16 37 12.5**	**-0.3**
	3.8nm,0.6s						
FITZ				*e*S	**Sn**	**16 39 25.5**	**-0.9**
FITZ	**Fitzroy Crossi**	**12.15**	**199**	Pn	**Pn**	**16 37 09.9**	**-2.9**
	0.3nm,0.3s,baz=19,slow=18,SNR=7.4						
FITZ				Sn	**Sn**	**16 39 26.3**	**0.0**
	0.1nm,0.3s,baz=270,slow=20,SNR=2.9						
FITZ	**Fitzroy Crossi**	**12.15**	**199**	*e*Pn	**Pn**	**16 37 08.4**	**-4.3**
	2.5nm,0.8s						
FITZ				*e*Sn	**Sn**	**16 39 18.8**	**-7.6**
WRAB	**Tennant Creek**	**13.98**	**162**	*e*Pn	**Pn**	**16 37 36.2**	**-0.7**
	1.6nm,0.4s						
WRAB				*e*Sn	**Sn**	**16 40 08.0**	**-2.8**
WRA	**Warramunga Arr**	**13.99**	**162**	Pn	**Pn**	**16 37 35.5**	**-1.4**
	0.2nm,0.3s,baz=339,slow=13,SNR=6.2						
WRA				Sn	**Sn**	**16 40 11.0**	**+0.1**
	0.3nm,0.3s,baz=337,slow=22,SNR=5.9						
COEN	**Coen**	**15.04**	**120**	*e*P	**Pn**	**16 37 51.3**	**+0.7**
ASAR	**Alice Springs**	**17.43**	**167**	P	**Pn**	**16 38 21.1**	**+0.8**
	0.1nm,0.3s,baz=349,slow=11,SNR=19						
ASAR				S	**S**	**16 41 36.4**	**+1.4**
	0.1nm,0.3s,baz=343,slow=25,SNR=4.8						
CTAO	**Charters Tower**	**20.85**	**132**	*e*P	**P**	**16 38 57.7**	**+0.3**
	4.6nm,1.0s						
MK31	**Makanchi Array**	**67.78**	**327**	*e*P	**P**	**16 45 09.7**	**-1.1**
MKAR	**Makanchi Array**	**67.78**	**327**	P	**P**	**16 45 10.7**	**-0.1**
	0.5nm,0.6s,mb3.5,baz=122,slow=7.7,SNR=3.8						
KURK	**Kurchatov**	**72.07**	**329**	P	**P**	**16 45 37.6**	**+0.6**
	0.6nm,0.6s,mb3.6,baz=127,slow=5.1,SNR=4.2						

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*ISCJB **02** 16:38:42.2±1.2, 21°.5S±0°.2×65°.6W±0°.2, h181km±16km, mb3.9/3, Error ellipse: s-maj=35.2km s-min=17.7km az=37.2*
*IDC **02** 16:38:43.0±1.7, 21°.53S×65°.65W, h177km±20km, mb3.8/3, mb1 3.8/5, mb1mx3.4/19, mbtmp3.7/5, MS3.2/1, Ms1 3.2/1, ms1mx2.2/29, Error ellipse: s-maj=38.1km s-min=22.9km az=136.0*
ISC 02 16:38:43.1±1.2**, 21°.5S**±0°.2×**65°.7W**±0°.2**, h175**km±16km**, n8, σ1s.23**/8**, mb3.9**/3**, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**3.21**	**250**	P	**Pn**	**16 39 34.2**	**+0.1**
	5.8nm,0.3s,baz=340,slow=8.6,SNR=79						
SIV	**San Ignacio**	**7.00**	**39**	P	**Pn**	**16 40 23.2**	**-0.1**
	3.7nm,0.3s,baz=271,slow=12,SNR=35						
SIV				S	**Sn**	**16 41 52.1**	**+10**
	0.7nm,0.3s,baz=176,slow=24,SNR=13						
CFAA	**Coronel Fontan**	**10.31**	**192**	P	**Pn**	**16 41 06.7**	**-0.1**
	0.1nm,0.3s,baz=240,slow=15,SNR=7.0						
ROSC	**El Rosal**	**27.55**	**341**	LR	LR	16 56 58.3	
	comp=Z,59nm,22.0s,baz=274,slow=40						
DBIC	**Dimbokro**	**65.84**	**72**	P	**P**	**16 49 11.8**	**+1.5**
	3.0nm,0.6s,mb4.3,baz=249,slow=3.8,SNR=5.7						
TORD	**Torodi Ar. Bea**	**74.52**	**69**	P	**P**	**16 50 01.4**	**-1.5**
	2.3nm,0.7s,mb3.9,baz=256,slow=5.2,SNR=19						
TORD	**Torodi Ar. Bea**	**74.52**	**69**	P	**P**	**16 50 01.4**	**-1.5**
YKA	**Yellowknife Ar**	**92.23**	**339**	P	**P**	**16 51 32.6**	**+0.1**
	0.4nm,0.6s,mb3.6,baz=136,slow=4.9,SNR=6.8						

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*IDC **02** 16:42:35.2±1.1, 34°.80N×73°.02E, h0km, mb3.6/6, mb1 3.7/8, mb1mx3.5/25, mbtmp3.6/8, ML3.5/1, Error ellipse: s-maj=33.7km s-min=22.4km az=51.0*
*ISCJB **02** 16:42:36.9±0.4, 34°.72N±0°.06×73°.40E±0°.06, h33km, mb3.5/5, Error ellipse: s-maj=9.8km s-min=5.2km az=32.3*
*NEIC **02** 16:42:40.8±0.8, 34°.84N×73°.12E, h35km, Error ellipse: s-maj=14.5km s-min=14.3km az=150.0*
ISC 02 16:42:39.3±0.4**, 34°.75N**±0°.06×**73°.37E**±0°.06**, h35**km**, n25, σ0s.93**/27**, mb3.5**/5**, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DLH	**Dalhousie**	**3.09**	**135**	*e*PKP	**Pn**	**16 43 34.0**	**+8.5**
DLH				*e*x	x	16 44 17.0	
KBL	**Kabul**	**3.57**	**268**	*e*Pn	**Pn**	**16 43 32.1**	**-0.1**
KBL				*e*Sn	**Sn**	**16 44 13.9**	**+0.8**
KSH	**Kashi**	**5.20**	**23**	*e*Pn	**Pn**	**16 43 54.3**	**-0.2**
KSH				Sn	**Sn**	**16 44 48.1**	**-5.0**
KSH				smax			
	comp=N,46nm,0.2s						
KSH				smax			
	comp=E,44nm,0.2s						
PYUN	**Piuthan**	**10.55**	**126**	*e*P	**Pn**	**16 45 08.3**	**+0.3**
	comp=E,9.4nm,0.5s						
DANN	**Dangsing**	**10.92**	**123**	*e*P	**Pn**	**16 45 14.2**	**+1.2**
	comp=E,6.2nm,0.2s						
KOLN	**Koldanda**	**11.18**	**126**	*e*P	**Pn**	**16 45 15.4**	**-1.1**
GKN	**Gorkha**	**11.74**	**122**	*e*P	**Pn**	**16 45 24.7**	**+0.5**
DMN	**Daman**	**12.31**	**122**	*e*P	**Pn**	**16 45 31.9**	**-0.1**
KKN	**Kakani**	**12.32**	**121**	*e*P	**Pn**	**16 45 32.2**	**0.0**
PKIN	**Phulchoki**	**12.53**	**122**	*e*P	**Pn**	**16 45 35.3**	**+0.2**
PKI	**Pulchoki**	**12.54**	**121**	*e*P	**Pn**	**16 45 35.5**	**+0.3**
JIRN	**Jiri**	**13.04**	**119**	*e*P	**Pn**	**16 45 42.6**	**+0.5**
RAMN	**Ramite**	**13.76**	**121**	*e*P	**Pn**	**16 45 51.1**	**-0.8**
TAPN	**Taplejung**	**14.33**	**117**	*e*P	**Pn**	**16 45 58.7**	**-0.9**
	comp=E,4.7nm,0.4s						
ODAN	**Odare**	**14.38**	**119**	*e*P	**Pn**	**16 45 58.6**	**-1.7**
	comp=E,5.8nm,0.5s						
KURK	**Kurchatov**	**16.41**	**12**	Pn	**Pn**	**16 46 28.7**	**+2.0**
	comp=E,0.0nm,0.3s,baz=207,slow=11,SNR=3.3						
BVAR	**Borovoye Array**	**18.39**	**354**	P	**Pn**	**16 46 51.5**	**+0.2**
	comp=E,0.1nm,0.3s,baz=151,slow=9.2,SNR=5.9						
AKTK	**Aktyubinsk**	**19.27**	**329**	P	**Pn**	**16 47 00.1**	**-1.7**
AKTO	**Aktyubinsk**	**19.27**	**329**	P	**Pn**	**16 47 00.1**	**-1.7**
	comp=E,0.3nm,0.3s,baz=139,slow=12,SNR=5.3						
ZALV	**Zalesovo Beam**	**20.82**	**19**	P	**P**	**16 47 18.4**	**+0.9**
	comp=E,0.9nm,0.5s,baz=211,slow=12,SNR=6.9						
CMAR	**Chiang Mai Arr**	**27.92**	**119**	P	**P**	**16 48 31.3**	**+5.1**
	comp=E,0.6nm,0.8s,mb3.3,baz=310,slow=10.0,SNR=7.5						
ARCES	**ARCESS Array B**	**43.50**	**338**	P	**P**	**16 50 38.1**	**-0.7**
	comp=E,3.2nm,0.9s,mb4.0,baz=108,slow=8.7,SNR=4.7						
TORD	**Torodi Ar. Bea**	**67.64**	**271**	P	**P**	**16 53 32.8**	**-0.1**
	comp=E,0.3nm,0.5s,mb3.6,baz=54,slow=5.0,SNR=4.0						
ASAR	**Alice Springs**	**81.67**	**126**	P	**P**	**16 54 55.2**	**+1.2**
	comp=E,0.3nm,0.9s,mb3.2,baz=315,slow=4.2,SNR=3.2						
YKA	**Yellowknife Ar**	**82.89**	**4**	P	**P**	**16 55 00.7**	**+0.9**
	comp=E,0.1nm,0.4s,mb3.2,baz=345,slow=4.9,SNR=4.9						

*ISCJB **02** 16:50:10.1±0.3, 40°.06N±0°.02×72°.78E±0°.04, h10km, mb4.0/18, Error ellipse: s-maj=4.2km s-min=3.1km az=165.4*

*IDC **02** 16:50:10.2±0.8, 40°.17N×72°.90E, h0km, mb4.0/14, mb1 4.0/19, mb1mx3.9/30, mbtmp3.9/19, ML3.5/5, Error ellipse: s-maj=15.1km s-min=11.7km az=152.0*

*MOS **02** 16:50:14.9±1.6, 40°.38N×72°.72E, h33km, mb4.2/12, Error ellipse: s-maj=10.9km s-min=7.1km az=77.1*

*NNC **02** 16:50:14.9±2.7, 40°.58N×72°.96E, h0km, mb4.0, mpv4.0, Error ellipse: s-maj=27.0km s-min=10.0km az=11.0*

*BJI **02** 16:50:15.2, 40°.21N×72°.76E, h32km, mB4.8/2, mb3.7/3, ML4.1/4, Ms3.7/1*

*NEIC **02** 16:50:16.4±0.6, 40°.43N×72°.85E, h35km, mb4.2/3, Error ellipse: s-maj=11.5km s-min=6.9km az=145.0*

ISC 02 16:50:11.5±0.3, **40°.10N**±0°.02×**72°.81E**±0°.04, **h10km, n104,** σ**1s.35**/124, **mb4.0**/18, **14C-8D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	2.14	18	P	Pn	16 50 46.6	-0.6
	SNR=2309						
AML	Almayashu	2.14	18	*e*Pn	Pn	16 50 43.2	-4.0
AML				*e*Sn	Sn	16 51 13.5	-0.3
UCH	Uchtor	2.49	31	P	Pn	16 50 53.6	+1.5
	SNR=48						
UCH	Uchtor	2.49	31	*e*Pn	Pn	16 50 52.0	0.0
UCH				*e*Sn	Sn	16 51 20.6	-1.8
KSH	Kashi	2.50	102	Pn	Pn	16 50 54.1	+1.9
KSH				Sn	Sn	16 51 24.9	+2.1
KSH				smax			
	comp=E,1μm,0.2s						
EKS2	Erkin-Say	2.67	16	P	Pn	16 50 55.9	+1.4
	SNR=298						
EKS2	Erkin-Say	2.67	16	*e*Pn	Pn	16 50 54.4	-0.1
EKS2				*e*Sn	Sn	16 51 25.0	-1.8
KZA	Kyzart	2.71	42	P	Pn	16 50 55.7	+0.7
	SNR=26						
KZA	Kyzart	2.71	42	*e*Pn	Pn	16 50 53.0	-2.0
KZA				*e*Sn	Sn	16 51 20.9	-6.9
AAK	Ala-Archa	2.83	26	P	Pn	16 50 57.4	+0.6
	SNR=278						
AAK	Ala-Archa	2.83	26	*e*Pn	Pn	16 50 57.3	+0.5
AAK				*e*Sn	Sn	16 51 32.9	+1.9
KBK	Karagaybulak	3.02	31	P	Pn	16 51 00.5	+1.1
	SNR=41						
FRU	Bishkek	3.05	26	*e*PN	Pn	16 51 03.0	+3.2
FRU				*i* S	Sn	16 51 40.5	+4.1
FRU				pmax	pmax		
	comp=Z,430nm,1.7s						
FRU				smax			
	comp=E,2μm,2.0s						
CHMS	Chumysh	3.25	26	P	Pn	16 51 03.0	+0.6
	SNR=86						
CHM	Chimkent	3.28	314	*e*Pn	Pn	16 51 02.9	0.0
CHM				*e*Sn	Sn	16 51 42.9	+0.9
ULHL	Ulahol	3.37	49	P	Pn	16 51 04.5	+0.4
	SNR=34						
USP	Ospenovka	3.41	21	P	Pn	16 51 04.8	+0.1
	SNR=35						
KK31	Karatay Array	3.46	331	⇓Pn	Pn	16 51 09.4	+4.0
	comp=E,5.0nm,0.4s,baz=137,slow=12,SNR=788						
KK31				⇑Pg	Pg	16 51 13.2	-4.6
	comp=E,90nm,0.6s,baz=144,slow=18,SNR=9.8						
KK31				⇑Sn	Sn	16 51 48.4	+1.9
	comp=E,58nm,0.4s,baz=138,slow=24,SNR=3.7						
KK31				⇑Lg		16 51 56.3	
	comp=E,290nm,0.6s,baz=142,slow=30,SNR=7.4						
TKM2	Tokmak 2	3.51	36	P	Pn	16 51 07.2	+1.0
	SNR=8.8						
TKM2	Tokmak 2	3.51	36	*e*Pn	Pn	16 51 06.9	+0.8
TKM2	Tokmak 2	3.51	36	⇑Pn	Pn	16 51 06.9	+0.8
	comp=E,20nm,0.9s						
TKM2				⇑Pg	Pg	16 51 11.4	-7.3
	comp=E,52nm,0.5s						
TKM2				⇑Lg		16 51 54.4	
	comp=E,97nm,0.6s						
KNDC	Almaty	4.41	44	⇑Pn	Pn	16 51 20.1	+1.8
	comp=E,68nm,0.5s						
KNDC				⇓Lg		16 52 21.0	
	comp=E,441nm,1.4s						
AAA	Alma-Ata	4.43	43	*i* PN	Pn	16 51 22.0	+3.2
AAA				*i* S	Sb	16 52 22.7	-0.2
AAA				pmax	pmax		
	comp=Z,98μm,0.7s						
AAA				smax			
	comp=N,361μm,0.8s						
KBL	Kabul	6.30	210	*e*PN	Pb	16 51 53.6	-7.7
KBL				*e*		16 53 08.3	
KBL				pmax	pmax		
	comp=Z,118nm,0.6s						
KBL	Kabul	6.30	210	*e*Pn	Pb	16 51 53.5	-7.7
	comp=Z,118nm,0.6s						
KBL				*e*Sn	Sb	16 53 08.3	-8.4
DLH	Dalhousie	7.96	160	*e*S	Sn	16 53 41.0	+3.8
DLH				*e*x	x	16 53 51.0	
MK31	Makanchi Array	9.61	43	*e*P	Pn	16 52 27.4	-2.3
MK31	Makanchi Array	9.61	43	⇓Pn	Pn	16 52 28.6	-1.1
	comp=Z,0.4nm,0.4s,baz=226,slow=13,SNR=14						
MK31				⇑Lg		16 54 59.7	
	comp=Z,7.9nm,0.8s						
MKAR	Makanchi Array	9.61	43	Pn	Pn	16 52 29.4	-0.2
	comp=Z,0.2nm,0.3s,baz=225,slow=14,SNR=8.5						
MKAR				Lg		16 55 02.3	
	comp=Z,0.4nm,0.3s,baz=227,slow=31,SNR=3.2						
KLP	Kalpa	9.62	151	*e*S	Sn	16 54 18.8	+0.8
KLP				AML	AML	16 54 41.5	
	comp=N,92nm,0.8s						
KLP				AML	AML	16 54 46.3	
	comp=E,101nm,0.9s						
DDI	Dehra Dun	10.65	155	*e*x	x	16 52 57.5	
JOSI	Joshimath	10.99	148	*e*S	Sn	16 54 50.2	-1.6
KURBB	Kurchatov Arra	11.27	19	⇑Pn	Pn	16 52 49.0	-3.4
	comp=E,0.7nm,0.6s						
KURBB				⇓Lg		16 55 57.2	
	comp=E,11nm,0.8s						
KURK	Kurchatov	11.37	19	*e*P	Pn	16 52 49.6	-4.3
KURK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KURK	Kurchatov	11.37	19	Pn	Pn	16 52 49.5	-4.3
	comp=Z,0.1nm,0.3s,baz=207,slow=13,SNR=16						
KURK				Sn	Sn	16 55 12.6	+12
	comp=Z,0.1nm,0.3s,baz=206,slow=27,SNR=3.7						
KURK				Lg		16 56 03.1	
	comp=Z,0.3nm,0.3s,baz=203,slow=32,SNR=5.8						
KURK	Kurchatov	11.37	19	*e*Pn	Pn	16 52 49.5	-4.3
	comp=Z,3.3nm,1.0s						
KURK	Kurchatov	11.37	19	⇓Pn	Pn	16 52 51.9	-2.0
	comp=Z,3.8nm,1.1s						
KURK				⇑Lg		16 56 00.2	
	comp=Z,47nm,1.0s						
BHGR	Bahadurgarh	11.88	162	*e*x	x	16 55 06.4	
NDI	New Delhi	11.95	161	*e*S	Sn	16 55 15.0	-0.2
AYAN	Aya Nagar	12.12	162	*e*S	Sn	16 55 16.4	-3.0
LGTI	Lohaghat	12.25	148	*e*x	x	16 55 10.2	
KUDL	Kundal	12.30	165	*e*PKP	Pn	16 53 13.1	+6.4
KUDL				*e*S	Sn	16 55 21.2	-2.7
SONA	Sohna	12.33	162	*e*S	Sn	16 55 22.6	-2.0
VOSK	Vostochnaya	12.69	355	⇓Pn	Pn	16 53 09.6	-2.3
	comp=Z,5.3nm,1.1s						
VOSK				⇑Lg		16 56 47.7	
	comp=Z,22nm,1.1s						
AB01	Akbulak array	12.93	319	⇑Pn	Pn	16 53 13.2	-2.0
	comp=Z,0.3nm,0.3s						
AB01				⇑Sn	Sn	16 55 37.7	-1.4
	comp=Z,3.0nm,0.6s						
BVA0	Borovoye Array	13.04	354	⇓Pn	Pn	16 53 14.6	-2.0
	comp=Z,0.7nm,0.6s,baz=154,slow=12,SNR=44						
BVA0				⇑Lg		16 56 58.2	
	comp=Z,7.6nm,1.6s						
BVAR	Borovoye Array	13.04	354	Pn	Pn	16 53 14.1	-2.5
	comp=Z,0.6nm,0.3s,baz=156,slow=11,SNR=17						
BVAR				Sn	Sn	16 55 51.9	+10
	comp=Z,0.2nm,0.3s,baz=165,slow=23,SNR=3.4						
BVAR				Lg		16 57 00.4	
	comp=Z,0.8nm,0.3s,baz=150,slow=27,SNR=5.5						
BRVK	Borovoye	13.08	353	*e*P	Pn	16 53 13.9	-3.3
BRVK				*e*		16 55 36.7	
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BRVK	Borovoye	13.08	353	*e*Pn	Pn	16 53 13.9	-3.3
	comp=Z,4.5nm,0.6s						
BRVK				*e*Sn	Sn	16 55 36.7	-5.9
AKTK	Aktyubinsk	14.65	320	Pn	Pn	16 53 37.7	-0.8
AKTO	Aktyubinsk	14.65	320	Pn	Pn	16 53 37.7	-0.8
	comp=Z,0.3nm,0.3s,baz=120,slow=15,SNR=8.8						
AKTO	Aktyubinsk	14.65	320	⇓Pn	Pn	16 53 37.9	-0.6
	comp=Z,1.3nm,0.8s						
DANN	Dangsing	14.79	139	*e*P	Pn	16 53 40.2	-0.5
KOLN	Koldanda	15.19	141	*e*P	Pn	16 53 46.8	+0.7
GKN	Gorkha	15.52	137	*e*P	Pn	16 53 49.5	-0.9
ZAA0	Zalesovo Array	16.06	26	*e*Pn	Pn	16 53 56.3	-0.9
ZAA0				*e*Sn	Sn	16 56 36.2	-19
ZALV	Zalesovo Beam	16.06	26	Pn	Pn	16 53 55.2	-2.0
	comp=Z,0.1nm,0.3s,baz=230,slow=13,SNR=3.7						
ZALV				Sn	Sn	16 57 11.2	+16
	comp=Z,0.1nm,0.3s,baz=196,slow=31,SNR=2.7						
ZALV	Zalesovo Beam	16.06	26	Pn	Pn	16 53 55.2	-2.0
ZALV				Sn	Sn	16 57 11.2	+16
GUN	Gumba	16.26	134	*e*P	Pn	16 54 00.2	+0.3
	comp=Z,13nm,0.4s						
PKIN	Phulchoki	16.26	136	*e*P	Pn	16 53 59.8	-0.2
PKI	Pulchoki	16.28	136	*e*P	Pn	16 54 00.3	+0.2
NVS	Novosibirsk	16.32	22	*e*P	Pn	16 54 04.9	+4.4
NVS				*e*S	Sn	16 57 05.1	+3.6
NVS				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NVS				pmax	pmax		
	comp=N,8.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.8s						
NVS				smax			
	comp=N,9.0nm,1.6s						
NVS				smax			
	comp=E,7.0nm,1.6s						
JIRN	Jiri	16.63	134	*e*P	Pn	16 54 04.0	-0.6
RAMN	Ramite	17.41	135	*e*P	Pn	16 54 14.8	+0.4
	comp=E,15nm,0.6s						
TAPN	Taplejung	17.72	131	*e*P	Pn	16 54 19.4	+1.1
	comp=E,10.0nm,0.6s						
ODAN	Odare	17.92	133	*e*P	Pn	16 54 21.6	+0.9
GTA	Gaotai	20.75	83	*e*P	P	16 54 57.0	+4.7
GTA				pP		16 55 01.4	
GTA				sP	sP	16 55 04.7	+8.3
GTA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
GNI	Garni	21.43	279	P	P	16 55 01.5	+1.9
GNI				pmax	pmax		
	comp=Z,9.0nm,0.8s						
GNI	Garni	21.43	279	P	P	16 55 01.5	+1.8
	comp=Z,9.3nm,0.8s,mb4.1,baz=342,slow=20,SNR=3.9						
GNI	Garni	21.43	279	P	P	16 55 01.5	+1.8
GNI				*e*Pn	P	16 55 04.7	+5.1
KIV	Kislovodsk	22.64	290	*e*P	P	16 55 12.6	+0.1
KIV				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb3.7						
ZAK	Zakamensk	23.64	54	*e*P	P	16 55 21.6	-1.2
SONM	Songino Array	25.23	61	P	P	16 55 38.1	+0.8
	comp=Z,0.3nm,0.6s,mb3.0,baz=252,slow=9.4,SNR=2.9						
MALT	Malatya	26.61	277	*e*P	P	16 55 51.3	+1.4
MALT				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.1						
MALT	Malatya	26.61	277	*e*P	P	16 55 51.3	+1.4
	comp=Z,6.7nm,1.1s,mb4.1						
BR131	Keskin Array S	29.89	282	*e*P	P	16 56 19.7	+0.6
	comp=Z,1.8nm,0.7s,mb3.9						
BRTR	Keskin Array B	29.89	282	P	P	16 56 20.9	+1.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	29.89	282	P	P	16 56 20.9	+1.8
	comp=Z,1.4nm,0.7s,mb3.8,baz=82,slow=8.9,SNR=12						
BOD	Bodaibo	31.70	42	*e*P	P	16 56 35.8	+0.9
BOD				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.9						
AKASG	Malin Array Be	31.96	304	P	P	16 56 37.4	+0.1
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKASG	Malin Array Be	31.96	304	P	P	16 56 37.4	+0.1
	comp=Z,3.1nm,0.7s,mb4.3,baz=80,slow=7.9,SNR=9.9						
IDI	Anoyia	37.86	278	P	P	16 57 29.9	+1.5
	comp=Z,3.9nm,0.6s,mb4.3,baz=45,slow=7.1,SNR=4.9						
ARCES	ARCESS Array B	38.42	335	P	P	16 57 32.4	-0.3
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	ARCESS Array B	38.42	335	P	P	16 57 32.4	-0.3
	comp=Z,1.5nm,0.6s,mb3.9,baz=108,slow=8.9,SNR=9.0						
TIXI	Tiksi	41.91	23	*e*P	P	16 57 59.9	-1.7
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.4						
TIXI	Tiksi	41.91	23	*e*P	P	16 57 59.9	-1.7
	comp=Z,9.9nm,1.0s,mb4.4						
GERES	GERESS Array B	42.12	302	P	P	16 58 05.2	+1.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	42.12	302	P	P	16 58 05.2	+1.6
	comp=Z,1.1nm,0.6s,mb3.7,baz=64,slow=9.0,SNR=8.4						
CLL	Collm	42.14	306	*e*P	P	16 58 06.0	+2.3
NB2	NORSAR Subarra	42.44	321	P	P	16 58 05.2	-0.8
	comp=Z,2.1nm,0.6s,mb3.9,baz=91,slow=8.6						
NOA	NORSAR Array B	42.44	321	P	P	16 58 04.4	-1.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	42.44	321	P	P	16 58 04.4	-1.7
	comp=Z,1.4nm,0.6s,mb3.7,baz=90,slow=8.1,SNR=4.5						
NOA	NORSAR Array B	42.44	321	P	P	16 58 04.4	-1.7
MJAR	Matsushiro Arr	50.40	72	P	P	16 59 09.3	+0.4
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJAR	Matsushiro Arr	50.40	72	P	P	16 59 09.3	+0.4
	comp=Z,1.1nm,0.7s,mb4.0,baz=301,slow=9.6,SNR=4.9						
TOA0	Torodi Ar. Sit	67.24	268	*e*P	P	17 01 07.6	+1.3
TORD	Torodi Ar. Bea	67.24	268	P	P	17 01 06.0	-0.3
	comp=Z,1.9nm,0.4s,mb4.5,baz=56,slow=5.3,SNR=27						
TORD	Torodi Ar. Bea	67.24	268	P	P	17 01 06.0	-0.3
DBIC	Dimbokro	76.30	267	P	P	17 02 01.2	+0.4
DBIC				pmax	pmax		
	comp=Z,1.0nm,0.5s						
DBIC	Dimbokro	76.30	267	P	P	17 02 01.2	+0.4
	comp=Z,1.3nm,0.5s,mb4.1,baz=7.1,slow=8.1,SNR=3.1						
YKA	Yellowknife Ar	77.59	4	P	P	17 02 06.4	-0.8
	comp=Z,0.9nm,0.5s,mb4.0,baz=348,slow=5.8,SNR=15						
WRA	Warramunga Arr	82.73	124	P	P	17 02 34.9	-0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	82.73	124	P	P	17 02 34.9	-0.6
	comp=Z,0.5nm,0.6s,mb3.7,baz=323,slow=4.9,SNR=5.7						
ASAR	Alice Springs	85.19	126	P	P	17 02 49.6	+1.6
	comp=Z,0.4nm,0.6s,mb3.7,baz=321,slow=5.3,SNR=8.8						

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*ISCJB **02** 17:38:16.1±0.5, 33°.74S±0°.05×179°.3E±0°.1, h224km±6km, mb4.0/10, Error ellipse: s-maj=15.5km s-min=6.4km az=24.9*

*NEIC **02** 17:38:17.5±0.8, 33°.92S×179°.45E, h242km±9km, mb4.1/3, Error ellipse: s-maj=17.6km s-min=9.8km az=125.0*

*IDC **02** 17:38:17.3±1.1, 33°.69S×179°.37E, h229km±10km, mb3.8/9, mb1 3.9/10, mb1mx3.7/18, mbtmp3.8/10, Error ellipse: s-maj=15.1km s-min=10.3km az=118.0*

ISC 02 17:38:16.8±0.5, **33°.74S**±0°.05×**179°.3E**±0°.1, **h218**km±6km, **n61,** σ**1s.22**/47, **mb4.0**/10, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.90	192	P	Pn	17 39 19.2	+1.3
MXZ				S	S	17 40 06.0	-0.2
PUZ	Puketiti	4.40	191	P	Pn	17 39 24.5	+0.4
PUZ				S	S	17 40 16.6	-0.8
MWZ	Matawai	4.80	197	P	Pn	17 39 29.8	+0.7
URZ	Urewera	4.84	201	P	Pn	17 39 30.8	+1.2
	3.8nm,0.3s,baz=271,slow=4.5,SNR=18						
URZ				S	S	17 40 29.3	+2.1
	17nm,0.3s,baz=110,slow=23,SNR=15						
URZ	Urewera	4.84	201	P	Pn	17 39 30.9	+1.3
RAO	Raoul Island	5.07	29	P	Pn	17 39 33.3	+0.7
	68nm,0.3s,baz=120,slow=23,SNR=2.0						
RAO				S	S	17 40 31.5	-1.0
	111nm,0.3s,baz=67,slow=21,SNR=2.8						
KNZ	Kokohu	5.43	193	P	Pn	17 39 39.1	+2.2
BKZ	Black Stump Fm	5.87	202	P	Pn	17 39 44.0	+1.5
TUVZ	Tukino	6.25	207	P	Pn	17 39 49.3	+2.0
FWVZ	Far West T-bar	6.27	208	P	Pn	17 39 49.6	+1.9
WNVZ	Wahianoa	6.32	207	P	Pn	17 39 49.9	+1.6
TSZ	Takapari Road	6.85	202	P	Pn	17 39 54.5	-0.6
BFZ	Birch Farm	7.34	198	P	Pn	17 40 01.4	0.0
MRZ	Mangatainoka R	7.51	202	P	Pn	17 40 01.4	-2.3
KIW	Kapiti Island	7.92	205	P	Pn	17 40 07.7	-1.1
MTW	Mount Morrison	7.99	201	P	Pn	17 40 07.8	-2.0
CAW	Cannon Point	8.08	203	P	Pn	17 40 07.4	-3.6
SNZO	South Karori	8.39	204	P	Pn	17 40 12.0	-2.9
SNZO				*e*S	S	17 41 40.3	-9.2
BHW	Baring Head	8.42	203	P	Pn	17 40 12.8	-2.5
TCW	Tory Channel	8.46	207	P	Pn	17 40 14.5	-1.3
NNZ	Nelson	8.82	210	P	Pn	17 40 19.7	-0.7
QRZ	Quartz Range	8.89	215	P	Pn	17 40 21.6	+0.2
THZ	Tophouse	9.47	210	P	Pn	17 40 27.4	-1.4
KHZ	Kahutara	9.77	206	P	Pn	17 40 31.3	-1.4
DSZ	Denniston Nort	9.95	214	P	Pn	17 40 33.6	-1.3
RAR	Rarotonga	22.33	61	P	P	17 42 55.9	-0.6
	7.1nm,0.4s,mb4.6,baz=121,slow=4.0,SNR=5.7						
RAR	Rarotonga	22.33	61	*e*P	P	17 42 55.5	-1.0
CTA	Charters Tower	32.29	286	P	P	17 44 26.7	+1.4
	3.6nm,0.6s,mb4.1,baz=50,slow=6.5,SNR=3.8						
CTAO	Charters Tower	32.29	286	*e*P	P	17 44 25.3	0.0
	4.0nm,0.7s,mb4.1						
ASAR	Alice Springs	40.77	272	P	P	17 45 37.5	+0.5
	3.5nm,0.8s,mb3.8,baz=114,slow=7.6,SNR=22						
WRAB	Tennant Creek	42.07	277	*e*P	P	17 45 47.1	-0.4
	2.8nm,0.6s,mb3.9						
WRA	Warramunga Arr	42.08	277	P	P	17 45 47.7	+0.2
	2.0nm,0.5s,mb3.9,baz=118,slow=7.6,SNR=20						
QSPA	South Pole Qui	56.38	180	P	P	17 47 36.2	+1.5
	5.3nm,0.6s,mb4.2,baz=26,slow=1.7,SNR=47						
QSPA	South Pole Qui	56.38	180	*e*P	P	17 47 36.1	+1.3
	5.3nm,0.7s,mb4.2						
VNA3	Neumayer Olymp	75.12	177	*e*	P	17 49 34.0	-0.4
VNA3				*e*		17 49 39.1	
VNA2	Neumayer--Watz	75.52	178	*e*	P	17 49 36.7	0.0
	baz=185,slow=5.7						
VNA2				*e*		17 49 41.0	
VNA1	Neumayer--Stat	75.77	177	*e*	P	17 49 38.2	+0.2
VNA1				*e*		17 49 42.8	
PLCA	Paso Flores	81.89	134	P	P	17 50 12.5	+0.6
	0.7nm,0.7s,mb3.4,baz=199,slow=9.4,SNR=4.0						
PLCA	Paso Flores	81.89	134	P	P	17 50 12.5	+0.6
KSRS	Korea Array	85.45	321	P	P	17 50 29.9	+0.2
	0.8nm,0.6s,mb3.7,baz=142,slow=5.7,SNR=7.3						
PETK	Petropavlovsk-	88.51	347	P	P	17 50 44.3	+0.3
	6.5nm,0.7s,mb4.6,baz=113,slow=7.8,SNR=14						
NVAR	Mina Array Bea	92.24	44	P	P	17 51 01.9	+0.2
	0.7nm,0.8s,mb3.7,baz=217,slow=6.8,SNR=4.9						
YKA	Yellowknife Ar	109.45	27	PKiKP	PKiKP	17 56 18.3	-1.9
	0.3nm,0.6s,baz=259,slow=1.9,SNR=5.5						
YKA	Yellowknife Ar	109.45	27	PKPdf	PKiKP	17 56 18.3	-1.9
MKAR	Makanchi Array	118.13	309	PKP	PKPdf	17 56 34.9	-2.4
	0.6nm,0.8s,baz=172,slow=0.7,SNR=5.5						
MKAR	Makanchi Array	118.13	309	PKP	PKPdf	17 56 34.9	-2.4
ZALV	Zalesovo Beam	118.97	318	PKP	PKPdf	17 56 35.9	-2.8
	0.7nm,0.5s,baz=151,slow=3.1,SNR=5.1						
ARCES	ARCESS Array B	141.30	346	PKhKP		17 57 14.6	
	5.1nm,1.0s,baz=16,slow=2.5,SNR=11						
ARCES				PKP	PKPdf	17 57 21.0	+0.6
	3.0nm,0.9s,baz=50,slow=1.4,SNR=11						
ARCES	ARCESS Array B	141.30	346	PKP		17 57 14.6	
ARCES				PKP	PKPdf	17 57 21.0	+0.6
JOF	Joensuu	144.58	335	*e*p	PKPdf	17 57 23.0	-3.3
	6.1nm,0.5s						
KAF	Kangasniemi	146.82	337	*e*p	PKPdf	17 57 28.5	-1.7
	5.6nm,0.6s						
NB2	NORSAR Subarra	151.61	348	PKP	PKPbc	17 57 42.6	-1.7
	comp=Z,2.2nm,0.5s,baz=15,slow=2.5						
NOA	NORSAR Array B	151.61	348	PKPbc	PKPbc	17 57 42.4	-1.9
	comp=Z,2.7nm,0.5s,baz=16,slow=4.0,SNR=11						
NOA	NORSAR Array B	151.61	348	PKPbc	PKPbc	17 57 42.4	-1.9
BRTR	Keskin Array B	151.94	292	PKPbc	PKPbc	17 57 43.6	-2.2
	comp=Z,0.8nm,0.6s,baz=156,slow=2.3,SNR=7.0						
LIC	Lamto	152.33	171	*e*PKIKP	PKPbc	17 57 46.3	-1.1
	comp=Z,30nm,0.6s						
AKASG	Malin Array Be	152.36	317	PKPbc	PKPbc	17 57 44.5	-1.8
	comp=Z,2.8nm,0.7s,baz=64,slow=2.4,SNR=9.8						
KIC	Kosan Boka	152.50	171	*e*PKIKP	PKPbc	17 57 46.6	-1.2
	comp=Z,28nm,0.6s						
TIC	Toumodi	152.74	171	*e*PKIKP	PKPbc	17 57 47.1	-1.2
	comp=Z,12nm,0.3s						
DBIC	Dimbokro	152.79	171	PKPbc	PKPbc	17 57 47.5	-0.9
	comp=Z,4.8nm,0.6s,baz=142,slow=4.7,SNR=7.7						
TORD	Torodi Ar. Bea	159.38	187	PKP	PKPdf	17 57 47.5	-2.2
	comp=Z,0.8nm,0.8s,baz=130,slow=0.7,SNR=4.4						
TORD				PKPab	PKPab	17 58 26.6	-1.6
	comp=Z,1.2nm,0.5s,baz=161,slow=5.0,SNR=9.9						

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*NEIC **02** 17:49:11.6, 17°.72N×99°.19W, h46km, MD3.5(MEX), After MEX.*

MEX 02 17:49:11.6±0.4, **17°.72N×99°.19W, h46**km±16km, **MD3.5, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLIG	Platanillo	0.73	336	*i* P	Pn	17 49 24.1	-1.5
PLIG				*i* S	Sn	17 49 33.9	-1.8
ACX	Acapulco	1.09	219	*i* P	Pn	17 49 28.5	-2.0
ACX				*i* S	Sn	17 49 43.0	-1.5
CAIG	El Cayaco	1.22	237	*i* P	Pn	17 49 30.8	-1.5
CAIG				*i* S	Sn	17 49 45.4	-2.3
UTMO	Huajuapan	1.33	85	*e*P	Pn	17 49 32.4	-1.3
UTMO				*i* S	Sn	17 49 47.9	-2.4
PPM	Popocatepetl	1.44	22	*e*P	Pn	17 49 34.7	-0.6
PPM				*i* S	Sn	17 49 51.7	-1.3
MZVM		1.46	359	*e*P	Pn	17 49 34.8	-0.7
MZVM				*i* S	Sn	17 49 51.4	-2.1
PNIG	Pinotepa	1.67	142	*e*P	Pn	17 49 36.8	-1.6
PNIG				*i* S	Sn	17 49 56.9	-1.7
IIO	Organos	1.91	13	*e*P	Pn	17 49 40.7	-1.1
IIO				*i* S	Sn	17 50 06.6	+1.9

IDC 02 17:50:55.0±57.0, **23°.23S×177°.31W, h0km, mb3.9**/3, **mb1 4.1**/3, **mb1mx3.7**/16, **mbtmp3.9**/3, **Error ellipse: s-maj=1050.0km s-min=158.2km az=87.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	37.26	247	P	P	17 58 08.2	-0.3
	0.8nm,0.3s,baz=80,slow=8.9,SNR=6.9						
ASAR	Alice Springs	44.58	259	P	P	17 59 09.0	-0.1
	0.3nm,0.3s,baz=95,slow=7.5,SNR=27						
WRA	Warramunga Arr	44.92	265	P	P	17 59 12.0	+0.2
	1.4nm,0.5s,baz=102,slow=8.3,SNR=21						

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*NIED **02** 17:56:00, 32°.50N×131°.10E, h135km, Mw4.0 Best double couple: $M_0$1.01000×10^{15} NP1:ϕ_s5.00000°, δ53.00000°, λ94.00000°. NP2:ϕ_s179.00000°, δ37.00000°, λ85.00000°.*

*ISCJB **02** 17:56:45.8±0.4, 32°.41N±0°.06×131°.02E±0°.07, h156km±3km, mb3.8/22, Error ellipse: s-maj=10.3km s-min=8.9km az=140.8*

*JMA **02** 17:56:47.8±0.1, 32°.51N×131°.07E, h144km±1km, M4.0 Broadband fault plane solution: P waves. NP1: ϕ_s212.00000°, δ37.00000°, λ113.00000°. NP2:ϕ_s4.00000°, δ56.00000°, λ73.00000°. Principal axes: T Plg73.0000°, Azm230.0000°; N Plg14.0000°, Azm14.0000°; P Plg10.0000°, Azm106.0000°;*

JMA Felt I J1.

*NEIC **02** 17:56:48.2±0.8, 32°.48N×131°.03E, h164km±7km, mb3.8/7 Error ellipse: s-maj=8.1km s-min=6.3km az=214.0*

*IDC **02** 17:56:48.7±2.1, 32°.50N×131°.04E, h168km±20km, mb3.6/15, mb1 3.8/17, mb1mx3.7/24, mbtmp3.6/17, Error ellipse: s-maj=16.7km s-min=12.1km az=72.0*

ISC 02 17:56:47.1±0.4, **32°.43N**±0°.06×**131°.02E**±0°.07, **h152**km±3km, **n36,** σ**0s.78**/40, **mb3.8**/22, **3C-1D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIU2	Izumi 2	0.21	303	⇑P	Pn	17 57 07.5	-0.1
JIU2				S	Sn	17 57 22.0	-1.2
JKIT	Kitakata	0.41	62	⇑P	Pn	17 57 08.0	-0.2
JKIT				S	Sn	17 57 23.0	-1.3
JTZ	Takazaki	0.53	174	⇑P	Pn	17 57 08.9	+0.1
JTZ				S	Sn	17 57 24.9	-0.5
JSJ	Shimokoshiki	1.34	236	⇓P	Pn	17 57 16.1	+1.0
JSJ				S	Sn	17 57 37.3	+0.7
KSRS	Korea Array	5.62	334	P	Pn	17 58 10.0	+1.4
	1.7nm,0.3s,baz=154,slow=14,SNR=52						
INCN	Inchon	6.19	326	Pn	Pn	17 58 17.5	+1.2
MAJO	Matsushiro	7.21	53	Pn	Pn	17 58 30.1	+0.3
MAT	Matsushiro	7.21	53	P	Pn	17 58 31.9	+2.1
MAT				S	Sn	17 59 45.4	-5.1
MJAR	Matsushiro Arr	7.21	53	P	Pn	17 58 30.7	+0.8

	1.8nm,0.3s,baz=241,slow=14,SNR=37						
HIA	**Hailar**	18.82	337	*e*P	P	18 00 54.7	-0.2
	2.0nm,0.6s						
SONM	**Songino Array**	24.17	317	P	P	18 01 49.5	+0.5
	2.9nm,0.7s,mb4.0,baz=132,slow=9.6,SNR=22						
CMAR	**Chiang Mai Arr**	31.99	252	P	P	18 03 00.1	+1.1
	1.1nm,0.6s,mb3.8,baz=52,slow=7.1,SNR=13						
ZALV	**Zalesovo Beam**	39.06	317	PcP	PcP	18 06 04.8	-0.8
	1.2nm,0.7s,baz=78,slow=3.5,SNR=6.5						
MK31	**Makanchi Array**	39.55	306	*e*P	P	18 04 02.3	-0.7
MK31				*e*PcP	PcP	18 06 06.3	-1.0
MKAR	**Makanchi Array**	39.55	306	P	P	18 04 03.0	-0.1
	1.7nm,0.5s,mb3.9,baz=90,slow=11,SNR=52						
MKAR				PcP	PcP	18 06 06.9	-0.5
	0.4nm,0.5s,baz=76,slow=3.7,SNR=7.5						
KURK	**Kurchatov**	42.27	312	*e*P	P	18 04 24.6	-0.6
	1.4nm,0.7s,mb3.7						
TKM2	**Tokmak 2**	44.38	300	*e*P	P	18 04 42.7	+0.5
	1.8nm,0.6s,mb3.9						
AML	**Almayashu**	45.87	299	*e*P	P	18 04 54.6	+0.6
	1.3nm,0.6s,mb3.7						
BRVK	**Borovoye**	47.54	314	*e*P	P	18 05 06.6	-0.2
	2.1nm,0.5s,mb4.0						
BRVK				*e*PcP	PcP	18 06 33.7	-0.7
KBL	**Kabul**	51.01	290	*e*P	P	18 05 33.2	-0.2
	1.3nm,0.6s,mb3.7						
WRAB	**Tennant Creek**	52.17	176	P	P	18 05 41.5	-0.5
WRA	**Warramunga Arr**	52.17	176	P	P	18 05 42.0	-0.1
	0.9nm,0.4s,mb3.8,baz=353,slow=8.0,SNR=12						
ASAR	**Alice Springs**	55.85	177	P	P	18 06 09.3	+0.6
	1.2nm,0.6s,mb3.9,baz=359,slow=6.3,SNR=68						
STKA	**Stephens Creek**	64.74	170	P	P	18 07 09.2	+0.3
	1.6nm,0.5s,mb4.1,baz=358,slow=18,SNR=6.4						
ARCES	**ARCESS Array B**	65.16	338	P	P	18 07 09.8	-1.4
	3.2nm,0.9s,mb4.1,baz=18,slow=8.1,SNR=4.7						
JOF	**Joensuu**	65.84	330	*e*p	P	18 07 14.1	-1.6
	4.4nm,0.7s,mb4.4						
RES	**Resolute Bay**	69.01	12	*e*P	P	18 07 35.5	+0.1
	4.7nm,0.8s,mb4.3						
YKA	**Yellowknife Ar**	71.90	26	P	P	18 07 52.8	-0.3
	0.3nm,0.6s,mb3.2,baz=308,slow=5.6,SNR=4.2						
AKASG	**Malin Array Be**	72.42	319	P	P	18 07 55.8	-0.7
	1.4nm,0.3s,mb4.1,baz=53,slow=6.6,SNR=9.4						
NOA	**NORSAR Array B**	74.83	334	P	P	18 08 09.1	-1.2
	1.5nm,0.9s,mb3.6,baz=137,slow=3.5,SNR=2.7						
BRTR	**Keskin Array B**	75.17	308	P	P	18 08 12.6	-0.1
	0.8nm,0.8s,mb3.4,baz=93,slow=5.3,SNR=5.0						
CLL	**Collm**	80.44	326	*e*P	P	18 08 41.0	-0.6
GERES	**GERESS Array B**	81.70	324	P	P	18 08 48.5	+0.2
	0.8nm,0.7s,mb3.5,baz=46,slow=3.9,SNR=8.4						
NVAR	**Mina Array Bea**	84.50	48	P	P	18 09 03.5	+0.5
	0.8nm,0.7s,mb3.5,baz=324,slow=4.9,SNR=5.9						
PDAR	**Pinedale Array**	86.84	40	P	P	18 09 14.8	+0.4
	0.8nm,0.7s,mb3.7,baz=40,slow=0.8,SNR=9.0						
ULM	**Lac du Bonnet**	87.81	28	P	P	18 09 18.7	-0.1
	0.9nm,0.6s,mb3.8,baz=350,slow=5.7,SNR=3.8						

*CSEM **02** 18:19:19.0, 43°.12N×47°.18E, h9^{km}, mb4.4, After OBN*
*MOS **02** 18:19:19.2±0.8, 43°.12N×47°.18E, h9^{km}, mb4.4/1, Error ellipse: s-maj=10.3km s-min=8.5km az=34.2*
ISC 02 18:19:21.3±0.8**, 43°.12N**±0°.04×**47°.02E**±0°.04**, h2**^{km}±6^{km}**, n41,** σ1^s.04/73**, 1C-2D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBC	**Dubki**	0.17	235	*i* PG	Pg	18 19 20.2	-4.4
DBC				pmax	pmax		
	comp=Z,693nm,0.1s						
DBC	**Dubki**	0.17	235	*i* Pg	Pg	18 19 20.2	-4.4
	comp=Z,693nm,0.1s						
BUJR	**Buynaksk**	0.30	168	*e*PG	Pg	18 19 26.0	-1.1
BUJR				*e*S	Sg	18 19 33.0	+2.0
BUJR	**Buynaksk**	0.30	168	*e*Pg	Pg	18 19 26.0	-1.1
BUJR				*e*Sg	Sg	18 19 33.0	+2.0
MAK	**Makhachkala**	0.39	114	*e*PG	Pg	18 19 27.7	-1.1
MAK				*e*		18 19 35.0	
MAK				pmax	pmax		
	comp=Z,245nm,0.3s						
MAK				smax			
	comp=N,3μm,0.8s						
MAK				smax			
	comp=E,3μm,0.8s						
MAK	**Makhachkala**	0.39	114	*e*Pg	Pg	18 19 27.7	-1.1
	comp=E,245nm,0.3s						
MAK				*e*Sg	Sg	18 19 35.0	+1.2
	comp=E,3μm,0.8s						
GNBR	**Gunib**	0.73	183	⇑*i*PG	Pg	18 19 34.4	-0.9
GNBR				*i* S	Sg	18 19 44.4	-0.4
GNBR				pmax	pmax		
	comp=Z,73nm,0.3s						
GNBR	**Gunib**	0.73	183	*i* Pg	Pg	18 19 34.4	-0.9
	comp=Z,73nm,0.3s						
GNBR				*i* Sg	Sg	18 19 44.4	-0.4
KMKR	**Kumukh**	0.99	177	*e*PG	Pg	18 19 39.0	-1.3
KMKR				*e*S	Sg	18 19 53.5	+0.4
KMKR				pmax	pmax		
	comp=Z,70nm,0.2s						
KMKR	**Kumukh**	0.99	177	*e*Pg	Pg	18 19 39.0	-1.3
	comp=Z,70nm,0.2s						
KMKR				*e*Sg	Sg	18 19 53.5	+0.4
SNJR	**Sundja**	1.62	269	*e*PN	Pn	18 19 51.1	+0.3
SNJR				*e*S	Sg	18 20 15.2	+1.9
SNJR	**Sundja**	1.62	269	*e*Pn	Pn	18 19 51.1	+0.3
SNJR				*e*Sg	Sg	18 20 15.2	+1.9
VLKR	**Vladikavkaz**	1.72	268	*e*PN	Pn	18 19 52.6	+0.4
VLKR				*e*S	Sg	18 20 17.9	+1.4
VLKR	**Vladikavkaz**	1.72	268	*e*Pn	Pn	18 19 52.6	+0.4
VLKR				*e*Sg	Sg	18 20 17.9	+1.4
KSMR	**Kasumkent**	1.72	151	⇓*i*PN	Pn	18 19 48.0	-4.3
KSMR				*e*S	Sn	18 20 15.0	+0.2
KSMR				pmax	pmax		
	comp=Z,107nm,0.2s						
KSMR	**Kasumkent**	1.72	151	*i* Pn	Pn	18 19 48.0	-4.3
	comp=Z,107nm,0.2s						
KSMR				*e*Sg	Sn	18 20 15.0	+0.2
TRKR	**Terskaya**	1.77	291	⇓*i*PN	Pn	18 19 52.9	-0.1
TRKR				*i* S	Sg	18 20 18.8	+0.5
TRKR	**Terskaya**	1.77	291	*i* Pn	Pn	18 19 52.9	-0.1
TRKR				*i* Sg	Sg	18 20 18.8	+0.5
BTKR	**Batakoyurt**	1.83	279	*e*PN	Pn	18 19 54.0	+0.3
BTKR				*i* S	Sg	18 20 20.6	+0.5
BTKR	**Batakoyurt**	1.83	279	*e*Pn	Pn	18 19 54.0	+0.3
BTKR				*i* Sg	Sg	18 20 20.6	+0.5
ARNR	**Ardon**	2.01	273	*e*PN	Pn	18 19 56.7	+0.5
ARNR				*i* S	Sg	18 20 25.4	-0.4
ARNR	**Ardon**	2.01	273	*e*Pn	Pn	18 19 56.7	+0.5
ARNR				*i* Sb	Sg	18 20 25.4	-0.4
KORR	**Kora**	2.16	270	*e*PN	Pn	18 19 58.7	+0.4
KORR				*e*S	Sg	18 20 29.1	-1.7
KORR	**Kora**	2.16	270	*e*Pn	Pn	18 19 58.7	+0.4
KORR				*e*Sn	Sg	18 20 29.1	-1.7
ZEI	**Tsey**	2.32	262	*e*PN	Pn	18 20 00.9	+0.4
ZEI				*i* S	Sg	18 20 32.5	-3.3
ZEI	**Tsey**	2.32	262	*e*Pn	Pn	18 20 00.9	+0.4
ZEI				*i* Sn	Sg	18 20 32.5	-3.3
DIGR	**Digorskoe uzhe**	2.53	266	*e*PN	Pn	18 20 03.9	+0.5
DIGR				*e*S	Sg	18 20 37.8	-4.9
DIGR	**Digorskoe uzhe**	2.53	266	*e*Pn	Pn	18 20 03.9	+0.5
DIGR				*e*Sn	Sg	18 20 37.8	-4.9
ONI	**Oni**	2.68	260	P	Pn	18 20 05.7	+0.3
ONI				S	Sg	18 20 47.8	+0.4
ONI	**Oni**	2.68	260	P	Pn	18 20 05.1	-0.4
ONI				S	Sg	18 20 45.8	-1.6
KUBR	**Kubataba**	2.72	286	*e*PN	Pn	18 20 06.1	+0.2
KUBR	**Kubataba**	2.72	286	*e*Pn	Pn	18 20 06.1	+0.2
SHAR	**Shatzhatmas**	3.23	283	*e*PN	Pn	18 20 10.4	-2.6
SHAR	**Shatzhatmas**	3.23	283	*e*Pn	Pn	18 20 10.4	-2.6
KIV	**Kislovodsk**	3.26	286	*e*PN	Pn	18 20 12.9	-0.5
KIV				*i*	Pg	18 20 24.2	+0.4
KIV				*i* S	Sn	18 20 58.5	+5.8
KIV				pmax	pmax		
	comp=Z,4.0nm,1.2s						
KIV	**Kislovodsk**	3.26	286	*e*Pn	Pn	18 20 12.9	-0.5
	comp=Z,4.0nm,1.2s						
KIV	**Kislovodsk**	3.26	286	*i* Pg	Pg	18 20 24.2	+0.4
KIV				*i* Sn	Sn	18 20 58.5	+5.8
GNI	**Garni**	3.42	211	*e*PN	Pg	18 20 20.1	-6.8
GNI	**Garni**	3.42	211	*e*Pn	Pg	18 20 20.1	-6.8
ANN	**Anapa**	7.12	287	*e*P	Pn	18 20 58.4	-8.0
ANN				*e*S	Sn	18 22 24.3	-3.5
ANN				pmax	pmax		
	comp=Z,98nm,1.4s						
ANN	**Anapa**	7.12	287	*e*P	Pn	18 20 58.4	-8.0
	comp=Z,98nm,1.4s						
ANN				*e*S	Sn	18 22 24.3	-3.5

*ISCJB **02** 18:19:27.8±0.6, 5°.3N±0°.1×93°.22E±0°.08, h25^{km}, mb3.8/13, Error ellipse: s-maj=16.8km s-min=7.9km az=33.3*
*NEIC **02** 18:19:27.9±3.3, 5°.31N×93°.18E, h11^{km}±21^{km}, mb4.2/3, Error ellipse: s-maj=11.9km s-min=7.0km az=217.0*
*IDC **02** 18:19:30.5±0.9, 5°.40N×93°.28E, h25^{km}±5^{km}, mb3.5/10, mb1 3.6/12, mb1mx3.5/26, mbtmp3.5/12, ML3.1/2, Error ellipse: s-maj=34.1km s-min=14.4km az=53.0*
ISC 02 18:19:29.5±3.3**, 5°.3N**±0°.1×**93°.22E**±0°.08**, h21**^{km}±24^{km}**, h26**^{km}±.6^{km}**:pP-P, n20,** σ**0^s.80**/21**, mb3.8**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	6.20	113	Pn	Pn	18 21 01.0	+1.1
	1.3nm,0.3s,baz=331,slow=13,SNR=3.6						
PSI				Sn	Sn	18 22 08.7	-1.6
	1.6nm,0.3s,baz=3.8,slow=15,SNR=2.9						
KULM	**Kulim**	7.40	90	*e*Pn	Pn	18 21 16.3	0.0
	5.2nm,0.6s						
PALK	**Pallekele**	12.60	280	*e*Pn	Pn	18 22 26.5	-1.1
PALK				*e*Sn	Sn	18 24 36.8	-11
CMAR	**Chiang Mai Arr**	14.22	23	Pn	Pn	18 22 49.9	+0.1
	0.0nm,0.3s,baz=223,slow=13,SNR=4.0						
AAK	**Ala-Archa**	40.72	339	P	P	18 27 10.6	+1.9
	1.0nm,0.5s,mb3.7						
MK31	**Makanchi Array**	42.40	349	*e*P	P	18 27 22.3	-0.1
MKAR	**Makanchi Array**	42.40	349	P	P	18 27 22.3	-0.1
	0.7nm,0.5s,mb3.5,baz=169,slow=8.8,SNR=14						
SONM	**Songino Array**	43.86	13	P	P	18 27 32.8	-1.4
	0.7nm,1.2s,mb3.3,baz=199,slow=7.2,SNR=2.2						
KURK	**Kurchatov**	46.89	347	P	P	18 27 58.1	-0.1
	1.3nm,0.5s,mb4.1,baz=172,slow=7.6,SNR=4.2						
WRA	**Warramunga Arr**	47.57	123	P	P	18 28 04.5	+0.6
	0.4nm,0.4s,mb3.8,baz=302,slow=9.0,SNR=7.7						
WRA				pP	pP	18 28 11.9	+1.4
	1.6nm,0.8s,baz=301,slow=9.1,SNR=8.9						
WRAB	**Tennant Creek**	47.58	123	P	P	18 28 04.2	+0.1
	2.5nm,0.8s,mb4.3						
ZALV	**Zalesovo Beam**	48.98	353	P	P	18 28 14.6	+0.3
	0.7nm,0.5s,mb4.0,baz=160,slow=4.7,SNR=4.3						
ZALV				pP	pP	18 28 22.5	+1.5
	1.1nm,0.5s,baz=178,slow=7.9,SNR=3.6						
ZALV	**Zalesovo Beam**	48.98	353	P	P	18 28 14.6	+0.3
ZALV				pP	pP	18 28 22.5	+1.6
ASAR	**Alice Springs**	49.02	128	P	P	18 28 15.8	+0.7
	0.2nm,0.6s,mb3.4,baz=300,slow=8.3,SNR=5.6						
ASAR				pP	pP	18 28 23.1	+1.3
	0.6nm,0.7s,baz=301,slow=7.8,SNR=4.6						
BVAR	**Borovoye Array**	51.13	342	P	P	18 28 30.3	-0.3
	0.6nm,0.5s,mb3.8,baz=133,slow=10,SNR=6.7						
GNI	**Garni**	55.61	316	P	P	18 29 03.6	-0.2
	3.0nm,0.8s,mb4.4						
BRTR	**Keskin Array B**	63.44	312	P	P	18 29 57.2	-0.7
	0.5nm,0.8s,mb3.7,baz=135,slow=7.3,SNR=3.6						
ARCES	**ARCESS Array B**	77.37	341	P	P	18 31 22.5	+0.1
	3.3nm,1.0s,mb4.2,baz=97,slow=6.4,SNR=7.8						
GERES	**GERESS Array B**	79.13	319	P	P	18 31 33.4	+0.8
	0.5nm,0.6s,mb3.6,baz=76,slow=5.6,SNR=4.5						
GERES				pP	pP	18 31 41.1	+1.6
	0.2nm,0.6s,baz=128,slow=5.6,SNR=1.9						
CPUP	**Villa Florida**	144.95	230	PKPbc	PKPdf	18 39 06.2	+0.3
	1.1nm,0.6s,baz=138,slow=6.5,SNR=4.1						

IDC 02 18:50:12.5±3.6**, 9°.49S**×**117°.22E, h0**^{km}**, mb3.2**/2**, mb1 3.3**/3**, mb1mx3.1**/18**, mbtmp3.1**/3**, ML2.9**/1**, Error ellipse: s-maj=266.5km s-min=27.9km az=49.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	19.52	124	P	Pn	18 54 41.6	-1.1
	0.0nm,0.3s,baz=298,slow=13,SNR=3.7						
ASAR	**Alice Springs**	21.28	134	P	P	18 55 00.8	+0.2
	1.1nm,0.8s,baz=309,slow=9.9,SNR=16						
MKAR	**Makanchi Array**	64.11	334	P	P	19 00 48.5	+0.1
	0.3nm,0.9s,baz=147,slow=6.0,SNR=4.2						

IDC 02 18:50:35.1±3.8**, 11°.40S**×**165°.26E, h0**^{km}**, mb3.8**/3**, mb1 3.9**/3**, mb1mx3.6**/17**, mbtmp3.7**/3**, MS2.8**/1**, Ms1 2.8**/1**, ms1mx2.0**/30**, Error ellipse: s-maj=145.2km s-min=45.0km az=135.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	5.58	290	LR	LR	18 53 56.0	
	comp=Z,88nm,20.8s,baz=213,slow=36						
WRA	**Warramunga Arr**	30.91	250	P	P	18 56 54.2	+0.4
	0.9nm,0.8s,baz=81,slow=9.2,SNR=5.5						
ASAR	**Alice Springs**	32.21	244	P	P	18 57 04.8	-0.3
	0.2nm,0.6s,baz=70,slow=9.1,SNR=4.1						
MKAR	**Makanchi Array**	93.45	317	P	P	19 03 52.5	-0.1
	0.4nm,0.6s,baz=91,slow=5.9,SNR=5.7						
ARCES	**ARCESS Array B**	116.55	345	PKP	PKPdf	19 09 20.6	+0.1
	1.4nm,0.9s,baz=57,slow=3.3,SNR=2.7						

CASC 02 18:54:52.5±1.9**, 12°.83N**×**88°.50W, h56**^{km}±20^{km}**, MD3.7, ML3.7, 2C-2D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSM	**San Miguel**	0.64	20	*e*P	Pn	18 55 06.0	+0.2
VSM				*e*S	Sn	18 55 16.6	+1.3
BLLM	**Bellamira**	0.66	23	⇓*e*P	Pn	18 55 06.2	+0.2
BLLM				*e*S	Sn	18 55 17.3	+1.3
CNCH	**Conchagua**	0.79	55	*e*P	Pn	18 55 07.0	-0.6
CNCH				*e*S	Sn	18 55 19.9	+1.2
SNVI	**San Vicente**	0.85	337	*e*P	Pn	18 55 08.5	+0.1
SNVI				*e*S	Sn	18 55 21.1	+1.0
LFRS	**El Faro**	0.96	325	⇓*e*P	Pn	18 55 10.1	+0.2
LFRS				*e*S	Sn	18 55 23.3	+0.6
CAHU	**Cacacuatique**	0.98	17	*e*P	Pn	18 55 10.6	+0.5
CAHU				*e*S	Sn	18 55 24.6	+1.4
LBRS	**Las Brisas**	1.05	330	*e*P	Pn	18 55 11.6	+0.6
LBRS				*e*S	Sn	18 55 25.9	+1.2
BOQS	**Boqueron**	1.18	320	*e*P	Pn	18 55 13.2	+0.4
BOQS				*e*S	Sn	18 55 29.6	+1.7
SBLS	**San Blas**	1.49	313	*e*P	Pn	18 55 17.3	+0.4
SBLS				*e*S	Sn	18 55 36.8	+1.5
RTR	**El Retiro**	1.54	314	*e*P	Pn	18 55 18.6	+0.9
RTR				*e*S	Sn	18 55 37.8	+1.2
TEL3	**Telica 3**	1.64	99	⇑*e*P	Pn	18 55 18.3	-0.6
TGUH	**Tegucigalpa,Un**	1.71	44	*e*P	Pn	18 55 19.6	-0.4
TGUH				*e*S	Sn	18 55 42.2	+1.5
RBDL	**Robledal**	1.72	318	*e*P	Pn	18 55 21.2	+1.1
MIRN	**Miramar**	1.79	102	⇑*e*P	Pn	18 55 20.1	-0.9
MIRN				*e*S	Sn	18 55 44.5	+1.9
MIRN				AML	AML	18 55 47.1	
	comp=Z,908nm,0.2s						
MOMN	**Momotombo**	1.96	102	*e*P	Pn	18 55 22.7	-0.6
COPN	**Copaltepe**	1.97	109	*e*P	Pn	18 55 22.3	-1.2
COPN				*e*S	Sn	18 55 46.5	-0.6
BOAB	**BOACO BROADBAN**	2.79	97	*e*P	Pn	18 55 33.7	-1.1
LCR2	**La Lucha 2**	5.37	124	*e*P	Pn	18 56 12.8	+2.6
URSC	**Urasca**	5.50	122	*e*P	Pn	18 56 15.4	+3.4
URSC				*e*S	Sn	18 57 17.9	+4.0
BUS	**Buena Vista**	5.68	124	*e*P	Pn	18 56 16.0	+1.7
BAR1		6.21	124	*e*P	Pn	18 56 04.0	-18

*MAN **02** 18:55:53, 6°.49N×126°.15E, h34^{km}, mb4.5, ML3.3, MS3.2*
*NEIC **02** 18:55:54.9±2.1, 6°.76N×126°.44E, h42^{km}±19^{km}, mb4.4/5, Error ellipse: s-maj=28.2km s-min=7.6km az=66.0*
*ISCJB **02** 18:55:55.3±0.6, 6°.68N±0°.06×126°.21E±0°.07, h62^{km}±5^{km}, mb4.1/13, Error ellipse: s-maj=11.8km s-min=8.9km az=155.0*
*IDC **02** 18:55:55.5±3.4, 6°.68N×126°.29E, h42^{km}±29^{km}, mb3.8/7, mb1 3.9/7, mb1mx3.5/22, mbtmp3.8/7, Error ellipse: s-maj=56.1km s-min=13.5km az=63.0*
ISC 02 18:55:56.3±0.6**, 6°.68N**±0°.06×**126°.20E**±0°.07**, h54**^{km}±5^{km}**, n30,** σ**0^s.87**/32**, mb4.1**/13**, 1C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	**Mati**	0.27	12	*e*P	Pn	18 56 05.6	0.0
MATI				*e*S	Sn	18 56 12.6	+0.3
DAV	**Davao City (W)**	0.73	302	P	Pn	18 56 11.0	+0.3
	513nm,0.3s,baz=217,slow=1.9,SNR=69						
DAV				S	Sn	18 56 22.1	+1.0
	1μm,0.3s,baz=300,slow=20,SNR=139						
DMPH	**Davao City--Mi**	0.80	300	⇓*i*P	Pn	18 56 11.6	0.0
DMPH				*i* S	Sn	18 56 23.0	+0.4
GSPH	**General Santos**	1.38	245	⇓*i*P	Pn	18 56 17.0	-2.2
BUKP	**Musuan**	1.64	317	*e*P	Pn	18 56 22.2	-0.7
CTBH	**Cotabato--PC H**	2.02	286	*e*P	Pn	18 56 26.8	-1.1
CTBH				*i* S	Px	18 56 38.4	
BUTP	**Butuan**	2.35	346	*e*P	Pn	18 56 34.0	+1.5
PAGZ	**Pagadian**	3.03	293	*e*P	Pn	18 56 41.7	-0.1
SCPH	**Surigao**	3.16	347	⇑*e*P	Pn	18 56 42.5	-1.2
MSLP	**Maasin**	3.68	339	*e*P	Pn	18 56 49.9	-0.9
OCLP	**Ormoc**	4.62	340	*e*P	Pn	18 57 03.8	+0.2
KAKA	**Kakadu**	20.24	162	*e*P	P	19 00 28.0	+0.8
	5.5nm,0.6s						
KAKA	**Kakadu**	20.24	162	*e*P	P	19 00 26.7	-0.5
	15nm,0.6s						
KNA	**Kununurra**	22.43	174	*e*P	P	19 00 52.0	+1.3
	12nm,0.8s,mb4.4						
FITZ	**Fitzroy Crossi**	24.63	181	*e*P	P	19 01 12.2	+0.3
	3.0nm,0.4s,mb4.2						
FITZ	**Fitzroy Crossi**	24.63	181	P	P	19 01 12.3	+0.4
	1.8nm,0.4s,mb3.9,baz=12,slow=11,SNR=14						
WRA	**Warramunga Arr**	27.64	163	P	P	19 01 38.8	-0.3
	0.8nm,0.4s,mb3.7,baz=342,slow=10,SNR=13						
ASAR	**Alice Springs**	31.08	166	P	P	19 02 09.8	+0.2
	0.8nm,0.4s,mb3.9,baz=342,slow=7.3,SNR=32						
BBOO	**Buckleboo**	40.37	167	*e*P	P	19 03 29.2	+0.2
	3.8nm,0.5s,mb4.4						
STKA	**Stephens Creek**	41.06	160	P	P	19 03 35.1	+0.4
	1.3nm,0.4s,mb3.9,baz=313,slow=13,SNR=8.9						
STKA	**Stephens Creek**	41.06	160	*e*P	P	19 03 34.4	-0.3
	1.3nm,1.1s,mb3.5						
MKAR	**Makanchi Array**	54.86	324	P	P	19 05 22.6	+1.5
	1.8nm,0.6s,mb4.3,baz=124,slow=8.2,SNR=25						
MKAR				PcP	PcP	19 06 21.9	-1.0
	0.4nm,0.7s,baz=102,slow=5.1,SNR=2.5						
KURK	**Kurchatov**	58.99	327	*e*P	P	19 05 51.2	+0.8
	2.3nm,0.6s,mb4.4						
BVAR	**Borovoye Array**	64.58	326	P	P	19 06 29.4	+1.5
	1.6nm,0.7s,mb4.2,baz=146,slow=8.6,SNR=9.9						
BRVK	**Borovoye**	64.65	326	*e*P	P	19 06 28.1	-0.3
	2.7nm,0.7s,mb4.4						
ARU	**Arti**	72.18	327	*e*P	P	19 07 15.0	-0.3
	2.8nm,0.6s,mb4.4						
MCK	**McKinley**	81.78	27	*e*P	P	19 08 07.8	-1.3
	2.4nm,0.8s,mb4.2						
SIT	**Sitka**	89.04	33	*e*P	P	19 08 44.6	-0.8
	49nm,1.2s						
YKA	**Yellowknife Ar**	97.04	24	P	P	19 09 21.4	-0.8
	0.2nm,0.6s,mb3.7,baz=303,slow=4.8,SNR=4.2						
TORD	**Torodi Ar. Bea**	121.47	290	PKP	PKPdf	19 14 44.6	-0.1
	0.4nm,0.7s,baz=68,slow=1.9,SNR=3.5						

*IDC **02** 18:59:37.5±10.0, 5°.66S×146°.56E, h235^{km}±98^{km}, mb3.3/3, mb1 3.5/5, mb1mx3.1/17, mbtmp3.3/5, MS3.3/1, Ms1 3.3/1, ms1mx2.6/15, Error ellipse: s-maj=59.8km s-min=50.9km az=112.0*
*NEIC **02** 18:59:39.7±5.2, 5°.79S×146°.52E, h257^{km}±49^{km}, mb3.8/2, Error ellipse: s-maj=34.9km s-min=32.8km az=196.0*
ISC 02 18:59:29.1±5.0**, 5°.4S**±0°.3×**146°.3E**±0°.3**, h138**^{km}±48^{km}**, n13,** σ**0^s.57**/11**, mb3.6**/4**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	**Coen**	9.08	199	*e*P	Pn	19 01 36.5	-0.6
MTSU	**Mount Surprise**	12.85	188	*e*P	Pn	19 02 32.0	+5.2
	5.1nm,0.5s						
CTA	**Charters Tower**	14.65	180	P	Pn	19 02 50.8	+1.1
	0.3nm,0.3s,baz=2.9,slow=12,SNR=4.0						
CTA				LR	LR	19 07 57.2	
	comp=Z,108nm,19.4s,baz=230,slow=35						
WRAB	**Tennant Creek**	18.57	218	*e*P	P	19 03 35.8	+0.2
	4.9nm,0.6s						
WB2	**Warramunga Arr**	18.58	218	*e*P	P	19 03 35.5	-0.2
WRA	**Warramunga Arr**	18.58	218	P	P	19 03 35.6	-0.1
	0.7nm,0.3s,baz=39,slow=11,SNR=19						
ASAR	**Alice Springs**	21.77	212	P	P	19 04 09.7	-0.2
	2.7nm,0.5s,mb3.9,baz=47,slow=8.0,SNR=36						
FITZ	**Fitzroy Crossi**	23.82	236	P	P	19 04 30.3	+0.7
	1.9nm,0.3s,mb4.1,baz=52,slow=9.2,SNR=19						
STKA	**Stephens Creek**	26.75	189	P	P	19 04 51.6	-4.3
	1.0nm,1.0s,mb3.4						
MKAR	**Makanchi Array**	76.55	321	P	P	19 11 04.1	-0.1
	0.3nm,0.8s,mb3.0,baz=101,slow=7.0,SNR=4.0						
MKAR	**Makanchi Array**	76.55	321	P	P	19 11 04.1	-0.1
TORD	**Torodi Ar. Bea**	144.24	285	PKP	PKPdf	19 18 46.7	-3.1
	0.5nm,0.7s,baz=107,slow=2.6,SNR=2.9						
TORD	**Torodi Ar. Bea**	144.24	285	PKP	PKPdf	19 18 46.6	-3.1

*NEIC **02** 18:59:50.7, 16°.69N×99°.75W, h11^{km}, MD3.9(MEX), After MEX.*
MEX 02 18:59:50.7±0.6**, 16°.69N**×**99°.75W, h11**^{km}±3^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	0.24	317	*i* P	Pg	18 59 55.0	-0.6
ACX				*i* S	Sg	18 59 59.0	+0.1
CAIG	**El Cayaco**	0.61	305	*i* P	Pg	19 00 01.4	-1.2
CAIG				*i* S	Sg	19 00 09.5	-1.1
PNIG	**Pinotepa**	1.58	101	*i* P	Pn	19 00 14.8	-4.0
PNIG				*i* S	Sn	19 00 35.0	-4.3
PLIG	**Platanillo**	1.71	8	*i* P	Pn	19 00 17.4	-3.1
PLIG				*i* S	Sn	19 00 36.7	-5.6
UTMO	**Huajuapan**	2.17	58	*e*P	Pn	19 00 23.4	-3.5
UTMO				*i* S	Sn	19 00 48.8	-5.0
MZVM		2.53	11	*i* P	Pn	19 00 29.2	-2.6
MZVM				*i* S	Sn	19 00 58.8	-3.9
PPM	**Popocatepetl**	2.59	24	*e*P	Pn	19 00 30.9	-1.7
PPM				*i* S	Sn	19 01 01.4	-2.7
VHO	**Vista Hermosa**	2.91	82	*e*P	Pn	19 00 35.3	-1.7
VHO				*i* S	Sn	19 01 09.2	-2.8
PTVM	**Pico Tres Padr**	2.95	12	*e*P	Pn	19 00 41.1	+3.6
PTVM				*i* S	Sn	19 01 11.9	-1.0
IIO	**Organos**	3.04	19	*i* P	Pn	19 00 35.3	-3.5
IIO				*i* S	Sn	19 01 10.7	-4.6
HUIG	**Huatulco**	3.62	104	*e*P	Pn	19 00 44.6	-2.1
HUIG				*i* S	Sn	19 01 26.4	-3.0
CMIG	**Matias Romero**	4.67	84	*e*P	Pn	19 00 59.7	-1.6
CMIG				*i* S	Sn	19 01 51.5	-4.0

IDC 02 19:02:43.0±12.0**, 7°.41S**×**129°.24E, h170**^{km}±143^{km}**, mb2.6**/1**, mb1 3.0**/4**, mb1mx2.8**/17**, mbtmp2.8**/4**, ML3.4**/3**, Error ellipse: s-maj=89.7km s-min=46.9km az=24.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	11.19	198	P	Pn	19 05 17.3	-1.0
	0.3nm,0.3s,baz=349,slow=5.2,SNR=3.9						
FITZ				S	Sn	19 07 25.1	+2.6
	0.1nm,0.3s,baz=98,slow=19,SNR=3.1						
WRA	**Warramunga Arr**	13.41	159	P	Pn	19 05 47.2	+0.5
	0.1nm,0.3s,baz=342,slow=13,SNR=4.2						
WRA				S	Sn	19 08 14.2	-1.4
	0.2nm,0.3s,baz=336,slow=23,SNR=5.2						
ASAR	**Alice Springs**	16.77	165	P	Pn	19 06 27.9	-0.3
	0.3nm,0.3s,baz=338,slow=9.4,SNR=14						
MKAR	**Makanchi Array**	68.15	327	P	P	19 13 24.9	+0.1
	0.1nm,0.4s,baz=134,slow=4.2,SNR=3.2						

*MAN **02** 19:07:03, 18°.06N×119°.27E, h29^{km}, mb4.6, ML3.4, MS3.3*
*ISCJB **02** 19:07:04.6±1.0, 18°.04N±0°.05×119°.34E±0°.08, h49^{km}±11^{km}, mb3.9/14, Error ellipse: s-maj=12.6km s-min=7.7km az=19.2*
*NEIC **02** 19:07:04.7±0.6, 17°.93N×119°.10E, h35^{km}, mb4.3/3, Error ellipse: s-maj=23.5km s-min=12.7km az=55.0*
*IDC **02** 19:07:04.5±0.7, 18°.07N×119°.47E, h29^{km}±4^{km}, mb3.5/11, mb1 3.7/12, mb1mx3.5/24, mbtmp3.5/12, ML3.5/1, MS2.7/1, Ms1 2.7/1, ms1mx2.1/31, Error ellipse: s-maj=31.9km s-min=11.8km az=65.0*
ISC 02 19:07:05.8±0.9**, 18°.05N**±0°.05×**119°.37E**±0°.07**, h43**^{km}±11^{km}**, h31**^{km}±1.4^{km}**:pP-P, n34,** σ**0^s.91**/36**, mb3.9**/14**, 2D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

SIPP	Brgy, Tapao	1.04	96⇓	*e*P	Pn	19 07 22.8	-1.2
SIPP				*e*S	Sn	19 07 29.5	-7.9
PIP	Pasuquin	1.22	77⇓	*i*P	Pn	19 07 25.2	-1.2
PIP				*e*S	Sn	19 07 41.8	+0.1
ABRA	Dolores	1.34	107	*e*P	Pn	19 07 27.3	-0.7
BOLP	Bolinao	1.73	162	*e*P	Pn	19 07 32.0	-1.5
BOLP				*e*S	Sn	19 07 54.4	0.0
SCZP	Santa Cruz	2.31	167	*e*P	Pn	19 07 40.2	-1.3
SGCP	Mt. Cagua	2.55	85	*e*P	Pn	19 07 45.4	+0.7
CAUP	Cauayan	2.59	115	*e*P	Pn	19 07 47.4	+2.2
PALP	Palanan	3.08	108	*e*P	Pn	19 07 53.5	+1.6
BALP	Baler	3.12	137	*e*P	Pn	19 07 54.0	+1.5
LUBP	Lubang	4.37	169	*e*P	Pn	19 08 10.4	+0.7
BUSP	Coron	6.06	172	*e*P	Pn	19 08 32.9	-0.1
NACB	Ninganchiao	6.44	18	Pn	Pn	19 08 29.2	-9.0
ENPP	El Nido	6.80	180	*e*P	Pn	19 08 42.6	-0.5
QIZ	Qiongzhong	9.09	278	*e*Pn	Pn	19 09 07.6	-6.9
JOW	Kunigami	12.01	42	LR	LR	19 14 49.7	
	comp=Z,38nm,20.8s,baz=220,slow=39						
CMAR	Chiang Mai Arr	19.41	274	P	Pn	19 11 30.5	+0.6
	0.1nm,0.3s,baz=99,slow=9.2,SNR=7.6						
CMAR				PcP	PcP	19 15 50.0	+0.9
	0.1nm,0.3s,baz=199,slow=1.5,SNR=6.0						
CMAR				pPcP		19 15 59.6	
	0.1nm,0.3s,baz=28,slow=1.4,SNR=5.6						
KSRS	Korea Array	20.75	20	P	P	19 11 42.2	-0.7
	1.2nm,0.8s,baz=205,slow=11,SNR=3.1						
SONM	Songino Array	31.55	343	P	P	19 13 25.1	+1.1
	0.3nm,0.8s,mb3.2,baz=174,slow=7.1,SNR=2.9						
SONM				pP	pP	19 13 33.0	-2.6
	0.3nm,0.5s,baz=169,slow=8.8,SNR=3.1						
WRA	Warramunga Arr	40.51	158	P	P	19 14 40.0	-0.9
	0.8nm,0.7s,mb3.4,baz=347,slow=8.8,SNR=13						
WRA				pP	pP	19 14 49.2	-3.4
	0.9nm,0.7s,baz=342,slow=9.0,SNR=5.4						
WRA				PcP	PcP	19 16 43.3	+0.4
	0.3nm,0.9s,baz=341,slow=3.2,SNR=4.9						
WRA				pPcP		19 16 51.6	
	0.3nm,0.6s,baz=342,slow=3.1,SNR=5.3						
MKAR	Makanchi Array	41.82	322	P	P	19 14 51.8	+0.4
	0.4nm,0.9s,mb3.0,baz=145,slow=8.1,SNR=4.4						
MKAR				PcP	PcP	19 16 46.4	-0.4
	0.3nm,0.6s,baz=109,slow=3.0,SNR=3.7						
MKAR				pPcP		19 16 55.8	
	0.2nm,0.6s,baz=108,slow=2.7,SNR=2.6						
ASAR	Alice Springs	43.82	161	P	P	19 15 07.8	+0.1
	0.8nm,0.4s,mb3.8,baz=338,slow=6.8,SNR=24						
ASAR				pP	pP	19 15 17.1	-2.6
	0.9nm,0.6s,baz=339,slow=6.6,SNR=6.5						
ZALV	Zalesovo Beam	44.64	332	P	P	19 15 14.9	+0.9
	0.2nm,0.5s,mb3.2,baz=166,slow=7.4,SNR=2.4						
AML	Almayashu	45.55	312	P	P	19 15 21.9	+0.5
	3.3nm,1.1s,mb4.2						
KURK	Kurchatov	45.90	325	P	P	19 15 24.1	+0.1
	1.3nm,0.6s,mb4.0,baz=122,slow=8.3,SNR=7.2						
KURK				pP	pP	19 15 33.5	-2.5
	2.0nm,0.8s,baz=123,slow=8.0,SNR=4.1						
KURK	Kurchatov	45.90	325	P	P	19 15 24.1	+0.1
KURK				pP	pP	19 15 33.5	-2.5
CTA	Charters Tower	46.17	144	P	P	19 15 27.4	+0.8
	1.0nm,0.3s,mb4.2,baz=313,slow=9.2,SNR=3.2						
BRVK	Borovoye	51.57	324	P	P	19 16 07.6	0.0
	3.9nm,1.1s,mb4.2						
STKA	Stephens Creek	54.02	157	P	P	19 16 26.1	+0.3
	1.7nm,0.8s,mb4.0,baz=299,slow=10,SNR=3.7						
BILL	Bilibino	58.01	19	P	P	19 16 53.5	-0.4
	6.1nm,1.4s,mb4.4						
AKTK	Aktyubinsk	58.10	319	P	P	19 16 54.3	-0.6
AKTO	Aktyubinsk	58.10	319	P	P	19 16 54.3	-0.6
	0.9nm,0.6s,mb4.0,baz=111,slow=7.2,SNR=3.6						
MCK	McKinley	74.74	27	P	P	19 18 39.3	-1.8
	25nm,1.6s,mb4.9						
YKA	Yellowknife Ar	89.26	22	P	P	19 19 57.2	+0.1
	0.8nm,0.7s,mb4.2,baz=314,slow=4.6,SNR=11						
YKA				pP	pP	19 20 06.7	-3.4
	0.3nm,0.5s,baz=313,slow=4.5,SNR=4.3						
YKA	Yellowknife Ar	89.26	22	P	P	19 19 57.2	+0.1
YKA				pP	pP	19 20 06.7	-3.3

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*ISCJB **02** 19:10:13.3±0.5, 43°.74N±0°.04×105°.14W±0°.06, h0^{km}, Error ellipse: s-maj=6.4km s-min=5.7km az=149.5*

*IDC **02** 19:10:14.6±2.0, 43°.62N×105°.45W, h0^{km}, mb4.0/1, mb1 4.0/4, mb1mx3.5/23, mbtmp3.8/4, ML3.6/3, Error ellipse: s-maj=50.8km s-min=7.5km az=150.0*

*NEIC **02** 19:10:15.2±0.5, 43°.70N×105°.18W, h0^{km}, ML3.3, Error ellipse: s-maj=6.8km s-min=6.1km az=146.0, Suspected Mining explosion.*

NEIC 70 km [45 miles] SSE of Gillette.

ISC 02 19:10:15.1±0.4, 43°.73N±0°.04×105°.15W±0°.05, h0^{km}, n26, σ1^{s}.09/29, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.89	64	*e*Pg	Pg	19 10 31.6	-0.6
PHWY	Pilot Hill	2.44	186	*e*Pn	Pn	19 10 54.2	-1.9
RWWY	Rawlins	2.54	217	*e*Pn	Pn	19 10 55.3	-2.3
LAO	LASA Array	3.06	346	*e*Pn	Pn	19 11 04.1	-0.5
RLMT	Red Lodge	3.26	297	*e*Pn	Pn	19 11 05.1	-2.3
PDAR	Pinedale Array	3.36	255	Pn	Pn	19 11 08.8	0.0
	4.0nm,0.3s,baz=70,slow=14,SNR=115						
PDAR				Pg	Pg	19 11 13.9	-5.6
	14nm,0.3s,baz=66,slow=20,SNR=87						
PDAR				Lg		19 11 52.6	
	18nm,0.3s,baz=72,slow=35,SNR=7.9						
BW06	Boulder Array	3.37	255	*e*Pn	Pn	19 11 07.2	-1.7
OGNE	Ogallala	3.62	139	*e*Pn	Pn	19 11 14.2	+1.9
ISCO	Idaho Springs	3.94	185	*e*Pn	Pn	19 11 16.8	0.0
LOHW	Long Hollow	3.96	270	*e*Pn	Pn	19 11 17.7	+0.7
SNOW	Snow King Moun	4.08	268	*e*Pn	Pn	19 11 19.8	+1.0
REDW	Red Top Meadow	4.17	267	*e*Pn	Pn	19 11 20.1	+0.2
DCID1	Drake Creek	4.38	270	*e*Pn	Pn	19 11 23.1	+0.3
RRI2	Red Ridge	4.51	267	*e*Pn	Pn	19 11 24.4	-0.1
DGMT	Dagmar	4.79	8	*e*Pn	Pn	19 11 30.7	+2.3
DLMT	Dillon	5.57	290	*e*Pn	Pn	19 11 40.3	+1.1
DLMT				*e*Pb	Pb	19 11 53.9	+0.8
SDCO	Great Sand Dun	5.98	183	*e*Pn	Pn	19 11 45.6	+0.8
	1.8nm,0.4s						
CBKS	Cedar Bluff	6.38	138	*e*Pn	Pn	19 11 51.1	+0.8
	12nm,0.4s						
DUG	Dugway	6.72	241	*e*Pn	Pn	19 11 54.1	-0.8
	4.8nm,0.4s						
HLID	Hailey	6.73	272	*e*Pn	Pn	19 11 56.2	+1.2
	0.9nm,0.4s						
MSO	Missoula	6.94	300	*e*Pn	Pn	19 11 57.8	-0.1
	1.4nm,0.4s						
ULM	Lac du Bonnet	9.09	41	Pn	Pn	19 12 27.8	+0.4
	4.1nm,0.3s,baz=233,slow=11,SNR=22						
ULM				Sn	Sn	19 14 09.2	-1.1
	0.4nm,0.3s,baz=118,slow=7.3,SNR=3.0						
ULM				Lg		19 14 55.8	
	0.3nm,0.3s,baz=195,slow=19,SNR=2.4						
FFC	Flin Flon	11.20	10	*e*Pn	Pn	19 12 55.6	-0.6
	1.4nm,0.3s						
YKA	Yellowknife Ar	19.59	347	P	Pn	19 14 45.5	-0.3
YKA	Yellowknife Ar	19.59	347	P	Pn	19 14 45.5	-0.3
	0.1nm,0.3s,baz=157,slow=10,SNR=5.8						
ARCES	ARCESS Array B	61.40	18	P	P	19 20 32.5	+0.1
	2.3nm,0.8s,baz=328,slow=6.6,SNR=5.3						

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*NEIC **02** 19:24:20.1, 16°.54N×94°.80W, h95^{km}, MD3.9(MEX), After MEX.*

MEX 02 19:24:20.1±1.4, 16°.54N×94°.80W, h95^{km}±14^{km}, MD3.9, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.56	351	*i* P	Pn	19 24 34.5	-1.3
CMIG				*i* S	Sn	19 24 46.0	-1.5
HUIG	Huatulco	1.47	239	*i* P	Pn	19 24 43.7	-2.1
HUIG				*i* S	Sn	19 25 04.0	-1.2
TUIG	Tuzandepetl	1.53	13	*i* P	Pn	19 24 45.0	-1.5
TUIG				*i* S	Sn	19 25 04.6	-1.9
TGIG		1.62	81	*i* P	Pn	19 24 46.4	-1.2
TGIG				*i* S	Sn	19 25 06.0	-2.5
PCIG		1.73	118	*i* P	Pn	19 24 48.5	-0.5
PCIG				*i* S	Sn	19 25 10.0	-0.9
VHO	Vista Hermosa	1.93	286	*i* P	Pn	19 24 52.1	+0.5
VHO				*i* S	Sn	19 25 15.2	-0.3
SCX	San Cristobal	2.08	84	*i* P	Pn	19 24 53.5	0.0
SCX				*i* S	Sn	19 25 17.0	-2.1
CCIG	Comitan	2.56	95	*i* P	Pn	19 24 58.8	-1.1
CCIG				*i* S	Sn	19 25 30.3	-0.2
UTMO	Huajuapan	3.15	295	*i* P	Pn	19 25 07.9	+0.2
UTMO				*i* S	Sn	19 25 44.0	-0.5
PNIG	Pinotepa	3.20	268	*i* P	Pn	19 25 06.9	-1.5
PNIG				*i* S	Sn	19 25 43.2	-2.5
PPM	Popocatepetl	4.43	305	*e*P	Pn	19 25 25.2	+0.1
PPM				*i* S	Sn	19 26 17.5	+2.0
MZVM		4.98	303	*e*P	Pn	19 25 31.6	-0.8
MZVM				*i* S	Sn	19 26 29.2	+0.4
CAIG	El Cayaco	5.26	276	*e*P	Pn	19 25 35.6	-0.8
CAIG				*i* S	Sn	19 26 41.4	+5.5

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*IDC **02** 19:26:16.9±2.6, 6°.45S×133°.16E, h0^{km}, mb3.9/1, mb1 3.8/4, mb1mx3.5/15, mbtmp3.6/4, ML3.5/3, MS3.3/1, Ms1 3.3/1, ms1mx2.4/22, Error ellipse: s-maj=105.4km s-min=21.5km az=82.0*

*ISCJB **02** 19:26:27.3±2.4, 6°.71S±0°.10×133°.11E±0°.08, h113^{km}±28^{km}, Error ellipse: s-maj=16.7km s-min=13.0km az=169.4*

ISC 02 19:26:27.3±2.3, 6°.7S±0°.1×133°.18E±0°.08, h88^{km}±28^{km}, n9, σ0^{s}.98/14, Aru Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.07	187	*e*P	Pn	19 27 55.8	+1.3
	3.4nm,0.2s						
KNA	Kununurra	10.03	205	*e*P	Pn	19 28 47.8	-0.6
	4.6nm,0.4s						
KNA				*e*S	Sn	19 30 38.7	-0.5
COEN	Coen	12.22	127	*e*P	Pn	19 29 19.5	+1.2
COEN				*e*S	Sn	19 31 31.5	-1.2
WRA	Warramunga Arr	13.27	175	Pn	Pn	19 29 31.3	-0.8
	0.2nm,0.3s,baz=355,slow=13,SNR=9.8						
WRA				Sn	Sn	19 31 57.4	-0.6
	0.3nm,0.3s,baz=360,slow=23,SNR=5.0						
FITZ	Fitzroy Crossi	13.55	212	*e*P	Pn	19 29 32.2	-3.7
	3.9nm,0.9s						
FITZ				*e*S	Sn	19 31 56.7	-8.3
FITZ	Fitzroy Crossi	13.55	212	Pn	Pn	19 29 32.0	-3.8
	0.3nm,0.3s,baz=20,slow=8.6,SNR=15						
FITZ				Sn	Sn	19 31 59.6	-5.4
	0.3nm,0.3s,baz=128,slow=15,SNR=4.9						
ASAR	Alice Springs	16.94	178	P	Pn	19 30 19.4	+0.6
	0.2nm,0.3s,baz=352,slow=8.8,SNR=20						
ASAR				S	Sn	19 33 28.3	+1.5
	0.1nm,0.3s,baz=2.0,slow=29,SNR=3.9						
SONM	Songino Array	59.17	339	LR	LR	20 05 59.2	
	comp=Z,24nm,18.0s,baz=69,slow=40						
MKAR	Makanchi Array	69.69	325	P	P	19 37 27.4	-0.1
	1.0nm,0.8s,baz=116,slow=7.0,SNR=13						

CASC 02 19:26:39.3±1.7, 13°.70N×85°.20W, h20^{km}±20^{km}, MD4.0, ML3.7, 1C, Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOAB	BOACO BROADBAN	1.32	200⇑	*e*P	Pn	19 26 58.9	-3.7
BOAB				*e*S	Sn	19 27 25.3	+5.7
HUEN		1.65	215	*e*P	Pn	19 27 06.0	-1.2
MOMN	Momotombo	1.83	226	*e*P	Pn	19 27 10.0	+0.4
MGAN	Managua	1.85	214	*e*P	Pn	19 27 10.0	+0.2
COPN	Copaltepe	2.03	222	*e*P	Pn	19 27 12.1	-0.2
TGUH	Tegucigalpa,Un	2.04	280	*e*P	Pn	19 27 12.4	-0.2
CONN	Concepcion	2.16	191	*e*P	Pn	19 27 10.2	-3.9
FORC	Fortuna	3.25	171	*e*S	Sn	19 28 11.8	+4.5
PRS1	Puriscal	3.79	167	*e*P	Pn	19 27 44.4	+7.8
URSC	Urasca	4.08	160	*e*P	Pn	19 27 41.7	+1.1
URSC				*e*S	Sn	19 28 26.1	-1.8
LCR2	La Lucha 2	4.10	163	*e*P	Pn	19 27 41.2	+0.3
LCR2				*e*S	Sn	19 28 30.9	+2.6
BUS	Buena Vista	4.35	161	*e*P	Pn	19 27 44.8	+0.5
BUS				*e*S	Sn	19 28 36.4	+2.0
BAR1		4.80	157	*e*P	Pn	19 27 58.2	+7.8

NEIC 02 19:33:19.7, 39°.97S×173°.14E, h15^{km}, ML4.0(WEL), After WEL., Off west coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWEZ	Newall Road	0.89	39	P	Pb	19 33 36.3	-0.6
NWEZ				S	Sb	19 33 49.1	+0.5
QRZ	Quartz Range	0.97	208	P	Pb	19 33 37.7	-0.6
DFE	Dawson Falls	0.98	50	P	Pb	19 33 37.7	-0.7
PKE	Pukeiti	1.01	41	P	Pb	19 33 38.0	-0.9
PKE				S	Sb	19 33 52.4	+0.4
NEZ	North Egmont	1.02	47	P	Pb	19 33 38.0	-1.0
RAEZ	Rainy Point	1.18	55	P	Pn	19 33 41.1	-0.6
NNZ	Nelson	1.26	172	P	Pn	19 33 41.8	-1.0
NNZ				S	Sb	19 33 58.6	-0.6
WAZ	Wanganui	1.44	82	P	Pn	19 33 44.3	-0.9
VRZ	Vera Road	1.51	57	P	Pn	19 33 45.2	-1.0
TCW	Tory Channel	1.51	146	P	Pn	19 33 45.8	-0.4
KIW	Kapiti Island	1.62	124	P	Pn	19 33 47.0	-0.7
MRW	Makara Radio	1.73	137	P	Pn	19 33 49.6	+0.4
SNZO	South Karori	1.79	139	P	Pn	19 33 50.3	+0.2
THZ	Tophouse	1.80	186	P	Pn	19 33 50.4	+0.2
WEL	Wellington	1.81	137	P	Pn	19 33 51.0	+0.7
BSWZ	Blackbirch Sta	1.83	162	P	Pn	19 33 51.1	+0.5
CAW	Cannon Point	1.86	128	P	Pn	19 33 50.9	-0.1
BHW	Baring Head	1.95	138	P	Pn	19 33 53.4	+1.2
HIZ	Hauiti	1.97	43	P	Pn	19 33 51.1	-1.4
MRZ	Mangatainoka R	1.99	111	P	Pn	19 33 52.8	0.0
TWVZ	Taurewa	1.99	64	P	Pn	19 33 51.9	-0.9
FWVZ	Far West T-bar	2.00	70	P	Pn	19 33 52.3	-0.5
DRZ	Dome Shelter	2.00	70	P	Pn	19 33 53.1	+0.2
WNVZ	Wahianoa	2.00	72	P	Pn	19 33 52.5	-0.5
DSZ	Denniston Nort	2.04	209	P	Pn	19 33 53.2	-0.3
NGZ	Ngauruhoe	2.06	68	P	Pn	19 33 53.1	-0.6
TUVZ	Tukino	2.06	71	P	Pn	19 33 53.4	-0.4
WTVZ	West Tongariro	2.08	67	P	Pn	19 33 53.3	-0.7
MOVZ	Moawhango	2.09	75	P	Pn	19 33 53.5	-0.7
MTW	Mount Morrison	2.16	124	P	Pn	19 33 55.5	+0.4
MSWZ	Moikau Station	2.16	133	P	Pn	19 33 55.7	+0.6
TSZ	Takapari Road	2.17	93	P	Pn	19 33 55.4	+0.2
KATZ	Kakaramea	2.21	64	P	Pn	19 33 55.2	-0.6
PAWZ	Paruwai Farm	2.24	130	P	Pn	19 33 57.0	+0.8
RATZ	Rangitukua	2.32	62	P	Pn	19 33 57.4	+0.1
RITZ	Rihia Road	2.33	66	P	Pn	19 33 58.3	+0.9
WATZ	Wairara	2.37	59	P	Pn	19 33 57.7	-0.3
KHZ	Kahutara	2.46	173	P	Pn	19 34 01.0	+1.7
BFZ	Birch Farm	2.48	108	P	Pn	19 34 02.3	+2.8
BKZ	Black Stump Fm	2.71	74	P	Pn	19 34 00.6	-2.1
LTZ	Lake Taylor	2.89	193	P	Pn	19 34 07.1	+2.0
TOZ	Tahuroa Road	2.90	40	P	Pn	19 34 04.1	-1.2
WTAZ	Waiatarua	3.23	21	P	Pn	19 34 09.2	-0.7
MKAZ	Moumakai	3.27	30	P	Pn	19 34 09.3	-1.0
OTAZ	Otara	3.32	25	P	Pn	19 34 10.5	-0.6
KAAZ	Kauri Point	3.37	22	P	Pn	19 34 11.2	-0.6
WVZ	Waitaha Valley	3.59	209	P	Pn	19 34 14.7	-0.1
MQZ	McQueen's Vall	3.75	185	P	Pn	19 34 17.7	+0.7
RPZ	Rata Peaks	4.05	202	P	Pn	19 34 20.8	-0.4
WCZ	Waipu Caves	4.13	14	P	Pn	19 34 21.1	-1.2
FOZ	Fox Glacier	4.42	215	P	Pn	19 34 25.2	-1.0
JCZ	Jackson Bay	5.24	217	P	Pn	19 34 37.6	+0.2
ODZ	Otahua Downs	5.40	199	P	Pn	19 34 38.1	-1.5

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*THE **02** 19:42:32.5, 39°.89N×19°.75E, h1^{km}±1^{km}, ML3.3/5, Error ellipse: s-maj=1.7km s-min=0.8km az=250.0*

*CSEM **02** 19:42:32.9±0.3, 39°.94N×19°.82E, h2^{km}, MD3.3, Error ellipse: s-maj=6.1km s-min=4.5km az=84.0*

*ISCJB **02** 19:42:33.5±0.4, 39°.89N±0°.02×19°.78E±0°.04, h10^{km}, Error ellipse: s-maj=3.9km s-min=3.3km az=159.8*

*NEIC **02** 19:42:34.6, 39°.82N×19°.94E, h16^{km}, MD3.3(ATH), After ATH.*

*ATH **02** 19:42:34.6, 39°.82N×19°.94E, h16^{km}±1^{km}, MD3.3/5*

*SKO **02** 19:42:36.5, 39°.85N×20°.43E, h21^{km}*

ISC 02 19:42:33.1±0.6, 39°.93N±0°.03×19°.81E±0°.04, h1^{km}±4^{km}, n56, σ0^{s}.98/87, Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	Kerkira	0.22	182	*e*PB	Pg	19 42 38.0	+0.7
KEK				*e*SB	Sg	19 42 42.0	+2.0
KEK	Kerkira	0.22	182	*e*Pb	Pg	19 42 38.0	+0.7
KEK				*e*Sb	Sg	19 42 42.0	+2.0
IGT	Igoumenitsa	0.57	134	P	Pg	19 42 43.0	-1.0
IGT				S	Sg	19 42 52.2	+0.9
IGT	Igoumenitsa	0.57	134	P	Pg	19 42 43.0	-1.0
IGT				S	Sg	19 42 52.2	+0.9
JAN	Janina	0.85	108	*e*PB	Pg	19 42 47.9	-1.5
JAN				*e*SN	Sg	19 42 58.3	-2.1
JAN	Janina	0.85	108	*e*Pb	Pg	19 42 47.9	-1.5
JAN				*e*Sn	Sg	19 42 58.3	-2.1
MEV	Metsovon	1.10	97	P	Pg	19 42 53.2	-1.1
MEV				S	Sg	19 43 10.4	+1.8
MEV	Metsovon	1.10	97	P	Pg	19 42 53.2	-1.1
MEV				S	Sg	19 43 10.4	+1.8
TIR	Tirane	1.42	2	P	Pn	19 42 58.8	-1.2
TIR				S	Sg	19 43 19.7	+1.0
TIR	Tirane	1.42	2	*e*Pn	Pn	19 42 59.9	-0.1
TIR				*e*Sn	Sg	19 43 24.6	+5.9
TIR	Tirane	1.42	2	P	Pn	19 42 58.8	-1.2
TIR	Tirane	1.42	2	*e*Pn	Pn	19 42 59.9	-0.1
TIR				S	Sg	19 43 19.7	+1.0
FNA	Florina	1.47	54	P	Pn	19 43 00.6	-0.2
FNA				S	Sg	19 43 21.7	+1.3
FNA	Florina	1.47	54	P	Pn	19 43 00.6	-0.2
FNA				S	Sg	19 43 21.7	+1.3
KZN	Kozani	1.55	75	*e*PN	Pn	19 43 02.9	+1.0
KZN				*e*SN	Sn	19 43 23.4	+0.8
KZN	Kozani	1.55	75	*e*Pn	Pn	19 43 02.9	+1.0
KZN				*e*Sn	Sn	19 43 23.4	+0.8
BIA	Bitola	1.59	46	P	Pn	19 43 02.1	-0.3
BIA				S	Sn	19 43 24.8	+1.3
BIA	Bitola	1.59	46	*e*Pg	Pg	19 43 01.8	-1.8
BIA				*e*Sg	Sg	19 43 19.4	-4.8
BIA	Bitola	1.59	46	*e*Pg	Pg	19 43 01.8	-1.8
BIA	Bitola	1.59	46	P	Pn	19 43 02.1	-0.3
BIA				*e*Sg	Sg	19 43 19.4	-4.8
BIA				S	Sn	19 43 24.8	+1.3
THL	Klokotos Trika	1.74	101	P	Pn	19 43 04.0	-0.4
THL				S	Sn	19 43 27.9	+0.7
THL	Klokotos Trika	1.74	101	P	Pn	19 43 04.0	-0.4
THL				S	Sn	19 43 27.9	+0.7
KRUS	Krusevo	1.81	37	*e*Pg	Pn	19 43 05.2	-0.1
KRUS				*e*Sg	Sn	19 43 29.0	0.0
KRUS	Krusevo	1.81	37	*e*Pg	Pn	19 43 05.2	-0.2
KRUS				*e*Sg	Sn	19 43 28.9	0.0
EVR	Evrytania	1.85	122	*e*PN	Pn	19 43 06.0	+0.1
EVR	Evrytania	1.85	122	*e*Pn	Pn	19 43 06.0	+0.1
VLS	Valsamata	1.85	161	P	Pn	19 43 04.6	-1.4
VLS				S	Sn	19 43 28.9	-1.1
VLS	Valsamata	1.85	161	*e*PN	Pn	19 43 06.3	+0.3
VLS	Valsamata	1.85	161	P	Pn	19 43 04.6	-1.4
VLS	Valsamata	1.85	161	*e*Pn	Pn	19 43 06.3	+0.3
VLS				S	Sn	19 43 28.9	-1.1
TAR1	Taranto	2.02	288	*e*Pn	Pg	19 43 13.2	+1.3
LIT	Litokhoron	2.07	84	P	Pn	19 43 08.7	-0.2
LIT				S	Sn	19 43 36.3	+1.0
LIT	Litokhoron	2.07	84	*e*PN	Pn	19 43 09.8	+0.9
LIT	Litokhoron	2.07	84	P	Pn	19 43 08.7	-0.2
LIT	Litokhoron	2.07	84	*e*Pn	Pn	19 43 09.8	+0.9
LIT				S	Sn	19 43 36.3	+1.0
AGG	Agios Georgios	2.15	114	P	Pn	19 43 09.9	-0.2
AGG				S	Sn	19 43 38.0	+0.6
AGG	Agios Georgios	2.15	114	*e*PN	Pn	19 43 10.4	+0.3
AGG	Agios Georgios	2.15	114	P	Pn	19 43 09.9	-0.2
AGG	Agios Georgios	2.15	114	*e*Pn	Pn	19 43 10.4	+0.3
AGG				S	Sn	19 43 38.0	+0.6
EFP	Efpalio	2.22	132	*e*PN	Pn	19 43 11.4	+0.4
EFP	Efpalio	2.22	132	*e*Pn	Pn	19 43 11.4	+0.4
GRG	Griva	2.23	62	P	Pn	19 43 10.8	-0.4
GRG	Griva	2.23	62	P	Pn	19 43 10.8	-0.4
VAY	Valandovo	2.52	56	*e*Pn	Pn	19 43 12.0	-3.2
VAY				*e*Sg	Sn	19 43 46.1	-0.4
VAY	Valandovo	2.52	56	*e*Pn	Pn	19 43 11.9	-3.3
SG1	Sgolgore (BA)	2.56	292	*e*Pn	Pn	19 43 15.9	+0.2
SG1				*e*Sn	Sn	19 43 46.8	-0.6
HORT	Hortiatis	2.61	74	P	Pn	19 43 16.1	-0.2
HORT	Hortiatis	2.61	74	P	Pn	19 43 16.1	-0.2
KNT	Kendrikon	2.66	61	P	Pn	19 43 17.1	0.0
KNT	Kendrikon	2.66	61	P	Pn	19 43 17.1	0.0
PAIG	Paliouri	2.98	89	P	Pn	19 43 20.3	-1.1
PAIG	Paliouri	2.98	89	P	Pn	19 43 20.3	-1.1
LTK	Loutraki	3.11	127	P	Pn	19 43 22.5	-0.8
LTK	Loutraki	3.11	127	P	Pn	19 43 22.5	-0.8
ITM	Ithomi	3.21	148	*e*PN	Pn	19 43 24.5	-0.1
ITM	Ithomi	3.21	148	*e*Pn	Pn	19 43 24.5	-0.1

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*ISCJB **02** 19:49:16.3±0.3, 37°.05N±0°.02×3°.48E±0°.03, h10^{km}, Error ellipse: s-maj=3.1km s-min=2.9km az=166.7*

*NEIC **02** 19:49:17.6±1.4, 36°.89N×3°.66E, h10^{km}, MG4.0(MDD), Error ellipse: s-maj=17.6km s-min=6.3km az=152.0*

*CRAAG **02** 19:49:18.0, 36°.80N×3°.50E, Ml3.6*

*MDD **02** 19:49:18.6±0.4, 36°.91N×3°.54E, h0^{km}, mb4.2/14, Error ellipse: s-maj=4.9km s-min=4.0km az=85.0, PRIMO*

*LDG **02** 19:49:20.2±0.2, 36°.85N×3°.33E, h30^{km}, Ml3.2/10, Error ellipse: s-maj=5.3km s-min=3.4km az=155.0*

*SFS **02** 19:49:21.0, 36°.94N×3°.43E, h11^{km}, ML4.0*

*CSEM **02** 19:49:21.8±0.3, 37°.14N×3°.49E, h20^{km}, ML3.0/7, Error ellipse: s-maj=7.2km s-min=4.8km az=143.0*

ISC 02 19:49:18.1±0.3, 37°.00N±0°.02×3°.49E±0°.02, h10^{km}, n142, σ1^{s}.47/229, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABA	Alger-Bouzarea	0.41	242	P	Pg	19 49 26.6	+0.3
ADJB	Djebel Djouab	0.84	183	P	Pg	19 49 31.7	-2.6
EMHD	Djebel Mahouad	0.91	209	P	Pg	19 49 33.4	-2.2
AKF	Akfadou	0.94	112	P	Pg	19 49 35.7	-0.5
AKET	Djebel Ketaf	1.00	162	P	Pg	19 49 34.8	-2.6
EBNR	Beni Rached	1.73	246	P	Pn	19 49 50.4	+2.2
EBNR	Beni Rached	1.73	246	P	Pn	19 49 50.4	+2.2
ECHA	Ech Chlef	1.91	244	P	Pg	19 49 54.5	-0.2
ECHA	Ech Chlef	1.91	244	P	Pg	19 49 54.5	-0.2
ECHF	Ech Chlef	1.92	245	P	Pg	19 49 54.5	-0.5
DFRA	Djebel Bou Aff	1.97	103	P	Pn	19 49 52.0	+0.5
EANR	'Ain N'Sour	2.19	242	P	Pg	19 49 58.7	-1.5
EANR	'Ain N'Sour	2.19	242	P	Pg	19 49 58.7	-1.5
ETRT	Tiaret	2.39	229	P	Pn	19 49 56.6	-0.7
OKGL	Djebel Kef Gue	2.49	248	P	Pg	19 50 05.0	-0.8
CASM	Ain Smara	2.52	106	P	Pg	19 50 05.0	-1.5
CASM	Ain Smara	2.52	106	P	Pg	19 50 05.0	-1.5
CTEI	Djebel Teioual	2.53	111	P	Pg	19 50 06.5	-0.1
EIBI	Ibiza	2.64	321	P	Pn	19 50 03.2	+2.4
	SNR=32						
EIBI				S	Sn	19 50 33.5	+0.6
	32nm,0.3s,SNR=6.0						
EIBI	Ibiza	2.64	321	P	Pn	19 50 03.2	+2.4
EIBI				S	Sn	19 50 32.4	-0.5
EIBI	Ibiza	2.64	321	P	Pn	19 50 03.2	+2.4
	SNR=32						
EIBI				S	Sn	19 50 33.5	+0.6
	32nm,0.3s,SNR=6.0						
OJGS	Djebel Guires	2.67	237	P	Pn	19 50 05.0	+3.8
OJGS	Djebel Guires	2.67	237	P	Pn	19 50 05.0	+3.8
ETOS	Mallorca	2.82	349	P	Pn	19 50 05.6	+2.4
	20nm,0.5s,SNR=18						
ETOS				S	Sn	19 50 37.8	+0.6
	18nm,0.5s						
ETOS	Mallorca	2.82	349	P	Pn	19 50 05.6	+2.4
ETOS				S	Sn	19 50 36.4	-0.8
ETOS	Mallorca	2.82	349	P	Pn	19 50 05.6	+2.4
	20nm,0.5s,SNR=18						
ETOS				S	Sn	19 50 36.4	-0.8
OJBR	Djebel Berber	2.91	242	P	Pn	19 50 06.0	+1.6
OJBR	Djebel Berber	2.91	242	P	Pn	19 50 06.0	+1.6
MAHO	Mahon	2.96	12	P	Pn	19 50 06.4	+1.3
MAHO				S	Sn	19 50 29.1	-12
MAHO	Mahon	2.96	12	*e*P	Pn	19 50 06.4	+1.3
EBEN	Beniarda	3.40	301	P	Pn	19 50 12.7	+1.5
	4.3nm,0.4s,SNR=12						
EBEN				S	Sn	19 50 50.3	-1.3
	12nm,0.4s						
EBEN	Beniarda	3.40	301	P	Pn	19 50 12.7	+1.5
EBEN				S	Sn	19 50 49.1	-2.5
EBEN	Beniarda	3.40	301	P	Pn	19 50 12.7	+1.5
	4.3nm,0.4s,SNR=12						
EBEN				S	Sn	19 50 50.3	-1.3
	12nm,0.4s						
CART	Cartagena	3.63	281	*e*Pn	Pn	19 50 13.4	-1.0
CART				*e*Sn	Sn	19 50 55.1	-2.1
CART	Cartagena	3.63	281	*e*Pn	Pn	19 50 13.4	-1.0
CART				*e*Sn	Sn	19 50 55.1	-2.2
EMUR	La Murta	3.86	284	P	Pn	19 50 18.9	+1.3
	0.9nm,0.2s,SNR=4.9						
EMUR				S	Sn	19 51 01.3	-1.6
	5.2nm,0.3s,SNR=5.6						

EMUR	La Murta	3.86	284	P	Pn	19 50 18.9	+1.3
EMUR				S	Sn	19 51 01.0	-2.0
EMUR	La Murta	3.86	284	P	Pn	19 50 18.9	+1.4
	0.9nm,0.2s,SNR=4.9						
EMUR				S	Sn	19 51 01.3	-1.6
	5.2nm,0.3s,SNR=5.6						
ETOB	Tobarra	4.32	294	P	Pn	19 50 26.0	+2.2
	8.5nm,0.4s,SNR=56						
ETOB				S	Sn	19 51 13.4	-0.8
	7.6nm,0.5s						
ETOB	Tobarra	4.32	294	P	Pn	19 50 26.0	+2.2
ETOB				S	Sn	19 51 12.1	-2.0
ETOB	Tobarra	4.32	294	P	Pn	19 50 26.0	+2.2
	8.5nm,0.4s,SNR=56						
ETOB				S	Sn	19 51 13.4	-0.8
	7.6nm,0.5s						
ECHE	Chera	4.36	308	P	Pn	19 50 27.4	+3.0
	18nm,0.4s,SNR=17						
ECHE	Chera	4.36	308	P	Pn	19 50 27.4	+3.0
	18nm,0.4s,SNR=17						
EMOS	Mosqueruela	4.57	319	P	Pn	19 50 29.8	+2.4
	3.5nm,0.3s,SNR=52						
EMOS				S	Sn	19 51 19.6	-0.9
	17nm,0.8s						
EMOS	Mosqueruela	4.57	319	P	Pn	19 50 29.8	+2.5
	3.5nm,0.3s,SNR=52						
EMOS				S	Sn	19 51 19.6	-0.9
	17nm,0.8s						
ERTA	Horta de San J	4.66	329	P	Pn	19 50 31.4	+3.0
	4.8nm,0.4s,SNR=7.8						
ERTA				S	Sn	19 51 21.8	-0.7
	3.3nm,0.5s,SNR=6.0						
ERTA	Horta de San J	4.66	329	P	Pn	19 50 31.4	+3.0
ERTA				S	Sn	19 51 21.3	-1.2
ERTA	Horta de San J	4.66	329	P	Pn	19 50 31.4	+2.9
	4.8nm,0.4s,SNR=7.8						
ERTA				S	Sn	19 51 21.3	-1.3
EPOB	Poblet	4.74	337	P	Pn	19 50 32.1	+2.6
	3.8nm,0.4s,SNR=9.9						
EPOB				S	Sn	19 51 23.6	-1.0
	12nm,1.1s						
EPOB	Poblet	4.74	337	P	Pn	19 50 32.1	+2.5
	3.8nm,0.4s,SNR=9.9						
EPOB				S	Sn	19 51 23.5	-1.0
	12nm,1.1s						
EHUE	Huescar	4.91	281	P	Pn	19 50 34.1	+2.1
	0.4nm,0.1s,SNR=7.9						
EHUE				S	Sn	19 51 27.1	-1.8
	0.7nm,0.2s,SNR=7.9						
EHUE	Huescar	4.91	281	P	Pn	19 50 34.8	+2.8
EHUE				S	Sn	19 51 28.0	-0.9
EHUE	Huescar	4.91	281	P	Pn	19 50 34.1	+2.1
	0.4nm,0.1s,SNR=7.9						
EHUE				S	Sn	19 51 28.0	-0.9
EVIA	Vianos	5.02	291	P	Pn	19 50 35.3	+1.8
	4.5nm,0.4s,SNR=6.2						
EVIA				S	Sn	19 51 30.2	-1.3
	5.3nm,0.5s						
EVIA	Vianos	5.02	291	P	Pn	19 50 35.3	+1.8
	4.5nm,0.4s,SNR=6.2						
EVIA				S	Sn	19 51 30.2	-1.3
	5.3nm,0.5s						
EBER	Berja	5.11	271	P	Pn	19 50 35.4	+0.6
	2.4nm,0.4s,SNR=5.0						
EBER				S	Sn	19 51 31.1	-2.7
	58nm,1.8s						
EBER	Berja	5.11	271	P	Pn	19 50 35.4	+0.6
EBER				S	Sn	19 51 30.2	-3.6
EBER	Berja	5.11	271	P	Pn	19 50 35.4	+0.7
	2.4nm,0.4s,SNR=5.0						
EBER				S	Sn	19 51 30.2	-3.6
EMIR	Miracle	5.14	343	P	Pn	19 50 38.4	+3.3
	3.3nm,0.2s,SNR=7.9						
EMIR				S	Sn	19 51 34.8	+0.3
	5.4nm,0.3s,SNR=7.9						
EMIR	Miracle	5.14	343	P	Pn	19 50 38.4	+3.3
EMIR				S	Sn	19 51 34.9	+0.4
EMIR	Miracle	5.14	343	P	Pn	19 50 38.4	+3.3
	3.3nm,0.2s,SNR=7.9						
EMIR				S	Sn	19 51 34.8	+0.3
	5.4nm,0.3s,SNR=7.9						
VSL	Villasalto	5.26	60	*e*Pn	Pn	19 50 36.6	-0.2
VSL				*e*Sn	Sn	19 51 34.9	-2.6
VSL	Villasalto	5.26	60	*e*Pn	Pn	19 50 36.6	-0.2
VSL				*e*Sn	Sn	19 51 34.9	-2.6
EQES	Quesada	5.29	281	P	Pn	19 50 39.5	+2.4
	5.4nm,0.4s,SNR=21						
EQES				S	Sn	19 51 38.3	+0.2
	5.9nm,0.6s						
EQES	Quesada	5.29	281	P	Pn	19 50 39.5	+2.4
EQES				S	Sn	19 51 38.1	0.0
EQES	Quesada	5.29	281	P	Pn	19 50 39.5	+2.4
	5.4nm,0.4s,SNR=21						
EQES				S	Sn	19 51 38.3	+0.2
	5.9nm,0.6s						
EJON	La Jonquera	5.46	355	P	Pn	19 50 42.7	+3.1
	9.0nm,0.4s,SNR=19						
EJON				S	Sn	19 51 41.9	-0.6
	75nm,1.6s						
EJON	La Jonquera	5.46	355	P	Pn	19 50 42.7	+3.1
EJON				S	Sn	19 51 43.5	+1.1
EJON	La Jonquera	5.46	355	P	Pn	19 50 42.7	+3.1
	9.0nm,0.4s,SNR=19						
EJON				S	Sn	19 51 41.9	-0.6
	75nm,1.6s						
ESAC	San Caprasio	5.63	328	P	Pn	19 50 45.1	+3.2
	2.2nm,0.3s,SNR=7.9						
ESAC				S	Sn	19 51 45.3	-1.2
	5.2nm,0.3s,SNR=7.9						
ESAC	San Caprasio	5.63	328	P	Pn	19 50 45.1	+3.3
ESAC				S	Sn	19 51 47.1	+0.6
ESAC	San Caprasio	5.63	328	P	Pn	19 50 45.1	+3.3
	2.2nm,0.3s,SNR=7.9						
ESAC				S	Sn	19 51 45.3	-1.2
	5.2nm,0.3s,SNR=7.9						
ETOR	Torete	5.77	313	P	Pn	19 50 47.4	+3.6
	1.6nm,0.1s,SNR=7.9						
ETOR				S	Sn	19 51 49.0	-1.0
	1.9nm,0.2s,SNR=4.0						
ETOR	Torete	5.77	313	P	Pn	19 50 47.4	+3.6
ETOR				S	Sn	19 51 53.1	+3.1
ETOR	Torete	5.77	313	P	Pn	19 50 47.4	+3.6
	1.6nm,0.1s,SNR=7.9						
ETOR				S	Sn	19 51 49.0	-1.0
	1.9nm,0.2s,SNR=4.0						
EBIE	Bielsa	6.24	337	P	Pn	19 50 53.7	+3.5
	2.9nm,0.4s,SNR=12						
EBIE				S	Sn	19 52 00.9	-0.6
	43nm,1.7s						
MTLF	Montolieu	6.41	352	*e*Pn	Pn	19 50 52.7	+0.1
	SNR=1.0						
MTLF				*e*Sn	Sn	19 52 02.1	-3.7
	0.9nm,0.2s						
MTLF	Montolieu	6.41	352	Pn	Pn	19 50 52.7	+0.1
MTLF				Sn	Sn	19 52 02.1	-3.7
	0.4nm,0.2s						
MTLF	Montolieu	6.41	352	*e*Pn	Pn	19 50 52.7	+0.1
	SNR=1.0						
MTLF				*e*Sn	Sn	19 52 02.1	-3.7
	0.4nm,0.2s						
ESDC	Sonseca Array	6.44	297	P	Pn	19 50 54.6	+1.6
	1.1nm,0.3s,baz=111,slow=13,SNR=4.0						
ESDC				S	Sn	19 52 05.2	-1.4
	0.9nm,0.4s,baz=112,slow=24,SNR=4.4						
ESDC	Sonseca Array	6.44	297	P	Pn	19 50 54.6	+1.6
	1.1nm,0.3s,SNR=4.0						
ESDC				S	Sn	19 52 05.2	-1.3
	0.9nm,0.4s,SNR=4.4						
ESLA	Sonseca Array	6.44	297	*e*Pn	Pn	19 50 54.5	+1.6
ESLA				*e*Sn	Sn	19 52 04.2	-2.3
ESLA	Sonseca Array	6.44	297	*e*Pn	Pn	19 50 54.5	+1.5
ESLA				*e*Sn	Sn	19 52 04.2	-2.3
EPF	Esparros	6.49	339	*e*Pn	Pn	19 50 53.4	-0.3
EPF				*e*Sn	Sn	19 52 03.2	-4.6
	7.2nm,0.5s						
EPF	Esparros	6.49	339	Pn	Pn	19 50 53.4	-0.3
EPF				Sn	Sn	19 52 03.2	-4.6
	3.6nm,0.5s						
EPF	Esparros	6.49	339	*e*Pn	Pn	19 50 53.4	-0.3
EPF				*e*Sn	Sn	19 52 03.2	-4.6
	3.6nm,0.5s						
EMIJ	Mijas	6.65	269	S	Sn	19 52 05.3	-6.3
	0.8nm,0.3s,SNR=7.9						
EMIJ	Mijas	6.65	269	P	Pn	19 50 55.3	-0.5
EMIJ				S	Sn	19 52 04.4	-7.2
ETSF	Etsaut	6.66	333	*e*Pn	Pn	19 50 55.3	-0.8
ETSF				*e*Sn	Sn	19 52 07.0	-5.0
	2.2nm,0.3s						
ETSF	Etsaut	6.66	333	P	Pn	19 50 55.3	-0.8
ETSF				S	Sn	19 52 07.0	-5.0
	1.1nm,0.3s						
ETSF	Etsaut	6.66	333	*e*Pn	Pn	19 50 55.3	-0.8
LMR	La Mourre	6.74	19	*e*Pn	Pn	19 50 57.5	+0.4
	SNR=1.0						
LMR				*e*Sn	Sn	19 52 10.7	-3.1
	3.0nm,0.2s,SNR=1.0						
LMR	La Mourre	6.74	19	P	Pn	19 50 57.5	+0.4
LMR				S	Sn	19 52 10.7	-3.1
	1.5nm,0.2s						
LMR	La Mourre	6.74	19	*e*Pn	Pn	19 50 57.5	+0.4
	SNR=1.0						
LMR				*e*Sn	Sn	19 52 10.7	-3.1
	1.5nm,0.2s,SNR=1.0						
PGF	Pioggiola	6.98	36	*e*Pn	Pn	19 51 01.2	+0.8
PGF				*e*Sn	Sn	19 52 17.2	-2.6
	1.4nm,0.3s						
PGF	Pioggiola	6.98	36	P	Pn	19 51 01.2	+0.8
PGF				S	Sn	19 52 17.2	-2.6
	0.7nm,0.3s						
PGF	Pioggiola	6.98	36	*e*Pn	Pn	19 51 01.2	+0.8
PGF				*e*Sn	Sn	19 52 17.2	-2.6
	0.7nm,0.3s						
FRF	La Foret Royal	6.99	19	*e*Pn	Pn	19 51 01.1	+0.6
FRF				*e*Sn	Sn	19 52 17.0	-2.9
	2.9nm,0.3s						
FRF	La Foret Royal	6.99	19	P	Pn	19 51 01.1	+0.6
FRF				S	Sn	19 52 17.0	-2.9
	1.4nm,0.3s						
FRF	La Foret Royal	6.99	19	*e*Pn	Pn	19 51 01.1	+0.6
FRF				*e*Sn	Sn	19 52 17.0	-2.9
	1.5nm,0.3s						
GUD	Guadarrama	6.99	304	P	Pn	19 51 03.5	+3.0
	0.4nm,0.2s,SNR=7.9						
GUD				S	Sn	19 52 19.5	-0.5
	2.3nm,0.8s,SNR=4.0						
GUD	Guadarrama	6.99	304	P	Pn	19 51 03.5	+3.0
	0.4nm,0.2s,SNR=7.9						
GUD				S	Sn	19 52 19.5	-0.6
	2.3nm,0.8s,SNR=4.0						
LASF	Ste Croix	7.08	2	*e*Pn	Pn	19 51 02.5	+0.8
LASF				*e*Sn	Sn	19 52 18.2	-4.0
	1.6nm,0.2s						
LASF	Ste Croix	7.08	2	P	Pn	19 51 02.5	+0.8
LASF				S	Sn	19 52 18.2	-4.0
	0.8nm,0.2s						
LASF	Ste Croix	7.08	2	*e*Pn	Pn	19 51 02.5	+0.8
LASF				*e*Sn	Sn	19 52 18.2	-4.0
	0.8nm,0.2s						
SJPF	Ste Jean	7.10	331	*e*Pn	Pn	19 51 01.0	-1.0
SJPF				*e*Sn	Sn	19 52 17.0	-5.7
	5.1nm,0.5s						
SJPF	Ste Jean	7.10	331	P	Pn	19 51 01.0	-1.0
SJPF				S	Sn	19 52 17.0	-5.7
	2.6nm,0.5s						
SJPF	Ste Jean	7.10	331	*e*Pn	Pn	19 51 01.0	-1.0
SMRF	Simiane la Rot	7.15	12	*e*Pn	Pn	19 51 03.3	+0.6
SMRF	Simiane la Rot	7.15	12	*e*Pn	Pn	19 51 03.3	+0.6
EALK	Alkurruntz	7.30	330	P	Pn	19 51 08.0	+3.3
	0.3nm,0.1s,SNR=4.0						
EALK				S	Sn	19 52 26.4	-1.3
	5.0nm,0.5s,SNR=4.7						
SBF	Sospel	7.49	22	*e*Pn	Pn	19 51 07.9	+0.5
SBF				*e*Sn	Sn	19 52 29.8	-2.5
	1.9nm,0.3s						
SBF	Sospel	7.49	22	P	Pn	19 51 07.9	+0.5
SBF				S	Sn	19 52 29.8	-2.5
	0.9nm,0.3s						
SBF	Sospel	7.49	22	*e*Pn	Pn	19 51 07.9	+0.5
SBF				*e*Sn	Sn	19 52 29.8	-2.5
	0.9nm,0.3s						
VIVF	Saint-Julien-l	7.90	6	*e*Pn	Pn	19 51 13.7	+0.7
	SNR=1.0						
VIVF				*e*Sn	Sn	19 52 38.1	-4.4
	2.3nm,0.5s						
VIVF	Saint-Julien-l	7.90	6	P	Pn	19 51 13.7	+0.7
VIVF				S	Sn	19 52 38.1	-4.4
	1.2nm,0.5s						
VIVF	Saint-Julien-l	7.90	6	*e*Pn	Pn	19 51 13.7	+0.7
	SNR=1.0						
VIVF				*e*Sn	Sn	19 52 38.1	-4.4
	1.1nm,0.5s						
CAF	Calviac	7.99	353	*e*Pn	Pn	19 51 14.6	+0.3
CAF	Calviac	7.99	353	*e*Pn	Pn	19 51 14.6	+0.3
LFF	La Frestale	8.20	346	*e*Pn	Pn	19 51 17.0	-0.1
LFF	La Frestale	8.20	346	*e*Pn	Pn	19 51 17.0	-0.1
RJF	Les Rejaudoux	8.43	350	*e*Pn	Pn	19 51 20.0	-0.3
RJF	Les Rejaudoux	8.43	350	*e*Pn	Pn	19 51 20.0	-0.3
EARI	Arriondas	9.16	316	P	Pn	19 51 34.5	+4.2
	5.7nm,0.5s,SNR=8.8						
ECAL	Calabor	9.32	305	P	Pn	19 51 34.9	+2.4
	6.3nm,0.4s,SNR=9.8						
ECAL	Calabor	9.32	305	P	Pn	19 51 34.9	+2.4
	6.3nm,0.4s,SNR=9.8						
TCF	Toulx Ste Croi	9.33	355	*e*Pn	Pn	19 51 32.5	-0.1
TCF	Toulx Ste Croi	9.33	355	*e*Pn	Pn	19 51 32.5	-0.1
BGF	Bois d'Agland	9.57	357	*e*Pn	Pn	19 51 35.8	0.0
	SNR=1.0						
BGF	Bois d'Agland	9.57	357	*e*Pn	Pn	19 51 35.8	0.0
	SNR=1.0						
SMF	Signal de Mont	9.64	1	*e*Pn	Pn	19 51 37.1	+0.2
SMF	Signal de Mont	9.64	1	*e*Pn	Pn	19 51 37.1	+0.2
AVF	Avril sur Loir	9.79	359	*e*Pn	Pn	19 51 38.8	-0.1
AVF	Avril sur Loir	9.79	359	*e*Pn	Pn	19 51 38.8	-0.1
MFF	Saint Martin d	9.97	345	*e*Pn	Pn	19 51 40.8	-0.6
MFF	Saint Martin d	9.97	345	*e*Pn	Pn	19 51 40.8	-0.6
SSF	Saint Saulge	10.06	0	*e*Pn	Pn	19 51 42.5	-0.1
SSF	Saint Saulge	10.06	0	*e*Pn	Pn	19 51 42.5	-0.1
LOR	Lormes	10.27	1	*e*Pn	Pn	19 51 45.3	-0.1
LOR	Lormes	10.27	1	*e*Pn	Pn	19 51 45.3	-0.1
EPON	Pontenova	10.30	311	P	Pn	19 51 48.5	+2.6
	0.6nm,0.2s,SNR=7.9						
EPON	Pontenova	10.30	311	P	Pn	19 51 48.5	+2.5
	0.6nm,0.2s,SNR=7.9						

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*ATH **02** 20:33:10.9, 37°.70N×26°.77E, h20^{km}±1^{km}, MD3.1/3*

*CSEM **02** 20:33:11.5±0.2, 37°.78N×26°.64E, h2^{km}, MD3.1, Error ellipse: s-maj=4.9km s-min=3.5km az=73.0*

*ISCJB **02** 20:33:12.1±0.4, 37°.76N±0°.02×26°.70E±0°.04, h10^{km}, Error ellipse: s-maj=4.2km s-min=3.3km az=155.4*

*ISK **02** 20:33:12.5, 37°.84N×26°.86E, h2^{km}, MD3.2*

*DDA **02** 20:33:12.3, 37°.80N×26°.78E, h4^{km}, Md3.0*

ISC 02 20:33:12.7±0.4, **37°.77N**±0°.02×**26°.71E**±0°.04, **h10**^{km}**, n37,** σ**1**^{s}**.02**/54**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	Samos	0.12	123	*e*PB	Pg	20 33 14.8	-0.7
SMG				*e*SB	Sg	20 33 17.1	-0.4
SMG	Samos	0.12	123	*e*Pb	Pg	20 33 14.8	-0.7
SMG				*e*Sb	Sg	20 33 17.1	-0.4
BLCB	Balcova	0.66	23	PG	Pg	20 33 24.3	-1.3
BLCB				*e*SG	Sg	20 33 33.2	-1.0
BLCB	Balcova	0.66	23	*i* Pg	Pg	20 33 24.3	-1.2
BLCB				*e*Sg	Sg	20 33 33.2	-1.0
IZM	Izmir	0.76	35	*e*PG	Pg	20 33 26.1	-1.2
IZM				*e*SG	Sg	20 33 35.5	-1.8
CHOS	Chios island	0.80	320	*e*PN	Pg	20 33 27.6	-0.6
CHOS				*e*SN	Sg	20 33 40.6	+1.9
CHOS	Chios island	0.80	320	*e*Pn	Pg	20 33 27.6	-0.6
CHOS				*e*Sn	Sg	20 33 40.6	+1.9
BODT	Bodrum	0.85	146	*e*PG	Pg	20 33 29.7	+0.6
BODT	Bodrum	0.85	146	*e*Pg	Pg	20 33 29.7	+0.5
BDRM	Kayabasi	0.92	140	*i* P	Pg	20 33 29.5	-0.8
BDRM				*i* S	Sg	20 33 42.8	+0.5
BDRM	Kayabasi	0.92	140	*i* P	Pg	20 33 29.5	-0.8
BDRM				*i* S	Sg	20 33 42.8	+0.6
AYDN	Tasoluk	0.93	97	*i* P	Pg	20 33 29.3	-1.3
AYDN				*i* S	Sg	20 33 42.9	+0.1
AYDN	Tasoluk	0.93	97	*i* P	Pg	20 33 29.3	-1.3
AYDN				*i* S	Sg	20 33 42.9	+0.1
MLSB	Milas	0.97	119	*e*PG	Pg	20 33 30.9	-0.4
MLSB	Milas	0.97	119	*e*Pg	Pg	20 33 31.0	-0.4
APE	Apeiranthos	1.18	234	*e*PN	Pg	20 33 33.4	-1.9
APE				*e*SN	Sg	20 33 49.4	-1.1
APE	Apeiranthos	1.18	234	*e*Pn	Pg	20 33 33.4	-1.9
APE				*e*Sn	Sg	20 33 49.4	-1.1
DAT	Datca	1.25	146	*e*PN	Pn	20 33 36.8	+0.6
DAT	Datca	1.25	146	*e*Pn	Pn	20 33 36.8	+0.6
AKHS	Akhisar	1.40	38	*i* P	Pn	20 33 38.1	-0.2
AKHS				*i* S	Sn	20 33 57.5	+0.7
AKHS	Akhisar	1.40	38	*i* P	Pn	20 33 38.1	-0.2
AKHS				*i* S	Sn	20 33 57.5	+0.6
YER	Yerkesik	1.40	117	*e*PN	Pn	20 33 38.9	+0.6
YER	Yerkesik	1.40	117	*e*Pn	Pn	20 33 38.9	+0.6
PRK	Paraskevi	1.51	347	*e*PN	Pn	20 33 40.3	+0.5
PRK				*e*SN	Sn	20 34 01.1	+1.6
PRK	Paraskevi	1.51	347	*e*Pn	Pn	20 33 40.3	+0.5
PRK				*e*Sn	Sn	20 34 01.1	+1.6
KULA	Kula-Manisa	1.71	64	*e*PN	Pn	20 33 43.2	+0.7
KULA	Kula-Manisa	1.71	64	*e*Pn	Pn	20 33 43.2	+0.7
DALT	Dalyan (Mudla)	1.83	123	*e*PN	Pn	20 33 45.7	+1.5
DALT	Dalyan (Mudla)	1.83	123	*e*Pn	Pn	20 33 45.7	+1.5
BALB	Balikesir	2.08	26	*e*PN	Pn	20 33 48.2	+0.6
BALB	Balikesir	2.08	26	*e*Pn	Pn	20 33 48.2	+0.6
FETY	Fethiye	2.21	120	*e*PN	Pn	20 33 50.5	+1.1
FETY	Fethiye	2.21	120	*e*Pn	Pn	20 33 50.5	+1.1
KHL	Karahalli	2.29	75	*e*PN	Pn	20 33 51.1	+0.6
KHL	Karahalli	2.29	75	*e*Pn	Pn	20 33 51.1	+0.7
ELL	Elmali	2.75	111	*e*PN	Pn	20 33 58.0	+1.2
ELL	Elmali	2.75	111	*e*Pn	Pn	20 33 58.0	+1.2

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*ISCJB **02** 20:40:29.2±0.2, 46°.17N±0°.01×8°.43E±0°.02, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.8km az=16.5*

*CSEM **02** 20:40:30.3±0.1, 46°.17N×8°.56E, h21^{km}±1^{km}, ML2.4/22, Error ellipse: s-maj=2.1km s-min=2.0km az=93.0*

*GEN **02** 20:40:30.9, 46°.20N×8°.57E, h25^{km}, ML1.7*

*ROM **02** 20:40:30.7±0.3, 46°.19N×8°.57E, h10^{km}, Md2.5/6, Ml2.1/2, Error ellipse: s-maj=4.6km s-min=2.9km az=170.0*

*ZUR **02** 20:40:31.4, 46°.18N×8°.59E, h14^{km}, ML2.1/7*

*LDG **02** 20:40:31.4±0.1, 46°.17N×8°.59E, h15^{km}, Md2.5/3, Ml2.2/20, Error ellipse: s-maj=1.0km s-min=0.7km az=88.0*

*VIE **02** 20:40:31.5±0.8, 46°.20N×8°.68E, h8^{km}, mb1.9/1, ML1.8/2, Error ellipse: s-maj=4.4km s-min=3.5km az=49.0 45 km SE of Biel*

*STR **02** 20:40:33.6±0.3, 46°.30N×8°.61E, h9^{km}, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 02 20:40:30.1±0.2, **46°.14N**±0°.01×**8°.51E**±0°.02, **h10**^{km}**, n125,** σ**1**^{s}**.28**/206**, 15C-14D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VAI	Varese	0.33	147	⇓*i*Pg	Pg	20 40 39.0	+2.5
VAI				Sg	Sg	20 40 43.9	+3.0
VAI	Varese	0.33	147	⇓*i*Pg	Pg	20 40 39.0	+2.5
VAI				Sg	Sg	20 40 43.9	+3.0
FUSIO	Fusio	0.33	18	⇑*i*Pg	Pg	20 40 37.9	+1.2
	611nm,0.1s						
FUSIO				*i* Sg	Sg	20 40 41.8	+0.7
	611nm,0.1s						
FUSIO	Fusio	0.33	18	⇑*i*Pg	Pg	20 40 37.9	+1.2
	611nm,0.1s						
FUSIO				*i* Sg	Sg	20 40 41.8	+0.7
	611nm,0.1s						
MMK	Mattmark	0.39	257	⇑*i*Pg	Pg	20 40 40.4	+2.6
	183nm,0.5s						
MMK				*e*Sg	Sg	20 40 46.6	+3.6
	183nm,0.5s						
MMK	Mattmark	0.39	257	⇑*i*Pg	Pg	20 40 40.4	+2.6
	183nm,0.5s						
MMK				*e*Sg	Sg	20 40 46.6	+3.6
	183nm,0.5s						
MUGIO	Muggio	0.43	121	⇓*i*Pg	Pg	20 40 39.9	+1.5
MUGIO				Sg	Sg	20 40 45.4	+1.3
MUGIO	Muggio	0.43	121	*e*Sg	Pg	20 40 39.9	+1.5
	642nm,0.4s						
MUGIO	Muggio	0.43	121	⇓*i*Pg	Sg	20 40 45.3	+1.2
	642nm,0.4s						
MUGIO	Muggio	0.43	121	⇓*i*Pg	Pg	20 40 39.9	+1.5
MUGIO				Sg	Sg	20 40 45.4	+1.3
ORO	Oropa	0.63	216	Pg	Pg	20 40 43.1	+0.8
	25nm,0.2s						
ORO	Oropa	0.63	216	Pg	Pg	20 40 43.1	+0.8
	25nm,0.2s						
LKBD2	Leukerbad 2	0.65	292	⇑*i*Pg	Pg	20 40 45.0	+2.4
LKBD2	Leukerbad 2	0.65	292	⇑*i*Pg	Pg	20 40 45.0	+2.4
LKBD	Leukerbad	0.66	292	⇓*i*Pg	Pg	20 40 45.1	+2.2
	71nm,0.3s						
LKBD	Leukerbad	0.66	292	⇓*i*Pg	Pg	20 40 45.1	+2.2
	71nm,0.3s						
HASLI	Hasliberg/Brie	0.67	338	⇓*i*Pg	Pg	20 40 43.9	+1.0
	85nm,0.3s						
HASLI	Hasliberg/Brie	0.67	338	⇓*i*Pg	Pg	20 40 43.9	+1.0
	85nm,0.3s						
TUE	Stuetta	0.67	60	⇑*i*Pg	Pg	20 40 42.8	-0.2
TUE				Sg	Sg	20 40 50.5	-1.2
	23nm,0.1s						
TUE	Stuetta	0.67	60	⇑*i*Pg	Pg	20 40 42.8	-0.2
TUE				Sg	Sg	20 40 50.5	-1.2
	23nm,0.1s						
BNALP	Bannalp	0.73	355	⇓*i*Pg	Pg	20 40 45.3	+1.1
	138nm,0.4s						
BNALP				*i* Sg	Sg	20 40 54.4	+0.6
	138nm,0.4s						
BNALP	Bannalp	0.73	355	⇓*i*Pg	Pg	20 40 45.3	+1.1
	138nm,0.4s						
BNALP				*i* Sg	Sg	20 40 54.4	+0.6
	138nm,0.4s						
VDL	Val di Lei	0.73	62	⇑*i*Pg	Pg	20 40 44.4	+0.2
	76nm,0.3s						
LLS	Linth-Limmern	0.79	26	⇑*i*Pg	Pg	20 40 45.4	+0.2
	76nm,0.2s						
TRAV	Traversella	0.83	221	Pg	Pg	20 40 46.2	+0.2
TRAV	Traversella	0.83	221	Pg	Pg	20 40 46.2	+0.2
TRAV				S	Sg	20 40 57.2	+0.5
SENIN	Lac Senin/Sane	0.87	285	*e*Pg	Pg	20 40 49.0	+2.1
	62nm,0.3s						
SENIN	Lac Senin/Sane	0.87	285	*e*Pg	Pg	20 40 49.0	+2.1
	62nm,0.3s						
MDI	Monti di Nese	0.91	113	Pg	Pg	20 40 48.5	+0.9
MDI	Monti di Nese	0.91	113	Pg	Pg	20 40 48.5	+0.9
BERNI	Berninapass	1.08	75	⇑*i*Pg	Pg	20 40 50.0	-0.8
	67nm,0.1s						
BERNI	Berninapass	1.08	75	⇑*i*Pg	Pg	20 40 50.0	-0.8
	67nm,0.1s						
PLONS	Plons/SG	1.09	33	*e*Pg	Pg	20 40 50.3	-0.7
	67nm,0.2s						
DAVOX	Davos/Dischmat	1.14	55	⇓*i*Pg	Pg	20 40 50.9	-1.1
	23nm,0.4s						
DAVOX	Davos/Dischmat	1.14	55	⇓*i*Pg	Pg	20 40 50.9	-1.1
	23nm,0.4s						
RSP	Reno Superiore	1.32	222	P	Pn	20 40 53.4	-1.2
LPG	La Plagne	1.39	243	*e*Pn	Pn	20 40 55.9	+0.4
LPG	La Plagne	1.39	243	*e*Pg	Pg	20 40 59.0	+2.3
LPG				*e*Sn	Sn	20 41 13.6	-0.3
	4.0nm,0.3s						
LPG	La Plagne	1.39	243	*e*Pn	Pn	20 40 55.9	+0.4
LPG	La Plagne	1.39	243	*e*Pg	Pg	20 40 59.0	+2.3
LPG				*e*Sn	Sn	20 41 13.6	-0.3
	2.0nm,0.3s						
LPL	La Plagne	1.39	244	*e*Pn	Pn	20 40 55.8	+0.3
LPL	La Plagne	1.39	244	*e*Pg	Pg	20 40 58.8	+2.0
LPL				*e*Sn	Sn	20 41 13.3	-0.7
	2.9nm,0.3s						
LPL	La Plagne	1.39	244	*e*Pn	Pn	20 40 55.8	+0.3
LPL	La Plagne	1.39	244	*e*Pg	Pg	20 40 58.8	+2.0
LPL				*e*Sn	Sn	20 41 13.3	-0.7
	1.5nm,0.3s						
DAVA	Damuels	1.48	39	⇓*i*Pg	Pg	20 40 57.6	-0.9
DAVA				⇑*i*Sg	Sg	20 41 15.7	-2.0
	8.0nm,0.3s						
DAVA	Damuels	1.48	39	Pg	Pg	20 40 57.6	-0.9
DAVA				Sg	Sg	20 41 15.7	-2.1
	8.0nm,0.3s						
BBS	Basel-Blauen	1.49	333	Pn	Pn	20 40 57.9	+1.0
BBS	Basel-Blauen	1.49	333	Pg	Pg	20 41 00.1	+1.4
BBS				Sg	Sg	20 41 19.5	+1.4
MAGA	Magasa	1.52	103	Pg	Pg	20 40 58.7	-0.5
	69nm,0.4s						
MAGA	Magasa	1.52	103	Pg	Pg	20 40 58.7	-0.5
	69nm,0.4s						
PCP	Piancastagn	1.60	179	P	Pn	20 40 57.8	-0.6
LOMF	Lomont	1.68	317	Pg	Pg	20 41 03.7	+1.5
LOMF				Sg	Sg	20 41 26.5	+2.5
LOMF	Lomont	1.68	317	Pg	Pg	20 41 03.7	+1.5
LOMF				Sg	Sg	20 41 26.5	+2.5
CABF	La Chapelle	1.75	287	*e*Pn	Pn	20 41 00.0	-0.4
CABF	La Chapelle	1.75	287	*e*Pg	Pg	20 41 04.6	+1.1
CABF				*e*Sn	Sn	20 41 21.3	-1.3
CABF				*e*Sg	Sg	20 41 28.1	+2.0

	19nm,0.6s						
CABF	La Chapelle	1.75	287	*e*Pn	Pn	20 41 00.0	-0.4
CABF	La Chapelle	1.75	287	*e*Pg	Pg	20 41 04.6	+1.1
CABF				*e*Sn	Sn	20 41 21.3	-1.3
CABF				*e*Sg	Sg	20 41 28.1	+2.0
	9.3nm,0.6s						
FETA	Feichten	1.76	59	⇑*i*Pg	Pn	20 41 02.5	+1.9
FETA				⇑*i*Sg	Sg	20 41 25.5	-1.3
	0.8nm,0.2s						
FETA	Feichten	1.76	59	Pg	Pn	20 41 02.5	+1.9
FETA				Sg	Sg	20 41 25.5	-1.2
	0.8nm,0.2s						
FELD	Feldberg im Sc	1.77	349	Pn	Pn	20 41 01.0	+0.3
FELD	Feldberg im Sc	1.77	349	Pg	Pg	20 41 04.4	+0.4
FELD				Sg	Sg	20 41 27.2	+0.2
MBDF	Montbardon	1.87	222	*e*Pn	Pn	20 41 02.3	+0.2
MBDF	Montbardon	1.87	222	*e*P	Pn	20 41 04.6	+2.5
MBDF	Montbardon	1.87	222	*e*Pg	Pg	20 41 07.4	+1.5
MBDF				*e*Sg	Sg	20 41 32.6	+2.4
	2.6nm,0.3s						
MBDF	Montbardon	1.87	222	*e*Pn	Pn	20 41 02.3	+0.2
MBDF	Montbardon	1.87	222	*e*P	Pn	20 41 04.6	+2.5
MBDF	Montbardon	1.87	222	*e*Pg	Pg	20 41 07.4	+1.5
MBDF				*e*Sg	Sg	20 41 32.6	+2.4
	1.3nm,0.3s						
SC2M	Scurtabo	1.88	157	P	Pn	20 41 01.5	-0.7
SC2M				S	Sn	20 41 22.0	-4.0
PZZ	Stroppo	1.91	212	P	Pn	20 41 02.3	-0.3
PZZ				S	Sn	20 41 23.7	-3.0
MOF	Molkenrain	1.96	332	Pg	Pg	20 41 08.3	+0.7
MOF	Molkenrain	1.96	332	Pg	Pg	20 41 08.3	+0.7
SPAK	Spaichingen-Ko	1.97	5	Pg	Pg	20 41 08.1	+0.2
SPAK				Sg	Sg	20 41 32.6	-0.8
HINF	Hinteralfeld	2.03	326	*e*Pn	Pn	20 41 03.5	-0.7
HINF	Hinteralfeld	2.03	326	*e*Pg	Pg	20 41 09.1	+0.2
HINF				*e*Sn	Sn	20 41 26.8	-2.8
HINF				*e*Sg	Sg	20 41 35.2	0.0
	5.7nm,0.4s						
HINF	Hinteralfeld	2.03	326	*e*Pn	Pn	20 41 03.5	-0.7
HINF	Hinteralfeld	2.03	326	*e*Pg	Pg	20 41 09.1	+0.2
HINF				*e*Sn	Sn	20 41 26.8	-2.8
HINF				*e*Sg	Sg	20 41 35.2	0.0
	2.8nm,0.4s						
STV	Sant Anna di V	2.07	204	P	Pn	20 41 03.8	-1.1
STV				S	Sn	20 41 26.4	-4.3
ORIF	Oris-en-Rattie	2.22	238	*e*Pn	Pn	20 41 06.8	-0.1
ORIF	Oris-en-Rattie	2.22	238	*e*Pg	Pg	20 41 13.3	+0.7
ORIF				*e*Sn	Sn	20 41 33.3	-1.0
	3.2nm,0.5s						
ORIF	Oris-en-Rattie	2.22	238	*e*Pn	Pn	20 41 06.8	-0.1
ORIF	Oris-en-Rattie	2.22	238	*e*Pg	Pg	20 41 13.3	+0.7
ORIF				*e*Sn	Sn	20 41 33.3	-1.0
	1.6nm,0.5s						
ECH	Echery	2.27	336	Pn	Pn	20 41 08.5	+0.9
ECH	Echery	2.27	336	Pg	Pg	20 41 14.7	+1.1
ECH	Echery	2.27	336	Pn	Pn	20 41 08.5	+0.9
ECH	Echery	2.27	336	Pg	Pg	20 41 14.7	+1.1
HAU	Haudompre	2.38	322	*e*Pn	Pn	20 41 08.4	-0.7
HAU				*e*Sn	Sn	20 41 35.3	-3.1
HAU				*e*Sg	Sg	20 41 46.4	-0.2
	6.4nm,0.3s						
HAU	Haudompre	2.38	322	*e*Pn	Pn	20 41 08.4	-0.7
HAU				*e*Sn	Sn	20 41 35.3	-3.1
HAU				*e*Sg	Sg	20 41 46.4	-0.2
	3.2nm,0.3s						
SBF	Sospel	2.40	199	*e*Pn	Pn	20 41 08.8	-0.6
SBF				*e*Sn	Sn	20 41 37.1	-1.7
	12nm,0.5s						
SBF	Sospel	2.40	199	*e*Pn	Pn	20 41 08.8	-0.6
SBF				*e*Sn	Sn	20 41 37.1	-1.7
	6.0nm,0.5s						
CDF	Champ du Feu	2.42	340	*e*Pn	Pn	20 41 08.6	-1.1
CDF				*e*Sn	Sn	20 41 35.9	-3.5
CDF				*e*Sg	Sg	20 41 47.0	-0.9
	5.4nm,0.6s						
CDF	Champ du Feu	2.42	340	*e*Pn	Pn	20 41 08.6	-1.1
CDF				*e*Sn	Sn	20 41 35.9	-3.5
CDF				*e*Sg	Sg	20 41 47.0	-0.9
	2.7nm,0.6s						
FRF	La Foret Royal	2.90	208	*e*Pn	Pn	20 41 15.7	-0.6
FRF				*e*Sn	Sn	20 41 49.0	-2.2
	0.9nm,0.2s						
FRF	La Foret Royal	2.90	208	*e*Pn	Pn	20 41 15.7	-0.6
FRF				*e*Sn	Sn	20 41 49.0	-2.2
	0.4nm,0.2s						
VIVF	Saint-Julien-l	2.99	246	*e*Pn	Pn	20 41 17.5	0.0
VIVF	Saint-Julien-l	2.99	246	*e*P	Pn	20 41 20.2	+2.7
VIVF	Saint-Julien-l	2.99	246	*e*Pg	Pg	20 41 27.5	+0.1
VIVF				*e*Sn	Sn	20 41 51.5	-1.9
	0.8nm,0.2s						
VIVF	Saint-Julien-l	2.99	246	*e*Pn	Pn	20 41 17.5	0.0
VIVF	Saint-Julien-l	2.99	246	*e*P	Pn	20 41 20.2	+2.7
VIVF	Saint-Julien-l	2.99	246	*e*Pg	Pg	20 41 27.5	+0.1
VIVF				*e*Sn	Sn	20 41 51.5	-1.9
	0.4nm,0.2s						
SMRF	Simiane la Rot	3.00	225	*e*Pn	Pn	20 41 17.9	+0.2
SMRF				*e*Sn	Sn	20 41 51.2	-2.5
	0.2nm,0.3s						
SMRF	Simiane la Rot	3.00	225	*e*Pn	Pn	20 41 17.9	+0.2
SMRF				*e*Sn	Sn	20 41 51.2	-2.5
	0.1nm,0.3s						
LMR	La Mourre	3.15	208	*e*Pn	Pn	20 41 19.3	-0.4
LMR	La Mourre	3.15	208	*e*Pn	Pn	20 41 19.3	-0.4
SMF	Signal de Mont	3.27	281	*e*Pn	Pn	20 41 21.4	0.0
SMF	Signal de Mont	3.27	281	*e*Pg	Pg	20 41 33.4	+0.7
SMF				*e*Sn	Sn	20 41 57.6	-2.7
SMF				*e*Sg	Sg	20 42 15.6	+0.5
	3.5nm,0.4s						
SMF	Signal de Mont	3.27	281	*e*Pn	Pn	20 41 21.4	0.0
SMF	Signal de Mont	3.27	281	*e*Pg	Pg	20 41 33.4	+0.7
SMF				*e*Sn	Sn	20 41 57.6	-2.7
SMF				*e*Sg	Sg	20 42 15.6	+0.5
	1.8nm,0.4s						
MEZF	Maizieres J'vi	3.34	316	*e*Pn	Pn	20 41 21.0	-1.2
MEZF				*e*Sn	Sn	20 41 58.1	-3.8
MEZF				*e*Sg	Sg	20 42 16.7	-0.4
	7.2nm,0.6s						
MEZF	Maizieres J'vi	3.34	316	*e*Pn	Pn	20 41 21.0	-1.2
MEZF				*e*Sn	Sn	20 41 58.1	-3.8
MEZF				*e*Sg	Sg	20 42 16.7	-0.4
	3.6nm,0.6s						
LOR	Lormes	3.40	291	*e*Pn	Pn	20 41 22.3	-0.8
LOR	Lormes	3.40	291	*e*Pg	Pg	20 41 34.9	-0.2
LOR				*e*Sn	Sn	20 42 00.4	-3.0
LOR				*e*Sg	Sg	20 42 18.9	-0.2
	2.3nm,0.3s						
LOR	Lormes	3.40	291	*e*Pn	Pn	20 41 22.3	-0.8
LOR	Lormes	3.40	291	*e*Pg	Pg	20 41 34.9	-0.2
LOR				*e*Sn	Sn	20 42 00.4	-3.0
LOR				*e*Sg	Sg	20 42 18.9	-0.2
	1.1nm,0.3s						
SSF	Saint Saulge	3.57	287	*e*Pn	Pn	20 41 24.7	-0.8
SSF	Saint Saulge	3.57	287	*e*Pg	Pg	20 41 38.7	+0.2
SSF				*e*Sn	Sn	20 42 04.5	-3.2
SSF				*e*Sg	Sg	20 42 24.7	-0.1
	4.3nm,0.5s						
SSF	Saint Saulge	3.57	287	*e*Pn	Pn	20 41 24.7	-0.8
SSF	Saint Saulge	3.57	287	*e*Pg	Pg	20 41 38.7	+0.2
SSF				*e*Sn	Sn	20 42 04.5	-3.2
SSF				*e*Sg	Sg	20 42 24.7	-0.1
	2.2nm,0.5s						
AVF	Avril sur Loir	3.63	282	*e*Pn	Pn	20 41 26.1	-0.1
AVF	Avril sur Loir	3.63	282	*e*Pg	Pg	20 41 39.2	-0.3
AVF				*e*Sn	Sn	20 42 06.5	-2.5
AVF				*e*Sg	Sg	20 42 26.8	+0.4
	0.8nm,0.4s						
AVF	Avril sur Loir	3.63	282	*e*Pn	Pn	20 41 26.1	-0.1
AVF	Avril sur Loir	3.63	282	*e*Pg	Pg	20 41 39.2	-0.3
AVF				*e*Sn	Sn	20 42 06.5	-2.5
AVF				*e*Sg	Sg	20 42 26.8	+0.4
	0.4nm,0.4s						
BGF	Bois d'Agland	3.95	278	*e*Pn	Pn	20 41 30.1	-0.5
BGF				*e*Sn	Sn	20 42 13.9	-3.0
BGF				*e*Sg	Sg	20 42 37.0	+0.2
	0.3nm,0.2s						
HYF	Humbligny	4.20	288	*e*Pn	Pn	20 41 34.6	+0.5
HYF				*e*Sn	Sn	20 42 20.7	-2.4
TCF	Toulx Ste Croi	4.38	274	*e*Sn	Sn	20 42 24.2	-3.4
CAF	Calviac	4.69	257	*e*Pn	Pn	20 41 40.9	0.0
CAF				*e*Sn	Sn	20 42 32.2	-3.1
	0.3nm,0.2s						

BJI ***02*** *20:44:49.2, 6°.59N×126°.40E, h34km, mB4.9/4, mb4.5/13, Ms4.8/2, Ms7 4.7/1*

ISCJB ***02*** *20:44:52.9±0.4, 6°.72N±0°.03×126°.20E±0°.04, h65km±3km, mb4.5/55, Error ellipse: s-maj=7.5km s-min=4.9km az=165.2*

MOS ***02*** *20:44:53.3±1.1, 6°.69N×126°.23E, h73km, mb4.8/16, Error ellipse: s-maj=19.9km s-min=8.5km az=104.0*

MAN ***02*** *20:44:53, 6°.78N×126°.15E, h52km, mb5.0, ML4.0, MS4.1*

NEIC ***02*** *20:44:53.3±1.2, 6°.75N×126°.32E, h57km±11km, mb4.5/22, Error ellipse: s-maj=11.5km s-min=6.1km az=75.0*

IDC ***02*** *20:44:53.2±1.2, 6°.74N×126°.25E, h52km±9km, mb4.2/18, mb1 4.3/18, mb1mx4.2/25, mbtmp4.2/18, MS3.4/10, Ms1 3.4/10, ms1mx3.2/39, Error ellipse: s-maj=20.3km s-min=11.0km az=67.0*

DJA ***02*** *20:44:57, 6°.57N×126°.44E, h30km, mb4.9/8*

ISC 02 20:44:54.1±0.4, **6°.72N**±0°.03×**126°.21E**±0°.05, **h60**km±3km, **h22**km±8.1km**:pP-P, n123,** σ**1s.08**/124, **mb4.6**/55, **MS3.5**/10, **4C-5D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.23	12	*e*P	Pn	20 45 02.8	-0.8
MATI				*e*S	Sn	20 45 10.1	-0.5
DAV	Davao City (W)	0.71	299	P	Pn	20 45 08.3	-0.2
	3μm,0.3s,baz=229,slow=2.6,SNR=226						
DAV				S	Sn	20 45 19.6	+0.6
	5μm,0.3s,baz=73,slow=19,SNR=278						
DAV	Davao City (W)	0.71	299	*e*Pn	Pn	20 45 08.1	-0.4
DAV				P		20 45 08.3	
DAV				S	Sn	20 45 19.6	+0.5
DAV				*e*Sn	Sn	20 45 20.2	+1.2
DMPH	Davao City--Mi	0.78	297	⇓*i*P	Pn	20 45 09.1	-0.2
DMPH				*i* S	Sn	20 45 20.9	+0.4
GSPH	General Santos	1.40	243	⇓*i*P	Pn	20 45 14.0	-3.5
BUKP	Musuan	1.62	315	*e*P	Pn	20 45 19.6	-0.7
CTBH	Cotabato--PC H	2.01	284	⇓*e*P	Pn	20 45 24.2	-1.5
CTBH				*i* S	Sn	20 45 47.1	-2.5
BUTP	Butuan	2.31	345	*e*P	Pn	20 45 31.2	+1.5
BUTP				*e*S	Sn	20 46 02.6	+5.7
PAGZ	Pagadian	3.02	292	*e*P	Pn	20 45 38.7	-0.7
SCPH	Surigao	3.12	347	⇑*e*P	Pn	20 45 40.1	-0.8
MSLP	Maasin	3.64	339	*e*P	Pn	20 45 47.0	-1.0
IPIL	Ipil	3.76	287	*e*P	Pn	20 45 49.1	-0.6
LLP	Lapu-Lapu	4.20	328	⇓*e*P	Pn	20 45 55.9	+0.2
LLP				*e*S	Sn	20 46 39.1	-4.5
OCLP	Ormoc	4.58	340	*e*P	Pn	20 46 00.9	0.0
BESP	Borongan	4.91	351	*e*P	Pn	20 46 08.2	+2.9
GUIM	Jordan	5.28	318	*e*P	Pn	20 46 10.0	-0.4
RCP	Roxas	5.90	325	⇑*e*P	Pn	20 46 19.8	+0.9
CNP	Catarman	5.95	345	*e*P	Pn	20 46 21.3	+1.7
CUYO	Cuyo Island	6.57	309	*e*P	Pn	20 46 28.7	+0.6
PVCP	Virac	7.12	344	*e*P	Pn	20 46 36.6	+0.9
BUSP	Coron	7.92	312	*e*P	Pn	20 46 46.9	+0.3
ENPP	El Nido	8.04	304	*e*P	Pn	20 46 48.8	+0.4
KDI	Kendari	11.20	199	⇑*e*P	Pn	20 47 33.6	+2.1
KSM	Kuching	16.69	252	*e*Pn	Pn	20 48 46.0	+1.9
	8.9nm,0.9s						
GUMO	Guam	19.58	68	LR	LR	20 55 09.5	
	comp=Z,96nm,19.9s,baz=21,slow=32						
JOW	Kunigami	20.09	5	LR	LR	20 56 02.9	
	comp=Z,207nm,20.5s,MS3.5,baz=14,slow=33						
KAKA	Kakadu	20.28	162	⇑*i*P	P	20 49 25.3	+0.3
	32nm,0.6s						
KAKA	Kakadu	20.28	162	*e*P	P	20 49 25.0	+0.1
	94nm,0.6s						
KNA	Kununurra	22.47	174	*e*P	P	20 49 49.5	+1.0
	30nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	24.67	181	*e*P	P	20 50 09.4	-0.1
	26nm,1.1s,mb4.7						
FITZ	Fitzroy Crossi	24.67	181	P	P	20 50 09.3	-0.2
	13nm,0.9s,mb4.5,baz=13,slow=7.2,SNR=33						
CBIJ	Chichi jima	25.32	35	P	P	20 50 13.7	-1.7
	107nm,0.8s,mb5.5,baz=256,slow=17,SNR=4.1						
KULM	Kulim	25.46	268	*e*P	P	20 50 17.2	+0.5
	6.1nm,0.9s,mb4.1						
COEN	Coen	26.57	141	*e*P	P	20 50 29.5	+2.8
WRAB	Tennant Creek	27.67	163	*e*P	P	20 50 35.5	-1.1
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.4						
WRAB	Tennant Creek	27.67	163	*e*P	P	20 50 35.5	-1.1
	comp=Z,7.4nm,0.7s,mb4.4						
WRA	Warramunga Arr	27.68	163	P	P	20 50 36.1	-0.6
	comp=Z,2.0nm,0.4s,mb4.1,baz=340,slow=8.9,SNR=39						
WRA				ScP	ScP	20 57 28.9	+0.4
	comp=Z,1.5nm,0.9s,baz=340,slow=3.3,SNR=7.1						
WB2	Warramunga Arr	27.68	163	*e*P	P	20 50 35.6	-1.1
MBWA	Marble Bar	28.43	193	*e*P	P	20 50 42.5	-0.8
MBWA	Marble Bar	28.43	193	*e*P	P	20 50 42.0	-1.3
	comp=Z,8.7nm,0.9s,mb4.4						
CMAR	Chiang Mai Arr	29.00	296	P	P	20 50 48.0	-0.5
	comp=Z,0.5nm,0.8s,baz=118,slow=7.0,SNR=4.3						
CMAR				PcP	PcP	20 53 58.1	+2.1
	comp=Z,0.6nm,0.7s,baz=102,slow=0.7,SNR=5.3						
CMAR				ScP	ScP	20 57 33.0	+0.4
	comp=Z,0.4nm,0.7s,baz=67,slow=2.3,SNR=4.2						
KSRS	Korea Array	30.63	3	LR	LR	21 01 36.2	
	comp=Z,46nm,21.7s,MS3.1,baz=335,slow=33						
ASAR	Alice Springs	31.12	166	P	P	20 51 07.0	-0.2
	comp=Z,4.8nm,0.5s,mb4.6,baz=343,slow=7.0,SNR=86						
ASAR				ScP	ScP	20 57 39.1	-0.3
	comp=Z,1.7nm,0.9s,baz=354,slow=2.5,SNR=9.3						
XAN	Xi'an	31.54	332	P	P	20 51 11.6	+0.9
XAN				pP	pP	20 51 21.1	-4.4
XAN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
XAN				pmax	pmax		
	comp=Z,75nm,5.8s						
MJAR	Matsushiro Arr	31.64	19	P	P	20 51 10.1	-1.5
	comp=Z,1.1nm,0.8s,mb3.8,baz=190,slow=9.6,SNR=4.2						
MJAR				LR	LR	21 01 47.1	
	comp=Z,40nm,20.4s,MS3.1,baz=235,slow=32						
MEEK	Meekatharra	33.97	192	*e*P	P	20 51 31.2	-0.8
	comp=Z,12nm,0.9s,mb4.8						
BJT	Baijiatuau	34.35	346	*e*P	P	20 51 33.7	-1.5
BJT				pmax	pmax		
	comp=Z,14nm,1.1s						
BJT	Baijiatuau	34.35	346	*e*P	P	20 51 33.7	-1.5
	comp=Z,14nm,1.1s,mb4.8						
BJI	Beijing	34.37	346	P	P	20 51 35.3	-0.1
BJI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
BJI				LR	LR		
	comp=N,280nm,5.8s						
BJI				LR	LR		
	comp=E,130nm,5.4s						
LZH	Lanzhou	35.69	328	*e*P	P	20 51 47.0	+0.2
LZH				pP	pP	20 51 53.2	-8.5
LZH				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
LZH				pmax	pmax		
	comp=Z,69nm,4.5s						
MORW	Morawa	36.91	195	*e*P	P	20 51 56.7	-0.5
	comp=Z,7.4nm,0.6s,mb4.7						
FORT	Forrest	37.33	177	*e*P	P	20 52 00.7	-0.1
	comp=Z,47nm,0.5s,mb5.6						
KMBL	Kambalda	38.10	186	*e*P	P	20 52 06.8	-0.5
	comp=Z,46nm,0.4s,mb5.6						
KLBR	Kellerberrin	38.95	192	*e*P	P	20 52 13.9	-0.5
	comp=Z,7.0nm,0.4s,mb4.7						
MUN	Mundaring	39.65	193	*e*P	P	20 52 19.9	-0.3
GTA	Gaotai	40.29	328	*e*P	P	20 52 28.4	+2.9
GTA				pP	pP	20 52 32.5	-8.1
GTA				sP	sP	20 52 36.0	-12
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
NWAO	Narrogin (SRO)	40.34	192	*e*P	P	20 52 25.9	-0.1
NWAO				pmax	pmax		
	comp=Z,50nm,1.2s						
NWAO	Narrogin (SRO)	40.34	192	*e*P	P	20 52 26.0	0.0
	comp=Z,126nm,0.8s,mb5.7						
NWAO	Narrogin (SRO)	40.34	192	*e*P	P	20 52 25.9	-0.1
	comp=Z,50nm,1.2s,mb5.1						
BBOO	Buckleboo	40.41	167	*e*P	P	20 52 26.8	+0.2
	comp=Z,14nm,0.5s,mb4.9						
STKA	Stephens Creek	41.10	160	*e*P	P	20 52 32.6	+0.4
	comp=Z,7.3nm,0.7s,mb4.4						
STKA	Stephens Creek	41.10	160	P	P	20 52 32.6	+0.4
	comp=Z,12nm,0.7s,mb4.6,baz=335,slow=7.6,SNR=27						
STKA	Stephens Creek	41.10	160	*e*P	P	20 52 32.2	+0.1
	comp=Z,3.0nm,0.8s,mb4.0						
HABR	Khabarovsk	42.28	9	*e*P	P	20 52 45.3	+3.7
HABR				*PP	pP	20 53 09.1	+12
HABR						20 54 30.7	
HABR				*e*		21 02 29.0	
HABR				MLR	MLR		
	comp=Z,47nm,20.0s,MS3.4						
CMSA	Cobar Meteorol	42.36	155	*e*P	P	20 52 43.1	+0.6
ARMA	Armidale	44.25	148	*e*P	P	20 52 58.9	+1.1
SONM	Songino Array	44.31	341	P	P	20 52 59.2	+1.1
SONM						20 54 41.5	
SONM	Songino Array	44.31	341	P	P	20 52 59.2	+1.1
	comp=Z,2.3nm,0.9s,mb3.9,baz=159,slow=8.9,SNR=10						
SONM				PcP	PcP	20 54 41.5	+0.1
	comp=Z,1.0nm,0.7s,baz=167,slow=3.5,SNR=5.5						
SONM				LR	LR	21 11 35.2	
	comp=Z,34nm,21.0s,MS3.2,baz=216,slow=36						
YNG	Young	45.88	154	*e*P	P	20 53 11.8	+1.1
	comp=Z,7.4nm,1.6s,mb4.4						
CNB	Canberra Magne	47.16	154	*e*P	P	20 53 22.2	+1.5
ZAK	Zakamensk	47.55	340	*e*P	P	20 53 26.7	+3.2
ZAK				*e*		20 54 52.0	
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
TLY	Talaya	48.54	341	*e*P	P	20 53 32.6	+1.5
TLY				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
TLY	Talaya	48.54	341	*e*P	P	20 53 32.2	+1.0
	comp=Z,3.5nm,0.7s,mb4.5						
BOD	Bodaibo	51.85	352	*e*P	P	20 53 55.9	-0.1
BOD				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
PETK	Petropavlovsk-	52.89	23	P	P	20 54 04.4	+0.6
	comp=Z,3.0nm,0.7s,mb4.3,baz=194,slow=5.8,SNR=3.8						
MK31	Makanchi Array	54.83	324	*e*P	P	20 54 18.1	0.0
MK31				*e*		20 55 18.2	
MKAR	Makanchi Array	54.83	324	P	P	20 54 17.9	-0.2
	comp=Z,9.8nm,0.6s,mb5.0,baz=119,slow=7.5,SNR=88						
MKAR				LR	LR	21 18 58.2	
	comp=Z,27nm,21.2s,MS3.3,baz=3.7,slow=37						
YAK	Yakutsk	55.25	2	*e*P	P	20 54 20.4	-0.5
YAK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
YAK	Yakutsk	55.25	2	*e*P	P	20 54 20.4	-0.5
	comp=Z,7.0nm,0.7s,mb4.8						
TKM2	Tokmak 2	57.19	318	*e*P	P	20 54 38.5	+3.4
TKM2				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
TKM2	Tokmak 2	57.19	318	*e*P	P	20 54 38.5	+3.4
	comp=Z,1.4nm,0.6s,mb4.2						
ZALV	Zalesovo Beam	57.71	332	P	P	20 54 39.4	+0.9
	comp=Z,1.1nm,0.3s,mb4.3,baz=119,slow=6.1,SNR=8.2						
ZALV				LR	LR	21 21 06.9	
	comp=Z,32nm,18.4s,MS3.5,baz=36,slow=38						
AML	Almayashu	58.17	316	*e*P	P	20 54 45.0	+3.0
	comp=Z,3.0nm,0.7s,mb4.4						
EKS2	Erkin-Say	58.32	317	*e*P	P	20 54 45.9	+2.9
	comp=Z,3.3nm,0.7s,mb4.5						
KURK	Kurchatov	58.96	327	*e*P	P	20 54 46.2	-1.1
KURK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
KURK	Kurchatov	58.96	327	P	P	20 54 47.6	+0.3
	comp=Z,11nm,0.6s,mb5.0,baz=126,slow=7.4,SNR=52						
KURK	Kurchatov	58.96	327	*e*P	P	20 54 46.2	-1.1
	comp=Z,12nm,0.6s,mb5.1						
NVS	Novosibirsk	58.99	333	*e*P	P	20 54 45.9	-1.5
NVS				pmax	pmax		
	comp=N,2.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
KBL	Kabul	59.32	306	*e*P	P	20 54 48.8	-1.3
KBL				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
KBL	Kabul	59.32	306	*e*P	P	20 54 48.8	-1.4
	comp=Z,1.5nm,0.6s,mb4.2						
BVAR	Borovoye Array	64.55	326	P	P	20 55 24.4	-0.4
	comp=Z,7.8nm,0.7s,mb4.8,baz=126,slow=8.7,SNR=38						
BRVK	Borovoye	64.62	326	*e*P	P	20 55 27.0	+1.7
BRVK				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
BRVK	Borovoye	64.62	326	*e*P	P	20 55 27.0	+1.7
	comp=Z,12nm,0.8s,mb5.0						
TIXI	Tiksi	64.88	1	*e*P	P	20 55 25.6	-1.0
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
TIXI	Tiksi	64.88	1	*e*P	P	20 55 25.6	-1.0
	comp=Z,2.2nm,0.4s,mb4.5						
AKTK	Aktyubinsk	71.01	321	P	P	20 56 05.0	-0.5
AKTK				LR	LR	21 30 31.8	
AKTO	Aktyubinsk	71.01	321	P	P	20 56 05.0	-0.5
	comp=Z,2.7nm,0.7s,mb4.3,baz=106,slow=7.7,SNR=11						
AKTO				LR	LR	21 30 31.8	
	comp=Z,53nm,18.2s,MS3.8,baz=2.7,slow=39						
SVE	Sverdlovsk	71.16	328	⇓*e*P	P	20 56 08.0	+1.7
SVE				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.1						
UNV	Unalaska Valle	71.28	35	P	P	20 56 03.2	-3.9
	comp=Z,105nm,1.2s,mb5.6						
ARU	Arti	72.15	327	*e*P	P	20 56 12.9	+0.6
ARU				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
ARU	Arti	72.15	327	*e*P	P	20 56 12.9	+0.6
	comp=Z,13nm,0.6s,mb5.0						
KDAK	Kodiak Island	79.66	33	*i* P	P	20 56 56.2	+1.2
SEW	Seward	81.39	30	*e*P	P	20 57 03.4	-0.9
PMR	Palmer	81.58	29	P	P	20 57 04.5	-0.8
PMR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
PMR	Palmer	81.58	29	P	P	20 57 04.5	-0.8
	comp=Z,10nm,1.0s,mb4.7						
MCK	McKinley	81.73	27	*e*P	P	20 57 05.2	-0.8
MCK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
MCK	McKinley	81.73	27	*e*P	P	20 57 05.2	-0.8
	comp=Z,14nm,1.0s,mb4.8						
SML	Sawmill	81.97	29	P	P	20 57 06.4	-0.9
SML				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
SML	Sawmill	81.97	29	P	P	20 57 06.4	-0.9
	comp=Z,4.0nm,1.1s,mb4.3						
COLA	College	82.23	25	P	P	20 57 07.3	-1.3
COLA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
COLA	College	82.23	25	P	P	20 57 07.3	-1.3
	comp=Z,2.9nm,0.7s,mb4.3						
JOF	Joensuu	86.30	333	*e*p	P	20 57 28.4	-0.9
	comp=Z,5.1nm,0.7s,mb4.9						
SPITS	Spitsbergen Ar	87.46	349	P	P	20 57 34.6	-0.1
	comp=Z,23nm,1.1s,mb5.3,baz=12,slow=10.0,SNR=14						
ARCES	ARCESS Array B	87.48	340	P	P	20 57 35.0	+0.2
	comp=Z,2.5nm,0.7s,mb4.5,baz=72,slow=5.3,SNR=12						
BRTR	Keskin Array B	87.72	310	P	P	20 57 35.2	-1.5
	comp=Z,0.5nm,0.6s,mb3.9,baz=102,slow=3.5,SNR=3.6						
EIL	Elat	87.80	299	LR	LR	21 39 27.6	
	comp=Z,26nm,19.1s,MS3.7,baz=88,slow=37						
AKASG	Malin Array Be	89.26	321	P	P	20 57 43.8	+0.1
	comp=Z,0.4nm,0.3s,mb4.2,baz=66,slow=5.2,SNR=3.5						
RES	Resolute Bay	94.98	10	*e*P	P	20 58 09.0	-0.7
RES				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.3						
RES	Resolute Bay	94.98	10	*e*P	P	20 58 09.0	-0.7
	comp=Z,1.3nm,0.8s,mb4.4						
YKA	Yellowknife Ar	97.00	24	P	P	20 58 18.9	-0.2
	comp=Z,1.3nm,0.6s,mb4.5,baz=300,slow=4.7,SNR=26						
LSZ	Lusaka	99.45	256	LR	LR	21 43 50.6	
	comp=Z,46nm,18.8s,MS4.0,baz=85,slow=36						
SCHQ	Schefferville	117.71	8	PKP	PKPdf	21 03 33.5	0.0
	comp=Z,4.1nm,1.0s,baz=41,slow=20,SNR=3.0						
TORD	Torodi Ar. Bea	121.46	290	PKP	PKPdf	21 03 41.0	-0.8
	comp=Z,1.5nm,0.6s,baz=54,slow=1.9,SNR=22						

IDC ***02*** *20:59:34.1±2.8, 5°.53S×148°.67E, h0km, mb4.2/3, mb1 4.4/4, mb1mx3.8/16, mbtmp4.2/4, Error ellipse: s-maj=68.0km s-min=42.6km az=104.0*

NEIC ***02*** *20:59:35.0±1.8, 5°.35S×148°.46E, h10km, mb4.3/4, Error ellipse: s-maj=33.3km s-min=22.7km az=94.0*

ISC 02 20:59:39.2±2.9, **5°.5S**±0°.2×**148°.4E**±0°.3, **h35**km**, n10,** σ**0s.76**/9, **mb4.3**/5, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	17.29	244	*e*Pn	Pn	21 03 37.8	-0.1
	9.0nm,0.5s						
WRAB	Tennant Creek	19.81	222	*e*P	Pn	21 04 08.1	-0.5
	6.0nm,0.6s						
WB2	Warramunga Arr	19.82	222	*e*P	Pn	21 04 08.1	-0.6
WRA	Warramunga Arr	19.83	222	P	Pn	21 04 08.7	0.0

	1.4nm,0.3s,baz=49,slow=11,SNR=74						
ASAR	Alice Springs	22.83	216	P	P	21 04 40.5	+1.3
	2.6nm,0.5s,mb3.9,baz=51,slow=8.9,SNR=69						
FITZ	Fitzroy Crossi	25.50	239	P	P	21 05 05.9	+1.4
	4.2nm,0.4s,mb4.4,baz=67,slow=8.2,SNR=23						
STKA	Stephens Creek	27.02	193	P	P	21 05 18.0	-0.1
	1.5nm,0.5s,mb3.8,baz=60,slow=16,SNR=2.9						
NWAO	Narrogin (SRO)	39.83	223	P	P	21 07 08.3	-1.1
	12nm,0.9s,mb4.6						
KULM	Kulim	48.84	282	P	P	21 08 21.4	-0.2
	13nm,1.1s,mb4.9						
TORD	Torodi Ar. Bea	146.28	285	PKPbc	PKPbc	21 19 18.1	+1.0
	0.2nm,0.3s,baz=83,slow=2.5,SNR=12						

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*SZGRF **02** 20:58:39.6, 20°.76S×177°.50W, h33km, Fiji Islands region*
*NEIC **02** 20:59:35.8±4.4, 21°.98S×179°.49W, h533km±46km, mb4.3/8, Error ellipse: s-maj=31.0km s-min=18.0km az=220.0*
*ISCJB **02** 20:59:37.7±3.8, 22°.1S±0°.1×179°.5W±0°.1, h568km±45km, mb3.9/19, Error ellipse: s-maj=26.4km s-min=15.6km az=42.6*
*IDC **02** 20:59:41.2±3.8, 22°.03S×179°.55W, h600km±42km, mb3.2/13, mb1 3.4/13, mb1mx3.3/19, mbtmp3.2/13, Error ellipse: s-maj=25.2km s-min=16.3km az=56.0*
ISC 02 20:59:40.1±4.0, **22°.1S**±0°.1×**179°.5W**±0°.2, **h584**km±46km, **n95**, σ0ˢ.**91**/31, **mb3.9**/19, **13C-10D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNZO	South Karori	19.77	193	*e*P	P	21 03 30.2	-2.0
RPZ	Rata Peaks	22.94	198	P	P	21 04 00.8	+0.3
	4.5nm,0.6s,mb4.3,baz=327,slow=3.4,SNR=4.3						
ARMA	Armidale	27.10	246	*e*P	P	21 04 39.2	+1.6
CNB	Canberra Magne	30.16	237	*e*P	P	21 05 04.9	+0.9
CTA	Charters Tower	31.95	267	P	P	21 05 19.6	+0.2
	3.1nm,0.4s,mb4.3,baz=76,slow=12,SNR=7.8						
CTAO	Charters Tower	31.95	267	*e*P	P	21 05 19.6	+0.1
	6.4nm,0.7s,mb4.4						
CMSA	Cobar Meteorol	32.32	246	*e*P	P	21 05 23.1	+0.7
TOO	Toolangi	33.81	235	*e*P	P	21 05 35.7	+0.8
STKA	Stephens Creek	35.82	246	*e*P	P	21 05 52.7	+1.0
	2.1nm,0.6s,mb3.8						
STKA	Stephens Creek	35.82	246	P	P	21 05 52.2	+0.5
	2.1nm,0.5s,mb3.9,baz=96,slow=7.4,SNR=8.0						
STKA	Stephens Creek	35.82	246	*e*P	P	21 05 51.8	+0.1
	0.7nm,0.7s,mb3.3						
ASAR	Alice Springs	42.78	259	P	P	21 06 47.6	0.0
	1.3nm,0.5s,mb3.7,baz=90,slow=8.6,SNR=14						
ASAR				PcP	PcP	21 08 25.6	+0.2
	1.9nm,0.7s,baz=108,slow=3.4,SNR=9.0						
WRAB	Tennant Creek	42.98	264	P	P	21 06 47.1	-2.1
WRA	Warramunga Arr	42.99	264	P	P	21 06 48.5	-0.7
	1.0nm,0.3s,mb3.9,baz=96,slow=7.8,SNR=26						
WRA				PcP	PcP	21 08 25.7	-0.5
	1.0nm,0.8s,baz=97,slow=2.7,SNR=4.7						
FITZ	Fitzroy Crossi	51.42	264	P	P	21 07 52.1	-0.3
	3.5nm,0.9s,mb3.8,baz=89,slow=2.6,SNR=3.6						
MBWA	Marble Bar	56.13	259	*e*P	P	21 08 24.7	-0.8
	9.7nm,0.7s,mb4.1						
VNDA	Vanda	56.21	185	P	P	21 08 25.4	+0.3
	2.6nm,0.7s,mb3.6,baz=10,slow=4.8,SNR=8.3						
VNDA	Vanda	56.21	185	P	P	21 08 25.4	+0.3
VNDA				*e*P		21 08 25.9	
NWAO	Narrogin (SRO)	56.39	244	*e*P	P	21 08 22.2	-4.9
	22nm,1.1s,mb4.3						
CASY	Casey	61.92	206	P	P	21 08 59.8	-3.6
	18nm,1.1s,mb4.2						
MJAR	Matsushiro Arr	70.66	325	P	P	21 09 56.8	-1.1
	0.4nm,0.5s,mb3.2,baz=154,slow=5.9,SNR=5.5						
KSM	Kuching	72.23	279	*e*P	P	21 10 07.2	-0.4
	5.7nm,0.7s,mb4.2						
PETK	Petropavlovsk-	77.45	346	P	P	21 10 35.0	-0.7
	6.3nm,0.8s,mb4.1,baz=118,slow=9.7,SNR=5.3						
PMSA	Palmer Station	80.40	157	P	P	21 10 51.3	0.0
	84nm,1.3s,mb4.9						
VNA3	Neumayer Olymp	86.65	177	*e*	P	21 11 21.4	-0.7
VNA2	Neumayer--Watz	87.07	177	*e*	P	21 11 23.9	-0.2
	baz=198,slow=4.3						
TXAR	Lajitas Array	89.11	58	P	P	21 11 34.8	+0.5
	0.6nm,0.9s,mb3.4,baz=230,slow=6.9,SNR=4.2						
PLCA	Paso Flores	89.21	134	P	P	21 11 35.0	+0.4
	0.7nm,0.6s,mb3.7,baz=315,slow=5.7,SNR=3.2						
CMAR	Chiang Mai Arr	89.31	290	P	P	21 11 36.9	+1.4
	3.0nm,0.8s,mb4.2,baz=134,slow=3.4,SNR=25						
CHTO	Chiang Mai	89.45	290	*e*P	P	21 11 36.6	+0.6
	1.2nm,0.8s,mb3.8						
PDAR	Pinedale Array	91.09	44	P	P	21 11 43.8	+0.7
	0.2nm,0.5s,mb3.4,baz=195,slow=6.5,SNR=3.1						
MKAR	Makanchi Array	111.24	313	PKiKP	PKiKP	21 17 06.3	-1.8
	0.3nm,0.5s,baz=212,slow=1.3,SNR=8.4						
ARCES	ARCESS Array B	130.21	349	PKP	PKPdf	21 17 42.3	-1.5
	1.6nm,0.6s,baz=88,slow=1.3,SNR=14						
AKASG	Malin Array Be	143.67	329	PKP	PKPdf	21 18 06.5	-2.5
	2.0nm,0.3s,baz=42,slow=4.1,SNR=23						
MALT	Malatya	143.72	305	⇑*i*P	PKPdf	21 18 08.2	-1.3
BR131	Keskin Array S	146.80	310	*e*PKPdf	PKPdf	21 18 16.0	+1.3
BRTR	Keskin Array B	146.80	310	PKPbc	PKPbc	21 18 16.6	-1.0
	2.3nm,0.8s,baz=150,slow=4.8,SNR=15						
TLCR		147.31	322	⇓*i*P	PKPbc	21 18 17.3	-1.4
TLCR		147.31	322	⇓P	PKPbc	21 18 17.3	-1.4
KWP	Kalwaria Pacla	147.38	333	⇑*i*P	PKPbc	21 18 18.0	-0.8
KWP	Kalwaria Pacla	147.38	333	⇑P	PKPbc	21 18 18.0	-0.8
BUR08	Bucovina Ar. S	147.68	328	*e*PKPdf	PKPbc	21 18 19.2	-0.4
VRI	Vrincioaia	148.07	324	⇓*i*P	PKPbc	21 18 19.3	-1.3
VRI	Vrincioaia	148.07	324	⇑*i*P	PKPbc	21 18 21.4	+0.8
VRI	Vrincioaia	148.07	324	⇓P	PKPbc	21 18 19.2	-1.4
VRI				⇑P		21 18 21.4	
KOLS	Kolonicke sedl	148.10	332	*e*PKP	PKPbc	21 18 19.2	-1.4
KOLS	Kolonicke sedl	148.10	332	*e*P	PKPbc	21 18 19.3	-1.3
STHS	Stebnicka Huta	148.16	334	*e*PKP	PKPbc	21 18 20.4	-0.3
CRVS	Cervenica-Dubn	148.47	333	*e*PKP	PKPbc	21 18 21.0	-0.5
TRPA	Tarpa	148.58	331	⇓*i*P	PKPbc	21 18 21.7	-0.2
MLR	Muntele Rosu	148.73	324	⇑*i*P	PKPbc	21 18 21.3	-1.0
MLR	Muntele Rosu	148.73	324	⇑P	PKPbc	21 18 21.3	-1.0
OKC	Ostrava-Krasne	148.99	338	*e*PKP	PKPbc	21 18 20.8	-2.0
OKC	Ostrava-Krasne	148.99	338	*e*PKP	PKPbc	21 18 20.8	-2.0
UPC	Upice	149.13	341	*e*PKP	PKPbc	21 18 22.5	-0.6
UPC	Upice	149.13	341	*e*PKP	PKPbc	21 18 22.5	-0.6
DPC	Dobruska-Polom	149.17	340	*e*PKP	PKPbc	21 18 22.9	-0.3
DPC	Dobruska-Polom	149.17	340	*e*PKP	PKPbc	21 18 22.9	-0.3
VOIR		149.24	325	⇑*i*P	PKPbc	21 18 22.9	-0.6
VOIR		149.24	325	⇑P	PKPbc	21 18 22.9	-0.7
CLL	Collm	149.25	345	*e*PKPbc	PKPbc	21 18 22.4	-0.9
CLL	Collm	149.25	345	⇑*i*PKPbc	PKPbc	21 18 22.5	-0.8
	comp=Z,14nm,1.0s						
CLL	Collm	149.25	345	⇑*i*P	PKPbc	21 18 22.5	-0.8
MORC	Moravsky Berou	149.26	338	⇓*i*P	PKPbc	21 18 22.5	-0.9
MORC	Moravsky Berou	149.26	338	⇓P	PKPbc	21 18 22.5	-0.9
BRG	Berggiesshubel	149.40	343	*e*PKPbc	PKPbc	21 18 22.8	-0.9
BRG	Berggiesshubel	149.40	343	*e*P	PKPbc	21 18 22.8	-0.9
	comp=Z,7.5nm,0.7s						
FBE	Freiberg	149.51	344	*e*PKPbc	PKPbc	21 18 23.5	-0.5
PVCC	Panska Ves	149.54	342	*e*PKP	PKPbc	21 18 23.4	-0.7
PVCC	Panska Ves	149.54	342	*e*PKP	PKPbc	21 18 23.4	-0.7
NEUB	Neuenburg	149.63	346	*e*PKPbc	PKPbc	21 18 23.2	-1.1
VYHS	Vyhne	149.85	335	*e*PKP	PKPbc	21 18 23.0	-1.9
VRAC	Vranov	149.98	339	⇓*i*P	PKPab	21 18 38.3	+4.8
PRU	Pruhonice	150.03	342	*e*PKP	PKPbc	21 18 24.5	-0.7
PRU	Pruhonice	150.03	342	*e*PKP	PKPbc	21 18 24.5	-0.7
MOX	Moxa	150.19	346	*e*PKPbc	PKPbc	21 18 24.7	-0.9
TANN	Tannenbergstha	150.20	344	*e*PKPbc	PKPbc	21 18 24.9	-0.7
WERD	Werda	150.21	345	*e*PKPbc	PKPbc	21 18 24.9	-0.7
GUNZ	Gunzen	150.28	345	*e*PKPbc	PKPbc	21 18 25.0	-0.8
NKC	Novy Kostel	150.37	344	*e*PKP	PKPdf	21 18 22.1	+2.0
GZR	Gura Zlata	150.45	327	⇑*i*P	PKPdf	21 18 19.6	-0.8
GZR	Gura Zlata	150.45	327	⇑P	PKPdf	21 18 19.6	-0.8
MODS	Modra-Piesok	150.53	337	*e*PKP	PKPbc	21 18 25.5	-1.0
MANZ	Manzenberg	150.69	345	*e*PKPbc	PKPbc	21 18 26.1	-0.7
ROTZ	Rotzenmuhle	150.86	344	*e*PKPbc	PKPbc	21 18 26.6	-0.6
KHC	Kasperske Hory	151.08	342	*e*PKP	PKPbc	21 18 26.9	-0.8
KHC				*e*pPKP	PKPab	21 18 37.7	-0.4
KHC	Kasperske Hory	151.08	342	*e*PKP	PKPbc	21 18 26.9	-0.8
KHC				*e*		21 18 37.7	
GRA1	Grafenberg Arr	151.17	345	*e*PKPbc	PKPbc	21 18 27.2	-0.7
GRF	Grafenberg Arr	151.17	345	*e*PKPbc	PKPbc	21 18 27.2	-0.7
GRF	Grafenberg Arr	151.17	345	*e*PKP	PKPbc	21 18 27.2	-0.7
GERES	GERESS Array B	151.30	342	PKPbc	PKPbc	21 18 26.9	-1.3
	comp=Z,1.3nm,0.5s,baz=14,slow=2.1,SNR=15						
PKSM	Moragy	151.76	333	⇓*i*P	PKPbc	21 18 27.9	-1.4
PKSM	Moragy	151.76	333	⇓P	PKPbc	21 18 27.9	-1.4
DBIC	Dimbokro	163.83	161	PKPab	PKPab	21 19 33.6	-0.6
	comp=Z,1.2nm,0.8s,baz=172,slow=4.4,SNR=3.9						
TORD	Torodi Ar. Bea	171.03	188	PKP	PKPdf	21 18 40.6	-2.2
	comp=Z,0.7nm,0.8s,baz=25,slow=2.1,SNR=4.7						
TORD				PKPab	PKPab	21 20 05.3	-0.6
	comp=Z,1.0nm,0.7s,baz=178,slow=3.6,SNR=6.5						

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*IDC **02** 21:13:44.3±1.8, 9°.87N×104°.02W, h0km, mb4.0/4, mb1 4.3/6, mb1mx4.1/16, mbtmp4.0/6, ML3.4/2, MS4.1/15, Ms1 4.1/15, ms1mx4.0/25, Error ellipse: s-maj=61.1km s-min=32.0km az=101.0*
*BJI **02** 21:13:46.4, 10°.10N×104°.00W, h10km, mB5.3/3, Ms4.9/4, Ms7 4.6/4*
*NEIC **02** 21:13:48.4±1.1, 10°.13N×104°.00W, h10km, mb4.6/18, Error ellipse: s-maj=20.0km s-min=11.5km az=207.0*
*GCMT **02** 21:13:48.4±0.4, 10°.09N×104°.02W, h12km, MW5.0/64, Moment Tensor Solution. s23,c27; s64,c93; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.20±.12; $M_{\theta\theta}$-2.27±.10; $M_{\phi\phi}$2.07±.13; $M_{r\theta}$-0.32±.30; $M_{\theta\phi}$1.96±.11; $M_{\phi r}$-1.44±.34; Best double couple: $M_0$3.25800×10^{16} NP1:ϕ_s249.00000°, δ70.00000°, λ15.00000°. NP2: ϕ_s154.00000°, δ76.00000°, λ159.00000°. Principal axes: T 3.4760, Plg24.0000°, Azm110.0000°; N -0.4350, Plg66.0000°, Azm302.0000°; P -3.0400, Plg4.0000°, Azm202.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB **02** 21:13:49.3±1.7, 10°.1N±0°.2×103°.9W±0°.1, h33km, mb4.5/20, MS4.2/14 Error ellipse: s-maj=29.2km s-min=13.9km az=7.8*
ISC 02 21:13:53.0±1.2, **10°.2N**±0°.1×**103°.90W**±0°.10, **h35**km, **(h30**km±4.7km**:pP-P), n129**, σ0ˢ.**47**/107, **mb4.5**/20, **MS4.2**/14, **39C-38D, Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	11.10	51	Pn	Pn	21 16 29.2	0.0
	0.1nm,0.3s,baz=243,slow=11,SNR=2.9						
LPIG	La Paz	15.09	337	LR	LR	21 21 35.7	
	comp=Z,589nm,21.2s,baz=342,slow=31						
TEIG	Tepich	18.04	55	LR	LR	21 24 22.8	
	comp=Z,263nm,19.1s,baz=237,slow=35						
TXAR	Lajitas Array	19.01	1	P	Pn	21 18 12.7	0.0
	0.1nm,0.3s,baz=185,slow=12,SNR=31						
TXAR				LR	LR	21 25 11.7	
	comp=Z,1µm,18.9s,baz=225,slow=36						
JCT	Junction City	20.50	10	*e*P	P	21 18 28.6	+0.5
	34nm,1.2s						
HKT	Hockley	21.01	20	*e*P	P	21 18 34.3	+0.7
	51nm,1.5s,mb4.6						
319A	Douglas	21.62	347	⇓P	P	21 18 40.4	+0.3
	baz=22						
318A	Bisbee	21.85	346	⇑P	P	21 18 42.4	-0.1
	baz=22						
GDL2	Guadalupe Moun	21.87	359	*e*P	P	21 18 43.6	+0.9
219A	White Tail Can	22.22	348	⇑P	P	21 18 46.3	-0.2
	baz=22						
218A	Dragoon	22.37	346	⇑P	P	21 18 48.8	+0.6
	baz=22						
TUC	Tucson	22.88	345	*e*P	P	21 18 53.9	+0.5
	13nm,1.3s,mb4.2						
119A	Ashpeak Ranch,	22.97	348	⇓P	P	21 18 55.0	+0.5
	baz=23						
118A	Homack Ranch,	22.99	347	⇑P	P	21 18 54.6	-0.1
	baz=23,SNR=7.7						
117A	Oracle	23.11	345	⇑P	P	21 18 56.0	0.0
	baz=23,SNR=5.2						
BNM	Barren Site	23.94	354	*e*P	P	21 19 04.0	+0.1
	13nm,1.5s,mb4.1						
LENM	Lemitar	23.99	354	*e*P	P	21 19 03.0	-1.3
	27nm,1.7s,mb4.4						
Y19A	Nutrioso	24.12	349	⇓P	P	21 19 06.1	+0.5
	baz=24						
Y17A	Roosevelt	24.21	346	⇑P	P	21 19 06.3	-0.1
	baz=24						
LAZ	Ladron	24.24	353	*e*P	P	21 19 07.0	+0.4
	7.2nm,1.4s,mb3.9						
AMTX	Amarillo	24.62	4	*e*P	P	21 19 10.2	+0.1
	29nm,1.0s,mb4.8						
ANMO	Albuquerque	24.72	355	P	P	21 19 11.0	0.0
	4.0nm,1.0s,mb3.9,baz=169,slow=12,SNR=7.6						
ANMO				LR	LR	21 29 14.3	
	comp=Z,302nm,19.6s,MS3.8,baz=20,slow=37						
ANMO	Albuquerque	24.72	355	*e*P	P	21 19 11.0	+0.1
	7.5nm,1.2s,mb4.1						
WMOK	Wichita Mounta	24.84	10	*e*P	P	21 19 12.1	+0.1
	69nm,2.3s,mb4.8						
Y15A	Casa Rosa Ranc	24.85	343	⇓P	P	21 19 12.2	0.0
	baz=25						
W22A	Albuquerque	24.87	354	⇓P	P	21 19 12.6	+0.2
	baz=25						
X16A	Lo Mia Camp, P	25.05	345	⇑P	P	21 19 13.9	-0.1
	baz=25						
W20A	Ramah	25.13	351	⇑P	P	21 19 14.7	0.0
	baz=25,SNR=5.8						
BC3	Big Chuckw Mtn	25.62	337	⇑P	P	21 19 19.5	+0.3
	baz=26						
X13A	Yucca	25.89	341	⇓P	P	21 19 21.2	-0.4
	baz=26						
MIAR	Mount Ida	25.98	20	*e*P	P	21 19 22.1	-0.3
	117nm,2.6s,mb5.0						
V15A	Kaibab Nationa	26.56	345	⇑P	P	21 19 27.8	+0.1
	baz=27						
U16A	Tuba City	26.62	347	⇑P	P	21 19 28.6	+0.4
	baz=27						
U18A	Rough Rock, Ch	26.63	349	⇑P	P	21 19 28.5	+0.2
	baz=27						
V14A	Boquillas Ranc	26.64	343	⇑P	P	21 19 28.7	+0.3
	baz=27						
LDFC	Landfair	26.77	339	P	P	21 19 30.5	+0.9
LDFC				*e*pP	pP	21 19 41.4	+1.9
T19A	Beclabito	26.88	351	⇓P	P	21 19 30.7	+0.1
	baz=27						
U17A	Shonto	26.96	348	⇑P	P	21 19 31.0	-0.2
	baz=27						
V13A	Grand Canyon W	27.10	342	⇓P	P	21 19 32.6	0.0
	baz=27						
MVCO	Mesa Verde	27.18	352	⇓P	P	21 19 33.3	0.0
	baz=27						
MVCO	Mesa Verde	27.18	352	*e*P	P	21 19 33.0	-0.2
	12nm,1.4s,mb4.2						
OTAV	Otavalo	27.18	110	*e*P	P	21 19 34.7	+1.1
	298nm,1.4s,mb5.6						
OTAV				*e*pP	pP	21 19 41.5	-2.0
T18A	Mexican Hat	27.32	350	⇑P	P	21 19 34.3	-0.3
	baz=28						
T17A	Navajo Res., N	27.37	348	⇑P	P	21 19 34.7	-0.2
	baz=28						
U14A	Mt Trumbull	27.39	344	⇓P	P	21 19 35.4	+0.2
	baz=28						
S18A	Hurst Farm, Bl	27.89	350	⇓P	P	21 19 39.9	+0.4
	baz=28						
T13A	Saint George	28.16	343	⇑P	P	21 19 42.5	+0.4
	baz=28						
R18A	Canyonlands Na	28.55	350	⇑P	P	21 19 45.9	+0.5
	baz=29						
Q22A	Crested Butte,	28.64	355	⇓P	P	21 19 46.5	+0.3
	baz=29						
R17A	Hanksville Air	28.72	349	⇓P	P	21 19 47.1	+0.1
	baz=29						
T11A	Corn Creek, Al	28.77	341	⇑P	P	21 19 47.3	-0.1
	baz=29						
ROSC	El Rosal	29.78	98	LR	LR	21 29 13.7	
	comp=Z,318nm,21.2s,MS3.9,baz=194,slow=31						
Q14A	Sevier Lake (B	29.84	345	⇓P	P	21 19 57.0	+0.1
	baz=30						
ATAH	Atahualpa	30.63	123	LR	LR	21 29 53.1	
	comp=Z,2µm,19.1s,MS4.7,baz=317,slow=32						
CPCT	Cooper Cave	30.68	32	*e*P	P	21 20 03.9	-0.4
NVAR	Mina Array Bea	30.91	338	P	P	21 20 06.2	-0.2
	0.6nm,0.7s,mb3.5,baz=179,slow=8.9,SNR=3.7						
M14A	Sheep Mountain	32.24	347	⇓P	P	21 20 18.5	+0.4
	baz=32						
M13A	Montello	32.30	345	⇓P	P	21 20 18.7	+0.2
	baz=32						
PDAR	Pinedale Array	32.79	352	P	P	21 20 22.4	-0.4
	3.9nm,1.0s,mb4.3,baz=169,slow=8.6,SNR=7.6						
PDAR				LR	LR	21 34 49.2	
	comp=Z,168nm,19.7s,MS3.8,baz=188,slow=38						
HDIL	Hopedale	32.85	21	*e*P	P	21 20 23.2	-0.2
	35nm,1.1s,mb5.2						
K16A	Soda Springs	33.16	350	⇓P	P	21 20 26.5	+0.4
	baz=33						
K14A	Jones Ranch, D	33.20	347	⇑P	P	21 20 26.5	+0.1
	baz=33						
K15A	Arbon	33.20	348	⇓P	P	21 20 26.4	0.0
	baz=33,SNR=5.1						
K13A	Stover Farm, H	33.50	346	⇓P	P	21 20 29.7	+0.7
	baz=34						
K12A	Draper Farm, C	33.69	345	⇓P	P	21 20 31.0	+0.4
	baz=34						
I17A	Pilgrim Ck.	34.06	351	⇑P	P	21 20 34.1	+0.2
	baz=34						
J13A	Cove Ranch, Pi	34.23	347	⇑P	P	21 20 35.4	+0.1
	baz=34						
J12A	Stokes Ranch,	34.31	345	⇑P	P	21 20 36.3	+0.3
	baz=34						
HLID	Hailey	34.44	346	⇑P	P	21 20 37.4	+0.2
	baz=35						
HLID	Hailey	34.44	346	*e*P	P	21 20 37.6	+0.4
	10nm,1.5s,mb4.5						
HLID				*e*pP	pP	21 20 44.1	-3.2
I14A	Mackay	34.58	348	⇑P	P	21 20 38.7	+0.3
	baz=35						
I13A	Wildhorse Cree	34.71	347	⇓P	P	21 20 39.7	+0.2
	baz=35,SNR=5.4						
H15A	Lima	35.08	349	⇓P	P	21 20 43.1	+0.4
	baz=35						
H13A	Challis	35.36	347	⇓P	P	21 20 45.4	+0.3
	baz=36						
G17A	Pierce Place,	35.45	352	⇑P	P	21 20 46.5	+0.6
	baz=36						
H12A	Diamond D Ranc	35.48	346	⇑P	P	21 20 46.3	+0.2
	baz=36						
G16A	Moss Hill, Enn	35.53	350	⇓P	P	21 20 47.4	+0.9
	baz=36,SNR=6.8						
DLMT	Dillon	35.80	349	*e*P	P	21 20 49.2	+0.4
	11nm,1.2s,mb4.7						
DLMT				*e*pP	pP	21 20 57.1	-1.9
G13A	Cobalt	35.86	347	⇓P	P	21 20 49.6	+0.2
	baz=36						
F18A	Big Timber	35.90	353	⇑P	P	21 20 49.4	-0.3
	baz=36,SNR=5.3						
H11A	Donnelly	35.90	345	⇓P	P	21 20 49.8	0.0
	baz=36						
BOZ	Bozeman (W)	35.91	351	⇓P	P	21 20 50.1	+0.3
	baz=36						
H10A	Noah’s Angus R	35.99	344	⇑P	P	21 20 50.0	-0.5
	baz=36						
F17A	Fitzpatrick Pl	36.02	352	⇓P	P	21 20 51.0	+0.3
	baz=36						
F15A	Butte	36.24	350	⇓P	P	21 20 52.8	+0.1
	baz=36						
F13A	Darby	36.54	348	⇑P	P	21 20 55.0	-0.2
	baz=37						
E18A	Harlowton	36.57	353	⇓P	P	21 20 55.4	0.0
	baz=37						
E17A	Martinsdale	36.59	352	⇓P	P	21 20 55.8	+0.2
	baz=37						
F12A	Elk City	36.71	347	⇑P	P	21 20 56.1	-0.6
	baz=37						
E16A	East Helena	36.78	351	⇓P	P	21 20 57.0	-0.2
	baz=37						
E14A	Clinton	36.98	349	⇑P	P	21 20 58.5	-0.4
	baz=37						
E13A	Victor	37.14	348	⇑P	P	21 20 60.0	-0.3
	baz=37						
D18A	Linhart Farms,	37.18	353	⇑P	P	21 21 00.6	0.0
	baz=37						
D17A	Six Diamond Ra	37.24	352	⇑P	P	21 21 01.1	-0.1
	baz=37						
RPN	Rapa Nui	37.51	188	LR	LR	21 32 37.1	
	comp=Z,326nm,20.8s,MS4.1,baz=314,slow=30						
D14A	Greenough	37.62	349	⇑P	P	21 21 04.1	-0.3
	baz=38						
C17A	Wharram Farm,	37.73	352	⇓P	P	21 21 04.9	-0.3
	baz=38						
D13A	Huson	37.81	348	⇓P	P	21 21 05.5	-0.5
	baz=38						
B18A	Beardsley Farm	38.36	354	⇓P	P	21 21 10.2	-0.4
	baz=38						
B17A	L&G Farms, Che	38.38	353	⇓P	P	21 21 10.0	-0.7
	baz=39,SNR=5.5						
B15A	Bradely Ranch,	38.65	351	⇑P	P	21 21 12.5	-0.5
	baz=39						
A17A	Triple J Farms	39.01	353	⇑P	P	21 21 15.3	-0.7
	baz=39						
EYMN	Ely	39.02	13	*e*P	P	21 21 14.9	-1.2
	14nm,1.3s,mb4.5						
EYMN				*e*pP	pP	21 21 25.9	-0.5
A16A	West Butte Ran	39.13	352	⇓P	P	21 21 16.7	-0.3
	baz=39						
A15A	Johnson Ranch,	39.32	351	⇑P	P	21 21 17.9	-0.7
	baz=40,SNR=6.7						
A14A	Double T Ranch	39.43	350	⇓P	P	21 21 19.2	-0.4
	baz=40						
NEW	Newport	39.51	346	*e*P	P	21 21 19.7	-0.5
	16nm,1.2s,mb4.6						
ULM	Lac du Bonnet	40.44	8	LR	LR	21 37 50.2	
	comp=Z,221nm,20.2s,MS4.0,baz=324,slow=35						
RPW	Rockport	40.86	342	*e*P	P	21 21 31.0	-0.4
EDM	Edmonton	43.54	352	*e*P	P	21 21 51.9	-1.3
FFC	Flin Flon	44.40	2	*e*P	P	21 21 59.2	-0.8
	22nm,1.7s,mb4.6						
RKT	Rikitea	44.99	222	*e*LR	LR	21 34 32.4	
	368nm,27.2s						
RKT				*e*T		22 09 35.3	
	3.7nm,0.3s						
YKA	Yellowknife Ar	52.74	354	P	P	21 23 02.2	-1.9
	2.1nm,1.0s,mb4.0,baz=164,slow=7.5,SNR=22						
YKA				LR	LR	21 45 54.8	
	comp=Z,128nm,20.8s,MS4.0,baz=160,slow=36						
YKA	Yellowknife Ar	52.74	354	P	P	21 23 02.2	-1.9
YKA				LR	LR	21 45 54.8	
SCHQ	Schefferville	53.25	26	LR	LR	21 46 18.7	
	comp=Z,140nm,18.0s,MS4.0,baz=354,slow=36						
PLCA	Paso Flores	59.33	151	LR	LR	21 43 49.1	
	comp=Z,176nm,18.6s,MS4.2,baz=63,slow=31						
NOA	NORSAR Array B	92.82	26	LR	LR	22 13 50.9	
	comp=Z,58nm,19.1s,MS4.0,baz=180,slow=39						
ARCES	ARCESS Array B	93.13	16	LR	LR	22 08 16.7	
	comp=Z,151nm,18.7s,MS4.5,baz=306,slow=35						
RPZ	Rata Peaks	93.44	226	LR	LR	22 00 48.1	
	comp=Z,187nm,19.2s,MS4.6,baz=87,slow=30						
MDJ	Mudanjiang	107.14	323	Pdif	Pdif	21 28 04.8	-1.4
MDJ				PP	PP	21 32 30.8	-2.1
MDJ				S	Sdif	21 40 07.4	+1.3
MDJ				SS	SS	21 47 44.4	+6.7
MDJ				LR	LR		
	comp=N,47nm,37.9s						
MDJ				LR	LR		
	comp=Z,46nm,28.4s						
CN2	Changchun	110.04	324	*e*PKP	PKiKP	21 32 20.9	-0.2
CN2				PP	PP	21 32 58.0	+4.1
HHC	Hu-ho-hao-te	119.55	330	*e*PKP	PKPdf	21 32 34.5	-4.9
HHC				PP	PP	21 34 00.5	-0.4
HHC				AMB	AMB		
	comp=Z,57nm,5.1s						
HHC				LR	LR		
	comp=N,99nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=E,170nm,14.3s,MS4.9						
HHC				LR	LR		
	comp=Z,120nm,15.5s,MS4.6						
WRA	Warramunga Arr	123.18	253	PKP	PKPdf	21 32 43.6	-3.3
	comp=Z,0.3nm,0.7s,baz=71,slow=1.7,SNR=5.0						
ASAR	Alice Springs	123.46	248	PKP	PKPdf	21 32 43.9	-3.4
	comp=Z,0.3nm,0.8s,baz=85,slow=2.2,SNR=3.1						
WMQ	Urumqi	125.18	350	*e*PKP	PKPdf	21 32 46.0	-4.1
WMQ				LR	LR		
	comp=N,250nm,26.9s,MS4.8						
WMQ				LR	LR		
	comp=E,140nm,22.8s,MS4.8						
WMQ				LR	LR		
	comp=Z,250nm,22.7s,MS4.8						
LZH	Lanzhou	127.03	332	*e*PKP	PKPdf	21 32 53.0	-0.9
LZH				sPKP		21 32 58.0	
CD2	Chengdu	131.24	328	PKP	PKPdf	21 32 57.0	-5.1
GYA	Guiyang	132.97	321	*e*Pdif	Pdif	21 30 01.2	+0.2
GYA				AMB	AMB		
	comp=Z,60nm,7.6s						
CMAR	Chiang Mai Arr	143.66	322	PKP	PKPdf	21 33 21.6	-3.6
	comp=Z,0.3nm,0.7s,baz=30,slow=4.2,SNR=3.8						

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*ISK **02** 21:19:24.8, 37°.69N×37°.36E, h4km, MD3.3*
*ISCJB **02** 21:19:25.7±0.3, 37°.70N±0°.03×37°.37E±0°.03, h10km, Error ellipse: s-maj=4.5km s-min=3.1km az=137.8*
*CSEM **02** 21:19:25.6±0.1, 37°.67N×37°.36E, h2km, MD3.3, Error ellipse: s-maj=2.1km s-min=1.2km az=136.0*
*DDA **02** 21:19:25.1, 37°.70N×37°.36E, h13km±1km, Md3.3, Ml3.6*
ISC 02 21:19:25.8±0.5, **37°.70N**±0°.03×**37°.37E**±0°.03, **h4**km±5km, **n51**, σ0ˢ.**95**/68, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GZT	**Gaziantep**	0.37	155	*i* P	Pg	21 19 32.4	-0.6
GZT				*i* S	Sg	21 19 38.9	+1.0
KMRS	**Kahramanmaras**	0.42	243	PG	Pg	21 19 33.3	-0.5
KMRS				*e*SG	Sg	21 19 39.3	+0.1
KMRS	**Kahramanmaras**	0.42	243	*i* Pg	Pg	21 19 33.3	-0.5
KMRS				*e*Sg	Sg	21 19 39.3	+0.1
GAZ	**Gaziantep**	0.54	193	*e*PG	Pg	21 19 35.5	-0.6
GAZ	**Gaziantep**	0.54	193	*e*Pg	Pg	21 19 35.5	-0.6
AKCD	**Akcadag**	0.74	36	*i* P	Pg	21 19 39.5	-0.6
AKCD				*i* S	Sg	21 19 50.6	+0.8
AKCD	**Akcadag**	0.74	36	*i* P	Pg	21 19 39.5	-0.6
AKCD				*i* S	Sg	21 19 50.6	+0.9
ANDN	**Andirin**	0.82	262	*i* P	Pg	21 19 40.9	-0.6
ANDN				*i* S	Sg	21 19 53.0	+0.9
ANDN	**Andirin**	0.82	262	*i* P	Pg	21 19 40.9	-0.6
ANDN				*i* S	Sg	21 19 53.0	+0.9
KUZU	**Kuzuini**	0.95	194	*i* P	Pg	21 19 43.5	-0.5
KUZU				*i* S	Sg	21 19 58.7	+2.4
KUZU	**Kuzuini**	0.95	194	*i* P	Pg	21 19 43.5	-0.5
KUZU				*i* S	Sg	21 19 58.7	+2.4
MALT	**Malatya**	1.04	53	*e*PG	Pg	21 19 45.0	-0.8
MALT	**Malatya**	1.04	53	*e*Pg	Pg	21 19 45.0	-0.8
MYA	**Malataya**	1.05	53	*e*PG	Pg	21 19 45.9	0.0
MYA	**Malataya**	1.05	53	*e*Pg	Pg	21 19 45.9	0.0
SARI	**SarD1z-Kayseri**	1.11	332	*e*PG	Pg	21 19 45.6	-1.6
SARI	**SarD1z-Kayseri**	1.11	332	*e*Pg	Pg	21 19 45.6	-1.6
URFA	**Urfa**	1.18	102	*e*PN	Pn	21 19 48.1	-1.0
URFA	**Urfa**	1.18	102	*e*Pn	Pn	21 19 48.1	-1.1
PINB	**Pinarbasi**	1.24	323	*i* P	Pg	21 19 50.9	+1.4
PINB				*i* S	Sg	21 20 09.4	+3.8
PINB	**Pinarbasi**	1.24	323	*i* P	Pg	21 19 50.9	+1.3
PINB				*i* S	Sg	21 20 09.4	+3.7
KOZT	**Kozan**	1.24	261	*e*PN	Pn	21 19 48.0	-1.9
DARE	**Darende-Malaty**	1.30	15	*e*PG	Pg	21 19 41.9	-8.8
DARE				*e*SG	Sg	21 19 55.0	-13
COBT	**Iskenderun**	1.47	217	*i* P	Pn	21 19 52.7	-0.4
COBT				*i* S	Sb	21 20 12.3	-0.5
COBT	**Iskenderun**	1.47	217	*i* P	Pn	21 19 52.7	-0.4
COBT				*i* S	Sb	21 20 12.3	-0.5
ELZG	**Elazig**	1.51	57	*i* P	Pn	21 19 54.1	+0.5
ELZG				*i* S	Sn	21 20 15.2	+1.5
ELZG	**Elazig**	1.51	57	*i* P	Pn	21 19 54.1	+0.5
ELZG				*i* S	Sn	21 20 15.2	+1.5
BNN	**Bunyan**	1.66	314	*e*PN	Pn	21 19 56.1	+0.3
BNN	**Bunyan**	1.66	314	*e*Pn	Pn	21 19 56.1	+0.3
KEMA	**Kemaliye**	1.80	29	*i* P	Pn	21 19 58.0	+0.3
KEMA				*i* S	Sn	21 20 26.6	+5.6
KEMA	**Kemaliye**	1.80	29	*i* P	Pn	21 19 58.0	+0.3
KEMA				*i* S	Sn	21 20 26.6	+5.6
HTY	**Hatay**	1.85	212	*e*PN	Pn	21 19 58.0	-0.3
HTY	**Hatay**	1.85	212	*e*Pn	Pn	21 19 58.1	-0.3
KRTS	**Karatas**	1.95	235	*e*PN	Pn	21 19 59.3	-0.4
KRTS	**Karatas**	1.95	235	*e*Pn	Pn	21 19 59.3	-0.3
GULE	**Gulek**	2.10	260	*i* P	Px	21 19 31.7	
GULE				*i* S	Sx	21 19 59.8	
NIG	**Nigde**	2.22	282	*e*PN	Pn	21 20 03.6	+0.2
NIG	**Nigde**	2.22	282	*e*Pn	Pn	21 20 03.6	+0.2
DIY	**Diyarbakir**	2.27	84	*e*PN	Pn	21 20 04.7	+0.5
DIY	**Diyarbakir**	2.27	84	*e*Pn	Pn	21 20 04.7	+0.5
MERS	**Mersin**	2.41	251	*e*PN	Pn	21 20 05.4	-0.6
MERS	**Mersin**	2.41	251	*e*Pn	Pn	21 20 05.4	-0.7
YOZ	**Yozgat**	2.52	321	*e*PN	Pn	21 20 08.0	+0.5
YOZ	**Yozgat**	2.52	321	*e*Pn	Pn	21 20 08.0	+0.5
EZC	**Erzincan**	2.81	42	*e*PN	Pn	21 20 09.2	-2.3
SULT	**Sultanhani-AKS**	3.08	281	*e*PN	Pn	21 20 15.9	+0.6
SULT	**Sultanhani-AKS**	3.08	281	*e*Pn	Pn	21 20 15.9	+0.6
EREN	**Erenkoy**	3.36	231	*e*PN	Pn	21 20 19.9	+0.8
EREN	**Erenkoy**	3.36	231	*e*Pn	Pn	21 20 19.9	+0.8
HDMB	**Hadim**	3.96	261	*e*PN	Pn	21 20 28.3	+1.0
HDMB	**Hadim**	3.96	261	*e*Pn	Pn	21 20 28.3	+1.0

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*IDC **02** 21:25:14.7±0.8, 25°.15N×56°.19E, h0^{km}, mb4.0/16, mb1 4.0/19, mb1mx3.9/31, mbtmp3.9/19, ML3.9/3, MS2.9/1, Ms1 2.9/1, ms1mx2.4/28, Error ellipse: s-maj=19.0km s-min=16.3km az=156.0*

*ISCJB **02** 21:25:16.0±0.7, 25°.28N±0°.03×56°.07E±0°.04, h17^{km}±6^{km}, mb4.0/17, Error ellipse: s-maj=5.5km s-min=5.3km az=5.1*

*NEIC **02** 21:25:16.2±0.5, 25°.13N×56°.23E, h10^{km}, mb3.8/2, Error ellipse: s-maj=11.1km s-min=9.6km az=179.0*

*CSEM **02** 21:25:16.0±0.2, 25°.28N×56°.15E, h5^{km}, mb4.2/11, Error ellipse: s-maj=5.0km s-min=3.9km az=105.0*

*MOS **02** 21:25:17.9±1.1, 25°.16N×56°.18E, h33^{km}, mb4.3/11, Error ellipse: s-maj=16.7km s-min=10.1km az=108.4*

*KISR **02** 21:25:18.5±1.1, 26°.46N×55°.91E, h34^{km}±999^{km}, ML4.1*

ISC 02 21:25:16.4±0.7**, 25°.27N**±0°.03×**56°.10E**±0°.04**, h7**^{km}±5^{km}**, n92, σ0^{s}.98**/107**, mb4.0**/17**, 11C-10D, Eastern Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATD	**Hatta, Dubai**	0.45	177	⇓P	Pg	21 25 24.5	-0.6
	SNR=641						
HATD				⇓P		21 25 24.5	
	SNR=641						
HATD				⇓S	Sg	21 25 30.9	0.0
HATD				⇓S	Sg	21 25 30.9	0.0
HATD	**Hatta, Dubai**	0.45	177	Pg	Pg	21 25 24.4	-0.7
	SNR=76						
HATD				S	Sg	21 25 30.9	0.0
HATD				Sg	Sg	21 25 31.5	+0.6
NAZ	**Nazwa, Dubai**	0.49	235	⇓P	Pg	21 25 27.0	+1.1
	SNR=50						
NAZ				⇓P		21 25 27.0	
	SNR=50						
NAZ	**Nazwa, Dubai**	0.49	235	Pg	Pg	21 25 26.5	+0.6
	SNR=126						
NAZ	**Nazwa, Dubai**	0.49	235	P	Pg	21 25 27.0	+1.1
	SNR=50						
BANOM	**Banah**	0.67	15	⇓P	Pg	21 25 27.6	-1.7
	SNR=749						
BANOM				⇓P		21 25 27.6	
	SNR=749						
BANOM				⇑S	Sg	21 25 37.2	-0.8
BANOM				⇑S	Sg	21 25 37.2	-0.8
BANOM	**Banah**	0.67	15	Pg	Pg	21 25 27.5	-1.8
	SNR=749						
BANOM				S	Sg	21 25 37.2	-0.8
BANOM				Sg	Sg	21 25 38.2	+0.2
ASUD	**Al Ashush, Dub**	0.95	228	⇑P	Pg	21 25 35.7	+0.9
	SNR=94						
ASUD	**Al Ashush, Dub**	0.95	228	Pg	Pg	21 25 34.9	+0.2
	SNR=94						
ASUD	**Al Ashush, Dub**	0.95	228	P	Pg	21 25 35.7	+1.0
	SNR=94						
ARQ	**Araqi**	1.97	169	⇑P	Pn	21 25 52.7	+2.5
ARQ				⇑P		21 25 52.7	
ARQ	**Araqi**	1.97	169	P	Pn	21 25 52.7	+2.6
HOQ	**Hoqain**	2.01	147	⇑P	Pn	21 25 50.1	-0.7
HOQ				⇑P		21 25 50.1	
HOQ	**Hoqain**	2.01	147	P	Pn	21 25 50.1	-0.6
BIDO	**Bidbid**	2.54	133	⇑P	Pn	21 25 56.7	-1.3
	SNR=16						
BIDO				⇑P		21 25 56.7	
	SNR=16						
BIDO	**Bidbid**	2.54	133	P	Pn	21 25 56.7	-1.3
	SNR=16						
SMDO	**Samad**	2.83	141	⇑P	Pn	21 26 03.0	+1.0
	SNR=24						
SMDO				⇑P		21 26 03.0	
	SNR=24						
SMDO	**Samad**	2.83	141	P	Pn	21 26 03.0	+1.0
	SNR=24						
WBK	**Wadi Bani Khal**	3.73	135	⇓P	Pn	21 26 14.9	+0.6
	SNR=18						
WBK				⇓P		21 26 14.9	
	SNR=18						
BTHS		4.94	257	P	Pn	21 26 30.2	-0.8
BTHS		4.94	257	P	Pn	21 26 30.2	-0.8
BTHS				S	Sn	21 27 26.4	-2.0
SLWS		4.97	266	P	Pn	21 26 31.5	0.0
SLWS		4.97	266	P	Pn	21 26 31.5	0.0
SLWS				S	Sn	21 27 28.7	-0.6
BOQSS		6.11	277	P	Pn	21 26 48.1	+1.0
QRN	**Al-Qurain**	8.08	297	*e*P	Pn	21 27 14.4	+0.2
QRN				*e*S	Sn	21 28 41.6	-4.1
QRN	**Al-Qurain**	8.08	297	*e*P	Pn	21 27 14.4	+0.3
KBD	**Kabd**	8.43	299	*e*P	Pn	21 27 19.2	+0.1
KBD				*e*S	Sn	21 28 49.1	-5.4
KBD				AML	AML	21 28 51.1	
	comp=Z,11nm,0.4s						
KBD	**Kabd**	8.43	299	*e*P	Pn	21 27 19.2	+0.2
RDF	**Al-Radifah**	8.45	297	*e*P	Pn	21 27 19.0	-0.2
RDF				*e*S	Sn	21 28 49.9	-4.9
RDF				AML	AML	21 28 52.8	
	comp=Z,27nm,0.4s						
RDF	**Al-Radifah**	8.45	297	*e*P	Pn	21 27 19.0	-0.2
LYLS		8.74	250	P	Pn	21 27 21.4	-1.8
NAY	**Al-Naaiem**	8.82	299	*e*P	Pn	21 27 24.0	-0.4
NAY				*e*S	Sn	21 28 58.3	-5.7
NAY				AML	AML	21 29 01.8	
	comp=Z,14nm,0.7s						
NAY	**Al-Naaiem**	8.82	299	*e*P	Pn	21 27 24.0	-0.3
MIB	**Mutribah**	8.99	302	*e*P	Pn	21 27 26.2	-0.4
MIB				*e*S	Sn	21 29 01.4	-6.8
MIB				AML	AML	21 29 03.3	
	comp=Z,24nm,0.5s						
MIB	**Mutribah**	8.99	302	*e*P	Pn	21 27 26.2	-0.5
GNI	**Garni**	17.62	330	P	Pn	21 29 23.9	+1.5
	comp=Z,0.3nm,0.3s,baz=152,slow=3.4,SNR=4.9						
GNI	**Garni**	17.62	330	*e*Pn	Pn	21 29 24.2	+1.8
GNI	**Garni**	17.62	330	P	Pn	21 29 23.9	+1.5
ASF	**Jabal al Asfar**	18.18	297	P	Pn	21 29 31.5	+2.2
	comp=Z,0.2nm,0.3s,baz=360,slow=9.1,SNR=4.6						
EIL	**Elat**	19.27	288	P	Pn	21 29 43.0	+0.4
	comp=Z,0.4nm,0.3s,baz=107,slow=17,SNR=2.2						
EIL	**Elat**	19.27	288	P	Pn	21 29 43.0	+0.4
MMAI	**Mount Meron Ar**	19.64	298	P	Pn	21 29 46.9	-0.1
	comp=Z,0.6nm,0.3s,baz=96,slow=14,SNR=5.7						
MMAI				LR	LR	21 38 52.6	
	comp=Z,33nm,19.7s,baz=70,slow=41						
MALT	**Malatya**	19.82	315	*e*P	Pn	21 29 49.1	0.0
MALT				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MALT	**Malatya**	19.82	315	*e*P	Pn	21 29 49.1	-0.1
	comp=Z,4.0nm,0.8s						
MALT	**Malatya**	19.82	315	*e*P	Pn	21 29 49.1	0.0
	comp=Z,4.0nm,0.8s						
KIV	**Kislovodsk**	21.61	333	*i* P	P	21 30 10.1	+3.2
KIV				*e**PP		21 30 41.5	
KIV				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.4						
KIV	**Kislovodsk**	21.61	333	*e*P	P	21 30 10.2	+3.3
	comp=Z,4.5nm,0.9s,mb3.9						
BRTR	**Keskin Array B**	23.72	313	P	P	21 30 30.0	+0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	23.72	313	P	P	21 30 30.0	+0.9
	comp=Z,1.2nm,0.7s,mb3.4,baz=132,slow=13,SNR=8.8						
BRTR	**Keskin Array B**	23.72	313	P	P	21 30 30.0	+0.9
	comp=Z,1.0nm,0.7s,mb3.4						
AKTK	**Aktyubinsk**	25.16	3	P	P	21 30 42.6	+0.5
AKTK	**Aktyubinsk**	25.16	3	P	P	21 30 42.6	+0.5
	comp=Z,3.0nm,0.5s,mb4.1						
AKTO	**Aktyubinsk**	25.16	3	P	P	21 30 42.6	+0.5
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.1						
AKTO	**Aktyubinsk**	25.16	3	P	P	21 30 42.6	+0.5
	comp=Z,3.1nm,0.5s,mb4.1,baz=186,slow=10.0,SNR=11						
BVAR	**Borovoye Array**	29.73	17	P	P	21 31 23.6	+0.5
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BVAR	**Borovoye Array**	29.73	17	P	P	21 31 23.6	+0.5
	comp=Z,0.8nm,0.5s,mb3.7,baz=170,slow=8.8,SNR=3.6						
BVAR	**Borovoye Array**	29.73	17	P	P	21 31 23.6	+0.5
	comp=Z,1.0nm,0.5s,mb3.8						
MKAR	**Makanchi Array**	29.92	37	P	P	21 31 25.6	+0.8
	comp=Z,0.4nm,0.7s,mb3.3,baz=225,slow=6.6,SNR=6.2						
MKAR	**Makanchi Array**	29.92	37	P	P	21 31 25.6	+0.8
KURK	**Kurchatov**	30.74	28	P	P	21 31 31.5	-0.6
KURK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.7						
KURK	**Kurchatov**	30.74	28	P	P	21 31 31.5	-0.6
	comp=Z,0.7nm,0.8s,mb3.6,baz=227,slow=9.0,SNR=3.5						
KURK	**Kurchatov**	30.74	28	P	P	21 31 31.5	-0.6
	comp=Z,1.0nm,0.8s,mb3.7						
NVS	**Novosibirsk**	35.66	27	*e*P	P	21 32 14.8	-0.1
NVS	**Novosibirsk**	35.66	27	*e*P	P	21 32 14.8	-0.1
ZALV	**Zalesovo Beam**	35.72	29	P	P	21 32 14.7	-0.8
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
ZALV	**Zalesovo Beam**	35.72	29	P	P	21 32 14.7	-0.8
	comp=Z,0.8nm,0.3s,mb4.2,baz=229,slow=8.8,SNR=5.8						
GERES	**GERESS Array B**	40.50	317	P	P	21 32 57.0	+1.2
	comp=Z,0.2nm,0.4s,baz=111,slow=7.6,SNR=5.2						
GERES	**GERESS Array B**	40.50	317	P	P	21 32 57.0	+1.2
HFS	**Hagfors**	45.40	332	P	P	21 33 35.4	+0.1
HFS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
HFS	**Hagfors**	45.40	332	P	P	21 33 35.4	+0.1
	comp=Z,2.8nm,0.7s,mb4.2,baz=106,slow=9.4,SNR=7.3						
HFS	**Hagfors**	45.40	332	P	P	21 33 35.4	+0.1
	comp=Z,3.0nm,0.7s,mb4.2						
NOA	**NORSAR Array B**	46.91	332	P	P	21 33 46.4	-0.8
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	**NORSAR Array B**	46.91	332	P	P	21 33 46.4	-0.8
	comp=Z,1.8nm,0.8s,mb4.0,baz=121,slow=8.2,SNR=3.9						
NOA	**NORSAR Array B**	46.91	332	P	P	21 33 46.4	-0.8
	comp=Z,2.0nm,0.9s,mb4.0						
ARCES	**ARCESS Array B**	47.81	346	P	P	21 33 54.3	+0.2
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	**ARCESS Array B**	47.81	346	P	P	21 33 54.3	+0.1
	comp=Z,2.3nm,0.6s,mb4.4,baz=140,slow=9.2,SNR=15						
ARCES	**ARCESS Array B**	47.81	346	P	P	21 33 54.3	+0.2
	comp=Z,2.0nm,0.6s,mb4.3						
ESDC	**Sonseca Array**	51.78	302	P	P	21 34 26.4	+1.6
	comp=Z,0.1nm,0.3s,mb3.3,baz=74,slow=6.8,SNR=5.1						
ESDC	**Sonseca Array**	51.78	302	P	P	21 34 26.5	+1.7
TORD	**Torodi Ar. Bea**	52.46	267	P	P	21 34 29.6	-0.6
	comp=Z,3.9nm,0.7s,mb4.4,baz=66,slow=6.2,SNR=23						
TORD	**Torodi Ar. Bea**	52.46	267	P	P	21 34 29.6	-0.6
DBIC	**Dimbokro**	60.95	263	P	P	21 35 29.8	-0.8
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.8s						
DBIC	**Dimbokro**	60.95	263	P	P	21 35 29.8	-0.8
	comp=Z,4.9nm,0.8s,mb4.7,baz=31,slow=5.7,SNR=8.5						
DBIC	**Dimbokro**	60.95	263	P	P	21 35 29.8	-0.8
	comp=Z,5.0nm,0.8s,mb4.7						
BOSA	**Boshof**	61.24	211	P	P	21 35 31.6	-0.6
BOSA				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.2						
BOSA	**Boshof**	61.24	211	P	P	21 35 31.6	-0.6
	comp=Z,2.4nm,1.0s,mb4.3,baz=19,slow=5.7,SNR=4.0						
BOSA	**Boshof**	61.24	211	P	P	21 35 31.6	-0.6
	comp=Z,2.0nm,1.0s,mb4.2						
WRA	**Warramunga Arr**	88.30	113	P	P	21 38 08.1	-1.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	88.30	113	P	P	21 38 08.1	-1.0
	comp=Z,0.9nm,0.7s,mb4.1,baz=306,slow=4.3,SNR=8.4						
WRA	**Warramunga Arr**	88.30	113	P	P	21 38 08.1	-1.0
	comp=Z,1.0nm,0.7s,mb4.2						
ASAR	**Alice Springs**	89.66	116	P	P	21 38 14.6	-0.8
	comp=Z,0.4nm,0.6s,mb3.9,baz=299,slow=5.0,SNR=6.4						
ASAR	**Alice Springs**	89.66	116	P	P	21 38 14.6	-0.8

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*IDC **02** 21:36:03.9±2.7, 14°.74S×167°.59E, h0^{km}, mb3.7/4, mb1 3.8/4, mb1mx3.6/17, mbtmp3.7/4, MS3.9/2, Ms1 3.9/2, ms1mx3.1/21, Error ellipse: s-maj=93.4km s-min=34.3km az=129.0*

*ISCJB **02** 21:36:19.7±2.3, 14°.9S±0°.1×166°.7E±0°.3, h100^{km}, mb3.4/4, Error ellipse: s-maj=46.6km s-min=11.9km az=167.2*

ISC 02 21:36:21.0±2.3**, 14°.9S**±0°.1×**166°.8E**±0°.3**, h100**^{km}**, n9, σ1^{s}.23**/7**, mb3.4**/4**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	7.19	183	*e*P	Pn	21 38 05.4	+2.0
DZM				*e*S	Sn	21 39 23.9	+0.4
ONTRN	**Noumea**	7.42	183	*e*S	Sn	21 39 26.4	-2.9
STKA	**Stephens Creek**	28.59	229	P	P	21 42 08.8	+1.0
	2.6nm,0.5s,mb4.1,baz=46,slow=9.6,SNR=8.9						
WRA	**Warramunga Arr**	31.38	256	P	P	21 42 32.4	-0.1
	0.4nm,1.0s,mb3.1,baz=84,slow=8.0,SNR=3.5						
ASAR	**Alice Springs**	32.23	249	P	P	21 42 39.8	-0.2
	0.5nm,0.5s,mb3.5,baz=75,slow=9.0,SNR=7.5						
MJAR	**Matsushiro Arr**	57.82	333	LR	LR	22 05 32.1	
	comp=Z,130nm,21.9s,baz=115,slow=30						
KSRS	**Korea Array**	63.60	326	LR	LR	22 08 33.1	
	comp=Z,66nm,20.5s,baz=264,slow=30						
SONM	**Songino Array**	82.34	324	P	P	21 48 30.7	-1.0
	0.1nm,0.5s,mb2.9,baz=128,slow=4.1,SNR=2.5						
ARCES	**ARCESS Array B**	120.26	345	PKP	PKPdf	21 54 55.2	-4.5
	1.9nm,0.9s,baz=77,slow=1.9,SNR=4.5						

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*NEIC **02** 21:46:46.8, 32°.32S×71°.70W, h12^{km}, ML2.9(GUC), After GUC.*

GUC 02 21:46:46.8±0.7**, 32°.32S×71°.70W, h12**^{km}±4^{km}**, MD3.5, ML2.9, 6C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	**Los Chungos**	0.47	21	⇑*i*P	Pg	21 46 56.5	+0.4
CHNG				*i* S	Sg	21 47 03.4	+1.1
CHNG				*i* S	Sg	21 47 03.8	+1.4
JACH	**Jahuel**	1.00	111	⇑*i*P	Pb	21 47 05.2	-0.9
JACH				*i* S	Sg	21 47 18.9	-0.2
PEL	**Peldehue**	1.18	134	⇓*i*P	Pn	21 47 08.2	-1.0
PEL				*i* S	Sb	21 47 23.7	-0.8
PEL				AML	AML	21 47 24.5	
	comp=N,1µm,0.4s						
CMCH	**Combarbala**	1.29	28	⇓*i*P	Pn	21 47 09.1	-1.6
CMCH				*i* S	Sb	21 47 26.4	-1.3
CMCH	**Combarbala**	1.29	28	⇓*i*P	Pn	21 47 09.1	-1.6
CMCH				*i* S	Sb	21 47 26.4	-1.3
CMCH				AML	AML	21 47 33.3	
	comp=E,1µm,0.7s						
RCDM	**Rinconada Maip**	1.38	147	⇑*i*P	Pn	21 47 10.6	-1.3
RCDM				*i* S	Sn	21 47 29.0	-1.2
RCDM				AML	AML	21 47 29.6	
	comp=N,263nm,0.2s						
TACH	**Talagante**	1.47	154	⇑*i*P	Pn	21 47 12.1	-1.1
TACH				*i* S	Sn	21 47 32.2	-0.2
ANTU	**Antumapu**	1.53	144	AML	AML	21 47 37.1	
	comp=E,127nm,0.6s						
FCH	**Farellones**	1.55	131	⇑*i*P	Pn	21 47 13.2	-1.1
FCH				*i* S	Sn	21 47 34.0	-0.3
FCH				AML	AML	21 47 35.8	
	comp=E,188nm,0.3s						
PCH	**Pirque**	1.63	143	*i* P	Pn	21 47 15.1	-0.2
PCH				*i* S	Sn	21 47 36.8	+0.5
CHCH	**Chadas Angostu**	1.83	152	⇑*i*P	Pn	21 47 18.2	+0.1
CHCH				*i* S	Sn	21 47 41.8	+0.6
LMEL	**Las Melosas**	1.97	141	⇓*i*P	Pn	21 47 20.6	+0.6
LMEL				*i* S	Sn	21 47 46.6	+1.9
LMEL	**Las Melosas**	1.97	141	⇓*i*P	Pn	21 47 20.6	+0.6
LMEL				*i* S	Sn	21 47 46.6	+1.9
LMEL				AML	AML	21 47 51.6	
	comp=N,135nm,0.2s						
CICH	**Cipreses**	2.26	152	*i* P	Pn	21 47 25.1	+1.1
CICH				*i* S	Sn	21 47 54.3	+2.5

NEIC 02 21:49:58.4, 44°.91S×167°.39E, h118^{km}**, MG4.5**(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	**Milford Sound**	0.45	58	P	Pn	21 50 16.3	+0.5
MSZ				S	Sn	21 50 28.7	-0.2
DCZ	**Deep Cove**	0.59	196	P	Pn	21 50 16.1	-0.6
DCZ				S	Sn	21 50 29.5	-1.0
MLZ	**Mavora Lakes**	0.71	129	P	Pn	21 50 17.3	-0.3
MLZ				S	Sn	21 50 31.3	-0.7
WKZ	**Wanaka**	1.16	87	P	Pn	21 50 22.0	+0.2
JCZ	**Jackson Bay**	1.29	50	P	Pn	21 50 23.2	0.0
JCZ				S	Sn	21 50 41.1	-1.0
EAZ	**Earnscleugh**	1.40	104	P	Pn	21 50 24.2	-0.3
TUZ	**Tuapeka**	1.89	124	P	Pn	21 50 29.8	-0.6
LBZ	**Lake Benmore**	2.06	76	P	Pn	21 50 31.1	-1.4
FOZ	**Fox Glacier**	2.13	52	P	Pn	21 50 33.1	-0.2
ODZ	**Otahua Downs**	2.31	94	P	Pn	21 50 34.4	-1.2
RPZ	**Rata Peaks**	2.89	67	P	Pn	21 50 41.2	-1.9
WVZ	**Waitaha Valley**	3.03	54	P	Pn	21 50 43.3	-1.7
MQZ	**McQueen's Vall**	3.96	74	P	Pn	21 50 55.9	-1.4
CRLZ	**Canterbury Las**	3.99	72	P	Pn	21 50 57.0	-0.7
LTZ	**Lake Taylor**	4.12	61	P	Pn	21 50 56.8	-2.6
DSZ	**Denniston Nort**	4.51	47	P	Pn	21 51 02.9	-1.8
THZ	**Tophouse**	5.11	54	P	Pn	21 51 10.2	-2.5
KHZ	**Kahutara**	5.11	63	P	Pn	21 51 10.7	-2.0
QRZ	**Quartz Range**	5.56	45	P	Pn	21 51 17.0	-1.8
NNZ	**Nelson**	5.73	52	P	Pn	21 51 20.0	-1.1
TCW	**Tory Channel**	6.25	56	P	Pn	21 51 26.7	-1.5
SNZO	**South Karori**	6.45	59	*e*Pn	Pn	21 51 29.6	-1.2
SNZO				*e*Sn	Sn	21 52 36.8	-6.2
CAW	**Cannon Point**	6.79	59	P	Pn	21 51 32.5	-2.9
KIW	**Kapiti Island**	6.84	56	P	Pn	21 51 33.7	-2.5
MTW	**Mount Morrison**	7.03	61	P	Pn	21 51 34.5	-4.1

IDC 02 21:55:01.6±1.1**, 18°.04S×177°.61W, h0**^{km}**, mb3.8**/6**, mb1 4.1**/6**, mb1mx3.8**/18**, mbtmp3.8**/6**, Error ellipse: s-maj=49.2km s-min=22.1km az=147.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	20.66	192	P	P	21 59 42.8	-0.1
	7.1nm,1.2s,baz=349,slow=18,SNR=4.7						
STKA	**Stephens Creek**	39.23	242	P	P	22 02 32.2	+0.4
	2.1nm,0.6s,baz=58,slow=13,SNR=7.9						
WRA	**Warramunga Arr**	45.35	260	P	P	22 03 21.5	-0.4
	0.4nm,0.5s,baz=98,slow=6.6,SNR=12						
ASAR	**Alice Springs**	45.48	254	P	P	22 03 22.8	-0.1
	1.4nm,0.4s,baz=90,slow=8.6,SNR=40						
NVAR	**Mina Array Bea**	79.00	43	P	P	22 07 07.6	+0.1
	0.2nm,0.5s,baz=225,slow=8.9,SNR=3.1						
TXAR	**Lajitas Array**	85.43	57	P	P	22 07 42.0	+0.6
	0.3nm,0.7s,baz=211,slow=6.3,SNR=4.5						

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*ISCJB **02** 21:58:13.9±0.9, 24°.6N±0°.1×94°.8E±0°.2, h107^{km}±14^{km}, mb3.2/4, Error ellipse: s-maj=32.1km s-min=10.6km az=139.7*

*NEIC **02** 21:58:15.7±1.2, 24°.67N×94°.89E, h111^{km}±17^{km}, Error ellipse: s-maj=61.2km s-min=11.3km az=61.0*

*IDC **02** 21:58:17.4±3.7, 24°.60N×95°.00E, h127^{km}±35^{km}, mb3.0/4, mb1 3.1/5, mb1mx2.9/24, mbtmp2.9/5, Error ellipse: s-maj=59.5km s-min=17.9km az=70.0*

ISC 02 21:58:15.2±0.8**, 24°.6N**±0°.1×**94°.8E**±0°.2**, h101**^{km}±13^{km}**, n9, σ1^{s}.10**/12**, mb3.2**/4**, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	**Imphal**	0.84	280	*e*PKP	Pn	21 58 33.0	-1.0
IMP				*e*S	Sn	21 58 47.0	-1.1
SHL	**Shillong**	2.83	290	*e*PN	Pn	21 59 00.5	+1.8
SHL				*e*SN	Sn	21 59 32.5	+0.2
LSA	**Lhasa**	6.02	328	*e*Pn	Pn	21 59 41.8	+0.1
	2.9nm,0.3s						
LSA				*e*Sn	Sn	22 00 43.0	-6.2
CHTO	**Chiang Mai**	6.94	146	Pn	Pn	21 59 55.4	+1.1
CMAR	**Chiang Mai Arr**	7.24	147	P	Pn	21 59 59.2	+0.9
	0.1nm,0.3s,baz=320,slow=13,SNR=14						
MKAR	**Makanchi Array**	24.28	339	P	P	22 03 24.4	+1.5
	0.2nm,0.3s,mb2.9,baz=146,slow=11,SNR=6.0						
SONM	**Songino Array**	24.90	19	P	P	22 03 27.7	-0.8
	0.3nm,0.7s,mb2.9,baz=204,slow=6.3,SNR=3.3						
WRA	**Warramunga Arr**	58.66	136	P	P	22 08 00.7	-1.4
	0.3nm,0.4s,mb3.7,baz=322,slow=7.4,SNR=15						
ASAR	**Alice Springs**	61.16	139	P	P	22 08 18.1	-1.1
	0.2nm,0.5s,mb3.4,baz=322,slow=6.4,SNR=6.4						

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*ISCJB **02** 22:23:30.5±0.4, 32°.97N±0°.03×15°.14W±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=3.5km az=37.9*

*CSEM **02** 22:23:32.9±0.2, 33°.01N×15°.20W, h10^{km}, ML2.4, Error ellipse: s-maj=7.3km s-min=4.3km az=130.0*

*NEIC **02** 22:23:33.6, 33°.03N×15°.24W, h2^{km}, MG3.8(MDD), After MDD.*

*MDD **02** 22:23:36.3±0.7, 33°.15N×15°.27W, h42^{km}±70^{km}, mb4.2/4, Error ellipse: s-maj=13.8km s-min=6.4km az=125.0, PRIMO*

*INMG **02** 22:23:38.7±2.0, 33°.19N×15°.28W, h0^{km}, ML2.4, Error ellipse: s-maj=6.2km s-min=2.9km az=128.0*

ISC 02 22:23:32.2±0.4**, 33°.01N**±0°.03×**15°.19W**±0°.04**, h10**^{km}**, n51, σ1^{s}.28**/92**, Madeira Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMPS	**Porto Santo**	0.96	273	*e*P	Pg	22 23 51.9	+1.3

PMPS				eS	Sg	22 24 02.3	-0.8
PMPS				A		22 24 03.3	
	76nm,0.2s						
PMPS	Porto Santo	0.96	273	P	Pg	22 23 51.9	+1.3
PMPS				S	Sg	22 24 02.3	-0.8
	38nm,0.2s						
PMPS	Porto Santo	0.96	273	eP	Pg	22 23 51.9	+1.3
PMPS				eS	Sg	22 24 02.3	-0.8
	76nm,0.2s						
PMAR	Madeira	1.47	259	eP	Pn	22 24 00.5	+1.7
PMAR				eS	Sn	22 24 16.7	-1.4
PMAR				A		22 24 22.2	
	72nm,0.2s						
PMAR	Madeira	1.47	259	P	Pn	22 24 00.5	+1.7
PMAR				S	Sn	22 24 16.7	-1.4
	36nm,0.2s						
PMAR	Madeira	1.47	259	eP	Pn	22 24 00.5	+1.7
PMAR				eS	Sn	22 24 16.7	-1.4
	72nm,0.2s						
FUL	Funchal	1.48	256	eS	Sn	22 24 16.4	-1.9
FUL	Funchal	1.48	256	eS	Sn	22 24 16.4	-1.9
EFAM	Famara	4.12	159	S	Sn	22 25 24.3	+0.8
	59nm,1.2s,SNR=7.9						
EFAM	Famara	4.12	159	P	Pn	22 24 36.3	+1.1
EFAM				S	Sn	22 25 24.3	+0.8
EFAM	Famara	4.12	159	P	Pn	22 24 36.3	+1.1
EFAM				S	Sn	22 25 24.3	+0.9
	59nm,1.2s,SNR=7.9						
CFUE	Fuerteventura	4.48	166	P	Pn	22 24 43.8	+3.7
	2.2nm,0.1s,SNR=7.9						
CFUE				S	Sn	22 25 30.9	-1.3
	22nm,4.2s,SNR=7.9						
CFUE	Fuerteventura	4.48	166	P	Pn	22 24 43.8	+3.7
	2.2nm,0.1s,SNR=7.9						
CFUE				S	Sn	22 25 30.9	-1.3
	22nm,4.2s,SNR=7.9						
EBAJ	Bajamar	4.56	193	S	Sn	22 25 34.5	+0.2
	6.6nm,0.5s,SNR=7.9						
EBAJ	Bajamar	4.56	193	S	Sn	22 25 34.5	+0.2
	6.6nm,0.5s,SNR=7.9						
CFTV	Fuerteventura	4.68	168	S	Sn	22 25 35.8	-1.4
	622nm,5.5s,SNR=7.9						
CFTV	Fuerteventura	4.68	168	P	Pn	22 24 45.4	+2.6
CFTV				S	Sn	22 25 35.8	-1.4
CFTV	Fuerteventura	4.68	168	P	Pn	22 24 45.4	+2.6
CFTV				S	Sn	22 25 35.8	-1.3
	622nm,5.5s,SNR=7.9						
CCAN	Las Canadas	4.92	195	P	Pn	22 24 47.9	+1.7
	0.6nm,0.3s,SNR=7.9						
CCAN				S	Sn	22 25 42.5	-0.7
	4.6nm,0.8s,SNR=7.9						
CCAN	Las Canadas	4.92	195	P	Pn	22 24 47.9	+1.7
	0.6nm,0.3s,SNR=7.9						
CCAN				S	Sn	22 25 42.5	-0.7
	4.6nm,0.8s,SNR=7.9						
EOSO	Osorio	4.93	184	S	Sn	22 25 42.4	-0.9
	7.0nm,0.5s,SNR=7.9						
EOSO	Osorio	4.93	184	S	Sn	22 25 42.4	-0.9
	7.0nm,0.5s,SNR=7.9						
CHIO	Chio	4.95	197	P	Pn	22 24 48.4	+1.8
	3.3nm,0.1s,SNR=7.9						
CHIO				S	Sn	22 25 43.7	-0.2
	4.5nm,0.4s,SNR=7.9						
CHIO	Chio	4.95	197	P	Pn	22 24 48.4	+1.8
	3.3nm,0.1s,SNR=7.9						
CHIO				S	Sn	22 25 43.7	-0.2
	4.5nm,0.4s,SNR=7.9						
EGOM	La Gomera	5.13	200	P	Pn	22 24 50.6	+1.5
	0.9nm,0.1s,SNR=4.0						
EGOM				S	Sn	22 25 46.9	-1.5
	35nm,0.5s,SNR=7.9						
EGOM	La Gomera	5.13	200	P	Pn	22 24 49.9	+0.8
EGOM				S	Sn	22 25 46.9	-1.5
EGOM	La Gomera	5.13	200	P	Pn	22 24 49.9	+0.8
EGOM				S	Sn	22 25 46.9	-1.5
	35nm,0.5s,SNR=7.9						
PFVI	Vila Bisbo	6.65	50	ePn	Pn	22 25 09.6	-0.3
PFVI				eSn	Sn	22 26 18.4	-7.3
PFVI	Vila Bisbo	6.65	50	ePn	Pn	22 25 09.6	-0.3
PFVI				eSn	Sn	22 26 18.4	-7.3
MORF	Marmelete	6.86	49	ePn	Pn	22 25 12.8	-0.1
MORF				eSn	Sn	22 26 24.6	-6.4
MORF	Marmelete	6.86	49	ePn	Pn	22 25 12.8	-0.1
MORF				eSn	Sn	22 26 24.6	-6.4
PBDV	Barranco-do-Ve	7.30	53	ePn	Pn	22 25 19.8	+1.0
PBDV				eSn	Sn	22 26 34.2	-7.5
PBDV	Barranco-do-Ve	7.30	53	ePn	Pn	22 25 19.8	+1.0
PBDV				eSn	Sn	22 26 34.2	-7.5
PVAQ	Vaqueiros	7.53	52	ePn	Pn	22 25 22.6	+0.6
PVAQ				eSn	Sn	22 26 38.9	-8.5
PVAQ				A		22 26 45.7	
	1.5nm,0.7s						
PVAQ	Vaqueiros	7.53	52	P	Pn	22 25 22.6	+0.6
PVAQ				S	Sn	22 26 38.9	-8.5
	1.5nm,0.7s						
PVAQ	Vaqueiros	7.53	52	ePn	Pn	22 25 22.6	+0.6
PVAQ				eSn	Sn	22 26 38.9	-8.5
	1.5nm,0.7s						
EGRO	El Granado	7.76	52	P	Pn	22 25 26.5	+1.4
	0.9nm,0.3s,SNR=4.0						
EGRO				S	Sn	22 26 45.2	-7.8
	8.7nm,0.8s,SNR=7.9						
EGRO	El Granado	7.76	52	P	Pn	22 25 27.4	+2.3
EGRO				S	Sn	22 26 49.0	-3.9
EGRO	El Granado	7.76	52	P	Pn	22 25 26.5	+1.4
	0.9nm,0.3s,SNR=4.0						
EGRO				S	Sn	22 26 45.2	-7.8
	8.7nm,0.8s,SNR=7.9						
EMIN	Mina Concepcio	8.42	53	P	Pn	22 25 35.7	+1.5
	0.4nm,0.3s,SNR=7.9						
EMIN				S	Sn	22 27 04.1	-5.3
	5.4nm,1.0s,SNR=7.9						
EMIN	Mina Concepcio	8.42	53	P	Pn	22 25 36.3	+2.0
EMIN				S	Sn	22 27 06.0	-3.4
EMIN	Mina Concepcio	8.42	53	P	Pn	22 25 35.7	+1.4
	0.4nm,0.3s,SNR=7.9						
EMIN				S	Sn	22 27 04.1	-5.3
	5.4nm,1.0s,SNR=7.9						
ESPR	Espera	8.58	61	P	Pn	22 25 38.5	+2.1
ESPR				S	Sn	22 27 08.3	-4.9
ESPR	Espera	8.58	61	P	Pn	22 25 38.5	+2.1
ESPR				S	Sn	22 27 06.7	-6.5
	13nm,0.8s,SNR=7.9						
EBAD	Badajoz	8.77	47	P	Pn	22 25 39.4	+0.4
	0.9nm,0.3s,SNR=5.9						
EBAD				S	Sn	22 27 09.2	-8.8
	1.0nm,0.2s,SNR=7.9						
EBAD	Badajoz	8.77	47	P	Pn	22 25 39.6	+0.6
EBAD				S	Sn	22 27 11.9	-6.0
EBAD	Badajoz	8.77	47	P	Pn	22 25 39.6	+0.6
EBAD				S	Sn	22 27 09.2	-8.7
	1.0nm,0.2s,SNR=7.9						
PMRV	Marv??o	8.99	42	ePn	Pn	22 25 41.3	-0.7
PMRV	Marv??o	8.99	42	ePn	Pn	22 25 41.3	-0.7
EADA	Adamuz	10.06	56	P	Pn	22 25 57.2	+0.5
	0.3nm,0.2s,SNR=7.9						
EADA				S	Sn	22 27 44.5	-5.1
	14nm,1.2s,SNR=7.9						
EADA	Adamuz	10.06	56	P	Pn	22 25 57.2	+0.5
	0.3nm,0.2s,SNR=7.9						
EADA				S	Sn	22 27 44.5	-5.1
	14nm,1.2s,SNR=7.9						

IDC 02 22:36:06.9±1.8**, 3°.58S×134°.21E, h0**^{km}**, mb4.0**/1**,**
mb1 3.8/4**, mb1mx3.5**/16**, mbtmp3.6**/4**, ML3.5**/2**, Error ellipse: s-maj=130.3km s-min=26.4km az=97.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	16.26	180	Pn	Pn	22 39 58.9	+2.0
	0.2nm,0.3s,baz=359,slow=12,SNR=12						
FITZ	Fitzroy Crossi	16.70	210	Pn	Pn	22 40 02.2	-0.2
	0.2nm,0.3s,baz=38,slow=10,SNR=6.5						
ASAR	Alice Springs	19.97	181	P	Pn	22 40 40.2	-2.3
	0.1nm,0.3s,baz=5.7,slow=13,SNR=7.4						
MJAR	Matsushiro Arr	40.09	5	P	P	22 43 44.1	-0.1
	1.1nm,0.8s,baz=176,slow=8.5,SNR=4.3						

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*ISCJB **03** 00:03:28.7±0.8, 38°.14N±0°.02×21°.95E±0°.02, h15^{km}±5^{km}, mb3.8/10, Error ellipse: s-maj=3.0km s-min=2.4km az=145.9*
*NEIC **03** 00:03:28.3, 38°.15N×21°.95E, h20^{km}, ML3.3(ATH), After ATH.*
NEIC Felt at Patrai.
*THE **03** 00:03:28.5, 38°.17N×21°.98E, h0^{km}±1^{km}, ML4.1/6, Error ellipse: s-maj=1.8km s-min=0.6km az=188.0*
*ATH **03** 00:03:28.3, 38°.15N×21°.95E, h20^{km}, MD3.7/17, ML3.3*
*CSEM **03** 00:03:30.2±0.2, 38°.13N×21°.97E, h19^{km}, ML3.3, Error ellipse: s-maj=4.6km s-min=3.3km az=55.0*
*IDC **03** 00:03:33.6±2.3, 38°.05N×22°.07E, h49^{km}±28^{km}, mb3.5/11, mb1 3.5/14, mb1mx3.5/26, mbtmp3.5/14, ML3.2/3, MS2.8/1, Ms1 2.8/1, ms1mx2.1/34, Error ellipse: s-maj=18.8km s-min=16.0km az=127.0*
*SOF **03** 00:03:42.0, 39°.13N×22°.22E, h13^{km}, MD2.8*
ISC 03 00:03:29.3±0.4**, 38°.14N**±0°.02×**21°.98E**±0°.02**, h10**^{km}±2^{km}**,**
n164, σ1.^{s}13/216**, mb3.8**/10**, 3C-3D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EFP	Efpalio	0.29	349	ePB	Pg	00 03 34.4	-0.8
EFP				eSB	Sg	00 03 39.4	+0.3
EFP	Efpalio	0.29	349	ePb	Pg	00 03 34.4	-0.8
EFP				eSb	Sg	00 03 39.4	+0.3
GUR	Goura	0.35	125	ePB	Pg	00 03 36.3	0.0
GUR				eSB	Sg	00 03 42.0	+1.0
GUR	Goura	0.35	125	ePb	Pg	00 03 36.3	0.0
GUR				eSb	Sg	00 03 42.0	+1.0
RLS	Riolos of Patr	0.41	259	ePB	Pg	00 03 36.4	-0.9
RLS				eSB	Sg	00 03 42.9	+0.1
RLS	Riolos of Patr	0.41	259	ePb	Pg	00 03 36.4	-0.9
RLS				eSb	Sg	00 03 42.9	+0.1
EVR	Evrytania	0.79	350	⇑iPN	Pn	00 03 42.8	-3.6
LTK	Loutraki	0.79	98	P	Pg	00 03 44.0	-0.5
LTK				S	Sg	00 03 54.9	+0.1
LTK	Loutraki	0.79	98	ePN	Pg	00 03 44.0	-0.5
LTK				eSN	Sn	00 03 55.5	-2.8
LTK	Loutraki	0.79	98	ePn	Pg	00 03 44.0	-0.5
LTK				S	Sg	00 03 54.9	+0.1
VLX	Vlachokerasia	0.83	157	ePN	Pn	00 03 44.6	-2.4
VLX				eSN	Sn	00 03 57.5	-1.8
VLX	Vlachokerasia	0.83	157	ePn	Pn	00 03 44.6	-2.4
VLX				eSn	Sn	00 03 57.5	-1.8
AGG	Agios Georgios	0.92	17	P	Pg	00 03 44.8	-2.3
AGG				S	Sg	00 03 59.2	+0.1
AGG	Agios Georgios	0.92	17	ePB	Pb	00 03 45.3	-2.1
AGG				eSN	Sn	00 03 58.8	-2.8
AGG	Agios Georgios	0.92	17	ePb	Pb	00 03 45.3	-2.1
AGG				S	Sg	00 03 59.2	+0.1
LKR	Lokris	0.95	57	P	Pg	00 03 46.3	-1.3
LKR				S	Sg	00 04 00.7	+0.7
LKR	Lokris	0.95	57	ePN	Pn	00 03 46.6	-2.1
LKR				eSN	Sn	00 04 00.6	-1.7
LKR	Lokris	0.95	57	ePn	Pn	00 03 46.6	-2.1
LKR				eSn	Sn	00 04 00.6	-1.7
ITM	Ithomi	0.96	182	ePN	Pn	00 03 46.8	-1.9
ITM	Ithomi	0.96	182	ePn	Pn	00 03 46.8	-1.9
VLS	Valsamata	1.09	272	P	Pb	00 03 48.7	-1.6
VLS				S	Sg	00 04 05.5	+1.0
VLS	Valsamata	1.09	272	ePN	Pn	00 03 48.4	-2.2
VLS				eSN	Sn	00 04 04.7	-1.1
VLS	Valsamata	1.09	272	ePn	Pn	00 03 48.4	-2.2
VLS	Valsamata	1.09	272	P	Pb	00 03 48.7	-1.6
VLS				eSn	Sn	00 04 04.7	-1.1
VLS				S	Sg	00 04 05.5	+1.0
DID	Didima	1.18	122	ePN	Pn	00 03 50.8	-1.0
DID				eSN	Sn	00 04 08.1	+0.2
DID	Didima	1.18	122	ePn	Pn	00 03 50.8	-1.0
DID				eSn	Sn	00 04 08.1	+0.2
NAIG	Nisos Aigina	1.25	107	ePN	Pn	00 03 52.5	-0.3
NAIG	Nisos Aigina	1.25	107	ePn	Pn	00 03 52.5	-0.3
PYL	PYLOS	1.26	189	P	Pn	00 03 52.3	-0.5
PYL				S	Sb	00 04 12.0	+2.8
PYL	PYLOS	1.26	189	ePN	Pn	00 03 52.3	-0.5
PYL				eSN	Sn	00 04 09.4	-0.4
PYL	PYLOS	1.26	189	ePn	Pn	00 03 52.3	-0.5
PYL				eSn	Sn	00 04 09.4	-0.4
PYL				S	Sb	00 04 12.0	+2.8
ATH	Athens Observa	1.38	96	ePN	Pn	00 03 54.6	0.0
ATH				eSN	Sn	00 04 14.0	+1.1
ATH	Athens Observa	1.38	96	ePn	Pn	00 03 54.6	0.0
ATH				eSn	Sn	00 04 14.0	+1.1
THL	Klokotos Trika	1.42	1	P	Pn	00 03 54.5	-0.6
THL				S	Sn	00 04 14.9	+1.0
THL	Klokotos Trika	1.42	1	ePN	Pn	00 03 54.8	-0.3
THL				eSN	Sn	00 04 14.6	+0.7
THL	Klokotos Trika	1.42	1	ePn	Pn	00 03 54.8	-0.3
THL				eSn	Sn	00 04 14.6	+0.7
PTL	Penteli	1.49	93	ePN	Pn	00 03 56.0	-0.1
PTL				eSN	Sn	00 04 15.4	-0.2
PTL	Penteli	1.49	93	ePn	Pn	00 03 56.0	-0.1
PTL				eSn	Sn	00 04 15.4	-0.2
NEO	Neokhori	1.52	40	ePN	Pn	00 03 56.0	-0.5
NEO	Neokhori	1.52	40	ePn	Pn	00 03 56.0	-0.5
XOR	Xorichti	1.55	37	P	Pn	00 03 56.2	-0.7
XOR				S	Sn	00 04 18.0	+1.0
XOR	Xorichti	1.55	37	P	Pn	00 03 56.2	-0.7
XOR				S	Sn	00 04 18.0	+1.0
VLI	Veliai	1.61	151	ePN	Pn	00 03 58.0	+0.3
VLI	Veliai	1.61	151	ePn	Pn	00 03 58.0	+0.3
JAN	Janina	1.75	330	ePN	Pn	00 03 59.7	+0.1
JAN	Janina	1.75	330	ePn	Pn	00 03 59.7	+0.1
AOS	Alonnisos	1.81	55	P	Pn	00 03 59.9	-0.6
AOS	Alonnisos	1.81	55	P	Pn	00 03 59.9	-0.6
IGT	Igoumenitsa	1.89	318	P	Pn	00 04 02.0	+0.4
IGT	Igoumenitsa	1.89	318	P	Pn	00 04 02.0	+0.4
LIT	Litokhoron	2.00	11	P	Pn	00 04 02.6	-0.4
LIT				S	Sn	00 04 29.8	+1.7
LIT	Litokhoron	2.00	11	ePB	Pb	00 04 02.5	-3.2
LIT	Litokhoron	2.00	11	P	Pn	00 04 02.6	-0.4
LIT				S	Sn	00 04 29.8	+1.7
KYTH	Kithira	2.04	155	ePN	Pn	00 04 04.0	+0.4
KYTH	Kithira	2.04	155	ePn	Pn	00 04 04.0	+0.4
KZN	Kozani	2.17	356	ePN	Pn	00 04 05.9	+0.5
KZN	Kozani	2.17	356	ePn	Pn	00 04 05.9	+0.5
PAIG	Paliouri	2.22	36	P	Pn	00 04 05.1	-1.0
PAIG	Paliouri	2.22	36	P	Pn	00 04 05.1	-1.0
KEK	Kerkira	2.31	313	ePB	Pb	00 04 07.9	-3.1
PLG	Polygyros	2.50	27	P	Pn	00 04 09.0	-1.0
PLG	Polygyros	2.50	27	ePN	Pn	00 04 09.1	-0.9
PLG	Polygyros	2.50	27	ePn	Pn	00 04 09.1	-0.9
HORT	Hortiatis	2.60	19	P	Pn	00 04 10.6	-0.8
HORT	Hortiatis	2.60	19	P	Pn	00 04 10.6	-0.8
THE	Thessaloniki	2.60	17	P	Pn	00 04 10.8	-0.6
THE	Thessaloniki	2.60	17	P	Pn	00 04 10.8	-0.6
FNA	Florina	2.68	350	P	Pn	00 04 12.7	+0.3
FNA				S	Sn	00 04 45.1	+0.2
FNA	Florina	2.68	350	P	Pn	00 04 12.7	+0.3
FNA				S	Sn	00 04 45.1	+0.2
OUR	Ouranopolis	2.69	35	P	Pn	00 04 11.8	-0.7
OUR	Ouranopolis	2.69	35	P	Pn	00 04 11.8	-0.7
GRG	Griva	2.83	7	P	Pn	00 04 14.5	0.0
GRG	Griva	2.83	7	P	Pn	00 04 14.5	0.0
SOH	Sokhos	2.88	21	P	Pn	00 04 15.1	-0.1
SOH	Sokhos	2.88	21	ePN	Pn	00 04 15.4	+0.2
SOH	Sokhos	2.88	21	ePn	Pn	00 04 15.4	+0.2
BIA	Bitola	2.92	350	P	Pn	00 04 14.8	-0.9
BIA	Bitola	2.92	350	ePn	Pn	00 04 16.3	+0.6
BIA	Bitola	2.92	350	P	Pn	00 04 14.8	-0.9
BIA	Bitola	2.92	350	ePn	Pn	00 04 16.3	+0.6
APE	Apeiranthos	3.02	110	P	Pn	00 04 17.6	+0.5
APE	Apeiranthos	3.02	110	ePN	Pn	00 04 17.8	+0.7
APE	Apeiranthos	3.02	110	ePn	Pn	00 04 17.8	+0.7
LIA	Limnos Island	3.05	54	ePN	Pn	00 04 17.1	-0.4
LIA	Limnos Island	3.05	54	ePn	Pn	00 04 17.1	-0.4
KNT	Kendrikon	3.10	13	P	Pn	00 04 18.2	0.0
KNT	Kendrikon	3.10	13	P	Pn	00 04 18.2	0.0
KARN	Karanos	3.15	150	P	Pn	00 04 19.1	+0.3
KARN	Karanos	3.15	150	P	Pn	00 04 19.1	+0.3
VAY	Valandovo	3.21	8	P	Pn	00 04 19.4	-0.3
VAY	Valandovo	3.21	8	ePn	Pn	00 04 20.7	+1.0
VAY	Valandovo	3.21	8	eP	Pn	00 04 20.1	+0.4
VAY				ePg	Pg	00 04 23.0	-7.8
VAY				eS	Sn	00 04 57.1	-0.9
VAY	Valandovo	3.21	8	P	Pn	00 04 19.4	-0.3
VAY	Valandovo	3.21	8	ePn	Pn	00 04 20.7	+1.0
SIGR	SIGRI	3.22	69	P	Pn	00 04 19.9	+0.1
SIGR	SIGRI	3.22	69	P	Pn	00 04 19.9	+0.1
CHOS	Chios island	3.22	84	P	Pn	00 04 20.4	+0.6
CHOS	Chios island	3.22	84	P	Pn	00 04 20.4	+0.6
SRS	Serrai	3.22	22	P	Pn	00 04 19.5	-0.4
SRS	Serrai	3.22	22	P	Pn	00 04 19.5	-0.4
VAM	Vamos	3.26	146	ePN	Pn	00 04 22.0	+1.6
VAM	Vamos	3.26	146	ePn	Pn	00 04 22.0	+1.6
KRUS	Krusevo	3.27	350	ePn	Pn	00 04 22.4	+1.9
KRUS				eSg	Sn	00 05 03.9	+4.3
KRUS	Krusevo	3.27	350	ePn	Pn	00 04 22.4	+1.8
THR1	Thera Island	3.29	121	P	Pn	00 04 21.6	+0.8
THR1	Thera Island	3.29	121	P	Pn	00 04 21.6	+0.8
PRK	Paraskevi	3.54	70	P	Pn	00 04 24.7	+0.5
PRK	Paraskevi	3.54	70	ePN	Pn	00 04 25.0	+0.8
PRK	Paraskevi	3.54	70	P	Pn	00 04 24.7	+0.5
PRK	Paraskevi	3.54	70	ePn	Pn	00 04 25.0	+0.8
TIR	Tirane	3.59	334	ePn	Pn	00 04 29.2	+4.2
TIR	Tirane	3.59	334	ePn	Pn	00 04 29.2	+4.2
IDI	Anoyia	3.69	140	P	Pn	00 04 25.7	-0.5
	1.6nm,0.3s,baz=310,slow=16,SNR=28						
IDI				S	Sn	00 05 07.5	-2.2
	3.6nm,0.3s,baz=322,slow=18,SNR=3.6						
IDI	Anoyia	3.69	140	P	Pn	00 04 25.7	-0.5
IDI				S	Sn	00 05 07.5	-2.2
MMB	Musomiste	3.70	21	P	Pn	00 04 26.7	+0.3
MMB				S	Sn	00 05 09.1	-0.9
MMB				Sg	Sn	00 05 10.9	+0.9
KKB	Krupnik	3.82	13	P	Pn	00 04 28.1	0.0
KKB				S	Sn	00 05 13.6	+0.6
KKB				Sg	Sn	00 05 14.8	+1.8
SIVA	Sivas	3.86	143	P	Pn	00 04 30.1	+1.4
SIVA	Sivas	3.86	143	P	Pn	00 04 30.1	+1.4
SMG	Samos	3.87	95	ePN	Pn	00 04 29.8	+1.1
SMG	Samos	3.87	95	ePn	Pn	00 04 29.8	+1.1
LAST	Lasithi	4.09	136	P	Pn	00 04 32.6	+0.7
LAST	Lasithi	4.09	136	P	Pn	00 04 32.6	+0.7
NPS	Neapolis	4.10	133	ePN	Pn	00 04 33.2	+1.3
NPS	Neapolis	4.10	133	ePn	Pn	00 04 33.2	+1.3
RZN	Rozhen	4.12	30	P	Pn	00 04 33.9	+1.7
RZN				S	Sn	00 05 27.2	+6.7
ALN	Alexandroupoli	4.18	48	P	Pn	00 04 33.5	+0.5
ALN	Alexandroupoli	4.18	48	P	Pn	00 04 33.5	+0.5
TIP	Timpagrande	4.21	286	P	Pn	00 04 35.5	+2.0
TIP	Timpagrande	4.21	286	P	Pn	00 04 35.5	+2.0
TAR1	Taranto	4.35	305	ePn	Pn	00 04 36.0	+0.6
PE1	Pezze di Greco	4.42	308	ePn	Pn	00 04 37.3	+1.0
PE1				eSn	Sn	00 05 28.0	+0.3
VTS	Vitosha	4.54	12	P	Pn	00 04 39.8	+1.8
VTS				S	Sn	00 05 30.0	-0.9
VTS	Vitosha	4.54	12	P	Pn	00 04 40.8	+2.8
VTS	Vitosha	4.54	12	P	Pn	00 04 40.8	+2.8
BARS	Barje	4.67	359	ePn	Pn	00 04 40.3	+0.5
KARP	Karpathos	4.90	120	ePN	Pn	00 04 44.1	+1.2
KARP	Karpathos	4.90	120	ePn	Pn	00 04 44.1	+1.2
SG1	Sgolgore (BA)	4.91	305	ePn	Pn	00 04 43.4	+0.4
SG1				eSn	Sn	00 05 38.8	-1.0
BOLS	Boljevac	5.68	360	ePn	Pn	00 04 54.7	+1.0
BBLS	Lazići	6.04	342	ePn	Pn	00 04 59.6	+1.0
DIVS	Divibare	6.14	347	ePn	Pn	00 05 01.8	+1.9
VOIR		7.64	16	⇓iP	Pn	00 05 22.3	+1.7
VOIR		7.64	16	⇓iP	Pn	00 05 22.3	+1.7
MLR	Muntele Rosu	7.92	21	⇓iP	Pn	00 05 27.3	+2.9
PLOR	Plostina	8.45	23	⇑iP	Pn	00 05 29.6	-2.1
PLOR	Plostina	8.45	23	⇑iP	Pn	00 05 29.6	-2.1
BR131	Keskin Array S	9.23	77	ePn	Pn	00 05 44.9	+2.6
	0.6nm,0.3s						
BR131	Keskin Array S	9.23	77	ePn	Pn	00 05 44.9	+2.6
	0.6nm,0.3s						
BRTR	Keskin Array B	9.23	77	P	Pn	00 05 45.0	+2.7
	0.3nm,0.3s,baz=261,slow=13,SNR=13						
MMAI	Mount Meron Ar	12.06	111	P	Pn	00 06 22.9	+1.7
	0.2nm,0.3s,baz=302,slow=14,SNR=2.5						
GERES	GERESS Array B	12.26	333	LR	LR	00 11 59.6	
	comp=Z,49nm,19.9s,baz=193,slow=41						
ESDC	Sonseca Array	20.23	282	P	P	00 08 05.1	+0.8
	0.5nm,0.5s,baz=74,slow=11,SNR=6.9						
HFS	Hagfors	22.64	349	P	P	00 08 30.3	+0.2
	4.3nm,1.0s,mb3.9,baz=165,slow=12,SNR=6.7						
NB2	NORSAR Subarra	23.90	347	P	P	00 08 42.8	0.0
	comp=Z,9.0nm,1.4s,mb4.0,baz=159,slow=9.3						
NB2	NORSAR Subarra	23.90	347	P	P	00 08 42.8	0.0
	comp=Z,9.0nm,1.4s,mb4.0,SNR=3.6						
NOA	NORSAR Array B	23.90	347	P	P	00 08 44.4	+1.6
	comp=Z,2.0nm,0.9s,mb3.5,baz=149,slow=7.1,SNR=3.7						
TORD	Torodi Ar. Bea	30.74	221	P	P	00 09 44.2	-0.4
	comp=Z,0.4nm,0.4s,mb3.6,baz=35,slow=9.0,SNR=9.2						
ARCES	ARCESS Array B	31.51	2	P	P	00 09 51.9	+0.9
	comp=Z,4.9nm,1.1s,mb4.2,baz=198,slow=8.4,SNR=5.6						
DBIC	Dimbokro	39.66	225	P	P	00 11 01.4	0.0
	comp=Z,2.4nm,0.9s,mb3.9,baz=9.1,slow=8.8,SNR=4.0						
MKAR	Makanchi Array	44.34	59	P	P	00 11 38.8	-0.6
	comp=Z,1.0nm,0.5s,mb3.8,baz=276,slow=6.9,SNR=31						
ZALV	Zalesovo Beam	44.86	48	P	P	00 11 42.5	-0.9
	comp=Z,1.3nm,0.5s,mb4.0,baz=273,slow=9.1,SNR=7.6						
SCHQ	Schefferville	59.26	318	P	P	00 13 30.5	-0.1
	comp=Z,5.3nm,1.1s,mb4.5,baz=60,slow=14,SNR=3.9						
SONM	Songino Array	59.59	51	P	P	00 13 32.0	-1.0
	comp=Z,0.1nm,0.4s,mb3.2,baz=306,slow=10,SNR=3.1						
YKA	Yellowknife Ar	73.81	341	P	P	00 15 02.6	-0.9
	comp=Z,0.1nm,0.5s,mb3.0,baz=31,slow=6.5,SNR=3.6						

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*DDA **03** 00:21:22.6, 36°.98N×29°.10E, h6^{km}±3^{km}, Md3.0*
*ISCJB **03** 00:21:23.5±0.7, 36°.95N±0°.04×29°.15E±0°.04, h1^{km}±9^{km}, Error ellipse: s-maj=7.8km s-min=4.7km az=146.3*
*CSEM **03** 00:21:23.9±0.1, 36°.93N×29°.15E, h2^{km}, MD3.1, Error ellipse: s-maj=1.6km s-min=1.4km az=136.0*
*ISK **03** 00:21:23.8, 36°.90N×29°.14E, h7^{km}, MD3.1*
ISC 03 00:21:23.8±0.6**, 36°.95N**±0°.03×**29°.15E**±0°.04**, h3**^{km}±7^{km}**,**
n28, σ0.^{s}70/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.32	190	ePG	Pg	00 21 29.6	-0.3
FETY				eSG	Sg	00 21 33.9	-0.2
FETY	Fethiye	0.32	190	ePg	Pg	00 21 29.7	-0.2
FETY				eSg	Sg	00 21 33.9	-0.2
GOLH	Golhisar	0.44	49	i P	Pg	00 21 31.0	-1.2
GOLH				i S	Sg	00 21 38.8	+1.0
GOLH	Golhisar	0.44	49	i P	Pg	00 21 31.0	-1.2
GOLH				i S	Sg	00 21 38.8	+1.0
DALT	Dalyan (Mudla)	0.45	246	ePG	Pg	00 21 32.4	0.0
DALT				eSG	Sg	00 21 39.1	+0.8
DALT	Dalyan (Mudla)	0.45	246	ePg	Pg	00 21 32.4	0.0
DALT				eSg	Sg	00 21 39.1	+0.9
ELL	Elmali	0.64	108	ePG	Pg	00 21 36.5	+0.4
ELL	Elmali	0.64	108	ePg	Pg	00 21 36.5	+0.4
YER	Yerkesik	0.72	285	ePG	Pg	00 21 38.2	+0.6
YER	Yerkesik	0.72	285	ePg	Pg	00 21 38.2	+0.6
AKAS	Kas	0.81	153	i P	Pg	00 21 39.1	-0.2
AKAS				i S	Sg	00 21 57.3	+7.6
AKAS	Kas	0.81	153	i P	Pg	00 21 39.1	-0.1
MLSB	Milas	1.15	288	ePN	Pn	00 21 46.3	-0.5
MLSB	Milas	1.15	288	ePn	Pn	00 21 46.3	-0.5
AYDN	Tasoluk	1.24	305	i P	Pg	00 21 45.5	-2.0
AYDN				i S	Sg	00 22 04.0	+0.5
AYDN	Tasoluk	1.24	305	i P	Pg	00 21 45.5	-2.0
AYDN				i S	Sg	00 22 04.0	+0.5
BCK	Bucak	1.26	66	ePN	Pn	00 21 48.7	+0.4
BCK	Bucak	1.26	66	ePn	Pn	00 21 48.7	+0.4
DAT	Datca	1.28	260	ePN	Pn	00 21 48.5	-0.1
DAT	Datca	1.28	260	ePn	Pn	00 21 48.5	-0.1
KHL	Karahalli	1.40	12	ePN	Pn	00 21 50.9	+0.6
KHL	Karahalli	1.40	12	ePn	Pn	00 21 50.9	+0.6
KHAL	Karahalli	1.44	11	i P	Pn	00 21 50.0	-0.9
KHAL				i S	Sb	00 22 10.0	-0.1
KHAL	Karahalli	1.44	11	i P	Pn	00 21 50.0	-0.9
KHAL				i S	Sb	00 22 10.0	-0.1
BODT	Bodrum	1.48	275	ePN	Pn	00 21 51.5	+0.1
BODT	Bodrum	1.48	275	ePn	Pn	00 21 51.5	+0.2
KULA	Kula-Manisa	1.61	346	ePN	Pn	00 21 53.7	+0.6
KULA	Kula-Manisa	1.61	346	ePn	Pn	00 21 53.7	+0.6

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*BJI **03** 00:42:47.9, 10°.30S×120°.10E, h25^{km}, mB5.0/9, mb4.6/12*
*IDC **03** 00:42:47.4±0.6, 10°.12S×120°.00E, h0^{km}, mb4.3/16, mb1 4.4/18, mb1mx4.3/24, mbtmp4.3/18, ML4.2/2, MS3.7/8, Ms1 3.7/8, ms1mx3.3/30, Error ellipse: s-maj=25.9km s-min=12.9km az=61.0*
*ISCJB **03** 00:42:50.0±0.8, 10°.32S±0°.04×120°.09E±0°.06, h40^{km}±8^{km}, mb4.6/40, MS3.7/6, Error ellipse: s-maj=10.0km s-min=5.1km az=156.1*
*NEIC **03** 00:42:51.9±0.4, 10°.32S×120°.06E, h35^{km}, mb4.6/7, Error ellipse: s-maj=15.4km s-min=7.2km az=55.0*
*DJA **03** 00:42:54, 10°.87S×120°.03E, h22^{km}, mb4.7/17*

ISC 03 00:42:52.2±0.7**, 10°.29S**±0°.04×**120°.13E**±0°.05**, h40**^{km}±7^{km}**, h21**^{km}±5.7^{km}**:pP-P, n100,** σ1^s.**17**/94**, mb4.6**/40**, MS3.7**/6**, 1C-2D, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	0.64	15⇓	eP	Pn	00 43 02.6	-2.2
WSI	Waingapu	0.64	15	P	Pn	00 43 05.2	+0.4
KHKI	Kahang-Kahang	4.86	293	P	Px	00 44 10.5	
MKS	Makassar	5.08	353⇓	eP	Sn	00 45 08.3	+5.0
DNP	Denpasar	5.11	288	P	Pn	00 44 12.1	+5.8
	553nm,0.6s,3.5nm						
KAPI	Kappang	5.25	356	ePn	Pn	00 44 10.0	+1.8
	86nm,0.5s						
KAPI				eSn	Sn	00 45 06.9	-0.7
KDI	Kendari	6.76	22⇑	eP	Px	00 44 38.0	
KDI				eS	Sx	00 46 06.6	
BBKI	Banjar Baru	8.57	322	P	Px	00 45 02.9	
	78nm,2.2s						
SJI	Sawahan	8.64	286	P	Pn	00 44 56.0	+1.2
	49nm,0.6s						
PCI	Palu	9.33	358	P	Px	00 45 15.7	
	91nm,1.2s						
FITZ	Fitzroy Crossi	9.43	146	eP	Pn	00 45 04.7	-0.8
	34nm,0.6s						
FITZ				eS	Sn	00 46 43.2	-7.0
FITZ	Fitzroy Crossi	9.43	146	Pn	Pn	00 45 05.1	-0.4
	1.4nm,0.3s,baz=337,slow=7.5,SNR=38						
FITZ				Sn	Sn	00 46 43.8	-6.4
	14nm,0.3s,baz=252,slow=20,SNR=15						
FITZ				LR	LR	00 49 01.3	
	comp=Z,260nm,21.3s,baz=328,slow=39						
FITZ	Fitzroy Crossi	9.43	146	Pn	Pn	00 45 05.1	-0.4
FITZ				Sn	Sn	00 46 43.8	-6.4
FITZ	Fitzroy Crossi	9.43	146	P	Pn	00 45 05.5	0.0
	65nm,0.9s						
KNA	Kununurra	10.01	124	eP	Pn	00 45 14.3	+0.7
	25nm,0.7s						
KNA				eS	Sn	00 46 58.8	-5.9
MBWA	Marble Bar	10.81	182	eP	Pn	00 45 22.6	-1.9
MBWA				eS	Sx	00 47 10.6	
MBWA	Marble Bar	10.81	182	ePn	Pn	00 45 23.5	-1.0
	14nm,0.5s						
MBWA				eSn	Sx	00 47 11.9	
MBWA	Marble Bar	10.81	182	P	Pn	00 45 24.0	-0.5
	26nm,1.1s						
LBMI	Labuha	12.07	38	P	Px	00 45 57.0	
	61nm,1.0s						
KAKA	Kakadu	12.30	102	eP	Pn	00 45 46.2	+1.3
	15nm,0.6s						
KAKA				eS	Sn	00 47 54.1	-6.7
KAKA	Kakadu	12.30	102	ePn	Pn	00 45 45.0	+0.1
	53nm,0.6s						
KAKA				eSn	Sn	00 47 58.1	-2.7
KAKA	Kakadu	12.30	102	P	Pn	00 45 44.2	-0.7
	45nm,0.6s,433nm						
SWI	Sorong	14.49	50	P	Px	00 46 27.2	
	36nm,1.0s						
SBUM	Sibu	14.90	328	P	Px	00 46 34.7	
	10.0nm,1.0s						
KSM	Kuching	15.23	320	P	Px	00 46 40.5	
	14nm,1.2s						
MYLDM	Lahad Datu	15.45	354	P	Px	00 46 42.1	
	360nm,0.4s						
MEEK	Meekatharra	16.32	185	eP	Pn	00 46 36.4	-2.1
	14nm,0.7s						
MEEK				eS	Sx	00 49 22.6	
KKM	Kota Kinabalu	16.69	346	ePn	Pn	00 46 45.8	+2.6
	46nm,1.0s						
WRA	Warramunga Arr	16.73	127	Pn	Pn	00 46 41.7	-2.0
	0.9nm,0.3s,baz=303,slow=14,SNR=84						
WRA				Sn	Sx	00 49 36.0	
	1.3nm,0.3s,baz=294,slow=26,SNR=9.1						
WRA				LR	LR	00 54 06.9	
	comp=Z,212nm,19.0s,baz=335,slow=40						
WRA	Warramunga Arr	16.73	127	Pn	Pn	00 46 41.7	-2.0
WRA				Sn	Sx	00 49 36.0	
WRAB	Tennant Creek	16.73	127	ePn	Pn	00 46 42.5	-1.3
	16nm,0.8s						
WRAB				eSn	Sx	00 49 37.6	
WRAB	Tennant Creek	16.73	127	P	Pn	00 46 42.4	-1.3
	23nm,0.9s						
WB2	Warramunga Arr	16.74	127	ePn	Pn	00 46 42.4	-1.5
WB2				eSn	Sx	00 49 35.0	
ASAR	Alice Springs	18.70	137	P	Pn	00 47 08.8	+0.8
	0.9nm,0.3s,baz=314,slow=13,SNR=131						
ASAR				S	Sx	00 50 23.2	
	0.7nm,0.3s,baz=312,slow=24,SNR=9.3						
MORW	Morawa	19.07	191	eP	Pn	00 47 12.2	-0.2
	42nm,1.3s						
MORW				eS	Sx	00 50 20.4	
KMBL	Kambalda	21.04	176	eP	P	00 47 32.6	-0.1
	68nm,1.0s,mb4.9						
FORT	Forrest	21.68	161	eP	P	00 47 43.5	+3.9
	20nm,0.8s,mb4.6						
MUN	Mundaring	21.89	189	eP	P	00 47 49.7	+7.9
MUN				eS	S	00 51 34.2	-7.2
NWAO	Narrogin (SRO)	22.69	186	P	P	00 47 51.1	+0.9
	10nm,0.8s,mb4.3,baz=44,slow=10.0,SNR=4.0						
NWAO				S	S	00 51 48.1	-8.1
	9.5nm,0.7s,baz=74,slow=19,SNR=2.6						
NWAO				LR	LR	00 57 02.3	
	comp=Z,228nm,18.5s,MS3.6,baz=147,slow=37						
NWAO	Narrogin (SRO)	22.69	186	P	P	00 47 51.1	+0.9
NWAO				S	S	00 51 48.1	-8.1
COEN	Coen	22.82	102	eP	P	00 47 53.4	+1.5
COEN				eS	S	00 51 56.4	-2.3
MTSU	Mount Surprise	24.69	111	eP	P	00 48 12.3	+2.7
	38nm,0.7s,mb5.0						
PSI	Prapat	24.80	301	P	P	00 48 10.3	-0.4
	9.6nm,0.7s,mb4.4,baz=172,slow=7.2,SNR=8.4						
PSI				LR	LR	01 00 01.6	
	comp=Z,188nm,19.3s,MS3.6,baz=262,slow=42						
BBOO	Buckleboo	26.79	149	eP	P	00 48 29.9	+1.3
	5.8nm,0.7s,mb4.2						
CTA	Charters Tower	26.99	114	P	P	00 48 33.4	+2.9
	8.3nm,0.8s,mb4.3,baz=285,slow=11,SNR=9.7						
CTAO	Charters Tower	26.99	114	eP	P	00 48 33.4	+2.9
	57nm,2.3s,mb4.7						
STKA	Stephens Creek	29.25	140	eP	P	00 48 52.7	+2.1
	4.4nm,0.8s,mb4.2						
STKA	Stephens Creek	29.25	140	P	P	00 48 52.8	+2.3
	6.0nm,0.8s,mb4.4,baz=313,slow=11,SNR=9.9						
YNG	Young	35.20	137	eP	P	00 49 46.0	+3.4
	7.7nm,0.9s,mb4.6						
CMAR	Chiang Mai Arr	35.40	324	P	P	00 49 44.2	-0.2
	0.7nm,0.3s,mb4.1,baz=156,slow=6.6,SNR=7.3						
CMAR				PcP	PcP	00 52 16.1	+2.2
	0.9nm,0.3s,baz=175,slow=2.5,SNR=4.7						
CMAR				LR	LR	01 05 43.3	
	comp=Z,122nm,20.5s,MS3.6,baz=160,slow=39						
CMAR	Chiang Mai Arr	35.40	324	P	P	00 49 44.2	-0.2
CMAR				PcP	PcP	00 52 16.1	+2.2
PALK	Pallekele	42.96	292	P	P	00 50 49.3	+1.5
	8.5nm,1.3s,mb4.3						
CD2	Chengdu	43.87	340	P	P	00 50 55.0	+0.2
CD2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
CD2				pmax	pmax		
	comp=Z,130nm,6.4s						
XAN	Xi'an	45.35	347	P	P	00 51 06.2	-0.3
XAN				pP	pP	00 51 13.6	-4.3
XAN				sP	sP	00 51 16.7	-5.9
XAN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.4						
XAN				pmax	pmax		
	comp=Z,150nm,7.0s						
KSRS	Korea Array	48.05	8	P	P	00 51 28.1	+0.5
	comp=Z,1.0nm,0.7s,mb4.0,baz=182,slow=7.3,SNR=3.0						
KSRS				LR	LR	01 11 20.5	
	comp=Z,42nm,19.8s,MS3.4,baz=112,slow=36						
LZH	Lanzhou	48.62	342	eP	P	00 51 33.0	+1.0
LZH				pP	pP	00 51 39.0	-4.5
LZH				sP	sP	00 51 42.0	-6.1
LZH				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.9						
LZH				pmax	pmax		
	comp=Z,98nm,5.0s						
ODAN	Odare	48.72	320	eP	P	00 51 32.7	-0.3
	comp=Z,24nm,0.7s,mb5.3						
TAPN	Taplejung	48.86	321	eP	P	00 51 34.1	0.0
	comp=Z,41nm,0.9s,mb5.4						
RAMN	Ramite	49.28	319	eP	P	00 51 37.3	0.0
	comp=Z,36nm,0.8s,mb5.5						
MJAR	Matsushiro Arr	49.59	19	P	P	00 51 38.6	-0.8
	comp=Z,1.0nm,0.7s,mb4.0,baz=191,slow=8.5,SNR=5.3						
BJI	Beijing	50.20	356	P	P	00 51 43.7	-0.3
BJI				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
BJI				pmax	pmax		
	comp=Z,120nm,5.3s						
PKI	Pulchoki	50.48	319	eP	P	00 51 45.9	-0.5
	comp=Z,19nm,0.7s,mb5.2						
PKIN	Phulchoki	50.49	319	eP	P	00 51 45.8	-0.7
	comp=Z,12nm,0.6s,mb5.1						
DMN	Daman	50.70	319	eP	P	00 51 47.7	-0.3
KKN	Kakani	50.71	319	eP	P	00 51 47.7	-0.4
	comp=Z,15nm,0.7s,mb5.0						
GKN	Gorkha	51.27	319	eP	P	00 51 51.6	-0.7
KOLN	Koldanda	51.79	318	eP	P	00 51 55.7	-0.5
	comp=Z,23nm,0.8s,mb5.2						
DANN	Dangsing	52.08	319	eP	P	00 51 57.8	-0.5
	comp=Z,44nm,0.7s,mb5.5						
PYUN	Piuthan	52.41	318	eP	P	00 51 59.9	-1.0
	comp=Z,21nm,0.7s,mb5.2						
GTA	Gaotai	52.93	340	eP	P	00 52 05.2	+0.8
GTA				pP	pP	00 52 09.8	-6.2
GTA				sP	sP	00 52 12.3	-8.4
GTA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
TARA	Tarawa	53.79	81	P	P	00 52 11.7	+0.4
	comp=Z,221nm,1.2s						
ASAJ	Asahikawa	57.86	19	P	P	00 52 40.7	+0.8
	comp=Z,3.2nm,0.4s,mb4.7,baz=214,slow=7.3,SNR=5.6						
SONM	Songino Array	59.14	349	P	P	00 52 48.6	-0.1
	comp=Z,3.2nm,0.8s,mb4.4,baz=165,slow=8.9,SNR=29						
KBL	Kabul	65.78	315	eP	P	00 53 33.0	-0.4
	comp=Z,3.2nm,0.7s,mb4.5						
MK31	Makanchi Array	66.10	333	eP	P	00 53 34.9	-0.2
MKAR	Makanchi Array	66.10	333	P	P	00 53 34.9	-0.3
	comp=Z,2.1nm,0.5s,mb4.4,baz=156,slow=7.0,SNR=37						
AAK	Ala-Archa	67.17	325	P	P	00 53 42.9	+0.9
	comp=Z,2.6nm,0.9s,mb4.2						
AML	Almayashu	67.30	324	eP	P	00 53 43.5	+0.6
	comp=Z,7.1nm,0.8s,mb4.8						
AML				epP	pP	00 53 54.0	-0.8
MAW	Mawson	68.42	200	LR	LR	01 21 30.0	
	comp=Z,125nm,19.3s,MS4.2,baz=283,slow=34						
ZAA0	Zalesovo Array	70.64	339	eP	P	00 54 02.2	-1.2
ZALV	Zalesovo Beam	70.64	339	P	P	00 54 01.7	-1.7
	comp=Z,2.7nm,0.6s,mb4.4,baz=144,slow=4.8,SNR=11						
ZALV	Zalesovo Beam	70.64	339	P	P	00 54 01.7	-1.7
KURK	Kurchatov	70.64	333	P	P	00 54 02.6	-0.8
	comp=Z,1.4nm,0.7s,mb4.0,baz=148,slow=5.5,SNR=5.2						
KURK				LR	LR	01 28 09.6	
	comp=Z,46nm,18.7s,MS3.8,baz=160,slow=39						
PETK	Petropavlovsk-	70.81	23	P	P	00 54 05.9	+1.5
	comp=Z,2.7nm,0.7s,mb4.3,baz=156,slow=3.9,SNR=3.0						
BVAR	Borovoye Array	75.95	332	P	P	00 54 34.8	0.0
	comp=Z,0.6nm,0.7s,mb3.7,baz=126,slow=7.4,SNR=6.1						
AKTK	Aktyubinsk	80.91	325	P	P	00 55 00.6	-1.6
AKTO	Aktyubinsk	80.91	325	P	P	00 55 00.6	-1.6
	comp=Z,0.9nm,0.5s,mb4.0,baz=110,slow=6.8,SNR=2.9						
TIXI	Tiksi	81.96	3	eP	P	00 55 07.1	-0.2
	comp=Z,3.6nm,0.9s,mb4.3						
MALT	Malatya	89.88	309	P	P	00 55 51.0	+3.8
VNA2	Neumayer--Watz	91.69	195	e	P	00 55 57.7	+2.7
	baz=122,slow=3.7						
VNA3	Neumayer Olymp	92.06	194	e	P	00 55 59.9	+3.2
BRTR	Keskin Array B	93.81	310	P	P	00 56 05.8	+0.5
	comp=Z,2.6nm,0.9s,mb4.6,baz=126,slow=6.3,SNR=14						
BR131	Keskin Array S	93.81	310	eP	P	00 56 05.2	-0.2
	comp=Z,2.1nm,0.9s,mb4.6						
YKA	Yellowknife Ar	114.90	25	PKP	PKiKP	01 01 29.4	+1.2
	comp=Z,0.7nm,0.5s,baz=301,slow=2.0,SNR=11						
TORD	Torodi Ar. Bea	119.77	279	PKP	PKPdf	01 01 40.1	+1.1
	comp=Z,1.1nm,1.0s,baz=62,slow=2.0,SNR=4.4						
LVC	Limon Verde	146.12	165	PKPbc	PKPbc	01 02 30.8	+1.9
	comp=Z,1.4nm,0.6s,baz=90,slow=2.0,SNR=2.8						
LVC	Limon Verde	146.12	165	PKPbc	PKPbc	01 02 30.8	+1.9
LRAL	Lakeview Retre	146.31	44	ePKPbc	PKPbc	01 02 31.2	+2.1
TKL	Tuckaleechee C	146.69	37	ePKPbc	PKPbc	01 02 32.4	+2.3
SIV	San Ignacio	153.86	177	PKPbc	PKPbc	01 02 51.0	+2.8
	comp=Z,2.0nm,0.9s,baz=210,slow=2.4,SNR=5.6						
SIV				PKPab	PKPab	01 03 04.4	+3.4
	comp=Z,1.3nm,0.6s,baz=178,slow=4.9,SNR=4.9						

BJI ***03*** *00:54:06.9, 3°.10N×84°.20W, h10^{km}, mB5.2/3, Ms5.1/3, Ms7 4.7/4*

IDC ***03*** *00:54:07.0±0.9, 3°.16N×84°.18W, h0^{km}, mb3.9/10, mb1 4.1/13, mb1mx4.0/23, mbtmp3.9/13, ML3.3/3, MS3.8/12, Ms1 3.9/12, ms1mx3.6/34, Error ellipse: s-maj=32.8km s-min=16.3km az=52.0*

NEIC ***03*** *00:54:09.0±0.4, 3°.11N×84°.24W, h10^{km}, mb4.8/10, Error ellipse: s-maj=9.5km s-min=7.1km az=218.0*

ISCJB ***03*** *00:54:11.4±1.0, 3°.34N±0°.05×84°.05W±0°.07, h35^{km}±9^{km}, mb4.2/19, MS4.0/12, Error ellipse: s-maj=12.2km s-min=6.7km az=150.8*

CASC ***03*** *00:54:11.9, 3°.55N×83°.82W, h0^{km}, MD4.6, ML4.7, mb4.8(NEIC)*

ISC 03 00:54:13.4±0.7**, 3°.27N**±0°.04×**84°.11W**±0°.06**, h38**^{km}±7^{km}**, n77,** σ1^s.**19**/71**, mb4.2**/19**, MS4.0**/12**, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	Cerro Adams	5.43	10	eP	Pn	00 55 30.1	-1.7
ACR				eS	Sn	00 56 31.4	-1.7
BAR1		5.99	8	eP	Pn	00 55 38.0	-1.6
BAR1				eS	Sn	00 56 45.0	-1.9
QCR	Quepos	6.12	359	eP	Pn	00 55 39.3	-2.0
BUS	Buena Vista	6.25	3	eP	Pn	00 55 42.7	-0.5
BUS				eS	Sn	00 56 55.4	+1.9
OTAV	Otavalo	6.40	118	ePn	Pn	00 55 44.8	-0.4
	34nm,0.6s						
LCR2	La Lucha 2	6.43	1	eP	Pn	00 55 43.8	-1.8
URSC	Urasca	6.53	3	eP	Pn	00 55 46.9	-0.1
URSC				eS	Sn	00 56 59.1	-1.2
LAJ	Bijagual	6.55	360	eP	Pn	00 55 43.5	-3.8
JCR	Jicaral	6.61	351	eP	Pn	00 55 46.6	-1.6
JCR				eS	Sn	00 56 58.3	-4.0
PRS1	Puriscal	6.67	358	eP	Pn	00 55 46.1	-2.8
CGA2	Cerro Gallo 2	6.71	357	eP	Pn	00 55 48.6	-0.9
JTS	JuntasAbangare	7.03	353	Pn	Pn	00 55 53.2	-0.6
	98nm,0.3s,baz=161,slow=6.7,SNR=180						
JTS				Sn	Sn	00 57 10.2	-2.3
	baz=108,slow=20,SNR=7.3						
JTS	JuntasAbangare	7.03	353	ePn	Pn	00 55 52.9	-0.9
JTS				eSn	Sn	00 57 13.8	+1.3
FORC	Fortuna	7.17	356	eP	Pn	00 55 56.4	+0.6
BCIP	Isla Barro Col	7.23	36	Pn	Pn	00 55 59.2	+2.6
BANL	Banca Lucia	7.24	354	iP	Pn	00 55 57.4	+0.7
BANL				iS	Sn	00 57 17.7	0.0
PAYG	Puerto Ayora	7.32	238	ePn	Pn	00 55 55.6	-2.2
	201nm,1.9s						
PTEN	Parque Tenorio	7.45	353	iP	Pn	00 56 00.2	+0.6
NY14	Universidad de	7.47	349	iP	Pn	00 55 59.3	-0.6
LIM1	Limonal	7.47	351	iP	Pn	00 55 59.7	-0.2
MESS	Mesas	7.50	352	iP	Pn	00 56 00.5	+0.1
MESS				iS	Sn	00 57 24.0	-0.2
GBS3	Finca Las Imˆ¡	7.58	350	iP	Pn	00 56 01.2	-0.2
SSN	San Juan del S	8.17	348	eP	Pn	00 56 09.4	0.0
CONN	Concepcion	8.38	350	eP	Pn	00 56 10.1	-2.2
TICN	Ticuantepe	8.96	347	eP	Pn	00 56 21.8	+1.5
MGAN	Managua	9.07	347	eP	Pn	00 56 23.0	+1.1
TISN	Laguna Tiscapa	9.07	346	eP	Pn	00 56 22.9	+1.0
XAVN	Gruta Xavier	9.09	346	eP	Pn	00 56 23.2	+1.0
CSAN		9.15	346	eP	Pn	00 56 23.9	+1.0
COPN	Copaltepe	9.19	345	eP	Pn	00 56 24.5	+1.0
MOMN	Momotombo	9.39	345	eP	Pn	00 56 27.3	+1.0
MIRN	Miramar	9.47	344	eP	Pn	00 56 29.4	+2.1
CNGN	Cerro Negro	9.52	345	eP	Pn	00 56 30.3	+2.2
ROSC	El Rosal	9.88	80	Pn	Pn	00 56 35.2	+2.3
	1.0nm,0.3s,baz=280,slow=20,SNR=11						
TGUH	Tegucigalpa,Un	11.17	344	ePn	Pn	00 56 52.4	+1.8
SDV	Santo Domingo	14.51	67	Pn	Pn	00 57 37.5	+1.3
	0.1nm,0.3s,baz=280,slow=21,SNR=4.0						
SDV				LR	LR	01 02 59.9	
	comp=Z,412nm,20.4s,baz=165,slow=36						
SDV	Santo Domingo	14.51	67	ePn	Pn	00 57 38.4	+2.2
TEIG	Tepich	17.34	347	P	Pn	00 58 13.8	+1.2
	0.2nm,0.3s,baz=190,slow=19,SNR=2.3						
TEIG				LR	LR	01 04 31.4	
	comp=Z,419nm,18.4s,baz=91,slow=36						
CMIG	Matias Romero	17.34	323	P	Pn	00 58 12.8	+0.2
	0.1nm,0.3s,baz=112,slow=9.0,SNR=4.6						
CMIG				LR	LR	01 03 34.2	
	comp=Z,355nm,20.7s,baz=144,slow=33						
CMIG	Matias Romero	17.34	323	P	Pn	00 58 12.8	+0.2
CMIG				LR	LR	01 03 34.2	
PCRV	Puerto La Cruz	20.50	70	P	P	00 58 49.1	+0.7
	26nm,1.0s,baz=243,slow=9.0,SNR=2.6						
PCRV				LR	LR	01 07 24.6	
	comp=Z,190nm,18.7s,MS3.5,baz=88,slow=39						
LVC	Limon Verde	29.70	151	LR	LR	01 12 20.6	
	comp=Z,107nm,21.1s,MS3.5,baz=17,slow=37						
LRAL	Lakeview Retre	29.73	355	eP	P	01 00 16.8	+0.7
	6.7nm,0.9s,mb4.4						
SIV	San Ignacio	29.75	131	P	P	01 00 16.1	-0.4
	1.6nm,1.0s,mb3.7,baz=314,slow=12,SNR=5.5						
TXAR	Lajitas Array	31.89	326	P	P	01 00 34.9	-0.3
	0.4nm,0.7s,mb3.4,baz=145,slow=9.7,SNR=5.4						
TXAR				PcP	PcP	01 03 26.7	+1.4
	0.2nm,0.4s,baz=134,slow=2.6,SNR=3.9						
TXAR				LR	LR	01 12 52.6	
	comp=Z,112nm,18.9s,MS3.6,baz=5.0,slow=35						
CCM	Cathedral Cave	35.23	350	eP	P	01 01 03.8	-0.4
	8.0nm,1.1s,mb4.6						
ANMO	Albuquerque	37.74	329	eP	P	01 01 26.7	+1.1
	59nm,2.9s,mb4.8						
CFAA	Coronel Fontan	37.83	158	P	P	01 01 24.6	-1.7
	0.2nm,0.4s,mb3.2,baz=348,slow=6.0,SNR=4.6						
CPUP	Villa Florida	39.20	140	LR	LR	01 19 36.6	
	comp=Z,187nm,18.3s,MS4.0,baz=316,slow=39						
SDCO	Great Sand Dun	39.52	333	eP	P	01 01 41.9	+1.4
	60nm,2.6s,mb4.9						
SRU	San Rafael	43.01	330	eP	P	01 02 09.8	+0.6
	6.2nm,1.1s,mb4.2						
MPU	Maple Canyon	44.26	329	eP	P	01 02 19.6	+0.4
	63nm,2.7s,mb4.9						
PDAR	Pinedale Array	45.40	334	P	P	01 02 27.7	-0.5
	1.4nm,0.9s,mb3.8,baz=129,slow=9.5,SNR=9.7						
PDAR				PcP	PcP	01 04 06.6	-0.6
	0.5nm,0.8s,baz=148,slow=5.3,SNR=3.6						
PDAR				LR	LR	01 22 27.5	
	comp=Z,176nm,20.7s,MS4.0,baz=352,slow=37						
BW06	Boulder Array	45.40	334	eP	P	01 02 27.7	-0.6
	43nm,2.8s,mb4.8						
PLCA	Paso Flores	45.51	166	LR	LR	01 16 36.4	
	comp=Z,94nm,22.0s,MS3.7,baz=337,slow=30						
AGMN	Agassiz Refuge	45.98	349	eP	P	01 02 32.7	-0.1
	8.7nm,0.8s,mb4.7						
RRI2	Red Ridge	46.65	333	eP	P	01 02 38.5	+0.3
	24nm,1.8s,mb4.8						
NVAR	Mina Array Bea	46.87	323	P	P	01 02 40.0	+0.1
	1.9nm,0.7s,mb4.1,baz=130,slow=7.5,SNR=9.7						
NVAR	Mina Array Bea	46.87	323	P	P	01 02 40.0	+0.1
ULM	Lac du Bonnet	47.86	350	P	P	01 02 47.0	-0.4
	8.2nm,0.7s,mb4.8,baz=165,slow=7.2,SNR=14						
ULM	Lac du Bonnet	47.86	350	eP	P	01 02 47.0	-0.5
	7.5nm,0.9s,mb4.7						
YBH	Yreka Blue Hor	51.57	323	LR	LR	01 23 46.8	
	comp=Z,144nm,20.4s,MS4.0,baz=145,slow=34						
FCC	Fort Churchill	55.89	354	eP	P	01 03 47.2	+0.1
	0.3nm,1.1s,mb3.2						
YKA	Yellowknife Ar	63.28	345	P	P	01 04 37.1	-0.9
	1.1nm,0.8s,mb4.1,baz=139,slow=6.5,SNR=13						
PPT	Papeete	67.77	250	LR	LR	01 26 52.4	
	comp=Z,157nm,18.3s,MS4.3,baz=35,slow=29						
ESDC	Sonseca Array	80.33	50	P	P	01 06 20.4	-0.5
	0.3nm,0.7s,mb3.4,baz=289,slow=9.4,SNR=2.7						
ESDC				LR	LR	01 36 14.9	
	comp=Z,54nm,20.3s,MS3.9,baz=240,slow=31						
TORD	Torodi Ar. Bea	85.18	77	P	P	01 06 46.1	-0.4
	0.4nm,0.7s,mb3.7,baz=267,slow=3.2,SNR=4.1						
CN2	Changchun	126.14	334	ePKP	PKPdf	01 13 08.9	-3.1
WMQ	Urumqi	132.55	8	ePKP	PKPdf	01 13 21.0	-3.2
WMQ				LR	LR		
	comp=Z,110nm,24.6s,MS4.5						
HHC	Hu-ho-hao-te	133.81	344	ePKP	PKPdf	01 13 21.9	-4.8
HHC				PP	PP	01 15 55.1	+0.1
HHC				PKS		01 16 55.9	
HHC				AMB	AMB		
	comp=Z,89nm,4.4s						
HHC				LR	LR		
	comp=N,140nm,15.5s,MS5.0						
HHC				LR	LR		
	comp=E,170nm,16.7s,MS5.0						
HHC				LR	LR		
	comp=Z,170nm,15.5s,MS4.9						
ASAR	Alice Springs	138.06	238	PKP	PKPdf	01 13 34.3	-0.8
	comp=Z,0.9nm,1.0s,baz=122,slow=2.6,SNR=3.6						
NJ2	Nanjing	138.65	330	ePKP	PKPdf	01 13 33.4	-2.5
WRA	Warramunga Arr	139.01	243	PKP	PKPdf	01 13 36.1	-0.7
	comp=Z,0.4nm,0.7s,baz=94,slow=2.3,SNR=5.2						
LZH	Lanzhou	140.15	350	ePKP	PKPdf	01 13 36.5	-2.0
LZH				sPKP		01 13 41.0	
CD2	Chengdu	145.19	348	PKPbc	PKPbc	01 13 43.0	-4.2
GYA	Guiyang	148.66	341	PKPbc	PKPbc	01 13 53.0	-4.3
GYA				PKPab	PKPab	01 14 01.8	+1.0
GYA				PKS		01 17 27.6	
GYA				PP	PP	01 17 31.4	+5.8
GYA				SKS	SKSdf	01 20 58.6	-0.7
GYA				SKKS	SKKSac	01 24 16.3	+0.5
GYA				SS	SS	01 36 36.4	+4.6
GYA				AMB	AMB		
	comp=Z,120nm,8.3s						
GYA				LR	LR		
	comp=N,160nm,20.6s,MS4.9						
GYA				LR	LR		
	comp=E,140nm,22.4s,MS4.9						
GYA				LR	LR		
	comp=Z,180nm,24.0s,MS4.8						
KMI	Kunming	151.00	347	PKPbc	PKPbc	01 13 57.0	-6.1
KMI				sPKP		01 14 01.6	
KMI				PKPab	PKPab	01 14 12.3	+1.9
KMI				PP	PP	01 17 43.9	+4.9
KMI				SKKS	SKKSac	01 24 30.5	+1.8
KMI				SS	SS	01 37 05.8	+8.2
KMI				AMB	AMB		
	comp=Z,72nm,7.1s						

NEIC ***03*** *01:04:17.3, 14°.01N×60°.99W, h20^{km}, MD3.6(TRN), After TRN.*

NEIC Felt [III] on Saint Lucia.

TRN 03 01:04:14.7, 14°.10N×61°.09W, h18^{km}**, MD3.6, M2.3**(FDF)**, 1C-7D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLW	Petit Monier	0.16	117⇓	iP	Pg	01 04 21.9	+2.7
SLW				eS	Sg	01 04 24.4	+2.2
SLB	Belfond	0.27	171⇑	iP	Pg	01 04 23.8	+3.0
SLB				eS	Sg	01 04 29.0	+4.1
SLDE	Delcer	0.29	175	eP	Pg	01 04 22.5	+1.3
SLDE				eS	Sg	01 04 28.9	+3.4
SLDE	Delcer	0.29	175	eP	Pg	01 04 24.1	+2.9
SLDE				eS	Sg	01 04 28.9	+3.4
MCLT	Moule a Chique	0.41	160⇓	iP	Pg	01 04 25.8	+2.6
MCLT				eS	Sg	01 04 32.2	+3.4
BIM	Bigot	0.42	2⇓	eP	Pg	01 04 24.8	+1.4
BIM			⇓	eS	Sg	01 04 30.7	+1.4
MVM	Montagne Vaucl	0.49	22⇓	eP	Pg	01 04 26.4	+1.6
FDF	Fort de France	0.64	354⇓	eP	Pb	01 04 28.1	+0.7
FDF			⇓	eS	Sb	01 04 36.4	+0.5
FDF	Fort de France	0.64	354	ePn	Pn	01 04 26.7	-2.1
FDF				eSn	Sb	01 04 36.5	+0.5
SSV	Crater Summit	0.77	188	eP	Pb	01 04 31.2	+1.6
SSV				eS	Sb	01 04 43.4	+3.7
SSV	Crater Summit	0.77	188	eP	Pb	01 04 32.8	+3.2
SSV				eS	Sb	01 04 43.4	+3.7
SVV	Soufriere Volc	0.78	189	eP	Pb	01 04 32.2	+2.4
SVV				eS	Sb	01 04 44.1	+4.0
SVV	Soufriere Volc	0.78	189	eP	Pb	01 04 33.8	+4.0
SVV				eS	Sb	01 04 44.1	+4.0
BHS	Barnard House	0.80	183	eP	Pb	01 04 32.1	+2.1
BHS	Barnard House	0.80	183	eP	Pb	01 04 33.4	+3.3
SVB	Belmont	0.83	191	eP	Pb	01 04 34.3	+3.6
SVB				eS	Sb	01 04 45.6	+4.1
FCV	Fort Charlotte	0.94	189	eP	Pb	01 04 34.8	+2.2
FCV				eS	Sb	01 04 49.0	+4.2
GRSS	Sisters	1.86	196	eP	Pn	01 04 49.8	+4.1
GRIC	Isle de Caille	1.86	195	eP	Pn	01 04 49.8	+4.1
GRIC				eS	Sn	01 05 10.6	+1.8
GRW	Mount Saint Ca	2.00	196	eP	Pn	01 04 49.8	+2.1
GRW				eS	Sn	01 05 13.4	+1.1
GRW	Mount Saint Ca	2.00	196	eP	Pn	01 04 51.5	+3.9
GRW				eS	Sn	01 05 13.4	+1.1

ISCJB ***03*** *01:24:46.6±0.3, 36°.39N±0°.02×7°.42W±0°.02, h10^{km}, Error ellipse: s-maj=3.0km s-min=1.9km az=40.5*

*IDC **03** 01:24:46.4±4.1, 36°.23N×7°.65W, h0^{km}, mb3.0/2, mb1 3.6/5, mb1mx3.3/27, mbtmp3.4/5, ML4.4/2, Error ellipse: s-maj=80.2km s-min=26.8km az=101.0*

*IGIL **03** 01:24:48.7, 36°.37N×7°.56W, h2^{km}, ML3.2*

*NEIC **03** 01:24:49.6, 36°.28N×7°.65W, h36^{km}, MN3.2(MDD), After MDD.*

*MDD **03** 01:24:49.9±0.8, 36°.30N×7°.58W, h26^{km}±7^{km}, mbLg3.5/58, Error ellipse: s-maj=4.4km s-min=2.8km az=58.0, PRIMO*

*SFS **03** 01:24:49.0, 36°.28N×7°.65W, h37^{km}, ML3.2*

*CSEM **03** 01:24:49.8±0.1, 36°.33N×7°.56W, h40^{km}, ML4.1/9, Error ellipse: s-maj=3.0km s-min=2.1km az=52.0*

*INMG **03** 01:24:50.0±1.3, 36°.37N×7°.53W, h10^{km}±5^{km}, MD3.2, ML3.4, Error ellipse: s-maj=4.5km s-min=2.4km az=50.0*

*LDG **03** 01:24:50.5±0.2, 36°.29N×7°.60W, h30^{km}, Ml3.9/8, Error ellipse: s-maj=3.5km s-min=2.0km az=26.0*

*CNRM **03** 01:24:51.0, 36°.22N×7°.61W, h30^{km}, MD3.7*

ISC 03 01:24:48.1±0.3**, 36°.39N**±0°.02×**7°.44W**±0°.02**, h10**^{km}**, n308,** σ**1^s.25**/485**, 13C-8D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBDV	Barranco-do-Ve	0.94	335	eP	Pg	01 25 07.1	+0.8
PBDV				eS	Sg	01 25 19.4	+0.9
PBDV				A		01 25 22.2	
	780nm,0.6s						
PBDV	Barranco-do-Ve	0.94	335	P	Pg	01 25 07.1	+0.8
PBDV				S	Sg	01 25 19.4	+0.9
	780nm,0.6s						
PBDV	Barranco-do-Ve	0.94	335	eP	Pg	01 25 07.1	+0.8
PBDV				eS	Sg	01 25 19.4	+0.9
	780nm,0.6s						
ERIP	Rio Piedras	0.99	8	⇓P	Pg	01 25 08.4	+1.1
	138nm,0.1s,SNR=18						
ERIP				S	Sg	01 25 21.9	+1.7
	591nm,0.2s,SNR=7.9						
ERIP	Rio Piedras	0.99	8	P	Pg	01 25 08.4	+1.1
	138nm,0.1s,SNR=18						
ERIP				S	Sg	01 25 21.9	+1.7
	591nm,0.2s,SNR=7.9						
SFS	San Fernando	1.00	85	P	Pg	01 25 11.0	+3.8
SFS				S	Sg	01 25 24.3	+4.0
SFS	San Fernando	1.00	85	eP	Pg	01 25 11.0	+3.7
SFS				eS	Sg	01 25 24.3	+4.1
PVAQ	Vaqueiros	1.04	348	i P	Pg	01 25 08.7	+0.6
PVAQ				eS	Sg	01 25 22.0	+0.3
PVAQ				A		01 25 30.4	
	582nm,0.2s						
PVAQ	Vaqueiros	1.04	348	⇓P	Pg	01 25 08.7	+0.6
PVAQ				S	Sg	01 25 22.0	+0.3
	582nm,0.2s						
CNIL	Conil	1.12	90	⇑P	Pb	01 25 11.4	+1.9
CNIL				S	Sg	01 25 27.2	+3.2
CNIL	Conil	1.12	90	i P	Pb	01 25 11.4	+1.9
CNIL				eS	Sg	01 25 27.2	+3.1
EGRO	El Granado	1.15	358	⇓P	Pb	01 25 10.5	+0.5
	88nm,0.1s,SNR=18						
EGRO				S	Sb	01 25 25.5	+0.5
	602nm,0.2s,SNR=21						
EGRO	El Granado	1.15	358	P	Pb	01 25 10.5	+0.5
	88nm,0.1s,SNR=18						
EGRO				Lg		01 25 25.5	
EGRO				S	Sb	01 25 25.5	+0.5
	602nm,0.2s,SNR=21						
GIBL	Gibalbin	1.26	69	P	Pn	01 25 13.2	+1.4
GIBL	Gibalbin	1.26	69	eP	Pn	01 25 13.2	+1.4
MORF	Marmelete	1.34	314	ePn	Pn	01 25 11.9	-1.0
MORF	Marmelete	1.34	314	ePg	Pg	01 25 14.8	+1.0
MORF				eSn	Sn	01 25 31.7	+1.0
MORF				A		01 25 38.8	
	455nm,0.3s						
MORF	Marmelete	1.34	314	P	Pn	01 25 11.9	-1.0
MORF				S	Sn	01 25 31.7	+1.0
	455nm,0.3s						
MORF	Marmelete	1.34	314	ePn	Pn	01 25 11.9	-1.0
MORF	Marmelete	1.34	314	ePg	Pg	01 25 14.8	+1.0
PFVI	Vila Bisbo	1.34	304	ePn	Pn	01 25 11.9	-1.0
PFVI	Vila Bisbo	1.34	304	ePg	Pg	01 25 14.6	+0.7
PFVI				eSn	Sn	01 25 31.0	+0.2
PFVI				A		01 25 39.4	
	656nm,0.5s						
PFVI	Vila Bisbo	1.34	304	P	Pn	01 25 11.9	-1.0
PFVI				S	Sn	01 25 31.0	+0.2
	328nm,0.5s						
PFVI	Vila Bisbo	1.34	304	ePn	Pn	01 25 11.9	-1.0
PFVI	Vila Bisbo	1.34	304	ePg	Pg	01 25 14.6	+0.7
ESPR	Espera	1.36	69	⇑P	Pn	01 25 13.8	+0.7
	124nm,0.2s,SNR=18						
ESPR				S	Sb	01 25 31.9	+0.8
	483nm,0.2s,SNR=8.7						
ESPR	Espera	1.36	69	P	Pn	01 25 13.8	+0.7
	124nm,0.2s,SNR=18						
ESPR				S	Sb	01 25 31.9	+0.8
	483nm,0.2s,SNR=8.7						
EMIN	Mina Concepcio	1.51	24	P	Pn	01 25 15.5	+0.3
	9.8nm,0.1s,SNR=183						
EMIN				S	Sn	01 25 35.5	+0.6
	82nm,0.1s,SNR=9.8						
EMIN	Mina Concepcio	1.51	24	Pn	Pn	01 25 15.5	+0.3
EMIN				Lg		01 25 35.9	
EMIN	Mina Concepcio	1.51	24	P	Pn	01 25 15.5	+0.3
	9.8nm,0.1s,SNR=183						
EMIN				S	Sn	01 25 35.5	+0.6
	82nm,0.1s,SNR=9.8						
PTEO	Sao Teotonio	1.55	319	ePn	Pn	01 25 15.1	-0.7
PTEO	Sao Teotonio	1.55	319	ePg	Pg	01 25 18.9	+1.0
PTEO				eSn	Sn	01 25 38.2	+2.3
PTEO				A		01 25 39.6	
	354nm,0.4s						
PTEO	Sao Teotonio	1.55	319	P	Pn	01 25 15.1	-0.7
PTEO				S	Sn	01 25 38.2	+2.3
	177nm,0.4s						
PTEO	Sao Teotonio	1.55	319	ePn	Pn	01 25 15.1	-0.7
PTEO	Sao Teotonio	1.55	319	ePg	Pg	01 25 18.9	+1.0
TSY	Tnine Yamani	1.56	130	P	Pn	01 25 16.0	+0.1
TSY				S	Sn	01 25 34.0	-2.2
TSY	Tnine Yamani	1.56	130	i P	Pn	01 25 16.0	+0.1
TSY				i S	Sn	01 25 34.0	-2.2
EJIF	Jimena Fronter	1.59	87	⇑P	Pn	01 25 17.6	+1.3
	49nm,0.2s,SNR=18						
EJIF				S	Sn	01 25 38.0	+1.2
	20nm,0.2s,SNR=7.9						
EJIF	Jimena Fronter	1.59	87	P	Pn	01 25 17.6	+1.3
	49nm,0.2s,SNR=18						
EJIF				S	Sn	01 25 38.0	+1.1
	20nm,0.2s,SNR=7.9						
PBEJ	Beja	1.67	348	ePn	Pn	01 25 17.5	0.0
PBEJ				eSn	Sn	01 25 38.0	-0.9
PBEJ				A		01 25 53.5	
	218nm,0.6s						
PBEJ	Beja	1.67	348	P	Pn	01 25 17.5	0.0
PBEJ				S	Sn	01 25 38.0	-0.9
	109nm,0.6s						
PBEJ	Beja	1.67	348	ePn	Pn	01 25 17.5	0.0
PBEJ				eSn	Sn	01 25 38.0	-0.9
	218nm,0.6s						
ECEU	Ceuta	1.74	106	⇑P	Pn	01 25 19.4	+1.1
	33nm,0.2s,SNR=18						
ECEU				S	Sn	01 25 40.4	-0.1
	31nm,0.3s,SNR=7.9						
ECEU	Ceuta	1.74	106	P	Pn	01 25 19.4	+1.1
	33nm,0.2s,SNR=18						
ECEU				S	Sn	01 25 40.4	-0.1
	31nm,0.3s,SNR=7.9						
REAL	Reales	1.80	86	P	Pn	01 25 20.8	+1.6
REAL				S	Sn	01 25 40.3	-1.8
REAL	Reales	1.80	86	eP	Pn	01 25 20.8	+1.6
REAL				eS	Sn	01 25 40.3	-1.8
RSA	Sarsar	2.00	139	P	Pn	01 25 22.0	+0.1
RSA				S	Sn	01 25 44.0	-2.9
RSA	Sarsar	2.00	139	i P	Pn	01 25 22.0	+0.1
RSA				i S	Sn	01 25 44.0	-2.9
EMIJ	Mijas	2.15	84	⇑P	Pn	01 25 24.3	+0.2
	14nm,0.2s,SNR=18						
EMIJ				S	Sn	01 25 51.6	+0.8
	35nm,0.3s,SNR=5.0						
EMIJ	Mijas	2.15	84	P	Pn	01 25 24.3	+0.2
	14nm,0.2s,SNR=18						
EMIJ				S	Sn	01 25 51.6	+0.8
	35nm,0.3s,SNR=5.0						
EVO	Evora	2.19	348	ePn	Pn	01 25 24.7	+0.1
EVO				eSn	Sn	01 25 50.8	-0.9
	208nm,0.3s						
EVOP	Sao Brissos	2.21	346	ePn	Pn	01 25 24.7	-0.1
EVOP				eSn	Sn	01 25 50.8	-1.3
	104nm,0.3s						
MOE	Montemor	2.25	341	ePn	Pn	01 25 22.9	-2.5
MOE				eSn	Sn	01 25 52.5	-0.8
MOE	Montemor	2.25	341	ePn	Pn	01 25 22.9	-2.5
MOE				eSn	Sn	01 25 52.5	-0.8
ECAB	El Cabril	2.33	43	⇑P	Pn	01 25 27.5	+1.0
	27nm,0.1s,SNR=18						
ECAB				S	Sn	01 25 53.4	-1.8
	206nm,0.2s,SNR=5.0						
ECAB	El Cabril	2.33	43	Pn	Pn	01 25 27.5	+1.0
ECAB				Lg		01 25 54.2	
ECAB	El Cabril	2.33	43	P	Pn	01 25 27.5	+1.0
	27nm,0.1s,SNR=18						
ECAB				S	Sn	01 25 53.4	-1.8
	206nm,0.2s,SNR=5.0						
EBAD	Badajoz	2.39	8	⇓P	Pn	01 25 27.5	+0.2
	5.8nm,0.1s,SNR=18						
EBAD				S	Sn	01 25 55.8	-0.8
	152nm,0.2s,SNR=6.4						
EBAD	Badajoz	2.39	8	Pn	Pn	01 25 27.5	+0.2
EBAD				Lg		01 25 55.8	
EBAD	Badajoz	2.39	8	P	Pn	01 25 27.5	+0.2
	5.8nm,0.1s,SNR=18						
EBAD				S	Sn	01 25 55.8	-0.8
	152nm,0.2s,SNR=6.4						
RTC	Rabat Centre	2.44	169	P	Pn	01 25 26.0	-2.0
RTC				S	Sn	01 25 52.0	-5.9
RTC	Rabat Centre	2.44	169	i P	Pn	01 25 26.0	-2.0
RTC				i S	Sn	01 25 52.0	-5.9
EMAL	Malaga-Limoner	2.45	80	⇑P	Pn	01 25 29.1	+1.0
EMAL				S	Sn	01 25 58.2	+0.1
EMAL	Malaga-Limoner	2.45	80	i P	Pn	01 25 29.1	+1.0
EMAL				eS	Sn	01 25 58.2	+0.1
PESTR	Estremoz	2.48	357	ePn	Pn	01 25 28.6	+0.1
PESTR				eSn	Sn	01 25 56.4	-2.5
PESTR				A		01 26 14.8	
	76nm,0.7s						
PESTR	Estremoz	2.48	357	P	Pn	01 25 28.6	+0.1
PESTR				S	Sn	01 25 56.4	-2.5
	38nm,0.7s						
PESTR	Estremoz	2.48	357	ePn	Pn	01 25 28.6	+0.1
PESTR				eSn	Sn	01 25 56.4	-2.5
	76nm,0.7s						
LIS	Lisbon	2.69	330	eS	Sn	01 26 00.8	-3.4
LIS				eS	Sn	01 26 00.9	-3.3
LIS				AML	AML	01 26 01.6	
	comp=E,68nm,0.2s						
LIS	Lisbon	2.69	330	eS	Sn	01 26 00.8	-3.4
ELOJ	Sierra Loja	2.74	73	⇓P	Pn	01 25 33.8	+1.6
	comp=E,16nm,0.2s,SNR=18						
ELOJ				S	Sn	01 26 06.2	+0.8
	comp=E,15nm,0.2s,SNR=5.0						
ELOJ	Sierra Loja	2.74	73	P	Pn	01 25 33.8	+1.6
	comp=E,16nm,0.2s,SNR=18						
ELOJ				S	Sn	01 26 06.2	+0.8
	comp=E,15nm,0.2s,SNR=5.0						
ELUQ	Luque	2.80	64	⇑P	Pn	01 25 33.8	+0.9
	comp=E,23nm,0.2s,SNR=18						
ELUQ				S	Sn	01 26 05.9	-0.8
	comp=E,60nm,0.2s,SNR=7.9						
ELUQ	Luque	2.80	64	Pn	Pn	01 25 34.0	+1.1
ELUQ				Lg		01 26 07.1	
EADA	Adamuz	2.89	51	P	Pn	01 25 35.0	+0.7
	comp=E,10nm,0.1s,SNR=124						
EADA				S	Sn	01 26 07.8	-1.3
	comp=E,112nm,0.2s,SNR=6.1						
EADA	Adamuz	2.89	51	Pn	Pn	01 25 35.4	+1.2
EADA				Lg		01 26 08.4	
EADA	Adamuz	2.89	51	P	Pn	01 25 35.0	+0.8
	comp=E,10nm,0.1s,SNR=124						
EADA	Adamuz	2.89	51	Pn	Pn	01 25 35.4	+1.2
EADA				S	Sn	01 26 07.8	-1.2
	comp=E,112nm,0.2s,SNR=6.1						
ALMR	Almeirim	2.91	342	eP	Pn	01 25 34.5	+0.1
ALMR				eS	Sn	01 26 06.4	-3.0
ALMR				eS	Sn	01 26 06.4	-3.0
ALMR				AML	AML	01 26 06.7	
	comp=N,89nm,0.5s						
ALMR	Almeirim	2.91	342	eP	Pn	01 25 34.5	+0.1
ALMR				eS	Sn	01 26 06.4	-3.0
PMAFR	Mafra	2.95	331	ePn	Pn	01 25 35.1	0.0
PMAFR				eSn	Sn	01 26 08.8	-1.7
PMAFR				A		01 26 10.3	
	comp=N,155nm,0.3s						
PMAFR	Mafra	2.95	331	P	Pn	01 25 35.1	0.0
PMAFR				S	Sn	01 26 08.8	-1.7
	comp=N,78nm,0.3s						
PMAFR	Mafra	2.95	331	ePn	Pn	01 25 35.1	0.0
PMAFR				eSn	Sn	01 26 08.8	-1.7
	comp=N,155nm,0.3s						
ERON	Agron	2.98	77	P	Pn	01 25 37.2	+1.7
	comp=N,15nm,0.2s,SNR=7.9						
ERON				S	Sn	01 26 11.8	+0.5
	comp=N,21nm,0.3s,SNR=7.9						
PMRV	Marv??o	3.04	1	ePn	Pn	01 25 36.5	+0.3
PMRV				eSn	Sn	01 26 11.8	-0.8
PMRV				A		01 26 36.9	
	comp=N,109nm,0.7s						
PMRV	Marv??o	3.04	1	P	Pn	01 25 36.5	+0.3
PMRV				S	Sn	01 26 11.8	-0.8
	comp=N,55nm,0.7s						
PMRV	Marv??o	3.04	1	ePn	Pn	01 25 36.5	+0.3
PMRV				eSn	Sn	01 26 11.8	-0.8
	comp=N,109nm,0.7s						
EGUA	Guajares	3.15	81	P	Pn	01 25 37.7	0.0
	comp=N,44nm,0.2s,SNR=7.9						
EGUA				S	Sn	01 26 15.0	-0.3
	comp=N,80nm,0.4s,SNR=7.9						
EGUA	Guajares	3.15	81	S	Sn	01 26 15.0	-0.3
	comp=N,80nm,0.4s,SNR=7.9						
ECOG	Cogollos-Vega	3.23	73	⇓P	Pn	01 25 40.3	+1.4
	comp=N,27nm,0.1s,SNR=18						
ECOG				S	Sn	01 26 17.4	0.0
	comp=N,52nm,0.3s,SNR=7.9						
ECOG	Cogollos-Vega	3.23	73	Pn	Pn	01 25 40.5	+1.6
ECOG				Lg		01 26 17.4	
ECOG	Cogollos-Vega	3.23	73	P	Pn	01 25 40.3	+1.4
	comp=N,27nm,0.1s,SNR=18						
ECOG	Cogollos-Vega	3.23	73	Pn	Pn	01 25 40.5	+1.6
ECOG				S	Sn	01 26 17.4	0.0
	comp=N,52nm,0.3s,SNR=7.9						
EQUE	Quentar	3.31	75	P	Pn	01 25 41.5	+1.5
	comp=N,19nm,0.3s,SNR=56						
EQUE				S	Sn	01 26 19.3	0.0
	comp=N,25nm,0.2s,SNR=7.9						
EQUE	Quentar	3.31	75	P	Pn	01 25 41.5	+1.5
	comp=N,19nm,0.3s,SNR=56						
EQUE				S	Sn	01 26 19.3	-0.1
	comp=N,25nm,0.2s,SNR=7.9						
EBAN	Banos Encina	3.41	58	⇑P	Pn	01 25 42.1	+0.8
	comp=N,52nm,0.1s,SNR=18						
EBAN				S	Sn	01 26 19.1	-2.7
	comp=N,97nm,0.1s,SNR=7.9						
EBAN	Banos Encina	3.41	58	Pn	Pn	01 25 42.1	+0.8
EBAN				Lg		01 26 21.4	
EBAN	Banos Encina	3.41	58	P	Pn	01 25 42.1	+0.8
	comp=N,52nm,0.1s,SNR=18						
EBAN				S	Sn	01 26 19.1	-2.7
	comp=N,97nm,0.1s,SNR=7.9						
MIF	Mishlifen	3.48	148	P	Pn	01 25 42.0	-0.3
MIF				S	Sn	01 26 19.0	-4.6
MIF	Mishlifen	3.48	148	i P	Pn	01 25 42.0	-0.3
MIF				i S	Sn	01 26 19.0	-4.6
TZK	Tazeka	3.51	130	P	Pn	01 25 43.0	+0.2
TZK				S	Sn	01 26 21.0	-3.4
TZK	Tazeka	3.51	130	i P	Pn	01 25 43.0	+0.2
TZK				i S	Sn	01 26 21.0	-3.4
EALB	Alboran	3.59	96	P	Pn	01 25 42.8	-1.0
	comp=N,17nm,0.2s,SNR=8.9						
EALB				S	Sn	01 26 24.0	-2.3
	comp=N,26nm,0.3s,SNR=7.9						
EALB	Alboran	3.59	96	S	Sn	01 26 24.0	-2.3
	comp=N,26nm,0.3s,SNR=7.9						
EBER	Berja	3.69	81	P	Pn	01 25 46.5	+1.2
	comp=N,22nm,0.3s,SNR=43						
EBER				S	Sn	01 26 28.3	-0.5
	comp=N,23nm,0.3s,SNR=7.9						
EBER	Berja	3.69	81	P	Pn	01 25 46.5	+1.3
	comp=N,22nm,0.3s,SNR=43						
EBER				S	Sn	01 26 28.3	-0.5
	comp=N,23nm,0.3s,SNR=7.9						
EQES	Quesada	3.77	67	⇑P	Pn	01 25 46.8	+0.6
	comp=N,13nm,0.3s,SNR=18						
EQES				S	Sn	01 26 30.0	-0.6
	comp=N,25nm,0.1s,SNR=7.9						
EQES	Quesada	3.77	67	Pn	Pn	01 25 47.2	+0.9
EQES				Lg		01 26 30.0	
EQES	Quesada	3.77	67	P	Pn	01 25 46.8	+0.6
	comp=N,13nm,0.3s,SNR=18						
EQES	Quesada	3.77	67	Pn	Pn	01 25 47.2	+1.0
EQES				S	Sn	01 26 30.0	-0.6
	comp=N,25nm,0.1s,SNR=7.9						
CZD	Col de Zad	3.88	149	P	Pn	01 25 47.0	-0.9
CZD				S	Sn	01 26 28.0	-5.5
CZD	Col de Zad	3.88	149	i P	Pn	01 25 47.0	-0.9
CZD				i S	Sn	01 26 28.0	-5.5
KIB	El Ksiba	3.97	163	P	Pn	01 25 47.0	-2.1
KIB				S	Sn	01 26 29.0	-6.7
KIB	El Ksiba	3.97	163	i P	Pn	01 25 47.0	-2.1
KIB				i S	Sn	01 26 29.0	-6.7
PAB	San Pablo	3.99	37	ePn	Pn	01 25 50.2	+0.9
PAB				eSn	Sn	01 26 32.5	-3.6
PAB	San Pablo	3.99	37	ePn	Pn	01 25 50.2	+0.9
PAB				eSn	Sn	01 26 32.5	-3.6
MTE	Manteigas	4.01	359	ePn	Pn	01 25 49.7	+0.2
MTE				eSn	Sn	01 26 34.0	-2.5
MTE				A		01 27 08.4	
	comp=N,69nm,0.5s						
MTE	Manteigas	4.01	359	ePn	Pn	01 25 49.4	-0.2
MTE				eSn	Sn	01 26 33.2	-3.3
MTE	Manteigas	4.01	359	ePn	Pn	01 25 49.7	+0.2
MTE				eSn	Sn	01 26 34.0	-2.5
	comp=N,69nm,0.5s						
EHUE	Huescar	4.13	68	P	Pn	01 25 51.7	+0.5
	comp=N,16nm,0.2s,SNR=7.9						
EHUE				S	Sn	01 26 38.7	-0.8
	comp=N,19nm,0.2s,SNR=7.9						
EHUE	Huescar	4.13	68	P	Pn	01 25 51.7	+0.5
	comp=N,16nm,0.2s,SNR=7.9						
EHUE				S	Sn	01 26 38.7	-0.8
	comp=N,19nm,0.2s,SNR=7.9						
ENIJ	Nijar	4.24	81	P	Pn	01 25 53.4	+0.6
	comp=N,7.6nm,0.2s,SNR=13						
ENIJ				S	Sn	01 26 40.4	-1.9
	comp=N,5.1nm,0.3s,SNR=7.9						
ENIJ	Nijar	4.24	81	P	Pn	01 25 53.4	+0.6
	comp=N,7.6nm,0.2s,SNR=13						
ENIJ				S	Sn	01 26 40.4	-2.0
	comp=N,5.1nm,0.3s,SNR=7.9						
MDT	Midelt	4.25	146	Pn	Pn	01 25 51.6	-1.3
	comp=N,14nm,0.3s,baz=331,slow=10.0,SNR=799						
MDT				Sn	Sn	01 26 35.9	-6.8
	comp=N,20nm,0.3s,baz=163,slow=12,SNR=35						
MDT	Midelt	4.25	146	Pn	Pn	01 25 51.6	-1.4
MDT				Sn	Sn	01 26 35.9	-6.8
ESDC	Sonseca Array	4.28	39	P	Pn	01 25 54.0	+0.7
	comp=N,39nm,0.1s,baz=224,slow=13,SNR=303						
ESDC				S	Sn	01 26 41.5	-1.7
	comp=N,46nm,0.2s,baz=222,slow=23,SNR=7.9						
ESDC	Sonseca Array	4.28	39	Pn	Pn	01 25 54.0	+0.8
	comp=N,12nm,0.3s,baz=223,slow=13,SNR=175						
ESDC				Sn	Sn	01 26 39.5	-3.7
	comp=N,7.6nm,0.3s,baz=224,slow=17,SNR=4.4						
ESDC	Sonseca Array	4.28	39	Pn	Pn	01 25 54.0	+0.7
ESDC				Lg		01 26 40.9	
ESDC	Sonseca Array	4.28	39	P	Pn	01 25 54.0	+0.8
	comp=N,39nm,0.1s,slow=13,SNR=303						
ESDC				S	Sn	01 26 39.4	-3.8
	comp=N,46nm,0.2s,baz=222,slow=23,SNR=7.9						
ESLA	Sonseca Array	4.28	39	ePn	Pn	01 25 53.9	+0.6
ESLA				eSn	Sn	01 26 40.8	-2.4
ESLA	Sonseca Array	4.28	39	ePn	Pn	01 25 53.9	+0.7
ESLA				eSn	Sn	01 26 40.8	-2.4
PVIS	Viseu	4.34	355	ePn	Pn	01 25 54.1	0.0
PVIS				eSn	Sn	01 26 42.2	-2.5
PVIS				A		01 27 21.9	
	comp=N,36nm,0.6s						
PVIS	Viseu	4.34	355	P	Pn	01 25 54.1	0.0
PVIS				S	Sn	01 26 42.2	-2.5
	comp=N,18nm,0.6s						
PVIS	Viseu	4.34	355	ePn	Pn	01 25 54.1	0.0
PVIS				eSn	Sn	01 26 42.2	-2.5
	comp=N,36nm,0.6s						
EVIA	Vianos	4.52	59	P	Pn	01 25 56.7	+0.1
	comp=N,71nm,0.3s,SNR=144						
EVIA				S	Sn	01 26 45.8	-3.4
	comp=N,8.9nm,0.3s,SNR=7.9						
EVIA	Vianos	4.52	59	P	Pn	01 25 56.7	+0.1
	comp=N,71nm,0.3s,SNR=144						
EVIA				S	Sn	01 26 45.8	-3.4
	comp=N,8.9nm,0.3s,SNR=7.9						
MVO	Moncorvo	4.78	4	ePn	Pn	01 26 00.3	+0.1
MVO				eSn	Sn	01 26 52.7	-2.9
MVO				A		01 26 55.1	
	comp=N,61nm,0.6s						
MVO	Moncorvo	4.78	4	P	Pn	01 26 00.3	+0.1
MVO				S	Sn	01 26 52.7	-2.9
	comp=N,30nm,0.6s						
MVO	Moncorvo	4.78	4	ePn	Pn	01 26 00.3	+0.1
PTO	Porto	4.83	349	ePn	Pn	01 26 01.1	+0.2
PTO				eSn	Sn	01 26 53.7	-3.2
PTO				A		01 26 56.0	
	comp=N,60nm,0.1s						
PTO	Porto	4.83	349	P	Pn	01 26 01.1	+0.2
PTO				S	Sn	01 26 53.7	-3.2
	comp=N,30nm,0.1s						
PTO	Porto	4.83	349	ePn	Pn	01 26 01.1	+0.2
PTO				eSn	Sn	01 26 53.7	-3.2
	comp=N,60nm,0.1s						
PVRL	Vila Real	4.89	358	ePn	Pn	01 26 01.6	0.0
PVRL				eSn	Sn	01 26 55.5	-2.7
PVRL				A		01 26 57.2	
	comp=N,37nm,0.2s						
PVRL	Vila Real	4.89	358	P	Pn	01 26 01.6	0.0
PVRL				S	Sn	01 26 55.5	-2.7
	comp=N,19nm,0.2s						
PVRL	Vila Real	4.89	358	ePn	Pn	01 26 01.6	0.0
PVRL				eSn	Sn	01 26 55.5	-2.7
	comp=N,37nm,0.2s						
CIA	Chichaoua	4.93	193	P	Pn	01 26 00.5	-1.8
CIA				S	Sn	01 26 51.0	-8.4
CIA	Chichaoua	4.93	193	i P	Pn	01 26 00.5	-1.8
CIA				i S	Sn	01 26 51.0	-8.4
GUD	Guadarrama	4.97	30	⇑P	Pn	01 26 03.7	+1.0
	comp=N,11nm,0.2s,SNR=18						
GUD				S	Sn	01 26 58.7	-1.5
	comp=N,8.4nm,0.2s,SNR=7.9						
GUD	Guadarrama	4.97	30	P	Pn	01 26 03.7	+1.0
	comp=N,11nm,0.2s,SNR=18						
ZFT	Errachidia	5.04	149	P	Pn	01 26 02.0	-1.7
ZFT				S	Sn	01 26 57.0	-5.0
ZFT	Errachidia	5.04	149	i P	Pn	01 26 02.0	-1.7
ZFT				i S	Sn	01 26 57.0	-5.0
EMUR	La Murta	5.16	72	P	Pn	01 26 05.8	+0.4
	comp=N,16nm,0.3s,SNR=65						
EMUR				S	Sn	01 27 03.1	-1.9
	comp=N,4.4nm,0.2s,SNR=7.9						
EMUR	La Murta	5.16	72	Pn	Pn	01 26 06.1	+0.7
EMUR				Lg		01 27 03.1	
EMUR	La Murta	5.16	72	P	Pn	01 26 05.8	+0.4
	comp=N,16nm,0.3s,SNR=65						
EMUR	La Murta	5.16	72	Pn	Pn	01 26 06.1	+0.7
EMUR				S	Sn	01 27 03.1	-1.9
	comp=N,4.4nm,0.2s,SNR=7.9						
OUK	Oukaimeden	5.18	184	P	Pn	01 26 04.0	-1.6
OUK				S	Sn	01 26 58.0	-7.4
OUK	Oukaimeden	5.18	184	i P	Pn	01 26 04.0	-1.6
OUK				i S	Sn	01 26 58.0	-7.4
ETOB	Tobarra	5.20	63	⇑P	Pn	01 26 06.0	+0.1
	comp=N,22nm,0.1s,SNR=18						
ETOB				S	Sn	01 27 02.9	-3.0
	comp=N,26nm,0.1s,SNR=7.9						
ETOB	Tobarra	5.20	63	Pn	Pn	01 26 06.0	+0.1
ETOB				Lg		01 27 03.5	
ETOB	Tobarra	5.20	63	P	Pn	01 26 06.0	+0.1
	comp=N,22nm,0.1s,SNR=18						
ETOB				S	Sn	01 27 02.9	-2.9
	comp=N,26nm,0.1s,SNR=7.9						
PCAB	Cabril	5.34	355	ePn	Pn	01 26 07.8	0.0
PCAB				eSn	Sn	01 27 05.5	-3.8
PCAB				A		01 27 51.3	
	comp=N,23nm,0.5s						
PCAB	Cabril	5.34	355	P	Pn	01 26 07.8	0.0
PCAB				S	Sn	01 27 05.5	-3.8
	comp=N,12nm,0.5s						
PCAB	Cabril	5.34	355	ePn	Pn	01 26 07.8	0.0
PBRG	Braganca	5.44	5	ePn	Pn	01 26 09.2	0.0
PBRG				eSn	Sn	01 27 08.5	-3.3
PBRG				A		01 27 10.9	

	comp=N,20nm,0.3s						
PBRG	**Braganca**	5.44	5	P	Pn	01 26 09.2	0.0
PBRG				S	Sn	01 27 08.5	-3.3
	comp=N,9.9nm,0.3s						
PBRG	**Braganca**	5.44	5	*e*Pn	Pn	01 26 09.2	0.0
ELOB	**Lobios**	5.49	355	⇓P	Pn	01 26 10.0	+0.1
	comp=N,11nm,0.2s,SNR=18						
ELOB				S	Sn	01 27 09.0	-4.2
	comp=N,12nm,0.1s,SNR=7.9						
ELOB	**Lobios**	5.49	355	P	Pn	01 26 10.0	0.0
	comp=N,11nm,0.2s,SNR=18						
ECAL	**Calabor**	5.57	5	P	Pn	01 26 11.2	+0.1
	comp=N,38nm,0.2s,SNR=164						
ECAL				S	Sn	01 27 11.6	-3.5
	comp=N,50nm,0.4s,SNR=7.9						
ECAL	**Calabor**	5.57	5	P	Pn	01 26 11.2	+0.1
	comp=N,38nm,0.2s,SNR=164						
EZAM	**Zamans**	5.84	351	P	Pn	01 26 14.7	0.0
	comp=N,12nm,0.1s,SNR=7.9						
EZAM				S	Sn	01 27 17.6	-4.0
	comp=N,7.4nm,0.2s,SNR=7.9						
EZAM	**Zamans**	5.84	351	P	Pn	01 26 14.7	0.0
	comp=N,12nm,0.1s,SNR=7.9						
ERUA	**La Rua**	6.00	2	⇑P	Pn	01 26 17.2	+0.3
	comp=N,19nm,0.2s,SNR=18						
ERUA				S	Sn	01 27 20.9	-4.8
	comp=N,5.9nm,0.2s,SNR=7.9						
ERUA	**La Rua**	6.00	2	Pn	Pn	01 26 17.3	+0.4
ERUA				Lg		01 27 20.9	
ERUA	**La Rua**	6.00	2	Pn	Pn	01 26 17.3	+0.4
ECHE	**Chera**	6.03	56	P	Pn	01 26 17.6	+0.3
	comp=N,4.7nm,0.1s,SNR=33						
ECHE				S	Sn	01 27 22.9	-3.4
	comp=N,6.3nm,0.2s,SNR=7.9						
ECHE	**Chera**	6.03	56	Pn	Pn	01 26 17.6	+0.3
ECHE				Lg		01 27 23.6	
ECHE	**Chera**	6.03	56	P	Pn	01 26 17.6	+0.3
	comp=N,4.7nm,0.1s,SNR=33						
ETOR	**Torete**	6.11	42	⇓P	Pn	01 26 19.3	+0.9
	comp=N,42nm,0.2s,SNR=18						
ETOR				S	Sn	01 27 24.5	-3.9
	comp=N,110nm,0.2s,SNR=7.9						
ETOR	**Torete**	6.11	42	Pn	Pn	01 26 19.1	+0.7
ETOR				Lg		01 27 25.5	
ETOR	**Torete**	6.11	42	Pn	Pn	01 26 19.1	+0.7
ETOR	**Torete**	6.11	42	P	Pn	01 26 19.3	+0.9
	comp=N,42nm,0.2s,SNR=18						
EBEN	**Beniarda**	6.18	66	P	Pn	01 26 19.8	+0.4
	comp=N,5.3nm,0.3s,SNR=7.9						
EBEN				S	Sn	01 27 27.3	-2.8
	comp=N,13nm,0.3s,SNR=7.9						
EBEN	**Beniarda**	6.18	66	Pn	Pn	01 26 18.4	-1.0
EBEN				Lg		01 27 27.3	
EBEN	**Beniarda**	6.18	66	Pn	Pn	01 26 18.4	-1.0
EBEN	**Beniarda**	6.18	66	P	Pn	01 26 19.8	+0.4
	comp=N,5.3nm,0.3s,SNR=7.9						
STS	**Santiago**	6.55	353	P	Pn	01 26 24.6	+0.2
	comp=N,9.5nm,0.1s,SNR=7.9						
STS				S	Sn	01 27 32.8	-6.3
	comp=N,3.5nm,0.2s,SNR=7.9						
STS	**Santiago**	6.55	353	Pn	Pn	01 26 24.2	-0.3
STS				Lg		01 27 34.5	
STS	**Santiago**	6.55	353	Pn	Pn	01 26 24.2	-0.2
EMAZ	**Mazaricos**	6.66	350	P	Pn	01 26 26.4	+0.4
	comp=N,4.2nm,0.2s,SNR=5.2						
EMAZ				S	Sn	01 27 36.7	-5.2
	comp=N,7.0nm,0.2s,SNR=7.9						
EMAZ	**Mazaricos**	6.66	350	P	Pn	01 26 26.4	+0.4
	comp=N,4.2nm,0.2s,SNR=5.2						
EMOS	**Mosqueruela**	6.76	52	P	Pn	01 26 28.9	+1.6
	comp=N,1.8nm,0.1s,SNR=37						
EMOS				S	Sn	01 27 40.2	-4.1
	comp=N,30nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	6.76	52	Pn	Pn	01 26 29.2	+1.8
EMOS				Lg		01 27 41.9	
EMOS	**Mosqueruela**	6.76	52	Pn	Pn	01 26 29.2	+1.9
YBT	**Youssef Ben Ta**	6.78	197	P	Pn	01 26 24.0	-3.7
YBT				S	Sn	01 27 33.0	-12
EPON	**Pontenova**	6.94	2	P	Pn	01 26 29.9	+0.2
	comp=N,1.3nm,0.2s,SNR=7.9						
EPON				S	Sn	01 27 43.7	-5.0
	comp=N,3.5nm,0.3s,SNR=7.9						
EPON	**Pontenova**	6.94	2	Pn	Pn	01 26 30.1	+0.3
EPON				Lg		01 27 43.7	
EPON	**Pontenova**	6.94	2	Pn	Pn	01 26 30.1	+0.3
EARI	**Arriondas**	7.12	13	P	Pn	01 26 32.8	+0.6
	comp=N,1.8nm,0.2s,SNR=19						
EARI				S	Sn	01 27 48.8	-4.2
	comp=N,1.6nm,0.2s,SNR=7.9						
EARI	**Arriondas**	7.12	13	Pn	Pn	01 26 33.6	+1.4
EARI				Lg		01 27 48.9	
EARI	**Arriondas**	7.12	13	P	Pn	01 26 32.8	+0.6
	comp=N,1.8nm,0.2s,SNR=19						
EARI	**Arriondas**	7.12	13	Pn	Pn	01 26 33.6	+1.4
ECRI	**Cripan**	7.29	30	P	Pn	01 26 36.4	+1.8
	comp=N,4.3nm,0.1s,SNR=7.9						
ECRI				S	Sn	01 27 52.9	-4.4
	comp=N,4.1nm,0.2s,SNR=7.9						
ECRI	**Cripan**	7.29	30	P	Pn	01 26 36.4	+1.8
	comp=N,4.3nm,0.1s,SNR=7.9						
EIBI	**Ibiza**	7.44	67	P	Pn	01 26 36.2	-0.5
	comp=N,3.4nm,0.2s,SNR=7.5						
EIBI				S	Sn	01 27 56.6	-4.5
	comp=N,6.3nm,0.2s,SNR=7.9						
EIBI	**Ibiza**	7.44	67	Pn	Pn	01 26 36.9	+0.2
EIBI				Lg		01 27 57.2	
EIBI	**Ibiza**	7.44	67	Pn	Pn	01 26 36.9	+0.2
ELAN	**Lanestosa**	7.50	23	P	Pn	01 26 38.6	+1.1
	comp=N,6.1nm,0.5s,SNR=11						
ELAN				S	Sn	01 27 58.7	-3.8
	comp=N,4.2nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	7.50	23	Pn	Pn	01 26 38.8	+1.4
ELAN				Lg		01 27 58.7	
ELAN	**Lanestosa**	7.50	23	Pn	Pn	01 26 38.8	+1.3
ESAC	**San Caprasio**	7.60	43	P	Pn	01 26 39.9	+1.1
	comp=N,3.8nm,0.1s,SNR=7.9						
ESAC				S	Sn	01 28 03.9	-1.1
	comp=N,52nm,0.4s,SNR=7.9						
ESAC	**San Caprasio**	7.60	43	Pn	Pn	01 26 41.2	+2.4
ESAC				Lg		01 28 00.1	
ESAC	**San Caprasio**	7.60	43	P	Pn	01 26 39.9	+1.0
	comp=N,3.8nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	7.60	43	Pn	Pn	01 26 41.2	+2.3
ESAC				S	Sn	01 28 03.8	-1.2
	comp=N,52nm,0.4s,SNR=7.9						
ERTA	**Horta de San J**	7.60	51	P	Pn	01 26 39.9	+1.0
	comp=N,0.9nm,0.1s,SNR=18						
ERTA				S	Sn	01 28 01.1	-4.0
	comp=N,5.4nm,0.3s,SNR=7.9						
ERTA	**Horta de San J**	7.60	51	Pn	Pn	01 26 40.4	+1.5
ERTA				Lg		01 28 00.0	
ERTA	**Horta de San J**	7.60	51	P	Pn	01 26 39.9	+1.0
	comp=N,0.9nm,0.1s,SNR=18						
ERTA	**Horta de San J**	7.60	51	Pn	Pn	01 26 40.4	+1.5
EARA	**Aranguren**	7.82	34	P	Pn	01 26 43.9	+2.1
	comp=N,4.1nm,0.2s,SNR=7.9						
EARA				S	Sn	01 28 05.5	-4.9
	comp=N,11nm,0.3s,SNR=7.9						
EARA	**Aranguren**	7.82	34	P	Pn	01 26 43.9	+2.1
	comp=N,4.1nm,0.2s,SNR=7.9						
IUNC	**Unciti**	7.84	34	P	Pn	01 26 44.0	+1.8
	comp=N,3.2nm,0.3s,SNR=5.7						
IUNC				S	Sn	01 28 05.8	-5.1
	comp=N,5.1nm,0.2s,SNR=7.9						
IUNC	**Unciti**	7.84	34	P	Pn	01 26 44.0	+1.8
	comp=N,3.2nm,0.3s,SNR=5.7						
IZUN	**Zunzarren**	7.94	34	P	Pn	01 26 45.6	+2.1
	comp=N,3.4nm,0.2s,SNR=7.9						
IZUN				S	Sn	01 28 08.4	-5.0
	comp=N,3.6nm,0.3s,SNR=7.9						
IZUN	**Zunzarren**	7.94	34	P	Pn	01 26 45.6	+2.0
	comp=N,3.4nm,0.2s,SNR=7.9						
IPRE	**Itoiz**	7.94	34	P	Pn	01 26 45.6	+2.0
	comp=N,1.7nm,0.3s,SNR=7.9						
IPRE	**Itoiz**	7.94	34	P	Pn	01 26 45.6	+2.0
	comp=N,1.7nm,0.3s,SNR=7.9						
IUSE	**Utxeti**	7.97	33	P	Pn	01 26 46.1	+2.1
	comp=N,3.8nm,0.3s,SNR=5.1						
IUSE				S	Sn	01 28 10.0	-4.1
	comp=N,3.8nm,0.3s,SNR=7.9						
IUSE	**Utxeti**	7.97	33	P	Pn	01 26 46.1	+2.2
	comp=N,3.8nm,0.3s,SNR=5.1						
EORO	**Oroz-Betelu**	8.03	34	P	Pn	01 26 47.1	+2.3
	comp=N,2.7nm,0.1s,SNR=31						
EORO				S	Sn	01 28 12.0	-3.6
	comp=N,3.9nm,0.2s,SNR=7.9						
EORO	**Oroz-Betelu**	8.03	34	P	Pn	01 26 47.1	+2.3
	comp=N,2.7nm,0.1s,SNR=31						
ELIZ	**Elizondo**	8.15	32	P	Pn	01 26 48.5	+2.0
	comp=N,6.3nm,0.4s,SNR=14						
ELIZ				S	Sn	01 28 12.7	-5.9
	comp=N,3.5nm,0.2s,SNR=7.9						
ELIZ	**Elizondo**	8.15	32	Pn	Pn	01 26 48.5	+2.0
ELIZ				Lg		01 28 16.0	
ELIZ	**Elizondo**	8.15	32	P	Pn	01 26 48.5	+2.0
	comp=N,6.3nm,0.4s,SNR=14						
EALK	**Alkurruntz**	8.21	32	P	Pn	01 26 49.2	+2.0
	comp=N,5.0nm,0.3s,SNR=12						
EALK				S	Sn	01 28 14.5	-5.5
	comp=N,34nm,0.4s,SNR=7.9						
EALK	**Alkurruntz**	8.21	32	Pn	Pn	01 26 49.5	+2.3
EALK				Lg		01 28 15.3	
EALK	**Alkurruntz**	8.21	32	Pn	Pn	01 26 49.5	+2.3
SJPF	**Ste Jean**	8.24	34	*e*Pn	Pn	01 26 49.1	+1.4
SJPF				*e*Sn	Sn	01 28 16.3	-4.6
	comp=N,13nm,0.2s						
SJPF	**Ste Jean**	8.24	34	P	Pn	01 26 49.1	+1.4
SJPF				S	Sn	01 28 16.3	-4.6
	comp=N,6.4nm,0.2s						
SJPF	**Ste Jean**	8.24	34	*e*Pn	Pn	01 26 49.1	+1.4
EPOB	**Poblet**	8.29	51	P	Pn	01 26 49.4	+1.1
	comp=N,1.3nm,0.1s,SNR=10.0						
EPOB				S	Sn	01 28 16.8	-5.1
	comp=N,2.4nm,0.4s,SNR=7.9						
EPOB	**Poblet**	8.29	51	Pn	Pn	01 26 49.4	+1.1
EPOB				Lg		01 28 17.8	
EPOB	**Poblet**	8.29	51	P	Pn	01 26 49.4	+1.1
	comp=N,1.3nm,0.1s,SNR=10.0						
ETSF	**Etsaut**	8.39	37	*e*Pn	Pn	01 26 50.7	+1.0
ETSF				*e*Sn	Sn	01 28 19.7	-4.8
	comp=N,10nm,0.4s						
ETSF	**Etsaut**	8.39	37	P	Pn	01 26 50.7	+1.0
ETSF				S	Sn	01 28 19.7	-4.8
	comp=N,5.1nm,0.4s						
ETSF	**Etsaut**	8.39	37	*e*Pn	Pn	01 26 50.7	+1.0
EBIE	**Bielsa**	8.59	41	P	Pn	01 26 53.6	+1.1
	comp=N,8.7nm,0.3s,SNR=33						
EBIE				S	Sn	01 28 24.4	-5.0
	comp=N,12nm,0.5s,SNR=7.9						
EBIE	**Bielsa**	8.59	41	Pn	Pn	01 26 54.1	+1.7
EBIE				Lg		01 28 25.4	
EBIE	**Bielsa**	8.59	41	P	Pn	01 26 53.6	+1.1
	comp=N,8.7nm,0.3s,SNR=33						
EBIE	**Bielsa**	8.59	41	Pn	Pn	01 26 54.1	+1.6
ETOS	**Mallorca**	8.76	64	P	Pn	01 26 54.4	-0.4
	comp=N,1.1nm,0.2s,SNR=7.9						
ETOS				S	Sn	01 28 27.6	-5.9
	comp=N,2.1nm,0.3s,SNR=7.9						
ETOS	**Mallorca**	8.76	64	P	Pn	01 26 54.4	-0.4
	comp=N,1.1nm,0.2s,SNR=7.9						
EFAM	**Famara**	8.87	217	S	Sn	01 28 23.1	-13
	comp=N,4.6nm,0.2s,SNR=7.9						
EMIR	**Miracle**	8.88	49	P	Pn	01 26 57.6	+1.1
	comp=N,0.9nm,0.1s,SNR=7.9						
EMIR				S	Sn	01 28 32.2	-4.4
	comp=N,5.2nm,0.3s,SNR=7.9						
EMIR	**Miracle**	8.88	49	Pn	Pn	01 26 57.6	+1.1
EMIR				Lg		01 28 32.2	
EMIR	**Miracle**	8.88	49	P	Pn	01 26 57.6	+1.1
	comp=N,0.9nm,0.1s,SNR=7.9						
EPF	**Esparros**	8.94	40	*e*Pn	Pn	01 26 58.5	+1.3
EPF				*e*Sn	Sn	01 28 32.7	-5.2
	comp=N,10nm,0.3s						
EPF	**Esparros**	8.94	40	P	Pn	01 26 58.5	+1.3
EPF				S	Sn	01 28 32.7	-5.2
	comp=N,5.2nm,0.3s						
EPF	**Esparros**	8.94	40	*e*Pn	Pn	01 26 58.5	+1.3
CFUE	**Fuerteventura**	9.47	217	S	Sn	01 28 38.4	-13
	comp=N,5.1nm,0.1s,SNR=7.9						
CFTV	**Fuerteventura**	9.73	217	S	Sn	01 28 42.0	-15
	comp=N,1.1nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	10.16	44	*e*Pn	Pn	01 27 14.1	+0.1
MTLF				*e*Sn	Sn	01 29 02.5	-5.4
	comp=N,0.9nm,0.2s						
MTLF	**Montolieu**	10.16	44	P	Pn	01 27 14.1	+0.1
MTLF				S	Sn	01 29 02.5	-5.4
	comp=N,0.4nm,0.2s						
MTLF	**Montolieu**	10.16	44	*e*Pn	Pn	01 27 14.1	+0.1
LFF	**La Frestale**	10.56	33	*e*Pn	Pn	01 27 19.4	0.0
LFF				*e*Sn	Sn	01 29 11.7	-5.9
	comp=N,4.3nm,0.4s						
LFF	**La Frestale**	10.56	33	P	Pn	01 27 19.4	0.0
LFF				S	Sn	01 29 11.7	-5.9
	comp=N,2.2nm,0.4s						
LFF	**La Frestale**	10.56	33	*e*Pn	Pn	01 27 19.4	0.0
CAF	**Calviac**	11.16	37	*e*Pn	Pn	01 27 28.0	+0.3
CAF				*e*Sn	Sn	01 29 25.3	-7.2
	comp=N,3.2nm,0.4s						
CAF	**Calviac**	11.16	37	P	Pn	01 27 28.0	+0.3
CAF				S	Sn	01 29 25.3	-7.2
	comp=N,1.6nm,0.4s						
CAF	**Calviac**	11.16	37	*e*Pn	Pn	01 27 28.0	+0.3
RJF	**Les Rejaudoux**	11.19	34	*e*Pn	Pn	01 27 27.9	-0.1
RJF				*e*Sn	Sn	01 29 26.0	-7.1
	comp=N,3.2nm,0.3s						
RJF	**Les Rejaudoux**	11.19	34	P	Pn	01 27 27.9	-0.1
RJF				S	Sn	01 29 26.0	-7.1
	comp=N,1.6nm,0.3s						
RJF	**Les Rejaudoux**	11.19	34	*e*Pn	Pn	01 27 27.9	-0.1
LASF	**Ste Croix**	11.54	45	*e*Pn	Pn	01 27 33.1	+0.2
LASF	**Ste Croix**	11.54	45	*e*Pn	Pn	01 27 33.1	+0.2
MFF	**Saint Martin d**	11.57	26	*e*Pn	Pn	01 27 33.1	-0.2
MFF	**Saint Martin d**	11.57	26	*e*Pn	Pn	01 27 33.1	-0.2
QUIF	**Quistinic**	11.95	14	*e*Pn	Pn	01 27 37.4	-1.0
QUIF	**Quistinic**	11.95	14	*e*Pn	Pn	01 27 37.4	-1.0
TCF	**Toulx Ste Croi**	12.25	33	*e*Pn	Pn	01 27 42.2	-0.4
TCF	**Toulx Ste Croi**	12.25	33	*e*Pn	Pn	01 27 42.2	-0.4
ROSF	**Rostrenen**	12.33	13	*e*Pn	Pn	01 27 43.0	-0.6
ROSF	**Rostrenen**	12.33	13	*e*Pn	Pn	01 27 43.0	-0.6
SGMF	**Saint Gilles**	12.39	15	*e*Pn	Pn	01 27 43.6	-0.9
SGMF	**Saint Gilles**	12.39	15	*e*Pn	Pn	01 27 43.6	-0.9
VIVF	**Saint-Julien-l**	12.49	44	*e*Pn	Pn	01 27 45.6	-0.2
VIVF	**Saint-Julien-l**	12.49	44	*e*Pn	Pn	01 27 45.6	-0.2
BGF	**Bois d'Agland**	12.74	34	*e*Pn	Pn	01 27 48.5	-0.8
BGF	**Bois d'Agland**	12.74	34	*e*Pn	Pn	01 27 48.5	-0.8
GRR	**Gorron**	12.93	20	*e*Pn	Pn	01 27 51.1	-0.8
GRR	**Gorron**	12.93	20	*e*Pn	Pn	01 27 51.1	-0.8
AVF	**Avril sur Loir**	13.15	34	*e*Pn	Pn	01 27 54.0	-0.8
AVF	**Avril sur Loir**	13.15	34	*e*Pn	Pn	01 27 54.0	-0.8
SMF	**Signal de Mont**	13.27	36	*e*Pn	Pn	01 27 55.7	-0.8
SMF	**Signal de Mont**	13.27	36	*e*Pn	Pn	01 27 55.7	-0.8
LDF	**La Druitiere**	13.33	22	*e*Pn	Pn	01 27 57.1	-0.2
LDF	**La Druitiere**	13.33	22	*e*Pn	Pn	01 27 57.1	-0.2
FLN	**La Foliniere**	13.38	20	*e*Pn	Pn	01 27 57.7	-0.2
FLN	**La Foliniere**	13.38	20	*e*Pn	Pn	01 27 57.7	-0.2
SSF	**Saint Saulge**	13.42	34	*e*Pn	Pn	01 27 57.9	-0.6
SSF	**Saint Saulge**	13.42	34	*e*Pn	Pn	01 27 57.9	-0.6
KEST	**Kesra**	13.60	88	Pn	Pn	01 28 03.5	+2.5
	comp=N,0.0nm,0.3s,baz=276,slow=18,SNR=4.1						
LOR	**Lormes**	13.74	34	*e*Pn	Pn	01 28 02.2	-0.6
LOR	**Lormes**	13.74	34	*e*Pn	Pn	01 28 02.2	-0.6
PGF	**Pioggiola**	14.10	59	*e*Pn	Pn	01 28 07.7	-0.1
PGF	**Pioggiola**	14.10	59	*e*Pn	Pn	01 28 07.7	-0.1
BAIF	**Baives**	16.06	28	*e*Pn	Pn	01 28 34.1	+0.2
BAIF	**Baives**	16.06	28	*e*Pn	Pn	01 28 34.1	+0.2
GERES	**GERESS Array B**	19.85	45	P	Pn	01 29 22.7	+2.1
	comp=N,0.2nm,0.5s,baz=230,slow=10,SNR=3.3						
TORD	**Torodi Ar. Bea**	24.55	158	P	P	01 30 07.2	-0.8
	comp=N,0.4nm,0.6s,baz=345,slow=8.3,SNR=9.7						

NIED ***03*** *01:27:00, 30°.80N×137°.90E, h380km, Mw4.2 Best double couple:* $M_0 1.95000\times10^{15}$ *NP1:*ϕ_s*121.00000°,* δ*74.00000°,*λ*28.00000°. NP2:*ϕ_s*23.00000°,*δ*63.00000°,* λ*162.00000°.*
JMA ***03*** *01:27:05.5±0.5, 30°.85N×137°.87E, h511km, M3.9*
ISCJB ***03*** *01:27:06.1±0.3, 30°.75N±0°.04×137°.59E±0°.05, h486km±3km, mb3.8/44, Error ellipse: s-maj=7.6km s-min=6.0km az=31.1*
MOS ***03*** *01:27:06.1±0.7, 30°.73N×137°.36E, h484km, mb4.0/26, Error ellipse: s-maj=14.0km s-min=7.9km az=100.8*
BJI ***03*** *01:27:06.8, 30°.72N×137°.38E, h491km, mB4.8/10, mb4.6/16*
IDC ***03*** *01:27:07.1±0.7, 30°.78N×137°.41E, h478km±7km, mb3.4/25, mb1 3.5/30, mb1mx3.5/36, mbtmp3.4/30, Error ellipse: s-maj=11.6km s-min=8.8km az=103.0*
NEIC ***03*** *01:27:07.6±0.5, 30°.79N×137°.35E, h484km±5km, mb4.1/22, Error ellipse: s-maj=8.0km s-min=4.8km az=121.0*

ISC 03 01:27:07.5±0.4**, 30°.79N**±0°.05×**137°.52E**±0°.06**, h484**km±3km**,**
n120, σ**1s.01**/138**, mb3.8**/44**, 1C, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ	**Hachijo jima 2**	3.02	39	P	P	01 28 17.4	+0.2
	60nm,0.3s,baz=74,slow=20,SNR=30						
JHJ				S	S	01 29 13.6	-0.5
	50nm,0.3s,baz=82,slow=23,SNR=6.5						
JHJ2	**Mitsune**	3.03	40	P	P	01 28 17.4	+0.2
JHJ2				*e*S	S	01 29 13.2	-1.0
JWZ	**Kozaga**	3.13	331	P	P	01 28 19.0	+1.1
TK02	**Tokai 2**	3.15	4	P	P	01 28 19.5	+1.4
JKN2	**Miekihoku**	3.59	343	P	P	01 28 22.7	+1.3
JKN2				*e*S	S	01 29 22.6	+0.8
JIE	**Ise**	3.65	349	P	P	01 28 23.3	+1.4
JIE				*e*S	S	01 29 23.8	+1.2
HMMJ	**Hamamatsu 2**	4.06	2	P	P	01 28 26.3	+1.2
JTO	**Tosashimizu**	4.51	298	P	P	01 28 30.4	+1.3
JNY	**Yasuok**	4.56	4	P	P	01 28 30.9	+1.4
JNY				S	S	01 29 37.0	+0.5
JOD2	**Odawara 2**	4.65	16	P	P	01 28 29.8	-0.5
JOD2				*e*S	S	01 29 37.1	-0.8
BSO3	**Boso 3**	4.73	31	P	P	01 28 29.1	-1.8
BSO3				*e*S	S	01 29 34.7	-4.5
BSO4	**Boso 4**	4.81	29	P	P	01 28 30.0	-1.7
BSO4				*e*S	S	01 29 36.5	-4.1
BSO1	**Boso 1**	4.83	36	*e*S	S	01 29 36.3	-4.6
JRY	**Ryogami san**	5.34	12	P	P	01 28 36.7	+0.1
JRY				*e*S	S	01 29 45.8	-3.7
CBIJ	**Chichi jima**	5.50	131	S	S	01 29 47.2	-5.3
	63nm,0.3s,baz=279,slow=22,SNR=13						
JHS	**Saijyo**	5.59	320	P	P	01 28 40.1	+1.1
JHS				*e*S	S	01 29 55.5	+1.6
MJAR	**Matsushiro Arr**	5.76	6	P	P	01 28 40.4	-0.2
MJAR				S	S	01 29 55.4	-1.5
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MJAR	**Matsushiro Arr**	5.76	6	P	P	01 28 40.4	-0.2
	comp=Z,3.3nm,0.3s,baz=190,slow=7.9,SNR=52						
MJAR				S	S	01 29 55.4	-1.5
	comp=Z,0.2nm,0.3s,baz=340,slow=18,SNR=3.6						
MAJO	**Matsushiro**	5.76	6	*e*P	P	01 28 40.2	-0.4
MAJO				*e*S	S	01 29 54.2	-2.7
MAJO				pmax	pmax		
	comp=Z,21nm,0.5s						
MAJO	**Matsushiro**	5.76	6	*e*P	P	01 28 40.2	-0.4
	comp=Z,21nm,0.5s						
MAJO				*e*S	S	01 29 54.2	-2.7
MAT	**Matsushiro**	5.76	6	P	P	01 28 40.3	-0.3
MAT				S	S	01 29 53.3	-3.6
MAT	**Matsushiro**	5.76	6	P	P	01 28 40.3	-0.3
MAT				*e*S	S	01 29 53.1	-3.8
JYT	**Yasato**	5.86	22	P	P	01 28 39.2	-2.4
JYT				*e*S	S	01 29 51.9	-6.8
JHO	**Hitachi**	6.34	23	P	P	01 28 44.4	-1.9
JHO				*e*S	S	01 30 00.8	-6.4
JSJ	**Shimokoshiki**	6.74	280	P	P	01 28 51.4	+1.0
JMK	**Ichinoseki**	8.69	19	P	P	01 29 10.8	+0.2
JMK				S	S	01 30 47.9	-3.9
JOW	**Kunigami**	9.01	246	P	P	01 29 14.9	+0.7
	comp=Z,6.0nm,0.3s,baz=89,slow=15,SNR=6.2						
KSRS	**Korea Array**	10.36	312	P	P	01 29 29.0	+0.6
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	**Korea Array**	10.36	312	P	P	01 29 29.0	+0.6
	comp=Z,1.3nm,0.3s,baz=124,slow=10,SNR=26						
ASAJ	**Asahikawa**	13.89	15	P	P	01 30 07.6	+1.6
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	**Asahikawa**	13.89	15	P	P	01 30 07.6	+1.6
	comp=Z,4.2nm,0.3s,baz=230,slow=12,SNR=22						
CN2	**Changchun**	16.12	327	*e*P	P	01 30 28.9	-0.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
YULB	**Yu-li**	16.20	247	*e*P	P	01 30 27.8	-2.9
	comp=Z,46nm,0.9s						
SSLB	**Suanglung**	16.28	249	*e*P	P	01 30 29.9	-1.5
	comp=Z,29nm,0.6s						
YSS	**Yuzh-Sakhalins**	16.64	13	⇑*i*P	P	01 30 35.0	+0.2
YSS				pmax	pmax		
	comp=Z,20nm,0.5s						
YSS	**Yuzh-Sakhalins**	16.64	13	*e*P	P	01 30 35.2	+0.5
	comp=Z,12nm,0.5s						
KLR	**Kul'dur**	18.93	348	*e*P	P	01 30 53.0	-3.8
XAN	**Xi'an**	24.32	285	P	P	01 31 45.3	-0.5
XAN				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
XAN				pmax	pmax		
	comp=Z,29nm,3.5s						
PETK	**Petropavlovsk-**	26.70	28	P	P	01 32 07.7	+1.2
PETK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.6						
PETK	**Petropavlovsk-**	26.70	28	P	P	01 32 07.7	+1.2
	comp=Z,1.4nm,0.4s,mb3.7,baz=254,slow=14,SNR=14						
SONM	**Songino Array**	29.22	314	P	P	01 32 29.1	+0.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	29.22	314	P	P	01 32 29.1	+0.5
	comp=Z,0.8nm,0.5s,mb3.4,baz=123,slow=8.8,SNR=9.0						
ZAK	**Zakamensk**	32.14	317	*e*P	P	01 32 53.9	+0.1
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
CHTO	**Chiang Mai**	36.81	260	*e*P	P	01 33 32.9	-0.7
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.1						
CHTO	**Chiang Mai**	36.81	260	*e*P	P	01 33 32.9	-0.7
	comp=Z,7.0nm,0.8s,mb4.1						
CMAR	**Chiang Mai Arr**	36.98	260	P	P	01 33 35.0	+0.1
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CMAR	**Chiang Mai Arr**	36.98	260	P	P	01 33 35.0	+0.1
	comp=Z,3.9nm,0.6s,mb4.0,baz=53,slow=7.0,SNR=19						
KSM	**Kuching**	38.91	227	*e*P	P	01 33 51.0	+0.2
	comp=Z,14nm,0.9s,mb4.4						
BILL	**Bilibino**	40.91	16	*e*P	P	01 34 07.3	+1.2
BILL				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.4						
BILL	**Bilibino**	40.91	16	*e*P	P	01 34 07.3	+1.2
	comp=Z,13nm,0.8s,mb4.4						
TIXI	**Tiksi**	41.18	356	*e*P	P	01 34 08.1	-0.1
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
TIXI	**Tiksi**	41.18	356	*e*P	P	01 34 07.6	-0.6
	comp=Z,3.4nm,0.6s,mb4.0						
KULM	**Kulim**	42.93	241	*e*P	P	01 34 23.0	+0.1
	comp=Z,11nm,0.8s,mb4.3						
ZALV	**Zalesovo Beam**	44.02	317	P	P	01 34 30.4	-0.4
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.6						
ZALV	**Zalesovo Beam**	44.02	317	P	P	01 34 30.4	-0.4
	comp=Z,1.1nm,0.4s,mb3.6,baz=123,slow=5.3,SNR=4.8						
MK31	**Makanchi Array**	44.98	307	*e*P	P	01 34 38.1	-0.3
MKAR	**Makanchi Array**	44.98	307	P	P	01 34 37.9	-0.5
MKAR					pP	01 36 09.5	+0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	44.98	307	P	P	01 34 37.9	-0.5
	comp=Z,1.0nm,0.6s,mb3.4,baz=103,slow=8.8,SNR=7.6						
MKAR				PcP	PcP	01 36 09.5	0.0
	comp=Z,0.5nm,0.5s,baz=89,slow=6.8,SNR=4.7						
GAMB	**Gambell**	45.73	29	*e*P	P	01 34 45.1	+1.3
	comp=Z,2.2nm,0.5s,mb3.8						
PSI	**Prapat**	45.85	240	P	P	01 34 45.0	-0.5
PSI				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.1						
PSI	**Prapat**	45.85	240	P	P	01 34 45.0	-0.6
	comp=Z,5.6nm,0.7s,mb4.1,baz=73,slow=7.4,SNR=5.8						
PSI	**Prapat**	45.85	240	P	P	01 34 45.0	-0.6
KURK	**Kurchatov**	47.48	312	P	P	01 34 57.3	-0.1
KURK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.1						
KURK	**Kurchatov**	47.48	312	P	P	01 34 57.3	-0.1
	comp=Z,4.4nm,0.5s,mb4.1,baz=94,slow=10,SNR=23						
KURK	**Kurchatov**	47.48	312	*e*P	P	01 34 56.7	-0.7
	comp=Z,5.6nm,0.8s,mb4.0						
FITZ	**Fitzroy Crossi**	49.94	195	P	P	01 35 16.0	-0.1
	comp=Z,1.2nm,0.5s,mb3.5,baz=92,slow=9.5,SNR=5.6						
WRAB	**Tennant Creek**	50.52	184	*e*P	P	01 35 19.9	-0.4
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.7						
WRAB	**Tennant Creek**	50.52	184	*e*P	P	01 35 19.9	-0.4
	comp=Z,1.7nm,0.5s,mb3.6						
WRA	**Warramunga Arr**	50.53	184	P	P	01 35 20.1	-0.3

WRA				*PP	pP	01 36 52.0	-2.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
WRA	**Warramunga Arr**	**50.53**	**184**	P	**P**	**01 35 20.1**	**-0.3**
	comp=Z,1.0nm,0.3s,mb3.6,baz=0.4,slow=7.7,SNR=50						
WRA				pP	pP	01 36 52.0	-2.2
	comp=Z,0.8nm,0.8s,baz=4.3,slow=8.7,SNR=4.6						
BVAR	**Borovoye Array**	**52.56**	**315**	P	**P**	**01 35 34.2**	**-0.5**
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BVAR	**Borovoye Array**	**52.56**	**315**	P	**P**	**01 35 34.2**	**-0.5**
	comp=Z,1.8nm,0.5s,mb3.6,baz=114,slow=7.7,SNR=12						
ASAR	**Alice Springs**	**54.26**	**184**	P	**P**	**01 35 46.8**	**-0.4**
	comp=Z,0.5nm,0.5s,mb3.1,baz=11,slow=13,SNR=12						
ASAR				ScP	ScP	01 39 56.5	+1.3
	comp=Z,0.1nm,0.5s,baz=6.7,slow=4.6,SNR=4.1						
ASAR	**Alice Springs**	**54.26**	**184**	P	**P**	**01 35 46.8**	**-0.4**
ASAR				ScP	ScP	01 39 56.5	+1.3
MBWA	**Marble Bar**	**54.41**	**201**	*e*P	**P**	**01 35 47.5**	**-0.8**
	comp=Z,3.1nm,0.5s,mb3.9						
ARU	**Arti**	**58.99**	**320**	*e*P	**P**	**01 36 18.5**	**-0.9**
ARU				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb3.9						
ARU	**Arti**	**58.99**	**320**	*e*P	**P**	**01 36 18.5**	**-0.9**
	comp=Z,3.2nm,0.5s,mb3.9						
AKTK	**Aktyubinsk**	**60.53**	**314**	P	**P**	**01 36 28.8**	**-1.0**
AKTO	**Aktyubinsk**	**60.53**	**314**	P	**P**	**01 36 28.8**	**-1.0**
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
AKTO	**Aktyubinsk**	**60.53**	**314**	P	**P**	**01 36 28.8**	**-1.0**
	comp=Z,2.1nm,0.6s,mb3.8,baz=70,slow=12,SNR=5.9						
SPITS	**Spitsbergen Ar**	**66.00**	**349**	P	**P**	**01 37 05.4**	**+0.8**
SPITS				pmax	pmax		
	comp=Z,11nm,1.0s						
SPITS	**Spitsbergen Ar**	**66.00**	**349**	P	**P**	**01 37 05.4**	**+0.8**
	comp=Z,11nm,1.0s,mb4.5,baz=20,slow=6.2,SNR=7.9						
KEV	**Kevo**	**68.12**	**339**	*e*P	**P**	**01 37 17.2**	**-0.6**
KEV				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.4						
KEV	**Kevo**	**68.12**	**339**	*e*p	**P**	**01 37 17.2**	**-0.6**
	comp=Z,7.0nm,0.7s,mb4.4						
ARCES	**ARCESS Array B**	**68.69**	**340**	P	**P**	**01 37 21.6**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.4s						
ARCES	**ARCESS Array B**	**68.69**	**340**	P	**P**	**01 37 21.6**	**+0.4**
	comp=Z,4.1nm,0.4s,mb4.3,baz=62,slow=8.5,SNR=70						
RES	**Resolute Bay**	**69.42**	**13**	*e*P	**P**	**01 37 26.1**	**+0.6**
RES				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
RES	**Resolute Bay**	**69.42**	**13**	P	**P**	**01 37 26.0**	**+0.5**
	comp=Z,2.4nm,0.7s,mb3.9,baz=317,slow=6.1,SNR=25						
RES	**Resolute Bay**	**69.42**	**13**	*e*P	**P**	**01 37 26.1**	**+0.5**
	comp=Z,2.3nm,0.7s,mb3.8						
JOF	**Joensuu**	**69.94**	**332**	*e*P	**P**	**01 37 28.3**	**-0.6**
JOF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.2						
JOF	**Joensuu**	**69.94**	**332**	*e*p	**P**	**01 37 28.3**	**-0.6**
	comp=Z,3.7nm,0.5s,mb4.2						
YKA	**Yellowknife Ar**	**70.82**	**28**	P	**P**	**01 37 34.7**	**+0.6**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	**Yellowknife Ar**	**70.82**	**28**	P	**P**	**01 37 34.7**	**+0.6**
	comp=Z,1.2nm,0.5s,mb3.7,baz=300,slow=6.0,SNR=13						
YKA	**Yellowknife Ar**	**70.82**	**28**	P	**P**	**01 37 34.7**	**+0.6**
KAF	**Kangasniemi**	**72.35**	**333**	*e*P	**P**	**01 37 42.0**	**-1.1**
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.2						
KAF	**Kangasniemi**	**72.35**	**333**	*e*p	**P**	**01 37 42.0**	**-1.1**
	comp=Z,3.9nm,0.5s,mb4.2						
NEW	**Newport**	**76.90**	**41**	*e*P	**P**	**01 38 10.1**	**+1.1**
NEW				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NEW	**Newport**	**76.90**	**41**	*e*P	**P**	**01 38 10.1**	**+1.1**
	comp=Z,2.1nm,0.6s,mb3.8						
AKASG	**Malin Array Be**	**77.21**	**322**	P	**P**	**01 38 10.0**	**-0.6**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	**Malin Array Be**	**77.21**	**322**	P	**P**	**01 38 10.0**	**-0.6**
	comp=Z,1.6nm,0.4s,mb3.9,baz=50,slow=5.4,SNR=10						
AKASG	**Malin Array Be**	**77.21**	**322**	P	**P**	**01 38 10.0**	**-0.6**
KIEV	**Kiev**	**77.22**	**322**	*e*P	**P**	**01 38 10.2**	**-0.5**
KIEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.1						
KIEV	**Kiev**	**77.22**	**322**	*e*P	**P**	**01 38 10.2**	**-0.5**
	comp=Z,2.6nm,0.5s,mb4.0						
HFS	**Hagfors**	**78.39**	**335**	P	**P**	**01 38 15.9**	**-0.9**
HFS				pmax	pmax		
	comp=Z,4.0nm,0.4s						
HFS	**Hagfors**	**78.39**	**335**	P	**P**	**01 38 15.9**	**-1.0**
	comp=Z,3.9nm,0.4s,mb4.2,baz=108,slow=3.8,SNR=49						
NB2	**NORSAR Subarra**	**78.64**	**336**	P	**P**	**01 38 17.7**	**-0.4**
	comp=Z,4.3nm,0.7s,mb4.1,baz=47,slow=5.3						
NOA	**NORSAR Array B**	**78.64**	**336**	P	**P**	**01 38 18.0**	**-0.1**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NOA	**NORSAR Array B**	**78.64**	**336**	P	**P**	**01 38 17.9**	**-0.2**
	comp=Z,2.9nm,0.6s,mb4.0,baz=46,slow=5.1,SNR=8.3						
BRTR	**Keskin Array B**	**80.50**	**311**	P	**P**	**01 38 28.6**	**+0.1**
	comp=Z,0.5nm,0.6s,mb3.2,baz=77,slow=2.7,SNR=3.6						
FFC	**Flin Flon**	**80.71**	**30**	*e*P	**P**	**01 38 29.7**	**+0.5**
FFC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
FFC	**Flin Flon**	**80.71**	**30**	*e*P	**P**	**01 38 29.7**	**+0.5**
	comp=Z,1.9nm,0.7s,mb3.7						
HLID	**Hailey**	**81.04**	**44**	*e*P	**P**	**01 38 32.9**	**+1.7**
	comp=Z,1.3nm,0.7s,mb3.6						
BUR08	**Bucovina Ar. S**	**81.12**	**321**	*e*P	**P**	**01 38 31.9**	**+0.5**
NVAR	**Mina Array Bea**	**81.39**	**50**	P	**P**	**01 38 35.0**	**+1.9**
	comp=Z,1.3nm,0.5s,mb3.7,baz=294,slow=5.5,SNR=12						
MMAI	**Mount Meron Ar**	**82.85**	**304**	P	**P**	**01 38 40.9**	**+0.3**
	comp=Z,0.2nm,0.3s,mb3.1,baz=8.1,slow=3.1,SNR=3.2						
PDAR	**Pinedale Array**	**84.39**	**43**	P	**P**	**01 38 49.0**	**+1.0**
	comp=Z,0.6nm,0.8s,mb3.2,baz=297,slow=1.3,SNR=5.1						
GERES	**GERESS Array B**	**86.21**	**327**	P	**P**	**01 38 55.6**	**-1.2**
	comp=Z,0.3nm,0.5s,mb3.1,baz=33,slow=5.1,SNR=5.1						
SDCO	**Great Sand Dun**	**89.94**	**45**	*e*P	**P**	**01 39 15.7**	**+1.2**
	comp=Z,0.7nm,0.7s,mb3.6						
TXAR	**Lajitas Array**	**96.54**	**50**	P	**P**	**01 39 45.9**	**+1.1**
	comp=Z,0.2nm,0.5s,mb3.6,baz=342,slow=0.9,SNR=4.2						
TORD	**Torodi Ar. Bea**	**119.08**	**309**	PKP	PKPdf	01 45 00.3	-1.0
	comp=Z,0.3nm,0.7s,baz=6.6,slow=1.1,SNR=5.3						

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*ISCJB **03** 01:27:31.9±0.8, 10°.27N±0°.04×62°.19W±0°.03, h6^{km}±5^{km}, Error ellipse: s-maj=7.3km s-min=4.1km az=162.8*

*NEIC **03** 01:27:32.6, 10°.32N×62°.16W, h3^{km}, MD3.0(TRN), After TRN.*

*TRN **03** 01:27:32.7, 10°.33N×62°.16W, h1^{km}, MD3.0*

*FUNV **03** 01:27:33.5, 10°.36N×62°.12W, h15^{km}, MW2.6*

ISC 03 01:27:32.6±0.7, **10°.30N**±0°.04×**62°.19W**±0°.03, **h5**^{km}±5^{km}, **n18**, σ**0^{s}.84**/28, **2D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	**Guiria**	**0.35**	**355**	*e*P	**Pg**	**01 27 39.8**	**+0.4**
GUIV				*e*S	**Sg**	**01 27 44.0**	**0.0**
TCE	**Chacachacare**	**0.59**	**47**	⇓*i*P	**Pg**	**01 27 43.5**	**-0.4**
TCE				*e*S	**Sg**	**01 27 51.6**	**+0.1**
TPP	**Pointe-a-Pierr**	**0.73**	**88**	*e*P	**Pg**	**01 27 46.2**	**-0.4**
GUNV	**Guanoco**	**0.75**	**260**	*e*P	**Pg**	**01 27 48.1**	**+1.1**
GUNV				*e*S	**Sg**	**01 28 00.0**	**+3.2**
TRN	**Trinidad (W)**	**0.85**	**66**	*e*P	**Pg**	**01 27 48.2**	**-0.8**
TRN				*e*S	**Sg**	**01 27 59.6**	**-0.3**
CRUV	**Carupano**	**1.09**	**290**	⇓*e*P	**Pg**	**01 27 52.7**	**-0.9**
CRUV				*e*S	**Sg**	**01 28 08.7**	**+0.8**
TBH	**Brigand Hill**	**1.12**	**80**	*e*P	**Pg**	**01 27 54.0**	**-0.1**
ITEV	**Isla Los Testi**	**1.40**	**319**	*e*P	**Pn**	**01 27 57.6**	**-1.2**
ITEV				*e*S	**Sb**	**01 28 15.8**	**-1.6**
TPR	**Prospect**	**1.65**	**57**	*e*P	**Pn**	**01 28 02.7**	**+0.5**
TOSP	**Speyside**	**1.91**	**58**	*e*P	**Pn**	**01 28 06.3**	**+0.5**
TOSP				*e*S	**Sn**	**01 28 31.0**	**+0.8**
GRW	**Mount Saint Ca**	**1.93**	**16**	*e*P	**Pn**	**01 28 05.7**	**-0.3**
GRW				*e*S	**Sn**	**01 28 30.4**	**-0.1**
PCRV	**Puerto La Cruz**	**2.41**	**267**	*e*P	**Pn**	**01 28 12.4**	**-0.2**
SVB	**Belmont**	**3.10**	**17**	*e*P	**Pn**	**01 28 23.6**	**+1.5**
SVB				*e*S	**Sn**	**01 28 59.6**	**0.0**
SVB	**Belmont**	**3.10**	**17**	*e*P	**Pn**	**01 28 23.6**	**+1.5**
SVB				*e*S	**Sn**	**01 29 02.3**	**+2.7**
CUPV	**Cœpira**	**3.55**	**266**	*e*P	**Pn**	**01 28 28.5**	**+0.2**
BIRV	**Birongo**	**4.02**	**273**	*e*P	**Pn**	**01 28 34.9**	**+0.1**
CAOV	**Caicara del Or**	**5.04**	**234**	*e*P	**Pn**	**01 28 48.1**	**-0.7**
BAUV	**El Baul**	**5.92**	**257**	*e*P	**Pn**	**01 29 00.0**	**-1.0**

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*IDC **03** 01:30:17.5±1.7, 38°.48N×75°.19E, h0^{km}, mb3.8/5, mb1 3.8/10, mb1mx3.6/28, mbtmp3.6/10, ML3.2/5, MS2.4/1, Ms1 2.4/1, ms1mx2.2/33, Error ellipse: s-maj=33.6km s-min=20.1km az=139.0*

*ISCJB **03** 01:30:19.7±0.7, 38°.61N±0°.05×75°.15E±0°.07, h10^{km}, mb3.7/5, Error ellipse: s-maj=8.2km s-min=7.7km az=162.2*

*NNC **03** 01:30:23.5±6.4, 38°.99N×75°.07E, h0^{km}, mb3.9, mpv3.8, Error ellipse: s-maj=63.6km s-min=30.3km az=9.0*

*NEIC **03** 01:30:25.0±1.2, 38°.68N×75°.23E, h48^{km}±10^{km}, mb3.8/2, Error ellipse: s-maj=15.9km s-min=9.0km az=139.0*

*BJI **03** 01:30:28.7, 38°.76N×76°.14E, h25^{km}, mB4.3/1, mb3.9/2, ML3.3/5*

ISC 03 01:30:21.5±0.7, **38°.63N**±0°.05×**75°.21E**±0°.07, **h10**^{km}, **n41**, σ**1^{s}.31**/46, **mb3.7**/5, **5C-5D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	**Kashi**	**1.07**	**34**	Pg	Px	01 30 28.2	
KSH				Sg	Sx	01 30 36.2	
KSH				smax			
	comp=N,4µm,0.6s						
KSH				smax			
	comp=E,10µm,0.9s						
KZA	**Kyzart**	**3.44**	**1**	P	**Pn**	**01 31 16.3**	**+1.1**
	SNR=9.9						
UCH	**Uchtor**	**3.63**	**352**	*e*Pn	**Pn**	**01 31 19.0**	**+1.2**
UCH				*e*Sn	**Sn**	**01 32 00.6**	**-0.1**
AML	**Almayashu**	**3.69**	**342**	P	**Pn**	**01 31 19.7**	**+1.2**
	SNR=13						
AML	**Almayashu**	**3.69**	**342**	*e*Pn	**Pn**	**01 31 19.4**	**+1.0**
ULHL	**Ulahol**	**3.70**	**12**	P	**Pb**	**01 31 25.2**	**-1.7**
	SNR=9.8						
KBK	**Karagaybulak**	**4.03**	**357**	P	**Pn**	**01 31 24.9**	**+1.8**
	SNR=12						
AAK	**Ala-Archa**	**4.04**	**352**	P	**Pn**	**01 31 25.0**	**+1.7**
	SNR=9.5						
AAK	**Ala-Archa**	**4.04**	**352**	*e*Pn	**Pn**	**01 31 24.2**	**+0.9**
EKS2	**Erkin-Say**	**4.17**	**345**	*e*Pn	**Pn**	**01 31 26.1**	**+1.0**
EKS2				*e*Pg	**Pg**	**01 31 37.9**	**-3.5**
EKS2				*e*Sn	**Sn**	**01 32 13.6**	**-0.3**
TKM2	**Tokmak 2**	**4.30**	**4**	P	**Pn**	**01 31 29.0**	**+2.1**
	SNR=30						
TKM2	**Tokmak 2**	**4.30**	**4**	*e*Pn	**Pn**	**01 31 28.3**	**+1.4**
TKM2	**Tokmak 2**	**4.30**	**4**	⇑Pn	**Pn**	**01 31 28.7**	**+1.8**
	comp=E,12nm,0.6s,baz=127,slow=12						
TKM2				⇑Lg		01 32 33.0	
	comp=E,43nm,0.7s,baz=127,slow=12						
CHMS	**Chumysh**	**4.38**	**356**	P	**Pn**	**01 31 29.8**	**+1.8**
	SNR=6.8						
USP	**Ospenovka**	**4.66**	**354**	P	**Pn**	**01 31 32.9**	**+0.9**
	SNR=12						
KNDC	**Almaty**	**4.77**	**16**	⇓Pn	**Pn**	**01 31 38.3**	**+4.9**
	comp=E,18nm,0.7s,baz=127,slow=12						
KNDC				⇑Lg		01 32 47.2	
	comp=E,129nm,1.0s,baz=127,slow=12						
KK31	**Karatay Array**	**5.71**	**323**	⇓Pn	**Pn**	**01 31 46.9**	**+0.6**
	comp=E,4.4nm,0.5s,baz=127,slow=12,SNR=147						
KK31				⇓Sn	**Sn**	**01 32 53.2**	**+1.3**
	comp=E,5.6nm,0.6s,baz=132,slow=25						
KBL	**Kabul**	**6.42**	**232**	*e*Pn	**Pn**	**01 31 57.8**	**+1.8**
	comp=E,5.3nm,0.7s						
MK31	**Makanchi Array**	**9.68**	**30**	*e*Pn	**Pn**	**01 32 40.7**	**0.0**
MK31	**Makanchi Array**	**9.68**	**30**	Pn	**Pn**	**01 32 40.5**	**-0.2**
	comp=E,0.9nm,0.7s,baz=127,slow=12,SNR=7.4						
MKAR	**Makanchi Array**	**9.68**	**30**	Pn	**Pn**	**01 32 40.1**	**-0.6**
	comp=E,0.2nm,0.3s,baz=206,slow=12,SNR=8.7						
KURK	**Kurchatov**	**12.32**	**10**	Pn	**Pn**	**01 33 14.2**	**-2.7**
	comp=E,0.0nm,0.3s,baz=200,slow=12,SNR=4.4						
KURK				Lg		01 36 51.3	
	comp=E,0.0nm,0.3s,baz=198,slow=27,SNR=6.1						
KURK	**Kurchatov**	**12.32**	**10**	*e*Pn	**Pn**	**01 33 14.8**	**-2.1**
	comp=E,2.4nm,1.0s						
KURK				Lg		01 36 51.3	
BVA0	**Borovoye Array**	**14.78**	**349**	Pn	**Pn**	**01 33 51.2**	**+0.8**
	comp=E,0.4nm,0.6s,baz=127,slow=12,SNR=9.9						
BVAR	**Borovoye Array**	**14.78**	**349**	Pn	**Pn**	**01 33 46.6**	**-3.7**
	comp=E,0.1nm,0.3s,baz=159,slow=9.3,SNR=2.8						
BRVK	**Borovoye**	**14.83**	**348**	*e*Pn	**Pn**	**01 33 50.7**	**-0.4**
BRVK				*e*P		01 33 55.8	
AB09	**Akbulak array**	**15.27**	**319**	⇓Pn	**Pn**	**01 33 54.5**	**-2.5**
	comp=E,1.9nm,0.7s,baz=127,slow=12						
AB09				⇑Sn	**Sn**	**01 36 42.5**	**-3.6**
	comp=E,2.3nm,0.6s,baz=127,slow=12						
ZAA0	**Zalesovo Array**	**16.67**	**20**	*e*P	**Pn**	**01 34 14.6**	**-0.5**
ZALV	**Zalesovo Beam**	**16.67**	**20**	Pn	**Pn**	**01 34 15.0**	**-0.1**
	comp=E,0.2nm,0.3s,baz=210,slow=12,SNR=9.1						
ZALV				LR	LR	01 40 29.5	
	comp=E,15nm,21.3s,baz=12,slow=36						
AKTK	**Aktyubinsk**	**16.97**	**320**	P	**Pn**	**01 34 17.1**	**-1.6**
AKTO	**Aktyubinsk**	**16.97**	**320**	P	**Pn**	**01 34 17.1**	**-1.6**
	comp=E,0.1nm,0.3s,baz=119,slow=17,SNR=11						
AKTO	**Aktyubinsk**	**16.97**	**320**	⇑Pn	**Pn**	**01 34 18.4**	**-0.4**
	comp=E,0.8nm,0.9s,baz=127,slow=12						
AKTO				⇓Sn	**Sn**	**01 37 22.3**	**-5.0**
	comp=E,5.8nm,4.5s,baz=127,slow=12						
GTA	**Gaotai**	**19.12**	**80**	*e*P	**Pn**	**01 34 46.3**	**+0.9**
GTA				pP	pP	01 34 50.0	+2.6
GTA				sP	sP	01 34 51.4	+2.7
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ARU	**Arti**	**20.96**	**334**	*e*P	**P**	**01 35 03.7**	**-0.7**
	comp=Z,3.8nm,0.7s						
GNI	**Garni**	**23.55**	**283**	P	**P**	**01 35 33.3**	**+1.2**
	comp=Z,0.7nm,0.5s,mb3.4,baz=104,slow=12,SNR=2.2						
GNI	**Garni**	**23.55**	**283**	*e*P	**P**	**01 35 32.9**	**+0.8**
	comp=Z,2.9nm,0.8s,mb3.8						
SONM	**Songino Array**	**24.37**	**58**	P	**P**	**01 35 39.3**	**-0.3**
	comp=Z,0.9nm,0.9s,baz=252,slow=9.0,SNR=5.2						
BRTR	**Keskin Array B**	**32.04**	**285**	P	**P**	**01 36 47.6**	**-0.6**
	comp=Z,0.7nm,0.7s,mb3.6,baz=59,slow=5.6,SNR=2.7						
ARCES	**ARCESS Array B**	**40.52**	**336**	P	**P**	**01 37 58.5**	**-1.7**
	comp=Z,3.9nm,0.7s,mb4.1,baz=90,slow=9.7,SNR=4.1						
TORD	**Torodi Ar. Bea**	**69.08**	**270**	P	**P**	**01 41 24.6**	**-3.3**
	comp=Z,0.4nm,0.7s,mb3.5,baz=58,slow=6.0,SNR=4.7						
YKA	**Yellowknife Ar**	**78.91**	**5**	P	**P**	**01 42 22.6**	**-2.0**
	comp=Z,0.7nm,0.7s,mb3.7,baz=346,slow=5.8,SNR=13						

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*IDC **03** 01:59:05.6±0.8, 7°.41S×129°.59E, h0^{km}, mb4.1/7, mb1 4.3/9, mb1mx4.2/17, mbtmp4.2/9, ML4.6/2, Error ellipse: s-maj=47.3km s-min=17.4km az=63.0*

*NEIC **03** 01:59:10.0±4.8, 7°.42S×129°.68E, h30^{km}±35^{km}, mb4.2/5, Error ellipse: s-maj=19.8km s-min=12.7km az=221.0*

ISC 03 01:59:11.1±2.3, **7°.5S**±0°.1×**129°.67E**±0°.09, **h40**^{km}±26^{km}, **n30**, σ**1^{s}.10**/29, **mb4.1**/9, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**5.84**	**152**	*e*P	**Pn**	**02 00 38.3**	**+3.1**
	74nm,0.2s						
KAKA				*e*S	**Sn**	**02 01 40.1**	**-0.8**
KAKA	**Kakadu**	**5.84**	**152**	*e*Pn	**Pn**	**02 00 38.3**	**+3.1**
	233nm,0.6s						
KAKA				*e*Sn	**Sn**	**02 01 40.5**	**-0.4**
KNA	**Kununurra**	**8.23**	**186**	*e*P	**Pn**	**02 01 12.2**	**+4.2**
	34nm,0.3s						
KNA				*e*S	**Sn**	**02 02 38.0**	**-1.8**
FITZ	**Fitzroy Crossi**	**11.23**	**200**	*e*P	**Pn**	**02 01 50.9**	**+1.8**
	12nm,0.4s						
FITZ				*e*S	Sx	02 03 46.3	
FITZ	**Fitzroy Crossi**	**11.23**	**200**	*e*Pn	**Pn**	**02 01 51.0**	**+1.9**
	5.8nm,0.4s						
FITZ				*e*Sn	Sx	02 03 47.1	
WRAB	**Tennant Creek**	**13.15**	**160**	*e*Pn	**Pn**	**02 02 14.5**	**-0.9**
	45nm,1.0s						
WRAB				*e*Sn	Sx	02 04 34.1	
WRA	**Warramunga Arr**	**13.15**	**160**	Pn	**Pn**	**02 02 14.5**	**-1.0**
	3.5nm,0.3s,baz=346,slow=13,SNR=221						
WRA				Sn	Sx	02 04 32.7	
	3.7nm,0.3s,baz=336,slow=22,SNR=11						
WB2	**Warramunga Arr**	**13.16**	**160**	*e*Pn	**Pn**	**02 02 14.8**	**-0.7**
WB2				*e*Sn	Sx	02 04 32.3	
COEN	**Coen**	**14.73**	**117**	*e*P	**Pn**	**02 02 36.1**	**-0.8**
COEN				*e*S	Sx	02 05 07.0	
ASAR	**Alice Springs**	**16.56**	**166**	Pn	**Pn**	**02 03 00.5**	**-0.1**
	2.0nm,0.3s,baz=342,slow=9.4,SNR=62						
ASAR				Sn	Sx	02 05 57.9	
	0.9nm,0.3s,baz=346,slow=24,SNR=8.1						
MBWA	**Marble Bar**	**16.62**	**214**	*e*P	**Pn**	**02 03 02.0**	**+0.8**
	2.9nm,0.6s						
MTSU	**Mount Surprise**	**17.74**	**128**	*e*P	**Pn**	**02 03 16.5**	**+1.3**
	13nm,0.3s						
MTSU				*e*S	Sx	02 06 20.9	
CTA	**Charters Tower**	**20.36**	**130**	P	**P**	**02 03 45.1**	**+0.7**
	1.5nm,0.3s,baz=285,slow=12,SNR=2.8						
CTAO	**Charters Tower**	**20.36**	**130**	*e*P	**P**	**02 03 44.3**	**0.0**
	4.5nm,0.6s						
STKA	**Stephens Creek**	**26.66**	**157**	P	**P**	**02 04 48.7**	**+2.4**
	2.4nm,0.9s,mb3.8,baz=335,slow=15,SNR=3.1						
STKA	**Stephens Creek**	**26.66**	**157**	P	**P**	**02 04 48.7**	**+2.4**
CMAR	**Chiang Mai Arr**	**39.81**	**311**	P	**P**	**02 06 39.8**	**-1.0**
	0.8nm,0.4s,mb3.8,baz=134,slow=10,SNR=5.0						
SONM	**Songino Array**	**58.83**	**342**	P	**P**	**02 09 06.0**	**+0.6**
	0.4nm,0.4s,mb3.8,baz=165,slow=7.4,SNR=5.6						
PETK	**Petropavlovsk-**	**64.92**	**18**	P	**P**	**02 09 46.1**	**-0.2**
	4.7nm,1.0s,mb4.5,baz=102,slow=2.4,SNR=6.3						
MK31	**Makanchi Array**	**68.48**	**327**	*e*P	**P**	**02 10 09.0**	**-0.1**
MKAR	**Makanchi Array**	**68.48**	**327**	P	**P**	**02 10 09.3**	**+0.2**
	2.5nm,0.5s,mb4.5,baz=117,slow=8.5,SNR=60						
EKS2	**Erkin-Say**	**71.19**	**320**	*e*P	**P**	**02 10 27.2**	**+1.3**
	3.3nm,1.0s,mb4.2						
ZALV	**Zalesovo Beam**	**71.90**	**334**	P	**P**	**02 10 28.8**	**-1.2**
	1.9nm,0.6s,mb4.2,baz=119,slow=5.4,SNR=11						
ZALV	**Zalesovo Beam**	**71.90**	**334**	P	**P**	**02 10 28.8**	**-1.2**
KURK	**Kurchatov**	**72.79**	**329**	*e*P	**P**	**02 10 34.5**	**-0.8**
	2.4nm,0.9s,mb4.1						
BRVK	**Borovoye**	**78.40**	**328**	*e*P	**P**	**02 11 06.5**	**-0.9**
	1.9nm,0.6s,mb4.2						
TOA0	**Torodi Ar. Sit**	**128.59**	**281**	*e*PKPdf	PKPdf	02 18 14.6	-0.2
TORD	**Torodi Ar. Bea**	**128.59**	**281**	PKP	PKPdf	02 18 14.8	-0.1
	0.8nm,0.6s,baz=69,slow=2.3,SNR=12						
LVC	**Limon Verde**	**144.96**	**149**	*e*PKPbc	PKPdf	02 18 45.7	+0.8
CPUP	**Villa Florida**	**145.68**	**169**	PKPbc	PKPbc	02 18 46.5	+0.2
	1.5nm,0.6s,baz=178,slow=3.1,SNR=8.0						

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*ISCJB **03** 02:28:51.6±0.7, 21°.84S±0°.04×68°.6W±0°.1, h123^{km}±8^{km}, mb3.8/3, Error ellipse: s-maj=15.8km s-min=7.2km az=173.8*

*IDC **03** 02:28:52.0±1.1, 21°.78S×68°.38W, h104^{km}±13^{km}, mb3.6/3, mb1 3.7/4, mb1mx3.4/16, mbtmp3.6/4, Error ellipse: s-maj=45.5km s-min=19.9km az=139.0*

*GUC **03** 02:28:53.4±0.4, 21°.87S×68°.72W, h112^{km}±3^{km}, MD3.4, ML3.7*

*NEIC **03** 02:28:53.4, 21°.87S×68°.72W, h112^{km}, MD3.4(GUC), After GUC.*

ISC 03 02:28:52.5±0.6, **21°.84S**±0°.05×**68°.60W**±0°.09, **h118**^{km}±8^{km}, **n16**, σ**0^{s}.87**/27, **mb3.8**/3, **5C-2D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**0.82**	**200**	P	**Pn**	**02 29 13.3**	**+0.7**
	167nm,0.3s,baz=20,slow=7.3,SNR=2268						
LVC				S	**Sn**	**02 29 28.5**	**+0.7**
	222nm,0.3s,baz=141,slow=21,SNR=207						
LVC	**Limon Verde**	**0.82**	**200**	⇑*i*P	**Pn**	**02 29 13.4**	**+0.8**
LVC				*i* S	**Sn**	**02 29 28.5**	**+0.6**
LVC				AML	AML	02 29 29.7	
	comp=N,3µm,0.5s						
PB04	**Plate Boundary**	**0.92**	**243**	⇑*i*P	**Pn**	**02 29 19.8**	**+6.3**
PB04				*i* S	**Sn**	**02 29 39.8**	**+10**
PB04				AML	AML	02 29 41.7	
	comp=N,1µm,0.1s						
MACH	**Maria Elena**	**1.13**	**252**	⇑*i*P	**Pn**	**02 29 15.8**	**+0.2**
MACH				*i* S	**Sn**	**02 29 33.1**	**-0.1**
PB01	**Plate Boundary**	**1.15**	**314**	⇑*i*P	**Pn**	**02 29 16.2**	**+0.3**
PB01				*i* S	**Sn**	**02 29 33.4**	**-0.1**
PB01				AML	AML	02 29 36.2	
	comp=N,2µm,0.2s						
PECH	**Pedro de Valdi**	**1.24**	**233**	⇓*i*P	**Pn**	**02 29 17.3**	**+0.4**
PECH				*i* S	**Sn**	**02 29 35.1**	**-0.3**
PECH				AML	AML	02 29 36.0	
	comp=E,3µm,0.2s						
TOCH	**Tocopilla**	**1.50**	**260**	*i* P	**Pn**	**02 29 19.5**	**-0.3**
TOCH				*i* S	**Sn**	**02 29 39.4**	**-1.2**
TOCH				AML	AML	02 29 40.4	
	comp=N,2µm,0.3s						
HMBC	**Humberston**	**1.97**	**322**	⇑*i*P	**Pn**	**02 29 25.2**	**-0.2**
HMBC				*i* S	**Sn**	**02 29 50.6**	**0.0**
HMBC				AML	AML	02 29 53.2	
	comp=E,949nm,0.6s						
PSGC	**Pisagua**	**2.65**	**327**	⇓*i*P	**Pn**	**02 29 33.2**	**-1.0**
PSGC				*i* S	**Sn**	**02 30 05.1**	**-1.1**
PSGC				AML	AML	02 30 32.5	
	comp=E,122nm,0.5s						
MNMC	**Miæe Miæ**	**2.85**	**341**	*i* P	**Pn**	**02 29 38.3**	**+1.4**
MNMC				*i* S	**Sn**	**02 30 12.9**	**+1.9**
MNMC				AML	AML	02 30 17.1	
	comp=E,436nm,0.2s						
SIV	**San Ignacio**	**9.20**	**52**	P	**Pn**	**02 31 00.5**	**-1.8**
	comp=E,1.9nm,0.3s,baz=243,slow=11,SNR=43						
SIV				S	**Sn**	**02 32 36.6**	**-7.5**
	comp=E,0.1nm,0.3s,baz=316,slow=23,SNR=2.7						
DBIC	**Dimbokro**	**68.56**	**73**	P	**P**	**02 39 42.4**	**-0.6**
	comp=E,2.4nm,0.8s,mb4.0,baz=210,slow=6.1,SNR=3.1						
DBIC	**Dimbokro**	**68.56**	**73**	P	**P**	**02 39 42.4**	**-0.6**
TORD	**Torodi Ar. Bea**	**77.20**	**70**	P	**P**	**02 40 33.9**	**-0.1**
	comp=E,0.8nm,0.6s,mb3.6,baz=259,slow=5.5,SNR=15						
TORD	**Torodi Ar. Bea**	**77.20**	**70**	P	**P**	**02 40 33.9**	**-0.1**
YKA	**Yellowknife Ar**	**91.60**	**340**	P	**P**	**02 41 46.8**	**+1.2**
	comp=E,0.2nm,0.5s,mb3.6,baz=140,slow=4.4,SNR=7.2						

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*IDC **03** 03:13:48.9±1.9, 6°.64S×128°.99E, h0^{km}, mb4.3/1, mb1 4.7/3, mb1mx3.9/15, mbtmp4.5/3, ML4.6/2, Error ellipse: s-maj=184.1km s-min=25.8km az=65.0*

*ISCJB **03** 03:14:04.9±3.4, 7°.7S±0°.2×127°.6E±0°.2, h157^{km}±34^{km}, Error ellipse: s-maj=38.8km s-min=32.5km az=43.9*

ISC 03 03:14:05.9±3.1, **7°.7S**±0°.2×**127°.6E**±0°.2, **h148**^{km}±32^{km}, **n8**, σ**1^{s}.89**/8, **2D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.89**	**136**	⇓*i*P	**Pn**	**03 15 44.7**	**+0.1**
	256nm,0.6s						
KAKA				*e*S	Sx	03 16 56.3	
KNA	**Kununurra**	**8.05**	**172**	⇓*i*P	**Pn**	**03 16 00.9**	**+0.9**
	15nm,0.3s						
KNA				*e*S	Sx	03 17 26.0	
FITZ	**Fitzroy Crossi**	**10.47**	**190**	*e*P	**Pn**	**03 16 31.5**	**-0.7**
	11nm,0.4s						
FITZ				*e*S	Sx	03 18 23.4	
WRA	**Warramunga Arr**	**13.80**	**152**	Pn	**Pn**	**03 17 13.0**	**-2.5**
	3.1nm,0.3s,baz=337,slow=9.6,SNR=122						
WRA				Sn	Sx	03 19 39.1	
	3.2nm,0.3s,baz=331,slow=22,SNR=12						
ASAR	**Alice Springs**	**16.97**	**160**	P	**Pn**	**03 17 57.0**	**+2.5**
	2.1nm,0.3s,baz=343,slow=12,SNR=116						
ASAR				S	Sx	03 20 58.7	
	0.7nm,0.3s,baz=327,slow=22,SNR=7.4						
STKA	**Stephens Creek**	**27.35**	**153**	*e*P	**P**	**03 19 35.8**	**-1.4**
	1.9nm,0.4s						
STKA	**Stephens Creek**	**27.35**	**153**	P	**P**	**03 19 38.4**	**+1.2**
	1.6nm,0.4s,baz=328,slow=11,SNR=6.8						
MKAR	**Makanchi Array**	**67.54**	**328**	P	**P**	**03 24 46.3**	**0.0**
	0.4nm,0.9s,baz=126,slow=6.4,SNR=5.7						

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*ISCJB **03** 03:16:31.7±0.4, 32°.39S±0°.02×71°.60W±0°.06, h54^{km}±4^{km}, mb4.4/29, MS3.1/2, Error ellipse: s-maj=8.1km s-min=3.9km az=172.3*

*IDC **03** 03:16:31.9±0.7, 32°.50S×71°.45W, h47^{km}±4^{km}, mb4.1/12, mb1 4.2/16, mb1mx4.0/21, mbtmp4.0/16, MS3.3/4, Ms1 3.3/4, ms1mx3.0/27, Error ellipse: s-maj=23.6km s-min=17.7km az=36.0*

*GUC **03** 03:16:32.5±0.6, 32°.41S×71°.50W, h46^{km}±1^{km}, MD4.3, ML4.3*

*NEIC **03** 03:16:32.5, 32°.41S×71°.50W, h46^{km}, mb4.4/21, MD4.3(GUC), After GUC.*

NEIC Felt [IV] at La Ligua and Petorca; [III] at Illapel, Los Vilos, Papudo, Puchuncavi, Valparaiso and Vina del Mar; [II] Salamanca and San Felipe.

ISC 03 03:16:32.9±0.4, **32°.39S**±0°.02×**71°.55W**±0°.06, **h48**^{km}±4^{km}, **h44**^{km}±1.5^{km}**:pP-P, n88**, σ**0^{s}.83**/86, **mb4.4**/29, **MS3.1**/2, **9C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	**Papudo**	**0.18**	**147**	⇑*i*P	**Pn**	**03 16 40.4**	**-0.5**
PACH				*i* S	**Sn**	**03 16 46.2**	**-0.3**
IHA	**Instituto Hidr**	**0.64**	**187**	⇓*i*P	**Pn**	**03 16 45.3**	**-0.4**
IHA				*i* S	**Sn**	**03 16 54.9**	**-0.2**
ROCH	**El Roble**	**0.74**	**142**	⇓*i*P	**Pn**	**03 16 46.6**	**-0.4**
JACH	**Jahuel**	**0.86**	**110**	⇑*i*P	**Pn**	**03 16 48.3**	**-0.4**

PEL	Peldehue	1.05	136	⇑iP	Pn	03 16 51.1	0.0
PEL				i S	Sn	03 17 04.8	+0.1
PEL				AML	AML	03 17 05.8	
	comp=N,30μm,0.4s						
RCDM	Rinconada Maip	1.27	150	i P	Pn	03 16 54.1	-0.1
RCDM				i S	Sn	03 17 09.9	-0.1
SAN	Santiago	1.30	145	AML	AML	03 17 17.6	
	comp=E,6μm,0.9s						
CLCH	Cerro Calan	1.32	140	AML	AML	03 17 14.5	
	comp=E,11μm,0.7s						
TACH	Talagante	1.36	158	⇑iP	Pn	03 16 55.3	-0.2
TACH				i S	Sn	03 17 12.2	-0.2
FSR	Penalolen	1.39	142	⇑iP	Pn	03 16 55.7	-0.1
FSR				i S	Sn	03 17 12.9	-0.1
ANTU	Antumapu	1.41	147	⇑iP	Pn	03 16 56.1	0.0
ANTU				i S	Sn	03 17 13.6	+0.1
ANTU	Antumapu	1.41	147	⇑iP	Pn	03 16 56.1	0.0
ANTU				i S	Sn	03 17 13.6	+0.1
ANTU				AML	AML	03 17 27.7	
	comp=N,5μm,0.6s						
FCH	Farellones	1.42	132	⇓iP	Pn	03 16 56.7	+0.5
FCH				i S	Sn	03 17 14.7	+1.0
FCH				AML	AML	03 17 16.7	
	comp=E,5μm,0.4s						
PCH	Pirque	1.51	145	⇑iP	Pn	03 16 57.5	+0.1
PCH				i S	Sn	03 17 16.1	+0.2
SJCH	San Jose de Ma	1.60	141	⇓iP	Pn	03 16 59.1	+0.3
SJCH				i S	Sn	03 17 18.4	+0.2
SJCH	San Jose de Ma	1.60	141	⇓iP	Pn	03 16 59.1	+0.3
SJCH				i S	Sn	03 17 18.4	+0.2
SJCH				AML	AML	03 17 20.1	
	comp=N,5μm,0.8s						
YECH	El Yeso	1.77	136	AML	AML	03 17 28.6	
	comp=N,4μm,0.3s						
OVCH	Ovalle	1.80	10	eP	Pn	03 17 01.9	+0.4
OVCH				i S	Sn	03 17 24.1	+1.1
OVCH	Ovalle	1.80	10	eP	Pn	03 17 01.9	+0.4
OVCH				i S	Sn	03 17 24.1	+1.1
OVCH				AML	AML	03 17 29.1	
	comp=N,7μm,1.0s						
LMEL	Las Melosas	1.84	142	AML	AML	03 17 27.4	
	comp=N,4μm,0.5s						
LSCH	La Serena	2.49	6	⇑iP	Pn	03 17 10.3	-0.5
LSCH				i S	Sn	03 17 39.6	-0.3
CFAA	Coronel Fontan	2.92	75	P	Pn	03 17 15.2	-1.7
	comp=N,1.7nm,0.3s,baz=253,slow=13,SNR=17						
CFAA				Pg	Pn	03 17 18.8	+2.0
	comp=N,5.1nm,0.3s,baz=251,slow=14,SNR=123						
CFAA				S	Sn	03 17 54.1	+3.4
	comp=N,9.8nm,0.3s,baz=285,slow=4.7,SNR=4.7						
TALC	Talca	3.00	181	⇓iP	Pn	03 17 18.0	+0.1
TALC				i S	Sn	03 17 52.5	-0.2
LCO	Las Campanas	3.44	13	ePn	Pn	03 17 23.8	-0.3
LCO				eSn	Sn	03 18 03.4	-0.2
CCHI	Chillan	4.23	186	AML	AML	03 19 01.0	
	comp=N,294nm,0.6s						
PLCA	Paso Flores	8.37	175	P	Pn	03 18 31.9	+0.5
	comp=N,0.3nm,0.3s,baz=9.9,slow=16,SNR=8.6						
PLCA				LR	LR	03 21 47.1	
	comp=N,172nm,18.1s,baz=345,slow=38						
PLCA	Paso Flores	8.37	175	P	Pn	03 18 31.9	+0.5
PLCA				LR	LR	03 21 47.1	
LVC	Limon Verde	10.02	14	P	Pn	03 18 56.4	+2.3
	comp=N,0.3nm,0.3s,baz=157,slow=13,SNR=1.8						
LVC				S	Sn	03 20 56.8	+12
	comp=N,1.3nm,0.3s,baz=165,slow=20,SNR=2.2						
LVC	Limon Verde	10.02	14	P	Pn	03 18 56.4	+2.3
LVC				S	Sn	03 20 56.8	+12
CPUP	Villa Florida	13.79	68	P	Pn	03 19 43.3	-2.3
	comp=N,0.4nm,0.3s,baz=224,slow=10,SNR=3.7						
CPUP				LR	LR	03 25 25.9	
	comp=N,152nm,21.4s,baz=200,slow=39						
SIV	San Ignacio	18.89	33	P	Pn	03 20 47.8	-2.7
	comp=N,0.3nm,0.3s,baz=226,slow=12,SNR=12						
NNA	Nana	20.88	345	eP	P	03 21 11.6	+0.6
	comp=N,22nm,1.2s						
USHA	Ushuaia	22.55	175	LR	LR	03 31 12.4	
	comp=N,81nm,20.8s,MS3.1,baz=332,slow=39						
ATAH	Atahualpa	26.05	344	LR	LR	03 30 54.1	
	comp=N,55nm,19.5s,MS3.1,baz=359,slow=33						
OTAV	Otavalo	33.10	347	eP	P	03 23 06.0	+1.7
	comp=N,1.1nm,0.5s,mb4.0						
VNA3	Neumayer Olymp	50.70	158	e	P	03 25 28.7	+1.6
VNA3				e	pP	03 25 39.1	-1.2
VNA2	Neumayer--Watz	51.34	158	e	P	03 25 33.0	+1.1
	baz=289,slow=9.2						
VNA2				e	pP	03 25 44.4	-0.8
VNA2				e		03 26 00.3	
JCT	Junction City	68.01	334	eP	P	03 27 27.2	+0.2
	comp=N,15nm,1.1s,mb4.9						
TXAR	Lajitas Array	68.54	330	P	P	03 27 31.1	+0.7
	comp=N,2.2nm,0.5s,mb4.3,baz=154,slow=8.6,SNR=48						
OXF	Oxford	68.63	344	eP	P	03 27 30.2	-0.6
	comp=N,19nm,0.4s,mb5.4						
TKL	Tuckaleechee C	68.65	349	P	P	03 27 30.6	-0.3
	comp=N,4.4nm,0.6s,mb4.6,baz=158,slow=7.5,SNR=13						
WVT	Waverly	69.84	346	eP	P	03 27 37.4	-0.9
	comp=N,27nm,0.8s,mb5.2						
WMOK	Wichita Mounta	71.51	337	eP	P	03 27 47.7	-0.7
	comp=N,1.9nm,0.7s,mb4.1						
WCI	Wyandotte Cave	71.58	348	eP	P	03 27 47.6	-1.2
	comp=N,5.3nm,0.7s,mb4.6						
CCM	Cathedral Cave	72.44	344	eP	P	03 27 53.5	-0.5
	comp=N,15nm,0.8s,mb5.0						
AMTX	Amarillo	72.66	334	eP	P	03 27 55.6	+0.3
	comp=N,8.7nm,0.9s,mb4.7						
TUC	Tucson	74.25	326	eP	P	03 28 05.4	+0.6
	comp=N,0.8nm,0.7s,mb3.8						
DBIC	Dimbokro	74.28	71	P	P	03 28 04.1	-1.3
	comp=N,1.9nm,0.6s,mb4.2,baz=148,slow=3.7,SNR=7.6						
DBIC				pP	pP	03 28 17.5	-1.7
	comp=N,5.3nm,0.8s,baz=189,slow=7.9,SNR=4.3						
DBIC	Dimbokro	74.28	71	eP	P	03 28 04.8	-0.5
	comp=N,6.1nm,0.9s,mb4.5						
DBIC				pP	pP	03 28 17.5	-1.7
ANMO	Albuquerque	74.58	331	P	P	03 28 06.2	-0.4
	comp=N,1.7nm,0.7s,mb4.1,baz=164,slow=8.0,SNR=7.1						
ANMO	Albuquerque	74.58	331	eP	P	03 28 06.8	+0.3
	comp=N,3.3nm,1.0s,mb4.2						
CBKS	Cedar Bluff	75.53	338	eP	P	03 28 12.4	+0.4
	comp=N,5.9nm,0.8s,mb4.6						
SDCO	Great Sand Dun	76.62	333	eP	P	03 28 19.4	+1.2
	comp=N,3.0nm,0.7s,mb4.3						
SADO	Sadowa	77.10	354	P	P	03 28 20.2	-0.5
	comp=N,3.2nm,0.5s,mb4.5,baz=170,slow=4.9,SNR=4.6						
BOSA	Boshof	80.46	118	P	P	03 28 38.9	-0.9
	comp=N,1.2nm,0.5s,mb4.1,baz=267,slow=21,SNR=6.7						
BOSA				pP	pP	03 28 51.8	-2.1
	comp=N,3.7nm,0.8s,baz=294,slow=7.1,SNR=3.6						
DUG	Dugway	81.69	329	eP	P	03 28 46.2	+0.3
	comp=N,5.7nm,1.3s,mb4.3						
RSSD	Black Hills	81.71	337	eP	P	03 28 45.9	0.0
	comp=N,1.4nm,0.5s,mb4.2						
BW06	Boulder Array	82.51	333	eP	P	03 28 50.7	+0.6
	comp=N,15nm,2.0s,mb4.7						
PDAR	Pinedale Array	82.51	333	P	P	03 28 50.4	+0.3
	comp=N,0.8nm,0.6s,mb3.9,baz=140,slow=6.7,SNR=6.9						
NVAR	Mina Array Bea	82.80	325	P	P	03 28 53.2	+1.5
	comp=N,2.1nm,0.8s,mb4.2,baz=149,slow=6.0,SNR=12						
NVAR	Mina Array Bea	82.80	325	P	P	03 28 53.2	+1.5
ELK	Elko	83.21	328	eP	P	03 28 54.5	+0.7
	comp=N,1.0nm,0.8s,mb3.9						
TOA0	Torodi Ar. Sit	83.28	70	eP	P	03 28 54.2	-0.6
TOA0				epP	pP	03 29 07.3	-1.5
TORD	Torodi Ar. Bea	83.28	70	P	P	03 28 54.3	-0.4
	comp=N,2.8nm,0.7s,mb4.4,baz=263,slow=4.7,SNR=14						
TORD				pP	pP	03 29 07.3	-1.5
	comp=N,5.7nm,0.8s,baz=258,slow=4.6,SNR=20						
TORD	Torodi Ar. Bea	83.28	70	P	P	03 28 54.3	-0.4
TORD				pP	pP	03 29 07.3	-1.5
LOHW	Long Hollow	83.64	333	eP	P	03 28 56.0	+0.1
	comp=N,1.0nm,0.5s,mb4.2						
ULM	Lac du Bonnet	85.05	345	P	P	03 29 01.7	-1.2
	comp=N,2.6nm,0.8s,mb4.4,baz=134,slow=6.4,SNR=4.3						
ULM	Lac du Bonnet	85.05	345	eP	P	03 29 01.7	-1.2
	comp=N,1.9nm,0.7s,mb4.3						
HLID	Hailey	85.14	330	eP	P	03 29 04.0	+0.5
	comp=N,3.2nm,1.3s,mb4.3						
WVOR	Wild Horse Val	86.09	327	eP	P	03 29 06.2	-2.0
SCHQ	Schefferville	86.96	3	P	P	03 29 11.3	-0.9
	comp=N,6.5nm,1.1s,mb4.8,baz=220,slow=7.9,SNR=3.7						
YBH	Yreka Blue Hor	87.50	324	P	P	03 29 14.9	-0.2
	comp=N,1.0nm,0.5s,mb4.3,baz=135,slow=2.9,SNR=3.9						
YKA	Yellowknife Ar	100.67	341	P	Pdif	03 30 13.9	-1.8
	comp=N,0.2nm,0.3s,baz=158,slow=4.0,SNR=4.7						
ASAR	Alice Springs	119.19	207	PKP	PKPdf	03 35 15.8	-1.3
	comp=N,0.4nm,0.5s,baz=131,slow=1.8,SNR=7.2						
WB2	Warramunga Arr	122.36	209	ePKPdf	PKPdf	03 35 21.9	-1.3
WRA	Warramunga Arr	122.37	209	PKP	PKPdf	03 35 22.0	-1.2
	comp=N,1.0nm,0.6s,baz=165,slow=1.5,SNR=32						
WRAB	Tennant Creek	122.37	209	ePKPdf	PKPdf	03 35 22.1	-1.1
BVAR	Borovoye Array	145.82	42	PKPbc	PKPbc	03 36 06.3	+0.1
	comp=N,2.4nm,0.5s,baz=305,slow=1.5,SNR=19						
BVAR				pPKPbc	pPKPbc	03 36 19.8	-0.9
	comp=N,1.3nm,0.6s,baz=254,slow=1.8,SNR=4.6						
PSI	Prapat	149.24	161	PKPbc	PKPdf	03 36 13.5	+1.0
	comp=N,4.3nm,0.8s,baz=198,slow=8.7,SNR=4.3						
PSI	Prapat	149.24	161	PKPbc	PKPdf	03 36 13.5	+1.0
AAK	Ala-Archa	151.36	59	ePKPbc	PKPbc	03 36 21.2	+0.2
KURK	Kurchatov	151.41	41	PKPbc	PKPbc	03 36 20.7	-0.1
	comp=N,4.3nm,0.6s,baz=302,slow=3.0,SNR=23						
KURK				pPKPbc	pPKPbc	03 36 34.7	-0.8
	comp=N,3.9nm,0.8s,baz=302,slow=3.0,SNR=13						
KURK	Kurchatov	151.41	41	PKPbc	PKPbc	03 36 20.7	-0.1
KURK				pPKPbc	pPKPbc	03 36 34.7	-0.8
ZAA0	Zalesovo Array	152.64	31	ePKPbc	PKPbc	03 36 22.8	-0.8
ZALV	Zalesovo Beam	152.64	31	PKPbc	PKPbc	03 36 22.7	-0.8
	comp=N,5.8nm,0.5s,baz=297,slow=3.1,SNR=29						
ZALV				pPKPbc	pPKPbc	03 36 36.5	-1.7
	comp=N,1.5nm,0.4s,baz=310,slow=4.7,SNR=5.5						
ZALV	Zalesovo Beam	152.64	31	PKPbc	PKPbc	03 36 22.7	-0.8
ZALV				pPKPbc	pPKPbc	03 36 36.5	-1.7
MKAR	Makanchi Array	155.38	47	PKP	PKPdf	03 36 19.8	-0.8
	comp=N,0.3nm,0.8s,baz=231,slow=2.1,SNR=2.9						
MKAR				PKPab	PKPab	03 36 45.7	-0.5
	comp=N,1.0nm,0.6s,baz=282,slow=2.9,SNR=13						
SONM	Songino Array	164.49	5	PKPab	PKPab	03 37 24.6	-1.1
	comp=N,0.2nm,0.6s,baz=113,slow=3.4,SNR=3.7						

IDC 03 03:28:09.8±2.3**, 2°.63S**×**100°.02E, h0^{km}, mb3.9**/5**, mb1 4.1**/6**, mb1mx3.7**/22**, mbtmp3.8**/6**, ML3.0**/1**, MS3.3**/1**, Ms1 3.3**/1**, ms1mx2.4**/32**, Error ellipse: s-maj=107.4km s-min=19.8km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.51	349	Pn	Pn	03 29 32.0	-1.1
	0.5nm,0.3s,baz=143,slow=15,SNR=3.9						
CMAR	Chiang Mai Arr	20.98	357	P	P	03 32 55.2	+0.4
	0.6nm,0.3s,baz=173,slow=8.2,SNR=2.5						
FITZ	Fitzroy Crossi	29.45	123	LR	LR	03 46 56.7	
	comp=Z,54nm,18.2s,baz=260,slow=38						
WRA	Warramunga Arr	37.66	120	P	P	03 35 26.5	-0.5
	1.1nm,0.5s,baz=303,slow=9.0,SNR=19						
ASAR	Alice Springs	38.87	125	P	P	03 35 37.7	+0.5
	0.9nm,0.5s,baz=302,slow=7.8,SNR=30						
MKAR	Makanchi Array	51.64	345	P	P	03 37 18.0	-0.2
	0.2nm,0.3s,baz=152,slow=9.0,SNR=6.1						
ARCES	ARCESS Array B	87.07	340	P	P	03 40 57.1	+0.1
	4.6nm,1.1s,baz=93,slow=5.0,SNR=9.0						
TXAR	Lajitas Array	145.19	38	PKP	PKPdf	03 47 49.7	-0.5
	1.0nm,0.6s,baz=256,slow=1.0,SNR=16						

IDC 03 03:36:42.4±70.0**, 14°.66S**×**167°.45E, h0^{km}, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.7**/17**, mbtmp3.8**/3**, Error ellipse: s-maj=1177.0km s-min=118.9km az=65.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	29.17	230	P	P	03 42 45.4	-0.2
	2.2nm,1.0s,baz=57,slow=11,SNR=4.9						
WRA	Warramunga Arr	32.01	256	P	P	03 43 10.8	+0.1
	0.4nm,0.6s,baz=86,slow=9.1,SNR=6.3						
ASAR	Alice Springs	32.86	249	P	P	03 43 18.4	+0.2
	0.9nm,0.6s,baz=77,slow=9.2,SNR=18						

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*SZGRF **03** 03:49:37.5, 22°.82S×176°.99W, h33^{km}, South of Fiji Islands*

*ISCJB **03** 03:50:03.1±1.9, 21°.91S±0°.08×177°.00W±0°.06, h242^{km}±19^{km}, mb4.2/25, Error ellipse: s-maj=14.8km s-min=7.5km az=153.8*

*IDC **03** 03:50:05.8±2.9, 21°.81S×177°.14W, h248^{km}±26^{km}, mb3.9/11, mb1 4.2/12, mb1mx4.0/18, mbtmp3.9/12, Error ellipse: s-maj=22.8km s-min=12.4km az=150.0*

*NEIC **03** 03:50:06.0±2.5, 22°.02S×176°.98W, h260^{km}±25^{km}, mb4.4/13, Error ellipse: s-maj=23.7km s-min=8.2km az=162.0*

ISC 03 03:50:06.2±1.6**, 22°.06S**±0°.08×**176°.92W**±0°.07**, h262^{km}**±16^{km}**, n114,** σ**1^{s}.07**/38**, mb4.2**/25**, 20C-7D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	7.22	187	S	S	03 53 13.8	+0.8
	222nm,0.3s,baz=90,slow=20,SNR=4.2						
RAR	Rarotonga	15.97	90	P	Pn	03 53 35.4	-2.1
	1.2nm,0.3s,baz=270,slow=7.0,SNR=5.1						
RAR				S	S	03 56 27.0	-3.5
	1.6nm,0.3s,baz=239,slow=13,SNR=2.6						
URZ	Urewera	16.95	196	P	P	03 53 47.0	+0.5
	1.9nm,0.3s,baz=139,slow=3.5,SNR=2.2						
URZ				S	S	03 56 48.5	-1.1
	2.0nm,0.3s,baz=89,slow=23,SNR=14						
ARMA	Armidale	29.34	247	eP	P	03 55 46.4	+1.4
CTA	Charters Tower	34.37	266	eP	P	03 56 29.7	+0.8
	7.5nm,0.6s,mb4.4						
CTAO	Charters Tower	34.37	266	eP	P	03 56 29.7	+0.8
	15nm,0.9s,mb4.5						
STKA	Stephens Creek	38.05	246	P	P	03 57 00.5	+0.6
	3.3nm,0.7s,mb3.9,baz=79,slow=7.0,SNR=6.8						
COEN	Coen	38.70	275	eP	P	03 57 05.6	+0.2
ASAR	Alice Springs	45.16	258	P	P	03 57 57.5	+0.1
	12nm,0.8s,mb4.2,baz=97,slow=8.4,SNR=114						
ASAR				PcP	PcP	03 59 34.0	+0.9
	1.6nm,0.7s,baz=103,slow=3.2,SNR=5.9						
ASAR				S	S	04 04 17.2	+0.3
	0.3nm,0.8s,baz=92,slow=16,SNR=4.0						
WB2	Warramunga Arr	45.39	263	eP	P	03 57 58.3	-0.9
WRAB	Tennant Creek	45.39	263	eP	P	03 57 58.1	-1.2
	12nm,0.9s,mb4.1						
WRA	Warramunga Arr	45.40	263	P	P	03 57 58.6	-0.7
	8.3nm,0.9s,mb4.0,baz=96,slow=7.8,SNR=89						
WRA				PcP	PcP	03 59 34.8	+0.9
	0.9nm,0.8s,baz=97,slow=3.1,SNR=2.8						
KAKA	Kakadu	49.02	272	eP	P	03 58 26.3	-0.9
	8.0nm,0.4s,mb4.4						
KAKA	Kakadu	49.02	272	eP	P	03 58 26.2	-1.0
	22nm,0.5s,mb4.7						
FORT	Forrest	49.62	248	eP	P	03 58 31.1	-0.4
	21nm,0.7s,mb4.6						
FITZ	Fitzroy Crossi	53.83	263	eP	P	03 59 02.6	-0.1
	11nm,0.9s,mb4.2						
MBWA	Marble Bar	58.51	258	eP	P	03 59 34.9	-0.7
	7.8nm,0.6s,mb4.3						
MJAR	Matsushiro Arr	72.05	323	P	P	04 01 00.2	-1.6
	4.3nm,0.6s,mb4.3,baz=157,slow=6.2,SNR=20						
ASAJ	Asahikawa	75.57	331	P	P	04 01 21.7	-0.3
	12nm,0.8s,mb4.5,baz=221,slow=9.1,SNR=7.4						
NVAR	Mina Array Bea	81.47	43	P	P	04 01 56.0	+1.6
	3.5nm,0.9s,mb4.1,baz=224,slow=8.7,SNR=12						
TUC	Tucson	83.16	51	eP	P	04 02 05.0	+1.8
	4.7nm,0.8s,mb4.4						
WVOR	Wild Horse Val	83.68	39	eP	P	04 02 06.7	+1.0
	8.2nm,0.9s,mb4.6						
ELK	Elko	84.75	42	eP	P	04 02 11.4	+0.4
	3.4nm,1.0s,mb4.1						
TXAR	Lajitas Array	87.05	57	P	P	04 02 24.6	+2.0
	1.9nm,0.9s,mb3.9,baz=214,slow=6.5,SNR=21						
ANMO	Albuquerque	87.60	51	eP	P	04 02 24.9	0.0
	2.0nm,1.0s,mb3.9						
MENT	Mentasta	88.68	15	eP	P	04 02 26.9	-2.5
BW06	Boulder Array	89.41	43	eP	P	04 02 33.1	-0.1
	2.1nm,1.0s,mb3.9						
PDAR	Pinedale Array	89.41	43	P	P	04 02 34.6	+1.3
	1.2nm,0.9s,mb3.7,baz=195,slow=4.0,SNR=7.1						
COLA	College	89.51	12	eP	P	04 02 32.0	-1.2
	16nm,0.6s,mb5.0						
SDCO	Great Sand Dun	89.62	49	eP	P	04 02 34.6	+0.3
	0.9nm,0.7s,mb3.7						
DAWY	Dawson	90.68	16	eP	P	04 02 38.8	+0.1
CMAR	Chiang Mai Arr	91.58	289	P	P	04 02 45.4	+1.5
	4.7nm,1.0s,mb4.4,baz=125,slow=2.9,SNR=14						
CHTO	Chiang Mai	91.71	289	eP	P	04 02 44.4	-0.2
	2.3nm,0.5s,mb4.4						
YKA	Yellowknife Ar	97.50	25	P	P	04 03 09.3	-0.5
	0.7nm,0.8s,mb4.0,baz=250,slow=4.6,SNR=8.3						
SONM	Songino Array	97.58	319	P	P	04 03 11.2	+0.6
	0.2nm,0.6s,mb3.6,baz=137,slow=3.8,SNR=2.6						
ZALV	Zalesovo Beam	112.33	321	PKiKP	PKiKP	04 08 09.6	-0.9
	1.0nm,0.7s,baz=111,slow=1.6,SNR=4.9						
MK31	Makanchi Array	112.99	313	ePKP	PKiKP	04 08 11.3	-0.7
MKAR	Makanchi Array	112.99	313	PKiKP	PKiKP	04 08 11.4	-0.6
	0.8nm,0.7s,baz=66,slow=2.2,SNR=9.6						
KURK	Kurchatov	115.81	317	ePKPdf	PKPdf	04 08 16.5	-0.8
BRVK	Borovoye	120.97	320	ePKPdf	PKPdf	04 08 26.7	-0.5
ARU	Arti	127.05	325	ePKPdf	PKPdf	04 08 38.6	-0.1
ARCES	ARCESS Array B	130.62	350	PKP	PKPdf	04 08 45.4	+0.2
	2.7nm,0.5s,baz=33,slow=1.4,SNR=35						
NOA	NORSAR Array B	140.63	354	PKP	PKPdf	04 09 05.7	+1.7
	1.6nm,0.8s,baz=13,slow=4.0,SNR=3.5						
AKASG	Malin Array Be	144.86	331	PKP	PKPdf	04 09 10.3	-1.4
	8.1nm,0.5s,baz=42,slow=4.1,SNR=46						
AKBB	Malin Array Si	144.86	331	ePKPdf	PKPdf	04 09 10.1	-1.7
KIEV	Kiev	144.87	331	ePKPdf	PKPdf	04 09 09.9	-1.9
MALT	Malatya	145.66	306	ePKPbc	PKPbc	04 09 14.9	+0.5
KWP	Kalwaria Pacla	148.41	335	⇑iP	PKPbc	04 09 22.0	+0.4
KWP	Kalwaria Pacla	148.41	335	⇑P	PKPbc	04 09 22.0	+0.4
BR131	Keskin Array S	148.62	311	ePKPbc	PKPbc	04 09 22.1	-0.4
BRTR	Keskin Array B	148.62	311	PKPbc	PKPbc	04 09 22.5	+0.1
	3.7nm,0.7s,baz=150,slow=4.7,SNR=25						
BUR08	Bucovina Ar. S	148.89	330	ePKPbc	PKPbc	04 09 23.2	+0.3
BURAR	Bucovina Array	148.91	330	⇓iP	PKPbc	04 09 23.9	+1.0
BURAR	Bucovina Array	148.91	330	⇓P	PKPbc	04 09 23.9	+1.0
STHS	Stebnicka Huta	149.14	337	ePKP	PKPbc	04 09 23.8	+0.4
KOLS	Kolonicke sedl	149.14	335	ePKP	PKPbc	04 09 25.0	+1.6
CLL	Collm	149.80	348	ePKPbc	PKPbc	04 09 25.6	+0.7
CLL	Collm	149.80	348	⇓iPKPbc	PKPbc	04 09 25.4	+0.5
	comp=Z,19nm,0.7s						
CLL				epPKPbc	pPKPbc	04 10 27.0	-3.9
OKC	Ostrava-Krasne	149.83	340	⇑ePKP	PKPbc	04 09 25.4	+0.3
UPC	Upice	149.84	343	⇑ePKP	PKPbc	04 09 25.9	+0.8
DPC	Dobruska-Polom	149.90	343	⇑ePKP	PKPbc	04 09 25.9	+0.7
BRG	Berggiesshubel	150.01	346	ePKPbc	PKPbc	04 09 26.0	+0.5
BRG	Berggiesshubel	150.01	346	i PKP	PKPbc	04 09 26.1	+0.6
	comp=Z,22nm,1.4s						
MLR	Muntele Rosu	150.07	327	⇑iP	PKPbc	04 09 25.9	+0.1
MLR	Muntele Rosu	150.07	327	⇑P	PKPbc	04 09 25.9	+0.1
FBE	Freiberg	150.09	347	ePKPbc	PKPbc	04 09 26.5	+0.8
NEUB	Neuenburg	150.12	349	ePKPbc	PKPbc	04 09 26.1	+0.4
PVCC	Panska Ves	150.19	345	⇑ePKP	PKPbc	04 09 26.6	+0.7
VOIR		150.56	328	⇑iP	PKPbc	04 09 27.7	+0.8
VOIR		150.56	328	⇑P	PKPbc	04 09 27.7	+0.7
DRGR		150.65	332	⇑iP	PKPbc	04 09 27.5	+0.4
DRGR		150.65	332	⇑P	PKPbc	04 09 27.5	+0.4
MOX	Moxa	150.69	349	eP	PKPbc	04 09 27.1	0.0
	comp=Z,159nm,2.5s						
MOX	Moxa	150.69	349	ePKPbc	PKPbc	04 09 27.8	+0.7
MOX	Moxa	150.69	349	eP	PKPbc	04 09 27.1	0.0
PRU	Pruhonice	150.69	345	⇑ePKP	PKPbc	04 09 27.4	+0.3
WERD	Werda	150.75	348	ePKPbc	PKPbc	04 09 27.9	+0.7
TANN	Tannenbergstha	150.75	348	ePKPbc	PKPbc	04 09 28.1	+0.9
VYHS	Vyhne	150.77	338	ePKP	PKPbc	04 09 27.6	+0.3
GUNZ	Gunzen	150.83	348	ePKPbc	PKPbc	04 09 28.1	+0.7
PSZ	Piszkesteto	150.88	336	ePKPdf	PKPdf	04 09 21.5	-0.2
PSZ				ePKPbc	PKPbc	04 09 27.9	+0.3
NKC	Novy Kostel	150.93	348	⇑ePKP	PKPbc	04 09 28.4	+0.8
NKC				ePKPAB	PKPab	04 09 34.5	-1.5
TREC	Trest	151.09	343	⇑ePKP	PKPbc	04 09 28.6	+0.5
MANZ	Manzenberg	151.23	348	ePKPbc	PKPbc	04 09 29.1	+0.7
MODS	Modra-Piesok	151.39	340	ePKP	PKPbc	04 09 29.7	+0.9
ROTZ	Rotzenmuhle	151.42	348	ePKPbc	PKPbc	04 09 29.6	+0.8
GRA1	Grafenberg Arr	151.68	349	ePKPbc	PKPbc	04 09 30.2	+0.8
GRF	Grafenberg Arr	151.68	349	ePKPbc	PKPbc	04 09 30.2	+0.8
GZR	Gura Zlata	151.68	330	⇑iP	PKPbc	04 09 29.6	+0.1
GZR	Gura Zlata	151.68	330	⇑P	PKPbc	04 09 29.6	+0.1
KHC	Kasperske Hory	151.72	345	⇑ePKP	PKPbc	04 09 30.3	+0.8
GEC2	GERESS Array S	151.96	345	ePKPbc	PKPbc	04 09 30.6	+0.6
GERES	GERESS Array B	151.96	345	PKPbc	PKPbc	04 09 30.5	+0.4
	comp=Z,5.9nm,0.8s,baz=23,slow=2.0,SNR=35						
GIVF	Givet	151.98	358	ePKP1	PKPbc	04 09 30.5	+0.5
	comp=Z,20nm,0.6s						
BZS	Buzias	152.04	332	⇓iP	PKPbc	04 09 30.5	+0.2
BAIF	Baives	152.04	358	ePKP1	PKPbc	04 09 30.8	+0.6
	comp=Z,17nm,0.7s						
CONA	Conrad Observa	152.22	341	⇑iPKiKP	PKiKP	04 09 30.8	-0.1
	comp=Z,8.6nm,0.6s						
CSNA	Conrad Observa	152.22	341	⇑iPKiKP	PKiKP	04 09 30.8	-0.1
	comp=Z,8.2nm,0.6s						
MOA	Molln	152.74	343	⇓iPKiKP	PKiKP	04 09 32.0	0.0
	comp=Z,4.8nm,1.0s						
FLN	La Foliniere	153.20	5	ePKP1	PKPbc	04 09 33.4	+0.6
LDF	La Druitiere	153.40	5	ePKP1	PKPbc	04 09 33.3	+0.1
	comp=Z,5.3nm,0.5s						
SGMF	Saint Gilles	153.47	8	ePKP1	PKPbc	04 09 34.0	+0.6
CDF	Champ du Feu	153.49	354	ePKP1	PKPbc	04 09 33.7	+0.3
	comp=Z,8.5nm,0.7s						
GRR	Gorron	153.54	6	ePKP1	PKPbc	04 09 33.8	+0.3
MEZF	Maizieres J'vi	153.57	357	ePKP1	PKPbc	04 09 34.2	+0.6
	comp=Z,7.0nm,0.5s						
WTTA	Wattenberg	153.92	347	⇓iPKiKP	PKiKP	04 09 34.8	+0.3
	comp=Z,11nm,1.0s						
HAU	Haudompre	153.98	355	ePKP1	PKPbc	04 09 34.5	0.0
	comp=Z,6.1nm,0.6s						
ABTA	Abfaltersbach	154.21	345	⇓iPKPbc	PKPbc	04 09 34.6	-0.4
	comp=Z,7.1nm,0.7s						
LOR	Lormes	154.84	359	ePKP1	PKPbc	04 09 36.8	+0.5
	comp=Z,4.0nm,0.6s						
SSF	Saint Saulge	155.05	359	ePKP1	PKPdf	04 09 37.3	+10
MFF	Saint Martin d	155.38	5	ePKP1	PKPdf	04 09 37.8	+10
TCF	Toulx Ste Croi	155.82	1	ePKP1	PKPdf	04 09 38.5	+10
	comp=Z,9.7nm,0.8s						
ESDC	Sonseca Array	161.44	17	PKPab	PKPab	04 10 21.8	+0.4
	comp=Z,0.7nm,0.8s,baz=299,slow=4.6,SNR=4.6						
TORD	Torodi Ar. Bea	171.04	171	PKP	PKPdf	04 09 43.6	-0.3
	comp=Z,1.7nm,0.9s,baz=338,slow=0.6,SNR=8.1						
TORD				PKPab	PKPab	04 11 07.2	+2.9
	comp=Z,1.2nm,0.7s,baz=193,slow=4.1,SNR=9.2						

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*ISCJB **03** 03:51:21.7±0.4, 34°.12N±0°.06×136°.82E±0°.07, h363^{km}±3^{km}, mb3.3/9, Error ellipse: s-maj=11.4km s-min=7.2km az=143.6*

*NEIC **03** 03:51:22.3±0.9, 34°.06N×136°.73E, h351^{km}±9^{km}, mb3.7/3, Error ellipse: s-maj=19.5km s-min=12.9km az=92.0*

*JMA **03** 03:51:22.5±0.2, 34°.24N×136°.71E, h364^{km}±2^{km}, M2.9*

*IDC **03** 03:51:22.5±1.1, 34°.15N×136°.87E, h355^{km}±12^{km}, mb2.9/6, mb1 3.1/9, mb1mx3.0/26, mbtmp3.0/9, Error ellipse: s-maj=25.2km s-min=17.0km az=74.0*

ISC 03 03:51:22.8±0.4**, 34°.12N**±0°.06×**136°.83E**±0°.07**, h355^{km}**±3^{km}**, n34,** σ**0^{s}.81**/45**, mb3.3**/9**, Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIE	Ise	0.28	340	P	Pn	03 52 08.3	+1.1
JKN2	Miekihoku	0.47	284	P	Pn	03 52 08.2	+0.7
JKN2				S	S	03 52 43.5	+0.1
JWY	Kouya	1.03	276	P	Pn	03 52 09.8	+0.7
JWY				S	S	03 52 46.0	-0.3
JWZ	Kozaga	1.10	238	P	Pn	03 52 09.8	+0.3
JWZ				eS	S	03 52 46.5	-0.5
JGM	Miyama	1.57	357	P	Pn	03 52 12.3	+0.6
JGM				S	S	03 52 51.2	+0.1
JWT	Wachi	1.65	315	P	Pn	03 52 12.3	+0.1
JWT				S	S	03 52 50.2	-1.7
JYN	Shimob	1.97	45	P	Pn	03 52 14.6	+0.4
JAI	Aioi	2.00	261	P	Pn	03 52 14.8	+0.3
JOD2	Odawara 2	2.18	58	P	Pn	03 52 16.6	+0.8
JKG	Kaga	2.19	349	P	Pn	03 52 15.7	0.0
JMN	Monobe	2.48	262	P	Pn	03 52 18.5	+0.4
JRY	Ryogami san	2.54	41	P	Pn	03 52 19.3	+0.8
JRY				eS	S	03 53 04.9	+1.5
MAJO	Matsushiro	2.66	25	ePn	Pn	03 52 19.0	-0.5
MAJO				eSn	S	03 53 04.9	-0.3
MAT	Matsushiro	2.66	25	P	Pn	03 52 19.5	0.0
MAT				S	S	03 53 04.3	-0.9
MAT	Matsushiro	2.66	25	P	Pn	03 52 19.5	0.0
MAT				eS	S	03 53 04.5	-0.7
MJAR	Matsushiro Arr	2.66	25	P	Pn	03 52 19.7	+0.2
	5.1nm,0.3s,baz=199,slow=10.0,SNR=86						
MJAR				S	S	03 53 04.7	-0.5
	0.7nm,0.3s,baz=183,slow=16,SNR=4.5						
JHS	Saijyo	3.18	287	P	Pn	03 52 24.2	+0.1
BSO1	Boso 1	3.47	80	P	Pn	03 52 25.6	-1.2
BSO1				eS	S	03 53 17.3	-1.2
JTO	Tosashimizu	3.59	251	P	Pn	03 52 28.2	+0.2
KSRS	Korea Array	7.96	297	P	Pn	03 53 15.8	-0.6
	0.3nm,0.3s,baz=112,slow=12,SNR=8.0						
ASAJ	Asahikawa	10.93	22	P	Pn	03 53 50.5	-1.1
	0.8nm,0.3s,baz=212,slow=13,SNR=4.7						

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
YSS	Yuzh-Sakhalins	13.58	18	*e*P	P	03 54 22.4	+1.1
	14nm,0.5s						
SONM	Songino Array	26.55	310	P	P	03 56 30.8	+1.7
	0.4nm,0.6s,mb2.8,baz=132,slow=9.9,SNR=3.1						
BILL	Bilibino	37.90	18	*e*P	P	03 58 06.8	+0.3
	2.5nm,0.5s,mb3.7						
MK31	Makanchi Array	42.57	304	*e*P	P	03 58 43.9	-1.0
MKAR	Makanchi Array	42.57	304	P	P	03 58 44.2	-0.7
	0.4nm,0.7s,mb2.7,baz=92,slow=9.4,SNR=6.9						
MKAR	Makanchi Array	42.57	304	P	P	03 58 44.2	-0.7
WRAB	Tennant Creek	53.81	183	*e*P	P	04 00 08.9	-1.2
	1.0nm,0.7s,mb3.2						
WRA	Warramunga Arr	53.82	183	P	P	04 00 09.8	-0.3
	0.6nm,0.4s,mb3.3,baz=360,slow=7.6,SNR=7.8						
ASAR	Alice Springs	57.54	183	P	P	04 00 36.2	0.0
	0.3nm,0.5s,mb2.9,baz=19,slow=12,SNR=4.3						
ARCES	ARCESS Array B	65.38	339	P	P	04 01 26.8	-0.9
	2.5nm,0.8s,mb3.9,baz=66,slow=9.0,SNR=4.3						
RES	Resolute Bay	66.31	13	*e*P	P	04 01 33.4	-0.1
YKA	Yellowknife Ar	68.17	28	P	P	04 01 44.7	-0.5
	0.1nm,0.4s,mb2.9,baz=302,slow=5.2,SNR=2.5						
NEW	Newport	74.80	42	*e*P	P	04 02 27.0	+2.4
	3.1nm,0.9s,mb4.0						

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*NEIC **03** 03:52:46.0, 39°.57N×25°.95E, h5^{km}, MD3.0(ATH), MD3.2(ISK), After ISK.*
*CSEM **03** 03:52:47.5±0.1, 39°.57N×25°.94E, h5^{km}, MD3.1, Error ellipse: s-maj=3.3km s-min=2.7km az=91.0*
*ISCJB **03** 03:52:47.6±0.4, 39°.57N±0°.02×25°.98E±0°.03, h8^{km}±3^{km}, Error ellipse: s-maj=3.6km s-min=2.6km az=166.1*
*ATH **03** 03:52:47.6, 39°.60N×26°.11E, h20^{km}±1^{km}, MD3.0/4*
*DDA **03** 03:52:47.9, 39°.58N×26°.11E, h7^{km}±1^{km}, Md3.1*
*ISK **03** 03:52:47.7, 39°.61N×26°.02E, h5^{km}, MD3.1*
*THE **03** 03:52:48.4, 39°.54N×26°.03E, h14^{km}, ML3.3/5, Error ellipse: s-maj=1.3km s-min=0.6km az=236.0*
ISC 03 03:52:48.0±0.4, **39°.57N**±0°.02×**25°.98E**±0°.03, **h7**^{km}±3^{km}, **n101**, σ**0**^{s}**.96**/129, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	Bozcaada	0.28	12	*i* P	Pg	03 52 53.4	-0.1
BOZC				*i* S	Sg	03 52 57.8	+0.5
SIGR	SIGRI	0.37	195	P	Pg	03 52 55.8	+0.7
SIGR				S	Sg	03 53 01.4	+1.4
SIGR	SIGRI	0.37	195	P	Pg	03 52 55.8	+0.7
SIGR				S	Sg	03 53 01.4	+1.4
EZN	Ezine	0.37	46	*e*PG	Pg	03 52 54.0	-1.3
EZN	Ezine	0.37	46	*e*Pg	Pg	03 52 54.0	-1.2
PRK	Paraskevi	0.39	144	P	Pg	03 52 55.5	-0.1
PRK				S	Sg	03 53 00.6	-0.2
PRK	Paraskevi	0.39	144	*e*PB	Pg	03 52 55.5	-0.1
PRK				*e*SB	Sg	03 53 00.9	+0.1
PRK	Paraskevi	0.39	144	*e*Pb	Pg	03 52 55.5	-0.1
PRK				*e*Sb	Sg	03 53 00.9	+0.1
AYVA	Ayvalik	0.61	115	*i* P	Pg	03 52 58.3	-1.4
AYVA				*i* S	Sg	03 53 07.9	+0.2
AYVA	Ayvalik	0.61	115	*i* P	Pg	03 52 58.3	-1.4
AYVA				*i* S	Sg	03 53 07.9	+0.3
GADA	Gvkgeada	0.63	354	*e*PG	Pg	03 52 59.5	-0.5
GADA				*e*SG	Sg	03 53 08.2	-0.1
GADA	Gvkgeada	0.63	354	*e*Pg	Pg	03 52 59.5	-0.6
GADA				*e*Sg	Sg	03 53 08.2	-0.1
LIA	Limnos Island	0.70	299	P	Pg	03 53 02.5	+1.1
LIA				S	Sg	03 53 13.1	+2.6
LIA	Limnos Island	0.70	299	*e*PN	Pg	03 53 02.5	+1.1
LIA				*e*SN	Sg	03 53 13.6	+3.1
LIA	Limnos Island	0.70	299	*e*Pn	Pg	03 53 02.5	+1.1
LIA				S	Sg	03 53 13.1	+2.6
LPK	Lapseki	1.00	36	*e*PG	Pg	03 53 05.7	-1.6
LPK	Lapseki	1.00	36	*e*Pg	Pg	03 53 05.7	-1.6
ENEZ	Enez	1.18	6	*e*PN	Pn	03 53 09.7	-1.1
ENEZ	Enez	1.18	6	*e*Pn	Pn	03 53 09.7	-1.1
CHOS	Chios island	1.18	177	P	Pg	03 53 09.0	-1.6
CHOS				S	Sg	03 53 25.0	-0.9
CHOS	Chios island	1.18	177	*e*PN	Pn	03 53 10.2	-0.6
CHOS				*e*SN	Sn	03 53 27.9	+0.8
CHOS	Chios island	1.18	177	P	Pg	03 53 09.0	-1.6
CHOS	Chios island	1.18	177	*e*Pn	Pn	03 53 10.2	-0.6
CHOS				S	Sg	03 53 25.0	-0.9
CHOS				*e*Sn	Sn	03 53 27.9	+0.8
ALN	Alexandroupoli	1.33	2	P	Pn	03 53 11.7	-1.2
ALN				S	Sb	03 53 29.7	-0.7
ALN	Alexandroupoli	1.33	2	*e*PN	Pn	03 53 12.2	-0.7
ALN				*e*SN	Sn	03 53 29.6	-1.2
ALN	Alexandroupoli	1.33	2	P	Pn	03 53 11.7	-1.2
ALN	Alexandroupoli	1.33	2	*e*Pn	Pn	03 53 12.2	-0.7
ALN				*e*Sn	Sn	03 53 29.6	-1.2
BLCB	Balcova	1.44	145	*e*PN	Pn	03 53 14.8	+0.4
BLCB	Balcova	1.44	145	P	Pn	03 53 13.5	-0.9
BLCB				S	Sn	03 53 31.6	-2.0
BLCB	Balcova	1.44	145	P	Pn	03 53 13.5	-0.9
BLCB	Balcova	1.44	145	*e*Pn	Pn	03 53 14.8	+0.4
BLCB				S	Sn	03 53 31.6	-2.0
SART	Tekirdag	1.45	39	*i* P	Pn	03 53 13.4	-1.2
SART				*i* S	Sn	03 53 32.6	-1.2
SART	Tekirdag	1.45	39	*i* P	Pn	03 53 13.4	-1.2
SART				*i* S	Sn	03 53 32.6	-1.2
BALB	Balikesir	1.47	87	*e*PN	Pn	03 53 15.0	+0.2
BALB	Balikesir	1.47	87	*e*Pn	Pn	03 53 15.0	+0.2
IZM	Izmir	1.54	139	*e*PN	Pn	03 53 16.3	+0.6
IZM	Izmir	1.54	139	*e*Pn	Pn	03 53 16.3	+0.6
MFT	Murefte	1.57	39	*e*PN	Pn	03 53 15.7	-0.6
MFT	Murefte	1.57	39	*e*Pn	Pn	03 53 15.7	-0.6
AKS	Akhisar	1.58	115	*e*PN	Pn	03 53 16.7	+0.3
AKS	Akhisar	1.58	115	*e*Pn	Pn	03 53 16.7	+0.3
AKHS	Akhisar	1.58	115	*i* P	Pn	03 53 14.1	-2.3
AKHS				*i* S	Sn	03 53 38.0	+0.9
AKHS	Akhisar	1.58	115	*i* P	Pn	03 53 14.1	-2.3
AKHS				*i* S	Sn	03 53 38.0	+1.0
RDO	Rodhopi	1.61	348	*e*PN	Pn	03 53 16.8	0.0
RDO	Rodhopi	1.61	348	*e*Pn	Pn	03 53 16.8	0.0
MRMT	Marmara Adasi	1.62	50	*e*PN	Pn	03 53 15.7	-1.1
MRMT				*e*SN	Sn	03 53 37.2	-0.6
MRMT	Marmara Adasi	1.62	50	*e*Pn	Pn	03 53 15.7	-1.1
MRMT				*e*Sn	Sn	03 53 37.2	-0.7
EDC	Edincik	1.65	61	*e*PN	Pn	03 53 17.8	+0.5
EDC	Edincik	1.65	61	*e*Pn	Pn	03 53 17.8	+0.6
AOS	Alonnisos	1.67	257	P	Pn	03 53 17.3	-0.3
AOS	Alonnisos	1.67	257	P	Pn	03 53 17.3	-0.3
BNT	Bandirma	1.69	62	*e*PN	Pn	03 53 17.6	-0.3
OUR	Ouranopolis	1.71	297	P	Pn	03 53 17.5	-0.7
OUR	Ouranopolis	1.71	297	P	Pn	03 53 17.5	-0.7
PAIG	Paliouri	1.81	282	P	Pn	03 53 19.1	-0.4
PAIG	Paliouri	1.81	282	P	Pn	03 53 19.1	-0.4
TKR	Tekirdag	1.85	39	*e*PN	Pn	03 53 20.7	+0.5
TKR	Tekirdag	1.85	39	*e*Pn	Pn	03 53 20.7	+0.6
KCT	Karacabey	1.96	68	*e*PN	Pn	03 53 22.3	+0.8
KCT	Karacabey	1.96	68	*e*Pn	Pn	03 53 22.3	+0.8
SMG	Samos	1.97	160	*e*PN	Pn	03 53 22.1	+0.4
SMG	Samos	1.97	160	*e*Pn	Pn	03 53 22.1	+0.4
DST	Dursunbey	2.05	88	*e*PN	Pn	03 53 23.7	+0.9
DST	Dursunbey	2.05	88	*e*Pn	Pn	03 53 23.7	+0.9
CRLT	Corlu	2.06	40	*e*PN	Pn	03 53 23.5	+0.6
CRLT	Corlu	2.06	40	*e*Pn	Pn	03 53 23.5	+0.6
PLG	Polygyros	2.11	293	*e*PN	Pn	03 53 24.8	+1.2
PLG	Polygyros	2.11	293	*e*Pb	Pb	03 53 26.4	0.0
PLG	Polygyros	2.11	293	*e*Pb	Pb	03 53 26.4	0.0
KULA	Kula-Manisa	2.34	116	*e*PN	Pn	03 53 27.6	+0.9
KULA	Kula-Manisa	2.34	116	*e*Pn	Pn	03 53 27.6	+0.8
EDRB	Edirne	2.35	14	*e*PN	Pn	03 53 27.8	+0.8
EDRB	Edirne	2.35	14	*e*Pn	Pn	03 53 27.8	+0.9
SLVT	Silivri	2.38	45	*e*PN	Pn	03 53 28.2	+0.9
SLVT	Silivri	2.38	45	*e*Pn	Pn	03 53 28.2	+0.9
SRS	Serrai	2.39	311	P	Pn	03 53 27.0	-0.5
SRS	Serrai	2.39	311	P	Pn	03 53 27.0	-0.5
ARMT	Armutlu	2.43	65	*e*PN	Pn	03 53 29.0	+1.1
ARMT	Armutlu	2.43	65	*e*Pn	Pn	03 53 29.0	+1.0
APE	Apeiranthos	2.52	188	P	Pn	03 53 27.6	-1.6
APE	Apeiranthos	2.52	188	P	Pn	03 53 27.6	-1.6
CTKS	Kestanelik-??a	2.55	48	*e*PN	Pn	03 53 30.8	+1.1
CTKS	Kestanelik-??a	2.55	48	*e*Pn	Pn	03 53 30.8	+1.1
CTYL	Yal??k??y-??at	2.60	42	*e*PN	Pn	03 53 31.2	+0.9
CTYL	Yal??k??y-??at	2.60	42	*e*Pn	Pn	03 53 31.2	+0.9
BGKT	Bogazkoy	2.68	52	*e*PN	Pn	03 53 32.2	+0.8
BGKT	Bogazkoy	2.68	52	*e*Pn	Pn	03 53 32.2	+0.8
YLV	Yalova	2.79	68	*e*PN	Pn	03 53 34.1	+1.1
YLV	Yalova	2.79	68	*e*Pn	Pn	03 53 34.1	+1.1
ISK	Istanbul-Kandi	2.79	57	*e*PN	Pn	03 53 34.1	+1.1
ISK	Istanbul-Kandi	2.79	57	*e*Pn	Pn	03 53 34.1	+1.1
KLYT	Kilyos	2.88	53	*e*PN	Pn	03 53 34.9	+0.6
KLYT	Kilyos	2.88	53	*e*Pn	Pn	03 53 34.9	+0.7
DID	Didima	2.98	227	P	Pn	03 53 34.4	-1.1
DID	Didima	2.98	227	P	Pn	03 53 34.4	-1.1
HRT	Hereke	3.09	65	*e*PN	Pn	03 53 38.2	+1.1
HRT	Hereke	3.09	65	*e*Pn	Pn	03 53 38.2	+1.1
SILT	Sile	3.22	59	*e*PN	Pn	03 53 39.9	+1.0
SILT	Sile	3.22	59	*e*Pn	Pn	03 53 39.9	+1.1
ALT	Altintas	3.25	98	*e*PN	Pn	03 53 40.1	+0.9
ALT	Altintas	3.25	98	*e*Pn	Pn	03 53 40.1	+0.9

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*IDC **03** 04:11:52.0±5.7, 18°.95N×145°.68E, h107^{km}±47^{km}, mb3.3/5, mb1 3.6/6, mb1mx3.3/22, mbtmp3.4/6, Error ellipse: s-maj=97.4km s-min=22.2km az=119.0*
*NEIC **03** 04:11:53.0±4.4, 19°.02N×145°.58E, h118^{km}±33^{km}, mb3.8/1, Error ellipse: s-maj=119.2km s-min=19.2km az=119.0*
*ISCJB **03** 04:11:54.0±4.4, 18°.7N±0°.3×146°.0E±0°.7, h133^{km}±35^{km}, mb3.4/6, Error ellipse: s-maj=119.5km s-min=24.9km az=26.0*
ISC 03 04:11:54.7±4.2, **18°.8N**±0°.4×**146°.0E**±0°.7, **h126**^{km}±33^{km}, **n8**, σ**0**^{s}**.87**/9, **mb3.6**/6, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	5.25	192	P	Pn	04 13 12.0	+0.9
	7.3nm,0.3s,baz=15,slow=20,SNR=6.1						
GUMO				S	Sn	04 14 09.7	-0.9
	6.1nm,0.3s,baz=12,slow=11,SNR=3.1						
WRAB	Tennant Creek	40.11	197	*e*P	P	04 19 18.4	+0.3
	0.8nm,0.4s,mb3.9						
WRA	Warramunga Arr	40.12	197	P	P	04 19 17.5	-0.7
	0.4nm,0.3s,mb3.7,baz=13,slow=8.1,SNR=14						
FITZ	Fitzroy Crossi	41.73	210	P	P	04 19 30.9	-0.5
	0.8nm,0.8s,mb3.5,baz=39,slow=11,SNR=5.6						
ASAR	Alice Springs	43.78	196	P	P	04 19 49.6	+1.7
	0.3nm,0.7s,mb3.1,baz=26,slow=8.8,SNR=3.0						
YKA	Yellowknife Ar	77.81	28	P	P	04 23 36.9	-0.9
	0.7nm,0.6s,mb3.6,baz=289,slow=5.4,SNR=7.0						
NVAR	Mina Array Bea	82.90	52	P	P	04 24 05.7	+0.2
	0.5nm,0.6s,mb3.5,baz=262,slow=6.2,SNR=3.4						
NVAR	Mina Array Bea	82.90	52	P	P	04 24 05.7	+0.2

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*ISCJB **03** 04:30:04.0±0.7, 25°.30N±0°.03×56°.16E±0°.09, h10^{km}, Error ellipse: s-maj=11.9km s-min=4.1km az=7.8*
*CSEM **03** 04:30:04.4±1.0, 25°.28N×56°.27E, h2^{km}, ML3.0/2, Error ellipse: s-maj=35.5km s-min=11.3km az=107.0*
*TEH **03** 04:30:26.9, 26°.77N×55°.57E, h6^{km}*
ISC 03 04:30:05.1±0.9, **25°.27N**±0°.03×**56°.2E**±0°.1, **h10**^{km}, **n17**, σ**1**^{s}**.24**/25, **4C-2D, Eastern Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATD	Hatta, Dubai	0.45	191	P	Pg	04 30 13.1	-0.9
	SNR=184						
HATD				P		04 30 13.1	
	SNR=184						
HATD				⇑S	Sg	04 30 20.3	+0.3
HATD				⇑S	Sg	04 30 20.3	+0.3
HATD	Hatta, Dubai	0.45	191	Pg	Pg	04 30 13.1	-0.9
	SNR=184						
HATD				S	Sg	04 30 20.3	+0.3
NAZ	Nazwa, Dubai	0.59	241	Pg	Pg	04 30 15.4	-1.1
	SNR=10						
BANOM	Banah	0.65	6	⇑P	Pg	04 30 16.1	-1.7
	SNR=154						
BANOM				⇑P		04 30 16.1	
	SNR=154						
BANOM				⇓S	Sg	04 30 25.8	-0.4
BANOM				⇓S	Sg	04 30 25.8	-0.4
BANOM	Banah	0.65	6	Pg	Pg	04 30 16.4	-1.3
	SNR=154						
BANOM				S	Sg	04 30 25.8	-0.5
ASUD	Al Ashush, Dub	1.04	232	P	Pg	04 30 27.1	+2.0
	SNR=42						
ASUD				P		04 30 27.1	
	SNR=42						
ASUD	Al Ashush, Dub	1.04	232	Pg	Pg	04 30 24.2	-0.9
ASUD	Al Ashush, Dub	1.04	232	P	Pg	04 30 27.1	+2.0
	SNR=42						
IBND	Bandar-abas	2.18	7	*e*Pg	Pg	04 30 46.7	-0.3
IMOK	Mouk	4.89	321	*e*Pn	Pn	04 31 19.4	+0.7
ISRV	Sarvestan	4.94	327	*e*	Pn	04 31 22.1	+2.6
	comp=Z,442nm,0.1s						
IPAR	Pars	5.35	329	*e*Pn	Pn	04 31 24.6	-0.5
IPAR				*e*Sg	Sn	04 32 25.3	-1.5
IPAR				*e*		04 32 29.6	
	comp=Z,153nm,0.3s						
IMEH	Mehriz	6.26	347	*e*Pn	Pn	04 31 37.9	+0.4
IMEH				*e*		04 31 44.4	
	comp=Z,176nm,0.1s						
IMEH				*e*Sg	Sn	04 32 52.1	+3.0
IBAF	Bafgh	6.32	355	*e*	Pn	04 31 40.5	+2.1
	comp=Z,106nm,0.2s						
IZEF	Zefreh	8.32	337	*e*Pn	Pn	04 32 05.1	-0.8
IPIR	Pirpir	8.74	329	*e*Pn	Pn	04 32 11.3	-0.2
IPIR				*e*		04 32 14.0	
	comp=Z,185nm,0.1s						
IKLH	Kolahrood	8.98	334	*e*	Pn	04 32 22.8	+7.8
	comp=Z,60nm,0.1s						

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*NEIC **03** 04:46:14.0, 36°.87N×27°.48E, h27^{km}, MD3.1(ATH), After ATH.*
*DDA **03** 04:46:14.3, 36°.87N×27°.43E, h8^{km}±3^{km}, Md3.1*
*ISK **03** 04:46:14.3, 36°.87N×27°.48E, h5^{km}, MD3.3*
*ISCJB **03** 04:46:14.7±0.5, 36°.84N±0°.03×27°.46E±0°.04, h10^{km}, Error ellipse: s-maj=5.6km s-min=3.1km az=142.6*
*ATH **03** 04:46:14.0, 36°.87N×27°.48E, h27^{km}±23^{km}, MD3.1/4*
*CSEM **03** 04:46:15.0±0.4, 36°.80N×27°.41E, h10^{km}, MD3.3, Error ellipse: s-maj=10.9km s-min=7.4km az=49.0*
ISC 03 04:46:15.3±0.5, **36°.84N**±0°.03×**27°.43E**±0°.04, **h10**^{km}, **n47**, σ**0**^{s}**.98**/60, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAT	Datca	0.16	135	PG	Pg	04 46 18.2	-0.6
DAT	Datca	0.16	135	*i* Pg	Pg	04 46 18.2	-0.6
BDRM	Kayabasi	0.22	2	*i* P	Pg	04 46 18.8	-1.1
BDRM				*i* S	Sg	04 46 23.0	0.0
BDRM	Kayabasi	0.22	2	*i* P	Pg	04 46 18.8	-1.1
BDRM				*i* S	Sg	04 46 23.0	0.0
BODT	Bodrum	0.24	336	PG	Pg	04 46 19.9	-0.3
BODT				*e*SG	Sg	04 46 24.1	+0.6
BODT	Bodrum	0.24	336	*i* Pg	Pg	04 46 19.9	-0.3
BODT				*e*Sg	Sg	04 46 24.2	+0.7
MLSB	Milas	0.53	31	*e*PG	Pg	04 46 25.0	-0.6
MLSB	Milas	0.53	31	*e*Pg	Pg	04 46 25.0	-0.5
YER	Yerkesik	0.74	67	*e*PG	Pg	04 46 29.0	-0.6
YER				*e*SG	Sg	04 46 39.6	+0.4
YER	Yerkesik	0.74	67	*e*Pg	Pg	04 46 29.0	-0.5
YER				*e*Sg	Sg	04 46 39.6	+0.4
ARG	Arkhangelos	0.84	138	*e*PN	Pg	04 46 30.2	-1.2
ARG				*e*SN	Sg	04 46 42.7	+0.4
ARG	Arkhangelos	0.84	138	*e*Pn	Pg	04 46 30.2	-1.2
ARG				*e*Sn	Sg	04 46 42.7	+0.4
AYDN	Tasoluk	0.89	23	*i* P	Pg	04 46 30.7	-1.7
AYDN				*i* S	Sg	04 46 42.9	-1.1
AYDN	Tasoluk	0.89	23	*i* P	Pg	04 46 30.7	-1.7
AYDN				*i* S	Sg	04 46 42.9	-1.1
TURN	Turunc	0.94	88	*i* P	Px	04 46 26.1	
TURN				*i* S	Sx	04 46 36.0	
DALT	Dalyan (Mudla)	0.97	94	*e*PG	Pg	04 46 33.4	-0.4
DALT	Dalyan (Mudla)	0.97	94	*e*Pg	Pg	04 46 33.4	-0.5
SMG	Samos	0.99	331	*e*PN	Pg	04 46 33.4	-0.9
SMG				*e*SN	Sg	04 46 46.6	-0.5
SMG	Samos	0.99	331	*e*Pn	Pg	04 46 33.4	-0.9
SMG				*e*Sn	Sg	04 46 46.6	-0.5
KARP	Karpathos	1.31	190	*e*PN	Pn	04 46 38.9	-0.7
KARP	Karpathos	1.31	190	*e*Pn	Pn	04 46 38.9	-0.7
FETY	Fethiye	1.34	98	*e*PN	Pn	04 46 40.4	+0.3
FETY	Fethiye	1.34	98	*e*Pn	Pn	04 46 40.4	+0.4
APE	Apeiranthos	1.54	279	*e*PN	Pn	04 46 42.4	-0.4
APE	Apeiranthos	1.54	279	*e*Pn	Pn	04 46 42.4	-0.4
IZM	Izmir	1.56	355	*e*PN	Pn	04 46 44.1	+1.1
IZM	Izmir	1.56	355	*e*Pn	Pn	04 46 44.1	+1.1
BLCB	Balcova	1.57	349	*e*PN	Pn	04 46 44.2	+1.0
BLCB	Balcova	1.57	349	*e*Pn	Pn	04 46 44.2	+1.0
AKAS	Kas	1.85	109	*i* P	Pg	04 46 49.4	-1.4
AKAS				*i* S	Sg	04 47 15.3	+0.5
AKAS	Kas	1.85	109	*i* P	Pg	04 46 49.3	-1.4
AKAS				*i* S	Sg	04 47 15.3	+0.5
KULA	Kula-Manisa	1.93	30	*e*PN	Pn	04 46 49.2	+1.1
KULA	Kula-Manisa	1.93	30	*e*Pn	Pn	04 46 49.2	+1.1
ELL	Elmali	1.99	92	*e*PN	Pn	04 46 49.8	+0.9
ELL	Elmali	1.99	92	*e*Pn	Pn	04 46 49.8	+0.9
AKHS	Akhisar	2.06	8	*i* P	Pg	04 46 53.0	-1.6
AKHS	Akhisar	2.06	8	*i* P	Pg	04 46 53.0	-1.7
AKS	Akhisar	2.06	8	*e*PN	Pn	04 46 51.0	+1.1
AKS	Akhisar	2.06	8	*e*Pn	Pn	04 46 51.0	+1.2
KHL	Karahalli	2.22	48	*e*PN	Pn	04 46 53.0	+0.9
KHL	Karahalli	2.22	48	*e*Pn	Pn	04 46 53.0	+0.9
DST	Dursunbey	2.91	18	*e*PN	Pn	04 47 03.1	+1.5
DST	Dursunbey	2.91	18	*e*Pn	Pn	04 47 03.1	+1.4
EZN	Ezine	3.10	344	*e*PN	Pn	04 47 06.2	+1.9
EZN	Ezine	3.10	344	*e*Pn	Pn	04 47 06.2	+1.9
HDMB	Hadim	4.05	87	*e*PN	Pn	04 47 18.6	+1.3
HDMB	Hadim	4.05	87	*e*Pn	Pn	04 47 18.6	+1.3

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*ISCJB **03** 04:48:07.6±0.4, 30°.05N±0°.09×42°.43W±0°.07, h10^{km}, mb4.1/27, MS3.7/17, Error ellipse: s-maj=13.2km s-min=8.5km az=1.0*
*IDC **03** 04:48:07.9±0.8, 30°.04N×42°.44W, h0^{km}, mb4.0/16, mb1 4.2/16, mb1mx4.0/27, mbtmp4.0/16, MS3.7/17, Ms1 3.7/17, ms1mx3.5/37, Error ellipse: s-maj=23.7km s-min=14.3km az=7.0*
*NEIC **03** 04:48:09.3±0.4, 30°.02N×42°.41W, h10^{km}, mb4.4/13, Error ellipse: s-maj=11.8km s-min=7.7km az=181.0*
ISC 03 04:48:09.6±0.4, **30°.03N**±0°.09×**42°.41W**±0°.07, **h10**^{km}, **n41**, σ**0**^{s}**.94**/34, **mb4.1**/27, **MS3.7**/17, **Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBTS	Babate	28.31	117	LR	LR	05 02 10.1	
	comp=Z,208nm,21.7s,MS3.7,baz=339,slow=30						
SCHQ	Schefferville	30.35	332	P	P	04 54 19.6	-1.7
	5.1nm,0.9s,mb4.3,baz=187,slow=17,SNR=9.3						
SCHQ				LR	LR	05 05 33.6	
	comp=Z,146nm,18.8s,MS3.6,baz=4.6,slow=34						
MDT	Midelt	32.26	75	LR	LR	05 03 23.9	
	comp=Z,69nm,20.9s,MS3.3,baz=143,slow=28						
ESDC	Sonseca Array	32.77	62	P	P	04 54 43.3	+0.5
	0.3nm,0.4s,mb3.6,baz=258,slow=14,SNR=3.3						
ESDC				LR	LR	05 04 25.6	
	comp=Z,82nm,18.9s,MS3.5,baz=340,slow=30						
SDV	Santo Domingo	33.75	237	P	P	04 54 53.0	+1.4
	12nm,0.9s,mb4.8,baz=53,slow=4.0,SNR=16						
WVT	Waverly	38.27	291	*e*P	P	04 55 29.5	-0.6
	4.8nm,1.2s,mb4.1						
DBIC	Dimbokro	42.24	116	P	P	04 56 02.7	-0.5
	9.0nm,1.0s,mb4.4,baz=289,slow=7.5,SNR=14						
DBIC				LR	LR	05 10 47.5	
	comp=Z,179nm,20.6s,MS3.9,baz=280,slow=32						
DBIC	Dimbokro	42.24	116	*e*P	P	04 56 02.4	-0.8
	9.1nm,0.8s,mb4.5						
DBIC				LR	LR	05 10 47.5	
TAM	Tamanrasset	43.28	88	*e*P	P	04 56 12.2	+0.6
	11nm,1.8s,mb4.3						
KEST	Kesra	43.43	68	P	P	04 56 12.6	-0.1
	1.7nm,0.8s,mb3.8,baz=272,slow=10,SNR=7.3						
KEST				LR	LR	05 11 10.0	
	comp=Z,24nm,19.3s,MS3.1,baz=284,slow=32						
TOA0	Torodi Ar. Sit	44.02	103	*e*P	P	04 56 16.0	-1.6
TORD	Torodi Ar. Bea	44.02	103	P	P	04 56 16.4	-1.2
	4.5nm,1.0s,mb4.1,baz=301,slow=6.4,SNR=18						
ULM	Lac du Bonnet	44.51	313	LR	LR	05 13 14.4	
	comp=Z,117nm,19.6s,MS3.8,baz=138,slow=34						
OTAV	Otavalo	45.31	236	*e*P	P	04 56 28.8	+0.8
	12nm,1.5s,mb4.5						
GERES	GERESS Array B	46.12	50	P	P	04 56 34.5	+0.6
	0.5nm,0.8s,mb3.5,baz=272,slow=4.8,SNR=3.5						
GERES				LR	LR	05 12 33.9	
	comp=Z,101nm,18.8s,MS3.8,baz=274,slow=32						
NOA	NORSAR Array B	46.74	33	LR	LR	05 11 56.1	
	comp=Z,46nm,21.8s,MS3.4,baz=250,slow=30						
RES	Resolute Bay	51.66	344	P	P	04 57 15.3	-0.8
	1.2nm,0.9s,mb3.8,baz=143,slow=5.1,SNR=2.1						
RES				LR	LR	05 18 52.7	
	comp=Z,77nm,18.4s,MS3.8,baz=358,slow=36						
RES	Resolute Bay	51.66	344	P	P	04 57 15.3	-0.8
RES				LR	LR	05 18 52.8	
TXAR	Lajitas Array	52.64	286	P	P	04 57 22.9	-1.2
	0.9nm,0.8s,mb3.8,baz=98,slow=9.0,SNR=8.5						
ANMO	Albuquerque	53.44	293	*e*P	P	04 57 30.4	+0.5
	1.9nm,0.9s,mb4.0						
BW06	Boulder Array	54.21	303	*e*P	P	04 57 35.6	+0.3
	3.0nm,0.8s,mb4.3						
PDAR	Pinedale Array	54.21	303	P	P	04 57 34.4	-1.0
	2.1nm,0.6s,mb4.2,baz=90,slow=7.7,SNR=22						
PDAR				LR	LR	05 18 52.8	
	comp=Z,129nm,21.9s,MS4.0,baz=346,slow=34						
ARCES	ARCESS Array B	54.50	24	P	P	04 57 37.6	+0.6
	3.2nm,0.8s,mb4.3,baz=334,slow=14,SNR=3.6						
LOHW	Long Hollow	54.82	304	*e*P	P	04 57 39.8	0.0
	1.3nm,0.7s,mb4.1						
YKA	Yellowknife Ar	55.66	328	P	P	04 57 46.3	+0.8
	0.3nm,0.7s,mb3.5,baz=85,slow=7.5,SNR=4.7						
YKA				LR	LR	05 19 34.0	
	comp=Z,74nm,19.9s,MS3.8,baz=20,slow=34						
AKASG	Malin Array Be	56.08	47	P	P	04 57 49.7	+0.9
	1.2nm,0.6s,mb4.1,baz=275,slow=6.2,SNR=4.8						
AKASG	Malin Array Be	56.08	47	P	P	04 57 49.7	+0.9
DUG	Dugway	57.12	301	*e*P	P	04 57 56.5	+0.1
	3.6nm,1.1s,mb4.3						
LVC	Limon Verde	58.21	209	*e*P	P	04 58 04.3	+0.2
	6.7nm,1.2s,mb4.5						
NEW	Newport	58.45	311	*e*P	P	04 58 04.9	-0.7
	14nm,1.5s,mb4.8						
BR131	Keskin Array S	61.43	58	*e*P	P	04 58 26.8	+0.6
	1.0nm,0.7s,mb4.0						
BRTR	Keskin Array B	61.43	58	P	P	04 58 26.1	-0.1
	0.9nm,0.9s,mb3.9,baz=259,slow=5.8,SNR=5.3						
BRTR				LR	LR	05 19 50.8	
	comp=Z,33nm,19.8s,MS3.5,baz=119,slow=31						
NVAR	Mina Array Bea	61.69	300	P	P	04 58 28.5	+0.5
	0.6nm,0.6s,mb3.9,baz=65,slow=6.3,SNR=4.0						
NVAR	Mina Array Bea	61.69	300	P	P	04 58 28.5	+0.5
MALT	Malatya	65.42	59	*e*P	P	04 58 50.8	-1.8
	4.5nm,1.2s,mb4.4						
AKTK	Aktyubinsk	73.60	41	P	P	04 59 44.6	+1.7
AKTK				LR	LR	05 28 34.1	
AKTO	Aktyubinsk	73.60	41	P	P	04 59 44.6	+1.7
	1.2nm,0.6s,mb4.0,baz=297,slow=2.3,SNR=3.1						
AKTO				LR	LR	05 28 34.1	
	comp=Z,65nm,18.4s,MS4.0,baz=297,slow=33						
PLCA	Paso Flores	75.08	202	*e*P	P	04 59 51.2	-0.3
	5.9nm,1.3s,mb4.4						
BVAR	Borovoye Array	78.83	35	LR	LR	05 33 15.3	
	comp=Z,45nm,19.7s,MS3.8,baz=304,slow=34						
KURK	Kurchatov	84.25	33	LR	LR	05 34 24.3	
	comp=Z,44nm,19.1s,MS3.9,baz=0.0,slow=33						
MKAR	Makanchi Array	88.71	34	LR	LR	05 39 29.9	
	comp=Z,56nm,18.7s,MS4.0,baz=171,slow=35						

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*MDD **03** 04:52:35.9±1.1, 36°.63N×11°.21W, h28^{km}±25^{km}, mbLg3.6/9, Error ellipse: s-maj=22.0km s-min=7.0km az=62.0, PRIMO*
*NEIC **03** 04:52:36.2, 36°.80N×11°.00W, h0^{km}, MG3.9(MDD), After MDD.*
*INMG **03** 04:52:37.4±1.1, 36°.69N×11°.00W, h10^{km}, ML2.8, Error ellipse: s-maj=5.3km s-min=3.3km az=78.0*
*IGIL **03** 04:52:37.4, 36°.61N×11°.11W, h25^{km}, ML3.0*
*CSEM **03** 04:52:38.6±0.3, 36°.89N×10°.78W, h10^{km}, ML3.7/16, Error ellipse: s-maj=5.2km s-min=3.1km az=52.0*
*ISCJB **03** 04:52:38.7±0.7, 36°.98N±0°.03×10°.62W±0°.04, h10^{km}, Error ellipse: s-maj=5.9km s-min=3.4km az=143.0*
*CNRM **03** 04:52:39.3, 36°.41N×10°.95W, h30^{km}, MD3.9*
ISC 03 04:52:38.9±0.6, **36°.91N**±0°.03×**10°.75W**±0°.04, **h10**^{km}, **n146**, σ**1**^{s}**.08**/272, **Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	Vila Bisbo	1.56	81	*e*Pn	Pn	04 53 06.0	-0.6
PFVI				*e*Sn	Sn	04 53 28.1	+1.2
PFVI				A		04 53 29.3	
	61nm,0.2s						
PFVI	Vila Bisbo	1.56	81	P	Pn	04 53 06.0	-0.6
PFVI				S	Sn	04 53 28.1	+1.2
	31nm,0.2s						
PFVI	Vila Bisbo	1.56	81	*e*Pn	Pn	04 53 06.0	-0.6
PFVI				*e*Sn	Sn	04 53 28.1	+1.2

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      61nm,0.2s
MORF  Marmelete           1.73  76 ePn   Pn   04 53 08.7 -0.3
MORF                               eSn   Sn   04 53 33.0 +1.9
MORF                               A          04 53 43.5
      39nm,0.2s
MORF  Marmelete           1.73  76 P     Pn   04 53 08.7 -0.3
MORF                               S     Sn   04 53 33.0 +1.9
      39nm,0.2s
MORF  Marmelete           1.73  76 ePn   Pn   04 53 08.7 -0.3
MORF                               eSn   Sn   04 53 33.0 +1.9
      39nm,0.2s
PTEO  Sao Teotonio        1.74  68 ePn   Pn   04 53 09.3 +0.1
PTEO                               eSn   Sn   04 53 33.4 +2.0
PTEO                               A          04 53 35.2
      42nm,0.3s
PTEO  Sao Teotonio        1.74  68 P     Pn   04 53 09.3 +0.1
PTEO                               S     Sn   04 53 33.4 +2.0
      21nm,0.3s
PTEO  Sao Teotonio        1.74  68 ePn   Pn   04 53 09.3 +0.1
PTEO                               eSn   Sn   04 53 33.4 +2.0
      42nm,0.3s
PBDV  Barranco-do-Ve      2.28  81 ePn   Pn   04 53 17.1 +0.5
PBDV                               eSn   Sn   04 53 46.7 +2.0
PBDV                               A          04 53 58.0
      22nm,0.4s
PBDV  Barranco-do-Ve      2.28  81 P     Pn   04 53 17.1 +0.5
PBDV                               S     Sn   04 53 46.7 +2.0
      22nm,0.4s
PBDV  Barranco-do-Ve      2.28  81 ePn   Pn   04 53 17.1 +0.5
PBDV                               eSn   Sn   04 53 46.7 +2.0
      22nm,0.4s
PMAFR Mafra               2.35  29 ePn   Pn   04 53 17.9 +0.3
PMAFR                              eSn   Sn   04 53 48.5 +2.0
PMAFR                              A          04 53 49.9
      97nm,0.7s
PMAFR Mafra               2.35  29 P     Pn   04 53 17.9 +0.3
PMAFR                              S     Sn   04 53 48.5 +2.0
      97nm,0.7s
PMAFR Mafra               2.35  29 ePn   Pn   04 53 17.9 +0.3
PMAFR                              eSn   Sn   04 53 48.5 +2.0
      97nm,0.7s
PVAQ  Vaqueiros           2.48  78 ePn   Pn   04 53 19.1 -0.2
PVAQ                               eSn   Sn   04 53 50.8 +1.3
PVAQ                               A          04 53 57.0
      23nm,0.3s
PVAQ  Vaqueiros           2.48  78 P     Pn   04 53 19.1 -0.2
PVAQ                               S     Sn   04 53 50.8 +1.3
      23nm,0.3s
PVAQ  Vaqueiros           2.48  78 ePn   Pn   04 53 19.1 -0.2
PVAQ                               eSn   Sn   04 53 50.8 +1.3
      23nm,0.3s
MOE   Montemor            2.50  49 ePn   Pn   04 53 20.1 +0.6
MOE                                eSn   Sn   04 53 52.4 +2.4
MOE   Montemor            2.50  49 ePn   Pn   04 53 20.1 +0.6
MOE                                eSn   Sn   04 53 52.4 +2.4
PBEJ  Beja                2.55  63 ePn   Pn   04 53 20.5 +0.2
PBEJ                               eSn   Sn   04 53 53.4 +1.9
PBEJ                               A          04 53 55.8
      16nm,0.3s
PBEJ  Beja                2.55  63 P     Pn   04 53 20.5 +0.2
PBEJ                               S     Sn   04 53 53.4 +1.9
      8.1nm,0.3s
PBEJ  Beja                2.55  63 ePn   Pn   04 53 20.5 +0.2
PBEJ                               eSn   Sn   04 53 53.4 +1.9
      16nm,0.3s
EGRO  El Granado          2.68  76 P     Pn   04 53 22.4 +0.3
      3.7nm,0.3s,SNR=25
EGRO                               S     Sn   04 53 56.6 +1.9
      12nm,0.1s,SNR=7.2
EGRO  El Granado          2.68  76 P     Pn   04 53 22.7 +0.6
EGRO                               S     Sn   04 53 56.6 +1.9
EGRO  El Granado          2.68  76 P     Pn   04 53 22.7 +0.6
EGRO                               S     Sn   04 53 56.6 +1.9
      12nm,0.1s,SNR=7.2
ALMR  Almeirim            2.83  37 eP    Pn   04 53 25.1 +1.1
ALMR                               eS    Sn   04 54 00.2 +2.0
ALMR                               eS    Sn   04 54 00.2 +2.0
ALMR                               AML   AML  04 54 00.7
      comp=E,18nm,0.1s
ALMR  Almeirim            2.83  37 eP    Pn   04 53 25.1 +1.0
ALMR                               eS    Sn   04 54 00.2 +2.0
ALMR  Almeirim            2.83  37 eP    Pn   04 53 25.1 +1.0
ALMR                               eS    Sn   04 54 00.2 +2.0
ERIP  Rio Piedras         2.83  80 P     Pn   04 53 24.3 +0.1
      comp=E,5.2nm,0.1s,SNR=7.9
ERIP                               S     Sn   04 54 00.0 +1.7
      comp=E,25nm,0.2s,SNR=7.9
ERIP  Rio Piedras         2.83  80 P     Pn   04 53 24.3 +0.1
      comp=E,5.2nm,0.1s,SNR=7.9
ERIP                               S     Sn   04 54 00.0 +1.6
      comp=E,25nm,0.2s,SNR=7.9
PESTR Estremoz            3.18  51 ePn   Pn   04 53 30.0 +1.1
PESTR                              eSn   Sn   04 54 08.9 +2.1
PESTR                              A          04 54 12.2
      comp=E,14nm,0.2s
PESTR Estremoz            3.18  51 P     Pn   04 53 30.0 +1.1
PESTR                              S     Sn   04 54 08.9 +2.1
      comp=E,6.8nm,0.2s
PESTR Estremoz            3.18  51 ePn   Pn   04 53 30.0 +1.1
PESTR                              eSn   Sn   04 54 08.9 +2.1
      comp=E,14nm,0.2s
EMIN  Mina Concepcio      3.36  74 P     Pn   04 53 31.3 -0.2
      comp=E,4.1nm,0.3s,SNR=51
EMIN                               S     Sn   04 54 12.3 +0.9
      comp=E,13nm,0.4s,SNR=13
EMIN  Mina Concepcio      3.36  74 P     Pn   04 53 31.3 -0.2
      comp=E,4.1nm,0.3s,SNR=51
EMIN                               S     Sn   04 54 12.3 +0.9
      comp=E,13nm,0.4s,SNR=13
EBAD  Badajoz             3.49  57 P     Pn   04 53 33.5 +0.3
      comp=E,2.3nm,0.3s,SNR=46
EBAD                               S     Sn   04 54 15.7 +1.2
      comp=E,49nm,0.2s,SNR=48
EBAD  Badajoz             3.49  57 P     Pn   04 53 33.5 +0.3
      comp=E,2.3nm,0.3s,SNR=46
EBAD                               S     Sn   04 54 15.7 +1.2
      comp=E,49nm,0.2s,SNR=48
PMRV  Marv??o             3.65  45 ePn   Pn   04 53 35.6 +0.1
PMRV                               eSn   Sn   04 54 19.3 +0.7
PMRV                               A          04 54 23.1
      comp=E,27nm,0.3s
PMRV  Marv??o             3.65  45 P     Pn   04 53 35.6 +0.1
PMRV                               S     Sn   04 54 19.3 +0.7
      comp=E,14nm,0.3s
PMRV  Marv??o             3.65  45 ePn   Pn   04 53 35.6 +0.1
PMRV                               eSn   Sn   04 54 19.3 +0.7
      comp=E,27nm,0.3s
ESPR  Espera              3.93  89 P     Pn   04 53 38.4 -0.8
      comp=E,9.7nm,0.3s,SNR=56
ESPR                               S     Sn   04 54 25.1 -0.2
      comp=E,82nm,0.3s,SNR=5.4
ESPR  Espera              3.93  89 P     Pn   04 53 38.4 -0.8
      comp=E,9.7nm,0.3s,SNR=56
ESPR                               S     Sn   04 54 25.1 -0.2
      comp=E,82nm,0.3s,SNR=5.4
EJIF  Jimena Fronter      4.27  95 P     Pn   04 53 44.2 +0.2
      comp=E,1.1nm,0.4s,SNR=7.9
EJIF                               S     Sn   04 54 33.4 -0.5
      comp=E,5.3nm,0.5s,SNR=7.9
EJIF  Jimena Fronter      4.27  95 P     Pn   04 53 44.2 +0.2
      comp=E,1.1nm,0.4s,SNR=7.9
EJIF                               S     Sn   04 54 33.4 -0.4
      comp=E,5.3nm,0.5s,SNR=7.9
MTE   Manteigas           4.30  35 ePn   Pn   04 53 44.7 +0.4
MTE                                eSn   Sn   04 54 35.4 +0.9
MTE                                A          04 54 40.3
      comp=E,11nm,0.7s
MTE   Manteigas           4.30  35 ePn   Pn   04 53 44.7 +0.4
MTE                                eSn   Sn   04 54 35.4 +0.9
      comp=E,11nm,0.7s
ECAB  El Cabril           4.40  73 P     Pn   04 53 46.2 +0.5
      comp=E,8.1nm,0.3s,SNR=51
ECAB                               S     Sn   04 54 37.6 +0.6
      comp=E,26nm,0.3s,SNR=6.7
ECAB  El Cabril           4.40  73 P     Pn   04 53 46.2 +0.5
      comp=E,8.1nm,0.3s,SNR=51
ECAB                               S     Sn   04 54 37.6 +0.6
      comp=E,26nm,0.3s,SNR=6.7
PVIS  Viseu               4.41  30 ePn   Pn   04 53 46.0 +0.2
PVIS                               eSn   Sn   04 54 38.1 +0.9
PVIS                               A          04 54 41.8
      comp=E,16nm,0.5s
PVIS  Viseu               4.41  30 P     Pn   04 53 46.0 +0.2
PVIS                               S     Sn   04 54 38.1 +0.9
      comp=E,7.8nm,0.5s
PVIS  Viseu               4.41  30 ePn   Pn   04 53 46.0 +0.2
PVIS                               eSn   Sn   04 54 38.1 +0.9
      comp=E,16nm,0.5s
ECEU  Ceuta               4.45 101 P     Pn   04 53 46.7 +0.2
      comp=E,0.1nm,0.1s,SNR=7.9
ECEU                               S     Sn   04 54 38.0 -0.3
      comp=E,6.8nm,0.6s,SNR=7.9
ECEU  Ceuta               4.45 101 P     Pn   04 53 46.7 +0.3
      comp=E,0.1nm,0.1s,SNR=7.9
ECEU                               S     Sn   04 54 38.0 -0.3
      comp=E,6.8nm,0.6s,SNR=7.9
PTO   Porto               4.54  21 ePn   Pn   04 53 47.5 -0.2
PTO                                eSn   Sn   04 54 40.3 -0.3
PTO                                A          04 54 44.5
      comp=E,24nm,0.1s
PTO   Porto               4.54  21 P     Pn   04 53 47.5 -0.2
PTO                                S     Sn   04 54 40.3 -0.3
      comp=E,12nm,0.1s
PTO   Porto               4.54  21 ePn   Pn   04 53 47.5 -0.2
PTO                                eSn   Sn   04 54 40.3 -0.3
      comp=E,24nm,0.1s
EMIJ  Mijas               4.81  92 P     Pn   04 53 51.7 +0.2
      comp=E,6.3nm,0.8s,SNR=7.1
EMIJ                               S     Sn   04 54 45.7 -1.5
      comp=E,5.5nm,0.3s
EMIJ  Mijas               4.81  92 P     Pn   04 53 51.7 +0.3
      comp=E,6.3nm,0.8s,SNR=7.1
EMIJ                               S     Sn   04 54 45.7 -1.6
      comp=E,5.5nm,0.3s
PVRL  Vila Real           4.96  28 eSn   Sn   04 54 50.3 -0.5
PVRL                               A          04 54 52.5
      comp=E,14nm,0.1s
PVRL  Vila Real           4.96  28 S     Sn   04 54 50.3 -0.5
      comp=E,6.9nm,0.1s
PVRL  Vila Real           4.96  28 eSn   Sn   04 54 50.3 -0.5
      comp=E,14nm,0.1s
EADA  Adamuz              5.07  74 P     Pn   04 53 55.0 +0.2
      comp=E,2.4nm,0.1s,SNR=44
EADA                               S     Sn   04 54 53.8 +0.4
      comp=E,15nm,0.4s,SNR=5.8
EADA  Adamuz              5.07  74 P     Pn   04 53 55.5 +0.6
EADA                               S     Sn   04 54 53.9 +0.4
EADA  Adamuz              5.07  74 P     Pn   04 53 55.0 +0.1
      comp=E,2.4nm,0.1s,SNR=44
EADA                               S     Sn   04 54 53.8 +0.4
      comp=E,15nm,0.4s,SNR=5.8
MVO   Moncorvo            5.14  33 ePn   Pn   04 53 56.0 +0.1
MVO                                eSn   Sn   04 54 55.3  0.0
MVO                                A          04 54 57.9
      comp=E,18nm,0.5s
MVO   Moncorvo            5.14  33 P     Pn   04 53 56.0 +0.1
MVO                                S     Sn   04 54 55.3  0.0
      comp=E,9.1nm,0.5s
MVO   Moncorvo            5.14  33 ePn   Pn   04 53 56.0 +0.1
MVO                                eSn   Sn   04 54 55.3  0.0
      comp=E,18nm,0.5s
ELUQ  Luque               5.22  81 P     Pn   04 53 57.4 +0.5
      comp=E,0.0nm,0.3s,SNR=7.9
ELUQ                               S     Sn   04 54 56.9 -0.3
      comp=E,10nm,0.5s,SNR=7.9
ELUQ  Luque               5.22  81 P     Pn   04 53 57.4 +0.5
      SNR=7.9
ELUQ                               S     Sn   04 54 56.9 -0.2
      comp=E,10nm,0.5s,SNR=7.9
PCAB  Cabril              5.24  23 ePn   Pn   04 53 57.2 -0.1
PCAB                               eSn   Sn   04 54 56.7 -1.0
PCAB                               A          04 55 00.8
      comp=E,9.7nm,0.4s
PCAB  Cabril              5.24  23 P     Pn   04 53 57.2 -0.1
PCAB                               S     Sn   04 54 56.7 -1.0
      comp=E,4.8nm,0.4s
PCAB  Cabril              5.24  23 ePn   Pn   04 53 57.2 -0.1
PCAB                               eSn   Sn   04 54 56.7 -1.0
      comp=E,9.7nm,0.4s
ELOJ  Sierra Loja         5.29  85 P     Pn   04 53 57.5 -0.4
      comp=E,2.2nm,0.4s,SNR=7.9
ELOJ                               S     Sn   04 54 58.7 -0.1
      comp=E,2.4nm,0.3s,SNR=7.9
ELOJ  Sierra Loja         5.29  85 P     Pn   04 53 57.5 -0.4
      comp=E,2.2nm,0.4s,SNR=7.9
ELOJ                               S     Sn   04 54 58.7 -0.2
      comp=E,2.4nm,0.3s,SNR=7.9
ELOB  Lobios              5.37  22 P     Pn   04 53 59.1  0.0
      comp=E,3.3nm,0.6s,SNR=11
ELOB                               S     Sn   04 55 00.2 -0.8
      comp=E,14nm,0.3s,SNR=15
ELOB  Lobios              5.37  22 P     Pn   04 53 59.1  0.0
      comp=E,3.3nm,0.6s,SNR=11
ELOB                               S     Sn   04 55 00.2 -0.8
      comp=E,14nm,0.3s,SNR=15
EZAM  Zamans              5.47  16 P     Pn   04 53 59.9 -0.5
      comp=E,2.8nm,0.5s,SNR=4.0
EZAM                               S     Sn   04 55 01.2 -2.2
      comp=E,13nm,0.3s,SNR=7.9
EZAM  Zamans              5.47  16 P     Pn   04 53 59.9 -0.5
      comp=E,2.8nm,0.5s,SNR=4.0
EZAM                               S     Sn   04 55 01.2 -2.2
      comp=E,13nm,0.3s,SNR=7.9
ERON  Agron               5.56  87 P     Pn   04 54 02.2 +0.5
      comp=E,0.5nm,0.6s,SNR=7.9
ERON                               S     Sn   04 55 05.2 -0.5
      comp=E,27nm,2.0s,SNR=7.9
ERON  Agron               5.56  87 P     Pn   04 54 02.2 +0.5
      comp=E,0.5nm,0.6s,SNR=7.9
ERON                               S     Sn   04 55 05.2 -0.5
      comp=E,27nm,2.0s,SNR=7.9
EBAN  Banos Encina        5.68  75 P     Pn   04 54 03.5 +0.2
      comp=E,4.3nm,0.2s,SNR=9.3
EBAN                               S     Sn   04 55 07.5 -1.0
      comp=E,4.3nm,0.4s,SNR=6.3
EBAN  Banos Encina        5.68  75 P     Pn   04 54 03.5 +0.2
      comp=E,4.3nm,0.2s,SNR=9.3
EBAN                               S     Sn   04 55 07.5 -1.0
      comp=E,4.3nm,0.4s,SNR=6.3
MIF   Mishlifen           5.71 126 P     Pn   04 53 59.0 -4.8
MIF                                S     Sn   04 54 59.0  -10
MIF   Mishlifen           5.71 126 i P   Pn   04 53 59.0 -4.8
MIF                                i S   Sn   04 54 59.0  -10
ECOG  Cogollos-Vega       5.76  84 P     Pn   04 54 03.9 -0.4
      comp=E,1.7nm,0.3s,SNR=7.9
ECOG                               S     Sn   04 55 10.1 -0.3
      comp=E,4.5nm,0.6s,SNR=7.9
ECOG  Cogollos-Vega       5.76  84 P     Pn   04 54 03.9 -0.5
      comp=E,1.7nm,0.3s,SNR=7.9
ECOG                               S     Sn   04 55 10.1 -0.4
      comp=E,4.5nm,0.6s,SNR=7.9
EGUA  Guajares            5.76  89 P     Pn   04 54 04.2 -0.3
      comp=E,16nm,0.8s,SNR=7.9
EGUA                               S     Sn   04 55 09.7 -0.9
      comp=E,18nm,0.6s,SNR=7.9
EGUA  Guajares            5.76  89 P     Pn   04 54 04.2 -0.3
      comp=E,16nm,0.8s,SNR=7.9
EGUA                               S     Sn   04 55 09.7 -0.9
      comp=E,18nm,0.6s,SNR=7.9
PBRG  Braganca            5.79  31 ePn   Pn   04 54 05.0 +0.1
PBRG                               eSn   Sn   04 55 10.8 -0.5
PBRG                               A          04 55 12.7
      comp=E,8.0nm,0.2s
PBRG  Braganca            5.79  31 P     Pn   04 54 05.0 +0.1
PBRG                               S     Sn   04 55 10.8 -0.5
      comp=E,4.0nm,0.2s
PBRG  Braganca            5.79  31 ePn   Pn   04 54 05.0 +0.1
PBRG                               eSn   Sn   04 55 10.8 -0.5
      comp=E,8.0nm,0.2s
KIB   El Ksiba            5.81 137 P     Pn   04 54 00.0 -5.1
KIB                                S     Sn   04 54 59.0  -13
KIB   El Ksiba            5.81 137 i P   Pn   04 54 00.0 -5.1
KIB                                i S   Sn   04 54 59.0  -13
EQUE  Quentar             5.86  85 S     Sn   04 55 12.2 -0.7
      comp=E,3.0nm,0.3s,SNR=7.9
EQUE  Quentar             5.86  85 S     Sn   04 55 12.2 -0.7
      comp=E,3.0nm,0.3s,SNR=7.9
ECAL  Calabor             5.91  30 P     Pn   04 54 06.6 +0.2
      comp=E,7.7nm,0.9s,SNR=7.1
ECAL                               S     Sn   04 55 13.5 -0.7
      comp=E,25nm,0.4s,SNR=9.7
ECAL  Calabor             5.91  30 P     Pn   04 54 06.6 +0.1
      comp=E,7.7nm,0.9s,SNR=7.1
ECAL                               S     Sn   04 55 13.5 -0.7
      comp=E,25nm,0.4s,SNR=9.7
ESDC  Sonseca Array       6.01  61 P     Pn   04 54 07.8 -0.1
      comp=E,1.5nm,0.2s,baz=247,slow=13,SNR=29
ESDC                               S     Sn   04 55 16.2 -0.5
      comp=E,2.7nm,0.3s,baz=245,slow=23,SNR=23
ESDC  Sonseca Array       6.01  61 P     Pn   04 54 07.8 -0.1
      comp=E,1.5nm,0.2s,baz=247,slow=13,SNR=29
ESDC                               S     Sn   04 55 16.2 -0.5
      comp=E,2.7nm,0.3s,baz=245,slow=23,SNR=23
CZD   Col de Zad          6.08 128 P     Pn   04 54 05.0 -3.8
CZD                                S     Sn   04 55 08.0  -10
CZD   Col de Zad          6.08 128 i P   Pn   04 54 05.0 -3.8
CZD                                i S   Sn   04 55 08.0  -10
EQES  Quesada             6.18  79 P     Pn   04 54 10.6 +0.4
      comp=E,2.3nm,0.8s,SNR=10
EQES                               S     Sn   04 55 19.7 -1.3
      comp=E,4.1nm,0.3s,SNR=9.5
EQES  Quesada             6.18  79 P     Pn   04 54 10.6 +0.4
      comp=E,2.3nm,0.8s,SNR=10
EMAZ  Mazaricos           6.19  12 P     Pn   04 54 10.1 -0.2
      comp=E,0.6nm,0.2s,SNR=7.9
EMAZ                               S     Sn   04 55 16.7 -4.3
      comp=E,12nm,0.2s,SNR=7.1
EMAZ  Mazaricos           6.19  12 P     Pn   04 54 10.1 -0.1
      comp=E,0.6nm,0.2s,SNR=7.9
STS   Santiago            6.21  15 S     Sn   04 55 18.7 -2.8
      comp=E,3.2nm,0.3s,SNR=7.9
STS   Santiago            6.21  15 S     Sn   04 55 18.7 -2.8
      comp=E,3.2nm,0.3s,SNR=7.9
EBER  Berja               6.30  88 P     Pn   04 54 12.8 +0.9
      comp=E,3.6nm,0.7s,SNR=7.9
EBER                               S     Sn   04 55 22.7 -1.2
      comp=E,2.5nm,0.3s,SNR=7.9
EBER  Berja               6.30  88 P     Pn   04 54 12.8 +1.0
      comp=E,3.6nm,0.7s,SNR=7.9
GUD   Guadarrama          6.36  52 P     Pn   04 54 13.2 +0.5
      comp=E,0.6nm,0.4s,SNR=7.9
GUD                                S     Sn   04 55 24.7 -0.7
      comp=E,2.7nm,0.2s,SNR=7.9
GUD   Guadarrama          6.36  52 P     Pn   04 54 13.2 +0.5
      comp=E,0.6nm,0.4s,SNR=7.9
GUD                                S     Sn   04 55 24.7 -0.7
      comp=E,2.7nm,0.2s,SNR=7.9
EHUE  Huescar             6.56  80 P     Pn   04 54 15.3 -0.1
      comp=E,0.2nm,0.2s,SNR=7.9
EHUE                               S     Sn   04 55 29.2 -1.1
      comp=E,1.0nm,0.2s,SNR=7.9
EHUE  Huescar             6.56  80 P     Pn   04 54 15.3 -0.1
      comp=E,0.2nm,0.2s,SNR=7.9
EHUE                               S     Sn   04 55 29.2 -1.1
      comp=E,1.0nm,0.2s,SNR=7.9
EVIA  Vianos              6.76  73 P     Pn   04 54 17.6 -0.6
      comp=E,0.1nm,0.2s,SNR=7.9
EVIA                               S     Sn   04 55 34.4 -0.8
      comp=E,1.2nm,0.2s,SNR=7.9
EVIA  Vianos              6.76  73 P     Pn   04 54 17.6 -0.5
      comp=E,0.1nm,0.2s,SNR=7.9
EVIA                               S     Sn   04 55 34.4 -0.7
      comp=E,1.2nm,0.2s,SNR=7.9
ENIJ  Nijar               6.84  87 P     Pn   04 54 18.4 -0.9
ENIJ  Nijar               6.84  87 P     Pn   04 54 18.4 -0.9
EPON  Pontenova           6.98  22 P     Pn   04 54 20.4 -0.8
      comp=E,1.7nm,0.4s,SNR=7.9
EPON                               S     Sn   04 55 38.2 -2.3
      comp=E,3.0nm,0.2s,SNR=7.9
EPON  Pontenova           6.98  22 P     Pn   04 54 20.4 -0.7
      comp=E,1.7nm,0.4s,SNR=7.9
EPON                               S     Sn   04 55 38.2 -2.3
      comp=E,3.0nm,0.2s,SNR=7.9
ZFT   Errachidia          7.18 131 P     Pn   04 54 19.0 -4.9
ZFT                                S     Sn   04 55 33.0  -13
ZFT   Errachidia          7.18 131 i P   Pn   04 54 19.0 -4.9
ZFT                                i S   Sn   04 55 33.0  -13
ETOB  Tobarra             7.49  74 P     Pn   04 54 28.1 -0.1
      comp=E,0.5nm,0.2s,SNR=8.0
ETOB                               S     Sn   04 55 51.2 -2.0
      comp=E,0.7nm,0.2s
ETOB  Tobarra             7.49  74 P     Pn   04 54 28.1 -0.1
      comp=E,0.5nm,0.2s,SNR=8.0
ETOB                               S     Sn   04 55 51.2 -2.0
      comp=E,0.7nm,0.2s
EMUR  La Murta            7.63  80 P     Pn   04 54 29.6 -0.5
      comp=E,0.6nm,0.3s,SNR=7.9
EMUR                               S     Sn   04 55 54.3 -2.3
      comp=E,1.8nm,0.4s,SNR=7.9
EMUR  La Murta            7.63  80 P     Pn   04 54 29.6 -0.5
      comp=E,0.6nm,0.3s,SNR=7.9
EMUR                               S     Sn   04 55 54.3 -2.3
      comp=E,1.8nm,0.4s,SNR=7.9
EARI  Arriondas           7.67  32 P     Pn   04 54 31.1 +0.5
      comp=E,24nm,1.0s,SNR=7.9
EARI                               S     Sn   04 55 55.2 -2.3
      comp=E,0.8nm,0.2s,SNR=7.9
EARI  Arriondas           7.67  32 P     Pn   04 54 31.1 +0.5
      comp=E,24nm,1.0s,SNR=7.9
EARI                               S     Sn   04 55 55.2 -2.3
      comp=E,0.8nm,0.2s,SNR=7.9
ETOR  Torete              7.83  57 P     Pn   04 54 33.7 +0.9
      comp=E,9.4nm,0.3s,SNR=7.9
ETOR                               S     Sn   04 55 59.5 -1.9
      comp=E,11nm,0.3s,SNR=7.9
ETOR  Torete              7.83  57 P     Pn   04 54 33.8 +1.0
ETOR                               S     Sn   04 55 59.5 -1.9
ETOR  Torete              7.83  57 P     Pn   04 54 33.7 +0.9
      comp=E,9.4nm,0.3s,SNR=7.9
ETOR  Torete              7.83  57 P     Pn   04 54 33.8 +1.0
ETOR                               S     Sn   04 55 59.5 -1.9
      comp=E,11nm,0.3s,SNR=7.9
ELAN  Lanestosa           8.45  39 S     Sn   04 56 13.9 -2.7
      comp=E,1.6nm,0.2s,SNR=7.9
ELAN  Lanestosa           8.45  39 S     Sn   04 56 13.9 -2.7
      comp=E,1.6nm,0.2s,SNR=7.9
EMOS  Mosqueruela         8.75  64 P     Pn   04 54 46.2 +0.7
      comp=E,0.2nm,0.3s,SNR=7.9
EMOS                               S     Sn   04 56 21.5 -2.7
      comp=E,2.2nm,0.5s,SNR=7.9
EMOS  Mosqueruela         8.75  64 P     Pn   04 54 46.2 +0.7
      comp=E,0.2nm,0.3s,SNR=7.9
EMOS                               S     Sn   04 56 21.5 -2.7
      comp=E,2.2nm,0.5s,SNR=7.9
ESAC  San Caprasio        9.30  56 S     Sn   04 56 34.5 -3.2
      comp=E,7.5nm,0.3s,SNR=4.0
ESAC  San Caprasio        9.30  56 S     Sn   04 56 34.5 -3.2
      comp=E,7.5nm,0.3s,SNR=4.0
ELIZ  Elizondo            9.43  46 P     Pn   04 54 54.9 +0.1
      comp=E,0.6nm,0.3s,SNR=4.0
ELIZ                               S     Sn   04 56 37.8 -3.0
      comp=E,1.7nm,0.4s,SNR=4.0
ELIZ  Elizondo            9.43  46 P     Pn   04 54 54.9 +0.1
      comp=E,0.6nm,0.3s,SNR=4.0
ELIZ                               S     Sn   04 56 37.8 -3.1
      comp=E,1.7nm,0.4s,SNR=4.0
EALK  Alkurruntz          9.48  45 S     Sn   04 56 38.8 -3.3
      comp=E,2.2nm,0.1s,SNR=4.0
EALK  Alkurruntz          9.48  45 S     Sn   04 56 38.8 -3.2
      comp=E,2.2nm,0.1s,SNR=4.0
ERTA  Horta de San J      9.54  62 S     Sn   04 56 39.9 -3.5
      comp=E,111nm,1.8s,SNR=7.9
ERTA  Horta de San J      9.54  62 S     Sn   04 56 39.9 -3.5
      comp=E,111nm,1.8s,SNR=7.9
EBIE  Bielsa             10.17  52 P     Pn   04 55 06.1 +1.2
      comp=E,0.6nm,0.3s,SNR=7.9
EBIE                               S     Sn   04 56 55.6 -3.5
      comp=E,22nm,1.5s,SNR=7.9
EBIE  Bielsa             10.17  52 P     Pn   04 55 06.1 +1.2
      comp=E,0.6nm,0.3s,SNR=7.9
EBIE                               S     Sn   04 56 55.6 -3.4
      comp=E,22nm,1.5s,SNR=7.9
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IDC ***03*** *04:57:06.3±2.6, 41.°69N×76.°75E, h0^{km}, mb3.2/2, mb1 3.4/7, mb1mx3.2/29, mbtmp3.4/7, ML3.3/5, Error ellipse: s-maj=35.9km s-min=18.5km az=166.0*

KNET ***03*** *04:57:08.7±0.6, 41.°94N×76.°38E, h7^{km}±3^{km}, ml3.3, Error ellipse: s-maj=4.6km s-min=2.7km az=83.0*

NEIC ***03*** *04:57:09.2±1.5, 41.°97N×76.°50E, h10^{km}, Error ellipse: s-maj=22.1km s-min=10.1km az=168.0*

NNC ***03*** *04:57:10.8±3.4, 42.°15N×76.°60E, h0^{km}, mb3.7, mpv3.6, Error ellipse: s-maj=25.9km s-min=16.0km az=8.0*

BJI ***03*** *04:57:13.9, 42.°23N×77.°28E, h10^{km}, mb4.1/1, ML3.6/7*

ISC 03 04:57:08.8±0.8**, 42.°02N**±0.°04×**76.°56E**±0.°04**, h1**^{km}±5^{km}**, n34, σ1.^{s}31**/54**, mb3.2**/2**, 16C-16D, Lake Issyk-Kul region**

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Code  Station Name         Δ°  AZ°  Phase ID          Time     Res
                                   Op    ISC     h  m  s     ISC
ULHL  Ulahol              0.33 313 ⇓P    Pg   04 57 15.0  0.0
      217nm,0.2s,SNR=1359
ULHL                               ⇓S    Sg   04 57 20.8 +1.6
      749nm,0.1s
KZA   Kyzart              0.98 274 ⇑P    Pg   04 57 25.3 -2.3
      473nm,0.3s,SNR=312
KZA                                ⇓S    Sg   04 57 38.6 -1.6
      262nm,0.3s
TKM2  Tokmak 2            1.15 322 ⇑P    Pg   04 57 30.0 -0.8
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	44nm,0.1s,SNR=202						
TKM2				⇓S	Sg	04 57 46.7	+1.1
	266nm,0.1s						
TKM2	**Tokmak 2**	1.15	322	*e*Pg	Pg	04 57 30.0	-0.7
TKM2				*e*Sg	Sg	04 57 46.5	+0.9
TKM2	**Tokmak 2**	1.15	322	⇓P	Pg	04 57 30.0	-0.7
	24nm,0.3s						
TKM2				⇓S	Sg	04 57 46.3	+0.7
	179nm,0.3s						
KNDC	**Almaty**	1.23	14	⇓P	Pg	04 57 32.1	-0.2
KNDC				⇓S	Sg	04 57 50.3	+2.0
KBK	**Karagaybulak**	1.35	298	⇑P	Pn	04 57 33.3	-1.5
	56nm,0.1s,SNR=31						
KBK				⇑S	Sg	04 57 52.5	+0.2
	312nm,0.2s						
UCH	**Uchtor**	1.54	278	⇑P	Pn	04 57 35.6	-1.7
	53nm,0.3s,SNR=43						
UCH	**Uchtor**	1.54	278	*e*Pn	Pn	04 57 35.4	-1.9
UCH				*e*Pg	Pg	04 57 39.5	+1.2
UCH				*e*Sg	Sg	04 57 58.3	+0.2
AAK	**Ala-Archa**	1.65	292	P	Pn	04 57 38.1	-0.7
	120nm,0.3s,SNR=133						
AAK				⇓S	Sn	04 58 00.3	-0.4
	530nm,0.5s						
AAK	**Ala-Archa**	1.65	292	*e*Pn	Pn	04 57 37.9	-0.9
AAK				*e*Pg	Pg	04 57 41.6	+1.2
AAK				*e*Sg	Sg	04 58 00.7	-1.1
CHMS	**Chumysh**	1.66	307	⇑P	Pn	04 57 38.8	-0.2
	32nm,0.2s,SNR=40						
CHMS				⇓S	Sn	04 58 02.1	+1.3
	244nm,0.4s						
USP	**Ospenovka**	1.96	310	⇓P	Pn	04 57 44.1	+0.9
	90nm,0.3s,SNR=186						
USP				⇓S	Sn	04 58 11.1	+2.7
	384nm,0.4s						
AML	**Almayashu**	2.14	274	P	Pn	04 57 46.2	+0.6
	165nm,0.3s,SNR=295						
EKS2	**Erkin-Say**	2.16	288	⇑P	Pn	04 57 47.5	+1.7
	267nm,0.5s,SNR=271						
EKS2	**Erkin-Say**	2.16	288	*e*Pn	Pn	04 57 47.2	+1.4
EKS2				*e*Sg	Sg	04 58 16.8	-1.4
KSH	**Kashi**	2.54	190	⇑Pn	Pg	04 57 59.8	+2.3
KSH				Sn	Sg	04 58 36.6	+6.1
KSH				smax			
	comp=N,670nm,0.8s						
KSH				smax			
	comp=E,1μm,0.5s						
KK31	**Karatay Array**	4.60	286	⇑Pn	Pg	04 58 29.9	-6.9
	comp=E,10nm,0.5s,baz=97,slow=16,SNR=99						
KK31				⇓Lg		04 59 33.5	
	comp=E,37nm,0.5s,baz=104,slow=27,SNR=18						
MK31	**Makanchi Array**	6.29	39	*e*Pn	Pn	04 58 43.1	+0.5
MK31				*e*Sg	Sg	05 00 28.2	-2.5
MK31	**Makanchi Array**	6.29	39	⇑Pn	Pn	04 58 43.5	+0.9
	comp=E,0.7nm,0.3s,baz=215,slow=14,SNR=10						
MK31				⇑Lg		05 00 19.7	
	comp=E,13nm,0.6s,baz=218,slow=28,SNR=5.2						
MKAR	**Makanchi Array**	6.29	39	Pn	Pn	04 58 44.0	+1.4
	comp=E,0.5nm,0.3s,baz=216,slow=16,SNR=8.7						
MKAR				Pg	Pg	04 59 03.5	-5.7
	comp=E,1.8nm,0.3s,baz=221,slow=16,SNR=9.1						
MKAR				Lg		05 00 20.5	
	comp=E,3.5nm,0.3s,baz=216,slow=26,SNR=5.0						
MKAR	**Makanchi Array**	6.29	39	Pn	Pn	04 58 44.0	+1.4
MKAR				Pg	Pg	04 59 03.5	-5.7
MKAR				Lg		05 00 20.5	
KURK	**Kurchatov**	8.81	9	Pn	Pn	04 59 16.3	-0.9
	comp=E,0.2nm,0.3s,baz=185,slow=12,SNR=2.5						
KURK				Lg		05 01 43.1	
	comp=E,0.5nm,0.3s,baz=195,slow=29,SNR=7.0						
KURK	**Kurchatov**	8.81	9	*e*Pn	Pn	04 59 16.3	-0.8
KURK				Lg		05 01 43.1	
KURK	**Kurchatov**	8.81	9	⇑Pn	Pn	04 59 15.9	-1.2
	comp=E,7.5nm,1.8s						
KURK				⇑Lg		05 01 47.1	
	comp=E,32nm,1.0s						
VOSK	**Vostochnaya**	11.35	343	⇓Pn	Pn	04 59 51.5	-0.4
	comp=E,5.5nm,1.4s						
VOSK				⇓Lg		05 03 08.2	
	comp=E,23nm,1.0s						
BVA0	**Borovoye Array**	11.76	341	⇑Pn	Pn	04 59 58.2	+0.6
	comp=E,0.4nm,1.1s,baz=142,slow=13,SNR=5.1						
BVA0				⇓Lg		05 03 20.0	
	comp=E,2.2nm,1.1s,baz=157,slow=27,SNR=7.4						
BVAR	**Borovoye Array**	11.76	341	Pn	Pn	04 59 58.1	+0.5
	comp=E,0.1nm,0.3s,baz=158,slow=12,SNR=4.9						
BVAR				Lg		05 03 20.9	
	comp=E,0.6nm,0.3s,baz=147,slow=30,SNR=11						
ZALV	**Zalesovo Beam**	13.14	22	Pn	Pn	05 00 18.4	+2.0
	comp=E,0.2nm,0.3s,baz=221,slow=14,SNR=3.2						
AB09	**Akbulak array**	13.69	308	⇑Pn	Pn	05 00 22.3	-1.7
	comp=E,1.0nm,0.6s						
AB09				⇑Sn	Sn	05 02 59.4	+2.8
	comp=E,1.7nm,0.8s						
AKTK	**Aktyubinsk**	15.31	310	Pn	Pn	05 00 45.1	-0.8
AKTO	**Aktyubinsk**	15.31	310	Pn	Pn	05 00 45.1	-0.8
	comp=E,0.1nm,0.3s,baz=122,slow=13,SNR=2.9						
SONM	**Songino Array**	21.82	64	P	P	05 02 00.4	-1.9
	comp=E,0.4nm,0.8s,mb2.9,baz=268,slow=12,SNR=2.2						
BRTR	**Keskin Array B**	32.29	281	P	P	05 03 38.4	-0.7
	comp=E,0.5nm,0.7s,mb3.5,baz=78,slow=9.2,SNR=4.1						

*ISK **03** 05:25:08.5, 39°.53N×25°.89E, h5^{km}, MD3.2*

*NEIC **03** 05:25:08.0, 39°.53N×25°.90E, h5^{km}, MD3.2(ISK), MD3.3(ATH), ML3.5(THE), After ISK.*

*ATH **03** 05:25:10.2, 39°.51N×26°.00E, h30^{km}±1^{km}, MD3.3/5*

*CSEM **03** 05:25:10.5±0.1, 39°.52N×25°.93E, h5^{km}, MD3.3, Error ellipse: s-maj=3.8km s-min=3.3km az=84.0*

*ISCJB **03** 05:25:10.1±0.5, 39°.54N±0°.02×25°.93E±0°.03, h6^{km}±4^{km}, Error ellipse: s-maj=4.3km s-min=2.8km az=159.1*

*DDA **03** 05:25:11.7, 39°.61N×26°.11E, h7^{km}±2^{km}, Md3.0*

*THE **03** 05:25:11.5, 39°.55N×26°.04E, h13^{km}, ML3.4/5, Error ellipse: s-maj=1.1km s-min=0.4km az=236.0*

ISC 03 05:25:11.0±0.4**, 39°.54N**±0°.02×**25°.95E**±0°.03**, h8**^{km}±3^{km}**, n101,** σ1ˢ.**05**/125**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	**Bozcaada**	0.32	14	*i* P	Pg	05 25 16.6	-0.7
BOZC				*i* S	Sg	05 25 20.9	-0.6
SIGR	**SIGRI**	0.33	193	P	Pg	05 25 19.0	+1.4
SIGR				S	Sg	05 25 24.7	+2.7
SIGR	**SIGRI**	0.33	193	P	Pg	05 25 19.0	+1.4
SIGR				S	Sg	05 25 24.7	+2.7
PRK	**Paraskevi**	0.38	139	P	Pg	05 25 18.6	+0.1
PRK				S	Sg	05 25 23.6	+0.1
PRK	**Paraskevi**	0.38	139	*e*PB	Pg	05 25 18.6	+0.1
PRK				*e*SB	Sg	05 25 24.1	+0.6
PRK	**Paraskevi**	0.38	139	*e*Pb	Pg	05 25 18.6	+0.1
PRK				S	Sg	05 25 23.6	+0.1
PRK				*e*Sb	Sg	05 25 24.1	+0.6
EZN	**Ezine**	0.41	45	PG	Pg	05 25 17.6	-1.4
EZN	**Ezine**	0.41	45	Pg	Pg	05 25 17.7	-1.3
EZN	**Ezine**	0.41	45	Pg	Pg	05 25 17.7	-1.3
AYVA	**Ayvalik**	0.61	111	*i* P	Pg	05 25 22.1	-0.8
AYVA				*i* S	Sg	05 25 30.6	-0.3
AYVA	**Ayvalik**	0.61	111	*i* P	Pg	05 25 22.1	-0.8
AYVA				*i* S	Sg	05 25 30.6	-0.3
GADA	**Gvkgeada**	0.66	356	*e*PG	Pg	05 25 23.0	-0.7
GADA				*e*SG	Sg	05 25 31.8	-0.5
GADA	**Gvkgeada**	0.66	356	Pg	Pg	05 25 22.8	-0.9
GADA	**Gvkgeada**	0.66	356	*e*Pg	Pg	05 25 23.0	-0.7
GADA				*e*Sg	Sg	05 25 31.8	-0.5
LIA	**Limnos Island**	0.69	302	P	Pg	05 25 25.7	+1.2
LIA				S	Sg	05 25 36.8	+3.3
LIA	**Limnos Island**	0.69	302	*e*PN	Pg	05 25 25.7	+1.2
LIA				*e*SN	Sg	05 25 35.6	+2.1
LIA	**Limnos Island**	0.69	302	*e*Pn	Pg	05 25 25.7	+1.2
LIA				S	Sg	05 25 36.8	+3.3
LPK	**Lapseki**	1.04	36	*e*PG	Pg	05 25 29.4	-1.7
LPK	**Lapseki**	1.04	36	Pg	Pg	05 25 29.3	-1.7
LPK	**Lapseki**	1.04	36	*e*Pg	Pg	05 25 29.4	-1.6
CHOS	**Chios island**	1.15	176	P	Pg	05 25 32.4	-0.7
CHOS				S	Sg	05 25 48.4	+0.4
CHOS	**Chios island**	1.15	176	*e*PN	Pn	05 25 32.3	-1.1
CHOS				*e*SN	Sn	05 25 46.8	-2.5
CHOS	**Chios island**	1.15	176	*e*Pn	Pn	05 25 32.3	-1.1
CHOS				S	Sg	05 25 48.4	+0.4
ENEZ	**Enez**	1.21	7	*e*PN	Pn	05 25 33.2	-1.0
ENEZ	**Enez**	1.21	7	*e*Pn	Pn	05 25 33.2	-1.0
ALN	**Alexandroupoli**	1.36	3	P	Pn	05 25 34.9	-1.4
ALN				S	Sb	05 25 52.8	-1.5
ALN	**Alexandroupoli**	1.36	3	*e*PN	Pn	05 25 35.2	-1.1
ALN	**Alexandroupoli**	1.36	3	*e*Pn	Pn	05 25 35.2	-1.1
ALN				S	Sb	05 25 52.8	-1.5
BLCB	**Balcova**	1.43	143	*e*PN	Pn	05 25 36.5	-0.8
BLCB	**Balcova**	1.43	143	P	Pn	05 25 36.0	-1.2
BLCB				S	Sn	05 25 55.1	-1.1
BLCB	**Balcova**	1.43	143	P	Pn	05 25 36.0	-1.2
BLCB	**Balcova**	1.43	143	*e*Pn	Pn	05 25 36.5	-0.7
BLCB				S	Sn	05 25 55.1	-1.1
BALB	**Balikesir**	1.49	85	*e*PN	Pn	05 25 38.5	+0.4
BALB	**Balikesir**	1.49	85	*e*Pn	Pn	05 25 38.5	+0.4
IZM	**Izmir**	1.53	138	*e*PN	Pn	05 25 37.5	-1.1
IZM				*e*SN	Sn	05 26 00.3	+1.7
AKHS	**Akhisar**	1.59	114	*i* P	Pn	05 25 37.8	-1.7
AKHS				*i* S	Sn	05 25 59.9	-0.1
AKHS	**Akhisar**	1.59	114	*i* P	Pn	05 25 37.8	-1.6
AKHS				*i* S	Sn	05 25 59.9	-0.2
AKS	**Akhisar**	1.59	114	*e*PN	Pn	05 25 39.5	+0.1
AKS	**Akhisar**	1.59	114	*e*Pn	Pn	05 25 39.5	+0.1
MFT	**Murefte**	1.61	39	*e*PN	Pn	05 25 40.1	+0.4
MFT	**Murefte**	1.61	39	*e*Pn	Pn	05 25 40.1	+0.4
RDO	**Rodhopi**	1.64	349	*e*PB	Pb	05 25 39.2	-2.3
AOS	**Alonnisos**	1.65	258	P	Pn	05 25 40.6	+0.4
AOS	**Alonnisos**	1.65	258	P	Pn	05 25 40.6	+0.4
MRMT	**Marmara Adasi**	1.65	49	*e*PN	Pn	05 25 39.6	-0.7
MRMT	**Marmara Adasi**	1.65	49	*e*Pn	Pn	05 25 39.6	-0.7
EDC	**Edincik**	1.68	61	*e*PN	Pn	05 25 41.0	+0.4
EDC	**Edincik**	1.68	61	*e*Pn	Pn	05 25 41.0	+0.4
OUR	**Ouranopolis**	1.71	298	P	Pn	05 25 40.8	-0.3
OUR	**Ouranopolis**	1.71	298	P	Pn	05 25 40.8	-0.3
BNT	**Bandirma**	1.72	61	*e*PN	Pn	05 25 41.6	+0.4
PAIG	**Paliouri**	1.80	283	P	Pn	05 25 42.2	-0.1
PAIG	**Paliouri**	1.80	283	P	Pn	05 25 42.2	-0.1
TKR	**Tekirdag**	1.89	39	*e*PN	Pn	05 25 43.8	+0.2
TKR	**Tekirdag**	1.89	39	*e*Pn	Pn	05 25 43.8	+0.2
SMG	**Samos**	1.95	159	*e*PN	Pn	05 25 42.6	-1.8
SMG	**Samos**	1.95	159	*e*Pn	Pn	05 25 42.6	-1.8
KCT	**Karacabey**	1.99	68	*e*PN	Pn	05 25 45.3	+0.4
KCT	**Karacabey**	1.99	68	*e*Pn	Pn	05 25 45.3	+0.4
DST	**Dursunbey**	2.07	87	*e*PN	Pn	05 25 46.3	+0.3
CRLT	**Corlu**	2.10	40	*e*PN	Pn	05 25 46.5	+0.1
CRLT	**Corlu**	2.10	40	*e*Pn	Pn	05 25 46.5	+0.1
KDZ	**Kurdzhali**	2.15	349	*i* P	Pn	05 25 49.7	+2.5
RZN	**Rozhen**	2.35	337	*i* P	Pn	05 25 49.2	-0.7
EDRB	**Edirne**	2.39	14	*e*PN	Pn	05 25 51.0	+0.6
EDRB	**Edirne**	2.39	14	*e*Pn	Pn	05 25 51.0	+0.6
SRS	**Serrai**	2.40	312	P	Pn	05 25 50.3	-0.3
SRS	**Serrai**	2.40	312	P	Pn	05 25 50.3	-0.3
SLVT	**Silivri**	2.42	45	*e*PN	Pn	05 25 51.3	+0.5
SLVT	**Silivri**	2.42	45	*e*Pn	Pn	05 25 51.3	+0.5
ARMT	**Armutlu**	2.46	64	*e*PN	Pn	05 25 52.0	+0.6
ARMT	**Armutlu**	2.46	64	*e*Pn	Pn	05 25 52.0	+0.6
APE	**Apeiranthos**	2.48	188	P	Pn	05 25 50.8	-1.0
APE	**Apeiranthos**	2.48	188	*e*PN	Pn	05 25 50.0	-1.8
APE	**Apeiranthos**	2.48	188	*e*Pn	Pn	05 25 50.0	-1.8
APE	**Apeiranthos**	2.48	188	P	Pn	05 25 50.8	-1.0
CTKS	**Kestanelik-??a**	2.59	48	*e*PN	Pn	05 25 53.7	+0.6
CTKS	**Kestanelik-??a**	2.59	48	*e*Pn	Pn	05 25 53.7	+0.6
CTYL	**Yal??k??y-??at**	2.63	42	*e*PN	Pn	05 25 54.8	+1.1
CTYL	**Yal??k??y-??at**	2.63	42	*e*Pn	Pn	05 25 54.8	+1.0
GEMT	**Gemlik**	2.64	69	*e*PN	Pn	05 25 55.0	+1.0
GEMT	**Gemlik**	2.64	69	*e*Pn	Pn	05 25 55.0	+1.1
BGKT	**Bogazkoy**	2.71	52	*e*PN	Pn	05 25 56.0	+1.2
BGKT	**Bogazkoy**	2.71	52	*e*Pn	Pn	05 25 56.0	+1.2
YLV	**Yalova**	2.82	67	*e*PN	Pn	05 25 57.8	+1.4
YLV	**Yalova**	2.82	67	*e*Pn	Pn	05 25 57.8	+1.4
ISK	**Istanbul-Kandi**	2.82	56	*e*PN	Pn	05 25 57.7	+1.3
ISK	**Istanbul-Kandi**	2.82	56	*e*Pn	Pn	05 25 57.7	+1.3
KNT	**Kendrikon**	2.84	306	P	Pn	05 25 57.0	+0.3
KNT	**Kendrikon**	2.84	306	P	Pn	05 25 57.0	+0.3
KLYT	**Kilyos**	2.92	53	*e*PN	Pn	05 25 59.0	+1.4
KLYT	**Kilyos**	2.92	53	*e*Pn	Pn	05 25 59.0	+1.3
DID	**Didima**	2.94	227	P	Pn	05 25 57.9	-0.1
DID	**Didima**	2.94	227	P	Pn	05 25 57.9	-0.1
JMB	**Yambol**	2.97	9	*i* P	Pg	05 26 08.5	+0.6
ADVT	**Abdulvahap**	3.04	72	*e*PN	Pn	05 25 60.0	+0.5
ADVT	**Abdulvahap**	3.04	72	*e*Pn	Pn	05 26 00.0	+0.6
HRT	**Hereke**	3.12	65	*e*PN	Pn	05 26 01.6	+1.1
HRT	**Hereke**	3.12	65	*e*Pn	Pn	05 26 01.6	+1.1
SILT	**Sile**	3.25	59	*e*PN	Pn	05 26 03.2	+1.0
SILT	**Sile**	3.25	59	*e*Pn	Pn	05 26 03.3	+1.0

*NIED **03** 05:25:00, 37°.50N×143°.20E, h11^{km}, Mw3.7 Best double couple: M$_0$4.64000×10^{14} NP1:φ$_s$359.00000°, δ73.00000°, λ70.00000°. NP2:φ$_s$230.00000°, δ26.00000°, λ138.00000°.*

*IDC **03** 05:25:13.8±2.3, 37°.40N×143°.33E, h0^{km}, mb3.7/5, mb1 3.7/7, mb1mx3.5/24, mbtmp3.6/7, ML3.4/2, Error ellipse: s-maj=53.0km s-min=28.8km az=79.0*

*ISCJB **03** 05:25:16.8±2.0, 37°.46N±0°.05×143°.12E±0°.08, h29^{km}±17^{km}, mb3.6/5, Error ellipse: s-maj=11.2km s-min=8.0km az=19.1*

*NEIC **03** 05:25:16.6, 37°.46N×143°.16E, h50^{km}, MG3.5(JMA), After JMA.*

*JMA **03** 05:25:16.6±0.2, 37°.46N×143°.16E, h50^{km}, M3.5*

ISC 03 05:25:18.0±2.1**, 37°.51N**±0°.05×**143°.06E**±0°.08**, h21**^{km}±18^{km}**, n20,** σ1ˢ.**01**/27**, mb3.6**/5**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIO	**Ouri**	1.65	306	P	Pn	05 25 45.4	-0.3
JIO				*e*S	Sn	05 26 06.3	+0.1
JFK	**Kawauchi**	1.74	266	P	Pn	05 25 46.1	-0.9
JFK				*e*S	Sn	05 26 08.3	-0.3
JMM	**Marumori**	1.83	282	P	Pn	05 25 47.4	-0.8
ONAJ	**Iwakimizuishiy**	1.85	258	P	Pn	05 25 47.7	-0.7
ONAJ				*e*S	Sn	05 26 10.5	-0.6
JMK	**Ichinoseki**	2.04	315	P	Pn	05 25 50.6	-0.5
JOM	**Ohasama**	2.40	325	P	Pn	05 25 55.8	-0.2
JOM				*e*S	Sn	05 26 24.5	-0.3
JYK	**Kaneyama**	2.55	304	P	Pn	05 25 58.0	-0.1
JAG	**Ashikaga**	3.08	251	P	Pn	05 26 05.4	0.0
BSO1	**Boso 1**	3.31	211	P	Pn	05 26 06.7	-1.8
JRY	**Ryogami san**	3.65	247	P	Pn	05 26 13.0	-0.2
JRY				*e*S	Sn	05 26 55.6	-0.1
JOD2	**Odawara 2**	3.91	236	P	Pn	05 26 16.2	-0.5
MJAR	**Matsushiro Arr**	4.00	258	Pn	Pn	05 26 19.3	+1.3
	2.6nm,0.3s,baz=88,slow=15,SNR=29						
MAJO	**Matsushiro**	4.00	258	*e*Pn	Pn	05 26 20.1	+2.1
MAT	**Matsushiro**	4.00	258	P	Pn	05 26 20.2	+2.2
MAT				*e*S	Sn	05 27 11.0	+6.8
ASAJ	**Asahikawa**	6.61	357	Pn	Pn	05 26 54.8	+0.9
	0.8nm,0.3s,baz=197,slow=17,SNR=3.0						
ASAJ				Sn	Sn	05 28 06.8	-1.8
	0.6nm,0.3s,baz=89,slow=32,SNR=5.6						
SONM	**Songino Array**	28.62	303	P	P	05 31 14.3	+1.7
	0.6nm,0.8s,mb3.4,baz=97,slow=9.8,SNR=5.7						
ZALV	**Zalesovo Beam**	42.57	312	P	P	05 33 12.7	+0.7
	0.8nm,0.6s,mb3.6,baz=87,slow=7.7,SNR=5.3						
MKAR	**Makanchi Array**	44.98	302	P	P	05 33 32.3	+0.8
	0.4nm,0.8s,mb3.3,baz=82,slow=8.9,SNR=4.8						
KURK	**Kurchatov**	46.68	308	P	P	05 33 46.0	+1.2
	1.3nm,0.5s,mb4.1,baz=82,slow=8.0,SNR=5.9						
WRA	**Warramunga Arr**	57.73	190	P	P	05 35 05.9	-1.2
	0.3nm,0.7s,mb3.4,baz=11,slow=7.0,SNR=3.7						

*ISCJB **03** 05:27:19.2±1.0, 39°.58N±0°.03×25°.95E±0°.06, h12^{km}±6^{km}, Error ellipse: s-maj=8.2km s-min=5.1km az=156.2*

*CSEM **03** 05:27:19.7±0.2, 39°.54N×25°.95E, h20^{km}, MD2.9, Error ellipse: s-maj=6.8km s-min=3.8km az=39.0*

*NEIC **03** 05:27:19.1, 39°.60N×26°.09E, h17^{km}, MD2.9(ATH), After ATH.*

*ATH **03** 05:27:19.1, 39°.60N×26°.09E, h17^{km}±2^{km}, MD2.9/3*

*DDA **03** 05:27:20.9, 39°.67N×26°.10E, h6^{km}±1^{km}, Md2.8*

ISC 03 05:27:19.9±0.6**, 39°.59N**±0°.03×**26°.00E**±0°.06**, h14**^{km}±4^{km}**, n15,** σ0ˢ.**77**/27**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	**Bozcaada**	0.26	9	*i* P	Pg	05 27 25.0	-0.5
BOZC				*i* S	Sg	05 27 29.3	0.0
PRK	**Paraskevi**	0.40	148	*e*PB	Pg	05 27 27.1	-0.9
PRK				*e*SB	Sg	05 27 32.4	-0.9
PRK	**Paraskevi**	0.40	148	*e*Pb	Pg	05 27 27.1	-0.9
PRK				*e*Sb	Sg	05 27 32.4	-0.9
AYVA	**Ayvalik**	0.60	117	*i* P	Pg	05 27 32.1	+0.4
AYVA				*i* S	Sg	05 27 41.2	+1.4
AYVA	**Ayvalik**	0.60	117	*i* P	Pg	05 27 32.1	+0.4
AYVA				*i* S	Sg	05 27 41.2	+1.5
LIA	**Limnos Island**	0.70	297	*e*PN	Pn	05 27 34.2	-1.2
LIA				*e*SN	Sg	05 27 44.0	+1.1
LIA	**Limnos Island**	0.70	297	*e*Pn	Pn	05 27 34.2	-1.2
LIA				*e*Sn	Sg	05 27 44.0	+1.1
CHOS	**Chios island**	1.20	178	*e*PN	Pn	05 27 41.7	-0.5
CHOS				*e*SN	Sn	05 27 59.2	+1.0
CHOS	**Chios island**	1.20	178	*e*Pn	Pn	05 27 41.7	-0.5
ALN	**Alexandroupoli**	1.31	2	*e*PN	Pn	05 27 43.4	-0.4
ALN				*e*SN	Sn	05 28 01.1	0.0
ALN	**Alexandroupoli**	1.31	2	*e*Pn	Pn	05 27 43.4	-0.4
ALN				*e*Sn	Sn	05 28 01.1	0.0
SART	**Tekirdag**	1.43	39	*i* P	Pn	05 27 45.0	-0.3
SART				*i* S	Sn	05 28 03.9	0.0
SART	**Tekirdag**	1.43	39	*i* P	Pn	05 27 45.0	-0.4
SART				*i* S	Sn	05 28 03.9	0.0
RDO	**Rodhopi**	1.60	347	*e*PN	Pn	05 27 48.6	+0.9
RDO	**Rodhopi**	1.60	347	*e*Pn	Pn	05 27 48.6	+0.9

CASC 03 05:36:11.5±2.3**, 13°.84N**×**89°.85W, h148**^{km}±11^{km}**, MD3.6, 3D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTR	**El Retiro**	0.20	74	*e*P	Pn	05 36 31.2	-0.3
SBLS	**San Blas**	0.22	90	*e*P	Pn	05 36 31.4	-0.1
SNJE	**San Jose**	0.24	83	*e*P	Pn	05 36 31.3	-0.2
BOQS	**Boqueron**	0.56	101	*e*P	Pn	05 36 32.9	0.0
IXG	**Ixpaco**	0.68	300	*e*P	Pn	05 36 34.0	+0.4
IXG				*e*S	Sn	05 36 51.9	+1.4
LBRS	**Las Brisas**	0.79	97	*e*P	Pn	05 36 34.3	-0.1
LFRS	**El Faro**	0.79	106	*e*P	Pn	05 36 34.2	-0.2
LFRS				*e*S	Sn	05 36 54.1	+2.3
NBG	**Las Nubes**	0.89	327	⇓*e*P	Pn	05 36 36.3	+1.1
NBG				*e*S	Sn	05 36 54.6	+1.4
SNVI	**San Vicente**	1.00	103	*e*P	Pn	05 36 36.0	-0.1
SNVI				*e*S	Sn	05 36 58.5	+3.7
MRL	**Marmol**	1.23	7	⇓*e*P	Pn	05 36 39.1	+1.0
MRL				*e*S	Sn	05 36 59.3	+0.7
TP2	**Tecpan 2**	1.48	310	⇓*e*P	Pn	05 36 42.4	+1.8
BLLM	**Bellamira**	1.61	104	*e*P	Pn	05 36 42.6	+0.5
BLLM				*e*S	Sn	05 37 12.0	+6.5

*ISCJB **03** 05:36:20.5±0.8, 35°.50N±0°.04×141°.15E±0°.08, h45^{km}±6^{km}, mb3.4/5, Error ellipse: s-maj=11.5km s-min=6.5km az=4.2*

*NEIC **03** 05:36:21.1±0.8, 35°.45N×141°.15E, MG3.2(JMA), Error ellipse: s-maj=16.2km s-min=12.1km az=71.0*

*JMA **03** 05:36:22.7±0.2, 35°.54N×140°.92E, h39^{km}±1^{km}, M3.2*

*IDC **03** 05:36:30.6±1.3, 34°.52N×138°.43E, h38^{km}±8^{km}, mb3.3/5, mb1 3.4/6, mb1mx3.3/24, mbtmp3.2/6, ML3.0/1, MS3.8/1, Ms1 3.8/1, ms1mx2.4/28, Error ellipse: s-maj=47.7km s-min=15.2km az=65.0*

ISC 03 05:36:22.1±0.8**, 35°.48N**±0°.04×**141°.06E**±0°.08**, h38**^{km}±7^{km}**, h36**^{km}±2.7^{km}**:pP-P, n23,** σ0ˢ.**87**/27**, mb3.4**/5**, 1C-1D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOJ	**Chosi**	0.28	324	⇑P	Pn	05 36 29.7	-0.3
CHOJ				S	Sn	05 36 34.9	-0.4
KTR	**Katsuura**	0.69	242	*e*S	Sn	05 36 43.0	-1.9
JCN	**Nagara**	0.70	265	⇓P	Pn	05 36 35.7	+0.2
BSO4	**Boso 4**	0.76	230	P	Pn	05 36 36.5	+0.1
BSO1	**Boso 1**	0.83	184	P	Pn	05 36 38.0	+0.7
JYT	**Yasato**	1.02	317	P	Pn	05 36 38.8	-1.2
JYT				S	Sn	05 36 52.0	-1.1
MJAR	**Matsushiro Arr**	2.54	296	Pn	Pn	05 37 01.2	+0.4
	5.1nm,0.3s,baz=251,slow=8.5,SNR=26						
MJAR	**Matsushiro Arr**	2.54	296	Pn	Pn	05 37 01.2	+0.4
MAJO	**Matsushiro**	2.54	296	*e*Pn	Pn	05 37 01.8	+0.9
MAT	**Matsushiro**	2.54	296	P	Pn	05 37 01.8	+1.0
MAT				S	Sn	05 37 32.5	+2.0
JHJ	**Hachijo jima 2**	2.58	204	Pn	Pn	05 37 00.9	-0.4
	19nm,0.3s,baz=252,slow=20,SNR=2.8						
JHJ				Sn	Sn	05 37 32.5	+1.1
	43nm,0.3s,baz=253,slow=19,SNR=3.2						
ERM	**Erimo**	6.73	13	*e*Pn	Pn	05 37 57.8	-0.5
ERM				*e*Sn	Sn	05 39 14.6	+0.9
CBIJ	**Chichi jima**	8.41	173	LR	LR	05 41 16.6	
	comp=Z,721nm,20.9s,baz=350,slow=35						
SONM	**Songino Array**	28.44	306	P	P	05 42 13.0	-0.2
	0.1nm,0.4s,mb2.8,baz=122,slow=7.0,SNR=2.3						
SONM				pP	pP	05 42 22.5	-1.2
	0.6nm,0.8s,baz=107,slow=10,SNR=4.2						
SONM	**Songino Array**	28.44	306	P	P	05 42 13.0	-0.2
SONM				pP	pP	05 42 22.5	-1.2
ZALV	**Zalesovo Beam**	42.76	314	P	P	05 44 15.9	+0.3
	0.3nm,0.3s,mb3.5,baz=96,slow=7.4,SNR=2.4						
ZALV	**Zalesovo Beam**	42.76	314	P	P	05 44 15.9	+0.3
MKAR	**Makanchi Array**	44.72	303	P	P	05 44 30.9	-0.5
	0.5nm,0.8s,mb3.4,baz=91,slow=9.6,SNR=5.3						
MKAR				pP	pP	05 44 40.2	-2.1
	0.3nm,0.5s,baz=81,slow=9.8,SNR=3.3						
MKAR	**Makanchi Array**	44.72	303	P	P	05 44 30.9	-0.5
MKAR				pP	pP	05 44 40.2	-2.1
WRA	**Warramunga Arr**	55.48	188	P	P	05 45 53.3	+0.1
	0.9nm,0.7s,mb3.9,baz=1.3,slow=8.0,SNR=20						
WRA				pP	pP	05 46 04.3	0.0
	0.6nm,0.5s,baz=2.9,slow=7.6,SNR=3.5						
WRA	**Warramunga Arr**	55.48	188	P	P	05 45 53.3	+0.1
WRA				pP	pP	05 46 04.3	0.0
ASAR	**Alice Springs**	59.21	188	P	P	05 46 18.4	-1.1
	0.2nm,0.4s,mb3.5,baz=0.0,slow=8.3,SNR=4.7						
ASAR	**Alice Springs**	59.21	188	P	P	05 46 18.4	-1.0

*MOS **03** 05:56:52.0±1.0, 8°.01S×119°.94E, h183^{km}, mb4.8/22, Error ellipse: s-maj=14.8km s-min=6.9km az=117.3*

*ISCJB **03** 05:56:53.3±0.2, 8°.23S±0°.03×119°.85E±0°.03, h197^{km}, mb4.6/69, Error ellipse: s-maj=5.2km s-min=3.6km az=147.7*

*IDC **03** 05:56:53.7±0.6, 8°.15S×119°.79E, h181^{km}±4^{km}, mb4.3/18, mb1 4.4/20, mb1mx4.4/22, mbtmp4.3/20, MS3.7/4, Ms1 3.7/4, ms1mx3.1/27, Error ellipse: s-maj=14.2km s-min=7.5km az=67.0*

*BJI **03** 05:56:54.2, 8°.20S×119°.90E, h210^{km}, mB4.8/24, mb4.8/52*

*NEIC **03** 05:56:54.3±0.2, 8°.20S×119°.86E, mb4.7/19, Error ellipse: s-maj=9.0km s-min=5.0km az=58.0*

NEIC Felt [IV] at Waingapu, Sumba.

*DJA **03** 05:56:54, 8°.35S×119°.84E, h158^{km}, mb5.4/8*

*GCMT **03** 05:56:54.3±0.3, 8°.40S×119°.84E, h200^{km}±3^{km}, MW5.0/64, Moment Tensor Solution. s20,c24; s64,c89; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.82±.15; M$_{\theta\theta}$1.71±.16; M$_{\phi\phi}$-0.89±.19; M$_{r\theta}$-2.12±.11; M$_{\theta\phi}$2.72±.14; M$_{\phi r}$2.19±.14; Best double couple: M$_0$4.20100×10^{16} NP1:φ$_s$201.00000°, δ55.00000°, λ-160.00000°. NP2: φ$_s$99.00000°, δ74.00000°, λ-36.00000°. Principal axes: T 3.5580, Plg12.0000°, Azm154.0000°; N 1.2820, Plg51.0000°, Azm259.0000°; P -4.8450, Plg37.0000°, Azm55.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 03 05:56:55.0±0.2**, 8°.28S**±0°.03×**119°.84E**±0°.03**, h199**^{km}**, h199**^{km}±3.4^{km}**:pP-P, n479,** σ1ˢ.**18**/183**, mb4.6**/68**, 147C-132D, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	**Waingapu**	1.46	162	⇓*e*P	Pn	05 57 23.7	-4.5
MKS	**Makassar**	3.06	353	⇑*e*P	Pn	05 57 45.7	+0.4
KHKI	**Kahang-Kahang**	4.19	269	P	Pn	05 57 57.3	-1.8
DNP	**Denpasar**	4.59	265	P	Pn	05 58 03.4	-0.8
IGBI	**Denpasar**	4.67	263	P	Pn	05 58 02.5	-2.7
KDI	**Kendari**	5.11	33	⇓*e*P	Pn	05 58 11.5	+0.7
KDI				*e*S	Sn	05 59 11.4	+0.9
NBBI	**Negara**	5.17	269	P	Pn	05 58 11.2	-0.3
	559nm,0.9s,5.7nm						
TRT	**Tretes**	7.16	274	⇑*e*P	Pn	05 58 36.0	-1.3
TRT				*e*S	Px	05 59 31.5	
PCI	**Palu**	7.32	360	*e*P	Pn	05 58 38.0	-1.5
SJI	**Sawahan**	8.01	273	P	Pn	05 58 48.1	-0.3
	366nm,0.5s						
UGM	**Wanagama**	9.23	272	P	Pn	05 59 02.2	-2.1
	337nm,0.6s						
SMRI	**Semarang**	9.39	277	P	Pn	05 59 07.0	+0.6
	652nm,0.8s						
AAI	**Ambon**	9.48	62	⇓*e*P	Pn	05 59 09.7	+2.2
AAI				*e*S	Px	06 00 00.2	

FITZ	Fitzroy Crossi	11.28	151	⇑*i*P	Pn	05 59 29.8	-0.9
	169nm,0.8s						
FITZ				*e*S	Sn	06 01 28.1	-8.4
FITZ	Fitzroy Crossi	11.28	151	P	Pn	05 59 29.9	-0.8
	4.7nm,0.3s,baz=345,slow=9.7,SNR=138						
FITZ				S	Sn	06 01 31.7	-4.8
	30nm,0.3s,baz=76,slow=22,SNR=15						
FITZ				LR	LR	06 04 34.9	
	comp=Z,256nm,18.6s,baz=330,slow=40						
FITZ	Fitzroy Crossi	11.28	151	*e*Pn	Pn	05 59 30.0	-0.7
	0.7nm,0.4s						
FITZ				*e*Sn	Sn	06 01 33.0	-3.5
FITZ	Fitzroy Crossi	11.28	151	P	Pn	05 59 29.6	-1.1
	268nm,0.8s						
TSM	Tawau	12.64	351	P	Pn	05 59 56.1	+8.0
MBWA	Marble Bar	12.81	180	*e*Pn	Pn	05 59 49.3	-0.8
MBWA				*e*Sn	Sn	06 02 00.7	-12
SBUM	Sibu	13.09	324	P	Pn	05 59 55.5	+1.8
SBUM	Sibu	13.09	324	P	Pn	05 59 54.5	+0.8
	71nm,0.9s						
KAKA	Kakadu	13.15	111	*e*P	Pn	05 59 52.9	-1.5
	201nm,0.8s						
KAKA				*e*S	Sn	06 02 07.7	-14
KAKA	Kakadu	13.15	111	*e*Pn	Pn	05 59 52.4	-2.0
	437nm,0.7s						
KAKA				*e*S	Sn	06 02 10.7	-11
KAKA	Kakadu	13.15	111	P	Pn	05 59 54.0	-0.4
	331nm,0.8s						
BTM	Bintulu	13.24	329	P	Pn	05 59 58.4	+2.7
MYLDM	Lahad Datu	13.44	354	P	Pn	06 00 04.9	+6.8
KSM	Kuching	13.57	315	P	Pn	06 00 00.1	+0.4
KSM	Kuching	13.57	315	*e*Pn	Pn	06 00 00.0	+0.3
	52nm,1.0s						
KSM	Kuching	13.57	315	P	Pn	06 00 00.2	+0.5
SDKM	Sandakan	14.07	349	P	Pn	06 00 09.7	+3.7
XMIS	Christmas Isla	14.17	260	*e*Pn	Pn	06 00 09.3	+2.2
KKM	Kota Kinabalu	14.68	346	P	Pn	06 00 21.5	+8.1
KKM	Kota Kinabalu	14.68	346	*e*Pn	Pn	06 00 15.0	+1.6
	26nm,0.8s						
DAV	Davao City (W)	16.29	21	P	Pn	06 00 33.7	+0.8
	15nm,0.3s,baz=203,slow=16,SNR=3.8						
WRA	Warramunga Arr	18.21	131	P	P	06 00 53.6	+0.4
	3.3nm,0.3s,baz=302,slow=13,SNR=196						
WRA				S	S	06 04 09.6	-1.6
	2.7nm,0.3s,baz=306,slow=23,SNR=17						
WRAB	Tennant Creek	18.21	131	*e*P	P	06 00 53.8	+0.6
WRAB				pmax	pmax		
	comp=Z,94nm,0.9s						
WRAB	Tennant Creek	18.21	131	*e*P	P	06 00 53.8	+0.6
	comp=Z,94nm,0.9s						
WB2	Warramunga Arr	18.22	131	*e*P	P	06 00 53.9	+0.6
MYKOM	Kota Tinggi	18.82	301	P	P	06 01 02.3	+2.4
KGM	Kluang	19.39	301	P	P	06 01 08.2	+2.2
ASAR	Alice Springs	20.39	140	P	P	06 01 17.3	+0.7
	comp=Z,23nm,0.6s,baz=336,slow=15,SNR=122						
ASAR				S	S	06 04 50.8	-3.2
	comp=Z,71nm,1.1s,baz=312,slow=19,SNR=16						
KTGM	Kuala Trenggan	21.45	309	P	P	06 01 31.4	+3.4
FRIM	Kepong	21.47	301	P	P	06 01 29.8	+1.7
TGY	Tagaytay City	22.26	3	P	P	06 01 35.8	0.0
	comp=Z,180nm,0.5s,baz=151,slow=4.4,SNR=9.2						
IPM	Ipoh	22.64	303	P	P	06 01 41.2	+1.9
KLBR	Kellerberrin	23.28	185	*e*P	P	06 01 45.6	+0.7
	comp=Z,40nm,0.6s,mb5.1						
KLBR				*e*S	S	06 06 08.2	+26
KULM	Kulim	23.41	305	P	P	06 01 47.9	+1.6
PSI	Prapat	23.58	297	P	P	06 01 47.2	-0.7
	comp=Z,5.6nm,0.4s,mb4.6,baz=155,slow=5.0,SNR=12						
PSI	Prapat	23.58	297	P	P	06 01 47.2	-0.7
FORT	Forrest	23.67	162	*e*P	P	06 01 49.3	+0.8
	comp=Z,239nm,0.8s						
FORT				*e*S	S	06 06 24.6	+36
FORT	Forrest	23.67	162	*e*P	P	06 01 49.6	+1.1
	comp=Z,241nm,0.7s						
MUN	Mundaring	23.82	188	*e*P	P	06 01 50.0	+0.1
MUN				*e*S	S	06 06 22.2	+31
NWAO	Narrogin (SRO)	24.65	185	*e*P	P	06 01 58.1	+0.8
NWAO				pmax	pmax		
	comp=Z,48nm,1.0s						
NWAO	Narrogin (SRO)	24.65	185	P	P	06 01 58.1	+0.8
	comp=Z,43nm,0.8s,mb5.1,baz=12,slow=8.4,SNR=15						
NWAO	Narrogin (SRO)	24.65	185	*e*P	P	06 01 58.1	+0.8
	comp=Z,48nm,1.0s,mb5.1						
CTA	Charters Tower	28.12	117	*e*P	P	06 02 30.1	+1.5
	comp=Z,8.5nm,0.7s,mb4.5						
CTA				*e*	pP	06 03 10.6	+1.6
CTA	Charters Tower	28.12	117	P	P	06 02 30.2	+1.6
	comp=Z,9.4nm,0.7s,mb4.5,baz=291,slow=11,SNR=22						
CTA				pP	pP	06 03 06.9	-2.2
	comp=Z,7.2nm,0.8s,baz=262,slow=14,SNR=3.4						
CTA				PcP	PcP	06 05 38.8	+1.0
	comp=Z,9.9nm,0.7s,baz=244,slow=4.0,SNR=4.4						
CTA	Charters Tower	28.12	117	P	P	06 02 30.2	+1.6
CTA				pP	pP	06 03 06.9	-2.2
CTA				PcP	PcP	06 05 38.8	+1.0
CTAO	Charters Tower	28.12	117	*e*P	P	06 02 30.1	+1.5
CTAO				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.9						
CTAO	Charters Tower	28.12	117	*e*P	P	06 02 30.1	+1.5
	comp=Z,33nm,1.0s,mb4.9						
STKA	Stephens Creek	31.00	142	*e*P	P	06 02 55.5	+1.7
	comp=Z,34nm,0.6s,mb5.2						
STKA	Stephens Creek	31.00	142	P	P	06 02 55.8	+2.0
	comp=Z,57nm,0.8s,mb5.3,baz=312,slow=9.0,SNR=82						
STKA				S	S	06 07 49.0	+5.2
	comp=Z,4.3nm,0.7s,baz=315,slow=14,SNR=3.7						
STKA				LR	LR	06 18 35.9	
	comp=Z,113nm,18.5s,baz=205,slow=42						
STKA	Stephens Creek	31.00	142	*e*P	P	06 02 55.7	+1.8
	comp=Z,10nm,0.7s,mb4.6						
CMAR	Chiang Mai Arr	33.63	322	P	P	06 03 17.0	+0.1
	comp=Z,1.8nm,0.4s,mb4.0,baz=147,slow=6.8,SNR=13						
CMAR				pP	pP	06 03 57.8	-0.2
	comp=Z,0.9nm,0.4s,baz=149,slow=6.1,SNR=1.6						
CMAR				PcP	PcP	06 05 53.1	+0.7
	comp=Z,3.2nm,0.9s,baz=171,slow=2.6,SNR=6.9						
CHTO	Chiang Mai	33.90	323	*e*P	P	06 03 20.7	+1.5
CHTO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
CHTO	Chiang Mai	33.90	323	*e*P	P	06 03 20.7	+1.5
	comp=Z,6.0nm,0.8s,mb4.2						
GYA	Guiyang	36.82	340	P	P	06 03 45.2	+1.2
GYA				pP	pP	06 04 29.6	+3.9
GYA				sP	sP	06 04 52.0	+3.6
GYA				S	S	06 09 15.1	+1.7
GYA				ScS	ScS	06 13 35.9	-1.4
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
GYA				pmax	pmax		
	comp=Z,90nm,4.9s						
ARMA	Armidale	36.99	131	*e*P	P	06 03 49.2	+3.8
KMI	Kunming	37.14	334	P	P	06 03 49.6	+2.9
KMI				pP	pP	06 04 32.0	+3.5
KMI				sP	sP	06 04 55.2	+4.0
KMI				PP	PP	06 05 22.5	+6.6
KMI				S	S	06 09 17.5	-0.8
KMI				pmax	pmax		
	comp=Z,39nm,0.9s,mb4.9						
KMI				pmax	pmax		
	comp=Z,76nm,3.1s						
KMI				LR	LR		
	comp=Z,48nm,21.7s						
TOO	Toolangi	37.27	145	*e*P	P	06 03 50.9	+3.2
WHN	Wuhan	38.96	352	⇑P	P	06 04 03.0	+1.2
WHN				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.2						
NJ2	Nanjing	40.11	359	*e*P	P	06 04 13.2	+1.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
CD2	Chengdu	41.90	339	P	P	06 04 26.4	+0.4
CD2				pP	pP	06 05 10.3	+1.8
CD2				sP	sP	06 05 33.5	+2.5
CD2				PcP	PcP	06 06 17.4	-0.3
CD2				S	S	06 10 29.8	+0.7
CD2				pmax	pmax		
	comp=Z,80nm,0.8s,mb5.2						
CD2				pmax	pmax		
	comp=Z,90nm,5.5s						
XAN	Xi’an	43.34	347	P	P	06 04 37.1	-0.4
XAN				pP	pP	06 05 27.6	+7.3
XAN				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.7						
XAN				pmax	pmax		
	comp=Z,96nm,3.7s						
XAN				LR	LR		
	comp=N,170nm,10.3s						
XAN				LR	LR		
	comp=Z,170nm,6.3s						
KSRS	Korea Array	46.12	9	P	P	06 04 59.1	-0.2
	comp=Z,7.9nm,1.1s,mb4.0,baz=180,slow=8.3,SNR=16						
KSRS				pP	pP	06 05 39.9	-2.8
	comp=Z,1.8nm,0.9s,baz=187,slow=8.6,SNR=1.8						
KSRS				PcP	PcP	06 06 32.8	+0.7
	comp=Z,10nm,0.8s,baz=180,slow=3.0,SNR=16						
LZH	Lanzhou	46.62	342	*e*P	P	06 05 04.5	+1.2
LZH				pP	pP	06 05 50.1	+3.4
LZH				pmax	pmax		
	comp=Z,83nm,1.5s,mb4.8						
LZH				pmax	pmax		
	comp=Z,140nm,4.0s						
ODAN	Odare	47.01	319	*e*P	P	06 05 06.5	0.0
TAPN	Taplejung	47.14	320	*e*P	P	06 05 07.9	+0.4
	comp=Z,22nm,0.6s,mb4.7						
RAMN	Ramite	47.59	318	*e*P	P	06 05 11.2	+0.3
	comp=Z,21nm,0.5s,mb4.7						
MJAR	Matsushiro Arr	47.80	20	P	P	06 05 10.5	-1.9
	comp=Z,7.1nm,0.8s,mb4.0,baz=194,slow=9.1,SNR=15						
MJAR				PcP	PcP	06 06 38.6	+0.5
	comp=Z,2.8nm,1.0s,baz=196,slow=3.2,SNR=6.0						
MAJO	Matsushiro	47.81	20	*e*P	P	06 05 10.6	-1.8
MAJO				pmax	pmax		
	comp=Z,45nm,1.5s,mb4.6						
MAJO	Matsushiro	47.81	20	*e*P	P	06 05 10.6	-1.8
	comp=Z,45nm,1.5s,mb4.6						
MAT	Matsushiro	47.81	20	P	P	06 05 10.2	-2.2
BJI	Beijing	48.19	356	P	P	06 05 14.8	-0.5
BJI				S	S	06 12 03.6	+4.5
BJI				pmax	pmax		
	comp=Z,39nm,0.8s,mb4.8						
BJI				pmax	pmax		
	comp=Z,51nm,3.6s						
BJI				LR	LR		
	comp=Z,41nm,36.9s						
JIRN	Jiri	48.34	319	*e*P	P	06 05 16.8	+0.2
	comp=Z,12nm,0.5s,mb4.5						
GUN	Gumba	48.71	319	*e*P	P	06 05 19.7	+0.2
	comp=Z,46nm,0.8s,mb4.8						
PKI	Pulchoki	48.79	318	*e*P	P	06 05 19.7	-0.4
	comp=Z,20nm,0.5s,mb4.7						
PKIN	Phulchoki	48.80	318	*e*P	P	06 05 19.8	-0.4
	comp=Z,19nm,0.4s,mb4.8						
DMN	Daman	49.02	318	*e*P	P	06 05 21.6	-0.2
KKN	Kakani	49.02	318	*e*P	P	06 05 21.3	-0.6
HHC	Hu-ho-hao-te	49.47	352	*e*P	P	06 05 25.0	0.0
HHC				pP	pP	06 06 10.3	+1.3
HHC				sP	sP	06 06 33.4	+2.3
HHC				PP	PP	06 07 22.0	+0.6
HHC				PcS	PcS	06 10 39.2	-1.6
HHC				*e*S	S	06 12 16.4	-0.5
HHC				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.4						
HHC				pmax	pmax		
	comp=Z,130nm,5.1s						
HHC				LR	LR		
	comp=N,85nm,17.8s						
HHC				LR	LR		
	comp=E,190nm,15.5s						
HHC				LR	LR		
	comp=Z,100nm,16.6s						
GKN	Gorkha	49.59	318	*e*P	P	06 05 25.8	-0.3
KOLN	Koldanda	50.13	317	*e*P	P	06 05 29.5	-0.7
	comp=Z,20nm,0.6s,mb4.6						
DANN	Dangsing	50.40	318	*e*P	P	06 05 31.8	-0.4
	comp=Z,60nm,0.5s,mb5.2						
PYUN	Piuthan	50.75	317	*e*P	P	06 05 34.1	-0.8
	comp=Z,25nm,0.6s,mb4.8						
GTA	Gaotai	50.95	340	⇓P	P	06 05 37.4	+1.2
GTA				pP	pP	06 06 22.9	+2.6
GTA				sP	sP	06 06 45.7	+3.3
GTA				S	S	06 12 38.8	+1.4
GTA				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.0						
GTA				pmax	pmax		
	comp=Z,130nm,4.8s						
GTA				LR	LR		
	comp=N,660nm,16.2s						
GTA				LR	LR		
	comp=E,820nm,16.8s						
GTA				LR	LR		
	comp=Z,140nm,15.9s						
CN2	Changchun	52.08	5	*e*P	P	06 05 43.2	-1.2
CN2				*e*pP	pP	06 06 28.0	-0.8
CN2				PcP	PcP	06 06 54.1	+0.5
CN2				*e*S	S	06 12 52.3	-0.4
CN2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.1						
MDJ	Mudanjiang	53.38	9	P	P	06 05 53.2	-0.7
MDJ				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,64nm,4.8s						
SONM	Songino Array	57.12	349	P	P	06 06 20.9	+0.4
	comp=Z,11nm,0.5s,mb4.7,baz=167,slow=8.1,SNR=104						
SONM				pP	pP	06 07 05.4	-0.4
	comp=Z,8.0nm,0.9s,baz=168,slow=7.9,SNR=4.4						
HABR	Khabarovsk	58.08	12	*e*P	P	06 06 24.3	-2.9
HABR				*e**PP	pP	06 07 09.0	-3.6
HABR				*e*	pP	06 07 13.7	+1.1
HABR				*e*		06 08 33.8	
HABR				*e*S	S	06 14 08.0	-4.2
HABR				*e*		06 15 52.5	
HABR				MLR	MLR		
	comp=Z,29nm,18.0s						
KLR	Kul’dur	58.21	9	*e*P	P	06 06 23.8	-4.3
YSS	Yuzh-Sakhalins	58.65	18	*e*P	P	06 06 28.3	-2.9
WMQ	Urumqi	59.48	333	⇑*i*P	P	06 06 37.8	+0.8
WMQ				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,270nm,5.4s						
ZAK	Zakamensk	60.17	348	⇑*i*P	P	06 06 41.0	-0.5
ZAK				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.8						
TLY	Talaya	61.33	349	*e*P	P	06 06 50.4	+1.1
TLY				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.0						
TLY	Talaya	61.33	349	*e*P	P	06 06 50.0	+0.6
IRK	Irkutsk	61.74	349	*e*P	P	06 06 51.2	-0.9
IRK				pmax	pmax		
	comp=Z,41nm,1.3s,mb4.9						
MOY	Mondy	61.87	347	*e*P	P	06 06 53.9	+0.9
MOY				pmax	pmax		
	comp=Z,44nm,1.9s,mb4.8						
KSH	Kashi	62.53	323	P	P	06 06 57.5	-0.1
KSH				*e*PP	PP	06 09 17.2	-0.7
KSH				*e*ScS	ScS	06 16 26.1	-4.3
KSH				pmax	pmax		
	comp=Z,21nm,0.8s,mb4.8						
KSH				pmax	pmax		
	comp=Z,140nm,4.8s						
KSH				LR	LR		
	comp=N,290nm,4.0s						
KSH				LR	LR		
	comp=E,250nm,6.6s						
KSH				LR	LR		
	comp=Z,350nm,7.1s						
MSEY	Mahe Island	63.99	269	*i* P	P	06 07 02.7	-5.1
KBL	Kabul	64.17	315	*e*P	P	06 07 07.4	-1.1
KBL				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.7						
KBL	Kabul	64.17	315	*e*P	P	06 07 07.4	-1.0
	comp=Z,12nm,0.6s,mb4.7						
MK31	Makanchi Array	64.20	332	*e*P	P	06 07 08.3	-0.1
MKAR	Makanchi Array	64.20	332	P	P	06 07 08.2	-0.3
	comp=Z,16nm,0.5s,mb4.9,baz=152,slow=7.0,SNR=298						
MKAR				pP	pP	06 07 50.9	-3.7
	comp=Z,2.4nm,0.8s,baz=108,slow=9.3,SNR=1.4						
MKAR	Makanchi Array	64.20	332	P	P	06 07 08.2	-0.3
MKAR				pP	pP	06 07 50.9	-3.7
KZA	Kyzart	64.58	325	P	P	06 07 11.8	+0.9
	SNR=6.0						
TKM2	Tokmak 2	64.92	326	*e*P	P	06 07 12.7	-0.5
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.5						
TKM2	Tokmak 2	64.92	326	P	P	06 07 12.8	-0.4
	SNR=7.7						
TKM2	Tokmak 2	64.92	326	*e*P	P	06 07 12.7	-0.5
	comp=Z,6.6nm,0.6s,mb4.4						
AAK	Ala-Archa	65.36	325	*e*P	P	06 07 16.0	0.0
AAK				*e*		06 07 48.0	
AAK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.5						
AAK	Ala-Archa	65.36	325	P	P	06 07 16.2	+0.2
	SNR=7.9						
AAK	Ala-Archa	65.36	325	*e*P	P	06 07 16.0	0.0
	comp=Z,7.2nm,0.6s,mb4.5						
AAK				*e*PcP	PcP	06 07 48.0	+1.6
AML	Almayashu	65.51	324	P	P	06 07 17.6	+0.6
	SNR=14						
AML	Almayashu	65.51	324	*e*P	P	06 07 16.9	-0.1
	comp=Z,14nm,0.7s,mb4.7						
USP	Ospenovka	65.76	325	P	P	06 07 18.3	-0.2
	SNR=5.8						
EKS2	Erkin-Say	65.79	324	*e*P	P	06 07 18.9	+0.2
	comp=Z,4.5nm,0.8s,mb4.2						
BOD	Bodaibo	66.04	357	*e*P	P	06 07 19.0	-1.0
BOD				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.5						
KK31	Karatay Array	67.97	323	*i* P	P	06 07 31.5	-1.0
KK31				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
ZAA0	Zalesovo Array	68.67	339	*e*P	P	06 07 35.5	-1.1
ZALV	Zalesovo Beam	68.67	339	P	P	06 07 35.6	-0.9
	comp=Z,18nm,0.3s,mb5.1,baz=139,slow=5.1,SNR=125						
ZALV				pP	pP	06 08 21.8	-1.6
	comp=Z,3.7nm,0.7s,baz=142,slow=4.9,SNR=1.9						
ZALV	Zalesovo Beam	68.67	339	P	P	06 07 35.6	-0.9
ZALV				pP	pP	06 08 21.8	-1.6
KURK	Kurchatov	68.72	333	*e*P	P	06 07 36.4	-0.6
KURK				*e**PP	pP	06 08 21.7	-2.1
KURK				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.6						
KURK	Kurchatov	68.72	333	*e*P	P	06 07 36.4	-0.6
	comp=Z,15nm,0.9s,mb4.6						
KURK				*e*pP	pP	06 08 21.7	-2.1
PEA0B	Petropavlovsk-	69.08	23	*e*P	P	06 07 39.7	+0.6
PETK	Petropavlovsk-	69.08	23	P	P	06 07 39.5	+0.3
	comp=Z,12nm,0.6s,mb4.7,baz=195,slow=2.1,SNR=17						
PETK				LR	LR	06 41 37.1	
	comp=Z,30nm,18.3s,baz=45,slow=39						
PETK	Petropavlovsk-	69.08	23	P	P	06 07 39.5	+0.3
PETK				LR	LR	06 41 37.1	
NVS	Novosibirsk	69.94	338	*e*P	P	06 07 42.9	-1.5
NVS				pmax	pmax		
	comp=E,10.0nm,1.1s						
NVS				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.7						
NVS				pmax	pmax		
	comp=N,13nm,1.3s						
MAW	Mawson	70.19	200	LR	LR	06 34 19.5	
	comp=N,108nm,18.3s,baz=24,slow=32						
YAK	Yakutsk	70.51	5	*e*P	P	06 07 45.6	-2.1
YAK				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.6						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK	Yakutsk	70.51	5	*e*P	P	06 07 46.6	-1.1
	comp=N,16nm,0.7s,mb4.8						
VNDA	Vanda	72.57	171	P	P	06 08 02.3	+2.4
	comp=N,3.2nm,0.8s,mb4.0,baz=305,slow=8.8,SNR=15						
VOSK	Vostochnaya	73.59	331	P	P	06 08 05.7	-0.4
VOSK				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.5						
BVA0	Borovoye Array	74.06	331	*i* P	P	06 08 08.5	-0.3
BRVK	Borovoye	74.13	331	P	P	06 08 08.2	-1.1
BRVK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.5						
BRVK	Borovoye	74.13	331	*e*P	P	06 08 08.8	-0.5
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
BRVK	Borovoye	74.13	331	*e*P	P	06 08 08.8	-0.5
	comp=Z,7.1nm,0.8s,mb4.3						
AB31	Akbulak array	77.45	325	P	P	06 08 27.0	-1.2
AB31				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.5						
AKTO	Aktyubinsk	79.11	325	P	P	06 08 36.5	-0.7
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
TIXI	Tiksi	79.98	3	*e*P	P	06 08 39.6	-1.9
TIXI				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.5						
TIXI	Tiksi	79.98	3	*e*P	P	06 08 40.0	-1.5
	comp=Z,11nm,0.9s,mb4.5						
SVE	Sverdlovsk	80.84	331	⇑*e*P	P	06 08 45.9	-0.5
SVE				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.8						
ARU	Arti	81.64	331	*e*P	P	06 08 49.9	-0.7
ARU				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.5						
ARU	Arti	81.64	331	*e*P	P	06 08 49.9	-0.7
	comp=Z,14nm,1.2s,mb4.5						
QSPA	South Pole Qui	81.71	180	P	P	06 08 52.4	+1.8
	comp=Z,2.9nm,0.9s,mb3.9,baz=286,slow=1.5,SNR=6.0						
KMBO	Kilima Mbogo	82.50	270	P	P	06 08 57.2	+1.2
	comp=Z,3.1nm,0.8s,mb4.1,baz=55,slow=7.6,SNR=6.1						
KMBO				pP	pP	06 09 40.2	-4.3
	comp=Z,3.8nm,1.1s,baz=67,slow=7.1,SNR=2.5						
KMBO	Kilima Mbogo	82.50	270	P	P	06 08 57.2	+1.2
KMBO				pP	pP	06 09 40.2	-4.3
BILL	Bilibino	82.87	16	*e*P	P	06 08 55.3	-1.4
BILL				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
GNI	Garni	84.07	312	*e*P	P	06 09 02.5	-1.0
GNI				pmax	pmax		
	comp=Z,12nm,1.2s						
GNI	Garni	84.07	312	*e*P	P	06 09 02.5	-1.0
	comp=Z,12nm,1.2s,mb4.5						
KIV	Kislovodsk	86.56	315	*e*P	P	06 09 15.2	-0.5
KIV				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
BOSA	Boshof	90.08	241	P	P	06 09 34.0	+1.2
	comp=Z,2.2nm,0.6s,mb4.1,baz=163,slow=9.8,SNR=5.5						
BOSA	Boshof	90.08	241	P	P	06 09 34.0	+1.2
BRTR	Keskin Array B	92.32	310	P	P	06 09 41.5	-1.3
	comp=Z,0.9nm,0.8s,mb3.8,baz=112,slow=5.6,SNR=6.2						
OBN	Obninsk	92.89	325	*e*P	P	06 09 44.0	-1.0
OBN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
VNA2	Neumayer--Watz	93.54	195	*e*P	P	06 09 49.5	+1.7
AKASG	Malin Array Be	96.73	320	P	P	06 10 00.4	-2.2
	comp=Z,1.8nm,0.7s,mb4.4,baz=71,slow=6.0,SNR=5.2						
ARCES	ARCESS Array B	99.22	339	P	Pdif	06 10 13.7	-0.1
	comp=Z,2.8nm,0.9s,baz=106,slow=5.7,SNR=2.9						
ARCES				PKiKP	PKiKP	06 14 43.0	+0.7
	comp=Z,1.8nm,0.8s,baz=132,slow=1.8,SNR=6.6						
YKA	Yellowknife Ar	113.20	24	PKiKP	PKiKP	06 15 07.9	-0.5
	comp=Z,2.6nm,0.7s,baz=302,slow=2.0,SNR=36						
YKA	Yellowknife Ar	113.20	24	PKPdf	PKiKP	06 15 07.9	-0.5
B05A	Bryant	114.68	40	⇓P	PKiKP	06 15 12.8	+1.1
	baz=115						
D05A	Enumclaw	115.04	42	⇓P	PKiKP	06 15 13.1	+0.7
	baz=115						
F04A	Amboy	115.09	43	⇓P	PKiKP	06 15 13.7	+1.2
	baz=115						
C05A	Tolt Reservoir	115.10	41	⇑P	PKiKP	06 15 13.2	+0.7
	baz=115						
G04A	Mulino	115.23	44	⇑P	PKiKP	06 15 13.4	+0.7
	baz=115						
A07A	Ashnola River,	115.54	39	⇑P	PKPdf	06 15 14.1	+0.9
	baz=115						
D06A	Cle Elum	115.79	41	⇓P	PKPdf	06 15 14.4	+0.6
	baz=116						
C07A	Waterville	116.16	41	⇓P	PKPdf	06 15 14.8	+0.3
	baz=116						
F06A	Goldendale	116.23	43	⇑P	PKPdf	06 15 15.6	+0.9
	baz=116						
D07A	Quincy	116.36	41	⇑P	PKPdf	06 15 15.2	+0.3
	baz=116						
B08A	Colville Reser	116.41	40	⇑P	PKPdf	06 15 15.6	+0.6
	baz=116						
G06A	Carlson Farm,	116.48	43	⇑P	PKPdf	06 15 16.2	+1.0
	baz=116						
E07A	Sunnyside	116.63	42	⇓P	PKPdf	06 15 16.2	+0.8
	baz=116						
A09A	Danville	116.68	39	⇓P	PKPdf	06 15 16.4	+1.0
	baz=117						
F07A	Phinny Hill Vi	116.77	43	⇓P	PKPdf	06 15 16.0	+0.3
	baz=117						
C08A	Higginbotham F	116.78	40	⇑P	PKPdf	06 15 16.3	+0.6
	baz=117						
H06A	Lindquist Farm	116.82	44	⇑P	PKPdf	06 15 16.2	+0.4
	baz=117						
K05A	Summer Lake	116.95	46	⇑P	PKPdf	06 15 17.0	+0.8
	baz=117						
D08A	Wollman Farm,	117.09	41	⇑P	PKPdf	06 15 16.7	+0.4
	baz=117						
I06A	Prineville	117.12	45	⇓P	PKPdf	06 15 17.2	+0.7
	baz=117						

G07A	**Ruggs Ranch, H** baz=117	**117.12**	**43**	⇓P	PKPdf	06 15 16.9	+0.5
B09A	**Rice** baz=117	**117.14**	**39**	⇓P	PKPdf	06 15 17.3	+1.0
E08A	**Dider Farm, El** baz=117	**117.17**	**42**	⇓P	PKPdf	06 15 16.5	0.0
C09A	**Chrisman Ranch** baz=117	**117.27**	**40**	⇑P	PKPdf	06 15 17.3	+0.7
A10A	**Northport** baz=117	**117.32**	**39**	⇑P	PKPdf	06 15 17.0	+0.4
J06A	**Christmas Vall** baz=117	**117.34**	**45**	⇑P	PKPdf	06 15 17.5	+0.6
H07A	**Lands Inn, Kim** baz=117	**117.39**	**44**	⇓P	PKPdf	06 15 17.6	+0.6
F08A	**Pendleton** baz=118	**117.57**	**42**	⇑P	PKPdf	06 15 17.6	+0.4
I07A	**Izee** baz=118	**117.57**	**44**	⇑P	PKPdf	06 15 18.2	+0.8
G08A	**Pilot Rock** baz=118	**117.60**	**43**	⇑P	PKPdf	06 15 19.1	+1.7
E09A	**Wood Farm, Sta** baz=118	**117.76**	**41**	⇑P	PKPdf	06 15 18.6	+1.0
H08A	**Prairie City** baz=118	**118.02**	**44**	⇑P	PKPdf	06 15 19.0	+0.8
A11A	**Hall Mountain,** baz=118	**118.06**	**38**	⇑P	PKPdf	06 15 19.3	+1.2
EDM	**Edmonton**	**118.09**	**33**	*e*PKIKP	PKPdf	06 15 17.8	-0.2
K07A	**Rock Creek Ran** baz=118	**118.13**	**46**	⇓P	PKPdf	06 15 18.9	+0.4
D10A	**Wagner Farm, O** baz=118	**118.15**	**41**	⇑P	PKPdf	06 15 19.0	+0.7
I08A	**Drewsey** baz=118	**118.27**	**44**	⇓P	PKPdf	06 15 19.6	+0.9
G09A	**Cove** baz=118	**118.39**	**43**	⇓P	PKPdf	06 15 19.6	+0.7
E10A	**Myers Farm, Un** baz=118	**118.45**	**41**	⇓P	PKPdf	06 15 19.6	+0.6
J08A	**Circle Bar Ran** baz=118	**118.49**	**45**	⇑P	PKPdf	06 15 19.9	+0.8
A12A	**Yaak River Ran** baz=118	**118.51**	**38**	⇓P	PKPdf	06 15 19.7	+0.7
M07A	**Soldier Meadow** baz=118	**118.53**	**47**	⇑P	PKPdf	06 15 19.9	+0.6
F10A	**Beach Ranch, E** baz=118,SNR=5.0	**118.54**	**42**	⇑P	PKPdf	06 15 19.5	+0.4
WCN	**Washoe City** baz=118	**118.61**	**50**	⇑P	PKPdf	06 15 20.4	+0.9
K08A	**Mann Creek Ran** baz=119	**118.66**	**46**	⇑P	PKPdf	06 15 20.0	+0.5
H09A	**Durkee** baz=119	**118.66**	**43**	⇓P	PKPdf	06 15 20.2	+0.8
D11A	**Klaveano Farm,** baz=119	**118.76**	**40**	⇓P	PKPdf	06 15 19.5	0.0
L08A	**Fields** baz=119	**118.91**	**46**	⇑P	PKPdf	06 15 21.0	+1.0
J09A	**Fry Pan Ranch,** baz=119	**119.00**	**45**	⇑P	PKPdf	06 15 20.8	+0.7
R06C	**Coleville** baz=119	**119.03**	**50**	⇓P	PKPdf	06 15 21.1	+0.8
C12B	**Naegeli Ranch,** baz=119	**119.07**	**39**	⇓P	PKPdf	06 15 19.8	-0.3
E11A	**Bogner Ranch,** baz=119	**119.08**	**41**	⇓P	PKPdf	06 15 20.2	0.0
M08A	**Happy Creek Ra** baz=119	**119.09**	**47**	⇑P	PKPdf	06 15 20.4	+0.1
TOA0	**Torodi Ar. Sit**	**119.15**	**280**	*e*PKPdf	PKPdf	06 15 20.9	-0.2
TORD	**Torodi Ar. Bea** comp=Z,3.5nm,0.7s,baz=59,slow=1.7,SNR=37	**119.15**	**280**	PKP	PKPdf	06 15 21.1	-0.1
TORD	comp=Z,1.0nm,0.7s,baz=68,slow=1.7,SNR=3.0			pPKP	pPKPdf	06 16 07.6	-5.2
TORD	comp=Z,0.5nm,0.8s,baz=310,slow=4.2,SNR=3.9			PKKPbc	PKKPbc	06 25 34.8	-0.1
H10A	**Noah's Angus R** baz=119,SNR=7.3	**119.31**	**43**	⇑P	PKPdf	06 15 21.0	+0.3
I10A	**Payette** baz=119	**119.43**	**44**	⇑P	PKPdf	06 15 21.8	+0.9
L09A	**Wilkinson Ranc** baz=119	**119.44**	**46**	⇑P	PKPdf	06 15 22.0	+1.0
N08A	**GE Springer Mi** baz=119	**119.45**	**48**	⇓P	PKPdf	06 15 21.5	+0.5
C13A	**Hot Springs** baz=120,SNR=6.0	**119.65**	**39**	⇑P	PKPdf	06 15 21.1	-0.1
H11A	**Donnelly** baz=120,SNR=9.6	**119.77**	**43**	⇓P	PKPdf	06 15 22.0	+0.4
M09A	**Marrel Ranch,** baz=120	**119.77**	**47**	⇑P	PKPdf	06 15 22.6	+1.0
K10A	**MacKenzie Ranc** baz=120	**119.79**	**45**	⇓P	PKPdf	06 15 22.3	+0.6
F12A	**Elk City** baz=120	**119.91**	**41**	⇑P	PKPdf	06 15 22.2	+0.5
NVAR	**Mina Array Bea** comp=Z,2.5nm,0.7s,baz=239,slow=2.2,SNR=13	**119.92**	**50**	PKP	PKPdf	06 15 23.4	+1.4
NVAR	comp=Z,1.1nm,0.8s,baz=280,slow=8.9,SNR=6.4			PP	PP	06 16 45.5	-3.3
D13A	**Huson** baz=120,SNR=6.7	**119.94**	**40**	⇓P	PKPdf	06 15 21.9	+0.1
I11A	**Placerville** baz=120	**120.06**	**44**	⇓P	PKPdf	06 15 22.5	+0.4
C14A	**Swan Lake** baz=120	**120.13**	**39**	⇑P	PKPdf	06 15 22.1	0.0
A15A	**Johnson Ranch,** baz=120	**120.26**	**37**	⇑P	PKPdf	06 15 22.3	-0.1
BLG	**Laguna Peak** baz=120	**120.26**	**55**	⇑P	PKPdf	06 15 23.1	+0.3
L10A	**Juniper Basin** baz=120	**120.28**	**46**	⇓P	PKPdf	06 15 23.1	+0.5
O09A	**Fish Creek Ran** baz=120	**120.31**	**48**	⇓P	PKPdf	06 15 23.3	+0.5
MFID	**Camas Ranch** baz=120	**120.31**	**44**	⇑P	PKPdf	06 15 23.5	+0.9
E13A	**Victor** baz=120,SNR=7.5	**120.36**	**40**	⇑P	PKPdf	06 15 22.7	+0.1
MSO	**Missoula**	**120.37**	**40**	*e*PKPdf	PKPdf	06 15 22.5	-0.1
ISA	**Isabella** baz=120	**120.42**	**53**	⇑P	PKPdf	06 15 23.5	+0.4
F13A	**Darby** baz=120	**120.50**	**41**	⇑P	PKPdf	06 15 23.0	+0.1
D14A	**Greenough** baz=120,SNR=8.8	**120.55**	**40**	⇓P	PKPdf	06 15 22.9	0.0
H12A	**Diamond D Ranc** baz=120	**120.60**	**43**	⇑P	PKPdf	06 15 23.5	+0.4
B15A	**Bradely Ranch,** baz=120,SNR=8.5	**120.64**	**38**	⇑P	PKPdf	06 15 23.9	+0.8
L11A	**Cat Creek Ranc** baz=121,SNR=5.5	**120.76**	**46**	⇑P	PKPdf	06 15 24.7	+1.2
E14A	**Clinton** baz=121	**120.81**	**40**	⇓P	PKPdf	06 15 23.8	+0.3
J12A	**Stokes Ranch,** baz=121,SNR=6.7	**120.87**	**44**	⇓P	PKPdf	06 15 24.4	+0.7
S09A	**Goldfield** baz=121,SNR=6.1	**120.92**	**51**	⇓P	PKPdf	06 15 25.1	+1.1
A16A	**West Butte Ran** baz=121,SNR=5.5	**120.95**	**37**	⇑P	PKPdf	06 15 24.0	+0.3
M11A	**Holland Ranch,** baz=121	**120.96**	**46**	⇑P	PKPdf	06 15 24.7	+0.8
EDW2	**Edwards Air Fo** baz=121,SNR=5.4	**120.98**	**54**	⇓P	PKPdf	06 15 24.9	+0.8
GRAC	**Grapevine Rang** baz=121	**120.99**	**52**	⇓P	PKPdf	06 15 24.2	+0.1
H13A	**Challis** baz=121,SNR=12	**120.99**	**42**	⇑P	PKPdf	06 15 25.0	+1.1
ESDC	**Sonseca Array** comp=Z,0.5nm,0.6s,baz=24,slow=3.1,SNR=3.2	**121.06**	**312**	PKP	PKPdf	06 15 26.1	+1.9
MPMC	**Manual Prospec** baz=121,SNR=5.4	**121.11**	**53**	⇑P	PKPdf	06 15 25.7	+1.3
B16A	**M & M Farms, S** baz=121,SNR=6.2	**121.11**	**38**	⇓P	PKPdf	06 15 24.0	0.0
F14A	**Wisdom** baz=121	**121.12**	**41**	⇓P	PKPdf	06 15 24.7	+0.6
D15A	**Lincoln** baz=121,SNR=5.5	**121.18**	**39**	⇑P	PKPdf	06 15 24.6	+0.5
K12A	**Draper Farm, C** baz=121	**121.21**	**45**	⇑P	PKPdf	06 15 25.0	+0.6
HLID	**Hailey** baz=121,SNR=14	**121.23**	**44**	⇓P	PKPdf	06 15 25.4	+1.0
Q10A	**Clear Creek Ra** baz=121	**121.26**	**49**	⇓P	PKPdf	06 15 25.0	+0.4
L12A	**House Creek Ra** baz=121	**121.29**	**45**	⇓P	PKPdf	06 15 25.1	+0.6
I13A	**Wildhorse Cree** baz=121,SNR=15	**121.31**	**43**	⇑P	PKPdf	06 15 25.5	+1.0
C16A	**Fuhringer Ranc** baz=121,SNR=6.8	**121.35**	**38**	⇑P	PKPdf	06 15 24.7	+0.2
E15A	**Deer Lodge** baz=121	**121.35**	**40**	⇑P	PKPdf	06 15 24.8	+0.3
S10A	**Tonopah Range,** baz=121,SNR=5.1	**121.35**	**51**	⇓P	PKPdf	06 15 25.9	+1.1
BFSC	**Mount Baldy St** baz=121	**121.38**	**55**	⇓P	PKPdf	06 15 25.7	+0.7
O11A	**Cowboy Ranch,** baz=121	**121.44**	**48**	⇑P	PKPdf	06 15 25.7	+0.8
J13A	**Cove Ranch, Pi** baz=121,SNR=15	**121.45**	**44**	⇑P	PKPdf	06 15 25.4	+0.6
R10A	**Warm Springs** baz=121	**121.48**	**50**	⇓P	PKPdf	06 15 25.9	+0.8
A17A	**Triple J Farms** baz=121,SNR=19	**121.48**	**37**	⇓P	PKPdf	06 15 25.5	+0.8
FURC	**Furnace Creek,** baz=121	**121.51**	**52**	⇓P	PKPdf	06 15 25.6	+0.4
F15A	**Butte** baz=122	**121.67**	**41**	⇑P	PKPdf	06 15 25.8	+0.7
B17A	**L&G Farms, Che** baz=122,SNR=8.9	**121.71**	**37**	⇓P	PKPdf	06 15 25.5	+0.4
I14A	**Mackay** baz=122,SNR=5.9	**121.76**	**43**	⇑P	PKPdf	06 15 26.0	+0.6
K13A	**Stover Farm, H** baz=122	**121.77**	**45**	⇑P	PKPdf	06 15 26.0	+0.6
D16A	**Dana Ranch, Ca** baz=122,SNR=9.5	**121.79**	**39**	⇑P	PKPdf	06 15 25.9	+0.6
Q11A	**Duckwater** baz=122,SNR=6.9	**121.82**	**49**	⇑P	PKPdf	06 15 26.4	+0.7
GSC	**Goldstone** baz=122	**121.83**	**54**	⇑P	PKPdf	06 15 26.7	+0.9
E16A	**East Helena** baz=122	**121.92**	**40**	⇓P	PKPdf	06 15 26.2	+0.6
G15A	**Dillon** baz=122	**121.94**	**41**	⇑P	PKPdf	06 15 26.7	+1.0
U10A	**Ash Meadows, A** baz=122	**121.94**	**52**	⇓P	PKPdf	06 15 27.3	+1.3
A18A	**Metzger Ranch,** baz=122,SNR=7.5	**122.00**	**36**	⇑P	PKPdf	06 15 25.7	0.0
R11A	**Troy Canyon, C** baz=122,SNR=6.1	**122.01**	**50**	⇑P	PKPdf	06 15 27.1	+1.1
C17A	**Wharram Farm,** baz=122,SNR=18	**122.02**	**38**	⇓P	PKPdf	06 15 25.6	-0.2
H15A	**Lima** baz=122	**122.05**	**42**	⇓P	PKPdf	06 15 27.2	+1.3
L13A	**Double Diamond** baz=122	**122.06**	**45**	⇑P	PKPdf	06 15 27.2	+1.2
O12A	**Currie** baz=122	**122.07**	**47**	⇓P	PKPdf	06 15 27.5	+1.4
SHOC	**Shoshone** baz=122	**122.11**	**53**	⇓P	PKPdf	06 15 27.6	+1.3
M13A	**Montello** baz=122,SNR=8.1	**122.14**	**46**	⇓P	PKPdf	06 15 26.5	+0.3
P12A	**McGill** baz=122	**122.19**	**48**	⇓P	PKPdf	06 15 27.0	+0.6
D17A	**Six Diamond Ra** baz=122,SNR=6.0	**122.27**	**39**	⇑P	PKPdf	06 15 26.2	0.0
B18A	**Beardsley Farm** baz=122,SNR=7.5	**122.28**	**37**	⇓P	PKPdf	06 15 26.5	+0.2
N13A	**Wendover, West** baz=122	**122.28**	**47**	⇑P	PKPdf	06 15 26.3	-0.2
BOZ	**Bozeman (W)** baz=122,SNR=6.8	**122.31**	**40**	⇑P	PKPdf	06 15 27.4	+1.0
G16A	**Moss Hill, Enn** baz=122	**122.36**	**41**	⇓P	PKPdf	06 15 26.8	+0.3
Q12A	**Willow Creek R** baz=122	**122.38**	**49**	⇓P	PKPdf	06 15 26.8	+0.1
I15A	**Monteview** baz=122	**122.38**	**43**	⇓P	PKPdf	06 15 27.1	+0.5
EGMT	**Eagleton** baz=122,SNR=17	**122.46**	**37**	⇑P	PKPdf	06 15 26.8	+0.2
EGMT	**Eagleton**	**122.46**	**37**	*e*PKPdf	PKPdf	06 15 26.6	0.0
E17A	**Martinsdale** baz=122	**122.46**	**39**	⇓P	PKPdf	06 15 26.8	+0.2
PFO	**Pinyon Flat Ob**	**122.49**	**55**	*i* PKIKP	PKPdf	06 15 29.5	+2.4
T11A	**Corn Creek, Al** baz=122,SNR=16	**122.59**	**51**	⇓P	PKPdf	06 15 28.2	+1.0
J15A	**Blackfoot** baz=122,SNR=9.8	**122.64**	**43**	⇑P	PKPdf	06 15 28.2	+1.1
M14A	**Sheep Mountain** baz=123,SNR=8.5	**122.68**	**46**	⇑P	PKPdf	06 15 28.1	+0.9
R12A	**Pony Springs,** baz=123	**122.75**	**50**	⇑P	PKPdf	06 15 27.7	+0.2
S12A	**Delamar Landin** baz=123,SNR=9.0	**122.77**	**50**	⇑P	PKPdf	06 15 28.8	+1.3
BELC	**Belle Mtn.** baz=123	**122.78**	**55**	⇓P	PKPdf	06 15 27.9	+0.2
V11A	**Goodsprings** baz=123	**122.79**	**53**	⇑P	PKPdf	06 15 27.8	+0.1
D18A	**Linhart Farms,** baz=123,SNR=5.6	**122.80**	**38**	⇑P	PKPdf	06 15 27.8	+0.6
F17A	**Fitzpatrick Pl** baz=123,SNR=15	**122.82**	**40**	⇑P	PKPdf	06 15 28.5	+1.1
K15A	**Arbon** baz=123	**122.83**	**44**	⇓P	PKPdf	06 15 27.6	+0.1
P13A	**Bates Ranch, G** baz=123,SNR=5.3	**122.85**	**48**	⇑P	PKPdf	06 15 28.7	+1.1
GMRC	**Granite Mounta** baz=123,SNR=5.3	**122.87**	**54**	⇓P	PKPdf	06 15 28.8	+1.0
H16A	**Russell Place,** baz=123	**122.93**	**41**	⇑P	PKPdf	06 15 28.2	+0.6
FFC	**Flin Flon**	**122.98**	**27**	*e*PKIKP	PKPdf	06 15 27.2	-0.2
E18A	**Harlowton** baz=123	**123.01**	**39**	⇑P	PKPdf	06 15 28.2	+0.5
N14A	**Grayback Hills** baz=123	**123.01**	**46**	⇓P	PKPdf	06 15 28.3	+0.4
G17A	**Pierce Place,** baz=123	**123.01**	**41**	⇓P	PKPdf	06 15 28.6	+0.9
SWSC	**Sam W. Stewart** baz=123	**123.17**	**56**	⇓P	PKPdf	06 15 29.1	+0.7
L15A	**Malad City** baz=123,SNR=5.2	**123.18**	**45**	⇑P	PKPdf	06 15 29.5	+1.3
LDFC	**Landfair**	**123.23**	**53**	*e*PKPdf	PKPdf	06 15 27.8	-0.7
V12A	**Nelson** baz=123,SNR=9.3	**123.27**	**53**	⇓P	PKPdf	06 15 30.0	+1.5
BC3	**Big Chuckw Mtn** baz=123	**123.30**	**55**	⇑P	PKPdf	06 15 29.4	+0.7
M15A	**Larsen Ranch,** baz=123	**123.33**	**45**	⇓P	PKPdf	06 15 29.5	+1.0
U12A	**Valley of Fire** baz=123,SNR=5.4	**123.33**	**52**	⇓P	PKPdf	06 15 29.4	+0.8
F18A	**Big Timber** baz=123,SNR=13	**123.42**	**40**	⇑P	PKPdf	06 15 29.8	+1.3
IRM	**Iron Mountain** baz=123	**123.42**	**54**	⇑P	PKPdf	06 15 29.6	+0.7
K16A	**Soda Springs** baz=123	**123.42**	**44**	⇑P	PKPdf	06 15 29.4	+0.8
N15A	**Stansbury Isla** baz=123	**123.47**	**46**	⇑P	PKPdf	06 15 29.8	+1.0
H17A	**Grant Village** baz=123	**123.49**	**41**	⇑P	PKPdf	06 15 29.8	+1.1
P14A	**Drum Mountains** baz=123	**123.51**	**48**	⇓P	PKPdf	06 15 29.4	+0.5
S13A	**Holt Ranch, En** baz=123,SNR=6.3	**123.53**	**50**	⇓P	PKPdf	06 15 30.4	+1.4
Q14A	**Sevier Lake (B** baz=123	**123.54**	**48**	⇓P	PKPdf	06 15 29.9	+0.9
T13A	**Saint George** baz=124,SNR=6.5	**123.66**	**51**	⇓P	PKPdf	06 15 30.5	+1.3
I17A	**Pilgrim Ck.** baz=124	**123.69**	**42**	⇑P	PKPdf	06 15 30.0	+1.0
O15A	**The Old Anders** baz=124	**123.72**	**47**	⇑P	PKPdf	06 15 30.4	+1.1
SNOW	**Snow King Moun**	**123.75**	**43**	*e*PKPdf	PKPdf	06 15 30.4	+1.1
LOHW	**Long Hollow**	**123.79**	**42**	*e*PKPdf	PKPdf	06 15 30.0	+0.7
J17A	**Brown Place, J** baz=124,SNR=7.7	**123.81**	**43**	⇑P	PKPdf	06 15 30.7	+1.3
L16A	**Fish Haven** baz=124	**123.84**	**44**	⇓P	PKPdf	06 15 30.3	+0.9
K17A	**Gardner Place,** baz=124	**123.91**	**43**	⇑P	PKPdf	06 15 30.2	+0.7
V13A	**Grand Canyon W** baz=124	**123.92**	**52**	⇑P	PKPdf	06 15 30.5	+0.7
M16A	**Huntsville** baz=124	**123.95**	**45**	⇑P	PKPdf	06 15 30.4	+0.8
S14A	**Cedar City** baz=124	**124.00**	**50**	⇓P	PKPdf	06 15 31.3	+1.4
Y12C	**Blythe** baz=124	**124.03**	**55**	⇑P	PKPdf	06 15 30.5	+0.4
RLMT	**Red Lodge** baz=124	**124.04**	**40**	⇓P	PKPdf	06 15 30.7	+1.0
RLMT	**Red Lodge**	**124.04**	**40**	*e*PKPdf	PKPdf	06 15 31.2	+1.4
P15A	**Leamington** baz=124	**124.09**	**47**	⇑P	PKPdf	06 15 30.6	+0.6
L17A	**Cokeville** baz=124	**124.19**	**44**	⇓P	PKPdf	06 15 31.1	+1.0
W13A	**Hualapai Mount** baz=124,SNR=6.0	**124.20**	**53**	⇓P	PKPdf	06 15 31.8	+1.5
PDMCI	**Parker Dam,Lak** baz=124	**124.20**	**54**	⇓P	PKPdf	06 15 31.4	+1.1
Q15A	**Fillmore** baz=124	**124.20**	**48**	⇑P	PKPdf	06 15 31.2	+0.9
I18A	**Diamond G Ranc** baz=124	**124.28**	**42**	⇓P	PKPdf	06 15 31.4	+1.2
J18A	**Kendall Valley** baz=124,SNR=6.9	**124.34**	**43**	⇑P	PKPdf	06 15 31.5	+1.2
X13A	**Yucca** baz=124,SNR=5.5	**124.37**	**54**	⇓P	PKPdf	06 15 31.1	+0.4
U14A	**Mt Trumbull** baz=124	**124.39**	**51**	⇑P	PKPdf	06 15 31.4	+0.7
O16A	**Springville** baz=124	**124.44**	**46**	⇓P	PKPdf	06 15 31.4	+0.7
P16A	**Fountain Green** baz=124	**124.53**	**47**	⇓P	PKPdf	06 15 31.4	+0.6
K18A	**Toltan Ranch,** baz=124,SNR=8.9	**124.55**	**43**	⇑P	PKPdf	06 15 31.6	+0.8
M17A	**Scullys Gap (B** baz=124	**124.57**	**45**	⇑P	PKPdf	06 15 31.1	+0.2
Y13A	**Salome** baz=124	**124.57**	**55**	⇑P	PKPdf	06 15 32.0	+0.9
S15A	**Panguitch** baz=124	**124.64**	**50**	⇓P	PKPdf	06 15 32.4	+1.3
N17A	**Moffit Pass** baz=124	**124.65**	**45**	⇑P	PKPdf	06 15 32.4	+1.4
V14A	**Boquillas Ranc** baz=125	**124.67**	**52**	⇑P	PKPdf	06 15 32.1	+0.8
W14A	**Seligman** baz=125,SNR=8.0	**124.80**	**53**	⇓P	PKPdf	06 15 32.6	+1.1
T15A	**Red Dirt Ranch** baz=125,SNR=8.9	**124.82**	**50**	⇑P	PKPdf	06 15 32.1	+0.6
BW06	**Boulder Array** baz=125,SNR=6.6	**124.83**	**43**	⇓P	PKPdf	06 15 31.5	+0.2
PDAR	**Pinedale Array** comp=Z,2.5nm,1.0s,baz=241,slow=1.5,SNR=14	**124.83**	**43**	PKP	PKPdf	06 15 31.6	+0.2
PDAR	comp=Z,0.2nm,0.7s,baz=116,slow=6.1,SNR=3.7			PKKPbc		06 25 20.1	
L18A	**Fontenelle, Gr** baz=125,SNR=13	**124.83**	**44**	⇑P	PKPdf	06 15 32.0	+0.6
O17A	**Robinson Place** baz=125,SNR=8.0	**124.99**	**46**	⇓P	PKPdf	06 15 32.8	+1.1
M18A	**Lyman** baz=125	**125.00**	**45**	⇓P	PKPdf	06 15 32.2	+0.5
R16A	**Teasdale** baz=125	**125.10**	**49**	⇑P	PKPdf	06 15 32.4	+0.4
Q16A	**Castle Valley** baz=125,SNR=6.5	**125.12**	**48**	⇑P	PKPdf	06 15 32.5	+0.5
X14A	**Yava** baz=125	**125.15**	**54**	⇑P	PKPdf	06 15 32.8	+0.6
DBIC	**Dimbokro** comp=Z,5.0nm,0.8s,baz=60,slow=3.5,SNR=8.5	**125.18**	**272**	PKP	PKPdf	06 15 33.0	+0.2
S16A	**Weppner Ranch,** baz=125,SNR=10	**125.20**	**49**	⇑P	PKPdf	06 15 32.7	+0.5
Y14A	**Wickenburg** baz=125	**125.20**	**54**	⇑P	PKPdf	06 15 32.6	+0.3
LAO	**LASA Array**	**125.20**	**37**	*e*PKPdf	PKPdf	06 15 33.1	+1.2
L19A	**Farson** baz=125	**125.23**	**44**	⇓P	PKPdf	06 15 32.2	+0.1
K19A	**Absolon Red Bu** baz=125,SNR=14	**125.28**	**43**	⇑P	PKPdf	06 15 33.2	+1.0
V15A	**Kaibab Nationa** baz=125,SNR=18	**125.34**	**52**	⇑P	PKPdf	06 15 34.0	+1.5
W15A	**Williams** baz=125	**125.45**	**53**	⇓P	PKPdf	06 15 34.4	+1.7
DGMT	**Dagmar** baz=125	**125.47**	**35**	⇓P	PKPdf	06 15 33.3	+0.9
DGMT	**Dagmar**	**125.47**	**35**	*e*PKPdf	PKPdf	06 15 33.0	+0.6
T16A	**Glen Canyon Da** baz=125	**125.50**	**50**	⇓P	PKPdf	06 15 33.8	+1.0
SRU	**San Rafael** baz=125	**125.53**	**47**	⇑P	PKPdf	06 15 33.7	+0.9
P18A	**Preston Nutter** baz=125	**125.54**	**47**	⇓P	PKPdf	06 15 33.3	+0.6
M19A	**Rock Springs** baz=126	**125.60**	**44**	⇓P	PKPdf	06 15 33.3	+0.5
R17A	**Hanksville Air** baz=126,SNR=11	**125.63**	**48**	⇓P	PKPdf	06 15 33.9	+0.9
X15A	**Humboldt** baz=126,SNR=6.2	**125.67**	**53**	⇓P	PKPdf	06 15 34.2	+1.0
K20A	**Yellowstone Ra** baz=126	**125.69**	**43**	⇓P	PKPdf	06 15 33.5	+0.5
Y15A	**Casa Rosa Ranc** baz=126,SNR=6.1	**125.74**	**54**	⇓P	PKPdf	06 15 34.2	+0.9
Q18A	**Rafter H Ranch** baz=126	**125.81**	**47**	⇑P	PKPdf	06 15 33.7	+0.4
S17A	**Black Ridge (B** baz=126,SNR=5.9	**125.82**	**49**	⇓P	PKPdf	06 15 34.0	+0.6
N19A	**John Jarvie Ra** baz=126	**125.83**	**45**	⇑P	PKPdf	06 15 34.0	+0.7
214A	**Organ Pipe Nat** baz=126	**125.86**	**56**	⇓P	PKPdf	06 15 33.7	+0.1
L20A	**Wamsutter** baz=126	**125.96**	**43**	⇓P	PKPdf	06 15 34.0	+0.5
T17A	**Navajo Res., N** baz=126,SNR=23	**126.03**	**50**	⇑P	PKPdf	06 15 34.8	+1.0
U16A	**Tuba City** baz=126,SNR=13	**126.05**	**51**	⇑P	PKPdf	06 15 34.8	+0.9
WUAZ	**Wupatki** baz=126	**126.05**	**52**	⇓P	PKPdf	06 15 34.6	+0.7
W16A	**Flagstaff** baz=126	**126.05**	**52**	⇑P	PKPdf	06 15 34.5	+0.5
O19A	**Miners Draw (B** baz=126	**126.10**	**46**	⇓P	PKPdf	06 15 34.4	+0.6
115A	**Sonoran Desert** baz=126	**126.15**	**55**	⇓P	PKPdf	06 15 35.0	+0.9
R18A	**Canyonlands Na** baz=126,SNR=6.1	**126.24**	**48**	⇑P	PKPdf	06 15 34.9	+0.8
U17A	**Shonto** baz=126,SNR=8.1	**126.26**	**50**	⇓P	PKPdf	06 15 35.5	+1.2
M20A	**Sweetwater, Wa** baz=126	**126.28**	**44**	⇑P	PKPdf	06 15 35.1	+1.0
X16A	**Lo Mia Camp, P** baz=126,SNR=10	**126.32**	**53**	⇓P	PKPdf	06 15 35.7	+1.3
S18A	**Hurst Farm, Bl** baz=126,SNR=9.3	**126.41**	**49**	⇑P	PKPdf	06 15 35.4	+0.9
N20A	**Spence Gulch,** baz=126,SNR=8.1	**126.49**	**45**	⇑P	PKPdf	06 15 35.0	+0.4
Q19A	**Hogan Spring (** baz=126,SNR=7.9	**126.50**	**47**	⇑P	PKPdf	06 15 35.4	+0.8
116A	**Eloy** baz=126	**126.61**	**55**	⇑P	PKPdf	06 15 35.3	+0.2
L21A	**Rawlins** baz=126	**126.64**	**43**	⇓P	PKPdf	06 15 35.5	+0.7
T18A	**Mexican Hat** baz=127,SNR=14	**126.69**	**49**	⇓P	PKPdf	06 15 36.0	+1.0
R19A	**Curley Farm, L** baz=127	**126.74**	**48**	⇓P	PKPdf	06 15 36.0	+0.9
O20A	**White River Ci** baz=127,SNR=9.0	**126.78**	**45**	⇓P	PKPdf	06 15 36.3	+1.2
X17A	**Forest Lakes** baz=127	**126.84**	**53**	⇑P	PKPdf	06 15 35.8	+0.4
P20A	**De Beque** baz=127	**126.92**	**46**	⇓P	PKPdf	06 15 36.2	+0.8
U18A	**Rough Rock, Ch** baz=127,SNR=6.3	**126.93**	**50**	⇑P	PKPdf	06 15 36.6	+1.1
216A	**Three Points,** baz=127	**126.96**	**56**	⇑P	PKPdf	06 15 36.3	+0.6
Y17A	**Roosevelt** baz=127	**127.00**	**54**	⇑P	PKPdf	06 15 36.5	+0.7
S19A	**Harvey Farm, M** baz=127	**127.03**	**49**	⇑P	PKPdf	06 15 36.2	+0.5
N21A	**Black Mountain** baz=127	**127.04**	**44**	⇓P	PKPdf	06 15 36.4	+0.8
V18A	**Ganado** baz=127,SNR=7.3	**127.11**	**51**	⇓P	PKPdf	06 15 37.2	+1.3
Q20A	**Ridgley Place,** baz=127,SNR=7.4	**127.20**	**47**	⇓P	PKPdf	06 15 37.3	+1.4
O21A	**Pagoda** baz=127	**127.29**	**45**	⇑P	PKPdf	06 15 36.8	+0.7
117A	**Oracle** baz=127	**127.40**	**55**	⇓P	PKPdf	06 15 37.1	+0.6
M22A	**Cedar Creek Ra** baz=127	**127.40**	**43**	⇑P	PKPdf	06 15 37.6	+1.3
Z17A	**San Carlos Hig** baz=127	**127.41**	**54**	⇓P	PKPdf	06 15 37.5	+1.0
R20A	**Redvale** baz=127,SNR=5.1	**127.42**	**48**	⇓P	PKPdf	06 15 37.5	+1.1
T19A	**Beclabito** baz=127	**127.43**	**50**	⇓P	PKPdf	06 15 37.2	+0.7
W18A	**Petrified Fore** baz=127	**127.45**	**52**	⇓P	PKPdf	06 15 38.0	+1.4
X18A	**Snowflake** baz=127	**127.46**	**53**	⇓P	PKPdf	06 15 37.5	+0.9
217A	**Green Valley** baz=128	**127.54**	**56**	⇑P	PKPdf	06 15 37.8	+0.9
MVCO	**Mesa Verde** baz=128	**127.69**	**49**	⇑P	PKPdf	06 15 38.0	+1.1
MVCO	**Mesa Verde**	**127.69**	**49**	*e*PKPdf	PKPdf	06 15 38.4	+1.5
N22A	**Wattenberg Ran** baz=128	**127.75**	**44**	⇓P	PKPdf	06 15 37.9	+0.9
V19A	**Window Rock** baz=128	**127.79**	**51**	⇑P	PKPdf	06 15 37.9	+0.7
RSSD	**Black Hills**	**127.81**	**39**	*e*PKIKP	PKPdf	06 15 37.3	+0.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
R21A	**Cimarron**	127.96	47	⇑P	PKPdf	06 15 36.6	-0.9
	baz=128						
118A	**Homack Ranch,**	128.00	55	⇑P	PKPdf	06 15 38.5	+0.8
	baz=128						
S21A	**Coal Bank Pass**	128.05	48	⇓P	PKPdf	06 15 39.1	+1.4
	baz=128						
Y19A	**Nutrioso**	128.19	53	⇓P	PKPdf	06 15 39.2	+1.2
	baz=128						
Q22A	**Crested Butte,**	128.23	46	⇓P	PKPdf	06 15 39.3	+1.3
	baz=128						
318A	**Bisbee**	128.31	56	⇑P	PKPdf	06 15 39.5	+1.2
	baz=128						
W20A	**Ramah**	128.40	51	⇓P	PKPdf	06 15 39.8	+1.4
	baz=128						
119A	**Ashpeak Ranch,**	128.50	55	⇓P	PKPdf	06 15 39.8	+1.2
	baz=128						
ULM	**Lac du Bonnet**	128.72	29	PKP	PKPdf	06 15 38.1	-0.4
	comp=Z,4.8nm,0.9s,baz=343,slow=4.8,SNR=5.8						
219A	**White Tail Can**	128.76	55	⇓P	PKPdf	06 15 40.5	+1.3
	baz=129						
319A	**Douglas**	128.91	56	⇑P	PKPdf	06 15 40.5	+1.0
	baz=129						
W21A	**San Fidel**	129.06	51	⇑P	PKPdf	06 15 41.1	+1.5
	baz=129						
X22A	**Bernardo**	129.77	52	⇑P	PKPdf	06 15 42.8	+1.8
	baz=130						
PLCA	**Paso Flores**	130.30	170	PKP	PKPdf	06 15 42.3	+0.4
	comp=Z,1.2nm,0.9s,baz=327,slow=3.4,SNR=5.6						
PLCA				SKPbc	SKPbc	06 18 49.5	+3.0
	comp=Z,7.2nm,1.2s,baz=171,slow=7.0,SNR=5.8						
SCHQ	**Schefferville**	133.27	5	PKP	PKPdf	06 15 48.0	+1.0
	comp=Z,4.3nm,0.6s,baz=52,slow=2.0,SNR=17						
TXAR	**Lajitas Array**	134.15	57	PKhKP		06 15 37.9	
	comp=Z,0.8nm,0.9s,baz=272,slow=1.3,SNR=6.6						
TXAR				PKP	PKPdf	06 15 50.8	+1.4
	comp=Z,2.1nm,1.0s,baz=203,slow=1.0,SNR=8.1						
TXAR				SKPbc	SKPbc	06 19 01.8	+1.6
	comp=Z,0.4nm,0.8s,baz=248,slow=1.3,SNR=4.1						
KSU1	**Kansas State U**	135.18	41	*e*PKPdf	PKPdf	06 15 51.4	+0.3
JCT	**Junction City**	136.90	54	*e*PKIKP	PKPdf	06 15 54.7	+0.2
HDIL	**Hopedale**	138.71	34	*e*PKPdf	PKPdf	06 15 57.8	+0.2
CCM	**Cathedral Cave**	139.19	39	*e*PKHKP		06 15 49.3	
MIAR	**Mount Ida**	139.70	45	*e*PKHKP		06 15 52.1	
WCI	**Wyandotte Cave**	141.99	34	*e*PKHKP		06 15 58.2	
WVT	**Waverly**	142.52	38	*e*PKIKP		06 16 00.0	
OXF	**Oxford**	142.54	42	*e*PKIKP		06 16 00.0	
SSPA	**Standing Stone**	144.12	23	*e*PKPdf	PKPdf	06 16 05.4	-1.9
MCWV	**Mont Chateau**	144.13	26	*e*PKPdf	PKPdf	06 16 05.4	-1.8
TZTN	**Tazewell**	144.72	34	*e*PKPab	PKPdf	06 16 07.3	-1.1
TKL	**Tuckaleechee C**	145.24	35	*e*PKIKP	PKPdf	06 16 09.2	-0.1
CPUP	**Villa Florida**	145.49	184	PKPbc	PKPbc	06 16 11.6	+1.1
	comp=Z,3.5nm,0.5s,baz=150,slow=1.6,SNR=20						
CPUP				pPKPbc	pPKPbc	06 16 57.9	-3.4
	comp=Z,9.7nm,0.8s,baz=132,slow=2.9,SNR=5.7						
CPUP				SKPbc	SKPbc	06 19 32.3	+1.2
	comp=Z,1.0nm,0.5s,baz=220,slow=2.9,SNR=4.7						
CPUP	**Villa Florida**	145.49	184	*e*PKPbc	PKPbc	06 16 11.5	+1.1
BLA	**Blacksburg**	145.83	29	*e*PKP2	PKPab	06 16 10.9	-1.0
BRAL	**Brewton**	146.22	44	*e*PKPbc	PKPbc	06 16 12.8	+0.3
CBN	**Corbin**	146.40	25	*e*PKPbc	PKPbc	06 16 12.4	-0.4
LVC	**Limon Verde**	148.13	165	*e*PKPdf	PKPdf	06 16 14.7	+0.1
CNNC	**Cliffs of the**	148.63	29	*e*PKPbc	PKPbc	06 16 19.1	+0.1

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*NEIC **03** 05:57:54.4, 19°.08N×64°.50W, h78^{km}, MD3.5(RSPR), After RSPR.*

TRN 03 05:57:53.0, 19°.08N×64°.54W, h71^{km}, 9C-1D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABV	**Anegada**	0.40	151	⇑*e*P	Pn	05 58 06.2	+1.2
ABV				*e*S	Sn	05 58 16.0	+2.2
TBVI	**Tortola**	0.67	186	⇑*e*P	Pn	05 58 09.0	+1.4
TBVI				*e*S	Sn	05 58 20.3	+2.0
TBVI	**Tortola**	0.67	186	⇑*e*P	Pn	05 58 09.0	+1.4
TBVI				*e*S	Sn	05 58 20.3	+2.0
STVI	**Saint Thomas**	0.83	208	⇑*e*P	Pn	05 58 10.7	+1.3
STVI				*e*S	Sn	05 58 23.5	+2.0
STVI	**Saint Thomas**	0.83	208	⇑*e*P	Pn	05 58 10.7	+1.3
STVI				*e*S	Sn	05 58 23.5	+2.0
MTP	**Monte Pirata**	1.37	225	⇑*e*P	Pn	05 58 18.0	+1.7
MTP				*e*S	Sn	05 58 36.5	+2.7
MTP	**Monte Pirata**	1.37	225	⇑*e*P	Pn	05 58 18.0	+1.7
MTP				*e*S	Sn	05 58 36.0	+2.2
CBYP	**Canovanas**	1.49	237	⇑*e*P	Pn	05 58 19.2	+1.4
HUMP	**Col San Antoni**	1.56	233	⇓*e*P	Pn	05 58 19.9	+1.2
HUMP				*e*S	Sn	05 58 39.9	+1.8
CPD	**Cerro la Pandu**	1.67	232	⇑*e*P	Pn	05 58 21.8	+1.5

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*ISCJB **03** 06:11:26.1±0.3, 51°.42N±0°.02×6°.55E±0°.04, h0^{km}, Error ellipse: s-maj=3.6km s-min=2.3km az=23.6*

*CSEM **03** 06:11:26.8±0.2, 51°.48N×6°.54E, h2^{km}, ML3.0/12, Error ellipse: s-maj=5.0km s-min=3.7km az=135.0*

*BGR **03** 06:11:27.3±0.7, 51°.47N×6°.52E, h1^{km}, ML2.5/2, Error ellipse: s-maj=12.2km s-min=4.4km az=110.0*

*BNS **03** 06:11:27.3±1.2, 51°.53N×6°.54E, h1^{km}, ML2.1*

*BUG **03** 06:11:27.0, 51°.45N×6°.62E, h1^{km}, ML1.4*

*LDG **03** 06:11:27.1±0.2, 51°.54N×6°.56E, h1^{km}, Ml2.8/8, Error ellipse: s-maj=2.9km s-min=1.8km az=2.0, Suspected Mining induced.*

*NEIC **03** 06:11:27.1, 51°.54N×6°.56E, h1^{km}, ML2.1(STR), ML2.8(LDG), After LDG.*

*STR **03** 06:11:30.1±1.0, 51°.34N×7°.28E, h5^{km}, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 03 06:11:27.1±0.4, **51°.48N**±0°.02×**6°.51E**±0°.04, **h0^{km}, n91, σ1^{s}10**/141, **2C, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BRHE	**Rheinberg**	0.06	42	Pg	Pg	06 11 27.9	-0.3
BRHE				Sg	Sg	06 11 28.6	-0.3
BRHE	**Rheinberg**	0.06	42	Pg	Pg	06 11 27.9	-0.3
BRHE				Sg	Sg	06 11 28.6	-0.3
LAUG	**Laupendahl**	0.30	114	*e*Pg	Pg	06 11 32.9	+0.1
LAUG	**Laupendahl**	0.30	114	Pg	Pg	06 11 32.9	+0.1
RODG	**Roetgen-Dahlhe**	0.39	212	*e*Pg	Pg	06 11 36.0	+1.5
RODG				*e*Sg	Sg	06 11 42.4	+2.8
	320nm,0.3s						
RODG	**Roetgen-Dahlhe**	0.39	212	Pg	Pg	06 11 36.0	+1.4
RODG				Sg	Sg	06 11 42.4	+2.8
	320nm,0.3s						
WTSB	**Winterswijk**	0.52	20	*e*Pg	Pg	06 11 38.7	+1.6
	13nm,0.2s						
WTSB				*e*Sg	Sg	06 11 44.2	+0.2
BNS	**Bensberg**	0.66	141	*e*Pg	Pg	06 11 40.5	+0.8
BNS	**Bensberg**	0.66	141	Pg	Pg	06 11 40.5	+0.8
HOBG	**Hohbusch**	0.71	133	*e*Pg	Pg	06 11 41.3	+0.6
HOBG	**Hohbusch**	0.71	133	Pg	Pg	06 11 41.3	+0.5
HGN	**Heimansgroeve**	0.80	207	⇑*i*Pg	Pg	06 11 45.0	+2.6
	73nm,0.1s,baz=30						
HGN	**Heimansgroeve**	0.80	207	*i* x	Pn	06 11 46.4	+0.8
	34nm,0.2s						
HGN				*e*Sg	Sg	06 11 54.8	+2.1
HGN	**Heimansgroeve**	0.80	207	⇑*i*Pg	Pg	06 11 45.0	+2.6
	73nm,0.1s						
HGN				*e*Sg	Sg	06 11 54.8	+2.0
DREG	**Dreilaegerbach**	0.83	192	*e*Pg	Pg	06 11 43.9	+0.9
DREG	**Dreilaegerbach**	0.83	192	Pg	Pg	06 11 43.9	+0.9
KLL	**Kalltalsperre**	0.84	189	*e*Pg	Pg	06 11 43.9	+0.7
KLL	**Kalltalsperre**	0.84	189	Pg	Pg	06 11 43.9	+0.8
STB	**Steinbach**	0.91	167	*e*Pg	Pg	06 11 45.7	+1.3
STB				*e*Sg	Sg	06 11 58.5	+2.4
	86nm,0.4s						
STB	**Steinbach**	0.91	167	Pg	Pg	06 11 45.7	+1.3
STB				Sg	Sg	06 11 58.5	+2.3
	86nm,0.4s						
MEM	**Membach**	0.92	200	P	Pg	06 11 45.6	+0.8
MEM	**Membach**	0.92	200	P	Pg	06 11 45.6	+0.8
IBBN	**Ibbenburen**	1.14	42	*e*Pg	Pg	06 11 48.8	-0.1
	SNR=3.8						
IBBN				*e*Sg	Sg	06 12 04.3	+0.7
	SNR=7.0						
IBBN	**Ibbenburen**	1.14	42	Pg	Pg	06 11 48.8	-0.1
	SNR=3.8						
IBBN				Sg	Sg	06 12 04.3	+0.7
	SNR=7.0						
HILG	**Hillesheim**	1.19	175	*e*Pg	Pg	06 11 50.4	+0.5
HILG				*e*Sg	Sg	06 12 07.4	+2.1
	81nm,0.4s						
HILG	**Hillesheim**	1.19	175	Pg	Pg	06 11 50.4	+0.5
HILG				Sg	Sg	06 12 07.4	+2.1
	81nm,0.4s						
BCLA	**Clavier**	1.30	216	P	Pg	06 11 52.5	+0.4
BCLA	**Clavier**	1.30	216	P	Pg	06 11 52.4	+0.3
KOE	**Koeppel**	1.30	143	*e*Pg	Pg	06 11 51.9	-0.2
KOE				*e*Sg	Sg	06 12 10.1	+1.1
	36nm,0.4s						
KOE	**Koeppel**	1.30	143	Pg	Pg	06 11 51.9	-0.2
KOE				Sg	Sg	06 12 10.1	+1.2
	36nm,0.4s						
BGG	**Burgeitz**	1.37	157	*e*Pg	Pg	06 11 53.2	-0.2
BGG	**Burgeitz**	1.37	157	Pg	Pg	06 11 53.2	-0.2
SNF	**Seneffe**	1.71	236	P	Pn	06 11 58.6	+0.5
SNF	**Seneffe**	1.71	236	P	Pn	06 11 58.6	+0.5
ABH	**Alteburg**	1.73	157	Pg	Pg	06 11 58.6	-1.6
ABH				Sg	Sg	06 12 18.6	-3.9
ABH	**Alteburg**	1.73	157	Pg	Pg	06 11 58.6	-1.6
ABH				Sg	Sg	06 12 18.6	-3.9
GIVF	**Givet**	1.74	219	*e*Pg	Pg	06 12 00.8	+0.3
GIVF				*e*Sg	Sg	06 12 23.6	+0.6
	28nm,0.2s						
GIVF	**Givet**	1.74	219	*e*Pn	Pn	06 11 57.6	-0.9
GIVF				*e*Pg	Pg	06 12 00.8	+0.3
GIVF				*e*Sg	Sg	06 12 23.6	+0.6
GIVF	**Givet**	1.74	219	*e*Pn	Pn	06 11 57.6	-0.9
GIVF	**Givet**	1.74	219	*e*Pg	Pg	06 12 00.8	+0.3
GIVF				*e*Sg	Sg	06 12 23.6	+0.6
	14nm,0.2s						
TNS	**Taunus Mts**	1.75	135	*e*Pg	Pg	06 11 59.3	-1.4
	SNR=8.4						
TNS				*e*Sg	Sg	06 12 23.5	+0.1
	SNR=2.0						
TNS	**Taunus Mts**	1.75	135	Pg	Pg	06 11 59.3	-1.4
	SNR=8.4						
TNS				Sg	Sg	06 12 23.5	+0.1
	SNR=2.0						
RUP	**Ruppelstein**	1.81	169	Pg	Pg	06 12 00.8	-0.9
RUP				Sg	Sg	06 12 23.7	-1.5
RUP	**Ruppelstein**	1.81	169	Pg	Pg	06 12 00.8	-0.9
RUP				Sg	Sg	06 12 23.7	-1.5
WLF	**Walferdange**	1.83	187	P	Pn	06 12 02.0	+2.3
WLF	**Walferdange**	1.83	187	*e*Pg	Pg	06 12 02.0	-0.1
	SNR=3.7						
WLF				*e*Sg	Sg	06 12 25.1	-0.6
	SNR=4.2						
WLF	**Walferdange**	1.83	187	Pg	Pg	06 12 02.0	-0.1
	SNR=3.7						
WLF				Sg	Sg	06 12 25.1	-0.6
	SNR=4.2						
DOU	**Dourbes**	1.84	222	P	Pn	06 12 00.3	+0.4
DOU	**Dourbes**	1.84	222	P	Pn	06 12 00.3	+0.4
BAIF	**Baives**	2.04	227	*e*Pn	Pn	06 12 01.6	-1.0
BAIF	**Baives**	2.04	227	*e*P	Pn	06 12 03.8	+1.2
BAIF	**Baives**	2.04	227	*e*Pg	Pg	06 12 06.1	0.0
BAIF				*e*Sg	Sg	06 12 32.8	+0.3
	7.8nm,0.2s						
BAIF	**Baives**	2.04	227	*e*P	Pn	06 12 03.8	+1.2
BAIF				*e*Pg	Pg	06 12 06.1	0.0
BAIF				*e*Sg	Sg	06 12 32.8	+0.3
BAIF	**Baives**	2.04	227	*e*Pn	Pn	06 12 01.6	-1.0
BAIF	**Baives**	2.04	227	*e*P	Pn	06 12 03.8	+1.2
BAIF	**Baives**	2.04	227	*e*Pg	Pg	06 12 06.1	0.0
BAIF				*e*Sg	Sg	06 12 32.8	+0.3
	3.9nm,0.2s						
TOD	**Tromm**	2.38	141	Pg	Pg	06 12 07.2	-5.4
TOD				Sg	Sg	06 12 35.1	-8.2
CLZ	**Clausthal**	2.43	80	*e*Pg	Pg	06 12 11.7	-2.0
	SNR=2.4						
CLZ	**Clausthal**	2.43	80	Pg	Pg	06 12 11.7	-2.0
	SNR=2.4						
RFYF	**Reffroy**	2.93	194	*e*Pn	Pn	06 12 13.7	-1.1
RFYF				*e*Sg	Sg	06 13 01.2	+0.1
	12nm,0.2s						
RFYF	**Reffroy**	2.93	194	*e*Pn	Pn	06 12 13.7	-1.1
RFYF				*e*Sg	Sg	06 13 01.2	+0.1
	6.2nm,0.2s						
CDF	**Champ du Feu**	3.11	171	*e*Pg	Pg	06 12 25.8	-0.8
CDF				*e*Sg	Sg	06 13 06.3	-0.5
	3.3nm,0.4s						
CDF	**Champ du Feu**	3.11	171	*e*Pn	Pn	06 12 16.3	-1.0
CDF				*e*Pg	Pg	06 12 25.8	-0.8
CDF				*e*Sg	Sg	06 13 06.3	-0.5
CDF	**Champ du Feu**	3.11	171	*e*Pn	Pn	06 12 16.3	-1.0
CDF	**Champ du Feu**	3.11	171	*e*Pg	Pg	06 12 25.8	-0.8
CDF				*e*Sg	Sg	06 13 06.3	-0.5
	1.6nm,0.4s						
MEZF	**Maizieres J'vi**	3.12	198	*e*Pn	Pn	06 12 16.4	-1.1
	baz=21						
MEZF	**Maizieres J'vi**	3.12	198	*e*Pg	Pg	06 12 26.0	-0.9
	baz=16						
MEZF				*e*Sg	Sg	06 13 07.4	+0.1
	4.5nm,0.3s						
MEZF	**Maizieres J'vi**	3.12	198	*e*Pn	Pn	06 12 16.4	-1.1
MEZF				*e*Pg	Pg	06 12 26.0	-0.9
MEZF				*e*Sg	Sg	06 13 07.4	+0.1
MEZF	**Maizieres J'vi**	3.12	198	*e*Pn	Pn	06 12 16.4	-1.1
MEZF	**Maizieres J'vi**	3.12	198	*e*Pg	Pg	06 12 26.0	-0.9
MEZF				*e*Sg	Sg	06 13 07.4	+0.1
	2.2nm,0.3s						
SFTF	**Sexfontaines**	3.41	197	*e*Pg	Pg	06 12 31.0	-1.4
SFTF				*e*Sg	Sg	06 13 16.3	-0.3
	3.4nm,0.2s						
SFTF	**Sexfontaines**	3.41	197	*e*Pn	Pn	06 12 20.6	-0.9
SFTF				*e*Pg	Pg	06 12 31.0	-1.4
SFTF				*e*Sg	Sg	06 13 16.3	-0.3
SFTF	**Sexfontaines**	3.41	197	*e*Pn	Pn	06 12 20.6	-0.9
SFTF	**Sexfontaines**	3.41	197	*e*Pg	Pg	06 12 31.0	-1.4
SFTF				*e*Sg	Sg	06 13 16.3	-0.3
	1.7nm,0.2s						
HAU	**Haudompre**	3.48	182	*e*Sg	Sg	06 13 18.4	-0.3
	6.6nm,0.4s						
HAU	**Haudompre**	3.48	182	*e*Sg	Sg	06 13 18.4	-0.3
	3.3nm,0.4s						
CLL	**Collm**	4.07	90	*e*Sg	Sg	06 13 40.0	+2.3
LOR	**Lormes**	4.55	203	*e*Pn	Pn	06 12 36.6	-0.6
	baz=31						
LOR				*e*Sn	Sn	06 13 27.0	-3.7
LOR				*e*Sg	Sg	06 13 51.8	-1.5
	2.8nm,0.3s						
LOR	**Lormes**	4.55	203	*e*Pn	Pn	06 12 36.6	-0.6
LOR				*e*Sn	Sn	06 13 27.0	-3.7
LOR				*e*Sg	Sg	06 13 51.8	-1.5
	1.4nm,0.3s						
SSF	**Saint Saulge**	4.83	205	*e*Pn	Pn	06 12 39.9	-1.2
SSF	**Saint Saulge**	4.83	205	*e*Pn	Pn	06 12 39.9	-1.2
CABF	**La Chapelle**	4.88	183	*e*Pn	Pn	06 12 40.7	-0.9
CABF	**La Chapelle**	4.88	183	*e*Pn	Pn	06 12 40.7	-0.9
AVF	**Avril sur Loir**	5.13	205	*e*Pn	Pn	06 12 44.1	-0.9
AVF	**Avril sur Loir**	5.13	205	*e*Pn	Pn	06 12 44.1	-0.9
SMF	**Signal de Mont**	5.14	201	*e*Pn	Pn	06 12 44.6	-0.7
SMF	**Signal de Mont**	5.14	201	*e*Pn	Pn	06 12 44.6	-0.7
BGF	**Bois d'Agland**	5.48	208	*e*Pn	Pn	06 12 48.8	-1.1
BGF	**Bois d'Agland**	5.48	208	*e*Pn	Pn	06 12 48.8	-1.1
RJF	**Les Rejaudoux**	7.01	210	*e*Pn	Pn	06 13 09.5	-1.4
RJF	**Les Rejaudoux**	7.01	210	*e*Pn	Pn	06 13 09.5	-1.4

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*IDC **03** 06:17:21.1±0.9, 29°.71N×67°.54E, h0^{km}, mb3.7/13, mb1 3.9/13, mb1mx3.8/28, mbtmp3.8/13, MS3.1/3, Ms1 3.1/3, ms1mx2.8/43, Error ellipse: s-maj=22.1km s-min=18.9km az=179.0*

*NEIC **03** 06:17:22.9±0.9, 29°.73N×67°.65E, h10^{km}, mb4.0/3, Error ellipse: s-maj=16.7km s-min=10.8km az=143.0*

*ISCJB **03** 06:17:25.8±1.2, 29°.65N±0°.05×67°.89E±0°.06, h64^{km}±15^{km}, mb3.8/16, Error ellipse: s-maj=8.6km s-min=7.0km az=142.5*

ISC 03 06:17:26.0±0.9, **29°.71N**±0°.05×**67°.77E**±0°.06, **h36^{km}**±11^{km}, **n42, σ1^{s}27**/49, **mb3.8**/16, **MS3.0**/3, **Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JASL	**Jaisalmer**	3.92	134	*e*PKP	Pn	06 18 18.6	-5.1
JASL				*e*S	Sn	06 19 06.2	-2.2
KBL	**Kabul**	4.94	12	*e*Pn	Pn	06 18 41.1	+3.5
BHJ	**Bhuj**	6.65	165	*e*S	Sn	06 20 13.6	-2.1
BHJ				AML	AML	06 20 19.3	
	comp=E,128nm,0.6s						
BHJ				AML	AML	06 20 19.6	
	comp=N,116nm,0.4s						
AJM	**Ajmer**	6.87	116	*e*PKP	Pn	06 19 06.0	+1.7
AJM				*e*S	Sn	06 20 21.8	+0.6
AJM				AML	AML	06 20 25.6	
	comp=N,49nm,0.2s						
KHET	**Khetri**	7.23	101	*e*PKP	Pn	06 19 10.1	+0.9
KHET				*e*S	Sn	06 20 30.7	+0.6
KHET				AML	AML	06 20 33.5	
	comp=N,39nm,0.5s						
DLH	**Dalhousie**	7.57	66	*e*x	x	06 20 43.0	
SDNR	**Sundarnagar**	8.13	75	*e*PKP	Pn	06 19 23.5	+2.0
SDNR				*e*x	x	06 20 54.0	
AYAN	**Aya Nagar**	8.28	96	*e*PKP	Pn	06 19 25.1	+1.6
AYAN				*e*S	Sn	06 20 54.6	-1.2
NDI	**New Delhi**	8.32	95	*e*PKP	Pn	06 19 24.0	-0.2
NDI				*e*S	Sn	06 20 55.5	-1.4
DDI	**Dehra Dun**	8.94	84	*e*PKP	Pn	06 19 33.1	+0.5
DDI				*e*x	x	06 21 14.1	
KLP	**Kalpa**	9.21	76	*e*PKP	Pn	06 19 37.7	+1.3
KLP				*e*S	Sn	06 21 16.9	-1.9
KLP				AML	AML	06 21 28.8	
	comp=E,185nm,0.6s						
JOSI	**Joshimath**	10.24	82	*e*PKP	Pn	06 19 53.1	+2.6
JOSI				*e*S	Sn	06 21 43.6	-0.4
JOSI				AML	AML	06 21 56.9	
	comp=N,101nm,0.1s						
JOSI				AML	AML	06 22 05.0	
	comp=E,90nm,0.5s						
BHPL	**Bhopal**	10.78	124	*e*PKP	Pn	06 19 59.5	+1.6
BHPL				*e*S	Sn	06 21 53.5	-3.8
BHPL				AML	AML	06 21 58.6	
	comp=N,28nm,0.3s						
AML	**Almayashu**	13.29	20	*e*Pn	Pn	06 20 31.4	-0.6
	comp=N,14nm,0.5s						
PYUN	**Piuthan**	13.43	93	*e*P	Pn	06 20 33.5	-0.6
	comp=N,34nm,0.5s						
EKS2	**Erkin-Say**	13.80	19	*e*Pn	Pn	06 20 38.2	-0.8
	comp=N,4.2nm,0.6s						
AAK	**Ala-Archa**	13.98	21	*e*Pn	Pn	06 20 41.3	-0.3
	comp=N,3.5nm,0.5s						
KOLN	**Koldanda**	14.03	94	*e*P	Pn	06 20 42.2	0.0
	comp=N,21nm,0.6s						
DANN	**Dangsing**	14.06	92	*e*P	Pn	06 20 41.9	-0.8
	comp=N,56nm,0.6s						
TKM2	**Tokmak 2**	14.60	23	*e*Pn	Pn	06 20 49.0	-1.0
	comp=N,4.4nm,0.7s						
GKN	**Gorkha**	14.88	92	*e*P	Pn	06 20 51.9	-1.9
	comp=N,29nm,0.6s						
GKN				*e*S	Sn	06 23 29.3	-8.1
MK31	**Makanchi Array**	20.46	30	*e*P	P	06 22 00.9	+0.6
MKAR	**Makanchi Array**	20.46	30	P	P	06 22 00.9	+0.6
	comp=N,2.5nm,0.6s,baz=209,slow=10.0,SNR=37						
MKAR				LR	LR	06 30 30.2	
	comp=N,35nm,19.2s,MS2.7,baz=336,slow=38						
GNI	**Garni**	21.50	305	P	P	06 22 12.5	+0.8
	comp=N,5.6nm,0.8s,mb4.1,baz=114,slow=5.2,SNR=4.9						
GNI	**Garni**	21.50	305	*e*P	P	06 22 12.4	+0.7
	comp=N,9.5nm,0.9s,mb4.2						
AKTK	**Aktyubinsk**	21.97	343	P	P	06 22 14.6	-1.9
AKTO	**Aktyubinsk**	21.97	343	P	P	06 22 14.6	-1.9
	comp=N,0.3nm,0.3s,mb3.2,baz=129,slow=14,SNR=2.0						
KURK	**Kurchatov**	22.51	18	P	P	06 22 21.1	-1.2
	comp=N,2.6nm,0.6s,mb3.8,baz=210,slow=10,SNR=12						
KURK				LR	LR	06 31 32.9	
	comp=N,38nm,18.1s,MS2.9,baz=300,slow=38						
BVAR	**Borovoye Array**	23.37	4	P	P	06 22 31.8	+0.5
	comp=N,0.7nm,0.6s,mb3.2,baz=145,slow=5.4,SNR=4.2						
BRVK	**Borovoye**	23.40	4	*e*P	P	06 22 31.7	+0.1
	comp=N,2.5nm,0.7s,mb3.8						
MALT	**Malatya**	25.71	297	*e*P	P	06 22 52.2	-0.6
	comp=N,4.1nm,1.1s,mb3.9						
ASF	**Jabal al Asfar**	26.55	283	P	P	06 23 02.1	+1.6
	comp=N,2.9nm,0.8s,mb3.9,baz=269,slow=3.7,SNR=5.4						
ZALV	**Zalesovo Beam**	27.20	22	P	P	06 23 06.8	+0.7
	comp=N,1.6nm,0.5s,mb3.8,baz=233,slow=8.6,SNR=3.7						
SONM	**Songino Array**	34.68	48	P	P	06 24 14.5	+2.4
	comp=N,0.7nm,0.9s,mb3.6,baz=232,slow=7.0,SNR=4.2						
AKASG	**Malin Array Be**	35.59	317	P	P	06 24 19.6	-0.2
	comp=N,1.6nm,0.6s,mb4.1,baz=101,slow=7.3,SNR=7.0						
GERES	**GERESS Array B**	44.97	311	P	P	06 25 37.4	-0.1
	comp=N,0.8nm,0.6s,mb3.7,baz=91,slow=8.0,SNR=9.3						
KEST	**Kesra**	48.90	293	P	P	06 26 08.1	-0.3
	comp=N,0.7nm,0.6s,mb3.9,baz=356,slow=7.0,SNR=4.9						
KSRS	**Korea Array**	49.97	64	LR	LR	06 50 50.3	
	comp=N,28nm,18.0s,MS3.3,baz=75,slow=40						
ESDC	**Sonseca Array**	58.40	301	P	P	06 27 16.9	-1.0
	comp=N,0.4nm,0.5s,mb3.7,baz=65,slow=7.7,SNR=6.7						
TORD	**Torodi Ar. Bea**	62.93	270	P	P	06 27 47.5	-1.5
	comp=N,2.2nm,0.9s,mb4.3,baz=59,slow=6.3,SNR=13						
WRA	**Warramunga Arr**	80.89	119	P	P	06 29 38.5	+1.9
	comp=N,1.0nm,1.0s,mb3.7,baz=321,slow=4.9,SNR=7.3						
ASAR	**Alice Springs**	82.77	122	P	P	06 29 48.1	+1.7
	comp=N,0.3nm,0.5s,mb3.5,baz=310,slow=5.6,SNR=6.1						

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*CSEM **03** 06:20:27.7±0.3, 25°.26N×56°.29E, h20^{km}, ML3.2/2, Error ellipse: s-maj=9.2km s-min=3.3km az=108.0*

*ISCJB **03** 06:20:28.4±1.0, 25°.27N±0°.05×56°.3E±0°.1, h21^{km}±9^{km}, Error ellipse: s-maj=16.6km s-min=6.5km az=17.9*

*TEH **03** 06:20:51.4, 26°.68N×55°.48E, h10^{km}*

ISC 03 06:20:28.8±0.9, **25°.28N**±0°.04×**56°.23E**±0°.09, **h4^{km}**±9^{km}, **n14, σ0^{s}75**/25, **4C-4D, Eastern Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HATD	**Hatta, Dubai**	0.46	192	P	Pg	06 20 37.1	-0.6
	SNR=93						
HATD				P		06 20 37.1	
	SNR=93						
HATD				⇑S	Sg	06 20 43.7	0.0
HATD				⇑S	Sg	06 20 43.7	0.0
HATD	**Hatta, Dubai**	0.46	192	Pg	Pg	06 20 37.1	-0.6
	SNR=93						
HATD				S	Sg	06 20 43.7	0.0
NAZ	**Nazwa, Dubai**	0.59	241	⇓P	Pg	06 20 39.6	-0.6
	SNR=7.9						
NAZ				⇓P		06 20 39.6	
	SNR=7.9						
NAZ				⇑S	Sg	06 20 48.4	+0.5
NAZ				⇑S	Sg	06 20 48.4	+0.5
NAZ	**Nazwa, Dubai**	0.59	241	Pg	Pg	06 20 39.9	-0.3
	SNR=14						
NAZ				S	Sg	06 20 48.4	+0.5
BANOM	**Banah**	0.65	5	P	Pg	06 20 40.6	-0.6
	SNR=39						
BANOM				P		06 20 40.6	
	SNR=39						
BANOM				⇓S	Sg	06 20 49.8	+0.2
BANOM				⇓S	Sg	06 20 49.8	+0.2
BANOM	**Banah**	0.65	5	Pg	Pg	06 20 40.6	-0.6
	SNR=39						
BANOM				Sg	Sg	06 20 50.2	+0.6
ASUD	**Al Ashush, Dub**	1.05	232	Pg	Pg	06 20 49.1	+0.2
	SNR=24						
IMOK	**Mouk**	4.89	321	*e*Pn	Pn	06 21 44.3	+1.2
ISRV	**Sarvestan**	4.94	327	*e*	Pn	06 21 49.0	+5.3
	comp=Z,376nm,0.1s						
IPAR	**Pars**	5.35	329	*e*Sg	Sn	06 22 50.3	-1.2
IMEH	**Mehriz**	6.25	347	*e*	Pn	06 22 08.1	+6.3
	comp=Z,159nm,0.2s						
IMEH				*e*Pn	Pn	06 22 02.9	+1.1
IBAF	**Bafgh**	6.32	355	*e*	Pn	06 22 10.2	+7.5
	comp=Z,118nm,0.1s						
IBAF				*e*Pn	Pn	06 22 04.6	+1.9
IZEF	**Zefreh**	8.32	337	*e*Pn	Pn	06 22 29.8	-0.4
IZEF				*e*		06 22 33.6	
	comp=Z,46nm,0.2s						
IPIR	**Pirpir**	8.73	329	*e*Pn	Pn	06 22 35.6	-0.3
IPIR				*e*		06 22 41.2	
	comp=Z,140nm,0.1s						

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*IDC **03** 06:29:43.5±20.0, 36°.70N×72°.10E, h211^{km}±125^{km}, mb2.9/1, mb1 3.0/6, mb1mx2.7/27, mbtmp2.9/6, Error ellipse: s-maj=191.2km s-min=44.4km az=1.0*

*NNC **03** 06:29:52.8±8.6, 37°.54N×71°.86E, h233^{km}±70^{km}, mb2.3, mpv3.9, Error ellipse: s-maj=102.0km s-min=41.5km az=32.0*

ISC 03 06:29:52.2±2.5, **37°.4N**±0°.2×**72°.0E**±0°.2, **h247^{km}**±16^{km}, **n19, σ1^{s}04**/21, **4C-4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AML	**Almayashu**	4.89	15	P	Pn	06 31 06.4	0.0
	SNR=220						
UCH	**Uchtor**	5.19	21	P	S	06 32 13.5	+1.4
	SNR=6.7						
KZA	**Kyzart**	5.30	28	P	Pn	06 31 10.9	-0.4
	SNR=6.2						
EKS2	**Erkin-Say**	5.42	14	P	Pn	06 31 13.2	+0.4

	SNR=6.3						
AAK	Ala-Archa	5.56	20	P	Pn	06 31 15.0	+0.4
	SNR=13						
KK31	Karatay Array	5.79	349	⇑P	Pn	06 31 17.2	-0.2
	3.5nm,0.4s,baz=157,slow=11,SNR=61						
KK31				⇑S	S	06 32 22.7	-2.8
	2.1nm,0.4s,baz=171,slow=22,SNR=3.5						
ULHL	Ulahol	5.83	33	P	Pn	06 31 17.8	-0.2
	SNR=13						
TKM2	Tokmak 2	6.16	26	P	Pn	06 31 22.3	+0.2
	SNR=11						
TKM2	Tokmak 2	6.16	26	⇓P	Pn	06 31 21.8	-0.2
	13nm,0.7s						
MK31	Makanchi Array	12.09	36	⇑P	Pn	06 32 36.2	-0.5
	0.4nm,0.5s,baz=218,slow=13,SNR=7.6						
MKAR	Makanchi Array	12.09	36	P	Pn	06 32 36.3	-0.5
	0.1nm,0.3s,baz=215,slow=14,SNR=10.0						
KURK	Kurchatov	14.12	18	P	Pn	06 32 59.4	-2.2
	0.1nm,0.3s,baz=207,slow=12,SNR=9.3						
AB09	Akbulak array	14.71	327	⇓P	Pn	06 33 03.1	-5.6
	0.2nm,0.5s						
AB09				⇓S	S	06 35 50.8	-0.2
	0.7nm,0.8s						
BVA0	Borovoye Array	15.64	356	⇓P	Pn	06 33 22.6	+2.7
	0.2nm,0.7s,baz=227,slow=41,SNR=9.2						
BVAR	Borovoye Array	15.64	356	P	Pn	06 33 20.8	+0.9
	0.2nm,0.3s,baz=159,slow=8.7,SNR=9.7						
AKTO	Aktyubinsk	16.40	327	P	P	06 33 28.3	+1.0
	0.2nm,0.3s,baz=136,slow=14,SNR=4.0						
AKTO	Aktyubinsk	16.40	327	⇑P	P	06 33 28.3	+1.0
	1.5nm,2.4s						
ZALV	Zalesovo Beam	18.76	24	P	P	06 33 53.5	+0.7
	0.2nm,0.3s,baz=200,slow=7.2,SNR=3.1						
YKA	Yellowknife Ar	80.29	3	P	P	06 41 34.2	-1.0
	0.4nm,1.0s,baz=348,slow=5.6,SNR=5.2						

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*ISCJB **03** 06:33:39.9±0.7, 24°.53N±0°.05×122°.32E±0°.02, h67^{km}±8^{km}, Error ellipse: s-maj=8.4km s-min=3.2km az=172.1*
*TAP **03** 06:33:39.9, 24°.55N×122°.31E, h65^{km}±1^{km}, ML3.3, D*
*JMA **03** 06:33:40.0±0.3, 24°.68N×122°.35E, h71^{km}, M2.5*
ISC 03 06:33:40.4±0.7, **24°.54N**±0°.05×**122°.31E**±0°.02, **h66**^{km}±8^{km}, **n26**, σ**0^s.67**/49, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWC	Suao	0.43	279	P	Pn	06 33 51.8	-0.3
	baz=277						
TWC				S	Sn	06 34 00.4	-0.4
	baz=277						
ENA	Nanau	0.53	258	*i* P	Pn	06 33 53.0	-0.1
	baz=256						
ENA				S	Sn	06 34 03.1	+0.6
	baz=256						
TWE	Neicheng	0.61	287	P	Pn	06 33 54.0	-0.1
	baz=286						
TWE				*e*S	Sn	06 34 04.2	+0.2
	baz=286						
YOJ	Yonaguni jima	0.64	97	P	Pn	06 33 54.3	-0.1
YOJ				S	Sn	06 34 05.1	+0.5
ENTT	Nioudou	0.69	278	*i* P	Pn	06 33 55.1	+0.2
	baz=277						
ENTT				S	Sn	06 34 06.1	+0.6
	baz=277						
NWF	Wu-fen Shan	0.71	318	P	Pn	06 33 55.1	-0.1
	baz=317						
NWF				S	Sn	06 34 06.2	+0.1
	baz=317						
TWA	Mucha	0.79	304	*e*P	Pn	06 33 55.8	-0.3
	baz=302						
TWA				*e*S	Sn	06 34 07.1	-0.6
	baz=302						
TWD	Chiawan	0.80	235	*e*P	Pn	06 33 56.0	-0.2
	baz=234						
TWD				*e*S	Sn	06 34 06.9	-0.9
	baz=234						
NNS	Nan Shan	0.86	264	*e*P	Pn	06 33 56.7	-0.2
	baz=262						
NNS				*e*S	Sn	06 34 09.0	-0.1
	baz=262						
NSK	Sanguang	0.88	279	P	Pn	06 33 57.2	0.0
	baz=278						
NSK				S	Sn	06 34 09.4	-0.1
	baz=278						
ESL	Shilin	1.08	228	*e*P	Pn	06 33 58.4	-1.3
	baz=227						
NSTT	Nanjuang	1.20	275	*e*P	Pn	06 34 01.2	0.0
	baz=273						
NSTT				*e*S	Sn	06 34 17.3	+0.5
	baz=273						
IRIF	Iriomote-Funau	1.31	99	P	Pn	06 34 02.2	-0.5
IRIF				S	Sn	06 34 19.1	-0.3
EHY	Hungye	1.37	222	*e*P	Pn	06 34 01.8	-1.7
	baz=220						
HATJ	Hateruma jima	1.45	109	P	Pn	06 34 05.3	+0.8
HATJ				S	Sn	06 34 23.1	+0.5
SMLT	Sun Moon Lake	1.45	243	P	Pn	06 34 05.2	+0.7
	baz=242						
SMLT				*e*S	Sn	06 34 23.7	+1.0
	baz=242						
TYC	Yuchr	1.47	245	P	Pn	06 34 05.1	+0.2
	baz=244						
TYC				S	Sn	06 34 23.6	+0.3
	baz=244						
TWF1	Yuli	1.50	218	*e*P	Pn	06 34 03.6	-1.7
	baz=217						
JKRS	Kuro-shima	1.58	101	P	Pn	06 34 06.1	-0.2
JKRS				S	Sn	06 34 26.0	+0.2
JIJ	Ishigaki jima	1.68	96	P	Pn	06 34 07.2	-0.4
JIJ				S	Sn	06 34 27.2	-1.0
ALS	Alishan	1.72	234	*e*P	Pn	06 34 08.7	+0.6
	baz=232						
ALS				*e*S	Sn	06 34 28.9	-0.3
	baz=232						
CHN5	Tsauling	1.76	238	P	Pn	06 34 09.1	+0.3
	baz=237						
CHN5				S	Sn	06 34 31.3	+1.0
	baz=237						
STYT	Tauyuan	1.98	226	*e*P	Pn	06 34 11.8	+0.1
	baz=225						
STYT				S	Sn	06 34 35.0	-0.4
	baz=225						
TWK	Hsinying	2.10	233	*e*P	Pn	06 34 11.7	-1.5
	baz=232						
TWK				*e*S	Sn	06 34 39.1	+0.8
	baz=232						
CHN1	Nanshi	2.12	231	*e*P	Pn	06 34 14.3	+0.7
	baz=230						
CHN1				*e*S	Sn	06 34 39.5	+0.6
	baz=230						
JTJ	Tarama	2.18	87	P	Pn	06 34 14.9	+0.5
JTJ				*e*S	Sn	06 34 41.7	+1.4

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*NIED **03** 06:36:00, 43°.50N×146°.10E, h95^{km}, Mw3.5 Best double couple: M$_0$2.25000×10^{14} NP1:ϕ_s74.00000°, δ85.00000°, λ121.00000°. NP2:ϕ_s173.00000°, δ31.00000°, λ11.00000°.*
*MOS **03** 06:36:33.8±0.8, 43°.48N×146°.35E, h114^{km}, mb4.0/3, Error ellipse: s-maj=30.4km s-min=20.0km az=111.6*
*ISCJB **03** 06:36:34.7±0.8, 43°.53N±0°.07×146°.19E±0°.08, h111^{km}±5^{km}, mb3.7/5, Error ellipse: s-maj=14.1km s-min=7.1km az=146.0*
*JMA **03** 06:36:37.5±0.2, 43°.52N×146°.06E, h100^{km}±1^{km}, M3.8*
JMA Felt I J1.
*IDC **03** 06:36:39.1±4.8, 44°.30N×146°.06E, h100^{km}±42^{km}, mb3.4/5, mb1 3.5/6, mb1mx3.2/24, mbtmp3.5/6, Error ellipse: s-maj=171.7km s-min=31.6km az=173.0*
ISC 03 06:36:35.7±0.8, **43°.53N**±0°.07×**146°.19E**±0°.08, **h106**^{km}±5^{km}, **n21**, σ**0^s.73**/30, **mb3.7**/5, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.36	244	P	Pn	06 36 52.0	+0.8
NEM2				*e*S	Sn	06 37 03.0	+0.1
JRA	Rausu	0.88	298	P	Pn	06 36 55.9	+0.6
JRA				*e*S	Sn	06 37 09.9	-0.1
JNK	Nakash	1.07	274	P	Pn	06 36 57.5	+0.2
JAK	Akkeshi	1.21	245	P	Pn	06 36 59.3	+0.4
JAK				*e*S	Sn	06 37 15.4	-1.0
JTKR	Abashiri--Toko	1.71	286	P	Pn	06 37 05.3	+0.5
JTKR				*e*S	Sn	06 37 26.3	-0.7
JAR	Ashorobuto	1.78	263	P	Pn	06 37 06.6	+0.9
JOB	Onbets	1.83	251	P	Pn	06 37 07.1	+0.8
JOB				*e*S	Sn	06 37 29.0	-0.7
KUR	Kuril'sk	2.09	35	PN	Pn	06 37 08.1	-1.5
KUR				*e*S	Sn	06 37 35.0	-0.5
KUR				smax			
	comp=N,180nm,0.3s						
KUR				smax			
	comp=E,150nm,0.3s						
JMP	Maruseppu	2.11	284	P	Pn	06 37 10.3	+0.5
JCH	Churui	2.27	247	P	Pn	06 37 12.3	+0.4
JCH				*e*S	Sn	06 37 37.8	-1.8
ASAJ	Asahikawa	2.67	284	PN	Pn	06 37 18.3	+1.2
ASAJ				S	Sn	06 37 48.6	-0.4
ASAJ				pmax	pmax		
	comp=Z,18nm,0.3s						
ASAJ				smax			
	comp=N,4.0nm,0.3s						
ASAJ	Asahikawa	2.67	284	P	Pn	06 37 18.2	+1.1
	comp=N,18nm,0.3s,baz=96,slow=11,SNR=135						
ASAJ				S	Sn	06 37 48.6	-0.4
	comp=N,4.3nm,0.3s,baz=348,slow=20,SNR=5.6						
YSS	Yuzh-Sakhalins	4.20	326	*e*PN	Pn	06 37 38.4	+0.8
MKAR	Makanchi Array	44.07	297	P	P	06 44 32.8	-0.1
	comp=N,0.4nm,0.6s,mb3.3,baz=83,slow=7.8,SNR=5.0						
KURK	Kurchatov	45.08	304	P	P	06 44 41.3	+0.5
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
KURK	Kurchatov	45.08	304	P	P	06 44 41.3	+0.5
	comp=Z,0.6nm,0.5s,mb3.6,baz=75,slow=8.7,SNR=2.8						
YKA	Yellowknife Ar	56.37	33	P	P	06 46 04.8	-0.6
	comp=Z,0.3nm,0.7s,mb3.4,baz=298,slow=6.8,SNR=4.8						
HFS	Hagfors	69.62	337	P	P	06 47 32.8	-0.3
HFS				pmax	pmax		
	comp=Z,2.0nm,0.4s						
HFS	Hagfors	69.62	337	P	P	06 47 32.8	-0.3
	comp=Z,2.1nm,0.4s,mb4.3,baz=26,slow=6.1,SNR=20						
AKASG	Malin Array Be	71.35	323	P	P	06 47 43.4	-0.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	71.35	323	P	P	06 47 43.4	-0.3
	comp=Z,0.5nm,0.3s,mb3.8,baz=42,slow=6.8,SNR=4.5						

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*CSEM **03** 07:01:02.5±0.4, 37°.11N×38°.46E, h10^{km}, MD2.6, Error ellipse: s-maj=8.5km s-min=4.6km az=160.0*
*ISK **03** 07:01:04.9, 37°.28N×38°.76E, h13^{km}, MD2.6*
*ISCJB **03** 07:01:06.0±1.1, 37°.33N±0°.07×38°.63E±0°.05, h4^{km}±7^{km}, Error ellipse: s-maj=12.1km s-min=5.4km az=165.0*
*DDA **03** 07:01:06.2, 37°.36N×38°.63E, h7^{km}±3^{km}, Md3.0*
ISC 03 07:01:06.3±1.0, **37°.33N**±0°.06×**38°.65E**±0°.04, **h8**^{km}±6^{km}, **n15**, σ**0^s.75**/23, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URFA	Urfa	0.18	51	*e*PG	Pg	07 01 09.4	-0.5
URFA				*e*SG	Sg	07 01 12.3	0.0
URFA	Urfa	0.18	51	*e*Pg	Pg	07 01 09.4	-0.5
GZT	Gaziantep	0.86	272	*i* P	Pg	07 01 22.9	+0.1
GZT				*i* S	Sg	07 01 35.2	+1.0
MALT	Malatya	1.00	350	*e*PG	Pg	07 01 25.9	+0.5
MALT	Malatya	1.00	350	*e*Pg	Pg	07 01 25.9	+0.5
MYA	Malataya	1.01	350	*e*PN	Pn	07 01 26.0	-0.8
MYA				*e*SN	Sn	07 01 41.6	+0.4
MYA	Malataya	1.01	350	*e*Pn	Pn	07 01 26.0	-0.8
MYA				*e*Sn	Sn	07 01 41.6	+0.4
AKCD	Akcadag	1.12	329	*i* P	Pg	07 01 27.6	-0.2
AKCD				*i* S	Sg	07 01 42.0	-0.4
AKCD	Akcadag	1.12	329	*i* P	Pg	07 01 27.6	-0.2
AKCD				*i* S	Sg	07 01 42.0	-0.4
GAZ	Gaziantep	1.16	263	*e*PN	Pn	07 01 28.3	-0.5
DIYA	Diyarbakir	1.31	63	*i* P	Pn	07 01 30.1	-0.8
DIYA				*i* S	Sb	07 01 49.7	+1.6
DIYA	Diyarbakir	1.31	63	*i* P	Pn	07 01 30.1	-0.8
DIYA				*i* S	Sb	07 01 49.7	+1.6
KMRS	Kahramanmaras	1.40	278	*e*PN	Pn	07 01 32.4	+0.2
DARE	Darende-Malaty	1.75	338	*e*PN	Pn	07 01 33.3	-3.6
DARE	Darende-Malaty	1.75	338	*e*Pn	Pn	07 01 33.3	-3.7

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*IDC **03** 07:04:08.9±0.5, 27°.74S×176°.24W, h0^{km}, mb4.4/11, mb1 4.6/12, mb1mx4.5/18, mbtmp4.4/12, ML4.6/1, MS4.1/8, Ms1 4.0/8, ms1mx3.9/28, Error ellipse: s-maj=22.0km s-min=16.4km az=157.0*
*ISCJB **03** 07:04:12.8±0.3, 28°.14S±0°.06×176°.39W±0°.07, h33^{km}, mb4.9/40, MS4.2/9, Error ellipse: s-maj=10.6km s-min=6.4km az=44.3*
*MOS **03** 07:04:13.3±0.9, 27°.65S×176°.44W, h33^{km}, mb5.1/12, Error ellipse: s-maj=24.5km s-min=13.8km az=148.7*
*NEIC **03** 07:04:14.1±0.2, 28°.13S×176°.33W, h35^{km}, mb5.0/23, Error ellipse: s-maj=11.8km s-min=6.2km az=153.0*
ISC 03 07:04:14.6±0.3, **28°.09S**±0°.06×**176°.34W**±0°.07, **h35**^{km}, **(h36**^{km}±1.5^{km}**:pP-P)**, **n108**, σ**1^s.11**/79, **mb4.9**/40, **MS4.2**/9, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.81	230	P	Pn	07 04 47.2	+4.0
RAO						07 05 12.5	
RAO	Raoul Island	1.81	230	Pn	Pn	07 04 47.2	+3.9
	183nm,0.3s,baz=114,slow=19,SNR=5.0						
RAO				Sn	Sn	07 05 12.5	+7.6
	476nm,0.3s,baz=73,slow=23,SNR=8.7						
RAO				LR	LR	07 05 32.8	
	comp=Z,1µm,18.5s,baz=224,slow=40						
URZ	Urewera	11.52	207	Sn	Sn	07 09 04.5	+0.4
	1.9nm,0.3s,baz=35,slow=22,SNR=6.1						
SNZO	South Karori	15.09	207	*e*Pn	Pn	07 07 42.8	-2.3
SNZO				*e*Sn	Sn	07 10 23.9	-7.2
RAR	Rarotonga	16.53	69	Pn	Pn	07 07 52.1	-12
	2.2nm,0.3s,baz=353,slow=8.1,SNR=3.6						
RAR				Sn	Sn	07 10 41.0	-25
	1.3nm,0.3s,baz=276,slow=19,SNR=3.0						
RAR				LR	LR	07 13 13.7	
	comp=Z,973nm,18.4s,baz=278,slow=33						
RPZ	Rata Peaks	18.60	210	P	Pn	07 08 28.7	-0.6
	1.1nm,0.3s,baz=117,slow=7.9,SNR=10						
PAE	Paea	26.69	73	*e*T		07 36 59.8	
	130nm,0.3s						
PPT	Papeete	26.74	73	*e*LR	LR	07 16 11.0	
	504nm,21.5s						
PPT	Papeete	26.74	73	LR	LR	07 18 07.6	
	comp=Z,657nm,18.5s,MS4.2,baz=253,slow=32						
HNR	Honiara	29.03	305	LR	LR	07 20 13.3	
	comp=Z,270nm,19.5s,MS3.9,baz=214,slow=33						
EIDS	Eidsvold	29.18	268	*e*P	P	07 10 13.2	+0.4
	12nm,1.1s,mb4.5						
VAH	Vaihoa	29.50	70	*e*T		07 40 27.8	
	7.4nm,0.3s						
CAN	Canberra	30.25	247	*e*P	P	07 10 20.0	-2.2
CAN				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
CAN	Canberra	30.25	247	*e*P	P	07 10 20.0	-2.2
	comp=Z,10nm,1.0s,mb4.5						
TARA	Tarawa	31.04	339	*e*P	P	07 10 28.5	-0.8
CTA	Charters Tower	34.96	275	P	P	07 11 04.5	+0.9
	comp=Z,2.8nm,0.5s,mb4.4,baz=108,slow=11,SNR=6.6						
CTA	Charters Tower	34.96	275	P	P	07 11 04.5	+0.9
CTAO	Charters Tower	34.96	275	*e*P	P	07 11 04.6	+1.0
CTAO				pmax	pmax		
	comp=Z,32nm,2.0s,mb4.9						
CTAO	Charters Tower	34.96	275	*e*P	P	07 11 04.6	+1.1
	comp=Z,32nm,2.0s,mb4.9						
STKA	Stephens Creek	36.47	254	P	P	07 11 17.5	+1.1
	comp=Z,2.3nm,0.7s,mb4.2,baz=103,slow=11,SNR=4.9						
STKA				LR	LR	07 24 47.3	
	comp=Z,326nm,21.0s,MS4.1,baz=291,slow=34						
STKA	Stephens Creek	36.47	254	P	P	07 11 17.5	+1.1
STKA				LR	LR	07 24 47.3	
RKT	Rikitea	37.50	92	*e*LR	LR	07 20 59.0	
	comp=Z,382nm,22.5s						
ASAR	Alice Springs	44.74	264	P	P	07 12 24.7	-0.1
	comp=Z,1.3nm,0.5s,mb4.0,baz=93,slow=7.0,SNR=21						
WB2	Warramunga Arr	45.52	269	*e*P	P	07 12 30.2	-0.8
WRAB	Tennant Creek	45.52	269	*e*P	P	07 12 30.1	-0.9
WRAB				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
WRAB	Tennant Creek	45.52	269	*e*P	P	07 12 30.1	-0.9
	comp=Z,10nm,1.1s,mb4.7						
WRA	Warramunga Arr	45.53	269	P	P	07 12 29.7	-1.3
	comp=Z,1.9nm,0.6s,mb4.2,baz=111,slow=6.6,SNR=24						
WRA				LR	LR	07 30 02.5	
	comp=Z,203nm,19.0s,MS4.1,baz=135,slow=34						
FORT	Forrest	48.08	253	*e*P	P	07 12 49.9	-1.1
	comp=Z,21nm,0.8s,mb5.2						
KAKA	Kakadu	50.03	277	*e*P	P	07 13 03.8	-2.2
	comp=Z,10nm,0.5s,mb5.1						
FITZ	Fitzroy Crossi	53.87	267	LR	LR	07 37 15.7	
	comp=Z,268nm,20.0s,MS4.3,baz=127,slow=37						
FITZ	Fitzroy Crossi	53.87	267	*e*P	P	07 13 33.9	-0.7
	comp=Z,2.4nm,1.0s,mb4.1						
MBWA	Marble Bar	57.96	262	*e*P	P	07 14 04.4	+0.5
	comp=Z,8.9nm,1.0s,mb4.8						
QSPA	South Pole Qui	62.01	180	P	P	07 14 34.1	+3.3
	comp=Z,20nm,1.0s,mb5.2,baz=51,slow=3.6,SNR=28						
QSPA	South Pole Qui	62.01	180	P	P	07 14 34.1	+3.3
DAV	Davao City (W)	66.03	293	LR	LR	07 39 36.3	
	comp=Z,55nm,21.0s,MS3.7,baz=283,slow=32						
PMSA	Palmer Station	73.76	156	*e*P	P	07 15 38.2	-6.7
	comp=Z,9.6nm,0.4s,mb5.1						
VNA3	Neumayer Olymp	80.49	176	*e*P	P	07 16 24.0	+1.4
VNA2	Neumayer--Watz	80.95	176	*e*P	P	07 16 27.4	+2.4
	baz=181,slow=4.5						
PLCA	Paso Flores	83.00	133	*e*P	P	07 16 37.0	+0.7
PLCA				*e**PP	pP	07 16 48.8	+1.4
PLCA				pmax	pmax		
	comp=Z,11nm,1.2s						
PLCA	Paso Flores	83.00	133	P	P	07 16 36.9	+0.5
	comp=Z,7.8nm,1.1s,mb4.6,baz=225,slow=3.8,SNR=6.3						
PLCA	Paso Flores	83.00	133	*e*P	P	07 16 37.0	+0.6
	comp=Z,11nm,1.2s,mb4.8						
PLCA				*e*pP	pP	07 16 48.8	+1.4
YSS	Yuzh-Sakhalins	83.33	333	*e*P	P	07 16 39.7	+2.1
KSRS	Korea Array	83.56	319	P	P	07 16 39.5	+0.4
	comp=Z,2.7nm,0.9s,mb4.3,baz=139,slow=6.6,SNR=5.9						
ISA	Isabella	83.64	44	*e*P	P	07 16 39.5	0.0
ISA				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.1						
ISA	Isabella	83.64	44	*e*P	P	07 16 39.5	0.0
	comp=Z,23nm,1.5s,mb5.1						
CMB	Columbia Colle	84.08	41	*e*P	P	07 16 41.3	-0.4
CMB				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
CMB	Columbia Colle	84.08	41	*e*P	P	07 16 41.3	-0.4
	comp=Z,10.0nm,1.1s,mb4.9						
GSC	Goldstone	84.44	45	*e*P	P	07 16 42.3	-1.3
GSC				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.9						
GSC	Goldstone	84.44	45	*e*P	P	07 16 42.3	-1.2
	comp=Z,15nm,1.4s,mb4.9						
LDFC	Landfair	85.37	46	*e*P	P	07 16 48.7	+0.5
NVAR	Mina Array Bea	85.56	42	P	P	07 16 48.4	-0.8
	comp=Z,7.6nm,1.2s,mb4.8,baz=222,slow=8.4,SNR=12						
NJ2	Nanjing	85.88	310	*e*P	P	07 16 51.4	+0.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.3						
TPH	Tonopah	85.97	43	*e*P	P	07 16 51.1	-0.1
TPH				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.0						
TPH	Tonopah	85.97	43	*e*P	P	07 16 51.1	-0.1
	comp=Z,9.9nm,1.0s,mb5.0						
SHPR	Sheep Range	86.23	45	*e*P	P	07 16 52.6	+0.1
TUC	Tucson	86.53	51	*e*P	P	07 16 53.9	-0.2
TUC				pmax	pmax		
	comp=Z,18nm,1.5s,mb5.1						
TUC	Tucson	86.53	51	*e*P	P	07 16 53.9	-0.2
	comp=Z,18nm,1.5s,mb5.1						
WHN	Wuhan	88.14	306	*e*P	P	07 17 03.2	+1.3
CN2	Changchun	89.21	322	*e*P	P	07 17 09.2	+2.6
CN2				*e*pP	pP	07 17 19.5	+1.8
CN2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb5.0						
CFAA	Coronel Fontan	89.42	126	P	P	07 17 07.2	-0.9
	comp=Z,0.3nm,0.7s,mb3.7,baz=275,slow=4.1,SNR=5.2						
CFAA	Coronel Fontan	89.42	126	P	P	07 17 07.2	-0.9
KLR	Kul'dur	89.80	329	*e*P	P	07 17 06.0	-3.2
TXAR	Lajitas Array	89.92	56	P	P	07 17 09.2	-1.0
	comp=Z,2.9nm,1.2s,mb4.5,baz=213,slow=4.3,SNR=14						
BMO	Blue Mountains	90.34	38	*e*P	P	07 17 11.6	-0.2
BMO				pmax	pmax		
	comp=Z,58nm,2.9s,mb5.4						
BMO	Blue Mountains	90.34	38	*e*P	P	07 17 11.6	-0.3
	comp=Z,58nm,2.9s,mb5.4						
ETW	Entiat	90.61	34	*e*P	P	07 17 12.4	-0.6
SRU	San Rafael	90.73	45	*e*P	P	07 17 13.6	-0.2
SRU				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.9						
SRU	San Rafael	90.73	45	*e*P	P	07 17 13.6	-0.2
	comp=Z,8.5nm,1.3s,mb4.9						
ANMO	Albuquerque	91.00	50	P	P	07 17 14.4	-0.8
	comp=Z,3.2nm,1.1s,mb4.6,baz=236,slow=2.7,SNR=6.5						
HLID	Hailey	91.11	40	*e*P	P	07 17 16.0	+0.5
	comp=Z,15nm,1.8s,mb5.0						
OD2	Odessa Site #2	91.28	35	*e*P	P	07 17 16.0	-0.1
BJI	Beijing	92.32	315	P	P	07 17 20.1	-1.1
BJI				SKS		07 27 52.8	
BJI				S	S	07 28 28.7	+6.9
BJI				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.6						
BJI				LR	LR		
	comp=N,1µm,9.1s						
BJI				LR	LR		
	comp=E,810nm,7.6s						
BJI				LR	LR		
	comp=Z,280nm,21.4s,MS4.7						
LOHW	Long Hollow	93.34	42	*e*P	P	07 17 21.8	-4.0
	comp=Z,8.3nm,0.3s,mb5.6						
MSO	Missoula	93.41	38	*e*P	P	07 17 26.1	0.0
	comp=Z,4.5nm,1.4s,mb4.7						
LRM	Limekiln Ridge	93.61	39	*e*P	P	07 17 26.6	-0.3
LVC	Limon Verde	93.75	118	*e*P	P	07 17 28.8	+0.4
	comp=Z,34nm,1.9s,mb5.5						
BOZ	Bozeman (W)	93.96	39	*e*P	P	07 17 28.2	-0.4
BOZ				pmax	pmax		
	comp=Z,13nm,0.3s,mb5.8						
BOZ	Bozeman (W)	93.96	39	*e*P	P	07 17 28.2	-0.4
	comp=Z,13nm,0.3s,mb5.8						
CMAR	Chiang Mai Arr	94.03	289	P	P	07 17 32.5	+3.0
	comp=Z,0.9nm,0.3s,mb4.7,baz=137,slow=3.2,SNR=4.4						
KMI	Kunming	94.10	296	P	P	07 17 29.9	+0.2
KMI				pP	pP	07 17 41.9	+1.0
KMI				S	S	07 28 32.5	-5.7
KMI				SS	SS	07 35 01.9	+2.3
KMI				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb5.1						
KMI				LR	LR		
	comp=Z,120nm,22.3s,MS4.3						
HHC	Hu-ho-hao-te	95.69	313	*e*P	P	07 17 38.2	+1.5
HHC				pP	pP	07 17 48.5	+0.7
HHC				sP	sP	07 17 52.7	+0.9
HHC				PP	PP	07 21 33.1	+4.2
HHC				*e*S	S	07 28 50.2	-1.2
HHC				sS	sS	07 29 08.6	-1.4
HHC				SS	SS	07 35 24.8	+3.0
HHC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.1						
HHC				pmax	pmax		
	comp=Z,98nm,4.6s						
CD2	Chengdu	96.11	302	P	P	07 17 40.3	+1.5
CD2				pP	pP	07 17 50.9	+1.0
CD2				sP	sP	07 17 54.8	+0.9
CD2				PP	PP	07 21 36.5	+4.2
CD2				SKS		07 28 12.9	
CD2				S	S	07 28 54.4	-1.0
CD2				sS	sS	07 29 12.0	-2.0
CD2				SS	SS	07 35 31.3	+3.3
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.5						
CD2				pmax	pmax		
	comp=Z,180nm,6.7s						
CD2				LR	LR		
	comp=N,160nm,8.3s						
CD2				LR	LR		
	comp=Z,240nm,10.5s,MS5.0						
RSSD	Black Hills	97.56	44	*e*P	P	07 17 45.0	0.0
RSSD				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb5.1						
RSSD	Black Hills	97.56	44	*e*P	P	07 17 45.0	-0.1
	comp=Z,7.7nm,1.2s,mb5.1						
LZH	Lanzhou	98.52	306	*e*P	P	07 17 50.5	+0.9
LZH				pP	pP	07 18 01.0	+0.3
LZH				sP	sP	07 18 05.5	+0.8
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.4						
WMQ	Urumqi	112.94	309	*e*PKP	PKiKP	07 22 43.0	-4.8
MKAR	Makanchi Array	117.39	311	PKP	PKPdf	07 22 54.8	-1.4
	comp=Z,0.5nm,0.8s,baz=57,slow=4.6,SNR=4.3						
KURK	Kurchatov	120.49	315	PKP	PKPdf	07 23 00.6	-1.4
	comp=Z,0.9nm,0.8s,baz=99,slow=1.7,SNR=6.7						
BVAR	Borovoye Array	125.75	317	PKP	PKPdf	07 23 11.2	-0.9
	comp=Z,2.3nm,1.1s,baz=108,slow=3.3,SNR=7.0						

BHD	**Baghdad**	144.76	289	*e*x	x	07 23 49.0	
MSL	**Mosul**	145.81	294	*e*x	x	07 23 53.0	
NB2	**NORSAR Subarra**	146.67	353	PKP	PKPdf	07 23 50.9	+0.6
	comp=Z,5.4nm,0.9s,baz=16,slow=3.2						
NOA	**NORSAR Array B**	146.67	353	PKPbc	PKPbc	07 23 51.0	-0.9
	comp=Z,7.1nm,1.0s,baz=9.2,slow=2.4,SNR=5.4						
NACGM	**Naroch**	148.40	334	*e*	PKPdf	07 23 53.0	-0.4
MALT	**Malatya**	149.34	298	*e*PKP2	PKPbc	07 24 01.7	+1.9
AKASG	**Malin Array Be**	150.27	326	PKPbc	PKPdf	07 23 58.6	+2.1
	comp=Z,5.8nm,0.9s,baz=44,slow=2.6,SNR=19						
ASF	**Jabal al Asfar**	151.04	286	PKPbc	PKPbc	07 24 03.5	-0.6
	comp=Z,6.9nm,1.2s,baz=106,slow=0.9,SNR=5.4						
MMAI	**Mount Meron Ar**	152.29	288	PKPbc	PKPbc	07 24 09.1	+2.2
	comp=Z,0.4nm,0.3s,baz=67,slow=6.5,SNR=7.7						
BRTR	**Keskin Array B**	152.68	303	PKPbc	PKPbc	07 24 07.2	-0.4
BRTR				PKPab	PKPab	07 24 18.0	-0.4
CLL	**Collm**	155.77	346	*e*PKPab	PKPab	07 24 31.0	0.0
DPC	**Dobruska-Polom**	155.77	340	*e*PKPAB	PKPab	07 24 32.4	+1.3
ULDT	**Uludag**	155.82	306	*i* P	PKPab	07 24 32.5	+0.8
GDZ	**Gediz**	155.94	304	*i* P	PKPab	07 24 33.6	+1.3
DURS	**Dursunbey**	156.49	306	*i* P	PKPab	07 24 36.0	+1.3
PRU	**Pruhonice**	156.61	342	*e*PKPAB	PKPab	07 24 35.3	+0.6
KHC	**Kasperske Hory**	157.65	343	*e*PKPAB	PKPab	07 24 39.8	+0.6
TOA0	**Torodi Ar. Sit**	165.02	173	*e*PKPdf	PKPdf	07 24 15.8	0.0
TORD	**Torodi Ar. Bea**	165.02	173	PKP	PKPdf	07 24 15.4	-0.3
	comp=Z,2.2nm,1.1s,baz=200,slow=1.4,SNR=5.4						
TORD				PKPab	PKPab	07 25 13.1	+1.0
	comp=Z,8.0nm,1.1s,baz=184,slow=2.9,SNR=17						

IDC 03 07:17:53.5±4.0**, 6°.06S×154°.56E, h0^{km}, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, Error ellipse: s-maj=114.7km s-min=34.7km az=111.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	24.01	233	P	P	07 23 11.8	+1.7
	0.2nm,0.4s,baz=61,slow=9.9,SNR=7.6						
ASAR	**Alice Springs**	26.48	226	P	P	07 23 31.9	-0.7
	0.3nm,0.6s,baz=56,slow=10.0,SNR=8.5						
SONM	**Songino Array**	68.32	327	P	P	07 28 56.2	-0.3
	0.3nm,0.3s,baz=144,slow=5.2,SNR=3.5						

NEIC 03 07:20:04.4, 45°.22S×167°.34E, h128^{km}, MG3.7(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	**Deep Cove**	0.29	207	P	Pn	07 20 21.8	-0.4
DCZ				S	Sn	07 20 34.9	-0.8
MLZ	**Mavora Lakes**	0.60	103	P	Pn	07 20 23.6	-0.2
MLZ				S	Sn	07 20 38.1	-0.4
MSZ	**Milford Sound**	0.69	38	P	Pn	07 20 24.5	0.0
MSZ				S	Sn	07 20 39.1	-0.5
WHZ	**Wether Hill Ro**	0.80	148	P	Pn	07 20 25.4	+0.1
WKZ	**Wanaka**	1.25	72	P	Pn	07 20 29.5	-0.1
EAZ	**Earnscleugh**	1.39	91	P	Pn	07 20 30.8	-0.3
JCZ	**Jackson Bay**	1.53	42	P	Pn	07 20 32.0	-0.6
TUZ	**Tuapeka**	1.77	115	P	Pn	07 20 35.2	-0.2
LBZ	**Lake Benmore**	2.19	69	P	Pn	07 20 38.7	-1.8
ODZ	**Otahua Downs**	2.34	87	P	Pn	07 20 41.1	-1.4
FOZ	**Fox Glacier**	2.36	46	P	Pn	07 20 41.4	-1.3
RPZ	**Rata Peaks**	3.05	62	P	Pn	07 20 49.1	-2.5
WVZ	**Waitaha Valley**	3.25	50	P	Pn	07 20 51.4	-2.8
MQZ	**McQueen's Vall**	4.09	70	P	Pn	07 21 03.0	-2.3
LTZ	**Lake Taylor**	4.31	57	P	Pn	07 21 05.0	-3.2
DSZ	**Denniston Nort**	4.75	45	P	Pn	07 21 11.0	-3.1
THZ	**Tophouse**	5.32	51	P	Pn	07 21 18.5	-3.2
QRZ	**Quartz Range**	5.81	43	P	Pn	07 21 25.7	-2.6

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*NEIC **03** 07:22:04.3, 18°.11N×67°.94W, h50^{km}, MD3.7(RSPR), After RSPR.*

RSPR 03 07:22:04.3, 18°.11N×67°.94W, h50^{km}±2^{km}**, MD3.7**/6**, MD3.7**/6**, 3C-4D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRPR	**Cabo Rojo, PR**	0.80	98	⇓*e*P	Pn	07 22 18.5	-0.8
CRPR				*e*S	Sn	07 22 29.5	-0.8
LSP	**Las Mesas**	0.81	85	⇑*e*P	Pn	07 22 18.4	-1.1
LSP				*e*S	Sn	07 22 29.8	-0.8
AGPR	**Aguadilla, PR**	0.86	66	⇓*e*P	Pn	07 22 18.9	-1.3
AGPR				*e*S	Sn	07 22 31.0	-0.8
AOPR	**Arecibo Observ**	1.15	78	⇑*e*P	Pn	07 22 23.2	-0.8
AOPR				*e*S	Sn	07 22 38.1	-0.6
CBYP	**Canovanas**	1.99	85	⇓*e*P	Pn	07 22 35.0	-0.5
CBYP				*e*S	Sn	07 22 57.9	-1.3
HUMP	**Col San Antoni**	1.99	89	⇓*e*P	Pn	07 22 35.0	-0.5
HUMP				*e*S	Sn	07 22 58.6	-0.6
MTP	**Monte Pirata**	2.27	90	⇑*e*P	Pn	07 22 37.8	-1.5
MTP				*e*S	Sn	07 23 06.4	+0.2

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*ISK **03** 07:28:00.4, 37°.45N×38°.52E, h10^{km}, MD2.8*

*ISCJB **03** 07:28:01.5±0.6, 37°.46N±0°.04×38°.49E±0°.04, h10^{km}, Error ellipse: s-maj=5.5km s-min=4.5km az=165.7*

*CSEM **03** 07:28:01.0±0.1, 37°.44N×38°.48E, h5^{km}, MD2.8, Error ellipse: s-maj=3.2km s-min=2.1km az=145.0*

*DDA **03** 07:28:02.2, 37°.50N×38°.54E, h7^{km}±3^{km}, Md3.1*

ISC 03 07:28:01.7±0.8**, 37°.45N**±0°.04×**38°.52E**±0°.04**, h7^{km}**±8^{km}**, n25, σ0^{s}.95**/40**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URFA	**Urfa**	0.24	92	*e*PG	**Pg**	**07 28 05.7**	**-0.8**
URFA				*e*SG	**Sg**	**07 28 09.7**	**0.0**
URFA	**Urfa**	0.24	92	*e*Pg	**Pg**	**07 28 05.7**	**-0.8**
URFA				*e*Sg	**Sg**	**07 28 09.7**	**0.0**
MALT	**Malatya**	0.86	355	*e*PG	**Pg**	**07 28 17.7**	**-0.6**
MALT				*e*SG	**Sg**	**07 28 30.2**	**+0.6**
MALT	**Malatya**	0.86	355	*e*Pg	**Pg**	**07 28 17.7**	**-0.6**
MALT				*e*Sg	**Sg**	**07 28 30.2**	**+0.6**
MYA	**Malataya**	0.88	355	*e*PG	**Pg**	**07 28 18.1**	**-0.5**
MYA				*e*SG	**Sg**	**07 28 29.6**	**-0.4**
MYA	**Malataya**	0.88	355	*e*Pg	**Pg**	**07 28 18.1**	**-0.5**
MYA				*e*Sg	**Sg**	**07 28 29.6**	**-0.4**
AKCD	**Akcadag**	0.97	331	*i* P	**Pg**	**07 28 20.1**	**-0.2**
AKCD				*i* S	**Sg**	**07 28 35.8**	**+3.0**
AKCD	**Akcadag**	0.97	331	*i* P	**Pg**	**07 28 20.1**	**-0.2**
AKCD				*i* S	**Sg**	**07 28 35.8**	**+2.9**
GAZ	**Gaziantep**	1.08	255	*e*PG	**Pg**	**07 28 21.5**	**-1.0**
GAZ	**Gaziantep**	1.08	255	*e*Pg	**Pg**	**07 28 21.5**	**-0.9**
ELZG	**Elazig**	1.11	19	*i* P	**Pg**	**07 28 23.3**	**+0.4**
ELZG				*i* S	**Sg**	**07 28 37.2**	**-0.1**
ELZG	**Elazig**	1.11	19	*i* P	**Pg**	**07 28 23.3**	**+0.3**
ELZG				*i* S	**Sg**	**07 28 37.2**	**-0.2**
KMRS	**Kahramanmaras**	1.29	273	*e*PN	**Pn**	**07 28 25.0**	**-1.1**
KMRS	**Kahramanmaras**	1.29	273	*e*Pn	**Pn**	**07 28 25.0**	**-1.1**
KUZU	**Kuzuini**	1.34	240	*i* P	**Pn**	**07 28 28.5**	**+1.7**
KUZU				*i* S	**Sg**	**07 28 47.4**	**+2.7**
KUZU	**Kuzuini**	1.34	240	*i* P	**Pn**	**07 28 28.5**	**+1.7**
KUZU				*i* S	**Sg**	**07 28 47.4**	**+2.7**
DIYA	**Diyarbakir**	1.35	69	*i* P	**Pn**	**07 28 27.3**	**+0.3**
DIYA				*i* S	**Sg**	**07 28 46.1**	**+0.8**
DIYA	**Diyarbakir**	1.35	69	*i* P	**Pn**	**07 28 27.3**	**+0.3**
DIYA				*i* S	**Sg**	**07 28 46.1**	**+0.8**
ANDN	**Andirin**	1.73	275	*i* P	**Pn**	**07 28 32.3**	**+0.1**
ANDN				*i* S	**Sn**	**07 28 58.6**	**+4.0**
ANDN	**Andirin**	1.73	275	*i* P	**Pn**	**07 28 32.3**	**+0.1**
SARI	**SarD1z-Kayseri**	1.89	311	*e*PN	**Pn**	**07 28 33.8**	**-0.6**
SARI	**SarD1z-Kayseri**	1.89	311	*e*Pn	**Pn**	**07 28 33.8**	**-0.6**
KOZT	**Kozan**	2.14	272	*e*PN	**Pn**	**07 28 37.1**	**-0.7**
BNN	**Bunyan**	2.53	304	*e*PN	**Pn**	**07 28 42.7**	**-0.5**
BNN	**Bunyan**	2.53	304	*e*Pn	**Pn**	**07 28 42.7**	**-0.5**

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*SZGRF **03** 07:34:05.8, 3°.49S×29°.37E, h33^{km}, mb6.2, MS5.5, Lake Tanganyika region*

*MOS **03** 07:34:09.0±0.8, 2°.44S×28°.82E, h10^{km}, mb6.1/123, MS5.6/88, Error ellipse: s-maj=11.2km s-min=2.9km az=103.5*

*ISCJB **03** 07:34:09.8±0.1, 2°.38S±0°.02×28°.84E±0°.02, h10^{km}, mb6.0/365, MS5.7/259, Error ellipse: s-maj=3.1km s-min=2.6km az=155.4*

*IDC **03** 07:34:10.5±0.4, 2°.34S×28°.85E, h0^{km}, mb5.4/26, mb1 5.5/26, mb1mx5.5/27, mbtmp5.4/26, MS5.5/26, Ms1 5.5/26, ms1mx5.5/28, Error ellipse: s-maj=12.8km s-min=8.4km az=101.0*

*BGS **03** 07:34:10.9±1.8, 2°.64S×28°.46E, h10^{km}, mb6.1, MS6.0*

*BJI **03** 07:34:11.9, 1°.48S×28°.76E, h10^{km}, mB6.0/51, mb5.5/58, Ms6.0/61, Ms7 5.7/51*

*IGIL **03** 07:34:12.1, 2°.32S×28°.88E, h10^{km}, MS5.7*

*DJA **03** 07:34:12, 2°.36S×28°.45E, h10^{km}, Mw5.9/11*

*NEIC **03** 07:34:12.2±0.1, 2°.30S×28°.90E, h10^{km}, mb6.1/166, ME5.8, MS5.8/195, MW5.9, Error ellipse: s-maj=4.1km s-min=2.9km az=69.0, Moment Tensor Solution. s77 Moment tensor: Scale 10^{17}Nm; M_{rr}-7.76; $M_{\theta\theta}$0.55; $M_{\phi\phi}$7.21; $M_{r\theta}$-1.14; $M_{\theta\phi}$2.88; $M_{\phi r}$-3.90; Best double couple: $M_0$9.00000×10^{17} NP1:ϕ_s18.00000°, δ58.00000°, λ-92.00000°. NP2:ϕ_s203.00000°, δ32.00000°, λ-86.00000°. Principal axes: T 9.2500, Plg13.0000°, Azm110.0000°; N -0.5100, Plg1.0000°, Azm19.0000°; P -8.7400, Plg76.0000°, Azm281.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s195.00000°, δ25.00000°, λ-90.00000°. NP2:ϕ_s15.00000°, δ65.00000°, λ-90.00000°. Principal axes: T Plg20.0000°, Azm105.0000°; N Plg0.0000°, Azm0.0000°; P Plg70.0000°, Azm285.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Seven people killed, 447 injured, 1,087 houses destroyed and 2,378 buildings damaged at Bukavu. Power outages occurred in about 50 percent of the city. Thirty-seven people killed, 643 injured, 1,201 houses destroyed and 24 buildings damaged in the Cyangugu-Nyamasheke area, Rwanda. Felt [IV] at Butare and Kigali. Also felt at Bujumbura and Kirundo, Burundi; Kabanga and Rulenge, Tanzania; and Kabale, Uganda.

*GCMT **03** 07:34:12.2±0.1, 2°.38S×28°.82E, h12^{km}, MW5.9/108, Moment Tensor Solution. s103,c222; s108,c371; Duration: 2^{s}.3 Moment tensor: Scale 10^{18}Nm; M_{rr}-0.87±.01; $M_{\theta\theta}$-0.12±.01; $M_{\phi\phi}$0.98±.01; $M_{r\theta}$-0.07±.02; $M_{\theta\phi}$0.06±.01; $M_{\phi r}$-0.33±.02; Best double couple: $M_0$0.99200×10^{18} NP1:ϕ_s179.00000°, δ35.00000°, λ-96.00000°. NP2:ϕ_s6.00000°, δ55.00000°, λ-86.00000°. Principal axes: T 1.0500, Plg10.0000°, Azm93.0000°; N -0.1160, Plg3.0000°, Azm184.0000°; P -0.9340, Plg80.0000°, Azm293.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISC 03 07:34:10.8±0.8**, 2°.39S**±0°.02×**28°.90E**±0°.02**, h4^{km}**±5^{km}**, h10^{km}**±1.8^{km}**:pP-P, n1654, σ0^{s}.86**/1179**, mb6.0**/365**, MS5.7**/259**, 227C-438D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBAR	**Mbarara**	2.56	46	Pn	**Pn**	**07 34 52.5**	**-0.6**
	168µm,0.5s						
MBAR	**Mbarara**	2.56	46	*e*Pn	**Pn**	**07 34 56.5**	**+3.4**
MBAR				*e*Sn	**Sn**	**07 35 24.9**	**+0.1**
MBAR	**Mbarara**	2.56	46	*e*P	**Pn**	**07 34 52.5**	**-0.6**
KMBO	**Kilima Mbogo**	8.45	82	Pn	**Pn**	**07 36 11.2**	**-2.9**
	20nm,0.3s,baz=241,slow=13,SNR=157						
KMBO				Lg		07 38 29.1	
	76nm,0.3s,baz=228,slow=19,SNR=4.3						
KMBO				LR	LR	07 39 41.1	
	comp=Z,90µm,19.1s,baz=248,slow=39						
LSZ	**Lusaka**	12.82	183	P	**Pn**	**07 37 12.1**	**-1.9**
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
LSZ				MLR	MLR		
	comp=Z,5µm,18.9s						
LSZ	**Lusaka**	12.82	183	Pn	**Pn**	**07 37 12.1**	**-1.9**
	comp=Z,3.7nm,0.3s,baz=12,slow=12,SNR=68						
LSZ				Sn	**Sn**	**07 39 25.9**	**-11**
	comp=Z,6.1nm,0.3s,baz=70,slow=15,SNR=2.2						
LSZ				Lg		07 40 47.4	
	comp=Z,28nm,0.3s,baz=89,slow=16,SNR=11						
LSZ				LR	LR	07 41 27.0	
	comp=Z,5µm,18.9s,baz=270,slow=34						
LSZ	**Lusaka**	12.82	183	*e*Pn	**Pn**	**07 37 11.7**	**-2.4**
LSZ				*e*Sn	**Sn**	**07 39 36.3**	**-1.0**
LSZ	**Lusaka**	12.82	183	⇓P	**Pn**	**07 37 12.2**	**-1.9**
	SNR=31						
LSZ				⇓P		07 37 12.2	
	SNR=31						
LSZ	**Lusaka**	12.82	183	*e*P	**Pn**	**07 37 11.4**	**-2.6**
DESE	**Dese**	17.15	38	*e*P	**Pn**	**07 38 17.8**	**+6.2**
SLAT	**Slait**	18.51	12	*i* P	**Pn**	**07 38 27.8**	**-0.6**
SLAT				AMb	AMB	07 38 31.9	
	comp=Z,268nm,1.8s						
SLAT				*i* S	**Sn**	**07 41 55.7**	**0.0**
MSNA	**Messina**	19.86	177	*e*P	**Pn**	**07 38 42.9**	**-1.7**
TSUM	**Tsumeb**	20.04	213	P	**P**	**07 38 45.7**	**+0.7**
	comp=Z,36nm,0.8s,baz=21,slow=10,SNR=30						
TSUM				S	**S**	**07 42 32.4**	**+1.4**
	comp=Z,110nm,0.8s,baz=126,slow=19,SNR=3.6						
TSUM				Lg		07 44 38.2	
	comp=Z,276nm,1.0s,baz=100,slow=22,SNR=7.5						
TSUM				LR	LR	07 45 38.3	
	comp=Z,6µm,20.4s,MS4.9,baz=27,slow=34						
TSUM	**Tsumeb**	20.04	213	*e*P	**P**	**07 38 44.9**	**-0.2**
	comp=Z,387nm,1.2s						
TSUM				*e*S	**S**	**07 42 25.2**	**-5.7**
TSUM				LR	LR		
	comp=Z,7µm,20.0s,MS5.0						
TSUM	**Tsumeb**	20.04	213	*e*P	**P**	**07 38 45.8**	**+0.7**
TSUM				AMb	AMB	07 38 53.1	
	comp=Z,6µm,1.8s						
MOPA	**Mopani**	21.14	174	*e*P	**P**	**07 38 57.2**	**+0.3**
MOPA				AMb	AMB	07 39 05.1	
	comp=Z,1µm,1.5s,mb6.0						
SLR	**Silverton**	23.22	181	*e*P	**P**	**07 39 18.9**	**-0.2**
SLR				AMb	AMB	07 39 27.2	
	comp=N,856nm,1.4s						
KSR	**Koster**	23.41	185	*e*P	**P**	**07 39 20.7**	**-0.3**
KSR				AMb	AMB	07 39 26.4	
	comp=Z,652nm,1.4s,mb5.9						
ERPM	**east rand prop**	23.82	181	*e*P	**P**	**07 39 24.3**	**-0.8**
ERPM				AMb	AMB	07 39 28.5	
	comp=Z,1µm,1.6s,mb6.1						
OPO	**Ambohidratompo**	24.08	133	P	**P**	**07 39 29.7**	**+2.2**
	comp=Z,144nm,1.1s,mb5.3,baz=299,slow=9.2,SNR=30						
OPO				S	**S**	**07 43 54.3**	**+8.5**
	comp=Z,8.6nm,1.0s,baz=294,slow=18,SNR=3.1						
ABPO	**Ambohimpanom**	24.39	134	P	**P**	**07 39 33.0**	**+2.6**
	comp=Z,801nm,1.3s,mb6.0,SNR=15						
ABPO	**Ambohimpanom**	24.39	134	*e*P	**P**	**07 39 32.5**	**+2.1**
ABPO				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ABPO				MLR	MLR		
	comp=Z,32µm,21.0s,MS5.8						
ABPO	**Ambohimpanom**	24.39	134	*e*P	**P**	**07 39 32.5**	**+2.1**
	comp=Z,5.9nm,0.6s						
ABPO				*e*S	**S**	**07 43 57.6**	**+6.8**
ABPO				LR	LR		
	comp=Z,32µm,21.0s,MS5.8						
PRYS	**Parys**	24.44	183	*e*P	**P**	**07 39 30.8**	**0.0**
SWZ	**Schweizer**	24.89	188	*e*P	**P**	**07 39 34.1**	**-0.7**
SWZ				AMb	AMB	07 39 39.5	
	comp=Z,2µm,1.3s,mb6.4						
POGA	**Pongola**	24.97	174	*e*P	**P**	**07 39 35.7**	**+0.1**
BOSA	**Boshof**	26.31	187	P	**P**	**07 39 47.1**	**-0.6**
BOSA				S	**S**	**07 44 25.2**	**+4.1**
BOSA				pmax	pmax		
	comp=Z,268nm,1.2s,mb5.7						
BOSA				smax			
	comp=N,15nm,0.7s						
BOSA				MLR	MLR		
	comp=Z,10µm,18.2s,MS5.4						
BOSA	**Boshof**	26.31	187	P	**P**	**07 39 47.1**	**-0.6**
	comp=Z,268nm,1.2s,mb5.7,baz=8.2,slow=9.1,SNR=55						
BOSA				S	**S**	**07 44 25.2**	**+4.1**
	comp=Z,15nm,0.7s,baz=5.2,slow=13,SNR=1.8						
BOSA				Lg		07 47 54.5	
	comp=Z,82nm,1.0s,baz=285,slow=20,SNR=1.8						
BOSA				LR	LR	07 50 54.6	
	comp=Z,10µm,18.2s,MS5.4,baz=8.4,slow=38						
BOSA	**Boshof**	26.31	187	*e*P	**P**	**07 39 46.5**	**-1.1**
	comp=Z,126nm,1.3s,mb5.3						
BOSA				*e*S	**S**	**07 44 32.2**	**+11**
BOSA	**Boshof**	26.31	187	*e*P	**P**	**07 39 46.5**	**-1.1**
BOSA				AMb	AMB	07 39 53.4	
	comp=Z,382nm,1.4s,mb5.7						
MSEY	**Mahe Island**	26.63	96	*i* P	**P**	**07 39 52.9**	**+2.1**
MSEY	**Mahe Island**	26.63	96	*e*P	**P**	**07 39 51.7**	**+0.9**
	comp=Z,136nm,1.2s,mb5.4						
MSEY				*e*S	**S**	**07 44 35.8**	**+9.2**
MSEY				LR	LR		
	comp=Z,16µm,20.0s,MS5.6						
UPI	**Upington**	26.84	195	*e*P	**P**	**07 39 51.6**	**-0.9**
UPI				AMb	AMB	07 39 58.5	
	comp=Z,367nm,1.5s,mb5.7						
PKA	**Prieska**	27.75	192	*e*P	**P**	**07 40 00.1**	**-0.5**
PKA				*e*P	pP	07 40 00.4	-1.5
PKA				AMb	AMB	07 40 06.4	
	comp=Z,132nm,1.3s,mb5.4						
KSD	**Kokstad**	28.00	179	*e*P	**P**	**07 39 58.7**	**-4.2**
KSD				AMb	AMB	07 40 07.1	
	comp=Z,753nm,1.3s,mb6.2						
HVD	**Gariep Dam**	28.25	186	*e*P	**P**	**07 40 04.6**	**-0.5**
SOE	**Somerset East**	30.32	186	*e*P	**P**	**07 40 23.6**	**+0.1**
SUR	**Sutherland**	30.79	193	P	**P**	**07 40 28.9**	**+1.3**
	comp=Z,1µm,1.4s,mb6.5,SNR=19						
SUR	**Sutherland**	30.79	193	*e*P	**P**	**07 40 27.6**	**0.0**
	comp=Z,253nm,1.1s,mb6.0						
SUR	**Sutherland**	30.79	193	⇓P	**P**	**07 40 27.4**	**-0.2**
	SNR=9.8						
SUR				⇓P	pP	07 40 27.4	-1.5
	SNR=9.8						
SUR	**Sutherland**	30.79	193	*e*P	**P**	**07 40 25.3**	**-2.2**
SUR				AMb	AMB	07 40 34.4	
	comp=Z,242nm,1.4s,mb5.8						
GRM	**Grahamstown**	30.84	184	*e*P	**P**	**07 40 27.3**	**-0.8**
GRM				AMb	AMB	07 40 32.2	
	comp=Z,340nm,1.3s,mb6.0						
TOA0	**Torodi Ar. Sit**	31.10	300	*e*P	**P**	**07 40 29.6**	**-1.0**
TORD	**Torodi Ar. Bea**	31.10	300	P	**P**	**07 40 29.6**	**-1.0**
	comp=Z,157nm,0.9s,mb5.9,baz=111,slow=7.1,SNR=565						
TORD				S	**S**	**07 45 36.2**	**-0.6**
	comp=Z,15nm,0.8s,baz=129,slow=7.7,SNR=2.2						
TORD				Lg		07 50 23.5	
	comp=Z,40nm,1.1s,baz=124,slow=16,SNR=3.0						
TORD				LR	LR	07 53 32.7	
	comp=Z,27µm,18.9s,MS5.9,baz=105,slow=38						
CER	**Ceres**	32.10	195	*e*P	**P**	**07 40 37.3**	**-1.8**
CER				AMb	AMB	07 40 45.5	
	comp=Z,145nm,1.4s,mb5.6						
RER	**Riviere de l'E**	32.12	128	PFAKE		07 40 50.0	+10
RER				LR	LR		
	comp=Z,8µm,20.0s,MS5.4						
ELIM	**Elim**	33.16	194	*e*P	**P**	**07 40 47.0**	**-1.4**
TAM	**Tamanrasset**	33.86	319	*e*P	**P**	**07 40 55.5**	**+0.8**
TAM				pmax	pmax		
	comp=Z,245nm,1.5s,mb5.9						
TAM				MLR	MLR		
	comp=Z,16µm,20.0s,MS5.7						
TAM	**Tamanrasset**	33.86	319	*e*P	**P**	**07 40 55.5**	**+0.8**
	comp=Z,245nm,1.5s,mb5.9						
TAM				LR	LR		
	comp=Z,16µm,20.0s,MS5.7						
KIC	**Kosan Boka**	34.69	285	*e*P	**P**	**07 41 01.1**	**-1.0**
	comp=Z,434nm,1.0s,mb6.3						
DBIC	**Dimbokro**	34.87	285	P	**P**	**07 41 02.2**	**-1.4**
DBIC				S	**S**	**07 46 30.5**	**-5.2**
DBIC				pmax	pmax		
	comp=Z,29nm,0.6s						
DBIC				smax			
	comp=N,29nm,1.2s						
DBIC				MLR	MLR		
	comp=Z,10µm,20.3s						
DBIC	**Dimbokro**	34.87	285	P	**P**	**07 41 02.2**	**-1.5**
	comp=Z,29nm,0.6s,mb5.4,baz=89,slow=10.0,SNR=47						
DBIC				S	**S**	**07 46 30.4**	**-5.2**
	comp=Z,29nm,1.2s,baz=69,slow=16,SNR=1.8						
DBIC				Lg		07 52 48.5	
	comp=Z,12nm,0.9s,baz=180,slow=20,SNR=1.7						
DBIC				LR	LR	07 55 19.6	
	comp=Z,10µm,20.2s,MS5.5,baz=90,slow=36						
DBIC	**Dimbokro**	34.87	285	*e*P	**P**	**07 41 02.3**	**-1.4**
	comp=Z,87nm,0.3s,mb6.2						
DBIC				*e*S	**S**	**07 46 28.8**	**-6.9**
DBIC				LR	LR		
	comp=Z,12µm,19.0s,MS5.7						
LIC	**Lamto**	34.94	284	*e*P	**P**	**07 41 02.0**	**-2.2**
	comp=Z,137nm,0.8s,mb5.6,baz=96						
LIC				*e*MLR	MLR		
	comp=Z,11µm,18.0s,MS5.3						
LIC	**Lamto**	34.94	284	*e*P	**P**	**07 41 03.1**	**-1.1**
	comp=Z,444nm,1.2s,mb6.3						
LIC	**Lamto**	34.94	284	*e*P	**P**	**07 41 02.0**	**-2.2**
	comp=Z,69nm,0.8s,mb5.6						
LIC				LR	LR		
	comp=Z,6µm,18.0s,MS5.3						
TIC	**Toumodi**	35.02	285	*e*P	**P**	**07 41 04.1**	**-0.9**
	comp=Z,461nm,0.8s,mb6.5						
RDF	**Al-Radifah**	35.91	29	*e*P	**P**	**07 41 12.1**	**-0.2**
RDF				AMb	AMB	07 41 17.7	
	comp=Z,172nm,1.5s,mb5.8						
QRN	**Al-Qurain**	35.94	29	*e*P	**P**	**07 41 12.9**	**+0.4**
QRN				AMb	AMB	07 41 17.3	
	comp=Z,302nm,1.9s,mb5.9						
NAY	**Al-Naaiem**	36.04	28	*e*P	**P**	**07 41 13.2**	**-0.2**
NAY				AMb	AMB	07 41 16.3	
	comp=Z,46nm,1.9s,mb5.1						
KBD	**Kabd**	36.19	29	*e*P	**P**	**07 41 14.9**	**+0.2**
KBD				AMb	AMB	07 41 17.9	
	comp=Z,101nm,1.7s,mb5.5						
MIB	**Mutribah**	36.55	28	*e*P	**P**	**07 41 17.9**	**+0.1**
MIB				AMb	AMB	07 41 21.8	
	comp=Z,105nm,1.8s,mb5.4						
BHL	**Bhannes**	36.66	9	*e*P	**P**	**07 41 17.3**	**-1.3**
SHEL	**Horse Pasture**	36.67	246	P	**P**	**07 41 20.9**	**+1.9**
	comp=Z,2µm,1.1s,mb6.7,SNR=5.2						
SHEL	**Horse Pasture**	36.67	246	*i* P	**P**	**07 41 20.9**	**+1.9**
SHEL	**Horse Pasture**	36.67	246	*e*P	**P**	**07 41 19.3**	**+0.3**
	comp=Z,852nm,1.5s,mb6.3						
SHEL				LR	LR		
	comp=Z,6µm,19.0s,MS5.4						
ARQ	**Araqi**	37.12	45	⇓P	**P**	**07 41 25.1**	**+2.4**
	SNR=8.2						
BSY	**Bisya**	37.23	46	⇓P	**P**	**07 41 25.2**	**+1.5**
	SNR=9.5						
CSS	**Prodhromos**	37.39	6	P	**P**	**07 41 25.0**	**+0.2**
CSS				LR	LR		
	comp=Z,6µm,22.0s,MS5.3						
ZKR	**Zakros**	37.39	356	P	**P**	**07 41 25.4**	**+0.5**
SIVA	**Sivas**	37.41	354	P	**P**	**07 41 24.7**	**-0.3**
LAST	**Lasithi**	37.49	355	P	**P**	**07 41 26.2**	**+0.5**
LEF	**Lefka**	37.50	5	*e*P	**P**	**07 41 25.6**	**-0.2**
NPS	**Neapolis**	37.58	356	*e*P	**P**	**07 41 28.0**	**+1.5**
JMDO	**Jabal Madar**	37.67	48	⇓P	**P**	**07 41 28.9**	**+1.5**
	SNR=5.1						
IDI	**Anoyia**	37.67	355	P	**P**	**07 41 27.9**	**+0.7**
	comp=Z,181nm,0.9s,mb5.8,baz=180,slow=11,SNR=139						
LFK	**Lefkose**	37.72	6	*e*P	**P**	**07 41 29.1**	**+1.4**
KARP	**Karpathos**	37.77	358	*e*P	**P**	**07 41 28.0**	**-0.1**
HATD	**Hatta, Dubai**	37.82	43	⇓P	**P**	**07 41 29.9**	**+1.2**
	SNR=8.0						
HOQ	**Hoqain**	37.84	45	⇓P	**P**	**07 41 30.3**	**+1.4**
	SNR=7.4						
VAM	**Vamos**	37.85	354	*e*P	**P**	**07 41 30.0**	**+1.2**
KARN	**Karanos**	37.88	353	P	**P**	**07 41 29.1**	**+0.1**
EREN	**Erenkoy**	38.04	7	*e*P	**P**	**07 41 31.1**	**+0.7**
SMDO	**Samad**	38.04	47	⇑P	**P**	**07 41 32.5**	**+1.9**
	SNR=13						
BHD	**Baghdad**	38.37	21	*i* x	x	07 41 34.0	
BHD				*e*x	x	07 43 34.0	
BHD				*e*x	x	07 47 30.0	
BIDO	**Bidbid**	38.38	46	⇓P	**P**	**07 41 35.7**	**+2.3**
	SNR=9.0						
ARG	**Arkhangelos**	38.41	359	*e*P	**P**	**07 41 35.0**	**+1.5**
AKAS	**Kas**	38.43	1	*i* P	**P**	**07 41 33.6**	**0.0**
THR6	**Thira Island,**	38.68	355	P	**P**	**07 41 35.6**	**-0.2**
IKL	**Isikli**	38.69	6	*e*P	**P**	**07 41 34.5**	**-1.3**
THR1	**Thera Island**	38.69	356	P	**P**	**07 41 35.4**	**-0.4**
THR3	**Thira Island,**	38.74	355	P	**P**	**07 41 36.1**	**-0.1**
THR5	**Thira Island,**	38.75	355	P	**P**	**07 41 36.6**	**+0.3**
THR4	**Thira Island,**	38.79	355	P	**P**	**07 41 37.3**	**+0.7**
FETY	**Fethiye**	38.83	0	*e*P	**P**	**07 41 37.2**	**+0.3**
KYTH	**Kithira**	38.86	352	*e*P	**P**	**07 41 38.5**	**+1.3**
DAT	**Datca**	38.94	358	*e*P	**P**	**07 41 37.8**	**-0.1**
ELL	**Elmali**	38.95	1	*e*P	**P**	**07 41 38.3**	**+0.3**
DALT	**Dalyan (Mudla)**	38.96	360	*e*P	**P**	**07 41 38.3**	**+0.2**
TURN	**Turunc**	39.06	360	*i* P	**P**	**07 41 38.7**	**-0.2**
ANTB	**Antalya**	39.12	2	*e*P	**P**	**07 41 39.7**	**+0.3**
KRTS	**Karatas**	39.23	8	*e*P	**P**	**07 41 40.6**	**+0.3**
BDRM	**Kayabasi**	39.28	358	*i* P	**P**	**07 41 40.6**	**-0.1**
BODT	**Bodrum**	39.28	358	*e*P	**P**	**07 41 41.1**	**+0.4**
HDMB	**Hadim**	39.30	5	*e*P	**P**	**07 41 42.4**	**+1.5**
VLI	**Veliai**	39.30	352	*e*P	**P**	**07 41 41.5**	**+0.6**
YER	**Yerkesik**	39.33	359	*e*P	**P**	**07 41 42.0**	**+0.9**
APE	**Apeiranthos**	39.38	356	P	**P**	**07 41 41.9**	**+0.3**

APE	Apeiranthos	39.38	356	*e*P	P	07 41 42.5	+0.9
APE	Apeiranthos	39.38	356	⇓*i*P	P	07 41 42.0	+0.4
MERS	Mersin	39.41	7	*e*P	P	07 41 42.2	+0.4
GOLH	Golhisar	39.43	1	*i* P	P	07 41 44.1	+2.1
MLSB	Milas	39.50	359	*e*P	P	07 41 42.5	0.0
PYL	PYLOS	39.65	351	P	P	07 41 43.3	-0.5
BCK	Bucak	39.68	2	*e*P	P	07 41 44.9	+0.8
KUZU	Kuzuini	39.70	10	*i* P	P	07 41 45.1	+0.9
AYDN	Tasoluk	39.86	359	*i* P	P	07 41 46.2	+0.7
ITM	Ithomi	39.90	351	*e*P	P	07 41 46.5	+0.6
DENT	Denizli	39.94	0	*e*P	P	07 41 47.6	+1.4
SMG	Samos	39.94	357	*e*P	P	07 41 47.0	+0.8
DID	Didima	40.04	353	P	P	07 41 46.1	-1.0
ISP	Isparta	40.06	2	*e*P	P	07 41 47.6	+0.4
ISP	Isparta	40.06	2	P	P	07 41 47.5	+0.3
ISP	Isparta	40.06	2	⇓*i*P	P	07 41 47.9	+0.7
GAZ	Gaziantep	40.11	10	*e*P	P	07 41 48.8	+1.1
KOZT	Kozan	40.19	9	*e*P	P	07 41 47.7	-0.6
NAIG	Nisos Aigina	40.26	353	*e*P	P	07 41 49.0	+0.1
KONT	Konya--Tatoy	40.26	4	*e*P	P	07 41 49.7	+0.8
GZT	Gaziantep	40.35	11	*i* P	P	07 41 50.5	+0.8
WDD	Wield Dalam	40.36	342	*e*P	P	07 41 50.5	+0.8
	comp=Z,932nm,1.3s,mb6.4						
WDD				LR	LR		
	comp=Z,21μm,19.0s,MS6.0						
ANDN	Andirin	40.36	9	*i* P	P	07 41 50.8	+1.0
KMRS	Kahramanmaras	40.38	10	*e*P	P	07 41 50.7	+0.8
ATH	Athens Observa	40.45	354	*e*P	P	07 41 51.0	+0.6
PTL	Penteli	40.51	354	*e*P	P	07 41 51.5	+0.6
KHL	Karahalli	40.51	1	*e*P	P	07 41 52.5	+1.5
KHAL	Karahalli	40.56	1	*i* P	P	07 41 52.4	+1.1
LTK	Loutraki	40.58	353	P	P	07 41 48.6	-3.0
BLCB	Balcova	40.61	358	*e*P	P	07 41 52.4	+0.6
BLCB	Balcova	40.61	358	P	P	07 41 52.6	+0.8
SULT	Sultanhani-AKS	40.61	6	*e*P	P	07 41 52.2	+0.5
IZM	Izmir	40.61	358	*e*P	P	07 41 53.1	+1.3
CHOS	Chios island	40.66	357	P	P	07 41 52.9	+0.7
URFA	Urfa	40.69	12	*e*P	P	07 41 53.8	+1.3
KULA	Kula-Manisa	40.70	360	*e*P	P	07 41 54.0	+1.5
SHUT	Suhut-Afyon	40.77	2	*e*P	P	07 41 53.3	+0.2
MSL	Mosul	40.80	18	*e*x	x	07 41 57.0	
KDHN	Kadinhani	40.82	4	*i* P	P	07 41 54.3	+0.8
MARD	Mardin	41.02	14	*i* P	P	07 41 56.0	+0.8
AKHS	Akhisar	41.08	359	*i* P	P	07 41 56.5	+0.9
AKS	Akhisar	41.08	359	*e*P	P	07 41 57.4	+1.8
VLS	Valsamata	41.09	350	P	P	07 41 55.5	-0.2
VLS	Valsamata	41.09	350	*e*P	P	07 41 57.0	+1.3
KIZT	Kizilcal	41.16	4	*e*P	P	07 41 56.6	+0.3
LKR	Lokris	41.20	353	P	P	07 41 55.9	-0.7
ALT	Altintas	41.26	1	*e*P	P	07 41 57.1	0.0
GDZ	Gediz	41.28	1	*i* P	P	07 41 58.5	+1.2
AKCD	Akcadag	41.33	11	*i* P	P	07 41 58.9	+1.2
DIYA	Diyarbakir	41.44	13	*i* P	P	07 41 59.6	+1.0
PINB	Pinarbasi	41.45	9	*i* P	P	07 41 59.5	+0.9
MALT	Malatya	41.45	11	*e*P	P	07 41 59.5	+0.8
MALT	Malatya	41.45	11	*e*P	P	07 41 59.7	+1.0
MALT				pmax	pmax		
	comp=Z,174nm,1.3s,mb5.5						
MALT				MLR	MLR		
	comp=Z,3μm,19.0s,MS5.1						
MALT	Malatya	41.45	11	⇓*i*P	P	07 41 59.7	+1.0
MALT	Malatya	41.45	11	*e*P	P	07 41 59.7	+1.0
	comp=Z,174nm,1.3s,mb5.5						
MALT				LR	LR		
	comp=Z,3μm,19.0s,MS5.1						
MYA	Malataya	41.46	11	*e*P	P	07 41 59.6	+0.8
SIGR	SIGRI	41.49	356	P	P	07 41 59.2	+0.2
SARI	SarD1z-Kayseri	41.49	9	*e*P	P	07 41 57.0	-2.0
PRK	Paraskevi	41.50	357	P	P	07 41 59.5	+0.4
PRK	Paraskevi	41.50	357	*e*P	P	07 42 00.5	+1.4
BNN	Bunyan	41.54	8	*e*P	P	07 41 59.4	0.0
AYVA	Ayvalik	41.54	357	*i* P	P	07 42 00.2	+0.7
AOS	Alonnisos	41.61	354	P	P	07 41 59.8	-0.2
EVR	Evrytania	41.62	352	*e*P	P	07 42 01.0	+0.9
AGG	Agios Georgios	41.65	352	P	P	07 42 00.2	-0.1
BEST	Besiri	41.69	15	*i* P	P	07 42 01.7	+1.0
SVRH	Sivrihisar-ESK	41.70	3	*e*P	P	07 42 00.4	-0.4
ELZG	Elazig	41.74	12	*i* P	P	07 42 02.4	+1.3
ESKT	Eskisehir	41.74	2	*e*P	P	07 42 02.1	+1.0
DURS	Dursunbey	41.79	360	*i* P	P	07 42 02.6	+1.2
BALB	Balikesir	41.84	359	*e*P	P	07 42 02.3	+0.4
XOR	Xorichti	41.88	353	P	P	07 42 00.6	-1.6
VAE	Valguarnera	41.88	343	P	P	07 42 02.5	+0.3
	comp=Z,56nm,1.0s,mb5.1,baz=50,slow=4.7,SNR=17						
BALAT	Bala	41.92	5	*i* P	P	07 42 03.1	+0.6
DARE	Darende-Malaty	41.95	10	*e*P	P	07 41 59.9	-2.9
HAKT	HAKKARI	42.05	18	*i* P	Px	07 42 20.6	
EZN	Ezine	42.08	357	*e*P	P	07 42 03.7	-0.1
KEST	Kesra	42.10	336	P	P	07 42 04.8	+0.8
	comp=Z,70nm,0.9s,mb5.3,baz=126,slow=1.9,SNR=153						
KEST				LR	LR	08 00 31.0	
	comp=Z,5μm,18.3s,MS5.4,baz=291,slow=38						
BOZC	Bozcaada	42.11	357	*i* P	P	07 42 03.9	-0.2
CDAG	Cicekdag	42.11	6	*i* P	P	07 42 04.7	+0.7
BR131	Keskin Array S	42.14	5	*e*P	P	07 42 05.0	+0.7
BR131				LR	LR		
	comp=Z,2μm,20.0s,MS5.1						
BRTR	Keskin Array B	42.14	5	P	P	07 42 05.3	+1.0
BRTR						07 43 59.4	
BRTR				pmax	pmax		
	comp=Z,44nm,0.9s						
BRTR	Keskin Array B	42.14	5	P	P	07 42 05.3	+1.0
	comp=Z,44nm,0.9s,mb5.1						
BRTR				PcP	PcP	07 43 59.4	+0.5
CEL	Celeste	42.20	345	*e*P	P	07 42 05.1	+0.3
	comp=Z,512nm,1.1s,mb6.1						
CEL				*e*PP	PP	07 43 44.1	+1.6
CEL				LR	LR		
	comp=Z,12μm,19.0s,MS5.8						
LIA	Limnos Island	42.22	356	P	P	07 42 04.7	-0.3
THL	Klokotos Trika	42.23	352	P	P	07 42 04.9	-0.1
LOS	Limnos	42.26	356	P	P	07 42 00.5	-4.8
PAIG	Paliouri	42.38	354	P	P	07 42 05.4	-0.9
KEMA	Kemaliye	42.38	11	*i* P	P	07 42 06.8	+0.4
CAVI	Cavuskoy	42.40	1	*e*P	P	07 42 07.0	+0.6
IGT	Igoumenitsa	42.45	350	P	P	07 42 06.7	-0.2
GADA	Gvkgeada	42.46	357	*e*P	P	07 42 07.1	+0.2
JAN	Janina	42.49	351	*e*P	P	07 42 09.0	+1.8
BNT	Bandirma	42.55	359	*e*P	P	07 42 08.7	+1.0
MEV	Metsovon	42.56	351	P	P	07 42 09.2	+1.5
LPK	Lapseki	42.60	358	*e*P	P	07 42 08.4	+0.3
GEMT	Gemlik	42.62	0	*e*P	P	07 42 08.5	+0.3
ADVT	Abdulvahap	42.62	1	*e*P	P	07 42 07.9	-0.4
LIT	Litokhoron	42.69	353	P	P	07 42 07.9	-0.9
MDU	Mudurnu	42.70	3	*e*P	P	07 42 09.8	+0.9
KEK	Kerkira	42.72	350	*e*P	P	07 42 10.0	+0.9
ARMT	Armutlu	42.75	360	*e*P	P	07 42 08.8	-0.4
YLV	Yalova	42.75	1	*e*P	P	07 42 09.9	+0.6
OUR	Ouranopolis	42.76	354	P	P	07 42 10.6	+1.3
MRMT	Marmara Adasi	42.80	359	*e*P	P	07 42 09.9	+0.2
TIP	Timpagrande	42.85	346	*e*P	P	07 42 10.1	0.0
	comp=Z,663nm,1.7s,mb6.1						
TIP				LR	LR		
	comp=Z,6μm,21.0s,MS5.5						
PLG	Polygyros	42.85	354	P	P	07 42 09.5	-0.6
PLG	Polygyros	42.85	354	*e*P	P	07 42 10.0	-0.1
RKY	Sarkoy-Tekirda	42.90	358	*e*P	P	07 42 07.1	-3.4
SART	Tekirdag	42.90	358	*i* P	P	07 42 10.5	0.0
VANB	Van	42.92	17	*e*P	P	07 42 11.2	+0.5
ENEZ	Enez	42.99	357	*e*P	P	07 42 11.7	+0.5
CANT	Cankiri	43.01	5	*e*P	P	07 42 11.7	+0.3
HRT	Hereke	43.01	1	*e*P	P	07 42 11.1	-0.3
HENT	Hendek	43.05	2	*i* P	P	07 42 12.9	+1.2
TOKA	Tokat	43.07	8	*i* P	P	07 42 12.4	+0.5
TOKT	Tokat	43.08	9	*e*P	P	07 42 12.6	+0.7
HORT	Hortiatis	43.11	354	P	P	07 42 12.0	-0.2
EZC	Erzincan	43.12	12	*e*P	P	07 42 11.0	-1.3
CTKT	Corum	43.15	7	*i* P	P	07 42 13.3	+0.8
THE	Thessaloniki	43.16	353	P	P	07 42 12.0	-0.6
ALN	Alexandroupoli	43.16	357	P	P	07 42 12.7	+0.1
TKR	Tekirdag	43.19	358	*e*P	P	07 42 13.2	+0.4
ISK	Istanbul-Kandi	43.25	0	*e*P	P	07 42 13.7	+0.4
RSDY	Resadiye-TOKAT	43.27	9	*e*P	P	07 42 14.5	+0.9
SOH	Sokhos	43.30	354	P	P	07 42 13.0	-0.8
ELBA	Catalca	43.33	359	*i* P	P	07 42 13.9	-0.1
SILT	Sile	43.34	1	*e*P	P	07 42 14.3	+0.2
ABSA	Djebel Ababsia	43.34	335	P	P	07 42 15.2	+1.0
BGKT	Bogazkoy	43.36	360	*e*P	P	07 42 13.6	-0.7
SLVT	Silivri	43.42	359	*e*P	P	07 42 14.3	-0.3
CTKS	Kestanelik-??a	43.42	360	*e*P	P	07 42 13.1	-1.6
KLYT	Kilyos	43.44	0	*e*P	P	07 42 14.8	0.0
ILGA	Ilgaz	43.46	5	*i* P	P	07 42 15.2	+0.2
TOS	Tosya	43.47	6	*e*P	P	07 42 15.3	+0.2
FNA	Florina	43.51	352	P	P	07 42 14.9	-0.6
KOPT	Kop Dagi	43.52	13	*i* P	P	07 42 16.9	+1.3
GRG	Griva	43.55	353	P	P	07 42 15.3	-0.4
KDZE	Karadeniz Ereo	43.56	3	*e*P	P	07 42 15.0	-0.9
SAFT	Safranbolu	43.56	4	*e*P	P	07 42 15.7	-0.1
SRS	Serrai	43.57	354	P	P	07 42 14.5	-1.4
CLDR	Caldiran	43.58	17	*e*P	P	07 42 17.5	+1.4
EZM	Erzurum	43.62	14	*e*P	P	07 42 17.3	+1.0
ERZM	Erzurum	43.62	14	*i* P	P	07 42 18.0	+1.7
CTEI	Djebel Teioual	43.64	333	P	P	07 42 17.0	+0.4
CTYL	Yal??k??y-??at	43.66	359	*e*P	P	07 42 15.9	-0.7
CMAH	Djebel Manchou	43.67	335	P	P	07 42 17.8	+1.0
KNT	Kendrikon	43.69	353	P	P	07 42 16.8	-0.1
AGRB	Hanur-Agry	43.72	16	*e*P	P	07 42 18.2	+1.1
GUMT	Gumushane	43.73	12	*e*P	P	07 42 17.0	-0.2
KVT	Kavak	43.75	8	*e*P	P	07 42 16.8	-0.5
CASM	Ain Smara	43.76	334	P	P	07 42 18.0	+0.4
CKFL	Kef-Lekhel	43.78	334	P	P	07 42 18.6	+0.9
CUC	Castrocucco	43.85	345	*e*P	P	07 42 17.1	-1.1
	comp=Z,239nm,1.2s,mb5.8						
CUC				LR	LR		
	comp=Z,7μm,20.0s,MS5.5						
DYDN	Diyadin	43.89	17	*i* P	P	07 42 20.1	+1.6
BALT	Daday	43.91	5	*i* P	P	07 42 18.9	+0.3
KDZ	Kurdzhali	43.95	356	*i* P	P	07 42 18.9	0.0
CKHR	Kef el Ahmar	44.01	332	P	P	07 42 20.1	+0.6
MMB	Musomiste	44.02	354	*i* P	P	07 42 18.5	-1.1
ESPY	Espiye-Giresun	44.02	11	*e*P	P	07 42 19.2	-0.4
RZN	Rozhen	44.03	355	*i* P	P	07 42 20.0	+0.4
CAEH	’Ain El Ouahch	44.04	334	P	P	07 42 20.5	+0.7
EDRB	Edirne	44.07	358	*e*P	P	07 42 19.2	-0.8
KRUS	Krusevo	44.10	352	*e*P	P	07 42 19.8	-0.4
SET	Setif	44.21	332	P	P	07 42 22.0	+0.8
MACK	Trabzon	44.25	12	*i* P	P	07 42 21.6	+0.2
DFRA	Djebel Bou Aff	44.28	333	P	P	07 42 22.1	+0.4
TIR	Tirane	44.30	350	P	P	07 42 22.1	+0.3
KKB	Krupnik	44.36	354	*i* P	P	07 42 21.9	-0.4
BZK	Bozkurt	44.38	5	*e*P	P	07 42 21.5	-0.9
PLD	Plovdiv	44.45	356	P	P	07 42 23.0	0.0
PLD	Plovdiv	44.45	356	*i* P	P	07 42 23.1	+0.1
SKO	Skopje	44.67	352	P	P	07 42 24.3	-0.4
SKO	Skopje	44.67	352	*e*P	P	07 42 25.6	+0.8
JMB	Yambol	44.70	358	P	P	07 42 25.1	+0.2
PZAR	Pazar-Rize	44.72	13	*e*P	P	07 42 25.3	+0.2
KARS	Kars	44.72	15	*e*P	P	07 42 26.7	+1.6
GNI	Garni	44.75	17	*e*P	P	07 42 26.5	+1.1
GNI	Garni	44.75	17	*e*P	P	07 42 26.4	+1.0
GNI				pmax	pmax		
	comp=Z,58nm,0.9s						
GNI				MLR	MLR		
	comp=Z,7μm,20.0s						
GNI	Garni	44.75	17	P	P	07 42 27.0	+1.6
	comp=Z,43nm,0.9s,mb5.3,baz=181,slow=0.9,SNR=46						
GNI	Garni	44.75	17	*e*P	P	07 42 26.4	+1.0
	comp=Z,58nm,0.9s,mb5.4						
GNI				LR	LR		
	comp=Z,7μm,20.0s,MS5.6						
GNI	Garni	44.75	17	⇓P	P	07 42 27.3	+1.8
	SNR=22						
GNI				⇓P	pP	07 42 27.3	+0.6
	SNR=22						
PGB	Panagyurishte	44.94	355	*i* P	P	07 42 25.9	-0.9
ULC	Ulcinj	45.01	350	⇓*i*P	P	07 42 28.2	+0.8
ULC	Ulcinj	45.01	350	⇓*i*P	P	07 42 28.2	+0.8
VTS	Vitosha	45.07	354	P	P	07 42 27.7	-0.2
VTS	Vitosha	45.07	354	*i* P	P	07 42 27.4	-0.5
VSL	Villasalto	45.38	339	*e*P	P	07 42 31.6	+1.2
VSL				LR	LR		
	comp=Z,10μm,19.0s,MS5.8						
EMHD	Djebel Mahouad	45.38	330	P	P	07 42 31.8	+1.3
BUM	Brajici-Budva	45.40	350	⇓*i*P	P	07 42 31.8	+1.3
BUM	Brajici-Budva	45.40	350	⇓*i*P	P	07 42 31.9	+1.4
PRD	Provadia	45.40	358	*i* P	P	07 42 30.4	-0.1
TTG	Podgorica	45.46	350	⇓*i*P	P	07 42 31.5	+0.5
TTG	Podgorica	45.46	350	⇓*i*P	P	07 42 31.6	+0.6
PVY	Plav	45.50	351	⇓*i*P	P	07 42 32.6	+1.3
PVY	Plav	45.50	351	⇓*i*P	P	07 42 32.6	+1.3
PVL	Pavlikeni	45.51	356	*i* P	P	07 42 30.7	-0.7
SZH	Strazhica	45.53	357	*i* P	P	07 42 31.0	-0.5
ETRT	Tiaret	45.60	328	P	P	07 42 33.0	+0.7
HCY	Herceg Novi	45.61	349	⇓*i*P	P	07 42 33.2	+1.0
HCY	Herceg Novi	45.61	349	⇓*i*P	P	07 42 33.3	+1.1
IVA	Berane	45.78	351	⇓*i*P	P	07 42 34.7	+1.2
ABA	Alger-Bouzarea	45.82	331	P	P	07 42 30.5	-3.5
PSN	Preselentsi	45.87	359	*i* P	P	07 42 33.9	-0.3
NKY	Niksic	45.88	350	⇓*i*P	P	07 42 35.0	+0.7
NKY	Niksic	45.88	350	⇓*i*P	P	07 42 35.0	+0.8
OJGS	Djebel Guires	45.98	328	P	P	07 42 35.0	-0.3
BRY	Bratogost	46.04	349	⇓*i*P	P	07 42 36.1	+0.5
BRY	Bratogost	46.04	349	⇓*i*P	P	07 42 36.1	+0.6
EANR	’Ain N’Sour	46.13	328	P	P	07 42 32.0	-4.5
ECHA	Ech Chlef	46.15	329	P	P	07 42 37.6	+1.0
EBNR	Beni Rached	46.17	329	P	P	07 42 38.7	+1.9
OJBR	Djebel Berber	46.26	327	P	P	07 42 37.0	-0.5
UPM	Unac-Piva	46.27	350	⇓*i*P	P	07 42 38.0	+0.6
UPM	Unac-Piva	46.27	350	⇓*i*P	P	07 42 38.0	+0.6
PLE	Pljevlja	46.31	350	⇓*i*P	P	07 42 38.6	+0.9
PLE	Pljevlja	46.31	350	⇓*i*P	P	07 42 38.7	+1.0
ODJA	Bouhanifia	46.34	327	P	P	07 42 41.0	+2.9
OKGL	Djebel Kef Gue	46.44	328	P	P	07 42 40.0	+1.1
TIRR	Tirgusor	46.64	360	*e*P	P	07 42 39.7	-0.6
TIRR				*e*		07 44 14.0	
TIRR				pmax	pmax		
	comp=Z,181nm,1.4s,mb5.8						
TIRR	Tirgusor	46.64	360	⇓*i*P	P	07 42 40.0	-0.3
TIRR	Tirgusor	46.64	360	*e*P	P	07 42 39.7	-0.6
	comp=Z,181nm,1.4s,mb5.8						
TIRR				*e*PcP	PcP	07 44 14.0	-0.2
ONI	Oni	46.66	15	P	P	07 42 40.7	+0.2
ONI	Oni	46.66	15	P	P	07 42 38.8	-1.6
SOC	Sochi	46.79	11	*d i*P	P	07 42 40.9	-0.6
SOC				*e**PP	pP	07 42 48.1	+5.4
SOC				*e*		07 44 13.1	
SOC				*e*		07 44 31.0	
SOC				*e*S	S	07 49 30.9	-1.3
SOC				*e*		07 52 31.9	
SOC				pmax	pmax		
	comp=Z,120nm,0.8s,mb5.9						
SOC				MLR	MLR		
	comp=Z,6μm,12.0s,MS5.8						
SOC	Sochi	46.79	11	*i* P	P	07 42 41.5	0.0
USTO	Oran	46.86	327	P	P	07 42 49.0	+6.8
HARR	Harsova	46.88	359	⇑*i*P	P	07 42 42.7	+0.6
HARR	Harsova	46.88	359	P	P	07 42 42.6	+0.5
ODZI	Dziouia	46.91	326	P	P	07 42 46.0	+3.4
OLHC	Oulhaca	46.99	326	P	P	07 42 46.0	+2.8
SIM	Simferopol’	47.36	5	*d i*P	P	07 42 45.5	-0.4
SIM				*i*		07 44 38.0	
SIM				*e*S	S	07 49 34.4	-5.9
SIM				*e*SS	SS	07 52 39.0	-29
SIM				pmax	pmax		
	comp=Z,117nm,1.4s,mb5.6						
SIM				MLR	MLR		
	comp=Z,2μm,17.9s,MS5.1						
OSPF	L’Ospedale	47.36	340	*e*P	P	07 42 46.0	0.0
ANN	Anapa	47.60	8	*e*P	P	07 42 45.9	-1.8
ANN				*e*		07 44 40.5	
ANN				*e*S	S	07 49 39.0	-4.7
ANN				*e*		07 52 33.4	
ANN				pmax	pmax		
	comp=Z,163nm,1.7s,mb5.8						
ANN				MLR	MLR		
	comp=N,2μm,14.0s,MS5.4						
ANN				MLR	MLR		
	comp=E,2μm,14.0s,MS5.4						
ANN				MLR	MLR		
	comp=Z,3μm,14.0s,MS5.4						
VOIR		47.74	356	⇑*i*P	P	07 42 49.3	+0.4
VOIR		47.74	356	P	P	07 42 48.7	-0.2
MLR	Muntele Rosu	47.74	357	⇓*i*P	P	07 42 49.3	+0.4
MLR	Muntele Rosu	47.74	357	P	P	07 42 49.3	+0.4
KIV	Kislovodsk	47.77	13	P	P	07 42 49.7	+0.6
	comp=Z,364nm,1.2s,mb6.3,SNR=14						
KIV	Kislovodsk	47.77	13	*e*P	P	07 42 48.9	-0.2
KIV				*e*		07 44 19.5	
KIV				*e*		07 44 42.8	
KIV				*e*PPP		07 45 28.4	
KIV				*e*S	S	07 49 43.6	-2.6
KIV				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
KIV				pmax	pmax		
	comp=Z,761nm,4.7s						
KIV				MLR	MLR		
	comp=Z,2μm,17.0s,MS5.2						
KIV	Kislovodsk	47.77	13	*e*P	P	07 42 49.0	-0.1
	comp=Z,105nm,1.2s,mb5.7						
KIV				LR	LR		
	comp=Z,2μm,21.0s,MS5.1						
KIV	Kislovodsk	47.77	13	⇑P	P	07 42 49.5	+0.5
	SNR=32						
KIV				⇑P	pP	07 42 49.5	-0.8
	SNR=32						
GOA	Goa	47.86	67	⇑*i*P	P	07 42 49.2	-1.0
GOA				*e*x	x	07 48 09.5	
GZR	Gura Zlata	47.88	354	⇑*i*P	P	07 42 50.8	+0.8
GZR	Gura Zlata	47.88	354	P	P	07 42 49.8	-0.1
MNGI	Mangalore	48.06	70	*e*PKP	P	07 42 52.8	+0.9
MNGI				*e*S	S	07 49 49.9	-1.4
PLOR	Plostina	48.07	358	⇑*i*P	P	07 42 52.1	+0.7
VRI	Vrincioaia	48.09	358	⇓*i*P	P	07 42 51.5	0.0
VRI	Vrincioaia	48.09	358	P	P	07 42 51.5	0.0
MAK	Makhachkala	48.16	18	*e*P	P	07 42 50.3	-1.9
MAK				*i*		07 44 18.9	
MAK				*i*		07 44 43.2	
MAK				*e*PPP		07 45 40.0	
MAK				*e*S	S	07 49 47.1	-4.7
MAK				*e*		07 52 47.2	
MAK				*e*SSS		07 54 27.9	
MAK				pmax	pmax		
	comp=Z,181nm,1.6s,mb5.8						
MAK				MLR	MLR		
	comp=Z,12μm,14.0s,MS6.0						
PGF	Pioggiola	48.21	340	⇓*i*P	P	07 42 51.9	-0.7
	comp=Z,681nm,1.4s,mb6.2						
PGF	Pioggiola	48.21	340	⇓*i*P	P	07 42 51.9	-0.7
PGF				pmax	pmax		
	comp=Z,340nm,1.4s,mb6.2						
PGF	Pioggiola	48.21	340	⇓*i*P	P	07 42 51.9	-0.7
	comp=Z,340nm,1.4s,mb6.2						
BZS	Buzias	48.23	353	⇓*i*P	P	07 42 52.5	-0.2
BZS	Buzias	48.23	353	P	P	07 42 52.5	-0.1
ETOS	Mallorca	48.30	333	P	P	07 42 52.7	-0.6
	comp=Z,1μm,3.4s						
ABKT	Ailbek	48.38	31	P	P	07 42 53.2	-0.8
	comp=Z,99nm,2.1s,mb5.5,SNR=8.5						
EIBI	Ibiza	48.39	331	P	P	07 42 53.5	-0.6
	comp=Z,821nm,2.9s,mb6.2						
EALB	Alboran	48.40	325	P	P	07 42 54.7	+0.6
	comp=Z,2μm,2.4s,mb6.6						
TIM	Timisoara	48.40	353	P	P	07 42 55.5	+1.6
CART	Cartagena	48.48	328	*e*P	P	07 42 54.9	+0.2
	comp=Z,301nm,1.2s,mb6.2						
CART				*e*PP	PP	07 44 48.1	+0.6
ENIJ	Nijar	48.67	327	P	P	07 42 57.1	+0.9
ENIJ				pmax	pmax		
	comp=Z,73nm,1.0s,mb5.7						
ENIJ	Nijar	48.67	327	P	P	07 42 57.1	+0.9
	comp=Z,73nm,1.0s,mb5.7						
KAD	Karad	48.76	65	⇓*i*P	P	07 42 57.4	+0.2
EMUR	La Murta	48.79	328	P	P	07 42 56.8	-0.4
	comp=Z,978nm,2.5s,mb6.4						
POO	Poona	48.87	63	⇓*i*P	P	07 42 57.8	-0.2
EBEN	Beniarda	48.92	330	P	P	07 42 57.6	-0.4
	comp=Z,2μm,2.9s,mb6.6						
EBER	Berja	49.00	326	P	P	07 42 59.5	+0.8
	comp=Z,1μm,2.5s,mb6.5						
KIS	Kishinev	49.18	360	*c i*P	P	07 43 00.0	+0.1
KIS				*e*		07 44 30.0	
KIS				*e*		07 45 00.0	
KIS				*e*S	S	07 50 08.0	+2.0
KIS				*e*		07 50 20.0	
KIS				MLR	MLR		
	comp=Z,3μm,15.0s,MS5.4						
KIS				MLR	MLR		
	comp=N,1μm,13.0s,MS5.1						
KIS				MLR	MLR		
	comp=E,1μm,17.0s,MS5.1						
KIS				MLR	MLR		
	comp=Z,2μm,14.0s						
KIS	Kishinev	49.18	360	⇑*i*P	P	07 43 00.0	+0.1
	comp=Z,2μm,8.0s						
KIS	Kishinev	49.18	360	*e*PcP	PcP	07 44 30.0	+6.8
KIS	Kishinev	49.18	360	*e*PP	PP	07 45 00.0	+6.2
KIS	Kishinev	49.18	360	*e*PPP		07 45 34.0	
KIS				*e*S	S	07 50 08.0	+2.0
KIS				*e*SS	SS	07 54 00.0	+23
KIS				LRM		08 05 56.0	
	comp=Z,1μm,13.0s						
BOJS	Bojanci	49.20	347	⇓*e*P	P	07 43 00.4	+0.2
BOJS				*e*PP	PP	07 44 54.8	+0.7
VLC	Villacollemand	49.22	342	*e*P	P	07 42 59.3	-1.0
	comp=Z,118nm,1.2s,mb5.8						
VLC				LR	LR		
	comp=Z,4μm,20.0s,MS5.4						
PKSM	Moragy	49.24	351	⇓*i*P	P	07 43 00.3	-0.1
PKSM	Moragy	49.24	351	P	P	07 43 00.3	0.0
DRGR		49.28	354	⇑*i*P	P	07 43 01.2	+0.5
DRGR		49.28	354	P	P	07 43 01.3	+0.6
EGUA	Guajares	49.33	325	P	P	07 43 01.3	0.0
EGUA				pmax	pmax		
	comp=Z,293nm,1.0s,mb6.3						
EGUA	Guajares	49.33	325	P	P	07 43 01.3	0.0
	comp=Z,293nm,1.0s,mb6.3						
RTC	Rabat Centre	49.41	320	PFAKE		07 43 10.0	+8.1
RTC				LR	LR		
	comp=Z,11μm,21.0s,MS5.8						
EHUE	Huescar	49.50	327	P	P	07 43 02.5	0.0
EHUE				pmax	pmax		
	comp=Z,163nm,1.7s,mb5.8						
EHUE	Huescar	49.50	327	P	P	07 43 02.5	0.0
	comp=Z,163nm,1.7s,mb5.8						
SKDS	Skadanscina	49.53	346	⇓*e*P	P	07 43 02.7	+0.1
SKDS				*e*PP	PP	07 44 56.3	-0.7
SKDS				*e*S	S	07 50 11.2	+0.2
SKDS				*e*SS	SS	07 53 38.7	-4.4
ETOB	Tobarra	49.55	329	P	P	07 43 02.9	-0.1
	comp=Z,2μm,2.7s,mb6.6						
ERON	Agron	49.60	325	P	P	07 43 04.1	+0.7
	comp=Z,117nm,1.1s,mb5.8						
ECOG	Cogollos-Vega	49.65	326	P	P	07 43 03.8	+0.1
ECOG				pmax	pmax		
	comp=Z,178nm,1.0s,mb6.0						
ECOG	Cogollos-Vega	49.65	326	P	P	07 43 03.8	+0.1
	comp=Z,178nm,1.0s,mb6.0						
TRI	Trieste	49.74	346	PFAKE		07 43 20.0	+16
TRI				LR	LR		
	comp=Z,2μm,19.0s,MS5.2						
EQES	Quesada	49.75	327	P	P	07 43 04.5	0.0
	comp=Z,665nm,2.2s,mb6.3						
LMR	La Mourre	49.78	339	⇓*i*P	P	07 43 03.9	-0.7
	comp=Z,604nm,1.2s,mb6.2						
LMR	La Mourre	49.78	339	⇓*i*P	P	07 43 03.9	-0.7
LMR				pmax	pmax		
	comp=Z,302nm,1.2s,mb6.2						
LMR	La Mourre	49.78	339	⇓*i*P	P	07 43 03.9	-0.7
	comp=Z,302nm,1.2s,mb6.2						
REVF	Revere	49.83	340	*e*P	P	07 43 04.5	-0.4
EMIJ	Mijas	49.84	324	P	P	07 43 03.4	-1.8
	comp=Z,351nm,1.7s,mb6.1						
LJU	Ljubljana	49.88	347	⇓*e*P	P	07 43 05.2	-0.1
LJU				*e*		07 44 58.5	
LJU	Ljubljana	49.88	347	⇓*e*P	P	07 43 05.2	-0.1
LJU				*e*PP	PP	07 44 58.5	-1.7
LJU				*e*SS	SS	07 53 56.9	+8.2
ELOJ	Sierra Loja	49.89	325	P	P	07 43 06.3	+0.8
ELOJ				pmax	pmax		
	comp=Z,269nm,1.3s,mb6.1						
ELOJ	Sierra Loja	49.89	325	P	P	07 43 06.3	+0.8
	comp=Z,269nm,1.3s,mb6.1						
KOGS	Kog	49.90	349	⇓*e*P	P	07 43 05.9	+0.5
KOGS				*e*PP	PP	07 45 01.4	+1.1
KOGS				*e*S	S	07 50 16.8	+0.7
BURAR	Bucovina Array	49.90	357	⇓*i*P	P	07 43 06.6	+1.2
BUR02	Bucovina Ar. S	49.91	357	P	P	07 43 06.6	+1.1
SBF	Sospel	49.91	340	⇓*i*P	P	07 43 04.8	-0.8
	comp=Z,1μm,1.3s,mb6.5						
SBF	Sospel	49.91	340	⇓*i*P	P	07 43 04.8	-0.8
SBF				pmax	pmax		
	comp=Z,651nm,1.3s,mb6.5						
SBF	Sospel	49.91	340	⇓*i*P	P	07 43 04.8	-0.8
	comp=Z,651nm,1.3s,mb6.5						
FRF	La Foret Royal	49.92	339	⇓*i*P	P	07 43 05.0	-0.7
	comp=Z,618nm,1.2s,mb6.2						
FRF	La Foret Royal	49.92	339	⇓*i*P	P	07 43 05.0	-0.7
FRF				pmax	pmax		

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          comp=Z,309nm,1.2s,mb6.2
FRF    La Foret Royal  49.92 339⇓iP    P      07 43 05.0 -0.7
          comp=Z,309nm,1.2s,mb6.2
BUR08  Bucovina Ar. S  49.93 357 eP    P      07 43 06.6 +0.9
KOD    Kodaikanal      49.95  75 ePKP  P      07 43 06.8 +0.3
ECHE   Chera           49.97 330  P    P      07 43 06.7 +0.6
ECHE                              pmax pmax
          comp=Z,176nm,0.8s,mb6.1
ECHE   Chera           49.97 330  P    P      07 43 06.7 +0.6
          comp=Z,176nm,0.8s,mb6.1
LUCF   Luceram         49.97 340 eP    P      07 43 06.0  0.0
SAOF   Saorge          49.98 340 eP    P      07 43 06.0 -0.1
CALN   Calern          50.00 339 eP    P      07 43 06.5 +0.2
VOY    Vojsko          50.01 346 eP    P      07 43 06.0 -0.3
VOY                              e            07 43 30.8
VOY                              e            07 44 05.7
VOY                              e            07 44 35.2
VOY                              e            07 45 03.7
AUTN   L'Aution        50.03 340 eP    P      07 43 06.1 -0.4
MVIF   Mont Vial       50.04 340 eP    P      07 43 07.0 +0.5
EVIA   Vianos          50.05 328  P    P      07 43 07.2 +0.5
EVIA                              pmax pmax
          comp=Z,479nm,1.8s,mb6.2
EVIA   Vianos          50.05 328  P    P      07 43 07.2 +0.5
          comp=Z,479nm,1.8s,mb6.2
BERF   Bertagne        50.06 338 eP    P      07 43 06.6 -0.1
BMR    Baia Mare       50.08 355⇓iP    P      07 43 07.6 +0.8
BMR    Baia Mare       50.08 355  P    P      07 43 07.6 +0.8
TOUF   Mont Tournerai  50.11 340 eP    P      07 43 07.3 +0.3
EJIF   Jimena Fronter  50.17 324  P    P      07 43 07.5 -0.2
EJIF                              pmax pmax
          comp=Z,128nm,1.2s,mb5.8
EJIF   Jimena Fronter  50.17 324  P    P      07 43 07.5 -0.2
          comp=Z,128nm,1.2s,mb5.8
TAVF   Tavernes        50.19 338 eP    P      07 43 07.9 +0.2
GELF   Grande-Etoile   50.22 338 eP    P      07 43 07.9  0.0
CADS   Cadrg           50.23 346⇓eP    P      07 43 07.9 -0.1
CADS                             ePP   PP     07 45 04.1 +0.7
ELUQ   Luque           50.24 326  P    P      07 43 08.1 -0.1
ELUQ                              pmax pmax
          comp=Z,180nm,1.4s,mb5.9
ELUQ   Luque           50.24 326  P    P      07 43 08.1 -0.1
          comp=Z,180nm,1.4s,mb5.9
PERS   Pernice         50.31 348⇓eP    P      07 43 08.9 +0.4
PERS                             ePP   PP     07 45 04.6 +0.5
EMOS   Mosqueruela     50.31 331  P    P      07 43 09.4 +0.7
          comp=Z,971nm,1.7s,mb6.6
OBKA   Obir            50.31 347⇑iP    P      07 43 08.7 +0.1
          comp=Z,190nm,1.4s,mb5.9,SNR=27
BISS   Bistriski jare  50.32 348⇓iP    P      07 43 08.9 +0.3
EPOB   Poblet          50.35 333  P    P      07 43 09.0  0.0
          comp=Z,2µm,2.9s,mb6.5
SOKA   Soboth          50.37 348⇑iP    P      07 43 09.3 +0.3
          comp=Z,104nm,1.0s,mb5.8
ERTA   Horta de San J  50.39 332  P    P      07 43 09.1 -0.2
          comp=Z,511nm,1.5s,mb6.3
EBAN   Banos Encina    50.40 326  P    P      07 43 09.2 -0.2
EBAN                              pmax pmax
          comp=Z,213nm,1.1s,mb6.1
EBAN   Banos Encina    50.40 326  P    P      07 43 09.2 -0.2
          comp=Z,213nm,1.1s,mb6.1
BUD    Budapest        50.41 351⇓eP    P      07 43 10.0 +0.7
TREF   Trevaresse      50.44 338 eP    P      07 43 10.2 +0.6
EJON   La Jonquera     50.45 335  P    P      07 43 08.1 -1.6
          comp=Z,815nm,3.0s
SJAF   Saint Jean de   50.48 335 eP    P      07 43 10.0 +0.1
VILF   Villemus        50.52 338 eP    P      07 43 09.8 -0.3
STOF   St-Etienne Org  50.57 339 eP    P      07 43 12.0 +1.4
EMIR   Miracle         50.60 334  P    P      07 43 10.5 -0.3
          comp=Z,111nm,1.9s,mb5.5
TRPA   Tarpa           50.62 354⇓iP    P      07 43 11.1 +0.3
SFS    San Fernando    50.62 323  PFAKE       07 43 20.0 +8.9
SFS                               LR   LR
          comp=Z,16µm,20.0s,MS6.0
MYKA   Terra Mystica   50.63 346⇓iP    P      07 43 11.1 +0.1
          comp=Z,175nm,1.7s,mb5.7
SURF   Saint Ours      50.67 340 eP    P      07 43 11.7 +0.4
SMRF   Simiane la Rot  50.67 338⇓iP    P      07 43 11.3  0.0
          comp=Z,595nm,1.4s,mb6.0
SMRF   Simiane la Rot  50.67 338⇓iP    P      07 43 11.3  0.0
          comp=Z,595nm,1.4s,mb6.3
ESPR   Espera          50.68 324  P    P      07 43 11.2 -0.4
          comp=Z,567nm,1.4s,mb6.3
PSZ    Piszkesteto     50.72 352 eP    P      07 43 11.7 +0.1
PSZ                               pmax pmax
          comp=Z,335nm,1.1s,mb6.2
PSZ                               MLR  MLR
          comp=Z,2µm,20.0s,MS5.2
PSZ    Piszkesteto     50.72 352⇓iP    P      07 43 11.6  0.0
PSZ    Piszkesteto     50.72 352⇓eP    P      07 43 11.8 +0.2
PSZ    Piszkesteto     50.72 352 eP    P      07 43 11.7 +0.1
          comp=Z,335nm,1.1s,mb6.2
PSZ                               LR   LR
          comp=Z,2µm,20.0s,MS5.2
VALF   Valcebollere    50.78 334 eP    P      07 43 12.4 +0.2
ARSA   Arzberg         50.81 348⇓iP    P      07 43 12.7 +0.4
          comp=Z,187nm,1.0s,mb6.0,SNR=57
EADA   Adamuz          50.84 326  P    P      07 43 11.5 -1.2
          comp=Z,888nm,2.6s,mb6.2
MBDF   Montbardon      50.90 340⇓iP    P      07 43 13.0  0.0
          comp=Z,750nm,1.1s,mb6.2
MBDF   Montbardon      50.90 340⇓iP    P      07 43 13.0  0.0
MBDF                              pmax pmax
          comp=Z,375nm,1.1s,mb6.2
MBDF   Montbardon      50.90 340⇓iP    P      07 43 13.0  0.0
          comp=Z,375nm,1.1s,mb6.2
LRDF   Laroque-de-Fa   51.00 335 eP    P      07 43 13.3 -0.5
CARF   Carcanieres     51.00 335 eP    P      07 43 14.0 +0.2
ABTA   Abfaltersbach   51.02 346⇓iP    P      07 43 14.1 +0.2
          comp=Z,208nm,1.8s,mb5.8,SNR=57
SOP    Sopron          51.02 349⇓eP    P      07 43 14.0 +0.1
KBA    Koelnbreinsper  51.12 346 i P   P      07 43 15.1 +0.4
          comp=Z,311nm,1.3s,mb6.1,SNR=51
UZH    Uzhgorod        51.14 354c iP   P      07 43 14.6 -0.1
UZH                              eS    S      07 50 29.8 -3.5
BNI    Bardonecchia    51.21 340 eP    P      07 43 15.3 -0.1
BNI                               pmax pmax
          comp=Z,298nm,1.2s,mb6.1
BNI                               MLR  MLR
          comp=Z,6µm,19.0s,MS5.6
BNI    Bardonecchia    51.21 340 eP    P      07 43 15.3 -0.1
          comp=Z,298nm,1.2s,mb6.1
BNI                               LR   LR
          comp=Z,6µm,19.0s,MS5.6
MUGIO  Muggio          51.22 342⇓iP    P      07 43 13.8 -1.6
          comp=Z,1µm,2.1s,mb6.4
TRIS   Tristan da Cun  51.24 223  PFAKE       07 43 30.0  +14
TRIS                              LR   LR
          comp=Z,5µm,22.0s,MS5.5
ECAB   El Cabril       51.26 325  P    P      07 43 15.5 -0.4
          comp=Z,3µm,3.0s
EFAM   Famara          51.30 311  P    P      07 43 15.5 -0.8
          comp=Z,701nm,1.1s,mb6.5
ESAC   San Caprasio    51.36 332  P    P      07 43 16.4 -0.1
          comp=Z,901nm,0.9s,mb6.7
CFTV   Fuerteventura   51.37 310  P    P      07 43 17.9 +1.1
          comp=Z,256nm,0.9s,mb6.2
BERNI  Berninapass     51.38 343⇓iP    P      07 43 16.9 +0.3
          comp=Z,2µm,2.5s,mb6.5
ORIF   Oris-en-Rattie  51.38 339⇓iP    P      07 43 16.1 -0.5
          comp=Z,677nm,1.8s,mb6.0
ORIF                             eMLR  MLR
          comp=Z,6µm,18.2s,MS5.4
ORIF   Oris-en-Rattie  51.38 339⇓iP    P      07 43 16.1 -0.5
ORIF                              pmax pmax
          comp=Z,339nm,1.8s,mb6.0
ORIF   Oris-en-Rattie  51.38 339⇓iP    P      07 43 16.1 -0.5
          comp=Z,338nm,1.8s,mb6.0
CONA   Conrad Observa  51.39 349 i P   P      07 43 17.0 +0.3
          comp=Z,218nm,1.1s,mb6.0,SNR=59
CSNA   Conrad Observa  51.39 349⇓iP    P      07 43 16.9 +0.2
          comp=Z,200nm,1.1s,mb5.9
LASF   Ste Croix       51.41 337⇓iP    P      07 43 16.7 -0.2
          comp=Z,717nm,1.2s,mb6.2
ZST    Bratislava      51.42 350 i P   P      07 43 17.0 +0.1
ZST                               pmax pmax
          comp=Z,100nm,0.9s,mb5.8
ZST    Bratislava      51.42 350 i P   P      07 43 17.0 +0.1
          comp=Z,100nm,0.9s,mb5.8
ZST                              i S   S      07 50 36.2 -1.0
VYHS   Vyhne           51.43 351 i P   P      07 43 16.9  0.0
VYHS                             eS    S      07 50 40.0 +2.7
VYHS   Vyhne           51.43 351 i P   P      07 43 16.9  0.0
VYHS                             eS    S      07 50 40.0 +2.7
VYHS                             eSS   SS     07 54 17.6 +4.2
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SALF   Salau           51.43 334 eP    P      07 43 18.4 +1.3
ETOR   Torete          51.44 330  P    P      07 43 17.7 +0.5
ETOR                              pmax pmax
          comp=Z,129nm,1.7s,mb5.6
ETOR   Torete          51.44 330  P    P      07 43 17.7 +0.5
          comp=Z,129nm,1.7s,mb5.6
KOLS   Kolonicke sedl  51.44 354 eP    P      07 43 17.8 +0.8
KOLS                              pmax pmax
          comp=Z,240nm,1.4s,mb5.9
KOLS   Kolonicke sedl  51.44 354 eP    P      07 43 17.8 +0.8
          comp=Z,240nm,1.4s,mb5.9
MTLF   Montolieu       51.46 335⇓iP    P      07 43 16.7 -0.6
          comp=Z,343nm,1.6s,mb5.7
MTLF   Montolieu       51.46 335⇓iP    P      07 43 16.7 -0.6
MTLF                              pmax pmax
          comp=Z,172nm,1.6s,mb5.7
MTLF   Montolieu       51.46 335⇓iP    P      07 43 16.7 -0.6
          comp=Z,172nm,1.6s,mb5.7
CRVS   Cervenica-Dubn  51.49 354 eP    P      07 43 18.1 +0.7
CRVS                              pmax pmax
          comp=Z,200nm,1.2s,mb5.9
CRVS   Cervenica-Dubn  51.49 354 eP    P      07 43 18.1 +0.7
          comp=Z,200nm,1.2s,mb5.9
FUORN  Ofenpass-Fuorn  51.49 344⇓iP    P      07 43 17.6 +0.1
          comp=Z,1µm,2.8s,mb6.3
GDM    Grand'Maison    51.54 340 eP    P      07 43 17.8  0.0
MODS   Modra-Piesok    51.56 350 eP    P      07 43 18.2 +0.3
MODS                             e            07 45 17.5
MODS                             i S   S      07 50 38.1 -1.0
MODS   Modra-Piesok    51.56 350 eP    P      07 43 18.2 +0.3
MODS                             ePP   PP     07 45 17.5 +2.1
MODS                             i S   S      07 50 38.1 -1.0
MODS                             eSS   SS     07 54 46.7  +31
LPG    La Plagne       51.58 340⇓iP    P      07 43 17.3 -0.8
          comp=Z,395nm,1.1s,mb6.0
LPG    La Plagne       51.58 340⇓iP    P      07 43 17.3 -0.8
LPG                               pmax pmax
          comp=Z,198nm,1.1s,mb6.0
LPG    La Plagne       51.58 340⇓iP    P      07 43 17.3 -0.8
          comp=Z,198nm,1.1s,mb6.0
ESDC   Sonseca Array   51.58 328  P    P      07 43 18.5 +0.2
          comp=Z,70nm,0.9s,mb5.6,baz=137,slow=7.2,SNR=199
ESDC                              PcP  PcP    07 44 33.2 +1.0
          comp=Z,21nm,0.9s,baz=129,slow=2.6,SNR=5.2
ESDC                              LR   LR     08 08 11.4
          comp=Z,11µm,18.7s,MS5.9,baz=120,slow=40
ESDC   Sonseca Array   51.58 328  P    P      07 43 18.1 -0.2
          comp=Z,184nm,1.1s,mb5.9
ESLA   Sonseca Array   51.58 328 eP    P      07 43 19.3 +1.0
ESLA                              LR   LR
          comp=Z,53µm,19.0s,MS6.6
LPL    La Plagne       51.60 340⇓iP    P      07 43 17.3 -1.0
          comp=Z,353nm,1.2s,mb5.9
LPL    La Plagne       51.60 340⇓iP    P      07 43 17.3 -1.0
LPL                               pmax pmax
          comp=Z,176nm,1.2s,mb5.9
LPL    La Plagne       51.60 340⇓iP    P      07 43 17.3 -1.0
          comp=Z,176nm,1.2s,mb5.9
VDL    Val di Lei      51.60 343⇓iP    P      07 43 17.8 -0.5
          comp=Z,1µm,2.1s,mb6.4
TUE    Stuetta         51.62 343 eP    P      07 43 17.6 -0.8
          comp=Z,382nm,1.1s,mb6.2
TUE                               LR   LR
          comp=Z,5µm,19.0s,MS5.6
MLS    Moulis          51.63 334 eP    P      07 43 17.7 -0.9
MOA    Molln           51.64 347 i P   P      07 43 18.4 -0.2
          comp=Z,328nm,0.9s,mb6.3,SNR=301
PAB    San Pablo       51.69 327 eP    P      07 43 19.0 -0.1
PAB                              e            07 44 33.7
PAB                               pmax pmax
          comp=Z,61nm,1.1s,mb5.4
PAB                               MLR  MLR
          comp=Z,18µm,19.0s,MS6.1
PAB    San Pablo       51.69 327 eP    P      07 43 18.9 -0.2
          comp=Z,62nm,1.1s,mb5.5
PAB                              ePcP  PcP    07 44 33.7 +1.1
PAB                               LR   LR
          comp=Z,18µm,19.0s,MS6.1
GRN    Grenoble        51.70 339 eP    P      07 43 18.6 -0.5
WTTA   Wattenberg      51.72 345⇓iP    P      07 43 19.1  0.0
          comp=Z,387nm,1.2s,mb6.2,SNR=79
FETA   Feichten        51.73 344⇓iP    P      07 43 19.2 -0.1
          comp=Z,144nm,1.0s,mb5.8,SNR=42
DAVOX  Davos/Dischmat  51.75 343⇓iP    P      07 43 18.3 -1.1
          comp=Z,636nm,2.6s,mb6.1
VIVF   Saint-Julien-l  51.76 338⇓iP    P      07 43 19.1 -0.4
          comp=Z,973nm,1.6s,mb6.2
VIVF   Saint-Julien-l  51.76 338⇓iP    P      07 43 19.1 -0.4
VIVF                              pmax pmax
          comp=Z,486nm,1.6s,mb6.2
VIVF   Saint-Julien-l  51.76 338⇓iP    P      07 43 19.1 -0.4
          comp=Z,486nm,1.6s,mb6.2
EMIN   Mina Concepcio  51.77 324  P    P      07 43 19.6 -0.1
          comp=Z,2µm,2.5s,mb6.5
WATA   Walderalm       51.80 345⇓iP    P      07 43 19.2 -0.6
          comp=Z,179nm,1.2s,mb5.9,SNR=18
FUSIO  Fusio           51.81 342⇓iP    P      07 43 19.0 -0.9
          comp=Z,873nm,3.2s
EBIE   Bielsa          51.84 333  P    P      07 43 19.7 -0.4
          comp=Z,1µm,3.2s
RESF   Ens             51.84 333 eP    P      07 43 21.1 +0.9
RJOB   Jochberg        51.87 346 eP    P      07 43 19.3 -1.0
          comp=Z,128nm,1.0s,mb5.8
DIX    Grande Dixence  51.87 341⇓iP    P      07 43 19.5 -0.8
          comp=Z,1µm,2.0s,mb6.5
MOTA   Moosalm         51.93 345⇓iP    P      07 43 20.1 -0.6
          comp=Z,134nm,0.9s,mb5.9,SNR=86
EPF    Esparros        52.02 334⇓iP    P      07 43 21.5  0.0
          comp=Z,550nm,1.1s,mb6.1
EPF    Esparros        52.02 334⇓iP    P      07 43 21.5  0.0
EPF                               pmax pmax
          comp=Z,275nm,1.1s,mb6.1
EPF    Esparros        52.02 334⇓iP    P      07 43 21.5  0.0
          comp=Z,275nm,1.1s,mb6.1
STHS   Stebnicka Huta  52.02 354 eP    P      07 43 21.7 +0.3
STHS                              pmax pmax
          comp=Z,76nm,0.8s,mb5.7
STHS   Stebnicka Huta  52.02 354 eP    P      07 43 21.7 +0.3
          comp=Z,76nm,0.8s,mb5.7
EMV    Vieux Emosson   52.02 341⇓iP    P      07 43 20.1 -1.3
          comp=Z,726nm,2.3s,mb6.2
LLS    Linth-Limmern   52.06 343⇓iP    P      07 43 21.0 -0.7
          comp=Z,2µm,2.2s,mb6.6
KWP    Kalwaria Pacla  52.09 355 i Pd         07 43 22.1
          comp=Z,1µm,1.2s
KWP                              epP   pP     07 43 27.9 +4.7
KWP                               LMZ         08 10 29.1
          comp=Z,4µm,18.8s
KWP    Kalwaria Pacla  52.09 355⇓iP    P      07 43 22.2 +0.3
KWP                              e*PP  pP     07 43 27.9 +4.7
KWP                               pmax pmax
          comp=Z,1µm,1.2s,mb6.6
KWP                               MLR  MLR
          comp=Z,4µm,18.8s,MS5.5
KWP    Kalwaria Pacla  52.09 355⇓iP    P      07 43 21.5 -0.4
KWP    Kalwaria Pacla  52.09 355⇓iP    P      07 43 22.2 +0.3
KWP                              epP   pP     07 43 27.9 +4.7
EGRO   El Granado      52.09 323  P    P      07 43 21.7 -0.5
          comp=Z,418nm,1.2s,mb6.2
NIE    Niedzica        52.13 353 eP    P      07 43 22.4 +0.2
PLONS  Plons/SG        52.14 343⇓iP    P      07 43 21.3 -1.0
          comp=Z,2µm,2.2s,mb6.6
PVAQ   Vaqueiros       52.15 323 eP    P      07 43 22.9 +0.4
          comp=Z,166nm,1.3s,mb5.8
PVAQ                             eS    S      07 50 55.0 +7.4
PVAQ                             eLR   LR     07 59 43.3
          comp=Z,5µm,20.0s
RETA   Reutte          52.15 344⇓iP    P      07 43 21.6 -0.8
          comp=Z,275nm,1.2s,mb6.0,SNR=73
LABF   Labassere       52.15 333 eP    P      07 43 23.6 +1.1
SSB    Saint Sauveur   52.17 338 eP    P      07 43 22.9 +0.4
SSB    Saint Sauveur   52.17 338 eP    P      07 43 22.2 -0.3
SSB                               pmax pmax
          comp=Z,256nm,1.1s,mb6.1
SSB                               MLR  MLR
          comp=Z,8µm,19.0s,MS5.8
SSB    Saint Sauveur   52.17 338 eP    P      07 43 22.2 -0.3
          comp=Z,256nm,1.1s,mb6.1
SSB                               LR   LR
          comp=Z,8µm,19.0s,MS5.8
LVV    L'vov           52.17 356⇓iP    P      07 43 21.2 -1.3
LVV                              e            07 44 33.6
LVV                              e            07 45 17.0
LVV                              eS    S      07 50 38.4 -9.1
LVV                              ePS          07 50 49.4
LVV                               pmax pmax
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          comp=Z,200µm,1.9s
PBDV   Barranco-do-Ve  52.17 323 eP    P      07 43 22.9 +0.2
          comp=Z,157nm,1.3s,mb5.8
PBDV                             eS    S      07 50 59.0  +11
PBDV                             eLQ          07 58 36.8
PBDV                             eLR   LR     08 03 06.3
          comp=Z,6µm,18.0s
DAVA   Damuels         52.21 344 i P   P      07 43 22.2 -0.6
          comp=Z,453nm,1.2s,mb6.3,SNR=78
HASLI  Hasliberg/Brie  52.24 342⇓iP    P      07 43 21.8 -1.2
          comp=Z,963nm,1.5s,mb6.5
AIGLE  Aigle           52.25 341⇓iP    P      07 43 21.4 -1.7
          comp=Z,756nm,3.0s,mb6.1
BNALP  Bannalp         52.26 342⇓iP    P      07 43 22.2 -1.0
          comp=Z,729nm,1.7s,mb6.3
MUO    Muotathal       52.28 343⇓iP    P      07 43 22.5 -0.8
          comp=Z,2µm,1.7s,mb6.7
ETSF   Etsaut          52.32 333⇓iP    P      07 43 23.8 +0.1
          comp=Z,591nm,1.0s,mb6.2
ETSF   Etsaut          52.32 333⇓iP    P      07 43 23.8 +0.1
ETSF                              pmax pmax
          comp=Z,295nm,1.0s,mb6.2
ETSF   Etsaut          52.32 333⇓iP    P      07 43 23.8 +0.1
          comp=Z,295nm,1.0s,mb6.2
LIENZ  Kamor/St.Gall   52.33 343⇓iP    P      07 43 22.7 -1.0
          comp=Z,1µm,2.3s,mb6.5
EOSO   Osorio          52.34 309  P    P      07 43 24.9 +0.8
          comp=Z,2µm,2.0s,mb6.8
GUD    Guadarrama      52.38 328  P    P      07 43 24.0 -0.2
GUD                               pmax pmax
          comp=Z,150nm,0.9s,mb5.9
GUD    Guadarrama      52.38 328  P    P      07 43 24.0 -0.2
          comp=Z,150nm,0.9s,mb5.9
REYF   Montagne du Re  52.38 333 eP    P      07 43 24.6 +0.4
ATE    Arette          52.53 333 eP    P      07 43 25.5 +0.2
PALK   Pallekele       52.58  79  P    P      07 43 27.4 +1.2
          comp=Z,298nm,1.1s,mb6.1,SNR=12
PALK   Pallekele       52.58  79 i P   P      07 43 27.5 +1.3
PALK   Pallekele       52.58  79 eP    P      07 43 27.1 +1.0
          comp=Z,134nm,1.1s,mb5.8
PALK   Pallekele       52.58  79 ⇑P    P      07 43 27.8 +1.6
          SNR=9.7
PALK                             ⇑P    pP     07 43 27.8 +0.3
          SNR=9.7
VRAC   Vranov          52.58 350⇓iP    P      07 43 25.0 -0.5
VRAC   Vranov          52.58 350  P    P      07 43 25.0 -0.6
WILA   Wila            52.61 343⇓iP    P      07 43 25.0 -0.7
          comp=Z,1µm,2.5s,mb6.3
LBL    Lubilhac        52.62 337 eP    P      07 43 25.4 -0.5
KBL    Kabul           52.62  42 eP    P      07 43 26.1  0.0
KBL                              e            07 44 35.5
KBL                               pmax pmax
          comp=Z,23nm,1.1s,mb5.0
KBL    Kabul           52.62  42 eP    P      07 43 26.1  0.0
          comp=Z,23nm,1.1s,mb5.0
KBL                              ePcP  PcP    07 44 35.5 -0.8
EBAD   Badajoz         52.63 325  P    P      07 43 25.2 -0.9
          comp=Z,1µm,3.0s
PBEJ   Beja            52.65 324 eP    P      07 43 26.6 +0.4
          comp=Z,116nm,1.3s,mb5.7
PFVI   Vila Bisbo      52.65 322 eP    P      07 43 26.6 +0.3
          comp=Z,500nm,1.3s,mb6.3
PFVI                             eS    S      07 51 03.1 +8.6
PFVI                             eLQ          07 57 58.3
PFVI                             eLR   LR     08 00 27.9
          comp=Z,5µm,14.0s
GIMEL  St. Georges /   52.65 340⇓iP    P      07 43 24.5 -1.6
          comp=Z,2µm,4.5s
MORF   Marmelete       52.65 322 eP    P      07 43 26.3  0.0
          comp=Z,315nm,1.6s,mb6.0
MORF                             eS    S      07 51 05.9  +11
MORF                             eLR   LR     08 01 57.4
          comp=Z,4µm,16.0s
MORF   Marmelete       52.65 322 eP    P      07 43 26.0 -0.3
MORF                             eS    S      07 50 55.3 +0.8
AJM    Ajmer           52.66  54⇓iP    P      07 43 26.7 +0.2
ZUR    Degenried       52.66 343⇓iP    P      07 43 25.0 -1.1
          comp=Z,1µm,2.5s,mb6.4
COLF   Collangettes    52.69 338 eP    P      07 43 27.4 +1.0
GEC2   GERESS Array S  52.71 347 eP    P      07 43 26.0 -0.5
GEC2                              pmax pmax
          comp=Z,216nm,1.1s,mb6.0
GEC2   GERESS Array S  52.71 347 eP    P      07 43 26.0 -0.5
          comp=Z,216nm,1.1s,mb6.0
GERES  GERESS Array B  52.71 347  P    P      07 43 26.1 -0.4
GERES                             pmax pmax
          comp=Z,79nm,0.8s
GERES                             MLR  MLR
          comp=Z,6µm,19.3s
GERES  GERESS Array B  52.71 347  P    P      07 43 26.1 -0.4
          comp=Z,79nm,0.8s,mb5.7,baz=165,slow=6.9,SNR=424
GERES                             LR   LR     08 08 43.0
          comp=Z,6µm,19.2s,MS5.7,baz=161,slow=39
ORDF   Ordiarp         52.74 333 eP    P      07 43 26.7 -0.1
HYB    Hyderabad       52.76  66 i P   P      07 43 30.0 +2.6
HYB                              eS    S      07 50 57.0 +0.4
HYB                               LR   LR     08 03 18.0
          comp=Z,7.5nm,18.0s
TREC   Trest           52.77 349⇓iP    P      07 43 26.2 -0.7
TREC                             eS    S      07 50 53.0 -2.7
TREC                              AMS  AMS    08 11 00.0
          comp=Z,4µm,12.6s
CABF   La Chapelle     52.78 340⇓iP    P      07 43 25.9 -1.1
          comp=Z,416nm,1.4s,mb5.9
CABF   La Chapelle     52.78 340⇓iP    P      07 43 25.9 -1.1
CABF                              pmax pmax
          comp=Z,208nm,1.4s,mb5.9
CABF   La Chapelle     52.78 340⇓iP    P      07 43 25.9 -1.1
          comp=Z,208nm,1.4s,mb5.9
SJPF   Ste Jean        52.80 333⇓iP    P      07 43 27.4 +0.2
          comp=Z,460nm,1.0s,mb6.0
SJPF   Ste Jean        52.80 333⇓iP    P      07 43 27.4 +0.2
SJPF                              pmax pmax
          comp=Z,230nm,1.0s,mb6.1
SJPF   Ste Jean        52.80 333⇓iP    P      07 43 27.4 +0.2
          comp=Z,230nm,1.0s,mb6.1
CAF    Calviac         52.83 336⇓iP    P      07 43 27.3 -0.1
          comp=Z,317nm,1.1s,mb5.9
CAF    Calviac         52.83 336⇓iP    P      07 43 27.3 -0.1
CAF                               pmax pmax
          comp=Z,159nm,1.1s,mb5.9
CAF    Calviac         52.83 336⇓iP    P      07 43 27.3 -0.1
          comp=Z,158nm,1.1s,mb5.9
OKC    Ostrava-Krasne  52.84 351⇓iP    P      07 43 27.0 -0.4
OKC                              eS    S      07 51 00.8 +4.1
OKC                               AMS  AMS    08 11 50.0
          comp=Z,4µm,13.3s
OKC    Ostrava-Krasne  52.84 351⇓iP    P      07 43 27.0 -0.4
OKC                              eS    S      07 51 00.8 +4.1
STEIN  Stein am Rhein  52.85 343⇓iP    P      07 43 26.4 -1.1
          comp=Z,626nm,1.9s,mb6.2
PTEO   Sao Teotonio    52.85 323 eP    P      07 43 28.9 +1.2
          comp=Z,402nm,1.9s,mb6.0
MORC   Moravsky Berou  52.88 351 eP    P      07 43 26.9 -0.8
MORC                              pmax pmax
          comp=Z,270nm,1.1s,mb6.1
MORC   Moravsky Berou  52.88 351⇓iP    P      07 43 27.4 -0.3
MORC   Moravsky Berou  52.88 351 eP    P      07 43 26.9 -0.8
          comp=Z,270nm,1.1s,mb6.1
KIEV   Kiev            52.88   0 eP    P      07 43 26.8 -0.9
KIEV                             e            07 44 36.8
KIEV                              pmax pmax
          comp=Z,195nm,1.1s,mb6.0
KIEV                              MLR  MLR
          comp=Z,2µm,19.0s,MS5.2
KIEV   Kiev            52.88   0 eP    P      07 43 26.8 -0.9
          comp=Z,195nm,1.1s,mb6.0
KIEV                             ePcP  PcP    07 44 36.8  0.0
KIEV                              LR   LR
          comp=Z,2µm,19.0s,MS5.2
TRULL  Truellikon      52.88 343⇓iP    P      07 43 27.4 -0.4
          comp=Z,834nm,2.2s,mb6.3
AKASG  Malin Array Be  52.89   0  P    P      07 43 26.6 -1.1
AKASG                                         07 44 36.8
AKASG                             pmax pmax
          comp=Z,73nm,0.9s
AKASG                             MLR  MLR
          comp=Z,2µm,18.4s
AKASG  Malin Array Be  52.89   0  P    P      07 43 26.6 -1.2
          comp=Z,73nm,0.9s,mb5.6,baz=184,slow=6.5,SNR=100
AKASG                             PcP  PcP    07 44 36.8 -0.1
          comp=Z,16nm,0.9s,baz=185,slow=5.1,SNR=4.8
AKASG                             LR   LR     08 10 21.9
          comp=Z,2µm,18.4s,MS5.2,baz=155,slow=41
AKBB   Malin Array Si  52.89   0 eP    P      07 43 26.6 -1.1
BALST  Balsthal        52.90 342⇓iP    P      07 43 26.6 -1.3
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                 comp=Z,1µm,1.4s,mb6.7
OSSF  Osses           52.92 333  eP     P      07 43 28.2  0.0
BRANT Les Verrieres   52.94 341⇓iP      P      07 43 27.1 -1.1
                 comp=Z,1µm,2.2s,mb6.4
SULZ  Cheisacher      52.94 342⇓iP      P      07 43 27.6 -0.6
                 comp=Z,2µm,1.8s,mb6.7
ELIZ  Elizondo        52.98 332   P     P      07 43 28.7 +0.1
ELIZ                              pmax  pmax
                 comp=Z,315nm,1.5s,mb6.0
ELIZ  Elizondo        52.98 332   P     P      07 43 28.7 +0.2
                 comp=Z,315nm,1.5s,mb6.0
OJC   Ojcow           52.98 353  eP     P      07 43 27.8 -0.7
OJC                              epP    pP     07 43 31.9 +2.1
OJC                              ePcP   PcP    07 44 37.5 +0.3
OJC                              ePP    PP     07 45 30.7 +2.4
OJC                               L            08 10 18.2
                 comp=Z,3.9nm,18.0s
OJC   Ojcow           52.98 353  eP     P      07 43 27.8 -0.7
OJC                              epP    pP     07 43 31.9 +2.1
OJC                              ePcP   PcP    07 44 37.5 +0.3
OJC                              ePP    PP     07 45 30.7 +2.4
OJC                              eS     S      07 51 01.8 +3.2
OJC                               LR    LR
                 comp=Z,4µm,18.0s,MS5.5
KHC   Kasperske Hory  53.01 347⇓iP      P      07 43 28.0 -0.7
KHC                              epP    pP     07 43 31.5 +1.5
KHC                              eS     S      07 51 02.1 +3.2
KHC                               AMS   AMS    08 08 10.0
KHC   Kasperske Hory  53.01 347⇓iP      P      07 43 28.0 -0.7
KHC                              e             07 43 31.5
KHC                              eS     S      07 51 02.1 +3.2
EALK  Alkurruntz      53.01 332   P     P      07 43 27.9 -0.9
                 comp=Z,988nm,2.0s,mb6.4
ECRI  Cripan          53.01 331   P     P      07 43 28.9 +0.1
ECRI                              pmax  pmax
                 comp=Z,73nm,1.0s,mb5.6
ECRI  Cripan          53.01 331   P     P      07 43 28.9  0.0
                 comp=Z,73nm,1.0s,mb5.6
PESTR Estremoz        53.04 324  eP     P      07 43 29.3 +0.2
                 comp=Z,285nm,1.2s,mb6.1
PESTR                            eS     S      07 51 08.8 +9.0
PESTR                            eLQ           07 58 50.5
PESTR                            eLR    LR     08 01 38.4
                 comp=Z,9µm,18.0s
SLE   Schleitheim     53.04 343⇓iP      P      07 43 28.0 -1.0
                 comp=Z,1µm,1.8s,mb6.5
EVO   Evora           53.07 324⇓iP      P      07 43 29.8 +0.5
                 comp=Z,260nm,1.0s,mb5.8
EVO                              eMLR   MLR
                 comp=Z,8µm,18.5s,MS5.5
BBS   Basel-Blauen    53.07 342  eP     P      07 43 28.6 -0.6
RAC   Raciborz        53.07 351  eP     P      07 43 28.0 -1.1
RAC                              eS     S      07 50 56.6 -3.2
RAC   Raciborz        53.07 351  eP     P      07 43 28.0 -1.1
RAC                              eS     S      07 50 56.6 -3.2
RAC                               LR    LR
                 comp=Z,6µm,12.0s,MS5.9
BOURR Bourrignon      53.09 342⇓iP      P      07 43 28.8 -0.5
                 comp=Z,2µm,1.9s,mb6.7
PLDF  La Plantade     53.10 338  eP     P      07 43 28.7 -0.7
EVOP  Sao Brissos     53.13 324  eP     P      07 43 29.2 -0.5
EVOP                             eS     S      07 51 00.3 -0.7
EVOP                             eS     S      07 51 00.7 -0.3
EVOP                              AMS   AMS    08 09 39.5
                 comp=Z,6µm,11.8s,MS5.8
EVOP  Sao Brissos     53.13 324  eP     P      07 43 29.4 -0.4
EVOP                             eS     S      07 51 00.3 -0.7
WET   Wettzell        53.17 347  eP     P      07 43 29.1 -0.8
WET                              e             07 45 29.0
WET                               pmax  pmax
                 comp=Z,677nm,2.0s,mb6.2
WET   Wettzell        53.17 347  eP     P      07 43 29.1 -0.8
                 comp=Z,677nm,2.0s,mb6.2
WET                              ePP    PP     07 45 29.0 -1.0
EBAJ  Bajamar         53.18 309   P     P      07 43 30.1 -0.2
                 comp=Z,1µm,2.0s,mb6.6
LOMF  Lomont          53.18 341  eP     P      07 43 29.7 -0.3
CCAN  Las Canadas     53.24 308   P     P      07 43 31.9 +1.1
                 comp=Z,134nm,0.9s,mb5.9
SPAK  Spaichingen-Ko  53.26 343  eP     P      07 43 30.4 -0.2
FELD  Feldberg im Sc  53.29 343  eP     P      07 43 30.4 -0.4
PMRV  Marv??o         53.30 325  eP     P      07 43 30.8 -0.3
                 comp=Z,228nm,1.3s,mb5.9
PMRV                             eS     S      07 51 13.4  +10
PMRV                             eLR    LR     08 03 14.0
                 comp=Z,8µm,16.0s
AGO   Saint Agoulin   53.35 338  eP     P      07 43 31.5 +0.2
RJF   Les Rejaudoux   53.36 336⇓iP      P      07 43 31.1 -0.2
                 comp=Z,429nm,1.3s,mb5.9
RJF                              eMLR   MLR
                 comp=Z,9µm,19.0s,MS5.6
RJF   Les Rejaudoux   53.36 336⇓iP      P      07 43 31.1 -0.2
RJF                               pmax  pmax
                 comp=Z,215nm,1.3s,mb5.9
RJF                               MLR   MLR
                 comp=Z,9µm,19.0s,MS5.9
RJF   Les Rejaudoux   53.36 336⇓iP      P      07 43 31.1 -0.2
                 comp=Z,214nm,1.3s,mb5.9
RJF                               LR    LR
                 comp=Z,9µm,19.0s,MS5.9
LFF   La Frestale     53.38 335⇓iP      P      07 43 31.4 -0.1
                 comp=Z,432nm,0.9s,mb6.1
LFF   La Frestale     53.38 335⇓iP      P      07 43 31.4 -0.1
LFF                               pmax  pmax
                 comp=Z,216nm,0.9s,mb6.1
LFF   La Frestale     53.38 335⇓iP      P      07 43 31.4 -0.1
                 comp=Z,216nm,0.9s,mb6.1
MOF   Molkenrain      53.53 342  eP     P      07 43 32.3 -0.3
HINF  Hinteralfeld    53.59 342⇓iP      P      07 43 32.1 -0.9
                 comp=Z,864nm,1.6s,mb6.1
HINF  Hinteralfeld    53.59 342⇓iP      P      07 43 32.1 -0.9
HINF                              pmax  pmax
                 comp=Z,432nm,1.6s,mb6.1
HINF  Hinteralfeld    53.59 342⇓iP      P      07 43 32.1 -0.9
                 comp=Z,432nm,1.6s,mb6.1
SMF   Signal de Mont  53.59 339⇓iP      P      07 43 32.3 -0.7
                 comp=Z,541nm,1.2s,mb6.0
SMF   Signal de Mont  53.59 339⇓iP      P      07 43 32.3 -0.7
SMF                               pmax  pmax
                 comp=Z,270nm,1.2s,mb6.0
SMF   Signal de Mont  53.59 339⇓iP      P      07 43 32.3 -0.7
                 comp=Z,270nm,1.2s,mb6.0
BFO   Black Forest    53.60 343   P     P      07 43 33.5 +0.5
                 comp=Z,853nm,1.3s,mb6.5,SNR=32
BFO   Black Forest    53.60 343  i P    P      07 43 33.2 +0.2
BFO   Black Forest    53.60 343  eP     P      07 43 32.5 -0.5
                 comp=Z,398nm,1.4s,mb6.2
BFO                              ePP    PP     07 45 32.3 -1.6
BFO   Black Forest    53.60 343  eP     P      07 43 32.5 -0.5
                 comp=Z,398nm,1.4s,mb6.2
BFO                              ePP    PP     07 45 32.4 -1.5
PRU   Pruhonice       53.62 349⇓iP      P      07 43 31.9 -1.2
PRU                              eS     S      07 51 09.5 +2.3
PRU                              eSS    SS     07 54 50.1 +2.2
PRU                               AMS   AMS    08 08 20.0
                 comp=Z,5µm,21.3s
DPC   Dobruska-Polom  53.63 350⇓iP      P      07 43 32.3 -1.0
DPC                              eS     S      07 51 11.7 +4.3
DPC                              eSS    SS     07 54 50.1 +1.9
DPC                               AMS   AMS    08 12 30.0
                 comp=Z,4µm,12.0s
DPC   Dobruska-Polom  53.63 350⇓iP      P      07 43 32.3 -1.0
DPC                              eS     S      07 51 11.7 +4.3
DPC                              e             07 54 50.1
DPC                              e             07 54 50.3
DPC                               LR    LR
                 comp=Z,4µm,12.0s,MS5.7
LIBD  Limburg         53.65 342  eP     P      07 43 33.2 -0.2
BHPL  Bhopal          53.68  59⇓iP      P      07 43 34.1  0.0
EGOM  La Gomera       53.69 308   P     P      07 43 34.0 -0.1
                 comp=Z,460nm,0.9s,mb6.4
STU   Stuttgart       53.75 344  eP     P      07 43 34.4 +0.2
STU                               pmax  pmax
                 comp=Z,729nm,1.9s,mb6.3
STU   Stuttgart       53.75 344  eP     P      07 43 33.7 -0.5
                 comp=Z,562nm,1.8s,mb6.2
STU   Stuttgart       53.75 344  eP     P      07 43 34.4 +0.2
                 comp=Z,729nm,1.9s,mb6.3
ALMR  Almeirim        53.81 324  eP     P      07 43 35.1 +0.4
UPC   Upice           53.84 350⇓iP      P      07 43 33.9 -0.9
ECH   Echery          53.85 342  eP     P      07 43 34.7 -0.2
ECH   Echery          53.85 342  eP     P      07 43 34.2 -0.7
ECH                              e             07 45 37.1
ECH                               pmax  pmax
                 comp=Z,924nm,2.1s,mb6.3
ECH                               MLR   MLR
                 comp=Z,2µm,19.0s,MS5.1
ECH   Echery          53.85 342  eP     P      07 43 34.2 -0.7
                 comp=Z,924nm,2.1s,mb6.3
ECH                              ePP    PP     07 45 37.1 +1.0
ECH                               LR    LR
                 comp=Z,2µm,19.0s,MS5.1
LIS   Lisbon          53.86 323  eP     P      07 43 34.7 -0.5
BGF   Bois d'Agland   53.88 338⇓iP      P      07 43 34.7 -0.5
                 comp=Z,921nm,1.8s,mb6.1
BGF   Bois d'Agland   53.88 338⇓iP      P      07 43 34.7 -0.5
BGF                               pmax  pmax
                 comp=Z,460nm,1.8s,mb6.1
BGF   Bois d'Agland   53.88 338⇓iP      P      07 43 34.7 -0.5
                 comp=Z,460nm,1.8s,mb6.1
AVF   Avril sur Loir  53.89 338⇓iP      P      07 43 34.6 -0.6
                 comp=Z,965nm,1.4s,mb6.2
AVF   Avril sur Loir  53.89 338⇓iP      P      07 43 34.6 -0.6
AVF                               pmax  pmax
                 comp=Z,483nm,1.4s,mb6.2
AVF   Avril sur Loir  53.89 338⇓iP      P      07 43 34.6 -0.6
                 comp=Z,483nm,1.4s,mb6.2
VORD  Divnogorie      53.89   8  eP     P      07 43 35.2 +0.1
VORD                              pmax  pmax
                 comp=Z,380nm,1.6s,mb6.1
VORD                              pmax  pmax
                 comp=N,350nm,0.8s
VORD                              pmax  pmax
                 comp=E,440nm,0.5s
VORD                              MLR   MLR
                 comp=Z,2µm,18.0s,MS5.1
VORD                              MLR   MLR
                 comp=N,4µm,25.0s
VORD                              MLR   MLR
                 comp=E,2µm,17.0s
TCF   Toulx Ste Croi  53.90 337⇓iP      P      07 43 35.4 +0.1
                 comp=E,1µm,1.5s,mb6.3
TCF   Toulx Ste Croi  53.90 337⇓iP      P      07 43 35.4 +0.1
TCF                               pmax  pmax
                 comp=Z,587nm,1.5s,mb6.3
TCF   Toulx Ste Croi  53.90 337⇓iP      P      07 43 35.4 +0.1
                 comp=Z,586nm,1.5s,mb6.3
ROTZ  Rotzenmuhle     53.91 347  eP     P      07 43 34.6 -0.7
                 comp=Z,165nm,1.1s,mb5.9
ROTZ                             ePP    PP     07 45 37.7 +1.1
HAU   Haudompre       53.91 341⇓iP      P      07 43 34.5 -0.9
                 comp=Z,748nm,1.7s,mb6.0
HAU                              eMLR   MLR
                 comp=Z,3µm,20.2s,MS5.1
HAU   Haudompre       53.91 341⇓iP      P      07 43 34.5 -0.9
HAU                               pmax  pmax
                 comp=Z,374nm,1.7s,mb6.0
HAU                               MLR   MLR
                 comp=Z,3µm,20.3s,MS5.4
HAU   Haudompre       53.91 341⇓iP      P      07 43 34.5 -0.9
                 comp=Z,374nm,1.7s,mb6.0
HAU                               LR    LR
                 comp=Z,3µm,20.3s,MS5.4
ELAN  Lanestosa       53.93 331   P     P      07 43 34.7 -0.9
                 comp=Z,778nm,1.4s,mb6.4
CDF   Champ du Feu    53.99 342⇓iP      P      07 43 34.8 -1.1
                 comp=Z,535nm,1.2s,mb6.0
CDF   Champ du Feu    53.99 342⇓iP      P      07 43 34.8 -1.1
CDF                               pmax  pmax
                 comp=Z,267nm,1.2s,mb6.0
CDF   Champ du Feu    53.99 342⇓iP      P      07 43 34.8 -1.1
                 comp=Z,267nm,1.2s,mb6.0
MTE   Manteigas       54.05 326  eP     P      07 43 36.4 -0.1
                 comp=Z,162nm,1.3s,mb5.8
MTE                              eS     S      07 51 21.7 +8.3
MTE                              eLQ           08 00 07.4
MTE                              eLR    LR     08 03 01.8
                 comp=Z,13µm,16.0s
MTE   Manteigas       54.05 326  eP     P      07 43 36.8 +0.3
                 comp=Z,115nm,1.0s,mb5.8
MTE                               LR    LR
                 comp=Z,9µm,19.0s,MS5.9
SSF   Saint Saulge    54.06 339⇓iP      P      07 43 35.4 -1.1
                 comp=Z,216nm,1.1s,mb5.7
SSF   Saint Saulge    54.06 339⇓iP      P      07 43 35.4 -1.1
SSF                               pmax  pmax
                 comp=Z,108nm,1.1s,mb5.7
SSF   Saint Saulge    54.06 339⇓iP      P      07 43 35.4 -1.1
                 comp=Z,108nm,1.1s,mb5.7
GRA1  Grafenberg Arr  54.07 346  eP     P      07 43 35.8 -0.7
                 comp=Z,514nm,1.2s,mb6.3
GRA1                             ePP    PP     07 45 39.4 +1.3
GRA1                              LR    LR
                 comp=Z,4µm,20.7s,MS5.4
GRF   Grafenberg Arr  54.07 346  eP     P      07 43 35.8 -0.7
GRF                              e             07 45 39.4
GRF                               pmax  pmax
                 comp=Z,514nm,1.2s,mb6.3
GRF                               MLR   MLR
                 comp=Z,4µm,20.7s,MS5.4
GRF   Grafenberg Arr  54.07 346  eP     P      07 43 35.8 -0.7
                 comp=Z,514nm,1.2s,mb6.3
GRF                              ePP    PP     07 45 39.4 +1.3
GRF                              eL            08 05 57.3
                 comp=Z,4µm,20.7s
CHIE  El Hierro       54.09 307   P     P      07 43 38.4 +1.4
                 comp=Z,287nm,1.0s,mb6.2
PMAFR Mafra           54.09 323  eP     P      07 43 38.1 +1.2
                 comp=Z,508nm,1.6s,mb6.2
PMAFR                            eS     S      07 51 19.9 +5.8
PMAFR                            eLR    LR     08 04 11.2
                 comp=Z,4µm,18.0s
LOR   Lormes          54.11 339⇓iP      P      07 43 35.9 -0.9
                 comp=Z,443nm,1.2s,mb6.0,baz=160
LOR                              eMLR   MLR
                 comp=Z,9µm,17.5s,MS5.6
LOR   Lormes          54.11 339⇓iP      P      07 43 35.9 -0.9
LOR                               pmax  pmax
                 comp=Z,221nm,1.2s,mb6.0
LOR                               MLR   MLR
                 comp=Z,9µm,17.5s,MS5.9
LOR   Lormes          54.11 339⇓iP      P      07 43 35.9 -0.9
                 comp=Z,221nm,1.2s,mb6.0
LOR                               LR    LR
                 comp=Z,9µm,17.5s,MS5.9
KSP   Ksiaz           54.12 350  i Pd   P      07 43 36.3 -0.4
                 comp=Z,2µm,2.8s,mb6.4
KSP                              epP    pP     07 43 42.7 +4.6
KSP                              eS     S      07 51 18.1 +4.1
KSP                              eSS    SS     07 55 09.8  +14
KSP                               LMZ          08 10 36.9
                 comp=Z,7µm,17.9s
KSP   Ksiaz           54.12 350⇓eP      P      07 43 36.1 -0.7
KSP                              ePP    PP     07 45 37.0 -1.4
KSP                              eS     S      07 51 17.0 +3.1
KSP                              eSS    SS     07 54 57.0 +1.3
KSP                               LR    LR
                 comp=Z,8µm,17.6s,MS5.8
VSR   Storozhevoye    54.12   8  eP     P      07 43 35.3 -1.5
VSR                               pmax  pmax
                 comp=Z,60nm,1.4s,mb5.3
VSR                               pmax  pmax
                 comp=N,40nm,1.0s
VSR                               pmax  pmax
                 comp=E,30nm,1.2s
VSR                               MLR   MLR
                 comp=Z,490nm,18.0s,MS4.6
VSR                               MLR   MLR
                 comp=N,1µm,24.0s
VSR                               MLR   MLR
                 comp=E,890nm,27.0s
PVCC  Panska Ves      54.13 349⇓iP      P      07 43 35.8 -1.1
PVCC                             eS     S      07 51 16.5 +2.4
PVCC                             eSS    SS     07 55 00.6 +4.7
PVCC                              AMS   AMS    08 10 20.0
                 comp=E,4µm,17.0s
MANZ  Manzenberg      54.14 347  eP     P      07 43 36.3 -0.7
                 comp=Z,252nm,1.1s,mb6.1
THEF  They Montfort   54.23 341  eP     P      07 43 37.3 -0.3
MVO   Moncorvo        54.29 327  eP     P      07 43 38.4 +0.2
                 comp=Z,303nm,1.6s,mb6.0
MVO                              eLQ           08 01 03.0
MVO                              eLR    LR     08 03 54.9
                 comp=Z,14µm,16.0s
NKC   Novy Kostel     54.29 347⇓iP      P      07 43 37.5 -0.6
NKC                              eS     S      07 51 20.1 +3.8
NKC                              eSS    SS     07 54 59.3 +0.7
NKC                               AMS   AMS    08 12 30.0
                 comp=Z,8µm,12.6s
NKC   Novy Kostel     54.29 347⇓iP      P      07 43 37.5 -0.6
NKC                              eS     S      07 51 20.1 +3.8
NKC                              e             07 54 59.3
EHIG  Higuera         54.33 308   P     P      07 43 38.7 -0.1
                 comp=Z,711nm,1.6s,mb6.3
LANF  Langenberg      54.34 343  eP     P      07 43 37.3 -1.1
WERN  Wernitzgruen    54.36 347  eP     P      07 43 38.2 -0.4
                 comp=Z,424nm,1.6s,mb6.1
VRHR  Novokhopersk    54.38  10  eP     P      07 43 37.3 -1.4
VRHR                              pmax  pmax
                 comp=Z,240nm,1.4s,mb5.9
VRHR                              pmax  pmax
                 comp=N,280nm,1.2s
VRHR                              pmax  pmax
                 comp=E,120nm,1.3s
VRHR                              MLR   MLR
                 comp=Z,3µm,14.0s,MS5.5
VRHR                              MLR   MLR
                 comp=N,3µm,13.0s
VRHR                              MLR   MLR
                 comp=E,3µm,23.0s
GUNZ  Gunzen          54.44 347  eP     P      07 43 38.8 -0.4
                 comp=Z,364nm,1.6s,mb6.1
PVIS  Viseu           54.46 326  eP     P      07 43 39.4 -0.1
                 comp=Z,156nm,1.5s,mb5.7
BEL   Belsk           54.46 354  eP     P      07 43 38.4 -0.9
TANN  Tannenbergstha  54.46 347  eP     P      07 43 39.0 -0.3
                 comp=Z,814nm,2.0s,mb6.3
TANN                             eS     S      07 51 25.2 +6.6
WERD  Werda           54.52 347  eP     P      07 43 39.4 -0.4
                 comp=Z,1µm,2.3s,mb6.5
HYF   Humbligny       54.56 338⇓iP      P      07 43 39.6 -0.5
KTD   Kalmit          54.56 343  eP     P      07 43 39.9 -0.2
PBRG  Braganca        54.58 328  eP     P      07 43 40.9 +0.6
                 comp=Z,195nm,1.3s,mb6.0
BRG   Berggiesshubel  54.58 348⇑iP      P      07 43 39.2 -1.0
BRG                              e             07 45 44.6
BRG                               S     S      07 51 23.0 +2.8
BRG                               pmax  pmax
                 comp=Z,139nm,1.6s,mb5.7
BRG                               pmax  pmax
                 comp=Z,27nm,1.4s,mb5.1
BRG                               MLR   MLR
                 comp=N,3µm,13.6s,MS5.7
BRG                               MLR   MLR
                 comp=E,2µm,15.1s,MS5.7
BRG                               MLR   MLR
                 comp=Z,4µm,13.3s,MS5.6
BRG   Berggiesshubel  54.58 348  eP     P      07 43 39.1 -1.1
                 comp=Z,231nm,1.6s,mb6.0
BRG   Berggiesshubel  54.58 348⇑iP      P      07 43 39.2 -1.0
                 comp=Z,232nm,1.6s,mb6.0
BRG                              e             07 45 44.6
                 comp=Z,45nm,1.4s
BRG                               S     S      07 51 23.0 +2.8
BRG                               SS    SS     07 55 10.0 +6.9
BRG   Berggiesshubel  54.58 348⇑iP      P      07 43 39.2 -1.0
                 comp=Z,139nm,1.6s,mb5.7
BRG                              e             07 45 44.6
BRG                               S     S      07 51 23.0 +2.8
BRG                               SS    SS     07 55 10.0 +6.9
BRG                              eP'P'         08 13 41.6
BRG                               LR    LR
                 comp=Z,4µm,13.3s,MS5.6
TOD   Tromm           54.62 344  eP     P      07 43 40.1 -0.4
VOR   Voronezh        54.62   8  eP     P      07 43 39.0 -1.5
VOR                               pmax  pmax
                 comp=Z,600nm,2.0s,mb6.3
ECAL  Calabor         54.67 328   P     P      07 43 40.3 -0.7
                 comp=Z,410nm,1.3s,mb6.3
PVRL  Vila Real       54.74 327  eP     P      07 43 42.4 +0.9
                 comp=Z,290nm,1.4s,mb6.1
FBE   Freiberg        54.74 348  eP     P      07 43 40.5 -0.9
                 comp=Z,465nm,2.1s,mb6.2
MEZF  Maizieres J'vi  54.77 341⇓iP      P      07 43 41.4 -0.2
                 comp=Z,2µm,1.7s,mb6.5,baz=146
MEZF  Maizieres J'vi  54.77 341⇓iP      P      07 43 41.4 -0.2
                 comp=Z,2µm,1.7s,mb6.8
WAR   Warsaw          54.84 354  ePd    P      07 43 41.2 -0.8
                 comp=Z,1µm,1.4s,mb6.7
WAR                              ePcP   PcP    07 44 46.3 +2.1
WAR                               LMZ          08 11 25.9
                 comp=Z,3µm,18.0s
WAR   Warsaw          54.84 354⇓eP      P      07 43 41.2 -0.8
WAR                              ePcP   PcP    07 44 46.3 +2.1
WAR                               LR    LR
                 comp=Z,3µm,18.0s,MS5.4
EARI  Arriondas       54.85 330   P     P      07 43 41.4 -0.9
                 comp=Z,1µm,2.7s,mb6.5
MOX   Moxa            54.87 347  eP     P      07 43 42.3 +0.1
                 comp=Z,504nm,2.2s,mb6.2
MOX   Moxa            54.87 347  eP     P      07 43 42.3 +0.1
MOX                               pmax  pmax
                 comp=Z,504nm,2.2s,mb6.2
MOX   Moxa            54.87 347  eP     P      07 43 41.6 -0.6
                 comp=Z,191nm,1.3s,mb6.0
MFF   Saint Martin d  55.09 336⇓iP      P      07 43 43.6 -0.3
                 comp=Z,755nm,1.4s,mb6.2
MFF   Saint Martin d  55.09 336⇓iP      P      07 43 43.6 -0.3
MFF                               pmax  pmax
                 comp=Z,378nm,1.4s,mb6.2
MFF   Saint Martin d  55.09 336⇓iP      P      07 43 43.6 -0.3
                 comp=Z,378nm,1.4s,mb6.2
PTO   Porto           55.14 326  eP     P      07 43 45.4 +1.0
                 comp=Z,334nm,1.3s,mb6.2
CLL   Collm           55.18 348⇓iP      P      07 43 43.3 -1.2
CLL                              eS     S      07 51 35.0 +6.7
CLL                               pmax  pmax
                 comp=Z,216nm,1.5s,mb6.0
CLL                               MLR   MLR
                 comp=Z,5µm,18.7s,MS5.6
CLL   Collm           55.18 348  eP     P      07 43 43.5 -1.0
                 comp=Z,218nm,1.6s,mb5.9
CLL   Collm           55.18 348⇓iP      P      07 43 43.3 -1.2
                 comp=Z,216nm,1.5s,mb6.0
CLL                              ePlp          07 43 47.0
                 comp=Z,800nm,18.9s
CLL                              e             07 43 59.0
CLL                              ePcP   PcP    07 44 46.0 +0.4
CLL                              ePP    PP     07 45 47.0 -1.0
CLL                              eS     S      07 51 35.0 +6.7
                 comp=N,1µm,29.2s
CLL                              eS     S      07 51 35.0 +6.7
                 comp=E,1µm,25.1s
CLL                              eSS    SS     07 55 20.0 +7.4
CLL                              e             07 56 12.0
CLL                              eSSS          07 57 18.0
CLL                              e             07 58 06.0
CLL                              e             08 00 42.0
CLL   Collm           55.18 348⇓iP      P      07 43 43.3 -1.2
                 comp=E,216nm,1.5s,mb6.0
CLL                              eS     S      07 51 35.0 +6.7
CLL                               LR    LR
                 comp=Z,5µm,18.7s,MS5.6
ERUA  La Rua          55.20 328   P     P      07 43 44.7 -0.1
ERUA                              pmax  pmax
                 comp=Z,71nm,0.8s,mb5.8
ERUA  La Rua          55.20 328   P     P      07 43 44.7 -0.1
                 comp=Z,70nm,0.8s,mb5.8
RUP   Ruppelstein     55.20 343  eP     P      07 43 44.4 -0.3
PCAB  Cabril          55.21 327  eP     P      07 43 45.3 +0.4
                 comp=Z,185nm,1.8s,mb5.8
ABH   Alteburg        55.22 343  eP     P      07 43 44.4 -0.4
TNS   Taunus Mts      55.28 344  eP     P      07 43 44.8 -0.4
TNS                               pmax  pmax
                 comp=Z,500nm,1.1s,mb6.5
TNS   Taunus Mts      55.28 344  eP     P      07 43 44.8 -0.4
                 comp=Z,500nm,1.1s,mb6.5
ELOB  Lobios          55.33 327   P     P      07 43 46.0 +0.2
                 comp=Z,1µm,2.7s,mb6.5
PMPS  Porto Santo     55.36 314  eP     P      07 43 47.8 +1.6
                 comp=Z,694nm,2.0s,mb6.3
UBBA  Unterbreizbach  55.42 346  eP     P      07 43 45.7 -0.5
                 comp=Z,402nm,1.7s,mb6.2
WLF   Walferdange     55.44 342   P     P      07 43 46.2 -0.2
                 comp=Z,182nm,1.9s,mb5.8
WLF   Walferdange     55.44 342  eP     P      07 43 46.0 -0.4
                 comp=Z,396nm,1.5s,mb6.2
WLF   Walferdange     55.44 342  eP     P      07 43 45.7 -0.7
WLF                               LR    LR
                 comp=Z,5µm,21.0s,MS5.6
FUL   Funchal         55.56 313  eP     P      07 43 49.3 +1.7
                 comp=Z,782nm,1.1s,mb6.7
PMAR  Madeira         55.61 313  eP     P      07 43 49.9 +1.9
                 comp=Z,884nm,1.2s,mb6.7
NDI   New Delhi       55.67  53⇓iP      P      07 43 47.5 -1.0
NDI                              eS     S      07 51 36.0 +0.4
JBP   Jabalpur        55.85  60⇓ePKP    P      07 43 49.2 -0.7
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JBP				eS	S	07 51 35.9	-2.3
EPON	Pontenova	55.86	329	P	P	07 43 48.7	-0.9
	comp=Z,567nm,1.4s,mb6.4						
EZAM	Zamans	55.87	327	P	P	07 43 50.0	+0.3
EZAM				pmax	pmax		
	comp=Z,202nm,1.0s,mb6.1						
EZAM	Zamans	55.87	327	P	P	07 43 50.0	+0.3
	comp=Z,202nm,1.0s,mb6.1						
RUE	Ruedersdorf	56.14	349	eP	P	07 43 50.4	-1.0
	comp=Z,360nm,1.1s,mb6.3						
RUE	Ruedersdorf	56.14	349	eP	P	07 43 50.5	-0.9
	comp=Z,335nm,1.2s,mb6.2						
GIVF	Givet	56.24	342	⇓iP	P	07 43 51.1	-1.0
	comp=Z,483nm,1.3s,mb6.1						
GIVF	Givet	56.24	342	⇓iP	P	07 43 51.1	-1.0
GIVF				pmax	pmax		
	comp=Z,242nm,1.3s,mb6.1						
GIVF	Givet	56.24	342	⇓iP	P	07 43 51.1	-1.0
	comp=Z,242nm,1.3s,mb6.1						
CLZ	Clausthal	56.27	346	eP	P	07 43 52.0	-0.3
CLZ				pmax	pmax		
	comp=Z,308nm,1.6s,mb6.1						
CLZ	Clausthal	56.27	346	eP	P	07 43 52.0	-0.3
	comp=Z,308nm,1.6s,mb6.1						
STS	Santiago	56.29	328	P	P	07 43 52.9	+0.2
STS				pmax	pmax		
	comp=Z,257nm,1.2s,mb6.1						
STS	Santiago	56.29	328	P	P	07 43 52.9	+0.3
	comp=Z,257nm,1.2s,mb6.1						
DOU	Dourbes	56.30	341	P	P	07 43 51.9	-0.7
	comp=Z,70nm,1.9s,mb5.4						
GKP	Gorka Klasztor	56.31	352	i Pd	P	07 43 52.4	-0.2
	comp=Z,1µm,1.9s,mb6.6						
GKP				epP	pP	07 43 58.4	+4.5
GKP				eS	S	07 51 48.7	+5.3
GKP				LMZ		08 14 10.5	
	comp=Z,4µm,15.5s						
GKP	Gorka Klasztor	56.31	352	⇓iP	P	07 43 52.4	-0.2
	comp=Z,1.1nm,1.9s						
GKP				epP	pP	07 43 58.4	+4.5
GKP				eS	S	07 51 48.7	+5.4
GKP				LR	LR		
	comp=Z,4µm,15.5s						
MEM	Membach	56.32	343	P	P	07 43 53.4	+0.7
BCLA	Clavier	56.37	342	P	P	07 43 51.9	-1.2
	comp=Z,181nm,2.0s,mb5.8						
BAIF	Baives	56.40	341	⇓iP	P	07 43 52.3	-0.9
	comp=Z,722nm,1.6s,mb6.2						
BAIF	Baives	56.40	341	⇓iP	P	07 43 52.3	-0.9
BAIF				pmax	pmax		
	comp=Z,361nm,1.6s,mb6.2						
BAIF	Baives	56.40	341	⇓iP	P	07 43 52.3	-0.9
	comp=Z,361nm,1.6s,mb6.2						
SUW	Suwalki	56.41	356	ePd	P	07 43 52.7	-0.6
	comp=Z,2µm,1.4s,mb6.9						
SUW				epP	pP	07 43 58.5	+4.0
SUW				eS	S	07 51 42.9	-1.6
SUW				LMZ		08 06 54.9	
	comp=Z,3µm,27.7s						
SUW	Suwalki	56.41	356	⇓eP	P	07 43 52.7	-0.5
SUW				ePP	pP	07 43 58.5	+4.0
SUW				eS	S	07 51 42.9	-1.6
HGN	Heimansgroeve	56.48	343	⇓iP	P	07 43 53.7	-0.2
	comp=Z,215nm,1.9s,mb5.9						
HGN	Heimansgroeve	56.48	343	ePP	PP	07 46 04.3	+4.6
HGN	Heimansgroeve	56.48	343	i S	S	07 51 51.3	+5.7
HGN	Heimansgroeve	56.48	343	eScS	ScS	07 53 47.3	+3.4
EMAZ	Mazaricos	56.56	327	P	P	07 43 54.6	0.0
	comp=Z,2µm,2.9s,mb6.6						
BEBN	Eben Emael	56.58	343	P	P	07 43 54.9	+0.3
	comp=Z,50nm,2.1s,mb5.2						
LDF	La Druitiere	56.70	337	⇓iP	P	07 43 54.6	-0.8
	comp=Z,638nm,1.3s,mb6.2						
LDF	La Druitiere	56.70	337	⇓iP	P	07 43 54.6	-0.8
LDF				pmax	pmax		
	comp=Z,319nm,1.3s,mb6.2						
LDF	La Druitiere	56.70	337	⇓iP	P	07 43 54.6	-0.8
	comp=Z,319nm,1.3s,mb6.2						
MICGM	Minsk	56.70	359	⇓eP	P	07 43 52.0	-3.3
MNK	Minsk	56.70	359	⇓eP	P	07 43 52.0	-3.3
MNK				pmax	pmax		
	comp=Z,780nm,1.4s,mb6.5						
MNK				pmax	pmax		
	comp=E,360nm,1.6s						
MNK				pmax	pmax		
	comp=N,1µm,1.5s						
SNF	Seneffe	56.76	341	P	P	07 43 55.9	0.0
	comp=Z,122nm,2.4s,mb5.5						
GRR	Gorron	56.82	337	⇓iP	P	07 43 55.5	-0.8
	comp=Z,387nm,1.1s,mb6.0						
GRR	Gorron	56.82	337	⇓iP	P	07 43 55.5	-0.8
GRR				pmax	pmax		
	comp=Z,194nm,1.1s,mb6.0						
GRR	Gorron	56.82	337	⇓iP	P	07 43 55.5	-0.8
	comp=Z,194nm,1.1s,mb6.0						
NRDL	Niedersach Rie	56.94	346	eP	P	07 43 57.2	+0.2
	comp=Z,889nm,1.3s,mb6.6						
FLN	La Foliniere	56.97	337	⇓iP	P	07 43 56.3	-1.1
	comp=Z,144nm,0.9s,mb5.7,baz=144						
FLN				eMLR	MLR		
	comp=Z,12µm,19.2s,MS5.7						
FLN	La Foliniere	56.97	337	⇓iP	P	07 43 56.3	-1.1
FLN				pmax	pmax		
	comp=Z,72nm,0.9s,mb5.7						
FLN				MLR	MLR		
	comp=Z,12µm,19.3s,MS6.0						
FLN	La Foliniere	56.97	337	⇓iP	P	07 43 56.3	-1.1
	comp=Z,72nm,0.9s,mb5.7						
FLN				LR	LR		
	comp=Z,12µm,19.3s,MS6.0						
UCC	Uccle	56.99	342	P	P	07 43 56.8	-0.6
DDI	Dehra Dun	57.03	51	ex	pP	07 44 01.0	+1.5
NACGM	Naroch	57.12	359	eP	P	07 43 55.0	-3.3
VIS	Vishakhapatnam	57.22	67	ePKP	P	07 43 59.6	-0.1
WTSB	Winterswijk	57.30	344	⇓iP	P	07 43 59.7	+0.1
	comp=Z,494nm,1.9s,mb6.2						
IBBN	Ibbenburen	57.35	345	eP	P	07 44 00.4	+0.4
	comp=Z,1µm,2.6s,mb6.5						
QUIF	Quistinic	57.39	335	⇓iP	P	07 43 59.8	-0.5
	comp=Z,1µm,1.6s,mb6.3						
QUIF	Quistinic	57.39	335	⇓iP	P	07 43 59.8	-0.5
QUIF				pmax	pmax		
	comp=Z,528nm,1.6s,mb6.3						
QUIF	Quistinic	57.39	335	⇓iP	P	07 43 59.8	-0.5
	comp=Z,528nm,1.6s,mb6.3						
SGMF	Saint Gilles	57.40	336	⇓iP	P	07 43 59.5	-0.9
	comp=Z,1µm,1.8s,mb6.3						
SGMF	Saint Gilles	57.40	336	⇓iP	P	07 43 59.5	-0.9
SGMF				pmax	pmax		
	comp=Z,567nm,1.8s,mb6.3						
SGMF	Saint Gilles	57.40	336	⇓iP	P	07 43 59.5	-0.9
	comp=Z,567nm,1.8s,mb6.3						
OBN	Obninsk	57.66	5	P	P	07 44 02.2	+0.1
	comp=Z,1µm,1.1s,mb6.9,SNR=16						
OBN	Obninsk	57.66	5	⇓iP	P	07 44 01.2	-0.9
OBN				i		07 46 11.4	
OBN				i S	S	07 52 00.0	-1.0
OBN				i SS	SS	07 55 57.6	+6.2
OBN				pmax	pmax		
	comp=Z,410nm,1.3s,mb6.3						
OBN	Obninsk	57.66	5	eP	P	07 43 58.0	-4.1
	comp=Z,321nm,1.1s,mb6.3						
OBN				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
ROSF	Rostrenen	57.76	335	⇓iP	P	07 44 02.0	-0.9
	comp=Z,470nm,1.4s,mb6.0						
ROSF	Rostrenen	57.76	335	⇓iP	P	07 44 02.0	-0.9
ROSF				pmax	pmax		
	comp=Z,235nm,1.4s,mb6.0						
ROSF	Rostrenen	57.76	335	⇓iP	P	07 44 02.0	-0.9
	comp=Z,235nm,1.4s,mb6.0						
JSA	Saint Aubin	57.98	336	eP	P	07 44 04.2	-0.3
JSA				AMb	AMB	07 44 05.5	
	comp=Z,230nm,1.1s,mb6.1						
AB31	Akbulak array	58.02	23	P	P	07 44 03.8	-1.0
AB31				pmax	pmax		
	comp=Z,364nm,2.2s,mb6.0						
WIT	Witteveen	58.10	344	⇓iP	P	07 44 06.3	+1.1
	comp=Z,1µm,1.6s,mb6.7						
BSEG	Bad Segeberg	58.23	347	eP	P	07 44 05.8	-0.3
BSEG				pmax	pmax		
	comp=Z,795nm,1.5s,mb6.5						
BSEG	Bad Segeberg	58.23	347	eP	P	07 44 05.8	-0.3
	comp=Z,795nm,1.5s,mb6.5						
AKTK	Aktyubinsk	58.24	21	P	P	07 44 05.6	-0.7
AKTO	Aktyubinsk	58.24	21	P	P	07 44 05.6	-0.7
AKTO				pmax	pmax		
	comp=Z,79nm,1.0s,mb5.7						
AKTO	Aktyubinsk	58.24	21	P	P	07 44 05.6	-0.7
	comp=Z,79nm,1.0s,mb5.7,baz=209,slow=5.6,SNR=148						
MOS	Moscow	58.37	6	eP	P	07 44 02.6	-4.5
MOS				eS	S	07 51 59.7	-11
MOS				e		07 53 48.5	
MOS				pmax	pmax		
	comp=Z,3µm,2.0s,mb7.0						
MOS				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.8						
MOS				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.4						
MOS				MLR	MLR		
	comp=N,2µm,17.0s						
MOS	Moscow	58.37	6	eP	P	07 44 03.7	-3.4
LGTI	Lohaghat	58.40	53	ex	P	07 44 04.3	-3.5
PTH	Pithoragarh	58.42	53	ePKP	P	07 44 07.8	-0.1
PTH				ex	x	07 45 02.5	
BSD	Bornholm Skovb	58.46	351	i P	P	07 44 07.0	-0.7
BSD				pmax	pmax		
	comp=Z,200nm,0.9s,mb6.2						
BSD	Bornholm Skovb	58.46	351	i P	P	07 44 07.0	-0.7
	comp=Z,199nm,0.9s,mb6.1						
PAF	Port-aux-Franc	58.53	150	P	P	07 44 12.0	+3.7
PAF				pmax	pmax		
	comp=Z,700nm,1.1s,mb6.6						
PAF				MLR	MLR		
	comp=Z,8µm,21.0s,MS5.8						
PAF	Port-aux-Franc	58.53	150	P	P	07 44 12.0	+3.6
	comp=Z,700nm,1.1s,mb6.6						
PAF				LR	LR		
	comp=Z,8µm,21.0s,MS5.8						
KK31	Karatay Array	58.74	35	i P	P	07 44 09.4	-0.5
WOL	Wolverton	59.32	339	eP	P	07 44 14.0	+0.2
WOL				AMb	AMB	07 44 17.5	
	comp=Z,714nm,1.9s,mb6.4						
COP	Copenhagen	59.44	349	⇓iP	P	07 44 14.7	+0.2
COP				pmax	pmax		
	comp=Z,67nm,0.9s,mb5.7						
COP	Copenhagen	59.44	349	⇓iP	P	07 44 14.7	+0.2
	comp=Z,67nm,0.9s,mb5.7						
SKP1	Kophill	59.51	339	⇓eP	P	07 44 15.3	+0.2
AEU	East Anglia Un	59.56	341	eP	P	07 44 15.5	+0.1
DYA	Yadsworthy	59.66	336	AMS	AMS	08 13 26.7	
	comp=Z,12µm,15.8s,MS6.1						
AWI1	Witton	59.66	341	⇓eP	P	07 44 15.6	-0.5
SWN1	Swindon	59.70	338	⇓eP	P	07 44 16.9	+0.5
SWN1				AMb	AMB	07 44 19.3	
	comp=Z,618nm,1.8s,mb6.3						
SWN1				AMS	AMS	08 13 11.8	
	comp=Z,7µm,16.3s,MS5.9						
SWN1	Swindon	59.70	338	P	P	07 44 16.9	+0.5
SWN1				AMb	AMB	07 44 19.3	
	comp=Z,618nm,1.8s,mb6.3						
SWN1				AMS	AMS	08 13 11.8	
	comp=Z,7µm,16.3s						
KSH	Kashi	59.99	41	P	P	07 44 15.2	-3.5
KSH				epP	pP	07 44 20.0	0.0
KSH				esP	sP	07 44 22.3	+1.8
KSH				PcP	PcP	07 45 03.3	-1.5
KSH				PP	PP	07 46 27.1	-4.0
KSH				eScP	ScP	07 49 00.8	-6.1
KSH				ePcS	PcS	07 49 03.2	-3.8
KSH				eS	S	07 52 20.6	-11
KSH				eScS	ScS	07 54 00.3	-10
KSH				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
KSH				pmax	pmax		
	comp=Z,860nm,4.6s						
KSH				LR	LR		
	comp=N,9µm,12.8s,MS6.2						
KSH				LR	LR		
	comp=E,6µm,13.9s,MS6.2						
KSH				LR	LR		
	comp=Z,8µm,12.0s,MS6.0						
CCA1	Carnmenellis	60.00	335	eP	P	07 44 17.4	-1.1
AML	Almayashu	60.02	37	P	P	07 44 18.8	0.0
	SNR=30						
AML	Almayashu	60.02	37	eP	P	07 44 18.6	-0.2
	comp=Z,118nm,1.6s,mb5.7						
AML				LR	LR		
	comp=Z,7µm,22.0s,MS5.8						
HEX	Exmoor	60.11	337	⇓eP	P	07 44 19.6	+0.4
PYUN	Piuthan	60.12	56	eP	P	07 44 19.1	-0.7
	comp=Z,235nm,0.9s,mb6.2						
HGH	Gray Hill	60.17	338	⇓eP	P	07 44 18.6	-1.0
HTL	Hartland	60.32	336	eP	P	07 44 21.1	+0.5
HTL				AMb	AMB	07 44 22.7	
	comp=Z,316nm,1.6s,mb6.1						
HTL				AMS	AMS	08 13 47.2	
	comp=Z,12µm,15.9s,MS6.1						
HTL	Hartland	60.32	336	P	P	07 44 21.1	+0.5
HTL				AMb	AMB	07 44 22.7	
	comp=Z,316nm,1.6s,mb6.1						
HTL				AMS	AMS	08 13 47.2	
	comp=Z,12µm,15.9s						
EKS2	Erkin-Say	60.38	37	P	P	07 44 21.6	+0.4
	SNR=11						
EKS2	Erkin-Say	60.38	37	eP	P	07 44 20.7	-0.5
	comp=Z,16nm,0.8s,mb5.1						
EKS2				ePcP	PcP	07 45 06.0	-0.2
EKS2				LR	LR		
	comp=Z,7µm,21.0s,MS5.8						
KOLN	Koldanda	60.51	56	eP	P	07 44 21.3	-1.1
	comp=Z,308nm,1.1s,mb6.4						
CWF	Charnwood Fore	60.52	339	eP	P	07 44 22.0	0.0
CWF				AMb	AMB	07 44 23.6	
	comp=Z,404nm,1.5s,mb6.3						
CWF				AMS	AMS	08 14 10.1	
	comp=Z,7µm,16.6s,MS5.9						
MCH1	Michaelchurch	60.53	338	eP	P	07 44 21.3	-0.8
MCH1				AMb	AMB	07 44 23.5	
	comp=Z,299nm,1.6s,mb6.2						
MCH1				AMS	AMS	08 13 45.1	
	comp=Z,7µm,16.4s,MS5.9						
UCH	Uchtor	60.57	38	eP	P	07 44 23.5	+0.9
	comp=Z,6.7nm,0.9s,mb4.8						
UCH				LR	LR		
	comp=Z,5µm,21.0s,MS5.6						
VSU	Vasula	60.69	359	eP	P	07 44 22.3	-0.7
AAK	Ala-Archa	60.80	37	P	P	07 44 24.1	0.0
	comp=Z,133nm,1.8s,mb5.8,SNR=10						
AAK	Ala-Archa	60.80	37	P	P	07 44 24.8	+0.7
	SNR=14						
AAK	Ala-Archa	60.80	37	eP	P	07 44 23.9	-0.2
AAK				LR	LR		
	comp=Z,8µm,21.0s,MS5.8						
AAK	Ala-Archa	60.80	37	⇑P	P	07 44 24.7	+0.6
	SNR=21						
AAK				⇑P	pP	07 44 24.7	-0.7
	SNR=21						
MUD	Monsted U’grnd	60.81	348	⇓iP	P	07 44 24.6	+0.7
MUD				pmax	pmax		
	comp=Z,300nm,0.9s,mb6.4						
MUD	Monsted U’grnd	60.81	348	⇓iP	P	07 44 24.6	+0.7
	comp=Z,295nm,0.9s,mb6.4						
DANN	Dangsing	60.84	56	eP	P	07 44 23.6	-1.1
	comp=Z,459nm,1.0s,mb6.6						
KWE	Weaver Farm	60.93	339	eP	P	07 44 25.2	+0.4
KZA	Kyzart	60.94	38	P	P	07 44 26.1	+1.0
	SNR=20						
FRU	Bishkek	60.98	37	⇓iP	P	07 44 26.0	+0.6
FRU				e		07 48 14.0	
FRU				eS	S	07 53 00.0	+15
FRU				pmax	pmax		
	comp=Z,600nm,2.0s,mb6.4						
FRU				pmax	pmax		
	comp=Z,2µm,6.0s						
FRU				MLR	MLR		
	comp=Z,6µm,15.0s,MS5.8						
KBI1	Birley Grange	61.02	340	eP	P	07 44 24.7	-0.6
KBK	Karagaybulak	61.08	37	P	P	07 44 25.9	-0.1
	SNR=9.6						
CHMS	Chumysh	61.16	37	P	P	07 44 26.4	-0.2
	SNR=15						
USP	Ospenovka	61.16	37	P	P	07 44 25.9	-0.7
	SNR=34						
BOK	Bokaro	61.19	61	⇓iP	P	07 44 26.7	-0.4
SBD1	Bryn Du	61.35	338	eP	P	07 44 27.9	+0.2
LHO	Holmfirth	61.37	340	P	P	07 44 28.5	+0.8
LHO	Holmfirth	61.37	340	⇓eP	P	07 44 27.4	-0.3
GKN	Gorkha	61.45	56	eP	P	07 44 28.0	-0.8
	comp=Z,367nm,1.0s,mb6.5						
LDU	Leeds Universi	61.47	340	eP	P	07 44 28.7	+0.2
HPK	Haverah Park	61.62	340	⇓eP	P	07 44 30.0	+0.5
HPK				AMb	AMB	07 44 32.2	
	comp=Z,871nm,1.7s,mb6.6						
HPK				AMS	AMS	08 14 57.4	
	comp=Z,8µm,16.2s,MS6.0						
HPK	Haverah Park	61.62	340	P	P	07 44 30.0	+0.5
HPK				AMb	AMB	07 44 32.2	
	comp=Z,871nm,1.7s,mb6.6						
HPK				AMS	AMS	08 14 57.4	
	comp=Z,8µm,16.2s						
TKM2	Tokmak 2	61.63	37	eP	P	07 44 29.1	-0.6
TKM2				pmax	pmax		
	comp=Z,65nm,1.4s,mb5.6						
TKM2				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.8						
TKM2	Tokmak 2	61.63	37	P	P	07 44 29.6	-0.1
	SNR=18						
TKM2	Tokmak 2	61.63	37	eP	P	07 44 29.1	-0.7
	comp=Z,65nm,1.4s,mb5.6						
TKM2				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
ULHL	Ulahol	61.65	38	P	P	07 44 30.6	+0.7
	SNR=5.4						
DMN	Daman	61.71	57	eP	P	07 44 30.1	-0.5
	comp=Z,239nm,1.0s,mb6.3						
YRE	Yr Eifl	61.85	338	⇓eP	P	07 44 31.2	+0.2
WPM1	Penmaenmawr	61.87	338	eP	P	07 44 30.6	-0.6
KKN	Kakani	61.91	57	eP	P	07 44 31.3	-0.7
	comp=Z,282nm,0.9s,mb6.4						
PKIN	Phulchoki	61.94	57	eP	P	07 44 31.4	-0.8
	comp=Z,82nm,0.9s,mb5.8						
PKI	Pulchoki	61.95	57	eP	P	07 44 31.3	-0.9
	comp=Z,206nm,1.2s,mb6.1						
PUL	Pulkovo	61.98	1	⇑eP	P	07 44 32.1	+0.3
YRC	Rhoscolyn	62.11	338	eP	P	07 44 32.9	+0.1
WME	Myndd Eilian	62.13	338	⇓eP	P	07 44 32.9	0.0
GUN	Gumba	62.45	57	eP	P	07 44 34.7	-0.9
	comp=Z,618nm,1.1s,mb6.7						
XAL	Allendale	62.56	340	eP	P	07 44 35.4	-0.4
JIRN	Jiri	62.63	57	eP	P	07 44 36.0	-0.8
	comp=Z,253nm,1.0s,mb6.3						
RAMN	Ramite	62.75	58	eP	P	07 44 36.7	-0.9
	comp=Z,268nm,1.1s,mb6.3						
WIM	Isle of Man	62.85	339	eP	P	07 44 38.4	+0.7
CAL	Calcutta	63.00	63	ePKP	P	07 44 37.9	-1.4
CAL				eS	S	07 53 11.7	+1.0
XSO	Sourhope Farm	63.09	341	eP	P	07 44 39.6	+0.4
GCD	Castle Douglas	63.16	339	eP	P	07 44 39.4	-0.3
ESK	Eskdalemuir	63.27	340	P	P	07 44 41.4	+1.0
	comp=Z,830nm,1.0s,mb6.8,SNR=6.2						
ESK	Eskdalemuir	63.27	340	eP	P	07 44 40.2	-0.3
ESK				AMb	AMB	07 44 41.2	
	comp=Z,320nm,1.5s,mb6.2						
ESK				AMS	AMS	08 16 12.0	
	comp=Z,8µm,15.5s,MS6.0						
ESK	Eskdalemuir	63.27	340	P	P	07 44 40.2	-0.3
ESK				AMb	AMB	07 44 41.2	
	comp=Z,320nm,1.5s,mb6.2						
ESK				AMS	AMS	08 16 12.0	
	comp=Z,8µm,15.5s						
ESK	Eskdalemuir	63.27	340	i P	P	07 44 41.4	+1.0
ESK	Eskdalemuir	63.27	340	eP	P	07 44 40.4	0.0
ESK				LR	LR		
	comp=Z,9µm,20.0s,MS5.9						
ARU	Arti	63.39	18	P	P	07 44 41.7	+0.4
	comp=Z,1µm,0.9s,mb7.1,SNR=32						
ARU	Arti	63.39	18	eP	P	07 44 40.3	-1.0
ARU				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.4						
ARU	Arti	63.39	18	eP	P	07 44 40.3	-1.0
ARU				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
ODAN	Odare	63.40	58	eP	P	07 44 41.1	-0.8
	comp=Z,151nm,1.0s,mb6.1						
GMM	Mts of Mourne	63.40	338	eP	P	07 44 40.7	-0.6
GAL1	Galloway	63.43	339	eP	P	07 44 41.5	-0.1
GAL1				AMb	AMB	07 44 43.6	
	comp=Z,388nm,1.5s,mb6.3						
GAL1				AMS	AMS	08 16 27.9	
	comp=Z,8µm,16.0s,MS6.0						
ESY	Stoneypath	63.56	341	eP	P	07 44 42.6	+0.2
PSMA	Santa Maria	63.57	314	eP	P	07 44 37.8	-5.0
	comp=Z,129nm,0.3s,mb6.4						
KLMR	Klimovskoe	63.60	6	⇓iP	P	07 44 41.6	-0.9
KLMR				eS	S	07 53 05.4	-11
KLMR				pmax	pmax		
	comp=Z,755nm,1.6s,mb6.5						
KONO	Kongsberg	63.69	349	eP	P	07 44 43.1	-0.1
KONO				eS	S	07 53 18.8	+0.8
KONO	Kongsberg	63.69	349	eP	P	07 44 43.4	+0.3
KONO				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
EDI	Edinburgh	63.75	341	eP	P	07 44 44.3	+0.7
EDI				AMb	AMB	07 44 45.8	
	comp=Z,473nm,1.4s,mb6.3						
EDI				AMS	AMS	08 16 22.0	
	comp=Z,9µm,16.3s,MS6.0						
TAPN	Taplejung	63.82	58	eP	P	07 44 43.9	-0.8
	comp=Z,376nm,1.0s,mb6.4						
EBH	Black Hill	64.12	341	eP	P	07 44 46.7	+0.7
CMLA	Cha da Macela	64.18	314	eP	P	07 44 48.9	+2.0
	comp=Z,1µm,1.7s,mb6.6						
CMLA	Cha da Macela	64.18	314	i P	P	07 44 49.4	+2.5
CMLA	Cha da Macela	64.18	314	eP	P	07 44 49.1	+2.2
CMLA				LR	LR		
	comp=Z,5µm,21.0s,MS5.6						
PSET	Sete Cidades	64.35	314	eP	P	07 44 49.2	+1.2
	comp=Z,506nm,1.4s,mb6.4						
KAF	Kangasniemi	64.36	359	eP	P	07 44 45.9	-1.6
KAF				pmax	pmax		
	comp=Z,138nm,0.8s,mb6.0						
KAF	Kangasniemi	64.36	359	ep	P	07 44 45.9	-1.6
	comp=Z,138nm,0.8s,mb6.0						
SVE	Sverdlovsk	64.37	19	⇑eP	P	07 44 46.9	-0.8
SVE				e		07 47 09.2	
SVE				ePPP		07 48 44.5	
SVE				eS	S	07 53 22.9	-3.7
SVE				e		07 54 45.2	
SVE				pmax	pmax		
	comp=Z,178nm,1.2s,mb6.0						
SVE				MLR	MLR		
	comp=Z,6µm,15.0s,MS5.9						
NAO01	NORSAR Array S	64.58	350	eP	P	07 44 49.1	+0.1
	comp=Z,257nm,1.0s,mb6.2						
RCBR	Riachuelo	64.69	265	eP	P	07 44 52.4	+1.8
RCBR				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
NB2	NORSAR Subarra	64.72	351	P	P	07 44 49.4	-0.5
	comp=Z,276nm,1.0s,mb6.2,baz=161,slow=6.5						
NOA	NORSAR Array B	64.72	351	P	P	07 44 49.9	0.0
NOA				pmax	pmax		
	comp=Z,159nm,0.9s						
NOA				MLR	MLR		
	comp=Z,2µm,19.9s						
NOA	NORSAR Array B	64.72	351	P	P	07 44 49.9	0.0
	comp=Z,158nm,0.9s,mb6.0,baz=163,slow=6.4,SNR=164						
NOA				LR	LR	08 15 25.3	
	comp=Z,2µm,19.9s,MS5.2,baz=175,slow=38						
MCD	Coleburn Disti	65.12	342	⇓eP	P	07 44 52.5	0.0
PRGR	Permogore	65.13	9	⇑iP	P	07 44 51.9	-0.7
PRGR				pmax	pmax		
	comp=Z,205nm,1.1s,mb6.1						
JOF	Joensuu	65.16	1	eP	P	07 44 50.3	-2.4
JOF				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.5						
JOF	Joensuu	65.16	1	ep	P	07 44 50.3	-2.4
	comp=Z,44nm,0.8s,mb5.5						
BRVK	Borovoye	65.20	26	P	P	07 44 52.8	-0.4
	comp=Z,172nm,1.2s,mb6.0,SNR=18						
BRVK	Borovoye	65.20	26	eP	P	07 44 51.2	-1.9
BRVK				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
BRVK	Borovoye	65.20	26	⇓P	P	07 44 52.6	-0.6
	SNR=15						
BRVK				⇓P	pP	07 44 52.6	-1.9
	SNR=15						
BVA0	Borovoye Array	65.22	26	i P	P	07 44 49.9	-3.4
BVA0				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.7						
BER	Bergen	65.23	347	eS	S	07 53 36.4	-0.7
BER				AMS	AMS	08 22 25.9	
	comp=Z,5µm,6.6s						
VOSK	Vostochnaya	65.28	27	P	P	07 44 51.6	-2.1
VOSK				pmax	pmax		
	comp=Z,64nm,1.5s,mb5.4						
SOKR	Solikamsk	65.55	15	d iP	P	07 44 55.5	+0.2
SOKR				S	S	07 53 41.4	+0.4

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SOKR                                  pmax      pmax
       comp=Z,320nm,1.5s,mb6.1
SOKR                                  MLR       MLR
       comp=Z,3µm,14.0s,MS5.6
KPL    Plockton          65.70 340   eP        P         07 44 56.6 +0.2
KPL                                   AMb       AMB       07 44 59.3
       comp=Z,345nm,2.2s,mb6.0
KPL                                   AMS       AMS       08 16 54.4
       comp=Z,6µm,16.7s,MS5.8
KPL    Plockton          65.70 340    P        P         07 44 56.6 +0.2
KPL                                   AMb       AMB       07 44 59.3
       comp=Z,345nm,2.2s,mb6.0
KPL                                   AMS       AMS       08 16 54.4
       comp=Z,6µm,16.7s
ADH    Angra Heroismo    65.78 315   eP        P         07 44 59.1 +1.8
       comp=Z,1µm,1.5s,mb6.7
AGT    Agartala          65.94  63   ex        P         07 44 55.0 -3.6
AGT                                  ex        x         07 45 19.0
RRR    Rubha Reidh       66.16 341   eP        P         07 44 59.0 -0.3
PMAN   Manadas           66.38 314   eP        P         07 45 02.8 +1.7
       comp=Z,377nm,1.0s,mb6.4
HOR    Horta             66.73 314   eP        P         07 45 09.5 +6.2
MOL    Molde             66.78 349   eP        P         07 45 03.2  0.0
CALA   Caldeira          66.80 314   eP        P         07 45 10.4 +6.6
PCED   Cedros            66.82 314   eP        P         07 45 05.9 +2.0
       comp=Z,381nm,1.1s,mb6.3
SYO    Syowa Base        66.89 176⇑iP        P         07 45 04.0 +0.2
SYO    Syowa Base        66.89 176⇑ipP       pP        07 45 07.3 +2.2
SHL    Shillong          66.92  61   ePKP      P         07 45 04.0 -0.8
SHL                                  i x       x         07 54 02.0
LSA    Lhasa             67.40  57    P        P         07 45 08.0 +0.2
LSA                                   S        S         07 53 58.0 -6.6
LSA                                   pmax      pmax
       comp=Z,50nm,1.9s,mb5.2
LSA                                   LR        LR
       comp=N,1µm,19.3s,MS5.7
LSA                                   LR        LR
       comp=E,4µm,19.3s,MS5.7
LSA                                   LR        LR
       comp=Z,6µm,19.3s,MS5.8
LSA    Lhasa             67.40  57   eP        P         07 45 08.1 +0.3
LSA                                  eS        S         07 54 04.4 -0.2
LSA                                   pmax      pmax
       comp=Z,133nm,1.4s,mb5.8
LSA                                   MLR       MLR
       comp=Z,6µm,20.0s,MS5.8
LSA    Lhasa             67.40  57   eP        P         07 45 08.1 +0.3
       comp=Z,133nm,1.4s,mb5.8
LSA                                  eS        S         07 54 04.4 -0.2
LSA                                   LR        LR
       comp=Z,6µm,20.0s,MS5.8
MK31   Makanchi Array    67.71  37   i P       P         07 45 08.2 -1.2
MK31                                  pmax      pmax
       comp=Z,62nm,0.9s,mb5.6
MK31   Makanchi Array    67.71  37   eP        P         07 45 08.2 -1.2
MKAR   Makanchi Array    67.71  37    P        P         07 45 08.4 -1.0
       comp=Z,28nm,0.8s,mb5.4,baz=243,slow=5.5,SNR=262
MKAR                                  PKP2bc              08 13 34.6
       comp=Z,1.9nm,1.1s,baz=64,slow=2.8,SNR=7.8
MKAR                                  LR        LR        08 16 35.6
       comp=Z,3µm,18.7s,MS5.5,baz=241,slow=38
MKAR   Makanchi Array    67.71  37    P        P         07 45 08.4 -1.0
MKAR                                ⇑e                   08 13 34.6
MKAR                                  LR        LR        08 16 35.6
KURK   Kurchatov         67.75  32    P        P         07 45 09.0 -0.6
       comp=Z,324nm,1.3s,mb6.2,SNR=27
KURK   Kurchatov         67.75  32   eP        P         07 45 08.9 -0.7
KURK                                 e                   07 47 38.0
KURK                                  pmax      pmax
       comp=Z,113nm,1.4s,mb5.7
KURK                                  MLR       MLR
       comp=Z,7µm,21.0s,MS5.9
KURK   Kurchatov         67.75  32   eP        P         07 45 08.9 -0.7
       comp=Z,113nm,1.4s,mb5.7
KURK                                 ePP       PP        07 47 38.0 -1.0
KURK                                  LR        LR
       comp=Z,7µm,21.0s,MS5.9
KURK   Kurchatov         67.75  32   ⇑P        P         07 45 09.7 +0.1
       SNR=42
KURK                                 ⇑P        pP        07 45 09.7 -1.2
       SNR=42
NSS    Namsos            67.92 352   eP        P         07 45 09.5 -0.9
NSS                                  eS        S         07 54 07.4 -2.1
NSS                                   AMS       AMS       08 23 12.7
       comp=Z,4µm,19.8s,MS5.6
COCO   West Island       67.94 102   i P       pP        07 45 19.5 +6.7
COCO   West Island       67.94 102    PFAKE               07 45 20.0 +8.5
COCO                                  LR        LR
       comp=Z,3µm,19.0s,MS5.6
MAW    Mawson            69.16 167   eP        P         07 45 19.0 +0.9
MAW                                   pmax      pmax
       comp=Z,41nm,1.3s
MAW                                   MLR       MLR
       comp=Z,4µm,20.0s
MAW    Mawson            69.16 167   eP        P         07 45 20.1 +2.0
       comp=Z,78nm,1.2s,mb5.5
MAW                                  eS        S         07 54 31.5 +7.3
MAW    Mawson            69.16 167    P        P         07 45 18.0 -0.1
       comp=Z,14nm,0.9s,mb4.9,baz=323,slow=8.9,SNR=7.8
MAW                                   LR        LR        08 13 13.8
       comp=Z,2µm,18.1s,MS5.5,baz=331,slow=34
MAW    Mawson            69.16 167   eP        P         07 45 19.0 +0.9
       comp=Z,41nm,1.3s,mb5.2
MAW                                   LR        LR
       comp=Z,4µm,20.0s,MS5.7
NVL    N'lazarevskaya    69.17 186d iP        P         07 45 20.1 +2.0
NVL                                   pmax      pmax
       comp=Z,223nm,1.5s,mb5.9
MAIT   Maitri            69.19 186   eP        P         07 45 19.4 +1.2
MOR8   Moi Rana          69.19 354   eP        P         07 45 18.1 -0.2
MOR8                                  AMb       AMB       07 45 31.9
       comp=Z,88nm,2.7s,mb5.2
STOK   Stokkvaagen       69.51 353   eP        P         07 45 20.1 -0.1
STOK                                 eP        pP        07 45 20.3 -1.3
WMQ    Urumqi            69.75  41⇓iP        P         07 45 21.8 -0.4
WMQ                                   pP        pP        07 45 26.5 +3.0
WMQ                                   sP        sP        07 45 29.0 +5.0
WMQ                                   PcP       PcP       07 45 46.0 +1.1
WMQ                                   PP        PP        07 47 55.0 -1.5
WMQ                                   S         S         07 54 30.5 -1.5
WMQ                                   sS        sS        07 54 37.0 +2.8
WMQ                                   pmax      pmax
       comp=Z,31nm,1.8s,mb4.9
WMQ                                   pmax      pmax
       comp=Z,960nm,6.0s
WMQ                                   LR        LR
       comp=N,9µm,23.3s,MS6.1
WMQ                                   LR        LR
       comp=E,5µm,19.2s,MS6.1
WMQ                                   LR        LR
       comp=Z,6µm,25.4s
APA    Apatity           69.88   2⇓iP        P         07 45 22.0 -0.5
APA                                  i                   07 45 31.0
APA                                  i S       S         07 54 30.0 -2.6
APA                                  i                   07 54 57.0
APA                                   MLR       MLR
       comp=Z,3µm,13.0s,MS5.8
PSI    Prapat            70.19  86    LR        LR        08 11 53.1
       comp=Z,5µm,21.6s,MS5.7,baz=270,slow=32
LVZ    Lovozero          70.25   2   eP        P         07 45 23.9 -0.9
LVZ                                   pmax      pmax
       comp=Z,146nm,2.8s,mb5.4
LVZ    Lovozero          70.25   2   eP        P         07 45 23.0 -1.8
LVZ                                   LR        LR
       comp=Z,3µm,21.0s,MS5.5
KTK1   Kautokeino        71.36 358   e         S         07 54 51.9 +2.1
ARCES  ARCESS Array B    71.82 359    P        P         07 45 33.8 -0.5
ARCES                                 pmax      pmax
       comp=Z,63nm,0.9s
ARCES                                 MLR       MLR
       comp=Z,2µm,18.1s
ARCES  ARCESS Array B    71.82 359    P        P         07 45 33.8 -0.5
       comp=Z,63nm,0.9s,mb5.6,baz=175,slow=6.1,SNR=79
ARCES                                 LR        LR        08 22 11.4
       comp=Z,2µm,18.1s,MS5.4,baz=185,slow=40
ARE0   ARCESS Array S    71.82 359   eP        P         07 45 33.7 -0.6
CM31   Chiang Mai Arr    71.91  70    PFAKE               07 45 50.0  +14
CM31                                  LR        LR
       comp=Z,2µm,20.0s,MS5.3
CMAR   Chiang Mai Arr    71.91  70    P        P         07 45 35.7 -0.1
       comp=Z,42nm,1.0s,mb5.3,baz=260,slow=7.1,SNR=55
CMAR                                  PKPPKP              08 13 29.4
       comp=Z,0.6nm,0.3s,baz=321,slow=1.3,SNR=3.5
CMAR                                  LR        LR        08 13 41.9
       comp=Z,2µm,22.0s,MS5.3,baz=74,slow=33
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CHG    Chiang Mai        71.96  69   ⇓P        P         07 45 35.4 -0.8
       comp=Z,56nm,1.1s,mb5.4
CHTO   Chiang Mai        71.96  69   eP        P         07 45 35.2 -1.0
CHTO                                  pmax      pmax
       comp=Z,56nm,1.1s,mb5.4
CHTO                                  MLR       MLR
       comp=Z,2µm,21.0s,MS5.4
CHTO   Chiang Mai        71.96  69   eP        P         07 45 35.1 -1.0
       comp=Z,56nm,1.1s,mb5.4
CHTO                                  LR        LR
       comp=Z,2µm,21.0s,MS5.4
CHTO   Chiang Mai        71.96  69   ⇓P        P         07 45 35.9 -0.2
       SNR=21
CHTO                                 ⇓P        pP        07 45 35.9 -1.6
       SNR=21
KEV    Kevo              72.02 359   eP        P         07 45 33.2 -2.2
KEV                                   pmax      pmax
       comp=Z,35nm,0.8s,mb5.3
KEV    Kevo              72.02 359   ep        P         07 45 33.2 -2.2
       comp=Z,35nm,0.8s,mb5.3
KULM   Kulim             72.08  84    P        P         07 45 37.1 +0.1
KULM   Kulim             72.08  84   eP        P         07 45 35.9 -1.1
       comp=Z,30nm,1.1s,mb5.1
KULM                                  LR        LR
       comp=Z,5µm,21.0s,MS5.7
TRO    Tromso            72.20 356   eP        P         07 45 35.9 -0.7
TRO                                  eS        S         07 54 57.3 -2.2
TRO                                   AMS       AMS       08 23 53.2
       comp=Z,4µm,7.6s
VNA1   Neumayer--Stat    72.27 192   eP        P         07 45 39.1 +2.1
VNA2   Neumayer--Watz    72.31 192   eP        P         07 45 39.0 +1.8
       baz=22,slow=6.2
VNA2                                 e                   07 48 23.5
NVS    Novosibirsk       72.35  30⇓iP        P         07 45 36.7 -1.0
NVS                                  e                   07 48 15.8
NVS                                  eS        S         07 54 56.3 -5.5
NVS                                   pmax      pmax
       comp=N,146nm,1.6s
NVS                                   pmax      pmax
       comp=E,55nm,1.6s
NVS                                   pmax      pmax
       comp=Z,248nm,1.6s,mb5.9
NVS                                   pmax      pmax
       comp=N,31nm,1.8s
NVS                                   pmax      pmax
       comp=E,15nm,1.8s
NVS                                   pmax      pmax
       comp=Z,54nm,1.8s,mb5.2
NVS                                   smax
       comp=N,75nm,2.5s
NVS                                   smax
       comp=E,48nm,2.3s
IPM    Ipoh              72.39  85    P        P         07 45 39.2 +0.3
NST    Nakhon Sawan      72.64  73    P        P         07 45 40.0 -0.2
ZAA0   Zalesovo Array    72.69  31   eP        P         07 45 37.9 -1.9
ZAA0                                 ePP       PP        07 48 22.4 +0.8
ZALV   Zalesovo Beam     72.69  31    P        P         07 45 38.5 -1.2
       comp=E,24nm,1.0s,mb5.1,baz=253,slow=4.5,SNR=54
ZALV                                  PKPPKP              08 13 23.7
       comp=E,2.2nm,1.0s,baz=90,slow=3.0,SNR=7.2
ZALV                                  LR        LR        08 18 51.6
       comp=E,4µm,19.1s,MS5.7,baz=232,slow=37
CHRT   Chiangrai         72.91  68   ⇑P        P         07 45 41.5 -0.3
       comp=E,171nm,1.0s,mb5.9
FRIM   Kepong            72.91  86    P        P         07 45 42.3 +0.3
VNA3   Neumayer Olymp    73.03 192   eP        P         07 45 42.8 +1.3
KGM    Kluang            74.53  87    P        P         07 45 51.9 +0.4
KTGM   Kuala Trenggan    74.55  84    P        P         07 45 51.8 +0.3
MYKOM  Kota Tinggi       75.05  88    P        P         07 45 54.9 +0.3
KMI    Kunming           76.44  64   ⇑P        P         07 46 02.9 +0.7
KMI                                   pP        pP        07 46 06.8 +3.3
KMI                                   sP        sP        07 46 08.0 +4.0
KMI                                   PcP       PcP       07 46 15.8 +1.8
KMI                                   PP        PP        07 48 54.9 +0.9
KMI                                   S         S         07 55 46.8 -2.0
KMI                                   sS        sS        07 55 52.5 +1.5
KMI                                   SKS                 07 56 09.6
KMI                                   ScS       ScS       07 56 15.4 -3.7
KMI                                   SS        SS        08 00 44.7 +1.2
KMI                                   pmax      pmax
       comp=Z,40nm,1.8s,mb5.0
KMI                                   pmax      pmax
       comp=Z,990nm,4.9s
KMI                                   LR        LR
       comp=N,2µm,23.3s,MS5.5
KMI                                   LR        LR
       comp=E,1µm,19.9s,MS5.5
GTA    Gaotai            76.89  49   ⇓P        P         07 46 04.6 +0.1
GTA                                   pP        pP        07 46 08.3 +2.5
GTA                                   sP        sP        07 46 09.7 +3.4
GTA                                   PP        PP        07 49 00.9 +3.4
GTA                                   S         S         07 55 53.1 -0.1
GTA                                   sS        sS        07 56 01.5 +6.1
GTA                                   SKS                 07 56 12.2
GTA                                   pmax      pmax
       comp=Z,71nm,1.4s,mb5.4
GTA                                   pmax      pmax
       comp=Z,1µm,5.1s
GTA                                   LR        LR
       comp=N,4µm,18.0s,MS5.8
GTA                                   LR        LR
       comp=E,3µm,19.8s,MS5.8
GTA                                   LR        LR
       comp=Z,4µm,20.1s,MS5.8
JMIC   Jan Mayen         77.23 348    AMS       AMS       08 23 17.0
       comp=Z,3µm,13.6s,MS5.8
MIR    Mirnyy            77.73 158   eP        P         07 46 10.0 +1.4
MIR                                  i S       S         07 56 10.0 +8.7
MIR                                  eSS       SS        08 01 00.0 -1.1
MIR                                   pmax      pmax
       comp=Z,2µm,8.0s
KRAR   Krasnoyarsk       77.77  31⇓iP        P         07 46 08.9 -0.1
KRAR                                  pmax      pmax
       comp=Z,303nm,1.3s,mb6.1
KRAR                                  MLR       MLR
       comp=Z,5µm,20.0s,MS5.8
CD2    Chengdu           78.28  58    P        P         07 46 12.1 -0.3
CD2                                   pP        pP        07 46 16.8 +3.0
CD2                                   sP        sP        07 46 18.2 +3.9
CD2                                   PP        PP        07 49 11.0 +1.6
CD2                                   S         S         07 56 05.7 -2.9
CD2                                   sS        sS        07 56 13.4 +2.5
CD2                                   SKS                 07 56 21.3
CD2                                   SS        SS        08 01 10.9 -0.2
CD2                                   pmax      pmax
       comp=Z,70nm,1.0s,mb5.5
CD2                                   pmax      pmax
       comp=Z,1µm,9.8s
CD2                                   LR        LR
       comp=N,2µm,20.8s
CD2                                   LR        LR
       comp=Z,3µm,21.4s,MS5.5
LZH    Lanzhou           79.29  53   ⇑P        P         07 46 18.5 +0.6
LZH                                   pP        pP        07 46 21.6 +2.4
LZH                                   sP        sP        07 46 23.5 +3.8
LZH                                   PP        PP        07 49 20.0 +2.3
LZH                                  eS        S         07 56 17.2 -2.0
LZH                                   sS        sS        07 56 23.0 +1.6
LZH                                   SKS                 07 56 29.0
LZH                                   pmax      pmax
       comp=Z,120nm,1.6s,mb5.6
LZH                                   pmax      pmax
       comp=Z,690nm,5.6s
LZH                                   LR        LR
       comp=N,4µm,16.6s
LZH                                   LR        LR
       comp=Z,5µm,17.9s,MS5.8
GYA    Guiyang           80.13  63⇑iP        P         07 46 23.5 +0.9
GYA                                   S         S         07 56 26.9 -1.6
GYA                                   SKS                 07 56 36.4
GYA                                   SS        SS        08 01 41.2 +2.1
GYA                                   pmax      pmax
       comp=Z,70nm,1.0s,mb5.5
GYA                                   pmax      pmax
       comp=Z,190nm,6.2s
GYA                                   LR        LR
       comp=N,7µm,19.9s,MS6.1
GYA                                   LR        LR
       comp=E,5µm,18.8s,MS6.1
GYA                                   LR        LR
       comp=Z,9µm,20.4s,MS6.1
SPB4   Spitsbergen Ar    80.76 357   eP        P         07 46 25.2 +0.2
MOY    Mondy             80.86  37   eP        P         07 46 26.6 +0.6
MOY                                   pmax      pmax
       comp=Z,203nm,2.4s,mb5.6
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KSM    Kuching           81.48  88    P        P         07 46 30.1 -0.1
KSM    Kuching           81.48  88   eP        P         07 46 29.6 -0.6
       comp=Z,53nm,0.9s,mb5.5
KSM                                   LR        LR
       comp=Z,2µm,19.0s,MS5.4
KBS    Kingsbay          81.71 357   eP        P         07 46 30.1 +0.1
KBS                                   pmax      pmax
       comp=Z,58nm,0.9s,mb5.5
KBS                                   MLR       MLR
       comp=Z,2µm,19.0s,MS5.4
KBS    Kingsbay          81.71 357   e         P         07 46 24.7 -5.3
KBS                                  eS        S         07 56 46.9 +3.8
KBS                                   AMS       AMS       08 30 13.0
       comp=Z,2µm,16.7s,MS5.5
KBS    Kingsbay          81.71 357   eP        P         07 46 30.1  0.0
       comp=Z,58nm,0.9s,mb5.5
KBS                                   LR        LR
       comp=Z,2µm,19.0s,MS5.4
ZAK    Zakamensk         81.93  39⇑iP        P         07 46 31.2 -0.5
ZAK                                   pmax      pmax
       comp=Z,36nm,1.5s,mb5.1
QIZ    Qiongzhong        82.22  71    P        P         07 46 33.1 -0.8
QIZ                                   pP        pP        07 46 36.7 +1.4
QIZ                                   PP        PP        07 49 41.7 -0.7
QIZ                                   S         S         07 56 49.5 -1.0
QIZ                                   SS        SS        08 02 09.7 -0.9
QIZ                                   pmax      pmax
       comp=Z,920nm,8.0s
QIZ                                   LR        LR
       comp=E,1µm,25.2s
QIZ                                   LR        LR
       comp=Z,2µm,29.6s,MS5.3
QIZ    Qiongzhong        82.22  71    PFAKE               07 46 50.0  +16
QIZ                                   LR        LR
       comp=Z,1µm,19.0s,MS5.4
TLY    Talaya            82.46  37    P        P         07 46 35.7 +1.3
       comp=Z,162nm,1.1s,mb5.9,SNR=17
TLY    Talaya            82.46  37d iP        P         07 46 34.5 +0.1
TLY                                  eS        S         07 56 53.7 +2.1
TLY                                  ePS                 07 57 39.5
TLY                                  e                   07 57 54.0
TLY                                   pmax      pmax
       comp=Z,52nm,1.5s,mb5.2
TLY                                   MLR       MLR
       comp=Z,3µm,19.0s,MS5.7
TLY    Talaya            82.46  37   eP        P         07 46 34.9 +0.4
       comp=Z,48nm,1.3s,mb5.3
TLY                                   LR        LR
       comp=Z,3µm,19.0s,MS5.7
TLY    Talaya            82.46  37   ⇓P        P         07 46 35.5 +1.1
       SNR=23
TLY                                  ⇓P        pP        07 46 35.5 -0.3
       SNR=23
IRK    Irkutsk           82.97  37   eP        P         07 46 36.5 -0.6
IRK                                   pmax      pmax
       comp=Z,200nm,2.0s,mb5.8
XAN    Xi'an             83.07  55    P        P         07 46 37.8 -0.2
XAN                                   pP        pP        07 46 41.8 +2.4
XAN                                   sP        sP        07 46 43.7 +3.8
XAN                                   PP        PP        07 49 50.1 +1.1
XAN                                   SKS                 07 56 50.7
XAN                                   sS        sS        07 57 10.8  +10
XAN                                   pmax      pmax
       comp=Z,21nm,1.4s,mb5.0
XAN                                   pmax      pmax
       comp=Z,1µm,8.0s
XAN                                   LR        LR
       comp=N,1µm,19.6s,MS5.6
XAN                                   LR        LR
       comp=E,2µm,20.0s,MS5.6
XAN                                   LR        LR
       comp=Z,3µm,21.1s,MS5.7
SONM   Songino Array     83.39  41    P        P         07 46 40.3 +1.0
       comp=Z,7.1nm,1.0s,mb4.7,baz=245,slow=5.0,SNR=51
SONM                                  PKKPbc    PKKPbc    08 05 02.6 +1.9
       comp=Z,1.3nm,1.1s,baz=97,slow=1.2,SNR=4.4
SONM                                  PKPPKP              08 13 07.8
       comp=Z,1.3nm,1.1s,baz=90,slow=1.4,SNR=3.2
SONM                                  LR        LR        08 24 14.9
       comp=Z,5µm,21.1s,MS5.9,baz=268,slow=36
DAG    Danmarks Havn     83.40 350⇑eP        P         07 46 38.2 -0.6
DAG                                   pmax      pmax
       comp=Z,110nm,1.3s,mb5.7
DAG    Danmarks Havn     83.40 350⇑iP        P         07 46 38.2 -0.6
       comp=Z,109nm,1.3s,mb5.7
DAG    Danmarks Havn     83.40 350⇑eP        P         07 46 38.2 -0.6
       comp=Z,110nm,1.3s,mb5.7
SBUM   Sibu              83.44  87    P        P         07 46 41.0 +0.7
BTM    Bintulu           84.33  87    P        P         07 46 45.5 +0.6
CASY   Casey             84.45 156   eP        P         07 46 46.4 +2.0
CASY                                 eS        S         07 57 19.9 +8.6
CASY   Casey             84.45 156    PFAKE               07 47 00.0  +16
CASY                                  LR        LR
       comp=Z,3µm,20.0s,MS5.7
GIRL   Giralia           84.79 112   eP        P         07 46 50.7 +3.6
       comp=Z,776nm,1.0s,mb6.8
BTO    Baotou            84.81  49   eP        P         07 46 47.1 +0.3
CPUP   Villa Florida     85.56 244    P        P         07 46 51.7 +0.8
       comp=Z,12nm,1.0s,mb5.1,baz=66,slow=6.2,SNR=14
CPUP                                  LR        LR        08 22 13.3
       comp=Z,2µm,18.7s,MS5.4,baz=80,slow=34
CPUP   Villa Florida     85.56 244   eP        P         07 46 50.9  0.0
       comp=Z,151nm,1.6s,mb6.0
CPUP                                  LR        LR
       comp=Z,391nm,19.0s,MS4.8
SUMG   Summit            85.62 344   eP        P         07 46 50.9 +0.7
       comp=Z,134nm,1.2s,mb6.0
GZH    Guangzhou         85.82  67    P        P         07 46 52.3 +0.1
GZH                                   S         S         07 57 23.6 -2.9
GZH                                   LR        LR
       comp=N,1µm,23.6s,MS5.3
GZH                                   LR        LR
       comp=E,1µm,27.3s,MS5.3
GZH                                   LR        LR
       comp=Z,3µm,23.7s,MS5.6
HHC    Hu-ho-hao-te      86.00  49   eP        P         07 46 53.8 +1.1
HHC                                   pP        pP        07 46 58.4 +4.3
HHC                                   sP        sP        07 47 01.2 +6.6
HHC                                   PP        PP        07 50 15.3 +2.6
HHC                                   SKS                 07 57 15.5
HHC                                   S         S         07 57 23.5 -4.1
HHC                                   sS        sS        07 57 34.2 +4.4
HHC                                   SS        SS        08 03 05.3 -0.2
HHC                                   pmax      pmax
       comp=Z,64nm,1.1s,mb5.8
HHC                                   pmax      pmax
       comp=Z,2µm,6.5s
HHC                                   LR        LR
       comp=N,2µm,16.7s,MS5.7
HHC                                   LR        LR
       comp=E,2µm,16.3s,MS5.7
HHC                                   LR        LR
       comp=Z,2µm,16.6s,MS5.7
LPA    La Plata          86.04 235ceP        P         07 46 54.0 +0.9
LPA
       comp=Z,3µm,21.0s
EFI    East Falkland     86.25 219    PFAKE               07 47 10.0  +16
EFI                                   LR        LR
       comp=Z,4µm,19.0s,MS5.8
MUN    Mundaring         86.47 122   eP        P         07 46 55.6 +0.4
MUN                                  eS        S         07 57 25.0 -7.5
WHN    Wuhan             87.29  59   ⇓P        P         07 46 59.1 -0.2
WHN                                   pP        pP        07 47 08.6 +8.0
WHN                                   SKS                 07 57 25.7
WHN                                   S         S         07 57 39.7 -0.8
WHN                                   pmax      pmax
       comp=Z,250nm,1.7s,mb6.2
WHN                                   pmax      pmax
       comp=Z,3µm,5.4s
WHN                                   LR        LR
       comp=N,3µm,13.1s,MS5.9
WHN                                   LR        LR
       comp=E,3µm,16.2s,MS5.9
WHN                                   LR        LR
       comp=Z,4µm,19.8s,MS5.8
NWAO   Narrogin (SRO)    87.32 123   eP        P         07 46 59.8 +0.4
NWAO                                  pmax      pmax
       comp=Z,78nm,1.0s
NWAO                                  MLR       MLR
       comp=Z,3µm,21.0s
NWAO   Narrogin (SRO)    87.32 123   eP        P         07 46 59.8 +0.4
       comp=Z,78nm,1.0s,mb5.9
NWAO                                  LR        LR
       comp=Z,3µm,21.0s,MS5.6
KKM    Kota Kinabalu     87.58  84    P        P         07 47 01.6 +0.6
KKM    Kota Kinabalu     87.58  84   eP        P         07 47 00.6 -0.5
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	comp=Z,26nm,0.9s,mb5.5						
KKM				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
QSPA	**South Pole Qui**	**87.66**	**180**	PKKP	PKKPbc	08 04 47.8	-3.6
	comp=Z,5.1nm,0.9s,baz=250,slow=1.9,SNR=7.2						
QSPA				PKPPKP		08 12 48.7	
	comp=Z,3.2nm,1.1s,baz=156,slow=3.9,SNR=3.7						
QSPA				LR	LR	08 25 07.1	
	comp=Z,2µm,19.7s,MS5.6,baz=81,slow=35						
QSPA	**South Pole Qui**	**87.66**	**180**	PFAKE		07 47 10.0	+10
QSPA				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
KLBR	**Kellerberrin**	**87.79**	**121**	*e*P	**P**	**07 47 01.6**	**-0.1**
	comp=Z,39nm,0.9s,mb5.6						
SDKM	**Sandakan**	**88.54**	**84**	P	**P**	**07 47 05.9**	**+0.3**
BBGH	**Gun Hill**	**89.03**	**283**	PFAKE		07 47 20.0	+12
BBGH				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
PMSA	**Palmer Station**	**89.11**	**205**	*e*P	**P**	**07 47 08.4**	**+1.2**
	comp=Z,239nm,1.1s,mb6.4						
PMSA				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
TSM	**Tawau**	**89.16**	**86**	P	**P**	**07 47 08.9**	**+0.4**
BOD	**Bodaibo**	**89.39**	**32**	*e*P	**P**	**07 47 07.5**	**-1.1**
BOD				*e*		07 57 58.2	
BOD				pmax	pmax		
	comp=Z,51nm,1.6s,mb5.6						
BJT	**Baijiatuau**	**89.43**	**50**	*e*P	**P**	**07 47 09.2**	**0.0**
BJT				*e*		07 50 44.2	
BJT				pmax	pmax		
	comp=Z,42nm,0.9s						
BJT				MLR	MLR		
	comp=Z,4µm,21.0s						
BJT	**Baijiatuau**	**89.43**	**50**	*e*P	**P**	**07 47 09.2**	**0.0**
	comp=Z,42nm,0.9s,mb5.8						
BJT				*e*PP	PP	07 50 44.2	+3.9
BJT				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
BJI	**Beijing**	**89.44**	**50**	P	**P**	**07 47 08.9**	**-0.3**
BJI				PP	PP	07 50 40.6	+0.2
BJI				SKS		07 57 35.8	
BJI				S	S	07 57 59.1	-1.4
BJI				pmax	pmax		
	comp=Z,53nm,2.3s,mb5.5						
BJI				pmax	pmax		
	comp=Z,1µm,6.3s						
BJI				LR	LR		
	comp=N,4µm,18.5s,MS6.0						
BJI				LR	LR		
	comp=E,3µm,18.5s,MS6.0						
BJI				LR	LR		
	comp=Z,3µm,22.9s,MS5.6						
MYLDM	**Lahad Datu**	**89.82**	**85**	P	**P**	**07 47 12.4**	**+0.7**
MBWA	**Marble Bar**	**89.93**	**111**	*e*P	**P**	**07 47 11.7**	**-0.3**
MBWA				*e*S	SKSac	07 57 43.8	-0.4
MBWA	**Marble Bar**	**89.93**	**111**	*e*P	**P**	**07 47 11.7**	**-0.2**
	comp=Z,34nm,1.0s,mb5.6						
MBWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
FDF	**Fort de France**	**90.64**	**285**	PFAKE		07 47 30.0	+15
FDF				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
QZH	**Quanzhou**	**90.72**	**65**⇑	*i*P	**P**	**07 47 16.8**	**+1.2**
QZH				S	S	07 58 11.2	-1.8
QZH				LR	LR		
	comp=N,5µm,19.3s,MS6.1						
QZH				LR	LR		
	comp=E,2µm,14.4s,MS6.1						
QZH				LR	LR		
	comp=Z,3µm,17.2s,MS5.8						
GRGR	**Grenville**	**91.03**	**282**	PFAKE		07 47 30.0	+13
GRGR				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
NJ2	**Nanjing**	**91.22**	**58**	*e*P	**P**	**07 47 20.3**	**+2.6**
NJ2				pP	pP	07 47 25.2	+6.1
NJ2				sP	sP	07 47 27.8	+8.2
NJ2				S	S	07 58 16.0	-1.3
NJ2				sS	sS	07 58 24.0	+4.4
NJ2				pmax	pmax		
	comp=Z,240nm,5.6s						
NJ2				LR	LR		
	comp=N,4µm,33.8s						
NJ2				LR	LR		
	comp=E,5µm,28.7s						
NJ2				LR	LR		
	comp=Z,6µm,28.7s						
ANWB	**Willy Bob**	**91.36**	**288**	PFAKE		07 47 30.0	+11
ANWB				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
USHA	**Ushuaia**	**92.29**	**215**	LR	LR	08 26 05.8	
	comp=Z,2µm,18.3s,MS5.7,baz=67,slow=34						
HIA	**Hailar**	**92.35**	**41**	*e*P	**P**	**07 47 21.8**	**-0.8**
HIA				pmax	pmax		
	comp=Z,29nm,1.1s						
HIA				MLR	MLR		
	comp=Z,4µm,21.0s						
HIA	**Hailar**	**92.35**	**41**	*e*P	**P**	**07 47 21.8**	**-0.8**
	comp=Z,29nm,1.1s,mb5.5						
HIA				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
ALE	**Alert**	**92.52**	**352**	P	**P**	**07 47 22.0**	**-0.8**
	comp=Z,111nm,1.2s,mb6.2,SNR=8.6						
SSE	**Sheshan**	**93.19**	**59**	*e*P	**P**	**07 47 27.0**	**+0.1**
SSE				sP	sP	07 47 32.8	+4.1
SSE				SKS		07 57 53.8	
SSE				S	S	07 58 28.2	-6.8
SSE				pmax	pmax		
	comp=Z,14nm,1.8s,mb5.1						
SSE				pmax	pmax		
	comp=Z,370nm,7.9s						
SSE				LR	LR		
	comp=N,1µm,23.6s,MS5.4						
SSE				LR	LR		
	comp=E,440nm,23.6s,MS5.4						
SSE				LR	LR		
	comp=Z,1µm,31.5s						
YHNB	**Yeheng**	**93.24**	**66**	PFAKE		07 47 40.0	+13
YHNB				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
TATO	**Taipei**	**93.35**	**65**	PFAKE		07 47 40.0	+12
TATO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
DL2	**Dalian**	**93.62**	**51**	P	**P**	**07 47 27.7**	**-1.0**
DL2				S	S	07 58 36.0	-2.5
DL2				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.4						
DL2				pmax	pmax		
	comp=Z,330nm,6.2s						
DL2				LR	LR		
	comp=N,1µm,22.0s						
DL2				LR	LR		
	comp=Z,2µm,19.1s,MS5.5						
BBSR	**BB Station**	**94.30**	**302**	PFAKE		07 47 40.0	+8.0
BBSR				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
SNY	**Shenyang**	**95.08**	**48**	⇓P	**P**	**07 47 35.0**	**-0.3**
SNY				pP	pP	07 47 45.2	+8.5
SNY				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.8						
SNY				pmax	pmax		
	comp=Z,530nm,6.0s						
SNY				LR	LR		
	comp=N,4µm,22.4s,MS5.9						
SNY				LR	LR		
	comp=E,2µm,22.4s,MS5.9						
SNY				LR	LR		
	comp=Z,3µm,16.5s						
NRGR	**Nerungri**	**95.20**	**33**	*e*P	**P**	**07 47 37.3**	**+1.8**
SCHQ	**Schefferville**	**95.25**	**325**	P	**P**	**07 47 37.0**	**+1.3**
	comp=Z,8.4nm,0.9s,mb5.2,baz=90,slow=5.4,SNR=5.5						
SCHQ				LR	LR	08 29 16.5	
	comp=Z,4µm,18.5s,MS6.0,baz=97,slow=35						
TIXI	**Tiksi**	**95.40**	**18**	*e*P	**P**	**07 47 34.5**	**-1.6**
TIXI				*e*		07 51 24.3	
TIXI				*e*S	S	07 58 47.1	-5.6
TIXI				*e*PS	PS	08 00 05.0	-5.6
TIXI				pmax	pmax		
	comp=Z,32nm,2.0s,mb5.4						
TIXI	**Tiksi**	**95.40**	**18**	*e*P	**P**	**07 47 35.4**	**-0.8**
	comp=Z,21nm,1.3s,mb5.4						
TIXI				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
SJG	**San Juan**	**95.53**	**288**	PFAKE		07 47 50.0	+12
SJG				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
PLCA	**Paso Flores**	**95.61**	**229**	P	**P**	**07 47 38.8**	**+1.1**
	comp=Z,6.2nm,0.9s,mb5.1,baz=116,slow=5.9,SNR=12						
PLCA				PKKP	PKKPbc	08 04 29.9	+0.1
	comp=Z,1.7nm,1.0s,baz=278,slow=9.2,SNR=3.0						
PLCA				LR	LR	08 26 30.1	
	comp=Z,2µm,20.3s,MS5.6,baz=93,slow=33						
PLCA	**Paso Flores**	**95.61**	**229**	*e*P	**P**	**07 47 38.7**	**+0.9**
	comp=Z,24nm,1.4s,mb5.4						
PLCA				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
FITZ	**Fitzroy Crossi**	**95.67**	**108**	*e*P	**P**	**07 47 38.4**	**-0.1**
	comp=Z,57nm,0.9s,mb6.0						
FITZ	**Fitzroy Crossi**	**95.67**	**108**	*e*P	**P**	**07 47 37.9**	**-0.7**
	comp=Z,42nm,1.0s,mb5.8						
VNDA	**Vanda**	**96.18**	**171**	LR	LR	08 31 23.5	
	comp=Z,5µm,18.2s,MS6.0,baz=228,slow=36						
LVC	**Limon Verde**	**96.29**	**247**	P	**P**	**07 47 43.2**	**+1.9**
	comp=Z,10nm,0.9s,mb5.2,baz=94,slow=9.2,SNR=5.2						
LVC				LR	LR	08 31 12.8	
	comp=Z,1µm,18.1s,MS5.5,baz=98,slow=36						
LVC	**Limon Verde**	**96.29**	**247**	*e*P	**P**	**07 47 42.2**	**+0.9**
	comp=Z,54nm,1.5s,mb5.8						
LVC				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
CN2	**Changchun**	**96.38**	**46**	⇓P	**P**	**07 47 40.5**	**-0.7**
CN2				*e*sP	sP	07 47 50.6	+7.5
CN2				*e*PP	PP	07 51 37.3	+2.5
CN2				*e*SKS		07 58 15.5	
CN2				*e*S	S	07 58 56.6	-5.7
CN2				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.6						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,5µm,21.0s,MS6.0						
CN2				LR	LR		
	comp=E,2µm,21.0s,MS6.0						
CN2				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
FORT	**Forrest**	**96.65**	**121**	*e*P	**P**	**07 47 42.7**	**-0.1**
	comp=Z,25nm,1.1s,mb5.6						
SBA	**Scott Base**	**96.69**	**172**	PFAKE		07 47 50.0	+8.1
SBA				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
DAV	**Davao City (W)**	**96.92**	**83**	PFAKE		07 48 00.0	+16
DAV				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
YAK	**Yakutsk**	**97.16**	**28***d*	*i*P	**P**	**07 47 43.3**	**-1.0**
YAK				*e*		07 51 40.8	
YAK				*e*PPP		07 53 41.6	
YAK				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.4						
YAK				pmax	pmax		
	comp=E,11nm,1.6s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,79nm,1.9s,mb5.8						
YAK				pmax	pmax		
	comp=E,201nm,4.5s						
YAK				pmax	pmax		
	comp=N,192nm,5.2s						
YAK				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.7						
YAK	**Yakutsk**	**97.16**	**28**⇑	*e*P	**P**	**07 47 43.0**	**-1.3**
YAK				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
LCO	**Las Campanas**	**97.23**	**241**	PFAKE		07 48 00.0	+15
LCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
PKME	**Peaks-Kenny Pk**	**97.46**	**315**	PFAKE		07 48 00.0	+14
PKME				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
INCN	**Inchon**	**97.59**	**53**	PFAKE		07 48 00.0	+13
INCN				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
KSRS	**Korea Array**	**98.62**	**53**	P	**P**	**07 47 50.5**	**-1.0**
KSRS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.1						
KSRS				MLR	MLR		
	comp=Z,2µm,18.8s,MS5.7						
KSRS	**Korea Array**	**98.62**	**53**	P	**P**	**07 47 50.5**	**-1.0**
	comp=Z,6.1nm,1.0s,mb5.1,baz=279,slow=4.0,SNR=9.4						
KSRS				LR	LR	08 35 54.5	
	comp=Z,2µm,18.8s,MS5.7,baz=110,slow=38						
MDJ	**Mudanjiang**	**99.29**	**45**	P	**P**	**07 47 53.5**	**-0.8**
MDJ				PP	PP	07 51 55.8	-1.3
MDJ				S	S	07 59 25.3	-1.8
MDJ				SS	SS	08 06 13.9	-2.0
MDJ				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.5						
MDJ				pmax	pmax		
	comp=Z,240nm,7.5s						
MDJ				LR	LR		
	comp=N,6µm,21.4s,MS6.0						
MDJ				LR	LR		
	comp=E,2µm,22.7s,MS6.0						
MDJ				LR	LR		
	comp=Z,2µm,18.7s,MS5.7						
MDJ	**Mudanjiang**	**99.29**	**45**	*e*P	**P**	**07 47 53.7**	**-0.6**
	comp=Z,12nm,0.9s,mb5.4						
MDJ				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LBNH	**Lisbon**	**99.42**	**314**	PFAKE		07 48 10.0	+15
LBNH				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
SDV	**Santo Domingo**	**99.78**	**279**	PFAKE		07 48 10.0	+14
SDV				LR	LR		
	comp=Z,673nm,19.0s,MS5.2						
KLR	**Kul'dur**	**100.20**	**40**	*e*P	Pdif	07 47 52.1	-5.9
KLR				*e*		07 58 32.0	
KLR				*e*		08 01 04.5	
SDDR	**Presa de Saban**	**100.40**	**289**	PFAKE		07 48 10.0	+11
SDDR				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
NCB	**Newcomb**	**101.09**	**314**	PFAKE		07 48 10.0	+8.0
NCB				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
LONY	**Lake Ozonia**	**101.26**	**315**	PFAKE		07 48 10.0	+7.2
LONY				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
HABR	**Khabarovsk**	**102.47**	**41**	*e*P	Pdif	07 48 04.8	-3.4
HABR				pmax	pmax		
	comp=N,5.0nm,1.5s						
HABR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HABR				pmax	pmax		
	comp=E,5.0nm,0.9s						
BINY	**Binghamton**	**102.61**	**313**	PFAKE		07 48 20.0	+11
BINY				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
ASAR	**Alice Springs**	**102.75**	**115**	P	Pdif	07 48 09.8	+0.4
	comp=Z,7.5nm,1.0s,baz=264,slow=4.1,SNR=28						
ASAR				PP	PP	07 52 22.6	-1.2
	comp=Z,4.1nm,1.0s,baz=257,slow=6.0,SNR=6.3						
ASAR				PKKPbc	PKKPbc	08 04 09.8	+0.5
	comp=Z,4.9nm,1.0s,baz=90,slow=3.1,SNR=14						
ROSC	**El Rosal**	**103.37**	**274**	PP	PP	07 52 28.9	+0.1
	comp=Z,2.0nm,0.5s,baz=109,slow=21,SNR=6.5						
WRA	**Warramunga Arr**	**103.67**	**111**	Pdiff	Pdif	07 48 13.9	+0.4
	comp=Z,6.0nm,1.0s,baz=269,slow=3.2,SNR=26						
WRA				PP	PP	07 52 32.8	+1.9
	comp=Z,11nm,1.1s,baz=267,slow=6.4,SNR=7.8						
WRA				PKKPbc	PKKPbc	08 04 06.6	+0.1
	comp=Z,3.8nm,1.1s,baz=87,slow=2.9,SNR=12						
WB2	**Warramunga Arr**	**103.68**	**111**	*e*Pdif	Pdif	07 48 14.0	+0.5
WRAB	**Tennant Creek**	**103.68**	**111**	*e*P	Pdif	07 48 14.9	+1.4
WRAB				pmax	pmax		
	comp=Z,9.0nm,1.0s						
WRAB				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.0						
WRAB	**Tennant Creek**	**103.68**	**111**	*e*Pdif	Pdif	07 48 14.8	+1.3
	comp=Z,9.5nm,1.0s						
WRAB				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
GTBY	**Guantanamo Bay**	**103.98**	**290**	PFAKE		07 48 30.0	+15
GTBY				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
CBN	**Corbin**	**104.24**	**309**	PFAKE		07 48 30.0	+14
CBN				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
SSPA	**Standing Stone**	**104.27**	**311**	PFAKE		07 48 30.0	+14
SSPA				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
NNA	**Nana**	**104.87**	**257**	PFAKE		07 48 30.0	+11
NNA				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
CNNC	**Cliffs of the**	**105.07**	**306**	PFAKE		07 52 50.0	+15
CNNC				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
ERPA	**Erie**	**105.56**	**313**	PFAKE		07 52 50.0	+14
ERPA				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
MCWV	**Mont Chateau**	**105.91**	**311**	PFAKE		07 52 50.0	+14
MCWV				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
BLA	**Blacksburg**	**106.79**	**308**	PFAKE		07 52 50.0	+12
BLA				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
MAJO	**Matsushiro**	**106.90**	**53**	PFAKE		07 52 50.0	+12
MAJO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MAT	**Matsushiro**	**106.90**	**53**	PP	PP	07 52 52.0	-2.3
MJAR	**Matsushiro Arr**	**106.90**	**53**	PP	PP	07 52 55.7	+1.4
	comp=Z,2.0nm,1.0s,baz=279,slow=10.0,SNR=4.3						
NHSC	**New Hope**	**107.25**	**304**	PFAKE		07 52 50.0	+11
NHSC				LR	LR		
	comp=Z,5µm,22.0s,MS6.0						
OTAV	**Otavalo**	**107.34**	**270**	PFAKE		07 52 50.0	+10
OTAV				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
STKA	**Stephens Creek**	**107.83**	**124**	*e*PKP	PKiKP	07 52 43.4	+3.2
	comp=Z,4.0nm,1.0s						
STKA	**Stephens Creek**	**107.83**	**124**	PKKPbc	PKKPbc	08 03 53.3	-0.7
	comp=Z,3.6nm,0.8s,baz=83,slow=8.8,SNR=4.7						
YSS	**Yuzh-Sakhalins**	**107.88**	**41**	PFAKE		07 52 50.0	+10
YSS				LR	LR		
	comp=Z,584nm,20.0s,MS5.1						
ACSO	**Alum Creek Sta**	**108.16**	**312**	PFAKE		07 52 50.0	+9.4
ACSO				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
AAM	**Ann Arbor**	**108.18**	**314**	PFAKE		07 52 50.0	+9.5
AAM				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
GLMI	**Grayling**	**108.23**	**317**	PFAKE		07 52 50.0	+9.5
GLMI				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
BILL	**Bilibino**	**108.36**	**16**	*e*P	Pdif	07 48 27.4	-6.9
BILL				pmax	pmax		
	comp=Z,5.0nm,1.4s						
BILL	**Bilibino**	**108.36**	**16**	*e*PKPdf	PKiKP	07 52 40.3	+0.2
BILL				*e*PP	PP	07 53 04.2	+0.5
BILL				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
TAU	**Tasmania Unive**	**108.74**	**137**	PFAKE		07 52 50.0	+8.4
TAU				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
BCIP	**Isla Barro Col**	**108.87**	**279**	PFAKE		07 52 50.0	+7.4
BCIP				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
DWPF	**Disney**	**109.03**	**299**	PFAKE		07 52 50.0	+7.5
DWPF				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
ERM	**Erimo**	**109.49**	**46**	PFAKE		07 52 50.0	+7.0
ERM				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
TKL	**Tuckaleechee C**	**109.73**	**307**	PP	PP	07 53 02.2	-13
	comp=Z,5.2nm,1.0s,baz=118,slow=2.5,SNR=4.5						
TKL				PKKP	PKKPbc	08 04 02.2	+14
	comp=Z,0.8nm,0.7s,baz=345,slow=3.0,SNR=3.8						
GOGA	**Godfrey**	**109.92**	**305**	PFAKE		07 53 00.0	+16
GOGA				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
WCI	**Wyandotte Cave**	**111.13**	**310**	PFAKE		07 53 00.0	+14
WCI				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
CMSA	**Cobar Meteorol**	**111.29**	**125**	*e*PKP	PKiKP	07 52 49.3	+2.6
EYMN	**Ely**	**111.75**	**321**	PFAKE		07 53 00.0	+13
EYMN				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
YNG	**Young**	**112.59**	**129**	*e*PKP	PKiKP	07 52 52.6	+3.5
	comp=Z,10nm,1.0s						
JFWS	**Jewell Farm**	**112.68**	**316**	PFAKE		07 53 00.0	+11
JFWS				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
CAN	**Canberra**	**112.70**	**130**	PFAKE		07 53 00.0	+11
CAN				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
HDIL	**Hopedale**	**112.73**	**313**	PFAKE		07 53 00.0	+11
HDIL				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
WVT	**Waverly**	**112.83**	**308**	PFAKE		07 53 00.0	+10
WVT				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
COEN	**Coen**	**112.89**	**106**	*e*PKP	PKiKP	07 52 50.3	+0.1
LRAL	**Lakeview Retre**	**112.89**	**305**	PFAKE		07 53 00.0	+10
LRAL				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
BRAL	**Brewton**	**113.37**	**303**	PFAKE		07 53 00.0	+9.3
BRAL				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
ULM	**Lac du Bonnet**	**113.43**	**325**	PP	PP	07 53 27.2	-14
	comp=Z,1.7nm,0.6s,baz=84,slow=5.9,SNR=2.9						
ULM	**Lac du Bonnet**	**113.43**	**325**	PFAKE		07 53 00.0	+10
ULM				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
JTS	**JuntasAbangare**	**113.89**	**280**	PFAKE		07 53 00.0	+7.9
JTS				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
YKA	**Yellowknife Ar**	**114.18**	**342**	PKP	PKiKP	07 52 50.9	-0.4
	comp=Z,3.6nm,0.9s,baz=30,slow=2.1,SNR=24						
YKA				PP	PP	07 53 39.7	-5.9
	comp=Z,2.7nm,1.0s,baz=41,slow=7.9,SNR=5.6						
YKA				PKKPbc	PKKPbc	08 03 35.4	+1.2
	comp=Z,2.1nm,1.0s,baz=214,slow=3.1,SNR=9.5						
YKA	**Yellowknife Ar**	**114.18**	**342**	PKP	PKiKP	07 52 50.9	-0.4
YKA				PP	PP	07 53 39.7	-5.9
YKA				PKKPbc	PKKPbc	08 03 35.4	+1.3
AGMN	**Agassiz Refuge**	**114.28**	**323**	PFAKE		07 53 00.0	+8.1
AGMN				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
FFC	**Flin Flon**	**114.39**	**331**	PFAKE		07 53 00.0	+8.1
FFC				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
OXF	**Oxford**	**114.49**	**307**	*e*PKIKP	PKiKP	07 52 52.3	-0.4
OXF				MLR	MLR		
	comp=Z,5µm,19.0s,MS6.1						
CTA	**Charters Tower**	**114.67**	**113**	PKIKP	PKiKP	07 52 53.9	+0.4
CTA				pmax	pmax		
	comp=Z,17nm,1.0s						
CTA	**Charters Tower**	**114.67**	**113**	*e*PKP	PKiKP	07 52 53.7	+0.2
	comp=Z,12nm,1.0s						
CTA	**Charters Tower**	**114.67**	**113**	PKP	PKiKP	07 52 53.9	+0.4
	comp=Z,17nm,1.0s,baz=227,slow=3.2,SNR=13						
CTAO	**Charters Tower**	**114.67**	**113**	*e*PKIKP	PKiKP	07 52 53.9	+0.4
CTAO				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.8						
PET	**Petropavlovsk**	**114.77**	**31**	PFAKE		07 53 00.0	+7.3
PET				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
CCM	**Cathedral Cave**	**114.93**	**311**	*e*PKIKP	PKiKP	07 52 53.6	+0.1
CCM				MLR	MLR		
	comp=Z,4µm,19.0s,MS6.0						
SCIA	**State Center**	**115.09**	**316**	PFAKE		07 53 10.0	+16
SCIA				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
RMQ	**Roma**	**115.31**	**121**	*e*PKP	PKPdf	07 52 53.1	-1.4
	comp=Z,26nm,1.1s						
GUMO	**Guam**	**115.80**	**76**	PFAKE		07 53 10.0	+14
GUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
TGUH	**Tegucigalpa,Un**	**115.95**	**284**	*e*PKPdf	PKPdf	07 52 56.9	+0.8
TGUH				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
VBMS	**Vicksburg**	**115.97**	**305**	*e*PKPdf	PKPdf	07 52 55.9	+0.3
VBMS				*e*PP	PP	07 53 54.5	-5.0
VBMS				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
TEIG	**Tepich**	**116.28**	**291**	PFAKE		07 53 10.0	+13
TEIG				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
ARMA	**Armidale**	**116.48**	**126**	*e*PKP	PKPdf	07 52 56.2	-0.5
EGAK	**Eagle**	**117.33**	**355**	*e*PKPdf	PKPdf	07 52 57.8	+0.5
EGAK				*e*PP	PP	07 54 03.7	-3.8
EGAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
COLA	**College**	**117.61**	**358**	*e*PKIKP	PKPdf	07 52 57.4	-0.4
COLA				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.5						
MIAR	**Mount Ida**	**117.78**	**308**	*e*PKIKP	PKPdf	07 52 59.7	+0.6
MIAR				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.2						

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DAWY  Dawson            117.87 354 ePKPdf  PKPdf   07 52 59.0 +0.7
KSU1  Kansas State U    118.53 314 ePKPdf  PKPdf   07 53 00.8 +0.5
KSU1                                LR      LR
      comp=Z,5µm,22.0s,MS6.1
DGMT  Dagmar            119.02 326 ⇑P      PKPdf   07 53 00.1  -0.9
      baz=119
DGMT  Dagmar            119.02 326 ePKPdf  PKPdf   07 53 01.7 +0.7
DGMT                               ePP     PP      07 54 19.9  -0.1
DGMT                                LR      LR
      comp=Z,2µm,20.0s,MS5.8
PAYG  Puerto Ayora      119.12 268  PFAKE          07 53 10.0 +7.8
PAYG                                LR      LR
      comp=Z,3µm,19.0s,MS5.9
MENT  Mentasta          119.34 356 eP      PKPdf   07 53 02.0 +0.8
NATX  Nacogdoches       119.48 305  PFAKE          07 53 10.0 +7.6
NATX                                LR      LR
      comp=Z,5µm,19.0s,MS6.2
EDM   Edmonton          120.54 335 ePKIKP  PKPdf   07 53 04.2 +0.4
CBKS  Cedar Bluff       120.88 315  PFAKE          07 53 20.0  +15
CBKS                                LR      LR
      comp=Z,4µm,20.0s,MS6.1
PMR   Palmer            120.92 359 ePKIKP  PKPdf   07 53 05.0 +0.7
HKT   Hockley           120.97 304 ePKIKP  PKPdf   07 53 06.1 +0.8
HKT                                 MLR     MLR
      comp=Z,4µm,21.0s,MS6.0
LAO   LASA Array        121.16 325 ePKPdf  PKPdf   07 53 05.7 +0.5
LAO                                ePP     PP      07 54 29.6  -5.1
LAO                                 LR      LR
      comp=Z,3µm,20.0s,MS5.9
RSSD  Black Hills       121.26 322 ePKIKP  PKPdf   07 53 06.1 +0.7
RSSD                                MLR     MLR
      comp=Z,3µm,20.0s,MS5.9
SVW2  Sparrevohn        121.34   3 eP      PKPdf   07 53 05.7 +0.6
OGNE  Ogallala          121.53 318  PFAKE          07 53 20.0  +14
OGNE                                LR      LR
      comp=Z,4µm,20.0s,MS6.0
DLBC  Dease Lake        121.71 347 ePKPdf  PKPdf   07 53 06.2 +0.3
WMOK  Wichita Mounta    121.76 310 ePKIKP  PKPdf   07 53 07.4 +0.7
WMOK                                MLR     MLR
      comp=Z,4µm,19.0s,MS6.1
A18A  Metzger Ranch,    121.78 329 ⇓P      PKPdf   07 53 05.8  -0.5
      baz=122,SNR=6.6
B18A  Beardsley Farm    122.07 329 ⇓P      PKPdf   07 53 07.0 +0.1
      baz=122,SNR=11
A17A  Triple J Farms    122.19 330 ⇓P      PKPdf   07 53 07.0  -0.1
      baz=122,SNR=9.6
EGMT  Eagleton          122.29 328 ⇑P      PKPdf   07 53 07.4 +0.1
      baz=122,SNR=29
EGMT  Eagleton          122.29 328 ePKPdf  PKPdf   07 53 07.8 +0.5
EGMT                                LR      LR
      comp=Z,3µm,20.0s,MS5.9
A16A  West Butte Ran    122.64 330 ⇓P      PKPdf   07 53 08.1 +0.1
      baz=122,SNR=27
B17A  L&G Farms, Che    122.66 329 ⇓P      PKPdf   07 53 08.2 +0.2
      baz=122,SNR=12
D18A  Linhart Farms,    122.83 328 ⇑P      PKPdf   07 53 09.1 +0.7
      baz=123,SNR=15
RPZ   Rata Peaks        122.93 148  PKP     PKPdf   07 53 09.2 +0.5
      comp=Z,14nm,1.0s,baz=0.0,slow=0.0,SNR=2.5
B16A  M & M Farms, S    123.05 330 ⇑P      PKPdf   07 53 08.6  -0.2
      baz=123,SNR=19
C17A  Wharram Farm,     123.06 329 ⇑P      PKPdf   07 53 09.1 +0.3
      baz=123,SNR=24
A15A  Johnson Ranch,    123.18 331 ⇓P      PKPdf   07 53 08.8  -0.2
      baz=123,SNR=22
E18A  Harlowton         123.28 327 ⇓P      PKPdf   07 53 10.4 +1.2
      baz=123,SNR=17
D17A  Six Diamond Ra    123.33 328 ⇑P      PKPdf   07 53 10.1 +0.8
      baz=123,SNR=40
KVTX  Kingsville        123.39 302  PFAKE          07 53 20.0  +10
KVTX                                LR      LR
      comp=Z,4µm,19.0s,MS6.1
C16A  Fuhringer Ranc    123.47 329 ⇓P      PKPdf   07 53 09.8 +0.2
      baz=123,SNR=21
A14A  Double T Ranch    123.52 331 ⇑P      PKPdf   07 53 10.1 +0.5
      baz=123,SNR=27
B15A  Bradely Ranch,    123.54 330 ⇓P      PKPdf   07 53 09.4  -0.3
      baz=123,SNR=9.5
F18A  Big Timber        123.58 326 ⇑P      PKPdf   07 53 10.4 +0.5
      baz=123,SNR=6.0
WALA  Waterton Lakes    123.69 331 ePKPdf  PKPdf   07 53 10.4 +0.4
RLMT  Red Lodge         123.80 325 ⇑P      PKPdf   07 53 10.5 +0.2
      baz=124,SNR=7.0
RLMT  Red Lodge         123.80 325 ePKPdf  PKPdf   07 53 10.3 +0.1
RLMT                               ePP     PP      07 54 50.1  -2.4
RLMT                                LR      LR
      comp=Z,3µm,19.0s,MS6.0
G18A  Lazy EL Ranch,    123.85 326 ⇑P      PKPdf   07 53 10.1  -0.3
      baz=124
E17A  Martinsdale       123.86 327 ⇑P      PKPdf   07 53 10.6 +0.3
      baz=124,SNR=14
D16A  Dana Ranch, Ca    123.86 328 ⇓P      PKPdf   07 53 10.4   0.0
      baz=124,SNR=8.3
AMTX  Amarillo          123.91 311 ePKPdf  PKPdf   07 53 11.3 +0.4
AMTX                                LR      LR
      comp=Z,4µm,20.0s,MS6.1
C15A  Salmond Ranch,    123.92 330 ⇓P      PKPdf   07 53 10.2  -0.2
      baz=124,SNR=6.0
JCT   Junction City     124.07 306 ePKIKP  PKPdf   07 53 11.8 +0.5
JCT                                 MLR     MLR
      comp=Z,3µm,19.0s,MS6.0
F17A  Fitzpatrick Pl    124.10 327 ⇑P      PKPdf   07 53 11.2 +0.4
      baz=124,SNR=13
E16A  East Helena       124.25 328 ⇓P      PKPdf   07 53 11.2 +0.1
      baz=124,SNR=15
M22A  Cedar Creek Ra    124.28 320 ⇑P      PKPdf   07 53 11.2  -0.1
      baz=124
D15A  Lincoln           124.36 329 ⇑P      PKPdf   07 53 11.5 +0.1
      baz=124,SNR=19
L21A  Rawlins           124.47 321 ⇓P      PKPdf   07 53 11.5  -0.2
      baz=124
ISCO  Idaho Springs     124.47 318 ePKIKP  PKPdf   07 53 12.0 +0.2
ISCO                                MLR     MLR
      comp=Z,5µm,19.0s,MS6.2
G17A  Pierce Place,     124.50 326 ⇓P      PKPdf   07 53 12.6 +1.0
      baz=124,SNR=10
N22A  Wattenberg Ran    124.51 320 ⇑P      PKPdf   07 53 11.9 +0.1
      baz=124
A12A  Yaak River Ran    124.60 332 ⇑P      PKPdf   07 53 12.0 +0.3
      baz=124
K20A  Yellowstone Ra    124.69 322 ⇓P      PKPdf   07 53 12.0  -0.1
      baz=124
LKWY  Lake              124.78 325 ePKIKP  PKPdf   07 53 15.0 +2.8
LKWY                                MLR     MLR
      comp=Z,5µm,21.0s,MS6.2
BOZ   Bozeman (W)       124.79 327 ⇑P      PKPdf   07 53 12.9 +0.7
      baz=125,SNR=25
BOZ   Bozeman (W)       124.79 327 ePKPdf  PKPdf   07 53 14.1 +1.9
BOZ                                 LR      LR
      comp=Z,3µm,19.0s,MS5.9
CHMT  Chamberlain Mo    124.82 329  P       PKPdf   07 53 13.0 +0.8
E15A  Deer Lodge        124.83 328 ⇑P      PKPdf   07 53 12.5 +0.2
      baz=125,SNR=7.4
D14A  Greenough         124.84 329 ⇓P      PKPdf   07 53 11.9  -0.4
      baz=125,SNR=16
K19A  Absolon Red Bu    124.90 323 ⇑P      PKPdf   07 53 12.0  -0.5
      baz=125
A11A  Hall Mountain,    124.91 333 ⇑P      PKPdf   07 53 13.1 +0.8
      baz=125
BSMT  Bassoo Peak       124.95 331  P       PKPdf   07 53 13.3 +0.9
C13A  Hot Springs       124.96 331 ⇓P      PKPdf   07 53 12.3  -0.1
      baz=125,SNR=17
H17A  Grant Village     124.98 325 ⇑P      PKPdf   07 53 14.0 +1.4
      baz=125,SNR=9.2
L20A  Wamsutter         125.05 322 ⇓P      PKPdf   07 53 13.1 +0.3
      baz=125
F15A  Butte             125.13 328 ⇓P      PKPdf   07 53 13.2 +0.3
      baz=125,SNR=13
G16A  Moss Hill, Enn    125.15 327 ⇓P      PKPdf   07 53 13.8 +1.0
      baz=125,SNR=16
H16A  Russell Place,    125.17 326 ⇓P      PKPdf   07 53 14.4 +1.4
      baz=125,SNR=19
N21A  Black Mountain    125.22 320 ⇓P      PKPdf   07 53 13.1   0.0
      baz=125
MSO   Missoula          125.23 329 ePKPdf  PKPdf   07 53 13.4 +0.5
MSO                                 LR      LR
      comp=Z,2µm,19.0s,MS5.8
M20A  Sweetwater, Wa    125.24 321 ⇑P      PKPdf   07 53 12.9  -0.2
      baz=125
I17A  Pilgrim Ck.       125.27 325 ⇑P      PKPdf   07 53 14.2 +1.0
      baz=125,SNR=22
E14A  Clinton           125.28 329 ⇑P      PKPdf   07 53 12.9  -0.1
      baz=125,SNR=9.3
D13A  Huson             125.31 330 ⇓P      PKPdf   07 53 13.0  -0.1
      baz=125,SNR=39
BW06  Boulder Array     125.36 323 ⇓P      PKPdf   07 53 13.0  -0.3
      baz=125,SNR=31
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BW06  Boulder Array     125.36 323  PFAKE          07 53 30.0  +17
BW06                                LR      LR
      comp=Z,4µm,20.0s,MS6.1
PDAR  Pinedale Array    125.36 323  PKP     PKPdf   07 53 13.7 +0.3
      comp=Z,16nm,1.1s,baz=104,slow=3.1,SNR=61
J18A  Kendall Valley    125.37 324 ⇓P      PKPdf   07 53 13.8 +0.4
      baz=125,SNR=31
C12B  Naegeli Ranch,    125.38 331 ⇑P      PKPdf   07 53 13.0  -0.2
      baz=125
SDCO  Great Sand Dun    125.41 316 ePKPdf  PKPdf   07 53 14.4 +0.8
SDCO                                LR      LR
      comp=Z,3µm,22.0s,MS5.9
A10A  Northport         125.44 333 ⇓P      PKPdf   07 53 13.3   0.0
      baz=125,SNR=18
LOHW  Long Hollow       125.47 325 ePKPdf  PKPdf   07 53 13.7 +0.1
O21A  Pagoda            125.48 320 ⇓P      PKPdf   07 53 13.5  -0.2
      baz=125
DLMT  Dillon            125.49 327 ePKPdf  PKPdf   07 53 15.3 +1.8
G15A  Dillon            125.56 327 ⇓P      PKPdf   07 53 14.4 +0.7
      baz=125,SNR=26
F14A  Wisdom            125.61 328 ⇑P      PKPdf   07 53 14.1 +0.3
      baz=125,SNR=7.8
E13A  Victor            125.61 329 ⇑P      PKPdf   07 53 13.6  -0.1
      baz=125,SNR=15
L19A  Farson            125.62 322 ⇓P      PKPdf   07 53 14.1 +0.3
      baz=126,SNR=11
N20A  Spence Gulch,     125.65 321 ⇑P      PKPdf   07 53 14.1 +0.1
      baz=126
J17A  Brown Place, J    125.69 324 ⇑P      PKPdf   07 53 14.9 +0.9
      baz=126,SNR=21
K18A  Toltan Ranch,     125.72 323 ⇑P      PKPdf   07 53 14.5 +0.4
      baz=126,SNR=21
NEW   Newport           125.76 333 ePKIKP  PKPdf   07 53 13.5  -0.5
NEW                                 MLR     MLR
      comp=Z,3µm,21.0s
B10A  Chitwood Farm,    125.78 333 ⇑P      PKPdf   07 53 14.0   0.0
      baz=126
Q22A  Crested Butte,    125.81 318 ⇓P      PKPdf   07 53 14.9 +0.6
      baz=126
DCID1 Drake Creek       125.82 325 ePKPdf  PKPdf   07 53 15.7 +1.5
P21A  Newcastle         125.83 319 ⇓P      PKPdf   07 53 15.1 +0.7
      baz=126
M19A  Rock Springs      125.84 322 ⇑P      PKPdf   07 53 14.4 +0.1
      baz=126
A09A  Danville          125.89 334 ⇑P      PKPdf   07 53 15.0 +0.8
      baz=126,SNR=33
CHGN  Chignik           125.93   5 eP      PKPdf   07 53 14.2 +0.2
H15A  Lima              126.00 327 ⇑P      PKPdf   07 53 15.4 +0.9
      baz=126
O20A  White River Ci    126.02 320 ⇓P      PKPdf   07 53 14.7   0.0
      baz=126
G14A  Jackson           126.03 328 ⇓P      PKPdf   07 53 15.3 +0.7
      baz=126,SNR=10.0
RRI2  Red Ridge         126.05 325 ePKPdf  PKPdf   07 53 16.3 +1.6
B09A  Rice              126.11 333 ⇑P      PKPdf   07 53 15.0 +0.4
      baz=126,SNR=15
F13A  Darby             126.13 329 ⇑P      PKPdf   07 53 15.3 +0.6
      baz=126,SNR=22
L18A  Fontenelle, Gr    126.14 323 ⇓P      PKPdf   07 53 14.9   0.0
      baz=126,SNR=6.1
C10A  Spilker Farm,     126.17 332 ⇑P      PKPdf   07 53 14.5  -0.3
      baz=126
K17A  Gardner Place,    126.18 324 ⇓P      PKPdf   07 53 15.1 +0.1
      baz=126,SNR=17
N19A  John Jarvie Ra    126.20 321 ⇓P      PKPdf   07 53 14.6  -0.4
      baz=126,SNR=11
D11A  Klaveano Farm,    126.26 331 ⇓P      PKPdf   07 53 14.2  -0.8
      baz=126
Q21A  Lamborn Mesa,     126.27 318 ⇑P      PKPdf   07 53 15.5 +0.3
      baz=126
I15A  Monteview         126.30 326 ⇑P      PKPdf   07 53 15.7 +0.5
      baz=126
M18A  Lyman             126.44 322 ⇓P      PKPdf   07 53 15.5   0.0
      baz=126,SNR=6.6
P20A  De Beque          126.46 319 ⇑P      PKPdf   07 53 15.5  -0.1
      baz=126
O19A  Miners Draw (B    126.50 320 ⇑P      PKPdf   07 53 15.7 +0.1
      baz=126,SNR=23
R21A  Cimarron          126.50 318 ⇑P      PKPdf   07 53 15.8 +0.2
      baz=126
K16A  Soda Springs      126.52 324 ⇓P      PKPdf   07 53 15.6   0.0
      baz=126
L17A  Cokeville         126.54 323 ⇓P      PKPdf   07 53 15.3  -0.4
      baz=126
SNZO  South Karori      126.54 148  PFAKE          07 53 30.0  +14
SNZO                                LR      LR
      comp=Z,2µm,19.0s,MS5.9
G13A  Cobalt            126.54 328 ⇑P      PKPdf   07 53 16.1 +0.5
      baz=126,SNR=33
A07A  Ashnola River,    126.61 335 ⇓P      PKPdf   07 53 15.8 +0.3
      baz=126,SNR=16
F12A  Elk City          126.62 329 ⇓P      PKPdf   07 53 15.4  -0.3
      baz=126,SNR=6.7
C09A  Chrisman Ranch    126.63 333 ⇑P      PKPdf   07 53 15.7 +0.1
      baz=126,SNR=14
J15A  Blackfoot         126.65 325 ⇑P      PKPdf   07 53 16.7 +0.9
      baz=126,SNR=18
B08A  Colville Reser    126.68 334 ⇓P      PKPdf   07 53 16.0 +0.2
      baz=126,SNR=15
Q20A  Ridgley Place,    126.69 319 ⇓P      PKPdf   07 53 16.2 +0.2
      baz=126
E11A  Bogner Ranch,     126.69 330 ⇑P      PKPdf   07 53 15.0  -0.8
      baz=126
P19A  Cripple Cowboy    126.77 320 ⇓P      PKPdf   07 53 16.5 +0.3
      baz=127,SNR=13
M17A  Scullys Gap (B    126.78 323 ⇑P      PKPdf   07 53 16.2 +0.1
      baz=127,SNR=17
I14A  Mackay            126.88 327 ⇓P      PKPdf   07 53 17.3 +1.0
      baz=127,SNR=48
H13A  Challis           126.91 328 ⇓P      PKPdf   07 53 17.0 +0.8
      baz=127,SNR=14
L16A  Fish Haven        126.92 323 ⇓P      PKPdf   07 53 16.9 +0.5
      baz=127,SNR=35
B07A  Winthrop          126.95 335 ⇓P      PKPdf   07 53 17.0 +0.7
      baz=127,SNR=16
C08A  Higginbotham F    126.99 333 ⇑P      PKPdf   07 53 16.9 +0.6
      baz=127,SNR=20
A06A  Chilliwack        127.02 336 ⇑P      PKPdf   07 53 15.8  -0.5
      baz=127
S21A  Coal Bank Pass    127.02 317 ⇑P      PKPdf   07 53 17.6 +0.9
      baz=127
E10A  Myers Farm, Un    127.04 331 ⇑P      PKPdf   07 53 16.4  -0.1
      baz=127
R20A  Redvale           127.15 318 ⇑P      PKPdf   07 53 17.4 +0.5
      baz=127,SNR=67
K15A  Arbon             127.15 325 ⇑P      PKPdf   07 53 17.7 +0.8
      baz=127,SNR=16
D09A  Jones Farm, Ri    127.19 332 ⇓P      PKPdf   07 53 17.2 +0.4
      baz=127
N17A  Moffit Pass       127.20 322 ⇑P      PKPdf   07 53 16.8  -0.2
      baz=127
H12A  Diamond D Ranc    127.23 328 ⇓P      PKPdf   07 53 17.5 +0.6
      baz=127
I13A  Wildhorse Cree    127.26 327 ⇓P      PKPdf   07 53 17.6 +0.6
      baz=127,SNR=17
Q19A  Hogan Spring (    127.32 319 ⇑P      PKPdf   07 53 17.8 +0.5
      baz=127,SNR=6.7
A05A  Maple Falls       127.34 336 ⇑P      PKPdf   07 53 16.7  -0.3
      baz=127
ANMO  Albuquerque       127.41 313  PKP     PKPdf   07 53 18.8 +1.2
      comp=Z,16nm,1.0s,baz=102,slow=3.4,SNR=42
ANMO                                PP      PP      07 55 14.3  -2.8
      comp=Z,1.9nm,0.9s,baz=76,slow=4.8,SNR=3.7
ANMO  Albuquerque       127.41 313 ePKPdf  PKPdf   07 53 18.3 +0.8
ANMO                                LR      LR
      comp=Z,3µm,19.0s,MS5.9
F10A  Beach Ranch, E    127.46 331 ⇑P      PKPdf   07 53 17.1  -0.2
      baz=127,SNR=11
M16A  Huntsville        127.46 323 ⇓P      PKPdf   07 53 17.3  -0.2
      baz=127
D08A  Wollman Farm,     127.47 333 ⇑P      PKPdf   07 53 17.7 +0.4
      baz=127,SNR=20
B06A  Marblemount       127.48 336 ⇑P      PKPdf   07 53 17.0  -0.3
      baz=127
L15A  Malad City        127.49 324 ⇓P      PKPdf   07 53 17.9 +0.5
      baz=127,SNR=29
C07A  Waterville        127.51 334 ⇓P      PKPdf   07 53 17.2  -0.2
      baz=127,SNR=10
E09A  Wood Farm, Sta    127.51 332 ⇑P      PKPdf   07 53 17.7 +0.3
      baz=127,SNR=34
RPW   Rockport          127.54 336  P       PKPdf   07 53 17.9 +0.5
O17A  Robinson Place    127.57 321 ⇓P      PKPdf   07 53 17.7   0.0
      baz=127,SNR=12
P18A  Preston Nutter    127.58 320 ⇑P      PKPdf   07 53 18.5 +0.8
      baz=127,SNR=31
TXAR  Lajitas Array     127.61 306  PKIKP   PKPdf   07 53 19.2 +1.1
TXAR                                                07 55 14.7
TXAR                                pmax    pmax
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      comp=Z,20nm,1.0s
TXAR                                pmax    pmax
      comp=Z,7.0nm,1.1s
TXAR  Lajitas Array     127.61 306  PKP     PKPdf   07 53 19.2 +1.1
      comp=Z,20nm,1.0s,baz=126,slow=2.2,SNR=79
TXAR                                PP      PP      07 55 14.7  -4.1
      comp=Z,7.4nm,1.1s,baz=79,slow=6.5,SNR=5.3
K14A  Jones Ranch, D    127.61 325 ⇓P      PKPdf   07 53 18.3 +0.6
      baz=127,SNR=9.5
J13A  Cove Ranch, Pi    127.63 326 ⇓P      PKPdf   07 53 18.4 +0.7
      baz=127,SNR=26
HLID  Hailey            127.65 327 ⇓P      PKPdf   07 53 18.5 +0.7
      baz=128,SNR=15
HLID  Hailey            127.65 327 ePKPdf  PKPdf   07 53 18.8 +1.0
HLID                                LR      LR
      comp=Z,3µm,22.0s,MS5.9
W22A  Albuquerque       127.65 314 ⇓P      PKPdf   07 53 18.8 +0.8
      baz=128
R19A  Curley Farm, L    127.68 318 ⇑P      PKPdf   07 53 18.7 +0.7
      baz=128,SNR=28
H11A  Donnelly          127.74 329 ⇓P      PKPdf   07 53 18.4 +0.5
      baz=128,SNR=18
MVCO  Mesa Verde        127.74 317 ⇑P      PKPdf   07 53 18.4 +0.4
      baz=128,SNR=12
MVCO  Mesa Verde        127.74 317 ePKPdf  PKPdf   07 53 19.4 +1.3
MVCO                                LR      LR
      comp=Z,5µm,22.0s,MS6.1
Q18A  Rafter H Ranch    127.81 320 ⇑P      PKPdf   07 53 18.3 +0.1
      baz=128
A04A  Legoe Bay, Lum    127.81 337 ⇓P      PKPdf   07 53 17.6  -0.3
      baz=128
D07A  Quincy            127.85 333 ⇑P      PKPdf   07 53 18.7 +0.7
      baz=128,SNR=6.5
M15A  Larsen Ranch,     127.86 324 ⇓P      PKPdf   07 53 18.4 +0.2
      baz=128
S19A  Harvey Farm, M    127.89 318 ⇑P      PKPdf   07 53 18.7 +0.4
      baz=128,SNR=19
JCW   Jim Creek         127.92 336  P       PKPdf   07 53 18.8 +0.7
B05A  Bryant            127.93 336 ⇑P      PKPdf   07 53 18.2 +0.1
      baz=128
E08A  Dider Farm, El    127.96 332 ⇓P      PKPdf   07 53 18.5 +0.3
      baz=128,SNR=8.0
L14A  Malta             127.97 325 ⇑P      PKPdf   07 53 18.8 +0.4
      baz=128,SNR=7.4
P17A  Butcher Ranch,    127.99 321 ⇓P      PKPdf   07 53 18.9 +0.4
      baz=128,SNR=10
WAH2  Wahluke Slope     127.99 333  P       PKPdf   07 53 19.8 +1.5
X22A  Bernardo          128.02 313 ⇑P      PKPdf   07 53 19.3 +0.5
      baz=128,SNR=7.8
O16A  Springville       128.04 322 ⇑P      PKPdf   07 53 19.0 +0.4
      baz=128,SNR=16
R18A  Canyonlands Na    128.05 319 ⇓P      PKPdf   07 53 18.9 +0.2
      baz=128,SNR=14
SRU   San Rafael        128.05 320 ⇓P      PKPdf   07 53 19.0 +0.4
      baz=128,SNR=35
K13A  Stover Farm, H    128.06 326 ⇓P      PKPdf   07 53 19.5 +1.0
      baz=128
Y22D  IRIS PASSCAL I    128.16 313 ⇑P      PKPdf   07 53 19.3 +0.3
      baz=128
H10A  Noah’s Angus R    128.19 329 ⇑P      PKPdf   07 53 18.8 +0.1
      baz=128
C05A  Tolt Reservoir    128.21 335 ⇓P      PKPdf   07 53 18.7 +0.1
      baz=128
G09A  Cove              128.23 330 ⇓P      PKPdf   07 53 18.8   0.0
      baz=128
J12A  Stokes Ranch,     128.23 327 ⇑P      PKPdf   07 53 19.7 +0.8
      baz=128,SNR=42
D06A  Cle Elum          128.23 334 ⇑P      PKPdf   07 53 19.0 +0.3
      baz=128,SNR=5.3
I11A  Placerville       128.25 328 ⇑P      PKPdf   07 53 19.5 +0.6
      baz=128,SNR=26
N15A  Stansbury Isla    128.25 323 ⇓P      PKPdf   07 53 19.4 +0.4
      baz=128
E07A  Sunnyside         128.27 333 ⇓P      PKPdf   07 53 19.6 +0.8
      baz=128,SNR=8.6
BMO   Blue Mountains    128.29 330 ePKIKP  PKPdf   07 53 19.2 +0.3
BMO                                 MLR     MLR
      comp=Z,3µm,20.0s,MS6.0
T19A  Beclabito         128.30 317 ⇑P      PKPdf   07 53 19.6 +0.5
      baz=128,SNR=28
EBG   Ellensburg        128.33 334  P       PKPdf   07 53 20.1 +1.2
F08A  Pendleton         128.34 332 ⇓P      PKPdf   07 53 19.5 +0.5
      baz=128
L13A  Double Diamond    128.34 325 ⇓P      PKPdf   07 53 20.0 +0.9
      baz=128,SNR=8.0
M14A  Sheep Mountain    128.37 324 ⇑P      PKPdf   07 53 19.7 +0.5
      baz=128,SNR=8.3
P16A  Fountain Green    128.49 321 ⇓P      PKPdf   07 53 20.1 +0.6
      baz=128,SNR=12
S18A  Hurst Farm, Bl    128.49 318 ⇑P      PKPdf   07 53 20.4 +0.8
      baz=128,SNR=19
MFID  Camas Ranch       128.52 327 ⇓P      PKPdf   07 53 19.7 +0.3
      baz=128,SNR=23
K12A  Draper Farm, C    128.53 326 ⇑P      PKPdf   07 53 20.4 +0.9
      baz=128,SNR=29
R17A  Hanksville Air    128.56 319 ⇓P      PKPdf   07 53 20.0 +0.4
      baz=128,SNR=27
I10A  Payette           128.57 329 ⇑P      PKPdf   07 53 20.1 +0.6
      baz=128
Q16A  Castle Valley     128.58 320 ⇑P      PKPdf   07 53 20.3 +0.6
      baz=128,SNR=23
O15A  The Old Anders    128.59 322 ⇓P      PKPdf   07 53 19.9 +0.3
      baz=128
H09A  Durkee            128.61 330 ⇑P      PKPdf   07 53 19.4  -0.1
      baz=128
B04A  Port Angeles      128.66 337 ⇑P      PKPdf   07 53 19.1  -0.4
      baz=128
N14A  Grayback Hills    128.68 323 ⇑P      PKPdf   07 53 20.5 +0.8
      baz=128,SNR=14
T18A  Mexican Hat       128.71 318 ⇑P      PKPdf   07 53 20.8 +0.8
      baz=129,SNR=28
C04A  Brinnon           128.72 336 ⇑P      PKPdf   07 53 20.4 +0.8
      baz=128
D05A  Enumclaw          128.73 335 ⇓P      PKPdf   07 53 20.2 +0.5
      baz=128
GNW   Green Mountain    128.78 336 ePKPdf  PKPdf   07 53 21.2 +1.5
E06A  Yakima            128.79 334 ⇑P      PKPdf   07 53 20.4 +0.6
      baz=129,SNR=8.6
G08A  Pilot Rock        128.79 331 ⇑P      PKPdf   07 53 20.5 +0.6
      baz=129,SNR=33
W20A  Ramah             128.80 315 ⇓P      PKPdf   07 53 20.6 +0.4
      baz=129,SNR=27
F07A  Phinny Hill Vi    128.80 332 ⇑P      PKPdf   07 53 20.8 +1.0
      baz=129,SNR=7.5
V19A  Window Rock       128.88 316 ⇑P      PKPdf   07 53 21.2 +0.9
      baz=129,SNR=14
P15A  Leamington        128.90 321 ⇑P      PKPdf   07 53 21.0 +0.7
      baz=129,SNR=8.4
L12A  House Creek Ra    128.91 326 ⇑P      PKPdf   07 53 21.0 +0.8
      baz=129,SNR=8.5
M13A  Montello          128.93 324 ⇓P      PKPdf   07 53 20.8 +0.5
      baz=129,SNR=8.8
OTR   Olympics--Tyee    128.97 337  P       PKPdf   07 53 22.7 +2.6
LON   Longmire          129.00 334 ePKIKP  PKPdf   07 53 21.0 +0.8
J10A  Berg Farm, Mel    129.01 328 ⇓P      PKPdf   07 53 20.9 +0.6
      baz=129
S17A  Black Ridge (B    129.06 319 ⇓P      PKPdf   07 53 21.2 +0.6
      baz=129,SNR=23
K11A  Parker Ranch,     129.06 327 ⇑P      PKPdf   07 53 20.9 +0.4
      baz=129
U18A  Rough Rock, Ch    129.09 317 ⇓P      PKPdf   07 53 21.2 +0.6
      baz=129,SNR=29
D04A  Dobbs Creek Ra    129.13 335 ⇑P      PKPdf   07 53 20.7 +0.3
      baz=129
I09A  Lost Marbles R    129.13 329 ⇓P      PKPdf   07 53 20.9 +0.3
      baz=129,SNR=7.3
R16A  Teasdale          129.14 320 ⇑P      PKPdf   07 53 21.6 +0.8
      baz=129,SNR=12
G07A  Ruggs Ranch, H    129.15 332 ⇑P      PKPdf   07 53 21.8 +1.2
      baz=129,SNR=11
C03A  Quillayute Air    129.17 337 ⇓P      PKPdf   07 53 20.5   0.0
      baz=129
H08A  Prairie City      129.21 330 ⇑P      PKPdf   07 53 21.1 +0.5
      baz=129,SNR=17
N13A  Wendover, West    129.28 324 ⇑P      PKPdf   07 53 21.0 +0.1
      baz=129,SNR=9.0
F06A  Goldendale        129.29 333 ⇓P      PKPdf   07 53 21.3 +0.5
      baz=129,SNR=10
Q15A  Fillmore          129.30 321 ⇑P      PKPdf   07 53 22.1 +1.1
      baz=129,SNR=13
L11A  Cat Creek Ranc    129.31 326 ⇑P      PKPdf   07 53 22.0 +1.0
      baz=129,SNR=18
NLWA  Neilton Lookou    129.35 336 ⇓P      PKPdf   07 53 22.0 +1.1
      baz=129
NLWA  Neilton Lookou    129.35 336 ePKPdf  PKPdf   07 53 21.5 +0.6
NLWA                                LR      LR
      comp=Z,4µm,21.0s,MS6.1
P14A  Drum Mountains    129.38 322 ⇓P      PKPdf   07 53 22.4 +1.2
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	baz=129,SNR=13						
T17A	**Navajo Res., N**	**129.41**	**318**	⇑P	PKPdf	07 53 22.5	+1.2
	baz=129,SNR=8.3						
W19A	**Sanders**	**129.43**	**315**	⇑P	PKPdf	07 53 22.0	+0.6
	baz=129,SNR=32						
MVU	**Marysvale**	**129.48**	**320**	PFAKE		07 53 30.0	+8.6
MVU				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
V18A	**Ganado**	**129.50**	**316**	⇓P	PKPdf	07 53 22.9	+1.4
	baz=129,SNR=35						
E04A	**Onalaska**	**129.51**	**335**	⇓P	PKPdf	07 53 21.8	+0.6
	baz=129						
K10A	**MacKenzie Ranc**	**129.51**	**328**	⇓P	PKPdf	07 53 22.1	+0.8
	baz=129,SNR=12						
D03A	**Wishkah Elem.**	**129.53**	**336**	⇑P	PKPdf	07 53 21.9	+0.8
	baz=129						
S16A	**Weppner Ranch,**	**129.53**	**319**	⇑P	PKPdf	07 53 22.1	+0.6
	baz=129,SNR=14						
U17A	**Shonto**	**129.53**	**317**	⇑P	PKPdf	07 53 22.7	+1.2
	baz=129,SNR=11						
J09A	**Fry Pan Ranch,**	**129.58**	**329**	⇑P	PKPdf	07 53 21.8	+0.4
	baz=129,SNR=15						
O13A	**Hicks Ranch, I**	**129.60**	**323**	⇓P	PKPdf	07 53 22.4	+0.9
	baz=129						
H07A	**Lands Inn, Kim**	**129.60**	**331**	⇓P	PKPdf	07 53 22.4	+1.0
	baz=129						
I08A	**Drewsey**	**129.60**	**330**	⇑P	PKPdf	07 53 22.2	+0.8
	baz=129						
G06A	**Carlson Farm,**	**129.63**	**332**	⇑P	PKPdf	07 53 21.9	+0.5
	baz=129						
W18A	**Petrified Fore**	**129.67**	**315**	⇑P	PKPdf	07 53 22.6	+0.8
	baz=130						
N12A	**Clover Valley,**	**129.77**	**324**	⇓P	PKPdf	07 53 22.5	+0.6
	baz=130,SNR=6.5						
L10A	**Juniper Basin**	**129.77**	**327**	⇓P	PKPdf	07 53 23.0	+1.1
	baz=130						
M11A	**Holland Ranch,**	**129.82**	**326**	⇓P	PKPdf	07 53 23.1	+1.1
	baz=130,SNR=20						
HNR	**Honiara**	**129.84**	**104**	PFAKE		07 53 30.0	+7.3
HNR				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
H06A	**Lindquist Farm**	**129.86**	**332**	⇓P	PKPdf	07 53 22.6	+0.7
	baz=130,SNR=13						
Q14A	**Sevier Lake (B**	**129.87**	**321**	⇑P	PKPdf	07 53 23.4	+1.3
	baz=130,SNR=13						
T16A	**Glen Canyon Da**	**129.89**	**318**	⇑P	PKPdf	07 53 22.6	+0.4
	baz=130,SNR=6.1						
F04A	**Amboy**	**129.90**	**334**	⇑P	PKPdf	07 53 23.4	+1.5
	baz=130						
E03A	**Lebam**	**129.90**	**335**	⇑P	PKPdf	07 53 22.4	+0.5
	baz=130						
Y19A	**Nutrioso**	**129.91**	**314**	⇑P	PKPdf	07 53 23.2	+0.9
	baz=130,SNR=22						
G05A	**Wamic**	**129.94**	**333**	⇓P	PKPdf	07 53 22.2	+0.2
	baz=130						
I07A	**Izee**	**129.94**	**330**	⇓P	PKPdf	07 53 23.0	+0.9
	baz=130,SNR=5.9						
J08A	**Circle Bar Ran**	**129.95**	**329**	⇑P	PKPdf	07 53 22.5	+0.4
	baz=130,SNR=7.7						
ELK	**Elko**	**129.95**	**324**	*e*PKIKP	PKPdf	07 53 22.9	+0.7
ELK				MLR	MLR		
	comp=Z,3µm,19.0s						
O12A	**Currie**	**129.97**	**324**	⇑P	PKPdf	07 53 22.8	+0.6
	baz=130,SNR=9.4						
K09A	**Rome**	**130.02**	**328**	⇑P	PKPdf	07 53 23.2	+0.9
	baz=130,SNR=22						
HOOD	**Mount Hood Mea**	**130.03**	**333**	*e*PKPdf	PKPdf	07 53 23.6	+1.4
P13A	**Bates Ranch, G**	**130.04**	**322**	⇓P	PKPdf	07 53 23.2	+0.8
	baz=130,SNR=18						
S15A	**Panguitch**	**130.06**	**320**	⇓P	PKPdf	07 53 23.7	+1.2
	baz=130						
U16A	**Tuba City**	**130.10**	**317**	⇓P	PKPdf	07 53 23.9	+1.3
	baz=130,SNR=31						
R14A	**James Farms, M**	**130.12**	**321**	⇑P	PKPdf	07 53 23.9	+1.3
	baz=130						
X18A	**Snowflake**	**130.13**	**315**	⇑P	PKPdf	07 53 23.7	+1.0
	baz=130,SNR=32						
VIPM	**Ingram Point**	**130.17**	**332**	PKIKP	PKPdf	07 53 24.2	+1.7
M10A	**I.L. Ranch, Tu**	**130.18**	**326**	⇑P	PKPdf	07 53 23.7	+1.1
	baz=130,SNR=8.8						
RPN	**Rapa Nui**	**130.19**	**231**	PFAKE		07 53 40.0	+17
RPN				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
N11A	**Elko Archery C**	**130.19**	**325**	⇓P	PKPdf	07 53 23.5	+0.9
	baz=130						
Z19A	**T-Link Ranch,**	**130.25**	**313**	⇓P	PKPdf	07 53 24.1	+1.1
	baz=130,SNR=6.9						
Q13A	**Wheeler Ranch,**	**130.35**	**322**	⇓P	PKPdf	07 53 24.1	+1.1
	baz=130,SNR=8.3						
J07A	**Hines**	**130.36**	**330**	⇓P	PKPdf	07 53 24.0	+1.2
	baz=130,SNR=5.9						
W17A	**Winslow**	**130.38**	**316**	⇑P	PKPdf	07 53 24.4	+1.2
	baz=130						
F03A	**Seaside**	**130.39**	**335**	⇓P	PKPdf	07 53 24.3	+1.5
	baz=130						
I06A	**Prineville**	**130.39**	**331**	⇑P	PKPdf	07 53 24.3	+1.4
	baz=130,SNR=9.0						
K08A	**Mann Creek Ran**	**130.40**	**329**	⇓P	PKPdf	07 53 23.9	+0.9
	baz=130,SNR=11						
T15A	**Red Dirt Ranch**	**130.45**	**319**	⇑P	PKPdf	07 53 23.8	+0.5
	baz=130,SNR=13						
L09A	**Wilkinson Ranc**	**130.46**	**327**	⇓P	PKPdf	07 53 24.0	+0.9
	baz=130,SNR=14						
S14A	**Cedar City**	**130.53**	**320**	⇓P	PKPdf	07 53 24.8	+1.4
	baz=130						
119A	**Ashpeak Ranch,**	**130.53**	**312**	⇑P	PKPdf	07 53 24.9	+1.3
	baz=130,SNR=19						
P12A	**McGill**	**130.57**	**323**	⇓P	PKPdf	07 53 24.4	+0.9
	baz=130,SNR=8.4						
O11A	**Cowboy Ranch,**	**130.59**	**324**	⇑P	PKPdf	07 53 24.1	+0.7
	baz=130						
WUAZ	**Wupatki**	**130.60**	**317**	⇓P	PKPdf	07 53 25.0	+1.4
	baz=130,SNR=11						
WUAZ	**Wupatki**	**130.60**	**317**	*e*PKPdf	PKPdf	07 53 25.4	+1.8
WUAZ				*e*PP	PP	07 55 42.2	+4.3
WUAZ				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
WVOR	**Wild Horse Val**	**130.69**	**328**	*e*PKIKP	PKPdf	07 53 25.0	+1.5
WVOR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.9						
N10A	**Dunphy**	**130.70**	**325**	⇓P	PKPdf	07 53 24.7	+1.1
	baz=130						
L08A	**Fields**	**130.70**	**328**	⇓P	PKPdf	07 53 24.6	+1.0
	baz=130						
M09A	**Marrel Ranch,**	**130.75**	**327**	⇓P	PKPdf	07 53 24.9	+1.2
	baz=131,SNR=6.8						
H04A	**Detroit Lake**	**130.76**	**333**	⇑P	PKPdf	07 53 24.2	+0.5
	baz=131						
R13A	**O'Grain Ranch,**	**130.79**	**321**	⇑P	PKPdf	07 53 25.6	+1.8
	baz=131,SNR=7.7						
Q12A	**Willow Creek R**	**130.79**	**323**	⇑P	PKPdf	07 53 25.1	+1.3
	baz=131,SNR=8.8						
K07A	**Rock Creek Ran**	**130.82**	**329**	⇓P	PKPdf	07 53 25.0	+1.3
	baz=131,SNR=8.5						
X17A	**Forest Lakes**	**130.83**	**315**	⇑P	PKPdf	07 53 25.9	+1.8
	baz=131,SNR=9.5						
J06A	**Christmas Vall**	**130.87**	**330**	⇓P	PKPdf	07 53 24.6	+0.8
	baz=131,SNR=15						
T14A	**Hurricane**	**130.88**	**319**	⇑P	PKPdf	07 53 25.2	+1.1
	baz=131,SNR=8.3						
Z18A	**Geronimo**	**130.91**	**313**	⇑P	PKPdf	07 53 25.7	+1.4
	baz=131,SNR=11						
W16A	**Flagstaff**	**130.94**	**316**	⇓P	PKPdf	07 53 25.8	+1.6
	baz=131,SNR=14						
O10A	**Cortez Mining,**	**130.97**	**325**	⇓P	PKPdf	07 53 25.1	+1.0
	baz=131						
V15A	**Kaibab Nationa**	**130.98**	**317**	⇑P	PKPdf	07 53 25.8	+1.5
	baz=131,SNR=18						
P11A	**Circle Ranch,**	**131.02**	**324**	⇓P	PKPdf	07 53 25.2	+0.9
	baz=131						
S13A	**Holt Ranch, En**	**131.08**	**320**	⇑P	PKPdf	07 53 25.3	+0.9
	baz=131,SNR=5.9						
118A	**Homack Ranch,**	**131.08**	**313**	⇓P	PKPdf	07 53 25.6	+1.1
	baz=131,SNR=14						
R12A	**Pony Springs,**	**131.09**	**322**	⇑P	PKPdf	07 53 25.4	+0.9
	baz=131						
Z17A	**San Carlos Hig**	**131.12**	**314**	⇓P	PKPdf	07 53 25.8	+1.2
	baz=131,SNR=12						
319A	**Douglas**	**131.17**	**311**	⇑P	PKPdf	07 53 26.0	+1.2
	baz=131,SNR=24						
N09A	**Rock Creek Ran**	**131.18**	**326**	⇓P	PKPdf	07 53 25.2	+0.7
	baz=131						
Y17A	**Roosevelt**	**131.19**	**314**	⇑P	PKPdf	07 53 25.8	+1.1
	baz=131,SNR=19						
X16A	**Lo Mia Camp, P**	**131.24**	**315**	⇑P	PKPdf	07 53 26.4	+1.6
	baz=131,SNR=14						
M08A	**Happy Creek Ra**	**131.24**	**327**	⇑P	PKPdf	07 53 25.5	+0.8
	baz=131,SNR=8.4						
BMN	**Battle Mountai**	**131.29**	**326**	*e*PKIKP	PKPdf	07 53 26.3	+1.5
BMN				*e*		07 55 42.7	
BMN				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.0						
U14A	**Mt Trumbull**	**131.32**	**319**	⇑P	PKPdf	07 53 26.9	+2.0
	baz=131,SNR=6.3						
COR	**Corvallis**	**131.34**	**334**	PFAKE		07 53 40.0	+15
COR				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
L07A	**Adell**	**131.35**	**328**	⇓P	PKPdf	07 53 26.4	+1.6
	baz=131						
P10A	**Eureka**	**131.39**	**324**	⇑P	PKPdf	07 53 26.0	+1.1
	baz=131						
W15A	**Williams**	**131.40**	**317**	⇓P	PKPdf	07 53 26.6	+1.5
	baz=131,SNR=5.6						
Q11A	**Duckwater**	**131.41**	**323**	⇓P	PKPdf	07 53 25.7	+0.7
	baz=131,SNR=18						
T13A	**Saint George**	**131.44**	**320**	⇓P	PKPdf	07 53 26.8	+1.6
	baz=131,SNR=27						
O09A	**Fish Creek Ran**	**131.45**	**325**	⇑P	PKPdf	07 53 25.8	+0.7
	baz=131						
218A	**Dragoon**	**131.46**	**312**	⇑P	PKPdf	07 53 26.2	+0.9
	baz=131						
Y16A	**Circle Bar Ran**	**131.54**	**315**	⇓P	PKPdf	07 53 27.0	+1.6
	baz=131,SNR=14						
318A	**Bisbee**	**131.68**	**311**	⇑P	PKPdf	07 53 26.9	+1.1
	baz=132,SNR=16						
117A	**Oracle**	**131.68**	**313**	⇑P	PKPdf	07 53 26.8	+1.0
	baz=132,SNR=16						
R11A	**Troy Canyon, C**	**131.68**	**322**	⇑P	PKPdf	07 53 26.6	+1.0
	baz=132						
S12A	**Delamar Landin**	**131.69**	**321**	⇓P	PKPdf	07 53 27.7	+2.1
	baz=132,SNR=17						
M07A	**Soldier Meadow**	**131.71**	**328**	⇑P	PKPdf	07 53 26.8	+1.3
	baz=132,SNR=7.6						
V14A	**Boquillas Ranc**	**131.71**	**318**	⇓P	PKPdf	07 53 27.5	+1.8
	baz=132,SNR=19						
X15A	**Humboldt**	**131.75**	**316**	⇓P	PKPdf	07 53 26.9	+1.1
	baz=132,SNR=16						
Z16A	**Peralta Trail,**	**131.79**	**314**	⇑P	PKPdf	07 53 27.3	+1.4
	baz=132,SNR=13						
P09A	**Austin**	**131.83**	**325**	⇓P	PKPdf	07 53 26.3	+0.5
	baz=132						
U13A	**Pakoon Wash**	**131.83**	**319**	⇓P	PKPdf	07 53 27.4	+1.5
	baz=132,SNR=21						
TUC	**Tucson**	**131.84**	**313**	*e*PKIKP	PKPdf	07 53 27.7	+1.7
TUC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.9						
Q10A	**Clear Creek Ra**	**131.87**	**323**	⇑P	PKPdf	07 53 26.8	+0.9
	baz=132						
MOD	**Modoc**	**131.93**	**329**	*e*PKPdf	PKPdf	07 53 25.5	-0.4
W14A	**Seligman**	**131.94**	**317**	⇓P	PKPdf	07 53 27.5	+1.3
	baz=132,SNR=18						
N07B	**Gerlach**	**132.03**	**327**	⇑P	PKPdf	07 53 27.6	+1.4
	baz=132,SNR=5.7						
Y15A	**Casa Rosa Ranc**	**132.11**	**315**	⇑P	PKPdf	07 53 27.8	+1.3
	baz=132,SNR=15						
217A	**Green Valley**	**132.13**	**312**	⇑P	PKPdf	07 53 27.7	+1.1
	baz=132,SNR=8.6						
T12A	**Moapa**	**132.13**	**320**	⇑P	PKPdf	07 53 28.1	+1.6
	baz=132,SNR=6.3						
T11A	**Corn Creek, Al**	**132.14**	**321**	⇓P	PKPdf	07 53 28.6	+2.1
	baz=132,SNR=22						
R10A	**Warm Springs**	**132.16**	**323**	⇓P	PKPdf	07 53 28.1	+1.6
	baz=132,SNR=8.8						
V13A	**Grand Canyon W**	**132.17**	**319**	⇑P	PKPdf	07 53 28.1	+1.6
	baz=132,SNR=13						
U12A	**Valley of Fire**	**132.20**	**320**	⇓P	PKPdf	07 53 28.1	+1.5
	baz=132						
X14A	**Yava**	**132.22**	**316**	⇓P	PKPdf	07 53 27.4	+0.7
	baz=132,SNR=7.6						
Q09A	**Carvers**	**132.33**	**324**	⇓P	PKPdf	07 53 27.9	+1.1
	baz=132						
Z15A	**Gila River Ind**	**132.34**	**315**	⇓P	PKPdf	07 53 27.9	+0.9
	baz=132,SNR=8.9						
116A	**Eloy**	**132.39**	**313**	⇓P	PKPdf	07 53 28.1	+1.0
	baz=132,SNR=7.3						
O07A	**Toulon**	**132.40**	**326**	⇑P	PKPdf	07 53 27.9	+1.0
	baz=132						
216A	**Three Points,**	**132.49**	**313**	⇑P	PKPdf	07 53 28.2	+0.9
	baz=132,SNR=5.6						
N06A	**Buffalo Meadow**	**132.51**	**328**	⇑P	PKPdf	07 53 28.1	+1.0
	baz=132,SNR=9.5						
W13A	**Hualapai Mount**	**132.54**	**318**	⇓P	PKPdf	07 53 28.5	+1.2
	baz=132,SNR=6.1						
S10A	**Tonopah Range,**	**132.57**	**323**	⇑P	PKPdf	07 53 28.2	+1.0
	baz=132,SNR=15						
Y14A	**Wickenburg**	**132.59**	**316**	⇑P	PKPdf	07 53 28.1	+0.7
	baz=132,SNR=8.7						
R09A	**Tonopah**	**132.65**	**323**	⇑P	PKPdf	07 53 28.9	+1.5
	baz=132,SNR=12						
115A	**Sonoran Desert**	**132.70**	**314**	⇑P	PKPdf	07 53 28.8	+1.1
	baz=133,SNR=12						
HUMO	**Hull Mountain**	**132.72**	**332**	*e*PKPdf	PKPdf	07 53 29.0	+1.6
HUMO				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
Q08A	**Gabbs**	**132.75**	**324**	⇓P	PKPdf	07 53 28.1	+0.5
	baz=133						
X13A	**Yucca**	**132.79**	**317**	⇓P	PKPdf	07 53 28.8	+1.1
	baz=133,SNR=12						
V12A	**Nelson**	**132.82**	**319**	⇓P	PKPdf	07 53 29.2	+1.4
	baz=133,SNR=7.9						
P07A	**Fallon**	**132.84**	**326**	⇓P	PKPdf	07 53 28.8	+1.1
	baz=133						
TPH	**Tonopah**	**132.85**	**323**	*e*PKIKP	PKPdf	07 53 28.7	+0.9
TPH				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.0						
Z14A	**Wintersburg**	**132.86**	**315**	⇑P	PKPdf	07 53 28.7	+0.8
	baz=133						
S09A	**Goldfield**	**133.08**	**323**	⇓P	PKPdf	07 53 29.8	+1.6
	baz=133,SNR=14						
W12A	**Cal Nev Ari**	**133.08**	**319**	⇓P	PKPdf	07 53 29.2	+0.9
	baz=133						
V11A	**Goodsprings**	**133.13**	**320**	⇑P	PKPdf	07 53 29.7	+1.3
	baz=133,SNR=9.2						
PDMCI	**Parker Dam,Lak**	**133.17**	**317**	⇑P	PKPdf	07 53 29.5	+1.0
	baz=133,SNR=6.9						
R08A	**Mina**	**133.19**	**324**	⇑P	PKPdf	07 53 29.9	+1.5
	baz=133						
Q07A	**Schurz**	**133.20**	**325**	⇑P	PKPdf	07 53 29.9	+1.5
	baz=133						
Y13A	**Salome**	**133.23**	**316**	⇑P	PKPdf	07 53 29.6	+1.0
	baz=133,SNR=7.7						
NVAR	**Mina Array Bea**	**133.26**	**324**	PKhKP		07 53 16.8	
	comp=Z,0.5nm,0.4s,baz=122,slow=2.3,SNR=4.0						
NVAR				PKP	PKPdf	07 53 30.4	+1.9
	comp=Z,8.7nm,1.0s,baz=80,slow=1.7,SNR=20						
NVAR	**Mina Array Bea**	**133.26**	**324**	PKP	PKPdf	07 53 30.4	+1.9
YBH	**Yreka Blue Hor**	**133.26**	**331**	PFAKE		07 53 40.0	+12
YBH				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
U10A	**Ash Meadows, A**	**133.35**	**321**	⇑P	PKPdf	07 53 30.6	+1.8
	baz=133						
LDFC	**Landfair**	**133.37**	**318**	*e*PKPdf	PKPdf	07 53 29.4	+0.6
WCN	**Washoe City**	**133.49**	**326**	⇑P	PKPdf	07 53 30.3	+1.4
	baz=133						
214A	**Organ Pipe Nat**	**133.50**	**313**	⇓P	PKPdf	07 53 30.0	+0.9
	baz=133,SNR=8.5						
SHOC	**Shoshone**	**133.64**	**320**	⇑P	PKPdf	07 53 30.6	+1.3
	baz=134,SNR=9.0						
FURC	**Furnace Creek,**	**133.65**	**321**	⇑P	PKPdf	07 53 30.9	+1.6
	baz=134,SNR=10						
TUQ	**Turquoise Moun**	**133.69**	**319**	⇓P	PKPdf	07 53 30.8	+1.4
	baz=134						
Y12C	**Blythe**	**133.74**	**317**	⇑P	PKPdf	07 53 30.5	+0.9
	baz=134,SNR=8.5						
113A	**Mohawk Valley,**	**133.76**	**315**	⇑P	PKPdf	07 53 30.6	+1.0
	baz=134						
R06C	**Coleville**	**133.85**	**325**	⇑P	PKPdf	07 53 31.5	+1.8
	baz=134						
GMRC	**Granite Mounta**	**133.91**	**318**	⇑P	PKPdf	07 53 31.5	+1.6
	baz=134,SNR=7.0						
IRM	**Iron Mountain**	**133.93**	**317**	⇓P	PKPdf	07 53 31.2	+1.3
	baz=134,SNR=9.4						
WDC	**Whiskeytown Da**	**134.04**	**330**	PFAKE		07 53 40.0	+10
WDC				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MLAC	**Mammoth Lakes**	**134.10**	**324**	⇓P	PKPdf	07 53 31.8	+1.7
	baz=134						
TIN	**Tinemaha**	**134.12**	**323**	⇓P	PKPdf	07 53 31.0	+0.8
	baz=134						
DAC	**Darwin (Calif)**	**134.23**	**321**	PFAKE		07 53 40.0	+10
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MPMC	**Manual Prospec**	**134.31**	**321**	⇓P	PKPdf	07 53 32.1	+1.5
	baz=134,SNR=9.1						
HEC	**Hector,Ludlow**	**134.32**	**319**	⇓P	PKPdf	07 53 31.7	+1.0
	baz=134						
GLA	**Glamis**	**134.34**	**316**	⇑P	PKPdf	07 53 31.6	+0.9
	baz=134						
GSC	**Goldstone**	**134.34**	**320**	⇑P	PKPdf	07 53 31.7	+1.0
	baz=134,SNR=7.3						
GSC	**Goldstone**	**134.34**	**320**	*e*PKPdf	PKPdf	07 53 32.7	+2.0
CWC	**Cottonwood Cre**	**134.43**	**322**	⇑P	PKPdf	07 53 32.0	+1.2
	baz=134						
BC3	**Big Chuckw Mtn**	**134.43**	**317**	⇑P	PKPdf	07 53 32.1	+1.2
	baz=134,SNR=5.7						
112A	**Yuma**	**134.46**	**315**	⇓P	PKPdf	07 53 31.8	+0.8
	baz=134						
BELC	**Belle Mtn.**	**134.60**	**318**	⇑P	PKPdf	07 53 32.3	+1.1
	baz=134						
CMB	**Columbia Colle**	**134.72**	**325**	PFAKE		07 53 40.0	+8.7
CMB				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
RRX	**Edison Barstow**	**134.73**	**320**	⇑P	PKPdf	07 53 33.0	+1.6
	baz=135						
LPIG	**La Paz**	**135.07**	**302**	PP	PP	07 56 03.8	-3.3
	comp=Z,38nm,1.1s,baz=357,slow=1.6,SNR=6.8						
SWSC	**Sam W. Stewart**	**135.08**	**317**	⇑P	PKPdf	07 53 32.9	+0.8
	baz=135						
PFO	**Pinyon Flat Ob**	**135.13**	**318**	PKP	PKPdf	07 53 34.2	+2.0
	comp=Z,1.2nm,0.3s,baz=180,slow=5.1,SNR=2.9						
PFO	**Pinyon Flat Ob**	**135.13**	**318**	PKP	PKPdf	07 53 34.2	+2.0
PFO				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
ISA	**Isabella**	**135.17**	**321**	⇓P	PKPdf	07 53 33.1	+0.9
	baz=135						
ISA	**Isabella**	**135.17**	**321**	*e*PKPdf	PKPdf	07 53 33.5	+1.3
EDW2	**Edwards Air Fo**	**135.37**	**320**	⇓P	PKPdf	07 53 34.0	+1.4
	baz=135						
VES	**Vestal, Richgr**	**135.44**	**322**	⇑P	PKPdf	07 53 33.6	+0.9
	baz=135						
DVTC	**Desert V Tower**	**135.45**	**316**	⇓P	PKPdf	07 53 33.8	+0.9
	baz=135						
HOPS	**Hopland**	**135.50**	**328**	PFAKE		07 53 40.0	+7.3
HOPS				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MONP	**Monument Peak**	**135.53**	**317**	⇑P	PKPdf	07 53 33.5	+0.6
	baz=135						
BFSC	**Mount Baldy St**	**135.55**	**319**	⇓P	PKPdf	07 53 33.6	+0.6
	baz=135						
MURC	**Murrieta**	**135.64**	**318**	⇑P	PKPdf	07 53 33.7	+0.6
	baz=136						
ARVC	**Arvin**	**135.74**	**321**	⇑P	PKPdf	07 53 34.0	+0.7
	baz=136						
109C	**Camp Elliot, M**	**136.00**	**317**	⇓P	PKPdf	07 53 34.6	+0.8
	baz=136						
MCCM	**Marconi Confer**	**136.02**	**328**	PFAKE		07 53 50.0	+16
MCCM				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
SAO	**San Andreas Ge**	**136.21**	**325**	PFAKE		07 53 50.0	+16
SAO				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
SMMC	**Simmler**	**136.34**	**322**	⇑P	PKPdf	07 53 36.0	+1.6
	baz=136						
CIS	**Catalina Islan**	**136.55**	**319**	⇑P	PKPdf	07 53 36.3	+1.4
	baz=136						
SNCC	**San Nicolas Is**	**137.38**	**320**	⇓P	PKPdf	07 53 38.9	+2.5
	baz=137						
TARA	**Tarawa**	**144.03**	**91**	PFAKE		07 54 00.0	+11
TARA				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
RKT	**Rikitea**	**150.16**	**211**	*e*LR	LR	08 44 02.3	
	comp=Z,2µm,26.2s						
PPT	**Papeete**	**160.11**	**184**	*e*PP	PP	07 58 34.7	+2.5
	comp=Z,389nm,25.8s						
PPT				*e*SS	SS	08 18 50.0	+8.2
	comp=Z,921nm,25.8s						
PPT				*e*LR	LR	08 48 39.3	
	comp=Z,3µm,24.2s						
PPT	**Papeete**	**160.11**	**184**	*e*PKIKP	PKPdf	07 54 11.0	-1.5
PPT				*e*		07 58 34.7	
POHA	**Pohakuloa**	**162.21**	**14**	PFAKE		07 54 30.0	+15
POHA				LR	LR		
	comp=Z,3µm,19.0s						
XMAS	**Kiritimati**	**173.66**	**93**	PFAKE		07 54 30.0	+7.2
XMAS				LR	LR		
	comp=Z,4µm,19.0s						

IDC 03 07:44:21.3±13.0**, 9°.74N**×**104°.07W, h0^{km}, mb3.5**/3**, mb1 4.0**/5**, mb1mx3.8**/17**, mbtmp3.7**/5**, ML3.2**/2**, MS3.7**/2**, Ms1 3.7**/2**, ms1mx3.3**/25**, Error ellipse: s-maj=219.9km s-min=56.9km az=176.0, Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	**Matias Romero**	**11.54**	**50**	Pn	Pn	07 47 07.9	+0.5
	0.1nm,0.3s,baz=226,slow=13,SNR=6.4						
CMIG				LR	LR	07 50 31.0	
	comp=Z,304nm,21.0s,baz=236,slow=32						
TEIG	**Tepich**	**18.46**	**54**	LR	LR	07 54 49.2	
	comp=Z,256nm,19.0s,baz=188,slow=34						
TXAR	**Lajitas Array**	**19.50**	**1**	P	Pn	07 48 50.2	-1.0
	0.0nm,0.3s,baz=184,slow=12,SNR=15						
ANMO	**Albuquerque**	**25.19**	**355**	P	P	07 49 49.0	+0.4
	0.9nm,0.8s,baz=165,slow=15,SNR=3.7						
NVAR	**Mina Array Bea**	**31.30**	**338**	P	P	07 50 44.3	+1.1
	0.4nm,0.3s,baz=146,slow=6.6,SNR=2.8						
PDAR	**Pinedale Array**	**33.25**	**353**	P	P	07 50 59.2	-1.0
	0.6nm,0.9s,baz=163,slow=6.6,SNR=4.9						

IDC 03 07:47:14.9±0.9**, 54°.45S**×**135°.53W, h0^{km}, mb4.1**/6**, mb1 4.3**/6**, mb1mx4.1**/16**, mbtmp4.1**/6**, Error ellipse: s-maj=49.4km s-min=21.5km az=173.0, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QSPA	**South Pole Qui**	**35.72**	**180**	P	P	07 54 15.3	+0.8
	2.6nm,0.9s,baz=288,slow=1.0,SNR=4.2						
LVC	**Limon Verde**	**58.36**	**85**	P	P	07 57 12.7	+0.9
	3.6nm,0.9s,baz=248,slow=5.5,SNR=3.5						
CPUP	**Villa Florida**	**62.27**	**97**	P	P	07 57 37.8	-0.7
	1.2nm,0.7s,baz=248,slow=5.9,SNR=4.2						
SIV	**San Ignacio**	**68.11**	**87**	P	P	07 58 16.3	-0.2
	2.0nm,0.8s,baz=209,slow=9.8,SNR=5.1						
ASAR	**Alice Springs**	**71.42**	**255**	P	P	07 58 35.6	-1.2
	2.0nm,0.9s,baz=144,slow=6.7,SNR=11						
WRA	**Warramunga Arr**	**74.10**	**258**	P	P	07 58 53.0	+0.2
	1.8nm,0.8s,baz=142,slow=5.4,SNR=12						
ESDC	**Sonseca Array**	**144.61**	**94**	PKP	PKPdf	08 06 52.2	-0.3
	0.2nm,0.3s,baz=258,slow=3.5,SNR=5.9						
MKAR	**Makanchi Array**	**155.07**	**268**	PKPab	PKPab	08 07 35.2	+1.9
	1.1nm,0.8s,baz=95,slow=2.8,SNR=6.5						

IDC 03 07:59:19.8±2.7**, 58°.65S**×**23°.09W, h0^{km}, mb4.1**/2**, mb1 4.1**/2**, mb1mx3.7**/16**, mbtmp4.1**/2**, Error ellipse: s-maj=212.0km s-min=31.9km az=100.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	**Neumayer Olymp**	**13.81**	**162**	*e*P	Pn	08 02 32.6	-3.8
VNA2	**Neumayer--Watz**	**13.95**	**158**	*e*P	Pn	08 02 35.0	-3.3
	baz=324,slow=16						
QSPA	**South Pole Qui**	**31.60**	**180**	P	P	08 05 44.3	+0.8
	1.0nm,0.7s,baz=220,slow=4.3,SNR=7.1						
TORD	**Torodi Ar. Bea**	**74.35**	**25**	P	P	08 10 59.4	+0.5
	1.2nm,0.6s,baz=198,slow=6.2,SNR=12						
YKA	**Yellowknife Ar**	**139.59**	**314**	PKP	PKPdf	08 18 45.7	-1.9
	0.3nm,0.6s,baz=129,slow=2.4,SNR=7.5						
SONM	**Songino Array**	**148.64**	**88**	PKPbc	PKPbc	08 19 06.4	-1.2
	1.0nm,1.0s,baz=210,slow=2.3,SNR=4.2						

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*IDC **03** 08:07:50.6±5.3, 2°.76S×28°.82E, h0^{km}, mb3.7/4, mb1 3.8/5, mb1mx3.5/21, mbtmp3.7/5, ML3.6/1, Error ellipse: s-maj=130.9km s-min=31.5km az=7.0*

*ISCJB **03** 08:07:51.7±3.3, 2°.5S±0°.5×28°.96E±0°.10, h10^{km}, mb3.6/4, Error ellipse: s-maj=79.6km s-min=10.9km az=6.7*

ISC 03 08:07:54.1±3.3**, 2°.4S**±0°.5×**28°.9E**±0°.1**, h10^{km}, n6, σ0^{s}.92**/7**, mb3.6**/4**, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	**Kilima Mbogo**	**8.44**	**81**	Pn	**Pn**	**08 09 57.9**	**+1.4**
	0.6nm,0.3s,baz=262,slow=9.9,SNR=6.6						
KMBO				Sn	**Sn**	**08 11 30.9**	**-0.9**
	1.6nm,0.3s,baz=199,slow=21,SNR=4.8						
KMBO				Lg		08 12 15.2	
	3.8nm,0.3s,baz=317,slow=17,SNR=11						

TORD	**Torodi Ar. Bea**	**31.14**	**300**	P	**P**	**08 14 12.2**	**-1.1**
	0.5nm,0.5s,mb3.6,baz=115,slow=7.9,SNR=4.0						
KEST	**Kesra**	**42.15**	**336**	P	**P**	**08 15 48.1**	**+1.3**
	1.0nm,0.8s,mb3.5,baz=144,slow=4.4,SNR=3.8						
GERES	**GERESS Array B**	**52.76**	**347**	P	**P**	**08 17 09.0**	**-0.1**
	0.8nm,0.8s,mb3.7,baz=156,slow=7.4,SNR=4.6						
KHC	**Kasperske Hory**	**53.06**	**347**	*e*P	**P**	**08 17 11.0**	**-0.3**
MKAR	**Makanchi Array**	**67.74**	**37**	P	**P**	**08 18 51.6**	**-0.3**
	0.4nm,0.7s,mb3.6,baz=246,slow=6.1,SNR=5.9						

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*NEIC **03** 08:09:58.9±4.9,29°.92S×177°.69W,h67^{km}±30^{km},mb4.2/4, Error ellipse: s-maj=88.0km s-min=21.6km az=157.0*

*IDC **03** 08:09:58.2±3.1,30°.00S×177°.66W,h58^{km}±28^{km},mb4.1/4, mb1 4.2/4,mb1mx3.8/16,mbtmp4.1/4,Error ellipse: s-maj=44.1km s-min=33.0km az=1.0*

ISC 03 08:09:57.2±5.3,29°.7S±0°.8×177°.2W±0°.7,h84^{km}±29^{km},n13, σ0^s.53/11,mb4.2/7,Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**0.74**	**304**	P	**Pn**	**08 10 13.5**	**0.0**
	273nm,0.3s,baz=84,slow=13,SNR=18						
RAO				S	**Sn**	**08 10 25.6**	**0.0**
	1µm,0.3s,baz=68,slow=20,SNR=21						
EIDS	**Eidsvold**	**28.39**	**271**	P	**P**	**08 15 42.7**	**-1.0**
	3.1nm,0.8s,mb3.9						
CTA	**Charters Tower**	**34.36**	**278**	P	**P**	**08 16 37.5**	**+1.3**
	6.1nm,0.7s,mb4.5,baz=107,slow=12,SNR=10						
CTAO	**Charters Tower**	**34.36**	**278**	*e*P	**P**	**08 16 37.0**	**+0.9**
	5.4nm,0.8s,mb4.4						
STKA	**Stephens Creek**	**35.30**	**256**	P	**P**	**08 16 44.8**	**+0.6**
	3.6nm,0.7s,mb4.3,baz=105,slow=11,SNR=6.7						
ASAR	**Alice Springs**	**43.83**	**266**	P	**P**	**08 17 54.8**	**-0.3**
	0.7nm,0.4s,mb3.8,baz=106,slow=7.5,SNR=26						
WB2	**Warramunga Arr**	**44.74**	**271**	*e*P	**P**	**08 18 02.5**	**+0.1**
WRAB	**Tennant Creek**	**44.75**	**271**	*e*P	**P**	**08 18 02.2**	**-0.3**
	3.3nm,0.7s,mb4.2						
WRA	**Warramunga Arr**	**44.75**	**271**	P	**P**	**08 18 02.7**	**+0.2**
	2.2nm,0.2s,mb4.4,baz=110,slow=8.0,SNR=70						
FITZ	**Fitzroy Crossi**	**53.04**	**269**	P	**P**	**08 19 05.6**	**-0.3**
	1.6nm,0.7s,mb4.2						
ARCES	**ARCESS Array B**	**138.02**	**348**	PKP	PKPdf	08 29 15.1	+3.8
	3.0nm,1.0s,baz=44,slow=4.0,SNR=3.2						
AKASG	**Malin Array Be**	**151.12**	**324**	PKPbc	PKPbc	08 29 44.5	+4.3
	1.2nm,0.5s,baz=49,slow=3.0,SNR=6.8						
TORD	**Torodi Ar. Bea**	**163.53**	**176**	PKPab	PKPab	08 30 45.0	+2.6
	0.2nm,0.5s,baz=184,slow=4.5,SNR=3.2						

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*ISCJB **03** 08:19:52.6±0.8,13°.3N±0°.1×50°.28E±0°.06,h10^{km}, mb4.1/16,Error ellipse: s-maj=19.3km s-min=8.2km az=178.2*

*IDC **03** 08:19:52.7±1.0,13°.29N×50°.34E,h0^{km},mb4.1/14, mb1 4.3/14,mb1mx4.1/24,mbtmp4.1/14,Error ellipse: s-maj=27.0km s-min=19.4km az=23.0*

*NEIC **03** 08:19:54.0±0.9,13°.18N×50°.40E,h10^{km},mb4.0/1,Error ellipse: s-maj=21.5km s-min=14.2km az=200.0*

*CSEM **03** 08:19:57.5±0.4,13°.31N×50°.30E,h30^{km},mb4.0/1,Error ellipse: s-maj=21.3km s-min=11.5km az=1.0*

ISC 03 08:19:54.2±0.8,13°.2N±0°.1×50°.30E±0°.06,h10^{km},n43, σ0^s.97/43,mb4.1/16,2D,Eastern Gulf of Aden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDHA	**Al Bayda'**	**4.66**	**280**	⇓*i*P	**Pn**	**08 21 05.1**	**+0.4**
BDHA				*e*		08 21 05.4	
	baz=112,slow=16						
BDHA				AML	AML	08 21 12.7	
	comp=E,181nm,0.4s						
BDHA				*i* S	**Sn**	**08 21 57.7**	**-1.1**
BDHA	**Al Bayda'**	**4.66**	**280**	⇓*i*P	**Pn**	**08 21 05.1**	**+0.5**
BDHA				*i* S	**Sn**	**08 21 57.7**	**-1.1**
	comp=E,91nm,0.4s						
EIL	**Elat**	**21.67**	**321**	P	**P**	**08 24 47.6**	**+2.5**
	comp=E,6.1nm,0.9s,mb4.0,baz=348,slow=6.7,SNR=5.8						
EIL	**Elat**	**21.67**	**321**	P	**P**	**08 24 47.6**	**+2.5**
ASF	**Jabal al Asfar**	**22.50**	**329**	P	**P**	**08 24 57.6**	**+3.7**
	comp=E,1.3nm,0.7s,mb3.5,baz=311,slow=3.6,SNR=3.2						
KBL	**Kabul**	**27.17**	**36**	*e*P	**P**	**08 25 39.1**	**+1.2**
	comp=E,2.3nm,0.7s,mb3.8						
KBL	**Kabul**	**27.17**	**36**	*e*P	**P**	**08 25 39.2**	**+1.3**
	comp=E,2.3nm,0.7s,mb3.8						
GNI	**Garni**	**27.25**	**351**	P	**P**	**08 25 40.2**	**+1.6**
	comp=E,1.9nm,0.4s,mb4.0,baz=124,slow=7.3,SNR=4.4						
GNI	**Garni**	**27.25**	**351**	P	**P**	**08 25 40.2**	**+1.7**
AKTK	**Aktyubinsk**	**37.62**	**8**	P	**P**	**08 27 08.8**	**-0.3**
AKTK	**Aktyubinsk**	**37.62**	**8**	P	**P**	**08 27 08.8**	**-0.3**
AKTO	**Aktyubinsk**	**37.62**	**8**	P	**P**	**08 27 08.8**	**-0.3**
	comp=E,1.4nm,0.7s,mb3.8,baz=191,slow=10.0,SNR=3.3						
AKASG	**Malin Array Be**	**41.11**	**340**	P	**P**	**08 27 38.3**	**+0.1**
	comp=E,4.0nm,0.7s,mb4.2,baz=149,slow=7.3,SNR=16						
AKASG	**Malin Array Be**	**41.11**	**340**	P	**P**	**08 27 38.3**	**+0.1**
MK31	**Makanchi Array**	**42.88**	**32**	*e*P	**P**	**08 27 52.2**	**-0.6**
MK31	**Makanchi Array**	**42.88**	**32**	*e*P	**P**	**08 27 52.2**	**-0.5**
MKAR	**Makanchi Array**	**42.88**	**32**	P	**P**	**08 27 52.4**	**-0.4**
	comp=E,1.3nm,0.5s,mb3.9,baz=224,slow=7.6,SNR=14						
GERES	**GERESS Array B**	**46.58**	**327**	P	**P**	**08 28 21.5**	**-0.8**
	comp=E,0.5nm,0.6s,mb3.6,baz=170,slow=8.1,SNR=4.2						
GERES	**GERESS Array B**	**46.58**	**327**	P	**P**	**08 28 21.5**	**-0.8**
CMAR	**Chiang Mai Arr**	**46.97**	**77**	P	**P**	**08 28 24.4**	**-1.4**
	comp=E,1.1nm,0.3s,mb4.2,baz=276,slow=9.8,SNR=5.9						
CMAR	**Chiang Mai Arr**	**46.97**	**77**	P	**P**	**08 28 24.5**	**-1.3**
TORD	**Torodi Ar. Bea**	**47.26**	**276**	P	**P**	**08 28 28.9**	**+0.9**
	comp=E,0.9nm,0.7s,mb3.8,baz=90,slow=8.2,SNR=6.3						
TORD	**Torodi Ar. Bea**	**47.26**	**276**	P	**P**	**08 28 29.0**	**+0.9**
ZALV	**Zalesovo Beam**	**48.87**	**26**	P	**P**	**08 28 38.7**	**-1.2**
	comp=E,2.6nm,0.7s,mb4.4,baz=232,slow=7.3,SNR=13						
ZALV	**Zalesovo Beam**	**48.87**	**26**	P	**P**	**08 28 38.7**	**-1.2**
ESDC	**Sonseca Array**	**54.29**	**310**	P	**P**	**08 29 20.3**	**-0.5**
	comp=E,0.1nm,0.3s,baz=89,slow=7.1,SNR=6.5						
ESDC	**Sonseca Array**	**54.29**	**310**	P	**P**	**08 29 20.3**	**-0.5**
ESDC	**Sonseca Array**	**54.29**	**310**	P	**P**	**08 29 20.3**	**-0.5**
NB2	**NORSAR Subarra**	**55.48**	**338**	P	**P**	**08 29 28.2**	**-0.8**
	comp=Z,4.0nm,0.8s,mb4.5,baz=128,slow=7.9						
NB2	**NORSAR Subarra**	**55.48**	**338**	P	**P**	**08 29 28.2**	**-0.8**
	comp=Z,4.0nm,0.8s,mb4.5,SNR=5.9						
NOA	**NORSAR Array B**	**55.48**	**338**	P	**P**	**08 29 28.4**	**-0.6**
	comp=Z,2.5nm,0.7s,mb4.3,baz=130,slow=7.3,SNR=6.1						
NOA	**NORSAR Array B**	**55.48**	**338**	P	**P**	**08 29 28.4**	**-0.6**
NOA	**NORSAR Array B**	**55.48**	**338**	P	**P**	**08 29 28.4**	**-0.6**
SONM	**Songino Array**	**57.72**	**41**	P	**P**	**08 29 45.5**	**+0.4**
	comp=Z,2.4nm,0.9s,mb4.2,baz=248,slow=6.9,SNR=14						
SONM	**Songino Array**	**57.72**	**41**	P	**P**	**08 29 45.5**	**+0.4**
ARCES	**ARCESS Array B**	**58.40**	**350**	P	**P**	**08 29 48.9**	**-0.7**
	comp=Z,4.8nm,0.9s,mb4.5,baz=166,slow=7.5,SNR=7.9						
ARCES	**ARCESS Array B**	**58.40**	**350**	P	**P**	**08 29 48.9**	**-0.7**
WRA	**Warramunga Arr**	**88.97**	**111**	P	**P**	**08 32 50.0**	**+0.3**
	comp=Z,1.5nm,0.9s,mb4.3,baz=301,slow=3.5,SNR=9.6						
WRA	**Warramunga Arr**	**88.97**	**111**	P	**P**	**08 32 50.0**	**+0.2**
ASAR	**Alice Springs**	**89.51**	**114**	P	**P**	**08 32 53.0**	**+0.8**
	comp=Z,1.3nm,1.0s,mb4.2,baz=297,slow=4.3,SNR=8.1						
ASAR	**Alice Springs**	**89.51**	**114**	P	**P**	**08 32 53.0**	**+0.8**
PDAR	**Pinedale Array**	**121.28**	**343**	PKP	PKPdf	08 38 47.1	-0.7
	comp=Z,0.3nm,0.7s,baz=353,slow=3.7,SNR=3.5						
PDAR	**Pinedale Array**	**121.28**	**343**	PKIKP	PKPdf	08 38 47.2	-0.7

NNC 03 08:28:49.0±16.0,36°.74N×69°.75E,h0^{km},mb3.8,mpv3.5, 3D,Error ellipse: s-maj=153.0km s-min=135.0km az=44.0,Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.38**	**5**	P	Pn	08 30 26.7	+2.4
	0.9nm,0.3s,baz=177,slow=12,SNR=67						
KK31				⇓S	Sn	08 31 38.8	+1.0
	0.5nm,0.4s,baz=189,slow=24						
TKM2	**Tokmak 2**	**7.64**	**34**	⇓P	Pn	08 30 40.0	-1.5
	2.3nm,0.5s						
AB09	**Akbulak array**	**14.42**	**333**	⇓P	Pn	08 32 12.9	-1.3
	1.0nm,1.1s						

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*ISCJB **03** 09:08:01.6±1.9,42°.0N±0°.1×80°.7E±0°.2,h10^{km},Error ellipse: s-maj=27.8km s-min=5.3km az=37.8*

*BJI **03** 09:08:01.1,41°.89N×80°.85E,h10^{km},ML3.1/7*

*NNC **03** 09:08:03.5±2.1,42°.26N×80°.68E,h0^{km},mb3.7,mpv3.4, Error ellipse: s-maj=21.5km s-min=8.8km az=139.0*

*IDC **03** 09:08:07.2±3.5,42°.24N×82°.03E,h0^{km},mb1 3.2/5, mb1mx3.1/28,mbtmp3.2/5,ML3.1/5,Error ellipse: s-maj=37.9km s-min=30.4km az=57.0*

ISC 03 09:08:04.8±1.5,42°.08N±0°.08×80°.7E±0°.1,h10^{km},n11, σ1^s.29/17,8C-1D,Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TKM2	**Tokmak 2**	**3.88**	**284**	⇑Pn	**Pn**	**09 09 04.6**	**+0.1**
	8.0nm,0.5s						
TKM2				⇑Lg		09 10 01.5	
	19nm,0.6s						
KSH	**Kashi**	**4.43**	**236**	Pn	**Pg**	**09 09 29.8**	**+0.2**
KSH				Sn	**Sg**	**09 10 26.7**	**-0.2**
KSH				smax			
	comp=N,28nm,0.9s						
KSH				smax			
	comp=E,48nm,1.1s						
MK31	**Makanchi Array**	**4.84**	**13**	Pn	**Pn**	**09 09 17.9**	**+0.2**
	comp=E,2.2nm,0.5s,baz=194,slow=13,SNR=106						
MK31				Sn	**Sn**	**09 10 16.3**	**+2.6**
	comp=E,11nm,0.8s,baz=194,slow=17,SNR=8.8						
MK31				⇑Lg		09 10 33.7	
	comp=E,11nm,0.6s,baz=189,slow=27,SNR=8.7						
MKAR	**Makanchi Array**	**4.84**	**13**	Pn	**Pn**	**09 09 17.6**	**-0.1**
	comp=E,1.4nm,0.3s,baz=186,slow=13,SNR=69						
MKAR				Sn	**Sn**	**09 10 15.0**	**+1.2**
	comp=E,1.9nm,0.3s,baz=186,slow=23,SNR=9.3						
MKAR				Lg		09 10 33.5	
	comp=E,3.5nm,0.3s,baz=187,slow=28,SNR=14						
KK31	**Karatay Array**	**7.61**	**281**	⇑Pg	**Pb**	**09 10 18.4**	**+1.6**
	comp=E,1.3nm,0.5s,baz=90,slow=16,SNR=9.7						
KK31				⇑Lg		09 12 00.4	
	comp=E,2.4nm,0.6s,baz=89,slow=28,SNR=4.3						
KURBB	**Kurchatov Arra**	**8.68**	**351**	⇑Pn	**Pn**	**09 10 08.3**	**-2.0**
	comp=E,0.2nm,0.6s						
KURBB				⇑Sn	**Sn**	**09 11 46.7**	**-1.4**
	comp=E,1.3nm,0.8s						
KURK	**Kurchatov**	**8.76**	**351**	Pn	**Pn**	**09 10 15.2**	**+3.8**
	comp=E,0.0nm,0.3s,baz=171,slow=13,SNR=2.6						
KURK				Sn	**Sn**	**09 11 51.4**	**+1.3**
	comp=E,0.0nm,0.3s,baz=173,slow=16,SNR=3.4						
KURK				Lg		09 12 35.6	
	comp=E,0.1nm,0.3s,baz=178,slow=27,SNR=3.6						
KURK	**Kurchatov**	**8.76**	**351**	⇑Pn	**Pn**	**09 10 08.9**	**-2.5**
	comp=E,3.4nm,1.1s						
KURK				⇓Sn	**Sn**	**09 11 48.3**	**-1.8**
	comp=E,7.1nm,1.0s						
ZALV	**Zalesovo Beam**	**12.18**	**12**	Pn	**Pn**	**09 10 57.3**	**-0.9**
	comp=E,0.1nm,0.3s,baz=190,slow=7.3,SNR=3.2						
BVAR	**Borovoye Array**	**12.97**	**331**	Pn	**Pn**	**09 11 17.0**	**+8.0**
	comp=E,0.1nm,0.3s,baz=134,slow=8.5,SNR=5.9						
SONM	**Songino Array**	**19.01**	**64**	P	**Pn**	**09 12 20.3**	**-6.9**
	comp=E,0.1nm,0.3s,baz=250,slow=12,SNR=3.6						

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*ISCJB **03** 09:18:23.9±0.6,6°.83N±0°.06×73°.02W±0°.07,h170^{km}±6^{km}, mb3.3/3,Error ellipse: s-maj=13.6km s-min=7.4km az=39.3*

*FUNV **03** 09:18:24.6,6°.75N×73°.15W,h167^{km},MW3.4*

*IDC **03** 09:18:25.2±2.0,6°.62N×73°.00W,h172^{km}±20^{km},mb3.1/3, mb1 3.4/4,mb1mx3.1/19,mbtmp3.2/4,Error ellipse: s-maj=34.4km s-min=27.6km az=99.0*

ISC 03 09:18:24.9±0.6,6°.82N±0°.06×73°.01W±0°.07,h165^{km}±6^{km}, n23,σ0^s.80/25,mb3.3/3,2D,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	**Capacho**	**1.25**	**34**	⇓*i*P	**Pn**	**09 18 54.2**	**+0.9**
CAPV				*e*S	**Sn**	**09 19 15.3**	**+0.3**
ROSC	**El Rosal**	**2.35**	**214**	P	**Pn**	**09 19 05.9**	**+0.9**
	22nm,0.3s,baz=80,slow=20,SNR=116						
ROSC				S	**Sn**	**09 19 34.8**	**-1.2**
	26nm,0.3s,baz=113,slow=17,SNR=16						
SOCV	**Socops**	**2.59**	**56**	*e*P	**Pn**	**09 19 08.7**	**+0.9**
SOCV				*e*S	**Sn**	**09 19 40.6**	**-0.4**
VIGV	**El Vigia**	**2.59**	**39**	*e*P	**Pn**	**09 19 08.6**	**+0.7**
VIGV				*e*S	**Sn**	**09 19 41.5**	**+0.4**
ELOV	**Elorza**	**3.51**	**87**	⇓*i*P	**Pn**	**09 19 20.1**	**+0.9**
VIRV	**Villa del Rosa**	**3.71**	**9**	*e*P	**Pn**	**09 19 21.0**	**-0.9**
VIRV				*e*S	**Sn**	**09 20 03.6**	**-2.6**
QARV	**Quebrada Arrib**	**4.17**	**36**	*e*P	**Pn**	**09 19 28.0**	**+0.2**
SANV	**Sanarito**	**4.35**	**52**	*e*P	**Pn**	**09 19 30.4**	**+0.2**
CURV	**Curarigua**	**4.38**	**43**	*e*P	**Pn**	**09 19 30.7**	**+0.3**
TEPV	**Terepaima**	**4.91**	**50**	*e*P	**Pn**	**09 19 37.3**	**-0.1**
SIQV	**Siquisique**	**4.95**	**40**	*e*P	**Pn**	**09 19 37.9**	**0.0**
BAUV	**El Baul**	**5.36**	**66**	*e*P	**Pn**	**09 19 42.7**	**-0.5**
MONV	**Montecano**	**5.92**	**30**	*e*P	**Pn**	**09 19 51.0**	**+0.3**
TURV	**Turiamo**	**6.26**	**54**	*e*P	**Pn**	**09 19 54.9**	**-0.3**
CAOV	**Caicara del Or**	**6.66**	**85**	*e*P	**Pn**	**09 19 59.9**	**-0.5**
MERV	**Las Mercedes**	**7.08**	**70**	*e*P	**Pn**	**09 20 05.4**	**-0.6**
CUPV	**Cœpira**	**7.84**	**65**	*e*P	**Pn**	**09 20 15.4**	**-0.6**
TXAR	**Lajitas Array**	**36.55**	**312**	P	**P**	**09 25 15.1**	**+0.2**
	0.3nm,0.6s,mb3.1,baz=125,slow=9.0,SNR=4.4						
SCHQ	**Schefferville**	**48.14**	**5**	P	**P**	**09 26 49.4**	**+1.5**
	3.2nm,1.0s,mb3.9,baz=188,slow=9.6,SNR=6.5						
TORD	**Torodi Ar. Bea**	**73.63**	**78**	P	**P**	**09 29 39.8**	**-1.1**
	0.1nm,0.3s,mb3.0,baz=286,slow=5.4,SNR=2.4						
MKAR	**Makanchi Array**	**122.29**	**20**	PKP	PKPdf	09 37 00.4	0.0
	0.1nm,0.3s,baz=300,slow=2.6,SNR=6.6						
ASAR	**Alice Springs**	**149.20**	**234**	PKPbc	PKPbc	09 37 53.6	-1.0
	0.3nm,0.5s,baz=117,slow=3.4,SNR=4.9						
WRA	**Warramunga Arr**	**150.43**	**241**	PKPbc	PKPbc	09 37 57.2	-0.6
	0.2nm,0.6s,baz=110,slow=2.3,SNR=6.0						

IDC 03 09:21:17.7±1.3,30°.76S×59°.56E,h0^{km},mb4.1/3, mb1 4.2/4,mb1mx3.7/25,mbtmp4.0/4,ML4.4/1,Error ellipse: s-maj=44.9km s-min=35.1km az=39.0, Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	**Ambohidratompo**	**16.52**	**314**	Pn	Pn	09 25 12.6	+1.7
	1.3nm,0.3s,baz=148,slow=9.8,SNR=6.4						
QSPA	**South Pole Qui**	**59.41**	**180**	P	P	09 31 21.8	+0.4
	2.0nm,0.6s,baz=267,slow=4.2,SNR=6.4						
ASAR	**Alice Springs**	**65.41**	**104**	P	P	09 32 02.8	+0.3
	1.0nm,0.8s,baz=240,slow=6.3,SNR=11						
WRA	**Warramunga Arr**	**67.35**	**100**	P	P	09 32 15.0	+0.1
	3.6nm,1.2s,baz=239,slow=5.3,SNR=8.3						
YKA	**Yellowknife Ar**	**148.03**	**355**	PKPbc	PKPbc	09 41 02.9	-1.4
	0.4nm,0.6s,baz=359,slow=3.9,SNR=5.8						

IDC 03 09:22:12.0±1.9,27°.32S×71°.55W,h0^{km},mb3.9/1, mb1 3.6/4,mb1mx3.5/18,mbtmp3.6/4,MS3.1/1,Ms1 3.1/1, ms1mx2.8/27,Error ellipse: s-maj=56.2km s-min=26.8km az=87.0,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFAA	**Coronel Fontan**	**5.16**	**147**	Pn	Pn	09 23 31.3	+0.9
	0.4nm,0.3s,baz=323,slow=12,SNR=27						
CFAA				Sn	Sn	09 24 30.0	-0.6
	0.4nm,0.3s,baz=36,slow=23,SNR=7.2						
LVC	**Limon Verde**	**5.26**	**28**	Pn	Pn	09 23 33.3	+1.4
	3.9nm,0.3s,baz=207,slow=8.6,SNR=32						
LVC				Sn	Sn	09 24 32.5	-0.7
	3.2nm,0.3s,baz=54,slow=21,SNR=8.1						
LVC				LR	LR	09 24 53.2	
	comp=Z,160nm,18.5s,baz=142,slow=31						
SIV	**San Ignacio**	**14.89**	**43**	Pn	Pn	09 25 43.6	-0.2
	0.2nm,0.3s,baz=238,slow=10.0,SNR=6.1						
TORD	**Torodi Ar. Bea**	**81.57**	**71**	P	P	09 34 32.1	+0.1
	0.5nm,0.6s,baz=254,slow=4.9,SNR=5.7						
ZALV	**Zalesovo Beam**	**148.22**	**27**	PKPbc	PKPbc	09 41 59.3	-0.2
	1.0nm,0.6s,baz=304,slow=3.3,SNR=5.7						
MKAR	**Makanchi Array**	**151.69**	**40**	PKPbc	PKPbc	09 42 07.5	-0.7
	0.8nm,0.6s,baz=311,slow=1.9,SNR=10						

IDC 03 09:41:29.8±5.6,17°.29S×178°.94W,h596^{km}±67^{km}, mb3.3/7,mb1 3.6/7,mb1mx3.3/18,mbtmp3.3/7,Error ellipse: s-maj=42.1km s-min=22.2km az=8.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**21.17**	**189**	P	P	09 45 33.7	-0.3
	3.1nm,0.6s,baz=334,slow=18,SNR=4.0						
STKA	**Stephens Creek**	**38.48**	**240**	P	P	09 48 01.6	-0.7
	2.5nm,0.6s,baz=61,slow=5.3,SNR=6.2						
WRA	**Warramunga Arr**	**44.25**	**259**	P	P	09 48 48.2	+0.3
	2.2nm,0.5s,baz=95,slow=7.2,SNR=51						
WRA				PcP	PcP	09 50 18.1	-0.9
	0.4nm,0.8s,baz=100,slow=3.0,SNR=3.5						
ASAR	**Alice Springs**	**44.47**	**254**	P	P	09 48 49.8	+0.2
	12nm,0.6s,baz=87,slow=8.6,SNR=254						
ASAR				PcP	PcP	09 50 18.8	-1.0
	0.4nm,0.4s,baz=98,slow=4.2,SNR=4.2						
TXAR	**Lajitas Array**	**86.10**	**58**	P	P	09 53 08.5	-0.3
	0.6nm,0.8s,baz=216,slow=6.0,SNR=6.4						
PDAR	**Pinedale Array**	**87.26**	**44**	P	P	09 53 13.7	-0.2
	0.3nm,0.5s,baz=226,slow=6.2,SNR=3.4						
PLCA	**Paso Flores**	**92.12**	**134**	P	P	09 53 38.4	+1.8
	2.3nm,1.0s,baz=207,slow=6.8,SNR=3.4						
GERES	**GERESS Array B**	**146.89**	**345**	PKPbc	PKPbc	10 00 06.2	+0.2
	0.6nm,0.7s,baz=17,slow=5.6,SNR=3.8						

IDC 03 10:07:02.7±5.0,2°.11S×29°.01E,h0^{km},mb3.5/4,mb1 3.6/5, mb1mx3.4/22,mbtmp3.5/5,ML3.7/1,Error ellipse: s-maj=131.2km s-min=22.3km az=5.0,Lake Tanganyika region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	**Kilima Mbogo**	**8.30**	**83**	Pn	Pn	10 09 04.9	+0.5
	1.0nm,0.3s,baz=240,slow=20,SNR=8.9						
KMBO				Sn	Sn	10 10 40.4	+1.4
	1.8nm,0.3s,baz=40,slow=23,SNR=4.7						
KMBO				Lg		10 11 23.2	
	5.0nm,0.3s,baz=176,slow=22,SNR=8.0						
TORD	**Torodi Ar. Bea**	**31.06**	**300**	P	P	10 13 22.1	-0.6
	0.5nm,0.7s,baz=116,slow=8.9,SNR=5.1						
GERES	**GERESS Array B**	**52.46**	**347**	P	P	10 16 16.9	-0.3
	0.7nm,0.8s,baz=179,slow=5.9,SNR=4.3						
MKAR	**Makanchi Array**	**67.42**	**37**	P	P	10 18 00.7	+0.5
	0.2nm,0.7s,baz=255,slow=5.4,SNR=3.7						
KURK	**Kurchatov**	**67.46**	**32**	P	P	10 18 00.2	-0.1
	0.4nm,0.6s,baz=244,slow=7.0,SNR=3.2						

IDC 03 10:39:47.6±53.0,14°.38S×167°.48E,h0^{km},mb4.0/3, mb1 4.2/3,mb1mx3.7/17,mbtmp4.0/3,Error ellipse: s-maj=891.4km s-min=113.6km az=66.0,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**29.38**	**229**	P	P	10 45 52.1	-0.4
	0.8nm,0.3s,baz=74,slow=8.0,SNR=3.3						
WRA	**Warramunga Arr**	**32.11**	**255**	P	P	10 46 17.2	+0.3
	0.5nm,0.4s,baz=86,slow=8.7,SNR=17						
ASAR	**Alice Springs**	**32.99**	**249**	P	P	10 46 24.6	0.0
	0.9nm,0.3s,baz=75,slow=9.8,SNR=29						

IDC 03 10:49:55.9±3.0,3°.35S×99°.84E,h27^{km}±5^{km},mb3.5/7, mb1 3.7/7,mb1mx3.5/22,mbtmp3.5/7,Error ellipse: s-maj=117.2km s-min=15.4km az=58.0,Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**21.68**	**358**	P	P	10 54 44.0	-0.7
	0.7nm,0.4s,baz=183,slow=9.0,SNR=6.6						
FITZ	**Fitzroy Crossi**	**29.21**	**122**	P	P	10 55 56.7	+1.2
	1.1nm,0.7s,baz=188,slow=8.4,SNR=4.4						
WRA	**Warramunga Arr**	**37.47**	**119**	P	P	10 57 06.5	-0.9
	0.3nm,0.4s,baz=288,slow=8.0,SNR=4.5						
WRA				pP	pP	10 57 14.6	-1.0
	0.5nm,0.4s,baz=307,slow=9.0,SNR=6.1						
ASAR	**Alice Springs**	**38.60**	**125**	P	P	10 57 17.3	+0.3
	0.5nm,0.4s,baz=301,slow=8.0,SNR=21						
ASAR				pP	pP	10 57 25.7	+0.5
	0.6nm,0.4s,baz=302,slow=7.8,SNR=6.5						
SONM	**Songino Array**	**51.29**	**6**	P	P	10 58 57.9	+0.4
	0.6nm,0.7s,baz=189,slow=11,SNR=5.2						
SONM				pP	pP	10 59 07.0	+1.2
	0.8nm,0.7s,baz=187,slow=9.5,SNR=4.8						
MKAR	**Makanchi Array**	**52.28**	**345**	P	P	10 59 05.3	+0.4
	0.7nm,0.7s,baz=134,slow=8.7,SNR=7.2						
ZALV	**Zalesovo Beam**	**58.45**	**350**	P	P	10 59 48.7	-0.5
	0.6nm,0.5s,baz=160,slow=4.7,SNR=5.2						
TXAR	**Lajitas Array**	**145.85**	**38**	PKPbc	PKPbc	11 09 31.8	-1.7
	0.3nm,0.6s,baz=265,slow=1.1,SNR=4.3						
TXAR				pPKPbc	pPKPbc	11 09 41.4	-1.1
	0.2nm,0.5s,baz=270,slow=2.5,SNR=2.8						

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*IDC **03** 10:55:27.6±1.5,8°.71S×111°.31E,h0^{km},mb4.2/11, mb1 4.4/12,mb1mx4.2/22,mbtmp4.2/12,ML3.9/1,MS3.5/7, Ms1 3.6/7,ms1mx3.2/27,Error ellipse: s-maj=70.7km s-min=13.9km az=50.0*

*NEIC **03** 10:55:33.5±0.7,8°.62S×111°.52E,h35^{km},mb5.1/7,Error ellipse: s-maj=33.5km s-min=8.6km az=46.0*

NEIC Felt [II] at Pacitan.

*ISCJB **03** 10:55:36.4±0.6,8°.72S±0°.07×111°.47E±0°.05,h88^{km}±5^{km}, mb4.3/14,Error ellipse: s-maj=11.6km s-min=6.5km az=24.7*

*DJA **03** 10:55:36,8°.86S×111°.45E,h22^{km},MLv5.2/7*

ISC 03 10:55:37.0±0.6,8°.78S±0°.06×111°.45E±0°.04,h75^{km}±6^{km}, n41,σ1^s.01/44,mb4.3/14,2C-1D,Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJI	**Sawahan**	**1.09**	**17**	P	**Pn**	**10 55 57.0**	**+0.1**
SJI				S	**Sn**	**10 56 12.9**	**+1.2**
KRKI	**Karangkates**	**1.17**	**58**	⇓*i*P	**Pn**	**10 55 57.8**	**-0.1**
KRKI				*i* S	**Sn**	**10 56 12.4**	**-1.2**
KRKI	**Karangkates**	**1.17**	**58**	P	**Pn**	**10 55 57.8**	**-0.1**
UGM	**Wanagama**	**1.26**	**313**	P	**Pn**	**10 55 59.3**	**+0.3**
UGM				S	**Sn**	**10 56 15.8**	**+0.3**
TRT	**Tretes**	**1.59**	**48**	⇑*e*P	**Pn**	**10 56 03.5**	**+0.1**
TRT				*e*S	**Sn**	**10 56 21.0**	**-2.3**
CLJI	**Cilicap**	**2.63**	**293**	P	**Pn**	**10 56 19.0**	**+1.7**
NBBI	**Negara**	**3.17**	**83**	P	**Pn**	**10 56 25.9**	**+1.4**
DNP	**Denpasar**	**3.72**	**89**	P	**Pn**	**10 56 33.1**	**+1.0**
KHKI	**Kahang-Kahang**	**4.14**	**85**	P	**Pn**	**10 56 37.8**	**0.0**
XMIS	**Christmas Isla**	**5.96**	**253**	P	**Pn**	**10 57 00.2**	**-2.5**
MBWA	**Marble Bar**	**14.67**	**148**	*e*P	**Pn**	**10 58 55.6**	**-5.1**
MBWA				*e*S	Sx	11 01 20.4	
MBWA	**Marble Bar**	**14.67**	**148**	*e*Pn	**Pn**	**10 58 55.3**	**-5.4**
	10nm,0.8s						
MBWA				*e*Sn	Sx	11 01 21.1	
FITZ	**Fitzroy Crossi**	**16.61**	**125**	*e*P	**Pn**	**10 59 23.9**	**-1.4**
	20nm,0.8s						
FITZ				*e*S	Sx	11 02 09.0	
FITZ	**Fitzroy Crossi**	**16.61**	**125**	Pn	**Pn**	**10 59 23.6**	**-1.6**
	0.4nm,0.3s,baz=296,slow=7.0,SNR=23						
FITZ				Sn	Sx	11 02 10.5	
	0.2nm,0.3s,baz=146,slow=14,SNR=2.9						
FITZ				LR	LR	11 05 32.4	
	comp=Z,109nm,20.6s,baz=308,slow=36						
FITZ	**Fitzroy Crossi**	**16.61**	**125**	*e*P	**Pn**	**10 59 23.6**	**-1.7**
	14nm,0.9s						
PSI	**Prapat**	**16.98**	**312**	LR	LR	11 06 43.2	
	comp=Z,212nm,20.1s,baz=154,slow=40						
KNA	**Kununurra**	**18.28**	**114**	*e*P	**Pn**	**10 59 44.6**	**-1.0**
	11nm,0.6s						
MEEK	**Meekatharra**	**19.02**	**160**	*e*P	**Pn**	**10 59 53.6**	**-0.8**
	19nm,1.1s						
MEEK				*e*S	Sx	11 03 06.9	
KAKA	**Kakadu**	**20.99**	**103**	*e*P	**P**	**11 00 13.8**	**-0.6**
	19nm,0.7s						
KAKA	**Kakadu**	**20.99**	**103**	*e*P	**P**	**11 00 13.2**	**-1.2**
	55nm,0.7s						
NWAO	**Narrogin (SRO)**	**24.62**	**168**	LR	LR	11 09 38.3	
	comp=Z,107nm,18.2s,baz=102,slow=34						
WRA	**Warramunga Arr**	**24.76**	**119**	P	**P**	**11 00 52.6**	**+0.8**
	15nm,0.9s,mb4.4,baz=293,slow=12,SNR=62						
WRA				LR	LR	11 10 31.1	
	comp=Z,126nm,21.0s,baz=335,slow=36						
WRAB	**Tennant Creek**	**24.77**	**119**	*e*P	**P**	**11 00 52.3**	**+0.4**
	17nm,0.9s,mb4.5						
WB2	**Warramunga Arr**	**24.77**	**119**	*e*P	**P**	**11 00 52.1**	**+0.2**
ASAR	**Alice Springs**	**26.09**	**127**	P	**P**	**11 01 04.4**	**+0.5**
	3.2nm,0.6s,mb3.9,baz=303,slow=9.4,SNR=35						
FORT	**Forrest**	**26.82**	**147**	*e*P	**P**	**11 01 10.7**	**+0.3**
	22nm,0.7s,mb4.8						
CMAR	**Chiang Mai Arr**	**29.75**	**336**	P	**P**	**11 01 36.8**	**+0.3**
	4.4nm,1.2s,mb4.0,baz=175,slow=8.4,SNR=5.9						
CMAR				LR	LR	11 14 31.1	
	comp=Z,41nm,18.1s,baz=240,slow=39						
MTSU	**Mount Surprise**	**33.24**	**110**	*e*P	**P**	**11 02 08.9**	**+1.6**
	8.5nm,0.8s,mb4.6						
KMI	**Kunming**	**34.75**	**346**	P	**P**	**11 02 24.0**	**+3.8**
KMI				pP	pP	11 02 33.5	-4.6
KMI				sP	sP	11 02 38.0	-8.9
KMI				PP	PP	11 03 42.8	+2.4
KMI				S	**S**	**11 07 52.1**	**+6.9**
KMI				sS	sS	11 08 09.8	-6.2
KMI				pmax	pmax		

	comp=Z,8.0nm,1.6s,mb4.3						
KMI				pmax	pmax		
	comp=Z,72nm,4.2s						
KMI				LR	LR		
	comp=N,140nm,28.6s						
KMI				LR	LR		
	comp=E,190nm,25.5s						
CTA	**Charters Tower**	35.45	112	P	P	11 02 28.1	+1.7
	comp=E,1.3nm,0.3s,mb4.2,baz=282,slow=12,SNR=4.5						
CTA				LR	LR	11 18 32.6	
	comp=E,98nm,19.4s,baz=232,slow=39						
STKA	**Stephens Creek**	36.21	134	*e*P	P	11 02 28.3	-4.4
	comp=E,5.0nm,1.8s,mb4.1						
STKA	**Stephens Creek**	36.21	134	P	P	11 02 33.9	+1.2
	comp=E,1.8nm,0.6s,mb4.2,baz=306,slow=11,SNR=6.0						
STKA				LR	LR	11 17 52.5	
	comp=E,181nm,18.2s,baz=277,slow=37						
STKA	**Stephens Creek**	36.21	134	P	P	11 02 33.9	+1.2
STKA				LR	LR	11 17 52.5	
SONM	**Songino Array**	56.54	356	P	P	11 05 11.7	+0.2
	comp=E,1.6nm,0.7s,mb4.2,baz=172,slow=8.8,SNR=13						
SONM				PcP	PcP	11 06 08.1	+0.8
	comp=E,1.0nm,0.5s,baz=183,slow=4.2,SNR=5.5						
MK31	**Makanchi Array**	61.13	338	*e*P	P	11 05 42.5	-0.9
MKAR	**Makanchi Array**	61.13	338	P	P	11 05 42.9	-0.5
	comp=E,2.1nm,0.6s,mb4.4,baz=151,slow=7.2,SNR=34						
KURK	**Kurchatov**	65.73	338	P	P	11 06 12.8	-0.9
	comp=E,0.4nm,0.5s,baz=151,slow=6.2,SNR=4.5						
KURK				PcP	PcP	11 06 44.8	+0.5
	comp=E,0.5nm,0.7s,baz=152,slow=4.0,SNR=4.1						
ZALV	**Zalesovo Beam**	66.42	343	P	P	11 06 17.1	-0.9
	comp=E,1.9nm,0.5s,mb4.2,baz=170,slow=5.0,SNR=12						
BVAR	**Borovoye Array**	70.77	335	P	P	11 06 44.6	-0.5
	comp=E,1.1nm,0.7s,mb3.8,baz=132,slow=6.6,SNR=7.7						
PETK	**Petropavlovsk-**	73.08	27	P	P	11 06 59.2	+0.3
	comp=E,6.4nm,1.1s,mb4.4,baz=126,slow=2.4,SNR=8.8						
SYO	**Syowa Base**	75.38	201	⇑*e*P	P	11 07 11.7	-0.4

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*PRE **03** 10:55:59.5±2.2, 1°.38S×29°.28E, h10^{km}, mb5.2*
*ISCJB **03** 10:56:06.9±2.7, 2°.37S±0°.03×28°.97E±0°.04, h4^{km}±17^{km}, mb5.0/148, MS4.2/23, Error ellipse: s-maj=6.2km s-min=4.7km az=165.3*
*MOS **03** 10:56:08.0±1.1, 2°.30S×28°.94E, h10^{km}, mb5.2/61, MS4.2/8, Error ellipse: s-maj=9.2km s-min=4.1km az=98.2*
*IDC **03** 10:56:08.2±0.4, 2°.35S×29°.05E, h0^{km}, mb4.6/28, mb1 4.7/29, mb1mx4.7/33, mbtmp4.6/29, ML4.5/1, MS4.2/7, Ms1 4.2/7, ms1mx3.8/28, Error ellipse: s-maj=14.4km s-min=11.4km az=85.0*
*NEIC **03** 10:56:09.7±0.2, 2°.40S×28°.97E, h10^{km}, mb5.1/63, Error ellipse: s-maj=7.2km s-min=5.3km az=78.0*
NEIC Felt [IV] at Kigali. Also felt at Byumba.
*GCMT **03** 10:56:09.7±0.4, 2°.54S×28°.91E, h18^{km}±1^{km}, MW5.0/54, Moment Tensor Solution. s22,c29; s54,c77; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.69±.31; $M_{\theta\theta}$-0.15±.18; $M_{\phi\phi}$3.84±.20; $M_{r\theta}$-1.04±.55; $M_{\theta\phi}$-0.26±.12; $M_{\phi r}$0.56±.35; Best double couple: $M_0$3.95600×10^{16} NP1:ϕ_s10.00000°, δ42.00000°, λ-68.00000°. NP2: ϕ_s162.00000°, δ52.00000°, λ-109.00000°. Principal axes: T 3.9100, Plg5.0000°, Azm265.0000°; N 0.0900, Plg14.0000°, Azm174.0000°; P -4.0020, Plg75.0000°, Azm13.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*BJI **03** 10:56:09.5, 1°.86S×29°.10E, h2^{km}, mB5.4/17, mb5.1/27, Ms5.1/15, Ms7 4.7/16*
*DJA **03** 10:56:12, 2°.42S×28°.77E, h10^{km}, mb5.1/9*
*SZGRF **03** 10:56:46.0, 2°.35N×28°.54E, h33^{km}, mb5.2, Zaire*
ISC 03 10:56:10.8±2.4, **2°.41S**±0°.03×**28°.99E**±0°.03, **h17**^{km}±15^{km}, **h12**^{km}±.8^{km}**:pP-P, n341,** σ**1^{s}.02**/334, **mb5.0**/148, **MS4.2**/23, **16C-14D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBAR	**Mbarara**	2.51	44	Pn	Pn	10 56 52.8	+1.9
	27µm,0.6s,SNR=13						
MBAR	**Mbarara**	2.51	44	Pn	Pn	10 56 52.0	+1.1
MBAR				*e*Sn	Sn	10 57 22.7	+1.7
KMBO	**Kilima Mbogo**	8.36	81	P	Pn	10 58 10.9	-0.4
KMBO						10 59 43.9	
KMBO	**Kilima Mbogo**	8.36	81	Pn	Pn	10 58 10.9	-0.4
	5.4nm,0.3s,baz=241,slow=15,SNR=34						
KMBO				Sn	Sn	10 59 43.9	-1.5
	6.9nm,0.3s,baz=269,slow=18,SNR=5.0						
KMBO				Lg		11 00 25.5	
	13nm,0.3s,baz=311,slow=21,SNR=12						
LSZ	**Lusaka**	12.81	183	Pn	Pn	10 59 10.0	-2.2
	0.9nm,0.3s,baz=10,slow=14,SNR=36						
LSZ				Sn	Sn	11 01 25.1	-9.4
	3.2nm,0.3s,baz=88,slow=15,SNR=4.1						
LSZ				Lg		11 02 46.9	
	3.9nm,0.3s,baz=103,slow=24,SNR=10						
LSZ	**Lusaka**	12.81	183	*e*Pn	Pn	10 59 10.0	-2.3
LSZ				*e*Sn	Sn	11 01 25.7	-8.8
MSNA	**Messina**	19.84	177	*e*P	Pn	11 00 42.0	-0.6
MSNA				AMb	AMB	11 00 44.6	
	comp=Z,134nm,0.9s						
TSUM	**Tsumeb**	20.07	213	P	P	11 00 43.3	-0.3
	comp=Z,19nm,0.8s,baz=31,slow=11,SNR=11						
TSUM				S	S	11 04 29.1	+0.4
	comp=Z,31nm,1.0s,baz=300,slow=10.0,SNR=3.9						
TSUM				Lg		11 06 34.3	
	comp=Z,36nm,0.8s,baz=292,slow=12,SNR=3.9						
TSUM	**Tsumeb**	20.07	213	*e*P	P	11 00 43.8	+0.2
	comp=Z,38nm,1.1s						
TSUM	**Tsumeb**	20.07	213	*e*P	P	11 00 44.6	+1.1
TSUM				AMb	AMB	11 01 05.5	
	comp=Z,545nm,1.3s						
MOPA	**Mopani**	21.11	174	*e*P	P	11 00 56.0	+1.2
MOPA				AMb	AMB	11 01 02.9	
	comp=Z,132nm,1.8s,mb5.0						
SLR	**Silverton**	23.20	182	*e*P	P	11 01 17.3	+0.2
SLR				AMb	AMB	11 01 25.2	
	comp=Z,106nm,1.1s,mb5.2						
KSR	**Koster**	23.39	185	*e*P	P	11 01 19.0	0.0
KSR				AMb	AMB	11 01 24.2	
	comp=Z,48nm,1.4s,mb4.7						
ERPM	**east rand prop**	23.81	182	*e*P	P	11 01 22.1	-0.9
ERPM				AMb	AMB	11 01 26.1	
	comp=Z,124nm,1.5s,mb5.1						
OPO	**Ambohidratompo**	24.00	133	P	P	11 01 25.5	+0.7
	comp=Z,14nm,1.1s,mb4.3,baz=304,slow=7.4,SNR=8.2						
OPO				LR	LR	11 10 49.0	
	comp=Z,625nm,18.8s,MS4.1,baz=135,slow=37						
OPO	**Ambohidratompo**	24.00	133	P	P	11 01 25.5	+0.7
OPO				LR	LR	11 10 49.0	
ABPO	**Ambohimpanom**	24.31	134	*e*P	P	11 01 29.4	+1.7
ABPO				pmax	pmax		
	comp=Z,34nm,1.3s,mb4.6						
ABPO	**Ambohimpanom**	24.31	134	*e*P	P	11 01 29.4	+1.7
	comp=Z,34nm,1.3s,mb4.6						
PRYS	**Parys**	24.43	184	*e*P	P	11 01 28.8	+0.2
PRYS				AMb	AMB	11 01 32.3	
	comp=Z,110nm,1.2s,mb5.2						
SWZ	**Schweizer**	24.88	188	*e*P	P	11 01 32.0	-0.8
SWZ				AMb	AMB	11 01 35.6	
	comp=Z,167nm,1.3s,mb5.4						
POGA	**Pongola**	24.95	174	*e*P	P	11 01 32.1	-1.3
POGA				AMb	AMB	11 01 38.4	
	comp=Z,85nm,1.6s,mb5.0						
BOSA	**Boshof**	26.30	187	*e*P	P	11 01 45.5	-0.1
BOSA				pmax	pmax		
	comp=Z,33nm,0.9s,mb4.9						
BOSA	**Boshof**	26.30	187	P	P	11 01 45.7	+0.1
	comp=Z,19nm,0.8s,mb4.7,baz=8.9,slow=9.6,SNR=30						
BOSA				Lg		11 10 00.7	
	comp=Z,30nm,1.0s,baz=289,slow=18,SNR=2.7						
BOSA	**Boshof**	26.30	187	*e*P	P	11 01 45.5	-0.1
	comp=Z,33nm,0.9s,mb4.9						
BOSA	**Boshof**	26.30	187	*e*P	P	11 01 45.0	-0.6
BOSA				AMb	AMB	11 01 50.4	
	comp=Z,43nm,1.6s,mb4.7						
UPI	**Upington**	26.84	195	*e*P	P	11 01 50.6	0.0
UPI				AMb	AMB	11 01 54.1	
	comp=Z,45nm,1.9s,mb4.7						
PKA	**Prieska**	27.75	192	*e*P	P	11 01 57.9	-0.8
PKA				AMb	AMB	11 02 05.8	
	comp=Z,11nm,1.9s,mb4.2						
KSD	**Kokstad**	27.98	179	*e*P	P	11 01 59.2	-1.6
KSD				AMb	AMB	11 02 13.6	
	comp=Z,316nm,1.4s,mb5.8						
HVD	**Gariep Dam**	28.23	186	*e*P	P	11 02 02.3	-0.7
SUR	**Sutherland**	30.79	194	P	P	11 02 26.7	+1.1
	comp=Z,25nm,0.9s,mb5.0,baz=220,slow=5.9,SNR=7.5						
SUR				Lg		11 12 20.2	
	comp=Z,9.7nm,1.0s,baz=278,slow=22,SNR=3.1						
SUR	**Sutherland**	30.79	194	*e*P	P	11 02 25.8	+0.2
	comp=Z,29nm,0.9s,mb5.1						
SUR	**Sutherland**	30.79	194	*e*P	P	11 02 24.7	-0.9
SUR				AMb	AMB	11 02 41.9	
	comp=Z,48nm,1.9s,mb5.0						
TOA0	**Torodi Ar. Sit**	31.19	300	*e*P	P	11 02 28.5	-0.9
TORD	**Torodi Ar. Bea**	31.19	300	P	P	11 02 28.6	-0.8
	comp=Z,9.6nm,0.7s,mb4.7,baz=109,slow=8.1,SNR=43						
TORD				Lg		11 12 26.0	
	comp=Z,14nm,1.2s,baz=124,slow=24,SNR=5.6						
TORD				LR	LR	11 15 23.3	
	comp=Z,924nm,19.8s,MS4.5,baz=115,slow=37						
TAM	**Tamanrasset**	33.93	319	*e*P	P	11 02 54.2	+0.9
TAM				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
TAM	**Tamanrasset**	33.93	319	*e*P	P	11 02 54.2	+0.9
	comp=Z,6.9nm,0.9s,mb4.6						
KIC	**Kosan Boka**	34.78	285	*e*P	P	11 03 01.1	+0.2
	comp=Z,104nm,1.1s,mb5.7						
DBIC	**Dimbokro**	34.97	285	P	P	11 03 01.5	-1.0
DBIC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
DBIC	**Dimbokro**	34.97	285	P	P	11 03 01.2	-1.2
	comp=Z,6.1nm,0.7s,mb4.7,baz=69,slow=10,SNR=3.2						
DBIC				LR	LR	11 17 02.4	
	comp=Z,364nm,20.7s,MS4.1,baz=81,slow=36						
DBIC	**Dimbokro**	34.97	285	P	P	11 03 01.5	-0.9
	comp=Z,8.5nm,0.6s,mb4.8						
LIC	**Lamto**	35.03	284	*e*P	P	11 03 03.3	+0.3
	comp=Z,20nm,0.5s,mb5.0						
LIC				*e*MLR	MLR		
	comp=Z,183nm,21.2s,MS3.5						
LIC	**Lamto**	35.03	284	*e*P	P	11 03 05.3	+2.3
	comp=Z,35nm,0.5s,mb5.5						
LIC	**Lamto**	35.03	284	*e*P	P	11 03 03.3	+0.3
	comp=Z,9.9nm,0.5s,mb5.0						
LIC				LR	LR		
	comp=Z,90nm,21.3s,MS3.5						
TIC	**Toumodi**	35.12	285	*e*P	P	11 03 03.6	-0.2
	comp=Z,67nm,0.6s,mb5.7						
MMAI	**Mount Meron Ar**	35.75	9	LR	LR	11 18 23.1	
	comp=Z,242nm,18.5s,MS4.0,baz=250,slow=37						
IDI	**Anoyia**	37.70	355	P	P	11 03 25.3	-0.1
	comp=Z,10.0nm,0.9s,mb4.5,baz=152,slow=14,SNR=7.3						
ISP	**Isparta**	40.08	2	*e*P	P	11 03 45.0	-0.4
ISP				pmax	pmax		
	comp=Z,36nm,1.5s,mb4.9						
ISP	**Isparta**	40.08	2	*e*P	P	11 03 45.0	-0.3
	comp=Z,36nm,1.5s,mb4.9						
AKCD	**Akcadag**	41.34	11	*i* P	P	11 03 57.1	+1.3
MALT	**Malatya**	41.45	11	*e*P	P	11 03 57.5	+0.8
MALT				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.6						
MALT	**Malatya**	41.45	11	⇑*i*P	P	11 03 58.1	+1.4
MALT	**Malatya**	41.45	11	*e*P	P	11 03 57.5	+0.8
	comp=Z,21nm,1.3s,mb4.6						
CDAG	**Cicekdag**	42.12	6	*i* P	P	11 04 02.6	+0.4
BR131	**Keskin Array S**	42.15	5	*e*P	P	11 04 03.1	+0.7
	comp=Z,4.9nm,0.7s,mb4.2						
BRTR	**Keskin Array B**	42.15	5	P	P	11 04 03.0	+0.6
	comp=Z,6.7nm,0.7s,mb4.4						
KEST	**Kesra**	42.16	336	P	P	11 04 03.5	+0.9
	comp=Z,7.8nm,0.9s,mb4.3,baz=302,slow=4.2,SNR=21						
KEST				LR	LR	11 23 33.1	
	comp=Z,184nm,18.2s,MS4.0,baz=219,slow=39						
CEL	**Celeste**	42.24	345	*e*P	P	11 04 03.3	+0.1
	comp=Z,52nm,1.2s,mb5.0						
TIP	**Timpagrande**	42.89	346	*e*P	P	11 04 09.7	+1.3
	comp=Z,60nm,1.8s,mb5.0						
CTKT	**Corum**	43.15	6	*i* P	P	11 04 11.8	+1.2
BALT	**Daday**	43.92	5	*i* P	P	11 04 16.5	-0.2
BOYT	**Boyabat**	43.95	6	*i* P	P	11 04 17.8	+0.8
GNI	**Garni**	44.75	17	*e*P	P	11 04 24.1	+0.7
GNI				pmax	pmax		
	comp=Z,20nm,1.2s						
GNI	**Garni**	44.75	17	*e*P	P	11 04 24.1	+0.8
	comp=Z,20nm,1.2s,mb4.8						
SOC	**Sochi**	46.79	11	*e*P	P	11 04 38.5	-1.0
SOC				*e*		11 06 25.3	
SOC				*e*S	S	11 11 27.3	-1.6
SOC				*e*SS	SS	11 14 44.6	-11
SOC				*e*SSS		11 16 01.0	
SOC				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
SOC				MLR	MLR		
	comp=Z,186nm,13.0s,MS4.2						
BHJ	**Bhuj**	47.11	55	*e*PKP	P	11 04 40.8	-1.6
BHJ				AMb	AMB	11 04 46.2	
	comp=Z,63nm,1.1s,mb5.5						
MDT	**Midelt**	47.30	321	P	P	11 04 44.9	+1.2
	comp=Z,3.0nm,0.9s,mb4.2,baz=131,slow=9.7,SNR=6.2						
MDT				LR	LR	11 27 51.4	
	comp=Z,311nm,19.4s,MS4.3,baz=136,slow=40						
KIV	**Kislovodsk**	47.77	13	*e*P	P	11 04 46.0	-1.1
KIV				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
KIV				MLR	MLR		
	comp=Z,133nm,17.0s,MS4.0						
VOIR		47.77	356	⇑*i*P	P	11 04 46.5	-0.5
VOIR		47.77	356	⇑P	P	11 04 46.5	-0.5
MLR	**Muntele Rosu**	47.77	357	⇑*i*P	P	11 04 47.2	+0.2
MLR	**Muntele Rosu**	47.77	357	⇑P	P	11 04 47.2	+0.1
GZR	**Gura Zlata**	47.91	354	⇓*i*P	P	11 04 48.2	0.0
GZR	**Gura Zlata**	47.91	354	⇓P	P	11 04 48.2	0.0
VRI	**Vrincioaia**	48.11	358	⇑*i*P	P	11 04 49.8	+0.1
VRI	**Vrincioaia**	48.11	358	⇑P	P	11 04 49.8	+0.1
BBTS	**Babate**	48.16	292	P	P	11 04 51.6	+1.0
	comp=Z,17nm,0.6s,mb5.2,baz=72,slow=3.2,SNR=3.6						
PGF	**Pioggiola**	48.26	340	*e*P	P	11 04 49.9	-1.0
	comp=Z,194nm,1.6s,mb5.6						
PGF	**Pioggiola**	48.26	340	*e*P	P	11 04 49.9	-1.0
PGF				pmax	pmax		
	comp=Z,97nm,1.6s,mb5.6						
PGF	**Pioggiola**	48.26	340	*e*P	P	11 04 49.9	-1.0
	comp=Z,97nm,1.6s,mb5.6						
BZS	**Buzias**	48.27	353	⇓*i*P	P	11 04 51.6	+0.7
BZS	**Buzias**	48.27	353	⇓P	P	11 04 51.6	+0.7
CART	**Cartagena**	48.54	328	*e*P	P	11 04 55.9	+2.8
	comp=Z,20nm,0.9s,mb5.1						
POO	**Poona**	48.80	63	*e*PKP	P	11 04 56.9	+1.5
POO				AMb	AMB	11 05 03.2	
	comp=Z,21nm,0.9s,mb5.1						
BOJS	**Bojanci**	49.24	347	*e*P	P	11 04 59.8	+1.4
PKSM	**Moragy**	49.27	351	⇑*i*P	P	11 04 58.7	+0.1
PKSM	**Moragy**	49.27	351	⇑P	P	11 04 58.7	+0.1
DRGR		49.30	354	⇑*i*P	P	11 04 59.2	+0.3
KNDS	**Knezji Dol**	49.46	347	*e*P	P	11 04 59.7	-0.4
DOBS	**Dobrina**	49.81	348	⇓*e*P	P	11 05 06.0	+3.3
LMR	**La Mourre**	49.83	339	*e*P	P	11 05 02.0	-0.9
	comp=Z,116nm,1.4s,mb5.4						
LMR	**La Mourre**	49.83	339	*e*P	P	11 05 02.0	-0.9
LMR				pmax	pmax		
	comp=Z,58nm,1.4s,mb5.4						
LMR	**La Mourre**	49.83	339	*e*P	P	11 05 02.0	-0.9
	comp=Z,58nm,1.4s,mb5.4						
KOD	**Kodaikanal**	49.87	75	*e*PKP	P	11 05 04.2	+0.4
BURAR	**Bucovina Array**	49.93	357	⇓*i*P	P	11 05 03.3	-0.3
BURAR	**Bucovina Array**	49.93	357	⇓P	P	11 05 03.3	-0.3
BUR08	**Bucovina Ar. S**	49.96	357	*e*P	P	11 05 04.7	+0.8
SBF	**Sospel**	49.96	340	*e*P	P	11 05 03.0	-0.9
	comp=Z,157nm,1.3s,mb5.6						
SBF	**Sospel**	49.96	340	*e*P	P	11 05 03.0	-0.9
SBF				pmax	pmax		
	comp=Z,79nm,1.3s,mb5.6						
SBF	**Sospel**	49.96	340	*e*P	P	11 05 03.0	-0.9
	comp=Z,79nm,1.3s,mb5.6						
FRF	**La Foret Royal**	49.98	339	*e*P	P	11 05 03.2	-0.8
	comp=Z,81nm,1.2s,mb5.3						
FRF	**La Foret Royal**	49.98	339	*e*P	P	11 05 03.2	-0.8
FRF				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.3						
FRF	**La Foret Royal**	49.98	339	*e*P	P	11 05 03.2	-0.8
	comp=Z,40nm,1.2s,mb5.3						
ZAVS	**Zavodnje**	50.18	347	*e*P	P	11 05 07.1	+1.6
BUD	**Budapest**	50.45	351	⇓*e*P	P	11 05 10.6	+3.1
SMRF	**Simiane la Rot**	50.73	338	*e*P	P	11 05 09.3	-0.4
	comp=Z,106nm,1.6s,mb5.2						
SMRF	**Simiane la Rot**	50.73	338	*e*P	P	11 05 09.3	-0.4
	comp=Z,106nm,1.6s,mb5.5						
PSZ	**Piszkesteto**	50.75	352	*e*P	P	11 05 11.2	+1.4
PSZ				pmax	pmax		
	comp=Z,97nm,1.8s,mb5.4						
PSZ	**Piszkesteto**	50.75	352	⇓*i*P	P	11 05 07.6	-2.2
PSZ	**Piszkesteto**	50.75	352	⇓*e*P	P	11 05 12.8	+3.0
PSZ	**Piszkesteto**	50.75	352	*e*P	P	11 05 11.2	+1.4
	comp=Z,97nm,1.8s,mb5.4						
ARSA	**Arzberg**	50.85	348	⇓*i*P	P	11 05 11.0	+0.4
	comp=Z,15nm,0.9s,mb4.9						
MBDF	**Montbardon**	50.95	340	*e*P	P	11 05 11.2	-0.2
	comp=Z,84nm,1.1s,mb5.3						
MBDF	**Montbardon**	50.95	340	*e*P	P	11 05 11.2	-0.2
MBDF				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.3						
MBDF	**Montbardon**	50.95	340	*e*P	P	11 05 11.2	-0.2
	comp=Z,42nm,1.1s,mb5.3						
SOP	**Sopron**	51.06	349	⇓*e*pP	pP	11 05 16.7	-0.8
UZH	**Uzhgorod**	51.17	354	*e*P	P	11 05 13.0	+0.1
BNI	**Bardonecchia**	51.26	340	*e*P	P	11 05 14.5	+0.8
BNI				pmax	pmax		
	comp=Z,158nm,2.2s,mb5.6						
BNI	**Bardonecchia**	51.26	340	*e*P	P	11 05 14.5	+0.8
	comp=Z,158nm,2.2s,mb5.6						
ORIF	**Oris-en-Rattie**	51.43	339	*e*P	P	11 05 14.3	-0.7
	comp=Z,28nm,1.1s,mb4.8						
ORIF				*e*MLR	MLR		
	comp=Z,306nm,17.2s,MS4.1						
ORIF	**Oris-en-Rattie**	51.43	339	*e*P	P	11 05 14.3	-0.7
ORIF				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
ORIF	**Oris-en-Rattie**	51.43	339	*e*P	P	11 05 14.3	-0.7
	comp=Z,14nm,1.1s,mb4.8						
CONA	**Conrad Observa**	51.43	349	⇑*i*P	P	11 05 15.2	+0.3
	comp=Z,22nm,1.0s,mb5.0						
CSNA	**Conrad Observa**	51.43	349	⇑*i*P	P	11 05 15.3	+0.4
	comp=Z,21nm,1.1s,mb5.0						
ZST	**Bratislava**	51.46	350	*e*P	P	11 05 14.9	-0.2
ZST				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
ZST	**Bratislava**	51.46	350	*e*P	P	11 05 14.9	-0.2
	comp=Z,7.3nm,1.0s,mb4.6						
VYHS	**Vyhne**	51.46	351	*e*P	P	11 05 14.6	-0.6
LASF	**Ste Croix**	51.47	337	*e*P	P	11 05 15.0	-0.3
	comp=Z,50nm,1.2s,mb5.0						
KOLS	**Kolonicke sedl**	51.47	354	*e*P	P	11 05 17.9	+2.7
KOLS				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
KOLS	**Kolonicke sedl**	51.47	354	*e*P	P	11 05 17.9	+2.7
	comp=Z,20nm,1.4s,mb4.9						
MTLF	**Montolieu**	51.52	335	*e*P	P	11 05 15.0	-0.7
	comp=Z,22nm,1.2s,mb4.7						
MTLF	**Montolieu**	51.52	335	*e*P	P	11 05 15.0	-0.7
MTLF				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
MTLF	**Montolieu**	51.52	335	*e*P	P	11 05 15.0	-0.7
	comp=Z,11nm,1.2s,mb4.7						
CRVS	**Cervenica-Dubn**	51.52	354	*e*P	P	11 05 15.7	+0.1
CRVS				pmax	pmax		
	comp=Z,25nm,1.7s,mb4.9						
CRVS	**Cervenica-Dubn**	51.52	354	*e*P	P	11 05 15.7	+0.1
	comp=Z,25nm,1.7s,mb4.9						
MODS	**Modra-Piesok**	51.60	350	*e*P	P	11 05 18.3	+2.1
LPG	**La Plagne**	51.63	340	*e*P	P	11 05 15.6	-0.9
	comp=Z,62nm,1.2s,mb5.1						
LPG	**La Plagne**	51.63	340	*e*P	P	11 05 15.6	-0.9
LPG				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
LPG	**La Plagne**	51.63	340	*e*P	P	11 05 15.6	-0.9
	comp=Z,31nm,1.2s,mb5.1						
ESDC	**Sonseca Array**	51.65	328	P	P	11 05 17.1	+0.3
	comp=Z,3.5nm,0.9s,mb4.3,baz=148,slow=8.8,SNR=4.6						
LPL	**La Plagne**	51.65	340	*e*P	P	11 05 15.5	-1.1
TUE	**Stuetta**	51.67	343	*e*P	P	11 05 17.6	+0.9
	comp=Z,44nm,1.1s,mb5.3						
MOA	**Molln**	51.68	347	⇓*i*P	P	11 05 16.9	+0.1
	comp=Z,43nm,1.2s,mb5.3						
VIVF	**Saint-Julien-l**	51.81	338	*e*P	P	11 05 17.4	-0.4
	comp=Z,31nm,1.1s,mb4.8						
VIVF	**Saint-Julien-l**	51.81	338	*e*P	P	11 05 17.4	-0.4
VIVF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
VIVF	**Saint-Julien-l**	51.81	338	*e*P	P	11 05 17.4	-0.4
	comp=Z,16nm,1.1s,mb4.8						
STHS	**Stebnicka Huta**	52.05	354	*e*P	P	11 05 22.2	+2.7
STHS				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
STHS	**Stebnicka Huta**	52.05	354	*e*P	P	11 05 22.1	+2.6
STHS	**Stebnicka Huta**	52.05	354	*e*P	P	11 05 22.2	+2.7
	comp=Z,6.8nm,0.8s,mb4.6						
EPF	**Esparros**	52.08	334	*e*P	P	11 05 19.8	-0.1
	comp=Z,62nm,1.2s,mb5.1						
EPF	**Esparros**	52.08	334	*e*P	P	11 05 19.8	-0.1
EPF				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
EPF	**Esparros**	52.08	334	*e*P	P	11 05 19.8	-0.1
	comp=Z,31nm,1.2s,mb5.1						
NIE	**Niedzica**	52.17	353	*e*P	P	11 05 23.6	+3.2
SSB	**Saint Sauveur**	52.22	338	P	P	11 05 20.4	-0.5
SSB				pmax	pmax		
	comp=Z,71nm,1.5s,mb5.4						
SSB	**Saint Sauveur**	52.22	338	P	P	11 05 20.4	-0.5
	comp=Z,71nm,1.5s,mb5.4						
ETSF	**Etsaut**	52.38	333	*e*P	P	11 05 21.9	-0.2
	comp=Z,61nm,1.1s,mb5.2						
ETSF	**Etsaut**	52.38	333	*e*P	P	11 05 21.9	-0.2
ETSF				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
ETSF	**Etsaut**	52.38	333	*e*P	P	11 05 21.9	-0.2
	comp=Z,31nm,1.1s,mb5.2						
AJM	**Ajmer**	52.60	54	*e*PKP	P	11 05 25.4	+1.3
AJM				AMb	AMB	11 05 38.5	
	comp=Z,9.1nm,0.4s,mb5.0						
VRAC	**Vranov**	52.62	350	⇑*i*P	P	11 05 22.7	-1.0
VRAC	**Vranov**	52.62	350	⇑P	P	11 05 22.7	-1.0
HYB	**Hyderabad**	52.68	66	*i* P	P	11 05 25.0	+0.2
GEC2	**GERESS Array S**	52.75	347	*e*P	P	11 05 24.3	-0.4
	comp=Z,7µm,1.3s						
GERES	**GERESS Array B**	52.75	347	P	P	11 05 24.3	-0.5
	comp=Z,7.8nm,0.7s,mb4.7,baz=164,slow=6.9,SNR=36						
GERES				LR	LR	11 30 34.2	
	comp=Z,169nm,18.5s,MS4.1,baz=266,slow=39						
CABF	**La Chapelle**	52.83	340	*e*P	P	11 05 23.9	-1.4
SJPF	**Ste Jean**	52.86	332	*e*P	P	11 05 25.6	0.0
	comp=Z,47nm,1.1s,mb5.0						
SJPF	**Ste Jean**	52.86	332	*e*P	P	11 05 25.6	0.0
SJPF				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
SJPF	**Ste Jean**	52.86	332	*e*P	P	11 05 25.6	0.0
	comp=Z,24nm,1.1s,mb5.0						
OKC	**Ostrava-Krasne**	52.88	351	*e*P	P	11 05 27.8	+2.2
CAF	**Calviac**	52.88	336	*e*P	P	11 05 25.5	-0.3
	comp=Z,104nm,1.4s,mb5.3						
CAF	**Calviac**	52.88	336	*e*P	P	11 05 25.5	-0.3
CAF				pmax	pmax		
	comp=Z,52nm,1.4s,mb5.3						
CAF	**Calviac**	52.88	336	*e*P	P	11 05 25.5	-0.3
	comp=Z,52nm,1.4s,mb5.3						
AKASG	**Malin Array Be**	52.91	0	P	P	11 05 24.4	-1.4
	comp=Z,5.2nm,0.7s,mb4.6,baz=185,slow=6.8,SNR=19						
MORC	**Moravsky Berou**	52.91	351	*e*P	P	11 05 25.4	-0.5
MORC				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
MORC	**Moravsky Berou**	52.91	351	⇑*i*P	P	11 05 25.2	-0.7
MORC	**Moravsky Berou**	52.91	351	*e*P	P	11 05 25.4	-0.5
	comp=Z,25nm,1.1s,mb5.0						
OJC	**Ojcow**	53.02	353	*e*P	P	11 05 25.8	-0.9
KHC	**Kasperske Hory**	53.05	347	*e*P	P	11 05 26.0	-0.9
KHC				*e*pP	pP	11 05 29.2	-3.1
KHC	**Kasperske Hory**	53.05	347	*e*P	P	11 05 29.2	+2.3
EVO	**Evora**	53.14	324	*e*P	P	11 05 27.9	+0.1
	comp=Z,43nm,1.3s,mb4.9						
EVO				*e*MLR	MLR		
	comp=Z,317nm,21.0s,MS4.0						
RJF	**Les Rejaudoux**	53.42	336	*e*P	P	11 05 29.3	-0.4
	comp=Z,58nm,1.4s,mb5.0						
RJF				*e*MLR	MLR		
	comp=Z,363nm,19.2s,MS4.1						
RJF	**Les Rejaudoux**	53.42	336	*e*P	P	11 05 29.3	-0.4
RJF				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.0						
RJF				MLR	MLR		
	comp=Z,360nm,19.3s,MS4.4						
RJF	**Les Rejaudoux**	53.42	336	*e*P	P	11 05 29.3	-0.4
	comp=Z,29nm,1.4s,mb5.0						
RJF				LR	LR		
	comp=Z,360nm,19.3s,MS4.4						
LFF	**La Frestale**	53.44	335	*e*P	P	11 05 29.7	-0.2
	comp=Z,66nm,1.0s,mb5.2						
LFF	**La Frestale**	53.44	335	*e*P	P	11 05 29.7	-0.2
LFF				pmax	pmax		

	comp=Z,33nm,1.0s,mb5.2						
LFF	La Frestale	53.44	335	eP	P	11 05 29.7	-0.2
	comp=Z,33nm,1.0s,mb5.2						
BHPL	Bhopal	53.61	59	ePKP	P	11 05 32.3	+0.7
BHPL				AMb	AMB	11 05 37.6	
	comp=Z,31nm,1.6s,mb5.0						
HINF	Hinteralfeld	53.64	342	eP	P	11 05 30.3	-1.0
	comp=Z,31nm,0.9s,mb4.9						
HINF	Hinteralfeld	53.64	342	eP	P	11 05 30.3	-1.0
HINF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
HINF	Hinteralfeld	53.64	342	eP	P	11 05 30.3	-1.0
	comp=Z,16nm,0.9s,mb4.9						
SMF	Signal de Mont	53.64	339	eP	P	11 05 30.5	-0.8
	comp=Z,29nm,1.0s,mb4.9						
SMF	Signal de Mont	53.64	339	eP	P	11 05 30.5	-0.8
SMF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
SMF	Signal de Mont	53.64	339	eP	P	11 05 30.5	-0.8
	comp=Z,14nm,1.0s,mb4.9						
BFO	Black Forest	53.65	343	eP	P	11 05 30.9	-0.4
BFO				pmax	pmax		
	comp=Z,60nm,1.9s,mb5.2						
BFO	Black Forest	53.65	343	eP	P	11 05 30.9	-0.4
	comp=Z,60nm,1.9s,mb5.2						
BFO	Black Forest	53.65	343	eP	P	11 05 30.9	-0.4
	comp=Z,60nm,1.9s,mb5.2						
PRU	Pruhonice	53.66	348	eP	P	11 05 33.6	+2.2
DPC	Dobruska-Polom	53.67	350	eP	P	11 05 30.8	-0.7
DPC				epP	pP	11 05 33.7	-3.2
UPC	Upice	53.88	350	eP	P	11 05 32.3	-0.7
UPC				epP	pP	11 05 35.3	-3.1
BGF	Bois d'Agland	53.94	338	eP	P	11 05 33.0	-0.5
AVF	Avril sur Loir	53.94	338	eP	P	11 05 32.8	-0.8
	comp=Z,101nm,1.4s,mb5.3						
AVF	Avril sur Loir	53.94	338	eP	P	11 05 32.8	-0.8
AVF				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.2						
AVF	Avril sur Loir	53.94	338	eP	P	11 05 32.8	-0.8
	comp=Z,50nm,1.4s,mb5.3						
TCF	Toulx Ste Croi	53.95	337	eP	P	11 05 33.6	0.0
HAU	Haudompre	53.96	341	eP	P	11 05 32.6	-1.1
HAU				eMLR	MLR		
	comp=Z,246nm,17.0s,MS4.0						
HAU	Haudompre	53.96	341	eP	P	11 05 32.6	-1.1
HAU				LR	LR		
	comp=Z,250nm,17.0s,MS4.3						
CDF	Champ du Feu	54.03	342	eP	P	11 05 33.0	-1.2
	comp=Z,41nm,1.0s,mb5.0						
CDF	Champ du Feu	54.03	342	eP	P	11 05 33.0	-1.2
CDF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
CDF	Champ du Feu	54.03	342	eP	P	11 05 33.0	-1.2
	comp=Z,20nm,1.0s,mb5.0						
GRA1	Grafenberg Arr	54.12	346	eP	P	11 05 34.3	-0.4
	comp=Z,34nm,0.9s,mb5.3						
GRF	Grafenberg Arr	54.12	346	eP	P	11 05 34.3	-0.4
GRF				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
GRF	Grafenberg Arr	54.12	346	eP	P	11 05 34.3	-0.4
GRF				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
GRF	Grafenberg Arr	54.12	346	eP	P	11 05 34.3	-0.4
	comp=Z,34nm,0.9s,mb5.3						
GRF	Grafenberg Arr	54.12	346	eP	P	11 05 34.3	-0.4
	comp=Z,34nm,0.9s,mb5.3						
SSF	Saint Saulge	54.12	339	eP	P	11 05 33.7	-1.1
	comp=Z,36nm,1.1s,mb4.9						
SSF	Saint Saulge	54.12	339	eP	P	11 05 33.7	-1.1
SSF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
SSF	Saint Saulge	54.12	339	eP	P	11 05 33.7	-1.1
	comp=Z,18nm,1.1s,mb4.9						
VSR	Storozhevoye	54.12	8	eP	P	11 05 33.9	-0.9
VSR				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
LOR	Lormes	54.17	339	eP	P	11 05 34.1	-1.1
	comp=Z,37nm,1.0s,mb5.0						
LOR				eMLR	MLR		
	comp=Z,298nm,18.8s,MS4.1						
LOR	Lormes	54.17	339	eP	P	11 05 34.1	-1.1
LOR				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
LOR				MLR	MLR		
	comp=Z,300nm,18.8s,MS4.4						
LOR	Lormes	54.17	339	eP	P	11 05 34.1	-1.1
	comp=Z,18nm,1.0s,mb5.0						
LOR				LR	LR		
	comp=Z,300nm,18.8s,MS4.4						
PVCC	Panska Ves	54.17	349	eP	P	11 05 35.4	+0.3
MANZ	Manzenberg	54.18	347	eP	P	11 05 35.0	-0.2
	comp=Z,16nm,0.9s,mb5.0						
NKC	Novy Kostel	54.33	347	eP	P	11 05 38.6	+2.3
WERN	Wernitzgruen	54.40	347	eP	P	11 05 36.6	-0.2
	comp=Z,52nm,1.7s,mb5.2						
TANN	Tannenbergstha	54.50	347	eP	P	11 05 37.4	-0.1
	comp=Z,19nm,1.4s,mb4.9						
WERD	Werda	54.57	347	eP	P	11 05 38.1	+0.1
	comp=Z,122nm,2.2s,mb5.5						
HYF	Humbligny	54.61	338	eP	P	11 05 37.9	-0.5
BRG	Berggiesshubel	54.62	348	eP	P	11 05 40.2	+1.8
BRG				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.8						
BRG	Berggiesshubel	54.62	348	eP	P	11 05 40.2	+1.8
	comp=Z,25nm,1.7s,mb5.0						
MEZF	Maizieres J'vi	54.82	341	eP	P	11 05 39.6	-0.3
	comp=Z,94nm,1.0s,mb5.5						
MEZF	Maizieres J'vi	54.82	341	eP	P	11 05 39.6	-0.3
	comp=Z,94nm,1.0s,mb5.8						
MOX	Moxa	54.91	347	e(P)	P	11 05 42.4	+1.9
	comp=Z,52nm,2.2s,mb5.2						
MOX	Moxa	54.91	347	eP	P	11 05 42.4	+1.9
MOX				pmax	pmax		
	comp=Z,52nm,2.2s,mb5.2						
MFF	Saint Martin d	55.15	336	eP	P	11 05 41.9	-0.4
CLL	Collm	55.22	348	eP	P	11 05 45.0	+2.2
CLL				pmax	pmax		
	comp=Z,29nm,1.6s,mb5.1						
CLL				MLR	MLR		
	comp=Z,200nm,20.6s,MS4.2						
CLL	Collm	55.22	348	eP	P	11 05 44.0	+1.2
	comp=Z,29nm,1.6s,mb5.1						
CLL				LmV		11 30 00.0	
	comp=Z,200nm,20.6s						
CLL	Collm	55.22	348	eP	P	11 05 45.0	+2.2
	comp=Z,29nm,1.6s,mb5.1						
CLL				LR	LR		
	comp=Z,200nm,20.6s,MS4.2						
TNS	Taunus Mts	55.32	344	eP	P	11 05 43.3	-0.2
TNS				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.4						
TNS	Taunus Mts	55.32	344	eP	P	11 05 43.3	-0.2
	comp=Z,39nm,0.9s,mb5.4						
TNS	Taunus Mts	55.32	344	eP	P	11 05 43.3	-0.2
	comp=Z,39nm,0.9s,mb5.4						
NDI	New Delhi	55.61	53	ePKP	P	11 05 45.0	-1.0
RUE	Ruedersdorf	56.18	349	eP	P	11 05 48.8	-0.8
	comp=Z,34nm,1.1s,mb5.3						
GIVF	Givet	56.28	342	eP	P	11 05 49.2	-1.2
BAIF	Baives	56.45	341	eP	P	11 05 50.4	-1.1
	comp=Z,17nm,0.9s,mb4.8						
BAIF	Baives	56.45	341	eP	P	11 05 50.4	-1.1
BAIF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
BAIF	Baives	56.45	341	eP	P	11 05 50.4	-1.1
	comp=Z,8.7nm,0.9s,mb4.8						
GRR	Gorron	56.87	337	eP	P	11 05 53.7	-0.9
	comp=Z,233nm,1.6s,mb5.7						
GRR	Gorron	56.87	337	eP	P	11 05 53.7	-0.9
GRR				pmax	pmax		
	comp=Z,116nm,1.6s,mb5.7						
GRR	Gorron	56.87	337	eP	P	11 05 53.7	-0.9
	comp=Z,116nm,1.6s,mb5.7						
NRDL	Niedersach Rie	56.98	346	eP	P	11 05 57.1	+1.8
	comp=Z,73nm,1.3s,mb5.5						
NACGM	Naroch	57.14	358	e	P	11 05 56.0	-0.4
VIS	Vishakhapatnam	57.15	67	ePKP	P	11 05 58.7	+1.5
VIS				AMb	AMB	11 06 03.4	
	comp=Z,25nm,1.2s,mb5.1						
OBN	Obninsk	57.67	5	eP	P	11 05 59.1	-1.0
OBN				pmax	pmax		
	comp=Z,46nm,1.6s,mb5.3						
MOS	Moscow	58.38	6	eP	P	11 06 04.6	-0.5
MOS				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
PYUN	Piuthan	60.05	56	eP	P	11 06 16.9	-0.3
	comp=Z,44nm,0.9s,mb5.5						
KOLN	Koldanda	60.44	56	eP	P	11 06 18.4	-1.5
	comp=Z,34nm,1.0s,mb5.3						
VSU	Vasula	60.71	359	eP	P	11 06 19.8	-1.3
VSU				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.4						
DANN	Dangsing	60.78	56	eP	P	11 06 21.8	-0.4
	comp=Z,54nm,1.0s,mb5.6						
MUD	Monsted U'grnd	60.85	348	i P	P	11 06 26.0	+3.9
MUD				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.3						
MUD	Monsted U'grnd	60.85	348	i P	P	11 06 26.0	+3.9
	comp=Z,28nm,1.0s,mb5.3						
BOK	Bokaro	61.12	61	ePKP	P	11 06 24.2	-0.4
BOK				AMb	AMB	11 06 28.6	
	comp=Z,16nm,0.8s,mb5.2						
GKN	Gorkha	61.38	56	eP	P	11 06 25.7	-0.6
	comp=Z,66nm,1.0s,mb5.7						
DMN	Daman	61.64	57	eP	P	11 06 27.9	-0.2
	comp=Z,47nm,1.1s,mb5.5						
KKN	Kakani	61.84	57	eP	P	11 06 28.6	-0.8
	comp=Z,51nm,0.9s,mb5.6						
PKIN	Phulchoki	61.87	57	eP	P	11 06 28.5	-1.1
	comp=Z,12nm,0.9s,mb5.0						
PKI	Pulchoki	61.88	57	eP	P	11 06 28.9	-0.8
GUN	Gumba	62.39	57	eP	P	11 06 32.9	-0.2
	comp=Z,132nm,1.3s,mb5.9						
JIRN	Jiri	62.56	57	eP	P	11 06 34.1	-0.2
RAMN	Ramite	62.69	58	eP	P	11 06 34.6	-0.5
	comp=Z,38nm,1.1s,mb5.4						
ODAN	Odare	63.33	58	eP	P	11 06 37.6	-1.8
ARU	Arti	63.38	18	P	P	11 06 38.5	-0.6
	comp=Z,163nm,0.8s,mb6.2,SNR=8.4						
ARU	Arti	63.38	18	eP	P	11 06 38.4	-0.7
ARU				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.3						
ARU	Arti	63.38	18	eP	P	11 06 38.4	-0.7
	comp=Z,24nm,0.9s,mb5.3						
KLMR	Klimovskoe	63.61	6	eP	P	11 06 39.0	-1.5
KLMR				pmax	pmax		
	comp=Z,67nm,1.6s,mb5.4						
TAPN	Taplejung	63.75	58	eP	P	11 06 40.8	-1.3
	comp=Z,42nm,1.1s,mb5.4						
SVE	Sverdlovsk	64.36	19⇓	eP	P	11 06 45.1	-0.5
SVE				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
KAF	Kangasniemi	64.38	359	eP	P	11 06 44.2	-1.4
KAF				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.2						
KAF	Kangasniemi	64.38	359	ep	P	11 06 44.2	-1.4
	comp=Z,27nm,1.0s,mb5.2						
NB2	NORSAR Subarra	64.75	351	P	P	11 06 47.4	-0.6
	comp=Z,26nm,1.0s,mb5.2,baz=163,slow=6.5						
NB2	NORSAR Subarra	64.75	351	P	P	11 06 47.4	-0.6
	baz=163,slow=6.5						
NOA	NORSAR Array B	64.75	351	P	P	11 06 47.9	-0.1
	comp=Z,13nm,0.8s,mb5.0,baz=163,slow=6.3,SNR=15						
RCBR	Riachuelo	64.78	265	eP	P	11 06 50.7	+1.5
	comp=Z,7.0nm,0.8s,mb4.7						
PRGR	Permogore	65.14	9	eP	P	11 06 51.4	+0.9
PRGR				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
JOF	Joensuu	65.18	1	eP	P	11 06 45.8	-5.0
JOF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
JOF	Joensuu	65.18	1	ep	P	11 06 45.8	-5.0
	comp=Z,5.2nm,0.7s,mb4.7						
BVAR	Borovoye Array	65.20	26	P	P	11 06 50.6	-0.5
BVAR	Borovoye Array	65.20	26	P	P	11 06 50.6	-0.5
	comp=Z,1.6nm,0.8s,mb4.1,baz=205,slow=6.6,SNR=6.0						
BVAR	Borovoye Array	65.20	26	P	P	11 06 50.6	-0.5
SHL	Shillong	66.84	61	ePKP	P	11 07 02.0	-0.3
SYO	Syowa Base	66.87	176⇑	eP	P	11 07 02.6	+1.0
LSA	Lhasa	67.33	56	eP	P	11 07 06.0	+0.7
LSA				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
LSA	Lhasa	67.33	56	eP	P	11 07 06.0	+0.6
	comp=Z,17nm,1.1s,mb5.0						
MK31	Makanchi Array	67.67	37	eP	P	11 07 06.2	-0.9
MKAR	Makanchi Array	67.67	37	P	P	11 07 06.7	-0.4
	comp=Z,3.1nm,0.6s,mb4.5,baz=245,slow=6.2,SNR=18						
KURK	Kurchatov	67.72	32	P	P	11 07 06.3	-0.9
	comp=Z,4.2nm,0.8s,mb4.5,baz=244,slow=6.5,SNR=14						
MAW	Mawson	69.12	167	P	P	11 07 15.8	0.0
	comp=Z,6.2nm,0.9s,mb4.5,baz=298,slow=7.6,SNR=6.2						
WMQ	Urumqi	69.71	41	eP	P	11 07 21.0	+1.2
WMQ				LR	LR		
	comp=N,680nm,29.2s,MS4.7						
WMQ				LR	LR		
	comp=E,280nm,32.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,340nm,21.7s						
CMAR	Chiang Mai Arr	71.83	70	P	P	11 07 33.0	-0.2
	comp=Z,8.6nm,1.0s,mb4.7,baz=259,slow=7.1,SNR=18						
ARCES	ARCESS Array B	71.84	359	P	P	11 07 31.4	-0.9
	comp=Z,11nm,1.0s,mb4.7,baz=167,slow=6.1,SNR=8.4						
CHTO	Chiang Mai	71.88	69	eP	P	11 07 33.5	-0.1
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
CHTO	Chiang Mai	71.88	69	eP	P	11 07 33.5	-0.1
	comp=Z,7.5nm,0.9s,mb4.6						
VNA2	Neumayer--Watz	72.31	192	eP	P	11 07 37.6	+2.5
VNA2				e	pP	11 07 41.0	+0.4
NVS	Novosibirsk	72.33	30	eP	P	11 07 35.7	+0.2
NVS				pmax	pmax		
	comp=N,10.0nm,1.5s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.5s						
NVS				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.8						
ZALV	Zalesovo Beam	72.66	31	P	P	11 07 36.0	-1.5
	comp=Z,2.1nm,0.8s,mb4.1,baz=259,slow=5.6,SNR=6.1						
VNA3	Neumayer Olymp	73.03	192	eP	P	11 07 41.6	+2.2
KMI	Kunming	76.36	64	P	P	11 08 01.6	+1.9
KMI				pP	pP	11 08 04.7	-0.5
KMI				PcP	PcP	11 08 13.6	+2.1
KMI				S	S	11 17 44.4	-0.1
KMI				SS	SS	11 22 42.6	+3.5
KMI				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
KMI				LR	LR		
	comp=Z,150nm,37.8s,MS4.0						
GTA	Gaotai	76.83	49	P	P	11 08 02.6	+0.6
GTA				pP	pP	11 08 06.0	-1.6
GTA				sP	sP	11 08 07.7	-1.9
GTA				S	S	11 17 48.3	-0.8
GTA				sS	sS	11 17 55.8	-2.4
GTA				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
GTA				pmax	pmax		
	comp=Z,70nm,4.8s						
GTA				LR	LR		
	comp=N,110nm,15.0s,MS4.5						
GTA				LR	LR		
	comp=E,110nm,14.7s,MS4.5						
GTA				LR	LR		
	comp=Z,150nm,17.4s,MS4.4						
KRAR	Krasnoyarsk	77.74	31	eP	P	11 08 06.9	+0.2
KRAR				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.1						
CD2	Chengdu	78.22	58	P	P	11 08 10.8	+0.9
CD2				pP	pP	11 08 15.5	0.0
CD2				sP	sP	11 08 17.1	-0.4
CD2				PP	PP	11 11 09.2	+2.3
CD2				S	S	11 18 04.1	-0.3
CD2				sS	sS	11 18 11.9	-1.7
CD2				SKS		11 18 19.6	
CD2				SS	SS	11 23 08.9	+2.1
CD2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
CD2				pmax	pmax		
	comp=Z,130nm,7.1s						
CD2				LR	LR		
	comp=N,210nm,8.2s						
CD2				LR	LR		
	comp=Z,190nm,6.5s						
LZH	Lanzhou	79.23	53	eP	P	11 08 15.0	-0.4
LZH				pP	pP	11 08 18.1	-2.9
LZH				sP	sP	11 08 20.0	-3.0
LZH				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,110nm,4.7s						
MOY	Mondy	80.82	37	eP	P	11 08 25.1	+1.5
ZAK	Zakamensk	81.89	39	eP	P	11 08 28.6	-0.8
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.3						
TLY	Talaya	82.42	37	eP	P	11 08 33.2	+1.1
TLY				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TLY				MLR	MLR		
	comp=Z,129nm,22.0s,MS4.2						
XAN	Xi'an	83.01	55	P	P	11 08 38.7	+3.1
XAN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
XAN				pmax	pmax		
	comp=Z,760nm,8.0s						
SONM	Songino Array	83.34	41	P	P	11 08 37.6	+0.6
	comp=Z,0.8nm,0.6s,mb3.9,baz=268,slow=4.6,SNR=4.9						
CPUP	Villa Florida	85.64	244	P	P	11 08 49.9	+0.7
	comp=Z,1.9nm,0.9s,mb4.3,baz=102,slow=5.1,SNR=3.8						
HHC	Hu-ho-hao-te	85.94	49	eP	P	11 08 51.3	+1.0
HHC				pP	pP	11 08 56.1	+0.2
HHC				sP	sP	11 08 58.4	+0.5
HHC				PP	PP	11 12 11.6	+1.3
HHC				SKS		11 19 13.4	
HHC				S	S	11 19 22.0	-1.5
HHC				sS	sS	11 19 31.0	-1.8
HHC				SS	SS	11 25 04.7	+3.3
HHC				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.1						
HHC				pmax	pmax		
	comp=Z,170nm,5.1s						
HHC				LR	LR		
	comp=N,240nm,19.0s,MS4.7						
HHC				LR	LR		
	comp=E,180nm,16.6s,MS4.7						
HHC				LR	LR		
	comp=Z,200nm,20.2s,MS4.5						
WHN	Wuhan	87.22	59	P	P	11 08 57.6	+0.8
NWAO	Narrogin (SRO)	87.23	123	P	P	11 08 57.4	+0.6
	comp=Z,14nm,0.8s,mb5.2,baz=286,slow=3.6,SNR=4.7						
QSPA	South Pole Qui	87.64	180	P	P	11 08 59.8	+2.0
	comp=Z,8.8nm,0.9s,mb5.0,baz=223,slow=3.3,SNR=12						
QSPA	South Pole Qui	87.64	180	eP	P	11 08 59.6	+1.8
	comp=Z,16nm,1.1s,mb5.2						
BOD	Bodaibo	89.36	32	eP	P	11 09 04.6	-1.7
BOD				pmax	pmax		
	comp=Z,7.0nm,1.6s,mb4.7						
BJI	Beijing	89.38	50	P	P	11 09 10.9	+4.1
BJI				S	S	11 19 59.2	+2.8
BJI				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.2						
BJI				pmax	pmax		
	comp=Z,200nm,5.3s						
BJI				LR	LR		
	comp=Z,80nm,33.3s,MS3.9						
NJ2	Nanjing	91.15	58	eP	P	11 09 15.6	+0.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.2						
CFAA	Coronel Fontan	94.90	238	P	P	11 09 33.6	+1.0
	comp=Z,0.4nm,0.8s,mb3.9,baz=67,slow=2.3,SNR=7.4						
TIXI	Tiksi	95.39	18	eP	P	11 09 31.1	-2.8
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.4						
FITZ	Fitzroy Crossi	95.58	108	P	P	11 09 35.4	-0.6
	comp=Z,4.6nm,0.8s,mb5.0,baz=256,slow=5.6,SNR=8.4						
FITZ	Fitzroy Crossi	95.58	108	eP	P	11 09 35.9	-0.1
	comp=Z,3.3nm,0.8s,mb4.8						
CN2	Changchun	96.33	46	eP	P	11 09 39.7	+0.9
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.3						
MDJ	Mudanjiang	99.24	45	P	P	11 09 52.2	+0.3
MDJ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.1						
MDJ				pmax	pmax		
	comp=Z,75nm,5.9s						
HABR	Khabarovsk	102.42	41	eP	Pdif	11 10 03.9	-1.9
HABR				S	SKSac	11 20 41.3	-3.8
HABR				eS	Sdif	11 21 46.9	-2.3
HABR				eSS	SS	11 28 57.7	+1.9
HABR				eSSS		11 32 52.8	
HABR				MLR	MLR		
	comp=Z,103nm,20.0s,MS4.3						
ASAR	Alice Springs	102.66	115	P	Pdif	11 10 07.6	+0.8
	comp=Z,0.9nm,0.8s,baz=256,slow=4.7,SNR=6.8						
WRA	Warramunga Arr	103.57	111	Pdiff	Pdif	11 10 14.0	+3.1
	comp=Z,0.8nm,0.9s,baz=270,slow=3.0,SNR=5.3						
WRA				PKiKP	PKiKP	11 14 30.8	+0.4
	comp=Z,0.7nm,1.0s,baz=272,slow=2.4,SNR=4.2						
YKA	Yellowknife Ar	114.23	342	PKP	PKiKP	11 14 48.5	-0.7
	comp=Z,0.4nm,0.7s,baz=55,slow=2.1,SNR=5.3						
YKA				PP	PP	11 15 43.5	-0.4
	comp=Z,0.3nm,0.8s,baz=36,slow=7.8,SNR=4.8						
YKA				PKKPbc	PKKPbc	11 25 36.2	+4.4
	comp=Z,0.6nm,0.8s,baz=214,slow=3.8,SNR=8.4						
YKA	Yellowknife Ar	114.23	342	PKP	PKiKP	11 14 48.5	-0.7
YKA				PP	PP	11 15 43.5	-0.4
YKA				PKKPbc	PKKPbc	11 25 36.2	+4.4
PDAR	Pinedale Array	125.43	323	PKP	PKPdf	11 15 11.5	+0.2
	comp=Z,1.5nm,1.1s,baz=122,slow=1.9,SNR=6.2						
SNZO	South Karori	126.47	148	ePKPdf	PKPdf	11 15 13.2	-0.2
ANMO	Albuquerque	127.50	313	PKP	PKPdf	11 15 16.6	+1.2
	comp=Z,1.0nm,0.9s,baz=33,slow=2.8,SNR=5.1						
TXAR	Lajitas Array	127.70	306	PKP	PKPdf	11 15 17.2	+1.1
	comp=Z,1.7nm,0.9s,baz=100,slow=1.4,SNR=10.0						
TXAR	Lajitas Array	127.70	306	PKP	PKPdf	11 15 17.2	+1.1
NVAR	Mina Array Bea	133.33	324	PKP	PKPdf	11 15 29.0	+2.5
	comp=Z,0.5nm,0.3s,baz=72,slow=2.9,SNR=2.7						

SZGRF ***03*** *10:59:52.6, 4°.54S×28°.97E, $h33^{km}$, mb5.0, Lake Tanganyika region*

BJI ***03*** *11:00:02.9, 2°.28S×28°.54E, $h5^{km}$, mB5.0/10, mb5.0/16, Ms5.0/8, Ms7 4.5/8*

ISCJB ***03*** *11:00:05.7±0.3, 2°.24S±0°.05×28°.91E±0°.07, $h10^{km}$, mb4.7/52, MS4.5/5, Error ellipse: s-maj=10.0km s-min=7.0km az=158.3*

IDC ***03*** *11:00:05.8±0.9, 2°.28S×29°.13E, $h0^{km}$, mb4.4/17, mb1 4.5/18, mb1mx4.4/27, mbtmp4.4/18, MS4.2/3, Ms1 4.1/3, ms1mx3.5/30, Error ellipse: s-maj=24.9km s-min=17.0km az=32.0*

MOS ***03*** *11:00:05.3±1.1, 2°.24S×28°.97E, $h10^{km}$, mb5.1/20, Error ellipse: s-maj=12.6km s-min=5.5km az=96.5*

NEIC ***03*** *11:00:07.1±0.4, 2°.29S×28°.98E, $h10^{km}$, mb4.9/23, Error ellipse: s-maj=10.5km s-min=8.2km az=66.0*

NEIC Felt at Cyangugu, Rwanda.

ISC 03 11:00:07.6±0.3**, 2°.25S**±0°.05×**28°.99E**±0°.06**, $h10^{km}$, ($h14^{km}$±.9^{km}:pP-P), n149, $\sigma 0^{s}.97$**/146**, mb4.7**/52**, MS4.5**/5**, 17C-8D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MBAR	Mbarara	2.40	47	Pn	Pn	11 00 45.4	-1.6
MBAR				eSn	Sn	11 01 22.6	+6.2
KMBO	Kilima Mbogo	8.34	82	Pn	Pn	11 02 07.8	-0.9
	baz=346,slow=17,SNR=2.1						
KMBO				Lg		11 04 26.0	
	26nm,0.3s,baz=207,slow=18,SNR=6.8						
LSZ	Lusaka	12.96	183	Lg		11 06 42.3	
	4.5nm,0.3s,baz=284,slow=23,SNR=7.5						
LSZ				LR	LR	11 07 33.8	
	comp=Z,407nm,18.2s,baz=178,slow=35						
TSUM	Tsumeb	20.21	213	Pn	P	11 04 42.3	-0.4
OPO	Ambohidratompo	24.10	133	P	P	11 05 24.2	+0.6
	10nm,1.0s,mb4.2,baz=294,slow=10,SNR=6.0						
ABPO	Ambohimpanom	24.42	134	eP	P	11 05 26.4	-0.2
ABPO				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.4						
ABPO	Ambohimpanom	24.42	134	eP	P	11 05 26.4	-0.2
	comp=Z,16nm,1.0s,mb4.4						
BOSA	Boshof	26.45	187	eP	P	11 05 45.7	+0.8
BOSA				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.5						
BOSA	Boshof	26.45	187	eP	P	11 05 45.7	+0.8
	comp=Z,13nm,0.9s,mb4.5						
TORD	Torodi Ar. Bea	31.11	300	P	P	11 06 27.8	+1.3
	comp=Z,9.2nm,0.8s,mb4.6,baz=111,slow=9.6,SNR=4.4						
TORD				Lg		11 16 34.1	
	comp=Z,2.9nm,1.2s,baz=139,slow=36,SNR=3.1						
IDI	Anoyia	37.54	354	P	P	11 07 22.8	+0.8
	comp=Z,9.5nm,0.8s,mb4.5,baz=177,slow=13,SNR=6.3						
ISP	Isparta	39.92	2	eP	P	11 07 42.8	+0.9
ISP				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.7						
ISP	Isparta	39.92	2	eP	P	11 07 42.8	+0.8
	comp=Z,21nm,1.2s,mb4.7						
MALT	Malatya	41.30	11	eP	P	11 07 55.1	+1.8
MALT				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						

MALT	**Malatya**	**41.30**	**11**	⇓*i*P	**P**	**11 07 55.2**	**+1.9**
MALT	**Malatya**	**41.30**	**11**	*e*P	**P**	**11 07 55.1**	**+1.8**
	comp=Z,7.9nm,1.1s,mb4.3						
BR131	**Keskin Array S**	**41.99**	**5**	*e*P	**P**	**11 08 00.2**	**+1.2**
BRTR	**Keskin Array B**	**41.99**	**5**	P	**P**	**11 07 59.6**	**+0.6**
	comp=Z,3.3nm,0.7s,mb4.0						
KEST	**Kesra**	**42.02**	**336**	P	**P**	**11 07 59.2**	**-0.1**
	comp=Z,3.3nm,0.9s,mb3.9,baz=259,slow=3.2,SNR=4.3						
MDT	**Midelt**	**47.18**	**321**	P	**P**	**11 08 42.2**	**+1.6**
	comp=Z,6.0nm,1.2s,mb4.4,baz=129,slow=9.6,SNR=4.4						
VOIR		**47.61**	**356**	⇓P	**P**	**11 08 43.6**	**-0.1**
VOIR		**47.61**	**356**	⇓*i*P	**P**	**11 08 43.6**	**-0.1**
VOIR		**47.61**	**356**	⇓P	**P**	**11 08 43.6**	**-0.1**
MLR	**Muntele Rosu**	**47.61**	**357**	⇑P	**P**	**11 08 44.9**	**+1.2**
MLR	**Muntele Rosu**	**47.61**	**357**	⇑*i*P	**P**	**11 08 44.9**	**+1.2**
MLR	**Muntele Rosu**	**47.61**	**357**	⇑P	**P**	**11 08 44.9**	**+1.2**
GZR	**Gura Zlata**	**47.76**	**354**	⇓*i*P	**P**	**11 08 45.6**	**+0.7**
GZR	**Gura Zlata**	**47.76**	**354**	⇓P	**P**	**11 08 45.6**	**+0.7**
VRI	**Vrincioaia**	**47.95**	**358**	⇑*i*P	**P**	**11 08 47.3**	**+0.9**
VRI	**Vrincioaia**	**47.95**	**358**	⇑P	**P**	**11 08 47.3**	**+0.9**
BZS	**Buzias**	**48.11**	**353**	⇑*i*P	**P**	**11 08 48.4**	**+0.8**
BZS	**Buzias**	**48.11**	**353**	⇑P	**P**	**11 08 48.4**	**+0.8**
PGF	**Pioggiola**	**48.12**	**340**	*e*P	**P**	**11 08 45.6**	**-2.1**
	comp=Z,52nm,1.2s,mb5.1						
PGF	**Pioggiola**	**48.12**	**340**	*e*P	**P**	**11 08 45.6**	**-2.1**
PGF				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.1						
PGF	**Pioggiola**	**48.12**	**340**	*e*P	**P**	**11 08 45.6**	**-2.1**
	comp=Z,26nm,1.2s,mb5.1						
PKSM	**Moragy**	**49.12**	**351**	⇑*i*P	**P**	**11 08 56.3**	**+1.0**
PKSM	**Moragy**	**49.12**	**351**	⇑P	**P**	**11 08 56.3**	**+1.0**
DRGR		**49.15**	**354**	⇑P	**P**	**11 08 56.7**	**+1.1**
DRGR		**49.15**	**354**	⇑*i*P	**P**	**11 08 56.7**	**+1.1**
DRGR		**49.15**	**354**	⇑P	**P**	**11 08 56.7**	**+1.1**
LMR	**La Mourre**	**49.68**	**339**	*e*P	**P**	**11 08 58.8**	**-0.9**
	comp=Z,205nm,1.8s,mb5.6						
LMR	**La Mourre**	**49.68**	**339**	*e*P	**P**	**11 08 58.8**	**-0.9**
LMR				pmax	pmax		
	comp=Z,103nm,1.8s,mb5.6						
LMR	**La Mourre**	**49.68**	**339**	*e*P	**P**	**11 08 58.8**	**-0.9**
	comp=Z,103nm,1.8s,mb5.6						
BURAR	**Bucovina Array**	**49.77**	**357**	⇑*i*P	**P**	**11 09 02.2**	**+1.9**
BURAR	**Bucovina Array**	**49.77**	**357**	⇑P	**P**	**11 09 02.2**	**+1.9**
BUR08	**Bucovina Ar. S**	**49.80**	**357**	*e*P	**P**	**11 09 01.7**	**+1.2**
FRF	**La Foret Royal**	**49.83**	**339**	*e*P	**P**	**11 08 59.6**	**-1.2**
	comp=Z,221nm,1.8s,mb5.6						
FRF	**La Foret Royal**	**49.83**	**339**	*e*P	**P**	**11 08 59.6**	**-1.2**
FRF				pmax	pmax		
	comp=Z,110nm,1.8s,mb5.6						
FRF	**La Foret Royal**	**49.83**	**339**	*e*P	**P**	**11 08 59.6**	**-1.2**
	comp=Z,110nm,1.8s,mb5.6						
TRPA	**Tarpa**	**50.49**	**354**	⇑*i*P	**P**	**11 09 06.1**	**+0.3**
PSZ	**Piszkesteto**	**50.59**	**352**	*e*P	**P**	**11 09 06.7**	**+0.2**
PSZ				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
PSZ	**Piszkesteto**	**50.59**	**352**	⇑*i*P	**P**	**11 09 07.3**	**+0.8**
PSZ	**Piszkesteto**	**50.59**	**352**	*e*P	**P**	**11 09 06.7**	**+0.2**
	comp=Z,12nm,1.0s,mb4.8						
MBDF	**Montbardon**	**50.80**	**340**	*e*P	**P**	**11 09 07.9**	**-0.3**
	comp=Z,39nm,1.2s,mb4.9						
MBDF	**Montbardon**	**50.80**	**340**	*e*P	**P**	**11 09 07.9**	**-0.3**
MBDF				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
MBDF	**Montbardon**	**50.80**	**340**	*e*P	**P**	**11 09 07.9**	**-0.3**
	comp=Z,20nm,1.2s,mb4.9						
UZH	**Uzhgorod**	**51.01**	**354**	*e*P	**P**	**11 09 11.2**	**+1.5**
VYHS	**Vyhne**	**51.31**	**351**	*e*P	**P**	**11 09 12.3**	**+0.4**
KOLS	**Kolonicke sedl**	**51.31**	**354**	*e*P	**P**	**11 09 13.0**	**+1.1**
KOLS				pmax	pmax		
	comp=Z,293nm,3.8s						
KOLS	**Kolonicke sedl**	**51.31**	**354**	*e*P	**P**	**11 09 13.0**	**+1.1**
	comp=Z,293nm,3.8s						
CRVS	**Cervenica-Dubn**	**51.37**	**354**	*e*P	**P**	**11 09 12.8**	**+0.5**
CRVS				pmax	pmax		
	comp=Z,499nm,4.1s						
CRVS	**Cervenica-Dubn**	**51.37**	**354**	*e*P	**P**	**11 09 12.8**	**+0.5**
	comp=Z,499nm,4.1s						
MTLF	**Montolieu**	**51.38**	**335**	*e*P	**P**	**11 09 11.2**	**-1.3**
	comp=Z,90nm,1.8s,mb5.1						
MTLF	**Montolieu**	**51.38**	**335**	*e*P	**P**	**11 09 11.2**	**-1.3**
MTLF				pmax	pmax		
	comp=Z,45nm,1.8s,mb5.1						
MTLF	**Montolieu**	**51.38**	**335**	*e*P	**P**	**11 09 11.2**	**-1.3**
	comp=Z,45nm,1.8s,mb5.1						
MODS	**Modra-Piesok**	**51.44**	**350**	*e*P	**P**	**11 09 13.5**	**+0.6**
MODS				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.7						
MODS	**Modra-Piesok**	**51.44**	**350**	*e*P	**P**	**11 09 13.5**	**+0.6**
MODS	**Modra-Piesok**	**51.44**	**350**	*e*P	**P**	**11 09 13.5**	**+0.6**
	comp=Z,14nm,1.5s,mb4.7						
LPG	**La Plagne**	**51.48**	**340**	*e*P	**P**	**11 09 12.1**	**-1.2**
	comp=Z,27nm,1.1s,mb4.8						
LPG	**La Plagne**	**51.48**	**340**	*e*P	**P**	**11 09 12.1**	**-1.2**
LPG				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
LPG	**La Plagne**	**51.48**	**340**	*e*P	**P**	**11 09 12.1**	**-1.2**
	comp=Z,14nm,1.1s,mb4.8						
LPL	**La Plagne**	**51.51**	**340**	*e*P	**P**	**11 09 12.2**	**-1.2**
	comp=Z,65nm,1.6s,mb5.0						
LPL	**La Plagne**	**51.51**	**340**	*e*P	**P**	**11 09 12.2**	**-1.2**
LPL				pmax	pmax		
	comp=Z,33nm,1.6s,mb5.0						
LPL	**La Plagne**	**51.51**	**340**	*e*P	**P**	**11 09 12.2**	**-1.2**
	comp=Z,32nm,1.6s,mb5.0						
ESDC	**Sonseca Array**	**51.52**	**328**	P	**P**	**11 09 13.4**	**-0.3**
	comp=Z,4.0nm,1.0s,mb4.3,baz=135,slow=7.9,SNR=6.2						
TUE	**Stuetta**	**51.52**	**343**	*e*P	**P**	**11 09 12.8**	**-0.8**
	comp=Z,19nm,1.1s,mb4.9						
STHS	**Stebnicka Huta**	**51.90**	**354**	*e*P	**P**	**11 09 17.3**	**+1.0**
STHS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
STHS	**Stebnicka Huta**	**51.90**	**354**	*e*P	**P**	**11 09 17.2**	**+0.9**
STHS	**Stebnicka Huta**	**51.90**	**354**	*e*P	**P**	**11 09 17.3**	**+1.0**
	comp=Z,2.5nm,0.9s,mb4.1						
EPF	**Esparros**	**51.94**	**333**	*e*P	**P**	**11 09 15.0**	**-1.7**
	comp=Z,29nm,1.2s,mb4.8						
EPF	**Esparros**	**51.94**	**333**	*e*P	**P**	**11 09 15.0**	**-1.7**
EPF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
EPF	**Esparros**	**51.94**	**333**	*e*P	**P**	**11 09 15.0**	**-1.7**
	comp=Z,14nm,1.2s,mb4.8						
ETSF	**Etsaut**	**52.24**	**333**	*e*P	**P**	**11 09 17.0**	**-2.0**
	comp=Z,53nm,1.5s,mb5.0						
ETSF	**Etsaut**	**52.24**	**333**	*e*P	**P**	**11 09 17.0**	**-2.0**
ETSF				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.9						
ETSF	**Etsaut**	**52.24**	**333**	*e*P	**P**	**11 09 17.0**	**-2.0**
	comp=Z,26nm,1.5s,mb4.9						
VRAC	**Vranov**	**52.47**	**350**	⇓*i*P	**P**	**11 09 20.1**	**-0.4**
VRAC	**Vranov**	**52.47**	**350**	⇓P	**P**	**11 09 20.1**	**-0.4**
GERES	**GERESS Array B**	**52.60**	**347**	P	**P**	**11 09 21.3**	**-0.2**
	comp=Z,3.4nm,0.8s,mb4.3,baz=157,slow=7.2,SNR=10.0						
TREC	**Trest**	**52.66**	**349**	*e*P	**P**	**11 09 22.1**	**+0.2**
OKC	**Ostrava-Krasne**	**52.72**	**351**	*e*P	**P**	**11 09 22.8**	**+0.4**
AKASG	**Malin Array Be**	**52.75**	**0**	P	**P**	**11 09 22.5**	**-0.1**
	comp=Z,2.8nm,0.8s,mb4.2,baz=188,slow=6.5,SNR=11						
AKASG	**Malin Array Be**	**52.75**	**0**	P	**P**	**11 09 22.5**	**-0.1**
MORC	**Moravsky Berou**	**52.76**	**351**	*e*P	**P**	**11 09 22.6**	**-0.1**
MORC				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
MORC	**Moravsky Berou**	**52.76**	**351**	⇑*i*P	**P**	**11 09 22.6**	**-0.1**
MORC	**Moravsky Berou**	**52.76**	**351**	*e*P	**P**	**11 09 22.6**	**-0.1**
	comp=Z,13nm,1.0s,mb4.8						
KHC	**Kasperske Hory**	**52.89**	**347**	*e*P	**P**	**11 09 23.5**	**-0.2**
KHC				*e*pP	pP	11 09 27.2	+0.3
SMF	**Signal de Mont**	**53.50**	**339**	*e*P	**P**	**11 09 27.1**	**-1.1**
	comp=Z,26nm,1.1s,mb4.8						
SMF	**Signal de Mont**	**53.50**	**339**	*e*P	**P**	**11 09 27.1**	**-1.1**
SMF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
SMF	**Signal de Mont**	**53.50**	**339**	*e*P	**P**	**11 09 27.1**	**-1.1**
	comp=Z,13nm,1.1s,mb4.8						
DPC	**Dobruska-Polom**	**53.52**	**350**	*e*P	**P**	**11 09 28.1**	**-0.2**
DPC				*e*pP	pP	11 09 32.6	+1.2
UPC	**Upice**	**53.72**	**350**	*e*P	**P**	**11 09 29.6**	**-0.2**
AVF	**Avril sur Loir**	**53.80**	**338**	*e*P	**P**	**11 09 29.0**	**-1.4**
	comp=Z,87nm,1.6s,mb5.1						
AVF	**Avril sur Loir**	**53.80**	**338**	*e*P	**P**	**11 09 29.0**	**-1.4**
AVF				pmax	pmax		
	comp=Z,44nm,1.6s,mb5.1						
AVF	**Avril sur Loir**	**53.80**	**338**	*e*P	**P**	**11 09 29.0**	**-1.4**
	comp=Z,44nm,1.6s,mb5.1						
TCF	**Toulx Ste Croi**	**53.81**	**337**	*e*P	**P**	**11 09 30.1**	**-0.4**
	comp=Z,75nm,1.5s,mb5.1						
TCF	**Toulx Ste Croi**	**53.81**	**337**	*e*P	**P**	**11 09 30.1**	**-0.4**
TCF				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.1						
TCF	**Toulx Ste Croi**	**53.81**	**337**	*e*P	**P**	**11 09 30.1**	**-0.4**
	comp=Z,38nm,1.5s,mb5.1						
CDF	**Champ du Feu**	**53.89**	**342**	*e*P	**P**	**11 09 29.5**	**-1.5**
	comp=Z,36nm,1.4s,mb4.8						
CDF	**Champ du Feu**	**53.89**	**342**	*e*P	**P**	**11 09 29.5**	**-1.5**
CDF				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
CDF	**Champ du Feu**	**53.89**	**342**	*e*P	**P**	**11 09 29.5**	**-1.5**
	comp=Z,18nm,1.4s,mb4.8						
GRA1	**Grafenberg Arr**	**53.97**	**346**	*e*P	**P**	**11 09 30.9**	**-0.7**
	comp=Z,16nm,1.1s,mb4.9						
GRF	**Grafenberg Arr**	**53.97**	**346**	*e*P	**P**	**11 09 30.9**	**-0.7**
GRF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
GRF	**Grafenberg Arr**	**53.97**	**346**	*e*P	**P**	**11 09 30.9**	**-0.7**
GRF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
GRF	**Grafenberg Arr**	**53.97**	**346**	*e*P	**P**	**11 09 30.9**	**-0.7**
	comp=Z,16nm,1.1s,mb4.9						
GRF	**Grafenberg Arr**	**53.97**	**346**	*e*P	**P**	**11 09 30.9**	**-0.7**
	comp=Z,16nm,1.1s,mb4.9						
LOR	**Lormes**	**54.02**	**339**	*e*P	**P**	**11 09 29.5**	**-2.5**
NKC	**Novy Kostel**	**54.18**	**347**	*e*P	**P**	**11 09 33.3**	**+0.2**
NACGM	**Naroch**	**56.99**	**358**	*e*	**P**	**11 09 49.0**	**-4.2**
OBN	**Obninsk**	**57.51**	**5**	*e*P	**P**	**11 09 57.1**	**+0.2**
OBN				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.2						
ARU	**Arti**	**63.24**	**18**	*e*P	**P**	**11 10 35.7**	**-0.4**
ARU				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
ARU	**Arti**	**63.24**	**18**	*e*P	**P**	**11 10 35.6**	**-0.4**
	comp=Z,14nm,0.9s,mb5.1						
NB2	**NORSAR Subarra**	**64.60**	**351**	P	**P**	**11 10 44.7**	**-0.2**
	comp=Z,16nm,1.1s,mb5.0,baz=163,slow=6.2						
NOA	**NORSAR Array B**	**64.60**	**351**	P	**P**	**11 10 44.8**	**-0.2**
	comp=Z,7.0nm,1.0s,mb4.7,baz=164,slow=6.3,SNR=4.6						
BVAR	**Borovoye Array**	**65.06**	**26**	P	**P**	**11 10 47.2**	**-0.9**
	comp=Z,2.5nm,1.0s,mb4.2,baz=198,slow=4.4,SNR=4.1						
MK31	**Makanchi Array**	**67.55**	**37**	*e*P	**P**	**11 11 03.9**	**-0.3**
MKAR	**Makanchi Array**	**67.55**	**37**	P	**P**	**11 11 03.6**	**-0.6**
	comp=Z,2.6nm,0.8s,mb4.3,baz=248,slow=5.1,SNR=6.7						
KURK	**Kurchatov**	**67.59**	**32**	P	**P**	**11 11 02.6**	**-1.7**
	comp=Z,1.1nm,0.3s,mb4.4,baz=240,slow=6.7,SNR=4.8						
MAW	**Mawson**	**69.27**	**167**	LR	LR	11 37 52.3	
	comp=Z,391nm,19.5s,MS4.7,baz=332,slow=33						
WMQ	**Urumqi**	**69.59**	**41**	*e*P	**P**	**11 11 18.0**	**+1.0**
ARCES	**ARCESS Array B**	**71.69**	**359**	P	**P**	**11 11 31.3**	**+2.0**
	comp=Z,3.9nm,0.9s,mb4.3,baz=168,slow=6.2,SNR=4.6						
ARCES				LR	LR	11 44 27.2	
	comp=Z,119nm,20.7s,MS4.1,baz=339,slow=37						
ARCES	**ARCESS Array B**	**71.69**	**359**	P	**P**	**11 11 31.3**	**+2.0**
ARCES				LR	LR	11 44 27.2	
CMAR	**Chiang Mai Arr**	**71.77**	**70**	P	**P**	**11 11 28.6**	**-2.2**
	comp=Z,3.2nm,1.1s,mb4.2,baz=263,slow=6.9,SNR=6.4						
VNA2	**Neumayer--Watz**	**72.46**	**192**	*e*P	**P**	**11 11 33.9**	**0.0**
VNA3	**Neumayer Olymp**	**73.18**	**192**	*e*P	**P**	**11 11 38.5**	**+0.3**
KMI	**Kunming**	**76.29**	**64**	P	**P**	**11 11 58.0**	**+0.8**
KMI				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
GTA	**Gaotai**	**76.73**	**49**	*e*P	**P**	**11 11 59.9**	**+0.5**
GTA				pP	pP	11 12 03.5	+0.8
GTA				sP	sP	11 12 05.0	+1.1
GTA				S	S	11 21 48.7	+2.1
GTA				sS	sS	11 21 56.2	+4.1
GTA				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
GTA				pmax	pmax		
	comp=Z,81nm,5.4s						
GTA				LR	LR		
	comp=N,160nm,17.4s,MS4.6						
GTA				LR	LR		
	comp=E,170nm,16.2s,MS4.6						
GTA				LR	LR		
	comp=Z,170nm,15.6s,MS4.5						
CD2	**Chengdu**	**78.13**	**58**	P	**P**	**11 12 01.3**	**-6.1**
CD2				pP	pP	11 12 06.0	-4.7
CD2				sP	sP	11 12 07.5	-4.4
CD2				PP	PP	11 15 00.0	-4.0
CD2				S	S	11 21 54.2	-8.0
CD2				sS	sS	11 22 02.1	-5.5
CD2				SKS		11 22 10.0	
CD2				SS	SS	11 26 59.1	-5.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,90nm,4.6s						
CD2				LR	LR		
	comp=N,160nm,7.1s						
CD2				LR	LR		
	comp=Z,130nm,8.5s						
LZH	**Lanzhou**	**79.13**	**53**	*e*P	**P**	**11 12 13.1**	**+0.3**
LZH				pP	pP	11 12 16.3	+0.2
LZH				sP	sP	11 12 17.5	+0.2
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,96nm,4.8s						
GYA	**Guiyang**	**79.99**	**63**	P	**P**	**11 12 18.4**	**+0.7**
GYA				PP	PP	11 15 22.2	+2.6
GYA				S	S	11 22 21.8	-0.3
GYA				SKS		11 22 31.7	
GYA				SS	SS	11 27 34.0	+1.8
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,110nm,6.8s						
GYA				LR	LR		
	comp=N,320nm,19.0s,MS4.8						
GYA				LR	LR		
	comp=E,290nm,18.9s,MS4.8						
GYA				LR	LR		
	comp=Z,310nm,20.1s,MS4.7						
ZAK	**Zakamensk**	**81.77**	**39**	*e*P	**P**	**11 12 21.7**	**-5.0**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
SONM	**Songino Array**	**83.23**	**41**	P	**P**	**11 12 34.4**	**+0.1**
	comp=Z,0.4nm,0.8s,mb3.5,baz=248,slow=5.4,SNR=3.5						
HHC	**Hu-ho-hao-te**	**85.84**	**49**	*e*P	**P**	**11 12 48.5**	**+0.8**
HHC				pP	pP	11 12 53.2	+2.1
HHC				sP	sP	11 12 55.8	+3.5
HHC				PP	PP	11 16 09.1	+1.8
HHC				SKS		11 23 10.9	
HHC				S	S	11 23 19.5	-1.7
HHC				sS	sS	11 23 28.8	+2.1
HHC				SS	SS	11 29 01.7	+3.3
HHC				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
HHC				pmax	pmax		
	comp=Z,150nm,4.4s						
HHC				LR	LR		
	comp=N,160nm,16.6s,MS4.6						
HHC				LR	LR		
	comp=E,160nm,19.0s,MS4.6						
HHC				LR	LR		
	comp=Z,140nm,15.5s,MS4.5						
QSPA	**South Pole Qui**	**87.79**	**180**	P	**P**	**11 12 56.3**	**-0.2**
	comp=Z,3.1nm,1.0s,mb4.5,baz=268,slow=8.0,SNR=3.0						
QSPA	**South Pole Qui**	**87.79**	**180**	*e*P	**P**	**11 12 56.2**	**-0.3**
	comp=Z,2.3nm,0.8s,mb4.5						
BJI	**Beijing**	**89.28**	**50**	P	**P**	**11 13 04.3**	**0.0**
BJI				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.2						
NJ2	**Nanjing**	**91.07**	**58**	*e*P	**P**	**11 13 12.2**	**-0.7**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.3						
CN2	**Changchun**	**96.22**	**46**	*e*P	**P**	**11 13 36.5**	**+0.2**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.3						
PDAR	**Pinedale Array**	**125.31**	**323**	PKP	PKPdf	11 19 08.1	-1.0
	comp=Z,0.6nm,0.8s,baz=127,slow=2.4,SNR=3.9						
TXAR	**Lajitas Array**	**127.61**	**306**	PKP	PKPdf	11 19 13.2	-0.7
	comp=Z,0.5nm,0.8s,baz=123,slow=4.6,SNR=4.1						

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*ISCJB **03** 11:03:47.0±0.9,51°.1N±0°.2×177°.33W±0°.09,h33^{km}, mb3.9/6,Error ellipse: s-maj=25.9km s-min=6.7km az=169.5*

*NEIC **03** 11:03:47.5,51°.16N×177°.36W,h27^{km},ML3.5(AEIC),After AEIC.*

*IDC **03** 11:03:49.0±1.0,51°.17N×177°.53W,h38^{km}±7^{km},mb3.4/5, mb1 3.7/5,mb1mx3.4/25,mbtmp3.4/5,Error ellipse: s-maj=39.1km s-min=21.4km az=157.0*

ISC 03 11:03:49.0±0.9,**51°.2N**±0°.2×**177°.36W**±0°.09,**h35**^{km},**(h40**^{km}±1.5^{km}**:pP-P),n10,**σ**1s.01**/12,**mb3.9**/6,**Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AMKA	**Amchitka**	**2.10**	**276**	P	**Pn**	**11 04 20.6**	**-1.0**
AMKA				S	**Sn**	**11 04 47.2**	**+0.6**
ATKA	**Atka Island**	**2.21**	**62**	P	**Pn**	**11 04 21.3**	**-1.9**
ATKA				S	**Sn**	**11 04 50.0**	**+0.8**
YKA	**Yellowknife Ar**	**34.70**	**46**	P	**P**	**11 10 34.9**	**-0.1**
	0.3nm,0.6s,mb3.4,baz=282,slow=7.4,SNR=6.3						
YKA				pP	pP	11 10 45.7	+0.7
	0.4nm,0.7s,baz=282,slow=7.7,SNR=4.6						
YKA	**Yellowknife Ar**	**34.70**	**46**	P	**P**	**11 10 34.9**	**-0.1**
YKA				pP	pP	11 10 45.7	+0.7
CN2	**Changchun**	**38.47**	**282**	*e*P	**P**	**11 11 06.5**	**-0.7**
PDAR	**Pinedale Array**	**45.50**	**73**	P	**P**	**11 12 05.3**	**+0.7**
	0.7nm,0.6s,mb3.7,baz=305,slow=3.2,SNR=7.6						
PDAR				pP	pP	11 12 17.0	+2.0
	2.7nm,0.7s,baz=315,slow=3.2,SNR=14						
TXAR	**Lajitas Array**	**57.79**	**82**	P	**P**	**11 13 36.9**	**+0.4**
	0.5nm,0.7s,mb3.6,baz=287,slow=4.2,SNR=5.4						
TXAR				pP	pP	11 13 48.5	+1.3
	0.6nm,0.6s,baz=295,slow=4.8,SNR=7.0						
GYA	**Guiyang**	**61.24**	**277**	*e*P	**P**	**11 14 02.8**	**+2.4**
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
BVAR	**Borovoye Array**	**61.61**	**321**	P	**P**	**11 14 02.1**	**-0.4**
	comp=Z,0.4nm,0.3s,mb4.0,baz=62,slow=5.5,SNR=4.9						
ASAR	**Alice Springs**	**85.97**	**224**	P	**P**	**11 16 24.8**	**-0.5**
	comp=Z,0.2nm,0.5s,mb3.6,baz=26,slow=5.5,SNR=7.4						
ASAR				pP	pP	11 16 35.6	-0.7
	comp=Z,0.5nm,0.9s,baz=31,slow=4.7,SNR=3.3						

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*ISCJB **03** 11:12:10.5±0.2,21°.33S±0°.03×33°.16E±0°.04,h10^{km}, mb5.0/123,MS4.5/27,Error ellipse: s-maj=5.8km s-min=3.6km az=29.3*

*IDC **03** 11:12:11.0±0.5,21°.28S×33°.12E,h0^{km},mb4.6/23, mb1 4.7/26,mb1mx4.7/29,mbtmp4.6/26,ML5.1/3,MS4.4/20, Ms1 4.5/20,ms1mx4.3/32,Error ellipse: s-maj=19.2km s-min=13.4km az=71.0*

*BJI **03** 11:12:10.6,21°.30S×33°.10E,h10^{km},mB5.3/14,mb5.2/26, Ms5.2/15,Ms7 4.9/17*

*MOS **03** 11:12:11.2±1.0,21°.16S×33°.16E,h10^{km},mb5.2/67, MS4.3/11,Error ellipse: s-maj=11.9km s-min=4.6km az=97.4*

*NEIC **03** 11:12:12.7±0.2,21°.32S×33°.09E,h10^{km},mb5.1/56,Error ellipse: s-maj=7.3km s-min=6.0km az=85.0*

NEIC Felt at Beira.

*GCMT **03** 11:12:12.7±0.3,20°.98S×33°.02E,h20^{km},MW5.1/70, Moment Tensor Solution. s34,c40; s70,c107; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-5.23±.32; M$_{\theta\theta}$-0.99±.21; M$_{\phi\phi}$6.22±.22; M$_{r\theta}$1.23±.47; M$_{\theta\phi}$-0.93±.14; M$_{\phi r}$-0.24±.35; Best double couple: M$_0$5.95600×10^{16} NP1:φ$_s$187.00000°,δ45.00000°,λ-69.00000°. NP2: φ$_s$338.00000°,δ49.00000°,λ-110.00000°. Principal axes: T 6.3510, Plg2.0000°, Azm82.0000°; N -0.7880, Plg15.0000°, Azm352.0000°; P -5.5610, Plg75.0000°, Azm180.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SZGRF **03** 11:12:13.9,21°.41S×33°.01E,h33^{km},mb5.2,Mozambique*

*PRE **03** 11:12:14.0±1.1,21°.71S×33°.27E,h5^{km},ML5.8*

ISC 03 11:12:12.5±0.2,**21°.35S**±0°.03×**33°.22E**±0°.03,**h10**^{km},**(h15**^{km}±2.0^{km}**:pP-P),n646,**σ**1s.03**/373,**mb5.0**/123,**MS4.5**/27,**167C-128D,Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MOPA	**Mopani**	**2.74**	**218**	*e*P	**Pn**	**11 12 56.2**	**-0.3**
MOPA				*e*S	**Sn**	**11 13 26.5**	**-3.1**
MOPA				AML	AML	11 13 41.8	
	comp=Z,19μm,0.5s						
MSNA	**Messina**	**3.13**	**251**	*e*P	**Pn**	**11 13 04.2**	**+2.4**
MSNA				*e*S	**Sn**	**11 13 41.3**	**+2.0**
MSNA				AML	AML	11 13 50.5	
	comp=Z,4μm,0.7s						
POGA	**Pongola**	**6.17**	**193**	*e*P	**Pn**	**11 13 41.6**	**-2.0**
POGA				*e*S	**Sn**	**11 14 45.3**	**-9.0**
POGA				AML	AML	11 15 44.6	
	comp=Z,799nm,0.7s						
SLR	**Silverton**	**6.29**	**225**	*e*P	**Pn**	**11 13 45.7**	**+0.4**
SLR				*e*S	**Sn**	**11 14 52.7**	**-4.6**
SLR				AML	AML	11 15 43.5	
	comp=Z,1μm,0.6s						
ERPM	**east rand prop**	**6.74**	**222**	*e*P	**Pn**	**11 13 50.3**	**-1.2**
ERPM				*e*S	**Sn**	**11 15 01.1**	**-7.3**
ERPM				AML	AML	11 15 53.3	
	comp=Z,725nm,0.7s						
KSR	**Koster**	**7.33**	**231**	*e*P	**Pn**	**11 14 00.5**	**+1.0**
KSR				*e*S	**Sn**	**11 15 17.7**	**-5.1**
KSR				AML	AML	11 16 10.8	
	comp=Z,776nm,0.7s						
LSZ	**Lusaka**	**7.70**	**321**	Pn	**Pn**	**11 14 01.0**	**-3.8**
	comp=Z,14nm,0.3s,baz=149,slow=15,SNR=59						
LSZ				Sn	**Sn**	**11 15 20.6**	**-11**
	comp=Z,59nm,0.3s,baz=185,slow=20,SNR=10						
LSZ				Lg		11 16 00.8	
	comp=Z,160nm,0.3s,baz=50,slow=23,SNR=13						
LSZ				LR	LR	11 17 05.3	
	comp=Z,2μm,20.6s,baz=141,slow=39						
LSZ	**Lusaka**	**7.70**	**321**	*e*Pn	**Pn**	**11 14 02.0**	**-2.7**
LSZ				*e*Sn	**Sn**	**11 15 19.9**	**-12**
PRYS	**Parys**	**7.71**	**223**	*e*P	**Pn**	**11 14 04.7**	**-0.1**
PRYS				*e*S	**Sn**	**11 15 26.0**	**-6.2**
PRYS				AML	AML	11 16 32.6	
	comp=Z,442nm,0.6s						
SWZ	**Schweizer**	**9.24**	**230**	*e*P	**Pn**	**11 14 26.6**	**+0.7**
SWZ				*e*S	**Sn**	**11 16 03.6**	**-6.4**
SWZ				AML	AML	11 17 10.0	
	comp=Z,998nm,0.6s						
KSD	**Kokstad**	**9.77**	**200**	*e*P	**Pn**	**11 14 32.9**	**-0.1**
KSD				*e*S	**Sn**	**11 16 12.4**	**-10**
KSD				AML	AML	11 17 31.8	
	comp=Z,592nm,0.8s						
BOSA	**Boshof**	**10.22**	**223**	Pn	**Pn**	**11 14 38.2**	**-1.0**
	comp=Z,13nm,0.3s,baz=47,slow=13,SNR=118						
BOSA				Sn	**Sn**	**11 16 26.5**	**-7.4**
	comp=Z,30nm,0.3s,baz=319,slow=14,SNR=7.1						
BOSA				Lg		11 17 23.9	
	comp=Z,19nm,0.3s,baz=307,slow=8.1,SNR=5.7						
BOSA				LR	LR	11 18 48.6	
	comp=Z,5μm,18.6s,baz=50,slow=39						
BOSA	**Boshof**	**10.22**	**223**	*e*Pn	**Pn**	**11 14 38.0**	**-1.2**
	comp=Z,107nm,0.9s						
BOSA				*e*Sn	**Sn**	**11 16 27.4**	**-6.4**
BOSA	**Boshof**	**10.22**	**223**	*e*P	**Pn**	**11 14 39.3**	**+0.1**
BOSA				*e*S	**Sn**	**11 16 26.2**	**-7.6**
BOSA				AML	AML	11 17 40.3	
	comp=Z,313nm,0.6s						
PKA	**Prieska**	**12.56**	**227**	*e*P	**Pn**	**11 15 12.5**	**+1.2**
PKA				*e*S	**Sn**	**11 17 22.5**	**-8.8**
PKA				AML	AML	11 18 51.6	
	comp=Z,207nm,0.7s						
UPI	**Upington**	**12.91**	**235**	*e*P	**Pn**	**11 15 17.7**	**+1.7**
UPI				*e*S	**Sn**	**11 17 31.6**	**-8.2**
UPI				AML	AML	11 18 53.2	
	comp=Z,128nm,0.7s						
ABPO	**Ambohimpanom**	**13.36**	**82**	*e*P	**Pn**	**11 15 23.1**	**+0.9**
ABPO				*e*		11 17 50.7	
ABPO				pmax	pmax		
	comp=Z,21nm,0.7s						
ABPO	**Ambohimpanom**	**13.36**	**82**	*e*Pn	**Pn**	**11 15 23.1**	**+0.8**
	comp=Z,21nm,0.7s						
ABPO				*e*Sn	**Sn**	**11 17 50.7**	**-0.2**
OPO	**Ambohidratompo**	**13.42**	**81**	Pn	**Pn**	**11 15 20.9**	**-2.2**
	comp=Z,1.4nm,0.3s,baz=254,slow=14,SNR=7.0						
OPO				Sn	**Sn**	**11 17 45.1**	**-7.4**
	comp=Z,7.9nm,0.3s,baz=308,slow=18,SNR=8.6						
OPO				LR	LR	11 20 42.4	
	comp=Z,3μm,18.1s,baz=261,slow=38						
TSUM	**Tsumeb**	**14.82**	**276**	Pn	**Pn**	**11 15 36.4**	**-5.9**
	comp=Z,4.3nm,0.3s,baz=106,slow=10,SNR=32						
TSUM				Sn	**Sn**	**11 18 12.2**	**-14**
	comp=Z,3.0nm,0.3s,baz=70,slow=21,SNR=5.1						
TSUM				Lg		11 19 46.9	
	comp=Z,4.9nm,0.3s,baz=116,slow=15,SNR=4.2						
TSUM				LR	LR	11 21 27.1	
	comp=Z,4μm,19.1s,baz=123,slow=38						
TSUM	**Tsumeb**	**14.82**	**276**	*e*Pn	**Pn**	**11 15 36.4**	**-5.9**
TSUM				*e*Sn	**Sn**	**11 18 12.5**	**-14**

SUR	**Sutherland**	**15.58**	**223**	Pn	**Pn**	**11 15 51.5**	**-0.7**
	comp=Z,1µm,1.0s,SNR=16						
SUR	**Sutherland**	**15.58**	**223**	Pn	**Pn**	**11 15 51.6**	**-0.6**
	comp=Z,11nm,0.3s,baz=48,slow=14,SNR=51						
SUR				Sn	**Sn**	**11 18 35.3**	**-10**
	comp=Z,6.3nm,0.3s,baz=339,slow=14,SNR=13						
SUR				Lg		11 20 12.8	
	comp=Z,5.3nm,0.3s,baz=134,slow=20,SNR=5.7						
SUR				LR	LR	11 22 13.0	
	comp=Z,2µm,20.7s,baz=46,slow=39						
SUR	**Sutherland**	**15.58**	**223**	*e*Pn	**Pn**	**11 15 49.6**	**-2.6**
	comp=Z,172nm,0.9s						
SUR				*e*Sn	**Sn**	**11 18 35.6**	**-9.4**
SUR	**Sutherland**	**15.58**	**223**	*e*P	**Pn**	**11 15 53.0**	**+0.8**
SUR				*e*S	**Sn**	**11 18 35.1**	**-10**
CER	**Ceres**	**17.19**	**223**	*e*P	**Pn**	**11 16 15.7**	**+3.0**
CER				*e*S	**Sn**	**11 19 13.0**	**-11**
CER				AML	AML	11 21 16.0	
	comp=Z,66nm,0.7s						
ELIM	**Elim**	**17.74**	**219**	*e*P	**Pn**	**11 16 23.7**	**+4.0**
ELIM				*e*S	**Sn**	**11 19 24.6**	**-13**
ELIM				AML	AML	11 21 50.3	
	comp=Z,91nm,0.8s						
KMBO	**Kilima Mbogo**	**20.48**	**12**	P	**P**	**11 16 51.7**	**+1.1**
KMBO				pmax	pmax		
	comp=Z,12nm,0.7s						
KMBO	**Kilima Mbogo**	**20.48**	**12**	P	**P**	**11 16 51.7**	**+1.1**
	comp=Z,12nm,0.7s,baz=189,slow=14,SNR=4.0						
KMBO	**Kilima Mbogo**	**20.48**	**12**	P	**P**	**11 16 51.7**	**+1.1**
TOA0	**Torodi Ar. Sit**	**46.19**	**315**	*e*P	**P**	**11 20 36.4**	**-1.4**
TOA0				*e*		11 22 28.5	
TORD	**Torodi Ar. Bea**	**46.19**	**315**	P	**P**	**11 20 36.5**	**-1.3**
	comp=Z,12nm,0.7s,mb4.9,baz=126,slow=4.7,SNR=36						
TORD				PP	PP	11 22 25.5	-0.8
	comp=Z,6.8nm,0.9s,baz=136,slow=8.5,SNR=5.4						
TORD				LR	LR	11 42 06.8	
	comp=Z,266nm,19.2s,MS4.2,baz=135,slow=39						
TORD	**Torodi Ar. Bea**	**46.19**	**315**	P	**P**	**11 20 36.5**	**-1.3**
TORD				PP	PP	11 22 25.5	-0.8
TORD				LR	LR	11 42 06.8	
KIC	**Kosan Boka**	**46.31**	**302**	*e*P	**P**	**11 20 37.2**	**-1.6**
	comp=Z,88nm,1.2s,mb5.6						
LIC	**Lamto**	**46.46**	**302**	*e*P	**P**	**11 20 39.3**	**-0.7**
	comp=Z,29nm,0.9s,mb4.9						
LIC				*e*MLR	MLR		
	comp=Z,963nm,21.8s,MS4.4						
LIC	**Lamto**	**46.46**	**302**	*e*P	**P**	**11 20 39.2**	**-0.8**
	comp=Z,47nm,1.0s,mb5.4						
LIC	**Lamto**	**46.46**	**302**	*e*P	**P**	**11 20 39.3**	**-0.7**
	comp=Z,14nm,0.9s,mb4.9						
LIC				LR	LR		
	comp=Z,480nm,21.8s,MS4.4						
DBIC	**Dimbokro**	**46.59**	**303**	*e*P	**P**	**11 20 39.2**	**-1.8**
DBIC				pmax	pmax		
	comp=Z,12nm,0.8s						
DBIC	**Dimbokro**	**46.59**	**303**	P	**P**	**11 20 38.9**	**-2.2**
	comp=Z,5.4nm,0.6s,mb4.7,baz=116,slow=9.2,SNR=15						
DBIC				LR	LR	11 38 39.4	
	comp=Z,798nm,20.3s,MS4.7,baz=117,slow=34						
DBIC	**Dimbokro**	**46.59**	**303**	*e*P	**P**	**11 20 39.2**	**-1.8**
	comp=Z,12nm,0.8s,mb4.9						
TIC	**Toumodi**	**46.71**	**302**	*e*P	**P**	**11 20 40.3**	**-1.6**
	comp=Z,113nm,0.9s,mb5.8						
MAW	**Mawson**	**49.85**	**166**	P	**P**	**11 21 07.1**	**+1.6**
MAW				pmax	pmax		
	comp=Z,13nm,1.0s						
MAW	**Mawson**	**49.85**	**166**	*e*P	**P**	**11 21 07.2**	**+1.7**
	comp=Z,11nm,0.9s,mb4.9						
MAW	**Mawson**	**49.85**	**166**	P	**P**	**11 21 07.1**	**+1.6**
	comp=Z,13nm,1.0s,mb4.9,baz=330,slow=5.6,SNR=9.0						
MAW	**Mawson**	**49.85**	**166**	*e*P	**P**	**11 21 06.7**	**+1.2**
	comp=Z,4.2nm,1.0s,mb4.4						
EIL	**Elat**	**50.75**	**2**	P	**P**	**11 21 13.6**	**+0.9**
	comp=Z,5.6nm,0.6s,mb4.7,baz=152,slow=5.1,SNR=4.0						
MAIT	**Maitri**	**51.03**	**189**	*e*P	**P**	**11 21 15.1**	**+0.7**
RDF	**Al-Radifah**	**51.86**	**16**	*e*P	**P**	**11 21 21.8**	**+0.8**
RDF				AMb	AMB	11 21 24.8	
	comp=Z,80nm,1.3s,mb5.5						
NAY	**Al-Naaiem**	**52.09**	**16**	*e*P	**P**	**11 21 23.0**	**+0.3**
NAY				AMb	AMB	11 21 25.9	
	comp=Z,23nm,0.7s,mb5.2						
MIB	**Mutribah**	**52.64**	**15**	*e*P	**P**	**11 21 26.9**	**0.0**
MIB				AMb	AMB	11 21 29.8	
	comp=Z,75nm,0.8s,mb5.7						
MMAI	**Mount Meron Ar**	**54.10**	**2**	P	**P**	**11 21 38.9**	**+1.4**
	comp=Z,16nm,1.0s,mb4.9,baz=187,slow=5.8,SNR=20						
VNA2	**Neumayer--Watz**	**54.94**	**195**	*e*P	**P**	**11 21 44.4**	**+1.2**
VNA1	**Neumayer--Stat**	**54.97**	**196**	*e*P	**P**	**11 21 45.4**	**+2.0**
VNA3	**Neumayer Olymp**	**55.71**	**195**	*e*P	**P**	**11 21 49.2**	**+0.5**
KARN	**Karanos**	**57.12**	**351**	P	**P**	**11 22 00.0**	**+0.8**
AKAS	**Kas**	**57.37**	**357**	*i* P	**P**	**11 22 02.4**	**+1.5**
BDRM	**Kayabasi**	**58.35**	**355**	*i* P	**P**	**11 22 08.3**	**+0.5**
BDRM	**Kayabasi**	**58.35**	**355**	*i* P	**P**	**11 22 08.2**	**+0.4**
GOLH	**Golhisar**	**58.37**	**357**	*i* P	**P**	**11 22 10.5**	**+2.6**
HYB	**Hyderabad**	**58.80**	**53**	*i* P	**P**	**11 22 11.0**	**-0.4**
ISP	**Isparta**	**58.93**	**357**	P	**P**	**11 22 12.5**	**+0.7**
DID	**Didima**	**59.29**	**351**	P	**P**	**11 22 13.4**	**-0.9**
MALT	**Malatya**	**59.55**	**5**	*e*P	**P**	**11 22 17.0**	**+0.9**
MALT				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
MALT	**Malatya**	**59.55**	**5**	*e*P	**P**	**11 22 17.0**	**+0.9**
	comp=Z,16nm,1.3s,mb4.9						
BLCB	**Balcova**	**59.70**	**354**	P	**P**	**11 22 18.1**	**+1.0**
CDAG	**Cicekdag**	**60.66**	**1**	*i* P	**P**	**11 22 24.1**	**+0.4**
CDAG	**Cicekdag**	**60.66**	**1**	*i* P	**P**	**11 22 24.0**	**+0.3**
BR131	**Keskin Array S**	**60.76**	**0**	*e*P	**P**	**11 22 24.4**	**+0.1**
	comp=Z,4.1nm,0.6s,mb4.7						
BRTR	**Keskin Array B**	**60.76**	**0**	P	**P**	**11 22 24.5**	**+0.2**
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BRTR	**Keskin Array B**	**60.76**	**0**	P	**P**	**11 22 24.5**	**+0.1**
	comp=Z,4.8nm,0.7s,mb4.8						
DURS	**Dursunbey**	**60.79**	**356**	*i* P	**P**	**11 22 25.6**	**+1.0**
AOS	**Alonnisos**	**60.83**	**352**	P	**P**	**11 22 25.6**	**+0.7**
AGG	**Agios Georgios**	**60.91**	**350**	P	**P**	**11 22 26.0**	**+0.6**
KEST	**Kesra**	**61.11**	**338**	P	**P**	**11 22 26.9**	**0.0**
	comp=Z,2.9nm,0.8s,mb4.5,baz=311,slow=2.9,SNR=9.6						
THL	**Klokotos Trika**	**61.49**	**350**	P	**P**	**11 22 30.5**	**+1.2**
PAIG	**Paliouri**	**61.60**	**352**	P	**P**	**11 22 30.7**	**+0.6**
MEV	**Metsovon**	**61.84**	**350**	P	**P**	**11 22 33.7**	**+2.0**
LIT	**Litokhoron**	**61.94**	**351**	P	**P**	**11 22 33.0**	**+0.6**
GNI	**Garni**	**62.12**	**10**	⇑*e*P	**P**	**11 22 32.3**	**-1.2**
GNI				pmax	pmax		
	comp=Z,21nm,1.7s						
TIP	**Timpagrande**	**62.15**	**346**	*e*P	**P**	**11 22 34.1**	**+0.3**
	comp=Z,103nm,2.0s,mb5.6						
ALN	**Alexandroupoli**	**62.28**	**354**	P	**P**	**11 22 35.1**	**+0.5**
HORT	**Hortiatis**	**62.34**	**351**	P	**P**	**11 22 35.8**	**+0.8**
THE	**Thessaloniki**	**62.40**	**351**	P	**P**	**11 22 36.2**	**+0.8**
BOYT	**Boyabat**	**62.47**	**1**	*i* P	**P**	**11 22 36.1**	**+0.2**
SOH	**Sokhos**	**62.53**	**352**	P	**P**	**11 22 37.1**	**+0.8**
BALT	**Daday**	**62.56**	**0**	*i* P	**P**	**11 22 37.6**	**+1.1**
BALT	**Daday**	**62.56**	**0**	*i* P	**P**	**11 22 37.6**	**+1.2**
SRS	**Serrai**	**62.79**	**352**	P	**P**	**11 22 38.1**	**+0.1**
FNA	**Florina**	**62.79**	**350**	P	**P**	**11 22 38.8**	**+0.8**
GRG	**Griva**	**62.80**	**351**	P	**P**	**11 22 38.9**	**+0.8**
KNT	**Kendrikon**	**62.92**	**351**	P	**P**	**11 22 39.4**	**+0.5**
VAY	**Valandovo**	**63.13**	**351**	P	**P**	**11 22 40.9**	**+0.6**
TIR	**Tirane**	**63.59**	**349**	*e*P	**P**	**11 22 44.7**	**+1.4**
	comp=Z,59nm,0.6s,mb5.8						
MDT	**Midelt**	**64.86**	**325**	P	**P**	**11 22 52.7**	**+0.8**
	comp=Z,2.3nm,0.7s,mb4.3,baz=75,slow=2.9,SNR=7.0						
KBL	**Kabul**	**65.19**	**32**	*e*P	**P**	**11 22 54.3**	**+0.3**
KBL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
KBL	**Kabul**	**65.19**	**32**	*e*P	**P**	**11 22 54.3**	**+0.4**
	comp=Z,4.9nm,0.6s,mb4.7						
MAK	**Makhachkala**	**65.33**	**12**	*e*P	**P**	**11 22 52.6**	**-2.1**
MAK				*e*		11 23 26.8	
MAK				*e*		11 25 13.5	
MAK				*e*PPP		11 26 55.0	
MAK				*e*S	S	11 31 34.9	-3.6
MAK				*e*		11 32 46.7	
MAK				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.5						
MAK				MLR	MLR		
	comp=Z,160nm,6.0s						
KIV	**Kislovodsk**	**65.56**	**7**	*e*P	**P**	**11 22 54.1**	**-2.0**
KIV				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
KIV				MLR	MLR		
	comp=Z,121nm,19.0s,MS4.1						
KIV	**Kislovodsk**	**65.56**	**7**	*e*P	**P**	**11 22 56.8**	**+0.7**
	comp=Z,30nm,1.3s,mb5.2						
MLR	**Muntele Rosu**	**66.85**	**354**	⇑*i*P	**P**	**11 23 04.5**	**+0.1**
MLR	**Muntele Rosu**	**66.85**	**354**	P	**P**	**11 23 05.4**	**+1.0**
VOIR		**66.88**	**354**	⇑*i*P	**P**	**11 23 04.4**	**-0.2**
VOIR		**66.88**	**354**	P	**P**	**11 23 04.6**	**0.0**
GZR	**Gura Zlata**	**67.10**	**352**	⇑*i*P	**P**	**11 23 06.7**	**+0.7**
GZR	**Gura Zlata**	**67.10**	**352**	P	**P**	**11 23 06.8**	**+0.9**
PLOR	**Plostina**	**67.14**	**355**	⇑*i*P	**P**	**11 23 06.6**	**+0.4**
VRI	**Vrincioaia**	**67.15**	**355**	⇑*i*P	**P**	**11 23 06.7**	**+0.4**
VRI	**Vrincioaia**	**67.15**	**355**	P	**P**	**11 23 06.9**	**+0.6**
PGF	**Pioggiola**	**67.39**	**341**	*e*P	**P**	**11 23 06.9**	**-1.0**
	comp=Z,21nm,0.7s,mb5.0						
PGF	**Pioggiola**	**67.39**	**341**	*e*P	**P**	**11 23 06.9**	**-1.0**
PGF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
PGF	**Pioggiola**	**67.39**	**341**	*e*P	**P**	**11 23 06.9**	**-1.0**
	comp=Z,10nm,0.7s,mb5.0						
BZS	**Buzias**	**67.47**	**351**	⇓*i*P	**P**	**11 23 08.2**	**-0.2**
BZS	**Buzias**	**67.47**	**351**	⇓*i*P	**P**	**11 23 09.9**	**+1.5**
BZS	**Buzias**	**67.47**	**351**	⇓P	**P**	**11 23 09.8**	**+1.5**
DRGR		**68.48**	**352**	⇑*i*P	**P**	**11 23 14.8**	**+0.1**
DRGR		**68.48**	**352**	P	**P**	**11 23 15.2**	**+0.6**
PKSM	**Moragy**	**68.53**	**349**	P	**P**	**11 23 15.6**	**+0.6**
PSI	**Prapat**	**68.56**	**78**	P	**P**	**11 23 16.1**	**+0.1**
PSI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
PSI	**Prapat**	**68.56**	**78**	P	**P**	**11 23 16.1**	**+0.1**
	comp=Z,4.1nm,0.8s,mb4.4,baz=125,slow=12,SNR=4.3						
PYUN	**Piuthan**	**68.76**	**46**	*e*P	**P**	**11 23 15.1**	**-1.7**
	comp=Z,57nm,1.2s,mb5.4						
CRES	**Cresnjev**	**68.77**	**347**	*i* P	**P**	**11 23 17.5**	**+0.9**
QSPA	**South Pole Qui**	**68.81**	**180**	P	**P**	**11 23 17.5**	**+1.1**
	comp=Z,3.4nm,0.9s,mb4.3,baz=274,slow=3.3,SNR=6.5						
QSPA	**South Pole Qui**	**68.81**	**180**	*e*P	**P**	**11 23 18.0**	**+1.6**
	comp=Z,11nm,1.4s,mb4.6						
LMR	**La Mourre**	**68.89**	**339**	*e*P	**P**	**11 23 16.8**	**-0.5**
	comp=Z,22nm,0.8s,mb4.9						
LMR	**La Mourre**	**68.89**	**339**	*e*P	**P**	**11 23 16.8**	**-0.5**
LMR				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
LMR	**La Mourre**	**68.89**	**339**	*e*P	**P**	**11 23 16.8**	**-0.5**
	comp=Z,11nm,0.8s,mb4.8						
KOLN	**Koldanda**	**68.96**	**47**	*e*P	**P**	**11 23 16.9**	**-1.2**
	comp=Z,70nm,1.4s,mb5.4						
BURAR	**Bucovina Array**	**69.02**	**354**	⇓*i*P	**P**	**11 23 18.4**	**+0.4**
BURAR	**Bucovina Array**	**69.02**	**354**	⇓P	**P**	**11 23 18.4**	**+0.4**
BUR02	**Bucovina Ar. S**	**69.02**	**354**	P	**P**	**11 23 20.2**	**+2.2**
BUR08	**Bucovina Ar. S**	**69.05**	**354**	*e*P	**P**	**11 23 18.9**	**+0.7**
FRF	**La Foret Royal**	**69.05**	**340**	*e*P	**P**	**11 23 17.2**	**-1.1**
	comp=Z,34nm,0.9s,mb5.0						
FRF	**La Foret Royal**	**69.05**	**340**	*e*P	**P**	**11 23 17.2**	**-1.1**
FRF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
FRF	**La Foret Royal**	**69.05**	**340**	*e*P	**P**	**11 23 17.2**	**-1.1**
	comp=Z,17nm,0.9s,mb5.0						
SBF	**Sospel**	**69.07**	**340**	*e*P	**P**	**11 23 17.5**	**-0.9**
	comp=Z,73nm,0.9s,mb5.3						
SBF	**Sospel**	**69.07**	**340**	*e*P	**P**	**11 23 17.5**	**-0.9**
SBF				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.3						
SBF	**Sospel**	**69.07**	**340**	*e*P	**P**	**11 23 17.5**	**-0.9**
	comp=Z,36nm,0.9s,mb5.3						
JAVS	**Javornik**	**69.15**	**346**	*e*P	**P**	**11 23 19.4**	**+0.6**
KOGS	**Kog**	**69.20**	**348**	*e*P	**P**	**11 23 20.1**	**+0.9**
DANN	**Dangsing**	**69.44**	**47**	*e*P	**P**	**11 23 19.8**	**-1.3**
	comp=Z,38nm,1.1s,mb5.2						
CADS	**Cadrg**	**69.54**	**346**	*e*P	**P**	**11 23 22.1**	**+0.8**
SOKA	**Soboth**	**69.68**	**347**	⇑*i*P	**P**	**11 23 22.6**	**+0.5**
	comp=Z,26nm,1.5s,mb4.9						
BUD	**Budapest**	**69.69**	**350**	⇑*e*P	**P**	**11 23 22.8**	**+0.6**
GKN	**Gorkha**	**69.82**	**47**	*e*P	**P**	**11 23 21.9**	**-1.5**
	comp=Z,90nm,1.4s,mb5.5						
DMN	**Daman**	**69.90**	**48**	*e*P	**P**	**11 23 23.0**	**-0.9**
ESDC	**Sonseca Array**	**69.94**	**330**	P	**P**	**11 23 24.2**	**+0.3**
	comp=Z,7.9nm,0.9s,mb4.7,baz=146,slow=5.7,SNR=22						
ESDC				LR	LR	11 55 52.3	
	comp=Z,210nm,19.5s,MS4.4,baz=140,slow=38						
ESDC	**Sonseca Array**	**69.94**	**330**	P	**P**	**11 23 24.2**	**+0.3**
ESDC				LR	LR	11 55 52.3	
ESLA	**Sonseca Array**	**69.94**	**330**	*e*P	**P**	**11 23 24.3**	**+0.4**
	comp=Z,8.7nm,1.3s,mb4.5						
PSZ	**Piszkesteto**	**69.98**	**351**	*e*P	**P**	**11 23 23.2**	**-0.7**
PSZ				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
PSZ	**Piszkesteto**	**69.98**	**351**	⇑*i*P	**P**	**11 23 22.5**	**-1.4**
PSZ	**Piszkesteto**	**69.98**	**351**	⇑*e*P	**P**	**11 23 24.2**	**+0.3**
PSZ	**Piszkesteto**	**69.98**	**351**	*e*P	**P**	**11 23 23.2**	**-0.7**
	comp=Z,23nm,0.9s,mb5.1						
MBDF	**Montbardon**	**70.05**	**340**	*e*P	**P**	**11 23 24.4**	**-0.1**
	comp=Z,37nm,0.9s,mb5.0						
MBDF	**Montbardon**	**70.05**	**340**	*e*P	**P**	**11 23 24.4**	**-0.1**
MBDF				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
MBDF	**Montbardon**	**70.05**	**340**	*e*P	**P**	**11 23 24.4**	**-0.1**
	comp=Z,19nm,0.9s,mb5.0						
PKIN	**Phulchoki**	**70.08**	**48**	*e*P	**P**	**11 23 23.8**	**-1.2**
	comp=Z,56nm,1.4s,mb5.3						
PKI	**Pulchoki**	**70.08**	**48**	*e*P	**P**	**11 23 23.8**	**-1.2**
	comp=Z,74nm,1.3s,mb5.5						
KKN	**Kakani**	**70.13**	**48**	*e*P	**P**	**11 23 24.2**	**-1.1**
	comp=Z,38nm,1.0s,mb5.3						
ABTA	**Abfaltersbach**	**70.31**	**345**	⇑*i*P	**P**	**11 23 27.5**	**+1.5**
	comp=Z,12nm,0.8s,mb4.9						
SOP	**Sopron**	**70.33**	**348**	⇑*e*P	**P**	**11 23 26.7**	**+0.6**
UZH	**Uzhgorod**	**70.34**	**352**	⇓*i*P	**P**	**11 23 25.8**	**-0.3**
UZH				*e*		11 23 48.4	
BNI	**Bardonecchia**	**70.38**	**340**	*e*P	**P**	**11 23 28.1**	**+1.7**
BNI				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.2						
BNI	**Bardonecchia**	**70.38**	**340**	*e*P	**P**	**11 23 28.1**	**+1.6**
	comp=Z,42nm,1.4s,mb5.2						
MTLF	**Montolieu**	**70.40**	**336**	*e*P	**P**	**11 23 25.9**	**-0.7**
KBA	**Koelnbreinsper**	**70.43**	**346**	⇑*i*P	**P**	**11 23 27.4**	**+0.7**
	comp=Z,25nm,0.9s,mb5.2						
LASF	**Ste Croix**	**70.45**	**338**	*e*P	**P**	**11 23 26.3**	**-0.6**
	comp=Z,11nm,0.7s,mb4.6						
ORIF	**Oris-en-Rattie**	**70.51**	**340**	*e*P	**P**	**11 23 26.3**	**-0.9**
	comp=Z,36nm,0.9s,mb5.0						
ORIF				*e*MLR	MLR		
	comp=Z,265nm,18.2s,MS4.2						
ORIF	**Oris-en-Rattie**	**70.51**	**340**	*e*P	**P**	**11 23 26.3**	**-0.9**
ORIF				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
ORIF	**Oris-en-Rattie**	**70.51**	**340**	*e*P	**P**	**11 23 26.3**	**-0.9**
	comp=Z,18nm,0.9s,mb5.0						
RAMN	**Ramite**	**70.54**	**49**	*e*P	**P**	**11 23 27.2**	**-0.7**
	comp=Z,37nm,1.0s,mb5.3						
GUN	**Gumba**	**70.62**	**48**	*e*P	**P**	**11 23 27.7**	**-0.6**
	comp=Z,110nm,1.2s,mb5.7						
KOLS	**Kolonicke sedl**	**70.64**	**352**	*e*P	**P**	**11 23 27.9**	**-0.1**
KOLS				pmax	pmax		
	comp=Z,460nm,4.3s						
KOLS	**Kolonicke sedl**	**70.64**	**352**	*e*P	**P**	**11 23 27.9**	**-0.1**
	comp=Z,460nm,4.3s						
JIRN	**Jiri**	**70.68**	**49**	*e*P	**P**	**11 23 27.9**	**-0.8**
CONA	**Conrad Observa**	**70.70**	**348**	⇑*i*P	**P**	**11 23 29.1**	**+0.8**
	comp=Z,21nm,1.1s,mb5.0,SNR=8.8						
CSNA	**Conrad Observa**	**70.70**	**348**	⇑*i*P	**P**	**11 23 29.1**	**+0.8**
	comp=Z,18nm,1.1s,mb4.9						
VYHS	**Vyhne**	**70.70**	**350**	*e*P	**P**	**11 23 26.5**	**-1.9**
CRVS	**Cervenica-Dubn**	**70.72**	**352**	*e*P	**P**	**11 23 28.8**	**+0.4**
CRVS				pmax	pmax		
	comp=Z,416nm,4.0s						
CRVS	**Cervenica-Dubn**	**70.72**	**352**	*e*P	**P**	**11 23 28.8**	**+0.4**
	comp=Z,416nm,4.0s						
ZST	**Bratislava**	**70.72**	**349**	*e*P	**P**	**11 23 30.1**	**+1.7**
ZST				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
ZST	**Bratislava**	**70.72**	**349**	*e*P	**P**	**11 23 30.1**	**+1.7**
	comp=Z,7.7nm,0.8s,mb4.7						
LPG	**La Plagne**	**70.75**	**341**	*e*P	**P**	**11 23 27.9**	**-0.8**
	comp=Z,30nm,1.0s,mb4.9						
LPG	**La Plagne**	**70.75**	**341**	*e*P	**P**	**11 23 27.9**	**-0.8**
LPG				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
LPG	**La Plagne**	**70.75**	**341**	*e*P	**P**	**11 23 27.9**	**-0.8**
	comp=Z,15nm,1.0s,mb4.9						
LPL	**La Plagne**	**70.78**	**341**	*e*P	**P**	**11 23 28.0**	**-0.9**
	comp=Z,20nm,0.7s,mb4.9						
LPL	**La Plagne**	**70.78**	**341**	*e*P	**P**	**11 23 28.0**	**-0.9**
LPL				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
LPL	**La Plagne**	**70.78**	**341**	*e*P	**P**	**11 23 28.0**	**-0.9**
	comp=Z,10nm,0.6s,mb4.9						
VIVF	**Saint-Julien-l**	**70.85**	**339**	*e*P	**P**	**11 23 28.6**	**-0.7**
	comp=Z,9.3nm,0.6s,mb4.6						
VIVF	**Saint-Julien-l**	**70.85**	**339**	*e*P	**P**	**11 23 28.6**	**-0.7**
VIVF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
VIVF	**Saint-Julien-l**	**70.85**	**339**	*e*P	**P**	**11 23 28.6**	**-0.7**
	comp=Z,4.7nm,0.6s,mb4.6						
EPF	**Esparros**	**70.85**	**335**	*e*P	**P**	**11 23 29.1**	**-0.3**
	comp=Z,48nm,1.1s,mb5.0						
EPF	**Esparros**	**70.85**	**335**	*e*P	**P**	**11 23 29.1**	**-0.3**
EPF				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
EPF	**Esparros**	**70.85**	**335**	*e*P	**P**	**11 23 29.1**	**-0.3**
	comp=Z,24nm,1.1s,mb5.0						
MODS	**Modra-Piesok**	**70.86**	**349**	*e*P	**P**	**11 23 29.0**	**-0.3**
TUE	**Stuetta**	**70.88**	**343**	*e*P	**P**	**11 23 30.1**	**+0.7**
	comp=Z,14nm,0.8s,mb5.0						
MOA	**Molln**	**70.95**	**347**	⇑*i*P	**P**	**11 23 30.2**	**+0.3**
	comp=Z,23nm,0.8s,mb5.1,SNR=7.9						
WTTA	**Wattenberg**	**71.01**	**345**	⇑*i*P	**P**	**11 23 30.8**	**+0.6**
	comp=Z,16nm,0.9s,mb5.0						
FETA	**Feichten**	**71.01**	**344**	⇑*i*P	**P**	**11 23 31.4**	**+1.2**
	comp=Z,19nm,0.9s,mb5.0,SNR=14						
ODAN	**Odare**	**71.05**	**50**	*e*P	**P**	**11 23 30.0**	**-0.9**
	comp=Z,80nm,1.4s,mb5.5						
ETSF	**Etsaut**	**71.10**	**334**	*e*P	**P**	**11 23 30.5**	**-0.4**
	comp=Z,24nm,0.7s,mb5.0						
ETSF	**Etsaut**	**71.10**	**334**	*e*P	**P**	**11 23 30.5**	**-0.4**
ETSF				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
ETSF	**Etsaut**	**71.10**	**334**	*e*P	**P**	**11 23 30.5**	**-0.4**
	comp=Z,12nm,0.7s,mb4.9						
MOTA	**Moosalm**	**71.22**	**344**	⇓*i*P	**P**	**11 23 32.2**	**+0.7**
	comp=Z,19nm,1.1s,mb4.9,SNR=8.3						
STHS	**Stebnicka Huta**	**71.25**	**352**	*e*P	**P**	**11 23 31.8**	**+0.2**
STHS				pmax	pmax		
	comp=Z,121nm,3.5s						
STHS	**Stebnicka Huta**	**71.25**	**352**	*e*P	**P**	**11 23 31.8**	**+0.2**
	comp=Z,121nm,3.5s						
NIE	**Niedzica**	**71.38**	**351**	*e*P	**P**	**11 23 30.3**	**-2.1**
SJPF	**Ste Jean**	**71.55**	**334**	*e*P	**P**	**11 23 33.1**	**-0.5**
	comp=Z,26nm,0.7s,mb5.0						
SJPF	**Ste Jean**	**71.55**	**334**	*e*P	**P**	**11 23 33.1**	**-0.5**
SJPF				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
SJPF	**Ste Jean**	**71.55**	**334**	*e*P	**P**	**11 23 33.1**	**-0.5**
	comp=Z,13nm,0.7s,mb5.0						
TAPN	**Taplejung**	**71.57**	**50**	*e*P	**P**	**11 23 33.5**	**-0.6**
	comp=Z,60nm,1.6s,mb5.3						
KIEV	**Kiev**	**71.81**	**357**	*e*P	**P**	**11 23 33.0**	**-2.0**
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KIEV	**Kiev**	**71.81**	**357**	*e*P	**P**	**11 23 33.0**	**-2.1**
	comp=Z,8.8nm,0.8s,mb4.7						
AKASG	**Malin Array Be**	**71.82**	**357**	P	**P**	**11 23 33.1**	**-1.9**
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AKASG	**Malin Array Be**	**71.82**	**357**	P	**P**	**11 23 33.0**	**-2.0**
	comp=Z,6.2nm,0.6s,mb4.7,baz=181,slow=5.7,SNR=22						
CAF	**Calviac**	**71.82**	**337**	*e*P	**P**	**11 23 34.4**	**-0.8**
	comp=Z,28nm,1.0s,mb4.9						
CAF	**Calviac**	**71.82**	**337**	*e*P	**P**	**11 23 34.4**	**-0.8**
CAF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
CAF	**Calviac**	**71.82**	**337**	*e*P	**P**	**11 23 34.4**	**-0.8**
	comp=Z,14nm,1.0s,mb4.8						
CABF	**La Chapelle**	**71.95**	**341**	*e*P	**P**	**11 23 35.3**	**-0.7**
GERES	**GERESS Array B**	**72.02**	**347**	P	**P**	**11 23 36.3**	**0.0**
GERES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
GERES				MLR	MLR		
	comp=Z,119nm,18.7s						
GERES	**GERESS Array B**	**72.02**	**347**	P	**P**	**11 23 36.3**	**0.0**
	comp=Z,5.6nm,0.6s,mb4.7,baz=158,slow=5.4,SNR=31						
GERES				LR	LR	12 00 32.2	
	comp=Z,119nm,18.7s,MS4.2,baz=143,slow=40						
OKC	**Ostrava-Krasne**	**72.12**	**350**	*e*P	**P**	**11 23 37.1**	**+0.2**
MORC	**Moravsky Berou**	**72.16**	**349**	*e*P	**P**	**11 23 37.2**	**+0.1**
MORC				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
MORC	**Moravsky Berou**	**72.16**	**349**	⇑*i*P	**P**	**11 23 34.6**	**-2.5**
MORC	**Moravsky Berou**	**72.16**	**349**	*e*P	**P**	**11 23 37.2**	**+0.1**
	comp=Z,19nm,1.2s,mb4.9						
KHC	**Kasperske Hory**	**72.31**	**347**	*e*P	**P**	**11 23 37.9**	**-0.2**
LFF	**La Frestale**	**72.32**	**336**	*e*P	**P**	**11 23 37.4**	**-0.8**
RJF	**Les Rejaudoux**	**72.34**	**337**	*e*P	**P**	**11 23 37.9**	**-0.4**
RJF				*e*MLR	MLR		
	comp=Z,278nm,18.5s,MS4.3						
RJF	**Les Rejaudoux**	**72.34**	**337**	*e*P	**P**	**11 23 37.9**	**-0.4**
RJF				LR	LR		
	comp=Z,280nm,18.5s,MS4.6						
VSR	**Storozhevoye**	**72.44**	**4**	*e*P	**P**	**11 23 38.6**	**-0.1**
VSR				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
KSH	**Kashi**	**72.54**	**33**	P	**P**	**11 23 36.6**	**-3.0**
KSH				*e*PcP	PcP	11 23 55.2	-2.0
KSH				*e*S	S	11 32 55.2	-8.9
KSH				*e*SKS		11 33 35.0	
KSH				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
KSH				pmax	pmax		
	comp=Z,150nm,3.0s						
KSH				LR	LR		
	comp=N,310nm,5.7s						
KSH				LR	LR		
	comp=E,330nm,5.2s						
KSH				LR	LR		
	comp=Z,490nm,6.0s						
SMF	**Signal de Mont**	**72.70**	**339**	*e*P	**P**	**11 23 39.3**	**-1.1**
KK31	**Karatay Array**	**72.74**	**28**	*i* P	**P**	**11 23 40.1**	**-0.6**
KK31				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
HINF	**Hinteralfeld**	**72.81**	**342**	*e*P	**P**	**11 23 40.4**	**-0.6**
	comp=Z,18nm,0.8s,mb4.7						
HINF	**Hinteralfeld**	**72.81**	**342**	*e*P	**P**	**11 23 40.4**	**-0.6**
HINF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
HINF	**Hinteralfeld**	**72.81**	**342**	*e*P	**P**	**11 23 40.4**	**-0.6**
	comp=Z,9.3nm,0.8s,mb4.8						
PRU	**Pruhonice**	**72.93**	**348**	*e*P	**P**	**11 23 39.7**	**-2.0**
DPC	**Dobruska-Polom**	**72.93**	**349**	*e*P	**P**	**11 23 41.6**	**-0.1**
TCF	**Toulx Ste Croi**	**72.94**	**338**	*e*P	**P**	**11 23 41.3**	**-0.6**
AVF	**Avril sur Loir**	**72.99**	**339**	*e*P	**P**	**11 23 41.0**	**-1.1**
	comp=Z,22nm,0.8s,mb4.8						
AVF	**Avril sur Loir**	**72.99**	**339**	*e*P	**P**	**11 23 41.0**	**-1.1**
AVF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
AVF	**Avril sur Loir**	**72.99**	**339**	*e*P	**P**	**11 23 41.0**	**-1.1**
	comp=Z,11nm,0.8s,mb4.8						
HAU	**Haudompre**	**73.13**	**342**	*e*P	**P**	**11 23 41.8**	**-1.1**
	comp=Z,30nm,0.8s,mb5.0						
HAU				*e*MLR	MLR		
	comp=Z,164nm,18.8s,MS4.0						
HAU	**Haudompre**	**73.13**	**342**	*e*P	**P**	**11 23 41.8**	**-1.1**
HAU				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
HAU				MLR	MLR		
	comp=Z,160nm,18.8s,MS4.3						
HAU	**Haudompre**	**73.13**	**342**	*e*P	**P**	**11 23 41.8**	**-1.1**
	comp=Z,15nm,0.8s,mb5.0						
HAU				LR	LR		
	comp=Z,160nm,18.8s,MS4.3						
UPC	**Upice**	**73.14**	**349**	*e*P	**P**	**11 23 43.3**	**+0.4**
SSF	**Saint Saulge**	**73.18**	**339**	*e*P	**P**	**11 23 42.4**	**-0.8**
	comp=Z,17nm,0.9s,mb4.7						
SSF	**Saint Saulge**	**73.18**	**339**	*e*P	**P**	**11 23 42.4**	**-0.8**
SSF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SSF	**Saint Saulge**	**73.18**	**339**	*e*P	**P**	**11 23 42.4**	**-0.8**
	comp=Z,8.4nm,0.9s,mb4.7						
CDF	**Champ du Feu**	**73.22**	**342**	*e*P	**P**	**11 23 42.8**	**-0.7**
	comp=Z,13nm,0.8s,mb4.6						
CDF	**Champ du Feu**	**73.22**	**342**	*e*P	**P**	**11 23 42.8**	**-0.7**
CDF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
CDF	**Champ du Feu**	**73.22**	**342**	*e*P	**P**	**11 23 42.8**	**-0.7**
	comp=Z,6.6nm,0.8s,mb4.6						
LOR	**Lormes**	**73.24**	**340**	*e*P	**P**	**11 23 42.8**	**-0.8**
	comp=Z,18nm,0.8s,mb4.8						
LOR				*e*MLR	MLR		
	comp=Z,194nm,19.2s,MS4.1						
LOR	**Lormes**	**73.24**	**340**	*e*P	**P**	**11 23 42.8**	**-0.8**
LOR				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LOR				MLR	MLR		
	comp=Z,190nm,19.3s,MS4.4						
LOR	**Lormes**	**73.24**	**340**	*e*P	**P**	**11 23 42.8**	**-0.8**
	comp=Z,9.1nm,0.8s,mb4.8						
LOR				LR	LR		
	comp=Z,190nm,19.3s,MS4.4						

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GRA1  Grafenberg Arr    73.38 345  eP      P       11 23 44.8 +0.5
      comp=Z,26nm,1.2s,mb5.0
GRF   Grafenberg Arr    73.38 345  eP      P       11 23 44.8 +0.5
GRF                                pmax    pmax
      comp=Z,26nm,1.2s,mb5.0
GRF   Grafenberg Arr    73.38 345  eP      P       11 23 44.8 +0.5
GRF                                pmax    pmax
      comp=Z,26nm,1.2s,mb5.0
GRF   Grafenberg Arr    73.38 345  eP      P       11 23 44.8 +0.5
      comp=Z,26nm,1.2s,mb5.0
AML   Almayashu         73.41  30  P       P       11 23 45.6 +0.9
      SNR=13
AML   Almayashu         73.41  30  eP      P       11 23 44.5 -0.2
      comp=Z,8.5nm,0.8s,mb4.7
SHL   Shillong          73.59  54  ePKP    P       11 23 46.0 -0.2
NKC   Novy Kostel       73.60 346  eP      P       11 23 45.9 +0.2
EKS2  Erkin-Say         73.86  30  P       P       11 23 48.4 +1.1
      SNR=7.3
BRG   Berggiesshubel    73.89 347  eP      P       11 23 48.7 +1.4
BRG                                pmax    pmax
      comp=Z,3.0nm,1.1s,mb4.1
BRG   Berggiesshubel    73.89 347  eP      P       11 23 48.7 +1.4
      comp=Z,5.3nm,1.1s,mb4.4
MEZF  Maizieres J'vi    73.96 341  eP      P       11 23 47.3 -0.5
      comp=Z,20nm,0.7s,mb4.9
MEZF  Maizieres J'vi    73.96 341  eP      P       11 23 47.3 -0.5
      comp=Z,20nm,0.7s,mb5.2
AAK   Ala-Archa         74.17  30  eP      P       11 23 49.7 +0.5
AAK                                pmax    pmax
      comp=Z,13nm,1.3s,mb4.7
AAK   Ala-Archa         74.17  30  P       P       11 23 50.1 +0.9
      SNR=5.3
AAK   Ala-Archa         74.17  30  eP      P       11 23 49.7 +0.5
      comp=Z,13nm,1.3s,mb4.7
MOX   Moxa              74.17 346  eP      P       11 23 49.7 +0.7
      comp=Z,17nm,0.9s,mb5.0
MOX   Moxa              74.17 346  eP      P       11 23 49.7 +0.7
MOX                                pmax    pmax
      comp=Z,17nm,0.9s,mb5.0
AB31  Akbulak array     74.21  18  P       P       11 23 47.5 -1.7
AB31                               pmax    pmax
      comp=Z,15nm,1.0s,mb4.9
KBK   Karagaybulak      74.40  31  P       P       11 23 50.8 +0.2
      SNR=9.4
CLL   Collm             74.49 347  i P     P       11 23 51.4 +0.6
CLL                                pmax    pmax
      comp=Z,19nm,1.3s,mb4.9
CLL   Collm             74.49 347  i P     P       11 23 51.4 +0.6
      comp=Z,19nm,1.3s,mb4.9
USP   Ospenovka         74.66  30  P       P       11 23 52.4 +0.4
      SNR=6.8
AKTO  Aktyubinsk        74.76  16  P       P       11 23 50.8 -1.6
TKM2  Tokmak 2          74.91  31  eP      P       11 23 53.2 -0.3
TKM2                               pmax    pmax
      comp=Z,15nm,0.9s,mb4.9
TKM2  Tokmak 2          74.91  31  P       P       11 23 53.4 -0.1
      SNR=18
TKM2  Tokmak 2          74.91  31  eP      P       11 23 53.2 -0.3
      comp=Z,15nm,0.9s,mb4.9
LSA   Lhasa             75.39  50  P       P       11 23 56.0 -0.6
LSA   Lhasa             75.39  50  eP      P       11 23 57.6 +1.0
LSA                                pmax    pmax
      comp=Z,36nm,1.3s,mb5.1
LSA   Lhasa             75.39  50  eP      P       11 23 57.6 +1.0
      comp=Z,36nm,1.3s,mb5.2
GIVF  Givet             75.45 342  eP      P       11 23 55.4 -1.0
CMAR  Chiang Mai Arr    75.53  63  P       P       11 23 57.9 +0.3
CMAR                               pmax    pmax
      comp=Z,2.0nm,0.7s
CMAR                               MLR     MLR
      comp=Z,176nm,18.1s
CMAR  Chiang Mai Arr    75.53  63  P       P       11 23 57.9 +0.3
      comp=Z,2.0nm,0.7s,mb4.2,baz=246,slow=6.0,SNR=13
CMAR                               LR      LR      11 57 41.4
      comp=Z,176nm,18.1s,MS4.4,baz=222,slow=36
BCLA  Clavier           75.60 342  P       P       11 23 58.9 +1.7
BAIF  Baives            75.60 341  eP      P       11 23 56.5 -0.8
      comp=Z,49nm,1.2s,mb5.0
BAIF  Baives            75.60 341  eP      P       11 23 56.5 -0.8
BAIF                               pmax    pmax
      comp=Z,25nm,1.2s,mb5.0
BAIF  Baives            75.60 341  eP      P       11 23 56.5 -0.8
      comp=Z,24nm,1.2s,mb5.0
CHTO  Chiang Mai        75.70  63  eP      P       11 23 58.9 +0.3
CHTO                               pmax    pmax
      comp=Z,12nm,1.1s,mb4.7
CHTO  Chiang Mai        75.70  63  eP      P       11 23 58.9 +0.4
      comp=Z,12nm,1.1s,mb4.7
NACGM Naroch            76.14 356  e       P       11 23 56.0 -4.2
OBN   Obninsk           76.20   2⇓eP     P       11 24 00.1 -0.5
OBN                                pmax    pmax
      comp=Z,32nm,1.4s,mb5.1
VNDA  Vanda             76.90 170  P       P       11 24 05.2 +0.7
VNDA                               pmax    pmax
      comp=Z,4.0nm,1.0s
VNDA  Vanda             76.90 170  P       P       11 24 05.2 +0.7
      comp=Z,4.4nm,1.0s,mb4.4,baz=54,slow=8.7,SNR=3.8
VSU   Vasula            79.69 357  eP      P       11 24 19.0 -0.9
VSU                                pmax    pmax
      comp=Z,36nm,0.6s,mb5.5
MUD   Monsted U'grnd    80.12 347  i P     P       11 24 23.1 +0.8
MUD                                pmax    pmax
      comp=Z,28nm,0.7s,mb5.3
MUD   Monsted U'grnd    80.12 347  i P     P       11 24 23.1 +0.8
      comp=Z,28nm,0.7s,mb5.3
ARU   Arti              80.38  14  eP      P       11 24 23.8 +0.1
ARU                                pmax    pmax
      comp=Z,11nm,0.8s,mb4.8
ARU   Arti              80.38  14  eP      P       11 24 23.8 +0.1
      comp=Z,11nm,0.8s,mb4.8
VOSK  Vostochnaya       80.74  22  P       P       11 24 22.9 -2.8
VOSK                               pmax    pmax
      comp=Z,13nm,1.4s,mb4.7
BRVK  Borovoye          80.77  22  P       P       11 24 25.2 -0.7
      comp=Z,51nm,0.9s,mb5.5,SNR=6.4
BRVK  Borovoye          80.77  22  eP      P       11 24 24.8 -1.1
BRVK                               pmax    pmax
      comp=Z,9.0nm,0.9s,mb4.7
BRVK  Borovoye          80.77  22  eP      P       11 24 24.8 -1.1
      comp=Z,8.5nm,0.9s,mb4.7
BVA0  Borovoye Array    80.78  22  i P     P       11 24 25.2 -0.7
MK31  Makanchi Array    80.99  32  eP      P       11 24 26.2 -1.0
MKAR  Makanchi Array    80.99  32  P       P       11 24 26.5 -0.7
MKAR                               pmax    pmax
      comp=Z,4.0nm,0.7s
MKAR                               MLR     MLR
      comp=Z,132nm,20.2s
MKAR  Makanchi Array    80.99  32  P       P       11 24 26.4 -0.7
      comp=Z,3.7nm,0.7s,mb4.4,baz=220,slow=5.2,SNR=24
MKAR                               LR      LR      12 00 39.3
      comp=Z,132nm,20.2s,MS4.3,baz=22,slow=36
SVE   Sverdlovsk        81.22  15⇓eP     P       11 24 27.9 -0.3
SVE                                pmax    pmax
      comp=Z,14nm,1.3s,mb4.7
CPUP  Villa Florida     81.28 245  LR      LR      11 55 49.0
      comp=Z,521nm,19.8s,MS4.9,baz=101,slow=32
KMI   Kunming           81.79  59  P       P       11 24 32.8 +0.8
KMI                                pP      pP      11 24 36.9 +1.6
KMI                                S       S       11 34 45.1 -0.3
KMI                                pmax    pmax
      comp=Z,13nm,1.2s,mb4.7
KMI                                LR      LR
      comp=Z,140nm,21.4s,MS4.3
WMQ   Urumqi            81.82  37  eP      P       11 24 32.2 +0.5
WMQ                                pmax    pmax
      comp=Z,10.0nm,0.9s,mb4.8
WMQ                                pmax    pmax
      comp=Z,200nm,5.2s
WMQ                                LR      LR
      comp=Z,280nm,22.6s,MS4.6
KLMR  Klimovskoe        82.07   3  eP      P       11 24 30.8 -1.8
KLMR                               pmax    pmax
      comp=Z,44nm,1.3s,mb5.2
KURK  Kurchatov         82.14  27  P       P       11 24 33.1 -0.1
      comp=Z,118nm,1.2s,mb5.7,SNR=18
KURK  Kurchatov         82.14  27  eP      P       11 24 32.8 -0.4
KURK                               pmax    pmax
      comp=Z,41nm,1.3s,mb5.2
KURK  Kurchatov         82.14  27  eP      P       11 24 32.8 -0.4
      comp=Z,41nm,1.3s,mb5.2
PRGR  Permogore         83.29   6  eP      P       11 24 38.2 -0.7
PRGR                               pmax    pmax
      comp=Z,21nm,0.6s,mb5.3
KAF   Kangasniemi       83.36 357  eP      P       11 24 38.2 -1.0
KAF                                pmax    pmax
      comp=Z,25nm,0.7s,mb5.3
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KAF   Kangasniemi       83.36 357  ep      P       11 24 38.2 -1.0
      comp=Z,25nm,0.7s,mb5.3
JOF   Joensuu           83.99 359  eP      P       11 24 40.9 -1.6
JOF                                pmax    pmax
      comp=Z,11nm,0.6s,mb5.2
JOF   Joensuu           83.99 359  ep      P       11 24 40.9 -1.6
      comp=Z,11nm,0.6s,mb5.2
NB2   NORSAR Subarra    84.00 349  P       P       11 24 42.5 -0.1
      comp=Z,12nm,0.8s,mb5.1,baz=154,slow=4.8
NB2   NORSAR Subarra    84.00 349  P       P       11 24 42.5 -0.1
      baz=154,slow=4.8
NOA   NORSAR Array B    84.00 349  P       P       11 24 42.6  0.0
      comp=Z,10nm,0.7s,mb5.0,baz=153,slow=4.9,SNR=15
NOA                                LR      LR      12 06 35.8
      comp=Z,75nm,19.4s,MS4.1,baz=100,slow=39
CD2   Chengdu           85.30  54  P       P       11 24 50.2 +0.3
CD2                                pP      pP      11 24 55.0 +1.8
CD2                                sP      sP      11 24 56.8 +2.4
CD2                                PP      PP      11 28 10.6 +2.6
CD2                                SKS             11 35 11.8
CD2                                S       S       11 35 20.7  0.0
CD2                                sS      sS      11 35 28.1 +1.9
CD2                                SS      SS      11 40 59.5 +3.7
CD2                                pmax    pmax
      comp=Z,60nm,1.3s,mb5.6
CD2                                pmax    pmax
      comp=Z,130nm,4.8s
CD2                                LR      LR
      comp=N,360nm,5.1s
CD2                                LR      LR
      comp=Z,320nm,5.5s
GYA   Guiyang           85.54  60  P       P       11 24 53.2 +2.0
GYA                                PP      PP      11 28 15.9 +5.8
GYA                                SKS             11 35 16.7
GYA                                S       S       11 35 25.3 +2.0
GYA                                SS      SS      11 41 05.2 +5.7
GYA                                pmax    pmax
      comp=Z,20nm,1.0s,mb5.3
GYA                                pmax    pmax
      comp=Z,120nm,6.6s
GYA                                LR      LR
      comp=N,580nm,20.9s,MS5.1
GYA                                LR      LR
      comp=E,540nm,21.8s,MS5.1
GYA                                LR      LR
      comp=Z,560nm,20.4s,MS5.0
FITZ  Fitzroy Crossi    85.74 108  LR      LR      11 59 24.1
      comp=Z,188nm,19.4s,MS4.5,baz=192,slow=33
FITZ  Fitzroy Crossi    85.74 108  eP      P       11 24 53.9 +1.5
      comp=Z,3.1nm,0.8s,mb4.6
PLCA  Paso Flores       86.18 228  LR      LR      12 01 17.3
      comp=Z,270nm,18.9s,MS4.7,baz=124,slow=34
GTA   Gaotai            86.67  45 ⇑P       P       11 24 56.9 +0.4
GTA                                pP      pP      11 25 00.5 +0.7
GTA                                sP      sP      11 25 01.9 +0.9
GTA                                PP      PP      11 28 23.5 +4.5
GTA                                S       S       11 35 34.1 +0.3
GTA                                sS      sS      11 35 42.2 +2.9
GTA                                pmax    pmax
      comp=Z,9.0nm,1.6s,mb4.8
GTA                                pmax    pmax
      comp=Z,100nm,6.3s
GTA                                LR      LR
      comp=N,290nm,18.0s,MS4.9
GTA                                LR      LR
      comp=E,380nm,21.0s,MS4.9
GTA                                LR      LR
      comp=Z,400nm,20.4s,MS4.8
NVS   Novosibirsk       87.06  26  eP      P       11 24 57.5 -0.5
NVS                                pmax    pmax
      comp=Z,17nm,1.0s,mb5.2
NVS                                pmax    pmax
      comp=N,6.0nm,1.5s
NVS                                pmax    pmax
      comp=E,10.0nm,1.6s
ZALV  Zalesovo Beam     87.11  28  P       P       11 24 57.0 -1.3
ZALV                                               11 28 20.0
ZALV                               pmax    pmax
      comp=Z,1.0nm,0.6s,mb4.2
ZALV                               pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.8
ZALV                               MLR     MLR
      comp=Z,115nm,20.3s,MS4.3
ZALV  Zalesovo Beam     87.11  28  P       P       11 24 57.0 -1.3
      comp=Z,1.4nm,0.6s,mb4.4,baz=228,slow=3.8,SNR=7.3
ZALV                               PP      PP      11 28 20.0 -2.2
      comp=Z,4.1nm,0.7s,baz=234,slow=8.3,SNR=8.2
ZALV                               LR      LR      12 03 55.8
      comp=Z,114nm,20.3s,MS4.3,baz=87,slow=36
ZALV  Zalesovo Beam     87.11  28  P       P       11 24 57.0 -1.3
ZALV                               PP      PP      11 28 20.0 -2.2
ZALV                               LR      LR      12 03 55.8
LZH   Lanzhou           87.81  50  eP      P       11 25 02.4 +0.3
LZH                                pP      pP      11 25 07.4 +2.0
LZH                                sP      sP      11 25 10.5 +3.9
LZH                                PP      PP      11 28 31.4 +3.2
LZH                               eS       S       11 35 40.0 -4.9
LZH                                SS      SS      11 41 32.0 -0.4
LZH                                pmax    pmax
      comp=Z,42nm,1.5s,mb5.5
LZH                                pmax    pmax
      comp=Z,100nm,4.0s
LZH                                LR      LR
      comp=E,290nm,15.0s
LZH                                LR      LR
      comp=Z,520nm,16.3s,MS5.0
XAN   Xi'an             90.60  54  P       P       11 25 14.6 -0.6
XAN                                pP      pP      11 25 24.7 +6.1
XAN                                pmax    pmax
      comp=Z,5.0nm,1.5s,mb4.6
XAN                                pmax    pmax
      comp=Z,70nm,4.5s
ARCES ARCESS Array B    90.80 357  P       P       11 25 15.0 -0.3
      comp=Z,4.8nm,0.9s,mb4.8,baz=0.0,slow=1.5,SNR=9.0
ARCES                              LR      LR      12 14 02.7
      comp=Z,114nm,18.1s,MS4.3,baz=336,slow=41
ASAR  Alice Springs     90.80 116  P       P       11 25 18.3 +1.8
ASAR                               pmax    pmax
      comp=Z,3.0nm,0.8s
ASAR  Alice Springs     90.80 116  P       P       11 25 18.2 +1.7
      comp=Z,2.5nm,0.8s,mb4.6,baz=247,slow=3.2,SNR=20
KRAR  Krasnoyarsk       92.00  29  eP      P       11 25 21.4 +0.2
KRAR                               pmax    pmax
      comp=Z,16nm,1.5s,mb5.1
LVC   Limon Verde       92.44 245  eP      P       11 25 26.3 +2.2
      comp=Z,5.8nm,1.0s,mb4.9
WRA   Warramunga Arr    92.66 112  P       P       11 25 25.4 +0.2
      comp=Z,1.4nm,1.0s,mb4.4,baz=248,slow=2.8,SNR=6.6
WRA                                LR      LR      12 00 26.4
      comp=Z,319nm,21.1s,MS4.8,baz=265,slow=31
WHN   Wuhan             93.39  59 ⇑P       P       11 25 29.1 +0.9
STKA  Stephens Creek    93.43 126  LR      LR      12 00 21.5
      comp=Z,208nm,18.4s,MS4.6,baz=208,slow=31
ZAK   Zakamensk         94.27  37  eP      P       11 25 32.3 +0.5
ZAK                                pmax    pmax
      comp=Z,4.0nm,1.5s,mb4.6
SONM  Songino Array     94.92  40  P       P       11 25 33.9 -0.9
SONM                               pmax    pmax
      comp=Z,1.0nm,0.7s
SONM                               MLR     MLR
      comp=Z,242nm,19.0s
SONM  Songino Array     94.92  40  P       P       11 25 33.9 -0.9
      comp=Z,0.8nm,0.7s,mb4.2,baz=230,slow=5.3,SNR=6.9
SONM                               LR      LR      12 08 01.6
      comp=Z,242nm,19.0s,MS4.7,baz=139,slow=35
HHC   Hu-ho-hao-te      95.33  48  eP      P       11 25 36.7 -0.2
HHC                                pP      pP      11 25 41.1 +0.8
HHC                                sP      sP      11 25 43.7 +2.2
HHC                                PP      PP      11 29 29.4 +1.8
HHC                                SKS             11 36 11.2
HHC                               eS       S       11 36 48.6 -4.3
HHC                                sS      sS      11 36 57.2 -1.3
HHC                                SS      SS      11 43 19.8 -0.8
HHC                                pmax    pmax
      comp=Z,9.0nm,0.8s,mb5.2
HHC                                pmax    pmax
      comp=Z,150nm,5.8s
HHC                                LR      LR
      comp=N,170nm,15.5s,MS5.0
HHC                                LR      LR
      comp=E,380nm,15.5s,MS5.0
HHC                                LR      LR
      comp=Z,340nm,17.8s,MS4.9
NJ2   Nanjing           97.52  59  eP      P       11 25 48.6 +1.5
NJ2                                pmax    pmax
      comp=Z,20nm,0.7s,mb5.8
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BJI   Beijing           98.29  50  P       P       11 25 52.5 +2.2
BJI                                pmax    pmax
      comp=Z,5.0nm,0.8s,mb5.1
BJI                                pmax    pmax
      comp=Z,180nm,4.8s
BILL  Bilibino         125.08  20⇑iPKIKP   PKPdf   11 31 13.4 +1.0
BILL                               pmax    pmax
      comp=Z,6.0nm,1.0s
BILL  Bilibino         125.08  20 ePKPdf   PKPdf   11 31 13.1 +0.7
CCM   Cathedral Cave   129.69 302 ePKIKP   PKPdf   11 31 22.9 +0.8
ULM   Lac du Bonnet    130.91 319  PKP     PKPdf   11 31 24.5 +0.5
      comp=Z,4.0nm,0.8s,baz=142,slow=1.7,SNR=7.1
ULM   Lac du Bonnet    130.91 319  PKP     PKPdf   11 31 24.5 +0.5
FFC   Flin Flon        132.73 326⇑iPKIKP   PKPdf   11 31 28.1 +0.8
YKA   Yellowknife Ar   133.39 340  PKIKP   PKPdf   11 31 28.4 +0.1
YKA                                pmax    pmax
      comp=Z,2.0nm,0.7s
YKA   Yellowknife Ar   133.39 340  PKP     PKPdf   11 31 28.4 +0.1
      comp=Z,2.1nm,0.7s,baz=32,slow=2.0,SNR=16
YKA                                SKPbc   SKPbc   11 34 59.8 +3.0
      comp=Z,0.3nm,0.8s,baz=40,slow=4.7,SNR=3.9
YKA   Yellowknife Ar   133.39 340  PKP     PKPdf   11 31 28.4 +0.1
YKA                                SKPbc   SKPbc   11 34 59.8 +3.0
DGMT  Dagmar           136.63 319 ⇑P       PKPdf   11 31 35.5 +0.6
      baz=137
A17A  Triple J Farms   140.25 323 ⇓P       PKPdf   11 31 42.4 +0.9
      baz=140
TXAR  Lajitas Array    140.41 291  PKIKP           11 31 39.1
TXAR                                               11 31 42.8
TXAR                               pmax    pmax
      comp=Z,1.0nm,0.9s
TXAR  Lajitas Array    140.41 291  PKhKP           11 31 39.0
      comp=Z,1.1nm,0.9s,baz=109,slow=4.2,SNR=7.9
TXAR                               PKP     PKPdf   11 31 42.8 +0.4
      comp=Z,1.2nm,0.9s,baz=124,slow=4.8,SNR=8.8
B17A  L&G Farms, Che   140.64 322 ⇓P       PKPdf   11 31 42.7 +0.5
      baz=140
C17A  Wharram Farm,    140.95 321 ⇑P       PKPdf   11 31 42.9 +0.2
      baz=141
D17A  Six Diamond Ra   141.14 320 ⇑P       PKPdf   11 31 43.4 +0.3
      baz=141
A15A  Johnson Ranch,   141.37 324 ⇓P       PKPdf   11 31 42.7 -0.8
      baz=141
K20A  Yellowstone Ra   141.53 312 ⇑P       PKPdf   11 31 42.8 -1.2
      baz=141
A14A  Double T Ranch   141.75 324 ⇓P       PKPdf   11 31 43.7 -0.5
      baz=142
K19A  Absolon Red Bu   141.82 313 ⇓P       PKPdf   11 31 43.7 -0.8
      baz=142
P21A  Newcastle        141.92 307 ⇑P       PKPdf   11 31 43.5 -1.3
      baz=142
Q21A  Lamborn Mesa,    142.20 306 ⇓P       PKPdf   11 31 44.5 -0.8
      baz=142
D15A  Lincoln          142.28 321 ⇑P       PKPdf   11 31 44.5 -0.7
      baz=142
R21A  Cimarron         142.31 306 ⇓P       PKPdf   11 31 45.2 -0.3
      baz=142
O20A  White River Ci   142.31 309 ⇓P       PKPdf   11 31 45.2 -0.3
      baz=142
PDAR  Pinedale Array   142.32 313  PKhKP           11 31 41.7
      comp=Z,1.3nm,1.0s,baz=77,slow=3.2,SNR=6.5
PDAR                               PKP     PKPdf   11 31 46.8 +1.4
      comp=Z,1.5nm,0.7s,baz=113,slow=2.3,SNR=7.1
PDAR  Pinedale Array   142.32 313  PKP             11 31 41.7
PDAR                               PKP     PKPdf   11 31 46.8 +1.4
L19A  Farson           142.44 312 ⇑P       PKPdf   11 31 44.4 -1.2
      baz=142
J18A  Kendall Valley   142.46 314 ⇑P       PKPdf   11 31 45.1 -0.5
      baz=142
I17A  Pilgrim Ck.      142.54 315 ⇓P       PKPdf   11 31 45.6 -0.2
      baz=142
S21A  Coal Bank Pass   142.68 305 ⇓P       PKPdf   11 31 46.0 -0.2
      baz=143
K18A  Toltan Ranch,    142.70 313 ⇑P       PKPdf   11 31 45.7 -0.4
      baz=143
Q20A  Ridgley Place,   142.71 307 ⇓P       PKPdf   11 31 45.4 -0.8
      baz=143
D14A  Greenough        142.83 322 ⇓P       PKPdf   11 31 45.6 -0.6
      baz=143
J17A  Brown Place, J   142.86 315 ⇓P       PKPdf   11 31 45.7 -0.7
      baz=143
F15A  Butte            142.87 319 ⇑P       PKPdf   11 31 45.5 -0.8
      baz=143
O19A  Miners Draw (B   142.90 309 ⇑P       PKPdf   11 31 45.4 -1.1
      baz=143
A12A  Yaak River Ran   142.97 326 ⇑P       PKPdf   11 31 46.2 -0.2
      baz=143
L18A  Fontenelle, Gr   142.97 312 ⇑P       PKPdf   11 31 46.2 -0.4
      baz=143
R20A  Redvale          142.99 306 ⇓P       PKPdf   11 31 46.7  0.0
      baz=143
C13A  Hot Springs      143.11 323 ⇑P       PKPdf   11 31 46.7 +0.1
      baz=143
G15A  Dillon           143.19 318 ⇓P       PKPdf   11 31 46.6 -0.3
      baz=143
RRI2  Red Ridge        143.27 315 ePKPdf   PKPdf   11 31 47.6 +0.6
A11A  Hall Mountain,   143.33 326 ⇓P       PKPdf   11 31 46.6 -0.3
      baz=143
MVCO  Mesa Verde       143.34 304 ⇓P       PKPdf   11 31 47.2 -0.2
      baz=143
MVCO  Mesa Verde       143.34 304 ePKPdf   PKPdf   11 31 46.5 -0.9
D13A  Huson            143.37 322 ⇑P       PKPdf   11 31 46.5 -0.6
      baz=143
F14A  Wisdom           143.41 320 ⇑P       PKPdf   11 31 46.9 -0.3
      baz=143
Q19A  Hogan Spring (   143.43 307 ⇑P       PKPdf   11 31 47.2 -0.3
      baz=143
L17A  Cokeville        143.48 313 ⇑P       PKPdf   11 31 47.6 +0.1
      baz=143
E13A  Victor           143.57 321 ⇓P       PKPdf   11 31 47.5 +0.1
      baz=144
C12B  Naegeli Ranch,   143.59 324 ⇓P       PKPdf   11 31 47.8 +0.3
      baz=144
R19A  Curley Farm, L   143.62 306 ⇓P       PKPdf   11 31 48.0 +0.1
      baz=144
K16A  Soda Springs     143.67 314 ⇑P       PKPdf   11 31 48.1 +0.3
      baz=144
S19A  Harvey Farm, M   143.68 305 ⇓P       PKPdf   11 31 47.9  0.0
      baz=144
I15A  Monteview        143.74 317 ⇑P       PKPdf   11 31 48.7 +0.8
      baz=144
G14A  Jackson          143.75 319 ⇑P       PKPdf   11 31 48.4 +0.5
      baz=144
W20A  Ramah            143.82 301 ⇑P       PKPdf   11 31 47.7 -0.6
      baz=144,SNR=17
T19A  Beclabito        143.84 304 ⇓P       PKPdf   11 31 48.6 +0.3
      baz=144,SNR=13
L16A  Fish Haven       143.90 313 ⇑P       PKPdf   11 31 48.3 +0.1
      baz=144
A10A  Northport        143.93 327 ⇓P       PKPdf   11 31 48.8 +0.8
      baz=144
P18A  Preston Nutter   143.94 309 ⇑P       PKPdf   11 31 48.5 +0.2
      baz=144
J15A  Blackfoot        143.98 316 ⇑P       PKPdf   11 31 48.9 +0.6
      baz=144
F13A  Darby            144.00 320 ⇑P       PKPdf   11 31 48.8 +0.5
      baz=144
Q18A  Rafter H Ranch   144.03 308 ⇓P       PKPdf   11 31 49.2 +0.7
      baz=144
R18A  Canyonlands Na   144.07 306 ⇑P       PKPdf   11 31 48.8 +0.1
      baz=144
O17A  Robinson Place   144.10 310 ⇓P       PKPdf   11 31 48.6  0.0
      baz=144
G13A  Cobalt           144.30 319 ⇑P       PKPdf   11 31 48.3 -0.5
      baz=144,SNR=10
M16A  Huntsville       144.31 312 ⇑P       PKPdf   11 31 48.8 -0.1
      baz=144
SRU   San Rafael       144.31 308 ⇑P       PKPdf   11 31 48.1 -1.0
      baz=144,SNR=9.3
P17A  Butcher Ranch,   144.35 309 ⇑P       PKPdf   11 31 49.2 +0.2
      baz=144
S18A  Hurst Farm, Bl   144.35 305 ⇑P       PKPdf   11 31 48.4 -0.8
      baz=144,SNR=8.5
K15A  Arbon            144.36 315 ⇓P       PKPdf   11 31 49.2 +0.3
      baz=144
I14A  Mackay           144.39 317 ⇑P       PKPdf   11 31 49.6 +0.6
      baz=144
T18A  Mexican Hat      144.41 304 ⇑P       PKPdf   11 31 48.9 -0.4
      baz=144,SNR=16
A09A  Danville         144.45 328 ⇑P       PKPdf   11 31 49.6 +0.6
      baz=144
W19A  Sanders          144.53 301 ⇓P       PKPdf   11 31 49.1 -0.5
      baz=144,SNR=13
L15A  Malad City       144.55 313 ⇑P       PKPdf   11 31 49.9 +0.6
      baz=144
F12A  Elk City         144.56 321 ⇑P       PKPdf   11 31 49.3  0.0
      baz=144
H13A  Challis          144.58 318 ⇓P       PKPdf   11 31 49.4 +0.1
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	baz=144,SNR=9.0						
U18A	Rough Rock, Ch baz=144,SNR=19	144.60	303	⇑P	PKPdf	11 31 49.4	-0.2
O16A	Springville baz=144	144.64	310	⇑P	PKPdf	11 31 49.2	-0.3
R17A	Hanksville Air baz=145,SNR=14	144.67	307	⇓P	PKPdf	11 31 49.1	-0.6
E11A	Bogner Ranch, baz=145,SNR=9.2	144.78	322	⇓P	PKPdf	11 31 48.4	-1.2
I13A	Wildhorse Cree baz=145,SNR=9.0	144.82	317	⇑P	PKPdf	11 31 49.7	0.0
V18A	Ganado baz=145,SNR=23	144.83	302	⇑P	PKPdf	11 31 50.3	+0.3
K14A	Jones Ranch, D baz=145	144.84	315	⇓P	PKPdf	11 31 50.4	+0.5
Q16A	Castle Valley baz=145,SNR=10	144.85	308	⇑P	PKPdf	11 31 49.6	-0.3
119A	Ashpeak Ranch, baz=145	144.91	297	⇑P	PKPdf	11 31 49.5	-0.8
H12A	Diamond D Ranc baz=145	144.96	319	⇑P	PKPdf	11 31 50.6	+0.6
D10A	Wagner Farm, O baz=145	144.97	324	⇑P	PKPdf	11 31 50.8	+0.8
P16A	Fountain Green baz=145	144.97	309	⇑P	PKPdf	11 31 50.5	+0.3
S17A	Black Ridge (B baz=145,SNR=36	144.98	306	⇓P	PKPdf	11 31 50.6	+0.3
C09A	Chrisman Ranch baz=145	145.04	326	⇓P	PKPbc	11 31 50.7	+1.3
319A	Douglas baz=145,SNR=6.2	145.09	295	⇑P	PKPbc	11 31 51.3	+1.2
J13A	Cove Ranch, Pi baz=145,SNR=68	145.10	317	⇓P	PKPbc	11 31 51.2	+1.5
X18A	Snowflake baz=145,SNR=24	145.11	300	⇑P	PKPbc	11 31 51.4	+1.3
L14A	Malta baz=145,SNR=7.3	145.11	314	⇓P	PKPbc	11 31 51.1	+1.3
T17A	Navajo Res., N baz=145,SNR=24	145.17	305	⇓P	PKPbc	11 31 51.4	+1.3
U17A	Shonto baz=145,SNR=23	145.17	304	⇓P	PKPbc	11 31 51.8	+1.6
HLID	Hailey baz=145,SNR=25	145.18	317	⇓P	PKPbc	11 31 51.5	+1.6
HLID	Hailey	145.18	317	*e*PKPdf	PKPdf	11 31 50.8	+0.4
E10A	Myers Farm, Un baz=145,SNR=14	145.22	323	⇑P	PKPbc	11 31 50.9	+0.9
B08A	Colville Reser baz=145,SNR=14	145.23	327	⇓P	PKPbc	11 31 51.5	+1.5
A07A	Ashnola River, baz=145,SNR=22	145.28	329	⇑P	PKPbc	11 31 51.5	+1.4
R16A	Teasdale baz=145	145.29	307	⇓P	PKPbc	11 31 51.7	+1.2
K13A	Stover Farm, H baz=145,SNR=29	145.40	315	⇑P	PKPbc	11 31 52.4	+1.7
M14A	Sheep Mountain baz=145,SNR=7.3	145.41	313	⇑P	PKPbc	11 31 51.6	+0.8
P15A	Leamington baz=145,SNR=9.6	145.43	309	⇓P	PKPbc	11 31 51.9	+1.0
C08A	Higginbotham F baz=145,SNR=12	145.46	326	⇓P	PKPdf	11 31 51.6	+0.8
Z18A	Geronimo baz=145,SNR=11	145.46	298	⇑P	PKPdf	11 31 52.5	+1.3
118A	Homack Ranch, baz=145,SNR=26	145.48	297	⇑P	PKPdf	11 31 52.6	+1.3
D09A	Jones Farm, Ri baz=145	145.52	325	⇓P	PKPdf	11 31 52.4	+1.5
B07A	Winthrop baz=145,SNR=15	145.55	328	⇓P	PKPdf	11 31 52.5	+1.6
S16A	Weppner Ranch, baz=146,SNR=19	145.55	306	⇑P	PKPdf	11 31 52.4	+1.2
L13A	Double Diamond baz=146,SNR=28	145.56	314	⇑P	PKPdf	11 31 52.9	+1.8
N14A	Grayback Hills baz=146	145.57	312	⇑P	PKPdf	11 31 52.6	+1.4
F10A	Beach Ranch, E baz=146,SNR=19	145.58	323	⇓P	PKPdf	11 31 52.1	+1.1
H11A	Donnelly baz=146	145.58	320	⇓P	PKPdf	11 31 52.6	+1.5
W17A	Winslow baz=146,SNR=9.1	145.60	301	⇓P	PKPdf	11 31 52.8	+1.4
218A	Dragoon baz=146,SNR=18	145.66	296	⇑P	PKPdf	11 31 53.1	+1.6
U16A	Tuba City baz=146,SNR=14	145.66	303	⇓P	PKPdf	11 31 53.4	+1.9
318A	Bisbee baz=146,SNR=63	145.69	295	⇑P	PKPdf	11 31 52.4	+0.7
Q15A	Fillmore baz=146,SNR=16	145.71	309	⇓P	PKPdf	11 31 52.5	+1.1
T16A	Glen Canyon Da baz=146,SNR=10	145.71	305	⇓P	PKPdf	11 31 52.3	+0.8
A06A	Chilliwack baz=146,SNR=12	145.76	330	⇓P	PKPdf	11 31 53.1	+1.9
J12A	Stokes Ranch, baz=146,SNR=36	145.76	317	⇓P	PKPdf	11 31 52.8	+1.4
Z17A	San Carlos Hig baz=146,SNR=27	145.78	298	⇑P	PKPdf	11 31 53.1	+1.3
X17A	Forest Lakes baz=146,SNR=12	145.84	300	⇑P	PKPdf	11 31 53.0	+1.2
D08A	Wollman Farm, baz=146,SNR=5.4	145.85	325	⇓P	PKPdf	11 31 52.7	+1.2
NLW	Nelson Butte	145.92	328	P	PKPdf	11 31 53.5	+2.0
K12A	Draper Farm, C baz=146,SNR=56	145.94	316	⇑P	PKPdf	11 31 53.2	+1.5
I11A	Placerville baz=146,SNR=40	145.97	319	⇓P	PKPdf	11 31 53.1	+1.4
P14A	Drum Mountains baz=146,SNR=6.7	145.99	310	⇓P	PKPdf	11 31 53.0	+1.1
Y17A	Roosevelt baz=146,SNR=25	146.01	299	⇓P	PKPdf	11 31 53.9	+1.8
WUAZ	Wupatki baz=146,SNR=8.5	146.01	302	⇑P	PKPdf	11 31 53.2	+1.1
WUAZ	Wupatki	146.01	302	*e*PKPdf	PKPdf	11 31 53.4	+1.3
M13A	Montello baz=146,SNR=51	146.03	313	⇓P	PKPdf	11 31 53.7	+1.8
C07A	Waterville baz=146,SNR=34	146.04	327	⇑P	PKPdf	11 31 53.8	+2.1
H10A	Noah’s Angus R baz=146,SNR=58	146.08	320	⇓P	PKPdf	11 31 53.1	+1.2
A05A	Maple Falls baz=146	146.11	330	⇓P	PKPdf	11 31 53.2	+1.4
117A	Oracle baz=146,SNR=63	146.14	297	⇓P	PKPdf	11 31 54.2	+1.8
MFID	Camas Ranch baz=146,SNR=83	146.14	318	⇑P	PKPdf	11 31 54.0	+2.0
S15A	Panguitch baz=146	146.15	306	⇑P	PKPdf	11 31 53.9	+1.7
B06A	Marblemount baz=146,SNR=6.1	146.17	329	⇓P	PKPdf	11 31 53.3	+1.4
TUC	Tucson	146.22	296	*e*PKP2	PKPab	11 31 54.1	-0.2
L12A	House Creek Ra baz=146,SNR=51	146.24	315	⇓P	PKPab	11 31 54.3	+0.3
W16A	Flagstaff baz=146,SNR=14	146.24	302	⇑P	PKPdf	11 31 54.1	+1.6
BMO	Blue Mountains	146.27	321	*e*PKHKP	PKPbc	11 31 53.4	+0.1
N13A	Wendover, West baz=146	146.27	313	⇑P	PKPab	11 31 54.2	-0.1
E08A	Dider Farm, El baz=146,SNR=15	146.28	325	⇑P	PKPab	11 31 54.1	+0.1
G09A	Cove baz=146,SNR=15	146.30	322	⇑P	PKPab	11 31 53.8	-0.4
D07A	Quincy baz=146,SNR=28	146.32	326	⇓P	PKPab	11 31 54.3	+0.1
217A	Green Valley baz=146,SNR=26	146.33	296	⇑P	PKPab	11 31 54.6	-0.1
X16A	Lo Mia Camp, P baz=146,SNR=30	146.33	300	⇑P	PKPab	11 31 54.6	-0.1
Q14A	Sevier Lake (B baz=146	146.36	309	⇑P	PKPab	11 31 54.3	-0.3
T15A	Red Dirt Ranch baz=146,SNR=9.8	146.37	305	⇑P	PKPab	11 31 54.8	+0.1
I10A	Payette baz=146	146.39	319	⇑P	PKPab	11 31 54.7	+0.1
O13A	Hicks Ranch, I baz=146,SNR=6.4	146.42	311	⇓P	PKPab	11 31 54.4	-0.4
GBL	Gable Mountain	146.43	325	PKP2	PKPab	11 31 55.8	+1.2
Y16A	Circle Bar Ran baz=146,SNR=27	146.49	299	⇓P	PKPab	11 31 55.0	-0.3
F08A	Pendleton baz=146	146.56	323	⇓P	PKPab	11 31 54.8	-0.4
Z16A	Peralta Trail, baz=146,SNR=17	146.56	298	⇑P	PKPab	11 31 55.1	-0.5
V15A	Kaibab Nationa baz=146,SNR=16	146.56	303	⇓P	PKPab	11 31 55.4	-0.1
H09A	Durkee baz=146,SNR=36	146.59	321	⇓P	PKPab	11 31 54.5	-0.8
K11A	Parker Ranch, baz=146,SNR=8.6	146.60	317	⇓P	PKPab	11 31 55.0	-0.4
JCW	Jim Creek	146.61	329	P	PKPab	11 31 54.9	-0.4
B05A	Bryant baz=146,SNR=12	146.64	330	⇑P	PKPab	11 31 54.8	-0.5
E07A	Sunnyside baz=147,SNR=17	146.67	325	⇓P	PKPab	11 31 55.0	-0.5
L11A	Cat Creek Ranc baz=147,SNR=15	146.71	316	⇓P	PKPab	11 31 55.2	-0.6
P13A	Bates Ranch, G baz=147,SNR=29	146.72	310	⇓P	PKPab	11 31 55.4	-0.6
J10A	Berg Farm, Mel baz=147,SNR=6.2	146.72	318	⇓P	PKPab	11 31 55.5	-0.4
D06A	Cle Elum baz=147,SNR=8.5	146.76	327	⇑P	PKPbc	11 31 54.8	+0.1
W15A	Williams baz=147,SNR=12	146.80	302	⇑P	PKPab	11 31 55.9	-0.6
216A	Three Points, baz=147	146.83	296	⇓P	PKPab	11 31 55.3	-1.4
C05A	Tolt Reservoir baz=147,SNR=11	146.84	328	⇑P	PKPbc	11 31 54.4	-0.5
N12A	Clover Valley, baz=147	146.84	313	⇓P	PKPab	11 31 55.4	-1.0
T14A	Hurricane baz=147	146.89	306	⇓P	PKPbc	11 31 55.2	-0.2
O12A	Currie baz=147,SNR=10.0	146.90	312	⇑P	PKPbc	11 31 55.3	0.0
Q13A	Wheeler Ranch, baz=147	146.91	309	⇑P	PKPbc	11 31 55.1	-0.3
116A	Eloy baz=147,SNR=18	146.94	297	⇑P	PKPab	11 31 56.0	-1.1
X15A	Humboldt baz=147,SNR=38	146.96	301	⇑P	PKPab	11 31 56.3	-0.8
G08A	Pilot Rock baz=147,SNR=13	146.97	323	⇑P	PKPab	11 31 55.8	-1.0
I09A	Lost Marbles R baz=147,SNR=20	147.02	320	⇑P	PKPab	11 31 56.0	-1.0
ELK	Elko	147.03	313	*e*PKP2	PKPab	11 31 55.9	-1.3
M11A	Holland Ranch, baz=147,SNR=11	147.09	315	⇑P	PKPab	11 31 56.3	-1.0
K10A	MacKenzie Ranc baz=147,SNR=11	147.12	317	⇑P	PKPab	11 31 56.2	-1.3
F07A	Phinny Hill Vi baz=147	147.13	324	⇑P	PKPab	11 31 55.9	-1.5
Y15A	Casa Rosa Ranc baz=147,SNR=48	147.16	300	⇓P	PKPab	11 31 56.6	-1.3
U14A	Mt Trumbull baz=147	147.16	305	⇓P	PKPab	11 31 56.3	-1.5
R13A	O’Grain Ranch, baz=147	147.16	308	⇓P	PKPab	11 31 56.6	-1.2
Z15A	Gila River Ind baz=147,SNR=8.0	147.17	299	⇑P	PKPab	11 31 57.1	-0.8
L10A	Juniper Basin baz=147,SNR=14	147.22	316	⇑P	PKPab	11 31 57.2	-0.7
H08A	Prairie City baz=147	147.26	321	⇓P	PKPab	11 31 56.6	-1.3
E06A	Yakima baz=147,SNR=7.1	147.26	326	⇓P	PKPab	11 31 56.6	-1.2
S13A	Holt Ranch, En baz=147,SNR=8.9	147.30	307	⇑P	PKPab	11 31 57.3	-1.0
N11A	Elko Archery C baz=147	147.33	314	⇓P	PKPab	11 31 57.1	-1.3
V14A	Boquillas Ranc baz=147,SNR=26	147.34	303	⇓P	PKPab	11 31 57.4	-1.2
D05A	Enumclaw baz=147,SNR=7.7	147.34	328	⇑P	PKPab	11 31 57.5	-0.6
P12A	McGill baz=147,SNR=19	147.34	311	⇑P	PKPab	11 31 57.5	-0.9
115A	Sonoran Desert baz=147,SNR=12	147.34	298	⇓P	PKPab	11 31 57.0	-1.6
J09A	Fry Pan Ranch, baz=147,SNR=37	147.37	319	⇓P	PKPab	11 31 57.1	-1.4
G07A	Ruggs Ranch, H baz=147,SNR=6.4	147.38	323	⇓P	PKPab	11 31 57.4	-0.9
W14A	Seligman baz=147,SNR=38	147.44	302	⇑P	PKPab	11 31 57.8	-1.2
C04A	Brinnon baz=147	147.44	330	⇑P	PKPab	11 31 56.9	-1.6
B04A	Port Angeles baz=147	147.45	330	⇓P	PKPab	11 31 57.1	-1.5
Q12A	Willow Creek R baz=147,SNR=8.1	147.46	310	⇓P	PKPab	11 31 57.5	-1.5
GNW	Green Mountain	147.48	329	*e*PKPbc	PKPbc	11 31 57.0	+0.3
X14A	Yava baz=147,SNR=19	147.48	301	⇑P	PKPab	11 31 57.9	-1.3
T13A	Saint George baz=147,SNR=30	147.52	306	⇑P	PKPab	11 31 57.9	-1.3
M10A	I.L. Ranch, Tu baz=147	147.54	315	⇑P	PKPab	11 31 57.9	-1.2
I08A	Drewsey baz=147	147.55	320	⇓P	PKPab	11 31 58.1	-1.0
LON	Longmire	147.55	327	*e*PKP2	PKPdf	11 31 54.9	+0.6
R12A	Pony Springs, baz=148	147.58	309	⇓P	PKPab	11 31 58.8	-0.6
F06A	Goldendale baz=148,SNR=10.0	147.67	325	⇓P	PKPab	11 31 58.7	-0.8
K09A	Rome baz=148	147.70	318	⇓P	PKPab	11 31 59.0	-0.7
Y14A	Wickenburg baz=148,SNR=27	147.71	300	⇓P	PKPbc	11 31 58.0	+0.2
H07A	Lands Inn, Kim baz=148,SNR=43	147.73	322	⇑P	PKPab	11 31 58.5	-1.3
U13A	Pakoon Wash baz=148,SNR=11	147.76	305	⇑P	PKPab	11 31 58.4	-1.8
Z14A	Wintersburg baz=148	147.79	299	⇓P	PKPbc	11 31 58.0	0.0
J08A	Circle Bar Ran baz=148,SNR=9.8	147.80	320	⇓P	PKPab	11 31 58.4	-1.7
G06A	Carlson Farm, baz=148	147.93	324	⇓P	PKPbc	11 31 58.0	0.0
214A	Organ Pipe Nat baz=148	147.97	296	⇑P	PKPbc	11 31 58.5	-0.1
I07A	Izee baz=148,SNR=8.3	148.00	321	⇑P	PKPbc	11 31 58.7	+0.5
L09A	Wilkinson Ranc baz=148	148.02	317	⇑P	PKPbc	11 31 58.4	0.0
S12A	Delamar Landin baz=148,SNR=12	148.02	308	⇓P	PKPab	11 31 59.5	-1.7
H06A	Lindquist Farm baz=148,SNR=11	148.08	323	⇓P	PKPab	11 31 59.3	-1.8
NLWA	Neilton Lookou baz=148	148.10	330	⇑P	PKPbc	11 31 58.3	-0.1
W13A	Hualapai Mount baz=148,SNR=15	148.10	303	⇓P	PKPab	11 31 59.4	-2.2
E04A	Onalaska baz=148	148.11	328	⇑P	PKPbc	11 31 58.5	+0.1
Q11A	Duckwater baz=148,SNR=13	148.13	310	⇓P	PKPab	11 31 59.4	-2.2
K08A	Mann Creek Ran baz=148,SNR=7.6	148.16	319	⇑P	PKPab	11 31 59.6	-2.0
M09A	Marrel Ranch, baz=148	148.18	316	⇑P	PKPbc	11 31 58.9	+0.2
U12A	Valley of Fire baz=148	148.20	305	⇑P	PKPbc	11 31 59.1	+0.2
X13A	Yucca baz=148,SNR=17	148.20	302	⇓P	PKPab	11 31 59.9	-2.1
R11A	Troy Canyon, C baz=148	148.28	309	⇑P	PKPbc	11 31 58.9	-0.2
J07A	Hines baz=148,SNR=6.1	148.30	320	⇓P	PKPab	11 31 59.9	-2.2
L08A	Fields baz=148,SNR=17	148.36	318	⇓P	PKPab	11 31 59.9	-2.5
P10A	Eureka baz=148	148.37	312	⇑P	PKPbc	11 31 58.8	-0.6
WVOR	Wild Horse Val	148.41	318	*e*PKP2	PKPbc	11 32 00.0	+0.6
HOOD	Mount Hood Mea	148.42	325	*e*PKPdf	PKPdf	11 31 57.1	+1.4
HOOD				*e*PKPab	PKPab	11 32 01.2	-1.3
T11A	Corn Creek, Al baz=148,SNR=19	148.43	307	⇓P	PKPbc	11 32 00.7	+1.1
I06A	Prineville baz=148,SNR=8.4	148.49	322	⇓P	PKPbc	11 32 00.2	+0.7
N09A	Rock Creek Ran baz=148	148.51	315	⇑P	PKPbc	11 31 59.8	+0.1
PDMCI	Parker Dam,Lak baz=148	148.53	301	⇑P	PKPbc	11 31 59.9	-0.1
E03A	Lebam baz=148	148.56	329	⇑P	PKPbc	11 31 59.7	+0.1
O09A	Fish Creek Ran baz=148	148.62	313	⇑P	PKPbc	11 31 58.8	-1.1
K07A	Rock Creek Ran baz=148,SNR=6.8	148.65	319	⇑P	PKPbc	11 31 58.5	-1.4
V12A	Nelson baz=149	148.66	304	⇑P	PKPbc	11 31 59.8	-0.4
M08A	Happy Creek Ra baz=149	148.77	316	⇑P	PKPbc	11 31 60.0	-0.4
R10A	Warm Springs baz=149	148.82	310	⇑P	PKPbc	11 32 00.1	-0.4
J06A	Christmas Vall baz=149,SNR=12	148.87	321	⇑P	PKPbc	11 32 01.0	+0.5
N08A	GE Springer Mi baz=149	148.95	315	⇑P	PKPbc	11 32 00.4	-0.4
Y12C	Blythe baz=149,SNR=6.0	148.98	300	⇑P	PKPbc	11 32 01.7	+0.6
V11A	Goodsprings baz=149	149.07	305	⇑P	PKPbc	11 32 00.7	-0.5
L07A	Adell baz=149	149.08	318	⇑P	PKPbc	11 32 01.0	0.0
S10A	Tonopah Range, baz=149	149.18	309	⇑P	PKPbc	11 32 00.9	-0.6
M07A	Soldier Meadow baz=149	149.31	317	⇓P	PKPbc	11 32 00.6	-1.1
112A	Yuma baz=149	149.32	298	⇓P	PKPbc	11 32 01.0	-1.0
IRM	Iron Mountain baz=149,SNR=11	149.37	301	⇑P	PKPbc	11 32 02.5	+0.5
R09A	Tonopah baz=149	149.39	310	⇑P	PKPbc	11 32 00.9	-1.1
N07B	Gerlach baz=149	149.50	316	⇓P	PKPbc	11 32 01.7	-0.4
TPH	Tonopah	149.57	310	*e*PKP2	PKPbc	11 32 01.3	-1.1
GMRC	Granite Mounta baz=150,SNR=8.5	149.59	303	⇑P	PKPbc	11 32 02.8	+0.2
K05A	Summer Lake baz=150	149.62	320	⇑P	PKPbc	11 32 01.7	-0.7
S09A	Goldfield baz=150,SNR=13	149.71	309	⇑P	PKPbc	11 32 03.3	+0.5
Q08A	Gabbs baz=150,SNR=5.6	149.73	312	⇓P	PKPbc	11 32 02.7	-0.1
MOD	Modoc	149.74	319	*e*PKPdf	PKPbc	11 31 59.4	-3.3
O07A	Toulon baz=150	149.75	315	⇓P	PKPbc	11 32 01.8	-1.0
FURC	Furnace Creek, baz=150,SNR=11	149.94	307	⇑P	PKPbc	11 32 04.7	+1.3
P07A	Fallon baz=150	150.07	314	⇑P	PKPbc	11 32 03.3	-0.3
N06A	Buffalo Meadow baz=150	150.07	316	⇓P	PKPbc	11 32 03.0	-0.6
BELC	Belle Mtn. baz=150	150.09	301	⇑P	PKPbc	11 32 04.5	+0.7
HEC	Hector,Ludlow baz=150,SNR=8.5	150.10	303	⇑P	PKPbc	11 32 04.9	+1.1
GRAC	Grapevine Rang baz=150,SNR=9.7	150.11	308	⇑P	PKPbc	11 32 04.9	+1.2
NVAR	Mina Array Bea comp=Z,13nm,1.0s,baz=170,slow=2.1,SNR=10	150.18	311	PKPbc	PKPbc	11 32 02.0	-1.9
SWSC	Sam W. Stewart baz=150	150.22	299	⇑P	PKPbc	11 32 04.9	+0.7
GSC	Goldstone baz=150	150.31	304	⇑P	PKPbc	11 32 04.9	+0.6
O06A	Flanigan baz=150	150.38	315	⇑P	PKPbc	11 32 05.2	+0.8
MPMC	Manual Prospec baz=150,SNR=13	150.56	306	⇓P	PKPbc	11 32 05.6	+0.8
PFO	Pinyon Flat Ob baz=150	150.56	301	⇓P	PKPbc	11 32 05.8	+0.8
PFO	Pinyon Flat Ob	150.56	301	*e*PKPbc	PKPbc	11 32 04.4	-0.6
P06A	Stead Airport, baz=151	150.67	315	⇓P	PKPbc	11 32 06.0	+1.0
MONP	Monument Peak baz=151	150.74	300	⇓P	PKPbc	11 32 06.2	+0.8
WCN	Washoe City baz=151	150.77	314	⇑P	PKPbc	11 32 06.6	+1.3
HUMO	Hull Mountain	150.89	322	*e*PKPdf	PKPdf	11 32 01.4	+1.6
R06C	Coleville baz=151	150.94	312	⇓P	PKPbc	11 32 07.0	+1.3
MURC	Murrieta baz=151	151.16	301	⇓P	PKPbc	11 32 06.9	+0.6
109C	Camp Elliot, M baz=151	151.29	300	⇑P	PKPbc	11 32 07.2	+0.5
BFSC	Mount Baldy St baz=151	151.32	303	⇑P	PKPbc	11 32 07.1	+0.4
EDW2	Edwards Air Fo baz=151	151.37	304	⇓P	PKPbc	11 32 07.4	+0.6
ISA	Isabella baz=151	151.45	306	⇓P	PKPbc	11 32 07.6	+0.6
RCTC	Rector, Farmer baz=152	151.76	308	⇑P	PKPbc	11 32 08.3	+0.7
VES	Vestal, Richgr baz=152	151.84	307	⇑P	PKPbc	11 32 08.7	+0.8

IGQ 03 11:22:40.4, 2°.43S×79°.12W, h88^{km}±7^{km}, Mb4.2, Ms4.0, 6C-12D, Error ellipse: s-maj=7.0km s-min=3.5km az=6.1, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGUA	Igualata	1.05	27	⇓S	Sn	11 23 16.2	+0.7
IGUA	Igualata	1.05	27	⇓P	Pn	11 23 01.9	+1.4
ARRY	Arrayan	1.13	36	⇑S	Sn	11 23 17.2	0.0
ARRY	Arrayan	1.13	36	⇑P	Pn	11 23 02.1	+0.7
BIL2	Estacion Bilba	1.14	33	P	Pn	11 23 03.0	+1.3
PATA	Patacocha	1.14	37	⇑P	Pn	11 23 02.6	+1.0
PATA	Patacocha	1.14	37	⇑S	Sn	11 23 19.5	+1.9
RETU	Refugio	1.18	35	P	Pn	11 23 03.3	+1.2
JUI6	Juive	1.19	33	S	Sn	11 23 19.9	+1.4
JUI6	Juive	1.19	33	P	Pn	11 23 02.9	+0.7
ULBA	Ulba	1.20	36	S	Sn	11 23 19.6	+0.8
ULBA	Ulba	1.20	36	P	Pn	11 23 03.4	+1.0
RUN5	Runtun	1.22	35	P	Pn	11 23 03.5	+0.9
PISA	Pisayambo	1.54	28	⇓S	Sn	11 23 27.3	+0.9
PISA	Pisayambo	1.54	28	⇓P	Pn	11 23 07.8	+1.3
MOV1	Cotopaxi Vol s	1.83	22	P	Pn	11 23 11.8	+1.4
CAMI	Rancho Maria	1.84	20	⇓P	Pn	11 23 12.0	+1.6
TAMB	Tambo	1.88	24	P	Pn	11 23 12.1	+1.2
NAS2	Nasa	1.88	20	⇓P	Pn	11 23 12.9	+1.9
VC1	Cotopaxi 1	1.91	22	⇓P	Pn	11 23 13.2	+1.9
COV1	Cotopaxi Volc	1.92	24	P	Pn	11 23 12.6	+1.2
PITA	Cotopaxi Volc	1.98	20	⇓P	Pn	11 23 13.8	+1.6
CHIS	Cerro-Chispas-	2.11	310	⇓P	Pn	11 23 14.3	+0.4
ANTI	Antisana	2.18	26	⇑P	Pn	11 23 16.1	+1.1
ANTI	Antisana	2.18	26	⇑S	Sn	11 23 47.9	+6.5
JUA2	San Juan 2	2.26	13	⇓P	Pn	11 23 17.4	+1.5
TERV	Terraza Guagua	2.29	13	P	Pn	11 23 18.3	+1.9
GGP	Refugio Guagua	2.30	13	P	Pn	11 23 17.7	+1.3
PINO	Pino	2.31	13	⇓P	Pn	11 23 18.4	+1.8
YANA	Yana	2.36	14	⇓P	Pn	11 23 18.7	+1.5
CAYA	Cayambe	2.73	25	P	Pn	11 23 24.0	+1.8
OTAV	Otavalo	2.73	14	P	Pn	11 23 23.0	+0.8
COTA	Cotacachi	2.85	16	P	Pn	11 23 25.8	+1.9

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*ISCJB **03** 11:34:04.9±0.5, 36°.96N±0°.03×29°.23E±0°.03, h6^{km}±5^{km}, Error ellipse: s-maj=5.3km s-min=3.7km az=168.2*

*ISK **03** 11:34:04.4, 36°.96N×29°.22E, h8^{km}, MD3.0*

*CSEM **03** 11:34:05.1±0.1, 36°.96N×29°.22E, h10^{km}, MD3.0, Error ellipse: s-maj=2.1km s-min=1.6km az=5.0*

*DDA **03** 11:34:05.2, 36°.96N×29°.19E, h7^{km}±1^{km}, Md3.2*

ISC 03 11:34:05.4±0.5, **36°.95N**±0°.03×**29°.23E**±0°.03, **h9**^{km}±4^{km}, **n42, σ0^{s}.68**/60, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.34	200	*e*PG	Pg	11 34 11.6	-0.5
FETY				*e*SG	Sg	11 34 16.8	+0.2
FETY	Fethiye	0.34	200	*e*Pg	Pg	11 34 11.6	-0.4
FETY				*e*Sg	Sg	11 34 16.8	+0.3
GOLH	Golhisar	0.39	43	*i* P	Pg	11 34 12.4	-0.7
GOLH				*i* S	Sg	11 34 19.5	+1.4
GOLH	Golhisar	0.39	43	*i* P	Pg	11 34 12.4	-0.6
GOLH				*i* S	Sg	11 34 19.5	+1.3
DALT	Dalyan (Mudla)	0.51	249	*e*PG	Pg	11 34 14.6	-0.7
DALT				*e*SG	Sg	11 34 22.1	+0.1
DALT	Dalyan (Mudla)	0.51	249	*e*Pg	Pg	11 34 14.6	-0.7
DALT				*e*Sg	Sg	11 34 22.1	+0.1
ELL	Elmali	0.58	110	*e*PG	Pg	11 34 16.4	-0.3
ELL				*e*SG	Sg	11 34 25.1	+0.8
ELL	Elmali	0.58	110	*e*Pg	Pg	11 34 16.4	-0.2
ELL				*e*Sg	Sg	11 34 25.1	+0.9
AKAS	Kas	0.78	157	*i* P	Pg	11 34 20.7	+0.3
AKAS				*i* S	Sg	11 34 35.0	+4.5
AKAS	Kas	0.78	157	*i* P	Pg	11 34 20.7	+0.3
AKAS				*i* S	Sg	11 34 35.0	+4.5
YER	Yerkesik	0.78	284	*e*PG	Pg	11 34 20.0	-0.4
YER				*e*SG	Sg	11 34 30.8	+0.2
YER	Yerkesik	0.78	284	*e*Pg	Pg	11 34 20.0	-0.4
YER				*e*Sg	Sg	11 34 30.8	+0.2
DENT	Denizli	0.82	349	*e*PG	Pg	11 34 20.4	-0.7
DENT	Denizli	0.82	349	*e*Pg	Pg	11 34 20.4	-0.7
ANTB	Antalya	1.14	92	*e*PN	Pn	11 34 26.9	-0.6
ANTB	Antalya	1.14	92	*e*Pn	Pn	11 34 26.9	-0.6
BCK	Bucak	1.20	65	*e*PN	Pn	11 34 27.7	-0.6
BCK	Bucak	1.20	65	*e*Pn	Pn	11 34 27.7	-0.6
MLSB	Milas	1.21	287	*e*PN	Pn	11 34 27.9	-0.6
MLSB	Milas	1.21	287	*e*Pn	Pn	11 34 27.9	-0.6

AYDN	Tasoluk	1.29	304	*i* P	Pn	11 34 29.3	-0.2
AYDN				*i* S	Sb	11 34 49.1	+2.6
AYDN	Tasoluk	1.29	304	*i* P	Pn	11 34 29.3	-0.2
AYDN				*i* S	Sb	11 34 49.1	+2.7
DAT	Datca	1.34	261	*e*PN	Pn	11 34 30.0	-0.2
DAT	Datca	1.34	261	*e*Pn	Pn	11 34 30.0	-0.3
ISP	Isparta	1.35	48	*e*PN	Pn	11 34 30.5	+0.1
ISP	Isparta	1.35	48	*e*Pn	Pn	11 34 30.5	+0.1
KHL	Karahalli	1.39	10	*e*PN	Pn	11 34 29.9	-1.0
KHL	Karahalli	1.39	10	*e*Pn	Pn	11 34 29.9	-1.0
KHAL	Karahalli	1.43	8	*i* P	Pn	11 34 32.1	+0.7
KHAL				*i* S	Sn	11 34 50.1	-0.3
KHAL	Karahalli	1.43	8	*i* P	Pn	11 34 32.2	+0.7
KHAL				*i* S	Sn	11 34 50.1	-0.3
BDRM	Kayabasi	1.43	275	*i* P	Pn	11 34 31.6	+0.1
BDRM				*i* S	Sn	11 34 51.6	+1.2
BDRM	Kayabasi	1.43	275	*i* P	Pn	11 34 31.6	+0.1
BDRM				*i* S	Sn	11 34 51.6	+1.1
BODT	Bodrum	1.54	275	*e*PN	Pn	11 34 32.8	-0.2
BODT	Bodrum	1.54	275	*e*Pn	Pn	11 34 32.8	-0.2
KULA	Kula-Manisa	1.62	344	*e*PN	Pn	11 34 33.8	-0.3
KULA	Kula-Manisa	1.62	344	*e*Pn	Pn	11 34 33.8	-0.3
IZM	Izmir	2.13	313	*e*PN	Pn	11 34 40.9	-0.1
IZM	Izmir	2.13	313	*e*Pn	Pn	11 34 40.9	-0.1
HDMB	Hadim	2.61	89	*e*PN	Pn	11 34 48.2	+0.5
HDMB	Hadim	2.61	89	*e*Pn	Pn	11 34 48.2	+0.5
KONT	Konya--Tatoy	2.68	67	*e*PN	Pn	11 34 48.8	+0.1
KONT	Konya--Tatoy	2.68	67	*e*Pn	Pn	11 34 48.8	+0.1

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*BJI **03** 11:37:45.9, 2°.50S×29°.00E, h10^{km}, mB5.1/9, mb4.8/12, Ms5.1/5, Ms7 4.6/4*

*ISCJB **03** 11:37:46.8±0.3, 2°.49S±0°.05×29°.00E±0°.05, h10^{km}, mb4.6/49, MS4.0/5, Error ellipse: s-maj=7.4km s-min=6.5km az=21.0*

*MOS **03** 11:37:46.7±0.9, 2°.51S×28°.98E, h10^{km}, mb5.0/23, Error ellipse: s-maj=13.4km s-min=5.4km az=96.3*

*IDC **03** 11:37:47.4±0.7, 2°.47S×29°.02E, h0^{km}, mb4.2/15, mb1 4.3/17, mb1mx4.2/24, mbtmp4.2/17, ML4.0/2, MS3.8/4, Ms1 3.8/4, ms1mx3.3/36, Error ellipse: s-maj=16.1km s-min=15.2km az=60.0*

*NEIC **03** 11:37:49.0±0.3, 2°.50S×28°.98E, h10^{km}, mb4.8/18, Error ellipse: s-maj=8.1km s-min=5.9km az=80.0*

NEIC Felt [III] at Kigali.

ISC 03 11:37:48.9±0.3**, 2°.51S**±0°.05×**28°.98E**±0°.05**, h10^{km}, (h14^{km}±.7^{km}:pP-P), n137, σ0^{s}.98**/139**, mb4.6**/49**, MS4.0**/5**, 14C-12D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBAR	Mbarara	2.59	43	P	Pn	11 38 25.2	-5.6
KMBO	Kilima Mbogo	8.39	81	P	Pn	11 39 50.9	+0.3
KMBO						11 41 25.6	
KMBO	Kilima Mbogo	8.39	81	Pn	Pn	11 39 50.9	+0.3
	3.5nm,0.3s,baz=238,slow=16,SNR=21						
KMBO				Sn	Sn	11 41 25.6	+0.2
	4.6nm,0.3s,baz=336,slow=22,SNR=6.0						
KMBO				Lg		11 42 08.5	
	19nm,0.3s,baz=216,slow=23,SNR=8.4						
KMBO				LR	LR	11 43 20.1	
	comp=Z,498nm,18.2s,baz=93,slow=40						
KMBO	Kilima Mbogo	8.39	81	Pn	Pn	11 39 50.9	+0.3
KMBO				Sn	Sn	11 41 25.6	+0.2
KMBO				Lg		11 42 08.5	
KMBO				LR	LR	11 43 20.1	
LSZ	Lusaka	12.71	183	Pn	Pn	11 40 49.6	-0.2
	0.5nm,0.3s,baz=28,slow=9.9,SNR=4.2						
LSZ				Sn	Sn	11 43 03.5	-8.0
	1.3nm,0.3s,baz=93,slow=19,SNR=3.6						
LSZ				Lg		11 44 23.5	
	2.4nm,0.3s,baz=139,slow=20,SNR=11						
LSZ	Lusaka	12.71	183	*e*Pn	Pn	11 40 50.4	+0.6
TSUM	Tsumeb	19.99	213	P	Pn	11 42 22.6	-0.7
	5.6nm,1.1s,baz=3.0,slow=12,SNR=3.7						
TSUM				S	Sn	11 45 54.4	-14
	10.0nm,0.9s,baz=300,slow=14,SNR=3.1						
TSUM				Lg		11 48 11.7	
	14nm,0.7s,baz=30,slow=14,SNR=4.4						
TSUM	Tsumeb	19.99	213	*e*P	Pn	11 42 22.2	-1.1
	11nm,0.9s						
OPO	Ambohidratompo	23.94	133	P	P	11 43 04.3	+0.9
	2.3nm,0.7s,mb3.7,baz=280,slow=12,SNR=2.4						
OPO				LR	LR	11 52 49.2	
	comp=Z,195nm,19.2s,MS3.6,baz=334,slow=38						
BOSA	Boshof	26.20	187	*e*P	P	11 43 24.1	+0.2
BOSA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.3						
BOSA	Boshof	26.20	187	P	P	11 43 24.6	+0.8
	comp=Z,5.9nm,0.7s,mb4.3,baz=5.7,slow=8.8,SNR=13						
BOSA				LR	LR	11 54 25.0	
	comp=Z,158nm,19.4s,MS3.6,baz=98,slow=38						
BOSA	Boshof	26.20	187	*e*P	P	11 43 24.1	+0.2
	comp=Z,7.3nm,0.7s,mb4.3						
TORD	Torodi Ar. Bea	31.23	301	P	P	11 44 08.2	-0.7
	comp=Z,3.5nm,0.7s,mb4.3,baz=110,slow=7.6,SNR=25						
TORD				Lg		11 54 17.7	
	comp=Z,2.7nm,0.9s,baz=125,slow=31,SNR=3.9						
TORD				LR	LR	11 55 56.1	
	comp=Z,234nm,18.7s,MS3.9,baz=80,slow=35						
TORD	Torodi Ar. Bea	31.23	301	P	P	11 44 08.2	-0.7
TORD				Lg		11 54 17.7	
TORD				LR	LR	11 55 56.1	
KIC	Kosan Boka	34.80	285	*e*P	P	11 44 39.0	-1.1
	comp=Z,90nm,1.4s,mb5.5						
DBIC	Dimbokro	34.98	285	P	P	11 44 40.9	-0.8
	comp=Z,2.7nm,0.5s,mb4.4,baz=87,slow=8.3,SNR=7.7						
LIC	Lamto	35.04	284	*e*P	P	11 44 41.0	-1.2
	comp=Z,5.5nm,0.4s,mb4.5						
LIC	Lamto	35.04	284	*e*P	P	11 44 40.8	-1.4
	comp=Z,26nm,0.7s,mb5.3						
TIC	Toumodi	35.13	285	*e*P	P	11 44 42.0	-1.0
	comp=Z,26nm,0.4s,mb5.5						
ISP	Isparta	40.17	2	*e*P	P	11 45 25.3	0.0
ISP				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.3						
MALT	Malatya	41.55	11	*e*P	P	11 45 36.7	+0.1
MALT				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.2						
MALT	Malatya	41.55	11	⇓*i*P	P	11 45 36.9	+0.3
MALT	Malatya	41.55	11	*e*P	P	11 45 36.6	0.0
	comp=Z,9.6nm,1.4s,mb4.2						
KEST	Kesra	42.24	336	P	P	11 45 43.0	+0.7
	comp=Z,1.9nm,0.9s,mb3.7,baz=312,slow=7.9,SNR=7.4						
BRTR	Keskin Array B	42.25	5	P	P	11 45 43.3	+1.0
	comp=Z,2.8nm,0.8s,mb3.9						
BR131	Keskin Array S	42.25	5	*e*P	P	11 45 43.2	+0.9
	comp=Z,3.8nm,0.9s,mb4.0						
GNI	Garni	44.84	17	*e*P	P	11 46 03.2	-0.1
GNI				pmax	pmax		
	comp=Z,6.0nm,1.3s						
VOIR		47.87	356	⇓*i*P	P	11 46 26.6	-0.3
VOIR		47.87	356	⇓P	P	11 46 26.6	-0.3
MLR	Muntele Rosu	47.87	357	⇑*i*P	P	11 46 27.2	+0.3
MLR	Muntele Rosu	47.87	357	⇑P	P	11 46 27.2	+0.3
GZR	Gura Zlata	48.01	354	⇑*i*P	P	11 46 28.2	+0.1
GZR	Gura Zlata	48.01	354	⇑P	P	11 46 28.2	+0.1
VRI	Vrincioaia	48.21	358	⇓*i*P	P	11 46 30.1	+0.5
VRI	Vrincioaia	48.21	358	⇓P	P	11 46 30.1	+0.6
PGF	Pioggiola	48.35	340	*e*P	P	11 46 30.1	-0.7
BZS	Buzias	48.36	353	⇓*i*P	P	11 46 30.1	-0.7
BZS	Buzias	48.36	353	⇓P	P	11 46 30.1	-0.6
PKSM	Moragy	49.37	351	⇑*i*P	P	11 46 37.7	-0.8
PKSM	Moragy	49.37	351	⇑P	P	11 46 37.7	-0.8
DRGR		49.40	354	⇓*i*P	P	11 46 39.2	+0.5
DRGR		49.40	354	⇓P	P	11 46 39.1	+0.4
LMR	La Mourre	49.92	339	*e*P	P	11 46 43.0	+0.3
BURAR	Bucovina Array	50.02	357	⇓*i*P	P	11 46 44.3	+0.8
BURAR	Bucovina Array	50.02	357	⇓P	P	11 46 44.3	+0.9
BUR08	Bucovina Ar. S	50.05	357	*e*P	P	11 46 43.5	-0.2
FRF	La Foret Royal	50.06	339	*e*P	P	11 46 43.9	+0.1
	comp=Z,106nm,1.6s,mb5.3						
FRF	La Foret Royal	50.06	339	*e*P	P	11 46 43.9	+0.1
FRF				pmax	pmax		
	comp=Z,53nm,1.6s,mb5.3						
FRF	La Foret Royal	50.06	339	*e*P	P	11 46 43.9	+0.1
	comp=Z,53nm,1.6s,mb5.3						
TRPA	Tarpa	50.74	354	⇑*i*P	P	11 46 54.0	+5.1
SMRF	Simiane la Rot	50.81	338	*e*P	P	11 46 50.3	+0.8
MBDF	Montbardon	51.03	340	⇑*i*P	P	11 46 52.0	+0.8
	comp=Z,22nm,0.8s,mb4.8						
MBDF	Montbardon	51.03	340	⇑*i*P	P	11 46 52.0	+0.8
MBDF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
MBDF	Montbardon	51.03	340	⇑*i*P	P	11 46 52.0	+0.8
	comp=Z,11nm,0.8s,mb4.8						
LASF	Ste Croix	51.55	337	*e*P	P	11 46 55.6	+0.6
	comp=Z,46nm,1.3s,mb5.0						
VYHS	Vyhne	51.56	351	*e*P	P	11 46 55.1	+0.1
KOLS	Kolonicke sedl	51.56	354	*e*P	P	11 46 55.7	+0.6
CRVS	Cervenica-Dubn	51.62	354	*e*P	P	11 46 55.8	+0.3
CRVS				pmax	pmax		
	comp=Z,309nm,4.2s						
CRVS	Cervenica-Dubn	51.62	354	*e*P	P	11 46 55.8	+0.3
	comp=Z,309nm,4.2s						
MODS	Modra-Piesok	51.69	350	*e*P	P	11 46 58.5	+2.5
ESDC	Sonseca Array	51.72	328	P	P	11 46 56.2	-0.2
	comp=Z,1.9nm,0.8s,mb4.0,baz=136,slow=5.4,SNR=5.4						
MOA	Molln	51.78	347	⇓*i*P	P	11 46 57.1	+0.4
	comp=Z,11nm,0.8s,mb4.8						
STHS	Stebnicka Huta	52.15	354	*e*P	P	11 46 59.5	+0.1
STHS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
STHS	Stebnicka Huta	52.15	354	*e*P	P	11 46 59.5	+0.1
	comp=Z,2.6nm,0.8s,mb4.2						
EPF	Esparros	52.16	334	*e*P	P	11 47 00.5	+0.8
	comp=Z,24nm,1.1s,mb4.7						
EPF	Esparros	52.16	334	*e*P	P	11 47 00.5	+0.8
EPF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
EPF	Esparros	52.16	334	*e*P	P	11 47 00.5	+0.8
	comp=Z,12nm,1.1s,mb4.7						
KWP	Kalwaria Pacla	52.22	355	*e*P	P	11 47 00.3	+0.4
KWP				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
KWP	Kalwaria Pacla	52.22	355	*e*P	P	11 47 00.3	+0.4
	comp=Z,18nm,0.9s,mb5.0						
ETSF	Etsaut	52.47	333	*e*P	P	11 47 02.7	+0.8
	comp=Z,18nm,1.0s,mb4.7						
ETSF	Etsaut	52.47	333	*e*P	P	11 47 02.7	+0.8
ETSF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
ETSF	Etsaut	52.47	333	*e*P	P	11 47 02.7	+0.8
	comp=Z,8.9nm,1.0s,mb4.7						
VRAC	Vranov	52.71	350	⇑*i*P	P	11 47 02.6	-1.0
VRAC	Vranov	52.71	350	⇑P	P	11 47 02.6	-1.0
GERES	GERESS Array B	52.84	347	P	P	11 47 04.7	+0.1
	comp=Z,3.6nm,0.8s,mb4.4,baz=157,slow=7.2,SNR=18						
CABF	La Chapelle	52.91	340	*e*P	P	11 47 04.7	-0.4
SJPF	Ste Jean	52.94	333	*e*P	P	11 47 05.8	+0.4
	comp=Z,22nm,1.0s,mb4.8						
SJPF	Ste Jean	52.94	333	*e*P	P	11 47 05.8	+0.4
SJPF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
SJPF	Ste Jean	52.94	333	*e*P	P	11 47 05.8	+0.4
	comp=Z,11nm,1.0s,mb4.8						
AKASG	Malin Array Be	53.01	0	P	P	11 47 04.7	-1.0
	comp=Z,1.1nm,0.6s,mb4.0,baz=180,slow=6.0,SNR=6.9						
MORC	Moravsky Berou	53.01	351	⇑*i*P	P	11 47 05.7	-0.1
MORC	Moravsky Berou	53.01	351	⇑P	P	11 47 05.7	-0.1
KHC	Kasperske Hory	53.14	347	*e*P	P	11 47 06.5	-0.2
KHC				*e*pP	pP	11 47 10.5	+0.6
LFF	La Frestale	53.52	335	*e*P	P	11 47 10.0	+0.3
	comp=Z,64nm,1.1s,mb5.2						
LFF	La Frestale	53.52	335	*e*P	P	11 47 10.0	+0.3
LFF				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
LFF	La Frestale	53.52	335	*e*P	P	11 47 10.0	+0.3
	comp=Z,32nm,1.1s,mb5.2						
HINF	Hinteralfeld	53.73	342	*e*P	P	11 47 11.7	+0.6
SMF	Signal de Mont	53.73	339	*e*P	P	11 47 11.4	+0.3
BGF	Bois d'Agland	54.02	338	*e*P	P	11 47 13.9	+0.6
AVF	Avril sur Loir	54.03	338	*e*P	P	11 47 13.6	+0.3
TCF	Toulx Ste Croi	54.04	337	*e*P	P	11 47 14.5	+1.1
CDF	Champ du Feu	54.12	342	*e*P	P	11 47 14.7	+0.7
	comp=Z,17nm,1.0s,mb4.6						
CDF	Champ du Feu	54.12	342	*e*P	P	11 47 14.7	+0.7
CDF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CDF	Champ du Feu	54.12	342	*e*P	P	11 47 14.7	+0.7
	comp=Z,8.4nm,1.0s,mb4.6						
SSF	Saint Saulge	54.20	339	*e*P	P	11 47 14.5	-0.1
	comp=Z,31nm,1.3s,mb4.8						
SSF	Saint Saulge	54.20	339	*e*P	P	11 47 14.5	-0.1
SSF				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
SSF	Saint Saulge	54.20	339	*e*P	P	11 47 14.5	-0.1
	comp=Z,15nm,1.3s,mb4.8						
GRA1	Grafenberg Arr	54.21	346	*e*P	P	11 47 14.5	-0.1
	comp=Z,13nm,1.0s,mb4.8						
GRA1				*e*pP	pP	11 47 18.3	+0.5
GRF	Grafenberg Arr	54.21	346	*e*P	P	11 47 14.5	-0.1
GRF				*e**PP	pP	11 47 18.3	+0.5
GRF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
GRF	Grafenberg Arr	54.21	346	*e*P	P	11 47 14.5	-0.1
GRF				*e**PP	pP	11 47 18.3	+0.5
GRF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
GRF	Grafenberg Arr	54.21	346	*e*P	P	11 47 14.5	-0.1
	comp=Z,13nm,1.0s,mb4.8						
GRF				*e*pP	pP	11 47 18.3	+0.5
VSR	Storozhevoye	54.22	8	*e*P	P	11 47 14.7	0.0
VSR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
LOR	Lormes	54.25	339	*e*P	P	11 47 14.9	-0.1
MEZF	Maizieres J'vi	54.91	341	*e*P	P	11 47 20.4	+0.7
NACGM	Naroch	57.24	358	*e*	P	11 47 33.0	-3.2
OBN	Obninsk	57.77	5	*e*P	P	11 47 38.2	-1.8
OBN				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
ARU	Arti	63.48	18	*e*P	P	11 48 18.6	-0.3
ARU				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
ARU	Arti	63.48	18	*e*P	P	11 48 18.6	-0.3
	comp=Z,14nm,0.9s,mb5.1						
KLMR	Klimovskoe	63.71	6	*e*P	P	11 48 20.2	-0.2
KLMR				pmax	pmax		
	comp=Z,34nm,1.5s,mb5.2						
SVE	Sverdlovsk	64.46	19	*e*P	P	11 48 25.1	-0.3
SVE				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.8						
KAF	Kangasniemi	64.48	359	*e*P	P	11 48 28.0	+2.6
KAF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
KAF	Kangasniemi	64.48	359	*e*p	P	11 48 28.0	+2.6
	comp=Z,8.6nm,0.7s,mb4.9						
NB2	NORSAR Subarra	64.84	351	P	P	11 48 27.4	-0.4
	comp=Z,6.8nm,0.8s,mb4.7,baz=162,slow=6.5						
NOA	NORSAR Array B	64.84	351	P	P	11 48 27.1	-0.7
	comp=Z,4.9nm,0.9s,mb4.5,baz=163,slow=6.2,SNR=4.9						
PRGR	Permogore	65.24	9	*e*P	P	11 48 27.9	-2.4
PRGR				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.0						
JOF	Joensuu	65.28	1	*e*p	P	11 48 28.5	-2.1
	comp=Z,2.7nm,0.7s,mb4.4						
MK31	Makanchi Array	67.76	37	*e*P	P	11 48 46.8	0.0
MKAR	Makanchi Array	67.76	37	P	P	11 48 46.3	-0.5
	comp=Z,2.4nm,0.6s,mb4.4,baz=242,slow=5.7,SNR=16						
CMAR	Chiang Mai Arr	71.87	70	P	P	11 49 11.9	-0.7
	comp=Z,0.6nm,0.7s,mb3.6,baz=263,slow=5.2,SNR=3.9						
ARCES	ARCESS Array B	71.94	359	P	P	11 49 13.8	+1.7
	comp=Z,2.2nm,0.6s,mb4.3,baz=156,slow=6.1,SNR=15						
ARCES	ARCESS Array B	71.94	359	P	P	11 49 13.8	+1.7
VNA2	Neumayer--Watz	72.21	192	*e*P	P	11 49 16.2	+2.5
	baz=13,slow=7.3						
VNA2				*e*	pP	11 49 21.1	+4.1
ZALV	Zalesovo Beam	72.75	31	P	P	11 49 16.5	-0.8
	comp=Z,0.9nm,0.8s,mb3.8,baz=269,slow=5.9,SNR=5.1						
VNA3	Neumayer Olymp	72.93	192	*e*P	P	11 49 20.1	+2.1
KMI	Kunming	76.42	64	P	P	11 49 40.0	+0.8
KMI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
GTA	Gaotai	76.91	49	*e*P	P	11 49 42.9	+1.3
GTA				pP	pP	11 49 47.7	+2.8
GTA				sP	sP	11 49 50.0	+3.9
GTA				S	S	11 59 32.5	+2.7
GTA				sS	sS	11 59 40.6	+5.3
GTA				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
GTA				pmax	pmax		
	comp=Z,23nm,3.9s						
GTA				LR	LR		
	comp=N,110nm,16.2s,MS4.4						
GTA				LR	LR		
	comp=E,93nm,16.8s,MS4.4						
GTA				LR	LR		
	comp=Z,140nm,15.0s,MS4.4						
KRAR	Krasnoyarsk	77.83	31	*e*P	P	11 49 47.6	+1.2
KRAR				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
CD2	Chengdu	78.28	58	P	P	11 49 46.9	-2.6
CD2				pP	pP	11 49 51.6	-1.2
CD2				sP	sP	11 49 53.8	-0.2
CD2				PP	PP	11 52 44.4	-2.1
CD2				S	S	11 59 38.2	-6.8
CD2				SKS		11 59 55.0	
CD2				SS	SS	12 04 41.9	-5.7
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,30nm,5.0s						
CD2				LR	LR		
	comp=N,160nm,4.9s						
CD2				LR	LR		
	comp=Z,130nm,5.6s						
LZH	Lanzhou	79.30	53	*e*P	P	11 49 52.5	-2.5
LZH				pP	pP	11 49 55.7	-2.6
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,52nm,4.3s						
GYA	Guiyang	80.11	63	P	P	11 49 58.8	-0.8
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
TLY	Talaya	82.51	37	*e*P	P	11 50 12.6	+0.8
HHC	Hu-ho-hao-te	86.02	49	*e*P	P	11 50 27.1	-2.8
HHC				pP	pP	11 50 31.8	-1.4
HHC				sP	sP	11 50 34.4	0.0
HHC				PP	PP	11 53 46.9	-3.1
HHC				SKS		12 00 48.2	
HHC				*e*S	S	12 00 57.1	-7.1
HHC				SS	SS	12 06 35.8	-6.5
HHC				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
HHC				pmax	pmax		
	comp=Z,89nm,5.2s						
HHC				LR	LR		
	comp=N,110nm,16.7s,MS4.9						
HHC				LR	LR		
	comp=E,350nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,120nm,16.7s,MS4.4						
BJI	Beijing	89.45	50	P	P	11 50 43.1	-3.3
BJI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
BJI				pmax	pmax		
	comp=Z,200nm,4.3s						
NJ2	Nanjing	91.21	58	*e*P	P	11 50 54.6	-0.2
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.7						
CN2	Changchun	96.41	46	*e*P	P	11 51 16.8	-1.6
PDAR	Pinedale Array	125.50	323	PKP	PKPdf	11 56 50.9	+0.2
	comp=Z,0.7nm,0.8s,baz=97,slow=3.4,SNR=3.4						
TXAR	Lajitas Array	127.75	306	PKP	PKPdf	11 56 56.1	+0.8
	comp=Z,0.8nm,0.9s,baz=118,slow=2.1,SNR=5.5						

IDC 03 11:54:06.3±2.3**, 2°.36N×127°.74E, h0^{km}, mb3.1**/3**, mb1 3.3**/3**, mb1mx3.2**/17**, mbtmp3.1**/3**, MS3.6**/1**, Ms1 3.6**/1**, ms1mx2.5**/13**, Error ellipse: s-maj=160.5km s-min=28.6km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.09	164	P	P	11 59 14.4	+0.6
	0.4nm,0.7s,baz=344,slow=11,SNR=5.3						
ASAR	Alice Springs	26.56	167	P	P	11 59 45.5	-0.6
	0.7nm,1.1s,baz=352,slow=7.5,SNR=5.6						
KSRS	Korea Array	34.92	0	LR	LR	12 14 14.6	
	comp=Z,90nm,19.5s,baz=235,slow=35						
MKAR	Makanchi Array	59.25	325	P	P	12 04 09.8	+0.3
	0.2nm,0.8s,baz=111,slow=6.9,SNR=2.3						

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*IDC **03** 12:15:05.7±1.2, 13°.03N×50°.26E, h0^{km}, mb3.7/11, mb1 3.9/11, mb1mx3.8/24, mbtmp3.7/11, MS3.5/8, Ms1 3.5/8, ms1mx3.2/37, Error ellipse: s-maj=30.0km s-min=22.6km az=19.0*

*ISCJB **03** 12:15:06.2±0.8, 13°.3N±0°.1×50°.16E±0°.06, h10^{km}, mb3.8/12, MS3.4/8, Error ellipse: s-maj=16.4km s-min=7.8km az=12.7*

ISC 03 12:15:07.4±0.8**, 13°.1N**±0°.2×**50°.19E**±0°.06**, h10^{km}, n18, σ1^{s}.00**/16**, mb3.8**/12**, MS3.4**/8**, 1D, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	Al Mukalla	1.77	321	⇓*i*P	Pn	12 15 34.9	-3.2
MUKL				*i* S	Sn	12 15 54.3	-6.4
MUKL				AML	AML	12 15 55.9	
	comp=E,390nm,0.3s						
BDHA	Al Bayda'	4.58	282	*i* P	Pn	12 16 17.2	+0.5
BDHA				*e*		12 16 17.4	
	baz=107,slow=16						
BDHA				AML	AML	12 16 24.4	
	comp=E,205nm,0.9s						
BDHA				*i* S	Sn	12 17 09.7	-0.3
EIL	Elat	21.71	322	LR	LR	12 27 51.1	
	comp=E,117nm,20.1s,MS3.3,baz=265,slow=35						
ASF	Jabal al Asfar	22.56	329	P	P	12 20 11.5	+3.7
	comp=E,1.8nm,0.3s,mb4.0,baz=269,slow=18,SNR=6.2						
ASF				LR	LR	12 29 21.0	
	comp=E,85nm,20.4s,MS3.2,baz=3.4,slow=38						
MMAI	Mount Meron Ar	23.99	328	P	P	12 20 24.6	+2.3
	comp=E,0.3nm,0.3s,mb3.3,baz=128,slow=19,SNR=2.4						
MMAI				LR	LR	12 31 10.8	
	comp=E,26nm,19.9s,MS2.7,baz=115,slow=40						
GNI	Garni	27.37	351	LR	LR	12 33 34.2	
	comp=E,189nm,18.6s,MS3.7,baz=95,slow=40						
AKASG	Malin Array Be	41.21	340	P	P	12 22 52.2	0.0
	comp=E,2.8nm,0.9s,mb3.9,baz=148,slow=7.5,SNR=5.2						
BVAR	Borovoye Array	42.97	18	P	P	12 23 07.8	+1.2
	comp=E,0.2nm,0.5s,mb3.1,baz=178,slow=10,SNR=2.3						
BVAR				PcP	PcP	12 24 56.7	-0.3
	comp=E,1.2nm,0.8s,baz=270,slow=2.8,SNR=3.5						
MKAR	Makanchi Array	43.06	32	P	P	12 23 07.1	-0.3
	comp=E,0.4nm,0.5s,mb3.4,baz=225,slow=7.3,SNR=13						
MKAR				LR	LR	12 41 30.2	
	comp=E,40nm,19.6s,MS3.3,baz=60,slow=37						
CMAR	Chiang Mai Arr	47.12	77	P	P	12 23 40.5	+0.4
	comp=E,1.5nm,0.9s,mb3.9,baz=282,slow=9.4,SNR=4.7						
TORD	Torodi Ar. Bea	47.16	276	P	P	12 23 41.1	+0.6
	comp=E,0.6nm,0.6s,mb3.7,baz=86,slow=7.3,SNR=8.8						
BOSA	Boshof	47.96	210	LR	LR	12 46 41.6	
	comp=E,60nm,18.9s,MS3.6,baz=243,slow=40						
ZALV	Zalesovo Beam	49.05	26	P	P	12 23 54.6	+0.1
	comp=E,0.5nm,0.5s,mb3.8,baz=243,slow=6.3,SNR=2.9						
NOA	NORSAR Array B	55.58	338	LR	LR	12 50 50.1	
	comp=E,41nm,21.7s,MS3.5,baz=285,slow=38						
SONM	Songino Array	57.90	41	P	P	12 24 59.3	-0.3
	comp=E,0.5nm,0.6s,mb3.7,baz=244,slow=6.0,SNR=4.3						
ARCES	ARCESS Array B	58.53	350	P	P	12 25 02.6	-1.1
	comp=E,4.8nm,1.0s,mb4.5,baz=169,slow=10.0,SNR=3.2						
ARCES				LR	LR	12 50 30.4	
	comp=E,105nm,18.6s,MS4.0,baz=326,slow=36						
WRA	Warramunga Arr	89.02	111	P	P	12 28 02.3	-0.9
	comp=E,1.0nm,0.8s,mb4.2,baz=298,slow=3.6,SNR=7.6						
ASAR	Alice Springs	89.55	114	P	P	12 28 05.5	-0.2
	comp=E,0.8nm,0.8s,mb4.1,baz=296,slow=5.1,SNR=4.5						

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*ISCJB **03** 12:20:16.6±0.5, 38°.18N±0°.03×21°.92E±0°.04, h21^{km}±7^{km}, Error ellipse: s-maj=5.4km s-min=4.3km az=32.3*

*CSEM **03** 12:20:16.3±0.2, 38°.16N×21°.92E, h20^{km}, MD3.3, Error ellipse: s-maj=5.4km s-min=4.7km az=122.0*

*NEIC **03** 12:20:16.1, 38°.17N×21°.89E, h25^{km}, MD3.3(ATH), After ATH.*

*THE **03** 12:20:16.2, 38°.19N×21°.97E, h7^{km}±1^{km}, ML2.8/3, Error ellipse: s-maj=1.1km s-min=0.6km az=6.0*

*ATH **03** 12:20:16.1, 38°.17N×21°.89E, h25^{km}±1^{km}, MD3.3/4*

ISC 03 12:20:16.1±0.6**, 38°.18N**±0°.03×**21°.96E**±0°.03**, h10^{km}**±5^{km}**, n28, σ0^{s}.92**/48**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RLS	Riolos of Patr	0.41	253	*e*PB	Pg	12 20 23.8	-0.2
RLS				*e*SB	Sg	12 20 30.0	+0.6
RLS	Riolos of Patr	0.41	253	*e*Pb	Pg	12 20 23.8	-0.2
RLS				*e*Sb	Sg	12 20 30.0	+0.6
EVR	Evrytania	0.74	351	*e*PN	Pn	12 20 30.5	-2.1
EVR	Evrytania	0.74	351	*e*Pn	Pn	12 20 30.5	-2.1
LTK	Loutraki	0.81	101	P	Pg	12 20 31.6	-0.2
LTK				S	Sg	12 20 42.8	+0.4

LTK	Loutraki	0.81	101	P	Pg	12 20 31.6	-0.2
LTK				S	Sg	12 20 42.8	+0.4
AGG	Agios Georgios	0.89	19	P	Pg	12 20 32.8	-0.4
AGG				S	Sg	12 20 45.0	+0.2
AGG	Agios Georgios	0.89	19	P	Pg	12 20 32.8	-0.4
AGG				S	Sg	12 20 45.0	+0.2
LKR	Lokris	0.94	60	P	Pg	12 20 33.9	-0.4
LKR				S	Sg	12 20 47.2	+0.6
LKR	Lokris	0.94	60	ePN	Pn	12 20 35.4	+0.1
LKR				eSN	Sn	12 20 49.4	+0.5
LKR	Lokris	0.94	60	P	Pg	12 20 33.9	-0.4
LKR	Lokris	0.94	60	ePn	Pn	12 20 35.4	+0.1
LKR				S	Sg	12 20 47.2	+0.6
LKR				eSn	Sn	12 20 49.4	+0.5
ITM	Ithomi	1.00	181	ePN	Pn	12 20 34.5	-1.6
ITM				eSN	Sn	12 20 49.5	-0.7
ITM	Ithomi	1.00	181	ePn	Pn	12 20 34.5	-1.6
ITM				eSn	Sn	12 20 49.5	-0.7
VLS	Valsamata	1.08	270	P	Pb	12 20 36.0	-0.7
VLS				S	Sb	12 20 52.9	+2.1
VLS	Valsamata	1.08	270	ePN	Pb	12 20 36.0	-0.7
VLS	Valsamata	1.08	270	ePn	Pb	12 20 36.0	-0.7
VLS				S	Sb	12 20 52.9	+2.1
DID	Didima	1.22	123	P	Pn	12 20 38.6	-0.5
DID				S	Sb	12 20 56.3	+1.4
DID	Didima	1.22	123	P	Pn	12 20 38.6	-0.5
DID				S	Sb	12 20 56.3	+1.4
PYL	PYLOS	1.29	188	P	Pn	12 20 39.7	-0.4
PYL				S	Sb	12 20 58.6	+1.5
PYL	PYLOS	1.29	188	P	Pn	12 20 39.7	-0.4
PYL				S	Sb	12 20 58.6	+1.5
THL	Klokotos Trika	1.38	2	P	Pn	12 20 41.5	+0.1
THL				S	Sn	12 21 00.1	+0.4
THL	Klokotos Trika	1.38	2	ePN	Pn	12 20 42.5	+1.1
THL	Klokotos Trika	1.38	2	ePn	Pn	12 20 42.5	+1.1
THL				S	Sn	12 21 00.1	+0.4
VLI	Veliai	1.66	152	ePB	Pb	12 20 45.5	-1.1
VLI	Veliai	1.66	152	ePb	Pb	12 20 45.5	-1.1
PAIG	Paliouri	2.20	37	P	Pn	12 20 52.4	-0.2
PAIG	Paliouri	2.20	37	P	Pn	12 20 52.4	-0.2

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*NEIC **03** 12:43:14.3, 58°.23N×142°.79W, h12km, ML2.9(AEIC), After AEIC.*

PGC 03 12:43:12.1±2.5**, 58°.21N×142°.45W, h10**km**, ML3.2**/3**, 3D, 208km Wsw of Yakutat, Ak Gulf Of Alaska, Gulf of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNL	Peninsula	2.15	46	P	Pn	12 43 46.6	-1.3
PNL				S	Sn	12 44 11.8	-2.9
PLBC	Pleasant Camp	3.40	66	⇓Pn	Pn	12 44 04.4	-0.7
PLBC				⇑Sn	Sn	12 44 42.8	-2.6
HYT	Haines Junctio	3.63	42	⇓Pn	Pn	12 44 07.6	-0.7
WHY	Whitehorse	4.58	54	⇓Pn	Pn	12 44 21.0	-0.3
WHY				⇑Sn	Sn	12 45 12.1	-2.3
WHY	Whitehorse	4.58	54	P	Pn	12 44 20.9	-0.3
WHY				S	Sn	12 45 10.5	-3.9
PMR	Palmer	4.77	318	P	Pn	12 44 19.4	-4.5
BCA3	Beaver Creek A	4.88	4	P	Pn	12 44 22.8	-2.5
DAWY	Dawson	6.06	13	⇑Pn	Pn	12 44 40.3	-1.2
DAWY				⇑Sn	Sn	12 45 43.7	-7.1
DLBC	Dease Lake	6.55	83	⇑Sn	Sn	12 45 59.5	-3.5
VIB	Van Inlet	7.48	127	⇑Pn	Pn	12 44 59.5	-1.6
DIB	Dawson Inlet,	7.54	127	⇑Pn	Pn	12 44 59.5	-2.4
MOBC	Moresby Island	7.80	126	⇑Pn	Pn	12 45 04.2	-1.3
MOBC				⇑Sn	Sn	12 46 28.2	-5.5
BNB	Barry Inlet	8.30	128	⇑Pn	Pn	12 45 10.3	-2.0

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*BJI **03** 12:48:04.8, 49°.31N×155°.89E, h51km, mB4.7/15, mb4.5/17, Ms4.3/10, Ms7 3.9/11*

*KRSC **03** 12:48:05.5±1.7, 49°.59N×157°.20E, h5km±5km, ML4.8*

*ISCJB **03** 12:48:06.0±0.6, 49°.64N±0°.04×155°.96E±0°.06, h59km±4km, mb4.4/55, MS3.6/11, Error ellipse: s-maj=9.0km s-min=4.0km az=136.8*

*MOS **03** 12:48:06.0±1.2, 49°.72N×155°.82E, h58km, mb4.6/26, Error ellipse: s-maj=10.6km s-min=5.4km az=76.2*

*NEIC **03** 12:48:06.4±0.3, 49°.67N×155°.81E, mb4.5/19, Error ellipse: s-maj=7.7km s-min=4.7km az=134.0*

*IDC **03** 12:48:09.1±2.5, 49°.76N×155°.82E, h68km±22km, mb4.0/26, mb1 4.2/29, mb1mx4.1/35, mbtmp4.0/29, MS3.5/9, Ms1 3.5/9, ms1mx3.2/44, Error ellipse: s-maj=14.6km s-min=10.4km az=141.0*

ISC 03 12:48:08.1±0.5**, 49°.69N**±0°.04×**155°.86E**±0°.07**, h60**km±4km**, h49**km±1.3km**:pP-P, n164,** σ0s.97/173**, mb4.4**/55**, MS3.6**/11**, 8C-9D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.01	9	⇓iPN	Pn	12 48 24.7	-1.5
SKR				eS	Sn	12 48 38.0	-1.7
SKR				pmax	pmax		
	comp=Z,1µm,0.5s						
SKR				pmax	pmax		
	comp=N,880nm,0.2s						
SKR				pmax	pmax		
	comp=E,140nm,0.2s						
SKR				pmax	pmax		
	comp=N,2µm,2.0s						
SKR				pmax	pmax		
	comp=E,2µm,2.0s						
SKR				pmax	pmax		
	comp=Z,3µm,2.0s						
SKR				smax			
	comp=E,8µm,2.0s						
MIPR	Malaya Ipel'ka	2.66	12	eP	Pn	12 48 48.9	+0.5
MIPR				i S	Sn	12 49 20.6	+1.2
GRL	Gorelyy	3.19	25	eP	Pn	12 48 56.0	+0.3
GRL				i S	Sn	12 49 32.9	+0.4
RUS	Russkaya	3.22	30	eP	Pn	12 48 54.8	-1.3
RUS				i S	Sn	12 49 30.6	-2.6
PEA0B	Petropavlovsk-	3.62	18	ePn	Pn	12 49 02.5	+1.0
PETK	Petropavlovsk-	3.62	18	PN	Pn	12 49 02.4	+0.9
PETK				pmax	pmax		
	comp=Z,13nm,0.3s						
PETK				MLR	MLR		
	comp=Z,427nm,20.1s						
PETK	Petropavlovsk-	3.62	18	P	Pn	12 49 02.4	+0.9
	comp=Z,13nm,0.3s,baz=177,slow=13,SNR=263						
PETK				LR	LR	12 50 38.3	
	comp=Z,427nm,20.1s,baz=75,slow=42						
PET	Petropavlovsk	3.77	27	ePN	Pn	12 49 03.9	+0.2
PET				eS	Sn	12 49 46.2	-0.6
PET				smax			
	comp=E,933nm,0.5s						
PET				smax			
	comp=N,800nm,0.8s						
PET				MLR	MLR		
	comp=Z,700nm,15.0s						
PET	Petropavlovsk	3.77	27	eP	Pn	12 49 03.8	+0.1
PET				i S	Sn	12 49 45.8	-1.0
PET	Petropavlovsk	3.77	27	ePn	Pn	12 49 03.5	-0.1
PET				eSn	Sn	12 49 47.1	+0.4
AVH	Avacha	4.01	26	eP	Pn	12 49 08.2	+1.3
NLC	Nalytchevo	4.12	31	eP	Pn	12 49 06.2	-2.1
NLC				i S	Sn	12 49 51.0	-4.2
GNL	Ganaly	4.22	17	eP	Pn	12 49 11.5	+1.7
KMNR	Kamenistaya	6.64	22	eP	Pn	12 49 42.2	-0.6
KOZ	Kozyrevsk	6.83	19	eP	Pn	12 49 46.8	+1.3
KOZR	Kozyr	6.84	19	PN	Pn	12 49 46.8	+1.2
KUR	Kuril'sk	7.01	234	PN	Pn	12 49 46.5	-1.5
KUR				pmax	pmax		
	comp=N,30nm,0.5s						
KUR				pmax	pmax		
	comp=E,50nm,0.5s						
KUR				pmax	pmax		
	comp=Z,80nm,0.5s						
ZLN	Zelenaya	7.01	23	eP	Pn	12 49 48.2	+0.3
SRDR	Sredinnyy	7.04	18	eP	Pn	12 49 50.9	+2.6
KLY	Klyuchi	7.24	22	eP	Pn	12 49 52.1	+1.0
BDR	Baidarnaya	7.61	23	eP	Pn	12 49 57.5	+1.4
SRKR	Sorokina	7.67	23	eP	Pn	12 49 57.3	+0.3
KBTR	Krutoberegovo	7.77	30	eP	Pn	12 49 56.9	-1.4
YUK	Yuzh-Kuril'sk	8.88	234	ePN	Pn	12 50 13.6	+0.1
YUK				pmax	pmax		
	comp=Z,390nm,0.5s						
UGL	Uglegorsk	9.02	271	⇓iPN	Pn	12 50 21.0	+5.5
UGL				pmax	pmax		
	comp=Z,83nm,0.7s						
UGL				MLR	MLR		
	comp=N,400nm,17.0s						
UGL				MLR	MLR		
	comp=E,500nm,17.0s						
UGL				MLR	MLR		
	comp=Z,500nm,17.0s						
YSS	Yuzh-Sakhalins	9.15	258	⇑iPN	Pn	12 50 21.2	+4.0
YSS				eS	Sn	12 52 03.0	+4.4
YSS				pmax	pmax		
	comp=Z,50nm,0.9s						
YSS	Yuzh-Sakhalins	9.15	258	ePn	Pn	12 50 20.9	+3.7
	comp=Z,32nm,0.8s						
ASAJ	Asahikawa	10.64	243	PN	Pn	12 50 39.6	+2.0
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	10.64	243	P	Pn	12 50 39.5	+1.9
	comp=Z,2.0nm,0.3s,baz=72,slow=12,SNR=22						
ERM	Erimo	11.71	234	ePN	Pn	12 50 51.2	-0.9
KLR	Kul'dur	15.67	278	eP	Pn	12 51 45.8	+0.9
MAJO	Matsushiro	18.34	231	eP	Pn	12 52 16.2	-1.8
MAJO				pmax	pmax		
	comp=Z,11nm,0.7s						
MAJO	Matsushiro	18.34	231	eP	Pn	12 52 16.2	-1.8
	comp=Z,11nm,0.7s						
MAT	Matsushiro	18.34	231	P	Pn	12 52 17.6	-0.4
MJAR	Matsushiro Arr	18.34	231	P	Pn	12 52 17.1	-0.9
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	18.34	231	P	Pn	12 52 17.1	-0.9
	comp=Z,0.8nm,0.3s,baz=238,slow=14,SNR=12						
YAK	Yakutsk	19.03	320	eP	Pn	12 52 24.1	-2.0
YAK				pmax	pmax		
	comp=Z,17nm,0.8s						
YAK	Yakutsk	19.03	320	eP	Pn	12 52 24.7	-1.4
	comp=Z,28nm,0.8s						
BILL	Bilibino	19.13	12	eP	Pn	12 52 25.1	-2.1
BILL				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BILL	Bilibino	19.13	12	eP	Pn	12 52 25.4	-1.8
	comp=Z,14nm,0.7s						
CN2	Changchun	21.56	266	eP	P	12 52 52.8	+0.5
KSRS	Korea Array	23.50	249	P	P	12 53 12.9	+0.5
KSRS				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,54nm,20.4s,MS3.0						
KSRS	Korea Array	23.50	249	P	P	12 53 12.9	+0.5
	comp=Z,8.2nm,0.7s,mb4.2,baz=47,slow=9.7,SNR=19						
KSRS				LR	LR	13 01 47.6	
	comp=Z,54nm,20.4s,MS3.0,baz=1.1,slow=35						
TIXI	Tiksi	25.24	340	eP	P	12 53 25.6	-2.3
TIXI				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.5						
TIXI	Tiksi	25.24	340	eP	P	12 53 26.6	-1.4
	comp=Z,11nm,0.6s,mb4.6						
BOD	Bodaibo	25.68	305	eP	P	12 53 33.9	+1.8
BJI	Beijing	29.43	266	P	P	12 54 02.2	-3.5
BJI				S	S	12 58 55.3	-0.1
BJI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
BJI				pmax	pmax		
	comp=Z,140nm,3.6s						
BJI				LR	LR		
	comp=Z,54nm,21.7s,MS3.1						
HHC	Hu-ho-hao-te	32.00	271	eP	P	12 54 28.6	+0.2
HHC				pP	pP	12 54 40.5	-2.7
HHC				sP	sP	12 54 45.7	-4.5
HHC				PP	PP	12 55 34.8	-6.6
HHC				PcP	PcP	12 57 19.1	+2.2
HHC				eS	S	12 59 35.1	-0.4
HHC				sS	sS	12 59 54.9	-5.8
HHC				PcS	PcS	13 01 02.3	+0.7
HHC				SS	SS	13 01 26.4	-28
HHC				ScS	ScS	13 04 53.6	+0.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
HHC				pmax	pmax		
	comp=Z,160nm,4.8s						
HHC				LR	LR		
	comp=N,150nm,15.5s,MS4.2						
HHC				LR	LR		
	comp=E,340nm,14.7s,MS4.2						
HHC				LR	LR		
	comp=Z,120nm,13.1s,MS3.8						
SONM	Songino Array	32.19	286	P	P	12 54 30.2	+0.2
	comp=Z,0.2nm,0.4s,mb3.3,baz=72,slow=9.2,SNR=3.3						
SONM				PcP	PcP	12 57 17.4	+0.1
	comp=Z,1.5nm,0.7s,baz=98,slow=2.3,SNR=9.9						
SONM				LR	LR	13 08 33.1	
	comp=Z,70nm,18.6s,MS3.4,baz=102,slow=38						
NJ2	Nanjing	32.65	251	eP	P	12 54 34.8	+0.7
NJ2				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.5						
COLA	College	32.70	41	eP	P	12 54 33.9	-0.4
COLA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
COLA	College	32.70	41	eP	P	12 54 33.9	-0.4
	comp=Z,7.3nm,0.7s,mb4.7						
ZAK	Zakamensk	33.20	292	eP	P	12 54 34.0	-4.7
ZAK				e		12 57 15.7	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.8s,mb3.8						
EGAK	Eagle	35.57	41	eP	P	12 54 57.9	-1.1
	comp=Z,5.5nm,0.8s,mb4.5						
WHN	Wuhan	36.48	254	⇓P	P	12 55 07.2	0.0
LZH	Lanzhou	39.67	270	eP	P	12 55 34.6	+0.5
LZH				pP	pP	12 55 46.5	-2.7
LZH				sP	sP	12 55 52.0	-4.1
LZH				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
LZH				pmax	pmax		
	comp=Z,57nm,4.3s						
GTA	Gaotai	40.37	277	eP	P	12 55 41.1	+1.3
GTA				pP	pP	12 55 53.6	-1.4
GTA				sP	sP	12 55 58.7	-3.2
GTA				S	S	13 01 47.5	+4.1
GTA				sS	sS	13 02 07.3	-1.8
GTA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
GTA				pmax	pmax		
	comp=Z,68nm,4.2s						
GTA				LR	LR		
	comp=N,160nm,14.1s,MS4.2						
GTA				LR	LR		
	comp=E,190nm,13.5s,MS4.2						
GTA				LR	LR		
	comp=Z,130nm,15.9s,MS3.9						
ZALV	Zalesovo Beam	42.44	304	P	P	12 55 55.6	-0.9
ZALV						12 57 48.9	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.9						
ZALV				MLR	MLR		
	comp=Z,29nm,18.9s,MS3.2						
ZALV	Zalesovo Beam	42.44	304	P	P	12 55 55.6	-0.9
	comp=Z,0.7nm,0.3s,mb3.8,baz=54,slow=7.6,SNR=4.2						
ZALV				PcP	PcP	12 57 48.9	+0.5
	comp=Z,1.1nm,0.4s,baz=90,slow=3.0,SNR=5.7						
ZALV				LR	LR	13 14 17.7	
	comp=Z,29nm,18.9s,MS3.2,baz=238,slow=37						
CD2	Chengdu	42.98	264	P	P	12 56 01.8	+0.6
CD2				pP	pP	12 56 14.1	-2.4
CD2				sP	sP	12 56 19.5	-3.9
CD2				PP	PP	12 57 44.2	+2.4
CD2				PcP	PcP	12 57 53.0	+2.4
CD2				S	S	13 02 22.4	+0.3
CD2				sS	sS	13 02 43.1	-4.9
CD2				SS	SS	13 05 28.0	-7.6
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
CD2				pmax	pmax		
	comp=Z,150nm,5.0s						
CD2				LR	LR		
	comp=N,310nm,4.3s						
CD2				LR	LR		
	comp=Z,190nm,5.9s						
GYA	Guiyang	44.16	257	P	P	12 56 10.8	+0.1
GYA				pP	pP	12 56 24.3	-1.7
GYA				sP	sP	12 56 29.8	-3.1
GYA				PcP	PcP	12 57 56.0	+1.3
GYA				ScP	ScP	13 01 43.5	+2.3
GYA				S	S	13 02 39.9	+0.6
GYA				sS	sS	13 03 01.4	-3.8
GYA				ScS	ScS	13 06 03.0	-0.5
GYA				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
GYA				pmax	pmax		
	comp=Z,60nm,4.9s						
MK31	Makanchi Array	47.26	296	eP	P	12 56 34.5	-0.4
MKAR	Makanchi Array	47.26	296	P	P	12 56 34.6	-0.3
MKAR						12 58 05.1	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR				MLR	MLR		
	comp=Z,130nm,19.7s						
MKAR	Makanchi Array	47.26	296	P	P	12 56 34.6	-0.3
	comp=Z,1.5nm,0.7s,mb4.1,baz=43,slow=4.9,SNR=16						
MKAR				PcP	PcP	12 58 05.0	-0.1
	comp=Z,0.7nm,0.7s,baz=57,slow=4.2,SNR=3.7						
MKAR				LR	LR	13 17 39.1	
	comp=Z,130nm,19.7s,MS3.9,baz=40,slow=38						
KURK	Kurchatov	47.30	302	P	P	12 56 35.9	+0.7
KURK						12 58 05.5	
KURK				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
KURK	Kurchatov	47.30	302	P	P	12 56 35.9	+0.7
	comp=Z,3.1nm,0.4s,mb4.5,baz=307,slow=13,SNR=11						
KURK				PcP	PcP	12 58 05.5	+0.2
	comp=Z,2.0nm,0.7s,baz=322,slow=3.7,SNR=7.1						
KURK	Kurchatov	47.30	302	eP	P	12 56 34.7	-0.5
	comp=Z,7.9nm,0.9s,mb4.6						
RES	Resolute Bay	47.46	20	P	P	12 56 36.4	+0.3
RES				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
RES	Resolute Bay	47.46	20	P	P	12 56 36.4	+0.3
	comp=Z,2.3nm,0.4s,mb4.4,baz=304,slow=6.5,SNR=37						
RES	Resolute Bay	47.46	20	eP	P	12 56 35.9	-0.2
	comp=Z,2.4nm,0.5s,mb4.4						
YKA	Yellowknife Ar	47.48	39	P	P	12 56 36.9	+0.5
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA	Yellowknife Ar	47.48	39	P	P	12 56 36.9	+0.5
	comp=Z,1.6nm,0.6s,mb4.1,baz=299,slow=7.8,SNR=29						
KMI	Kunming	47.59	259	P	P	12 56 38.7	+0.9
KMI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BVAR	Borovoye Array	50.44	309	P	P	12 56 58.9	-0.2
BVAR						12 58 16.8	
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BVAR				MLR	MLR		
	comp=Z,80nm,19.5s						
BVAR	Borovoye Array	50.44	309	P	P	12 56 58.9	-0.2
	comp=Z,2.2nm,0.5s,mb4.4,baz=53,slow=7.8,SNR=20						
BVAR				PcP	PcP	12 58 16.8	+0.2
	comp=Z,2.2nm,0.6s,baz=70,slow=3.1,SNR=8.3						
BVAR				LR	LR	13 19 58.7	
	comp=Z,80nm,19.5s,MS3.7,baz=306,slow=38						
BRVK	Borovoye	50.47	309	eP	P	12 56 58.8	-0.6
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BRVK	Borovoye	50.47	309	eP	P	12 56 58.8	-0.6
	comp=Z,5.2nm,0.8s,mb4.6						
EDM	Edmonton	52.98	49	eP	P	12 57 17.8	-0.3
EDM				e*PP	pP	12 57 30.5	-3.3
ARU	Arti	54.10	317	eP	P	12 57 25.0	-1.2
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
ARU	Arti	54.10	317	eP	P	12 57 25.0	-1.2
	comp=Z,6.1nm,0.8s,mb4.6						
CHTO	Chiang Mai	54.58	257	eP	P	12 57 31.1	+0.9
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
CHTO	Chiang Mai	54.58	257	eP	P	12 57 31.1	+0.9
	comp=Z,7.4nm,0.8s,mb4.8						
CMAR	Chiang Mai Arr	54.84	257	P	P	12 57 33.8	+1.7
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CMAR	Chiang Mai Arr	54.84	257	P	P	12 57 33.8	+1.7
	comp=Z,5.0nm,0.7s,mb4.6,baz=32,slow=6.8,SNR=35						
ARCES	ARCESS Array B	55.68	341	P	P	12 57 35.7	-1.8
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES				MLR	MLR		
	comp=Z,82nm,19.2s						
ARCES	ARCESS Array B	55.68	341	P	P	12 57 35.6	-1.8
	comp=Z,7.3nm,1.1s,mb4.6,baz=40,slow=7.7,SNR=12						
ARCES				LR	LR	13 23 16.2	
	comp=Z,82nm,19.2s,MS3.8,baz=204,slow=38						
FFC	Flin Flon	57.32	42	i P	P	12 57 50.4	+1.1
SUMG	Summit	57.63	5	eP	P	12 57 51.2	0.0
	comp=Z,8.9nm,0.9s,mb4.8						
FCC	Fort Churchill	57.80	35	eP	P	12 57 52.1	-0.6
	comp=Z,0.1nm,0.7s						
AKTK	Aktyubinsk	58.14	312	P	P	12 57 54.5	-0.6
AKTO	Aktyubinsk	58.14	312	P	P	12 57 54.5	-0.6
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
AKTO	Aktyubinsk	58.14	312	P	P	12 57 54.5	-0.6
	comp=Z,1.2nm,0.4s,mb4.2,baz=54,slow=10,SNR=4.7						
NVAR	Mina Array Bea	59.49	65	P	P	12 58 05.0	+0.3
	comp=Z,1.0nm,0.5s,mb4.2,baz=294,slow=6.9,SNR=5.8						
RLMT	Red Lodge	60.14	54	eP	P	12 58 10.1	+1.1
	comp=Z,2.2nm,0.7s,mb4.3						
BW06	Boulder Array	61.56	57	eP	P	12 58 18.9	+0.2
	comp=Z,2.3nm,1.1s,mb4.2						
BW06				epP	pP	12 58 31.6	-3.3
PDAR	Pinedale Array	61.56	57	P	P	12 58 19.5	+0.7
	comp=Z,2.2nm,0.8s,mb4.3,baz=332,slow=2.2,SNR=21						
FRB	Frobisher Bay	61.66	21	P	P	12 58 18.1	-1.0
FRB				pmax	pmax		
	comp=Z,5.0nm,0.5s						
FRB	Frobisher Bay	61.66	21	P	P	12 58 18.1	-1.0
	comp=Z,4.5nm,0.5s,mb4.9,baz=324,slow=8.0,SNR=28						
RSSD	Black Hills	63.55	52	eP	P	12 58 32.1	+0.1
RSSD				e*PP	pP	12 58 45.9	-2.2
RSSD				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
RSSD	Black Hills	63.55	52	eP	P	12 58 32.1	+0.2
	comp=Z,3.8nm,0.8s,mb4.5						
RSSD				epP	pP	12 58 45.9	-2.2
KAKA	Kakadu	65.46	205	eP	P	12 58 44.0	-0.6
	comp=Z,32nm,0.9s,mb5.3						
ISCO	Idaho Springs	65.76	57	eP	P	12 58 47.6	+1.2
ISCO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
ISCO	Idaho Springs	65.76	57	eP	P	12 58 47.5	+1.1
	comp=Z,2.2nm,0.7s,mb4.3						
NOA	NORSAR Array B	66.02	342	P	P	12 58 46.8	-0.9
	comp=Z,1.2nm,0.8s,mb4.0,baz=53,slow=8.2,SNR=2.6						
HFS	Hagfors	66.33	340	P	P	12 58 48.3	-1.4
HFS				pmax	pmax		
	comp=Z,3.0nm,0.9s						
HFS	Hagfors	66.33	340	P	P	12 58 48.3	-1.4
	comp=Z,3.4nm,0.8s,mb4.4,baz=61,slow=4.2,SNR=6.9						
ANMO	Albuquerque	68.76	61	LR	LR	13 26 37.6	
	comp=Z,32nm,20.8s,MS3.5,baz=124,slow=34						
SCHQ	Schefferville	69.88	25	P	P	12 59 12.0	0.0
	comp=Z,5.8nm,0.8s,mb4.6,baz=327,slow=4.9,SNR=13						
SCHQ	Schefferville	69.88	25	P	P	12 59 12.0	-0.1
AKASG	Malin Array Be	70.10	327	P	P	12 59 12.1	-1.4
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	70.10	327	P	P	12 59 12.1	-1.4
	comp=Z,0.5nm,0.3s,mb3.9,baz=32,slow=6.2,SNR=4.2						
WRAB	Tennant Creek	71.89	201	eP	P	12 59 23.8	-0.7
WB2	Warramunga Arr	71.90	201	eP	P	12 59 23.6	-1.0
WRA	Warramunga Arr	71.90	201	P	P	12 59 24.3	-0.3
WRA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
WRA	Warramunga Arr	71.90	201	P	P	12 59 24.3	-0.3
	comp=Z,5.0nm,0.9s,mb4.5,baz=18,slow=6.6,SNR=22						
FITZ	Fitzroy Crossi	72.60	210	P	P	12 59 29.1	+0.3
	comp=Z,3.0nm,0.7s,mb4.3,baz=101,slow=22,SNR=7.7						
FITZ	Fitzroy Crossi	72.60	210	eP	P	12 59 28.5	-0.3
	comp=Z,5.3nm,0.9s,mb4.5						
WMOK	Wichita Mounta	73.17	56	eP	P	12 59 31.6	-0.6
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
WMOK	Wichita Mounta	73.17	56	eP	P	12 59 31.6	-0.6
	comp=Z,3.2nm,0.8s,mb4.3						
EKA	Eskdalemuir Ar	73.89	348	P	P	12 59 35.9	-0.2
EKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
EKA	Eskdalemuir Ar	73.89	348	P	P	12 59 35.9	-0.2
	comp=Z,1.1nm,0.6s,mb4.0,baz=15,slow=5.2,SNR=4.3						
BUR08	Bucovina Ar. S	74.10	328	eP	P	12 59 36.6	-0.8
BURAR	Bucovina Array	74.12	328	⇑iP	P	12 59 37.0	-0.5
BURAR	Bucovina Array	74.12	328	⇑P	P	12 59 37.0	-0.6

TXAR	Lajitas Array	74.49	63	P	P	12 59 40.3	+0.3
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	74.49	63	P	P	12 59 40.3	+0.3
	comp=Z,1.3nm,0.6s,mb4.1,baz=301,slow=4.5,SNR=27						
TRPA	Tarpa	74.58	330	⇑iP	P	12 59 40.4	+0.2
ASAR	Alice Springs	75.59	201	P	P	12 59 46.7	+0.6
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	Alice Springs	75.59	201	P	P	12 59 46.6	+0.5
	comp=Z,1.5nm,0.7s,mb4.0,baz=14,slow=5.0,SNR=16						
HARR	Harsova	75.63	324	⇓iP	P	12 59 43.2	-3.1
HARR	Harsova	75.63	324	⇓P	P	12 59 43.2	-3.2
MLR	Muntele Rosu	75.68	326	⇓iP	P	12 59 46.2	-0.4
MLR	Muntele Rosu	75.68	326	⇓P	P	12 59 46.2	-0.4
VOIR		76.05	327	⇓iP	P	12 59 49.3	+0.6
VOIR		76.05	327	⇓P	P	12 59 49.3	+0.6
KHC	Kasperske Hory	76.36	336	eP	P	12 59 50.0	-0.4
KHC				epP	pP	13 00 05.5	-1.4
GERES	GERESS Array B	76.59	335	P	P	12 59 52.5	+0.8
	comp=Z,0.2nm,0.3s,mb3.5,baz=25,slow=3.5,SNR=4.7						
GZR	Gura Zlata	76.89	328	⇑iP	P	12 59 53.3	-0.1
GZR	Gura Zlata	76.89	328	⇑P	P	12 59 53.3	-0.1
BZS	Buzias	77.08	329	⇑iP	P	12 59 54.3	-0.2
BZS	Buzias	77.08	329	⇑P	P	12 59 54.3	-0.2
BAIF	Baives	77.71	342	eP	P	12 59 59.0	+1.1
FLN	La Foliniere	79.84	344	eP	P	13 00 08.8	-0.8
LDF	La Druitiere	79.94	344	eP	P	13 00 10.1	-0.1
GRR	Gorron	80.27	344	eP	P	13 00 11.1	-0.8
	comp=Z,41nm,0.9s,mb5.0						
LOR	Lormes	80.43	341	eP	P	13 00 12.9	0.0
	comp=Z,13nm,0.9s,mb4.6						
SGMF	Saint Gilles	80.68	346	eP	P	13 00 14.5	+0.3
SSF	Saint Saulge	80.70	341	eP	P	13 00 14.4	+0.1
AVF	Avril sur Loir	80.99	341	eP	P	13 00 16.2	+0.3
BGF	Bois d'Agland	81.32	342	eP	P	13 00 17.9	+0.3
LPL	La Plagne	81.45	339	eP	P	13 00 19.5	+1.2
LPG	La Plagne	81.46	339	eP	P	13 00 19.8	+1.4
	comp=Z,10nm,0.5s,mb4.7						
TCF	Toulx Ste Croi	81.71	342	eP	P	13 00 20.1	+0.4
	comp=Z,25nm,1.0s,mb4.8						
ASF	Jabal al Asfar	82.17	311	P	P	13 00 23.3	+0.9
ASF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ASF				MLR	MLR		
	comp=Z,33nm,19.6s						
ASF	Jabal al Asfar	82.17	311	P	P	13 00 23.3	+0.9
	comp=Z,3.9nm,0.8s,mb4.4,baz=262,slow=2.5,SNR=6.8						
ASF				LR	LR	13 41 09.5	
	comp=Z,32nm,19.6s,MS3.7,baz=300,slow=39						
MMAI	Mount Meron Ar	82.20	313	P	P	13 00 23.4	+0.9
	comp=Z,8.4nm,0.7s,mb4.8,baz=36,slow=7.2,SNR=15						
ORIF	Oris-en-Rattie	82.21	339	eP	P	13 00 23.3	+1.0
	comp=Z,26nm,1.1s,mb4.8						
VIVF	Saint-Julien-l	82.55	340	eP	P	13 00 24.8	+0.7
	comp=Z,9.8nm,0.8s,mb4.6						
SBF	Sospel	82.83	338	eP	P	13 00 25.2	-0.4
EIL	Elat	85.18	311	P	P	13 00 37.4	-0.4
	comp=Z,2.8nm,0.6s,mb4.6,baz=31,slow=4.0,SNR=4.1						
CPUP	Villa Florida	145.41	60	PKIKP	PKPdf	13 07 38.3	-0.6
CPUP				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CPUP	Villa Florida	145.41	60	PKPbc	PKPbc	13 07 38.3	-0.7
	comp=Z,3.0nm,0.8s,baz=317,slow=4.1,SNR=6.2						
PLCA	Paso Flores	146.57	92	PKP2	PKPbc	13 07 41.6	-0.5
PLCA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
PLCA	Paso Flores	146.57	92	PKPbc	PKPbc	13 07 41.6	-0.5
	comp=Z,2.0nm,0.9s,baz=346,slow=5.6,SNR=3.9						

IDC ***03*** *12:49:10.3±1.0, 33.°83N×73.°34E, h0^{km}, mb3.9/11, mb1 3.9/14, mb1mx3.8/29, mbtmp3.8/14, ML3.4/3, MS3.2/2, Ms1 3.2/2, ms1mx2.4/40, Error ellipse: s-maj=27.0km s-min=18.4km az=56.0*
BJI ***03*** *12:49:13.3, 33.°79N×73.°04E, h64^{km}, ML3.8/4*
ISCJB ***03*** *12:49:14.3±0.6, 33.°80N±0.°04×73.°37E±0.°06, h42^{km}±8^{km}, mb3.8/10, Error ellipse: s-maj=8.4km s-min=5.1km az=151.9*
NDI ***03*** *12:49:16.9±3.0, 33.°82N×73.°35E, h65^{km}, ML3.5, mb3.4(NEIC)*
NEIC ***03*** *12:49:18.8±1.6, 33.°90N×73.°40E, h65^{km}±14^{km}, mb3.4/2, Error ellipse: s-maj=15.5km s-min=13.1km az=148.0*
NNC ***03*** *12:49:23.0±1.9, 34.°66N×72.°76E, h0^{km}, mb3.4, mpv3.8, Error ellipse: s-maj=19.3km s-min=9.9km az=35.0*
ISC 03 12:49:15.9±0.5**, 33.°86N**±0.°03×**73.°39E**±0.°06**, h35**^{km}±7^{km}**, n50,** σ1^{s}**44**/62**, mb3.8**/10**, 5C-8D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHCP	Chirah Chowk	0.22	207	⇓P	Pn	12 49 15.9	-7.1
CEP	Cherat	1.23	269	⇓P	Pn	12 49 33.8	-2.8
SARP	Sargodha	2.02	198	P	Pn	12 49 45.9	-1.6
SBDP	Sheikh Budin	2.66	235	P	Pn	12 49 55.3	-1.0
BHK	Bhakra	3.53	133	ex	x	12 50 16.8	
KBL	Kabul	3.66	282	ePn	Pn	12 50 12.9	+2.8
SDNR	Sundarnagar	3.83	127	ePKP	Pn	12 50 13.5	+1.2
SDNR				ex	x	12 51 09.0	
KLP	Kalpa	4.71	118	ePKP	Pn	12 50 26.3	+1.9
KLP				eS	Sn	12 51 16.2	-1.6
DDI	Dehra Dun	5.30	130	ePKP	Pn	12 50 32.7	+0.1
DDI				ex	x	12 51 59.9	
KSH	Kashi	6.02	19	P	Pn	12 50 42.1	-0.3
KSH				smax			
	comp=N,89nm,0.3s						
KSH				smax			
	comp=E,70nm,0.2s						
NDI	New Delhi	6.11	147	ePKP	Pn	12 50 50.0	+6.3
NDI				eS	Sn	12 51 52.0	-0.4
KHET	Khetri	6.13	160	ePKP	Pn	12 50 45.1	+1.2
KHET				eS	Sn	12 51 47.4	-5.3
KHET				AML	AML	12 52 33.6	
	comp=N,28nm,0.4s						
KHET				AML	AML	12 52 35.4	
	comp=E,42nm,0.6s						
JOSI	Joshimath	6.18	120	ePKP	Pn	12 50 45.5	+0.8
JOSI				ex	Sn	12 51 58.5	+4.4
JOSI				AML	AML	12 52 42.4	
	comp=N,224nm,0.4s						
JOSI				AML	AML	12 52 44.0	
	comp=E,212nm,0.8s						
AYAN	Aya Nagar	6.24	148	ePKP	Pn	12 50 43.7	-1.8
AYAN				eS	Sn	12 51 50.8	-4.8
AYAN				AML	AML	12 52 49.5	
	comp=Z,34nm,0.5s						
KUDL	Kundal	6.29	154	ePKP	Pn	12 50 45.1	-1.0
KUDL				eS	Sn	12 51 51.5	-5.2
KUDL				AML	AML	12 52 38.8	
	comp=N,30nm,0.5s						
KUDL				AML	AML	12 52 39.3	
	comp=E,45nm,0.4s						
AJM	Ajmer	7.43	171	eS	Sn	12 52 18.9	-6.0
AJM				AML	AML	12 53 18.8	
	comp=E,38nm,0.3s						
AJM				AML	AML	12 53 20.3	
	comp=N,29nm,0.5s						
AML	Almayashu	8.27	2	ePn	Pn	12 51 15.6	+2.4
	comp=N,12nm,0.5s						
AML				eSn	Sn	12 52 44.0	-1.3
UCH	Uchtor	8.40	6	ePn	Pn	12 51 18.4	+3.3
UCH				eSn	Sn	12 52 46.8	-1.9
EKS2	Erkin-Say	8.80	2	ePn	Pn	12 51 22.9	+2.4
	comp=N,9.0nm,0.6s						
EKS2				eSn	Sn	12 52 56.7	-1.6
AAK	Ala-Archa	8.81	5	ePn	Pn	12 51 24.9	+4.3
	comp=N,4.8nm,0.6s						
TKM2	Tokmak 2	9.21	10	ePn	Pn	12 51 28.6	+2.4
	comp=N,3.0nm,0.4s						
TKM2				eSn	Sn	12 53 07.3	-1.3
TKM2	Tokmak 2	9.21	10	⇓Pn	Pn	12 51 29.6	+3.4
	comp=N,2.1nm,0.5s						
TKM2				⇓Sn	Sn	12 53 07.4	-1.2
	comp=N,10nm,0.7s						
KK31	Karatay Array	9.50	347	Pn	Pn	12 51 31.2	+1.0
	comp=N,1.3nm,0.3s,baz=167,slow=12,SNR=66						
KK31				⇓Sn	Sn	12 53 13.0	-2.7
	comp=N,4.0nm,0.7s,baz=167,slow=22,SNR=4.1						
BHPL	Bhopal	11.15	160	eS	Sn	12 53 46.5	-10
BHPL				AML	AML	12 53 55.6	
	comp=N,9.9nm,0.3s						
BHPL				AML	AML	12 53 56.2	
	comp=E,9.1nm,0.4s						
MK31	Makanchi Array	14.58	25	ePn	Pn	12 52 39.5	0.0
MK31	Makanchi Array	14.58	25	⇓Pn	Pn	12 52 46.0	+6.5
	comp=E,0.3nm,0.6s,baz=205,slow=12,SNR=4.1						
MKAR	Makanchi Array	14.58	25	Pn	Pn	12 52 38.8	-0.8
	comp=E,0.1nm,0.3s,baz=208,slow=13,SNR=8.8						
KURBB	Kurchatov Arra	17.18	11	⇑Pn	Pn	12 53 13.1	+0.2
	comp=E,0.3nm,0.7s						
KURK	Kurchatov	17.28	11	P	Pn	12 53 11.8	-2.4
	comp=E,0.0nm,0.3s,baz=198,slow=12,SNR=6.2						
KURK	Kurchatov	17.28	11	eP	Pn	12 53 13.5	-0.7
	comp=E,2.3nm,0.8s						
AB09	Akbulak array	18.35	331	⇑Pn	Pn	12 53 30.1	+2.6
	comp=E,0.8nm,0.5s						
AB09				⇓Sn	Sn	12 56 42.8	-8.5
	comp=E,2.1nm,1.1s						
VOSK	Vostochnaya	18.94	355	⇑Pn	Pn	12 53 37.0	+2.5
	comp=E,4.9nm,2.0s						
BVA0	Borovoye Array	19.28	355	⇑Pn	Pn	12 53 40.0	+1.4
	comp=E,0.4nm,0.8s,baz=160,slow=9.7,SNR=17						
BVAR	Borovoye Array	19.28	355	P	Pn	12 53 38.2	-0.4
	comp=E,0.3nm,0.3s,baz=155,slow=9.2,SNR=15						
BVAR				LR	LR	13 00 33.1	
	comp=E,52nm,18.1s,baz=71,slow=35						
BRVK	Borovoye	19.32	354	eP	Pn	12 53 38.3	-0.8
	comp=E,1.6nm,0.6s						
AKTK	Aktyubinsk	20.04	330	P	P	12 53 46.0	+0.3
AKTO	Aktyubinsk	20.04	330	P	P	12 53 46.0	+0.3
	comp=E,1.7nm,0.5s,baz=132,slow=14,SNR=5.6						
AKTO	Aktyubinsk	20.04	330	⇑Pn	P	12 53 47.0	+1.3
	comp=E,0.3nm,0.7s						
AKTO				⇓Sn	S	12 57 22.9	-6.0
	comp=E,0.8nm,1.1s						
ZAA0	Zalesovo Array	21.66	19	eP	P	12 54 05.1	+2.0
ZALV	Zalesovo Beam	21.66	19	P	P	12 54 01.2	-1.9
	comp=E,5.0nm,0.5s,mb4.2,baz=222,slow=6.0,SNR=22						
CMAR	Chiang Mai Arr	27.49	117	P	P	12 54 58.8	-0.2
	comp=E,0.6nm,0.4s,mb3.5,baz=298,slow=9.7,SNR=7.6						
SONM	Songino Array	28.36	51	P	P	12 55 08.2	+1.6
	comp=E,0.4nm,0.8s,mb3.1,baz=261,slow=9.9,SNR=3.7						
KSRS	Korea Array	43.95	69	LR	LR	13 16 16.6	
	comp=E,40nm,19.9s,baz=328,slow=37						
ARCES	ARCESS Array B	44.33	338	P	P	12 57 21.1	-0.9
	comp=E,2.5nm,0.8s,mb4.0,baz=100,slow=8.5,SNR=2.6						
HFS	Hagfors	46.35	323	P	P	12 57 37.7	-0.5
	comp=E,8.7nm,1.1s,mb4.6,baz=78,slow=9.3,SNR=2.9						
SPITS	Spitsbergen Ar	50.50	347	P	P	12 58 08.1	-1.8
	comp=E,3.9nm,0.9s,mb4.3,baz=48,slow=2.9,SNR=1.8						
TORD	Torodi Ar. Bea	67.67	271	P	P	13 00 09.7	-0.1
	comp=E,0.7nm,0.7s,mb3.8,baz=61,slow=5.2,SNR=4.6						
WRA	Warramunga Arr	78.92	123	P	P	13 01 15.7	-0.2
	comp=E,0.3nm,0.5s,mb3.5,baz=321,slow=5.2,SNR=4.3						
ASAR	Alice Springs	81.13	126	P	P	13 01 27.5	-0.3
	comp=E,0.3nm,1.0s,mb3.2,baz=312,slow=5.7,SNR=2.7						
YKA	Yellowknife Ar	83.77	4	P	P	13 01 41.8	+0.8
	comp=E,0.4nm,0.6s,mb3.8,baz=348,slow=5.4,SNR=11						

ISCJB ***03*** *12:57:33.3±1.8, 58.°00S±0.°06×26.°7W±0.°1, h145^{km}±17^{km}, mb4.6/22, Error ellipse: s-maj=11.9km s-min=9.6km az=148.0*
BJI ***03*** *12:57:35.5, 58.°00S×26.°80W, h163^{km}*
NEIC ***03*** *12:57:38.6±0.2, 57.°98S×26.°83W, mb4.6/14, Error ellipse: s-maj=7.3km s-min=6.6km az=184.0*
IDC ***03*** *12:57:38.0±1.2, 57.°99S×26.°86W, h175^{km}±9^{km}, mb4.3/10, mb1 4.4/11, mb1mx4.2/16, mbtmp4.3/11, MS3.5/2, Ms1 3.4/2, ms1mx3.0/21, Error ellipse: s-maj=13.0km s-min=10.4km az=75.0*
ISC 03 12:57:35.1±1.7**, 58.°04S**±0.°06×**26.°7W**±0.°1**, h146**^{km}±17^{km}**, n80,** σ0^{s}**80**/41**, mb4.6**/22**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	14.86	156	e	Pn	13 00 55.8	-1.6
VNA1				e		13 01 03.3	
VNA3	Neumayer Olymp	15.03	159	e	Pn	13 00 59.5	-0.1
VNA3				e		13 01 06.8	
VNA3				e		13 03 40.5	
VNA2	Neumayer--Watz	15.25	156	e	Pn	13 01 02.1	-0.3
VNA2				e		13 01 09.6	
VNA2				e		13 03 43.2	
VNA2				e		13 05 57.4	
PMSA	Palmer Station	18.86	234	P	P	13 01 45.7	+2.2
	3.9nm,0.3s,baz=81,slow=8.3,SNR=27						
PMSA	Palmer Station	18.86	234	eP	P	13 01 44.8	+1.3
	77nm,0.7s						
EFI	East Falkland	19.02	276	eP	P	13 01 46.6	+1.2
	115nm,1.3s						
MAIT	Maitri	20.45	144	eP	P	13 02 00.6	0.0
USHA	Ushuaia	23.02	260	P	P	13 02 26.7	-0.3
	9.8nm,0.7s,mb4.3,baz=74,slow=9.1,SNR=6.8						
QSPA	South Pole Qui	32.20	180	P	P	13 03 49.8	+1.3
	73nm,0.6s,mb5.6,baz=206,slow=3.3,SNR=225						
QSPA				PcP	PcP	13 06 32.7	-0.6
	4.1nm,0.7s,baz=178,slow=3.4,SNR=4.3						
QSPA				S	S	13 08 50.3	+0.1
	3.2nm,1.0s,baz=198,slow=19,SNR=6.2						
QSPA				ScP	ScP	13 10 00.7	-2.2
	2.4nm,0.7s,baz=147,slow=3.5,SNR=4.1						
QSPA	South Pole Qui	32.20	180	eP	P	13 03 49.8	+1.2
	77nm,0.6s						
QSPA				PcP	PcP	13 06 32.7	-0.6
QSPA				S	S	13 08 50.3	+0.1
QSPA				ScP	ScP	13 10 00.7	-2.2
PLCA	Paso Flores	32.65	283	P	P	13 03 53.0	+0.1
	6.9nm,1.0s,mb4.4,baz=138,slow=8.3,SNR=9.6						
PLCA				PcP	PcP	13 06 34.3	-0.8
	1.8nm,0.8s,baz=199,slow=3.8,SNR=3.1						
PLCA				ScP	ScP	13 10 01.4	-3.7
	0.9nm,0.7s,baz=336,slow=14,SNR=3.2						
PLCA	Paso Flores	32.65	283	eP	P	13 03 52.4	-0.4
	10nm,1.0s,mb4.5						
PLCA				PcP	PcP	13 06 34.3	-0.8
PLCA				ScP	ScP	13 10 01.4	-3.7
CPUP	Villa Florida	38.34	313	P	P	13 04 40.2	-1.3
	4.6nm,1.0s,mb4.1,baz=128,slow=7.3,SNR=6.1						
CPUP				ScP	ScP	13 10 22.2	-3.8
	3.6nm,0.8s,baz=175,slow=3.9,SNR=6.0						
CPUP	Villa Florida	38.34	313	eP	P	13 04 39.8	-1.7
	13nm,0.9s,mb4.6						
CPUP				epP	pP	13 05 20.3	+7.0
CPUP				ScP	ScP	13 10 22.2	-3.8
MAW	Mawson	38.40	142	eP	P	13 04 42.1	+0.5
	4.3nm,0.7s,mb4.2						
MAW	Mawson	38.40	142	P	P	13 04 41.6	0.0
	3.1nm,0.4s,mb4.3,baz=226,slow=7.1,SNR=16						
MAW				PcP	PcP	13 06 51.5	-0.2
	7.4nm,0.8s,baz=270,slow=5.6,SNR=7.3						
MAW	Mawson	38.40	142	eP	P	13 04 41.5	-0.1
	1.4nm,0.8s,mb3.6						
MAW				ePcP	PcP	13 06 52.1	+0.4
CFAA	Coronel Fontan	38.62	295	P	P	13 04 42.7	-1.1
	0.8nm,0.8s,mb3.4,baz=159,slow=6.7,SNR=12						
CFAA				PcP	PcP	13 06 51.6	-1.4
	0.4nm,0.6s,baz=151,slow=2.7,SNR=5.5						
CFAA				ScP	ScP	13 10 21.4	-5.6
	0.3nm,0.6s,baz=252,slow=7.3,SNR=7.1						
CFAA	Coronel Fontan	38.62	295	P	P	13 04 42.7	-1.1
CFAA				PcP	PcP	13 06 51.6	-1.4
CFAA				ScP	ScP	13 10 21.4	-5.6
VNDA	Vanda	44.59	183	P	P	13 05 33.0	+1.2
	22nm,0.7s,mb4.9,baz=188,slow=6.4,SNR=74						
BOSA	Boshof	46.24	73	P	P	13 05 45.9	+0.5
	3.1nm,0.8s,mb4.0,baz=223,slow=17,SNR=3.2						
BOSA				LR	LR	13 24 00.5	
	comp=Z,93nm,18.0s,baz=347,slow=34						
TSUM	Tsumeb	50.46	59	eP	P	13 06 18.3	+0.5
	5.1nm,1.0s,mb4.1						
CASY	Casey	51.94	160	eP	P	13 06 28.5	+0.3
	31nm,0.8s,mb5.0						
LSZ	Lusaka	58.87	67	eP	P	13 07 18.5	+0.1
	6.3nm,0.8s,mb4.5						
RPN	Rapa Nui	63.59	261	LR	LR	13 28 23.2	
	comp=Z,14nm,18.1s,baz=282,slow=29						
LIC	Lamto	66.41	24	eP	P	13 08 08.6	+0.3
	61nm,1.3s,mb5.3						
KIC	Kosan Boka	66.60	24	eP	P	13 08 09.6	+0.1
	61nm,1.1s,mb5.3						
TIC	Toumodi	66.82	24	eP	P	13 08 11.1	+0.2
	5.6nm,0.2s,mb5.0						
DBIC	Dimbokro	66.88	24	P	P	13 08 11.5	+0.3
	2.0nm,0.3s,mb4.4,baz=159,slow=4.2,SNR=14						
DBIC	Dimbokro	66.88	24	P	P	13 08 11.5	+0.3
OTAV	Otavalo	70.98	304	eP	P	13 08 36.9	+0.2
	6.7nm,1.0s,mb4.3						
TOA0	Torodi Ar. Sit	74.67	29	eP	P	13 08 58.5	+0.3
TOA0				epP	pP	13 09 41.4	+7.4
TORD	Torodi Ar. Bea	74.67	29	P	P	13 08 58.8	+0.5
	6.4nm,0.3s,mb4.7,baz=196,slow=6.1,SNR=211						
SDV	Santo Domingo	75.61	315	eP	P	13 09 02.8	-0.9
	6.8nm,0.9s,mb4.3						
URZ	Urewera	82.00	199	eP	P	13 09 37.8	-0.6
	21nm,1.0s,mb4.7						
FORT	Forrest	89.02	158	eP	P	13 10 12.6	-0.6
	29nm,0.7s,mb5.3						
STKA	Stephens Creek	89.89	170	eP	P	13 10 14.3	-2.9
	6.0nm,0.8s,mb4.6						
STKA	Stephens Creek	89.89	170	P	P	13 10 16.9	-0.3
	7.5nm,0.8s,mb4.7,baz=154,slow=6.4,SNR=11						
STKA	Stephens Creek	89.89	170	eP	P	13 10 16.8	-0.4
	1.9nm,0.9s,mb4.0						
ASAR	Alice Springs	97.01	162	P	P	13 10 49.0	-1.1
	6.2nm,0.7s,mb5.1,baz=182,slow=4.0,SNR=80						
WRA	Warramunga Arr	100.73	162	P	Pdif	13 11 05.2	-1.6
	0.8nm,0.6s,baz=195,slow=4.2,SNR=7.3						
SCHQ	Schefferville	117.09	335	PKP	PKPdf	13 15 59.1	-2.1
	1.2nm,0.5s,baz=94,slow=9.6,SNR=5.2						
AKASG	Malin Array Be	117.65	36	PKP	PKPdf	13 16 01.0	-1.4
	1.2nm,0.6s,baz=286,slow=0.7,SNR=4.2						
PDAR	Pinedale Array	121.61	301	PKP	PKPdf	13 16 08.6	-1.7
	0.5nm,0.4s,baz=126,slow=6.5,SNR=15						
HFS	Hagfors	122.03	22	PKP	PKPdf	13 16 08.6	-2.0
	3.6nm,0.8s,baz=185,slow=3.9,SNR=8.9						
NOA	NORSAR Array B	122.38	21	PKP	PKPdf	13 16 10.9	-0.3
	1.1nm,0.8s,baz=333,slow=14,SNR=3.3						
PYUN	Piuthan	123.72	90	eP	PKPdf	13 16 13.9	-1.0
KOLN	Koldanda	123.78	91	eP	PKPdf	13 16 14.1	-0.9
CMAR	Chiang Mai Arr	124.11	111	PKP	PKPdf	13 16 15.6	-0.3
	4.1nm,0.8s,baz=235,slow=3.7,SNR=28						
DANN	Dangsing	124.33	91	eP	PKPdf	13 16 15.1	-0.9
	22nm,0.8s						
DMN	Daman	124.45	92	eP	PKPdf	13 16 15.2	-1.1
GKN	Gorkha	124.52	92	eP	PKPdf	13 16 15.0	-1.4
	8.1nm,0.4s						
RAMN	Ramite	124.72	94	eP	PKPdf	13 16 16.0	-0.8
ODAN	Odare	125.07	95	eP	PKPdf	13 16 16.7	-0.8
JIRN	Jiri	125.07	93	eP	PKPdf	13 16 16.7	-0.8
	16nm,0.4s						
GUN	Gumba	125.11	93	eP	PKPdf	13 16 17.0	-0.5
TAPN	Taplejung	125.63	95	eP	PKPdf	13 16 18.3	-0.3
	8.2nm,0.9s						
KAF	Kangasniemi	126.65	28	ep	PKPdf	13 16 17.6	-1.8
AKTK	Aktyubinsk	128.30	54	PKP	PKPdf	13 16 22.5	-0.4
AKTO	Aktyubinsk	128.30	54	PKP	PKPdf	13 16 22.5	-0.4
	4.9nm,0.9s,baz=176,slow=3.6,SNR=13						
JOF	Joensuu	128.61	30	ep	PKPdf	13 16 21.6	-1.5
	13nm,0.7s						
ARCES	ARCESS Array B	132.69	22	PKP	PKPdf	13 16 29.9	-0.7
	7.7nm,0.8s,baz=215,slow=2.1,SNR=37						
ARCES				SKPbc	SKPbc	13 19 39.8	-4.3
	6.7nm,0.9s,baz=316,slow=5.1,SNR=5.2						
BVAR	Borovoye Array	135.61	59	PKP	PKPdf	13 16 36.2	-0.4
	2.4nm,0.8s,baz=276,slow=2.7,SNR=13						
BVAR				SKPbc	SKPbc	13 19 50.3	-3.7
	1.0nm,0.8s,baz=254,slow=2.7,SNR=5.0						
MKAR	Makanchi Array	137.24	73	PKhKP		13 16 28.7	
	0.6nm,0.8s,baz=252,slow=2.7,SNR=6.5						
MKAR				PKP	PKPdf	13 16 39.9	+0.1
	1.1nm,0.7s,baz=158,slow=1.3,SNR=4.9						
MKAR				SKPbc	SKPbc	13 19 55.4	-3.9
	0.3nm,0.5s,baz=220,slow=2.7,SNR=4.2						
MKAR	Makanchi Array	137.24	73	PKP	PKPdf	13 16 39.9	+0.1
MKAR				SKPbc	SKPbc	13 19 55.4	-3.9
YKA	Yellowknife Ar	137.81	316	PKhKP		13 16 26.4	
	0.1nm,0.3s,baz=130,slow=3.5,SNR=4.1						
YKA				PKP	PKPdf	13 16 39.3	-1.1
	2.8nm,0.5s,baz=132,slow=2.1,SNR=53						
YKA				PP	PP	13 19 25.6	-4.8
	0.5nm,1.0s,baz=126,slow=6.0,SNR=4.2						
YKA				SKPbc	SKPbc	13 19 55.1	-5.2
	3.8nm,0.8s,baz=129,slow=2.6,SNR=25						
YKA	Yellowknife Ar	137.81	316	PKP	PKPdf	13 16 39.3	-1.1
YKA				PP	PP	13 19 25.6	-4.8
YKA				SKPbc	SKPbc	13 19 55.1	-5.2
KURK	Kurchatov	137.99	66	PKhKP		13 16 35.9	
	1.5nm,0.9s,baz=237,slow=2.5,SNR=5.9						
KURK	Kurchatov	137.99	66	PKP		13 16 35.9	
RES	Resolute Bay	139.81	338	SKPbc	SKPbc	13 20 01.4	-4.1
	2.3nm,1.0s,baz=154,slow=3.7,SNR=4.1						
GTA	Gaotai	141.32	95	ePKP	PKPdf	13 16 47.1	-0.4
XAN	Xi'an	141.96	110	PKP	PKPdf	13 16 43.9	-4.9
ZAA0	Zalesovo Array	142.98	66	ePKPdf		13 16 46.0	
ZALV	Zalesovo Beam	142.98	66	PKhKP		13 16 45.7	
	1.0nm,0.3s,baz=256,slow=3.1,SNR=10						
DAWY	Dawson	148.29	309	ePKPbc	PKPbc	13 17 00.6	-1.7
EGAK	Eagle	149.26	310	ePKPbc	PKPbc	13 17 03.0	-1.8
BJT	Baijiatuau	150.23	111	ePKPbc	PKPbc	13 17 07.7	-0.2
SONM	Songino Array	150.53	90	PKP	PKPdf	13 17 01.4	-1.4
	8.2nm,0.7s,baz=200,slow=1.8,SNR=6.3						
SONM				PKPbc	PKPbc	13 17 07.5	-0.9
	12nm,0.7s,baz=222,slow=2.4,SNR=67						
COLA	College	152.03	309	ePKPbc	PKPbc	13 17 09.8	-1.5
COLA				ePKPab	PKPab	13 17 20.1	-1.4
KSRS	Korea Array	153.54	130	PKPbc	PKPbc	13 17 15.0	-0.5
	1.7nm,0.7s,baz=166,slow=1.6,SNR=4.5						
KSRS				PKPab	PKPab	13 17 28.8	+0.2
	3.6nm,0.8s,baz=209,slow=3.5,SNR=6.0						

BJI ***03*** *12:57:48.0, 0.°75S×123.°73E, h168^{km}, mB4.8/13, mb4.4/21*
NEIC ***03*** *12:57:50.8±0.3, 0.°03N×123.°54E, mb4.5/12, Error ellipse: s-maj=15.5km s-min=6.2km az=66.0*
IDC ***03*** *12:57:51.1±0.7, 0.°01N×123.°46E, h130^{km}±6^{km}, mb4.0/15, mb1 4.1/16, mb1mx4.0/23, mbtmp4.0/16, Error ellipse: s-maj=24.0km s-min=8.1km az=68.0*
ISCJB ***03*** *12:57:51.2±0.4, 0.°05S±0.°03×123.°52E±0.°03, h143^{km}±4^{km}, mb4.4/34, Error ellipse: s-maj=5.6km s-min=4.9km az=145.1*
DJA ***03*** *12:57:53, 0.°19S×123.°53E, h66^{km}, MLv5.0/8*
MOS ***03*** *12:58:00.3±0.8, 0.°07S×123.°41E, h246^{km}, mb4.5/5, Error ellipse: s-maj=27.8km s-min=11.1km az=106.9*
ISC 03 12:57:52.3±0.4**, 0.°05S**±0.°03×**123.°53E**±0.°03**, h138**^{km}±4^{km}**, h165**^{km}±7.7^{km}**:pP-P, n91,** σ1^{s}**12**/95**, mb4.4**/34**, 2C-3D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.98	41	P	Pn	12 58 26.4	-0.1
MNI				S	Sn	12 58 54.0	+1.3
PCI	Palu	3.79	257	⇓eP	Pn	12 58 50.0	+0.6
PCI	Palu	3.79	257	P	Pn	12 58 48.7	-0.7
PCI				S	Sn	12 59 33.3	-0.4
TNTI	Ternate	3.93	78	P	Pn	12 58 50.8	-0.5
TNE	Ternate	3.93	78	⇓eP	Pn	12 58 46.0	-5.3
KDI	Kendari	3.98	193	⇑eP	Pn	12 58 51.5	-0.6
KDI				eS	Sn	12 59 36.8	-1.7
KDI	Kendari	3.98	193	P	Pn	12 58 50.7	-1.4
KDI				S	Sn	12 59 35.9	-2.6
LBMI	Labuha	4.02	98	P	Pn	12 58 51.0	-1.5
LBMI				S	Sn	12 59 38.4	-0.8
AAI	Ambon	5.90	128	P	Pn	12 59 17.8	+0.2
	330nm,0.8s,3μm1.0nm						
SMKI	Samarinda	6.33	266	P	Pn	12 59 21.4	-2.0
MKS	Makassar	6.54	218	⇓eP	Sn	13 00 42.0	+2.5
TSM	Tawau	7.11	307	P	Pn	12 59 31.8	-2.0
MYLDM	Lahad Datu	7.22	316	P	Pn	12 59 37.2	+1.8
MYLDM	Lahad Datu	7.22	316	P	Pn	12 59 36.1	+0.7
	298nm,0.8s,1.6nm						
SDKM	Sandakan	8.48	312	P	Pn	12 59 53.1	+0.9
KKM	Kota Kinabalu	9.48	310	P	Pn	13 00 06.6	+1.0
KKM	Kota Kinabalu	9.48	310	ePn	Pn	13 00 06.1	+0.4
	59nm,1.0s						
KSM	Kuching	13.30	277	eP	Pn	13 00 59.9	+4.0
SJI	Sawahan	13.99	237	P	Pn	13 01 07.6	+2.9
KAKA	Kakadu	15.37	145	eP	Pn	13 01 23.0	+1.0
	12nm,0.6s						
KAKA	Kakadu	15.37	145	eP	Pn	13 01 23.5	+1.5
	36nm,0.6s						
FITZ	Fitzroy Crossi	18.06	174	eP	P	13 01 53.4	+0.3
	13nm,0.5s						
FITZ	Fitzroy Crossi	18.06	174	P	P	13 01 53.9	+0.8
	1.4nm,0.3s,baz=2.3,slow=6.2,SNR=44						
FITZ	Fitzroy Crossi	18.06	174	eP	P	13 01 53.4	+0.2
	6.5nm,0.6s						
MBWA	Marble Bar	21.30	190	eP	P	13 02 27.6	-0.5
	7.7nm,0.7s,mb4.1						
WRAB	Tennant Creek	22.42	152	eP	P	13 02 39.4	-0.6
WRAB				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.5						
WRAB	Tennant Creek	22.42	152	eP	P	13 02 39.4	-0.6
	comp=Z,16nm,0.9s,mb4.4						

WRA	**Warramunga Arr**	**22.43**	**152**	P	**P**	**13 02 40.0**	**0.0**
WRA						13 06 29.5	
WRA				S	**S**	**13 06 34.9**	**-1.1**
WRA	**Warramunga Arr**	**22.43**	**152**	P	**P**	**13 02 40.0**	**0.0**
	comp=Z,10.0nm,0.6s,mb4.4,baz=336,slow=10.0,SNR=114						
WRA				pP		13 03 05.8	
	comp=Z,5.9nm,0.8s,baz=332,slow=12,SNR=7.0						
WRA				PcP	PcP	13 06 29.5	-0.1
	comp=Z,1.7nm,1.1s,baz=298,slow=5.3,SNR=5.8						
WRA				S	**S**	**13 06 34.9**	**-1.1**
	comp=Z,2.4nm,0.9s,baz=336,slow=16,SNR=4.6						
WRA				ScP	ScP	13 09 54.8	+0.2
	comp=Z,0.4nm,0.7s,baz=326,slow=2.4,SNR=10						
WB2	**Warramunga Arr**	**22.43**	**152**	*e*P	**P**	**13 02 39.2**	**-0.8**
KULM	**Kulim**	**23.45**	**283**	*e*P	**P**	**13 02 49.1**	**-0.4**
	comp=Z,8.0nm,0.6s,mb4.3						
ASAR	**Alice Springs**	**25.55**	**157**	P	**P**	**13 03 09.1**	**+0.7**
ASAR						13 06 36.5	
ASAR	**Alice Springs**	**25.55**	**157**	P	**P**	**13 03 09.1**	**+0.7**
	comp=Z,2.5nm,0.4s,mb4.2,baz=348,slow=15,SNR=45						
ASAR				pP	pP	13 03 36.0	-1.4
	comp=Z,7.4nm,1.0s,baz=332,slow=8.1,SNR=8.8						
ASAR				PcP	PcP	13 06 36.5	+0.2
	comp=Z,1.4nm,0.6s,baz=344,slow=2.4,SNR=9.4						
ASAR				ScP	ScP	13 10 03.1	+0.1
	comp=Z,0.8nm,0.6s,baz=342,slow=2.7,SNR=8.7						
CMAR	**Chiang Mai Arr**	**30.36**	**309**	P	**P**	**13 03 51.8**	**+0.5**
CMAR						13 06 48.1	
CMAR	**Chiang Mai Arr**	**30.36**	**309**	P	**P**	**13 03 51.8**	**+0.5**
	comp=Z,3.1nm,0.7s,mb4.2,baz=133,slow=7.1,SNR=28						
CMAR				PcP	PcP	13 06 48.1	-0.1
	comp=Z,0.3nm,0.3s,baz=150,slow=1.7,SNR=4.0						
CMAR				ScP	ScP	13 10 18.6	+0.6
	comp=Z,0.3nm,0.3s,baz=177,slow=2.7,SNR=4.3						
FORT	**Forrest**	**30.86**	**172**	*e*P	**P**	**13 03 55.3**	**-0.3**
	comp=Z,21nm,0.5s,mb5.1						
FORT	**Forrest**	**30.86**	**172**	*e*P	**P**	**13 03 55.1**	**-0.5**
	comp=Z,30nm,0.7s,mb5.1						
GYA	**Guiyang**	**30.96**	**330**	P	**P**	**13 03 57.6**	**+1.1**
GYA				pP	pP	13 04 33.2	+7.1
GYA				sP	sP	13 04 54.3	+12
GYA				PP	PP	13 05 08.6	-0.6
GYA				PcP	PcP	13 06 49.8	+0.2
GYA				S	**S**	**13 08 50.4**	**-0.6**
GYA				ScP	ScP	13 10 15.0	-4.8
GYA				ScS	ScS	13 14 11.9	-5.2
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
KMI	**Kunming**	**32.10**	**323**	P	**P**	**13 04 07.7**	**+1.2**
KMI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
NWAO	**Narrogin (SRO)**	**33.23**	**190**	P	**P**	**13 04 15.7**	**-0.6**
	comp=Z,9.9nm,0.9s,mb4.5,baz=49,slow=22,SNR=6.2						
STKA	**Stephens Creek**	**35.97**	**153**	*e*P	**P**	**13 04 40.6**	**+0.7**
	comp=Z,7.9nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**35.97**	**153**	P	**P**	**13 04 40.8**	**+0.9**
	comp=Z,8.4nm,0.5s,mb4.6,baz=334,slow=8.3,SNR=54						
STKA	**Stephens Creek**	**35.97**	**153**	*e*P	**P**	**13 04 40.4**	**+0.5**
	comp=Z,1.7nm,0.6s,mb3.9						
CD2	**Chengdu**	**36.06**	**330**	P	**P**	**13 04 41.1**	**+0.5**
CD2				pP	pP	13 05 19.0	+8.3
CD2				sP	sP	13 05 39.1	+13
CD2				PP	PP	13 06 10.8	+5.3
CD2				PcP	PcP	13 07 03.5	-0.5
CD2				S	**S**	**13 10 08.0**	**-1.7**
CD2				sS	sS	13 11 13.5	+11
CD2				SS	SS	13 12 44.1	-7.6
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,120nm,5.1s						
CD2				LR	LR		
	comp=N,180nm,5.6s						
CD2				LR	LR		
	comp=Z,250nm,6.0s						
XAN	**Xi’an**	**36.58**	**339**	P	**P**	**13 04 45.2**	**+0.2**
XAN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.2						
XAN				pmax	pmax		
	comp=Z,110nm,4.4s						
MJAR	**Matsushiro Arr**	**38.88**	**19**	P	**P**	**13 05 02.6**	**-1.6**
	comp=Z,3.4nm,0.6s,mb4.1,baz=191,slow=9.3,SNR=14						
ARMA	**Armidale**	**40.32**	**141**	*e*P	**P**	**13 05 18.4**	**+2.1**
LZH	**Lanzhou**	**40.34**	**335**	*e*P	**P**	**13 05 18.5**	**+2.1**
LZH				pP	pP	13 05 51.8	+4.8
LZH				sP	sP	13 06 11.7	+9.1
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.5						
LZH				pmax	pmax		
	comp=Z,110nm,5.4s						
HHC	**Hu-ho-hao-te**	**42.14**	**346**	*e*P	**P**	**13 05 32.9**	**+1.9**
HHC				pP	pP	13 06 11.1	+9.3
HHC				sP	sP	13 06 30.9	+14
HHC				PP	PP	13 07 15.1	+3.7
HHC				PcS	PcS	13 11 15.5	+0.7
HHC				S	**S**	**13 11 39.7**	**-0.7**
HHC				sS	sS	13 12 46.3	+12
HHC				ScS	ScS	13 15 13.7	-5.1
HHC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
HHC				pmax	pmax		
	comp=Z,170nm,4.9s						
HHC				LR	LR		
	comp=N,160nm,15.5s						
HHC				LR	LR		
	comp=E,300nm,14.3s						
HHC				LR	LR		
	comp=Z,130nm,14.3s						
TOO	**Toolangi**	**42.49**	**154**	*e*P	**P**	**13 05 36.0**	**+2.1**
CN2	**Changchun**	**43.69**	**2**	*e*P	**P**	**13 05 45.4**	**+1.9**
ODAN	**Odare**	**43.86**	**311**	*e*P	**P**	**13 05 45.4**	**+0.3**
	comp=Z,14nm,0.7s,mb4.7						
TAPN	**Taplejung**	**43.87**	**311**	*e*P	**P**	**13 05 45.5**	**+0.3**
RAMN	**Ramite**	**44.51**	**310**	*e*P	**P**	**13 05 50.6**	**+0.3**
MDJ	**Mudanjiang**	**44.80**	**6**	P	**P**	**13 05 52.5**	**+0.2**
MDJ				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,140nm,4.5s						
GTA	**Gaotai**	**44.87**	**334**	*e*P	**P**	**13 05 54.0**	**+1.1**
GTA				pP	pP	13 06 32.2	+8.2
GTA				sP	sP	13 06 52.8	+13
GTA				S	**S**	**13 12 19.8**	**-0.4**
GTA				sS	sS	13 13 27.2	+13
GTA				SS	SS	13 15 39.4	-5.5
GTA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
GTA				pmax	pmax		
	comp=Z,94nm,3.9s						
GTA				LR	LR		
	comp=N,57nm,14.7s						
GTA				LR	LR		
	comp=E,67nm,14.4s						
GTA				LR	LR		
	comp=Z,140nm,14.7s						
JIRN	**Jiri**	**45.18**	**311**	*e*P	**P**	**13 05 55.9**	**+0.3**
GUN	**Gumba**	**45.55**	**311**	*e*P	**P**	**13 05 58.5**	**0.0**
	comp=Z,18nm,0.4s,mb5.0						
PKI	**Pulchoki**	**45.73**	**310**	*e*P	**P**	**13 05 59.4**	**-0.6**
DMN	**Daman**	**45.98**	**310**	*e*P	**P**	**13 06 02.7**	**+0.8**
GKN	**Gorkha**	**46.54**	**310**	*e*P	**P**	**13 06 06.5**	**+0.2**
	comp=Z,6.9nm,0.3s,mb4.8						
KOLN	**Koldanda**	**47.23**	**309**	*e*P	**P**	**13 06 11.5**	**-0.1**
DANN	**Dangsing**	**47.38**	**310**	*e*P	**P**	**13 06 12.5**	**-0.3**
PYUN	**Piuthan**	**47.86**	**309**	*e*P	**P**	**13 06 17.2**	**+0.7**
	comp=Z,25nm,0.5s,mb5.1						
YSS	**Yuzh-Sakhalins**	**49.75**	**17**	*e*P	**P**	**13 06 31.7**	**+1.2**
SONM	**Songino Array**	**49.97**	**345**	P	**P**	**13 06 31.7**	**-0.5**
	comp=Z,3.0nm,0.7s,mb4.0,baz=160,slow=8.2,SNR=28						
SONM				PcP	PcP	13 07 49.6	-0.7
	comp=Z,1.0nm,0.7s,baz=161,slow=5.4,SNR=4.1						
BOD	**Bodaibo**	**58.19**	**354**	*e*P	**P**	**13 07 30.2**	**-1.4**
MK31	**Makanchi Array**	**58.93**	**328**	*e*P	**P**	**13 07 35.5**	**-1.5**
MKAR	**Makanchi Array**	**58.93**	**328**	P	**P**	**13 07 35.8**	**-1.2**
	comp=Z,1.0nm,0.5s,mb3.9,baz=127,slow=8.3,SNR=19						
MKAR				pP	pP	13 08 06.8	-2.8
	comp=Z,0.8nm,0.4s,baz=126,slow=8.5,SNR=3.8						
MKAR				PcP	PcP	13 08 23.1	-1.6
	comp=Z,1.1nm,0.5s,baz=141,slow=3.5,SNR=7.2						
PETK	**Petropavlovsk-**	**60.13**	**23**	P	**P**	**13 07 45.1**	**+0.1**
	comp=Z,4.1nm,0.6s,mb4.4,baz=196,slow=3.2,SNR=12						
RPZ	**Rata Peaks**	**60.65**	**142**	P	**P**	**13 07 50.1**	**+1.3**
	comp=Z,16nm,0.8s,mb4.9,baz=214,slow=6.1,SNR=8.0						
KBL	**Kabul**	**61.38**	**310**	*e*P	**P**	**13 07 52.6**	**-1.3**
KBL				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
KBL	**Kabul**	**61.38**	**310**	*e*P	**P**	**13 07 52.6**	**-1.3**
	comp=Z,3.8nm,0.5s,mb4.5						
YAK	**Yakutsk**	**62.10**	**3**	*e*P	**P**	**13 07 57.3**	**-0.9**
YAK				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.0						
YAK	**Yakutsk**	**62.10**	**3**	*e*P	**P**	**13 07 57.3**	**-0.8**
	comp=Z,14nm,0.6s,mb5.0						
ZALV	**Zalesovo Beam**	**62.58**	**335**	P	**P**	**13 07 59.0**	**-2.6**
	comp=Z,0.9nm,0.3s,mb4.0,baz=120,slow=5.8,SNR=12						
KURK	**Kurchatov**	**63.28**	**330**	*e*P	**P**	**13 08 04.7**	**-1.5**
KURK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
KURK	**Kurchatov**	**63.28**	**330**	P	**P**	**13 08 04.3**	**-1.9**
	comp=Z,1.4nm,0.6s,mb4.0,baz=137,slow=6.3,SNR=9.7						
KURK				pP	pP	13 08 35.9	-3.4
	comp=Z,0.6nm,0.4s,baz=137,slow=6.1,SNR=3.2						
KURK	**Kurchatov**	**63.28**	**330**	*e*P	**P**	**13 08 04.7**	**-1.5**
	comp=Z,3.8nm,0.6s,mb4.4						
BVAR	**Borovoye Array**	**68.80**	**329**	P	**P**	**13 08 40.4**	**-1.0**
	comp=Z,0.3nm,0.5s,mb3.3,baz=152,slow=6.5,SNR=3.4						
TIXI	**Tiksi**	**71.67**	**2**	*e*P	**P**	**13 08 56.8**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
TIXI	**Tiksi**	**71.67**	**2**	*e*P	**P**	**13 08 56.8**	**-1.8**
	comp=Z,8.5nm,0.9s,mb4.5						
VNDA	**Vanda**	**80.12**	**172**	P	**P**	**13 09 46.9**	**+0.4**
	comp=Z,1.7nm,0.6s,mb3.8,baz=313,slow=6.0,SNR=5.2						
SYO	**Syowa Base**	**87.77**	**201**	⇑*e*PcP	PcP	13 10 26.9	-0.2
ARCES	**ARCESS Array B**	**92.86**	**340**	P	**P**	**13 10 49.0**	**0.0**
	comp=Z,3.1nm,0.9s,mb4.5,baz=71,slow=8.3,SNR=3.6						
YKA	**Yellowknife Ar**	**104.24**	**24**	PKKPbc	PKKPbc	13 27 26.4	-3.9
	comp=Z,0.2nm,0.6s,baz=120,slow=2.9,SNR=4.5						
TORD	**Torodi Ar. Bea**	**120.93**	**285**	PKP	PKPdf	13 16 27.9	-1.5
	comp=Z,0.6nm,0.6s,baz=75,slow=1.4,SNR=7.4						
ANMO	**Albuquerque**	**121.92**	**48**	PKP	PKPdf	13 16 31.8	+1.0
	comp=Z,1.1nm,0.8s,baz=190,slow=3.1,SNR=5.5						
SCHQ	**Schefferville**	**124.74**	**7**	PKP	PKPdf	13 16 35.5	-0.1
	comp=Z,1.5nm,0.4s,baz=216,slow=2.2,SNR=7.7						
TXAR	**Lajitas Array**	**126.43**	**53**	PKP	PKPdf	13 16 40.2	+0.6
	comp=Z,0.6nm,0.9s,baz=259,slow=1.3,SNR=5.6						
LCO	**Las Campanas**	**148.06**	**156**	*e*PKPbc	PKPbc	13 17 21.9	-0.5

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*IDC **03** 12:59:38.1±22.0, 36°.54N×70°.93E, h195^{km}±137^{km}, mb3.0/1, mb1 2.9/6, mb1mx2.7/27, mbtmp2.8/6, Error ellipse: s-maj=201.7km s-min=54.7km az=5.0*

*NNC **03** 12:59:43.7±5.1, 37°.05N×70°.70E, h201^{km}±65^{km}, mb2.9, mpv4.2, Error ellipse: s-maj=49.1km s-min=28.9km az=24.0*

ISC 03 12:59:44.1±2.3**, 37°.1N**±0°.2×**70°.8E**±0°.1**, h219**^{km}±17^{km}**, n18, σ0^{s}.97**/21**, 4C-3D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	**5.53**	**23**	P	**Pn**	**13 01 05.3**	**-0.2**
	SNR=157						
KK31	**Karatay Array**	**6.03**	**358**	⇓P	**Pn**	**13 01 11.5**	**-0.4**
	10nm,0.6s						
KK31				⇑S	**S**	**13 02 21.8**	**0.0**
	2.5nm,0.4s,baz=186,slow=23,SNR=3.3						
EKS2	**Erkin-Say**	**6.04**	**21**	P	**Pn**	**13 01 12.1**	**+0.1**
	SNR=36						
KZA	**Kyzart**	**6.07**	**33**	P	**Pn**	**13 01 08.1**	**-4.2**
	SNR=11						
AAK	**Ala-Archa**	**6.24**	**26**	P	**Pn**	**13 01 14.6**	**0.0**
	SNR=20						
KBK	**Karagaybulak**	**6.43**	**28**	P	**Pn**	**13 01 16.8**	**-0.1**
	SNR=15						
CHMS	**Chumysh**	**6.65**	**26**	P	**Pn**	**13 01 19.2**	**-0.6**
	SNR=6.0						
USP	**Ospenovka**	**6.81**	**23**	P	**Pn**	**13 01 21.1**	**-0.7**
	SNR=11						
TKM2	**Tokmak 2**	**6.91**	**31**	P	**Pn**	**13 01 22.9**	**-0.2**
	SNR=29						
TKM2	**Tokmak 2**	**6.91**	**31**	⇓P	**Pn**	**13 01 22.9**	**-0.3**
	11nm,0.4s						
TKM2				⇑S	**S**	**13 02 43.6**	**+1.5**
	2.3nm,0.7s						
MKAR	**Makanchi Array**	**12.93**	**38**	P	**Pn**	**13 02 39.5**	**-0.4**
	0.1nm,0.3s,baz=228,slow=16,SNR=5.2						
AB09	**Akbulak array**	**14.52**	**330**	⇓P	**Pn**	**13 03 01.0**	**+1.6**
	0.6nm,0.4s						
AB09				⇑S	**S**	**13 05 38.9**	**-1.5**
	0.6nm,0.8s						
KURK	**Kurchatov**	**14.75**	**20**	P	**Pn**	**13 03 00.0**	**-2.2**
	0.0nm,0.3s,baz=207,slow=12,SNR=2.7						
BVAR	**Borovoye Array**	**15.96**	**359**	P	**Pn**	**13 03 18.1**	**+1.3**
	0.1nm,0.3s,baz=164,slow=11,SNR=4.2						
AKTO	**Aktyubinsk**	**16.21**	**330**	P	**P**	**13 03 20.2**	**+1.4**
	0.6nm,0.3s,baz=144,slow=9.5,SNR=9.1						
AKTO	**Aktyubinsk**	**16.21**	**330**	⇑P	**P**	**13 03 19.9**	**+1.1**
	0.4nm,0.5s						
ZALV	**Zalesovo Beam**	**19.47**	**25**	P	**P**	**13 03 55.1**	**+1.0**
	0.3nm,0.3s,baz=228,slow=11,SNR=4.4						
YKA	**Yellowknife Ar**	**80.69**	**3**	P	**P**	**13 11 31.6**	**-0.6**
	0.2nm,0.3s,baz=352,slow=5.5,SNR=4.6						

PRE 03 13:09:52.8±0.6**, 21°.45S×33°.09E, h5**^{km}**, ML3.6, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSNA	**Messina**	**2.99**	**252**	*e*P	Pn	13 10 41.6	+0.8
MSNA				*e*S	Sn	13 11 17.9	+0.9
MSNA				AML	AML	13 11 37.3	
	comp=Z,79nm,0.2s						
POGA	**Pongola**	**6.04**	**193**	*e*P	Pn	13 11 23.4	+0.6
POGA				*e*S	Sn	13 12 29.0	-3.4
POGA				AML	AML	13 13 10.4	
	comp=Z,15nm,0.5s						
BOSA	**Boshof**	**10.06**	**223**	*e*P	Pn	13 12 19.4	+1.3
BOSA				*e*S	Sn	13 14 06.4	-5.0
BOSA				AML	AML	13 15 19.0	
	comp=Z,5.6nm,0.6s						

GUC 03 13:17:32.7±0.7**, 23°.80S×67°.38W, h223**^{km}±9^{km}**, ML4.1, 3C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**1.84**	**310**	⇑*i*P	Pn	13 18 13.4	+1.9
LVC				*i* S	S	13 18 44.2	+2.4
PECH	**Pedro de Valdi**	**2.43**	**299**	⇓*i*P	Pn	13 18 19.4	+2.0
PECH				*i* S	S	13 18 54.7	+2.3
PECH				AML	AML	13 18 56.9	
	comp=E,338nm,0.2s						
PB04	**Plate Boundary**	**2.47**	**308**	⇓*i*P	Pn	13 18 25.4	+7.5
PB04				*i* S	S	13 19 05.3	+12
PB04				AML	AML	13 19 09.3	
	comp=N,189nm,0.3s						
MECH	**Mejillones**	**2.91**	**283**	⇑*i*P	Pn	13 18 24.5	+1.9
MECH				*i* S	S	13 19 03.8	+2.1
MECH				AML	AML	13 19 07.8	
	comp=N,215nm,0.4s						
TOCH	**Tocopilla**	**3.11**	**303**	⇑*i*P	Pn	13 18 27.0	+2.2
TOCH				*i* S	S	13 19 08.1	+2.2
TOCH				AML	AML	13 19 14.7	
	comp=E,259nm,0.0s						
PB01	**Plate Boundary**	**3.37**	**324**	*e*P	Pn	13 18 30.2	+2.3
PB01				*i* S	S	13 19 13.4	+2.1
HMBC	**Humberston**	**4.21**	**326**	*e*P	Pn	13 18 39.5	+1.6
HMBC				*i* S	S	13 19 31.7	+2.2

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*NEIC **03** 13:20:36.4, 36°.03S×178°.53E, h220^{km}, mb3.9/1, After WEL.*

*IDC **03** 13:20:38.2±2.9, 35°.98S×177°.80E, h223^{km}±17^{km}, mb3.8/3, mb1 3.9/5, mb1mx3.5/17, mbtmp3.7/5, Error ellipse: s-maj=42.2km s-min=18.5km az=46.0*

ISC 03 13:20:38.1±0.8**, 36°.18S**±0°.08×**177°.9E**±0°.1**, h225**^{km}±6^{km}**, n48, σ0^{s}.95**/47**, mb4.0**/4**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**1.43**	**165**	P	**Pn**	**13 21 12.5**	**-0.9**
MXZ				S	**S**	**13 21 39.7**	**-1.5**
PUZ	**Puketiti**	**1.92**	**170**	P	**Pn**	**13 21 17.1**	**-0.6**
URZ	**Urewera**	**2.16**	**196**	P	**Pn**	**13 21 20.9**	**+0.9**
	12nm,0.3s,baz=344,slow=2.5,SNR=132						
URZ				S	**S**	**13 21 56.9**	**+3.9**
	28nm,0.3s,baz=115,slow=22,SNR=46						
URZ	**Urewera**	**2.16**	**196**	*e*Pn	**Pn**	**13 21 21.0**	**+1.0**
URZ				*e*Sn	**S**	**13 21 58.1**	**+5.1**
MWZ	**Matawai**	**2.17**	**187**	P	**Pn**	**13 21 21.1**	**+1.0**
KNZ	**Kokohu**	**2.84**	**183**	P	**Pn**	**13 21 27.4**	**+0.2**
FWVZ	**Far West T-bar**	**3.58**	**210**	P	**Pn**	**13 21 38.2**	**+2.6**
OUZ	**Omahuta**	**3.59**	**284**	*e*Pn	**Pn**	**13 21 36.0**	**+0.1**
WNVZ	**Wahianoa**	**3.62**	**209**	P	**Pn**	**13 21 38.3**	**+2.2**
MOVZ	**Moawhango**	**3.63**	**207**	P	**Pn**	**13 21 37.4**	**+1.1**
WAZ	**Wanganui**	**4.23**	**211**	P	**Pn**	**13 21 45.9**	**+2.4**
BFZ	**Birch Farm**	**4.67**	**195**	P	**Pn**	**13 21 49.9**	**+1.0**
KIW	**Kapiti Island**	**5.22**	**205**	P	**Pn**	**13 21 55.8**	**+0.1**
MTW	**Mount Morrison**	**5.30**	**200**	P	**Pn**	**13 21 56.3**	**-0.5**
CAW	**Cannon Point**	**5.39**	**203**	P	**Pn**	**13 21 57.6**	**-0.2**
MSWZ	**Moikau Station**	**5.61**	**200**	P	**Pn**	**13 22 00.4**	**-0.3**
MRW	**Makara Radio**	**5.62**	**205**	P	**Pn**	**13 22 00.5**	**-0.2**
WEL	**Wellington**	**5.64**	**204**	P	**Pn**	**13 22 00.9**	**-0.2**
SNZO	**South Karori**	**5.69**	**205**	*e*Pn	**Pn**	**13 22 01.7**	**+0.1**
SNZO				*e*S	**S**	**13 23 09.8**	**+1.7**
BHW	**Baring Head**	**5.72**	**203**	P	**Pn**	**13 22 01.6**	**-0.5**
TCW	**Tory Channel**	**5.75**	**208**	P	**Pn**	**13 22 02.0**	**-0.5**
NNZ	**Nelson**	**6.13**	**213**	P	**Pn**	**13 22 06.8**	**-0.5**
QRZ	**Quartz Range**	**6.24**	**220**	P	**Pn**	**13 22 08.6**	**-0.1**
BSWZ	**Blackbirch Sta**	**6.34**	**208**	P	**Pn**	**13 22 09.6**	**-0.3**
THZ	**Tophouse**	**6.78**	**213**	P	**Pn**	**13 22 14.9**	**-0.7**
KHZ	**Kahutara**	**7.07**	**207**	P	**Pn**	**13 22 15.1**	**-4.2**
DSZ	**Denniston Nort**	**7.29**	**218**	P	**Pn**	**13 22 22.4**	**+0.3**
LTZ	**Lake Taylor**	**7.88**	**211**	P	**Pn**	**13 22 28.7**	**-1.0**
MQZ	**McQueen’s Vall**	**8.52**	**206**	P	**Pn**	**13 22 36.0**	**-1.8**
RPZ	**Rata Peaks**	**9.16**	**213**	P	**Pn**	**13 22 46.1**	**+0.1**
	0.9nm,0.3s,baz=314,slow=8.7,SNR=12						
RPZ				S	**S**	**13 24 28.6**	**-0.5**
	1.0nm,0.3s,baz=45,slow=21,SNR=8.9						
RPZ	**Rata Peaks**	**9.16**	**213**	*e*Pn	**Pn**	**13 22 45.9**	**-0.1**
RPZ				S	**S**	**13 24 28.4**	**-0.8**
FOZ	**Fox Glacier**	**9.68**	**218**	P	**Pn**	**13 22 51.4**	**-1.4**
ODZ	**Otahua Downs**	**10.41**	**209**	*e*P	**Pn**	**13 23 01.6**	**-0.5**
JCZ	**Jackson Bay**	**10.52**	**219**	P	**Pn**	**13 23 02.4**	**-1.0**
ASAR	**Alice Springs**	**39.76**	**276**	P	**P**	**13 27 49.4**	**+0.2**
	1.7nm,0.6s,mb3.6,baz=116,slow=7.9,SNR=23						
WB2	**Warramunga Arr**	**41.29**	**281**	*e*P	**P**	**13 28 01.6**	**-0.2**
WRAB	**Tennant Creek**	**41.29**	**281**	*e*P	**P**	**13 28 01.5**	**-0.2**
	1.6nm,0.3s,mb3.9						
WRA	**Warramunga Arr**	**41.30**	**281**	P	**P**	**13 28 01.8**	**-0.1**
	2.7nm,0.3s,mb4.1,baz=119,slow=7.7,SNR=64						
QSPA	**South Pole Qui**	**53.95**	**180**	P	**P**	**13 29 41.7**	**+3.7**
	4.6nm,0.6s,mb4.2,baz=14,slow=9.5,SNR=12						
VNA3	**Neumayer Olymp**	**72.75**	**177**	*e*	**P**	**13 31 41.3**	**+0.1**
VNA2	**Neumayer--Watz**	**73.14**	**178**	*e*	**P**	**13 31 44.7**	**+1.2**
KEV	**Kevo**	**142.83**	**344**	*e*p	PKPdf	13 39 35.9	-7.6
	20nm,1.1s						
JOF	**Joensuu**	**146.25**	**333**	*e*p	PKPdf	13 39 46.2	-3.4
	1.6nm,0.5s						
KAF	**Kangasniemi**	**148.55**	**335**	*e*p	PKPdf	13 39 51.8	-1.6
	4.3nm,0.9s						
DBIC	**Dimbokro**	**150.53**	**175**	PKPbc	PKPbc	13 40 02.8	-0.9
	1.7nm,0.5s,baz=136,slow=2.7,SNR=6.5						
DBIC	**Dimbokro**	**150.53**	**175**	*e*PKPbc	PKPbc	13 40 02.7	-1.0
TORD	**Torodi Ar. Bea**	**156.81**	**190**	PKPbc	PKPdf	13 40 20.0	+13
	0.4nm,0.4s,baz=162,slow=3.2,SNR=6.5						
TORD				PKPab	PKPab	13 40 36.8	-0.8
	1.3nm,0.7s,baz=171,slow=3.4,SNR=7.9						
TORD	**Torodi Ar. Bea**	**156.81**	**190**	PKPbc	PKPdf	13 40 20.0	+13
TORD				PKPab	PKPab	13 40 36.8	-0.7

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*BJI **03** 13:23:50.9, 18°.95N×94°.75E, h50^{km}, mB4.6/9, mb4.4/21, ML4.7/1, Ms3.8/2, Ms7 3.7/2*

*ISCJB **03** 13:23:58.1±0.6, 19°.59N±0°.04×95°.03E±0°.03, h68^{km}±6^{km}, mb4.2/28, Error ellipse: s-maj=6.8km s-min=4.6km az=30.3*

*MOS **03** 13:23:59.7±0.9, 19°.59N×95°.13E, h86^{km}, mb4.5/7, Error ellipse: s-maj=14.8km s-min=7.3km az=117.4*

*NEIC **03** 13:24:00.5±0.2, 19°.55N×95°.09E, mb4.6/3, Error ellipse: s-maj=9.0km s-min=4.4km az=47.0*

*IDC **03** 13:24:00.7±0.6, 19°.57N×95°.15E, h80^{km}±5^{km}, mb3.9/19, mb1 4.0/21, mb1mx3.9/30, mbtmp4.0/21, Error ellipse: s-maj=19.0km s-min=10.3km az=58.0*

ISC 03 13:23:59.8±0.5**, 19°.58N**±0°.04×**94°.98E**±0°.04**, h67**^{km}±5^{km}**, h80**^{km}±2.7^{km}**:pP-P, n110, σ1^{s}.13**/126**, mb4.2**/28**, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHG	**Chiang Mai**	**3.82**	**101**	PG	**Pn**	**13 24 56.3**	**+0.1**
CHG				SG	**Sn**	**13 25 31.4**	**-8.5**
CHTO	**Chiang Mai**	**3.82**	**101**	*e*P	**Pn**	**13 24 56.0**	**-0.1**
CM31	**Chiang Mai Arr**	**3.91**	**106**	*e*Pn	**Pn**	**13 24 57.1**	**-0.2**
CMAR	**Chiang Mai Arr**	**3.91**	**106**	P	**Pn**	**13 24 56.8**	**-0.6**
	15nm,0.3s,baz=279,slow=14,SNR=656						
BDT	**Bhumibol Dam**	**4.47**	**121**	PG	**Pn**	**13 25 04.0**	**-1.0**
	171nm,0.8s						
IMP	**Imphal**	**5.27**	**350**	*e*PKP	**Pn**	**13 25 21.0**	**+5.0**
IMP				*e*x	x	13 26 21.0	
AGT	**Agartala**	**5.51**	**322**	*e*x	**Pn**	**13 25 17.0**	**-2.3**
AGT				*e*x	x	13 26 08.0	
NST	**Nakhon Sawan**	**6.26**	**128**	P	**Pn**	**13 25 28.0**	**-1.6**
	725nm,0.5s						
SHL	**Shillong**	**6.61**	**335**	*i* P	**Pn**	**13 25 36.0**	**+1.7**
SHL				*i* S	**Sn**	**13 26 48.0**	**-0.2**
KMI	**Kunming**	**9.05**	**51**	P	**Pn**	**13 26 14.2**	**+6.5**
KMI				pmax	pmax		
	comp=Z,54nm,1.3s						
KMI				pmax	pmax		
	comp=Z,150nm,3.1s						
BOK	**Bokaro**	**9.44**	**298**	*e*PKP	**Pn**	**13 26 15.3**	**+2.2**
BOK				AMb	AMB	13 26 17.2	
	comp=Z,102nm,0.6s						
BOK				*e*S	**Sn**	**13 27 52.4**	**-5.2**
ODAN	**Odare**	**10.06**	**317**	*e*Pn	**Pn**	**13 26 22.1**	**+0.6**
ODAN				*e*Sn	**Sn**	**13 28 10.5**	**-2.2**
	comp=Z,225nm,0.6s						
ODAN	**Odare**	**10.06**	**317**	*e*P	**Pn**	**13 26 22.1**	**+0.6**
TAPN	**Taplejung**	**10.21**	**321**	*e*Pn	**Pn**	**13 26 24.6**	**+1.0**
TAPN				*e*Sn	**Sn**	**13 28 14.3**	**-2.2**
	comp=Z,77nm,0.3s						
TAPN	**Taplejung**	**10.21**	**321**	*e*P	**Pn**	**13 26 24.5**	**+0.9**
RAMN	**Ramite**	**10.63**	**315**	*e*Pn	**Pn**	**13 26 30.1**	**+0.8**
RAMN				*e*Sn	**Sn**	**13 28 24.4**	**-2.4**
	comp=Z,122nm,0.6s						
RAMN	**Ramite**	**10.63**	**315**	*e*P	**Pn**	**13 26 30.1**	**+0.8**
	comp=Z,191nm,0.3s						
LSA	**Lhasa**	**10.66**	**342**	*e*P	**Pn**	**13 26 31.2**	**+1.6**
LSA				pmax	pmax		
	comp=Z,26nm,0.5s						
LSA	**Lhasa**	**10.66**	**342**	*e*Pn	**Pn**	**13 26 31.2**	**+1.6**
	comp=Z,26nm,0.5s						
LSA				*e*Sn	**Sn**	**13 28 20.1**	**-7.3**
VIS	**Vishakhapatnam**	**11.20**	**262**	*e*PKP	**Pn**	**13 26 36.8**	**-0.4**
VIS				AMb	AMB	13 26 41.3	
	comp=Z,25nm,1.1s						
VIS				*e*S	**Sn**	**13 28 30.8**	**-10**
JIRN	**Jiri**	**11.38**	**317**	*e*Pn	**Pn**	**13 26 40.6**	**+1.1**
JIRN				*e*Sn	**Sn**	**13 28 41.6**	**-3.4**
	comp=Z,111nm,0.5s						
JIRN	**Jiri**	**11.38**	**317**	*e*P	**Pn**	**13 26 40.5**	**+1.0**
GUN	**Gumba**	**11.75**	**317**	*e*Pn	**Pn**	**13 26 45.3**	**+0.7**
GUN				*e*Sn	**Sn**	**13 28 50.9**	**-3.2**
	comp=Z,174nm,0.8s						
GUN	**Gumba**	**11.75**	**317**	*e*P	**Pn**	**13 26 45.2**	**+0.6**
PKI	**Pulchoki**	**11.84**	**314**	*e*Pn	**Pn**	**13 26 46.3**	**+0.5**
PKI				*e*Sn	**Sn**	**13 28 52.6**	**-3.6**
	comp=Z,66nm,0.5s						
PKI	**Pulchoki**	**11.84**	**314**	*e*P	**Pn**	**13 26 46.4**	**+0.6**
	comp=Z,304nm,0.5s						
PKIN	**Phulchoki**	**11.85**	**314**	*e*Pn	**Pn**	**13 26 46.3**	**+0.3**
PKIN				*e*Sn	**Sn**	**13 28 52.4**	**-4.1**
	comp=Z,47nm,0.4s						
PKIN	**Phulchoki**	**11.85**	**314**	*e*P	**Pn**	**13 26 46.4**	**+0.4**
	comp=Z,240nm,0.4s						
KKN	**Kakani**	**12.07**	**314**	*e*Pn	**Pn**	**13 26 49.3**	**+0.4**
KKN	**Kakani**	**12.07**	**314**	*e*P	**Pn**	**13 26 49.1**	**+0.2**
DMN	**Daman**	**12.07**	**313**	*e*Pn	**Pn**	**13 26 49.2**	**+0.3**
DMN				*e*Sn	**Sn**	**13 28 57.9**	**-4.0**
	comp=Z,61nm,0.6s						
DMN	**Daman**	**12.07**	**313**	*e*P	**Pn**	**13 26 49.3**	**+0.4**
GKN	**Gorkha**	**12.64**	**313**	*e*Pn	**Pn**	**13 26 56.9**	**+0.2**
GKN				*e*Sn	**Sn**	**13 29 10.9**	**-4.8**
	comp=Z,37nm,0.3s						
GKN	**Gorkha**	**12.64**	**313**	*e*P	**Pn**	**13 26 57.0**	**+0.3**
	comp=Z,424nm,0.3s						
KOLN	**Koldanda**	**13.23**	**310**	*e*Pn	**Pn**	**13 27 04.6**	**-0.1**
KOLN				*e*Sn	**Sn**	**13 29 24.1**	**-6.0**
	comp=Z,57nm,0.4s						
KOLN	**Koldanda**	**13.23**	**310**	*e*P	**Pn**	**13 27 04.6**	**-0.1**
	comp=Z,244nm,0.4s						

DANN	**Dangsing**	**13.46**	**313**	*e*Pn	**Pn**	**13 27 07.4**	**-0.4**
DANN				*e*Sn	**Sn**	**13 29 30.5**	**-5.2**
	comp=Z,37nm,0.4s						
DANN	**Dangsing**	**13.46**	**313**	*e*P	**Pn**	**13 27 07.2**	**-0.6**
	comp=Z,420nm,0.6s						
CD2	**Chengdu**	**13.79**	**33**	P	**Pn**	**13 27 13.7**	**+1.6**
CD2				pmax	pmax		
	comp=Z,20nm,1.1s						
CD2				pmax	pmax		
	comp=Z,100nm,4.3s						
PYUN	**Piuthan**	**13.86**	**310**	*e*Pn	**Pn**	**13 27 13.0**	**-0.1**
PYUN				*e*Sn	**Sn**	**13 29 39.6**	**-5.8**
	comp=Z,45nm,0.5s						
PYUN	**Piuthan**	**13.86**	**310**	*e*P	**Pn**	**13 27 12.9**	**-0.2**
	comp=Z,93nm,0.3s						
HYB	**Hyderabad**	**15.73**	**265**	*i* P	**Pn**	**13 27 43.0**	**+5.6**
HYB				*e*S	**S**	**13 30 32.0**	**-10**
LGTI	**Lohaghat**	**16.61**	**309**	*e*PKP	**Pn**	**13 27 46.5**	**-1.8**
PTH	**Pithoragarh**	**16.68**	**309**	*e*x	**Pn**	**13 27 53.4**	**+4.1**
BHPL	**Bhopal**	**16.75**	**286**	*e*PKP	**Pn**	**13 27 51.4**	**+1.2**
BHPL				AMb	AMB	13 27 57.0	
	comp=Z,41nm,0.5s						
PSI	**Prapat**	**17.12**	**167**	P	**Pn**	**13 27 56.2**	**+1.5**
	comp=Z,1.1nm,0.3s,baz=4.7,slow=6.2,SNR=6.0						
PSI	**Prapat**	**17.12**	**167**	P	**Pn**	**13 27 56.2**	**+1.5**
JOSI	**Joshimath**	**17.72**	**311**	*e*PKP	**Pn**	**13 28 03.2**	**+1.3**
LZH	**Lanzhou**	**18.20**	**24**	*e*P	**Pn**	**13 28 09.5**	**+1.7**
LZH				pmax	pmax		
	comp=Z,25nm,1.0s						
LZH				pmax	pmax		
	comp=Z,140nm,4.4s						
AYAN	**Aya Nagar**	**18.54**	**302**	*e*PKP	**Pn**	**13 28 11.4**	**-0.6**
AYAN				AMb	AMB	13 28 13.0	
	comp=Z,18nm,0.1s						
NDI	**New Delhi**	**18.56**	**303**	*e*x	**Pn**	**13 28 10.0**	**-2.2**
NDI				*e*x	x	13 31 28.0	
KUDL	**Kundal**	**18.92**	**300**	*e*PKP	**Pn**	**13 28 17.2**	**+0.7**
KUDL				AMb	AMB	13 28 18.6	
	comp=Z,27nm,0.7s						
XAN	**Xi'an**	**19.00**	**38**	P	**Pn**	**13 28 15.8**	**-1.6**
XAN				S	**S**	**13 31 42.9**	**-5.3**
XAN				pmax	pmax		
	comp=Z,24nm,1.3s						
XAN				pmax	pmax		
	comp=Z,160nm,5.6s						
XAN				LR	LR		
	comp=E,210nm,13.2s						
XAN				LR	LR		
	comp=Z,290nm,14.0s						
KLP	**Kalpa**	**19.19**	**312**	*e*PKP	**Pn**	**13 28 20.2**	**+0.5**
KLP				AMb	AMB	13 28 22.8	
	comp=Z,26nm,0.4s						
KOD	**Kodaikanal**	**19.29**	**244**	*e*PKP	**Pn**	**13 28 21.6**	**+0.5**
KOD				AMb	AMB	13 28 25.4	
	comp=Z,20nm,2.5s						
KHET	**Khetri**	**19.46**	**299**	*e*PKP	**Pn**	**13 28 23.3**	**+0.4**
KHET				AMb	AMB	13 28 24.6	
	comp=Z,29nm,0.9s						
KAD	**Karad**	**19.86**	**267**	*e*PKP	**Pn**	**13 28 27.4**	**-0.3**
KAD				AMb	AMB	13 28 29.9	
	comp=Z,16nm,0.8s						
AJM	**Ajmer**	**19.93**	**294**	*e*PKP	**Pn**	**13 28 28.8**	**+0.4**
AJM				AMb	AMB	13 28 29.8	
	comp=Z,36nm,0.9s						
GTA	**Gaotai**	**20.20**	**11**	*e*P	**P**	**13 28 29.9**	**+0.9**
GTA				pP		13 28 43.9	
GTA				sP	sP	13 28 51.0	-0.5
GTA				pmax	pmax		
	comp=Z,11nm,0.7s						
WHN	**Wuhan**	**20.63**	**54**	P	**P**	**13 28 35.1**	**+1.3**
DLH	**Dalhousie**	**21.37**	**311**	*e*x	**P**	**13 28 41.0**	**-0.7**
KBL	**Kabul**	**27.38**	**308**	*e*P	**P**	**13 29 40.9**	**+2.0**
KBL				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
KBL	**Kabul**	**27.38**	**308**	*e*P	**P**	**13 29 40.9**	**+2.0**
	comp=Z,9.9nm,0.6s,mb4.5						
AAK	**Ala-Archa**	**28.76**	**328**	*e*P	**P**	**13 29 52.9**	**+1.8**
AAK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
AAK	**Ala-Archa**	**28.76**	**328**	*e*P	**P**	**13 29 52.9**	**+1.8**
	comp=Z,2.8nm,0.6s,mb4.1						
MK31	**Makanchi Array**	**29.07**	**342**	*e*P	**P**	**13 29 54.3**	**+0.6**
MK31				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.9						
MK31	**Makanchi Array**	**29.07**	**342**	*e*P	**P**	**13 29 54.1**	**+0.4**
MKAR	**Makanchi Array**	**29.07**	**342**	P	**P**	**13 29 54.5**	**+0.8**
	comp=Z,2.7nm,0.6s,mb4.1,baz=152,slow=9.1,SNR=33						
MKAR				ScP	ScP	13 36 34.0	-2.3
	comp=Z,1.5nm,0.6s,baz=131,slow=3.4,SNR=9.7						
SONM	**Songino Array**	**29.67**	**16**	P	**P**	**13 29 59.6**	**+0.5**
	comp=Z,4.2nm,0.6s,mb4.2,baz=201,slow=9.2,SNR=31						
ZAK	**Zakamensk**	**31.43**	**10**	*e*P	**P**	**13 30 15.5**	**+0.9**
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
KURK	**Kurchatov**	**33.66**	**341**	*e*P	**P**	**13 30 34.3**	**+0.2**
KURK						13 33 12.0	
KURK	**Kurchatov**	**33.66**	**341**	P	**P**	**13 30 34.1**	**0.0**
	comp=Z,4.5nm,0.6s,mb4.5,baz=150,slow=8.6,SNR=24						
KURK				PcP	PcP	13 33 12.0	-0.6
	comp=Z,0.8nm,0.5s,baz=155,slow=3.0,SNR=4.5						
KURK				ScP	ScP	13 36 49.5	-2.1
	comp=Z,4.9nm,0.7s,baz=152,slow=3.1,SNR=20						
KURK	**Kurchatov**	**33.66**	**341**	*e*P	**P**	**13 30 34.3**	**+0.2**
KURK				PcP	PcP	13 33 12.0	-0.6
KURK				ScP	ScP	13 36 49.5	-2.1
ZAA0	**Zalesovo Array**	**35.18**	**350**	*e*P	**P**	**13 30 47.4**	**+0.3**
ZALV	**Zalesovo Beam**	**35.18**	**350**	P	**P**	**13 30 47.8**	**+0.7**
ZALV						13 33 15.8	
ZALV				S	**S**	**13 36 13.8**	**-1.6**
ZALV	**Zalesovo Beam**	**35.18**	**350**	P	**P**	**13 30 47.8**	**+0.6**
	comp=Z,5.5nm,0.4s,mb4.8,baz=171,slow=8.4,SNR=42						
ZALV				PcP	PcP	13 33 15.8	-1.2
	comp=Z,0.6nm,0.5s,baz=186,slow=4.7,SNR=3.0						
ZALV				S	**S**	**13 36 13.8**	**-1.6**
	comp=Z,1.0nm,0.6s,baz=165,slow=12,SNR=3.7						
ZALV				ScP	ScP	13 36 54.0	-2.9
	comp=Z,0.7nm,0.6s,baz=197,slow=1.5,SNR=3.5						
NVS	**Novosibirsk**	**36.32**	**349**	*e*P	**P**	**13 30 56.1**	**-0.7**
VOSK	**Vostochnaya**	**37.97**	**336**	P	**P**	**13 31 11.1**	**+0.2**
VOSK				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
BVAR	**Borovoye Array**	**38.43**	**336**	P	**P**	**13 31 15.0**	**+0.2**
	comp=Z,0.7nm,0.4s,mb3.8,baz=133,slow=12,SNR=4.5						
BVAR				ScP	ScP	13 37 07.6	-1.5
	comp=Z,1.1nm,0.7s,baz=160,slow=6.1,SNR=5.3						
BOD	**Bodaibo**	**40.67**	**16**	*e*P	**P**	**13 31 32.6**	**-0.7**
AB31	**Akbulak array**	**40.76**	**325**	P	**P**	**13 31 34.7**	**+0.6**
AB31				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
AKTO	**Aktyubinsk**	**42.45**	**325**	P	**P**	**13 31 48.2**	**+0.2**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
FITZ	**Fitzroy Crossi**	**48.04**	**139**	*e*P	**P**	**13 32 30.9**	**-1.7**
KIV	**Kislovodsk**	**49.69**	**311**	*e*P	**P**	**13 32 47.0**	**+2.0**
KIV				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
KIV				MLR	MLR		
	comp=Z,136nm,17.0s						
ASF	**Jabal al Asfar**	**53.18**	**296**	P	**P**	**13 33 10.8**	**-0.5**
	comp=Z,1.3nm,0.5s,mb4.3,baz=304,slow=11,SNR=3.3						
EIL	**Elat**	**54.97**	**293**	P	**P**	**13 33 25.2**	**+0.9**
	comp=Z,3.5nm,0.6s,mb4.6,baz=72,slow=7.0,SNR=4.9						
WRA	**Warramunga Arr**	**55.05**	**133**	P	**P**	**13 33 23.5**	**-1.4**
	comp=Z,0.9nm,0.7s,mb3.9,baz=323,slow=7.4,SNR=13						
WRA				pP	pP	13 33 41.6	-0.6
	comp=Z,1.7nm,0.9s,baz=320,slow=7.4,SNR=5.5						
WRA				PcP	PcP	13 34 24.4	-1.4
	comp=Z,0.4nm,0.7s,baz=332,slow=3.7,SNR=5.3						
WRAB	**Tennant Creek**	**55.05**	**133**	*e*P	**P**	**13 33 24.4**	**-0.5**
TIXI	**Tiksi**	**55.67**	**12**	*e*P	**P**	**13 33 27.2**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,14nm,0.4s,mb5.3						
TIXI	**Tiksi**	**55.67**	**12**	*e*P	**P**	**13 33 27.2**	**-1.5**
	comp=Z,14nm,0.4s,mb5.3						
BRTR	**Keskin Array B**	**55.89**	**305**	P	**P**	**13 33 31.2**	**+0.4**
	comp=Z,0.7nm,0.7s,mb3.8						
ASAR	**Alice Springs**	**57.34**	**137**	P	**P**	**13 33 40.0**	**-1.1**
	comp=Z,0.5nm,0.6s,mb3.7,baz=316,slow=6.7,SNR=13						
ASAR				pP	pP	13 34 00.1	+1.4
	comp=Z,1.1nm,0.6s,baz=318,slow=7.1,SNR=6.5						
ARCES	**ARCESS Array B**	**64.65**	**339**	P	**P**	**13 34 28.6**	**-1.5**
	comp=Z,2.8nm,0.6s,mb4.2,baz=86,slow=6.9,SNR=17						
STKA	**Stephens Creek**	**67.92**	**138**	P	**P**	**13 34 50.3**	**-1.2**
	comp=Z,2.2nm,1.0s,mb4.0,baz=343,slow=14,SNR=3.4						
STKA				pP	pP	13 35 10.9	+1.6
	comp=Z,2.5nm,0.8s,baz=317,slow=4.4,SNR=2.5						
GERES	**GERESS Array B**	**69.85**	**316**	P	**P**	**13 35 03.6**	**+0.3**
	comp=Z,0.6nm,0.5s,mb3.7,baz=66,slow=7.4,SNR=11						
GERES				pP	pP	13 35 25.8	+4.6
	comp=Z,0.8nm,0.5s,baz=74,slow=5.0,SNR=4.3						
NOA	**NORSAR Array B**	**70.07**	**329**	P	**P**	**13 35 04.3**	**-0.2**
	comp=Z,1.9nm,0.8s,mb4.0,baz=85,slow=5.9,SNR=3.8						
LSZ	**Lusaka**	**74.26**	**247**	P	**P**	**13 35 31.7**	**+1.5**
	comp=Z,1.6nm,0.4s,mb4.2,baz=57,slow=7.8,SNR=5.6						
LSZ	**Lusaka**	**74.26**	**247**	P	**P**	**13 35 31.7**	**+1.5**
BOSA	**Boshof**	**82.62**	**236**	P	**P**	**13 36 16.0**	**0.0**
	comp=Z,2.5nm,0.7s,mb4.2,baz=125,slow=17,SNR=4.1						
RES	**Resolute Bay**	**85.74**	**3**	P	**P**	**13 36 30.4**	**-0.7**
	comp=Z,4.8nm,0.9s,mb4.4,baz=348,slow=4.7,SNR=20						
RES	**Resolute Bay**	**85.74**	**3**	P	**P**	**13 36 30.4**	**-0.7**
TORD	**Torodi Ar. Bea**	**88.70**	**283**	P	**P**	**13 36 46.2**	**-0.3**
	comp=Z,0.9nm,0.8s,mb3.8,baz=68,slow=4.5,SNR=4.0						
TORD	**Torodi Ar. Bea**	**88.70**	**283**	P	**P**	**13 36 46.2**	**-0.3**
YKA	**Yellowknife Ar**	**94.91**	**13**	P	**P**	**13 37 13.5**	**-0.9**
	comp=Z,1.1nm,0.6s,mb4.5,baz=331,slow=4.4,SNR=22						
YKA				PP	PP	13 41 01.6	-1.6
	comp=Z,0.3nm,0.6s,baz=332,slow=7.8,SNR=3.9						
YKA	**Yellowknife Ar**	**94.91**	**13**	P	**P**	**13 37 13.5**	**-0.9**
YKA				PP	PP	13 41 01.6	-1.6
PDAR	**Pinedale Array**	**113.97**	**20**	PKiKP	PKiKP	13 42 30.0	-1.4
	comp=Z,0.6nm,1.1s,baz=328,slow=1.7,SNR=4.0						
NVAR	**Mina Array Bea**	**114.38**	**28**	PKP	PKiKP	13 42 32.5	+0.2
	comp=Z,0.2nm,0.4s,baz=56,slow=27,SNR=3.6						
TKL	**Tuckaleechee C**	**125.05**	**359**	PKP	PKPdf	13 42 51.5	-1.4
	comp=Z,1.7nm,0.7s,baz=146,slow=7.3,SNR=4.0						
TKL	**Tuckaleechee C**	**125.05**	**359**	PKP	PKPdf	13 42 51.5	-1.4
TXAR	**Lajitas Array**	**128.15**	**21**	PKP	PKPdf	13 42 58.9	-0.1
	comp=Z,0.5nm,0.5s,baz=196,slow=0.4,SNR=24						

ISCJB ***03*** *13:24:21.1±0.6, 2.°81S±0.°10×68.°4E±0.°1, h10^{km}, mb4.2/19, MS4.2/16, Error ellipse: s-maj=16.6km s-min=13.9km az=11.1*

IDC ***03*** *13:24:21.5±0.7, 2.°77S×68.°34E, h0^{km}, mb4.0/12, mb1 4.1/12, mb1mx4.0/24, mbtmp4.0/12, MS4.1/15, Ms1 4.1/15, ms1mx3.9/29, Error ellipse: s-maj=21.3km s-min=19.5km az=94.0*

NEIC ***03*** *13:24:23.5±0.6, 2.°75S×68.°49E, h10^{km}, mb4.5/5, Error ellipse: s-maj=18.6km s-min=15.5km az=120.0*

GCMT ***03*** *13:24:23.5±0.4, 2.°71S×68.°53E, h13^{km}±2^{km}, MW4.9/71, Moment Tensor Solution. s22,c24; s71,c106; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.13±.10; $M_{\theta\theta}$2.55±.10; $M_{\phi\phi}$-2.42±.10; $M_{r\theta}$0.10±.22; $M_{\theta\phi}$0.98±.09; $M_{\phi r}$-1.13±.30; Best double couple: $M_0$2.89100×10^{16} NP1:ϕ_s302.00000°, δ73.00000°, λ-14.00000°. NP2: ϕ_s36.00000°, δ77.00000°, λ-163.00000°. Principal axes: T 2.7400, Plg2.0000°, Azm169.0000°; N 0.3030, Plg69.0000°, Azm73.0000°; P -3.0430, Plg21.0000°, Azm260.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 03 13:24:23.2±0.6, **2.°81S**±0.°10×**68.°4E**±0.°1, **h10**^{km}, **(h19**^{km}±3.3^{km}**:pP-P), n35,** σ**1**^{s}**05**/24, **mb4.2**/19, **MS4.2**/16, **Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**15.88**	**51**	*e*Pn	**Pn**	**13 28 02.6**	**-4.4**
	8.1nm,0.4s						
PSI	**Prapat**	**31.06**	**80**	LR	LR	13 41 14.2	
	comp=Z,701nm,20.4s,MS4.3,baz=278,slow=33						
CMAR	**Chiang Mai Arr**	**36.79**	**54**	P	**P**	**13 31 31.1**	**-0.4**
	1.5nm,1.0s,mb3.8,baz=240,slow=7.2,SNR=5.2						
AAK	**Ala-Archa**	**45.57**	**6**	P	**P**	**13 32 45.3**	**+1.9**
	6.3nm,1.2s,mb4.4						
TKM2	**Tokmak 2**	**45.99**	**7**	*e*P	**P**	**13 32 46.0**	**-0.7**
	13nm,1.3s,mb4.7						
BOSA	**Boshof**	**48.36**	**233**	P	**P**	**13 33 06.2**	**+0.7**
	2.0nm,0.7s,mb4.3,baz=60,slow=8.6,SNR=5.2						
BOSA				LR	LR	13 52 43.5	
	comp=Z,219nm,18.2s,MS4.2,baz=241,slow=35						
BOSA	**Boshof**	**48.36**	**233**	*e*P	**P**	**13 33 08.5**	**+3.0**
BOSA				LR	LR	13 52 43.5	
MKAR	**Makanchi Array**	**50.90**	**12**	P	**P**	**13 33 24.2**	**-0.2**
	0.7nm,0.6s,mb3.8,baz=172,slow=4.4,SNR=2.3						
LZH	**Lanzhou**	**50.94**	**37**	*e*P	**P**	**13 33 26.0**	**+1.0**
LZH				pP	pP	13 33 31.5	+3.4
LZH				sP	sP	13 33 35.0	+5.6
LZH				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.8						
LZH				pmax	pmax		
	comp=Z,98nm,5.0s						
GTA	**Gaotai**	**51.01**	**31**	*e*P	**P**	**13 33 26.5**	**+1.1**
GTA				pP	pP	13 33 30.1	+1.5
GTA				sP	sP	13 33 31.6	+1.8
GTA				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.2						
XAN	**Xi'an**	**52.92**	**43**	P	**P**	**13 33 37.6**	**-2.2**
XAN				pP	pP	13 33 45.0	+2.0
XAN				sP	sP	13 33 48.7	+4.5
XAN				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
XAN				pmax	pmax		
	comp=Z,57nm,4.7s						
XAN				LR	LR		
	comp=E,180nm,10.0s						
XAN				LR	LR		
	comp=Z,290nm,11.4s,MS4.6						
BRTR	**Keskin Array B**	**52.98**	**327**	LR	LR	13 55 54.8	
	comp=Z,144nm,19.4s,MS4.0,baz=123,slow=36						
KURK	**Kurchatov**	**54.04**	**8**	P	**P**	**13 33 47.1**	**-0.6**
	comp=Z,2.3nm,0.8s,mb4.2,baz=208,slow=7.3,SNR=4.9						
KURK	**Kurchatov**	**54.04**	**8**	P	**P**	**13 33 49.7**	**+2.0**
	comp=Z,5.1nm,1.0s,mb4.4						
DAV	**Davao City (W)**	**57.95**	**80**	LR	LR	13 57 02.3	
	comp=Z,123nm,21.8s,MS4.0,baz=290,slow=34						
ZAA0	**Zalesovo Array**	**58.20**	**11**	P	**P**	**13 34 17.1**	**-0.3**
ZALV	**Zalesovo Beam**	**58.20**	**11**	P	**P**	**13 34 17.1**	**-0.3**
	comp=Z,0.9nm,0.4s,mb4.2,baz=218,slow=9.1,SNR=3.1						
ZALV				LR	LR	13 58 32.0	
	comp=Z,111nm,21.2s,MS4.0,baz=225,slow=35						
SONM	**Songino Array**	**60.40**	**29**	P	**P**	**13 34 32.4**	**-0.3**
	comp=Z,2.4nm,0.6s,mb4.4,baz=230,slow=7.3,SNR=10.0						
TLY	**Talaya**	**62.00**	**24**	*e*P	**P**	**13 34 45.2**	**+1.7**
	comp=Z,5.6nm,1.4s,mb4.5						
AKASG	**Malin Array Be**	**62.93**	**333**	P	**P**	**13 34 47.9**	**-1.8**
	comp=Z,0.2nm,0.3s,mb3.7,baz=123,slow=5.5,SNR=5.4						
AKASG				LR	LR	14 03 21.3	
	comp=Z,105nm,20.1s,MS4.0,baz=150,slow=37						
MAW	**Mawson**	**64.78**	**182**	P	**P**	**13 35 01.6**	**-0.1**
	comp=Z,5.5nm,0.9s,mb4.6,baz=350,slow=14,SNR=4.6						
MAW				LR	LR	13 56 21.5	
	comp=Z,251nm,20.5s,MS4.4,baz=356,slow=30						
WRA	**Warramunga Arr**	**66.49**	**110**	P	**P**	**13 35 14.0**	**+0.3**
	comp=Z,2.0nm,0.9s,mb4.2,baz=283,slow=6.3,SNR=9.7						
WRA				LR	LR	14 00 15.0	
	comp=Z,115nm,18.2s,MS4.1,baz=295,slow=32						
WRAB	**Tennant Creek**	**66.50**	**110**	*e*P	**P**	**13 35 13.3**	**-0.4**
ASAR	**Alice Springs**	**66.51**	**114**	P	**P**	**13 35 13.3**	**-0.4**
	comp=Z,1.3nm,0.8s,mb4.0,baz=276,slow=5.9,SNR=7.3						
KEST	**Kesra**	**67.04**	**311**	LR	LR	14 05 03.7	
	comp=Z,45nm,18.6s,MS3.7,baz=216,slow=36						
TORD	**Torodi Ar. Bea**	**68.01**	**285**	P	**P**	**13 35 22.6**	**-0.7**
	comp=Z,1.6nm,1.2s,mb3.9,baz=72,slow=4.8,SNR=4.9						
TORD				LR	LR	14 03 26.8	
	comp=Z,151nm,18.3s,MS4.3,baz=25,slow=34						
KSRS	**Korea Array**	**68.09**	**48**	LR	LR	14 06 14.1	
	comp=Z,120nm,18.1s,MS4.2,baz=23,slow=37						
MDJ	**Mudanjiang**	**71.99**	**41**	P	**P**	**13 35 54.1**	**+6.8**
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,70nm,4.6s						
DBIC	**Dimbokro**	**73.69**	**278**	LR	LR	14 07 39.3	
	comp=Z,103nm,19.2s,MS4.1,baz=62,slow=35						
MJAR	**Matsushiro Arr**	**75.63**	**51**	LR	LR	14 08 20.5	
	comp=Z,133nm,19.8s,MS4.2,baz=245,slow=35						
NOA	**NORSAR Array B**	**77.22**	**335**	LR	LR	14 11 02.5	
	comp=Z,167nm,18.1s,MS4.4,baz=80,slow=36						
ARCES	**ARCESS Array B**	**77.77**	**346**	LR	LR	14 13 03.6	
	comp=Z,154nm,18.6s,MS4.4,baz=12,slow=38						
ESDC	**Sonseca Array**	**78.28**	**311**	P	**P**	**13 36 23.7**	**0.0**
	comp=Z,0.2nm,0.4s,mb3.4,baz=91,slow=10,SNR=5.2						
YKA	**Yellowknife Ar**	**120.42**	**2**	PKP	PKPdf	13 43 15.1	+0.4
	comp=Z,0.4nm,0.9s,baz=330,slow=2.1,SNR=3.1						
TXAR	**Lajitas Array**	**152.56**	**345**	PKPbc	PKPbc	13 44 21.5	+0.8
	comp=Z,1.1nm,0.9s,baz=115,slow=1.6,SNR=7.6						

CSEM ***03*** *13:25:20.8±0.1, 38.°19N×21.°94E, h12^{km}, MD3.3, Error ellipse: s-maj=2.9km s-min=2.2km az=149.0*

ISCJB ***03*** *13:25:21.6±0.5, 38.°19N±0.°03×21.°92E±0.°03, h22^{km}±6^{km}, Error ellipse: s-maj=5.7km s-min=4.3km az=154.3*

NEIC ***03*** *13:25:21.3, 38.°18N×21.°88E, h21^{km}, MD3.3(ATH), After ATH.*

THE ***03*** *13:25:21.9, 38.°21N×21.°94E, h18^{km}±3^{km}, ML2.8/2, Error ellipse: s-maj=3.3km s-min=0.9km az=33.0*

ATH ***03*** *13:25:21.3, 38.°18N×21.°88E, h21^{km}±4^{km}, MD3.3/3*

ISC 03 13:25:21.3±0.8, **38.°19N**±0.°03×**21.°93E**±0.°04, **h15**^{km}±7^{km}, **n34,** σ**0**^{s}**63**/49, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RLS	**Riolos of Patr**	**0.39**	**250**	*e*PB	**Pg**	**13 25 29.0**	**-0.1**
RLS				*e*SB	**Sg**	**13 25 35.2**	**+0.8**
RLS	**Riolos of Patr**	**0.39**	**250**	*e*Pb	**Pg**	**13 25 29.0**	**-0.1**
RLS				*e*Sb	**Sg**	**13 25 35.2**	**+0.8**
EVR	**Evrytania**	**0.73**	**353**	*e*PB	**Pb**	**13 25 35.0**	**-0.7**
EVR	**Evrytania**	**0.73**	**353**	*e*Pb	**Pb**	**13 25 35.0**	**-0.7**
LTK	**Loutraki**	**0.84**	**101**	P	**Pb**	**13 25 37.1**	**-0.4**
LTK				S	**Sb**	**13 25 48.5**	**0.0**
LTK	**Loutraki**	**0.84**	**101**	P	**Pb**	**13 25 37.1**	**-0.4**
LTK				S	**Sb**	**13 25 48.5**	**0.0**
AGG	**Agios Georgios**	**0.89**	**21**	P	**Pb**	**13 25 37.8**	**-0.6**
AGG				S	**Sb**	**13 25 50.1**	**+0.1**
AGG	**Agios Georgios**	**0.89**	**21**	P	**Pb**	**13 25 37.8**	**-0.6**
LKR	**Lokris**	**0.96**	**61**	P	**Pb**	**13 25 39.6**	**0.0**
LKR				S	**Sb**	**13 25 52.4**	**+0.4**
LKR	**Lokris**	**0.96**	**61**	*e*PN	**Pn**	**13 25 41.2**	**+1.1**
LKR				*e*SN	**Sn**	**13 25 54.0**	**+0.5**
LKR	**Lokris**	**0.96**	**61**	P	**Pb**	**13 25 39.6**	**0.0**
LKR	**Lokris**	**0.96**	**61**	*e*Pn	**Pn**	**13 25 41.2**	**+1.1**
LKR				S	**Sb**	**13 25 52.4**	**+0.4**
LKR				*e*Sn	**Sn**	**13 25 54.0**	**+0.5**
ITM	**Ithomi**	**1.01**	**180**	*e*PB	**Pb**	**13 25 39.8**	**-0.6**
ITM				*e*SN	**Sn**	**13 25 54.6**	**-0.1**
ITM	**Ithomi**	**1.01**	**180**	*e*Pb	**Pb**	**13 25 39.8**	**-0.6**
ITM				*e*Sn	**Sn**	**13 25 54.6**	**-0.1**
VLS	**Valsamata**	**1.05**	**270**	P	**Pb**	**13 25 40.9**	**-0.3**
VLS				S	**Sb**	**13 25 55.8**	**+1.0**
VLS	**Valsamata**	**1.05**	**270**	*e*PN	**Pn**	**13 25 40.4**	**-1.0**
VLS	**Valsamata**	**1.05**	**270**	*e*Pn	**Pn**	**13 25 40.4**	**-1.0**
VLS	**Valsamata**	**1.05**	**270**	P	**Pb**	**13 25 40.9**	**-0.3**
VLS				S	**Sb**	**13 25 55.8**	**+1.0**
DID	**Didima**	**1.24**	**123**	P	**Pn**	**13 25 43.6**	**-0.4**
DID				S	**Sb**	**13 26 00.4**	**+0.3**
DID	**Didima**	**1.24**	**123**	P	**Pn**	**13 25 43.6**	**-0.4**
DID				S	**Sb**	**13 26 00.4**	**+0.3**
PYL	**PYLOS**	**1.30**	**187**	P	**Pn**	**13 25 44.7**	**-0.1**
PYL	**PYLOS**	**1.30**	**187**	P	**Pn**	**13 25 44.7**	**-0.1**
THL	**Klokotos Trika**	**1.37**	**3**	P	**Pn**	**13 25 44.5**	**-1.3**
THL	**Klokotos Trika**	**1.37**	**3**	*e*PN	**Pn**	**13 25 47.8**	**+2.0**
THL	**Klokotos Trika**	**1.37**	**3**	P	**Pn**	**13 25 44.5**	**-1.3**
THL	**Klokotos Trika**	**1.37**	**3**	*e*Pn	**Pn**	**13 25 47.8**	**+2.0**
XOR	**Xorichti**	**1.54**	**40**	P	**Pn**	**13 25 47.5**	**-0.6**
XOR	**Xorichti**	**1.54**	**40**	P	**Pn**	**13 25 47.5**	**-0.6**
AOS	**Alonnisos**	**1.81**	**57**	P	**Pn**	**13 25 51.4**	**-0.5**
AOS	**Alonnisos**	**1.81**	**57**	P	**Pn**	**13 25 51.4**	**-0.5**
PAIG	**Paliouri**	**2.21**	**38**	P	**Pn**	**13 25 57.5**	**+0.2**
PAIG	**Paliouri**	**2.21**	**38**	P	**Pn**	**13 25 57.5**	**+0.2**
APE	**Apeiranthos**	**3.07**	**110**	P	**Pn**	**13 26 09.9**	**+0.7**
APE	**Apeiranthos**	**3.07**	**110**	P	**Pn**	**13 26 09.9**	**+0.7**

NIED ***03*** *13:30:00, 24.°70N×121.°90E, h32^{km}, Mw4.1 Best double couple: $M_0$1.82000×10^{15} NP1:ϕ_s179.00000°, δ50.00000°, λ90.00000°. NP2:ϕ_s359.00000°, δ40.00000°, λ90.00000°.*

BJI ***03*** *13:30:31.6, 24.°20N×122.°04E, h37^{km}, mB4.3/2, mb4.1/4, ML3.9/3*

TAP ***03*** *13:30:33.0, 24.°45N×121.°95E, h31^{km}, ML4.3, B*

NEIC ***03*** *13:30:32.7±1.6, 24.°40N×122.°03E, h26^{km}±11^{km}, MG4.2(JMA), Error ellipse: s-maj=15.9km s-min=10.4km az=108.0*

ISCJB ***03*** *13:30:33.4±0.3, 24.°44N±0.°02×122.°02E±0.°02, h22^{km}±3^{km}, mb3.5/8, MS3.3/3, Error ellipse: s-maj=3.2km s-min=2.2km az=148.1*

JMA ***03*** *13:30:33.2±0.2, 24.°66N×121.°95E, h38^{km}, M3.8*

IDC ***03*** *13:30:36.9±3.8, 24.°34N×122.°21E, h79^{km}±39^{km}, mb3.3/7, mb1 3.5/8, mb1mx3.4/23, mbtmp3.4/8, ML3.6/1, MS3.3/6, Ms1 3.3/6, ms1mx3.0/19, Error ellipse: s-maj=26.4km s-min=20.8km az=58.0*

ISC 03 13:30:33.3±0.3, **24.°44N**±0.°02×**122.°02E**±0.°02, **h16**^{km}±2^{km}, **n93,** σ**1**^{s}**14**/144, **mb3.5**/8, **MS3.3**/3, **14C-5D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWC	**Suao**	**0.23**	**318**	⇓*i*P	**Pg**	**13 30 39.5**	**+1.0**
	baz=330						
ENA	**Nanau**	**0.25**	**268**	⇓*i*P	**Pg**	**13 30 39.5**	**+0.6**
	baz=265						
ILA	**Ilan**	**0.41**	**323**	P	**Pg**	**13 30 42.2**	**+0.6**
	baz=325						
ILA				S	**Sg**	**13 30 48.7**	**+1.5**
	baz=325						
TWE	**Neicheng**	**0.43**	**312**	⇑*i*P	**Pg**	**13 30 42.2**	**+0.3**
	baz=316						
TWE				S	**Sg**	**13 30 48.4**	**+0.7**
	baz=316						
ENTT	**Nioudou**	**0.46**	**296**	⇑*i*P	**Pg**	**13 30 42.6**	**+0.1**
	baz=301						
ENTT				*e*S	**Sg**	**13 30 48.8**	**+0.1**
	baz=301						
NACB	**Ninganchiao**	**0.47**	**236**	*e*Pg	**Pg**	**13 30 42.3**	**-0.3**
NACB				*e*Sg	**Sg**	**13 30 49.5**	**+0.6**
TWD	**Chiawan**	**0.52**	**228**	⇑*i*P	**Pg**	**13 30 43.7**	**+0.1**
	baz=230						
TWD				*i* S	**Sg**	**13 30 52.4**	**+1.6**
	baz=230						
TWB1	**Santiao Chiao**	**0.57**	**357**	P	**Pg**	**13 30 45.1**	**+0.5**
	baz=3.0						
TWB1				S	**Sg**	**13 30 53.3**	**+1.1**
	baz=3.0						
NNS	**Nan Shan**	**0.59**	**270**	⇑*i*P	**Pg**	**13 30 44.6**	**-0.3**
	baz=269						
NNS				*e*S	**Sg**	**13 30 52.6**	**-0.1**
	baz=269						
HWA	**Hwalien**	**0.59**	**220**	⇑P	**Pg**	**13 30 45.3**	**+0.3**
	baz=214						
HWA				*e*S	**Sg**	**13 30 54.5**	**+1.7**
	baz=214						
YHNB	**Yeheng**	**0.63**	**292**	*e*Pg	**Pg**	**13 30 44.9**	**-0.8**
YHNB				*e*S	**Sg**	**13 30 52.3**	**-1.8**
NSK	**Sanguang**	**0.65**	**292**	⇑*i*P	**Pg**	**13 30 45.4**	**-0.6**
	baz=292						
NSK				*i* S	**Sg**	**13 30 53.8**	**-0.8**
	baz=292						
NWF	**Wu-fen Shan**	**0.67**	**341**	*e*P	**Pg**	**13 30 45.8**	**-0.5**
	baz=345						
NWF				*i* S	**Sg**	**13 30 56.1**	**+0.9**
	baz=345						
TWA	**Mucha**	**0.67**	**324**	⇑*i*P	**Pg**	**13 30 46.7**	**+0.3**
	baz=327						
TWA				*e*S	**Sg**	**13 30 55.2**	**-0.2**
	baz=327						
TATO	**Taipei**	**0.72**	**318**	*e*Pg	**Pg**	**13 30 47.0**	**-0.3**
ESF	**Shoufeng Towns**	**0.73**	**220**	*e*P	**Pg**	**13 30 47.3**	**-0.2**
	baz=230						
TAP1	**Taipei**	**0.75**	**323**	P	**Pg**	**13 30 47.2**	**-0.7**
	baz=326						
TAP1				S	**Sg**	**13 30 57.8**	**-0.1**
	baz=326						
ESL	**Shilin**	**0.82**	**221**	*e*P	**Pb**	**13 30 47.7**	**-1.5**
	baz=230						
ESL				*e*S	**Sb**	**13 30 59.9**	**0.0**
	baz=230						
TWS1	**Kuangyinshan**	**0.86**	**321**	⇑*i*P	**Pb**	**13 30 49.8**	**0.0**
	baz=333						
TWS1				*e*S	**Sb**	**13 31 01.9**	**+0.8**
	baz=333						
YOJ	**Yonaguni jima**	**0.90**	**88**	P	**Pb**	**13 30 50.8**	**+0.2**
YOJ				S	**Sb**	**13 31 03.8**	**+1.4**
YOJ	**Yonaguni jima**	**0.90**	**88**	P	**Pb**	**13 30 51.1**	**+0.5**
	baz=82						
YOJ				*e*S	**Sb**	**13 31 04.3**	**+1.9**
	baz=82						
TWY	**Chenhua**	**0.92**	**336**	*e*P	**Pb**	**13 30 50.7**	**-0.1**
	baz=339						
NCU	**National Centr**	**0.93**	**305**	P	**Pb**	**13 30 50.9**	**0.0**
	baz=294						
NCU				*e*S	**Sb**	**13 31 03.7**	**+0.7**
	baz=294						

NSTT	Nanjuang	0.95	282	⇑iP	Pb	13 30 50.9	-0.5
	baz=281						
NSTT				S	Sb	13 31 03.9	+0.3
	baz=281						
HSN	Hsinchu	1.02	291	eP	Pb	13 30 52.1	-0.4
	baz=293						
HSN				eS	Sb	13 31 06.3	+0.6
	baz=293						
EHY	Hungye	1.12	215	P	Pn	13 30 51.9	-2.5
	baz=212						
TWQ1	Liyutan	1.14	266	P	Pn	13 30 54.4	-0.1
	baz=264						
TWQ1				S	Sb	13 31 09.9	+0.8
	baz=264						
NSY	Sanyi	1.15	269	P	Pn	13 30 54.5	-0.2
	baz=268						
NSY				eS	Sb	13 31 10.3	+1.0
	baz=268						
SMLT	Sun Moon Lake	1.16	242	P	Pn	13 30 53.9	-1.0
	baz=240						
SMLT				eS	Sb	13 31 09.6	-0.2
	baz=240						
SSLB	Suanglung	1.17	237	ePn	Pn	13 30 53.5	-1.4
SSLB				eS	Sb	13 31 07.2	-2.7
TYC	Yuchr	1.19	244	⇑iP	Pn	13 30 54.2	-1.0
	baz=242						
TYC				eS	Sb	13 31 10.2	-0.3
	baz=242						
PCYT	Pengchaiyu	1.19	2	eP	Pn	13 30 54.2	-1.1
	baz=5.0						
YULB	Yu-li	1.23	213	ePn	Pn	13 30 53.2	-2.7
YULB				eS	Sb	13 31 08.7	-3.1
TCU	Taichung	1.26	257	eP	Pn	13 30 55.5	-0.7
	baz=255						
TCU				eS	Sb	13 31 13.1	+0.5
	baz=255						
TWF1	Yuli	1.27	212	P	Pn	13 30 53.9	-2.4
	baz=221						
WNT	Mingjian	1.34	246	P	Pn	13 30 57.5	+0.2
	baz=230						
WNT				eS	Sn	13 31 15.9	+1.1
	baz=230						
YUS	Yu-Shan	1.36	226	P	Pn	13 30 57.1	-0.4
	baz=213						
YUS				S	Sn	13 31 14.8	-0.4
	baz=213						
ALS	Alishan	1.44	231	⇑iP	Pn	13 30 58.6	-0.1
	baz=218						
ALS				eS	Sn	13 31 17.1	-0.2
	baz=218						
CHKT	Chengkung	1.46	204	eP	Pn	13 30 56.4	-2.6
	baz=188						
CHN5	Tsauling	1.48	236	⇑P	Pn	13 30 59.6	+0.3
	baz=234						
CHN5				S	Sn	13 31 20.1	+1.7
	baz=234						
WGK	Gukeng	1.53	241	⇑P	Pn	13 31 00.6	+0.7
	baz=239						
WGK				eS	Sn	13 31 21.0	+1.6
	baz=239						
ELDTW	Lidau	1.54	217	eP	Pn	13 30 58.5	-1.6
	baz=205						
IRIF	Iriomote-Funau	1.56	93	P	Pn	13 31 00.5	+0.1
IRIF				S	Sn	13 31 20.0	-0.3
HATJ	Hateruma jima	1.67	103	P	Pn	13 31 02.8	+0.9
HATJ				eS	Sn	13 31 24.3	+1.3
CHN2	Minshiung	1.68	238	P	Pn	13 31 02.5	+0.6
	baz=236						
CHN2				S	Sn	13 31 25.2	+2.1
	baz=236						
WTCT	Ta-ch’eng	1.69	251	eP	Pn	13 31 00.7	-1.4
	baz=248						
WTCT				eS	Sn	13 31 23.4	0.0
	baz=248						
CHN4	Tsaushan	1.69	231	P	Pn	13 31 03.0	+0.9
	baz=216						
CHN4				S	Sn	13 31 25.6	+2.1
	baz=216						
TPUB	Ta-pu	1.70	229	eP	Pn	13 31 02.8	+0.5
TPUB				eS	Sn	13 31 25.9	+2.1
STYT	Tauyuan	1.71	223	⇑iP	Pn	13 31 02.3	-0.2
	baz=221						
STYT				S	Sn	13 31 24.6	+0.5
	baz=221						
CHY	Chiayi	1.73	238	eP	Pn	13 31 03.0	+0.3
	baz=236						
CHY				eS	Sn	13 31 26.3	+1.8
	baz=236						
WTP	Ta-pu	1.75	228	⇓iP	Pn	13 31 03.4	+0.4
	baz=226						
WTP				S	Sn	13 31 26.5	+1.6
	baz=226						
TWK	Hsinying	1.82	231	P	Pn	13 31 04.7	+0.8
	baz=229						
TWK				S	Sn	13 31 28.3	+1.6
	baz=229						
WSF	Szhu	1.82	245	eP	Pn	13 31 03.3	-0.7
	baz=242						
WSF				eS	Sn	13 31 26.7	-0.1
	baz=242						
JKRS	Kuro-shima	1.83	96	P	Pn	13 31 05.0	+1.0
JKRS				S	Sn	13 31 28.0	+1.2
TWG	Pinlang	1.83	209	eP	Pn	13 31 01.3	-2.7
TWG	Pinlang	1.83	209	eP	Pn	13 31 01.3	-2.7
	baz=207						
CHN1	Nanshi	1.85	228	⇓iP	Pn	13 31 04.8	+0.5
	baz=226						
CHN1				eS	Sn	13 31 28.9	+1.6
	baz=226						
TTN	Taitung	1.86	206	eP	Pn	13 31 03.4	-1.0
	baz=204						
SGST	Jiashian	1.88	225	⇓iP	Pn	13 31 05.6	+0.8
	baz=211						
SGST				eS	Sn	13 31 28.4	+0.2
	baz=211						
JIJ	Ishigaki jima	1.94	92	P	Pn	13 31 05.5	0.0
JIJ				S	Sn	13 31 29.0	-0.6
CHN8	Yiju	1.98	237	eP	Pn	13 31 06.1	0.0
	baz=235						
CHN8				eS	Sn	13 31 31.9	+1.3
	baz=235						
CHN3	Shinhua	2.03	229	eP	Pn	13 31 07.0	+0.1
	baz=227						
CHN3				eS	Sn	13 31 34.9	+3.0
	baz=227						
ECL	Taimali	2.08	208	eP	Pn	13 31 05.3	-2.2
	baz=198						
SCLT	Jiali	2.09	233	eP	Pn	13 31 08.0	+0.3
	baz=232						
SSD	Sandimen	2.11	217	eP	Pn	13 31 08.2	+0.3
	baz=216						
SSD				S	Sn	13 31 34.4	+0.6
	baz=216						
TWM1	Shoushan	2.17	223	eP	Pn	13 31 10.2	+1.4
	baz=221						
SGLT	Jiouru	2.21	220	eP	Pn	13 31 10.5	+1.2
	baz=218						
EAST	Anshuo	2.31	208	eP	Pn	13 31 08.7	-2.0
	baz=199						
TAW	Tawu	2.31	207	eP	Pn	13 31 10.3	-0.4
	baz=196						
PNG	Penghu	2.41	249	eP	Pn	13 31 09.3	-2.7
	baz=248						
PNG				eS	Sn	13 31 39.0	-2.3
	baz=248						
LAY	Lan-yu	2.42	190	eP	Pn	13 31 09.5	-2.7
	baz=177						
LAY				eS	Sn	13 31 37.6	-4.0
	baz=177						
JTJ	Tarama	2.45	85	P	Pn	13 31 13.5	+0.9
JTJ				eS	Sn	13 31 43.4	+1.1
WDGT	Dungji	2.46	242	eP	Pn	13 31 10.5	-2.2
	baz=240						
HEN	Hengchun	2.69	206	eP	Pn	13 31 16.4	+0.5
	baz=192						
TWK1	Hengchun	2.72	204	eP	Pn	13 31 14.7	-1.6
	baz=191						
TSEB	Hengchuen, Pin	2.73	202	eP	Pn	13 31 14.6	-1.8
	baz=191						
JMJ	Miyako jima 2	3.00	82	eS	Sn	13 31 57.1	+1.2
QZH	Quanzhou	3.16	280	P	Pn	13 31 21.2	-1.1
QZH				S	Sn	13 31 53.9	-5.8
QZH				smax			
	comp=N,490nm,0.8s						
QZH				smax			
	comp=E,470nm,1.2s						
KNM	Kinmen	3.27	270	eP	Pn	13 31 23.1	-0.7
	baz=266						
JOW	Kunigami	6.13	66	P	Pn	13 32 03.5	+0.3
	comp=E,3.6nm,0.3s,baz=290,slow=11,SNR=5.4						
JOW				LR	LR	13 34 29.3	
	comp=E,217nm,20.9s,baz=100,slow=39						
KSRS	Korea Array	13.92	20	P	Pn	13 33 54.0	+4.0
	comp=E,0.2nm,0.3s,baz=202,slow=11,SNR=9.9						
KSRS				LR	LR	13 40 07.2	
	comp=E,129nm,18.0s,baz=164,slow=41						
MJAR	Matsushiro Arr	18.41	45	LR	LR	13 42 17.9	
	comp=E,74nm,19.1s,baz=105,slow=38						
LZH	Lanzhou	19.49	311	eP	Pn	13 35 02.4	+1.5
LZH				pP	pP	13 35 09.0	+4.9
LZH				sP	sP	13 35 12.8	+6.6
LZH				pmax	pmax		
	comp=Z,17nm,1.3s						
LZH				pmax	pmax		
	comp=Z,83nm,4.7s						
CMAR	Chiang Mai Arr	22.27	259	P	P	13 35 30.0	+0.2
	comp=Z,0.6nm,0.8s,mb3.1,baz=57,slow=8.4,SNR=7.0						
GTA	Gaotai	23.95	314	eP	P	13 35 45.7	-1.1
GTA				pP		13 35 50.6	
GTA				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb3.7						
GUMO	Guam	24.11	112	LR	LR	13 43 25.7	
	comp=Z,81nm,19.7s,MS3.2,baz=101,slow=32						
SONM	Songino Array	26.44	336	P	P	13 36 08.1	-1.2
	comp=Z,2.8nm,1.0s,mb3.8,baz=143,slow=8.5,SNR=6.6						
SONM				LR	LR	13 47 51.1	
	comp=Z,130nm,18.9s,MS3.5,baz=244,slow=39						
MKAR	Makanchi Array	38.69	315	P	P	13 37 54.2	-2.1
	comp=Z,0.9nm,0.8s,mb3.5,baz=102,slow=8.9,SNR=5.1						
PETK	Petropavlovsk-	39.23	34	LR	LR	13 56 47.5	
	comp=Z,32nm,19.4s,MS3.2,baz=90,slow=40						
ZALV	Zalesovo Beam	40.45	327	P	P	13 38 08.3	-2.5
	comp=Z,1.6nm,0.7s,mb3.9,baz=96,slow=7.9,SNR=7.9						
KURK	Kurchatov	42.39	320	P	P	13 38 24.6	-2.2
	comp=Z,0.5nm,0.7s,mb3.3,baz=105,slow=6.3,SNR=4.9						
WRA	Warramunga Arr	45.71	164	P	P	13 38 48.7	-5.0
	comp=Z,0.8nm,0.9s,mb3.7,baz=346,slow=8.8,SNR=5.2						
YKA	Yellowknife Ar	82.44	23	P	P	13 42 50.9	-3.6
	comp=Z,0.5nm,0.8s,mb3.5,baz=309,slow=4.7,SNR=8.8						

IDC 03 13:40:48.4±7.3**,21°69N**×**141°96E,h327**^{km}±74^{km}**,mb2.8**/7**, mb1 3.0**/8**,mb1mx2.9**/22**,mbtmp2.8**/8**,Error ellipse: s-maj=52.4km s-min=15.6km az=80.0,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	19.86	325	P	P	13 44 55.8	-0.3
	0.2nm,0.3s,baz=148,slow=8.8,SNR=7.9						
SONM	Songino Array	38.62	321	P	P	13 47 41.3	+0.4
	0.3nm,0.5s,baz=134,slow=8.7,SNR=2.4						
WRA	Warramunga Arr	42.04	191	P	P	13 48 09.0	+0.1
	0.2nm,0.3s,baz=16,slow=9.5,SNR=7.2						
ASAR	Alice Springs	45.76	190	P	P	13 48 37.8	-0.4
	0.1nm,0.3s,baz=13,slow=7.2,SNR=4.0						
ZALV	Zalesovo Beam	53.51	322	P	P	13 49 35.9	0.0
	0.3nm,0.3s,baz=107,slow=6.8,SNR=2.7						
MKAR	Makanchi Array	53.87	313	P	P	13 49 39.2	+0.7
	0.3nm,0.4s,baz=96,slow=6.9,SNR=8.0						
YKA	Yellowknife Ar	77.00	28	P	P	13 52 06.3	+1.0
	0.1nm,0.5s,baz=289,slow=6.8,SNR=2.5						
ARCES	ARCESS Array B	78.57	341	P	P	13 52 12.1	-1.7
	5.0nm,1.1s,baz=59,slow=5.8,SNR=3.8						

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*IDC **03** 14:05:20.9±0.9, 6°19S×129°88E, h0^{km}, mb4.2/7, mb1 4.2/10, mb1mx4.1/19, mbtmp4.1/10, ML3.8/3, MS3.4/6, Ms1 3.5/6, ms1mx3.1/26, Error ellipse: s-maj=42.4km s-min=16.6km az=76.0*
*NEIC **03** 14:05:22.2±0.6, 6°24S×129°92E, h10^{km}, mb4.5/2, Error ellipse: s-maj=17.9km s-min=8.3km az=66.0*
*ISCJB **03** 14:05:23.1±0.5, 6°40S±0°04×129°82E±0°09, h33^{km}, mb4.3/7, MS3.3/4, Error ellipse: s-maj=12.6km s-min=5.0km az=164.4*
ISC 03 14:05:26.2±1.5**,6°39S**±0°07×**129°87E**±0°09**,h44**^{km}±17^{km}**, n31,**σ1^{s}**16**/36**,mb4.3**/7**,MS3.3**/4**,1C,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	3.16	328	⇑eP	Pn	14 06 06.9	-6.5
AAI				eS	Sn	14 06 40.9	-8.9
KAKA	Kakadu	6.78	158	eP	Pn	14 07 04.4	+1.2
	20nm,0.4s						
KAKA				eS	Sn	14 08 20.0	+0.9
KAKA	Kakadu	6.78	158	eP	Pn	14 07 05.2	+2.0
	65nm,0.6s						
KNA	Kununurra	9.37	187	eP	Pn	14 07 40.0	+1.3
	8.9nm,0.3s						
KNA				eS	Sn	14 09 22.5	-0.2
KAPI	Kappang	10.15	277	ePn	Pn	14 07 49.3	-0.2
FITZ	Fitzroy Crossi	12.35	199	eP	Pn	14 08 19.7	+0.2
	7.2nm,0.4s						
FITZ				eS	Sn	14 10 33.1	-2.8
FITZ	Fitzroy Crossi	12.35	199	Pn	Pn	14 08 18.9	-0.6
	0.4nm,0.3s,baz=34,slow=7.5,SNR=12						
FITZ				Sn	Sn	14 10 37.3	+1.4
	0.4nm,0.3s,baz=62,slow=14,SNR=5.5						
FITZ				LR	LR	14 13 34.8	
	comp=Z,242nm,19.6s,baz=24,slow=39						
FITZ	Fitzroy Crossi	12.35	199	ePn	Pn	14 08 19.5	0.0
FITZ				Sn	Sn	14 10 37.3	+1.4
FITZ				LR	LR	14 13 34.8	
WRAB	Tennant Creek	14.15	162	eP	Pn	14 08 43.3	-0.8
	8.8nm,0.8s						
WRA	Warramunga Arr	14.16	163	Pn	Pn	14 08 43.3	-0.9
	0.5nm,0.3s,baz=350,slow=13,SNR=21						
WRA				Sn	Sn	14 11 18.5	-1.4
	0.4nm,0.3s,baz=349,slow=22,SNR=4.6						
WRA				LR	LR	14 14 13.4	
	comp=Z,162nm,19.8s,baz=70,slow=37						
WB2	Warramunga Arr	14.16	162	eP	Pn	14 08 43.1	-1.1
WB2				eS	Sn	14 11 18.5	-1.6
ASAR	Alice Springs	17.61	168	P	Pn	14 09 30.0	+1.5
	0.4nm,0.3s,baz=353,slow=10,SNR=22						
ASAR				S	S	14 12 40.8	-8.9
	0.2nm,0.3s,baz=324,slow=14,SNR=4.2						
CTA	Charters Tower	20.95	132	eP	P	14 10 06.8	+1.3
	7.9nm,1.2s						
CTA	Charters Tower	20.95	132	P	P	14 10 06.0	+0.5
	5.8nm,1.0s,baz=302,slow=13,SNR=4.1						
CTA	Charters Tower	20.95	132	P	P	14 10 06.0	+0.5
CTAO	Charters Tower	20.95	132	P	P	14 10 06.8	+1.3
	12nm,1.0s						
STKA	Stephens Creek	27.63	158	eP	P	14 11 13.8	+4.1
	3.4nm,0.6s,mb4.2						
STKA	Stephens Creek	27.63	158	P	P	14 11 12.6	+2.9
	5.5nm,0.9s,mb4.2,baz=335,slow=6.6,SNR=5.2						
STKA				LR	LR	14 22 08.8	
	comp=Z,156nm,21.7s,MS3.5,baz=208,slow=36						
NWAO	Narrogin (SRO)	28.90	202	P	P	14 11 25.0	+3.9
	24nm,1.1s,mb4.8,baz=0.0,slow=13,SNR=3.2						
CBIJ	Chichi jima	35.36	19	LR	LR	14 24 11.7	
	comp=Z,48nm,21.7s,MS3.2,baz=141,slow=32						
CMAR	Chiang Mai Arr	39.24	310	LR	LR	14 28 26.6	
	comp=Z,53nm,21.3s,MS3.3,baz=170,slow=35						
MJAR	Matsushiro Arr	43.41	10	P	P	14 13 24.6	0.0
	1.1nm,0.6s,baz=188,slow=12,SNR=4.3						
KSRS	Korea Array	43.65	358	LR	LR	14 28 47.4	
	comp=Z,34nm,21.7s,MS3.2,baz=148,slow=32						
GTA	Gaotai	53.37	331	eP	P	14 14 47.6	+6.2
GTA				pP	pP	14 14 51.3	-2.4
GTA				sP	sP	14 14 52.6	-6.2
GTA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
SONM	Songino Array	57.82	342	P	P	14 15 12.8	-0.4
	comp=Z,0.9nm,0.7s,mb3.9,baz=142,slow=7.5,SNR=3.9						
MK31	Makanchi Array	67.64	327	eP	P	14 16 17.3	-1.3
MKAR	Makanchi Array	67.64	327	P	P	14 16 17.7	-0.9
	comp=Z,1.2nm,0.6s,mb4.1,baz=124,slow=7.9,SNR=10						
ZAA0	Zalesovo Array	70.98	334	eP	P	14 16 40.6	+1.5
ZALV	Zalesovo Beam	70.98	334	P	P	14 16 39.9	+0.8
	comp=Z,2.3nm,0.8s,mb4.2,baz=111,slow=3.2,SNR=4.8						
KURK	Kurchatov	71.93	329	eP	P	14 16 43.8	-1.1
	comp=Z,10.0nm,1.0s,mb4.7						
TORD	Torodi Ar. Bea	128.56	282	PKP	PKPdf	14 24 37.0	+7.5
	comp=Z,0.3nm,0.7s,baz=89,slow=1.5,SNR=3.1						

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*DJA **03** 14:24:27, 56°11S×27°01W, h10^{km}, mb5.6/5*
*ISCJB **03** 14:24:35.7±1.6, 56°27S±0°05×27°00W±0°09, h98^{km}±14^{km}, mb5.3/44, Error ellipse: s-maj=9.3km s-min=7.3km az=147.3*
*MOS **03** 14:24:37.0±1.1, 56°30S×27°06W, h105^{km}, mb5.3/9, Error ellipse: s-maj=22.8km s-min=12.8km az=96.7*
*GCMT **03** 14:24:37.3±0.1, 56°38S×26°54W, h99^{km}±1^{km}, MW5.6/93, Moment Tensor Solution. s84,c157; s93,c212; Duration: 1^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}0.14±.04; $M_{\theta\theta}$1.56±.05; $M_{\phi\phi}$-1.71±.05; $M_{r\theta}$-2.17±.03; $M_{\theta\phi}$1.20±.04; $M_{\phi r}$1.50±.03; Best double couple: $M_0$3.31600×10^{17} NP1:ϕ_s208.00000°,δ37.00000°, λ178.00000°. NP2:ϕ_s300.00000°,δ89.00000°,λ53.00000°. Principal axes: T 3.1370, Plg35.0000°, Azm178.0000°; N 0.3520, Plg37.0000°, Azm301.0000°; P -3.4950, Plg33.0000°, Azm61.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*IDC **03** 14:24:37.6±0.5, 56°24S×27°10W, h104^{km}±3^{km}, mb4.9/17, mb1 5.0/18, mb1mx4.9/20, mbtmp5.0/18, MS4.6/19, Ms1 4.6/19, ms1mx4.6/20 Error ellipse: s-maj=11.4km s-min=10.5km az=42.0*
*NEIC **03** 14:24:37.3±0.2, 56°27S×27°04W, mb5.5/29, MW5.5, Error ellipse: s-maj=7.7km s-min=7.0km az=179.0, Moment Tensor Solution. s10 Moment tensor: Scale 10^{17}Nm; M_{rr}0.79; $M_{\theta\theta}$-0.13; $M_{\phi\phi}$-0.67; $M_{r\theta}$-1.81; $M_{\theta\phi}$-0.05; $M_{\phi r}$0.95; Best double couple: $M_0$2.20000×10^{17} NP1:ϕ_s162.00000°, δ9.00000°,λ131.00000°. NP2:ϕ_s301.00000°,δ83.00000°, λ84.00000°. Principal axes: T 2.4000, Plg51.0000°, Azm203.0000°; N -0.5800, Plg6.0000°, Azm301.0000°; P -1.8300, Plg37.0000°, Azm36.0000°;*
*BJI **03** 14:24:38.3, 56°30S×27°00W, h99^{km}, mB5.4/15*
ISC 03 14:24:37.6±1.4**,56°32S**±0°04×**27°01W**±0°09**, h101**^{km}±12^{km}**,h102**^{km}±1.8^{km}**:pP-P,n213,**σ**0^{s}93**/98**, mb5.3**/44**,3C-1D,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.51	158	ePn	Pn	14 28 23.4	+0.7
VNA1				e		14 36 33.2	
VNA3	Neumayer Olymp	16.71	160	ePn	Pn	14 28 25.7	+0.6
VNA3				e		14 31 19.7	
VNA3				e		14 36 32.0	
VNA3				e		14 40 11.4	
VNA2	Neumayer--Watz	16.91	158	ePn	Pn	14 28 27.1	-0.5
VNA2				e		14 31 24.3	
VNA2				e		14 36 33.8	
VNA2				e		14 40 12.0	
EFI	East Falkland	18.74	271	Pn	Pn	14 28 49.1	-0.7
	422nm,1.2s,SNR=8.7						
EFI	East Falkland	18.74	271	eP	P	14 28 49.6	+1.4
EFI				pmax	pmax		
	comp=Z,48nm,1.0s						
EFI	East Falkland	18.74	271	eP	P	14 28 49.6	+1.4
	comp=Z,48nm,1.0s						
PMSA	Palmer Station	19.80	230	P	P	14 29 00.1	+0.6
	comp=Z,11nm,0.3s,baz=62,slow=8.3,SNR=39						
PMSA				LR	LR	14 35 37.5	
	comp=Z,2µm,18.8s,baz=83,slow=33						
PMSA	Palmer Station	19.80	230	eP	P	14 29 01.5	+1.9
	comp=Z,426nm,0.9s						
TRIS	Tristan da Cun	21.65	33	eP	P	14 29 19.9	+0.3
	comp=Z,259nm,0.9s,mb5.6						
MAIT	Maitri	21.96	146	eP	P	14 29 20.2	-2.4
MAIT				eS	S	14 33 17.7	-0.8
NVL	N’lazarevskaya	21.99	146	eP	P	14 29 22.7	-0.2
NVL				e*PP		14 29 53.9	
NVL				eS	S	14 33 20.2	+1.2
NVL				pmax	pmax		
	comp=Z,88nm,1.3s,mb4.9						
USHA	Ushuaia	23.22	256	P	P	14 29 35.0	-0.4
	comp=Z,17nm,0.8s,mb4.4,baz=69,slow=12,SNR=4.9						
USHA				LR	LR	14 35 54.5	
	comp=Z,1µm,18.9s,baz=87,slow=29						
SYO	Syowa Base	31.32	140	⇓eP	P	14 30 46.0	-1.6
PLCA	Paso Flores	32.15	280	eP	P	14 30 53.8	-1.4
PLCA				pmax	pmax		
	comp=Z,14nm,1.0s						
PLCA	Paso Flores	32.15	280	P	P	14 30 54.0	-1.2
	comp=Z,4.8nm,1.0s,mb4.2,baz=141,slow=8.3,SNR=7.0						
PLCA				PcP	PcP	14 33 41.8	+0.1
	comp=Z,3.2nm,0.8s,baz=178,slow=8.7,SNR=2.9						
PLCA				ScP	ScP	14 37 13.5	-2.2
	comp=Z,7.1nm,0.8s,baz=132,slow=2.4,SNR=12						
PLCA				LR	LR	14 43 27.2	
	comp=Z,866nm,18.2s,baz=126,slow=35						
PLCA	Paso Flores	32.15	280	eP	P	14 30 53.8	-1.5
	comp=Z,14nm,1.0s,mb4.6						
QSPA	South Pole Qui	33.93	180	P	P	14 31 11.6	+1.2
	comp=Z,114nm,0.6s,mb5.9,baz=201,slow=4.1,SNR=100						
QSPA				ScP	ScP	14 37 20.6	-0.7
	comp=Z,45nm,0.9s,baz=126,slow=1.7,SNR=9.9						
QSPA				LR	LR	14 44 31.4	
	comp=Z,830nm,20.3s,baz=12,slow=35						
QSPA	South Pole Qui	33.93	180	eP	P	14 31 11.4	+1.1
	comp=Z,376nm,1.1s,mb6.1						
CPUP	Villa Florida	37.06	311	eP	P	14 31 36.9	-0.8
CPUP				e*PP	pP	14 31 59.6	-1.1
CPUP				pmax	pmax		
	comp=Z,136nm,1.0s						
CPUP	Villa Florida	37.06	311	P	P	14 31 37.1	-0.5
	comp=Z,9.6nm,0.5s,mb5.0,baz=135,slow=8.2,SNR=29						
CPUP				pP	pP	14 31 59.7	-1.0
	comp=Z,13nm,0.7s,baz=127,slow=7.8,SNR=5.3						
CPUP				PcP	PcP	14 33 55.4	-0.8
	comp=Z,1.9nm,0.4s,baz=100,slow=2.3,SNR=3.1						
CPUP				ScP	ScP	14 37 31.8	-1.7
	comp=Z,11nm,0.8s,baz=113,slow=3.7,SNR=9.8						
CPUP				LR	LR	14 46 38.5	
	comp=Z,380nm,18.9s,baz=140,slow=36						
CPUP	Villa Florida	37.06	311	eP	P	14 31 36.9	-0.8
	comp=Z,136nm,1.0s,mb5.8						
CPUP				epP	pP	14 31 59.6	-1.1
CFAA	Coronel Fontan	37.76	293	P	P	14 31 41.8	-1.8
	comp=Z,1.2nm,0.3s,mb4.2,baz=148,slow=7.6,SNR=32						
CFAA				pP	pP	14 32 05.4	-1.2
	comp=Z,2.3nm,0.8s,baz=153,slow=8.4,SNR=4.1						
CFAA				PcP	PcP	14 33 57.6	-0.6
	comp=Z,2.1nm,0.8s,baz=150,slow=3.3,SNR=4.0						
CFAA				ScP	ScP	14 37 33.7	-2.4
	comp=Z,1.3nm,0.8s,baz=146,slow=3.1,SNR=5.7						
MAW	Mawson	39.88	143	eP	P	14 32 01.2	+0.4
MAW				pmax	pmax		
	comp=Z,24nm,1.2s						
MAW	Mawson	39.88	143	⇑iP	P	14 32 01.2	+0.4
	comp=Z,48nm,1.2s,mb5.2						
MAW				eS	S	14 37 58.0	+0.5
MAW	Mawson	39.88	143	P	P	14 32 00.2	-0.6
	comp=Z,46nm,0.8s,mb5.4,baz=237,slow=8.1,SNR=84						
MAW				ScP	ScP	14 37 42.6	-1.0
	comp=Z,13nm,1.0s,baz=258,slow=7.4,SNR=5.8						
MAW	Mawson	39.88	143	eP	P	14 32 01.1	+0.4
	comp=Z,24nm,1.2s,mb4.9						
SUR	Sutherland	40.61	74	P	P	14 32 08.2	+0.9
	comp=Z,339nm,1.0s,mb6.1,SNR=6.5						
SUR	Sutherland	40.61	74	P	P	14 32 08.1	+0.8
	comp=Z,37nm,0.8s,mb5.2,baz=221,slow=7.8,SNR=12						
SUR				LR	LR	14 45 35.3	
	comp=Z,1µm,19.3s,baz=219,slow=31						
SUR	Sutherland	40.61	74	eP	P	14 32 08.2	+0.9
	comp=Z,59nm,1.0s,mb5.4						
LCO	Las Campanas	41.10	293	eP	P	14 32 10.3	-1.0
	comp=Z,103nm,1.4s,mb5.5						
LCO				epP	pP	14 32 32.8	-1.9
SHEL	Horse Pasture	43.41	31	P	P	14 32 31.7	+1.6
	comp=Z,2µm,1.0s,mb6.8,SNR=8.0						
SHEL	Horse Pasture	43.41	31	eP	P	14 32 31.2	+1.1
SHEL				pmax	pmax		
	comp=Z,439nm,1.0s,mb6.1						
SHEL	Horse Pasture	43.41	31	eP	P	14 32 31.2	+1.1
	comp=Z,439nm,1.0s,mb6.1						
LVC	Limon Verde	45.52	300	eP	P	14 32 47.2	+0.3
	comp=Z,164nm,1.2s,mb5.6						
SBA	Scott Base	45.82	184	eP	P	14 32 49.7	+1.1
SBA				pmax	pmax		
	comp=Z,109nm,1.0s,mb5.5						
SBA	Scott Base	45.82	184	eP	P	14 32 49.7	+1.1
	comp=Z,108nm,1.0s,mb5.5						
BOSA	Boshof	45.94	75	eP	P	14 32 49.6	-0.5
BOSA				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.4						
BOSA	Boshof	45.94	75	P	P	14 32 49.5	-0.6
	comp=Z,47nm,1.0s,mb5.2,baz=222,slow=8.5,SNR=23						
BOSA				LR	LR	14 49 15.8	
	comp=Z,2µm,18.3s,baz=220,slow=32						

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BOSA  Boshof            45.94  75  eP       P         14 32 49.6  -0.6
      comp=Z,80nm,1.1s,mb5.4
VNDA  Vanda             46.31 183  P        P         14 32 53.4  +1.0
      comp=Z,87nm,0.6s,mb5.6,baz=188,slow=7.1,SNR=132
VNDA                               ScP      ScP       14 38 09.1  -0.5
      comp=Z,9.5nm,0.8s,baz=217,slow=4.1,SNR=5.3
VNDA                               LR       LR        14 50 50.8
      comp=Z,389nm,20.5s,baz=178,slow=34
VNDA  Vanda             46.31 183  P        P         14 32 53.4  +1.0
VNDA                               ScP      ScP       14 38 09.1  -0.5
VNDA                               LR       LR        14 50 50.8
SIV   San Ignacio       47.83 313  ScP      ScP       14 38 14.8  -2.0
TSUM  Tsumeb            49.73  60  LR       LR        14 50 53.5
      comp=Z,736nm,19.9s,baz=182,slow=32
TSUM  Tsumeb            49.73  60  eP       P         14 33 19.1  -0.3
      comp=Z,88nm,1.1s,mb5.6
ARE   Arequipa          52.02 301  eP       P         14 33 37.0  +0.4
CASY  Casey             53.62 160  eP       P         14 33 48.4  +0.6
DRV   Dumont d'Urvil    56.95 174  P        P         14 34 03.0  -8.6
DRV                                R                  14 51 00.0
LSZ   Lusaka            58.38  69  eP       P         14 34 21.9  -0.4
LSZ                                pmax     pmax
      comp=Z,112nm,1.0s,mb5.8
LSZ   Lusaka            58.38  69  eP       P         14 34 21.9  -0.3
      comp=Z,112nm,1.0s,mb5.8
NNA   Nana              58.46 299  P        P         14 34 23.0  +0.1
      comp=Z,267nm,0.9s,mb6.3,SNR=6.7
NNA   Nana              58.46 299  LR       LR        14 57 29.9
      comp=Z,262nm,19.3s,baz=144,slow=34
NNA   Nana              58.46 299  eP       P         14 34 22.8  -0.1
      comp=Z,44nm,1.0s,mb5.4
ATAH  Atahualpa         63.53 300  LR       LR        14 59 23.3
      comp=Z,367nm,21.9s,baz=356,slow=33
LIC   Lamto             64.90  24  eP       P         14 35 05.6  -0.4
      comp=Z,111nm,1.0s,mb5.7
KIC   Kosan Boka        65.09  25  eP       P         14 35 06.8  -0.5
      comp=Z,185nm,0.9s,mb5.9
TIC   Toumodi           65.31  24  eP       P         14 35 08.2  -0.4
      comp=Z,209nm,1.0s,mb5.9
DBIC  Dimbokro          65.37  24  eP       P         14 35 08.4  -0.6
DBIC                               pmax     pmax
      comp=Z,40nm,1.0s
DBIC  Dimbokro          65.37  24  P        P         14 35 08.6  -0.5
      comp=Z,25nm,0.9s,mb5.0,baz=172,slow=7.7,SNR=27
DBIC                               LR       LR        14 56 29.5
      comp=Z,750nm,21.4s,baz=172,slow=29
DBIC  Dimbokro          65.37  24  eP       P         14 35 08.4  -0.6
      comp=Z,40nm,1.0s,mb5.2
ABPO  Ambohimpanom      65.66  88  eP       P         14 35 12.7  +1.7
ABPO                               pmax     pmax
      comp=Z,34nm,1.3s,mb5.0
ABPO  Ambohimpanom      65.66  88  eP       P         14 35 12.7  +1.7
      comp=Z,34nm,1.3s,mb5.0
OTAV  Otavalo           69.89 304  eP       P         14 35 38.6  +1.1
      comp=Z,123nm,1.2s,mb5.6
ROSC  El Rosal          72.15 310  P        P         14 35 51.1   0.0
      comp=Z,17nm,0.7s,mb5.0,baz=88,slow=22,SNR=10
ROSC                               LR       LR        15 07 50.9
      comp=Z,278nm,18.1s,baz=187,slow=36
ROSC  El Rosal          72.15 310  eP       P         14 35 51.6  +0.5
PCRV  Puerto La Cruz    73.22 321  LR       LR        15 07 15.8
      comp=Z,427nm,20.1s,baz=301,slow=35
TOA0  Torodi Ar. Sit    73.24  29  eP       P         14 35 57.2  -0.3
TORD  Torodi Ar. Bea    73.24  29  P        P         14 35 57.4  -0.1
      comp=Z,64nm,1.1s,mb5.4,baz=195,slow=5.6,SNR=167
TORD                               pP       pP        14 36 23.9  +0.7
      comp=Z,35nm,0.8s,baz=200,slow=6.0,SNR=3.7
TORD                               LR       LR        15 03 16.9
      comp=Z,440nm,18.1s,baz=195,slow=32
SDV   Santo Domingo     74.27 315  eP       P         14 36 03.4  -0.1
      comp=Z,45nm,0.9s,mb5.2
KMBO  Kilima Mbogo      75.04  69  P        P         14 36 07.5  -0.6
      comp=Z,6.0nm,1.0s,mb4.3,baz=228,slow=24,SNR=5.6
RPZ   Rata Peaks        79.18 193  P        P         14 36 30.9   0.0
      comp=Z,37nm,0.8s,mb5.3,baz=180,slow=7.9,SNR=15
TAU   Tasmania Unive    81.03 176  P        P         14 36 40.7  -0.2
      comp=Z,1μm,0.7s,mb6.8,SNR=19
TAU   Tasmania Unive    81.03 176  eP       P         14 36 40.8  -0.1
TAU                                pmax     pmax
      comp=Z,189nm,0.9s,mb5.9
TAU   Tasmania Unive    81.03 176  eP       P         14 36 40.8   0.0
      comp=Z,189nm,0.9s,mb5.9
MOO   Moorlands         81.49 176  eP       P         14 36 42.7  -0.6
JTS   JuntasAbangare    81.74 303  eP       P         14 36 45.1  +0.2
JTS                                pmax     pmax
      comp=Z,107nm,1.1s
JTS   JuntasAbangare    81.74 303  eP       P         14 36 45.1  +0.3
      comp=Z,107nm,1.1s,mb5.6
TAM   Tamanrasset       83.47  30  eP       P         14 36 55.2  +1.6
TAM                                pmax     pmax
      comp=Z,23nm,1.3s,mb4.8
TAM   Tamanrasset       83.47  30  eP       P         14 36 55.2  +1.6
      comp=Z,23nm,1.3s,mb4.8
URZ   Urewera           83.59 199  P        P         14 36 54.0  -0.3
      comp=Z,20nm,0.9s,mb5.0,baz=198,slow=2.6,SNR=4.6
SDDR  Presa de Saban    83.74 318  eP       P         14 36 57.0  +1.9
      comp=Z,26nm,1.0s,mb5.0
NWAO  Narrogin (SRO)    86.05 150  P        P         14 37 06.3  -0.4
      comp=Z,10nm,0.7s,mb4.9,baz=205,slow=7.7,SNR=6.7
TGUH  Tegucigalpa,Un    86.11 302  P        P         14 37 06.9  -0.2
      comp=Z,62nm,1.1s,mb5.5
TOO   Toolangi          86.26 174  eP       P         14 37 07.0  -0.7
MUN   Mundaring         86.65 149  eP       P         14 37 08.8  -0.9
KLBR  Kellerberrin      87.45 150  eP       P         14 37 13.0  -0.5
      comp=Z,22nm,0.7s,mb5.2
CAN   Canberra          88.66 177  eP       P         14 37 19.3  +0.1
CAN                                pmax     pmax
      comp=Z,46nm,1.2s,mb5.4
CAN   Canberra          88.66 177  eP       P         14 37 19.3  +0.1
      comp=Z,46nm,1.2s,mb5.4
CNB   Canberra Magne    88.68 177  eP       P         14 37 17.7  -1.6
RIV   Riverview         90.20 178  eP       P         14 37 30.3  +3.9
FORT  Forrest           90.69 159  eP       P         14 37 32.4  +3.6
      comp=Z,18nm,0.5s,mb5.5
MDT   Midelt            90.81  19  P        P         14 37 31.5  +2.7
      comp=Z,23nm,1.0s,mb5.3,baz=191,slow=3.3,SNR=16
STKA  Stephens Creek    91.62 170  eP       P         14 37 32.6  -0.5
      comp=Z,16nm,0.6s,mb5.4
STKA  Stephens Creek    91.62 170  P        P         14 37 33.1   0.0
      comp=Z,18nm,0.7s,mb5.4,baz=152,slow=4.8,SNR=35
STKA                               PP       PP        14 41 11.3  -0.3
      comp=Z,4.3nm,0.7s,baz=185,slow=5.6,SNR=3.9
STKA                               LR       LR        15 17 07.0
      comp=Z,361nm,21.4s,baz=319,slow=34
STKA  Stephens Creek    91.62 170  eP       P         14 37 33.1  +0.1
      comp=Z,4.6nm,0.8s,mb4.8
TEIG  Tepich            91.94 305  eP       P         14 37 34.6  +0.2
      comp=Z,44nm,0.7s,mb5.8
PPT   Papeete           92.12 234  eSKSac   SKKSac    14 48 16.0  -0.7
      comp=Z,377nm,28.5s
PPT                                eLQ                15 03 31.9
      comp=Z,698nm,29.8s
PPT                                eLR      LR        15 07 29.5
      comp=Z,3μm,31.0s
PPT   Papeete           92.12 234  LR       LR        15 12 51.5
      comp=Z,305nm,18.6s,baz=139,slow=31
ARMA  Armidale          93.61 179  eP       P         14 37 42.9  +0.7
TAOE  Nuku Hiva Isla    95.13 246  eLR      LR        15 08 55.7
      comp=Z,2μm,31.1s
KEST  Kesra             96.76  29  LR       LR        15 18 27.0
      comp=Z,141nm,19.0s,baz=353,slow=33
ESDC  Sonseca Array     97.60  18  P        P         14 37 59.0  -0.8
      comp=Z,1.4nm,0.7s,mb4.6,baz=183,slow=4.2,SNR=5.9
ESDC                               LR       LR        15 16 07.3
      comp=Z,185nm,20.0s,baz=140,slow=32
ESDC  Sonseca Array     97.60  18  P        P         14 37 59.0  -0.8
ESDC                               LR       LR        15 16 07.3
ASAR  Alice Springs     98.71 162  P        P         14 38 04.5  -1.0
ASAR                               *PP      pP        14 38 31.8  -0.3
ASAR                                                  14 42 03.1
ASAR  Alice Springs     98.71 162  P        P         14 38 04.5  -1.0
      comp=Z,10nm,0.7s,mb5.5,baz=188,slow=4.1,SNR=40
ASAR                               pP       pP        14 38 31.8  -0.3
      comp=Z,5.1nm,0.8s,baz=186,slow=3.7,SNR=3.7
ASAR                               PP       PP        14 42 03.1  -3.6
      comp=Z,6.7nm,1.0s,baz=190,slow=6.6,SNR=12
ASAR                               PKKP     PKKPbc    14 54 32.1  +1.7
      comp=Z,0.5nm,0.5s,baz=18,slow=2.2,SNR=6.8
FITZ  Fitzroy Crossi   102.37 153  P        Pdif      14 38 23.0  +1.1
      comp=Z,1.0nm,0.7s,baz=218,slow=9.0,SNR=4.2
WRA   Warramunga Arr   102.42 162  P        Pdif      14 38 21.1  -1.0
WRA                                                   14 42 33.8
WRA   Warramunga Arr   102.42 162  P        Pdif      14 38 21.1  -1.0
      comp=Z,3.1nm,0.9s,baz=200,slow=4.5,SNR=20
WRA                                pP                 14 38 47.6
      comp=Z,2.1nm,0.7s,baz=194,slow=4.1,SNR=3.3
WRA                                PP       PP        14 42 33.8  -1.0
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      comp=Z,2.7nm,0.7s,baz=191,slow=6.2,SNR=6.1
WRA                                PKKPbc   PKKPbc    14 54 21.7  +1.8
      comp=Z,0.7nm,0.6s,baz=355,slow=2.8,SNR=16
WRAB  Tennant Creek    102.43 162  eP       Pdif      14 38 21.4  -0.7
WRAB                               pmax     pmax
      comp=Z,5.0nm,0.9s
WRAB  Tennant Creek    102.43 162  ePdif    Pdif      14 38 21.4  -0.8
      comp=Z,4.9nm,0.9s
TXAR  Lajitas Array    107.00 297  Pdiff    Pdif      14 38 41.3  -1.1
      comp=Z,0.6nm,1.0s,baz=128,slow=3.5,SNR=4.6
GERES GERESS Array B   110.14  27  PKiKP    PKiKP     14 42 56.7  +0.5
      comp=Z,0.5nm,0.8s,baz=240,slow=11,SNR=2.3
GERES                              PP       PP        14 43 27.4  -5.0
      comp=Z,1.1nm,0.9s,baz=184,slow=5.1,SNR=4.2
CLL   Collm            112.24  26  ePKPdf   PKiKP     14 43 02.0  +1.9
CLL                                ePS      PS        14 53 20.0  -1.0
CLL                                esPS               14 54 04.0
CLL                                eSS      SS        14 59 24.0  +5.4
SCHQ  Schefferville    115.45 336  PKP      PKPdf     14 43 04.8  -1.3
      comp=Z,5.4nm,1.0s,baz=73,slow=3.8,SNR=5.0
ULM   Lac du Bonnet    120.51 316  PKP      PKPdf     14 43 14.1  -1.9
      comp=Z,2.9nm,0.6s,baz=98,slow=1.9,SNR=6.3
ULM                                SKP                14 46 39.2
      comp=Z,7.1nm,0.8s,baz=227,slow=0.4,SNR=8.2
PDAR  Pinedale Array   120.57 302  PKP      PKPdf     14 43 15.2  -1.2
      comp=Z,0.7nm,0.4s,baz=125,slow=5.1,SNR=13
PDAR                               SKP                14 46 39.6
      comp=Z,0.5nm,0.5s,baz=132,slow=5.0,SNR=4.5
NOA   NORSAR Array B   120.82  21  PKP      PKPdf     14 43 16.1  -0.1
      comp=Z,1.4nm,0.9s,baz=237,slow=22,SNR=3.1
NOA                                pPKP     pPKPdf    14 43 42.8  -1.2
      comp=Z,2.5nm,0.9s,baz=199,slow=1.9,SNR=3.7
NVAR  Mina Array Bea   121.59 293  PKP      PKPdf     14 43 19.3  +0.8
      comp=Z,1.2nm,0.7s,baz=127,slow=3.5,SNR=7.3
NVAR                               pPKP     pPKPdf    14 43 46.2   0.0
      comp=Z,1.2nm,0.6s,baz=136,slow=3.4,SNR=4.3
NVAR                               SKP                14 46 44.3
      comp=Z,1.3nm,0.7s,baz=158,slow=3.5,SNR=5.2
LOHW  Long Hollow      121.71 302  ePKPdf   PKPdf     14 43 18.0  -0.6
OBN   Obninsk          122.49  38  PKPdf    PKPdf     14 43 21.3  +1.6
PYUN  Piuthan          123.88  89  eP       PKPdf     14 43 22.6  -0.6
KOLN  Koldanda         123.96  90  eP       PKPdf     14 43 23.3  -0.1
DANN  Dangsing         124.50  90  eP       PKPdf     14 43 23.4  -1.0
EGMT  Eagleton         124.63 306  ePKPdf   PKPdf     14 43 24.0   0.0
DMN   Daman            124.68  91  eP       PKPdf     14 43 24.9  +0.1
GKN   Gorkha           124.72  91  eP       PKPdf     14 43 23.7  -1.2
PKIN  Phulchoki        124.81  92  eP       PKPdf     14 43 25.2  +0.1
PKI   Pulchoki         124.82  92  eP       PKPdf     14 43 25.1   0.0
CMAR  Chiang Mai Arr   124.88 111  PKP      PKPdf     14 43 25.1  -0.4
      comp=Z,2.9nm,0.9s,baz=228,slow=3.5,SNR=13
CMAR                               PKKPbc             14 53 06.7
      comp=Z,0.6nm,0.8s,baz=9.0,slow=3.7,SNR=4.2
KKN   Kakani           124.91  91  eP       PKPdf     14 43 24.5  -0.7
RAMN  Ramite           125.00  93  eP       PKPdf     14 43 26.4  +1.0
      comp=Z,8.3nm,0.4s
KAF   Kangasniemi      125.19  27  ep       PKPdf     14 43 23.4  -1.2
JIRN  Jiri             125.32  92  eP       PKPdf     14 43 25.7  -0.3
GUN   Gumba            125.34  92  eP       PKPdf     14 43 24.8  -1.3
      comp=Z,14nm,0.7s
ODAN  Odare            125.37  94  eP       PKPdf     14 43 26.3  +0.2
MSO   Missoula         125.68 302  ePKPdf   PKPdf     14 43 26.4  +0.4
BMO   Blue Mountains   125.85 299  ePKIKP   PKPdf     14 43 26.1  -0.4
TAPN  Taplejung        125.92  94  eP       PKPdf     14 43 24.3  -2.9
JOF   Joensuu          127.18  29  ePKIKP   PKPdf     14 43 26.6  -1.8
JOF                                pmax     pmax
      comp=Z,4.0nm,0.5s
JOF   Joensuu          127.18  29  ep       PKPdf     14 43 26.6  -1.8
      comp=Z,4.1nm,0.5s
AKTK  Aktyubinsk       127.41  53  PKP      PKPdf     14 43 29.0  -0.2
AKTO  Aktyubinsk       127.41  53  PKP      PKPdf     14 43 29.0  -0.2
      comp=Z,5.2nm,1.1s,baz=161,slow=5.8,SNR=2.8
KSH   Kashi            128.54  75  ePKP     PKPdf     14 43 31.5  -0.3
KSH                                esPKP              14 44 09.1
KSH                                ePKS               14 47 07.1
KSH                                eSKS     SKSdf     14 50 31.5  -2.3
KSH                                AMB      AMB
      comp=Z,330nm,5.4s
KSH                                LR       LR
      comp=N,240nm,6.2s
KSH                                LR       LR
      comp=E,200nm,5.2s
KSH                                LR       LR
      comp=Z,440nm,5.9s
AML   Almayashu        129.19  71  ePKPdf   PKPdf     14 43 31.6  -1.3
EKS2  Erkin-Say        129.61  70  ePKPdf   PKPdf     14 43 33.1  -0.6
LSA   Lhasa            129.65  95  PKP      PKPdf     14 43 37.0  +2.8
LSA   Lhasa            129.65  95  ePKPdf   PKPdf     14 43 36.9  +2.7
EDM   Edmonton         129.95 308  ePKIKP   PKPdf     14 43 34.7  +0.7
AAK   Ala-Archa        129.97  71  i PKIKP  PKPdf     14 43 35.1  +0.7
AAK   Ala-Archa        129.97  71  ePKPdf   PKPdf     14 43 35.1  +0.7
ARCES ARCESS Array B   131.15  22  PKIKP    PKPdf     14 43 34.9  -0.9
ARCES                                                 14 44 04.1
ARCES ARCESS Array B   131.15  22  PKP      PKPdf     14 43 34.9  -0.9
      comp=Z,7.9nm,0.9s,baz=225,slow=2.3,SNR=12
ARCES                              pPKP     pPKPdf    14 44 04.1  +0.6
      comp=Z,11nm,0.8s,baz=208,slow=2.3,SNR=4.6
ARCES                              SKPbc    SKPbc     14 46 49.4  -1.6
      comp=Z,3.8nm,0.7s,baz=263,slow=1.0,SNR=4.8
ARCES                              SKP                14 47 01.6
      comp=Z,5.8nm,1.0s,baz=197,slow=2.5,SNR=3.7
ARCES ARCESS Array B   131.15  22  PKP      PKPdf     14 43 34.9  -0.9
ARCES                              pPKP     pPKPdf    14 44 04.1  +0.6
ARCES                              SKPbc    SKPbc     14 46 49.4  -1.6
ARCES                              SKP                14 47 01.6
APA   Apatity          131.39  26⇑ ePKHKP             14 43 17.2
APA                                pmax     pmax
      comp=Z,22nm,1.3s
KEV   Kevo             131.64  22  ePKIKP   PKPdf     14 43 30.7  -6.0
KEV                                pmax     pmax
      comp=Z,7.0nm,0.8s
KEV   Kevo             131.64  22  ep       PKPdf     14 43 30.7  -6.0
      comp=Z,7.3nm,0.8s
ARU   Arti             131.80  48  ePKIKP   PKPdf     14 43 36.9  -0.5
ARU   Arti             131.80  48  ePKPdf   PKPdf     14 43 36.9  -0.5
KMI   Kunming          132.34 109  PKP      PKPdf     14 43 40.7  +1.2
KMI                                PP       PP        14 46 11.3  +7.7
KMI                                PKS                14 47 15.5
KMI                                SKS      SKSdf     14 50 38.0  -3.4
KMI                                SKKS     SKKSac    14 52 47.3  -2.3
KMI                                SS       SS        15 03 36.2  +2.1
KMI                                AMB      AMB
      comp=Z,73nm,4.8s
KMI                                LR       LR
      comp=N,160nm,8.8s
KMI                                LR       LR
      comp=E,130nm,17.4s
KMI                                LR       LR
      comp=Z,220nm,25.6s
BVAR  Borovoye Array   134.84  58  PKIKP    PKPdf     14 43 44.1  +0.9
BVAR                                                  14 44 10.0
BVAR  Borovoye Array   134.84  58  PKP      PKPdf     14 43 44.1  +0.9
      comp=Z,5.9nm,0.9s,baz=228,slow=1.8,SNR=19
BVAR                               pPKP     pPKPdf    14 44 10.0  -0.9
      comp=Z,5.1nm,0.8s,baz=230,slow=1.6,SNR=4.8
BVAR                               SKPbc    SKPbc     14 47 01.3  -2.7
      comp=Z,1.6nm,0.6s,baz=245,slow=3.0,SNR=3.3
BVAR                               SKP                14 47 07.4
      comp=Z,3.0nm,0.7s,baz=233,slow=3.5,SNR=6.3
GYA   Guiyang          135.47 112  Pdif     Pdif      14 40 48.7  -0.3
GYA                                PKP      PKPdf     14 43 46.9  +1.6
GYA                                sPKP               14 44 23.4
GYA                                PP       PP        14 46 27.5  +4.1
GYA                                PKS                14 47 21.2
GYA                                SKS      SKSdf     14 50 45.0  -1.8
GYA                                SKKS     SKKSac    14 53 07.9  -0.6
GYA                                SS       SS        15 04 15.3  +3.6
GYA                                AMB      AMB
      comp=Z,180nm,8.7s
GYA                                LR       LR
      comp=N,3μm,24.9s
GYA                                LR       LR
      comp=E,2μm,23.8s
GYA                                LR       LR
      comp=Z,3μm,24.4s
YKA   Yellowknife Ar   136.44 318  PKHKP              14 43 34.2
YKA                                                   14 43 45.2
YKA                                                   14 44 14.2
YKA                                                   14 46 28.0
YKA   Yellowknife Ar   136.44 318  PKhKP              14 43 34.2
      comp=Z,0.7nm,0.7s,baz=119,slow=3.9,SNR=8.5
YKA                                PKP      PKPdf     14 43 45.2  -0.7
      comp=Z,3.8nm,0.5s,baz=131,slow=2.2,SNR=34
YKA                                pPKP     pPKPdf    14 44 14.2  +0.6
      comp=Z,2.9nm,0.6s,baz=132,slow=2.0,SNR=2.6
YKA                                PP       PP        14 46 28.0  -1.3
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      comp=Z,2.3nm,1.0s,baz=119,slow=6.7,SNR=6.1
YKA                                SKPbc    SKPbc     14 47 06.2  -2.4
      comp=Z,10nm,0.8s,baz=130,slow=2.1,SNR=26
YKA   Yellowknife Ar   136.44 318  PKP                14 43 34.2
YKA                                PKP      PKPdf     14 43 45.2  -0.7
YKA                                pPKP     pPKPdf    14 44 14.2  +0.6
YKA                                PP       PP        14 46 28.0  -1.3
YKA                                SKPbc    SKPbc     14 47 06.2  -2.4
MK31  Makanchi Array   136.88  72  ePKHKP             14 43 33.4
MKAR  Makanchi Array   136.88  72  PKHKP              14 43 37.8
MKAR                                                  14 43 44.7
MKAR  Makanchi Array   136.88  72  PKhKP              14 43 37.8
      comp=Z,0.3nm,0.5s,baz=233,slow=2.3,SNR=4.8
MKAR                               PKP      PKPdf     14 43 44.7  -2.5
      comp=Z,0.7nm,0.7s,baz=224,slow=2.3,SNR=7.0
MKAR                               SKPbc    SKPbc     14 47 08.2  -2.4
      comp=Z,2.0nm,0.7s,baz=247,slow=2.5,SNR=5.2
MKAR  Makanchi Array   136.88  72  PKP      PKPdf     14 43 37.8  -9.4
MKAR                               PKP      PKPdf     14 43 44.7  -2.6
MKAR                               SKPbc    SKPbc     14 47 08.2  -2.4
KURK  Kurchatov        137.43  65  PKhKP              14 43 39.0
      comp=Z,0.5nm,0.5s,baz=237,slow=3.4,SNR=2.5
KURK                               PKP      PKPdf     14 43 47.8  -0.3
      comp=Z,2.3nm,0.7s,baz=235,slow=3.4,SNR=7.9
KURK                               SKPbc    SKPbc     14 47 09.9  -2.1
      comp=Z,1.3nm,0.8s,baz=240,slow=3.2,SNR=4.5
KURK  Kurchatov        137.43  65  PKP                14 43 39.0
KURK                               ePKPdf   PKPdf     14 43 47.1  -1.0
CD2   Chengdu          137.49 106  PKP      PKPdf     14 43 48.4  -0.5
CD2                                sPKP               14 44 26.0
CD2                                PP       PP        14 46 40.0  +3.9
CD2                                PKS                14 47 23.1
CD2                                SKS      SKSdf     14 50 47.3  -2.8
CD2                                SKKS     SKKSac    14 53 19.4  -1.0
CD2                                SS       SS        15 04 37.9  +2.0
CD2                                AMB      AMB
      comp=Z,210nm,7.7s
CD2                                LR       LR
      comp=N,400nm,4.1s
CD2                                LR       LR
      comp=Z,110nm,4.0s
WMQ   Urumqi           137.86  79  ePKP     PKPdf     14 43 50.0  +0.9
WMQ                                LR       LR
      comp=Z,530nm,32.0s
RES   Resolute Bay     138.14 338  ePKIKP             14 43 42.6
RES                                                   14 44 17.8
RES   Resolute Bay     138.14 338  PKhKP              14 43 41.5
      comp=Z,3.2nm,1.0s,baz=164,slow=1.9,SNR=7.5
RES                                PKP      PKPdf     14 43 49.4  +0.7
      comp=Z,14nm,1.1s,baz=135,slow=2.7,SNR=16
RES                                pPKP     pPKPdf    14 44 17.8  +1.3
      comp=Z,9.6nm,0.9s,baz=210,slow=1.6,SNR=4.3
RES                                SKPbc    SKPbc     14 47 11.7  -1.7
      comp=Z,5.4nm,0.8s,baz=110,slow=3.8,SNR=7.4
RES   Resolute Bay     138.14 338  ePKPpre            14 43 42.5
RES                                PKP      PKPdf     14 43 49.4  +0.7
RES                                pPKP     pPKPdf    14 44 17.8  +1.3
RES                                SKPbc    SKPbc     14 47 11.7  -1.7
LZH   Lanzhou          141.46 100  ePKP     PKPdf     14 44 03.0  +7.0
LZH                                AMB      AMB
      comp=Z,140nm,5.0s
GTA   Gaotai           141.61  93  ePKP     PKPdf     14 43 53.8  -2.3
GTA                                sPKP               14 44 31.4
GTA                                SKS      SKSdf     14 50 53.6  -2.9
GTA                                AMB      AMB
      comp=Z,180nm,5.7s
GTA                                LR       LR
      comp=N,130nm,17.7s
GTA                                LR       LR
      comp=E,110nm,16.5s
GTA                                LR       LR
      comp=Z,130nm,17.4s
NVS   Novosibirsk      142.08  62  ePKHKP             14 43 51.6
NVS                                i                  14 47 02.8
NVS                                pmax     pmax
      comp=Z,16nm,1.0s
NVS                                pmax     pmax
      comp=N,6.0nm,0.9s
NVS                                pmax     pmax
      comp=E,3.0nm,0.9s
ZAA0  Zalesovo Array   142.40  64  ePKPpre            14 43 52.7
ZALV  Zalesovo Beam    142.40  64  PKHKP              14 43 51.3
ZALV                                                  14 43 57.4
ZALV  Zalesovo Beam    142.40  64  PKhKP              14 43 51.3
      comp=E,1.3nm,0.5s,baz=231,slow=5.6,SNR=8.9
ZALV                               PKP      PKPdf     14 43 57.4  +0.3
      comp=E,5.7nm,0.6s,baz=241,slow=1.5,SNR=20
ZALV                               SKPbc    SKPbc     14 47 23.1  -2.1
      comp=E,3.9nm,0.9s,baz=204,slow=3.3,SNR=4.4
XAN   Xi'an            142.67 108  PKP      PKPdf     14 44 00.9  +2.7
WHN   Wuhan            142.69 117  PKP      PKPdf     14 44 00.0  +1.7
NJ2   Nanjing          146.12 121  ePKPbc   PKPbc     14 44 04.2  -1.2
DAWY  Dawson           147.04 312  ePKPbc   PKPbc     14 44 06.2  -0.8
EGAK  Eagle            147.99 312  ePKPbc   PKPbc     14 44 08.3  -1.2
BTO   Baotou           148.08 101  ePKPbc   PKPbc     14 44 10.3  -0.3
MENT  Mentasta         148.54 308  eP       PKPbc     14 44 11.5  +0.5
HHC   Hu-ho-hao-te     149.09 102  ePKPbc   PKPbc     14 44 10.0  -3.1
HHC                                PKPab    PKPab     14 44 21.2  +3.4
HHC                                pPKP     pPKPdf    14 44 35.8  -0.8
HHC                                sPKP               14 44 47.5
HHC                                PKS                14 47 42.7
HHC                                PP       PP        14 47 49.7  +3.9
HHC                                SKS      SKSdf     14 51 06.2  -1.1
HHC                                SKKS     SKKSac    14 54 28.2  +1.6
HHC                                SS       SS        15 06 51.8  +2.4
HHC                                AMB      AMB
      comp=Z,130nm,4.9s
HHC                                LR       LR
      comp=N,150nm,19.0s
HHC                                LR       LR
      comp=E,250nm,20.2s
HHC                                LR       LR
      comp=Z,180nm,22.6s
MOY   Mondy            149.69  77  ePKP2    PKPbc     14 44 13.7  -0.5
MOY                                pmax     pmax
      comp=Z,32nm,1.7s
ZAK   Zakamensk        150.29  80⇑ ePKIKP   PKPdf     14 44 12.3  +1.9
ZAK                                pmax     pmax
      comp=Z,25nm,1.1s
PMR   Palmer           150.57 304  ePKIKP   PKPbc     14 44 16.7  +0.7
SONM  Songino Array    150.64  87  PKPbc    PKPbc     14 44 15.7  -0.9
      comp=Z,18nm,0.8s,baz=220,slow=2.2,SNR=48
SONM                               pPKPbc   pPKPbc    14 44 44.0  -0.2
      comp=Z,9.9nm,0.6s,baz=222,slow=3.7,SNR=4.3
COLA  College          150.79 311  ePKIKP   PKPbc     14 44 15.8  -0.7
COLA                               e                  14 44 23.8
BJT   Baijiatuau       150.97 108  ePKIKP   PKPbc     14 44 18.4  +0.7
BJI   Beijing          150.99 108  PKPbc    PKPdf     14 44 14.4  +2.5
BJI                                PP       PP        14 47 58.6  +1.9
BJI                                SS       SS        15 07 13.5  +3.1
BJI                                AMB      AMB
      comp=Z,200nm,4.4s
BJI                                LR       LR
      comp=N,210nm,12.6s
BJI                                LR       LR
      comp=E,250nm,12.6s
BJI                                LR       LR
      comp=Z,150nm,36.8s
TLY   Talaya           151.14  78  i PKIKP  PKPdf     14 44 14.9  +3.2
TLY                                e                  14 44 43.2
TLY                                pmax     pmax
      comp=Z,2.0nm,1.1s
TLY   Talaya           151.14  78  ePKPbc   PKPbc     14 44 17.7   0.0
IRK   Irkutsk          151.75  77  ePKIKP   PKPbc     14 44 18.0  -1.1
IRK                                pmax     pmax
      comp=Z,22nm,2.5s
SVW2  Sparrevohn       153.45 302  ePKPab   PKPab     14 44 35.0  -0.4
KSRS  Korea Array      154.75 128  PKP      PKPdf     14 44 18.1  +0.7
      comp=Z,1.1nm,0.8s,baz=175,slow=39,SNR=3.0
KSRS                               PKPab    PKPab     14 44 41.4  -0.2
      comp=Z,3.3nm,0.9s,baz=235,slow=4.4,SNR=4.4
KSRS                               pPKPab   pPKPab    14 45 10.1  +1.7
      comp=Z,3.3nm,0.8s,baz=219,slow=3.6,SNR=3.7
MAT   Matsushiro       157.84 147  ePKP     PKPab     14 44 58.1  +3.3
MJAR  Matsushiro Arr   157.84 147  PKP      PKPdf     14 44 21.6  +0.1
      comp=Z,1.4nm,0.9s,baz=182,slow=4.5,SNR=3.5
MJAR                               PKPab    PKPab     14 44 55.1  +0.2
      comp=Z,1.4nm,0.6s,baz=207,slow=6.4,SNR=7.7
CN2   Changchun        158.51 114  ePKP     PKPdf     14 44 25.7  +3.6
CN2                                ePP      PP        14 48 45.0  +6.3
CN2                                eSS      SS        15 08 36.1  +4.4
CN2                                LR       LR
      comp=Z,200nm,24.0s
BOD   Bodaibo          158.95  70  ePKIKP   PKPdf     14 44 21.8  -0.3
```

BOD				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MDJ	Mudanjiang	161.16	119	PKP	PKPdf	14 44 27.4	+2.4
TIXI	Tiksi	161.57	24	*e*PKP2	PKPab	14 45 10.6	+0.4
TIXI				pmax	pmax		
	comp=Z,13nm,1.2s						
KLR	Kul'dur	165.36	110	*e*PKIKP	PKPdf	14 44 27.7	-1.2
BILL	Bilibino	166.75	338	*e*PKIKP	PKPdf	14 44 27.7	-1.7
BILL	Bilibino	166.75	338	*e*PKPdf	PKPdf	14 44 27.7	-1.7
YSS	Yuzh-Sakhalins	168.69	142	*i* PKIKP	PKPdf	14 44 32.3	+0.9
YSS	Yuzh-Sakhalins	168.69	142	*e*PKPdf	PKPdf	14 44 32.1	+0.7
PETK	Petropavlovsk-	175.78	222	PKPab	PKPab	14 46 14.0	+0.5
	comp=Z,3.1nm,0.7s,baz=116,slow=7.7,SNR=3.5						

*ISCJB **03** 14:26:28.3±1.9, 39°.2N±0°.1×71°.73E±0°.09, h33km, Error ellipse: s-maj=17.9km s-min=9.3km az=7.8*

*NEIC **03** 14:26:31.7±1.0, 39°.46N×71°.93E, h10km, Error ellipse: s-maj=92.8km s-min=10.5km az=118.0*

*NNC **03** 14:26:34.3±12.0, 39°.84N×72°.05E, h0km, mb3.6, mpv3.1, Error ellipse: s-maj=97.1km s-min=51.9km az=1.0*

ISC 03 14:26:32.7±1.8**, 39°.3N**±0°.1×**71°.77E**±0°.09**, h35**km**, n17, σ1ˢ00**/23**, 8C-3D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	3.17	27	P	Pn	14 27 20.0	0.0
	SNR=43						
AML	Almayashu	3.17	27	*e*P	Pn	14 27 18.4	-1.6
KSH	Kashi	3.26	85	⇑*i*Pn	Pn	14 27 15.2	-6.1
KSH				Sn	Sn	14 27 52.0	-6.9
KSH				smax			
	comp=N,130nm,0.4s						
KSH				smax			
	comp=E,130nm,0.6s						
UCH	Uchtor	3.57	35	*e*Pn	Pn	14 27 25.9	+0.3
UCH				*e*S	Sn	14 28 10.3	+3.8
EKS2	Erkin-Say	3.67	24	P	Pn	14 27 28.3	+1.5
	SNR=10						
EKS2	Erkin-Say	3.67	24	*e*P	Pn	14 27 26.9	+0.1
KK31	Karatay Array	3.90	346	⇑Pn	Pn	14 27 30.3	+0.3
	comp=E,1.6nm,0.3s,baz=149,slow=12,SNR=161						
KK31				⇑Sn	Sn	14 28 17.7	+3.2
	comp=E,3.0nm,0.3s,baz=147,slow=19						
KK31				⇓Lg		14 28 29.7	
	comp=E,14nm,0.4s,baz=145,slow=30						
AAK	Ala-Archa	3.90	31	P	Pn	14 27 30.7	+0.7
	SNR=11						
AAK	Ala-Archa	3.90	31	*e*P	Pn	14 27 29.1	-1.0
KBK	Karagaybulak	4.11	35	P	Pn	14 27 33.7	+0.8
	SNR=7.5						
CHMS	Chumysh	4.31	31	P	Pn	14 27 35.1	-0.6
	SNR=8.6						
USP	Ospenovka	4.45	27	P	Pn	14 27 37.3	-0.2
	SNR=12						
TKM2	Tokmak 2	4.61	38	*e*P	Pn	14 27 38.8	-1.1
TKM2	Tokmak 2	4.61	38	⇑Pn	Pn	14 27 38.8	-1.1
	comp=E,2.4nm,0.5s						
TKM2				⇑Sn	Sn	14 28 32.5	+0.3
	comp=E,6.9nm,0.6s						
TKM2				⇓Lg		14 28 48.0	
	comp=E,8.1nm,0.5s						
KBL	Kabul	5.25	205	*e*P	Pn	14 27 52.8	+4.2
	comp=E,5.1nm,0.6s						
AB09	Akbulak array	13.05	323	⇑Pn	Pn	14 29 32.0	-3.5
	comp=E,1.1nm,0.4s						
AB09				⇑Sn	Sn	14 31 54.5	-4.7
	comp=E,2.4nm,0.6s						
AKTO	Aktyubinsk	14.75	323	⇓Pn	Pn	14 29 58.2	-0.5
	comp=E,2.1nm,2.2s						
AKTO				⇑Sn	Sn	14 32 40.6	-0.1
	comp=E,1.3nm,1.9s						

*IDC **03** 14:49:28.4±1.2, 10°.45N×83°.01W, h0km, mb3.9/9, mb1 4.3/11, mb1mx4.1/21, mbtmp4.0/11, ML4.1/2, MS3.3/1, Ms1 3.3/1, ms1mx2.9/28, Error ellipse: s-maj=32.7km s-min=17.8km az=6.0*

*ISCJB **03** 14:49:30.5±0.9, 10°.62N±0°.03×82°.96W±0°.03, h17km±8km, mb3.9/9, Error ellipse: s-maj=5.1km s-min=4.2km az=39.5*

*NEIC **03** 14:49:32.9±1.9, 10°.47N×83°.04W, h29km±15km, mb3.8/1, Error ellipse: s-maj=14.7km s-min=6.8km az=204.0*

*CASC **03** 14:49:32.4±2.4, 10°.54N×83°.04W, h19km±7km, MD4.2, ML4.3, mb3.8(NEIC)*

ISC 03 14:49:31.9±1.3**, 10°.56N**±0°.03×**83°.00W**±0°.03**, h17**km±9km**, n63, σ0ˢ78**/78**, mb3.9**/9**, 8C-5D, North of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIO	Limon	0.55	184	⇑*e*P	Pb	14 49 45.6	+2.5
URSC	Urasca	1.05	227	⇓*e*P	Pb	14 49 50.7	-0.9
URSC				*e*S	Sb	14 50 06.4	+1.3
SJS	Escuela Geolog	1.21	239	⇑*e*P	Pn	14 49 53.8	-0.2
SJS				*e*S	Sb	14 50 07.2	-2.4
BUS	Buena Vista	1.25	217	⇓*e*P	Pn	14 49 54.1	-0.4
BUS				*e*S	Sb	14 50 10.0	-0.7
LCR2	La Lucha 2	1.28	231	*e*P	Pn	14 49 54.6	-0.4
LAJ	Bijagual	1.30	238	⇑*e*P	Pn	14 50 03.0	+7.7
LAJ				*e*S	Sn	14 50 24.3	+12
BAR1		1.34	193	⇓*e*P	Pn	14 49 55.8	0.0
PRS1	Puriscal	1.41	246	⇓*e*P	Pn	14 49 58.2	+1.4
CGA2	Cerro Gallo 2	1.54	250	*e*P	Pn	14 49 58.8	+0.2
CGA2				*e*S	Sn	14 50 17.0	-1.2
QCR	Quepos	1.61	226	⇓*e*P	Pn	14 49 59.9	+0.3
QCR				*e*S	Sn	14 50 18.6	-1.4
FORC	Fortuna	1.65	267	⇑*e*P	Pn	14 49 59.8	-0.2
CTCR	Cotoan	1.67	172	*e*P	Pn	14 50 00.9	+0.6
BRU2	Volcan	1.78	170	⇑*i*P	Pn	14 50 02.2	+0.3
BRU2				*e*S	Sn	14 50 23.7	-0.4
BANL	Banca Lucia	1.80	269	*i* P	Pn	14 50 02.0	-0.2
ACR	Cerro Adams	1.90	185	⇑*e*P	Pn	14 50 04.1	+0.6
ACR				*e*S	Sn	14 50 28.1	+1.0
JTS	JuntasAbangare	1.94	262	Pn	Pn	14 50 03.8	-0.2
	64nm,0.3s,baz=63,slow=15,SNR=85						
JTS				Sn	Sn	14 50 27.9	-0.2
	426nm,0.3s,baz=12,slow=16,SNR=39						
JTS	JuntasAbangare	1.94	262	*e*Pn	Pn	14 50 03.7	-0.4
JTS				*e*S	Sn	14 50 28.4	+0.3
JTS	JuntasAbangare	1.94	262	*e*P	Pn	14 50 03.9	-0.2
JTS				*e*S	Sn	14 50 28.2	+0.1
PTEN	Parque Tenorio	1.96	275	*i* P	Pn	14 50 03.2	-1.2
PTEN				*i* S	Sn	14 50 29.0	+0.4
AMAS	Alto Masis	1.96	272	*i* P	Pn	14 50 03.5	-0.9
MESS	Mesas	2.17	275	*i* P	Pn	14 50 07.0	-0.2
MESS				*i* S	Sn	14 50 35.1	+1.4
COLC	Colonia	2.17	273	*i* P	Pn	14 50 06.9	-0.3
JCR	Jicaral	2.20	251	*e*P	Pn	14 50 08.8	+1.1
JCR				*e*S	Sn	14 50 36.2	+1.8
GPS3	Bodega del ICE	2.33	275	*i* P	Pn	14 50 09.2	-0.4
NY14	Universidad de	2.50	272	*i* P	Pn	14 50 11.6	-0.1
CONN	Concepcion	2.77	291	*e*P	Pn	14 50 16.0	+0.6
BOAB	BOACO BROADBAN	3.22	306	*e*P	Pn	14 50 21.0	-0.7
BOAB				*e*S	Sn	14 51 04.0	+4.3
APON	Apoyo	3.30	294	*e*P	Pn	14 50 23.3	+0.5
BCIP	Isla Barro Col	3.41	114	*e*Pn	Pn	14 50 24.5	+0.2
BCIP				*e*Sn	Sn	14 51 01.5	-2.8
BCIP	Isla Barro Col	3.41	114	*e*P	Pn	14 50 23.8	-0.5
BCIP				⇑*i*P		14 50 24.5	
WILN	Americas 2	3.51	297	*e*P	Pn	14 50 25.5	-0.2
MGAN	Managua	3.56	297	*e*P	Pn	14 50 26.0	-0.3
TISN	Laguna Tiscapa	3.57	296	*e*P	Pn	14 50 26.5	-0.1
HUEN		3.58	300	*e*P	Pn	14 50 26.4	-0.2
XAVN	Gruta Xavier	3.63	296	*e*P	Pn	14 50 27.3	+0.1
CSAN		3.73	296	*e*P	Pn	14 50 28.4	-0.3
UPIG		3.75	114	⇑*i*P	Pn	14 50 29.3	+0.2
COPN	Copaltepe	3.88	295	*e*P	Pn	14 50 30.5	-0.2
MOMN	Momotombo	3.93	298	*e*P	Pn	14 50 31.6	+0.1
MIRN	Miramar	4.09	298	*e*P	Pn	14 50 33.7	0.0
CNGN	Cerro Negro	4.11	298	*e*P	Pn	14 50 33.7	-0.2
TEL3	Telica 3	4.27	298	*e*P	Pn	14 50 36.0	-0.1
CRIN	San Cristobal	4.50	299	*e*P	Pn	14 50 39.3	-0.1
TGUH	Tegucigalpa,Un	5.43	310	*e*Pn	Pn	14 50 52.0	-0.2
	200nm,0.8s						
TGUH	Tegucigalpa,Un	5.43	310	*e*P	Pn	14 50 52.1	0.0
TEIG	Tepich	10.87	333	Pn	Pn	14 52 06.7	-0.1
	0.8nm,0.3s,baz=180,slow=20,SNR=4.3						
TEIG				LR	LR	14 56 22.0	
	comp=Z,163nm,18.6s,baz=160,slow=38						
TEIG	Tepich	10.87	333	Pn	Pn	14 52 06.7	-0.1
TEIG				LR	LR	14 56 22.0	
SDV	Santo Domingo	12.30	97	Pn	Pn	14 52 26.9	+0.5
	1.6nm,0.3s,baz=311,slow=9.6,SNR=23						
SDV				Sn	Sn	14 54 36.1	-7.1
	14nm,0.3s,baz=33,slow=15,SNR=22						
SDV	Santo Domingo	12.30	97	*e*Pn	Pn	14 52 26.3	-0.1
SDV				Sn	Sn	14 54 36.1	-7.1
TKL	Tuckaleechee C	25.00	359	P	P	14 54 56.3	+1.5
	4.0nm,0.9s,mb4.0,baz=192,slow=12,SNR=4.5						
TXAR	Lajitas Array	26.87	317	P	P	14 55 11.9	+0.1
	0.4nm,0.8s,baz=149,slow=8.9,SNR=3.8						
PDAR	Pinedale Array	39.57	329	P	P	14 57 02.4	+0.2
	1.3nm,0.9s,mb3.6,baz=134,slow=8.9,SNR=7.4						
BW06	Boulder Array	39.57	329	*e*P	P	14 57 02.6	+0.4
	1.8nm,0.9s,mb3.8						
NVAR	Mina Array Bea	42.02	317	P	P	14 57 23.0	+0.5
	0.6nm,0.6s,mb3.4,baz=120,slow=8.9,SNR=4.7						
SCHQ	Schefferville	45.98	13	P	P	14 57 53.9	-0.1
	2.5nm,0.7s,mb4.3,baz=251,slow=9.9,SNR=7.2						
YKA	Yellowknife Ar	56.63	343	P	P	14 59 13.1	-0.6
	1.5nm,0.7s,mb4.2,baz=136,slow=7.3,SNR=20						
YKA				PcP	PcP	15 00 09.3	-0.6
	0.3nm,0.6s,baz=134,slow=4.0,SNR=3.9						
ESDC	Sonseca Array	74.92	52	P	P	15 01 12.8	+0.7
	0.4nm,0.2s,mb3.9,baz=278,slow=6.1,SNR=26						
ESDC	Sonseca Array	74.92	52	P	P	15 01 12.8	+0.7
TORD	Torodi Ar. Bea	82.55	78	P	P	15 01 54.3	-0.3
	0.6nm,0.6s,mb3.8,baz=296,slow=6.6,SNR=6.0						
GERES	GERESS Array B	86.51	41	P	P	15 02 13.6	-0.3
	0.5nm,0.7s,mb3.9,baz=296,slow=4.3,SNR=4.0						
ASAR	Alice Springs	142.53	245	PKhKP		15 08 59.4	
	0.3nm,0.6s,baz=118,slow=3.3,SNR=6.0						
WRA	Warramunga Arr	142.87	251	PKP	PKPdf	15 09 04.1	-1.3
	0.7nm,1.0s,baz=95,slow=2.5,SNR=5.9						
CMAR	Chiang Mai Arr	151.11	356	PKPbc	PKPbc	15 09 22.8	-2.2
	1.6nm,0.9s,baz=316,slow=2.8,SNR=9.4						

*IDC **03** 15:04:09.8±2.0, 2°.56N×95°.55E, h0km, mb3.6/5, mb1 3.7/7, mb1mx3.5/23, mbtmp3.6/7, ML3.5/2, Error ellipse: s-maj=61.6km s-min=20.9km az=55.0*

*NEIC **03** 15:04:15.2±0.8, 2°.61N×95°.65E, h35km, mb4.0/1, Error ellipse: s-maj=16.2km s-min=9.2km az=223.0*

*ISCJB **03** 15:04:19.1±5.4, 2°.8N±0°.2×96°.0E±0°.4, h77km±42km, mb3.9/10, Error ellipse: s-maj=69.7km s-min=15.5km az=145.9*

ISC 03 15:04:20.4±5.5**, 2°.8N**±0°.3×**96°.0E**±0°.4**, h72**km±43km**, n14, σ0ˢ43**/14**, mb3.9**/10**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.92	90	Pn	Pn	15 05 04.2	-0.3
	1.3nm,0.3s,baz=320,slow=7.7,SNR=10						
KULM	Kulim	5.25	62	*e*P	Pn	15 05 36.7	+0.2
CMAR	Chiang Mai Arr	15.83	10	Pn	Pn	15 07 59.0	-0.1
	0.2nm,0.3s,baz=201,slow=11,SNR=12						
RAMN	Ramite	25.65	340	*e*P	P	15 09 44.1	+0.6
	8.9nm,0.6s,mb4.4						
TAPN	Taplejung	25.67	343	*e*P	P	15 09 44.1	+0.4
	3.4nm,0.4s,mb4.1						
JIRN	Jiri	26.44	340	*e*P	P	15 09 51.1	+0.4
	10nm,0.7s,mb4.4						
GUN	Gumba	26.78	340	*e*P	P	15 09 53.9	+0.2
	6.6nm,0.6s,mb4.3						
WRA	Warramunga Arr	43.89	123	P	P	15 12 20.3	+0.1
	0.6nm,0.9s,mb3.3,baz=302,slow=8.9,SNR=3.7						
ASAR	Alice Springs	45.31	128	P	P	15 12 31.7	+0.3
	0.3nm,0.7s,mb3.1,baz=301,slow=8.1,SNR=4.1						
MK31	Makanchi Array	45.42	347	*e*P	P	15 12 31.6	-0.3
MKAR	Makanchi Array	45.42	347	P	P	15 12 31.6	-0.3
	0.8nm,0.4s,mb3.8,baz=160,slow=8.6,SNR=45						
SONM	Songino Array	45.75	10	P	P	15 12 34.8	+0.3
	0.3nm,0.5s,mb3.3,baz=190,slow=8.6,SNR=4.9						
ZALV	Zalesovo Beam	51.81	352	P	P	15 13 20.6	-0.3
	0.9nm,0.5s,mb4.1,baz=171,slow=7.1,SNR=8.2						
BRVK	Borovoye	54.42	341	P	P	15 13 38.9	-1.2
	1.1nm,0.7s,mb4.0						

MAN 03 15:05:46, 11°.44N×126°.06E, h13km**, mb4.2, ML3.0, MS2.7, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OCLP	Ormoc	1.48	255	*e*P	Pn	15 06 12.2	-0.1
SCPH	Surigao	1.74	199	*e*P	Pn	15 06 16.9	+1.0
SCPH				*e*S	Sn	15 06 35.9	-2.2
MSLP	Maasin	1.75	222	*e*P	Pn	15 06 16.3	+0.2
MSLP				*e*S	Sn	15 06 40.8	+2.4
BUKP	Musuan	3.67	196	*e*P	Pn	15 06 44.5	+2.0

*ISCJB **03** 15:09:48.4±0.4, 39°.58N±0°.02×26°.03E±0°.03, h8km±4km, Error ellipse: s-maj=4.0km s-min=3.3km az=176.5*

*CSEM **03** 15:09:48.4±0.2, 39°.57N×26°.03E, h10km, MD3.1, Error ellipse: s-maj=4.9km s-min=4.3km az=116.0*

*DDA **03** 15:09:49.3, 39°.61N×26°.12E, h7km±2km, Md3.1*

*THE **03** 15:09:49.4, 39°.52N×26°.04E, h19km±1km, ML3.3/5, Error ellipse: s-maj=2.0km s-min=0.7km az=219.0*

*ISK **03** 15:09:53.0, 39°.92N×26°.30E, h9km, MD3.1*

ISC 03 15:09:48.9±0.4**, 39°.58N**±0°.02×**26°.03E**±0°.03**, h13**km±3km**, n58, σ1ˢ16**/81**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	Bozcaada	0.27	5	*i* P	Pg	15 09 54.5	0.0
BOZC				*i* S	Sg	15 09 58.5	+0.2
EZN	Ezine	0.34	43	PG	Pg	15 09 55.2	-0.6
EZN				*e*SG	Sg	15 09 58.4	-2.0
EZN	Ezine	0.34	43	*i* Pg	Pg	15 09 55.2	-0.6
EZN				*e*Sg	Sg	15 09 58.4	-2.0
PRK	Paraskevi	0.38	150	P	Pg	15 09 56.3	-0.2
PRK				S	Sg	15 10 01.7	+0.1
PRK	Paraskevi	0.38	150	P	Pg	15 09 56.3	-0.2
PRK				S	Sg	15 10 01.7	+0.1
SIGR	SIGRI	0.39	200	P	Pg	15 09 56.8	+0.2
SIGR				S	Sg	15 10 02.4	+0.6
SIGR	SIGRI	0.39	200	P	Pg	15 09 56.8	+0.2
SIGR				S	Sg	15 10 02.4	+0.6
AYVA	Ayvalik	0.58	117	*i* P	Pg	15 09 60.0	-0.2
AYVA				*i* S	Sg	15 10 10.5	+2.7
AYVA	Ayvalik	0.58	117	*i* P	Pg	15 10 00.0	-0.2
AYVA				*i* S	Sg	15 10 10.5	+2.6
GADA	Gvkgeada	0.62	351	*e*PG	Pg	15 10 00.9	-0.2
GADA				*e*SG	Sg	15 10 08.2	-1.1
GADA	Gvkgeada	0.62	351	*e*Pg	Pg	15 10 00.9	-0.2
GADA				*e*Sg	Sg	15 10 08.2	-1.1
LIA	Limnos Island	0.72	297	P	Pg	15 10 03.5	+0.5
LIA				S	Sg	15 10 14.1	+1.6
LIA	Limnos Island	0.72	297	P	Pg	15 10 03.5	+0.5
LIA				S	Sg	15 10 14.1	+1.6
LOS	Limnos	0.81	297	P	Pg	15 10 05.4	+0.8
LOS				S	Sg	15 10 17.1	+1.9
LOS	Limnos	0.81	297	P	Pg	15 10 05.4	+0.8
LOS				S	Sg	15 10 17.1	+1.9
LPK	Lapseki	0.98	35	*e*PG	Pg	15 10 04.9	-2.8
LPK	Lapseki	0.98	35	*e*Pg	Pg	15 10 04.9	-2.8
ENEZ	Enez	1.16	5	*e*PG	Pg	15 10 09.0	-2.3
ENEZ	Enez	1.16	5	*e*Pg	Pg	15 10 09.0	-2.3
CHOS	Chios island	1.19	179	P	Pn	15 10 09.9	-1.3
CHOS				S	Sb	15 10 24.8	-1.7
CHOS	Chios island	1.19	179	P	Pn	15 10 09.9	-1.3
CHOS				S	Sb	15 10 24.8	-1.7
ALN	Alexandroupoli	1.32	1	P	Pn	15 10 12.8	-0.3
ALN				S	Sb	15 10 30.2	-0.2
ALN	Alexandroupoli	1.32	1	P	Pn	15 10 12.8	-0.3
ALN				S	Sb	15 10 30.2	-0.2
SART	Tekirdag	1.42	38	*i* P	Pn	15 10 14.5	0.0
SART				*i* S	Sn	15 10 33.9	+0.8
SART	Tekirdag	1.42	38	*i* P	Pn	15 10 14.5	0.0
SART				*i* S	Sn	15 10 33.8	+0.7
BALB	Balikesir	1.43	87	*e*PN	Pn	15 10 17.2	+2.6
MRMT	Marmara Adasi	1.58	49	*e*PN	Pn	15 10 16.4	-0.2
MRMT	Marmara Adasi	1.58	49	*e*Pn	Pn	15 10 16.5	-0.2
EDC	Edincik	1.61	61	*e*PN	Pn	15 10 17.5	+0.5
EDC	Edincik	1.61	61	*e*Pn	Pn	15 10 17.5	+0.5
BNT	Bandirma	1.65	61	*e*PN	Pn	15 10 17.8	+0.2
AOS	Alonnisos	1.71	257	P	Pn	15 10 18.1	-0.3
AOS	Alonnisos	1.71	257	P	Pn	15 10 18.1	-0.3
OUR	Ouranopolis	1.74	296	P	Pn	15 10 18.8	-0.1
OUR	Ouranopolis	1.74	296	P	Pn	15 10 18.8	-0.1
PAIG	Paliouri	1.84	282	P	Pn	15 10 20.0	-0.2
PAIG	Paliouri	1.84	282	P	Pn	15 10 20.0	-0.2
DURS	Dursunbey	1.89	88	*i* P	Pn	15 10 20.4	-0.5
DURS				*i* S	Sn	15 10 49.0	+4.4
DURS	Dursunbey	1.89	88	*i* P	Pn	15 10 20.4	-0.5
DURS				*i* S	Sn	15 10 49.0	+4.4
DST	Dursunbey	2.01	88	*e*PN	Pn	15 10 25.5	+2.9
EDRB	Edirne	2.33	13	*e*PN	Pn	15 10 26.5	-0.5
EDRB	Edirne	2.33	13	*e*Pn	Pn	15 10 26.5	-0.5
SLVT	Silivri	2.35	45	*e*PN	Pn	15 10 27.0	-0.2
SLVT	Silivri	2.35	45	*e*Pn	Pn	15 10 27.0	-0.2
ARMT	Armutlu	2.39	65	*e*PN	Pn	15 10 28.8	+1.0
ARMT	Armutlu	2.39	65	*e*Pn	Pn	15 10 28.8	+1.0
CTKS	Kestanelik-??a	2.52	48	*e*PN	Pn	15 10 29.6	+0.1
CTKS	Kestanelik-??a	2.52	48	*e*Pn	Pn	15 10 29.6	+0.1
APE	Apeiranthos	2.53	189	P	Pn	15 10 27.5	-2.2
APE	Apeiranthos	2.53	189	P	Pn	15 10 27.5	-2.2
CTYL	Yal??k??y-??at	2.56	42	*e*PN	Pn	15 10 29.9	-0.3
CTYL	Yal??k??y-??at	2.56	42	*e*Pn	Pn	15 10 29.9	-0.3
GEMT	Gemlik	2.58	70	*e*PN	Pn	15 10 31.9	+1.5
GEMT	Gemlik	2.58	70	*e*Pn	Pn	15 10 31.9	+1.6
YLV	Yalova	2.75	68	*e*PN	Pn	15 10 34.8	+2.0
YLV	Yalova	2.75	68	*e*Pn	Pn	15 10 34.8	+2.0
DID	Didima	3.01	228	P	Pn	15 10 34.5	-1.8
DID	Didima	3.01	228	P	Pn	15 10 34.5	-1.8

IDC 03 15:29:34.1±10.0**, 27°.70N×96°.15E, h0**km**, mb3.7**/2**, mb1 3.8**/3**, mb1mx3.2**/24**, mbtmp3.5**/3**, ML3.2**/1**, Error ellipse: s-maj=268.5km s-min=86.8km az=97.0, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	4.37	242	*e*PN	Pn	15 30 41.0	-0.7
SHL				*e*SN	Sn	15 31 21.0	-12
CMAR	Chiang Mai Arr	9.55	164	Pn	Pn	15 31 53.0	+0.1
	0.1nm,0.3s,baz=334,slow=11,SNR=7.1						
WRA	Warramunga Arr	60.08	138	P	P	15 39 43.3	+0.1
	0.5nm,0.5s,baz=327,slow=7.4,SNR=10						
ASAR	Alice Springs	62.73	141	P	P	15 40 01.1	0.0
	0.1nm,0.4s,baz=327,slow=6.2,SNR=4.1						

*NEIC **03** 15:43:17.8, 29°.51S×70°.56W, h38km, MD3.7(GUC), After GUC.*

GUC 03 15:43:17.8±0.5**, 29°.51S×70°.56W, h38**km±3km**, MD3.7, ML3.1, 2C-1D, Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	Las Campanas	0.51	346	*e*Pn	Pn	15 43 29.4	+0.8
LCO				*e*Sn	Sn	15 43 38.8	+2.6
LSCH	La Serena	0.71	236	⇓*i*P	Pn	15 43 31.5	+0.1
LSCH				*i* S	Sn	15 43 41.8	+0.6
OVCH	Ovalle	1.23	207	*e*P	Pn	15 43 39.4	+0.9
OVCH				*i* S	Sn	15 43 55.3	+1.5
OVCH	Ovalle	1.23	207	*e*P	Pn	15 43 39.4	+0.9
OVCH				*i* S	Sn	15 43 55.3	+1.5
OVCH				AML	AML	15 43 58.5	
	comp=N,550nm,0.5s						
CMCH	Combarbala	1.70	193	⇑*i*P	Pn	15 43 46.3	+1.3
CMCH				*i* S	Sn	15 44 08.1	+2.6
CMCH	Combarbala	1.70	193	⇑*i*P	Pn	15 43 46.3	+1.3
CMCH				*i* S	Sn	15 44 08.1	+2.6
CMCH				AML	AML	15 44 11.2	
	comp=N,629nm,0.4s						
CPCH	Copiapo	2.15	5	*e*P	Pn	15 43 49.5	-1.7
CPCH				*e*S	Sn	15 44 15.6	-1.0
CHNG	Los Chungos	2.50	199	*e*P	Pn	15 43 57.1	+1.1
CHNG				*e*S	Sn	15 44 27.1	+1.9
CHNG				AML	AML	15 44 37.0	
	comp=E,80nm,0.6s						

IDC 03 16:06:21.4±6.7**, 8°.37S×118°.60E, h0**km**, mb3.4**/2**, mb1 3.5**/4**, mb1mx3.3**/19**, mbtmp3.4**/4**, ML3.0**/1**, Error ellipse: s-maj=188.3km s-min=81.5km az=60.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.85	145	Pn	Pn	16 09 12.5	+0.7
	0.1nm,0.3s,baz=324,slow=9.3,SNR=4.1						
FITZ				Sn	Sn	16 11 25.7	+0.8
	0.3nm,0.3s,baz=178,slow=18,SNR=10						
WRA	Warramunga Arr	19.09	129	P	Pn	16 10 46.3	-0.2
	0.1nm,0.3s,baz=304,slow=13,SNR=5.6						
ASAR	Alice Springs	21.13	138	P	P	16 11 08.1	+0.1
	0.5nm,0.6s,baz=315,slow=9.3,SNR=13						
STKA	Stephens Creek	31.69	141	P	P	16 12 46.5	-0.3
	1.1nm,0.8s,baz=316,slow=14,SNR=2.5						

*IDC **03** 16:27:42.1±0.8, 40°.14N×73°.05E, h0km, mb4.1/14, mb1 4.2/19, mb1mx4.1/29, mbtmp4.1/19, ML3.8/5, MS3.4/7, Ms1 3.4/7, ms1mx3.1/35, Error ellipse: s-maj=15.7km s-min=11.9km az=156.0*

*NNC **03** 16:27:43.9±3.8, 40°.35N×72°.90E, h0km, mb4.3, mpv4.3, Error ellipse: s-maj=41.9km s-min=16.6km az=4.0*

*MOS **03** 16:27:46.6±1.4, 40°.41N×72°.90E, h33km, mb4.4/18, Error ellipse: s-maj=9.9km s-min=5.9km az=87.7*

*ISCJB **03** 16:27:48.6±0.4, 40°.30N±0°.02×72°.94E±0°.04, h55km±4km, mb4.3/31, MS3.7/7, Error ellipse: s-maj=4.7km s-min=3.6km az=5.6*

*NEIC **03** 16:27:50.0±0.9, 40°.34N×73°.09E, h56km±8km, mb4.5/6, MS4.0/1, Error ellipse: s-maj=11.4km s-min=7.5km az=143.0*

*BJI **03** 16:27:49.8, 40°.49N×73°.15E, h45km, mB4.7/13, mb4.4/19, ML4.2/6, Ms4.1/16, Ms7 4.0/15*

ISC 03 16:27:50.5±0.3**, 40°.35N**±0°.02×**72°.98E**±0°.04**, h57**km±4km**, h55**km±3.7km**:pP-P, n137, σ1ˢ24**/164**, mb4.3**/31**, MS3.7**/7**, 18C-7D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	1.86	17	P	Pn	16 28 19.4	-0.6
	SNR=2565						
UCH	Uchtor	2.20	31	P	Pn	16 28 24.9	+0.3
	SNR=27						
UCH	Uchtor	2.20	31	*e*P	Pn	16 28 24.8	+0.1
UCH				S	Sn	16 28 51.5	+0.8
EKS2	Erkin-Say	2.39	14	P	Pn	16 28 26.8	-0.4
	SNR=203						
EKS2	Erkin-Say	2.39	14	*e*Pn	Pn	16 28 27.7	+0.6
EKS2				*e*Sn	Sn	16 28 56.9	+1.7
KZA	Kyzart	2.43	44	P	Pn	16 28 27.7	-0.1
	SNR=161						
KSH	Kashi	2.44	109	⇑*i*P	Pn	16 28 26.1	-1.8
KSH				S	Sn	16 28 56.5	-0.1
KSH				smax			
	comp=N,6μm,0.7s						
AAK	Ala-Archa	2.55	26	P	Pn	16 28 29.6	+0.3
	SNR=159						
KBK	Karagaybulak	2.74	32	P	Pn	16 28 32.7	+0.8
	SNR=114						
FRU	Bishkek	2.77	26	*e*PN	Pn	16 28 33.5	+1.2
FRU				*i* S	Sn	16 29 11.0	+6.5
FRU				pmax	pmax		
	comp=Z,720nm,1.7s						
FRU				smax			
	comp=N,3μm,2.0s						
CHMS	Chumysh	2.96	26	P	Pn	16 28 35.1	+0.1
	SNR=66						
ULHL	Ulahol	3.10	51	P	Pn	16 28 36.3	-0.6
	SNR=162						
USP	Ospenovka	3.13	21	P	Pn	16 28 37.0	-0.2
	SNR=105						
TKM2	Tokmak 2	3.23	36	PN	Pn	16 28 38.8	+0.1
TKM2						16 29 26.1	
TKM2				pmax	pmax		
	comp=Z,63nm,0.5s						
TKM2				pmax	pmax		
	comp=N,284nm,0.6s						
TKM2	Tokmak 2	3.23	36	P	Pn	16 28 38.9	+0.2
	SNR=66						
TKM2	Tokmak 2	3.23	36	*e*Pn	Pn	16 28 38.8	+0.1
TKM2	Tokmak 2	3.23	36	⇑Pn	Pn	16 28 38.8	+0.2
	comp=N,239nm,1.0s						
TKM2				⇑Lg		16 29 26.2	
	comp=N,284nm,0.6s						
KK31	Karatay Array	3.32	327	PN	Pn	16 28 38.8	-1.0
KK31						16 28 45.5	
KK31						16 29 19.7	
KK31						16 29 28.5	
KK31				pmax	pmax		

	comp=Z,26nm,0.3s						
KK31				smax			
	comp=N,87nm,0.3s						
KK31	**Karatay Array**	**3.32**	**327**	⇑Pn	**Pn**	**16 28 38.8**	**-1.0**
	comp=N,4.5nm,0.4s						
KK31				⇑Pg	**Pn**	**16 28 45.6**	**+5.8**
	comp=N,84nm,0.4s						
KK31				⇓Lg		16 29 27.7	
	comp=N,389nm,0.6s,baz=146,slow=29,SNR=5.4						
KNDC	**Almaty**	**4.13**	**45**	⇑Pn	**Pn**	**16 28 51.5**	**+0.5**
	comp=N,108nm,0.8s						
KNDC				⇑Lg		16 29 55.7	
	comp=N,836nm,0.8s						
CEP	**Cherat**	**6.57**	**188**	P	**Pn**	**16 29 26.2**	**+1.8**
CEP				S	**Sn**	**16 30 41.0**	**+3.1**
KBL	**Kabul**	**6.59**	**210**	*e*PN	**Pn**	**16 29 25.5**	**+0.8**
KBL				*e*		16 30 39.7	
KBL				pmax	pmax		
	comp=Z,60nm,0.4s						
KBL	**Kabul**	**6.59**	**210**	*e*Pn	**Pn**	**16 29 25.5**	**+0.8**
	comp=Z,60nm,0.4s						
KBL				*e*Sn	**Sn**	**16 30 39.7**	**+1.3**
CHCP	**Chirah Chowk**	**6.68**	**178**	P	**Pn**	**16 29 27.5**	**+1.5**
DLH	**Dalhousie**	**8.15**	**162**	*e*PKP	**Pn**	**16 29 47.0**	**+0.9**
DLH				*e*S	**Sn**	**16 31 15.0**	**-1.8**
SBDP	**Sheikh Budin**	**8.22**	**193**	P	**Pn**	**16 29 47.5**	**+0.4**
SBDP				S	**Sn**	**16 31 16.0**	**-2.5**
MK31	**Makanchi Array**	**9.33**	**43**	P	**Pn**	**16 30 01.0**	**-1.1**
MK31				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MK31	**Makanchi Array**	**9.33**	**43**	*e*Pn	**Pn**	**16 30 00.8**	**-1.4**
MK31	**Makanchi Array**	**9.33**	**43**	⇑Pn	**Pn**	**16 30 01.1**	**-1.1**
	comp=Z,5.9nm,0.8s						
MK31				⇑Lg		16 32 33.6	
	comp=Z,36nm,1.1s						
MKAR	**Makanchi Array**	**9.33**	**43**	Pn	**Pn**	**16 30 00.6**	**-1.5**
	comp=Z,0.4nm,0.3s,baz=222,slow=14,SNR=34						
MKAR				Lg		16 32 35.3	
	comp=Z,0.4nm,0.3s,baz=234,slow=27,SNR=4.2						
MKAR				LR	LR	16 33 13.4	
	comp=Z,89nm,18.3s,baz=233,slow=35						
KLP	**Kalpa**	**9.78**	**153**	*e*PKP	**Pn**	**16 30 09.2**	**+0.9**
KLP				*e*S	**Sn**	**16 31 49.8**	**-6.8**
KLP				AML	AML	16 31 54.8	
	comp=N,75nm,0.4s						
KLP				AML	AML	16 31 54.9	
	comp=E,128nm,0.5s						
DDI	**Dehra Dun**	**10.82**	**156**	*e*PKP	**Pn**	**16 30 28.5**	**+5.9**
DDI				*e*S	**Sn**	**16 32 19.1**	**-3.1**
KURBB	**Kurchatov Arra**	**10.98**	**19**	⇓Pn	**Pn**	**16 30 21.7**	**-2.9**
	comp=E,1.0nm,0.8s						
KURBB				⇑Lg		16 33 28.0	
	comp=E,32nm,1.1s						
KURK	**Kurchatov**	**11.09**	**19**	*e*P	**Pn**	**16 30 23.4**	**-2.8**
KURK				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KURK	**Kurchatov**	**11.09**	**19**	Pn	**Pn**	**16 30 21.4**	**-4.8**
	comp=Z,0.2nm,0.3s,baz=211,slow=13,SNR=22						
KURK				Lg		16 33 31.2	
	comp=Z,0.3nm,0.3s,baz=198,slow=25,SNR=7.9						
KURK				LR	LR	16 34 54.9	
	comp=Z,168nm,18.6s,baz=205,slow=39						
KURK	**Kurchatov**	**11.09**	**19**	*e*Pn	**Pn**	**16 30 23.4**	**-2.7**
	comp=Z,8.5nm,1.1s						
KURK	**Kurchatov**	**11.09**	**19**	⇓Pn	**Pn**	**16 30 23.2**	**-3.0**
	comp=Z,8.9nm,1.2s						
KURK				⇓Lg		16 33 28.8	
	comp=Z,159nm,1.4s						
JOSI	**Joshimath**	**11.14**	**149**	*e*PKP	**Pn**	**16 30 26.9**	**0.0**
JOSI				*e*S	**Sn**	**16 32 21.4**	**-8.5**
JOSI				AML	AML	16 32 29.4	
	comp=E,596nm,0.9s						
JOSI				AML	AML	16 32 30.0	
	comp=N,521nm,0.6s						
WMQ	**Urumqi**	**11.47**	**68**	*e*P	**Pn**	**16 30 33.5**	**+2.1**
WMQ				pP		16 30 43.0	
WMQ				sP		16 30 48.0	
WMQ				*e*S	**Sn**	**16 32 42.0**	**+4.2**
WMQ				SS		16 32 56.0	
WMQ				pmax	pmax		
	comp=Z,7.0nm,1.0s						
WMQ				LR	LR		
	comp=N,300nm,8.5s						
WMQ				LR	LR		
	comp=E,420nm,9.0s						
WMQ				LR	LR		
	comp=Z,640nm,10.0s						
NDI	**New Delhi**	**12.15**	**162**	*e*PKP	**Pn**	**16 30 41.0**	**+0.3**
NDI				*e*S	**Sn**	**16 32 47.0**	**-7.5**
LGTI	**Lohaghat**	**12.39**	**149**	*e*x	x	16 32 39.5	
VOSK	**Vostochnaya**	**12.46**	**354**	⇓Pn	**Pn**	**16 30 41.4**	**-3.3**
	comp=Z,4.3nm,0.9s						
VOSK				⇓Lg		16 34 14.7	
	comp=Z,95nm,1.5s						
KHET	**Khetri**	**12.46**	**168**	*e*PKP	**Pn**	**16 30 46.4**	**+1.4**
KHET				*e*S	**Sn**	**16 32 52.4**	**-10**
KHET				AML	AML	16 32 58.1	
	comp=N,13nm,0.9s						
KHET				AML	AML	16 32 59.6	
	comp=E,19nm,0.3s						
KUDL	**Kundal**	**12.51**	**166**	*e*PKP	**Pn**	**16 30 46.1**	**+0.4**
KUDL				*e*S	**Sn**	**16 32 55.9**	**-7.6**
BVA0	**Borovoye Array**	**12.80**	**353**	*i* P	**Pn**	**16 30 46.0**	**-3.5**
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.1s						
BVA0	**Borovoye Array**	**12.80**	**353**	⇓Pn	**Pn**	**16 30 45.7**	**-3.8**
	comp=Z,1.4nm,0.9s,baz=165,slow=12,SNR=18						
BVA0				⇑Sn	**Sn**	**16 33 11.4**	**+1.2**
	comp=Z,3.2nm,1.1s						
BVA0				⇑Lg		16 34 24.5	
	comp=Z,14nm,1.4s,baz=166,slow=27,SNR=4.2						
BVAR	**Borovoye Array**	**12.80**	**353**	Pn	**Pn**	**16 30 45.7**	**-3.8**
	comp=Z,0.5nm,0.3s,baz=162,slow=10,SNR=12						
BVAR				Sn	**Sn**	**16 33 21.9**	**+12**
	comp=Z,0.4nm,0.3s,baz=193,slow=30,SNR=5.6						
BVAR				Lg		16 34 25.4	
	comp=Z,0.6nm,0.3s,baz=168,slow=29,SNR=5.0						
BVAR				LR	LR	16 36 00.7	
	comp=Z,144nm,20.2s,baz=198,slow=38						
AB31	**Akbulak array**	**12.83**	**318**	P	**Pn**	**16 30 45.5**	**-4.4**
AB31						16 33 00.5	
AB31				pmax	pmax		
	comp=Z,5.0nm,0.4s						
AB31				smax			
	comp=N,17nm,0.7s						
BRVK	**Borovoye**	**12.85**	**353**	*e*P	**Pn**	**16 30 45.6**	**-4.5**
BRVK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BRVK	**Borovoye**	**12.85**	**353**	*e*P	**Pn**	**16 30 45.6**	**-4.5**
	comp=Z,9.7nm,0.9s						
AB09	**Akbulak array**	**12.85**	**318**	⇑Pn	**Pn**	**16 30 45.5**	**-4.6**
	comp=Z,2.4nm,0.4s						
AB09				⇑Sn	**Sn**	**16 33 04.8**	**-6.6**
	comp=Z,11nm,0.6s						
AKTK	**Aktyubinsk**	**14.54**	**319**	Pn	**Pn**	**16 31 09.5**	**-3.3**
AKTK				Sn	**Sn**	**16 33 44.0**	**-8.6**
AKTK				LR	LR	16 37 16.8	
AKTO	**Aktyubinsk**	**14.54**	**319**	P	**Pn**	**16 31 09.5**	**-3.4**
AKTO						16 33 44.0	
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO				MLR	MLR		
	comp=Z,208nm,18.3s						
AKTO	**Aktyubinsk**	**14.54**	**319**	Pn	**Pn**	**16 31 09.5**	**-3.3**
	comp=Z,0.6nm,0.3s,baz=132,slow=14,SNR=13						
AKTO				Sn	**Sn**	**16 33 44.0**	**-8.6**
	comp=Z,0.2nm,0.3s,baz=230,slow=23,SNR=3.0						
AKTO				LR	LR	16 37 16.8	
	comp=Z,208nm,18.3s,baz=299,slow=39						
AKTO	**Aktyubinsk**	**14.54**	**319**	⇑Pn	**Pn**	**16 31 09.0**	**-3.8**
	comp=Z,2.3nm,0.8s						
AKTO				⇑Sn	**Sn**	**16 33 45.7**	**-6.9**
	comp=Z,1.4nm,0.8s						
PYUN	**Piuthan**	**14.74**	**143**	*e*P	**Pn**	**16 31 10.6**	**-5.0**
	comp=Z,33nm,0.5s						
DANN	**Dangsing**	**14.90**	**140**	*e*P	**Pn**	**16 31 11.9**	**-5.8**
KOLN	**Koldanda**	**15.31**	**142**	*e*P	**Pn**	**16 31 18.3**	**-4.6**
GKN	**Gorkha**	**15.62**	**138**	*e*P	**Pn**	**16 31 21.5**	**-5.5**
ZAA0	**Zalesovo Array**	**15.78**	**26**	*e*Pn	**Pn**	**16 31 27.5**	**-1.2**
ZALV	**Zalesovo Beam**	**15.78**	**26**	Pn	**Pn**	**16 31 26.1**	**-2.6**
	comp=Z,0.7nm,0.3s,baz=218,slow=11,SNR=15						
ZALV				Sn	**Sn**	**16 34 34.4**	**+12**
	baz=222,slow=19,SNR=3.1						
ZALV				Lg		16 36 00.9	
	comp=Z,0.1nm,0.3s,baz=237,slow=22,SNR=2.8						
ZALV				LR	LR	16 37 58.8	
	comp=Z,75nm,21.7s,baz=233,slow=39						
ZALV	**Zalesovo Beam**	**15.78**	**26**	Pn	**Pn**	**16 31 26.1**	**-2.6**
ZALV				Sn	**Sn**	**16 34 34.4**	**+12**
ZALV				Lg		16 36 00.9	
ZALV				LR	LR	16 37 58.8	
NVS	**Novosibirsk**	**16.04**	**22**	*e*P	**Pn**	**16 31 32.8**	**+0.8**
NVS				*e*S	**S**	**16 34 31.5**	**-8.1**
NVS				pmax	pmax		
	comp=Z,13nm,1.5s						
KKN	**Kakani**	**16.12**	**137**	*e*P	**Pn**	**16 31 28.2**	**-5.2**
	comp=Z,18nm,0.6s						
DMN	**Daman**	**16.18**	**138**	*e*P	**Pn**	**16 31 29.5**	**-4.6**
GUN	**Gumba**	**16.34**	**135**	*e*P	**Pn**	**16 31 30.7**	**-5.4**
PKIN	**Phulchoki**	**16.36**	**137**	*e*P	**Pn**	**16 31 31.1**	**-5.2**
PKI	**Pulchoki**	**16.37**	**137**	*e*P	**Pn**	**16 31 31.7**	**-4.7**
JIRN	**Jiri**	**16.71**	**135**	*e*P	**Pn**	**16 31 35.4**	**-5.3**
RAMN	**Ramite**	**17.49**	**136**	*e*P	**Pn**	**16 31 45.5**	**-4.9**
TAPN	**Taplejung**	**17.79**	**132**	*e*P	**Pn**	**16 31 49.8**	**-4.2**
ODAN	**Odare**	**17.99**	**134**	*e*P	**Pn**	**16 31 51.8**	**-4.7**
	comp=Z,33nm,0.7s						
SVE	**Sverdlovsk**	**18.35**	**338**	*e*P	**Pn**	**16 32 06.0**	**+5.4**
ARU	**Arti**	**18.66**	**334**	*e*P	**Pn**	**16 32 02.7**	**-1.6**
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ARU	**Arti**	**18.66**	**334**	*e*P	**Pn**	**16 32 02.7**	**-1.6**
	comp=Z,6.3nm,0.8s						
MAK	**Makhachkala**	**19.20**	**286**	*e*P	**Pn**	**16 32 06.1**	**-4.8**
MAK				*e*S	**S**	**16 35 40.2**	**-3.6**
MAK				pmax	pmax		
	comp=Z,18nm,0.4s						
MAK				MLR	MLR		
	comp=Z,503nm,16.0s						
GTA	**Gaotai**	**20.59**	**84**	⇑*e*P	**P**	**16 32 24.3**	**-0.3**
GTA				pP		16 32 36.0	
GTA				sP	sP	16 32 42.7	-1.7
GTA				S	**S**	**16 36 11.2**	**-0.4**
GTA				sS	sS	16 36 29.2	-2.9
GTA				pmax	pmax		
	comp=Z,4.0nm,1.3s						
GTA				pmax	pmax		
	comp=Z,110nm,4.8s						
GTA				LR	LR		
	comp=N,140nm,14.1s,MS3.6						
GTA				LR	LR		
	comp=E,130nm,13.8s,MS3.6						
GTA				LR	LR		
	comp=Z,140nm,16.2s,MS3.4						
GNI	**Garni**	**21.52**	**279**	*e*P	**P**	**16 32 35.7**	**+1.0**
GNI				pmax	pmax		
	comp=Z,20nm,0.9s						
GNI	**Garni**	**21.52**	**279**	P	**P**	**16 32 34.3**	**-0.4**
	comp=Z,28nm,1.1s,mb4.6,baz=307,slow=2.3,SNR=9.8						
GNI	**Garni**	**21.52**	**279**	*e*P	**P**	**16 32 35.3**	**+0.6**
	comp=Z,27nm,0.9s,mb4.7						
SHL	**Shillong**	**21.59**	**127**	*e*PKP	**P**	**16 32 35.0**	**-0.4**
ONI	**Oni**	**22.20**	**285**	P	**P**	**16 32 43.6**	**+1.8**
KIV	**Kislovodsk**	**22.69**	**289**	*e*P	**P**	**16 32 46.2**	**-0.8**
KIV				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.1						
KIV				MLR	MLR		
	comp=Z,40nm,14.0s,MS3.0						
ZAK	**Zakamensk**	**23.38**	**54**	*e*P	**P**	**16 32 53.6**	**-0.3**
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb3.9						
LZH	**Lanzhou**	**24.55**	**90**	*e*P	**P**	**16 33 05.2**	**+0.5**
LZH				pP		16 33 19.0	
LZH				sP	sP	16 33 24.5	-1.1
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.4						
LZH				pmax	pmax		
	comp=Z,60nm,4.2s						
LZH				LR	LR		
	comp=E,210nm,13.5s						
LZH				LR	LR		
	comp=Z,340nm,14.8s,MS4.0						
SONM	**Songino Array**	**24.99**	**61**	P	**P**	**16 33 08.7**	**+0.1**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	**Songino Array**	**24.99**	**61**	P	**P**	**16 33 08.7**	**0.0**
	comp=Z,1.2nm,0.8s,mb3.5,baz=275,slow=7.9,SNR=10						
VSR	**Storozhevoye**	**25.75**	**306**	*e*P	**P**	**16 33 14.3**	**-1.1**
VSR				pmax	pmax		
	comp=Z,49nm,2.3s,mb4.6						
CD2	**Chengdu**	**26.62**	**101**	P	**P**	**16 33 24.8**	**+1.3**
CD2				pP	pP	16 33 39.0	+1.4
CD2				sP	sP	16 33 46.5	+2.1
CD2				PP		16 34 10.4	
CD2				PcP	PcP	16 36 47.8	+1.5
CD2				S	**S**	**16 37 52.9**	**-1.4**
CD2				sS	sS	16 38 17.9	-0.6
CD2				SS		16 39 07.5	
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.6						
CD2				pmax	pmax		
	comp=Z,260nm,5.3s						
CD2				LR	LR		
	comp=N,290nm,5.2s						
CD2				LR	LR		
	comp=Z,200nm,5.2s						
MALT	**Malatya**	**26.71**	**277**	*e*P	**P**	**16 33 25.9**	**+1.6**
MALT				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.3						
MALT	**Malatya**	**26.71**	**277**	*e*P	**P**	**16 33 25.9**	**+1.6**
	comp=Z,11nm,1.0s,mb4.3						
OBN	**Obninsk**	**28.21**	**314**	*e*P	**P**	**16 33 36.0**	**-1.5**
OBN				*e*		16 33 43.3	
OBN				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.1						
KMI	**Kunming**	**29.10**	**112**	P	**P**	**16 33 48.9**	**+3.2**
KMI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
HHC	**Hu-ho-hao-te**	**29.14**	**76**	*e*P	**P**	**16 33 47.3**	**+1.4**
HHC				pP	pP	16 33 59.1	-1.1
HHC				sP	sP	16 34 04.9	-2.0
HHC				PP	PP	16 34 41.7	-11
HHC				PcP	PcP	16 36 54.8	+2.5
HHC				*e*S	**S**	**16 38 32.7**	**-1.2**
HHC				sS	sS	16 38 53.9	-4.2
HHC				SS	SS	16 40 05.2	-34
HHC				PcS	PcS	16 40 36.6	+1.5
HHC				ScS	ScS	16 44 22.8	-0.2
HHC				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
HHC				pmax	pmax		
	comp=Z,83nm,5.2s						
HHC				LR	LR		
	comp=N,120nm,14.3s,MS3.7						
HHC				LR	LR		
	comp=E,68nm,13.1s,MS3.7						
HHC				LR	LR		
	comp=Z,140nm,16.6s,MS3.7						
BR131	**Keskin Array S**	**29.96**	**282**	*e*P	**P**	**16 33 53.9**	**+0.7**
	comp=Z,4.5nm,0.8s,mb4.2						
BRTR	**Keskin Array B**	**29.96**	**282**	P	**P**	**16 33 53.5**	**+0.3**
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	**Keskin Array B**	**29.96**	**282**	P	**P**	**16 33 53.5**	**+0.3**
	comp=Z,1.5nm,0.7s,mb3.8						
GYA	**Guiyang**	**31.14**	**106**	P	**P**	**16 34 05.8**	**+2.1**
GYA				pP	pP	16 34 20.1	+2.1
GYA				sP	sP	16 34 26.8	+2.1
GYA				PP	PP	16 35 11.4	-3.4
GYA				S	**S**	**16 39 06.5**	**+1.0**
GYA				sS	sS	16 39 31.3	+1.6
GYA				ScP	ScP	16 40 37.8	+2.1
GYA				PcS	PcS	16 40 42.4	+0.4
GYA				ScS	ScS	16 44 33.0	0.0
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
GYA				pmax	pmax		
	comp=Z,70nm,4.6s						
GYA				LR	LR		
	comp=N,380nm,17.9s,MS4.2						
GYA				LR	LR		
	comp=E,240nm,16.8s,MS4.2						
GYA				LR	LR		
	comp=Z,360nm,16.4s,MS4.1						
BOD	**Bodaibo**	**31.42**	**42**	*e*P	**P**	**16 34 05.5**	**-0.4**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.3						
AKASG	**Malin Array Be**	**31.93**	**304**	P	**P**	**16 34 10.2**	**-0.2**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	**Malin Array Be**	**31.93**	**304**	P	**P**	**16 34 10.2**	**-0.2**
	comp=Z,2.3nm,0.5s,mb4.2,baz=81,slow=7.4,SNR=17						
JOF	**Joensuu**	**33.42**	**326**	*e*P	**P**	**16 34 22.9**	**-0.4**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
JOF	**Joensuu**	**33.42**	**326**	*e*p	**P**	**16 34 22.9**	**-0.4**
	comp=Z,0.9nm,0.3s,mb4.2						
WHN	**Wuhan**	**34.82**	**93**	*e*P	Px	16 34 55.6	
NJ2	**Nanjing**	**37.58**	**88**	*e*P	**P**	**16 35 01.4**	**+2.0**
NJ2				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.3						
ARCES	**ARCESS Array B**	**38.24**	**335**	P	**P**	**16 35 05.1**	**+0.6**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,167nm,18.8s						
ARCES	**ARCESS Array B**	**38.24**	**335**	P	**P**	**16 35 05.1**	**+0.6**
	comp=Z,3.1nm,0.6s,mb4.2,baz=110,slow=8.3,SNR=17						
ARCES				LR	LR	16 51 17.0	
	comp=Z,167nm,18.8s,MS3.9,baz=191,slow=37						
CN2	**Changchun**	**38.56**	**67**	*e*P	**P**	**16 35 08.7**	**+1.2**
YAK	**Yakutsk**	**39.95**	**38**	*e*P	**P**	**16 35 17.4**	**-1.4**
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=E,8.0nm,1.3s						
YAK	**Yakutsk**	**39.95**	**38**	*e*P	**P**	**16 35 18.7**	**-0.2**
	comp=E,18nm,0.9s,mb4.8						
TIXI	**Tiksi**	**41.63**	**23**	*e*P	**P**	**16 35 32.2**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.7						
TIXI	**Tiksi**	**41.63**	**23**	*e*P	**P**	**16 35 32.2**	**-0.3**
	comp=Z,16nm,0.9s,mb4.7						
GERES	**GERESS Array B**	**42.09**	**302**	P	**P**	**16 35 37.2**	**+0.6**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	**GERESS Array B**	**42.09**	**302**	P	**P**	**16 35 37.2**	**+0.6**
	comp=Z,1.1nm,0.7s,mb3.6,baz=65,slow=7.5,SNR=12						
CLL	**Collm**	**42.10**	**306**	*e*P	**P**	**16 35 37.0**	**+0.4**
CLL				*e*		16 36 47.0	
CLL				LmV		16 56 00.0	
	comp=Z,200nm,18.0s						
NB2	**NORSAR Subarra**	**42.33**	**320**	P	**P**	**16 35 38.0**	**-0.3**
	comp=Z,2.7nm,0.7s,mb4.0,baz=92,slow=8.6						
NOA	**NORSAR Array B**	**42.33**	**320**	P	**P**	**16 35 38.4**	**+0.1**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	**NORSAR Array B**	**42.33**	**320**	P	**P**	**16 35 38.4**	**+0.1**
	comp=Z,2.0nm,0.6s,mb3.9,baz=91,slow=8.2,SNR=6.9						
NOA	**NORSAR Array B**	**42.33**	**320**	P	**P**	**16 35 38.4**	**+0.1**
KBS	**Kingsbay**	**45.23**	**346**	⇑*e*P	**P**	**16 36 01.2**	**-0.2**
KBS				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.0						
BILL	**Bilibino**	**54.48**	**27**	*e*P	**P**	**16 37 11.9**	**+0.3**
BILL				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
PETK	**Petropavlovsk-**	**56.16**	**46**	LR	LR	17 05 49.7	
	comp=Z,32nm,18.9s,MS3.4,baz=262,slow=41						
ESDC	**Sonseca Array**	**57.09**	**296**	P	**P**	**16 37 32.1**	**+1.3**
	comp=Z,0.6nm,0.8s,mb3.7,baz=49,slow=8.6,SNR=3.1						
TOA0	**Torodi Ar. Sit**	**67.38**	**268**	*e*P	**P**	**16 38 38.2**	**-1.8**
TORD	**Torodi Ar. Bea**	**67.38**	**268**	P	**P**	**16 38 39.4**	**-0.6**
	comp=Z,1.6nm,0.5s,mb4.3,baz=56,slow=5.3,SNR=24						
DBIC	**Dimbokro**	**76.45**	**267**	P	**P**	**16 39 33.4**	**-0.9**
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DBIC	**Dimbokro**	**76.45**	**267**	P	**P**	**16 39 33.4**	**-0.9**
	comp=Z,2.3nm,0.8s,mb4.2,baz=18,slow=7.7,SNR=3.5						
DBIC	**Dimbokro**	**76.45**	**267**	P	**P**	**16 39 33.4**	**-0.9**
YKA	**Yellowknife Ar**	**77.33**	**4**	P	**P**	**16 39 38.7**	**+0.3**
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	**Yellowknife Ar**	**77.33**	**4**	P	**P**	**16 39 38.7**	**+0.2**
	comp=Z,2.0nm,0.7s,mb4.1,baz=348,slow=5.7,SNR=32						
YKA	**Yellowknife Ar**	**77.33**	**4**	P	**P**	**16 39 38.7**	**+0.2**
SCHQ	**Schefferville**	**79.15**	**338**	P	**P**	**16 39 51.0**	**+2.3**
	comp=Z,4.3nm,1.1s,mb4.3,baz=27,slow=4.5,SNR=3.0						
WRA	**Warramunga Arr**	**82.76**	**124**	P	**P**	**16 40 07.2**	**-1.1**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	**Warramunga Arr**	**82.76**	**124**	P	**P**	**16 40 07.2**	**-1.2**
	comp=Z,1.1nm,0.8s,mb4.0,baz=327,slow=4.5,SNR=11						
FFC	**Flin Flon**	**85.20**	**357**	*i* P	**P**	**16 40 21.5**	**+1.2**
ASAR	**Alice Springs**	**85.23**	**126**	P	**P**	**16 40 19.7**	**-1.1**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	**Alice Springs**	**85.23**	**126**	P	**P**	**16 40 19.6**	**-1.2**
	comp=Z,1.2nm,0.9s,mb4.0,baz=325,slow=5.4,SNR=14						

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*NEIC **03** 16:40:15.6, 16°.57N×101°.42W, h19km, MD3.7(MEX), After MEX.*

MEX 03 16:40:15.6±0.6**, 16°.57N×101°.42W, h19**km±23km**, MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**1.20**	**66**	*i* P	Pn	16 40 33.8	-3.6
CAIG				*i* S	Sb	16 40 48.6	-4.4
ACX	**Acapulco**	**1.47**	**78**	*i* P	Pn	16 40 38.5	-2.6
ACX				*i* S	Sn	16 40 55.5	-4.3
MEIG	**Mezcala**	**2.19**	**52**	*i* P	Pn	16 40 48.3	-2.6
MEIG				*i* S	Sn	16 41 13.5	-4.0
PNIG	**Pinotepa**	**3.16**	**93**	*e*P	Pn	16 41 01.8	-2.6
PNIG				*i* S	Sn	16 41 36.9	-4.7
MZVM		**3.34**	**38**	*e*P	Pn	16 41 04.7	-2.1
MZVM				*i* S	Sn	16 41 43.1	-2.9
PPM	**Popocatepetl**	**3.64**	**46**	*e*P	Pn	16 41 12.9	+2.0
PPM				*i* S	Sn	16 41 51.7	-1.7
UTMO	**Huajuapan**	**3.68**	**69**	*i* P	Pn	16 41 10.3	-1.2
UTMO				*i* S	Sn	16 41 58.4	+4.1
IIO	**Organos**	**3.95**	**40**	*e*P	Pn	16 41 13.7	-1.5
IIO				*i* S	Sn	16 41 58.9	-2.3

IDC 03 16:42:48.2±4.5**, 31°.63N×140°.77E, h97**km±59km**, mb3.1**/4**, mb1 3.3**/5**, mb1mx3.1**/22**, mbtmp3.0**/5**, ML3.1**/1**, MS2.3**/1**, Ms1 2.3**/1**, ms1mx2.0**/10**, Error ellipse: s-maj=80.9km s-min=30.5km az=56.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**5.34**	**337**	P	Pn	16 44 05.1	-0.4
	0.7nm,0.3s,baz=152,slow=13,SNR=17						
MAT	**Matsushiro**	**5.34**	**337**	P	Pn	16 44 05.8	+0.3
TGY	**Tagaytay City**	**25.18**	**231**	LR	LR	16 56 00.3	
	comp=Z,7.5nm,20.1s,baz=101,slow=31						
CMAR	**Chiang Mai Arr**	**39.86**	**261**	P	P	16 50 12.6	+0.1
	0.8nm,0.7s,baz=48,slow=7.1,SNR=8.1						
MKAR	**Makanchi Array**	**46.72**	**306**	P	P	16 51 07.2	0.0
	0.4nm,0.9s,baz=97,slow=6.0,SNR=3.3						
WRA	**Warramunga Arr**	**51.64**	**188**	P	P	16 51 45.0	0.0
	0.7nm,1.0s,baz=1.1,slow=7.6,SNR=5.4						
ASAR	**Alice Springs**	**55.37**	**188**	P	P	16 52 11.9	-0.3
	0.3nm,0.9s,baz=355,slow=6.3,SNR=4.0						

PRE 03 16:55:23.2±2.7**, 21°.11S×33°.05E, h10**km**, ML4.8, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSNA	**Messina**	**3.07**	**246**	*e*P	Pn	16 56 13.7	+1.9
MSNA				*e*S	Sn	16 56 49.8	+1.1
MSNA				AML	AML	16 57 03.7	
	comp=Z,248nm,0.4s						
SLR	**Silverton**	**6.36**	**223**	*e*P	Pn	16 56 58.8	+1.8
SLR				*e*S	Sn	16 58 07.2	-2.4
SLR				AML	AML	16 58 46.5	
	comp=Z,103nm,0.6s						
POGA	**Pongola**	**6.37**	**192**	*e*P	Pn	16 56 57.3	+0.1
POGA				*e*S	Sn	16 58 08.0	-2.1
POGA				AML	AML	16 58 46.0	
	comp=Z,58nm,0.6s						
ERPM	**east rand prop**	**6.83**	**219**	*e*P	Pn	16 57 02.9	-0.5
ERPM				*e*S	Sn	16 58 17.1	-4.1
ERPM				AML	AML	16 59 04.4	
	comp=Z,64nm,0.6s						
KSR	**Koster**	**7.36**	**229**	*e*P	Pn	16 57 12.9	+2.1
KSR				*e*S	Sn	16 58 31.9	-2.5
KSR				AML	AML	16 59 21.8	
	comp=Z,86nm,0.7s						
LSZ	**Lusaka**	**7.41**	**321**	*e*P	Pn	16 57 13.8	+2.3
LSZ				*e*S	Sn	16 58 32.0	-3.7
LSZ				AML	AML	16 59 18.7	
	comp=Z,519nm,0.8s						
PRYS	**Parys**	**7.78**	**221**	*e*P	Pn	16 57 16.8	+0.2

PRYS				*e*S	Sn	16 58 41.7	-3.1
PRYS				AML	AML	16 59 40.0	
	comp=Z,53nm,0.7s						
SWZ	**Schweizer**	**9.29**	**228**	*e*P	Pn	16 57 37.3	+0.2
SWZ				*e*S	Sn	16 59 16.8	-4.9
SWZ				AML	AML	17 00 21.4	
	comp=Z,63nm,0.6s						
BOSA	**Boshof**	**10.29**	**222**	*e*P	Pn	16 57 50.5	-0.5
BOSA				*e*S	Sn	16 59 39.7	-6.7
BOSA				AML	AML	17 00 56.9	
	comp=Z,25nm,0.7s						
TSUM	**Tsumeb**	**14.65**	**275**	*e*P	Pn	16 58 52.0	+1.5
TSUM				*e*S	Sn	17 01 26.1	-6.9
TSUM				AML	AML	17 03 08.2	
	comp=Z,118nm,0.7s						

ISCJB ***03*** *16:58:59.4±4.9, 13°.5N±0°.1×50°.24E±0°.07, h17^{km}±36^{km}, mb3.6/5, MS3.4/2, Error ellipse: s-maj=24.5km s-min=11.5km az=11.2*
IDC ***03*** *16:58:59.3±1.4, 13°.80N×50°.30E, h0^{km}, mb3.5/6, mb1 3.7/6, mb1mx3.5/22, mbtmp3.5/6, MS3.5/2, Ms1 3.5/2, ms1mx2.8/30, Error ellipse: s-maj=46.0km s-min=32.7km az=169.0*
DHMR ***03*** *16:59:01.7±2.8, 13°.36N×49°.78E, h10^{km}±145^{km}, ML2.9*
ISC 03 16:59:00.7±6.0**, 13°.7N**±0°.2×**50°.24E**±0°.07**, h12**^{km}±37^{km}**, n10, σ0^{s}.90**/10**, mb3.6**/5**, MS3.4**/2**, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	**Al Mukalla**	**1.42**	**305**	*i* P	**Pn**	**16 59 27.3**	**+0.9**
MUKL				*i* S	**Sb**	**16 59 45.5**	**+0.3**
MUKL				AML	AML	16 59 47.0	
	comp=N,197nm,0.2s						
BDHA	**Al Bayda'**	**4.55**	**275**	*i* P	**Pn**	**17 00 08.3**	**-1.1**
BDHA				*e*		17 00 08.5	
	baz=116,slow=10						
BDHA				*i* S	**Sn**	**17 01 01.8**	**-0.4**
GNI	**Garni**	**26.83**	**351**	LR	LR	17 17 22.7	
	comp=N,36nm,18.7s,MS3.0,baz=277,slow=41						
BVAR	**Borovoye Array**	**42.42**	**18**	LR	LR	17 27 15.6	
	comp=N,133nm,18.5s,MS3.9,baz=292,slow=40						
MKAR	**Makanchi Array**	**42.56**	**33**	P	**P**	**17 06 56.4**	**0.0**
	comp=N,0.2nm,0.5s,baz=215,slow=7.8,SNR=4.7						
CMAR	**Chiang Mai Arr**	**46.94**	**77**	P	**P**	**17 07 31.2**	**-0.6**
	comp=N,0.3nm,0.6s,mb3.4,baz=267,slow=8.6,SNR=3.2						
TORD	**Torodi Ar. Bea**	**47.16**	**275**	P	**P**	**17 07 34.1**	**+0.6**
	comp=N,0.7nm,1.0s,mb3.5,baz=87,slow=8.8,SNR=2.4						
SONM	**Songino Array**	**57.45**	**42**	P	**P**	**17 08 48.2**	**-1.2**
	comp=N,0.3nm,0.9s,mb3.3,baz=242,slow=5.3,SNR=3.7						
WRA	**Warramunga Arr**	**89.17**	**111**	P	**P**	**17 11 56.7**	**-0.2**
	comp=N,0.3nm,0.7s,mb3.7,baz=300,slow=3.9,SNR=5.7						
ASAR	**Alice Springs**	**89.73**	**114**	P	**P**	**17 12 01.5**	**+2.0**
	comp=N,0.5nm,0.9s,mb3.8,baz=284,slow=4.7,SNR=3.8						

ISCJB ***03*** *17:06:45.8±0.8, 28°.83N±0°.02×34°.72E±0°.06, h0^{km}±5^{km}, Error ellipse: s-maj=9.3km s-min=3.8km az=170.5*
CSEM ***03*** *17:06:46.7±0.3, 28°.81N×34°.75E, h10^{km}, ML3.1, Error ellipse: s-maj=6.5km s-min=2.6km az=92.0*
GII ***03*** *17:06:46.5±0.6, 28°.92N×34°.77E, h1^{km}, Md3.5/8*
SGS ***03*** *17:06:46.8, 28°.81N×34°.77E, h14^{km}*
ISC 03 17:06:46.6±0.8**, 28°.82N**±0°.02×**34°.72E**±0°.06**, h3**^{km}±5^{km}**, n23, σ0^{s}.68**/35**, Egypt**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDAS	**Al Bad'**	**0.51**	**139**	P	**Pg**	**17 06 56.2**	**-0.1**
BDAS	**Al Bad'**	**0.51**	**139**	P	**Pg**	**17 06 56.2**	**-0.1**
BDAS				S	**Sg**	**17 07 03.4**	**+0.5**
RSHS		**0.52**	**173**	P	**Pg**	**17 06 56.9**	**+0.4**
RSHS		**0.52**	**173**	P	**Pg**	**17 06 56.9**	**+0.4**
RSHS				S	**Sg**	**17 07 04.3**	**+1.1**
HQLS		**0.57**	**32**	P	**Pg**	**17 06 57.6**	**+0.2**
HQLS		**0.57**	**32**	P	**Pg**	**17 06 57.6**	**+0.2**
HQLS				S	**Sg**	**17 07 05.9**	**+1.1**
JLOS		**0.68**	**97**	P	**Pg**	**17 06 59.3**	**-0.3**
JLOS		**0.68**	**97**	P	**Pg**	**17 06 59.3**	**-0.3**
JLOS				S	**Sg**	**17 07 08.3**	**-0.1**
AQBJ	**Aqaba**	**0.95**	**17**	Pg	**Pg**	**17 07 04.3**	**-0.5**
MBRI	**Mt Berech**	**0.99**	**10**	Pg	**Pg**	**17 07 05.4**	**-0.1**
MBRI				Sg	**Sg**	**17 07 18.7**	**+0.3**
HRFI	**Mount Harif**	**1.25**	**13**	Pg	**Pg**	**17 07 09.1**	**-1.4**
HRFI				Sg	**Sg**	**17 07 27.1**	**+0.5**
KRMI	**Paran Flat**	**1.30**	**0**	Pg	**Pg**	**17 07 10.5**	**-0.9**
KRMI				Sg	**Sg**	**17 07 28.7**	**+0.4**
PRNI	**Paran**	**1.55**	**9**	Pn	**Pn**	**17 07 14.4**	**-0.7**
PRNI				Sn	**Sn**	**17 07 36.1**	**+0.4**
TBKS	**Tabuk**	**1.71**	**110**	P	**Pn**	**17 07 15.9**	**-1.4**
TBKS	**Tabuk**	**1.71**	**110**	P	**Pn**	**17 07 15.9**	**-1.3**
RMNI	**Mount Ramon**	**1.77**	**1**	Pn	**Pn**	**17 07 18.6**	**+0.4**
ZFRI	**Zfri**	**1.78**	**13**	Pn	**Pn**	**17 07 17.9**	**-0.3**
ZFRI				Sn	**Sn**	**17 07 42.1**	**+0.8**
KZIT	**Kziot**	**2.10**	**352**	Pn	**Pn**	**17 07 22.4**	**-0.3**
KZIT				Sn	**Sn**	**17 07 50.5**	**+1.1**
RTMI	**Retamim**	**2.23**	**359**	Pn	**Pn**	**17 07 24.0**	**-0.5**
RTMI				Sn	**Sn**	**17 07 53.2**	**+0.7**
MZDA	**Masada**	**2.55**	**12**	Pn	**Pn**	**17 07 27.5**	**-1.3**
MZDA				Sn	**Sn**	**17 07 59.9**	**-0.4**
YTIR	**Yattir**	**2.56**	**8**	Pn	**Pn**	**17 07 28.8**	**-0.2**
HMDT	**Nahal Hemdat**	**3.50**	**11**	Pn	**Pn**	**17 07 42.4**	**+0.6**
MMLI	**Mount Malkishu**	**3.66**	**9**	Pn	**Pn**	**17 07 44.1**	**0.0**

ISCJB ***03*** *17:10:23.4±0.2, 6°.10S±0°.03×149°.90E±0°.04, h33^{km}, mb5.0/81, MS4.8/44, Error ellipse: s-maj=5.8km s-min=4.3km az=167.9*
BJI ***03*** *17:10:23.5, 6°.13S×150°.19E, h40^{km}, mB5.2/37, mb4.9/49, Ms5.0/49, Ms7 4.9/46*
MOS ***03*** *17:10:24.8±1.0, 6°.02S×149°.63E, h33^{km}, mb5.2/18, MS5.0/10, Error ellipse: s-maj=11.3km s-min=7.1km az=98.6*
NEIC ***03*** *17:10:25.2±0.1, 6°.07S×149°.87E, h35^{km}, mb5.2/33, MS5.3/4, MW5.3, Error ellipse: s-maj=4.8km s-min=4.0km az=91.0, Moment Tensor Solution. s24 Moment tensor: Scale 10^{16}Nm; M$_{rr}$9.61; M$_{\theta\theta}$-5.61; M$_{\phi\phi}$-4.00; M$_{r\theta}$4.76; M$_{\theta\phi}$1.14; M$_{\phi r}$-0.91; Best double couple: M$_0$9.70000×10^{16} NP1:φ$_s$109.00000°, δ61.00000°, λ86.00000°. NP2: φ$_s$298.00000°, δ30.00000°, λ98.00000°. Principal axes: T 11.0000, Plg74.0000°, Azm7.0000°; N -3.5000, Plg3.0000°, Azm110.0000°; P -7.5000, Plg15.0000°, Azm202.0000°;*
NEIC Felt at Kimbe.
GCMT ***03*** *17:10:25.2±0.1, 6°.44S×149°.97E, h38^{km}, MW5.4/89, Moment Tensor Solution. s89,c153; s73,c132; Duration: 1^{s}.2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.34±.03; M$_{\theta\theta}$-1.55±.02; M$_{\phi\phi}$0.21±.02; M$_{r\theta}$0.60±.02; M$_{\theta\phi}$0.07±.02; M$_{\phi r}$-0.05±.03; Best double couple: M$_0$1.56800×10^{17} NP1:φ$_s$271.00000°, δ34.00000°, λ88.00000°. NP2:φ$_s$93.00000°, δ56.00000°, λ91.00000°. Principal axes: T 1.4620, Plg79.0000°, Azm7.0000°; N 0.2140, Plg1.0000°, Azm273.0000°; P -1.6750, Plg11.0000°, Azm183.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
IDC ***03*** *17:10:25.0±0.5, 6°.09S×149°.91E, h32^{km}±3^{km}, mb4.7/21, mb1 4.8/23, mb1mx4.8/24, mbtmp4.7/23, ML4.4/1, MS4.8/20, Ms1 4.8/20, ms1mx4.7/28 Error ellipse: s-maj=12.6km s-min=9.6km az=100.0*
DJA ***03*** *17:10:33, 6°.43S×150°.01E, h98^{km}, mb5.5/29*
ISC 03 17:10:25.3±0.2**, 6°.09S**±0°.03×**149°.93E**±0°.05**, h34**^{km}**, h34**^{km}±1.0^{km}**:pP-P, n345, σ1^{s}.10**/197**, mb5.0**/81**, MS4.8**/44**, 31C-18D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	**10.47**	**109**	P	**Pn**	**17 12 54.2**	**+1.1**
HNR						17 14 54.9	
HNR	**Honiara**	**10.47**	**109**	Pn	**Pn**	**17 12 54.2**	**+1.1**
	16nm,0.3s,baz=242,slow=8.7,SNR=5.2						
HNR				Sn	**Sn**	**17 14 54.9**	**+5.6**
	16nm,0.3s,baz=259,slow=16,SNR=4.1						
HNR				LR	LR	17 15 29.4	
	comp=Z,980nm,19.7s,baz=103,slow=29						
HNR	**Honiara**	**10.47**	**109**	Pn	**Pn**	**17 12 54.2**	**+1.1**
HNR				Sn	**Sn**	**17 14 54.9**	**+5.6**
HNR				LR	LR	17 15 29.4	
CTA	**Charters Tower**	**14.37**	**194**	*e*P	**Pn**	**17 13 46.6**	**+0.2**
	48nm,1.5s						
CTA				*e*pP	pP	17 13 55.1	-6.7
CTA				*e*S	**Sn**	**17 16 43.6**	**+19**
CTA	**Charters Tower**	**14.37**	**194**	Pn	**Pn**	**17 13 46.8**	**+0.4**
	1.2nm,0.3s,baz=18,slow=15,SNR=34						
CTA				LR	LR	17 19 19.1	
	comp=Z,3µm,18.7s,baz=5.4,slow=37						
CTAO	**Charters Tower**	**14.37**	**194**	*e*P	**Pn**	**17 13 46.6**	**+0.2**
KAKA	**Kakadu**	**18.46**	**248**	*e*P	**Pn**	**17 14 37.2**	**-1.4**
	190nm,0.6s						
KAKA				*e*S	**Sn**	**17 17 56.9**	**-7.2**
KAKA	**Kakadu**	**18.46**	**248**	*e*P	**Pn**	**17 14 36.9**	**-1.8**
	402nm,0.6s						
KAKA				*e*		17 14 46.7	
KAKA				*e*Sn	**Sn**	**17 17 57.2**	**-6.8**
EIDS	**Eidsvold**	**19.20**	**177**	*e*Pn	**Pn**	**17 14 47.5**	**-0.1**
	199nm,0.9s						
GUMO	**Guam**	**20.18**	**346**	*e*P	**P**	**17 15 00.7**	**+3.5**
GUMO				*e*		17 15 10.0	
GUMO				pmax	pmax		
	comp=Z,1µm,1.5s						
GUMO	**Guam**	**20.18**	**346**	P	**P**	**17 14 58.0**	**+0.9**
	comp=Z,152nm,0.9s,baz=351,slow=22,SNR=5.5						
GUMO				LR	LR	17 22 00.1	
	comp=Z,2µm,20.4s,MS4.4,baz=325,slow=34						
GUMO	**Guam**	**20.18**	**346**	*e*P	**P**	**17 15 00.7**	**+3.5**
	comp=Z,1µm,1.5s						
GUMO				*e*Pn	sP	17 15 10.0	-0.5
WRAB	**Tennant Creek**	**20.46**	**226**	*e*P	**P**	**17 15 00.9**	**+0.7**
WRAB				pmax	pmax		
	comp=Z,288nm,0.8s						
WRAB	**Tennant Creek**	**20.46**	**226**	*e*Pn	**P**	**17 15 00.9**	**+0.8**
	comp=Z,288nm,0.8s						
WB2	**Warramunga Arr**	**20.46**	**226**	*e*Pn	**P**	**17 15 01.0**	**+0.8**
WRA	**Warramunga Arr**	**20.47**	**226**	P	**P**	**17 15 00.4**	**+0.1**
WRA				S	**S**	**17 18 43.1**	**-4.7**
WRA	**Warramunga Arr**	**20.47**	**226**	P	**P**	**17 15 00.4**	**+0.1**
	comp=Z,205nm,0.8s,baz=50,slow=11,SNR=236						
WRA				S	**S**	**17 18 43.1**	**-4.7**
	comp=Z,24nm,1.1s,baz=49,slow=24,SNR=4.9						
WRA				ScP	ScP	17 22 48.0	+2.2
	comp=Z,6.0nm,1.1s,baz=41,slow=2.5,SNR=4.2						
WRA				pScP		17 23 03.6	
	comp=Z,7.3nm,0.9s,baz=46,slow=2.6,SNR=6.1						
WRA				LR	LR	17 23 39.5	
	comp=Z,3µm,19.3s,MS4.7,baz=60,slow=39						
WRA				PKiKP	PKiKP	17 26 58.2	-1.9
	comp=Z,0.9nm,0.8s,baz=305,slow=1.2,SNR=7.1						
WRA	**Warramunga Arr**	**20.47**	**226**	P	**P**	**17 15 00.4**	**+0.1**
WRA				S	**S**	**17 18 43.1**	**-4.7**
WRA				ScP	ScP	17 22 48.0	+2.2
WRA				pScP		17 23 03.6	
WRA				LR	LR	17 23 39.5	
DZM	**Mont Dzumac**	**22.52**	**136**	*e*P	**P**	**17 15 21.3**	**-1.0**
	comp=Z,551nm,1.4s,mb5.8						
ASAR	**Alice Springs**	**23.30**	**220**	P	**P**	**17 15 30.3**	**-0.3**
ASAR				S	**S**	**17 19 40.3**	**-0.3**
ASAR	**Alice Springs**	**23.30**	**220**	P	**P**	**17 15 30.3**	**-0.3**
	comp=Z,33nm,0.8s,mb4.8,baz=54,slow=8.8,SNR=221						
ASAR				S	**S**	**17 19 40.3**	**-0.3**
	comp=Z,18nm,1.0s,baz=40,slow=22,SNR=6.2						
ASAR				ScP	ScP	17 22 54.4	+1.6
	comp=Z,1.8nm,0.8s,baz=41,slow=2.7,SNR=3.1						
ASAR				pScP		17 23 11.1	
	comp=Z,5.4nm,0.9s,baz=43,slow=4.2,SNR=5.3						
ASAR				PKiKP	PKiKP	17 26 59.5	-1.9
	comp=Z,1.3nm,0.9s,baz=31,slow=1.4,SNR=4.4						
ASAR	**Alice Springs**	**23.30**	**220**	P	**P**	**17 15 30.3**	**-0.3**
ASAR				S	**S**	**17 19 40.3**	**-0.3**
ASAR				ScP	ScP	17 22 54.4	+1.6
ASAR				pScP		17 23 11.1	
ARMA	**Armidale**	**24.25**	**176**	*e*P	**P**	**17 15 39.0**	**-0.3**
ARMA				*e*pP		17 15 48.0	
FITZ	**Fitzroy Crossi**	**26.54**	**241**	⇑*i*P	**P**	**17 16 00.3**	**+0.1**
	comp=Z,271nm,0.9s,mb5.8						
FITZ				*e*S	**S**	**17 20 36.5**	**+4.0**
FITZ	**Fitzroy Crossi**	**26.54**	**241**	P	**P**	**17 16 00.4**	**+0.3**
	comp=Z,54nm,0.5s,mb5.3,baz=76,slow=7.0,SNR=178						
FITZ				S	**S**	**17 20 34.2**	**+1.7**
	comp=Z,5.3nm,0.8s,baz=108,slow=20,SNR=3.5						
FITZ				LR	LR	17 27 44.7	
	comp=Z,2µm,18.8s,MS4.8,baz=178,slow=39						
STKA	**Stephens Creek**	**26.81**	**196**	*e*P	**P**	**17 16 01.9**	**-0.6**
	comp=Z,7.9nm,0.8s,mb4.3						
STKA				*e*		17 16 04.8	
STKA				*e*SCP	ScP	17 23 04.8	+2.2
STKA	**Stephens Creek**	**26.81**	**196**	P	**P**	**17 16 02.5**	**0.0**
	comp=Z,105nm,1.0s,mb5.3,baz=5.2,slow=9.6,SNR=69						
STKA				ScP	ScP	17 23 03.5	+0.9
	comp=Z,18nm,1.2s,baz=338,slow=4.1,SNR=7.5						
STKA				LR	LR	17 27 13.9	
	comp=Z,3µm,19.6s,MS4.9,baz=99,slow=38						
STKA	**Stephens Creek**	**26.81**	**196**	*e*P	**P**	**17 16 02.4**	**-0.1**
	comp=Z,26nm,1.0s,mb4.7						
KDI	**Kendari**	**27.29**	**273**	⇓*e*P	**P**	**17 16 09.4**	**+2.4**
KDI				*e*S	**S**	**17 20 50.3**	**+5.9**
CNB	**Canberra Magne**	**29.09**	**181**	*e*P	**P**	**17 16 23.6**	**+0.8**
CAN	**Canberra**	**29.10**	**182**	*e*P	**P**	**17 16 23.2**	**+0.3**
CAN				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.9						
CAN	**Canberra**	**29.10**	**182**	*e*P	**P**	**17 16 23.2**	**+0.3**
	comp=Z,22nm,0.9s,mb4.9						
KAPI	**Kappang**	**30.05**	**271**	*e*P	**P**	**17 16 30.0**	**-1.6**
	comp=Z,56nm,0.8s,mb5.3						
KAPI				*e*PcP	PcP	17 19 32.8	-0.5
TOO	**Toolangi**	**31.60**	**187**	*e*P	**P**	**17 16 45.7**	**+0.8**
TOO				*e*	pP	17 16 53.2	-1.5
FORT	**Forrest**	**32.01**	**217**	*e*P	**P**	**17 16 48.9**	**+0.2**
	comp=Z,46nm,0.6s,mb5.5						
FORT				*e*	pP	17 16 56.0	-2.5
FORT	**Forrest**	**32.01**	**217**	*e*P	**P**	**17 16 48.9**	**+0.2**
MBWA	**Marble Bar**	**32.85**	**240**	*e*P	**P**	**17 16 56.2**	**0.0**
	comp=Z,40nm,0.6s,mb5.5						
MOO	**Moorlands**	**36.28**	**183**	*e*P	**P**	**17 17 27.5**	**+2.0**
TAU	**Tasmania Unive**	**36.74**	**183**	*e*P	**P**	**17 17 35.6**	**+6.2**
RAO	**Raoul Island**	**38.10**	**131**	LR	LR	17 30 37.4	
	comp=Z,992nm,18.2s,MS4.7,baz=140,slow=32						
KLBR	**Kellerberrin**	**39.35**	**226**	*e*P	**P**	**17 17 51.4**	**-0.3**
	comp=Z,19nm,0.5s,mb5.1						
KLBR				*e*	pP	17 17 58.9	-2.8
KSM	**Kuching**	**40.27**	**279**	*e*P	**P**	**17 17 58.4**	**-1.2**
	comp=Z,69nm,1.4s,mb5.2						
URZ	**Urewera**	**40.41**	**146**	P	**P**	**17 18 00.6**	**+0.2**
	comp=Z,5.5nm,0.8s,mb4.4,baz=331,slow=13,SNR=6.4						
URZ				PcP	PcP	17 20 01.1	-1.9
	comp=Z,21nm,0.9s,baz=322,slow=4.9,SNR=6.8						
URZ				LR	LR	17 33 10.6	
	comp=Z,2µm,19.1s,MS4.9,baz=221,slow=34						
NWAO	**Narrogin (SRO)**	**40.46**	**224**	*e*P	**P**	**17 17 59.9**	**-0.9**
NWAO				pmax	pmax		
	comp=Z,27nm,1.0s						
NWAO	**Narrogin (SRO)**	**40.46**	**224**	*e*P	**P**	**17 17 59.9**	**-0.9**
	comp=Z,27nm,1.0s,mb4.9						
MUN	**Mundaring**	**40.67**	**226**	*e*P	**P**	**17 18 02.9**	**+0.3**
NACB	**Ninganchiao**	**40.84**	**318**	*e*P	**P**	**17 18 03.2**	**-0.9**
	comp=Z,23nm,0.4s,mb5.2						
TPUB	**Ta-pu**	**40.90**	**317**	*e*P	**P**	**17 18 03.6**	**-1.0**
	comp=Z,27nm,0.7s,mb5.0						
SSLB	**Suanglung**	**41.00**	**317**	*e*P	**P**	**17 18 06.9**	**+1.5**
RPZ	**Rata Peaks**	**41.83**	**157**	P	**P**	**17 18 12.4**	**+0.5**
	comp=Z,29nm,0.8s,mb5.0,baz=311,slow=4.2,SNR=11						
RPZ				LR	LR	17 33 44.2	
	comp=Z,2µm,19.2s,MS4.9,baz=326,slow=33						
QZH	**Quanzhou**	**43.38**	**317**	P	**P**	**17 18 25.2**	**+0.5**
QZH				S	**S**	**17 24 50.4**	**-0.2**
QZH				LR	LR		
	comp=Z,1µm,17.6s,MS4.8						
MJAR	**Matsushiro Arr**	**43.80**	**346**	P	**P**	**17 18 27.4**	**-0.6**
	comp=Z,5.3nm,0.5s,mb4.5,baz=162,slow=5.7,SNR=24						
MJAR				ScP	ScP	17 24 02.9	-0.6
	comp=Z,1.9nm,1.0s,baz=160,slow=3.9,SNR=4.2						
MJAR				LR	LR	17 36 53.7	
	comp=Z,1µm,18.2s,MS4.8,baz=175,slow=36						
MJAR	**Matsushiro Arr**	**43.80**	**346**	P	**P**	**17 18 27.4**	**-0.6**
MJAR				ScP	ScP	17 24 02.9	-0.6
MJAR				LR	LR	17 36 53.7	
MAJO	**Matsushiro**	**43.81**	**346**	*e*P	**P**	**17 18 28.3**	**+0.3**
MAT	**Matsushiro**	**43.81**	**346**	P	**P**	**17 18 27.9**	**-0.1**
MAT				S	**S**	**17 25 06.0**	**+9.5**
XMIS	**Christmas Isla**	**44.00**	**261**	*e*P	**P**	**17 18 31.2**	**+1.2**
QIZ	**Qiongzhong**	**46.72**	**303**	P	**P**	**17 18 52.1**	**+0.7**
QIZ				sP	sP	17 19 04.7	-0.9
QIZ				S	**S**	**17 25 40.0**	**+0.9**
QIZ				sS	sS	17 25 54.3	-1.6
QIZ				LR	LR		
	comp=E,460nm,18.2s						
QIZ				LR	LR		
	comp=Z,730nm,19.0s,MS4.7						
QIZ	**Qiongzhong**	**46.72**	**303**	*e*P	**P**	**17 18 50.1**	**-1.3**
	comp=Z,58nm,1.4s,mb5.3						
KSRS	**Korea Array**	**47.94**	**336**	P	**P**	**17 19 01.6**	**+1.0**
	comp=Z,19nm,0.9s,mb5.1,baz=153,slow=8.4,SNR=26						
KSRS				LR	LR	17 38 18.8	
	comp=Z,710nm,20.9s,MS4.6,baz=120,slow=35						
NJ2	**Nanjing**	**48.12**	**324**	*e*P	**P**	**17 19 04.2**	**+2.1**
NJ2				pP	pP	17 19 13.4	+1.1
NJ2				sP	sP	17 19 17.6	+1.3
NJ2				PP	PP	17 20 54.1	-0.5
NJ2				S	**S**	**17 25 58.5**	**-0.2**
NJ2				sS	sS	17 26 14.0	-1.4
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
NJ2				pmax	pmax		
	comp=Z,180nm,11.3s						
NJ2				LR	LR		
	comp=N,490nm,23.0s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,21.8s,MS4.8						
NJ2				LR	LR		
	comp=Z,1µm,21.8s,MS4.8						
WHN	**Wuhan**	**49.87**	**319**	⇑P	**P**	**17 19 14.9**	**-0.7**
WHN				LR	LR		
	comp=N,680nm,10.3s						
WHN				LR	LR		
	comp=E,2µm,17.3s						
WHN				LR	LR		
	comp=Z,3µm,22.0s						
KULM	**Kulim**	**50.48**	**282**	*e*P	**P**	**17 19 17.8**	**-2.7**
	comp=Z,16nm,1.0s,mb5.0						
RAR	**Rarotonga**	**50.90**	**112**	P	**P**	**17 19 23.7**	**+0.2**
	comp=Z,25nm,1.0s,mb5.1,baz=232,slow=5.9,SNR=6.4						
COCO	**West Island**	**52.70**	**259**	*e*P	**P**	**17 19 35.4**	**-1.6**
	comp=Z,435nm,1.1s,mb6.3						
GYA	**Guiyang**	**52.95**	**310**	⇑*i*P	**P**	**17 19 41.6**	**+2.9**
GYA				pP	pP	17 19 52.5	+3.5
GYA				sP	sP	17 19 56.8	+3.8
GYA				PcP	PcP	17 20 50.4	+3.0
GYA				PP	PP	17 21 43.0	+4.3
GYA				ScP	ScP	17 24 42.3	-0.2
GYA				sS	sS	17 27 24.4	+1.4
GYA				ScS	ScS	17 29 25.1	-1.1
GYA				SS	SS	17 30 43.8	-1.9
GYA				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
GYA				pmax	pmax		
	comp=Z,160nm,5.2s						
GYA				LR	LR		
	comp=N,2µm,17.6s,MS5.3						
GYA				LR	LR		
	comp=E,1µm,16.9s,MS5.3						
GYA				LR	LR		
	comp=Z,1µm,16.6s,MS5.1						
YSS	**Yuzh-Sakhalins**	**53.19**	**354**	⇓*i*P	**P**	**17 19 41.0**	**+0.9**
YSS				*i* *PP	pP	17 19 50.8	+0.5
YSS				*e*S	**S**	**17 27 20.0**	**+11**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
YSS				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.6						
YSS				MLR	MLR		
	comp=N,500nm,18.0s						
YSS	**Yuzh-Sakhalins**	**53.19**	**354**	*e*P	**P**	**17 19 40.2**	**+0.1**
	comp=N,24nm,0.8s,mb5.2						
SNY	**Shenyang**	**53.42**	**336**	P	**P**	**17 19 43.6**	**+1.8**
SNY				pmax	pmax		
	comp=Z,19nm,0.5s,mb5.3						
SNY				pmax	pmax		
	comp=Z,190nm,3.8s						
SNY				LR	LR		
	comp=N,490nm,18.6s,MS4.7						
SNY				LR	LR		
	comp=E,470nm,18.0s,MS4.7						
SNY				LR	LR		
	comp=Z,580nm,18.6s,MS4.7						
MDJ	**Mudanjiang**	**53.69**	**342**	P	**P**	**17 19 44.9**	**+1.1**
MDJ				pP	pP	17 19 54.2	+0.2
MDJ				sP	sP	17 19 58.9	+0.8
MDJ				PP	PP	17 21 46.0	+1.0
MDJ				ScP	ScP	17 24 46.2	+1.0
MDJ				PcS	PcS	17 24 50.1	+1.4
MDJ				S	**S**	**17 27 17.6**	**+2.2**
MDJ				sS	sS	17 27 33.0	+0.6
MDJ				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
MDJ				pmax	pmax		
	comp=Z,200nm,6.3s						
MDJ				LR	LR		
	comp=N,440nm,28.5s,MS4.5						
MDJ				LR	LR		
	comp=E,340nm,28.1s,MS4.5						
MDJ				LR	LR		
	comp=Z,750nm,26.1s,MS4.6						
MDJ	**Mudanjiang**	**53.69**	**342**	*e*P	**P**	**17 19 43.7**	**0.0**
	comp=Z,25nm,0.9s,mb5.2						
CN2	**Changchun**	**54.36**	**338**	*e*P	**P**	**17 19 54.5**	**+5.8**
CN2				*e*S	**S**	**17 27 30.2**	**+5.6**
CN2				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
CN2				LR	LR		
	comp=N,400nm,23.0s,MS4.7						
CN2				LR	LR		
	comp=E,600nm,23.0s,MS4.7						
CN2				LR	LR		
	comp=Z,700nm,24.0s,MS4.7						
KMI	**Kunming**	**55.38**	**306**	P	**P**	**17 20 00.8**	**+4.3**
KMI				pP	pP	17 20 10.6	+3.8
KMI				sP	sP	17 20 14.7	+3.9
KMI				PcP	PcP	17 21 00.3	+3.6
KMI				PP	PP	17 22 06.1	+5.5
KMI				S	**S**	**17 27 40.6**	**+1.7**
KMI				sS	sS	17 27 59.3	+3.4
KMI				SS	SS	17 31 26.6	+2.5
KMI				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
KMI				pmax	pmax		
	comp=Z,66nm,4.1s						
KMI				LR	LR		
	comp=N,390nm,15.5s,MS4.6						
KMI				LR	LR		
	comp=E,300nm,19.8s,MS4.6						
KMI				LR	LR		
	comp=Z,390nm,23.1s,MS4.4						
BJI	**Beijing**	**55.44**	**329**	P	**P**	**17 19 57.7**	**+1.1**
BJI				PP	PP	17 22 02.2	+1.4
BJI				S	**S**	**17 27 44.9**	**+5.7**
BJI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
BJI				pmax	pmax		
	comp=Z,130nm,3.8s						
BJI				LR	LR		
	comp=N,750nm,22.9s,MS4.9						
BJI				LR	LR		
	comp=E,690nm,20.3s,MS4.9						
BJI				LR	LR		
	comp=Z,990nm,28.1s						
XAN	**Xi'an**	**55.64**	**319**	P	**P**	**17 19 58.3**	**+0.2**
XAN				pP	pP	17 20 08.7	+0.2
XAN				sP	sP	17 20 13.8	+1.3
XAN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
XAN				pmax	pmax		
	comp=Z,160nm,6.6s						
XAN				LR	LR		
	comp=N,360nm,18.6s,MS4.6						
XAN				LR	LR		
	comp=E,380nm,19.1s,MS4.6						
XAN				LR	LR		
	comp=Z,1µm,19.6s,MS4.9						
CM31	**Chiang Mai Arr**	**55.87**	**297**	*e*P	**P**	**17 19 59.1**	**-1.0**
	comp=Z,16nm,1.3s,mb4.9						
CMAR	**Chiang Mai Arr**	**55.87**	**297**	P	**P**	**17 20 00.2**	**+0.2**
	comp=Z,5.4nm,1.0s,mb4.5,baz=119,slow=5.6,SNR=28						
CMAR				LR	LR	17 41 11.5	
	comp=Z,244nm,21.4s,MS4.3,baz=316,slow=33						
CMAR				PKPPKP		17 49 57.2	
	comp=Z,1.7nm,1.0s,baz=289,slow=3.6,SNR=4.8						
CMAR				PKP2bc		17 50 16.1	
	comp=Z,3.2nm,0.9s,baz=299,slow=3.9,SNR=8.4						
CMAR	**Chiang Mai Arr**	**55.87**	**297**	P	**P**	**17 20 00.2**	**+0.2**
CMAR				LR	LR	17 41 11.5	
CMAR				P'P'		17 49 57.2	

CMAR				⇑e		17 50 16.1	
HABR	**Khabarovsk**	**55.88**	**348**	ceP	**P**	**17 19 59.8**	**+0.2**
HABR				e*SP	sP	17 20 11.0	-2.9
HABR				e		17 22 00.4	
HABR				S	**S**	**17 27 41.9**	**-2.8**
HABR				e*SS	sS	17 27 55.5	-6.2
HABR						17 29 42.6	
HABR				SS	SS	17 31 24.0	-7.1
HABR				eSSS		17 33 34.2	
HABR				pmax	pmax		
	comp=Z,120nm,1.2s,mb5.8						
HABR				pmax	pmax		
	comp=N,33nm,1.0s						
HABR				pmax	pmax		
	comp=E,49nm,1.1s						
HABR				MLR	MLR		
	comp=E,351nm,18.0s,MS4.7						
HABR				MLR	MLR		
	comp=N,478nm,19.0s,MS4.7						
HABR				MLR	MLR		
	comp=Z,301nm,19.0s,MS4.4						
CHTO	**Chiang Mai**	**56.00**	**297**	eP	**P**	**17 20 00.7**	**-0.3**
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
CHTO	**Chiang Mai**	**56.00**	**297**	eP	**P**	**17 20 00.7**	**-0.3**
	comp=Z,7.3nm,0.9s,mb4.7						
KLR	**Kul'dur**	**57.33**	**346**	eP	**P**	**17 20 06.2**	**-3.7**
KLR				eS	**S**	**17 28 18.0**	**+14**
KLR				pmax	pmax		
	comp=Z,280nm,2.8s,mb5.8						
KLR				MLR	MLR		
	comp=Z,600nm,17.0s,MS4.8						
CD2	**Chengdu**	**57.45**	**313**	P	**P**	**17 20 12.1**	**+1.0**
CD2				pP	pP	17 20 22.2	+0.7
CD2				sP	sP	17 20 26.1	+0.6
CD2				PcP	PcP	17 21 05.0	+0.4
CD2				PP	PP	17 22 21.3	+2.4
CD2				S	**S**	**17 28 04.4**	**-1.8**
CD2				sS	sS	17 28 22.5	-0.7
CD2				SS	SS	17 31 57.0	+0.5
CD2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CD2				pmax	pmax		
	comp=Z,250nm,4.9s						
CD2				LR	LR		
	comp=N,660nm,20.2s						
CD2				LR	LR		
	comp=Z,770nm,16.7s,MS4.9						
HHC	**Hu-ho-hao-te**	**58.48**	**326**	eP	**P**	**17 20 20.7**	**+2.6**
HHC				pP	pP	17 20 30.9	+2.4
HHC				sP	sP	17 20 35.1	+2.6
HHC				PcP	PcP	17 21 10.8	+2.4
HHC				PP	PP	17 22 31.8	+3.9
HHC				PcS	PcS	17 25 11.1	+1.2
HHC				S	**S**	**17 28 19.0**	**-0.2**
HHC				sS	sS	17 28 35.7	-0.6
HHC				ScS	ScS	17 30 03.7	-1.7
HHC				SS	SS	17 32 12.1	-0.2
HHC				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
HHC				pmax	pmax		
	comp=Z,200nm,7.6s						
HHC				LR	LR		
	comp=N,600nm,14.3s,MS5.0						
HHC				LR	LR		
	comp=E,760nm,17.1s,MS5.0						
HHC				LR	LR		
	comp=Z,1µm,19.1s,MS5.0						
PEA0B	**Petropavlovsk-**	**59.34**	**5**	eP	**P**	**17 20 23.6**	**-0.2**
PETK	**Petropavlovsk-**	**59.34**	**5**	P	**P**	**17 20 23.7**	**-0.1**
PETK				*PP	pP	17 20 35.2	+1.0
PETK	**Petropavlovsk-**	**59.34**	**5**	P	**P**	**17 20 23.7**	**-0.1**
	comp=Z,5.9nm,0.6s,mb4.8,baz=150,slow=5.2,SNR=23						
PETK				pP	pP	17 20 35.2	+1.0
	comp=Z,8.2nm,0.6s,baz=167,slow=7.8,SNR=7.1						
PETK				LR	LR	17 41 53.7	
	comp=Z,660nm,21.1s,MS4.7,baz=200,slow=32						
PETK	**Petropavlovsk-**	**59.34**	**5**	P	**P**	**17 20 23.7**	**-0.1**
PETK				pP	pP	17 20 35.2	+1.0
PETK				LR	LR	17 41 53.7	
PET	**Petropavlovsk**	**59.35**	**6**	eP	**P**	**17 20 31.6**	**+7.7**
PET				eS	**S**	**17 28 34.8**	**+4.7**
PET				eSS	SS	17 32 33.8	+8.3
PET				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.2						
PET				pmax	pmax		
	comp=Z,400nm,14.0s						
PET				MLR	MLR		
	comp=Z,500nm,14.0s,MS4.8						
PPT	**Papeete**	**60.08**	**107**	eS	**S**	**17 28 36.6**	**-4.2**
	comp=Z,519nm,26.8s						
PPT				eLQ		17 35 45.6	
	comp=Z,2µm,34.0s						
PPT				eLR	LR	17 38 18.4	
	comp=Z,301nm,22.5s						
LZH	**Lanzhou**	**60.20**	**318**	eP	**P**	**17 20 31.4**	**+1.3**
LZH				pP	pP	17 20 40.7	+0.1
LZH				sP	sP	17 20 43.0	-1.6
LZH				PP	PP	17 22 46.3	+3.0
LZH				eS	**S**	**17 28 41.5**	**-0.3**
LZH				sS	sS	17 28 59.6	+0.7
LZH				SS	SS	17 32 40.0	+0.4
LZH				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
LZH				pmax	pmax		
	comp=Z,160nm,5.3s						
LZH				LR	LR		
	comp=E,520nm,16.0s						
LZH				LR	LR		
	comp=Z,1µm,19.6s,MS5.0						
DRV	**Dumont d'Urvil**	**60.87**	**185**	S	**S**	**17 28 59.0**	**+10**
DRV				L		17 36 00.0	
HIA	**Hailar**	**61.09**	**338**	eP	**P**	**17 20 35.9**	**0.0**
HIA				pmax	pmax		
	comp=Z,28nm,1.0s						
HIA	**Hailar**	**61.09**	**338**	eP	**P**	**17 20 35.9**	**+0.1**
	comp=Z,28nm,1.0s,mb5.3						
SHL	**Shillong**	**64.52**	**302**	ePKP	**P**	**17 21 00.1**	**+0.8**
GTA	**Gaotai**	**64.70**	**319**	eP	**P**	**17 21 01.4**	**+1.3**
GTA				pP	pP	17 21 11.7	+1.1
GTA				sP	sP	17 21 16.0	+1.4
GTA				S	**S**	**17 29 39.7**	**+1.5**
GTA				sS	sS	17 29 56.8	+1.3
GTA				SS	SS	17 33 52.5	+2.7
GTA				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
GTA				pmax	pmax		
	comp=Z,140nm,5.1s						
GTA				LR	LR		
	comp=N,410nm,18.0s,MS4.8						
GTA				LR	LR		
	comp=E,360nm,17.4s,MS4.8						
GTA				LR	LR		
	comp=Z,510nm,21.0s,MS4.7						
NRGR	**Nerungri**	**65.86**	**345**	eP	**P**	**17 21 08.4**	**+1.2**
NRGR				S	S	17 30 12.1	+20
NRGR				smax			
	comp=N,32nm,0.9s						
SONM	**Songino Array**	**65.93**	**329**	P	**P**	**17 21 09.5**	**+1.6**
	comp=N,13nm,0.9s,mb5.0,baz=138,slow=4.1,SNR=52						
SONM				LR	LR	17 49 21.6	
	comp=N,607nm,20.9s,MS4.8,baz=312,slow=35						
SONM				PKP2bc		17 49 46.8	
	comp=N,1.6nm,0.8s,baz=297,slow=1.0,SNR=9.9						
SONM	**Songino Array**	**65.93**	**329**	P	**P**	**17 21 09.5**	**+1.6**
SONM				LR	LR	17 49 21.6	
SONM				⇑e		17 49 46.8	
CLNS	**Chul'man**	**65.97**	**345**	eP	**P**	**17 21 08.4**	**+0.4**
CLNS				e*PP	pP	17 21 19.7	+1.2
CLNS				e		17 21 36.9	
CLNS				e		17 23 31.2	
CLNS				ePPP		17 25 11.4	
CLNS				eS	S	17 29 59.4	+6.3
CLNS				e		17 30 58.0	
CLNS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=N,11nm,1.3s						
CLNS				pmax	pmax		
	comp=E,5.0nm,1.2s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
CLNS				pmax	pmax		
	comp=E,4.0nm,1.2s						
CLNS				pmax	pmax		
	comp=N,7.0nm,1.3s						
CLNS				smax			
	comp=E,97nm,13.5s						
CLNS				smax			
	comp=N,187nm,10.8s						
CLNS				MLR	MLR		
	comp=Z,270nm,22.0s,MS4.4						
CLNS				MLR	MLR		
	comp=E,145nm,20.0s						
LSA	**Lhasa**	**66.64**	**306**	P	**P**	**17 21 13.0**	**+0.2**
LSA				S	S	17 30 09.0	+6.7
LSA				LR	LR		
	comp=N,130nm,24.6s,MS4.4						
LSA				LR	LR		
	comp=E,250nm,23.3s,MS4.4						
LSA				LR	LR		
	comp=Z,310nm,22.0s,MS4.5						
LSA	**Lhasa**	**66.64**	**306**	eP	**P**	**17 21 12.0**	**-0.8**
LSA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
LSA	**Lhasa**	**66.64**	**306**	eP	**P**	**17 21 12.0**	**-0.8**
	comp=Z,9.9nm,0.8s,mb4.9						
TAPN	**Taplejung**	**68.65**	**302**	eP	**P**	**17 21 26.1**	**+0.5**
	comp=Z,85nm,1.3s,mb5.5						
ODAN	**Odare**	**68.76**	**302**	eP	**P**	**17 21 26.7**	**+0.4**
	comp=Z,35nm,0.6s,mb5.5						
ZAK	**Zakamensk**	**69.14**	**330**	eP	**P**	**17 21 27.6**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
TAOE	**Nuku Hiva Isla**	**69.30**	**97**	eLR	LR	17 42 22.5	
	comp=Z,1µm,24.4s						
RAMN	**Ramite**	**69.45**	**302**	eP	**P**	**17 21 30.9**	**+0.3**
	comp=Z,14nm,0.4s,mb5.2						
YAK	**Yakutsk**	**69.70**	**350**	eP	**P**	**17 21 29.4**	**-1.9**
YAK				e		17 30 44.8	
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=N,5.0nm,1.2s						
YAK				MLR	MLR		
	comp=E,284nm,21.0s						
YAK	**Yakutsk**	**69.70**	**350**	eP	**P**	**17 21 29.2**	**-2.1**
	comp=E,31nm,1.1s,mb5.2						
TLY	**Talaya**	**69.79**	**331**	eP	**P**	**17 21 33.4**	**+1.3**
TLY				e		17 21 58.4	
TLY				eS	S	17 30 43.4	+4.4
TLY				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
TLY				MLR	MLR		
	comp=Z,280nm,18.0s,MS4.5						
TLY	**Talaya**	**69.79**	**331**	eP	**P**	**17 21 33.3**	**+1.1**
	comp=Z,22nm,0.6s,mb5.3						
BOD	**Bodaibo**	**70.00**	**340**	eP	**P**	**17 21 31.6**	**-1.7**
BOD				pmax	pmax		
	comp=Z,9.0nm,1.8s,mb4.4						
JIRN	**Jiri**	**70.02**	**302**	eP	**P**	**17 21 34.7**	**+0.6**
	comp=Z,17nm,0.6s,mb5.1						
PALK	**Pallekele**	**70.33**	**280**	eP	**P**	**17 21 34.4**	**-1.8**
GUN	**Gumba**	**70.36**	**302**	eP	**P**	**17 21 36.5**	**+0.3**
	comp=Z,36nm,0.6s,mb5.5						
PKI	**Pulchoki**	**70.66**	**302**	eP	**P**	**17 21 37.8**	**-0.2**
KKN	**Kakani**	**70.83**	**302**	eP	**P**	**17 21 38.8**	**-0.2**
DMN	**Daman**	**70.92**	**302**	eP	**P**	**17 21 39.7**	**+0.1**
	comp=Z,47nm,0.8s,mb5.5						
MOY	**Mondy**	**71.07**	**330**	eP	**P**	**17 21 41.7**	**+1.8**
GKN	**Gorkha**	**71.44**	**302**	eP	**P**	**17 21 42.5**	**-0.2**
VNDA	**Vanda**	**71.67**	**177**	P	**P**	**17 21 43.3**	**+0.1**
	comp=Z,14nm,0.8s,mb5.0,baz=340,slow=7.2,SNR=29						
VNDA				LR	LR	17 51 36.6	
	comp=Z,534nm,18.5s,MS4.8,baz=323,slow=34						
KOLN	**Koldanda**	**72.25**	**302**	eP	**P**	**17 21 46.3**	**-1.3**
	comp=Z,36nm,0.9s,mb5.3						
DANN	**Dangsing**	**72.28**	**302**	eP	**P**	**17 21 47.4**	**-0.4**
	comp=Z,20nm,0.7s,mb5.2						
PYUN	**Piuthan**	**72.86**	**302**	eP	**P**	**17 21 50.4**	**-0.8**
	comp=Z,29nm,0.7s,mb5.3						
RKT	**Rikitea**	**73.94**	**112**	eS	S	17 31 24.6	-3.3
	comp=Z,134nm,31.5s						
RKT				eLR	LR	17 44 43.6	
	comp=Z,487nm,31.2s						
HYB	**Hyderabad**	**74.22**	**290**	i P	**P**	**17 22 00.5**	**+1.1**
WMQ	**Urumqi**	**74.77**	**318**	eP	**P**	**17 22 02.1**	**0.0**
WMQ				pP	pP	17 22 13.0	+0.3
WMQ				sP	sP	17 22 16.5	-0.2
WMQ				PP	PP	17 24 52.0	+2.3
WMQ				S	S	17 31 41.0	+4.6
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,180nm,5.2s						
WMQ				LR	LR		
	comp=N,530nm,20.0s,MS5.0						
WMQ				LR	LR		
	comp=E,600nm,22.6s,MS5.0						
WMQ				LR	LR		
	comp=Z,930nm,22.0s,MS5.0						
BILL	**Bilibino**	**74.85**	**6**	⇑eP	**P**	**17 22 01.6**	**-0.4**
BILL				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
BILL				MLR	MLR		
	comp=Z,600nm,18.0s,MS4.9						
BILL	**Bilibino**	**74.85**	**6**	eP	**P**	**17 21 60.0**	**-2.0**
	comp=Z,12nm,1.0s,mb4.8						
TIXI	**Tiksi**	**78.81**	**353**	eP	**P**	**17 22 23.0**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.2						
TIXI	**Tiksi**	**78.81**	**353**	eP	**P**	**17 22 22.0**	**-2.3**
	comp=Z,3.8nm,0.8s,mb4.4						
POO	**Poona**	**78.83**	**290**	⇑iP	**P**	**17 22 23.0**	**-2.5**
	comp=Z,30nm,1.0s,mb5.2						
MK31	**Makanchi Array**	**79.43**	**320**	eP	**P**	**17 22 26.9**	**-1.3**
MKAR	**Makanchi Array**	**79.43**	**320**	P	**P**	**17 22 28.4**	**+0.2**
	comp=Z,4.1nm,0.6s,mb4.5,baz=99,slow=8.0,SNR=26						
MKAR				PKKPbc	PKKPbc	17 41 17.9	-1.6
	comp=Z,0.3nm,0.6s,baz=301,slow=4.3,SNR=4.2						
MKAR				LR	LR	17 58 21.5	
	comp=Z,517nm,19.4s,MS4.9,baz=97,slow=36						
MKAR	**Makanchi Array**	**79.43**	**320**	P	**P**	**17 22 28.4**	**+0.2**
MKAR				PKKPbc	PKKPbc	17 41 17.9	-1.6
MKAR				LR	LR	17 58 21.5	
ZAA0	**Zalesovo Array**	**80.65**	**327**	eP	**P**	**17 22 33.5**	**-1.1**
ZALV	**Zalesovo Beam**	**80.65**	**327**	P	**P**	**17 22 33.7**	**-0.9**
ZALV				*PP	pP	17 22 44.0	-1.4
ZALV						17 41 15.1	
ZALV	**Zalesovo Beam**	**80.65**	**327**	P	**P**	**17 22 33.7**	**-0.9**
	comp=Z,3.3nm,0.5s,mb4.5,baz=104,slow=6.3,SNR=18						
ZALV				pP	pP	17 22 44.0	-1.4
	comp=Z,6.3nm,0.8s,baz=108,slow=4.8,SNR=8.7						
ZALV				PKKPbc	PKKPbc	17 41 15.1	-2.0
	comp=Z,1.4nm,0.8s,baz=321,slow=3.7,SNR=5.3						
ZALV				PKPPKP		17 49 22.1	
	comp=Z,2.5nm,1.0s,baz=336,slow=3.2,SNR=5.1						
ZALV				LR	LR	17 58 47.1	
	comp=Z,387nm,19.5s,MS4.8,baz=109,slow=36						
ZALV	**Zalesovo Beam**	**80.65**	**327**	P	**P**	**17 22 33.7**	**-0.9**
ZALV				pP	pP	17 22 44.0	-1.4
ZALV				PKKPbc	PKKPbc	17 41 15.1	-2.0
ZALV				P'P'		17 49 22.1	
ZALV				LR	LR	17 58 47.1	
KSH	**Kashi**	**81.61**	**311**	eP	**P**	**17 22 42.0**	**+1.9**
KSH				epP	pP	17 22 52.2	+1.4
KSH				esP	sP	17 22 56.3	+1.5
KSH				ePP	PP	17 25 50.2	+3.1
KSH				eS	S	17 32 49.1	-1.0
KSH				eSKS		17 32 54.4	
KSH				esS	sS	17 33 07.1	-0.8
KSH				eSS	SS	17 38 09.1	+1.1
KSH				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
KSH				pmax	pmax		
	comp=Z,160nm,3.0s						
KSH				LR	LR		
	comp=N,420nm,6.2s						
KSH				LR	LR		
	comp=E,610nm,5.8s						
KSH				LR	LR		
	comp=Z,570nm,6.6s						
NVS	**Novosibirsk**	**81.86**	**328**	eP	**P**	**17 22 38.8**	**-2.2**
NVS				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.6						
NVS				pmax	pmax		
	comp=N,4.0nm,0.6s						
NVS				pmax	pmax		
	comp=E,13nm,1.7s						
TKM2	**Tokmak 2**	**82.77**	**315**	eP	**P**	**17 22 45.1**	**-1.0**
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
TKM2	**Tokmak 2**	**82.77**	**315**	eP	**P**	**17 22 45.1**	**-0.9**
	comp=Z,4.4nm,0.7s,mb4.6						
KZA	**Kyzart**	**82.80**	**314**	P	**P**	**17 22 47.6**	**+1.4**
	SNR=10.0						
KURK	**Kurchatov**	**83.03**	**323**	P	**P**	**17 22 46.4**	**-0.8**
	comp=Z,2.9nm,0.6s,mb4.5,baz=112,slow=4.3,SNR=8.9						
KURK				pP	pP	17 22 57.5	-0.5
	comp=Z,3.4nm,0.7s,baz=110,slow=4.2,SNR=2.1						
MAW	**Mawson**	**83.29**	**203**	eP	**P**	**17 22 48.5**	**+0.2**
	comp=Z,13nm,0.9s,mb5.0						
MAW	**Mawson**	**83.29**	**203**	P	**P**	**17 22 47.9**	**-0.4**
	comp=Z,13nm,0.8s,mb5.0,baz=88,slow=6.7,SNR=15						
MAW				LR	LR	17 58 04.0	
	comp=Z,740nm,20.3s,MS5.0,baz=88,slow=34						
FRU	**Bishkek**	**83.45**	**314**	eP	**P**	**17 22 54.0**	**+4.4**
AAK	**Ala-Archa**	**83.49**	**314**	eP	**P**	**17 22 49.5**	**-0.3**
AAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
AAK	**Ala-Archa**	**83.49**	**314**	P	**P**	**17 22 50.5**	**+0.8**
	SNR=6.5						
AAK	**Ala-Archa**	**83.49**	**314**	eP	**P**	**17 22 49.5**	**-0.2**
	comp=Z,8.0nm,0.8s,mb4.8						
USP	**Ospenovka**	**83.64**	**315**	P	**P**	**17 22 50.7**	**+0.2**
	SNR=14						
QSPA	**South Pole Qui**	**83.88**	**180**	eP	**P**	**17 22 51.6**	**+0.5**
	comp=Z,62nm,1.0s,mb5.7						
AML	**Almayashu**	**83.94**	**313**	P	**P**	**17 22 53.3**	**+1.2**
	SNR=35						
AML	**Almayashu**	**83.94**	**313**	eP	**P**	**17 22 52.6**	**+0.6**
	comp=Z,42nm,1.1s,mb5.5						
EKS2	**Erkin-Say**	**84.01**	**314**	P	**P**	**17 22 53.7**	**+1.3**
	SNR=18						
EKS2	**Erkin-Say**	**84.01**	**314**	eP	**P**	**17 22 53.3**	**+0.9**
	comp=Z,14nm,0.8s,mb5.2						
COLA	**College**	**84.11**	**22**	eP	**P**	**17 22 48.1**	**-4.3**
COLA				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
COLA	**College**	**84.11**	**22**	eP	**P**	**17 22 48.1**	**-4.4**
	comp=Z,6.6nm,0.8s,mb4.8						
KBL	**Kabul**	**85.95**	**305**	eP	**P**	**17 23 00.6**	**-1.8**
KBL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
KBL	**Kabul**	**85.95**	**305**	eP	**P**	**17 23 00.6**	**-1.8**
	comp=Z,4.3nm,0.8s,mb4.7						
EGAK	**Eagle**	**86.67**	**24**	eP	**P**	**17 23 03.8**	**-1.4**
	comp=Z,14nm,1.1s,mb5.1						
BVAR	**Borovoye Array**	**88.56**	**324**	P	**P**	**17 23 13.3**	**-1.2**
	comp=Z,3.2nm,0.9s,mb4.7,baz=112,slow=6.4,SNR=11						
SYO	**Syowa Base**	**91.50**	**200**	⇓eP	**P**	**17 23 25.6**	**-2.4**
NVAR	**Mina Array Bea**	**95.12**	**52**	P	**P**	**17 23 45.2**	**-0.1**
	comp=Z,1.5nm,0.8s,mb4.5,baz=263,slow=5.0,SNR=6.6						
NVAR	**Mina Array Bea**	**95.12**	**52**	P	**P**	**17 23 45.2**	**-0.1**
AKTK	**Aktyubinsk**	**95.87**	**320**	P	**P**	**17 23 47.4**	**-1.0**
AKTK				LR	LR	18 06 34.6	
AKTO	**Aktyubinsk**	**95.87**	**320**	P	**P**	**17 23 47.4**	**-1.1**
	comp=Z,0.8nm,0.7s,mb4.3,baz=83,slow=8.1,SNR=2.6						
AKTO				LR	LR	18 06 34.7	
	comp=Z,638nm,20.5s,MS5.1,baz=114,slow=35						
YKA	**Yellowknife Ar**	**97.89**	**28**	P	**P**	**17 23 56.2**	**-1.1**
	comp=Z,0.9nm,0.8s,mb4.3,baz=276,slow=4.7,SNR=10						
YKA				pP	pP	17 24 07.5	-0.7
	comp=Z,0.9nm,0.8s,baz=274,slow=5.0,SNR=5.4						
YKA				PKiKP	PKiKP	17 28 30.8	0.0
	comp=Z,0.7nm,0.8s,baz=278,slow=2.1,SNR=7.3						
YKA				PKKPbc	PKKPbc	17 40 30.8	-3.3
	comp=Z,0.6nm,0.7s,baz=87,slow=2.6,SNR=9.5						
YKA				LR	LR	18 04 44.5	
	comp=Z,616nm,20.1s,MS5.1,baz=305,slow=33						
YKA	**Yellowknife Ar**	**97.89**	**28**	P	**P**	**17 23 56.2**	**-1.1**
YKA				pP	pP	17 24 07.5	-0.7
VNA3	**Neumayer Olymp**	**101.64**	**187**	ePdiff	Pdif	17 24 14.2	0.0
VNA2	**Neumayer--Watz**	**101.66**	**187**	ePdiff	Pdif	17 24 14.1	-0.2
PDAR	**Pinedale Array**	**101.82**	**48**	P	Pdif	17 24 15.0	0.0
	comp=Z,0.6nm,0.9s,baz=232,slow=1.7,SNR=4.5						
PDAR				PKiKP	PKiKP	17 28 38.9	+0.5
	comp=Z,0.4nm,0.7s,baz=76,slow=0.6,SNR=4.1						
PDAR				PKKP	PKKPbc	17 40 30.4	+8.2
	comp=Z,0.3nm,0.6s,baz=128,slow=1.5,SNR=3.9						
RES	**Resolute Bay**	**102.36**	**14**	PKiKP	PKiKP	17 28 38.0	-0.5
	comp=Z,0.5nm,0.6s,baz=281,slow=2.6,SNR=4.3						
PMSA	**Palmer Station**	**104.96**	**166**	PKKPbc	PKKPbc	17 40 16.4	+2.8
	comp=Z,5.1nm,0.6s,baz=214,slow=2.2,SNR=3.6						
SDCO	**Great Sand Dun**	**105.22**	**53**	ePKPdf	PKiKP	17 28 44.6	-0.2
ARCES	**ARCESS Array B**	**107.24**	**342**	PKiKP	PKiKP	17 28 47.0	-0.6
	comp=Z,2.7nm,0.9s,baz=77,slow=1.2,SNR=6.3						
ARCES				PKKPbc	PKKPbc	17 40 04.0	-2.7
	comp=Z,3.0nm,0.7s,baz=222,slow=1.6,SNR=7.8						
ARCES	**ARCESS Array B**	**107.24**	**342**	PKPdf	PKiKP	17 28 47.0	-0.6
ARCES				PKKPbc	PKKPbc	17 40 04.0	-2.7
TXAR	**Lajitas Array**	**107.25**	**61**	Pdiff	Pdif	17 24 46.3	+7.1
	comp=Z,0.2nm,0.6s,baz=213,slow=4.3,SNR=2.7						
TXAR				PKKP	PKKPbc	17 40 15.9	+10
	comp=Z,1.0nm,0.9s,baz=108,slow=2.9,SNR=4.6						
ULM	**Lac du Bonnet**	**110.03**	**39**	PKiKP	PKiKP	17 28 53.0	-0.3
	comp=Z,2.7nm,0.8s,baz=327,slow=2.5,SNR=5.0						
WMOK	**Wichita Mounta**	**110.92**	**55**	ePKIKP	PKiKP	17 28 54.5	-1.0
KMBO	**Kilima Mbogo**	**112.41**	**266**	PKiKP	PKiKP	17 28 59.0	+0.1
	comp=Z,1.9nm,0.7s,baz=70,slow=4.4,SNR=4.7						
AKASG	**Malin Array Be**	**113.84**	**323**	PKiKP	PKiKP	17 28 59.5	-1.0
	comp=Z,2.2nm,0.6s,baz=68,slow=1.9,SNR=8.8						
BR131	**Keskin Array S**	**114.00**	**311**	ePKPdf	PKiKP	17 28 59.7	-1.6
BRTR	**Keskin Array B**	**114.00**	**311**	PKiKP	PKiKP	17 28 59.8	-1.4
TLCR		**115.97**	**318**	⇑iP	PKiKP	17 29 04.8	0.0
TLCR		**115.97**	**318**	⇑P	PKiKP	17 29 04.8	-0.1
FRB	**Frobisher Bay**	**116.14**	**18**	PKP	PKPdf	17 29 03.3	-1.3
	comp=Z,2.4nm,0.8s,baz=53,slow=6.8,SNR=6.8						
FRB				PKKPbc	PKKPbc	17 39 37.3	+0.2
	comp=Z,1.7nm,0.8s,baz=81,slow=6.6,SNR=4.2						
CCM	**Cathedral Cave**	**116.31**	**50**	ePKIKP	PKPdf	17 29 04.2	-1.5
TIRR	**Tirgusor**	**116.47**	**317**	⇑iP	PKPdf	17 29 06.0	+0.2
TIRR	**Tirgusor**	**116.47**	**317**	⇑P	PKPdf	17 29 06.0	+0.2
BOSA	**Boshof**	**116.56**	**234**	PKP	PKPdf	17 29 06.3	-0.3
	comp=Z,3.7nm,0.8s,baz=116,slow=1.2,SNR=3.8						
HARR	**Harsova**	**116.72**	**317**	⇓iP	PKPdf	17 29 06.7	+0.4
HARR	**Harsova**	**116.72**	**317**	⇓P	PKPdf	17 29 06.7	+0.4
ISP	**Isparta**	**116.81**	**309**	⇑iP	PKPdf	17 29 05.3	-1.4
ISP	**Isparta**	**116.81**	**309**	⇑P	PKPdf	17 29 05.3	-1.4
NOA	**NORSAR Array B**	**117.11**	**339**	PKP	PKPdf	17 29 06.1	-0.5
	comp=Z,1.9nm,0.8s,baz=47,slow=1.9,SNR=3.7						
VRI	**Vrincioaia**	**117.12**	**319**	⇑iP	PKPdf	17 29 07.3	+0.3
VRI	**Vrincioaia**	**117.12**	**319**	⇑P	PKPdf	17 29 07.3	+0.2
HDIL	**Hopedale**	**117.13**	**47**	ePKPdf	PKPdf	17 29 06.5	-0.7
BURAR	**Bucovina Array**	**117.43**	**321**	⇑iP	PKPdf	17 29 09.1	+1.5
BURAR	**Bucovina Array**	**117.43**	**321**	⇑P	PKPdf	17 29 09.1	+1.5
MLR	**Muntele Rosu**	**117.77**	**319**	⇓iP	PKPdf	17 29 08.1	-0.2
MLR	**Muntele Rosu**	**117.77**	**319**	P	PKPdf	17 29 07.9	-0.4
KWP	**Kalwaria Pacla**	**118.11**	**324**	ePKIKP	PKPdf	17 29 08.7	-0.1
VOIR		**118.37**	**319**	⇑iP	PKPdf	17 29 10.8	+1.3
VOIR		**118.37**	**319**	P	PKPdf	17 29 10.6	+1.2
LSZ	**Lusaka**	**118.51**	**249**	PKP	PKPdf	17 29 10.6	+0.1
	comp=Z,4.9nm,0.5s,baz=144,slow=1.9,SNR=11						
KOLS	**Kolonicke sedl**	**118.67**	**323**	ePKP	PKPdf	17 29 10.2	+0.3
TRPA	**Tarpa**	**118.87**	**323**	⇑iP	PKPdf	17 29 09.6	-0.7
STHS	**Stebnicka Huta**	**119.06**	**324**	ePKP	PKPdf	17 29 10.9	+0.2
CRVS	**Cervenica-Dubn**	**119.17**	**324**	ePKP	PKPdf	17 29 10.6	-0.3
DRGR		**119.33**	**321**	⇓iP	PKPdf	17 29 11.0	-0.3
DRGR		**119.33**	**321**	P	PKPdf	17 29 11.1	-0.1
NIE	**Niedzica**	**119.60**	**325**	ePKP	PKPdf	17 29 12.4	+0.7
GZR	**Gura Zlata**	**119.86**	**320**	⇑iP	PKPdf	17 29 12.3	0.0
GZR	**Gura Zlata**	**119.86**	**320**	P	PKPdf	17 29 12.1	-0.2
WCI	**Wyandotte Cave**	**120.02**	**49**	ePKIKP	PKPdf	17 29 12.3	-0.6
PLCA	**Paso Flores**	**120.42**	**145**	PKP	PKPdf	17 29 13.4	-0.1
	comp=Z,2.6nm,0.7s,baz=234,slow=3.9,SNR=8.2						
BZS	**Buzias**	**120.51**	**320**	⇓iP	PKPdf	17 29 13.4	-0.2
BZS	**Buzias**	**120.51**	**320**	P	PKPdf	17 29 13.1	-0.5
PSZ	**Piszkesteto**	**120.55**	**323**	⇓iP	PKPdf	17 29 14.4	+0.8
PSZ	**Piszkesteto**	**120.55**	**323**	⇓P	PKPdf	17 29 14.4	+0.9
AAM	**Ann Arbor**	**120.57**	**44**	ePKIKP	PKPdf	17 29 12.2	-1.6
OKC	**Ostrava-Krasne**	**120.62**	**326**	ePKPdf	PKPdf	17 29 13.6	0.0
LRAL	**Lakeview Retre**	**120.86**	**55**	ePKPdf	PKPdf	17 29 14.1	-0.6
MORC	**Moravsky Berou**	**120.99**	**326**	⇑iP	PKPdf	17 29 15.1	+0.8
MORC	**Moravsky Berou**	**120.99**	**326**	P	PKPdf	17 29 14.9	+0.5
DPC	**Dobruska-Polom**	**121.35**	**327**	ePKPdf	PKPdf	17 29 15.5	+0.5
UPC	**Upice**	**121.43**	**327**	ePKPdf	PKPdf	17 29 15.2	0.0
UPC				epPKP	pPKPdf	17 29 26.4	0.0
VRAC	**Vranov**	**121.76**	**326**	⇑iP	PKPdf	17 29 16.3	+0.5
VRAC	**Vranov**	**121.76**	**326**	PKP	PKPdf	17 29 15.7	-0.1
	comp=Z,3.5nm,0.5s,baz=110,slow=3.4,SNR=5.7						
VRAC	**Vranov**	**121.76**	**326**	⇑P	PKPdf	17 29 16.3	+0.4
ACSO	**Alum Creek Sta**	**121.80**	**46**	ePKPdf	PKPdf	17 29 15.8	-0.4
ACSO				e		17 29 26.4	
IDI	**Anoyia**	**121.85**	**308**	PKKPbc	PKKPbc	17 39 16.1	+0.7
	comp=Z,4.8nm,0.9s,baz=279,slow=4.7,SNR=6.6						

MODS	Modra-Piesok	121.86	325	*e*PKP	PKPdf	17 29 16.0	-0.1
ZST	Bratislava	122.05	325	*e*PKP	PKPdf	17 29 16.8	+0.4
ZST	Bratislava	122.05	325	*e*P	PKPdf	17 29 16.9	+0.5
PKSM	Moragy	122.11	322	⇓*i*P	PKPdf	17 29 16.3	-0.3
PKSM	Moragy	122.11	322	P	PKPdf	17 29 16.6	0.0
PVCC	Panska Ves	122.19	328	*e*PKPdf	PKPdf	17 29 16.2	-0.4
PVCC				*e*pPKP	pPKPdf	17 29 27.1	-0.7
BRG	Berggiesshubel	122.32	329	*i* PKIKP	PKPdf	17 29 17.0	+0.1
BRG				*e*		17 29 27.2	
BRG				pmax	pmax		
	comp=Z,10.0nm,1.0s						
BRG				pmax	pmax		
	comp=Z,8.0nm,1.1s						
BRG				MLR	MLR		
	comp=N,462nm,21.9s,MS5.2						
BRG				MLR	MLR		
	comp=E,406nm,20.7s,MS5.2						
BRG				MLR	MLR		
	comp=Z,623nm,21.8s,MS5.2						
BRG	Berggiesshubel	122.32	329	*i* PKP	PKPdf	17 29 17.0	+0.2
	comp=Z,16nm,1.0s						
BRG				*e*		17 29 27.2	
	comp=Z,13nm,1.1s						
BRG							
	comp=N,772nm,21.9s						
BRG							
	comp=E,678nm,20.7s						
BRG							
	comp=Z,1μm,21.8s						
BRG	Berggiesshubel	122.32	329	*i* PKP	PKPdf	17 29 17.0	+0.2
BRG				*e*		17 29 27.2	
BRG				LR	LR		
	comp=Z,620nm,21.8s,MS5.2						
TREC	Trest	122.38	326	*e*PKPdf	PKPdf	17 29 17.2	+0.2
TREC				*e*pPKP	pPKPdf	17 29 27.5	-0.7
TREC				AMS	AMS	18 23 20.0	
	comp=Z,800nm,17.9s						
PRU	Pruhonice	122.51	327	*e*PKPdf	PKPdf	17 29 17.1	-0.2
PRU				*e*pPKP	pPKPdf	17 29 27.7	-0.7
CLL	Collm	122.55	329	⇓*i*PKIKP	PKPdf	17 29 17.3	0.0
CLL				*e*		17 29 28.0	
CLL				*e*		17 31 04.0	
CLL				pmax	pmax		
	comp=Z,14nm,0.9s						
CLL				MLR	MLR		
	comp=Z,800nm,21.4s,MS5.3						
CLL	Collm	122.55	329	⇓*i*PKPdf	PKPdf	17 29 17.3	0.0
	comp=Z,14nm,0.9s						
CLL				*e*pPKPdf	pPKPdf	17 29 28.0	-0.5
CLL				*e*PP	PP	17 31 04.0	+10
CLL				*e*PS	PS	17 40 49.0	-0.7
CLL				*e*PPS		17 42 17.0	
CLL				*e*		17 43 07.0	
CLL				*e*SS	SS	17 47 36.0	+3.3
CLL				*e*		17 53 06.0	
CLL				*e*		18 01 30.0	
CLL				Lm		18 23 00.0	
	comp=N,500nm,21.5s						
CLL				Lm		18 23 00.0	
	comp=E,300nm,21.8s						
CLL				Lm		18 23 00.0	
	comp=Z,800nm,21.4s						
CLL	Collm	122.55	329	⇓*i*PKP	PKPdf	17 29 17.3	0.0
CLL				*e*		17 29 28.0	
CLL				*e*PP	PP	17 31 04.0	+10
CLL				LR	LR		
	comp=Z,800nm,21.4s,MS5.3						
SADO	Sadowa	122.55	40	PKP	PKPdf	17 29 16.5	-1.0
	comp=Z,9.3nm,0.8s,baz=316,slow=3.0						
SADO				PKKP	PKKPdf	17 40 01.6	+12
	comp=Z,4.1nm,1.0s,baz=223,slow=2.6,SNR=3.5						
CONA	Conrad Observa	122.90	325	⇑*i*PKiKP	PKPdf	17 29 17.6	-0.4
	comp=Z,10nm,1.1s						
CSNA	Conrad Observa	122.90	325	⇑*i*PKiKP	PKPdf	17 29 17.6	-0.5
	comp=Z,10nm,1.1s						
SCHQ	Schefferville	123.15	24	PKP	PKPdf	17 29 18.2	-0.1
	comp=Z,4.6nm,0.9s,baz=2.5,slow=3.6,SNR=5.5						
SCHQ				PKKPbc	PKKPbc	17 39 10.5	-0.5
	comp=Z,2.1nm,0.8s,baz=76,slow=6.2,SNR=3.7						
TGUH	Tegucigalpa,Un	123.24	77	*e*PKPdf	PKPdf	17 29 19.5	-0.1
NKC	Novy Kostel	123.47	329	*e*PKKP	PKPdf	17 29 19.6	+0.5
NKC				*e*pPKP	pPKPdf	17 29 29.6	-0.7
KHC	Kasperske Hory	123.51	327	*e*PKPdf	PKPdf	17 29 19.3	+0.1
KHC				*e*pPKP	pPKPdf	17 29 28.5	-1.9
GEC2	GERESS Array S	123.61	327	*e*PKIKP	PKPdf	17 29 18.6	-0.8
GEC2				*e*		17 29 28.9	
GERES	GERESS Array B	123.61	327	PKIKP	PKPdf	17 29 19.0	-0.4
GERES						17 29 30.0	
GERES	GERESS Array B	123.61	327	PKP	PKPdf	17 29 19.0	-0.4
	comp=Z,8.4nm,0.8s,baz=75,slow=1.5,SNR=62						
GERES				pPKP	pPKPdf	17 29 30.0	-0.5
	comp=Z,3.1nm,0.7s,baz=87,slow=1.8,SNR=7.0						
GERES				PKKPbc	PKKPbc	17 39 08.3	-0.7
	comp=Z,0.4nm,0.6s,baz=204,slow=2.9,SNR=7.0						
GOGA	Godfrey	123.62	54	*e*PKIKP	PKPdf	17 29 18.9	-1.0
MOA	Molln	123.85	325	⇓*i*PKiKP	PKPdf	17 29 19.4	-0.5
	comp=Z,9.2nm,1.1s						
PERS	Pernice	124.01	324	*e*PKPdf	PKPdf	17 29 20.0	-0.3
SOKA	Soboth	124.03	324	⇓*i*PKiKP	PKPdf	17 29 20.1	-0.2
	comp=Z,14nm,1.0s						
ZAVS	Zavodnje	124.17	324	*e*PKPdf	PKPdf	17 29 20.1	-0.5
CRES	Cresnjev	124.23	323	*e*PKPdf	PKPdf	17 29 20.8	+0.1
MCWV	Mont Chateau	124.25	45	*e*PKPdf	PKPdf	17 29 19.7	-1.2
LEGS	Legarje	124.25	323	*i* PKPdf	PKPdf	17 29 20.8	0.0
LEGS				*e*pPKPdf	pPKPdf	17 29 30.9	-1.0
GRA1	Grafenberg Arr	124.43	329	*e*PKP	PKPdf	17 29 20.5	-0.5
GRA1				LR	LR		
	comp=Z,700nm,21.7s,MS5.3						
GRF	Grafenberg Arr	124.43	329	*e*PKPdf	PKPdf	17 29 20.5	-0.5
GRF				*e*L		18 22 20.3	
	comp=Z,720nm,21.7s						
BOJS	Bojanci	124.52	323	*e*PKPdf	PKPdf	17 29 21.6	+0.3
LJU	Ljubljana	124.67	324	*e*PKPdf	PKPdf	17 29 21.8	+0.3
BLA	Blacksburg	124.75	48	*e*PKIKP	PKPdf	17 29 21.4	-0.6
KBA	Koelnbreinsper	124.79	325	⇓*i*PKiKP	PKPdf	17 29 21.2	-0.5
	comp=Z,12nm,1.0s						
MYKA	Terra Mystica	124.87	325	⇑*i*PKPdf	PKPdf	17 29 20.9	-1.0
	comp=Z,9.5nm,1.0s						
SSPA	Standing Stone	125.21	44	*e*PKPdf	PKPdf	17 29 22.2	-0.6
JTS	JuntasAbangare	125.57	82	*e*PKIKP	PKPdf	17 29 24.1	-0.1
WATA	Walderalm	125.64	326	⇓*i*PKiKP	PKPdf	17 29 23.3	-0.1
	comp=Z,22nm,1.1s						
WTTA	Wattenberg	125.65	326	⇑*i*PKiKP	PKPdf	17 29 23.3	-0.1
	comp=Z,33nm,1.0s						
BINY	Binghamton	125.78	41	*e*PKPdf	PKPdf	17 29 22.8	-1.0
MOTA	Moosalm	125.89	326	⇑*i*PKiKP	PKPdf	17 29 23.3	-0.6
	comp=Z,21nm,0.9s						
NCB	Newcomb	126.02	38	*e*PKPdf	PKPdf	17 29 23.6	-0.5
STU	Stuttgart	126.04	329	*e*PKIKP	PKPdf	17 29 24.0	-0.1
FETA	Feichten	126.29	326	⇑*i*PKiKP	PKPdf	17 29 24.3	-0.3
	comp=Z,23nm,1.0s						
EKA	Eskdalemuir Ar	126.38	341	PKP	PKPdf	17 29 25.1	+0.5
	comp=Z,2.0nm,0.7s,baz=21,slow=2.6,SNR=5.0						
MEM	Membach	126.39	332	PKP	PKPdf	17 29 25.3	+0.6
DAVA	Damuels	126.60	327	⇑*i*PKiKP	PKiKP	17 29 25.7	0.0
	comp=Z,19nm,0.9s						
BFO	Black Forest	126.77	329	*i* PKIKP	PKPdf	17 29 25.6	+0.1
TSUM	Tsumeb	126.77	241	PKP	PKPdf	17 29 26.1	-0.3
	comp=Z,8.8nm,0.9s,baz=110,slow=4.0,SNR=11						
TSUM				pPKP	pPKPdf	17 29 36.7	-0.8
	comp=Z,9.4nm,0.9s,baz=110,slow=4.5,SNR=7.7						
BCLA	Clavier	126.85	332	PKP	PKPdf	17 29 26.4	+0.8
WLF	Walferdange	126.97	331	PKP	PKPdf	17 29 26.6	+0.7
CDF	Champ du Feu	127.25	329	*e*PKP1	PKPdf	17 29 25.1	-1.3
	comp=Z,15nm,1.1s						
GIVF	Givet	127.29	332	*e*PKP1	PKPdf	17 29 26.6	+0.2
	comp=Z,81nm,1.2s						
CNNC	Cliffs of the	127.38	50	*e*PKPdf	PKPdf	17 29 27.1	0.0
TUE	Stuetta	127.38	326	*e*PKPdf	PKPdf	17 29 25.9	-0.8
DOU	Dourbes	127.40	333	PKP	PKPdf	17 29 27.2	+0.6
BAIF	Baives	127.60	333	*e*PKP1	PKPdf	17 29 27.3	+0.3
	comp=Z,20nm,1.1s						
LCO	Las Campanas	127.61	134	*e*PKPdf	PKPdf	17 29 28.8	+1.0
LCO				*e*		17 29 38.9	
HINF	Hinteralfeld	127.85	329	*e*PKP1	PKPdf	17 29 27.3	-0.3
	comp=Z,43nm,1.1s						
HAU	Haudompre	127.98	330	*e*PKP1	PKPdf	17 29 27.6	-0.2
	comp=Z,50nm,1.2s						
MEZF	Maizieres J'vi	128.29	331	*e*PKP1	PKPdf	17 29 27.7	-0.7
CABF	La Chapelle	129.04	328	*e*PKP1	PKPdf	17 29 30.2	+0.3
	comp=Z,102nm,1.4s						
LPL	La Plagne	129.40	327	*e*PKP1	PKPdf	17 29 31.2	+0.6
	comp=Z,36nm,1.3s						
LPG	La Plagne	129.40	327	*e*PKP1	PKPdf	17 29 31.3	+0.7
	comp=Z,34nm,1.2s						
LOR	Lormes	129.72	330	*e*PKP1	PKPdf	17 29 31.3	+0.1
SSF	Saint Saulge	130.04	330	*e*PKP1	PKPdf	17 29 32.2	+0.4
	comp=Z,32nm,1.0s						
ATAH	Atahualpa	130.06	104	PKP	PKPdf	17 29 35.1	+2.3
	comp=Z,37nm,0.9s,baz=268,slow=4.0						
NNA	Nana	130.14	111	PKP	PKPdf	17 29 33.6	+0.7
	comp=Z,24nm,0.8s,baz=252,slow=6.4						
SMF	Signal de Mont	130.16	330	*e*PKP1	PKPdf	17 29 32.4	+0.4
ORIF	Oris-en-Rattie	130.25	327	*e*PKP1	PKPdf	17 29 32.4	+0.2
	comp=Z,18nm,0.9s						
AVF	Avril sur Loir	130.30	330	*e*PKP1	PKPdf	17 29 32.4	+0.1
FRF	La Foret Royal	130.68	325	*e*PKP1	PKPdf	17 29 32.7	-0.4
BGF	Bois d'Agland	130.72	330	*e*PKP1	PKPdf	17 29 33.6	+0.5
LMR	La Mourre	130.90	325	*e*PKP1	PKPdf	17 29 33.8	+0.3
	comp=Z,43nm,1.1s						
VIVF	Saint-Julien-l	130.94	328	*e*PKP1	PKPdf	17 29 32.6	-0.9
	comp=Z,21nm,1.0s						
SMRF	Simiane la Rot	131.02	326	*e*PKP1	PKPdf	17 29 34.0	+0.3
	comp=Z,40nm,1.0s						
TCF	Toulx Ste Croi	131.22	331	*e*PKP1	PKPdf	17 29 34.7	+0.7
	comp=Z,42nm,1.0s						
OTAV	Otavalo	131.37	95	*e*PKPdf	PKPdf	17 29 35.8	+0.5
LASF	Ste Croix	131.89	327	*e*PKP1	PKPdf	17 29 35.6	+0.2
LVC	Limon Verde	132.49	128	PKP	PKPdf	17 29 38.9	+1.7
	comp=Z,8.4nm,0.9s,baz=222,slow=2.5,SNR=5.0						
MTLF	Montolieu	133.27	328	*e*PKP1	PKPdf	17 29 37.8	-0.2
	comp=Z,56nm,1.2s						
KEST	Kesra	133.34	315	PKP	PKPdf	17 29 39.8	+1.4
	comp=Z,3.5nm,0.9s,baz=5.3,slow=0.4,SNR=12						
EPF	Esparros	134.47	329	*e*PKP1	PKPdf	17 29 39.9	-0.4
	comp=Z,28nm,1.0s						
ETSF	Etsaut	135.02	329	*e*PKP1	PKPdf	17 29 42.0	+0.7
	comp=Z,44nm,1.0s						
ROSC	El Rosal	135.93	89	PKP	PKPdf	17 29 44.8	+1.0
	comp=Z,22nm,0.8s,baz=303,slow=8.0,SNR=13						
ROSC				pPKP	pPKPdf	17 29 54.8	-0.3
	comp=Z,5.8nm,0.4s,baz=113,slow=20,SNR=4.1						
ROSC	El Rosal	135.93	89	PKP	PKPdf	17 29 44.8	+1.0
ROSC				*e*PKPdf	PKPdf	17 29 45.0	+1.1
ROSC				pPKP	pPKPdf	17 29 54.8	-0.3
CPUP	Villa Florida	138.32	142	PKhKP		17 29 38.0	
	comp=Z,0.4nm,0.4s,baz=217,slow=5.1,SNR=3.6						
CPUP				PKP	PKPdf	17 29 47.7	-0.3
	comp=Z,5.6nm,1.0s,baz=235,slow=3.7,SNR=6.0						
CPUP	Villa Florida	138.32	142	PKP		17 29 38.0	
CPUP				*e*PKPdf	PKPdf	17 29 47.0	-1.0
SDV	Santo Domingo	139.70	83	PKhKP		17 29 43.9	
	comp=Z,6.7nm,0.6s,baz=302,slow=1.4,SNR=2.9						
SDV				PKP	PKPdf	17 29 50.4	-0.4
	comp=Z,90nm,1.0s,baz=295,slow=2.9,SNR=8.7						
TAM	Tamanrasset	141.89	300	*e*PKIKP	PKPdf	17 29 52.7	-1.8
CRPR	Cabo Rojo, PR	141.98	69	*e*PKPdf	PKPdf	17 29 54.2	-0.5
SIV	San Ignacio	142.28	126	PKhKP		17 29 49.9	
	comp=Z,5.8nm,0.8s,baz=228,slow=4.5,SNR=23						
PCRV	Puerto La Cruz	145.56	81	PKPbc	PKPbc	17 30 00.4	-0.9
	comp=Z,51nm,0.6s,baz=280,slow=4.6,SNR=31						
SHEL	Horse Pasture	147.44	227	*e*PKP2	PKPab	17 30 08.2	-0.5
TOA0	Torodi Ar. Sit	147.93	285	*e*PKPdf	PKPdf	17 30 03.9	-1.2
TOA0				*e*PKPbc	PKPbc	17 30 08.1	0.0
TORD	Torodi Ar. Bea	147.93	285	PKP	PKPdf	17 30 04.1	-1.0
	comp=Z,34nm,0.6s,baz=62,slow=1.9,SNR=60						
TORD				PKPbc	PKPbc	17 30 07.7	-0.4
	comp=Z,55nm,0.9s,baz=65,slow=2.2,SNR=270						
TORD				pPKPbc	pPKPbc	17 30 17.5	-1.7
	comp=Z,26nm,0.7s,baz=63,slow=2.8,SNR=7.8						
TORD	Torodi Ar. Bea	147.93	285	PKP	PKPdf	17 30 04.1	-1.0
TORD				PKPbc	PKPbc	17 30 07.7	-0.4
TORD				pPKPbc	pPKPbc	17 30 17.5	-1.7
GRGR	Grenville	148.26	77	*e*PKPdf	PKPdf	17 30 06.8	+1.2
FDF	Fort de France	148.28	72	*e*PKIKP	PKPdf	17 30 06.6	+1.0
KIC	Kosan Boka	154.82	272	*e*PKIKP	PKPdf	17 30 14.5	-1.1
	comp=Z,265nm,1.1s						
DBIC	Dimbokro	154.94	273	PKIKP	PKPdf	17 30 14.9	-0.9
DBIC						17 30 23.9	
DBIC	Dimbokro	154.94	273	PKP	PKPdf	17 30 14.8	-0.9
	comp=Z,15nm,1.0s,baz=11,slow=1.3,SNR=13						
DBIC				PKPbc	PKPbc	17 30 23.9	-0.6
	comp=Z,26nm,0.8s,baz=68,slow=1.0,SNR=21						
DBIC				PKPab	PKPab	17 30 39.9	-0.1
	comp=Z,27nm,0.9s,baz=112,slow=3.4,SNR=7.9						
DBIC	Dimbokro	154.94	273	PKP	PKPdf	17 30 14.8	-0.9
DBIC				PKPbc	PKPbc	17 30 23.9	-0.6
DBIC				PKPab	PKPab	17 30 39.9	-0.1
TIC	Toumodi	155.10	273	*e*PKIKP	PKPdf	17 30 14.8	-1.2
	comp=Z,88nm,0.7s						
LIC	Lamto	155.10	272	*e*PKIKP	PKPdf	17 30 14.3	-1.7
	comp=Z,94nm,1.1s						
LIC	Lamto	155.10	272	*e*PKIKP	PKPdf	17 30 14.9	-1.1
	comp=Z,117nm,1.1s						

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*IDC **03** 17:13:31.1±4.1, 13°.30N×50°.29E, h0^{km}, mb3.6/4, mb1 3.6/4, mb1mx3.3/23, mbtmp3.6/4, MS3.3/1, Ms1 3.3/1, ms1mx2.7/34, Error ellipse: s-maj=109.8km s-min=31.9km az=154.0*

ISC 03 17:13:34.3±5.1, **13°.5N**±0°.2×**50°.25E**±0°.08, **h13**^{km}±34^{km}, **n7**, σ**0.^{s}66**/8, **mb3.7**/3, **1D, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	Al Mukalla	1.52	310	*i* P	Pn	17 14 00.7	-0.4
MUKL				*e*		17 14 01.1	
	baz=170,slow=5.6						
MUKL				*i* S	Sn	17 14 20.8	-0.1
MUKL				AML	AML	17 14 20.8	
	comp=N,176nm,0.2s						
BDHA	Al Bayda'	4.57	276	⇓*i*P	Pn	17 14 43.6	+0.5
BDHA				*e*		17 14 43.6	
	baz=114,slow=18						
BDHA				*i* S	Sn	17 15 36.3	+0.2
GNI	Garni	26.98	351	LR	LR	17 29 42.2	
	comp=N,70nm,21.5s,baz=354,slow=36						
AKASG	Malin Array Be	40.85	340	P	P	17 21 16.1	+0.5
	comp=N,1.8nm,0.8s,mb3.7,baz=138,slow=7.2,SNR=4.1						
MKAR	Makanchi Array	42.69	33	P	P	17 21 31.3	+0.5
	comp=N,0.4nm,0.5s,baz=223,slow=7.4,SNR=6.4						
TORD	Torodi Ar. Bea	47.18	275	P	P	17 22 06.3	-0.7
	comp=N,0.6nm,0.8s,mb3.6,baz=85,slow=6.4,SNR=3.2						
ZALV	Zalesovo Beam	48.66	27	P	P	17 22 17.3	-0.5
	comp=N,0.3nm,0.3s,mb3.8,baz=238,slow=8.3,SNR=4.4						

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*ISCJB **03** 17:28:57.9±1.4, 39°.36N±0°.06×40°.95E±0°.08, h3^{km}±14^{km}, Error ellipse: s-maj=12.2km s-min=8.4km az=43.0*

*CSEM **03** 17:28:57.0±0.2, 39°.30N×40°.91E, h2^{km}, MD3.1*

*ISK **03** 17:28:57.4, 39°.37N×40°.93E, h6^{km}, MD3.1*

*DDA **03** 17:28:58.1, 39°.34N×41°.08E, h7^{km}±7^{km}, Md2.9*

ISC 03 17:28:58.0±1.6, **39°.35N**±0°.08×**40°.94E**±0°.08, **h2**^{km}±14^{km}, **n11**, σ**0.^{s}81**/19, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	Erzurum	0.65	30	PG	Pg	17 29 09.8	-0.6
EZM				*e*SG	Sg	17 29 19.5	+0.6
ERZM	Erzurum	0.65	31	*i* P	Pg	17 29 09.9	-0.6
ERZM				*i* S	Sg	17 29 19.3	+0.4
ERZM	Erzurum	0.65	31	*i* P	Pg	17 29 09.9	-0.6
ERZM				*i* S	Sg	17 29 19.3	+0.4
KOPT	Kop Dagi	0.75	333	*i* P	Pg	17 29 12.7	+0.2
KOPT				*i* S	Sg	17 29 26.5	+4.4
KOPT	Kop Dagi	0.75	333	*i* P	Pg	17 29 12.7	+0.3
KOPT				*i* S	Sg	17 29 26.5	+4.3
EZC	Erzincan	0.95	295	*e*PN	Pg	17 29 22.3	+6.0
BEST	Besiri	1.48	170	*i* P	Pn	17 29 24.4	-1.2
BEST				*i* S	Sn	17 29 47.2	+1.7
GUMT	Gumushane	1.58	315	*e*PN	Pn	17 29 26.2	-0.8
GUMT	Gumushane	1.58	315	*e*Pn	Pn	17 29 26.3	-0.7
AGRB	Hanur-Agry	1.61	81	*e*PN	Pn	17 29 27.1	-0.3
AGRB				*e*SN	Sn	17 29 48.8	0.0
AGRB	Hanur-Agry	1.61	81	*e*Pn	Pn	17 29 27.1	-0.4
AGRB				*e*Sn	Sn	17 29 48.8	0.0

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*NOU **03** 17:31:27.7±2.1, 17°.45S×167°.05E, h30^{km}±999^{km}, MD3.3, ML3.7*

*ISCJB **03** 17:31:30.3±0.4, 17°.73S±0°.03×167°.82E±0°.07, h33^{km}, mb4.7/38, MS4.4/12, Error ellipse: s-maj=9.9km s-min=4.7km az=5.7*

*BJI **03** 17:31:30.8, 17°.70S×167°.90E, h35^{km}, mB5.3/15, mb4.7/21, Ms5.2/13, Ms7 4.9/12*

*IDC **03** 17:31:31.3±0.8, 17°.67S×167°.85E, h29^{km}±4^{km}, mb4.4/17, mb1 4.6/18, mb1mx4.5/22, mbtmp4.4/18, ML5.1/1, MS4.3/10, Ms1 4.3/10, ms1mx3.9/30, Error ellipse: s-maj=17.8km s-min=15.3km az=104.0*

*NEIC **03** 17:31:31.8±0.3, 17°.69S×167°.88E, h35^{km}, mb4.9/13, Error ellipse: s-maj=9.0km s-min=7.6km az=107.0*

NEIC Felt [III] at Port-Vila.

*MOS **03** 17:31:31.7±1.9, 17°.65S×167°.58E, h33^{km}, mb5.1/10, Error ellipse: s-maj=12.4km s-min=10.9km az=29.3*

*DJA **03** 17:32:26, 19°.45S×165°.71E, h467^{km}, mb4.8/13*

ISC 03 17:31:32.1±0.4, **17°.71S**±0°.03×**167°.87E**±0°.07, **h35**^{km}, **h35**^{km}±1.7^{km}**:pP-P**, **n132**, σ**1.^{s}12**/89, **mb4.7**/37, **MS4.4**/12, **6C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.54	197	*e*P	Pn	17 32 37.2	-1.2
DZM				*e*S	Sn	17 33 28.6	-1.4
DZM				AMP		17 33 36.2	
	comp=Z,2μm,1.0s						
DZM	Mont Dzumac	4.54	197	*e*Pn	Pn	17 32 37.2	-1.1
DZM				*e*Sn	Sn	17 33 30.9	+1.0
NOUC	Port Laguerre	4.61	198	*e*P	Pn	17 32 38.5	-0.8
NOUC				*e*S	Sn	17 33 30.2	-1.4
NOUC				AMP		17 33 36.7	
	comp=Z,60nm,0.0s						
LASL	Noumea	4.67	195	*e*P	Pn	17 32 39.9	-0.3
LASL				*e*S	Sn	17 33 33.9	+0.8
LASL				AMP		17 33 34.2	
	comp=Z,212nm,3.8s						
HNR	Honiara	11.27	316	P	Pn	17 34 10.9	+0.1
HNR						17 36 11.6	
HNR	Honiara	11.27	316	Pn	Pn	17 34 10.9	+0.2
	comp=Z,12nm,0.3s,baz=158,slow=11,SNR=5.0						
HNR				Sn	Sn	17 36 11.6	-4.0
	comp=Z,4.6nm,0.3s,baz=162,slow=20,SNR=2.5						
HNR				LR	LR	17 38 02.5	
	comp=Z,512nm,18.2s,baz=36,slow=35						
EIDS	Eidsvold	17.37	241	*e*P	Pn	17 35 33.4	+1.6
	comp=Z,29nm,1.1s						
ARMA	Armidale	19.46	226	*e*P	Pn	17 35 59.4	+2.1
CTA	Charters Tower	20.59	260	*e*P	P	17 36 10.1	+1.9
	comp=Z,9.2nm,0.9s						
CTA				*e*		17 36 14.6	
CTA	Charters Tower	20.59	260	P	P	17 36 09.2	+1.0
	comp=Z,37nm,1.1s,baz=86,slow=12,SNR=12						
CTA				LR	LR	17 43 18.2	
	comp=Z,781nm,18.1s,MS4.1,baz=76,slow=34						
CTAO	Charters Tower	20.59	260	*e*P	P	17 36 09.3	+1.1
CTAO				pmax	pmax		
	comp=Z,33nm,0.8s						
CTAO	Charters Tower	20.59	260	*e*P	P	17 36 09.3	+1.1
	comp=Z,33nm,0.8s						
URZ	Urewera	22.01	160	P	P	17 36 24.1	+0.7
	comp=Z,9.0nm,0.6s,mb4.3,baz=348,slow=1.0,SNR=9.2						
CNB	Canberra Magne	24.05	220	⇓*i*P	P	17 36 45.6	+1.6
CAN	Canberra	24.27	220	*e*P	P	17 36 46.6	+0.5
CAN				pmax	pmax		
	comp=Z,39nm,1.0s,mb4.8						
CAN	Canberra	24.27	220	*e*P	P	17 36 46.5	+0.5
	comp=Z,39nm,1.0s,mb4.8						
RPZ	Rata Peaks	26.06	175	P	P	17 37 02.6	+0.4
	comp=Z,8.6nm,1.0s,mb4.2,baz=258,slow=9.3,SNR=3.3						
STKA	Stephens Creek	27.62	234	*e*P	P	17 37 17.5	+1.1
	comp=Z,14nm,0.6s,mb4.8						
STKA	Stephens Creek	27.62	234	P	P	17 37 17.1	+0.8
	comp=Z,19nm,0.6s,mb4.9,baz=60,slow=8.5,SNR=53						
STKA				PcP	PcP	17 40 32.8	-0.5
	comp=Z,4.3nm,0.9s,baz=351,slow=4.6,SNR=2.9						
STKA				LR	LR	17 47 33.2	
	comp=Z,498nm,20.0s,MS4.1,baz=291,slow=35						
STKA	Stephens Creek	27.62	234	*e*P	P	17 37 17.5	+1.1
	comp=Z,4.3nm,0.6s,mb4.3						
TOO	Toolangi	27.88	220	*e*P	P	17 37 20.1	+1.4
WB2	Warramunga Arr	31.78	261	*e*P	P	17 37 52.5	-0.9
WRAB	Tennant Creek	31.78	261	*e*P	P	17 37 52.3	-1.1
WRAB				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
WRAB	Tennant Creek	31.78	261	*e*P	P	17 37 52.3	-1.0
	comp=Z,10.0nm,1.0s,mb4.6						
WRA	Warramunga Arr	31.79	261	P	P	17 37 52.1	-1.4
WRA						17 40 43.8	
WRA	Warramunga Arr	31.79	261	P	P	17 37 52.1	-1.4
	comp=Z,3.9nm,0.7s,mb4.3,baz=81,slow=6.2,SNR=66						
WRA				PcP	PcP	17 40 43.8	-0.5
	comp=Z,1.9nm,0.6s,baz=92,slow=3.3,SNR=8.1						
WRA				pPcP		17 40 53.5	
	comp=Z,2.4nm,0.8s,baz=87,slow=2.9,SNR=6.6						
WRA				LR	LR	17 49 44.9	
	comp=Z,378nm,19.9s,MS4.1,baz=60,slow=34						
ASAR	Alice Springs	32.27	254	P	P	17 37 57.0	-0.7
ASAR				*PP	pP	17 38 06.5	-1.3
ASAR						17 40 44.9	
ASAR	Alice Springs	32.27	254	P	P	17 37 57.0	-0.7
	comp=Z,20nm,0.5s,mb5.2,baz=80,slow=8.8,SNR=454						
ASAR				pP	pP	17 38 06.5	-1.3
	comp=Z,13nm,0.6s,baz=79,slow=8.7,SNR=11						
ASAR				PcP	PcP	17 40 44.9	-0.7
	comp=Z,2.7nm,0.8s,baz=97,slow=2.3,SNR=8.2						
ASAR				pPcP		17 40 55.3	
	comp=Z,2.6nm,0.9s,baz=86,slow=3.7,SNR=4.9						
KAKA	Kakadu	34.52	273	*e*P	P	17 38 16.4	-0.9
	comp=Z,10nm,0.4s,mb5.1						
KAKA	Kakadu	34.52	273	*e*P	P	17 38 15.7	-1.7
	comp=Z,30nm,0.5s,mb5.5						
FORT	Forrest	38.36	243	*e*P	P	17 38 50.1	+0.1
	comp=Z,16nm,0.5s,mb5.0						
FITZ	Fitzroy Crossi	40.13	263	*e*P	P	17 39 05.1	+0.2
	comp=Z,82nm,0.7s,mb5.6						
FITZ				*e*pP	pP	17 39 15.7	+0.6
FITZ	Fitzroy Crossi	40.13	263	P	P	17 39 05.1	+0.2
	comp=Z,65nm,0.9s,mb5.4,baz=100,slow=6.4,SNR=108						
FITZ				pP	pP	17 39 14.4	-0.8
	comp=Z,15nm,0.6s,baz=111,slow=8.8,SNR=7.4						
FITZ				LR	LR	17 55 05.9	
	comp=Z,580nm,19.2s,MS4.4,baz=109,slow=35						
FITZ	Fitzroy Crossi	40.13	263	P	P	17 39 05.1	+0.2
FITZ				pP	pP	17 39 14.4	-0.8
FITZ				LR	LR	17 55 05.9	
PPT	Papeete	40.49	96	*e*LR	LR	17 50 21.8	
	comp=Z,573nm,25.2s						
PPT	Papeete	40.49	96	LR	LR	17 51 53.7	
	comp=Z,502nm,20.5s,MS4.4,baz=120,slow=30						
MBWA	Marble Bar	45.40	258	*e*P	P	17 39 48.1	+0.5
	comp=Z,52nm,0.9s,mb5.4						
KLBR	Kellerberrin	47.22	243	*e*P	P	17 40 01.4	-0.4
	comp=Z,9.7nm,0.6s,mb4.9						
NWAO	Narrogin (SRO)	47.78	241	*e*P	P	17 40 05.5	-0.6
NWAO				pmax	pmax		
	comp=Z,29nm,0.8s						
NWAO	Narrogin (SRO)	47.78	241	LR	LR	17 59 48.2	
	comp=Z,246nm,20.0s,MS4.2,baz=250,slow=36						
NWAO	Narrogin (SRO)	47.78	241	*e*P	P	17 40 05.5	-0.6
	comp=Z,29nm,0.8s,mb5.4						
MUN	Mundaring	48.56	243	*e*P	P	17 40 12.2	0.0
RKT	Rikitea	53.56	106	*e*LR	LR	17 56 28.6	
	comp=Z,233nm,29.5s						
VNDA	Vanda	59.91	182	*e*P	P	17 41 33.2	-0.9
VNDA				pmax	pmax		
	comp=Z,15nm,1.5s						
VNDA	Vanda	59.91	182	P	P	17 41 32.7	-1.4
	comp=Z,3.3nm,1.0s,mb4.3,baz=15,slow=7.5,SNR=3.9						
VNDA	Vanda	59.91	182	*e*P	P	17 41 33.2	-0.9
	comp=Z,15nm,1.5s,mb4.8						
SBA	Scott Base	60.17	180	*e*P	P	17 41 35.3	-0.6
SBA				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
SBA	Scott Base	60.17	180	*e*P	P	17 41 35.3	-0.6
	comp=Z,17nm,1.2s,mb5.0						
MJAR	Matsushiro Arr	60.80	333	P	P	17 41 38.8	-1.9
	comp=Z,3.2nm,1.1s,mb4.4,baz=170,slow=6.8,SNR=4.8						
MAT	Matsushiro	60.81	333	P	P	17 41 38.5	-2.2
CASY	Casey	61.01	203	*e*P	P	17 41 41.5	-0.2
	comp=Z,34nm,1.2s,mb5.3						
NJ2	Nanjing	68.21	316	*e*P	P	17 42 32.4	+3.1
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
YSS	Yuzh-Sakhalins	68.22	342	*e*P	P	17 42 30.0	+1.0
YSS				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
YSS	Yuzh-Sakhalins	68.22	342	*e*P	P	17 42 30.3	+1.3
	comp=Z,7.3nm,0.8s,mb4.8						
PSI	Prapat	70.89	279	P	P	17 42 45.2	-1.0
	comp=Z,16nm,1.0s,mb4.9,baz=153,slow=9.1						
PSI	Prapat	70.89	279	P	P	17 42 45.2	-1.0
PETK	Petropavlovsk-	71.07	354	P	P	17 42 46.9	+0.6
	comp=Z,2.0nm,0.7s,mb4.1,baz=41,slow=2.5,SNR=15						

MDJ	Mudanjiang	71.17	332	P	P	17 42 52.9	+5.7
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,180nm,5.8s						
QSPA	South Pole Qui	72.33	180	eP	P	17 42 54.4	+0.6
CN2	Changchun	72.49	329	eP	P	17 42 58.2	+3.1
GYA	Guiyang	73.89	305	⇑iP	P	17 43 04.2	+0.4
GYA				pP	pP	17 43 17.0	+2.3
GYA				sP	sP	17 43 21.0	+2.2
GYA				PP	PP	17 45 52.8	+3.6
GYA				S	S	17 52 34.1	+0.7
GYA				sS	sS	17 52 52.8	+1.4
GYA				SKS		17 53 04.3	
GYA				SS	SS	17 57 20.9	+2.4
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GYA				pmax	pmax		
	comp=Z,140nm,5.0s						
GYA				LR	LR		
	comp=N,480nm,17.8s,MS5.0						
GYA				LR	LR		
	comp=E,440nm,16.4s,MS5.0						
GYA				LR	LR		
	comp=Z,460nm,16.6s,MS4.8						
KLR	Kul'dur	73.95	336	eP	P	17 43 03.0	-0.6
BJI	Beijing	74.94	321	P	P	17 43 08.1	-1.5
BJI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
BJI				pmax	pmax		
	comp=Z,140nm,4.0s						
XAN	Xi'an	76.13	313	P	P	17 43 24.7	+8.1
XAN				pP	pP	17 43 35.4	+7.9
XAN				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb4.0						
XAN				pmax	pmax		
	comp=Z,260nm,14.0s						
KMI	Kunming	76.37	302	P	P	17 43 19.0	+0.9
KMI				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
CMAR	Chiang Mai Arr	76.70	294	P	P	17 43 20.9	+0.8
	comp=Z,2.9nm,0.8s,mb4.2,baz=130,slow=4.5,SNR=22						
CMAR				pP	pP	17 43 28.9	-2.2
	comp=Z,3.6nm,0.9s,baz=127,slow=4.1,SNR=9.6						
CHTO	Chiang Mai	76.84	295	eP	P	17 43 21.7	+0.8
HHC	Hu-ho-hao-te	78.22	320	eP	P	17 43 30.5	+2.3
HHC				pP	pP	17 43 40.7	+1.6
HHC				sP	sP	17 43 44.8	+1.6
HHC				PP	PP	17 46 28.5	+3.0
HHC				eS	S	17 53 21.6	+1.0
HHC				sS	sS	17 53 38.3	-0.4
HHC				SS	SS	17 58 26.7	+3.0
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
HHC				pmax	pmax		
	comp=Z,1µm,8.2s						
HHC				LR	LR		
	comp=N,120nm,14.3s,MS4.6						
HHC				LR	LR		
	comp=E,180nm,14.3s,MS4.6						
HHC				LR	LR		
	comp=Z,100nm,16.6s,MS4.2						
CD2	Chengdu	78.28	308	P	P	17 43 30.5	+1.8
CD2				pP	pP	17 43 41.3	+1.6
CD2				sP	sP	17 43 45.2	+1.5
CD2				PP	PP	17 46 30.2	+4.0
CD2				S	S	17 53 22.9	+1.3
CD2				SKS		17 53 37.8	
CD2				sS	sS	17 53 40.3	+0.5
CD2				SS	SS	17 58 29.0	+4.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,90nm,4.0s						
CD2				LR	LR		
	comp=N,320nm,5.7s						
CD2				LR	LR		
	comp=Z,300nm,5.5s						
MAW	Mawson	79.36	202	P	P	17 43 35.0	+1.0
	comp=Z,3.4nm,0.8s,mb4.3,baz=79,slow=10,SNR=3.6						
YAK	Yakutsk	85.03	343	eP	P	17 44 02.8	-0.8
YAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
YAK	Yakutsk	85.03	343	eP	P	17 44 03.3	-0.3
GTA	Gaotai	85.14	314	eP	P	17 44 04.5	-0.2
GTA				pP	pP	17 44 14.9	-0.9
GTA				sP	sP	17 44 19.1	-0.7
GTA				S	S	17 54 29.8	-2.3
GTA				sS	sS	17 54 46.9	-3.5
GTA				SS	SS	18 00 06.1	-0.7
GTA				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.0						
GTA				pmax	pmax		
	comp=Z,280nm,4.5s						
GTA				LR	LR		
	comp=N,130nm,15.3s,MS4.6						
GTA				LR	LR		
	comp=E,110nm,14.4s,MS4.6						
GTA				LR	LR		
	comp=Z,140nm,15.3s,MS4.5						
SONM	Songino Array	85.23	324	P	P	17 44 04.6	-0.3
	comp=Z,4.3nm,0.9s,mb4.6,baz=152,slow=6.5,SNR=28						
SONM				pP	pP	17 44 14.1	-1.9
	comp=Z,9.2nm,1.0s,baz=166,slow=6.9,SNR=19						
SHL	Shillong	85.49	298	ePKP	P	17 44 07.0	+0.2
BILL	Bilibino	85.51	359	eP	P	17 44 06.0	+0.1
BILL				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.9						
BILL	Bilibino	85.51	359	eP	P	17 44 04.2	-1.7
	comp=Z,9.6nm,1.1s,mb4.9						
SYO	Syowa Base	86.03	196	⇑eP	P	17 44 07.4	-1.3
SYO	Syowa Base	86.03	196	⇑ePcP	PcP	17 44 10.0	-1.3
BOD	Bodaibo	87.40	334	eP	P	17 44 12.6	-2.8
ZAK	Zakamensk	88.31	325	eP	P	17 44 18.8	-1.1
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.7						
NVAR	Mina Array Bea	88.77	49	P	P	17 44 23.9	+1.5
	comp=Z,0.4nm,0.4s,mb4.1,baz=231,slow=5.7,SNR=4.0						
LPIG	La Paz	89.93	65	LR	LR	18 14 27.1	
	comp=Z,408nm,20.2s,MS4.8,baz=8.4,slow=29						
MAIT	Maitri	90.20	188	eP	P	17 44 27.8	-0.7
VNA3	Neumayer Olymp	91.26	181	eP	P	17 44 32.7	-0.8
DLBC	Dease Lake	91.29	28	LR	LR	18 19 31.4	
	comp=Z,187nm,21.7s,MS4.5,baz=238,slow=32						
VNA2	Neumayer--Watz	91.53	182	eP	P	17 44 34.7	0.0
VNA2				e	pP	17 44 45.8	-0.1
WMQ	Urumqi	95.22	314	eP	P	17 44 51.7	-0.4
RRI2	Red Ridge	95.49	46	eP	P	17 44 53.2	-0.2
PDAR	Pinedale Array	96.53	47	LR	LR	18 20 57.8	
	comp=Z,200nm,18.6s,MS4.6,baz=339,slow=31						
TXAR	Lajitas Array	97.18	62	P	P	17 45 02.7	+1.3
	comp=Z,0.4nm,0.8s,mb3.9,baz=225,slow=8.7,SNR=3.4						
SDCO	Great Sand Dun	98.04	53	eP	P	17 45 00.9	-4.1
MK31	Makanchi Array	99.74	316	eP	Pdif	17 45 11.5	-0.9
MKAR	Makanchi Array	99.74	316	P	Pdif	17 45 12.2	-0.3
	comp=Z,0.4nm,0.6s,baz=96,slow=6.5,SNR=6.6						
ZALV	Zalesovo Beam	100.12	323	P	Pdif	17 45 13.0	-1.1
	comp=Z,0.6nm,0.6s,baz=125,slow=7.2,SNR=4.0						
ZALV	Zalesovo Beam	100.12	323	P	Pdif	17 45 13.0	-1.1
RES	Resolute Bay	108.86	16	PKiKP	PKiKP	17 49 55.7	-1.2
	comp=Z,0.7nm,0.8s,baz=257,slow=2.4,SNR=4.6						
ARCES	ARCESS Array B	123.27	345	PKP	PKPdf	17 50 23.1	-1.4
	comp=Z,2.0nm,0.7s,baz=61,slow=2.7,SNR=12						
ARCES				pPKP	pPKPdf	17 50 33.4	-2.7
	comp=Z,13nm,1.2s,baz=11,slow=2.5,SNR=2.6						
BRTR	Keskin Array B	134.85	309	PKP	PKPdf	17 50 49.3	+1.8
	comp=Z,0.4nm,0.5s,baz=71,slow=4.7,SNR=3.7						
GERES	GERESS Array B	142.54	332	PKhKP		17 50 55.9	
	comp=Z,0.4nm,0.6s,baz=64,slow=3.1,SNR=5.5						
GERES				PKP	PKPdf	17 51 01.4	+0.1
	comp=Z,0.4nm,0.6s,baz=46,slow=3.3,SNR=4.5						
ABTA	Abfaltersbach	144.62	330	⇑iPKPab	PKPdf	17 51 03.0	-2.0
	comp=Z,8.2nm,0.7s						
MOTA	Moosalm	144.82	332	⇑iPKPdf	PKPdf	17 51 04.1	-1.2
	comp=Z,10nm,0.9s						
WLF	Walferdange	144.88	339	PKP	PKPdf	17 51 04.5	-0.9
WLF	Walferdange	144.88	339	ePKPdf	PKPdf	17 51 04.6	-0.7
DOU	Dourbes	145.01	341	PKP	PKPdf	17 51 05.0	-0.6
BFO	Black Forest	145.20	336	ePKP2	PKPab	17 51 04.5	-1.2
FETA	Feichten	145.23	332	⇓iPKPdf	PKPdf	17 51 05.5	-0.6
	comp=Z,16nm,1.1s						
DAVA	Damuels	145.40	333	⇑iPKPdf	PKPdf	17 51 06.3	0.0
	comp=Z,30nm,1.4s						
CDF	Champ du Feu	145.54	337	ePKP1	PKPbc	17 51 05.6	-1.1
	comp=Z,40nm,1.0s						
HINF	Hinteralfeld	146.19	337	ePKP1	PKPbc	17 51 06.7	-2.0
HAU	Haudompre	146.22	337	ePKP1	PKPbc	17 51 07.6	-1.2
MEZF	Maizieres J'vi	146.25	339	ePKP1	PKPbc	17 51 08.1	-0.8
TUE	Stuetta	146.26	333	ePKPdf	PKPdf	17 51 08.8	+1.0
TIP	Timpagrande	147.03	316	ePKPdf	PKPdf	17 51 09.6	+0.3
LOR	Lormes	147.72	339	ePKP1	PKPbc	17 51 11.7	-1.4
	comp=Z,26nm,0.8s						
SSF	Saint Saulge	148.02	340	ePKP1	PKPbc	17 51 12.6	-1.3
	comp=Z,23nm,0.8s						
GRR	Gorron	148.05	346	ePKP1	PKPbc	17 51 12.4	-1.5
LPL	La Plagne	148.13	335	ePKP1	PKPbc	17 51 13.5	-0.7
LPG	La Plagne	148.13	334	ePKP1	PKPbc	17 51 13.7	-0.5
	comp=Z,13nm,0.8s						
ORIF	Oris-en-Rattie	148.96	335	ePKP1	PKPbc	17 51 15.4	-1.0
	comp=Z,19nm,0.8s						
PGF	Pioggiola	149.40	328	ePKP1	PKPbc	17 51 16.3	-1.3
	comp=Z,18nm,0.6s						
FRF	La Foret Royal	149.73	332	ePKP1	PKPbc	17 51 16.9	-1.4
SMRF	Simiane la Rot	149.86	334	ePKP1	PKPbc	17 51 17.9	-0.7
LMR	La Mourre	149.97	332	ePKP1	PKPbc	17 51 17.5	-1.4
	comp=Z,70nm,1.2s						
LASF	Ste Croix	150.47	336	ePKP1	PKPbc	17 51 19.1	-1.0
MTLF	Montolieu	151.71	338	ePKP1	PKPbc	17 51 22.3	-0.7
ETSF	Etsaut	153.04	341	ePKP1	PKPbc	17 51 25.7	-0.3
	comp=Z,20nm,1.0s						
KEST	Kesra	153.83	318	PKPab	PKPab	17 51 40.7	-0.3
	comp=Z,1.3nm,0.8s,baz=37,slow=5.1,SNR=4.3						
KEST				pPKPab	pPKPab	17 51 51.0	-1.3
	comp=Z,2.7nm,0.9s,baz=300,slow=5.5,SNR=5.7						
TOA0	Torodi Ar. Sit	165.93	253	ePKPdf	PKPdf	17 51 33.3	-1.0
TORD	Torodi Ar. Bea	165.93	253	PKP	PKPdf	17 51 33.0	-1.2
	comp=Z,0.9nm,1.0s,baz=33,slow=1.3,SNR=5.0						
TORD				PKPab	PKPab	17 52 33.4	-0.8
	comp=Z,2.5nm,0.9s,baz=105,slow=3.8,SNR=9.9						
DBIC	Dimbokro	166.93	214	PKP2	PKPab	17 52 38.4	-0.1
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.9s						
DBIC	Dimbokro	166.93	214	PKPab	PKPab	17 52 38.4	0.0
	comp=Z,2.8nm,0.9s,baz=150,slow=8.2,SNR=4.0						

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*IDC **03** 17:43:14.2±7.8, 7°.68S×119°.32E, h292^{km}±91^{km}, mb2.5/3, mb1 2.7/5, mb1mx2.6/19, mbtmp2.5/5, Error ellipse: s-maj=116.3km s-min=30.1km az=56.0*

*NEIC **03** 17:43:16.1±4.5, 7°.57S×119°.61E, h310^{km}±61^{km}, mb3.3/1, Error ellipse: s-maj=102.8km s-min=25.7km az=50.0*

ISC 03 17:43:15.9±4.9, **7°.5S**±0°.4×**119°.6E**±0°.5, **h306**^{km}±63^{km}, **n7,** σ**0^{s}70**/9, **mb2.9**/3, **Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.01	151	P	Pn	17 45 58.7	+0.1
	0.1nm,0.3s,baz=338,slow=7.2,SNR=3.6						
FITZ				S	S	17 48 12.4	+0.1
	0.1nm,0.3s,baz=290,slow=15,SNR=4.5						
WRA	Warramunga Arr	18.84	132	P	P	17 47 14.4	+0.1
	0.1nm,0.3s,baz=310,slow=11,SNR=11						
WRA				S	S	17 50 47.7	+16
	0.0nm,0.3s,baz=297,slow=27,SNR=2.7						
WRAB	Tennant Creek	18.84	132	P	P	17 47 13.3	-1.0
	1.3nm,0.8s						
ASAR	Alice Springs	21.08	141	P	P	17 47 37.6	+0.5
	0.2nm,0.3s,mb2.9,baz=314,slow=9.0,SNR=12						
SONM	Songino Array	56.37	349	P	P	17 52 26.8	+1.1
	0.2nm,0.6s,mb2.8,baz=162,slow=7.5,SNR=2.2						
MKAR	Makanchi Array	63.46	332	P	P	17 53 12.7	-1.0
	0.3nm,0.7s,mb3.1,baz=143,slow=7.4,SNR=5.5						
MKAR	Makanchi Array	63.46	332	P	P	17 53 12.7	-1.0

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*DDA **03** 17:55:48.4, 36°.91N×27°.82E, h7^{km}±2^{km}, Ml2.9*

*ISCJB **03** 17:55:50.9±0.7, 36°.97N±0°.04×27°.63E±0°.05, h4^{km}±10^{km}, Error ellipse: s-maj=6.6km s-min=6.1km az=17.1*

*ISK **03** 17:55:50.6, 36°.98N×27°.59E, h6^{km}, MD3.0*

*CSEM **03** 17:55:51.0±0.1, 36°.98N×27°.60E, h5^{km}, MD3.0, Error ellipse: s-maj=2.1km s-min=1.9km az=41.0*

ISC 03 17:55:51.2±0.7, **36°.96N**±0°.04×**27°.62E**±0°.05, **h6**^{km}±8^{km}, **n22,** σ**0^{s}63**/32, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.17	306	iP	Pg	17 55 54.2	-0.4
BDRM				iS	Sg	17 55 57.0	+0.1
BDRM	Kayabasi	0.17	306	iP	Pg	17 55 54.2	-0.4
BDRM				iS	Sg	17 55 57.0	+0.1
DAT	Datca	0.24	188	ePG	Pg	17 55 56.0	+0.2
DAT	Datca	0.24	188	ePg	Pg	17 55 56.0	+0.2
BODT	Bodrum	0.26	292	ePG	Pg	17 55 56.1	-0.3
BODT				eSG	Sg	17 55 59.8	-0.1
BODT	Bodrum	0.26	292	ePg	Pg	17 55 56.1	-0.2
BODT				eSg	Sg	17 55 59.8	0.0
MLSB	Milas	0.35	21	ePG	Pg	17 55 57.8	-0.2
MLSB				eSG	Sg	17 56 02.9	+0.2
MLSB	Milas	0.35	21	ePg	Pg	17 55 57.8	-0.3
MLSB				eSg	Sg	17 56 02.9	+0.2
YER	Yerkesik	0.56	72	ePG	Pg	17 56 02.2	+0.3
YER	Yerkesik	0.56	72	ePg	Pg	17 56 02.2	+0.3
AYDN	Tasoluk	0.73	17	iP	Pg	17 56 04.4	-0.7
AYDN				iS	Sg	17 56 14.0	-0.5
AYDN	Tasoluk	0.73	17	iP	Pg	17 56 04.4	-0.7
AYDN				iS	Sg	17 56 14.0	-0.6
GCAM	G?zelcaml?	0.80	338	iP	Pg	17 56 05.8	-0.6
GCAM				iS	Sg	17 56 19.3	+2.5
GCAM	G?zelcaml?	0.80	338	iP	Pg	17 56 05.8	-0.7
GCAM				iS	Sg	17 56 19.3	+2.5
DALT	Dalyan (Mudla)	0.84	103	ePG	Pg	17 56 07.8	+0.4
DALT	Dalyan (Mudla)	0.84	103	ePg	Pg	17 56 07.8	+0.5
FETY	Fethiye	1.22	105	ePN	Pn	17 56 14.8	0.0
FETY	Fethiye	1.22	105	ePn	Pn	17 56 14.8	0.0
IZM	Izmir	1.46	349	ePN	Pn	17 56 17.8	-0.3
IZM	Izmir	1.46	349	ePn	Pn	17 56 17.8	-0.3
KULA	Kula-Manisa	1.75	28	ePN	Pn	17 56 22.4	+0.2
KULA	Kula-Manisa	1.75	28	ePn	Pn	17 56 22.4	+0.3

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*IDC **03** 18:03:07.2±6.5, 36°.36N×71°.44E, h96^{km}±57^{km}, mb3.4/8, mb1 3.6/13, mb1mx3.3/27, mbtmp3.4/13, ML3.8/5, Error ellipse: s-maj=34.9km s-min=19.9km az=19.0*

*ISCJB **03** 18:03:14.0±0.3, 36°.65N±0°.03×71°.46E±0°.05, h165^{km}±5^{km}, mb3.6/9, Error ellipse: s-maj=6.8km s-min=4.2km az=167.9*

*BJI **03** 18:03:13.5, 36°.88N×71°.37E, h142^{km}, mb4.2/1*

*NEIC **03** 18:03:14.4±0.9, 36°.64N×71°.52E, h155^{km}±8^{km}, mb4.1/5, Error ellipse: s-maj=14.5km s-min=9.2km az=124.0*

*NNC **03** 18:03:16.6±7.9, 36°.87N×70°.91E, h131^{km}±89^{km}, mb3.0, mpv4.0, Error ellipse: s-maj=63.2km s-min=37.3km az=20.0*

ISC 03 18:03:14.9±0.3, **36°.65N**±0°.03×**71°.47E**±0°.05, **h159**^{km}±5^{km}, **n60,** σ**1^{s}06**/71, **mb3.6**/9, **7C-5D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	2.84	173	⇑P	Pn	18 04 01.7	+1.0
CEP				S	Sn	18 04 36.0	-0.1
KBL	Kabul	2.89	224	ePn	Pn	18 04 01.4	+0.1
KBL				eSn	Sn	18 04 36.9	-0.2
CHCP	Chirah Chowk	3.33	153	P	Pn	18 04 08.7	+1.9
SBDP	Sheikh Budin	4.37	187	P	Pn	18 04 20.3	0.0
SBDP				S	Sn	18 05 08.0	-3.2
KSH	Kashi	4.56	50	⇓iP	Pn	18 04 18.9	-3.7
KSH				smax			
	comp=N,340nm,0.6s						
KSH				smax			
	comp=E,340nm,0.4s						
DLH	Dalhousie	5.52	137	ePKP	Sn	18 05 36.0	-2.3
AML	Almayashu	5.74	17	P	Pn	18 04 38.3	+0.1
	SNR=166						
AML	Almayashu	5.74	17	ePn	Pn	18 04 37.9	-0.2
	comp=E,84nm,0.4s						
AML				eSn	Sn	18 05 36.5	-6.9
UCH	Uchtor	6.05	22	P	Sn	18 05 48.1	-2.6
	SNR=7.4						
UCH	Uchtor	6.05	22	ePn	Pn	18 04 42.1	-0.1
	comp=E,5.7nm,0.3s						
KZA	Kyzart	6.16	27	P	Pn	18 04 43.7	0.0
	SNR=6.8						
EKS2	Erkin-Say	6.26	16	P	Pn	18 04 45.7	+0.6
	SNR=33						
AAK	Ala-Archa	6.42	20	P	Pn	18 04 47.4	+0.4
	SNR=22						
AAK	Ala-Archa	6.42	20	ePn	Pn	18 04 47.0	-0.1
	comp=E,13nm,0.4s						
AAK				eSn	Sn	18 05 54.8	-4.6
KK31	Karatay Array	6.49	354	⇓P	Pn	18 04 47.8	-0.3
	comp=E,6.0nm,0.3s,baz=169,slow=11,SNR=350						
KK31				S	Sn	18 05 56.0	-5.3
	comp=E,8.5nm,0.3s,baz=191,slow=14,SNR=12						
KBK	Karagaybulak	6.57	23	P	Pn	18 04 49.6	+0.4
	SNR=15						
ULHL	Ulahol	6.70	32	P	Pn	18 04 51.3	+0.5
	SNR=18						
CHMS	Chumysh	6.82	21	P	Pn	18 04 52.6	+0.1
	SNR=16						
USP	Ospenovka	7.01	18	P	Pn	18 04 56.0	+1.1
	SNR=16						
TKM2	Tokmak 2	7.02	26	P	Pn	18 04 55.5	+0.3
	SNR=5.8						
TKM2	Tokmak 2	7.02	26	eP	Pn	18 04 54.4	-0.7
	comp=E,5.1nm,0.5s						
TKM2				Sn	Sn	18 06 14.5	+0.5
TKM2	Tokmak 2	7.02	26	⇓P	Pn	18 04 55.2	+0.1
	comp=E,6.0nm,0.7s						
TKM2				⇓S	Sn	18 06 18.5	+4.6
	comp=E,4.2nm,0.7s						
PYUN	Piuthan	12.93	128	eP	Pn	18 06 12.4	-0.5
MK31	Makanchi Array	12.95	35	ePn	Pn	18 06 12.4	-0.6
MK31	Makanchi Array	12.95	35	⇑P	Pn	18 06 12.9	-0.1
	comp=E,0.9nm,0.5s,baz=223,slow=14,SNR=27						
MKAR	Makanchi Array	12.95	35	P	Pn	18 06 11.2	-1.8
	comp=E,0.2nm,0.3s,baz=218,slow=14,SNR=16						
DANN	Dangsing	13.26	125	eP	Pn	18 06 16.0	-1.1
KOLN	Koldanda	13.54	127	eP	Pn	18 06 20.4	-0.3
	comp=E,3.2nm,0.3s						
GKN	Gorkha	14.07	124	eP	Pn	18 06 26.9	-0.4
	comp=E,6.3nm,0.4s						
KKN	Kakani	14.63	123	eP	Pn	18 06 34.4	0.0
DMN	Daman	14.64	124	eP	Pn	18 06 34.4	0.0
KURBB	Kurchatov Arra	14.86	18	⇑P	Pn	18 06 39.0	+2.0
	comp=E,0.4nm,0.6s						
GUN	Gumba	14.97	122	eP	Pn	18 06 38.5	0.0
KURK	Kurchatov	14.97	18	P	Pn	18 06 34.9	-3.4
	comp=E,0.0nm,0.3s,baz=207,slow=11,SNR=5.1						
KURK	Kurchatov	14.97	18	ePn	Pn	18 06 40.2	+1.9
	comp=E,1.6nm,0.8s						
AB09	Akbulak array	15.16	330	⇑P	Pn	18 06 40.9	+0.2
	comp=E,1.7nm,0.6s						
AB09				⇑S	S	18 09 17.4	-12
	comp=E,1.8nm,0.6s						
JIRN	Jiri	15.34	122	eP	Pn	18 06 44.0	+0.9
	comp=E,11nm,0.6s						
RAMN	Ramite	16.07	123	eP	Pn	18 06 54.4	+2.3
VOSK	Vostochnaya	16.08	359	⇑P	Pn	18 06 51.4	-0.4
	comp=E,4.2nm,1.4s						
BVA0	Borovoye Array	16.39	358	P	Pn	18 06 58.0	+2.3
	comp=E,0.1nm,0.8s,baz=166,slow=8.0,SNR=6.9						
BVAR	Borovoye Array	16.39	358	P	Pn	18 06 54.3	-1.4
	comp=E,0.4nm,0.3s,baz=165,slow=12,SNR=7.2						
BRVK	Borovoye	16.43	357	ePn	Pn	18 06 55.5	-0.6
	comp=E,3.3nm,0.8s						
TAPN	Taplejung	16.58	119	eP	Pn	18 07 00.3	+2.0
AKTK	Aktyubinsk	16.84	329	P	Pn	18 07 00.0	-1.2
AKTK				S	S	18 10 01.9	-6.2
AKTO	Aktyubinsk	16.84	329	P	Pn	18 07 00.0	-1.2
	comp=E,0.6nm,0.3s,baz=136,slow=9.7,SNR=9.3						
AKTO				S	S	18 10 01.9	-6.2
	comp=E,0.2nm,0.3s,baz=139,slow=23,SNR=5.7						
AKTO	Aktyubinsk	16.84	329	⇑P	Pn	18 07 01.9	+0.7
	comp=E,0.7nm,0.8s						
AKTO				⇓S	S	18 10 02.1	-6.0
	comp=E,1.3nm,1.5s						
ZAA0	Zalesovo Array	19.62	24	eP	P	18 07 29.8	-1.1
ZALV	Zalesovo Beam	19.62	24	P	P	18 07 31.0	+0.2
	comp=E,1.4nm,0.3s,baz=210,slow=9.8,SNR=24						
ZALV	Zalesovo Beam	19.62	24	P	P	18 07 31.0	+0.2
AKASG	Malin Array Be	33.15	309	P	P	18 09 35.8	-0.1
	comp=E,0.6nm,0.4s,mb3.7,baz=82,slow=7.9,SNR=4.7						
JOF	Joensuu	35.93	330	ep	P	18 10 00.4	+0.8
	comp=E,1.6nm,0.4s,mb4.0						
ARCES	ARCESS Array B	41.15	337	P	P	18 10 44.1	+1.1
	comp=E,6.7nm,1.1s,mb4.2,baz=115,slow=9.4,SNR=14						
NB2	NORSAR Subarra	44.49	323	P	P	18 11 10.7	+0.7
	comp=Z,1.5nm,0.5s,mb3.9,baz=93,slow=7.9						
NOA	NORSAR Array B	44.49	323	P	P	18 11 10.5	+0.5
	comp=Z,1.7nm,0.5s,mb3.9,baz=96,slow=7.7,SNR=6.2						
PETK	Petropavlovsk-	59.60	44	P	P	18 13 01.3	-0.4
	comp=Z,1.6nm,0.7s,mb4.0,baz=278,slow=10.0,SNR=3.7						
TORD	Torodi Ar. Bea	66.10	269	P	P	18 13 43.5	-1.7
	comp=Z,0.3nm,0.5s,mb3.4,baz=45,slow=7.0,SNR=5.4						
YKA	Yellowknife Ar	81.08	3	P	P	18 15 12.7	+0.9
	comp=Z,0.1nm,0.3s,mb2.9,baz=348,slow=5.3,SNR=3.0						
WRA	Warramunga Arr	81.75	122	P	P	18 15 15.2	-0.8
	comp=Z,0.3nm,0.5s,mb3.2,baz=324,slow=4.9,SNR=10						
ASAR	Alice Springs	84.03	125	P	P	18 15 26.7	-0.9
	comp=Z,0.2nm,0.6s,mb3.0,baz=303,slow=4.7,SNR=6.1						
PMSA	Palmer Station	141.53	209	ePKPdf	PKPdf	18 22 28.5	+2.5

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*ISCJB **03** 18:38:06.4±0.5, 55°.60S±0°.06×2°.4W±0°.2, h10^{km}, mb4.3/13, MS4.0/12, Error ellipse: s-maj=16.0km s-min=8.6km az=6.2*

*IDC **03** 18:38:06.8±0.7, 55°.64S×2°.45W, h0^{km}, mb4.2/12, mb1 4.3/12, mb1mx4.2/18, mbtmp4.2/12, MS4.0/12, Ms1 4.0/12, ms1mx3.8/22, Error ellipse: s-maj=22.8km s-min=17.8km az=93.0*

*NEIC **03** 18:38:07.8±0.6, 55°.67S×2°.46W, h10^{km}, mb4.8/4, Error ellipse: s-maj=20.5km s-min=15.2km az=95.0*

ISC 03 18:38:08.3±0.5, **55°.63S**±0°.06×**2°.4W**±0°.2, **h10**^{km}, **n36,** σ**1^{s}19**/26, **mb4.3**/13, **MS4.0**/12, **1C-1D, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	15.29	187	e	Pn	18 41 45.4	+1.6
VNA2	Neumayer--Watz	15.51	186	e	Pn	18 41 47.3	+0.7
	baz=11,slow=15						
VNA3	Neumayer Olymp	15.98	189	e	Pn	18 41 52.9	+0.1
MAIT	Maitri	16.40	163	eP	Pn	18 41 56.4	-1.8
MAIT				eS	Sn	18 44 45.2	-15
SYO	Syowa Base	23.04	142	⇑eP	P	18 43 12.4	-0.8
SYO	Syowa Base	23.04	142	⇓eP	P	18 43 14.2	+1.0
SUR	Sutherland	28.36	45	LR	LR	18 52 23.4	
	comp=Z,436nm,19.9s,MS4.0,baz=22,slow=30						
PMSA	Palmer Station	30.73	228	LR	LR	18 53 34.0	
	comp=Z,112nm,20.1s,MS3.5,baz=78,slow=30						
MAW	Mawson	31.60	138	P	P	18 44 29.9	-0.8
	3.7nm,1.0s,mb4.2,baz=245,slow=17,SNR=3.7						
MAW				LR	LR	18 54 56.9	
	comp=Z,241nm,18.9s,MS3.9,baz=273,slow=32						
BOSA	Boshof	33.48	48	P	P	18 44 46.3	-1.2
	3.8nm,1.0s,mb4.3,baz=310,slow=3.0,SNR=3.1						
BOSA				LR	LR	18 55 19.7	
	comp=Z,284nm,20.2s,MS4.0,baz=210,slow=31						
BOSA	Boshof	33.48	48	eP	P	18 44 47.9	+0.4
	27nm,1.5s,mb5.0						
QSPA	South Pole Qui	34.61	180	P	P	18 44 58.0	+1.2
	9.0nm,1.1s,mb4.6,baz=226,slow=4.7,SNR=12						
QSPA				LR	LR	18 57 45.4	
	comp=Z,155nm,21.2s,MS3.7,baz=219,slow=34						
USHA	Ushuaia	36.38	243	LR	LR	18 55 38.3	
	comp=Z,149nm,20.2s,MS3.8,baz=292,slow=29						
TSUM	Tsumeb	39.38	31	P	P	18 45 39.0	+1.1
	4.1nm,1.0s,mb4.1,baz=167,slow=8.9,SNR=4.1						
TSUM	Tsumeb	39.38	31	eP	P	18 45 37.3	-0.6
	7.4nm,0.9s,mb4.4						
LSZ	Lusaka	46.62	43	eP	P	18 46 37.9	+1.3
	7.4nm,1.2s,mb4.5						
VNDA	Vanda	46.75	175	P	P	18 46 38.0	+1.1
	5.9nm,1.2s,mb4.4,baz=202,slow=4.8,SNR=4.3						
VNDA				LR	LR	19 05 02.0	
	comp=Z,97nm,19.2s,MS3.8,baz=195,slow=35						
VNDA	Vanda	46.75	175	eP	P	18 46 36.9	0.0
	19nm,1.3s,mb4.9						
CPUP	Villa Florida	49.02	283	P	P	18 46 54.3	-0.8
	1.7nm,0.7s,mb4.2,baz=118,slow=8.0,SNR=4.4						
CPUP				LR	LR	19 04 11.9	
	comp=Z,187nm,19.8s,MS4.1,baz=71,slow=32						
CFAA	Coronel Fontan	51.13	269	P	P	18 47 10.8	-0.3
	0.9nm,1.0s,mb3.7,baz=140,slow=7.6,SNR=11						
DBIC	Dimbokro	62.11	357	P	P	18 48 29.3	+0.1
	5.0nm,1.0s,mb4.6,baz=174,slow=9.7,SNR=4.0						
KMBO	Kilima Mbogo	63.09	46	P	P	18 48 37.6	+1.8
	3.6nm,0.6s,mb4.7,baz=240,slow=8.1,SNR=5.7						
KMBO				LR	LR	19 14 15.1	
	comp=Z,223nm,18.1s,MS4.4,baz=292,slow=34						
TOA0	Torodi Ar. Sit	68.60	4	eP	P	18 49 08.4	-2.8
TORD	Torodi Ar. Bea	68.60	4	P	P	18 49 11.8	+0.7

	0.7nm,0.8s,mb3.6,baz=183,slow=6.9,SNR=3.8						
ROSC	El Rosal	83.92	288	LR	LR	19 22 50.1	
	comp=Z,119nm,20.9s,MS4.2,baz=153,slow=32						
STKA	Stephens Creek	87.56	150	P	P	18 50 55.5	-0.8
	2.3nm,0.9s,mb4.4,baz=100,slow=22,SNR=2.2						
STKA	Stephens Creek	87.56	150	*e*P	P	18 50 52.9	-3.4
ASAR	Alice Springs	92.70	141	P	P	18 51 20.4	-0.1
	0.5nm,0.8s,mb4.0,baz=201,slow=4.4,SNR=6.9						
FITZ	Fitzroy Crossi	94.47	131	LR	LR	19 28 46.3	
	comp=Z,86nm,19.2s,MS4.2,baz=296,slow=32						
WB2	Warramunga Arr	96.28	140	*e*P	P	18 51 34.6	-2.3
BRTR	Keskin Array B	99.83	27	LR	LR	19 37 13.7	
	comp=Z,36nm,19.4s,MS3.9,baz=27,slow=36						
MKAR	Makanchi Array	124.22	56	PKP	PKPdf	18 57 05.1	-1.0
	0.2nm,0.9s,baz=223,slow=3.2,SNR=2.4						
SONM	Songino Array	137.03	69	PKP	PKPdf	18 57 32.5	+2.2
	0.3nm,0.9s,baz=148,slow=2.7,SNR=2.5						
HIA	Hailar	145.08	76	*e*P	PKPbc	18 57 43.8	-0.4
CN2	Changchun	145.09	87	*e*P	PKPbc	18 57 44.9	+0.5
CN2				pmax	pmax		
	comp=Z,10.0nm,1.2s						
YKA	Yellowknife Ar	146.00	310	PKPbc	PKPbc	18 57 46.3	-0.4
	comp=Z,1.9nm,0.8s,baz=104,slow=3.4,SNR=22						

IDC 03 18:41:48.8±2.2**, 1°.18N×125°.87E, h0^{km}, mb3.2**/3**, mb1 3.4**/3**, mb1mx3.2**/18**, mbtmp3.2**/3**, Error ellipse: s-maj=241.3km s-min=23.6km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.58	159	P	P	18 46 50.1	-0.8
	0.3nm,0.3s,baz=337,slow=11,SNR=11						
ASAR	Alice Springs	25.91	163	P	P	18 47 23.4	+0.8
	0.2nm,0.3s,baz=346,slow=11,SNR=8.7						
MKAR	Makanchi Array	59.17	327	P	P	18 51 51.5	0.0
	0.2nm,0.4s,baz=121,slow=7.7,SNR=14						

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*CSEM **03** 18:49:41.9±0.4, 38°.32N×20°.41E, h2^{km}, MD3.6, Error ellipse: s-maj=8.1km s-min=3.4km az=63.0*

*ISCJB **03** 18:49:43.0±0.6, 38°.33N±0°.03×20°.44E±0°.05, h10^{km}, Error ellipse: s-maj=5.9km s-min=3.1km az=154.1*

*NEIC **03** 18:49:42.0, 38°.29N×20°.43E, h14^{km}, MD3.6(ATH), After ATH.*

*THE **03** 18:49:42.0, 38°.32N×20°.34E, h2^{km}±1^{km}, ML3.4/4, Error ellipse: s-maj=2.8km s-min=0.8km az=246.0*

*ATH **03** 18:49:42.0, 38°.29N×20°.43E, h14^{km}±1^{km}, MD3.6/7*

ISC 03 18:49:43.2±0.6**, 38°.32N**±0°.03×**20°.41E**±0°.05**, h10^{km}, n60, σ1^{s}05**/92**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.20	135	P	Pg	18 49 46.6	-0.8
VLS				S	Sg	18 49 49.9	-0.3
VLS	Valsamata	0.20	135	*e*PG	Pg	18 49 46.7	-0.7
VLS				*e*SG	Sg	18 49 49.9	-0.3
VLS	Valsamata	0.20	135	*e*Pg	Pg	18 49 46.7	-0.7
VLS				*e*Sg	Sg	18 49 49.9	-0.3
RLS	Riolos of Patr	0.87	107	*e*PG	Pg	18 49 58.0	-2.0
RLS				*e*SB	Sg	18 50 10.0	-1.4
RLS	Riolos of Patr	0.87	107	*e*Pg	Pg	18 49 58.0	-2.0
RLS				*e*Sb	Sg	18 50 10.0	-1.4
EFP	Efpalio	1.18	84	*e*PB	Pg	18 50 03.0	-2.9
EFP				*e*SB	Sg	18 50 20.4	-0.8
EFP	Efpalio	1.18	84	*e*Pb	Pg	18 50 03.0	-2.9
EFP				*e*Sb	Sg	18 50 20.4	-0.8
IGT	Igoumenitsa	1.22	357	P	Pg	18 50 04.5	-2.1
IGT				S	Sg	18 50 22.4	0.0
IGT	Igoumenitsa	1.22	357	P	Pg	18 50 04.5	-2.1
IGT				S	Sg	18 50 22.4	0.0
EVR	Evrytania	1.25	61	*e*PB	Pg	18 50 05.5	-1.7
EVR	Evrytania	1.25	61	*e*Pb	Pg	18 50 05.5	-1.7
JAN	Janina	1.38	14	*e*PB	Pn	18 50 08.8	+0.2
JAN				*e*SB	Sn	18 50 27.0	+0.1
JAN	Janina	1.38	14	*e*Pb	Pn	18 50 08.8	+0.2
JAN				*e*Sb	Sn	18 50 27.0	+0.1
KEK	Kerkira	1.47	341	*e*PB	Pn	18 50 10.1	+0.3
KEK				*e*SB	Sn	18 50 30.9	+1.7
KEK	Kerkira	1.47	341	*e*Pb	Pn	18 50 10.1	+0.3
KEK				*e*Sb	Sn	18 50 30.9	+1.7
GUR	Goura	1.57	103	*e*PN	Pn	18 50 09.7	-1.4
GUR				*e*SB	Sn	18 50 32.4	+0.9
GUR	Goura	1.57	103	*e*Pn	Pn	18 50 09.7	-1.4
GUR				*e*Sb	Sn	18 50 32.4	+0.9
MEV	Metsovon	1.60	23	P	Pn	18 50 11.4	-0.1
MEV				S	Sn	18 50 32.6	+0.4
MEV	Metsovon	1.60	23	P	Pn	18 50 11.4	-0.1
MEV				S	Sn	18 50 32.6	+0.4
ITM	Ithomi	1.65	133	*e*PB	Pn	18 50 12.3	0.0
ITM				*e*SB	Sn	18 50 34.7	+1.1
ITM	Ithomi	1.65	133	*e*Pb	Pn	18 50 12.3	0.0
ITM				*e*Sb	Sn	18 50 34.7	+1.1
AGG	Agios Georgios	1.66	64	P	Pn	18 50 12.2	-0.2
AGG				S	Sg	18 50 35.9	-0.7
AGG	Agios Georgios	1.66	64	*e*PB	Pn	18 50 12.1	-0.3
AGG	Agios Georgios	1.66	64	*e*Pb	Pn	18 50 12.1	-0.3
AGG				S	Sg	18 50 35.9	-0.7
THL	Klokotos Trika	1.77	45	P	Pn	18 50 13.3	-0.5
THL				S	Sn	18 50 38.4	+2.1
THL	Klokotos Trika	1.77	45	*e*PN	Pn	18 50 13.4	-0.4
THL				*e*SN	Sn	18 50 38.4	+2.1
THL	Klokotos Trika	1.77	45	*e*Pn	Pn	18 50 13.4	-0.4
THL				*e*Sn	Sn	18 50 38.4	+2.1
PYL	PYLOS	1.77	143	P	Pn	18 50 13.6	-0.3
PYL	PYLOS	1.77	143	*e*PN	Pn	18 50 13.5	-0.4
PYL	PYLOS	1.77	143	*e*Pn	Pn	18 50 13.5	-0.4
VLX	Vlachokerasia	1.82	121	*e*PN	Pn	18 50 14.0	-0.6
VLX				*e*SN	Sn	18 50 38.8	+1.1
VLX	Vlachokerasia	1.82	121	*e*Pn	Pn	18 50 14.0	-0.6
VLX				*e*Sn	Sn	18 50 38.8	+1.1
LTK	Loutraki	2.04	97	*e*PN	Pn	18 50 17.8	+0.3
LTK	Loutraki	2.04	97	*e*Pn	Pn	18 50 17.8	+0.3
LKR	Lokris	2.06	80	P	Pn	18 50 17.5	-0.4
LKR				S	Sn	18 50 45.7	+2.1
LKR	Lokris	2.06	80	P	Pn	18 50 17.5	-0.4
LKR				S	Sn	18 50 45.7	+2.1
DID	Didima	2.38	109	P	Pn	18 50 22.6	+0.4
DID				S	Sn	18 50 53.2	+1.8
DID	Didima	2.38	109	*e*PN	Pn	18 50 22.7	+0.5
DID	Didima	2.38	109	*e*Pn	Pn	18 50 22.7	+0.5
DID				S	Sn	18 50 53.2	+1.8
LIT	Litokhoron	2.41	42	P	Pn	18 50 22.9	+0.3
LIT	Litokhoron	2.41	42	P	Pn	18 50 22.9	+0.3
XOR	Xorichti	2.41	63	P	Pn	18 50 22.1	-0.6
XOR	Xorichti	2.41	63	P	Pn	18 50 22.1	-0.6
VLI	Veliai	2.56	128	*e*PN	Pn	18 50 25.5	+0.7
VLI	Veliai	2.56	128	*e*Pn	Pn	18 50 25.5	+0.7
FNA	Florina	2.57	17	P	Pn	18 50 23.8	-1.2
FNA	Florina	2.57	17	P	Pn	18 50 23.8	-1.2
PTL	Penteli	2.73	95	*e*PN	Pn	18 50 27.3	+0.1
PTL	Penteli	2.73	95	*e*Pn	Pn	18 50 27.3	+0.1
AOS	Alonnisos	2.84	71	P	Pn	18 50 28.3	-0.4
AOS				S	Sn	18 51 05.1	+2.2
AOS	Alonnisos	2.84	71	P	Pn	18 50 28.3	-0.4
AOS				S	Sn	18 51 05.1	+2.2
KYTH	Kithira	2.92	133	*e*PB	Pn	18 50 31.0	+1.3
PAIG	Paliouri	3.01	57	P	Pn	18 50 30.1	-0.8
PAIG	Paliouri	3.01	57	P	Pn	18 50 30.1	-0.8
GRG	Griva	3.05	30	P	Pn	18 50 32.0	+0.5
GRG	Griva	3.05	30	P	Pn	18 50 32.0	+0.5
PLG	Polygyros	3.12	48	P	Pn	18 50 32.8	+0.3
PLG	Polygyros	3.12	48	P	Pn	18 50 32.8	+0.3
CHOS	Chios island	4.44	87	P	Pn	18 50 51.0	+0.4
CHOS	Chios island	4.44	87	P	Pn	18 50 51.0	+0.4

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*NIED **03** 18:59:00, 37°.10N×137°.20E, h260^{km}, Mw3.9 Best double couple: M$_0$8.06000×10^{14} NP1:φ$_s$304.00000°, δ87.00000°, λ-43.00000°. NP2:φ$_s$37.00000°, δ47.00000°, λ-176.00000°.*

*BJI **03** 18:59:21.1, 37°.10N×137°.20E, h267^{km}, mB4.4/7, mb4.1/7*

*ISCJB **03** 18:59:22.3±0.3, 37°.09N±0°.04×137°.10E±0°.05, h271^{km}±2^{km}, mb3.4/17, Error ellipse: s-maj=7.2km s-min=5.5km az=24.0*

*MOS **03** 18:59:22.1±1.2, 37°.12N×137°.11E, h272^{km}, mb4.0/5, Error ellipse: s-maj=16.8km s-min=10.6km az=88.5*

*IDC **03** 18:59:23.6±0.5, 37°.07N×137°.04E, h267^{km}±5^{km}, mb3.0/13, mb1 3.3/14, mb1mx3.2/24, mbtmp3.0/14, Error ellipse: s-maj=16.6km s-min=13.8km az=61.0*

*NEIC **03** 18:59:23.2, 37°.07N×137°.18E, h268^{km}, mb4.3/7, After JMA.*

*JMA **03** 18:59:23.1±0.1, 37°.07N×137°.18E, h268^{km}±1^{km}, M3.7 Broadband fault plane solution: P waves. NP1: φ$_s$42.00000°, δ78.00000°, λ-179.00000°. NP2: φ$_s$311.00000°, δ89.00000°, λ-12.00000°. Principal axes: T Plg8.0000°, Azm357.0000°; N Plg78.0000°, Azm128.0000°; P Plg9.0000°, Azm266.0000°;*

ISC 03 18:59:23.2±0.3**, 37°.08N**±0°.04×**137°.11E**±0°.05**, h266^{km}**±2^{km}**, n62, σ0^{s}87**/83**, mb3.4**/17**, 4C-7D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JJH	Hakui	0.30	240	P	Pn	18 59 57.9	+0.5
JJH				S	S	19 00 24.9	+0.5
JSZ	Suzu	0.42	29	⇓P	Pn	18 59 57.9	+0.3
JSZ				S	S	19 00 24.6	-0.2
JHG	Hegura jima	0.78	349	P	Pn	18 59 59.3	+0.5
JHG				S	S	19 00 26.9	0.0
MAJO	Matsushiro	1.03	121	*e*Pn	Pn	19 00 00.1	0.0
MAJO				*e*Sn	S	19 00 29.7	+0.6
MAT	Matsushiro	1.03	121	P	Pn	19 00 00.4	+0.4
MAT				S	S	19 00 29.3	+0.2
MAT	Matsushiro	1.03	121	P	Pn	19 00 00.4	+0.4
MAT				S	S	19 00 29.4	+0.3
MJAR	Matsushiro Arr	1.03	121	P	Pn	19 00 00.5	+0.5
MJAR				S	S	19 00 31.1	+2.0
MJAR				pmax	pmax		
	comp=Z,22nm,0.3s						
MJAR				smax			
	comp=N,3.0nm,0.3s						
MJAR	Matsushiro Arr	1.03	121	P	Pn	19 00 00.5	+0.5
	comp=N,22nm,0.3s,baz=294,slow=6.4,SNR=265						
MJAR				S	S	19 00 31.1	+1.9
	comp=N,3.1nm,0.3s,baz=294,slow=15,SNR=12						
MJAR	Matsushiro Arr	1.03	121	P	Pn	19 00 00.5	+0.5
MJAR				S	S	19 00 31.1	+1.9
JSD	Sado	1.32	43	⇓P	Pn	19 00 02.1	+0.4
JSD				S	S	19 00 31.3	-0.9
JGM	Miyama	1.41	193	⇑P	Pn	19 00 02.9	+0.5
JGM				*e*S	S	19 00 33.3	-0.1
JRY	Ryogami san	1.79	126	P	Pn	19 00 05.0	-0.2
JRY				*e*S	S	19 00 36.9	-1.5
JNS	Sasagawa	1.91	67	⇓P	Pn	19 00 06.3	+0.2
JYN	Shimob	1.96	143	P	Pn	19 00 06.8	+0.2
JYN				*e*S	S	19 00 41.3	+0.3
JAG	Ashikaga	1.99	108	⇓P	Pn	19 00 06.3	-0.6
JAW	Awa shima	2.18	50	P	Pn	19 00 08.9	+0.4
JWT	Wachi	2.26	218	⇑P	Pn	19 00 09.2	-0.1
JWT				S	S	19 00 43.8	-2.1
JOD2	Odawara 2	2.42	138	⇓P	Pn	19 00 11.1	+0.3
JOD2				*e*S	S	19 00 47.7	-0.8
JIE	Ise	2.70	187	⇑P	Pn	19 00 14.2	+0.6
JIE				S	S	19 00 53.2	-0.4
JMM	Marumori	3.04	74	P	Pn	19 00 17.1	+0.2
JWY	Kouya	3.11	204	⇑P	Pn	19 00 18.3	+0.5
JWY				*e*S	S	19 00 59.7	-1.5
JYK	Kaneyama	3.16	53	⇓P	Pn	19 00 18.7	+0.5
JYK				*e*S	S	19 01 00.8	-1.1
JHJ	Hachijo jima 2	4.52	150	S	S	19 01 31.9	+1.8
	comp=N,27nm,0.3s,baz=78,slow=20,SNR=4.2						
KSRS	Korea Array	7.33	276	P	Pn	19 01 09.7	+1.5
	comp=N,0.4nm,0.3s,baz=93,slow=13,SNR=13						
KS15	Wonju Array Si	7.37	276	*e*Pn	Pn	19 01 08.4	-0.1
ASAJ	Asahikawa	8.18	29	P	Pn	19 01 16.8	-1.7
ASAJ				S	S	19 02 43.5	-8.3
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				smax			
	comp=N,2.0nm,0.3s						
ASAJ	Asahikawa	8.18	29	P	Pn	19 01 16.8	-1.7
	comp=N,5.0nm,0.3s,baz=228,slow=10,SNR=28						
ASAJ				S	S	19 02 43.5	-8.3
	comp=N,1.7nm,0.3s,baz=54,slow=28,SNR=6.1						
MDJ	Mudanjiang	9.44	325	P	Pn	19 01 35.4	+1.0
MDJ				pmax	pmax		
	comp=Z,21nm,0.9s						
MDJ				pmax	pmax		
	comp=Z,67nm,4.0s						
MDJ	Mudanjiang	9.44	325	*e*Pn	Pn	19 01 35.1	+0.7
	comp=Z,18nm,0.9s						
YSS	Yuzh-Sakhalins	10.72	21	⇓*i*P	Pn	19 01 48.0	-2.4
YSS				*e*		19 03 41.6	
YSS				pmax	pmax		
	comp=Z,30nm,0.4s						
YSS	Yuzh-Sakhalins	10.72	21	*e*P	Pn	19 01 48.3	-2.1
	comp=Z,21nm,0.3s						
CBIJ	Chichi jima	10.84	155	P	Pn	19 01 49.1	-3.0
	comp=Z,20nm,0.3s,baz=285,slow=19,SNR=4.6						
CBIJ				S	S	19 03 41.4	-12
	comp=Z,14nm,0.3s,baz=285,slow=20,SNR=3.5						
KLR	Kul'dur	12.76	344	*e*P	Pn	19 02 10.2	-5.2
PET	Petropavlovsk	21.91	36	*e*P	P	19 03 54.6	-0.2
PET				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.5						
PET	Petropavlovsk	21.91	36	*e*P	P	19 03 54.6	-0.2
	comp=Z,18nm,0.7s,mb4.5						
SONM	Songino Array	24.93	305	P	P	19 04 23.2	+1.1
	comp=Z,0.2nm,0.5s,mb2.8,baz=110,slow=9.5,SNR=3.1						
YAK	Yakutsk	25.41	352	*e*P	P	19 04 25.6	-0.7
TIXI	Tiksi	34.90	355	*e*P	P	19 05 48.9	-0.4
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
TIXI	Tiksi	34.90	355	*e*P	P	19 05 48.9	-0.4
	comp=Z,4.4nm,0.6s,mb4.2						
BILL	Bilibino	35.02	19	*e*P	P	19 05 50.3	-0.1
BILL				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.0						
BILL	Bilibino	35.02	19	*e*P	P	19 05 50.3	-0.1
	comp=Z,1.8nm,0.4s,mb4.0						
CMAR	Chiang Mai Arr	38.21	251	P	P	19 06 17.0	-0.9
	comp=Z,0.2nm,0.4s,mb2.9,baz=42,slow=7.5,SNR=3.3						
ZALV	Zalesovo Beam	39.34	312	P	P	19 06 26.6	-0.1
	comp=Z,0.4nm,0.3s,mb3.3,baz=99,slow=7.9,SNR=3.2						
MKAR	Makanchi Array	41.17	301	P	P	19 06 41.1	-0.7
	comp=Z,0.2nm,0.5s,mb2.6,baz=83,slow=12,SNR=6.8						
WRAB	Tennant Creek	56.76	183	*e*P	P	19 08 38.5	-1.3
WRAB				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.8						
WRAB	Tennant Creek	56.76	183	*e*P	P	19 08 38.5	-1.3
	comp=Z,3.8nm,1.1s,mb3.7						
WRA	Warramunga Arr	56.77	183	P	P	19 08 39.9	+0.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	56.77	183	P	P	19 08 39.9	+0.1
	comp=Z,1.2nm,0.6s,mb3.5,baz=359,slow=7.6,SNR=24						
ASAR	Alice Springs	60.49	183	P	P	19 09 05.9	+0.6
	comp=Z,0.1nm,0.4s,mb2.7,baz=4.5,slow=5.9,SNR=6.9						
ARCES	ARCESS Array B	62.72	338	P	P	19 09 19.7	+0.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ARCES	ARCESS Array B	62.72	338	P	P	19 09 19.6	+0.1
	comp=Z,3.4nm,1.0s,mb3.9,baz=65,slow=11,SNR=4.1						
YKA	Yellowknife Ar	65.47	29	P	P	19 09 38.0	+0.5
	comp=Z,0.2nm,0.4s,mb3.1,baz=295,slow=7.0,SNR=3.9						
AKASG	Malin Array Be	72.12	321	P	P	19 10 17.9	-0.6
	comp=Z,0.4nm,0.3s,mb3.5,baz=50,slow=5.5,SNR=5.0						
AKASG	Malin Array Be	72.12	321	P	P	19 10 17.9	-0.6
NOA	NORSAR Array B	72.77	336	P	P	19 10 22.4	+0.2
	comp=Z,0.6nm,0.6s,mb3.4,baz=32,slow=3.9,SNR=2.5						
NOA	NORSAR Array B	72.77	336	P	P	19 10 22.4	+0.2
NVAR	Mina Array Bea	77.68	51	P	P	19 10 51.1	+0.6
	comp=Z,0.4nm,0.4s,mb3.5,baz=297,slow=6.0,SNR=2.7						
NVAR	Mina Array Bea	77.68	51	P	P	19 10 51.1	+0.5
LKWY	Lake	78.40	42	*e*P	P	19 10 47.9	-6.4
LKWY				pmax	pmax		
	comp=Z,22nm,1.0s						
LKWY	Lake	78.40	42	*e*P	P	19 10 47.9	-6.5
	comp=Z,22nm,1.0s						
PDAR	Pinedale Array	80.05	43	P	P	19 11 04.1	+0.9
	comp=Z,0.4nm,0.7s,mb3.3,baz=317,slow=3.8,SNR=3.7						
TXAR	Lajitas Array	92.77	50	P	P	19 12 07.3	+1.7
	comp=Z,0.2nm,0.5s,mb3.3,baz=305,slow=3.2,SNR=3.9						

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*ISCJB **03** 19:01:24.6±0.8, 47°.91N±0°.09×153°.0E±0°.1, h150^{km}±8^{km}, mb3.9/18, Error ellipse: s-maj=20.0km s-min=8.2km az=42.1*

*MOS **03** 19:01:25.1±1.1, 47°.96N×152°.90E, h156^{km}, mb4.4/10, Error ellipse: s-maj=18.7km s-min=11.5km az=61.4*

*NEIC **03** 19:01:26.2±1.1, 47°.93N×152°.87E, h150^{km}±11^{km}, mb4.4/2, Error ellipse: s-maj=18.6km s-min=9.5km az=130.0*

*IDC **03** 19:01:26.3±2.3, 47°.89N×152°.97E, h150^{km}±21^{km}, mb3.3/11, mb1 3.5/14, mb1mx3.4/24, mbtmp3.3/14, Error ellipse: s-maj=19.3km s-min=13.8km az=125.0*

ISC 03 19:01:25.6±0.8**, 47°.89N**±0°.09×**153°.0E**±0°.1**, h142^{km}**±8^{km}**, n39, σ0^{s}94**/41**, mb3.9**/18**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.47	35	*e*PN	Pn	19 02 18.1	-0.4
SKR				*e*S	Sn	19 02 59.0	-0.6
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				pmax	pmax		
	comp=N,50nm,0.4s						
SKR				smax			
	comp=N,150nm,0.5s						
SKR				smax			
	comp=E,170nm,0.5s						
SKR				smax			
	comp=Z,110nm,0.5s						
PEA0B	Petropavlovsk-	6.03	28	*e*Pn	Pn	19 02 53.5	+1.1
PETK	Petropavlovsk-	6.03	28	P	Pn	19 02 53.3	+0.9
	comp=Z,1.1nm,0.3s,baz=205,slow=10,SNR=29						
PETK				S	Sn	19 04 07.8	+7.5
	comp=Z,0.2nm,0.3s,baz=216,slow=14,SNR=2.2						
ASAJ	Asahikawa	8.16	246	PN	Pn	19 03 21.9	+0.8
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	8.16	246	P	Pn	19 03 21.9	+0.8
	comp=Z,1.7nm,0.3s,baz=91,slow=16,SNR=3.1						
ERM	Erimo	9.11	234	*e*PN	Pn	19 03 32.4	-1.4
ERM				pmax	pmax		
	comp=Z,11nm,0.6s						
ERM	Erimo	9.11	234	*e*Pn	Pn	19 03 32.4	-1.4
	comp=Z,11nm,0.6s						
MJAR	Matsushiro Arr	15.73	229	P	Pn	19 05 00.7	+1.4
	comp=Z,0.2nm,0.3s,baz=19,slow=12,SNR=4.2						
JHJ	Hachijo jima 2	17.81	219	P	Pn	19 05 23.0	-1.4
	comp=Z,35nm,0.3s,baz=36,slow=19,SNR=3.3						
KSRS	Korea Array	21.09	250	P	P	19 05 58.8	+0.2
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.8						
KSRS	Korea Array	21.09	250	P	P	19 05 58.8	+0.2
	comp=Z,5.0nm,0.8s,mb3.9,baz=52,slow=10,SNR=11						
SONM	Songino Array	30.90	288	P	P	19 07 27.6	-0.8
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	30.90	288	P	P	19 07 27.6	-0.8
	comp=Z,0.7nm,0.7s,mb3.5,baz=60,slow=9.1,SNR=8.6						
ZALV	Zalesovo Beam	41.89	305	P	P	19 09 00.6	-0.8
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
ZALV	Zalesovo Beam	41.89	305	P	P	19 09 00.6	-0.8
	comp=Z,1.0nm,0.5s,mb3.7,baz=78,slow=6.7,SNR=6.3						
MK31	Makanchi Array	46.36	296	*e*P	P	19 09 35.9	-1.2
MKAR	Makanchi Array	46.36	296	P	P	19 09 36.3	-0.8
MKAR				*PP	pP	19 10 13.0	+3.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	46.36	296	P	P	19 09 36.3	-0.8
	comp=Z,0.9nm,0.7s,mb3.5,baz=67,slow=8.2,SNR=12						
MKAR				pP	pP	19 10 13.0	+3.8
	comp=Z,0.3nm,0.6s,baz=91,slow=7.3,SNR=3.0						
KURK	Kurchatov	46.68	303	*e*P	P	19 09 38.5	-1.0
KURK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.1						
KURK	Kurchatov	46.68	303	*e*P	P	19 09 38.5	-1.1
	comp=Z,5.3nm,1.1s,mb4.1						
YKA	Yellowknife Ar	50.06	37	P	P	19 10 04.8	-0.5
	comp=Z,0.3nm,0.5s,mb3.2,baz=296,slow=7.9,SNR=4.1						
CMAR	Chiang Mai Arr	52.57	255	P	P	19 10 25.3	+0.8
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	52.57	255	P	P	19 10 25.2	+0.7
	comp=Z,0.9nm,0.7s,mb3.6,baz=32,slow=7.2,SNR=9.8						
TAPN	Taplejung	53.97	272	*e*P	P	19 10 36.9	+2.3
	comp=Z,6.8nm,0.8s,mb4.4						
RAMN	Ramite	54.97	273	*e*P	P	19 10 42.7	+0.8
	comp=Z,16nm,0.9s,mb4.8						
KKN	Kakani	55.31	274	*e*P	P	19 10 44.5	+0.2
DMN	Daman	55.55	274	*e*P	P	19 10 46.2	+0.2
GKN	Gorkha	55.60	275	*e*P	P	19 10 46.7	+0.3
	comp=Z,5.7nm,0.4s,mb4.7						
DANN	Dangsing	55.97	276	*e*P	P	19 10 49.9	+0.9
	comp=Z,9.1nm,0.5s,mb4.9						
KOLN	Koldanda	56.45	276	*e*P	P	19 10 52.1	-0.3
	comp=Z,5.4nm,0.7s,mb4.5						
ARCES	ARCESS Array B	56.76	341	P	P	19 10 54.3	+0.3
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	ARCESS Array B	56.76	341	P	P	19 10 54.2	+0.3
	comp=Z,2.5nm,0.8s,mb4.1,baz=17,slow=9.4,SNR=3.6						
WRA	Warramunga Arr	69.56	199	P	P	19 12 18.1	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	69.56	199	P	P	19 12 18.1	-0.8
	comp=Z,0.7nm,0.9s,mb3.4,baz=16,slow=5.7,SNR=4.2						
AKASG	Malin Array Be	70.56	326	P	P	19 12 21.4	-3.3
	comp=Z,0.4nm,0.4s,mb3.5,baz=32,slow=5.7,SNR=3.6						
ASAR	Alice Springs	73.26	198	P	P	19 12 41.1	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	73.26	198	P	P	19 12 41.1	+0.1
	comp=Z,0.9nm,0.6s,mb3.7,baz=11,slow=5.9,SNR=18						
TXAR	Lajitas Array	77.00	61	P	P	19 13 03.0	+0.3
	comp=Z,0.3nm,0.6s,mb3.1,baz=299,slow=6.0,SNR=3.7						
TXAR				pP	pP	19 13 39.2	+1.4
	comp=Z,0.5nm,0.7s,baz=297,slow=4.2,SNR=5.1						
BRTR	Keskin Array B	77.51	316	P	P	19 13 06.2	+0.9
	comp=Z,0.4nm,0.7s,mb3.2,baz=48,slow=2.1,SNR=3.6						

MAN 03 19:13:11, 16°.13N×119°.62E, h28^{km}, mb4.0, ML2.8, MS2.5, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	Bolinao	0.38	49	*e*P	Pb	19 13 20.9	+1.5
SCZP	Santa Cruz	0.45	142	*e*P	Pb	19 13 22.6	+2.0
SCZP				*e*S	Sb	19 13 30.6	+3.5
BALP	Baler	1.92	101	*e*P	Pn	19 13 43.5	+1.6

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*IDC **03** 19:15:13.4±1.5, 30°.58S×178°.75W, h0^{km}, mb4.0/6, mb1 4.1/6, mb1mx4.0/17, mbtmp4.0/6, Error ellipse: s-maj=36.5km s-min=20.7km az=133.0*

*ISCJB **03** 19:15:16.8±1.1, 30°.6S±0°.1×178°.9W±0°.2, h33^{km}, mb4.0/7, Error ellipse: s-maj=28.0km s-min=9.0km az=43.4*

*NEIC **03** 19:15:18.5±1.0, 30°.40S×178°.81W, h35^{km}, mb4.0/4, Error ellipse: s-maj=25.4km s-min=14.7km az=142.0*

ISC 03 19:15:19.0±1.1**, 30°.5S**±0°.1×**178°.9W**±0°.2**, h35^{km}, n13, σ1^{s}18**/14**, mb4.0**/7**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.51	34	Pn	Pn	19 15 41.6	-2.0
	130nm,0.3s,baz=221,slow=20,SNR=3.0						
RAO				Sn	Sn	19 16 03.5	+1.5
	323nm,0.3s,baz=94,slow=23,SNR=5.2						
CTA	Charters Tower	33.07	280	P	P	19 21 52.0	+0.5
	2.8nm,0.9s,mb4.2,baz=94,slow=16,SNR=3.7						
CTA	Charters Tower	33.07	280	P	P	19 21 52.0	+0.5
CTAO	Charters Tower	33.07	280	P	P	19 21 52.3	+0.8
	7.3nm,1.2s,mb4.5						
STKA	Stephens Creek	33.71	257	P	P	19 21 56.5	-0.4
	1.6nm,0.6s,mb4.1,baz=110,slow=13,SNR=3.8						
STKA	Stephens Creek	33.71	257	*e*P	P	19 21 55.5	-1.5
	0.8nm,1.0s,mb3.6						
ASAR	Alice Springs	42.34	267	P	P	19 23 10.8	+1.0
	1.5nm,0.6s,mb3.8,baz=104,slow=7.3,SNR=23						
WRAB	Tennant Creek	43.34	273	*e*P	P	19 23 18.2	+0.3
	2.6nm,0.8s,mb4.0						
WRA	Warramunga Arr	43.34	273	P	P	19 23 18.8	+0.9
	1.5nm,0.5s,mb4.0,baz=111,slow=8.1,SNR=27						
FITZ	Fitzroy Crossi	51.60	270	P	P	19 24 22.1	-0.1
	1.1nm,0.7s,mb3.9,baz=108,slow=3.2,SNR=3.5						
GUMO	Guam	56.03	316	*e*P	P	19 24 52.0	-2.4
	580nm,1.6s						
QSPA	South Pole Qui	59.59	180	P	P	19 25 18.5	-0.2
	1.1nm,0.7s,mb4.0,baz=57,slow=1.5,SNR=3.6						
QSPA	South Pole Qui	59.59	180	P	P	19 25 19.5	+0.9
	1.0nm,0.7s,mb4.0						

*IDC **03** 19:16:54.3±2.5, 3.°77S×128.°91E, h0^{km}, mb3.2/2, mb1 3.3/3, mb1mx3.2/17, mbtmp3.1/3, ML2.9/1, Error ellipse: s-maj=180.6km s-min=29.7km az=68.0*

ISC 03 19:16:59.3±1.8, 3.°8S±0.°2×129.°0E±0.°2, h35^{km}, n4, σ0.^{s}43/5, 1C, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	0.79	278	⇑*e*P	Pn	19 17 13.6	-0.4
AAI				*e*S	Sn	19 17 32.8	+8.2
WRA	Warramunga Arr	16.88	162	Pn	Pn	19 20 52.6	-0.3
	0.0nm,0.3s,baz=344,slow=14,SNR=4.5						
ASAR	Alice Springs	20.32	167	P	P	19 21 32.8	+0.3
	0.5nm,0.5s,baz=348,slow=11,SNR=9.4						
MKAR	Makanchi Array	65.01	327	P	P	19 27 35.9	+0.1
	0.1nm,0.4s,baz=131,slow=7.1,SNR=4.2						

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*CSEM **03** 19:20:55.7, 45.°68N×26.°61E, h124^{km}, MD3.5/3, After BUC*

BUC 03 19:20:55.7±1.4, 45.°68N×26.°61E, h124^{km}±12^{km}, MD3.5/3, 8C-6D, Error ellipse: s-maj=14.1km s-min=6.6km az=23.0, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLOR	Plostina	0.17	10	⇑*i*P	Pn	19 21 12.8	+0.1
PLOR				*i* S	Sn	19 21 25.6	+0.1
PLOR	Plostina	0.17	10	⇑*i*P	Pn	19 21 12.8	+0.1
PLOR				*i* S	Sn	19 21 25.6	+0.1
VRI	Vrincioaia	0.20	25	⇑*i*P	Pn	19 21 13.0	+0.2
VRI				*i* S	Sn	19 21 25.4	-0.3
VRI	Vrincioaia	0.20	25	⇑*i*P	Pn	19 21 13.0	+0.2
VRI				*i* S	Sn	19 21 25.4	-0.3
MLR	Muntele Rosu	0.50	248	⇑*i*P	Pn	19 21 14.7	+0.7
MLR				*i* S	Sn	19 21 28.1	+0.2
MLR	Muntele Rosu	0.50	248	⇑*i*P	Pn	19 21 14.7	+0.7
MLR				*i* S	Sn	19 21 28.1	+0.2
VOIR		1.12	258	⇓*i*P	Pn	19 21 19.5	+0.3
VOIR				*i* S	Sn	19 21 36.4	-0.6
VOIR		1.12	258	⇓*i*P	Pn	19 21 19.5	+0.3
VOIR				*i* S	Sn	19 21 36.4	-0.6
HARR	Harsova	1.36	136	⇓*i*P	Pn	19 21 22.4	+0.6
HARR				*i* S	Sn	19 21 41.0	-0.7
HARR	Harsova	1.36	136	⇓*i*P	Pn	19 21 22.4	+0.6
HARR				*i* S	Sn	19 21 41.0	-0.7
TLCR		1.63	107	⇑*i*P	Pn	19 21 25.7	+0.8
TLCR				*i* S	Sn	19 21 46.8	-0.3
TLCR		1.63	107	⇑*i*P	Pn	19 21 25.7	+0.8
TLCR				*i* S	Sn	19 21 46.8	-0.3
TIRR	Tirgusor	1.77	133	⇓*i*P	Pn	19 21 27.0	+0.5
TIRR				*i* S	Sn	19 21 48.7	-1.4
TIRR	Tirgusor	1.77	133	⇓*i*P	Pn	19 21 27.0	+0.5
TIRR				*i* S	Sn	19 21 48.7	-1.4

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*IDC **03** 19:31:09.9±1.4, 60.°16S×28.°14W, h0^{km}, mb4.2/3, mb1 4.2/3, mb1mx3.9/13, mbtmp4.1/3, Error ellipse: s-maj=56.0km s-min=36.3km az=52.0*

*ISCJB **03** 19:31:10.3±1.3, 60.°0S±0.°3×28.°0W±0.°5, h10^{km}, mb4.1/3, Error ellipse: s-maj=38.8km s-min=33.0km az=33.5*

*NEIC **03** 19:31:15.1±0.9, 60.°07S×28.°06W, h35^{km}, mb4.1/1, Error ellipse: s-maj=30.0km s-min=25.3km az=224.0*

ISC 03 19:31:11.7±1.3, 60.°1S±0.°3×28.°1W±0.°5, h10^{km}, n6, σ0.^{s}60/5, mb4.1/3, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPUP	Villa Florida	39.25	316	P	P	19 38 40.1	0.0
	1.2nm,0.3s,mb4.0,baz=129,slow=6.9,SNR=10						
TSUM	Tsumeb	52.12	59	*e*P	P	19 40 21.9	0.0
	1.6nm,0.8s,mb4.0						
TOA0	Torodi Ar. Sit	76.80	30	*e*P	P	19 43 02.5	-0.7
TORD	Torodi Ar. Bea	76.80	30	P	P	19 43 03.9	+0.7
	1.3nm,0.4s,mb4.2,baz=196,slow=6.6,SNR=41						
ASAR	Alice Springs	95.27	163	P	P	19 44 35.5	0.0
	0.3nm,0.9s,baz=180,slow=3.0,SNR=5.7						
SONM	Songino Array	151.17	95	PKPbc	PKPbc	19 51 03.0	-0.9
	0.2nm,0.4s,baz=223,slow=2.9,SNR=5.0						

MEX 03 19:34:00.3±0.6, 17.°08N×99.°48W, h32^{km}±20^{km}, MD3.5, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.47	244	*i* P	Pb	19 34 09.0	-1.4
ACX				*i* S	Sb	19 34 15.0	-2.3
CAIG	El Cayaco	0.76	268	*i* P	Pn	19 34 12.5	-2.2
CAIG				*i* S	Sn	19 34 22.4	-2.7
MEIG	Mezcala	0.86	351	*i* P	Pn	19 34 14.2	-1.9
MEIG				*i* S	Sn	19 34 24.7	-2.8
PNIG	Pinotepa	1.46	118	*e*P	Pn	19 34 21.2	-3.3
PNIG				*i* S	Sn	19 34 40.3	-2.1

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*IDC **03** 19:39:38.6±2.5, 40.°38N×49.°94E, h0^{km}, mb3.5/3, mb1 3.6/6, mb1mx3.3/25, mbtmp3.6/6, ML3.8/3, Error ellipse: s-maj=35.4km s-min=27.7km az=150.0*

*ISCJB **03** 19:39:43.1±1.0, 40.°76N±0.°10×50.°0E±0.°1, h33^{km}, mb3.4/3, Error ellipse: s-maj=16.1km s-min=9.0km az=146.1*

*NEIC **03** 19:39:43.6±1.1, 40.°48N×50.°01E, h35^{km}, mb3.2/1, Error ellipse: s-maj=23.8km s-min=9.7km az=172.0*

*CSEM **03** 19:39:43.6, 40.°48N×50.°01E, h35^{km}, mb3.2/1, After NEIC*

ISC 03 19:39:44.3±1.0, 40.°61N±0.°10×50.°0E±0.°1, h35^{km}, n18, σ0.^{s}60/21, mb3.4/3, Caspian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GNI	Garni	4.05	265	*e*Pn	Pn	19 40 43.1	-0.6
GNI	Garni	4.05	265	*e*Pn	Pn	19 40 43.1	-0.6
AKTK	Aktyubinsk	11.31	27	Pn	Pn	19 42 23.6	+0.3
AKTK				Sn	Sn	19 44 27.9	-0.5
AKTK	Aktyubinsk	11.31	27	Pn	Pn	19 42 23.6	+0.3
AKTK				Sn	Sn	19 44 27.9	-0.5
AKTO	Aktyubinsk	11.31	27	Pn	Pn	19 42 23.6	+0.3
	0.5nm,0.3s,baz=207,slow=10,SNR=9.0						
AKTO				Sn	Sn	19 44 27.9	-0.5
	0.7nm,0.3s,baz=319,slow=20,SNR=8.3						
AKASG	Malin Array Be	17.63	312	P	Pn	19 43 46.8	-0.2
	0.9nm,0.3s,baz=117,slow=12,SNR=4.0						
AKASG	Malin Array Be	17.63	312	P	Pn	19 43 46.8	-0.2
EKS2	Erkin-Say	17.88	76	*e*Pn	Pn	19 43 49.1	-1.0
	0.9nm,0.5s						
EKS2	Erkin-Say	17.88	76	*e*Pn	Pn	19 43 49.1	-1.0
	0.9nm,0.5s						
BVAR	Borovoye Array	18.60	41	P	Pn	19 43 59.9	+1.1
	0.2nm,0.3s,baz=238,slow=8.5,SNR=4.6						
BVAR	Borovoye Array	18.60	41	P	Pn	19 43 59.9	+1.1
KURK	Kurchatov	22.28	53	P	P	19 44 38.3	+0.1
	0.3nm,0.5s,mb3.0,baz=253,slow=9.9,SNR=4.1						
KURK	Kurchatov	22.28	53	P	P	19 44 38.3	+0.1
MKAR	Makanchi Array	24.03	64	P	P	19 44 56.0	+0.1
	0.6nm,0.6s,mb3.2,baz=262,slow=8.3,SNR=9.6						
MKAR	Makanchi Array	24.03	64	P	P	19 44 56.0	+0.1
MKAR	Makanchi Array	24.03	64	P	P	19 44 56.0	+0.2
ARCES	ARCESS Array B	31.73	344	P	P	19 46 05.2	+0.8
	3.5nm,1.1s,mb4.1,baz=141,slow=12,SNR=3.4						
ARCES	ARCESS Array B	31.73	344	P	P	19 46 05.2	+0.8

IDC 03 19:40:15.0±24.0, 24.°39S×179.°41E, h640^{km}±321^{km}, mb2.9/5, mb1 3.1/5, mb1mx2.9/16, mbtmp2.9/5, Error ellipse: s-maj=112.4km s-min=39.3km az=80.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	34.05	249	P	P	19 46 08.9	+0.3
	1.7nm,0.7s,baz=95,slow=11,SNR=5.3						
ASAR	Alice Springs	41.43	261	P	P	19 47 08.7	+0.3
	0.3nm,0.5s,baz=92,slow=7.3,SNR=7.8						
WRA	Warramunga Arr	41.84	267	P	P	19 47 11.6	-0.1
	0.8nm,0.3s,baz=100,slow=8.4,SNR=27						
QSPA	South Pole Qui	65.70	180	P	P	19 49 57.9	+0.3
	1.1nm,0.5s,baz=63,slow=2.8,SNR=5.4						
TXAR	Lajitas Array	91.14	58	P	P	19 52 14.0	+0.5
	0.4nm,0.8s,baz=233,slow=5.7,SNR=5.6						

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*ISCJB **03** 20:02:17.1±0.6, 36.°68N±0.°04×7.°49W±0.°03, h66^{km}±7^{km}, Error ellipse: s-maj=6.6km s-min=3.5km az=25.1*

*INMG **03** 20:02:17.1±2.2, 36.°58N×7.°48W, h25^{km}±12^{km}, ML2.2, Error ellipse: s-maj=8.3km s-min=6.7km az=24.0*

*MDD **03** 20:02:17.9±0.9, 36.°60N×7.°54W, h24^{km}±8^{km}, mbLg2.4/28, Error ellipse: s-maj=7.7km s-min=3.7km az=27.0, PRIMO MDD EMS: II INTENSIDAD MIMA.*

*CSEM **03** 20:02:18.5±0.2, 36.°67N×7.°50W, h40^{km}, ML3.3/6, Error ellipse: s-maj=5.5km s-min=2.4km az=29.0*

*NEIC **03** 20:02:21.1, 36.°76N×7.°29W, h32^{km}, MG3.5(MDD), After MDD.*

ISC 03 20:02:18.4±0.6, 36.°66N±0.°04×7.°49W±0.°03, h49^{km}±12^{km}, n110, σ0.^{s}88/197, 2C-3D, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBDV	Barranco-do-Ve	0.68	329	*e*P	Pn	20 02 31.1	-0.7
PBDV				*e*S	Sn	20 02 40.8	-0.7
PBDV				A		20 02 42.7	
	29nm,0.2s						
PBDV	Barranco-do-Ve	0.68	329	⇓P	Pn	20 02 31.1	-0.7
PBDV				S	Sn	20 02 40.8	-0.7
	29nm,0.2s						
ERIP	Rio Piedras	0.73	15	⇓P	Pn	20 02 32.8	+0.2
	14nm,0.1s,SNR=18						
ERIP				S	Sn	20 02 43.7	+0.9
	126nm,0.1s,SNR=7.9						
ERIP	Rio Piedras	0.73	15	P	Pn	20 02 32.8	+0.3
	14nm,0.1s,SNR=18						
ERIP				S	Sn	20 02 43.7	+0.9
	126nm,0.1s,SNR=7.9						
PVAQ	Vaqueiros	0.76	346	*e*P	Pn	20 02 32.6	-0.3
PVAQ				*e*S	Sn	20 02 43.4	0.0
PVAQ				A		20 02 44.4	
	91nm,0.2s						
PVAQ	Vaqueiros	0.76	346	⇓P	Pn	20 02 32.6	-0.3
PVAQ				S	Sn	20 02 43.4	0.0
	91nm,0.2s						
EGRO	El Granado	0.87	1	⇑P	Pn	20 02 34.5	+0.2
	6.9nm,0.1s,SNR=18						
EGRO				S	Sn	20 02 46.9	+0.9
	26nm,0.1s,SNR=7.9						
EGRO	El Granado	0.87	1	Pg	Pn	20 02 34.6	+0.2
EGRO				Lg		20 02 47.4	
EGRO	El Granado	0.87	1	Pg	Pn	20 02 34.6	+0.3
EGRO				S	Sn	20 02 46.9	+0.9
	26nm,0.1s,SNR=7.9						
EGRO				Lg		20 02 47.4	
MORF	Marmelete	1.13	305	*e*P	Pn	20 02 36.3	-1.5
MORF				*e*S	Sn	20 02 53.1	+0.9
MORF				A		20 02 59.9	
	31nm,0.1s						
MORF	Marmelete	1.13	305	P	Pn	20 02 36.3	-1.5
MORF				S	Sn	20 02 53.1	+0.9
	31nm,0.1s						
MORF	Marmelete	1.13	305	*e*P	Pn	20 02 36.3	-1.5
MORF				*e*S	Sn	20 02 53.1	+0.9
	31nm,0.1s						
PFVI	Vila Bisbo	1.17	294	*e*P	Pn	20 02 36.5	-1.8
PFVI				*e*S	Sn	20 02 52.6	-0.5
PFVI				A		20 02 58.3	
	16nm,0.1s						
PFVI	Vila Bisbo	1.17	294	P	Pn	20 02 36.5	-1.8
PFVI				S	Sn	20 02 52.6	-0.5
	7.8nm,0.1s						
EMIN	Mina Concepcio	1.28	30	P	Pn	20 02 40.3	+0.5
	0.7nm,0.2s,SNR=14						
EMIN				S	Sn	20 02 55.4	-0.5
	11nm,0.1s,SNR=12						
EMIN	Mina Concepcio	1.28	30	P	Pn	20 02 40.3	+0.4
	0.7nm,0.2s,SNR=14						
EMIN				S	Sn	20 02 55.4	-0.6
	11nm,0.1s,SNR=12						
PTEO	Sao Teotonio	1.32	312	*e*P	Pn	20 02 39.5	-0.9
PTEO				*e*S	Sn	20 02 56.4	-0.5
PTEO				A		20 03 06.0	
	12nm,0.4s						
PTEO	Sao Teotonio	1.32	312	P	Pn	20 02 39.5	-0.9
PTEO				S	Sn	20 02 56.4	-0.5
	5.8nm,0.4s						
PTEO	Sao Teotonio	1.32	312	*e*P	Pn	20 02 39.5	-0.9
PTEO				*e*S	Sn	20 02 56.4	-0.5
	12nm,0.4s						
ESPR	Espera	1.33	81	P	Pn	20 02 40.6	0.0
	3.0nm,0.1s,SNR=9.8						
ESPR				S	Sn	20 02 57.6	+0.5
	55nm,0.4s,SNR=7.8						
ESPR	Espera	1.33	81	Pg	Pn	20 02 40.7	+0.1
ESPR				Lg		20 02 54.6	
ESPR	Espera	1.33	81	Pg	Pn	20 02 40.7	+0.2
ESPR				S	Sn	20 02 57.6	+0.5
	55nm,0.4s,SNR=7.8						
PBEJ	Beja	1.39	348	*e*P	Pn	20 02 41.5	+0.1
PBEJ				*e*S	Sn	20 02 58.7	0.0
PBEJ				A		20 03 01.1	
	10nm,0.2s						
PBEJ	Beja	1.39	348	P	Pn	20 02 41.5	+0.1
PBEJ				S	Sn	20 02 58.7	0.0
	5.2nm,0.2s						
PBEJ	Beja	1.39	348	*e*P	Pn	20 02 41.5	+0.1
PBEJ				*e*S	Sn	20 02 58.7	0.0
	10nm,0.2s						
EJIF	Jimena Fronter	1.64	97	P	Pn	20 02 44.9	+0.1
	1.0nm,0.2s,SNR=7.9						
EJIF				S	Sn	20 03 03.8	-0.9
	3.6nm,0.4s,SNR=7.9						
EJIF	Jimena Fronter	1.64	97	Pg	Pn	20 02 44.9	+0.1
EJIF				Lg		20 03 03.2	
EJIF	Jimena Fronter	1.64	97	P	Pn	20 02 44.9	+0.1
	1.0nm,0.2s,SNR=7.9						
EJIF				S	Sn	20 03 03.8	-1.0
	3.6nm,0.4s,SNR=7.9						
MOE	Montemor	1.98	340	*e*S	Sn	20 03 11.5	-1.5
MOE	Montemor	1.98	340	*e*S	Sn	20 03 11.5	-1.5
EBAD	Badajoz	2.12	10	P	Pn	20 02 51.6	+0.2
	1.0nm,0.1s,SNR=12						
EBAD				S	Sn	20 03 18.1	+1.5
	9.7nm,0.2s,SNR=7.9						
EBAD	Badajoz	2.12	10	P	Pn	20 02 51.6	+0.2
	1.0nm,0.1s,SNR=12						
EBAD				S	Sn	20 03 18.1	+1.5
	9.7nm,0.2s,SNR=7.9						
ECAB	El Cabril	2.17	49	P	Pn	20 02 52.0	-0.1
	3.1nm,0.2s,SNR=9.5						
ECAB				S	Sn	20 03 17.0	-0.7
	6.9nm,0.1s,SNR=4.5						
ECAB	El Cabril	2.17	49	Pn	Pn	20 02 53.1	+1.0
ECAB				Lg		20 03 17.5	
ECAB	El Cabril	2.17	49	P	Pn	20 02 52.0	0.0
	3.1nm,0.2s,SNR=9.5						
ECAB	El Cabril	2.17	49	Pn	Pn	20 02 53.1	+1.1
ECAB				S	Sn	20 03 17.0	-0.7
	6.9nm,0.1s,SNR=4.5						
EMIJ	Mijas	2.19	92	P	Pn	20 02 53.5	+1.2
	0.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	20 03 18.2	0.0
	3.0nm,0.3s,SNR=7.9						
EMIJ	Mijas	2.19	92	Pn	Pn	20 02 53.5	+1.2
EMIJ				Lg		20 03 19.5	
EMIJ	Mijas	2.19	92	P	Pn	20 02 53.5	+1.2
	0.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	20 03 18.2	0.0
	3.0nm,0.3s,SNR=7.9						
PESTR	Estremoz	2.20	358	*e*Pn	Pn	20 02 52.7	+0.2
PESTR				*e*Sn	Sn	20 03 19.9	+1.4
PESTR				A		20 03 21.8	
	3.1nm,0.1s						
PESTR	Estremoz	2.20	358	P	Pn	20 02 52.7	+0.2
PESTR				S	Sn	20 03 19.9	+1.4
	1.6nm,0.1s						
PESTR	Estremoz	2.20	358	*e*Pn	Pn	20 02 52.7	+0.2
PESTR				*e*Sn	Sn	20 03 19.9	+1.4
	3.1nm,0.1s						
PMAFR	Mafra	2.69	329	*e*Pn	Pn	20 02 59.3	+0.1
PMAFR				*e*Sn	Sn	20 03 30.2	-0.3
PMAFR				A		20 03 32.5	
	22nm,0.5s						
PMAFR	Mafra	2.69	329	P	Pn	20 02 59.3	+0.1
PMAFR				S	Sn	20 03 30.2	-0.3
	11nm,0.5s						
PMAFR	Mafra	2.69	329	*e*Pn	Pn	20 02 59.3	+0.1
PMAFR				*e*Sn	Sn	20 03 30.2	-0.3
	22nm,0.5s						
ELUQ	Luque	2.73	70	P	Pn	20 03 00.6	+0.9
	1.3nm,0.2s,SNR=7.9						
ELUQ				S	Sn	20 03 31.1	-0.3
	4.0nm,0.2s,SNR=7.9						
ELUQ	Luque	2.73	70	Pn	Pn	20 02 59.2	-0.5
ELUQ				Lg		20 03 31.1	
ELUQ	Luque	2.73	70	Pn	Pn	20 02 59.2	-0.5
ELUQ	Luque	2.73	70	P	Pn	20 03 00.6	+0.9
	1.3nm,0.2s,SNR=7.9						
ELUQ				S	Sn	20 03 31.1	-0.4
	4.0nm,0.2s,SNR=7.9						
PMRV	Marv??o	2.76	2	*e*Pn	Pn	20 03 00.5	+0.4
PMRV				*e*Sn	Sn	20 03 33.4	+1.2
PMRV				A		20 03 35.3	
	4.8nm,0.1s						
PMRV	Marv??o	2.76	2	P	Pn	20 03 00.5	+0.4
PMRV				S	Sn	20 03 33.4	+1.2
	2.4nm,0.1s						
PMRV	Marv??o	2.76	2	*e*Pn	Pn	20 03 00.5	+0.4
PMRV				*e*Sn	Sn	20 03 33.4	+1.2
	4.8nm,0.1s						
EADA	Adamuz	2.77	56	P	Pn	20 03 00.9	+0.7
	0.8nm,0.1s,SNR=7.9						
EADA				S	Sn	20 03 31.5	-0.8
	6.8nm,0.1s,SNR=7.9						
EADA	Adamuz	2.77	56	Pn	Pn	20 03 00.9	+0.7
EADA				Lg		20 03 31.9	
EADA	Adamuz	2.77	56	P	Pn	20 03 00.9	+0.7
	0.8nm,0.1s,SNR=7.9						
EADA				S	Sn	20 03 31.5	-0.8
	6.8nm,0.1s,SNR=7.9						
EGUA	Guajares	3.16	86	P	Pn	20 03 06.0	+0.5
	0.7nm,0.1s,SNR=7.9						
EGUA				S	Sn	20 03 35.0	-7.0
	3.0nm,0.3s,SNR=7.9						
EGUA	Guajares	3.16	86	Pn	Pn	20 03 06.0	+0.5
EGUA				Sn	Sn	20 03 37.4	-4.7
EGUA				Lg		20 03 45.9	
EGUA	Guajares	3.16	86	P	Pn	20 03 06.0	+0.4
	0.7nm,0.1s,SNR=7.9						
EGUA				Sn	Sn	20 03 37.3	-4.7
ECOG	Cogollos-Vega	3.21	78	Pn	Pn	20 03 05.6	-0.6
ECOG				Sn	Sn	20 03 38.1	-5.0
ECOG				Lg		20 03 46.9	
ECOG	Cogollos-Vega	3.21	78	Pn	Pn	20 03 05.6	-0.6
EQUE	Quentar	3.29	79	P	Pn	20 03 08.5	+1.1
	0.1nm,0.2s,SNR=7.9						
EQUE				S	Sn	20 03 44.2	-1.1
	3.5nm,0.4s,SNR=7.9						
EQUE	Quentar	3.29	79	P	Pn	20 03 08.5	+1.1
	0.1nm,0.2s,SNR=7.9						
EQUE				S	Sn	20 03 44.2	-1.1
	3.5nm,0.4s,SNR=7.9						
EBAN	Banos Encina	3.31	62	⇑P	Pn	20 03 07.9	+0.3
	7.0nm,0.1s,SNR=18						
EBAN				S	Sn	20 03 44.1	-1.6
	2.9nm,0.1s,SNR=7.9						
EBAN	Banos Encina	3.31	62	Pn	Pn	20 03 07.9	+0.3
EBAN				Lg		20 03 48.4	
EBAN	Banos Encina	3.31	62	P	Pn	20 03 07.9	+0.3
	7.0nm,0.1s,SNR=18						
EBAN				S	Sn	20 03 44.1	-1.6
	2.9nm,0.1s,SNR=7.9						
EBER	Berja	3.70	85	P	Pn	20 03 14.1	+1.1
	0.4nm,0.1s,SNR=7.9						
EBER				S	Sn	20 03 56.9	+1.5
	3.1nm,0.6s,SNR=7.9						
EBER	Berja	3.70	85	Pn	Pn	20 03 13.7	+0.7
EBER				Sn	Sn	20 03 51.3	-4.1
EBER				Lg		20 04 01.0	
EBER	Berja	3.70	85	Pn	Pn	20 03 13.7	+0.7
EBER	Berja	3.70	85	P	Pn	20 03 14.1	+1.1
	0.4nm,0.1s,SNR=7.9						
EBER				Sn	Sn	20 03 51.3	-4.1
EBER				S	Sn	20 03 56.9	+1.5
	3.1nm,0.6s,SNR=7.9						
EQES	Quesada	3.71	71	P	Pn	20 03 13.7	+0.6
	0.5nm,0.1s,SNR=7.9						
EQES				S	Sn	20 03 55.5	0.0
	2.0nm,0.2s,SNR=7.9						
EQES	Quesada	3.71	71	Pn	Pn	20 03 13.7	+0.7
EQES				Sn	Sn	20 03 49.8	-5.7
EQES				Lg		20 03 59.2	
EQES	Quesada	3.71	71	P	Pn	20 03 13.7	+0.6
	0.5nm,0.1s,SNR=7.9						
EQES				S	Sn	20 03 55.5	0.0
	2.0nm,0.2s,SNR=7.9						
MTE	Manteigas	3.73	359	*e*Sn	Sn	20 03 57.0	+0.9
MTE				A		20 03 57.6	
	4.2nm,0.3s						
MTE	Manteigas	3.73	359	*e*Sn	Sn	20 03 57.0	+0.9
	4.2nm,0.3s						
PVIS	Viseu	4.06	356	*e*Pn	Pn	20 03 18.3	+0.4
PVIS	Viseu	4.06	356	*e*Pn	Pn	20 03 18.3	+0.4
EHUE	Huescar	4.08	72	P	Pn	20 03 18.3	+0.2
	0.8nm,0.2s,SNR=7.9						
EHUE				S	Sn	20 04 03.8	-0.7
	1.3nm,0.3s,SNR=7.9						
EHUE	Huescar	4.08	72	Pn	Pn	20 03 18.8	+0.6
EHUE				Sn	Sn	20 03 58.7	-5.9
EHUE	Huescar	4.08	72	P	Pn	20 03 18.3	+0.2
	0.8nm,0.2s,SNR=7.9						
EHUE	Huescar	4.08	72	Pn	Pn	20 03 18.8	+0.7
EHUE				S	Sn	20 04 03.8	-0.8
	1.3nm,0.3s,SNR=7.9						
ESDC	Sonseca Array	4.10	42	P	Pn	20 03 19.2	+0.8
	1.9nm,0.1s,baz=227,slow=13,SNR=7.9						
ESDC				S	Sn	20 04 02.3	-2.7
	2.4nm,0.2s,baz=225,slow=23,SNR=7.9						
ESDC	Sonseca Array	4.10	42	Pn	Pn	20 03 19.2	+0.8
ESDC				Sn	Sn	20 04 00.2	-4.9
ESDC	Sonseca Array	4.10	42	P	Pn	20 03 19.2	+0.8
	1.9nm,0.1s,slow=13,SNR=7.9						
ESDC				Sn	Sn	20 04 00.2	-4.8
ESDC				S	Sn	20 04 02.3	-2.7
	2.4nm,0.2s,baz=225,slow=23,SNR=7.9						
EVIA	Vianos	4.42	62	P	Pn	20 03 22.5	-0.4
	1.0nm,0.1s,SNR=7.9						
EVIA				S	Sn	20 04 11.7	-1.4
	3.3nm,0.2s,SNR=7.9						
EVIA	Vianos	4.42	62	Pn	Pn	20 03 22.6	-0.4
EVIA				Sn	Sn	20 04 06.8	-6.4
EVIA	Vianos	4.42	62	P	Pn	20 03 22.5	-0.4
	1.0nm,0.1s,SNR=7.9						
EVIA				S	Sn	20 04 11.7	-1.4
	3.3nm,0.2s,SNR=7.9						
MVO	Moncorvo	4.51	4	*e*Pn	Pn	20 03 24.4	+0.3
MVO				*e*Sn	Sn	20 04 14.1	-1.1
MVO				A		20 04 15.7	
	4.0nm,0.3s						
MVO	Moncorvo	4.51	4	P	Pn	20 03 24.4	+0.3
MVO				S	Sn	20 04 14.1	-1.1
	2.0nm,0.3s						
MVO	Moncorvo	4.51	4	*e*Pn	Pn	20 03 24.4	+0.3
MVO				*e*Sn	Sn	20 04 14.1	-1.1
	4.0nm,0.3s						
PVRL	Vila Real	4.61	358	*e*Sn	Sn	20 04 18.3	+0.6
PVRL				A		20 04 19.3	
	6.8nm,0.1s						
PVRL	Vila Real	4.61	358	S	Sn	20 04 18.3	+0.6
	3.4nm,0.1s						
PVRL	Vila Real	4.61	358	*e*Sn	Sn	20 04 18.3	+0.6
	6.8nm,0.1s						
ETOB	Tobarra	5.12	65	P	Pn	20 03 32.1	-0.3
	1.4nm,0.2s,SNR=18						
ETOB				S	Sn	20 04 28.7	-1.4
	5.4nm,0.2s,SNR=7.9						
ETOB	Tobarra	5.12	65	Pn	Pn	20 03 32.1	-0.3
ETOB				Sn	Sn	20 04 24.8	-5.4
ETOB	Tobarra	5.12	65	P	Pn	20 03 32.1	-0.3
	1.4nm,0.2s,SNR=18						
ETOB				S	Sn	20 04 28.7	-1.4
	5.4nm,0.2s,SNR=7.9						
EMUR	La Murta	5.13	75	P	Pn	20 03 33.2	+0.7
	0.6nm,0.3s,SNR=7.9						
EMUR				S	Sn	20 04 26.7	-3.7
	0.5nm,0.2s,SNR=7.9						
EMUR	La Murta	5.13	75	Pn	Pn	20 03 32.5	0.0
EMUR				Sn	Sn	20 04 24.3	-6.1
EMUR	La Murta	5.13	75	Pn	Pn	20 03 32.5	0.0
EMUR	La Murta	5.13	75	P	Pn	20 03 33.2	+0.7
	0.6nm,0.3s,SNR=7.9						
EMUR				S	Sn	20 04 26.7	-3.7
	0.5nm,0.2s,SNR=7.9						
ELOB	Lobios	5.22	355	P	Pn	20 03 34.1	+0.4
	1.0nm,0.3s,SNR=7.9						
ELOB				S	Sn	20 04 30.1	-2.5
	1.0nm,0.1s,SNR=7.9						
ELOB	Lobios	5.22	355	Pn	Pn	20 03 34.9	+1.1
ELOB				Sn	Sn	20 04 29.3	-3.3

ELOB	Lobios	5.22	355	P	Pn	20 03 34.1	+0.3
	1.0nm,0.3s,SNR=7.9						
ELOB	Lobios	5.22	355	Pn	Pn	20 03 34.9	+1.1
ELOB				Sn	Sn	20 04 29.3	-3.3
ELOB				S	Sn	20 04 30.1	-2.5
	1.0nm,0.1s,SNR=7.9						
ECAL	Calabor	5.30	6	Pn	Pn	20 03 34.9	-0.1
ECAL				Sn	Sn	20 04 29.9	-4.9
ECAL	Calabor	5.30	6	Pn	Pn	20 03 34.9	-0.1
ECAL				Sn	Sn	20 04 29.9	-4.8
ETOR	Torete	5.94	44	P	Pn	20 03 44.4	+0.7
	2.7nm,0.2s,SNR=7.9						
ETOR				S	Sn	20 04 47.4	-3.0
	6.5nm,0.2s,SNR=7.9						
ETOR	Torete	5.94	44	Pn	Pn	20 03 44.4	+0.7
ETOR				Sn	Sn	20 04 43.2	-7.2
ETOR	Torete	5.94	44	P	Pn	20 03 44.4	+0.7
	2.7nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	6.63	54	Pn	Pn	20 03 54.2	+1.1
EMOS				Sn	Sn	20 04 59.0	-8.4
EMOS	Mosqueruela	6.63	54	Pn	Pn	20 03 54.2	+1.0

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*IDC **03** 20:22:57.0±6.8, 37°.38N×72°.60E, h150^{km}±54^{km}, mb3.5/4, mb1 3.4/9, mb1mx3.1/28, mbtmp3.4/9, Error ellipse: s-maj=56.4km s-min=33.3km az=156.0*

*ISCJB **03** 20:23:01.0±0.4, 37°.67N±0°.03×72°.60E±0°.06, h193^{km}±7^{km}, mb3.5/4, Error ellipse: s-maj=7.8km s-min=4.6km az=164.9*

*NEIC **03** 20:23:02.0±1.0, 37°.62N×72°.65E, h190^{km}±8^{km}, mb4.1/4, Error ellipse: s-maj=23.4km s-min=9.3km az=129.0*

*NNC **03** 20:23:05.1±5.0, 38°.27N×71°.80E, h0^{km}, mb3.7, mpv3.5, Error ellipse: s-maj=39.6km s-min=32.3km az=15.0*

ISC 03 20:23:01.9±0.4, **37°.67N**±0°.03×**72°.60E**±0°.06, **h186**^{km}±7^{km}, **n44**, σ1^{s}.**20**/54, **mb3.6**/4, **3C-6D**, **Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	3.22	54	⇓*i*Pn	Pn	20 23 50.3	-3.1
KSH				Sn	Sn	20 24 24.5	-9.2
KSH				smax			
	comp=N,220nm,0.2s						
KSH				smax			
	comp=E,170nm,0.3s						
KBL	Kabul	4.25	224	*e*Pn	Pn	20 24 07.2	+0.9
KBL				*e*Sn	Sn	20 24 56.1	-0.6
AML	Almayashu	4.54	10	P	Pn	20 24 10.9	+1.0
	SNR=58						
AML	Almayashu	4.54	10	*e*Pn	Pn	20 24 10.7	+0.8
AML				*e*Sn	Sn	20 25 00.8	-2.6
UCH	Uchtor	4.79	17	P	Sn	20 25 08.1	-1.1
	SNR=15						
UCH	Uchtor	4.79	17	Pn	Pn	20 24 14.2	+1.1
UCH				*e*Sn	Sn	20 25 07.4	-1.8
EKS2	Erkin-Say	5.07	10	P	Pn	20 24 17.8	+1.0
	SNR=13						
EKS2	Erkin-Say	5.07	10	*e*Pn	Pn	20 24 17.1	+0.3
	comp=E,18nm,0.4s						
EKS2				*e*Sn	Sn	20 25 07.5	-8.2
AAK	Ala-Archa	5.17	16	P	Pn	20 24 19.1	+1.1
	SNR=6.9						
AAK	Ala-Archa	5.17	16	*e*Pn	Pn	20 24 19.1	+1.1
	comp=E,6.6nm,0.4s						
AAK				*e*Sn	Sn	20 25 02.0	-16
KBK	Karagaybulak	5.30	19	P	Pn	20 24 21.9	+2.1
	SNR=7.7						
KK31	Karatay Array	5.66	344	⇑Pn	Pn	20 24 24.5	+0.1
	comp=E,1.4nm,0.2s,baz=152,slow=11,SNR=109						
KK31				⇓Sn	Sn	20 25 24.9	-4.6
	comp=E,34nm,0.6s,baz=144,slow=18,SNR=22						
TKM2	Tokmak 2	5.73	23	P	Pn	20 24 26.9	+1.7
	SNR=6.8						
TKM2	Tokmak 2	5.73	23	*e*Pn	Pn	20 24 26.1	+0.8
	comp=E,7.6nm,0.7s						
TKM2	Tokmak 2	5.73	23	⇑Pn	Pn	20 24 26.5	+1.2
	comp=E,8.4nm,0.8s						
TKM2				⇑Sn	Sn	20 25 32.9	+1.9
	comp=E,4.6nm,0.6s						
DLH	Dalhousie	5.81	151	*e*PKP	Px	20 25 30.0	
DLH				*e*S	Sn	20 25 34.0	+1.0
MK31	Makanchi Array	11.60	35	*e*Pn	Pn	20 25 40.8	-1.1
MKAR	Makanchi Array	11.60	35	P	Pn	20 25 42.2	+0.4
	comp=E,0.1nm,0.3s,baz=218,slow=13,SNR=5.9						
PYUN	Piuthan	12.92	135	*e*P	Pn	20 25 57.1	-1.7
DANN	Dangsing	13.18	132	*e*P	Pn	20 26 01.7	-0.4
KOLN	Koldanda	13.52	134	*e*P	Pn	20 26 04.4	-2.0
KURK	Kurchatov	13.73	16	P	Pn	20 26 05.8	-3.0
	comp=E,0.1nm,0.3s,baz=204,slow=11,SNR=4.7						
KURK	Kurchatov	13.73	16	*e*Pn	Pn	20 26 11.5	+2.7
	comp=E,5.0nm,0.8s						
GKN	Gorkha	13.96	130	*e*P	Pn	20 26 12.2	+0.4
	comp=E,26nm,0.4s						
KKN	Kakani	14.51	129	*e*P	Pn	20 26 19.1	+0.5
DMN	Daman	14.53	130	*e*P	Pn	20 26 19.0	+0.1
	comp=E,10nm,0.5s						
AB09	Akbulak array	14.78	326	⇓Pn	Pn	20 26 20.8	-0.9
	comp=E,0.4nm,0.5s						
AB09				⇓Sn	Sn	20 28 55.3	-11
	comp=E,2.0nm,0.5s						
GUN	Gumba	14.79	127	*e*P	Pn	20 26 24.6	+2.4
	comp=E,17nm,0.4s						
JIRN	Jiri	15.16	127	*e*P	Pn	20 26 27.1	+0.4
BVAR	Borovoye Array	15.44	355	P	Pn	20 26 29.0	-0.8
	comp=E,0.6nm,0.3s,baz=160,slow=9.8,SNR=16						
RAMN	Ramite	15.92	128	*e*P	Pn	20 26 35.0	-0.9
	comp=E,19nm,0.3s						
TAPN	Taplejung	16.36	125	*e*P	Pn	20 26 42.4	+1.2
AKTK	Aktyubinsk	16.48	325	P	Pn	20 26 42.7	+0.3
AKTO	Aktyubinsk	16.48	325	P	Pn	20 26 42.7	+0.3
	comp=E,0.2nm,0.3s,baz=119,slow=9.5,SNR=3.9						
AKTO	Aktyubinsk	16.48	325	⇓Pn	Pn	20 26 42.5	+0.1
	comp=E,0.7nm,1.1s						
AKTO				⇓Sn	Sn	20 29 39.4	-7.8
	comp=E,0.4nm,0.8s						
ODAN	Odare	16.48	127	*e*P	Pn	20 26 40.6	-2.1
ZAA0	Zalesovo Array	18.33	23	*e*P	P	20 27 01.8	-0.2
ZALV	Zalesovo Beam	18.33	23	P	P	20 27 02.2	+0.2
	comp=E,1.1nm,0.3s,baz=222,slow=11,SNR=26						
ARCES	ARCESS Array B	40.57	337	P	P	20 30 23.5	+0.8
	comp=E,2.6nm,0.8s,mb3.9,baz=117,slow=8.8,SNR=11						
HFS	Hagfors	42.96	321	P	P	20 30 42.4	+0.3
	comp=E,3.0nm,0.8s,mb4.0,baz=98,slow=11,SNR=5.9						
TORD	Torodi Ar. Bea	67.02	269	P	P	20 33 33.9	-1.2
	comp=E,0.3nm,0.4s,mb3.5,baz=35,slow=6.2,SNR=5.4						
TORD	Torodi Ar. Bea	67.02	269	P	P	20 33 33.9	-1.2
YKA	Yellowknife Ar	80.02	3	P	P	20 34 50.7	+0.6
	comp=E,0.3nm,0.4s,mb3.2,baz=347,slow=5.8,SNR=7.7						
YKA	Yellowknife Ar	80.02	3	P	P	20 34 50.7	+0.6

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*ISCJB **03** 20:27:10.9±0.6, 28°.83S±0°.03×67°.53W±0°.06, h119^{km}±7^{km}, mb4.0/9, Error ellipse: s-maj=9.1km s-min=5.7km az=0.3*

*NEIC **03** 20:27:10.9±0.7, 28°.96S×67°.62W, h205^{km}±23^{km}, Error ellipse: s-maj=17.8km s-min=10.7km az=98.0*

*GUC **03** 20:27:11.9±0.6, 28°.83S×67°.62W, h130^{km}, ML5.2*

*IDC **03** 20:27:13.4±0.5, 28°.94S×67°.46W, h126^{km}±4^{km}, mb3.9/9, mb1 4.1/12, mb1mx3.9/20, mbtmp3.9/12, MS2.7/1, Ms1 2.7/1, ms1mx2.4/27, Error ellipse: s-maj=16.5km s-min=9.3km az=98.0*

ISC 03 20:27:12.1±0.6, **28°.83S**±0°.03×**67°.52W**±0°.06, **h114**^{km}±7^{km}, **n38**, σ1^{s}.**01**/43, **mb4.0**/9, **4C-2D**, **La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	Las Campanas	2.80	265	⇑*i*Pn	Pn	20 27 57.3	+1.7
LCO				*e*Sn	Sn	20 28 30.4	+1.4
CFAA	Coronel Fontan	2.84	193	P	Pn	20 27 57.5	+1.5
	11nm,0.3s,baz=4.5,slow=11,SNR=1748						
CFAA				S	Sn	20 28 30.0	+0.1
	29nm,0.3s,baz=14,slow=18,SNR=33						
CFAA	Coronel Fontan	2.84	193	P	Pn	20 27 57.5	+1.5
CFAA				S	Sn	20 28 30.0	+0.1
CPCH	Copiapo	2.90	300	*e*P	Pn	20 27 56.7	-0.2
CPCH				*e*S	Sn	20 28 30.6	-0.8
CPCH				AML	AML	20 28 35.2	
	comp=N,9µm,0.1s						
LSCH	La Serena	3.43	251	*e*P	Pn	20 28 03.9	0.0
LSCH				*i* S	Sn	20 28 42.6	-1.2
OVCH	Ovalle	3.66	240	*e*P	Pn	20 28 06.7	-0.3
OVCH				*i* S	Sn	20 28 48.6	-0.9
OVCH				AML	AML	20 28 54.7	
	comp=N,841nm,0.6s						
CMCH	Combarbala	3.82	231	*i* P	Pn	20 28 09.1	0.0
CMCH				*i* S	Sn	20 28 52.8	-0.5
CMCH				AML	AML	20 28 55.5	
	comp=N,3µm,0.8s						
CHNG	Los Chungos	4.60	228	*e*P	Pn	20 28 18.4	-1.1
CHNG				*e*S	Sn	20 29 09.4	-2.5
JACH	Jahuel	4.67	214	*i* P	Pn	20 28 20.9	+0.5
CPN1	Cerro Paranal	4.92	328	*e*P	Pn	20 28 25.3	+1.4
PCH	Pirque	5.42	207	⇑*i*P	Pn	20 28 31.1	+0.5
RCDM	Rinconada Maip	5.44	210	*i* P	Pn	20 28 30.9	+0.1
RCDM				*i* S	Sn	20 29 31.8	-0.3
LMEL	Las Melosas	5.51	204	*e*P	Pn	20 28 32.7	+0.9
CHCH	Chadas Angostu	5.75	207	⇑*i*P	Pn	20 28 35.0	-0.1
CACH	El Canelo	5.89	206	⇓*i*P	Pn	20 28 38.0	+1.0
CICH	Cipreses	6.01	204	⇓*i*P	Pn	20 28 39.0	+0.4
LVC	Limon Verde	6.31	348	P	Pn	20 28 44.4	+1.6
	comp=N,10nm,0.3s,baz=188,slow=7.3,SNR=25						
LVC				S	Sn	20 29 51.8	-1.8
	comp=N,11nm,0.3s,baz=53,slow=21,SNR=12						
LVC	Limon Verde	6.31	348	P	Pn	20 28 44.4	+1.6
LVC				S	Sn	20 29 51.8	-1.8
CPUP	Villa Florida	9.38	77	P	Pn	20 29 23.3	-1.0
	comp=N,2.5nm,0.3s,baz=235,slow=12,SNR=19						
PLCA	Paso Flores	12.14	191	P	Pn	20 29 55.5	-5.6
	comp=N,0.0nm,0.3s,baz=24,slow=12,SNR=2.4						
PLCA				LR	LR	20 35 10.9	
	comp=N,41nm,21.2s,baz=17,slow=40						
PLCA	Paso Flores	12.14	191	P	Pn	20 29 55.5	-5.6
PLCA				LR	LR	20 35 10.8	
SIV	San Ignacio	14.09	26	P	Pn	20 30 23.9	-2.8
	comp=N,0.8nm,0.3s,baz=209,slow=14,SNR=26						
TKL	Tuckaleechee C	65.94	346	P	P	20 37 45.2	-0.7
	comp=N,2.1nm,0.8s,mb4.0,baz=203,slow=4.4,SNR=5.3						
TXAR	Lajitas Array	67.36	326	P	P	20 37 55.9	+0.8
	comp=N,0.5nm,0.5s,mb3.6,baz=144,slow=7.3,SNR=6.4						
TXAR				pP	pP	20 38 27.1	+3.9
	comp=N,0.5nm,0.8s,baz=152,slow=5.7,SNR=2.1						
SYO	Syowa Base	69.24	158	⇑*e*P	P	20 38 05.0	-1.3
DBIC	Dimbokro	69.82	70	P	P	20 38 10.4	-0.3
	comp=N,3.6nm,0.7s,mb4.3,baz=213,slow=6.9,SNR=15						
ANMO	Albuquerque	73.32	327	P	P	20 38 32.3	+1.1
	comp=N,1.3nm,0.7s,mb3.9,baz=130,slow=5.5,SNR=4.9						
TORD	Torodi Ar. Bea	78.76	68	P	P	20 39 02.7	+0.2
	comp=N,2.6nm,0.5s,mb4.3,baz=277,slow=6.2,SNR=94						
BOSA	Boshof	78.98	117	P	P	20 39 02.7	-1.0
	comp=N,3.1nm,0.5s,mb4.4,baz=278,slow=4.5,SNR=12						
PDAR	Pinedale Array	81.06	330	P	P	20 39 15.1	+0.8
	comp=N,1.6nm,0.8s,mb3.9,baz=129,slow=7.2,SNR=12						
PDAR				pP	pP	20 39 47.2	+3.9
	comp=N,1.0nm,0.8s,baz=131,slow=6.7,SNR=3.6						
NVAR	Mina Array Bea	82.02	322	P	P	20 39 20.3	+0.9
	comp=N,0.8nm,0.6s,mb3.7,baz=145,slow=5.4,SNR=4.5						
YKA	Yellowknife Ar	98.48	340	P	P	20 40 36.9	0.0
	comp=N,0.4nm,0.7s,mb4.0,baz=130,slow=5.0,SNR=6.8						
ASAR	Alice Springs	123.88	204	PKP	PKPdf	20 45 56.3	-1.0
	comp=N,1.5nm,0.4s,baz=137,slow=1.7,SNR=41						
WRA	Warramunga Arr	127.12	206	PKP	PKPdf	20 46 03.0	-0.6
	comp=N,4.6nm,0.6s,baz=163,slow=1.7,SNR=110						
WRA				pPKP	pPKPdf	20 46 36.3	+1.9
	comp=N,0.9nm,0.7s,baz=164,slow=1.6,SNR=3.3						
ZALV	Zalesovo Beam	147.81	31	PKPbc	PKPbc	20 46 43.8	+0.5
	comp=N,2.8nm,0.4s,baz=299,slow=3.3,SNR=25						
ZALV				pPKPbc	pPKPbc	20 47 15.9	+2.1
	comp=N,2.3nm,0.5s,baz=300,slow=3.3,SNR=4.3						
MKAR	Makanchi Array	150.41	44	PKP	PKPdf	20 46 45.5	+1.0
	comp=N,1.1nm,0.8s,baz=48,slow=1.8,SNR=4.3						
MKAR				PKPbc	PKPbc	20 46 50.4	+0.4
	comp=N,3.7nm,0.8s,baz=314,slow=2.2,SNR=48						
MKAR				PKPab	PKPab	20 46 57.7	+0.9
	comp=N,1.4nm,0.5s,baz=299,slow=2.8,SNR=9.9						
MKAR				pPKPbc	pPKPbc	20 47 24.0	+3.4
	comp=N,3.6nm,0.9s,baz=307,slow=2.4,SNR=5.7						
MJAR	Matsushiro Arr	157.07	296	PKPab	PKPab	20 47 25.8	+0.4
	comp=N,0.5nm,0.5s,baz=219,slow=18,SNR=4.1						
SONM	Songino Array	160.44	12	PKP	PKPdf	20 46 58.3	+0.3
	comp=N,0.3nm,0.6s,baz=165,slow=0.8,SNR=4.3						
SONM				PKPab	PKPab	20 47 39.7	+0.2
	comp=N,0.3nm,0.7s,baz=339,slow=3.5,SNR=3.6						

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*CSEM **03** 20:51:12.2±0.4, 49°.76N×18°.45E, h2^{km}, Error ellipse: s-maj=14.1km s-min=5.6km az=30.0*

PRU 03 20:51:13.4, 49°.77N×18°.47E, h0^{km}, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	Ostrava-Krasne	0.22	288	*e*PG	Pg	20 51 17.3	-0.3
OKC				*e*SG	Sg	20 51 21.1	+0.7
	comp=Z,57nm,0.6s						
OKC	Ostrava-Krasne	0.22	288	Pg	Pg	20 51 17.3	-0.3
OKC				Sg	Sg	20 51 21.1	+0.7
	comp=Z,57nm,0.6s						
NIE	Niedzica	1.25	106	*e*Pg	Pg	20 51 36.3	-1.0
NIE				*e*Sg	Sg	20 51 55.3	+1.8
VYHS	Vyhne	1.30	169	*e*PG	Pg	20 51 37.2	-1.1
VYHS				*e*SG	Sg	20 51 53.5	-1.6
VYHS	Vyhne	1.30	169	*e*Pg	Pg	20 51 37.2	-1.1
VYHS				*e*Sg	Sg	20 51 53.6	-1.5
VYHS	Vyhne	1.30	169	*e*Pg	Pg	20 51 37.2	-1.1
VYHS				*e*Sg	Sg	20 51 53.6	-1.5
DPC	Dobruska-Polom	1.50	294	*e*PG	Pg	20 51 40.0	-2.2
DPC				*e*SG	Sg	20 52 01.4	-0.2
DPC	Dobruska-Polom	1.50	294	Pg	Pg	20 51 40.0	-2.2
DPC				Sg	Sg	20 52 01.4	-0.2
UPC	Upice	1.75	296	*e*PG	Pg	20 51 44.3	-2.5
UPC				*e*SG	Sg	20 52 08.5	-0.9
UPC	Upice	1.75	296	Pg	Pg	20 51 44.3	-2.5
UPC				Sg	Sg	20 52 08.5	-0.9
STHS	Stebnicka Huta	1.84	100	*e*PG	Pg	20 51 47.8	-0.8
STHS				*e*SG	Sg	20 52 12.9	+0.5
STHS	Stebnicka Huta	1.84	100	*e*Pg	Pg	20 51 47.8	-0.8
STHS				*e*Sg	Sg	20 52 12.9	+0.5

PRE 03 21:10:21.4±0.5, **20°.84S×33°.51E, h5**^{km}, **ML4.0, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSNA	Messina	3.58	245	*e*P	Pn	21 11 19.1	+1.5
MSNA				*e*S	Sn	21 12 00.6	+0.4
MSNA				AML	AML	21 12 13.9	
	comp=Z,72nm,0.3s						
POGA	Pongola	6.73	195	*e*P	Pn	21 12 01.1	+0.3
POGA				*e*S	Sn	21 13 14.1	-3.8
POGA				AML	AML	21 13 51.8	
	comp=Z,18nm,0.6s						
SLR	Silverton	6.84	224	*e*S	Sn	21 13 17.7	-3.1
SLR				AML	AML	21 13 52.5	
	comp=Z,28nm,0.6s						
KSR	Koster	7.86	229	*e*S	Sn	21 13 42.6	-3.2
KSR				AML	AML	21 14 21.8	
	comp=Z,16nm,0.4s						
PRYS	Parys	8.27	222	*e*P	Pn	21 12 23.3	+1.3
PRYS				*e*S	Sn	21 13 52.2	-3.6
PRYS				AML	AML	21 14 49.1	
	comp=Z,16nm,0.7s						
SWZ	Schweizer	9.78	228	*e*P	Pn	21 12 44.1	+1.3
BOSA	Boshof	10.78	222	*e*P	Pn	21 12 57.7	+1.3
BOSA				*e*S	Sn	21 14 52.1	-5.3
BOSA				AML	AML	21 16 00.3	
	comp=Z,6.8nm,0.7s						
PKA	Prieska	13.11	226	*e*P	Pn	21 13 30.0	+1.7

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*NIED **03** 21:15:00, 25°.40N×128°.30E, h8^{km}, Mw3.7 Best double couple: $M_0$3.74000×10^{14} NP1:ϕ_s245.00000°, δ62.00000°, λ-68.00000°. NP2:ϕ_s25.00000°, δ35.00000°, λ-125.00000°.*

*IDC **03** 21:15:52.9±1.2, 25°.40N×128°.20E, h0^{km}, mb3.6/4, mb1 3.7/4, mb1mx3.4/21, mbtmp3.6/4, Error ellipse: s-maj=58.5km s-min=18.2km az=77.0*

*ISCJB **03** 21:15:55.2±0.6, 25°.40N±0°.04×128°.30E±0°.05, h33^{km}, mb3.5/3, Error ellipse: s-maj=6.7km s-min=4.6km az=40.2*

*JMA **03** 21:15:55.2±0.4, 25°.38N×128°.31E, h60^{km}, M3.6*

*NEIC **03** 21:15:57.5±0.9, 25°.48N×128°.41E, h35^{km}, MG3.6(JMA), Error ellipse: s-maj=51.3km s-min=12.9km az=77.0*

ISC 03 21:15:56.1±2.2, **25°.44N**±0°.04×**128°.27E**±0°.05, **h28**^{km}±19^{km}, **n20**, σ0^{s}.**93**/27, **mb3.5**/3, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JJT2	Tamagusuku 2	0.84	326	P	Pn	21 16 12.3	+0.2
NAH1	Naha	0.92	326	P	Pn	21 16 13.2	0.0
JOW	Kunigami	1.39	0	P	Pn	21 16 19.6	0.0
JOW				S	Sn	21 16 36.0	-1.0
JOW	Kunigami	1.39	0	Pn	Pn	21 16 19.8	+0.1
	41nm,0.3s,baz=145,slow=18,SNR=96						
JOW				Sn	Sn	21 16 36.2	-0.8
	76nm,0.3s,baz=131,slow=26,SNR=18						
JAGN	Aguni-jima	1.47	321	P	Pn	21 16 21.1	+0.3
JAGN				S	Sn	21 16 39.8	+0.7
JKE	Kume jima 2	1.60	304	P	Pn	21 16 22.4	-0.1
JKE				*e*S	Sn	21 16 41.6	-0.6
JIH	Iheya	1.61	350	P	Pn	21 16 23.4	+0.7
JIH				S	Sn	21 16 43.5	+0.9
JTK	Tokunoshima	2.42	15	P	Pn	21 16 33.7	-0.1
JTK				S	Sn	21 17 00.5	-1.9
JOGS	Gusukube	2.68	256	*e*S	Sn	21 17 07.5	-1.4
JMZ	Minamidaito 2	2.69	81	P	Pn	21 16 35.5	-2.1
JMZ				S	Sn	21 17 03.7	-5.6
JMJ	Miyako jima 2	2.77	258	*e*S	Sn	21 17 11.2	+0.2
JAM	Amami Oshima	3.19	22	P	Pn	21 16 45.6	+1.1
JAM				*e*S	Sn	21 17 20.8	-0.8
JZK	Kikaishima	3.25	28	P	Pn	21 16 46.3	+1.1
JTJ	Tarama	3.33	257	P	Pn	21 16 45.7	-0.6
JTJ				*e*S	Sx	21 17 22.5	
JIJ	Ishigaki jima	3.89	255	P	Pn	21 16 53.3	-0.8
JIJ				*e*S	Sx	21 17 34.9	
JKRS	Kuro-shima	4.05	254	*e*S	Sx	21 17 39.9	
SONM	Songino Array	28.23	328	P	P	21 21 48.3	+1.7
	0.3nm,0.5s,baz=143,slow=9.1,SNR=4.1						
MKAR	Makanchi Array	42.09	313	P	P	21 23 46.1	+0.6
	0.4nm,0.5s,mb3.3,baz=96,slow=10,SNR=14						
WRA	Warramunga Arr	45.49	172	P	P	21 24 13.7	+0.6
	0.9nm,0.6s,mb3.8,baz=352,slow=8.7,SNR=14						
ASAR	Alice Springs	49.12	173	P	P	21 24 42.0	+0.8
	0.4nm,0.7s,mb3.6,baz=360,slow=8.1,SNR=7.1						

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*NEIC **03** 21:31:00.3±0.7, 5°.78S×130°.06E, h10^{km}, mb3.9/2, Error ellipse: s-maj=18.8km s-min=8.7km az=68.0*

*IDC **03** 21:31:12.1±15.0, 6°.29S×129°.74E, h119^{km}±158^{km}, mb3.2/1, mb1 3.6/4, mb1mx3.2/17, mbtmp3.4/4, ML3.7/3, Error ellipse: s-maj=95.7km s-min=57.5km az=36.0*

*ISCJB **03** 21:31:15.0±2.2, 6°.44S±0°.09×130°.0E±0°.1, h172^{km}±23^{km}, mb3.6/2, Error ellipse: s-maj=19.8km s-min=13.3km az=160.4*

ISC 03 21:31:16.2±1.7, **6°.52S**±0°.08×**129°.8E**±0°.1, **h164**^{km}±17^{km}, **n11**, σ1^{s}.**02**/17, **mb3.6**/2, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.67	158	*e*Pn	Pn	21 32 51.0	-0.9
	19nm,0.4s						
KAKA				*e*S	Sn	21 33 54.7	-12
FITZ	Fitzroy Crossi	12.22	199	P	Pn	21 34 05.8	+0.9
	0.4nm,0.3s,baz=34,slow=8.3,SNR=8.8						
FITZ				S	Sn	21 36 19.7	-0.7
	1.4nm,0.3s,baz=52,slow=11,SNR=11						
WRAB	Tennant Creek	14.04	162	*e*Pn	Pn	21 34 28.8	+0.7
	1.7nm,0.3s						
WRAB				*e*S	Sn	21 36 58.0	-6.0
WRA	Warramunga Arr	14.04	162	P	Pn	21 34 27.4	-0.8
	0.2nm,0.3s,baz=344,slow=12,SNR=4.5						
WRA				S	Sn	21 37 00.2	-4.0
	0.6nm,0.3s,baz=327,slow=24,SNR=6.3						
WB2	Warramunga Arr	14.05	162	*e*Pn	Pn	21 34 28.8	+0.6
WB2				*e*S	Sn	21 36 56.6	-7.7
ASAR	Alice Springs	17.50	168	P	Pn	21 35 11.6	+1.4
	0.6nm,0.3s,baz=353,slow=10.0,SNR=36						
ASAR				S	S	21 38 21.9	-0.4
	0.2nm,0.3s,baz=337,slow=16,SNR=6.6						
MBWA	Marble Bar	17.54	213	Pn	Pn	21 35 13.8	+3.0
CTAO	Charters Tower	20.88	132	*e*P	P	21 35 46.7	+1.0
	1.1nm,0.4s						
LSA	Lhasa	51.74	316	P	P	21 40 05.8	-1.2
MKAR	Makanchi Array	67.73	327	P	P	21 41 55.3	-0.6
	0.2nm,0.4s,mb3.2,baz=112,slow=7.9,SNR=12						
AAK	Ala-Archa	70.07	320	*e*P	P	21 42 10.3	-0.1
	1.4nm,0.6s,mb3.9						

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*IDC **03** 21:53:29.7±3.0, 16°.48N×86°.50W, h0^{km}, mb3.4/2, mb1 3.9/4, mb1mx3.6/20, mbtmp3.6/4, ML3.6/2, MS3.8/1, Ms1 3.7/1, ms1mx2.6/26, Error ellipse: s-maj=53.1km s-min=46.5km az=54.0*

*ISCJB **03** 21:53:31.8±0.6, 16°.46N±0°.04×86°.58W±0°.09, h33^{km}, mb3.8/3, Error ellipse: s-maj=12.4km s-min=5.6km az=170.1*

*NEIC **03** 21:53:33.8±0.6, 16°.39N×86°.53W, h35^{km}, mb3.9/4, Error ellipse: s-maj=14.9km s-min=8.4km az=65.0*

*CASC **03** 21:53:35.7±2.4, 16°.44N×87°.14W, h39^{km}±999^{km}, ML3.4, mb3.9(NEIC)*

ISC 03 21:53:33.8±0.6, **16°.44N**±0°.05×**86°.58W**±0°.07, **h35**^{km}, **n17**, σ1^{s}.**07**/21, **mb3.8**/3, **North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGUH	Tegucigalpa,Un	2.46	196	*e*Pn	Pn	21 54 10.8	-0.6
TGUH				*e*S	Sn	21 54 41.8	+1.6
TGUH	Tegucigalpa,Un	2.46	196	*e*P	Pn	21 54 11.9	+0.5
TGUH				*e*S	Sn	21 54 40.2	0.0
BOAB	BOACO BROADBAN	4.06	167	*e*P	Pn	21 54 38.3	+4.8
BOAB				AML	AML	21 55 39.5	
	comp=Z,82nm,0.6s						
TEIG	Tepich	4.10	337	Pn	Pn	21 54 33.6	-0.4
	comp=Z,11nm,0.3s,baz=332,slow=1.7,SNR=141						
TEIG				Sn	Sn	21 55 20.4	-0.3
	comp=Z,14nm,0.3s,baz=75,slow=23,SNR=12						
TEIG	Tepich	4.10	337	*e*P	Pn	21 54 33.6	-0.3
JTS	JuntasAbangare	6.31	165	*e*Pn	Pn	21 55 04.0	-0.4
CMIG	Matias Romero	7.98	276	Pn	Pn	21 55 27.0	-0.3
	comp=Z,0.3nm,0.3s,baz=74,slow=7.4,SNR=4.2						
CMIG				Sn	Sn	21 56 55.0	-1.4
	comp=Z,0.5nm,0.3s,baz=211,slow=20,SNR=3.8						
CMIG	Matias Romero	7.98	276	Pn	Pn	21 55 27.0	-0.3
CMIG				Sn	Sn	21 56 55.0	-1.4
SDV	Santo Domingo	17.27	114	Pn	Pn	21 57 30.9	-1.4
	comp=Z,3.5nm,1.3s						
MIAR	Mount Ida	19.09	342	P	Pn	21 57 53.8	-0.7
TXAR	Lajitas Array	20.28	312	P	P	21 58 08.7	+2.3
	comp=Z,0.9nm,0.7s,baz=128,slow=10,SNR=8.8						
ANMO	Albuquerque	25.62	320	*e*P	P	21 59 01.8	+1.8
	comp=Z,1.7nm,1.0s,mb3.5						
SDCO	Great Sand Dun	26.99	326	P	P	21 59 11.4	-0.9
	comp=Z,6.5nm,0.9s,mb4.2						
LAO	LASA Array	34.29	336	P	P	22 00 17.1	+0.4
	comp=Z,7.5nm,0.8s						
YKA	Yellowknife Ar	50.03	343	P	P	22 02 25.7	+1.1
	comp=Z,0.4nm,0.4s,mb3.8,baz=137,slow=8.0,SNR=11						
YKA				LR	LR	22 25 36.6	
	comp=Z,92nm,20.1s,baz=245,slow=38						
YKA	Yellowknife Ar	50.03	343	P	P	22 02 25.7	+1.1
YKA				LR	LR	22 25 36.6	
CMAR	Chiang Mai Arr	144.90	351	PKP	PKPdf	22 13 08.4	+0.4
	comp=Z,0.3nm,0.3s,baz=335,slow=3.6,SNR=5.0						

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*NNC **03** 21:54:42.5±5.8, 37°.85N×71°.14E, h0^{km}, mb3.8, mpv3.5, Error ellipse: s-maj=47.1km s-min=42.6km az=42.0*

ISC 03 21:54:43.5±2.5, **37°.7N**±0°.2×**70°.8E**±0°.1, **h35**^{km}, **n9**, σ1^{s}.**07**/12, **2C-2D**, **Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	4.96	26	P	Pn	21 55 56.2	+0.8
	SNR=35						
UCH	Uchtor	5.35	31	P	Sn	21 57 02.9	+1.8
	SNR=9.2						
KK31	Karatay Array	5.42	358	Pn	Pn	21 56 05.9	+4.2
	1.2nm,0.3s,baz=175,slow=12,SNR=102						
KK31				Sn	Sn	21 57 10.9	+8.1
	3.2nm,0.4s,baz=160,slow=15,SNR=19						
EKS2	Erkin-Say	5.46	24	P	Pn	21 56 03.5	+1.2
	SNR=9.5						
AAK	Ala-Archa	5.69	29	P	Pn	21 56 05.3	0.0
	SNR=8.9						
CHMS	Chumysh	6.10	28	P	Pn	21 56 10.4	-0.6
	SNR=5.3						
USP	Ospenovka	6.24	26	P	Pn	21 56 12.4	-0.6
	SNR=5.3						
TKM2	Tokmak 2	6.38	33	⇓Pn	Pn	21 56 13.2	-1.6
	3.6nm,0.5s						
TKM2				⇑Sn	Sn	21 57 25.2	-1.2
	2.7nm,0.8s						

AB09	Akbulak array	14.00	329	⇓Pn	Pn	21 58 00.0	+0.9
	0.3nm,0.3s						
AB09				⇑Sn	Sn	22 00 32.4	-0.7
	0.5nm,0.6s						

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*NEIC **03** 22:10:18.0±2.1, 23.°81N×121.°93E, h10^{km}, Error ellipse: s-maj=26.9km s-min=10.8km az=100.0*

*ISCJB **03** 22:10:22.2±0.4, 23.°92N±0.°02×121.°70E±0.°03, h24^{km}±2^{km}, Error ellipse: s-maj=5.0km s-min=2.3km az=21.8*

*TAP **03** 22:10:22.3, 23.°95N×121.°62E, h28^{km}, ML3.6, C*

ISC 03 22:10:22.4±0.4**, 23.°92N**±0.°02×**121.°69E**±0.°03**, h22**^{km}±2^{km}**, n57,** σ1^{s}**02**/95**, 5C-4D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HWA	Hwalien	0.09	305	⇓*i*P	Pb	22 10 27.4	+0.8
	baz=344						
HWA				*i* S	Sb	22 10 31.7	+2.3
	baz=344						
ESF	Shoufeng Towns	0.17	252	*e*P	Pb	22 10 27.9	+0.5
	baz=242						
ESF				S	Sb	22 10 31.7	+0.9
	baz=242						
TWD	Chiawan	0.18	332	⇓*i*P	Pb	22 10 27.8	+0.3
	baz=342						
TWD				*i* S	Sb	22 10 31.9	+1.0
	baz=342						
ESL	Shilin	0.26	245	⇑*i*P	Pb	22 10 28.6	0.0
	baz=243						
ESL				*e*S	Sb	22 10 32.6	-0.2
	baz=243						
NACB	Ninganchiao	0.26	341	*e*P	Pb	22 10 28.4	-0.2
NACB				*e*S	Sb	22 10 32.8	-0.2
ENA	Nanau	0.50	6	*i* P	Pb	22 10 32.7	+0.1
	baz=7.0						
ENA				*e*S	Sb	22 10 40.0	+0.4
	baz=7.0						
EHY	Hungye	0.53	219	*e*P	Pb	22 10 32.2	-0.8
	baz=210						
NNS	Nan Shan	0.59	331	⇑*i*P	Pb	22 10 33.6	-0.5
	baz=335						
NNS				*i* S	Sb	22 10 40.9	-1.0
	baz=335						
YULB	Yu-li	0.64	214	*e*Pn	Pn	22 10 33.4	-2.7
YULB				*e*Sn	Sn	22 10 42.6	-3.0
TWF1	Yuli	0.67	212	*e*P	Pb	22 10 34.2	-1.2
	baz=214						
SSLB	Suanglung	0.69	259	*e*P	Pb	22 10 34.5	-1.2
SSLB				*e*S	Sb	22 10 43.0	-1.7
TWC	Suao	0.70	12	*e*P	Pb	22 10 36.4	+0.5
	baz=19						
TWC				*e*S	Sb	22 10 46.0	+0.9
	baz=19						
ENTT	Nioudou	0.72	351	*e*P	Pb	22 10 35.7	-0.6
	baz=346						
ENTT				*e*S	Sb	22 10 45.1	-0.7
	baz=346						
SMLT	Sun Moon Lake	0.72	267	⇑*i*P	Pb	22 10 35.8	-0.5
	baz=264						
SMLT				*i* S	Sb	22 10 44.8	-1.0
	baz=264						
TYC	Yuchr	0.76	269	*i* P	Pb	22 10 36.3	-0.6
	baz=266						
TYC				S	Sb	22 10 45.2	-1.6
	baz=266						
TWE	Neicheng	0.79	359	*e*P	Pb	22 10 37.0	-0.6
	baz=355						
YHNB	Yeheng	0.80	339	*e*Pn	Pn	22 10 36.6	-1.6
YHNB				*e*S	Sb	22 10 46.4	-1.4
YUS	Yu-Shan	0.80	237	P	Pb	22 10 37.6	0.0
	baz=225						
YUS				S	Sb	22 10 47.5	-0.5
	baz=225						
NSK	Sanguang	0.81	338	⇑P	Pb	22 10 37.1	-0.7
	baz=341						
NSK				S	Sb	22 10 46.7	-1.6
	baz=341						
ILA	Ilan	0.84	4	*e*P	Pb	22 10 38.8	+0.5
	baz=1.0						
CHKT	Chengkung	0.87	200	*e*P	Pb	22 10 38.1	-0.7
	baz=207						
CHKT				*e*S	Sb	22 10 51.7	+1.6
	baz=207						
ALS	Alishan	0.91	243	⇓*i*P	Pb	22 10 39.4	0.0
	baz=230						
ALS				S	Sb	22 10 50.7	-0.4
	baz=230						
WNT	Mingjian	0.92	267	*e*P	Pb	22 10 39.7	0.0
	baz=265						
WNT				*e*S	Sb	22 10 51.9	+0.4
	baz=265						
TWQ1	Liyutan	0.94	297	*e*P	Pb	22 10 40.0	+0.1
	baz=297						
TWQ1				*e*S	Sb	22 10 51.5	-0.4
	baz=297						
NSTT	Nanjuang	0.94	318	*e*P	Pb	22 10 39.7	-0.3
	baz=319						
NSTT				*e*S	Sb	22 10 50.7	-1.5
	baz=319						
TCU	Taichung	0.95	284	*e*P	Pb	22 10 40.4	+0.2
	baz=283						
TCU				*e*S	Sb	22 10 53.2	+0.9
	baz=283						
ELDTW	Lidau	0.96	220	*e*P	Pb	22 10 38.6	-1.6
	baz=208						
NSY	Sanyi	0.98	300	*e*P	Pb	22 10 40.5	-0.2
	baz=300						
NSY				*e*S	Sb	22 10 53.6	+0.5
	baz=300						
CHN5	Tsauling	0.98	251	⇓*i*P	Pb	22 10 40.8	+0.1
	baz=248						
CHN5				*i* S	Sb	22 10 54.0	+0.9
	baz=248						
TWA	Mucha	1.06	355	*e*P	Pn	22 10 41.7	-0.1
	baz=345						
TWA				*e*S	Sb	22 10 54.2	-1.2
	baz=345						
TATO	Taipei	1.06	350	*e*Pn	Pn	22 10 41.7	-0.3
TATO				*e*Sn	Sn	22 10 55.8	-0.2
HSN	Hsinchu	1.09	323	*e*P	Pn	22 10 44.0	+1.6
	baz=325						
HSN				*e*S	Sb	22 10 58.4	+2.0
	baz=325						
TWB1	Santiao Chiao	1.11	14	*e*P	Pn	22 10 44.7	+2.0
	baz=12						
TAP1	Taipei	1.12	352	*e*P	Pn	22 10 43.3	+0.5
	baz=355						
NCU	National Centr	1.14	336	*e*P	Pn	22 10 43.4	+0.5
	baz=347						
NCU				*e*S	Sb	22 10 58.9	+1.1
	baz=347						
STYT	Tauyuan	1.14	229	P	Pn	22 10 42.6	-0.4
	baz=218						
STYT				*e*S	Sb	22 10 57.6	-0.3
	baz=218						
NWF	Wu-fen Shan	1.15	4	*e*P	Pn	22 10 44.5	+1.4
	baz=10.0						
TPUB	Ta-pu	1.15	238	*e*Pn	Pn	22 10 43.5	+0.4
TPUB				*e*Sn	Sn	22 10 59.1	+0.9
CHN4	Tsaushan	1.15	241	*e*P	Pn	22 10 43.5	+0.3
	baz=230						
CHN4				*e*S	Sb	22 10 59.5	+1.3
	baz=230						
CHN2	Minshiung	1.18	251	*e*P	Pn	22 10 44.0	+0.5
	baz=249						
WTP	Ta-pu	1.19	236	*e*P	Pn	22 10 43.8	0.0
	baz=233						
WTP				*e*S	Sn	22 10 59.9	+0.6
	baz=233						
TWS1	Kuangyinshan	1.20	348	*e*P	Pn	22 10 44.5	+0.7
	baz=4.0						
TWS1				*e*S	Sn	22 10 59.9	+0.5
	baz=4.0						
CHY	Chiayi	1.23	250	*e*P	Pn	22 10 44.4	+0.1
	baz=248						
TWG	Pinlang	1.23	207	*e*Pn	Pn	22 10 41.9	-2.5
TWG				*e*Sn	Sn	22 11 03.8	+3.5
TWG	Pinlang	1.23	207	*e*P	Pn	22 10 44.0	-0.4
	baz=190						
TWK	Hsinying	1.28	240	*e*P	Pn	22 10 45.9	+0.9
	baz=237						
CHN1	Nanshi	1.29	236	*e*P	Pn	22 10 45.6	+0.5
	baz=233						
CHN1				*e*S	Sn	22 11 03.5	+1.7
	baz=233						
SGST	Jiashian	1.31	231	⇑*i*P	Pn	22 10 46.5	+1.1
	baz=228						
SGST				*e*S	Sn	22 11 04.0	+1.8
	baz=228						
WSF	Szhu	1.37	258	*e*P	Pn	22 10 46.9	+0.7
	baz=257						
WSF				*e*S	Sn	22 11 05.2	+1.5
	baz=257						
ECL	Taimali	1.48	207	*e*P	Pn	22 10 45.9	-1.8
	baz=191						
SSD	Sandimen	1.52	220	*e*P	Pn	22 10 48.5	+0.2
	baz=200						
TWM1	Shoushan	1.60	227	*e*P	Pn	22 10 49.5	+0.2
	baz=223						
LAY	Lan-yu	1.88	184	*e*P	Pn	22 10 51.0	-2.2
	baz=179						
WDGT	Dungji	1.97	251	*e*P	Pn	22 10 54.4	0.0
	baz=249						
TWK1	Hengchun	2.13	203	*e*P	Pn	22 10 54.6	-2.0
	baz=189						
QZH	Quanzhou	3.00	290	Pn	Pn	22 11 08.2	-0.4
QZH				Sn	Sn	22 11 40.4	-3.4
QZH				smax			
	comp=N,110nm,0.3s						
QZH				smax			
	comp=E,50nm,0.4s						
KNM	Kinmen	3.01	280	*e*P	Pn	22 11 08.8	0.0
	baz=281						

NNC 03 22:15:22.0±3.4**, 39.°01N**×**69.°78E, h0**^{km}**, mb3.8, mpv3.4, 5C-2D, Error ellipse: s-maj=25.7km s-min=23.0km az=12.0, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	4.12	8	Pn	Pn	22 16 29.0	+2.8
	2.8nm,0.5s,baz=177,slow=12,SNR=43						
KK31				⇓Sn	Sn	22 17 21.6	+6.5
	5.5nm,0.4s						
KK31				⇑Lg		22 17 36.1	
	15nm,0.6s,baz=185,slow=27,SNR=9.9						
TKM2	Tokmak 2	5.88	47	⇓Pn	Pn	22 16 50.8	+0.4
	2.9nm,0.5s						
TKM2				⇑Sn	Sn	22 18 00.5	+2.0
	7.8nm,0.7s						
TKM2				⇑Lg		22 18 23.2	
	7.0nm,0.8s						
AB09	Akbulak array	12.44	329	⇑Pn	Pn	22 18 21.3	+1.1
	0.6nm,0.4s						
AB09				⇑Sn	Sn	22 20 37.8	-1.7
	1.1nm,0.6s						

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*NEIC **03** 22:20:02.4, 17.°70N×101.°13W, h26^{km}, MD3.8(MEX), After MEX.*

MEX 03 22:20:02.4±0.8**, 17.°70N**×**101.°13W, h26**^{km}±35^{km}**, MD3.8, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	1.04	128	*i* P	Pn	22 20 19.1	-2.3
CAIG				*i* S	Sb	22 20 31.2	-3.8
MEIG	Mezcala	1.45	81	*e*P	Pn	22 20 23.7	-3.3
MEIG				*i* S	Sn	22 20 42.4	-2.9
MOIG	Morelia	1.97	358	*e*P	Pn	22 20 32.0	-2.2
MOIG				*i* S	Sn	22 20 56.7	-1.4
MMIG	Aquila	2.19	286	*i* P	Pn	22 20 35.3	-2.0
MMIG				*i* S	Sn	22 21 00.0	-3.5
MZVM		2.33	50	*e*P	Pn	22 20 36.9	-2.2
MZVM				*i* S	Sn	22 21 03.7	-3.3
PPM	Popocatepetl	2.74	60	*e*P	Pn	22 20 42.7	-2.0
PPM				*i* S	Sn	22 21 15.0	-1.9
IIO	Organos	2.96	50	*e*P	Pn	22 20 46.1	-1.6
IIO				*i* S	Sn	22 21 20.0	-2.5
PNIG	Pinotepa	3.15	114	*e*P	Pn	22 20 51.4	+1.0
PNIG				*i* S	Sn	22 21 25.4	-1.8
UTMO	Huajuapan	3.17	87	*e*P	Pn	22 20 49.3	-1.3
UTMO				*i* S	Sn	22 21 27.4	-0.2

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*ISCJB **03** 22:26:02.3±1.3, 43.°42N±0.°10×83.°59E±0.°09, h33^{km}, Error ellipse: s-maj=14.9km s-min=7.9km az=25.1*

*NNC **03** 22:26:02.8±3.1, 43.°45N×83.°34E, h0^{km}, mb3.1, mpv2.8, Error ellipse: s-maj=34.2km s-min=19.8km az=108.0*

*BJI **03** 22:26:06.5, 43.°64N×84.°14E, h11^{km}, ML2.7/6*

ISC 03 22:26:04.5±1.3**, 43.°33N**±0.°10×**83.°65E**±0.°09**, h35**^{km}**, n5,** σ**1**^{s}**28**/8**, 6C-4D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	Urumqi	2.98	79	Pn	Pn	22 26 50.0	+0.7
WMQ				Sn	Sn	22 27 22.5	-1.3
WMQ				smax			
	comp=N,63nm,0.3s						
WMQ				smax			
	comp=E,48nm,0.3s						
MK31	Makanchi Array	3.60	345	⇑Pn	Pn	22 26 60.0	+2.2
	comp=E,0.2nm,0.2s,baz=171,slow=8.6,SNR=60						
MK31				⇑Lg		22 27 51.2	
	comp=E,4.2nm,0.4s,baz=158,slow=28,SNR=18						
TKM2	Tokmak 2	5.91	269	⇑Pn	Pn	22 27 28.1	-1.4
	comp=E,1.0nm,0.7s						
TKM2				⇑Lg		22 29 05.1	
	comp=E,2.7nm,0.8s						
KURBB	Kurchatov Arra	8.09	336	⇓Pn	Pn	22 28 00.5	+1.1
	comp=E,0.2nm,0.6s						
KURBB				⇓Sn	Sn	22 29 28.4	-1.1
	comp=E,0.4nm,0.8s						
KURBB				⇓Lg		22 30 19.3	
	comp=E,1.3nm,0.8s						
KURK	Kurchatov	8.15	337	⇑Pn	Pn	22 28 01.2	+1.1
	comp=E,4.0nm,1.6s						
KURK				⇓Sn	Sn	22 29 29.8	-1.1
	comp=E,1.0nm,0.6s						
KURK				⇑Lg		22 30 19.5	
	comp=E,4.2nm,0.6s						

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*MOS **03** 22:31:02.5±1.1, 4.°16N×126.°33E, h45^{km}, mb5.2/31, Error ellipse: s-maj=11.4km s-min=5.9km az=115.2*

*BJI **03** 22:31:04.4, 3.°57N×126.°39E, h100^{km}, mB5.1/32, mb4.7/50*

*MAN **03** 22:31:06, 4.°00N×126.°41E, h76^{km}, mb5.4, ML4.4, MS4.7*

*IDC **03** 22:31:07.3±2.1, 4.°13N×126.°27E, h70^{km}±19^{km}, mb4.4/28, mb1 4.5/28, mb1mx4.5/30, mbtmp4.4/28, MS3.7/14, Ms1 3.7/14, ms1mx3.4/34, Error ellipse: s-maj=17.2km s-min=9.0km az=76.0*

*ISCJB **03** 22:31:08.1±0.4, 4.°14N±0.°02×126.°49E±0.°04, h97^{km}±3^{km}, mb4.7/91, Error ellipse: s-maj=6.5km s-min=3.6km az=162.5*

*DJA **03** 22:31:09, 4.°05N×126.°50E, h35^{km}, MLv5.4/5*

*NEIC **03** 22:31:09.2±0.9, 4.°13N×126.°43E, h93^{km}±8^{km}, mb4.9/43, Error ellipse: s-maj=7.4km s-min=4.3km az=73.0*

ISC 03 22:31:09.8±0.4**, 4.°14N**±0.°02×**126.°48E**±0.°04**, h97**^{km}±3^{km}**, h101**^{km}±1.6^{km}**:pP-P, n250,** σ1^{s}**08**/244**, mb4.7**/91**, 9C-11D, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	General Santos	2.46	322	⇑*i*P	Pn	22 31 46.0	-2.3
MATI	Mati	2.79	356	*e*P	Pn	22 31 51.8	-1.0
DAV	Davao City (W)	3.04	343	P	Pn	22 31 55.7	-0.4
	52nm,0.3s,baz=98,slow=2.8,SNR=31						
DAV	Davao City (W)	3.04	343	*e*Pn	Pn	22 31 55.9	-0.2
DAV				Sn	Sn	22 32 26.0	-5.7
DAV	Davao City (W)	3.04	343	P	Pn	22 31 56.1	0.0
MNI	Manado	3.14	211	P	Pn	22 31 56.5	-0.9
KCP	Kidapawan	3.16	334	⇓*e*P	Pn	22 31 58.3	+0.6
KCP				*i* S	Sn	22 32 35.8	+1.2
TNE	Ternate	3.45	165	⇑*e*P	Pn	22 31 55.5	-6.1
TNE				*e*S	Sn	22 32 22.5	-19
TNTI	Ternate	3.46	165	P	Pn	22 31 59.5	-2.3
CTBH	Cotabato--PC H	3.78	324	⇑*e*P	Pn	22 32 05.3	-0.6
CTBH				*i* S	Sn	22 32 48.6	-0.8
BUKP	Musuan	3.97	339	*e*P	Pn	22 32 08.6	0.0
PAGZ	Pagadian	4.80	320	*e*P	Pn	22 32 19.3	-0.5
BUTP	Butuan	4.87	350	*e*P	Pn	22 32 21.6	+0.9
IPIL	Ipil	5.31	313	*e*P	Pn	22 32 25.6	-1.1
SCPH	Surigao	5.69	350	*e*P	Pn	22 32 31.3	-0.6
MSLP	Maasin	6.16	345	*e*P	Pn	22 32 37.7	-0.7
GUIM	Jordan	7.50	329	*e*P	Pn	22 32 55.5	-1.1
AAI	Ambon	7.96	168	P	Pn	22 33 01.0	-1.9
	213nm,0.8s,3µm0.9nm						
MYLDM	Lahad Datu	8.02	278	P	Pn	22 33 07.0	+3.5
MYLDM	Lahad Datu	8.02	278	P	Pn	22 33 07.3	+3.7
RCP	Roxas	8.24	334	⇑*e*P	Pn	22 33 08.5	+1.9
PCI	Palu	8.32	233	*e*P	Pn	22 33 10.0	+2.3
PCI	Palu	8.32	233	P	Pn	22 33 06.8	-0.9
	106nm,1.1s,926nm						
TSM	Tawau	8.58	271	P	Pn	22 33 13.7	+2.4
KDI	Kendari	8.92	206	⇓*e*P	Pn	22 33 12.9	-3.0
KDI				*e*S	Sn	22 34 49.1	-5.6
KDI	Kendari	8.92	206	P	Pn	22 33 12.7	-3.2
SDKM	Sandakan	9.37	280	P	Pn	22 33 25.1	+3.2
KKM	Kota Kinabalu	10.39	281	P	Pn	22 33 39.6	+3.7
KKM	Kota Kinabalu	10.39	281	*e*Pn	Pn	22 33 35.6	-0.3
KKM				*e*Sn	Sn	22 35 31.5	+1.0
BAKI	Biak	10.99	119	P	Pn	22 33 46.7	+2.7
SBUM	Sibu	14.33	264	P	Pn	22 34 32.5	+4.3
SBUM	Sibu	14.33	264	P	Pn	22 34 34.9	+6.7
KSM	Kuching	16.36	261	P	Pn	22 34 57.1	+3.2
KSM	Kuching	16.36	261	*e*P	Pn	22 34 56.7	+2.9
	48nm,0.9s						
KSM	Kuching	16.36	261	P	Pn	22 34 56.5	+2.7
KAKA	Kakadu	17.76	161	*e*P	Pn	22 35 07.1	-3.8
	43nm,0.6s						
KAKA	Kakadu	17.76	161	*e*P	Pn	22 35 07.1	-3.8
	117nm,0.6s						
KAKA				*e*S	S	22 38 31.6	+2.4
TPUB	Ta-pu	19.86	344	*e*P	Pn	22 35 31.3	-4.5
	27nm,0.6s						
SSLB	Suanglung	20.24	345	*e*P	P	22 35 36.4	-1.0
	79nm,1.1s						
SSLB				*e*		22 36 09.3	
GUMO	Guam	20.44	61	P	P	22 35 38.1	-1.4
GUMO	Guam	20.44	61	LR	LR	22 42 24.4	
	comp=Z,97nm,20.1s,baz=231,slow=33						
NACB	Ninganchiao	20.46	347	*e*P	P	22 35 38.6	-1.1
	13nm,0.7s						
YHNB	Yeheng	20.99	347	*e*P	P	22 35 45.3	-0.1
	17nm,0.5s						
QIZ	Qiongzhong	21.97	314	P	P	22 35 56.0	+0.1
QIZ				S	S	22 39 52.4	-0.4
QIZ				LR	LR		
	comp=Z,79nm,21.6s						
QIZ	Qiongzhong	21.97	314	*e*P	P	22 35 56.6	+0.7
FITZ	Fitzroy Crossi	22.12	182	*e*P	P	22 35 56.6	-0.8
	comp=Z,41nm,1.1s,mb4.7						
FITZ				*e*		22 36 05.7	
FITZ				*e*S	S	22 39 50.0	-5.2
FITZ	Fitzroy Crossi	22.12	182	P	P	22 35 56.9	-0.5
	comp=Z,15nm,0.8s,mb4.3,baz=20,slow=9.4,SNR=19						
FITZ	Fitzroy Crossi	22.12	182	*e*P	P	22 35 56.9	-0.6
	comp=Z,31nm,0.8s,mb4.7						
FITZ				*e*PcP	PcP	22 39 51.1	-0.3
JOW	Kunigami	22.63	4	P	P	22 36 03.6	+0.9
	comp=Z,28nm,0.7s,mb4.7,baz=184,slow=11,SNR=4.5						
JOW				LR	LR	22 43 52.2	
	comp=Z,169nm,20.3s,baz=181,slow=34						
MYKOM	Kota Tinggi	22.71	265	P	P	22 36 04.9	+1.0
KGM	Kluang	23.22	265	P	P	22 36 10.6	+2.0
KTGM	Kuala Trenggan	23.29	274	P	P	22 36 11.0	+1.8
FRIM	Kepong	24.81	269	P	P	22 36 24.4	+1.2
WRAB	Tennant Creek	25.15	162	*e*P	P	22 36 25.7	-0.3
WRAB				*e*		22 39 53.7	
WRAB				*e*S	S	22 40 43.2	-0.8
WRAB				pmax	pmax		
	comp=Z,29nm,0.7s,mb4.8						
WRAB	Tennant Creek	25.15	162	*e*P	P	22 36 25.7	-0.3
	comp=Z,28nm,0.7s,mb4.8						
WRAB				*e*PcP	PcP	22 39 53.7	-4.2
WRAB				*e*S	S	22 40 43.2	-0.8
WRA	Warramunga Arr	25.15	162	P	P	22 36 25.7	-0.4
	comp=Z,18nm,0.7s,mb4.7,baz=343,slow=9.9,SNR=100						
WRA				PcP	PcP	22 39 58.2	+0.3
	comp=Z,2.5nm,0.7s,baz=334,slow=2.3,SNR=4.9						
WB2	Warramunga Arr	25.16	162	*e*P	P	22 36 25.6	-0.5
WB2				*e*S	S	22 40 43.3	-0.8
IPM	Ipoh	25.38	272	P	P	22 36 30.8	+2.5
KULM	Kulim	25.76	274	*e*P	P	22 36 31.9	+0.2
	comp=Z,7.2nm,0.6s,mb4.3						
MBWA	Marble Bar	26.00	194	*e*P	P	22 36 34.0	+0.3
	comp=Z,17nm,0.8s,mb4.5						
MBWA				*e*PcP	PcP	22 39 53.4	-6.4
PSI	Prapat	27.53	268	P	P	22 36 47.3	-0.4
	comp=Z,20nm,0.9s,mb4.6,baz=84,slow=3.4,SNR=19						
PSI				LR	LR	22 48 20.8	
	comp=Z,122nm,21.9s,baz=66,slow=38						
ASAR	Alice Springs	28.57	166	P	P	22 36 56.9	+0.1
	comp=Z,2.7nm,0.6s,mb4.0,baz=346,slow=7.2,SNR=28						
ASAR				PcP	PcP	22 40 07.0	+1.1
	comp=Z,3.3nm,0.7s,baz=349,slow=2.3,SNR=7.3						
WHN	Wuhan	28.64	338	P	P	22 36 58.1	+0.8
WHN				*e*S	S	22 41 51.0	+12
WHN				LR	LR		
	comp=Z,760nm,18.2s						
NJ2	Nanjing	28.67	346	*e*P	P	22 37 00.4	+2.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
GYA	Guiyang	29.19	321	⇑*i*P	P	22 37 03.9	+1.7
GYA				pP	pP	22 37 28.4	+4.3
GYA				sP	sP	22 37 39.0	+3.6
GYA				PP	PP	22 38 02.3	-7.6
GYA				PcP	PcP	22 40 08.2	+0.7
GYA				S	S	22 41 49.6	+1.9
GYA				sS	sS	22 42 29.0	+3.4
GYA				SS	SS	22 43 27.6	-28
GYA				ScP	ScP	22 43 41.2	+0.7
GYA				PcS	PcS	22 43 51.0	+0.5
GYA				ScS	ScS	22 47 31.5	-3.4
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
GYA				pmax	pmax		
	comp=Z,130nm,4.6s						
GYA				LR	LR		
	comp=N,580nm,14.8s						
GYA				LR	LR		
	comp=E,540nm,13.4s						
GYA				LR	LR		
	comp=Z,560nm,14.6s						
CM31	Chiang Mai Arr	30.45	300	*e*P	P	22 37 13.8	+0.4
	comp=Z,7.4nm,0.6s,mb4.5						
CMAR	Chiang Mai Arr	30.45	300	P	P	22 37 13.6	+0.1
	comp=Z,7.9nm,0.8s,mb4.4,baz=114,slow=7.1,SNR=51						
CMAR				ScP	ScP	22 43 48.5	+3.8
	comp=Z,0.5nm,0.3s,baz=119,slow=3.2,SNR=4.7						
CHTO	Chiang Mai	30.59	301	*e*P	P	22 37 14.5	-0.2
CHTO				*e*		22 40 12.5	
CHTO				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.7						
CHTO	Chiang Mai	30.59	301	*e*P	P	22 37 14.5	-0.2
	comp=Z,17nm,1.0s,mb4.7						
CHTO				*e*PcP	PcP	22 40 12.5	+1.2
KMI	Kunming	30.91	315	P	P	22 37 17.6	+0.2
KMI				pP	pP	22 37 40.9	+1.5
KMI				sP	sP	22 37 54.3	+3.6
KMI				PP	PP	22 38 25.4	-3.6
KMI				S	S	22 42 13.5	-1.2
KMI				sS	sS	22 42 56.2	+3.4
KMI				SS	SS	22 44 07.2	-23
KMI				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
KMI				pmax	pmax		
	comp=Z,88nm,4.9s						
KMI				LR	LR		
	comp=N,190nm,14.0s						
KMI				LR	LR		
	comp=E,210nm,14.4s						
KMI				LR	LR		
	comp=Z,140nm,14.0s						
CTA	Charters Tower	30.94	142	*e*P	P	22 37 19.5	+1.8
	comp=Z,4.9nm,0.7s,mb4.3						
CTAO	Charters Tower	30.94	142	*e*P	P	22 37 18.8	+1.1
CTAO				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
CTAO	Charters Tower	30.94	142	*e*P	P	22 37 18.8	+1.1
	comp=Z,5.8nm,0.6s,mb4.5						
JHJ	Hachijo jima 2	31.39	22	LR	LR	22 48 21.4	
	comp=Z,186nm,18.9s,baz=319,slow=33						
KSRS	Korea Array	33.18	2	P	P	22 37 38.1	+1.0
	comp=Z,9.7nm,0.6s,mb4.8,baz=180,slow=9.8,SNR=31						
KSRS				PcP	PcP	22 40 19.1	+1.2
	comp=Z,3.2nm,0.7s,baz=183,slow=3.1,SNR=6.7						
KSRS				LR	LR	22 50 25.6	
	comp=Z,48nm,19.8s,baz=1.4,slow=35						
COCO	West Island	33.64	241	P	P	22 37 40.8	-0.6
XAN	Xi’an	33.93	333	P	P	22 37 42.4	-1.3
XAN				pP	pP	22 38 06.2	+0.3
XAN				PP	PP	22 38 58.0	-4.4

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XAN                                S       S       22 42 55.6 -5.9
XAN                                pmax    pmax
      comp=Z,33nm,0.7s,mb5.3
XAN                                pmax    pmax
      comp=Z,29nm,4.4s
MJAR  Matsushiro Arr     34.00  17 P       P       22 37 45.5 +1.2
MJAR                                               22 40 21.8
MJAR  Matsushiro Arr     34.00  17 P       P       22 37 45.5 +1.2
      comp=Z,0.8nm,0.5s,mb3.8,baz=190,slow=9.5,SNR=4.1
MJAR                               PcP     PcP     22 40 21.8 +1.5
      comp=Z,0.5nm,0.5s,baz=193,slow=3.7,SNR=4.5
MJAR                               LR      LR      22 52 19.5
      comp=Z,99nm,18.3s,baz=195,slow=37
CD2   Chengdu            34.16 324⇓iP      P       22 37 44.8 -1.0
CD2                                pP      pP      22 38 07.1 -0.8
CD2                                sP      sP      22 38 19.0 -0.1
CD2                                PP      PP      22 39 03.4 -1.6
CD2                                PcP     PcP     22 40 19.2 -1.6
CD2                                S       S       22 43 04.0 -1.1
CD2                                pmax    pmax
      comp=Z,20nm,1.1s,mb4.9
CD2                                pmax    pmax
      comp=Z,140nm,4.5s
CD2                                LR      LR
      comp=N,340nm,6.1s
CD2                                LR      LR
      comp=Z,240nm,5.7s
FORT  Forrest            34.76 178 eP      P       22 37 50.7 -0.2
      comp=Z,32nm,0.6s,mb5.3
FORT                               e               22 37 56.9
FORT  Forrest            34.76 178 eP      P       22 37 51.3 +0.5
      comp=Z,37nm,0.6s,mb5.4
HNR   Honiara            35.98 112 LR      LR      22 51 10.4
      comp=Z,90nm,18.7s,baz=268,slow=33
KLBR  Kellerberrin       36.49 193 eP      P       22 38 05.7  0.0
      comp=Z,6.1nm,0.4s,mb4.9
BJT   Baijiatuau         36.91 347 eP      P       22 38 08.9 -0.2
BJT                                                22 39 34.0
BJT                                pmax    pmax
      comp=Z,25nm,0.6s
BJT   Baijiatuau         36.91 347 eP      P       22 38 08.9 -0.2
      comp=Z,25nm,0.6s,mb5.3
BJT                                PP      PP      22 39 34.0 -1.2
BJI   Beijing            36.93 347 P       P       22 38 09.6 +0.3
BJI                                pP      pP      22 38 33.8 +2.2
BJI                                S       S       22 43 47.4 +0.2
BJI                                pmax    pmax
      comp=Z,28nm,0.7s,mb5.3
BJI                                pmax    pmax
      comp=Z,120nm,3.4s
MUN   Mundaring          37.23 194 eP      P       22 38 12.2 +0.3
SNY   Shenyang           37.61 356⇓P       P       22 38 16.1 +1.1
SNY                                pmax    pmax
      comp=Z,11nm,0.5s,mb4.9
EIDS  Eidsvold           37.83 142 eP      P       22 38 17.5 +0.4
      comp=Z,14nm,0.9s,mb4.8
NWAO  Narrogin (SRO)     37.89 193 P       P       22 38 17.6 +0.1
      comp=Z,11nm,0.9s,mb4.7,baz=14,slow=4.2,SNR=3.0
NWAO                               PcP     PcP     22 40 32.9 +1.1
      comp=Z,11nm,0.8s,baz=117,slow=2.3,SNR=2.8
NWAO  Narrogin (SRO)     37.89 193 eP      P       22 38 15.5 -2.0
LZH   Lanzhou            38.02 330 eP      P       22 38 19.1 +0.5
LZH                                pP      pP      22 38 41.5 +0.5
LZH                                sP      sP      22 38 54.5 +2.3
LZH                                PP      PP      22 39 52.0 +4.6
LZH                                eS      S       22 44 05.0 +1.2
LZH                                sS      sS      22 44 45.0 +2.4
LZH                                SS      SS      22 46 47.0 -7.9
LZH                                pmax    pmax
      comp=Z,30nm,1.0s,mb5.1
LZH                                pmax    pmax
      comp=Z,180nm,4.9s
STKA  Stephens Creek     38.60 159 eP      P       22 38 24.1 +0.6
      comp=Z,18nm,1.1s,mb4.8
STKA                               eS      S       22 44 11.5 -1.2
STKA  Stephens Creek     38.60 159 P       P       22 38 24.0 +0.5
      comp=Z,20nm,0.9s,mb4.9,baz=332,slow=8.3,SNR=22
STKA                               PcP     PcP     22 40 35.0 +0.8
      comp=Z,8.2nm,0.7s,baz=19,slow=4.7,SNR=4.0
STKA  Stephens Creek     38.60 159 eP      P       22 38 24.2 +0.7
      comp=Z,3.5nm,0.8s,mb4.2
STKA                               e       pP      22 38 45.7 -0.3
STKA                               ePcP    PcP     22 40 35.4 +1.3
HHC   Hu-ho-hao-te       38.93 342 eP      P       22 38 26.7 +0.6
HHC                                pP      pP      22 38 49.3 +0.7
HHC                                sP      sP      22 39 01.0 +1.2
HHC                                PP      PP      22 40 01.9 +4.7
HHC                                eS      S       22 44 17.9 +0.5
HHC                                PcS     PcS     22 44 23.8 -0.7
HHC                                SS      SS      22 47 07.4 -5.5
HHC                                pmax    pmax
      comp=Z,11nm,0.7s,mb4.8
HHC                                pmax    pmax
      comp=Z,140nm,4.4s
HHC                                LR      LR
      comp=N,120nm,13.7s
HHC                                LR      LR
      comp=E,280nm,15.1s
HHC                                LR      LR
      comp=Z,120nm,17.8s
SHL   Shillong           39.43 306 ePKP    P       22 38 31.0 +0.5
SHL                                eS      S       22 44 24.0 -1.3
CN2   Changchun          39.50 359 eP      P       22 38 33.0 +2.2
CN2                                epP     pP      22 38 58.2 +4.8
CN2                                PcP     PcP     22 40 38.4 +1.7
CN2                                eS      S       22 44 27.4 +1.5
CN2                                pmax    pmax
      comp=Z,10.0nm,1.2s,mb4.5
MDJ   Mudanjiang         40.40   3 P       P       22 38 39.8 +1.5
MDJ                                pmax    pmax
      comp=Z,14nm,0.8s,mb4.8
MDJ                                pmax    pmax
      comp=Z,120nm,5.7s
MDJ   Mudanjiang         40.40   3 eP      P       22 38 39.9 +1.6
      comp=Z,24nm,0.8s,mb5.1
MDJ                                ePcP    PcP     22 40 40.0 +0.4
ARMA  Armidale           41.95 147 eP      P       22 38 52.5 +1.3
LSA   Lhasa              41.98 311 P       P       22 38 53.0 +1.6
LSA   Lhasa              41.98 311 eP      P       22 38 52.1 +0.7
LSA                                e               22 40 44.9
LSA                                pmax    pmax
      comp=Z,22nm,0.7s,mb5.0
LSA   Lhasa              41.98 311 eP      P       22 38 52.1 +0.6
      comp=Z,22nm,0.7s,mb5.0
LSA                                ePcP    PcP     22 40 44.9 -0.2
ASAJ  Asahikawa          42.27  17 P       P       22 38 54.3 +0.7
      comp=Z,5.5nm,0.8s,mb4.4,baz=258,slow=24,SNR=3.9
GTA   Gaotai             42.61 329⇓P       P       22 38 56.1 -0.3
GTA                                pP      pP      22 39 19.0 -0.2
GTA                                sP      sP      22 39 31.0 +0.7
GTA                                PcP     PcP     22 40 49.0 +2.0
GTA                                S       S       22 45 11.4 -0.8
GTA                                pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.4
GTA                                pmax    pmax
      comp=Z,98nm,4.5s
GTA                                LR      LR
      comp=N,69nm,15.3s
GTA                                LR      LR
      comp=E,120nm,14.7s
GTA                                LR      LR
      comp=Z,230nm,15.9s
CAN   Canberra           44.59 153 eP      P       22 39 12.9 +0.6
CAN                                pmax    pmax
      comp=Z,105nm,2.0s,mb5.2
CAN   Canberra           44.59 153 eP      P       22 39 12.9 +0.6
      comp=Z,104nm,2.0s,mb5.2
CNB   Canberra Magne     44.75 153 eP      P       22 39 14.9 +1.3
YSS   Yuzh-Sakhalins     44.91  16 eP      P       22 39 15.0 +0.3
YSS                                e               22 39 28.7
YSS   Yuzh-Sakhalins     44.91  16 P       P       22 39 14.0 -0.7
TOO   Toolangi           45.11 159 eP      P       22 39 18.9 +2.5
HIA   Hailar             45.32 354 eP      P       22 39 19.6 +1.7
HIA                                e               22 40 56.1
HIA                                pmax    pmax
      comp=Z,24nm,1.0s
HIA   Hailar             45.32 354 eP      P       22 39 19.6 +1.6
      comp=Z,24nm,1.0s,mb4.9
HIA                                ePcP    PcP     22 40 56.1 +0.1
SONM  Songino Array      46.83 342 P       P       22 39 30.1 +0.3
SONM                                               22 41 02.9
SONM  Songino Array      46.83 342 P       P       22 39 30.1 +0.3
      comp=Z,4.0nm,0.5s,mb4.4,baz=154,slow=9.3,SNR=37
SONM                               PcP     PcP     22 41 02.9 +1.6
      comp=Z,2.9nm,0.8s,baz=149,slow=3.6,SNR=5.4
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SONM                               LR      LR      22 58 44.6
      comp=Z,86nm,20.8s,baz=359,slow=35
HYB   Hyderabad          48.74 289 i P     P       22 39 44.0 -1.0
ZAK   Zakamensk          50.05 341 eP      P       22 39 54.1 -0.4
ZAK                                e               22 41 12.6
ZAK                                pmax    pmax
      comp=Z,3.0nm,1.1s,mb4.1
TAU   Tasmania Unive     50.49 160 eP      P       22 39 57.8 -0.1
TLY   Talaya             51.06 342 eP      P       22 40 02.6 +0.6
TLY                                pmax    pmax
      comp=Z,9.0nm,0.7s,mb4.9
TLY   Talaya             51.06 342 eP      P       22 40 02.6 +0.6
      comp=Z,9.0nm,0.7s,mb4.9
MOY   Mondy              51.91 340 eP      P       22 40 09.3 +0.9
WMQ   Urumqi             52.24 325 eP      P       22 40 11.0  0.0
WMQ                                pP      pP      22 40 34.0 -0.5
WMQ                                pmax    pmax
      comp=Z,7.0nm,1.4s,mb4.5
BOD   Bodaibo            54.42 352 eP      P       22 40 27.1 +0.4
BOD                                pmax    pmax
      comp=Z,13nm,1.1s,mb4.9
PEA0B Petropavlovsk-     55.15  22 eP      P       22 40 31.0 -1.0
PETK  Petropavlovsk-     55.15  22 P       P       22 40 33.2 +1.2
      comp=Z,5.8nm,0.8s,mb4.7,baz=184,slow=3.1,SNR=11
PETK                               LR      LR      23 05 01.0
      comp=Z,34nm,18.6s,baz=218,slow=37
MK31  Makanchi Array     57.07 325 eP      P       22 40 45.5 -0.3
MK31                               e               22 41 39.8
MK31  Makanchi Array     57.07 325 eP      P       22 40 45.5 -0.4
MK31                               ePcP    PcP     22 41 39.8 +0.1
MK31                               eScP    ScP     22 45 29.6 -1.2
MKAR  Makanchi Array     57.07 325 P       P       22 40 45.4 -0.4
MKAR                                               22 41 40.3
MKAR  Makanchi Array     57.07 325 P       P       22 40 45.4 -0.5
      comp=Z,5.3nm,0.5s,mb4.8,baz=121,slow=8.1,SNR=158
MKAR                               PcP     PcP     22 41 40.3 +0.6
      comp=Z,5.2nm,0.6s,baz=127,slow=4.0,SNR=7.4
MKAR                               ScP     ScP     22 45 32.9 +2.2
      comp=Z,1.1nm,0.7s,baz=136,slow=3.9,SNR=5.8
MKAR                               LR      LR      23 06 48.1
      comp=Z,41nm,18.1s,baz=90,slow=38
KSH   Kashi              57.57 315 P       P       22 40 50.6 +1.1
KSH                                epP     pP      22 41 14.2 +0.7
KSH                                esP     sP      22 41 25.2 +1.0
KSH                                ePcP    PcP     22 41 43.1 +1.2
KSH                                ePP     PP      22 43 00.6 +2.3
KSH                                eScP    ScP     22 45 33.0 -0.1
KSH                                ePcS    PcS     22 45 43.0 -0.1
KSH                                eS      S       22 48 37.1 -3.0
KSH                                eScS    ScS     22 50 26.1 -3.8
KSH                                pmax    pmax
      comp=Z,5.0nm,0.8s,mb4.6
KSH                                pmax    pmax
      comp=Z,190nm,5.5s
KSH                                LR      LR
      comp=N,330nm,5.5s
KSH                                LR      LR
      comp=E,430nm,5.2s
KSH                                LR      LR
      comp=Z,530nm,5.6s
YAK   Yakutsk            57.80   2 eP      P       22 40 49.7 -1.0
YAK                                pmax    pmax
      comp=Z,19nm,1.2s,mb5.0
YAK   Yakutsk            57.80   2 eP      P       22 40 50.4 -0.3
TKM2  Tokmak 2           59.27 318 eP      P       22 41 01.2  0.0
TKM2                               pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.5
TKM2  Tokmak 2           59.27 318 eP      P       22 41 01.2 -0.1
      comp=Z,4.8nm,0.9s,mb4.5
UCH   Uchtor             59.70 317 eP      P       22 41 04.9 +0.7
      comp=Z,2.9nm,0.6s,mb4.5
AAK   Ala-Archa          59.88 318 eP      P       22 41 07.6 +2.1
AAK                                e               22 41 50.9
AAK                                pmax    pmax
      comp=Z,5.0nm,0.8s,mb4.6
AAK   Ala-Archa          59.88 318 eP      P       22 41 07.5 +2.1
      comp=Z,5.1nm,0.8s,mb4.6
AAK                                ePcP    PcP     22 41 50.9 -0.1
ZAA0  Zalesovo Array     60.11 333 eP      P       22 41 05.4 -1.4
ZALV  Zalesovo Beam      60.11 333 P       P       22 41 05.6 -1.2
      comp=Z,5.0nm,0.6s,mb4.8,baz=130,slow=6.5,SNR=34
ZALV                               LR      LR      23 07 03.0
      comp=Z,30nm,21.8s,baz=252,slow=36
ZALV  Zalesovo Beam      60.11 333 P       P       22 41 05.6 -1.2
ZALV                               LR      LR      23 07 03.0
EKS2  Erkin-Say          60.37 318 eP      P       22 41 08.4 -0.5
      comp=Z,9.3nm,1.3s,mb4.7
EKS2                               ePcP    PcP     22 41 53.2 +0.2
KBL   Kabul              61.07 307 eP      P       22 41 12.7 -1.0
KBL                                pmax    pmax
      comp=Z,15nm,1.0s,mb5.0
KBL   Kabul              61.07 307 eP      P       22 41 12.7 -1.0
      comp=Z,15nm,1.0s,mb5.0
KURK  Kurchatov          61.26 327 eP      P       22 41 13.9 -0.7
KURK                               pmax    pmax
      comp=Z,26nm,0.9s,mb5.3
KURK  Kurchatov          61.26 327 P       P       22 41 13.8 -0.8
      comp=Z,22nm,0.8s,mb5.2,baz=125,slow=6.2,SNR=79
KURK  Kurchatov          61.26 327 eP      P       22 41 13.9 -0.7
      comp=Z,26nm,0.9s,mb5.3
KURK                               e       pP      22 41 39.1 +0.3
NVS   Novosibirsk        61.39 333 eP      P       22 41 13.9 -1.5
NVS                                eS      S       22 49 26.1 -2.5
NVS                                e               22 50 53.1
NVS                                pmax    pmax
      comp=N,3.0nm,0.6s
NVS                                pmax    pmax
      comp=E,5.0nm,0.6s
NVS                                pmax    pmax
      comp=Z,7.0nm,0.6s,mb4.9
NVS                                smax
      comp=N,6.0nm,1.3s
NVS                                smax
      comp=E,5.0nm,1.0s
RPZ   Rata Peaks         62.24 145 P       P       22 41 22.2 +0.9
      comp=E,3.0nm,0.4s,mb4.7,baz=27,slow=18,SNR=3.6
KK31  Karatay Array      62.76 317 i P     P       22 41 23.3 -1.5
KK31                               pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.6
VOSK  Vostochnaya        66.38 327 P       P       22 41 46.5 -1.7
VOSK                               pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.7
BVA0  Borovoye Array     66.84 327 i P     P       22 41 50.3 -0.8
BVA0                               pmax    pmax
      comp=Z,2.0nm,1.0s,mb3.9
BVAR  Borovoye Array     66.84 327 P       P       22 41 50.6 -0.5
      comp=Z,12nm,0.9s,mb4.7,baz=138,slow=8.2,SNR=35
BRVK  Borovoye           66.91 327 eP      P       22 41 50.2 -1.4
BRVK                               e       pP      22 42 14.1 -2.0
BRVK                               pmax    pmax
      comp=Z,15nm,0.9s,mb4.8
BRVK  Borovoye           66.91 327 eP      P       22 41 50.2 -1.4
      comp=Z,15nm,0.9s,mb4.8
BRVK                               e       pP      22 42 14.1 -2.1
TIXI  Tiksi              67.44   1 eP      P       22 41 54.4 -0.2
TIXI                               pmax    pmax
      comp=Z,29nm,1.4s,mb4.9
TIXI  Tiksi              67.44   1 eP      P       22 41 54.4 -0.1
      comp=Z,29nm,1.4s,mb4.9
BILL  Bilibino           69.22  15 eP      P       22 42 07.9 +2.1
BILL                               pmax    pmax
      comp=Z,2.0nm,0.9s,mb4.0
CASY  Casey              71.19 187 eP      P       22 42 17.7 -0.1
      comp=Z,12nm,0.7s,mb4.8
AB31  Akbulak array      71.67 321 P       P       22 42 19.6 -1.4
AB31                               pmax    pmax
      comp=Z,5.0nm,0.6s,mb4.5
AKTK  Aktyubinsk         73.18 322 P       P       22 42 29.4 -0.6
AKTO  Aktyubinsk         73.18 322 P       P       22 42 29.4 -0.6
      comp=Z,4.9nm,0.7s,mb4.5,baz=92,slow=9.9,SNR=11
SVE   Sverdlovsk         73.48 328⇓eP      P       22 42 30.7 -0.9
SVE                                pmax    pmax
      comp=Z,14nm,0.9s,mb4.8
ARU   Arti               74.45 328 eP      P       22 42 36.2 -1.1
ARU                                e               22 45 26.9
ARU                                pmax    pmax
      comp=Z,11nm,0.7s,mb4.7
ARU   Arti               74.45 328 eP      P       22 42 36.2 -1.1
      comp=Z,11nm,0.7s,mb4.7
ARU                                e       pP      22 43 01.1 -1.2
ARU                                ePP     PP      22 45 26.9 +2.1
MIB   Mutribah           78.53 299 eP      P       22 42 59.9 -1.0
MIB                                AMb     AMB     22 43 00.9
      comp=Z,43nm,0.7s,mb5.4
NAY   Al-Naaiem          78.60 299 eP      P       22 43 00.2 -1.1
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NAY                                AMb     AMB     22 43 01.4
      comp=Z,31nm,0.9s,mb5.1
GNI   Garni              81.02 310 eP      P       22 43 13.2 -0.9
GNI                                ePcP    PcP     22 43 19.9 -0.5
OPO   Ambohidratompo     81.19 251 P       P       22 43 15.1 -0.3
      comp=Z,3.9nm,0.7s,mb4.3,baz=116,slow=1.5,SNR=5.6
PRGR  Permogore          82.02 332⇓iP      P       22 43 18.6 -0.3
PRGR                               pmax    pmax
      comp=Z,22nm,0.7s,mb5.1
KIV   Kislovodsk         82.67 314 eP      P       22 43 23.0 +0.3
KIV                                pmax    pmax
      comp=Z,3.0nm,0.6s,mb4.3
KIV                                MLR     MLR
      comp=Z,28nm,19.0s
KIV   Kislovodsk         82.67 314 eP      P       22 43 22.8 +0.1
      comp=Z,3.7nm,0.8s,mb4.3
VRHR  Novokhopersk       83.56 321 eP      P       22 43 26.6 -0.5
VRHR                               pmax    pmax
      comp=Z,10.0nm,0.7s,mb4.8
VRHR                               pmax    pmax
      comp=N,20nm,1.5s
VRHR                               pmax    pmax
      comp=E,10.0nm,0.8s
PMR   Palmer             83.71  29 eP      P       22 43 27.2 -0.4
PMR                                pmax    pmax
      comp=Z,4.0nm,0.5s,mb4.5
PMR   Palmer             83.71  29 eP      P       22 43 27.2 -0.4
      comp=Z,4.1nm,0.5s,mb4.5
VNDA  Vanda              83.86 173 eP      P       22 43 28.9 +0.8
VNDA                               pmax    pmax
      comp=Z,3.0nm,0.5s
VNDA  Vanda              83.86 173 P       P       22 43 29.1 +0.9
      comp=Z,4.0nm,0.6s,mb4.4,baz=335,slow=6.4,SNR=14
VNDA                               LR      LR      23 22 22.9
      comp=Z,144nm,18.4s,baz=200,slow=37
VNDA  Vanda              83.86 173 eP      P       22 43 28.9 +0.7
      comp=Z,3.0nm,0.5s,mb4.4
MAW   Mawson             84.05 200 P       P       22 43 27.0 -2.2
COLA  College            84.43  25 eP      P       22 43 30.5 -0.8
SBA   Scott Base         84.78 172 eP      P       22 43 31.5 -1.2
SBA                                pmax    pmax
      comp=Z,16nm,1.0s,mb4.9
SBA   Scott Base         84.78 172 eP      P       22 43 31.5 -1.3
      comp=Z,16nm,1.0s,mb4.9
KLMR  Klimovskoe         84.92 331 eP      P       22 43 33.3 -0.5
KLMR                               pmax    pmax
      comp=Z,81nm,1.5s,mb5.4
VORD  Divnogorie         85.03 321 eP      P       22 43 34.5 -0.1
VORD                               pmax    pmax
      comp=Z,6.0nm,0.5s,mb4.8
VORD                               pmax    pmax
      comp=N,20nm,1.6s
VORD                               pmax    pmax
      comp=E,10.0nm,0.7s
VSR   Storozhevoye       85.11 321 eP      P       22 43 34.5 -0.4
VSR                                pmax    pmax
      comp=N,2.0nm,0.6s
VSR                                pmax    pmax
      comp=Z,3.0nm,0.6s,mb4.4
VSR                                pmax    pmax
      comp=E,4.0nm,0.7s
MALT  Malatya            85.93 308 eP      P       22 43 39.5 +0.2
MALT                               pmax    pmax
      comp=Z,2.0nm,0.8s,mb4.1
MALT  Malatya            85.93 308 eP      P       22 43 39.5 +0.2
      comp=Z,2.1nm,0.8s,mb4.1
OBN   Obninsk            86.58 325⇑eP      P       22 43 41.8 -0.3
OBN                                pmax    pmax
      comp=Z,51nm,1.2s,mb5.3
OBN   Obninsk            86.58 325 eP      P       22 43 42.3 +0.2
      comp=Z,25nm,0.8s,mb5.2
JOF   Joensuu            88.70 333 ep      P       22 43 50.5 -1.6
      comp=Z,19nm,0.6s,mb5.3
KMBO  Kilima Mbogo       89.31 269 P       P       22 43 56.5 +0.5
      comp=Z,5.6nm,0.9s,mb4.6,baz=63,slow=5.7,SNR=11
BRTR  Keskin Array B     89.56 310 P       P       22 43 55.8 -0.9
      comp=Z,2.3nm,0.8s,mb4.4,baz=134,slow=4.4,SNR=19
ARCES ARCESS Array B     89.97 340 P       P       22 43 57.9  0.0
      comp=Z,3.8nm,0.7s,mb4.7,baz=84,slow=4.9,SNR=11
ARCES                              LR      LR      23 26 55.0
      comp=Z,86nm,18.6s,baz=205,slow=37
ARCES ARCESS Array B     89.97 340 P       P       22 43 57.9  0.0
ARCES                              LR      LR      23 26 55.0
KAF   Kangasniemi        91.11 332 eP      P       22 44 02.0 -1.4
KAF                                pmax    pmax
      comp=Z,9.0nm,0.5s,mb5.2
KAF   Kangasniemi        91.11 332 ep      P       22 44 02.0 -1.4
      comp=Z,8.7nm,0.5s,mb5.1
AKASG Malin Array Be     91.41 321 P       P       22 44 04.0 -1.0
      comp=Z,5.0nm,0.7s,mb4.8,baz=74,slow=4.2,SNR=14
VRI   Vrincioaia         93.82 316⇓iP      P       22 44 17.1 +0.9
PLOR  Plostina           93.88 316⇓iP      P       22 44 17.3 +0.8
MLR   Muntele Rosu       94.43 316⇓iP      P       22 44 19.9 +0.9
SUW   Suwalki            94.44 325 eP      P       22 44 18.3 -0.6
SUW   Suwalki            94.44 325 eP      P       22 44 18.3 -0.6
BURAR Bucovina Array     94.53 318⇑iP      P       22 44 20.7 +1.3
BUR08 Bucovina Ar. S     94.53 318 eP      P       22 44 19.6 +0.1
VOIR                     95.06 316⇑iP      P       22 44 22.2 +0.3
KWP   Kalwaria Pacla     95.73 321⇓iP      P       22 44 24.8 -0.1
KOLS  Kolonicke sedl     96.17 320 eP      P       22 44 27.0 +0.1
UZH   Uzhgorod           96.22 320 eP      P       22 44 27.5 +0.3
UZH                                e               22 44 42.5
CRVS  Cervenica-Dubn     96.69 320 i P     P       22 44 29.6 +0.3
CRVS                               pmax    pmax
      comp=Z,11nm,1.0s,mb5.2
CRVS  Cervenica-Dubn     96.69 320 i P     P       22 44 29.6 +0.3
      comp=Z,11nm,1.0s,mb5.2
STHS  Stebnicka Huta     96.71 321 i P     P       22 44 30.4 +1.1
STHS                               pmax    pmax
      comp=Z,4.0nm,0.7s,mb5.0
STHS  Stebnicka Huta     96.71 321 i P     P       22 44 30.4 +1.1
      comp=Z,3.8nm,0.7s,mb4.9
BZS   Buzias             97.38 317⇑iP      P       22 44 32.3 -0.1
NB2   NORSAR Subarra     98.31 334 P       P       22 44 35.4 -0.8
      comp=Z,5.7nm,1.1s,mb5.0,baz=67,slow=4.4
NOA   NORSAR Array B     98.31 334 P       P       22 44 35.3 -0.9
      comp=Z,3.4nm,0.9s,mb4.9,baz=69,slow=4.6,SNR=6.7
NOA                                LR      LR      23 29 04.7
      comp=Z,63nm,21.1s,baz=280,slow=35
LSZ   Lusaka             99.06 255 eP      P       22 44 40.3 -0.3
LSZ                                pmax    pmax
      comp=Z,7.0nm,0.9s,mb5.2
LSZ   Lusaka             99.06 255 P       P       22 44 39.9 -0.7
      comp=Z,4.7nm,0.8s,mb5.1,baz=34,slow=3.4,SNR=9.7
LSZ   Lusaka             99.06 255 eP      P       22 44 40.3 -0.3
      comp=Z,7.2nm,0.9s,mb5.2
YKA   Yellowknife Ar     99.23  24 P       P       22 44 41.5 +1.2
      comp=Z,1.0nm,0.7s,mb4.5,baz=300,slow=4.6,SNR=18
YKA   Yellowknife Ar     99.23  24 P       P       22 44 41.5 +1.2
BRG   Berggiesshubel    100.76 323 i P     Pdif    22 44 48.0 +0.7
BRG                                pmax    pmax
      comp=Z,4.0nm,0.8s
BRG   Berggiesshubel    100.76 323 i P     Pdif    22 44 48.0 +0.7
      comp=Z,7.3nm,0.8s
CLL   Collm             101.16 324 ePdif   Pdif    22 44 50.0 +0.9
GERES GERESS Array B    101.61 322 P       Pdif    22 44 51.4 +0.4
      comp=Z,1.5nm,0.9s,baz=64,slow=6.1,SNR=9.1
PDAR  Pinedale Array    111.21  41 PKiKP   PKiKP   22 49 33.3 +0.8
      comp=Z,0.2nm,0.5s,baz=305,slow=3.2,SNR=3.7
PDAR                               PKKPbc  PKKPbc  23 00 38.5 +8.4
      comp=Z,1.3nm,0.8s,baz=121,slow=5.0,SNR=12
MSU   Marysvale         111.26  46 ePKIKP  PKiKP   22 49 33.6 +0.9
FRB   Frobisher Bay     111.36   7 PKiKP   PKiKP   22 49 32.0 -0.1
      comp=Z,1.3nm,0.7s,baz=331,slow=4.9,SNR=5.1
SRU   San Rafael        112.18  45 ePKIKP  PKiKP   22 49 31.8 -2.7
RW3   Ridgway           114.55  45 ePKIKP  PKiKP   22 49 38.9 -0.1
LENM  Lemitar           116.90  48 ePKPdf  PKPdf   22 49 39.2 -4.5
LPM   Los Pinos Moun    117.09  48 ePKPdf  PKPdf   22 49 38.0 -6.0
SCHQ  Schefferville     120.20   9 PKP     PKPdf   22 49 50.4 +1.0
      comp=Z,4.1nm,0.5s,baz=14,slow=2.1,SNR=22
KSU1  Kansas State U    121.45  39 ePKPdf  PKPdf   22 49 51.5 -0.8
TXAR  Lajitas Array     121.55  52 PKP     PKPdf   22 49 54.7 +2.0
      comp=Z,1.3nm,0.7s,baz=222,slow=0.8,SNR=16
TOA0  Torodi Ar. Sit    122.55 288 ePKPdf  PKPdf   22 49 55.4 +0.4
TORD  Torodi Ar. Bea    122.55 288 PKP     PKPdf   22 49 55.0  0.0
      comp=Z,2.6nm,0.7s,baz=76,slow=1.8,SNR=24
TORD                               PKKPbc  PKKPbc  22 59 51.7 +2.4
      comp=Z,0.6nm,0.7s,baz=246,slow=2.2,SNR=6.6
TORD  Torodi Ar. Bea    122.55 288 PKP     PKPdf   22 49 55.0  0.0
TORD                               PKKPbc  PKKPbc  22 59 51.7 +2.4
JCT   Junction City     123.98  49 ePKIKP  PKPdf   22 49 59.4 +2.0
CCM   Cathedral Cave    125.36  36 ePKIKP  PKPdf   22 50 01.2 +1.4
MIAR  Mount Ida         126.14  41 ePKIKP  PKPdf   22 50 01.2 -0.2
ALLY  Alegheny Colle    128.37  25 ePKPdf  PKPdf   22 50 05.2 -0.3
DBIC  Dimbokro          130.24 282 PKP     PKPdf   22 50 10.5 +0.7
      comp=Z,2.4nm,0.6s,baz=135,slow=13,SNR=7.0
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DBIC	Dimbokro	130.24	282	*e*PKPdf	PKPdf	22 50 09.9	+0.1
CMIG	Matias Romero	134.03	62	PKP	PKPdf	22 50 19.0	+2.2
	comp=Z,3.7nm,0.7s,baz=288,slow=1.2,SNR=9.2						
PLCA	Paso Flores	140.48	160	PKP	PKPdf	22 50 28.9	+0.8
	comp=Z,3.3nm,0.8s,baz=159,slow=2.6,SNR=5.6						
JTS	JuntasAbangare	145.57	65	*e*PKP2	PKPab	22 50 39.8	+1.3
LCO	Las Campanas	150.38	148	*e*PKPab	PKPbc	22 50 52.4	+1.8
CPUP	Villa Florida	157.64	171	PKPab	PKPab	22 51 29.2	+1.3
	comp=Z,6.2nm,0.8s,baz=182,slow=4.0,SNR=8.6						
SDV	Santo Domingo	158.59	53	*e*PKPdf	PKPdf	22 50 57.2	+0.1

IDC 03 22:45:12.2±5.0**, 2°.82S×139°.25E, h0^{km}, mb3.2**/2**, mb1 3.6**/3**, mb1mx3.4**/14**, mbtmp3.4**/3**, ML3.6**/1**, Error ellipse: s-maj=199.4km s-min=30.4km az=87.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.68	195	P	Pn	22 49 19.4	-0.6
	0.2nm,0.3s,baz=15,slow=12,SNR=17						
ASAR	Alice Springs	21.36	194	P	P	22 50 01.2	0.0
	0.6nm,0.5s,baz=19,slow=11,SNR=9.1						
MKAR	Makanchi Array	70.21	322	P	P	22 56 27.2	+0.3
	0.3nm,0.6s,baz=104,slow=8.2,SNR=4.9						

NEIC 03 23:05:15.1, 39°.64S×174°.18E, h213^{km}, MG3.7(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WAZ	Wanganui	0.63	101	P	Pn	23 05 44.4	+0.2
WAZ				S	S	23 06 05.6	-1.2
TWVZ	Taurewa	1.13	60	P	Pn	23 05 46.3	-0.7
WNVZ	Wahianoa	1.14	75	P	Pn	23 05 47.1	0.0
NGZ	Ngauruhoe	1.19	68	P	Pn	23 05 47.1	-0.4
TUVZ	Tukino	1.20	72	P	Pn	23 05 47.6	+0.1
WTVZ	West Tongariro	1.21	65	P	Pn	23 05 47.3	-0.3
MOVZ	Moawhango	1.24	80	P	Pn	23 05 47.3	-0.5
KIW	Kapiti Island	1.34	156	P	Pn	23 05 48.5	-0.1
TSZ	Takapari Road	1.43	108	P	Pn	23 05 49.3	0.0
MRZ	Mangatainoka R	1.48	134	P	Pn	23 05 49.6	-0.1
TCW	Tory Channel	1.57	177	P	Pn	23 05 50.7	+0.2
CAW	Cannon Point	1.62	155	P	Pn	23 05 50.8	-0.1
MRW	Makara Radio	1.64	166	P	Pn	23 05 51.0	-0.1
NNZ	Nelson	1.69	201	P	Pn	23 05 51.1	-0.4
SNZO	South Karori	1.72	167	P	Pn	23 05 51.5	-0.3
QRZ	Quartz Range	1.73	226	P	Pn	23 05 50.7	-1.2
MTW	Mount Morrison	1.82	147	P	Pn	23 05 52.5	-0.3
BHW	Baring Head	1.84	164	P	Pn	23 05 52.6	-0.4
BKZ	Black Stump Fm	1.85	76	P	Pn	23 05 52.5	-0.6
BFZ	Birch Farm	1.90	124	P	Pn	23 05 53.6	+0.1
MSWZ	Moikau Station	1.95	156	P	Pn	23 05 53.7	-0.3
PAWZ	Paruwai Farm	1.98	152	P	Pn	23 05 54.1	-0.2
BSWZ	Blackbirch Sta	2.09	186	P	Pn	23 05 55.5	+0.2
THZ	Tophouse	2.33	204	P	Pn	23 05 57.6	-0.3
URZ	Urewera	2.67	60	P	Pn	23 06 00.0	-1.6
DSZ	Denniston Nort	2.77	220	P	Pn	23 06 01.7	-1.0
KHZ	Kahutara	2.82	190	P	Pn	23 06 03.1	-0.1
MWZ	Matawai	2.92	65	P	Pn	23 06 03.1	-1.3
LTZ	Lake Taylor	3.46	204	P	Pn	23 06 09.9	-0.7
PUZ	Puketiti	3.55	65	P	Pn	23 06 10.2	-1.6
MQZ	McQueen's Vall	4.22	195	P	Pn	23 06 17.6	-2.4
WVZ	Waitaha Valley	4.30	216	P	Pn	23 06 20.0	-1.0
FOZ	Fox Glacier	5.17	219	P	Pn	23 06 29.0	-2.8

*ISCJB **03** 23:28:30.4±0.6, 2°.82S±0°.09×28°.95E±0°.06, h10^{km}, mb3.9/7, Error ellipse: s-maj=13.2km s-min=9.0km az=170.0*

*IDC **03** 23:28:31.4±1.1, 2°.79S×28°.97E, h0^{km}, mb3.8/6, mb1 3.9/7, mb1mx3.7/21, mbtmp3.8/7, ML3.7/1, MS3.4/1, Ms1 3.4/1, ms1mx2.5/25, Error ellipse: s-maj=25.2km s-min=21.9km az=168.0*

*NEIC **03** 23:28:32.5±0.4, 2°.81S×28°.88E, h10^{km}, mb4.1/2, Error ellipse: s-maj=9.6km s-min=8.9km az=133.0*

ISC 03 23:28:33.8±6.4**, 2°.86S**±0°.10×**28°.90E**±0°.07**, h18**^{km}±41^{km}**, n14, σ0.s69**/15**, mb3.9**/7**, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	8.52	79	Pn	Pn	23 30 36.9	+0.6
	1.0nm,0.3s,baz=231,slow=20,SNR=8.5						
KMBO				Sn	Sn	23 32 11.5	-0.6
	1.2nm,0.3s,baz=266,slow=20,SNR=4.6						
KMBO				Lg		23 32 55.3	
	3.9nm,0.3s,baz=184,slow=21,SNR=7.6						
TSUM	Tsumeb	19.66	213	P	Pn	23 33 01.6	-1.6
BOSA	Boshof	25.85	187	P	P	23 34 05.5	+1.2
	5.4nm,1.1s,mb4.0,baz=6.3,slow=9.2,SNR=1.9						
MSEY	Mahe Island	26.58	95	P	P	23 34 10.8	-0.3
TOA0	Torodi Ar. Sit	31.34	301	*e*P	P	23 34 53.4	-0.1
TORD	Torodi Ar. Bea	31.34	301	P	P	23 34 53.3	-0.1
	1.1nm,0.8s,mb3.7,baz=113,slow=7.9,SNR=9.7						
TORD				LR	LR	23 46 41.8	
	comp=Z,73nm,21.2s,baz=110,slow=35						
BRTR	Keskin Array B	42.59	5	P	P	23 36 29.1	+0.3
	0.4nm,0.6s,baz=191,slow=11,SNR=4.6						
KBL	Kabul	52.96	42	P	P	23 37 48.6	-0.7
	2.6nm,1.7s,mb3.9						
GERES	GERESS Array B	53.16	348	P	P	23 37 50.5	0.0
	0.6nm,0.7s,mb3.7,baz=160,slow=8.5,SNR=6.6						
KHC	Kasperske Hory	53.46	348	*e*P	P	23 37 52.0	-0.7
NOA	NORSAR Array B	65.17	351	P	P	23 39 14.4	+0.9
	1.3nm,0.8s,mb4.0,baz=142,slow=8.2,SNR=3.5						
MK31	Makanchi Array	68.08	36	*e*P	P	23 39 32.5	+0.1
MKAR	Makanchi Array	68.08	36	P	P	23 39 32.8	+0.4
	0.6nm,0.7s,mb3.7,baz=250,slow=6.0,SNR=4.9						
MAW	Mawson	68.71	167	*e*P	P	23 39 36.5	+0.6
	0.7nm,0.3s,mb4.1						

*NEIC **03** 23:31:38.6, 36°.52S×71°.93W, h80^{km}, MG4.1(GUC), After GUC.*

GUC 03 23:31:38.6±0.7**, 36°.52S×71°.93W, h80**^{km}±3^{km}**, ML4.1, 6C-2D, Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCHI	Chillan	0.14	236	⇑*i*P	Pn	23 31 50.3	+0.1
CCHI				*i* S	Sn	23 31 59.0	+0.3
CNCO	Chanco	0.93	328	*i* P	Pn	23 31 57.2	+0.5
CNCO				*i* S	Sn	23 32 10.8	+0.5
TALC	Talca	1.15	12	⇓*e*P	Pn	23 31 59.8	+0.3
TALC				*i* S	Sn	23 32 15.4	+0.3
CTCH	Constitucion	1.25	342	*i* P	Pn	23 32 01.9	+1.2
CTCH				*i* S	Sn	23 32 18.7	+1.3
CTCH	Constitucion	1.25	342	*i* P	Pn	23 32 01.9	+1.2
CTCH				*i* S	Sn	23 32 18.7	+1.3
CTCH				AML	AML	23 32 21.8	
	comp=E,14µm,0.3s						
NICH	Los Niches	1.62	21	*i* P	Pn	23 32 06.2	+0.7
NICH				*i* S	Sn	23 32 26.9	+1.0
TMU	Temuco	2.27	193	⇑*i*P	Pn	23 32 14.5	+0.4
TMU				*i* S	Sn	23 32 41.7	+0.5
CICH	Cipreses	2.52	30	*e*P	Pn	23 32 19.4	+2.0
CICH				*i* S	Sn	23 32 49.7	+2.5
CACH	El Canelo	2.64	25	⇓*i*P	Pn	23 32 19.8	+0.8
CACH				*i* S	Sn	23 32 51.1	+1.1
CHCH	Chadas Angostu	2.79	22	*i* P	Pn	23 32 21.5	+0.5
CHCH				*i* S	Sn	23 32 54.1	+0.4
TACH	Talagante	2.98	16	*i* P	Pn	23 32 23.6	-0.1
TACH				*i* S	Sn	23 32 58.1	-0.2
LMEL	Las Melosas	3.02	28	AML	AML	23 33 06.6	
	comp=N,267nm,0.2s						
PCH	Pirque	3.12	22	*e*P	Pn	23 32 26.0	+0.4
PCH				*e*S	Sn	23 33 02.1	+0.3
ANTU	Antumapu	3.13	20	*i* P	Pn	23 32 26.5	+0.7
ANTU				*i* S	Sn	23 33 02.8	+0.7
ANTU	Antumapu	3.13	20	*i* P	Pn	23 32 26.5	+0.7
ANTU				*i* S	Sn	23 33 02.8	+0.7
ANTU				AML	AML	23 33 19.5	
	comp=N,352nm,0.5s						
RCDM	Rinconada Maip	3.17	17	⇑*i*P	Pn	23 32 26.3	+0.1
RCDM				*i* S	Sn	23 33 02.8	0.0
RCDM	Rinconada Maip	3.17	17	⇑*i*P	Pn	23 32 26.3	+0.1
RCDM				*i* S	Sn	23 33 02.8	0.0
RCDM				AML	AML	23 33 05.8	
	comp=E,292nm,0.2s						
FCH	Farellones	3.46	23	⇑*i*P	Pn	23 32 31.3	+1.1
FCH				*i* S	Sn	23 33 11.9	+1.8
FCH				AML	AML	23 33 15.7	
	comp=N,282nm,0.1s						
PEL	Peldehue	3.52	17	⇑*i*P	Pn	23 32 31.3	+0.2
PEL				*i* S	Sn	23 33 12.3	+0.7
PEL				AML	AML	23 33 41.3	
	comp=N,289nm,0.7s						
PLCA	Paso Flores	4.34	166	*e*Pn	Pn	23 32 43.5	+1.4
PLCA				*e*Sn	Sn	23 33 31.8	+0.4
LCO	Las Campanas	7.56	8	*e*Pn	Pn	23 33 26.1	0.0
LCO				*e*S	Sn	23 34 46.1	-4.2

*ISCJB **03** 23:50:55.3±0.9, 20°.56S±0°.09×178°.77W±0°.08, h591^{km}±13^{km}, mb4.1/22, Error ellipse: s-maj=15.0km s-min=8.4km az=144.8*

*NEIC **03** 23:50:55.7±0.8, 20°.45S×178°.76W, h581^{km}±9^{km}, mb4.3/9, Error ellipse: s-maj=11.8km s-min=6.7km az=152.0*

*IDC **03** 23:50:56.8±1.6, 20°.49S×178°.79W, h592^{km}±18^{km}, mb3.5/11, mb1 3.8/12, mb1mx3.7/17, mbtmp3.5/12, Error ellipse: s-maj=20.2km s-min=10.2km az=150.0*

ISC 03 23:50:55.8±0.9**, 20°.50S**±0°.09×**178°.73W**±0°.08**, h582**^{km}±12^{km}**, n82, σ0.s82**/48**, mb4.1**/22**, 13C-8D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.33	46	P	P	23 53 07.4	-0.3
	14nm,0.3s,baz=254,slow=5.8,SNR=16						
AFI				S	S	23 54 54.3	-1.5
	4.7nm,0.3s,baz=198,slow=20,SNR=5.2						
AFI	Afiamalu	9.33	46	*e*P	P	23 53 07.0	-0.7
AFI				*e*S	S	23 54 56.0	+0.2
URZ	Urewera	18.06	191	P	P	23 54 29.3	-3.2
	4.6nm,0.3s,baz=295,slow=4.2,SNR=19						
EIDS	Eidsvold	28.19	254	*e*P	P	23 56 03.5	+0.6
	3.8nm,0.4s,mb4.4						
ARMA	Armidale	28.45	244	*e*P	P	23 56 06.6	+1.5
ARMA				*e*		23 56 09.6	
CNB	Canberra Magne	31.66	235	*e*P	P	23 56 33.6	+1.0
CTA	Charters Tower	32.81	264	⇓*i*P	P	23 56 43.5	+1.0
	5.6nm,0.3s,mb4.7						
CTAO	Charters Tower	32.81	264	*e*P	P	23 56 43.1	+0.5
	7.0nm,0.3s,mb4.8						
TOO	Toolangi	35.34	233	*e*P	P	23 57 04.0	+0.5
STKA	Stephens Creek	37.17	244	⇓*i*P	P	23 57 19.2	+0.6
	5.5nm,0.6s,mb4.3						
STKA	Stephens Creek	37.17	244	P	P	23 57 19.1	+0.6
	7.9nm,0.6s,mb4.4,baz=91,slow=9.3,SNR=24						
STKA	Stephens Creek	37.17	244	*e*P	P	23 57 19.1	+0.6
	1.1nm,0.4s,mb3.7						
ASAR	Alice Springs	43.85	257	P	P	23 58 12.1	+0.3
	12nm,0.5s,mb4.7,baz=97,slow=7.5,SNR=134						
ASAR				PcP	PcP	23 59 44.6	-0.4
	1.6nm,0.6s,baz=101,slow=4.0,SNR=4.8						
ASAR				S	S	00 03 58.9	-2.7
	1.6nm,0.9s,baz=94,slow=16,SNR=12						
WB2	Warramunga Arr	43.91	262	*e*P	P	23 58 11.7	-0.5
WRAB	Tennant Creek	43.91	262	*e*P	P	23 58 11.5	-0.8
	15nm,1.0s,mb4.5						
WRA	Warramunga Arr	43.92	262	P	P	23 58 12.1	-0.2
	4.5nm,0.3s,mb4.5,baz=96,slow=6.9,SNR=425						
WRA				S	S	00 04 01.4	-1.2
	0.9nm,0.9s,baz=98,slow=14,SNR=5.0						
KAKA	Kakadu	47.29	271	*e*P	P	23 58 38.1	+0.1
	5.7nm,0.7s,mb4.2						
FITZ	Fitzroy Crossi	52.35	263	⇓*i*P	P	23 59 15.0	+0.1
	5.8nm,0.4s,mb4.3						
FITZ	Fitzroy Crossi	52.35	263	*e*P	P	23 59 15.1	+0.1
	5.8nm,0.9s,mb3.9						
MBWA	Marble Bar	57.19	258	*e*P	P	23 59 48.3	-0.3
	9.4nm,0.7s,mb4.1						
MBWA				*e*		23 59 51.2	
KLBR	Kellerberrin	57.44	245	*e*P	P	23 59 49.5	-0.7
	18nm,0.9s,mb4.3						
NWAO	Narrogin (SRO)	57.76	243	*e*P	P	23 59 51.9	-0.4
	3.7nm,0.7s,mb3.6						
VNDA	Vanda	57.85	185	P	P	23 59 52.8	+0.7
	6.1nm,1.2s,mb3.6,baz=50,slow=10,SNR=6.8						
VNDA	Vanda	57.85	185	*e*P	P	23 59 52.5	+0.4
	0.6nm,0.4s,mb3.1						
RPN	Rapa Nui	63.13	111	P	P	00 00 28.2	+0.4
CASY	Casey	63.67	205	*e*P	P	00 00 30.2	-0.3
MJAR	Matsushiro Arr	69.81	324	P	P	00 01 08.9	+0.2
	1.9nm,0.6s,mb3.7,baz=146,slow=6.3,SNR=5.8						
TWG	Pinlang	72.81	303	P	P	00 01 25.2	-1.3
YULB	Yu-li	72.93	304	P	P	00 01 27.0	-0.1
NACB	Ninganchiao	73.11	305	P	P	00 01 31.6	+3.4
TPUB	Ta-pu	73.41	303	*e*P	P	00 01 29.3	-0.6
	14nm,0.6s,mb4.7						
PETK	Petropavlovsk-	76.10	346	P	P	00 01 44.3	+0.1
	4.3nm,0.7s,mb4.0,baz=120,slow=9.0,SNR=4.2						
MDJ	Mudanjiang	80.13	325	P	P	00 02 06.2	+0.2
COCO	West Island	80.68	260	P	P	00 02 10.5	+0.9
NVAR	Mina Array Bea	81.50	44	P	P	00 02 14.4	+1.2
	0.9nm,0.6s,mb3.4,baz=226,slow=7.4,SNR=2.9						
MCK	McKinley	87.12	13	*e*P	P	00 02 39.9	-0.2
	4.3nm,0.7s,mb4.3						
TXAR	Lajitas Array	87.63	58	P	P	00 02 44.1	+0.8
	0.5nm,0.8s,mb3.3,baz=242,slow=2.7,SNR=4.5						
VNA3	Neumayer Olymp	88.18	176	*e*	P	00 02 43.9	-1.2
VNA2	Neumayer--Watz	88.62	177	*e*	P	00 02 46.3	-0.8
	baz=218,slow=3.3						
BILL	Bilibino	88.97	354	*e*P	P	00 02 48.1	-0.4
PDAR	Pinedale Array	89.43	43	P	P	00 02 52.1	+0.8
	0.7nm,0.6s,mb3.7,baz=223,slow=4.1,SNR=7.9						
CMAR	Chiang Mai Arr	89.47	290	P	P	00 02 53.0	+1.0
	2.9nm,0.9s,mb4.1,baz=119,slow=2.6,SNR=8.2						
CHTO	Chiang Mai	89.60	290	*e*P	P	00 02 51.9	-0.8
	2.4nm,0.5s,mb4.3						
YKA	Yellowknife Ar	96.80	25	P	P	00 03 24.3	-0.1
	0.2nm,0.7s,mb3.5,baz=234,slow=4.8,SNR=5.0						
ZALV	Zalesovo Beam	110.07	321	PKiKP	PKiKP	00 08 19.2	-2.3
	0.9nm,0.7s,baz=192,slow=5.6,SNR=4.1						
MKAR	Makanchi Array	110.70	313	PKiKP	PKiKP	00 08 21.3	-1.7
	0.3nm,0.4s,baz=188,slow=0.9,SNR=20						
KURK	Kurchatov	113.53	317	PKiKP	PKiKP	00 08 26.5	-1.8
FRB	Frobisher Bay	117.11	28	PKP	PKPdf	00 08 36.1	+1.4
	0.9nm,0.7s,baz=105,slow=20,SNR=3.9						
BRVK	Borovoye	118.70	320	*e*PKPdf	PKPdf	00 08 37.1	-1.0
ARCES	ARCESS Array B	128.80	349	PKP	PKPdf	00 08 56.2	-0.9
	2.6nm,0.8s,baz=75,slow=2.6,SNR=9.4						
ARCES	ARCESS Array B	128.80	349	PKP	PKPdf	00 08 56.2	-0.9
AKASG	Malin Array Be	142.68	331	PKhKP		00 09 19.6	
	6.4nm,0.4s,baz=43,slow=4.3,SNR=16						
AKASG				PKP	PKPdf	00 09 22.6	-0.6
	6.4nm,0.4s,baz=42,slow=4.2,SNR=24						
MALT	Malatya	143.39	307	⇑*i*P	PKPdf	00 09 24.4	-0.5
MALT	Malatya	143.39	307	⇑P	PKPdf	00 09 24.4	-0.5
KWP	Kalwaria Pacla	146.30	335	⇓*i*P	PKPbc	00 09 31.8	0.0
KWP	Kalwaria Pacla	146.30	335	⇓P	PKPbc	00 09 31.8	0.0
BRTR	Keskin Array B	146.33	312	PKPbc	PKPbc	00 09 31.6	-0.7
	2.5nm,0.6s,baz=148,slow=4.3,SNR=14						
BURAR	Bucovina Array	146.73	330	⇓*i*P	PKPbc	00 09 32.9	-0.1
BURAR	Bucovina Array	146.73	330	⇓P	PKPbc	00 09 32.9	-0.1
OKC	Ostrava-Krasne	147.80	339	*e*PKP	PKPbc	00 09 35.4	-0.4
OKC				*e*x	x	00 09 39.6	
OKC				*e*x	x	00 09 44.3	
MLR	Muntele Rosu	147.85	327	⇑*i*P	PKPbc	00 09 35.6	-0.4
MLR	Muntele Rosu	147.85	327	⇑P	PKPbc	00 09 35.6	-0.4
CLL	Collm	147.91	346	*i* PKPbc	PKPbc	00 09 35.7	-0.3
	comp=Z,9.0nm,0.9s						
CLL				*i* PKPbc(2)		00 09 38.9	
	comp=Z,8.0nm,0.8s						
CLL				*i* PKPab(2)		00 09 43.7	
	comp=Z,7.0nm,0.8s						
DPC	Dobruska-Polom	147.92	342	*e*PKP	PKPbc	00 09 36.0	0.0
DPC				*e*x	x	00 09 39.7	
DPC				*e*x	x	00 09 44.9	
BRG	Berggiesshubel	148.09	345	*e*P	PKPbc	00 09 36.5	+0.1
	comp=Z,7.0nm,1.1s						
PVCC	Panska Ves	148.25	344	*e*PKP	PKPab	00 09 40.3	-1.8
PVCC				*e*x	x	00 09 43.6	
VOIR		148.35	327	⇑*i*P	PKPbc	00 09 37.5	+0.2
VOIR		148.35	327	⇑P	PKPbc	00 09 37.5	+0.2
PRU	Pruhonice	148.75	343	*e*PKP	PKPbc	00 09 37.8	-0.3
PRU				*e*x	x	00 09 41.3	
PRU				*e*x	x	00 09 48.0	
PRU				*e*x	x	00 09 52.2	
NKC	Novy Kostel	149.04	346	*e*PKP	PKPbc	00 09 39.0	+0.2
NKC				*e*x	x	00 09 42.6	
GZR	Gura Zlata	149.50	329	⇑*i*P	PKPbc	00 09 39.3	-0.8
GZR	Gura Zlata	149.50	329	⇑P	PKPbc	00 09 39.3	-0.7
KHC	Kasperske Hory	149.78	344	*e*PKP	PKPbc	00 09 40.7	+0.1
KHC				*e*x	x	00 09 43.8	
KHC				*e*x	x	00 09 49.3	
KHC				*e*x	x	00 09 52.7	
BZS	Buzias	149.87	331	⇑*i*P	PKPbc	00 09 40.8	-0.1
BZS	Buzias	149.87	331	⇑P	PKPbc	00 09 40.8	-0.1
GERES	GERESS Array B	150.01	343	PKPbc	PKPbc	00 09 41.0	-0.2
	comp=Z,1.5nm,0.7s,baz=48,slow=2.0,SNR=8.7						
PKSM	Moragy	150.67	335	⇑*i*P	PKPbc	00 09 42.4	-0.4
PKSM	Moragy	150.67	335	⇑P	PKPbc	00 09 42.4	-0.3
WTTA	Wattenberg	152.01	345	⇓*i*PKPbc	PKPbc	00 09 45.3	-0.4
	comp=Z,1.7nm,0.4s						
ABTA	Abfaltersbach	152.26	343	⇑*i*PKPbc	PKPbc	00 09 45.3	-1.0
	comp=Z,3.9nm,0.7s						
TOA0	Torodi Ar. Sit	172.68	183	PKPdf	PKPdf	00 09 59.6	+0.2
TORD	Torodi Ar. Bea	172.68	183	PKPab	PKPab	00 11 27.1	-2.1
	comp=Z,0.7nm,0.9s,baz=209,slow=2.6,SNR=3.4						

*ISCJB **04** 00:18:20.0±3.1, 18°.96N±0°.07×145°.4E±0°.1, h268^{km}±30^{km}, mb3.8/20, Error ellipse: s-maj=21.2km s-min=10.8km az=178.2*

*NEIC **04** 00:18:21.9±2.2, 18°.97N×145°.41E, h276^{km}±21^{km}, mb4.0/8, Error ellipse: s-maj=14.6km s-min=7.5km az=87.0*

*IDC **04** 00:18:21.6±5.0, 18°.95N×145°.31E, h268^{km}±49^{km}, mb3.5/12, mb1 3.6/13, mb1mx3.5/24, mbtmp3.5/13, Error ellipse: s-maj=27.3km s-min=13.2km az=87.0*

ISC 04 00:18:22.1±2.9**, 18°.95N**±0°.07×**145°.4E**±0°.1**, h276**^{km}±29^{km}**, n31, σ0.s81**/31**, mb3.8**/20**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	Kunigami	17.61	300	P	P	00 22 10.6	+1.7
	17nm,0.3s,baz=127,slow=10,SNR=20						
MJAR	Matsushiro Arr	18.63	342	P	P	00 22 17.9	-1.8
	0.6nm,0.3s,baz=170,slow=11,SNR=8.7						
MAJO	Matsushiro	18.63	342	*e*P	P	00 22 19.4	-0.4
	5.2nm,0.5s						
KSRS	Korea Array	23.95	324	P	P	00 23 11.6	0.0
	2.0nm,0.8s,mb3.5,baz=139,slow=8.8,SNR=4.5						
ASAJ	Asahikawa	25.20	355	P	P	00 23 24.1	+1.3
	7.4nm,0.2s,mb4.7,baz=350,slow=27,SNR=3.8						
KSM	Kuching	38.52	247	P	P	00 25 17.3	-1.3
CTAO	Charters Tower	38.81	179	P	P	00 25 20.7	-0.1
WRAB	Tennant Creek	40.14	196	*e*P	P	00 25 31.9	+0.2
	0.9nm,0.5s,mb3.4						
WB2	Warramunga Arr	40.15	196	*e*P	P	00 25 32.0	+0.2
WRA	Warramunga Arr	40.15	196	P	P	00 25 32.0	+0.2
	0.8nm,0.5s,mb3.3,baz=26,slow=8.7,SNR=16						
SONM	Songino Array	42.77	321	P	P	00 25 52.7	0.0
	1.0nm,0.5s,mb3.3,baz=136,slow=9.3,SNR=11						
ASAR	Alice Springs	43.82	195	P	P	00 26 00.6	-0.7
	0.3nm,0.4s,mb2.9,baz=22,slow=6.5,SNR=5.1						
CHTO	Chiang Mai	43.85	278	P	P	00 26 02.3	+0.5
YAK	Yakutsk	44.42	349	*e*P	P	00 26 05.2	-0.3
	19nm,0.5s,mb4.6						
LSA	Lhasa	50.19	293	*e*P	P	00 26 51.5	+1.1
	2.1nm,0.5s,mb3.7						
BILL	Bilibino	50.82	10	*e*P	P	00 26 54.6	+0.2
ZALV	Zalesovo Beam	57.64	322	P	P	00 27 43.0	-0.6
	0.7nm,0.4s,mb3.4,baz=112,slow=6.9,SNR=5.7						
MK31	Makanchi Array	58.08	314	*e*P	P	00 27 45.8	-1.0
MKAR	Makanchi Array	58.08	314	P	P	00 27 47.1	+0.3
	1.4nm,0.6s,mb3.6,baz=89,slow=9.1,SNR=19						
KURK	Kurchatov	60.89	318	*e*P	P	00 28 05.6	-0.3
	3.4nm,0.9s,mb3.9						
TKM2	Tokmak 2	62.67	309	*e*P	P	00 28 18.2	+0.4
AML	Almayashu	64.10	308	*e*P	P	00 28 27.6	+0.4
	1.4nm,0.5s,mb3.9						
BRVK	Borovoye	66.16	320	*e*P	P	00 28 40.3	+0.2
	2.1nm,0.5s,mb4.1						
KBL	Kabul	68.50	300	*e*P	P	00 28 56.0	+0.8
	2.5nm,0.9s,mb3.9						
YKA	Yellowknife Ar	77.90	28	P	P	00 29 49.7	+0.4
	0.7nm,0.5s,mb3.6,baz=289,slow=5.5,SNR=11						
YKA	Yellowknife Ar	77.90	28	P	P	00 29 49.7	+0.4
ARCES	ARCESS Array B	82.16	342	P	P	00 30 11.7	-0.2
	6.8nm,1.1s,mb4.3,baz=67,slow=6.9,SNR=2.6						
NVAR	Mina Array Bea	83.21	52	P	P	00 30 19.3	+1.4
	0.7nm,0.6s,mb3.6,baz=269,slow=5.4,SNR=3.5						
JOF	Joensuu	83.67	335	*e*p	P	00 30 18.0	-1.7
	2.1nm,0.5s,mb4.2						
HFS	Hagfors	92.04	338	P	P	00 30 58.7	-0.9
	1.4nm,0.5s,mb4.1,baz=90,slow=0.6,SNR=5.4						
BRTR	Keskin Array B	93.73	314	P	P	00 31 07.8	-0.1
	0.2nm,0.4s,mb3.5,baz=35,slow=5.3,SNR=6.2						

*SZGRF **04** 00:24:17.7, 5°.26S×28°.36E, h33^{km}, mb4.9, Lake Tanganyika region*

*ISCJB **04** 00:24:32.7±0.3, 2°.49S±0°.04×28°.90E±0°.06, h10^{km}, mb4.5/46, MS3.6/6, Error ellipse: s-maj=8.9km s-min=6.2km az=2.0*

*MOS **04** 00:24:32.8±1.1, 2°.49S×28°.85E, h10^{km}, mb4.8/19, Error ellipse: s-maj=13.4km s-min=5.6km az=94.7*

*IDC **04** 00:24:33.9±0.7, 2°.41S×28°.88E, h0^{km}, mb4.1/19, mb1 4.2/21, mb1mx4.2/27, mbtmp4.1/21, ML3.7/2, MS3.6/8, Ms1 3.6/8, ms1mx3.3/26, Error ellipse: s-maj=19.2km s-min=16.8km az=106.0*

*NEIC **04** 00:24:35.1±0.4, 2°.43S×28°.88E, h10^{km}, mb4.6/20, Error ellipse: s-maj=9.4km s-min=7.8km az=88.0*

ISC 04 00:24:34.9±0.3**, 2°.48S**±0°.04×**28°.93E**±0°.05**, h10**^{km}**, n125, σ0.s98**/127**, mb4.5**/46**, MS3.6**/6**, 19C-2D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	8.43	81	P	Pn	00 26 37.2	0.0
KMBO						00 28 10.6	
KMBO	Kilima Mbogo	8.43	81	Pn	Pn	00 26 37.2	0.0
	1.4nm,0.3s,baz=243,slow=14,SNR=24						
KMBO				Sn	Sn	00 28 10.6	-1.9
	2.5nm,0.3s,baz=230,slow=20,SNR=4.7						
KMBO				Lg		00 28 55.0	
	6.1nm,0.3s,baz=190,slow=21,SNR=12						
KMBO				LR	LR	00 30 11.2	
	comp=Z,437nm,21.8s,baz=280,slow=40						
KMBO	Kilima Mbogo	8.43	81	Pn	Pn	00 26 37.2	0.0
KMBO				Sn	Sn	00 28 10.6	-1.9
KMBO				Lg		00 28 55.0	
KMBO				LR	LR	00 30 11.2	
LSZ	Lusaka	12.74	183	P	Pn	00 27 36.0	-0.2
LSZ						00 29 58.0	
LSZ	Lusaka	12.74	183	Pn	Pn	00 27 36.0	-0.2
	0.2nm,0.3s,baz=8.9,slow=18,SNR=5.9						
LSZ				Sn	Sn	00 29 58.0	-0.2
	0.6nm,0.3s,baz=138,slow=14,SNR=2.3						
LSZ				Lg		00 31 12.8	
	1.1nm,0.3s,baz=324,slow=20,SNR=5.5						
TSUM	Tsumeb	19.99	213	P	Pn	00 29 10.0	+0.6
	1.9nm,0.7s,baz=35,slow=12,SNR=2.3						
TSUM				Lg		00 34 59.9	
	10nm,1.0s,baz=212,slow=8.2,SNR=3.4						
TSUM				LR	LR	00 37 28.9	
	comp=Z,114nm,18.3s,baz=171,slow=39						
TSUM	Tsumeb	19.99	213	*e*P	Pn	00 29 10.4	+1.0
	3.1nm,0.6s						
TSUM				Lg		00 34 59.9	
TSUM				LR	LR	00 37 28.9	
BOSA	Boshof	26.22	187	*e*P	P	00 30 10.9	+0.8
BOSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
BOSA	Boshof	26.22	187	P	P	00 30 10.8	+0.6
	comp=Z,5.6nm,0.9s,mb4.1,baz=83,slow=9.1,SNR=5.2						
BOSA	Boshof	26.22	187	*e*P	P	00 30 10.9	+0.8
	comp=Z,7.6nm,0.8s,mb4.3						
TOA0	Torodi Ar. Sit	31.17	301	*e*P	P	00 30 53.8	-0.6
TOA0				*e*PcP	PcP	00 33 51.4	+1.9
TORD	Torodi Ar. Bea	31.17	301	P	P	00 30 53.6	-0.8
	comp=Z,2.9nm,0.7s,mb4.2,baz=103,slow=7.1,SNR=30						
TORD				LR	LR	00 42 41.6	
	comp=Z,169nm,21.7s,MS3.7,baz=115,slow=35						
TAM	Tamanrasset	33.95	319	*e*P	P	00 31 18.6	-0.1
TAM				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
TAM	Tamanrasset	33.95	319	*e*P	P	00 31 18.6	0.0
	comp=Z,2.4nm,1.1s,mb4.0						
KIC	Kosan Boka	34.75	285	*e*P	P	00 31 25.3	-0.4
	comp=Z,56nm,1.3s,mb5.3						
DBIC	Dimbokro	34.93	285	*e*P	P	00 31 26.7	-0.6
DBIC				pmax	pmax		
	comp=Z,6.0nm,0.9s						
DBIC	Dimbokro	34.93	285	P	P	00 31 26.4	-0.9
	comp=Z,3.7nm,0.9s,mb4.3,baz=41,slow=1.8,SNR=6.5						
DBIC				LR	LR	00 45 43.5	

	comp=Z,124nm,19.7s,MS3.7,baz=94,slow=36						
DBIC	Dimbokro	34.93	285	eP	P	00 31 26.7	-0.7
	comp=Z,6.1nm,0.9s,mb4.5						
DBIC				LR	LR	00 45 43.5	
LIC	Lamto	34.99	284	eP	P	00 31 28.3	+0.4
	comp=Z,30nm,1.1s,mb5.1						
LIC	Lamto	34.99	284	eP	P	00 31 26.7	-1.2
TIC	Toumodi	35.08	285	eP	P	00 31 28.2	-0.5
	comp=Z,7.8nm,0.2s,mb5.2						
APE	Apeiranthos	39.47	356	⇑iP	P	00 32 02.8	-2.8
ISP	Isparta	40.15	2	P	P	00 32 11.8	+0.6
MALT	Malatya	41.53	11	eP	P	00 32 24.5	+1.9
MALT				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.1						
MALT	Malatya	41.53	11	eP	P	00 32 24.5	+2.0
	comp=Z,6.9nm,1.4s,mb4.1						
KEST	Kesra	42.20	336	P	P	00 32 29.8	+1.7
	comp=Z,2.0nm,0.9s,mb3.7,baz=211,slow=9.2,SNR=4.8						
KEST				LR	LR	00 50 53.9	
	comp=Z,36nm,19.2s,MS3.3,baz=249,slow=38						
BRTR	Keskin Array B	42.22	5	P	P	00 32 29.3	+1.1
	comp=Z,1.5nm,0.8s,mb3.7,baz=196,slow=10,SNR=11						
TIP	Timpagrande	42.94	346	P	P	00 32 34.6	+0.5
GNI	Garni	44.83	17	⇑eP	P	00 32 50.4	+1.2
GNI				pmax	pmax		
	comp=Z,12nm,2.5s						
GNI	Garni	44.83	17	eP	P	00 32 51.0	+1.7
	comp=Z,2.4nm,0.7s,mb4.1						
ANN	Anapa	47.68	8	eP	P	00 33 03.6	-8.0
ANN				pmax	pmax		
	comp=Z,98nm,1.7s,mb5.6						
VOIR		47.83	356	⇑iP	P	00 33 12.3	-0.4
VOIR		47.83	356	⇑P	P	00 33 12.3	-0.4
MLR	Muntele Rosu	47.84	357	⇑iP	P	00 33 13.7	+0.9
MLR	Muntele Rosu	47.84	357	⇑P	P	00 33 13.7	+0.9
GZR	Gura Zlata	47.98	354	⇑iP	P	00 33 11.6	-2.3
GZR	Gura Zlata	47.98	354	⇑P	P	00 33 11.6	-2.2
BZS	Buzias	48.33	353	⇑iP	P	00 33 13.5	-3.1
BZS	Buzias	48.33	353	⇑P	P	00 33 13.5	-3.0
PKSM	Moragy	49.33	351	⇑iP	P	00 33 22.6	-1.7
PKSM	Moragy	49.33	351	⇑P	P	00 33 22.6	-1.7
BURAR	Bucovina Array	49.99	357	⇓iP	P	00 33 31.7	+2.4
BURAR	Bucovina Array	49.99	357	⇓P	P	00 33 31.7	+2.4
PSZ	Piszkesteto	50.81	352	⇑iP	P	00 33 36.6	+1.1
PSZ	Piszkesteto	50.81	352	eP	P	00 33 35.5	+0.1
	comp=Z,9.5nm,1.0s,mb4.7						
MBDF	Montbardon	50.99	340	eP	P	00 33 37.1	+0.2
	comp=Z,28nm,1.0s,mb4.8						
MBDF	Montbardon	50.99	340	eP	P	00 33 37.1	+0.2
MBDF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
MBDF	Montbardon	50.99	340	eP	P	00 33 37.1	+0.2
	comp=Z,14nm,1.0s,mb4.9						
KBA	Koelnbreinsper	51.22	346	⇑iP	P	00 33 39.4	+0.8
	comp=Z,7.7nm,1.1s,mb4.5						
BNI	Bardonecchia	51.31	340	eP	P	00 33 40.3	+1.0
VYHS	Vyhne	51.52	351	eP	P	00 33 39.0	-1.8
KOLS	Kolonicke sedl	51.53	354	eP	P	00 33 41.6	+0.7
CRVS	Cervenica-Dubn	51.58	354	eP	P	00 33 42.1	+0.8
MODS	Modra-Piesok	51.66	350	eP	P	00 33 44.0	+2.2
LPG	La Plagne	51.67	340	eP	P	00 33 41.5	-0.5
	comp=Z,13nm,1.1s,mb4.5						
LPG	La Plagne	51.67	340	eP	P	00 33 41.5	-0.5
LPG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
LPG	La Plagne	51.67	340	eP	P	00 33 41.5	-0.5
	comp=Z,6.6nm,1.0s,mb4.5						
ESDC	Sonseca Array	51.67	328	P	P	00 33 42.9	+0.8
	comp=Z,0.5nm,0.6s,mb3.7,baz=138,slow=7.8,SNR=6.0						
LPL	La Plagne	51.70	340	eP	P	00 33 41.1	-1.1
MOA	Molln	51.74	347	⇑iP	P	00 33 42.9	+0.5
	comp=Z,11nm,0.9s,mb4.8						
WTTA	Wattenberg	51.81	345	⇑iP	P	00 33 43.7	+0.6
	comp=Z,11nm,0.9s,mb4.8						
DAVOX	Davos/Dischmat	51.84	343	P	P	00 33 43.7	+0.4
	comp=Z,3.4nm,0.8s,mb4.3,baz=135,slow=9.2,SNR=5.1						
DAVOS	Davos	51.92	343	P	P	00 33 43.7	-0.2
STHS	Stebnicka Huta	52.12	354	eP	P	00 33 45.9	+0.7
STHS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
STHS	Stebnicka Huta	52.12	354	eP	P	00 33 45.9	+0.7
	comp=Z,3.3nm,0.7s,mb4.4						
KWP	Kalwaria Pacla	52.18	355	⇑iP	P	00 33 46.7	+1.0
KWP	Kalwaria Pacla	52.18	355	eP	P	00 33 45.8	0.0
	comp=Z,12nm,0.8s,mb4.9						
DAVA	Damuels	52.31	344	⇑iP	P	00 33 46.5	-0.2
	comp=Z,15nm,1.0s,mb4.9						
VRAC	Vranov	52.68	350	P	P	00 33 49.3	-0.1
	comp=Z,2.8nm,0.6s,mb4.4,baz=156,slow=5.8,SNR=8.4						
GERES	GERESS Array B	52.80	347	P	P	00 33 50.3	0.0
	comp=Z,2.9nm,0.8s,mb4.3,baz=165,slow=6.6,SNR=24						
TREC	Trest	52.87	349	eP	P	00 33 50.7	-0.1
OKC	Ostrava-Krasne	52.94	351	eP	P	00 33 51.5	+0.2
MORC	Moravsky Berou	52.97	351	eP	P	00 33 50.9	-0.7
MORC				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
MORC	Moravsky Berou	52.97	351	eP	P	00 33 50.9	-0.6
	comp=Z,4.4nm,1.0s,mb4.3						
AKASG	Malin Array Be	52.98	0	P	P	00 33 51.0	-0.6
	comp=Z,3.1nm,0.8s,mb4.3,baz=184,slow=7.2,SNR=8.1						
KHC	Kasperske Hory	53.10	347	eP	P	00 33 52.5	0.0
KHC				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
KHC	Kasperske Hory	53.10	347	eP	P	00 33 52.5	-0.1
	comp=Z,5.5nm,0.6s,mb4.7						
LFF	La Frestale	53.48	335	eP	P	00 33 55.4	0.0
	comp=Z,65nm,1.2s,mb5.1						
LFF	La Frestale	53.48	335	eP	P	00 33 55.4	0.0
LFF				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.1						
LFF	La Frestale	53.48	335	eP	P	00 33 55.4	0.0
	comp=Z,33nm,1.2s,mb5.1						
HINF	Hinteralfeld	53.68	342	eP	P	00 33 56.2	-0.7
PRU	Pruhonice	53.71	349	eP	P	00 33 56.5	-0.5
DPC	Dobruska-Polom	53.73	350	eP	P	00 33 57.2	+0.1
HAU	Haudompre	54.01	341	eP	P	00 33 58.6	-0.6
CDF	Champ du Feu	54.08	342	eP	P	00 33 58.9	-0.9
	comp=Z,37nm,1.4s,mb4.8						
CDF	Champ du Feu	54.08	342	eP	P	00 33 58.9	-0.9
CDF				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
CDF	Champ du Feu	54.08	342	eP	P	00 33 58.9	-0.9
	comp=Z,18nm,1.4s,mb4.8						
GRA1	Grafenberg Arr	54.17	346	eP	P	00 34 00.0	-0.4
	comp=Z,12nm,1.0s,mb4.8						
GRF	Grafenberg Arr	54.17	346	eP	P	00 34 00.0	-0.4
GRF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
GRF	Grafenberg Arr	54.17	346	eP	P	00 34 00.0	-0.4
GRF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
GRF	Grafenberg Arr	54.17	346	eP	P	00 34 00.0	-0.4
	comp=Z,12nm,1.0s,mb4.8						
GRF	Grafenberg Arr	54.17	346	eP	P	00 34 00.0	-0.4
	comp=Z,12nm,1.0s,mb4.8						
VSR	Storozhevoye	54.20	8	eP	P	00 34 02.1	+1.5
LOR	Lormes	54.21	339	eP	P	00 34 00.0	-0.7
	comp=Z,12nm,0.9s,mb4.5						
LOR	Lormes	54.21	339	eP	P	00 34 00.0	-0.7
LOR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
LOR	Lormes	54.21	339	eP	P	00 34 00.0	-0.7
	comp=Z,6.3nm,0.9s,mb4.5						
NKC	Novy Kostel	54.39	347	eP	P	00 33 54.2	-7.7
MEZF	Maizieres J'vi	54.86	341	eP	P	00 34 05.6	+0.2
WLF	Walferdange	55.53	342	P	P	00 34 09.9	-0.4
OBN	Obninsk	57.74	5	⇑P	P	00 34 26.0	+0.1
OBN				pmax	pmax		
	comp=Z,42nm,2.5s,mb5.0						
AKTK	Aktyubinsk	58.31	21	P	P	00 34 29.6	-0.4
AKTO	Aktyubinsk	58.31	21	P	P	00 34 29.6	-0.4
	comp=Z,2.1nm,0.8s,mb4.2,baz=224,slow=5.4,SNR=8.8						
ARU	Arti	63.47	18	eP	P	00 35 04.8	-0.1
ARU				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
ARU	Arti	63.47	18	eP	P	00 35 04.8	-0.1
	comp=Z,8.7nm,1.1s,mb4.8						
HFS	Hagfors	63.56	352	P	P	00 35 04.4	-1.1
	comp=Z,5.0nm,1.0s,mb4.5,baz=173,slow=6.7,SNR=2.8						
KLMR	Klimovskoe	63.69	6	eP	P	00 35 04.8	-1.5
KLMR				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
NB2	NORSAR Subarra	64.81	351	P	P	00 35 13.5	-0.1
	comp=Z,8.9nm,0.9s,mb4.8,baz=162,slow=6.5						
NOA	NORSAR Array B	64.81	351	eP	P	00 35 14.0	+0.4
NOA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
NOA	NORSAR Array B	64.81	351	P	P	00 35 13.8	+0.1
	comp=Z,4.6nm,0.8s,mb4.5,baz=163,slow=6.2,SNR=6.3						
MK31	Makanchi Array	67.76	37	eP	P	00 35 33.4	+0.5
MKAR	Makanchi Array	67.76	37	P	P	00 35 33.2	+0.3
	comp=Z,1.1nm,0.6s,mb4.1,baz=244,slow=6.0,SNR=18						
MKAR	Makanchi Array	67.76	37	P	P	00 35 33.2	+0.3
KURK	Kurchatov	67.81	32	eP	P	00 35 30.9	-2.2
KURK				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.5						
KURK	Kurchatov	67.81	32	eP	P	00 35 30.9	-2.2
	comp=Z,7.9nm,1.5s,mb4.5						
CMAR	Chiang Mai Arr	71.90	70	P	P	00 36 00.7	+1.7
	comp=Z,0.7nm,0.3s,mb4.0,baz=267,slow=4.5,SNR=4.0						
CMAR				LR	LR	01 05 27.8	
	comp=Z,27nm,18.0s,MS3.6,baz=64,slow=34						
ARCES	ARCESS Array B	71.91	359	P	P	00 35 57.7	-0.3
	comp=Z,2.1nm,0.8s,mb4.1,baz=115,slow=4.6,SNR=4.9						
VNA1	Neumayer--Stat	72.19	192	eP	P	00 36 04.8	+5.1
VNA2	Neumayer--Watz	72.23	192	eP	P	00 36 05.7	+5.8
	baz=13,slow=7.4						
ZALV	Zalesovo Beam	72.75	31	P	P	00 36 03.0	-0.3
	comp=Z,0.3nm,0.5s,mb3.5,baz=266,slow=4.2,SNR=5.5						
ZALV				LR	LR	01 11 16.2	
	comp=Z,24nm,18.7s,MS3.5,baz=79,slow=38						
ZAK	Zakamensk	81.98	39	eP	P	00 36 59.1	+4.0
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
TLY	Talaya	82.51	37	eP	P	00 37 01.5	+3.7
TLY				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.2						
SONM	Songino Array	83.44	41	P	P	00 37 04.5	+1.8
	comp=Z,0.4nm,0.9s,mb3.4,baz=258,slow=4.4,SNR=3.7						
SONM				LR	LR	01 15 18.5	
	comp=Z,40nm,18.6s,MS3.8,baz=185,slow=36						
BJT	Baijiatuau	89.46	50	P	P	00 37 32.0	-0.5
MBWA	Marble Bar	89.86	111	eP	P	00 37 34.9	+0.1
TXAR	Lajitas Array	127.69	306	PKP	PKPdf	00 43 43.0	+1.7
	comp=Z,0.7nm,0.8s,baz=56,slow=0.5,SNR=6.1						

IDC 04 00:32:52.3±7.6**, 11.°77S×166.°99E, h0^{km}, mb3.9**/5**, mb1 4.1**/5**, mb1mx3.8**/17**, mbtmp3.9**/5**, Error ellipse: s-maj=212.7km s-min=39.5km az=123.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	32.40	251	P	P	00 39 24.1	0.0
	0.4nm,0.4s,baz=84,slow=9.1,SNR=4.1						
ASAR	Alice Springs	33.58	245	P	P	00 39 34.4	+0.1
	0.6nm,0.6s,baz=69,slow=9.9,SNR=7.5						
CMAR	Chiang Mai Arr	73.52	293	P	P	00 44 27.8	+0.3
	1.5nm,0.6s,baz=121,slow=4.5,SNR=7.7						
SONM	Songino Array	79.97	323	P	P	00 45 03.5	+0.1
	0.3nm,0.7s,baz=117,slow=5.0,SNR=4.4						
MKAR	Makanchi Array	94.89	317	P	P	00 46 16.4	0.0
	0.8nm,0.5s,baz=86,slow=5.9,SNR=18						

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*NEIC **04** 00:44:36.6, 18.°24N×102.°89W, h55^{km}, MD4.0(MEX), After MEX.*

MEX 04 00:44:36.6±0.7**, 18.°24N×102.°89W, h55^{km}**±10^{km}**, MD4.0, Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMIG	Aquila	0.43	276	iP	Pn	00 44 45.8	-1.6
MMIG				iS	Sn	00 44 53.8	-1.5
MOIG	Morelia	2.16	48	eP	Pn	00 45 09.4	-0.8
MOIG				iS	Sn	00 45 33.1	-2.5
CJM	Chamela	2.39	302	iP	Pn	00 45 11.9	-1.4
CJM				iS	Sn	00 45 39.1	-2.3
CAIG	El Cayaco	2.77	115	iP	Pn	00 45 17.3	-1.3
CAIG				iS	Sn	00 45 49.3	-1.5
MEIG	Mezcala	3.13	95	eP	Pn	00 45 22.3	-1.1
MEIG				iS	Sn	00 45 58.2	-1.4
ACX	Acapulco	3.15	115	iP	Pn	00 45 26.0	+2.2
ANIG	Ahuacatlan	3.19	332	iP	Pn	00 45 23.0	-1.3
ANIG				iS	Sn	00 46 00.2	-0.9
MZVM		3.60	74	eP	Pn	00 45 29.1	-0.8
MZVM				iS	Sn	00 46 10.6	-0.6
PPM	Popocatepetl	4.13	78	eP	Pn	00 45 40.6	+3.4
PPM				iS	Sn	00 46 30.0	+5.8
IIO	Organos	4.17	71	eP	Pn	00 45 37.2	-0.5
IIO				iS	Sn	00 46 25.2	0.0
ZAIG	Zacatecas	4.51	4	eP	Pn	00 45 42.5	0.0
ZAIG				iS	Sn	00 46 32.5	-1.2
UTMO	Huajuapan	4.86	94	eP	Pn	00 45 46.9	-0.3
UTMO				iS	Sn	00 46 41.4	-0.8
PNIG	Pinotepa	4.91	111	eP	Pn	00 45 52.7	+4.8
PNIG				iS	Sn	00 46 51.3	+7.8
VHO	Vista Hermosa	5.99	100	eP	Pn	00 46 07.9	+5.2
VHO				iS	Sn	00 47 14.7	+4.8
CMIG	Matias Romero	7.72	97	eP	Pn	00 46 31.5	+5.1
CMIG				iS	Sn	00 47 59.8	+7.3

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*ISCJB **04** 00:44:51.0±0.2, 49.°32N±0.°01×6.°76E±0.°02, h0^{km}, Error ellipse: s-maj=1.5km s-min=1.4km az=0.9*

*CSEM **04** 00:44:52.3±0.1, 49.°34N×6.°78E, h2^{km}, ML3.4/31, Error ellipse: s-maj=1.7km s-min=1.5km az=160.0*

*LDG **04** 00:44:53.4±0.1, 49.°36N×6.°85E, h1^{km}, Ml3.4/31, Error ellipse: s-maj=1.0km s-min=0.9km az=16.0, Suspected Mining induced.*

*NEIC **04** 00:44:53.5, 49.°37N×6.°84E, h1^{km}, ML3.0(SZGRF), ML2.9(LEDBW), ML3.4(LDG), After LEDBW.*

*BGR **04** 00:44:53.4±0.3, 49.°37N×6.°83E, h1^{km}, ML3.0/9, Error ellipse: s-maj=4.4km s-min=3.3km az=169.0*

*BNS **04** 00:44:53.7±0.6, 49.°38N×6.°85E, h1^{km}, ML2.5*

*STR **04** 00:44:53.0±0.2, 49.°36N×6.°83E, h1^{km}, Ml3.0, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*PRU **04** 00:44:57.5, 49.°51N×7.°01E, h20^{km}*

ISC 04 00:44:51.9±0.2**, 49.°359N**±0.°010×**6.°78E**±0.°01**, h0^{km}, n201,** σ**1.^{s}21**/390**, 8C-8D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	Ruppelstein	0.39	27	Pg	Pg	00 45 00.2	+0.9
RUP				Sg	Sg	00 45 04.8	+0.4
RUP	Ruppelstein	0.39	27	Pg	Pg	00 45 00.2	+0.9
RUP				Sg	Sg	00 45 04.8	+0.4
WLF	Walferdange	0.51	307	P	Pg	00 45 04.1	+2.4
WLF	Walferdange	0.51	307	ePg	Pg	00 45 03.9	+2.2
	SNR=27						
WLF				eSg	Sg	00 45 09.8	+1.4
	SNR=4.9						
WLF	Walferdange	0.51	307	eP	Pg	00 45 04.1	+2.3
WLF				eS	Sg	00 45 11.4	+3.0
WLF	Walferdange	0.51	307	Pg	Pg	00 45 03.9	+2.2
	SNR=27						
WLF				Sg	Sg	00 45 09.8	+1.4
	SNR=4.9						
WLF				eS	Sg	00 45 11.4	+3.0
ABH	Alteburg	0.72	43	Pg	Pg	00 45 06.2	+0.5
ABH				Sg	Sg	00 45 15.2	+0.1
ABH	Alteburg	0.72	43	Pg	Pg	00 45 06.2	+0.5
ABH				Sg	Sg	00 45 15.2	+0.1
LANF	Langenberg	0.77	119	Pg	Pg	00 45 07.2	+0.6
LANF				Sg	Sg	00 45 17.6	+1.0
LANF	Langenberg	0.77	119	Pg	Pg	00 45 07.2	+0.6
LANF				Sg	Sg	00 45 17.6	+1.0
KTD	Kalmit	0.85	92	Pg	Pg	00 45 09.0	+0.8
KTD				Sg	Sg	00 45 19.8	+0.6
KTD	Kalmit	0.85	92	Pg	Pg	00 45 09.0	+0.8
KTD				Sg	Sg	00 45 19.8	+0.6
BGG	Burgeitz	0.92	23	ePg	Pg	00 45 10.3	+0.7
BGG	Burgeitz	0.92	23	Pg	Pg	00 45 10.3	+0.8
HILG	Hillesheim	0.94	356	ePg	Pg	00 45 11.2	+1.3
HILG	Hillesheim	0.94	356	Pg	Pg	00 45 11.1	+1.2
CDF	Champ du Feu	1.00	161	ePn	Pn	00 45 12.9	-0.3
CDF				eSg	Sg	00 45 24.5	+0.5
	138nm,0.3s,SNR=1.0						
CDF	Champ du Feu	1.00	161	ePg	Pg	00 45 11.7	+0.6
CDF				ePn	Pn	00 45 12.9	-0.3
CDF				eSg	Sg	00 45 24.5	+0.5
CDF	Champ du Feu	1.00	161	ePg	Pg	00 45 11.7	+0.6
	SNR=1.0						
CDF	Champ du Feu	1.00	161	ePn	Pn	00 45 12.9	-0.3
CDF				eSg	Sg	00 45 24.5	+0.5
	69nm,0.3s,SNR=1.0						
RFYF	Reffroy	1.13	230	ePg	Pg	00 45 15.6	+2.1
RFYF				eSg	Sg	00 45 30.9	+2.7
	386nm,0.3s						
RFYF	Reffroy	1.13	230	ePg	Pg	00 45 15.6	+2.1
RFYF				eSg	Sg	00 45 30.9	+2.7
	193nm,0.3s						
ECH	Echery	1.17	168	Pg	Pg	00 45 15.6	+1.3
ECH				Sg	Sg	00 45 30.6	+1.1
ECH	Echery	1.17	168	eP	Pg	00 45 15.2	+0.9
ECH				eS	Sg	00 45 30.8	+1.4
ECH	Echery	1.17	168	Pg	Pg	00 45 15.6	+1.3
ECH				Sg	Sg	00 45 30.6	+1.1
KOE	Koeppel	1.23	29	ePg	Pg	00 45 15.9	+0.4
KOE	Koeppel	1.23	29	Pg	Pg	00 45 15.9	+0.4
STB	Steinbach	1.24	2	ePg	Pg	00 45 16.6	+1.0
STB				eSg	Sg	00 45 32.8	+1.2
	86nm,0.4s						
STB	Steinbach	1.24	2	Pg	Pg	00 45 16.6	+1.0
STB				Sg	Sg	00 45 32.8	+1.2
	86nm,0.4s						
THEF	They Montfort	1.25	205	Pg	Pg	00 45 16.9	+1.1
THEF				Sg	Sg	00 45 34.0	+2.0
THEF	They Montfort	1.25	205	Pg	Pg	00 45 16.9	+1.1
THEF				Sg	Sg	00 45 34.0	+2.0
KLL	Kalltalsperre	1.32	347	ePg	Pg	00 45 17.1	-0.2
KLL	Kalltalsperre	1.32	347	Pg	Pg	00 45 17.1	-0.2
LIBD	Limburg	1.32	156	Pg	Pg	00 45 18.6	+1.3
LIBD				Sg	Sg	00 45 36.5	+2.1
LIBD	Limburg	1.32	156	Pg	Pg	00 45 18.6	+1.3
LIBD				Sg	Sg	00 45 36.5	+2.1
TOD	Tromm	1.34	79	Pg	Pg	00 45 17.9	+0.3
TOD	Tromm	1.34	79	Pg	Pg	00 45 17.9	+0.3
MEM	Membach	1.35	338	P	Pg	00 45 18.0	+0.2
MEM	Membach	1.35	338	P	Pg	00 45 17.9	+0.2
DREG	Dreilaegerbach	1.35	345	ePg	Pg	00 45 17.9	+0.1
DREG	Dreilaegerbach	1.35	345	Pg	Pg	00 45 17.9	+0.1
TNS	Taunus Mts	1.38	51	P	Pg	00 45 17.4	-0.9
TNS				eSg	Sg	00 45 37.4	+1.1
	SNR=3.8						
TNS	Taunus Mts	1.38	51	ePn	Pn	00 45 17.5	-0.9
TNS				eSg	Sg	00 45 37.4	+1.1
TNS	Taunus Mts	1.38	51	ePn	Pn	00 45 17.5	-0.9
TNS				Sg	Sg	00 45 37.4	+1.1
	SNR=3.8						
HAU	Haudompre	1.39	192	ePg	Pg	00 45 19.7	+1.3
	SNR=1.0						
HAU				eSn	Sn	00 45 36.0	-1.4
	151nm,0.2s,SNR=1.0						
HAU	Haudompre	1.39	192	ePn	Pn	00 45 18.2	-0.2
HAU				ePg	Pg	00 45 19.7	+1.3
HAU				eSn	Sn	00 45 36.0	-1.4
HAU	Haudompre	1.39	192	ePn	Pn	00 45 18.2	-0.2
	SNR=1.0						
HAU	Haudompre	1.39	192	ePg	Pg	00 45 19.7	+1.3
	SNR=1.0						
HAU				eSn	Sn	00 45 36.0	-1.4
	76nm,0.2s,SNR=1.0						
MEZF	Maizieres J'vi	1.43	234	ePg	Pg	00 45 20.7	+1.4
	SNR=1.0						
MEZF				eSg	Sg	00 45 39.4	+1.6
	88nm,0.4s,SNR=1.0						
MEZF	Maizieres J'vi	1.43	234	ePg	Pg	00 45 20.7	+1.4
	SNR=1.0						
MEZF				eSg	Sg	00 45 39.4	+1.6
	44nm,0.4s,SNR=1.0						
BCLA	Clavier	1.43	319	P	Pn	00 45 19.9	+0.9
BCLA	Clavier	1.43	319	P	Pn	00 45 19.9	+0.8
BFO	Black Forest	1.45	135	ePn	Pn	00 45 18.9	-0.4
BFO				eSn	Sn	00 45 37.8	-1.2
BFO	Black Forest	1.45	135	ePn	Pn	00 45 18.9	-0.4
BFO				eSn	Sn	00 45 37.8	-1.2
BFO				Sg	Sg	00 45 39.3	+0.9
GIVF	Givet	1.47	301	ePg	Pg	00 45 21.7	+1.6
GIVF				eSg	Sg	00 45 41.3	+2.1
	174nm,0.5s,SNR=1.0						
GIVF	Givet	1.47	301	ePn	Pn	00 45 19.9	+0.2
GIVF				ePg	Pg	00 45 21.7	+1.6
GIVF				eSg	Sg	00 45 41.3	+2.1
GIVF	Givet	1.47	301	ePn	Pn	00 45 19.9	+0.2
	SNR=1.0						
GIVF	Givet	1.47	301	ePg	Pg	00 45 21.7	+1.6
GIVF				eSg	Sg	00 45 41.3	+2.1
	87nm,0.5s,SNR=1.0						
LBG	Lerchenberg	1.50	117	P	Pn	00 45 19.4	-0.6
LBG				Pg	Pg	00 45 21.1	+0.6
LBG				S	Sg	00 45 37.9	-2.0
LBG				Sg	Sg	00 45 40.4	+0.5
LBG	Lerchenberg	1.50	117	P	Pn	00 45 19.4	-0.6
HGN	Heimansgroeve	1.51	339	ePn	Pn	00 45 20.8	+0.6
	10nm,0.2s						
HGN	Heimansgroeve	1.51	339	ePg	Pg	00 45 22.2	+1.3
	29nm,0.2s						
HGN				eSg	Sg	00 45 38.3	-2.1
HGN	Heimansgroeve	1.51	339	ex	x	00 45 41.6	
HGN	Heimansgroeve	1.51	339	ePg	Pg	00 45 22.2	+1.4
	29nm,0.2s						
HGN				eSg	Sg	00 45 38.3	-2.1
MOF	Molkenrain	1.53	171	Pg	Pg	00 45 22.1	+1.0
MOF				Sg	Sg	00 45 42.1	+1.2
MOF	Molkenrain	1.53	171	Pg	Pg	00 45 22.1	+1.0
MOF				Sg	Sg	00 45 42.1	+1.2
HINF	Hinteralfeld	1.54	178	ePg	Pg	00 45 22.1	+0.6
	SNR=1.0						
HINF				eSn	Sn	00 45 39.8	-1.5
	117nm,0.3s,SNR=1.0						
HINF	Hinteralfeld	1.54	178	ePn	Pn	00 45 20.4	-0.2
HINF				ePg	Pg	00 45 22.1	+0.6
HINF				eSn	Sn	00 45 39.8	-1.5
HINF	Hinteralfeld	1.54	178	ePn	Pn	00 45 20.4	-0.2
	SNR=1.0						
HINF	Hinteralfeld	1.54	178	ePg	Pg	00 45 22.1	+0.6
	SNR=1.0						
HINF				eSn	Sn	00 45 39.8	-1.5
	59nm,0.3s,SNR=1.0						
KIZ	Kirchzarten	1.59	151	P	Pn	00 45 20.8	-0.5
KIZ				Pg	Pg	00 45 22.9	+0.5
KIZ				Sg	Sg	00 45 43.7	+0.7
KIZ	Kirchzarten	1.59	151	P	Pn	00 45 20.8	-0.5
DOU	Dourbes	1.60	298	P	Pn	00 45 22.2	+0.7
DOU	Dourbes	1.60	298	P	Pn	00 45 22.1	+0.7
BEBN	Eben Emael	1.61	334	P	Pn	00 45 22.7	+1.2
BEBN	Eben Emael	1.61	334	P	Pn	00 45 22.6	+1.1
SFTF	Sexfontaines	1.63	226	ePn	Pn	00 45 22.1	+0.3
SFTF				eSn	Sn	00 45 42.9	-0.6
	36nm,0.2s						
SFTF	Sexfontaines	1.63	226	ePn	Pn	00 45 22.1	+0.3
SFTF				eSn	Sn	00 45 42.9	-0.6
	18nm,0.2s						
HOBG	Hohbusch	1.67	12	ePg	Pg	00 45 22.8	-1.0
HOBG	Hohbusch	1.67	12	Pg	Pg	00 45 22.8	-1.0
FELD	Feldberg im Sc	1.69	151	Pg	Pg	00 45 25.3	+1.1
FELD				Sg	Sg	00 45 47.0	+0.9
FELD	Feldberg im Sc	1.69	151	Pg	Pg	00 45 24.3	0.0
FELD	Feldberg im Sc	1.69	151	Pg	Pg	00 45 25.3	+1.0
FELD				Sg	Sg	00 45 47.0	+0.8
STU	Stuttgart	1.69	109	eSn	Sn	00 45 43.1	-1.9
	SNR=2.1						
STU	Stuttgart	1.69	109	ePn	Pn	00 45 20.9	-1.7
STU				eSn	Sn	00 45 45.5	+0.5
STU	Stuttgart	1.69	109	ePn	Pn	00 45 21.0	-1.6
STU				eSn	Sn	00 45 45.5	+0.5
TUBL	Tuebingen-Lenn	1.73	118	Pg	Pg	00 45 26.5	+1.4
BAIF	Baives	1.81	294	ePg	Pg	00 45 27.7	+1.1
BAIF				eSn	Sn	00 45 47.1	-0.9
	SNR=1.0						
BAIF				eSg	Sg	00 45 51.9	+1.8
	99nm,0.6s,SNR=1.0						
BAIF	Baives	1.81	294	ePn	Pn	00 45 24.7	+0.4
BAIF				ePg	Pg	00 45 27.7	+1.1
BAIF				eSn	Sn	00 45 47.1	-0.9
BAIF				eSg	Sg	00 45 51.9	+1.8
BAIF	Baives	1.81	294	ePn	Pn	00 45 24.7	+0.4
	SNR=1.0						
BAIF	Baives	1.81	294	ePg	Pg	00 45 27.7	+1.1
BAIF				eSn	Sn	00 45 47.1	-0.9
	SNR=1.0						
BAIF				eSg	Sg	00 45 51.9	+1.8
	50nm,0.6s,SNR=1.0						
SPAK	Spaichingen-Ko	1.83	133	Pg	Pg	00 45 27.5	+0.6
SPAK				Sg	Sg	00 45 51.2	+0.6
SPAK	Spaichingen-Ko	1.83	133	Pg	Pg	00 45 27.5	+0.6
SPAK				Sg	Sg	00 45 51.2	+0.6
SIND	Sindeldorf	1.84	89	P	Pn	00 45 23.8	-1.0

SIND				S	Sn	00 45 45.7	-3.1
BUCH	Bad Urach	1.92	117	P	Pn	00 45 26.5	+0.7
BUCH				Sg	Sg	00 45 53.6	-0.1
BBS	Basel-Blauen	1.96	165	Pg	Pg	00 45 30.1	+0.7
BBS	Basel-Blauen	1.96	165	Pg	Pg	00 45 30.1	+0.7
LOMF	Lomont	2.01	179	Pg	Pg	00 45 31.3	+0.9
LOMF				Sg	Sg	00 45 58.1	+1.7
GUT	Gutenstein	2.01	129	P	Pn	00 45 27.7	+0.6
GUT				Pg	Pg	00 45 30.9	+0.5
GUT				Sg	Sg	00 45 56.6	+0.1
GUT	Gutenstein	2.01	129	P	Pn	00 45 27.7	+0.7
SISB	Singen-Schiene	2.21	138	P	Pn	00 45 30.9	+1.1
HDH	Heidenheim-Cha	2.38	108	Pg	Pg	00 45 37.2	-0.4
HDH				Sg	Sg	00 46 07.8	-0.7
UBR	Ueberruh	2.77	126	P	Pn	00 45 38.6	+1.0
CABF	La Chapelle	2.79	190	*e*Pg	Pg	00 45 45.5	+0.2
	SNR=1.0						
CABF				*e*Sg	Sg	00 46 21.5	0.0
	55nm,0.6s						
CABF	La Chapelle	2.79	190	*e*Pn	Pn	00 45 37.5	-0.2
CABF				*e*Pg	Pg	00 45 45.5	+0.2
CABF				*e*Sg	Sg	00 46 21.5	0.0
CABF	La Chapelle	2.79	190	*e*Pn	Pn	00 45 37.5	-0.2
	SNR=1.0						
CABF	La Chapelle	2.79	190	*e*Pg	Pg	00 45 45.5	+0.2
	SNR=1.0						
CABF				*e*Sg	Sg	00 46 21.5	0.0
	28nm,0.6s						
LOR	Lormes	2.86	224	*e*Pn	Pn	00 45 38.6	-0.1
	SNR=1.0						
LOR				*e*Sn	Sn	00 46 12.3	-1.5
	SNR=1.0						
LOR				*e*Sg	Sg	00 46 24.7	+0.9
	50nm,0.4s,SNR=1.0						
LOR	Lormes	2.86	224	*e*Pn	Pn	00 45 38.6	-0.1
	SNR=1.0						
LOR				*e*Sn	Sn	00 46 12.3	-1.5
	SNR=1.0						
LOR				*e*Sg	Sg	00 46 24.7	+0.9
	25nm,0.4s,SNR=1.0						
GRA1	Grafenberg Arr	2.91	82	Sg	Sg	00 46 24.2	-1.2
GRF	Grafenberg Arr	2.91	82	*e*Sg	Sg	00 46 24.2	-1.1
DAVA	Damuels	2.93	134	⇑*e*Pn	Pn	00 45 41.2	+1.6
	SNR=7.4						
DAVA				⇑*i*Sn	Sn	00 46 16.4	+0.9
DAVA				⇑*i*Sg	Sg	00 46 26.8	+1.0
	39nm,0.7s						
DAVA	Damuels	2.93	134	Pn	Pn	00 45 41.2	+1.6
	SNR=7.4						
DAVA				Sn	Sn	00 46 16.4	+0.9
DAVA				Sg	Sg	00 46 26.8	+0.9
	39nm,0.7s						
SSF	Saint Saulge	3.18	225	*e*Pn	Pn	00 45 42.8	-0.3
	SNR=1.0						
SSF				*e*Sn	Sn	00 46 19.9	-1.7
	SNR=1.0						
SSF				*e*Sg	Sg	00 46 34.5	+0.6
	34nm,0.4s,SNR=1.0						
SSF	Saint Saulge	3.18	225	*e*Pn	Pn	00 45 42.8	-0.3
	SNR=1.0						
SSF				*e*Sn	Sn	00 46 19.9	-1.7
	SNR=1.0						
SSF				*e*Sg	Sg	00 46 34.5	+0.6
	17nm,0.4s,SNR=1.0						
SMF	Signal de Mont	3.36	217	*e*Pg	Pg	00 45 56.2	0.0
	SNR=1.0						
SMF				*e*Sn	Sn	00 46 23.9	-2.2
	SNR=1.0						
SMF				*e*Sg	Sg	00 46 39.8	+0.1
	26nm,0.4s,SNR=1.0						
SMF	Signal de Mont	3.36	217	*e*Pn	Pn	00 45 45.0	-0.6
SMF				*e*Pg	Pg	00 45 56.2	0.0
SMF				*e*Sn	Sn	00 46 23.9	-2.2
SMF				*e*Sg	Sg	00 46 39.8	+0.1
SMF	Signal de Mont	3.36	217	*e*Pn	Pn	00 45 45.0	-0.6
	SNR=1.0						
SMF	Signal de Mont	3.36	217	*e*Pg	Pg	00 45 56.2	0.0
	SNR=1.0						
SMF				*e*Sn	Sn	00 46 23.9	-2.2
	SNR=1.0						
SMF				*e*Sg	Sg	00 46 39.8	+0.1
	13nm,0.4s,SNR=1.0						
MOX	Moxa	3.37	66	(PN)	Pg	00 45 55.2	-1.3
MOX				*e*SG	Sg	00 46 39.8	-0.4
MOX	Moxa	3.37	66	⇑*i*Pg	Pg	00 45 55.2	-1.3
MOX				*e*Sg	Sg	00 46 39.2	-1.0
	SNR=1.9						
MOX	Moxa	3.37	66	Pg	Pg	00 45 55.2	-1.3
MOX				*e*Sg	Sg	00 46 39.8	-0.4
AVF	Avril sur Loir	3.45	223	*e*Pn	Pn	00 45 46.9	+0.1
	SNR=1.0						
AVF				*e*Sn	Sn	00 46 26.1	-2.2
AVF				*e*Sg	Sg	00 46 42.8	+0.1
	48nm,0.9s						
AVF	Avril sur Loir	3.45	223	*e*Pn	Pn	00 45 46.9	+0.1
	SNR=1.0						
AVF				*e*Sn	Sn	00 46 26.1	-2.2
AVF				*e*Sg	Sg	00 46 42.8	+0.1
	24nm,0.9s						
HYF	Humbligny	3.47	234	*e*Pn	Pn	00 45 46.9	-0.2
HYF				*e*Pg	Pg	00 45 58.8	+0.5
HYF				*e*Sn	Sn	00 46 26.8	-2.0
HYF				*e*Sg	Sg	00 46 43.7	+0.5
HYF	Humbligny	3.47	234	*e*Pn	Pn	00 45 46.9	-0.2
MOTA	Moosalm	3.52	123	⇓*i*Pn	Pn	00 45 49.5	+1.8
	SNR=9.0						
MOTA				⇑*i*Sg	Sg	00 46 44.6	-0.1
	11nm,0.5s						
MOTA	Moosalm	3.52	123	Pn	Pn	00 45 49.5	+1.8
	SNR=9.0						
MOTA				Sg	Sg	00 46 44.6	-0.2
	11nm,0.5s						
FETA	Feichten	3.53	130	⇓*i*Pn	Pn	00 45 49.6	+1.7
	SNR=13						
FETA				⇓*i*Sn	Sn	00 46 30.6	+0.4
FETA				⇓*i*Sg	Sg	00 46 46.1	+1.0
	3.9nm,0.4s						
FETA	Feichten	3.53	130	Pn	Pn	00 45 49.6	+1.7
	SNR=13						
FETA				Sn	Sn	00 46 30.6	+0.4
FETA				Sg	Sg	00 46 46.1	+1.0
	3.9nm,0.4s						
GUNZ	Gunzen	3.73	72	*e*Pn	Pn	00 45 51.5	+0.8
	SNR=1.3						
GUNZ				*e*Sg	Sg	00 46 50.1	-1.4
	SNR=3.0						
GUNZ	Gunzen	3.73	72	Pn	Pn	00 45 51.5	+0.9
	SNR=1.3						
GUNZ				Sg	Sg	00 46 50.1	-1.5
	SNR=3.0						
WERD	Werda	3.73	71	*e*Sg	Sg	00 46 50.4	-1.3
	SNR=4.9						
WERD	Werda	3.73	71	Sg	Sg	00 46 50.4	-1.3
	SNR=4.9						
WERN	Wernitzgruen	3.74	73	*e*Pn	Pn	00 45 51.3	+0.6
WERN	Wernitzgruen	3.74	73	Pn	Pn	00 45 51.3	+0.5
NKC	Novy Kostel	3.77	74	*e*PG	Pg	00 46 02.0	-2.2
NKC				*e*SG	Sg	00 46 51.1	-1.9
	comp=Z,48nm,1.4s						
NKC	Novy Kostel	3.77	74	Pg	Pg	00 46 02.0	-2.2
NKC				Sg	Sg	00 46 51.1	-1.9
	comp=Z,48nm,1.4s						
TANN	Tannenbergstha	3.82	72	*e*Sg	Sg	00 46 52.3	-2.3
	SNR=3.6						
TANN	Tannenbergstha	3.82	72	Sg	Sg	00 46 52.3	-2.3
	SNR=3.6						
LPL	La Plagne	3.84	181	*e*Pg	Pg	00 46 04.3	-1.3
	SNR=1.0						
LPL				*e*Sn	Sn	00 46 35.0	-3.1
LPL				*e*Sg	Sg	00 46 54.2	-1.2
	comp=Z,10nm,0.6s						
LPL	La Plagne	3.84	181	*e*Pn	Pn	00 45 52.1	-0.1
LPL				*e*Pg	Pg	00 46 04.3	-1.3
LPL				*e*Sn	Sn	00 46 35.0	-3.1
LPL				*e*Sg	Sg	00 46 54.2	-1.2
LPL	La Plagne	3.84	181	*e*Pn	Pn	00 45 52.1	-0.1
LPL	La Plagne	3.84	181	*e*Pg	Pg	00 46 04.3	-1.3
	SNR=1.0						
LPL				*e*Sn	Sn	00 46 35.0	-3.1
LPL				*e*Sg	Sg	00 46 54.2	-1.2
	comp=Z,5.2nm,0.6s						
BGF	Bois d'Agland	3.85	225	*e*Pn	Pn	00 45 52.4	0.0
	SNR=1.0						
BGF				*e*Sn	Sn	00 46 36.2	-2.1
	SNR=1.0						
BGF				*e*Sg	Sg	00 46 56.1	+0.4
	comp=Z,98nm,0.4s,SNR=1.0						
BGF	Bois d'Agland	3.85	225	*e*Pn	Pn	00 45 52.4	0.0
	SNR=1.0						
BGF				*e*Sn	Sn	00 46 36.2	-2.1
	SNR=1.0						
BGF				*e*Sg	Sg	00 46 56.1	+0.4
	comp=Z,49nm,0.4s,SNR=1.0						
WTTA	Wattenberg	3.86	121	⇓*i*Pn	Pn	00 45 54.4	+2.0
WTTA				⇑*i*Sn	Sn	00 46 38.8	+0.4
WTTA				⇓*i*Sg	Sg	00 46 57.7	+1.9
	comp=Z,3.8nm,0.4s						
WTTA	Wattenberg	3.86	121	Pn	Pn	00 45 54.4	+2.0
WTTA				Sn	Sn	00 46 38.8	+0.4
WTTA				Sg	Sg	00 46 57.7	+1.9
	comp=Z,3.8nm,0.4s						
LPG	La Plagne	3.86	180	*e*Pn	Pn	00 45 52.9	+0.4
	SNR=1.0						
LPG				*e*Sn	Sn	00 46 35.5	-3.1
	SNR=1.0						
LPG				*e*Sg	Sg	00 46 54.8	-1.2
	comp=Z,26nm,0.9s						
LPG	La Plagne	3.86	180	*e*Pn	Pn	00 45 52.9	+0.4
	SNR=1.0						
LPG				*e*Sn	Sn	00 46 35.5	-3.1
	SNR=1.0						
LPG				*e*Sg	Sg	00 46 54.8	-1.2
	comp=Z,13nm,0.9s						
WET	Wettzell	4.00	91	*e*Pn	Pn	00 45 54.9	+0.6
	SNR=6.0						
WET				*e*Sg	Sg	00 46 59.6	-0.6
	SNR=2.9						
WET	Wettzell	4.00	91	*e*Pn	Pn	00 45 54.9	+0.5
WET				*e*Sg	Sg	00 46 59.6	-0.7
WET	Wettzell	4.00	91	Pn	Pn	00 45 54.9	+0.5
	SNR=6.0						
WET				Sn	Sn	00 46 40.2	-1.7
WET				Sg	Sg	00 46 59.6	-0.7
	SNR=2.9						
RJOB	Jochberg	4.31	110	*e*Pn	Pn	00 46 00.2	+1.6
RJOB	Jochberg	4.31	110	Pn	Pn	00 46 00.2	+1.6
TCF	Toulx Ste Croi	4.35	227	*e*Pg	Pg	00 46 14.8	-0.4
TCF				*e*Sn	Sn	00 46 48.1	-2.5
TCF				*e*Sg	Sg	00 47 11.0	-0.6
	comp=Z,36nm,0.8s						
TCF	Toulx Ste Croi	4.35	227	*e*Pn	Pn	00 45 59.1	-0.1
TCF				*e*Pg	Pg	00 46 14.8	-0.4
TCF				*e*Sn	Sn	00 46 48.1	-2.5
TCF				*e*Sg	Sg	00 47 11.0	-0.6
TCF	Toulx Ste Croi	4.35	227	*e*Pn	Pn	00 45 59.1	-0.1
TCF	Toulx Ste Croi	4.35	227	*e*Pg	Pg	00 46 14.8	-0.4
TCF				*e*Sn	Sn	00 46 48.1	-2.5
TCF				*e*Sg	Sg	00 47 11.0	-0.6
	comp=Z,18nm,0.8s						
SSB	Saint Sauveur	4.36	201	*e*Pn	Pn	00 46 00.0	+0.7
SSB				*e*Pg	Pg	00 46 15.8	+0.4
SSB				*e*Sn	Sn	00 46 52.7	+2.0
SSB				*e*Sg	Sg	00 47 12.1	+0.3
SSB	Saint Sauveur	4.36	201	*e*Pn	Pn	00 46 00.0	+0.7
CLL	Collm	4.43	62	*e*Pg	Pg	00 46 20.0	+3.1
CLL				*e*Sn	Sn	00 46 38.0	-15
CLL				*e*Sg	Sg	00 47 12.0	-2.3
	comp=Z,16nm,1.5s						
CLL	Collm	4.43	62	Pg	Pg	00 46 20.0	+3.1
CLL				Sg	Sg	00 47 12.0	-2.3
KHC	Kasperske Hory	4.46	90	*e*PN	Pn	00 46 01.0	+0.3
KHC				*e*x	x	00 46 19.0	
KHC				*e*SN	Sn	00 46 50.5	-2.7
KHC				*e*SG	Sg	00 47 14.5	-0.5
KHC	Kasperske Hory	4.46	90	Pn	Pn	00 46 01.0	+0.3
KHC				Sn	Sn	00 46 50.5	-2.7
KHC				Sg	Sg	00 47 14.5	-0.5
ORIF	Oris-en-Rattie	4.49	188	*e*Pn	Pn	00 46 00.6	-0.5
ORIF				*e*Pg	Pg	00 46 16.1	-1.7
ORIF				*e*Sg	Sg	00 47 14.0	-1.9
ORIF	Oris-en-Rattie	4.49	188	*e*Pn	Pn	00 46 00.6	-0.5
ORIF	Oris-en-Rattie	4.49	188	*e*Pg	Pg	00 46 16.1	-1.7
ORIF				*e*Sg	Sg	00 47 14.0	-1.9
	comp=Z,4.7nm,0.4s						
GEC2	GERESS Array S	4.57	94	*e*Pn	Pn	00 46 03.0	+0.7
	SNR=37						
GEC2				*e*Sn	Sn	00 46 52.8	-3.2
	SNR=5.3						
GEC2	GERESS Array S	4.57	94	*e*Pn	Pn	00 46 03.0	+0.7
GEC2				*e*Sn	Sn	00 46 52.8	-3.3
GEC2	GERESS Array S	4.57	94	Pn	Pn	00 46 03.0	+0.7
	SNR=37						
GEC2				Sn	Sn	00 46 52.8	-3.3
	SNR=5.3						
LDF	La Druitiere	4.61	263	*e*Pn	Pn	00 46 02.6	-0.2
LDF				*e*Sg	Sg	00 47 19.7	-0.3
LDF	La Druitiere	4.61	263	*e*Pn	Pn	00 46 02.6	-0.2
LDF				*e*Sg	Sg	00 47 19.7	-0.3
	comp=Z,8.9nm,0.5s						
VIVF	Saint-Julien-l	4.73	199	*e*Sg	Sg	00 47 22.0	-1.8
	comp=Z,9.6nm,0.8s						
FLN	La Foliniere	4.81	266	*e*Pn	Pn	00 46 05.8	+0.2
FLN				*e*Sn	Sn	00 46 58.9	-3.1
FLN				*e*Sg	Sg	00 47 26.1	-0.4
FLN	La Foliniere	4.81	266	*e*Pn	Pn	00 46 05.8	+0.2
FLN				*e*Sn	Sn	00 46 58.9	-3.1
FLN				*e*Sg	Sg	00 47 26.1	-0.4
	comp=Z,8.8nm,0.6s						
BRG	Berggiesshubel	4.85	69	PG	Pg	00 46 25.4	+0.6
BRG				SG	Sg	00 47 25.0	-2.6
	comp=Z,6.2nm,0.7s						
BRG	Berggiesshubel	4.85	69	Pg	Pg	00 46 25.4	+0.6
BRG				Sg	Sg	00 47 25.0	-2.6
KBA	Koelnbreinsper	4.94	115	⇓*i*Pn	Pn	00 46 09.4	+2.1
	SNR=5.5						
KBA				⇓*i*Sn	Sn	00 47 06.0	+0.8
KBA	Koelnbreinsper	4.94	115	Pn	Pn	00 46 09.4	+2.1
	SNR=5.5						
KBA				Sn	Sn	00 47 06.0	+0.8
PRU	Pruhonice	5.08	80	*e*SG	Sg	00 47 33.1	-1.8
PRU	Pruhonice	5.08	80	Sg	Sg	00 47 33.1	-1.8
GRR	Gorron	5.14	262	*e*Pn	Pn	00 46 09.8	-0.2
GRR				*e*Sn	Sn	00 47 05.7	-4.2
GRR	Gorron	5.14	262	*e*Pn	Pn	00 46 09.8	-0.2
GRR				*e*Sn	Sn	00 47 05.7	-4.2
	comp=Z,7.2nm,0.4s,SNR=1.0						
PVCC	Panska Ves	5.16	74	*e*SG	Sg	00 47 35.5	-2.1
PVCC	Panska Ves	5.16	74	Sg	Sg	00 47 35.5	-2.1
MOA	Molln	5.19	104	⇑*i*Pn	Pn	00 46 11.7	+1.0
	SNR=11						
MOA				⇑*i*Sn	Sn	00 47 10.8	-0.4
MOA	Molln	5.19	104	Pn	Pn	00 46 11.7	+1.0
	SNR=11						
MOA				Sn	Sn	00 47 10.8	-0.4
RJF	Les Rejaudoux	5.41	223	*e*Sg	Sg	00 47 43.8	-1.8
	comp=Z,6.1nm,0.6s						
CAF	Calviac	5.48	218	*e*Pn	Pn	00 46 13.6	-1.1
CAF				*e*Sn	Sn	00 47 14.3	-4.1
CAF				*e*Sg	Sg	00 47 46.2	-1.6
CAF	Calviac	5.48	218	*e*Pn	Pn	00 46 13.6	-1.1
CAF				*e*Sg	Sg	00 47 46.2	-1.6
	comp=Z,8.1nm,0.6s						
LASF	Ste Croix	5.65	202	*e*Sg	Sg	00 47 51.4	-2.0
	comp=Z,3.0nm,0.4s						
LFF	La Frestale	6.04	225	*e*Sg	Sg	00 48 04.0	-1.9
	comp=Z,8.9nm,0.6s						
DPC	Dobruska-Polom	6.25	77	*e*SG	Sg	00 48 10.0	-2.5
SGMF	Saint Gilles	6.27	263	*e*Pn	Pn	00 46 25.5	0.0
SGMF				*e*Sn	Sn	00 47 33.7	-4.1
SGMF				*e*Sg	Sg	00 48 11.3	-1.9
SGMF	Saint Gilles	6.27	263	*e*Pn	Pn	00 46 25.5	0.0
SGMF				*e*Sg	Sg	00 48 11.3	-1.9
	comp=Z,7.6nm,0.6s						
VRAC	Vranov	6.41	87	*e*Sg	Sg	00 48 16.1	-1.6
ROSF	Rostrenen	6.72	265	*e*Pn	Pn	00 46 30.9	-0.8
ROSF				*e*Sn	Sn	00 47 44.4	-4.4
ROSF				*e*Sg	Sg	00 48 25.4	-2.1
ROSF	Rostrenen	6.72	265	*e*Pn	Pn	00 46 30.9	-0.8
QUIF	Quistinic	6.75	261	*e*Pn	Pn	00 46 31.9	-0.2
QUIF				*e*Sn	Sn	00 47 45.1	-4.6
QUIF				*e*Sg	Sg	00 48 26.4	-2.2
QUIF	Quistinic	6.75	261	*e*Pn	Pn	00 46 31.9	-0.2

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*ISCJB **04** 00:48:54.1±0.6, 21°.16S±0°.04×68°.59W±0°.08, h122^{km}±7^{km}, mb3.6/3, Error ellipse: s-maj=13.3km s-min=6.4km az=164.9*

*GUC **04** 00:48:55.8±0.9, 21°.25S×68°.70W, h117^{km}±7^{km}, ML3.8*

*NEIC **04** 00:48:55.8, 21°.25S×68°.70W, h117^{km}, mb4.0/3, After GUC.*

*IDC **04** 00:48:55.7±1.6, 21°.24S×68°.29W, h111^{km}±15^{km}, mb3.4/2, mb1 3.6/4, mb1mx3.4/17, mbtmp3.5/4, Error ellipse: s-maj=44.6km s-min=15.9km az=131.0*

ISC 04 00:48:55.1±0.5**, 21°.15S**±0°.04×**68°.57W**±0°.07**, h115**^{km}±7^{km}**, n23,** σ0^{s}.**80**/35**, mb3.6**/3**, 4D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB01	Plate Boundary	0.86	277	⇓*e*P	Pn	00 49 16.0	+0.7
PB01				*i* S	Sn	00 49 31.3	+0.7
PB01				AML	AML	00 49 32.8	
	comp=N,3µm,0.3s						
PB04	Plate Boundary	1.40	217	*e*P	Pn	00 49 26.3	+5.4
PB04				*e*S	Sn	00 49 49.1	+8.5
LVC	Limon Verde	1.49	192	P	Pn	00 49 22.9	+0.9
	comp=N,74nm,0.3s,baz=15,slow=9.8,SNR=952						
LVC				S	Sn	00 49 43.2	+0.7
	comp=N,57nm,0.3s,baz=97,slow=22,SNR=80						
LVC	Limon Verde	1.49	192	*e*Pn	Pn	00 49 22.9	+0.9
LVC				*e*Sn	Sn	00 49 41.6	-0.9
LVC	Limon Verde	1.49	192	⇓*e*P	Pn	00 49 22.5	+0.5
LVC				*i* S	Sn	00 49 42.9	+0.4
LVC				AML	AML	00 49 44.2	
	comp=E,935nm,0.4s						
HMBC	Humberston	1.51	305	⇓*i*P	Pn	00 49 23.1	+0.8
HMBC				*i* S	Sn	00 49 44.2	+1.2
HMBC				AML	AML	00 49 45.4	
	comp=N,2µm,0.6s						
MACH	Maria Elena	1.52	227	*e*P	Pn	00 49 22.5	+0.2
MACH				*e*S	Sn	00 49 42.5	-0.6
PECH	Pedro de Valdi	1.77	215	*e*P	Pn	00 49 25.6	+0.2
PECH				*i* S	Sn	00 49 47.9	-0.5
TOCH	Tocopilla	1.78	238	*e*P	Pn	00 49 25.4	-0.1
TOCH				*i* S	Sn	00 49 47.2	-1.6
TOCH				AML	AML	00 49 48.5	
	comp=N,2µm,0.3s						
PSGC	Pisagua	2.13	316	⇓*i*P	Pn	00 49 30.1	+0.2
PSGC				*i* S	Sn	00 49 56.6	+0.1
ARE	Arequipa	5.42	329	P	Pn	00 50 13.0	-0.7
ARE				*e*S	Sn	00 51 13.0	-2.0
LCO	Las Campanas	8.06	193	*e*Pn	Pn	00 50 44.4	-4.9
LCO				*e*Sn	Sn	00 52 11.4	-7.3
SIV	San Ignacio	8.77	55	P	Pn	00 50 57.7	-1.3
	comp=N,4.6nm,0.3s,baz=258,slow=11,SNR=79						
SIV				S	Sn	00 52 31.8	-4.3
	baz=230,slow=18,SNR=1.8						
CPUP	Villa Florida	11.51	119	*e*Pn	Pn	00 51 36.4	+0.5
	comp=N,2.6nm,0.4s						
PLCA	Paso Flores	19.59	184	P	P	00 53 13.1	-1.1
	comp=N,0.1nm,0.3s,baz=13,slow=15,SNR=3.0						
PLCA	Paso Flores	19.59	184	*e*P	P	00 53 14.3	+0.2
	comp=N,2.1nm,0.7s						
OTAV	Otavalo	23.35	334	P	P	00 53 53.4	0.0
SDV	Santo Domingo	29.92	356	*e*P	P	00 54 52.5	+0.2
	comp=N,1.3nm,0.4s,mb3.9						
ANMO	Albuquerque	66.39	327	P	P	00 59 32.2	+0.5
TORD	Torodi Ar. Bea	76.94	70	P	P	01 00 35.4	0.0
	comp=N,0.6nm,0.6s,mb3.5,baz=254,slow=5.4,SNR=15						
TORD	Torodi Ar. Bea	76.94	70	P	P	01 00 35.4	0.0
YKA	Yellowknife Ar	90.97	340	P	P	01 01 46.6	+1.0
	comp=N,0.1nm,0.3s,mb3.4,baz=139,slow=4.1,SNR=6.4						
MKAR	Makanchi Array	145.17	36	PKPbc	PKPbc	01 08 20.1	+1.3
	comp=N,0.5nm,0.7s,baz=303,slow=4.0,SNR=7.4						

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*ISCJB **04** 01:07:36.5±0.4, 40°.61N±0°.04×42°.31E±0°.03, h10^{km}, Error ellipse: s-maj=5.4km s-min=3.3km az=0.2*

*ISK **04** 01:07:36.7, 40°.49N×42°.37E, h5^{km}, MD3.5*

*CSEM **04** 01:07:38.7±0.1, 40°.38N×42°.37E, h2^{km}, MD3.5, Error ellipse: s-maj=4.5km s-min=2.0km az=12.0*

*DDA **04** 01:07:38.4, 40°.46N×42°.27E, h9^{km}±4^{km}, Md3.3, Ml3.5*

ISC 04 01:07:37.3±0.5**, 40°.56N**±0°.04×**42°.30E**±0°.03**, h2**^{km}±6^{km}**, n34,** σ1^{s}.**20**/45**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARS	Kars	0.61	85	*e*PG	Pg	01 07 48.8	-0.1
KARS				*e*SG	Sg	01 07 58.0	+1.2
KARS	Kars	0.61	85	*e*Pg	Pg	01 07 48.8	-0.1
KARS				*e*Sg	Sg	01 07 58.0	+1.2
ERZM	Erzurum	0.97	228	*i* P	Pg	01 07 56.1	+0.3
ERZM				*i* S	Sg	01 08 06.1	-2.2
ERZM	Erzurum	0.97	228	*i* P	Pg	01 07 56.1	+0.3
ERZM				*i* S	Sg	01 08 06.1	-2.3
EZM	Erzurum	0.97	228	*e*PG	Pg	01 07 56.1	+0.2
AGRB	Hanur-Agry	1.12	151	*e*PG	Pg	01 07 57.2	-1.5
AGRB				*e*SG	Sg	01 08 13.3	+0.1
AGRB	Hanur-Agry	1.12	151	*e*Pg	Pg	01 07 57.2	-1.5
PZAR	Pazar-Rize	1.23	301	*e*PN	Pn	01 08 02.9	+1.5
PZAR	Pazar-Rize	1.23	301	*e*Pn	Pn	01 08 02.9	+1.5
DYDN	Diyadin	1.47	133	*i* P	Pn	01 08 03.9	-0.9
DYDN				*i* S	Sn	01 08 26.1	+1.5
DYDN	Diyadin	1.47	133	*i* P	Pn	01 08 03.9	-0.9
KOPT	Kop Dagi	1.48	249	*i* P	Pg	01 08 06.4	+0.7
KOPT				*i* S	Sb	01 08 24.7	+0.1
KOPT	Kop Dagi	1.48	249	*i* P	Pg	01 08 06.4	+0.8
KOPT				*i* S	Sb	01 08 24.7	0.0
CLDR	Caldiran	1.89	138	*e*PN	Pn	01 08 10.0	-0.5
CLDR	Caldiran	1.89	138	*e*Pn	Pn	01 08 10.0	-0.4
GNI	Garni	1.91	102	*e*PN	Pn	01 08 10.9	+0.1
GNI	Garni	1.91	102	*e*Pn	Pn	01 08 10.9	+0.1
MACK	Trabzon	1.96	282	*i* P	Pg	01 08 14.8	0.0
MACK				*i* S	Sg	01 08 42.2	+1.9
MACK	Trabzon	1.96	282	*i* P	Pg	01 08 14.8	0.0
MACK				*i* S	Sg	01 08 42.2	+2.0
GOR	Gori	1.97	43	P	Pg	01 08 14.7	-0.4
EZC	Erzincan	2.07	248	*e*PN	Pg	01 08 19.2	+2.3
GUMT	Gumushane	2.15	268	*e*PN	Pb	01 08 16.4	-0.5
GUMT	Gumushane	2.15	268	*e*Pn	Pb	01 08 16.4	-0.5
TBLG	Delisi	2.18	57	P	Pg	01 08 18.5	-0.6
ONI	Oni	2.20	23	P	Pg	01 08 18.4	-1.0
MTA	Mtatsminda	2.20	58	P	Pg	01 08 19.4	0.0
ESPY	Espiye-Giresun	2.74	279	*e*PN	Pb	01 08 24.7	-2.2
ESPY	Espiye-Giresun	2.74	279	*e*Pn	Pb	01 08 24.7	-2.2
GRSN	GIRESUNGRSN	3.08	278	*i* P	Pg	01 08 31.7	-4.7
GRSN				*i* S	Sn	01 09 01.9	-2.4
GRSN	GIRESUNGRSN	3.08	278	*i* P	Pg	01 08 31.7	-4.7
CUKT	Cukurca	3.46	162	*e*PN	Pn	01 08 32.5	+0.4
CUKT	Cukurca	3.46	162	*e*Pn	Pn	01 08 32.5	+0.4
RSDY	Resadiye-TOKAT	3.79	269	*e*PN	Pn	01 08 39.5	+2.8
RSDY	Resadiye-TOKAT	3.79	269	*e*Pn	Pn	01 08 39.5	+2.8

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*CSEM **04** 01:10:49.5, 35°.81N×21°.84E, h13^{km}, MD3.6, After ATH*

*NEIC **04** 01:10:49.5, 35°.81N×21°.84E, h13^{km}, MD3.6(ATH), After ATH.*

ATH 04 01:10:49.5, 35°.81N×21°.84E, h13^{km}±1^{km}**, MD3.6**/4**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	Kithira	1.08	64	*e*PN	Pn	01 11 10.0	-0.3
KYTH	Kithira	1.08	64	*e*Pn	Pn	01 11 10.0	-0.3
PYL	PYLOS	1.09	356	*e*PN	Pn	01 11 10.5	+0.1
PYL	PYLOS	1.09	356	*e*Pn	Pn	01 11 10.5	+0.1
VLI	Veliai	1.27	44	*e*PN	Pn	01 11 13.0	+0.1
VLI	Veliai	1.27	44	*e*Pn	Pn	01 11 13.0	+0.1
ITM	Ithomi	1.37	3	*e*PG	Pg	01 11 14.8	-1.0
ITM				*e*SB	Sb	01 11 34.3	+1.9
ITM	Ithomi	1.37	3	*e*Pg	Pg	01 11 14.8	-1.0
ITM				*e*Sb	Sb	01 11 34.3	+1.9
VLX	Vlachokerasia	1.62	15	*e*PG	Pg	01 11 19.6	-0.9
VLX				*e*SB	Sb	01 11 42.1	+2.6
VLX	Vlachokerasia	1.62	15	*e*Pg	Pg	01 11 19.6	-0.9
VLX				*e*Sb	Sb	01 11 42.1	+2.6
VAM	Vamos	1.96	101	*e*PN	Pn	01 11 25.0	+2.5
VAM	Vamos	1.96	101	*e*Pn	Pn	01 11 25.0	+2.5
DID	Didima	2.03	33	*e*PN	Pn	01 11 25.2	+1.8
DID	Didima	2.03	33	*e*Pn	Pn	01 11 25.2	+1.8
GUR	Goura	2.16	11	*e*PN	Pn	01 11 27.9	+2.7
GUR	Goura	2.16	11	*e*Pn	Pn	01 11 27.9	+2.7
LTK	Loutraki	2.39	22	*e*PN	Pn	01 11 30.6	+2.3
LTK	Loutraki	2.39	22	*e*Pn	Pn	01 11 30.6	+2.3
PTL	Penteli	2.76	35	*e*PN	Pn	01 11 35.4	+2.0
PTL	Penteli	2.76	35	*e*Pn	Pn	01 11 35.4	+2.0
APE	Apeiranthos	3.23	66	*e*PN	Pn	01 11 42.5	+2.6
APE	Apeiranthos	3.23	66	*e*Pn	Pn	01 11 42.5	+2.6

*ISK **04** 01:11:45.9, 37.°02N×27.°72E, h8km, MD2.7*
*DDA **04** 01:11:45.8, 36.°99N×27.°76E, h7km±3km, Md2.8*
*ISCJB **04** 01:11:46.3±0.7, 37.°00N±0.°05×27.°75E±0.°05, h6km±8km, Error ellipse: s-maj=7.8km s-min=5.9km az=16.4*
*CSEM **04** 01:11:46.2±0.2, 37.°00N×27.°71E, h10km, MD2.7, Error ellipse: s-maj=5.4km s-min=4.3km az=11.0*
ISC 04 01:11:46.6±0.7**, 37.°00N**±0.°05×**27.°74E**±0.°05**, h8**km±14km**, n15, σ0.s66**/22**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.25	286	iP	Pg	01 11 50.9	-0.6
BDRM				iS	Sg	01 11 56.0	+1.1
BDRM	Kayabasi	0.25	286	iP	Pg	01 11 50.9	-0.7
BDRM				iS	Sg	01 11 56.0	+1.1
MLSB	Milas	0.30	5	ePG	Pg	01 11 51.7	-0.8
MLSB				eSG	Sg	01 11 56.2	-0.3
MLSB	Milas	0.30	5	ePg	Pg	01 11 51.7	-0.8
MLSB				eSg	Sg	01 11 56.2	-0.3
DAT	Datca	0.30	206	ePG	Pg	01 11 52.2	-0.3
DAT	Datca	0.30	206	ePg	Pg	01 11 52.2	-0.3
BODT	Bodrum	0.35	281	ePG	Pg	01 11 52.2	-1.3
BODT				eSG	Sg	01 11 58.5	+0.4
BODT	Bodrum	0.35	281	ePg	Pg	01 11 52.2	-1.3
BODT				eSg	Sg	01 11 58.6	+0.4
YER	Yerkesik	0.45	72	ePG	Pg	01 11 55.7	+0.3
YER	Yerkesik	0.45	72	ePg	Pg	01 11 55.7	+0.3
DALT	Dalyan (Mudla)	0.75	107	ePG	Pg	01 12 01.8	+0.8
DALT	Dalyan (Mudla)	0.75	107	ePg	Pg	01 12 01.8	+0.7
GCAM	G?zelcaml?	0.81	330	iP	Pg	01 12 02.2	0.0
GCAM				iS	Sg	01 12 13.4	+0.6
FETY	Fethiye	1.14	108	ePN	Pn	01 12 08.8	+0.1
FETY	Fethiye	1.14	108	ePn	Pn	01 12 08.8	+0.1

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*IDC **04** 02:11:44.4±1.2, 39.°68N×72.°33E, h0km, mb3.4/4, mb1 3.5/8, mb1mx3.4/27, mbtmp3.3/8, ML3.1/4, Error ellipse: s-maj=22.9km s-min=17.8km az=150.0*
*ISCJB **04** 02:11:48.7±1.0, 39.°79N±0.°07×72.°0E±0.°1, h50km±12km, mb3.5/3, Error ellipse: s-maj=15.1km s-min=9.8km az=41.7*
*NNC **04** 02:11:48.8±5.7, 40.°00N×72.°37E, h0km, mb3.6, mpv3.4, Error ellipse: s-maj=53.5km s-min=32.5km az=0.0*
*NEIC **04** 02:11:50.3±1.0, 39.°81N×72.°04E, h52km±12km, Error ellipse: s-maj=18.0km s-min=10.2km az=122.0*
ISC 04 02:11:50.3±0.9**, 39.°84N**±0.°08×**71.°96E**±0.°09**, h51**km±12km**, n29, σ1.s15**/33**, mb3.5**/3**, 7C, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	2.64	29	P	Pn	02 12 29.5	-0.9
	SNR=53						
AML	Almayashu	2.64	29	ePn	Pn	02 12 29.6	-0.8
AML				eSn	Sn	02 13 01.9	+0.7
UCH	Uchtor	3.08	38	P	Pn	02 12 42.0	+5.7
	SNR=5.8						
UCH	Uchtor	3.08	38	ePn	Pn	02 12 37.6	+1.3
UCH				eSn	Sn	02 13 12.3	+0.5
KSH	Kashi	3.12	95	⇑iPn	Pn	02 12 31.4	-5.5
KSH				Sn	Sn	02 13 05.5	-7.3
KSH				smax			
	comp=N,190nm,0.2s						
KSH				smax			
	comp=E,290nm,0.3s						
EKS2	Erkin-Say	3.14	25	P	Pn	02 12 41.5	+4.3
	SNR=10						
EKS2	Erkin-Say	3.14	25	ePn	Pn	02 12 37.8	+0.6
KZA	Kyzart	3.35	47	P	Pn	02 12 48.8	+8.7
	SNR=6.1						
AAK	Ala-Archa	3.39	34	P	Pn	02 12 42.5	+1.9
	SNR=25						
AAK	Ala-Archa	3.39	34	ePn	Pn	02 12 41.4	+0.8
KK31	Karatay Array	3.44	342	⇑Pn	Pn	02 12 43.8	+2.5
	comp=E,1.7nm,0.2s,baz=152,slow=13,SNR=302						
KK31				Pg	Pn	02 12 52.0	+11
	comp=E,3.7nm,0.2s,baz=148,slow=16,SNR=22						
KK31				⇑Lg		02 13 36.2	
	comp=E,6.2nm,0.2s,baz=155,slow=30,SNR=6.0						
KBK	Karagaybulak	3.61	38	P	Pn	02 12 45.6	+2.0
	SNR=12						
CHMS	Chumysh	3.80	33	P	Pn	02 12 46.1	-0.1
	SNR=13						
USP	Ospenovka	3.92	28	P	Pn	02 12 47.2	-0.7
	SNR=7.3						
ULHL	Ulahol	4.04	52	P	Pn	02 12 48.5	-1.0
	SNR=9.4						
TKM2	Tokmak 2	4.12	40	ePn	Pn	02 12 51.0	+0.3
TKM2	Tokmak 2	4.12	40	⇑Pn	Pn	02 12 49.5	-1.2
	comp=E,7.7nm,0.4s						
TKM2				⇑Lg		02 13 47.8	
	comp=E,27nm,0.6s						
KBL	Kabul	5.77	205	ePn	Pn	02 13 13.9	+0.6
MKAR	Makanchi Array	10.24	44	Pn	Pn	02 14 13.3	-1.2
	comp=E,0.0nm,0.3s,baz=216,slow=16,SNR=2.8						
MKAR				Lg		02 17 04.8	
	comp=E,0.1nm,0.3s,baz=237,slow=24,SNR=5.1						
AB09	Akbulak array	12.73	322	⇑P	Pn	02 14 47.6	-0.9
	comp=E,0.8nm,0.5s						
BVAR	Borovoye Array	13.24	356	Pn	Pn	02 14 52.9	-2.4
	comp=E,0.1nm,0.3s,baz=162,slow=12,SNR=3.5						
AKTK	Aktyubinsk	14.44	322	Pn	Pn	02 15 11.3	-0.2
AKTO	Aktyubinsk	14.44	322	Pn	Pn	02 15 11.3	-0.2
	comp=E,0.2nm,0.3s,baz=132,slow=10,SNR=4.5						
AKTO	Aktyubinsk	14.44	322	⇑P	Pn	02 15 10.8	-0.7
	comp=E,0.1nm,0.5s						
ZALV	Zalesovo Beam	16.59	27	Pn	Pn	02 15 39.3	+0.2
	comp=E,0.1nm,0.3s,baz=206,slow=13,SNR=2.6						
SONM	Songino Array	25.93	61	P	P	02 17 16.1	-1.4
	comp=E,0.2nm,0.6s,baz=272,slow=10,SNR=2.6						
TORD	Torodi Ar. Bea	66.58	268	P	P	02 22 39.0	+3.6
	comp=E,0.3nm,0.4s,mb3.7,baz=52,slow=5.1,SNR=14						
YKA	Yellowknife Ar	77.88	3	P	P	02 23 43.9	+1.8
	comp=E,0.2nm,0.5s,mb3.3,baz=343,slow=5.8,SNR=4.6						
WRA	Warramunga Arr	83.14	123	P	P	02 24 10.2	-0.6
	comp=E,0.3nm,0.8s,mb3.4,baz=332,slow=5.0,SNR=5.0						

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*ISCJB **04** 02:54:13.9±1.0, 20.°55N±0.°08×93.°33E±0.°08, h33km±10km, mb4.0/14, Error ellipse: s-maj=17.7km s-min=5.3km az=39.9*
*NEIC **04** 02:54:15.6±0.3, 20.°35N×93.°41E, h35km, mb3.9/1, Error ellipse: s-maj=13.7km s-min=6.2km az=220.0*
*IDC **04** 02:54:15.3±7.0, 20.°38N×93.°49E, h33km±54km, mb3.8/13, mb1 3.9/14, mb1mx3.8/25, mbtmp3.8/14, ML4.1/1, Error ellipse: s-maj=37.7km s-min=14.4km az=56.0*
ISC 04 02:54:16.5±0.8**, 20.°49N**±0.°08×**93.°33E**±0.°07**, h39**km±8km**, n35, σ1.s35**/50**, mb4.0**/14**, 2C, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGT	Agartala	3.88	331	ePKP	Pn	02 55 20.0	+6.3
SHL	Shillong	5.22	345	ePN	Pn	02 55 34.5	+2.4
SHL				eSN	Sn	02 56 31.0	-0.1
CHG	Chiang Mai	5.55	107	⇑P	Pn	02 55 35.9	-0.7
	14nm,0.5s						
CHTO	Chiang Mai	5.55	107	ePn	Pn	02 55 35.5	-1.1
	8.1nm,0.4s						
CMAR	Chiang Mai Arr	5.67	110	Pn	Pn	02 55 35.8	-2.4
	1.5nm,0.3s,baz=282,slow=14,SNR=11						
CMAR				Sn	Sn	02 56 31.6	-10
	1.2nm,0.3s,baz=292,slow=17,SNR=4.5						
CMAR				Lg		02 57 08.8	
	1.0nm,0.3s,baz=294,slow=32,SNR=4.1						
CHRT	Chiangrai	6.09	95	⇑P	Pn	02 55 43.5	-0.5
	829nm,0.3s						
ODAN	Odare	8.35	320	ePn	Pn	02 56 17.2	+2.1
ODAN				eSn	Sn	02 57 47.0	-1.1
	56nm,0.3s						
TAPN	Taplejung	8.54	324	ePn	Pn	02 56 19.0	+1.3
TAPN				eSn	Sn	02 57 52.4	-0.4
	51nm,0.6s						
RAMN	Ramite	8.90	317	ePn	Pn	02 56 24.0	+1.4
RAMN				eSn	Sn	02 58 00.8	-0.9
	25nm,0.4s						
JIRN	Jiri	9.66	319	ePn	Pn	02 56 34.4	+1.3
JIRN				eSn	Sn	02 58 18.8	-1.5
	38nm,0.4s						
GUN	Gumba	10.04	319	ePn	Pn	02 56 40.4	+2.3
GUN				eSn	Sn	02 58 28.3	-1.1
	41nm,0.5s						
PKI	Pulchoki	10.10	316	ePn	Pn	02 56 39.8	+0.8
PKI				eSn	Sn	02 58 29.6	-1.4
	20nm,0.4s						
PKIN	Phulchoki	10.11	316	ePn	Pn	02 56 40.0	+0.8
PKIN				eSn	Sn	02 58 28.7	-2.6
DMN	Daman	10.32	315	ePn	Pn	02 56 43.1	+1.0
DMN				eSn	Sn	02 58 34.7	-1.8
	24nm,0.4s						
KKN	Kakani	10.33	316	ePn	Pn	02 56 43.5	+1.3
KKN				eSn	Sn	02 58 34.2	-2.5
	17nm,0.4s						
GKN	Gorkha	10.89	315	ePn	Pn	02 56 50.7	+0.8
GKN				eSn	Sn	02 58 48.6	-1.9
	22nm,0.3s						
KOLN	Koldanda	11.46	311	ePn	Pn	02 56 58.5	+0.9
KOLN				eSn	Sn	02 59 00.4	-4.0
	29nm,0.5s						
DANN	Dangsing	11.71	314	ePn	Pn	02 57 01.3	+0.3
DANN				eSn	Sn	02 59 07.7	-2.7
	23nm,0.5s						
PYUN	Piuthan	12.09	311	ePn	Pn	02 57 06.6	+0.4
PYUN				eSn	Sn	02 59 15.8	-3.9
	31nm,0.5s						
MKAR	Makanchi Array	27.74	344	P	P	03 00 02.5	+1.2
	1.3nm,0.5s,mb3.8,baz=160,slow=8.4,SNR=31						
SONM	Songino Array	29.25	18	P	P	03 00 14.9	+0.2
	0.3nm,0.4s,mb3.3,baz=204,slow=9.1,SNR=5.8						
ZALV	Zalesovo Beam	34.03	351	P	P	03 00 57.5	+1.0
	6.7nm,0.5s,mb4.8,baz=174,slow=8.5,SNR=25						
AKTK	Aktyubinsk	40.82	326	P	P	03 01 55.4	+1.3
AKTO	Aktyubinsk	40.82	326	P	P	03 01 55.4	+1.3
	1.3nm,0.8s,mb3.6,baz=132,slow=7.2,SNR=6.3						
BRTR	Keskin Array B	54.10	305	P	P	03 03 38.7	+1.2
	0.5nm,0.7s,mb3.6,baz=132,slow=7.3,SNR=4.9						
WRA	Warramunga Arr	56.80	132	P	P	03 03 55.6	-1.5
	0.3nm,0.3s,mb3.8,baz=319,slow=7.5,SNR=25						
WRA				pP	pP	03 04 04.1	-4.5
	0.5nm,0.7s,baz=322,slow=7.4,SNR=3.0						
WRA				PcP	PcP	03 04 50.3	-2.4
	0.3nm,0.6s,baz=318,slow=4.0,SNR=5.0						
WRAB	Tennant Creek	56.80	132	eP	P	03 03 54.7	-2.4
	0.9nm,0.8s,mb3.9						
WB2	Warramunga Arr	56.81	132	eP	P	03 03 55.5	-1.7
ASAR	Alice Springs	59.07	136	P	P	03 04 11.5	-1.5
	0.5nm,0.6s,mb3.7,baz=320,slow=7.0,SNR=4.9						
ARCES	ARCESS Array B	63.24	339	P	P	03 04 41.1	+0.5
	4.8nm,1.1s,mb4.5,baz=100,slow=7.1,SNR=4.5						
HFS	Hagfors	67.31	328	P	P	03 05 07.5	+0.4
	2.2nm,0.7s,mb4.3,baz=101,slow=4.7,SNR=8.0						
GERES	GERESS Array B	68.11	316	P	P	03 05 13.3	+0.9
	1.2nm,0.6s,mb4.1,baz=91,slow=6.4,SNR=9.5						
NOA	NORSAR Array B	68.49	329	P	P	03 05 14.6	+0.1
	1.8nm,0.9s,mb4.1,baz=86,slow=6.6,SNR=3.4						
BOSA	Boshof	81.84	235	P	P	03 06 32.2	+0.3
	4.2nm,0.9s,mb4.4,baz=66,slow=15,SNR=4.0						
TORD	Torodi Ar. Bea	86.99	283	P	P	03 06 58.6	+0.3
	0.8nm,1.1s,mb3.9,baz=67,slow=3.7,SNR=5.0						
TORD				pP	pP	03 07 07.9	-2.5
	0.1nm,0.7s,baz=72,slow=3.0,SNR=2.7						

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*IDC **04** 03:08:53.7±1.9, 24.°10S×179.°56W, h449km±21km, mb3.7/4, mb1 3.8/6, mb1mx3.4/18, mbtmp3.7/6, Error ellipse: s-maj=23.0km s-min=19.0km az=144.0*
*NEIC **04** 03:08:55.1±1.9, 24.°13S×179.°31W, h494km±58km, mb4.0/3, Error ellipse: s-maj=46.9km s-min=14.3km az=103.0*
ISC 04 03:08:55.1±1.8**, 24.°2S**±0.°1×**179.°2W**±0.°3**, h500**km±47km**, n23, σ0.s52**/24**, mb4.2**/9**, 3D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.20	167	S	S	03 11 28.0	-8.3
	459nm,0.3s,baz=62,slow=20,SNR=8.6						
AFI	Afiamalu	12.39	36	P	P	03 11 38.9	+1.0
	4.4nm,0.3s,baz=153,slow=8.3,SNR=5.9						
AFI				S	S	03 13 51.6	-0.5
	2.0nm,0.3s,baz=218,slow=19,SNR=3.8						
AFI	Afiamalu	12.39	36	ePn	P	03 11 38.4	+0.5
AFI				S	S	03 13 51.6	-0.5
URZ	Urewera	14.40	192	P	P	03 11 58.7	0.0
	1.2nm,0.3s,baz=318,slow=5.5,SNR=6.5						
URZ				S	S	03 14 29.7	-0.5
	3.0nm,0.3s,baz=97,slow=20,SNR=15						
RPZ	Rata Peaks	21.07	200	P	P	03 13 04.0	+0.7
	9.4nm,0.5s,mb4.6,baz=268,slow=1.4,SNR=9.0						
RPZ	Rata Peaks	21.07	200	P	P	03 13 04.0	+0.7
CTA	Charters Tower	32.19	270	⇓iP	P	03 14 41.8	+0.4
	6.5nm,0.3s,mb4.5						
CTAO	Charters Tower	32.19	270	eP	P	03 14 41.8	+0.4
	8.6nm,0.8s,mb4.2						
TOO	Toolangi	32.90	238	eP	P	03 14 48.0	+0.7
STKA	Stephens Creek	35.28	249	⇓iP	P	03 15 07.6	+0.2
	4.5nm,0.6s,mb4.1						
STKA	Stephens Creek	35.28	249	P	P	03 15 07.7	+0.3
	4.8nm,0.5s,mb4.2,baz=86,slow=9.9,SNR=16						
STKA	Stephens Creek	35.28	249	eP	P	03 15 07.8	+0.4
	0.7nm,0.5s,mb3.4						
ASAR	Alice Springs	42.69	261	P	P	03 16 07.5	0.0
	2.5nm,0.6s,mb3.8,baz=98,slow=8.2,SNR=30						
WB2	Warramunga Arr	43.09	266	eP	P	03 16 10.2	-0.4
WRAB	Tennant Creek	43.09	266	eP	P	03 16 10.0	-0.7
	5.2nm,0.9s,mb4.0						
WRA	Warramunga Arr	43.10	266	P	P	03 16 10.3	-0.5
	6.7nm,0.5s,mb4.3,baz=100,slow=8.2,SNR=166						
WRA				ScP	ScP	03 20 59.8	+6.8
	0.6nm,0.8s,baz=98,slow=3.5,SNR=4.7						
WRA				S	S	03 22 00.9	+0.7
	0.7nm,0.8s,baz=99,slow=14,SNR=5.4						
FORT	Forrest	46.88	250	eP	P	03 16 39.2	-0.6
	23nm,0.6s						
KAKA	Kakadu	47.04	275	⇓iP	P	03 16 40.6	-0.5
	2.3nm,0.2s,mb4.3						
FITZ	Fitzroy Crossi	51.51	266	eP	P	03 17 14.7	+0.5
	7.5nm,0.6s,mb4.2						
KLBR	Kellerberrin	55.54	247	eP	P	03 17 42.7	0.0
	11nm,0.8s,mb4.2						
MKAR	Makanchi Array	112.85	312	PKiKP	PKiKP	03 26 37.0	+2.5
	0.1nm,0.4s,baz=217,slow=3.2,SNR=3.8						
MMAI	Mount Meron Ar	148.46	294	PKPbc	PKPab	03 27 49.5	-1.1
	0.8nm,0.3s,baz=65,slow=5.1,SNR=6.2						
TORD	Torodi Ar. Bea	169.01	185	PKPab	PKPab	03 29 22.2	+2.5
	0.6nm,0.7s,baz=169,slow=4.5,SNR=6.4						

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*NOU **04** 03:28:59.0±0.3, 10.°31S×169.°57E, h30km±999km, ML3.2*
*BJI **04** 03:29:43.3, 13.°00S×170.°60E, h592km, mB4.8/20, mb4.7/34*
*MOS **04** 03:29:43.6±1.1, 13.°41S×170.°56E, h610km, mb4.7/19, Error ellipse: s-maj=11.9km s-min=11.6km az=72.9*
*IDC **04** 03:29:44.6±1.4, 13.°54S×170.°73E, h619km±15km, mb4.1/19, mb1 4.3/19, mb1mx4.2/21, mbtmp4.1/19, Error ellipse: s-maj=14.2km s-min=11.8km az=113.0*
*ISCJB **04** 03:29:46.4±0.8, 13.°43S±0.°07×170.°41E±0.°04, h646km±12km, mb4.6/73, Error ellipse: s-maj=11.2km s-min=5.2km az=172.6*
*NEIC **04** 03:29:47.8±0.8, 13.°58S×170.°57E, h656km±11km, mb4.7/37, Error ellipse: s-maj=9.3km s-min=6.1km az=158.0*
ISC 04 03:29:47.0±0.8**, 13.°43S**±0.°07×**170.°47E**±0.°04**, h636**km±11km**, h586**km±7.5km**:pP-P, n541, σ0.s48**/408**, mb4.6**/71**, 132C-183D, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	9.41	203	eP	P	03 32 00.6	-0.1
	56nm,0.8s						
NOUC	Port Laguerre	9.49	204	eP	P	03 32 00.5	-1.1
NOUC				AMP		03 34 14.0	
	comp=E,5.5nm,3.4s						
NOUC				eS	S	03 34 14.7	+23
PLUM	Mont Dore	9.52	202	eP	P	03 32 01.7	-0.1
ONTRN	Noumea	9.62	203	eP	P	03 32 02.6	-0.1
EIDS	Eidsvold	21.77	234	eP	P	03 33 55.1	+0.1
	comp=E,32nm,0.8s,mb4.8						
EIDS				e		03 34 07.6	
CTA	Charters Tower	24.09	251	eP	P	03 34 16.2	+0.5
	comp=E,15nm,0.9s,mb4.4						
CTA	Charters Tower	24.09	251	P	P	03 34 16.3	+0.6
	comp=E,17nm,0.8s,mb4.5,baz=83,slow=11,SNR=24						
CTAO	Charters Tower	24.09	251	eP	P	03 34 16.3	+0.6
CTAO				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.6						
CTAO	Charters Tower	24.09	251	eP	P	03 34 16.3	+0.6
	comp=Z,24nm,0.9s,mb4.6						
ARMA	Armidale	24.25	223	eP	P	03 34 17.4	+0.5
ARMA				e		03 34 32.0	
ARMA	Armidale	24.25	223	eP	P	03 34 17.6	+0.7
	comp=Z,63nm,1.1s,mb5.0						
COEN	Coen	26.52	266	eP	P	03 34 38.3	+1.2
	comp=Z,53nm,0.8s,mb5.1						
RIV	Riverview	26.84	218	eP	P	03 34 40.1	+0.5
CNB	Canberra Magne	28.93	217	⇑iP	P	03 34 57.9	+0.2
RPZ	Rata Peaks	30.18	179	P	P	03 35 04.8	-3.5
	comp=Z,25nm,0.7s,mb4.8,baz=355,slow=5.5,SNR=6.5						
STKA	Stephens Creek	32.20	230	⇑iP	P	03 35 26.1	+0.6
	comp=Z,35nm,0.8s,mb4.9						
STKA				e		03 35 40.2	
STKA	Stephens Creek	32.20	230	P	P	03 35 26.2	+0.6
	comp=Z,43nm,0.6s,mb5.2,baz=56,slow=7.2,SNR=75						
STKA				PcP	PcP	03 37 53.8	-0.3
	comp=Z,1.5nm,0.3s,baz=116,slow=5.0,SNR=2.9						
STKA				S	S	03 39 55.9	0.0
	comp=Z,1.1nm,0.2s,baz=245,slow=17,SNR=3.6						
STKA	Stephens Creek	32.20	230	eP	P	03 35 26.1	+0.6
	comp=Z,8.2nm,0.8s,mb4.3						
TOO	Toolangi	32.76	218	⇑iP	P	03 35 30.5	+0.4
WB2	Warramunga Arr	35.14	254	eP	P	03 35 50.0	-0.3
WRAB	Tennant Creek	35.14	254	eP	P	03 35 49.9	-0.4
WRAB				pmax	pmax		
	comp=Z,26nm,0.7s,mb4.9						
WRAB	Tennant Creek	35.14	254	eP	P	03 35 49.9	-0.3
	comp=Z,26nm,0.7s,mb4.9						
WRA	Warramunga Arr	35.16	254	P	P	03 35 50.0	-0.3
	comp=Z,29nm,0.7s,mb4.9,baz=86,slow=8.8,SNR=187						
WRA				PcP	PcP	03 38 02.7	-0.3
	comp=Z,3.7nm,0.7s,baz=78,slow=3.4,SNR=6.8						
WRA				S	S	03 40 37.0	-3.6
	comp=Z,4.8nm,0.9s,baz=93,slow=14,SNR=5.7						
MOO	Moorlands	35.23	210	eP	P	03 35 50.7	+0.1
ASAR	Alice Springs	36.03	248	P	P	03 35 57.5	-0.1
	comp=Z,24nm,0.4s,mb5.1,baz=77,slow=9.4,SNR=392						
ASAR				PcP	PcP	03 38 05.1	-0.5
	comp=Z,3.4nm,0.8s,baz=84,slow=3.5,SNR=6.4						
ASAR				S	S	03 40 48.7	-4.8
	comp=Z,7.7nm,0.7s,baz=82,slow=15,SNR=8.0						
KAKA	Kakadu	37.02	267	eP	P	03 36 06.0	+0.3
	comp=Z,14nm,0.3s,mb5.0						
KAKA	Kakadu	37.02	267	eP	P	03 36 06.2	+0.5
	comp=Z,45nm,0.4s,mb5.3						
KAKA	Kakadu	37.02	267	eS	S	03 41 08.8	+0.4
FORT	Forrest	42.62	239	eP	P	03 36 49.9	0.0
	comp=Z,42nm,0.7s,mb5.0						
FORT				e		03 37 02.3	
FORT	Forrest	42.62	239	eP	P	03 36 50.0	+0.1
	comp=Z,50nm,0.7s,mb5.1						
FITZ	Fitzroy Crossi	43.31	258	eP	P	03 36 56.0	+0.5
	comp=Z,8.4nm,0.8s,mb4.2						
FITZ	Fitzroy Crossi	43.31	258	P	P	03 36 56.0	+0.6
	comp=Z,5.8nm,0.6s,mb4.2,baz=103,slow=4.3,SNR=22						
FITZ	Fitzroy Crossi	43.31	258	eP	P	03 36 56.5	+1.0
	comp=Z,5.5nm,0.8s,mb4.0						
FITZ	Fitzroy Crossi	43.31	258	eS	S	03 42 37.5	-1.5
MBWA	Marble Bar	48.88	254	eP	P	03 37 37.6	+0.3
	comp=Z,7.3nm,0.7s,mb4.1						
KLBR	Kellerberrin	51.44	240	eP	P	03 37 55.1	-0.6
	comp=Z,30nm,1.0s,mb4.5						
NWAO	Narrogin (SRO)	52.07	239	eP	P	03 37 59.8	-0.4
NWAO				pmax	pmax		
	comp=Z,36nm,1.1s						
NWAO	Narrogin (SRO)	52.07	239	eP	P	03 37 59.8	-0.4
	comp=Z,36nm,1.1s,mb4.5						
KKM	Kota Kinabalu	57.23	286	eP	P	03 38 37.0	+0.6
	comp=Z,21nm,0.5s,mb4.5						
MJAR	Matsushiro Arr	58.28	330	P	P	03 38 42.4	-0.5
	comp=Z,3.8nm,0.4s,mb3.9,baz=165,slow=7.3,SNR=14						
MAJO	Matsushiro	58.28	330	eP	P	03 38 42.9	0.0
MAJO				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.3						
MAJO	Matsushiro	58.28	330	eP	P	03 38 42.9	0.0
	comp=Z,15nm,0.6s,mb4.3						
MAT	Matsushiro	58.28	330	P	P	03 38 42.6	-0.3
TPUB	Ta-pu	60.91	306	eP	P	03 39 00.2	-0.4
SSLB	Suanglung	60.91	307	eP	P	03 38 60.0	-0.6
KSM	Kuching	61.44	279	eP	P	03 39 03.4	-0.9
	comp=Z,46nm,1.2s,mb4.6						
VNDA	Vanda	64.24	182	P	P	03 39 19.6	-1.4
	comp=Z,1.7nm,0.5s,mb3.5,baz=8.5,slow=7.0,SNR=13						
KSRS	Korea Array	64.49	323	P	P	03 39 23.7	+0.5
	comp=Z,9.8nm,0.9s,mb4.0,baz=132,slow=7.0,SNR=11						
YSS	Yuzh-Sakhalins	65.04	339	eP	P	03 39 27.3	+0.9
NJ2	Nanjing	66.97	314	eP	P	03 39 39.6	+0.9
NJ2				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.5						
PEA0B	Petropavlovsk-	67.17	352	eP	P	03 39 39.8	+0.3
PETK	Petropavlovsk-	67.17	352	P	P	03 39 39.6	+0.2
	comp=Z,23nm,0.7s,mb4.6,baz=126,slow=5.5,SNR=40						
MDJ	Mudanjiang	68.66	330	P	P	03 39 49.3	+0.7
MDJ				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,50nm,4.8s						
HABR	Khabarovsk	69.18	336	eP	P	03 39 51.6	0.0
HABR				e		03 40 09.4	
HABR				e		03 42 33.3	
HABR				e*SP	sP	03 42 53.3	-10
HABR				ePPP		03 44 21.0	
HABR				e		03 48 54.6	
HABR				MLR	MLR		
	comp=Z,171nm,22.0s						
WHN	Wuhan	69.43	310	P	P	03 39 53.5	-0.1
CN2	Changchun	70.19	327	eP	P	03 39 57.6	-0.2
CN2				eS	S	03 48 26.9	+6.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
PSI	Prapat	72.75	277	P	P	03 40 12.8	-0.5
	comp=Z,17nm,0.7s,mb4.6,baz=75,slow=3.3,SNR=11						
BJT	Baijiatuau	73.25	319	eP	P	03 40 16.1	+0.6
BJT				pmax	pmax		
	comp=Z,36nm,0.9s						
BJT	Baijiatuau	73.25	319	eP	P	03 40 16.1	+0.6
	comp=Z,36nm,0.9s,mb4.8						
BJI	Beijing	73.26	319	P	P	03 40 15.9	+0.4
BJI				pP	pP	03 42 14.7	-9.4
BJI				sP	sP	03 43 20.4	-8.6
BJI				S	S	03 49 01.2	+6.7
BJI				sS	sS	03 52 31.9	-12
BJI				pmax	pmax		
	comp=Z,35nm,0.9s,mb4.8						
BJI				pmax	pmax		
	comp=Z,300nm,6.1s						
GYA	Guiyang	73.57	303	P	P	03 40 18.9	+1.3
GYA				PcP	PcP	03 40 33.2	+3.7
GYA				pP	pP	03 42 20.8	-5.5
GYA				sP	sP	03 43 16.0	-15
GYA				S	S	03 49 04.8	+6.3
GYA				sS	sS	03 52 35.4	-12
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
GYA				pmax	pmax		
	comp=Z,70nm,5.6s						
KMI	Kunming	76.30	300	P	P	03 40 34.0	+1.2
KMI				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.5						
OHAK	Old Harbor	76.52	19	eP	P	03 40 32.9	-0.4
OHAK				ePcP	PcP	03 40 44.6	+3.1
HHC	Hu-ho-hao-te	76.65	318	eP	P	03 40 35.6	+1.2
HHC				pP	pP	03 42 42.0	-2.6
HHC				sP	sP	03 43 42.0	-7.0
HHC				eS	S	03 49 33.7	+2.8
HHC				ScS	ScS	03 49 55.0	+2.0
HHC				sS	sS	03 53 14.9	-8.0
HHC				SS	SS	03 54 49.8	+3.7
HHC				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.7						
HHC				pmax	pmax		
	comp=Z,220nm,5.9s						
HIA	Hailar	76.76	329	eP	P	03 40 35.2	+0.5
HIA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HIA	Hailar	76.76	329	eP	P	03 40 35.2	+0.5
	comp=Z,6.7nm,0.6s,mb4.3						
CMAR	Chiang Mai Arr	77.29	293	P	P	03 40 39.7	+1.4
	comp=Z,13nm,0.8s,mb4.5,baz=121,slow=3.9,SNR=21						
CHTO	Chiang Mai	77.40	293	eP	P	03 40 39.7	+0.8
CHTO				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
CHTO	Chiang Mai	77.40	293	eP	P	03 40 39.7	+0.8
	comp=Z,8.0nm,0.8s,mb4.3						
CD2	Chengdu	77.72	306	P	PcP	03 40 52.8	+5.4
CD2				pP	pP	03 42 59.0	+7.9
CD2				sP	sP	03 43 58.8	+3.4
CD2				PP	PP	03 44 01.2	+13

CD2				S	S	03 49 58.8	+16
CD2				SKS		03 50 06.0	
CD2				sS	sS	03 53 38.9	+3.5
CD2				SS	SS	03 55 19.0	+17
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.9						
CD2				pmax	pmax		
	comp=Z,130nm,6.0s						
RSO	Redoubt South	79.30	18	*e*P	P	03 40 47.3	-0.7
LZH	Lanzhou	79.78	311	*e*P	P	03 40 52.4	+1.3
LZH				PcP	PcP	03 40 58.5	+2.2
LZH				pP	pP	03 42 56.0	-6.8
LZH				sP	sP	03 43 56.1	-11
LZH				*e*S	S	03 50 06.0	+2.4
LZH				sS	sS	03 53 49.0	-9.2
LZH				*e*SS	SS	03 55 40.0	+7.4
LZH				pmax	pmax		
	comp=Z,42nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,210nm,5.5s						
TNA	Tin City	80.42	9	*e*P	P	03 40 53.4	-0.3
	comp=Z,26nm,0.9s,mb4.7						
FIB	Fire Island	80.63	18	*e*P	P	03 40 55.2	+0.3
FIB				pmax	pmax		
	comp=Z,46nm,0.9s,mb4.9						
FIB	Fire Island	80.63	18	*e*P	P	03 40 55.2	+0.3
	comp=Z,46nm,0.9s,mb4.9						
RC01	Rabbit Creek A	80.70	18	*e*P	P	03 40 54.9	-0.4
	comp=Z,78nm,1.2s,mb5.0						
PMR	Palmer	81.28	18	*e*P	P	03 40 57.6	-0.6
PMR				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.6						
PMR	Palmer	81.28	18	*e*P	P	03 40 57.6	-0.6
	comp=Z,20nm,0.8s,mb4.6						
BILL	Bilibino	81.31	358	*e*P	P	03 40 57.5	-0.7
BILL				pmax	pmax		
	comp=Z,15nm,0.5s,mb4.7						
BILL	Bilibino	81.31	358	*e*P	P	03 40 57.5	-0.7
	comp=Z,15nm,0.5s,mb4.7						
OHCM	Honcut	82.16	47	*e*P	P	03 41 02.8	-0.5
CHUM	Lake Minchumin	82.19	16	*e*P	P	03 41 01.9	-0.9
	comp=Z,38nm,1.0s,mb4.9						
KTH	Kantishna Hill	82.30	16	*e*P	P	03 41 01.6	-1.8
	comp=Z,19nm,0.7s,mb4.7						
TRF	Thorofare Moun	82.39	17	*e*P	P	03 41 02.3	-1.5
	comp=Z,15nm,0.7s,mb4.6						
CMB	Columbia Colle	82.42	48	*e*P	P	03 41 04.1	-0.5
CMB				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.6						
CMB	Columbia Colle	82.42	48	*e*P	P	03 41 04.1	-0.5
	comp=Z,23nm,1.2s,mb4.6						
ARVC	Arvin	82.45	51	⇑P	P	03 41 04.6	-0.2
	baz=83						
VES	Vestal, Richgr	82.53	51	⇑P	P	03 41 04.5	-0.6
	baz=83						
HUMO	Hull Mountain	82.54	43	*e*P	P	03 41 05.2	+0.1
	comp=Z,27nm,0.9s,mb4.8						
RCTC	Rector, Farmer	82.59	50	⇓P	P	03 41 04.9	-0.6
	baz=83						
LBCM	Butte Creek Ri	82.88	45	P	P	03 41 06.3	-0.4
ISA	Isabella	82.92	51	⇑P	P	03 41 06.9	-0.2
	baz=83						
ISA	Isabella	82.92	51	*e*P	P	03 41 07.1	0.0
109C	Camp Elliot, M	82.97	54	⇑P	P	03 41 07.0	-0.4
	baz=83						
MCK	McKinley	82.99	17	*e*P	P	03 41 05.7	-1.1
MCK				pmax	pmax		
	comp=Z,22nm,1.2s,mb4.6						
MCK	McKinley	82.99	17	*e*P	P	03 41 05.7	-1.1
	comp=Z,22nm,1.2s,mb4.6						
EDW2	Edwards Air Fo	83.00	52	⇑P	P	03 41 07.4	-0.1
	baz=83						
BFSC	Mount Baldy St	83.02	52	⇑P	P	03 41 07.4	-0.2
	baz=83						
MURC	Murrieta	83.15	53	⇓P	P	03 41 07.9	-0.4
	baz=83						
R06C	Coleville	83.29	48	⇑P	P	03 41 08.9	+0.1
	baz=83						
WAKR	Walker	83.29	48	*e*P	P	03 41 09.0	+0.1
SONM	Songino Array	83.33	322	P	P	03 41 08.8	-0.1
	comp=Z,3.5nm,0.6s,mb4.1,baz=132,slow=4.8,SNR=14						
WCN	Washoe City	83.38	47	⇑P	P	03 41 09.5	+0.2
	baz=84						
P06A	Stead Airport,	83.42	47	⇓P	P	03 41 09.8	+0.3
	baz=84						
MTUM	Tungsten Hills	83.49	49	*e*P	P	03 41 09.9	0.0
BBRC	Big Bear Sol-O	83.60	53	⇑P	P	03 41 10.6	+0.1
	baz=84						
TIN	Tinemaha	83.63	50	⇑P	P	03 41 10.9	+0.3
	baz=84						
PAHR	Pah Rah Range	83.80	47	*e*P	P	03 41 11.2	-0.2
MPMC	Manual Prospec	83.81	51	⇑P	P	03 41 11.6	+0.1
	baz=84						
E03A	Lebam	83.89	39	⇓P	P	03 41 11.8	+0.2
	baz=84						
N06A	Buffalo Meadow	83.89	46	⇑P	P	03 41 11.9	+0.1
	baz=84						
C03A	Quillayute Air	83.92	38	⇓P	P	03 41 12.0	+0.3
	baz=84						
K05A	Summer Lake	83.97	44	⇓P	P	03 41 12.2	+0.1
	baz=84,SNR=9.7						
G04A	Mulino	83.98	41	⇑P	P	03 41 12.1	0.0
	baz=84						
SWSC	Sam W. Stewart	84.02	54	⇓P	P	03 41 12.5	-0.1
	baz=84						
GTA	Gaotai	84.04	313	⇓*i*P	P	03 41 13.8	+1.2
GTA				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.0						
NLWA	Neilton Lookou	84.08	38	⇓P	P	03 41 12.8	+0.2
	baz=84						
NVAR	Mina Array Bea	84.09	48	P	P	03 41 12.2	-0.6
	comp=Z,14nm,0.7s,mb4.6,baz=232,slow=8.5,SNR=41						
COLA	College	84.17	17	*e*P	P	03 41 10.7	-1.9
COLA				pmax	pmax		
	comp=Z,21nm,0.8s,mb4.7						
COLA	College	84.17	17	*e*P	P	03 41 10.7	-1.9
	comp=Z,21nm,0.8s,mb4.7						
R08A	Mina	84.20	49	⇑P	P	03 41 13.5	+0.1
	baz=84						
GRAC	Grapevine Rang	84.24	50	⇓P	P	03 41 13.6	0.0
	baz=84						
HEC	Hector,Ludlow	84.26	52	⇑P	P	03 41 13.5	-0.2
	baz=84						
F04A	Amboy	84.33	40	⇓P	P	03 41 13.9	+0.1
	baz=84						
O07A	Toulon	84.33	47	⇓P	P	03 41 14.0	0.0
	baz=84						
E04A	Onalaska	84.43	40	⇓P	P	03 41 14.4	+0.1
	baz=85						
FURC	Furnace Creek,	84.43	51	⇑P	P	03 41 14.4	-0.2
	baz=84						
N07B	Gerlach	84.51	46	⇓P	P	03 41 14.7	-0.1
	baz=85						
Q08A	Gabbs	84.52	48	⇓P	P	03 41 14.8	-0.1
	baz=85						
B04A	Port Angeles	84.60	38	⇑P	P	03 41 15.4	+0.3
	baz=85						
M07A	Soldier Meadow	84.61	45	⇑P	P	03 41 15.3	0.0
	baz=85						
S09A	Goldfield	84.62	49	⇓P	P	03 41 15.1	-0.3
	baz=85						
SHOC	Shoshone	84.67	51	⇓P	P	03 41 15.5	-0.2
	baz=85						
J06A	Christmas Vall	84.68	43	⇑P	P	03 41 15.4	-0.2
	baz=85						
P08A	Dixie Valley	84.72	47	⇓P	P	03 41 16.0	+0.1
	baz=85						
G05A	Wamic	84.73	41	⇓P	P	03 41 15.8	0.0
	baz=85						
L07A	Adell	84.73	45	⇑P	P	03 41 16.1	+0.2
	baz=85						
GMRC	Granite Mounta	84.76	53	⇑P	P	03 41 15.9	-0.3
	baz=85						
GNW	Green Mountain	84.79	39	*e*P	P	03 41 15.8	-0.2
	comp=Z,6.9nm,0.7s,mb4.4						
U10A	Ash Meadows, A	84.82	51	⇑P	P	03 41 16.6	+0.2
	baz=85						
GLA	Glamis	84.82	54	⇓P	P	03 41 16.7	+0.1
	baz=85						
GLA	Glamis	84.82	54	*e*P	P	03 41 17.1	+0.6
O08A	Rochester Mine	84.89	47	⇑P	P	03 41 16.9	+0.2
	baz=85						
PGC	Sidney	84.90	37	*e*P	P	03 41 16.4	-0.1
R09A	Tonopah	84.92	49	⇑P	P	03 41 16.9	+0.1
	baz=85						
I06A	Prineville	84.92	43	⇓P	P	03 41 17.1	+0.4
	baz=85						
IRM	Iron Mountain	84.94	53	⇓P	P	03 41 17.0	0.0
	baz=85						
Q09A	Carvers	85.05	48	⇓P	P	03 41 17.7	+0.2
	baz=85						
K07A	Rock Creek Ran	85.06	44	⇓P	P	03 41 17.4	0.0
	baz=85						
N08A	GE Springer Mi	85.09	46	⇑P	P	03 41 17.9	+0.2
	baz=85						
D05A	Enumclaw	85.14	39	⇓P	P	03 41 18.0	+0.3
	baz=85						
S10A	Tonopah Range,	85.15	49	⇑P	P	03 41 18.0	0.0
	baz=85						
G06A	Carlson Farm,	85.17	41	⇓P	P	03 41 17.7	-0.2
	baz=85						
M08A	Happy Creek Ra	85.18	46	⇑P	P	03 41 18.3	+0.2
	baz=85						
LDFC	Landfair	85.28	52	*e*P	P	03 41 17.2	-1.5
J07A	Hines	85.29	44	⇓P	P	03 41 18.7	+0.2
	baz=85						
Y12C	Blythe	85.29	54	⇑P	P	03 41 18.7	-0.1
	baz=85						
F06A	Goldendale	85.30	41	⇓P	P	03 41 18.6	+0.1
	baz=85						
V11A	Goodsprings	85.30	52	⇑P	P	03 41 18.9	+0.2
	baz=85						
A04A	Legoe Bay, Lum	85.38	38	⇓P	P	03 41 19.2	+0.4
	baz=86						
COLD	Coldfoot	85.39	14	*e*P	P	03 41 18.1	-0.3
	comp=Z,12nm,0.9s,mb4.5						
I07A	Izee	85.44	43	⇓P	P	03 41 19.3	+0.1
	baz=86						
L08A	Fields	85.48	45	⇓P	P	03 41 19.7	+0.3
	baz=86						
E06A	Yakima	85.50	40	⇑P	P	03 41 19.4	0.0
	baz=86						
U11A	Corn Creek	85.53	51	⇓P	P	03 41 19.5	-0.3
	baz=86						
O09A	Fish Creek Ran	85.53	47	⇓P	P	03 41 20.0	+0.2
	baz=86						
B05A	Bryant	85.54	38	⇓P	P	03 41 19.6	0.0
	baz=86						
C05A	Tolt Reservoir	85.54	39	⇓P	P	03 41 19.4	-0.2
	baz=86						
W12A	Cal Nev Ari	85.54	52	⇓P	P	03 41 20.2	+0.3
	baz=86						
N09A	Rock Creek Ran	85.55	46	⇓P	P	03 41 20.0	+0.2
	baz=86						
NEE2	Needles Airpor	85.56	53	⇓P	P	03 41 20.2	+0.2
	baz=86						
CMW	Cultus Mountai	85.60	38	P	P	03 41 19.9	+0.1
H07A	Lands Inn, Kim	85.60	42	⇓P	P	03 41 19.9	0.0
	baz=86						
JCW	Jim Creek	85.61	38	*e*P	P	03 41 20.0	+0.1
V12A	Nelson	85.70	52	⇓P	P	03 41 20.5	-0.2
	baz=86						
PDMCI	Parker Dam,Lak	85.78	53	⇑P	P	03 41 20.9	-0.1
	baz=86						
G07A	Ruggs Ranch, H	85.81	42	⇓P	P	03 41 20.7	-0.2
	baz=86						
J08A	Circle Bar Ran	85.84	44	⇑P	P	03 41 21.0	-0.2
	baz=86						
D06A	Cle Elum	85.85	40	⇓P	P	03 41 21.2	+0.1
	baz=86						
Y13A	Salome	85.86	54	⇓P	P	03 41 21.5	0.0
	baz=86						
A05A	Maple Falls	85.87	38	⇓P	P	03 41 21.0	0.0
	baz=86						
L09A	Wilkinson Ranc	85.89	45	⇑P	P	03 41 21.5	+0.1
	baz=86						
F07A	Phinny Hill Vi	85.89	41	⇓P	P	03 41 21.4	+0.1
	baz=86						
MXC	Moxie City	85.94	40	P	P	03 41 21.4	-0.1
RPW	Rockport	85.97	38	*e*P	P	03 41 21.1	-0.4
TBM	Table Mountain	85.99	40	P	P	03 41 21.7	-0.1
I08A	Drewsey	85.99	43	⇓P	P	03 41 21.8	-0.1
	baz=86						
R11A	Troy Canyon, C	86.05	49	⇓P	P	03 41 22.2	0.0
	baz=86						
214A	Organ Pipe Nat	86.08	56	⇓P	P	03 41 22.4	-0.1
	baz=86						
EGAK	Eagle	86.08	19	*e*P	P	03 41 20.2	-1.5
	comp=Z,5.8nm,0.6s,mb4.4						
K09A	Rome	86.10	45	⇑P	P	03 41 22.3	0.0
	baz=86						
X13A	Yucca	86.11	53	⇑P	P	03 41 22.7	0.0
	baz=86						
T12A	Moapa	86.14	51	⇑P	P	03 41 23.0	+0.3
	baz=86						
H08A	Prairie City	86.16	43	⇓P	P	03 41 22.6	0.0
	baz=86						
Q11A	Duckwater	86.17	49	⇑P	P	03 41 22.9	+0.1
	baz=86						
U12A	Valley of Fire	86.18	51	⇑P	P	03 41 23.0	+0.2
	baz=86						
E07A	Sunnyside	86.21	40	⇑P	P	03 41 22.8	0.0
	baz=86						
W13A	Hualapai Mount	86.24	53	⇓P	P	03 41 23.1	-0.1
	baz=86						
A06A	Chilliwack	86.27	38	⇓P	P	03 41 22.8	-0.2
	baz=86						
G08A	Pilot Rock	86.28	42	⇑P	P	03 41 23.1	0.0
	baz=86						
MDW	Midway	86.29	40	P	P	03 41 22.9	-0.2
RSW	Rattlesnake Hi	86.31	41	*e*P	P	03 41 23.6	+0.3
ZAK	Zakamensk	86.32	324	*e*P	P	03 41 22.9	-0.3
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.1						
J09A	Fry Pan Ranch,	86.33	44	⇓P	P	03 41 23.5	+0.1
	baz=86						
ETW	Entiat	86.34	39	*e*P	P	03 41 23.0	-0.4
D07A	Quincy	86.39	40	⇑P	P	03 41 23.5	-0.1
	baz=86						
V13A	Grand Canyon W	86.41	52	⇓P	P	03 41 24.1	+0.2
	baz=86						
Z14A	Wintersburg	86.41	55	⇑P	P	03 41 24.2	+0.2
	baz=86						
WAH2	Wahluke Slope	86.47	40	P	P	03 41 23.7	-0.3
M10A	I.L. Ranch, Tu	86.49	46	⇓P	P	03 41 24.6	+0.4
	baz=87						
C07A	Waterville	86.54	39	⇑P	P	03 41 23.9	-0.4
	baz=87						
F08A	Pendleton	86.59	41	⇓P	P	03 41 24.4	-0.2
	baz=87						
U13A	Pakoon Wash	86.61	51	⇑P	P	03 41 25.5	+0.6
	baz=87						
WTV	Waterville	86.61	39	P	P	03 41 24.0	-0.7
O11A	Cowboy Ranch,	86.62	48	⇑P	P	03 41 25.3	+0.4
	baz=87						
E08A	Dider Farm, El	86.69	41	⇑P	P	03 41 25.1	+0.1
	baz=87						
TLY	Talaya	86.69	325	*e*P	P	03 41 25.0	+0.1
TLY				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.5						
TLY	Talaya	86.69	325	*e*P	P	03 41 25.0	+0.1
	comp=Z,7.6nm,0.7s,mb4.4						
K10A	MacKenzie Ranc	86.72	45	⇓P	P	03 41 25.2	0.0
	baz=87						
L10A	Juniper Basin	86.74	46	⇑P	P	03 41 25.5	+0.2
	baz=87						
X14A	Yava	86.81	54	⇑P	P	03 41 26.3	+0.4
	baz=87						
B07A	Winthrop	86.82	39	⇑P	P	03 41 25.5	-0.1
	baz=87						
Q12A	Willow Creek R	86.84	49	⇓P	P	03 41 26.3	+0.3
	baz=87						
T13A	Saint George	86.85	51	⇓P	P	03 41 26.4	+0.4
	baz=87						
H09A	Durkee	86.88	43	⇑P	P	03 41 26.1	+0.1
	baz=87						
W14A	Seligman	86.89	53	⇑P	P	03 41 26.8	+0.5
	baz=87						
P12A	McGill	86.93	48	⇓P	P	03 41 26.5	+0.2
	baz=87						
M11A	Holland Ranch,	86.98	46	⇑P	P	03 41 26.5	0.0
	baz=87						
D08A	Wollman Farm,	87.00	40	⇓P	P	03 41 26.3	-0.2
	baz=87						
V14A	Boquillas Ranc	87.01	52	⇑P	P	03 41 27.2	+0.4
	baz=87						
Z15A	Gila River Ind	87.02	55	⇑P	P	03 41 26.7	-0.2
	baz=87						
J10A	Berg Farm, Mel	87.02	44	⇑P	P	03 41 26.9	+0.2
	baz=87						
G09A	Cove	87.04	42	⇓P	P	03 41 26.8	+0.1
	baz=87						
S13A	Holt Ranch, En	87.07	50	⇓P	P	03 41 27.5	+0.4
	baz=87						
Y15A	Casa Rosa Ranc	87.08	54	⇑P	P	03 41 27.4	+0.2
	baz=87						
116A	Eloy	87.16	56	⇓P	P	03 41 27.6	0.0
	baz=87						
BMO	Blue Mountains	87.19	43	*e*P	P	03 41 26.8	-0.6
BMO				pmax	pmax		
	comp=Z,22nm,1.5s,mb4.6						
BMO	Blue Mountains	87.19	43	*e*P	P	03 41 26.8	-0.6
	comp=Z,22nm,1.5s,mb4.6						
C08A	Higginbotham F	87.21	40	⇓P	P	03 41 27.2	-0.3
	baz=87						
U14A	Mt Trumbull	87.21	52	⇑P	P	03 41 28.2	+0.5
	baz=87						
B08A	Colville Reser	87.26	39	⇑P	P	03 41 27.2	-0.5
	baz=87						
OD2	Odessa Site #2	87.26	40	*e*P	P	03 41 27.2	-0.4
L11A	Cat Creek Ranc	87.27	46	⇓P	P	03 41 28.0	+0.2
	baz=87						
E09A	Wood Farm, Sta	87.28	41	⇑P	P	03 41 27.6	-0.2
	baz=87						
K11A	Parker Ranch,	87.29	45	⇑P	P	03 41 28.1	+0.2
	baz=87						
N12A	Clover Valley,	87.31	47	⇓P	P	03 41 28.6	+0.5
	baz=87						
O12A	Currie	87.32	48	⇓P	P	03 41 28.3	+0.2
	baz=87						
X15A	Humboldt	87.33	54	⇓P	P	03 41 28.5	+0.2
	baz=87						
D09A	Jones Farm, Ri	87.38	40	⇑P	P	03 41 28.4	+0.1
	baz=88						
Q13A	Wheeler Ranch,	87.41	49	⇑P	P	03 41 28.9	+0.3
	baz=88						
H10A	Noah’s Angus R	87.46	43	⇓P	P	03 41 28.5	-0.2
	baz=88						
T14A	Hurricane	87.49	51	⇑P	P	03 41 29.3	+0.3
	baz=88						
W15A	Williams	87.52	53	⇓P	P	03 41 30.0	+0.8
	baz=88						
LSA	Lhasa	87.53	301	*e*P	P	03 41 30.9	+1.5
LSA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
LSA	Lhasa	87.53	301	*e*P	P	03 41 30.9	+1.6
	comp=Z,5.0nm,0.6s,mb4.3						
P13A	Bates Ranch, G	87.58	49	⇓P	P	03 41 29.6	+0.3
	baz=88						
Z16A	Peralta Trail,	87.61	55	⇓P	P	03 41 29.8	+0.1
	baz=88						
217A	Green Valley	87.64	57	⇓P	P	03 41 29.9	0.0
	baz=88						
S14A	Cedar City	87.65	50	⇑P	P	03 41 29.9	+0.1
	baz=88						
MFID	Camas Ranch	87.66	44	⇑P	P	03 41 29.5	-0.1
	baz=88						
F10A	Beach Ranch, E	87.66	42	⇓P	P	03 41 29.3	-0.2
	baz=88						
C09A	Chrisman Ranch	87.69	40	⇓P	P	03 41 29.5	-0.2
	baz=88						
Y16A	Circle Bar Ran	87.74	55	⇑P	P	03 41 30.6	+0.3
	baz=88						
I11A	Placerville	87.75	44	⇑P	P	03 41 30.0	-0.1
	baz=88						
L12A	House Creek Ra	87.77	46	⇓P	P	03 41 30.8	+0.6
	baz=88						
V15A	Kaibab Nationa	87.79	53	⇑P	P	03 41 31.0	+0.5
	baz=88						
O13A	Hicks Ranch, I	87.83	48	⇓P	P	03 41 31.1	+0.6
	baz=88						
N13A	Wendover, West	87.91	47	⇑P	P	03 41 31.4	+0.5
	baz=88						
E10A	Myers Farm, Un	87.93	41	⇓P	P	03 41 30.3	-0.5
	baz=88						
X16A	Lo Mia Camp, P	87.93	54	⇑P	P	03 41 31.7	+0.6
	baz=88						
A09A	Danville	87.96	39	⇑P	P	03 41 30.8	-0.1
	baz=88						
Q14A	Sevier Lake (B	87.96	49	⇓P	P	03 41 31.6	+0.5
	baz=88						
H11A	Donnelly	87.99	43	⇓P	P	03 41 31.0	-0.1
	baz=88						
T15A	Red Dirt Ranch	88.00	51	⇓P	P	03 41 31.8	+0.3
	baz=88						
B09A	Rice	88.01	39	⇑P	P	03 41 31.0	-0.2
	baz=88						
K12A	Draper Farm, C	88.02	45	⇓P	P	03 41 31.5	+0.1
	baz=88						
D10A	Wagner Farm, O	88.03	41	⇑P	P	03 41 31.1	-0.2
	baz=88						
W16A	Flagstaff	88.06	53	⇑P	P	03 41 32.4	+0.7
	baz=88						
J12A	Stokes Ranch,	88.10	45	⇓P	P	03 41 32.1	+0.4
	baz=88						
M13A	Montello	88.10	47	⇓P	P	03 41 32.2	+0.5
	baz=88						
Y17A	Roosevelt	88.19	55	⇓P	P	03 41 32.7	+0.4
	baz=88						
318A	Bisbee	88.22	57	⇓P	P	03 41 32.9	+0.4
	baz=88						
C10A	Spilker Farm,	88.30	40	⇓P	P	03 41 32.4	-0.1
	baz=88						
P14A	Drum Mountains	88.31	49	⇓P	P	03 41 32.9	+0.1
	baz=88						
WUAZ	Wupatki	88.32	53	⇓P	P	03 41 33.3	+0.4
	baz=88						
218A	Dragoon	88.32	57	⇓P	P	03 41 33.3	+0.3
	baz=88						
Z17A	San Carlos Hig	88.36	55	⇓P	P	03 41 33.6	+0.4
	baz=88						
X17A	Forest Lakes	88.41	54	⇑P	P	03 41 34.1	+0.7
	baz=88						
E11A	Bogner Ranch,	88.46	42	⇑P	P	03 41 32.3	-1.0
	baz=89						
B10A	Chitwood Farm,	88.53	40	⇓P	P	03 41 33.2	-0.3
	baz=89						
118A	Homack Ranch,	88.58	56	⇓P	P	03 41 34.6	+0.4
	baz=89						
NEW	Newport	88.58	40	*e*P	P	03 41 33.1	-0.7
NEW				pmax	pmax		
	comp=Z,15nm,1.0s						
NEW	Newport	88.58	40	*e*P	P	03 41 33.1	-0.7
	comp=Z,15nm,1.0s,mb4.7						
A10A	Northport	88.58	39	⇑P	P	03 41 33.9	+0.1
	baz=89						
K13A	Stover Farm, H	88.59	46	⇓P	P	03 41 34.3	+0.3
	baz=89						
D11A	Klaveano Farm,	88.63	41	⇓P	P	03 41 33.5	-0.5
	baz=89						
Q15A	Fillmore	88.63	49	⇓P	P	03 41 34.5	+0.2
	baz=89						
N14A	Grayback Hills	88.63	48	⇓P	P	03 41 34.5	+0.2
	baz=89						
Z18A	Geronimo	88.65	56	⇑P	P	03 41 35.1	+0.6
	baz=89						
HLID	Hailey	88.67	45	⇓P	P	03 41 34.5	+0.1
	baz=89						
U16A	Tuba City	88.69	52	⇓P	P	03 41 35.2	+0.5
	baz=89						
W17A	Winslow	88.70	54	⇑P	P	03 41 34.9	+0.2
	baz=89						
H12A	Diamond D Ranc	88.71	44	⇑P	P	03 41 34.4	-0.1
	baz=89						
M14A	Sheep Mountain	88.73	47	⇑P	P	03 41 34.9	+0.2
	baz=89						
319A	Douglas	88.78	57	⇑P	P	03 41 35.3	+0.2
	baz=89						
J13A	Cove Ranch, Pi	88.78	45	⇓P	P	03 41 35.3	+0.4
	baz=89						
S16A	Weppner Ranch,	88.82	51	⇑P	P	03 41 35.1	0.0
	baz=89						
P15A	Leamington	88.88	49	⇓P	P	03 41 35.4	-0.1
	baz=89						
O15A	The Old Anders	88.97	48	⇓P	P	03 41 36.1	+0.3
	baz=89						
L14A	Malta	88.98	46	⇑P	P	03 41 36.2	+0.4
	baz=89						
I13A	Wildhorse Cree	89.00	44	⇑P	P	03 41 36.1	+0.3
	baz=89						
R16A	Teasdale	89.08	50	⇓P	P	03 41 37.0	+0.7
	baz=89						
H13A	Challis	89.12	44	⇓P	P	03 41 36.6	+0.1
	baz=89						
N15A	Stansbury Isla	89.12	48	⇑P	P	03 41 36.7	+0.2
	baz=89						
X18A	Snowflake	89.14	54	⇓P	P	03 41 37.1	+0.3
	baz=89						
119A	Ashpeak Ranch,	89.15	56	⇓P	P	03 41 37.1	+0.2
	baz=89						
U17A	Shonto	89.19	52	⇓P	P	03 41 37.4	+0.5
	baz=89						
K14A	Jones Ranch, D	89.19	46	⇑P	P	03 41 37.1	+0.3

	baz=89						
T17A	**Navajo Res., N**	**89.20**	**52**	⇑P	**P**	**03 41 37.5**	**+0.5**
	baz=89						
A11A	**Hall Mountain,**	**89.31**	**39**	⇑P	**P**	**03 41 37.6**	**+0.4**
	baz=89						
G13A	**Cobalt**	**89.31**	**43**	⇓P	**P**	**03 41 37.1**	**-0.2**
	baz=89						
Z19A	**T-Link Ranch,**	**89.33**	**56**	⇓P	**P**	**03 41 38.4**	**+0.8**
	baz=89						
TIXI	**Tiksi**	**89.34**	**348**	*e*P	**P**	**03 41 35.7**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
M15A	**Larsen Ranch,**	**89.36**	**47**	⇑P	**P**	**03 41 38.0**	**+0.4**
	baz=90						
S17A	**Black Ridge (B**	**89.39**	**51**	⇑P	**P**	**03 41 37.7**	**-0.1**
	baz=90						
C12B	**Naegeli Ranch,**	**89.41**	**40**	⇓P	**P**	**03 41 37.5**	**-0.1**
	baz=90						
I14A	**Mackay**	**89.45**	**45**	⇑P	**P**	**03 41 38.3**	**+0.4**
	baz=90						
W18A	**Petrified Fore**	**89.48**	**54**	⇑P	**P**	**03 41 38.4**	**+0.1**
	baz=90						
F13A	**Darby**	**89.48**	**43**	⇑P	**P**	**03 41 37.7**	**-0.4**
	baz=90						
V18A	**Ganado**	**89.50**	**53**	⇓P	**P**	**03 41 38.6**	**+0.3**
	baz=90						
L15A	**Malad City**	**89.57**	**47**	⇑P	**P**	**03 41 38.5**	**-0.1**
	baz=90						
A12A	**Yaak River Ran**	**89.73**	**39**	⇑P	**P**	**03 41 39.4**	**+0.3**
	baz=90						
U18A	**Rough Rock, Ch**	**89.75**	**53**	⇑P	**P**	**03 41 39.7**	**+0.1**
	baz=90						
TAPN	**Taplejung**	**89.79**	**298**	*e*P	**P**	**03 41 38.7**	**-1.2**
	comp=Z,17nm,0.8s,mb4.9						
N16A	**Rees Ranch, Co**	**89.90**	**48**	⇓P	**P**	**03 41 40.5**	**+0.4**
	baz=90						
ODAN	**Odare**	**89.94**	**298**	*e*P	**P**	**03 41 39.8**	**-0.8**
	comp=Z,43nm,0.8s,mb5.3						
T18A	**Mexican Hat**	**89.95**	**52**	⇑P	**P**	**03 41 40.8**	**+0.4**
	baz=90						
J15A	**Blackfoot**	**89.98**	**45**	⇑P	**P**	**03 41 40.9**	**+0.5**
	baz=90						
S18A	**Hurst Farm, Bl**	**90.02**	**51**	⇑P	**P**	**03 41 40.8**	**0.0**
	baz=90						
F14A	**Wisdom**	**90.13**	**43**	⇑P	**P**	**03 41 40.8**	**-0.2**
	baz=90						
I15A	**Monteview**	**90.14**	**45**	⇑P	**P**	**03 41 41.5**	**+0.4**
	baz=90						
O17A	**Robinson Place**	**90.20**	**49**	⇓P	**P**	**03 41 41.7**	**+0.2**
	baz=90						
H15A	**Lima**	**90.22**	**44**	⇓P	**P**	**03 41 41.7**	**+0.2**
	baz=90						
E14A	**Clinton**	**90.24**	**42**	⇓P	**P**	**03 41 41.0**	**-0.5**
	baz=90						
L16A	**Fish Haven**	**90.25**	**47**	⇓P	**P**	**03 41 41.4**	**-0.3**
	baz=90						
B13A	**Whitefish**	**90.28**	**40**	⇑P	**P**	**03 41 41.8**	**+0.2**
	baz=90						
R18A	**Canyonlands Na**	**90.30**	**51**	⇑P	**P**	**03 41 42.1**	**+0.1**
	baz=90						
N17A	**Moffit Pass**	**90.36**	**48**	⇑P	**P**	**03 41 42.2**	**-0.1**
	baz=90						
W20A	**Ramah**	**90.45**	**54**	⇑P	**P**	**03 41 43.1**	**+0.2**
	baz=90						
D14A	**Greenough**	**90.45**	**42**	⇓P	**P**	**03 41 41.9**	**-0.7**
	baz=91						
G15A	**Dillon**	**90.50**	**44**	⇑P	**P**	**03 41 42.7**	**-0.1**
	baz=91						
M17A	**Scullys Gap (B**	**90.64**	**48**	⇑P	**P**	**03 41 42.9**	**-0.6**
	baz=91						
RAMN	**Ramite**	**90.64**	**297**	*e*P	**P**	**03 41 43.2**	**-0.7**
F15A	**Butte**	**90.72**	**43**	⇓P	**P**	**03 41 43.5**	**-0.2**
	baz=91						
RRI2	**Red Ridge**	**90.74**	**46**	*e*P	**P**	**03 41 43.9**	**0.0**
	comp=Z,3.7nm,0.6s,mb4.4						
R19A	**Curley Farm, L**	**90.75**	**51**	⇓P	**P**	**03 41 44.0**	**-0.1**
	baz=91						
E15A	**Deer Lodge**	**90.80**	**42**	⇑P	**P**	**03 41 43.8**	**-0.3**
	baz=91						
G16A	**Moss Hill, Enn**	**90.98**	**44**	⇓P	**P**	**03 41 44.7**	**-0.3**
	baz=91						
M18A	**Lyman**	**91.05**	**48**	⇓P	**P**	**03 41 45.8**	**+0.4**
	baz=91						
D15A	**Lincoln**	**91.08**	**42**	⇑P	**P**	**03 41 45.0**	**-0.4**
	baz=91						
A14A	**Double T Ranch**	**91.13**	**40**	⇑P	**P**	**03 41 45.8**	**+0.2**
	baz=91						
J17A	**Brown Place, J**	**91.17**	**46**	⇓P	**P**	**03 41 45.8**	**-0.1**
	baz=91						
JIRN	**Jiri**	**91.17**	**298**	*e*P	**P**	**03 41 46.3**	**0.0**
H16A	**Russell Place,**	**91.20**	**44**	⇓P	**P**	**03 41 46.4**	**+0.4**
	baz=91						
BOZ	**Bozeman (W)**	**91.23**	**43**	⇓P	**P**	**03 41 45.9**	**-0.3**
	baz=91						
C15A	**Salmond Ranch,**	**91.26**	**41**	⇑P	**P**	**03 41 45.9**	**-0.3**
	baz=91						
O19A	**Miners Draw (B**	**91.42**	**49**	⇓P	**P**	**03 41 47.0**	**-0.1**
	baz=92						
K18A	**Toltan Ranch,**	**91.42**	**47**	⇓P	**P**	**03 41 47.1**	**0.0**
	baz=92						
I17A	**Pilgrim Ck.**	**91.42**	**45**	⇓P	**P**	**03 41 47.6**	**+0.5**
	baz=92						
E16A	**East Helena**	**91.47**	**42**	⇓P	**P**	**03 41 47.1**	**-0.2**
	baz=92						
GUN	**Gumba**	**91.50**	**298**	*e*P	**P**	**03 41 47.9**	**+0.1**
H17A	**Grant Village**	**91.56**	**45**	⇓P	**P**	**03 41 48.6**	**+0.9**
	baz=92						
J18A	**Kendall Valley**	**91.60**	**46**	⇓P	**P**	**03 41 47.8**	**-0.1**
	baz=92						
D16A	**Dana Ranch, Ca**	**91.71**	**42**	⇓P	**P**	**03 41 48.3**	**0.0**
	baz=92						
G17A	**Pierce Place,**	**91.73**	**44**	⇑P	**P**	**03 41 48.7**	**+0.3**
	baz=92						
M19A	**Rock Springs**	**91.73**	**48**	⇑P	**P**	**03 41 48.4**	**-0.2**
	baz=92						
P20A	**De Beque**	**91.74**	**50**	⇑P	**P**	**03 41 48.6**	**-0.1**
	baz=92						
L19A	**Farson**	**91.75**	**47**	⇓P	**P**	**03 41 48.2**	**-0.5**
	baz=92						
BW06	**Boulder Array**	**91.80**	**47**	⇓P	**P**	**03 41 47.9**	**-0.9**
	baz=92						
PDAR	**Pinedale Array**	**91.80**	**47**	P	**P**	**03 41 47.6**	**-1.2**
	comp=Z,1.5nm,0.6s,mb4.1,baz=229,slow=2.8,SNR=10						
C16A	**Fuhringer Ranc**	**91.82**	**41**	⇓P	**P**	**03 41 48.2**	**-0.6**
	baz=92						
PKI	**Pulchoki**	**91.83**	**298**	*e*P	**P**	**03 41 49.0**	**-0.3**
F17A	**Fitzpatrick Pl**	**91.95**	**43**	⇓P	**P**	**03 41 49.3**	**-0.2**
	baz=92						
E17A	**Martinsdale**	**91.99**	**43**	⇑P	**P**	**03 41 49.4**	**-0.2**
	baz=92						
KKN	**Kakani**	**91.99**	**298**	*e*P	**P**	**03 41 49.6**	**-0.5**
	comp=Z,19nm,0.7s,mb5.1						
DMN	**Daman**	**92.09**	**298**	*e*P	**P**	**03 41 50.5**	**-0.1**
	comp=Z,26nm,0.8s,mb5.2						
D17A	**Six Diamond Ra**	**92.31**	**42**	⇓P	**P**	**03 41 51.0**	**0.0**
	baz=92						
K19A	**Absolon Red Bu**	**92.32**	**47**	⇓P	**P**	**03 41 50.5**	**-0.7**
	baz=92						
C17A	**Wharram Farm,**	**92.40**	**42**	⇑P	**P**	**03 41 51.1**	**-0.3**
	baz=92						
L20A	**Wamsutter**	**92.46**	**47**	⇓P	**P**	**03 41 51.6**	**-0.2**
	baz=93						
G18A	**Lazy EL Ranch,**	**92.52**	**44**	⇑P	**P**	**03 41 51.9**	**-0.2**
	baz=93						
B17A	**L&G Farms, Che**	**92.57**	**41**	⇑P	**P**	**03 41 51.7**	**-0.5**
	baz=93						
F18A	**Big Timber**	**92.58**	**43**	⇓P	**P**	**03 41 52.1**	**-0.3**
	baz=93						
GKN	**Gorkha**	**92.59**	**298**	*e*P	**P**	**03 41 52.1**	**-0.7**
RLMT	**Red Lodge**	**92.67**	**44**	⇑P	**P**	**03 41 52.8**	**+0.1**
	baz=93						
N21A	**Black Mountain**	**92.72**	**49**	⇓P	**P**	**03 41 53.3**	**+0.3**
	baz=93						
A17A	**Triple J Farms**	**92.83**	**40**	⇑P	**P**	**03 41 53.8**	**+0.4**
	baz=93						
TXAR	**Lajitas Array**	**92.94**	**61**	P	**P**	**03 41 53.7**	**-0.7**
	comp=Z,1.7nm,0.6s,mb4.3,baz=224,slow=5.1,SNR=36						
TXAR	**Lajitas Array**	**92.94**	**61**	P	**P**	**03 41 53.7**	**-0.7**
A18A	**Metzger Ranch,**	**93.36**	**41**	⇑P	**P**	**03 41 55.9**	**+0.1**
	baz=94						
DANN	**Dangsing**	**93.43**	**298**	*e*P	**P**	**03 41 55.7**	**-0.9**
	comp=Z,23nm,0.8s,mb5.2						
KOLN	**Koldanda**	**93.43**	**298**	*e*P	**P**	**03 41 55.7**	**-1.0**
N22A	**Wattenberg Ran**	**93.51**	**49**	⇑P	**P**	**03 41 56.7**	**0.0**
	baz=94						
PYUN	**Piuthan**	**94.03**	**298**	*e*P	**P**	**03 41 58.1**	**-1.3**
	comp=Z,29nm,1.1s,mb5.2						
WMQ	**Urumqi**	**94.05**	**314**	P	**P**	**03 41 59.5**	**+0.4**
WMQ				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
WMQ				pmax	pmax		
	comp=Z,320nm,6.0s						
YKA	**Yellowknife Ar**	**94.99**	**27**	P	**P**	**03 42 01.5**	**-1.4**
	comp=Z,8.9nm,0.8s,mb5.0,baz=256,slow=4.7,SNR=111						
ZALV	**Zalesovo Beam**	**98.19**	**323**	P	Pdif	03 42 16.8	-0.8
	comp=Z,5.8nm,0.9s,baz=90,slow=4.4,SNR=5.2						
ZALV	**Zalesovo Beam**	**98.19**	**323**	P	Pdif	03 42 16.8	-0.8
MKAR	**Makanchi Array**	**98.42**	**316**	P	Pdif	03 42 18.9	+0.3
	comp=Z,5.8nm,0.8s,baz=94,slow=6.5,SNR=5.0						
MKAR				PKiKP	PKiKP	03 46 44.8	-1.7
	comp=Z,0.4nm,0.7s,baz=100,slow=0.3,SNR=6.2						
MKAR	**Makanchi Array**	**98.42**	**316**	P	Pdif	03 42 18.9	+0.3
BVAR	**Borovoye Array**	**106.67**	**322**	PKiKP	PKiKP	03 46 59.9	-1.4
	comp=Z,1.0nm,0.6s,baz=95,slow=1.8,SNR=4.7						
AKTK	**Aktyubinsk**	**114.52**	**319**	PKPdf	PKPdf	03 47 15.1	-1.2
AKTO	**Aktyubinsk**	**114.52**	**319**	PKiKP	PKiKP	03 47 15.1	-1.2
	comp=Z,3.1nm,0.7s,baz=88,slow=3.8,SNR=7.9						
FRB	**Frobisher Bay**	**115.44**	**25**	PKP	PKPdf	03 47 15.7	-2.0
	comp=Z,1.5nm,0.3s,baz=299,slow=2.6,SNR=13						
CPUP	**Villa Florida**	**119.00**	**131**	PKP	PKPdf	03 47 23.1	-2.7
	comp=Z,1.4nm,0.6s,baz=339,slow=1.1,SNR=4.3						
KEV	**Kevo**	**119.24**	**346**	*e*p	PKPdf	03 47 22.4	-2.4
	comp=Z,3.2nm,0.5s						
SCHQ	**Schefferville**	**119.50**	**34**	PKP	PKPdf	03 47 23.9	-1.8
	comp=Z,2.1nm,0.5s,baz=49,slow=19,SNR=10						
ARCES	**ARCESS Array B**	**119.75**	**347**	PKP	PKPdf	03 47 24.6	-1.3
	comp=Z,8.8nm,0.5s,baz=71,slow=2.4,SNR=123						
JOF	**Joensuu**	**122.83**	**339**	*e*PKIKP	PKPdf	03 47 28.6	-3.3
JOF				pmax	pmax		
	comp=Z,12nm,0.6s						
JOF	**Joensuu**	**122.83**	**339**	*e*p	PKPdf	03 47 28.6	-3.3
	comp=Z,12nm,0.6s						
KAF	**Kangasniemi**	**125.07**	**340**	*e*PKIKP	PKPdf	03 47 34.0	-2.2
KAF				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KAF	**Kangasniemi**	**125.07**	**340**	*e*p	PKPdf	03 47 34.0	-2.2
	comp=Z,4.8nm,0.5s						
OBN	**Obninsk**	**125.21**	**330**	⇑*i*PKIKP	PKPdf	03 47 35.8	-0.9
OBN				pmax	pmax		
	comp=Z,12nm,0.7s						
VSR	**Storozhevoye**	**125.69**	**324**	*i* PKIKP	PKPdf	03 47 37.1	-0.6
GNI	**Garni**	**125.71**	**310**	PKP	PKPdf	03 47 38.1	0.0
	comp=Z,1.9nm,0.4s,baz=41,slow=7.5,SNR=5.3						
GNI	**Garni**	**125.71**	**310**	*e*PKPdf	PKPdf	03 47 38.7	+0.5
NB2	**NORSAR Subarra**	**130.13**	**347**	PKPdf	PKPdf	03 47 44.5	-1.4
	comp=Z,2.1nm,0.7s,baz=31,slow=1.9						
NOA	**NORSAR Array B**	**130.13**	**347**	PKP	PKPdf	03 47 44.6	-1.3
	comp=Z,2.7nm,0.6s,baz=30,slow=2.1,SNR=7.7						
NOA				SKPbc	SKPbc	03 50 11.1	+0.2
	comp=Z,3.7nm,0.8s,baz=31,slow=2.7,SNR=4.9						
HFS	**Hagfors**	**130.34**	**345**	PKP	PKPdf	03 47 45.5	-0.8
	comp=Z,3.3nm,0.7s,baz=129,slow=4.0,SNR=5.6						
HFS				SKPbc	SKPbc	03 50 12.3	+0.5
	comp=Z,1.9nm,0.6s,baz=103,slow=6.7,SNR=4.5						
MALT	**Malatya**	**130.92**	**309**	⇓*i*P	PKPdf	03 47 46.7	-1.4
MALT	**Malatya**	**130.92**	**309**	*e*PKPdf	PKPdf	03 47 48.2	+0.1
AKASG	**Malin Array Be**	**131.35**	**328**	PKP	PKPdf	03 47 47.9	-0.6
	comp=Z,4.3nm,0.8s,baz=68,slow=2.2,SNR=8.7						
KMBO	**Kilima Mbogo**	**131.42**	**256**	PKP	PKPdf	03 47 51.2	+1.4
	comp=Z,2.8nm,0.9s,baz=0.0,slow=3.0,SNR=4.0						
ASF	**Jabal al Asfar**	**133.71**	**302**	PKP	PKPdf	03 47 54.9	+1.3
	comp=Z,1.7nm,0.6s,baz=189,slow=5.9,SNR=3.7						
BRTR	**Keskin Array B**	**133.96**	**313**	PKP	PKPdf	03 47 53.0	-0.8
	comp=Z,2.1nm,0.7s,baz=157,slow=5.4,SNR=8.6						
MMAI	**Mount Meron Ar**	**134.74**	**303**	PKP	PKPdf	03 47 56.4	+0.9
	comp=Z,1.3nm,0.5s,baz=86,slow=8.8,SNR=3.6						
BUR08	**Bucovina Ar. S**	**135.30**	**327**	*e*PKPdf	PKPdf	03 47 57.4	+1.4
BURAR	**Bucovina Array**	**135.31**	**327**	⇓*i*P	PKPdf	03 47 57.0	+1.0
KOLS	**Kolonicke sedl**	**135.96**	**330**	*e*PKP	PKPdf	03 47 57.2	0.0
MLR	**Muntele Rosu**	**136.17**	**324**	⇓*i*P		03 47 48.9	
CRVS	**Cervenica-Dubn**	**136.37**	**330**	*e*PKP	PKPdf	03 47 58.0	+0.1
VOIR		**136.71**	**324**	⇓*i*P	PKPdf	03 47 59.8	+1.1
ISP	**Isparta**	**136.95**	**312**	*i* PKIKP	PKPdf	03 47 59.6	+0.2
KSP	**Ksiaz**	**137.20**	**336**	*e*PKIKP	PKPdf	03 48 01.2	+1.8
DPC	**Dobruska-Polom**	**137.58**	**336**	*e*PKPDF	PKPdf	03 47 59.8	-0.3
DPC				*e*x	x	03 48 02.3	
UPC	**Upice**	**137.58**	**336**	*e*PKPDF	PKPdf	03 47 59.9	-0.2
UPC				*e*x	x	03 48 01.8	
VYHS	**Vyhne**	**137.89**	**332**	*e*PKP	PKPdf	03 48 02.1	+1.3
EKA	**Eskdalemuir Ar**	**137.90**	**355**	PKhKP		03 47 52.0	
	comp=Z,3.2nm,1.0s,baz=40,slow=1.4,SNR=3.7						
EKA				PKP	PKPdf	03 47 59.8	-0.8
	comp=Z,2.0nm,0.8s,baz=354,slow=2.1,SNR=6.9						
GZR	**Gura Zlata**	**138.01**	**326**	⇑*i*P	PKPdf	03 48 02.0	+0.9
CLL	**Collm**	**138.06**	**339**	⇑*i*PKIKP	PKPdf	03 48 02.4	+1.4
CLL				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CLL	**Collm**	**138.06**	**339**	⇑*i*PKPdf	PKPdf	03 48 02.4	+1.4
	comp=Z,9.0nm,0.8s						
BRG	**Berggiesshubel**	**138.08**	**338**	*e*PKIKP	PKPdf	03 48 02.7	+1.7
BRG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRG	**Berggiesshubel**	**138.08**	**338**	*e*PKP	PKPdf	03 48 02.7	+1.7
	comp=Z,2.8nm,0.6s						
PVCC	**Panska Ves**	**138.12**	**337**	*e*PKPDF	PKPdf	03 48 00.8	-0.3
PVCC				*e*x	x	03 48 03.3	
BZS	**Buzias**	**138.49**	**327**	⇓*i*P	PKPdf	03 48 00.6	-1.4
PRU	**Pruhonice**	**138.56**	**337**	*e*PKPDF	PKPdf	03 48 01.3	-0.6
PRU				*e*x	x	03 48 03.8	
MODS	**Modra-Piesok**	**138.68**	**333**	*e*PKP	PKPdf	03 48 01.5	-0.7
TREC	**Trest**	**138.74**	**335**	*e*PKPDF	PKPdf	03 48 01.9	-0.4
TREC				*e*x	x	03 48 04.2	
ZST	**Bratislava**	**138.89**	**333**	*e*PKP	PKPdf	03 48 02.3	-0.3
PKSM	**Moragy**	**139.61**	**330**	⇓*i*P	PKPdf	03 48 02.3	-1.7
KHC	**Kasperske Hory**	**139.63**	**337**	*e*PKPDF	PKPdf	03 48 03.4	-0.5
KHC				*e*x	x	03 48 06.0	
GERES	**GERESS Array B**	**139.81**	**336**	PKhKP		03 47 56.8	
	comp=Z,1.2nm,0.6s,baz=38,slow=4.6,SNR=9.1						
GERES				PKP	PKPdf	03 48 02.8	-1.4
	comp=Z,2.6nm,0.6s,baz=50,slow=1.2,SNR=11						
GERES				SKPbc	SKPbc	03 50 42.1	+0.7
	comp=Z,0.8nm,0.7s,baz=11,slow=2.7,SNR=5.2						
PERS	**Pernice**	**140.95**	**333**	*i* P	PKPdf	03 48 00.2	-6.2
KBA	**Koelnbreinsper**	**141.37**	**335**	⇓*i*PKPdf	PKPdf	03 48 03.5	-3.6
	comp=Z,11nm,1.4s						
GIVF	**Givet**	**141.59**	**345**	*e*PKP1	PKPdf	03 48 04.0	-3.4
LJU	**Ljubljana**	**141.67**	**333**	*i* P	PKPdf	03 48 03.7	-4.0
LJU				*i*		03 48 10.1	
BOJS	**Bojanci**	**141.75**	**332**	*i* P	PKPdf	03 48 03.8	-4.0
BAIF	**Baives**	**141.78**	**346**	*e*PKP1	PKPdf	03 48 04.6	-3.1
JAVS	**Javornik**	**141.99**	**333**	*i* P	PKPdf	03 48 04.1	-4.2
MOTA	**Moosalm**	**142.04**	**337**	⇓*i*PKPdf	PKPdf	03 48 04.9	-3.4
	comp=Z,6.8nm,0.6s,SNR=7.3						
IDI	**Anoyia**	**142.12**	**311**	PKhKP		03 48 04.9	
	comp=Z,13nm,0.6s,baz=134,slow=3.2,SNR=28						
BFO	**Black Forest**	**142.18**	**340**	*i* PKIKP	PKPdf	03 48 05.6	-2.9
BFO	**Black Forest**	**142.18**	**340**	*e*PKPdf	PKPdf	03 48 05.4	-3.1
CDF	**Champ du Feu**	**142.44**	**342**	*e*PKP1	PKPdf	03 48 05.9	-3.0
	comp=Z,45nm,0.7s						
FETA	**Feichten**	**142.45**	**337**	⇓*i*PKPdf	PKPdf	03 48 06.2	-2.8
	comp=Z,11nm,0.6s,SNR=15						
DAVA	**Damuels**	**142.54**	**338**	⇑*i*PKPdf	PKPdf	03 48 06.5	-2.6
	comp=Z,32nm,1.0s,SNR=16						
ECH	**Echery**	**142.65**	**342**	PKP	PKPdf	03 48 06.1	-3.2
ECH	**Echery**	**142.65**	**342**	*e*PKPdf	PKPdf	03 48 06.7	-2.6
DAVOX	**Davos/Dischmat**	**142.97**	**338**	PKP	PKPdf	03 48 08.3	-1.7
	comp=Z,22nm,0.6s,baz=15,slow=1.3,SNR=60						
MOF	**Molkenrain**	**142.98**	**341**	PKP	PKPdf	03 48 07.4	-2.5
MEZF	**Maizieres J'vi**	**143.00**	**344**	⇓*i*PKP1	PKPdf	03 48 08.0	-1.9
	comp=Z,35nm,0.5s						
HAU	**Haudompre**	**143.08**	**342**	⇓*i*PKP1	PKPdf	03 48 08.0	-2.1
	comp=Z,96nm,0.8s						
HINF	**Hinteralfeld**	**143.10**	**342**	⇓*i*PKP1	PKPdf	03 48 07.8	-2.3
	comp=Z,42nm,0.7s						
TUE	**Stuetta**	**143.43**	**338**	*e*PKPdf	PKPdf	03 48 09.7	-1.1
LOMF	**Lomont**	**143.52**	**341**	PKP	PKPdf	03 48 09.4	-1.5
FLN	**La Foliniere**	**143.99**	**350**	⇓*i*PKP1	PKPdf	03 48 10.8	-0.8
	comp=Z,105nm,0.7s						
LDF	**La Druitiere**	**144.09**	**349**	⇓*i*PKP1	PKPdf	03 48 11.0	-0.8
	comp=Z,81nm,0.8s						
CABF	**La Chapelle**	**144.41**	**341**	⇓*i*PKP1	PKPdf	03 48 12.9	+0.5
	comp=Z,92nm,0.6s						
GRR	**Gorron**	**144.41**	**350**	⇓*i*PKP1	PKPdf	03 48 12.3	-0.1
	comp=Z,73nm,0.6s						
LOR	**Lormes**	**144.45**	**344**	⇓*i*PKP1	PKPdf	03 48 12.6	+0.1
	comp=Z,79nm,0.8s						
OG01	**Vacheresse**	**144.47**	**341**	PKP	PKPdf	03 48 13.1	+0.5
SSF	**Saint Saulge**	**144.74**	**345**	⇓*i*PKP1	PKPdf	03 48 13.5	+0.5
	comp=Z,110nm,0.8s						
HYF	**Humbligny**	**144.76**	**346**	⇓*i*PKP1	PKPdf	03 48 13.9	+0.9
SGMF	**Saint Gilles**	**144.80**	**352**	⇓*i*PKP1	PKPdf	03 48 13.3	+0.2
	comp=Z,88nm,0.7s						
ROSF	**Rostrenen**	**144.81**	**353**	*e*PKP1	PKPdf	03 48 13.3	+0.2
	comp=Z,48nm,0.8s						
AVF	**Avril sur Loir**	**145.03**	**344**	⇓*i*PKP1	PKPbc	03 48 13.8	-0.7
	comp=Z,54nm,0.8s						
SMF	**Signal de Mont**	**145.03**	**344**	⇓*i*PKP1	PKPbc	03 48 14.1	-0.4
	comp=Z,44nm,0.6s						
OG05	**Jujurieux**	**145.11**	**342**	PKP	PKPbc	03 48 14.7	-0.1
LPL	**La Plagne**	**145.17**	**340**	⇓*i*PKP1	PKPbc	03 48 15.3	+0.3
	comp=Z,45nm,0.7s						
LPG	**La Plagne**	**145.18**	**340**	⇓*i*PKP1	PKPbc	03 48 15.5	+0.5
	comp=Z,69nm,0.8s						
QUIF	**Quistinic**	**145.21**	**352**	⇓*i*PKP1	PKPbc	03 48 14.2	-0.8
	comp=Z,40nm,0.7s						
BGF	**Bois d'Agland**	**145.37**	**345**	⇓*i*PKP1	PKPbc	03 48 15.3	-0.2
	comp=Z,70nm,0.7s						
TIP	**Timpagrande**	**145.41**	**323**	*e*PKPbc	PKPbc	03 48 15.9	0.0
CUC	**Castrocucco**	**145.41**	**325**	*e*PKPbc	PKPbc	03 48 14.2	-1.7
BNI	**Bardonecchia**	**145.60**	**339**	*e*PKP2	PKPbc	03 48 16.7	+0.5
PLDF	**La Plantade**	**145.71**	**344**	PKP	PKPbc	03 48 16.2	-0.3
AGO	**Saint Agoulin**	**145.77**	**344**	PKP	PKPbc	03 48 16.4	-0.3
TCF	**Toulx Ste Croi**	**145.78**	**345**	⇓*i*PKP1	PKPbc	03 48 16.4	-0.3
	comp=Z,54nm,0.8s						
MBDF	**Montbardon**	**145.85**	**339**	⇓*i*PKP1	PKPbc	03 48 16.6	-0.3
	comp=Z,57nm,0.7s						
ORIF	**Oris-en-Rattie**	**145.98**	**340**	⇓*i*PKP1	PKPbc	03 48 17.3	0.0
	comp=Z,83nm,0.8s						
MFF	**Saint Martin d**	**146.00**	**348**	⇓*i*PKP1	PKPbc	03 48 16.9	-0.4
	comp=Z,116nm,0.8s						
SSB	**Saint Sauveur**	**146.08**	**342**	*e*PKP2	PKPbc	03 48 17.6	+0.1
PYM	**Petit Puy Mans**	**146.08**	**344**	PKP	PKPbc	03 48 17.4	-0.1
SAOF	**Saorge**	**146.21**	**338**	PKP	PKPbc	03 48 17.6	-0.3
AUTN	**L'Aution**	**146.25**	**338**	PKP	PKPbc	03 48 17.6	-0.5
TOUF	**Mont Tournerai**	**146.30**	**338**	PKP	PKPbc	03 48 17.4	-0.8
SBF	**Sospel**	**146.36**	**338**	⇓*i*PKP1	PKPbc	03 48 17.6	-0.8
	comp=Z,124nm,0.9s						
LUCF	**Luceram**	**146.37**	**338**	PKP	PKPbc	03 48 18.5	+0.1
VIVF	**Saint-Julien-l**	**146.42**	**342**	⇓*i*PKP1	PKPbc	03 48 18.3	-0.2
	comp=Z,37nm,0.9s						
LBL	**Lubilhac**	**146.49**	**344**	PKP	PKPbc	03 48 18.8	+0.1
PGF	**Pioggiola**	**146.85**	**335**	⇓*i*PKP1	PKPbc	03 48 19.2	-0.5
	comp=Z,107nm,0.8s						
RJF	**Les Rejaudoux**	**146.87**	**346**	⇓*i*PKP1	PKPbc	03 48 19.4	-0.3
	comp=Z,57nm,0.8s						
FRF	**La Foret Royal**	**146.91**	**338**	⇓*i*PKP1	PKPbc	03 48 19.1	-0.7
	comp=Z,123nm,1.0s						
SMRF	**Simiane la Rot**	**146.92**	**340**	⇓*i*PKP1	PKPbc	03 48 19.9	+0.1
	comp=Z,41nm,0.8s						
CAF	**Calviac**	**147.09**	**345**	⇓*i*PKP1	PKPbc	03 48 20.1	-0.2
	comp=Z,45nm,1.0s						
LMR	**La Mourre**	**147.16**	**338**	⇓*i*PKP1	PKPbc	03 48 19.9	-0.6
	comp=Z,75nm,0.9s						
LASF	**Ste Croix**	**147.38**	**342**	⇓*i*PKP1	PKPbc	03 48 21.0	0.0
	comp=Z,61nm,0.9s						
LFF	**La Frestale**	**147.40**	**346**	⇓*i*PKP1	PKPbc	03 48 20.7	-0.4
	comp=Z,84nm,0.9s						
OSPF	**L'Ospedale**	**147.49**	**333**	PKP	PKPbc	03 48 20.9	-0.5
MTLF	**Montolieu**	**148.52**	**343**	⇓*i*PKP1	PKPbc	03 48 23.7	-0.2
	comp=Z,95nm,1.3s						
VSL	**Villasalto**	**149.14**	**331**	*e*PKPbc	PKPbc	03 48 25.1	-0.5
EPF	**Esparros**	**149.30**	**346**	⇓*i*PKP1	PKPbc	03 48 25.3	-0.5
	comp=Z,34nm,0.8s						
SJPF	**Ste Jean**	**149.57**	**348**	*e*PKP1	PKPbc	03 48 26.1	-0.3
	comp=Z,26nm,0.7s						
ETSF	**Etsaut**	**149.63**	**347**	⇓*i*PKP1	PKPbc	03 48 26.9	+0.3
	comp=Z,40nm,0.7s						
KEST	**Kesra**	**152.04**	**326**	PKPbc	PKPbc	03 48 32.1	-0.2
	comp=Z,4.4nm,0.7s,baz=298,slow=1.2,SNR=24						
ESDC	**Sonseca Array**	**153.40**	**350**	PKPbc	PKPbc	03 48 34.4	-0.7
	comp=Z,1.5nm,0.7s,baz=14,slow=3.6,SNR=6.4						
ESDC				PKPab	PKPab	03 48 50.8	+0.2
	comp=Z,2.8nm,0.5s,baz=4.7,slow=3.9,SNR=23						
EVO	**Evora**	**154.96**	**357**	⇑*i*PKP2	PKPab	03 48 56.7	-0.6
	comp=Z,19nm,0.8s						
MDT	**Midelt**	**160.19**	**348**	PKP	PKPdf	03 48 35.0	-0.6
	comp=Z,3.1nm,1.0s,baz=312,slow=6.0,SNR=4.4						
MDT				PKPab	PKPab	03 49 19.9	-0.2
	comp=Z,3.9nm,0.7s,baz=56,slow=4.0,SNR=17						
TOA0	**Torodi Ar. Sit**	**169.07**	**270**	*e*PKPdf	PKPdf	03 48 42.3	-1.3
TORD	**Torodi Ar. Bea**	**169.07**	**270**	PKP	PKPdf	03 48 42.2	-1.5
	comp=Z,3.2nm,1.0s,baz=12,slow=1.3,SNR=13						
TORD				PKPab	PKPab	03 49 59.9	-0.3
	comp=Z,2.8nm,0.8s,baz=86,slow=4.7,SNR=17						
DBIC	**Dimbokro**	**171.85**	**215**	PKP	PKPdf	03 48 43.4	-1.8
	comp=Z,4.8nm,1.2s,baz=190,slow=7.4,SNR=3.3						

IDC 04 03:30:19.9±2.3**,21°.02S**×**175°.15W,h0**^{km}**,mb4.2**/5**,**
mb1 4.4/5**,mb1mx4.1**/19**,mbtmp4.2**/5**,Error ellipse:**
s-maj=91.3km s-min=36.4km az=148.0,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**36.09**	**264**	P	P	03 37 24.5	+0.8
	2.3nm,0.5s,baz=82,slow=13,SNR=3.5						
ASAR	**Alice Springs**	**46.99**	**257**	P	P	03 38 53.6	+0.5
	1.6nm,0.5s,baz=95,slow=6.9,SNR=5.8						
WRA	**Warramunga Arr**	**47.16**	**262**	P	P	03 38 53.5	-1.0
	0.9nm,0.5s,baz=99,slow=7.0,SNR=4.7						
FITZ	**Fitzroy Crossi**	**55.59**	**262**	P	P	03 39 56.7	-1.0
	1.9nm,0.4s,baz=77,slow=5.0,SNR=3.8						
MJAR	**Matsushiro Arr**	**72.23**	**322**	P	P	03 41 47.0	0.0
	1.8nm,0.5s,baz=120,slow=5.9,SNR=5.3						
BVAR	**Borovoye Array**	**121.19**	**320**	PKP	PKPdf	03 49 14.5	0.0
	0.4nm,0.3s,baz=96,slow=4.3,SNR=4.1						
AKASG	**Malin Array Be**	**144.72**	**333**	PKP	PKPdf	03 49 57.1	-1.3
	1.2nm,0.4s,baz=43,slow=4.0,SNR=9.0						
BRTR	**Keskin Array B**	**149.14**	**314**	PKPbc	PKPbc	03 50 10.2	-0.2
	0.9nm,0.6s,baz=151,slow=4.8,SNR=4.4						
MMAI	**Mount Meron Ar**	**150.38**	**300**	PKPbc	PKPbc	03 50 13.9	+0.2
	0.8nm,0.4s,baz=64,slow=6.6,SNR=6.2						

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*MAN **04** 03:32:26, 18°.36N×122°.56E, h17^{km}, mb5.5, ML4.4, MS5.1*
MAN INTENSITY IV - CASAMBALANGAN STA ANA CAGAYAN.
*BJI **04** 03:32:27.9, 18°.11N×122°.48E, h19^{km}, mB5.1/33, mb4.6/43, Ms4.8/50, Ms7 4.6/41*
*ISCJB **04** 03:32:28.4±0.8, 18°.22N±0°.02×122°.55E±0°.03, h27^{km}±6^{km}, mb4.7/75, MS4.5/43, Error ellipse: s-maj=4.4km s-min=3.3km az=174.0*
*NEIC **04** 03:32:28.9±1.9, 18°.15N×122°.54E, h20^{km}±13^{km}, mb5.1/21, Error ellipse: s-maj=8.3km s-min=5.2km az=84.0*
NEIC Felt [IV PIVS] at Casambalangan and Santa Ana; [II PIVS] at Tuguegarao.
*GCMT **04** 03:32:28.9±0.2, 18°.27N×122°.44E, h19^{km}±1^{km}, MW5.1/80, Moment Tensor Solution. s43,c49; s80,c132; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.47±.15; $M_{\theta\theta}$3.36±.11; $M_{\phi\phi}$-4.83±.15; $M_{r\theta}$-2.06±.31; $M_{\theta\phi}$-1.47±.09; $M_{\phi r}$3.80±.40; Best double couple: $M_0$6.22200×10^{16} NP1:ϕ_s232.00000°,δ43.00000°,λ168.00000°. NP2: ϕ_s332.00000°,δ82.00000°,λ48.00000°. Principal axes: T 5.8070, Plg38.0000°, Azm204.0000°; N 0.8310, Plg42.0000°, Azm339.0000°; P -6.6380, Plg24.0000°, Azm93.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **04** 03:32:29.4±1.5, 18°.16N×122°.50E, h33^{km}, mb5.0/21, MS4.5/8 Error ellipse: s-maj=10.3km s-min=5.9km az=113.4*
*IDC **04** 03:32:29.2±3.8, 18°.18N×122°.55E, h24^{km}±25^{km}, mb4.3/26, mb1 4.5/29, mb1mx4.5/34, mbtmp4.4/29, ML4.7/3, MS4.4/28, Ms1 4.4/28, ms1mx4.3/43, Error ellipse: s-maj=16.7km s-min=10.3km az=76.0*
*DJA **04** 03:32:46, 18°.06N×122°.37E, h185^{km}, mb4.9/21*

ISC 04 03:32:29.4±0.8**,18°.20N**±0°.02×**122°.52E**±0°.03**,h20**^{km}±6^{km}**,**
h35^{km}±.8^{km}**:pP-P,n242,**σ**1**^{s}**.32**/252**,mb4.7**/75**,MS4.5**/43**,**
15C-11D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	**Mt. Cagua**	**0.45**	**276**	*e*P	**Pb**	**03 32 36.5**	**-2.1**
PALP	**Palanan**	**1.13**	**185**	*e*P	**Pn**	**03 32 50.2**	**+0.2**
APYP	**Conner**	**1.26**	**255**	*e*P	**Pn**	**03 32 50.5**	**-1.4**
APYP				*e*S	**Sn**	**03 33 07.3**	**-0.8**
ABRA	**Dolores**	**1.81**	**253**	*e*P	**Pn**	**03 32 59.0**	**-0.4**
ABRA				*e*S	**Sn**	**03 33 22.0**	**+0.4**
PIP	**Pasuquin**	**1.81**	**274**	⇓*i*P	**Pn**	**03 32 58.6**	**-0.8**
PIP				*i* S	**Sn**	**03 33 21.5**	**-0.3**
SIPP	**Brgy, Tapao**	**1.98**	**262**	⇑*i*P	**Pn**	**03 33 04.2**	**+2.5**
SIPP				*i* S	**Sn**	**03 33 27.9**	**+1.9**
BALP	**Baler**	**2.60**	**200**	*e*P	**Pn**	**03 33 12.2**	**+1.9**
BOLP	**Bolinao**	**3.08**	**234**	*e*P	**Pn**	**03 33 18.1**	**+1.3**
SCZP	**Santa Cruz**	**3.47**	**226**	*e*P	**Pn**	**03 33 23.8**	**+1.6**

POLP	**Polilio Island**	**3.49**	**189**	*e*P	**Pn**	**03 33 23.4**	**+0.8**
TGY	**Tagaytay City**	**4.35**	**201**	Pn	**Pn**	**03 33 35.8**	**+1.5**
	148nm,0.3s,baz=96,slow=6.5,SNR=17						
TWG	**Pinlang**	**4.80**	**344**	*e*Pn	**Pn**	**03 33 39.7**	**-0.8**
TWG				*e*Sn	**Sn**	**03 34 34.4**	**-1.1**
PVCP	**Virac**	**4.84**	**161**	*e*P	**Pn**	**03 33 42.1**	**+1.1**
AUQP	**San Andres**	**4.85**	**178**	*e*P	**Pn**	**03 33 43.9**	**+2.7**
LUBP	**Lubang**	**4.95**	**207**	*e*P	**Pn**	**03 33 46.9**	**+4.3**
YULB	**Yu-li**	**5.29**	**348**	*e*Pn	**Pn**	**03 33 46.1**	**-1.2**
	183nm,0.8s						
TPUB	**Ta-pu**	**5.38**	**341**	*e*Pn	**Pn**	**03 33 49.4**	**+1.0**
TPUB				*e*Sn	**Sn**	**03 34 52.5**	**+2.8**
SSLB	**Suanglung**	**5.75**	**346**	*e*Pn	**Pn**	**03 33 54.3**	**+0.7**
SSLB				*e*Sn	**Sn**	**03 34 58.0**	**-1.0**
OTRP	**Odiongan**	**5.82**	**185**	*e*P	**Pn**	**03 33 55.1**	**+0.6**
SJMP	**San Jose**	**5.86**	**194**	*e*P	**Pn**	**03 33 58.5**	**+3.4**
NACB	**Ninganchiao**	**6.01**	**352**	*e*Pn	**Pn**	**03 33 55.6**	**-1.6**
NACB				*e*Sn	**Sn**	**03 34 58.5**	**-6.9**
CNP	**Catarman**	**6.02**	**160**	*e*P	**Pn**	**03 33 58.2**	**+0.9**
YHNB	**Yeheng**	**6.53**	**351**	*e*Pn	**Pn**	**03 34 04.1**	**-0.2**
	142nm,0.6s						
RCP	**Roxas**	**6.60**	**178**	⇑*e*P	**Pn**	**03 34 06.2**	**+0.9**
TATO	**Taipei**	**6.81**	**352**	*e*Pn	**Pn**	**03 34 11.6**	**+3.4**
TATO				*e*Sn	**Sn**	**03 35 25.2**	**0.0**
QZH	**Quanzhou**	**7.64**	**332**	Pn	**Pn**	**03 34 19.1**	**-0.5**
QZH				Sn	**Sn**	**03 35 42.5**	**-3.1**
QZH				LR	LR		
	comp=N,3µm,13.4s						
QZH				LR	LR		
	comp=E,9µm,16.4s						
QZH				LR	LR		
	comp=Z,4µm,15.2s						
GZH	**Guangzhou**	**9.87**	**301**	P	**Pn**	**03 34 48.1**	**-2.1**
GZH				S	**Sn**	**03 36 43.0**	**+2.6**
GZH				LR	LR		
	comp=N,4µm,14.2s						
GZH				LR	LR		
	comp=E,4µm,13.5s						
JOW	**Kunigami**	**10.11**	**31**	Pn	**Pn**	**03 34 51.5**	**-1.9**
	comp=E,15nm,0.3s,baz=205,slow=12,SNR=17						
JOW				Sn	**Sn**	**03 36 38.7**	**-7.4**
	comp=E,6.9nm,0.3s,baz=108,slow=20,SNR=5.4						
JOW				LR	LR	03 38 27.4	
	comp=E,1µm,19.8s,baz=77,slow=35						
QIZ	**Qiongzhong**	**12.05**	**276**	P	**Pn**	**03 35 19.2**	**-0.8**
QIZ				S	**Sn**	**03 37 32.3**	**-1.5**
QIZ				pmax	pmax		
	comp=Z,340nm,6.1s						
QIZ				LR	LR		
	comp=E,3µm,16.2s						
QIZ				LR	LR		
	comp=Z,4µm,15.5s						
SDKM	**Sandakan**	**13.52**	**203**	P	**Pn**	**03 35 44.6**	**+4.5**
MYLDM	**Lahad Datu**	**13.52**	**197**	P	**Pn**	**03 35 44.6**	**+4.5**
KKM	**Kota Kinabalu**	**13.55**	**208**	P	**Pn**	**03 35 44.7**	**+4.0**
KKM	**Kota Kinabalu**	**13.55**	**208**	*e*Pn	**Pn**	**03 35 43.4**	**+2.8**
NJ2	**Nanjing**	**14.19**	**347**	*e*P	**Pn**	**03 35 53.6**	**+4.4**
NJ2				pP		03 36 02.0	
NJ2				sP	sP	03 36 06.6	+1.7
NJ2				S	**Sn**	**03 38 30.5**	**+4.5**
NJ2				sS		03 38 41.5	
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NJ2				pmax	pmax		
	comp=Z,70nm,6.5s						
NJ2				LR	LR		
	comp=N,390nm,12.7s						
NJ2				LR	LR		
	comp=E,2µm,13.5s						
NJ2				LR	LR		
	comp=Z,2µm,11.7s						
WHN	**Wuhan**	**14.36**	**330**	P	**Pn**	**03 35 54.0**	**+2.5**
WHN				LR	LR		
	comp=N,4µm,16.0s						
WHN				LR	LR		
	comp=E,8µm,19.2s						
WHN				LR	LR		
	comp=Z,4µm,16.3s						
TSM	**Tawau**	**14.55**	**199**	P	**Pn**	**03 35 57.7**	**+3.6**
GYA	**Guiyang**	**16.80**	**302**	⇓*i*P	**Pn**	**03 36 24.8**	**+1.3**
GYA				pP	pP	03 36 31.0	-0.3
GYA				sP	sP	03 36 37.5	+3.5
GYA				S	**Sn**	**03 39 28.6**	**-1.1**
GYA				sS	sS	03 39 41.0	-8.3
GYA				SS		03 39 49.8	
GYA				pmax	pmax		
	comp=Z,30nm,0.7s						
GYA				pmax	pmax		
	comp=Z,140nm,4.2s						
GYA				LR	LR		
	comp=N,3µm,11.8s						
GYA				LR	LR		
	comp=E,1µm,12.4s						
GYA				LR	LR		
	comp=Z,1µm,11.6s						
SBUM	**Sibu**	**18.62**	**214**	P	**Pn**	**03 36 46.2**	**+0.1**
PCI	**Palu**	**19.16**	**188**	⇓*e*P	**Pn**	**03 36 52.9**	**+0.3**
	comp=Z,8.8nm,1.6s						
INCN	**Inchon**	**19.55**	**10**	*e*P	**Pn**	**03 36 58.6**	**+1.5**
	comp=Z,96nm,1.6s						
KMI	**Kunming**	**19.62**	**294**	P	**Pn**	**03 36 59.4**	**+1.3**
KMI				pP	pP	03 37 07.5	+5.1
KMI				sP	sP	03 37 11.0	+5.9
KMI				PP		03 37 17.5	
KMI				S	**Sn**	**03 40 32.7**	**-5.2**
KMI				sS	sS	03 40 45.6	-0.9
KMI				SS		03 40 59.7	
KMI				pmax	pmax		
	comp=Z,14nm,1.0s						
KMI				pmax	pmax		
	comp=Z,790nm,6.6s						
KMI				LR	LR		
	comp=N,4µm,13.6s						
KMI				LR	LR		
	comp=E,3µm,13.1s						
KMI				LR	LR		
	comp=Z,3µm,13.6s						
KSRS	**Korea Array**	**19.76**	**13**	P	**Pn**	**03 36 58.1**	**-1.5**
	comp=Z,0.8nm,0.3s,baz=192,slow=10,SNR=18						
KSRS				LR	LR	03 45 57.7	
	comp=Z,2µm,18.3s,baz=205,slow=41						
XAN	**Xi'an**	**19.92**	**325**	P	**Pn**	**03 37 01.2**	**-0.3**
XAN				pP	pP	03 37 09.5	+3.9
XAN				sP	sP	03 37 13.6	+5.4
XAN				S	**Sn**	**03 40 42.6**	**-2.3**
XAN				sS	sS	03 40 48.0	-4.3
XAN				pmax	pmax		
	comp=Z,22nm,1.5s						
XAN				pmax	pmax		
	comp=Z,160nm,5.3s						
XAN				LR	LR		
	comp=N,830nm,13.4s						
XAN				LR	LR		
	comp=E,960nm,13.1s						
XAN				LR	LR		
	comp=Z,2µm,12.4s						
CBIJ	**Chichi jima**	**20.18**	**60**	LR	LR	03 42 53.6	
	comp=Z,660nm,18.8s,MS4.0,baz=194,slow=31						
KSM	**Kuching**	**20.49**	**217**	P	**P**	**03 37 06.3**	**+0.1**
KSM	**Kuching**	**20.49**	**217**	*e*P	**P**	**03 37 05.4**	**-0.8**
	comp=Z,217nm,1.4s						
DL2	**Dalian**	**20.65**	**358**	P	**P**	**03 37 09.3**	**+1.6**
DL2				S	**S**	**03 41 00.0**	**+2.4**
DL2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
DL2				LR	LR		
	comp=E,1µm,12.0s						
DL2				LR	LR		
	comp=Z,800nm,12.0s,MS4.3						
CD2	**Chengdu**	**21.21**	**310**	P	**P**	**03 37 14.7**	**+0.9**
CD2				pP		03 37 23.6	
CD2				sP	sP	03 37 28.0	+5.7
CD2				PP		03 37 38.4	
CD2				S	**S**	**03 41 10.7**	**+2.0**
CD2				sS	sS	03 41 17.9	-0.1
CD2				SS		03 41 37.8	
CD2				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.0						
CD2				pmax	pmax		
	comp=Z,420nm,9.3s						
CD2				LR	LR		
	comp=N,3µm,16.6s						
CD2				LR	LR		
	comp=Z,2µm,14.3s,MS4.7						
JHJ	**Hachijo jima 2**	**21.47**	**43**	LR	LR	03 44 20.4	
	comp=Z,531nm,21.9s,MS3.9,baz=244,slow=33						
CHRT	**Chiangrai**	**21.56**	**278**	⇑P	**P**	**03 37 19.0**	**+1.3**
	comp=Z,290nm,1.4s,mb5.5						
NST	**Nakhon Sawan**	**21.56**	**267**	P	**P**	**03 37 16.6**	**-1.1**
GUMO	**Guam**	**21.97**	**99**	LR	LR	03 45 57.7	
	comp=Z,592nm,18.1s,MS4.0,baz=5.4,slow=37						
KDI	**Kendari**	**22.01**	**180**	⇓*e*P	**P**	**03 37 20.6**	**-2.0**
KDI				*e*S	S	03 40 59.3	-25
CHG	**Chiang Mai**	**22.36**	**275**	⇑P	**P**	**03 37 26.5**	**+0.2**
	comp=Z,55nm,1.4s,mb4.8						
CHTO	**Chiang Mai**	**22.36**	**275**	*e*P	**P**	**03 37 26.8**	**+0.5**
CHTO				pmax	pmax		
	comp=Z,114nm,1.6s,mb5.0						
CHTO	**Chiang Mai**	**22.36**	**275**	*e*P	**P**	**03 37 26.8**	**+0.5**
	comp=Z,114nm,1.6s,mb5.0						
CM31	**Chiang Mai Arr**	**22.38**	**274**	*e*P	**P**	**03 37 25.7**	**-0.8**
CMAR	**Chiang Mai Arr**	**22.38**	**274**	P	**P**	**03 37 26.8**	**+0.3**
	comp=Z,15nm,0.9s,mb4.4,baz=74,slow=8.9,SNR=69						
CMAR				LR	LR	03 46 19.7	
	comp=Z,607nm,19.5s,MS4.0,baz=86,slow=37						
BJT	**Baijiatuau**	**22.43**	**347**	*e*P	**P**	**03 37 25.5**	**-1.3**
BJT				pmax	pmax		
	comp=Z,17nm,0.6s						
BJT	**Baijiatuau**	**22.43**	**347**	*e*P	**P**	**03 37 25.5**	**-1.3**
	comp=Z,17nm,0.6s,mb4.7						
BJI	**Beijing**	**22.45**	**347**	P	**P**	**03 37 28.0**	**+1.0**
BJI				pP		03 37 36.2	
BJI				sP	sP	03 37 40.7	+5.2
BJI				S	**S**	**03 41 32.3**	**-0.5**
BJI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.3						
BJI				pmax	pmax		
	comp=Z,200nm,4.5s						
BJI				LR	LR		
	comp=N,730nm,16.0s,MS4.5						
BJI				LR	LR		
	comp=E,1µm,14.3s,MS4.5						
BJI				LR	LR		
	comp=Z,590nm,24.2s						
MAJO	**Matsushiro**	**22.92**	**34**	*e*P	**P**	**03 37 32.1**	**0.0**
MAJO				pmax	pmax		
	comp=Z,171nm,2.2s,mb5.1						
MAJO	**Matsushiro**	**22.92**	**34**	*e*P	**P**	**03 37 32.1**	**+0.1**
	comp=Z,171nm,2.2s,mb5.1						
MAT	**Matsushiro**	**22.92**	**34**	P	**P**	**03 37 31.7**	**-0.4**
MAT				S	**S**	**03 41 54.0**	**+13**
MJAR	**Matsushiro Arr**	**22.92**	**34**	P	**P**	**03 37 30.9**	**-1.1**
	comp=Z,6.2nm,0.8s,mb4.1,baz=222,slow=8.8,SNR=16						
MJAR				LR	LR	03 45 57.1	
	comp=Z,550nm,20.3s,MS4.0,baz=245,slow=35						
KAPI	**Kappang**	**23.22**	**187**	P	**P**	**03 37 33.3**	**-2.1**
	comp=Z,560nm,1.2s,SNR=5.5						
KAPI	**Kappang**	**23.22**	**187**	*e*P	**P**	**03 37 33.8**	**-1.6**
	comp=Z,152nm,1.3s,mb5.3						
LZH	**Lanzhou**	**24.29**	**321**	⇑P	**P**	**03 37 47.0**	**+1.6**
LZH				pP		03 37 54.4	
LZH				sP	sP	03 37 59.3	+5.2
LZH				PP		03 38 20.0	
LZH				S	**S**	**03 42 06.0**	**+2.7**
LZH				sS	sS	03 42 16.5	+3.0
LZH				pmax	pmax		
	comp=Z,130nm,1.6s,mb5.1						
LZH				pmax	pmax		
	comp=Z,370nm,4.0s						
LZH				LR	LR		
	comp=N,2µm,14.3s						
LZH				LR	LR		
	comp=Z,3µm,15.2s,MS4.9						
HHC	**Hu-ho-hao-te**	**24.46**	**340**	*e*P	**P**	**03 37 48.4**	**+1.5**
HHC				pP		03 37 57.6	
HHC				sP	sP	03 38 02.0	+6.4
HHC				PP		03 38 24.7	
HHC				PcP	PcP	03 41 27.2	+1.8
HHC				*e*S	**S**	**03 42 05.3**	**-0.7**
HHC				sS	sS	03 42 20.1	+3.9
HHC				SS		03 43 00.7	
HHC				PcS	PcS	03 45 05.4	+0.2
HHC				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.6						
HHC				pmax	pmax		
	comp=Z,380nm,5.0s						
HHC				LR	LR		
	comp=N,830nm,15.2s,MS4.7						
HHC				LR	LR		
	comp=E,2µm,16.1s,MS4.7						
HHC				LR	LR		
	comp=Z,1µm,18.6s,MS4.5						
MYKOM	**Kota Tinggi**	**24.52**	**230**	P	**P**	**03 37 47.6**	**-0.1**
KGM	**Kluang**	**24.77**	**232**	P	**P**	**03 37 50.4**	**+0.5**
BTO	**Baotou**	**24.79**	**337**	*e*P	**P**	**03 37 51.3**	**+1.4**
KULM	**Kulim**	**24.92**	**242**	P	**P**	**03 37 51.6**	**+0.3**
KULM	**Kulim**	**24.92**	**242**	*e*P	**P**	**03 37 50.9**	**-0.4**
	comp=Z,85nm,1.3s,mb5.1						
IPM	**Ipoh**	**25.05**	**240**	P	**P**	**03 37 52.1**	**-0.4**
FRIM	**Kepong**	**25.30**	**236**	P	**P**	**03 37 55.2**	**+0.5**
CN2	**Changchun**	**25.65**	**5**	*e*P	**P**	**03 38 00.7**	**+3.1**
CN2				*e*sP	sP	03 38 14.3	+7.9
CN2				PP		03 38 41.7	
CN2				*e*S	**S**	**03 42 25.6**	**+0.8**
CN2				SS		03 43 31.5	
CN2				pmax	pmax		
	comp=Z,30nm,0.8s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,1µm,14.0s,MS4.8						
CN2				LR	LR		
	comp=E,2µm,14.0s,MS4.8						
CN2				LR	LR		
	comp=Z,1µm,15.0s,MS4.5						
MDJ	**Mudanjiang**	**27.00**	**11**	P	**P**	**03 38 12.1**	**+2.3**
MDJ				pP	pP	03 38 21.0	+4.9
MDJ				sP	sP	03 38 25.0	+6.4
MDJ				PcP	PcP	03 41 27.8	-3.3
MDJ				S	**S**	**03 42 49.2**	**+3.0**
MDJ				PcS	PcS	03 45 10.5	-1.9
MDJ				ScS	ScS	03 49 03.6	+2.4
MDJ				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,140nm,4.5s						
MDJ				LR	LR		
	comp=N,1µm,17.5s,MS4.7						
MDJ				LR	LR		
	comp=E,2µm,21.7s,MS4.7						
MDJ				LR	LR		
	comp=Z,1µm,17.9s,MS4.5						
PSI	**Prapat**	**27.73**	**239**	P	**P**	**03 38 16.0**	**-0.7**
	comp=Z,15nm,1.1s,mb4.5,baz=20,slow=5.9,SNR=15						
PSI				LR	LR	03 49 20.2	
	comp=Z,981nm,18.4s,MS4.4,baz=236,slow=36						
GTA	**Gaotai**	**28.88**	**322**	P	**P**	**03 38 30.0**	**+3.3**
GTA				pP	pP	03 38 40.2	+7.3
GTA				sP	sP	03 38 44.1	+8.6
GTA				S	**S**	**03 43 21.1**	**+5.2**
GTA				ScP	ScP	03 45 15.5	-0.8
GTA				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.0						
GTA				pmax	pmax		
	comp=Z,120nm,5.1s						
GTA				LR	LR		
	comp=N,850nm,21.6s,MS4.5						
GTA				LR	LR		
	comp=E,780nm,19.8s,MS4.5						
GTA				LR	LR		
	comp=Z,850nm,17.1s,MS4.4						
SHL	**Shillong**	**29.31**	**290**	*e*PKP	**P**	**03 38 30.0**	**-0.7**
LSA	**Lhasa**	**30.77**	**298**	*e*P	**P**	**03 38 45.4**	**+1.8**
LSA				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.8						
LSA	**Lhasa**	**30.77**	**298**	*e*P	**P**	**03 38 45.4**	**+1.8**
	comp=Z,12nm,0.8s,mb4.8						
KAKA	**Kakadu**	**32.23**	**162**	*e*P	**P**	**03 38 54.4**	**-2.1**
	comp=Z,14nm,0.9s,mb4.8						
KAKA	**Kakadu**	**32.23**	**162**	*e*P	**P**	**03 38 54.0**	**-2.5**
SONM	**Songino Array**	**32.37**	**340**	P	**P**	**03 38 56.9**	**-0.4**
	comp=Z,2.1nm,0.5s,mb4.3,baz=159,slow=10,SNR=22						
SONM				ScP	ScP	03 45 25.9	-1.6
	comp=Z,1.8nm,1.0s,baz=158,slow=3.6,SNR=6.4						
SONM				LR	LR	03 53 07.4	
	comp=Z,2µm,20.0s,MS4.7,baz=150,slow=38						
YSS	**Yuzh-Sakhalins**	**33.16**	**26**	*e*P	**P**	**03 39 06.0**	**+1.7**
YSS				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.3						
YSS	**Yuzh-Sakhalins**	**33.16**	**26**	*e*P	**P**	**03 39 06.4**	**+2.0**
TAPN	**Taplejung**	**33.27**	**292**	*e*P	**P**	**03 39 05.6**	**0.0**
ODAN	**Odare**	**33.49**	**291**	*e*P	**P**	**03 39 07.3**	**-0.2**
	comp=Z,21nm,0.8s,mb5.1						
RAMN	**Ramite**	**34.20**	**291**	*e*P	**P**	**03 39 13.7**	**+0.1**
	comp=Z,16nm,0.6s,mb5.2						
JIRN	**Jiri**	**34.65**	**292**	*e*P	**P**	**03 39 17.7**	**+0.1**
GUN	**Gumba**	**34.96**	**293**	*e*P	**P**	**03 39 20.1**	**-0.1**
PKI	**Pulchoki**	**35.33**	**292**	*e*P	**P**	**03 39 23.2**	**-0.2**
KKN	**Kakani**	**35.47**	**292**	*e*P	**P**	**03 39 23.9**	**-0.7**
DMN	**Daman**	**35.60**	**292**	*e*P	**P**	**03 39 25.2**	**-0.5**
ZAK	**Zakamensk**	**35.61**	**339**	*e*P	**P**	**03 39 25.2**	**-0.3**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
GKN	**Gorkha**	**36.06**	**293**	*e*P	**P**	**03 39 28.7**	**-1.0**
FITZ	**Fitzroy Crossi**	**36.20**	**175**	*e*P	**P**	**03 39 28.4**	**-2.5**
	comp=Z,19nm,1.0s,mb5.0						
FITZ	**Fitzroy Crossi**	**36.20**	**175**	P	**P**	**03 39 28.5**	**-2.3**
	comp=Z,10nm,1.0s,mb4.7,baz=14,slow=10,SNR=8.0						
FITZ	**Fitzroy Crossi**	**36.20**	**175**	*e*P	**P**	**03 39 28.5**	**-2.4**
	comp=Z,32nm,1.4s,mb5.0						
TLY	**Talaya**	**36.59**	**340**	*e*P	**P**	**03 39 34.1**	**+0.2**
TLY				*e*		03 41 04.3	
TLY				*e*S	**S**	**03 45 17.9**	**+2.5**
TLY				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
TLY				MLR	MLR		
	comp=Z,920nm,20.0s,MS4.6						
TLY	**Talaya**	**36.59**	**340**	*e*P	**P**	**03 39 34.4**	**+0.6**
	comp=Z,62nm,1.9s,mb5.1						
DANN	**Dangsing**	**36.87**	**293**	*e*P	**P**	**03 39 36.0**	**-0.6**
KOLN	**Koldanda**	**36.94**	**292**	*e*P	**P**	**03 39 36.5**	**-0.7**
	comp=Z,32nm,0.9s,mb5.2						
MOY	**Mondy**	**37.48**	**338**	*e*P	**P**	**03 39 44.0**	**+2.6**
MOY				pmax	pmax		
	comp=Z,48nm,2.2s,mb4.9						
PYUN	**Piuthan**	**37.52**	**293**	*e*P	**P**	**03 39 41.5**	**-0.6**
	comp=Z,42nm,0.9s,mb5.2						
COEN	**Coen**	**37.89**	**146**	*e*P	**P**	**03 39 44.5**	**-0.8**
	comp=Z,438nm,1.6s						
WMQ	**Urumqi**	**38.83**	**319**	*e*P	**P**	**03 39 53.3**	**+0.4**
WMQ				pP	pP	03 40 03.0	+3.7
WMQ				sP	sP	03 40 07.0	+5.2
WMQ				PP	PP	03 41 26.5	+4.5
WMQ				S	**S**	**03 45 50.0**	**+0.4**
WMQ				sS	sS	03 46 05.0	+4.9
WMQ				ScS	ScS	03 49 58.0	-3.9
WMQ				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,300nm,5.4s						
WMQ				LR	LR		
	comp=N,2µm,16.6s,MS5.1						
WMQ				LR	LR		
	comp=E,2µm,12.0s,MS5.1						
WMQ				LR	LR		
	comp=Z,1µm,20.4s						
MBWA	**Marble Bar**	**39.21**	**184**	*e*P	**P**	**03 39 54.0**	**-2.2**
	comp=Z,79nm,1.1s,mb5.4						
WRAB	**Tennant Creek**	**39.63**	**162**	P	**P**	**03 39 58.2**	**-1.6**
	comp=Z,185nm,1.3s,mb5.7,SNR=9.4						
WRAB	**Tennant Creek**	**39.63**	**162**	*e*P	**P**	**03 39 58.3**	**-1.5**
WRAB				pmax	pmax		
	comp=Z,89nm,1.5s,mb5.3						
WRAB	**Tennant Creek**	**39.63**	**162**	*e*P	**P**	**03 39 58.3**	**-1.5**
	comp=Z,89nm,1.5s,mb5.3						
WRA	**Warramunga Arr**	**39.64**	**162**	P	**P**	**03 39 58.0**	**-1.9**
	comp=Z,24nm,1.2s,mb4.8,baz=341,slow=8.7,SNR=37						
WRA				LR	LR	03 58 50.8	
	comp=Z,129nm,18.5s,MS3.8,baz=0.0,slow=40						
WB2	**Warramunga Arr**	**39.64**	**162**	*e*P	**P**	**03 39 58.2**	**-1.7**
BOD	**Bodaibo**	**40.06**	**353**	*e*P	**P**	**03 40 00.2**	**-2.8**
BOD				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.2						
HYB	**Hyderabad**	**41.79**	**276**	*i* P	**P**	**03 40 17.0**	**-0.8**
HYB	**Hyderabad**	**41.79**	**276**	*e*P	**P**	**03 40 17.0**	**-0.8**
ASAR	**Alice Springs**	**43.07**	**165**	P	**P**	**03 40 26.7**	**-1.3**
	comp=Z,5.4nm,0.8s,mb4.3,baz=338,slow=6.7,SNR=19						
MK31	**Makanchi Array**	**43.60**	**320**	*e*P	**P**	**03 40 32.0**	**-0.1**
MKAR	**Makanchi Array**	**43.60**	**320**	P	**P**	**03 40 31.8**	**-0.3**
	comp=Z,3.5nm,0.5s,mb4.3,baz=112,slow=8.0,SNR=78						
MKAR				LR	LR	04 01 03.8	
	comp=Z,468nm,18.1s,MS4.4,baz=115,slow=39						
KRAR	**Krasnoyarsk**	**43.88**	**336**	*e*P	**P**	**03 40 35.1**	**+0.9**
KRAR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
YAK	**Yakutsk**	**44.08**	**5**	*e*P	**P**	**03 40 38.4**	**+2.7**
YAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
YAK				MLR	MLR		
	comp=Z,409nm,14.0s,MS4.5						
YAK				MLR	MLR		
	comp=N,368nm,15.0s,MS4.5						
YAK				MLR	MLR		
	comp=E,257nm,15.0s,MS4.5						
PETK	**Petropavlovsk-**	**44.27**	**30**	P	**P**	**03 40 38.4**	**+1.0**
	comp=E,6.1nm,0.9s,mb4.3,baz=224,slow=6.2,SNR=3.6						
PETK				LR	LR	04 00 26.2	
	comp=E,202nm,18.8s,MS4.1,baz=330,slow=38						
CTA	**Charters Tower**	**44.61**	**147**	*e*P	**P**	**03 40 41.4**	**+1.0**
	comp=E,18nm,1.1s,mb4.8						
CTA	**Charters Tower**	**44.61**	**147**	P	**P**	**03 40 41.0**	**+0.5**
	comp=E,7.1nm,0.4s,mb4.8,baz=323,slow=10,SNR=17						
CTAO	**Charters Tower**	**44.61**	**147**	*e*P	**P**	**03 40 41.2**	**+0.8**
CTAO				pmax	pmax		
	comp=Z,169nm,1.9s,mb5.5						
CTAO	**Charters Tower**	**44.61**	**147**	*e*P	**P**	**03 40 41.2**	**+0.7**
	comp=Z,169nm,1.9s,mb5.5						
KSH	**Kashi**	**45.38**	**308**	*e*P	**P**	**03 40 46.3**	**-0.1**
KSH				*e*pP	pP	03 40 56.0	+3.2
KSH				*e*sP	sP	03 41 00.0	+4.6
KSH				*e*PcP	PcP	03 42 27.1	+1.4
KSH				*e*PP	PP	03 42 32.6	-0.1
KSH				*e*ScP	ScP	03 46 16.2	-1.2
KSH				*e*PcS	PcS	03 46 20.1	+0.5
KSH				*e*S	**S**	**03 47 22.4**	**-4.1**
KSH				*e*sS	sS	03 47 38.1	+1.1
KSH				*e*SS	SS	03 50 35.2	-15
KSH				*e*ScS	ScS	03 50 38.2	-4.0
KSH				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.5						
KSH				pmax	pmax		
	comp=Z,260nm,2.6s,mb5.6						
KSH				LR	LR		
	comp=N,670nm,8.1s						
KSH				LR	LR		
	comp=E,990nm,8.8s						
KSH				LR	LR		
	comp=Z,890nm,6.6s						
ZAA0	**Zalesovo Array**	**45.98**	**330**	*e*P	**P**	**03 40 49.9**	**-1.1**
ZALV	**Zalesovo Beam**	**45.98**	**330**	P	**P**	**03 40 50.0**	**-0.9**
	comp=Z,3.6nm,0.6s,mb4.5,baz=123,slow=6.8,SNR=11						
ZALV				LR	LR	04 01 34.6	
	comp=Z,400nm,19.5s,MS4.4,baz=119,slow=38						
NVS	**Novosibirsk**	**47.25**	**330**	*e*P	**P**	**03 41 04.9**	**+4.0**
KURK	**Kurchatov**	**47.54**	**323**	P	**P**	**03 41 02.3**	**-1.0**
	comp=Z,119nm,1.0s,SNR=6.1						
KURK	**Kurchatov**	**47.54**	**323**	*e*P	**P**	**03 41 02.5**	**-0.8**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
KURK	**Kurchatov**	**47.54**	**323**	LR	LR	04 03 14.1	
	comp=Z,317nm,19.0s,MS4.3,baz=120,slow=39						
KURK	**Kurchatov**	**47.54**	**323**	*e*P	**P**	**03 41 02.5**	**-0.8**
	comp=Z,4.5nm,0.8s,mb4.5						
KLBR	**Kellerberrin**	**49.71**	**185**	*e*P	**P**	**03 41 17.5**	**-2.6**
	comp=Z,61nm,1.2s,mb5.5						
KBL	**Kabul**	**50.04**	**300**	*e*P	**P**	**03 41 23.3**	**+0.6**
KBL				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
KBL	**Kabul**	**50.04**	**300**	*e*P	**P**	**03 41 23.3**	**+0.6**
	comp=Z,17nm,1.1s,mb5.0						
NWAO	**Narrogin (SRO)**	**51.08**	**186**	P	**P**	**03 41 28.2**	**-2.2**
	comp=Z,10.0nm,0.7s,mb4.8,baz=20,slow=9.9,SNR=5.9						
NWAO				LR	LR	04 04 56.3	
	comp=Z,300nm,18.9s,MS4.3,baz=8.0,slow=38						
NWAO	**Narrogin (SRO)**	**51.08**	**186**	P	**P**	**03 41 28.2**	**-2.2**
NWAO				LR	LR	04 04 56.3	
BBOO	**Buckleboo**	**52.34**	**166**	*e*P	**P**	**03 41 38.8**	**-1.1**
	comp=Z,18nm,1.1s,mb4.9						
STKA	**Stephens Creek**	**53.04**	**160**	P	**P**	**03 41 44.6**	**-0.4**
	comp=Z,3.6nm,0.2s,mb4.9,baz=325,slow=11,SNR=7.8						
BVAR	**Borovoye Array**	**53.14**	**323**	LR	LR	04 03 52.1	
	comp=Z,401nm,19.4s,MS4.5,baz=4.5,slow=35						
BRVK	**Borovoye**	**53.21**	**323**	*e*P	**P**	**03 41 45.3**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
BRVK	**Borovoye**	**53.21**	**323**	*e*P	**P**	**03 41 45.3**	**-0.8**

	comp=Z,6.4nm,0.7s,mb4.7						
TIXI	Tiksi	53.58	2	eP	P	03 41 50.8	+2.3
TIXI				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,704nm,19.0s,MS4.7						
BILL	Bilibino	56.92	18	P	P	03 42 16.0	+3.4
BILL				e		03 42 26.9	
BILL				e		03 42 32.1	
BILL				PPP		03 45 48.0	
BILL				S	S	03 50 16.0	+11
BILL				pmax	pmax		
	comp=Z,16nm,2.4s,mb4.6						
BILL				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.5						
AKTK	Aktyubinsk	59.98	318	P	P	03 42 34.8	+0.5
AKTO	Aktyubinsk	59.98	318	P	P	03 42 34.8	+0.5
	comp=Z,1.6nm,0.8s,mb4.1,baz=100,slow=8.4,SNR=3.4						
ARU	Arti	60.66	325	eP	P	03 42 37.5	-1.4
ARU	Arti	60.66	325	eP	P	03 42 37.5	-1.4
PRGR	Permogore	67.94	330	eP	P	03 43 23.3	-3.1
PRGR				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
GNI	Garni	69.29	307	eP	P	03 43 35.5	+0.2
GNI				pmax	pmax		
	comp=Z,10.0nm,1.6s						
GNI	Garni	69.29	307	P	P	03 43 36.0	+0.6
	comp=Z,0.8nm,0.4s,mb4.0,baz=347,slow=18,SNR=3.8						
GNI	Garni	69.29	307	eP	P	03 43 36.3	+0.9
	comp=Z,14nm,1.1s,mb4.8						
SVW2	Sparrevohn	70.34	31	eP	P	03 43 40.0	-1.4
KIV	Kislovodsk	70.38	311	eP	P	03 43 42.0	+0.1
KIV				eS	S	03 52 52.6	-0.9
KIV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
KIV				MLR	MLR		
	comp=Z,257nm,19.0s,MS4.5						
KIV	Kislovodsk	70.38	311	eP	P	03 43 41.7	-0.3
	comp=Z,17nm,0.8s,mb5.0						
KLMR	Klimovskoe	70.89	329	P	P	03 43 43.2	-1.5
KLMR				pmax	pmax		
	comp=Z,36nm,2.0s,mb5.0						
RSO	Redoubt South	71.77	31	eP	pP	03 43 58.1	+1.3
VSR	Storozhevoye	71.91	319	eP	P	03 43 50.4	-0.7
VSR				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
AFI	Afiamalu	72.20	112	LR	LR	04 10 14.5	
	comp=Z,193nm,18.8s,MS4.4,baz=347,slow=31						
OBN	Obninsk	72.99	323	P	P	03 43 59.0	+1.6
OBN				e		03 44 16.3	
OBN				S	S	03 53 25.0	+1.9
OBN				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.5						
OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.6						
APA	Apatity	73.01	336	⇑eP	pP	03 44 06.0	+2.0
APA				pmax	pmax		
	comp=Z,77nm,1.6s,mb5.4						
MCK	McKinley	73.22	28	eP	P	03 44 00.1	+1.5
MCK				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
MCK	McKinley	73.22	28	eP	P	03 44 00.1	+1.4
	comp=Z,24nm,1.0s,mb5.1						
MALT	Malatya	74.42	306	⇑iP	P	03 44 06.5	+0.3
MALT	Malatya	74.42	306	eP	P	03 44 06.5	+0.3
	comp=Z,13nm,1.0s,mb4.8						
JOF	Joensuu	74.53	332	eP	P	03 44 04.3	-2.0
JOF	Joensuu	74.53	332	ep	P	03 44 04.3	-2.0
	comp=Z,4.2nm,0.7s,mb4.5						
KEV	Kevo	74.98	339	eP	P	03 44 06.6	-2.2
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KEV	Kevo	74.98	339	ep	P	03 44 06.6	-2.2
	comp=Z,0.5nm,0.4s,mb3.8						
ARCES	ARCESS Array B	75.54	339	P	P	03 44 10.8	-1.3
	comp=Z,5.0nm,1.0s,mb4.4,baz=66,slow=6.8,SNR=5.9						
ARCES				LR	LR	04 21 36.8	
	comp=Z,192nm,20.2s,MS4.4,baz=74,slow=39						
ARCES	ARCESS Array B	75.54	339	P	P	03 44 10.8	-1.3
ARCES				LR	LR	04 21 36.8	
RPZ	Rata Peaks	75.95	146	P	P	03 44 15.0	+0.3
	comp=Z,10nm,0.9s,mb4.8,baz=217,slow=18,SNR=3.6						
EGAK	Eagle	76.37	26	eP	P	03 44 16.9	0.0
	comp=Z,7.1nm,0.8s,mb4.7						
ASF	Jabal al Asfar	76.94	300	P	P	03 44 21.5	+0.8
	comp=Z,3.2nm,0.9s,mb4.3,baz=190,slow=6.8,SNR=3.6						
KAF	Kangasniemi	76.97	331	eP	P	03 44 16.6	-3.7
KAF	Kangasniemi	76.97	331	ep	P	03 44 16.6	-3.7
	comp=Z,2.4nm,0.7s,mb4.2						
DAWY	Dawson	77.30	27	eP	P	03 44 24.4	+2.4
BRTR	Keskin Array B	77.77	308	P	P	03 44 25.9	+0.7
	comp=Z,0.7nm,0.8s,mb3.6,baz=58,slow=8.1,SNR=5.3						
BRTR				LR	LR	04 22 11.2	
	comp=Z,106nm,21.2s,MS4.1,baz=244,slow=38						
MMAI	Mount Meron Ar	77.97	301	P	P	03 44 27.9	+1.4
	comp=Z,2.2nm,0.7s,mb4.2,baz=64,slow=6.6,SNR=2.9						
AKASG	Malin Array Be	78.18	320	P	P	03 44 25.5	-1.8
	comp=Z,4.7nm,0.8s,mb4.5,baz=60,slow=5.9,SNR=6.1						
AKASG				LR	LR	04 22 52.4	
	comp=Z,210nm,19.2s,MS4.5,baz=90,slow=39						
NACGM	Naroch	78.55	324	e	P	03 44 25.0	-4.3
ISP	Isparta	80.61	307	eP	P	03 44 40.1	-0.7
ISP				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
SUW	Suwalki	80.82	324	eP	P	03 44 40.8	-0.8
SUW	Suwalki	80.82	324	eP	P	03 44 40.8	-0.8
VRI	Vrincioaia	81.08	315	⇓iP	P	03 44 44.1	+0.9
BURAR	Bucovina Array	81.56	317	⇑iP	P	03 44 45.6	0.0
BURAR	Bucovina Array	81.56	317	⇑P	P	03 44 45.6	-0.1
BUR08	Bucovina Ar. S	81.56	317	eP	P	03 44 45.4	-0.2
BUR08				ePcP	PcP	03 44 50.9	-0.7
MLR	Muntele Rosu	81.72	315	⇓iP	P	03 44 47.1	+0.6
MLR	Muntele Rosu	81.72	315	⇓P	P	03 44 47.1	+0.6
VOIR		82.33	315	⇓iP	P	03 44 51.1	+1.3
VOIR		82.33	315	⇓P	P	03 44 51.1	+1.3
DAG	Danmarks Havn	82.44	352	iP	P	03 44 48.0	-1.8
DAG	Danmarks Havn	82.44	352	eP	P	03 44 48.0	-1.8
KWP	Kalwaria Pacla	82.50	320	eP	P	03 44 46.8	-3.8
KWP	Kalwaria Pacla	82.50	320	⇑iP	P	03 44 50.7	+0.1
KWP	Kalwaria Pacla	82.50	320	⇑P	P	03 44 50.7	+0.2
UZH	Uzhgorod	83.09	319	eP	P	03 44 57.7	+4.1
UZH				e		03 45 06.5	
UZH				e		03 45 15.5	
HFS	Hagfors	83.39	332	P	P	03 44 52.9	-2.0
	comp=Z,3.7nm,0.8s,mb4.5,baz=131,slow=4.5,SNR=7.5						
HFS				LR	LR	04 24 28.9	
	comp=Z,678nm,19.3s,MS5.0,baz=2.8,slow=37						
CRVS	Cervenica-Dubn	83.52	319	eP	P	03 44 56.2	+0.4
CRVS				pmax	pmax		
	comp=Z,136nm,3.1s						
CRVS	Cervenica-Dubn	83.52	319	eP	P	03 44 56.2	+0.4
	comp=Z,136nm,3.1s						
NB2	NORSAR Subarra	84.09	333	P	P	03 44 56.3	-2.2
	comp=Z,11nm,1.1s,mb4.9,baz=64,slow=5.3						
NOA	NORSAR Array B	84.09	333	P	P	03 44 56.8	-1.7
	comp=Z,4.5nm,0.9s,mb4.6,baz=65,slow=5.0,SNR=7.3						
NOA				LR	LR	04 26 20.5	
	comp=Z,561nm,18.1s,MS5.0,baz=65,slow=38						
BZS	Buzias	84.56	316	⇓iP	P	03 45 02.7	+1.5
BZS	Buzias	84.56	316	⇓P	P	03 45 02.7	+1.5
JMIC	Jan Mayen	84.91	346	LR	LR	04 24 45.6	
	comp=Z,390nm,21.1s,MS4.8,baz=90,slow=37						
OKC	Ostrava-Krasne	85.20	321	eP	P	03 45 08.5	+4.2
OKC	Ostrava-Krasne	85.20	321	eP	P	03 45 08.5	+4.2
VYHS	Vyhne	85.29	320	eP	P	03 45 03.9	-0.9
MORC	Moravsky Berou	85.58	321	⇑P	P	03 45 08.5	+2.2
MORC	Moravsky Berou	85.58	321	⇑iP	P	03 45 08.5	+2.2
KMBO	Kilima Mbogo	85.85	267	P	P	03 45 08.8	+0.5
	comp=Z,6.9nm,1.0s,mb4.8,baz=42,slow=6.8,SNR=9.8						
KSP	Ksiaz	85.89	322	eP	P	03 45 07.3	-0.5
KSP	Ksiaz	85.89	322	eP	P	03 45 07.3	-0.5
DPC	Dobruska-Polom	86.08	322	eP	P	03 45 12.3	+3.6
DPC	Dobruska-Polom	86.08	322	eP	P	03 45 12.3	+3.6
UPC	Upice	86.19	322	eP	P	03 45 11.7	+2.4
UPC	Upice	86.19	322	eP	P	03 45 11.7	+2.4
PKSM	Moragy	86.27	318	⇑iP	P	03 45 10.5	+0.7
PKSM	Moragy	86.27	318	⇑P	P	03 45 10.5	+0.7
VRAC	Vranov	86.33	321	LR	LR	04 28 37.8	
	comp=Z,276nm,19.3s,MS4.7,baz=358,slow=39						
PRU	Pruhonice	87.27	322	eP	sP	03 45 33.1	+9.3
CLL	Collm	87.58	324	eP	P	03 45 21.0	+5.0
CLL				MLR	MLR		
	comp=Z,300nm,20.9s,MS4.7						
CLL	Collm	87.58	324	epP	pP	03 45 21.0	-1.8
CLL				LmV		03 28 00.0	
	comp=Z,300nm,20.9s						
YKA	Yellowknife Ar	87.98	23	P	P	03 45 17.4	-0.2
	comp=Z,3.0nm,0.9s,mb4.5,baz=309,slow=4.6,SNR=22						
YKA				PKKPbc	PKKPbc	04 03 04.3	-0.6
	comp=Z,0.2nm,0.7s,baz=125,slow=2.2,SNR=3.9						
YKA	Yellowknife Ar	87.98	23	P	P	03 45 17.4	-0.2
YKA				PKKPbc	PKKPbc	04 03 04.3	-0.6
KHC	Kasperske Hory	88.20	322	eP	P	03 45 21.1	+2.1
KHC	Kasperske Hory	88.20	322	eP	P	03 45 21.1	+2.1
GERES	GERESS Array B	88.25	321	P	P	03 45 18.3	-1.0
	comp=Z,1.0nm,0.8s,mb4.1,baz=68,slow=5.4,SNR=6.6						
GERES				LR	LR	04 29 07.0	
	comp=Z,250nm,20.0s,MS4.6,baz=256,slow=38						
GERES	GERESS Array B	88.25	321	P	P	03 45 18.3	-1.0
GERES				LR	LR	04 29 07.0	
DAVOX	Davos/Dischmat	91.49	321	LR	LR	04 29 44.4	
	comp=Z,251nm,19.1s,MS4.7,baz=78,slow=38						
PPT	Papeete	93.44	107	eLR	LR	04 15 51.9	
	comp=Z,581nm,32.2s						
PPT	Papeete	93.44	107	LR	LR	04 18 19.2	
	comp=Z,136nm,20.9s,MS4.4,baz=96,slow=29						
MAW	Mawson	95.89	199	LR	LR	04 26 49.9	
	comp=Z,297nm,18.2s,MS4.8,baz=274,slow=34						
RKT	Rikitea	108.10	109	eLR	LR	04 22 30.6	
	comp=Z,211nm,32.2s						
TORD	Torodi Ar. Bea	113.85	294	PP	PP	03 51 55.8	-4.9
	comp=Z,1.8nm,1.2s,baz=75,slow=7.0,SNR=4.8						
TXAR	Lajitas Array	115.05	44	PKP	PKiKP	03 51 09.1	-0.5
	comp=Z,0.3nm,0.6s,baz=248,slow=0.7,SNR=5.3						
SDV	Santo Domingo	150.12	27	ePKPdf	PKPdf	03 52 14.6	-0.1

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*ISK **04** 03:33:48.8, 37.°87N×29.°31E, h2km, MD3.2*
*ISCJB **04** 03:33:49.3±0.5, 37.°87N±0.°02×29.°30E±0.°03, h1km±4km, Error ellipse: s-maj=4.0km s-min=3.2km az=12.7*
*CSEM **04** 03:33:49.6±0.1, 37.°84N×29.°30E, h0km±1km, MD3.2, Error ellipse: s-maj=1.5km s-min=1.1km az=160.0*
*DDA **04** 03:33:49.4, 37.°91N×29.°27E, h19km±1km, Md3.1, Ml3.5*
ISC 04 03:33:49.8±0.5**, 37.°86N**±0.°02×**29.°30E**±0.°03**, h2**km±4km**, n84, σ0.s71**/102**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DENT	Denizli	0.24	245	PG	Pg	03 33 55.1	+0.7
DENT	Denizli	0.24	245	iPg	Pg	03 33 55.1	+0.8
KHL	Karahalli	0.50	20	ePG	Pg	03 33 58.4	-0.9
KHL				eSG	Sg	03 34 06.9	+1.1
KHL	Karahalli	0.50	20	ePg	Pg	03 33 58.4	-1.0
KHL				eSg	Sg	03 34 06.9	+1.1
KHAL	Karahalli	0.54	16	iP	Pg	03 33 59.0	-1.1
KHAL				iS	Sg	03 34 06.7	-0.4
KHAL	Karahalli	0.54	16	iP	Pg	03 33 59.0	-1.1
KHAL				iS	Sg	03 34 06.7	-0.3
GOLH	Golhisar	0.65	162	iP	Pg	03 34 02.6	+0.3
GOLH				iS	Sg	03 34 13.6	+2.9
GOLH	Golhisar	0.65	162	iP	Pg	03 34 02.6	+0.3
GOLH				iS	Sg	03 34 13.6	+2.9
KULA	Kula-Manisa	0.83	323	ePG	Pg	03 34 05.0	-0.8
KULA				eSG	Sg	03 34 17.0	+0.5
KULA	Kula-Manisa	0.83	323	ePg	Pg	03 34 05.0	-0.7
KULA				eSg	Sg	03 34 17.0	+0.5
ISP	Isparta	0.95	90	ePG	Pg	03 34 08.5	+0.3
YER	Yerkesik	1.08	229	ePN	Pg	03 34 10.5	-0.1
YER	Yerkesik	1.08	229	ePn	Pg	03 34 10.5	-0.1
BCK	Bucak	1.09	111	ePN	Pg	03 34 10.6	-0.2
BCK	Bucak	1.09	111	ePn	Pg	03 34 10.6	-0.2
AYDN	Tasoluk	1.15	261	iP	Pg	03 34 11.6	-0.2
AYDN				iS	Sg	03 34 26.5	-0.1
AYDN	Tasoluk	1.15	261	iP	Pg	03 34 11.6	-0.2
AYDN				iS	Sg	03 34 26.5	-0.1
SHUT	Suhut-Afyon	1.21	54	ePN	Pn	03 34 12.5	-1.2
SHUT	Suhut-Afyon	1.21	54	ePn	Pn	03 34 12.5	-1.2
ELL	Elmali	1.21	156	ePN	Pn	03 34 12.8	-0.9
ELL	Elmali	1.21	156	ePn	Pn	03 34 12.8	-0.9
DALT	Dalyan (Mudla)	1.21	206	ePN	Pn	03 34 12.9	-0.8
DALT	Dalyan (Mudla)	1.21	206	ePn	Pn	03 34 12.9	-0.8
FETY	Fethiye	1.23	188	ePN	Pn	03 34 13.3	-0.7
FETY	Fethiye	1.23	188	ePn	Pn	03 34 13.3	-0.7
GDZ	Gediz	1.24	6	iP	Pg	03 34 12.3	-1.3
GDZ				iS	Sg	03 34 29.6	-0.1
GDZ	Gediz	1.24	6	iP	Pg	03 34 12.3	-1.3
GDZ				iS	Sg	03 34 29.5	-0.1
MLSB	Milas	1.33	246	ePN	Pn	03 34 15.4	-0.1
MLSB	Milas	1.33	246	ePn	Pn	03 34 15.4	-0.1
ALT	Altintas	1.35	28	ePN	Pn	03 34 14.3	-1.5
ALT	Altintas	1.35	28	ePn	Pn	03 34 14.3	-1.5
AKS	Akhisar	1.55	312	ePN	Pn	03 34 18.4	-0.1
AKS	Akhisar	1.55	312	ePn	Pn	03 34 18.4	-0.1
AKAS	Kas	1.64	171	iP	Pg	03 34 21.3	+0.1
AKAS				iS	Sg	03 34 47.4	+5.0
AKAS	Kas	1.64	171	iP	Pg	03 34 21.3	+0.1
GCAM	G?zelcaml?	1.65	265	iP	Pn	03 34 18.8	-1.0
GCAM				iS	Sn	03 34 41.5	0.0
GCAM	G?zelcaml?	1.65	265	iP	Pn	03 34 18.8	-1.0
GCAM				iS	Sn	03 34 41.5	0.0
BDRM	Kayabasi	1.68	242	iP	Pn	03 34 19.1	-1.0
BDRM				iS	Sg	03 34 48.6	+4.9
BDRM	Kayabasi	1.68	242	iP	Pn	03 34 19.1	-1.1
IZM	Izmir	1.70	289	ePN	Pn	03 34 20.4	0.0
BODT	Bodrum	1.77	244	ePN	Pn	03 34 21.6	+0.1
BODT	Bodrum	1.77	244	ePn	Pn	03 34 21.6	+0.1
DAT	Datca	1.78	231	ePN	Pn	03 34 21.7	+0.1
DAT	Datca	1.78	231	ePn	Pn	03 34 21.7	+0.2
DST	Dursunbey	1.82	343	ePN	Pn	03 34 21.9	-0.3
DST	Dursunbey	1.82	343	ePn	Pn	03 34 21.9	-0.3
DURS	Dursunbey	1.86	340	iP	Pn	03 34 21.6	-1.1
DURS				iS	Sg	03 34 49.9	+0.4
DURS	Dursunbey	1.86	340	iP	Pn	03 34 21.5	-1.2
DURS				iS	Sg	03 34 49.9	+0.3
BLCB	Balcova	1.86	287	ePN	Pn	03 34 22.8	+0.1
BLCB	Balcova	1.86	287	ePn	Pn	03 34 22.8	+0.1
ESKT	Eskisehir	2.06	36	ePN	Pn	03 34 25.4	0.0
ESKT	Eskisehir	2.06	36	ePn	Pn	03 34 25.4	0.0
BALB	Balikesir	2.10	328	ePN	Pn	03 34 26.1	+0.2
BALB	Balikesir	2.10	328	ePn	Pn	03 34 26.2	+0.2
KIZT	Kizilcal	2.27	62	ePN	Pn	03 34 28.6	+0.3
KIZT	Kizilcal	2.27	62	ePn	Pn	03 34 28.6	+0.3
SVRH	Sivrihisar-ESK	2.35	47	ePN	Pn	03 34 29.7	+0.2
SVRH	Sivrihisar-ESK	2.35	47	ePn	Pn	03 34 29.7	+0.2
KONT	Konya--Tatoy	2.42	87	ePN	Pn	03 34 30.6	+0.2
KONT	Konya--Tatoy	2.42	87	ePn	Pn	03 34 30.6	+0.2
KCT	Karacabey	2.52	343	ePN	Pn	03 34 31.9	+0.2
KCT	Karacabey	2.52	343	ePn	Pn	03 34 31.9	+0.2
GEMT	Gemlik	2.58	358	ePN	Pn	03 34 33.0	+0.4
GEMT	Gemlik	2.58	358	ePn	Pn	03 34 33.0	+0.4
ADVT	Abdulvahap	2.60	7	ePN	Pn	03 34 33.2	+0.4
ADVT	Abdulvahap	2.60	7	ePn	Pn	03 34 33.2	+0.4
HDMB	Hadim	2.69	108	ePN	Pn	03 34 34.5	+0.4
HDMB	Hadim	2.69	108	ePn	Pn	03 34 34.5	+0.4
YLV	Yalova	2.71	1	ePN	Pn	03 34 35.1	+0.8
YLV	Yalova	2.71	1	ePn	Pn	03 34 35.1	+0.8
BNT	Bandirma	2.72	337	ePN	Pn	03 34 35.0	+0.5
BNT	Bandirma	2.72	337	ePn	Pn	03 34 35.0	+0.5
ARMT	Armutlu	2.73	353	ePN	Pn	03 34 35.1	+0.4
ARMT	Armutlu	2.73	353	ePn	Pn	03 34 35.1	+0.5
EDC	Edincik	2.73	336	ePN	Pn	03 34 35.2	+0.6
EDC	Edincik	2.73	336	ePn	Pn	03 34 35.2	+0.6
MRMT	Marmara Adasi	3.05	335	ePN	Pn	03 34 39.9	+0.9
MRMT	Marmara Adasi	3.05	335	ePn	Pn	03 34 39.9	+0.9
LPK	Lapseki	3.20	323	ePN	Pn	03 34 41.5	+0.4
LPK	Lapseki	3.20	323	ePn	Pn	03 34 41.5	+0.4
MFT	Murefte	3.32	332	ePN	Pn	03 34 44.1	+1.3
MFT	Murefte	3.32	332	ePn	Pn	03 34 44.1	+1.3
CTKS	Kestanelik-??a	3.43	350	ePN	Pn	03 34 45.3	+1.0
CTKS	Kestanelik-??a	3.43	350	ePn	Pn	03 34 45.3	+1.0

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*IDC **04** 03:44:33.1±15.0, 36.°78N×70.°42E, h169km±161km, mb2.9/1, mb1 2.7/4, mb1mx2.6/25, mbtmp2.7/4, ML3.3/1, Error ellipse: s-maj=235.0km s-min=79.1km az=137.0*
*ISCJB **04** 03:44:36.2±1.0, 36.°80N±0.°10×70.°7E±0.°2, h227km±13km, Error ellipse: s-maj=27.5km s-min=12.2km az=22.9*
*NEIC **04** 03:44:36.7±1.0, 36.°78N×70.°69E, h221km±13km, Error ellipse: s-maj=52.1km s-min=10.6km az=125.0*
ISC 04 03:44:37.2±1.0**, 36.°82N**±0.°10×**70.°7E**±0.°2**, h220**km±13km**, n12, σ0.s95**/14**, 1C, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	2.62	210	ePn	Pn	03 45 23.2	-0.5
KSH	Kashi	4.98	56	Pn	Pn	03 45 44.9	-6.9
KSH				Sn	S	03 46 34.8	-16
KSH				smax			
	comp=N,48nm,0.2s						
KSH				smax			
	comp=E,39nm,0.3s						
AML	Almayashu	5.80	23	ePn	Pn	03 46 02.5	+0.5
	comp=E,19nm,0.4s						
KK31	Karatay Array	6.27	359	Pn	Pn	03 46 09.9	+1.8
	comp=E,0.6nm,0.4s,baz=176,slow=12,SNR=12						
KK31				⇑Sn	S	03 47 19.5	-1.0
	comp=E,1.9nm,0.5s,baz=181,slow=22,SNR=10						
EKS2	Erkin-Say	6.31	21	ePn	Pn	03 46 09.1	+0.5
AAK	Ala-Archa	6.52	26	ePn	Pn	03 46 11.8	+0.6
MK31	Makanchi Array	13.20	37	ePn	Pn	03 47 35.8	-0.5
MKAR	Makanchi Array	13.20	37	P	Pn	03 47 36.0	-0.4
	comp=E,0.1nm,0.3s,baz=223,slow=10,SNR=5.3						
MKAR	Makanchi Array	13.20	37	P	Pn	03 47 36.0	-0.4
KURK	Kurchatov	15.02	20	P	Pn	03 47 56.6	-2.0
	comp=E,0.0nm,0.3s,baz=206,slow=12,SNR=2.8						
ZALV	Zalesovo Beam	19.74	25	P	P	03 48 50.9	+0.7
	comp=E,0.2nm,0.3s,baz=218,slow=9.1,SNR=3.6						
TORD	Torodi Ar. Bea	65.44	268	P	P	03 54 57.0	+0.2
	comp=E,0.3nm,0.8s,baz=51,slow=5.9,SNR=3.6						

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*BJI **04** 03:54:27.7, 31.°83N×94.°93E, h10km, ML3.4/3*
*IDC **04** 03:54:27.2±0.9, 31.°87N×94.°77E, h0km, mb3.8/6, mb1 3.8/8, mb1mx3.6/24, mbtmp3.7/8, ML2.9/2, Error ellipse: s-maj=46.9km s-min=18.5km az=55.0*
*ISCJB **04** 03:54:29.9±4.0, 31.°93N±0.°08×94.°8E±0.°1, h31km±30km, mb3.9/8, Error ellipse: s-maj=18.2km s-min=12.9km az=15.9*
*NEIC **04** 03:54:32.2±0.6, 31.°86N×94.°69E, h35km, mb3.8/3, Error ellipse: s-maj=15.0km s-min=12.4km az=65.0*
ISC 04 03:54:33.5±1.7**, 32.°00N**±0.°08×**94.°8E**±0.°1**, h43**km±17km**, n21, σ1.s11**/21**, mb3.9**/8**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	3.89	235	Pg	Pn	03 55 34.0	+3.3
LSA				Sg	Sn	03 56 36.2	+21
LSA				smax			
	comp=N,10.0nm,1.0s						
LSA				smax			
	comp=E,30nm,0.9s						
LSA	Lhasa	3.89	235	ePn	Pn	03 55 26.2	-4.4
TAPN	Taplejung	7.71	235	eP	Pn	03 56 24.0	+0.8
	comp=E,6.3nm,0.6s						
JIRN	Jiri	8.64	242	eP	Pn	03 56 38.0	+2.1
	comp=E,3.9nm,0.3s						
RAMN	Ramite	8.74	237	eP	Pn	03 56 37.4	+0.1
	comp=E,8.9nm,0.4s						
GUN	Gumba	8.75	245	eP	Pn	03 56 38.9	+1.5
	comp=E,10nm,0.4s						
GKN	Gorkha	9.67	248	eP	Pn	03 56 49.6	-0.4
DANN	Dangsing	10.22	252	eP	Pn	03 56 56.3	-1.3
	comp=E,8.2nm,0.5s						
KOLN	Koldanda	10.60	249	eP	Pn	03 57 00.6	-2.1
PYUN	Piuthan	10.95	252	eP	Pn	03 57 06.0	-1.5
	comp=E,25nm,1.1s						
MKAR	Makanchi Array	17.63	331	P	Pn	03 58 36.8	+1.2
	comp=E,0.1nm,0.3s,baz=148,slow=14,SNR=6.0						
SONM	Songino Array	18.11	26	P	Pn	03 58 41.2	-0.3
	comp=E,0.0nm,0.3s,baz=209,slow=12,SNR=3.7						
KBL	Kabul	21.67	284	eP	P	03 59 20.0	-0.4
	comp=E,3.0nm,0.6s,mb3.9						
KURK	Kurchatov	22.21	332	P	P	03 59 24.8	-1.2
	comp=E,1.3nm,0.7s,mb3.5,baz=136,slow=12,SNR=7.2						
KURK	Kurchatov	22.21	332	P	P	03 59 25.0	-0.9
	comp=E,0.9nm,0.6s,mb3.4						
AKASG	Malin Array Be	50.93	312	P	P	04 03 29.8	-0.4
	comp=E,0.7nm,0.5s,mb3.9,baz=77,slow=6.5,SNR=3.5						
ARCES	ARCESS Array B	53.18	336	P	P	04 03 48.3	+1.6
	comp=E,4.1nm,1.0s,mb4.3,baz=96,slow=9.2,SNR=3.0						
WRAB	Tennant Creek	64.04	138	eP	P	04 05 02.9	0.0
	comp=E,1.0nm,0.6s,mb4.0						
WRA	Warramunga Arr	64.04	138	P	P	04 05 02.2	-0.6
	comp=E,0.6nm,0.7s,mb3.8,baz=323,slow=8.1,SNR=9.0						
ASAR	Alice Springs	66.79	141	P	P	04 05 20.4	-0.1
	comp=E,0.6nm,0.5s,mb3.9,baz=329,slow=6.6,SNR=8.6						
TORD	Torodi Ar. Bea	85.74	283	P	P	04 07 08.8	+0.4
	comp=E,0.4nm,0.6s,mb3.9,baz=54,slow=4.8,SNR=6.1						

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*TAP **04** 04:00:54.9, 24.°15N×122.°12E, h45km, ML3.0, C*
*ISCJB **04** 04:00:55.2±0.4, 24.°13N±0.°03×122.°16E±0.°02, h38km±24km, Error ellipse: s-maj=5.7km s-min=3.2km az=161.8*
*JMA **04** 04:00:55.0±0.2, 24.°47N×122.°17E, h70km*
ISC 04 04:00:55.4±0.5**, 24.°14N**±0.°03×**122.°16E**±0.°02**, h32**km±4km**, n27, σ0.s75**/49**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ENA	Nanau	0.47	307	P	Pb	04 01 05.6	+0.1
	baz=317						
ENA				eS	Sb	04 01 13.6	+1.1
	baz=317						
TWD	Chiawan	0.52	263	iP	Pb	04 01 05.6	-0.5
	baz=256						
TWD				S	Sb	04 01 13.5	0.0
	baz=256						
HWA	Hwalien	0.53	252	P	Pb	04 01 06.1	-0.2
	baz=250						
HWA				eS	Sb	04 01 14.2	+0.3
	baz=250						
TWC	Suao	0.54	329	P	Pb	04 01 06.3	-0.3
	baz=337						
TWC				eS	Sb	04 01 14.1	-0.3
	baz=337						
TWE	Neicheng	0.73	322	P	Pn	04 01 09.3	-0.2
	baz=324						
TWE				eS	Sb	04 01 19.6	+0.2
	baz=324						
ENTT	Nioudou	0.73	313	P	Pn	04 01 09.1	-0.4
	baz=306						
ENTT				eS	Sb	04 01 19.9	+0.4
	baz=306						
ESL	Shilin	0.74	244	P	Pn	04 01 08.6	-1.0
	baz=234						
ESL				eS	Sb	04 01 19.5	-0.1
	baz=234						
NNS	Nan Shan	0.77	293	P	Pn	04 01 09.8	-0.3
	baz=293						
NNS				S	Sb	04 01 20.4	-0.2
	baz=293						
WHF	Hehuan Shan	0.81	270	P	Pn	04 01 10.1	-0.5
	baz=270						
WHF				S	Sb	04 01 21.3	-0.5
	baz=270						
YOJ	Yonaguni jima	0.84	68	P	Pn	04 01 10.8	-0.2
YOJ				S	Sn	04 01 22.4	+0.1
TWB1	Santiao Chiao	0.88	350	eP	Pn	04 01 11.8	+0.3
	baz=352						
NSK	Sanguang	0.90	306	P	Pn	04 01 11.7	-0.2
	baz=298						
NSK				S	Sn	04 01 22.9	-0.9
	baz=298						
TWT	Tachien	0.90	277	eP	Pn	04 01 12.3	+0.4
	baz=267						
TWT				eS	Sn	04 01 23.8	+0.1
	baz=267						
TWA	Mucha	0.98	328	eP	Pn	04 01 13.0	0.0
	baz=329						
NWF	Wu-fen Shan	0.99	340	eP	Pn	04 01 12.9	-0.1
	baz=354						
EHY	Hungye	0.99	231	P	Pn	04 01 12.0	-1.1
	baz=228						
EHY				eS	Sn	04 01 22.8	-3.2
	baz=228						
TWF1	Yuli	1.11	225	P	Pn	04 01 13.7	-1.0
	baz=235						
TWF1				eS	Sn	04 01 27.1	-1.8
	baz=235						
SMLT	Sun Moon Lake	1.18	258	eP	Pn	04 01 15.9	+0.3
	baz=256						
SMLT				eS	Sn	04 01 30.5	-0.1
	baz=256						
TYC	Yuchr	1.21	259	eP	Pn	04 01 16.2	+0.1
	baz=250						
TYC				S	Sn	04 01 31.0	-0.4
	baz=250						
ALS	Alishan	1.39	243	eP	Pn	04 01 18.9	+0.3
	baz=233						

ALS				*e*S	Sn	04 01 37.3	+1.5
	baz=233						
IRIF	**Iriomote-Funau**	1.45	82	P	Pn	04 01 19.2	-0.1
IRIF				*e*S	Sn	04 01 37.8	+0.5
CHN5	**Tsauling**	1.46	248	*e*P	Pn	04 01 20.2	+0.7
	baz=236						
CHN5				S	Sn	04 01 39.0	+1.5
	baz=236						
HATJ	**Hateruma jima**	1.51	93	*e*S	Sn	04 01 39.9	+1.2
WTP	**Ta-pu**	1.67	238	*e*P	Pn	04 01 23.5	+1.1
	baz=236						
WTP				*e*S	Sn	04 01 44.6	+1.9
	baz=236						
JKRS	**Kuro-shima**	1.69	86	P	Pn	04 01 23.3	+0.6
JKRS				*e*S	Sn	04 01 43.9	+0.6
JIJ	**Ishigaki jima**	1.83	83	P	Pn	04 01 24.3	-0.2
JIJ				*e*S	Sn	04 01 45.5	-1.1
JTJ	**Tarama**	2.37	77	*e*S	Sn	04 01 59.4	-0.7

IDC 04 04:05:09.3±2.8**, 19.°17S**×**176.°84W, h0**^{km}**, mb3.6**/3**, mb1 4.0**/3**, mb1mx3.7**/17**, mbtmp3.6**/3**, Error ellipse: s-maj=299.6km s-min=34.0km az=160.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	45.89	261	P	P	04 13 33.9	+0.1
	0.2nm,0.3s,baz=97,slow=7.0,SNR=7.8						
ASAR	**Alice Springs**	45.90	255	P	P	04 13 33.8	-0.2
	0.6nm,0.5s,baz=88,slow=8.1,SNR=7.9						
TXAR	**Lajitas Array**	85.41	57	P	P	04 17 49.2	+0.2
	0.3nm,0.6s,baz=221,slow=7.4,SNR=4.4						

ISK ***04*** *04:08:45.3, 39.°35N×39.°79E, h5*^{km}*, MD3.5, ML3.1*

ISCJB ***04*** *04:08:46.5±1.3, 39.°35N±0.°04×39.°79E±0.°05, h0*^{km}*±11*^{km}*, Error ellipse: s-maj=7.2km s-min=5.7km az=27.4*

CSEM ***04*** *04:08:46.8±0.1, 39.°34N×39.°81E, h2*^{km}*, MD3.5, Error ellipse: s-maj=3.6km s-min=2.9km az=133.0*

DDA ***04*** *04:08:47.0, 39.°39N×39.°78E, h14*^{km}*±2*^{km}*, Md3.3, Ml3.6*

ISC 04 04:08:47.3±1.0**, 39.°35N**±0.°04×**39.°81E**±0.°05**, h4**^{km}±7^{km}**, n45, σ0**^{s}**86**/56**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZC	**Erzincan**	0.40	1	*e*PG	Pg	04 08 56.5	+1.5
EZC				*e*SG	Sg	04 09 05.1	+4.9
KOPT	**Kop Dagi**	0.85	38	*i* P	Pg	04 09 03.2	-0.4
KOPT				*i* S	Sg	04 09 21.3	+6.6
KOPT	**Kop Dagi**	0.85	38	*i* P	Pg	04 09 03.2	-0.5
KOPT				*i* S	Sg	04 09 21.3	+6.6
KEMA	**Kemaliye**	1.03	266	*i* P	Pg	04 09 05.8	-1.2
KEMA				*i* S	Sg	04 09 20.9	+0.6
KEMA	**Kemaliye**	1.03	266	*i* P	Pg	04 09 05.8	-1.2
KEMA				*i* S	Sg	04 09 20.9	+0.6
GUMT	**Gumushane**	1.14	347	*e*PN	Pn	04 09 07.6	-2.4
EZM	**Erzurum**	1.32	65	*e*PN	Pn	04 09 11.8	-0.7
DIY	**Diyarbakir**	1.49	167	*e*PN	Pn	04 09 14.4	-0.4
DIY	**Diyarbakir**	1.49	167	*e*Pn	Pn	04 09 14.4	-0.4
MYA	**Malataya**	1.49	227	*e*PN	Pn	04 09 13.7	-1.1
MYA				*e*SN	Sn	04 09 35.3	+0.6
MYA	**Malataya**	1.49	227	*e*Pn	Pn	04 09 13.7	-1.1
MYA				*e*Sn	Sn	04 09 35.3	+0.6
MALT	**Malatya**	1.50	227	*e*PN	Pn	04 09 14.0	-1.0
MALT	**Malatya**	1.50	227	*e*Pn	Pn	04 09 14.0	-0.9
MACK	**Trabzon**	1.59	359	*i* P	Pn	04 09 16.5	+0.2
MACK				*i* S	Sn	04 09 37.8	+0.5
MACK	**Trabzon**	1.59	359	*i* P	Pn	04 09 16.5	+0.2
MACK				*i* S	Sn	04 09 37.8	+0.5
DARE	**Darende-Malaty**	1.61	256	*e*PN	Pn	04 09 21.3	+4.8
DARE	**Darende-Malaty**	1.61	256	*e*Pn	Pn	04 09 21.3	+4.8
ESPY	**Espiye-Giresun**	1.77	332	*e*PN	Pn	04 09 18.3	-0.4
ESPY	**Espiye-Giresun**	1.77	332	*e*Pn	Pn	04 09 18.3	-0.4
PZAR	**Pazar-Rize**	2.01	24	*e*PN	Pn	04 09 22.1	+0.2
PZAR	**Pazar-Rize**	2.01	24	*e*Pn	Pn	04 09 22.1	+0.1
URFA	**Urfa**	2.06	203	*e*PN	Pn	04 09 22.5	-0.1
URFA	**Urfa**	2.06	203	*e*Pn	Pn	04 09 22.5	-0.2
MARD	**Mardin**	2.17	159	*i* P	Pn	04 09 26.3	+2.1
MARD				*i* S	Sn	04 09 56.0	+4.4
RSDY	**Resadiye-TOKAT**	2.18	299	*e*PN	Pn	04 09 24.1	-0.2
RSDY	**Resadiye-TOKAT**	2.18	299	*e*Pn	Pn	04 09 24.1	-0.2
AGRB	**Hanur-Agry**	2.47	84	*e*PN	Pn	04 09 28.7	+0.4
AGRB	**Hanur-Agry**	2.47	84	*e*Pn	Pn	04 09 28.7	+0.3
SARI	**SarD1z-Kayseri**	2.52	256	*e*PN	Pn	04 09 32.7	+3.8
SARI	**SarD1z-Kayseri**	2.52	256	*e*Pn	Pn	04 09 32.7	+3.7
TOKT	**Tokat**	2.69	292	*e*PN	Pn	04 09 31.4	-0.1
TOKT	**Tokat**	2.69	292	*e*Pn	Pn	04 09 31.4	0.0
TOKA	**Tokat**	2.74	292	*i* P	Pn	04 09 33.0	+0.9
TOKA				*i* S	Sn	04 10 16.6	+11
TOKA	**Tokat**	2.74	292	*i* P	Pn	04 09 33.0	+0.9
KMRS	**Kahramanmaras**	2.94	232	*e*PN	Pn	04 09 34.5	-0.3
KMRS	**Kahramanmaras**	2.94	232	*e*Pn	Pn	04 09 34.5	-0.2
GAZ	**Gaziantep**	2.99	224	*e*PN	Pn	04 09 35.2	-0.2
GAZ	**Gaziantep**	2.99	224	*e*Pn	Pn	04 09 35.2	-0.2
BNN	**Bunyan**	3.12	262	*e*PN	Pn	04 09 37.7	+0.3
BNN	**Bunyan**	3.12	262	*e*Pn	Pn	04 09 37.7	+0.4
KVT	**Kavak**	3.36	302	*e*PN	Pn	04 09 40.2	-0.4
KVT	**Kavak**	3.36	302	*e*Pn	Pn	04 09 40.2	-0.4
YOZ	**Yozgat**	3.49	276	*e*PN	Pn	04 09 42.7	+0.4
YOZ	**Yozgat**	3.49	276	*e*Pn	Pn	04 09 42.7	+0.4
KOZT	**Kozan**	3.64	240	*e*PN	Pn	04 09 44.9	+0.5

GCMT ***04*** *04:46:00.0±0.3, 53.°49S×117.°56W, h18*^{km}*±1*^{km}*, MW5.0/60, Moment Tensor Solution. s27,c30; s60,c77; Duration: 0 Moment tensor: Scale 10*^{16}*Nm;* M_{rr}*-3.78±.24;* $M_{\theta\theta}$*1.01±.18;* $M_{\phi\phi}$*2.77±.16;* $M_{r\theta}$*0.73±.45;* $M_{\theta\phi}$*0.70±.11;* $M_{\phi r}$*-1.23±.32; Best double couple:* M_0*3.64300×10*^{16} *NP1:*ϕ_s*209.00000°, δ38.00000°, λ-71.00000°. NP2:* ϕ_s*5.00000°, δ54.00000°, λ-105.00000°. Principal axes: T 3.1440, Plg8.0000°, Azm105.0000°; N 0.9980, Plg12.0000°, Azm14.0000°; P -4.1420, Plg76.0000°, Azm229.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC 04 04:45:56.3±0.9**, 53.°49S**×**118.°36W, h0**^{km}**, mb4.1**/4**, mb1 4.4**/4**, mb1mx4.1**/13**, mbtmp4.0**/4**, MS4.3**/12**, Ms1 4.3**/12**, ms1mx4.2**/22 **Error ellipse: s-maj=56.2km s-min=32.5km az=146.0, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPN	**Rapa Nui**	27.17	18	LR	LR	05 00 07.4	
	comp=Z,254nm,18.4s,baz=40,slow=31						
USHA	**Ushuaia**	28.77	113	LR	LR	05 00 04.3	
	comp=Z,1µm,19.8s,baz=344,slow=30						
PMSA	**Palmer Station**	29.09	134	LR	LR	05 00 15.0	
	comp=Z,364nm,19.9s,baz=38,slow=30						
RKT	**Rikitea**	32.84	331	*e*LR	LR	05 01 02.2	
	790nm,28.5s						
PLCA	**Paso Flores**	34.29	88	LR	LR	05 03 06.0	
	comp=Z,400nm,18.0s,baz=200,slow=30						
VNDA	**Vanda**	36.33	201	LR	LR	05 05 42.9	
	comp=Z,319nm,21.0s,baz=234,slow=33						
PPT	**Papeete**	43.28	314	*e*LR	LR	05 05 59.3	
	1µm,26.0s,baz=156						
PPT	**Papeete**	43.28	314	LR	LR	05 07 03.1	
	comp=Z,502nm,20.4s,baz=102,slow=29						
RPZ	**Rata Peaks**	45.88	252	LR	LR	05 08 45.1	
	comp=Z,455nm,18.2s,baz=160,slow=30						
CPUP	**Villa Florida**	52.16	84	LR	LR	05 14 25.9	
	comp=Z,719nm,18.2s,baz=288,slow=33						
ROSC	**El Rosal**	68.85	48	LR	LR	05 22 17.6	
	comp=Z,134nm,18.4s,baz=20,slow=32						
STKA	**Stephens Creek**	70.57	243	LR	LR	05 23 26.4	
	comp=Z,218nm,18.8s,baz=206,slow=32						
HNR	**Honiara**	77.55	271	LR	LR	05 24 22.4	
	comp=Z,172nm,18.5s,baz=223,slow=30						
ASAR	**Alice Springs**	81.19	242	P	P	04 58 13.3	-0.6
	1.3nm,1.0s,baz=150,slow=3.6,SNR=6.3						
TXAR	**Lajitas Array**	83.45	13	P	P	04 58 25.8	+0.5
	1.4nm,1.0s,baz=185,slow=8.8,SNR=8.7						
WRA	**Warramunga Arr**	84.00	245	P	P	04 58 29.1	+0.6
	2.2nm,1.1s,baz=146,slow=4.6,SNR=8.9						
WRA				LR	LR	05 31 48.2	
	comp=Z,223nm,18.7s,baz=145,slow=33						
PDAR	**Pinedale Array**	96.17	7	P	P	04 59 25.2	-0.1
	0.3nm,0.7s,baz=205,slow=4.0,SNR=2.8						
GERES	**GERESS Array B**	150.04	79	PKPbc	PKPbc	05 05 47.1	-0.6
	1.5nm,0.8s,baz=209,slow=2.4,SNR=7.9						
CLL	**Collm**	150.69	74	*i* P	PKPbc	05 05 49.8	+0.6
	comp=Z,10.0nm,1.1s						
CLL				*e*		05 05 59.0	
BRG	**Berggiesshubel**	151.06	76	*e*(P)	PKPbc	05 05 50.9	+0.8
	comp=Z,7.3nm,1.4s						
SONM	**Songino Array**	151.45	277	PKPbc	PKPbc	05 05 50.8	-0.3
	comp=Z,0.4nm,0.4s,baz=143,slow=1.3,SNR=3.7						
BRTR	**Keskin Array B**	156.53	115	PKPab	PKPab	05 06 21.6	+0.2
	comp=Z,0.9nm,1.0s,baz=131,slow=3.8,SNR=4.5						
MKAR	**Makanchi Array**	165.19	251	PKPab	PKPab	05 06 59.4	+0.4
	comp=Z,1.2nm,1.1s,baz=104,slow=5.1,SNR=4.7						
ZALV	**Zalesovo Beam**	166.28	281	PKPab	PKPab	05 07 03.2	-0.4
	comp=Z,0.5nm,0.5s,baz=116,slow=3.4,SNR=6.0						

NEIC ***04*** *04:55:15.9±1.4, 15.°23S×177.°50W, h391*^{km}*±23*^{km}*, mb3.6/1, Error ellipse: s-maj=28.4km s-min=23.4km az=172.0*

IDC ***04*** *04:55:15.8±2.2, 15.°24S×177.°46W, h392*^{km}*±29*^{km}*, mb3.6/7, mb1 3.7/8, mb1mx3.4/21, mbtmp3.6/8, Error ellipse: s-maj=28.7km s-min=22.4km az=17.0*

ISCJB ***04*** *04:55:16.3±1.6, 14.°9S±0.°4×177.°1W±0.°3, h459*^{km}*±53*^{km}*, mb4.0/11, Error ellipse: s-maj=71.0km s-min=32.2km az=41.0*

ISC 04 04:55:17.2±1.7**, 14.°9S**±0.°4×**177.°2W**±0.°3**, h443**^{km}±56^{km}**, n16, σ0**^{s}**55**/15**, mb4.0**/11**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	5.33	80	P	P	04 56 44.3	-0.3
	2.5nm,0.3s,baz=308,slow=21,SNR=4.8						
AFI	**Afiamalu**	5.33	80	*e*Pn	P	04 56 44.8	+0.3
URZ	**Urewera**	23.79	191	P	P	04 59 52.6	-0.5
	9.9nm,0.7s,mb4.3,baz=282,slow=11,SNR=7.2						
CTA	**Charters Tower**	35.20	256	P	P	05 01 33.5	+0.9
	4.3nm,0.7s,mb3.9,baz=77,slow=10,SNR=6.0						
STKA	**Stephens Creek**	41.14	238	P	P	05 02 21.6	+0.3
	1.6nm,0.3s,mb3.8,baz=65,slow=7.0,SNR=4.5						
WRAB	**Tennant Creek**	46.39	257	*e*P	P	05 03 01.8	-0.6
	5.0nm,1.4s,mb3.6						
WRA	**Warramunga Arr**	46.40	257	P	P	05 03 01.8	-0.7
	0.5nm,0.4s,mb3.2,baz=91,slow=7.0,SNR=18						
ASAR	**Alice Springs**	46.79	251	P	P	05 03 05.2	-0.3
	9.8nm,0.5s,mb4.4,baz=84,slow=8.4,SNR=146						
FORT	**Forrest**	52.38	243	*e*P	P	05 03 47.6	+0.8
	14nm,0.6s,mb4.4						
FITZ	**Fitzroy Crossi**	54.73	258	*e*P	P	05 04 10.4	+6.6
	3.9nm,0.6s,mb3.8						
FITZ	**Fitzroy Crossi**	54.73	258	P	P	05 04 03.4	-0.4
	2.0nm,0.6s,mb3.5,baz=120,slow=3.7,SNR=5.1						
MBWA	**Marble Bar**	59.98	254	*e*P	P	05 04 46.3	+6.4
MEEK	**Meekatharra**	60.62	248	*e*P	P	05 04 49.4	+5.4
	19nm,1.2s,mb4.4						
KLBR	**Kellerberrin**	61.24	242	*e*P	P	05 04 53.4	+5.4
	10nm,0.7s,mb4.4						
VNDA	**Vanda**	63.51	185	P	P	05 05 02.3	+0.3
	2.0nm,1.0s,mb3.6,baz=30,slow=8.1,SNR=2.5						
ARCES	**ARCESS Array B**	123.59	351	PKP	PKPdf	05 13 28.2	+5.7
	2.1nm,0.9s,baz=49,slow=2.5,SNR=5.8						

MOS 04 05:08:32.9±1.7**, 43.°23N**×**46.°35E, h15**^{km}**, mb3.9**/1**, Error ellipse: s-maj=52.4km s-min=13.1km az=176.7, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNJR	**Sundja**	1.14	262	*e*PG	Pg	05 08 55.6	+0.8
SNJR				*e*S	Sb	05 09 12.6	+3.8
VLKR	**Vladikavkaz**	1.24	262	*e*PG	Pg	05 08 57.3	+0.6
VLKR				*e*S	Sb	05 09 15.7	+4.0
TRKR	**Terskaya**	1.28	293	*e*PG	Pg	05 08 58.5	+1.0
TRKR				*i* S	Sb	05 09 17.7	+4.9
ARNR	**Ardon**	1.52	269	*e*PG	Pg	05 09 02.0	0.0
ARNR				*e*S	Sn	05 09 23.5	+4.6
KORR	**Kora**	1.68	266	*e*PN	Pn	05 09 03.8	+2.1
KORR				*e*S	Sn	05 09 27.1	+4.2
LSNR	**Lesken**	1.85	272	*e*PN	Pn	05 09 06.5	+2.4
LSNR				*e*S	Sn	05 09 31.8	+4.6
ZEI	**Tsey**	1.86	256	*e*PN	Pn	05 09 06.2	+2.1
ZEI				*e*S	Sn	05 09 30.9	+3.6
DIGR	**Digorskoe uzhe**	2.06	262	*e*PN	Pn	05 09 08.9	+2.0

ISCJB ***04*** *05:16:43.6±0.2, 44.°80N±0.°01×6.°73E±0.°02, h13*^{km}*±2*^{km}*, Error ellipse: s-maj=2.8km s-min=2.0km az=151.8*

ROM ***04*** *05:16:43.8±0.3, 44.°81N×6.°78E, h9*^{km}*±5*^{km}*, Md1.9/6, Ml1.9/3, Error ellipse: s-maj=7.6km s-min=2.3km az=88.0*

CSEM ***04*** *05:16:44.1±0.1, 44.°81N×6.°76E, h12*^{km}*, ML2.5/18, Error ellipse: s-maj=1.6km s-min=1.2km az=57.0*

NEIC ***04*** *05:16:44.9, 44.°81N×6.°76E, h2*^{km}*, ML2.3(STR), ML2.5(LDG), After LDG.*

GEN ***04*** *05:16:44.3, 44.°80N×6.°73E, h4*^{km}*, ML1.8*

STR ***04*** *05:16:44.2±0.1, 44.°83N×6.°80E, h10*^{km}*, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

LDG ***04*** *05:16:44.9±0.1, 44.°81N×6.°76E, h2*^{km}*, Md2.3/3, Ml2.5/12, Error ellipse: s-maj=1.8km s-min=1.0km az=76.0*

ISC 04 05:16:44.2±0.2**, 44.°81N**±0.°01×**6.°76E**±0.°02**, h15**^{km}±2^{km}**, n73, σ0**^{s}**71**/137**, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBDF	**Montbardon**	0.08	173	*e*Pg	Pg	05 16 46.3	-0.9
	SNR=1.0						
MBDF				*e*Sg	Sg	05 16 47.5	-1.9
	456nm,0.2s						
MBDF	**Montbardon**	0.08	173	*e*Pg	Pg	05 16 46.3	-0.9
	SNR=1.0						
MBDF				*e*Sg	Sg	05 16 47.5	-1.9
	228nm,0.2s						
OG22	**Abries**	0.13	85	Pg	Pg	05 16 47.8	0.0
OG22				Sg	Sg	05 16 49.9	-0.5
OG22	**Abries**	0.13	85	Pg	Pg	05 16 47.8	0.0
OG22				Sg	Sg	05 16 49.9	-0.5
BNI	**Bardonecchia**	0.25	347	Pg	Pg	05 16 49.6	0.0
BNI				Sg	Sg	05 16 54.1	+0.8
BNI	**Bardonecchia**	0.25	347	*e*Pg	Pg	05 16 49.6	0.0
BNI				*e*Sg	Sg	05 16 53.5	+0.3
BNI	**Bardonecchia**	0.25	347	Pg	Pg	05 16 49.6	0.0
BNI				*e*Sg	Sg	05 16 53.5	+0.2
SURF	**Saint Ours**	0.33	173	Pg	Pg	05 16 51.0	0.0
SURF				Sg	Sg	05 16 56.0	+0.4
SURF	**Saint Ours**	0.33	173	Pg	Pg	05 16 51.0	0.0
SURF				Sg	Sg	05 16 56.0	+0.4
PZZ	**Stroppo**	0.40	140	Pg	Pg	05 16 51.8	-0.4
PZZ				Sg	Sg	05 16 57.6	0.0
PZZ	**Stroppo**	0.40	140	Pg	Pg	05 16 51.8	-0.4
PZZ	**Stroppo**	0.40	140	P	Pg	05 16 51.9	-0.3
PZZ				S	Sg	05 16 57.2	-0.4
PZZ				Sg	Sg	05 16 57.6	0.0
DOI	**San Damiano**	0.46	131	Pg	Pg	05 16 53.3	-0.1
DOI				Sg	Sg	05 16 59.6	-0.1
	200nm,0.2s						
DOI	**San Damiano**	0.46	131	Pg	Pg	05 16 53.3	-0.1
DOI				Sg	Sg	05 16 59.6	-0.1
	200nm,0.2s						
RSP	**Reno Superiore**	0.49	47	P	Pg	05 16 54.3	+0.3
GDM	**Grand'Maison**	0.60	311	Pg	Pg	05 16 56.0	0.0
GDM				Sg	Sg	05 17 03.8	-0.2
GDM	**Grand'Maison**	0.60	311	Pg	Pg	05 16 56.0	0.0
GDM				Sg	Sg	05 17 03.8	-0.2
ORIF	**Oris-en-Rattie**	0.63	280	*e*Pg	Pg	05 16 56.4	-0.2
	SNR=1.0						
ORIF				*e*Sg	Sg	05 17 04.2	-0.8
	77nm,0.3s,SNR=1.0						
ORIF	**Oris-en-Rattie**	0.63	280	*e*Pg	Pg	05 16 56.4	-0.2
	SNR=1.0						
ORIF				*e*Sg	Sg	05 17 04.2	-0.8
	38nm,0.3s,SNR=1.0						
LPG	**La Plagne**	0.69	360	*e*Pg	Pg	05 16 57.9	+0.3
	SNR=1.0						
LPG				*e*Sg	Sg	05 17 07.3	+0.6
	31nm,0.4s						
LPG	**La Plagne**	0.69	360	*e*Pg	Pg	05 16 57.9	+0.3
	SNR=1.0						
LPG				*e*Sg	Sg	05 17 07.3	+0.6
	16nm,0.4s						
STV	**Sant Anna di V**	0.70	144	Pg	Pg	05 16 58.1	+0.3
STV				Sg	Sg	05 17 07.6	+0.7
STV	**Sant Anna di V**	0.70	144	Pg	Pg	05 16 58.1	+0.3
STV				Sg	Sg	05 17 07.6	+0.7
LSD	**Lago del Serru**	0.70	22	Pg	Pg	05 16 58.1	+0.2
LSD				Sg	Sg	05 17 07.3	+0.2
	27nm,0.2s						
LSD	**Lago del Serru**	0.70	22	Pg	Pg	05 16 58.1	+0.2
LSD				Sg	Sg	05 17 07.3	+0.2
	27nm,0.2s						
LPL	**La Plagne**	0.71	359	*e*Pg	Pg	05 16 58.4	+0.4
	SNR=1.0						
LPL				*e*Sg	Sg	05 17 07.9	+0.6
	27nm,0.3s,SNR=1.0						
LPL	**La Plagne**	0.71	359	*e*Pg	Pg	05 16 58.4	+0.4
	SNR=1.0						
LPL				*e*Sg	Sg	05 17 07.9	+0.6
	13nm,0.3s,SNR=1.0						
GRN	**Grenoble**	0.84	301	Pg	Pg	05 17 01.0	+0.6
GRN				Sg	Sg	05 17 12.6	+1.1
GRN	**Grenoble**	0.84	301	Pg	Pg	05 17 01.0	+0.6
GRN				Sg	Sg	05 17 12.6	+1.1
TOUF	**Mont Tournerai**	0.87	156	Pg	Pg	05 17 00.8	-0.3
TOUF	**Mont Tournerai**	0.87	156	Pg	Pg	05 17 00.8	-0.3
AUTN	**L'Aution**	0.95	149	Pg	Pg	05 17 02.7	+0.2
AUTN				Sg	Sg	05 17 15.3	+0.4
AUTN	**L'Aution**	0.95	149	Pg	Pg	05 17 02.7	+0.2
AUTN				Sg	Sg	05 17 15.3	+0.4
MVIF	**Mont Vial**	0.96	163	Pg	Pg	05 17 04.0	+1.3
MVIF				Sg	Sg	05 17 16.4	+1.2
MVIF	**Mont Vial**	0.96	163	Pg	Pg	05 17 04.0	+1.3
MVIF				Sg	Sg	05 17 16.4	+1.2
TRAV	**Traversella**	0.99	45	P	Pb	05 17 02.8	-0.3
TRAV				S	Sb	05 17 15.7	-0.2
SAOF	**Saorge**	1.00	145	Pg	Pg	05 17 03.3	-0.3
SAOF				Sg	Sg	05 17 17.0	+0.3
SAOF	**Saorge**	1.00	145	Pg	Pg	05 17 03.3	-0.3
SAOF				Sg	Sg	05 17 17.0	+0.3
LUCF	**Luceram**	1.01	155	Pg	Pg	05 17 03.5	-0.2
LUCF	**Luceram**	1.01	155	Pg	Pg	05 17 03.5	-0.2
STOF	**St-Etienne Org**	1.01	217	Pg	Pg	05 17 04.9	+1.1
STOF	**St-Etienne Org**	1.01	217	Pg	Pg	05 17 04.9	+1.1
SBF	**Sospel**	1.06	153	*e*Pg	Pg	05 17 04.9	+0.2
	SNR=1.0						
SBF				*e*Sg	Sg	05 17 19.0	+0.4
	31nm,0.3s,SNR=1.0						
SBF	**Sospel**	1.06	153	*e*Pg	Pg	05 17 04.9	+0.2
	SNR=1.0						
SBF				*e*Sg	Sg	05 17 19.0	+0.4
	16nm,0.3s,SNR=1.0						
RONM	**Roccetta Nervi**	1.11	147	P	Pb	05 17 04.6	-0.5
RONM				S	Sb	05 17 17.9	-1.5
ROTM	**Rocchetta Tana**	1.14	87	P	Pb	05 17 06.2	+0.7
ROTM				S	Sb	05 17 21.0	+0.9
NEGI	**Seborga**	1.18	144	P	Pn	05 17 05.7	-0.4
NEGI				S	Sb	05 17 19.8	-1.5
SMRF	**Simiane la Rot**	1.19	226	*e*Pg	Pg	05 17 07.4	+0.3
	SNR=1.0						
SMRF				*e*Sg	Sg	05 17 23.2	+0.6
	11nm,0.4s						
SMRF	**Simiane la Rot**	1.19	226	*e*Pg	Pg	05 17 07.4	+0.3
	SNR=1.0						
SMRF				*e*Sg	Sg	05 17 23.2	+0.6
	5.7nm,0.4s						
IMI	**Imperia**	1.21	137	P	Pn	05 17 06.2	-0.4
IMI				S	Sb	05 17 20.5	-1.8
FRF	**La Foret Royal**	1.25	184	*e*Pn	Pn	05 17 07.0	-0.1
	SNR=1.0						
FRF				*e*Sg	Sg	05 17 24.4	-0.2
	16nm,0.2s						
FRF	**La Foret Royal**	1.25	184	*e*Pn	Pn	05 17 07.0	-0.1
	SNR=1.0						
FRF				*e*Sg	Sg	05 17 24.4	-0.2
	7.9nm,0.2s						
TAVF	**Tavernes**	1.29	203	Pg	Pg	05 17 09.5	+0.4
TAVF				Sg	Sg	05 17 27.0	+1.0
TAVF	**Tavernes**	1.29	203	Pg	Pg	05 17 09.5	+0.4
TAVF				Sg	Sg	05 17 27.0	+1.0
PCP	**Piancastagn**	1.30	101	P	Pn	05 17 08.2	+0.4
PCP				S	Sb	05 17 24.1	-0.8
VIVF	**Saint-Julien-l**	1.48	272	*e*Pg	Pg	05 17 11.4	-1.3
	SNR=1.0						
VIVF				*e*Sg	Sg	05 17 32.2	+0.2
	13nm,0.3s						
VIVF	**Saint-Julien-l**	1.48	272	*e*Pg	Pg	05 17 11.4	-1.3
	SNR=1.0						
VIVF				*e*Sg	Sg	05 17 32.2	+0.2
	6.3nm,0.3s						
LMR	**La Mourre**	1.49	187	*e*Pg	Pg	05 17 12.4	-0.4
	SNR=1.0						
LMR				*e*Sg	Sg	05 17 31.9	-0.2
	19nm,0.2s,SNR=1.0						
LMR	**La Mourre**	1.49	187	*e*Pg	Pg	05 17 12.4	-0.4
	SNR=1.0						
LMR				*e*Sg	Sg	05 17 31.9	-0.2
	9.6nm,0.2s,SNR=1.0						
CABF	**La Chapelle**	1.86	346	*e*Pg	Pg	05 17 19.8	-0.1
CABF				*e*Sg	Sg	05 17 43.7	-0.3
	5.5nm,0.4s						
CABF	**La Chapelle**	1.86	346	*e*Pg	Pg	05 17 19.8	-0.1
CABF				*e*Sg	Sg	05 17 43.7	-0.3
	2.8nm,0.4s						
LASF	**Ste Croix**	2.20	252	*e*Pn	Pn	05 17 21.0	+0.8
LASF				*e*Sn	Sn	05 17 47.0	-0.2
	1.6nm,0.2s						
LASF	**Ste Croix**	2.20	252	*e*Pn	Pn	05 17 21.0	+0.8
LASF				*e*Sn	Sn	05 17 47.0	-0.2
	0.8nm,0.2s						
SMF	**Signal de Mont**	2.75	313	*e*Pn	Pn	05 17 28.3	+0.6
	SNR=1.0						
SMF				*e*Sg	Sg	05 18 11.3	-1.1
	2.6nm,0.3s						
SMF	**Signal de Mont**	2.75	313	*e*Pn	Pn	05 17 28.3	+0.6
	SNR=1.0						
SMF				*e*Sg	Sg	05 18 11.3	-1.1
	1.3nm,0.3s						
PGF	**Pioggiola**	2.79	144	*e*Pn	Pn	05 17 29.4	+1.2
	SNR=1.0						
PGF				*e*Sn	Sn	05 18 01.3	-0.3
	1.7nm,0.3s						
PGF	**Pioggiola**	2.79	144	*e*Pn	Pn	05 17 29.4	+1.2
	SNR=1.0						
PGF				*e*Sn	Sn	05 18 01.3	-0.3
	0.9nm,0.3s						
AVF	**Avril sur Loir**	3.10	311	*e*Pn	Pn	05 17 33.0	+0.5
AVF				*e*Sg	Sg	05 18 22.2	-1.4
	3.8nm,0.6s						
AVF	**Avril sur Loir**	3.10	311	*e*Pn	Pn	05 17 33.0	+0.5
AVF				*e*Sg	Sg	05 18 22.2	-1.4
	1.9nm,0.6s						
BGF	**Bois d'Agland**	3.25	304	*e*Pn	Pn	05 17 35.1	+0.5
	SNR=1.0						
BGF				*e*Sg	Sg	05 18 26.9	-1.7
	2.8nm,0.2s						
BGF	**Bois d'Agland**	3.25	304	*e*Pn	Pn	05 17 35.1	+0.5
	SNR=1.0						
BGF				*e*Sg	Sg	05 18 26.9	-1.7
	1.4nm,0.2s						
MTLF	**Montolieu**	3.59	247	*e*Pn	Pn	05 17 39.7	+0.5
MTLF	**Montolieu**	3.59	247	*e*Pn	Pn	05 17 39.7	+0.5

ISCJB ***04*** *05:21:31.7±0.4, 58.°76S±0.°06×25.°1W±0.°1, h10*^{km}*, mb4.8/16, MS4.2/12, Error ellipse: s-maj=11.4km s-min=8.0km az=159.2*

NEIC ***04*** *05:21:38.3±2.8, 58.°71S×25.°19W, h47*^{km}*±23*^{km}*, mb4.6/2, Error ellipse: s-maj=12.4km s-min=10.3km az=225.0*

IDC ***04*** *05:21:39.7±1.9, 58.°73S×25.°34W, h59*^{km}*±15*^{km}*, mb4.6/13, mb1 4.7/14, mb1mx4.5/19, mbtmp4.6/14, MS4.1/13, Ms1 4.1/13, ms1mx4.0/21, Error ellipse: s-maj=15.6km s-min=14.1km az=74.0*

BJI ***04*** *05:21:41.2, 58.°70S×25.°20W, h47*^{km}

ISC 04 05:21:32.4±4.8**, 58.°78S**±0.°07×**25.°2W**±0.°2**, h4**^{km}±30^{km}**, n101, σ0**^{s}**75**/40**, mb4.8**/15**, MS4.2**/12**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	13.86	156	*e*	Pn	05 24 49.4	+0.2
VNA1				*e*S	Sn	05 27 13.7	-10
VNA3	**Neumayer Olymp**	14.05	159	*e*	Pn	05 24 51.4	-0.5
VNA3				*e*S	Sn	05 27 11.0	-17
VNA3				*e*		05 30 12.1	
VNA2	**Neumayer--Watz**	14.25	156	*e*	Pn	05 24 54.2	-0.4
VNA2				*e*S	Sn	05 27 17.9	-15
VNA2				*e*		05 30 12.8	
PMSA	**Palmer Station**	19.07	235	P	Pn	05 25 57.8	+1.6
	0.9nm,0.3s,baz=66,slow=4.1,SNR=4.3						
PMSA				LR	LR	05 32 18.9	
	comp=Z,337nm,18.0s,baz=176,slow=34						
MAIT	**Maitri**	19.38	143	*e*P	Pn	05 25 58.8	-1.0

USHA	Ushuaia	23.68	261	P	P	05 26 44.8	0.0
	22nm,0.6s,mb4.8,baz=112,slow=9.2,SNR=14						
QSPA	South Pole Qui	31.46	180	P	P	05 27 55.9	+1.6
	28nm,0.6s,mb5.3,baz=207,slow=3.1,SNR=177						
QSPA				PcP	PcP	05 30 47.2	+0.1
	5.6nm,0.6s,baz=231,slow=7.2,SNR=3.8						
PLCA	Paso Flores	33.59	282	P	P	05 28 12.6	-0.8
	6.8nm,0.7s,mb4.7,baz=146,slow=8.3,SNR=20						
PLCA				PcP	PcP	05 30 53.0	-0.5
	1.4nm,0.6s,baz=69,slow=4.2,SNR=3.1						
PLCA				LR	LR	05 41 49.2	
	comp=Z,191nm,18.4s,MS3.9,baz=134,slow=36						
PLCA	Paso Flores	33.59	282	P	P	05 28 12.6	-0.8
PLCA				PcP	PcP	05 30 53.0	-0.5
MAW	Mawson	37.33	141	P	P	05 28 45.4	+0.2
	11nm,0.6s,mb4.8,baz=227,slow=9.6,SNR=9.9						
MAW				PcP	PcP	05 31 04.2	+0.2
	3.0nm,0.6s,baz=270,slow=9.1,SNR=3.2						
MAW				LR	LR	05 42 05.4	
	comp=Z,325nm,21.1s,MS4.1,baz=252,slow=33						
MAW	Mawson	37.33	141	P	P	05 28 45.4	+0.2
MAW				PcP	PcP	05 31 04.2	+0.2
CPUP	Villa Florida	39.43	311	P	P	05 29 01.6	-1.7
	1.7nm,0.4s,mb4.1,baz=130,slow=7.8,SNR=14						
CPUP				PcP	PcP	05 31 10.7	-0.6
	0.8nm,0.4s,baz=83,slow=14,SNR=3.8						
CPUP				LR	LR	05 42 47.4	
	comp=Z,120nm,18.1s,MS3.8,baz=145,slow=32						
CPUP	Villa Florida	39.43	311	P	P	05 29 01.6	-1.7
CPUP				PcP	PcP	05 31 10.7	-0.6
SUR	Sutherland	40.44	70	LR	LR	05 41 45.9	
	comp=Z,417nm,18.9s,MS4.3,baz=313,slow=30						
LCO	Las Campanas	42.98	294	eP	P	05 29 32.1	-0.3
	12nm,0.8s,mb4.7						
VNDA	Vanda	43.89	182	P	P	05 29 41.0	+1.8
	20nm,0.6s,mb5.0,baz=185,slow=6.5,SNR=114						
VNDA				PcP	PcP	05 31 25.7	+0.6
	2.9nm,0.6s,baz=257,slow=3.3,SNR=3.9						
VNDA				LR	LR	05 48 16.6	
	comp=Z,314nm,19.0s,MS4.2,baz=125,slow=36						
VNDA	Vanda	43.89	182	P	P	05 29 41.0	+1.8
VNDA				PcP	PcP	05 31 25.7	+0.6
BOSA	Boshof	45.71	71	P	P	05 29 54.6	+0.3
	4.5nm,0.6s,mb4.6,baz=220,slow=7.4,SNR=14						
BOSA				PcP	PcP	05 31 32.5	+0.3
	2.9nm,0.7s,baz=216,slow=8.7,SNR=2.8						
BOSA				LR	LR	05 43 55.6	
	comp=Z,297nm,20.6s,MS4.2,baz=181,slow=29						
BOSA	Boshof	45.71	71	P	P	05 29 54.6	+0.3
BOSA				PcP	PcP	05 31 32.5	+0.3
LIC	Lamto	66.78	22	eP	P	05 32 25.2	+0.4
	36nm,0.6s						
KIC	Kosan Boka	66.97	22	eP	P	05 32 26.4	+0.4
	38nm,0.8s						
TIC	Toumodi	67.19	22	eP	P	05 32 27.6	+0.2
	39nm,0.7s						
DBIC	Dimbokro	67.25	22	P	P	05 32 28.3	+0.5
	4.9nm,0.5s,mb4.8,baz=171,slow=5.9,SNR=18						
DBIC				LR	LR	05 54 18.9	
	comp=Z,92nm,20.9s,MS4.0,baz=145,slow=29						
DBIC	Dimbokro	67.25	22	P	P	05 32 28.3	+0.5
BBTS	Babate	73.52	9	LR	LR	05 57 34.6	
	comp=Z,110nm,19.5s,MS4.2,baz=192,slow=29						
ROSC	El Rosal	74.46	309	LR	LR	06 05 55.5	
	comp=Z,124nm,18.5s,MS4.2,baz=190,slow=36						
TOA0	Torodi Ar. Sit	74.95	27	eP	P	05 33 15.1	+0.7
TORD	Torodi Ar. Bea	74.95	27	P	P	05 33 15.2	+0.7
	14nm,0.6s,mb5.1,baz=199,slow=6.4,SNR=184						
TORD				LR	LR	05 58 16.2	
	comp=Z,109nm,18.4s,MS4.2,baz=245,slow=29						
PCRV	Puerto La Cruz	75.75	320	LR	LR	06 04 46.8	
	comp=Z,122nm,19.5s,MS4.2,baz=330,slow=34						
SDV	Santo Domingo	76.69	314	eP	P	05 33 24.1	-0.4
	5.3nm,0.9s,mb4.5						
URZ	Urewera	81.55	198	P	P	05 33 50.5	-0.3
	14nm,1.0s,mb4.9,baz=83,slow=5.6,SNR=3.8						
TOO	Toolangi	83.69	173	eP	P	05 34 02.0	0.0
MUN	Mundaring	84.04	148	eP	P	05 34 03.4	-0.5
CNB	Canberra Magne	86.15	176	eP	P	05 34 13.9	-0.5
BBOO	Buckleboo	87.42	164	eP	P	05 34 20.2	-0.5
	4.4nm,0.6s,mb4.9						
FORT	Forrest	88.04	157	eP	P	05 34 23.5	-0.1
	22nm,0.6s						
STKA	Stephens Creek	89.02	169	eP	P	05 34 28.1	-0.2
	6.3nm,0.8s,mb5.0						
STKA	Stephens Creek	89.02	169	P	P	05 34 27.9	-0.4
	4.7nm,0.6s,mb5.0,baz=154,slow=3.7,SNR=13						
STKA				LR	LR	06 14 46.8	
	comp=Z,289nm,18.2s,MS4.7,baz=205,slow=36						
STKA	Stephens Creek	89.02	169	eP	P	05 34 28.2	0.0
CMSA	Cobar Meteorol	89.71	172	eP	P	05 34 31.6	+0.1
ASAR	Alice Springs	96.06	161	P	P	05 34 59.8	-1.1
	3.4nm,0.7s,mb4.9,baz=182,slow=4.1,SNR=45						
ASAR				PKiKP	PKiKP	05 39 38.3	-1.1
	0.2nm,0.3s,baz=182,slow=0.9,SNR=4.7						
ASAR				PKKP	PKKPbc	05 51 46.6	+1.1
	0.5nm,0.3s,baz=21,slow=2.5,SNR=11						
WRA	Warramunga Arr	99.77	161	P	Pdif	05 35 16.3	-1.5
	0.6nm,0.6s,baz=195,slow=4.4,SNR=12						
WRA				PKiKP	PKiKP	05 39 44.9	-1.2
	0.3nm,0.4s,baz=206,slow=1.3,SNR=5.9						
WRA				PKKP	PKKPbc	05 51 37.2	+1.9
	0.5nm,0.3s,baz=360,slow=2.9,SNR=21						
TXAR	Lajitas Array	108.97	295	PKiKP	PKiKP	05 40 02.0	-0.5
	0.2nm,0.5s,baz=157,slow=6.8,SNR=3.5						
AKASG	Malin Array Be	117.78	36	PKP	PKPdf	05 40 17.1	-1.5
	0.9nm,0.5s,baz=231,slow=2.6,SNR=4.1						
SCHQ	Schefferville	118.10	334	PKP	PKPdf	05 40 18.2	-0.9
	3.8nm,0.6s,baz=94,slow=1.0,SNR=22						
RSSD	Black Hills	121.30	304	eP	PKPdf	05 40 24.8	-0.8
AGMN	Agassiz Refuge	121.35	312	ePKPdf	PKPdf	05 40 24.4	-1.2
DUG	Dugway	122.15	295	ePKPdf	PKPdf	05 40 27.5	+0.1
HFS	Hagfors	122.42	22	PKP	PKPdf	05 40 25.6	-1.6
	4.7nm,0.9s,baz=134,slow=4.3,SNR=6.2						
PDAR	Pinedale Array	122.67	299	PKP	PKPdf	05 40 27.3	-1.0
	2.2nm,0.5s,baz=126,slow=5.2,SNR=48						
NOA	NORSAR Array B	122.80	20	PKP	PKPdf	05 40 27.3	-0.6
	1.4nm,0.7s,baz=203,slow=2.1,SNR=3.5						
PYUN	Piuthan	122.93	89	eP	PKPdf	05 40 28.2	-1.1
	10nm,0.9s						
ULM	Lac du Bonnet	122.94	314	PKP	PKPdf	05 40 27.4	-1.1
	6.9nm,0.5s,baz=9.2,slow=0.2,SNR=16						
ULM	Lac du Bonnet	122.94	314	PKP	PKPdf	05 40 27.4	-1.1
KOLN	Koldanda	122.98	90	eP	PKPdf	05 40 28.5	-0.9
CMAR	Chiang Mai Arr	123.10	110	PKP	PKPdf	05 40 29.6	-0.3
	2.2nm,0.4s,baz=226,slow=3.2,SNR=11						
NVAR	Mina Array Bea	123.40	290	PKP	PKPdf	05 40 30.6	+0.8
	3.8nm,0.6s,baz=127,slow=3.3,SNR=21						
DANN	Dangsing	123.53	90	eP	PKPdf	05 40 29.6	-0.8
	12nm,0.7s						
DMN	Daman	123.63	92	eP	PKPdf	05 40 30.1	-0.6
GKN	Gorkha	123.71	91	eP	PKPdf	05 40 29.5	-1.3
	5.3nm,0.3s						
PKI	Pulchoki	123.76	92	eP	PKPdf	05 40 30.2	-0.7
LOHW	Long Hollow	123.81	299	ePKPdf	PKPdf	05 40 30.4	-0.1
RAMN	Ramite	123.88	93	eP	PKPdf	05 40 30.7	-0.4
	18nm,0.5s						
RRI2	Red Ridge	123.93	299	ePKPdf	PKPdf	05 40 31.1	+0.5
ODAN	Odare	124.22	94	eP	PKPdf	05 40 31.4	-0.4
	9.4nm,0.7s						
JIRN	Jiri	124.24	92	eP	PKPdf	05 40 31.7	-0.1
	3.8nm,0.2s						
GUN	Gumba	124.28	92	eP	PKPdf	05 40 31.5	-0.4
RLMT	Red Lodge	124.39	301	ePKPdf	PKPdf	05 40 31.4	-0.1
TAPN	Taplejung	124.78	94	eP	PKPdf	05 40 31.7	-1.2
	2.5nm,0.5s						
DGMT	Dagmar	124.82	307	ePKPdf	PKPdf	05 40 32.0	-0.2
DLMT	Dillon	126.07	299	ePKPdf	PKPdf	05 40 35.4	+0.7
EGMT	Eagleton	126.83	303	ePKPdf	PKPdf	05 40 36.4	+0.3
KAF	Kangasniemi	126.93	27	epkp	PKPdf	05 40 34.2	-1.6
	3.4nm,0.6s						
MSO	Missoula	127.79	300	ePKPdf	PKPdf	05 40 38.4	+0.4
BMO	Blue Mountains	127.85	296	ePKPdf	PKPdf	05 40 38.2	+0.1
AKTK	Aktyubinsk	128.09	54	PKP	PKPdf	05 40 37.9	-0.5
AKTO	Aktyubinsk	128.09	54	PKP	PKPdf	05 40 37.9	-0.5
	3.2nm,0.8s,baz=140,slow=2.5,SNR=9.6						
JOF	Joensuu	128.86	29	epkp	PKPdf	05 40 37.5	-2.0
	6.7nm,0.7s						
FCC	Fort Churchill	129.10	321	ePKPdf	PKPdf	05 40 39.2	-0.9
EDM	Edmonton	132.22	306	ePKPdf	PKPdf	05 40 45.4	-0.7
ARCES	ARCESS Array B	133.08	22	PKhKP		05 40 31.6	
	3.1nm,1.0s,baz=224,slow=2.5,SNR=5.7						
ARCES				PKP	PKPdf	05 40 46.8	-0.5
	4.1nm,0.5s,baz=217,slow=2.3,SNR=29						
ARCES				SKP		05 44 14.0	
	2.9nm,0.9s,baz=224,slow=3.5,SNR=5.5						
KEV	Kevo	133.56	22	epkp	PKPdf	05 40 47.5	-0.7
MKAR	Makanchi Array	136.70	73	PKhKP		05 40 40.4	
	0.3nm,0.9s,baz=233,slow=1.4,SNR=3.1						
MKAR				PKP	PKPdf	05 40 52.8	-2.0
	0.6nm,0.6s,baz=234,slow=3.5,SNR=7.0						
MKAR				PKKP		05 50 30.8	
	0.2nm,0.6s,baz=2.8,slow=0.4,SNR=4.7						
YKA	Yellowknife Ar	138.90	315	PKhKP		05 40 45.3	
	0.6nm,0.5s,baz=122,slow=3.3,SNR=14						
YKA				PKP	PKPdf	05 40 57.8	-0.4
	11nm,0.5s,baz=128,slow=2.3,SNR=125						
YKA				SKPbc	SKPbc	05 44 27.7	-5.8
	1.2nm,0.8s,baz=120,slow=1.9,SNR=7.7						
YKA	Yellowknife Ar	138.90	315	PKP		05 40 45.3	
YKA				PKP	PKPdf	05 40 57.9	-0.4
YKA				SKPbc	SKPbc	05 44 27.8	-5.8
SPITS	Spitsbergen Ar	139.02	12	PKhKP		05 40 48.7	
	14nm,1.2s,baz=255,slow=3.8,SNR=16						
ZALV	Zalesovo Beam	142.55	66	PKhKP		05 41 00.0	
	1.6nm,0.5s,baz=238,slow=3.2,SNR=7.6						
ZALV				PKP	PKPdf	05 41 04.0	-1.1
	2.2nm,0.4s,baz=217,slow=3.7,SNR=9.0						
BJI	Beijing	149.25	110	PKPbc	PKPbc	05 41 20.7	-0.6
DAWY	Dawson	149.38	308	ePKPbc	PKPbc	05 41 20.3	-0.6
DAWY				ePKPab	PKPab	05 41 24.6	-1.2
SONM	Songino Array	149.74	90	PKP	PKPdf	05 41 17.4	-0.2
	4.6nm,0.5s,baz=281,slow=1.7,SNR=5.0						
SONM				PKPbc	PKPbc	05 41 22.1	-0.2
	6.4nm,0.7s,baz=220,slow=3.5,SNR=49						
EGAK	Eagle	150.34	309	ePKPbc	PKPbc	05 41 22.7	-0.5
TLY	Talaya	150.62	81	ePKPdf	PKPdf	05 41 18.5	-0.3
TLY				ePKPbc	PKPbc	05 41 24.3	0.0
TLY				ePKPab	PKPab	05 41 31.2	0.0
MENT	Mentasta	150.79	305	ePKPdf	PKPdf	05 41 17.9	-0.8
MENT				ePKPbc	PKPbc	05 41 24.5	+0.2
MENT				ePKPab	PKPab	05 41 30.8	-0.8
PAX	Paxson	151.56	304	ePKPbc	PKPbc	05 41 25.8	-0.3
SEW	Seward	152.33	297	ePKPdf	PKPdf	05 41 20.1	-1.0
SEW				ePKPbc	PKPbc	05 41 27.6	-0.4
SEW				ePKPab	PKPab	05 41 36.8	-1.3
KSRS	Korea Array	152.46	129	PKPbc	PKPbc	05 41 28.6	-0.4
	1.8nm,0.6s,baz=247,slow=2.7,SNR=3.3						
KSRS				PKPab	PKPab	05 41 37.6	-1.6
	4.2nm,0.8s,baz=211,slow=3.7,SNR=5.6						
PMR	Palmer	152.72	300	ePKPdf	PKPdf	05 41 21.8	+0.1
PMR				ePKPbc	PKPbc	05 41 28.5	-0.2
RC01	Rabbit Creek A	152.82	299	ePKPbc	PKPbc	05 41 29.0	0.0
PPLA	Purkeypile	154.47	302	ePKPdf	PKPdf	05 41 24.0	-0.1
PPLA				ePKPbc	PKPbc	05 41 32.4	-0.2
COLD	Coldfoot	154.50	312	ePKPbc	PKPbc	05 41 33.1	+0.6
PETK	Petropavlovsk-	174.09	197	PKPab	PKPab	05 43 12.7	-0.7
	5.0nm,0.9s,baz=136,slow=6.6,SNR=4.3						

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*ISCJB **04** 05:25:28.1±1.0, 28°44N±0°03×56°85E±0°07, h5^{km}±9^{km}, Error ellipse: s-maj=9.9km s-min=5.5km az=3.3*

*CSEM **04** 05:25:28.4±0.3, 28°42N×56°85E, h2^{km}, ML3.4, Error ellipse: s-maj=11.1km s-min=6.1km az=101.0*

*TEH **04** 05:25:29.8, 28°42N×56°97E, h13^{km}*

ISC 04 05:25:29.4±1.0, **28°43N**±0°03×**56°82E**±0°07, **h5**^{km}±9^{km}, **n20**, σ1^{s}**00**/21, **1C-3D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBND	Bandar-abas	1.01	194	⇓ePg	Pg	05 25 48.6	-0.2
IBND				eSg	Sg	05 26 03.2	+1.3
BNDS	Bandar-Abbas	1.18	209	ePg	Pg	05 25 51.7	-0.3
KRBR	Kerman	1.54	358	ePn	Pn	05 25 57.0	-0.5
KRBR				eSg	Sg	05 26 18.2	-0.8
BANOM	Banah	2.54	191	⇑P	Pn	05 26 09.3	-1.9
	SNR=35						
BANOM	Banah	2.54	191	P	Pn	05 26 09.3	-1.9
	SNR=35						
IBAF	Bafgh	3.33	341	ePn	Pn	05 26 23.2	+1.2
IBAF				e		05 26 35.0	
	comp=Z,476nm,0.3s						
IBAF				e		05 27 27.1	
	comp=N,726nm,0.2s						
GHIR	Ghir-Karzin	3.38	268	ePn	Pn	05 26 22.8	+0.1
ISRV	Sarvestan	3.38	287	ePn	Pn	05 26 23.4	+0.6
ISRV				e		05 26 43.4	
	comp=Z,480nm,0.2s						
IMEH	Mehriz	3.51	328	ePn	Pn	05 26 24.9	+0.3
IMEH				e		05 26 42.9	
	comp=Z,386nm,0.2s						
IPAR	Pars	3.58	294	ePn	Pb	05 26 34.3	+1.1
IPAR				e		05 27 45.1	
	comp=Z,834nm,0.4s						
NAZ	Nazwa, Dubai	3.58	197	⇓P	Pn	05 26 25.1	-0.4
	SNR=5.7						
NAZ	Nazwa, Dubai	3.58	197	P	Pn	05 26 25.1	-0.4
	SNR=5.7						
IMOK	Mouk	3.65	281	e	Sb	05 27 17.8	-1.2
	comp=Z,1μm,0.1s						
ZHSF	Zahedan	3.66	70	ePn	Pn	05 26 26.5	-0.1
ASUD	Al Ashush, Dub	4.02	200	⇓P	Pn	05 26 31.2	-0.3
	SNR=16						
ASUD	Al Ashush, Dub	4.02	200	P	Pn	05 26 31.2	-0.3
	SNR=16						
ISAD	Sadrabad	4.40	323	ePn	Pn	05 26 38.9	+2.1
ISAD				e		05 27 58.9	
	comp=Z,257nm,0.2s						
NASN	Na'in	5.55	323	ePn	Pn	05 26 53.3	+0.7
IZEF	Zefreh	5.89	320	e	Px	05 27 36.1	
	comp=Z,162nm,0.1s						
IPIR	Pirpir	6.64	311	e	Pb	05 27 23.5	-1.7
	comp=Z,79nm,0.1s						

IDC 04 06:01:32.8±1.4, **24°90N**×**126°42E**, **h0**^{km}, **mb3.6**/4, **mb1 3.7**/5, **mb1mx3.5**/22, **mbtmp3.7**/5, **ML3.4**/1, **Error ellipse: s-maj=31.1km s-min=25.6km az=87.0, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	Kunigami	2.55	41	Pn	Pn	06 02 15.7	+0.3
	12nm,0.3s,baz=230,slow=18,SNR=12						
JOW				Sn	Sn	06 02 47.3	+0.2
	8.3nm,0.3s,baz=110,slow=29,SNR=5.7						
SONM	Songino Array	27.84	330	P	P	06 07 25.9	+2.1
	0.4nm,0.5s,baz=146,slow=11,SNR=4.1						
MKAR	Makanchi Array	41.23	313	P	P	06 09 19.2	-0.1
	1.2nm,0.6s,baz=101,slow=9.7,SNR=17						
ZALV	Zalesovo Beam	42.34	324	P	P	06 09 27.1	-1.3
	0.3nm,0.3s,baz=115,slow=5.7,SNR=2.5						
WRA	Warramunga Arr	45.23	169	P	P	06 09 51.9	0.0
	0.5nm,0.8s,baz=350,slow=8.1,SNR=4.6						

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*NEIC **04** 06:13:00.0±0.4, 3°85N×125°84E, h35^{km}, mb4.4/2, Error ellipse: s-maj=28.4km s-min=7.0km az=72.0*

*ISCJB **04** 06:13:04.4±0.7, 3°86N±0°05×126°05E±0°09, h93^{km}±7^{km}, mb4.0/15, Error ellipse: s-maj=15.3km s-min=7.2km az=157.4*

*IDC **04** 06:13:04.5±3.1, 3°81N×125°79E, h75^{km}±28^{km}, mb3.8/13, mb1 3.9/13, mb1mx3.8/23, mbtmp3.8/13, Error ellipse: s-maj=44.1km s-min=12.0km az=72.0*

*DJA **04** 06:13:05, 3°86N×126°09E, h70^{km}, MLv4.7/5*

ISC 04 06:13:05.6±0.7, **3°86N**±0°05×**126°04E**±0°09, **h87**^{km}±7^{km}, **n38**, σ**0**^{s}**73**/39, **mb4.0**/14, **2D, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGSI	Sangihe	0.54	251	P	Pn	06 13 20.0	-0.3
GSPH	General Santos	2.46	334	eP	Pn	06 13 45.0	+1.2
MNI	Manado	2.69	207	⇓eP	Pn	06 13 46.0	-0.8
MNI				eS	Sn	06 14 18.0	-0.6
MNI	Manado	2.69	207	P	Pn	06 13 46.9	+0.1
MNI				S	Sn	06 14 20.0	+1.4
TNE	Ternate	3.33	157	⇓eP	Pn	06 13 52.0	-3.6
TNTI	Ternate	3.34	157	P	Pn	06 13 55.2	-0.5
TNTI				S	Sn	06 14 34.2	-0.2
LBMI	Labuha	4.70	162	P	Pn	06 14 15.0	+0.8
SWI	Sorong	7.02	132	P	Pn	06 14 45.4	-0.3
	52nm,0.6s,0.2nm						
KAKA	Kakadu	17.65	159	eP	Pn	06 17 02.1	-3.8
	4.8nm,0.4s						
KAKA	Kakadu	17.65	159	eP	Pn	06 17 02.7	-3.3
	19nm,0.6s						
KAKA				eS	S	06 20 24.1	+0.9
FITZ	Fitzroy Crossi	21.83	181	eP	P	06 17 50.4	-0.5
	5.0nm,0.3s,mb4.3						
FITZ	Fitzroy Crossi	21.83	181	P	P	06 17 50.2	-0.7
	2.4nm,0.3s,mb4.0,baz=3.8,slow=7.9,SNR=28						
FITZ	Fitzroy Crossi	21.83	181	P	P	06 17 52.1	+1.2
	12nm,0.7s,mb4.3						
COEN	Coen	24.54	136	eP	P	06 18 17.5	+0.2
COEN	Coen	24.54	136	P	P	06 18 17.1	-0.2
WRAB	Tennant Creek	25.02	161	eP	P	06 18 21.5	0.0
	6.3nm,0.6s,mb4.2						
WRAB	Tennant Creek	25.02	161	P	P	06 18 21.7	+0.1
WRA	Warramunga Arr	25.02	161	P	P	06 18 21.2	-0.4
	5.7nm,0.7s,mb4.1,baz=343,slow=10,SNR=50						
WRA				PcP	PcP	06 21 55.4	+0.8
	0.3nm,0.5s,baz=327,slow=2.0,SNR=3.7						
WRA	Warramunga Arr	25.02	161	P	P	06 18 21.2	-0.4
WRA				PcP	PcP	06 21 55.4	+0.8
WB2	Warramunga Arr	25.03	161	eP	P	06 18 21.7	+0.1
ASAR	Alice Springs	28.42	165	P	P	06 18 52.1	0.0
	0.9nm,0.5s,mb3.6,baz=351,slow=7.8,SNR=16						
ASAR				PcP	PcP	06 22 03.3	+0.8
	0.6nm,0.4s,baz=345,slow=2.4,SNR=5.5						
MJAR	Matsushiro Arr	34.40	17	P	P	06 19 44.7	+0.3
	2.0nm,0.9s,mb4.0,baz=195,slow=9.5,SNR=4.7						
MJAR	Matsushiro Arr	34.40	17	P	P	06 19 44.7	+0.3
BBOO	Buckleboo	37.69	166	eP	P	06 20 12.8	+0.2
	5.4nm,1.0s,mb4.3						
STKA	Stephens Creek	38.50	159	eP	P	06 20 20.1	+0.7
	2.6nm,0.6s,mb4.2						
STKA	Stephens Creek	38.50	159	P	P	06 20 20.2	+0.8
	3.8nm,0.6s,mb4.4,baz=318,slow=6.3,SNR=10						
STKA				PcP	PcP	06 22 31.8	+1.0
	1.4nm,0.5s,baz=356,slow=3.9,SNR=5.2						
STKA	Stephens Creek	38.50	159	P	P	06 20 20.2	+0.8
STKA				PcP	PcP	06 22 31.8	+1.0
SONM	Songino Array	46.95	342	P	P	06 21 28.5	+0.9
	0.2nm,0.4s,mb3.2,baz=149,slow=3.4,SNR=2.7						
SONM				PcP	PcP	06 22 59.7	+1.0
	0.7nm,0.7s,baz=142,slow=3.1,SNR=4.8						
MK31	Makanchi Array	57.05	326	eP	P	06 22 42.4	-0.1
MKAR	Makanchi Array	57.05	326	P	P	06 22 42.4	-0.2
	0.7nm,0.4s,mb4.1,baz=122,slow=7.9,SNR=22						
MKAR				PcP	PcP	06 23 36.6	0.0
	1.5nm,0.6s,baz=129,slow=4.3,SNR=8.0						
MKAR				ScP	ScP	06 27 28.2	-0.5
	0.2nm,0.6s,baz=119,slow=6.3,SNR=3.6						
ZALV	Zalesovo Beam	60.16	333	P	P	06 23 02.8	-1.2
	0.4nm,0.4s,mb3.8,baz=161,slow=10,SNR=1.8						
KURK	Kurchatov	61.26	328	P	P	06 23 11.1	-0.5
	1.1nm,0.8s,mb4.0,baz=121,slow=7.5,SNR=8.1						
BVAR	Borovoye Array	66.83	327	P	P	06 23 47.6	-0.4
	0.4nm,0.5s,mb3.5,baz=131,slow=6.5,SNR=2.7						
BVAR				PcP	PcP	06 24 16.1	0.0
	1.1nm,0.7s,baz=119,slow=5.6,SNR=4.7						
ARCES	ARCESS Array B	90.09	340	P	P	06 25 54.8	-0.6
	3.1nm,0.7s,mb4.6,baz=69,slow=6.6,SNR=12						
SPITS	Spitsbergen Ar	90.22	349	P	P	06 25 56.7	+0.8
	1.1nm,0.5s,mb4.3,baz=15,slow=8.1,SNR=6.9						
YKA	Yellowknife Ar	99.66	24	P	Pdif	06 26 40.6	+1.2
	0.2nm,0.6s,baz=300,slow=4.9,SNR=3.7						
TORD	Torodi Ar. Bea	122.22	288	PKP	PKPdf	06 31 50.2	-1.2
	0.2nm,0.4s,baz=125,slow=0.6,SNR=5.5						
TORD	Torodi Ar. Bea	122.22	288	PKP	PKPdf	06 31 50.2	-1.2

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*ISCJB **04** 06:37:25.9±0.7, 11°3N±0°1×92°1E±0°2, h33^{km}, mb3.9/11, Error ellipse: s-maj=30.8km s-min=11.1km az=146.8*

*IDC **04** 06:37:26.6±0.9, 11°19N×92°05E, h26^{km}±5^{km}, mb3.8/11, mb1 3.9/12, mb1mx3.8/24, mbtmp3.8/12, ML3.6/1, MS3.6/2, Ms1 3.6/2, ms1mx2.8/30, Error ellipse: s-maj=36.9km s-min=13.9km az=57.0*

*NEIC **04** 06:37:27.9±0.5, 11°24N×92°05E, h35^{km}, Error ellipse: s-maj=21.3km s-min=7.7km az=57.0*

ISC 04 06:37:28.3±0.7, **11°3N**±0°1×**92°1E**±0°2, **h35**^{km}, **(h27**^{km}±2.3^{km}**:pP-P), n15**, σ**0**^{s}**63**/15, **mb3.9**/11, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	10.83	140	Pn	Pn	06 40 02.4	+1.4
	0.5nm,0.3s,baz=346,slow=4.2,SNR=3.8						
PSI				LR	LR	06 44 47.7	
	comp=Z,140nm,19.3s,baz=188,slow=41						
MK31	Makanchi Array	36.35	349	eP	P	06 44 29.3	+0.4
MKAR	Makanchi Array	36.35	349	P	P	06 44 29.1	+0.3
	2.7nm,0.7s,mb4.3,baz=168,slow=8.0,SNR=32						
MKAR				PcP	PcP	06 46 53.4	+0.5
	0.4nm,0.7s,baz=188,slow=3.5,SNR=4.5						
SONM	Songino Array	38.39	16	P	P	06 44 46.1	0.0
	0.5nm,0.7s,mb3.4,baz=206,slow=8.8,SNR=5.7						
SONM				PcP	PcP	06 46 59.1	0.0
	0.7nm,1.0s,baz=131,slow=4.0,SNR=3.5						
KURK	Kurchatov	40.84	347	P	P	06 45 06.0	-0.5
	baz=162,slow=7.6						
ZALV	Zalesovo Beam	42.95	354	P	P	06 45 23.7	0.0
	2.3nm,0.6s,mb4.1,baz=170,slow=9.0,SNR=15						
ZALV				pP	pP	06 45 32.2	-1.8
	1.6nm,0.7s,baz=167,slow=7.0,SNR=3.9						
ZALV	Zalesovo Beam	42.95	354	P	P	06 45 23.7	0.0
ZALV				pP	pP	06 45 32.2	-1.8
BVAR	Borovoye Array	45.13	342	P	P	06 45 41.4	+0.3
	0.8nm,0.6s,mb3.8,baz=139,slow=5.5,SNR=5.4						
WRA	Warramunga Arr	51.91	126	P	P	06 46 32.7	-1.2
	1.9nm,0.5s,mb4.3,baz=308,slow=8.1,SNR=17						
WRA				pP	pP	06 46 40.8	-3.6
	3.3nm,0.7s,baz=305,slow=8.6,SNR=12						
ASAR	Alice Springs	53.67	131	P	P	06 46 45.9	-0.9
	1.1nm,0.6s,mb4.0,baz=306,slow=6.8,SNR=12						
ASAR				pP	pP	06 46 54.0	-3.4
	2.4nm,0.8s,baz=310,slow=6.9,SNR=11						
BRTR	Keskin Array B	58.67	310	P	P	06 47 22.0	-0.3
	1.2nm,0.7s,mb4.0						
AKASG	Malin Array Be	64.23	321	P	P	06 47 59.1	-0.5
	0.5nm,0.4s,mb3.9,baz=115,slow=10,SNR=3.7						
ARCES	ARCESS Array B	71.39	340	P	P	06 48 45.2	+0.8
	2.5nm,0.7s,mb4.3,baz=76,slow=5.1,SNR=6.7						
ARCES				LR	LR	07 22 34.4	
	comp=Z,80nm,18.8s,baz=190,slow=38						
GERES	GERESS Array B	73.94	318	P	P	06 49 00.0	+0.1
	0.2nm,0.4s,mb3.4,baz=97,slow=6.9,SNR=4.2						
TORD	Torodi Ar. Bea	87.82	283	P	P	06 50 14.8	+0.2
	0.9nm,1.1s,mb3.9,baz=87,slow=3.7,SNR=4.0						

MOS 04 06:40:19.1±0.8, **44°24N**×**42°46E**, **h11**^{km}, **mb4.2**/1, **4C-3D, Error ellipse: s-maj=17.0km s-min=7.9km az=123.2, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIV	Kislovodsk	0.33	151	⇓iPG	Pg	06 40 26.1	+0.4
KIV				i S	Sg	06 40 34.7	+4.6
SHAR	Shatzhatmas	0.52	163	⇓iPG	Pg	06 40 30.0	+0.7
SHAR				i S	Sg	06 40 41.5	+5.4
KUBR	Kubataba	0.81	123	⇑ePG	Pg	06 40 34.0	-0.8
KUBR				i S	Sg	06 40 48.1	+2.7
DOMR	Dombai	1.13	213	⇑iPG	Pg	06 40 39.9	-0.9
DOMR				i S	Sb	06 40 58.4	+3.1
LSNR	Lesken	1.38	134	ePG	Pg	06 40 45.2	-0.3
LSNR				i S	Sn	06 41 07.6	+5.2
PRTR	Priterechnaya	1.40	110	⇓iPG	Pg	06 40 44.3	-1.7
PRTR				i S	Sn	06 41 06.2	+3.2
DIGR	Digorskoe uzhe	1.57	148	⇑iPG	Pg	06 40 47.9	-1.3
DIGR				i S	Sn	06 41 12.0	+4.9
KORR	Kora	1.64	134	ePN	Pn	06 40 49.0	+1.2
KORR				eS	Sn	06 41 14.3	+5.4
ARNR	Ardon	1.69	128	ePN	Pn	06 40 49.5	+1.0
ARNR				eS	Sn	06 41 14.9	+4.9
TRKR	Terskaya	1.72	107	ePN	Pn	06 40 49.1	+0.2
TRKR				eS	Sn	06 41 14.7	+3.9
BTKR	Batakoyurt	1.74	119	ePN	Pn	06 40 50.0	+0.8
BTKR				eS	Sn	06 41 15.7	+4.4
ZEI	Tsey	1.81	144	ePN	Pn	06 40 51.7	+1.6
ZEI				i S	Sn	06 41 18.8	+5.8
ONI	Oni	1.81	156	P	Pn	06 40 52.8	+2.6
SOC	Sochi	2.09	253	c iPN	Pn	06 40 55.2	+1.2
SOC				e*PP		06 40 56.2	
SOC						06 41 25.2	
SOC				pmax	pmax		
	comp=Z,13nm,0.4s						
SOC				MLR	MLR		
	comp=Z,101nm,5.0s						

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*CSEM **04** 06:43:54.4, 42°87N×46°75E, h19^{km}, mb4.0, After OBN*

MOS 04 06:43:54.4±2.6, **42°87N**×**46°75E**, **h19**^{km}, **mb4.0**/1, **1C-1D,**

Error ellipse: s-maj=13.0km s-min=8.2km az=24.7, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRNR	Karanay	0.12	109	⇓iPG	Pg	06 44 00.0	+1.6
KRNR				i S	Sg	06 44 05.5	+4.4
KRNR				pmax	pmax		
	comp=Z,43nm,0.1s						
KRNR	Karanay	0.12	109	i Pg	Pg	06 44 00.0	+1.6
	comp=Z,43nm,0.1s						
KRNR				i Sg	Sg	06 44 05.5	+4.4
UNCR	Uncukul	0.16	168	i PG	Pg	06 43 59.5	+0.7
UNCR				i S	Sg	06 44 04.5	+2.7
UNCR				pmax	pmax		
	comp=Z,40nm,0.2s						
UNCR	Uncukul	0.16	168	i Pg	Pg	06 43 59.5	+0.7
	comp=Z,40nm,0.2s						
UNCR				i Sg	Sg	06 44 04.5	+2.7
DBC	Dubki	0.16	21	i PG	Pg	06 43 58.0	-0.9
DBC				i S	Sg	06 44 03.0	+1.0
DBC				pmax	pmax		
	comp=Z,69nm,0.1s						
DBC	Dubki	0.16	21	i Pg	Pg	06 43 58.0	-0.9
	comp=Z,69nm,0.1s						
DBC				i Sg	Sg	06 44 03.0	+1.0
DLMR	Dylym	0.22	337	⇑iPG	Pg	06 43 57.0	-2.7
DLMR				pmax	pmax		
	comp=Z,104nm,0.2s						
DLMR	Dylym	0.22	337	i Pg	Pg	06 43 57.0	-2.7
	comp=Z,104nm,0.2s						
BUJR	Buynaksk	0.27	99	ePG	Pg	06 44 05.6	+5.1
BUJR	Buynaksk	0.27	99	ePg	Pg	06 44 05.6	+5.1
BTLR	Botlikh	0.44	242	ePG	Pg	06 43 58.8	-4.6
BTLR				pmax	pmax		
	comp=Z,53nm,0.2s						
BTLR	Botlikh	0.44	242	ePg	Pg	06 43 58.8	-4.6
	comp=Z,53nm,0.2s						
SNJR	Sundja	1.44	279	ePG	Pg	06 44 20.6	-1.5
SNJR				eS	Sn	06 44 38.8	+1.1
SNJR	Sundja	1.44	279	ePg	Pg	06 44 20.6	-1.5
SNJR				eSg	Sg	06 44 38.8	-2.0
VLKR	Vladikavkaz	1.53	277	ePG	Pg	06 44 22.2	-1.7
VLKR				eS	Sn	06 44 41.3	+1.3
VLKR	Vladikavkaz	1.53	277	ePg	Pg	06 44 22.2	-1.7
VLKR				eSg	Sg	06 44 41.3	-2.6
BTKR	Batakoyurt	1.69	288	ePN	Pn	06 44 25.3	+2.4
BTKR				eS	Sn	06 44 46.8	+2.8
BTKR	Batakoyurt	1.69	288	ePn	Pn	06 44 25.3	+2.4
BTKR				eSg	Sg	06 44 46.8	-2.2
TRKR	Terskaya	1.70	301	ePN	Pn	06 44 26.1	+3.1
TRKR				i S	Sn	06 44 47.8	+3.5
TRKR	Terskaya	1.70	301	ePn	Pn	06 44 26.1	+3.1
TRKR				i Sg	Sg	06 44 47.8	-1.5
ARNR	Ardon	1.84	281	ePN	Pn	06 44 26.9	+2.0
ARNR	Ardon	1.84	281	ePn	Pn	06 44 26.9	+2.0
KMSR	Komsomolskaya	1.87	286	ePN	Pn	06 44 27.9	+2.6
KMSR	Komsomolskaya	1.87	286	ePn	Pn	06 44 27.9	+2.6
KORR	Kora	1.98	277	ePN	Pn	06 44 28.4	+1.6
KORR	Kora	1.98	277	ePn	Pn	06 44 28.4	+1.6
PRTR	Priterechnaya	2.01	297	ePN	Pn	06 44 29.8	+2.6
PRTR	Priterechnaya	2.01	297	ePn	Pn	06 44 29.8	+2.6
ZEI	Tsey	2.10	268	ePN	Pn	06 44 29.7	+1.2
ZEI	Tsey	2.10	268	ePn	Pn	06 44 29.7	+1.2
DIGR	Digorskoe uzhe	2.33	272	ePN	Pn	06 44 33.1	+1.5
DIGR				eS	Sn	06 45 00.1	+0.4
DIGR	Digorskoe uzhe	2.33	272	ePn	Pn	06 44 33.1	+1.5
DIGR				eSn	Sn	06 45 00.1	+0.4

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*NEIC **04** 06:44:03.1±2.3, 15.°51S×173.°85W, h86^{km}±44^{km}, Error ellipse: s-maj=179.5km s-min=29.8km az=139.0*

IDC 04 06:44:02.4±3.7**, 15.°69S×173.°78W, h77**^{km}±52^{km}**, mb3.8**/3**, mb1 4.0**/4**, mb1mx3.6**/18**, mbtmp3.9**/4**, ML2.5**/1**, Error ellipse: s-maj=197.8km s-min=36.7km az=139.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	2.62	48	P	Pn	06 44 42.8	+0.1
	50nm,0.3s,baz=169,slow=1.6,SNR=34						
AFI				S	Sn	06 45 09.5	-4.0
	306nm,0.3s,baz=49,slow=24,SNR=39						
AFI	Afiamalu	2.62	48	ePn	Pn	06 44 42.7	+0.1
AFI				S	Sn	06 45 09.5	-4.0
AFI				eSn	Sn	06 45 10.2	-3.3
STKA	Stephens Creek	43.58	240	P	P	06 51 59.2	+0.3
	2.6nm,0.9s,baz=63,slow=6.8,SNR=3.7						
WRA	Warramunga Arr	49.42	257	P	P	06 52 44.7	-0.1
	1.0nm,0.8s,baz=95,slow=6.7,SNR=16						
ASAR	Alice Springs	49.67	252	P	P	06 52 46.5	-0.2
	3.6nm,0.5s,baz=87,slow=7.9,SNR=51						
BRTR	Keskin Array B	146.15	320	PKPbc	PKPbc	07 03 33.5	-0.6

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*ATH **04** 07:10:44.6, 38.°61N×26.°35E, h26^{km}, MD3.1/3*
*DDA **04** 07:10:44.4, 38.°66N×26.°60E, h7^{km}±5^{km}, Md3.1*
*ISCJB **04** 07:10:45.5±1.1, 38.°65N±0.°04×26.°51E±0.°07, h25^{km}±9^{km}, Error ellipse: s-maj=9.9km s-min=4.9km az=153.6*
*CSEM **04** 07:10:45.4±0.2, 38.°66N×26.°45E, h30^{km}, MD3.1, Error ellipse: s-maj=5.0km s-min=2.6km az=77.0*

ISC 04 07:10:45.6±1.1**, 38.°65N**±0.°03×**26.°50E**±0.°07**, h23**^{km}±9^{km}**, n17,** σ**0**^{s}**83**/32**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.63	343	ePN	Pn	07 10 57.6	-1.4
PRK				eSN	Sn	07 11 06.8	-1.5
PRK	Paraskevi	0.63	343	ePn	Pn	07 10 57.6	-1.4
PRK				eSn	Sn	07 11 06.8	-1.5
AYVA	Ayvalik	0.68	13	i P	Pb	07 10 57.7	-1.1
AYVA				i S	Sb	07 11 08.8	+1.1
AYVA	Ayvalik	0.68	13	i P	Pb	07 10 57.7	-1.0
AYVA				i S	Sb	07 11 08.8	+1.1
SMG	Samos	0.97	164	ePN	Pn	07 11 03.2	-0.5
SMG				eSN	Sn	07 11 17.3	+0.5
SMG	Samos	0.97	164	ePn	Pn	07 11 03.2	-0.5
SMG				eSn	Sn	07 11 17.3	+0.5
AKHS	Akhisar	1.05	77	i P	Pn	07 11 04.6	-0.3
AKHS				i S	Sb	07 11 17.9	-0.5
AKHS	Akhisar	1.05	77	i P	Pn	07 11 04.6	-0.3
AKHS				i S	Sb	07 11 18.0	-0.4
GCAM	G?zelcaml?	1.11	148	i P	Pn	07 11 05.5	-0.1
GCAM				i S	Sb	07 11 20.5	+0.5
GCAM	G?zelcaml?	1.11	148	i P	Pn	07 11 05.5	-0.1
GCAM				i S	Sb	07 11 20.5	+0.6
BOZC	Bozcaada	1.25	344	i P	Pn	07 11 08.0	+0.5
BOZC				i S	Sn	07 11 25.4	+1.8
AYDN	Tasoluk	1.47	132	i P	Pn	07 11 10.3	-0.2
AYDN				i S	Sn	07 11 28.9	-0.1
AYDN	Tasoluk	1.47	132	i P	Pn	07 11 10.3	-0.2
AYDN				i S	Sn	07 11 28.9	-0.1
LIA	Limnos Island	1.62	321	ePN	Pn	07 11 13.0	+0.4
LIA	Limnos Island	1.62	321	ePn	Pn	07 11 13.0	+0.4
DURS	Dursunbey	1.81	58	i P	Pn	07 11 16.1	+0.9
DURS				i S	Sn	07 11 37.4	0.0
DURS	Dursunbey	1.81	58	i P	Pn	07 11 16.1	+0.9
DURS				i S	Sn	07 11 37.4	0.0

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*ISK **04** 07:16:08.3, 36.°93N×29.°21E, h5^{km}, MD2.6*
*ISCJB **04** 07:16:09.0±0.6, 36.°98N±0.°04×29.°20E±0.°05, h10^{km}, Error ellipse: s-maj=6.2km s-min=4.5km az=41.3*
*CSEM **04** 07:16:09.3±0.1, 36.°98N×29.°22E, h2^{km}, MD2.6, Error ellipse: s-maj=3.5km s-min=2.7km az=149.0*
*DDA **04** 07:16:09.0, 37.°01N×29.°20E, h7^{km}±1^{km}, Md3.0*

ISC 04 07:16:09.5±0.6**, 36.°99N**±0.°04×**29.°20E**±0.°05**, h10**^{km}**, n14,** σ**0**^{s}**82**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.36	195	ePG	Pg	07 16 15.5	-1.2
FETY				eSG	Sg	07 16 20.8	-0.7
FETY	Fethiye	0.36	195	ePg	Pg	07 16 15.5	-1.1
FETY				eSg	Sg	07 16 20.8	-0.7
GOLH	Golhisar	0.38	49	i P	Pg	07 16 16.3	-0.7
GOLH				i S	Sg	07 16 22.0	0.0
GOLH	Golhisar	0.38	49	i P	Pg	07 16 16.3	-0.7
GOLH				i S	Sg	07 16 22.0	-0.1
DALT	Dalyan (Mudla)	0.50	245	ePG	Pg	07 16 18.8	-0.4
DALT				eSG	Sg	07 16 26.5	+0.6
DALT	Dalyan (Mudla)	0.50	245	ePg	Pg	07 16 18.8	-0.4
DALT				eSg	Sg	07 16 26.5	+0.6
ELL	Elmali	0.61	113	ePG	Pg	07 16 20.8	-0.5
ELL	Elmali	0.61	113	ePg	Pg	07 16 20.8	-0.6
YER	Yerkesik	0.75	282	ePG	Pg	07 16 24.1	+0.2
YER	Yerkesik	0.75	282	ePg	Pg	07 16 24.1	+0.2
AKAS	Kas	0.82	157	i P	Pg	07 16 25.2	-0.1
AKAS				i S	Sg	07 16 37.7	+1.8
AKAS	Kas	0.82	157	i P	Pg	07 16 25.2	0.0
AKAS				i S	Sg	07 16 37.7	+1.8
KHAL	Karahalli	1.40	9	i P	Pn	07 16 36.2	+1.1
KHAL	Karahalli	1.40	9	i P	Pn	07 16 36.2	+1.1

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*ISCJB **04** 07:36:07.6±1.5, 36.°26N±0.°08×28.°84E±0.°06, h7^{km}±8^{km}, Error ellipse: s-maj=13.4km s-min=7.3km az=167.9*
*ISK **04** 07:36:08.7, 36.°36N×28.°78E, h9^{km}, MD2.7*
*CSEM **04** 07:36:11.1±0.4, 36.°49N×28.°82E, h15^{km}, MD3.1, Error ellipse: s-maj=10.6km s-min=5.0km az=11.0*
*DDA **04** 07:36:11.8, 36.°55N×28.°79E, h7^{km}±3^{km}, Md3.1*

ISC 04 07:36:10.7±1.1**, 36.°42N**±0.°07×**28.°80E**±0.°05**, h14**^{km}±7^{km}**, n20,** σ**1**^{s}**07**/28**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.31	47	ePG	Pg	07 36 16.4	-0.7
FETY				eSG	Sg	07 36 21.8	+0.3
FETY	Fethiye	0.31	47	ePg	Pg	07 36 16.4	-0.7
FETY				eSg	Sg	07 36 21.8	+0.3
DALT	Dalyan (Mudla)	0.37	339	ePG	Pg	07 36 18.2	+0.1
DALT	Dalyan (Mudla)	0.37	339	ePg	Pg	07 36 18.2	0.0
TURN	Turunc	0.48	341	i P	Pg	07 36 21.6	+1.4
TURN				i S	Sg	07 36 29.9	+3.4
TURN	Turunc	0.48	341	i P	Pg	07 36 21.6	+1.5
AKAS	Kas	0.68	106	i P	Pg	07 36 25.3	+1.5
AKAS				i S	Sg	07 36 37.4	+4.6
AKAS	Kas	0.68	106	i P	Pg	07 36 25.3	+1.5
YER	Yerkesik	0.82	330	ePG	Pg	07 36 25.7	-0.9
YER	Yerkesik	0.82	330	ePg	Pg	07 36 25.7	-1.0
ELL	Elmali	0.95	70	ePG	Pg	07 36 28.5	-0.5
ELL	Elmali	0.95	70	ePg	Pg	07 36 28.5	-0.5
GOLH	Golhisar	1.02	37	i P	Pb	07 36 29.0	-1.0
GOLH				i S	Sb	07 36 43.1	-0.1
GOLH	Golhisar	1.02	37	i P	Pb	07 36 29.0	-1.0
GOLH				i S	Sb	07 36 43.1	-0.1
DAT	Datca	1.03	288	ePG	Pg	07 36 28.7	-1.9
DAT	Datca	1.03	288	ePg	Pg	07 36 28.7	-1.9
BDRM	Kayabasi	1.27	301	i P	Pn	07 36 34.7	+0.8
BDRM				i S	Sb	07 36 51.5	+1.1
BDRM	Kayabasi	1.27	301	i P	Pn	07 36 34.7	+0.8
BDRM				i S	Sb	07 36 51.5	+1.1
BODT	Bodrum	1.36	299	ePN	Pn	07 36 34.5	-0.7
BODT	Bodrum	1.36	299	ePn	Pn	07 36 34.5	-0.6

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*ISK **04** 07:41:20.6, 36.°87N×28.°97E, h17^{km}, MD2.6*
*ISCJB **04** 07:41:21.7±1.1, 36.°49N±0.°06×28.°80E±0.°04, h9^{km}±7^{km}, Error ellipse: s-maj=10.6km s-min=5.7km az=14.3*
*CSEM **04** 07:41:21.3±0.5, 36.°47N×28.°82E, h12^{km}, MD2.6, Error ellipse: s-maj=11.2km s-min=6.6km az=7.0*
*DDA **04** 07:41:22.1, 36.°53N×28.°83E, h16^{km}±6^{km}, Md3.0*

ISC 04 07:41:21.8±1.0**, 36.°50N**±0.°07×**28.°82E**±0.°06**, h14**^{km}±8^{km}**, n18,** σ**1**^{s}**09**/30**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.26	57	ePG	Pg	07 41 26.6	-0.6
FETY				eSG	Sg	07 41 31.2	+0.2
FETY	Fethiye	0.26	57	ePg	Pg	07 41 26.6	-0.6
FETY				eSg	Sg	07 41 31.2	+0.2
DALT	Dalyan (Mudla)	0.31	332	ePG	Pg	07 41 27.2	-1.0
DALT				eSG	Sg	07 41 32.0	-0.5
DALT	Dalyan (Mudla)	0.31	332	ePg	Pg	07 41 27.2	-1.0
DALT				eSg	Sg	07 41 32.0	-0.5
TURN	Turunc	0.41	335	i P	Pg	07 41 31.8	+1.7
TURN				i S	Sg	07 41 39.6	+4.0
TURN	Turunc	0.41	335	i P	Pg	07 41 31.8	+1.7
TURN				i S	Sg	07 41 39.6	+3.9
AKAS	Kas	0.69	112	i P	Pg	07 41 35.2	+0.1
AKAS				i S	Sg	07 41 47.5	+3.3
AKAS	Kas	0.69	112	i P	Pg	07 41 35.2	0.0
AKAS				i S	Sg	07 41 47.5	+3.3
YER	Yerkesik	0.77	326	ePG	Pg	07 41 32.9	-3.8
ELL	Elmali	0.91	74	ePG	Pg	07 41 36.2	-3.2
GOLH	Golhisar	0.95	39	i P	Pb	07 41 39.1	-0.9
GOLH				i S	Sg	07 41 53.4	+0.8
GOLH	Golhisar	0.95	39	i P	Pb	07 41 39.1	-0.9
GOLH				i S	Sg	07 41 53.4	+0.8
DAT	Datca	1.02	283	ePN	Pn	07 41 41.6	0.0
DAT	Datca	1.02	283	ePn	Pn	07 41 41.6	0.0
BDRM	Kayabasi	1.24	298	i P	Pn	07 41 45.2	+0.6
BDRM				i S	Sb	07 42 01.4	+0.7
BDRM	Kayabasi	1.24	298	i P	Pn	07 41 45.2	+0.6
BDRM				i S	Sb	07 42 01.4	+0.7
BODT	Bodrum	1.33	295	ePN	Pn	07 41 45.2	-0.7
BODT	Bodrum	1.33	295	ePn	Pn	07 41 45.2	-0.7

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*LDG **04** 07:43:46.1±0.6, 19.°10N×67.°93W, h10^{km}, Mb5.5/36, Ms4.6/10, Error ellipse: s-maj=48.6km s-min=6.9km az=103.0*
*MOS **04** 07:43:52.6±0.8, 19.°11N×66.°95W, h19^{km}, mb5.4/92, MS4.8/32, Error ellipse: s-maj=4.9km s-min=4.6km az=76.6*
*IDC **04** 07:43:54.4±1.7, 18.°83N×67.°02W, h28^{km}±10^{km}, mb4.6/20, mb1 4.8/22, mb1mx4.7/24, mbtmp4.6/22, ML3.8/2, MS4.7/20, Ms1 4.7/20, ms1mx4.6/26, Error ellipse: s-maj=13.4km s-min=11.4km az=177.0*
*ISCJB **04** 07:43:54.4±0.6, 19.°02N±0.°02×66.°95W±0.°01, h33^{km}±4^{km}, mb5.2/212, MS4.8/125, Error ellipse: s-maj=3.4km s-min=1.9km az=21.6*
*BJI **04** 07:43:54.1, 19.°00N×66.°90W, h14^{km}, mB5.8/13, Ms5.5/13, Ms7 5.1/14*
*RSPR **04** 07:43:56.1, 19.°03N×66.°90W, h14^{km}±2^{km}, MD5.0/22, MD5.0/22*
*GCMT **04** 07:43:56.1±0.1, 19.°00N×66.°87W, h16^{km}, MW5.5/82, Moment Tensor Solution. s64,c99; s82,c135; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}0.18±.02; $M_{\theta\theta}$-0.39±.01; $M_{\phi\phi}$0.21±.01; $M_{r\theta}$-0.64±.04; $M_{\theta\phi}$0.44±.01; $M_{\phi r}$2.21±.04; Best double couple: $M_0$2.36500×10^{17} NP1:ϕ_s80.00000°, δ13.00000°, λ7.00000°. NP2: ϕ_s343.00000°, δ88.00000°, λ103.00000°. Principal axes: T 2.4110, Plg45.0000°, Azm266.0000°; N -0.0930, Plg13.0000°, Azm162.0000°; P -2.3180, Plg42.0000°, Azm60.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **04** 07:43:56.1, 19.°03N×66.°90W, h14^{km}, mb5.3/164, MS4.8/97, MW5.2, MD5.0(RSPR), Moment Tensor Solution. s38 Moment tensor: Scale 10^{16}Nm; M_{rr}4.59; $M_{\theta\theta}$-0.96; $M_{\phi\phi}$-3.63; $M_{r\theta}$-2.26; $M_{\theta\phi}$3.03; $M_{\phi r}$5.14; Best double couple: $M_0$7.60000×10^{16} NP1:ϕ_s136.00000°, δ22.00000°, λ73.00000°. NP2:ϕ_s335.00000°, δ69.00000°, λ97.00000°. Principal axes: T 7.1400, Plg65.0000°, Azm255.0000°; N 0.9200, Plg6.0000°, Azm152.0000°; P -8.0500, Plg23.0000°, Azm59.0000°; After RSPR.*
NEIC Felt [V] at Aguadilla and Ponce; [IV] at Mayaguez and Trujillo Alto; [III] at Guaynabo, Rincon and San Juan. Also felt at Arecibo, Bayamon, Carolina, Hatillo, Naranjito, Rio Grande, San German and Utuado.
*SZGRF **04** 07:44:08.2, 20.°87N×66.°18W, h33^{km}, mb5.4, MS4.9, North Atlantic Ocean*

ISC 04 07:43:55.7±0.5**, 18.°96N**±0.°02×**66.°97W**±0.°01**, h30**^{km}±4^{km}**, h30**^{km}±2.4^{km}**:pP-P, n882,** σ**0**^{s}**86**/844**, mb5.2**/212**, MS4.8**/125**, 125C-174D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGPR	Aguadilla, PR	0.51	195	⇑eP	Pb	07 44 06.9	+0.7
AGPR	Aguadilla, PR	0.51	195	eS	Sb	07 44 14.8	+1.3
AGPR	Aguadilla, PR	0.51	195	⇓iP	Pb	07 44 06.4	+0.2
AGPR	Aguadilla, PR	0.51	195	⇓iP	Pb	07 44 06.4	+0.2
AGPR				⇑eP		07 44 06.9	
AGPR				eS	Sb	07 44 14.8	+1.3
AGP	Aguadilla	0.57	196	ePb	Pb	07 44 06.5	-0.8
AOPR	Arecibo Observ	0.65	161	⇓eP	Pb	07 44 08.3	-0.2
AOPR	Arecibo Observ	0.65	161	eS	Sb	07 44 17.7	+0.5
AOPR	Arecibo Observ	0.65	161	⇓eP	Pb	07 44 08.2	-0.3
AOPR	Arecibo Observ	0.65	161	⇓eP	Pb	07 44 08.2	-0.3
AOPR				eS	Sb	07 44 17.7	+0.5
LRS	Lares	0.68	170	⇓eP	Pb	07 44 08.7	-0.3
LRS	Lares	0.68	170	⇓iP	Pb	07 44 08.7	-0.4
MPR	Mayaguez	0.76	192	⇓eP	Pn	07 44 10.2	-0.1
MPR	Mayaguez	0.76	192	⇓eP	Pn	07 44 10.2	-0.2
MPR	Mayaguez	0.76	192	eS	Sb	07 44 21.0	+0.5
MPR	Mayaguez	0.76	192	⇓eP	Pn	07 44 10.2	-0.2
MPR				eS	Sb	07 44 21.0	+0.5
LSP	Las Mesas	0.79	188	⇑eP	Pn	07 44 10.6	-0.2
LSP	Las Mesas	0.79	188	⇑iP	Pn	07 44 10.6	-0.2
LSP	Las Mesas	0.79	188	⇑iP	Pn	07 44 10.6	-0.2
CELP	Cerrillos	0.96	157	⇑eP	Pn	07 44 12.9	-0.2
CELP	Cerrillos	0.96	157	⇑iP	Pn	07 44 12.9	-0.2
CRPR	Cabo Rojo, PR	0.96	188	⇓eP	Pn	07 44 13.2	+0.1
CRPR	Cabo Rojo, PR	0.96	188	⇓iP	Pn	07 44 13.2	+0.1
CRPR	Cabo Rojo, PR	0.96	188	eS	Sn	07 44 26.1	+0.4
CRPR	Cabo Rojo, PR	0.96	188	⇓iP	Pn	07 44 13.2	+0.1
CRPR				eS	Sn	07 44 26.1	+0.4
OBIP	Obispado Ponce	0.98	159	⇑eP	Pn	07 44 13.3	0.0
OBIP	Obispado Ponce	0.98	159	⇑eP	Pn	07 44 13.3	0.0
OBIP	Obispado Ponce	0.98	159	eS	Sn	07 44 26.3	+0.1
OBIP	Obispado Ponce	0.98	159	⇑eP	Pn	07 44 13.3	0.0
OBIP				eS	Sn	07 44 26.3	+0.1
GBPR	Guanica, Bosqu	0.99	175	⇑eP	Pn	07 44 13.5	0.0
GBPR	Guanica, Bosqu	0.99	175	⇑iP	Pn	07 44 13.6	+0.2
ICM	Isla Caja Muer	1.15	158	⇑eP	Pn	07 44 16.1	+0.4
ICM	Isla Caja Muer	1.15	158	eS	Sn	07 44 30.1	-0.2
ICM	Isla Caja Muer	1.15	158	⇑eP	Pn	07 44 15.3	-0.3
ICM				⇑eP		07 44 16.1	
ICM				eS	Sn	07 44 30.1	-0.2
SJG	San Juan	1.15	137	⇑eP	Pn	07 44 14.8	-1.0
SJG	San Juan	1.15	137	⇑iP	Pn	07 44 14.9	-0.8
SJG	San Juan	1.15	137	eS	Sn	07 44 29.3	-1.2
SJG	San Juan	1.15	137	⇑iP	Pn	07 44 14.7	-1.0
SJG	San Juan	1.15	137	⇑eP	Pn	07 44 14.8	-0.9
SJG				eS	Sn	07 44 29.3	-1.2
SJG	San Juan	1.15	137	⇑eP	Pn	07 44 14.8	-1.0
SJG				⇑iP		07 44 14.9	
SJG				eS	Sn	07 44 29.3	-1.2
IMO	Isla Mona	1.23	226	⇑eP	Pn	07 44 17.8	+1.0
IMO	Isla Mona	1.23	226	⇑eP	Pn	07 44 17.8	+1.1
CBYP	Canovanas	1.26	123	⇑iP	Pn	07 44 16.3	-0.9
CBYP	Canovanas	1.26	123	⇑eP	Pn	07 44 15.8	-1.5
CBYP				⇑iP		07 44 16.3	
HUMP	Col San Antoni	1.34	127	⇑iP	Pn	07 44 17.2	-1.2
HUMP	Col San Antoni	1.34	127	eS	Sn	07 44 33.6	-1.6
HUMP	Col San Antoni	1.34	127	⇑eP	Pn	07 44 17.2	-1.2
HUMP				eS	Sn	07 44 33.5	-1.7
CPD	Cerro la Pandu	1.36	132	⇑iP	Pn	07 44 17.9	-0.7
CPD	Cerro la Pandu	1.36	132	eS	Sn	07 44 34.5	-1.2
CPD	Cerro la Pandu	1.36	132	⇑eP	Pn	07 44 17.3	-1.3
CPD				eS	Sn	07 44 34.5	-1.2
CPD	Cerro la Pandu	1.36	132	⇑eP	Pn	07 44 17.3	-1.3
CPD				⇑iP		07 44 17.9	
CPD				eS	Sn	07 44 34.5	-1.2
MTP	Monte Pirata	1.60	122	⇑eP	Pn	07 44 20.5	-1.4
MTP	Monte Pirata	1.60	122	eS	Sn	07 44 39.5	-2.0
MTP	Monte Pirata	1.60	122	⇑iP	Pn	07 44 20.5	-1.4
MTP	Monte Pirata	1.60	122	eS	Sn	07 44 40.2	-1.3
MTP	Monte Pirata	1.60	122	⇑iP	Pn	07 44 20.5	-1.4
MTP				eS	Sn	07 44 40.2	-1.3
STVI	Saint Thomas	2.01	107	⇑eP	Pn	07 44 26.4	-1.1
STVI	Saint Thomas	2.01	107	⇑iP	Pn	07 44 26.1	-1.5
STVI	Saint Thomas	2.01	107	eS	Sn	07 44 49.3	-2.4
STVI	Saint Thomas	2.01	107	⇑iP	Pn	07 44 26.1	-1.5
STVI				⇑eP		07 44 26.4	
STVI				eS	Sn	07 44 49.3	-2.4
DR12	Loma Pena Alta	2.29	266	⇓eP	Pn	07 44 32.7	+1.3
DR12	Loma Pena Alta	2.29	266	⇑eP	Pn	07 44 32.5	+1.2
TBVI	Tortola	2.30	103	⇑eP	Pn	07 44 29.9	-1.6
TBVI	Tortola	2.30	103	⇓iP	Pn	07 44 30.0	-1.6
CDVI	St. Croix	2.42	120	⇑eP	Pn	07 44 33.4	+0.2
CDVI	St. Croix	2.42	120	⇑iP	Pn	07 44 33.3	+0.1
CDVI	St. Croix	2.42	120	eS	Sn	07 45 00.4	-1.4
ABV	Anegada	2.51	95	⇓eP	Pn	07 44 32.5	-2.0
ABV	Anegada	2.51	95	⇑iP	Pn	07 44 34.1	-0.3
SABA	Saba	3.79	110	⇓eP	Pn	07 44 51.4	-0.6
SABA	Saba	3.79	110	⇓eP	Pn	07 44 51.6	-0.4
SMRT	St. Maarten	3.81	103	⇓eP	Pn	07 44 51.5	-0.8
SMRT	St. Maarten	3.81	103	⇓eP	Pn	07 44 51.6	-0.7
SMRT	St. Maarten	3.81	103	eS	Sn	07 45 34.6	-1.6
SEUS	St. Eustatius	4.07	110	⇑eP	Pn	07 44 54.7	-1.2
SEUS	St. Eustatius	4.07	110	⇓eP	Pn	07 44 56.1	+0.3
SEUS	St. Eustatius	4.07	110	eS	Sn	07 45 40.9	-1.5
SDDR	Presa de Saban	4.08	271	⇑eP	Pn	07 44 57.6	+1.5
SDDR	Presa de Saban	4.08	271	⇑iP	Pn	07 44 57.6	+1.5
SDDR	Presa de Saban	4.08	271	⇑iP	Pn	07 44 57.6	+1.5
GRTK	Grand Turk	4.66	304	ePn	Pn	07 45 02.0	-2.0
GRTK				eSn	Sn	07 45 55.6	-1.4
ANWB	Willy Bob	5.09	104	ePn	Pn	07 45 11.0	+1.0
ANWB				eSn	Sn	07 46 09.2	+1.4
LZG	Guadaloupe-1	5.70	119	eP	Pn	07 45 19.4	+1.1
SEG	Port Louis	5.80	115	eP	Pn	07 45 21.9	+2.2
SCG	Saint Claude	5.83	119	eP	Pn	07 45 21.1	+0.9
HMG	Houelmont	5.84	120	eP	Pn	07 45 21.0	+0.8
TBG	Guadaloupe-3	5.95	120	eP	Pn	07 45 24.9	+3.1
SFG	Saint Francois	6.13	115	eP	Pn	07 45 27.8	+3.5
MGG	Marie-Galante	6.19	118	eP	Pn	07 45 26.5	+1.4
DEG	La Desirade	6.22	114	eP	Pn	07 45 26.9	+1.4
MASC	Masc	6.95	281	eP	Pn	07 45 33.9	-1.5
MASC				eS	Sn	07 46 49.3	-4.2
	comp=N,35nm,1.8s						
MASC				e			
	comp=E,40nm,1.8s						
FDF	Fort de France	6.98	126	eP	Pn	07 45 35.9	0.0
FDF				e		07 46 51.9	
FDF				pmax	pmax		
	comp=Z,627nm,1.1s						
FDF	Fort de France	6.98	126	eP	Pn	07 45 35.8	-0.2
FDF	Fort de France	6.98	126	ePn	Pn	07 45 35.9	-0.1
	comp=Z,627nm,1.1s						
FDF				eSn	Sn	07 46 51.9	-2.5
BIM	Bigot	7.18	127	eP	Pn	07 45 38.7	+0.1
MVM	Montagne Vaucl	7.29	126	eP	Pn	07 45 41.4	+1.3
SLW	Petit Monier	7.59	129	eP	Pn	07 45 46.2	+1.9
MOAC	Moa	7.71	284	eP	Pn	07 45 43.0	-2.8
MOAC				eS	Sn	07 47 03.0	-9.1
	comp=N,106nm,0.3s						
MOAC				e			
	comp=E,104nm,0.2s						
GTBY	Guantanamo Bay	7.74	278	ePn	Pn	07 45 44.3	-2.0
GTMO	Guantanamo	7.78	280	eP	Pn	07 45 44.9	-2.0
SABC	Sabc	7.87	282	eP	Pn	07 45 46.7	-1.4
SABC				eS	Sn	07 47 09.1	-7.1
	comp=N,74nm,0.3s						
SABC				e			
	comp=E,92nm,0.5s						
RCC	Rio Carpintero	8.29	279	eP	Pn	07 45 49.6	-4.3
RCC				eS	Sn	07 47 17.4	-9.2
	comp=N,171nm,0.5s						
RCC				e			
	comp=E,219nm,1.0s						
GRGR	Grenville	8.51	142	ePn	Pn	07 45 56.7	-0.2
	comp=E,519nm,1.0s						
HLGC	Holguin	8.76	284	eP	Pn	07 45 58.5	-1.8
PCRV	Puerto La Cruz	9.02	165	Pn	Pn	07 46 05.4	+1.5
	comp=E,8.4nm,0.3s,baz=39,slow=1.5,SNR=37						
PCRV				Sn	Sn	07 47 38.5	-6.1
	comp=E,9.6nm,0.3s,baz=253,slow=20,SNR=3.4						
PCRV				LR	LR	07 49 36.4	
	comp=E,2µm,19.6s,baz=141,slow=38						
PCRV	Puerto La Cruz	9.02	165	Pn	Pn	07 46 05.4	+1.5
PCRV				Sn	Sn	07 47 38.5	-6.1
PCRV				LR	LR	07 49 36.4	
BBGH	Gun Hill	9.18	128	ePn	Pn	07 46 06.2	+0.2
	comp=E,948nm,1.0s						
BBGH				eSn	Sn	07 47 52.1	+3.6
STH	Stony Hill	9.37	266	⇓eP	Pn	07 46 07.2	-1.5
STH				eS	Sn	07 47 55.2	+2.1
LMGC	Las Mercedes	9.52	278	eP	Pn	07 46 08.4	-2.4
TCE	Chacachacare	9.64	148	eP	Px	07 46 32.7	
TCE	Chacachacare	9.64	148	eP	Px	07 46 32.7	
TPR	Prospect	9.77	141	eP	Pn	07 46 19.4	+5.1
TPR	Prospect	9.77	141	eP	Pn	07 46 19.4	+5.1
BOT	Bacolet	9.82	141	eP	Pn	07 46 19.8	+4.8
BOT	Bacolet	9.82	141	eP	Pn	07 46 19.8	+4.8
TRN	Trinidad (W)	9.86	146	eP	Pn	07 46 19.2	+3.7
TRN	Trinidad (W)	9.86	146	eP	Pn	07 46 19.2	+3.7

CVJ	Coleyville	10.04	268	*e*P	Pn	07 46 18.8	+0.9
TPP	Pointe-a-Pierr	10.12	147	*e*P	Pn	07 46 25.6	+6.6
TPP	Pointe-a-Pierr	10.12	147	*e*P	Pn	07 46 25.6	+6.6
TBH	Brigand Hill	10.18	145	*e*P	Pn	07 46 25.3	+5.4
TBH	Brigand Hill	10.18	145	*e*P	Pn	07 46 25.3	+5.4
MCJ	Malvern	10.22	266	*e*S	Sn	07 48 12.6	-1.4
SDV	Santo Domingo	10.63	200	Pn	Pn	07 46 28.1	+2.2
	comp=E,4.7nm,0.3s,baz=41,slow=8.9,SNR=43						
SDV				Sn	Sn	07 48 22.7	-1.3
	comp=E,0.6nm,0.3s,baz=270,slow=20,SNR=3.3						
SDV	Santo Domingo	10.63	200	*e*Pn	Pn	07 46 27.3	+1.4
SDV				*e*Sn	Sn	07 48 24.9	+0.9
MGV	Manicaragua	12.58	287	*e*P	Pn	07 46 45.9	-6.7
MGV				*e*S	Sn	07 48 57.5	-14
	comp=N,130nm,0.5s						
MGV				*e*			
	comp=E,354nm,3.5s						
BBSR	BB Station	13.51	8	*e*Pn	Pn	07 47 02.5	-2.8
BBSR				*e*Sn	Sn	07 49 13.1	-21
SOR	Soroa	15.46	287	*e*P	Pn	07 47 28.5	-3.1
SOR				*e*S	Sn	07 49 59.0	-23
	comp=N,1.7nm,5.7s						
SOR				*e*			
	comp=E,2.0nm,4.4s						
ROSC	El Rosal	15.75	208	Pn	Pn	07 47 35.0	-0.5
	comp=E,1.8nm,0.3s,baz=71,slow=5.8,SNR=27						
ROSC				Sn	Sn	07 50 27.9	-1.3
	comp=E,0.5nm,0.3s,baz=267,slow=17,SNR=2.4						
ROSC				LR	LR	07 54 04.7	
	comp=E,4µm,20.3s,baz=4.4,slow=39						
ROSC	El Rosal	15.75	208	Pn	Pn	07 47 35.0	-0.5
ROSC				Sn	Sn	07 50 27.9	-1.3
ROSC				LR	LR	07 54 04.7	
BCIP	Isla Barro Col	15.82	234	*e*Pn	Pn	07 47 34.6	-1.7
	comp=E,153nm,1.0s						
BCIP				*e*Sn	Sn	07 50 27.4	-3.4
DWPF	Disney	16.07	307	*e*Pn	Pn	07 47 37.3	-2.2
	comp=E,122nm,0.6s						
DWPF				*e*Sn	Sn	07 50 17.6	-19
NHSC	New Hope	18.39	323	*e*P	Pn	07 48 07.3	-1.1
	comp=E,298nm,0.6s						
NHSC				*e*S	Sn	07 51 11.7	-21
BAR1		18.54	241	*e*P	Pn	07 48 10.3	-0.1
URSC	Urasca	18.62	243	*e*P	Pn	07 48 11.3	0.0
BUS	Buena Vista	18.75	242	*e*P	Pn	07 48 14.4	+1.5
ACR	Cerro Adams	18.75	239	*e*P	Pn	07 48 13.5	+0.6
LCR2	La Lucha 2	18.86	243	*e*P	Pn	07 48 14.5	+0.3
CNNC	Cliffs of the	18.88	331	*e*Pn	Pn	07 48 16.6	+2.4
FORC	Fortuna	19.07	246	*e*P	Pn	07 48 16.1	-0.6
QCR	Quepos	19.16	243	*e*P	Pn	07 48 19.6	+1.8
JTS	JuntasAbangare	19.40	246	*e*P	Pn	07 48 18.4	-2.3
JTS				pmax	pmax		
	comp=Z,183nm,1.0s						
JTS	JuntasAbangare	19.40	246	P	Pn	07 48 19.0	-1.7
	comp=Z,2.9nm,0.3s,baz=77,slow=2.2,SNR=27						
JTS				LR	LR	07 55 35.7	
	comp=Z,1µm,18.1s,baz=68,slow=36						
JTS	JuntasAbangare	19.40	246	*e*P	Pn	07 48 18.4	-2.3
	comp=Z,183nm,1.0s						
JCR	Jicaral	19.75	245	*e*P	Pn	07 48 24.4	-0.5
LHS	Liberty Hill	19.75	324	*e*P	Pn	07 48 28.8	+4.1
LHS	Liberty Hill	19.75	324	*e*Pn	Pn	07 48 28.8	+4.1
TGUH	Tegucigalpa,Un	20.06	259	*e*P	P	07 48 27.0	+0.4
	comp=Z,45nm,0.8s						
TEIG	Tepich	20.11	277	P	P	07 48 26.5	-0.7
	comp=Z,46nm,0.5s,baz=78,slow=5.4,SNR=70						
TEIG				ScP	ScP	07 56 15.6	-0.5
	comp=Z,26nm,0.9s,baz=56,slow=3.6,SNR=5.9						
TEIG	Tepich	20.11	277	*e*P	P	07 48 27.4	+0.3
	comp=Z,266nm,1.3s						
TEIG				*e*ScP	ScP	07 56 15.5	-0.6
GOGA	Godfrey	20.60	318	*e*P	P	07 48 31.8	-0.6
GOGA				pmax	pmax		
	comp=Z,63nm,0.6s						
GOGA				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.3						
GOGA	Godfrey	20.60	318	*e*P	P	07 48 31.8	-0.5
	comp=Z,63nm,0.6s						
GOGA				*e*S	S	07 52 01.9	-19
GOGA				LR	LR		
	comp=Z,1µm,20.0s,MS4.3						
CNCH	Conchagua	20.81	257	*e*P	P	07 48 34.9	+0.1
JSRW	J. Sargeant Re	20.95	335	*e*P	P	07 48 35.7	-0.5
CBN	Corbin	21.21	337	*e*P	P	07 48 38.5	-0.4
	comp=Z,112nm,0.3s,mb5.7						
CBN				*e*S	S	07 52 33.0	-0.1
CBN				LR	LR		
	comp=Z,1µm,20.0s,MS4.3						
VWCC	Virginia Weste	21.48	331	*e*P	P	07 48 42.3	+0.4
BLA	Blacksburg	21.66	330	*e*P	P	07 48 43.7	-0.1
BLA				*e*S	S	07 52 30.2	-12
BLA				pmax	pmax		
	comp=Z,19nm,0.6s,mb4.7						
BLA				MLR	MLR		
	comp=Z,2µm,19.0s,MS4.5						
BLA	Blacksburg	21.66	330	*e*P	P	07 48 43.7	-0.1
	comp=Z,19nm,0.6s,mb4.7						
BLA				*e*S	S	07 52 30.2	-12
BLA				LR	LR		
	comp=Z,2µm,19.0s,MS4.5						
OTAV	Otavalo	21.75	212	*e*P	P	07 48 46.1	+1.3
	comp=Z,427nm,1.3s,mb5.7						
OTAV				*e*S	S	07 52 44.9	+0.9
BRAL	Brewton	21.76	307	*e*P	P	07 48 45.9	+1.0
LFRS	El Faro	21.85	259	*e*P	P	07 48 46.1	+0.2
MRL	Marmol	22.06	263	*e*P	P	07 48 49.2	+1.0
SDMD	Soldier's Deli	22.09	339	*e*P	P	07 48 49.7	+1.3
TKL	Tuckaleechee C	22.29	322	P	P	07 48 50.7	+0.2
	comp=Z,14nm,0.8s,mb4.4,baz=153,slow=13,SNR=23						
TKL				LR	LR	07 56 48.3	
	comp=Z,1µm,20.3s,MS4.3,baz=136,slow=35						
TKL	Tuckaleechee C	22.29	322	*e*P	P	07 48 51.0	+0.5
TKL				*e*S	S	07 52 57.2	+2.9
MVL	Millersville	22.47	341	*e*P	P	07 48 53.6	+1.3
CPCT	Cooper Cave	22.60	320	*e*P	P	07 48 53.3	-0.5
LRAL	Lakeview Retre	22.75	312	*e*P	P	07 48 55.0	-0.4
	comp=Z,45nm,0.7s,mb5.0						
LRAL				*e*S	S	07 52 59.4	-3.3
LRAL				LR	LR		
	comp=Z,2µm,21.0s,MS4.4						
PAL	Palisades	22.76	346	*e*P	P	07 48 59.5	+4.1
PAL	Palisades	22.76	346	*e*P	P	07 48 59.5	+4.1
TZTN	Tazewell	22.79	324	*e*P	P	07 48 54.3	-1.4
	comp=Z,33nm,0.3s,mb5.2						
TZTN				*e*S	S	07 52 59.2	-3.9
YLE	Yale	22.86	348	*e*P	P	07 49 01.1	+4.7
IXG	Ixpaco	23.00	262	*e*P	P	07 48 58.8	+0.7
FUG	Fuego 3	23.29	263	*e*P	P	07 49 01.9	+0.7
FG6		23.30	263	*e*P	P	07 49 04.1	+2.7
SWET	Sewanee	23.32	318	*e*P	P	07 49 00.8	-0.6
TP2	Tecpan 2	23.38	263	*e*P	P	07 49 03.8	+1.7
MCWV	Mont Chateau	23.43	334	*e*P	P	07 49 03.2	+0.7
	comp=Z,59nm,0.7s,mb5.1						
MCWV				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
SSPA	Standing Stone	23.55	339	*e*P	P	07 49 02.9	-0.6
	comp=Z,133nm,1.0s,mb5.3						
SSPA				*e*S	S	07 53 12.9	-2.4
BINY	Binghamton	24.40	344	*e*P	P	07 49 11.9	+0.7
	comp=Z,62nm,0.8s,mb5.1						
BINY				*e*S	S	07 53 34.8	+5.8
BINY				LR	LR		
	comp=Z,1µm,19.0s,MS4.5						
VBMS	Vicksburg	24.93	307	*e*P	P	07 49 17.0	+0.7
	comp=Z,166nm,0.9s,mb5.6						
VBMS				LR	LR		
	comp=Z,2µm,20.0s,MS4.6						
ACCN	Adirondack Com	24.99	348	*e*P	P	07 49 17.1	+0.4
WVT	Waverly	25.10	317	*e*P	P	07 49 16.6	-1.1
WVT				*e*S	S	07 53 40.9	+0.4
WVT				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.0						
WVT	Waverly	25.10	317	*e*P	P	07 49 16.6	-1.1
	comp=Z,39nm,0.8s,mb5.0						
WVT				*e*S	S	07 53 40.9	+0.4
OXF	Oxford	25.24	312	*e*P	P	07 49 18.7	-0.3
OXF				pmax	pmax		
	comp=Z,192nm,0.9s,mb5.6						
OXF				MLR	MLR		
	comp=Z,2µm,19.0s,MS4.6						
OXF	Oxford	25.24	312	*e*P	P	07 49 18.7	-0.4
	comp=Z,192nm,0.9s,mb5.6						
OXF				*e*S	S	07 54 00.4	+18
OXF				LR	LR		
	comp=Z,2µm,19.0s,MS4.6						
ALLY	Alegheny Colle	25.25	336	*e*P	P	07 49 20.9	+1.9
ACSO	Alum Creek Sta	25.28	330	*e*P	P	07 49 19.5	+0.2
	comp=Z,45nm,0.6s,mb5.2						
ACSO				*e*S	S	07 54 00.0	+17
ACSO				LR	LR		
	comp=Z,2µm,19.0s,MS4.6						
WCI	Wyandotte Cave	25.52	323	*e*P	P	07 49 21.9	+0.3
WCI				pmax	pmax		
	comp=Z,33nm,0.5s,mb5.1						
WCI	Wyandotte Cave	25.52	323	*e*P	P	07 49 21.9	+0.3
	comp=Z,33nm,0.5s,mb5.1						
WCI				*e*S	S	07 53 58.1	+11
LBNH	Lisbon	25.54	352	*e*P	Px	07 49 49.4	
LBNH				LR	LR		
	comp=Z,2µm,22.0s,MS4.5						
ERPA	Erie	25.60	337	P	P	07 49 26.4	+4.2
	comp=Z,52nm,0.6s,mb5.2						
ERPA				LR	LR		
	comp=Z,2µm,19.0s,MS4.5						
NCB	Newcomb	25.67	348	*e*P	P	07 49 23.2	+0.4
	comp=Z,46nm,0.6s,mb5.2						
NCB				*e*S	S	07 54 02.7	+13
NCB				LR	LR		
	comp=Z,1µm,21.0s,MS4.3						
LONY	Lake Ozonia	26.36	348	*e*P	P	07 49 29.3	+0.2
	comp=Z,28nm,0.8s,mb4.8						
GNAR	Gosnell	26.45	315	*e*P	P	07 49 30.2	+0.3
CMIG	Matias Romero	26.59	270	P	P	07 49 28.2	-3.3
	comp=Z,12nm,0.8s,mb4.5,baz=64,slow=8.4,SNR=11						
CMIG				ScP	ScP	07 56 31.3	-2.1
	comp=Z,16nm,1.1s,baz=70,slow=5.2,SNR=11						
CMIG	Matias Romero	26.59	270	P	P	07 49 28.2	-3.3
CMIG				ScP	ScP	07 56 31.3	-2.1
PARMO	Parma	26.66	316	*e*P	P	07 49 32.0	+0.1
AAM	Ann Arbor	27.23	332	*e*P	P	07 49 37.5	+0.5
AAM				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.7						
AAM	Ann Arbor	27.23	332	*e*P	P	07 49 37.5	+0.5
	comp=Z,16nm,0.6s,mb4.7						
SADO	Sadowa	27.66	341	P	P	07 49 40.1	-0.7
	comp=Z,5.8nm,0.8s,mb4.2,baz=163,slow=6.1,SNR=4.0						
SADO	Sadowa	27.66	341	P	P	07 49 40.1	-0.7
NATX	Nacogdoches	27.99	302	PFAKE		07 50 00.0	+16
NATX				LR	LR		
	comp=Z,2µm,22.0s,MS4.6						
ATAH	Atahualpa	28.15	205	P	P	07 49 47.5	+2.1
	comp=Z,162nm,0.9s,mb5.7,baz=19,slow=5.8,SNR=83						
ATAH				ScP	ScP	07 56 38.9	+0.8
	comp=Z,37nm,1.4s,baz=53,slow=4.5,SNR=4.0						
MIAR	Mount Ida	28.25	309	*e*P	P	07 49 45.5	-0.7
MIAR				pmax	pmax		
	comp=Z,26nm,0.3s,mb5.3						
MIAR				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.5						
MIAR	Mount Ida	28.25	309	*e*P	P	07 49 45.5	-0.8
	comp=Z,26nm,0.3s,mb5.3						
MIAR				*e*S	S	07 55 18.7	+48
MIAR				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
HKT	Hockley	28.38	298	*e*P	P	07 49 47.6	+0.2
HKT				pmax	pmax		
	comp=Z,86nm,1.6s,mb5.1						
HKT				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.5						
HKT	Hockley	28.38	298	*e*P	P	07 49 47.6	+0.2
	comp=Z,86nm,1.6s,mb5.1						
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
CCM	Cathedral Cave	28.44	317	*e*P	P	07 49 46.1	-1.7
CCM				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.0						
CCM				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.5						
CCM	Cathedral Cave	28.44	317	*e*P	P	07 49 46.1	-1.7
	comp=Z,38nm,0.9s,mb5.0						
CCM				*e*S	S	07 55 11.0	+38
CCM				LR	LR		
	comp=Z,1µm,19.0s,MS4.5						
KVTX	Kingsville	29.60	293	PFAKE		07 50 10.0	+12
KVTX				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
GLMI	Grayling	29.69	334	*e*P	P	07 49 59.0	+0.3
	comp=Z,64nm,0.8s,mb5.4						
GLMI				LR	LR		
	comp=Z,1µm,19.0s,MS4.6						
PAYG	Puerto Ayora	30.08	232	PFAKE		07 50 20.0	+17
PAYG				LR	LR		
	comp=Z,2µm,21.0s,MS4.7						
JFWS	Jewell Farm	30.93	326	*e*P	P	07 50 09.3	-0.5
JFWS				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.1						
JFWS	Jewell Farm	30.93	326	*e*P	P	07 50 09.3	-0.5
	comp=Z,21nm,0.6s,mb5.2						
JCT	Junction City	31.84	297	*e*P	P	07 50 17.0	-1.0
JCT				pmax	pmax		
	comp=Z,87nm,0.9s,mb5.6						
JCT	Junction City	31.84	297	*e*P	P	07 50 17.0	-0.9
	comp=Z,87nm,0.9s,mb5.6						
SCIA	State Center	31.94	321	*e*P	P	07 50 18.3	-0.4
	comp=Z,15nm,0.6s,mb5.0						
NNA	Nana	32.26	198	*e*P	P	07 50 20.8	-0.9
	comp=Z,22nm,0.8s,mb5.0						
NNA				LR	LR		
	comp=Z,1µm,20.0s,MS4.6						
WMOK	Wichita Mounta	32.27	306	*e*P	P	07 50 20.7	-1.0
WMOK				pmax	pmax		
	comp=Z,37nm,0.7s,mb5.3						
WMOK	Wichita Mounta	32.27	306	*e*P	P	07 50 20.7	-0.9
	comp=Z,37nm,0.7s,mb5.3						
KSU1	Kansas State U	32.55	314	*e*P	P	07 50 22.7	-1.4
	comp=Z,59nm,1.0s,mb5.5						
AMTX	Amarillo	34.56	304	*e*P	P	07 50 41.0	-0.8
	comp=Z,86nm,1.2s,mb5.5						
AMTX				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
CBKS	Cedar Bluff	34.58	312	*e*P	P	07 50 41.2	-0.6
CBKS				pmax	pmax		
	comp=Z,112nm,0.9s,mb5.8						
CBKS				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.7						
CBKS	Cedar Bluff	34.58	312	*e*P	P	07 50 41.2	-0.5
	comp=Z,112nm,0.9s,mb5.8						
CBKS				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
TXAR	Lajitas Array	34.91	294	P	P	07 50 44.7	-0.1
TXAR						07 53 17.5	
TXAR	Lajitas Array	34.91	294	P	P	07 50 44.7	-0.1
	comp=Z,62nm,0.7s,mb5.6,baz=111,slow=8.8,SNR=235						
TXAR				PcP	PcP	07 53 17.5	+0.3
	comp=Z,7.5nm,0.8s,baz=127,slow=4.3,SNR=4.9						
TXAR				ScP	ScP	07 57 00.4	-0.3
	comp=Z,5.7nm,0.9s,baz=141,slow=5.8,SNR=13						
TXAR	Lajitas Array	34.91	294	P	P	07 50 44.7	-0.1
TXAR				PcP	PcP	07 53 17.5	+0.3
TXAR				ScP	ScP	07 57 00.4	-0.3
EYMN	Ely	35.12	331	*e*P	P	07 50 45.7	-0.6
	comp=Z,16nm,0.9s,mb5.0						
SCHQ	Schefferville	35.81	0	P	P	07 50 52.0	-0.1
	comp=Z,8.7nm,0.7s,mb4.8,baz=188,slow=7.0,SNR=27						
SCHQ				LR	LR	08 03 49.9	
	comp=Z,789nm,19.3s,MS4.5,baz=185,slow=33						
SCHQ	Schefferville	35.81	0	P	P	07 50 52.0	-0.1
SCHQ				LR	LR	08 03 49.9	
AGMN	Agassiz Refuge	37.46	328	*e*P	P	07 51 05.2	-1.1
	comp=Z,15nm,0.7s,mb4.9						
AGMN				LR	LR		
	comp=Z,947nm,19.0s,MS4.6						
ANMO	Albuquerque	38.35	303	*e*P	P	07 51 14.2	+0.1
ANMO				pmax	pmax		
	comp=Z,29nm,0.9s						
ANMO				MLR	MLR		
	comp=Z,1µm,21.0s						
ANMO	Albuquerque	38.35	303	*e*P	P	07 51 14.2	+0.1
	comp=Z,29nm,0.9s,mb5.0						
ANMO				LR	LR		
	comp=Z,1µm,21.0s,MS4.6						
SDCO	Great Sand Dun	38.39	307	*e*P	P	07 51 14.6	+0.2
	comp=Z,44nm,0.8s,mb5.2						
SDCO				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
Y22D	IRIS PASSCAL I	38.52	301	⇑P	P	07 51 15.9	+0.5
	baz=38,SNR=6.2						
X22A	Bernardo	38.69	302	⇓P	P	07 51 17.6	+0.7
	baz=39,SNR=6.3						
W22A	Albuquerque	38.71	303	⇑P	P	07 51 17.5	+0.5
	baz=39,SNR=12						
ULM	Lac du Bonnet	38.78	330	P	P	07 51 16.1	-1.3
	comp=Z,7.0nm,0.7s,mb4.5,baz=123,slow=9.4,SNR=19						
ULM				ScP	ScP	07 57 13.2	-1.4
	comp=Z,2.9nm,0.7s,baz=127,slow=5.1,SNR=3.4						
ULM	Lac du Bonnet	38.78	330	P	P	07 51 16.1	-1.3
ULM				ScP	ScP	07 57 13.2	-1.4
ISCO	Idaho Springs	39.16	310	*e*P	P	07 51 20.9	+0.2
ISCO				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.0						
ISCO				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.8						
ISCO	Idaho Springs	39.16	310	*e*P	P	07 51 20.9	+0.2
	comp=Z,29nm,1.0s,mb5.0						
ISCO				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
W21A	San Fidel	39.34	303	⇓P	P	07 51 22.8	+0.5
	baz=39,SNR=16						
PHWY	Pilot Hill	39.60	313	*e*P	P	07 51 24.1	-0.3
	comp=Z,33nm,1.0s,mb5.0						
Q22A	Crested Butte,	39.79	308	⇑P	P	07 51 26.2	+0.2
	baz=40,SNR=8.5						
RSSD	Black Hills	39.83	317	*e*P	P	07 51 25.2	-1.0
RSSD				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.7						
RSSD	Black Hills	39.83	317	*e*P	P	07 51 25.2	-1.0
	comp=Z,15nm,0.9s,mb4.7						
319A	Douglas	40.01	296	⇓P	P	07 51 28.6	+0.7
	baz=40,SNR=14						
W20A	Ramah	40.02	302	⇓P	P	07 51 28.6	+0.6
	baz=40						
S21A	Coal Bank Pass	40.10	306	⇓P	P	07 51 28.9	+0.3
	baz=40,SNR=28						
N22A	Wattenberg Ran	40.11	311	⇑P	P	07 51 29.0	+0.3
	baz=40,SNR=8.8						
119A	Ashpeak Ranch,	40.23	299	⇓P	P	07 51 30.6	+0.9
	baz=40,SNR=5.9						
Q21A	Lamborn Mesa,	40.28	308	⇑P	P	07 51 30.2	+0.2
	baz=40,SNR=27						
Z19A	T-Link Ranch,	40.29	299	⇑P	P	07 51 30.7	+0.5
	baz=40						
Y19A	Nutrioso	40.40	300	⇓P	P	07 51 31.9	+0.8
	baz=40						
P21A	Newcastle	40.40	309	⇑P	P	07 51 31.2	+0.2
	baz=40,SNR=14						
M22A	Cedar Creek Ra	40.43	312	⇑P	P	07 51 31.5	+0.2
	baz=40,SNR=17						
MVCO	Mesa Verde	40.52	305	*e*P	P	07 51 32.0	0.0
	comp=Z,19nm,0.9s,mb4.7						
MVCO				*e*PcP	PcP	07 53 35.1	+0.9
V19A	Window Rock	40.59	303	⇑P	P	07 51 32.9	+0.2
	baz=41						
318A	Bisbee	40.62	296	⇑P	P	07 51 33.8	+0.8
	baz=41,SNR=14						
O21A	Pagoda	40.64	310	⇓P	P	07 51 33.3	+0.3
	baz=41,SNR=7.2						
R20A	Redvale	40.69	307	⇑P	P	07 51 34.1	+0.6
	baz=41,SNR=23						
W19A	Sanders	40.73	302	⇑P	P	07 51 34.3	+0.4
	baz=41						
218A	Dragoon	40.73	297	⇓P	P	07 51 34.9	+1.0
	baz=41,SNR=14						
118A	Homack Ranch,	40.76	298	⇓P	P	07 51 35.3	+1.1
	baz=41,SNR=20						
T19A	Beclabito	40.83	305	⇓P	P	07 51 35.0	+0.3
	baz=41,SNR=46						
Q20A	Ridgley Place,	40.85	308	⇓P	P	07 51 35.1	+0.3
	baz=41,SNR=45						
N21A	Black Mountain	40.86	311	⇑P	P	07 51 34.9	+0.1
	baz=41,SNR=11						
Z18A	Geronimo	40.89	299	⇑P	P	07 51 35.8	+0.6
	baz=41						
RWWY	Rawlins	40.96	312	*e*P	P	07 51 35.9	+0.2
	comp=Z,42nm,1.1s,mb5.0						
W18A	Petrified Fore	41.01	302	⇓P	P	07 51 36.5	+0.3
	baz=41,SNR=8.5						
X18A	Snowflake	41.07	301	⇑P	P	07 51 37.3	+0.6
	baz=41,SNR=12						
P20A	De Beque	41.08	309	⇑P	P	07 51 36.9	+0.2
	baz=41						
S19A	Harvey Farm, M	41.15	306	⇑P	P	07 51 37.5	+0.2
	baz=41,SNR=36						
O20A	White River Ci	41.17	310	⇑P	P	07 51 37.6	+0.2
	baz=41,SNR=9.3						
L21A	Rawlins	41.17	313	⇓P	P	07 51 37.4	0.0
	baz=41						
Z17A	San Carlos Hig	41.28	299	⇓P	P	07 51 39.2	+0.7
	baz=41						
V18A	Ganado	41.29	303	⇑P	P	07 51 38.6	+0.2
	baz=41,SNR=10						
217A	Green Valley	41.36	297	⇓P	P	07 51 39.5	+0.5
	baz=41,SNR=7.9						
LVC	Limon Verde	41.36	183	*e*P	P	07 51 36.5	-2.6
	comp=Z,36nm,0.8s,mb5.0						
LVC				LR	LR		
	comp=Z,689nm,21.0s,MS4.5						
R19A	Curley Farm, L	41.39	307	⇓P	P	07 51 39.3	+0.1
	baz=41,SNR=36						
U18A	Rough Rock, Ch	41.40	304	⇓P	P	07 51 39.4	+0.1
	baz=41,SNR=20						
117A	Oracle	41.40	298	⇑P	P	07 51 40.2	+0.8
	baz=41,SNR=12						
TUC	Tucson	41.40	298	*e*P	P	07 51 40.0	+0.6
TUC				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.5						
TUC	Tucson	41.40	298	*e*P	P	07 51 40.0	+0.6
	comp=Z,11nm,0.8s,mb4.5						
N20A	Spence Gulch,	41.41	311	⇓P	P	07 51 39.6	+0.2
	baz=41						
P19A	Cripple Cowboy	41.56	309	⇑P	P	07 51 40.3	-0.4
	baz=42						
T18A	Mexican Hat	41.57	305	⇑P	P	07 51 40.8	+0.1
	baz=42,SNR=69						
Q19A	Hogan Spring (	41.57	308	⇓P	P	07 51 40.1	-0.6
	baz=42,SNR=18						
M20A	Sweetwater, Wa	41.58	312	⇓P	P	07 51 40.8	+0.1
	baz=42,SNR=9.8						
Y17A	Roosevelt	41.65	300	⇑P	P	07 51 42.0	+0.5
	baz=42,SNR=12						
X17A	Forest Lakes	41.73	301	⇓P	P	07 51 43.0	+0.9
	baz=42,SNR=6.5						
W17A	Winslow	41.79	302	⇓P	P	07 51 42.2	-0.4
	baz=42						
S18A	Hurst Farm, Bl	41.79	306	⇑P	P	07 51 42.4	-0.2
	baz=42,SNR=30						
O19A	Miners Draw (B	41.86	310	⇑P	P	07 51 42.5	-0.6
	baz=42,SNR=12						
L20A	Wamsutter	41.87	312	⇓P	P	07 51 42.9	-0.2
	baz=42,SNR=28						
R18A	Canyonlands Na	41.89	307	⇓P	P	07 51 43.2	-0.1
	baz=42,SNR=37						
216A	Three Points,	41.92	297	⇑P	P	07 51 43.9	+0.2
	baz=42,SNR=5.2						
DGMT	Dagmar	42.05	323	⇓P	P	07 51 44.2	-0.2
	baz=42,SNR=7.5						
DGMT	Dagmar	42.05	323	*e*P	P	07 51 44.6	+0.1
	comp=Z,22nm,0.9s,mb4.8						
DGMT				LR	LR		
	comp=Z,987nm,20.0s,MS4.7						
U17A	Shonto	42.06	304	⇑P	P	07 51 44.8	0.0
	baz=42,SNR=8.6						
Z16A	Peralta Trail,	42.08	299	⇑P	P	07 51 45.7	+0.7
	baz=42,SNR=23						
N19A	John Jarvie Ra	42.09	311	⇓P	P	07 51 44.2	-0.7
	baz=42,SNR=14						
K20A	Yellowstone Ra	42.10	313	⇓P	P	07 51 44.7	-0.3
	baz=42,SNR=16						
116A	Eloy	42.20	298	⇓P	P	07 51 46.3	+0.3
	baz=42,SNR=7.0						
Y16A	Circle Bar Ran	42.20	300	⇓P	P	07 51 47.1	+1.1
	baz=42,SNR=15						
T17A	Navajo Res., N	42.26	304	⇓P	P	07 51 46.8	+0.4
	baz=42,SNR=9.9						
X16A	Lo Mia Camp, P	42.26	301	⇑P	P	07 51 47.3	+0.9
	baz=42,SNR=13						
Q18A	Rafter H Ranch	42.26	308	⇑P	P	07 51 46.4	0.0
	baz=42,SNR=6.7						
M19A	Rock Springs	42.27	311	⇑P	P	07 51 45.7	-0.7
	baz=42						
U16A	Tuba City	42.33	303	⇑P	P	07 51 47.4	+0.4
	baz=42,SNR=22						
LAO	LASA Array	42.37	320	*e*P	P	07 51 47.0	-0.2
	comp=Z,44nm,0.8s,mb5.2						
LAO				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
S17A	Black Ridge (B	42.40	305	⇓P	P	07 51 47.8	+0.3
	baz=42,SNR=51						
WUAZ	Wupatki	42.40	302	⇑P	P	07 51 48.3	+0.8
	baz=42,SNR=33						
WUAZ	Wupatki	42.40	302	*e*P	P	07 51 48.4	+0.8

	comp=Z,107nm,0.9s,mb5.5						
W16A	**Flagstaff**	**42.45**	**302**	⇓P	**P**	**07 51 49.0**	**+1.0**
	baz=42,SNR=15						
P18A	**Preston Nutter**	**42.49**	**308**	⇓P	**P**	**07 51 48.1**	**-0.1**
	baz=42,SNR=9.6						
K19A	**Absolon Red Bu**	**42.50**	**313**	⇓P	**P**	**07 51 47.4**	**-0.9**
	baz=42,SNR=20						
R17A	**Hanksville Air**	**42.52**	**307**	⇓P	**P**	**07 51 48.3**	**-0.2**
	baz=42,SNR=12						
SRU	**San Rafael**	**42.56**	**308**	⇓P	**P**	**07 51 48.6**	**-0.1**
	baz=43,SNR=8.2						
L19A	**Farson**	**42.61**	**312**	⇑P	**P**	**07 51 48.6**	**-0.6**
	baz=43,SNR=12						
115A	**Sonoran Desert**	**42.66**	**298**	⇓P	**P**	**07 51 50.1**	**+0.4**
	baz=43						
Z15A	**Gila River Ind**	**42.68**	**299**	⇓P	**P**	**07 51 50.3**	**+0.5**
	baz=43						
T16A	**Glen Canyon Da**	**42.80**	**304**	⇓P	**P**	**07 51 51.5**	**+0.7**
	baz=43,SNR=10						
P17A	**Butcher Ranch,**	**42.82**	**308**	⇓P	**P**	**07 51 50.9**	**0.0**
	baz=43,SNR=9.1						
M18A	**Lyman**	**42.89**	**311**	⇓P	**P**	**07 51 51.0**	**-0.5**
	baz=43,SNR=6.1						
Y15A	**Casa Rosa Ranc**	**42.92**	**300**	⇓P	**P**	**07 51 52.4**	**+0.6**
	baz=43,SNR=13						
X15A	**Humboldt**	**42.92**	**300**	⇑P	**P**	**07 51 52.6**	**+0.8**
	baz=43,SNR=20						
PDAR	**Pinedale Array**	**42.97**	**313**	P	**P**	**07 51 51.4**	**-0.7**
	comp=Z,13nm,0.8s,mb4.7,baz=122,slow=7.3,SNR=48						
PDAR				PcP	PcP	07 53 42.2	0.0
	comp=Z,6.3nm,0.8s,baz=115,slow=5.3,SNR=6.4						
PDAR				ScP	ScP	07 57 30.0	-1.3
	comp=Z,1.8nm,0.9s,baz=108,slow=2.9,SNR=5.1						
PDAR				LR	LR	08 11 36.7	
	comp=Z,875nm,20.0s,MS4.7,baz=26,slow=39						
PDAR	**Pinedale Array**	**42.97**	**313**	P	**P**	**07 51 51.4**	**-0.7**
PDAR				PcP	PcP	07 53 42.2	0.0
PDAR				ScP	ScP	07 57 30.0	-1.3
PDAR				LR	LR	08 11 36.7	
BW06	**Boulder Array**	**42.98**	**313**	⇑P	**P**	**07 51 51.7**	**-0.4**
	baz=43,SNR=21						
BW06	**Boulder Array**	**42.98**	**313**	PFAKE		07 52 10.0	+18
BW06				LR	LR		
	comp=Z,1µm,21.0s,MS4.7						
Q16A	**Castle Valley**	**43.00**	**307**	⇓P	**P**	**07 51 52.3**	**0.0**
	baz=43,SNR=6.1						
O17A	**Robinson Place**	**43.01**	**309**	⇑P	**P**	**07 51 52.6**	**+0.1**
	baz=43,SNR=30						
L18A	**Fontenelle, Gr**	**43.03**	**312**	⇑P	**P**	**07 51 52.0**	**-0.6**
	baz=43,SNR=18						
S16A	**Weppner Ranch,**	**43.03**	**305**	⇓P	**P**	**07 51 52.6**	**-0.1**
	baz=43,SNR=14						
W15A	**Williams**	**43.06**	**301**	⇓P	**P**	**07 51 53.9**	**+1.0**
	baz=43,SNR=8.4						
214A	**Organ Pipe Nat**	**43.06**	**297**	⇓P	**P**	**07 51 53.4**	**+0.4**
	baz=43						
R16A	**Teasdale**	**43.08**	**306**	⇑P	**P**	**07 51 53.3**	**+0.3**
	baz=43,SNR=15						
V15A	**Kaibab Nationa**	**43.10**	**302**	⇓P	**P**	**07 51 54.2**	**+1.0**
	baz=43,SNR=26						
K18A	**Toltan Ranch,**	**43.27**	**313**	⇑P	**P**	**07 51 54.5**	**+0.1**
	baz=43,SNR=25						
N17A	**Moffit Pass**	**43.30**	**310**	⇑P	**P**	**07 51 54.5**	**-0.2**
	baz=43,SNR=5.2						
M17A	**Scullys Gap (B**	**43.34**	**311**	⇓P	**P**	**07 51 54.4**	**-0.6**
	baz=43,SNR=11						
Z14A	**Wintersburg**	**43.34**	**299**	⇓P	**P**	**07 51 55.5**	**+0.3**
	baz=43,SNR=5.4						
J18A	**Kendall Valley**	**43.45**	**313**	⇓P	**P**	**07 51 55.3**	**-0.6**
	baz=43,SNR=32						
X14A	**Yava**	**43.45**	**300**	⇓P	**P**	**07 51 57.2**	**+1.1**
	baz=43,SNR=22						
Y14A	**Wickenburg**	**43.47**	**300**	⇓P	**P**	**07 51 56.9**	**+0.7**
	baz=44,SNR=23						
T15A	**Red Dirt Ranch**	**43.50**	**304**	⇓P	**P**	**07 51 57.0**	**+0.6**
	baz=44,SNR=48						
P16A	**Fountain Green**	**43.54**	**308**	⇓P	**P**	**07 51 57.0**	**+0.3**
	baz=44,SNR=7.5						
S15A	**Panguitch**	**43.62**	**305**	⇑P	**P**	**07 51 57.8**	**+0.4**
	baz=44,SNR=16						
RLMT	**Red Lodge**	**43.64**	**316**	⇓P	**P**	**07 51 57.1**	**-0.3**
	baz=44,SNR=93						
RLMT	**Red Lodge**	**43.64**	**316**	*e*P	**P**	**07 51 57.2**	**-0.1**
	comp=Z,76nm,0.8s,mb5.5						
RLMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
L17A	**Cokeville**	**43.68**	**312**	⇑P	**P**	**07 51 57.3**	**-0.5**
	baz=44,SNR=8.4						
MVU	**Marysvale**	**43.69**	**306**	PFAKE		07 52 10.0	+12
MVU				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
N16A	**Rees Ranch, Co**	**43.72**	**310**	⇓P	**P**	**07 51 58.0**	**-0.1**
	baz=44,SNR=7.1						
W14A	**Seligman**	**43.73**	**301**	⇓P	**P**	**07 51 59.4**	**+1.1**
	baz=44,SNR=26						
V14A	**Boquillas Ranc**	**43.81**	**302**	⇑P	**P**	**07 52 00.2**	**+1.2**
	baz=44,SNR=36						
G18A	**Lazy EL Ranch,**	**43.90**	**316**	⇑P	**P**	**07 51 59.3**	**-0.3**
	baz=44,SNR=44						
K17A	**Gardner Place,**	**43.91**	**313**	⇑P	**P**	**07 51 59.1**	**-0.6**
	baz=44,SNR=13						
Q15A	**Fillmore**	**43.93**	**307**	⇓P	**P**	**07 52 00.0**	**+0.2**
	baz=44,SNR=18						
113A	**Mohawk Valley,**	**43.95**	**298**	⇑P	**P**	**07 52 00.6**	**+0.4**
	baz=44,SNR=5.2						
J17A	**Brown Place, J**	**43.97**	**313**	⇓P	**P**	**07 52 00.2**	**+0.1**
	baz=44,SNR=38						
LOHW	**Long Hollow**	**43.98**	**314**	*e*P	**P**	**07 51 59.9**	**-0.3**
	comp=Z,58nm,1.0s,mb5.3						
M16A	**Huntsville**	**43.98**	**310**	⇑P	**P**	**07 51 59.6**	**-0.6**
	baz=44						
U14A	**Mt Trumbull**	**44.01**	**303**	⇑P	**P**	**07 52 01.7**	**+1.1**
	baz=44,SNR=29						
L16A	**Fish Haven**	**44.05**	**311**	⇑P	**P**	**07 52 00.3**	**-0.5**
	baz=44,SNR=30						
T14A	**Hurricane**	**44.05**	**304**	⇓P	**P**	**07 52 00.7**	**-0.2**
	baz=44,SNR=18						
I17A	**Pilgrim Ck.**	**44.07**	**314**	⇑P	**P**	**07 52 01.2**	**+0.3**
	baz=44,SNR=52						
LKWY	**Lake**	**44.18**	**315**	*e*P	**P**	**07 52 01.9**	**+0.2**
LKWY				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.8						
LKWY				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.9						
LKWY	**Lake**	**44.18**	**315**	*e*P	**P**	**07 52 01.9**	**+0.2**
	comp=Z,15nm,0.8s,mb4.8						
LKWY				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
F18A	**Big Timber**	**44.23**	**317**	⇓P	**P**	**07 52 02.3**	**+0.1**
	baz=44,SNR=126						
R14A	**James Farms, M**	**44.26**	**306**	⇓P	**P**	**07 52 02.8**	**+0.3**
	baz=44						
S14A	**Cedar City**	**44.26**	**305**	⇓P	**P**	**07 52 02.6**	**0.0**
	baz=44,SNR=11						
DCID1	**Drake Creek**	**44.37**	**314**	*e*P	**P**	**07 52 03.4**	**+0.1**
	comp=Z,27nm,0.8s,mb5.0						
DCID1				*e*PP	PP	07 53 48.0	+0.9
FCC	**Fort Churchill**	**44.38**	**340**	*e*P	**P**	**07 52 02.5**	**-0.7**
FCC	**Fort Churchill**	**44.38**	**340**	*e*P	**P**	**07 52 02.5**	**-0.7**
	comp=Z,0.8nm,0.8s						
RRI2	**Red Ridge**	**44.39**	**313**	*e*P	**P**	**07 52 03.1**	**-0.3**
	comp=Z,32nm,1.1s,mb5.0						
N15A	**Stansbury Isla**	**44.51**	**309**	⇑P	**P**	**07 52 04.5**	**0.0**
	baz=44						
FFC	**Flin Flon**	**44.54**	**332**	*i* P	**P**	**07 52 03.5**	**-1.0**
FFC	**Flin Flon**	**44.54**	**332**	*e*P	**P**	**07 52 03.2**	**-1.2**
	comp=Z,7.6nm,0.8s,mb4.6						
FFC				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
DUG	**Dugway**	**44.55**	**308**	*e*P	**P**	**07 52 04.8**	**0.0**
DUG				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
DUG	**Dugway**	**44.55**	**308**	*e*P	**P**	**07 52 04.8**	**0.0**
	comp=Z,9.8nm,0.9s,mb4.6						
112A	**Yuma**	**44.61**	**297**	⇑P	**P**	**07 52 06.0**	**+0.5**
	baz=45						
GLA	**Glamis**	**44.87**	**298**	*e*P	**P**	**07 52 08.4**	**+0.9**
GLA				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.1						
GLA	**Glamis**	**44.87**	**298**	*e*P	**P**	**07 52 08.3**	**+0.9**
	comp=Z,29nm,0.9s,mb5.1						
NEE2	**Needles Airpor**	**44.91**	**300**	⇑P	**P**	**07 52 08.3**	**+0.6**
	baz=45						
EGMT	**Eagleton**	**45.11**	**320**	*e*P	**P**	**07 52 09.3**	**+0.2**
	comp=Z,97nm,1.2s,mb5.5						
M14A	**Sheep Mountain**	**45.28**	**310**	⇓P	**P**	**07 52 10.0**	**-0.5**
	baz=45						
LDFC	**Landfair**	**45.35**	**301**	*e*P	**P**	**07 52 13.6**	**+2.3**
	comp=Z,151nm,0.8s,mb5.9						
BOZ	**Bozeman (W)**	**45.38**	**316**	*e*P	**P**	**07 52 11.5**	**+0.2**
BOZ				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.3						
BOZ				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.8						
BOZ	**Bozeman (W)**	**45.38**	**316**	*e*P	**P**	**07 52 11.4**	**+0.2**
	comp=Z,46nm,1.0s,mb5.3						
BOZ				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
O13A	**Hicks Ranch, I**	**45.40**	**308**	⇑P	**P**	**07 52 11.9**	**+0.3**
	baz=45						
CHIE	**El Hierro**	**45.59**	**69**	P	**P**	**07 52 13.5**	**+0.2**
	comp=Z,38nm,1.0s,mb5.3						
SWSC	**Sam W. Stewart**	**45.67**	**298**	⇓P	**P**	**07 52 14.3**	**+0.5**
	baz=46						
DLMT	**Dillon**	**45.92**	**315**	*e*P	**P**	**07 52 15.9**	**+0.4**
	comp=Z,50nm,0.8s,mb5.5						
CPUP	**Villa Florida**	**45.98**	**168**	P	**P**	**07 52 12.7**	**-3.6**
	comp=Z,15nm,0.7s,mb5.0,baz=331,slow=7.5,SNR=32						
CPUP				LR	LR	08 13 09.7	
	comp=Z,561nm,18.1s,MS4.5,baz=333,slow=38						
CPUP	**Villa Florida**	**45.98**	**168**	P	**P**	**07 52 12.7**	**-3.5**
CPUP				LR	LR	08 13 09.7	
EGOM	**La Gomera**	**46.26**	**69**	P	**P**	**07 52 18.9**	**+0.4**
	comp=Z,29nm,0.6s,mb5.4						
PFO	**Pinyon Flat Ob**	**46.28**	**299**	PFAKE		07 52 30.0	+11
PFO				LR	LR		
	comp=Z,979nm,19.0s,MS4.8						
ELK	**Elko**	**46.48**	**309**	*e*P	**P**	**07 52 19.9**	**-0.1**
ELK				pmax	pmax		
	comp=Z,18nm,1.3s						
ELK				MLR	MLR		
	comp=Z,1µm,19.0s						
ELK	**Elko**	**46.48**	**309**	*e*P	**P**	**07 52 19.9**	**-0.1**
	comp=Z,18nm,1.3s,mb4.8						
ELK				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
HLID	**Hailey**	**46.60**	**313**	*e*P	**P**	**07 52 20.7**	**-0.3**
	comp=Z,40nm,1.4s,mb5.2						
HLID				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
P11A	**Circle Ranch,**	**46.61**	**307**	⇑P	**P**	**07 52 21.5**	**+0.4**
	baz=47						
L12A	**House Creek Ra**	**46.65**	**310**	⇑P	**P**	**07 52 21.3**	**0.0**
	baz=47						
BBRC	**Big Bear Sol-O**	**46.73**	**299**	⇓P	**P**	**07 52 23.8**	**+1.6**
	baz=47						
GSC	**Goldstone**	**46.75**	**301**	*e*P	**P**	**07 52 23.4**	**+1.1**
GSC				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
GSC	**Goldstone**	**46.75**	**301**	*e*P	**P**	**07 52 23.4**	**+1.1**
	comp=Z,32nm,0.8s,mb5.3						
CCAN	**Las Canadas**	**46.79**	**69**	P	**P**	**07 52 23.3**	**+0.6**
	comp=Z,34nm,1.2s,mb5.2						
RRX	**Edison Barstow**	**46.86**	**300**	⇓P	**P**	**07 52 24.2**	**+1.0**
	baz=47						
H12A	**Diamond D Ranc**	**47.19**	**314**	⇓P	**P**	**07 52 25.4**	**-0.1**
	baz=47						
MSO	**Missoula**	**47.29**	**317**	*e*P	**P**	**07 52 26.2**	**-0.1**
	comp=Z,10nm,0.8s,mb4.8						
MSO				LR	LR		
	comp=Z,762nm,21.0s,MS4.6						
O10A	**Cortez Mining,**	**47.32**	**308**	⇑P	**P**	**07 52 26.6**	**0.0**
	baz=47						
TPH	**Tonopah**	**47.47**	**305**	*e*P	**P**	**07 52 28.4**	**+0.5**
TPH				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
TPH				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
TPH	**Tonopah**	**47.47**	**305**	*e*P	**P**	**07 52 28.4**	**+0.6**
	comp=Z,19nm,0.9s,mb5.0						
TPH				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
DAC	**Darwin (Calif)**	**47.51**	**302**	PFAKE		07 52 40.0	+12
DAC				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
Q09A	**Carvers**	**47.56**	**306**	⇓P	**P**	**07 52 28.8**	**+0.2**
	baz=48						
M10A	**I.L. Ranch, Tu**	**47.61**	**309**	⇑P	**P**	**07 52 28.8**	**-0.1**
	baz=48						
MWC	**Mount Wilson**	**47.67**	**299**	*e*P	**P**	**07 52 30.2**	**+0.7**
MWC				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
MWC	**Mount Wilson**	**47.67**	**299**	*e*P	**P**	**07 52 30.2**	**+0.7**
	comp=Z,15nm,0.8s,mb5.1						
PASC	**Pasadena Art C**	**47.77**	**299**	*e*P	**P**	**07 52 30.3**	**0.0**
	comp=Z,101nm,0.9s,mb5.8						
LCO	**Las Campanas**	**47.83**	**184**	*e*P	**P**	**07 52 28.2**	**-2.4**
	comp=Z,16nm,1.0s,mb5.0						
BMN	**Battle Mountai**	**47.88**	**308**	*e*P	**P**	**07 52 31.3**	**+0.3**
BMN				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
BMN				MLR	MLR		
	comp=Z,666nm,20.0s,MS4.6						
BMN	**Battle Mountai**	**47.88**	**308**	*e*P	**P**	**07 52 31.3**	**+0.3**
	comp=Z,17nm,0.9s,mb5.1						
BMN				LR	LR		
	comp=Z,666nm,20.0s,MS4.6						
CWC	**Cottonwood Cre**	**47.92**	**302**	⇑P	**P**	**07 52 31.8**	**+0.4**
	baz=48						
WALA	**Waterton Lakes**	**48.06**	**320**	*e*P	**P**	**07 52 31.7**	**-0.5**
	comp=Z,0.6nm,0.8s,mb3.7						
TIN	**Tinemaha**	**48.11**	**303**	⇓P	**P**	**07 52 33.8**	**+0.9**
	baz=48						
J10A	**Berg Farm, Mel**	**48.21**	**312**	⇑P	**P**	**07 52 33.1**	**-0.4**
	baz=48						
OSI	**Osito Adit**	**48.25**	**300**	⇓P	**P**	**07 52 34.1**	**+0.1**
	baz=48						
NVAR	**Mina Array Bea**	**48.37**	**305**	P	**P**	**07 52 35.3**	**+0.5**
	comp=Z,27nm,0.9s,mb5.3,baz=108,slow=6.4,SNR=81						
NVAR				PcP	PcP	07 54 02.4	+1.3
	comp=Z,6.3nm,0.8s,baz=128,slow=4.0,SNR=3.6						
NVAR				ScP	ScP	07 57 54.4	+0.6
	comp=Z,2.6nm,0.9s,baz=125,slow=5.1,SNR=5.7						
NVAR	**Mina Array Bea**	**48.37**	**305**	P	**P**	**07 52 35.3**	**+0.5**
NVAR				PcP	PcP	07 54 02.4	+1.3
NVAR				ScP	ScP	07 57 54.4	+0.6
I10A	**Payette**	**48.40**	**313**	⇑P	**P**	**07 52 34.8**	**-0.2**
	baz=48						
N08A	**GE Springer Mi**	**48.63**	**308**	⇓P	**P**	**07 52 36.8**	**0.0**
	baz=49						
MLAC	**Mammoth Lakes**	**48.67**	**304**	⇑P	**P**	**07 52 37.9**	**+0.8**
	baz=49						
Q07A	**Schurz**	**48.83**	**305**	⇑P	**P**	**07 52 38.1**	**-0.3**
	baz=49						
BMO	**Blue Mountains**	**48.95**	**313**	*e*P	**P**	**07 52 38.0**	**-1.2**
BMO				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
BMO				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.8						
BMO	**Blue Mountains**	**48.95**	**313**	*e*P	**P**	**07 52 38.0**	**-1.2**
	comp=Z,12nm,0.9s,mb4.9						
BMO				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
BSC	**Santa Cruz Isl**	**48.95**	**299**	⇑P	**P**	**07 52 39.2**	**-0.1**
	baz=49						
CFTV	**Fuerteventura**	**49.02**	**69**	P	**P**	**07 52 40.6**	**+0.7**
	comp=Z,24nm,1.0s,mb5.2						
I09A	**Lost Marbles R**	**49.03**	**312**	⇓P	**P**	**07 52 38.9**	**-0.9**
	baz=49						
SBC	**Santa Barbara**	**49.05**	**299**	⇑P	**P**	**07 52 40.4**	**+0.2**
	baz=49						
N07B	**Gerlach**	**49.26**	**308**	⇓P	**P**	**07 52 41.2**	**-0.4**
	baz=49						
K08A	**Mann Creek Ran**	**49.28**	**310**	⇓P	**P**	**07 52 41.7**	**-0.1**
	baz=49						
WVOR	**Wild Horse Val**	**49.33**	**310**	*e*P	**P**	**07 52 42.2**	**+0.1**
WVOR				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
WVOR	**Wild Horse Val**	**49.33**	**310**	*e*P	**P**	**07 52 42.1**	**0.0**
	comp=Z,17nm,1.0s,mb5.0						
EDM	**Edmonton**	**49.41**	**325**	*e*P	**P**	**07 52 41.5**	**-1.0**
EDM	**Edmonton**	**49.41**	**325**	*e*P	**P**	**07 52 41.5**	**-1.0**
D10A	**Wagner Farm, O**	**49.53**	**316**	⇑P	**P**	**07 52 42.8**	**-0.7**
	baz=50						
I08A	**Drewsey**	**49.60**	**312**	⇓P	**P**	**07 52 43.5**	**-0.7**
	baz=50						
NEW	**Newport**	**49.80**	**318**	P	**P**	**07 52 44.8**	**-0.8**
NEW	**Newport**	**49.80**	**318**	P	**P**	**07 52 44.8**	**-0.7**
K07A	**Rock Creek Ran**	**49.82**	**310**	⇓P	**P**	**07 52 45.4**	**-0.5**
	baz=50						
CMB	**Columbia Colle**	**49.94**	**304**	*e*P	**P**	**07 52 47.1**	**+0.3**
CMB				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
CMB				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.0						
CMB	**Columbia Colle**	**49.94**	**304**	*e*P	**P**	**07 52 47.1**	**+0.3**
	comp=Z,5.9nm,0.8s,mb4.7						
CMB				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
H07A	**Lands Inn, Kim**	**50.45**	**313**	⇓P	**P**	**07 52 50.3**	**-0.3**
	baz=50						
E08A	**Dider Farm, El**	**50.56**	**315**	⇓P	**P**	**07 52 50.6**	**-0.8**
	baz=50						
OD2	**Odessa Site #2**	**50.56**	**316**	P	**P**	**07 52 51.2**	**-0.2**
J06A	**Christmas Vall**	**50.58**	**311**	⇓P	**P**	**07 52 51.3**	**-0.4**
	baz=51						
H2OWA	**Water**	**50.78**	**315**	P	**P**	**07 52 52.7**	**-0.3**
HAWA	**Hanford**	**50.85**	**315**	*e*P	**P**	**07 52 52.7**	**-0.9**
	comp=Z,9.1nm,0.9s,mb4.7						
HAWA				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
GBL	**Gable Mountain**	**50.85**	**315**	P	**P**	**07 52 53.4**	**-0.2**
GBL	**Gable Mountain**	**50.85**	**315**	P	**P**	**07 52 53.4**	**-0.2**
GBB	**Gable Butte**	**50.97**	**315**	P	**P**	**07 52 54.2**	**-0.3**
F07A	**Phinny Hill Vi**	**51.00**	**314**	⇑P	**P**	**07 52 54.1**	**-0.5**
	baz=51						
K05A	**Summer Lake**	**51.02**	**310**	⇓P	**P**	**07 52 54.4**	**-0.5**
	baz=51						
EPH	**Ephrata**	**51.13**	**316**	P	**P**	**07 52 55.4**	**-0.3**
G06A	**Carlson Farm,**	**51.33**	**313**	⇓P	**P**	**07 52 56.9**	**-0.3**
	baz=51						
MXC	**Moxie City**	**51.40**	**315**	P	**P**	**07 52 57.9**	**+0.2**
E06A	**Yakima**	**51.86**	**315**	⇑P	**P**	**07 53 00.7**	**-0.4**
	baz=52						
MCCM	**Marconi Confer**	**51.91**	**304**	PFAKE		07 53 20.0	+18
MCCM				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
WDC	**Whiskeytown Da**	**51.91**	**307**	PFAKE		07 53 20.0	+18
WDC				LR	LR		
	comp=Z,592nm,20.0s,MS4.6						
HOOD	**Mount Hood Mea**	**52.05**	**313**	*e*P	**P**	**07 53 03.0**	**+0.4**
	comp=Z,40nm,1.1s,mb5.3						
HOPS	**Hopland**	**52.14**	**305**	PFAKE		07 53 20.0	+17
HOPS				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
YBH	**Yreka Blue Hor**	**52.19**	**308**	PFAKE		07 53 20.0	+16
YBH				LR	LR		
	comp=Z,481nm,19.0s,MS4.5						
LON	**Longmire**	**52.46**	**315**	*e*P	**P**	**07 53 05.0**	**-0.6**
LON				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LON	**Longmire**	**52.46**	**315**	*e*P	**P**	**07 53 05.0**	**-0.6**
	comp=Z,9.2nm,0.8s,mb4.8						
G04A	**Mulino**	**52.60**	**313**	⇑P	**P**	**07 53 05.7**	**-1.0**
	baz=53						
B06A	**Marblemount**	**52.66**	**317**	⇓P	**P**	**07 53 05.9**	**-1.1**
	baz=53						
D05A	**Enumclaw**	**52.68**	**315**	⇑P	**P**	**07 53 06.0**	**-1.2**
	baz=53						
F04A	**Amboy**	**52.70**	**314**	⇑P	**P**	**07 53 06.1**	**-1.3**
	baz=53						
E04A	**Onalaska**	**53.04**	**314**	⇓P	**P**	**07 53 09.1**	**-0.8**
	baz=53						
A05A	**Maple Falls**	**53.16**	**318**	⇓P	**P**	**07 53 09.4**	**-1.4**
	baz=53						
PMAFR	**Mafra**	**53.37**	**55**	*e*LR	LR	08 08 30.1	
	comp=Z,1µm,19.6s						
C04A	**Brinnon**	**53.44**	**316**	⇓P	**P**	**07 53 11.5**	**-1.3**
	baz=53						
E03A	**Lebam**	**53.60**	**314**	⇓P	**P**	**07 53 12.8**	**-1.2**
	baz=54						
MORF	**Marmelete**	**53.76**	**57**	*e*P	**P**	**07 53 16.2**	**+0.9**
	comp=Z,106nm,1.8s,mb5.5						
MORF				*e*LR	LR	08 09 01.5	
	comp=Z,2µm,18.9s						
B04A	**Port Angeles**	**53.87**	**316**	⇑P	**P**	**07 53 15.0**	**-0.9**
	baz=54						
PGC	**Sidney**	**53.96**	**317**	*e*P	**P**	**07 53 15.4**	**-1.2**
	comp=Z,1.4nm,1.1s,mb3.8						
NLWA	**Neilton Lookou**	**53.97**	**315**	PFAKE		07 53 30.0	+13
NLWA				LR	LR		
	comp=Z,976nm,19.0s,MS4.9						
EZAM	**Zamans**	**54.13**	**51**	P	**P**	**07 53 18.5**	**+0.5**
EZAM				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.5						
EZAM	**Zamans**	**54.13**	**51**	P	**P**	**07 53 18.5**	**+0.5**
	comp=Z,47nm,0.8s,mb5.5						
PBDV	**Barranco-do-Ve**	**54.33**	**57**	*e*P	**P**	**07 53 20.5**	**+1.0**
PBDV				*e*LR	LR	08 08 55.0	
	comp=Z,2µm,19.1s						
EVO	**Evora**	**54.33**	**56**	*e*P	**P**	**07 53 19.3**	**-0.2**
	comp=Z,215nm,1.4s,mb5.6						
EVO				*e*MLR	MLR		
	comp=Z,2µm,21.2s,MS4.8						
YKA	**Yellowknife Ar**	**54.40**	**335**	P	**P**	**07 53 18.1**	**-1.4**
	comp=Z,5.7nm,0.6s,mb4.7,baz=112,slow=7.6,SNR=76						
YKA				LR	LR	08 16 43.1	
	comp=Z,840nm,19.3s,MS4.8,baz=195,slow=36						
YKA	**Yellowknife Ar**	**54.40**	**335**	P	**P**	**07 53 18.1**	**-1.4**
YKA				LR	LR	08 16 43.1	
PBEJ	**Beja**	**54.42**	**56**	*e*P	**P**	**07 53 20.8**	**+0.7**
	comp=Z,56nm,1.1s,mb5.4						
PVAQ	**Vaqueiros**	**54.51**	**57**	*e*P	**P**	**07 53 21.9**	**+1.1**
PVAQ				*e*LR	LR	08 09 01.5	
	comp=Z,2µm,17.8s						
ELOB	**Lobios**	**54.57**	**52**	P	**P**	**07 53 21.5**	**+0.4**
	comp=Z,306nm,2.6s,mb5.9						
PCAB	**Cabril**	**54.58**	**52**	*e*P	**P**	**07 53 21.8**	**+0.6**
PESTR	**Estremoz**	**54.68**	**55**	*e*P	**P**	**07 53 22.7**	**+0.7**
	comp=Z,72nm,1.2s,mb5.6						
PESTR				*e*LR	LR	08 09 07.2	
	comp=Z,1µm,20.4s						
EGRO	**El Granado**	**54.70**	**57**	P	**P**	**07 53 22.8**	**+0.7**
	comp=Z,95nm,1.0s,mb5.8						
PVRL	**Vila Real**	**54.77**	**52**	*e*P	**P**	**07 53 23.1**	**+0.5**
	comp=Z,111nm,1.3s,mb5.7						
MTE	**Manteigas**	**54.82**	**54**	*e*P	**P**	**07 53 23.3**	**+0.3**
	comp=Z,90nm,1.3s,mb5.6						
MTE				*e*LR	LR	08 09 30.7	
	comp=Z,2µm,18.7s						
MTE	**Manteigas**	**54.82**	**54**	PFAKE		07 53 40.0	+17
MTE				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
PMRV	**Marv??o**	**54.87**	**55**	*e*P	**P**	**07 53 23.6**	**+0.2**
	comp=Z,51nm,1.5s,mb5.3						
PMRV				*e*LR	LR	08 09 13.9	
	comp=Z,1µm,22.3s						
MVO	**Moncorvo**	**55.27**	**53**	*e*P	**P**	**07 53 26.9**	**+0.6**
	comp=Z,96nm,1.2s,mb5.7						
MVO				*e*LR	LR	08 09 24.6	
	comp=Z,1µm,17.8s						
EMIN	**Mina Concepcio**	**55.35**	**57**	P	**P**	**07 53 27.2**	**+0.3**
	comp=Z,234nm,2.2s,mb5.8						
SFS	**San Fernando**	**55.69**	**58**	PFAKE		07 53 40.0	+11
SFS				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
ESPR	**Espera**	**55.98**	**58**	P	**P**	**07 53 31.1**	**-0.3**
	comp=Z,152nm,2.0s,mb5.7						
SUMG	**Summit**	**56.05**	**10**	*e*P	**P**	**07 53 31.3**	**0.0**
	comp=Z,36nm,0.8s,mb5.5						
EJIF	**Jimena Fronter**	**56.28**	**58**	P	**P**	**07 53 35.0**	**+1.4**
EJIF				pmax	pmax		
	comp=Z,135nm,1.4s,mb5.8						
EJIF	**Jimena Fronter**	**56.28**	**58**	P	**P**	**07 53 35.0**	**+1.4**
	comp=Z,135nm,1.4s,mb5.8						
EADA	**Adamuz**	**57.02**	**56**	P	**P**	**07 53 39.8**	**+1.0**
	comp=Z,617nm,3.6s						
PAB	**San Pablo**	**57.23**	**55**	*e*P	**P**	**07 53 40.9**	**+0.6**
PAB				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
PAB	**San Pablo**	**57.23**	**55**	*e*P	**P**	**07 53 40.9**	**+0.6**
	comp=Z,45nm,1.3s,mb5.3						
ELOJ	**Sierra Loja**	**57.34**	**58**	P	**P**	**07 53 42.0**	**+0.9**
ELOJ				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
ELOJ	**Sierra Loja**	**57.34**	**58**	P	**P**	**07 53 42.0**	**+0.9**
	comp=Z,14nm,1.0s,mb4.9						
GUD	**Guadarrama**	**57.42**	**53**	P	**P**	**07 53 42.3**	**+0.7**
GUD				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.5						
GUD	**Guadarrama**	**57.42**	**53**	P	**P**	**07 53 42.3**	**+0.7**
	comp=Z,44nm,0.8s,mb5.5						
ESDC	**Sonseca Array**	**57.53**	**55**	P	**P**	**07 53 43.0**	**+0.6**
	comp=Z,43nm,0.8s,mb5.5,baz=272,slow=7.0,SNR=112						
ESDC				LR	LR	08 14 03.8	
	comp=Z,1µm,21.4s,MS5.0,baz=275,slow=31						
ESDC	**Sonseca Array**	**57.53**	**55**	P	**P**	**07 53 43.1**	**+0.7**
	comp=Z,35nm,0.6s,mb5.6						
ESLA	**Sonseca Array**	**57.53**	**55**	*e*P	**P**	**07 53 43.1**	**+0.8**
	comp=Z,17nm,0.9s,mb5.1						
EBAN	**Banos Encina**	**57.64**	**56**	P	**P**	**07 53 44.0**	**+0.8**
EBAN				pmax	pmax		

	comp=Z,98nm,1.4s,mb5.7						
EBAN	Banos Encina	57.64	56	P	P	07 53 44.0	+0.8
	comp=Z,98nm,1.4s,mb5.6						
RES	Resolute Bay	57.75	352	*e*P	P	07 53 42.8	-0.6
RES				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
RES	Resolute Bay	57.75	352	*e*P	P	07 53 42.8	-0.6
	comp=Z,7.2nm,1.0s,mb4.7						
ECOG	Cogollos-Vega	57.81	57	P	P	07 53 46.1	+1.7
ECOG				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.4						
ECOG	Cogollos-Vega	57.81	57	P	P	07 53 46.1	+1.7
	comp=Z,37nm,1.0s,mb5.4						
EGUA	Guajares	57.81	58	P	P	07 53 45.2	+0.8
EGUA				pmax	pmax		
	comp=Z,130nm,0.9s,mb6.0						
EGUA	Guajares	57.81	58	P	P	07 53 45.2	+0.8
	comp=Z,130nm,0.9s,mb6.0						
EQES	Quesada	58.20	57	P	P	07 53 48.4	+1.3
	comp=Z,42nm,1.2s,mb5.3						
EALB	Alboran	58.26	59	P	P	07 53 48.7	+1.1
	comp=Z,306nm,1.3s,mb6.2						
EBER	Berja	58.35	58	P	P	07 53 49.6	+1.4
	comp=Z,193nm,1.7s,mb5.9						
EHUE	Huescar	58.58	57	P	P	07 53 50.7	+0.9
EHUE				pmax	pmax		
	comp=Z,73nm,1.3s,mb5.5						
EHUE	Huescar	58.58	57	P	P	07 53 50.7	+0.9
	comp=Z,72nm,1.3s,mb5.5						
ROSF	Rostrenen	58.64	44	*e*P	P	07 53 49.8	-0.2
	comp=Z,106nm,1.1s,mb5.5						
ROSF	Rostrenen	58.64	44	*e*P	P	07 53 49.8	-0.2
ROSF				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.5						
ROSF	Rostrenen	58.64	44	*e*P	P	07 53 49.8	-0.2
	comp=Z,53nm,1.1s,mb5.5						
EVIA	Vianos	58.65	56	P	P	07 53 51.0	+0.7
EVIA				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.4						
EVIA	Vianos	58.65	56	P	P	07 53 51.0	+0.8
	comp=Z,51nm,1.4s,mb5.4						
QUIF	Quistinic	58.67	45	*e*P	P	07 53 49.9	-0.3
QUIF	Quistinic	58.67	45	*e*P	P	07 53 49.9	-0.3
ENIJ	Nijar	58.90	58	P	P	07 53 52.8	+0.8
ENIJ				pmax	pmax		
	comp=Z,74nm,1.2s,mb5.6						
ENIJ	Nijar	58.90	58	P	P	07 53 52.8	+0.8
	comp=Z,74nm,1.2s,mb5.6						
ETOR	Torete	59.02	53	P	P	07 53 53.7	+0.9
ETOR				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.5						
ETOR	Torete	59.02	53	P	P	07 53 53.7	+0.9
	comp=Z,46nm,1.0s,mb5.5						
SGMF	Saint Gilles	59.11	45	*e*P	P	07 53 52.5	-0.8
SGMF	Saint Gilles	59.11	45	*e*P	P	07 53 52.5	-0.8
PLCA	Paso Flores	59.48	183	P	P	07 53 53.8	-1.9
	comp=Z,4.8nm,0.9s,mb4.5,baz=1.9,slow=8.5,SNR=8.6						
PLCA				LR	LR	08 20 15.6	
	comp=Z,402nm,21.7s,MS4.5,baz=2.3,slow=37						
PLCA	Paso Flores	59.48	183	P	P	07 53 53.8	-1.9
PLCA				LR	LR	08 20 15.6	
SJPF	Ste Jean	59.70	51	*e*P	P	07 53 57.6	+0.2
SJPF	Ste Jean	59.70	51	*e*P	P	07 53 57.6	+0.2
ESK	Eskdalemuir	59.73	36	*i* P	P	07 53 58.4	+1.0
ECHE	Chera	59.84	55	P	P	07 53 59.7	+1.2
ECHE				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
ECHE	Chera	59.84	55	P	P	07 53 59.7	+1.2
	comp=Z,16nm,1.1s,mb5.0						
DLBC	Dease Lake	59.98	327	*e*P	P	07 53 59.9	+0.8
ETSF	Etsaut	60.18	51	⇓*i*P	P	07 54 00.8	+0.1
	comp=Z,59nm,1.3s,mb5.2						
ETSF	Etsaut	60.18	51	⇓*i*P	P	07 54 00.8	+0.1
ETSF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
ETSF	Etsaut	60.18	51	⇓*i*P	P	07 54 00.8	+0.1
	comp=Z,30nm,1.3s,mb5.2						
GRR	Gorron	60.25	45	⇓*i*P	P	07 54 00.6	-0.5
	comp=Z,71nm,0.9s,mb5.4						
GRR	Gorron	60.25	45	⇓*i*P	P	07 54 00.6	-0.5
GRR				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.4						
GRR	Gorron	60.25	45	⇓*i*P	P	07 54 00.6	-0.5
	comp=Z,35nm,0.9s,mb5.4						
FLN	La Foliniere	60.53	44	⇓*i*P	P	07 54 02.6	-0.4
	comp=Z,48nm,0.8s,mb5.4						
FLN				*e*MLR	MLR		
	comp=Z,519nm,20.5s,MS4.4						
FLN	La Foliniere	60.53	44	⇓*i*P	P	07 54 02.6	-0.4
FLN				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.4						
FLN				MLR	MLR		
	comp=Z,520nm,20.5s,MS4.7						
FLN	La Foliniere	60.53	44	⇓*i*P	P	07 54 02.6	-0.4
	comp=Z,24nm,0.8s,mb5.4						
FLN				LR	LR		
	comp=Z,520nm,20.5s,MS4.7						
MFF	Saint Martin d	60.61	47	⇓*i*P	P	07 54 03.4	-0.2
	comp=Z,135nm,1.2s,mb5.7						
MFF	Saint Martin d	60.61	47	⇓*i*P	P	07 54 03.4	-0.2
MFF				pmax	pmax		
	comp=Z,68nm,1.2s,mb5.7						
MFF	Saint Martin d	60.61	47	⇓*i*P	P	07 54 03.4	-0.2
	comp=Z,68nm,1.2s,mb5.7						
LDF	La Druitiere	60.76	44	⇓*i*P	P	07 54 04.2	-0.4
	comp=Z,65nm,1.0s,mb5.4						
LDF	La Druitiere	60.76	44	⇓*i*P	P	07 54 04.2	-0.4
LDF				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.4						
LDF	La Druitiere	60.76	44	⇓*i*P	P	07 54 04.2	-0.4
	comp=Z,32nm,1.0s,mb5.4						
EPF	Esparros	60.84	51	⇓*i*P	P	07 54 05.5	+0.3
	comp=Z,110nm,1.2s,mb5.6						
EPF	Esparros	60.84	51	⇓*i*P	P	07 54 05.5	+0.3
EPF				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.6						
EPF	Esparros	60.84	51	⇓*i*P	P	07 54 05.5	+0.3
	comp=Z,55nm,1.2s,mb5.6						
LFF	La Frestale	61.17	49	*e*P	P	07 54 07.0	-0.4
	comp=Z,47nm,0.9s,mb5.3						
LFF	La Frestale	61.17	49	*e*P	P	07 54 07.0	-0.4
LFF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.3						
LFF	La Frestale	61.17	49	*e*P	P	07 54 07.0	-0.4
	comp=Z,24nm,0.9s,mb5.3						
TIC	Toumodi	61.37	93	*e*P	P	07 54 08.2	-1.1
	comp=Z,98nm,1.1s,mb5.9						
LIC	Lamto	61.49	93	*e*P	P	07 54 09.1	-1.0
	comp=Z,34nm,1.0s,mb5.2						
LIC				*e*MLR	MLR		
	comp=Z,2µm,22.8s,MS4.8						
LIC	Lamto	61.49	93	*e*P	P	07 54 09.2	-0.9
	comp=Z,47nm,1.0s,mb5.6						
LIC	Lamto	61.49	93	*e*P	P	07 54 09.1	-1.0
	comp=Z,17nm,1.0s,mb5.1						
LIC				LR	LR		
	comp=Z,770nm,22.8s,MS4.8						
DBIC	Dimbokro	61.52	93	P	P	07 54 09.8	-0.5
	comp=Z,10nm,0.9s,mb5.0,baz=273,slow=7.5,SNR=15						
DBIC				LR	LR	08 16 04.1	
	comp=Z,1µm,21.8s,MS5.0,baz=267,slow=31						
DBIC	Dimbokro	61.52	93	P	P	07 54 09.8	-0.5
DBIC				LR	LR	08 16 04.1	
KIC	Kosan Boka	61.72	93	*e*P	P	07 54 10.8	-0.9
	comp=Z,64nm,0.8s,mb5.8						
RJF	Les Rejaudoux	61.72	48	*e*P	P	07 54 10.6	-0.6
	comp=Z,52nm,0.9s,mb5.3						
RJF				*e*MLR	MLR		
	comp=Z,620nm,22.0s,MS4.4						
RJF	Les Rejaudoux	61.72	48	*e*P	P	07 54 10.6	-0.6
RJF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.4						
RJF				MLR	MLR		
	comp=Z,620nm,22.0s,MS4.7						
RJF	Les Rejaudoux	61.72	48	*e*P	P	07 54 10.6	-0.6
	comp=Z,26nm,0.9s,mb5.4						
RJF				LR	LR		
	comp=Z,620nm,22.0s,MS4.7						
CAF	Calviac	62.11	49	⇓*i*P	P	07 54 13.4	-0.4
	comp=Z,92nm,1.2s,mb5.5						
CAF	Calviac	62.11	49	⇓*i*P	P	07 54 13.4	-0.4
CAF				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.5						
CAF	Calviac	62.11	49	⇓*i*P	P	07 54 13.4	-0.4
	comp=Z,46nm,1.2s,mb5.5						
MTLF	Montolieu	62.21	50	⇓*i*P	P	07 54 14.1	-0.4
	comp=Z,95nm,1.2s,mb5.5						
MTLF	Montolieu	62.21	50	⇓*i*P	P	07 54 14.1	-0.4
MTLF				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.5						
MTLF	Montolieu	62.21	50	⇓*i*P	P	07 54 14.1	-0.4
	comp=Z,48nm,1.2s,mb5.5						
TCF	Toulx Ste Croi	62.23	47	⇓*i*P	P	07 54 14.0	-0.6
	comp=Z,120nm,1.3s,mb5.6						
TCF	Toulx Ste Croi	62.23	47	⇓*i*P	P	07 54 14.0	-0.6
TCF				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.6						
TCF	Toulx Ste Croi	62.23	47	⇓*i*P	P	07 54 14.0	-0.6
	comp=Z,60nm,1.3s,mb5.6						
DAG	Danmarks Havn	62.66	11	⇓*i*P	P	07 54 16.3	-0.7
DAG				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
DAG	Danmarks Havn	62.66	11	⇓*i*P	P	07 54 16.3	-0.7
	comp=Z,12nm,0.8s,mb5.1						
DAG	Danmarks Havn	62.66	11	⇓*i*P	P	07 54 16.3	-0.7
	comp=Z,12nm,0.8s,mb5.1						
BGF	Bois d’Agland	62.67	47	⇓*i*P	P	07 54 16.8	-0.7
	comp=Z,28nm,0.7s,mb5.2						
BGF	Bois d’Agland	62.67	47	⇓*i*P	P	07 54 16.8	-0.7
BGF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.2						
BGF	Bois d’Agland	62.67	47	⇓*i*P	P	07 54 16.8	-0.7
	comp=Z,14nm,0.7s,mb5.2						
EJON	La Jonquera	62.72	51	P	P	07 54 18.9	+1.0
	comp=Z,288nm,1.6s,mb6.2						
AVF	Avril sur Loir	63.03	47	⇓*i*P	P	07 54 18.9	-1.0
	comp=Z,99nm,1.2s,mb5.5						
AVF	Avril sur Loir	63.03	47	⇓*i*P	P	07 54 18.9	-1.0
AVF				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.5						
AVF	Avril sur Loir	63.03	47	⇓*i*P	P	07 54 18.9	-1.0
	comp=Z,50nm,1.2s,mb5.5						
SSF	Saint Saulge	63.13	46	*e*P	P	07 54 19.7	-0.9
	comp=Z,78nm,1.2s,mb5.4						
SSF	Saint Saulge	63.13	46	*e*P	P	07 54 19.7	-0.9
SSF				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.4						
SSF	Saint Saulge	63.13	46	*e*P	P	07 54 19.7	-0.9
	comp=Z,39nm,1.2s,mb5.4						
SMF	Signal de Mont	63.36	47	⇓*i*P	P	07 54 21.3	-0.8
	comp=Z,71nm,1.1s,mb5.4						
SMF	Signal de Mont	63.36	47	⇓*i*P	P	07 54 21.3	-0.8
SMF				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.4						
SMF	Signal de Mont	63.36	47	⇓*i*P	P	07 54 21.3	-0.8
	comp=Z,35nm,1.1s,mb5.4						
LOR	Lormes	63.38	46	⇓*i*P	P	07 54 21.3	-0.9
	comp=Z,27nm,0.7s,mb5.2						
LOR				*e*MLR	MLR		
	comp=Z,870nm,18.5s,MS4.7						
LOR	Lormes	63.38	46	⇓*i*P	P	07 54 21.3	-0.9
LOR				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.2						
LOR				MLR	MLR		
	comp=Z,870nm,18.5s,MS5.0						
LOR	Lormes	63.38	46	⇓*i*P	P	07 54 21.3	-0.9
	comp=Z,13nm,0.7s,mb5.2						
LOR				LR	LR		
	comp=Z,870nm,18.5s,MS5.0						
LASF	Ste Croix	63.39	50	*e*P	P	07 54 22.4	0.0
	comp=Z,260nm,1.5s,mb5.8						
LASF	Ste Croix	63.39	50	*e*P	P	07 54 22.4	0.0
ALE	Alert	63.63	1	P	P	07 54 22.9	-0.5
	comp=Z,131nm,0.7s,mb6.1,SNR=17						
BAIF	Baives	63.66	43	*e*P	P	07 54 23.7	-0.3
BAIF	Baives	63.66	43	*e*P	P	07 54 23.7	-0.3
UCC	Uccle	63.78	42	P	P	07 54 24.6	-0.2
	comp=Z,56nm,2.5s,mb5.2						
DOU	Dourbes	63.91	43	P	P	07 54 25.5	-0.2
VIVF	Saint-Julien-l	63.96	49	⇓*i*P	P	07 54 26.3	+0.2
	comp=Z,80nm,1.1s,mb5.3						
VIVF	Saint-Julien-l	63.96	49	⇓*i*P	P	07 54 26.3	+0.2
VIVF				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.4						
VIVF	Saint-Julien-l	63.96	49	⇓*i*P	P	07 54 26.3	+0.2
	comp=Z,40nm,1.1s,mb5.4						
GIVF	Givet	64.06	43	*e*P	P	07 54 25.8	-0.8
	comp=Z,65nm,0.9s,mb5.4						
GIVF	Givet	64.06	43	*e*P	P	07 54 25.8	-0.8
GIVF				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.4						
GIVF	Givet	64.06	43	*e*P	P	07 54 25.8	-0.8
	comp=Z,33nm,0.9s,mb5.4						
MEZF	Maizieres J’vi	64.19	45	⇓*i*P	P	07 54 26.9	-0.6
	comp=Z,143nm,0.8s,mb5.8						
MEZF	Maizieres J’vi	64.19	45	⇓*i*P	P	07 54 26.9	-0.6
	comp=Z,143nm,0.8s,mb6.0						
SMRF	Simiane la Rot	64.64	50	*e*P	P	07 54 30.2	-0.3
SMRF	Simiane la Rot	64.64	50	*e*P	P	07 54 30.2	-0.3
HGN	Heimansgroeve	64.78	42	*e*P	P	07 54 29.7	-1.6
	comp=Z,40nm,2.4s,mb5.0						
ORIF	Oris-en-Rattie	64.82	49	*e*P	P	07 54 31.9	+0.2
	comp=Z,95nm,1.3s,mb5.4						
ORIF				*e*MLR	MLR		
	comp=Z,491nm,17.8s,MS4.5						
ORIF	Oris-en-Rattie	64.82	49	*e*P	P	07 54 31.9	+0.2
ORIF				pmax	pmax		
	comp=Z,47nm,1.3s,mb5.4						
ORIF	Oris-en-Rattie	64.82	49	*e*P	P	07 54 31.9	+0.2
	comp=Z,47nm,1.3s,mb5.4						
MEM	Membach	64.82	42	P	P	07 54 31.8	+0.2
	comp=Z,24nm,1.2s,mb5.1						
CABF	La Chapelle	64.91	47	*e*P	P	07 54 31.8	-0.5
CABF	La Chapelle	64.91	47	*e*P	P	07 54 31.8	-0.5
WLF	Walferdange	64.91	43	P	P	07 54 32.8	+0.6
	comp=Z,33nm,1.8s,mb5.1						
WLF	Walferdange	64.91	43	PFAKE		07 54 50.0	+18
WLF				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
HAU	Haudompre	65.06	45	*e*P	P	07 54 32.3	-0.9
HAU				*e*MLR	MLR		
	comp=Z,692nm,19.5s,MS4.6						
HAU	Haudompre	65.06	45	*e*P	P	07 54 32.3	-0.9
HAU				LR	LR		
	comp=Z,690nm,19.5s,MS4.9						
WTSB	Winterswijk	65.33	41	*e*P	P	07 54 34.6	-0.3
	comp=Z,59nm,1.2s,mb5.5						
LMR	La Mourre	65.34	50	*e*P	P	07 54 34.5	-0.6
LMR	La Mourre	65.34	50	*e*P	P	07 54 34.5	-0.6
BNI	Bardonecchia	65.38	48	PFAKE		07 54 50.0	+15
BNI				LR	LR		
	comp=Z,999nm,20.0s,MS5.0						
LPL	La Plagne	65.39	48	⇓*i*P	P	07 54 35.6	+0.2
	comp=Z,46nm,1.0s,mb5.2						
LPL	La Plagne	65.39	48	⇓*i*P	P	07 54 35.6	+0.2
LPL				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
LPL	La Plagne	65.39	48	⇓*i*P	P	07 54 35.6	+0.2
	comp=Z,23nm,1.0s,mb5.2						
HINF	Hinteralfeld	65.40	45	*e*P	P	07 54 34.2	-1.2
	comp=Z,27nm,0.9s,mb5.0						
HINF	Hinteralfeld	65.40	45	*e*P	P	07 54 34.2	-1.2
HINF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
HINF	Hinteralfeld	65.40	45	*e*P	P	07 54 34.2	-1.2
	comp=Z,14nm,0.9s,mb5.0						
LPG	La Plagne	65.41	48	⇓*i*P	P	07 54 35.9	+0.4
	comp=Z,53nm,1.2s,mb5.2						
LPG	La Plagne	65.41	48	⇓*i*P	P	07 54 35.9	+0.4
LPG				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.2						
LPG	La Plagne	65.41	48	⇓*i*P	P	07 54 35.9	+0.4
	comp=Z,27nm,1.2s,mb5.2						
DAWY	Dawson	65.43	333	*e*P	P	07 54 35.3	0.0
FRF	La Foret Royal	65.43	50	*e*P	P	07 54 35.0	-0.7
	comp=Z,78nm,1.2s,mb5.3						
FRF	La Foret Royal	65.43	50	*e*P	P	07 54 35.0	-0.7
FRF				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.3						
FRF	La Foret Royal	65.43	50	*e*P	P	07 54 35.0	-0.7
	comp=Z,39nm,1.3s,mb5.3						
MBDF	Montbardon	65.46	49	⇓*i*P	P	07 54 36.0	+0.1
	comp=Z,88nm,1.4s,mb5.3						
MBDF	Montbardon	65.46	49	⇓*i*P	P	07 54 36.0	+0.1
MBDF				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.3						
MBDF	Montbardon	65.46	49	⇓*i*P	P	07 54 36.0	+0.1
	comp=Z,44nm,1.4s,mb5.3						
ECH	Echery	65.59	45	*e*P	P	07 54 36.7	0.0
ECH				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.3						
ECH				MLR	MLR		
	comp=Z,769nm,19.0s,MS4.9						
ECH	Echery	65.59	45	*e*P	P	07 54 36.7	0.0
	comp=Z,41nm,1.3s,mb5.3						
ECH				LR	LR		
	comp=Z,769nm,19.0s,MS4.9						
CDF	Champ du Feu	65.67	45	⇓*i*P	P	07 54 36.4	-0.7
	comp=Z,41nm,1.1s,mb5.1						
CDF	Champ du Feu	65.67	45	⇓*i*P	P	07 54 36.4	-0.7
CDF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
CDF	Champ du Feu	65.67	45	⇓*i*P	P	07 54 36.4	-0.7
	comp=Z,20nm,1.1s,mb5.1						
TOA0	Torodi Ar. Sit	65.90	84	*e*P	P	07 54 37.7	-1.4
TORD	Torodi Ar. Bea	65.90	84	P	P	07 54 38.0	-1.2
	comp=Z,12nm,1.0s,mb4.9,baz=291,slow=6.3,SNR=50						
TORD				pP	pP	07 54 44.8	-3.7
	comp=Z,8.9nm,0.7s,baz=298,slow=5.7,SNR=19						
TORD				LR	LR	08 19 19.3	
	comp=Z,1µm,21.7s,MS5.1,baz=280,slow=32						
TORD	Torodi Ar. Bea	65.90	84	P	P	07 54 38.0	-1.2
TORD				pP	pP	07 54 44.8	-3.7
TORD				LR	LR	08 19 19.3	
SBF	Sospel	65.98	50	*e*P	P	07 54 38.7	-0.6
	comp=Z,148nm,1.3s,mb5.5						
SBF	Sospel	65.98	50	*e*P	P	07 54 38.7	-0.6
SBF				pmax	pmax		
	comp=Z,74nm,1.3s,mb5.6						
SBF	Sospel	65.98	50	*e*P	P	07 54 38.7	-0.6
	comp=Z,74nm,1.3s,mb5.5						
EGAK	Eagle	66.27	333	*e*P	P	07 54 40.7	0.0
	comp=Z,34nm,0.9s,mb5.4						
EGAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
TUE	Stuetta	67.16	47	*e*P	P	07 54 47.6	+0.8
	comp=Z,67nm,1.6s,mb5.4						
TUE				LR	LR		
	comp=Z,663nm,20.0s,MS4.8						
PGF	Pioggiola	67.22	51	*e*P	P	07 54 46.4	-0.8
	comp=Z,59nm,1.1s,mb5.2						
PGF	Pioggiola	67.22	51	*e*P	P	07 54 46.4	-0.8
PGF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
PGF	Pioggiola	67.22	51	*e*P	P	07 54 46.4	-0.8
	comp=Z,30nm,1.1s,mb5.2						
TAM	Tamanrasset	67.23	73	*e*P	P	07 54 49.5	+1.9
TAM				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
TAM				MLR	MLR		
	comp=Z,714nm,20.0s,MS4.9						
TAM	Tamanrasset	67.23	73	*e*P	P	07 54 49.5	+1.9
	comp=Z,14nm,0.8s,mb5.1						
TAM				LR	LR		
	comp=Z,714nm,20.0s,MS4.9						
MENT	Mentasta	67.27	331	*e*P	P	07 54 47.2	+0.1
DAVA	Damuels	67.47	46	⇓*i*P	P	07 54 49.0	+0.3
	comp=Z,29nm,1.0s,mb5.3						
VSL	Villasalto	67.83	54	PFAKE		07 55 10.0	+19
VSL				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
NB2	NORSAR Subarra	67.89	31	P	P	07 54 51.1	+0.1
	comp=Z,15nm,1.1s,mb5.0,baz=269,slow=6.5						
NOA	NORSAR Array B	67.89	31	P	P	07 54 51.1	+0.1
	comp=Z,5.3nm,0.8s,mb4.6,baz=270,slow=6.3,SNR=12						
NOA				LR	LR	08 18 05.8	
	comp=Z,636nm,20.5s,MS4.8,baz=275,slow=30						
NOA	NORSAR Array B	67.89	31	P	P	07 54 51.1	+0.1
NOA				LR	LR	08 18 05.8	
RETA	Reutte	68.06	46	*i* P	P	07 54 52.4	+0.1
	comp=Z,35nm,1.1s,mb5.3,SNR=9.6						
PAX	Paxson	68.06	331	*e*P	P	07 54 52.2	+0.1
PAX				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
PAX	Paxson	68.06	331	*e*P	P	07 54 52.2	+0.1
	comp=Z,7.1nm,0.7s,mb4.8						
FETA	Feichten	68.07	46	⇓*i*P	P	07 54 52.8	+0.4
	comp=Z,36nm,1.1s,mb5.3,SNR=11						
VLC	Villacollemand	68.08	49	PFAKE		07 55 10.0	+17
VLC				LR	LR		
	comp=Z,518nm,20.0s,MS4.8						
GRA1	Grafenberg Arr	68.20	43	*e*P	P	07 54 53.1	-0.1
	comp=Z,25nm,1.1s,mb5.2						
GRA1				LR	LR		
	comp=Z,900nm,21.6s,MS5.0						
GRF	Grafenberg Arr	68.20	43	*e*P	P	07 54 53.1	-0.1
GRF				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.2						
GRF				MLR	MLR		
	comp=Z,900nm,21.6s,MS5.0						
GRF	Grafenberg Arr	68.20	43	*e*P	P	07 54 53.1	-0.1
	comp=Z,25nm,1.1s,mb5.2						
GRF				*e*L		08 20 22.9	
	comp=Z,906nm,21.6s						
GRF	Grafenberg Arr	68.20	43	*e*P	P	07 54 53.1	-0.1
	comp=Z,25nm,1.1s,mb5.2						
GRF				LR	LR		
	comp=Z,900nm,21.6s,MS5.0						
KEST	Kesra	68.29	58	P	P	07 54 54.4	+0.3
	comp=Z,3.9nm,0.7s,mb4.6,baz=318,slow=1.3,SNR=14						
KEST				LR	LR	08 21 39.3	
	comp=Z,196nm,19.2s,MS4.3,baz=95,slow=33						
MOTA	Moosalm	68.30	46	*i* P	P	07 54 54.1	+0.3
	comp=Z,19nm,1.0s,mb5.1,SNR=6.1						
MOX	Moxa	68.39	42	*e*P	P	07 54 52.8	-1.6
MOX							
	comp=Z,800nm,22.0s						
MOX	Moxa	68.39	42	*e*P	P	07 54 52.8	-1.6
MOX				LR	LR		
	comp=Z,800nm,22.0s,MS4.9						
WTTA	Wattenberg	68.67	46	⇓*i*P	P	07 54 56.1	-0.1
	comp=Z,19nm,1.0s,mb5.0						
NKC	Novy Kostel	68.95	43	*e*P	P	07 54 58.1	+0.2
NKC				MLR	MLR		
	comp=Z,2µm,7.1s						
NKC	Novy Kostel	68.95	43	*e*P	P	07 54 58.1	+0.2
COLA	College	69.14	333	*e*P	P	07 54 58.1	-0.7
COLA				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
COLA	College	69.14	333	*e*P	P	07 54 58.1	-0.7
	comp=Z,24nm,0.8s,mb5.2						
CLL	Collm	69.22	41	*i* P	P	07 54 59.4	-0.1
CLL				*i*	pP	07 55 09.1	+0.1
CLL				*e*S	S	08 04 06.0	+2.4
CLL				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
CLL				MLR	MLR		
	comp=Z,1µm,20.7s,MS5.1						
CLL	Collm	69.22	41	*i* P	P	07 54 59.4	-0.1
	comp=Z,14nm,1.1s,mb4.8						
CLL				*i*	pP	07 55 09.1	+0.1
CLL				*e*S	S	08 04 06.0	+2.4
CLL				*e*PS		08 04 38.0	
CLL				*e*		08 05 18.0	
CLL				*e*SS	SS	08 08 48.0	+18
CLL				*e*SSSS		08 13 30.0	
CLL				Lm		08 22 00.0	
	comp=N,600nm,20.2s						
CLL				Lm		08 22 00.0	
	comp=E,900nm,21.9s						
CLL				Lm		08 22 00.0	
	comp=Z,1µm,20.7s						
CLL	Collm	69.22	41	*i* P	P	07 54 59.4	-0.1
	comp=Z,14nm,1.1s,mb4.8						
CLL				*i*	pP	07 55 09.1	+0.1
CLL				*e*S	S	08 04 06.0	+2.4
CLL				LR	LR		
	comp=Z,1µm,20.7s,MS5.1						
ABTA	Abfaltersbach	69.31	46	⇑*i*P	P	07 55 00.1	-0.1
	comp=Z,23nm,1.0s,mb5.1						
MCK	McKinley	69.63	332	*e*P	P	07 55 01.3	-0.5
MCK				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
MCK	McKinley	69.63	332	*e*P	P	07 55 01.3	-0.6
	comp=Z,22nm,0.9s,mb5.1						
KHC	Kasperske Hory	69.78	44	*e*P	P	07 55 03.2	+0.1
KHC				MLR	MLR		
	comp=Z,1µm,6.7s						
PMR	Palmer	69.79	330	*e*P	P	07 55 02.5	-0.4
PMR				pmax	pmax		
	comp=Z,19nm,0.4s,mb5.4						
PMR	Palmer	69.79	330	*e*P	P	07 55 02.5	-0.4
	comp=Z,19nm,0.4s,mb5.4						
BRG	Berggiesshubel	69.85	42	*e*P	P	07 55 03.3	-0.1
BRG				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
BRG	Berggiesshubel	69.85	42	*e*P	P	07 55 03.3	-0.1
	comp=Z,20nm,1.1s,mb4.9						
BRG	Berggiesshubel	69.85	42	*e*P	P	07 55 03.3	-0.1
	comp=Z,12nm,1.1s,mb4.7						

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KBA   Koelnbreinsper   69.85  46 i P      P       07 55 03.6 +0.1
            comp=Z,29nm,1.2s,mb5.1,SNR=5.8
GERES GERESS Array B   69.89  44   P      P       07 55 03.7  0.0
            comp=Z,3.0nm,0.8s,mb4.2,baz=284,slow=5.4,SNR=15
GERES                              LR     LR      08 19 39.6
            comp=Z,542nm,21.8s,MS4.8,baz=282,slow=31
GERES GERESS Array B   69.89  44   P      P       07 55 03.7  0.0
GERES                              LR     LR      08 19 39.6
TRF   Thorofare Moun   70.24 332 eP       P       07 55 05.5 -0.1
            comp=Z,27nm,0.8s,mb5.2
PVCC  Panska Ves       70.28  42 eP       P       07 55 06.3 +0.2
PVCC                               AMS    AMS     08 19 50.0
            comp=Z,2µm,19.3s
PVCC  Panska Ves       70.28  42 eP       P       07 55 06.3 +0.2
PVCC                               LR     LR
            comp=Z,2µm,19.3s,MS5.3
PRU   Pruhonice        70.32  43 eP       P       07 55 06.8 +0.5
PRU                                AMS    AMS     08 18 40.0
            comp=Z,1µm,20.1s
PRU   Pruhonice        70.32  43 eP       P       07 55 06.8 +0.5
PRU                                LR     LR
            comp=Z,1µm,20.1s,MS5.2
JAVS  Javornik         70.48  47 i P      P       07 55 07.7 +0.3
JAVS  Javornik         70.48  47 i P      P       07 55 07.7 +0.3
BPAW  Bear Paw Mtn.    70.52 332 eP       P       07 55 06.7 -0.6
            comp=Z,23nm,0.8s,mb5.2
KTH   Kantishna Hill   70.52 332 eP       P       07 55 07.1 -0.2
            comp=Z,54nm,0.9s,mb5.5
TREC  Trest            71.01  43   AMS    AMS     08 19 10.0
            comp=Z,1µm,22.0s
VISS  Visnje           71.03  47 i P      P       07 55 11.2 +0.4
VISS  Visnje           71.03  47 i P      P       07 55 11.2 +0.4
PERS  Pernice          71.11  46 i P      P       07 55 11.0 -0.2
PERS  Pernice          71.11  46 i P      P       07 55 11.0 -0.2
CHUM  Lake Minchumin   71.12 332 eP       P       07 55 09.8 -1.1
            comp=Z,23nm,0.8s,mb5.2
UPC   Upice            71.19  42 eP       P       07 55 12.0 +0.3
UPC   Upice            71.19  42 eP       P       07 55 12.0 +0.3
BOJS  Bojanci          71.36  47 i P      P       07 55 12.7 -0.1
BOJS  Bojanci          71.36  47 i P      P       07 55 12.7 -0.1
DPC   Dobruska-Polom   71.41  42 eP       P       07 55 13.5 +0.5
DPC                                AMS    AMS     08 19 50.0
            comp=Z,1µm,18.9s
DPC   Dobruska-Polom   71.41  42 eP       P       07 55 13.5 +0.5
DPC                                LR     LR
            comp=Z,1µm,18.9s,MS5.2
CONA  Conrad Observa   71.43  45⇑iP       P       07 55 13.2  0.0
            comp=Z,18nm,1.5s,mb4.8
SOP   Sopron           71.93  45⇑eP       P       07 55 16.5 +0.3
ZST   Bratislava       72.22  44 eP       P       07 55 17.7 -0.2
ZST                                pmax   pmax
            comp=Z,20nm,1.2s,mb4.9
ZST   Bratislava       72.22  44 eP       P       07 55 17.7 -0.2
MORC  Moravsky Berou   72.27  43 eP       P       07 55 18.2 +0.1
MORC                               pmax   pmax
            comp=Z,16nm,1.2s,mb4.8
MORC  Moravsky Berou   72.27  43 eP       P       07 55 18.2 +0.1
            comp=Z,16nm,1.2s,mb4.8
MODS  Modra-Piesok     72.31  44 i P      P       07 55 18.8 +0.4
MODS                               pmax   pmax
            comp=Z,15nm,1.2s,mb4.8
MODS  Modra-Piesok     72.31  44 i P      P       07 55 18.8 +0.4
            comp=Z,15nm,1.2s,mb4.8
WDD   Wield Dalam      72.42  57   PFAKE          07 55 30.0  +11
WDD                                LR     LR
            comp=Z,696nm,20.0s,MS4.9
OKC   Ostrava-Krasne   72.65  43 eP       P       07 55 21.0 +0.6
OKC                                AMS    AMS     08 20 10.0
            comp=Z,1µm,26.8s
OKC   Ostrava-Krasne   72.65  43 eP       P       07 55 21.0 +0.6
CUC   Castrocucco      72.66  53   PFAKE          07 55 30.0 +9.3
CUC                                LR     LR
            comp=Z,1µm,20.0s,MS5.2
SVW2  Sparrevohn       72.93 329 eP       P       07 55 20.8 -1.1
CEL   Celeste          73.04  55   PFAKE          07 55 40.0  +17
CEL                                LR     LR
            comp=Z,778nm,21.0s,MS5.0
ARCES ARCESS Array B   73.27  22   P      P       07 55 23.6  0.0
            comp=Z,7.2nm,0.7s,mb4.7,baz=289,slow=3.7,SNR=14
ARCES                              LR     LR      08 21 01.6
            comp=Z,337nm,20.1s,MS4.6,baz=284,slow=30
ARCES ARCESS Array B   73.27  22   P      P       07 55 23.6  0.0
ARCES                              LR     LR      08 21 01.6
VYHS  Vyhne            73.31  44 i P      P       07 55 24.6 +0.2
VYHS  Vyhne            73.31  44 i P      P       07 55 24.6 +0.2
TIP   Timpagrande      73.53  54   PFAKE          07 55 40.0  +14
TIP                                LR     LR
            comp=Z,1µm,22.0s,MS5.1
PKSM  Moragy           73.58  46⇑iP       P       07 55 26.4 +0.4
BUD   Budapest         73.61  45⇓eP       P       07 55 27.0 +0.9
KEV   Kevo             73.75  21 eP       P       07 55 24.7 -1.8
KEV                                pmax   pmax
            comp=Z,6.0nm,0.9s,mb4.5
KEV   Kevo             73.75  21 ep       P       07 55 24.7 -1.8
            comp=Z,5.9nm,0.9s,mb4.5
KEV   Kevo             73.75  21 eP       P       07 55 24.7 -1.8
            comp=Z,5.9nm,0.9s,mb4.5
PSZ   Piszkesteto      74.11  44 eP       P       07 55 29.2 +0.1
PSZ                                pmax   pmax
            comp=Z,43nm,1.4s,mb5.2
PSZ                                MLR    MLR
            comp=Z,456nm,19.0s,MS4.8
PSZ   Piszkesteto      74.11  44⇓eP       P       07 55 29.4 +0.3
PSZ   Piszkesteto      74.11  44 eP       P       07 55 29.2 +0.1
            comp=Z,43nm,1.4s,mb5.2
PSZ                                LR     LR
            comp=Z,456nm,19.0s,MS4.8
STHS  Stebnicka Huta   74.70  43 i P      P       07 55 33.6 +1.1
STHS                               pmax   pmax
            comp=Z,7.0nm,1.1s,mb4.5
STHS  Stebnicka Huta   74.70  43 i P      P       07 55 33.5 +1.0
STHS  Stebnicka Huta   74.70  43 i P      P       07 55 33.6 +1.1
            comp=Z,7.3nm,1.1s,mb4.5
CRVS  Cervenica-Dubn   74.95  43 i P      P       07 55 34.7 +0.8
CRVS  Cervenica-Dubn   74.95  43 i P      P       07 55 34.7 +0.8
KAF   Kangasniemi      74.95  29 eP       P       07 55 32.6 -1.1
KAF                                pmax   pmax
            comp=Z,4.0nm,0.7s,mb4.5
KAF   Kangasniemi      74.95  29 ep       P       07 55 32.6 -1.1
            comp=Z,4.4nm,0.7s,mb4.5
KAF   Kangasniemi      74.95  29 eP       P       07 55 32.6 -1.1
            comp=Z,4.4nm,0.7s,mb4.5
SUW   Suwalki          74.98  38 eP       P       07 55 34.5 +0.5
SUW   Suwalki          74.98  38 eP       P       07 55 34.4 +0.5
KOLS  Kolonicke sedl   75.46  43 i P      P       07 55 37.9 +1.0
KOLS  Kolonicke sedl   75.46  43 i P      P       07 55 37.9 +1.0
UZH   Uzhgorod         75.54  43 eP       P       07 55 37.7 +0.4
UZH                              i                07 55 44.1
UZH                              i        pP      07 55 47.5 +0.7
UZH                              i                07 55 50.5
KWP   Kalwaria Pacla   75.59  42 eP       P       07 55 39.2 +1.6
KWP   Kalwaria Pacla   75.59  42⇑iP       P       07 55 38.8 +1.2
KWP   Kalwaria Pacla   75.59  42 eP       P       07 55 39.2 +1.6
KWP                                LR     LR
            comp=Z,1µm,21.0s,MS5.2
BZS   Buzias           75.73  46⇑iP       P       07 55 39.2 +0.7
BZS   Buzias           75.73  46 ⇑P       P       07 55 39.2 +0.7
LVV   L'vov            76.39  42 eP       P       07 55 37.7 -4.4
GZR   Gura Zlata       76.58  46⇑iP       P       07 55 43.9 +0.6
GZR   Gura Zlata       76.58  46 ⇑P       P       07 55 43.9 +0.6
JOF   Joensuu          77.01  28 eP       P       07 55 42.7 -2.7
JOF                                pmax   pmax
            comp=Z,5.0nm,0.7s,mb4.5
JOF   Joensuu          77.01  28 ep       P       07 55 42.7 -2.7
            comp=Z,4.9nm,0.7s,mb4.5
JOF   Joensuu          77.01  28 eP       P       07 55 42.7 -2.7
TNA   Tin City         77.36 335 eP       P       07 55 47.7 +0.5
            comp=Z,16nm,0.8s,mb5.0
VTS   Vitosha          77.55  49   P      P       07 55 56.0 +7.2
BUR08 Bucovina Ar. S   77.66  44 eP       P       07 55 50.5 +1.1
BURAR Bucovina Array   77.68  44⇑iP       P       07 55 50.5 +1.1
BURAR Bucovina Array   77.68  44 ⇑P       P       07 55 50.5 +1.1
MMB   Musomiste        78.18  50   P      P       07 55 59.0 +6.7
MLR   Muntele Rosu     78.72  46⇑iP       P       07 55 56.7 +1.5
MLR   Muntele Rosu     78.72  46 ⇑P       P       07 55 56.7 +1.5
RZN   Rozhen           78.87  50   P      P       07 55 56.9 +0.8
PLOR  Plostina         79.09  45⇑iP       P       07 56 00.0 +2.7
SZH   Strazhica        79.31  48   P      P       07 56 05.6 +7.1
KIEV  Kiev             79.37  40 eP       P       07 55 58.6 -0.1
KIEV                               pmax   pmax
            comp=Z,13nm,1.3s,mb4.7
KIEV  Kiev             79.37  40 eP       P       07 55 58.6 -0.1
            comp=Z,12nm,1.3s,mb4.7
AKASG Malin Array Be   79.38  40   P      P       07 55 58.6 -0.1
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            comp=Z,3.5nm,0.7s,mb4.4,baz=276,slow=4.9,SNR=14
AKASG                              LR     LR      08 29 01.3
            comp=Z,1µm,19.7s,MS5.2,baz=275,slow=34
AKASG Malin Array Be   79.38  40   P      P       07 55 58.6 -0.1
AKASG                              LR     LR      08 29 01.3
PSN   Preselentsi      80.76  47   P      P       07 56 13.4 +7.1
KLMR  Klimovskoe       81.37  28 eP       P       07 56 08.1 -1.1
KLMR                               pmax   pmax
            comp=Z,32nm,1.4s,mb5.1
OBN   Obninsk          82.12  34⇑eP       P       07 56 13.7 +0.4
OBN                              e                07 56 17.8
OBN                              e        pP      07 56 22.0 -0.9
OBN                              e                08 06 33.9
OBN                                pmax   pmax
            comp=Z,29nm,1.0s,mb5.2
OBN   Obninsk          82.12  34   PFAKE          07 56 30.0  +17
OBN                                LR     LR
            comp=Z,1µm,20.0s,MS5.2
MOS   Moscow           82.45  34 eP       P       07 56 12.6 -2.4
PRGR  Permogore        83.68  26 eP       P       07 56 20.7 -0.6
PRGR                               pmax   pmax
            comp=Z,17nm,0.8s,mb5.2
BILL  Bilibino         85.05 342c iP      P       07 56 27.9 -0.2
BILL                             e        pP      07 56 37.5 -0.2
BILL                             e                08 06 55.5
BILL                               pmax   pmax
            comp=Z,28nm,1.8s,mb5.1
BILL  Bilibino         85.05 342 eP       P       07 56 27.9 -0.2
            comp=Z,23nm,1.1s,mb5.2
BILL                               LR     LR
            comp=Z,339nm,20.0s,MS4.7
VSR   Storozhevoye     85.09  37 eP       P       07 56 28.0 -0.6
VSR                                pmax   pmax
            comp=Z,7.0nm,1.2s,mb4.7
VSR                                pmax   pmax
            comp=N,10.0nm,1.8s
VSR                                pmax   pmax
            comp=E,10.0nm,1.3s
VSR   Storozhevoye     85.09  37 i P      P       07 56 28.7 +0.1
BRTR  Keskin Array B   85.92  49   P      P       07 56 33.2 +0.2
            comp=E,2.8nm,0.8s,mb4.5
BRTR                               LR     LR      08 31 37.5
            comp=E,245nm,21.7s,MS4.6,baz=282,slow=33
BRTR  Keskin Array B   85.92  49   P      P       07 56 33.2 +0.2
BRTR                               LR     LR      08 31 37.5
ANN   Anapa            86.61  44 eP       P       07 56 39.9 +3.6
ANN                                pmax   pmax
            comp=Z,68nm,1.5s,mb5.7
ANN                                MLR    MLR
            comp=Z,1µm,24.0s,MS5.2
SOC   Sochi            88.60  44 eP       P       07 56 46.2 +0.3
SOC                              eS       SKSac   08 07 04.8 -8.3
SOC                              e                08 07 36.1
SOC                                pmax   pmax
            comp=Z,9.0nm,0.8s,mb5.2
SOC                                MLR    MLR
            comp=Z,99nm,6.0s
PPT   Papeete          88.89 251 eS       S       08 07 33.9  0.0
            comp=Z,439nm,31.8s
PPT                              eLR      LR      08 25 19.6
            comp=Z,1µm,27.0s,baz=64
PPT   Papeete          88.89 251   LR     LR      08 30 19.9
            comp=Z,489nm,18.6s,MS5.0,baz=86,slow=31
TIXI  Tiksi            88.97 355 eP       P       07 56 45.9 -1.2
TIXI                               pmax   pmax
            comp=Z,8.0nm,1.3s,mb4.9
TIXI  Tiksi            88.97 355 eP       P       07 56 46.5 -0.5
            comp=Z,9.8nm,1.0s,mb5.1
MALT  Malatya          89.90  49 eP       P       07 56 53.2 +1.1
MALT                               pmax   pmax
            comp=Z,24nm,1.4s,mb5.3
MALT  Malatya          89.90  49 eP       P       07 56 53.2 +1.1
            comp=Z,24nm,1.4s,mb5.3
KIV   Kislovodsk       90.38  43 eP       P       07 56 56.1 +1.9
KIV                              e                08 07 23.9
KIV                                pmax   pmax
            comp=Z,8.0nm,1.0s,mb5.0
KIV   Kislovodsk       90.38  43   PFAKE          07 57 10.0  +16
KIV                                LR     LR
            comp=Z,446nm,20.0s,MS4.9
GNI   Garni            93.50  46⇑eP       P       07 57 08.9 +0.2
GNI                                pmax   pmax
            comp=Z,15nm,1.8s
GNI   Garni            93.50  46   PFAKE          07 57 20.0  +11
GNI                                LR     LR
            comp=Z,313nm,19.0s,MS4.8
PETK  Petropavlovsk-   98.52 335   LR     LR      08 43 03.3
            comp=Z,201nm,21.2s,MS4.6,baz=276,slow=36
BRVK  Borovoye         99.32  25   PFAKE          07 57 50.0  +15
BRVK                               LR     LR
            comp=Z,689nm,21.0s,MS5.1
BVAR  Borovoye Array   99.39  25   pP     pP      07 57 45.5 +0.7
            comp=Z,1.1nm,0.8s,baz=275,slow=5.4,SNR=5.8
KURK  Kurchatov       104.31  22   PFAKE          07 58 10.0  +13
KURK                               LR     LR
            comp=Z,503nm,20.0s,MS5.0
EKS2  Erkin-Say       108.82  30   PFAKE          08 02 40.0  +18
EKS2                               LR     LR
            comp=Z,663nm,19.0s,MS5.2
MKAR  Makanchi Array  108.92  22   PKKPbc PKKPbc  08 13 26.7 -4.4
            comp=Z,0.2nm,0.8s,baz=129,slow=3.9,SNR=4.2
MKAR                               PKKPab PKKPab  08 13 39.8 -5.4
            comp=Z,0.9nm,0.9s,baz=137,slow=5.0,SNR=5.2
AAK   Ala-Archa       109.17  29   PFAKE          08 02 40.0  +17
AAK                                LR     LR
            comp=Z,605nm,20.0s,MS5.2
TLY   Talaya          109.19   6   PFAKE          08 02 40.0  +17
TLY                                LR     LR
            comp=Z,266nm,20.0s,MS4.8
AML   Almayashu       109.19  30   PFAKE          08 02 40.0  +17
AML                                LR     LR
            comp=Z,552nm,20.0s,MS5.1
TKM2  Tokmak 2        109.45  28   PFAKE          08 02 40.0  +17
TKM2                               LR     LR
            comp=Z,561nm,20.0s,MS5.1
SONM  Songino Array   113.25   5   PKKPbc PKKPbc  08 13 13.5 -3.6
            comp=Z,0.5nm,0.6s,baz=161,slow=3.2,SNR=5.1
WMQ   Urumqi          113.35  20 ePKP     PKiKP   08 02 29.6 -1.1
WMQ                                LR     LR
            comp=Z,670nm,20.8s,MS5.2
CN2   Changchun       116.52 350 ePKP     PKPdf   08 02 41.4 +4.6
HHC   Hu-ho-hao-te    120.48   1 ePKP     PKPdf   08 02 42.4 -2.1
HHC                                sPKP           08 02 56.8
HHC                                PKS            08 06 17.9
HHC                                AMB    AMB
            comp=Z,140nm,5.4s
HHC                                LR     LR
            comp=N,270nm,14.3s,MS5.2
HHC                                LR     LR
            comp=E,280nm,13.1s,MS5.2
HHC                                LR     LR
            comp=Z,390nm,20.2s
GTA   Gaotai          120.63  12 ePKP     PKPdf   08 02 44.6 -0.3
GTA                                SKS    SKSdf   08 09 51.5 -3.4
GTA                                AMB    AMB
            comp=Z,83nm,4.8s
GTA                                LR     LR
            comp=N,290nm,18.6s,MS5.0
GTA                                LR     LR
            comp=E,200nm,18.0s,MS5.0
GTA                                LR     LR
            comp=Z,350nm,18.6s,MS5.0
BJI   Beijing         121.23 357   PKP    PKPdf   08 02 48.3 +2.3
BJI                                SS     SS      08 20 49.5 +3.8
BJI                                LR     LR
            comp=N,310nm,13.5s,MS5.4
BJI                                LR     LR
            comp=E,430nm,11.8s,MS5.4
BJI                                LR     LR
            comp=Z,300nm,24.7s
MAW   Mawson          122.05 160   PFAKE          08 03 00.0  +13
MAW                                LR     LR
            comp=Z,889nm,19.0s,MS5.4
KSRS  Korea Array     122.16 346   PKP    PKPdf   08 02 44.9 -3.0
            comp=Z,2.1nm,0.9s,baz=335,slow=1.8,SNR=4.3
MSEY  Mahe Island     122.16  83   PFAKE          08 03 00.0  +12
MSEY                               LR     LR
            comp=Z,723nm,20.0s,MS5.3
INCN  Inchon          122.41 347   PFAKE          08 03 00.0  +12
INCN                               LR     LR
            comp=Z,224nm,20.0s,MS4.8
LZH   Lanzhou         124.57   9 ePKP     PKPdf   08 02 49.0 -3.5
LZH                                sPKP           08 03 02.5
LZH                                SKKS   SKKSac  08 11 29.3 -6.3
LZH                                AMB    AMB
            comp=Z,170nm,5.2s
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LZH                                LR     LR
            comp=E,570nm,17.8s
LZH                                LR     LR
            comp=Z,710nm,18.3s,MS5.4
LSA   Lhasa           127.22  24   PFAKE          08 03 10.0  +12
LSA                                LR     LR
            comp=Z,331nm,21.0s,MS5.0
NJ2   Nanjing         128.97 354 ePKP     PKPdf   08 03 00.0 -1.0
CD2   Chengdu         129.62  10   PKP    PKPdf   08 03 00.3 -2.0
CD2                                sPKP           08 03 14.7
CD2                                PP     PP      08 05 13.8 +2.7
CD2                                PKS            08 06 35.4
CD2                                SKS    SKSdf   08 10 06.7 -5.4
CD2                                AMB    AMB
            comp=Z,270nm,5.9s
CD2                                LR     LR
            comp=N,290nm,13.1s
CD2                                LR     LR
            comp=Z,300nm,20.0s
WHN   Wuhan           130.76 358 ePKP     PKPdf   08 03 03.0 -1.5
GYA   Guiyang         134.43   8   Pdif   Pdif    08 00 12.2 +1.3
GYA                                PKP    PKPdf   08 03 13.6 +2.1
GYA                                PP     PP      08 05 48.9 +6.9
GYA                                PKS            08 06 48.9
GYA                                SKS    SKSdf   08 10 23.1 +2.2
GYA                                SKKS   SKKSac  08 12 37.8 +0.6
GYA                                SS     SS      08 23 32.6 +2.9
GYA                                AMB    AMB
            comp=Z,120nm,7.8s
GYA                                LR     LR
            comp=N,220nm,20.8s,MS5.0
GYA                                LR     LR
            comp=E,140nm,19.4s,MS5.0
GYA                                LR     LR
            comp=Z,160nm,20.6s,MS4.7
KMI   Kunming         135.05  13   PKP    PKPdf   08 03 14.9 +2.2
KMI                                sPKP           08 03 20.2
KMI                                PP     PP      08 05 52.7 +6.6
KMI                                SKKS   SKKSac  08 12 41.8 +0.8
KMI                                SS     SS      08 23 41.2 +3.8
KMI                                AMB    AMB
            comp=Z,170nm,5.7s
KMI                                LR     LR
            comp=Z,160nm,15.3s,MS4.9
CHTO  Chiang Mai      140.00  21   PFAKE          08 03 40.0  +18
CHTO                               LR     LR
            comp=Z,345nm,20.0s,MS5.1
CM31  Chiang Mai Arr  140.33  21   PFAKE          08 03 40.0  +17
CM31                               LR     LR
            comp=Z,247nm,19.0s,MS5.0
CMAR  Chiang Mai Arr  140.33  21   PKP    PKPdf   08 03 22.1 -0.5
            comp=Z,1.0nm,0.4s,baz=295,slow=3.0,SNR=7.2
CMAR                               SKP            08 06 53.7
            comp=Z,1.2nm,0.3s,baz=322,slow=3.2,SNR=4.7
CMAR                               SKPab          08 07 03.6
            comp=Z,0.9nm,0.3s,baz=325,slow=5.5,SNR=5.0
CMAR  Chiang Mai Arr  140.33  21   PKP    PKPdf   08 03 22.1 -0.5
CMAR                               SKP            08 06 53.7
CMAR                               SKPab          08 07 03.6
QIZ   Qiongzhong      142.12   5   PKP    PKPdf   08 03 23.9 -1.9
QIZ                                PP     PP      08 06 34.1 +4.4
QIZ                                LR     LR
            comp=N,320nm,22.0s
QIZ                                LR     LR
            comp=Z,410nm,20.5s,MS5.2
ARMA  Armidale        143.28 244 ePKP     PKPdf   08 03 23.0 -4.5
EIDS  Eidsvold        144.27 253 ePKPdf   PKPdf   08 03 25.7 -3.7
TOO   Toolangi        146.16 230 ePKP     PKPdf   08 03 31.4 -0.8
CTA   Charters Tower  148.69 262 ePKP     PKPdf   08 03 36.2 -0.7
            comp=Z,8.4nm,0.6s
CTA   Charters Tower  148.69 262   PKPbc  PKPdf   08 03 37.0  0.0
            comp=Z,20nm,1.1s,baz=43,slow=2.7,SNR=12
CTA   Charters Tower  148.69 262   PKPbc  PKPbc   08 03 37.0 -3.8
CTAO  Charters Tower  148.69 262 ePKIKP   PKPdf   08 03 35.6 -1.3
CTAO                             e                08 03 39.4
CTAO                               MLR    MLR
            comp=Z,356nm,19.0s,MS5.2
CTAO  Charters Tower  148.69 262 ePKPdf   PKPdf   08 03 35.6 -1.4
CTAO                             ePKPbc   PKPbc   08 03 39.4 -1.3
CTAO                               LR     LR
            comp=Z,356nm,19.0s,MS5.2
COEN  Coen            150.68 275 ePKPdf   PKPdf   08 03 44.0 +3.7
STKA  Stephens Creek  151.27 238 ePKP     PKPbc   08 03 45.4 -1.3
            comp=Z,22nm,0.8s
STKA  Stephens Creek  151.27 238   PKP    PKPdf   08 03 39.8 -0.9
            comp=Z,26nm,0.8s,baz=77,slow=2.3,SNR=5.7
STKA                               PKPbc  PKPbc   08 03 45.9 -0.7
            comp=Z,26nm,0.8s,baz=83,slow=3.3,SNR=33
STKA  Stephens Creek  151.27 238 ePKPdf   PKPdf   08 03 39.1 -1.6
STKA                               PKP    PKPdf   08 03 39.8 -0.9
STKA                               PKPbc  PKPbc   08 03 45.9 -0.7
STKA                             ePKPab   PKPab   08 03 52.8 -1.9
KSM   Kuching         159.52   8   PFAKE          08 04 10.0  +18
KSM                                LR     LR
            comp=Z,292nm,21.0s,MS5.1
WRAB  Tennant Creek   159.87 264   PFAKE          08 04 10.0  +17
WRAB                               LR     LR
            comp=Z,582nm,19.0s,MS5.4
WRA   Warramunga Arr  159.88 264   PKP    PKPdf   08 03 51.2 -1.3
            comp=Z,1.9nm,0.7s,baz=71,slow=1.0,SNR=13
WRA                                PP     PP      08 08 10.9 -3.1
            comp=Z,0.4nm,0.6s,baz=85,slow=4.9,SNR=5.5
WRA   Warramunga Arr  159.88 264   PKP    PKPdf   08 03 51.2 -1.3
WRA                                PP     PP      08 08 10.9 -3.1
ASAR  Alice Springs   160.00 253   PKIKP  PKPdf   08 03 50.6 -2.0
ASAR                                              08 03 58.7
ASAR                                              08 04 31.1
ASAR  Alice Springs   160.00 253   PKP    PKPdf   08 03 50.6 -2.0
            comp=Z,1.9nm,1.0s,baz=126,slow=1.5,SNR=9.7
ASAR                               pPKP   pPKPdf  08 03 58.6 -3.9
            comp=Z,3.0nm,1.1s,baz=115,slow=1.5,SNR=6.3
ASAR                               PKPab  PKPab   08 04 31.1 -1.2
            comp=Z,6.5nm,0.8s,baz=114,slow=2.1,SNR=4.1
ASAR                               pPKPab pPKPab  08 04 38.9 -3.2
            comp=Z,13nm,1.0s,baz=109,slow=4.2,SNR=14
ASAR  Alice Springs   160.00 253   PKP    PKPdf   08 03 50.6 -2.0
ASAR                               pPKP   pPKPdf  08 03 58.6 -3.9
ASAR                               PKPab  PKPab   08 04 31.1 -1.2
ASAR                               pPKPab pPKPab  08 04 38.9 -3.2
FITZ  Fitzroy Crossi  168.00 272 ePKP     PKPab   08 05 06.6 -1.0
            comp=Z,7.7nm,0.9s
FITZ  Fitzroy Crossi  168.00 272   PKPab  PKPab   08 05 06.7 -1.0
            comp=Z,4.6nm,0.9s,baz=80,slow=5.8,SNR=4.7
```

DDA ***04*** *07:49:47.4, 36°.41N×28°.19E, h7^{km}±7^{km}, Md3.1*
CSEM ***04*** *07:49:50.3±0.4, 36°.43N×28°.31E, h30^{km}, MD2.5, Error ellipse: s-maj=10.5km s-min=4.6km az=7.0*
ISK ***04*** *07:49:50.6, 36°.44N×28°.34E, h32^{km}, MD2.5*
ISCJB ***04*** *07:49:51.3±1.1, 36°.49N±0°.09×28°.35E±0°.06, h40^{km}±19^{km}, Error ellipse: s-maj=16.0km s-min=6.7km az=13.0*
ISC 04 07:49:51.0±1.2**, 36°.45N**±0°.08×**28°.33E**±0°.05**, h32**^{km}±6^{km}**,**
n20, σ**0^{s}.58**/32**, Dodecanese Islands**

```
Code  Station Name       Δ°   AZ°   Phase ID        Time       Res
                                    Op      ISC     h  m  s    ISC
DALT  Dalyan (Mudla)    0.40  37  ePG     Pb      07 50 00.4 +0.4
DALT                              eSG     Sb      07 50 07.3 +1.1
DALT  Dalyan (Mudla)    0.40  37  ePg     Pb      07 50 00.4 +0.4
DALT                              eSg     Sb      07 50 07.3 +1.1
TURN  Turunc            0.47  27  i P     Pb      07 50 00.3 -0.8
TURN                              i S     Sb      07 50 07.0 -1.0
TURN  Turunc            0.47  27  i P     Pb      07 50 00.3 -0.8
TURN                              i S     Sb      07 50 07.0 -1.0
FETY  Fethiye           0.63  73  ePG     Pb      07 50 03.4 -0.3
FETY                              eSG     Sb      07 50 12.7 +0.5
FETY  Fethiye           0.63  73  ePg     Pb      07 50 03.4 -0.3
FETY                              eSg     Sb      07 50 12.7 +0.5
DAT   Datca             0.67 295  ePG     Pb      07 50 04.4 +0.1
DAT   Datca             0.67 295  ePg     Pb      07 50 04.4 +0.1
YER   Yerkesik          0.68 357  ePG     Pn      07 50 04.4 -0.1
YER   Yerkesik          0.68 357  ePg     Pn      07 50 04.4 -0.1
BDRM  Kayabasi          0.94 311  i P     Pn      07 50 08.0 -0.1
BDRM                              i S     Sn      07 50 21.6 +1.2
BDRM  Kayabasi          0.94 311  i P     Pn      07 50 08.0  0.0
BDRM                              i S     Sn      07 50 21.6 +1.2
BODT  Bodrum            1.02 307  ePG     Pn      07 50 08.7 -0.5
BODT  Bodrum            1.02 307  ePg     Pn      07 50 08.7 -0.5
AKAS  Kas               1.05 102  i P     Pn      07 50 09.3 -0.2
AKAS  Kas               1.05 102  i P     Pn      07 50 09.3 -0.2
GOLH  Golhisar          1.26  51  i P     Pn      07 50 12.6 +0.2
GOLH                              i S     Sn      07 50 28.2  0.0
GOLH  Golhisar          1.26  51  i P     Pn      07 50 12.6 +0.2
```

GOLH				*i* S	**Sn**	**07 50 28.2**	**0.0**
GCAM	**G?zelcaml?**	**1.53**	**325**	*i* P	**Pn**	**07 50 15.9**	**-0.2**
GCAM				*i* S	**Sn**	**07 50 34.4**	**-0.4**
GCAM	**G?zelcaml?**	**1.53**	**325**	*i* P	**Pn**	**07 50 15.9**	**-0.2**
GCAM				*i* S	**Sn**	**07 50 34.4**	**-0.4**

ISCJB ***04*** *08:04:32.8±1.0, 5.°36S±0.°05×154.°23E±0.°06, h408^{km}±12^{km}, mb4.3/48, Error ellipse: s-maj=10.4km s-min=7.5km az=25.0*

NEIC ***04*** *08:04:33.5±1.1, 5.°30S×154.°24E, h402^{km}±12^{km}, mb4.6/19, Error ellipse: s-maj=9.4km s-min=7.4km az=136.0*

BJI ***04*** *08:04:34.0, 5.°11S×154.°41E, h419^{km}, mB4.7/16, mb4.2/25*

IDC ***04*** *08:04:34.4±0.6, 5.°39S×154.°16E, h411^{km}±6^{km}, mb3.9/19, mb1 4.0/21, mb1mx4.0/22, mbtmp3.9/21, Error ellipse: s-maj=12.5km s-min=7.8km az=104.0*

DJA ***04*** *08:04:40, 5.°45S×153.°69E, h449^{km}, mb4.9/7*

ISC 04 08:04:35.1±1.0**, 5.°39S**±0.°05×**154.°28E**±0.°06**, h420**^{km}±11^{km}**, h411**^{km}±2.3^{km}**:pP-P, n75,** σ**1.^{s}05**/81**, mb4.3**/48**, 2C, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	**6.91**	**126**	P	**P**	**08 06 16.5**	**-1.7**
	20nm,0.3s,baz=204,slow=4.9,SNR=3.9						
COEN	**Coen**	**13.86**	**231**	*e*Pn	**P**	**08 07 35.5**	**+0.8**
CTA	**Charters Tower**	**16.56**	**207**	⇑*i*P	**P**	**08 08 04.4**	**+0.8**
	46nm,0.6s						
CTA				*e*S	**S**	**08 10 56.7**	**+0.6**
CTA	**Charters Tower**	**16.56**	**207**	P	**P**	**08 08 04.2**	**+0.6**
	4.4nm,0.3s,baz=33,slow=11,SNR=81						
CTA				S	**S**	**08 10 57.0**	**+0.9**
	baz=233,slow=20,SNR=8.9						
CTAO	**Charters Tower**	**16.56**	**207**	*i* P	**P**	**08 08 04.4**	**+0.8**
	58nm,0.7s						
CTAO				*e*S	**S**	**08 10 57.5**	**+1.4**
DZM	**Mont Dzumac**	**20.34**	**146**	*e*P	**P**	**08 08 40.2**	**-1.1**
KAKA	**Kakadu**	**22.74**	**250**	*e*P	**P**	**08 09 01.4**	**-1.9**
	43nm,0.6s,mb5.1						
KAKA	**Kakadu**	**22.74**	**250**	*e*P	**P**	**08 09 01.5**	**-1.8**
	107nm,0.6s,mb5.5						
KAKA				*e*S	**S**	**08 12 42.6**	**+1.7**
WRAB	**Tennant Creek**	**24.18**	**232**	*e*P	**P**	**08 09 14.5**	**-1.6**
	53nm,0.9s,mb5.0						
WRAB				*e*S	**S**	**08 13 02.7**	**-0.7**
WB2	**Warramunga Arr**	**24.18**	**232**	*e*P	**P**	**08 09 16.1**	**-0.1**
WRA	**Warramunga Arr**	**24.19**	**232**	P	**P**	**08 09 16.0**	**-0.2**
	42nm,0.8s,mb4.9,baz=54,slow=9.3,SNR=48						
WRA				pP		08 10 21.7	
	6.5nm,1.0s,baz=60,slow=11,SNR=1.1						
WRA				PcP	PcP	08 12 44.3	+0.7
	2.4nm,0.8s,baz=56,slow=2.4,SNR=3.9						
WRA				S	**S**	**08 13 02.7**	**-0.9**
	4.1nm,0.8s,baz=62,slow=13,SNR=5.1						
WRA	**Warramunga Arr**	**24.19**	**232**	P	**P**	**08 09 16.0**	**-0.2**
WRA				pP		08 10 21.7	
WRA				PcP	PcP	08 12 44.3	+0.7
WRA				S	**S**	**08 13 02.7**	**-0.9**
ASAR	**Alice Springs**	**26.74**	**225**	P	**P**	**08 09 38.2**	**-0.7**
	9.4nm,0.8s,mb4.3,baz=56,slow=9.1,SNR=81						
ASAR				PcP	PcP	08 12 49.9	+0.5
	2.9nm,0.8s,baz=43,slow=3.8,SNR=5.4						
ASAR				S	**S**	**08 13 41.9**	**-1.8**
	6.3nm,0.6s,baz=55,slow=14,SNR=19						
STKA	**Stephens Creek**	**28.90**	**203**	*e*P	**P**	**08 09 57.8**	**0.0**
	2.8nm,1.1s,mb3.5						
STKA	**Stephens Creek**	**28.90**	**203**	P	**P**	**08 09 57.3**	**-0.5**
	1.5nm,0.4s,mb3.6,baz=28,slow=8.7,SNR=10						
STKA	**Stephens Creek**	**28.90**	**203**	*e*P	**P**	**08 09 58.5**	**+0.7**
	0.9nm,0.8s,mb3.1						
FITZ	**Fitzroy Crossi**	**30.69**	**243**	⇑*i*P	**P**	**08 10 12.1**	**-1.5**
	40nm,1.0s,mb4.7						
FITZ				*e*	pP	08 11 33.3	+3.8
FITZ	**Fitzroy Crossi**	**30.69**	**243**	P	**P**	**08 10 12.2**	**-1.4**
	13nm,0.5s,mb4.5,baz=74,slow=7.1,SNR=37						
FITZ	**Fitzroy Crossi**	**30.69**	**243**	*e*P	**P**	**08 10 12.2**	**-1.4**
	29nm,0.9s,mb4.6						
FITZ				*e*PP	PP	08 11 34.0	-0.4
FORT	**Forrest**	**35.29**	**221**	*e*P	**P**	**08 10 51.7**	**-1.0**
	32nm,0.7s,mb4.8						
FORT	**Forrest**	**35.29**	**221**	*e*P	**P**	**08 10 52.4**	**-0.3**
	38nm,0.8s,mb4.8						
MBWA	**Marble Bar**	**36.97**	**242**	*e*P	**P**	**08 11 05.5**	**-1.4**
	4.6nm,0.5s,mb4.1						
URZ	**Urewera**	**38.75**	**151**	P	**P**	**08 11 22.8**	**+1.5**
	4.3nm,0.4s,mb4.1,baz=47,slow=7.4,SNR=6.5						
KKM	**Kota Kinabalu**	**39.66**	**286**	*e*P	**P**	**08 11 29.1**	**0.0**
	29nm,1.0s,mb4.6						
RPZ	**Rata Peaks**	**40.93**	**161**	P	**P**	**08 11 38.9**	**0.0**
	24nm,0.7s,mb4.7,baz=248,slow=0.3,SNR=8.1						
NWAO	**Narrogin (SRO)**	**44.04**	**227**	*e*P	**P**	**08 12 05.3**	**+1.6**
	32nm,0.8s,mb4.7						
MJAR	**Matsushiro Arr**	**44.34**	**341**	P	**P**	**08 12 04.1**	**-1.9**
	0.8nm,0.3s,mb3.5,baz=172,slow=8.1,SNR=6.5						
MJAR				PcP	PcP	08 13 42.2	+0.7
	2.2nm,0.9s,baz=164,slow=4.8,SNR=4.1						
MAT	**Matsushiro**	**44.34**	**341**	P	**P**	**08 12 04.5**	**-1.5**
KSM	**Kuching**	**44.44**	**278**	P	**P**	**08 12 07.7**	**+0.5**
KSRS	**Korea Array**	**49.20**	**332**	P	**P**	**08 12 42.6**	**-0.4**
	4.0nm,0.9s,mb3.7,baz=141,slow=8.4,SNR=6.6						
NJ2	**Nanjing**	**50.23**	**320**	*e*P	**P**	**08 12 52.8**	**+2.0**
NJ2				pmax	pmax		
	comp=Z,40nm,0.9s,mb4.8						
ASAJ	**Asahikawa**	**50.39**	**349**	P	**P**	**08 12 52.0**	**+0.2**
	comp=Z,3.3nm,0.6s,mb3.9,baz=209,slow=17,SNR=5.7						
MDJ	**Mudanjiang**	**54.50**	**339**	P	**P**	**08 13 21.2**	**-0.2**
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb3.9						
MDJ				pmax	pmax		
	comp=Z,130nm,5.3s						
CN2	**Changchun**	**55.45**	**335**	*e*P	**P**	**08 13 29.5**	**+1.4**
GYA	**Guiyang**	**55.92**	**307**	P	**P**	**08 13 33.0**	**+1.2**
GYA				PcP	PcP	08 14 26.8	+2.1
GYA				sP	sP	08 15 48.6	+4.5
GYA				ScP	ScP	08 17 42.8	-0.1
GYA				PcS	PcS	08 18 25.0	-0.8
GYA				S	**S**	**08 20 45.7**	**-1.0**
GYA				ScS	ScS	08 22 34.5	-2.9
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.1						
BJI	**Beijing**	**57.20**	**326**	P	**P**	**08 13 40.5**	**+0.1**
BJI				pP	pP	08 15 05.6	-1.6
BJI				PP	PP	08 15 52.4	-1.0
BJI				sP	sP	08 15 55.8	+2.7
BJI				S	**S**	**08 20 59.0**	**-3.8**
BJI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
BJI				pmax	pmax		
	comp=Z,150nm,4.3s						
XAN	**Xi'an**	**58.06**	**316**	P	**P**	**08 13 46.1**	**-0.4**
XAN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.0						
XAN				pmax	pmax		
	comp=Z,70nm,4.3s						
PETK	**Petropavlovsk-**	**58.35**	**2**	P	**P**	**08 13 47.9**	**-0.2**
	comp=Z,3.3nm,0.6s,mb3.8,baz=142,slow=6.1,SNR=17						
KMI	**Kunming**	**58.53**	**304**	P	**P**	**08 13 53.3**	**+3.4**
KMI				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.1						
CMAR	**Chiang Mai Arr**	**59.46**	**295**	P	**P**	**08 13 57.5**	**+1.3**
	comp=Z,2.3nm,0.6s,mb3.7,baz=120,slow=5.3,SNR=8.6						
CMAR				pP	pP	08 15 23.2	-0.6
	comp=Z,1.3nm,0.3s,baz=103,slow=5.4,SNR=2.7						
CD2	**Chengdu**	**60.24**	**310**	P	**P**	**08 14 03.0**	**+1.7**
CD2				PcP	PcP	08 14 43.3	+1.5
CD2				PP	PP	08 16 24.5	+4.2
CD2				S	**S**	**08 21 41.1**	**-0.8**
CD2				SS	SS	08 25 49.2	+1.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.5						
CD2				pmax	pmax		
	comp=Z,150nm,5.1s						
HHC	**Hu-ho-hao-te**	**60.39**	**324**	*e*P	**P**	**08 14 01.8**	**-0.2**
HHC				pP	pP	08 15 29.4	-0.6
HHC				sP	sP	08 16 13.0	-2.6
HHC				PP	PP	08 16 22.1	+0.7
HHC				PcS	PcS	08 18 44.0	-1.1
HHC				*e*S	**S**	**08 21 41.8**	**-1.6**
HHC				sS	sS	08 24 15.1	-5.3
HHC				SS	SS	08 25 49.2	-0.9
HHC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
HHC				pmax	pmax		
	comp=Z,170nm,4.1s						
LZH	**Lanzhou**	**62.68**	**315**	*e*P	**P**	**08 14 18.5**	**+1.2**
LZH				PcP	PcP	08 14 52.5	+0.9
LZH				PP	PP	08 16 44.0	+2.4
LZH				*e*S	**S**	**08 22 09.0**	**-3.0**
LZH				SS	SS	08 26 22.4	-3.6
LZH				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.7						
LZH				pmax	pmax		
	comp=Z,170nm,5.9s						
GTA	**Gaotai**	**67.09**	**317**	*e*P	**P**	**08 14 46.3**	**+1.1**
GTA				pP	pP	08 16 21.8	+6.4
GTA				S	S	08 23 06.0	+0.9
GTA				SS	SS	08 27 38.5	+4.4
GTA				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.1						
GTA				pmax	pmax		
	comp=Z,99nm,7.8s						
SONM	**Songino Array**	**67.61**	**327**	P	**P**	**08 14 49.0**	**+0.8**
	comp=Z,5.3nm,0.8s,mb4.2,baz=137,slow=6.0,SNR=23						
SONM				PcP	PcP	08 15 10.2	-1.7
	comp=Z,0.4nm,0.4s,baz=146,slow=4.6,SNR=5.3						
VNDA	**Vanda**	**72.19**	**178**	P	**P**	**08 15 16.4**	**+1.1**
	comp=Z,4.5nm,0.8s,mb4.0,baz=326,slow=7.0,SNR=8.6						
BILL	**Bilibino**	**73.75**	**5**	*e*P	**P**	**08 15 24.5**	**+0.1**
	comp=Z,15nm,1.1s,mb4.5						
WMQ	**Urumqi**	**77.17**	**317**	*e*P	**P**	**08 15 45.0**	**+0.9**
WMQ				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
TIXI	**Tiksi**	**78.68**	**352**	*e*P	**P**	**08 15 52.7**	**+1.0**
	comp=Z,10nm,1.5s,mb4.2						
MCK	**McKinley**	**80.85**	**22**	*e*P	**P**	**08 16 02.3**	**-1.0**
	comp=Z,28nm,1.2s,mb4.9						
MK31	**Makanchi Array**	**81.74**	**319**	*e*P	**P**	**08 16 08.6**	**+0.2**
MKAR	**Makanchi Array**	**81.74**	**319**	P	**P**	**08 16 08.4**	**+0.1**
	comp=Z,9.8nm,0.8s,mb4.6,baz=103,slow=5.6,SNR=63						
COLA	**College**	**81.86**	**21**	*e*P	**P**	**08 16 07.5**	**-1.0**
	comp=Z,21nm,1.3s,mb4.7						
COLA				*e*pP	pP	08 17 40.5	-2.5
ZAA0	**Zalesovo Array**	**82.46**	**326**	*e*P	**P**	**08 16 11.2**	**-0.7**
ZAA0				*e*pP	pP	08 17 43.4	-3.1
ZALV	**Zalesovo Beam**	**82.46**	**326**	P	**P**	**08 16 11.0**	**-0.9**
	comp=Z,3.4nm,0.6s,mb4.3,baz=104,slow=6.3,SNR=19						
EGAK	**Eagle**	**84.33**	**23**	*e*P	**P**	**08 16 21.3**	**+0.3**
	comp=Z,8.4nm,0.9s,mb4.5						
EGAK				*e*pP	pP	08 17 55.4	-0.8
EGAK				*e*sP	sP	08 18 40.2	+0.4
KSH	**Kashi**	**84.44**	**310**	*e*P	**P**	**08 16 24.2**	**+2.1**
KSH				*e*PP	PP	08 19 44.1	-0.4
KSH				*e*S	S	08 26 04.7	-7.9
KSH				*e*sS	sS	08 29 01.1	-0.8
KSH				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
KSH				pmax	pmax		
	comp=Z,180nm,6.9s						
QSPA	**South Pole Qui**	**84.57**	**180**	*e*P	**P**	**08 16 23.2**	**+1.2**
	comp=Z,20nm,0.9s,mb4.9						
DAWY	**Dawson**	**84.73**	**24**	*e*P	**P**	**08 16 23.9**	**+1.0**
KURK	**Kurchatov**	**85.14**	**322**	*e*P	**P**	**08 16 24.4**	**-1.0**
	comp=Z,7.3nm,1.3s,mb4.2						
TKM2	**Tokmak 2**	**85.40**	**314**	*e*P	**P**	**08 16 26.1**	**-0.7**
	comp=Z,2.0nm,0.7s,mb4.0						
MAW	**Mawson**	**85.59**	**203**	P	**P**	**08 16 27.3**	**+0.1**
	comp=Z,4.0nm,0.7s,mb4.3,baz=100,slow=8.8,SNR=4.2						
AAK	**Ala-Archa**	**86.14**	**313**	*e*P	**P**	**08 16 30.2**	**-0.2**
	comp=Z,2.8nm,0.8s,mb4.0						
EKS2	**Erkin-Say**	**86.66**	**313**	*e*P	**P**	**08 16 33.2**	**+0.3**
	comp=Z,2.7nm,0.8s,mb4.0						
BRVK	**Borovoye**	**90.66**	**323**	*e*P	**P**	**08 16 50.0**	**-1.2**
	comp=Z,6.0nm,1.0s,mb4.4						
NVAR	**Mina Array Bea**	**91.29**	**52**	P	**P**	**08 16 55.4**	**+0.8**
	comp=Z,3.2nm,0.9s,mb4.1,baz=257,slow=5.3,SNR=9.3						
YKA	**Yellowknife Ar**	**95.26**	**28**	P	**P**	**08 17 11.8**	**-0.3**
	comp=Z,0.5nm,0.6s,mb3.7,baz=270,slow=4.6,SNR=9.9						
YKA				pP	pP	08 18 46.8	-2.1
	comp=Z,0.7nm,0.8s,baz=271,slow=5.0,SNR=7.8						
PDAR	**Pinedale Array**	**98.16**	**48**	P	**P**	**08 17 24.9**	**-0.8**
	comp=Z,0.5nm,0.9s,mb3.8,baz=212,slow=4.3,SNR=3.8						
SDCO	**Great Sand Dun**	**101.36**	**53**	*e*Pdif	Pdif	08 17 41.3	+1.6
KIS	**Kishinev**	**117.61**	**321**	*e*L		08 22 00.0	
KIS				LRM		08 30 00.0	
	comp=Z,900nm,20.0s						
PLCA	**Paso Flores**	**118.42**	**142**	PKP	PKPdf	08 22 34.6	+0.6
	comp=Z,2.5nm,1.1s,baz=225,slow=2.9,SNR=3.9						
LCO	**Las Campanas**	**124.88**	**131**	*e*PKPdf	PKPdf	08 22 48.1	+1.3
GERES	**GERESS Array B**	**125.32**	**329**	PKP	PKPdf	08 22 46.9	0.0
	comp=Z,1.0nm,0.8s,baz=50,slow=1.5,SNR=4.7						
SDV	**Santo Domingo**	**135.32**	**83**	*e*PKPdf	PKPdf	08 23 07.8	+0.9
TORD	**Torodi Ar. Bea**	**151.89**	**288**	PKPbc	PKPbc	08 23 41.6	-0.7
	comp=Z,3.2nm,0.9s,baz=72,slow=2.3,SNR=12						
TORD				PKPab	PKPab	08 23 52.7	-0.6
	comp=Z,2.2nm,1.1s,baz=74,slow=4.7,SNR=5.9						
TORD				pPKP	pPKPdf	08 25 16.1	-1.8
	comp=Z,1.5nm,0.8s,baz=80,slow=2.8,SNR=4.2						
TORD				pPKPbc	pPKPbc	08 25 20.5	-3.4
	comp=Z,1.4nm,0.8s,baz=129,slow=2.6,SNR=5.4						

NEIC ***04*** *08:19:14.3, 19.°01N×67.°05W, h15^{km}, MD3.5(RSPR), After RSPR.*

RSPR 04 08:19:14.3, 19.°01N×67.°05W, h15^{km}±1^{km}**, MD3.5**/6**, MD3.5**/6**, 4C-3D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGPR	**Aguadilla, PR**	**0.55**	**186**	⇓*e*P	Pg	08 19 24.2	-0.9
AGPR				*e*S	Sg	08 19 32.1	-0.3
AOPR	**Arecibo Observ**	**0.72**	**157**	⇑*e*P	Pg	08 19 26.4	-2.0
AOPR				*e*S	Sg	08 19 36.1	-1.7
LSP	**Las Mesas**	**0.83**	**183**	⇓*e*P	Pb	08 19 28.4	-2.1
LSP				*e*S	Sg	08 19 39.5	-2.0
CRPR	**Cabo Rojo, PR**	**1.00**	**183**	⇑*e*P	Pb	08 19 30.9	-2.5
CRPR				*e*S	Sb	08 19 43.8	-2.6
OBIP	**Obispado Ponce**	**1.05**	**156**	⇓*e*P	Pb	08 19 31.5	-2.8
OBIP				*e*S	Sb	08 19 44.6	-3.2
CBYP	**Canovanas**	**1.35**	**123**	⇑*e*P	Pn	08 19 35.9	-2.7
CBYP				*e*S	Sn	08 19 52.0	-4.2
HUMP	**Col San Antoni**	**1.43**	**127**	*e*S	Sn	08 19 54.9	-3.3
MTP	**Monte Pirata**	**1.68**	**122**	⇑*e*P	Pn	08 19 39.9	-3.3

IDC ***04*** *08:26:46.6±0.7, 9.°40S×107.°44E, h0^{km}, mb4.6/13, mb1 4.6/14, mb1mx4.5/19, mbtmp4.5/14, ML4.2/1, Error ellipse: s-maj=28.9km s-min=13.7km az=57.0*

MOS ***04*** *08:26:49.7±1.0, 9.°32S×107.°55E, h33^{km}, mb5.1/18, Error ellipse: s-maj=16.2km s-min=7.6km az=112.2*

ISCJB ***04*** *08:26:50.0±0.7, 9.°47S±0.°05×107.°49E±0.°04, h39^{km}±5^{km}, mb4.9/65, MS4.5/9, Error ellipse: s-maj=8.2km s-min=5.5km az=31.2*

NEIC ***04*** *08:26:51.9±0.4, 9.°46S×107.°40E, h35^{km}, mb4.9/17, Error ellipse: s-maj=14.2km s-min=8.3km az=224.0*

DJA ***04*** *08:26:52, 9.°39S×107.°54E, h29^{km}, mb5.1/12*

BJI ***04*** *08:26:52.8, 8.°83S×107.°99E, h35^{km}, mB5.2/25, mb4.9/40, Ms4.7/23, Ms7 4.4/22*

ISC 04 08:26:52.5±0.7**, 9.°43S**±0.°05×**107.°51E**±0.°04**, h43**^{km}±5^{km}**, h37**^{km}±.6^{km}**:pP-P, n152,** σ**0.^{s}89**/143**, mb4.9**/65**, MS4.5**/9**, 9C-3D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	**Christmas Isla**	**2.10**	**240**	⇑*i*P	**Pn**	**08 27 20.7**	**-4.5**
XMIS				*e*S	**Sn**	**08 27 41.4**	**-8.7**
XMIS	**Christmas Isla**	**2.10**	**240**	*e*Pn	**Pn**	**08 27 20.4**	**-4.8**
XMIS				*e*Sn	**Sn**	**08 27 43.1**	**-7.0**
CLJI	**Cilicap**	**2.27**	**41**	P	**Pn**	**08 27 25.2**	**-2.2**
LEM	**Lembang**	**2.59**	**2**	⇓*e*P	**Pn**	**08 27 31.9**	**-0.1**
LEM				*e*S	**Sn**	**08 28 08.2**	**+6.0**
LEM	**Lembang**	**2.59**	**2**	P	**Pn**	**08 27 31.5**	**-0.5**
DBJI	**Dramaga**	**2.96**	**345**	P	**Pn**	**08 27 37.1**	**+0.1**
CBJI	**Citeko**	**3.06**	**348**	P	**Pn**	**08 27 34.1**	**-4.3**
UGM	**Wanagama**	**3.34**	**63**	P	**Pn**	**08 27 42.0**	**-0.3**
SBJI	**Serang**	**3.56**	**337**	P	**Pn**	**08 27 44.6**	**-0.7**
SMRI	**Semarang**	**3.75**	**51**	P	**Pn**	**08 27 48.2**	**+0.4**
SJI	**Sawahan**	**4.54**	**68**	P	**Pn**	**08 27 58.5**	**-0.2**
KRKI	**Karangkates**	**5.05**	**76**	⇑*e*P	**Pn**	**08 28 06.2**	**+0.5**
TRT	**Tretes**	**5.36**	**72**	⇓*e*P	**Pn**	**08 28 10.5**	**+0.6**
TRT				*e*S	**Sn**	**08 29 11.0**	**+0.6**
NBBI	**Negara**	**7.11**	**82**	P	**Pn**	**08 28 35.8**	**+1.8**
	513nm,0.8s,6µm1.9nm						
KSI	**Kapahiang**	**7.54**	**319**	P	**Pn**	**08 28 38.0**	**-1.9**
	138nm,0.8s,1.1nm						
IGBI	**Denpasar**	**7.57**	**86**	P	**Pn**	**08 28 39.6**	**-0.7**
	295nm,0.5s,2.3nm						
DNP	**Denpasar**	**7.65**	**85**	P	**Pn**	**08 28 42.1**	**+0.7**
	490nm,0.5s,5.7nm						
KHKI	**Kahang-Kahang**	**8.08**	**83**	P	**Pn**	**08 28 46.6**	**-0.7**
	107nm,0.8s						
SBUM	**Sibu**	**12.71**	**22**	P	Px	08 30 02.8	
PSI	**Prapat**	**14.86**	**324**	Pn	**Pn**	**08 30 23.8**	**+3.9**
	0.9nm,0.3s,baz=129,slow=4.2,SNR=4.3						
PSI	**Prapat**	**14.86**	**324**	Pn	**Pn**	**08 30 23.8**	**+3.9**
IPM	**Ipoh**	**15.26**	**335**	P	**Pn**	**08 30 29.1**	**+4.0**
	30nm,1.0s						
MBWA	**Marble Bar**	**16.57**	**136**	*e*Pn	**Pn**	**08 30 37.6**	**-4.1**
	73nm,2.0s						
MBWA	**Marble Bar**	**16.57**	**136**	P	**Pn**	**08 30 40.4**	**-1.4**
	18nm,1.9s						
BSI	**Banda Aceh**	**19.18**	**320**	P	**Pn**	**08 31 14.2**	**+0.2**
	80nm,0.9s,886nm						
FITZ	**Fitzroy Crossi**	**19.59**	**118**	*e*P	**Pn**	**08 31 17.7**	**-1.1**
	11nm,0.9s						
FITZ	**Fitzroy Crossi**	**19.59**	**118**	P	**Pn**	**08 31 18.1**	**-0.7**
	0.5nm,0.3s,baz=278,slow=5.9,SNR=17						
FITZ	**Fitzroy Crossi**	**19.59**	**118**	*e*P	**Pn**	**08 31 18.1**	**-0.7**
	6.8nm,0.8s						
FITZ				*e*S	**S**	**08 34 44.2**	**-12**
FITZ	**Fitzroy Crossi**	**19.59**	**118**	P	**Pn**	**08 31 17.4**	**-1.4**
	19nm,0.9s						
KAKA	**Kakadu**	**24.68**	**100**	*e*P	**P**	**08 32 09.4**	**-0.2**
	16nm,0.6s,mb4.7						
KAKA	**Kakadu**	**24.68**	**100**	*e*P	**P**	**08 32 09.5**	**-0.2**
	52nm,0.7s,mb5.2						
WRA	**Warramunga Arr**	**27.93**	**115**	P	**P**	**08 32 39.0**	**0.0**
	3.7nm,0.5s,mb4.3,baz=288,slow=11,SNR=29						
WRA				PcP	PcP	08 35 54.8	+1.0
	1.5nm,0.6s,baz=296,slow=2.1,SNR=7.8						
WRAB	**Tennant Creek**	**27.94**	**115**	*e*P	**P**	**08 32 38.9**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.4						
WRAB	**Tennant Creek**	**27.94**	**115**	*e*P	**P**	**08 32 38.9**	**-0.1**
	comp=Z,12nm,1.2s,mb4.4						
WRAB	**Tennant Creek**	**27.94**	**115**	P	**P**	**08 32 39.2**	**+0.2**
	comp=Z,9.9nm,1.1s,mb4.3						
WB2	**Warramunga Arr**	**27.95**	**115**	*e*P	**P**	**08 32 39.0**	**-0.1**
ASAR	**Alice Springs**	**28.92**	**123**	P	**P**	**08 32 48.0**	**+0.3**
	comp=Z,2.6nm,0.6s,mb4.1,baz=302,slow=8.4,SNR=31						
ASAR				PcP	PcP	08 35 57.5	+1.4
	comp=Z,2.0nm,0.6s,baz=304,slow=2.3,SNR=7.7						
CMAR	**Chiang Mai Arr**	**28.97**	**343**	P	**P**	**08 32 48.5**	**+0.3**
	comp=Z,9.6nm,0.7s,mb4.6,baz=179,slow=9.0,SNR=50						
CHTO	**Chiang Mai**	**29.31**	**343**	*e*P	**P**	**08 32 51.2**	**+0.1**
CHTO				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.8						
CHTO	**Chiang Mai**	**29.31**	**343**	*e*P	**P**	**08 32 51.2**	**0.0**
	comp=Z,19nm,1.0s,mb4.8						
CHTO	**Chiang Mai**	**29.31**	**343**	P	**P**	**08 32 51.4**	**+0.3**
	comp=Z,25nm,1.0s,mb4.9						
KMI	**Kunming**	**34.66**	**352**	P	**P**	**08 33 40.2**	**+2.2**
KMI				S	**S**	**08 39 06.4**	**+1.5**
KMI				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
KMI				LR	LR		
	comp=N,180nm,17.2s,MS4.3						
KMI				LR	LR		
	comp=E,450nm,15.2s,MS4.3						
KMI				LR	LR		
	comp=Z,160nm,13.3s,MS3.9						
COEN	**Coen**	**35.19**	**101**	⇑*i*P	**P**	**08 33 43.4**	**+0.6**
COEN	**Coen**	**35.19**	**101**	*e*P	**P**	**08 33 43.5**	**+0.7**
	comp=Z,23nm,0.6s,mb5.3						
COEN	**Coen**	**35.19**	**101**	P	**P**	**08 33 41.8**	**-1.0**
GYA	**Guiyang**	**35.69**	**359**	⇑*i*P	**P**	**08 33 47.9**	**+1.1**
GYA				pP	pP	08 33 58.3	-0.2
GYA				sP	sP	08 34 01.8	-1.8
GYA				PP	PP	08 35 08.2	-0.4
GYA				PcP	PcP	08 36 19.0	+4.4
GYA				S	**S**	**08 39 19.3**	**-1.3**
GYA				sS	sS	08 39 37.4	-2.7
GYA				ScP	ScP	08 40 01.2	+3.8
GYA				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
GYA				pmax	pmax		
	comp=Z,120nm,4.9s						
GYA				LR	LR		
	comp=N,530nm,16.7s,MS4.5						
GYA				LR	LR		
	comp=E,540nm,15.8s,MS4.5						
GYA				LR	LR		
	comp=Z,470nm,16.0s,MS4.3						
SHL	**Shillong**	**37.97**	**337**	*e*PKP	**P**	**08 34 06.5**	**+0.2**
STKA	**Stephens Creek**	**38.67**	**130**	*e*P	**P**	**08 34 12.2**	**0.0**
	comp=Z,4.3nm,0.5s,mb4.4						
STKA	**Stephens Creek**	**38.67**	**130**	P	**P**	**08 34 12.6**	**+0.4**
	comp=Z,8.1nm,0.7s,mb4.6,baz=292,slow=6.5,SNR=18						
STKA				PcP	PcP	08 36 24.4	+0.7
	comp=Z,2.2nm,0.6s,baz=1.5,slow=5.2,SNR=2.9						
STKA	**Stephens Creek**	**38.67**	**130**	*e*P	**P**	**08 34 12.7**	**+0.5**
	comp=Z,1.4nm,0.8s,mb3.7						
HYB	**Hyderabad**	**39.12**	**313**	*i* P	**P**	**08 34 18.0**	**+1.9**
HYB	**Hyderabad**	**39.12**	**313**	*e*P	**P**	**08 34 16.0**	**-0.1**
CD2	**Chengdu**	**40.27**	**355**	P	**P**	**08 34 25.6**	**+0.2**
CD2				pP	pP	08 34 35.4	-1.9
CD2				sP	sP	08 34 39.3	-3.0
CD2				PcP	PcP	08 36 31.0	+2.3
CD2				sS	sS	08 40 45.1	-4.6
CD2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.3						
CD2				pmax	pmax		
	comp=Z,110nm,4.2s						
CD2				LR	LR		
	comp=N,350nm,8.9s						
CD2				LR	LR		
	comp=Z,280nm,8.3s						
WHN	**Wuhan**	**40.29**	**9**	P	**P**	**08 34 25.0**	**-0.6**
ODAN	**Odare**	**41.02**	**332**	*e*P	**P**	**08 34 32.3**	**+0.6**
	comp=Z,34nm,0.5s,mb5.2						
TAPN	**Taplejung**	**41.30**	**333**	*e*P	**P**	**08 34 34.9**	**+1.0**
	comp=Z,53nm,0.8s,mb5.2						
RAMN	**Ramite**	**41.47**	**331**	*e*P	**P**	**08 34 36.1**	**+0.7**
CMSA	**Cobar Meteorol**	**41.67**	**127**	⇑*i*P	**P**	**08 34 38.0**	**+0.9**
LSA	**Lhasa**	**41.98**	**339**	*e*P	**P**	**08 34 40.7**	**+1.2**
LSA				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.0						
LSA	**Lhasa**	**41.98**	**339**	*e*P	**P**	**08 34 40.7**	**+1.2**
	comp=Z,26nm,0.7s,mb5.0						
JIRN	**Jiri**	**42.26**	**331**	*e*P	**P**	**08 34 42.8**	**+1.0**
	comp=Z,11nm,0.3s,mb4.9						
PKI	**Pulchoki**	**42.56**	**330**	*e*P	**P**	**08 34 44.6**	**+0.3**
GUN	**Gumba**	**42.62**	**331**	*e*P	**P**	**08 34 45.6**	**+0.9**
	comp=Z,48nm,0.7s,mb5.3						
NJ2	**Nanjing**	**42.65**	**14**	*e*P	**P**	**08 34 45.0**	**0.0**
NJ2				sP	sP	08 34 56.0	-5.9
NJ2				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
DMN	**Daman**	**42.74**	**330**	*e*P	**P**	**08 34 46.3**	**+0.6**
	comp=Z,51nm,0.8s,mb5.3						
KKN	**Kakani**	**42.81**	**330**	*e*P	**P**	**08 34 46.7**	**+0.4**
	comp=Z,45nm,0.9s,mb5.2						
XAN	**Xi'an**	**43.25**	**2**	P	**P**	**08 34 49.2**	**-0.6**
XAN				pP	pP	08 35 00.3	-1.4
XAN				PP	PP	08 36 31.5	+0.5
XAN				S	**S**	**08 41 09.4**	**-4.6**
XAN				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.3						
XAN				pmax	pmax		
	comp=Z,41nm,4.8s						
XAN				LR	LR		
	comp=N,190nm,20.0s,MS4.3						
XAN				LR	LR		
	comp=E,300nm,18.2s,MS4.3						
XAN				LR	LR		
	comp=Z,310nm,16.4s,MS4.3						
GKN	**Gorkha**	**43.30**	**330**	*e*P	**P**	**08 34 50.7**	**+0.5**
KOLN	**Koldanda**	**43.63**	**329**	*e*P	**P**	**08 34 53.5**	**+0.6**
	comp=Z,77nm,0.8s,mb5.5						
DANN	**Dangsing**	**44.02**	**329**	*e*P	**P**	**08 34 56.6**	**+0.5**
	comp=Z,73nm,0.7s,mb5.5						
PYUN	**Piuthan**	**44.21**	**328**	*e*P	**P**	**08 34 57.9**	**+0.3**
	comp=Z,86nm,1.0s,mb5.4						
LZH	**Lanzhou**	**45.41**	**356**	*e*P	**P**	**08 35 07.3**	**+0.3**
LZH				pP	pP	08 35 17.9	-1.0
LZH				sP	sP	08 35 21.5	-2.4
LZH				PP	PP	08 36 52.0	-1.9
LZH				*e*S	**S**	**08 41 41.0**	**-4.2**
LZH				sS	sS	08 42 01.1	-4.0
LZH				*e*SS	SS	08 44 59.1	-11
LZH				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.2						
LZH				pmax	pmax		
	comp=Z,270nm,7.1s						

LZH				LR	LR		
	comp=E,900nm,14.0s						
LZH				LR	LR		
	comp=Z,1µm,16.0s,MS4.9						
GTA	**Gaotai**	**49.12**	**352**	⇑P	**P**	**08 35 37.2**	**+1.4**
GTA				pP	pP	08 35 47.2	-0.7
GTA				sP	sP	08 35 51.5	-1.3
GTA				S	**S**	**08 42 39.4**	**+1.4**
GTA				sS	sS	08 42 55.9	-2.1
GTA				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.7						
GTA				pmax	pmax		
	comp=Z,130nm,4.2s						
GTA				LR	LR		
	comp=N,300nm,22.5s,MS4.4						
GTA				LR	LR		
	comp=E,200nm,18.0s,MS4.4						
GTA				LR	LR		
	comp=Z,360nm,21.6s,MS4.3						
BJT	**Baijiatuau**	**49.85**	**9**	*e*P	**P**	**08 35 41.0**	**-0.4**
BJT				pmax	pmax		
	comp=Z,12nm,0.5s						
BJT	**Baijiatuau**	**49.85**	**9**	*e*P	**P**	**08 35 41.0**	**-0.4**
	comp=Z,12nm,0.5s,mb5.2						
BJI	**Beijing**	**49.87**	**9**	P	**P**	**08 35 40.8**	**-0.7**
BJI				pP	pP	08 35 51.2	-2.4
BJI				PP	PP	08 37 37.0	+0.2
BJI				S	**S**	**08 42 46.7**	**-1.8**
BJI				sS	sS	08 43 03.6	-5.1
BJI				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
BJI				pmax	pmax		
	comp=Z,130nm,4.0s						
BJI				LR	LR		
	comp=N,370nm,16.5s,MS4.7						
BJI				LR	LR		
	comp=E,380nm,14.6s,MS4.7						
BJI				LR	LR		
	comp=Z,220nm,21.2s						
HHC	**Hu-ho-hao-te**	**50.17**	**4**	*e*P	**P**	**08 35 44.8**	**+1.0**
HHC				pP	pP	08 35 54.6	-1.3
HHC				sP	sP	08 35 58.2	-2.7
HHC				PP	PP	08 37 39.7	+0.2
HHC				PcS	PcS	08 41 01.2	+1.6
HHC				*e*S	**S**	**08 42 51.2**	**-1.4**
HHC				sS	sS	08 43 07.3	-5.5
HHC				ScS	ScS	08 45 30.2	-1.3
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
HHC				pmax	pmax		
	comp=Z,160nm,4.8s						
HHC				LR	LR		
	comp=N,210nm,15.5s,MS4.4						
HHC				LR	LR		
	comp=E,240nm,17.8s,MS4.4						
HHC				LR	LR		
	comp=Z,390nm,18.6s,MS4.4						
KSRS	**Korea Array**	**50.41**	**21**	P	**P**	**08 35 46.4**	**+0.7**
	comp=Z,2.3nm,0.8s,mb4.2,baz=222,slow=6.8,SNR=3.8						
MSEY	**Mahe Island**	**51.81**	**271**	*i* P	**P**	**08 35 55.2**	**-1.5**
MAT	**Matsushiro**	**54.08**	**31**	P	**P**	**08 36 11.3**	**-1.6**
MJAR	**Matsushiro Arr**	**54.08**	**31**	P	**P**	**08 36 10.5**	**-2.5**
	comp=Z,6.0nm,1.1s,mb4.4,baz=205,slow=7.1,SNR=7.6						
CN2	**Changchun**	**55.44**	**16**	*e*P	**P**	**08 36 25.5**	**+2.9**
CN2				*e*sP	sP	08 36 39.7	-0.1
CN2				*e*S	**S**	**08 44 03.6**	**-0.8**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,200nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=E,200nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=Z,200nm,15.0s,MS4.3						
WMQ	**Urumqi**	**55.98**	**343**	⇓*i*P	**P**	**08 36 27.4**	**+0.9**
WMQ				pP	pP	08 36 38.0	-0.7
WMQ				sP	sP	08 36 42.0	-1.7
WMQ				PP	PP	08 38 32.0	+0.2
WMQ				*e*S	**S**	**08 44 09.0**	**-2.6**
WMQ				sS	sS	08 44 26.0	-6.0
WMQ				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
WMQ				pmax	pmax		
	comp=Z,220nm,4.0s						
WMQ				LR	LR		
	comp=N,580nm,18.6s						
WMQ				LR	LR		
	comp=E,470nm,24.0s						
WMQ				LR	LR		
	comp=Z,770nm,19.4s,MS4.8						
KSH	**Kashi**	**56.82**	**331**	P	**P**	**08 36 31.1**	**-1.5**
KSH				*e*pP	pP	08 36 41.2	-3.6
KSH				*e*sP	sP	08 36 45.1	-4.7
KSH				*e*PcP	PcP	08 37 40.4	+12
KSH				*e*PP	PP	08 38 37.3	-2.1
KSH				*e*ScP	ScP	08 41 25.2	+1.0
KSH				*e*PcS	PcS	08 41 28.6	-0.1
KSH				*e*S	**S**	**08 44 13.9**	**-9.0**
KSH				*e*sS	sS	08 44 31.2	-12
KSH				*e*ScS	ScS	08 46 14.0	-4.4
KSH				*e*SS	SS	08 47 59.7	-12
KSH				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
KSH				pmax	pmax		
	comp=Z,48nm,3.1s						
KSH				LR	LR		
	comp=N,340nm,6.5s						
KSH				LR	LR		
	comp=E,510nm,4.7s						
KSH				LR	LR		
	comp=Z,450nm,5.8s						
SONM	**Songino Array**	**57.02**	**359**	P	**P**	**08 36 34.3**	**+0.5**
	comp=Z,4.8nm,0.7s,mb4.6,baz=176,slow=8.5,SNR=32						
SONM				PcP	PcP	08 37 29.5	+1.0
	comp=Z,2.6nm,0.8s,baz=170,slow=4.5,SNR=5.8						
ZAK	**Zakamensk**	**59.68**	**357**	*e*P	**P**	**08 36 52.3**	**0.0**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
TKM2	**Tokmak 2**	**59.69**	**333**	*e*P	**P**	**08 36 52.4**	**-0.1**
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
TKM2	**Tokmak 2**	**59.69**	**333**	*e*P	**P**	**08 36 52.4**	**-0.1**
	comp=Z,7.3nm,0.5s,mb5.0						
AML	**Almayashu**	**59.94**	**331**	*e*P	**P**	**08 36 54.3**	**0.0**
	comp=Z,3.4nm,0.6s,mb4.5						
AML				*e*PcP	PcP	08 37 42.4	+2.2
AAK	**Ala-Archa**	**59.95**	**332**	*e*P	**P**	**08 36 54.5**	**+0.1**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
AAK	**Ala-Archa**	**59.95**	**332**	*e*P	**P**	**08 36 54.5**	**+0.1**
	comp=Z,5.4nm,0.9s,mb4.6						
MK31	**Makanchi Array**	**60.33**	**340**	*e*P	**P**	**08 36 56.8**	**-0.1**
MKAR	**Makanchi Array**	**60.33**	**340**	P	**P**	**08 36 56.9**	**0.0**
	comp=Z,8.9nm,0.7s,mb4.9,baz=147,slow=8.0,SNR=78						
MOY	**Mondy**	**61.11**	**355**	*e*P	**P**	**08 37 03.2**	**+1.1**
KK31	**Karatay Array**	**62.21**	**330**	P	**P**	**08 37 08.1**	**-1.6**
KK31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
YSS	**Yuzh-Sakhalins**	**64.32**	**26**	⇑*e*P	**P**	**08 37 23.0**	**-0.6**
YSS				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
YSS	**Yuzh-Sakhalins**	**64.32**	**26**	*e*P	**P**	**08 37 23.3**	**-0.3**
	comp=Z,31nm,1.3s,mb5.2						
KURK	**Kurchatov**	**64.94**	**340**	*e*P	**P**	**08 37 27.6**	**0.0**
KURK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
KURK	**Kurchatov**	**64.94**	**340**	*e*P	**P**	**08 37 27.6**	**+0.1**
	comp=Z,14nm,1.0s,mb4.9						
MAW	**Mawson**	**65.20**	**197**	P	**P**	**08 37 29.8**	**+0.7**
	comp=Z,3.5nm,0.7s,mb4.5,baz=10,slow=9.4,SNR=6.8						
ZAA0	**Zalesovo Array**	**66.00**	**346**	*e*P	**P**	**08 37 33.7**	**-0.6**
ZALV	**Zalesovo Beam**	**66.00**	**346**	P	**P**	**08 37 33.6**	**-0.7**
	comp=Z,2.6nm,0.3s,mb4.7,baz=138,slow=5.1,SNR=13						
NVS	**Novosibirsk**	**67.20**	**345**	*e*P	**P**	**08 37 39.7**	**-2.3**
BOD	**Bodaibo**	**67.23**	**4**	⇑*i*P	**P**	**08 37 41.2**	**-0.9**
BOD				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
VOSK	**Vostochnaya**	**69.33**	**337**	P	**P**	**08 37 55.1**	**-0.2**
VOSK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
BVA0	**Borovoye Array**	**69.79**	**337**	*i* P	**P**	**08 37 57.9**	**-0.3**
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BRVK	**Borovoye**	**69.86**	**337**	*e*P	**P**	**08 37 58.7**	**+0.1**
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
BRVK	**Borovoye**	**69.86**	**337**	*e*P	**P**	**08 37 58.7**	**+0.1**
	comp=Z,8.4nm,0.6s,mb4.8						
AB31	**Akbulak array**	**71.75**	**329**	P	**P**	**08 38 09.9**	**-0.3**
AB31				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
YAK	**Yakutsk**	**73.31**	**11**	*e*P	**P**	**08 38 17.9**	**-1.3**
YAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
YAK	**Yakutsk**	**73.31**	**11**	*e*P	**P**	**08 38 18.6**	**-0.6**
	comp=Z,22nm,0.6s,mb5.3						
AKTO	**Aktyubinsk**	**73.46**	**330**	P	**P**	**08 38 20.1**	**-0.2**
AKTO				pmax	pmax		
	comp=Z,5.0nm,2.5s,mb4.0						
PETK	**Petropavlovsk-**	**75.47**	**29**	P	**P**	**08 38 31.9**	**0.0**
	comp=Z,9.4nm,0.5s,mb4.9,baz=153,slow=1.6,SNR=35						
SVE	**Sverdlovsk**	**76.42**	**336**	*e*P	**P**	**08 38 37.8**	**+0.5**
SVE				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
KIV	**Kislovodsk**	**79.02**	**318**	*e*P	**P**	**08 38 52.0**	**-0.1**
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
SOC	**Sochi**	**80.84**	**317**	*e*P	**P**	**08 39 00.8**	**-1.1**
SOC				*e*		08 39 05.9	
SOC				*e*S	S	08 49 12.1	+4.9
SOC				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
TIXI	**Tiksi**	**82.15**	**7**	*e*P	**P**	**08 39 07.2**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
TIXI	**Tiksi**	**82.15**	**7**	*e*P	**P**	**08 39 07.3**	**-1.0**
	comp=Z,12nm,0.9s,mb4.8						
VRHR	**Novokhopersk**	**82.66**	**325**	*e*P	**P**	**08 39 11.3**	**0.0**
VRHR				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.7s						
BRTR	**Keskin Array B**	**83.81**	**312**	P	**P**	**08 39 17.7**	**+0.2**
	comp=E,3.0nm,0.9s,mb4.4						
VORD	**Divnogorie**	**83.95**	**324**	*e*P	**P**	**08 39 17.7**	**-0.3**
VORD				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
VORD				pmax	pmax		
	comp=N,7.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.9s						
VSR	**Storozhevoye**	**84.12**	**324**	*i* P	**P**	**08 39 19.1**	**+0.3**
VSR				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.6						
OBN	**Obninsk**	**87.03**	**327**	*ce*P	**P**	**08 39 34.1**	**+0.9**
OBN				*e**PP	pP	08 39 45.0	-1.1
OBN				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.6						
BILL	**Bilibino**	**87.62**	**19**	P	**P**	**08 39 36.0**	**+0.2**
BILL				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
BILL	**Bilibino**	**87.62**	**19**	*e*P	**P**	**08 39 35.7**	**-0.1**
	comp=Z,3.0nm,0.7s,mb4.6						
KLMR	**Klimovskoe**	**87.76**	**333**	*e*P	**P**	**08 39 36.4**	**-0.2**
KLMR				pmax	pmax		
	comp=Z,39nm,1.5s,mb5.4						
AKASG	**Malin Array Be**	**89.90**	**321**	P	**P**	**08 39 46.5**	**-0.4**
	comp=Z,0.5nm,0.5s,mb4.1,baz=88,slow=4.1,SNR=5.4						
ARCES	**ARCESS Array B**	**95.98**	**340**	P	**P**	**08 40 14.3**	**-0.3**
	comp=Z,2.4nm,0.9s,mb4.6,baz=90,slow=1.2,SNR=3.8						
ARCES	**ARCESS Array B**	**95.98**	**340**	P	**P**	**08 40 14.3**	**-0.3**
YKA	**Yellowknife Ar**	**118.95**	**21**	PKP	PKPdf	08 45 36.2	+0.2
	comp=Z,0.6nm,0.6s,baz=336,slow=1.4,SNR=15						
YKA	**Yellowknife Ar**	**118.95**	**21**	PKP	PKPdf	08 45 36.2	+0.2
EGMT	**Eagleton**	**130.38**	**32**	*e*PKPdf	PKPdf	08 46 00.7	+2.4
PDAR	**Pinedale Array**	**133.63**	**38**	PKP	PKPdf	08 46 06.4	+1.8
	comp=Z,0.3nm,0.6s,baz=324,slow=2.2,SNR=3.5						
SCHQ	**Schefferville**	**134.50**	**355**	PKP	PKPdf	08 46 06.9	+1.0
	comp=Z,0.9nm,0.6s,baz=333,slow=17,SNR=5.8						
TXAR	**Lajitas Array**	**144.74**	**52**	PKP	PKPdf	08 46 26.2	+0.9
	comp=Z,5.4nm,0.7s,baz=282,slow=1.2,SNR=53						
WMOK	**Wichita Mounta**	**145.18**	**40**	*e*PKIKP	PKPdf	08 46 26.5	+0.6
NCB	**Newcomb**	**145.56**	**2**	*e*PKPdf	PKPdf	08 46 27.2	+0.9
CCM	**Cathedral Cave**	**146.88**	**28**	*e*PKP2	PKPab	08 46 30.9	-1.0
JCT	**Junction City**	**147.04**	**47**	*e*PKP2	PKPbc	08 46 30.9	-0.4
BINY	**Binghamton**	**147.22**	**5**	*e*PKPdf	PKPab	08 46 32.4	-0.7
ACSO	**Alum Creek Sta**	**147.94**	**15**	*e*PKPdf	PKPbc	08 46 34.3	+0.8
MIAR	**Mount Ida**	**148.41**	**35**	*e*PKP2	PKPab	08 46 36.0	-2.1
SSPA	**Standing Stone**	**148.56**	**8**	*e*PKPdf	PKPbc	08 46 35.2	+0.2
PARMO	**Parma**	**148.70**	**27**	*e*PKPdf	PKPab	08 46 37.0	-2.2
WCI	**Wyandotte Cave**	**148.76**	**21**	*e*PKP2	PKPbc	08 46 36.3	+0.7
MVL	**Millersville**	**149.37**	**6**	*e*PKPdf	PKPbc	08 46 38.0	+0.8
WVT	**Waverly**	**149.99**	**25**	*e*PKP2	PKPbc	08 46 39.1	+0.3
TZTN	**Tazewell**	**151.21**	**19**	*e*PKPdf	PKPbc	08 46 42.6	+1.0
JSRW	**J. Sargeant Re**	**151.45**	**9**	*e*PKPdf	PKPbc	08 46 42.9	+0.8
SWET	**Sewanee**	**151.55**	**24**	*e*PKPdf	PKPbc	08 46 42.9	+0.4
CPCT	**Cooper Cave**	**151.87**	**21**	*e*PKPdf	PKPbc	08 46 44.2	+1.0
LRAL	**Lakeview Retre**	**152.97**	**28**	*e*PKPdf	PKPdf	08 46 40.8	+2.4

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*IDC **04** 08:35:49.9±2.9, 9°.38S×107°.58E, h0^{km}, mb3.9/5, mb1 4.0/5, mb1mx3.7/19, mbtmp3.9/5, Error ellipse: s-maj=109.8km s-min=22.8km az=51.0*

*ISCJB **04** 08:35:52.8±6.4, 9°.6S±0°.4×107°.4E±0°.5, h42^{km}±40^{km}, mb4.0/7, Error ellipse: s-maj=108.3km s-min=18.5km az=143.9*

*NEIC **04** 08:35:55.1±1.6, 9°.42S×107°.57E, h35^{km}, Error ellipse: s-maj=67.8km s-min=13.7km az=50.0*

ISC 04 08:35:55.4±5.9**, 9°.5S**±0°.4×**107°.5E**±0°.5**, h39**^{km}±37^{km}**, n11, σ0ˢ.70**/9**, mb4.0**/7**, 1C, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LEM	**Lembang**	**2.68**	**2**	⇑*e*P	**Pn**	**08 36 35.9**	**-0.1**
WRA	**Warramunga Arr**	**27.90**	**115**	P	**P**	**08 41 42.0**	**+0.1**
	0.4nm,0.3s,mb3.5,baz=290,slow=10,SNR=8.2						
ASAR	**Alice Springs**	**28.87**	**122**	P	**P**	**08 41 50.6**	**0.0**
	0.6nm,0.8s,mb3.4,baz=305,slow=8.9,SNR=4.9						
LZH	**Lanzhou**	**45.49**	**356**	*e*P	**P**	**08 44 10.5**	**-0.4**
LZH				pP	pP	08 44 16.0	-6.1
LZH				sP	sP	08 44 18.5	-8.2
LZH				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.7						
LZH				pmax	pmax		
	comp=Z,68nm,4.0s						
GTA	**Gaotai**	**49.20**	**352**	*e*P	**P**	**08 44 41.8**	**+2.1**
GTA				pP	pP	08 44 45.5	-5.5
GTA				sP	sP	08 44 46.8	-8.8
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
SONM	**Songino Array**	**57.11**	**359**	P	**P**	**08 45 37.5**	**-0.3**
	comp=Z,0.4nm,0.3s,mb3.9,baz=176,slow=9.4,SNR=5.6						
MK31	**Makanchi Array**	**60.41**	**340**	*e*P	**P**	**08 46 00.4**	**-0.3**
MKAR	**Makanchi Array**	**60.41**	**340**	P	**P**	**08 46 00.2**	**-0.5**
	comp=Z,0.8nm,0.5s,mb4.0,baz=147,slow=8.0,SNR=22						
PETK	**Petropavlovsk-**	**75.54**	**29**	P	**P**	**08 47 35.3**	**-0.4**
	comp=Z,1.6nm,0.5s,mb4.2,baz=198,slow=2.0,SNR=8.1						
TXAR	**Lajitas Array**	**144.79**	**52**	PKP	PKPdf	08 55 29.3	+0.5
	comp=Z,0.8nm,0.7s,baz=349,slow=1.3,SNR=7.7						
TXAR	**Lajitas Array**	**144.79**	**52**	PKP	PKPdf	08 55 29.3	+0.5

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*BJI **04** 08:39:07.9, 9°.50S×107°.40E, h25^{km}, mB5.2/4, mb4.8/8*

*IDC **04** 08:39:07.3±1.0, 9°.37S×107°.52E, h0^{km}, mb4.4/13, mb1 4.4/14, mb1mx4.3/22, mbtmp4.3/14, ML3.7/1, Error ellipse: s-maj=44.5km s-min=14.2km az=50.0*

*ISCJB **04** 08:39:10.6±0.7, 9°.48S±0°.05×107°.53E±0°.04, h38^{km}±7^{km}, mb4.5/31, Error ellipse: s-maj=9.1km s-min=7.2km az=7.9*

*NEIC **04** 08:39:12.0±0.4, 9°.53S×107°.37E, h35^{km}, mb4.6/3, Error ellipse: s-maj=12.2km s-min=7.4km az=45.0*

*MOS **04** 08:39:11.0±1.1, 9°.20S×107°.68E, h33^{km}, mb4.9/6, Error ellipse: s-maj=29.2km s-min=12.7km az=102.4*

*DJA **04** 08:39:13, 9°.32S×107°.58E, h30^{km}, MLv4.8/7*

ISC 04 08:39:12.0±2.2**, 9°.48S**±0°.06×**107°.51E**±0°.05**, h34**^{km}±16^{km}**, h33**^{km}±3.7^{km}**:pP-P, n57, σ0ˢ.88**/56**, mb4.5**/31**, 2C, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	**Christmas Isla**	**2.08**	**241**	*e*Pn	**Pn**	**08 39 41.6**	**-2.9**
XMIS				*e*Sn	**Sn**	**08 40 10.1**	**+0.8**
CLJI	**Cilicap**	**2.30**	**41**	P	**Pn**	**08 39 45.6**	**-2.0**
LEM	**Lembang**	**2.64**	**2**	⇑*e*P	**Pn**	**08 39 53.8**	**+1.5**
LEM				*e*S	**Sn**	**08 40 29.0**	**+5.9**
LEM	**Lembang**	**2.64**	**2**	P	**Pn**	**08 39 53.1**	**+0.8**
DBJI	**Dramaga**	**3.00**	**345**	P	**Pn**	**08 39 57.4**	**+0.1**
UGM	**Wanagama**	**3.36**	**63**	P	**Pn**	**08 40 02.7**	**+0.5**
SBJI	**Serang**	**3.61**	**338**	P	**Pn**	**08 40 04.9**	**-0.7**
SJI	**Sawahan**	**4.55**	**68**	P	**Pn**	**08 40 18.8**	**+0.2**
IGBI	**Denpasar**	**7.57**	**86**	P	**Pn**	**08 40 59.9**	**-0.2**
	184nm,0.8s,1.1nm						
KHKI	**Kahang-Kahang**	**8.08**	**83**	P	**Pn**	**08 41 08.0**	**+0.9**
FITZ	**Fitzroy Crossi**	**19.57**	**118**	P	**Pn**	**08 43 38.4**	**-0.3**
	0.2nm,0.3s,baz=129,slow=18,SNR=5.6						
WRA	**Warramunga Arr**	**27.91**	**115**	P	**P**	**08 44 59.6**	**+0.3**
	1.7nm,0.5s,mb4.0,baz=289,slow=10,SNR=22						
WRA				PcP	PcP	08 48 15.3	+0.8
	0.7nm,0.5s,baz=293,slow=2.1,SNR=8.3						
WRAB	**Tennant Creek**	**27.92**	**115**	*e*P	**P**	**08 44 59.5**	**+0.2**
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
WRAB	**Tennant Creek**	**27.92**	**115**	*e*P	**P**	**08 44 59.5**	**+0.2**
	comp=Z,2.4nm,0.5s,mb4.1						
ASAR	**Alice Springs**	**28.89**	**122**	P	**P**	**08 45 08.4**	**+0.5**
	comp=Z,1.1nm,0.6s,mb3.7,baz=303,slow=8.6,SNR=16						
ASAR				PcP	PcP	08 48 17.1	+0.3
	comp=Z,1.0nm,0.7s,baz=294,slow=2.1,SNR=7.7						
CMAR	**Chiang Mai Arr**	**29.02**	**343**	P	**P**	**08 45 08.8**	**-0.1**
	comp=Z,4.7nm,0.7s,mb4.3,baz=177,slow=9.0,SNR=14						
CHTO	**Chiang Mai**	**29.36**	**343**	*e*P	**P**	**08 45 11.1**	**-0.9**
STKA	**Stephens Creek**	**38.64**	**130**	P	**P**	**08 46 33.2**	**+0.9**
	comp=Z,3.9nm,0.8s,mb4.2,baz=298,slow=7.5,SNR=5.7						
ODAN	**Odare**	**41.06**	**332**	*e*P	**P**	**08 46 52.8**	**+0.3**
	comp=Z,14nm,0.5s,mb4.9						
TAPN	**Taplejung**	**41.34**	**333**	*e*P	**P**	**08 46 55.6**	**+0.8**
	comp=Z,19nm,0.8s,mb4.8						
RAMN	**Ramite**	**41.51**	**331**	*e*P	**P**	**08 46 57.1**	**+0.9**
	comp=Z,15nm,0.7s,mb4.7						
LSA	**Lhasa**	**42.02**	**339**	*e*P	**P**	**08 47 01.8**	**+1.5**
LSA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
LSA	**Lhasa**	**42.02**	**339**	*e*P	**P**	**08 47 01.8**	**+1.4**
	comp=Z,10nm,0.6s,mb4.6						
JIRN	**Jiri**	**42.30**	**331**	*e*P	**P**	**08 47 03.5**	**+0.8**
	comp=Z,7.5nm,0.3s,mb4.8						
GUN	**Gumba**	**42.66**	**331**	*e*P	**P**	**08 47 06.1**	**+0.5**
	comp=Z,28nm,0.8s,mb5.0						
DMN	**Daman**	**42.78**	**330**	*e*P	**P**	**08 47 07.2**	**+0.6**
KKN	**Kakani**	**42.85**	**330**	*e*P	**P**	**08 47 07.4**	**+0.3**
	comp=Z,13nm,0.6s,mb4.8						
XAN	**Xi'an**	**43.30**	**2**	P	**P**	**08 47 10.0**	**-0.6**
XAN				pP	pP	08 47 20.2	-0.5
XAN				sP	sP	08 47 25.1	+0.4
XAN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
XAN				pmax	pmax		
	comp=Z,76nm,5.8s						
GKN	**Gorkha**	**43.34**	**330**	*e*P	**P**	**08 47 11.4**	**+0.3**
KOLN	**Koldanda**	**43.67**	**329**	*e*P	**P**	**08 47 14.2**	**+0.5**
	comp=Z,27nm,0.7s,mb5.1						
DANN	**Dangsing**	**44.06**	**329**	*e*P	**P**	**08 47 17.2**	**+0.3**
	comp=Z,28nm,0.7s,mb5.1						
PYUN	**Piuthan**	**44.25**	**328**	*e*P	**P**	**08 47 17.9**	**-0.5**
LZH	**Lanzhou**	**45.45**	**356**	*e*P	**P**	**08 47 28.5**	**+0.7**
LZH				pP	pP	08 47 33.5	-4.4
LZH				sP	sP	08 47 35.6	-6.3
LZH				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.0						
LZH				pmax	pmax		
	comp=Z,200nm,4.9s						
GTA	**Gaotai**	**49.16**	**352**	*e*P	**P**	**08 47 58.6**	**+1.9**
GTA				pP	pP	08 48 02.4	-4.4
GTA				sP	sP	08 48 03.7	-7.1
GTA				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
MJAR	**Matsushiro Arr**	**54.12**	**30**	P	**P**	**08 48 32.7**	**-1.0**
	comp=Z,1.3nm,0.7s,mb4.0,baz=239,slow=34,SNR=4.6						
SONM	**Songino Array**	**57.07**	**359**	P	**P**	**08 48 55.0**	**+0.3**
	comp=Z,1.7nm,0.6s,mb4.3,baz=179,slow=8.9,SNR=14						
SONM				pP	pP	08 49 05.5	+0.5
	comp=Z,2.3nm,0.6s,baz=177,slow=7.8,SNR=12						
SONM				PcP	PcP	08 49 50.3	+0.9
	comp=Z,0.6nm,0.5s,baz=170,slow=3.7,SNR=2.8						
TKM2	**Tokmak 2**	**59.73**	**333**	*e*P	**P**	**08 49 13.4**	**0.0**
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
TKM2	**Tokmak 2**	**59.73**	**333**	*e*P	**P**	**08 49 13.4**	**0.0**
	comp=Z,4.0nm,0.5s,mb4.7						
MK31	**Makanchi Array**	**60.38**	**340**	*e*P	**P**	**08 49 17.9**	**+0.2**
MKAR	**Makanchi Array**	**60.38**	**340**	P	**P**	**08 49 17.7**	**-0.1**
	comp=Z,2.2nm,0.4s,mb4.5,baz=149,slow=7.8,SNR=27						
MKAR	**Makanchi Array**	**60.38**	**340**	P	**P**	**08 49 17.7**	**-0.1**
YSS	**Yuzh-Sakhalins**	**64.36**	**26**	*e*P	**P**	**08 49 43.0**	**-1.4**
KURK	**Kurchatov**	**64.99**	**340**	P	**P**	**08 49 48.1**	**-0.3**
	comp=Z,2.9nm,0.5s,mb4.5,baz=153,slow=6.1,SNR=6.6						
ZALV	**Zalesovo Beam**	**66.05**	**346**	P	**P**	**08 49 54.6**	**-0.6**
	comp=Z,1.6nm,0.3s,mb4.5,baz=148,slow=6.3,SNR=6.4						
BOD	**Bodaibo**	**67.27**	**4**	*e*P	**P**	**08 50 00.4**	**-2.5**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.3						
BVAR	**Borovoye Array**	**69.83**	**337**	P	**P**	**08 50 19.0**	**0.0**
	comp=Z,4.5nm,0.6s,mb4.6,baz=143,slow=8.7,SNR=21						
PETK	**Petropavlovsk-**	**75.51**	**29**	P	**P**	**08 50 52.8**	**0.0**
	comp=Z,3.8nm,0.5s,mb4.6,baz=166,slow=2.1,SNR=12						
TIXI	**Tiksi**	**82.19**	**7**	*e*P	**P**	**08 51 27.6**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BRTR	**Keskin Array B**	**83.84**	**312**	P	**P**	**08 51 38.4**	**+0.1**
	comp=Z,1.3nm,0.8s,mb4.1						
BRTR				pP	pP	08 51 49.7	+0.7
OBN	**Obninsk**	**87.07**	**327**	P	**P**	**08 51 53.0**	**-1.0**
OBN				*e*	pP	08 52 04.1	-0.7
OBN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
BILL	**Bilibino**	**87.66**	**19**	P	**P**	**08 51 57.0**	**+0.4**
KLMR	**Klimovskoe**	**87.81**	**333**	P	**P**	**08 51 55.6**	**-1.9**
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.9						
LVZ	**Lovozero**	**92.37**	**339**	⇑*e*P	**P**	**08 52 19.0**	**+0.3**
ARCES	**ARCESS Array B**	**96.02**	**339**	P	**P**	**08 52 35.1**	**-0.3**
	comp=Z,2.2nm,1.0s,mb4.5,baz=97,slow=7.4,SNR=2.3						
PDAR	**Pinedale Array**	**133.66**	**38**	PKP	PKPdf	08 58 27.8	+2.4
	comp=Z,0.1nm,0.4s,baz=223,slow=21,SNR=2.5						
TXAR	**Lajitas Array**	**144.76**	**52**	PKP	PKPdf	08 58 46.9	+0.9
	comp=Z,2.4nm,0.7s,baz=306,slow=0.7,SNR=20						
TXAR	**Lajitas Array**	**144.76**	**52**	PKP	PKPdf	08 58 46.9	+0.9

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*NEIC **04** 08:59:19.8±2.5, 23°.60N×120°.59E, h4^{km}±19^{km}, Error ellipse: s-maj=28.6km s-min=8.1km az=113.0*

*TAP **04** 08:59:20.0, 23°.56N×120°.61E, h12^{km}, ML3.6, B*

*ISCJB **04** 08:59:21.0±0.2, 23°.57N±0°.01×120°.62E±0°.01, h10^{km}±1^{km}, Error ellipse: s-maj=2.3km s-min=1.7km az=23.9*

ISC 04 08:59:21.1±0.2**, 23°.57N**±0°.01×**120°.61E**±0°.01**, h14**^{km}±2^{km}**, n63, σ0ˢ.85**/112**, 7C-13D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHN5	**Tsauling**	**0.07**	**69**	⇑*i*P	**Pg**	**08 59 22.9**	**-1.1**
	baz=59						
WGK	**Gukeng**	**0.12**	**341**	⇑*i*P	**Pg**	**08 59 24.1**	**-0.4**
	baz=348						
WGK				*i* S	**Sg**	**08 59 27.4**	**+0.4**
	baz=348						
CHN2	**Minshiung**	**0.13**	**252**	⇓*i*P	**Pg**	**08 59 24.2**	**-0.4**
	baz=257						
CHN2				S	**Sg**	**08 59 27.4**	**+0.4**
	baz=257						
CHY	**Chiayi**	**0.18**	**246**	⇓*i*P	**Pg**	**08 59 25.1**	**-0.3**
	baz=250						
CHY				*e*S	**Sg**	**08 59 28.9**	**+0.5**
	baz=250						
ALS	**Alishan**	**0.19**	**108**	⇑*i*P	**Pg**	**08 59 25.3**	**-0.2**
	baz=105						
ALS				S	**Sg**	**08 59 28.8**	**+0.2**
	baz=105						
CHN4	**Tsaushan**	**0.22**	**183**	⇓*i*P	**Pg**	**08 59 25.6**	**-0.4**
	baz=185						
CHN4				*i* S	**Sg**	**08 59 29.7**	**+0.3**
	baz=185						
TPUB	**Ta-pu**	**0.27**	**175**	*e*Pg	**Pg**	**08 59 25.6**	**-1.3**
TPUB				*e*Sg	**Sg**	**08 59 30.9**	**+0.2**
WNT	**Mingjian**	**0.31**	**13**	P	**Pg**	**08 59 27.6**	**-0.1**
	baz=12						
WNT				*e*S	**Sg**	**08 59 33.0**	**+1.0**
	baz=12						
TWK	**Hsinying**	**0.32**	**200**	*i* P	**Pg**	**08 59 27.4**	**-0.3**
	baz=201						
TWK				*e*S	**Sg**	**08 59 33.0**	**+0.8**

	baz=201						
WTP	**Ta-pu**	0.32	179	⇑*i*P	Pg	08 59 27.3	-0.5
	baz=180						
WTP				*e*S	Sg	08 59 32.2	-0.1
	baz=180						
YUS	**Yu-Shan**	0.33	104	⇓*i*P	Pg	08 59 27.9	0.0
	baz=103						
YUS				*e*S	Sg	08 59 33.4	+1.0
	baz=103						
WSF	**Szhu**	0.36	281	*i* P	Pg	08 59 28.1	-0.3
	baz=283						
WSF				*i* S	Sg	08 59 34.4	+1.1
	baz=283						
SSLB	**Suanglung**	0.39	56	*e*Pg	Pg	08 59 27.6	-1.3
SSLB				*e*Sg	Sg	08 59 34.2	0.0
CHN1	**Nanshi**	0.39	191	P	Pg	08 59 28.5	-0.5
	baz=192						
CHN1				*e*S	Sg	08 59 34.5	+0.1
	baz=192						
TYC	**Yuchr**	0.40	35	⇓*i*P	Pg	08 59 29.1	-0.1
	baz=33						
TYC				*i* S	Sg	08 59 35.6	+0.9
	baz=33						
SMLT	**Sun Moon Lake**	0.41	41	⇓*i*P	Pg	08 59 29.2	-0.1
	baz=39						
SMLT				*i* S	Sg	08 59 36.4	+1.5
	baz=39						
WTCT	**Ta-ch'eng**	0.42	314	P	Pg	08 59 29.1	-0.4
	baz=306						
CHN8	**Yiju**	0.43	238	*e*P	Pg	08 59 29.4	-0.3
	baz=241						
CHN8				*e*S	Sg	08 59 37.0	+1.6
	baz=241						
STYT	**Tauyuan**	0.43	161	⇑*i*P	Pg	08 59 29.2	-0.5
	baz=161						
STYT				*e*S	Sg	08 59 36.0	+0.5
	baz=161						
SGST	**Jiashian**	0.49	183	⇑*i*P	Pg	08 59 30.4	-0.4
	baz=183						
SGST				*e*S	Sg	08 59 37.5	+0.2
	baz=183						
ELDTW	**Lidau**	0.54	135	P	Pg	08 59 31.1	-0.6
	baz=129						
ELDTW				S	Sg	08 59 38.6	-0.2
	baz=129						
CHN3	**Shinhua**	0.54	204	*e*P	Pg	08 59 31.1	-0.7
	baz=204						
SCLT	**Jiali**	0.55	224	*e*P	Pg	08 59 31.8	0.0
	baz=226						
SCLT				*e*S	Sg	08 59 41.2	+2.0
	baz=226						
TCU	**Taichung**	0.58	6	*e*P	Pg	08 59 32.2	-0.3
	baz=6.0						
TCU				*e*S	Sg	08 59 40.5	+0.3
	baz=6.0						
TAI1	**Yung-k'ang**	0.63	213	*e*P	Pg	08 59 33.4	-0.1
	baz=214						
TAI1				*e*S	Sg	08 59 44.2	+2.3
	baz=214						
YULB	**Yu-li**	0.66	106	*e*Pg	Pg	08 59 33.0	-1.0
YULB				*e*Sg	Sg	08 59 42.9	+0.1
EHY	**Hungye**	0.66	95	⇓*i*P	Pg	08 59 33.6	-0.4
	baz=94						
EHY				*i* S	Sg	08 59 43.0	+0.2
	baz=94						
TWF1	**Yuli**	0.67	109	⇓*i*P	Pg	08 59 33.8	-0.4
	baz=117						
TWF1				S	Sg	08 59 43.1	0.0
	baz=117						
TWM1	**Shoushan**	0.76	193	*e*P	Pg	08 59 36.9	+0.9
	baz=193						
TWQ1	**Liyutan**	0.79	11	P	Pg	08 59 36.3	-0.2
	baz=11						
TWQ1				*e*S	Sg	08 59 47.7	+0.8
	baz=11						
ESL	**Shilin**	0.80	72	⇓*i*P	Pg	08 59 36.0	-0.6
	baz=71						
ESL				*e*S	Sg	08 59 47.1	0.0
	baz=71						
SSD	**Sandimen**	0.82	178	*i* P	Pg	08 59 36.5	-0.5
	baz=178						
SSD				*e*S	Sg	08 59 48.6	+0.8
	baz=178						
WHF	**Hehuan Shan**	0.83	46	⇓*i*P	Pg	08 59 36.8	-0.5
	baz=45						
WHF				*e*S	Sg	08 59 48.4	+0.2
	baz=45						
CHKT	**Chengkung**	0.84	124	*e*P	Pg	08 59 37.3	-0.1
	baz=123						
CHKT				*e*S	Sg	08 59 49.6	+1.1
	baz=123						
NSY	**Sanyi**	0.85	10	*e*P	Pg	08 59 37.3	-0.4
	baz=9.0						
NSY				*e*S	Sg	08 59 49.5	+0.6
	baz=9.0						
TWT	**Tachien**	0.86	37	⇓*i*P	Pg	08 59 36.5	-1.3
	baz=36						
TWT				*e*S	Sg	08 59 48.1	-0.9
	baz=36						
TWG	**Pinlang**	0.86	150	*e*Pg	Pg	08 59 36.9	-0.9
TWG				*e*Sg	Sg	08 59 49.6	+0.5
TWG	**Pinlang**	0.86	150	⇑*i*P	Pg	08 59 37.1	-0.7
	baz=150						
TWG				S	Sg	08 59 49.4	+0.3
	baz=150						
WDGT	**Dungji**	0.92	251	P	Pb	08 59 37.3	-1.6
	baz=252						
WDGT				*e*S	Sb	08 59 49.6	-1.4
	baz=252						
TTN	**Taitung**	0.95	148	*e*P	Pb	08 59 39.1	-0.4
	baz=148						
PNG	**Penghu**	0.96	270	*e*P	Pb	08 59 37.7	-1.9
	baz=272						
PNG				*e*S	Sb	08 59 51.0	-1.2
	baz=272						
HWA	**Hwalien**	1.00	66	*e*P	Pb	08 59 39.9	-0.4
	baz=75						
HWA				*e*S	Sb	08 59 53.8	+0.5
	baz=75						
ECL	**Taimali**	1.02	162	P	Pb	08 59 40.1	-0.5
	baz=149						
ECL				*e*S	Sb	08 59 54.6	+0.7
	baz=149						
TWD	**Chiawan**	1.04	61	*e*P	Pb	08 59 39.5	-1.4
	baz=47						
NACB	**Ninganchiao**	1.09	56	*e*Pg	Pg	08 59 40.4	-1.7
NACB				*e*Sg	Sg	08 59 56.8	+0.5
NNS	**Nan Shan**	1.11	39	⇓*i*P	Pb	08 59 41.0	-1.1
	baz=38						
NNS				*e*S	Sb	08 59 56.2	-0.3
	baz=38						
NSTT	**Nanjuang**	1.11	19	*e*P	Pb	08 59 40.2	-2.0
	baz=19						
NSTT				*e*S	Sb	08 59 56.5	0.0
	baz=19						
NSK	**Sanguang**	1.30	32	⇓*i*P	Pn	08 59 44.9	+0.1
	baz=32						
NSK				*e*S	Sb	09 00 02.1	+0.3
	baz=32						
YHNB	**Yeheng**	1.30	33	*e*Pn	Pn	08 59 44.4	-0.5
YHNB				*e*Sg	Sg	09 00 02.3	-0.8
ENA	**Nanau**	1.34	50	*e*P	Pn	08 59 44.8	-0.7
	baz=50						
ENTT	**Nioudou**	1.38	39	*e*P	Pn	08 59 45.3	-0.7
	baz=39						
ENTT				*e*S	Sn	09 00 04.6	+0.6
	baz=39						
NCU	**National Centr**	1.49	21	*e*P	Pn	08 59 47.5	0.0
	baz=4.0						
TWE	**Neicheng**	1.50	40	*e*P	Pn	08 59 47.5	-0.1
	baz=30						
TWE				*e*S	Sn	09 00 09.9	+2.9
	baz=30						
TWC	**Suao**	1.54	47	*e*P	Pn	08 59 48.8	+0.7
	baz=47						
TWC				*e*S	Sn	09 00 09.8	+1.9
	baz=47						
TATO	**Taipei**	1.61	30	*e*Pn	Pn	08 59 49.4	+0.2
TATO				*e*Sg	Sg	09 00 14.2	+1.1
TWK1	**Hengchun**	1.63	173	*e*P	Pn	08 59 50.8	+1.4
	baz=173						
TWA	**Mucha**	1.66	32	*e*P	Pn	08 59 50.2	+0.3
	baz=16						
TWS1	**Kuangyinshan**	1.69	26	*e*P	Pn	08 59 51.9	+1.6
	baz=26						
TWS1				*e*S	Sn	09 00 12.3	+0.5
	baz=26						
LAY	**Lan-yu**	1.76	150	*e*P	Pn	08 59 50.7	-0.4
	baz=139						
NWF	**Wu-fen Shan**	1.84	35	*e*P	Pn	08 59 53.6	+1.3
	baz=19						
TWB1	**Santiao Chiao**	1.91	41	*e*P	Pn	08 59 52.9	-0.3
	baz=24						
KNM	**Kinmen**	2.16	293	*e*P	Pn	08 59 58.8	+2.1
	baz=294						
QZH	**Quanzhou**	2.29	307	Pn	Pn	09 00 04.5	+6.0
QZH				Sn	Sn	09 00 30.6	+4.1
QZH				smax			
	comp=N,270nm,0.9s						
QZH				smax			
	comp=E,2μm,0.9s						

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*IDC **04** 09:03:51.3±5.2, 36°.98N×71°.55E, h55^{km}±44^{km}, mb3.6/9, mb1 3.9/14, mb1mx3.6/29, mbtmp3.8/14, ML4.2/5, MS3.8/1, Ms1 3.8/1, ms1mx2.7/35, Error ellipse: s-maj=33.6km s-min=20.9km az=13.0*

*ISCJB **04** 09:03:57.5±0.4, 37°.22N±0°.02×71°.90E±0°.05, h132^{km}±6^{km}, mb3.7/11, Error ellipse: s-maj=7.2km s-min=3.8km az=179.5*

*BJI **04** 09:03:57.3, 37°.43N×71°.63E, h94^{km}, mb4.2/5*

*NEIC **04** 09:03:58.3±1.0, 37°.31N×71°.57E, h110^{km}±10^{km}, mb3.8/1, Error ellipse: s-maj=16.2km s-min=9.9km az=130.0*

*NNC **04** 09:04:01.4±5.6, 37°.61N×71°.33E, h129^{km}±63^{km}, mb3.5, mpv4.2, Error ellipse: s-maj=47.3km s-min=27.6km az=4.0*

ISC 04 09:03:58.8±0.4**, 37°.21N**±0°.02×**71°.93E**±0°.05**, h128**^{km}±5^{km}**, n69, **σ1^{s}.**13**/82**, mb3.7**/11**, 7C-4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CEP	**Cherat**	3.38	180	P	Pn	09 04 52.1	+1.9
CEP				S	Sn	09 05 31.0	+1.0
KBL	**Kabul**	3.55	222	*e*Pn	Pn	09 04 51.0	-1.5
KBL				*e*Sn	Sn	09 05 34.1	+0.1
CHCP	**Chirah Chowk**	3.70	163	P	Pn	09 04 57.5	+3.0
KSH	**Kashi**	3.92	53	⇓*i*P	Pn	09 04 55.7	-1.7
KSH				S	Sn	09 05 36.9	-6.0
KSH				smax			
	comp=N,950nm,0.2s						
KSH				smax			
	comp=E,780nm,0.4s						
SBDP	**Sheikh Budin**	4.98	191	P	Pn	09 05 11.5	-0.1
AML	**Almayashu**	5.10	15	P	Pn	09 05 13.3	+0.2
	SNR=236						
SARP	**Sargodha**	5.31	173	P	Pn	09 05 16.3	+0.3
UCH	**Uchtor**	5.39	21	P	Sn	09 06 16.5	-1.5
	SNR=11						
UCH	**Uchtor**	5.39	21	*e*Pn	Pn	09 05 18.6	+1.6
UCH				*e*Sn	Sn	09 06 16.4	-1.6
KZA	**Kyzart**	5.50	27	P	Pn	09 05 19.3	+0.9
	SNR=15						
EKS2	**Erkin-Say**	5.63	14	P	Pn	09 05 20.8	+0.6
	SNR=16						
AAK	**Ala-Archa**	5.77	19	P	Pn	09 05 23.0	+1.0
	SNR=44						
AAK	**Ala-Archa**	5.77	19	*e*Pn	Pn	09 05 22.3	+0.3
KBK	**Karagaybulak**	5.92	22	P	Pn	09 05 25.4	+1.4
	SNR=10						
KK31	**Karatay Array**	5.99	350	⇑Pn	Pn	09 05 22.3	-2.7
	comp=E,6.7nm,0.3s,baz=179,slow=13,SNR=246						
KK31				⇑Sn	Sn	09 06 24.8	-7.5
	comp=E,19nm,0.3s,baz=179,slow=20,SNR=8.0						
ULHL	**Ulahol**	6.03	32	P	Pn	09 05 26.8	+1.2
	SNR=20						
CHMS	**Chumysh**	6.17	20	P	Pn	09 05 28.1	+0.6
	SNR=23						
TKM2	**Tokmak 2**	6.36	25	P	Pn	09 05 31.0	+1.0
	SNR=19						
TKM2	**Tokmak 2**	6.36	25	⇑Pn	Pn	09 05 30.8	+0.8
	comp=E,21nm,0.8s						
TKM2				⇓Sn	Sn	09 06 40.2	-1.0
	comp=E,22nm,0.7s						
USP	**Ospenovka**	6.36	17	P	Pn	09 05 29.9	-0.1
	SNR=25						
SDNR	**Sundarnagar**	7.05	142	*e*PKP	Pn	09 05 40.5	+1.0
JOSI	**Joshimath**	9.17	134	*e*PKP	Pn	09 06 08.3	+0.3
JOSI				*e*S	Sn	09 07 46.1	-3.3
NDI	**New Delhi**	9.59	151	*e*PKP	Pn	09 06 14.0	+0.4
NDI				*e*S	Sn	09 07 55.0	-4.5
KHET	**Khetri**	9.67	159	*e*PKP	Pn	09 06 13.0	-1.8
KHET				*e*S	Sn	09 07 54.2	-7.4
KHET				AML	AML	09 07 58.0	
	comp=N,40nm,0.5s						
KHET				AML	AML	09 07 58.2	
	comp=E,46nm,0.5s						
AYAN	**Aya Nagar**	9.73	152	*e*PKP	Pn	09 06 16.9	+1.4
AYAN				*e*S	Sn	09 07 57.7	-5.3
BISR	**Bishrakh**	9.77	150	*e*S	Sn	09 07 57.8	-6.2
KUDL	**Kundal**	9.82	156	*e*PKP	Pn	09 06 15.2	-1.5
KUDL				*e*S	Sn	09 07 58.5	-6.6
KUDL				AML	AML	09 08 04.3	
	comp=E,33nm,0.4s						
KUDL				AML	AML	09 08 08.6	
	comp=N,26nm,0.6s						
MK31	**Makanchi Array**	12.28	36	*e*Pn	Pn	09 06 49.5	+0.3
MK31	**Makanchi Array**	12.28	36	⇑P	Pn	09 06 50.2	+1.0
	comp=N,5.0nm,0.6s,baz=224,slow=15,SNR=63						
MKAR	**Makanchi Array**	12.28	36	P	Pn	09 06 49.6	+0.5
	comp=N,0.8nm,0.3s,baz=225,slow=15,SNR=76						
PYUN	**Piuthan**	13.00	131	*e*P	Pn	09 06 58.2	-0.5
	comp=N,67nm,0.4s						
DANN	**Dangsing**	13.29	128	*e*P	Pn	09 07 02.6	+0.1
	comp=N,37nm,0.4s						
KOLN	**Koldanda**	13.61	130	*e*P	Pn	09 07 05.9	-0.6
	comp=N,22nm,0.4s						
GKN	**Gorkha**	14.09	127	*e*P	Pn	09 07 11.9	-0.8
KURBB	**Kurchatov Arra**	14.22	17	⇑P	Pn	09 07 14.4	+0.3
	comp=N,1.1nm,0.6s						
KURK	**Kurchatov**	14.33	17	P	Pn	09 07 11.8	-3.7
	comp=N,0.1nm,0.3s,baz=208,slow=11,SNR=7.6						
KURK	**Kurchatov**	14.33	17	*e*Pn	Pn	09 07 14.1	-1.4
	comp=N,3.5nm,0.6s						
KKN	**Kakani**	14.65	126	*e*P	Pn	09 07 18.9	-0.8
DMN	**Daman**	14.66	127	*e*P	Pn	09 07 19.4	-0.5
	comp=N,27nm,0.5s						
AB01	**Akbulak array**	14.86	328	⇓P	Pn	09 07 16.5	-5.7
	comp=N,5.5nm,0.5s						
PKI	**Pulchoki**	14.88	126	*e*P	Pn	09 07 22.1	-0.6
	comp=N,21nm,0.4s						
GUN	**Gumba**	14.96	124	*e*P	Pn	09 07 22.9	-0.7
JIRN	**Jiri**	15.33	124	*e*P	Pn	09 07 28.6	+0.3
	comp=N,38nm,0.3s						
VOSK	**Vostochnaya**	15.53	358	⇑P	Pn	09 07 27.6	-2.9
	comp=N,5.5nm,0.8s						
BVA0	**Borovoye Array**	15.86	357	⇑P	Pn	09 07 32.7	-1.8
	comp=N,1.0nm,0.8s,baz=226,slow=39,SNR=19						
BVAR	**Borovoye Array**	15.86	357	P	Pn	09 07 32.9	-1.6
	comp=N,0.5nm,0.3s,baz=152,slow=9.7,SNR=9.3						
BVAR				S	S	09 10 19.8	-16
	comp=N,0.3nm,0.3s,baz=170,slow=27,SNR=5.3						
RAMN	**Ramite**	16.08	125	*e*P	Pn	09 07 37.0	-0.5
	comp=N,45nm,0.5s						
TAPN	**Taplejung**	16.55	122	*e*P	Pn	09 07 43.1	-0.2
	comp=N,26nm,0.5s						
AKTK	**Aktyubinsk**	16.57	327	P	Pn	09 07 38.1	-5.1
AKTK				S	S	09 10 29.9	-18
AKTO	**Aktyubinsk**	16.57	327	P	Pn	09 07 38.1	-5.1
	comp=N,4.3nm,0.3s,baz=132,slow=13,SNR=34						
AKTO				S	S	09 10 29.9	-18
	comp=N,0.3nm,0.3s,baz=165,slow=20,SNR=4.2						
AKTO	**Aktyubinsk**	16.57	327	⇓P	Pn	09 07 39.6	-3.6
	comp=N,1.7nm,0.5s						
ODAN	**Odare**	16.66	124	*e*P	Pn	09 07 44.0	-0.6
	comp=N,18nm,0.5s						
ZAA0	**Zalesovo Array**	18.96	24	*e*P	P	09 08 11.3	+1.5
ZALV	**Zalesovo Beam**	18.96	24	P	P	09 08 11.3	+1.5
	comp=N,2.2nm,0.3s,baz=230,slow=11,SNR=53						
ZALV	**Zalesovo Beam**	18.96	24	P	P	09 08 11.3	+1.5
GTA	**Gaotai**	21.96	76	P	P	09 08 47.9	+5.9
GTA				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.2						
SONM	**Songino Array**	27.32	56	P	P	09 09 35.5	+4.2
	comp=Z,0.4nm,0.3s,mb3.5,baz=266,slow=9.1,SNR=5.6						
JOF	**Joensuu**	35.64	329	*e*p	P	09 10 43.8	-0.1
	comp=Z,0.8nm,0.4s,mb3.7						
KEV	**Kevo**	40.43	338	*e*p	P	09 11 23.6	-0.3
ARCES	**ARCESS Array B**	40.78	337	P	P	09 11 27.8	+0.9
	comp=Z,1.1nm,0.4s,mb3.9,baz=116,slow=9.0,SNR=25						
HFS	**Hagfors**	42.98	321	P	P	09 11 45.0	+0.2
	comp=Z,3.8nm,0.5s,mb4.3,baz=100,slow=12,SNR=14						
NB2	**NORSAR Subarra**	44.27	323	P	P	09 11 55.2	+0.1
	comp=Z,1.4nm,0.5s,mb3.9,baz=91,slow=7.9						
NOA	**NORSAR Array B**	44.27	323	P	P	09 11 55.5	+0.3
	comp=Z,4.0nm,0.9s,mb4.0,baz=92,slow=7.7,SNR=5.9						
DAVOX	**Davos/Dischmat**	46.01	302	LR	LR	09 33 38.4	
	comp=Z,95nm,18.3s,baz=80,slow=39						
ESDC	**Sonseca Array**	57.79	298	P	P	09 13 35.5	-0.9
	comp=Z,0.3nm,0.3s,mb3.6,baz=53,slow=7.3,SNR=3.0						
TORD	**Torodi Ar. Bea**	66.48	269	P	P	09 14 33.8	-1.0
	comp=Z,0.3nm,0.4s,mb3.4,baz=52,slow=5.8,SNR=7.3						
RES	**Resolute Bay**	68.05	356	P	P	09 14 44.9	+1.1
	comp=Z,0.4nm,0.8s,mb3.2,baz=27,slow=6.8,SNR=4.2						
YKA	**Yellowknife Ar**	80.50	3	P	P	09 15 58.0	+1.9
	comp=Z,1.7nm,0.3s,mb4.1,baz=350,slow=5.6,SNR=12						
WRA	**Warramunga Arr**	81.73	123	P	P	09 16 04.5	+1.4
	comp=Z,0.2nm,0.4s,mb3.1,baz=323,slow=4.8,SNR=7.6						

IDC 04 09:17:33.8±2.0**, 1°.47N**×**125°.87E, h0**^{km}**, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.5**/17**, mbtmp3.5**/3**, Error ellipse: s-maj=171.8km s-min=25.7km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	22.84	159	P	P	09 22 38.2	-0.6
	1.3nm,0.6s,baz=337,slow=11,SNR=9.3						
ASAR	**Alice Springs**	26.18	163	P	P	09 23 10.9	+0.7
	0.4nm,0.6s,baz=353,slow=15,SNR=4.2						
MKAR	**Makanchi Array**	58.93	326	P	P	09 27 34.9	0.0
	0.2nm,0.4s,baz=118,slow=8.3,SNR=5.5						

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*DDA **04** 09:25:05.7, 39°.26N×41°.72E, h7^{km}±5^{km}, Md3.6*

*ISK **04** 09:25:06.8, 39°.28N×41°.75E, h4^{km}, ML3.4*

*ISCJB **04** 09:25:07.7±0.3, 39°.30N±0°.03×41°.73E±0°.03, h10^{km}, Error ellipse: s-maj=3.9km s-min=3.2km az=13.4*

*CSEM **04** 09:25:07.6±0.2, 39°.31N×41°.77E, h0^{km}±1^{km}, MD3.6, Error ellipse: s-maj=2.4km s-min=1.4km az=31.0*

ISC 04 09:25:07.5±0.7**, 39°.27N**±0°.03×**41°.75E**±0°.03**, h2**^{km}±6^{km}**, n46, **σ1^{s}.**10**/63**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ERZM	**Erzurum**	0.70	335	*i* P	Pg	09 25 20.5	-0.5
ERZM				*i* S	Sg	09 25 29.4	-0.7
ERZM	**Erzurum**	0.70	335	*i* P	Pg	09 25 20.5	-0.5
ERZM				*i* S	Sg	09 25 29.5	-0.7
EZM	**Erzurum**	0.71	335	PG	Pg	09 25 20.8	-0.3
AGRB	**Hanur-Agry**	1.01	72	*e*PG	Pg	09 25 27.0	+0.1
AGRB				*e*SG	Sg	09 25 41.4	+1.4
AGRB	**Hanur-Agry**	1.01	72	*e*Pg	Pg	09 25 27.0	+0.1
AGRB				*e*Sg	Sg	09 25 41.4	+1.4
KOPT	**Kop Dagi**	1.22	308	*i* P	Pg	09 25 29.0	-2.0
KOPT				*i* S	Sg	09 25 48.5	+1.7
KOPT	**Kop Dagi**	1.22	308	*i* P	Pg	09 25 29.0	-2.0
KOPT				*i* S	Sg	09 25 48.5	+1.7
BEST	**Besiri**	1.42	195	*i* P	Pn	09 25 32.3	-2.0
BEST				*i* S	Sg	09 25 53.8	+0.7
VANB	**Van**	1.44	117	*e*PN	Pn	09 25 34.5	-0.1
VANB				*e*SN	Sn	09 25 55.2	+1.1
VANB	**Van**	1.44	117	*e*Pn	Pn	09 25 34.5	-0.1
VANB				*e*Sn	Sn	09 25 55.2	+1.1
TVAN	**Van**	1.49	119	*i* P	Pn	09 25 34.1	-1.1
TVAN				*i* S	Sb	09 25 55.9	+0.7
TVAN	**Van**	1.49	119	*i* P	Pn	09 25 34.1	-1.1
TVAN				*i* S	Sb	09 25 55.9	+0.8
VANT	**Van**	1.52	122	*e*PN	Pn	09 25 33.9	-1.8
VANT				*e*SN	Sn	09 25 54.9	-1.1
DYDN	**Diyadin**	1.53	79	*i* P	Pn	09 25 35.0	-0.8
DYDN				*i* S	Sn	09 25 56.6	+0.4
DYDN	**Diyadin**	1.53	79	*i* P	Pn	09 25 35.0	-0.8
DYDN				*i* S	Sn	09 25 56.6	+0.4
EZC	**Erzincan**	1.57	289	*e*PN	Pn	09 25 40.9	+4.5
CLDR	**Caldiran**	1.69	93	*e*PN	Pn	09 25 37.7	-0.3
CLDR	**Caldiran**	1.69	93	*e*Pn	Pn	09 25 37.7	-0.3
KARS	**Kars**	1.70	37	*e*PN	Pn	09 25 38.0	-0.1
KARS	**Kars**	1.70	37	*e*Pn	Pn	09 25 38.0	-0.1
DIY	**Diyarbakir**	1.81	222	*e*PN	Pn	09 25 38.9	-0.8
DIY	**Diyarbakir**	1.81	222	*e*Pn	Pn	09 25 38.9	-0.8
DIYA	**Diyarbakir**	1.85	224	*i* P	Pn	09 25 38.2	-2.0
DIYA				*i* S	Sn	09 26 03.5	-0.6
PZAR	**Pazar-Rize**	2.02	341	*e*PN	Pn	09 25 42.6	+0.1
PZAR	**Pazar-Rize**	2.02	341	*e*Pn	Pn	09 25 42.6	+0.1
MARD	**Mardin**	2.09	202	*i* P	Pn	09 25 41.0	-2.5
MARD				*i* S	Sn	09 26 10.7	+0.6
MARD				*i* S	Sn	09 26 13.1	+3.0
GUMT	**Gumushane**	2.12	305	*e*PN	Pn	09 25 44.2	+0.3
GUMT	**Gumushane**	2.12	305	*e*Pn	Pn	09 25 44.2	+0.4
HKR	**Hakkari**	2.30	136	*e*PN	Pn	09 25 47.4	+1.0
HKR	**Hakkari**	2.30	136	*e*Pn	Pn	09 25 47.4	+1.0
CUKT	**Cukurca**	2.49	143	*e*PN	Pn	09 25 49.7	+0.7
CUKT	**Cukurca**	2.49	143	*e*Pn	Pn	09 25 49.7	+0.7
MYA	**Malataya**	2.76	251	*e*PN	Pn	09 25 53.4	+0.7
MYA	**Malataya**	2.76	251	*e*Pn	Pn	09 25 53.4	+0.7
ESPY	**Espiye-Giresun**	2.84	306	*e*PN	Pn	09 25 54.3	+0.4
ESPY	**Espiye-Giresun**	2.84	306	*e*Pn	Pn	09 25 54.3	+0.4
URFA	**Urfa**	2.93	233	*e*PN	Pn	09 25 56.1	+1.0
URFA	**Urfa**	2.93	233	*e*Pn	Pn	09 25 56.2	+1.1
RSDY	**Resadiye-TOKAT**	3.59	290	*e*PN	Pn	09 26 04.7	+0.6
RSDY	**Resadiye-TOKAT**	3.59	290	*e*Pn	Pn	09 26 04.7	+0.6
SARI	**SarD1z-Kayseri**	3.98	263	*e*PN	Pn	09 26 14.6	+5.1
SARI	**SarD1z-Kayseri**	3.98	263	*e*Pn	Pn	09 26 14.6	+5.1
GAZ	**Gaziantep**	4.14	241	*e*PN	Pn	09 26 13.2	+1.5
GAZ	**Gaziantep**	4.14	241	*e*Pn	Pn	09 26 13.2	+1.5
KMRS	**Kahramanmaras**	4.20	247	*e*PN	Pn	09 26 14.0	+1.6
KMRS	**Kahramanmaras**	4.20	247	*e*Pn	Pn	09 26 14.0	+1.6

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*IDC **04** 09:30:15.4±0.8, 76°.14N×23°.23E, h0^{km}, mb3.5/3, mb1 3.6/7, mb1mx3.4/26, mbtmp3.5/7, ML3.7/3, MS3.5/1, Ms1 3.5/1, ms1mx2.4/31, Error ellipse: s-maj=22.2km s-min=6.5km az=66.0*

*CSEM **04** 09:30:15.2±0.2, 76°.19N×23°.22E, h15^{km}, ML3.3, Error ellipse: s-maj=10.3km s-min=5.3km az=81.0*

*ISCJB **04** 09:30:15.4±1.4, 75°.96N±0°.05×23°.3E±0°.3, h15^{km}±15^{km}, mb3.5/3, Error ellipse: s-maj=11.8km s-min=7.7km az=178.1*

*BER **04** 09:30:16.0±4.7, 76°.14N×26°.53E, h15^{km}, MD2.8, ML3.3, ML3.5(NAO)*

*HEL **04** 09:30:16.2±0.2, 76°.19N×23°.31E, h10^{km}, ML3.6, MD2.8(BER), ML3.2(BER)*

*NAO **04** 09:30:18.6±1.9, 76°.07N×21°.54E, h29^{km}±16^{km}, ML3.5*

ISC 04 09:30:15.0±0.8**, 76°.17N**±0°.03×**23°.0E**±0°.2**, h13**^{km}±8^{km}**, n53, **σ1^{s}.**45**/82**, mb3.5**/3**, 3C, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HOPEN	**Hopen**	0.59	54	⇑*i*P	Pg	09 30 25.8	-0.7
HOPEN				*e*		09 30 25.9	
	baz=131,slow=11						
HOPEN				*e*Sg	Sg	09 30 32.2	-2.0
HOPEN	**Hopen**	0.59	54	⇑*i*P	Pg	09 30 25.8	-0.7
HOPEN				*i* S	Sg	09 30 32.2	-2.0
HOPEN	**Hopen**	0.59	54	⇑*i*P	Pg	09 30 25.8	-0.6
	SNR=97						
HOPEN				*e*Sg	Sg	09 30 32.2	-2.0
	SNR=97						
HSP	**Hornsund**	1.93	299	*e*Pn	Pn	09 30 49.4	+2.0
HSP				*e*SX		09 31 12.5	
BJO	**Bjornoya**	1.94	212	*e*P	Pn	09 30 56.0	+8.5
BJO				*e*S	Sn	09 31 22.2	+11
BJO				AML	AML	09 31 27.8	
	comp=Z,723nm,0.4s						
BJO1	**Bjornoya**	1.96	213	*e*P	Pn	09 30 52.7	+4.8
BJO1				AML	AML	09 31 27.8	
	comp=Z,723nm,0.4s						
SPA0	**Spitsbergen Ar**	2.50	327	Pn	Pn	09 30 55.8	+0.6
	baz=143,slow=18						
SPA0				Pg	Pg	09 31 03.0	+0.1
	baz=146,slow=16						
SPA0				Sn	Sn	09 31 23.2	-2.2
	baz=146,slow=22						
SPA0				Lg		09 31 34.4	
	baz=134,slow=28						
SPA0	**Spitsbergen Ar**	2.50	327	*e*P	Pn	09 30 55.8	+0.6
SPA0				*e*PG	Pg	09 31 03.0	+0.1
SPA0				*e*		09 31 23.2	
SPA0				*e*SG	Sg	09 31 34.4	-0.8
SPA0	**Spitsbergen Ar**	2.50	327	Pn	Pn	09 30 55.8	+0.6
	SNR=55						
SPA0	**Spitsbergen Ar**	2.50	327	Pg	Pg	09 31 03.0	+0.2

	SNR=91						
SPA0				Sn	Sn	09 31 23.2	-2.3
SPA0				Lg		09 31 34.4	
	SNR=6.7						
SPITS	Spitsbergen Ar	2.50	327	Pn	Pn	09 30 55.8	+0.6
	baz=312,slow=15,SNR=981						
SPITS				Pg	Pg	09 31 03.1	+0.2
	baz=320,slow=18,SNR=77						
SPITS				Sn	Sn	09 31 24.2	-1.3
	baz=309,slow=22,SNR=5.6						
SPITS				Lg		09 31 34.9	
	baz=318,slow=32,SNR=12						
KBS	Kingsbay	3.65	324	Pn	Pn	09 31 11.3	+0.3
KBS				Pg	Pg	09 31 22.2	-2.7
KBS				Sn	Sn	09 31 50.8	-3.1
KBS				Lg		09 32 10.5	
KBS	Kingsbay	3.65	324	eP	Pn	09 31 11.2	+0.2
KBS				eS	Sn	09 31 54.1	+0.2
KBS				AML	AML	09 32 14.6	
	comp=Z,249nm,0.2s						
KBS	Kingsbay	3.65	324	Pn	Pn	09 31 11.3	+0.3
KBS	Kingsbay	3.65	324	Pg	Pg	09 31 22.2	-2.7
KBS				Sn	Sn	09 31 50.8	-3.1
KBS				eS	Sn	09 31 54.1	+0.2
	comp=Z,249nm,0.2s,SNR=53						
KBS				Lg		09 32 10.5	
KEV	Kevo	6.55	168	eP	Pn	09 31 52.2	+1.4
KEV				eS	Sn	09 33 02.7	-2.6
KEV				MSN		09 33 19.0	
	comp=Z,24nm,0.3s						
KEV	Kevo	6.55	168	P	Pn	09 31 52.2	+1.3
TRO	Tromso	6.68	192	eP	Pn	09 31 54.2	+1.6
TRO				eS	Sn	09 33 07.6	-0.7
TRO	Tromso	6.68	192	eP	Pn	09 31 54.2	+1.6
	SNR=51						
TRO				eS	Sn	09 33 07.6	-0.8
	SNR=51						
ARA0	ARCESS Array S	6.71	172	Pn	Pn	09 31 53.8	+0.8
	baz=5.4,slow=16						
ARA0				Sn	Sn	09 33 03.3	-5.9
	baz=355,slow=22						
ARA0	ARCESS Array S	6.71	172	eP	Pn	09 31 54.2	+1.2
ARA0				eS	Sn	09 33 04.5	-4.6
ARA0	ARCESS Array S	6.71	172	Pn	Pn	09 31 53.8	+0.8
	SNR=503						
ARCES	ARCESS Array B	6.71	172	Pn	Pn	09 31 54.0	+1.0
	comp=Z,1.3nm,0.3s,baz=353,slow=12,SNR=90						
ARCES				Sn	Sn	09 33 07.2	-1.9
	comp=Z,5.8nm,0.3s,baz=3.9,slow=20,SNR=5.3						
KTK1	Kautokeino	7.20	179	eP	Pn	09 31 59.8	+0.1
KTK1				eS	Sn	09 33 20.1	-1.0
KTK1				AML	AML	09 33 33.7	
	comp=N,28nm,0.4s						
KTK1	Kautokeino	7.20	179	eP	Pn	09 31 59.8	+0.1
	SNR=51						
KTK1				eS	Sn	09 33 20.1	-1.0
	comp=N,28nm,0.4s,SNR=51						
KIF	Kilpisjarvi	7.24	186	eP	Pn	09 32 01.7	+1.5
KIF				eS	Sn	09 33 18.6	-3.4
KIF				MSN		09 33 29.3	
	comp=Z,23nm,0.3s						
KIF	Kilpisjarvi	7.24	186	P	Pn	09 32 01.6	+1.4
HEF	Hetta	7.81	178	eP	Pn	09 32 10.2	+2.2
HEF				eS	Sn	09 33 32.9	-3.2
HEF				MSN		09 33 39.9	
	comp=Z,16nm,0.5s						
HEF	Hetta	7.81	178	P	Pn	09 32 10.2	+2.2
LANU	Lannavaara	8.17	183	eP	Pn	09 32 14.8	+1.8
LANU				eS	Sn	09 33 42.0	-3.0
LANU	Lannavaara	8.17	183	P	Pn	09 32 14.7	+1.7
LOF	Lofoten	8.57	204	ePn	Pn	09 32 21.9	+3.4
LOF				eS	Sn	09 33 53.2	-1.5
LOF				AML	AML	09 34 03.7	
	comp=Z,6.7nm,0.4s						
VRF	Varrio	8.70	163	eP	Pn	09 32 20.7	+0.5
VRF				eS	Sn	09 33 53.8	-4.2
VRF				MSN		09 33 59.5	
	comp=Z,9.9nm,0.3s						
VRF	Varrio	8.70	163	P	Pn	09 32 20.7	+0.4
SGF	Sodankyl	8.84	171	eP	Pn	09 32 22.2	+0.1
SGF				eS	Sn	09 33 55.8	-5.7
SGF	Sodankyl	8.84	171	P	Pn	09 32 22.2	0.0
APA0	Apatity Array	9.13	155	Pn	Pn	09 32 26.4	+0.2
	baz=340,slow=10						
APA0	Apatity Array	9.13	155	eP	Pn	09 32 26.4	+0.2
APA0	Apatity Array	9.13	155	Pn	Pn	09 32 26.4	+0.3
	SNR=55						
RNF	Rovaniemi	9.66	173	P	Pn	09 32 34.2	+0.8
KU6	Riekki	10.43	164	P	Pn	09 32 44.7	+0.8
MSF	Maaselka	10.49	166	P	Pn	09 32 45.5	+0.8
OUL	Oulu	11.18	174	P	Pn	09 32 53.8	-0.4
KJN	Kajaani	12.24	170	P	Pn	09 33 08.1	-0.6
VAF	Ylistaro	13.20	181	P	Pn	09 33 20.1	-1.6
FIA0	FINESS Array S	14.84	174	Pn	Pn	09 33 42.7	-1.3
	baz=354,slow=14						
FIA0	FINESS Array S	14.84	174	Pn	Pn	09 33 42.7	-1.3
	SNR=55						
NOA	NORSAR Array B	15.74	202	Pn	Pn	09 33 56.9	+1.1
	comp=Z,0.2nm,0.3s,baz=14,slow=14,SNR=2.8						
HFS	Hagfors	16.44	197	Pn	Pn	09 34 03.6	-1.3
	comp=Z,0.1nm,0.3s,baz=25,slow=11,SNR=2.2						
ZALV	Zalesovo Beam	31.78	98	P	P	09 36 40.0	+1.6
	comp=Z,0.3nm,0.3s,mb3.6,baz=305,slow=3.0,SNR=3.9						
MKAR	Makanchi Array	37.85	106	P	P	09 37 33.2	+2.5
	comp=Z,0.6nm,0.7s,mb3.5,baz=336,slow=7.7,SNR=10						
ASAJ	Asahikawa	54.00	51	LR	LR	10 06 15.4	
	comp=Z,51nm,21.7s,baz=9.8,slow=40						
TORD	Torodi Ar. Bea	64.04	203	P	P	09 40 50.5	+2.6
	comp=Z,0.3nm,0.7s,mb3.5,baz=355,slow=7.7,SNR=2.9						

*NEIC **04** 09:35:05.5, 15°.98N×97°.57W, h17^{km}, MD3.9(MEX), After MEX.*

MEX 04 09:35:05.4±0.5**, 15°.97N×97°.56W, h17**^{km}±19^{km}**, MD3.9, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.68	308	iP	Pg	09 35 16.6	-2.2
PNIG				iS	Sg	09 35 24.9	-3.1
VHO	Vista Hermosa	1.35	36	iP	Pn	09 35 26.6	-2.8
VHO				iS	Sn	09 35 42.4	-4.6
HUIG	Huatulco	1.41	98	iP	Pn	09 35 26.1	-4.2
HUIG				iS	Sn	09 35 43.9	-4.7
TPIG	Tehuac#an	2.44	4	eP	Pn	09 35 41.6	-2.8
TPIG				iS	Sn	09 36 09.2	-4.7
MEIG	Mezcala	2.77	315	eP	Pn	09 35 46.6	-2.3
MEIG				iS	Sn	09 36 18.1	-3.9
CMIG	Matias Romero	2.80	66	iP	Pn	09 35 46.6	-2.8
CMIG				iS	Sn	09 36 19.2	-3.5
CMIG	Matias Romero	2.80	66	iP	Pn	09 35 46.6	-2.8
CMIG				iS	Sn	09 36 22.5	-0.3
CAIG	El Cayaco	2.81	293	eP	Pn	09 35 47.2	-2.3
CAIG				iS	Sn	09 36 20.5	-2.4
PPM	Popocatepetl	3.24	342	iP	Pn	09 35 54.1	-1.4
PPM				iS	Sn	09 36 31.2	-2.4
PPM	Popocatepetl	3.24	342	iP	Pn	09 35 54.1	-1.4
PPM				iS	Sn	09 36 27.9	-5.7
MZVM		3.57	334	iP	Pn	09 35 57.5	-2.5
MZVM				iS	Sn	09 36 37.9	-3.9
IIO	Organos	3.76	343	eP	Pn	09 36 00.4	-2.3
IIO				iS	Sn	09 36 42.8	-3.7
PCIG		4.19	93	iP	Pn	09 36 07.0	-1.5
PCIG				iS	Sn	09 36 53.0	-4.1
TGIG		4.34	79	eP	Pn	09 36 11.9	+1.3
TGIG				iS	Sn	09 37 02.5	+1.8

*NIED **04** 10:00:00, 31°.20N×130°.40E, h180^{km}, Mw3.9 Best double couple: M$_0$8.58000×10^{14} NP1:φ$_s$352.00000°, δ79.00000°, λ84.00000°. NP2:φ$_s$202.00000°, δ12.00000°, λ119.00000°.*

*ISCJB **04** 10:00:30.0±0.4, 31°.14N±0°.05×130°.36E±0°.08, h170^{km}±3^{km}, mb3.6/10, Error ellipse: s-maj=12.3km s-min=7.4km az=18.8*

*NEIC **04** 10:00:31.9, 31°.17N×130°.38E, h161^{km}, MG3.9(JMA), After JMA.*

*JMA **04** 10:00:31.8±0.1, 31°.17N×130°.38E, h161^{km}±1^{km}, M3.9*

*IDC **04** 10:00:31.6±1.5, 31°.08N×130°.05E, h168^{km}±14^{km}, mb3.4/9, mb1 3.4/12, mb1mx3.3/26, mbtmp3.3/12, Error ellipse: s-maj=25.5km s-min=12.0km az=88.0*

ISC 04 10:00:31.1±0.4**, 31°.16N**±0°.05×**130°.35E**±0°.08**, h166**^{km}±3^{km}**, n21, σ0^{s}.71**/29**, mb3.6**/10**, 6C, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSU	Suzuyama	0.36	15	⇑P	Pn	10 00 53.9	+0.2
JSU				S	Sn	10 01 11.0	-0.1
JTSR	Tashiro 2	0.49	89	⇑P	Pn	10 00 54.3	+0.1
JTSR				S	Sn	10 01 10.9	-0.9
JTN	Tanegashima 3	0.74	133	⇑P	Pn	10 00 55.8	+0.3
JTN				S	Sn	10 01 13.9	-0.3
JSJ	Shimokoshiki	0.75	314	⇑P	Pn	10 00 55.7	+0.1
JSJ				S	Sn	10 01 14.1	-0.3
JTZ	Takazaki	0.97	40	⇑P	Pn	10 00 57.4	+0.3
JTZ				S	Sn	10 01 16.8	-0.4
JNN	Nakanoshima	1.38	197	P	Pn	10 01 00.9	+0.2
JNN				S	Sn	10 01 24.2	+0.8
JIU2	Izumi 2	1.44	16	⇑P	Pn	10 01 01.6	+0.4
JIU2				S	Sn	10 01 23.9	-0.6
JOW	Kunigami	4.68	203	P	Pn	10 01 40.0	-0.7
	2.4nm,0.3s,baz=122,slow=26,SNR=10						
JOW				S	Sn	10 02 30.7	-4.2
	5.6nm,0.3s,baz=71,slow=29,SNR=12						
KSRS	Korea Array	6.59	343	P	Pn	10 02 07.9	+2.3
	0.2nm,0.3s,baz=170,slow=15,SNR=6.0						
MJAR	Matsushiro Arr	8.46	48	P	Pn	10 02 33.9	+3.5
	1.0nm,0.3s,baz=238,slow=14,SNR=7.8						
MJAR				S	Sn	10 04 05.0	+0.3
	0.6nm,0.3s,baz=238,slow=24,SNR=7.2						
LZH	Lanzhou	22.58	290	eP	P	10 05 18.0	+0.5
LZH				pP		10 05 25.0	
LZH				sP	sP	10 05 28.3	-40
LZH				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.3						
LZH				pmax	pmax		
	comp=Z,78nm,4.0s						
SONM	Songino Array	24.73	319	P	P	10 05 36.8	-0.2
	comp=Z,0.3nm,0.5s,mb3.1,baz=135,slow=9.2,SNR=3.6						
MKAR	Makanchi Array	39.85	307	PcP	PcP	10 09 50.4	-0.3
	comp=Z,0.1nm,0.5s,baz=100,slow=3.4,SNR=3.3						
MKAR				ScP	ScP	10 13 22.4	-1.7
	comp=Z,0.1nm,0.5s,baz=108,slow=3.2,SNR=3.5						
KURK	Kurchatov	42.69	313	P	P	10 08 11.4	+0.1
	comp=Z,0.3nm,0.4s,mb3.3,baz=92,slow=8.7,SNR=2.1						
BVAR	Borovoye Array	47.97	315	P	P	10 08 52.6	-0.2
	comp=Z,0.5nm,0.3s,mb3.6,baz=84,slow=7.5,SNR=3.8						
BVAR				PcP	PcP	10 10 17.6	-0.7
	comp=Z,0.3nm,0.4s,baz=70,slow=4.7,SNR=2.8						
WRA	Warramunga Arr	50.95	175	P	P	10 09 15.8	+0.1
	comp=Z,0.5nm,0.5s,mb3.4,baz=355,slow=8.0,SNR=6.6						
ASAR	Alice Springs	54.62	176	P	P	10 09 43.1	+0.6
	comp=Z,0.8nm,0.8s,mb3.5,baz=1.2,slow=6.6,SNR=8.0						
ARCES	ARCESS Array B	66.13	338	P	P	10 10 58.8	-1.2
	comp=Z,2.3nm,0.8s,mb4.1,baz=36,slow=7.8,SNR=3.7						
AKASG	Malin Array Be	73.01	319	P	P	10 11 41.7	-0.9
	comp=Z,0.7nm,0.3s,mb3.8,baz=52,slow=6.9,SNR=4.9						
BRTR	Keskin Array B	75.49	308	P	P	10 11 57.6	+0.5
	comp=Z,1.9nm,0.8s,mb3.8						
NOA	NORSAR Array B	75.72	334	P	P	10 11 56.9	-1.1
	comp=Z,0.7nm,0.6s,mb3.5,baz=50,slow=5.5,SNR=2.4						

IDC 04 10:12:48.4±1.1**, 4°.77N×37°.71E, h0**^{km}**, mb3.7**/4**, mb1 3.9**/5**, mb1mx3.6**/23**, mbtmp3.8**/5**, MS3.2**/2**, Ms1 3.2**/2**, ms1mx2.8**/33**, Error ellipse: s-maj=30.8km s-min=19.7km az=105.0, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	Kilima Mbogo	5.88	184	Pn	Pn	10 14 18.6	+1.8
	7.6nm,0.3s,baz=358,slow=15,SNR=61						
KMBO				Sn	Sn	10 15 24.0	-1.0
	4.6nm,0.3s,baz=49,slow=21,SNR=5.1						
KMBO				Lg		10 15 54.6	
	23nm,0.3s,baz=75,slow=22,SNR=6.8						
ASF	Jabal al Asfar	27.27	358	LR	LR	10 28 19.8	
	comp=Z,34nm,18.6s,baz=343,slow=34						
TORD	Torodi Ar. Bea	36.49	286	P	P	10 19 55.8	0.0
	0.2nm,0.6s,baz=95,slow=6.9,SNR=3.2						
TORD				LR	LR	10 34 14.3	
	comp=Z,55nm,19.4s,baz=285,slow=35						
BVAR	Borovoye Array	55.07	23	P	P	10 22 22.7	+0.7
	0.9nm,0.7s,baz=166,slow=7.0,SNR=5.0						
CMAR	Chiang Mai Arr	61.23	72	P	P	10 23 05.9	+0.1
	0.4nm,0.3s,baz=269,slow=7.8,SNR=6.4						
ZALV	Zalesovo Beam	62.12	29	P	P	10 23 10.1	-1.0
	0.4nm,0.4s,baz=261,slow=3.8,SNR=4.0						

*IDC **04** 10:15:03.9±1.9, 8°.25N×91°.49E, h0^{km}, mb3.8/7, mb1 4.0/9, mb1mx3.8/25, mbtmp3.8/9, ML4.1/1, Error ellipse: s-maj=67.8km s-min=17.2km az=64.0*

*NEIC **04** 10:15:05.2±0.9, 8°.19N×91°.47E, h10^{km}, mb4.3/2, Error ellipse: s-maj=24.9km s-min=9.3km az=61.0*

*ISCJB **04** 10:15:07.2±1.0, 8°.3N±0°.1×91°.7E±0°.2, h33^{km}, mb3.9/9, Error ellipse: s-maj=29.8km s-min=10.9km az=151.2*

ISC 04 10:15:09.2±1.0**, 8°.2N**±0°.1×**91°.6E**±0°.2**, h35**^{km}**, n15, σ0^{s}.78**/15**, mb3.9**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	9.11	126	Pn	Pn	10 17 17.4	-0.8
	2.1nm,0.3s,baz=336,slow=9.3,SNR=8.3						
PSI	Prapat	9.11	126	Pn	Pn	10 17 17.4	-0.9
CMAR	Chiang Mai Arr	12.43	35	Pn	Pn	10 18 04.4	+0.6
	baz=233,slow=14,SNR=3.0						
LSA	Lhasa	21.35	359	P	P	10 19 54.0	+0.5
LSA	Lhasa	21.35	359	eP	P	10 19 54.0	+0.5
	10nm,0.6s,mb4.3						
AML	Almayashu	37.25	338	eP	P	10 22 18.8	+1.2
	3.8nm,0.7s,mb4.3						
MK31	Makanchi Array	39.22	350	eP	P	10 22 33.8	-0.3
MKAR	Makanchi Array	39.22	350	P	P	10 22 34.3	+0.2
	1.2nm,0.8s,mb3.7,baz=173,slow=6.6,SNR=11						
SONM	Songino Array	41.42	15	P	P	10 22 51.6	-0.6
	1.4nm,0.8s,mb3.6,baz=194,slow=7.4,SNR=8.9						
KURK	Kurchatov	43.68	348	P	P	10 23 09.0	-1.5
	0.3nm,0.4s,mb3.4,baz=174,slow=7.8,SNR=3.7						
ZALV	Zalesovo Beam	45.90	354	P	P	10 23 27.5	-0.7
	0.3nm,0.3s,mb3.8,baz=198,slow=8.9,SNR=2.2						
WRA	Warramunga Arr	50.57	124	P	P	10 24 04.6	-0.2
	0.4nm,0.3s,mb3.8,baz=301,slow=8.9,SNR=18						
WRA	Warramunga Arr	50.57	124	P	P	10 24 04.6	-0.2
ASAR	Alice Springs	52.13	129	P	P	10 24 16.9	+0.5
	1.7nm,0.6s,mb4.2,baz=304,slow=7.3,SNR=29						
STKA	Stephens Creek	62.22	133	P	P	10 25 28.7	+1.0
	2.8nm,1.0s,mb4.4,baz=305,slow=8.3,SNR=3.7						

IDC 04 10:24:49.7±4.7**, 2°.80S×141°.22E, h0**^{km}**, mb3.3**/2**, mb1 3.6**/3**, mb1mx3.5**/15**, mbtmp3.4**/3**, Error ellipse: s-maj=168.3km s-min=31.2km az=90.0, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	18.31	201	P	Pn	10 29 04.5	-0.9
	0.2nm,0.3s,baz=22,slow=12,SNR=7.4						
ASAR	Alice Springs	21.92	198	P	P	10 29 44.9	+0.1
	0.7nm,0.7s,baz=30,slow=10,SNR=6.9						
MKAR	Makanchi Array	71.40	322	P	P	10 36 12.2	+0.4
	0.3nm,0.7s,baz=108,slow=8.3,SNR=4.7						

IGQ 04 10:29:49.1, 0°.37S×80°.97W, h20^{km}±3^{km}**, Mb4.4, Ms4.2, 6C-11D, Error ellipse: s-maj=4.7km s-min=3.4km az=34.1, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHIS	Cerro-Chispas-	0.72	160	⇓P	Pb	10 30 02.0	-1.0
JAMA	Jama	0.77	82	⇓S	Sb	10 30 13.2	-0.8
JAMA	Jama	0.77	82	⇓P	Pb	10 30 04.4	+0.5
JUA2	San Juan 2	2.37	86	P	Pn	10 30 28.9	+2.0
PINO	Pino	2.37	85	S	Sn	10 30 57.4	+1.9
PINO	Pino	2.37	85	P	Pn	10 30 28.9	+2.0
TERV	Terraza Guagua	2.38	85	P	Pn	10 30 28.8	+1.8
GGP	Refugio Guagua	2.38	85	P	Pn	10 30 29.0	+2.0
YANA	Yana	2.41	84	P	Pn	10 30 29.6	+2.1
CAMI	Rancho Maria	2.49	97	⇓S	Sn	10 31 01.2	+2.9
CAMI	Rancho Maria	2.49	97	⇓P	Pn	10 30 31.4	+2.9
NAS2	Nasa	2.52	96	⇓P	Pn	10 30 32.3	+3.4
PITA	Cotopaxi Volc	2.55	94	S	Sn	10 31 01.1	+1.4
PITA	Cotopaxi Volc	2.55	94	P	Pn	10 30 32.0	+2.7
MOV1	Cotopaxi Vol s	2.55	98	P	Pn	10 30 33.3	+3.9
VC1	Cotopaxi 1	2.58	96	⇓P	Pn	10 30 33.2	+3.4
IGUA	Igualata	2.58	116	⇓P	Pn	10 30 32.0	+2.2
OTAV	Otavalo	2.59	77	⇑P	Pn	10 30 32.4	+2.5
OTAV	Otavalo	2.59	77	⇑S	Sn	10 31 03.2	+2.3
TAMB	Tambo	2.62	97	P	Pn	10 30 33.6	+3.3
COV1	Cotopaxi Volc	2.64	96	⇑S	Sn	10 31 03.0	+0.8
COV1	Cotopaxi Volc	2.64	96	⇑P	Pn	10 30 32.9	+2.2
PISA	Pisayambo	2.67	105	S	Sn	10 31 06.1	+3.2
PISA	Pisayambo	2.67	105	P	Pn	10 30 33.9	+2.8
JUI6	Juive	2.71	113	⇓S	Sn	10 31 07.4	+3.5
JUI6	Juive	2.71	113	⇓P	Pn	10 30 35.0	+3.4
COTA	Cotacachi	2.73	75	⇑S	Sn	10 31 08.0	+3.9
COTA	Cotacachi	2.73	75	⇑P	Pn	10 30 35.4	+3.6
RUN5	Runtun	2.75	112	S	Sn	10 31 08.0	+3.2
RUN5	Runtun	2.75	112	P	Pn	10 30 35.7	+3.6
ARRY	Arrayan	2.76	114	P	Pn	10 30 33.7	+1.5
PATA	Patacocha	2.78	114	P	Pn	10 30 35.3	+2.8
ULBA	Ulba	2.78	113	S	Sn	10 31 07.2	+1.7
ULBA	Ulba	2.78	113	P	Pn	10 30 34.4	+1.9
ANTI	Antisana	2.81	92	⇓P	Pn	10 30 36.6	+3.6
CAYA	Cayambe	3.01	82	P	Pn	10 30 40.2	+4.5

*KRSC **04** 10:33:25.1±1.4, 49°.04N×156°.55E, h5^{km}±5^{km}, ML5.6*

*ISCJB **04** 10:33:26.2±0.3, 49°.23N±0°.02×155°.28E±0°.02, h51^{km}±3^{km}, mb5.0/162, MS4.2/40, Error ellipse: s-maj=4.0km s-min=2.0km az=151.5*

*BJI **04** 10:33:26.1, 49°.53N×155°.57E, h68^{km}, mB5.1/29, mb4.6/42, Ms4.5/27, Ms7 4.1/27*

*MOS **04** 10:33:26.3±0.9, 49°.29N×155°.30E, h49^{km}, mb5.2/67, MS4.1/21, Error ellipse: s-maj=7.5km s-min=4.1km az=79.5*

MOS Felt (III) at Severo-Kuril'sk.

*IDC **04** 10:33:27.8±0.5, 49°.40N×155°.13E, h48^{km}±5^{km}, mb4.4/25, mb1 4.6/26, mb1mx4.5/28, mbtmp4.4/26, MS4.1/27, Ms1 4.1/27, ms1mx4.0/34, Error ellipse: s-maj=14.4km s-min=10.6km az=149.0*

*GCMT **04** 10:33:29.7±0.3, 49°.12N×155°.66E, h54^{km}±1^{km}, MW5.0/77, Moment Tensor Solution. s35,c42; s77,c108; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.96±.17; M$_{\theta\theta}$-0.71±.12; M$_{\phi\phi}$-1.25±.12; M$_{r\theta}$1.82±.09; M$_{\theta\phi}$-2.63±.08; M$_{\phi r}$0.07±.08; Best double couple: M$_0$3.58700×10^{16} NP1:φ$_s$187.00000°, δ46.00000°, λ33.00000°. NP2: φ$_s$73.00000°, δ67.00000°, λ131.00000°. Principal axes: T 3.2570, Plg50.0000°, Azm29.0000°; N 0.6560, Plg37.0000°, Azm235.0000°; P -3.9170, Plg13.0000°, Azm135.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **04** 10:33:29.7±0.6, 49°.35N×155°.19E, h64^{km}±5^{km}, mb5.1/101 Error ellipse: s-maj=4.9km s-min=2.7km az=167.0*

*SZGRF **04** 10:33:35.1, 50°.76N×155°.29E, h33^{km}, mb4.9, MS4.4, Kuril Islands, Russia*

*DJA **04** 10:34:03, 47°.52N×154°.16E, h133^{km}, mb5.0/8*

ISC 04 10:33:29.3±0.3**, 49°.31N**±0°.02×**155°.17E**±0°.02**, h59**^{km}±2^{km}**, h62**^{km}±2.8^{km}**:pP-P, n851, σ0^{s}.75**/875**, mb5.0**/162**, MS4.2**/40**, 234C-173D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	1.51	24	⇓iPN	Pn	10 33 52.5	-1.5
SKR				eS	Sn	10 34 10.0	-2.6
SKR				pmax	pmax		
	comp=N,1μm,0.2s						
SKR				pmax	pmax		
	comp=E,360nm,0.2s						
SKR				pmax	pmax		
	comp=Z,2μm,0.2s						
SKR				pmax	pmax		
	comp=Z,5μm,2.0s						
SKR				pmax	pmax		
	comp=N,5μm,4.0s						
SKR				pmax	pmax		
	comp=E,4μm,4.0s						
SKR				smax			
	comp=N,33μm,2.0s						
SKR				smax			
	comp=E,28μm,4.0s						
MIPR	Malaya Ipel'ka	3.14	18	eP	Pn	10 34 16.1	-0.1
MIPR				iS	Sn	10 34 53.0	+0.6
GRL	Gorelyy	3.73	28	eP	Pn	10 34 24.5	+0.2
GRL				iS	Sn	10 35 07.2	+0.3
RUS	Russkaya	3.78	33	eP	Pn	10 34 23.1	-1.8
RUS				iS	Sn	10 35 05.1	-2.9
PEA0B	Petropavlovsk-	4.12	22	ePn	Pn	10 34 30.6	+0.9
PETK	Petropavlovsk-	4.12	22	PN	Pn	10 34 30.4	+0.8
PETK				S	Sn	10 35 16.4	-0.1
PETK				pmax	pmax		
	comp=Z,94nm,0.3s						
PETK				smax			
	comp=N,11nm,0.3s						
PETK				MLR	MLR		
	comp=Z,2μm,21.5s						
PETK	Petropavlovsk-	4.12	22	P	Pn	10 34 30.4	+0.8
	comp=Z,94nm,0.3s,baz=178,slow=11,SNR=419						
PETK				S	Sn	10 35 16.4	-0.1
	comp=Z,11nm,0.3s,baz=182,slow=15,SNR=2.2						
PETK				LR	LR	10 36 29.3	
	comp=Z,2μm,21.5s,baz=338,slow=45						
PETK	Petropavlovsk-	4.12	22	P	Pn	10 34 30.4	+0.8
PETK				S	Sn	10 35 16.4	-0.1
PETK				LR	LR	10 36 29.3	
PET	Petropavlovsk	4.32	29α	iPN	Pn	10 34 32.2	-0.1
PET				eS	Sn	10 35 20.5	-0.8
PET				pmax	pmax		
	comp=Z,817nm,1.1s						
PET				pmax	pmax		
	comp=N,890nm,0.9s						
PET				pmax	pmax		
	comp=E,354nm,0.9s						
PET				pmax	pmax		
	comp=Z,2μm,3.8s						
PET				pmax	pmax		
	comp=Z,700nm,5.5s						
PET				smax			
	comp=E,1μm,3.0s						
PET				smax			
	comp=E,6μm,2.8s						
PET				MLR	MLR		
	comp=Z,2μm,11.0s						
PET	Petropavlovsk	4.32	29	eP	Pn	10 34 32.3	0.0
PET				iS	Sn	10 35 20.5	-0.8
PET	Petropavlovsk	4.32	29	ePn	Pn	10 34 32.2	-0.1
PET				eSn	Sn	10 35 21.5	+0.2
INSR	Institute	4.34	29	eP	Pn	10 34 32.2	-0.4
INSR				iS	Sn	10 35 21.0	-0.8
AVH	Avacha	4.55	28	eP	Pn	10 34 36.7	+1.2
AVH				iS	Sn	10 35 29.1	+2.1
NLC	Nalytchevo	4.67	33	eP	Pn	10 34 35.1	-2.0
NLC				iS	Sn	10 35 25.1	-4.9
GNL	Ganaly	4.72	20	eP	Pn	10 34 39.4	+1.6
GNL				iS	Sn	10 35 34.2	+3.0
KUR	Kuril'sk	6.43	233	PN	Pn	10 35 00.5	-0.7
KUR				pmax	pmax		
	comp=N,210nm,0.8s						
KUR				pmax	pmax		
	comp=E,130nm,0.8s						
KUR				pmax	pmax		
	comp=Z,530nm,0.8s						
MKZ	Mys Kozlova	6.64	35	eP	Pn	10 35 01.6	-2.4
MKZ				iS	Sn	10 36 13.8	-4.3
TUMR	Tumrok	6.72	25	eP	Pn	10 35 06.0	+0.9
KMNR	Kamenistaya	7.16	24	eP	Pn	10 35 11.9	+0.8
KOZ	Kozyrevsk	7.34	21	eP	Pn	10 35 14.1	+0.5
KPT	Kopyto	7.34	23	eP	Pn	10 35 14.0	+0.4
KOZR	Kozyr	7.35	21	PN	Pn	10 35 14.1	+0.3
KIRR	Kirishev	7.36	23	eP	Pn	10 35 14.5	+0.6
BZMR	Bezymyannaya	7.38	24	eP	Pn	10 35 14.6	+0.4
SRDR	Sredinnyy	7.54	20	eP	Pn	10 35 18.0	+1.6
ZLN	Zelenaya	7.54	25	eP	Pn	10 35 17.6	+1.2
CIRR	Tsirk	7.61	24	eP	Pn	10 35 17.9	+0.6
KRSR	Krestovskiy	7.65	23	eP	Pn	10 35 18.3	+0.4
KLY	Klyuchi	7.76	23	eP	Pn	10 35 20.4	+1.0
BDR	Baidarnaya	8.13	24	eP	Pn	10 35 24.6	+0.2
SRKR	Sorokina	8.20	24	eP	Pn	10 35 25.5	+0.2
SMKR	Semkarok	8.21	25	eP	Pn	10 35 25.0	-0.6
YUK	Yuzh-Kuril'sk	8.29	234	ePN	Pn	10 35 28.7	+2.0
YUK				S	Sn	10 37 03.7	+4.9
YUK				smax			
	comp=E,490nm,0.6s						

YUK				smax			
	comp=N,190nm,0.5s						
YUK				smax			
	comp=N,3µm,2.0s						
YUK				smax			
	comp=E,3µm,1.0s						
KBTR	**Krutoberegovo**	**8.32**	**31**	*e*P	**Pn**	**10 35 25.2**	**-1.8**
KBTR				*i* S	**Sn**	**10 36 53.2**	**-6.1**
YSS	**Yuzh-Sakhalins**	**8.63**	**259**	⇑*i*PN	**Pn**	**10 35 35.0**	**+3.6**
YSS				pmax	pmax		
	comp=Z,40nm,0.8s						
YSS				MLR	MLR		
	comp=Z,500nm,12.0s						
YSS	**Yuzh-Sakhalins**	**8.63**	**259**	*e*Pn	**Pn**	**10 35 34.1**	**+2.7**
YSS				*e*Sn	**Sn**	**10 37 08.2**	**+1.1**
NEM2	**Nemuro 2**	**8.82**	**231**	P	**Pn**	**10 35 32.2**	**-1.8**
NEM2				*e*S	**Sn**	**10 37 04.2**	**-7.6**
JNK	**Nakash**	**9.21**	**235**	P	**Pn**	**10 35 40.0**	**+0.8**
JTKR	**Abashiri--Toko**	**9.40**	**240**	P	**Pn**	**10 35 43.9**	**+2.0**
JSE	**Soyaes**	**9.62**	**248**	P	**Pn**	**10 35 49.3**	**+4.5**
JAK	**Akkeshi**	**9.62**	**233**	P	**Pn**	**10 35 43.3**	**-1.6**
JAK				*e*S	**Sn**	**10 37 25.0**	**-6.4**
JMP	**Maruseppu**	**9.70**	**241**	P	**Pn**	**10 35 48.4**	**+2.5**
JWK2	**Keihoku**	**9.86**	**251**	P	**Pn**	**10 35 53.9**	**+5.8**
JWK2				*e*S	**Sn**	**10 37 42.8**	**+5.6**
JAR	**Ashorobuto**	**9.91**	**237**	P	**Pn**	**10 35 49.9**	**+1.0**
JAR				*e*S	**Sn**	**10 37 38.2**	**-0.3**
ASAJ	**Asahikawa**	**10.07**	**244**	PN	**Pn**	**10 35 54.7**	**+3.6**
ASAJ				pmax	pmax		
	comp=Z,10.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,418nm,19.7s						
ASAJ	**Asahikawa**	**10.07**	**244**	P	**Pn**	**10 35 55.1**	**+4.0**
ASAJ	**Asahikawa**	**10.07**	**244**	P	**Pn**	**10 35 54.7**	**+3.6**
	comp=Z,9.8nm,0.3s,baz=75,slow=13,SNR=64						
ASAJ				S	**Sn**	**10 37 34.9**	**-7.5**
	baz=289,slow=33,SNR=1.5						
ASAJ				LR	LR	10 39 43.6	
	comp=Z,418nm,19.7s,baz=270,slow=37						
JKK2	**Kamakawa 2**	**10.13**	**242**	P	**Pn**	**10 35 54.8**	**+3.0**
JOB	**Onbets**	**10.14**	**235**	P	**Pn**	**10 35 51.8**	**-0.2**
JOB				*e*S	**Sn**	**10 37 39.1**	**-5.0**
JSS	**Shosan**	**10.36**	**247**	P	**Pn**	**10 36 01.3**	**+6.4**
JCH	**Churui**	**10.60**	**235**	P	**Pn**	**10 35 56.9**	**-1.3**
JCH				*e*S	**Sn**	**10 37 48.6**	**-6.6**
JAB	**Ashibetsu**	**10.65**	**242**	P	**Pn**	**10 36 02.5**	**+3.5**
JFR	**Furan**	**10.66**	**240**	P	**Pn**	**10 36 02.4**	**+3.4**
JBT2	**Biratori 2**	**11.03**	**239**	P	**Pn**	**10 36 04.5**	**+0.3**
JEM	**Erimo**	**11.12**	**234**	P	**Pn**	**10 36 04.1**	**-1.3**
JEM				*e*S	**Sn**	**10 38 01.8**	**-6.2**
ERM	**Erimo**	**11.12**	**234**	Pn	**Pn**	**10 36 06.6**	**+1.2**
	comp=Z,756nm,0.5s,SNR=14						
ERM	**Erimo**	**11.12**	**234**	*e*Pn	**Pn**	**10 36 05.8**	**+0.4**
JNBK	**Urakawa-nobuka**	**11.15**	**236**	P	**Pn**	**10 36 03.2**	**-2.6**
JEW	**Eniwo**	**11.51**	**241**	P	**Pn**	**10 36 12.3**	**+1.6**
JEW				*e*S	**Sn**	**10 38 22.7**	**+5.2**
JSK	**Shakotan**	**11.77**	**245**	P	**Pn**	**10 36 18.2**	**+4.0**
JNB	**Noboribetsu**	**11.98**	**241**	P	**Pn**	**10 36 16.7**	**-0.4**
JNB				*e*S	**Sn**	**10 38 25.2**	**-3.8**
JKB	**Kayabe**	**12.36**	**238**	P	**Pn**	**10 36 19.8**	**-2.5**
JKB				*e*S	**Sn**	**10 38 29.5**	**-8.8**
JSH	**Shimam**	**12.45**	**243**	P	**Pn**	**10 36 24.4**	**+1.0**
JYM2	**Yakumo 2**	**12.59**	**241**	P	**Pn**	**10 36 23.3**	**-2.0**
JOT	**Ohata**	**12.69**	**237**	P	**Pn**	**10 36 23.4**	**-3.4**
JOT				*e*S	**Sn**	**10 38 35.7**	**-11**
JSR	**Shiriuchi**	**12.94**	**239**	P	**Pn**	**10 36 27.2**	**-3.0**
JTM	**Tenmabayashi**	**13.10**	**235**	*e*S	**Sn**	**10 38 44.6**	**-12**
JOSM	**Okushiri--Mats**	**13.12**	**243**	P	**Pn**	**10 36 31.6**	**-1.0**
JANG	**Nango**	**13.16**	**232**	P	**Pn**	**10 36 28.6**	**-4.6**
JANG				*e*S	**Sn**	**10 38 43.6**	**-14**
HABR	**Khabarovsk**	**13.27**	**274**	*de*PN	**Pn**	**10 36 38.9**	**+4.3**
HABR				*e*S	**Sn**	**10 39 04.5**	**+4.2**
HABR				pmax	pmax		
	comp=Z,59nm,1.2s						
HABR				pmax	pmax		
	comp=E,55nm,1.1s						
HABR				pmax	pmax		
	comp=N,32nm,1.5s						
HABR				MLR	MLR		
	comp=E,144nm,16.0s						
HABR				MLR	MLR		
	comp=Z,259nm,16.0s						
HABR				MLR	MLR		
	comp=N,459nm,13.0s						
JOM	**Ohasama**	**13.95**	**230**	P	**Pn**	**10 36 38.9**	**-4.9**
JOM				*e*S	**Sn**	**10 39 05.5**	**-11**
OFUJ	**Ofunato**	**14.06**	**228**	P	**Pn**	**10 36 40.4**	**-4.9**
OFUJ				*e*S	**Sn**	**10 39 06.8**	**-13**
JRG	**Rokugo**	**14.34**	**232**	P	**Pn**	**10 36 44.6**	**-4.4**
JRG				*e*S	**Sn**	**10 39 14.8**	**-12**
JIO	**Ouri**	**14.71**	**228**	P	**Pn**	**10 36 48.1**	**-5.6**
JIO				*e*S	**Sn**	**10 39 21.9**	**-13**
KLR	**Kul'dur**	**15.28**	**279**	⇓*i*P	**Pn**	**10 37 01.9**	**+0.8**
KLR				pmax	pmax		
	comp=E,100nm,1.6s						
KLR				pmax	pmax		
	comp=Z,97nm,1.6s						
KLR				MLR	MLR		
	comp=Z,700nm,14.0s						
JFY	**Yanaizu**	**16.33**	**229**	P	**Pn**	**10 37 11.1**	**-3.4**
JSD	**Sado**	**16.59**	**234**	P	**Pn**	**10 37 16.0**	**-1.7**
MAJO	**Matsushiro**	**17.75**	**230**	*e*P	**Pn**	**10 37 31.5**	**-0.6**
MAJO				pmax	pmax		
	comp=Z,25nm,0.6s						
MAJO	**Matsushiro**	**17.75**	**230**	*e*P	**Pn**	**10 37 31.5**	**-0.6**
	comp=Z,26nm,0.6s						
MAT	**Matsushiro**	**17.75**	**230**	P	**Pn**	**10 37 33.7**	**+1.6**
MAT	**Matsushiro**	**17.75**	**230**	P	**Pn**	**10 37 31.3**	**-0.8**
MJAR	**Matsushiro Arr**	**17.75**	**230**	P	**Pn**	**10 37 31.5**	**-0.6**
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,279nm,20.7s						
MJAR	**Matsushiro Arr**	**17.75**	**230**	P	**Pn**	**10 37 31.5**	**-0.6**
	comp=Z,1.9nm,0.3s,baz=7.8,slow=14,SNR=19						
MJAR				LR	LR	10 44 40.9	
	comp=Z,279nm,20.7s,baz=40,slow=38						
MDJ	**Mudanjiang**	**18.04**	**265**	P	**Pn**	**10 37 35.2**	**-0.4**
MDJ				pP	pP	10 37 49.7	+1.6
MDJ				sP	sP	10 37 59.0	+3.4
MDJ				S	**S**	**10 40 55.0**	**-4.0**
MDJ				PcP	PcP	10 42 02.0	-5.1
MDJ				ScP	ScP	10 45 32.6	-4.4
MDJ				PcS	PcS	10 45 37.4	-6.1
MDJ				ScS	ScS	10 49 13.9	-3.6
MDJ				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MDJ				pmax	pmax		
	comp=Z,110nm,8.0s						
MDJ				LR	LR		
	comp=N,830nm,10.4s						
MDJ				LR	LR		
	comp=E,350nm,10.8s						
MDJ				LR	LR		
	comp=Z,350nm,8.5s						
MDJ	**Mudanjiang**	**18.04**	**265**	*e*P	**Pn**	**10 37 36.0**	**+0.4**
	comp=Z,56nm,1.2s						
JGF	**Kuroka**	**18.92**	**230**	P	**Pn**	**10 37 45.6**	**-0.6**
YAK	**Yakutsk**	**19.04**	**322**	*e*P	**Pn**	**10 37 46.6**	**-0.8**
YAK				*e*S	**S**	**10 41 19.0**	**+0.2**
YAK				pmax	pmax		
	comp=Z,77nm,1.1s						
YAK				pmax	pmax		
	comp=N,26nm,1.2s						
YAK				pmax	pmax		
	comp=E,49nm,1.1s						
YAK				smax			
	comp=N,201nm,2.5s						
YAK				smax			
	comp=E,185nm,2.9s						
YAK				MLR	MLR		
	comp=Z,530nm,21.0s						
YAK				MLR	MLR		
	comp=E,225nm,18.0s						
YAK				MLR	MLR		
	comp=N,261nm,18.0s						
YAK	**Yakutsk**	**19.04**	**322**	*e*Pn	**Pn**	**10 37 46.8**	**-0.6**
	comp=N,104nm,0.8s						
CLNS	**Chul'man**	**19.56**	**304**	*e*P	**Pn**	**10 37 55.6**	**+1.9**
CLNS				pmax	pmax		
	comp=Z,69nm,0.9s						
CLNS				pmax	pmax		
	comp=E,49nm,1.1s						
CLNS				pmax	pmax		
	comp=N,39nm,1.1s						
CLNS				MLR	MLR		
	comp=E,347nm,17.0s						
CLNS				MLR	MLR		
	comp=N,285nm,15.0s						
CLNS				MLR	MLR		
	comp=Z,458nm,17.0s						
BILL	**Bilibino**	**19.59**	**12**	*d* *i*P	**Pn**	**10 37 50.2**	**-3.7**
BILL				pmax	pmax		
	comp=Z,88nm,1.3s						
BILL				MLR	MLR		
	comp=Z,600nm,19.0s						
BILL	**Bilibino**	**19.59**	**12**	*e*P	**Pn**	**10 37 50.1**	**-3.8**
	comp=Z,43nm,0.6s						
NRGR	**Nerungri**	**19.63**	**304**	*i* P	**Pn**	**10 37 57.0**	**+2.6**
NRGR				S	**S**	**10 41 30.5**	**-0.1**
NRGR				smax			
	comp=N,24nm,0.8s						
JHJ	**Hachijo jima 2**	**19.83**	**221**	LR	LR	10 44 52.0	
	comp=N,209nm,20.4s,baz=291,slow=34						
CN2	**Changchun**	**21.09**	**266**	*e*P	**P**	**10 38 07.5**	**-1.0**
CN2				*e*pP		10 38 24.0	
CN2				*e*sP	sP	10 38 33.7	+4.8
CN2				*e*S	**S**	**10 41 52.1**	**-7.6**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.1						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,400nm,10.0s,MS4.2						
CN2				LR	LR		
	comp=E,200nm,10.0s,MS4.2						
CN2				LR	LR		
	comp=Z,200nm,10.0s,MS3.8						
KSRS	**Korea Array**	**22.94**	**249**	P	**P**	**10 38 28.7**	**+0.4**
KSRS						10 42 17.5	
KSRS				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,238nm,20.1s,MS3.6						
KSRS	**Korea Array**	**22.94**	**249**	P	**P**	**10 38 28.7**	**+0.4**
	comp=Z,9.4nm,0.7s,mb4.3,baz=49,slow=9.8,SNR=20						
KSRS				PcP	PcP	10 42 17.4	+1.1
	comp=Z,2.9nm,0.9s,baz=18,slow=1.8,SNR=5.4						
KSRS				LR	LR	10 46 53.0	
	comp=Z,238nm,20.1s,MS3.6,baz=175,slow=35						
GAMB	**Gambell**	**22.95**	**39**	*e*P	**P**	**10 38 26.0**	**-2.0**
	comp=Z,44nm,0.9s,mb4.9						
HIA	**Hailar**	**22.99**	**283**	*e*P	**P**	**10 38 28.6**	**0.0**
HIA				pmax	pmax		
	comp=Z,13nm,0.7s						
HIA	**Hailar**	**22.99**	**283**	*e*P	**P**	**10 38 28.6**	**0.0**
	comp=Z,13nm,0.7s,mb4.5						
SNY	**Shenyang**	**23.22**	**263**	⇑P	**P**	**10 38 32.6**	**+1.5**
SNY				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.3						
TNA	**Tin City**	**25.14**	**36**	*e*P	**P**	**10 38 47.8**	**-0.5**
	comp=Z,165nm,1.2s,mb5.4						
TIXI	**Tiksi**	**25.45**	**341**	*e*P	**P**	**10 38 49.6**	**-1.4**
TIXI				*e*	pP	10 39 06.8	+1.2
TIXI				pmax	pmax		
	comp=Z,34nm,1.1s,mb4.8						
TIXI	**Tiksi**	**25.45**	**341**	*e*P	**P**	**10 38 49.5**	**-1.5**
	comp=Z,46nm,0.9s,mb5.0						
TIXI				*e*pP	pP	10 39 06.2	+0.7
BOD	**Bodaibo**	**25.53**	**305**	*e*P	**P**	**10 38 51.9**	**0.0**
BOD				*e*	pP	10 39 04.7	-1.7
BOD				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.1						
BJI	**Beijing**	**28.96**	**266**	P	**P**	**10 39 22.5**	**-0.3**
BJI				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.5						
BJI				pmax	pmax		
	comp=Z,100nm,7.7s						
BJI				LR	LR		
	comp=N,260nm,26.6s,MS3.9						
BJI				LR	LR		
	comp=E,290nm,26.0s,MS3.9						
BJI				LR	LR		
	comp=Z,120nm,32.0s						
SVW2	**Sparrevohn**	**29.73**	**48**	*e*P	**P**	**10 39 28.9**	**-0.5**
JOW	**Kunigami**	**30.57**	**233**	LR	LR	10 51 41.5	
	comp=Z,274nm,20.0s,MS3.9,baz=306,slow=36						
RSO	**Redoubt South**	**31.12**	**49**	*e*P	**P**	**10 39 42.3**	**+0.6**
OHAK	**Old Harbor**	**31.15**	**55**	*e*P	**P**	**10 39 40.2**	**-1.7**
PPLA	**Purkeypile**	**31.35**	**44**	*e*P	**P**	**10 39 43.4**	**-0.3**
	comp=Z,79nm,1.5s,mb5.3						
HHC	**Hu-ho-hao-te**	**31.56**	**271**	*e*P	**P**	**10 39 46.2**	**+0.5**
HHC				pP	pP	10 40 03.5	+3.0
HHC				sP	sP	10 40 12.7	+5.3
HHC				PP	PP	10 40 52.4	-5.3
HHC				PcP	PcP	10 42 38.6	+1.6
HHC				*e*S	**S**	**10 44 47.2**	**-2.8**
HHC				sS	sS	10 45 17.6	+2.6
HHC				PcS	PcS	10 46 21.2	-0.1
HHC				ScS	ScS	10 50 09.3	-3.3
HHC				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.6						
HHC				pmax	pmax		
	comp=Z,140nm,5.3s						
HHC				LR	LR		
	comp=N,340nm,17.8s,MS4.3						
HHC				LR	LR		
	comp=E,410nm,16.6s,MS4.3						
HHC				LR	LR		
	comp=Z,200nm,15.7s,MS3.9						
SONM	**Songino Array**	**31.87**	**286**	P	**P**	**10 39 49.1**	**+0.7**
	comp=Z,0.3nm,0.3s,mb3.5,baz=72,slow=7.7,SNR=3.7						
SONM				PcP	PcP	10 42 37.8	+0.2
	comp=Z,1.3nm,0.6s,baz=96,slow=2.6,SNR=4.5						
SONM				LR	LR	10 53 55.3	
	comp=Z,312nm,19.3s,MS4.0,baz=75,slow=39						
BPAW	**Bear Paw Mtn.**	**31.92**	**42**	*e*P	**P**	**10 39 47.8**	**-0.8**
	comp=Z,50nm,1.1s,mb5.2						
KTH	**Kantishna Hill**	**31.93**	**43**	*e*P	**P**	**10 39 48.2**	**-0.6**
	comp=Z,112nm,1.3s,mb5.5						
NJ2	**Nanjing**	**32.10**	**251**	*e*P	**P**	**10 39 52.3**	**+1.7**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.9						
TRF	**Thorofare Moun**	**32.22**	**43**	*e*P	**P**	**10 39 50.6**	**-0.7**
	comp=Z,26nm,0.9s,mb5.1						
TLY	**Talaya**	**32.31**	**294**	*e*P	pP	10 40 07.8	+0.8
TLY				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
TLY				MLR	MLR		
	comp=Z,251nm,20.0s,MS3.9						
TLY	**Talaya**	**32.31**	**294**	*e*P	**P**	**10 39 51.8**	**-0.4**
	comp=Z,14nm,1.0s,mb4.7						
TLY				*e*pP	pP	10 40 07.3	+0.3
COLD	**Coldfoot**	**32.45**	**36**	*e*P	**P**	**10 39 52.6**	**-0.6**
	comp=Z,50nm,0.9s,mb5.3						
RC01	**Rabbit Creek A**	**32.56**	**48**	*e*P	**P**	**10 39 52.4**	**-2.0**
	comp=Z,60nm,1.2s,mb5.4						
SEW	**Seward**	**32.79**	**50**	*e*P	**P**	**10 39 54.4**	**-2.0**
	comp=Z,50nm,1.0s,mb5.4						
MCK	**McKinley**	**32.82**	**43**	*e*P	**P**	**10 39 55.6**	**-0.9**
MCK				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
MCK	**McKinley**	**32.82**	**43**	*e*P	**P**	**10 39 55.6**	**-0.9**
	comp=Z,70nm,1.0s,mb5.5						
PMR	**Palmer**	**32.82**	**47**	*e*P	**P**	**10 39 55.6**	**-0.9**
PMR				pmax	pmax		
	comp=Z,48nm,1.6s,mb5.2						
PMR	**Palmer**	**32.82**	**47**	*e*P	**P**	**10 39 55.6**	**-1.0**
	comp=Z,48nm,1.6s,mb5.2						
ZAK	**Zakamensk**	**32.92**	**292**	*e*P	**P**	**10 39 58.1**	**+0.5**
ZAK				*e*	pP	10 40 13.8	+1.4
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
COLA	**College**	**33.28**	**41**	*e*P	**P**	**10 40 00.1**	**-0.5**
COLA				pmax	pmax		
	comp=Z,88nm,0.8s,mb5.7						
COLA	**College**	**33.28**	**41**	*e*P	**P**	**10 40 00.1**	**-0.5**
	comp=Z,88nm,0.8s,mb5.7						
MOY	**Mondy**	**33.89**	**295**	*e*P	pP	10 40 22.0	+1.2
PAX	**Paxson**	**34.42**	**44**	*e*P	**P**	**10 40 09.3**	**-1.1**
PAX				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
PAX	**Paxson**	**34.42**	**44**	*e*P	**P**	**10 40 09.2**	**-1.2**
	comp=Z,27nm,0.9s,mb5.2						
MENT	**Mentasta**	**35.22**	**44**	*e*P	**P**	**10 40 16.1**	**-1.2**
WHN	**Wuhan**	**35.94**	**254**	P	**P**	**10 40 23.9**	**0.0**
EGAK	**Eagle**	**36.15**	**41**	*e*P	**P**	**10 40 24.1**	**-1.1**
	comp=Z,61nm,0.8s,mb5.6						
GUMO	**Guam**	**36.61**	**197**	LR	LR	10 52 10.8	
	comp=Z,200nm,21.7s,MS3.9,baz=30,slow=31						
DAWY	**Dawson**	**37.00**	**42**	*e*P	**P**	**10 40 32.1**	**-0.4**
XAN	**Xi'an**	**37.15**	**263**	P	**P**	**10 40 34.5**	**+0.4**
XAN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
XAN				pmax	pmax		
	comp=Z,58nm,6.1s						
HYT	**Haines Junctio**	**38.49**	**47**	*e*P	**P**	**10 40 45.7**	**+0.6**
LZH	**Lanzhou**	**39.23**	**270**	⇑P	**P**	**10 40 52.5**	**+0.9**
LZH				pP	pP	10 41 10.0	+3.4
LZH				sP	sP	10 41 20.1	+6.6
LZH				PP	PP	10 42 25.1	+2.8
LZH				S	**S**	**10 46 41.1**	**-6.5**
LZH				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,150nm,4.3s						
LZH				LR	LR		
	comp=N,870nm,14.8s						
LZH				LR	LR		
	comp=Z,2µm,15.8s,MS4.9						
GTA	**Gaotai**	**39.98**	**277**	⇓P	**P**	**10 40 58.3**	**+0.5**
GTA				pP	pP	10 41 16.5	+3.7
GTA				sP	sP	10 41 25.4	+5.7
GTA				S	**S**	**10 46 57.8**	**-1.0**
GTA				sS	sS	10 47 29.6	+5.3
GTA				SS	SS	10 49 52.1	-5.2
GTA				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.1						
GTA				pmax	pmax		
	comp=Z,140nm,4.2s						
GTA				LR	LR		
	comp=N,280nm,15.3s,MS4.3						
GTA				LR	LR		
	comp=E,160nm,16.5s,MS4.3						
GTA				LR	LR		
	comp=Z,230nm,16.5s,MS4.1						
ZALV	**Zalesovo Beam**	**42.28**	**304**	P	**P**	**10 41 15.1**	**-1.4**
ZALV						10 43 09.3	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
ZALV				MLR	MLR		
	comp=Z,136nm,19.3s,MS3.9						
ZALV	**Zalesovo Beam**	**42.28**	**304**	P	**P**	**10 41 15.1**	**-1.3**
	comp=Z,0.9nm,0.4s,mb3.8,baz=61,slow=8.0,SNR=6.7						
ZALV				PcP	PcP	10 43 09.2	+0.1
	comp=Z,3.3nm,0.4s,baz=52,slow=2.4,SNR=12						
ZALV				LR	LR	10 59 47.8	
	comp=Z,136nm,19.3s,MS3.9,baz=67,slow=37						
CD2	**Chengdu**	**42.50**	**264**	P	**P**	**10 41 18.6**	**+0.1**
CD2				pP	pP	10 41 37.0	+3.3
CD2				sP	sP	10 41 46.0	+5.4
CD2				PP	PP	10 43 00.9	+3.1
CD2				PcP	PcP	10 43 11.2	+0.9
CD2				S	**S**	**10 47 34.0**	**-2.3**
CD2				sS	sS	10 48 06.0	+4.0
CD2				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.2						
CD2				pmax	pmax		
	comp=Z,280nm,5.4s						
CD2				LR	LR		
	comp=N,280nm,5.1s						
CD2				LR	LR		
	comp=Z,230nm,8.9s						
NVS	**Novosibirsk**	**42.77**	**306**	*e*P	pP	10 41 34.7	-0.9
DLBC	**Dease Lake**	**42.84**	**48**	*e*P	**P**	**10 41 21.8**	**+0.8**
GYA	**Guiyang**	**43.63**	**257**	⇑*i*P	**P**	**10 41 29.6**	**+1.8**
GYA				pP	pP	10 41 47.4	+4.4
GYA				sP	sP	10 41 55.1	+5.3
GYA				PcP	PcP	10 43 15.9	+1.7
GYA				ScP	ScP	10 47 01.4	+1.1
GYA				S	**S**	**10 47 52.8**	**-0.2**
GYA				sS	sS	10 48 23.4	+4.7
GYA				SS	SS	10 51 01.6	-8.1
GYA				ScS	ScS	10 51 20.5	-1.0
GYA				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.1						
GYA				pmax	pmax		
	comp=Z,180nm,5.2s						
GYA				LR	LR		
	comp=N,680nm,18.4s,MS4.7						
GYA				LR	LR		
	comp=E,540nm,19.9s,MS4.7						
GYA				LR	LR		
	comp=Z,660nm,19.6s,MS4.5						
WMQ	**Urumqi**	**45.32**	**290**	*e*P	**P**	**10 41 40.4**	**-0.6**
WMQ				pP	pP	10 41 59.0	+2.7
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
WMQ				pmax	pmax		
	comp=Z,120nm,5.4s						
WMQ				LR	LR		
	comp=Z,470nm,21.2s,MS4.4						
MK31	**Makanchi Array**	**47.02**	**296**	*e*P	**P**	**10 41 53.2**	**-1.1**
MKAR	**Makanchi Array**	**47.02**	**296**	P	**P**	**10 41 53.3**	**-1.0**
MKAR						10 43 26.0	
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MKAR				MLR	MLR		
	comp=Z,451nm,20.4s						
MKAR	**Makanchi Array**	**47.02**	**296**	P	**P**	**10 41 53.3**	**-1.0**
	comp=Z,3.6nm,0.7s,mb4.4,baz=68,slow=7.4,SNR=33						
MKAR				PcP	PcP	10 43 26.0	+0.4
	comp=Z,3.6nm,0.9s,baz=45,slow=5.7,SNR=4.0						
MKAR				LR	LR	11 02 46.0	
	comp=Z,451nm,20.4s,MS4.4,baz=46,slow=37						
MKAR	**Makanchi Array**	**47.02**	**296**	P	**P**	**10 41 53.3**	**-1.0**
MKAR				PcP	PcP	10 43 26.0	+0.4
MKAR				LR	LR	11 02 46.0	
KMI	**Kunming**	**47.08**	**259**	P	**P**	**10 41 56.7**	**+1.7**
KMI				pP	pP	10 42 15.4	+5.0
KMI				S	**S**	**10 48 42.1**	**-0.6**
KMI				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
KMI				pmax	pmax		
	comp=Z,150nm,4.5s						
KMI				LR	LR		
	comp=Z,58nm,25.1s,MS3.4						
KURK	**Kurchatov**	**47.13**	**302**	P	**P**	**10 41 55.1**	**0.0**
	comp=Z,63nm,0.8s,mb5.6,SNR=7.7						
KURK	**Kurchatov**	**47.13**	**302**	P	**P**	**10 41 54.4**	**-0.7**
KURK						10 43 25.9	
KURK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
KURK				MLR	MLR		
	comp=Z,188nm,21.2s,MS4.0						
KURK	**Kurchatov**	**47.13**	**302**	P	**P**	**10 41 54.4**	**-0.7**
	comp=Z,7.1nm,0.9s,mb4.6,baz=65,slow=8.1						
KURK				PcP	PcP	10 43 25.9	0.0
	comp=Z,7.1nm,0.7s,baz=65,slow=3.2,SNR=7.0						
KURK				LR	LR	11 02 40.2	
	comp=Z,188nm,21.2s,MS4.0,baz=45,slow=37						
KURK	**Kurchatov**	**47.13**	**302**	*e*P	**P**	**10 41 53.9**	**-1.2**
	comp=Z,11nm,1.0s,mb4.7						
RES	**Resolute Bay**	**47.97**	**20**	*e*P	**P**	**10 42 00.7**	**-0.6**
RES				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
RES	**Resolute Bay**	**47.97**	**20**	*e*P	**P**	**10 42 00.7**	**-0.6**
	comp=Z,23nm,1.2s,mb5.1						
YKA	**Yellowknife Ar**	**48.05**	**39**	P	**P**	**10 42 01.7**	**-0.4**
YKA						10 43 28.8	
YKA				pmax	pmax		
	comp=Z,13nm,0.7s						
YKA	**Yellowknife Ar**	**48.05**	**39**	P	**P**	**10 42 01.7**	**-0.4**
	comp=Z,13nm,0.7s,mb5.1,baz=297,slow=7.8,SNR=157						
YKA				PcP	PcP	10 43 28.8	-0.2
	comp=Z,1.6nm,0.6s,baz=301,slow=4.2,SNR=4.9						
BVAR	**Borovoye Array**	**50.32**	**309**	PcP	PcP	10 43 37.3	-0.1
	comp=Z,3.7nm,0.5s,baz=60,slow=2.6,SNR=6.0						
BVAR				LR	LR	11 05 07.8	
	comp=Z,260nm,20.0s,MS4.2,baz=58,slow=38						
BRVK	**Borovoye**	**50.36**	**309**	*e*P	**P**	**10 42 19.8**	**0.0**
NLWA	**Neilton Lookou**	**51.35**	**59**	⇑P	**P**	**10 42 27.6**	**+0.3**
	baz=51						
NLWA	**Neilton Lookou**	**51.35**	**59**	*e*P	**P**	**10 42 26.8**	**-0.5**
	comp=Z,25nm,0.8s,mb5.2						
A05A	**Maple Falls**	**51.44**	**57**	⇓P	**P**	**10 42 26.9**	**-1.0**
	baz=51,SNR=6.8						
LSA	**Lhasa**	**51.53**	**273**	*e*P	**P**	**10 42 31.6**	**+2.7**
LSA				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
LSA	**Lhasa**	**51.53**	**273**	*e*P	**P**	**10 42 31.6**	**+2.7**
	comp=Z,11nm,0.6s,mb5.0						
D03A	**Wishkah Elem.**	**51.56**	**59**	⇓P	**P**	**10 42 29.0**	**+0.1**
	baz=51						
C04A	**Brinnon**	**51.67**	**58**	⇑P	**P**	**10 42 29.2**	**-0.5**

	baz=51						
A06A	Chilliwack	51.71	56	⇓P	P	10 42 29.2	-0.8
	baz=52,SNR=12						
B05A	Bryant	51.84	57	⇑P	P	10 42 30.3	-0.7
	baz=52,SNR=7.3						
JCW	Jim Creek	51.97	57	P	P	10 42 31.7	-0.3
E03A	Lebam	52.00	60	⇑P	P	10 42 32.1	-0.1
	baz=52						
B06A	Marblemount	52.04	57	⇑P	P	10 42 31.6	-0.8
	baz=52,SNR=5.2						
RPW	Rockport	52.06	57	eP	P	10 42 32.1	-0.5
F03A	Seaside	52.35	61	⇑P	P	10 42 34.6	-0.2
	baz=52						
C05A	Tolt Reservoir	52.39	58	⇓P	P	10 42 34.4	-0.7
	baz=52,SNR=6.0						
E04A	Onalaska	52.45	59	⇓P	P	10 42 35.9	+0.4
	baz=52						
D05A	Enumclaw	52.52	59	⇓P	P	10 42 35.9	-0.1
	baz=52,SNR=5.4						
B07A	Winthrop	52.81	56	⇓P	P	10 42 37.6	-0.6
	baz=53,SNR=13						
TDL	Tradedollar La	52.87	59	P	P	10 42 38.9	+0.3
SVE	Sverdlovsk	52.91	317	eP	P	10 42 38.1	-0.7
SVE				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
NLW	Nelson Butte	52.91	57	P	P	10 42 38.8	-0.1
F04A	Amboy	53.00	60	⇓P	P	10 42 39.1	-0.5
	baz=53,SNR=5.1						
WPW	White Pass	53.05	59	P	P	10 42 40.0	0.0
D06A	Cle Elum	53.15	58	⇑P	P	10 42 40.0	-0.7
	baz=53,SNR=8.6						
ETW	Entiat	53.19	57	eP	P	10 42 40.7	-0.3
C07A	Waterville	53.29	57	⇑P	P	10 42 40.5	-1.2
	baz=53,SNR=6.2						
B08A	Colville Reser	53.30	56	⇑P	P	10 42 41.1	-0.7
	baz=53,SNR=30						
A09A	Danville	53.35	55	⇑P	P	10 42 41.7	-0.4
	baz=53,SNR=46						
G04A	Mulino	53.39	61	⇓P	P	10 42 42.0	-0.5
	baz=53						
E06A	Yakima	53.45	59	⇓P	P	10 42 42.7	-0.3
	baz=53						
EDM	Edmonton	53.56	48	eP	P	10 42 42.8	-0.8
D07A	Quincy	53.63	58	⇓P	P	10 42 43.7	-0.5
	baz=53						
EPH	Ephrata	53.74	57	P	P	10 42 44.3	-0.7
C08A	Higginbotham F	53.79	56	⇓P	P	10 42 44.6	-0.8
	baz=54,SNR=19						
HOOD	Mount Hood Mea	53.80	60	eP	P	10 42 45.9	+0.5
SHL	Shillong	53.83	268	ePKP	P	10 42 48.0	+2.1
A10A	Northport	53.89	55	⇓P	P	10 42 45.5	-0.6
	baz=54,SNR=16						
B09A	Rice	53.90	55	⇓P	P	10 42 45.6	-0.6
	baz=54,SNR=15						
F06A	Goldendale	54.02	59	⇓P	P	10 42 47.0	-0.1
	baz=54						
G05A	Wamic	54.03	60	⇓P	P	10 42 47.1	-0.1
	baz=54						
CHTO	Chiang Mai	54.06	257	eP	P	10 42 49.1	+1.4
CHTO				e*PP	pP	10 43 04.3	+1.0
CHTO				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
CHTO	Chiang Mai	54.06	257	eP	P	10 42 49.1	+1.4
	comp=Z,31nm,1.1s,mb5.2						
CHTO				epP	pP	10 43 04.3	+1.0
ARU	Arti	54.07	317	eP	P	10 42 46.5	-0.8
ARU				pmax	pmax		
	comp=Z,15nm,0.4s,mb5.3						
ARU	Arti	54.07	317	eP	P	10 42 46.5	-0.8
	comp=Z,15nm,0.4s,mb5.3						
E07A	Sunnyside	54.07	58	⇑P	P	10 42 46.9	-0.5
	baz=54,SNR=9.3						
FRIS	Frissel Point	54.20	62	P	P	10 42 49.1	+0.7
C09A	Chrisman Ranch	54.20	56	⇑P	P	10 42 47.7	-0.7
	baz=54,SNR=12						
OD2	Odessa Site #2	54.21	57	P	P	10 42 47.7	-0.8
D08A	Wollman Farm,	54.29	57	⇓P	P	10 42 48.3	-0.7
	baz=54,SNR=8.9						
RSW	Rattlesnake Hi	54.32	58	eP	P	10 42 49.2	0.0
CMAR	Chiang Mai Arr	54.32	256	P	P	10 42 50.9	+1.3
	comp=Z,11nm,0.9s,mb4.8,baz=28,slow=6.8,SNR=40						
CMAR				ScP	ScP	10 47 44.8	-1.1
	comp=Z,0.8nm,0.3s,baz=23,slow=2.9,SNR=7.9						
CMAR				LR	LR	11 07 40.2	
	comp=Z,133nm,18.8s,MS4.0,baz=240,slow=38						
HAWA	Hanford	54.35	58	eP	P	10 42 48.8	-0.7
	comp=Z,7.2nm,0.6s,mb4.8						
PRW	Prosser	54.37	58	P	P	10 42 50.0	+0.3
CROR	Criterion Ridg	54.37	60	P	P	10 42 49.8	+0.1
G06A	Carlson Farm,	54.42	60	⇓P	P	10 42 49.6	-0.4
	baz=54						
F07A	Phinny Hill Vi	54.43	59	⇑P	P	10 42 49.9	-0.1
	baz=54,SNR=16						
B10A	Chitwood Farm,	54.47	55	⇓P	P	10 42 49.8	-0.5
	baz=54						
A11A	Hall Mountain,	54.54	54	⇑P	P	10 42 50.7	-0.1
	baz=54,SNR=16						
NEW	Newport	54.55	55	eP	P	10 42 50.3	-0.6
E08A	Dider Farm, El	54.55	58	⇓P	P	10 42 50.1	-0.8
	baz=54,SNR=9.6						
D09A	Jones Farm, Ri	54.62	57	⇑P	P	10 42 50.9	-0.6
	baz=54						
C10A	Spilker Farm,	54.72	56	⇓P	P	10 42 51.6	-0.5
	baz=54,SNR=13						
A12A	Yaak River Ran	54.93	54	⇑P	P	10 42 53.5	-0.2
	baz=55,SNR=16						
G07A	Ruggs Ranch, H	54.95	59	⇓P	P	10 42 53.7	-0.1
	baz=55						
KSH	Kashi	54.97	292	eP	P	10 43 00.5	+6.4
KSH				epP	pP	10 43 19.6	+10
KSH				esP	sP	10 43 28.6	+12
KSH				ePcP	PcP	10 43 59.7	+4.5
KSH				ePP	PP	10 45 06.7	+9.4
KSH				eScP	ScP	10 47 50.2	+1.8
KSH				ePcS	PcS	10 47 58.4	+3.4
KSH				eS	S	10 50 37.5	+6.1
KSH				esS	sS	10 51 10.5	+13
KSH				eScS	ScS	10 52 38.7	+1.1
KSH				eSS	SS	10 54 24.7	+10
KSH				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
KSH				pmax	pmax		
	comp=Z,140nm,2.5s,mb5.5						
KSH				LR	LR		
	comp=N,410nm,5.2s						
KSH				LR	LR		
	comp=E,430nm,5.3s						
KSH				LR	LR		
	comp=Z,520nm,6.0s						
E09A	Wood Farm, Sta	55.04	57	⇓P	P	10 42 53.9	-0.6
	baz=55,SNR=22						
F08A	Pendleton	55.13	58	⇓P	P	10 42 54.8	-0.3
	baz=55,SNR=5.7						
D10A	Wagner Farm, O	55.19	56	⇓P	P	10 42 54.5	-1.1
	baz=55						
G08A	Pilot Rock	55.33	59	⇓P	P	10 42 56.2	-0.4
	baz=55,SNR=8.1						
TAPN	Taplejung	55.34	273	eP	P	10 42 57.5	+0.6
YBH	Yreka Blue Hor	55.35	64	eP	P	10 42 57.3	+0.5
YBH				pmax	pmax		
	comp=Z,9.0nm,0.6s						
YBH	Yreka Blue Hor	55.35	64	P	P	10 42 57.7	+1.0
	comp=Z,16nm,0.7s,mb5.2,baz=336,slow=3.2,SNR=47						
YBH	Yreka Blue Hor	55.35	64	eP	P	10 42 57.3	+0.5
	comp=Z,8.6nm,0.6s,mb5.0						
LNOR	Lincton Mounta	55.36	58	eP	P	10 42 56.7	0.0
KEV	Kevo	55.39	341	ep	P	10 42 54.5	-2.1
H07A	Lands Inn, Kim	55.42	60	⇓P	P	10 42 56.3	-0.9
	baz=55						
I06A	Prineville	55.45	61	⇑P	P	10 42 57.8	+0.4
	baz=55,SNR=9.3						
E10A	Myers Farm, Un	55.63	57	⇓P	P	10 42 58.1	-0.6
	baz=55,SNR=22						
D11A	Klaveano Farm,	55.71	56	⇓P	P	10 42 58.5	-0.7
	baz=56,SNR=25						
I07A	Izee	55.76	60	⇑P	P	10 42 59.7	0.0
	baz=56,SNR=11						
C12B	Naegeli Ranch,	55.77	55	⇓P	P	10 42 59.4	-0.3
	baz=56,SNR=23						
WALA	Waterton Lakes	55.77	53	eP	P	10 42 59.4	-0.2
	comp=Z,0.6nm,0.6s,mb3.8						
K05A	Summer Lake	55.80	62	⇑P	P	10 43 00.7	+0.7
	baz=56,SNR=18						
F10A	Beach Ranch, E	55.88	57	⇓P	P	10 43 00.3	-0.2
	baz=56,SNR=9.0						
ODAN	Odare	55.89	273	eP	P	10 43 01.5	+0.7
ARCES	ARCESS Array B	55.89	341	P	P	10 42 57.7	-2.5
ARCES						10 43 57.9	
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ARCES				MLR	MLR		
	comp=Z,343nm,21.2s						
ARCES	ARCESS Array B	55.89	341	P	P	10 42 57.7	-2.5
	comp=Z,2.2nm,0.4s,mb4.5,baz=36,slow=7.6,SNR=29						
ARCES				PcP	PcP	10 43 57.9	-0.3
	comp=Z,2.4nm,0.7s,baz=338,slow=2.6,SNR=5.2						
ARCES				LR	LR	11 09 59.9	
	comp=Z,343nm,21.2s,MS4.4,baz=34,slow=39						
ARCES	ARCESS Array B	55.89	341	P	P	10 42 57.7	-2.5
ARCES				PcP	PcP	10 43 57.9	-0.3
ARCES				LR	LR	11 09 59.9	
B13A	Whitefish	55.90	54	⇑P	P	10 43 00.6	+0.1
	baz=56,SNR=24						
J06A	Christmas Vall	55.91	61	⇑P	P	10 43 00.9	+0.2
	baz=56,SNR=52						
PRGR	Permogore	55.97	327	eP	P	10 42 59.8	-1.1
PRGR				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
H08A	Prairie City	55.97	59	⇑P	P	10 43 01.0	-0.1
	baz=56,SNR=9.8						
G09A	Cove	56.00	58	⇑P	P	10 43 01.1	-0.3
	baz=56,SNR=6.2						
BSMT	Bassoo Peak	56.05	54	P	P	10 43 01.8	+0.2
A14A	Double T Ranch	56.08	53	⇓P	P	10 43 01.4	-0.4
	baz=56,SNR=21						
JIRN	Jiri	56.13	274	eP	P	10 43 03.0	+0.5
	comp=Z,6.4nm,0.3s,mb5.2						
GUN	Gumba	56.16	275	eP	P	10 43 03.3	+0.5
	comp=Z,9.8nm,0.5s,mb5.1						
WDC	Whiskeytown Da	56.16	65	eP	P	10 43 03.2	+0.6
E11A	Bogner Ranch,	56.20	56	⇓P	P	10 43 02.2	-0.6
	baz=56,SNR=15						
C13A	Hot Springs	56.27	54	⇑P	P	10 43 03.1	-0.1
	baz=56,SNR=15						
J07A	Hines	56.31	61	⇑P	P	10 43 04.1	+0.5
	baz=56,SNR=16						
RAMN	Ramite	56.34	273	eP	P	10 43 04.1	+0.1
	comp=Z,49nm,0.8s,mb5.6						
JTMT	Jette	56.38	54	eP	P	10 43 04.1	+0.1
I08A	Drewsey	56.40	60	⇓P	P	10 43 04.7	+0.5
	baz=56,SNR=41						
A15A	Johnson Ranch,	56.43	52	⇑P	P	10 43 03.7	-0.7
	baz=56,SNR=15						
H09A	Durkee	56.44	59	⇑P	P	10 43 05.1	+0.6
	baz=56,SNR=16						
YBMT	Yellow Bay	56.45	54	eP	P	10 43 04.8	+0.2
BMO	Blue Mountains	56.53	58	eP	P	10 43 05.0	-0.1
	comp=Z,24nm,1.0s,mb5.2						
KKN	Kakani	56.63	275	eP	P	10 43 06.6	+0.5
MOD	Modoc	56.66	63	eP	P	10 43 06.5	+0.4
SWMT	Swartz Lake	56.68	54	eP	P	10 43 06.0	-0.1
D13A	Huson	56.69	55	⇑P	P	10 43 06.1	-0.1
	baz=56,SNR=16						
K07A	Rock Creek Ran	56.77	61	⇓P	P	10 43 07.5	+0.5
	baz=56,SNR=16						
J08A	Circle Bar Ran	56.80	60	⇓P	P	10 43 07.5	+0.4
	baz=57,SNR=25						
I09A	Lost Marbles R	56.83	59	⇓P	P	10 43 07.4	+0.1
	baz=57,SNR=17						
DMN	Daman	56.87	275	eP	P	10 43 08.6	+0.8
	comp=Z,25nm,0.7s,mb5.3						
GKN	Gorkha	56.91	276	eP	P	10 43 08.8	+0.7
	comp=Z,14nm,0.5s,mb5.3						
B15A	Bradely Ranch,	56.93	53	⇓P	P	10 43 07.1	-0.8
	baz=57,SNR=16						
H10A	Noah's Angus R	57.00	58	⇓P	P	10 43 08.6	+0.1
	baz=57,SNR=18						
A16A	West Butte Ran	57.03	52	⇑P	P	10 43 07.9	-0.7
	baz=57,SNR=20						
MSO	Missoula	57.13	55	eP	P	10 43 08.7	-0.7
	comp=Z,17nm,1.0s,mb5.0						
L07A	Adell	57.14	62	⇑P	P	10 43 10.0	+0.4
	baz=57,SNR=13						
K08A	Mann Creek Ran	57.19	61	⇑P	P	10 43 10.3	+0.5
	baz=57,SNR=25						
D14A	Greenough	57.21	54	⇓P	P	10 43 09.6	-0.3
	baz=57,SNR=73						
J09A	Fry Pan Ranch,	57.22	60	⇓P	P	10 43 10.5	+0.5
	baz=57,SNR=35						
E13A	Victor	57.24	55	⇓P	P	10 43 09.8	-0.4
	baz=57,SNR=20						
C15A	Salmond Ranch,	57.24	53	⇑P	P	10 43 10.3	+0.2
	baz=57,SNR=74						
DANN	Dangsing	57.25	277	eP	P	10 43 11.5	+1.1
	comp=Z,21nm,0.6s,mb5.4						
WVOR	Wild Horse Val	57.29	61	eP	P	10 43 10.8	+0.3
WVOR				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.3						
WVOR	Wild Horse Val	57.29	61	eP	P	10 43 10.8	+0.3
	comp=Z,34nm,1.0s,mb5.3						
I10A	Payette	57.29	59	⇓P	P	10 43 11.1	+0.6
	baz=57,SNR=17						
B16A	M & M Farms, S	57.31	52	⇓P	P	10 43 09.8	-0.8
	baz=57,SNR=8.7						
H11A	Donnelly	57.34	58	⇑P	P	10 43 10.9	+0.1
	baz=57,SNR=55						
A17A	Triple J Farms	57.49	51	⇓P	P	10 43 11.2	-0.7
	baz=57,SNR=18						
F13A	Darby	57.58	56	⇑P	P	10 43 12.0	-0.5
	baz=57,SNR=18						
OHCM	Honcut	57.58	66	eP	P	10 43 12.5	-0.2
L08A	Fields	57.61	61	⇑P	P	10 43 13.5	+0.7
	baz=57,SNR=20						
E14A	Clinton	57.63	55	⇓P	P	10 43 12.8	-0.1
	baz=57,SNR=42						
M07A	Soldier Meadow	57.64	63	⇑P	P	10 43 13.5	+0.5
	baz=57,SNR=29						
K09A	Rome	57.64	61	⇑P	P	10 43 13.2	+0.1
	baz=57,SNR=12						
N06A	Buffalo Meadow	57.66	64	⇑P	P	10 43 13.3	+0.1
	baz=57,SNR=18						
C16A	Fuhringer Ranc	57.68	53	⇓P	P	10 43 12.9	-0.3
	baz=57,SNR=33						
J10A	Berg Farm, Mel	57.72	59	⇑P	P	10 43 13.3	-0.3
	baz=58						
KOLN	Koldanda	57.74	276	eP	P	10 43 14.5	+0.6
D15A	Lincoln	57.75	54	⇓P	P	10 43 13.6	-0.2
	baz=58,SNR=23						
B17A	L&G Farms, Che	57.86	52	⇑P	P	10 43 14.1	-0.3
	baz=58,SNR=20						
I11A	Placerville	57.87	59	⇑P	P	10 43 14.3	-0.3
	baz=58,SNR=24						
FFC	Flin Flon	57.90	42	P	P	10 43 14.4	-0.2
	comp=Z,149nm,0.8s,mb6.1,SNR=15						
FFC	Flin Flon	57.90	42	eP	P	10 43 14.2	-0.4
FFC				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
FFC	Flin Flon	57.90	42	eP	P	10 43 14.2	-0.5
	comp=Z,22nm,0.9s,mb5.2						
PYUN	Piuthan	57.92	277	eP	P	10 43 15.9	+0.7
A18A	Metzger Ranch,	57.94	51	⇑P	P	10 43 14.2	-0.9
	baz=58,SNR=16						
SUMG	Summit	58.04	5	eP	P	10 43 14.8	-0.6
AKTO	Aktyubinsk	58.06	312	LR	LR	11 08 42.2	
	comp=Z,135nm,19.6s,MS4.1,baz=250,slow=36						
M08A	Happy Creek Ra	58.06	62	⇑P	P	10 43 16.3	+0.3
	baz=58,SNR=14						
G13A	Cobalt	58.07	57	⇑P	P	10 43 15.8	-0.2
	baz=58,SNR=52						
H12A	Diamond D Ranc	58.08	57	⇑P	P	10 43 15.5	-0.6
	baz=58						
K10A	MacKenzie Ranc	58.08	60	⇓P	P	10 43 16.6	+0.5
	baz=58,SNR=25						
E15A	Deer Lodge	58.08	55	⇓P	P	10 43 15.8	-0.3
	baz=58,SNR=31						
F14A	Wisdom	58.08	55	⇑P	P	10 43 15.9	-0.1
	baz=58,SNR=16						
L09A	Wilkinson Ranc	58.11	61	⇓P	P	10 43 16.6	+0.3
	baz=58,SNR=11						
N07B	Gerlach	58.14	63	⇓P	P	10 43 16.7	+0.1
	baz=58,SNR=12						
MFID	Camas Ranch	58.26	59	⇑P	P	10 43 17.3	0.0
	baz=58,SNR=19						
D16A	Dana Ranch, Ca	58.27	53	⇓P	P	10 43 17.4	+0.1
	baz=58,SNR=42						
C17A	Wharram Farm,	58.30	52	⇑P	P	10 43 17.1	-0.5
	baz=58,SNR=44						
P06A	Stead Airport,	58.30	65	⇓P	P	10 43 17.7	0.0
	baz=58						
B18A	Beardsley Farm	58.32	51	⇑P	P	10 43 17.3	-0.4
	baz=58,SNR=36						
HRY	Holter Researc	58.33	54	eP	P	10 43 18.2	+0.4
FCC	Fort Churchill	58.37	35	eP	P	10 43 17.2	-0.6
H13A	Challis	58.40	57	⇓P	P	10 43 18.2	-0.1
	baz=58,SNR=36						
E16A	East Helena	58.52	54	⇓P	P	10 43 19.3	+0.2
	baz=58,SNR=15						
F15A	Butte	58.53	55	⇑P	P	10 43 19.3	+0.1
	baz=58,SNR=27						
K11A	Parker Ranch,	58.55	60	⇓P	P	10 43 19.5	+0.1
	baz=58,SNR=13						
EGMT	Eagleton	58.57	52	⇑P	P	10 43 18.9	-0.5
	baz=58,SNR=19						
EGMT	Eagleton	58.57	52	eP	P	10 43 19.1	-0.3
	comp=Z,37nm,1.1s,mb5.3						
LRM	Limekiln Ridge	58.57	55	eP	P	10 43 19.6	+0.1
PAHR	Pah Rah Range	58.59	64	eP	P	10 43 19.8	+0.1
O07A	Toulon	58.59	64	⇓P	P	10 43 20.1	+0.4
	baz=58,SNR=22						
M09A	Marrel Ranch,	58.61	62	⇓P	P	10 43 20.1	+0.3
	baz=58,SNR=22						
N08A	GE Springer Mi	58.63	63	⇓P	P	10 43 20.3	+0.3
	baz=58,SNR=21						
WCN	Washoe City	58.63	65	⇓P	P	10 43 20.1	+0.2
	baz=58,SNR=5.9						
KLMR	Klimovskoe	58.63	329	eP	P	10 43 17.5	-2.1
KLMR				pmax	pmax		
	comp=Z,28nm,1.9s,mb5.0						
HNR	Honiara	58.64	174	LR	LR	11 03 22.1	
	comp=Z,273nm,20.1s,MS4.4,baz=347,slow=30						
D17A	Six Diamond Ra	58.65	53	⇑P	P	10 43 19.7	-0.3
	baz=58,SNR=32						
L10A	Juniper Basin	58.75	61	⇑P	P	10 43 21.1	+0.3
	baz=58,SNR=22						
J12A	Stokes Ranch,	58.77	59	⇓P	P	10 43 21.3	+0.3
	baz=58,SNR=35						
DLMT	Dillon	58.79	55	eP	P	10 43 21.3	+0.4
I13A	Wildhorse Cree	58.89	58	⇑P	P	10 43 22.1	+0.4
	baz=59,SNR=58						
O08A	Rochester Mine	58.93	63	⇓P	P	10 43 22.7	+0.6
	baz=59,SNR=28						
N09A	Rock Creek Ran	58.94	62	⇑P	P	10 43 22.7	+0.6
	baz=59,SNR=25						
HLID	Hailey	58.95	58	⇑P	P	10 43 22.5	+0.3
	baz=59,SNR=32						
HLID	Hailey	58.95	58	eP	P	10 43 22.5	+0.3
G15A	Dillon	58.97	56	⇓P	P	10 43 22.1	-0.1
	baz=59,SNR=27						
P07A	Fallon	58.99	64	⇓P	P	10 43 23.0	+0.5
	baz=59						
E17A	Martinsdale	59.00	54	⇑P	P	10 43 22.9	+0.4
	baz=59,SNR=54						
M10A	I.L. Ranch, Tu	59.07	61	⇓P	P	10 43 23.5	+0.5
	baz=59,SNR=28						
D18A	Linhart Farms,	59.08	52	⇓P	P	10 43 23.3	+0.3
	baz=59,SNR=7.9						
L11A	Cat Creek Ranc	59.10	60	⇑P	P	10 43 23.8	+0.6
	baz=59,SNR=42						
BOZ	Bozeman (W)	59.12	55	⇓P	P	10 43 23.8	+0.5
	baz=59,SNR=52						
BOZ	Bozeman (W)	59.12	55	eP	P	10 43 23.9	+0.6
J13A	Cove Ranch, Pi	59.19	58	⇑P	P	10 43 24.0	+0.2
	baz=59,SNR=34						
H15A	Lima	59.24	56	⇑P	P	10 43 23.9	-0.2
	baz=59,SNR=16						
I14A	Mackay	59.25	57	⇑P	P	10 43 24.6	+0.4
	baz=59,SNR=49						
K12A	Draper Farm, C	59.28	59	⇓P	P	10 43 24.8	+0.4
	baz=59,SNR=13						
G16A	Moss Hill, Enn	59.30	55	⇓P	P	10 43 24.6	+0.1
	baz=59,SNR=66						
R06C	Coleville	59.31	65	⇓P	P	10 43 24.9	+0.2
	baz=59,SNR=12						
BMN	Battle Mountai	59.38	62	eP	P	10 43 25.4	+0.2
BMN				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.3						
BMN	Battle Mountai	59.38	62	eP	P	10 43 25.4	+0.2
	comp=Z,34nm,1.0s,mb5.3						
Q07A	Schurz	59.43	65	⇓P	P	10 43 26.0	+0.5
	baz=59						
E18A	Harlowton	59.43	53	⇑P	P	10 43 25.6	+0.2
	baz=59,SNR=12						
F17A	Fitzpatrick Pl	59.47	54	⇓P	P	10 43 25.8	+0.1
	baz=59,SNR=29						
L12A	House Creek Ra	59.53	60	⇑P	P	10 43 26.7	+0.5
	baz=59,SNR=9.3						
M11A	Holland Ranch,	59.56	61	⇑P	P	10 43 27.1	+0.8
	baz=59,SNR=20						
O09A	Fish Creek Ran	59.57	63	⇑P	P	10 43 27.1	+0.6
	baz=59,SNR=25						
JOF	Joensuu	59.65	334	eP	P	10 43 24.3	-2.3
JOF				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
JOF	Joensuu	59.65	334	ep	P	10 43 24.3	-2.3
	comp=Z,4.7nm,0.5s,mb4.8						
K13A	Stover Farm, H	59.73	59	⇑P	P	10 43 28.0	+0.5
	baz=60						
I15A	Monteview	59.73	57	⇓P	P	10 43 28.0	+0.5
	baz=60						
QLMT	Earthquake Lak	59.76	55	eP	P	10 43 28.3	+0.6
G17A	Pierce Place,	59.81	55	⇑P	P	10 43 28.7	+0.7
	baz=60,SNR=38						
O10A	Cortez Mining,	59.89	62	⇓P	P	10 43 29.4	+0.7
	baz=60,SNR=12						
H16A	Russell Place,	59.94	55	⇑P	P	10 43 29.4	+0.5
	baz=60,SNR=52						
F18A	Big Timber	59.97	53	⇑P	P	10 43 29.6	+0.4
	baz=60,SNR=48						
N11A	Elko Archery C	59.99	61	⇓P	P	10 43 29.8	+0.4
	baz=60,SNR=14						
Q08A	Gabbs	59.99	64	⇓P	P	10 43 29.7	+0.3
	baz=60,SNR=23						
P09A	Austin	60.01	63	⇑P	P	10 43 29.9	+0.5
	baz=60,SNR=13						
NVAR	Mina Array Bea	60.06	65	P	P	10 43 30.3	+0.4
	comp=Z,17nm,0.8s,mb5.2,baz=292,slow=7.2,SNR=61						
NVAR	Mina Array Bea	60.06	65	P	P	10 43 30.3	+0.4
J15A	Blackfoot	60.15	57	⇓P	P	10 43 30.8	+0.4
	baz=60,SNR=17						
L13A	Double Diamond	60.17	59	⇑P	P	10 43 31.1	+0.5
	baz=60,SNR=14						
R08A	Mina	60.23	65	⇓P	P	10 43 31.5	+0.5
	baz=60,SNR=8.9						
YNR	Norris Junctio	60.24	55	eP	P	10 43 32.7	+1.7
K14A	Jones Ranch, D	60.30	58	⇑P	P	10 43 32.2	+0.7
	baz=60,SNR=16						
ELK	Elko	60.32	61	eP	P	10 43 32.1	+0.5
ELK				pmax	pmax		
	comp=Z,13nm,0.8s						
ELK	Elko	60.32	61	eP	P	10 43 32.1	+0.5
	comp=Z,13nm,0.8s,mb5.0						
YFT	Old Faithful	60.33	55	eP	P	10 43 34.0	+2.4
N12A	Clover Valley,	60.37	61	⇓P	P	10 43 32.6	+0.7
	baz=60,SNR=14						
G18A	Lazy EL Ranch,	60.44	54	⇓P	P	10 43 32.4	+0.1
	baz=60,SNR=18						
Q09A	Carvers	60.45	64	⇑P	P	10 43 33.2	+0.6
	baz=60						
O11A	Cowboy Ranch,	60.48	62	⇓P	P	10 43 33.2	+0.4
	baz=60,SNR=8.0						
LKWY	Lake	60.49	55	eP	P	10 43 35.1	+2.4
H17A	Grant Village	60.51	55	⇑P	P	10 43 34.7	+1.9
	baz=60,SNR=43						
M13A	Montello	60.53	60	⇓P	P	10 43 33.4	+0.4
	baz=60,SNR=29						
K15A	Arbon	60.57	58	⇓P	P	10 43 34.1	+0.8
	baz=60,SNR=21						
L14A	Malta	60.60	59	⇑P	P	10 43 34.1	+0.6
	baz=60,SNR=30						
DCID1	Drake Creek	60.71	56	eP	P	10 43 35.6	+1.4
RLMT	Red Lodge	60.72	54	⇓P	P	10 43 35.2	+1.0
	baz=60,SNR=43						
RLMT	Red Lodge	60.72	54	eP	P	10 43 35.0	+0.8
	comp=Z,33nm,0.8s,mb5.5						
RRI2	Red Ridge	60.80	57	eP	P	10 43 36.0	+1.2
P11A	Circle Ranch,	60.81	62	⇑P	P	10 43 35.5	+0.6
	baz=61,SNR=7.2						
I17A	Pilgrim Ck.	60.82	56	⇑P	P	10 43 36.2	+1.3
	baz=61,SNR=23						
N13A	Wendover, West	60.84	60	⇑P	P	10 43 35.5	+0.4
	baz=61,SNR=12						
RCTC	Rector, Farmer	60.90	67	⇑P	P	10 43 34.7	-0.9
	baz=61						
M14A	Sheep Mountain	60.90	59	⇓P	P	10 43 35.6	+0.1
	baz=61,SNR=13						
R09A	Tonopah	60.91	64	⇓P	P	10 43 35.5	-0.1
	baz=61,SNR=28						
Q10A	Clear Creek Ra	60.92	63	⇓P	P	10 43 35.7	0.0
	baz=61,SNR=17						
O12A	Currie	60.92	61	⇑P	P	10 43 36.1	+0.4
	baz=61,SNR=32						

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TPH   Tonopah          60.93  64 eP     P      10 43 35.6 -0.2
TPH                                 pmax   pmax
      comp=Z,32nm,1.0s,mb5.4
TPH   Tonopah          60.93  64 eP     P      10 43 35.6 -0.2
      comp=Z,32nm,1.0s,mb5.4
LOHW  Long Hollow      61.01  56 eP     P      10 43 37.1 +0.9
HVU   Hansel Valley    61.03  59 eP     P      10 43 37.4 +1.0
DGMT  Dagmar           61.06  48 ⇑P     P      10 43 36.3 -0.2
      baz=61,SNR=18
DGMT  Dagmar           61.06  48 eP     P      10 43 36.6 +0.1
      comp=Z,56nm,1.1s,mb5.6
L15A  Malad City       61.10  58 ⇓P     P      10 43 37.2 +0.3
      baz=61,SNR=13
J17A  Brown Place, J   61.12  56 ⇑P     P      10 43 37.8 +0.8
      baz=61,SNR=13
S09A  Goldfield        61.16  65 ⇓P     P      10 43 37.0 -0.3
      baz=61,SNR=11
VES   Vestal, Richgr   61.30  67 ⇑P     P      10 43 37.0 -1.4
      baz=61
R10A  Warm Springs     61.33  64 ⇑P     P      10 43 38.6 +0.1
      baz=61
Q11A  Duckwater        61.34  63 ⇑P     P      10 43 38.3 -0.3
      baz=61,SNR=8.9
P12A  McGill           61.35  62 ⇓P     P      10 43 38.7 +0.1
      baz=61,SNR=11
S10A  Tonopah Range,   61.40  64 ⇓P     P      10 43 38.8 -0.2
      baz=61,SNR=10
K17A  Gardner Place,   61.41  57 ⇑P     P      10 43 39.3 +0.3
      baz=61
N14A  Grayback Hills   61.42  60 ⇓P     P      10 43 39.1  0.0
      baz=61,SNR=8.5
M15A  Larsen Ranch,    61.43  59 ⇑P     P      10 43 39.3 +0.2
      baz=61,SNR=31
GRAC  Grapevine Rang   61.56  65 ⇑P     P      10 43 40.3 +0.2
      baz=61
L16A  Fish Haven       61.62  58 ⇓P     P      10 43 40.7 +0.3
      baz=61,SNR=19
Q12A  Willow Creek R   61.69  62 ⇓P     P      10 43 41.0 +0.1
      baz=61,SNR=13
KAF   Kangasniemi      61.70 335 eP     P      10 43 38.1 -2.5
KAF                                 pmax   pmax
      comp=Z,4.0nm,0.5s,mb4.8
KAF   Kangasniemi      61.70 335 ep     P      10 43 38.1 -2.5
      comp=Z,4.1nm,0.5s,mb4.8
R11A  Troy Canyon, C   61.71  63 ⇓P     P      10 43 41.2 +0.1
      baz=62,SNR=32
N15A  Stansbury Isla   61.77  59 ⇑P     P      10 43 41.8 +0.4
      baz=62
ISA   Isabella         61.79  67 ⇓P     P      10 43 40.6 -1.0
      baz=62
ISA   Isabella         61.79  67 eP     P      10 43 41.0 -0.6
L17A  Cokeville        61.88  57 ⇑P     P      10 43 42.5 +0.4
      baz=62,SNR=38
P13A  Bates Ranch, G   61.88  61 ⇑P     P      10 43 42.6 +0.4
      baz=62,SNR=13
ARVC  Arvin            61.93  68 ⇑P     P      10 43 42.5 -0.1
      baz=62
K18A  Toltan Ranch,    61.97  56 ⇑P     P      10 43 43.3 +0.5
      baz=62,SNR=46
M16A  Huntsville       61.98  58 ⇑P     P      10 43 43.2 +0.3
      baz=62
MPMC  Manual Prospec   62.11  66 ⇑P     P      10 43 43.8  0.0
      baz=62,SNR=10
BW06  Boulder Array    62.15  56 ⇑P     P      10 43 44.2 +0.3
      baz=62,SNR=77
PDAR  Pinedale Array   62.15  56  P     P      10 43 44.1 +0.2
      comp=Z,31nm,0.9s,mb5.5,baz=310,slow=2.0,SNR=210
NOQ   North Oquirrh    62.15  59 eP     P      10 43 44.9 +0.9
BSC   Santa Cruz Isl   62.20  69 ⇑P     P      10 43 44.8 +0.3
      baz=62
O15A  The Old Anders   62.21  60 ⇑P     P      10 43 44.7 +0.4
      baz=62,SNR=6.1
Q13A  Wheeler Ranch,   62.21  62 ⇑P     P      10 43 44.7 +0.3
      baz=62,SNR=43
FURC  Furnace Creek,   62.22  66 ⇓P     P      10 43 44.8 +0.3
      baz=62,SNR=17
R12A  Pony Springs,    62.29  63 ⇓P     P      10 43 45.2 +0.2
      baz=62,SNR=24
P14A  Drum Mountains   62.33  61 ⇑P     P      10 43 45.5 +0.3
      baz=62,SNR=28
N16A  Rees Ranch, Co   62.38  59 ⇑P     P      10 43 46.0 +0.5
      baz=62,SNR=10
LRMC  Laurel Mountai   62.39  67 ⇓P     P      10 43 45.2 -0.5
      baz=62
M17A  Scullys Gap (B   62.41  58 ⇓P     P      10 43 45.9 +0.2
      baz=62,SNR=26
L18A  Fontenelle, Gr   62.45  57 ⇓P     P      10 43 46.4 +0.4
      baz=62,SNR=23
K19A  Absolon Red Bu   62.49  56 ⇑P     P      10 43 46.0 -0.2
      baz=62,SNR=20
JLU   Jordanelle       62.56  59 eP     P      10 43 47.3 +0.5
U10A  Ash Meadows, A   62.56  65 ⇓P     P      10 43 47.0 +0.2
      baz=62
EDW2  Edwards Air Fo   62.61  68 ⇑P     P      10 43 46.9 -0.2
      baz=62,SNR=7.7
Q14A  Sevier Lake (B   62.62  61 ⇓P     P      10 43 47.2 +0.1
      baz=62,SNR=41
S12A  Delamar Landin   62.64  63 ⇓P     P      10 43 47.7 +0.4
      baz=62,SNR=27
NLU   North Lily Min   62.65  60 eP     P      10 43 48.2 +0.9
T11A  Corn Creek, Al   62.67  64 ⇓P     P      10 43 47.6 +0.2
      baz=62,SNR=34
N17A  Moffit Pass      62.68  58 ⇑P     P      10 43 47.5  0.0
      baz=62,SNR=36
L19A  Farson           62.70  56 ⇓P     P      10 43 47.6 -0.1
      baz=62,SNR=10
R13A  O'Grain Ranch,   62.76  62 ⇑P     P      10 43 48.2 +0.1
      baz=62,SNR=8.1
M18A  Lyman            62.77  57 ⇑P     P      10 43 48.2 +0.1
      baz=62,SNR=12
P15A  Leamington       62.79  60 ⇓P     P      10 43 48.6 +0.3
      baz=62,SNR=15
DAU   Daniels Canyon   62.80  59 eP     P      10 43 49.1 +0.8
DECC  Green Verdugo    62.83  68 ⇑P     P      10 43 48.1 -0.5
      baz=63
MPU   Maple Canyon     62.86  60 eP     P      10 43 49.3 +0.6
K20A  Yellowstone Ra   62.88  55 ⇑P     P      10 43 48.1 -0.7
      baz=63,SNR=21
SHOC  Shoshone         62.95  66 ⇑P     P      10 43 49.3  0.0
      baz=63
GSC   Goldstone        63.04  67 eP     P      10 43 49.6 -0.4
GSC                                 pmax   pmax
      comp=Z,11nm,0.8s,mb5.0
GSC   Goldstone        63.04  67 ⇑P     P      10 43 49.6 -0.4
      baz=63,SNR=8.3
GSC   Goldstone        63.04  67 eP     P      10 43 49.6 -0.4
      comp=Z,11nm,0.8s,mb5.0
P16A  Fountain Green   63.12  60 ⇓P     P      10 43 50.8 +0.4
      baz=63,SNR=5.8
Q15A  Fillmore         63.12  61 ⇑P     P      10 43 50.7 +0.2
      baz=63,SNR=22
U11A  Corn Creek       63.12  65 ⇑P     P      10 43 51.0 +0.4
      baz=63,SNR=5.7
SHPR  Sheep Range      63.20  65 eP     P      10 43 51.6 +0.6
M19A  Rock Springs     63.22  57 ⇑P     P      10 43 51.1 +0.1
      baz=63
R14A  James Farms, M   63.23  62 ⇑P     P      10 43 51.7 +0.5
      baz=63
S13A  Holt Ranch, En   63.23  63 ⇑P     P      10 43 51.5 +0.2
      baz=63,SNR=21
O17A  Robinson Place   63.24  59 ⇓P     P      10 43 51.6 +0.4
      baz=63,SNR=14
BFSC  Mount Baldy St   63.24  68 ⇓P     P      10 43 51.3 -0.1
      baz=63
T12A  Moapa            63.31  64 ⇑P     P      10 43 52.1 +0.3
      baz=63
L20A  Wamsutter        63.32  56 ⇑P     P      10 43 51.8  0.0
      baz=63,SNR=22
TUQ   Turquoise Moun   63.47  66 ⇑P     P      10 43 52.9 +0.1
      baz=63,SNR=9.7
V11A  Goodsprings      63.49  65 ⇓P     P      10 43 52.9  0.0
      baz=63,SNR=12
S14A  Cedar City       63.51  62 ⇑P     P      10 43 53.1  0.0
      baz=63,SNR=10
MSU   Marysvale        63.57  61 eP     P      10 43 54.2 +0.8
T13A  Saint George     63.59  63 ⇑P     P      10 43 53.8 +0.3
      baz=63,SNR=19
TMUT  Trail Mountain   63.59  60 eP     P      10 43 54.4 +0.9
U12A  Valley of Fire   63.62  64 ⇓P     P      10 43 53.8  0.0
      baz=63
N19A  John Jarvie Ra   63.63  57 ⇓P     P      10 43 53.7  0.0
      baz=63,SNR=13
HEC   Hector,Ludlow    63.64  67 ⇑P     P      10 43 53.8 -0.1
      baz=63,SNR=6.7
ULM   Lac du Bonnet    63.69  43  P     P      10 43 53.1 -0.9
      comp=Z,9.5nm,0.8s,mb4.8,baz=313,slow=7.4,SNR=16
ULM                                 LR     LR      11 13 47.8
      comp=Z,140nm,19.2s,MS4.2,baz=339,slow=38
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P17A  Butcher Ranch,   63.73  59 ⇑P     P      10 43 54.6 +0.1
      baz=64,SNR=12
M20A  Sweetwater, Wa   63.76  56 ⇑P     P      10 43 54.9 +0.3
      baz=64,SNR=16
Q16A  Castle Valley    63.87  60 ⇓P     P      10 43 55.5 +0.2
      baz=64,SNR=17
COEN  Coen             63.87 193 eP     P      10 43 54.8 -0.7
COEN                             e      pP     10 44 09.0 -2.6
L21A  Rawlins          63.88  55 ⇓P     P      10 43 55.5 +0.1
      baz=64
P18A  Preston Nutter   63.90  59 ⇑P     P      10 43 56.0 +0.4
      baz=64,SNR=17
V12A  Nelson           63.91  65 ⇑P     P      10 43 55.9 +0.2
      baz=64,SNR=8.5
MURC  Murrieta         63.96  68 ⇓P     P      10 43 55.6 -0.4
      baz=64
U13A  Pakoon Wash      63.97  64 ⇑P     P      10 43 56.5 +0.4
      baz=64,SNR=33
OBN   Obninsk          63.98 326⇑eP     P      10 43 55.9 +0.1
OBN                                 pmax   pmax
      comp=Z,45nm,2.0s,mb5.2
OBN                                 MLR    MLR
      comp=Z,100nm,15.0s,MS4.1
S15A  Panguitch        64.04  62 ⇑P     P      10 43 57.2 +0.7
      baz=64,SNR=13
T14A  Hurricane        64.04  63 ⇑P     P      10 43 56.9 +0.4
      baz=64,SNR=9.5
O19A  Miners Draw (B   64.07  58 ⇑P     P      10 43 56.6  0.0
      baz=64,SNR=26
GMRC  Granite Mounta   64.08  66 ⇓P     P      10 43 56.7 -0.1
      baz=64,SNR=8.3
SRU   San Rafael       64.10  60 ⇓P     P      10 43 56.9  0.0
      baz=64,SNR=46
SRU   San Rafael       64.10  60 eP     P      10 43 57.3 +0.3
R16A  Teasdale         64.12  61 ⇓P     P      10 43 57.6 +0.6
      baz=64,SNR=14
RSSD  Black Hills      64.14  52 eP     P      10 43 56.8 -0.3
RSSD                                pmax   pmax
      comp=Z,39nm,1.0s,mb5.4
RSSD  Black Hills      64.14  52 eP     P      10 43 56.8 -0.2
      comp=Z,39nm,1.0s,mb5.4
RWWY  Rawlins          64.15  56 eP     P      10 43 56.7 -0.5
      comp=Z,28nm,1.0s,mb5.2
N20A  Spence Gulch,    64.17  57 ⇓P     P      10 43 58.2 +0.8
      baz=64
W12A  Cal Nev Ari      64.19  65 ⇓P     P      10 43 57.4 -0.2
      baz=64,SNR=7.6
LDFC  Landfair         64.20  66 eP     P      10 43 57.9 +0.3
Q18A  Rafter H Ranch   64.33  59 ⇓P     P      10 43 58.3 -0.1
      baz=64,SNR=10
V13A  Grand Canyon W   64.34  64 ⇓P     P      10 43 58.6 +0.1
      baz=64,SNR=24
U14A  Mt Trumbull      64.42  63 ⇓P     P      10 43 59.5 +0.4
      baz=64,SNR=26
S16A  Weppner Ranch,   64.45  61 ⇓P     P      10 43 59.9 +0.7
      baz=64,SNR=28
R17A  Hanksville Air   64.47  60 ⇓P     P      10 43 59.5 +0.2
      baz=64,SNR=30
T15A  Red Dirt Ranch   64.48  62 ⇑P     P      10 43 59.8 +0.4
      baz=64,SNR=23
109C  Camp Elliot, M   64.50  69 ⇓P     P      10 43 59.8 +0.2
      baz=64
P19A  Cripple Cowboy   64.61  58 ⇓P     P      10 44 00.3 +0.1
      baz=64,SNR=34
N21A  Black Mountain   64.63  56 ⇑P     P      10 44 00.7 +0.3
      baz=64,SNR=18
O20A  White River Ci   64.67  57 ⇑P     P      10 44 00.6  0.0
      baz=64,SNR=23
M22A  Cedar Creek Ra   64.68  55 ⇓P     P      10 44 01.0 +0.3
      baz=64,SNR=32
NEE2  Needles Airpor   64.71  66 ⇑P     P      10 44 00.8 -0.1
      baz=64
IRM   Iron Mountain    64.81  66 ⇑P     P      10 44 01.3 -0.3
      baz=65,SNR=7.8
W13A  Hualapai Mount   64.92  65 ⇑P     P      10 44 02.4 +0.1
      baz=65,SNR=6.9
Q19A  Hogan Spring (   64.92  59 ⇓P     P      10 44 02.1 -0.1
      baz=65,SNR=57
MONP  Monument Peak    64.92  68 ⇑P     P      10 44 02.0 -0.3
      baz=65
KAKA  Kakadu           64.93 205 eP     P      10 44 01.8 -0.6
      comp=Z,4.5nm,0.6s,mb4.7
KAKA                             e      pP     10 44 16.4 -2.1
KAKA  Kakadu           64.93 205 eP     P      10 44 01.7 -0.8
      comp=Z,73nm,1.0s,mb5.7
R18A  Canyonlands Na   64.96  60 ⇓P     P      10 44 02.2 -0.3
      baz=65,SNR=40
S17A  Black Ridge (B   64.96  61 ⇓P     P      10 44 02.6 +0.1
      baz=65,SNR=51
T16A  Glen Canyon Da   65.01  62 ⇑P     P      10 44 02.2 -0.6
      baz=65,SNR=6.0
V14A  Boquillas Ranc   65.01  64 ⇑P     P      10 44 03.3 +0.4
      baz=65,SNR=30
O21A  Pagoda           65.04  57 ⇓P     P      10 44 03.2 +0.2
      baz=65,SNR=22
AGMN  Agassiz Refuge   65.12  44 eP     P      10 44 02.3 -1.1
      comp=Z,23nm,1.0s,mb5.2
N22A  Wattenberg Ran   65.18  56 ⇓P     P      10 44 04.3 +0.4
      baz=65,SNR=28
X13A  Yucca            65.30  65 ⇑P     P      10 44 04.8  0.0
      baz=65,SNR=9.1
W14A  Seligman         65.31  64 ⇑P     P      10 44 05.2 +0.3
      baz=65,SNR=30
PDMCI Parker Dam,Lak   65.32  66 ⇓P     P      10 44 04.6 -0.3
      baz=65,SNR=7.7
PHWY  Pilot Hill       65.37  55 eP     P      10 44 04.5 -0.6
      comp=Z,5.0nm,0.9s,mb4.5
R19A  Curley Farm, L   65.38  59 ⇓P     P      10 44 05.0 -0.2
      baz=65,SNR=16
T17A  Navajo Res., N   65.40  61 ⇑P     P      10 44 05.0 -0.4
      baz=65,SNR=6.5
V15A  Kaibab Nationa   65.43  63 ⇑P     P      10 44 06.2 +0.6
      baz=65,SNR=27
Q20A  Ridgley Place,   65.46  58 ⇓P     P      10 44 05.6 -0.1
      baz=65,SNR=20
Y12C  Blythe           65.47  66 ⇑P     P      10 44 05.8 -0.1
      baz=65,SNR=5.3
P21A  Newcastle        65.53  57 ⇓P     P      10 44 06.4 +0.2
      baz=65,SNR=39
U17A  Shonto           65.76  62 ⇑P     P      10 44 07.8 +0.1
      baz=66,SNR=9.2
GLA   Glamis           65.77  67 ⇓P     P      10 44 08.0 +0.2
      baz=66
U16A  Tuba City        65.81  62 ⇑P     P      10 44 08.3 +0.2
      baz=66,SNR=24
W15A  Williams         65.82  64 ⇓P     P      10 44 08.8 +0.7
      baz=66,SNR=9.7
S19A  Harvey Farm, M   65.83  60 ⇑P     P      10 44 08.1 -0.1
      baz=66,SNR=46
T18A  Mexican Hat      65.84  61 ⇓P     P      10 44 07.4 -0.8
      baz=66,SNR=21
X14A  Yava             65.94  65 ⇓P     P      10 44 09.6 +0.6
      baz=66
Q21A  Lamborn Mesa,    65.94  58 ⇓P     P      10 44 09.0 +0.2
      baz=66
R20A  Redvale          65.95  59 ⇓P     P      10 44 09.1 +0.2
      baz=66
WUAZ  Wupatki          66.10  63 ⇑P     P      10 44 10.4 +0.4
      baz=66
WUAZ  Wupatki          66.10  63 eP     P      10 44 10.4 +0.5
      comp=Z,23nm,1.1s,mb5.1
NB2   NORSAR Subarra   66.24 342  P     P      10 44 08.4 -2.0
      comp=Z,6.8nm,1.0s,mb4.6,baz=25,slow=6.5
NOA   NORSAR Array B   66.24 342  P     P      10 44 08.4 -2.0
NOA                                 pmax   pmax
      comp=Z,2.0nm,0.7s
NOA                                 MLR    MLR
      comp=Z,225nm,19.7s
NOA   NORSAR Array B   66.24 342  P     P      10 44 08.3 -2.1
      comp=Z,2.3nm,0.7s,mb4.3,baz=26,slow=6.3,SNR=7.0
NOA                                 LR     LR      11 17 22.5
      comp=Z,225nm,19.7s,MS4.4,baz=255,slow=40
Y14A  Wickenburg       66.25  65 ⇓P     P      10 44 10.8 -0.1
      baz=66
112A  Yuma             66.28  67 ⇑P     P      10 44 10.8 -0.3
      baz=66
Q22A  Crested Butte,   66.29  58 ⇑P     P      10 44 11.8 +0.6
      baz=66
W16A  Flagstaff        66.31  63 ⇑P     P      10 44 11.5 +0.3
      baz=66,SNR=7.6
X15A  Humboldt         66.32  64 ⇓P     P      10 44 11.7 +0.3
      baz=66,SNR=19
ISCO  Idaho Springs    66.34  56 eP     P      10 44 12.1 +0.7
ISCO                                pmax   pmax
      comp=Z,28nm,0.8s,mb5.3
ISCO  Idaho Springs    66.34  56 eP     P      10 44 12.1 +0.7
      comp=Z,28nm,0.8s,mb5.3
U18A  Rough Rock, Ch   66.34  61 ⇑P     P      10 44 11.6 +0.1
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      baz=66,SNR=9.8
PSI   Prapat           66.43 245  LR    LR      11 13 47.0
      comp=Z,70nm,18.8s,MS3.9,baz=149,slow=36
T19A  Beclabito        66.54  60 ⇓P     P      10 44 12.4 -0.3
      baz=66,SNR=12
113A  Mohawk Valley,   66.61  67 ⇓P     P      10 44 12.6 -0.6
      baz=66
Y15A  Casa Rosa Ranc   66.63  65 ⇑P     P      10 44 13.4 +0.1
      baz=66,SNR=11
S21A  Coal Bank Pass   66.65  59 ⇓P     P      10 44 13.9 +0.5
      baz=66,SNR=28
Z14A  Wintersburg      66.68  66 ⇑P     P      10 44 13.2 -0.5
      baz=66
V18A  Ganado           66.80  62 ⇓P     P      10 44 14.8 +0.4
      baz=67,SNR=15
X16A  Lo Mia Camp, P   66.83  64 ⇓P     P      10 44 14.8 +0.2
      baz=67,SNR=17
Z15A  Gila River Ind   67.20  65 ⇑P     P      10 44 17.1 +0.1
      baz=67
X17A  Forest Lakes     67.26  64 ⇑P     P      10 44 17.2 -0.2
      baz=67
V19A  Window Rock      67.31  61 ⇑P     P      10 44 18.0 +0.4
      baz=67,SNR=10
W18A  Petrified Fore   67.33  62 ⇑P     P      10 44 17.6 -0.2
      baz=67
OGNE  Ogallala         67.43  53 eP     P      10 44 17.3 -1.1
      comp=Z,69nm,0.9s,mb5.7
W19A  Sanders          67.54  62 ⇓P     P      10 44 19.4 +0.3
      baz=67,SNR=20
Z16A  Peralta Trail,   67.60  65 ⇓P     P      10 44 19.5  0.0
      baz=67,SNR=7.3
X18A  Snowflake        67.63  63 ⇓P     P      10 44 19.8 +0.2
      baz=67,SNR=12
Y17A  Roosevelt        67.69  64 ⇓P     P      10 44 20.1 +0.1
      baz=68,SNR=11
214A  Organ Pipe Nat   67.75  67 ⇓P     P      10 44 19.9 -0.6
      baz=68
SDCO  Great Sand Dun   67.87  58 eP     P      10 44 20.7 -0.4
      comp=Z,17nm,1.3s,mb4.9
116A  Eloy             67.98  65 ⇑P     P      10 44 21.9  0.0
      baz=68,SNR=5.5
W20A  Ramah            68.04  61 ⇓P     P      10 44 22.2  0.0
      baz=68,SNR=11
Z17A  San Carlos Hig   68.19  64 ⇓P     P      10 44 23.4 +0.1
      baz=68
HYB   Hyderabad        68.31 272 i P    P      10 44 25.0 +0.8
HYB   Hyderabad        68.31 272 eP     P      10 44 25.0 +0.8
Y19A  Nutrioso         68.44  63 ⇑P     P      10 44 25.0 +0.3
      baz=68
216A  Three Points,    68.53  66 ⇑P     P      10 44 25.1 -0.2
      baz=68
W21A  San Fidel        68.54  61 ⇑P     P      10 44 25.0 -0.3
      baz=68
TUC   Tucson           68.71  65 eP     P      10 44 26.4 -0.1
TUC                                 pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.7
TUC   Tucson           68.71  65 eP     P      10 44 26.4 -0.1
      comp=Z,8.6nm,1.0s,mb4.6
KNA   Kununurra        68.86 207 eP     P      10 44 27.1 -0.3
      comp=Z,10nm,1.0s,mb4.7
KNA                              e      pP     10 44 41.6 -2.0
Z19A  T-Link Ranch,    68.91  63 ⇑P     P      10 44 27.8 +0.2
      baz=69
118A  Homack Ranch,    68.96  64 ⇑P     P      10 44 28.1 +0.1
      baz=69,SNR=12
W22A  Albuquerque      69.02  60 ⇓P     P      10 44 29.2 +0.8
      baz=69
217A  Green Valley     69.07  65 ⇑P     P      10 44 29.1 +0.4
      baz=69
119A  Ashpeak Ranch,   69.26  64 ⇓P     P      10 44 29.9 +0.1
      baz=69
ANMO  Albuquerque      69.33  60 eP     P      10 44 30.4 +0.1
ANMO                                pmax   pmax
      comp=Z,13nm,0.9s
ANMO  Albuquerque      69.33  60 eP     P      10 44 30.4 +0.1
      comp=Z,13nm,0.9s,mb4.9
X22A  Bernardo         69.34  61 ⇓P     P      10 44 31.1 +0.7
      baz=69,SNR=6.1
218A  Dragoon          69.39  65 ⇑P     P      10 44 31.3 +0.6
      baz=69,SNR=12
CTA   Charters Tower   69.54 189  P     P      10 44 31.6 +0.1
CTA                                 *PP    pP     10 44 44.8 -2.9
CTA                                 pmax   pmax
      comp=Z,2.0nm,0.6s
CTA   Charters Tower   69.54 189 eP     P      10 44 30.5 -1.0
      comp=Z,2.6nm,0.9s,mb4.2
CTA                              e      pP     10 44 45.2 -2.5
CTA   Charters Tower   69.54 189  P     P      10 44 31.6 +0.1
      comp=Z,1.7nm,0.6s,mb4.2,baz=8.1,slow=7.1,SNR=3.7
CTA                                 pP     pP     10 44 44.8 -2.9
      comp=Z,9.2nm,0.8s,baz=7.1,slow=8.0,SNR=10.0
Y22D  IRIS PASSCAL I   69.70  61 ⇑P     P      10 44 33.2 +0.6
      baz=69
318A  Bisbee           69.80  65 ⇑P     P      10 44 33.4 +0.1
      baz=70,SNR=10
KIV   Kislovodsk       69.99 315 eP     P      10 44 32.4 -1.8
KIV                                 pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.8
KIV                                 MLR    MLR
      comp=Z,91nm,18.0s,MS4.1
AKASG Malin Array Be   70.18 327  P     P      10 44 33.8 -1.4
AKASG                               pmax   pmax
      comp=Z,3.0nm,0.5s
AKASG                               MLR    MLR
      comp=Z,200nm,20.5s
AKASG Malin Array Be   70.18 327  P     P      10 44 33.8 -1.4
      comp=Z,2.8nm,0.5s,mb4.5,baz=31,slow=6.3,SNR=11
AKASG                               LR     LR      11 17 17.1
      comp=Z,200nm,20.5s,MS4.3,baz=15,slow=38
KIEV  Kiev             70.19 327 eP     P      10 44 33.8 -1.5
KIEV                                pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.7
KIEV  Kiev             70.19 327 eP     P      10 44 33.8 -1.4
      comp=Z,8.2nm,0.9s,mb4.7
CBKS  Cedar Bluff      70.19  53 eP     P      10 44 34.2 -1.3
CBKS                                pmax   pmax
      comp=Z,25nm,1.1s,mb5.1
CBKS  Cedar Bluff      70.19  53 eP     P      10 44 34.2 -1.3
      comp=Z,25nm,1.1s,mb5.1
319A  Douglas          70.27  65 ⇓P     P      10 44 36.3 +0.2
      baz=70,SNR=19
SCHQ  Schefferville    70.41  24  P     P      10 44 36.0 -0.6
      comp=Z,20nm,0.8s,mb5.1,baz=354,slow=7.0,SNR=54
SCHQ                                LR     LR      11 17 41.2
      comp=Z,123nm,20.2s,MS4.2,baz=16,slow=38
SCHQ  Schefferville    70.41  24  P     P      10 44 36.0 -0.6
SCHQ                                LR     LR      11 17 41.2
POO   Poona            70.58 276 ex     P      10 44 37.0 -1.1
SCIA  State Center     71.15  47 eP     P      10 44 40.7 -0.5
      comp=Z,75nm,1.3s,mb5.5
WRAB  Tennant Creek    71.38 201  P     pP     10 44 56.6 -2.4
      comp=Z,110nm,1.2s,SNR=5.1
WRAB  Tennant Creek    71.38 201 eP     P      10 44 41.2 -1.5
WB2   Warramunga Arr   71.39 201 eP     P      10 44 41.7 -1.0
WRA   Warramunga Arr   71.39 201  P     P      10 44 41.8 -1.0
      comp=Z,3.3nm,0.8s,mb4.3,baz=16,slow=6.1,SNR=18
WRA                                 pP     pP     10 44 56.3 -2.8
      comp=Z,13nm,0.9s,baz=15,slow=6.2,SNR=20
WRA                                 LR     LR      11 13 15.9
      comp=Z,91nm,19.3s,MS4.0,baz=170,slow=33
FITZ  Fitzroy Crossi   72.05 210 eP     P      10 44 46.7 -0.1
      comp=Z,4.3nm,0.7s,mb4.5
FITZ                             e      pP     10 45 01.8 -1.3
FITZ  Fitzroy Crossi   72.05 210  P     P      10 44 46.7 -0.1
      comp=Z,2.8nm,0.7s,mb4.3,baz=158,slow=2.9,SNR=5.6
FITZ                                pP     pP     10 45 01.9 -1.2
      comp=Z,18nm,0.8s,baz=23,slow=4.8,SNR=22
AMTX  Amarillo         72.06  57 eP     P      10 44 46.8 -0.1
      comp=Z,16nm,0.9s,mb5.0
LVV   L'vov            72.72 329 eP     P      10 44 46.7 -3.8
WMOK  Wichita Mounta   73.75  56 eP     P      10 44 55.8 -1.1
WMOK                                pmax   pmax
      comp=Z,25nm,1.0s,mb5.1
WMOK  Wichita Mounta   73.75  56 eP     P      10 44 55.8 -1.0
      comp=Z,25nm,1.0s,mb5.1
STHS  Stebnicka Huta   73.98 331 eP     P      10 44 59.0 +1.1
STHS                                pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.3
STHS  Stebnicka Huta   73.98 331 eP     P      10 44 59.0 +1.1
      comp=Z,3.4nm,0.7s,mb4.4
KOLS  Kolonicke sedl   74.07 330 eP     P      10 44 59.3 +0.8
BUR08 Bucovina Ar. S   74.18 327 eP     P      10 44 58.0 -1.1
BUR02 Bucovina Ar. S   74.19 327 ⇑P     P      10 44 59.0 -0.2
BURAR Bucovina Array   74.20 327⇑iP     P      10 44 59.0 -0.2
OKC   Ostrava-Krasne   74.57 333  AMS   AMS     11 21 40.0
      comp=Z,1μm,6.1s
DPC   Dobruska-Polom   74.65 334 eP     P      10 45 02.1 +0.3
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DPC                                 ex      x        10 45 03.4
DPC                                  AMS    AMS      11 20 50.0
       comp=Z,1µm,6.2s
CLL    Collm               74.69 336⇓iP     P        10 45 01.6  -0.4
CLL                                 e                10 45 08.0
MORC   Moravsky Berou      74.80 333⇑iP     P        10 45 02.3  -0.4
MORC   Moravsky Berou      74.80 333 ⇑P     P        10 45 02.3  -0.4
BRG    Berggiesshubel      74.83 336 eP     P        10 45 02.3  -0.6
BRG                                  pmax   pmax
       comp=Z,3.0nm,0.9s,mb4.2
BRG    Berggiesshubel      74.83 336 eP     P        10 45 02.3  -0.6
       comp=Z,5.7nm,0.9s,mb4.5
PVCC   Panska Ves          74.98 335  AMS   AMS      11 21 40.0
       comp=Z,1µm,6.6s
SADO   Sadowa              75.01  37  P     P        10 45 01.9  -2.1
       comp=Z,8.4nm,1.2s,mb4.5,baz=342,slow=5.5,SNR=3.5
SADO   Sadowa              75.01  37  P     P        10 45 01.9  -2.1
TXAR   Lajitas Array       75.06  62  P     P        10 45 04.4  -0.1
TXAR                                  pmax  pmax
       comp=Z,19nm,0.7s
TXAR   Lajitas Array       75.06  62  P     P        10 45 04.3  -0.2
       comp=Z,18nm,0.7s,mb5.1,baz=299,slow=4.2,SNR=218
ASAR   Alice Springs       75.08 200  P     P        10 45 04.4  -0.1
ASAR                                  *PP   pP       10 45 19.1  -1.8
ASAR                                  pmax  pmax
       comp=Z,2.0nm,0.6s
ASAR   Alice Springs       75.08 200  P     P        10 45 04.4  -0.1
       comp=Z,1.9nm,0.6s,mb4.2,baz=13,slow=5.2,SNR=29
ASAR                                  pP    pP       10 45 19.1  -1.8
       comp=Z,5.3nm,0.6s,baz=12,slow=5.3,SNR=14
CCM    Cathedral Cave      75.08  48 eP     P        10 45 02.5  -2.1
CCM                                   pmax  pmax
       comp=Z,17nm,1.3s,mb4.8
CCM    Cathedral Cave      75.08  48 eP     P        10 45 02.5  -2.1
       comp=Z,17nm,1.3s,mb4.8
PRU    Pruhonice           75.47 335 eP     P        10 45 06.7  +0.1
PRU                                  ex     x        10 45 07.9
PRU                                   AMS   AMS      11 21 00.0
       comp=Z,600nm,8.1s
VRAC   Vranov              75.50 333⇑iP     P        10 45 07.6  +0.9
VRAC   Vranov              75.50 333 ⇑P     P        10 45 07.5  +0.8
VYHS   Vyhne               75.55 332 i P    P        10 45 06.7  -0.3
TIRR   Tirgusor            75.69 324⇓iP     P        10 45 08.8  +0.9
TIRR   Tirgusor            75.69 324 ⇓P     P        10 45 08.8  +0.9
MLR    Muntele Rosu        75.75 326⇑iP     P        10 45 09.2  +1.0
MLR    Muntele Rosu        75.75 326 ⇑P     P        10 45 09.2  +1.0
NKC    Novy Kostel         75.81 336 eP     P        10 45 09.6  +1.1
NKC                                  ex     x        10 45 10.8
NKC                                   AMS   AMS      11 21 40.0
       comp=Z,900nm,6.1s
TREC   Trest               75.83 334 eP     P        10 45 08.8  +0.2
TREC                                  AMS   AMS      11 20 30.0
       comp=Z,1µm,6.2s
VOIR                       76.12 326⇑iP     P        10 45 11.2  +0.9
VOIR                       76.12 326 ⇑P     P        10 45 11.2  +0.9
MODS   Modra-Piesok        76.13 333 i P    P        10 45 11.2  +0.8
MODS                                  pmax  pmax
       comp=Z,2.0nm,0.9s,mb4.0
MODS   Modra-Piesok        76.13 333 i P    P        10 45 11.2  +0.8
       comp=Z,2.4nm,0.9s,mb4.1
QLP    Quilpie             76.17 190 eP     P        10 45 12.0  +1.4
QLP                                  e      pP       10 45 25.6  -1.5
JCT    Junction City       76.40  59 eP     P        10 45 11.3  -0.9
JCT                                   pmax  pmax
       comp=Z,34nm,1.2s,mb5.2
JCT    Junction City       76.40  59 eP     P        10 45 11.3  -0.9
       comp=Z,34nm,1.2s,mb5.2
MALT   Malatya             76.41 314 eP     P        10 45 12.5  +0.4
MALT                                  pmax  pmax
       comp=Z,7.0nm,1.0s,mb4.5
MALT   Malatya             76.41 314⇓iP     P        10 45 13.7  +1.6
MALT   Malatya             76.41 314 eP     P        10 45 12.5  +0.4
       comp=Z,6.8nm,1.0s,mb4.5
KHC    Kasperske Hory      76.52 335 eP     P        10 45 12.7  +0.2
KHC                                  ex     x        10 45 14.1
KHC                                  epP    pP       10 45 27.5  -1.5
KHC                                   AMS   AMS      11 21 40.0
       comp=Z,800nm,6.7s
KHC    Kasperske Hory      76.52 335 eP     P        10 45 12.7  +0.2
KHC                                  e      pP       10 45 27.5  -1.5
GRA1   Grafenberg Arr      76.63 337 eP     P        10 45 13.5  +0.4
       comp=Z,11nm,0.9s,mb4.8
GRA1                                  LR    LR
       comp=Z,200nm,21.8s,MS4.4
GRF    Grafenberg Arr      76.63 337 eP     P        10 45 13.5  +0.4
GRF                                   pmax  pmax
       comp=Z,11nm,0.9s,mb4.8
GRF                                   MLR   MLR
       comp=Z,200nm,21.8s,MS4.4
GRF    Grafenberg Arr      76.63 337 eP     P        10 45 13.5  +0.4
       comp=Z,11nm,0.9s,mb4.8
GRF                                  eL              11 18 14.8
       comp=Z,188nm,21.8s
MIAR   Mount Ida           76.65  52 eP     P        10 45 12.4  -1.1
MIAR                                  pmax  pmax
       comp=Z,29nm,1.0s,mb5.2
MIAR   Mount Ida           76.65  52 eP     P        10 45 12.4  -1.1
       comp=Z,29nm,1.0s,mb5.2
GERES  GERESS Array B      76.74 335  P     P        10 45 13.6  -0.2
GERES                                 pmax  pmax
       comp=Z,3.0nm,0.3s
GERES                                 MLR   MLR
       comp=Z,454nm,18.7s
GERES  GERESS Array B      76.74 335  P     P        10 45 13.6  -0.2
       comp=Z,2.9nm,0.3s,mb4.6,baz=36,slow=5.2,SNR=33
GERES                                 LR    LR       11 22 16.1
       comp=Z,454nm,18.7s,MS4.8,baz=196,slow=38
CONA   Conrad Observa      76.95 333⇑iP     P        10 45 15.5  +0.5
       comp=Z,9.1nm,0.6s,mb4.8
CSNA   Conrad Observa      76.95 333⇑iP     P        10 45 15.5  +0.5
       comp=Z,8.7nm,0.6s,mb4.8
MEM    Membach             77.02 340  P     P        10 45 15.2  -0.2
       comp=Z,16nm,1.2s,mb4.8
BZS    Buzias              77.17 329⇑iP     P        10 45 16.2  -0.1
BZS    Buzias              77.17 329 ⇑P     P        10 45 16.2   0.0
WCI    Wyandotte Cave      77.31  45 eP     P        10 45 16.3  -0.9
WCI                                   pmax  pmax
       comp=Z,27nm,0.9s,mb5.2
WCI    Wyandotte Cave      77.31  45 eP     P        10 45 16.3  -0.9
       comp=Z,27nm,0.9s,mb5.2
BCLA   Clavier             77.35 341  P     P        10 45 17.0  -0.1
BR131  Keskin Array S      77.45 318 eP     P        10 45 17.6  -0.4
       comp=Z,2.8nm,0.8s,mb4.2
BRTR   Keskin Array B      77.45 318  P     P        10 45 18.2  +0.3
BRTR                                  pmax  pmax
       comp=Z,3.0nm,0.9s
BRTR                                  MLR   MLR
       comp=Z,55nm,18.9s
BRTR   Keskin Array B      77.45 318  P     P        10 45 18.2  +0.2
       comp=Z,2.8nm,0.9s,mb4.2
BRTR                                  LR    LR       11 22 37.4
       comp=Z,55nm,18.9s,MS3.9,baz=200,slow=38
MOA    Molln               77.49 334⇑iP     P        10 45 18.1  +0.1
       comp=Z,5.2nm,0.6s,mb4.6
PKSM   Moragy              77.63 331⇑iP     P        10 45 18.7  -0.1
PKSM   Moragy              77.63 331 ⇑P     P        10 45 18.7  -0.2
GIVF   Givet               77.75 341 eP     P        10 45 19.0  -0.4
DOU    Dourbes             77.81 341  P     P        10 45 19.2  -0.5
BAIF   Baives              77.92 341 eP     P        10 45 20.1  -0.3
       comp=Z,9.7nm,0.5s,mb4.7
BAIF   Baives              77.92 341 eP     P        10 45 20.1  -0.3
BAIF                                  pmax  pmax
       comp=Z,5.0nm,0.5s,mb4.7
BAIF   Baives              77.92 341 eP     P        10 45 20.1  -0.3
       comp=Z,4.8nm,0.5s,mb4.7
WVT    Waverly             78.27  47 eP     P        10 45 22.1  -0.5
WVT                                   pmax  pmax
       comp=Z,12nm,1.1s,mb4.7
WVT    Waverly             78.27  47 eP     P        10 45 22.1  -0.5
       comp=Z,12nm,1.1s,mb4.8
SOKA   Soboth              78.33 333⇑iP     P        10 45 22.6  -0.1
       comp=Z,14nm,0.7s,mb5.0
PERS   Pernice             78.34 333 i P    P        10 45 22.8  +0.1
KBA    Koelnbreinsper      78.45 334⇑iP     P        10 45 24.2  +0.9
       comp=Z,46nm,0.6s,mb5.6,SNR=21
OBKA   Obir                78.62 333⇑iP     P        10 45 24.4  +0.1
       comp=Z,9.7nm,0.5s,mb5.0
WATA   Walderalm           78.70 336⇑iP     P        10 45 25.2  +0.5
       comp=Z,10nm,0.4s,mb5.1
WTTA   Wattenberg          78.75 336⇑iP     P        10 45 25.5  +0.5
       comp=Z,26nm,0.9s,mb5.2
MYKA   Terra Mystica       78.77 334⇓iP     P        10 45 25.1   0.0
       comp=Z,9.1nm,0.6s,mb4.9
OXF    Oxford              78.79  49 eP     P        10 45 24.6  -0.8
OXF                                   pmax  pmax
       comp=Z,44nm,1.2s,mb5.3
OXF    Oxford              78.79  49 eP     P        10 45 24.6  -0.9
       comp=Z,44nm,1.2s,mb5.3
CDF    Champ du Feu        78.79 339 eP     P        10 45 25.0  -0.2
       comp=Z,24nm,0.7s,mb4.9
CDF    Champ du Feu        78.79 339 eP     P        10 45 25.0  -0.2
CDF                                   pmax  pmax
       comp=Z,12nm,0.7s,mb4.9
CDF    Champ du Feu        78.79 339 eP     P        10 45 25.0  -0.2
       comp=Z,12nm,0.7s,mb4.9
MOTA   Moosalm             78.82 336⇑iP     P        10 45 25.6  +0.3
       comp=Z,14nm,0.9s,mb4.9
ECH    Echery              79.00 339 eP     P        10 45 26.5  +0.1
FELD   Feldberg im Sc      79.12 338 eP     P        10 45 26.5  -0.5
DAVA   Damuels             79.19 337⇑iP     P        10 45 27.6  +0.2
       comp=Z,21nm,1.2s,mb5.0
MEZF   Maizieres J'vi      79.22 340 eP     P        10 45 27.5   0.0
FETA   Feichten            79.22 336 i P    P        10 45 27.9  +0.4
       comp=Z,9.1nm,0.7s,mb4.8,SNR=8.7
JAVS   Javornik            79.32 333 i P    P        10 45 27.2  -0.9
BOJS   Bojanci             79.32 333 i P    P        10 45 27.7  -0.4
MOF    Molkenrain          79.35 339 eP     P        10 45 27.8  -0.5
HAU    Haudompre           79.39 339 eP     P        10 45 28.1  -0.4
       comp=Z,16nm,0.6s,mb4.8
HAU                                  eMLR   MLR
       comp=Z,276nm,23.0s,MS4.2
HAU    Haudompre           79.39 339 eP     P        10 45 28.1  -0.4
HAU                                   pmax  pmax
       comp=Z,8.0nm,0.6s,mb4.8
HAU                                   MLR   MLR
       comp=Z,280nm,23.0s,MS4.5
HAU    Haudompre           79.39 339 eP     P        10 45 28.1  -0.4
       comp=Z,8.1nm,0.6s,mb4.8
HAU                                   LR    LR
       comp=Z,280nm,23.0s,MS4.5
HINF   Hinteralfeld        79.45 339 eP     P        10 45 28.1  -0.7
       comp=Z,5.4nm,0.4s,mb4.5
TZTN   Tazewell            79.95  44 eP     P        10 45 31.1  -0.6
       comp=Z,23nm,1.7s,mb4.8
FLN    La Foliniere        80.08 344⇑iP     P        10 45 31.8  -0.4
       comp=Z,36nm,0.6s,mb5.2
FLN                                  eMLR   MLR
       comp=Z,256nm,19.2s,MS4.3
FLN    La Foliniere        80.08 344⇑iP     P        10 45 31.8  -0.4
FLN                                   pmax  pmax
       comp=Z,18nm,0.6s,mb5.2
FLN                                   MLR   MLR
       comp=Z,260nm,19.3s,MS4.6
FLN    La Foliniere        80.08 344⇑iP     P        10 45 31.8  -0.4
       comp=Z,18nm,0.6s,mb5.2
FLN                                   LR    LR
       comp=Z,260nm,19.3s,MS4.6
TUE    Stuetta             80.09 337 eP     P        10 45 32.7  +0.4
       comp=Z,28nm,0.8s,mb5.2
LDF    La Druitiere        80.18 344⇑iP     P        10 45 32.2  -0.5
       comp=Z,37nm,0.5s,mb5.2
LDF    La Druitiere        80.18 344⇑iP     P        10 45 32.2  -0.5
LDF                                   pmax  pmax
       comp=Z,18nm,0.5s,mb5.3
LDF    La Druitiere        80.18 344⇑iP     P        10 45 32.2  -0.5
       comp=Z,18nm,0.5s,mb5.3
GRR    Gorron              80.51 344⇑iP     P        10 45 34.4  -0.1
       comp=Z,120nm,0.8s,mb5.6
GRR    Gorron              80.51 344⇑iP     P        10 45 34.4  -0.1
GRR                                   pmax  pmax
       comp=Z,60nm,0.8s,mb5.6
GRR    Gorron              80.51 344⇑iP     P        10 45 34.4  -0.1
       comp=Z,60nm,0.8s,mb5.6
TKL    Tuckaleechee C      80.57  45  P     P        10 45 34.6  -0.5
TKL                                   pmax  pmax
       comp=Z,6.0nm,1.0s,mb4.5
TKL    Tuckaleechee C      80.57  45  P     P        10 45 34.6  -0.5
       comp=Z,6.1nm,1.0s,mb4.5,baz=354,slow=1.9,SNR=8.0
LOR    Lormes              80.64 341 eP     P        10 45 34.9  -0.3
       comp=Z,56nm,0.9s,mb5.2
LOR                                  eMLR   MLR
       comp=Z,292nm,20.2s,MS4.3
LOR    Lormes              80.64 341 eP     P        10 45 34.9  -0.3
LOR                                   pmax  pmax
       comp=Z,28nm,0.9s,mb5.2
LOR                                   MLR   MLR
       comp=Z,290nm,20.3s,MS4.6
LOR    Lormes              80.64 341 eP     P        10 45 34.9  -0.3
       comp=Z,28nm,0.9s,mb5.2
LOR                                   LR    LR
       comp=Z,290nm,20.3s,MS4.6
CABF   La Chapelle         80.76 339 eP     P        10 45 35.8  -0.1
BLA    Blacksburg          80.79  42 eP     P        10 45 35.6  -0.6
BLA                                   pmax  pmax
       comp=Z,11nm,1.0s,mb4.7
BLA    Blacksburg          80.79  42 eP     P        10 45 35.6  -0.7
       comp=Z,11nm,1.0s,mb4.8
HYF    Humbligny           80.90 341 eP     P        10 45 36.9  +0.3
SSF    Saint Saulge        80.92 341 eP     P        10 45 36.4  -0.3
       comp=Z,20nm,0.7s,mb4.8
SSF    Saint Saulge        80.92 341 eP     P        10 45 36.4  -0.3
SSF                                   pmax  pmax
       comp=Z,10.0nm,0.7s,mb4.8
SSF    Saint Saulge        80.92 341 eP     P        10 45 36.4  -0.3
       comp=Z,9.9nm,0.7s,mb4.8
SGMF   Saint Gilles        80.93 345⇑iP     P        10 45 36.8   0.0
       comp=Z,81nm,0.6s,mb5.5
SGMF   Saint Gilles        80.93 345⇑iP     P        10 45 36.8   0.0
SGMF                                  pmax  pmax
       comp=Z,40nm,0.6s,mb5.5
SGMF   Saint Gilles        80.93 345⇑iP     P        10 45 36.8   0.0
       comp=Z,40nm,0.6s,mb5.5
ROSF   Rostrenen           80.97 346⇑iP     P        10 45 37.0   0.0
       comp=Z,62nm,0.6s,mb5.4
ROSF   Rostrenen           80.97 346⇑iP     P        10 45 37.0   0.0
ROSF                                  pmax  pmax
       comp=Z,31nm,0.6s,mb5.4
ROSF   Rostrenen           80.97 346⇑iP     P        10 45 37.0   0.0
       comp=Z,31nm,0.6s,mb5.4
LRAL   Lakeview Retre      81.17  49 eP     P        10 45 37.1  -1.2
       comp=Z,8.8nm,1.1s,mb4.6
AVF    Avril sur Loir      81.21 341 eP     P        10 45 38.1  -0.2
       comp=Z,26nm,0.7s,mb5.0
AVF    Avril sur Loir      81.21 341 eP     P        10 45 38.1  -0.2
AVF                                   pmax  pmax
       comp=Z,13nm,0.6s,mb5.0
AVF    Avril sur Loir      81.21 341 eP     P        10 45 38.1  -0.2
       comp=Z,13nm,0.6s,mb5.0
SMF    Signal de Mont      81.24 340 eP     P        10 45 38.3  -0.1
PMOR   Pomariorio Ree      81.34 125 eT              12 15 10.8
       comp=Z,6.2nm,0.2s
QUIF   Quistinic           81.36 345⇑iP     P        10 45 38.9  -0.1
       comp=Z,9.8nm,0.5s,mb4.7
QUIF   Quistinic           81.36 345⇑iP     P        10 45 38.9  -0.1
QUIF                                  pmax  pmax
       comp=Z,5.0nm,0.5s,mb4.7
QUIF   Quistinic           81.36 345⇑iP     P        10 45 38.9  -0.1
       comp=Z,4.9nm,0.5s,mb4.7
RSL    Roselend            81.50 338 eP     P        10 45 40.0  +0.2
BGF    Bois d'Agland       81.54 341 eP     P        10 45 39.8  -0.2
LPL    La Plagne           81.64 338⇑iP     P        10 45 41.4  +0.9
       comp=Z,59nm,0.6s,mb5.4
LPL    La Plagne           81.64 338⇑iP     P        10 45 41.4  +0.9
LPL                                   pmax  pmax
       comp=Z,29nm,0.6s,mb5.4
LPL    La Plagne           81.64 338⇑iP     P        10 45 41.4  +0.9
       comp=Z,30nm,0.6s,mb5.4
LPG    La Plagne           81.65 338⇑iP     P        10 45 41.6  +1.0
       comp=Z,70nm,0.6s,mb5.5
LPG    La Plagne           81.65 338⇑iP     P        10 45 41.6  +1.0
LPG                                   pmax  pmax
       comp=Z,35nm,0.6s,mb5.5
LPG    La Plagne           81.65 338⇑iP     P        10 45 41.6  +1.0
       comp=Z,35nm,0.6s,mb5.5
STKA   Stephens Creek      81.72 192  LR    LR       11 20 19.2
       comp=Z,254nm,18.4s,MS4.6,baz=26,slow=34
TCF    Toulx Ste Croi      81.93 341⇑iP     P        10 45 42.1   0.0
       comp=Z,40nm,0.9s,mb5.0
TCF    Toulx Ste Croi      81.93 341⇑iP     P        10 45 42.1   0.0
TCF                                   pmax  pmax
       comp=Z,20nm,0.9s,mb5.0
TCF    Toulx Ste Croi      81.93 341⇑iP     P        10 45 42.1   0.0
       comp=Z,20nm,0.9s,mb5.0
PLDF   La Plantade         81.93 340 eP     P        10 45 43.3  +1.2
AGO    Saint Agoulin       81.96 341 eP     P        10 45 43.5  +1.3
BNI    Bardonecchia        82.08 338 eP     P        10 45 42.8  -0.1
BNI                                   pmax  pmax
       comp=Z,13nm,0.6s,mb5.0
BNI    Bardonecchia        82.08 338 eP     P        10 45 42.8  -0.1
       comp=Z,13nm,0.6s,mb5.0
MFF    Saint Martin d      82.09 343 eP     P        10 45 43.1  +0.2
       comp=Z,72nm,0.9s,mb5.3
MFF    Saint Martin d      82.09 343 eP     P        10 45 43.1  +0.2
MFF                                   pmax  pmax
       comp=Z,36nm,0.9s,mb5.3
MFF    Saint Martin d      82.09 343 eP     P        10 45 43.1  +0.2
       comp=Z,36nm,0.9s,mb5.3
PYM    Petit Puy Mans      82.27 341 eP     P        10 45 44.6  +0.7
MBDF   Montbardon          82.37 338 eP     P        10 45 44.6  +0.2
       comp=Z,23nm,0.8s,mb4.9
MBDF   Montbardon          82.37 338 eP     P        10 45 44.6  +0.2
MBDF                                  pmax  pmax
       comp=Z,12nm,0.8s,mb4.9
MBDF   Montbardon          82.37 338 eP     P        10 45 44.6  +0.2
       comp=Z,12nm,0.8s,mb4.9
SSB    Saint Sauveur       82.38 340 eP     P        10 45 44.3  -0.1
SSB                                   pmax  pmax
       comp=Z,12nm,0.6s,mb5.0
SSB    Saint Sauveur       82.38 340 eP     P        10 45 44.3  -0.1
       comp=Z,12nm,0.6s,mb5.0
ORIF   Oris-en-Rattie      82.40 339⇑iP     P        10 45 45.2  +0.6
       comp=Z,27nm,0.6s,mb5.0
ORIF                                 eMLR   MLR
       comp=Z,205nm,20.5s,MS4.2
ORIF   Oris-en-Rattie      82.40 339⇑iP     P        10 45 45.2  +0.6
ORIF                                  pmax  pmax
       comp=Z,14nm,0.6s,mb5.1
ORIF   Oris-en-Rattie      82.40 339⇑iP     P        10 45 45.2  +0.6
       comp=Z,14nm,0.6s,mb5.1
PPT    Papeete             82.58 128 eT              12 16 38.8
       comp=Z,4.1nm,0.3s
PAE    Paea                82.66 128 eT              12 16 41.9
       comp=Z,25nm,0.3s
VIVF   Saint-Julien-l      82.75 339⇑iP     P        10 45 46.8  +0.4
       comp=Z,30nm,0.8s,mb5.1
VIVF   Saint-Julien-l      82.75 339⇑iP     P        10 45 46.8  +0.4
VIVF                                  pmax  pmax
       comp=Z,15nm,0.8s,mb5.1
VIVF   Saint-Julien-l      82.75 339⇑iP     P        10 45 46.8  +0.4
       comp=Z,15nm,0.8s,mb5.1
SBF    Sospel              83.01 337 eP     P        10 45 47.4  -0.3
RJF    Les Rejaudoux       83.01 342 eP     P        10 45 47.8  +0.1
RJF                                  eMLR   MLR
       comp=Z,225nm,21.5s,MS4.2
RJF    Les Rejaudoux       83.01 342 eP     P        10 45 47.8  +0.1
RJF                                   LR    LR
       comp=Z,230nm,21.5s,MS4.5
CAF    Calviac             83.26 341 eP     P        10 45 49.5  +0.5
       comp=Z,40nm,0.7s,mb5.2
CAF    Calviac             83.26 341 eP     P        10 45 49.5  +0.5
CAF                                   pmax  pmax
       comp=Z,20nm,0.7s,mb5.3
CAF    Calviac             83.26 341 eP     P        10 45 49.5  +0.5
       comp=Z,20nm,0.7s,mb5.3
SMRF   Simiane la Rot      83.36 338 eP     P        10 45 50.5  +0.9
LFF    La Frestale         83.52 342 eP     P        10 45 50.7  +0.4
       comp=Z,71nm,0.8s,mb5.5
LFF    La Frestale         83.52 342 eP     P        10 45 50.7  +0.4
LFF                                   pmax  pmax
       comp=Z,35nm,0.8s,mb5.5
LFF    La Frestale         83.52 342 eP     P        10 45 50.7  +0.4
       comp=Z,35nm,0.8s,mb5.5
LASF   Ste Croix           83.67 340 eP     P        10 45 51.8  +0.7
LMR    La Mourre           83.74 338⇑iP     P        10 45 51.4  -0.1
       comp=Z,79nm,1.0s,mb5.5
LMR    La Mourre           83.74 338⇑iP     P        10 45 51.4  -0.1
LMR                                   pmax  pmax
       comp=Z,39nm,1.0s,mb5.5
LMR    La Mourre           83.74 338⇑iP     P        10 45 51.4  -0.1
       comp=Z,40nm,1.0s,mb5.5
PGF    Pioggiola           83.83 336 eP     P        10 45 51.6  -0.4
       comp=Z,31nm,0.7s,mb5.2
PGF    Pioggiola           83.83 336 eP     P        10 45 51.6  -0.4
PGF                                   pmax  pmax
       comp=Z,16nm,0.7s,mb5.3
PGF    Pioggiola           83.83 336 eP     P        10 45 51.6  -0.4
       comp=Z,16nm,0.7s,mb5.2
TIP    Timpagrande         84.54 329 eP     P        10 45 54.9  -0.8
       comp=Z,22nm,1.1s,mb5.2
MTLF   Montolieu           84.74 341 eP     P        10 45 56.8  +0.2
EPF    Esparros            85.43 342 eP     P        10 45 59.9  -0.1
ETSF   Etsaut              85.74 342 eP     P        10 46 02.3  +0.7
       comp=Z,12nm,0.7s,mb5.0
ETSF   Etsaut              85.74 342 eP     P        10 46 02.3  +0.7
ETSF                                  pmax  pmax
       comp=Z,6.0nm,0.7s,mb4.9
ETSF   Etsaut              85.74 342 eP     P        10 46 02.3  +0.7
       comp=Z,5.8nm,0.7s,mb4.9
ESDC   Sonseca Array       89.50 344  P     P        10 46 18.7  -1.0
       comp=Z,1.1nm,0.5s,mb4.5,baz=0.9,slow=4.0,SNR=8.5
ESDC                                  LR    LR       11 31 27.9
       comp=Z,186nm,20.0s,MS4.5,baz=305,slow=39
KEST   Kesra               90.06 333  P     P        10 46 22.4   0.0
       comp=Z,2.9nm,0.6s,mb4.8,baz=250,slow=2.2,SNR=8.9
KEST                                  LR    LR       11 30 35.2
       comp=Z,97nm,20.6s,MS4.2,baz=319,slow=38
RKT    Rikitea             95.03 120 eLR    LR       11 17 48.0
       comp=Z,735nm,37.5s
DBIC   Dimbokro           121.59 337  PKIKP PKPdf    10 52 15.5  -0.9
DBIC                                  pmax  pmax
       comp=Z,3.0nm,1.0s
DBIC   Dimbokro           121.59 337  PKP   PKPdf    10 52 15.5  -0.9
       comp=Z,3.0nm,1.0s,baz=271,slow=1.1,SNR=3.8
CPUP   Villa Florida      145.99  60  PKPbc PKPbc    10 53 01.4  -0.6
       comp=Z,1.9nm,0.5s,baz=21,slow=2.9,SNR=5.6
CPUP   Villa Florida      145.99  60 ePKPdf PKPdf    10 53 01.0  -0.2
PLCA   Paso Flores        147.00  93  PKPbc PKPbc    10 53 04.2  -0.4
       comp=Z,3.5nm,0.9s,baz=320,slow=7.8,SNR=6.1
```

IDC ***04*** *10:36:10.8±0.7, 0°.23S×124°.89E, h0km, mb4.2/13, mb1 4.3/14, mb1mx4.2/22, mbtmp4.2/14, ML3.4/1, MS3.1/2, Ms1 3.1/2, ms1mx2.8/27, Error ellipse: s-maj=36.7km s-min=14.4km az=72.0*

NEIC ***04*** *10:36:15.8±0.3, 0°.23S×125°.03E, h35km, mb4.0/2, Error ellipse: s-maj=23.4km s-min=6.7km az=71.0*

ISCJB ***04*** *10:36:16.3±0.7, 0°.21S±0°.04×125°.12E±0°.05, h56km±7km, mb4.3/13, Error ellipse: s-maj=8.3km s-min=6.2km az=171.9*

BJI ***04*** *10:36:17.7, 0°.46N×125°.56E, h22km, mb4.6/6*

DJA ***04*** *10:36:20, 0°.17S×125°.31E, h61km, MLv4.2/6*

ISC 04 10:36:17.3±0.7, **0°.20S**±0°.04×**125°.13E**±0°.05, **h48**km±7km, **n43**, σ1°.09/44, **mb4.3**/13, **1C-3D, Southern Molucca Sea**

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Code   Station Name          Δ°   AZ°   Phase ID          Time       Res
                                        Op      ISC       h  m  s    ISC
MNI    Manado              1.66 350⇓eP      Pn       10 36 45.5  +1.4
MNI                                 eS      Sn       10 37 03.0  -1.2
MNI    Manado              1.66 350  P      Pn       10 36 45.5  +1.4
LBMI   Labuha              2.41 100  P      Pn       10 36 54.6  +0.2
LBMI                                 S      Sn       10 37 23.9  +1.2
TNTI   Ternate             2.44  67  P      Pn       10 36 55.0  +0.3
TNTI                                 S      Sn       10 37 22.3  -1.1
TNE    Ternate             2.45  66⇓eP      Pn       10 36 52.0  -2.8
KDI    Kendari             4.49 214⇑eP      Pn       10 37 24.8  +1.9
KDI                                 eS      Sn       10 38 12.7  -1.2
KDI    Kendari             4.49 214  P      Pn       10 37 24.2  +1.3
AAI    Ambon               4.62 138  P      Pn       10 37 27.6  +2.9
PCI    Palu                5.33 262⇓eP      Px       10 37 46.0
PCI    Palu                5.33 262  P      Pn       10 37 42.0  +7.5
       199nm,0.8s,2µm1.0nm
MYLDM  Lahad Datu          8.51 309  P      Pn       10 38 23.9  +5.9
       68nm,0.9s
KAKA   Kakadu             14.39 150 eP      Pn       10 39 36.6  -1.8
       7.5nm,0.6s
KNA    Kununurra          15.86 167 eP      Pn       10 39 57.6  +0.1
       27nm,1.0s
FITZ   Fitzroy Crossi     17.79 178 eP      Pn       10 40 21.4  -0.2
       5.6nm,0.8s
FITZ   Fitzroy Crossi     17.79 178  P      Pn       10 40 21.1  -0.5
       0.1nm,0.3s,baz=27,slow=11,SNR=3.3
FITZ                                 LR     LR       10 46 40.0
       comp=Z,64nm,19.7s,baz=106,slow=35
FITZ   Fitzroy Crossi     17.79 178  P      Pn       10 40 23.4  +1.8
       11nm,2.3s
MBWA   Marble Bar         21.48 194  P      P        10 41 02.3  +0.2
       15nm,3.6s
WRAB   Tennant Creek      21.59 156 eP      P        10 41 02.2  -1.0
       6.6nm,0.9s,mb4.1
WRAB   Tennant Creek      21.59 156  P      P        10 41 03.4  +0.2
       8.4nm,1.1s,mb4.1
WRA    Warramunga Arr     21.59 156  P      P        10 41 02.2  -1.0
       3.1nm,0.8s,baz=335,slow=11,SNR=24
WRA                                  LR     LR       10 49 54.8
       comp=Z,53nm,18.6s,baz=305,slow=38
WB2    Warramunga Arr     21.60 156 eP      P        10 41 02.4  -0.9
COEN   Coen               22.49 128 eP      P        10 41 12.2  -0.7
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COEN	Coen	22.49	128	P	P	10 41 12.8	-0.1
ASAR	Alice Springs	24.83	161	P	P	10 41 35.6	+0.3
	3.0nm,0.9s,baz=347,slow=12,SNR=15						
STKA	Stephens Creek	35.14	155	eP	P	10 43 07.5	+1.0
	3.1nm,1.0s,mb4.2						
STKA	Stephens Creek	35.14	155	P	P	10 43 07.4	+0.9
	3.4nm,0.9s,mb4.3,baz=307,slow=6.4,SNR=5.7						
STKA	Stephens Creek	35.14	155	P	P	10 43 07.0	+0.4
	3.2nm,1.7s,mb4.0						
KSRS	Korea Array	37.56	4	P	P	10 43 28.2	+1.1
	2.1nm,0.9s,mb3.9,baz=172,slow=9.7,SNR=4.4						
MJAR	Matsushiro Arr	38.52	17	P	P	10 43 34.7	-0.5
	1.8nm,0.6s,mb4.0,baz=192,slow=8.4,SNR=5.6						
MJAR	Matsushiro Arr	38.52	17	P	P	10 43 34.7	-0.5
GTA	Gaotai	45.73	332	eP	P	10 44 36.1	+2.2
GTA				pP	pP	10 44 39.8	-7.1
GTA				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
SONM	Songino Array	50.55	344	P	P	10 45 10.7	-0.2
	comp=Z,1.6nm,0.7s,mb4.1,baz=162,slow=8.8,SNR=6.0						
PETK	Petropavlovsk-	59.65	22	P	P	10 46 17.6	+1.1
	comp=Z,5.5nm,0.7s,mb4.7,baz=175,slow=4.7,SNR=9.7						
MK31	Makanchi Array	59.92	327	eP	P	10 46 17.6	-0.9
MKAR	Makanchi Array	59.92	327	P	P	10 46 17.6	-0.8
	comp=Z,3.2nm,0.5s,mb4.6,baz=123,slow=8.2,SNR=22						
KURK	Kurchatov	64.23	329	P	P	10 46 46.4	-0.9
	comp=Z,3.9nm,0.6s,mb4.6,baz=129,slow=5.9,SNR=15						
BVAR	Borovoye Array	69.76	328	P	P	10 47 22.8	+0.4
	comp=Z,1.3nm,0.6s,mb4.0,baz=126,slow=10,SNR=6.8						
AKTK	Aktyubinsk	75.76	323	P	P	10 47 57.8	-0.2
AKTO	Aktyubinsk	75.76	323	P	P	10 47 57.8	-0.2
	comp=Z,5.8nm,0.8s,mb4.6,baz=108,slow=7.1,SNR=14						
BRTR	Keskin Array B	91.28	310	P	P	10 49 17.1	-0.8
	comp=Z,0.5nm,0.6s,mb4.0						
ARCES	ARCESS Array B	93.56	340	P	P	10 49 29.4	+1.5
	comp=Z,1.6nm,0.8s,mb4.5,baz=70,slow=7.0,SNR=4.2						
TORD	Torodi Ar. Bea	122.51	285	PKP	PKPdf	10 55 08.9	+0.3
	comp=Z,0.6nm,0.6s,baz=49,slow=1.4,SNR=4.3						
SCHQ	Schefferville	124.67	8	PKP	PKPdf	10 55 12.7	+1.1
	comp=Z,1.1nm,0.7s,baz=90,slow=1.0,SNR=3.8						

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*ISK **04** 10:39:31.2, 37.°20N×27.°90E, h6^{km}, MD2.5*

*ISCJB **04** 10:39:32.1±0.7, 37.°15N±0.°04×27.°91E±0.°04, h5^{km}±10^{km}, Error ellipse: s-maj=7.4km s-min=5.2km az=171.3*

*CSEM **04** 10:39:32.3±0.1, 37.°14N×27.°91E, h2^{km}, MD2.5, Error ellipse: s-maj=2.9km s-min=2.2km az=2.0*

*DDA **04** 10:39:32.4, 37.°14N×27.°91E, h7^{km}±4^{km}, Md2.8*

ISC 04 10:39:32.5±1.5**, 37.°14N**±0.°04×**27.°92E**±0.°04**, h8**^{km}±31^{km}**, n16, σ0.^{s}77**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLSB	Milas	0.19	324	ePG	Pg	10 39 34.5	-2.0
MLSB	Milas	0.19	324	ePg	Pg	10 39 34.5	-1.9
YER	Yerkesik	0.29	91	ePG	Pg	10 39 37.8	-0.4
YER				eSG	Sg	10 39 42.7	+0.6
YER	Yerkesik	0.29	91	ePg	Pg	10 39 37.8	-0.4
YER				eSg	Sg	10 39 42.7	+0.6
BDRM	Kayabasi	0.39	259	i P	Pg	10 39 39.8	-0.2
BDRM				i S	Sg	10 39 46.4	+1.3
BDRM	Kayabasi	0.39	259	i P	Pg	10 39 39.8	-0.2
BDRM				i S	Sg	10 39 46.4	+1.3
BODT	Bodrum	0.49	261	ePG	Pg	10 39 41.3	-0.7
BODT				eSG	Sg	10 39 48.3	-0.1
BODT	Bodrum	0.49	261	ePg	Pg	10 39 41.3	-0.7
BODT				eSg	Sg	10 39 48.3	-0.2
DAT	Datca	0.49	214	ePG	Pg	10 39 42.0	0.0
DAT	Datca	0.49	214	ePg	Pg	10 39 42.0	0.0
AYDN	Tasoluk	0.52	357	i P	Pg	10 39 42.7	+0.2
AYDN				i S	Sg	10 39 49.8	+0.3
AYDN	Tasoluk	0.52	357	i P	Pg	10 39 42.7	+0.1
AYDN				i S	Sg	10 39 49.8	+0.4
DALT	Dalyan (Mudla)	0.68	122	ePG	Pg	10 39 45.9	+0.2
DALT	Dalyan (Mudla)	0.68	122	ePg	Pg	10 39 45.9	+0.2
GCAM	G?zelcaml?	0.78	316	eP	Pg	10 39 47.0	-0.6
GCAM				i S	Sg	10 39 58.7	+1.0
GCAM	G?zelcaml?	0.78	316	eP	Pg	10 39 47.0	-0.5
GCAM				i S	Sg	10 39 58.7	+1.0

IGQ 04 10:52:52.6, 2.°68S×79.°21W, h35^{km}±2^{km}, Mb4.3, Ms4.1, 8C-8D, Error ellipse: s-maj=4.6km s-min=2.3km az=56.8, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGUA	Igualata	1.31	26	⇓S	Sn	10 53 35.9	+5.1
IGUA	Igualata	1.31	26	⇓P	Pn	10 53 17.7	+3.2
ARRY	Arrayan	1.39	33	⇑P	Pn	10 53 17.9	+2.4
PATA	Patacocha	1.40	34	⇑S	Sn	10 53 36.2	+3.2
PATA	Patacocha	1.40	34	⇑P	Pn	10 53 18.4	+2.7
BIL2	Estacion Bilba	1.41	30	P	Pn	10 53 19.0	+3.2
RETU	Refugio	1.44	32	⇑P	Pn	10 53 19.6	+3.4
RETU	Refugio	1.44	32	⇑S	Sn	10 53 39.4	+5.5
JUI6	Juive	1.45	31	⇓S	Sn	10 53 37.7	+3.5
JUI6	Juive	1.45	31	⇓P	Pn	10 53 19.1	+2.7
ULBA	Ulba	1.46	33	⇓P	Pn	10 53 19.4	+2.9
RUN5	Runtun	1.48	32	P	Pn	10 53 19.6	+2.7
PISA	Pisayambo	1.81	27	S	Sn	10 53 49.8	+6.7
PISA	Pisayambo	1.81	27	P	Pn	10 53 24.2	+2.9
MOV1	Cotopaxi Vol s	2.10	22	P	Pn	10 53 27.9	+2.5
MOV1	Cotopaxi Vol s	2.10	22	P	Pn	10 53 28.8	+3.5
CAMI	Rancho Maria	2.11	20	P	Pn	10 53 28.4	+2.9
TAMB	Tambo	2.15	23	P	Pn	10 53 28.6	+2.6
NAS2	Nasa	2.15	20	⇓P	Pn	10 53 29.7	+3.6
NAS2	Nasa	2.15	20	⇓S	Sn	10 54 01.9	+10
VC1	Cotopaxi 1	2.18	22	⇓P	Pn	10 53 30.1	+3.7
COV1	Cotopaxi Volc	2.18	23	⇑P	Pn	10 53 29.9	+3.4
CHIS	Cerro-Chispas-	2.22	317	P	Pn	10 53 28.3	+1.4
PITA	Cotopaxi Volc	2.25	20	⇑P	Pn	10 53 30.5	+3.1
ANTI	Antisana	2.45	25	P	Pn	10 53 32.9	+2.7
JUA2	San Juan 2	2.52	14	S	Sn	10 54 12.9	+12
JUA2	San Juan 2	2.52	14	P	Pn	10 53 34.7	+3.5
TERV	Terraza Guagua	2.56	14	P	Pn	10 53 35.3	+3.6
GGP	Refugio Guagua	2.56	14	P	Pn	10 53 34.6	+2.9
PINO	Pino	2.58	14	P	Pn	10 53 35.0	+3.1
JAMA	Jama	2.60	338	P	Pn	10 53 36.5	+4.2
YANA	Yana	2.62	14	S	Sn	10 54 11.9	+8.8
YANA	Yana	2.62	14	P	Pn	10 53 35.3	+2.8
CAYA	Cayambe	2.99	24	P	Pn	10 53 40.8	+3.2
OTAV	Otavalo	3.00	15	⇑P	Pn	10 53 40.1	+2.4
CHAR	Charly	3.00	31	P	Pn	10 53 40.3	+2.6
COTA	Cotacachi	3.12	16	P	Pn	10 53 42.7	+3.3

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*ISCJB **04** 10:53:30.6±0.7, 31.°9S±0.°1×57.°6E±0.°1, h10^{km}, mb4.5/24, MS3.7/2, Error ellipse: s-maj=20.4km s-min=13.6km az=41.5*

*IDC **04** 10:53:30.6±0.7, 31.°90S×57.°41E, h0^{km}, mb4.2/13, mb1 4.3/13, mb1mx4.1/28, mbtmp4.2/13, MS3.7/2, Ms1 3.7/2, ms1mx3.1/25, Error ellipse: s-maj=27.4km s-min=19.7km az=54.0*

*NEIC **04** 10:53:32.2±0.6, 31.°96S×57.°47E, h10^{km}, mb4.7/2, Error ellipse: s-maj=23.2km s-min=11.8km az=47.0*

ISC 04 10:53:32.7±0.7**, 31.°9S**±0.°1×**57.°6E**±0.°1**, h10**^{km}**, n34, σ0.^{s}66**/31**, mb4.5**/24**, MS3.7**/2**, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABPO	Ambohimpanom	15.82	322	P	Pn	10 57 14.7	-0.9
OPO	Ambohidratompo	16.21	322	Pn	Pn	10 57 23.1	+2.5
	0.5nm,0.3s,baz=134,slow=10,SNR=4.7						
MAW	Mawson	35.91	177	LR	LR	11 11 55.4	
	comp=Z,136nm,18.6s,MS3.8,baz=276,slow=31						
QSPA	South Pole Qui	58.30	180	P	P	11 03 27.4	+0.3
	7.9nm,0.9s,mb4.7,baz=275,slow=3.9,SNR=14						
CMAR	Chiang Mai Arr	63.86	44	P	P	11 04 06.1	+0.5
	4.2nm,0.9s,mb4.5,baz=230,slow=7.1,SNR=21						
CMAR				LR	LR	11 30 14.7	
	comp=Z,36nm,18.3s,MS3.6,baz=215,slow=34						
KOLN	Koldanda	64.29	26	eP	P	11 04 07.9	-0.3
	15nm,0.9s,mb5.0						
PYUN	Piuthan	64.37	25	eP	P	11 04 08.3	-0.4
DMN	Daman	64.71	27	eP	P	11 04 10.7	-0.3
	21nm,0.8s,mb5.2						
RAMN	Ramite	64.72	29	eP	P	11 04 11.3	+0.3
	38nm,1.0s,mb5.4						
DANN	Dangsing	64.87	25	eP	P	11 04 11.6	-0.4
	15nm,0.8s,mb5.0						
GKN	Gorkha	64.89	26	eP	P	11 04 11.7	-0.4
KKN	Kakani	64.94	27	eP	P	11 04 12.2	-0.3
ODAN	Odare	64.96	29	eP	P	11 04 12.6	0.0
	19nm,0.8s,mb5.2						
GUN	Gumba	65.28	28	eP	P	11 04 14.8	+0.1
	22nm,0.8s,mb5.2						
TAPN	Taplejung	65.53	29	eP	P	11 04 16.3	0.0
	15nm,1.2s,mb4.9						
ASF	Jabal al Asfar	66.62	341	P	P	11 04 23.8	+0.6
	4.3nm,0.7s,mb4.6,baz=42,slow=5.6,SNR=6.3						
ASAR	Alice Springs	66.81	104	P	P	11 04 25.0	+0.2
	0.6nm,0.7s,mb3.8,baz=237,slow=6.0,SNR=9.7						
KBL	Kabul	66.94	10	P	P	11 04 25.5	+0.4
	2.6nm,0.6s,mb4.4						
MMAI	Mount Meron Ar	67.84	340	P	P	11 04 31.6	+0.7
	2.7nm,0.6s,mb4.5,baz=142,slow=9.6,SNR=4.2						
WRA	Warramunga Arr	68.83	101	P	P	11 04 37.9	+0.3
	0.7nm,0.6s,mb3.8,baz=240,slow=5.6,SNR=11						
TORD	Torodi Ar. Bea	69.73	301	P	P	11 04 41.8	-1.3
	2.6nm,0.9s,mb4.2,baz=131,slow=5.4,SNR=15						
GNI	Garni	72.63	350	eP	P	11 05 01.1	+1.0
	11nm,1.1s,mb4.7						
BRTR	Keskin Array B	74.61	341	P	P	11 05 11.1	-0.7
	2.8nm,0.8s,mb4.2						
BRTR	Keskin Array B	74.61	341	P	P	11 05 11.1	-0.7
LZH	Lanzhou	80.32	36	eP	P	11 05 40.0	-3.8
LZH				pP	pP	11 05 45.1	-2.1
LZH				sP	sP	11 05 48.3	0.0
LZH				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
LZH				pmax	pmax		
	comp=Z,71nm,4.5s						
GTA	Gaotai	81.05	32	eP	P	11 05 48.2	+0.6
GTA				pP	pP	11 05 52.8	+1.8
GTA				sP	sP	11 05 55.2	+3.0
GTA				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
MKAR	Makanchi Array	81.42	17	P	P	11 05 49.3	-0.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=207,slow=5.2,SNR=7.5						
AKTK	Aktyubinsk	81.94	0	P	P	11 05 51.6	-0.5
AKTO	Aktyubinsk	81.94	0	P	P	11 05 51.6	-0.5
	comp=Z,1.2nm,0.8s,mb3.9,baz=77,slow=4.3,SNR=4.7						
KURK	Kurchatov	84.31	13	P	P	11 06 03.7	-0.6
	comp=Z,2.2nm,0.9s,mb4.3,baz=270,slow=24,SNR=12						
BVAR	Borovoye Array	85.27	8	P	P	11 06 09.3	+0.2
	comp=Z,2.1nm,0.7s,mb4.4,baz=182,slow=6.0,SNR=12						
SONM	Songino Array	90.63	30	P	P	11 06 35.1	+0.2
	comp=Z,0.6nm,0.9s,mb3.9,baz=251,slow=4.4,SNR=3.3						
YKA	Yellowknife Ar	148.95	353	PKPbc	PKPbc	11 13 19.3	-0.7
	comp=Z,4.0nm,0.7s,baz=0.1,slow=2.6,SNR=56						
ULM	Lac du Bonnet	153.04	321	PKPbc	PKPbc	11 13 28.4	-1.5
	comp=Z,4.8nm,0.9s,baz=20,slow=2.1,SNR=7.0						

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*NIED **04** 10:57:00, 43.°40N×147.°20E, h56^{km}, Mw4.1 Best double couple: M$_0$1.55000×10^{15} NP1:φ$_s$54.00000°, δ67.00000°, λ103.00000°. NP2:φ$_s$203.00000°, δ26.00000°, λ62.00000°.*

*MOS **04** 10:57:57.1±0.9, 43.°56N×147.°39E, h59^{km}, mb4.4/13, Error ellipse: s-maj=13.0km s-min=9.6km az=100.9*

*ISCJB **04** 10:57:57.4±0.8, 43.°50N±0.°05×147.°29E±0.°06, h59^{km}±5^{km}, mb4.3/26, Error ellipse: s-maj=9.2km s-min=5.3km az=139.0*

*JMA **04** 10:57:58.5±0.2, 43.°41N×147.°24E, h47^{km}±5^{km}, M4.5*

JMA Felt I J1.

*NEIC **04** 10:57:59.6±0.8, 43.°57N×147.°28E, h63^{km}±7^{km}, mb4.5/2, Error ellipse: s-maj=9.6km s-min=6.6km az=134.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

*IDC **04** 10:57:59.7±2.3, 43.°56N×147.°24E, h64^{km}±19^{km}, mb3.8/19, mb1 4.0/22, mb1mx3.9/28, mbtmp3.8/22, MS2.9/2, Ms1 2.9/2, ms1mx2.7/26, Error ellipse: s-maj=16.5km s-min=13.8km az=172.0*

*SKHL **04** 10:57:59.0±1.5, 43.°60N×147.°40E, h60^{km}±10^{km}, mb5.1/3, ms4.7/1*

*BJI **04** 10:57:59.6, 43.°60N×147.°30E, h60^{km}, mB5.2/2, mb4.7/5, Ms4.4/1, Ms7 4.3/1*

ISC 04 10:57:58.5±0.8**, 43.°54N**±0.°05×**147.°30E**±0.°06**, h50**^{km}±5^{km}**, n93, σ0.^{s}94**/108**, mb4.3**/26**, 5D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	1.15	262	P	Pn	10 58 17.8	-0.4
NEM2				eS	Sn	10 58 31.9	-0.9
YUK	Yuzh-Kuril'sk	1.15	296	i PN	Pn	10 58 19.3	+1.0
YUK				eS	Sn	10 58 33.0	0.0
YUK				pmax	pmax		
	comp=Z,6µm,1.0s						
YUK				pmax	pmax		
	comp=E,2µm,0.8s						
YUK				pmax	pmax		
	comp=Z,6µm,0.4s						
YUK				pmax	pmax		
	comp=N,1µm,0.3s						
YUK				pmax	pmax		
	comp=E,190nm,0.5s						
YUK				smax			
	comp=N,14µm,0.6s						
YUK				smax			
	comp=E,14µm,0.8s						
YUK				smax			
	comp=N,9µm,0.5s						
YUK				smax			
	comp=E,6µm,0.5s						
YUK	Yuzh-Kuril'sk	1.15	296	⇓iP	Pn	10 58 19.3	+1.0
YUK				AMB	AMB	10 58 19.9	
	comp=E,6µm,1.0s						
YUK				AMB	AMB	10 58 19.9	
	comp=E,2µm,0.8s						
YUK				AMB	AMB	10 58 20.6	
	comp=E,6µm,0.4s						
YUK				AMB	AMB	10 58 20.6	
	comp=E,190nm,0.5s						
YUK				AMB	AMB	10 58 20.6	
	comp=E,1µm,0.3s						
YUK				eS	Sn	10 58 33.0	0.0
YUK				A		10 58 35.8	
	comp=E,14µm,0.6s						
YUK				A		10 58 35.8	
	comp=E,14µm,0.8s						
YUK				A		10 58 38.0	
	comp=E,6µm,0.5s						
YUK				A		10 58 38.0	
	comp=E,9µm,0.5s						
JRA	Rausu	1.63	285	P	Pn	10 58 25.3	+0.6
JRA				eS	Sn	10 58 45.0	+0.5
KUR	Kuril'sk	1.74	13	ePN	Pn	10 58 24.8	-1.5
KUR				i S	Sn	10 58 45.0	-2.3
KUR				pmax	pmax		
	comp=N,180nm,0.4s						
KUR				pmax	pmax		
	comp=E,140nm,0.4s						
KUR				pmax	pmax		
	comp=Z,490nm,0.4s						
KUR				smax			
	comp=N,3µm,0.3s						
KUR				smax			
	comp=E,880nm,0.3s						
KUR				smax			
	comp=N,2µm,1.0s						
KUR	Kuril'sk	1.74	13	eP	Pn	10 58 24.8	-1.5
KUR				AMB	AMB	10 58 27.0	
	comp=N,180nm,0.4s						
KUR				AMB	AMB	10 58 27.0	
	comp=N,140nm,0.4s						
KUR				AMB	AMB	10 58 27.0	
	comp=N,490nm,0.4s						
KUR				i S	Sn	10 58 45.0	-2.3
KUR				A		10 58 48.5	
	comp=N,2µm,1.0s						
KUR				A		10 58 48.5	
	comp=N,3µm,0.3s						
KUR				A		10 58 48.5	
	comp=N,880nm,0.3s						
KUR				AMS	AMS	11 01 45.0	
	comp=N,30µm,20.0s						
KUR				AMS	AMS	11 01 45.0	
	comp=N,25µm,20.0s						
KUR				AMS	AMS	11 01 45.0	
	comp=N,63µm,22.0s						
KUR				AMS	AMS	11 01 45.0	
	comp=N,51µm,22.0s						
KUR				AMS	AMS	11 01 45.0	
	comp=N,29µm,22.0s						
JNK	Nakash	1.88	272	P	Pn	10 58 28.2	0.0
JNK				eS	Sn	10 58 50.0	-0.6
JAK	Akkeshi	1.98	255	P	Pn	10 58 29.0	-0.5
JAK				eS	Sn	10 58 51.4	-1.7
JTKR	Abashiri--Toko	2.50	281	P	Pn	10 58 37.8	+1.2
JAR	Ashorobuto	2.58	266	P	Pn	10 58 38.3	+0.5
JAR				eS	Sn	10 59 07.7	-0.3
JOB	Onbets	2.61	257	P	Pn	10 58 38.3	+0.1
JOB				eS	Sn	10 59 08.0	-0.7
JMP	Maruseppu	2.89	281	P	Pn	10 58 43.5	+1.4
JCH	Churui	3.03	254	P	Pn	10 58 43.7	-0.3
JCH				eS	Sn	10 59 16.6	-2.4
JKK2	Kamakawa 2	3.32	277	P	Pn	10 58 49.6	+1.7
ERM	Erimo	3.41	245	eP	Pn	10 58 50.5	+1.3
ERM	Erimo	3.41	245	ePn	Pn	10 58 50.5	+1.3
ERM				eSn	Sn	10 59 28.1	-0.3
JEM	Erimo	3.41	245	eS	Sn	10 59 28.2	-0.1
ASAJ	Asahikawa	3.45	281	PN	Pn	10 58 51.7	+2.0
ASAJ				S	Sn	10 59 29.8	+0.5
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ				smax			
	comp=N,9.0nm,0.3s						
ASAJ	Asahikawa	3.45	281	P	Pn	10 58 51.6	+1.9
ASAJ	Asahikawa	3.45	281	P	Pn	10 58 51.6	+1.9
	comp=N,5.6nm,0.3s,baz=111,slow=11,SNR=49						
ASAJ				S	Sn	10 59 29.8	+0.5
	comp=N,9.4nm,0.3s,baz=51,slow=26,SNR=4.9						
JFR	Furan	3.45	265	eS	Sn	10 59 30.1	+0.7
JNBK	Urakawa-nobuka	3.57	251	P	Pn	10 58 51.2	-0.2
JNBK				eS	Sn	10 59 30.6	-1.7
JSE	Soyaes	3.67	294	P	Pn	10 58 54.3	+1.5
JBT2	Biratori 2	3.69	260	P	Pn	10 58 53.4	+0.4
JBT2				eS	Sn	10 59 34.3	-0.9
YSS	Yuzh-Sakhalins	4.68	318	⇓iPN	Pn	10 59 08.0	+1.4
YSS				eS	Sn	11 00 03.0	+3.4
YSS				pmax	pmax		
	comp=Z,50nm,0.7s						
YSS				smax			
	comp=E,30nm,0.8s						
YSS	Yuzh-Sakhalins	4.68	318	⇓iP	Pn	10 59 08.0	+1.4
YSS				AMB	AMB	10 59 09.0	
	comp=E,50nm,0.7s						
YSS				eS	Sn	11 00 03.0	+3.4
YSS				A		11 00 06.0	
	comp=E,30nm,0.8s						
YSS	Yuzh-Sakhalins	4.68	318	ePn	Pn	10 59 07.8	+1.2
MJAR	Matsushiro Arr	9.87	228	P	Pn	11 00 18.7	+1.0
	comp=E,0.2nm,0.3s,baz=28,slow=15,SNR=2.8						
NKL	Nikolayevsk	10.57	338	eP	Pn	11 00 25.0	-2.2
PETK	Petropavlovsk-	11.80	32	P	Pn	11 00 43.8	-0.2
	comp=E,0.3nm,0.3s,baz=190,slow=8.2,SNR=7.8						
KLR	Kul'dur	12.14	303	ePN	Pn	11 00 55.4	+6.7
KSRS	Korea Array	15.93	254	LR	LR	11 08 06.5	
	comp=E,33nm,18.4s,baz=40,slow=38						
SONM	Songino Array	28.65	293	eP	P	11 03 51.0	+0.8
SONM				pmax	pmax		
	comp=Z,3.0nm,0.6s						
SONM	Songino Array	28.65	293	P	P	11 03 49.9	-0.3
	comp=Z,3.0nm,0.6s,mb4.2,baz=88,slow=8.2,SNR=20						
SONM				LR	LR	11 16 13.3	
	comp=Z,36nm,21.4s,baz=289,slow=38						
COLD	Coldfoot	40.27	32	eP	P	11 05 30.7	+0.6
	comp=Z,2.5nm,0.6s,mb4.1						
ZALV	Zalesovo Beam	41.21	307	P	P	11 05 36.6	-1.4
ZALV						11 07 35.1	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
ZALV	Zalesovo Beam	41.21	307	P	P	11 05 36.6	-1.4
	comp=Z,0.9nm,0.4s,mb3.8,baz=85,slow=6.7,SNR=5.3						
ZALV				PcP	PcP	11 07 35.1	-1.0
	comp=Z,1.2nm,0.7s,baz=107,slow=2.4,SNR=4.5						
MKAR	Makanchi Array	44.78	298	P	P	11 06 07.0	+0.1
MKAR						11 07 46.4	
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MKAR	Makanchi Array	44.78	298	P	P	11 06 07.0	0.0
	comp=Z,4.9nm,0.7s,mb4.4,baz=79,slow=8.9,SNR=34						
MKAR				PcP	PcP	11 07 46.4	-1.9
	comp=Z,0.5nm,0.7s,baz=94,slow=4.7,SNR=3.3						
KURK	Kurchatov	45.74	304	P	P	11 06 14.4	-0.1
KURK				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
KURK	Kurchatov	45.74	304	P	P	11 06 14.4	0.0
	comp=Z,1.4nm,0.3s,mb4.4,baz=76,slow=8.7,SNR=11						
LSA	Lhasa	46.31	272	P	P	11 06 21.0	+1.8
BVAR	Borovoye Array	49.72	310	P	P	11 06 45.5	+0.2
BVAR						11 08 05.1	
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	49.72	310	P	P	11 06 45.5	+0.2
	comp=Z,0.9nm,0.4s,mb4.1,baz=64,slow=10,SNR=5.1						
BVAR				PcP	PcP	11 08 05.1	-0.5
	comp=Z,0.5nm,0.4s,baz=50,slow=2.7,SNR=2.9						
TAPN	Taplejung	50.13	272	eP	P	11 06 49.2	+0.5
ODAN	Odare	50.64	271	eP	P	11 06 53.2	+0.6
JIRN	Jiri	51.05	273	eP	P	11 06 56.1	+0.4
	comp=Z,4.0nm,0.2s,mb4.9						
GUN	Gumba	51.14	274	eP	P	11 06 56.4	+0.1
	comp=Z,10nm,0.5s,mb5.1						
RAMN	Ramite	51.16	272	eP	P	11 06 56.3	-0.2
KKN	Kakani	51.64	274	eP	P	11 06 59.9	-0.2
DMN	Daman	51.87	274	eP	P	11 07 02.0	+0.2
GKN	Gorkha	51.98	274	eP	P	11 07 02.6	-0.1
	comp=Z,4.2nm,0.3s,mb4.8						
DANN	Dangsing	52.42	275	eP	P	11 07 05.9	0.0
	comp=Z,27nm,0.6s,mb5.3						
KOLN	Koldanda	52.87	275	eP	P	11 07 09.3	+0.1
	comp=Z,8.9nm,0.6s,mb4.9						
PYUN	Piuthan	53.12	276	eP	P	11 07 10.9	-0.2
RES	Resolute Bay	55.14	17	eP	P	11 07 24.0	-1.1
RES				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.8						
RES	Resolute Bay	55.14	17	eP	P	11 07 24.0	-1.1
	comp=Z,3.7nm,0.4s,mb4.8						
YKA	Yellowknife Ar	55.91	34	P	P	11 07 30.9	+0.1
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	Yellowknife Ar	55.91	34	P	P	11 07 30.9	+0.1
	comp=Z,1.5nm,0.7s,mb4.1,baz=298,slow=6.7,SNR=20						
AKTK	Aktyubinsk	57.76	311	P	P	11 07 43.3	-0.7
AKTO	Aktyubinsk	57.76	311	P	P	11 07 43.3	-0.7
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
AKTO	Aktyubinsk	57.76	311	P	P	11 07 43.3	-0.7
	comp=Z,0.9nm,0.3s,mb4.2,baz=88,slow=13,SNR=6.9						
ARCES	ARCESS Array B	59.48	340	P	P	11 07 54.5	-1.2
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ARCES	ARCESS Array B	59.48	340	P	P	11 07 54.5	-1.2
	comp=Z,0.7nm,0.4s,mb4.1,baz=44,slow=6.8,SNR=22						
WRA	Warramunga Arr	64.28	194	P	P	11 08 27.5	-1.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	64.28	194	P	P	11 08 27.5	-1.0
	comp=Z,0.6nm,0.6s,mb3.8,baz=8.4,slow=6.6,SNR=13						
FINES	FINESS Array B	65.11	333	eP	P	11 08 32.0	-1.5
NVAR	Mina Array Bea	67.60	58	P	P	11 08 50.4	+0.7
	comp=Z,1.2nm,0.5s,mb4.2,baz=299,slow=7.5,SNR=4.9						
ASAR	Alice Springs	68.00	193	P	P	11 08 52.7	+0.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	68.00	193	P	P	11 08 52.7	+0.4
	comp=Z,0.6nm,0.8s,mb3.7,baz=12,slow=5.0,SNR=5.6						
NB2	NORSAR Subarra	69.84	339	P	P	11 09 02.5	-0.8
	comp=Z,2.1nm,0.6s,mb4.2,baz=32,slow=6.2						
NOA	NORSAR Array B	69.84	339	P	P	11 09 03.0	-0.3
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NOA	NORSAR Array B	69.84	339	P	P	11 09 03.0	-0.3
	comp=Z,3.9nm,0.8s,mb4.4,baz=32,slow=6.2,SNR=9.6						
PDAR	Pinedale Array	69.96	50	P	P	11 09 04.8	+0.4
	comp=Z,0.8nm,0.7s,mb3.8,baz=267,slow=1.4,SNR=8.0						
AKASG	Malin Array Be	71.81	324	P	P	11 09 14.8	-0.7
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	71.81	324	P	P	11 09 14.8	-0.7
	comp=Z,2.2nm,0.4s,mb4.4,baz=38,slow=6.0,SNR=14						
AKASG	Malin Array Be	71.81	324	P	P	11 09 14.8	-0.7
BURAR	Bucovina Array	75.87	324	⇓iP	P	11 09 39.8	+0.5
CLL	Collm	77.55	333	eP	P	11 09 48.0	-0.7
VOIR		77.63	322	⇓iP	P	11 09 50.2	+0.9
BRTR	Keskin Array B	77.77	314	P	P	11 09 50.2	+0.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	Keskin Array B	77.77	314	P	P	11 09 50.2	0.0
	comp=Z,0.5nm,0.4s,mb3.8						
SCHQ	Schefferville	77.78	19	P	P	11 09 49.2	-0.7
	comp=Z,1.1nm,0.8s,mb3.9,baz=360,slow=8.4,SNR=5.1						

KHC	Kasperske Hory	79.20	331	*e*P	P	11 09 58.3	+0.5
GERES	GERESS Array B	79.39	331	P	P	11 09 58.5	-0.4
	comp=Z,0.3nm,0.5s,mb3.5,baz=350,slow=6.8,SNR=4.0						
FKH	Fakeheh	80.24	308	*e*P	P	11 10 06.9	+3.1
HWQ	Hawqa	80.47	309	*e*P	P	11 10 12.2	+7.2
MMAI	Mount Meron Ar	81.70	308	P	P	11 10 12.3	+0.8
	comp=Z,3.1nm,0.5s,mb4.5,baz=45,slow=8.3,SNR=5.6						
TXAR	Lajitas Array	82.67	56	P	P	11 10 17.2	+0.5
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	82.67	56	P	P	11 10 17.2	+0.5
	comp=Z,1.1nm,0.6s,mb4.1,baz=299,slow=3.5,SNR=16						
TXAR	Lajitas Array	82.67	56	P	P	11 10 17.2	+0.5
DBIC	Dimbokro	124.02	326	PKIKP	PKPdf	11 16 50.3	-1.3
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
DBIC	Dimbokro	124.02	326	PKP	PKPdf	11 16 50.2	-1.4
	comp=Z,1.7nm,0.7s,baz=68,slow=2.2,SNR=3.1						

IDC 04 10:58:55.9±6.6, 32°.35N×85°.21E, h47^{km}±66^{km}, mb3.3/4, mb1 3.5/7, mb1mx3.3/25, mbtmp3.3/7, ML3.6/3, Error ellipse: s-maj=65.8km s-min=23.0km az=52.0, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	14.59	352	P	Pn	11 02 20.3	+0.9
	0.0nm,0.3s,baz=170,slow=12,SNR=5.3						
CMAR	Chiang Mai Arr	18.56	135	P	Pn	11 03 08.8	-0.7
	0.4nm,0.3s,baz=326,slow=12,SNR=13						
KURK	Kurchatov	18.98	347	P	Pn	11 03 12.0	-2.4
	0.0nm,0.3s,baz=169,slow=10,SNR=9.2						
ZALV	Zalesovo Beam	21.59	359	P	P	11 03 41.6	+0.1
	1.1nm,0.6s,baz=194,slow=12,SNR=5.0						
WRA	Warramunga Arr	70.10	131	P	P	11 10 03.4	0.0
	0.4nm,0.5s,baz=325,slow=6.5,SNR=11						
ASAR	Alice Springs	72.56	134	P	P	11 10 18.6	+0.4
	0.3nm,0.6s,baz=322,slow=6.0,SNR=6.6						
TORD	Torodi Ar. Bea	77.67	278	P	P	11 10 48.1	+0.1
	0.2nm,0.4s,baz=42,slow=4.7,SNR=2.4						

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*CSEM **04** 11:35:00.8±0.3, 40°.44N×42°.37E, h2^{km}, MD3.0, Error ellipse: s-maj=8.7km s-min=3.9km az=161.0*

*ISCJB **04** 11:35:01.8±0.8, 40°.41N±0°.06×42°.44E±0°.04, h1^{km}±22^{km}, Error ellipse: s-maj=11.1km s-min=4.5km az=164.9*

*ISK **04** 11:35:01.1, 40°.40N×42°.44E, h6^{km}, MD2.5*

*DDA **04** 11:35:05.3, 40°.04N×42°.39E, h7^{km}±2^{km}, Md3.0*

ISC 04 11:35:02.4±0.8, 40°.42N±0°.07×42°.44E±0°.04, h9^{km}±14^{km}, n11, σ0^{s}96/20, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARS	Kars	0.53	69	*e*PG	Pg	11 35 11.9	-0.8
KARS				*e*SG	Sg	11 35 20.1	+0.4
KARS	Kars	0.53	69	*e*Pg	Pg	11 35 12.0	-0.7
KARS				*e*Sg	Sg	11 35 20.1	+0.4
HOMI	Horasan	0.56	228	*i* P	Pg	11 35 12.7	-0.5
HOMI				*i* S	Sg	11 35 21.1	+0.7
AGRB	Hanur-Agry	0.95	153	*e*PG	Pg	11 35 19.5	-1.1
AGRB	Hanur-Agry	0.95	153	*e*Pg	Pg	11 35 19.5	-1.1
ERZM	Erzurum	0.97	238	*i* P	Pg	11 35 20.9	-0.2
ERZM				*i* S	Sg	11 35 32.3	-1.5
ERZM	Erzurum	0.97	238	*i* P	Pg	11 35 20.9	-0.2
ERZM				*i* S	Sg	11 35 32.3	-1.4
EZM	Erzurum	0.97	238	*e*PG	Pg	11 35 20.8	-0.4
EZM				*e*SG	Sg	11 35 33.5	-0.3
DYDN	Diyadin	1.30	132	*i* P	Pn	11 35 26.6	-0.1
DYDN				*i* S	Sg	11 35 45.6	+1.4
DYDN	Diyadin	1.30	132	*i* P	Pn	11 35 26.6	-0.1
DYDN				*i* S	Sg	11 35 45.6	+1.4
KOPT	Kop Dagi	1.54	255	*i* P	Pg	11 35 32.7	+0.7
KOPT				*i* S	Sg	11 35 54.6	+2.7

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*NEIC **04** 11:52:09.4, 16°.35N×99°.29W, h13^{km}, MD3.6(MEX), After MEX.*

MEX 04 11:52:09.4±0.9, 16°.35N×99°.29W, h13^{km}±17^{km}, MD3.6, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.79	310	*i* P	Pg	11 52 22.0	-2.8
ACX				*i* S	Sg	11 52 31.0	-4.2
PNIG	Pinotepa	1.11	88	*i* P	Pb	11 52 27.2	-3.3
PNIG				*i* S	Sb	11 52 40.3	-4.6
CAIG	El Cayaco	1.17	306	*i* P	Pn	11 52 28.6	-2.8
CAIG				*i* S	Sb	11 52 42.9	-3.6
UTMO	Huajuapan	2.04	44	*i* P	Pn	11 52 39.8	-3.6
UTMO				*i* S	Sn	11 53 04.5	-4.3
MZVM		2.82	1	*e*P	Pn	11 52 50.1	-4.1
MZVM				*i* S	Sn	11 53 25.9	-2.1
IIO	Organos	3.27	9	*e*P	Pn	11 52 58.3	-2.0
IIO				*i* S	Sn	11 53 37.3	-1.7

MAN 04 12:54:17, 17°.15N×122°.44E, h33^{km}, mb3.8, ML2.5, MS2.1, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALP	Palanan	0.09	187	*e*P	Pb	12 54 24.3	+1.6
PALP				*e*S	Sb	12 54 28.3	+1.7
CAUP	Cauayan	0.62	251	*e*P	Pn	12 54 31.4	+1.9
BALP	Baler	1.63	211	*e*P	Pn	12 54 45.3	+1.9
ABRA	Dolores	1.72	287	*e*P	Pn	12 54 45.4	+0.8

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*ISCJB **04** 13:01:23.1±0.4, 36°.77N±0°.03×0°.99E±0°.04, h10^{km}, Error ellipse: s-maj=5.0km s-min=3.6km az=152.6*

*CSEM **04** 13:01:24.1±0.2, 36°.70N×0°.97E, h10^{km}, ML3.2, Error ellipse: s-maj=7.0km s-min=4.3km az=50.0*

*NEIC **04** 13:01:24.5, 36°.77N×1°.02E, h0^{km}, MN2.5(MDD), After MDD.*

*MDD **04** 13:01:24.4±1.5, 36°.52N×1°.19E, h72^{km}±22^{km}, mb3.5/13, Error ellipse: s-maj=12.3km s-min=8.5km az=130.0, PRIMO*

*CRAAG **04** 13:01:25.2, 36°.53N×1°.13E, Ml3.2*

ISC 04 13:01:23.8±0.4, 36°.75N±0°.03×1°.02E±0°.04, h10^{km}, n49, σ1^{s}20/73, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EBNR	Beni Rached	0.62	138	P	Pg	13 01 35.4	-0.5
EBNR	Beni Rached	0.62	138	P	Pg	13 01 35.4	-0.5
ECHF	Ech Chlef	0.65	156	P	Pg	13 01 35.7	-0.7
ECHA	Ech Chlef	0.67	155	P	Pg	13 01 35.7	-1.0
ECHA	Ech Chlef	0.67	155	P	Pg	13 01 35.7	-1.0
OKGL	Djebel Kef Gue	0.78	203	P	Pg	13 01 39.0	+0.2
OKGL	Djebel Kef Gue	0.78	203	P	Pg	13 01 39.0	+0.2
EANR	'Ain N'Sour	0.81	175	P	Pg	13 01 38.5	-0.8
EANR	'Ain N'Sour	0.81	175	P	Pg	13 01 38.5	-0.8
OJGS	Djebel Guires	1.27	190	P	Pn	13 01 42.0	-5.5
OJGS	Djebel Guires	1.27	190	P	Pn	13 01 42.0	-5.5
OJBR	Djebel Berber	1.29	205	P	Pn	13 01 40.0	-7.9
OJBR	Djebel Berber	1.29	205	P	Pn	13 01 40.0	-7.9
ETRT	Tiaret	1.38	170	P	Pn	13 01 49.0	-0.1
ETRT	Tiaret	1.38	170	P	Pn	13 01 49.0	-0.1
EMHD	Djebel Mahouad	1.66	109	P	Pn	13 01 55.4	+2.5
EMHD	Djebel Mahouad	1.66	109	P	Pn	13 01 55.4	+2.5
EMUR	La Murta	2.10	302	P	Pn	13 01 59.4	+0.4
	3.2nm,0.3s,SNR=7.3						
EMUR				S	Sn	13 02 23.1	-2.1
	7.5nm,0.2s,SNR=6.4						
EMUR	La Murta	2.10	302	P	Pn	13 01 59.4	+0.3
	3.2nm,0.3s,SNR=7.3						
EMUR				S	Sn	13 02 23.1	-2.1
	7.5nm,0.2s,SNR=6.4						
EBEN	Beniarda	2.18	334	P	Pn	13 02 01.0	+0.8
	0.6nm,0.1s,SNR=10						
EBEN				S	Sn	13 02 27.8	+0.6
	2.3nm,0.1s,SNR=5.7						
EBEN	Beniarda	2.18	334	P	Pn	13 02 00.9	+0.8
EBEN				S	Sn	13 02 26.0	-1.2
EBEN	Beniarda	2.18	334	P	Pn	13 02 00.9	+0.7
EBEN				S	Sn	13 02 26.0	-1.2
	2.3nm,0.1s,SNR=5.7						
EIBI	Ibiza	2.28	6	P	Pn	13 02 02.3	+0.7
	12nm,0.1s,SNR=11						
EIBI				S	Sn	13 02 28.0	-1.7
	53nm,0.2s,SNR=8.6						
EIBI	Ibiza	2.28	6	P	Pn	13 02 02.3	+0.7
	12nm,0.1s,SNR=11						
EIBI				S	Sn	13 02 28.0	-1.8
	53nm,0.2s,SNR=8.6						
ODZI	Dziouia	2.33	232	P	Px	13 01 46.0	
OLHC	Oulhaca	2.48	233	P	Px	13 01 47.0	
ETOB	Tobarra	2.77	314	P	Pn	13 02 09.7	+1.4
	4.9nm,0.1s,SNR=21						
ETOB				S	Sn	13 02 41.2	-0.7
	4.1nm,0.1s,SNR=6.2						
ETOB	Tobarra	2.77	314	P	Pn	13 02 09.7	+1.4
	4.9nm,0.1s,SNR=21						
ETOB				S	Sn	13 02 41.2	-0.6
	4.1nm,0.1s,SNR=6.2						
EBER	Berja	3.14	274	P	Pn	13 02 13.4	+0.2
	3.0nm,0.1s,SNR=17						
EBER				S	Sn	13 02 48.0	-2.7
	1.8nm,0.2s						
EBER	Berja	3.14	274	P	Pn	13 02 13.4	+0.1
	3.0nm,0.1s,SNR=17						
EBER				S	Sn	13 02 48.0	-2.8
	1.8nm,0.2s						
ECHE	Chera	3.23	332	P	Pn	13 02 17.7	+3.1
	SNR=7.9						
ECHE				S	Sn	13 02 54.0	+0.8
	SNR=7.9						
ETOS	Mallorca	3.33	25	P	Pn	13 02 15.4	-0.5
	1.4nm,0.1s,SNR=10						
ETOS				S	Sn	13 02 54.2	-1.3
	2.0nm,0.1s						
ETOS	Mallorca	3.33	25	P	Pn	13 02 15.4	-0.5
	1.4nm,0.1s,SNR=10						
ETOS				S	Sn	13 02 54.2	-1.2
	2.0nm,0.1s						
EVIA	Vianos	3.37	305	P	Pn	13 02 17.5	+1.1
	1.1nm,0.1s,SNR=6.1						
EVIA				S	Sn	13 02 57.0	+0.6
	13nm,0.2s						
EVIA	Vianos	3.37	305	P	Pn	13 02 17.5	+1.1
	1.1nm,0.1s,SNR=6.1						
EVIA				S	Sn	13 02 57.0	+0.6
	13nm,0.2s						
EQES	Quesada	3.42	289	P	Pn	13 02 19.2	+1.9
	1.5nm,0.1s,SNR=10						
EQES				S	Sn	13 02 57.9	+0.1
	2.8nm,0.1s,SNR=4.8						
EQES	Quesada	3.42	289	P	Pn	13 02 19.2	+2.0
	1.5nm,0.1s,SNR=10						
EQES				S	Sn	13 02 57.9	0.0
	2.8nm,0.1s,SNR=4.8						
EQUE	Quentar	3.60	279	P	Pn	13 02 19.5	-0.1
	0.9nm,0.2s,SNR=5.1						
EQUE				S	Sn	13 03 01.9	-0.2
	0.8nm,0.2s,SNR=7.9						
EQUE	Quentar	3.60	279	P	Pn	13 02 19.5	-0.1
	0.9nm,0.2s,SNR=5.1						
EQUE				S	Sn	13 03 01.9	-0.2
	0.8nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	3.79	343	P	Pn	13 02 24.1	+1.9
	1.4nm,0.1s,SNR=8.1						
EMOS				S	Sn	13 03 06.7	-0.1
	3.1nm,0.2s,SNR=5.6						
EMOS	Mosqueruela	3.79	343	P	Pn	13 02 24.1	+1.9
	1.4nm,0.1s,SNR=8.1						
EMOS				S	Sn	13 03 06.7	-0.2
	3.1nm,0.2s,SNR=5.6						
ERTA	Horta de San J	4.23	353	P	Pn	13 02 30.4	+2.1
	2.3nm,0.1s,SNR=7.6						
ERTA				S	Sn	13 03 16.2	-1.5
	2.3nm,0.2s,SNR=7.9						
ERTA	Horta de San J	4.23	353	P	Pn	13 02 30.4	+2.1
	2.3nm,0.1s,SNR=7.6						
ERTA				S	Sn	13 03 16.2	-1.5
	2.3nm,0.2s,SNR=7.9						
EPOB	Poblet	4.59	1	P	Pn	13 02 34.3	+1.0
	1.2nm,0.1s,SNR=17						
EPOB				S	Sn	13 03 23.5	-3.1
	2.5nm,0.3s,SNR=7.2						
EPOB	Poblet	4.59	1	P	Pn	13 02 34.3	+1.0
	1.2nm,0.1s,SNR=17						
EPOB				S	Sn	13 03 23.5	-3.2
	2.5nm,0.3s,SNR=7.2						
ECAB	El Cabril	5.29	286	P	Pn	13 02 42.6	-0.2
	2.2nm,0.5s,SNR=6.8						
ECAB	El Cabril	5.29	286	P	Pn	13 02 42.6	-0.3
	2.2nm,0.5s,SNR=6.8						
EMIN	Mina Concepcio	6.21	282	P	Pn	13 02 55.0	-0.6
	SNR=7.9						
EMIN	Mina Concepcio	6.21	282	P	Pn	13 02 55.0	-0.6
	SNR=7.9						

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*ISCJB **04** 13:17:09.6±0.2, 47°.59N±0°.01×122°.79W±0°.02, h20^{km}±3^{km}, Error ellipse: s-maj=2.7km s-min=2.1km az=149.5*

*PGC **04** 13:17:09.8±0.1, 47°.56N×122°.83W, h23^{km}, ML2.0/11, 37km west of Seattle, Wa Washington*

*NEIC **04** 13:17:10.0, 47°.58N×122°.81W, h24^{km}, MD2.6(SEA), After SEA.*

*PNSN **04** 13:17:10.1, 47°.57N×122°.82W, h24^{km}, MD2.6, Fault plane solution: NP1:ϕ_s285.00000°, δ75.00000°, NP2: ϕ_s187.00000°, δ61.00000°, Principal axes: T Plg32.0000°, Azm149.0000°; P Plg9.0000°, Azm53.0000°;*

ISC 04 13:17:09.7±0.3, 47°.59N±0°.01×122°.78W±0°.02, h18^{km}±2^{km}, n50, σ0^{s}91/85, 12C-44D, Washington

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GNW	Green Mountain	0.04	233	*e*Pg	Pg	13 17 13.2	+0.4
GNW				*e*S	Sg	13 17 16.3	+1.4
C04A	Brinnon	0.18	316	⇓P	Pg	13 17 14.6	+0.3
	baz=0.2,SNR=772						
C04A				⇓S	Sg	13 17 18.3	+0.8
	baz=0.2						
D04A	Dobbs Creek Ra	0.48	182	P	Pg	13 17 19.4	+0.2
	baz=0.5,SNR=27						
D04A				⇓S	Sg	13 17 26.2	+0.5
	baz=0.5						
D05A	Enumclaw	0.67	126	⇓P	Pb	13 17 22.6	-0.2
	baz=0.7,SNR=32						
D05A				⇓S	Sg	13 17 32.1	+0.3
	baz=0.7						
B04A	Port Angeles	0.68	314	P	Pb	13 17 22.5	-0.4
	baz=0.7,SNR=101						
B04A				⇓S	Sb	13 17 32.5	+0.5
	baz=0.7						
C05A	Tolt Reservoir	0.75	81	P	Pb	13 17 23.4	-0.7
	baz=0.8,SNR=38						
C05A				⇓S	Sb	13 17 33.3	-0.7
	baz=0.8						
NLWA	Neilton Lookou	0.76	256	P	Pb	13 17 23.8	-0.6
	baz=0.7,SNR=270						
NLWA				⇑S	Sb	13 17 34.7	+0.3
	baz=0.7						
NLWA	Neilton Lookou	0.76	256	*e*P	Pb	13 17 23.6	-0.8
NLWA				*e*S	Sb	13 17 35.6	+1.2
B05A	Bryant	0.82	34	P	Pb	13 17 24.5	-0.9
	baz=0.8,SNR=109						
B05A				⇑S	Sb	13 17 35.5	-0.6
	baz=0.8						
D03A	Wishkah Elem.	0.82	235	⇓P	Pb	13 17 25.1	-0.3
	baz=0.8,SNR=30						
JCW	Jim Creek	0.83	43	*e*P	Pb	13 17 24.8	-0.8
JCW				*e*S	Sb	13 17 35.5	-1.0
VGZ	Gonzales	0.91	336	⇓P	Pb	13 17 25.2	-1.6
VGZ				⇑S	Sb	13 17 36.9	-1.6
E04A	Onalaska	0.99	178	⇑P	Pb	13 17 27.3	-1.0
	baz=1.0						
E04A				⇑S	Sb	13 17 41.0	-0.1
	baz=1.0						
LON	Longmire	1.07	141	*e*P	Pb	13 17 28.0	-1.5
LON				*e*S	Sb	13 17 41.5	-1.7
A04A	Legoe Bay, Lum	1.14	2	⇑P	Pn	13 17 29.5	-1.1
	baz=1.1,SNR=11						
A04A				⇓S	Sb	13 17 44.8	-0.3
	baz=1.1						
PGC	Sidney	1.16	337	⇓P	Pn	13 17 30.1	-0.8
PGC				⇑S	Sb	13 17 44.2	-1.5
PGC	Sidney	1.16	337	*e*P	Pn	13 17 29.4	-1.5
E03A	Lebam	1.17	207	⇓P	Pn	13 17 30.2	-0.9
	baz=1.1						
E03A				⇓S	Sb	13 17 46.1	-0.1
	baz=1.1						
SNB	Saturna Island	1.22	348	⇑P	Pn	13 17 31.2	-0.5
SNB				⇓S	Sb	13 17 47.1	-0.4
B06A	Marblemount	1.27	43	⇓Pb	Pb	13 17 32.0	-1.1
	baz=1.3,SNR=53						
D06A	Cle Elum	1.37	106	⇓Pb	Pb	13 17 33.8	-1.0
	baz=1.4,SNR=24						
D06A				⇓Sb	Sb	13 17 51.9	0.0
	baz=1.4						
GOBB	Galiano Island	1.45	341	⇑P	Pn	13 17 34.8	-0.1
GOBB				⇓S	Sn	13 17 51.0	-2.4
PFB	Port Renfrew	1.49	312	⇓P	Pn	13 17 35.2	-0.3
PFB				⇓S	Sn	13 17 54.5	+0.1
A05A	Maple Falls	1.49	18	⇓Pb	Pb	13 17 35.6	-1.1
	baz=1.5,SNR=40						
A05A				⇑Sb	Sb	13 17 55.2	-0.1
	baz=1.5						
VDB	Vedder Mountai	1.51	17	P	Pn	13 17 36.1	+0.3
VDB				⇑S	Sn	13 17 55.8	+0.8
E06A	Yakima	1.61	130	⇑Pb	Pb	13 17 37.8	-1.1
	baz=1.6,SNR=78						
E06A				⇑Sb	Sb	13 17 58.9	0.0
	baz=1.6						
F04A	Amboy	1.67	171	⇓P	Pn	13 17 37.7	-0.3
	baz=1.7,SNR=24						
F04A				⇓S	Sn	13 17 59.1	+0.1
	baz=1.7						
HNB	Haney	1.69	4	⇓P	Pn	13 17 38.4	+0.1
HNB				⇑S	Sn	13 17 59.9	+0.4
F03A	Seaside	1.74	198	⇓S	Sn	13 18 01.7	+1.0
	baz=1.7						
A06A	Chilliwack	1.74	29	⇑Pb	Pb	13 17 39.8	-1.3
	baz=1.8,SNR=12						
A06A				⇓Sb	Sb	13 18 02.6	-0.1
	baz=1.8						
NLLB	Nanaimo Lost L	1.83	334	⇓P	Pn	13 17 40.7	+0.6
NLLB				⇓S	Sn	13 18 03.8	+1.0
C07A	Waterville	1.84	86	⇑Sb	Sb	13 18 04.9	-0.6
	baz=1.9						
BIB	Bowen Island	1.85	349	⇓P	Pn	13 17 41.2	+0.7
BIB				⇓S	Sn	13 18 04.1	+0.6
MGB	Mount Grey	1.91	319	⇓P	Pn	13 17 41.7	+0.5
MGB				⇑S	Sn	13 18 06.7	+2.0
D07A	Quincy	1.95	101	⇓Pb	Pb	13 17 43.6	-1.0
	baz=2.0						
D07A				⇓Sb	Sb	13 18 08.6	+0.1
	baz=2.0						
B07A	Winthrop	1.99	63	⇓P	Pn	13 17 42.3	-0.1
	baz=2.0,SNR=27						
B07A				⇑Sb	Sb	13 18 10.2	+0.5
	baz=2.0						
HOPB	Hope	2.02	26	⇑P	Pn	13 17 44.4	+1.7
HOPB				⇑S	Sn	13 18 10.2	+2.7
WPB	Watts Point	2.09	352	⇓P	Pn	13 17 44.5	+0.8
WPB				⇑S	Sn	13 18 10.4	+1.1
SHB	Sechelt	2.14	341	⇑P	Pn	13 17 45.2	+0.8
SHB				⇑S	Sn	13 18 12.2	+1.7
E07A	Sunnyside	2.25	116	⇓P	Pn	13 17 45.9	-0.1
	baz=2.3,SNR=5.9						
E07A				⇓S	Sn	13 18 13.8	+0.6
	baz=2.3						
B08A	Colville Reser	2.44	70	⇓Sb	Sb	13 18 23.3	+0.5
	baz=2.5						
HAWA	Hanford	2.52	117	*e*Pn	Pn	13 17 50.1	+0.3
C08A	Higginbotham F	2.53	84	⇓Sb	Sb	13 18 25.9	+0.5
	baz=2.5						
G05A	Wamic	2.56	156	⇓Sb	Sb	13 18 26.8	+0.8
	baz=2.5						
F07A	Phinny Hill Vi	2.59	130	⇑Sb	Sb	13 18 27.8	+0.7
	baz=2.6						
D08A	Wollman Farm,	2.68	100	⇓Sb	Sb	13 18 30.6	+1.0
	baz=2.7						
C09A	Chrisman Ranch	3.05	84	⇓Sb	Sb	13 18 41.5	+1.2
	baz=3.1						
D09A	Jones Farm, Ri	3.09	98	⇓Sb	Sb	13 18 42.3	+1.0
	baz=3.1						
A09A	Danville	3.13	62	⇓Sb	Sb	13 18 44.5	+2.0
	baz=3.1						
BMO	Blue Mountains	4.68	124	Pn	Pn	13 18 19.2	-0.1

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*IDC **04** 13:38:40.8±1.0, 7°.06N×125°.09E, h0^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.6/21, mbtmp3.6/6, Error ellipse: s-maj=20.6km s-min=9.1km az=179.0*

*ISCJB **04** 13:38:42.8±0.6, 7°.12N±0°.06×125°.28E±0°.05, h23^{km}±5^{km}, mb3.5/5, Error ellipse: s-maj=10.8km s-min=7.6km az=14.2*

*MAN **04** 13:38:42, 7°.24N×125°.26E, h2^{km}, mb4.9, ML3.9, MS3.9*

*NEIC **04** 13:38:42.5±5.6, 7°.13N×125°.19E, h10^{km}±35^{km}, Error ellipse: s-maj=55.5km s-min=14.1km az=77.0*

ISC 04 13:38:43.0±0.8, 7°.16N±0°.06×125°.27E±0°.04, h13^{km}±5^{km}, n16, σ0^{s}75/18, mb3.5/5, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	0.23	231	⇓*i*P	Pg	13 38 47.7	-0.4
KCP				*i* S	Sg	13 38 51.8	+0.3
DAV	Davao City (W)	0.32	106	Pg	Pg	13 38 50.4	+0.8
	518nm,0.3s,baz=246,slow=2.5,SNR=24						
DAV				Lg		13 38 56.9	
	1μm,0.3s,baz=253,slow=19,SNR=88						
DAV	Davao City (W)	0.32	106	*e*Pg	Pg	13 38 50.1	+0.6
DAV				Lg		13 38 56.9	
BUKP	Musuan	0.75	344	*e*P	Pg	13 38 57.0	-0.5
MATI	Mati	1.00	102	*e*P	Pb	13 39 01.8	-0.4
CTBH	Cotabato--PC H	1.02	274	⇑*e*P	Pb	13 39 01.5	-1.0
CTBH				*i* S	Sb	13 39 16.3	+0.5
GSPH	General Santos	1.11	197	*e*P	Pb	13 39 04.0	-0.1
PAGZ	Pagadian	2.00	290	*e*P	Pn	13 39 17.4	+0.9
KAKA	Kakadu	20.98	160	P	P	13 43 27.5	+1.3
FITZ	Fitzroy Crossi	25.10	179	P	P	13 44 08.0	+0.4
	1.2nm,0.6s,mb3.6,baz=30,slow=14,SNR=5.0						
FITZ	Fitzroy Crossi	25.10	179	*e*P	P	13 44 07.3	-0.3
WRA	Warramunga Arr	28.37	162	P	P	13 44 36.3	-0.7
	0.2nm,0.5s,baz=332,slow=11,SNR=4.2						
ASAR	Alice Springs	31.77	165	P	P	13 45 06.1	-1.0
	0.4nm,0.5s,mb3.5,baz=344,slow=7.1,SNR=18						
SONM	Songino Array	43.61	342	P	P	13 46 48.2	+1.2
	0.6nm,1.1s,mb3.3,baz=154,slow=8.3,SNR=2.4						
MKAR	Makanchi Array	53.93	325	P	P	13 48 05.4	-0.9
	0.3nm,0.5s,mb3.5,baz=121,slow=7.4,SNR=5.3						
YKA	Yellowknife Ar	96.98	24	P	P	13 52 14.3	+0.1
	0.2nm,0.7s,mb3.7,baz=293,slow=5.1,SNR=3.9						

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*NEIC **04** 13:49:20.0, 16°.94N×99°.40W, h48^{km}, MD3.7(MEX), After MEX.*

MEX 04 13:49:20.0±0.3, 16°.94N×99°.40W, h48^{km}±7^{km}, MD3.7, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.50	262	*i* P	Pn	13 49 29.5	-1.6
ACX				*i* S	Sn	13 49 37.0	-2.0
CAIG	El Cayaco	0.83	278	*i* P	Pn	13 49 34.0	-1.4
CAIG				*i* S	Sn	13 49 44.7	-2.0
MEIG	Mezcala	1.01	348	*i* P	Pn	13 49 35.9	-1.8
MEIG				*i* S	Sn	13 49 48.9	-1.9
PNIG	Pinotepa	1.34	114	*i* P	Pn	13 49 40.6	-1.7
PNIG				*i* S	Sn	13 49 56.9	-2.0
PPM	Popocatepetl	2.24	19	*e*P	Pn	13 49 53.6	-1.1
PPM				*i* S	Sn	13 50 20.2	-1.0
MZVM		2.25	4	*i* P	Pn	13 49 52.2	-2.5
MZVM				*i* S	Sn	13 50 19.3	-2.0
VHO	Vista Hermosa	2.56	87	*i* P	Pn	13 49 57.7	-1.3
VHO				*i* S	Sn	13 50 28.4	-0.5
IIO	Organos	2.72	14	*e*P	Pn	13 49 59.8	-1.4
IIO				*i* S	Sn	13 50 31.6	-1.2

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*IDC **04** 13:54:22.1±1.6, 0°.59N×96°.94E, h0^{km}, mb3.8/7, mb1 3.9/9, mb1mx3.7/25, mbtmp3.7/9, ML3.7/2, Error ellipse: s-maj=51.6km s-min=17.4km az=60.0*

*ISCJB **04** 13:54:25.7±0.9, 0°.74N±0°.09×97°.0E±0°.1, h33^{km}, mb3.8/6, Error ellipse: s-maj=20.9km s-min=11.1km az=156.2*

*NEIC **04** 13:54:28.0±0.7, 0°.73N×97°.04E, h35^{km}, mb3.8/1, Error ellipse: s-maj=16.6km s-min=8.5km az=65.0*

ISC 04 13:54:28.1±0.9, 0°.75N±0°.09×97°.1E±0°.1, h35^{km}, n17, σ0^{s}80/17, mb3.8/6, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.74	42	Pn	Pn	13 55 09.4	-0.3
	2.2nm,0.3s,baz=268,slow=5.8,SNR=11						
KULM	Kulim	5.75	38	*e*P	Pn	13 55 51.3	+0.3
	28nm,1.0s						
CMAR	Chiang Mai Arr	17.69	6	P	Pn	13 58 31.1	-0.8
	0.3nm,0.3s,baz=194,slow=12,SNR=8.4						
FITZ	Fitzroy Crossi	33.76	125	P	P	14 01 04.2	-2.6

	1.3nm,0.7s,mb4.0,baz=207,slow=16,SNR=3.6						
FITZ	**Fitzroy Crossi**	**33.76**	**125**	*e*P	**P**	**14 01 06.8**	**+0.1**
WRA	**Warramunga Arr**	**41.89**	**121**	P	**P**	**14 02 14.9**	**-0.5**
	1.4nm,0.7s,mb3.7,baz=300,slow=9.0,SNR=11						
WRAB	**Tennant Creek**	**41.90**	**121**	*e*P	**P**	**14 02 16.0**	**+0.5**
	1.4nm,0.7s,mb3.7						
WB2	**Warramunga Arr**	**41.90**	**121**	*e*P	**P**	**14 02 15.7**	**+0.2**
ASAR	**Alice Springs**	**43.21**	**127**	P	**P**	**14 02 26.6**	**+0.4**
	0.5nm,0.7s,baz=299,slow=8.4,SNR=14						
SONM	**Songino Array**	**47.59**	**8**	P	**P**	**14 03 02.2**	**+1.8**
	0.4nm,0.8s,mb3.5,baz=198,slow=9.1,SNR=2.9						
MK31	**Makanchi Array**	**47.65**	**346**	*e*P	**P**	**14 03 01.1**	**+0.2**
MKAR	**Makanchi Array**	**47.65**	**346**	P	**P**	**14 03 01.3**	**+0.4**
	0.7nm,0.5s,mb3.9,baz=158,slow=8.7,SNR=15						
MKAR	**Makanchi Array**	**47.65**	**346**	P	**P**	**14 03 01.3**	**+0.4**
KURK	**Kurchatov**	**52.20**	**345**	P	**P**	**14 03 33.9**	**-1.4**
	0.3nm,0.6s,baz=163,slow=6.9,SNR=4.0						
KURK	**Kurchatov**	**52.20**	**345**	P	**P**	**14 03 33.9**	**-1.4**
ZAA0	**Zalesovo Array**	**53.98**	**351**	*e*P	**P**	**14 03 48.5**	**+0.1**
ZALV	**Zalesovo Beam**	**53.98**	**351**	P	**P**	**14 03 48.6**	**+0.1**
	1.8nm,0.5s,mb4.2,baz=176,slow=5.9,SNR=9.8						

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*ISK **04** 14:05:07.0, 38°.80N×37°.02E, h24^{km}, MD2.6*
*CSEM **04** 14:05:10.3±0.5, 38°.32N×37°.07E, h2^{km}, MD3.0, Error ellipse: s-maj=13.5km s-min=10.6km az=36.0*
*DDA **04** 14:05:10.8, 38°.39N×37°.04E, h7^{km}±3^{km}, Md3.0*
*ISCJB **04** 14:05:11.1±0.8, 38°.36N±0°.06×37°.05E±0°.06, h10^{km}, Error ellipse: s-maj=9.3km s-min=6.7km az=18.6*
ISC 04 14:05:11.0±0.9**, 38°.35N**±0°.06×**37°.04E**±0°.06**, h1**^{km}±11^{km}**, n14, σ0^{s}94**/19**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SARI	**SarD1z-Kayseri**	**0.42**	**321**	*e*PG	**Pg**	**14 05 19.8**	**+0.7**
SARI				*e*SG	**Sg**	**14 05 29.2**	**+4.5**
SARI	**SarD1z-Kayseri**	**0.42**	**321**	*e*Pg	**Pg**	**14 05 19.8**	**+0.7**
SARI				*e*Sg	**Sg**	**14 05 29.2**	**+4.6**
PINB	**Pinarbasi**	**0.60**	**303**	*i* P	**Pg**	**14 05 21.9**	**-0.5**
PINB	**Pinarbasi**	**0.60**	**303**	*i* P	**Pg**	**14 05 21.9**	**-0.5**
AKCD	**Akcadag**	**0.70**	**94**	*i* P	**Pg**	**14 05 22.1**	**-2.3**
AKCD				*i* S	**Sg**	**14 05 34.1**	**+0.7**
AKCD	**Akcadag**	**0.70**	**94**	*i* P	**Pg**	**14 05 22.1**	**-2.2**
AKCD				*i* S	**Sg**	**14 05 34.1**	**+0.7**
DARE	**Darende-Malaty**	**0.85**	**45**	*e*PG	**Pg**	**14 05 16.6**	**-11**
KMRS	**Kahramanmaras**	**0.85**	**187**	*e*PN	**Pn**	**14 05 30.0**	**-0.1**
KMRS	**Kahramanmaras**	**0.85**	**187**	*e*Pn	**Pn**	**14 05 30.0**	**-0.1**
GZT	**Gaziantep**	**1.08**	**157**	*i* P	**Pg**	**14 05 32.5**	**+0.9**
MALT	**Malatya**	**1.09**	**91**	*e*PN	**Pn**	**14 05 29.1**	**-4.3**
MALT	**Malatya**	**1.09**	**91**	*e*Pn	**Pn**	**14 05 29.1**	**-4.3**
KEMA	**Kemaliye**	**1.46**	**51**	*i* P	**Pn**	**14 05 38.1**	**-0.4**
KEMA				*i* S	**Sb**	**14 05 58.6**	**+0.5**
KEMA	**Kemaliye**	**1.46**	**51**	*i* P	**Pn**	**14 05 38.1**	**-0.4**

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*NEIC **04** 14:18:30.2±1.5, 23°.82N×93°.53E, h73^{km}±13^{km}, Error ellipse: s-maj=48.9km s-min=8.9km az=60.0*
*IDC **04** 14:18:31.1±4.6, 23°.83N×93°.59E, h81^{km}±41^{km}, mb3.4/6, mb1 3.5/7, mb1mx3.3/25, mbtmp3.3/7, ML3.6/1, Error ellipse: s-maj=71.9km s-min=15.2km az=64.0*
ISC 04 14:18:31.6±1.2**, 24°.1N**±0°.1×**94°.0E**±0°.2**, h74**^{km}±15^{km}**, n13, σ1^{s}18**/14**, mb3.5**/6**, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	**Shillong**	**2.42**	**308**	*e*PN	**Pn**	**14 19 06.5**	**-2.4**
SHL				*e*SN	**Sn**	**14 19 30.5**	**-7.1**
AGT	**Agartala**	**2.52**	**266**	*e*PKP	**Pn**	**14 19 12.0**	**+1.7**
LSA	**Lhasa**	**6.14**	**336**	*e*Pn	**Pn**	**14 19 59.5**	**-0.2**
	6.3nm,0.4s						
CMAR	**Chiang Mai Arr**	**7.26**	**140**	P	**Pn**	**14 20 15.2**	**+0.2**
	0.3nm,0.3s,baz=322,slow=15,SNR=4.9						
MK31	**Makanchi Array**	**24.53**	**340**	*e*P	**P**	**14 23 44.5**	**+0.4**
MKAR	**Makanchi Array**	**24.53**	**340**	P	**P**	**14 23 44.7**	**+0.7**
	1.0nm,0.4s,mb3.6,baz=155,slow=10.0,SNR=44						
MKAR	**Makanchi Array**	**24.53**	**340**	P	**P**	**14 23 44.7**	**+0.7**
SONM	**Songino Array**	**25.67**	**20**	P	**P**	**14 23 56.9**	**+2.4**
	0.2nm,0.7s,mb2.6,baz=132,slow=4.3,SNR=2.8						
KURK	**Kurchatov**	**29.13**	**340**	P	**P**	**14 24 24.3**	**-1.1**
	0.3nm,0.5s,mb3.2,baz=157,slow=7.7,SNR=3.8						
ZALV	**Zalesovo Beam**	**30.61**	**349**	P	**P**	**14 24 38.2**	**-0.1**
	0.5nm,0.5s,mb3.5,baz=179,slow=5.9,SNR=3.5						
ZALV	**Zalesovo Beam**	**30.61**	**349**	P	**P**	**14 24 38.2**	**-0.1**
WRA	**Warramunga Arr**	**58.82**	**135**	P	**P**	**14 28 22.2**	**-0.4**
	0.7nm,0.3s,mb4.2,baz=319,slow=7.6,SNR=42						
ASAR	**Alice Springs**	**61.26**	**138**	P	**P**	**14 28 38.2**	**-1.1**
	0.5nm,0.3s,mb4.0,baz=311,slow=6.2,SNR=42						

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*ISCJB **04** 14:20:30.3±1.7, 24°.9N±0°.1×141°.1E±0°.2, h168^{km}±15^{km}, mb3.4/6, Error ellipse: s-maj=32.5km s-min=22.2km az=161.8*
*JMA **04** 14:20:33.1±0.1, 25°.12N×140°.47E, h86^{km}, M4.1*
*IDC **04** 14:20:42.6±9.9, 24°.81N×140°.94E, h276^{km}±100^{km}, mb3.0/6, mb1 3.2/7, mb1mx3.0/23, mbtmp3.0/7, Error ellipse: s-maj=38.4km s-min=18.0km az=76.0*
ISC 04 14:20:31.5±1.7**, 24°.9N**±0°.1×**141°.1E**±0°.2**, h164**^{km}±15^{km}**, n12, σ0^{s}59**/14**, mb3.4**/6**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	**Haha-jima-NKT**	**1.95**	**30**	P	**Pn**	**14 21 07.8**	**+0.8**
JHHJ				*e*S	**Sn**	**14 21 33.7**	**-0.7**
CBIJ	**Chichi jima**	**2.37**	**24**	P	**Pn**	**14 21 12.4**	**+0.7**
CBIJ				*e*S	**Sn**	**14 21 42.5**	**-0.4**
JOD2	**Odawara 2**	**10.45**	**351**	P	**Pn**	**14 22 57.6**	**+0.6**
JRY	**Ryogami san**	**11.21**	**351**	P	**Pn**	**14 23 06.4**	**-0.6**
JFK	**Kawauchi**	**12.40**	**359**	*e*S	**Sn**	**14 25 28.8**	**-11**
KSRS	**Korea Array**	**16.80**	**321**	P	**Pn**	**14 24 21.4**	**+4.3**
	0.1nm,0.3s,baz=134,slow=12,SNR=4.4						
WRA	**Warramunga Arr**	**45.08**	**189**	P	**P**	**14 28 30.6**	**-0.6**
	1.4nm,0.3s,mb4.0,baz=8.1,slow=8.7,SNR=30						
MKAR	**Makanchi Array**	**51.13**	**311**	P	**P**	**14 29 17.9**	**+0.5**
	0.2nm,0.5s,mb3.0,baz=88,slow=7.7,SNR=4.1						
KURK	**Kurchatov**	**53.83**	**316**	P	**P**	**14 29 36.7**	**-0.5**
	0.3nm,0.4s,mb3.4,baz=91,slow=7.8,SNR=4.9						
BVAR	**Borovoye Array**	**58.99**	**318**	P	**P**	**14 30 13.4**	**-0.2**
	0.7nm,0.4s,mb3.9,baz=92,slow=6.9,SNR=7.4						
YKA	**Yellowknife Ar**	**74.50**	**28**	P	**P**	**14 31 51.3**	**-0.2**
	0.5nm,0.6s,mb3.4,baz=295,slow=5.9,SNR=6.6						
PDAR	**Pinedale Array**	**86.44**	**44**	P	**P**	**14 32 56.2**	**+0.6**
	0.1nm,0.4s,mb2.9,baz=300,slow=2.0,SNR=3.0						

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*ISCJB **04** 14:37:14.2±0.7, 51°.3N±0°.1×98°.20E±0°.08, h10^{km}, Error ellipse: s-maj=17.9km s-min=7.0km az=175.3*
*MOS **04** 14:37:15.4±2.7, 51°.37N×98°.01E, h10^{km}, mb4.3/1, Error ellipse: s-maj=19.7km s-min=11.8km az=169.5*
*IDC **04** 14:37:15.5±2.5, 51°.08N×98°.09E, h0^{km}, mb1 2.9/4, mb1mx2.8/27, mbtmp2.9/4, ML2.7/4, Error ellipse: s-maj=59.0km s-min=17.0km az=15.0*
*NEIC **04** 14:37:17.6±0.9, 51°.02N×97°.93E, h10^{km}, Error ellipse: s-maj=30.7km s-min=10.7km az=188.0*
ISC 04 14:37:16.1±0.7**, 51°.4N**±0°.1×**98°.19E**±0°.08**, h10**^{km}**, n15, σ0^{s}84**/16**, 3D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ORL	**Orlik**	**1.53**	**40**	*e*PN	**Pn**	**14 37 42.8**	**-0.7**
ORL				*e*		14 38 04.6	
ORL				pmax	pmax		
	comp=Z,46nm,0.5s						
ORL				smax			
	comp=N,429nm,0.8s						
KZLR	**Kyzyl**	**2.36**	**279⇓**	*e*PN	**Pn**	**14 37 55.1**	**+0.3**
KZLR				*e*		14 38 00.3	
KZLR				*e*		14 38 21.4	
KZLR				*e*		14 38 27.8	
ARS	**Arshan**	**2.69**	**77**	*e*PN	**Pn**	**14 38 01.2**	**+1.8**
ARS				*e*		14 38 40.0	
ARS				pmax	pmax		
	comp=Z,28nm,0.3s						
ARS				smax			
	comp=E,337nm,0.5s						
HVS	**Khovu-Aksy**	**2.83**	**267κ**	*e*PN	**Pn**	**14 38 01.0**	**-0.4**
HVS				*e*		14 38 08.2	
HVS				*e*		14 38 32.4	
HVS				*e*		14 38 40.9	
ZAK	**Zakamensk**	**3.37**	**105**	*e*PN	**Pn**	**14 38 15.5**	**+6.7**
ZAK				*e*		14 39 00.1	
ZAK				pmax	pmax		
	comp=Z,30nm,0.6s						
ZAK				smax			
	comp=E,125nm,1.4s						
TLY	**Talaya**	**3.42**	**83**	*e*PN	**Pn**	**14 38 15.2**	**+5.8**
TLY				*e*S	**Sn**	**14 39 02.2**	**+12**
IRK	**Irkutsk**	**3.87**	**75**	*e*PN	**Pn**	**14 38 24.4**	**+8.8**
IRK				*e*		14 39 15.2	
IRK				pmax	pmax		
	comp=Z,46nm,0.1s						
IRK				smax			
	comp=N,294nm,0.8s						
TRG	**Tyrgan**	**5.22**	**71**	*e*PN	**Pn**	**14 38 32.9**	**-1.2**
TRG				*e*		14 39 56.5	
TRG				pmax	pmax		
	comp=Z,8.0nm,0.7s						
TRG				smax			
	comp=N,84nm,1.3s						
OGRR	**Ongureny**	**6.17**	**65**	*e*PN	**Pn**	**14 38 46.9**	**-0.3**
OGRR				*e*		14 39 06.0	
OGRR				*e*		14 40 25.6	
OGRR				pmax	pmax		
	comp=Z,9.0nm,0.6s						
OGRR				smax			
	comp=N,79nm,1.1s						
SONM	**Songino Array**	**6.40**	**120**	PN	**Pn**	**14 38 50.7**	**+0.3**
SONM						14 40 36.5	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM	**Songino Array**	**6.40**	**120**	Pn	**Pn**	**14 38 50.7**	**+0.2**
	comp=Z,0.1nm,0.3s,baz=305,slow=14,SNR=2.9						
SONM				Pg	**Pg**	**14 39 08.9**	**-10**
	comp=Z,0.5nm,0.3s,baz=299,slow=19,SNR=10						
SONM				Lg		14 40 36.5	
	comp=Z,1.2nm,0.3s,baz=298,slow=31,SNR=20						
ZALV	**Zalesovo Beam**	**8.53**	**293**	Pn	**Pn**	**14 39 20.0**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=94,slow=16,SNR=3.4						
ZALV				Lg		14 41 35.7	
	comp=Z,0.3nm,0.3s,baz=113,slow=26,SNR=6.4						
MKAR	**Makanchi Array**	**11.39**	**252**	Pn	**Pn**	**14 39 57.7**	**-1.0**
	comp=Z,0.0nm,0.3s,baz=79,slow=16,SNR=3.4						
MKAR				Lg		14 43 02.3	
	comp=Z,0.0nm,0.3s,baz=66,slow=32,SNR=2.7						
KURK	**Kurchatov**	**12.34**	**275**	Lg		14 43 46.3	
	comp=Z,0.0nm,0.3s,baz=78,slow=26,SNR=4.8						
BVAR	**Borovoye Array**	**17.08**	**286**	P	**Pn**	**14 41 15.5**	**+0.8**
	comp=Z,0.1nm,0.3s,baz=99,slow=9.3,SNR=3.9						

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*ISCJB **04** 15:26:15.7±0.6, 38°.45N±0°.05×21°.83E±0°.04, h6^{km}±8^{km}, Error ellipse: s-maj=7.9km s-min=4.9km az=160.2*
*CSEM **04** 15:26:16.0±0.2, 38°.47N×21°.83E, h10^{km}, ML2.8/2, Error ellipse: s-maj=6.0km s-min=3.8km az=149.0*
*NEIC **04** 15:26:16.5, 38°.38N×21°.84E, h32^{km}, MD3.0(ATH), After ATH.*
*THE **04** 15:26:16.0, 38°.45N×21°.85E, h1^{km}±2^{km}, ML2.8/2, Error ellipse: s-maj=2.0km s-min=0.6km az=326.0*
*ATH **04** 15:26:16.5, 38°.38N×21°.84E, h32^{km}±9^{km}, MD3.0/3*
ISC 04 15:26:16.6±0.6**, 38°.44N**±0°.05×**21°.84E**±0°.04**, h12**^{km}±7^{km}**, n21, σ0^{s}94**/31**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EVR	**Evrytania**	**0.47**	**357**	*e*PN	**Pg**	**15 26 28.5**	**+2.6**
EVR	**Evrytania**	**0.47**	**357**	*e*Pn	**Pg**	**15 26 28.5**	**+2.6**
RLS	**Riolos of Patr**	**0.48**	**217**	*e*PB	**Pg**	**15 26 25.9**	**-0.1**
RLS	**Riolos of Patr**	**0.48**	**217**	*e*Pb	**Pg**	**15 26 25.9**	**-0.1**
AGG	**Agios Georgios**	**0.69**	**33**	P	**Pg**	**15 26 28.8**	**-1.2**
AGG				S	**Sg**	**15 26 39.2**	**+0.1**
AGG	**Agios Georgios**	**0.69**	**33**	P	**Pg**	**15 26 28.8**	**-1.2**
AGG				S	**Sg**	**15 26 39.2**	**+0.1**
LKR	**Lokris**	**0.93**	**77**	P	**Pg**	**15 26 33.3**	**-1.3**
LKR				S	**Sg**	**15 26 47.4**	**+0.7**
LKR	**Lokris**	**0.93**	**77**	*e*PB	**Pg**	**15 26 34.2**	**-0.4**
LKR	**Lokris**	**0.93**	**77**	P	**Pg**	**15 26 33.3**	**-1.3**
LKR				S	**Sg**	**15 26 47.4**	**+0.7**
LTK	**Loutraki**	**0.98**	**115**	P	**Pg**	**15 26 34.5**	**-1.0**
LTK				S	**Sg**	**15 26 49.2**	**+0.9**
LTK	**Loutraki**	**0.98**	**115**	P	**Pg**	**15 26 34.5**	**-1.0**
LTK				S	**Sg**	**15 26 49.2**	**+0.9**
VLS	**Valsamata**	**1.02**	**255**	P	**Pg**	**15 26 35.1**	**-1.1**
VLS				S	**Sg**	**15 26 50.6**	**+1.2**
VLS	**Valsamata**	**1.02**	**255**	*e*PB	**Pg**	**15 26 35.1**	**-1.1**
VLS	**Valsamata**	**1.02**	**255**	P	**Pg**	**15 26 35.1**	**-1.1**
VLS				S	**Sg**	**15 26 50.6**	**+1.2**
ITM	**Ithomi**	**1.26**	**177**	*e*PN	**Pn**	**15 26 39.5**	**-0.6**
XOR	**Xorichti**	**1.40**	**48**	P	**Pn**	**15 26 41.8**	**-0.2**
XOR	**Xorichti**	**1.40**	**48**	P	**Pn**	**15 26 41.8**	**-0.2**
DID	**Didima**	**1.45**	**130**	P	**Pn**	**15 26 42.4**	**-0.2**
DID				S	**Sn**	**15 27 02.5**	**+1.0**
DID	**Didima**	**1.45**	**130**	P	**Pn**	**15 26 42.4**	**-0.2**
DID				S	**Sn**	**15 27 02.5**	**+1.0**
PYL	**PYLOS**	**1.55**	**183**	P	**Pn**	**15 26 43.8**	**-0.2**
PYL	**PYLOS**	**1.55**	**183**	P	**Pn**	**15 26 43.8**	**-0.2**

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*NEIC **04** 15:44:02.1, 35°.89N×8°.66W, h0^{km}, MG3.6(MDD), After MDD.*
*MDD **04** 15:44:02.9±1.6, 35°.94N×8°.63W, h0^{km}, mbLg2.3/9, Error ellipse: s-maj=15.1km s-min=9.7km az=52.0, PRIMO*
*CSEM **04** 15:44:03.8±0.4, 35°.88N×8°.69W, h30^{km}, ML2.1, Error ellipse: s-maj=7.5km s-min=4.9km az=49.0*
*INMG **04** 15:44:03.0±0.6, 35°.72N×8°.85W, h31^{km}, ML2.1, Error ellipse: s-maj=4.1km s-min=2.5km az=70.0*
ISC 04 15:44:03.4±1.1**, 35°.96N**±0°.05×**8°.55W**±0°.07**, h10**^{km}**, n49, σ0^{s}86**/88**, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MORF	**Marmelete**	**1.35**	**357**	*e*P	**Pn**	**15 44 27.5**	**-0.7**
MORF				*e*S	**Sb**	**15 44 45.7**	**-0.3**
MORF				A		15 44 49.2	
	18nm,0.1s						
MORF	**Marmelete**	**1.35**	**357**	P	**Pn**	**15 44 27.5**	**-0.7**
MORF				S	**Sb**	**15 44 45.7**	**-0.3**
	18nm,0.1s						
MORF	**Marmelete**	**1.35**	**357**	*e*P	**Pn**	**15 44 27.5**	**-0.7**
MORF				*e*S	**Sb**	**15 44 45.7**	**-0.3**
	18nm,0.1s						
PBDV	**Barranco-do-Ve**	**1.38**	**21**	*e*P	**Pn**	**15 44 29.0**	**+0.4**
PBDV				*e*S	**Sb**	**15 44 48.1**	**+1.3**
PBDV				A		15 44 49.3	
	6.9nm,0.1s						
PBDV	**Barranco-do-Ve**	**1.38**	**21**	P	**Pn**	**15 44 29.0**	**+0.4**
PBDV				S	**Sb**	**15 44 48.1**	**+1.3**
	6.9nm,0.1s						
PBDV	**Barranco-do-Ve**	**1.38**	**21**	*e*P	**Pn**	**15 44 29.0**	**+0.4**
PBDV				*e*S	**Sb**	**15 44 48.1**	**+1.3**
	6.9nm,0.1s						
PTEO	**Sao Teotonio**	**1.59**	**355**	*e*Pn	**Pn**	**15 44 30.8**	**-0.8**
PTEO				*e*Sn	**Sn**	**15 44 51.5**	**-0.7**
PTEO				A		15 44 52.3	
	8.5nm,0.1s						
PTEO	**Sao Teotonio**	**1.59**	**355**	P	**Pn**	**15 44 30.8**	**-0.8**
PTEO				S	**Sn**	**15 44 51.5**	**-0.7**
	4.2nm,0.1s						
PTEO	**Sao Teotonio**	**1.59**	**355**	*e*Pn	**Pn**	**15 44 30.8**	**-0.8**
PTEO				*e*Sn	**Sn**	**15 44 51.5**	**-0.7**
	8.5nm,0.1s						
PVAQ	**Vaqueiros**	**1.59**	**25**	*e*Pn	**Pn**	**15 44 31.8**	**+0.2**
PVAQ				*e*Sn	**Sn**	**15 44 53.7**	**+1.6**
PVAQ				A		15 44 55.2	
	9.6nm,0.1s						
PVAQ	**Vaqueiros**	**1.59**	**25**	P	**Pn**	**15 44 31.8**	**+0.2**
PVAQ				S	**Sn**	**15 44 53.7**	**+1.6**
	9.6nm,0.1s						
PVAQ	**Vaqueiros**	**1.59**	**25**	*e*Pn	**Pn**	**15 44 31.8**	**+0.2**
PVAQ				*e*Sn	**Sn**	**15 44 53.7**	**+1.6**
	9.6nm,0.1s						
EGRO	**El Granado**	**1.79**	**28**	P	**Pn**	**15 44 34.9**	**+0.5**
	1.0nm,0.3s,SNR=14						
EGRO				S	**Sn**	**15 44 57.6**	**+0.5**
	10nm,0.1s,SNR=9.8						
EGRO	**El Granado**	**1.79**	**28**	P	**Pn**	**15 44 34.9**	**+0.5**
EGRO				S	**Sn**	**15 44 58.1**	**+1.0**
EGRO	**El Granado**	**1.79**	**28**	P	**Pn**	**15 44 34.9**	**+0.6**
	1.0nm,0.3s,SNR=14						
EGRO				S	**Sn**	**15 44 57.6**	**+0.5**
	10nm,0.1s,SNR=9.8						
PBEJ	**Beja**	**2.13**	**15**	*e*Sn	**Sn**	**15 45 06.2**	**+0.6**
PBEJ	**Beja**	**2.13**	**15**	*e*Sn	**Sn**	**15 45 06.2**	**+0.6**
EMIN	**Mina Concepcio**	**2.35**	**39**	P	**Pn**	**15 44 42.3**	**+0.2**
	0.9nm,0.1s,SNR=9.0						
EMIN				S	**Sn**	**15 45 10.4**	**-0.5**
	1.4nm,0.1s,SNR=7.7						
EMIN	**Mina Concepcio**	**2.35**	**39**	P	**Pn**	**15 44 42.3**	**+0.2**
EMIN				S	**Sn**	**15 45 11.8**	**+0.9**
EMIN	**Mina Concepcio**	**2.35**	**39**	P	**Pn**	**15 44 42.3**	**+0.3**
	0.9nm,0.1s,SNR=9.0						
EMIN				S	**Sn**	**15 45 11.8**	**+0.9**
ESPR	**Espera**	**2.35**	**67**	P	**Pn**	**15 44 42.3**	**+0.2**
	2.6nm,0.2s,SNR=10						
ESPR				S	**Sn**	**15 45 15.0**	**+4.0**
	1.3nm,0.1s,SNR=7.9						
ESPR	**Espera**	**2.35**	**67**	P	**Pn**	**15 44 42.3**	**+0.2**
ESPR				S	**Sn**	**15 45 14.0**	**+3.0**
ESPR	**Espera**	**2.35**	**67**	P	**Pn**	**15 44 42.3**	**+0.2**
	2.6nm,0.2s,SNR=10						
ESPR				S	**Sn**	**15 45 14.0**	**+3.0**
PESTR	**Estremoz**	**3.00**	**14**	*e*Sn	**Sn**	**15 45 26.8**	**-0.2**
PESTR	**Estremoz**	**3.00**	**14**	*e*Sn	**Sn**	**15 45 26.8**	**-0.2**
EBAD	**Badajoz**	**3.05**	**23**	P	**Pn**	**15 44 51.7**	**+0.1**
	0.1nm,0.1s,SNR=6.3						
EBAD				S	**Sn**	**15 45 28.1**	**0.0**
	1.3nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**3.05**	**23**	P	**Pn**	**15 44 51.7**	**+0.1**
EBAD				S	**Sn**	**15 45 28.4**	**+0.3**
EBAD	**Badajoz**	**3.05**	**23**	P	**Pn**	**15 44 51.7**	**+0.1**
	0.1nm,0.1s,SNR=6.3						
EBAD				S	**Sn**	**15 45 28.1**	**0.0**
	1.3nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	**3.11**	**78**	P	**Pn**	**15 44 51.8**	**-0.7**
	0.3nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	**3.11**	**78**	P	**Pn**	**15 44 51.8**	**-0.7**
	0.3nm,0.1s,SNR=7.9						
ECAB	**El Cabril**	**3.28**	**49**	P	**Pn**	**15 44 55.3**	**+0.5**
	0.8nm,0.0s,SNR=6.6						
ECAB				S	**Sn**	**15 45 32.4**	**-1.3**
	1.3nm,0.1s,SNR=7.9						
ECAB	**El Cabril**	**3.28**	**49**	P	**Pn**	**15 44 55.3**	**+0.5**
ECAB				S	**Sn**	**15 45 33.1**	**-0.6**
ECAB	**El Cabril**	**3.28**	**49**	P	**Pn**	**15 44 55.3**	**+0.6**
	0.8nm,0.0s,SNR=6.6						
ECAB				S	**Sn**	**15 45 33.1**	**-0.7**
PMRV	**Marv??o**	**3.58**	**15**	*e*Pn	**Pn**	**15 44 58.9**	**-0.1**
PMRV				*e*Sn	**Sn**	**15 45 40.6**	**-0.7**
PMRV	**Marv??o**	**3.58**	**15**	*e*Pn	**Pn**	**15 44 58.9**	**-0.1**
PMRV				*e*Sn	**Sn**	**15 45 40.6**	**-0.7**
EADA	**Adamuz**	**3.87**	**54**	P	**Pn**	**15 45 03.1**	**+0.3**
	0.8nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**15 45 48.3**	**0.0**
	0.4nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**3.87**	**54**	P	**Pn**	**15 45 03.1**	**+0.2**
	0.8nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**15 45 48.3**	**0.0**
	0.4nm,0.1s,SNR=7.9						
EQUE	**Quentar**	**4.30**	**72**	P	**Pn**	**15 45 09.5**	**+0.8**
	0.2nm,0.1s,SNR=7.9						
EQUE	**Quentar**	**4.30**	**72**	P	**Pn**	**15 45 09.5**	**+0.7**
	0.2nm,0.1s,SNR=7.9						
EBAN	**Banos Encina**	**4.40**	**59**	P	**Pn**	**15 45 10.0**	**-0.1**
	0.6nm,0.1s,SNR=7.9						
EBAN				S	**Sn**	**15 46 00.2**	**-1.2**
	0.4nm,0.1s,SNR=7.9						
EBAN	**Banos Encina**	**4.40**	**59**	P	**Pn**	**15 45 10.0**	**-0.2**
	0.6nm,0.1s,SNR=7.9						
GUD	**Guadarrama**	**5.81**	**35**	P	**Pn**	**15 45 30.3**	**+0.7**
	0.2nm,0.2s,SNR=7.9						
GUD				S	**Sn**	**15 46 34.7**	**-1.7**
	0.1nm,0.1s,SNR=7.9						
GUD	**Guadarrama**	**5.81**	**35**	P	**Pn**	**15 45 30.3**	**+0.7**
	0.2nm,0.2s,SNR=7.9						
GUD				S	**Sn**	**15 46 34.7**	**-1.6**
	0.1nm,0.1s,SNR=7.9						
ELOB	**Lobios**	**5.91**	**4**	P	**Pn**	**15 45 30.6**	**-0.3**
	0.1nm,0.1s,SNR=7.9						
ELOB				S	**Sn**	**15 46 34.6**	**-4.2**
	0.2nm,0.1s,SNR=7.9						
ELOB	**Lobios**	**5.91**	**4**	P	**Pn**	**15 45 30.6**	**-0.3**
ELOB				S	**Sn**	**15 46 34.6**	**-4.2**
ELOB	**Lobios**	**5.91**	**4**	P	**Pn**	**15 45 30.6**	**-0.3**
	0.1nm,0.1s,SNR=7.9						
ETOB	**Tobarra**	**6.19**	**62**	P	**Pn**	**15 45 35.6**	**+0.8**
	0.0nm,0.1s,SNR=7.9						
ETOB				S	**Sn**	**15 46 43.1**	**-2.5**
	0.3nm,0.1s,SNR=7.9						
ETOB	**Tobarra**	**6.19**	**62**	P	**Pn**	**15 45 33.8**	**-1.0**
ETOB				S	**Sn**	**15 46 43.1**	**-2.5**
ETOB	**Tobarra**	**6.19**	**62**	P	**Pn**	**15 45 35.6**	**+0.8**
	SNR=7.9						
ETOB				S	**Sn**	**15 46 43.1**	**-2.5**
	0.3nm,0.1s,SNR=7.9						

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*ISCJB **04** 16:00:03.8±0.4, 37°.25N±0°.04×28°.23E±0°.04, h5^{km}±8^{km}, Error ellipse: s-maj=6.6km s-min=3.9km az=31.2*
*ISK **04** 16:00:03.8, 37°.24N×28°.23E, h7^{km}, MD2.9*
*DDA **04** 16:00:03.3, 37°.24N×28°.20E, h7^{km}±5^{km}, Md3.0*
*CSEM **04** 16:00:04.0±0.1, 37°.26N×28°.25E, h5^{km}, MD2.9, Error ellipse: s-maj=1.9km s-min=1.6km az=43.0*
ISC 04 16:00:04.2±0.4**, 37°.25N**±0°.04×**28°.23E**±0°.03**, h8**^{km}±6^{km}**, n35, σ0^{s}78**/55**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	**Yerkesik**	**0.12**	**160**	*e*PG	**Pg**	**16 00 06.4**	**-0.4**
YER				*e*SG	**Sg**	**16 00 08.9**	**+0.3**
YER	**Yerkesik**	**0.12**	**160**	*e*Pg	**Pg**	**16 00 06.4**	**-0.4**
YER				*e*Sg	**Sg**	**16 00 09.0**	**+0.4**
MLSB	**Milas**	**0.37**	**278**	*e*PG	**Pg**	**16 00 11.2**	**-0.2**
MLSB				*e*SG	**Sg**	**16 00 17.2**	**+1.0**
MLSB	**Milas**	**0.37**	**278**	*e*Pg	**Pg**	**16 00 11.2**	**-0.2**
MLSB				*e*Sg	**Sg**	**16 00 17.2**	**+1.0**
TURN	**Turunc**	**0.48**	**142**	*i* P	**Pg**	**16 00 12.5**	**-0.9**
TURN				*i* S	**Sg**	**16 00 19.5**	**-0.2**
TURN	**Turunc**	**0.48**	**142**	*i* P	**Pg**	**16 00 12.5**	**-0.9**
TURN				*i* S	**Sg**	**16 00 19.5**	**-0.2**
AYDN	**Tasoluk**	**0.50**	**326**	*i* P	**Pg**	**16 00 13.6**	**-0.3**
AYDN				*i* S	**Sg**	**16 00 20.4**	**0.0**
AYDN	**Tasoluk**	**0.50**	**326**	*i* P	**Pg**	**16 00 13.6**	**-0.3**
AYDN				*i* S	**Sg**	**16 00 20.4**	**0.0**
DALT	**Dalyan (Mudla)**	**0.58**	**146**	*e*PG	**Pg**	**16 00 15.3**	**0.0**
DALT	**Dalyan (Mudla)**	**0.58**	**146**	*e*Pg	**Pg**	**16 00 15.3**	**0.0**
BDRM	**Kayabasi**	**0.66**	**254**	*i* P	**Pg**	**16 00 15.8**	**-1.1**
BDRM				*i* S	**Sg**	**16 00 24.9**	**-0.4**
BDRM	**Kayabasi**	**0.66**	**254**	*i* P	**Pg**	**16 00 15.8**	**-1.0**
BDRM				*i* S	**Sg**	**16 00 24.9**	**-0.5**
DAT	**Datca**	**0.74**	**226**	*e*PG	**Pg**	**16 00 18.7**	**+0.3**
DAT	**Datca**	**0.74**	**226**	*e*Pg	**Pg**	**16 00 18.7**	**+0.3**
BODT	**Bodrum**	**0.76**	**256**	*e*PG	**Pg**	**16 00 18.2**	**-0.6**
BODT				*e*SG	**Sg**	**16 00 29.8**	**+1.1**
BODT	**Bodrum**	**0.76**	**256**	*e*Pg	**Pg**	**16 00 18.2**	**-0.6**
BODT				*e*Sg	**Sg**	**16 00 29.8**	**+1.1**
DENT	**Denizli**	**0.81**	**51**	*e*PG	**Pg**	**16 00 20.5**	**+0.7**
DENT	**Denizli**	**0.81**	**51**	*e*Pg	**Pg**	**16 00 20.5**	**+0.7**
GCAM	**G?zelcaml?**	**0.91**	**300**	*i* P	**Pg**	**16 00 15.5**	**-6.3**
GCAM				*i* S	**Sg**	**16 00 20.8**	**-13**
FETY	**Fethiye**	**0.92**	**132**	*e*PG	**Pg**	**16 00 22.0**	**+0.2**
FETY	**Fethiye**	**0.92**	**132**	*e*Pg	**Pg**	**16 00 22.0**	**+0.2**
GOLH	**Golhisar**	**1.06**	**90**	*i* P	**Pg**	**16 00 24.2**	**-0.4**
GOLH				*i* S	**Sg**	**16 00 44.4**	**+6.1**
GOLH	**Golhisar**	**1.06**	**90**	*i* P	**Pg**	**16 00 24.2**	**-0.4**
MANT	**Manisa**	**1.27**	**12**	*i* P	**Pn**	**16 00 27.9**	**-0.4**
MANT				*i* S	**Sb**	**16 00 46.1**	**+1.3**
MANT	**Manisa**	**1.27**	**12**	*i* P	**Pn**	**16 00 27.9**	**-0.3**
MANT				*i* S	**Sb**	**16 00 46.1**	**+1.3**
KULA	**Kula-Manisa**	**1.31**	**15**	*e*PN	**Pn**	**16 00 29.1**	**+0.2**
KULA	**Kula-Manisa**	**1.31**	**15**	*e*Pn	**Pn**	**16 00 29.1**	**+0.3**
AKAS	**Kas**	**1.50**	**132**	*i* P	**Pn**	**16 00 33.2**	**+1.8**
AKAS				*i* S	**Sn**	**16 00 56.4**	**+5.3**
AKAS	**Kas**	**1.50**	**132**	*i* P	**Pn**	**16 00 33.2**	**+1.8**
KHAL	**Karahalli**	**1.50**	**41**	*i* P	**Pn**	**16 00 31.0**	**-0.5**
KHAL				*i* S	**Sn**	**16 00 43.2**	**-8.0**
KHAL	**Karahalli**	**1.50**	**41**	*i* P	**Pn**	**16 00 31.0**	**-0.4**
AKHS	**Akhisar**	**1.66**	**349**	*i* P	**Pn**	**16 00 32.7**	**-1.0**
AKHS				*e*S	**Sn**	**16 00 53.6**	**-1.6**
AKHS	**Akhisar**	**1.66**	**349**	*i* P	**Pn**	**16 00 32.7**	**-1.0**
AKHS				*e*S	**Sn**	**16 00 53.6**	**-1.6**
AKS	**Akhisar**	**1.66**	**349**	*e*PN	**Pn**	**16 00 34.7**	**+1.0**
AKS	**Akhisar**	**1.66**	**349**	*e*Pn	**Pn**	**16 00 34.7**	**+1.0**

IDC 04 16:34:24.6±3.0**, 3°.98N×95°.74E, h0**^{km}**, mb3.3**/3**, mb1 3.5**/4**, mb1mx3.3**/22**, mbtmp3.3**/4**, ML3.3**/1**, Error ellipse: s-maj=125.2km s-min=25.6km az=52.0, Off west coast**

of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.38**	**110**	Pn	Pn	16 35 19.2	+0.5
	2.6nm,0.3s,baz=306,slow=13,SNR=11						
PSI				Sn	Sn	16 35 55.9	-3.7
	3.4nm,0.3s,baz=302,slow=15,SNR=3.1						
MKAR	**Makanchi Array**	**44.22**	**347**	P	P	16 42 35.4	-0.1
	0.1nm,0.4s,baz=160,slow=8.9,SNR=2.1						
WRA	**Warramunga Arr**	**44.75**	**124**	P	P	16 42 40.2	+0.1
	1.0nm,0.5s,baz=302,slow=9.2,SNR=17						
ASAR	**Alice Springs**	**46.24**	**128**	P	P	16 42 51.8	-0.1
	0.1nm,0.4s,baz=300,slow=7.5,SNR=5.0						

*NEIC **04** 16:42:51.1,31°.85N×115°.65W,h5^{km},ML2.7(ECX), ML3.0(PAS),After ECX.*

ECX 04 16:42:51.1±0.7**,31°.85N×115°.65W,h5**^{km}**,MD2.7,ML2.7, 3C-2D,Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RDX	**Rancho Dawling**	**0.27**	**288**	⇑*e*P	Pg	16 42 55.9	-0.5
RDX				*e*S	Sg	16 42 59.9	+0.1
RDX				⇓*e*		16 43 00.2	
	comp=N,969nm,0.4s						
RDX				⇑*e*		16 43 00.6	
	comp=E,1μm,0.2s						
RDX	**Rancho Dawling**	**0.27**	**288**	⇑*e*P	Pg	16 42 55.9	-0.5
RDX				*e*S	Sg	16 42 59.9	+0.1
ECBX	**El Chinero**	**0.63**	**126**	*e*P	Pg	16 43 05.3	+2.0
ECBX				*e*S	Sg	16 43 17.2	+5.7
SGL	**Mount Signal**	**0.80**	**355**	*e*P	Pg	16 43 05.7	-0.8
SPX	**San Pedro Mart**	**0.82**	**169**	*e*P	Pg	16 43 05.7	-1.1
SPX				*e*S	Sg	16 43 16.8	-0.6
YUH	**Yuha Desert**	**0.83**	**344**	⇓*i*P	Pg	16 43 05.7	-1.3
ECNX	**Esteban Cantu**	**0.83**	**257**	*e*P	Pg	16 43 05.3	-1.7
ECNX				*e*P		16 43 06.5	
ECNX				*e*S	Sg	16 43 17.2	-0.6
ECNX				*e*S	Sg	16 43 18.1	+0.3
CCX	**Cicese**	**0.86**	**271**	*e*P	Pg	16 43 06.5	-1.2
CCX				*e*S	Sg	16 43 18.1	-0.8
PBX	**Punta Banda**	**0.92**	**264**	*e*P	Pg	16 43 07.5	-1.3
PBX				*e*		16 43 13.7	
	comp=N,156nm,0.2s						
BAR	**Barrett**	**1.20**	**314**	*e*Pg	Pg	16 43 12.0	-2.1
BAR				*e*Sg	Sg	16 43 27.1	-2.5
GLA	**Glamis**	**1.39**	**30**	*e*P	Pn	16 43 14.5	-2.6
MWC	**Mount Wilson**	**3.11**	**320**	Sn	Sn	16 44 17.2	-1.2

*IDC **04** 16:45:39.2±3.2,5°.48S×147°.44E,h148^{km}±27^{km},mb3.3/4, mb1 3.5/6,mb1mx3.3/17,mbtmp3.3/6,Error ellipse: s-maj=66.4km s-min=15.1km az=106.0*

*NEIC **04** 16:45:40.1±3.7,5°.52S×147°.52E,h162^{km}±32^{km},mb4.3/2, Error ellipse: s-maj=33.1km s-min=25.8km az=85.0*

ISC 04 16:45:38.7±2.4**,5°.5S**±0°.1×**147°.5E**±0°.2**,h143**^{km}±21^{km}**,n14, σ0**^{s}**.92**/13**,mb3.5**/4**,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	**Coen**	**9.40**	**207**	*e*P	**Pn**	**16 47 53.3**	**+2.4**
COEN				*e*S	**Sn**	**16 49 33.5**	**-1.6**
CTA	**Charters Tower**	**14.52**	**185**	P	**Pn**	**16 48 57.0**	**-0.5**
	0.1nm,0.3s,baz=21,slow=15,SNR=2.0						
KAKA	**Kakadu**	**16.49**	**243**	*e*Pn	**Pn**	**16 49 22.0**	**+0.1**
	13nm,0.5s						
WRAB	**Tennant Creek**	**19.20**	**221**	*e*P	**P**	**16 49 52.1**	**+0.5**
	3.6nm,0.6s						
WRA	**Warramunga Arr**	**19.22**	**221**	P	**P**	**16 49 52.0**	**+0.2**
	1.0nm,0.3s,baz=48,slow=12,SNR=105						
WRA	**Warramunga Arr**	**19.22**	**221**	P	**P**	**16 49 52.0**	**+0.2**
ASAR	**Alice Springs**	**22.29**	**215**	P	**P**	**16 50 24.9**	**+0.3**
	2.8nm,0.4s,mb4.0,baz=48,slow=8.7,SNR=195						
ASAR				S	**S**	**16 54 20.0**	**+0.6**
	1.3nm,0.8s,baz=32,slow=22,SNR=7.1						
FITZ	**Fitzroy Crossi**	**24.74**	**238**	P	**P**	**16 50 47.2**	**0.0**
	0.8nm,0.3s,mb3.7,baz=43,slow=9.1,SNR=9.1						
FITZ	**Fitzroy Crossi**	**24.74**	**238**	*e*P	**P**	**16 50 47.0**	**-0.1**
SONM	**Songino Array**	**64.24**	**331**	P	**P**	**16 55 58.4**	**0.0**
	0.2nm,0.4s,mb3.3,baz=149,slow=6.4,SNR=3.0						
MKAR	**Makanchi Array**	**77.45**	**320**	P	**P**	**16 57 17.2**	**-1.1**
	0.2nm,0.4s,mb3.1,baz=99,slow=8.0,SNR=8.7						
TORD	**Torodi Ar. Bea**	**145.46**	**285**	PKPbc	PKPbc	17 04 59.1	-2.1
	0.3nm,0.6s,baz=50,slow=2.7,SNR=4.0						
DBIC	**Dimbokro**	**152.50**	**274**	PKPbc	PKPbc	17 05 20.0	+0.8
	0.8nm,0.4s,baz=146,slow=3.6,SNR=3.3						
DBIC	**Dimbokro**	**152.50**	**274**	PKPbc	PKPbc	17 05 20.0	+0.8

*LDG **04** 17:01:25.8±0.3,19°.52S×70°.30W,h10^{km},Mb5.9/39, Ms6.2/10,Error ellipse: s-maj=17.2km s-min=8.7km az=25.0*

*IDC **04** 17:01:28.9±1.8,20°.16S×70°.20W,h27^{km}±11^{km},mb5.4/26, mb1 5.5/29,mb1mx5.5/30,mbtmp5.4/29,ML5.9/3,MS6.1/20, Ms1 6.1/20,ms1mx6.1/20,Error ellipse: s-maj=13.0km s-min=9.7km az=64.0*

*BJI **04** 17:01:28.4,20°.26S×70°.46W,h29^{km},mB6.5/42,Ms6.5/56, Ms7 6.5/52*

*IGIL **04** 17:01:29.5,20°.12S×70°.00W,h32^{km},MS6.1*

*ISCJB **04** 17:01:29.7±0.4,20°.09S±0°.02×70°.00W±0°.02,h41^{km}±4^{km}, mb5.9/222,MS6.2/201,Error ellipse: s-maj=4.6km s-min=3.1km az=42.0*

*GUC **04** 17:01:29.3±0.6,20°.28S×70°.27W,h46^{km}±1^{km},ML6.1*

*MOS **04** 17:01:29.3±0.9,19°.89S×70°.07W,h33^{km},mb6.1/98, MS6.2/74,Error ellipse: s-maj=8.7km s-min=5.6km az=72.4*

*NEIC **04** 17:01:30.0±0.6,20°.17S×70°.04W,h35^{km},mb6.0/185, ME6.4,MS6.2/144,MW6.3,MW6.3,Error ellipse: s-maj=8.1km s-min=4.6km az=5.0,Moment Tensor Solution. s110 Moment tensor: Scale 10^{18}Nm; M$_{rr}$2.28; M$_{\theta\theta}$0.57; M$_{\phi\phi}$-2.85; M$_{r\theta}$0.87; M$_{\theta\phi}$0.30; M$_{\phi r}$-1.49; Best double couple: M$_0$3.10000×10^{18} NP1:ϕ_s159.00000°, δ63.00000°,λ72.00000°. NP2:ϕ_s14.00000°,δ32.00000°, λ120.00000°. Principal axes: T 2.9300, Plg67.0000°, Azm35.0000°; N 0.3900, Plg15.0000°, Azm167.0000°; P -3.3200, Plg15.0000°, Azm261.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s323.00000°,δ25.00000°, λ79.00000°. NP2:ϕ_s155.00000°,δ65.00000°,λ95.00000°. Principal axes: T Plg70.0000°, Azm75.0000°; N Plg0.0000°, Azm0.0000°; P Plg20.0000°, Azm241.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [V] at Alto Hospicio, Huara, Iquique and Pozo Almonte; [IV] at Arica and Camarones; [II] at Antofagasta. Felt at Calama. Felt [III] at Tacna and [II] at Arequipa, Peru.

*GCMT **04** 17:01:31.0±0.1,20°.27S×70°.76W,h46^{km},MW6.3/109, Moment Tensor Solution. s109,c260; s104,c385; Duration: 3^{s}.6 Moment tensor: Scale 10^{18}Nm; M$_{rr}$2.86±.02; M$_{\theta\theta}$0.44±.02; M$_{\phi\phi}$-3.30±.02; M$_{r\theta}$0.93±.02; M$_{\theta\phi}$0.65±.02; M$_{\phi r}$-2.29±.03; Best double couple: M$_0$3.99900×10^{18} NP1:ϕ_s1.00000°,δ27.00000°, λ107.00000°. NP2:ϕ_s162.00000°,δ64.00000°,λ81.00000°. Principal axes: T 3.7610, Plg69.0000°, Azm54.0000°; N 0.4730, Plg8.0000°, Azm166.0000°; P -4.2370, Plg19.0000°, Azm258.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*DJA **04** 17:01:44,20°.49S×70°.00W,h139^{km},mb5.5/6*

*BGS **04** 17:01:46.3±2.3,17°.89S×66°.24W,h33^{km},MS6.2*

ISC 04 17:01:31.3±0.3**,20°.19S**±0°.02×**69°.95W**±0°.02**,h43**^{km}±3^{km}**, h40**^{km}±1.9^{km}**:pP-P,n1328,σ0**^{s}**.80**/960**,mb5.9**/222**, MS6.2**/201**,423C-213D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HMBC	**Humberston**	**0.11**	**149**	⇓*i*P	**Pn**	**17 01 39.0**	**+0.7**
HMBC				*i* S	**Sn**	**17 01 45.8**	**+2.6**
PSGC	**Pisagua**	**0.61**	**344**	⇓*i*P	**Pn**	**17 01 43.0**	**-0.6**
PSGC				*i* S	**Sn**	**17 01 52.9**	**+0.6**
PSGC				AML	AML	17 01 54.1	
	comp=N,1285μm,0.5s						
PB01	**Plate Boundary**	**0.96**	**153**	⇓*i*P	**Pn**	**17 01 48.7**	**+0.5**
PB01				*i* S	**Sn**	**17 02 03.0**	**+2.3**
MNMC	**Miæe Miæ**	**1.10**	**18**	⇓*e*P	**Pn**	**17 01 52.3**	**+2.1**
MNMC				*i* S	**Sn**	**17 02 09.8**	**+5.6**
MNMC				AML	AML	17 02 15.1	
	comp=E,738μm,0.5s						
TOCH	**Tocopilla**	**1.91**	**187**	*e*P	**Pn**	**17 01 58.8**	**-2.6**
TOCH				*i* S	**Sn**	**17 02 21.6**	**-2.7**
MACH	**Maria Elena**	**2.01**	**175**	*e*P	**Pn**	**17 02 01.7**	**-1.0**
MACH				*i* S	**Sn**	**17 02 26.4**	**-0.2**
PB04	**Plate Boundary**	**2.11**	**168**	*e*P	**Pn**	**17 02 01.5**	**-2.6**
LVC	**Limon Verde**	**2.60**	**158**	Pn	**Pn**	**17 02 12.8**	**+2.0**
	comp=E,874nm,0.3s,baz=324,slow=8.9,SNR=3301						
LVC				Sn	**Sn**	**17 02 44.9**	**+3.7**
	comp=E,2μm,0.3s,baz=338,slow=4.7,SNR=5.9						
LVC				LR	LR	17 03 19.1	
	comp=E,407μm,20.8s,baz=343,slow=40						
LVC	**Limon Verde**	**2.60**	**158**	*e*Pn	**Pn**	**17 02 11.9**	**+1.0**
LVC	**Limon Verde**	**2.60**	**158**	*e*P	**Pn**	**17 02 12.1**	**+1.3**
LVC				⇓*e*		17 05 12.8	
MECH	**Mejillones**	**2.94**	**189**	*e*P	**Pn**	**17 02 12.4**	**-3.1**
ARE	**Arequipa**	**3.98**	**338**	⇑*i*P	**Pn**	**17 02 29.0**	**-0.9**
LCO	**Las Campanas**	**8.81**	**184**	*e*Pn	**Pn**	**17 03 30.7**	**-5.4**
	comp=E,456nm,0.8s						
SIV	**San Ignacio**	**9.41**	**65**	Pn	**Pn**	**17 03 47.0**	**+2.6**
	comp=E,76nm,0.3s,baz=259,slow=12,SNR=1264						
SIV				Sn	**Sn**	**17 05 37.7**	**+8.7**
	baz=326,slow=19,SNR=4.0						
NNA	**Nana**	**10.50**	**320**	Pn	**Pn**	**17 03 59.0**	**-0.3**
	comp=E,2μm,1.0s,SNR=6.8						
NNA	**Nana**	**10.50**	**320**	Pn	**Pn**	**17 03 58.5**	**-0.8**
	comp=E,9.5nm,0.3s,baz=165,slow=13,SNR=18						
NNA				Sn	**Sn**	**17 05 46.4**	**-9.2**
	comp=E,33nm,0.3s,baz=231,slow=13,SNR=4.8						
NNA				LR	LR	17 08 49.4	
	comp=E,90μm,18.3s,baz=156,slow=43						
NNA	**Nana**	**10.50**	**320**	*e*Pn	**Pn**	**17 03 56.0**	**-3.3**
	comp=E,616nm,0.8s						
CFAA	**Coronel Fontan**	**11.47**	**173**	Pn	**Pn**	**17 04 07.2**	**-5.4**
	comp=E,0.6nm,0.3s,baz=346,slow=12,SNR=29						
CFAA				Sn	**Sn**	**17 06 30.9**	**+12**
	baz=114,slow=14,SNR=1.9						
CPUP	**Villa Florida**	**13.11**	**120**	P	**Pn**	**17 04 36.5**	**+1.6**
CPUP				pmax	pmax		
	comp=Z,4.0nm,0.3s						
CPUP				MLR	MLR		
	comp=Z,107μm,20.7s						
CPUP	**Villa Florida**	**13.11**	**120**	Pn	**Pn**	**17 04 36.5**	**+1.6**
	comp=Z,3.5nm,0.3s,baz=285,slow=12,SNR=32						
CPUP				LR	LR	17 10 41.3	
	comp=Z,107μm,20.7s,baz=284,slow=42						
CPUP	**Villa Florida**	**13.11**	**120**	*e*Pn	**Pn**	**17 04 34.4**	**-0.5**
	comp=Z,89nm,1.2s						
ATAH	**Atahualpa**	**15.46**	**327**	Pn	**Pn**	**17 05 04.6**	**-1.8**
	comp=Z,0.5nm,0.3s,baz=161,slow=14,SNR=19						
ATAH				Sn	**Sn**	**17 07 59.5**	**+2.8**
	comp=Z,0.9nm,0.3s,baz=54,slow=18,SNR=1.6						
LPA	**La Plata**	**18.10**	**147**	*de*P	**Pn**	**17 05 39.0**	**-0.5**
LPA				*e*sP	sP	17 05 53.0	-2.3
LPA				*e*pP	pP	17 05 55.0	+5.2
LPA				*e*S	**S**	**17 09 02.0**	**-2.7**
LPA							
	comp=Z,87μm,18.0s						
PLCA	**Paso Flores**	**20.49**	**181**	P	**P**	**17 06 04.6**	**-0.9**
PLCA				S	**S**	**17 09 49.8**	**-2.6**
PLCA				pmax	pmax		
	comp=Z,309nm,1.1s						
PLCA				smax			
	comp=N,12nm,0.9s						
PLCA	**Paso Flores**	**20.49**	**181**	P	**P**	**17 06 04.6**	**-0.9**
	comp=N,309nm,1.1s,baz=4.0,slow=13,SNR=54						
PLCA				S	**S**	**17 09 49.8**	**-2.6**
	comp=N,12nm,0.9s,baz=21,slow=16,SNR=1.5						
PLCA	**Paso Flores**	**20.49**	**181**	*e*P	**P**	**17 06 04.0**	**-1.4**
	comp=N,462nm,1.3s						
PLCA				LR	LR		
	comp=Z,38μm,20.0s,MS5.8						
OTAV	**Otavalo**	**21.94**	**337**	*e*P	**P**	**17 06 21.2**	**-0.1**
	comp=Z,1μm,1.2s,mb6.1						
OTAV				LR	LR		
	comp=Z,98μm,21.0s,MS6.2						
ROSC	**El Rosal**	**25.25**	**350**	P	**P**	**17 06 54.2**	**+0.7**
	comp=Z,183nm,0.9s,mb5.6,baz=185,slow=2.3,SNR=66						
ROSC				S	**S**	**17 11 18.8**	**+2.4**
	comp=Z,31nm,1.0s,baz=254,slow=20,SNR=1.9						
ROSC				LR	LR	17 18 49.4	
	comp=Z,15μm,20.6s,MS5.5,baz=189,slow=41						
PAYG	**Puerto Ayora**	**27.78**	**312**	*e*P	**P**	**17 07 12.8**	**-3.6**
	comp=Z,96nm,1.0s,mb5.4						
PAYG				LR	LR		
	comp=Z,21μm,19.0s,MS5.8						
SDV	**Santo Domingo**	**28.90**	**359**	P	**P**	**17 07 25.2**	**-1.1**
	comp=Z,118nm,0.8s,mb5.7,baz=220,slow=6.8,SNR=29						
SDV				LR	LR	17 20 12.6	
	comp=Z,54μm,19.2s,MS6.2,baz=199,slow=39						
SDV	**Santo Domingo**	**28.90**	**359**	*e*P	**P**	**17 07 25.2**	**-1.0**
	comp=Z,215nm,1.0s,mb5.8						
BCIP	**Isla Barro Col**	**30.75**	**341**	*e*P	**P**	**17 07 43.0**	**+0.3**
	comp=Z,1μm,2.0s,mb6.4						
TPP	**Pointe-a-Pierr**	**31.44**	**16**	*e*	**P**	**17 07 50.7**	**+1.9**
ACR	**Cerro Adams**	**31.47**	**334**	*e*P	**P**	**17 07 50.4**	**+1.4**
TBH	**Brigand Hill**	**31.70**	**17**	*e*	**P**	**17 07 52.7**	**+1.7**
TCE	**Chacachacare**	**31.73**	**15**	*e*	**P**	**17 07 51.1**	**-0.2**
TRN	**Trinidad (W)**	**31.77**	**16**	*e*	**P**	**17 07 51.9**	**+0.2**
CNI	**Changuinola**	**31.91**	**336**	*e*P	**P**	**17 07 53.4**	**+0.5**
BAR1		**32.06**	**335**	⇓*e*P	**P**	**17 07 55.1**	**+0.9**
BOT	**Bacolet**	**32.45**	**17**	*e*	**P**	**17 07 58.3**	**+0.7**
TPR	**Prospect**	**32.45**	**17**	*e*	**P**	**17 07 58.4**	**+0.7**
BUS	**Buena Vista**	**32.53**	**334**	⇑*e*P	**P**	**17 07 59.8**	**+1.5**
QCR	**Quepos**	**32.58**	**333**	⇑*e*P	**P**	**17 07 59.7**	**+0.9**
EFI	**East Falkland**	**32.78**	**166**	P		17 08 10.0	+10
EFI				MLR	MLR		
	comp=Z,70μm,19.0s,MS6.4						
EFI	**East Falkland**	**32.78**	**166**	PFAKE		17 08 10.0	+10
EFI				LR	LR		
	comp=Z,70μm,19.0s,MS6.4						
URSC	**Urasca**	**32.79**	**334**	⇑*i*P	**P**	**17 08 01.8**	**+1.2**
LCR2	**La Lucha 2**	**32.80**	**334**	⇑*e*P	**P**	**17 08 02.0**	**+1.3**
LAJ	**Bijagual**	**32.96**	**334**	*e*P	**P**	**17 08 02.6**	**+0.5**
GRGR	**Grenville**	**33.13**	**15**	*e*P	**P**	**17 08 03.2**	**-0.4**
	comp=Z,692nm,1.0s,mb6.5						
GRW	**Mount Saint Ca**	**33.16**	**15**	*e*	**P**	**17 08 04.3**	**+0.5**
GRHS	**Sauteurs**	**33.23**	**15**	*e*	**P**	**17 08 04.9**	**+0.5**
CGA2	**Cerro Gallo 2**	**33.24**	**333**	*e*P	**P**	**17 08 06.3**	**+1.7**
GRIC	**Isle de Caille**	**33.30**	**15**	*e*	**P**	**17 08 05.2**	**+0.1**
GRSS	**Sisters**	**33.30**	**15**	*e*	**P**	**17 08 06.0**	**+1.0**
GRCU	**Cariacou**	**33.51**	**15**	*e*	**P**	**17 08 07.1**	**+0.2**
JTS	**JuntasAbangare**	**33.69**	**333**	P	**P**	**17 08 09.1**	**+0.6**
	comp=Z,454nm,1.0s,mb6.4,SNR=22						
JTS	**JuntasAbangare**	**33.69**	**333**	*e*P	**P**	**17 08 09.4**	**+0.9**
JTS				LR	LR		
	comp=Z,38μm,22.0s,MS6.1						
VCR	**Vista de Mar**	**33.85**	**331**	*e*P	**P**	**17 08 10.6**	**+0.7**
SVV	**Soufriere Volc**	**34.38**	**15**	*e*	**P**	**17 08 15.6**	**+1.1**
BHS	**Barnard House**	**34.38**	**15**	*e*	**P**	**17 08 15.5**	**+1.0**
SSV	**Crater Summit**	**34.40**	**15**	*e*	**P**	**17 08 15.3**	**+0.7**
USHA	**Ushuaia**	**34.61**	**178**	P	**P**	**17 08 15.5**	**-0.5**
	comp=Z,48nm,0.8s,mb5.5,baz=1.9,slow=5.6,SNR=19						
BBGH	**Gun Hill**	**34.66**	**18**	*e*P	**P**	**17 08 18.2**	**+1.4**
	comp=Z,340nm,1.2s,mb6.2						
SLDE	**Delcer**	**34.89**	**15**	*e*	**P**	**17 08 17.8**	**-1.0**
SLB	**Belfond**	**34.92**	**15**	*e*	**P**	**17 08 18.5**	**-0.5**
SSN	**San Juan del S**	**34.99**	**332**	*e*P	**P**	**17 08 19.3**	**-0.4**
SLW	**Petit Monier**	**35.13**	**15**	*e*P	**P**	**17 08 20.0**	**-0.9**
BIM	**Bigot**	**35.57**	**15**	⇑*e*P	**P**	**17 08 22.8**	**-1.9**
MVM	**Montagne Vaucl**	**35.65**	**15**	⇓*e*P	**P**	**17 08 23.9**	**-1.4**
FDF	**Fort de France**	**35.76**	**15**	*e*P	**P**	**17 08 23.2**	**-3.1**
FDF				pmax	pmax		
	comp=Z,280nm,0.6s,mb6.4						
FDF				MLR	MLR		
	comp=Z,50μm,20.0s,MS6.3						
FDF	**Fort de France**	**35.76**	**15**	*e*P	**P**	**17 08 24.2**	**-2.1**
FDF	**Fort de France**	**35.76**	**15**	*e*P	**P**	**17 08 23.2**	**-3.1**
	comp=Z,280nm,0.6s,mb6.4						
FDF				LR	LR		
	comp=Z,50μm,20.0s,MS6.3						
RCBR	**Riachuelo**	**36.01**	**71**	*e*P	**P**	**17 08 29.1**	**+0.5**
	comp=Z,178nm,1.0s,mb6.0						
RCBR				LR	LR		
	comp=Z,74μm,21.0s,MS6.4						
CNGN	**Cerro Negro**	**36.42**	**332**	*e*P	**P**	**17 08 32.4**	**+0.4**
RPN	**Rapa Nui**	**36.62**	**251**	P	**P**	**17 08 32.5**	**-1.2**
RPN				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.3						
RPN				MLR	MLR		
	comp=Z,13μm,21.9s,MS5.7						
RPN	**Rapa Nui**	**36.62**	**251**	P	**P**	**17 08 32.5**	**-1.2**
	comp=Z,49nm,0.9s,mb5.3,baz=66,slow=6.1,SNR=3.0						
RPN				LR	LR	17 17 33.9	
	comp=Z,13μm,21.9s,MS5.7,baz=114,slow=26						
RPN	**Rapa Nui**	**36.62**	**251**	*e*P	**P**	**17 08 31.3**	**-2.4**
	comp=Z,765nm,1.4s,mb6.3						
RPN				LR	LR		
	comp=Z,64μm,21.0s,MS6.4						
CNCH	**Conchagua**	**37.62**	**331**	*e*P	**P**	**17 08 41.8**	**-0.3**
ICM	**Isla Caja Muer**	**37.99**	**5**	*e*P	**P**	**17 08 44.0**	**-1.2**
CDVI	**St. Croix**	**38.04**	**8**	*e*P	**P**	**17 08 44.2**	**-1.5**
TGUH	**Tegucigalpa,Un**	**38.05**	**332**	*e*P	**P**	**17 08 45.9**	**+0.1**
	comp=Z,359nm,1.1s,mb6.0						
TGUH	**Tegucigalpa,Un**	**38.05**	**332**	*e*P	**P**	**17 08 44.9**	**-1.0**
CRPR	**Cabo Rojo, PR**	**38.06**	**4**	*e*P	**P**	**17 08 44.5**	**-1.3**
	comp=Z,778nm,1.5s,mb6.2						
OBIP	**Obispado Ponce**	**38.13**	**5**	*e*P	**P**	**17 08 44.8**	**-1.6**
	comp=Z,704nm,1.0s,mb6.3						
CELP	**Cerrillos**	**38.16**	**5**	*e*P	**P**	**17 08 45.0**	**-1.7**
LSP	**Las Mesas**	**38.23**	**4**	*e*P	**P**	**17 08 45.8**	**-1.4**
CAHU	**Cacacuatique**	**38.23**	**331**	*e*P	**P**	**17 08 46.5**	**-0.8**
SJG	**San Juan**	**38.24**	**6**	*e*P	**P**	**17 08 44.8**	**-2.5**
SJG				pmax	pmax		
	comp=Z,723nm,0.9s						
SJG				MLR	MLR		
	comp=Z,41μm,20.0s						
SJG	**San Juan**	**38.24**	**6**	*e*P	**P**	**17 08 44.8**	**-2.5**
	comp=Z,723nm,0.9s,mb6.4						
SJG				LR	LR		
	comp=Z,41μm,20.0s,MS6.2						
MPR	**Mayaguez**	**38.26**	**4**	*e*P	**P**	**17 08 45.9**	**-1.5**
MTP	**Monte Pirata**	**38.29**	**7**	*e*P	**P**	**17 08 45.6**	**-2.1**
	comp=Z,530nm,1.1s,mb6.2						
HUMP	**Col San Antoni**	**38.30**	**6**	*e*P	**P**	**17 08 45.8**	**-2.0**
	comp=Z,1μm,1.6s,mb6.3						
LRS	**Lares**	**38.36**	**5**	*e*P	**P**	**17 08 48.3**	**0.0**
AOPR	**Arecibo Observ**	**38.42**	**5**	*e*P	**P**	**17 08 47.3**	**-1.6**
	comp=Z,209nm,1.0s,mb5.8						
CBYP	**Canovanas**	**38.43**	**6**	*e*P	**P**	**17 08 47.1**	**-1.8**
	comp=Z,786nm,1.1s,mb6.3						
AGP	**Aguadilla**	**38.45**	**4**	*e*P	**P**	**17 08 50.2**	**+1.1**
ANWB	**Willy Bob**	**38.46**	**13**	*e*P	**P**	**17 08 45.6**	**-3.6**
	comp=Z,538nm,1.1s,mb6.2						
LFRS	**El Faro**	**38.50**	**329**	*e*P	**P**	**17 08 49.6**	**+0.1**
AGPR	**Aguadilla, PR**	**38.51**	**4**	*e*P	**P**	**17 08 46.2**	**-3.5**
	comp=Z,283nm,1.1s,mb5.9						
STVI	**Saint Thomas**	**38.61**	**8**	*e*P	**P**	**17 08 49.1**	**-1.4**
	comp=Z,235nm,1.1s,mb5.8						
MTDJ	**Mount Denham**	**38.89**	**348**	*e*P	**P**	**17 08 52.9**	**+0.1**
MTDJ				LR	LR		
	comp=Z,27μm,20.0s,MS6.1						
SDDR	**Presa de Saban**	**38.95**	**358**	*e*P	**P**	**17 08 51.4**	**-1.9**
	comp=Z,249nm,1.0s,mb5.9						
SDDR				LR	LR		
	comp=Z,48μm,21.0s,MS6.3						
RTR	**El Retiro**	**39.02**	**329**	*e*P	**P**	**17 08 54.0**	**+0.1**
RBDL	**Robledal**	**39.22**	**329**	*e*P	**P**	**17 08 55.0**	**-0.7**
GTBY	**Guantanamo Bay**	**40.18**	**352**	*e*P	**P**	**17 09 02.7**	**-0.9**
	comp=Z,230nm,1.1s,mb5.8						
GTBY				LR	LR		
	comp=Z,15μm,21.0s,MS5.8						
RCC	**Rio Carpintero**	**40.33**	**352**	*e*P	**P**	**17 09 01.9**	**-2.8**
RCC				*e*S	ScP	17 14 47.2	-6.4
	comp=N,74nm,1.9s						
RCC				*e*			
	comp=E,259nm,2.1s						
MASC	**Masc**	**40.33**	**354**	*e*	**P**	**17 09 04.8**	**+0.1**
LMGC	**Las Mercedes**	**40.59**	**350**	*e*	**P**	**17 09 06.3**	**-0.6**
HLGC	**Holguin**	**41.26**	**351**	*e*	**P**	**17 09 11.7**	**-0.7**
GRTK	**Grand Turk**	**41.46**	**358**	*e*P	**P**	**17 09 12.3**	**-1.7**
GRTK				LR	LR		
	comp=Z,49μm,21.0s,MS6.3						
CCCC	**Cccc**	**41.84**	**349**	*e*	**P**	**17 09 13.7**	**-3.4**
CCIG	**Comitan**	**42.29**	**327**	*i* P	**P**	**17 09 20.2**	**-0.7**
MGV	**Manicaragua**	**43.16**	**346**	*e*P	**P**	**17 09 26.1**	**-1.8**
MGV				*e*S	**S**	**17 15 46.7**	**-4.9**
	comp=N,12μm,3.8s						
MGV				*e*			
	comp=E,14μm,5.7s						
TEIG	**Tepich**	**43.99**	**335**	*e*P	**P**	**17 09 33.3**	**-1.3**
TEIG				LR	LR		
	comp=Z,18μm,22.0s,MS6.0						
HUIG	**Huatulco**	**44.02**	**322**	*i* P	**P**	**17 09 34.6**	**-0.3**
CMIG	**Matias Romero**	**44.40**	**325**	*i* P	**P**	**17 09 36.6**	**-1.4**
SOR	**Soroa**	**44.58**	**343**	*e*P	**P**	**17 09 38.2**	**-1.1**
SOR				*e*S	**S**	**17 16 09.9**	**-2.3**
	comp=N,10nm,3.4s						
SOR				*e*			
	comp=E,17nm,9.6s						
PMSA	**Palmer Station**	**44.74**	**176**	P	**P**	**17 09 40.1**	**0.0**
	comp=E,55nm,1.0s,mb5.4,baz=356,slow=10,SNR=7.6						
PMSA	**Palmer Station**	**44.74**	**176**	*e*P	**P**	**17 09 40.3**	**+0.3**
	comp=E,101nm,1.1s,mb5.6						
TUIG	**Tuzandepetl**	**44.94**	**326**	*i* P	**P**	**17 09 41.5**	**-0.7**
VHO	**Vista Hermosa**	**45.41**	**323**	*i* P	**P**	**17 09 45.4**	**-0.6**
PNIG	**Pinotepa**	**45.69**	**321**	*i* P	**P**	**17 09 48.3**	**+0.1**
LVIG	**Laguna Verde**	**47.38**	**325**	*i* P	**P**	**17 10 00.0**	**-1.4**
CAIG	**El Cayaco**	**47.49**	**319**	*i* P	**P**	**17 10 03.0**	**+0.7**
PLIG	**Platanillo**	**48.06**	**321**	*i* P	**P**	**17 10 07.4**	**+0.7**
PPM	**Popocatepetl**	**48.08**	**322**	*i* P	**P**	**17 10 08.5**	**+1.6**
IIO	**Organos**	**48.55**	**323**	*i* P	**P**	**17 10 12.1**	**+1.6**
PBVM	**Pinon**	**48.64**	**322**	*i* P	**P**	**17 10 12.1**	**+0.9**
PTVM	**Pico Tres Padr**	**48.78**	**322**	*i* P	**P**	**17 10 12.6**	**+0.3**
DWPF	**Disney**	**49.28**	**347**	*e*P	**P**	**17 10 15.2**	**-0.7**
	comp=E,117nm,0.6s,mb6.1						
DWPF				LR	LR		
	comp=Z,14μm,21.0s,MS5.9						
MOIG	**Morelia**	**50.06**	**320**	*i* P	**P**	**17 10 22.4**	**+0.4**
CJM	**Chamela**	**52.32**	**317**	*i* P	**P**	**17 10 38.6**	**-0.4**
BBSR	**BB Station**	**52.50**	**6**	*e*P	**P**	**17 10 38.8**	**-1.2**
	comp=Z,350nm,1.4s,mb6.1						
TRIS	**Tristan da Cun**	**52.55**	**122**	*e*P	**P**	**17 10 40.3**	**-0.3**
ZAIG	**Zacatecas**	**53.26**	**322**	*i* P	**P**	**17 10 45.8**	**0.0**
BRAL	**Brewton**	**53.49**	**342**	*e*P	**P**	**17 10 47.8**	**+0.4**
NHSC	**New Hope**	**53.88**	**349**	*e*P	**P**	**17 10 50.1**	**-0.1**
	comp=Z,1μm,1.2s,mb6.7						
NHSC				LR	LR		
	comp=Z,11μm,20.0s,MS5.9						
KVTX	**Kingsville**	**54.62**	**329**	*e*P	**P**	**17 10 55.4**	**-0.3**
KVTX				LR	LR		
	comp=Z,11μm,21.0s,MS5.9						
GOGA	**Godfrey**	**54.84**	**346**	*e*P	**P**	**17 10 55.7**	**-1.4**
GOGA				MLR	MLR		
	comp=Z,12μm,19.0s,MS6.0						
LRAL	**Lakeview Retre**	**55.37**	**343**	*e*P	**P**	**17 10 59.1**	**-1.9**
	comp=Z,51nm,0.8s,mb5.6						
LRAL				LR	LR		
	comp=Z,12μm,19.0s,MS6.0						
CNNC	**Cliffs of the**	**55.63**	**352**	*e*P	**P**	**17 11 02.5**	**-0.4**
	comp=Z,622nm,1.3s,mb6.5						
CNNC				LR	LR		
	comp=Z,16μm,21.0s,MS6.1						
VBMS	**Vicksburg**	**55.70**	**339**	*e*P	**P**	**17 11 01.9**	**-1.6**
VBMS				LR	LR		
	comp=Z,8μm,21.0s,MS5.8						
HKT	**Hockley**	**55.73**	**333**	*e*P	**P**	**17 11 02.9**	**-0.8**
HKT				pmax	pmax		
	comp=Z,465nm,1.6s,mb6.3						
HKT				MLR	MLR		
	comp=Z,8μm,22.0s,MS5.8						
HKT	**Hockley**	**55.73**	**333**	*e*P	**P**	**17 11 02.9**	**-0.8**
	comp=Z,465nm,1.6s,mb6.3						
HKT				LR	LR		
	comp=Z,8μm,22.0s,MS5.8						
NATX	**Nacogdoches**	**56.82**	**335**	PFAKE		17 11 20.0	+8.6
NATX				LR	LR		
	comp=Z,8μm,21.0s,MS5.8						
CPCT	**Cooper Cave**	**57.03**	**346**	*e*P	**P**	**17 11 11.6**	**-1.2**
TKL	**Tuckaleechee C**	**57.06**	**347**	*e*P	**P**	**17 11 11.3**	**-1.7**
TZTN	**Tazewell**	**57.87**	**347**	*e*P	**P**	**17 11 16.8**	**-1.9**
	comp=Z,189nm,1.3s,mb6.0						
VWCC	**Virginia Weste**	**57.90**	**351**	*e*P	**P**	**17 11 18.7**	**-0.2**
BLA	**Blacksburg**	**57.94**	**350**	*e*P	**P**	**17 11 18.9**	**-0.2**
BLA				pmax	pmax		
	comp=Z,507nm,1.4s,mb6.4						
BLA				MLR	MLR		
	comp=Z,22μm,22.0s,MS6.2						
BLA	**Blacksburg**	**57.94**	**350**	*e*P	**P**	**17 11 18.9**	**-0.2**
	comp=Z,508nm,1.4s,mb6.4						
BLA				LR	LR		
	comp=Z,22μm,22.0s,MS6.2						
JCT	**Junction City**	**57.98**	**330**	*e*P	**P**	**17 11 18.1**	**-1.5**
JCT				pmax	pmax		
	comp=Z,206nm,1.3s,mb6.0						
JCT	**Junction City**	**57.98**	**330**	*e*P	**P**	**17 11 18.1**	**-1.5**
	comp=Z,206nm,1.3s,mb6.0						
JSRW	**J. Sargeant Re**	**58.05**	**353**	*e*P	**P**	**17 11 19.6**	**-0.3**

CBN	**Corbin**	58.50	353	*e*P	P	17 11 23.0	0.0
CBN				LR	LR		
	comp=Z,14µm,22.0s,MS6.0						
WVT	**Waverly**	58.51	343	*e*P	P	17 11 20.9	-2.3
WVT				pmax	pmax		
	comp=Z,120nm,0.8s,mb6.0						
WVT	**Waverly**	58.51	343	*e*P	P	17 11 20.9	-2.3
	comp=Z,120nm,0.8s,mb6.0						
MIAR	**Mount Ida**	58.88	337	*e*P	P	17 11 24.5	-1.4
	comp=Z,3µm,1.4s,mb7.1						
MIAR				LR	LR		
	comp=Z,7µm,19.0s,MS5.8						
GNAR	**Gosnell**	58.99	341	*e*P	P	17 11 26.6	+0.1
TXAR	**Lajitas Array**	59.00	326	P	P	17 11 25.6	-1.1
	comp=Z,31nm,1.0s,mb5.3,baz=147,slow=7.5,SNR=83						
TXAR				S	S	17 19 29.3	-1.1
	comp=Z,0.3nm,0.6s,baz=150,slow=4.2,SNR=2.4						
TXAR				LR	LR	17 34 23.3	
	comp=Z,9µm,21.8s,MS5.8,baz=270,slow=34						
TXAR				PKPPKP		17 41 00.8	
	comp=Z,0.6nm,0.9s,baz=262,slow=2.5,SNR=3.4						
RKT	**Rikitea**	60.06	254	*e*S	S	17 19 44.8	+0.3
RKT				*e*LR	LR	17 29 23.2	
	comp=Z,66µm,29.2s,baz=111						
WCI	**Wyandotte Cave**	60.10	345	*e*P	P	17 11 32.2	-1.9
WCI				pmax	pmax		
	comp=Z,180nm,1.1s,mb6.0						
WCI				MLR	MLR		
	comp=Z,9µm,22.0s,MS5.9						
WCI	**Wyandotte Cave**	60.10	345	*e*P	P	17 11 32.2	-1.9
	comp=Z,180nm,1.1s,mb6.0						
WCI				LR	LR		
	comp=Z,9µm,22.0s,MS5.9						
MCWV	**Mont Chateau**	60.24	351	*e*P	P	17 11 34.8	-0.3
	comp=Z,438nm,1.0s,mb6.4						
MCWV				LR	LR		
	comp=Z,18µm,22.0s,MS6.2						
SHEL	**Horse Pasture**	60.86	97	P	P	17 11 42.6	+2.7
	comp=Z,1µm,1.0s,mb7.0,SNR=5.4						
SHEL	**Horse Pasture**	60.86	97	*i* P	P	17 11 43.1	+3.2
SHEL	**Horse Pasture**	60.86	97	*e*P	P	17 11 42.0	+2.2
	comp=Z,377nm,1.1s,mb6.4						
SHEL				LR	LR		
	comp=Z,24µm,19.0s,MS6.4						
SSPA	**Standing Stone**	60.96	353	*e*P	P	17 11 39.2	-0.7
	comp=Z,256nm,1.4s,mb6.2						
WMOK	**Wichita Mounta**	61.11	333	*e*P	P	17 11 39.1	-2.0
WMOK				pmax	pmax		
	comp=Z,165nm,1.4s,mb6.0						
WMOK				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.7						
WMOK	**Wichita Mounta**	61.11	333	*e*P	P	17 11 39.1	-2.0
	comp=Z,165nm,1.4s,mb6.0						
WMOK				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
CCM	**Cathedral Cave**	61.29	341	*e*P	P	17 11 40.4	-1.9
CCM				pmax	pmax		
	comp=Z,136nm,1.0s,mb6.0						
CCM				MLR	MLR		
	comp=Z,8µm,21.0s,MS5.8						
CCM	**Cathedral Cave**	61.29	341	*e*P	P	17 11 40.4	-1.9
	comp=Z,136nm,1.0s,mb6.0						
CCM				LR	LR		
	comp=Z,8µm,21.0s,MS5.8						
ACSO	**Alum Creek Sta**	61.32	349	*e*P	P	17 11 41.0	-1.4
	comp=Z,432nm,1.1s,mb6.5						
ACSO				LR	LR		
	comp=Z,15µm,22.0s,MS6.1						
VNA3	**Neumayer Olymp**	61.63	161	*e*P	P	17 11 43.7	-0.4
VNA3				*e*	pP	17 11 55.2	-1.3
VNA1	**Neumayer--Stat**	61.84	161	*e*P	P	17 11 46.3	+0.7
VNA1				*e*	pP	17 11 56.9	-1.1
VNA2	**Neumayer--Watz**	62.21	161	*e*P	P	17 11 48.2	+0.1
	baz=283,slow=6.6						
BINY	**Binghamton**	62.32	355	*e*P	P	17 11 49.2	+0.2
	comp=Z,677nm,1.2s,mb6.7						
BINY				LR	LR		
	comp=Z,17µm,20.0s,MS6.2						
AMTX	**Amarillo**	62.52	331	*e*P	P	17 11 48.7	-1.8
	comp=Z,135nm,1.2s,mb6.0						
AMTX				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
ERPA	**Erie**	62.68	352	*e*P	P	17 11 50.5	-1.0
	comp=Z,668nm,1.0s,mb6.7						
ERPA				LR	LR		
	comp=Z,28µm,22.0s,MS6.4						
BBTS	**Babate**	62.90	61	P	P	17 11 54.2	+0.7
	comp=Z,56nm,0.8s,mb5.7,baz=150,slow=1.7						
BBTS				LR	LR	17 37 26.2	
	comp=Z,35µm,20.8s,MS6.5,baz=55,slow=34						
AAM	**Ann Arbor**	63.45	349	*e*P	P	17 11 55.2	-1.4
AAM				pmax	pmax		
	comp=Z,144nm,1.0s,mb6.1						
AAM	**Ann Arbor**	63.45	349	*e*P	P	17 11 55.2	-1.4
	comp=Z,144nm,1.0s,mb6.1						
319A	**Douglas**	63.66	323	⇓P	P	17 11 57.9	-0.3
	baz=64,SNR=25						
319A				⇑S	S	17 20 30.6	+1.1
	baz=64						
NCB	**Newcomb**	63.96	357	*e*P	P	17 11 59.7	-0.2
	comp=Z,390nm,1.2s,mb6.3						
NCB				LR	LR		
	comp=Z,18µm,22.0s,MS6.2						
KSU1	**Kansas State U**	64.04	337	*e*P	P	17 11 59.0	-1.6
	comp=Z,176nm,1.0s,mb6.0						
318A	**Bisbee**	64.11	322	⇓P	P	17 12 01.1	-0.1
	baz=64,SNR=56						
318A				⇓S	S	17 20 35.8	+0.7
	baz=64						
LBNH	**Lisbon**	64.13	358	*e*P	P	17 12 01.6	+0.6
LBNH				pmax	pmax		
	comp=Z,822nm,1.4s,mb6.6						
LBNH				MLR	MLR		
	comp=Z,13µm,22.0s,MS6.1						
LBNH	**Lisbon**	64.13	358	*e*P	P	17 12 01.6	+0.5
	comp=Z,822nm,1.4s,mb6.6						
LBNH				LR	LR		
	comp=Z,13µm,22.0s,MS6.1						
Y22D	**IRIS PASSCAL I**	64.43	326	⇑P	P	17 12 03.4	+0.2
	baz=65						
Y22D				⇑S	S	17 20 41.3	+2.4
	baz=65						
218A	**Dragoon**	64.54	323	⇑P	P	17 12 03.9	-0.1
	baz=65,SNR=48						
218A				⇓S	S	17 20 41.8	+1.4
	baz=65						
119A	**Ashpeak Ranch,**	64.71	324	⇑P	P	17 12 05.0	0.0
	baz=65,SNR=11						
119A				⇑S	S	17 20 44.3	+1.8
	baz=65						
X22A	**Bernardo**	64.81	327	⇑P	P	17 12 06.0	+0.3
	baz=65,SNR=36						
X22A				⇓S	S	17 20 45.5	+1.9
	baz=65						
217A	**Green Valley**	64.83	322	⇓P	P	17 12 05.6	-0.3
	baz=65,SNR=30						
217A				⇓S	S	17 20 45.4	+1.4
	baz=65						
ANMO	**Albuquerque**	64.88	327	*e*P	P	17 12 05.5	-0.6
ANMO				pmax	pmax		
	comp=Z,352nm,1.7s						
ANMO				MLR	MLR		
	comp=Z,7µm,22.0s						
ANMO	**Albuquerque**	64.88	327	*e*P	P	17 12 05.5	-0.6
	comp=Z,88nm,1.7s,mb5.5						
ANMO				LR	LR		
	comp=Z,7µm,22.0s,MS5.8						
118A	**Homack Ranch,**	64.99	323	⇑P	P	17 12 06.7	-0.2
	baz=65,SNR=38						
118A				⇑S	S	17 20 47.0	+1.1
	baz=65						
CBKS	**Cedar Bluff**	64.99	335	*e*P	P	17 12 05.5	-1.3
CBKS				pmax	pmax		
	comp=Z,552nm,1.4s,mb6.4						
CBKS				MLR	MLR		
	comp=Z,9µm,22.0s,MS5.9						
CBKS	**Cedar Bluff**	64.99	335	*e*P	P	17 12 05.5	-1.3
	comp=Z,552nm,1.4s,mb6.4						
CBKS				LR	LR		
	comp=Z,9µm,22.0s,MS5.9						
Z19A	**T-Link Ranch,**	65.08	324	⇓P	P	17 12 07.6	+0.1
	baz=65,SNR=20						
Z19A				⇓S	S	17 20 48.7	+1.6
	baz=65						
W22A	**Albuquerque**	65.18	327	⇓P	P	17 12 08.4	+0.3
	baz=65,SNR=20						
W22A				⇑S	S	17 20 48.4	+0.3
	baz=65						
TUC	**Tucson**	65.21	322	*e*P	P	17 12 07.7	-0.6
TUC				pmax	pmax		
	comp=Z,180nm,1.5s,mb5.9						
TUC				MLR	MLR		
	comp=Z,7µm,19.0s,MS5.9						
TUC	**Tucson**	65.21	322	*e*P	P	17 12 07.7	-0.7
	comp=Z,206nm,1.5s,mb5.9						
TUC				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
Z18A	**Geronimo**	65.36	324	⇑P	P	17 12 09.2	0.0
	baz=66						
Z18A				⇓S	S	17 20 51.5	+1.1
	baz=66						
216A	**Three Points,**	65.37	322	⇓P	P	17 12 09.3	-0.1
	baz=66,SNR=18						
216A				⇑S	S	17 20 51.9	+1.3
	baz=66						
117A	**Oracle**	65.37	323	⇑P	P	17 12 09.4	-0.1
	baz=66,SNR=65						
117A				⇑S	S	17 20 51.2	+0.6
	baz=66						
SCIA	**State Center**	65.42	341	*e*P	P	17 12 08.0	-1.5
	comp=Z,320nm,1.0s,mb6.3						
JFWS	**Jewell Farm**	65.51	344	*e*P	P	17 12 08.5	-1.6
JFWS				pmax	pmax		
	comp=Z,230nm,1.0s,mb6.2						
JFWS	**Jewell Farm**	65.51	344	*e*P	P	17 12 08.5	-1.6
	comp=Z,230nm,1.0s,mb6.2						
Y19A	**Nutrioso**	65.58	325	⇑P	P	17 12 11.4	+0.7
	baz=66,SNR=151						
Y19A				⇑S	S	17 20 55.4	+2.3
	baz=66						
W21A	**San Fidel**	65.61	327	⇑P	P	17 12 11.1	+0.1
	baz=66,SNR=34						
W21A				⇑S	S	17 20 54.6	+1.1
	baz=66						
Z17A	**San Carlos Hig**	65.76	323	⇓P	P	17 12 11.6	-0.3
	baz=66,SNR=17						
Z17A				⇓S	S	17 20 56.2	+0.9
	baz=66						
116A	**Eloy**	65.92	322	⇓P	P	17 12 12.9	-0.1
	baz=66,SNR=36						
116A				⇓S	S	17 20 58.2	+1.0
	baz=66						
GLMI	**Grayling**	66.06	349	*e*P	P	17 12 12.0	-1.6
	comp=Z,345nm,1.0s,mb6.3						
GLMI				LR	LR		
	comp=Z,20µm,22.0s,MS6.3						
W20A	**Ramah**	66.07	326	⇓P	P	17 12 14.0	+0.1
	baz=66,SNR=51						
W20A				⇑S	S	17 21 00.1	+1.1
	baz=66						
214A	**Organ Pipe Nat**	66.13	321	⇑P	P	17 12 14.2	-0.1
	baz=66,SNR=20						
214A				⇑S	S	17 21 01.5	+1.6
	baz=66						
Y17A	**Roosevelt**	66.26	323	⇓P	P	17 12 15.3	+0.2
	baz=66,SNR=79						
Y17A				⇑S	S	17 21 03.4	+2.0
	baz=66						
Z16A	**Peralta Trail,**	66.33	323	⇓P	P	17 12 15.5	0.0
	baz=66,SNR=28						
Z16A				⇑S	S	17 21 04.0	+1.8
	baz=66						
X18A	**Snowflake**	66.39	325	⇓P	P	17 12 16.3	+0.4
	baz=66,SNR=51						
X18A				⇓S	S	17 21 05.6	+2.7
	baz=66						
W19A	**Sanders**	66.53	325	⇓P	P	17 12 16.8	0.0
	baz=67,SNR=17						
W19A				⇑S	S	17 21 06.9	+2.3
	baz=67						
SDCO	**Great Sand Dun**	66.63	330	*e*P	P	17 12 17.1	-0.2
	comp=Z,418nm,1.5s,mb6.2						
SDCO				LR	LR		
	comp=Z,8µm,21.0s,MS5.9						
Z15A	**Gila River Ind**	66.71	322	⇓P	P	17 12 17.8	-0.2
	baz=67,SNR=14						
Z15A				⇓S	S	17 21 08.9	+2.1
	baz=67						
X17A	**Forest Lakes**	66.72	324	⇓P	P	17 12 18.6	+0.6
	baz=67,SNR=36						
X17A				⇓S	S	17 21 09.1	+2.3
	baz=67						
W18A	**Petrified Fore**	66.72	325	⇓P	P	17 12 18.1	+0.1
	baz=67,SNR=12						
W18A				⇑S	S	17 21 08.4	+1.6
	baz=67						
Y16A	**Circle Bar Ran**	66.75	323	⇑P	P	17 12 18.8	+0.6
	baz=67,SNR=63						
Y16A				⇓S	S	17 21 09.4	+2.0
	baz=67						
V19A	**Window Rock**	66.80	326	⇑P	P	17 12 18.5	0.0
	baz=67,SNR=57						
V19A				⇑S	S	17 21 08.5	+0.6
	baz=67						
X16A	**Lo Mia Camp, P**	67.13	324	⇓P	P	17 12 21.0	+0.3
	baz=67,SNR=85						
X16A				⇓S	S	17 21 14.0	+2.2
	baz=67						
W17A	**Winslow**	67.22	324	⇓P	P	17 12 21.4	+0.2
	baz=67,SNR=11						
W17A				⇓S	S	17 21 15.1	+2.2
	baz=67						
Z14A	**Wintersburg**	67.22	322	⇑P	P	17 12 21.2	-0.1
	baz=67,SNR=16						
Z14A				⇓S	S	17 21 15.1	+2.1
	baz=67						
V18A	**Ganado**	67.27	325	⇑P	P	17 12 21.1	-0.4
	baz=67,SNR=13						
113A	**Mohawk Valley,**	67.28	321	⇑P	P	17 12 21.5	-0.1
	baz=67,SNR=17						
Y15A	**Casa Rosa Ranc**	67.29	323	⇓P	P	17 12 21.9	+0.2
	baz=67						
112A	**Yuma**	67.60	320	⇓P	P	17 12 23.3	-0.3
	baz=68						
X15A	**Humboldt**	67.62	323	⇓P	P	17 12 24.1	+0.3
	baz=68,SNR=45						
T19A	**Beclabito**	67.64	327	⇓P	P	17 12 23.4	-0.4
	baz=68,SNR=120						
S21A	**Coal Bank Pass**	67.67	328	⇑P	P	17 12 24.2	+0.2
	baz=68,SNR=91						
Y14A	**Wickenburg**	67.67	322	⇑P	P	17 12 23.7	-0.3
	baz=68,SNR=17						
MVCO	**Mesa Verde**	67.67	327	PFAKE		17 12 30.0	+6.0
MVCO				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
W16A	**Flagstaff**	67.68	324	⇑P	P	17 12 24.9	+0.9
	baz=68,SNR=45						
OGNE	**Ogallala**	67.73	334	*e*P	P	17 12 23.6	-0.7
	comp=Z,558nm,1.5s,mb6.4						
U18A	**Rough Rock, Ch**	67.77	326	⇑P	P	17 12 24.8	+0.2
	baz=68,SNR=101						
WUAZ	**Wupatki**	67.90	324	⇑P	P	17 12 26.0	+0.5
	baz=68,SNR=112						
WUAZ	**Wupatki**	67.90	324	*e*P	P	17 12 25.6	+0.1
	comp=Z,279nm,1.2s,mb6.2						
WUAZ				LR	LR		
	comp=Z,11µm,22.0s,MS6.0						
X14A	**Yava**	67.98	323	⇓P	P	17 12 26.5	+0.5
	baz=68,SNR=45						
Y13A	**Salome**	68.06	322	⇑P	P	17 12 26.7	+0.2
	baz=68,SNR=15						
GLA	**Glamis**	68.11	320	*e*P	P	17 12 27.0	+0.1
GLA				pmax	pmax		
	comp=Z,374nm,1.6s,mb6.2						
GLA	**Glamis**	68.11	320	⇓P	P	17 12 26.9	0.0
	baz=68,SNR=19						
GLA	**Glamis**	68.11	320	*e*P	P	17 12 27.0	+0.2
	comp=Z,374nm,1.6s,mb6.2						
W15A	**Williams**	68.15	324	⇑P	P	17 12 27.9	+0.9
	baz=68,SNR=43						
Q22A	**Crested Butte,**	68.18	330	⇑P	P	17 12 27.3	+0.1
	baz=68,SNR=40						
COWI	**Conover**	68.23	346	*e*P	P	17 12 25.8	-1.5
	comp=Z,116nm,1.0s,mb5.9						
COWI				LR	LR		
	comp=Z,13µm,22.0s,MS6.1						
U16A	**Tuba City**	68.23	325	⇓P	P	17 12 27.8	+0.3
	baz=68,SNR=101						
T18A	**Mexican Hat**	68.32	326	⇓P	P	17 12 27.6	-0.4
	baz=68,SNR=274						
U17A	**Shonto**	68.33	326	⇑P	P	17 12 28.5	+0.4
	baz=68,SNR=74						
ISCO	**Idaho Springs**	68.33	331	*e*P	P	17 12 28.0	-0.1
ISCO				pmax	pmax		
	comp=Z,267nm,1.5s,mb6.0						
ISCO				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.8						
ISCO	**Idaho Springs**	68.33	331	*e*P	P	17 12 28.0	-0.1
	comp=Z,267nm,1.5s,mb6.0						
ISCO				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
MAIT	**Maitri**	68.37	159	*e*P	P	17 12 27.5	-0.4
MAIT				*e*E	pP	17 12 39.2	-1.3
MAIT				*e*S	S	17 21 23.8	-2.0
R20A	**Redvale**	68.37	328	⇓P	P	17 12 28.8	+0.5
	baz=68,SNR=68						
NVL	**N'lazarevskaya**	68.40	159*c*	*i*P	P	17 12 28.0	-0.1
NVL				*e**PP	pP	17 12 38.3	-2.4
NVL				*i* S	S	17 21 27.9	+1.7
NVL				SS	SS	17 25 55.8	+6.1
NVL				pmax	pmax		
	comp=Z,161nm,1.4s,mb5.9						
S19A	**Harvey Farm, M**	68.41	327	⇓P	P	17 12 28.7	+0.1
	baz=69,SNR=133						
Y12C	**Blythe**	68.42	321	⇑P	P	17 12 29.0	+0.2
	baz=69,SNR=27						
TAOE	**Nuku Hiva Isla**	68.48	268	*e*S	S	17 21 29.7	+0.8
	comp=Z,25µm,26.2s						
TAOE				*e*LQ		17 30 25.5	
	comp=Z,21µm,34.0s						
TAOE				*e*LR	LR	17 32 58.0	
	comp=Z,60µm,26.6s,baz=113						
Q21A	**Lamborn Mesa,**	68.48	329	⇓P	P	17 12 29.1	+0.1
	baz=69,SNR=18						
V15A	**Kaibab Nationa**	68.56	324	⇑P	P	17 12 30.2	+0.6
	baz=69,SNR=118						
PDMCI	**Parker Dam,Lak**	68.58	322	⇓P	P	17 12 29.6	-0.2
	baz=69,SNR=11						
DVTC	**Desert V Tower**	68.61	319	⇑P	P	17 12 30.1	+0.1
	baz=69,SNR=19						
X13A	**Yucca**	68.61	322	⇓P	P	17 12 29.9	0.0
	baz=69,SNR=43						
SWSC	**Sam W. Stewart**	68.62	320	⇑P	P	17 12 30.2	+0.2
	baz=69,SNR=15						
W14A	**Seligman**	68.63	323	⇑P	P	17 12 30.5	+0.5
	baz=69,SNR=58						
T17A	**Navajo Res., N**	68.70	326	⇓P	P	17 12 31.2	+0.8
	baz=69,SNR=250						
S18A	**Hurst Farm, Bl**	68.80	327	⇓P	P	17 12 31.5	+0.4
	baz=69,SNR=313						
R19A	**Curley Farm, L**	68.89	328	⇑P	P	17 12 31.2	-0.4
	baz=69,SNR=41						
Q20A	**Ridgley Place,**	68.92	329	⇑P	P	17 12 31.4	-0.4
	baz=69,SNR=14						
V14A	**Boquillas Ranc**	68.95	323	⇓P	P	17 12 33.0	+1.0
	baz=69,SNR=116						
P21A	**Newcastle**	68.96	330	⇑P	P	17 12 32.4	+0.4
	baz=69,SNR=94						
MONP	**Monument Peak**	68.97	319	⇑P	P	17 12 32.5	+0.3
	baz=69,SNR=15						
LIC	**Lamto**	68.97	75	⇑*i*P	P	17 12 32.2	-0.4
	comp=Z,254nm,1.4s,mb5.7						
LIC				*e*MLR	MLR		
	comp=Z,42µm,22.8s,MS6.3						
LIC	**Lamto**	68.97	75	*e*P	P	17 12 31.0	-1.6
	comp=Z,339nm,1.4s,mb6.1						
LIC	**Lamto**	68.97	75	⇑*i*P	P	17 12 32.2	-0.4
	comp=Z,127nm,1.4s,mb5.7						
LIC				LR	LR		
	comp=Z,21µm,22.8s,MS6.3						
BAR	**Barrett**	68.98	319	*e*P	P	17 12 32.4	+0.1
	comp=Z,105nm,1.0s,mb5.7						
W13A	**Hualapai Mount**	69.00	322	⇓P	P	17 12 33.0	+0.6
	baz=69,SNR=64						
T16A	**Glen Canyon Da**	69.06	325	⇑P	P	17 12 33.1	+0.4
	baz=69,SNR=28						
IRM	**Iron Mountain**	69.08	321	⇑P	P	17 12 32.9	0.0
	baz=69,SNR=38						
TIC	**Toumodi**	69.15	74	*e*P	P	17 12 32.1	-1.6
	comp=Z,3µm,2.1s,mb6.8						
S17A	**Black Ridge (B**	69.18	326	⇓P	P	17 12 33.7	+0.3
	baz=69,SNR=138						
NEE2	**Needles Airpor**	69.19	322	⇓P	P	17 12 33.5	0.0
	baz=69,SNR=5.8						
CHIE	**El Hierro**	69.27	48	⇑P	P	17 12 34.8	+0.6
	comp=Z,136nm,1.2s,mb5.8						
R18A	**Canyonlands Na**	69.28	327	⇑P	P	17 12 33.8	-0.2
	baz=69,SNR=80						
KIC	**Kosan Boka**	69.28	75	*e*P	P	17 12 32.8	-1.8
	comp=Z,628nm,0.9s,mb6.5						
DBIC	**Dimbokro**	69.31	74	P	P	17 12 34.3	-0.4
DBIC				S	S	17 21 46.0	+7.4
DBIC				pmax	pmax		
	comp=Z,94nm,1.0s						
DBIC				smax			
	comp=N,11nm,1.1s						
DBIC				MLR	MLR		
	comp=Z,29µm,18.0s						
DBIC	**Dimbokro**	69.31	74	P	P	17 12 34.3	-0.4
	comp=Z,94nm,1.0s,mb5.7,baz=221,slow=6.3,SNR=61						
DBIC				S	S	17 21 46.0	+7.4
	comp=Z,11nm,1.1s,baz=143,slow=23,SNR=9.4						
DBIC				LR	LR	17 43 14.0	
	comp=Z,29µm,18.0s,MS6.6,baz=202,slow=36						
DBIC	**Dimbokro**	69.31	74	*e*P	P	17 12 34.5	-0.2
	comp=Z,175nm,0.9s,mb6.0						
DBIC				LR	LR		
	comp=Z,31µm,20.0s,MS6.5						
109C	**Camp Elliot, M**	69.39	319	⇑P	P	17 12 34.7	-0.1
	baz=70						
PFO	**Pinyon Flat Ob**	69.48	320	P	P	17 12 36.5	+1.1
	comp=Z,555nm,0.9s,mb6.5,SNR=17						
PFO	**Pinyon Flat Ob**	69.48	320	⇓P	P	17 12 35.8	+0.4
	baz=70,SNR=22						
PFO	**Pinyon Flat Ob**	69.48	320	PFAKE		17 12 40.0	+4.6
PFO				LR	LR		
	comp=Z,21µm,22.0s,MS6.3						
PHWY	**Pilot Hill**	69.48	332	*e*P	P	17 12 34.9	-0.2
	comp=Z,307nm,1.4s,mb6.0						
N22A	**Wattenberg Ran**	69.52	331	⇓P	P	17 12 35.6	+0.1
	baz=70,SNR=66						
O21A	**Pagoda**	69.52	330	⇓P	P	17 12 35.6	+0.1
	baz=70,SNR=17						
U14A	**Mt Trumbull**	69.56	324	⇑P	P	17 12 36.7	+0.9
	baz=70,SNR=202						
T15A	**Red Dirt Ranch**	69.56	325	⇓P	P	17 12 36.7	+0.9
	baz=70,SNR=108						
V13A	**Grand Canyon W**	69.60	323	⇑P	P	17 12 36.7	+0.6
	baz=70,SNR=97						
S16A	**Weppner Ranch,**	69.66	326	⇑P	P	17 12 36.7	+0.3
	baz=70,SNR=87						
LDFC	**Landfair**	69.70	322	*e*P	P	17 12 37.6	+1.0
	comp=Z,336nm,1.3s,mb6.1						
W12A	**Cal Nev Ari**	69.71	322	⇓P	P	17 12 37.0	+0.2
	baz=70,SNR=13						
R17A	**Hanksville Air**	69.72	327	⇑P	P	17 12 36.9	+0.2
	baz=70,SNR=122						
P19A	**Cripple Cowboy**	69.78	329	⇑P	P	17 12 37.2	+0.1
	baz=70,SNR=168						
GMRC	**Granite Mounta**	69.81	321	⇑P	P	17 12 37.8	+0.5
	baz=70,SNR=76						
O20A	**White River Ci**	69.82	330	⇓P	P	17 12 37.4	+0.1
	baz=70,SNR=54						
EHIG	**Higuera**	69.88	48	⇑P	P	17 12 38.7	+0.8
	comp=Z,6µm,3.5s						
MURC	**Murrieta**	69.93	319	⇓P	P	17 12 38.5	+0.4
	baz=70,SNR=13						
Q18A	**Rafter H Ranch**	69.95	328	⇑P	P	17 12 38.3	+0.2
	baz=70,SNR=88						
T14A	**Hurricane**	69.97	324	⇑P	P	17 12 39.2	+0.9
	baz=70,SNR=39						
N21A	**Black Mountain**	69.97	330	⇑P	P	17 12 38.7	+0.5
	baz=70,SNR=45						
U13A	**Pakoon Wash**	69.99	323	⇑P	P	17 12 38.9	+0.5
	baz=70,SNR=60						
QSPA	**South Pole Qui**	70.00	180	*e*P	P	17 12 37.9	0.0
	comp=Z,116nm,1.1s,mb5.7						
QSPA				LR	LR		
	comp=Z,9µm,20.0s,MS6.0						
V12A	**Nelson**	70.00	322	⇓P	P	17 12 38.8	+0.2
	baz=70,SNR=46						
R16A	**Teasdale**	70.02	326	⇓P	P	17 12 38.9	+0.3
	baz=70,SNR=34						
S15A	**Panguitch**	70.03	325	⇓P	P	17 12 39.1	+0.4
	baz=70,SNR=7.3						
EGOM	**La Gomera**	70.05	48	⇑P	P	17 12 39.3	+0.3
	comp=Z,4µm,4.4s						
M22A	**Cedar Creek Ra**	70.06	331	⇑P	P	17 12 38.6	-0.2
	baz=70,SNR=30						
SRU	**San Rafael**	70.15	327	⇑P	P	17 12 39.2	-0.2
	baz=70,SNR=116						
BBRC	**Big Bear Sol-O**	70.21	320	⇓P	P	17 12 40.6	+0.8
	baz=70						
HEC	**Hector,Ludlow**	70.24	321	⇑P	P	17 12 40.6	+0.6

	baz=70,SNR=28						
U12A	Valley of Fire	70.33	323	⇓P	P	17 12 41.1	+0.6
	baz=70,SNR=68						
Q16A	Castle Valley	70.33	327	⇓P	P	17 12 40.8	+0.3
	baz=70,SNR=47						
SCI	San Clemente I	70.35	318	⇑P	P	17 12 41.0	+0.3
	baz=70						
O19A	Miners Draw (B	70.37	329	⇑P	P	17 12 40.5	-0.1
	baz=70,SNR=112						
N20A	Spence Gulch,	70.38	330	⇓P	P	17 12 41.0	+0.3
	baz=71,SNR=82						
T13A	Saint George	70.39	324	⇑P	P	17 12 41.5	+0.6
	baz=70,SNR=48						
P18A	Preston Nutter	70.40	328	⇑P	P	17 12 41.2	+0.3
	baz=71,SNR=174						
V11A	Goodsprings	70.42	322	⇓P	P	17 12 41.4	+0.3
	baz=71,SNR=18						
TUQ	Turquoise Moun	70.42	321	⇓P	P	17 12 41.4	+0.3
	baz=71						
CCAN	Las Canadas	70.52	49	P	P	17 12 42.5	+0.6
	comp=Z,48nm,1.1s,mb5.3						
EYMN	Ely	70.52	345	*e*P	P	17 12 38.6	-2.8
	comp=Z,74nm,0.9s,mb5.6						
S14A	Cedar City	70.53	325	⇓P	P	17 12 42.6	+0.9
	baz=71,SNR=33						
P17A	Butcher Ranch,	70.53	328	⇑P	P	17 12 41.9	+0.2
	baz=71,SNR=90						
CIS	Catalina Islan	70.54	318	⇑P	P	17 12 41.7	-0.2
	baz=71						
MVU	Marysvale	70.56	326	PFAKE		17 12 50.0	+8.1
MVU				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
RWWY	Rawlins	70.57	331	*e*P	P	17 12 41.7	-0.1
	comp=Z,375nm,1.5s,mb6.1						
T12A	Moapa	70.64	323	⇓P	P	17 12 42.5	+0.1
	baz=71						
BFSC	Mount Baldy St	70.64	319	⇑P	P	17 12 42.5	0.0
	baz=71,SNR=23						
RRX	Edison Barstow	70.68	320	⇑P	P	17 12 43.1	+0.4
	baz=71,SNR=6.8						
FMP	Fort Macarthur	70.68	319	⇑P	P	17 12 42.7	0.0
	baz=71						
S13A	Holt Ranch, En	70.77	324	⇓P	P	17 12 44.1	+0.9
	baz=71,SNR=153						
U11A	Corn Creek	70.80	323	⇑P	P	17 12 44.1	+0.7
	baz=71,SNR=8.7						
R14A	James Farms, M	70.84	325	⇑P	P	17 12 44.5	+0.9
	baz=71,SNR=10.0						
GSC	Goldstone	70.85	321	*e*P	P	17 12 44.2	+0.5
GSC				pmax	pmax		
	comp=Z,313nm,1.5s,mb6.0						
GSC	Goldstone	70.85	321	⇑P	P	17 12 44.3	+0.6
	baz=71,SNR=35						
GSC	Goldstone	70.85	321	*e*P	P	17 12 44.2	+0.5
	comp=Z,313nm,1.5s,mb6.0						
N19A	John Jarvie Ra	70.86	330	⇓P	P	17 12 43.3	-0.4
	baz=71,SNR=88						
M20A	Sweetwater, Wa	70.86	331	⇑P	P	17 12 43.5	-0.1
	baz=71,SNR=34						
L21A	Rawlins	70.86	331	⇓P	P	17 12 43.2	-0.5
	baz=71,SNR=93						
MWC	Mount Wilson	70.87	319	*e*P	P	17 12 44.3	+0.4
MWC				pmax	pmax		
	comp=Z,405nm,1.4s,mb6.2						
MWC	Mount Wilson	70.87	319	*e*P	P	17 12 44.3	+0.4
	comp=Z,405nm,1.4s,mb6.2						
EBAJ	Bajamar	70.89	49	⇑P	P	17 12 44.7	+0.6
	comp=Z,4µm,3.6s						
PASC	Pasadena Art C	70.92	319	*e*P	P	17 12 44.1	0.0
	comp=Z,919nm,1.3s,mb6.5						
SHOC	Shoshone	70.95	322	⇓P	P	17 12 44.3	-0.1
	baz=71						
Q15A	Fillmore	71.02	326	⇑P	P	17 12 45.2	+0.6
	baz=71,SNR=62						
DECC	Green Verdugo	71.06	319	⇑P	P	17 12 45.4	+0.4
	baz=71						
O17A	Robinson Place	71.08	328	⇑P	P	17 12 45.6	+0.6
	baz=71,SNR=156						
P16A	Fountain Green	71.10	327	⇑P	P	17 12 45.7	+0.6
	baz=71,SNR=12						
SNCC	San Nicolas Is	71.14	318	⇓P	P	17 12 45.5	0.0
	baz=71						
EOSO	Osorio	71.17	49	⇑P	P	17 12 46.9	+1.0
	comp=Z,4µm,3.6s						
CMLA	Cha da Macela	71.19	36	*i* P	P	17 12 47.4	+1.7
CMLA	Cha da Macela	71.19	36	PFAKE		17 13 00.0	+14
CMLA				LR	LR		
	comp=Z,19µm,21.0s,MS6.3						
RSSD	Black Hills	71.20	335	*e*P	P	17 12 45.4	-0.2
RSSD				pmax	pmax		
	comp=Z,213nm,1.5s,mb5.8						
RSSD				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.8						
RSSD	Black Hills	71.20	335	*e*P	P	17 12 45.4	-0.3
	comp=Z,213nm,1.5s,mb5.8						
RSSD				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
R13A	O'Grain Ranch,	71.27	325	⇓P	P	17 12 47.3	+1.2
	baz=71,SNR=97						
EDW2	Edwards Air Fo	71.27	320	⇓P	P	17 12 46.2	-0.1
	baz=71,SNR=27						
T11A	Corn Creek, Al	71.28	323	⇑P	P	17 12 47.2	+0.9
	baz=71,SNR=98						
M19A	Rock Springs	71.32	330	⇓P	P	17 12 46.0	-0.5
	baz=72,SNR=22						
L20A	Wamsutter	71.34	331	⇑P	P	17 12 46.3	-0.2
	baz=72,SNR=50						
S12A	Delamar Landin	71.34	324	⇑P	P	17 12 47.5	+0.9
	baz=72,SNR=19						
U10A	Ash Meadows, A	71.34	322	⇑P	P	17 12 47.4	+0.7
	baz=72,SNR=19						
P15A	Leamington	71.39	327	⇑P	P	17 12 47.0	+0.1
	baz=72,SNR=22						
BLG	Laguna Peak	71.42	319	⇑P	P	17 12 47.3	+0.2
	baz=72						
Q14A	Sevier Lake (B	71.48	326	⇑P	P	17 12 48.3	+0.8
	baz=72,SNR=198						
LRMC	Laurel Mountai	71.50	320	⇓P	P	17 12 47.8	+0.2
	baz=72,SNR=8.5						
OSI	Osito Adit	71.54	319	⇑P	P	17 12 47.8	-0.1
	baz=72,SNR=12						
OSI	Osito Adit	71.54	319	*e*P	P	17 12 47.9	-0.1
	comp=Z,163nm,1.2s,mb5.8						
FURC	Furnace Creek,	71.69	322	⇓P	P	17 12 49.2	+0.5
	baz=72,SNR=27						
M18A	Lyman	71.69	329	⇑P	P	17 12 48.3	-0.4
	baz=72,SNR=45						
N17A	Moffit Pass	71.70	329	⇓P	P	17 12 49.2	+0.5
	baz=72,SNR=210						
BSC	Santa Cruz Isl	71.70	318	⇓P	P	17 12 48.8	-0.1
	baz=72						
R12A	Pony Springs,	71.72	324	⇓P	P	17 12 49.9	+1.0
	baz=72,SNR=155						
MPMC	Manual Prospec	71.77	321	⇓P	P	17 12 49.4	+0.1
	baz=72,SNR=38						
P14A	Drum Mountains	71.82	326	⇓P	P	17 12 50.4	+0.9
	baz=72,SNR=237						
K20A	Yellowstone Ra	71.85	331	⇑P	P	17 12 49.0	-0.6
	baz=72,SNR=59						
Q13A	Wheeler Ranch,	71.86	325	⇑P	P	17 12 50.4	+0.7
	baz=72,SNR=36						
L19A	Farson	71.88	330	⇑P	P	17 12 49.9	+0.1
	baz=72						
ARVC	Arvin	71.95	319	⇑P	P	17 12 50.4	+0.1
	baz=72,SNR=8.5						
N16A	Rees Ranch, Co	71.95	328	⇓P	P	17 12 50.6	+0.4
	baz=72,SNR=56						
DAC	Darwin (Calif)	71.98	321	PFAKE		17 13 00.0	+9.5
DAC				LR	LR		
	comp=Z,9µm,20.0s,MS6.0						
AGMN	Agassiz Refuge	72.01	342	*e*P	P	17 12 48.8	-1.6
	comp=Z,122nm,1.0s,mb5.8						
AGMN				LR	LR		
	comp=Z,9µm,21.0s,MS6.0						
O15A	The Old Anders	72.02	327	⇑P	P	17 12 51.2	+0.6
	baz=72,SNR=52						
M17A	Scullys Gap (B	72.02	329	⇓P	P	17 12 50.3	-0.4
	baz=72,SNR=36						
SBC	Santa Barbara	72.04	318	⇑P	P	17 12 51.0	0.0
	baz=72						
L18A	Fontenelle, Gr	72.06	330	⇑P	P	17 12 50.9	0.0
	baz=72,SNR=107						
ISA	Isabella	72.09	320	*e*P	P	17 12 51.6	+0.4
ISA				pmax	pmax		
	comp=Z,132nm,0.9s,mb5.9						
ISA	Isabella	72.09	320	⇑P	P	17 12 51.9	+0.7
	baz=72,SNR=61						
ISA	Isabella	72.09	320	*e*P	P	17 12 51.6	+0.4
	comp=Z,132nm,0.9s,mb5.9						
K19A	Absolon Red Bu	72.21	331	⇑P	P	17 12 51.3	-0.5
	baz=72						
P13A	Bates Ranch, G	72.22	326	⇓P	P	17 12 52.5	+0.7
	baz=72,SNR=112						
R11A	Troy Canyon, C	72.27	324	⇑P	P	17 12 53.1	+0.9
	baz=72,SNR=149						
GRAC	Grapevine Rang	72.35	322	⇓P	P	17 12 53.1	+0.4
	baz=72						
Q12A	Willow Creek R	72.35	325	⇑P	P	17 12 53.1	+0.4
	baz=72						
CWC	Cottonwood Cre	72.38	321	⇓P	P	17 12 53.6	+0.7
	baz=72,SNR=7.5						
CFTV	Fuerteventura	72.42	50	⇑P	P	17 12 53.8	+0.4
	comp=Z,103nm,1.2s,mb5.6						
BW06	Boulder Array	72.49	331	⇑P	P	17 12 53.0	-0.5
	baz=73,SNR=77						
BW06	Boulder Array	72.49	331	*e*P	P	17 12 52.6	-0.8
	comp=Z,13nm,0.9s,mb4.9						
BW06				LR	LR		
	comp=Z,7µm,22.0s,MS5.9						
PDAR	Pinedale Array	72.49	331	P	P	17 12 52.7	-0.7
	comp=Z,21nm,0.7s,mb5.2,baz=149,slow=6.9,SNR=97						
PDAR				LR	LR	17 47 17.9	
	comp=Z,7µm,22.0s,MS5.9,baz=139,slow=38						
N15A	Stansbury Isla	72.50	327	⇑P	P	17 12 53.3	-0.1
	baz=73,SNR=13						
S10A	Tonopah Range,	72.54	323	⇓P	P	17 12 54.5	+0.6
	baz=73,SNR=108						
VES	Vestal, Richgr	72.58	320	⇓P	P	17 12 54.4	+0.3
	baz=73,SNR=60						
L17A	Cokeville	72.60	329	⇑P	P	17 12 53.7	-0.4
	baz=73,SNR=22						
K18A	Toltan Ranch,	72.62	330	⇓P	P	17 12 54.4	+0.3
	baz=73,SNR=80						
R10A	Warm Springs	72.63	323	⇑P	P	17 12 55.5	+1.1
	baz=73,SNR=85						
Q11A	Duckwater	72.66	324	⇓P	P	17 12 55.2	+0.7
	baz=73,SNR=77						
O13A	Hicks Ranch, I	72.69	326	⇑P	P	17 12 55.0	+0.3
	baz=73,SNR=31						
P12A	McGill	72.70	325	⇑P	P	17 12 55.3	+0.5
	baz=73,SNR=84						
S09A	Goldfield	72.76	322	⇑P	P	17 12 55.4	+0.2
	baz=73,SNR=62						
SMMC	Simmler	72.79	319	⇓P	P	17 12 56.0	+0.7
	baz=73,SNR=32						
L16A	Fish Haven	72.80	329	⇓P	P	17 12 54.9	-0.4
	baz=73,SNR=71						
N14A	Grayback Hills	72.81	327	⇑P	P	17 12 55.4	+0.1
	baz=73,SNR=66						
TIN	Tinemaha	72.89	321	⇑P	P	17 12 56.6	+0.7
	baz=73						
M15A	Larsen Ranch,	72.89	328	⇑P	P	17 12 55.5	-0.3
	baz=73,SNR=92						
RCTC	Rector, Farmer	72.99	320	⇑P	P	17 12 56.2	-0.3
	baz=73,SNR=14						
TPH	Tonopah	73.00	323	*e*P	P	17 12 56.6	0.0
TPH				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
TPH				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.8						
TPH	Tonopah	73.00	323	*e*P	P	17 12 56.6	+0.1
	comp=Z,120nm,1.0s,mb5.8						
TPH				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
R09A	Tonopah	73.03	323	⇓P	P	17 12 56.9	+0.1
	baz=73,SNR=50						
PMAR	Madeira	73.05	45	*e*P	P	17 12 57.7	+0.7
PMAR				*i* P		17 13 13.6	
Q10A	Clear Creek Ra	73.06	324	⇑P	P	17 12 57.3	+0.4
	baz=73,SNR=47						
K17A	Gardner Place,	73.12	330	⇓P	P	17 12 56.6	-0.5
	baz=73,SNR=13						
O12A	Currie	73.19	326	⇓P	P	17 12 57.9	+0.3
	baz=73,SNR=59						
MEH	Mehetia	73.21	257	*e*P	P	17 12 58.7	+0.4
	comp=Z,922nm,1.1s,mb6.6						
P11A	Circle Ranch,	73.22	325	⇓P	P	17 12 58.4	+0.5
	baz=73,SNR=9.4						
EFAM	Famara	73.23	50	⇑P	P	17 12 59.4	+1.3
	comp=Z,4µm,3.4s						
L15A	Malad City	73.26	328	⇓P	P	17 12 57.7	-0.3
	baz=73,SNR=201						
N13A	Wendover, West	73.33	326	⇑P	P	17 12 58.3	-0.2
	baz=74,SNR=29						
M14A	Sheep Mountain	73.37	327	⇑P	P	17 12 58.4	-0.3
	baz=74,SNR=241						
J17A	Brown Place, J	73.49	330	⇑P	P	17 12 59.3	0.0
	baz=74,SNR=40						
Q09A	Carvers	73.50	323	⇑P	P	17 13 00.1	+0.6
	baz=74,SNR=25						
VAH	Vaihoa	73.56	260	*e*P	P	17 13 00.9	+0.5
	comp=Z,182nm,1.3s,mb5.8						
O11A	Cowboy Ranch,	73.58	325	⇑P	P	17 13 00.5	+0.6
	baz=74,SNR=24						
LOHW	Long Hollow	73.63	330	*e*P	P	17 12 59.8	-0.3
	comp=Z,333nm,1.6s,mb6.0						
MLAC	Mammoth Lakes	73.63	321	⇑P	P	17 13 01.0	+0.7
	baz=74						
PMPS	Porto Santo	73.64	45	*e*P	P	17 13 01.6	+1.2
PMPS				*i* P		17 13 16.9	
M13A	Montello	73.68	327	⇑P	P	17 13 00.2	-0.3
	baz=74,SNR=50						
R08A	Mina	73.70	322	⇑P	P	17 13 00.9	+0.2
	baz=74,SNR=17						
L14A	Malta	73.71	328	⇓P	P	17 13 00.4	-0.3
	baz=74,SNR=120						
RRI2	Red Ridge	73.76	330	*e*P	P	17 13 01.2	+0.3
	comp=Z,352nm,1.1s,mb6.2						
N12A	Clover Valley,	73.77	326	⇓P	P	17 13 00.8	-0.2
	baz=74,SNR=27						
ULM	Lac du Bonnet	73.78	343	P	P	17 12 59.3	-1.5
	comp=Z,79nm,0.7s,mb5.7,baz=155,slow=6.1,SNR=90						
ULM				LR	LR	17 48 44.2	
	comp=Z,7µm,20.9s,MS5.9,baz=141,slow=38						
ELK	Elko	73.80	326	*e*P	P	17 13 01.2	0.0
ELK				pmax	pmax		
	comp=Z,154nm,1.3s						
ELK				MLR	MLR		
	comp=Z,12µm,22.0s						
ELK	Elko	73.80	326	*e*P	P	17 13 01.2	0.0
	comp=Z,154nm,1.3s,mb5.8						
ELK				LR	LR		
	comp=Z,12µm,22.0s,MS6.1						
K15A	Arbon	73.84	329	⇓P	P	17 13 01.4	0.0
	baz=74,SNR=25						
I17A	Pilgrim Ck.	73.86	331	⇑P	P	17 13 02.0	+0.5
	baz=74,SNR=21						
NVAR	Mina Array Bea	73.86	322	P	P	17 13 02.1	+0.5
	comp=Z,61nm,0.9s,mb5.5,baz=147,slow=5.9,SNR=99						
PMOR	Pomariorio Ree	73.87	260	*e*P	P	17 13 02.7	+0.5
	comp=Z,222nm,1.5s,mb5.9						
DCID1	Drake Creek	73.89	330	*e*P	P	17 13 02.0	+0.3
	comp=Z,319nm,1.2s,mb6.1						
Q08A	Gabbs	73.95	323	⇓P	P	17 13 02.1	0.0
	baz=74,SNR=25						
P09A	Austin	73.98	324	⇑P	P	17 13 02.6	+0.3
	baz=74,SNR=8.4						
K14A	Jones Ranch, D	74.06	328	⇑P	P	17 13 02.4	-0.3
	baz=74,SNR=34						
L13A	Double Diamond	74.10	327	⇑P	P	17 13 03.3	+0.4
	baz=74,SNR=106						
N11A	Elko Archery C	74.11	326	⇑P	P	17 13 03.2	+0.2
	baz=74						
O10A	Cortez Mining,	74.15	325	⇓P	P	17 13 03.7	+0.4
	baz=74,SNR=10.0						
LAO	LASA Array	74.19	335	*e*P	P	17 13 03.1	-0.2
	comp=Z,522nm,1.5s,mb6.2						
LAO				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
RLMT	Red Lodge	74.20	332	⇓P	P	17 13 03.6	+0.2
	baz=74,SNR=140						
RLMT	Red Lodge	74.20	332	*e*P	P	17 13 03.4	0.0
	comp=Z,513nm,1.5s,mb6.2						
RLMT				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
H17A	Grant Village	74.22	331	⇑P	P	17 13 04.5	+0.9
	baz=74,SNR=62						
LKWY	Lake	74.27	331	*e*P	P	17 13 05.0	+1.1
LKWY				pmax	pmax		
	comp=Z,162nm,1.0s,mb5.9						
LKWY				MLR	MLR		
	comp=Z,14µm,20.0s,MS6.2						
LKWY	Lake	74.27	331	*e*P	P	17 13 05.0	+1.2
	comp=Z,162nm,1.0s,mb5.9						
LKWY				LR	LR		
	comp=Z,14µm,20.0s,MS6.2						
J15A	Blackfoot	74.33	329	⇓P	P	17 13 04.9	+0.6
	baz=74,SNR=48						
O09A	Fish Creek Ran	74.44	324	⇑P	P	17 13 04.9	-0.1
	baz=75,SNR=20						
TIAR	Tiarei	74.47	257	*e*P	P	17 13 06.0	+0.3
	comp=Z,623nm,1.3s,mb6.4						
G18A	Lazy EL Ranch,	74.48	332	⇓P	P	17 13 05.0	-0.1
	baz=75,SNR=152						
Q07A	Schurz	74.50	322	⇑P	P	17 13 05.8	+0.5
	baz=75						
M11A	Holland Ranch,	74.58	326	⇓P	P	17 13 06.0	+0.3
	baz=75,SNR=126						
K13A	Stover Farm, H	74.58	328	⇑P	P	17 13 06.0	+0.2
	baz=75,SNR=32						
R06C	Coleville	74.59	322	⇓P	P	17 13 06.5	+0.6
	baz=75,SNR=48						
BMN	Battle Mountai	74.64	324	*e*P	P	17 13 05.1	-1.0
BMN				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.2						
BMN				MLR	MLR		
	comp=Z,9µm,20.0s,MS6.0						
BMN	Battle Mountai	74.64	324	*e*P	P	17 13 05.1	-1.0
	comp=Z,46nm,1.3s,mb5.2						
BMN				LR	LR		
	comp=Z,9µm,20.0s,MS6.0						
PPT	Papeete	74.68	257	*e*P	P	17 13 07.9	+1.0
	comp=Z,118nm,1.3s,mb5.7						
PPT				*e*S	S	17 22 37.1	-3.2
	comp=Z,12µm,28.8s						
PPT				*e*LR	LR	17 36 05.8	
	comp=Z,45µm,24.8s,baz=109						
PPT	Papeete	74.68	257	LR	LR	17 37 41.4	
	comp=Z,12µm,20.2s,MS6.2,baz=73,slow=29						
PPT	Papeete	74.68	257	*e*P	P	17 13 07.9	+1.0
	comp=Z,118nm,1.3s,mb5.7						
PPT				*e*S	S	17 22 37.1	-3.2
L12A	House Creek Ra	74.69	327	⇓P	P	17 13 06.7	+0.3
	baz=75,SNR=34						
SCHQ	Schefferville	74.76	2	P	P	17 13 06.2	-0.3
	comp=Z,119nm,0.9s,mb5.8,baz=178,slow=4.6,SNR=131						
SCHQ				LR	LR	17 47 38.8	
	comp=Z,8µm,21.3s,MS6.0,baz=187,slow=37						
H16A	Russell Place,	74.77	331	⇑P	P	17 13 07.3	+0.5
	baz=75,SNR=161						
I15A	Monteview	74.81	330	⇓P	P	17 13 07.9	+0.9
	baz=75,SNR=28						
DGMT	Dagmar	74.89	337	⇑P	P	17 13 07.2	-0.1
	baz=75,SNR=45						
DGMT	Dagmar	74.89	337	*e*P	P	17 13 07.3	0.0
	comp=Z,599nm,1.5s,mb6.3						
DGMT				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
P07A	Fallon	74.95	323	⇓P	P	17 13 08.6	+0.6
	baz=75						
K12A	Draper Farm, C	74.99	327	⇓P	P	17 13 08.8	+0.7
	baz=75,SNR=90						
G17A	Pierce Place,	75.01	331	⇓P	P	17 13 08.7	+0.6
	baz=75,SNR=15						
F18A	Big Timber	75.01	332	⇑P	P	17 13 08.2	+0.1
	baz=75,SNR=184						
M10A	I.L. Ranch, Tu	75.04	326	⇓P	P	17 13 08.6	+0.2
	baz=75,SNR=32						
O08A	Rochester Mine	75.05	324	⇑P	P	17 13 08.7	+0.2
	baz=75						
L11A	Cat Creek Ranc	75.08	327	⇑P	P	17 13 09.1	+0.5
	baz=75,SNR=121						
N09A	Rock Creek Ran	75.10	325	⇓P	P	17 13 08.3	-0.5
	baz=75,SNR=25						
J13A	Cove Ranch, Pi	75.18	328	⇓P	P	17 13 09.5	+0.4
	baz=75,SNR=64						
I14A	Mackay	75.22	329	⇓P	P	17 13 10.1	+0.8
	baz=75,SNR=122						
WCN	Washoe City	75.29	322	⇑P	P	17 13 10.5	+0.6
	baz=75,SNR=16						
H15A	Lima	75.35	330	⇑P	P	17 13 10.9	+0.8
	baz=76,SNR=33						
O07A	Toulon	75.37	323	⇓P	P	17 13 10.3	0.0
	baz=76,SNR=54						
N08A	GE Springer Mi	75.38	324	⇓P	P	17 13 09.9	-0.5
	baz=76,SNR=28						
L10A	Juniper Basin	75.39	326	⇓P	P	17 13 10.9	+0.5
	baz=76,SNR=130						
HLID	Hailey	75.42	328	⇑P	P	17 13 11.1	+0.6
	baz=76,SNR=207						
HLID	Hailey	75.42	328	*e*P	P	17 13 10.7	+0.2
	comp=Z,363nm,1.4s,mb6.1						
HLID				LR	LR		
	comp=Z,6µm,22.0s,MS5.9						
G16A	Moss Hill, Enn	75.42	331	⇑P	P	17 13 10.5	0.0
	baz=76,SNR=43						
F17A	Fitzpatrick Pl	75.43	332	⇑P	P	17 13 10.8	+0.3
	baz=76,SNR=119						
M09A	Marrel Ranch,	75.45	325	⇑P	P	17 13 11.0	+0.2
	baz=76,SNR=47						
I13A	Wildhorse Cree	75.53	329	⇓P	P	17 13 11.9	+0.8
	baz=76,SNR=162						
J12A	Stokes Ranch,	75.53	328	⇑P	P	17 13 11.4	+0.2
	baz=76,SNR=118						
MCMT	McKenzie Canyo	75.60	330	P	P	17 13 12.4	+0.8
E18A	Harlowton	75.62	333	⇓P	P	17 13 11.6	+0.1
	baz=76,SNR=141						
P06A	Stead Airport,	75.62	322	⇓P	P	17 13 12.0	+0.2
	baz=76						
BOZ	Bozeman (W)	75.66	331	*e*P	P	17 13 11.4	-0.5
BOZ				pmax	pmax		
	comp=Z,206nm,1.5s,mb5.8						
BOZ				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.8						
BOZ	Bozeman (W)	75.66	331	⇓P	P	17 13 11.5	-0.3
	baz=76,SNR=102						
BOZ	Bozeman (W)	75.66	331	*e*P	P	17 13 11.4	-0.4
	comp=Z,206nm,1.5s,mb5.8						
BOZ				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
K11A	Parker Ranch,	75.66	327	⇓P	P	17 13 12.4	+0.5
	baz=76,SNR=55						
G15A	Dillon	75.69	330	⇑P	P	17 13 12.3	+0.3
	baz=76,SNR=57						
N07B	Gerlach	75.84	324	⇑P	P	17 13 12.9	-0.1
	baz=76,SNR=88						
DLMT	Dillon	75.89	330	*e*P	P	17 13 13.2	0.0
	comp=Z,255nm,1.4s,mb6.0						
E17A	Martinsdale	75.94	332	⇓P	P	17 13 13.6	+0.2
	baz=76,SNR=123						
M08A	Happy Creek Ra	75.97	325	⇑P	P	17 13 13.4	-0.3
	baz=76,SNR=35						
L09A	Wilkinson Ranc	75.99	325	⇑P	P	17 13 13.9	+0.1
	baz=76,SNR=31						
MFID	Camas Ranch	76.02	327	⇓P	P	17 13 14.4	+0.5
	baz=76,SNR=92						
D18A	Linhart Farms,	76.06	333	⇑P	P	17 13 13.9	-0.2
	baz=76,SNR=37						
H13A	Challis	76.08	329	⇑P	P	17 13 14.8	+0.5
	baz=76,SNR=175						
K10A	MacKenzie Ranc	76.10	326	⇓P	P	17 13 14.4	0.0
	baz=76,SNR=51						
F15A	Butte	76.20	331	⇓P	P	17 13 15.3	+0.4
	baz=76,SNR=104						
N06A	Buffalo Meadow	76.30	323	⇑P	P	17 13 16.0	+0.4
	baz=76,SNR=120						
H12A	Diamond D Ranc	76.36	329	⇓P	P	17 13 16.5	+0.6
	baz=76,SNR=80						
E16A	East Helena	76.36	332	⇑P	P	17 13 15.7	-0.1
	baz=76,SNR=58						
M07A	Soldier Meadow	76.37	324	⇑P	P	17 13 15.6	-0.3
	baz=76,SNR=40						
D17A	Six Diamond Ra	76.41	333	⇓P	P	17 13 16.0	0.0
	baz=77,SNR=178						
I11A	Placerville	76.44	328	⇑P	P	17 13 16.2	-0.1
	baz=77,SNR=16						
G13A	Cobalt	76.46	329	⇑P	P	17 13 17.0	+0.6
	baz=77,SNR=444						
L08A	Fields	76.47	325	⇑P	P	17 13 16.2	-0.3
	baz=77,SNR=50						
K09A	Rome	76.49	326	⇓P	P	17 13 16.9	+0.2
	baz=77						
J10A	Berg Farm, Mel	76.51	327	⇓P	P	17 13 16.4	-0.3
	baz=77						
F14A	Wisdom	76.58	330	⇓P	P	17 13 17.8	+0.7
	baz=77,SNR=81						
D16A	Dana Ranch, Ca	76.69	332	⇑P	P	17 13 17.8	+0.2
	baz=77,SNR=227						
EGMT	Eagleton	76.69	334	⇑P	P	17 13 17.1	-0.5
	baz=77,SNR=57						
EGMT	Eagleton	76.69	334	*e*P	P	17 13 16.9	-0.7
	comp=Z,244nm,1.2s,mb6.0						
E15A	Deer Lodge	76.71	331	⇑P	P	17 13 18.1	+0.3
	baz=77,SNR=70						

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WVOR  Wild Horse Val     76.79 325 eP      P       17 13 18.0 -0.4
WVOR                                pmax    pmax
      comp=Z,71nm,1.2s,mb5.5
WVOR  Wild Horse Val     76.79 325 eP      P       17 13 18.0 -0.4
      comp=Z,71nm,1.2s,mb5.5
C17A  Wharram Farm,      76.81 333 ⇑P      P       17 13 17.9 -0.4
      baz=77,SNR=46
L07A  Adell              76.89 324 ⇑P      P       17 13 19.3 +0.4
      baz=77,SNR=51
K08A  Mann Creek Ran     76.92 325 ⇓P      P       17 13 19.1 +0.1
      baz=77,SNR=16
SBA   Scott Base         76.94 190  PFAKE          17 13 30.0  +11
SBA                                 LR      LR
      comp=Z,7μm,21.0s,MS5.9
J09A  Fry Pan Ranch,     76.96 326 ⇑P      P       17 13 18.9 -0.4
      baz=77,SNR=18
I10A  Payette            76.99 327 ⇑P      P       17 13 19.4  0.0
      baz=77,SNR=9.8
B18A  Beardsley Farm     76.99 334 ⇑P      P       17 13 19.2 -0.2
      baz=77,SNR=122
F13A  Darby              77.02 330 ⇑P      P       17 13 19.8 +0.3
      baz=77,SNR=198
H11A  Donnelly           77.04 328 ⇓P      P       17 13 19.6 -0.1
      baz=77,SNR=39
E14A  Clinton            77.09 331 ⇑P      P       17 13 20.5 +0.5
      baz=77,SNR=101
D15A  Lincoln            77.12 332 ⇓P      P       17 13 20.5 +0.4
      baz=77,SNR=112
LBCM  Butte Creek Ri     77.22 323  P      P       17 13 20.5 -0.3
K07A  Rock Creek Ran     77.30 325 ⇓P      P       17 13 21.5 +0.3
      baz=78,SNR=33
H10A  Noah's Angus R     77.32 328 ⇑P      P       17 13 20.9 -0.4
      baz=78,SNR=30
B17A  L&G Farms, Che     77.34 333 ⇓P      P       17 13 20.9 -0.4
      baz=78,SNR=47
J08A  Circle Bar Ran     77.34 326 ⇓P      P       17 13 21.4 -0.1
      baz=78,SNR=25
C16A  Fuhringer Ranc     77.36 333 ⇓P      P       17 13 21.2 -0.2
      baz=78,SNR=84
I09A  Lost Marbles R     77.39 327 ⇓P      P       17 13 21.6  0.0
      baz=78,SNR=20
E13A  Victor             77.43 330 ⇑P      P       17 13 22.1 +0.3
      baz=78,SNR=96
A18A  Metzger Ranch,     77.44 334 ⇓P      P       17 13 21.3 -0.5
      baz=78,SNR=72
D14A  Greenough          77.60 331 ⇓P      P       17 13 22.8  0.0
      baz=78,SNR=50
MSO   Missoula           77.61 331 eP      P       17 13 22.9  0.0
      comp=Z,177nm,1.6s,mb5.7
MSO                                 LR      LR
      comp=Z,5μm,21.0s,MS5.8
C15A  Salmond Ranch,     77.72 332 ⇑P      P       17 13 23.6 +0.2
      baz=78,SNR=216
I08A  Drewsey            77.78 326 ⇓P      P       17 13 24.2 +0.3
      baz=78,SNR=47
BMO   Blue Mountains     77.79 328 eP      P       17 13 23.5 -0.4
      comp=Z,94nm,1.0s,mb5.7
BMO                                 LR      LR
      comp=Z,5μm,20.0s,MS5.9
J07A  Hines              77.80 326 ⇓P      P       17 13 24.2 +0.2
      baz=78,SNR=19
A17A  Triple J Farms     77.81 334 ⇓P      P       17 13 23.3 -0.5
      baz=78,SNR=80
B16A  M & M Farms, S     77.82 333 ⇓P      P       17 13 23.3 -0.7
      baz=78,SNR=31
H09A  Durkee             77.84 327 ⇓P      P       17 13 24.0 -0.1
      baz=78,SNR=24
TOA0  Torodi Ar. Sit     77.84  71 eP      P       17 13 24.0 -0.8
TORD  Torodi Ar. Bea     77.84  71  P      P       17 13 24.3 -0.5
      comp=Z,177nm,1.0s,mb6.0,baz=253,slow=5.1,SNR=599
TORD                                S       S      17 23 20.6 +5.6
      comp=Z,5.5nm,1.0s,baz=251,slow=11,SNR=7.8
TORD                                PKKPbc  PKKPbc 17 32 27.9 +1.9
      comp=Z,0.3nm,0.5s,baz=34,slow=2.5,SNR=4.9
TORD                                PKPPKP         17 40 30.2
      comp=Z,0.7nm,1.0s,baz=202,slow=2.4,SNR=3.7
TORD                                LR      LR     17 47 17.8
      comp=Z,48μm,19.1s,MS6.8,baz=240,slow=35
TORD  Torodi Ar. Bea     77.84  71  P      P       17 13 24.3 -0.5
TORD                                S       S      17 23 20.6 +5.6
TORD                                PKKPbc  PKKPbc 17 32 27.9 +1.9
TORD                                P'P'           17 40 30.2
TORD                                LR      LR     17 47 17.8
VNDA  Vanda              77.97 190  P      P       17 13 25.1 +0.6
VNDA                                pmax    pmax
      comp=Z,16nm,1.0s
VNDA                                MLR     MLR
      comp=Z,9μm,20.2s
VNDA  Vanda              77.97 190  P      P       17 13 25.1 +0.6
      comp=Z,16nm,1.0s,mb4.9,baz=132,slow=5.7,SNR=16
VNDA                                LR      LR     17 46 37.3
      comp=Z,9μm,20.2s,MS6.1,baz=133,slow=35
VNDA  Vanda              77.97 190 eP      P       17 13 24.6 +0.1
      comp=Z,188nm,1.8s,mb5.7
VNDA                                LR      LR
      comp=Z,9μm,19.0s,MS6.1
D13A  Huson              78.04 331 ⇑P      P       17 13 25.3  0.0
      baz=78,SNR=111
SYO   Syowa Base         78.07 160⇑eP      P       17 13 24.0 -1.2
B15A  Bradely Ranch,     78.11 332 ⇑P      P       17 13 25.0 -0.6
      baz=78,SNR=99
J06A  Christmas Vall     78.17 325 ⇓P      P       17 13 25.8 -0.2
      baz=78,SNR=44
A16A  West Butte Ran     78.18 333 ⇑P      P       17 13 25.7 -0.3
      baz=78,SNR=148
H08A  Prairie City       78.25 327 ⇑P      P       17 13 26.8 +0.3
      baz=78,SNR=53
E11A  Bogner Ranch,      78.32 329 ⇑P      P       17 13 26.3 -0.5
      baz=78,SNR=44
G09A  Cove               78.33 328 ⇓P      P       17 13 27.0 +0.1
      baz=78,SNR=117
HOG   Hogback Mounta     78.35 323  P      P       17 13 27.2 +0.2
I07A  Izee               78.38 326 ⇓P      P       17 13 27.5 +0.3
      baz=78,SNR=38
C13A  Hot Springs        78.53 331 ⇑P      P       17 13 28.2 +0.3
      baz=79,SNR=77
F10A  Beach Ranch, E     78.55 328 ⇓P      P       17 13 28.2 +0.1
      baz=79,SNR=26
I06A  Prineville         78.66 325 ⇑P      P       17 13 29.7 +0.9
      baz=79,SNR=67
A15A  Johnson Ranch,     78.69 333 ⇓P      P       17 13 27.7 -1.1
      baz=79,SNR=28
E10A  Myers Farm, Un     78.85 329 ⇓P      P       17 13 30.0 +0.2
      baz=79,SNR=51
D11A  Klaveano Farm,     78.88 330 ⇑P      P       17 13 29.5 -0.4
      baz=79,SNR=20
G08A  Pilot Rock         78.93 327 ⇓P      P       17 13 30.2  0.0
      baz=79,SNR=41
C12B  Naegeli Ranch,     78.96 331 ⇑P      P       17 13 30.6 +0.3
      baz=79
A14A  Double T Ranch     78.98 332 ⇑P      P       17 13 29.8 -0.6
      baz=79,SNR=66
B13A  Whitefish          78.99 332 ⇑P      P       17 13 30.5  0.0
      baz=79,SNR=54
F08A  Pendleton          79.19 328 ⇑P      P       17 13 31.1 -0.5
      baz=79,SNR=15
WALA  Waterton Lakes     79.26 332 eP      P       17 13 31.5 -0.3
      comp=Z,4.8nm,1.1s
VIPM  Ingram Point       79.26 326  P      P       17 13 32.7 +0.7
G07A  Ruggs Ranch, H     79.28 327 ⇑P      P       17 13 32.8 +0.7
      baz=79,SNR=76
E09A  Wood Farm, Sta     79.38 328 ⇑P      P       17 13 31.9 -0.6
      baz=80,SNR=25
FFC   Flin Flon          79.48 342  P      P       17 13 31.5 -1.5
      comp=Z,327nm,1.7s,mb6.0,SNR=51
FFC   Flin Flon          79.48 342 i P     P       17 13 31.7 -1.3
FFC   Flin Flon          79.48 342 eP      P       17 13 31.4 -1.6
      comp=Z,209nm,1.6s,mb5.8
FFC                                 LR      LR
      comp=Z,9μm,21.0s,MS6.1
G06A  Carlson Farm,      79.76 326 ⇑P      P       17 13 35.1 +0.4
      baz=80,SNR=23
CROR  Criterion Ridg     79.78 326  P      P       17 13 35.5 +0.7
E08A  Dider Farm, El     79.81 328 ⇑P      P       17 13 34.7 -0.3
      baz=80,SNR=10
D09A  Jones Farm, Ri     79.84 329 ⇓P      P       17 13 35.0 -0.1
      baz=80,SNR=52
F07A  Phinny Hill Vi     79.84 327 ⇑P      P       17 13 35.8 +0.7
      baz=80,SNR=17
C10A  Spilker Farm,      79.90 330 ⇓P      P       17 13 35.4  0.0
      baz=80,SNR=8.3
A12A  Yaak River Ran     79.94 331 ⇑P      P       17 13 35.8 +0.3
      baz=80,SNR=68
HAWA  Hanford            79.98 328 eP      P       17 13 35.9  0.0
      comp=Z,409nm,1.5s,mb6.1
HAWA                                LR      LR
      comp=Z,10μm,20.0s,MS6.1
SUR   Sutherland         80.08 121  P      P       17 13 38.6 +1.7
      comp=Z,614nm,1.5s,mb6.3,SNR=9.0
SUR   Sutherland         80.08 121 eP      P       17 13 38.5 +1.6
      comp=Z,265nm,1.4s,mb6.0
SUR                                 LR      LR
      comp=Z,11μm,19.0s,MS6.2
SUR   Sutherland         80.08 121 ⇓P      P       17 13 39.2 +2.2
      SNR=5.7
SUR                                ⇓P              17 13 39.2
      SNR=5.7
G05A  Wamic              80.12 326 ⇓P      P       17 13 37.1 +0.4
      baz=80,SNR=22
NEW   Newport            80.13 330 eP      P       17 13 35.5 -1.1
NEW                                 pmax    pmax
      comp=Z,201nm,1.7s
NEW   Newport            80.13 330 eP      P       17 13 35.5 -1.1
      comp=Z,200nm,1.7s,mb5.8
D08A  Wollman Farm,      80.14 328 ⇑P      P       17 13 36.7  0.0
      baz=80,SNR=37
F06A  Goldendale         80.19 327 ⇓P      P       17 13 37.3 +0.3
      baz=80,SNR=34
B10A  Chitwood Farm,     80.20 330 ⇑P      P       17 13 36.6 -0.4
      baz=80
E07A  Sunnyside          80.26 328 ⇓P      P       17 13 37.9 +0.6
      baz=80,SNR=32
A11A  Hall Mountain,     80.28 331 ⇓P      P       17 13 37.4  0.0
      baz=80,SNR=119
C09A  Chrisman Ranch     80.34 329 ⇑P      P       17 13 38.0 +0.2
      baz=80,SNR=66
HOOD  Mount Hood Mea     80.35 326 eP      P       17 13 38.2 +0.3
      comp=Z,187nm,1.1s,mb5.9
RTC   Rabat Centre       80.66  49  PFAKE          17 13 50.0  +10
RTC                                 LR      LR
      comp=Z,13μm,22.0s,MS6.2
C08A  Higginbotham F     80.70 329 ⇓P      P       17 13 39.3 -0.4
      baz=81,SNR=33
G04A  Mulino             80.71 325 ⇑P      P       17 13 39.6 -0.2
      baz=81,SNR=12
B09A  Rice               80.72 330 ⇑P      P       17 13 39.2 -0.6
      baz=81,SNR=58
D07A  Quincy             80.75 328 ⇓P      P       17 13 40.2 +0.2
      baz=81,SNR=33
COR   Corvallis          80.75 324 eP      P       17 13 40.4 +0.3
COR                                 pmax    pmax
      comp=Z,194nm,1.0s,mb6.0
COR   Corvallis          80.75 324 eP      P       17 13 40.4 +0.3
      comp=Z,194nm,1.0s,mb6.0
E06A  Yakima             80.82 327 ⇑P      P       17 13 40.6 +0.2
      baz=81,SNR=37
MPOR  Mary's Peak        80.84 324  P      P       17 13 41.0 +0.5
A10A  Northport          80.84 330 ⇑P      P       17 13 39.8 -0.6
      baz=81,SNR=40
EBG   Ellensburg         80.86 328  P      P       17 13 41.1 +0.5
C07A  Waterville         81.14 328 ⇑P      P       17 13 42.1 +0.1
      baz=81,SNR=94
FCC   Fort Churchill     81.14 348 eP      P       17 13 40.9 -0.9
FCC                                 pmax    pmax
      comp=Z,11nm,1.5s,mb4.6
FCC   Fort Churchill     81.14 348 eP      P       17 13 40.9 -0.9
      comp=Z,11nm,1.5s,mb4.5
F04A  Amboy              81.16 326 ⇓P      P       17 13 42.0 -0.2
      baz=81,SNR=38
D06A  Cle Elum           81.19 328 ⇓P      P       17 13 42.3 -0.1
      baz=81,SNR=27
MORF  Marmelete          81.22  45 eP      P       17 13 43.7 +1.0
      comp=Z,188nm,1.5s,mb5.8
MORF                               eS       S      17 23 57.7 +7.8
MORF                               eLQ             17 35 19.4
MORF                               eLR      LR     17 41 22.3
      comp=Z,14μm,21.7s
MORF  Marmelete          81.22  45 eP      P       17 13 42.8 +0.1
MORF                               eS       S      17 23 50.4 +0.5
B08A  Colville Reser     81.24 329 ⇓P      P       17 13 41.9 -0.7
      baz=81,SNR=42
PTEO  Sao Teotonio       81.30  45 i P     P       17 13 44.7 +1.5
      comp=Z,420nm,1.8s,mb6.1
A09A  Danville           81.32 330 ⇓P      P       17 13 42.8 -0.1
      baz=82,SNR=47
TSUM  Tsumeb             81.35 107 eP      P       17 13 44.8 +0.9
      comp=Z,246nm,1.1s,mb6.0
TSUM                                LR      LR
      comp=Z,12μm,19.0s,MS6.3
LON   Longmire           81.38 327 eP      P       17 13 42.6 -0.8
LON                                 pmax    pmax
      comp=Z,62nm,1.1s,mb5.5
LON   Longmire           81.38 327 eP      P       17 13 42.5 -0.8
      comp=Z,62nm,1.1s,mb5.5
NLW   Nelson Butte       81.54 329  P      P       17 13 43.9 -0.3
MDT   Midelt             81.66  51  P      P       17 13 46.5 +1.4
      comp=Z,70nm,1.0s,mb5.5,baz=248,slow=5.1,SNR=97
MDT                                 LR      LR     17 50 09.1
      comp=Z,12μm,19.1s,MS6.2,baz=258,slow=36
PBDV  Barranco-do-Ve     81.66  45 i P     P       17 13 46.8 +1.7
      comp=Z,178nm,1.4s,mb5.8
PBDV                               eS       S      17 24 02.6 +8.1
PBDV                               eLQ             17 35 38.4
PBDV                               eLR      LR     17 41 43.9
      comp=Z,15μm,21.6s
B07A  Winthrop           81.69 329 ⇑P      P       17 13 44.4 -0.5
      baz=82,SNR=70
PMAFR Mafra              81.72  43 i P     P       17 13 46.7 +1.4
PMAFR                              eS       S      17 24 01.4 +6.4
PMAFR                              eLQ             17 35 39.6
PMAFR                              eLR      LR     17 40 44.7
      comp=Z,15μm,17.1s
E04A  Onalaska           81.75 326 ⇑P      P       17 13 45.3  0.0
      baz=82,SNR=7.8
F03A  Seaside            81.76 325 ⇑P      P       17 13 45.4  0.0
      baz=82
D05A  Enumclaw           81.77 327 ⇑P      P       17 13 45.2 -0.2
      baz=82,SNR=25
PVAQ  Vaqueiros          81.89  45 i P     P       17 13 47.3 +1.0
      comp=Z,145nm,2.4s,mb5.5
PVAQ                               eS       S      17 24 05.8 +9.0
PVAQ                               eLQ             17 35 43.4
PVAQ                               eLR      LR     17 39 45.2
      comp=Z,14μm,21.8s
C05A  Tolt Reservoir     81.95 328 ⇑P      P       17 13 45.3 -1.1
      baz=82,SNR=20
EGRO  El Granado         82.12  45 ⇑P      P       17 13 48.6 +1.1
      comp=Z,2μm,3.1s
PBEJ  Beja               82.13  45 i P     P       17 13 48.8 +1.3
      comp=Z,122nm,1.8s,mb5.5
D04A  Dobbs Creek Ra     82.13 327 ⇓P      P       17 13 47.6 +0.3
      baz=82
E03A  Lebam              82.16 326 ⇑P      P       17 13 47.1 -0.4
      baz=82,SNR=20
EDM   Edmonton           82.17 335 eP      P       17 13 46.0 -1.3
EVOP  Sao Brissos        82.23  44 eP      P       17 13 48.2 +0.2
EVOP                               eS       S      17 24 00.8 +0.5
EVOP                               eS       S      17 24 00.8 +0.5
EVOP                                AMS     AMS    17 46 14.6
      comp=Z,13μm,34.5s,MS6.1
EVOP  Sao Brissos        82.23  44 eP      P       17 13 48.2 +0.1
EVOP                               eS       S      17 24 00.8 +0.5
EVO   Evora              82.31  44⇑iP      P       17 13 48.5  0.0
      comp=Z,218nm,1.3s,mb5.6
EVO                                eMLR     MLR
      comp=Z,14μm,23.0s,MS6.0
RPW   Rockport           82.37 328  P      P       17 13 47.5 -1.0
B06A  Marblemount        82.40 328 ⇓P      P       17 13 47.9 -0.8
      baz=83,SNR=18
SFS   San Fernando       82.41  47  PFAKE          17 14 00.0  +11
SFS                                 LR      LR
      comp=Z,9μm,20.0s,MS6.1
GNW   Green Mountain     82.44 327 eP      P       17 13 48.1 -0.8
      comp=Z,256nm,1.6s,mb5.9
B05A  Bryant             82.53 328 ⇓P      P       17 13 48.4 -0.9
      baz=83,SNR=32
C04A  Brinnon            82.62 327 ⇓P      P       17 13 49.6 -0.2
      baz=83,SNR=29
D03A  Wishkah Elem.      82.64 326 ⇑P      P       17 13 50.5 +0.5
      baz=83
RAR   Rarotonga          82.76 250  PFAKE          17 14 00.0 +8.7
RAR                                 LR      LR
      comp=Z,10μm,20.0s,MS6.2
PESTR Estremoz           82.77  44 i P     P       17 13 52.3 +1.5
      comp=Z,177nm,1.7s,mb5.8
PESTR                              i P      pP     17 14 06.4 +2.7
PESTR                              eS       S      17 24 11.7 +5.9
PESTR                              eLQ             17 37 16.7
PESTR                              eLR      LR     17 41 27.6
      comp=Z,12μm,21.4s
EMIN  Mina Concepcio     82.79  46 ⇑P      P       17 13 50.9  0.0
      comp=Z,3μm,3.4s
A06A  Chilliwack         82.79 329 ⇓P      P       17 13 50.0 -0.7
      baz=83,SNR=31
ESPR  Espera             82.86  47 ⇑P      P       17 13 52.5 +1.1
      comp=Z,3μm,3.5s
NLWA  Neilton Lookou     82.87 326 ⇓P      P       17 13 51.3 +0.1
      baz=83,SNR=14
NLWA  Neilton Lookou     82.87 326 eP      P       17 13 50.8 -0.4
      comp=Z,115nm,1.1s,mb5.8
NLWA                                LR      LR
      comp=Z,9μm,22.0s,MS6.1
EJIF  Jimena Fronter     82.91  47 ⇑P      P       17 13 53.2 +1.6
EJIF                                pmax    pmax
      comp=Z,892nm,2.6s,mb6.3
EJIF  Jimena Fronter     82.91  47 ⇑P      P       17 13 53.2 +1.6
      comp=Z,892nm,2.6s,mb6.3
A05A  Maple Falls        83.02 328 ⇓P      P       17 13 51.2 -0.7
      baz=83,SNR=42
EBAD  Badajoz            83.09  45 ⇑P      P       17 13 53.4 +0.9
      comp=Z,4μm,3.5s
B04A  Port Angeles       83.11 327 ⇑P      P       17 13 52.5 +0.2
      baz=83,SNR=6.4
A04A  Legoe Bay, Lum     83.14 328 ⇓P      P       17 13 52.5  0.0
      baz=83,SNR=7.9
PMRV  Marv??o            83.20  44 i P     P       17 13 53.4 +0.3
      comp=Z,99nm,1.6s,mb5.6
PMRV                               eS       S      17 24 15.3 +5.1
PMRV                               eLQ             17 36 14.4
PMRV                               eLR      LR     17 41 51.8
      comp=Z,10μm,23.9s
EMIJ  Mijas              83.45  47 ⇑P      P       17 13 55.0 +0.6
      comp=Z,2μm,3.8s
PGC   Sidney             83.47 328 eP      P       17 13 53.9 -0.3
      comp=Z,25nm,1.6s,mb5.0
PVIS  Viseu              83.58  43 eP      P       17 13 55.6 +0.6
      comp=Z,213nm,1.4s,mb6.1
MTE   Manteigas          83.64  43 i P     P       17 13 55.7 +0.4
      comp=Z,242nm,1.3s,mb6.2
MTE                                eS       S      17 24 20.7 +6.2
MTE                                eLQ             17 36 05.7
MTE                                eLR      LR     17 41 45.6
      comp=Z,20μm,16.1s
MTE   Manteigas          83.64  43 eP      P       17 13 55.7 +0.5
      comp=Z,103nm,1.1s,mb5.9
MTE                                 LR      LR
      comp=Z,17μm,19.0s,MS6.4
FRB   Frobisher Bay      83.66   1  P      P       17 13 53.9 -0.9
FRB                                 S       S      17 24 10.2 -3.5
FRB                                 pmax    pmax
      comp=Z,45nm,1.0s
FRB                                 smax
      comp=N,2.0nm,0.9s
FRB   Frobisher Bay      83.66   1  P      P       17 13 53.9 -0.9
      comp=N,45nm,1.0s,mb5.6,baz=189,slow=6.8,SNR=11
FRB                                 S       S      17 24 10.2 -3.6
      comp=N,1.8nm,0.9s,baz=278,slow=19,SNR=9.7
ECAB  El Cabril          83.79  46 ⇑P      P       17 13 56.6 +0.4
      comp=N,4μm,4.1s
EZAM  Zamans             83.88  41  P      P       17 13 55.1 -1.4
EZAM                                pmax    pmax
      comp=Z,91nm,0.9s,mb5.9
EZAM  Zamans             83.88  41  P      P       17 13 55.1 -1.4
      comp=Z,91nm,0.9s,mb5.9
PVRL  Vila Real          84.00  42 eP      P       17 13 57.8 +0.7
      comp=Z,204nm,1.4s,mb6.1
PCAB  Cabril             84.05  42 i P     P       17 13 57.6 +0.3
      comp=Z,209nm,1.5s,mb6.0
PCAB                               i P             17 14 13.2
ELOB  Lobios             84.11  41 ⇑P      P       17 13 58.3 +0.7
      comp=Z,2μm,4.1s
ELOJ  Sierra Loja        84.18  47 ⇑P      P       17 13 59.3 +1.2
ELOJ                                pmax    pmax
      comp=Z,211nm,1.3s,mb6.1
ELOJ  Sierra Loja        84.18  47 ⇑P      P       17 13 59.3 +1.2
      comp=Z,211nm,1.3s,mb6.1
ELUQ  Luque              84.31  47 ⇑P      P       17 14 00.0 +1.2
ELUQ                                pmax    pmax
      comp=Z,203nm,1.1s,mb6.2
ELUQ  Luque              84.31  47 ⇑P      P       17 13 60.0 +1.2
      comp=Z,203nm,1.1s,mb6.2
EALB  Alboran            84.35  49 ⇑P      P       17 13 59.0  0.0
      comp=Z,3μm,3.0s
ERON  Agron              84.35  47  P      P       17 13 59.6 +0.6
      comp=Z,9.8nm,0.6s,mb5.1
MVO   Moncorvo           84.38  42 i P     P       17 13 59.5 +0.5
      comp=Z,244nm,1.6s,mb6.1
MVO                                eS       S      17 24 29.6 +7.7
MVO                                eLQ             17 36 24.9
MVO                                eLR      LR     17 42 37.1
      comp=Z,21μm,20.0s
STS   Santiago           84.38  40  P      P       17 13 57.9 -1.1
STS                                 pmax    pmax
      comp=Z,49nm,1.0s,mb5.6
STS   Santiago           84.38  40  P      P       17 13 57.9 -1.1
      comp=Z,49nm,1.0s,mb5.6
EADA  Adamuz             84.41  46 ⇑P      P       17 13 59.8 +0.6
      comp=Z,4μm,6.9s
PBRG  Braganca           84.91  42 i P     P       17 14 02.1 +0.4
      comp=Z,227nm,1.5s,mb6.1
BOSA  Boshof             84.92 118  P      P       17 14 02.3 +0.1
BOSA                                pmax    pmax
      comp=Z,99nm,1.1s,mb5.8
BOSA                                MLR     MLR
      comp=Z,21μm,21.0s,MS6.5
BOSA  Boshof             84.92 118  P      P       17 14 02.3 +0.1
      comp=Z,99nm,1.1s,mb5.8,baz=248,slow=5.6,SNR=42
BOSA                                LR      LR     17 48 34.9
      comp=Z,21μm,21.0s,MS6.5,baz=256,slow=33
BOSA  Boshof             84.92 118 eP      P       17 14 02.3 +0.1
      comp=Z,198nm,1.3s,mb6.1
BOSA                                LR      LR
      comp=Z,21μm,20.0s,MS6.5
EBER  Berja              84.92  48 ⇑P      P       17 14 02.3 +0.4
      comp=Z,3μm,4.3s
EBAN  Banos Encina       84.94  46 ⇑P      P       17 14 02.7 +0.7
EBAN                                pmax    pmax
      comp=Z,224nm,1.3s,mb6.1
EBAN  Banos Encina       84.94  46 ⇑P      P       17 14 02.7 +0.7
      comp=Z,224nm,1.3s,mb6.1
ERUA  La Rua             84.97  41 ⇑P      P       17 14 02.7 +0.7
ERUA                                pmax    pmax
      comp=Z,104nm,1.0s,mb5.9
ERUA  La Rua             84.97  41 ⇑P      P       17 14 02.7 +0.7
      comp=Z,104nm,1.0s,mb5.9
ECAL  Calabor            84.98  42 ⇑P      P       17 14 02.8 +0.7
      comp=Z,3μm,4.1s
TAM   Tamanrasset        85.10  64 eP      P       17 14 04.2 +1.1
TAM                                 pmax    pmax
      comp=Z,273nm,1.3s,mb6.2
TAM                                 MLR     MLR
      comp=Z,29μm,21.0s,MS6.7
TAM   Tamanrasset        85.10  64 eP      P       17 14 04.2 +1.0
      comp=Z,273nm,1.3s,mb6.2
TAM                                 LR      LR
      comp=Z,29μm,21.0s,MS6.7
OLHC  Oulhaca            85.16  50  P      P       17 14 04.0 +0.9
EQES  Quesada            85.25  47 ⇑P      P       17 14 03.4 -0.1
      comp=Z,2μm,4.1s
PAB   San Pablo          85.27  45 eP      P       17 14 04.0 +0.5
PAB                                 pmax    pmax
      comp=Z,230nm,1.4s,mb6.1
PAB                                 MLR     MLR
      comp=Z,18μm,22.0s,MS6.4
PAB   San Pablo          85.27  45 eP      P       17 14 04.0 +0.5
      comp=Z,230nm,1.4s,mb6.1
PAB                                 LR      LR
      comp=Z,18μm,22.0s,MS6.4
ODZI  Dziouia            85.32  50  P      P       17 14 06.0 +2.1
ENIJ  Nijar              85.44  48  P      P       17 14 04.1 -0.4
ENIJ                                pmax    pmax
      comp=Z,87nm,1.0s,mb5.8
ENIJ  Nijar              85.44  48  P      P       17 14 04.1 -0.3
      comp=Z,87nm,1.0s,mb5.8
EPON  Pontenova          85.48  41 ⇑P      P       17 14 04.5  0.0
      comp=Z,4μm,4.0s
EHUE  Huescar            85.58  47 ⇑P      P       17 14 04.7 -0.5
EHUE                                pmax    pmax
      comp=Z,63nm,1.2s,mb5.7
EHUE  Huescar            85.58  47 ⇑P      P       17 14 04.7 -0.5
      comp=Z,63nm,1.2s,mb5.7
ESDC  Sonseca Array      85.59  45  P      P       17 14 05.8 +0.7
      comp=Z,34nm,1.0s,mb5.5,baz=243,slow=5.4,SNR=60
ESDC                                LR      LR     17 48 17.7
      comp=Z,13μm,21.8s,MS6.3,baz=240,slow=33
ESDC  Sonseca Array      85.59  45 ⇑P      P       17 14 05.6 +0.5
      comp=Z,26nm,0.9s,mb5.5
ESLA  Sonseca Array      85.59  45 eP      P       17 14 05.4 +0.3
      comp=Z,27nm,1.2s,mb5.4
ESLA                                LR      LR
      comp=Z,105μm,22.0s,MS7.2
MAW   Mawson             85.86 164  P      P       17 14 05.6 -0.5
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MAW                                pmax     pmax
     comp=Z,59nm,1.1s
MAW                                MLR      MLR
     comp=Z,14µm,20.4s
MAW  Mawson           85.86 164  ePDIF      P         17 14 06.1  0.0
     comp=Z,48nm,1.4s,mb5.5
MAW  Mawson           85.86 164   P         P         17 14 05.6 -0.5
     comp=Z,59nm,1.1s,mb5.7,baz=180,slow=6.5,SNR=4.9
MAW                               LR        LR        17 52 13.5
     comp=Z,14µm,20.4s,MS6.3,baz=234,slow=35
GUD  Guadarrama       85.96  44 ⇑P          P         17 14 07.4 +0.5
GUD                                pmax     pmax
     comp=Z,48nm,1.2s,mb5.6
GUD  Guadarrama       85.96  44 ⇑P          P         17 14 07.4 +0.5
     comp=Z,48nm,1.2s,mb5.6
USTO Oran             86.02  50   P         P         17 14 09.0 +1.6
EVIA Vianos           86.05  46   P         P         17 14 07.3 -0.2
EVIA                               pmax     pmax
     comp=Z,106nm,1.6s,mb5.8
EVIA Vianos           86.05  46   P         P         17 14 07.3 -0.2
     comp=Z,106nm,1.6s,mb5.8
ODJA Bouhanifia       86.11  50   P         P         17 14 12.0 +4.1
OJBR Djebel Berber    86.59  50   P         P         17 14 13.0 +2.8
ETOB Tobarra          86.71  47 ⇑P          P         17 14 10.8 +0.1
     comp=Z,4µm,6.3s
OJGS Djebel Guires    86.85  50   P         P         17 14 14.0 +2.5
OKGL Djebel Kef Gue   87.01  50   P         P         17 14 15.0 +2.7
ETRT Tiaret           87.19  51   P         P         17 14 14.0 +0.9
EANR 'Ain N'Sour      87.30  50   P         P         17 14 15.0 +1.3
ETOR Torete           87.42  45   P         P         17 14 14.8 +0.7
ETOR                               pmax     pmax
     comp=Z,32nm,0.9s,mb5.5
ETOR Torete           87.42  45   P         P         17 14 14.8 +0.7
     comp=Z,32nm,0.9s,mb5.5
ECHE Chera            87.56  46   P         P         17 14 15.1 +0.3
ECHE                               pmax     pmax
     comp=Z,28nm,1.0s,mb5.5
ECHE Chera            87.56  46   P         P         17 14 15.1 +0.3
     comp=Z,28nm,1.0s,mb5.5
ECHA Ech Chlef        87.59  50   P         P         17 14 16.0 +1.0
ELAN Lanestosa        87.74  42   P         P         17 14 15.7 +0.1
     comp=Z,3µm,5.7s
EBNR Beni Rached      87.77  50   P         P         17 14 17.0 +1.1
ECRI Cripan           88.01  43 ⇑P          P         17 14 17.4 +0.5
ECRI                               pmax     pmax
     comp=Z,34nm,0.9s,mb5.6
ECRI Cripan           88.01  43 ⇑P          P         17 14 17.4 +0.5
     comp=Z,34nm,0.9s,mb5.6
EMHD Djebel Mahouad   88.76  51   P         P         17 14 21.5 +0.9
ERTA Horta de San J   89.08  45   P         P         17 14 20.6 -1.4
     comp=Z,994nm,3.9s
SJPF Ste Jean         89.08  43⇑iP          P         17 14 22.3 +0.4
     comp=Z,214nm,1.3s,mb6.0
SJPF Ste Jean         89.08  43⇑iP          P         17 14 22.3 +0.4
SJPF                               pmax     pmax
     comp=Z,107nm,1.3s,mb6.0
SJPF Ste Jean         89.08  43⇑iP          P         17 14 22.3 +0.4
     comp=Z,107nm,1.3s,mb6.0
ETSF Etsaut           89.41  43⇑iP          P         17 14 23.8 +0.4
YKA  Yellowknife Ar   89.63 341   P         P         17 14 23.1 -0.9
     comp=Z,175nm,1.0s,mb6.3,baz=136,slow=4.5,SNR=606
YKA                               PKKPbc    PKKPbc    17 31 57.4 -3.3
     comp=Z,0.8nm,1.0s,baz=330,slow=5.0,SNR=4.1
EPOB Poblet           89.76  45   P         P         17 14 26.8 +1.7
     comp=Z,644nm,3.5s
EBIE Bielsa           89.76  44 ⇑P          P         17 14 25.8 +0.6
     comp=Z,2µm,4.8s
EPF  Esparros         90.05  44⇑iP          P         17 14 26.5  0.0
QUIF Quistinic        90.27  38⇑iP          P         17 14 26.5 -0.8
     comp=Z,89nm,1.1s,mb5.7
QUIF Quistinic        90.27  38⇑iP          P         17 14 26.5 -0.8
QUIF                               pmax     pmax
     comp=Z,45nm,1.0s,mb5.8
QUIF Quistinic        90.27  38⇑iP          P         17 14 26.5 -0.8
     comp=Z,45nm,1.0s,mb5.8
CCA1 Carnmenellis     90.28  36  eP         P         17 14 25.2 -2.2
ROSF Rostrenen        90.42  38⇑iP          P         17 14 27.4 -0.6
     comp=Z,119nm,1.1s,mb5.8
ROSF Rostrenen        90.42  38⇑iP          P         17 14 27.4 -0.6
ROSF                               pmax     pmax
     comp=Z,59nm,1.1s,mb5.8
ROSF Rostrenen        90.42  38⇑iP          P         17 14 27.4 -0.6
     comp=Z,59nm,1.1s,mb5.8
DRV  Dumont d'Urvil   90.55 191   S         SKSac     17 24 50.0 -6.3
DRV                               SS        SS        17 31 22.0 +1.3
DRV                               R                   17 44 00.0
CKHR Kef el Ahmar     90.55  52   P         P         17 14 30.0 +1.0
SGMF Saint Gilles     90.79  38⇑iP          P         17 14 28.8 -1.0
     comp=Z,191nm,1.5s,mb5.9
SGMF Saint Gilles     90.79  38⇑iP          P         17 14 28.8 -1.0
SGMF                               pmax     pmax
     comp=Z,95nm,1.5s,mb5.9
SGMF Saint Gilles     90.79  38⇑iP          P         17 14 28.8 -1.0
     comp=Z,95nm,1.5s,mb5.9
DFRA Djebel Bou Aff   91.04  51   P         P         17 14 26.0 -5.2
HTL  Hartland         91.11  35   AMS       AMS       17 51 07.3
     comp=Z,6µm,20.8s,MS6.0
DYA  Yadsworthy       91.12  36   AMS       AMS       17 51 18.6
     comp=Z,15µm,21.2s,MS6.4
LFF  La Frestale      91.19  42⇑iP          P         17 14 31.3 -0.4
     comp=Z,301nm,1.1s,mb6.2
LFF  La Frestale      91.19  42⇑iP          P         17 14 31.3 -0.4
LFF                                pmax     pmax
     comp=Z,151nm,1.1s,mb6.2
LFF  La Frestale      91.19  42⇑iP          P         17 14 31.3 -0.4
     comp=Z,151nm,1.1s,mb6.2
CTEI Djebel Teioual   91.23  52   P         P         17 14 32.0 -0.1
MTLF Montolieu        91.42  44⇑iP          P         17 14 32.3 -0.5
     comp=Z,103nm,1.4s,mb5.7
MTLF Montolieu        91.42  44⇑iP          P         17 14 32.3 -0.5
MTLF                               pmax     pmax
     comp=Z,51nm,1.4s,mb5.7
MTLF Montolieu        91.42  44⇑iP          P         17 14 32.3 -0.5
     comp=Z,51nm,1.4s,mb5.7
MFF  Saint Martin d   91.42  40⇑iP          P         17 14 32.3 -0.4
     comp=Z,184nm,1.3s,mb5.9
MFF  Saint Martin d   91.42  40⇑iP          P         17 14 32.3 -0.4
MFF                                pmax     pmax
     comp=Z,92nm,1.3s,mb6.0
MFF  Saint Martin d   91.42  40⇑iP          P         17 14 32.3 -0.4
     comp=Z,92nm,1.3s,mb6.0
CKFL Kef-Lekhel       91.60  52   P         P         17 14 35.0 +1.2
GRR  Gorron           91.85  39⇑iP          P         17 14 33.6 -1.1
     comp=Z,136nm,1.1s,mb5.9
GRR  Gorron           91.85  39⇑iP          P         17 14 33.6 -1.1
GRR                                pmax     pmax
     comp=Z,68nm,1.1s,mb5.9
GRR  Gorron           91.85  39⇑iP          P         17 14 33.6 -1.1
     comp=Z,68nm,1.1s,mb5.9
CAEH 'Ain El Ouahch   91.85  51   P         P         17 14 36.0 +1.0
RJF  Les Rejaudoux    91.85  42⇑iP          P         17 14 34.2 -0.6
     comp=Z,192nm,1.3s,mb6.0
RJF                               eMLR      MLR
     comp=Z,14µm,21.2s,MS6.1
RJF  Les Rejaudoux    91.85  42⇑iP          P         17 14 34.2 -0.6
RJF                                pmax     pmax
     comp=Z,96nm,1.3s,mb6.0
RJF                                MLR      MLR
     comp=Z,14µm,21.3s,MS6.4
RJF  Les Rejaudoux    91.85  42⇑iP          P         17 14 34.2 -0.6
     comp=Z,96nm,1.3s,mb6.0
RJF                                LR       LR
     comp=Z,14µm,21.3s,MS6.4
CAF  Calviac          92.03  43⇑iP          P         17 14 35.2 -0.4
     comp=Z,132nm,1.3s,mb5.8
CAF  Calviac          92.03  43⇑iP          P         17 14 35.2 -0.4
CAF                                pmax     pmax
     comp=Z,66nm,1.3s,mb5.8
CAF  Calviac          92.03  43⇑iP          P         17 14 35.2 -0.4
     comp=Z,66nm,1.3s,mb5.8
GMM  Mts of Mourne    92.06  32⇑eP          P         17 14 34.9 -0.7
ABSA Djebel Ababsia   92.11  52   P         P         17 14 37.5 +1.3
CMAH Djebel Manchou   92.20  52   P         P         17 14 37.0 +0.4
LSZ  Lusaka           92.21 107  eP         P         17 14 38.8 +1.6
LSZ                                pmax     pmax
     comp=Z,62nm,1.4s,mb5.8
LSZ  Lusaka           92.21 107  eP         P         17 14 38.8 +1.7
     comp=Z,62nm,1.4s,mb5.8
LSZ  Lusaka           92.21 107 ⇓P          P         17 14 39.9 +2.8
     SNR=8.2
LSZ                             ⇓P                    17 14 39.9
     SNR=8.2
FLN  La Foliniere     92.25  38⇑iP          P         17 14 35.7 -0.8
     comp=Z,253nm,1.4s,mb6.0
FLN                               eMLR      MLR
     comp=Z,20µm,23.0s,MS6.2
FLN  La Foliniere     92.25  38⇑iP          P         17 14 35.7 -0.8
FLN                                pmax     pmax
     comp=Z,126nm,1.4s,mb6.0
FLN                                MLR      MLR
     comp=Z,20µm,23.0s,MS6.5
FLN  La Foliniere     92.25  38⇑iP          P         17 14 35.7 -0.8
     comp=Z,126nm,1.4s,mb6.1
FLN                                LR       LR
     comp=Z,20µm,23.0s,MS6.5
LDF  La Druitiere     92.38  39⇑iP          P         17 14 36.2 -0.9
     comp=Z,226nm,1.4s,mb6.0
LDF  La Druitiere     92.38  39⇑iP          P         17 14 36.2 -0.9
LDF                                pmax     pmax
     comp=Z,113nm,1.4s,mb6.0
LDF  La Druitiere     92.38  39⇑iP          P         17 14 36.2 -0.9
     comp=Z,113nm,1.4s,mb6.0
MCH1 Michaelchurch    92.42  35  eP         P         17 14 34.9 -2.3
MCH1                               AMS      AMS       17 52 28.3
     comp=Z,5µm,20.5s,MS6.0
WRAK Wrangell Islan   92.48 330   PFAKE               17 14 50.0  +13
WRAK                               LR       LR
     comp=Z,5µm,20.0s,MS5.9
MIR  Mirnyy           92.58 173c iP         pP        17 14 50.0 -0.9
MIR                              i S        S         17 25 42.0 +3.2
MIR                              i PS       PS        17 26 54.0 -0.9
MIR                                pmax     pmax
     comp=Z,3µm,4.0s
MIR                                MLR      MLR
     comp=Z,9µm,20.0s,MS6.2
DLBC Dease Lake       92.59 333  eP         P         17 14 36.9 -0.9
TCF  Toulx Ste Croi   92.73  41⇑iP          P         17 14 38.2 -0.6
     comp=Z,82nm,1.2s,mb5.7
TCF  Toulx Ste Croi   92.73  41⇑iP          P         17 14 38.2 -0.6
TCF                                pmax     pmax
     comp=Z,41nm,1.2s,mb5.7
TCF  Toulx Ste Croi   92.73  41⇑iP          P         17 14 38.2 -0.6
     comp=Z,41nm,1.2s,mb5.7
LASF Ste Croix        92.81  44  eP         P         17 14 38.0 -1.2
     comp=Z,69nm,1.2s,mb5.7
SWN1 Swindon          92.83  36   AMS       AMS       17 52 11.1
     comp=Z,11µm,22.1s,MS6.3
LBL  Lubilhac         92.91  43  eP         P         17 14 40.1 +0.4
PYM  Petit Puy Mans   92.99  42  eP         P         17 14 40.1 +0.1
GAL1 Galloway         93.01  32⇑eP          P         17 14 38.9 -0.9
GAL1                               AMS      AMS       17 53 04.5
     comp=Z,6µm,20.1s,MS6.1
AGO  Saint Agoulin    93.20  42  eP         P         17 14 40.6 -0.4
BGF  Bois d'Agland    93.24  41⇑iP          P         17 14 40.5 -0.6
     comp=Z,258nm,1.6s,mb6.1
BGF  Bois d'Agland    93.24  41⇑iP          P         17 14 40.5 -0.6
BGF                                pmax     pmax
     comp=Z,129nm,1.6s,mb6.1
BGF  Bois d'Agland    93.24  41⇑iP          P         17 14 40.5 -0.6
     comp=Z,129nm,1.6s,mb6.1
KEST Kesra            93.29  53   P         P         17 14 41.5 -0.2
     comp=Z,8.0nm,1.0s,mb5.1,baz=187,slow=3.2,SNR=11
KEST                               LR       LR        17 56 59.2
     comp=Z,8µm,19.9s,MS6.2,baz=216,slow=36
COLF Collangettes     93.32  43  eP         P         17 14 41.0 -0.5
PLDF La Plantade      93.47  42  eP         P         17 14 42.2  0.0
PGBU Gleniﬀerbraes    93.61  31  eP         P         17 14 41.8 -0.9
PGBU                               AMS      AMS       17 52 36.4
     comp=Z,8µm,20.5s,MS6.2
AVF  Avril sur Loir   93.66  41⇑iP          P         17 14 42.2 -0.9
     comp=Z,83nm,1.4s,mb5.7
AVF  Avril sur Loir   93.66  41⇑iP          P         17 14 42.2 -0.9
AVF                                pmax     pmax
     comp=Z,42nm,1.4s,mb5.7
AVF  Avril sur Loir   93.66  41⇑iP          P         17 14 42.2 -0.9
     comp=Z,42nm,1.4s,mb5.7
VIVF Saint-Julien-l   93.67  43⇑iP          P         17 14 43.2  0.0
     comp=Z,180nm,1.5s,mb6.0
VIVF Saint-Julien-l   93.67  43⇑iP          P         17 14 43.2  0.0
VIVF                               pmax     pmax
     comp=Z,90nm,1.5s,mb6.0
VIVF Saint-Julien-l   93.67  43⇑iP          P         17 14 43.2  0.0
     comp=Z,90nm,1.5s,mb6.0
SSB  Saint Sauveur    93.76  43  eP         P         17 14 43.5 -0.1
SSB                                pmax     pmax
     comp=Z,68nm,1.5s,mb5.9
SSB                                MLR      MLR
     comp=Z,19µm,20.0s,MS6.5
SSB  Saint Sauveur    93.76  43  eP         P         17 14 43.5 -0.1
     comp=Z,68nm,1.5s,mb5.9
SSB                                LR       LR
     comp=Z,19µm,20.0s,MS6.5
LHO  Holmfirth        93.79  34⇑eP          P         17 14 42.4 -1.1
CASY Casey            93.80 180  ePDIF      P         17 14 43.7 +0.2
CASY Casey            93.80 180  eP         P         17 14 43.3 -0.2
     comp=Z,38nm,1.1s,mb5.7
CASY                               LR       LR
     comp=Z,9µm,21.0s,MS6.2
KPL  Plockton         93.86  29   AMS       AMS       17 51 56.7
     comp=Z,11µm,22.6s,MS6.2
SSF  Saint Saulge     93.87  41⇑iP          P         17 14 42.9 -1.1
     comp=Z,126nm,1.6s,mb5.8
SSF  Saint Saulge     93.87  41⇑iP          P         17 14 42.9 -1.1
SSF                                pmax     pmax
     comp=Z,63nm,1.6s,mb5.8
SSF  Saint Saulge     93.87  41⇑iP          P         17 14 42.9 -1.1
     comp=Z,63nm,1.6s,mb5.8
SMRF Simiane la Rot   93.89  44⇑iP          P         17 14 43.2 -1.0
     comp=Z,94nm,1.4s,mb5.7
SMRF Simiane la Rot   93.89  44⇑iP          P         17 14 43.2 -1.0
     comp=Z,94nm,1.4s,mb6.0
SMF  Signal de Mont   93.90  42⇑iP          P         17 14 43.6 -0.6
     comp=Z,243nm,1.4s,mb6.2
SMF  Signal de Mont   93.90  42⇑iP          P         17 14 43.6 -0.6
SMF                                pmax     pmax
     comp=Z,122nm,1.4s,mb6.1
SMF  Signal de Mont   93.90  42⇑iP          P         17 14 43.6 -0.6
     comp=Z,122nm,1.4s,mb6.1
ESK  Eskdalemuir      93.98  32   AMS       AMS       17 53 41.9
     comp=Z,6µm,20.6s,MS6.0
ESK  Eskdalemuir      93.98  32  i P        P         17 14 44.6 +0.3
ESK  Eskdalemuir      93.98  32   PFAKE               17 14 50.0 +5.7
ESK                                LR       LR
     comp=Z,6µm,20.0s,MS6.1
ESK  Eskdalemuir      93.98  32   AMS       AMS       17 53 41.9
     comp=Z,6µm,20.6s
EKA  Eskdalemuir Ar   94.01  32   P         P         17 14 43.7 -0.8
EKA                                pmax     pmax
     comp=Z,27nm,1.1s
EKA  Eskdalemuir Ar   94.01  32   P         P         17 14 43.6 -0.8
     comp=Z,27nm,1.1s,mb5.6,baz=238,slow=4.8,SNR=17
HPK  Haverah Park     94.11  33   AMS       AMS       17 53 16.7
     comp=Z,16µm,21.2s,MS6.5
HPK  Haverah Park     94.11  33   AMS       AMS       17 53 16.7
     comp=Z,16µm,21.2s
LOR  Lormes           94.17  41⇑iP          P         17 14 44.3 -1.1
     comp=Z,28nm,0.8s,mb5.4
LOR                               eMLR      MLR
     comp=Z,18µm,21.0s,MS6.2
LOR  Lormes           94.17  41⇑iP          P         17 14 44.3 -1.1
LOR                                pmax     pmax
     comp=Z,14nm,0.8s,mb5.4
LOR                                MLR      MLR
     comp=Z,18µm,21.0s,MS6.5
LOR  Lormes           94.17  41⇑iP          P         17 14 44.3 -1.1
     comp=Z,14nm,0.8s,mb5.5
LOR                                LR       LR
     comp=Z,18µm,21.0s,MS6.5
LMR  La Mourre        94.25  45⇑iP          P         17 14 45.7 -0.2
     comp=Z,185nm,1.4s,mb6.0
LMR  La Mourre        94.25  45⇑iP          P         17 14 45.7 -0.2
LMR                                pmax     pmax
     comp=Z,93nm,1.4s,mb6.0
LMR  La Mourre        94.25  45⇑iP          P         17 14 45.7 -0.2
     comp=Z,92nm,1.4s,mb6.0
XAL  Allendale        94.25  32⇑eP          P         17 14 44.8 -0.7
TFO1 Folkestone       94.27  37   AMS       AMS       17 53 36.5
     comp=Z,10µm,20.5s,MS6.3
TFO1 Folkestone       94.27  37   AMS       AMS       17 53 36.5
     comp=Z,10µm,20.5s
FRF  La Foret Royal   94.43  45⇑iP          P         17 14 46.6 -0.1
     comp=Z,359nm,1.8s,mb6.2
FRF  La Foret Royal   94.43  45⇑iP          P         17 14 46.6 -0.1
FRF                                pmax     pmax
     comp=Z,180nm,1.8s,mb6.2
FRF  La Foret Royal   94.43  45⇑iP          P         17 14 46.6 -0.1
     comp=Z,180nm,1.8s,mb6.2
SNZO South Karori     94.44 223   PFAKE               17 15 00.0  +13
SNZO                               LR       LR
     comp=Z,17µm,21.0s,MS6.5
ORIF Oris-en-Rattie   94.47  44⇑iP          P         17 14 47.1 +0.2
     comp=Z,194nm,1.7s,mb6.0
ORIF                              eMLR      MLR
     comp=Z,24µm,20.0s,MS6.4
ORIF Oris-en-Rattie   94.47  44⇑iP          P         17 14 47.1 +0.2
ORIF                               pmax     pmax
     comp=Z,97nm,1.7s,mb6.0
ORIF Oris-en-Rattie   94.47  44⇑iP          P         17 14 47.1 +0.2
     comp=Z,97nm,1.7s,mb6.0
MDO  Dochfour         94.51  30  eP         P         17 14 45.9 -0.8
ESY  Stoneypath       94.57  31  eP         P         17 14 46.1 -0.9
VSL  Villasalto       94.74  50   PFAKE               17 15 00.0  +12
VSL                                LR       LR
     comp=Z,6µm,21.0s,MS6.0
MVH1 Achvaich         94.84  29  eP         P         17 14 47.1 -1.1
SUMG Summit           94.92   9  eP         P         17 14 48.9 +0.6
     comp=Z,132nm,1.1s,mb6.3
RAO  Raoul Island     94.96 237   PFAKE               17 15 00.0  +10
RAO                                LR       LR
     comp=Z,9µm,22.0s,MS6.2
MBDF Montbardon       94.98  44  eP         P         17 14 49.4 +0.2
     comp=Z,101nm,1.6s,mb5.7
MBDF Montbardon       94.98  44  eP         P         17 14 49.4 +0.2
MBDF                               pmax     pmax
     comp=Z,51nm,1.6s,mb5.7
MBDF Montbardon       94.98  44  eP         P         17 14 49.4 +0.2
     comp=Z,51nm,1.6s,mb5.7
BNI  Bardonecchia     95.05  44   PFAKE               17 15 00.0  +11
BNI                                LR       LR
     comp=Z,23µm,20.0s,MS6.6
SBF  Sospel           95.07  45⇑iP          P         17 14 49.5 -0.1
     comp=Z,278nm,1.6s,mb6.1
SBF  Sospel           95.07  45⇑iP          P         17 14 49.5 -0.1
SBF                                pmax     pmax
     comp=Z,139nm,1.6s,mb6.1
SBF  Sospel           95.07  45⇑iP          P         17 14 49.5 -0.1
     comp=Z,139nm,1.6s,mb6.1
LPL  La Plagne        95.26  43⇑iP          P         17 14 51.0 +0.5
     comp=Z,141nm,1.5s,mb5.9
LPL  La Plagne        95.26  43⇑iP          P         17 14 51.0 +0.5
LPL                                pmax     pmax
     comp=Z,70nm,1.5s,mb5.9
LPL  La Plagne        95.26  43⇑iP          P         17 14 51.0 +0.5
     comp=Z,70nm,1.5s,mb5.9
LPG  La Plagne        95.27  43⇑iP          P         17 14 51.2 +0.7
     comp=Z,134nm,1.4s,mb5.9
LPG  La Plagne        95.27  43⇑iP          P         17 14 51.2 +0.7
LPG                                pmax     pmax
     comp=Z,67nm,1.4s,mb5.9
LPG  La Plagne        95.27  43⇑iP          P         17 14 51.2 +0.7
     comp=Z,67nm,1.4s,mb5.9
CABF La Chapelle      95.29  42⇑iP          P         17 14 50.3 -0.3
     comp=Z,65nm,1.2s,mb5.6
CABF La Chapelle      95.29  42⇑iP          P         17 14 50.3 -0.3
CABF                               pmax     pmax
     comp=Z,33nm,1.2s,mb5.6
CABF La Chapelle      95.29  42⇑iP          P         17 14 50.3 -0.3
     comp=Z,33nm,1.2s,mb5.6
MEZF Maizieres J'vi   95.42  40⇑iP          P         17 14 50.4 -0.7
     comp=Z,195nm,1.3s,mb6.1
MEZF Maizieres J'vi   95.42  40⇑iP          P         17 14 50.4 -0.7
     comp=Z,195nm,1.3s,mb6.4
KIP  Kipapa           95.45 291   PFAKE               17 15 00.0 +8.1
KIP                                LR       LR
     comp=Z,7µm,19.0s,MS6.1
BAIF Baives           95.56  39⇑iP          P         17 14 50.9 -0.8
SNF  Seneffe          95.80  38   P         P         17 14 52.5 -0.3
DOU  Dourbes          95.81  39   P         P         17 14 52.2 -0.6
     comp=Z,32nm,2.7s,mb5.3
THEF They Montfort    95.88  41  eP         P         17 14 52.7 -0.5
GIVF Givet            95.94  39⇑iP          P         17 14 52.8 -0.6
     comp=Z,219nm,1.4s,mb6.1
GIVF Givet            95.94  39⇑iP          P         17 14 52.8 -0.6
GIVF                               pmax     pmax
     comp=Z,110nm,1.4s,mb6.1
GIVF Givet            95.94  39⇑iP          P         17 14 52.8 -0.6
     comp=Z,110nm,1.4s,mb6.1
UCC  Uccle            95.96  38   P         P         17 14 52.9 -0.7
     comp=Z,118nm,3.2s
RES  Resolute Bay     95.99 354   P         P         17 14 51.5 -1.6
RES                                                   17 18 51.0
RES                                pmax     pmax
     comp=Z,9.0nm,1.1s,mb5.1
RES                                pmax     pmax
     comp=Z,7.0nm,1.1s,mb5.0
RES  Resolute Bay     95.99 354   P         P         17 14 51.5 -1.6
     comp=Z,9.4nm,1.1s,mb5.1,baz=178,slow=6.7,SNR=16
RES                                PP       PP        17 18 51.0 +4.8
     comp=Z,7.1nm,1.1s,baz=153,slow=1.0,SNR=6.7
RES  Resolute Bay     95.99 354  eP         P         17 14 52.1 -1.0
     comp=Z,2.6nm,0.6s,mb4.8
HAU  Haudompre        96.01  41⇑iP          P         17 14 52.9 -0.9
     comp=Z,60nm,1.1s,mb5.6
HAU                               eMLR      MLR
     comp=Z,18µm,22.0s,MS6.2
HAU  Haudompre        96.01  41⇑iP          P         17 14 52.9 -0.9
HAU                                pmax     pmax
     comp=Z,30nm,1.1s,mb5.6
HAU                                MLR      MLR
     comp=Z,18µm,22.0s,MS6.5
HAU  Haudompre        96.01  41⇑iP          P         17 14 52.9 -0.9
     comp=Z,30nm,1.1s,mb5.6
HAU                                LR       LR
     comp=Z,18µm,22.0s,MS6.5
LOMF Lomont           96.05  42  eP         P         17 14 53.6 -0.4
HINF Hinteralfeld     96.25  41⇑iP          P         17 14 54.0 -0.9
     comp=Z,34nm,1.0s,mb5.4
HINF Hinteralfeld     96.25  41⇑iP          P         17 14 54.0 -0.9
HINF                               pmax     pmax
     comp=Z,17nm,1.0s,mb5.4
HINF Hinteralfeld     96.25  41⇑iP          P         17 14 54.0 -0.9
     comp=Z,17nm,1.0s,mb5.4
BCLA Clavier          96.35  38   P         P         17 14 54.6 -0.7
     comp=Z,33nm,3.1s
MOF  Molkenrain       96.44  41  eP         P         17 14 55.1 -0.6
WLF  Walferdange      96.55  39   P         P         17 14 56.5 +0.3
     comp=Z,50nm,1.8s,mb5.6
WLF                                AP       pP        17 15 07.5 -1.7
WLF  Walferdange      96.55  39  eP         P         17 14 55.5 -0.7
WLF                              e          pP        17 15 07.1 -2.1
WLF                                pmax     pmax
     comp=Z,95nm,1.3s,mb6.1
WLF                                MLR      MLR
     comp=Z,15µm,21.0s,MS6.4
WLF  Walferdange      96.55  39  eP         P         17 14 55.5 -0.7
     comp=Z,95nm,1.3s,mb6.1
WLF                              e          pP        17 15 07.0 -2.2
WLF                                LR       LR
     comp=Z,15µm,21.0s,MS6.4
ECH  Echery           96.59  41  eP         P         17 14 55.9 -0.5
ECH  Echery           96.59  41  eP         P         17 14 54.8 -1.6
ECH                              e          pP        17 15 06.7 -2.8
ECH                                pmax     pmax
     comp=Z,19nm,1.0s,mb5.5
ECH                                MLR      MLR
     comp=Z,11µm,21.0s,MS6.3
ECH  Echery           96.59  41  eP         P         17 14 54.8 -1.7
     comp=Z,19nm,1.0s,mb5.5
ECH                              e          pP        17 15 06.7 -2.8
ECH                                LR       LR
     comp=Z,11µm,21.0s,MS6.3
BEBN Eben Emael       96.72  38   P         P         17 14 56.5 -0.4
CDF  Champ du Feu     96.74  41⇑iP          P         17 14 56.4 -0.7
     comp=Z,81nm,1.2s,mb5.7
CDF  Champ du Feu     96.74  41⇑iP          P         17 14 56.4 -0.7
CDF                                pmax     pmax
     comp=Z,40nm,1.2s,mb5.7
CDF  Champ du Feu     96.74  41⇑iP          P         17 14 56.4 -0.7
     comp=Z,40nm,1.2s,mb5.7
MEM  Membach          96.84  39   P         P         17 14 57.2 -0.3
     comp=Z,17nm,1.3s,mb5.3
HGN  Heimansgroeve    96.86  38⇑eP          P         17 14 56.8 -0.7
FELD Feldberg im Sc   96.99  42  eP         P         17 14 57.7 -0.5
RUP  Ruppelstein      97.11  40  eP         P         17 14 58.7  0.0
VLC  Villacollemand   97.16  46   PFAKE               17 15 10.0  +11
VLC                                LR       LR
     comp=Z,5µm,19.0s,MS6.1
WDD  Wield Dalam      97.27  55   PFAKE               17 15 10.0  +10
WDD                                LR       LR
     comp=Z,13µm,20.0s,MS6.4
LRW  Lerwick          97.28  28   AMS       AMS       17 53 48.9
     comp=Z,9µm,22.6s,MS6.2
LRW  Lerwick          97.28  28   AMS       AMS       17 53 48.9
     comp=Z,9µm,22.6s
LANF Langenberg       97.28  40  eP         P         17 14 59.2 -0.3
TUE  Stuetta          97.31  43  eP         P         17 14 59.6 -0.2
     comp=Z,70nm,1.6s,mb5.8
TUE                                LR       LR
     comp=Z,10µm,19.0s,MS6.3
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BFO	**Black Forest**	**97.36**	**41**	*i* P	**P**	**17 14 59.6**	**-0.3**
BFO	**Black Forest**	**97.36**	**41**	*e*P	**P**	**17 14 58.8**	**-1.1**
	comp=Z,39nm,1.6s,mb5.6						
BFO				LR	LR		
	comp=Z,14µm,21.0s,MS6.4						
ABH	**Alteburg**	**97.47**	**40**	*e*P	**P**	**17 15 00.2**	**-0.2**
KTD	**Kalmit**	**97.58**	**40**	*e*P	**P**	**17 15 00.6**	**-0.3**
VAE	**Valguarnera**	**97.72**	**53**	P	**P**	**17 15 02.7**	**+0.8**
	comp=Z,5.2nm,0.5s,mb5.3,baz=90,slow=7.1,SNR=3.2						
VAE				PP	PP	17 18 59.0	-1.5
	comp=Z,4.4nm,0.4s,baz=92,slow=2.6,SNR=9.3						
DAVOS	**Davos**	**97.73**	**43**	P	**P**	**17 15 01.2**	**-0.4**
DAVOS						17 18 58.8	
DAVOX	**Davos/Dischmat**	**97.77**	**43**	P	**P**	**17 15 01.2**	**-0.6**
	comp=Z,9.4nm,1.1s,mb5.2,baz=281,slow=9.9,SNR=6.1						
DAVOX				PP	PP	17 18 58.8	-1.8
	comp=Z,3.9nm,0.9s,baz=319,slow=9.7,SNR=3.1						
WTSB	**Winterswijk**	**97.83**	**37**	⇑*e*P	**P**	**17 15 01.6**	**-0.3**
DAVA	**Damuels**	**97.95**	**43**	⇓*i*P	**P**	**17 15 02.9**	**+0.3**
	comp=Z,27nm,1.2s,mb5.7						
STU	**Stuttgart**	**98.06**	**41**	*e*P	**P**	**17 15 02.3**	**-0.7**
STU				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.8						
STU	**Stuttgart**	**98.06**	**41**	*e*P	**P**	**17 15 02.3**	**-0.7**
	comp=Z,32nm,0.9s,mb5.8						
TOD	**Tromm**	**98.12**	**40**	*e*P	**P**	**17 15 02.4**	**-0.9**
FETA	**Feichten**	**98.40**	**43**	⇑*i*Pdiff	**P**	**17 15 04.2**	**-0.4**
	comp=Z,22nm,1.4s,mb5.5						
RETA	**Reutte**	**98.58**	**43**	⇑*i*Pdiff	**P**	**17 15 05.3**	**-0.2**
	comp=Z,26nm,1.3s,mb5.6						
MOTA	**Moosalm**	**98.75**	**43**	⇑*i*Pdiff	**P**	**17 15 05.9**	**-0.3**
	comp=Z,27nm,1.3s,mb5.6						
WATA	**Walderalm**	**99.05**	**43**	⇓*i*Pdiff	**P**	**17 15 07.3**	**-0.3**
	comp=Z,15nm,1.0s,mb5.5						
WTTA	**Wattenberg**	**99.06**	**43**	⇑*i*Pdiff	**P**	**17 15 07.7**	**+0.1**
	comp=Z,48nm,1.3s,mb5.9						
CEL	**Celeste**	**99.08**	**53**	PFAKE		17 15 20.0	+12
CEL				LR	LR		
	comp=Z,12µm,22.0s,MS6.4						
CUC	**Castrocucco**	**99.57**	**51**	PFAKE		17 15 20.0	+10
CUC				LR	LR		
	comp=Z,12µm,20.0s,MS6.4						
GRA1	**Grafenberg Arr**	**99.62**	**41**	*e*Pdif	Pdif	17 15 10.0	-0.2
GRA1				*e*PP	PP	17 19 11.8	-2.9
GRA1				LR	LR		
	comp=Z,13µm,22.0s,MS6.4						
GRF	**Grafenberg Arr**	**99.62**	**41**	*e*P	Pdif	17 15 10.0	-0.2
GRF				*e*		17 19 11.8	
GRF	**Grafenberg Arr**	**99.62**	**41**	*e*Pdiff	Pdif	17 15 10.0	-0.2
GRF				*e*PP	PP	17 19 11.8	-2.9
GRF				*e*L		17 57 14.8	
	comp=Z,13µm,22.0s						
TIP	**Timpagrande**	**100.01**	**52**	PFAKE		17 15 20.0	+8.1
TIP				LR	LR		
	comp=Z,10µm,20.0s,MS6.3						
VOY	**Vojsko**	**100.13**	**45**	*e*PP	PP	17 19 15.2	-3.4
VOY				*e*		17 19 16.3	
MYKA	**Terra Mystica**	**100.15**	**44**	⇑*i*Pdiff	Pdif	17 15 12.6	+0.1
	comp=Z,22nm,1.5s						
MOX	**Moxa**	**100.18**	**40**	*e*P	Pdif	17 15 12.5	-0.1
	comp=Z,141nm,2.4s						
MOX				*e*PP	PP	17 19 14.7	-4.2
MOX							
	comp=Z,13µm,23.0s						
MOX	**Moxa**	**100.18**	**40**	*e*P	Pdif	17 15 12.5	-0.1
MOX				*e*		17 19 14.7	
MOX				pmax	pmax		
	comp=Z,141nm,2.4s						
MOX				MLR	MLR		
	comp=Z,13µm,23.0s,MS6.4						
JAVS	**Javornik**	**100.20**	**45**	*e*PP	PP	17 19 16.1	-3.0
JAVS				*e*		17 19 31.7	
JAVS				*e*		17 25 24.1	
BER	**Bergen**	**100.32**	**29**	*e*	Pdif	17 15 03.3	-10
BER				*e*SKS	SKSac	17 25 49.1	+1.2
EGAK	**Eagle**	**100.39**	**336**	*e*P	Pdif	17 15 11.2	-2.3
	comp=Z,20nm,1.3s						
EGAK				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
NKC	**Novy Kostel**	**100.55**	**40**	*e*P	Pdif	17 15 14.6	+0.3
NKC				*e*		17 19 16.3	
NKC				*e*SS	SS	17 33 51.7	+6.8
NKC				MLR	MLR		
	comp=Z,11µm,21.9s,MS6.3						
NKC	**Novy Kostel**	**100.55**	**40**	*e*PDIFF	Pdif	17 15 14.6	+0.3
NKC				*e*pP		17 15 25.2	
NKC				*e*PP	PP	17 19 16.3	-5.4
NKC				*e*PKPdf	PKiKP	17 19 33.8	-6.6
NKC				*e*SKS		17 25 59.1	
NKC				*e*x	x	17 26 14.7	
NKC				*e*x	x	17 28 32.6	
NKC				*e*SS	SS	17 33 51.7	+6.8
NKC				AMS	AMS	17 56 10.0	
	comp=Z,11µm,21.9s						
NKC	**Novy Kostel**	**100.55**	**40**	*e*Pdif	Pdif	17 15 14.6	+0.3
NKC				*e*pP		17 15 25.2	
NKC				*e*PP	PP	17 19 16.3	-5.4
LJU	**Ljubljana**	**100.55**	**45**	*e*PP	PP	17 19 19.0	-2.8
LJU				*e*		17 19 34.1	
LJU				*e*		17 25 11.9	
LJU				*e*		17 26 08.5	
OBKA	**Obir**	**100.71**	**44**	⇑*i*Pdiff	Pdif	17 15 15.0	0.0
	comp=Z,22nm,1.5s						
BOJS	**Bojanci**	**100.87**	**46**	*e*PP	PP	17 19 21.7	-2.6
BOJS				*e*		17 19 36.8	
GERES	**GERESS Array B**	**100.89**	**42**	P	Pdif	17 15 15.2	-0.6
GERES						17 19 20.6	
GERES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GERES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
GERES	**GERESS Array B**	**100.89**	**42**	P	Pdif	17 15 15.2	-0.5
	comp=Z,3.4nm,0.9s,baz=238,slow=4.6,SNR=19						
GERES				PP	PP	17 19 20.6	-3.7
	comp=Z,2.4nm,1.0s,baz=224,slow=7.2,SNR=4.0						
GERES				PKKP	PKKPbc	17 31 52.2	+23
	comp=Z,1.0nm,1.0s,baz=129,slow=1.9,SNR=5.1						
KHC	**Kasperske Hory**	**100.90**	**42**	*e*P	Pdif	17 15 15.7	-0.1
KHC				*e*		17 19 19.9	
KHC				*e*		17 25 54.7	
KHC				*e*SS	SS	17 34 02.8	+13
KHC				MLR	MLR		
	comp=Z,9µm,22.1s,MS6.2						
KHC	**Kasperske Hory**	**100.90**	**42**	*e*PDIFF	Pdif	17 15 15.7	-0.1
KHC				*e*pP		17 15 24.5	
KHC				*e*x	x	17 15 33.3	
KHC				*e*PP	PP	17 19 19.9	-4.5
KHC				*e*PKPdf	PKiKP	17 19 36.3	-4.8
KHC				*e*SKS		17 25 54.7	
KHC				*e*x	x	17 26 15.2	
KHC				*e*x	x	17 28 36.6	
KHC				*e*x	x	17 34 02.8	
KHC				AMS	AMS	17 58 00.0	
	comp=Z,9µm,22.1s						
KHC	**Kasperske Hory**	**100.90**	**42**	*e*Pdif	Pdif	17 15 15.7	-0.1
KHC				*e*pP		17 15 24.5	
KHC				*e*		17 15 33.3	
KHC				*e*PP	PP	17 19 19.9	-4.5
MOA	**Molln**	**100.94**	**43**	⇓*i*Pdiff	Pdif	17 15 15.7	-0.3
	comp=Z,18nm,1.4s						
SOKA	**Soboth**	**101.08**	**44**	⇑*i*Pdiff	Pdif	17 15 15.8	-0.8
	comp=Z,15nm,1.5s						
CLL	**Collm**	**101.22**	**39**	⇑*i*P	Pdif	17 15 17.1	-0.2
CLL				*i*		17 19 23.5	
CLL				pmax	pmax		
	comp=Z,39nm,1.4s						
CLL				pmax	pmax		
	comp=Z,775nm,3.4s						
CLL				MLR	MLR		
	comp=Z,14µm,21.0s,MS6.5						
CLL	**Collm**	**101.22**	**39**	⇑*i*Pdif	Pdif	17 15 17.1	-0.2
	comp=Z,39nm,1.4s						
CLL				*e*Pdifflp		17 15 20.0	
	comp=Z,700nm,28.6s						
CLL				*e*pPdif		17 15 29.0	
CLL				*i* PP	PP	17 19 23.5	-3.3
	comp=Z,775nm,3.4s						
CLL				*e*PPlp		17 19 28.0	
	comp=Z,1µm,24.2s						
CLL				*i* pPKiKP		17 19 50.1	
	comp=Z,51nm,1.7s						
CLL				*e*sSKSac		17 26 13.0	
CLL				*e*Sdif	Sdif	17 26 59.0	+5.6
CLL				*e*PS	PS	17 28 40.0	+10
CLL				*e*PPS		17 29 23.0	
CLL				*e*		17 30 18.0	
CLL				*e*SS	SS	17 33 58.0	+3.8
CLL				*e*		17 34 47.0	
CLL				*e*(SKKSdf)		17 38 36.0	
CLL				LmV		17 57 00.0	
	comp=Z,14µm,21.0s						
CLL	**Collm**	**101.22**	**39**	⇑*i*Pdif	Pdif	17 15 17.1	-0.2
	comp=Z,39nm,1.4s						
CLL				*e*		17 15 29.0	
CLL				*i* PP	PP	17 19 23.5	-3.3
CLL				*e*SKKS	SKKSac	17 26 13.0	-16
CLL				*e*Sdif	Sdif	17 27 05.0	+12
CLL				LR	LR		
	comp=Z,14µm,21.0s,MS6.5						
PAX	**Paxson**	**101.41**	**333**	*e*P	Pdif	17 15 15.3	-2.8
PAX				pmax	pmax		
	comp=Z,18nm,1.3s						
PAX	**Paxson**	**101.41**	**333**	*e*Pdif	Pdif	17 15 15.3	-2.8
	comp=Z,18nm,1.3s						
DAG	**Danmarks Havn**	**101.45**	**11**	⇓*i*P	Pdif	17 15 16.7	-1.6
DAG				pmax	pmax		
	comp=Z,9.0nm,0.8s						
DAG				MLR	MLR		
	comp=Z,17µm,20.0s,MS6.6						
DAG				MLR	MLR		
	comp=N,11µm,21.0s						
DAG	**Danmarks Havn**	**101.45**	**11**	⇓*i*P	Pdif	17 15 16.7	-1.6
	comp=N,9.0nm,0.8s						
DAG				*i*		17 19 24.0	
DAG							
	comp=Z,17µm,20.0s						
BRG	**Berggiesshubel**	**101.66**	**40**	*e*P	Pdif	17 15 19.2	0.0
BRG						17 26 00.0	
BRG				PS	PS	17 28 27.0	-7.7
BRG				SS	SS	17 34 04.0	+3.8
BRG				pmax	pmax		
	comp=Z,21nm,1.6s						
BRG				MLR	MLR		
	comp=N,3µm,19.3s,MS6.2						
BRG				MLR	MLR		
	comp=E,6µm,22.1s,MS6.2						
BRG				MLR	MLR		
	comp=Z,9µm,21.3s,MS6.3						
BRG	**Berggiesshubel**	**101.66**	**40**	*e*P	Pdif	17 15 19.2	+0.1
	comp=Z,34nm,1.6s						
BRG				PP	PP	17 19 18.0	-12
BRG				SKS		17 26 00.0	
BRG				S	Sdif	17 27 06.0	+9.0
BRG				PS	PS	17 28 27.0	-7.7
BRG				*e*		17 31 47.8	
	comp=Z,3.7nm,1.0s						
BRG				SS	SS	17 34 04.0	+3.8
BRG							
	comp=N,6µm,19.3s						
BRG							
	comp=E,10µm,22.1s						
BRG							
	comp=Z,15µm,21.3s						
BRG	**Berggiesshubel**	**101.66**	**40**	*e*P	Pdif	17 15 19.2	+0.1
	comp=Z,20nm,1.6s						
BRG				PP	PP	17 19 18.0	-12
BRG				SKS		17 26 00.0	
BRG				S	Sdif	17 27 06.0	+9.0
BRG				PS	PS	17 28 27.0	-7.7
BRG				*e*		17 31 47.8	
BRG				SS	SS	17 34 04.0	+3.8
BRG				LR	LR		
	comp=Z,9µm,21.3s,MS6.3						
PRU	**Pruhonice**	**101.76**	**41**	*e*P	Pdif	17 15 20.2	+0.6
PRU				*e*		17 19 25.5	
PRU				*e*		17 25 59.7	
PRU				*e*SS	SS	17 34 10.3	+8.6
PRU				MLR	MLR		
	comp=Z,10µm,21.3s,MS6.3						
PRU	**Pruhonice**	**101.76**	**41**	*e*PDIFF	Pdif	17 15 20.2	+0.6
PRU				*e*pP		17 15 31.5	
PRU				*e*x	x	17 15 42.5	
PRU				*e*PP	PP	17 19 25.5	-5.3
PRU				*e*PKPdf	PKiKP	17 19 42.7	+0.1
PRU				*e*SKS		17 25 59.7	
PRU				*e*x	x	17 26 19.5	
PRU				*e*x	x	17 28 49.0	
PRU				*e*SS	SS	17 34 10.3	+8.6
PRU				AMS	AMS	17 57 50.0	
	comp=Z,10µm,21.3s						
PRU	**Pruhonice**	**101.76**	**41**	*e*Pdif	Pdif	17 15 20.2	+0.6
PRU				*e*pP		17 15 31.5	
PRU				*e*		17 15 42.5	
PRU				*e*PP	PP	17 19 25.5	-5.3
PVCC	**Panska Ves**	**101.93**	**40**	*e*PDIFF	Pdif	17 15 20.5	+0.1
PVCC				*e*PP	PP	17 19 25.9	-6.2
PVCC				*e*PKPdf	PKiKP	17 19 44.4	+1.5
PVCC				*e*SKS		17 26 05.2	
PVCC				*e*x	x	17 26 21.2	
PVCC				*e*x	x	17 28 51.4	
PVCC				*e*SS	SS	17 33 57.3	-6.8
PVCC				AMS	AMS	17 58 10.0	
	comp=Z,10µm,22.5s						
PVCC	**Panska Ves**	**101.93**	**40**	*e*Pdif	Pdif	17 15 20.5	+0.1
PVCC				*e*PP	PP	17 19 25.9	-6.2
KONO	**Kongsberg**	**102.06**	**31**	*e*	Pdif	17 15 26.6	+5.6
KONO				*e*PP	PP	17 19 32.3	-0.6
MOL	**Molde**	**102.11**	**28**	AMS	AMS	17 55 23.0	
	comp=Z,7µm,23.2s,MS6.1						
TREC	**Trest**	**102.14**	**42**	*e*P	Pdif	17 15 22.0	+0.7
TREC				*e*		17 19 29.9	
TREC				*e*		17 26 00.2	
TREC				*e*SS	SS	17 34 05.4	-1.7
TREC				MLR	MLR		
	comp=Z,10µm,22.3s,MS6.3						
TREC	**Trest**	**102.14**	**42**	*e*PDIFF	Pdif	17 15 22.0	+0.7
TREC				*e*PP	PP	17 19 29.9	-3.9
TREC				*e*PKPdf	PKiKP	17 19 45.4	+2.0
TREC				*e*SKS		17 26 00.2	
TREC				*e*x	x	17 26 22.6	
TREC				*e*x	x	17 28 55.8	
TREC				*e*SS	SS	17 34 05.4	-1.7
TREC				AMS	AMS	17 57 50.0	
	comp=Z,10µm,22.3s						
PAF	**Port-aux-Franc**	**102.25**	**155**	PFAKE		17 15 30.0	+8.2
PAF				LR	LR		
	comp=Z,10µm,22.0s,MS6.3						
SOP	**Sopron**	**102.37**	**44**	⇑*e*PP	PP	17 19 28.8	-6.7
UPC	**Upice**	**102.81**	**41**	*e*PDIFF	Pdif	17 15 25.1	+0.8
UPC				*e*pP		17 15 35.7	
UPC				*e*PP	PP	17 19 33.6	-5.1
VRAC	**Vranov**	**102.84**	**42**	P	Pdif	17 15 24.2	-0.3
VRAC						17 19 37.5	
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.4s						
VRAC				pmax	pmax		
	comp=Z,8.0nm,1.0s						
VRAC	**Vranov**	**102.84**	**42**	P	Pdif	17 15 24.2	-0.2
	comp=Z,1.8nm,0.4s,baz=264,slow=14,SNR=4.8						
VRAC				PP	PP	17 19 37.5	-1.5
	comp=Z,7.9nm,1.0s,baz=245,slow=10,SNR=4.0						
ZST	**Bratislava**	**102.86**	**43**	*e*	PP	17 19 25.4	-14
ZST				*e*PS	PS	17 28 46.4	-1.2
TIR	**Tirane**	**102.91**	**51**	PFAKE		17 15 30.0	+5.2
TIR				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
DPC	**Dobruska-Polom**	**102.96**	**41**	*e*P	Pdif	17 15 25.2	+0.2
DPC				*e*		17 26 06.8	
DPC				*e*SS	SS	17 34 22.4	+4.1
DPC				MLR	MLR		
	comp=Z,6µm,21.3s,MS6.1						
DPC	**Dobruska-Polom**	**102.96**	**41**	*e*PDIFF	Pdif	17 15 25.2	+0.2
DPC				*e*pP		17 15 35.0	
DPC				*e*PP	PP	17 19 29.3	-11
DPC				*e*PKPdf	PKiKP	17 19 52.4	+7.6
DPC				*e*SKS		17 26 06.8	
DPC				*e*x	x	17 26 25.0	
DPC				*e*PS	PS	17 28 55.4	+6.9
DPC				*e*SS	SS	17 34 22.4	+4.1
DPC				AMS	AMS	17 58 40.0	
	comp=Z,6µm,21.3s						
DPC	**Dobruska-Polom**	**102.96**	**41**	*e*Pdif	Pdif	17 15 25.2	+0.2
DPC				*e*pP		17 15 35.0	
DPC				*e*PP	PP	17 19 29.3	-11
MODS	**Modra-Piesok**	**103.02**	**43**	*e*PP	PP	17 19 34.7	-5.7
MODS				*e*PS	PS	17 28 49.6	+0.3
MODS				*e*SS	SS	17 34 25.5	+6.2
NAO01	**NORSAR Array S**	**103.05**	**30**	PFAKE		17 15 30.0	+4.6
NAO01				LR	LR		
	comp=Z,11µm,20.0s,MS6.4						
COLA	**College**	**103.07**	**335**	*e*P	Pdif	17 15 23.2	-2.3
COLA				pmax	pmax		
	comp=Z,40nm,0.7s						
COLA	**College**	**103.07**	**335**	*e*Pdif	Pdif	17 15 23.2	-2.2
	comp=Z,40nm,0.7s						
KSP	**Ksiaz**	**103.07**	**41**	*e*P	Pdif	17 15 25.7	+0.2
KSP				*e*		17 19 38.5	
KSP				*e*		17 26 00.0	
KSP				*e*SP	SP	17 28 49.0	+5.0
KSP				*e*SS	SS	17 34 22.0	+2.1
KSP				MLR	MLR		
	comp=Z,19µm,23.3s,MS6.5						
NB2	**NORSAR Subarra**	**103.26**	**30**	P	Pdif	17 15 26.1	-0.2
	comp=Z,64nm,1.7s,baz=251,slow=4.1						
NB2	**NORSAR Subarra**	**103.26**	**30**	P	Pdif	17 15 26.1	-0.2
	baz=251,slow=4.1						
NOA	**NORSAR Array B**	**103.26**	**30**	P	Pdif	17 15 26.4	+0.1
NOA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
NOA	**NORSAR Array B**	**103.26**	**30**	Pdiff	Pdif	17 15 26.4	0.0
	comp=Z,8.6nm,1.1s,baz=251,slow=4.2,SNR=4.1						
MORC	**Moravsky Berou**	**103.56**	**42**	*e*P	Pdif	17 15 27.3	-0.4
MORC				pmax	pmax		
	comp=Z,9.0nm,1.4s						
MORC	**Moravsky Berou**	**103.56**	**42**	*e*Pdif	Pdif	17 15 27.3	-0.3
	comp=Z,9.4nm,1.4s						
BUD	**Budapest**	**103.92**	**44**	⇑*e*PP	PP	17 19 40.9	-6.2
OKC	**Ostrava-Krasne**	**103.96**	**42**	*e*PP	PP	17 19 42.1	-5.2
OKC				*e*PKPdf	PKiKP	17 20 00.1	+13
OKC				*e*SKS		17 26 13.7	
OKC				*e*x	x	17 26 30.1	
OKC				*e*PS	PS	17 29 05.3	+6.2
OKC				*e*SS	SS	17 34 33.1	+1.1
OKC				AMS	AMS	17 59 00.0	
	comp=Z,7µm,20.7s						
VYHS	**Vyhne**	**104.06**	**43**	*e*	PKiKP	17 19 40.4	-6.5
VYHS				*e*PP	PP	17 19 46.9	-1.2
HFS	**Hagfors**	**104.18**	**31**	PP	PP	17 19 48.1	-0.5
	comp=Z,11nm,1.0s,baz=254,slow=5.5,SNR=4.6						
PSZ	**Piszkesteto**	**104.60**	**44**	⇑*e*PP	PP	17 19 47.0	-5.2
PSZ	**Piszkesteto**	**104.60**	**44**	PFAKE		17 15 40.0	+7.7
PSZ				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
COLD	**Coldfoot**	**104.72**	**337**	*e*Pdif	Pdif	17 15 31.9	-0.8
	comp=Z,9.7nm,1.4s						
OJC	**Ojcow**	**105.08**	**42**	*e*Pdiff	Pdif	17 15 34.7	+0.3
OJC				*e*PP	PP	17 19 54.9	-0.8
OJC				*e*SKSac	SKSac	17 26 15.7	+5.0
OJC				*e*SP	SP	17 29 05.9	+0.9
OJC				*e*SS	SS	17 34 50.2	+2.8
OJC				L		18 00 08.4	
	comp=Z,12nm,23.1s						
IDI	**Anoyia**	**105.19**	**58**	Pdiff	Pdif	17 15 36.6	+1.7
	comp=Z,3.3nm,1.0s,baz=311,slow=5.0,SNR=5.1						
IDI				PP	PP	17 19 55.3	-1.7
	comp=Z,16nm,1.1s,baz=236,slow=8.1,SNR=13						
VTS	**Vitosha**	**105.63**	**50**	P	PP	17 19 58.5	-1.5
KMBO	**Kilima Mbogo**	**105.72**	**97**	PP	PP	17 19 59.3	-1.9
	comp=Z,1.3nm,0.3s,baz=67,slow=11,SNR=3.2						
MMB	**Musomiste**	**105.78**	**51**	P	PP	17 19 57.1	-4.0
CRVS	**Cervenica-Dubn**	**105.84**	**43**	*e*PP	PP	17 19 59.3	-2.0
CRVS				*e*PS	PS	17 29 20.2	+1.5
PGB	**Panagyurishte**	**106.31**	**50**	P	PP	17 19 59.9	-5.1
UZH	**Uzhgorod**	**106.32**	**44**	*e*P	Pdif	17 15 38.0	-1.9
UZH				*e*		17 20 00.6	
UZH				*e*		17 22 28.0	
UZH				*e*		17 26 21.0	
UZH				*i* PS	PS	17 29 22.0	-1.7
UZH				*i*		17 30 16.0	
UZH				*i* SS	SS	17 35 04.0	-0.4
UZH				MLR	MLR		
	comp=N,2µm,20.0s,MS6.0						
UZH				MLR	MLR		
	comp=E,3µm,20.0s,MS6.0						
UZH				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.7						
RZN	**Rozhen**	**106.53**	**51**	P	PP	17 19 59.4	-7.2
PLD	**Plovdiv**	**106.61**	**51**	P	PP	17 19 59.4	-7.8
KWP	**Kalwaria Pacla**	**106.79**	**43**	*e*PKiKP	PKiKP	17 19 50.0	-1.9
KWP				LR	LR		
	comp=Z,7µm,21.0s,MS6.2						
KDZ	**Kurdzhali**	**107.03**	**51**	P	PP	17 20 01.4	-8.9
BOZC	**Bozcaada**	**107.13**	**53**	⇑*i*P	PP	17 20 04.5	-6.6
ABPO	**Ambohimpanom**	**107.14**	**118**	PFAKE		17 20 00.0	+6.5
ABPO				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
PVL	**Pavlikeni**	**107.29**	**50**	P	PP	17 20 10.9	-1.3
GCAM	**G?zelcaml?**	**107.58**	**56**	⇑*i*P	PP	17 20 08.6	-5.8
SZH	**Strazhica**	**107.73**	**50**	P	PP	17 20 15.5	+0.1
JMB	**Yambol**	**108.05**	**51**	P	PP	17 20 17.8	+0.1
AYDN	**Tasoluk**	**108.07**	**56**	⇑*i*P	PP	17 20 07.3	-11
KBS	**Kingsbay**	**108.11**	**12**	*e*P	Pdif	17 15 41.1	-6.8
KBS				*e*PP	PP	17 20 16.1	-1.1
SART	**Tekirdag**	**108.14**	**53**	⇑*i*P	PKiKP	17 19 58.1	+3.4
MLR	**Muntele Rosu**	**108.16**	**47**	⇑*i*P	PKiKP	17 19 59.1	+4.5
MLR	**Muntele Rosu**	**108.16**	**47**	⇑P	PKiKP	17 19 59.1	+4.5
AKHS	**Akhisar**	**108.27**	**55**	⇑*i*P	PKiKP	17 20 00.9	+5.9
TRO	**Tromso**	**108.35**	**22**	*e*	Pdif	17 15 49.4	+0.5
TRO				*e*PP	PP	17 20 17.7	-1.4
TRO				*e*		17 29 42.7	
TRO				AMS	AMS	17 59 13.3	
	comp=Z,4µm,19.7s,MS6.0						
TAU	**Tasmania Unive**	**108.45**	**208**	PFAKE		17 20 10.0	+15
TAU				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
TURN	**Turunc**	**108.48**	**57**	⇑*i*P	PKiKP	17 19 46.9	-8.6
PRD	**Provadia**	**108.77**	**50**	P	PP	17 20 12.4	-11
DURS	**Dursunbey**	**108.91**	**54**	⇑*i*P	PP	17 20 12.6	-12
BJO	**Bjornoya**	**109.06**	**17**	*e*	PP	17 20 17.6	-6.5
AKAS	**Kas**	**109.14**	**58**	⇓*i*P	PKiKP	17 20 07.1	+10
ELBA	**Catalca**	**109.16**	**52**	⇑*i*P	PP	17 20 16.4	-9.4
GOLH	**Golhisar**	**109.30**	**57**	⇑*i*P	PP	17 20 20.7	-6.3
PSN	**Preselentsi**	**109.42**	**50**	P	PP	17 20 23.7	-3.9
GDZ	**Gediz**	**109.58**	**55**	⇑*i*P	PKiKP	17 20 00.2	+2.7
TIRR	**Tirgusor**	**109.71**	**49**	⇓*i*P	PKiKP	17 19 56.6	-0.9
TIRR	**Tirgusor**	**109.71**	**49**	⇓P	PKiKP	17 19 56.6	-0.9
NACGM	**Naroch**	**110.09**	**38**	*e*PKP	PKiKP	17 19 51.0	-6.9
TLCR		**110.10**	**48**	⇑*i*P	PKiKP	17 19 58.3	+0.1
TLCR		**110.10**	**48**	⇑P	PKiKP	17 19 58.3	0.0
ISP	**Isparta**	**110.15**	**56**	PFAKE		17 20 10.0	+11
ISP				LR	LR		
	comp=Z,8µm,22.0s,MS6.2						
KIS	**Kishinev**	**110.37**	**46**	*e*P	Pdif	17 16 03.0	+5.1
KIS				*e*		17 20 40.0	
KIS				*e*PPP		17 23 02.0	
KIS				*e*PS	PS	17 30 03.0	-1.6
KIS				*e*PPS		17 31 11.0	
KIS				*e*SS	SS	17 35 57.0	-2.1
KIS	**Kishinev**	**110.37**	**46**	*e*PP	PP	17 20 40.0	+5.6
KIS	**Kishinev**	**110.37**	**46**	*e*SKS	SKSac	17 26 42.0	+8.2
KIS				*e*S	Sdif	17 27 52.0	-18
ARCES	**ARCESS Array B**	**110.64**	**22**	PKKPbc	PKKPbc	17 30 56.5	-3.6
	comp=Z,1.8nm,0.8s,baz=104,slow=2.9,SNR=11						
KIEV	**Kiev**	**111.08**	**42**	*e*PKIKP	PKiKP	17 19 58.5	-1.4
AKASG	**Malin Array Be**	**111.10**	**42**	*i* PKIKP	PKiKP	17 19 58.7	-1.2
AKASG						17 31 07.0	
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKASG	**Malin Array Be**	**111.10**	**42**	PKiKP	PKiKP	17 19 58.6	-1.3
	comp=Z,2.9nm,0.7s,baz=258,slow=3.3,SNR=9.3						
AKASG				PKKPbc	PKKPab	17 31 07.0	+1.6
	comp=Z,0.5nm,0.4s,baz=78,slow=3.1,SNR=5.9						
KDHN	**Kadinhani**	**111.52**	**56**	⇑*i*P	PP	17 20 42.9	-0.1
CSS	**Prodhromos**	**111.89**	**59**	PFAKE		17 20 10.0	+8.0
CSS				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
BALAT	**Bala**	**112.44**	**55**	⇑*i*P	PP	17 20 48.1	-1.4
ELDT	**Eldivan**	**112.80**	**54**	⇑*i*P	PP	17 20 50.0	-2.0
RER	**Riviere de l'E**	**112.86**	**125**	PFAKE		17 20 10.0	+5.7
RER				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
BRTR	**Keskin Array B**	**112.86**	**54**	*i* PKIKP	PKiKP	17 20 03.5	-0.1
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BRTR	**Keskin Array B**	**112.86**	**54**	PKiKP	PKiKP	17 20 03.5	-0.1
	comp=Z,4.0nm,0.9s,baz=188,slow=4.6,SNR=16						
BRTR				PKKPbc	PKKPab	17 31 01.1	+3.1
	comp=Z,0.7nm,0.8s,baz=157,slow=3.5,SNR=4.0						
BALT	**Daday**	**112.91**	**52**	⇑*i*P	PKiKP	17 20 02.9	-0.8
ILGA	**Ilgaz**	**113.09**	**53**	⇑*i*P	PKiKP	17 20 04.0	-0.1

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CDAG Cicekdag          113.41  55⇑iP      PKiKP     17 20 32.5 +28
CAN  Canberra          113.58 214  PFAKE            17 20 20.0 +15
CAN                                LR     LR
     comp=Z,6µm,22.0s,MS6.2
APA  Apatity           113.58  24⇓iPKIKP  PKiKP     17 20 05.0 +0.8
APA                              i                  17 20 15.0
APA                              i PS     PS        17 30 36.0 +2.7
APA                              i PPS              17 31 47.0
APA                                MLR    MLR
     comp=Z,10µm,24.0s,MS6.3
BHL  Bhannes           113.61  61 eP      PP        17 20 52.6 -5.4
SIM  Simferopol'       113.80  49 eP      Pdif      17 16 21.0 +7.8
SIM                               e                 17 20 58.0
SIM                               e                 17 27 10.6
SIM                                pmax   pmax
     comp=Z,660nm,10.1s
SIM                                MLR    MLR
     comp=Z,6µm,20.0s,MS6.2
LVZ  Lovozero          114.02  24  PFAKE            17 20 10.0 +5.0
LVZ                                LR     LR
     comp=Z,8µm,22.0s,MS6.2
ASF  Jabal al Asfar    114.37  63  PKP    PKiKP     17 20 06.9 +0.1
     comp=Z,7.5nm,1.0s,baz=213,slow=1.5,SNR=7.9
ASF                                PKKPbc PKKPbc    17 30 52.3 +5.7
     comp=Z,0.8nm,0.3s,baz=101,slow=5.2,SNR=3.5
ANDN Andirin           114.69  57⇓iP      PP        17 21 03.1 -2.4
PINB Pinarbasi         114.86  56⇓iP      PP        17 21 05.5 -1.2
TOKA Tokat             115.10  54⇑iP      x         17 20 38.6
KUZU Kuzuini           115.17  58⇑iP      PP        17 20 59.6 -9.4
GZT  Gaziantep         115.62  57⇑iP      PKPdf     17 20 09.1 +0.1
OBN  Obninsk           115.73  38⇓iPKIKP  PKPdf     17 20 08.8 +0.2
OBN                              i                  17 20 20.3
OBN                              e                  17 26 59.9
OBN                              e                  17 32 13.8
OBN                              eSS      SS        17 37 20.9 +11
OBN                                pmax   pmax
     comp=Z,38nm,1.2s
OBN                                MLR    MLR
     comp=Z,8µm,19.0s,MS6.4
OBN  Obninsk           115.73  38⇓iPKP    PKPdf     17 20 08.6  0.0
OBN                                LR     LR
     comp=Z,8µm,19.0s,MS6.4
TARA Tarawa            115.87 261  PFAKE            17 20 20.0 +10
TARA                               LR     LR
     comp=Z,5µm,21.0s,MS6.1
AKCD Akcadag           116.01  56⇑iP      PKPdf     17 20 11.7 +1.9
ANN  Anapa             116.14  49 i PKIKP PKPdf     17 20 08.7 -1.1
ANN                               i                 17 21 12.3
ANN                               ePS     PS        17 30 58.0 +0.3
ANN                               eSS     SS        17 37 12.2 -3.5
ANN                               eSSS              17 41 27.4
ANN                                pmax   pmax
     comp=Z,42nm,1.7s
MOS  Moscow            116.31  37 ePKIKP  PKPdf     17 20 08.3 -1.4
MOS                               ePS     PS        17 30 54.2 -4.5
MOS                               ePPS              17 32 12.9
MALT Malatya           116.41  56⇑iP      PKPdf     17 20 11.0 +0.5
MALT Malatya           116.41  56 ePKPdf  PKPdf     17 20 10.5 +0.1
MALT                               LR     LR
     comp=Z,5µm,22.0s,MS6.0
KEMA Kemaliye          116.54  55⇑iP      PP        17 21 17.4 -1.2
ELZG Elazig            116.86  56⇑iP      PP        17 21 16.8 -4.0
KLMR Klimovskoe        116.89  31⇑iPKIKP  PKPdf     17 20 09.8 -0.9
KLMR                              e                 17 21 16.1
KLMR                              eSP     SP        17 30 57.4 -0.3
KLMR                              ePS     PS        17 30 59.8 -4.0
KLMR                              eSS     SS        17 37 16.6 -7.8
KLMR                               pmax   pmax
     comp=Z,50nm,1.3s
VSR  Storozhevoye      117.39  42 ePKIKP  PKPdf     17 20 11.0 -1.0
VSR                                pmax   pmax
     comp=Z,10.0nm,1.5s
VSR                                pmax   pmax
     comp=N,9.0nm,1.1s
VSR                                pmax   pmax
     comp=E,10.0nm,1.3s
VORD Divnogorie        117.48  42 ePKIKP  PKPdf     17 20 11.7 -0.4
VORD                               pmax   pmax
     comp=Z,10.0nm,0.9s
VORD                               pmax   pmax
     comp=N,10.0nm,0.7s
VORD                               pmax   pmax
     comp=E,30nm,0.7s
DIYA Diyarbakir        117.70  57⇑iP      PP        17 21 22.5 -4.1
SOC  Sochi             117.73  51 i P     Pdif      17 16 28.8 -1.9
SOC                               i                 17 20 12.9
SOC                               e                 17 21 24.6
SOC                               ePPP              17 23 54.3
SOC                               e                 17 26 57.6
SOC                               ePS     PS        17 31 06.1 -6.0
SOC                               eSS     SS        17 37 47.4 +11
SOC                               eSSS              17 41 57.8
SOC                                pmax   pmax
     comp=Z,29nm,0.9s
SOC  Sochi             117.73  51 i PKP   PKPdf     17 20 13.1 +0.2
KOPT Kop Dagi          118.14  55⇑iP      PKPdf     17 20 15.2 +1.4
MARD Mardin            118.17  58⇑iP      PKPdf     17 20 14.6 +0.7
BEST Besiri            118.60  57⇑iP      PKPdf     17 20 14.7  0.0
VRHR Novokhopersk      118.95  42 ePKIKP  PKPdf     17 20 14.3 -0.7
VRHR                              e                 17 21 32.4
VRHR                               pmax   pmax
     comp=Z,20nm,0.6s
VRHR                               pmax   pmax
     comp=N,30nm,1.4s
VRHR                               pmax   pmax
     comp=E,10.0nm,0.7s
VRHR                               pmax   pmax
     comp=Z,20nm,0.8s
VRHR                               pmax   pmax
     comp=N,30nm,0.7s
VRHR                               pmax   pmax
     comp=E,20nm,1.0s
HOMI Horasan           119.22  55⇑iP      PP        17 21 36.9 -0.2
PRGR Permogore         119.67  30⇑iPKIKP  PKPdf     17 20 16.0  0.0
PRGR                              e                 17 20 26.4
PRGR                               pmax   pmax
     comp=Z,35nm,0.8s
KIV  Kislovodsk        119.89  50 eP      Pdif      17 16 39.8 -0.4
KIV                               i                 17 20 16.6
KIV                               e                 17 21 40.3
KIV                               e                 17 27 10.5
KIV                               ePS     PS        17 31 34.0 +2.4
KIV                                pmax   pmax
     comp=Z,29nm,1.1s
KIV                                MLR    MLR
     comp=Z,4µm,22.0s,MS6.1
KIV  Kislovodsk        119.89  50 ePKPdf  PKPdf     17 20 16.0 -1.0
KIV                                LR     LR
     comp=Z,5µm,22.0s,MS6.1
MSL  Mosul             119.97  59 ex      x         17 20 21.0
STKA Stephens Creek    120.05 211 ePKP    PKPdf     17 20 16.6 -1.2
     comp=Z,3.3nm,0.6s
STKA                              e                 17 20 30.1
STKA Stephens Creek    120.05 211  PKP    PKPdf     17 20 16.6 -1.2
     comp=Z,5.3nm,0.7s,baz=137,slow=2.9,SNR=9.7
STKA                               PKKPbc PKKPbc    17 30 32.9 +6.2
     comp=Z,2.6nm,1.0s,baz=341,slow=12,SNR=3.6
ONI  Oni               120.45  52  P      PP        17 21 42.4 -3.0
HAKT HAKKARI           120.51  58⇑iP      PKPdf     17 20 30.4 +12
DYDN Diyadin           120.58  55⇑iP      PP        17 21 45.2 -1.2
BHD  Baghdad           120.76  63 ex      x         17 20 19.0
BILL Bilibino          120.95 339⇑iPKIKP  PKPdf     17 20 17.8 -0.5
BILL                              i                 17 21 45.2
BILL                              i PPP             17 24 27.6
BILL                                                17 27 23.0
BILL                              ePS     PS        17 31 34.7 -5.4
BILL                               pmax   pmax
     comp=Z,15nm,1.7s
BILL                               MLR    MLR
     comp=Z,8µm,23.0s,MS6.3
BILL Bilibino          120.95 339 ePKPdf  PKPdf     17 20 17.7 -0.7
BILL                               LR     LR
     comp=Z,5µm,22.0s,MS6.1
MSEY Mahe Island       120.99 109  PFAKE            17 20 30.0 +10
MSEY                               LR     LR
     comp=Z,6µm,20.0s,MS6.2
GNI  Garni             121.40  55  PKIKP  PKPdf     17 20 20.6 +0.6
GNI                                pmax   pmax
     comp=Z,13nm,0.8s
GNI  Garni             121.40  55  PKP    PKPdf     17 20 20.6 +0.6
     comp=Z,13nm,0.8s,baz=46,slow=0.6,SNR=15
GNI  Garni             121.40  55 ePKPdf  PKPdf     17 20 20.4 +0.4
GNI                                LR     LR
     comp=Z,4µm,20.0s,MS6.1
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MTA  Mtatsminda        121.45  53  P      PP        17 21 50.0 -2.3
NAY  Al-Naaiem         122.81  68 eP      PKPdf     17 20 21.7 -1.4
NAY                                AMb    AMB       17 20 24.9
     comp=Z,24nm,1.7s
MIB  Mutribah          122.95  67 eP      PKPdf     17 20 22.4 -0.9
MIB                                AMb    AMB       17 20 24.6
     comp=Z,64nm,1.3s
RDF  Al-Radifah        123.04  68 eP      PKPdf     17 20 22.4 -1.1
RDF                                AMb    AMB       17 20 24.6
     comp=Z,69nm,1.4s
MAK  Makhachkala       123.42  51 eP      Pdif      17 16 58.3 +2.3
MAK                               e                 17 20 23.9
MAK                               i                 17 22 02.7
MAK                               i PPP             17 24 41.2
MAK                                pmax   pmax
     comp=Z,84nm,1.1s
MAK                                MLR    MLR
     comp=N,3µm,20.0s,MS6.2
MAK                                MLR    MLR
     comp=Z,6µm,22.0s,MS6.2
MAK                                MLR    MLR
     comp=E,5µm,23.0s,MS6.2
SOKR Solikamsk         125.54  30c iPKIKP PKPdf     17 20 27.2 -0.2
SOKR                                                17 22 18.1
SOKR                                                17 27 38.3
SOKR                               PS     PS        17 32 23.2 +2.2
SOKR                               SS     SS        17 39 15.1 +0.3
SOKR                               pmax   pmax
     comp=Z,40nm,1.3s
SOKR                               MLR    MLR
     comp=Z,6µm,23.0s,MS6.2
CTA  Charters Tower    126.54 224  PKIKP  PKPdf     17 20 29.4 -1.2
CTA                                pmax   pmax
     comp=Z,12nm,1.0s
CTA  Charters Tower    126.54 224 ePKP    PKPdf     17 20 29.6 -1.0
     comp=Z,12nm,1.1s
CTA                               e                 17 23 39.1
CTA  Charters Tower    126.54 224  PKP    PKPdf     17 20 29.4 -1.2
     comp=Z,12nm,1.0s,baz=164,slow=1.5,SNR=12
CTAO Charters Tower    126.54 224 ePKIKP  PKPdf     17 20 29.5 -1.1
CTAO                               MLR    MLR
     comp=Z,8µm,21.0s,MS6.4
NWAO Narrogin (SRO)    126.74 188  PKP    PKPdf     17 20 29.4 -1.2
     comp=Z,54nm,1.1s,baz=136,slow=1.0,SNR=6.4
NWAO Narrogin (SRO)    126.74 188  PKP    PKPdf     17 20 29.4 -1.2
NWAO                               LR     LR
     comp=Z,4µm,20.0s,MS6.1
TIXI Tiksi             127.37 353 i PKIKP PKPdf     17 20 29.2 -1.4
TIXI                               pmax   pmax
     comp=Z,32nm,1.6s
TIXI                               MLR    MLR
     comp=E,5µm,22.0s,MS6.4
TIXI                               MLR    MLR
     comp=Z,9µm,22.0s,MS6.4
TIXI                               MLR    MLR
     comp=N,7µm,22.0s,MS6.4
TIXI Tiksi             127.37 353 ePKPdf  PKPdf     17 20 29.1 -1.4
ARU  Arti              127.60  33 ePKIKP  PKPdf     17 20 31.6 +0.2
ARU                                MLR    MLR
     comp=Z,7µm,22.0s,MS6.3
ARU  Arti              127.60  33 ePKPdf  PKPdf     17 20 31.6 +0.2
ARU                                LR     LR
     comp=Z,7µm,22.0s,MS6.3
MUN  Mundaring         127.80 187 ePKP    PKPdf     17 20 31.8 -0.9
MUN                               e                 17 20 44.5
KLBR Kellerberrin      127.99 188 ePKP    PKPdf     17 20 31.8 -1.3
     comp=Z,41nm,0.9s
KLBR                              e                 17 20 41.8
SVE  Sverdlovsk        128.50  32⇓iPKIKP  PKPdf     17 20 33.2 +0.1
SVE                               e                 17 22 36.8
SVE                               ePPP              17 25 22.3
SVE                                pmax   pmax
     comp=Z,52nm,1.5s
SVE                                MLR    MLR
     comp=Z,12µm,23.0s,MS6.5
SEY  Seymchan          128.51 337⇓iPKIKP  PKPdf     17 20 31.6 -1.3
SEY  Seymchan          128.51 337⇓iPKP    PKPdf     17 20 31.7 -1.2
AKTK Aktyubinsk        129.29  41  PKP    PKPdf     17 20 35.1 +0.3
AKTO Aktyubinsk        129.29  41  PKIKP  PKPdf     17 20 35.1 +0.3
AKTO                               pmax   pmax
     comp=Z,19nm,1.0s
AKTO Aktyubinsk        129.29  41  PKP    PKPdf     17 20 35.1 +0.3
     comp=Z,19nm,1.0s,baz=295,slow=0.6,SNR=37
PET  Petropavlovsk     130.44 323 ePKIKP  PKPdf     17 20 43.2 +6.3
PET                               i                 17 22 53.6
PET                               ePS     PS        17 33 05.6 +1.7
PET                               ePPS              17 34 41.0
PET                               i SS    SS        17 40 18.7 +2.9
PET                               eSSS              17 45 11.7
PET                                pmax   pmax
     comp=Z,2µm,20.4s
PET                                MLR    MLR
     comp=Z,4µm,24.0s,MS6.0
PET  Petropavlovsk     130.44 323  PFAKE            17 20 50.0 +13
PET                                LR     LR
     comp=Z,3µm,20.0s,MS6.0
ASAR Alice Springs     130.60 209  PKP    PKPdf     17 20 36.7 -1.5
     comp=Z,9.1nm,0.7s,baz=121,slow=1.7,SNR=27
ASAR                               PKKP             17 30 38.2
     comp=Z,0.9nm,0.9s,baz=357,slow=1.4,SNR=5.7
AB31 Akbulak array     130.83  42  PKIKP  PKPdf     17 20 38.0 +0.2
AB31                               pmax   pmax
     comp=Z,170nm,1.5s
PETK Petropavlovsk-    130.93 324  PKIKP  PKPdf     17 20 37.1 -0.7
PETK                               pmax   pmax
     comp=Z,15nm,0.9s
PETK Petropavlovsk-    130.93 324  PKP    PKPdf     17 20 37.0 -0.8
     comp=Z,15nm,0.9s,baz=88,slow=6.5,SNR=14
COEN Coen              132.97 226 ePKPdf  PKPdf     17 20 42.2 -0.6
WRA  Warramunga Arr    133.57 212  PKIKP  PKPdf     17 20 42.1 -1.8
WRA                                pmax   pmax
     comp=Z,11nm,0.7s
WRA  Warramunga Arr    133.57 212  PKP    PKPdf     17 20 42.1 -1.8
     comp=Z,10nm,0.7s,baz=157,slow=1.6,SNR=55
WRAB Tennant Creek     133.57 212 ePKIKP  PKPdf     17 20 42.5 -1.4
WRAB                               MLR    MLR
     comp=Z,7µm,19.0s,MS6.4
BRVK Borovoye          135.18  33 ePKIKP  PKPdf     17 20 45.8  0.0
BRVK                               MLR    MLR
     comp=Z,8µm,20.0s,MS6.4
BVA0 Borovoye Array    135.25  33 i PKIKP PKPdf     17 20 45.7 -0.3
BVA0                               pmax   pmax
     comp=Z,85nm,2.8s
BVAR Borovoye Array    135.25  33  PKIKP  PKPdf     17 20 45.7 -0.3
BVAR                               pmax   pmax
     comp=Z,11nm,0.8s
BVAR Borovoye Array    135.25  33  PKP    PKPdf     17 20 45.7 -0.3
     comp=Z,11nm,0.8s,baz=253,slow=1.5,SNR=6.7
YAK  Yakutsk           136.02 347 i PKHKP           17 20 36.1
YAK                               ePS     SP        17 33 37.2 -7.2
YAK                                pmax   pmax
     comp=Z,14nm,1.0s
YAK                                MLR    MLR
     comp=Z,5µm,21.0s,MS6.2
YAK                                MLR    MLR
     comp=N,4µm,22.0s,MS6.1
YAK                                MLR    MLR
     comp=E,2µm,23.0s,MS6.1
YAK  Yakutsk           136.02 347 ePKPpre           17 20 35.5
YAK                              ⇑ePKP    PKPdf     17 20 46.5 -0.6
MBWA Marble Bar        137.83 194 ePKPdf  PKPdf     17 20 50.6 -1.2
FITZ Fitzroy Crossi    138.99 203 ePKP    PKPdf     17 20 53.3 -0.7
     comp=E,37nm,1.1s
FITZ                              ePP     PP        17 23 42.9 -2.1
FITZ                              eSKP              17 24 22.6
FITZ Fitzroy Crossi    138.99 203  PKP    PKPdf     17 20 52.8 -1.2
     comp=E,11nm,0.9s,baz=192,slow=2.9,SNR=16
FITZ Fitzroy Crossi    138.99 203 ePKPpre           17 20 43.4
FITZ                               PKP    PKPdf     17 20 52.8 -1.2
KK31 Karatay Array     139.83  46 i PKIKP PKPdf     17 20 54.7  0.0
KK31                               pmax   pmax
     comp=Z,23nm,1.1s
NVS  Novosibirsk       139.88  24 ePKHKP            17 20 45.8
NVS                                pmax   pmax
     comp=N,71nm,3.0s
NVS                                pmax   pmax
     comp=E,199nm,3.0s
NVS                                pmax   pmax
     comp=Z,600nm,3.0s
KAKA Kakadu            140.58 216 ePKP    PKPdf     17 20 55.9 -1.1
     comp=Z,15nm,0.7s
KAKA Kakadu            140.58 216 ePKPpre           17 20 49.9
KURK Kurchatov         140.74  32 ePKHKP            17 20 47.8
KURK                              i                 17 20 56.8
KURK                               MLR    MLR
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     comp=Z,8µm,22.0s,MS6.4
KURK Kurchatov         140.74  32 ePKPpre           17 20 47.8
KURK                             ⇑iPKP    PKPdf     17 20 56.8 +0.7
KURK                               LR     LR
     comp=Z,8µm,22.0s,MS6.4
KURK Kurchatov         140.74  32 ⇓P      PKPdf     17 20 56.8 +0.7
     SNR=13
KURK                              ⇓P                17 20 56.8
     SNR=13
KBL  Kabul             141.15  60 ePKHKP            17 20 51.2
ZAA0 Zalesovo Array    141.16  24 ePKPpre           17 20 49.0
ZALV Zalesovo Beam     141.16  24  PKHKP            17 20 49.6
ZALV                                                17 20 56.9
ZALV                               pmax   pmax
     comp=Z,12nm,0.9s
ZALV Zalesovo Beam     141.16  24  PKhKP            17 20 49.6
     comp=Z,12nm,0.9s,baz=319,slow=4.3,SNR=36
ZALV                               PKP    PKPdf     17 20 56.9 +0.1
     comp=Z,52nm,0.9s,baz=299,slow=3.0,SNR=51
ZALV Zalesovo Beam     141.16  24  PKP    PKPdf     17 20 56.9 +0.1
CLNS Chul'man          141.78 347 i PKHKP           17 20 47.5
CLNS                               pmax   pmax
     comp=Z,70nm,1.6s
CLNS                               pmax   pmax
     comp=N,22nm,1.6s
CLNS                               pmax   pmax
     comp=E,19nm,1.4s
KRAR Krasnoyarsk       141.98  16 i PKIKP PKPdf     17 20 58.1 -0.1
EKS2 Erkin-Say         142.20  45  P      PKPdf     17 20 55.0 -4.0
     SNR=30
EKS2 Erkin-Say         142.20  45 ePKPpre           17 20 55.3
EKS2                               LR     LR
     comp=Z,7µm,22.0s,MS6.4
BOD  Bodaibo           142.30 357 ePKHKP            17 20 51.7
BOD                                pmax   pmax
     comp=Z,37nm,1.4s
YSS  Yuzh-Sakhalins    142.31 323⇑ePKHKP            17 20 52.8
YSS                               i                 17 20 58.5
YSS                               e                 17 24 06.0
YSS                               ePPP              17 27 12.0
YSS                               ePPS              17 36 28.0
YSS                               eSS     SS        17 42 40.0 +2.5
YSS                                pmax   pmax
     comp=Z,2µm,10.0s
YSS  Yuzh-Sakhalins    142.31 323 ePKPpre           17 20 53.3
YSS                               i PKP   PKPdf     17 20 58.6 -0.5
AML  Almayashu         142.37  46  P      PKPdf     17 20 57.6 -1.7
     SNR=18
AML  Almayashu         142.37  46 ePKPpre           17 20 55.2
AML                                LR     LR
     comp=Z,5µm,22.0s,MS6.2
USP  Ospenovka         142.42  44  P      PKPdf     17 20 57.2 -2.2
     SNR=17
BHJ  Bhuj              142.43  78 ePKP    PKPdf     17 20 58.2 -1.8
FRU  Bishkek           142.69  45 i PKIKP PKPdf     17 20 57.0 -2.9
FRU                               e                 17 24 04.0
FRU                                pmax   pmax
     comp=Z,3µm,4.0s
FRU                                MLR    MLR
     comp=Z,6µm,22.0s,MS6.3
AAK  Ala-Archa         142.69  45  P                17 20 57.2
     SNR=19
AAK  Ala-Archa         142.69  45 ePKPpre           17 20 57.0
AAK                                LR     LR
     comp=Z,7µm,22.0s,MS6.4
CHMS Chumysh           142.70  44  P      PKPdf     17 20 57.7 -2.2
     SNR=9.9
UCH  Uchtor            142.88  46  PFAKE            17 21 10.0 +10
UCH                                LR     LR
     comp=Z,3µm,19.0s,MS6.0
KBK  Karagaybulak      142.99  45  P      PKPdf     17 20 58.2 -2.2
     SNR=13
TKM2 Tokmak 2          143.29  44  P      PKPdf     17 21 00.7 -0.3
     SNR=19
TKM2 Tokmak 2          143.29  44 ePKPpre           17 20 58.2
TKM2                               LR     LR
     comp=Z,5µm,20.0s,MS6.3
KZA  Kyzart            143.44  46  P      PKPdf     17 21 00.1 -1.1
     SNR=15
AAA  Alma-Ata          144.00  43 i PKIKP PKPdf     17 21 01.8 -0.4
AAA                                pmax   pmax
     comp=Z,8µm,8.6s
AAA                                MLR    MLR
     comp=Z,4µm,20.0s,MS6.2
ULHL Ulahol            144.03  45  P      PKPdf     17 21 03.5 +1.3
     SNR=14
ERM  Erimo             144.60 315 ePKIKP  PKPdf     17 21 02.6 -0.7
ERM                                MLR    MLR
     comp=Z,4µm,20.0s,MS6.2
NIL  Nilore            144.75  60  PFAKE            17 21 10.0 +6.2
NIL                                LR     LR
     comp=Z,22µm,21.0s,MS6.9
KSH  Kashi             145.01  49 i PKPbc PKPbc     17 21 04.0 +0.5
KSH                                pPKP   pPKPdf    17 21 14.5 -3.0
KSH                                sPKP             17 21 18.8
KSH                               ePKS              17 24 37.8
KSH                               eSKS    SKSdf     17 28 08.5 -1.5
KSH                                AMB    AMB
     comp=Z,5µm,8.4s
KSH                                LR     LR
     comp=N,3µm,15.3s,MS6.5
KSH                                LR     LR
     comp=E,5µm,13.5s,MS6.5
KSH                                LR     LR
     comp=Z,6µm,14.9s,MS6.5
MK31 Makanchi Array    145.12  34 ePKIKP  PKPdf     17 21 03.5 -0.5
MKAR Makanchi Array    145.12  34  PKIKP  PKPdf     17 21 03.5 -0.5
MKAR                               pmax   pmax
     comp=Z,161nm,0.9s
MKAR Makanchi Array    145.12  34  PKPbc  PKPbc     17 21 03.5 -0.1
     comp=Z,161nm,0.9s,baz=319,slow=3.4,SNR=1064
GOA  Goa               145.25  92⇓iP      PKPbc     17 21 04.8 -0.1
COCO West Island       145.30 157 i PKP2  PKPab     17 21 05.8 +0.6
COCO West Island       145.30 157  PFAKE            17 21 10.0 +4.9
COCO                               LR     LR
     comp=Z,5µm,22.0s,MS6.3
HABR Khabarovsk        145.34 330c iPKIKP PKPdf     17 21 04.5 +0.2
HABR                              e                 17 21 15.5
HABR                              e                 17 24 21.8
HABR                               PPP              17 27 35.4
HABR                              e                 17 28 11.0
HABR                              eSS     SS        17 43 12.9 +1.1
MNGI Mangalore         145.53  97 ePKP    PKPdf     17 21 04.2 -1.4
MNGI                              i x     x         17 24 23.7
POO  Poona             145.84  87 ePKP    PKPdf     17 21 05.2 -0.9
KAD  Karad             145.95  89 ePKP    PKPdf     17 21 05.1 -1.2
GUMO Guam              146.09 264  PKPbc  PKPbc     17 21 05.8 -1.7
     comp=Z,325nm,1.0s,baz=180,slow=4.7,SNR=7.5
GUMO Guam              146.09 264 ePKPdf  PKPdf     17 21 05.4 -1.2
KLR  Kul'dur           146.22 334κ iPKHKP           17 21 01.2
KLR                               e                 17 24 24.5
KLR                                pmax   pmax
     comp=E,100nm,2.0s
KLR                                pmax   pmax
     comp=Z,880nm,2.0s
KLR                                pmax   pmax
     comp=E,900nm,8.0s
KLR                                pmax   pmax
     comp=Z,9µm,8.0s
AJM  Ajmer             146.96  72 ePKP    PKPdf     17 21 08.1 +0.3
IRK  Irkutsk           147.69   7 ePKIKP  PKPdf     17 21 08.3 +0.1
IRK                               e                 17 24 37.8
IRK                                pmax   pmax
     comp=Z,611nm,1.9s
MOY  Mondy             147.79  11 ePKIKP  PKPdf     17 21 09.3 +0.9
MOY                                pmax   pmax
     comp=Z,699nm,3.0s
BHK  Bhakra            147.84  63 ePKP    PKPdf     17 21 06.0 -3.1
CIT  Chita             148.11 356 ePKIKP  PKPdf     17 21 09.7 +0.8
CIT                               e                 17 21 23.0
CIT                               e                 17 24 35.4
CIT                                pmax   pmax
     comp=Z,989nm,2.8s
TLY  Talaya            148.17   8c iPKIKP PKPdf     17 21 09.8 +0.8
TLY                               e                 17 24 37.0
TLY                               eSS     SS        17 43 41.1 -1.8
TLY                                pmax   pmax
     comp=Z,363nm,2.0s
TLY                                MLR    MLR
     comp=Z,5µm,22.0s,MS6.3
TLY  Talaya            148.17   8 ePKPdf  PKPdf     17 21 09.5 +0.6
TLY                                LR     LR
     comp=Z,5µm,21.0s,MS6.3
LATR Latur             148.37  87 ex      x         17 21 13.0
PALK Pallekele         148.80 110 i PKP2  PKPbc     17 21 15.6 +0.5
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NDI	**New Delhi**	**149.01**	**68**	*e*PKP	PKPdf	17 21 10.5	-0.6
NDI				*e*PP	PP	17 24 44.0	-2.7
ZAK	**Zakamensk**	**149.39**	**9**	*e*PKIKP	PKPdf	17 21 11.6	+0.6
ZAK				pmax	pmax		
	comp=Z,180nm,1.3s						
BHPL	**Bhopal**	**149.57**	**78**	*e*PKP	PKPdf	17 21 09.9	-2.2
BHPL				*e*PKP		17 21 12.5	
CBIJ	**Chichi jima**	**149.83**	**289**	PKPbc	PKPbc	17 21 17.6	+0.4
	comp=Z,101nm,0.7s,baz=78,slow=19,SNR=3.4						
WMQ	**Urumqi**	**149.94**	**33**	PKPbc	PKPdf	17 21 11.6	-0.5
WMQ				pPKP	pPKPdf	17 21 22.0	-3.5
WMQ				sPKP		17 21 26.0	
WMQ				PP	PP	17 24 51.0	+0.2
WMQ				SKKS	SKKSac	17 31 37.0	-1.8
WMQ				SS	SS	17 44 09.0	+5.2
WMQ				AMB	AMB		
	comp=Z,2µm,6.0s						
WMQ				LR	LR		
	comp=N,5µm,19.8s,MS6.6						
WMQ				LR	LR		
	comp=E,8µm,20.6s,MS6.6						
WMQ				LR	LR		
	comp=Z,10µm,22.3s,MS6.5						
HIA	**Hailar**	**149.97**	**347**	*e*PKPdf	PKPdf	17 21 11.3	-0.6
HIA				*e*PKPbc	PKPbc	17 21 15.9	-1.0
HYB	**Hyderabad**	**150.08**	**90**	*i* PKP	PKPdf	17 21 13.0	-0.1
HYB	**Hyderabad**	**150.08**	**90**	*e*PKP	PKPdf	17 21 13.0	-0.1
AAI	**Ambon**	**150.33**	**219**	⇑*e*P	PKPbc	17 21 17.3	-1.6
AAI				*e*S	SKKSac	17 36 02.0	
MJAR	**Matsushiro Arr**	**150.49**	**310**	PKIKP	PKPbc	17 21 17.5	-1.1
MJAR				pmax	pmax		
	comp=Z,34nm,0.8s						
MJAR	**Matsushiro Arr**	**150.49**	**310**	PKPbc	PKPbc	17 21 17.5	-1.1
	comp=Z,34nm,0.8s,baz=110,slow=0.1,SNR=24						
MAJO	**Matsushiro**	**150.50**	**310**	*e*PKIKP	PKPbc	17 21 17.6	-1.0
MAJO				MLR	MLR		
	comp=Z,7µm,21.0s,MS6.4						
MAT	**Matsushiro**	**150.50**	**310**	PKP	PKPbc	17 21 17.7	-0.9
MDJ	**Mudanjiang**	**150.73**	**331**	PKPbc	PKPdf	17 21 12.8	-0.5
MDJ				pPKP	pPKPdf	17 21 22.7	-4.0
MDJ				sPKP		17 21 26.6	
MDJ				PP	PP	17 24 54.8	-0.4
MDJ				SKS	SKSdf	17 28 16.8	-0.8
MDJ				SS	SS	17 44 14.0	+1.6
MDJ				AMB	AMB		
	comp=Z,1µm,7.6s						
MDJ				LR	LR		
	comp=N,3µm,23.0s,MS6.2						
MDJ				LR	LR		
	comp=E,4µm,26.9s,MS6.2						
MDJ				LR	LR		
	comp=Z,4µm,24.0s,MS6.2						
MDJ	**Mudanjiang**	**150.73**	**331**	*e*PKPdf	PKPdf	17 21 12.5	-0.8
JBP	**Jabalpur**	**151.92**	**78**	⇑*e*PKP	PKPdf	17 21 15.7	-0.1
JBP				*i* x	x	17 25 03.4	
SONM	**Songino Array**	**152.26**	**5**	PKIKP	PKPdf	17 21 15.8	+0.3
SONM						17 21 22.4	
SONM						17 21 32.6	
SONM				pmax	pmax		
	comp=Z,15nm,1.0s						
SONM	**Songino Array**	**152.26**	**5**	PKP	PKPdf	17 21 15.8	+0.3
	comp=Z,15nm,1.0s,baz=326,slow=0.3,SNR=72						
SONM				PKPbc	PKPbc	17 21 22.4	+0.1
	comp=Z,29nm,0.7s,baz=336,slow=1.3,SNR=60						
SONM				PKPab	PKPab	17 21 32.6	+0.5
	comp=Z,60nm,1.0s,baz=315,slow=1.4,SNR=16						
KDI	**Kendari**	**153.02**	**209**	⇑*e*P	PKPdf	17 21 17.3	-0.4
KDI				*e*S		17 36 02.0	
CN2	**Changchun**	**153.17**	**335**	*e*PKPbc	PKPdf	17 21 15.5	-1.5
CN2				sPKP		17 21 29.9	
CN2				LR	LR		
	comp=N,4µm,20.0s,MS6.3						
CN2				LR	LR		
	comp=E,3µm,20.0s,MS6.3						
CN2				LR	LR		
	comp=Z,6µm,25.0s,MS6.3						
PYUN	**Piuthan**	**154.12**	**67**	*e*P	PKPdf	17 21 16.3	-2.6
VIS	**Vishakhapatnam**	**154.62**	**91**	*e*PKP	PKPdf	17 21 17.3	-2.5
KOLN	**Koldanda**	**154.71**	**68**	*e*P	PKPdf	17 21 18.0	-1.7
DANN	**Dangsing**	**154.73**	**66**	*e*P	PKPdf	17 21 18.3	-1.4
	comp=Z,250nm,1.3s						
GKN	**Gorkha**	**155.56**	**67**	*e*P	PKPdf	17 21 19.2	-1.6
	comp=Z,237nm,1.7s						
SNY	**Shenyang**	**155.57**	**335**	⇑PKP	PKPdf	17 21 20.3	-0.1
SNY				PP	PP	17 25 19.0	-3.5
SNY				SKKS	SKKSac	17 32 11.4	+2.0
SNY				SS	SS	17 45 03.4	-1.7
SNY				AMB	AMB		
	comp=Z,2µm,7.2s						
SNY				LR	LR		
	comp=N,5µm,25.2s						
SNY				LR	LR		
	comp=Z,7µm,24.3s,MS6.4						
DMN	**Daman**	**156.05**	**67**	*e*P	PKPdf	17 21 20.2	-1.3
KKN	**Kakani**	**156.16**	**67**	*e*P	PKPdf	17 21 20.0	-1.6
	comp=Z,70nm,1.2s						
PKI	**Pulchoki**	**156.32**	**67**	*e*P	PKPdf	17 21 19.9	-2.0
	comp=Z,122nm,1.6s						
GUN	**Gumba**	**156.65**	**66**	*e*P	PKPdf	17 21 20.6	-1.7
	comp=Z,199nm,1.3s						
KSRS	**Korea Array**	**156.81**	**322**	PKP	PKPdf	17 21 22.0	-0.2
	comp=Z,13nm,1.0s,baz=51,slow=0.9,SNR=30						
KSRS				PKPab	PKPab	17 21 51.4	-0.5
	comp=Z,7.3nm,0.7s,baz=60,slow=3.6,SNR=11						
BOK	**Bokaro**	**157.31**	**76**	*e*PKP	PKPdf	17 21 20.9	-2.4
RAMN	**Ramite**	**157.49**	**68**	*e*P	PKPdf	17 21 21.9	-1.5
	comp=Z,456nm,1.8s						
INCN	**Inchon**	**157.52**	**324**	PFAKE		17 21 30.0	+6.9
INCN				LR	LR		
	comp=Z,4µm,22.0s,MS6.2						
ODAN	**Odare**	**158.20**	**68**	*e*P	PKPdf	17 21 22.7	-1.6
	comp=Z,220nm,1.6s						
TAPN	**Taplejung**	**158.36**	**66**	*e*P	PKPdf	17 21 22.8	-1.6
	comp=Z,275nm,1.8s						
DL2	**Dalian**	**158.84**	**334**	*i* PKP	PKPdf	17 21 24.5	-0.1
DL2				PKPab	PKPab	17 22 00.0	-0.5
DL2				PP	PP	17 25 40.9	+0.4
DL2				SS	SS	17 45 39.2	-0.9
DL2				LR	LR		
	comp=N,2µm,21.0s						
DL2				LR	LR		
	comp=Z,1µm,17.0s,MS5.8						
GTA	**Gaotai**	**158.91**	**22**	*i* PKP	PKPdf	17 21 25.1	+0.4
GTA				pPKP	pPKPdf	17 21 35.9	-2.3
GTA				sPKP		17 21 39.5	
GTA				PKPab	PKPab	17 22 03.8	+3.0
GTA				PP	PP	17 25 45.9	+5.1
GTA				SKS	SKSdf	17 28 25.3	-1.6
GTA				SKKS	SKKSac	17 32 28.7	+1.6
GTA				SS	SS	17 45 45.0	+4.3
GTA				AMB	AMB		
	comp=Z,3µm,4.8s						
GTA				LR	LR		
	comp=N,2µm,20.7s,MS6.3						
GTA				LR	LR		
	comp=E,4µm,21.6s,MS6.3						
GTA				LR	LR		
	comp=Z,4µm,21.0s,MS6.3						
HHC	**Hu-ho-hao-te**	**159.36**	**357**	⇑PKP	PKPdf	17 21 26.0	+0.8
HHC				pPKP	pPKPdf	17 21 36.9	-1.7
HHC				sPKP		17 21 40.3	
HHC				PKPab	PKPab	17 22 02.2	-0.5
HHC				PKS		17 24 58.7	
HHC				PP	PP	17 25 40.5	-2.4
HHC				SKS	SKSdf	17 28 26.1	-1.2
HHC				SKKS	SKKSac	17 32 32.4	+3.1
HHC				SS	SS	17 45 45.6	+0.7
HHC				AMB	AMB		
	comp=Z,4µm,8.9s						
HHC				LR	LR		
	comp=N,4µm,20.4s,MS6.3						
HHC				LR	LR		
	comp=E,2µm,19.8s,MS6.3						
HHC				LR	LR		
	comp=Z,6µm,21.4s,MS6.4						
BJI	**Beijing**	**159.53**	**346**	PKP	PKPdf	17 21 25.2	-0.2
BJI				AMB	AMB		
	comp=Z,2µm,8.4s						
BJI				LR	LR		
	comp=N,2µm,30.6s						
BJI				LR	LR		
	comp=E,3µm,25.3s						
BJI				LR	LR		
	comp=Z,5µm,33.6s,MS6.1						
BJT	**Baijiatuau**	**159.55**	**346**	*e*PKIKP	PKPdf	17 21 25.3	-0.1
PSI	**Prapat**	**159.59**	**146**	PKIKP	PKPdf	17 21 25.2	-1.1
PSI						17 22 03.4	
PSI				pmax	pmax		
	comp=Z,9.0nm,0.9s						
PSI	**Prapat**	**159.59**	**146**	PKP	PKPdf	17 21 25.2	-1.1
	comp=Z,9.1nm,0.9s,baz=218,slow=3.4,SNR=14						
PSI				PKPab	PKPab	17 22 03.4	-1.1
	comp=Z,15nm,0.8s,baz=196,slow=5.7,SNR=7.1						
PSI	**Prapat**	**159.59**	**146**	PKP	PKPdf	17 21 25.2	-1.1
PSI				PKPab	PKPab	17 22 03.4	-1.1
CAL	**Calcutta**	**159.64**	**80**	*e*x	x	17 21 31.5	
CAL				*e*x	x	17 21 38.2	
BTO	**Baotou**	**159.65**	**0**	*e*PKP	PKPdf	17 21 25.2	-0.3
LSA	**Lhasa**	**160.44**	**57**	PKP	PKPdf	17 21 25.0	-1.8
LSA				PP	PP	17 25 50.7	+0.3
LSA				LR	LR		
	comp=N,2µm,22.7s						
LSA				LR	LR		
	comp=E,6µm,24.7s						
LSA				LR	LR		
	comp=Z,8µm,22.7s						
LSA	**Lhasa**	**160.44**	**57**	*e*PKPdf	PKPdf	17 21 27.6	+0.8
LSA				LR	LR		
	comp=Z,8µm,22.0s						
KSM	**Kuching**	**161.40**	**181**	PFAKE		17 21 40.0	+12
KSM				LR	LR		
	comp=Z,3µm,21.0s						
AGT	**Agartala**	**162.19**	**75**	*e*PKP	PKPdf	17 21 26.0	-2.8
AGT				*e*x	x	17 22 01.0	
TIY	**Taiyuan**	**162.41**	**354**	⇑PKP	PKPdf	17 21 43.8	+15
TIY				PKPab	PKPab	17 22 30.2	+14
TIY				PP	PP	17 26 14.8	+15
TIY				SS	SS	17 46 27.0	+10
TIY				AMB	AMB		
	comp=Z,3µm,7.9s						
TIY				LR	LR		
	comp=N,4µm,18.6s						
TIY				LR	LR		
	comp=E,6µm,21.7s						
TIY				LR	LR		
	comp=Z,7µm,24.4s						
SHL	**Shillong**	**162.43**	**69**	*e*PKP	PKPdf	17 21 29.0	0.0
SHL				*e*PP	PP	17 26 00.0	-1.4
KULM	**Kulim**	**162.60**	**147**	PFAKE		17 21 40.0	+10
KULM				LR	LR		
	comp=Z,6µm,20.0s						
TIA	**Tai'an**	**162.87**	**340**	PKP	PKPdf	17 21 28.9	-0.2
TIA				pPKP	pPKPdf	17 21 39.5	-3.0
TIA				PKPab	PKPab	17 22 14.0	-4.2
TIA				LR	LR		
	comp=N,1µm,20.0s						
LZH	**Lanzhou**	**163.25**	**18**	PKP	PKPdf	17 21 30.5	+1.0
LZH				pPKP	pPKPdf	17 21 41.7	-1.2
LZH				PKPab	PKPab	17 22 20.8	+1.0
LZH				PP	PP	17 26 02.0	-1.9
LZH				SKKS	SKKSac	17 32 51.0	+1.5
LZH				SS	SS	17 46 27.1	+1.2
LZH				AMB	AMB		
	comp=Z,3µm,5.5s						
LZH				LR	LR		
	comp=E,6µm,18.6s						
LZH				LR	LR		
	comp=Z,8µm,20.0s						
KKM	**Kota Kinabalu**	**164.72**	**204**	PFAKE		17 21 40.0	+8.5
KKM				LR	LR		
	comp=Z,5µm,22.0s						
SSE	**Sheshan**	**165.22**	**320**	⇑PKP	PKPdf	17 21 31.1	-0.3
SSE				pPKP	pPKPdf	17 21 42.8	-2.0
SSE				PKPab	PKPab	17 22 30.8	+2.0
SSE				PP	PP	17 26 17.0	+1.9
SSE				SS	SS	17 46 46.3	-1.2
SSE				AMB	AMB		
	comp=Z,2µm,12.0s						
SSE				LR	LR		
	comp=N,2µm,24.3s						
SSE				LR	LR		
	comp=E,4µm,24.3s						
SSE				LR	LR		
	comp=Z,5µm,24.7s						
NJ2	**Nanjing**	**165.79**	**328**	*e*PKP	PKPdf	17 21 30.7	-1.1
NJ2				pPKP	pPKPdf	17 21 41.2	-4.1
NJ2				sPKP		17 21 43.9	
NJ2				PKPab	PKPab	17 22 29.8	-1.4
NJ2				AMB	AMB		
	comp=Z,2µm,10.0s						
NJ2				LR	LR		
	comp=N,32µm,25.0s						
NJ2				LR	LR		
	comp=E,22µm,22.2s						
NJ2				LR	LR		
	comp=Z,60µm,24.4s						
XAN	**Xi'an**	**166.16**	**4**	PKP	PKPdf	17 21 31.6	-0.5
XAN				pPKP	pPKPdf	17 21 43.0	-2.5
XAN				PKPab	PKPab	17 22 30.9	-1.8
XAN				PKS		17 25 03.4	
XAN				PP	PP	17 26 18.6	-0.4
XAN				SKS	SKSdf	17 28 30.0	-2.9
XAN				AMB	AMB		
	comp=Z,3µm,17.3s						
XAN				LR	LR		
	comp=N,2µm,26.4s						
XAN				LR	LR		
	comp=E,4µm,22.8s						
XAN				LR	LR		
	comp=Z,6µm,25.6s						
CD2	**Chengdu**	**167.91**	**27**	PKP	PKPdf	17 21 33.2	-0.2
CD2				pPKP	pPKPdf	17 21 45.0	-1.9
CD2				sPKP		17 21 47.3	
CD2				PKPab	PKPab	17 22 40.4	-0.1
CD2				PKS		17 25 03.6	
CD2				SKS	SKSdf	17 28 31.0	-3.0
CD2				SKKS	SKKSac	17 33 10.0	-3.1
CD2				AMB	AMB		
	comp=Z,5µm,7.4s						
CD2				LR	LR		
	comp=N,6µm,22.6s						
CD2				LR	LR		
	comp=Z,7µm,22.6s						
WHN	**Wuhan**	**168.98**	**340**	PKP	PKPdf	17 21 33.8	-0.4
WHN				pPKP	pPKPdf	17 21 45.5	-2.1
WHN				PKPab	PKPab	17 22 44.5	-0.8
WHN				PP	PP	17 26 31.5	-2.1
WHN				LR	LR		
	comp=N,9µm,19.7s						
WHN				LR	LR		
	comp=E,3µm,17.1s						
WHN				LR	LR		
	comp=Z,18µm,20.6s						
BDT	**Bhumibol Dam**	**169.13**	**104**	⇓P	PKPdf	17 21 34.0	-0.6
	comp=Z,13nm,1.0s						
CM31	**Chiang Mai Arr**	**169.37**	**97**	*e*PKPdf	PKPdf	17 21 34.3	-0.4
CMAR	**Chiang Mai Arr**	**169.37**	**97**	PKIKP	PKPdf	17 21 34.2	-0.5
CMAR						17 22 47.9	
CMAR						17 26 38.3	
CMAR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CMAR				pmax	pmax		
	comp=Z,11nm,1.1s						
CMAR				pmax	pmax		
	comp=Z,8.0nm,1.2s						
CMAR	**Chiang Mai Arr**	**169.37**	**97**	PKP	PKPdf	17 21 34.2	-0.5
	comp=Z,6.8nm,1.0s,baz=275,slow=1.7,SNR=45						
CMAR				PKPab	PKPab	17 22 47.9	+0.3
	comp=Z,10nm,1.1s,baz=266,slow=4.9,SNR=8.1						
CMAR				PP	PP	17 26 38.3	+0.6
	comp=Z,7.8nm,1.2s,baz=279,slow=5.9,SNR=5.7						
CHG	**Chiang Mai**	**169.43**	**96**	⇑P	PKPdf	17 21 34.0	-0.8
	comp=Z,29nm,1.6s						
CHTO	**Chiang Mai**	**169.43**	**96**	*e*PKIKP	PKPdf	17 21 33.7	-1.1
CHTO				MLR	MLR		
	comp=Z,4µm,21.0s						
NST	**Nakhon Sawan**	**169.55**	**114**	P	PKPdf	17 21 30.0	-4.9
CHRT	**Chiangrai**	**170.34**	**90**	⇑P	PKPdf	17 21 35.0	-0.3
	comp=Z,118nm,1.2s						
QZH	**Quanzhou**	**170.80**	**303**	PKP	PKPdf	17 21 36.7	+1.3
QZH				sPKP		17 21 50.7	
QZH				PKPab	PKPab	17 22 55.0	+1.3
QZH				PP	PP	17 26 44.0	-0.2
QZH				SKKS	SKKSac	17 33 29.0	+1.1
QZH				LR	LR		
	comp=N,8µm,23.0s						
QZH				LR	LR		
	comp=E,21µm,22.2s						
QZH				LR	LR		
	comp=Z,8µm,23.2s						
KMI	**Kunming**	**171.65**	**53**	⇑*i*PKP	PKPdf	17 21 35.6	-0.2
KMI				pPKP	pPKPdf	17 21 45.6	-3.7
KMI				sPKP		17 21 49.0	
KMI				PKPab	PKPab	17 22 58.2	+0.8
KMI				PKS		17 25 05.4	
KMI				PP	PP	17 26 50.3	+2.1
KMI				SKS	SKSdf	17 28 35.2	-0.8
KMI				SKKS	SKKSac	17 33 32.5	+0.5
KMI				SS	SS	17 47 53.9	+1.1
KMI				AMB	AMB		
	comp=Z,3µm,6.8s						
KMI				LR	LR		
	comp=N,4µm,26.1s						
KMI				LR	LR		
	comp=E,4µm,21.2s						
KMI				LR	LR		
	comp=Z,7µm,25.6s						
GYA	**Guiyang**	**173.02**	**26**	*i* PKP	PKPdf	17 21 35.8	-0.6
GYA				pPKP	pPKPdf	17 21 46.9	-3.0
GYA				sPKP		17 21 51.8	
GYA				PKPab	PKPab	17 23 04.2	+0.9
GYA				PKS		17 25 06.4	
GYA				PP	PP	17 26 55.3	+1.3
GYA				SKS	SKSdf	17 28 32.7	-3.7
GYA				SKKS	SKKSac	17 33 38.5	+0.4
GYA				SS	SS	17 48 04.0	-0.3
GYA				AMB	AMB		
	comp=Z,4µm,9.3s						
GYA				LR	LR		
	comp=N,12µm,24.4s						
GYA				LR	LR		
	comp=E,10µm,25.9s						
GYA				LR	LR		
	comp=Z,13µm,22.6s						
HKC	**Hong Kong Obse**	**175.62**	**299**	PKPdf	PKPdf	17 21 38.0	+0.7
QIZ	**Qiongzhong**	**178.83**	**170**	PKP	PKPdf	17 21 38.2	+0.3
QIZ				PKPab	PKPdf	17 23 30.1	
QIZ				PP	PP	17 27 18.4	-2.9
QIZ				SS	SS	17 49 01.9	+3.0
QIZ				AMB	AMB		
	comp=Z,4µm,8.3s						
QIZ				LR	LR		
	comp=E,4µm,21.4s						
QIZ				LR	LR		
	comp=Z,6µm,22.0s						
QIZ	**Qiongzhong**	**178.83**	**170**	*e*PKPbc	PKPdf	17 21 37.9	-0.1

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*IDC **04** 17:02:03.7±3.3, 36°.35N×73°.47E, h0^{km}, mb3.5/2, mb1 3.5/6, mb1mx3.3/26, mbtmp3.5/6, ML3.2/3, MS4.5/1, Ms1 4.5/1, ms1mx2.9/46, Error ellipse: s-maj=71.1km s-min=28.4km az=131.0*

*BJI **04** 17:02:06.0, 36°.79N×72°.45E, h71^{km}*

*ISCJB **04** 17:02:13.0±0.9, 36°.82N±0°.04×73°.39E±0°.08, h68^{km}±14^{km}, mb3.4/2, Error ellipse: s-maj=11.6km s-min=6.6km az=161.0*

*NEIC **04** 17:02:14.4±1.3, 36°.77N×73°.41E, h71^{km}±10^{km}, mb3.3/1, Error ellipse: s-maj=23.7km s-min=8.7km az=130.0*

ISC 04 17:02:14.8±0.7**, 36°.81N**±0°.04×**73°.36E**±0°.09**, h74**^{km}±13^{km}**, n26, σ0^{s}90**/28**, mb3.4**/2**, 2C-2D, Northwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	**Kashi**	**3.40**	**36**	*e*P	**Pn**	**17 03 02.0**	**-3.4**
KSH				S	**Sn**	**17 03 39.3**	**-5.2**
KSH				smax			
	comp=N,560nm,1.0s						
KSH				smax			
	comp=E,310nm,0.8s						
KBL	**Kabul**	**4.18**	**239**	*e*P	**Pn**	**17 03 16.5**	**+0.4**
AML	**Almayashu**	**5.33**	**3**	*e*P	**Pn**	**17 03 31.8**	**+0.1**
	comp=E,9.3nm,0.6s						
EKS2	**Erkin-Say**	**5.86**	**3**	*e*P	**Pn**	**17 03 39.6**	**+0.7**
	comp=E,4.7nm,0.8s						
AAK	**Ala-Archa**	**5.89**	**8**	*e*P	**Pn**	**17 03 38.4**	**-0.9**
	comp=E,7.5nm,0.8s						
TKM2	**Tokmak 2**	**6.34**	**15**	*e*P	**Pn**	**17 03 46.2**	**+0.7**
	comp=E,4.2nm,0.6s						
TKM2	**Tokmak 2**	**6.34**	**15**	⇑Pn	**Pn**	**17 03 46.4**	**+0.8**
	comp=E,1.8nm,0.5s						
TKM2				⇓Sn	**Sn**	**17 04 58.3**	**+1.7**
	comp=E,6.3nm,0.7s						
KK31	**Karatay Array**	**6.66**	**342**	⇓Pn	**Pn**	**17 03 48.3**	**-1.6**
	comp=E,1.1nm,0.3s,baz=167,slow=12,SNR=9.6						
KK31				⇑Sn	**Sn**	**17 05 00.8**	**-3.5**
	comp=E,4.3nm,0.8s,baz=161,slow=25,SNR=3.7						
PYUN	**Piuthan**	**11.88**	**134**	*e*P	**Pn**	**17 05 01.2**	**-0.1**
	comp=E,13nm,0.6s						
MKAR	**Makanchi Array**	**11.99**	**31**	Pn	**Pn**	**17 05 02.0**	**-0.6**
	comp=E,0.1nm,0.3s,baz=210,slow=11,SNR=6.2						
DANN	**Dangsing**	**12.16**	**131**	*e*P	**Pn**	**17 05 05.8**	**+0.8**
	comp=E,5.2nm,0.4s						
KOLN	**Koldanda**	**12.49**	**133**	*e*P	**Pn**	**17 05 08.9**	**-0.6**
	comp=E,3.5nm,0.5s						
GKN	**Gorkha**	**12.94**	**129**	*e*P	**Pn**	**17 05 16.3**	**+0.7**
	comp=E,4.3nm,0.4s						
GUN	**Gumba**	**13.79**	**126**	*e*P	**Pn**	**17 05 27.1**	**+0.2**
KURK	**Kurchatov**	**14.41**	**14**	*e*P	**Pn**	**17 05 35.0**	**+0.2**
	comp=E,1.4nm,0.8s						
TAPN	**Taplejung**	**15.37**	**124**	*e*P	**Pn**	**17 05 46.6**	**-0.7**
BVAR	**Borovoye Array**	**16.35**	**354**	Pn	**Pn**	**17 05 59.2**	**-0.3**
	comp=E,0.1nm,0.3s,baz=156,slow=9.8,SNR=2.8						
BRVK	**Borovoye**	**16.39**	**353**	P	**Pn**	**17 06 01.7**	**+1.6**
	comp=E,1.7nm,0.8s						
AKTK	**Aktyubinsk**	**17.53**	**326**	P	**Pn**	**17 06 14.4**	**+0.4**
AKTO	**Aktyubinsk**	**17.53**	**326**	P	**Pn**	**17 06 14.4**	**+0.4**
	comp=E,0.2nm,0.3s,baz=136,slow=8.1,SNR=5.1						
ZAA0	**Zalesovo Array**	**18.89**	**21**	*e*P	**Pn**	**17 06 29.4**	**-1.0**
ZALV	**Zalesovo Beam**	**18.89**	**21**	P	**Pn**	**17 06 30.0**	**-0.5**
	comp=E,0.3nm,0.3s,baz=219,slow=11,SNR=8.6						
GTA	**Gaotai**	**20.95**	**75**	*e*P	**P**	**17 06 59.6**	**+8.0**
GTA				pP		17 07 04.3	
GTA				sP	sP	17 07 06.7	-9.3
GTA				pmax	pmax		
	comp=Z,3.0nm,1.2s						
ASF	**Jabal al Asfar**	**30.29**	**272**	LR	LR	17 21 36.5	
	comp=Z,1µm,21.0s,baz=221,slow=39						
ARCES	**ARCESS Array B**	**41.60**	**337**	P	**P**	**17 09 55.4**	**+0.4**
	comp=Z,1.1nm,0.8s,mb3.6,baz=98,slow=8.7,SNR=4.5						
TORD	**Torodi Ar. Bea**	**67.62**	**270**	P	**P**	**17 13 03.5**	**-0.5**
	comp=Z,0.2nm,0.6s,mb3.1,baz=47,slow=7.3,SNR=2.3						

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*NEIC **04** 17:02:23.7, 18°.20N×68°.58W, h128^{km}, MD3.7(RSPR), After RSPR.*

RSPR 04 17:02:23.7, 18°.20N×68°.58W, h127^{km}±6^{km}**, MD3.7**/8**, MD3.7**/8**, 4C-4D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRPR	**Cabo Rojo, PR**	**1.41**	**98**	⇓*e*P	Pn	17 02 49.7	-0.9
CRPR				*e*S	Sn	17 03 10.9	-0.2
AGPR	**Aguadilla, PR**	**1.42**	**79**	⇑*e*P	Pn	17 02 49.9	-0.9
AGPR				*e*S	Sn	17 03 12.0	+0.7
LSP	**Las Mesas**	**1.42**	**91**	⇑*e*P	Pn	17 02 51.3	+0.5
AOPR	**Arecibo Observ**	**1.74**	**85**	⇓*e*P	Pn	17 02 54.0	-0.4
AOPR				*e*S	Sn	17 03 17.3	-0.6
CELP	**Cerrillos**	**1.91**	**93**	⇓*e*P	Pn	17 02 57.0	+0.6
CELP				*e*S	Sn	17 03 21.8	+0.4
CBYP	**Canovanas**	**2.59**	**88**	⇓*e*P	Pn	17 03 04.7	-0.2
HUMP	**Col San Antoni**	**2.59**	**91**	⇑*e*P	Pn	17 03 04.8	-0.2
MTP	**Monte Pirata**	**2.88**	**92**	⇑*e*P	Pn	17 03 09.1	+0.4

IDC 04 17:06:21.3±15.0**, 7°.40S**×**124°.62E, h348**^{km}±197^{km}**, mb2.5**/1**, mb1 3.0**/4**, mb1mx2.8**/18**, mbtmp2.8**/4**, Error ellipse: s-maj=184.0km s-min=47.1km az=38.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**10.68**	**175**	P	Pn	17 08 47.2	-0.2
	0.7nm,0.3s,baz=20,slow=9.5,SNR=21						
FITZ				S	S	17 10 38.0	-9.5
	0.1nm,0.3s,baz=11,slow=10,SNR=2.6						
WRA	**Warramunga Arr**	**15.63**	**144**	P	P	17 09 42.0	-0.9
	0.3nm,0.3s,baz=309,slow=13,SNR=30						
ASAR	**Alice Springs**	**18.47**	**152**	P	P	17 10 13.8	+0.4
	0.5nm,0.3s,baz=342,slow=15,SNR=41						
MKAR	**Makanchi Array**	**65.74**	**330**	P	P	17 16 29.7	+0.1
	0.1nm,0.5s,baz=115,slow=7.7,SNR=6.3						

MEX 04 17:07:04.1±0.7, 17°.18N×99°.67W, h27km±32km, MD3.5, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	**0.40**	**217**	*i* P	Pb	17 07 11.0	-1.7
ACX				*i* S	Sb	17 07 17.0	-1.6
CAIG	**El Cayaco**	**0.59**	**257**	*i* P	Pb	17 07 13.6	-2.3
CAIG				*i* S	Sb	17 07 22.2	-1.7
MEIG	**Mezcala**	**0.74**	**3**	*i* P	Pb	17 07 16.6	-1.8
MEIG				*i* S	Sb	17 07 24.8	-3.3
PNIG	**Pinotepa**	**1.67**	**118**	*i* P	Pn	17 07 29.6	-2.0
PNIG				*i* S	Sn	17 07 49.3	-2.9

IDC 04 17:13:18.4±4.2, 33°.82N×89°.61E, h0km, mb3.3/1, mb1 3.6/3, mb1mx3.4/23, mbtmp3.4/3, ML3.6/2, Error ellipse: s-maj=242.5km s-min=32.8km az=67.0, Xizang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**14.10**	**339**	Pn	Pn	17 16 37.7	-1.5
	0.1nm,0.3s,baz=166,slow=11,SNR=6.1						
CMAR	**Chiang Mai Arr**	**17.43**	**149**	P	Pn	17 17 23.2	+0.2
	0.2nm,0.3s,baz=327,slow=12,SNR=9.2						
ZALV	**Zalesovo Beam**	**20.40**	**352**	P	P	17 17 56.1	-0.6
	0.9nm,0.5s,baz=180,slow=9.7,SNR=7.4						

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*ISCJB **04** 17:29:01.2±1.0, 0°.7N±0°.1×123°.7E±0°.2, h274km±13km, mb3.8/15, Error ellipse: s-maj=36.1km s-min=9.3km az=152.8*

*IDC **04** 17:29:01.5±2.8, 0°.58N×123°.43E, h258km±28km, mb3.4/9, mb1 3.5/10, mb1mx3.3/22, mbtmp3.4/10, Error ellipse: s-maj=61.3km s-min=10.4km az=63.0*

*NEIC **04** 17:29:06.6±4.0, 0°.46N×123°.41E, h316km±46km, mb4.2/2, Error ellipse: s-maj=33.1km s-min=11.8km az=59.0*

ISC 04 17:29:02.1±1.0, 0°.6N±0°.1×123°.7E±0°.2, h265km±14km, n27, σ0s.86/28, mb3.8/15, 2D, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	**Manado**	**1.41**	**55**	⇓*e*P	**Pn**	**17 29 41.0**	**-0.3**
KAKA	**Kakadu**	**15.84**	**147**	*e*P	**Pn**	**17 32 32.1**	**+0.2**
	10nm,0.6s						
KAKA				*e*S	**S**	**17 35 11.0**	**-13**
KAKA	**Kakadu**	**15.84**	**147**	*e*P	**Pn**	**17 32 31.9**	**0.0**
	39nm,0.8s						
FITZ	**Fitzroy Crossi**	**18.71**	**174**	*e*P	**P**	**17 33 01.0**	**-0.5**
	5.8nm,0.6s						
FITZ				*e*S	S	17 35 37.8	-43
FITZ	**Fitzroy Crossi**	**18.71**	**174**	P	**P**	**17 33 00.5**	**-1.0**
	0.5nm,0.3s,baz=338,slow=15,SNR=13						
MBWA	**Marble Bar**	**21.99**	**190**	*e*P	**P**	**17 33 33.7**	**-1.2**
	1.3nm,0.5s,mb3.5						
WRAB	**Tennant Creek**	**22.95**	**153**	*e*P	**P**	**17 33 44.1**	**+0.4**
WRA	**Warramunga Arr**	**22.95**	**154**	P	**P**	**17 33 43.8**	**+0.1**
	2.2nm,0.4s,mb3.9,baz=332,slow=10,SNR=86						
ASAR	**Alice Springs**	**26.11**	**158**	P	**P**	**17 34 13.0**	**+0.9**
	0.8nm,0.3s,mb3.7,baz=332,slow=8.3,SNR=33						
ASAR				ScP	ScP	17 40 48.0	+1.4
	0.5nm,0.6s,baz=338,slow=2.8,SNR=8.3						
CMAR	**Chiang Mai Arr**	**30.07**	**308**	P	**P**	**17 34 47.3**	**+0.1**
	0.5nm,0.7s,mb3.2,baz=130,slow=7.4,SNR=4.5						
STKA	**Stephens Creek**	**36.51**	**154**	⇓*i*P	**P**	**17 35 43.4**	**+0.9**
	3.8nm,1.0s,mb3.8						
STKA	**Stephens Creek**	**36.51**	**154**	P	**P**	**17 35 43.5**	**+1.0**
	1.5nm,0.3s,mb3.8,baz=316,slow=11,SNR=18						
LSA	**Lhasa**	**42.37**	**316**	P	**P**	**17 36 32.0**	**+1.1**
TAPN	**Taplejung**	**43.55**	**311**	*e*P	**P**	**17 36 41.5**	**+1.2**
RAMN	**Ramite**	**44.20**	**309**	*e*P	**P**	**17 36 46.4**	**+1.0**
	5.3nm,0.5s,mb4.1						
GUN	**Gumba**	**45.23**	**310**	*e*P	**P**	**17 36 54.1**	**+0.5**
GKN	**Gorkha**	**46.23**	**310**	*e*P	**P**	**17 37 01.5**	**+0.1**
	2.7nm,0.4s,mb4.0						
KOLN	**Koldanda**	**46.93**	**309**	*e*P	**P**	**17 37 07.1**	**+0.4**
	7.0nm,0.5s,mb4.2						
DANN	**Dangsing**	**47.08**	**309**	*e*P	**P**	**17 37 07.6**	**-0.3**
	13nm,0.5s,mb4.5						
PYUN	**Piuthan**	**47.56**	**309**	*e*P	**P**	**17 37 12.0**	**+0.4**
	13nm,0.5s,mb4.5						
SONM	**Songino Array**	**49.36**	**345**	P	**P**	**17 37 26.0**	**+1.1**
	0.8nm,0.7s,mb3.2,baz=175,slow=8.5,SNR=5.0						
MKAR	**Makanchi Array**	**58.45**	**328**	P	**P**	**17 38 29.8**	**-0.6**
	1.6nm,0.3s,mb3.9,baz=124,slow=7.8,SNR=62						
MKAR				PcP	PcP	17 39 17.4	-0.6
	0.5nm,0.4s,baz=160,slow=2.9,SNR=8.5						
KURK	**Kurchatov**	**62.78**	**330**	P	**P**	**17 38 58.4**	**-1.1**
	1.1nm,0.5s,mb3.8,baz=116,slow=6.1,SNR=13						
KURK	**Kurchatov**	**62.78**	**330**	*e*P	**P**	**17 38 58.2**	**-1.3**
BVAR	**Borovoye Array**	**68.31**	**329**	P	**P**	**17 39 33.3**	**-1.3**
	0.3nm,0.4s,mb3.4,baz=132,slow=12,SNR=2.9						
AKTK	**Aktyubinsk**	**74.23**	**323**	P	**P**	**17 40 08.7**	**-1.4**
AKTO	**Aktyubinsk**	**74.23**	**323**	P	**P**	**17 40 08.7**	**-1.4**
	0.8nm,0.4s,mb3.7,baz=114,slow=8.4,SNR=4.2						

IDC 04 17:35:07.8±2.5, 10°.52S×113°.33E, h0km, mb3.1/3, mb1 3.3/3, mb1mx3.2/18, mbtmp3.1/3, Error ellipse: s-maj=124.3km s-min=25.7km az=46.0, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.31**	**117**	P	P	17 40 07.8	+0.7
	0.2nm,0.5s,baz=292,slow=11,SNR=6.2						
ASAR	**Alice Springs**	**23.57**	**126**	P	P	17 40 19.5	-0.9
	0.3nm,0.8s,baz=301,slow=9.3,SNR=5.7						
MKAR	**Makanchi Array**	**63.44**	**337**	P	P	17 45 39.6	+0.2
	0.2nm,0.8s,baz=141,slow=8.2,SNR=4.0						

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*IDC **04** 17:53:53.0±1.4, 12°.69N×92°.33E, h0km, mb3.7/8, mb1 3.7/9, mb1mx3.6/24, mbtmp3.6/9, ML3.3/1, Error ellipse: s-maj=42.8km s-min=18.9km az=61.0*

*ISCJB **04** 17:53:56.4±1.0, 12°.8N±0°.1×92°.4E±0°.1, h33km, mb3.7/8, Error ellipse: s-maj=22.7km s-min=9.3km az=44.9*

*NEIC **04** 17:53:58.2±0.9, 12°.76N×92°.38E, h35km, mb3.7/1, Error ellipse: s-maj=22.0km s-min=13.6km az=59.0*

ISC 04 17:53:58.5±1.0, 12°.8N±0°.1×92°.4E±0°.1, h35km, n21, σ0s.81/22, mb3.7/8, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.47**	**48**	Pn	**Pn**	**17 55 58.5**	**-0.3**
	0.1nm,0.3s,baz=237,slow=15,SNR=3.5						
CMAR				Sn	**Sn**	**17 57 27.1**	**-6.1**
	0.2nm,0.3s,baz=238,slow=27,SNR=5.4						
ODAN	**Odare**	**14.74**	**342**	*e*P	**Pn**	**17 57 23.8**	**-0.7**
	7.9nm,0.4s						
RAMN	**Ramite**	**15.07**	**340**	*e*P	**Pn**	**17 57 27.4**	**-1.5**
	6.8nm,0.4s						
TAPN	**Taplejung**	**15.11**	**344**	*e*P	**Pn**	**17 57 29.0**	**-0.4**
	4.1nm,0.3s						
PKI	**Pulchoki**	**16.06**	**337**	*e*P	**Pn**	**17 57 41.1**	**-0.7**
	5.2nm,0.3s						
DMN	**Daman**	**16.21**	**336**	*e*P	**Pn**	**17 57 43.7**	**0.0**
	4.2nm,0.3s						
KKN	**Kakani**	**16.31**	**337**	*e*P	**Pn**	**17 57 45.1**	**+0.2**
GKN	**Gorkha**	**16.75**	**336**	*e*P	**Pn**	**17 57 50.1**	**-0.4**
	6.3nm,0.2s						
KOLN	**Koldanda**	**16.99**	**332**	*e*P	**Pn**	**17 57 53.9**	**+0.4**
	4.8nm,0.3s						
DANN	**Dangsing**	**17.42**	**334**	*e*P	**Pn**	**17 58 00.1**	**+1.2**
	7.1nm,0.4s						
PYUN	**Piuthan**	**17.55**	**332**	*e*P	**Pn**	**17 58 02.0**	**+1.5**
	7.0nm,0.3s						
BESP	**Borongan**	**32.34**	**88**	*e*P	**P**	**18 00 26.1**	**+1.2**
MKAR	**Makanchi Array**	**34.92**	**348**	P	**P**	**18 00 47.5**	**+0.6**
	0.3nm,0.4s,mb3.6,baz=166,slow=8.5,SNR=11						
SONM	**Songino Array**	**36.84**	**16**	P	**P**	**18 01 04.2**	**+1.0**
	0.9nm,0.7s,mb3.7,baz=214,slow=7.9,SNR=5.6						
KURK	**Kurchatov**	**39.43**	**346**	P	**P**	**18 01 23.5**	**-1.5**
	1.5nm,1.0s,mb3.7						
KSRS	**Korea Array**	**40.10**	**46**	P	**P**	**18 01 30.7**	**-0.2**
	1.3nm,0.8s,mb3.7,baz=242,slow=8.0,SNR=6.3						
ZALV	**Zalesovo Beam**	**41.47**	**353**	P	**P**	**18 01 42.1**	**+0.3**
	1.2nm,0.5s,mb3.8,baz=170,slow=9.8,SNR=7.2						
BVAR	**Borovoye Array**	**43.78**	**341**	P	**P**	**18 02 00.9**	**+0.3**
	0.3nm,0.4s,baz=141,slow=7.1,SNR=3.6						
WRA	**Warramunga Arr**	**52.59**	**128**	P	**P**	**18 03 08.5**	**-0.7**
	0.3nm,0.6s,mb3.4,baz=300,slow=10.0,SNR=9.9						
ASAR	**Alice Springs**	**54.45**	**132**	P	**P**	**18 03 22.1**	**-0.6**
	0.3nm,0.5s,mb3.5,baz=311,slow=7.0,SNR=15						
ARCES	**ARCESS Array B**	**70.06**	**340**	P	**P**	**18 05 07.0**	**+0.4**
	1.2nm,0.8s,mb3.9,baz=96,slow=8.6,SNR=3.4						

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*MAN **04** 18:00:02, 12°.76N×126°.03E, h62km, mb4.4, ML3.2, MS3.0*

*IDC **04** 18:00:06.4±1.1, 12°.21N×125°.44E, h0km, mb3.7/7, mb1 3.8/7, mb1mx3.6/22, mbtmp3.7/7, MS4.8/1, Ms1 4.8/1, ms1mx3.3/33, Error ellipse: s-maj=57.0km s-min=16.4km az=66.0*

*ISCJB **04** 18:00:08.9±0.7, 12°.40N±0°.06×125°.72E±0°.10, h33km, mb3.8/7, Error ellipse: s-maj=14.1km s-min=8.0km az=165.4*

*NEIC **04** 18:00:11.9±0.8, 12°.20N×125°.36E, h35km, mb4.4/1, Error ellipse: s-maj=42.2km s-min=10.8km az=67.0*

ISC 04 18:00:11.4±0.7, 12°.34N±0°.06×125°.6E±0°.1, h35km, n21, σ1s.00/20, mb3.8/7, 1D, Samar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNP	**Catarman**	**0.92**	**281**	*e*P	**Pn**	**18 00 26.4**	**-1.5**
OCLP	**Ormoc**	**1.60**	**217**	*e*P	**Pn**	**18 00 38.0**	**+0.7**
PVCP	**Virac**	**1.88**	**312**	*e*P	**Pn**	**18 00 39.7**	**-1.3**
MSLP	**Maasin**	**2.31**	**198**	*e*P	**Pn**	**18 00 48.1**	**+1.2**
SCPH	**Surigao**	**2.55**	**182**	*e*P	**Pn**	**18 00 48.8**	**-1.5**
SCPH				*e*S	**Sn**	**18 01 24.8**	**+4.8**
RCP	**Roxas**	**2.89**	**255**	⇓*e*P	**Pn**	**18 00 56.1**	**+1.1**
GUIM	**Jordan**	**3.40**	**240**	*e*P	**Pn**	**18 01 02.5**	**+0.4**
POLP	**Polilio Island**	**4.27**	**304**	*e*P	**Pn**	**18 01 20.2**	**+6.2**
BALP	**Baler**	**5.16**	**311**	*e*P	Px	18 01 43.5	
CAUP	**Cauayan**	**5.85**	**322**	*e*P	**Pn**	**18 01 35.6**	**0.0**
JHJ	**Hachijo jima 2**	**24.42**	**30**	LR	LR	18 14 14.1	
	comp=Z,2μm,21.8s,baz=101,slow=34						
CMAR	**Chiang Mai Arr**	**26.38**	**287**	P	**P**	**18 05 43.8**	**-0.9**
	1.4nm,0.9s,mb3.5,baz=88,slow=7.8,SNR=10						
FITZ	**Fitzroy Crossi**	**30.25**	**180**	P	**P**	**18 06 17.9**	**-1.2**
	1.9nm,0.9s,mb3.8,baz=346,slow=4.2,SNR=3.3						
WRA	**Warramunga Arr**	**33.22**	**165**	P	**P**	**18 06 44.2**	**-1.0**
	0.4nm,0.9s,mb3.3,baz=344,slow=8.9,SNR=3.1						
WRA				PcP	PcP	18 09 27.1	-0.4
	0.3nm,0.9s,baz=340,slow=3.0,SNR=6.3						
ASAR	**Alice Springs**	**36.70**	**167**	P	**P**	**18 07 14.9**	**-0.3**
	0.3nm,0.7s,baz=344,slow=6.5,SNR=8.5						
SONM	**Songino Array**	**38.86**	**339**	P	**P**	**18 07 34.2**	**+1.0**
	1.0nm,0.9s,mb3.5,baz=165,slow=9.9,SNR=4.3						
MK31	**Makanchi Array**	**49.99**	**322**	*e*P	**P**	**18 09 02.9**	**+0.7**
MKAR	**Makanchi Array**	**49.99**	**322**	P	**P**	**18 09 02.8**	**+0.6**
	1.2nm,0.8s,mb4.0,baz=118,slow=8.4,SNR=14						
BVAR	**Borovoye Array**	**59.60**	**325**	P	**P**	**18 10 11.9**	**+0.3**
	1.2nm,0.8s,mb4.0,baz=122,slow=7.7,SNR=8.4						
BRVK	**Borovoye**	**59.67**	**325**	*e*P	**P**	**18 10 11.9**	**-0.2**
	3.5nm,1.1s,mb4.3						
SBA	**Scott Base**	**92.97**	**172**	P	**P**	**18 13 22.4**	**+2.0**

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*IDC **04** 18:12:35.9±2.0, 27°.24N×53°.96E, h0km, mb3.7/9, mb1 3.8/10, mb1mx3.6/28, mbtmp3.8/10, ML1.5/1, Error ellipse: s-maj=46.3km s-min=20.2km az=162.0*

*NEIC **04** 18:12:40.4±1.3, 27°.13N×54°.01E, h35km, mb3.6/1, Error ellipse: s-maj=26.8km s-min=14.0km az=175.0*

*TEH **04** 18:12:41.3, 27°.72N×53°.73E, h10km*

*KISR **04** 18:12:41.7±1.0, 28°.20N×53°.70E, h31km±999km, ML3.3*

*CSEM **04** 18:12:41.8±0.2, 27°.83N×53°.71E, h10km, ML3.5, Error ellipse: s-maj=6.1km s-min=4.7km az=177.0*

*THR **04** 18:12:41.4±0.4, 27°.77N×53°.59E, h40km±5km, ML3.5*

ISC 04 18:12:42.2±1.0, 27°.83N±0°.04×53°.72E±0°.03, h13km±6km, n70, σ1s.17/84, mb3.7/7, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHIR	**Ghir-Karzin**	**0.79**	**306**	*e*Pg	**Pg**	**18 12 56.3**	**-1.3**
GHIR				AML	AML	18 13 13.9	
	comp=N,3μm,0.4s						
GHIR				AML	AML	18 13 19.2	
	comp=E,2μm,0.4s						
GHIR	**Ghir-Karzin**	**0.79**	**306**	*e*Pg	**Pg**	**18 12 56.3**	**-1.3**
IMOK	**Mouk**	**1.50**	**324**	*e*Pg	**Pg**	**18 13 10.1**	**-1.0**
IMOK				*e*Sg	**Sg**	**18 13 31.9**	**+1.2**
IMOK				*e*		18 13 39.8	
	comp=Z,19μm,0.2s						
IMOK	**Mouk**	**1.50**	**324**	*e*Pg	**Pg**	**18 13 10.1**	**-1.0**
IMOK				*e*Sg	**Sg**	**18 13 31.9**	**+1.2**
ISRV	**Sarvestan**	**1.64**	**341**	*e*Pn	**Pn**	**18 13 11.9**	**+1.1**
ISRV				*e*Sn	**Sn**	**18 13 33.7**	**+2.0**
ISRV				*e*		18 13 44.5	
	comp=Z,14μm,0.2s						
ISRV	**Sarvestan**	**1.64**	**341**	*e*Pn	**Pn**	**18 13 11.9**	**+1.1**
ISRV				*e*Sn	**Sn**	**18 13 33.7**	**+2.0**
IPAR	**Pars**	**2.09**	**344**	*e*Pn	**Pn**	**18 13 18.1**	**+1.1**
IPAR				*e*		18 14 01.1	
	comp=Z,4μm,0.4s						
IPAR	**Pars**	**2.09**	**344**	*e*Pn	**Pn**	**18 13 18.1**	**+1.1**
SHI	**Shiraz**	**2.10**	**330**	*e*Sn	**Sn**	**18 13 45.5**	**+2.5**
SHI	**Shiraz**	**2.10**	**330**	*e*Sn	**Sn**	**18 13 45.5**	**+2.5**
BNDS	**Bandar-Abbas**	**2.22**	**100**	*e*Pn	**Pn**	**18 13 18.9**	**+0.2**
BNDS	**Bandar-Abbas**	**2.22**	**100**	*e*Pn	**Pn**	**18 13 18.9**	**+0.2**
IBND	**Bandar-abas**	**2.53**	**98**	*e*Pn	**Pn**	**18 13 22.2**	**-0.9**
IBND				*e*		18 14 50.6	
	comp=Z,2μm,0.3s						
IBND	**Bandar-abas**	**2.53**	**98**	*e*Pn	**Pn**	**18 13 22.2**	**-0.9**
KRBR	**Kerman**	**3.43**	**50**	*e*Pn	**Pn**	**18 13 36.1**	**+0.8**
KRBR				AML	AML	18 14 31.3	
	comp=E,51nm,0.7s						
KRBR	**Kerman**	**3.43**	**50**	*e*Pn	**Pn**	**18 13 36.1**	**+0.7**
IMEH	**Mehriz**	**3.64**	**12**	*e*Pn	**Pn**	**18 13 39.1**	**+0.8**
IMEH				*e*		18 14 27.5	
	comp=Z,475nm,0.3s						
IMEH	**Mehriz**	**3.64**	**12**	*e*Pn	**Pn**	**18 13 39.1**	**+0.8**
ISAD	**Sadrabad**	**4.08**	**360**	*e*Pn	**Pn**	**18 13 45.4**	**+1.1**
ISAD				*e*		18 15 11.2	
	comp=Z,625nm,0.3s						
ISAD	**Sadrabad**	**4.08**	**360**	*e*Pn	**Pn**	**18 13 45.4**	**+1.1**
IBAF	**Bafgh**	**4.08**	**23**	*e*Pn	**Pn**	**18 13 44.4**	**0.0**
IBAF				*e*		18 13 58.5	
	comp=Z,313nm,0.2s						
IBAF	**Bafgh**	**4.08**	**23**	*e*Pn	**Pn**	**18 13 44.4**	**0.0**
SLWS		**4.09**	**223**	P	**Pn**	**18 13 48.2**	**+3.8**
SLWS		**4.09**	**223**	P	**Pn**	**18 13 48.2**	**+3.8**
SLWS				S	**Sn**	**18 14 34.3**	**+2.2**
BOQSS		**4.34**	**244**	S	**Sn**	**18 14 39.5**	**+1.1**
ICHK	**Chekchek**	**4.45**	**8**	*e*Pn	**Pn**	**18 13 49.8**	**+0.4**
ICHK				*e*		18 14 09.7	
	comp=Z,560nm,0.3s						
ICHK	**Chekchek**	**4.45**	**8**	*e*Pn	**Pn**	**18 13 49.8**	**+0.4**
BTHS		**4.56**	**215**	P	**Pn**	**18 13 52.4**	**+1.4**
BTHS		**4.56**	**215**	P	**Pn**	**18 13 52.4**	**+1.4**
BTHS				S	**Sn**	**18 14 44.8**	**+0.8**
NASN	**Na'in**	**5.02**	**351**	*e*Pn	**Pn**	**18 13 57.1**	**-0.2**
NASN				AML	AML	18 14 56.5	
	comp=N,28nm,0.6s						
NASN				AML	AML	18 14 57.0	
	comp=E,25nm,0.6s						
NASN	**Na'in**	**5.02**	**351**	*e*Pn	**Pn**	**18 13 57.1**	**-0.1**
KFJS		**5.12**	**275**	S	**Sn**	**18 14 56.0**	**-1.6**
KFJS		**5.12**	**275**	S	**Sn**	**18 14 56.0**	**-1.6**
IZEF	**Zefreh**	**5.19**	**347**	*e*Pn	**Pn**	**18 13 59.1**	**-0.5**
IZEF				*e*		18 15 18.2	
	comp=Z,184nm,0.2s						
IZEF	**Zefreh**	**5.19**	**347**	*e*Pn	**Pn**	**18 13 59.1**	**-0.5**
IPIR	**Pirpir**	**5.42**	**334**	*e*Pn	**Pn**	**18 14 02.8**	**0.0**
IPIR				*e*		18 15 06.8	
	comp=Z,604nm,0.3s						
IPIR	**Pirpir**	**5.42**	**334**	*e*Pn	**Pn**	**18 14 02.8**	**0.0**
RDF	**Al-Radifah**	**5.54**	**283**	*e*P	**Pn**	**18 14 05.3**	**+0.8**
RDF				*e*S	**Sn**	**18 15 07.6**	**-0.4**
RDF				AML	AML	18 15 07.8	
	comp=Z,19nm,0.5s						
RDF	**Al-Radifah**	**5.54**	**283**	*e*P	**Pn**	**18 14 05.3**	**+0.8**
RDF				*e*S	**Sn**	**18 15 07.6**	**-0.5**
	comp=Z,19nm,0.5s						
UMR	**Umm Al-Rimmam**	**5.54**	**289**	*e*P	**Pn**	**18 14 04.7**	**+0.2**
UMR				*e*S	**Sn**	**18 15 07.4**	**-0.7**
UMR				AML	AML	18 15 07.8	
	comp=Z,14nm,0.5s						
UMR	**Umm Al-Rimmam**	**5.54**	**289**	*e*P	**Pn**	**18 14 04.7**	**+0.2**
UMR				*e*S	**Sn**	**18 15 07.4**	**-0.7**
IKLH	**Kolahrood**	**5.78**	**342**	*e*Pn	**Pn**	**18 14 08.2**	**+0.5**
IKLH				*e*		18 15 14.1	
	comp=Z,213nm,0.3s						
IKLH	**Kolahrood**	**5.78**	**342**	*e*Pn	**Pn**	**18 14 08.2**	**+0.5**
NAY	**Al-Naaiem**	**5.87**	**286**	*e*P	**Pn**	**18 14 09.7**	**+0.8**
NAY				*e*S	**Sn**	**18 15 15.2**	**-0.9**
NAY				AML	AML	18 15 17.1	
	comp=Z,5.1nm,0.5s						
NAY	**Al-Naaiem**	**5.87**	**286**	*e*P	**Pn**	**18 14 09.7**	**+0.8**
NAY				*e*S	**Sn**	**18 15 15.2**	**-0.9**
MIB	**Mutribah**	**5.93**	**291**	*e*P	**Pn**	**18 14 09.5**	**-0.3**
MIB				*e*S	**Sn**	**18 15 15.9**	**-1.8**
MIB				AML	AML	18 15 18.2	
	comp=Z,29nm,0.5s						
MIB	**Mutribah**	**5.93**	**291**	*e*P	**Pn**	**18 14 09.5**	**-0.3**
MIB				*e*S	**Sn**	**18 15 15.9**	**-1.8**
ASAO	**Ashtian**	**7.41**	**336**	*e*Pn	**Pn**	**18 14 29.6**	**-0.4**
ASAO	**Ashtian**	**7.41**	**336**	*e*Pn	**Pn**	**18 14 29.6**	**-0.5**
DAMV	**Damavand**	**7.92**	**350**	*e*Pn	**Pn**	**18 14 36.7**	**-0.4**
DAMV	**Damavand**	**7.92**	**350**	*e*Pn	**Pn**	**18 14 36.7**	**-0.4**
ASYS		**8.32**	**270**	P	**Pn**	**18 14 40.9**	**-1.7**
GNI	**Garni**	**14.36**	**331**	Pn	**Pn**	**18 16 12.0**	**+6.9**
	comp=Z,0.5nm,0.3s,baz=233,slow=1.3,SNR=6.9						
MALT	**Malatya**	**16.52**	**313**	*e*P	**Pn**	**18 16 37.4**	**+3.7**
	comp=Z,5.0nm,0.9s						
MALT	**Malatya**	**16.52**	**313**	*e*P	**Pn**	**18 16 37.4**	**+3.8**
	comp=Z,5.0nm,0.9s						
BRTR	**Keskin Array B**	**20.43**	**311**	P	**P**	**18 17 22.7**	**+3.5**
	comp=Z,1.8nm,0.8s,baz=138,slow=12,SNR=12						
AKTK	**Aktyubinsk**	**22.82**	**7**	P	**P**	**18 17 44.8**	**+0.2**
AKTK	**Aktyubinsk**	**22.82**	**7**	P	**P**	**18 17 44.8**	**+0.1**
AKTO	**Aktyubinsk**	**22.82**	**7**	P	**P**	**18 17 44.8**	**+0.1**
	comp=Z,0.7nm,0.5s,mb3.4,baz=184,slow=16,SNR=1.8						
IDI	**Anoyia**	**25.61**	**294**	P	**P**	**18 18 10.6**	**-0.7**
	comp=Z,2.9nm,0.6s,mb4.0,baz=99,slow=14,SNR=9.9						
IDI	**Anoyia**	**25.61**	**294**	P	**P**	**18 18 10.6**	**-0.7**
BVAR	**Borovoye Array**	**28.05**	**22**	P	**P**	**18 18 32.0**	**-1.1**
	comp=Z,1.3nm,0.8s,mb3.6,baz=211,slow=8.1,SNR=7.7						
BVAR	**Borovoye Array**	**28.05**	**22**	P	**P**	**18 18 32.0**	**-1.1**
MKAR	**Makanchi Array**	**29.34**	**42**	P	**P**	**18 18 43.2**	**-1.4**
	comp=Z,0.2nm,0.6s,baz=229,slow=9.8,SNR=3.0						
MKAR	**Makanchi Array**	**29.34**	**42**	P	**P**	**18 18 43.2**	**-1.4**
MKAR	**Makanchi Array**	**29.34**	**42**	P	**P**	**18 18 43.2**	**-1.4**
ZALV	**Zalesovo Beam**	**34.64**	**32**	P	**P**	**18 19 31.3**	**+0.3**
	comp=Z,1.2nm,0.7s,mb3.9,baz=248,slow=7.8,SNR=6.3						
SONM	**Songino Array**	**45.18**	**49**	P	**P**	**18 20 56.4**	**-2.3**
	comp=Z,0.6nm,0.7s,mb3.5,baz=255,slow=10,SNR=2.8						
TORD	**Torodi Ar. Bea**	**50.52**	**264**	P	**P**	**18 21 37.4**	**-3.1**
	comp=Z,0.7nm,0.7s,mb3.7,baz=53,slow=7.2,SNR=6.7						
YKA	**Yellowknife Ar**	**89.51**	**355**	P	**P**	**18 25 36.6**	**-2.3**
	comp=Z,0.5nm,0.7s,mb3.9,baz=2.7,slow=4.9,SNR=6.0						

IDC 04 18:21:30.0±2.4, 5°.58S×128°.58E, h0km, mb3.6/1, mb1 3.3/3, mb1mx3.2/17, mbtmp3.2/3, ML2.8/2, Error ellipse: s-maj=163.2km s-min=32.8km az=67.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**15.34**	**159**	Pn	Pn	18 25 06.4	-1.5
	0.0nm,0.3s,baz=341,slow=13,SNR=3.7						
ASAR	**Alice Springs**	**18.70**	**165**	P	Pn	18 25 50.8	+0.5
	0.0nm,0.3s,baz=339,slow=8.6,SNR=3.8						
MKAR	**Makanchi Array**	**66.27**	**327**	P	P	18 32 20.1	+0.1
	0.8nm,1.1s,baz=130,slow=4.5,SNR=3.3						

IDC 04 18:25:05.7±1.9, 19°.09S×175°.82W, h0km, mb3.7/3, mb1 3.9/3, mb1mx3.6/18, mbtmp3.7/3, Error ellipse: s-maj=58.6km s-min=40.2km az=121.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**20.07**	**196**	P	P	18 29 40.9	+0.3
	5.5nm,0.7s,baz=277,slow=8.1,SNR=5.6						
WRA	**Warramunga Arr**	**46.85**	**260**	P	P	18 33 37.9	+0.1
	0.3nm,0.3s,baz=96,slow=7.4,SNR=18						
ASAR	**Alice Springs**	**46.85**	**255**	P	P	18 33 38.0	+0.2
	0.4nm,0.5s,baz=93,slow=8.4,SNR=17						
ASAR				PcP	PcP	18 35 08.8	-2.0
	0.3nm,0.8s,baz=97,slow=3.9,SNR=4.4						
BRTR	**Keskin Array B**	**147.35**	**315**	PKPbc	PKPbc	18 44 51.6	+0.1
	0.6nm,0.6s,baz=74,slow=4.2,SNR=4.3						
GERES	**GERESS Array B**	**149.34**	**348**	PKPbc	PKPbc	18 44 56.5	0.0
	0.5nm,0.6s,baz=22,slow=3.2,SNR=4.4						

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*NEIC **04** 18:31:40.2, 17°.20N×101°.64W, h21km, MD4.1(MEX), After MEX.*

MEX 04 18:31:40.2±0.8, 17°.20N×101°.64W, h21km±24km, MD4.1, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**1.32**	**96**	*i* P	Pn	18 31 59.7	-3.7
CAIG				*i* S	Sn	18 32 15.5	-4.8
ACX	**Acapulco**	**1.68**	**101**	*i* P	Pn	18 32 07.0	-1.3
ACX				*i* S	Sn	18 32 25.0	-4.1
MEIG	**Mezcala**	**2.05**	**69**	*i* P	Pn	18 32 11.3	-2.2
MEIG				*i* S	Sn	18 32 35.2	-3.3
PLIG	**Platanillo**	**2.35**	**59**	*i* P	Pn	18 32 15.8	-1.8
PLIG				*i* S	Sn	18 32 42.5	-3.4
MOIG	**Morelia**	**2.50**	**10**	*e*P	Pn	18 32 17.6	-2.1
MOIG				*i* S	Sn	18 32 46.8	-2.7
EZ5V		**2.94**	**321**	*e*P	Pn	18 32 22.9	-2.8
EZ5V				*i* S	Sn	18 32 57.9	-2.5
R15V		**2.97**	**312**	*i* P	Pn	18 32 23.8	-2.3
R15V				*i* S	Sn	18 32 57.8	-3.3
SZVM	**Salazar**	**3.01**	**45**	*e*P	Pn	18 32 24.6	-2.0
SZVM				*i* S	Sn	18 32 59.7	-2.4
MZVM		**3.02**	**49**	*i* P	Pn	18 32 23.6	-3.3
MZVM				*i* S	Sn	18 33 00.4	-2.1
PBVM	**Pinon**	**3.29**	**47**	*e*P	Pn	18 32 28.4	-2.1
PBVM				*i* S	Sn	18 33 05.5	-3.6
PTVM	**Pico Tres Padr**	**3.38**	**45**	*i* P	Pn	18 32 28.5	-3.2
PTVM				*i* S	Sn	18 33 09.6	-1.6
PPM	**Popocatepetl**	**3.41**	**57**	*i* P	Pn	18 32 30.8	-1.3
PPM				*i* S	Sn	18 33 09.2	-2.8
PNIG	**Pinotepa**	**3.45**	**103**	*e*P	Pn	18 32 30.0	-2.7
PNIG				*i* S	Sn	18 33 13.3	+0.2
IIO	**Organos**	**3.65**	**49**	*e*P	Pn	18 32 34.0	-1.4
IIO				*i* S	Sn	18 33 15.5	-2.4
UTMO	**Huajuapan**	**3.71**	**80**	*e*P	Pn	18 32 33.1	-3.1
UTMO				*i* S	Sn	18 33 16.0	-3.3
TPIG	**Tehuac#an**	**4.25**	**73**	*e*P	Pn	18 32 41.5	-2.2
TPIG				*i* P		18 32 43.8	
TPIG				*i* S	Sn	18 33 30.2	-2.5
VHO	**Vista Hermosa**	**4.69**	**91**	*i* P	Pn	18 32 47.4	-2.4
VHO				*i* S	Sn	18 33 40.6	-2.9
HUIG	**Huatulco**	**5.49**	**104**	*e*P	Pn	18 32 58.1	-2.7
HUIG				*i* S	Sn	18 34 00.4	-2.9
CMIG	**Matias Romero**	**6.46**	**90**	*e*P	Pn	18 33 12.3	-1.7
CMIG				*i* S	Sn	18 34 26.1	-1.0

IDC 04 18:36:08.3±3.6, 6°.03S×130°.87E, h0km, mb3.3/1, mb1 3.2/3, mb1mx3.1/15, mbtmp3.0/3, ML2.5/2, Error ellipse: s-maj=263.9km s-min=33.1km az=71.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.24**	**167**	Pn	Pn	18 39 30.3	-1.0
	0.0nm,0.3s,baz=347,slow=17,SNR=3.2						
WRA				Sn	Sn	18 42 06.2	-3.9
	0.1nm,0.3s,baz=347,slow=22,SNR=3.5						
ASAR	**Alice Springs**	**17.78**	**171**	P	Pn	18 40 18.1	+0.8
	0.0nm,0.3s,baz=342,slow=9.1,SNR=3.4						
MKAR	**Makanchi Array**	**67.89**	**326**	P	P	18 47 08.8	+0.1
	0.2nm,0.6s,baz=122,slow=8.0,SNR=4.1						

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*CSEM **04** 18:37:30.8±0.4, 42°.66N×17°.99E, h2km, ML2.9, Error ellipse: s-maj=7.8km s-min=5.0km az=28.0*

*NEIC **04** 18:37:30.8, 42°.76N×18°.01E, h9km, ML2.7(PDG), After PDG.*

*PDG **04** 18:37:30.8±0.1, 42°.76N×18°.01E, h9km, MD2.6/3, ML2.7/9, Error ellipse: s-maj=0.2km s-min=0.5km az=0.0*

*ISCJB **04** 18:37:31.3±0.5, 42°.75N±0°.03×18°.00E±0°.03, h10km, Error ellipse: s-maj=4.6km s-min=2.9km az=24.9*

*BEO **04** 18:37:31.3±0.7, 42°.64N×17°.95E, h0km, ML2.9/8*

ISC 04 18:37:31.6±0.5, 42°.74N±0°.03×17°.98E±0°.03, h10km, n37, σ1s.31/74, 8C-17D, Adriatic Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STON	**Ston**	**0.24**	**303**	*e*Pg	**Pg**	**18 37 35.6**	**-0.9**
STON				Sg	**Sg**	**18 37 39.9**	**0.0**
TREB	**Trebinje**	**0.28**	**94**	*e*Pg	**Pg**	**18 37 36.2**	**-0.9**

TREB				*e*Sg	Sg	18 37 40.3	-0.6
TREB	**Trebinje**	0.28	94	*e*Pg	Pg	18 37 36.2	-0.9
TREB				*e*Sg	Sg	18 37 40.3	-0.6
BRY	**Bratogost**	0.45	68	⇓*i*Pg	Pg	18 37 38.7	-1.6
BRY				*e*Sg	Sg	18 37 45.3	-1.0
BRY	**Bratogost**	0.45	68	⇓*i*Pg	Pg	18 37 38.7	-1.6
BRY				*e*Sg	Sg	18 37 45.3	-1.0
HCY	**Herceg Novi**	0.48	127	⇑*i*Pg	Pg	18 37 39.7	-1.3
HCY				*e*Sg	Sg	18 37 47.4	+0.1
HCY	**Herceg Novi**	0.48	127	⇑*i*Pg	Pg	18 37 39.7	-1.3
HCY				*e*Sg	Sg	18 37 47.4	+0.1
NKY	**Niksic**	0.76	84	⇑*i*Pg	Pg	18 37 44.4	-1.8
NKY				*e*Sg	Sg	18 37 55.8	-0.2
NKY	**Niksic**	0.76	84	⇑*i*Pg	Pg	18 37 44.4	-1.8
NKY				*e*Sg	Sg	18 37 55.8	-0.2
BUM	**Brajici-Budva**	0.81	122	⇓*i*Pg	Pg	18 37 45.7	-1.5
BUM				*e*Sg	Sg	18 37 58.3	+0.6
BUM	**Brajici-Budva**	0.81	122	⇓*i*Pg	Pg	18 37 45.7	-1.5
BUM				*e*Sg	Sg	18 37 58.3	+0.6
UPM	**Unac-Piva**	0.83	55	⇓*i*Pg	Pg	18 37 45.4	-2.1
UPM				*e*Sg	Sg	18 37 58.2	-0.1
UPM	**Unac-Piva**	0.83	55	⇓*i*Pg	Pg	18 37 45.4	-2.1
UPM				*e*Sg	Sg	18 37 58.2	-0.1
PDG	**Podgorica**	1.00	108	⇓*i*Pg	Pg	18 37 48.7	-2.0
PDG				*e*Sg	Sg	18 38 04.2	+0.5
TTG	**Podgorica**	1.00	108	⇓*i*Pg	Pg	18 37 48.7	-2.0
TTG				*e*Sg	Sg	18 38 04.2	+0.5
TTG	**Podgorica**	1.00	108	⇓*i*Pg	Pg	18 37 48.7	-2.0
TTG				*e*Sg	Sg	18 38 04.2	+0.5
PLE	**Pljevlja**	1.20	60	⇓*i*Pg	Pn	18 37 52.6	-1.7
PLE				*e*Sg	Sn	18 38 10.7	+0.1
PLE	**Pljevlja**	1.20	60	⇓*i*Pg	Pn	18 37 52.6	-1.7
PLE				*e*Sg	Sn	18 38 10.7	+0.1
ULC	**Ulcinj**	1.22	129	⇑*i*Pg	Pn	18 37 53.0	-1.7
ULC				*e*Sg	Sn	18 38 12.4	+1.2
ULC	**Ulcinj**	1.22	129	⇑*i*Pg	Pn	18 37 53.0	-1.7
ULC				*e*Sg	Sn	18 38 12.4	+1.2
BEY	**Berane**	1.42	84	⇓*i*Pg	Pn	18 37 56.9	-0.5
BEY				*e*Sg	Sg	18 38 18.5	+1.3
IVA	**Berane**	1.42	84	⇓*i*Pg	Pn	18 37 56.9	-0.5
IVA				*e*Sg	Sg	18 38 18.5	+1.3
IVA	**Berane**	1.42	84	⇓*i*Pg	Pn	18 37 56.9	-0.5
IVA				*e*Sg	Sg	18 38 18.5	+1.3
PVY	**Plav**	1.48	95	⇑*i*Pg	Pn	18 37 57.8	-0.4
PVY				*i* Sg	Sg	18 38 20.3	+1.2
PVY	**Plav**	1.48	95	⇑*i*Pg	Pn	18 37 57.8	-0.4
PVY				*i* Sg	Sg	18 38 20.3	+1.2
BBLS	**Lazići**	1.54	42	*e*Pn	Pn	18 37 59.9	+0.9
BBLS				*e*Sg	Sg	18 38 22.2	+1.2
SJES	**Sjenica**	1.56	70	*e*Pn	Pn	18 37 59.9	+0.6
SJES				*e*Sg	Sg	18 38 21.8	+0.2
DIVS	**Divibare**	2.00	46	*e*Pn	Pn	18 38 06.3	+0.9
DIVS				*e*Sn	Sg	18 38 34.3	-1.6
DIVS	**Divibare**	2.00	46	*e*Pn	Pn	18 38 06.3	+0.9
DIVS				*e*Sn	Sg	18 38 34.3	-1.6
BLY	**Banja Luka**	2.09	344	*e*Pn	Pn	18 38 09.4	+2.7
BLY				*e*Sn	Sg	18 38 37.7	-1.1
BLY	**Banja Luka**	2.09	344	*e*Pn	Pn	18 38 09.4	+2.7
BLY				*e*Sn	Sg	18 38 37.7	-1.1
GRUS	**Gruza**	2.31	59	⇓*i*Pn	Pn	18 38 10.9	+1.3
GRUS				*e*Sn	Sg	18 38 41.9	-3.8
GRUS	**Gruza**	2.31	59	⇓*i*Pn	Pn	18 38 10.9	+1.3
GRUS				*e*Sn	Sg	18 38 41.9	-3.8
BARS	**Barje**	2.83	87	⇓*i*Pn	Pn	18 38 18.3	+1.5
BARS				*e*Sn	Sn	18 38 53.4	+2.5
NVLJ	**Novalja**	2.90	310	*e*Pn	Pn	18 38 18.6	+0.8
NVLJ				Sn	Sn	18 38 55.9	+3.2
NVLJ	**Novalja**	2.90	310	*e*Pn	Pn	18 38 18.6	+0.8
NVLJ				Sn	Sn	18 38 55.8	+3.1
ZAPS	**Zavoj**	3.46	79	*e*Pn	Pn	18 38 27.5	+2.1
ZAPS				*e*Sn	Sn	18 39 08.6	+2.2

*BJI **04** 19:00:37.6, 44°.55N×81°.13E, h7^{km}, ML3.1/7*

*ISCJB **04** 19:00:38.4±0.8, 44°.49N±0°.05×80°.80E±0°.07, h10^{km}, Error ellipse: s-maj=7.7km s-min=6.2km az=32.1*

*NNC **04** 19:00:41.6±1.3, 44°.69N×81°.06E, h0^{km}, mb3.4, mpv3.1, Error ellipse: s-maj=15.4km s-min=6.0km az=131.0*

ISC 04 19:00:42.2±0.8**, 44°.59N**±0°.05×**80°.89E**±0°.08**, h10**^{km}**, n9, σ1^{s}02**/14**, 5C-5D, Kazakhstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MK31	**Makanchi Array**	2.41	24	⇑Pn	Pn	19 01 19.1	-2.5
	3.0nm,0.2s,baz=202,slow=14,SNR=609						
MK31				⇑Sn	Sn	19 01 51.5	+0.3
	6.8nm,0.2s,baz=202,slow=24,SNR=15						
TKM2	**Tokmak 2**	4.18	248	⇓Pn	Pn	19 01 49.5	+3.5
	4.9nm,0.5s						
TKM2				⇓Sn	Sn	19 02 41.3	+6.4
	24nm,0.6s						
WMQ	**Urumqi**	4.95	97	*e*Pg	Pn	19 02 04.4	+7.8
WMQ				Sn	Sn	19 02 54.4	+0.5
WMQ				smax			
	comp=N,33nm,0.4s						
WMQ				smax			
	comp=E,22nm,0.6s						
KURBB	**Kurchatov Arra**	6.24	346	⇓Pn	Pn	19 02 13.7	-0.6
	comp=E,0.1nm,0.2s						
KURBB				⇑Lg		19 03 57.4	
	comp=E,5.3nm,0.7s						
KSH	**Kashi**	6.25	217	*e*Pn	Pg	19 02 36.1	-5.9
KSH				Sn	Sg	19 04 02.5	-0.4
KSH				smax			
	comp=N,13nm,1.1s						
KSH				smax			
	comp=E,14nm,0.8s						
KURK	**Kurchatov**	6.31	347	⇑Pn	Pn	19 02 15.9	+0.6
	comp=E,1.5nm,0.8s						
KURK				⇑Lg		19 03 57.2	
	comp=E,12nm,0.8s						
KK31	**Karatay Array**	7.65	262	⇓Pg	Pg	19 03 01.3	-7.3
	comp=E,1.4nm,0.8s,baz=76,slow=15,SNR=3.6						
VOSK	**Vostochnaya**	10.44	325	⇓Sn	Sn	19 05 08.7	0.0
	comp=E,6.0nm,0.9s						
BVA0	**Borovoye Array**	10.90	324	Pn	Pn	19 03 18.7	+0.5
	comp=E,0.1nm,0.5s,baz=141,slow=15,SNR=3.9						
BVA0				Sn	Sn	19 05 24.4	+4.3
	comp=E,0.7nm,0.8s,baz=131,slow=33,SNR=4.5						

*IDC **04** 19:06:30.3±2.0, 43°.48N×105°.39W, h0^{km}, mb3.7/2, mb1 3.9/5, mb1mx3.6/23, mbtmp3.7/5, ML3.7/3, Error ellipse: s-maj=48.8km s-min=7.2km az=151.0*

*ISCJB **04** 19:06:31.4±0.5, 43°.78N±0°.05×105°.25W±0°.07, h0^{km}, mb3.8/2, Error ellipse: s-maj=7.6km s-min=7.0km az=37.5*

*NEIC **04** 19:06:32.8±0.4, 43°.74N×105°.24W, h0^{km}, ML3.2, Error ellipse: s-maj=6.9km s-min=5.9km az=138.0, Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

ISC 04 19:06:32.6±0.5**, 43°.77N**±0°.05×**105°.21W**±0°.06**, h0**^{km}**, n19, σ0^{s}92**/21**, mb3.8**/2**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSSD	**Black Hills**	0.92	67	*e*P	Pg	19 06 51.6	+1.4
PHWY	**Pilot Hill**	2.48	184	*e*P	Pn	19 07 13.3	-0.9
RWWY	**Rawlins**	2.55	216	*e*P	Pn	19 07 15.2	0.0
LAO	**LASA Array**	3.00	347	*e*P	Pn	19 07 22.7	+1.3
RLMT	**Red Lodge**	3.21	296	*e*Pn	Pn	19 07 23.8	-0.5
PDAR	**Pinedale Array**	3.33	254	Pn	Pn	19 07 25.4	-0.5
	6.7nm,0.3s,baz=70,slow=15,SNR=104						
PDAR				Pg	Pg	19 07 30.1	-6.3
	16nm,0.3s,baz=70,slow=18,SNR=92						
PDAR				Lg		19 08 06.3	
	9.6nm,0.3s,baz=83,slow=25,SNR=4.2						
BW06	**Boulder Array**	3.33	254	*e*Pn	Pn	19 07 25.2	-0.7
OGNE	**Ogallala**	3.67	139	*e*Pn	Pn	19 07 31.6	+1.0
LOHW	**Long Hollow**	3.92	270	*e*Pn	Pn	19 07 35.3	+1.3
ISCO	**Idaho Springs**	3.98	185	*e*Pn	Pn	19 07 34.8	0.0
RRI2	**Red Ridge**	4.46	267	*e*Pn	Pn	19 07 41.1	-0.4
DGMT	**Dagmar**	4.75	8	*e*Pn	Pn	19 07 46.4	+1.0
BOZ	**Bozeman (W)**	4.95	294	*e*Pn	Pn	19 07 47.2	-1.0
EGMT	**Eagleton**	5.31	325	*e*Pn	Pn	19 07 53.0	-0.1
	14nm,0.4s						
HLID	**Hailey**	6.68	271	*e*Pn	Pn	19 08 13.6	+1.7
ULM	**Lac du Bonnet**	9.09	41	Pn	Pn	19 08 44.0	-0.8
	4.4nm,0.3s,baz=232,slow=11,SNR=23						
ULM				Sn	Sn	19 10 26.1	-1.6
	0.6nm,0.3s,baz=148,slow=8.1,SNR=3.2						
ULM				Lg		19 11 23.1	
	0.4nm,0.3s,baz=131,slow=20,SNR=2.7						
YKA	**Yellowknife Ar**	19.55	347	P	Pn	19 11 03.1	+0.4
	0.1nm,0.3s,baz=155,slow=10,SNR=5.5						
ARCES	**ARCESS Array B**	61.37	18	P	P	19 16 49.0	-0.7
	1.3nm,0.6s,mb4.2,baz=327,slow=7.3,SNR=7.2						
MKAR	**Makanchi Array**	89.58	355	P	P	19 19 31.0	-0.8
	0.2nm,0.7s,mb3.4,baz=20,slow=4.6,SNR=2.5						

PRE 04 19:11:48.1±1.2**, 22°.07S**×**32°.63E, h5**^{km}**, ML3.5, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSNA	**Messina**	2.43	263	*e*P	Pn	19 12 29.0	+0.6
MSNA				*e*S	Sn	19 12 59.9	+1.4
MSNA				AML	AML	19 13 11.3	
	comp=Z,76nm,0.3s						
POGA	**Pongola**	5.36	190	*e*P	Pn	19 13 09.2	+0.5
POGA				*e*S	Sn	19 14 08.2	-2.6
POGA				AML	AML	19 14 57.5	
	comp=Z,18nm,0.4s						
PRYS	**Parys**	6.81	224	*e*P	Pn	19 13 29.5	+0.8
PRYS				*e*S	Sn	19 14 43.9	-2.7
PRYS				AML	AML	19 15 20.0	
	comp=Z,5.2nm,0.7s						
LBTB	**Lobatse**	7.08	244	*e*P	Pn	19 13 33.5	+1.1
LBTB				*e*S	Sn	19 14 49.7	-3.7
LBTB				AML	AML	19 15 46.6	
	comp=Z,14nm,0.5s						
BOSA	**Boshof**	9.32	224	*e*P	Pn	19 14 03.7	+0.6
BOSA				*e*S	Sn	19 15 43.8	-4.6
BOSA				AML	AML	19 17 05.7	
	comp=Z,7.6nm,0.6s						

*IDC **04** 19:35:58.5±1.5, 9°.18S×113°.39E, h0^{km}, mb4.0/9, mb1 4.2/10, mb1mx4.0/21, mbtmp4.0/10, ML3.7/1, Error ellipse: s-maj=88.1km s-min=15.3km az=50.0*

*NEIC **04** 19:36:04.1±2.4, 9°.18S×113°.47E, h39^{km}±22^{km}, mb4.2/2, Error ellipse: s-maj=22.9km s-min=8.7km az=56.0*

*ISCJB **04** 19:36:05.6±1.1, 9°.1S±0°.2×113°.5E±0°.2, h70^{km}±14^{km}, mb4.0/9, Error ellipse: s-maj=40.3km s-min=10.0km az=138.7*

ISC 04 19:36:06.0±1.1**, 9°.2S**±0°.2×**113°.5E**±0°.2**, h56**^{km}±14^{km}**, n18, σ0^{s}49**/17**, mb4.1**/9**, 1C, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRKI	**Karangkates**	1.47	314	⇑*i*P	Pn	19 36 30.0	-0.2
KRKI				*i* S	Sn	19 36 48.9	+0.4
MBWA	**Marble Bar**	13.32	154	*e*P	Pn	19 39 06.7	-5.7
	6.6nm,0.5s						
FITZ	**Fitzroy Crossi**	14.72	128	Pn	Pn	19 39 30.6	-0.4
	0.2nm,0.3s,baz=282,slow=9.3,SNR=4.5						
FITZ				Sn	Sn	19 41 59.7	-13
	0.2nm,0.3s,baz=119,slow=19,SNR=2.9						
WRA	**Warramunga Arr**	22.77	120	P	P	19 41 03.8	0.0
	4.9nm,0.6s,mb4.1,baz=298,slow=11,SNR=52						
WRAB	**Tennant Creek**	22.78	120	*e*P	P	19 41 03.6	-0.2
	11nm,1.2s,mb4.2						
WB2	**Warramunga Arr**	22.78	120	*e*P	P	19 41 03.3	-0.6
NWAO	**Narrogin (SRO)**	23.88	172	*e*P	P	19 41 14.2	-0.1
	9.6nm,1.0s,mb4.2						
ASAR	**Alice Springs**	24.23	129	P	P	19 41 18.1	+0.6
	2.6nm,0.7s,mb3.8,baz=302,slow=9.0,SNR=33						
ASAR				PcP	PcP	19 44 58.5	+1.5
	0.6nm,0.6s,baz=309,slow=1.8,SNR=7.5						
CMAR	**Chiang Mai Arr**	31.01	332	P	P	19 42 18.0	-0.3
	0.8nm,0.7s,baz=169,slow=9.2,SNR=8.2						
CTA	**Charters Tower**	33.40	113	P	P	19 42 40.0	+0.6
	1.9nm,0.7s,mb4.1,baz=278,slow=14,SNR=3.5						
STKA	**Stephens Creek**	34.46	135	P	P	19 42 49.1	+0.7
	5.9nm,0.7s,mb4.7,baz=321,slow=8.9,SNR=2.9						
SONM	**Songino Array**	57.12	354	P	P	19 45 47.4	+0.9
	0.7nm,0.5s,mb4.0,baz=182,slow=9.3,SNR=4.2						
MKAR	**Makanchi Array**	62.30	336	P	P	19 46 21.9	-0.3
	0.6nm,0.4s,mb4.1,baz=151,slow=7.3,SNR=23						
KURK	**Kurchatov**	66.90	337	P	P	19 46 51.9	-0.2
	0.3nm,0.2s,mb4.0,baz=98,slow=5.7,SNR=2.8						
ZALV	**Zalesovo Beam**	67.42	342	P	P	19 46 54.5	-0.8
	0.4nm,0.5s,baz=96,slow=4.3,SNR=2.6						
YKA	**Yellowknife Ar**	116.51	23	PKP	PKPdf	19 54 43.5	+0.4
	0.3nm,0.5s,baz=313,slow=2.4,SNR=6.1						
YKA	**Yellowknife Ar**	116.51	23	PKP	PKPdf	19 54 43.5	+0.4
CPUP	**Villa Florida**	143.60	194	PKP	PKPdf	19 55 35.3	0.0
	2.5nm,0.6s,baz=58,slow=7.6,SNR=7.3						

IDC 04 19:45:15.1±4.9**, 2°.06S**×**100°.21E, h0**^{km}**, mb3.4**/3**, mb1 3.5**/3**, mb1mx3.2**/21**, mbtmp3.4**/3**, Error ellipse: s-maj=185.8km s-min=31.4km az=55.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	37.78	121	P	P	19 52 33.1	-0.2
	0.2nm,0.6s,baz=302,slow=9.3,SNR=4.6						
SONM	**Songino Array**	49.98	5	P	P	19 54 12.0	+1.0
	0.7nm,0.8s,baz=186,slow=9.1,SNR=5.2						
MKAR	**Makanchi Array**	51.14	344	P	P	19 54 19.1	-0.7
	0.3nm,0.6s,baz=149,slow=7.7,SNR=5.5						

IDC 04 20:06:35.3±9.8**, 15°.48S**×**175°.56W, h185**^{km}±186^{km}**, mb3.9**/3**, mb1 4.0**/4**, mb1mx3.6**/18**, mbtmp3.9**/4**, ML2.6**/1**, Error ellipse: s-maj=177.7km s-min=117.8km az=114.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	3.98	67	P	Pn	20 07 36.2	-0.1
	22nm,0.3s,baz=112,slow=1.6,SNR=23						
AFI				S	Sn	20 08 24.8	+0.7
	8.2nm,0.3s,baz=105,slow=20,SNR=3.0						
STKA	**Stephens Creek**	42.20	239	P	P	20 14 10.1	0.0
	0.7nm,0.5s,baz=85,slow=11,SNR=5.7						
WRA	**Warramunga Arr**	47.80	257	P	P	20 14 54.4	0.0
	1.7nm,0.6s,baz=90,slow=7.3,SNR=63						
ASAR	**Alice Springs**	48.10	252	P	P	20 14 56.5	-0.2
	14nm,0.5s,baz=86,slow=8.2,SNR=274						

*ISCJB **04** 20:12:12.4±0.1, 36°.50N±0°.01×70°.16E±0°.02, h214^{km}, mb4.7/165, Error ellipse: s-maj=2.2km s-min=1.9km az=135.5*

*BJI **04** 20:12:12.3, 36°.62N×70°.20E, h205^{km}, mB5.0/27, mb5.0/51*

*MOS **04** 20:12:12.9±1.1, 36°.54N×70°.14E, h217^{km}, mb5.0/58, MS4.5/4, Error ellipse: s-maj=5.4km s-min=3.5km az=121.1*

*IDC **04** 20:12:13.7±0.6, 36°.52N×70°.19E, h214^{km}±5^{km}, mb4.5/30, mb1 4.7/34, mb1mx4.7/34, mbtmp4.6/34, Error ellipse: s-maj=8.1km s-min=6.5km az=179.0*

*NEIC **04** 20:12:13.6±0.5, 36°.49N×70°.18E, h214^{km}±5^{km}, mb4.8/88, Error ellipse: s-maj=4.7km s-min=3.4km az=191.0*

NEIC Felt at Feyzabad.

*DJA **04** 20:12:14, 36°.50N×70°.30E, h206^{km}, mb5.1/12*

*NNC **04** 20:12:18.5±1.4, 37°.02N×70°.06E, h210^{km}±11^{km}, mb4.3, mpv5.4, Error ellipse: s-maj=12.2km s-min=9.0km az=178.0*

*SZGRF **04** 20:12:24.1, 37°.29N×69°.72E, h235^{km}, mb4.9, Afghanistan-Tajikistan border region*

ISC 04 20:12:14.1±0.1**, 36°.53N**±0°.02×**70°.22E**±0°.02**, h216**^{km}**, h216**^{km}±2.3^{km}**:pP-P, n526, σ1^{s}05**/576**, mb4.7**/165**, 65C-42D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	2.20	206	*e*PN	Pn	20 12 54.5	-1.4
KBL				*e*S	S	20 13 25.2	-3.3
CEP	**Cherat**	3.03	152	⇓P	Pn	20 13 05.3	+0.3
CEP				S	S	20 13 44.0	-0.9
CHCP	**Chirah Chowk**	3.80	138	⇑P	Pn	20 13 14.4	+0.4
SBDP	**Sheikh Budin**	4.25	173	P	Pn	20 13 18.4	-1.1
SBDP				S	S	20 14 07.0	-4.1
SARP	**Sargodha**	5.03	155	P	Pn	20 13 28.8	-0.4
JMU	**Jammu**	5.42	133	*e*PKP	Pn	20 13 33.5	-0.7
JMU				*e*S	S	20 14 32.5	-5.1
KSH	**Kashi**	5.43	55	⇓*i*P	Pn	20 13 29.9	-4.4
KSH				S	S	20 14 27.8	-10
KSH				smax			
	comp=N,4μm,0.8s						
KSH				smax			
	comp=E,5μm,0.8s						
DLH	**Dalhousie**	6.19	128	*e*PKP	Pn	20 13 42.0	-2.0
AML	**Almayashu**	6.21	25	P	Pn	20 13 43.9	-0.2
	SNR=1254						
AML	**Almayashu**	6.21	25	*e*Pn	Pn	20 13 43.8	-0.3
	comp=E,1μm,0.6s						
AML				*e*S	S	20 14 52.6	-3.2
KK31	**Karatay Array**	6.57	2	*e*PN	Pn	20 13 47.5	-1.2
KK31				pmax	pmax		
	comp=Z,142nm,0.4s						
KK31	**Karatay Array**	6.57	2	⇓P	Pn	20 13 47.7	-1.0
	comp=Z,62nm,0.4s,baz=184,slow=13,SNR=1250						
KK31				⇑S	S	20 14 57.0	-7.2
	comp=Z,757nm,0.9s,baz=184,slow=25,SNR=8.8						
UCH	**Uchtor**	6.59	29	P	Pn	20 13 49.1	+0.1
	SNR=64						
UCH	**Uchtor**	6.59	29	*e*Pn	Pn	20 13 49.0	0.0
	comp=Z,188nm,1.0s						
UCH				*e*Sn	S	20 15 02.0	-2.6
EKS2	**Erkin-Say**	6.71	23	P	Pn	20 13 50.5	0.0
	SNR=84						
EKS2	**Erkin-Say**	6.71	23	*e*Pn	Pn	20 13 50.3	-0.2
	comp=Z,421nm,0.9s						
EKS2				*e*Sn	S	20 15 01.4	-6.1
KZA	**Kyzart**	6.78	34	P	Pn	20 13 51.4	0.0
	SNR=254						
AAK	**Ala-Archa**	6.93	27	*e*PN	Pn	20 13 53.2	-0.2
AAK				pmax	pmax		
	comp=Z,286nm,0.7s						
AAK	**Ala-Archa**	6.93	27	P	Pn	20 13 53.5	+0.1
	SNR=192						
AAK	**Ala-Archa**	6.93	27	*e*Pn	Pn	20 13 53.2	-0.1
	comp=Z,286nm,0.7s						
KBK	**Karagaybulak**	7.12	29	P	Pn	20 13 55.7	-0.2
	SNR=138						
FRU	**Bishkek**	7.15	27	⇓*i*PN	Pn	20 13 56.0	-0.2
FRU				*e*S	S	20 15 15.0	-2.7
FRU				pmax	pmax		
	comp=Z,420nm,1.8s						
FRU				smax			
	comp=E,2μm,1.8s						
BHK	**Bhakra**	7.25	133	*e*PKP	Pn	20 13 54.6	-3.0
BHK				*e*S	S	20 15 10.4	-10
CHMS	**Chumysh**	7.34	27	P	Pn	20 13 58.2	-0.5
	SNR=181						
ULHL	**Ulahol**	7.37	37	P	Pn	20 13 58.7	-0.3
	SNR=81						
USP	**Ospenovka**	7.49	25	P	Pn	20 13 59.9	-0.7
	SNR=111						
SDNR	**Sundarnagar**	7.52	130	*e*PKP	Pn	20 14 00.0	-1.1
SDNR				*e*S	S	20 15 18.5	-8.1
TKM2	**Tokmak 2**	7.61	31	PN	Pn	20 14 01.7	-0.4
TKM2				pmax	pmax		
	comp=Z,516nm,1.4s						
TKM2	**Tokmak 2**	7.61	31	P	Pn	20 14 02.0	-0.1
	SNR=237						
TKM2	**Tokmak 2**	7.61	31	*e*Pn	Pn	20 14 01.7	-0.4
	comp=Z,299nm,0.8s						
TKM2	**Tokmak 2**	7.61	31	⇓P	Pn	20 14 02.1	0.0
	comp=Z,196nm,0.7s						
TKM2				⇑S	S	20 15 25.7	-2.8
	comp=Z,617nm,0.9s						
KNDC	**Almaty**	8.46	36	⇓P	Pn	20 14 13.1	+0.1
	comp=Z,323nm,0.9s						
KNDC				⇓S	S	20 15 47.2	-1.2
	comp=Z,115nm,0.8s						
AAA	**Alma-Ata**	8.49	35	*i* PN	Pn	20 14 12.4	-1.0
AAA				pmax	pmax		
	comp=Z,1μm,3.0s						
AAA				MLR	MLR		
	comp=Z,3μm,5.0s						
AJM	**Ajmer**	10.70	158	*e*PKP	Pn	20 14 40.5	-1.6
AJM				AMb	AMB	20 14 42.0	
	comp=Z,288nm,1.2s						
AJM				*e*S	S	20 16 31.8	-10
PTH	**Pithoragarh**	10.90	127	*e*PKP	Pn	20 14 43.1	-1.4
PTH				*e*x	x	20 16 39.6	
LGTI	**Lohaghat**	10.98	127	*e*x	Pn	20 14 39.7	-5.9
LGTI				*e*S	S	20 16 36.3	-12
BHJ	**Bhuj**	13.24	182	*e*x	Pn	20 15 13.3	-0.7
BHJ				*e*S	S	20 17 30.1	-11
MK31	**Makanchi Array**	13.64	38	*i* P	Pn	20 15 18.5	-0.3
MK31				pmax	pmax		
	comp=Z,360nm,0.9s						
MK31	**Makanchi Array**	13.64	38	*e*Pn	Pn	20 15 18.3	-0.4
MK31	**Makanchi Array**	13.64	38	P	Pn	20 15 18.6	-0.2
	comp=Z,34nm,0.7s,baz=219,slow=8.8,SNR=1708						
MK31				S	S	20 17 49.2	-1.2
	comp=Z,74nm,1.1s,baz=235,slow=24,SNR=4.8						
MKAR	**Makanchi Array**	13.64	38	P	Pn	20 15 18.4	-0.3
	comp=Z,4.5nm,0.3s,baz=220,slow=11,SNR=217						
MKAR				S	S	20 17 48.3	-2.1
	baz=267,slow=16,SNR=2.0						
MKAR				ScP	ScP	20 23 38.3	-0.8
	comp=Z,0.1nm,0.3s,baz=197,slow=1.1,SNR=3.6						
MKAR	**Makanchi Array**	13.64	38	P	Pn	20 15 18.4	-0.4
MKAR				S	S	20 17 48.3	-2.1
MKAR				ScP	ScP	20 23 38.3	-0.8
PYUN	**Piuthan**	13.67	124	*e*P	Pn	20 15 17.9	-1.5
	comp=Z,404nm,0.5s						
DANN	**Dangsing**	14.03	122	*e*P	Pn	20 15 23.0	-0.8
	comp=Z,583nm,0.7s						
KOLN	**Koldanda**	14.30	124	*e*P	Pn	20 15 26.1	-0.9
	comp=Z,110nm,0.2s						
BHPL	**Bhopal**	14.63	153	*e*PKP	Pn	20 15 30.1	-1.1
BHPL				*e*x	x	20 18 04.4	
AB31	**Akbulak array**	14.76	333	P	Pn	20 15 30.6	-1.9
AB31				S	S	20 18 06.0	-10
AB31				pmax	pmax		
	comp=Z,86nm,0.7s						
AB31				smax			
	comp=N,83nm,1.0s						
AB09	**Akbulak array**	14.78	333	⇑P	Pn	20 15 31.1	-1.6
	comp=N,64nm,0.7s						
AB09				⇑S	S	20 18 09.4	-6.9
	comp=N,58nm,0.9s						
GKN	**Gorkha**	14.86	121	*e*P	Pn	20 15 33.0	-0.8
	comp=N,630nm,0.6s						
ALBI	**Allahabad**	14.95	135	*e*PKP	Pn	20 15 33.0	-2.0
WMQ	**Urumqi**	15.20	56	⇑*i*P	Pn	20 15 38.6	+0.8
WMQ				sP	sP	20 16 32.0	-8.0
WMQ				S	S	20 18 24.0	-2.0
WMQ				PcP	PcP	20 20 29.0	+0.4
WMQ				PcS	PcS	20 24 05.0	+1.2
WMQ				pmax	pmax		
	comp=Z,250nm,0.8s						
WMQ				pmax	pmax		
	comp=Z,900nm,3.3s						
KURBB	**Kurchatov Arra**	15.31	20	⇑P	Pn	20 15 38.2	-0.9
	comp=Z,36nm,0.8s						
KURBB				⇑S	S	20 18 24.2	-4.1
	comp=Z,6.4nm,0.9s						
KURK	**Kurchatov**	15.41	20	P	Pn	20 15 39.7	-0.6
	comp=Z,737nm,0.8s,SNR=86						
KURK	**Kurchatov**	15.41	20	P	Pn	20 15 39.1	-1.2
KURK				pmax	pmax		
	comp=Z,213nm,1.5s						
KURK	**Kurchatov**	15.41	20	P	Pn	20 15 37.9	-2.5
	comp=Z,1.4nm,0.3s,baz=212,slow=10,SNR=109						
KURK	**Kurchatov**	15.41	20	*e*Pn	Pn	20 15 38.9	-1.4
	comp=Z,210nm,1.2s						
KURK	**Kurchatov**	15.41	20	⇑P	Pn	20 15 39.2	-1.2
	comp=Z,114nm,0.9s						
KURK				⇓S	S	20 18 25.2	-5.5
	comp=Z,52nm,1.2s						
DMN	**Daman**	15.42	121	*e*P	Pn	20 15 40.2	-0.5
	comp=Z,184nm,0.3s						
KKN	**Kakani**	15.43	120	*e*P	Pn	20 15 40.4	-0.4
	comp=Z,914nm,0.6s						
PKIN	**Phulchoki**	15.64	120	*e*P	Pn	20 15 43.4	0.0
PKI	**Pulchoki**	15.66	120	*e*P	Pn	20 15 43.1	-0.4
	comp=Z,357nm,0.5s						
JBP	**Jabalpur**	15.77	145	⇓*e*PKP	Pn	20 15 43.4	-1.5
JBP				*e*x	x	20 18 29.8	
GUN	**Gumba**	15.78	119	*e*P	Pn	20 15 44.6	-0.4
	comp=Z,771nm,0.6s						
JIRN	**Jiri**	16.15	119	*e*P	P	20 15 49.9	+1.3
	comp=Z,2μm,0.8s						
VOSK	**Vostochnaya**	16.20	2	P	P	20 15 48.8	-0.1
VOSK				pmax	pmax		
	comp=Z,187nm,1.6s						
VOSK	**Vostochnaya**	16.20	2	⇑P	P	20 15 49.0	+0.2
	comp=Z,82nm,0.8s						
VOSK				⇓S	S	20 18 42.1	-5.3
	comp=Z,94nm,1.0s						

AKTK	**Aktyubinsk**	**16.45**	**331**	P	**P**	**20 15 52.0**	**+0.4**
AKTK				S	**S**	**20 18 50.6**	**-1.8**
AKTO	**Aktyubinsk**	**16.45**	**331**	P	**P**	**20 15 52.0**	**+0.4**
AKTO				S	**S**	**20 18 50.6**	**-1.8**
AKTO				pmax	pmax		
	comp=Z,14nm,0.3s						
AKTO				smax			
	comp=N,1.0nm,0.3s						
AKTO	**Aktyubinsk**	**16.45**	**331**	P	**P**	**20 15 52.0**	**+0.4**
	comp=N,14nm,0.3s,baz=144,slow=10,SNR=495						
AKTO				S	**S**	**20 18 50.6**	**-1.8**
	comp=N,0.9nm,0.3s,baz=12,slow=20,SNR=5.5						
AKTO	**Aktyubinsk**	**16.45**	**331**	⇑P	**P**	**20 15 51.9**	**+0.3**
	comp=N,57nm,1.1s						
AKTO				⇓S	**S**	**20 18 50.1**	**-2.3**
	comp=N,11nm,1.1s						
BVA0	**Borovoye Array**	**16.50**	**0**	i P	**P**	**20 15 52.7**	**+0.6**
BVA0				S	**S**	**20 18 48.3**	**-5.0**
BVA0				pmax	pmax		
	comp=Z,39nm,0.9s						
BVA0				smax			
	comp=N,79nm,2.6s						
BVA0	**Borovoye Array**	**16.50**	**0**	⇑P	**P**	**20 15 52.2**	**+0.1**
	comp=N,33nm,1.0s,baz=176,slow=14,SNR=507						
BVA0				⇑S	**S**	**20 18 50.2**	**-3.1**
	comp=N,27nm,1.1s,baz=169,slow=21,SNR=10						
BVAR	**Borovoye Array**	**16.50**	**0**	P	**P**	**20 15 52.6**	**+0.5**
BVAR				S	**S**	**20 18 55.4**	**+2.1**
BVAR				pmax	pmax		
	comp=Z,13nm,0.3s						
BVAR				smax			
	comp=N,1.0nm,0.3s						
BVAR	**Borovoye Array**	**16.50**	**0**	P	**P**	**20 15 52.6**	**+0.5**
	comp=N,13nm,0.3s,baz=170,slow=9.0,SNR=200						
BVAR				S	**S**	**20 18 55.4**	**+2.1**
	comp=N,1.1nm,0.3s,baz=170,slow=18,SNR=9.5						
BVAR				ScP	ScP	20 23 43.0	-1.2
	comp=N,0.1nm,0.3s,baz=48,slow=2.2,SNR=3.6						
BRVK	**Borovoye**	**16.53**	**0**	P	**P**	**20 15 53.0**	**+0.6**
	comp=N,1µm,0.7s						
BRVK	**Borovoye**	**16.53**	**0**	eP	**P**	**20 15 53.0**	**+0.6**
BRVK				e		20 18 51.6	
BRVK				pmax	pmax		
	comp=Z,395nm,1.3s						
BRVK	**Borovoye**	**16.53**	**0**	ePn	**Pn**	**20 15 53.0**	**-0.6**
	comp=Z,396nm,1.3s						
BRVK				eSn	**S**	**20 18 51.6**	**-2.3**
HATD	**Hatta, Dubai**	**16.80**	**230**	⇑P	**P**	**20 15 55.9**	**+0.2**
	SNR=8.2						
RAMN	**Ramite**	**16.87**	**120**	eP	**P**	**20 15 57.8**	**+1.3**
	comp=Z,639nm,0.6s						
WBK	**Wadi Bani Khal**	**16.95**	**218**	⇓P	**P**	**20 15 58.3**	**+0.9**
	SNR=11						
SMDO	**Samad**	**17.06**	**221**	⇑P	**P**	**20 15 59.1**	**+0.6**
	SNR=7.0						
TAPN	**Taplejung**	**17.42**	**117**	eP	**P**	**20 16 04.8**	**+2.3**
	comp=Z,684nm,0.8s						
ODAN	**Odare**	**17.48**	**119**	eP	**P**	**20 16 05.3**	**+2.1**
	comp=Z,1µm,0.7s						
JMDO	**Jabal Madar**	**17.59**	**220**	⇓P	**P**	**20 16 05.4**	**+1.0**
	SNR=12						
ARQ	**Araqi**	**17.69**	**226**	P	**P**	**20 16 05.7**	**+0.3**
	SNR=10.0						
BSY	**Bisya**	**17.77**	**223**	P	**P**	**20 16 07.3**	**+1.0**
	SNR=12						
POO	**Poona**	**18.21**	**169**	ePKP	**P**	**20 16 11.7**	**+0.5**
BOK	**Bokaro**	**18.53**	**129**	ePKP	**P**	**20 16 14.9**	**+0.3**
BOK				AMb	AMB	20 16 17.1	
	comp=Z,300nm,0.8s						
MAK	**Makhachkala**	**18.58**	**297**	eP	**P**	**20 16 13.4**	**-1.5**
MAK				eS	**S**	**20 19 36.9**	**+1.8**
MAK				MLR	MLR		
	comp=Z,140nm,6.0s						
SHBG	**Sahibganj**	**18.71**	**122**	ex	x	20 16 10.5	
LSA	**Lhasa**	**18.79**	**105**	P	**P**	**20 16 20.4**	**+3.1**
LSA				S	**S**	**20 19 40.0**	**+0.5**
LSA				LR	LR		
	comp=N,270nm,6.5s						
LSA				LR	LR		
	comp=E,120nm,8.5s						
LSA	**Lhasa**	**18.79**	**105**	eP	**P**	**20 16 20.5**	**+3.2**
LSA				e		20 19 38.7	
LSA				pmax	pmax		
	comp=Z,73nm,0.6s						
LSA	**Lhasa**	**18.79**	**105**	ePn	**P**	**20 16 20.5**	**+3.1**
	comp=Z,73nm,0.6s						
LSA				eSn	**S**	**20 19 38.7**	**-0.8**
LATR	**Latur**	**18.89**	**161**	ePKP	**P**	**20 16 19.0**	**+0.5**
KAD	**Karad**	**19.46**	**169**	ePKP	**P**	**20 16 24.9**	**+0.3**
KAD				AMb	AMB	20 16 29.0	
	comp=Z,166nm,0.6s						
UMR	**Umm Al-Rimmam**	**20.08**	**256**	eP	**P**	**20 16 30.7**	**-0.5**
UMR				AMb	AMB	20 16 34.1	
	comp=Z,146nm,0.6s						
ZAA0	**Zalesovo Array**	**20.16**	**26**	eP	**P**	**20 16 31.9**	**+0.2**
ZAA0				eS	**S**	**20 20 01.1**	**-4.5**
ZALV	**Zalesovo Beam**	**20.16**	**26**	P	**P**	**20 16 32.0**	**+0.3**
ZALV				S	**S**	**20 20 05.1**	**-0.5**
ZALV				pmax	pmax		
	comp=Z,345nm,0.6s						
ZALV				smax			
	comp=N,32nm,0.9s						
ZALV	**Zalesovo Beam**	**20.16**	**26**	P	**P**	**20 16 32.0**	**+0.3**
	comp=N,345nm,0.6s,baz=220,slow=11,SNR=614						
ZALV				S	**S**	**20 20 05.1**	**-0.5**
	comp=N,32nm,0.9s,baz=222,slow=17,SNR=5.4						
ZALV				ScP	ScP	20 23 50.0	-2.2
	comp=N,4.4nm,0.8s,baz=214,slow=4.0,SNR=3.8						
KBD	**Kabd**	**20.27**	**255**	eP	**P**	**20 16 32.6**	**-0.5**
KBD				AMb	AMB	20 16 35.9	
	comp=Z,145nm,1.2s						
MIB	**Mutribah**	**20.27**	**257**	eP	**P**	**20 16 32.6**	**-0.5**
MIB				AMb	AMB	20 16 36.0	
	comp=Z,182nm,0.8s						
GNI	**Garni**	**20.29**	**288**	⇑iP	**P**	**20 16 34.4**	**+1.2**
GNI				pmax	pmax		
	comp=Z,132nm,1.3s						
GNI	**Garni**	**20.29**	**288**	P	**P**	**20 16 35.5**	**+2.3**
	comp=Z,38nm,0.8s,baz=40,slow=2.0,SNR=65						
GNI	**Garni**	**20.29**	**288**	eP	**P**	**20 16 34.8**	**+1.6**
	comp=Z,283nm,1.5s						
QRN	**Al-Qurain**	**20.29**	**254**	eP	**P**	**20 16 32.5**	**-0.9**
QRN				AMb	AMB	20 16 34.9	
	comp=Z,87nm,0.5s						
MTA	**Mtatsminda**	**20.36**	**292**	P	**P**	**20 16 35.7**	**+1.7**
NVS	**Novosibirsk**	**20.38**	**22**	⇑iP	**P**	**20 16 34.3**	**+0.2**
NVS				i PPP		20 17 12.7	
NVS				i S	**S**	**20 20 10.3**	**+0.3**
NVS				pmax	pmax		
	comp=Z,321nm,1.0s						
NVS				pmax	pmax		
	comp=N,668nm,1.7s						
NVS				pmax	pmax		
	comp=E,182nm,1.6s						
NVS				smax			
	comp=N,275nm,1.7s						
TBLG	**Delisi**	**20.41**	**293**	P	**P**	**20 16 35.9**	**+1.5**
HYB	**Hyderabad**	**20.42**	**157**	eP	**P**	**20 16 35.0**	**+0.2**
HYB				pmax	pmax		
	comp=Z,231nm,0.8s						
HYB	**Hyderabad**	**20.42**	**157**	⇓iP	**P**	**20 16 35.0**	**+0.2**
	comp=Z,231nm,0.8s						
HYB				e		20 20 08.0	
HYB	**Hyderabad**	**20.42**	**157**	eP	**P**	**20 16 35.0**	**+0.2**
	comp=Z,231nm,0.8s						
RDF	**Al-Radifah**	**20.49**	**255**	eP	**P**	**20 16 34.8**	**-0.8**
RDF				AMb	AMB	20 16 38.1	
	comp=Z,260nm,0.8s						
NAY	**Al-Naaiem**	**20.59**	**256**	eP	**P**	**20 16 35.9**	**-0.6**
NAY				AMb	AMB	20 16 38.8	
	comp=Z,95nm,0.6s						
GOA	**Goa**	**21.20**	**170**	⇓iP	**P**	**20 16 43.1**	**+0.1**
SVE	**Sverdlovsk**	**21.30**	**345**	⇓eP	**P**	**20 16 43.5**	**-0.2**
SVE				pmax	pmax		
	comp=Z,277nm,1.2s,mb5.7						
ARU	**Arti**	**21.41**	**342**	eP	**P**	**20 16 44.6**	**-0.2**
ARU				pmax	pmax		
	comp=Z,663nm,1.3s,mb6.0						
ARU	**Arti**	**21.41**	**342**	eP	**P**	**20 16 44.6**	**-0.3**
	comp=Z,662nm,1.3s,mb6.0						
ONI	**Oni**	**21.46**	**295**	P	**P**	**20 16 47.3**	**+1.8**
SHL	**Shillong**	**21.49**	**114**	⇓iP	**P**	**20 16 45.0**	**-1.1**
SHL				eS	**S**	**20 20 29.0**	**-0.6**
VIS	**Vishakhapatnam**	**22.03**	**145**	ePKP	**P**	**20 16 51.8**	**+0.7**
AGT	**Agartala**	**22.06**	**119**	ePKP	**P**	**20 16 49.0**	**-2.4**
AGT				ex	x	20 17 32.0	
KIV	**Kislovodsk**	**22.22**	**298**	eP	**P**	**20 16 52.5**	**-0.2**
KIV				e*PP		20 17 27.4	
KIV				eS	**S**	**20 20 43.2**	**+2.2**
KIV				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.8						
KIV				MLR	MLR		
	comp=Z,60nm,14.0s						
KIV	**Kislovodsk**	**22.22**	**298**	eP	**P**	**20 16 52.2**	**-0.4**
	comp=Z,38nm,0.8s,mb5.0						
KIV	**Kislovodsk**	**22.22**	**298**	P	**P**	**20 16 52.8**	**+0.1**
	SNR=15						
KIV				P		20 16 52.8	
	SNR=15						
GTA	**Gaotai**	**23.46**	**74**	⇑P	**P**	**20 17 06.1**	**+2.0**
GTA				pP		20 17 45.0	
GTA				sP	sP	20 18 09.8	-0.8
GTA				PcP	PcP	20 20 41.4	-2.0
GTA				S	**S**	**20 21 06.3**	**+5.1**
GTA				ScP	ScP	20 23 59.6	-1.2
GTA				ScS	ScS	20 27 45.4	-2.1
GTA				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.0						
GTA				pmax	pmax		
	comp=Z,280nm,4.8s						
GTA				LR	LR		
	comp=N,180nm,13.5s						
GTA				LR	LR		
	comp=E,190nm,13.8s						
GTA				LR	LR		
	comp=Z,130nm,15.0s						
SOC	**Sochi**	**24.29**	**296**	eP	**P**	**20 17 13.3**	**+1.7**
SOC				e		20 20 45.1	
SOC				eS	**S**	**20 21 17.2**	**+2.9**
SOC				pmax	pmax		
	comp=Z,31nm,0.9s,mb4.9						
SOKR	**Solikamsk**	**24.64**	**344c**	iP	**P**	**20 17 16.1**	**+1.6**
SOKR				pmax	pmax		
	comp=Z,180nm,1.2s,mb5.6						
KRAR	**Krasnoyarsk**	**24.80**	**31c**	iP	**P**	**20 17 17.6**	**+1.7**
KRAR				pmax	pmax		
	comp=Z,310nm,1.4s,mb5.8						
VRHR	**Novokhopersk**	**25.05**	**315**	eP	**P**	**20 17 17.9**	**-0.4**
VRHR				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.2						
VRHR				pmax	pmax		
	comp=N,20nm,0.9s						
VRHR				pmax	pmax		
	comp=E,30nm,0.9s						
MALT	**Malatya**	**25.25**	**284**	eP	**P**	**20 17 22.2**	**+1.9**
MALT				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.4						
MALT	**Malatya**	**25.25**	**284**	eP	**P**	**20 17 22.2**	**+1.9**
	comp=Z,12nm,1.3s,mb4.4						
ANN	**Anapa**	**26.07**	**299**	eP	**P**	**20 17 27.1**	**-0.4**
ANN				e*PP	pP	20 18 10.8	+0.3
ANN				eS	**S**	**20 21 46.1**	**+3.8**
ANN				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.2						
VSR	**Storozhevoye**	**26.52**	**313**	eP	**P**	**20 17 31.2**	**-0.3**
VSR				e*PP	pP	20 18 10.8	-3.7
VSR				e		20 18 19.9	
VSR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
VSR				pmax	pmax		
	comp=N,8.0nm,0.9s						
VSR				pmax	pmax		
	comp=E,30nm,0.9s						
VSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VSR				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
VSR				pmax	pmax		
	comp=E,60nm,0.9s						
MOY	**Mondy**	**26.53**	**46**	eP	**P**	**20 17 34.2**	**+2.6**
MOY				pmax	pmax		
	comp=Z,98nm,2.2s,mb5.0						
VOR	**Voronezh**	**26.70**	**314**	P	**P**	**20 17 34.0**	**+0.9**
VOR				pmax	pmax		
	comp=Z,250nm,2.0s,mb5.5						
LZH	**Lanzhou**	**27.03**	**81**	eP	**P**	**20 17 37.8**	**+1.6**
LZH				pP	pP	20 18 19.3	0.0
LZH				PP	PP	20 18 30.2	-11
LZH				sP	sP	20 18 40.0	-4.5
LZH				eS	**S**	**20 21 59.0**	**+1.5**
LZH				sS	sS	20 23 10.0	-5.2
LZH				SS	SS	20 23 37.2	-24
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,140nm,4.8s						
ZAK	**Zakamensk**	**27.45**	**49**	⇓iP	**P**	**20 17 41.7**	**+2.0**
ZAK				e	pP	20 18 26.6	+3.7
ZAK				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.2						
ASF	**Jabal al Asfar**	**27.77**	**271**	P	**P**	**20 17 44.3**	**+1.5**
ASF				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASF	**Jabal al Asfar**	**27.77**	**271**	P	**P**	**20 17 44.3**	**+1.4**
	comp=Z,2.7nm,0.7s,mb4.0,baz=345,slow=12,SNR=4.9						
TLY	**Talaya**	**28.08**	**47**	⇑iP	**P**	**20 17 47.1**	**+1.8**
TLY				e	pP	20 18 32.8	+4.2
TLY				eS	**S**	**20 22 14.2**	**+0.5**
TLY				e		20 23 56.3	
TLY				pmax	pmax		
	comp=Z,34nm,0.7s,mb5.1						
TLY	**Talaya**	**28.08**	**47**	eP	**P**	**20 17 47.9**	**+2.6**
	comp=Z,19nm,0.6s,mb4.9						
TLY	**Talaya**	**28.08**	**47**	⇑P	**P**	**20 17 48.0**	**+2.7**
	SNR=13						
TLY				⇑P		20 17 48.0	
	SNR=13						
CD2	**Chengdu**	**28.36**	**92**	P	**P**	**20 17 49.5**	**+1.4**
CD2				pP	pP	20 18 30.8	-0.7
CD2				PP	PP	20 18 50.6	-6.0
CD2				sP	sP	20 18 54.7	-1.8
CD2				PcP	PcP	20 20 57.2	+2.3
CD2				S	**S**	**20 22 19.2**	**+0.5**
CD2				sS	sS	20 23 32.5	-3.9
CD2				SS	SS	20 24 03.0	-25
CD2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.1						
CD2				pmax	pmax		
	comp=Z,170nm,4.5s						
SIM	**Simferopol’**	**28.43**	**298**	eP	**P**	**20 17 48.4**	**-0.1**
SIM				i	pP	20 18 35.8	+3.9
SIM				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
IRK	**Irkutsk**	**28.63**	**46**	eP	**P**	**20 17 51.2**	**+1.0**
IRK				e	pP	20 18 37.3	+3.7
IRK				pmax	pmax		
	comp=Z,100nm,1.7s,mb5.2						
MMAI	**Mount Meron Ar**	**28.72**	**273**	P	**P**	**20 17 52.1**	**+0.9**
	comp=Z,1.0nm,0.5s,mb3.7,baz=74,slow=11,SNR=3.4						
MMAI				PcP	PcP	20 20 57.4	+1.6
	comp=Z,1.4nm,0.5s,baz=66,slow=7.0,SNR=5.8						
MMAI				ScP	ScP	20 24 15.8	-0.6
	comp=Z,7.7nm,0.8s,baz=73,slow=2.9,SNR=10.0						
BRTR	**Keskin Array B**	**28.83**	**288**	P	**P**	**20 17 52.5**	**+0.4**
BRTR						20 24 15.5	
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BRTR	**Keskin Array B**	**28.83**	**288**	P	**P**	**20 17 52.5**	**+0.4**
	comp=Z,2.9nm,0.7s,mb4.0,baz=99,slow=7.6,SNR=21						
BRTR				ScP	ScP	20 24 15.4	-1.2
	comp=Z,0.7nm,0.6s,baz=148,slow=3.6,SNR=3.6						
SONM	**Songino Array**	**28.84**	**56**	P	**P**	**20 17 54.3**	**+2.2**
SONM						20 18 57.9	
SONM						20 24 15.9	
SONM				pmax	pmax		
	comp=Z,36nm,0.6s						
SONM				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SONM	**Songino Array**	**28.84**	**56**	P	**P**	**20 17 54.3**	**+2.2**
	comp=Z,36nm,0.6s,mb5.2,baz=266,slow=9.1,SNR=243						
SONM				PP	PP	20 18 57.9	-3.7
	comp=Z,4.2nm,0.8s,baz=263,slow=12,SNR=2.2						
SONM				ScP	ScP	20 24 15.9	-0.6
	comp=Z,2.3nm,1.0s,baz=226,slow=4.9,SNR=3.8						
MOS	**Moscow**	**29.24**	**321**	eP	**P**	**20 17 55.1**	**-0.5**
MOS				e*PP	pP	20 18 38.6	-0.5
MOS				e		20 19 01.7	
MOS				eS	**S**	**20 22 28.9**	**-3.0**
MOS				pmax	pmax		
	comp=Z,172nm,1.2s,mb5.6						
PRGR	**Permogore**	**29.49**	**336**	⇑iP	**P**	**20 17 58.0**	**+0.4**
PRGR				eS	**S**	**20 22 36.9**	**+1.3**
PRGR				e*SS	sS	20 23 51.3	-2.1
PRGR				pmax	pmax		
	comp=Z,238nm,0.8s,mb5.9						
OBN	**Obninsk**	**29.51**	**320c**	iP	**P**	**20 17 58.2**	**+0.3**
OBN				e*PP	pP	20 18 40.9	-0.5
OBN						20 20 58.0	
OBN				pmax	pmax		
	comp=Z,171nm,1.0s,mb5.6						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s						
OBN	**Obninsk**	**29.51**	**320**	eP	**P**	**20 17 58.0**	**+0.1**
	comp=Z,68nm,0.3s,mb5.8						
KMI	**Kunming**	**30.02**	**103**	⇑P	**P**	**20 18 04.2**	**+1.5**
KMI				pP	pP	20 18 47.2	+0.8
KMI				sP	sP	20 19 10.9	-0.4
KMI				S	**S**	**20 22 45.0**	**+0.3**
KMI				sS	sS	20 24 00.8	-1.8
KMI				ScP	ScP	20 24 22.4	+1.7
KMI				SS	SS	20 24 40.4	-22
KMI				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.8						
KMI				pmax	pmax		
	comp=Z,200nm,4.0s						
KMI				LR	LR		
	comp=N,170nm,15.0s						
KMI				LR	LR		
	comp=E,140nm,15.7s						
KMI				LR	LR		
	comp=Z,160nm,29.0s						
PALK	**Pallekele**	**30.65**	**159**	i P	**P**	**20 18 09.6**	**+1.2**
PALK	**Pallekele**	**30.65**	**159**	eP	**P**	**20 18 09.4**	**+1.0**
	comp=Z,29nm,0.8s,mb5.0						
CHG	**Chiang Mai**	**30.79**	**117**	⇑P	**P**	**20 18 10.7**	**+1.1**
	comp=Z,20nm,0.7s,mb4.8						
CHTO	**Chiang Mai**	**30.79**	**117**	eP	**P**	**20 18 09.5**	**-0.1**
CHTO				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.7						
CHTO	**Chiang Mai**	**30.79**	**117**	eP	**P**	**20 18 09.5**	**-0.1**
	comp=Z,12nm,0.6s,mb4.7						
CHTO				eScP	ScP	20 24 22.0	-1.3
CMAR	**Chiang Mai Arr**	**31.02**	**118**	P	**P**	**20 18 12.3**	**+0.7**
CMAR						20 21 02.3	
CMAR				S	**S**	**20 23 03.0**	**+2.6**
CMAR						20 24 22.7	
CMAR				pmax	pmax		
	comp=Z,22nm,0.8s						
CMAR				smax			
	comp=N,4.0nm,1.2s						
CMAR	**Chiang Mai Arr**	**31.02**	**118**	P	**P**	**20 18 12.2**	**+0.6**
	comp=N,22nm,0.8s,mb4.8,baz=295,slow=8.0,SNR=140						
CMAR				PcP	PcP	20 21 02.3	+0.3
	comp=N,7.1nm,0.7s,baz=296,slow=4.0,SNR=11						
CMAR				S	**S**	**20 23 03.0**	**+2.6**
	comp=N,3.9nm,1.2s,baz=292,slow=16,SNR=4.2						
CMAR				ScP	ScP	20 24 22.7	-1.4
	comp=N,14nm,0.9s,baz=297,slow=4.7,SNR=22						
KLMR	**Klimovskoe**	**31.15**	**331**	⇑iP	**P**	**20 18 12.1**	**-0.1**
KLMR				pmax	pmax		
	comp=Z,151nm,1.1s,mb5.5						
BTO	**Baotou**	**31.20**	**70**	eP	**P**	**20 18 14.9**	**+1.9**
XAN	**Xi’an**	**31.55**	**83**	P	**P**	**20 18 16.7**	**+0.6**
XAN				pP	pP	20 18 58.6	-1.3
XAN				sP	sP	20 19 19.5	-5.3
XAN				S	**S**	**20 23 07.9**	**-0.5**
XAN				sS	sS	20 24 22.4	-4.2
XAN				SS	SS	20 25 12.9	-11
XAN				pmax	pmax		
	comp=Z,37nm,1.0s,mb4.9						
XAN				pmax	pmax		
	comp=Z,120nm,4.9s						
BDT	**Bhumibol Dam**	**31.87**	**119**	⇑P	**P**	**20 18 20.5**	**+1.4**
	comp=Z,27nm,1.0s,mb4.7						
TLCR		**32.19**	**299**	⇑iP	**P**	**20 18 21.5**	**-0.1**
TLCR		**32.19**	**299**	⇑P	**P**	**20 18 21.6**	**0.0**
KIS	**Kishinev**	**32.26**	**302**	⇓iP	**P**	**20 18 22.5**	**+0.3**
KIS	**Kishinev**	**32.26**	**302**	⇓iUNK		20 18 22.5	
HHC	**Hu-ho-hao-te**	**32.34**	**70**	eP	**P**	**20 18 24.2**	**+1.3**
HHC				pP	pP	20 19 06.3	-0.5
HHC				sP	sP	20 19 29.6	-2.1
HHC				PP	PP	20 19 39.2	-1.4
HHC				S	**S**	**20 23 20.4**	**-0.1**
HHC				sS	sS	20 24 35.3	-3.5
HHC				PcS	PcS	20 24 51.1	+0.7
HHC				SS	SS	20 25 32.6	-9.5
HHC				ScS	ScS	20 28 28.8	+1.0
HHC				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.4						
HHC				pmax	pmax		
	comp=Z,180nm,4.3s						
AKASG	**Malin Array Be**	**32.44**	**309**	P	**P**	**20 18 23.3**	**-0.3**
AKASG				*PP	pP	20 19 06.3	-1.2
AKASG						20 19 42.9	
AKASG						20 21 04.4	
AKASG				pmax	pmax		
	comp=Z,54nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,14nm,1.1s						
AKASG	**Malin Array Be**	**32.44**	**309**	P	**P**	**20 18 23.3**	**-0.3**
	comp=Z,54nm,0.7s,mb5.2,baz=81,slow=7.4,SNR=146						
AKASG				pP	pP	20 19 06.2	-1.3
	comp=Z,4.1nm,0.6s,baz=81,slow=7.7,SNR=1.3						
AKASG				PP	PP	20 19 42.9	+1.4
	comp=Z,14nm,1.1s,baz=93,slow=12,SNR=8.5						
AKASG				PcP	PcP	20 21 04.4	-0.9
	comp=Z,6.0nm,0.7s,baz=84,slow=3.2,SNR=8.0						
AKASG				ScP	ScP	20 24 25.9	-2.4
	comp=Z,3.7nm,0.8s,baz=88,slow=2.9,SNR=10						
AKASG	**Malin Array Be**	**32.44**	**309**	P	**P**	**20 18 23.3**	**-0.3**
AKASG				pP	pP	20 19 06.2	-1.3
AKASG				PP	PP	20 19 42.9	+1.4
AKASG				PcP	PcP	20 21 04.4	-0.9
AKASG				ScP	ScP	20 24 25.9	-2.4
AKBB	**Malin Array Si**	**32.44**	**309**	eP	**P**	**20 18 23.0**	**-0.6**
KIEV	**Kiev**	**32.45**	**309**	eP	**P**	**20 18 23.1**	**-0.6**
KIEV				pmax	pmax		
	comp=Z,34nm,0.6s,mb5.0						
KIEV	**Kiev**	**32.45**	**309**	eP	**P**	**20 18 23.1**	**-0.6**
	comp=Z,34nm,0.6s,mb5.0						
GYA	**Guiyang**	**32.49**	**98**	P	**P**	**20 18 25.0**	**+0.6**
GYA				pP	pP	20 19 07.5	-0.8
GYA				sP	sP	20 19 31.9	-1.3
GYA				PP	PP	20 19 43.2	+0.7
GYA				PcP	PcP	20 21 06.9	+1.0
GYA				S	**S**	**20 23 23.6**	**+0.5**
GYA				ScP	ScP	20 24 30.4	+1.4
GYA				sS	sS	20 24 39.0	-2.5
GYA				PcS	PcS	20 24 51.8	+0.4
GYA				SS	SS	20 25 35.5	-10
GYA				pmax	pmax		
	comp=Z,170nm,4.8s						
GYA				LR	LR		
	comp=N,580nm,16.4s						
GYA				LR	LR		
	comp=E,540nm,15.9s						
GYA				LR	LR		
	comp=Z,560nm,14.6s						
VRI	**Vrincioaia**	**33.67**	**300**	⇓iP	**P**	**20 18 35.8**	**+1.5**
VRI	**Vrincioaia**	**33.67**	**300**	⇓P	**P**	**20 18 35.9**	**+1.5**
PLOR	**Plostina**	**33.72**	**300**	⇑iP	**P**	**20 18 36.4**	**+1.6**
NST	**Nakhon Sawan**	**33.73**	**120**	P	**P**	**20 18 34.2**	**-1.0**
	comp=Z,61nm,0.7s,mb5.2						
CIT	**Chita**	**34.11**	**49**	eP	**P**	**20 18 39.8**	**+1.8**
CIT				e	pP	20 19 25.2	+3.0
CIT				e		20 19 48.7	
CIT				pmax	pmax		
	comp=Z,283nm,1.5s,mb5.6						
MLR	**Muntele Rosu**	**34.22**	**299**	⇑iP	**P**	**20 18 40.7**	**+1.6**
PUL	**Pulkovo**	**34.53**	**325**	⇑eP	**P**	**20 18 41.5**	**0.0**
BUR02	**Bucovina Ar. S**	**34.74**	**303**	⇓P	**P**	**20 18 44.2**	**+0.7**
BURAR	**Bucovina Array**	**34.74**	**303**	⇓iP	**P**	**20 18 44.2**	**+0.7**
NACGM	**Naroch**	**34.76**	**316**	e	**P**	**20 18 40.0**	**-3.5**
VOIR		**34.85**	**299**	⇑iP	**P**	**20 18 45.5**	**+1.0**
VOIR		**34.85**	**299**	⇑P	**P**	**20 18 45.5**	**+1.1**
KKTK	**Khon Kaen**	**35.20**	**116**	⇓P	**P**	**20 18 48.8**	**+1.0**
	comp=Z,1µm,0.6s						
JOF	**Joensuu**	**35.53**	**330**	eP	**P**	**20 18 49.2**	**-0.8**
JOF				pmax	pmax		
	comp=Z,117nm,0.5s,mb5.7						
JOF	**Joensuu**	**35.53**	**330**	ep	**P**	**20 18 49.2**	**-0.8**
	comp=Z,116nm,0.5s,mb5.7						
APE	**Apeiranthos**	**35.54**	**285**	⇑iP	**P**	**20 18 50.4**	**-0.1**
APE	**Apeiranthos**	**35.54**	**285**	⇑P	**P**	**20 18 50.4**	**-0.1**
LVV	**L’vov**	**35.64**	**307**	⇓iP	**P**	**20 18 51.0**	**-0.1**

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BOD    Bodaibo          35.73  39⇓iP     P       20 18 52.3 +0.5
BOD                               e              20 28 41.4
BOD                                pmax   pmax
       comp=Z,86nm,1.1s,mb5.2
BMR    Baia Mare        35.91 303⇑iP     P       20 18 54.7 +1.3
BMR    Baia Mare        35.91 303 ⇑P     P       20 18 54.7 +1.3
BJT    Baijiatuau       35.94  70 eP     P       20 18 55.4 +1.6
BJT                                pmax   pmax
       comp=Z,36nm,1.0s
BJT    Baijiatuau       35.94  70 eP     P       20 18 55.4 +1.6
       comp=Z,36nm,1.0s,mb4.9
BJI    Beijing          35.94  70  P     P       20 18 55.0 +1.2
BJI                                pP     pP     20 19 35.5 -2.8
BJI                                sP     sP     20 19 58.5 -4.6
BJI                                S      S      20 24 16.9 +1.2
BJI                                sS     sS     20 25 31.6 -3.2
BJI                                pmax   pmax
       comp=Z,26nm,0.8s,mb4.8
BJI                                pmax   pmax
       comp=Z,200nm,4.8s
BJI                                LR     LR
       comp=N,370nm,35.2s
BJI                                LR     LR
       comp=E,190nm,35.7s
BJI                                LR     LR
       comp=Z,87nm,34.8s
GZR    Gura Zlata       36.45 299⇑iP     P       20 18 59.0 +0.9
IDI    Anoyia           36.48 282  P     P       20 18 57.6 -0.8
       comp=Z,6.3nm,0.5s,mb4.4,baz=36,slow=6.4,SNR=8.9
KWP    Kalwaria Pacla   36.48 306 eP     P       20 18 59.0 +0.7
KWP    Kalwaria Pacla   36.48 306⇓iP     P       20 18 59.4 +1.1
KWP    Kalwaria Pacla   36.48 306 eP     P       20 18 59.0 +0.7
SUW    Suwalki          36.64 314 eP     P       20 18 59.2 -0.3
SUW    Suwalki          36.64 314 eP     P       20 18 59.2 -0.4
UZH    Uzhgorod         36.73 305⇓iP     P       20 19 00.6 +0.3
UZH                               i              20 20 10.2
KOLS   Kolonicke sedl   36.74 305 i P    P       20 19 01.0 +0.5
KOLS                               pmax   pmax
       comp=Z,14nm,0.9s,mb4.5
KOLS   Kolonicke sedl   36.74 305 i P    P       20 19 01.0 +0.5
       comp=Z,14nm,0.9s,mb4.5
KOLS                              i PcP  PcP     20 21 17.9  0.0
KOLS                              e              20 24 43.3
WHN    Wuhan            37.02  86  P     P       20 19 04.5 +1.4
WHN                                ScP    ScP    20 24 44.2 -1.0
LVZ    Lovozero         37.20 339⇑iP     P       20 19 04.3 +0.2
LVZ                                pmax   pmax
       comp=Z,136nm,0.7s,mb5.6
LVZ    Lovozero         37.20 339⇑iP     P       20 19 04.4 +0.3
BZS    Buzias           37.25 300⇑iP     P       20 19 05.7 +0.9
BZS    Buzias           37.25 300 ⇑P     P       20 19 05.7 +0.8
KAF    Kangasniemi      37.26 327 eP     P       20 19 03.6 -1.1
KAF                                pmax   pmax
       comp=Z,39nm,0.6s,mb5.1
KAF    Kangasniemi      37.26 327 ep     P       20 19 03.6 -1.1
       comp=Z,38nm,0.6s,mb5.1
CRVS   Cervenica-Dubn   37.28 305 i P    P       20 19 05.5 +0.5
CRVS                              ePP    PP      20 20 36.7 +2.0
APA    Apatity          37.37 338⇓iP     P       20 19 06.0 +0.5
APA                               i      pP      20 19 50.4 +0.1
APA                                pmax   pmax
       comp=Z,59nm,0.7s,mb5.2
STHS   Stebnicka Huta   37.43 306 i P    P       20 19 06.5 +0.2
STHS                               pmax   pmax
       comp=Z,7.0nm,0.7s,mb4.3
STHS   Stebnicka Huta   37.43 306 i P    P       20 19 06.5 +0.2
       comp=Z,6.6nm,0.7s,mb4.3
STHS                              i PcP  PcP     20 21 19.9 -0.1
STHS                              e              20 24 45.5
HIA    Hailar           37.79  54 eP     P       20 19 11.0 +1.7
HIA                                pmax   pmax
       comp=Z,30nm,0.9s
HIA    Hailar           37.79  54 eP     P       20 19 11.0 +1.8
       comp=Z,30nm,0.9s,mb4.8
NIE    Niedzica         38.04 306 eP     P       20 19 12.9 +1.6
PSZ    Piszkesteto      38.33 303 eP     P       20 19 14.7 +0.9
PSZ                                pmax   pmax
       comp=Z,6.0nm,0.8s,mb4.2
PSZ    Piszkesteto      38.33 303 ⇓P     P       20 19 15.1 +1.3
PSZ    Piszkesteto      38.33 303⇓iP     P       20 19 15.1 +1.3
PSZ    Piszkesteto      38.33 303 eP     P       20 19 14.7 +0.9
       comp=Z,5.7nm,0.8s,mb4.2
OJC    Ojcow            38.38 307 eP     P       20 19 14.2  0.0
VYHS   Vyhne            39.02 304 i P    P       20 19 20.2 +0.7
VYHS                              e              20 20 57.0
VYHS   Vyhne            39.02 304 i P    P       20 19 20.2 +0.7
VYHS                              ePP    PP      20 20 57.0 +3.4
VYHS                              eSCP   ScP     20 24 51.0 -1.5
PKSM   Moragy           39.28 301⇓iP     P       20 19 22.3 +0.6
PKSM   Moragy           39.28 301 ⇓P     P       20 19 22.3 +0.6
OKC    Ostrava-Krasne   39.45 307 eP     P       20 19 23.7 +0.7
MORC   Moravsky Berou   39.84 306⇓iP     P       20 19 27.2 +0.9
MORC   Moravsky Berou   39.84 306 eP     P       20 19 26.6 +0.4
       comp=Z,32nm,1.3s,mb4.6
GKP    Gorka Klasztor   40.08 312 eP     P       20 19 28.8 +0.6
GKP    Gorka Klasztor   40.08 312 eP     P       20 19 28.8 +0.6
NJ2    Nanjing          40.09  82 eP     P       20 19 29.6 +1.0
NJ2                                sP     sP     20 20 35.2 -3.3
NJ2                                pmax   pmax
       comp=Z,10.0nm,0.8s,mb4.3
ZST    Bratislava       40.19 304 i P    P       20 19 29.2  0.0
ZST                                pmax   pmax
       comp=Z,5.0nm,0.7s,mb4.0
ZST    Bratislava       40.19 304 i P    P       20 19 29.2  0.0
       comp=Z,5.1nm,0.7s,mb4.1
VRAC   Vranov           40.47 306⇑iP     P       20 19 32.1 +0.7
VRAC   Vranov           40.47 306 ⇑P     P       20 19 32.1 +0.7
KEV    Kevo             40.54 338 eP     P       20 19 30.8 -0.9
KEV                                pmax   pmax
       comp=Z,66nm,0.5s,mb5.3
KEV    Kevo             40.54 338 ep     P       20 19 30.8 -0.9
       comp=Z,66nm,0.5s,mb5.3
DPC    Dobruska-Polom   40.61 307 eP     P       20 19 33.7 +1.1
DPC                               epP    pP      20 20 16.3 -1.7
KSP    Ksiaz            40.62 308 eP     P       20 19 32.8 +0.1
UPC    Upice            40.81 308 eP     P       20 19 35.2 +1.0
UPC                               epP    pP      20 20 22.1 +2.5
ARCES  ARCESS Array B   40.88 338  P     P       20 19 35.2 +0.7
ARCES                              pmax   pmax
       comp=Z,115nm,0.7s
ARCES  ARCESS Array B   40.88 338  P     P       20 19 35.1 +0.7
       comp=Z,115nm,0.7s,mb5.4,baz=114,slow=7.9,SNR=537
ARE0   ARCESS Array S   40.88 338 eP     P       20 19 35.0 +0.6
CONA   Conrad Observa   41.04 304⇓iP     P       20 19 37.0 +0.9
       comp=Z,24nm,1.1s,mb4.5
CSNA   Conrad Observa   41.04 304⇓iP     P       20 19 37.0 +0.8
       comp=Z,23nm,1.1s,mb4.5
SNY    Shenyang         41.15  66 ⇑P     P       20 19 37.5 +0.4
SNY                                pmax   pmax
       comp=Z,41nm,0.6s,mb5.0
TREC   Trest            41.20 306 eP     P       20 19 38.2 +0.9
TREC                              epP    pP      20 20 22.0 -0.9
CLNS   Chul'man         41.32  43 eP     P       20 19 39.9 +1.7
CLNS                               pmax   pmax
       comp=Z,44nm,0.9s,mb4.9
CLNS                               pmax   pmax
       comp=E,30nm,1.0s
CLNS                               pmax   pmax
       comp=N,10.0nm,0.9s
KTK1   Kautokeino       41.34 336 eP     P       20 19 38.4 +0.2
PERS   Pernice          41.67 302 i P    P       20 19 42.2 +1.0
PERS                              i              20 19 46.5
PERS                              i pP   PcP     20 21 33.2 -0.4
BOJS   Bojanci          41.71 300 i P    P       20 19 42.5 +0.9
BOJS                              i pP   PcP     20 21 33.3 -0.5
SOKA   Soboth           41.72 302⇑iP     P       20 19 42.4 +0.7
       comp=N,17nm,1.0s,mb4.4
PVCC   Panska Ves       41.73 308 eP     P       20 19 42.6 +1.0
KULM   Kulim            41.77 131  P     P       20 19 42.3  0.0
KULM   Kulim            41.77 131 eP     P       20 19 41.7 -0.7
       comp=N,26nm,0.9s,mb4.7
PRU    Pruhonice        41.77 307 eP     P       20 19 42.6 +0.6
PRU                               epP    pP      20 20 28.5 +0.9
VISS   Visnje           41.96 301 i P    P       20 19 43.9 +0.3
VISS                              i pP   PcP     20 21 34.5 -0.1
BRG    Berggiesshubel   42.11 308 i P    P       20 19 45.2 +0.5
BRG                               e*PP   pP      20 20 33.6 +3.2
BRG                               e              20 21 33.8
BRG                                pmax   pmax
       comp=Z,14nm,0.9s,mb4.4
BRG                                MLR    MLR
       comp=N,775nm,7.5s
BRG                                MLR    MLR
       comp=E,393nm,13.5s
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BRG                                MLR    MLR
       comp=Z,476nm,17.2s
BRG    Berggiesshubel   42.11 308 i P    P       20 19 45.2 +0.5
       comp=Z,24nm,0.9s,mb4.6
BRG                               epP    pP      20 20 33.6 +3.2
       comp=Z,9.0nm,1.0s
BRG                               ePP    PP      20 21 33.8 +7.1
       comp=Z,12nm,1.4s
BRG                               eSCP   ScP     20 25 03.4 -1.3
       comp=Z,22nm,1.4s
BRG
       comp=N,1µm,7.5s
BRG
       comp=E,656nm,13.5s
BRG
       comp=Z,795nm,17.2s
BRG    Berggiesshubel   42.11 308 i P    P       20 19 45.2 +0.5
       comp=Z,14nm,0.9s,mb4.4
BRG                               epP    pP      20 20 33.6 +3.2
BRG                               ePP    PP      20 21 33.8 +7.1
BRG                               eScP   ScP     20 25 03.4 -1.3
BRG                                LR     LR
       comp=Z,480nm,17.2s
MOA    Molln            42.12 304⇓iP     P       20 19 45.2 +0.3
       comp=Z,22nm,1.3s,mb4.4
CN2    Changchun        42.15  62 eP     P       20 19 46.0 +0.8
CN2                               epP    pP      20 20 30.3 -0.6
CN2                                PcP    PcP    20 21 35.3  0.0
CN2                                ScP    ScP    20 25 04.3 -0.7
CN2                               eS     S       20 25 47.8 -0.6
CN2                                pmax   pmax
       comp=Z,10.0nm,0.8s,mb4.3
CN2                                pmax   pmax
       comp=Z,200nm,4.0s
GERES  GERESS Array B   42.40 305  P     P       20 19 47.8 +0.7
       comp=Z,1.9nm,0.7s,mb3.7,baz=76,slow=7.4,SNR=19
GERES                              pP     pP     20 20 30.9 -2.0
       comp=Z,1.3nm,0.9s,baz=95,slow=11,SNR=1.9
GERES                              PP     PP     20 21 27.8 -2.1
       comp=Z,3.8nm,1.1s,baz=82,slow=9.6,SNR=5.7
GERES                              PcP    PcP    20 21 35.8 -0.2
       comp=Z,4.9nm,0.8s,baz=66,slow=3.2,SNR=10
GERES                              ScP    ScP    20 25 04.4 -1.5
       comp=Z,2.0nm,0.8s,baz=92,slow=4.0,SNR=7.4
KHC    Kasperske Hory   42.46 306 eP     P       20 19 48.1 +0.6
KHC                               epP    pP      20 20 30.6 -2.7
IPM    Ipoh             42.63 131  P     P       20 19 49.4  0.0
CLL    Collm            42.68 309 i P    P       20 19 49.1 -0.2
CLL                               e      pP      20 20 37.0 +1.9
CLL                                pmax   pmax
       comp=Z,14nm,0.8s,mb4.4
CLL                                MLR    MLR
       comp=Z,1µm,16.1s
CLL    Collm            42.68 309 i P    P       20 19 49.1 -0.2
       comp=Z,14nm,0.8s,mb4.4
CLL                               i              20 20 14.2
CLL                               i pP   pP      20 20 36.7 +1.6
CLL                               ePP    PP      20 21 36.0 +3.1
CLL    Collm            42.68 309 i P    P       20 19 49.1 -0.2
       comp=Z,14nm,0.8s,mb4.4
CLL                               i              20 20 14.2
CLL                               e      pP      20 20 37.0 +1.9
CLL                                LR     LR
       comp=Z,1µm,16.1s
PSI    Prapat           42.74 135  ScP   ScP     20 25 06.0 -1.8
       comp=Z,3.0nm,0.4s,baz=318,slow=3.0,SNR=7.9
KBA    Koelnbreinsper   42.82 303⇑iP     P       20 19 50.8 +0.2
       comp=Z,8.2nm,0.8s,mb4.2
TRO    Tromso           42.99 336⇑iP     P       20 19 51.9 +0.4
NKC    Novy Kostel      43.10 307 eP     P       20 19 53.8 +1.1
KTGM   Kuala Trenggan   43.28 128  P     P       20 19 55.3 +0.7
MOR8   Moi Rana         43.48 331⇑iP     P       20 19 55.0 -0.5
MOX    Moxa             43.60 308 eP     P       20 19 56.9 +0.2
       comp=Z,15nm,1.3s,mb4.2
MOX    Moxa             43.60 308 eP     P       20 19 56.9 +0.2
MOX                                pmax   pmax
       comp=Z,15nm,1.3s,mb4.2
GRA1   Grafenberg Arr   43.94 307 eP     P       20 20 00.6 +1.2
       comp=Z,30nm,1.1s,mb4.5
GRA1                              epP    pP      20 20 49.7 +4.3
GRA1                              ePP    PP      20 21 49.6 +3.4
GRF    Grafenberg Arr   43.94 307 eP     P       20 20 00.6 +1.2
GRF                               e*PP   pP      20 20 49.7 +4.3
GRF                               e              20 21 49.6
GRF                                pmax   pmax
       comp=Z,30nm,1.1s,mb4.5
GRF    Grafenberg Arr   43.94 307 eP     P       20 20 00.6 +1.2
GRF                               e*PP   pP      20 20 49.7 +4.3
GRF                               e              20 21 49.7
GRF                                pmax   pmax
       comp=Z,30nm,1.1s,mb4.5
GRF                                MLR    MLR
       comp=Z,1µm,18.7s
GRF    Grafenberg Arr   43.94 307 eP     P       20 20 00.6 +1.2
       comp=Z,30nm,1.1s,mb4.5
GRF                               epP    pP      20 20 49.7 +4.3
GRF                               ePP    PP      20 21 49.7 +3.5
GRF    Grafenberg Arr   43.94 307 eP     P       20 20 00.6 +1.2
       comp=Z,30nm,1.1s,mb4.5
GRF                               epP    pP      20 20 49.7 +4.3
GRF                               ePP    PP      20 21 49.7 +3.5
GRF                                LR     LR
       comp=Z,1µm,18.7s
WTTA   Wattenberg       43.95 303⇑iP     P       20 19 59.2 -0.3
       comp=Z,17nm,1.2s,mb4.3
FRIM   Kepong           43.98 131  P     P       20 20 00.8 +0.7
NB2    NORSAR Subarra   43.98 323  P     P       20 19 59.1 -0.4
       comp=Z,43nm,0.5s,mb5.0,baz=97,slow=7.9
NOA    NORSAR Array B   43.98 323  P     P       20 19 59.0 -0.5
NOA                                              20 21 44.7
NOA                                pmax   pmax
       comp=Z,44nm,0.6s
NOA    NORSAR Array B   43.98 323  P     P       20 19 59.0 -0.6
       comp=Z,44nm,0.6s,mb5.0,baz=97,slow=7.9,SNR=113
NOA                                PP     PP     20 21 44.7 -1.7
       comp=Z,6.1nm,0.7s,baz=102,slow=10,SNR=4.6
NOA    NORSAR Array B   43.98 323  P     P       20 19 59.0 -0.6
NOA                                PP     PP     20 21 44.7 -1.7
STOK   Stokkvaagen      44.08 331 eP     P       20 20 00.9 +0.6
MOTA   Moosalm          44.30 303⇓iP     P       20 20 01.8 -0.5
       comp=Z,10nm,0.9s,mb4.2
YAK    Yakutsk          44.31  36c iP    P       20 20 02.6 +0.5
YAK                               e*PP   pP      20 20 49.0 +0.7
YAK                               e              20 21 43.7
YAK                               e              20 21 50.3
YAK                               ePPP           20 22 34.0
YAK                               eS     S       20 26 20.3 +1.1
YAK                               e              20 29 28.4
YAK                               eSS    SS      20 29 42.3 -0.9
YAK                                pmax   pmax
       comp=Z,119nm,0.9s,mb5.2
YAK                                pmax   pmax
       comp=E,39nm,1.2s
YAK                                pmax   pmax
       comp=N,12nm,1.2s
YAK                                pmax   pmax
       comp=Z,19nm,0.9s,mb4.4
YAK                                pmax   pmax
       comp=N,28nm,1.4s
YAK                                pmax   pmax
       comp=E,70nm,1.9s
YAK                                smax
       comp=E,218nm,1.7s
YAK                                smax
       comp=N,159nm,1.6s
YAK    Yakutsk          44.31  36 eP     P       20 20 02.5 +0.3
       comp=N,159nm,0.8s,mb5.4
LOF    Lofoten          44.34 333 eP     P       20 20 04.1 +1.9
FETA   Feichten         44.60 303⇑iP     P       20 20 03.8 -0.9
       comp=N,6.4nm,0.6s,mb4.1
KONO   Kongsberg        44.67 321 eP     P       20 20 04.6 -0.4
HOPEN  Hopen            44.82 346⇑iP     P       20 20 06.8 +0.8
HOPEN                              AMb    AMB    20 20 07.9
       comp=Z,155nm,0.8s,mb5.4
MDJ    Mudanjiang       44.94  60  P     P       20 20 07.3  0.0
MDJ                                pmax   pmax
       comp=Z,13nm,1.1s,mb4.2
MDJ                                pmax   pmax
       comp=Z,120nm,6.6s
MDJ    Mudanjiang       44.94  60 eP     P       20 20 08.2 +0.8
       comp=Z,11nm,0.9s,mb4.2
BJO    Bjornoya         45.01 343⇑iP     P       20 20 08.5 +1.1
BJO                                AMb    AMB    20 20 09.4
       comp=Z,204nm,0.8s,mb5.5
DAVA   Damuels          45.13 303⇑iP     P       20 20 08.4 -0.5
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       comp=Z,20nm,0.6s,mb4.7
SSLB   Suanglung        45.20  92 eP     P       20 20 11.3 +1.6
       comp=Z,46nm,1.0s,mb4.8
KSRS   Korea Array      45.47  71  P     P       20 20 11.9 +0.3
       comp=Z,31nm,0.7s,mb4.7,baz=274,slow=7.0,SNR=82
KSRS                               PcP    PcP    20 21 46.4 -0.3
       comp=Z,5.3nm,0.8s,baz=286,slow=2.9,SNR=5.4
KSRS                               ScP    ScP    20 25 17.4 -1.2
       comp=Z,2.3nm,1.0s,baz=270,slow=3.8,SNR=4.3
KLR    Kul'dur          45.63  54⇓iP     P       20 20 09.8 -2.9
KLR                                pmax   pmax
       comp=E,68nm,1.6s
KLR                                pmax   pmax
       comp=Z,100nm,1.6s,mb4.9
KGM    Kluang           45.97 131  P     P       20 20 16.4 +0.7
TIXI   Tiksi            45.98  22 i P    P       20 20 15.7 +0.6
TIXI                               pmax   pmax
       comp=Z,116nm,0.7s,mb5.3
TIXI   Tiksi            45.98  22 eP     P       20 20 15.6 +0.5
       comp=Z,124nm,0.8s,mb5.3
BFO    Black Forest     46.00 305 i P    P       20 20 17.5 +1.9
BLS5   Blasjo           46.26 321 eP     P       20 20 19.7 +2.3
MYKOM  Kota Tinggi      46.47 130  P     P       20 20 20.2 +0.6
CDF    Champ du Feu     46.68 305 eP     P       20 20 20.1 -0.8
PGF    Pioggiola        46.70 297 eP     P       20 20 20.2 -0.9
ASK    Askoy            46.90 322 eP     P       20 20 21.8 -0.6
HSP    Hornsund         46.95 345 eP     P       20 20 24.5 +1.9
HINF   Hinteralfeld     47.06 305 eP     P       20 20 22.5 -1.4
       comp=Z,37nm,1.2s,mb4.3
HINF   Hinteralfeld     47.06 305 eP     P       20 20 22.5 -1.4
HINF                               pmax   pmax
       comp=Z,19nm,1.2s,mb4.3
HINF   Hinteralfeld     47.06 305 eP     P       20 20 22.5 -1.4
       comp=Z,18nm,1.2s,mb4.3
MEM    Membach          47.15 309  P     P       20 20 25.5 +1.0
       comp=Z,12nm,1.5s,mb4.0
WLF    Walferdange      47.21 307  P     P       20 20 26.4 +1.4
SPB4   Spitsbergen Ar   47.33 347 eP     P       20 20 26.6 +1.1
HAU    Haudompre        47.36 305 eP     P       20 20 25.0 -1.2
       comp=Z,10nm,0.6s,mb4.1
HAU    Haudompre        47.36 305 eP     P       20 20 25.0 -1.2
HAU                                pmax   pmax
       comp=Z,5.0nm,0.6s,mb4.0
HAU    Haudompre        47.36 305 eP     P       20 20 25.0 -1.2
       comp=Z,5.1nm,0.6s,mb4.0
SBF    Sospel           47.49 299 eP     P       20 20 26.2 -1.0
LPG    La Plagne        47.60 302 eP     P       20 20 27.4 -0.6
       comp=Z,5.0nm,0.4s,mb3.9
LPL    La Plagne        47.60 302 eP     P       20 20 27.5 -0.6
MBDF   Montbardon       47.76 301 eP     P       20 20 28.7 -0.5
       comp=Z,22nm,0.7s,mb4.3
MBDF   Montbardon       47.76 301 eP     P       20 20 28.7 -0.5
MBDF                               pmax   pmax
       comp=Z,11nm,0.7s,mb4.3
MBDF   Montbardon       47.76 301 eP     P       20 20 28.7 -0.5
       comp=Z,11nm,0.7s,mb4.3
CABF   La Chapelle      47.81 303 eP     P       20 20 28.8 -0.8
       comp=Z,23nm,0.7s,mb4.3
CABF   La Chapelle      47.81 303 eP     P       20 20 28.8 -0.8
CABF                               pmax   pmax
       comp=Z,11nm,0.7s,mb4.3
CABF   La Chapelle      47.81 303 eP     P       20 20 28.8 -0.8
       comp=Z,11nm,0.7s,mb4.3
HABR   Khabarovsk       47.91  54c iP    P       20 20 31.2 +0.9
HABR                              e              20 21 54.1
HABR                              e              20 22 23.8
HABR                              eS     S       20 27 13.4 +2.6
HABR                                             20 30 01.2
HABR                               SS     SS     20 30 44.5 +2.5
HABR                               pmax   pmax
       comp=Z,63nm,0.9s,mb5.0
HABR                               pmax   pmax
       comp=E,31nm,0.9s
HABR                               pmax   pmax
       comp=N,6.0nm,0.8s
GIVF   Givet            47.98 308 eP     P       20 20 29.5 -1.4
FRF    La Foret Royal   48.12 299 eP     P       20 20 30.6 -1.4
       comp=N,11nm,0.7s,mb4.0
FRF    La Foret Royal   48.12 299 eP     P       20 20 30.6 -1.4
FRF                                pmax   pmax
       comp=Z,5.0nm,0.7s,mb4.0
FRF    La Foret Royal   48.12 299 eP     P       20 20 30.6 -1.4
       comp=Z,5.3nm,0.7s,mb4.0
MEZF   Maizieres J'vi   48.12 306 eP     P       20 20 31.3 -0.7
       comp=Z,13nm,0.6s,mb4.2
MEZF   Maizieres J'vi   48.12 306 eP     P       20 20 31.3 -0.7
       comp=Z,13nm,0.6s,mb4.4
DOU    Dourbes          48.13 308  P     P       20 20 32.7 +0.7
       comp=Z,19nm,2.5s,mb4.0
ORIF   Oris-en-Rattie   48.33 301 eP     P       20 20 31.7 -1.9
BAIF   Baives           48.38 308 eP     P       20 20 33.5 -0.4
       comp=Z,69nm,1.1s,mb4.6
BAIF   Baives           48.38 308 eP     P       20 20 33.5 -0.4
BAIF                               pmax   pmax
       comp=Z,34nm,1.1s,mb4.6
BAIF   Baives           48.38 308 eP     P       20 20 33.5 -0.4
       comp=Z,34nm,1.1s,mb4.6
KMBO   Kilima Mbogo     48.39 227  P     P       20 20 35.2 +0.8
KMBO                               pmax   pmax
       comp=Z,38nm,0.6s
KMBO   Kilima Mbogo     48.39 227  P     P       20 20 35.2 +0.8
       comp=Z,38nm,0.6s,mb4.9,baz=34,slow=12,SNR=114
KMBO   Kilima Mbogo     48.39 227  P     P       20 20 35.2 +0.8
KEST   Kesra            48.43 288  P     P       20 20 35.0 +0.5
       comp=Z,2.1nm,0.6s,mb3.6,baz=282,slow=6.9,SNR=12
KBS    Kingsbay         48.45 347⇑eP     P       20 20 35.2 +1.2
KBS                                pmax   pmax
       comp=Z,272nm,1.3s,mb5.4
KBS    Kingsbay         48.45 347⇑iP     P       20 20 35.1 +1.1
KBS                                AMb    AMB    20 20 36.5
       comp=Z,274nm,1.2s,mb5.4
KBS    Kingsbay         48.45 347 eP     P       20 20 35.1 +1.0
       comp=Z,154nm,0.8s,mb5.4
SMRF   Simiane la Rot   48.77 300 eP     P       20 20 36.2 -0.8
LOR    Lormes           49.16 304 eP     P       20 20 38.7 -1.2
       comp=Z,21nm,1.0s,mb4.1
LOR    Lormes           49.16 304 eP     P       20 20 38.7 -1.2
LOR                                pmax   pmax
       comp=Z,10.0nm,1.0s,mb4.1
LOR    Lormes           49.16 304 eP     P       20 20 38.7 -1.2
       comp=Z,10nm,1.0s,mb4.1
VIVF   Saint-Julien-l   49.18 301 eP     P       20 20 39.1 -0.9
       comp=Z,12nm,0.6s,mb4.1
VIVF   Saint-Julien-l   49.18 301 eP     P       20 20 39.1 -0.9
VIVF                               pmax   pmax
       comp=Z,6.0nm,0.6s,mb4.1
VIVF   Saint-Julien-l   49.18 301 eP     P       20 20 39.1 -0.9
       comp=Z,5.8nm,0.6s,mb4.1
SMF    Signal de Mont   49.31 304 eP     P       20 20 39.8 -1.3
       comp=Z,19nm,0.6s,mb4.3
SMF    Signal de Mont   49.31 304 eP     P       20 20 39.8 -1.3
SMF                                pmax   pmax
       comp=Z,9.0nm,0.6s,mb4.3
SMF    Signal de Mont   49.31 304 eP     P       20 20 39.8 -1.3
       comp=Z,9.3nm,0.6s,mb4.3
SSF    Saint Saulge     49.44 304 eP     P       20 20 40.6 -1.4
       comp=Z,17nm,0.8s,mb4.1
SSF    Saint Saulge     49.44 304 eP     P       20 20 40.6 -1.4
SSF                                pmax   pmax
       comp=Z,8.0nm,0.8s,mb4.1
SSF    Saint Saulge     49.44 304 eP     P       20 20 40.6 -1.4
       comp=Z,8.4nm,0.8s,mb4.1
AVF    Avril sur Loir   49.61 304 eP     P       20 20 42.0 -1.3
       comp=Z,45nm,1.0s,mb4.5
AVF    Avril sur Loir   49.61 304 eP     P       20 20 42.0 -1.3
AVF                                pmax   pmax
       comp=Z,22nm,1.0s,mb4.4
AVF    Avril sur Loir   49.61 304 eP     P       20 20 42.0 -1.3
       comp=Z,22nm,1.0s,mb4.5
LASF   Ste Croix        49.94 300 eP     P       20 20 45.0 -0.8
       comp=Z,69nm,1.3s,mb4.5
HYF    Humbligny        49.97 305 eP     P       20 20 44.1 -1.9
BGF    Bois d'Agland    50.00 304 eP     P       20 20 44.4 -1.8
TCF    Toulx Ste Croi   50.49 304 eP     P       20 20 49.0 -0.9
       comp=Z,52nm,1.1s,mb4.5
TCF    Toulx Ste Croi   50.49 304 eP     P       20 20 49.0 -0.9
TCF                                pmax   pmax
       comp=Z,26nm,1.1s,mb4.5
TCF    Toulx Ste Croi   50.49 304 eP     P       20 20 49.0 -0.9
       comp=Z,26nm,1.1s,mb4.5
KSM    Kuching          50.87 124  P     P       20 20 53.7 +0.6
CAF    Calviac          50.95 302 eP     P       20 20 52.6 -0.7
       comp=Z,17nm,0.8s,mb4.3
CAF    Calviac          50.95 302 eP     P       20 20 52.6 -0.7
CAF                                pmax   pmax
       comp=Z,9.0nm,0.8s,mb4.2
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CAF	Calviac	50.95	302	*e*P	P	20 20 52.6	-0.7
	comp=Z,8.6nm,0.8s,mb4.2						
RJF	Les Rejaudoux	51.22	302	*e*P	P	20 20 53.6	-1.7
	comp=Z,58nm,1.3s,mb4.5						
RJF	Les Rejaudoux	51.22	302	*e*P	P	20 20 53.6	-1.7
RJF				pmax	pmax		
	comp=Z,29nm,1.3s,mb4.5						
RJF	Les Rejaudoux	51.22	302	*e*P	P	20 20 53.6	-1.7
	comp=Z,29nm,1.3s,mb4.5						
MTLF	Montolieu	51.29	300	*e*P	P	20 20 54.9	-1.0
	comp=Z,7.3nm,0.7s,mb3.9						
MTLF	Montolieu	51.29	300	*e*P	P	20 20 54.9	-1.0
MTLF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.0						
MTLF	Montolieu	51.29	300	*e*P	P	20 20 54.9	-1.0
	comp=Z,3.7nm,0.7s,mb3.9						
SBUM	Sibu	51.45	121	P	P	20 20 58.1	+0.6
LDF	La Druitiere	51.46	307	*e*P	P	20 20 55.4	-1.7
FLN	La Foliniere	51.65	307	*e*P	P	20 20 56.6	-1.9
	comp=Z,37nm,0.9s,mb4.5						
FLN	La Foliniere	51.65	307	*e*P	P	20 20 56.6	-1.9
FLN				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.5						
FLN	La Foliniere	51.65	307	*e*P	P	20 20 56.6	-1.9
	comp=Z,18nm,0.9s,mb4.5						
KKM	Kota Kinabalu	51.79	114	P	P	20 21 00.4	+0.4
KKM	Kota Kinabalu	51.79	114	*e*P	P	20 21 01.4	+1.4
	comp=Z,84nm,1.1s,mb5.1						
LFF	La Frestale	51.85	302	*e*P	P	20 20 59.2	-0.8
	comp=Z,22nm,0.6s,mb4.4						
LFF	La Frestale	51.85	302	*e*P	P	20 20 59.2	-0.8
LFF				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.5						
LFF	La Frestale	51.85	302	*e*P	P	20 20 59.2	-0.8
	comp=Z,11nm,0.6s,mb4.5						
MFF	Saint Martin d	51.98	304	*e*P	P	20 20 59.3	-1.7
	comp=Z,53nm,1.2s,mb4.5						
MFF	Saint Martin d	51.98	304	*e*P	P	20 20 59.3	-1.7
MFF				pmax	pmax		
	comp=Z,27nm,1.2s,mb4.5						
MFF	Saint Martin d	51.98	304	*e*P	P	20 20 59.3	-1.7
	comp=Z,26nm,1.2s,mb4.5						
MBAR	Mbarara	52.01	234	*i* P	P	20 21 00.6	-1.0
EPF	Esparros	52.69	300	*e*P	P	20 21 04.8	-1.4
	comp=Z,7.6nm,0.6s,mb4.0						
EPF	Esparros	52.69	300	*e*P	P	20 21 04.8	-1.4
EPF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
EPF	Esparros	52.69	300	*e*P	P	20 21 04.8	-1.4
	comp=Z,3.8nm,0.6s,mb4.0						
SDKM	Sandakan	52.78	114	P	P	20 21 08.1	+0.8
SGMF	Saint Gilles	53.11	307	*e*P	P	20 21 07.9	-1.3
YSS	Yuzh-Sakhalins	53.32	55	⇑*i*P	P	20 21 11.0	+0.2
YSS				pmax	pmax		
	comp=Z,100nm,0.7s,mb5.3						
YSS	Yuzh-Sakhalins	53.32	55	*e*P	P	20 21 11.7	+0.9
	comp=Z,90nm,0.7s,mb5.3						
ETSF	Etsaut	53.36	300	*e*P	P	20 21 10.3	-0.8
	comp=Z,21nm,0.6s,mb4.5						
ETSF	Etsaut	53.36	300	*e*P	P	20 21 10.3	-0.8
ETSF				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.5						
ETSF	Etsaut	53.36	300	*e*P	P	20 21 10.3	-0.8
	comp=Z,11nm,0.6s,mb4.5						
MAJO	Matsushiro	53.53	68	*e*P	P	20 21 12.1	-0.3
MAJO				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.0						
MAJO	Matsushiro	53.53	68	*e*P	P	20 21 12.1	-0.4
	comp=Z,39nm,0.8s,mb5.0						
MAT	Matsushiro	53.53	68	P	P	20 21 12.1	-0.3
MJAR	Matsushiro Arr	53.53	68	P	P	20 21 13.0	+0.6
MJAR				pmax	pmax		
	comp=Z,22nm,0.8s						
MJAR	Matsushiro Arr	53.53	68	P	P	20 21 13.0	+0.5
	comp=Z,22nm,0.8s,mb4.7,baz=291,slow=10,SNR=48						
ROSF	Rostrenen	53.55	307	*e*P	P	20 21 10.9	-1.5
QUIF	Quistinic	53.60	307	*e*P	P	20 21 11.4	-1.4
SJPF	Ste Jean	53.75	301	*e*P	P	20 21 12.5	-1.4
MYLDM	Lahad Datu	54.05	113	P	P	20 21 16.4	-0.1
TSM	Tawau	54.19	115	P	P	20 21 17.7	+0.3
DAG	Danmarks Havn	54.52	344	⇓*i*P	P	20 21 19.5	+0.5
DAG				pmax	pmax		
	comp=Z,82nm,0.9s,mb5.3						
DAG	Danmarks Havn	54.52	344	⇓*i*P	P	20 21 19.5	+0.5
	comp=Z,82nm,0.9s,mb5.3						
SEY	Seymchan	54.74	34	⇑*e*P	P	20 21 20.5	-0.3
ESDC	Sonseca Array	56.89	298	P	P	20 21 36.1	-0.2
	comp=Z,2.7nm,0.7s,mb4.0,baz=55,slow=7.5,SNR=14						
TAM	Tamanrasset	56.91	275	*e*P	P	20 21 36.7	0.0
TAM				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
TAM	Tamanrasset	56.91	275	*e*P	P	20 21 36.7	0.0
	comp=Z,5.1nm,0.8s,mb4.2						
BILL	Bilibino	58.86	26	*c i*P	P	20 21 50.7	+1.2
BILL				*PP	pP	20 22 41.0	+2.6
BILL				*e**SP	sP	20 23 05.2	+3.2
BILL				*e*		20 24 05.7	
BILL				SS	SS	20 33 43.0	+9.2
BILL				pmax	pmax		
	comp=Z,82nm,1.7s,mb5.1						
BILL	Bilibino	58.86	26	*e*P	P	20 21 50.4	+0.8
	comp=Z,70nm,1.3s,mb5.1						
ABPO	Ambohimpanom	59.37	205	*e*P	P	20 21 53.9	+0.3
ABPO				pmax	pmax		
	comp=Z,114nm,1.3s,mb5.3						
ABPO	Ambohimpanom	59.37	205	*e*P	P	20 21 53.9	+0.3
	comp=Z,114nm,1.3s,mb5.3						
MDT	Midelt	60.19	291	P	P	20 21 58.9	-0.3
	comp=Z,1.6nm,1.0s,mb3.6,baz=80,slow=6.1,SNR=3.1						
PETK	Petropavlovsk-	60.38	44	P	P	20 22 00.1	-0.1
PETK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
PETK	Petropavlovsk-	60.38	44	P	P	20 22 00.1	-0.1
	comp=Z,10nm,0.7s,mb4.6,baz=308,slow=4.2,SNR=21						
SUMG	Summit	60.83	341	*e*P	P	20 22 04.1	+1.2
	comp=Z,66nm,1.0s,mb5.2						
PET	Petropavlovsk	60.95	44	⇑*e*P	P	20 22 02.9	-1.1
LSZ	Lusaka	65.02	225	*e*P	P	20 22 30.3	-0.9
LSZ				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.6						
LSZ	Lusaka	65.02	225	*e*P	P	20 22 30.3	-0.9
	comp=Z,9.0nm,0.6s,mb4.6						
TOA0	Torodi Ar. Sit	65.09	268	*e*P	P	20 22 29.9	-1.9
TORD	Torodi Ar. Bea	65.09	268	P	P	20 22 30.0	-1.8
	comp=Z,9.4nm,0.6s,mb4.6,baz=47,slow=5.1,SNR=145						
TORD				pP	pP	20 23 19.9	-1.7
	comp=Z,6.8nm,0.8s,baz=50,slow=5.4,SNR=3.0						
FX1	Attu Island--F	68.78	39	P	P	20 22 53.5	-0.9
FX1				pmax	pmax		
	comp=Z,11nm,0.3s						
FX1	Attu Island--F	68.78	39	P	P	20 22 53.5	-0.9
	comp=Z,11nm,0.3s,mb4.9,baz=336,slow=9.4,SNR=12						
FX1	Attu Island--F	68.78	39	P	P	20 22 53.5	-0.9
TNA	Tin City	68.78	22	*e*P	P	20 22 54.6	+0.4
	comp=Z,15nm,0.8s,mb4.7						
COLD	Coldfoot	72.11	15	*e*P	P	20 23 14.7	+0.4
	comp=Z,10nm,1.0s,mb4.4						
CMLA	Cha da Macela	72.69	304	*i* P	P	20 23 26.6	+8.3
MBWA	Marble Bar	74.01	132	*e*P	P	20 23 25.4	-0.6
	comp=Z,22nm,0.9s,mb4.8						
DBIC	Dimbokro	74.07	267	P	P	20 23 25.7	-1.0
DBIC				*PP	pP	20 24 16.4	-1.4
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.5s						
DBIC	Dimbokro	74.07	267	P	P	20 23 25.7	-1.0
	comp=Z,4.7nm,0.5s,mb4.4,baz=22,slow=6.8,SNR=21						
DBIC				pP	pP	20 24 16.4	-1.4
	comp=Z,3.9nm,0.7s,baz=13,slow=9.1,SNR=2.7						
DBIC	Dimbokro	74.07	267	*e*P	P	20 23 25.5	-1.2
	comp=Z,6.8nm,0.8s,mb4.3						
KIC	Kosan Boka	74.16	266	*e*P	P	20 23 26.3	-0.9
	comp=Z,33nm,0.5s,mb5.2						
TIC	Toumodi	74.22	267	*e*P	P	20 23 26.5	-1.0
	comp=Z,7.6nm,0.2s,mb5.0						
LBTB	Lobatse	74.28	221	*e*P	P	20 23 26.4	-1.1
LBTB				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.0						
LBTB	Lobatse	74.28	221	*e*P	P	20 23 26.4	-1.2
	comp=Z,28nm,0.7s,mb5.0						
TSUM	Tsumeb	74.44	231	*e*P	P	20 23 28.1	-0.5
	comp=Z,24nm,1.1s,mb4.8						
LIC	Lamto	74.47	266	*e*P	P	20 23 27.5	-1.5
	comp=Z,11nm,0.5s,mb4.4						
LIC	Lamto	74.47	266	*e*P	P	20 23 27.9	-1.1
	comp=Z,79nm,1.5s,mb5.1						
LIC	Lamto	74.47	266	*e*P	P	20 23 27.5	-1.5
	comp=Z,5.4nm,0.5s,mb4.4						
BPAW	Bear Paw Mtn.	74.56	17	*e*P	P	20 23 28.7	0.0
	comp=Z,27nm,1.0s,mb4.8						
COLA	College	74.62	16	*e*P	P	20 23 29.2	+0.2
COLA				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.2						
COLA	College	74.62	16	*e*P	P	20 23 29.2	+0.2
	comp=Z,57nm,0.9s,mb5.2						
FRB	Frobisher Bay	74.85	342	P	P	20 23 30.2	-0.1
FRB				pmax	pmax		
	comp=Z,17nm,0.8s						
FRB	Frobisher Bay	74.85	342	P	P	20 23 30.2	-0.1
	comp=Z,17nm,0.8s,mb4.7,baz=17,slow=5.4,SNR=47						
FRB	Frobisher Bay	74.85	342	P	P	20 23 30.2	-0.1
KTH	Kantishna Hill	75.03	18	*e*P	P	20 23 31.4	0.0
	comp=Z,48nm,1.0s,mb5.1						
PPLA	Purkeypile	75.26	19	*e*P	P	20 23 32.9	+0.2
	comp=Z,41nm,1.1s,mb5.0						
TRF	Thorofare Moun	75.27	18	*e*P	P	20 23 32.6	-0.1
	comp=Z,11nm,1.0s,mb4.4						
MCK	McKinley	75.36	17	*e*P	P	20 23 32.8	-0.4
MCK				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.8						
MCK	McKinley	75.36	17	*e*P	P	20 23 32.8	-0.4
	comp=Z,22nm,0.9s,mb4.8						
FITZ	Fitzroy Crossi	75.42	126	*e*P	P	20 23 34.2	0.0
	comp=Z,6.6nm,0.6s,mb4.4						
FITZ	Fitzroy Crossi	75.42	126	P	P	20 23 34.7	+0.5
	comp=Z,2.5nm,0.3s,mb4.4,baz=317,slow=4.8,SNR=22						
FITZ	Fitzroy Crossi	75.42	126	*e*P	P	20 23 34.6	+0.4
	comp=Z,5.0nm,0.6s,mb4.3						
KNA	Kununurra	75.83	122	*e*P	P	20 23 35.9	-0.7
	comp=Z,32nm,0.6s,mb5.1						
KAKA	Kakadu	76.31	117	*e*P	P	20 23 37.9	-1.4
	comp=Z,9.3nm,0.6s,mb4.6						
KAKA	Kakadu	76.31	117	*e*P	P	20 23 37.7	-1.6
	comp=Z,30nm,0.6s,mb5.1						
PAX	Paxson	76.81	16	*e*P	P	20 23 41.2	-0.2
PAX				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.0						
PAX	Paxson	76.81	16	*e*P	P	20 23 41.2	-0.1
	comp=Z,42nm,1.1s,mb5.0						
PMR	Palmer	77.14	18	*e*P	P	20 23 43.0	-0.3
PMR				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
PMR	Palmer	77.14	18	*e*P	P	20 23 43.0	-0.3
	comp=Z,9.3nm,0.8s,mb4.5						
BOSA	Boshof	77.36	220	P	P	20 23 44.5	-0.4
BOSA				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.8						
BOSA	Boshof	77.36	220	P	P	20 23 44.5	-0.4
	comp=Z,16nm,0.7s,mb4.7,baz=26,slow=5.1,SNR=22						
BOSA	Boshof	77.36	220	*e*P	P	20 23 44.0	-0.9
	comp=Z,17nm,0.8s,mb4.7						
RC01	Rabbit Creek A	77.41	19	*e*P	P	20 23 44.7	-0.1
	comp=Z,28nm,1.1s,mb4.8						
MUN	Mundaring	80.60	142	*e*P	P	20 24 02.7	+0.3
KLBR	Kellerberrin	81.08	140	*e*P	P	20 24 05.2	+0.3
	comp=Z,12nm,0.6s,mb4.7						
YKA	Yellowknife Ar	81.24	2	P	P	20 24 05.3	-0.1
YKA				*PP	pP	20 24 56.1	-1.3
YKA						20 27 13.0	
YKA						20 42 38.0	
YKA				pmax	pmax		
	comp=Z,20nm,0.7s						
YKA	Yellowknife Ar	81.24	2	P	P	20 24 05.3	-0.1
	comp=Z,20nm,0.7s,mb4.8,baz=345,slow=5.4,SNR=332						
YKA				pP	pP	20 24 56.1	-1.3
	comp=Z,2.9nm,0.7s,baz=349,slow=5.5,SNR=1.9						
YKA				PP	PP	20 27 13.0	-0.1
	comp=Z,4.3nm,0.8s,baz=351,slow=7.8,SNR=8.0						
YKA				PKKPbc	PKKPbc	20 42 38.0	-1.2
	comp=Z,0.3nm,0.6s,baz=171,slow=2.8,SNR=5.5						
YKA	Yellowknife Ar	81.24	2	P	P	20 24 05.3	-0.1
YKA				pP	pP	20 24 56.1	-1.3
YKA				PP	PP	20 27 13.1	-0.1
YKA				PKKPbc	PKKPbc	20 42 38.0	-1.2
SCHQ	Schefferville	81.82	337	P	P	20 24 08.5	-0.1
	comp=Z,10.0nm,0.8s,mb4.5,baz=40,slow=5.6,SNR=27						
SCHQ				PP	PP	20 27 13.9	-4.2
	comp=Z,4.7nm,0.7s,baz=44,slow=4.2,SNR=5.6						
NWAO	Narrogin (SRO)	81.88	142	P	P	20 24 08.2	-0.9
NWAO				pmax	pmax		
	comp=Z,20nm,0.6s						
NWAO	Narrogin (SRO)	81.88	142	P	P	20 24 08.2	-0.9
	comp=Z,20nm,0.6s,mb4.9,baz=333,slow=5.1						
WRA	Warramunga Arr	82.54	121	P	P	20 24 11.3	-1.5
	comp=Z,11nm,0.5s,mb4.9,baz=321,slow=5.0,SNR=161						
WRA				PKKPbc	PKKPbc	20 42 37.1	+0.7
	comp=Z,0.9nm,0.5s,baz=128,slow=2.3,SNR=17						
WRAB	Tennant Creek	82.54	121	P	P	20 24 11.0	-1.8
	comp=Z,196nm,0.5s,mb6.1,SNR=39						
WRAB	Tennant Creek	82.54	121	*e*P	P	20 24 11.4	-1.4
WRAB				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.0						
WRAB	Tennant Creek	82.54	121	*e*P	P	20 24 11.4	-1.4
	comp=Z,26nm,0.8s,mb5.0						
DLBC	Dease Lake	83.89	11	P	P	20 24 20.2	+1.1
	comp=Z,14nm,0.9s,mb4.7,baz=302,slow=6.1,SNR=16						
FCC	Fort Churchill	84.17	352	*e*P	P	20 24 21.1	+0.5
	comp=Z,0.8nm,1.0s,mb3.4						
ASAR	Alice Springs	84.79	124	P	P	20 24 22.8	-1.4
	comp=Z,15nm,0.5s,mb5.0,baz=311,slow=4.9,SNR=160						
ASAR				PKKPbc	PKKPbc	20 42 31.5	+0.2
	comp=Z,0.6nm,0.6s,baz=131,slow=2.7,SNR=5.7						
COEN	Coen	85.00	111	*e*P	P	20 24 24.1	-1.3
COEN	Coen	85.00	111	*e*P	P	20 24 24.0	-1.3
	comp=Z,39nm,0.8s,mb5.2						
FORT	Forrest	86.14	133	*e*P	P	20 24 29.8	-0.9
	comp=Z,65nm,0.6s,mb5.5						
FFC	Flin Flon	88.86	355	P	P	20 24 43.2	-0.2
	comp=Z,102nm,1.1s,mb5.6,SNR=12						
FFC	Flin Flon	88.86	355	*i* P	P	20 24 43.7	+0.3
FFC	Flin Flon	88.86	355	*e*P	P	20 24 43.3	-0.1
	comp=Z,29nm,1.3s,mb5.0						
EDM	Edmonton	90.57	2	*e*P	P	20 24 51.8	+0.5
CTA	Charters Tower	91.13	114	P	P	20 24 53.3	-1.1
CTA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CTA	Charters Tower	91.13	114	*e*P	P	20 24 52.9	-1.5
	comp=Z,8.6nm,0.9s,mb4.7						
CTA	Charters Tower	91.13	114	P	P	20 24 53.3	-1.1
	comp=Z,10nm,0.8s,mb4.8,baz=304,slow=5.8,SNR=18						
ULM	Lac du Bonnet	92.73	351	P	P	20 25 01.0	-0.3
	comp=Z,8.4nm,0.7s,mb4.9,baz=4.7,slow=4.7,SNR=15						
ULM	Lac du Bonnet	92.73	351	P	P	20 25 01.0	-0.3
AGMN	Agassiz Refuge	94.64	351	*e*P	P	20 25 09.8	-0.4
	comp=Z,5.1nm,0.8s,mb4.7						
STKA	Stephens Creek	95.31	126	P	P	20 25 12.8	-0.5
	comp=Z,2.9nm,0.6s,mb4.6,baz=265,slow=3.8,SNR=6.0						
STKA	Stephens Creek	95.31	126	P	P	20 25 12.8	-0.5
PDAR	Pinedale Array	101.08	360	P	Pdif	20 25 39.7	+0.4
	comp=Z,0.4nm,0.8s,baz=349,slow=0.8,SNR=4.2						
PDAR				PP	PP	20 29 36.9	-12
	comp=Z,0.9nm,0.9s,baz=39,slow=5.8,SNR=3.0						
PFO	Pinyon Flat Ob	109.95	6	PKKP	PKKPab	20 41 34.4	-3.7
	comp=Z,18nm,0.8s,baz=35,slow=5.2,SNR=3.6						
VNA2	Neumayer--Watz	120.19	202	*e*PKPdf	PKPdf	20 30 39.0	+1.1
VNA3	Neumayer Olymp	121.00	202	*e*PKPdf	PKPdf	20 30 39.6	+0.1
CPUP	Villa Florida	134.59	267	PKIKP	PKPdf	20 31 06.0	-0.7
CPUP				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CPUP	Villa Florida	134.59	267	PKP	PKPdf	20 31 06.0	-0.8
	comp=Z,3.4nm,0.6s,baz=50,slow=1.6,SNR=18						
CPUP	Villa Florida	134.59	267	*e*PKPdf	PKPdf	20 31 05.7	-1.0
LCO	Las Campanas	146.47	271	*e*PKPdf	PKPdf	20 31 28.8	+0.7
PLCA	Paso Flores	149.24	250	PKPbc	PKPbc	20 31 37.4	+0.7
	comp=Z,13nm,0.9s,baz=132,slow=1.9,SNR=13						

IDC ***04*** *20:21:22.6±2.4, 10°.04N×123°.36E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/22, mbtmp3.7/5, MS3.4/1, Ms1 3.4/1, ms1mx2.3/34, Error ellipse: s-maj=291.4km s-min=19.8km az=64.0*

ISCJB ***04*** *20:21:30.1±0.5, 9°.74N±0°.05×122°.48E±0°.04, h69^{km}±7^{km}, mb3.8/4, Error ellipse: s-maj=9.2km s-min=6.0km az=37.3*

MAN ***04*** *20:21:30, 9°.81N×122°.47E, h57^{km}, mb4.8, ML3.8, MS3.8*

ISC 04 20:21:31.3±0.5**, 9°.74N**±0°.05×**122°.49E**±0°.04**, h58**^{km}±8^{km}**, n23, σ1^{s}01**/26**, mb3.8**/4**, 3C, Negros**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNPH	Sibulan	0.84	118	⇑*i*P	Pn	20 21 46.0	-1.1
SNPH				*i* S	Sn	20 21 59.5	+0.7
GUIM	Jordan	0.89	7	*e*P	Pn	20 21 47.1	-0.7
GUIM				*e*S	Sn	20 22 00.2	+0.3
LLP	Lapu-Lapu	1.57	68	⇑*i*P	Pn	20 21 56.7	-0.2
LLP				*i* S	Sn	20 22 15.9	-0.2
CUYO	Cuyo Island	1.82	308	*e*P	Pn	20 21 59.9	-0.3
KALP	Kalibo	1.93	356	⇑*e*P	Px	20 22 16.8	
IPIL	Ipil	1.94	177	*e*P	Pn	20 22 02.4	+0.5
PAGZ	Pagadian	2.08	155	*e*P	Pn	20 22 05.4	+1.6
MSLP	Maasin	2.37	80	*e*P	Pn	20 22 08.5	+0.7
OCLP	Ormoc	2.46	58	*e*P	Pn	20 22 09.4	+0.4
SCPH	Surigao	2.96	89	*e*P	Pn	20 22 14.7	-1.1
SCPH				*e*S	Sn	20 22 48.2	-2.0
SJMP	San Jose	3.02	334	*e*P	Pn	20 22 16.5	-0.1
BUKP	Musuan	3.15	126	*e*P	Pn	20 22 20.3	+1.9
BUSP	Coron	3.18	315	*e*P	Pn	20 22 18.4	-0.5
BUTP	Butuan	3.19	104	*e*P	Pn	20 22 19.6	+0.7
ENPP	El Nido	3.34	296	*e*P	Pn	20 22 20.7	-0.4
LUBP	Lubang	4.54	331	*e*P	Pn	20 22 38.7	+1.2
LUBP				*e*S	Sn	20 23 23.4	-5.5
BATP	Bataraza	4.72	259	*e*P	Pn	20 22 38.2	-1.7
MJAR	Matsushiro Arr	30.25	26	LR	LR	20 37 21.0	
	comp=Z,79nm,21.1s,baz=260,slow=32						
WRA	Warramunga Arr	31.72	158	P	P	20 27 48.0	-1.7
	0.4nm,0.6s,baz=341,slow=9.2,SNR=3.5						
ASAR	Alice Springs	35.02	162	P	P	20 28 17.5	-1.0
	0.8nm,0.3s,mb4.1,baz=341,slow=7.5,SNR=10						
MKAR	Makanchi Array	50.25	325	P	P	20 30 22.5	+0.9
	0.7nm,0.8s,mb3.8,baz=133,slow=7.7,SNR=5.8						
KURK	Kurchatov	54.44	327	P	P	20 30 53.6	+1.1
	0.4nm,0.3s,mb3.8,baz=117,slow=9.0,SNR=5.4						
BVAR	Borovoye Array	60.02	327	P	P	20 31 32.5	+0.6
	0.2nm,0.3s,mb3.6,baz=104,slow=9.1,SNR=2.8						

BEO ***04*** *20:25:04.9±4.0, 37°.32N×21°.94E, h0^{km}, ML5.5/6*

BJI ***04*** *20:25:07.5, 38°.10N×21°.90E, h5^{km}, mB5.2/2, mb4.8/8*

BGS ***04*** *20:25:07.9±1.8, 37°.88N×21°.90E, h10^{km}, mb5.1*

SZGRF ***04*** *20:25:07.9, 37°.53N×21°.35E, h10^{km}, mb4.0, Southern Greece*

NEIC ***04*** *20:25:09.5, 38°.08N×21°.94E, h0^{km}, mb4.5/53, ML4.8(PDG), ML4.9(ATH), After THE.*

NEIC Felt at Khalandritsa and Patrai.

ATH ***04*** *20:25:09.6, 38°.08N×21°.92E, h27^{km}±1^{km}, MD4.5/19, ML4.9*

THE ***04*** *20:25:09.6, 38°.10N×21°.99E, h0^{km}±2^{km}, ML5.5/7, Error ellipse: s-maj=2.9km s-min=0.9km az=191.0*

PDG ***04*** *20:25:10.1±0.9, 38°.14N×21°.94E, h14^{km}±1^{km}, MD5.0/8, ML4.8/10, Error ellipse: s-maj=1.0km s-min=0.7km az=90.0*

MOS ***04*** *20:25:10.6±0.9, 38°.14N×21°.92E, h28^{km}, mb4.7/35, Error ellipse: s-maj=3.8km s-min=2.3km az=103.3*

CSEM ***04*** *20:25:10.0±0.1, 38°.09N×21°.94E, h12^{km}, mb4.7/53, Ms3.6, Error ellipse: s-maj=2.7km s-min=2.3km az=5.0*

ISCJB ***04*** *20:25:10.2±0.3, 38°.12N±0°.01×21°.92E±0°.01, h25^{km}±2^{km}, mb4.5/80, MS4.0/10, Error ellipse: s-maj=2.0km s-min=1.5km az=20.9*

IDC ***04*** *20:25:11.3±3.2, 38°.19N×21°.98E, h20^{km}±20^{km}, mb4.3/26, mb1 4.4/35, mb1mx4.4/40, mbtmp4.3/35, ML4.2/9, MS4.0/9, Ms1 4.0/9, ms1mx3.6/36, Error ellipse: s-maj=10.8km s-min=9.7km az=56.0*

PRU ***04*** *20:25:12.3, 38°.10N×21°.87E, h10^{km}, M4.5*

ISC 04 20:25:11.4±0.3**, 38°.11N**±0°.01×**21°.92E**±0°.01**, h19**^{km}±2^{km}**, n983, σ1^{s}20**/1077**, mb4.5**/80**, MS4.0**/10**, 65C-31D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EFP	Efpalio	0.32	358	*e*PB	Pg	20 25 17.7	-0.7
EFP				*e*SB	Sg	20 25 24.0	+0.9
EFP	Efpalio	0.32	358	*e*Pb	Pg	20 25 17.7	-0.7
RLS	Riolos of Patr	0.36	262	*e*PB	Pg	20 25 17.9	-1.1
RLS				*e*SB	Sg	20 25 24.2	+0.1
RLS	Riolos of Patr	0.36	262	*e*Pb	Pg	20 25 17.9	-1.1
RLS				*e*Sb	Sg	20 25 24.2	+0.1
GUR	Goura	0.38	117	*e*PB	Pg	20 25 18.3	-1.0
GUR				*e*SB	Sg	20 25 23.5	-1.1
GUR	Goura	0.38	117	*e*Pb	Pg	20 25 18.3	-1.0
GUR				*e*Sb	Sg	20 25 23.5	-1.1
EVR	Evrytania	0.81	354	*e*Pb	Pb	20 25 25.5	-1.5
EVR				P		20 25 28.9	
EVR	Evrytania	0.81	354	*e*Pb	Pb	20 25 25.5	-1.5
VLX	Vlachokerasia	0.82	153	*e*PN	Pn	20 25 25.7	-2.3
VLX	Vlachokerasia	0.82	153	*e*Pn	Pn	20 25 25.7	-2.3
LTK	Loutraki	0.83	95	P	Pb	20 25 24.8	-2.5
LTK				S	Sb	20 25 35.0	-3.1
LTK	Loutraki	0.83	95	*e*PN	Pn	20 25 26.1	-2.0
LTK	Loutraki	0.83	95	P	Pb	20 25 24.8	-2.5
LTK	Loutraki	0.83	95	*e*Pn	Pn	20 25 26.1	-2.0
LTK				S	Sb	20 25 35.0	-3.1
ITM	Ithomi	0.93	180	*e*PB	Pb	20 25 26.5	-2.3
ITM	Ithomi	0.93	180	*e*Pb	Pb	20 25 26.5	-2.3
AGG	Agios Georgios	0.97	19	P	Pb	20 25 27.6	-2.0
AGG				S	Sb	20 25 42.5	+0.4
AGG	Agios Georgios	0.97	19	*e*PN	Pn	20 25 28.4	-1.6
AGG				*e*SN	Sn	20 25 43.4	+0.1
AGG	Agios Georgios	0.97	19	P	Pb	20 25 27.6	-2.0
AGG	Agios Georgios	0.97	19	*e*Pn	Pn	20 25 28.4	-1.6
AGG				S	Sb	20 25 42.5	+0.4
AGG				*e*Sn	Sn	20 25 43.4	+0.1
LKR	Lokris	1.01	57	P	Pb	20 25 28.5	-1.8
LKR				S	Sb	20 25 42.9	-0.3
LKR	Lokris	1.01	57	*e*PN	Pn	20 25 28.7	-1.9
LKR	Lokris	1.01	57	P	Pb	20 25 28.5	-1.8
LKR	Lokris	1.01	57	*e*Pn	Pn	20 25 28.7	-1.9
LKR				S	Sb	20 25 42.9	-0.3
VLS	Valsamata	1.05	274	P	Pb	20 25 28.6	-2.4
VLS				S	Sb	20 25 46.5	+2.2
VLS	Valsamata	1.05	274	*e*PB	Pb	20 25 29.3	-1.7
VLS	Valsamata	1.05	274	P	Pb	20 25 28.6	-2.4
VLS	Valsamata	1.05	274	*e*Pb	Pb	20 25 29.3	-1.7
VLS				S	Sb	20 25 46.5	+2.2
DID	Didima	1.21	119	P	Pn	20 25 31.3	-1.9
DID				S	Sb	20 25 49.0	+0.2
DID	Didima	1.21	119	*e*PN	Pn	20 25 32.3	-0.9
DID	Didima	1.21	119	P	Pn	20 25 31.3	-1.9
DID	Didima	1.21	119	*e*Pn	Pn	20 25 32.3	-0.9
DID				S	Sb	20 25 49.0	+0.2
PYL	PYLOS	1.22	187	P	Pn	20 25 31.0	-2.4
PYL				S	Sb	20 25 50.5	+1.4
PYL	PYLOS	1.22	187	P	Pn	20 25 31.0	-2.4
PYL				S	Sb	20 25 50.5	+1.4
NAIG	Nisos Aigina	1.29	105	*e*PB	Pb	20 25 32.8	-2.3
NAIG	Nisos Aigina	1.29	105	*e*Pb	Pb	20 25 32.8	-2.3
ATH	Athens Observa	1.43	95	*e*PN	Pn	20 25 35.6	-0.7
ATH	Athens Observa	1.43	95	*e*Pn	Pn	20 25 35.6	-0.7
THL	Klokotos Trika	1.46	3	P	Pn	20 25 36.7	-0.1
THL				S	Sn	20 25 57.2	+1.9
THL	Klokotos Trika	1.46	3	*e*PN	Pn	20 25 37.1	+0.3
THL	Klokotos Trika	1.46	3	P	Pn	20 25 36.7	-0.1
THL	Klokotos Trika	1.46	3	*e*Pn	Pn	20 25 37.1	+0.3
THL				S	Sn	20 25 57.2	+1.9
PTL	Penteli	1.54	92	*e*PN	Pn	20 25 37.2	-0.6
PTL	Penteli	1.54	92	*e*Pn	Pn	20 25 37.2	-0.6
NEO	Neokhori	1.58	40	*e*PB	Pb	20 25 37.4	-2.6
VLI	Veliai	1.61	149	*e*PN	Pn	20 25 38.5	-0.3
VLI	Veliai	1.61	149	*e*Pn	Pn	20 25 38.5	-0.3
XOR	Xorichti	1.61	38	P	Pn	20 25 37.4	-1.4
XOR	Xorichti	1.61	38	P	Pn	20 25 37.9	-0.9
XOR	Xorichti	1.61	38	P	Pn	20 25 37.9	-0.9
JAN	Janina	1.76	332	*e*PN	Pn	20 25 42.4	+1.5
JAN	Janina	1.76	332	*e*Pn	Pn	20 25 42.4	+1.5
MEV	Metsovon	1.76	342	P	Pn	20 25 42.9	+2.0
MEV	Metsovon	1.76	342	P	Pn	20 25 42.9	+2.0
AOS	Alonnisos	1.87	55	P	Pn	20 25 41.1	-1.3
AOS	Alonnisos	1.87	55	P	Pn	20 25 41.1	-1.3
IGT	Igoumenitsa	1.89	320	P	Pn	20 25 44.3	+1.7
IGT				S	Sn	20 26 09.9	+4.0
IGT	Igoumenitsa	1.89	320	P	Pn	20 25 44.3	+1.7
IGT				S	Sn	20 26 09.9	+4.0
KYTH	Kithira	2.03	154	*e*PB	Pb	20 25 45.5	-2.2
LIT	Litokhoron	2.04	12	P	Pn	20 25 44.0	-0.8
LIT				S	Sn	20 26 10.6	+0.9
LIT	Litokhoron	2.04	12	P	Pn	20 25 44.0	-0.8
LIT				S	Sn	20 26 14.4	+4.7
LIT	Litokhoron	2.04	12	P	Pn	20 25 44.0	-0.8
LIT				S	Sn	20 26 10.6	+0.9
KZN	Kozani	2.20	357	*e*PB	Pb	20 25 47.8	-2.8
PAIG	Paliouri	2.28	37	P	Pn	20 25 46.0	-2.0
PAIG	Paliouri	2.28	37	P	Pn	20 25 46.8	-1.2
PAIG	Paliouri	2.28	37	P	Pn	20 25 46.8	-1.2

KEK	Kerkira	2.30	315	*e*PB	Pb	20 25 48.8	-3.6
PLG	Polygyros	2.56	27	P	Pn	20 25 50.5	-1.4
PLG	Polygyros	2.56	27	*e*PN	Pn	20 25 50.7	-1.1
PLG	Polygyros	2.56	27	P	Pn	20 25 50.5	-1.4
PLG	Polygyros	2.56	27	*e*Pn	Pn	20 25 50.7	-1.1
THE	Thessaloniki	2.65	18	P	Pn	20 25 51.7	-1.4
THE	Thessaloniki	2.65	18	P	Pn	20 25 52.0	-1.1
THE	Thessaloniki	2.65	18	P	Pn	20 25 52.0	-1.1
HORT	Hortiatis	2.65	20	P	Pn	20 25 52.0	-1.2
HORT	Hortiatis	2.65	20	P	Pn	20 25 52.5	-0.7
HORT	Hortiatis	2.65	20	P	Pn	20 25 52.5	-0.7
FNA	Florina	2.71	351	P	Pn	20 25 55.2	+1.3
FNA	Florina	2.71	351	P	Pn	20 25 55.2	+1.3
GRG	Griva	2.87	7	P	Pn	20 25 55.7	-0.5
GRG	Griva	2.87	7	P	Pn	20 25 56.2	0.0
GRG	Griva	2.87	7	P	Pn	20 25 56.2	0.0
SOH	Sokhos	2.93	22	P	Pn	20 25 56.5	-0.5
SOH				S	Sn	20 26 34.0	+2.3
SOH	Sokhos	2.93	22	P	Pn	20 25 56.5	-0.5
SOH				S	Sn	20 26 34.0	+2.3
BIA	Bitola	2.95	351	P	Pn	20 25 58.2	+1.0
BIA	Bitola	2.95	351	*i* Pn	Pn	20 25 58.6	+1.4
BIA	Bitola	2.95	351	P	Pn	20 25 58.2	+1.0
APE	Apeiranthos	3.05	109	P	Pn	20 25 57.1	-1.5
APE	Apeiranthos	3.05	109	*e*PN	Pn	20 25 58.0	-0.6
APE	Apeiranthos	3.05	109	⇓*i*P	Pn	20 25 57.7	-0.9
LOS	Limnos	3.07	52	P	Pn	20 25 57.6	-1.3
LOS	Limnos	3.07	52	P	Pn	20 25 57.8	-1.1
LIA	Limnos Island	3.11	54	P	Pn	20 25 58.0	-1.5
LIA	Limnos Island	3.11	54	P	Pn	20 25 58.2	-1.3
KARN	Karanos	3.14	149	P	Pn	20 25 59.7	-0.2
KNT	Kendrikon	3.15	14	P	Pn	20 25 59.7	-0.2
KNT				S	Sn	20 26 38.4	+1.5
KNT	Kendrikon	3.15	14	P	Pn	20 26 00.4	+0.5
KNT				S	Sn	20 26 40.9	+4.0
THR4	Thira Island,	3.23	120	P	Pn	20 26 00.9	-0.1
VAY	Valandovo	3.25	9	P	Pn	20 26 00.8	-0.6
VAY				S	Sn	20 26 41.3	+1.8
VAY	Valandovo	3.25	9	*i* Pn	Pn	20 26 00.9	-0.4
VAY				*i* Sn	Sn	20 26 45.0	+5.4
VAY	Valandovo	3.25	9	P	Pn	20 26 01.3	-0.1
THR3	Thira Island,	3.25	120	P	Pn	20 26 01.2	-0.2
VAM	Vamos	3.26	145	*e*PN	Pn	20 26 01.0	-0.5
CHOS	Chios island	3.27	84	P	Pn	20 26 01.1	-0.5
SRS	Serrai	3.27	23	P	Pn	20 26 00.8	-0.9
SRS	Serrai	3.27	23	P	Pn	20 26 01.1	-0.6
SIGR	SIGRI	3.27	69	P	Pn	20 26 00.8	-0.9
SIGR	SIGRI	3.27	69	P	Pn	20 26 02.1	+0.4
THR6	Thira Island,	3.28	121	P	Pn	20 26 01.5	-0.3
THR6	Thira Island,	3.28	121	P	Pn	20 26 01.8	0.0
KRUS	Krusevo	3.30	351	*i* Pn	Pn	20 26 04.7	+2.6
KRUS				*i* Sn	Sn	20 26 45.0	+4.2
THR1	Thera Island	3.31	120	P	Pn	20 26 02.0	-0.3
NVR	Nevrokopi	3.57	24	P	Pn	20 26 05.8	0.0
PRK	Paraskevi	3.59	70	P	Pn	20 26 05.2	-0.9
PRK	Paraskevi	3.59	70	*e*PN	Pn	20 26 05.5	-0.6
TIR	Tirane	3.60	335	P	Pn	20 26 08.0	+1.8
TIR	Tirane	3.60	335	*e*Pn	Pn	20 26 08.2	+2.0
TIR	Tirane	3.60	335	P	Pn	20 26 08.1	+1.9
BOZC	Bozcaada	3.66	60	⇑*i*P	Pn	20 26 05.8	-1.2
IDI	Anoyia	3.69	139	Pn	Pn	20 26 07.8	+0.4
	8.6nm,0.3s,baz=325,slow=14,SNR=63						
IDI				Sn	Sn	20 26 57.7	+7.3
	26nm,0.3s,baz=352,slow=15,SNR=3.7						
GADA	Gvkgeada	3.73	55	*e*PN	Pn	20 26 07.3	-0.7
MMB	Musomiste	3.75	21	P	Pn	20 26 07.4	-0.8
MMB	Musomiste	3.75	21	P	Pn	20 26 06.5	-1.7
MMB				S	Sn	20 26 52.8	+1.0
EZN	Ezine	3.84	62	*e*PN	Pn	20 26 08.5	-1.0
KKB	Krupnik	3.86	13	P	Pn	20 26 09.4	-0.4
KKB	Krupnik	3.86	13	P	Pn	20 26 09.8	0.0
KKB				S	Sn	20 26 55.4	+0.8
SIVA	Sivas	3.86	142	P	Pn	20 26 10.3	+0.5
SKO	Skopje	3.88	355	P	Pn	20 26 12.3	+2.3
SKO	Skopje	3.88	355	*e*Pn	Pn	20 26 12.5	+2.5
SKO	Skopje	3.88	355	*i* Pn	Pn	20 26 12.6	+2.6
SKO				*i* Sn	Sn	20 26 57.6	+2.6
SKO	Skopje	3.88	355	P	Pn	20 26 11.7	+1.7
SMG	Samos	3.91	94	*e*PN	Pn	20 26 10.0	-0.5
AYVA	Ayvalik	3.92	71	*e*P	Pn	20 26 10.3	-0.3
BLCB	Balcova	4.04	84	*e*PN	Pn	20 26 11.9	-0.4
BLCB	Balcova	4.04	84	P	Pn	20 26 12.8	+0.5
LAST	Lasithi	4.10	135	P	Pn	20 26 12.8	-0.3
LAST	Lasithi	4.10	135	P	Pn	20 26 13.0	-0.1
NPS	Neapolis	4.11	133	*e*PN	Pn	20 26 13.2	0.0
RDO	Rodhopi	4.13	42	P	Pn	20 26 11.6	-1.8
RZN	Rozhen	4.17	30	P	Pn	20 26 13.5	-0.6
RZN	Rozhen	4.17	30	P	Pn	20 26 14.9	+0.8
TIP	Timpagrande	4.18	286	P	Pn	20 26 16.1	+2.0
ENEZ	Enez	4.20	50	*e*PN	Pn	20 26 14.2	-0.3
IZM	Izmir	4.22	84	*e*PN	Pn	20 26 14.9	+0.2
GCAM	G?zelcaml?	4.22	94	⇑*i*P	Pn	20 26 14.3	-0.5
ALN	Alexandroupoli	4.24	48	P	Pn	20 26 13.3	-1.7
ULC	Ulcinj	4.36	333	⇑*i*Pn	Pn	20 26 17.3	+0.6
ULC				*e*Sn	Sn	20 27 07.8	+0.8
GRI	Girifalco	4.37	281	P	Pn	20 26 17.5	+0.7
LPK	Lapseki	4.39	57	*e*PN	Pn	20 26 16.8	-0.3
BODT	Bodrum	4.41	102	*e*PN	Pn	20 26 18.6	+1.3
KDZ	Kurdzhali	4.45	36	P	Pn	20 26 15.4	-2.4
KDZ	Kurdzhali	4.45	36	P	Pn	20 26 19.0	+1.2
BDRM	Kayabasi	4.51	102	⇑*i*P	Pn	20 26 18.4	-0.3
PLD	Plovdiv	4.53	27	P	Pn	20 26 18.7	-0.3
PLD	Plovdiv	4.53	27	P	Pn	20 26 19.1	+0.1
PLD	Plovdiv	4.53	27	P	Pn	20 26 20.8	+1.8
ZKR	Zakros	4.57	129	P	Pn	20 26 20.7	+1.2
ZKR	Zakros	4.57	129	P	Pn	20 26 21.1	+1.6
VTS	Vitosha	4.59	12	P	Pn	20 26 20.2	+0.4
VTS				S	Sn	20 27 15.6	+3.1
VTS	Vitosha	4.59	12	*e*Pn	Pn	20 26 20.6	+0.8
VTS	Vitosha	4.59	12	P	Pn	20 26 20.4	+0.6
VTS	Vitosha	4.59	12	P	Pn	20 26 20.5	+0.7
SOI	Samo	4.62	271	P	Pn	20 26 21.5	+1.2
LTRZ	Laterza	4.67	304	P	Pn	20 26 21.5	+0.6
ORI	Oriolo Calabro	4.68	296	P	Pn	20 26 21.8	+0.8
AKS	Akhisar	4.69	79	*e*PN	Pn	20 26 20.9	-0.2
AKHS	Akhisar	4.69	79	*e*P	Pn	20 26 22.8	+1.6
BARS	Barje	4.71	359	*e*Pn	Pn	20 26 22.5	+1.1
DAT	Datca	4.71	105	*e*PN	Pn	20 26 22.5	+1.0
MLSB	Milas	4.72	98	*e*PN	Pn	20 26 22.9	+1.4
PVY	Plav	4.72	342	⇑*i*Pn	Pn	20 26 23.0	+1.4
PVY				*e*Sn	Sn	20 27 16.2	+0.4
AYDN	Tasoluk	4.74	94	⇓*i*P	Pn	20 26 22.7	+0.9
CEL	Celeste	4.75	274	P	Pn	20 26 22.2	+0.2
PGB	Panagyurishte	4.76	20	P	Pn	20 26 22.3	+0.2
TTG	Podgorica	4.77	336	⇑*i*Pn	Pn	20 26 22.7	+0.4
TTG				*e*Sn	Sn	20 27 17.9	+0.8
BUM	Brajici-Budva	4.79	332	⇑*i*Pn	Pn	20 26 22.8	+0.3
BUM				*e*Sn	Sn	20 27 18.2	+0.8
DIM	Dimitrovgrad	4.82	34	P	Pn	20 26 23.4	+0.5
RKY	Sarkoy-Tekirda	4.82	56	*e*PN	Pn	20 26 23.1	+0.2
SART	Tekirdag	4.82	56	*e*P	Pn	20 26 22.2	-0.8
SCLL	Scilla	4.89	274	P	Pn	20 26 25.2	+1.3
BALB	Balikesir	4.90	70	*e*PN	Pn	20 26 23.4	-0.6
BALB	Balikesir	4.90	70	*e*Pn	Pn	20 26 23.4	-0.6
BAI	Bari	4.91	309	*e*Pn	Pn	20 26 24.1	-0.1
MTTG	Motta San Giov	4.91	271	P	Pn	20 26 25.2	+1.0
MTTG	Motta San Giov	4.91	271	P	Pn	20 26 25.2	+1.0
KARP	Karpathos	4.92	120	*e*PN	Pn	20 26 25.1	+0.8
KARP	Karpathos	4.92	120	*e*Pn	Pn	20 26 25.1	+0.8
MFT	Murefte	4.94	56	*e*PN	Pn	20 26 24.9	+0.3
MFT	Murefte	4.94	56	*e*Pn	Pn	20 26 24.9	+0.3
BEY	Berane	5.00	343	⇑*i*Pn	Pn	20 26 27.0	+1.5
BEY				*i* Sn	Sn	20 27 23.0	+0.3
IVA	Berane	5.00	343	⇑*i*Pn	Pn	20 26 27.0	+1.5
IVA				*i* Sn	Sn	20 27 23.0	+0.3
IVA	Berane	5.00	343	⇑*i*Pn	Pn	20 26 27.0	+1.5
IVA				*i* Sn	Sn	20 27 23.0	+0.3
MRMT	Marmara Adasi	5.06	59	*e*PN	Pn	20 26 26.0	-0.2
MRMT	Marmara Adasi	5.06	59	*e*Pn	Pn	20 26 26.0	-0.2
HCY	Herceg Novi	5.06	330	⇑*i*Pn	Pn	20 26 26.0	-0.3
HCY				*e*Sn	Sn	20 27 24.7	+0.5
HCY	Herceg Novi	5.06	330	⇑*i*Pn	Pn	20 26 26.0	-0.3
HCY				*e*Sn	Sn	20 27 24.7	+0.5
CUC	Castrocucco	5.11	294	P	Pn	20 26 28.5	+1.6
CUC	Castrocucco	5.11	294	P	Pn	20 26 28.5	+1.6
PTRP	Pietrapertosa	5.14	300	P	Pn	20 26 28.5	+1.1
PTRP	Pietrapertosa	5.14	300	P	Pn	20 26 28.5	+1.1
YER	Yerkesik	5.15	99	*e*PN	Pn	20 26 28.9	+1.5
YER	Yerkesik	5.15	99	*e*Pn	Pn	20 26 28.9	+1.5
BNT	Bandirma	5.17	62	*e*PN	Pn	20 26 27.3	-0.5
ZAPS	Zavoj	5.19	6	*e*Pn	Pn	20 26 29.4	+1.4
NKY	Niksic	5.20	336	⇑*i*Pn	Pn	20 26 29.1	+0.9
NKY				*e*Sn	Sn	20 27 28.3	+0.7
NKY	Niksic	5.20	336	⇑*i*Pn	Pn	20 26 29.1	+0.9
NKY				*e*Sn	Sn	20 27 28.3	+0.7
TKR	Tekirdag	5.21	55	*e*PN	Pn	20 26 27.7	-0.6
TKR	Tekirdag	5.21	55	*e*Pn	Pn	20 26 27.7	-0.6
EDRB	Edirne	5.26	43	*e*PN	Pn	20 26 30.5	+1.5
EDRB	Edirne	5.26	43	*e*Pn	Pn	20 26 30.5	+1.5
NISS		5.29	0	*e*Pn	Pn	20 26 30.2	+0.8
NISS		5.29	0	*e*Pn	Pn	20 26 30.2	+0.8
ARG	Arkhangelos	5.31	109	P	Pn	20 26 31.3	+1.7
ARG	Arkhangelos	5.31	109	P	Pn	20 26 31.3	+1.7
KULA	Kula-Manisa	5.32	84	*e*PN	Pn	20 26 30.1	+0.3
KULA	Kula-Manisa	5.32	84	*e*Pn	Pn	20 26 30.1	+0.3
DURS	Dursunbey	5.33	72	⇑*i*P	Pn	20 26 29.5	-0.5
DURS	Dursunbey	5.33	72	*i* P	Pn	20 26 29.5	-0.5
ACER	Acerenza	5.34	302	P	Pn	20 26 30.8	+0.7
ACER	Acerenza	5.34	302	P	Pn	20 26 30.8	+0.7
MGR	Morigerati	5.35	294	P	Pn	20 26 31.2	+1.0
MGR	Morigerati	5.35	294	P	Pn	20 26 31.2	+1.0
TREB	Trebinje	5.35	331	*e*Pn	Pn	20 26 29.7	-0.5
TREB				*e*Sn	Sn	20 27 31.9	+0.6
TREB	Trebinje	5.35	331	*e*Pn	Pn	20 26 29.7	-0.5
SJES	Sjenica	5.36	345	*e*Pn	Pn	20 26 32.2	+1.9
SJES	Sjenica	5.36	345	*e*Pn	Pn	20 26 32.2	+1.9
CRLT	Corlu	5.41	54	*e*PN	Pn	20 26 31.3	+0.2
BRY	Bratogost	5.43	333	⇑*i*Pn	Pn	20 26 31.3	-0.1
BRY				*i* Sn	Sn	20 27 33.7	+0.3
BRY	Bratogost	5.43	333	⇑*i*Pn	Pn	20 26 31.3	-0.1
BRY				*i* Sn	Sn	20 27 33.7	+0.3
DST	Dursunbey	5.45	72	*e*PN	Pn	20 26 31.4	-0.2
KCT	Karacabey	5.45	65	*e*PN	Pn	20 26 32.1	+0.5
TURN	Turunc	5.46	101	⇑*i*P	Pn	20 26 29.2	-2.5
DALT	Dalyan (Mudla)	5.51	102	*e*PN	Pn	20 26 35.0	+2.5
SSY	Sortino	5.52	262	P	Pn	20 26 35.5	+3.0
HAVL	Avola	5.52	260	P	Pn	20 26 31.7	-0.8
HAVL	Avola	5.52	260	P	Pn	20 26 31.7	-0.8
PLE	Pljevlja	5.56	341	⇑*i*Pn	Pn	20 26 34.0	+0.9
PLE				*i* Sn	Sn	20 27 36.9	+0.5
PLE	Pljevlja	5.56	341	⇑*i*Pn	Pn	20 26 34.0	+0.9
PLE				*i* Sn	Sn	20 27 36.9	+0.5
UPM	Unac-Piva	5.58	337	⇑*i*Pn	Pn	20 26 34.1	+0.7
UPM				*i* Sn	Sn	20 27 37.3	+0.3
UPM	Unac-Piva	5.58	337	⇑*i*Pn	Pn	20 26 34.1	+0.7
UPM				*i* Sn	Sn	20 27 37.3	+0.3
JMB	Yambol	5.63	38	P	Pn	20 26 33.9	-0.2
JMB	Yambol	5.63	38	P	Pn	20 26 32.9	-1.2
JMB	Yambol	5.63	38	P	Pn	20 26 33.9	-0.2
MRLC	Muro Lucano	5.64	300	P	Pn	20 26 33.7	-0.5
MRLC	Muro Lucano	5.64	300	P	Pn	20 26 33.7	-0.5
DENT	Denizli	5.64	91	*e*PN	Pn	20 26 35.0	+0.8
SGO	Sicignano	5.68	298	P	Pn	20 26 36.2	+1.4
SGO	Sicignano	5.68	298	P	Pn	20 26 36.2	+1.4
BOLS	Boljevac	5.72	0	*e*Pn	Pn	20 26 36.2	+0.9
BOLS				*e*Sn	Sn	20 27 41.3	+1.0
BOLS	Boljevac	5.72	0	*e*Pn	Pn	20 26 36.2	+0.9
BOLS				*e*Sn	Sn	20 27 41.3	+1.0
PVL	Pavlikeni	5.73	26	P	Pn	20 26 32.6	-2.8
STON	Ston	5.74	327	*e*Pn	Pn	20 26 35.1	-0.5
STON				Sn	Sn	20 27 38.5	-2.5
STON	Ston	5.74	327	*e*Pn	Pn	20 26 35.1	-0.5
SLVT	Silivri	5.77	55	*e*PN	Pn	20 26 36.6	+0.6
HMDC	Modica	5.79	261	P	Pn	20 26 38.5	+2.3
HMDC	Modica	5.79	261	P	Pn	20 26 38.5	+2.3
HVZN	Vizzini	5.79	263	P	Pn	20 26 34.9	-1.4
HVZN	Vizzini	5.79	263	P	Pn	20 26 34.9	-1.4
FGMS	Monte Sant'Ang	5.83	310	P	Pn	20 26 39.7	+2.9
GRUS	Gruza	5.85	351	*e*Pn	Pn	20 26 37.9	+0.8
GRUS				*e*Sn	Sn	20 27 46.8	+3.3
GRUS	Gruza	5.85	351	P	Pn	20 26 37.8	+0.7
GRUS	Gruza	5.85	351	P	Pn	20 26 37.8	+0.7
MSAG	Monte S. Angel	5.86	310	P	Pn	20 26 37.2	0.0
MSAG	Monte S. Angel	5.86	310	P	Pn	20 26 37.2	0.0
ELBA	Catalca	5.87	57	*e*P	Pn	20 26 36.7	-0.8
FETY	Fethiye	5.89	102	*e*PN	Pn	20 26 40.9	+3.2
CTYL	Yal??k??y-??at	5.95	54	*e*PN	Pn	20 26 38.6	+0.1
KHAL	Karahalli	5.97	85	*e*P	Pn	20 26 40.1	+1.3
VAE	Valguarnera	5.98	266	Pn	Pn	20 26 40.3	+1.4
	3.0nm,0.3s,baz=286,slow=18,SNR=10						
VAE				Sn	Sn	20 27 46.2	-0.5
	6.4nm,0.3s,baz=149,slow=18,SNR=2.1						
VAE	Valguarnera	5.98	266	Pn	Pn	20 26 40.3	+1.4
VAE				Sn	Sn	20 27 46.2	-0.6
SGRT	San Giovanni R	5.98	309	P	Pn	20 26 38.9	0.0
SGRT	San Giovanni R	5.98	309	P	Pn	20 26 38.9	0.0
SZH	Strazhica	5.99	29	P	Pn	20 26 38.3	-0.7
KHL	Karahalli	5.99	86	*e*PN	Pn	20 26 40.2	+1.1
CSSN	Cassano Irpino	6.00	299	P	Pn	20 26 40.2	+1.1
CSSN	Cassano Irpino	6.00	299	P	Pn	20 26 40.2	+1.1
RGNG	Rignano Grg	6.03	308	P	Pn	20 26 39.5	-0.1
RGNG	Rignano Grg	6.03	308	P	Pn	20 26 39.5	-0.1
RAFF	Raffo Rosso	6.06	264	P	Pn	20 26 41.7	+1.7
RAFF	Raffo Rosso	6.06	264	P	Pn	20 26 41.7	+1.7
BBLS	Lazići	6.06	343	*e*Pn	Pn	20 26 40.4	+0.4
BBLS				*e*Sn	Sn	20 27 48.8	0.0
BBLS	Lazići	6.06	343	P	Pn	20 26 40.7	+0.7
BBLS	Lazići	6.06	343	*e*Pn	Pn	20 26 40.4	+0.4
BGKT	Bogazkoy	6.12	58	*e*PN	Pn	20 26 41.1	+0.3
GOLH	Golhisar	6.13	96	*e*P	Pn	20 26 43.4	+2.5
MRB1	Monte Rocchett	6.15	302	P	Pn	20 26 42.9	+1.7
MRB1	Monte Rocchett	6.15	302	P	Pn	20 26 42.9	+1.7
DIVS	Divibare	6.16	347	*e*Pn	Pn	20 26 41.8	+0.5
DIVS				*e*Sn	Sn	20 27 50.3	-0.9
DIVS	Divibare	6.16	347	*e*Pn	Pn	20 26 41.8	+0.5
DIVS				*e*Sn	Sn	20 27 50.3	-0.9
SVIS	Svilajnac	6.18	355	*e*Pn	Pn	20 26 42.9	+1.3
CSLB	Castelbuono	6.21	271	P	Pn	20 26 43.7	+1.7
CSLB	Castelbuono	6.21	271	P	Pn	20 26 43.7	+1.7
TRUS	Trudelj	6.22	350	*e*Pn	Pn	20 26 43.0	+0.9
TRUS	Trudelj	6.22	350	*e*Pn	Pn	20 26 43.0	+0.9
GIB	Gibilmanna	6.23	271	P	Pn	20 26 43.2	+0.9
GIB	Gibilmanna	6.23	271	P	Pn	20 26 43.2	+0.9
LTBQ	Tobruq	6.25	164	*i* P	Pn	20 26 44.5	+1.8
	SNR=22						
ISK	Istanbul-Kandi	6.26	60	*e*PN	Pn	20 26 43.5	+0.8
YLV	Yalova	6.28	65	*e*PN	Pn	20 26 43.2	+0.2
PSB1	Pescosannita	6.30	302	P	Pn	20 26 41.0	-2.3
PSB1	Pescosannita	6.30	302	P	Pn	20 26 41.0	-2.3
WDD	Wield Dalam	6.33	252	P	Pn	20 26 43.5	-0.1
WDD	Wield Dalam	6.33	252	P	Pn	20 26 43.5	-0.1
KLYT	Kilyos	6.33	58	*e*PN	Pn	20 26 44.4	+0.7
AKAS	Kas	6.42	105	*e*P	Pn	20 26 49.0	+4.1
CIGN	Sant'Elia a Pi	6.45	306	P	Pn	20 26 46.9	+1.5
CIGN	Sant'Elia a Pi	6.45	306	P	Pn	20 26 46.9	+1.5
ALT	Altintas	6.49	79	*e*PN	Pn	20 26 47.1	+1.3
ADVT	Abdulvahap	6.50	67	*e*PN	Pn	20 26 46.6	+0.6
ELL	Elmali	6.50	100	*e*PN	Pn	20 26 47.1	+1.1
CAVI	Cavuskoy	6.51	69	*e*PN	Pn	20 26 46.2	+0.1
DJES	Djerdap	6.57	4	*e*Pn	Pn	20 26 48.4	+1.4
DJES	Djerdap	6.57	4	P	Pn	20 26 47.9	+0.9
PRD	Provadia	6.58	38	P	Pn	20 26 46.8	-0.3
HRT	Hereke	6.58	63	*e*PN	Pn	20 26 47.0	-0.1
SGG	Gregorio Mates	6.67	302	P	Pn	20 26 48.5	+0.2
SGG	Gregorio Mates	6.67	302	P	Pn	20 26 48.5	+0.2
SILT	Sile	6.70	61	*e*PN	Pn	20 26 49.3	+0.6
ISP	Isparta	6.79	90	*e*PN	Pn	20 26 50.4	+0.3
ISP	Isparta	6.79	90	P	Pn	20 26 52.4	+2.3
ISP	Isparta	6.79	90	⇑*i*P	Pn	20 26 52.0	+1.9
ISP	Isparta	6.79	90	P	Pn	20 26 52.3	+2.2
SHUT	Suhut-Afyon	6.80	84	*e*PN	Pn	20 26 50.8	+0.6
MIDA	Miranda	6.87	303	P	Pn	20 26 52.7	+1.6
MIDA	Miranda	6.87	303	P	Pn	20 26 52.7	+1.6
USI	Ustica	6.89	278	P	Pn	20 26 51.2	-0.2
USI	Ustica	6.89	278	P	Pn	20 26 51.2	-0.2
BCK	Bucak	6.90	93	*e*PN	Pn	20 26 54.4	+2.9
RNI2	Rionero Sannit	6.97	303	P	Pn	20 26 54.7	+2.3
RNI2	Rionero Sannit	6.97	303	P	Pn	20 26 54.7	+2.3
ANTB	Antalya	7.05	97	*e*PN	Pn	20 26 57.7	+4.2
ESKT	Eskisehir	7.12	76	*e*PN	Pn	20 26 55.6	+1.2
SDI	San Donato	7.20	303	P	Pn	20 26 56.8	+1.2
SDI	San Donato	7.20	303	P	Pn	20 26 56.8	+1.2
INTR	Introdacqua	7.28	305	P	Pn	20 26 58.6	+1.9
INTR	Introdacqua	7.28	305	P	Pn	20 26 58.6	+1.9
GZR	Gura Zlata	7.31	5	⇑*i*P	Pn	20 26 57.9	+0.8
GZR	Gura Zlata	7.31	5	P	Pn	20 26 58.5	+1.4
GZR	Gura Zlata	7.31	5	P	Pn	20 26 57.9	+0.8
PSN	Preselentsi	7.32	38	P	Pn	20 26 56.8	-0.4
VVLD	Villa Vallelon	7.39	303	P	Pn	20 27 00.1	+1.8
VVLD	Villa Vallelon	7.39	303	P	Pn	20 27 00.1	+1.8
BLY	Banja Luka	7.53	333	*e*Pn	Pn	20 26 59.6	-0.5
BLY	Banja Luka	7.53	333	*e*Pn	Pn	20 26 59.6	-0.5
MDU	Mudurnu	7.59	69	*e*PN	Pn	20 27 03.2	+2.3
SVRH	Sivrihisar-ESK	7.62	77	*e*PN	Pn	20 27 04.2	+2.7
VOIR		7.69	17	⇓*i*P	Pn	20 27 03.3	+1.0
VOIR		7.69	17	P	Pn	20 27 03.3	+0.9
VOIR		7.69	17	P	Pn	20 27 03.3	+1.0
KIZT	Kizilcal	7.85	81	*e*PN	Pn	20 27 06.6	+2.0
MLR	Muntele Rosu	7.97	21	⇑P	Pn	20 27 07.0	+0.9
MLR	Muntele Rosu	7.97	21	P	Pn	20 27 07.1	+1.0
MLR	Muntele Rosu	7.97	21	P	Pn	20 27 07.0	+0.9
HARR	Harsova	7.98	33	⇑*i*P	Pn	20 27 07.0	+0.7
HARR	Harsova	7.98	33	P	Pn	20 27 06.7	+0.4
HARR	Harsova	7.98	33	P	Pn	20 27 06.7	+0.4
TIRR	Tirgusor	8.01	36	⇓*i*P	Pn	20 27 07.0	+0.3
TIRR	Tirgusor	8.01	36	⇓P	Pn	20 27 07.0	+0.3
TIRR	Tirgusor	8.01	36	P	Pn	20 27 07.0	+0.3
KDHN	Kadinhani	8.03	84	*e*P	Pn	20 27 09.3	+2.3
LMSR	Misrath	8.08	226	*i* P	Pn	20 27 07.0	-0.8
	SNR=22						
MDB	Medias	8.24	12	⇓*i*P	Pn	20 27 10.3	+0.5
MDB	Medias	8.24	12	⇓P	Pn	20 27 10.3	+0.5
MDB	Medias	8.24	12	P	Pn	20 27 10.3	+0.5
RHK3	Tenkes	8.24	342	⇑*e*P	Pn	20 27 08.5	-1.4
KONT	Konya--Tatoy	8.24	88	*e*PN	Pn	20 27 11.4	+1.5
NVLJ	Novalja	8.35	323	*e*Pn	Pn	20 27 11.1	-0.2
NVLJ				Sn	Sn	20 28 38.6	-6.4
NVLJ	Novalja	8.35	323	*e*Pn	Pn	20 27 11.1	-0.2
BRD	Bordesti	8.36	26	⇑*i*P	Pn	20 27 16.8	+5.3
PKSM	Moragy	8.46	344	⇓*i*P	Pn	20 27 11.9	-0.9
PKSM	Moragy	8.46	344	⇓P	Pn	20 27 11.9	-0.9
PKSM	Moragy	8.46	344	P	Pn	20 27 11.9	-0.9
HDMB	Hadim	8.47	94	*e*PN	Pn	20 27 16.7	+3.5
PLOR	Plostina	8.50	23	⇑*i*P	Pn	20 27 14.5	+1.0
PLOR	Plostina	8.50	23	P	Pn	20 27 14.5	+1.0
VRI	Vrincioaia	8.54	23	⇑*i*P	Pn	20 27 15.2	+1.2
VRI	Vrincioaia	8.54	23	P	Pn	20 27 15.0	+1.0
VRI	Vrincioaia	8.54	23	P	Pn	20 27 15.0	+1.0
TLCR		8.76	34	⇓*i*P	Pn	20 27 18.5	+1.6
TLCR		8.76	34	⇓P	Pn	20 27 18.5	+1.6
TLCR		8.76	34	P	Pn	20 27 18.5	+1.6
SAFT	Safranbolu	8.88	66	*e*PN	Pn	20 27 18.7	+0.1
PKS9	Tamasi	8.89	344	⇓*e*P	Pn	20 27 17.6	-1.2
BOJS	Bojanci	8.91	328	*i* Pn	Pn	20 27 18.5	-0.6
BOJS				*i* Sn	Sn	20 28 55.8	-3.0
BOJS	Bojanci	8.91	328	*i* Pn	Pn	20 27 18.5	-0.5
LUJL	Ujela	8.98	183	*i* P	Pn	20 27 20.1	0.0
	SNR=22						
SULT	Sultanhani-AKS	9.14	86	*e*PN	Pn	20 27 23.6	+1.4
BEHE	Becsehely	9.18	337	⇓*e*P	Pn	20 27 22.4	-0.4
BR131	Keskin Array S	9.28	76	*e*P	Pn	20 27 25.9	+1.8
	7.4nm,0.4s						
BR131	Keskin Array S	9.28	76	*e*P	Pn	20 27 25.9	+1.7
	7.4nm,0.4s						
BRTR	Keskin Array B	9.28	76	P	Pn	20 27 24.4	+0.2
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BRTR				MLR	MLR		
	comp=Z,802nm,18.6s						
BRTR	Keskin Array B	9.28	76	Pn	Pn	20 27 24.4	+0.2
	comp=Z,2.4nm,0.3s,baz=258,slow=14,SNR=42						
BRTR				LR	LR	20 30 56.2	
	comp=Z,802nm,18.6s,baz=255,slow=37						
BRTR	Keskin Array B	9.28	76	P	Pn	20 27 24.4	+0.2
	comp=Z,802nm,18.6s						
LEF	Lefka	9.31	105	*e*PN	Pn	20 27 26.5	+1.8
GHAR	Gharyan	9.38	233	*i* P	Pn	20 27 25.5	0.0
	comp=Z,17nm,0.9s,SNR=22						
CANT	Cankiri	9.40	71	*e*PN	Pn	20 27 26.0	+0.2
BALT	Daday	9.46	65	*e*P	Pn	20 27 27.8	+1.2
IKL	Isikli	9.58	98	*e*PN	Pn	20 27 30.0	+1.8
BUD	Budapest	9.61	348	⇑*e*	Pn	20 27 26.9	-1.7
BUD	Budapest	9.61	348	P	Pn	20 27 28.5	-0.1
BUD	Budapest	9.61	348	P	Pn	20 27 28.5	-0.1
PKSG		9.63	346	⇑*e*P	Pn	20 27 30.1	+1.1
LJU	Ljubljana	9.64	328	*e*Pn	Pn	20 27 33.0	+3.9
LJU				*e*Sn	Sn	20 29 14.0	-2.9
CSS	Prodhromos	9.71	105	P	Pn	20 27 33.1	+3.1
CSS	Prodhromos	9.71	105	*e*P	Pn	20 27 30.6	+0.5
	comp=Z,18nm,0.8s						
CSS	Prodhromos	9.71	105	*e*P	Pn	20 27 30.6	+0.6
	comp=Z,18nm,0.8s						
CDAG	Cicekdag	9.83	77	*e*P	Pn	20 27 32.4	+0.6
PENC	Penc	9.87	350	⇑*e*P	Pn	20 27 31.9	-0.3
PERS	Pernice	9.89	332	*i* Pn	Pn	20 27 31.0	-1.6
PERS				*i* Sn	Sn	20 29 17.6	-5.3
PERS	Pernice	9.89	332	*i* Pn	Pn	20 27 31.0	-1.5
ALAS	Alassa	9.90	241	*i* P	Pn	20 27 31.4	-1.4
	comp=Z,42nm,0.7s,SNR=22						
VOY	Vojsko	9.91	326	*e*Pn	Pn	20 27 31.3	-1.5
VOY				*e*Sn	Sn	20 29 19.3	-4.1
VOY	Vojsko	9.91	326	*e*Pn	Pn	20 27 31.3	-1.5
PSZ	Piszkesteto	9.92	352	⇑*i*P	Pn	20 27 33.3	+0.4
PSZ	Piszkesteto	9.92	352	⇓*e*	Pn	20 27 34.0	+1.1
PSZ	Piszkesteto	9.92	352	P	Pn	20 27 36.0	+3.2
PSZ	Piszkesteto	9.92	352	P	Pn	20 27 33.3	+0.4
SOKA	Soboth	9.96	332	⇑*i*Pn	Pn	20 27 31.9	-1.5
SOKA				⇑*i*Sn	Sn	20 29 17.2	-7.5
NIG	Nigde	10.01	86	*e*PN	Pn	20 27 34.7	+0.6
OBKA	Obir	10.01	329	⇓*i*Pn	Pn	20 27 32.9	-1.3
	SNR=28						
OBKA				⇑*i*Sn	Sn	20 29 20.8	-5.0
OBKA	Obir	10.01	329	P	Pn	20 27 34.2	+0.1
OBKA	Obir	10.01	329	P	Pn	20 27 34.2	+0.1
MERS	Mersin	10.10	93	*e*PN	Pn	20 27 35.7	+0.4
KIS	Kishinev	10.24	28	*e*	Pn	20 27 43.0	+5.8
KIS				LRM		20 32 46.0	
	comp=Z,1µm,12.0s						
ARSA	Arzberg	10.28	335	⇑*i*Pn	Pn	20 27 35.3	-2.5
	SNR=10						
ARSA				⇓*i*Sn	Sn	20 29 27.7	-4.6
ARSA	Arzberg	10.28	335	P	Pn	20 27 37.1	-0.7
ARSA	Arzberg	10.28	335	P	Pn	20 27 37.1	-0.7
LSHF	Shwairf	10.29	220	*i* P	Pn	20 27 37.5	-0.6
	SNR=22						
LJFR	Jufra	10.32	211	*i* P	Pn	20 27 36.3	-2.1
	SNR=22						
KEST	Kesra	10.34	261	Pn	Pn	20 27 42.1	+3.4
	comp=Z,0.2nm,0.3s,baz=139,slow=3.7,SNR=7.4						
SOP	Sopron	10.34	339	⇓*e*P	Pn	20 27 41.6	+2.9
MYKA	Terra Mystica	10.48	327	⇑*i*Pn	Pn	20 27 39.0	-1.6
MYKA				⇑*i*Sn	Sn	20 29 32.4	-5.0
UZH	Uzhgorod	10.53	1	*e*P	Pn	20 27 45.0	+3.8
UZH				*e*S	Sn	20 29 46.0	+7.6
VYHS	Vyhne	10.62	349	*e*PN	Pn	20 27 42.8	+0.3
VYHS	Vyhne	10.62	349	*e*P	Pn	20 27 42.8	+0.3
CONA	Conrad Observa	10.77	338	⇑*i*Pn	Pn	20 27 43.9	-0.5
CONA				⇓*i*Sn	Sn	20 29 37.9	-6.4
CONA	Conrad Observa	10.77	338	Pn	Pn	20 27 43.9	-0.6
CSNA	Conrad Observa	10.77	338	⇓*i*Pn	Pn	20 27 43.9	-0.6
CSNA				⇓*i*Sn	Sn	20 29 38.0	-6.4
CSNA	Conrad Observa	10.77	338	Pn	Pn	20 27 43.9	-0.6
CRVS	Cervenica-Dubn	10.80	358	*e*PN	Pn	20 27 46.0	+1.1
CRVS	Cervenica-Dubn	10.80	358	*e*P	Pn	20 27 46.0	+1.1
MODS	Modra-Piesok	10.80	343	*e*PN	Px	20 27 33.0	
MODS				*e*SG	Sx	20 30 50.7	
MODS	Modra-Piesok	10.80	343	*e*Pn	Px	20 27 33.0	
MODS				*e*Sg	Sx	20 30 50.7	
MODS				*e*Sg	Sx	20 30 52.4	
PGF	Pioggiola	10.81	298	*e*P	Pn	20 27 43.1	-2.0
	comp=Z,46nm,0.7s						
PGF	Pioggiola	10.81	298	*e*P	Pn	20 27 43.1	-2.0
PGF				pmax	pmax		
	comp=Z,23nm,0.7s						
PGF	Pioggiola	10.81	298	*e*P	Pn	20 27 43.1	-2.0
	comp=Z,23nm,0.7s						
PGF	Pioggiola	10.81	298	*e*P	Pn	20 27 43.1	-2.0
	comp=Z,23nm,0.7s						
KOLS	Kolonicke sedl	10.83	1	*e*PN	Pn	20 27 50.5	+5.2
KBA	Koelnbreinsper	10.96	328	⇑*i*Pn	Pn	20 27 46.8	-0.4
	SNR=12						
KBA				⇑*i*Sn	Sn	20 29 45.4	-3.7
KBA	Koelnbreinsper	10.96	328	P	Pn	20 27 47.4	+0.2
KBA	Koelnbreinsper	10.96	328	P	Pn	20 27 47.4	+0.2
KOZT	Kozan	11.03	89	*e*PN	Pn	20 27 47.9	-0.2
KOZT	Kozan	11.03	89	*e*Pn	Pn	20 27 47.9	-0.2
ABTA	Abfaltersbach	11.08	324	⇑*i*Pn	Pn	20 27 47.0	-1.8
	SNR=23						
ABTA				⇓*i*Sn	Sn	20 29 46.9	-5.1
ABTA	Abfaltersbach	11.08	324	Pn	Pn	20 27 47.0	-1.7

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      SNR=23
JAVC  Velka Javorina    11.18 345  P       Pn     20 27 52.2 +2.1
JAVC  Velka Javorina    11.18 345  P       Pn     20 27 52.2 +2.1
MOA   Molln             11.23 333⇑iPn      Pn     20 27 50.5 -0.3
      SNR=7.2
MOA                              ⇓iSn      Sn     20 29 52.6 -3.1
MOA   Molln             11.23 333  P       Pn     20 27 51.1 +0.3
MOA   Molln             11.23 333  P       Pn     20 27 51.1 +0.3
STHS  Stebnicka Huta    11.32 358 ePN      Pn     20 27 58.4 +6.4
NIE   Niedzica          11.37 355 eP       Pn     20 27 54.2 +1.5
NIE                               ePP             20 28 04.7
NIE   Niedzica          11.37 355 eP       Pn     20 27 54.2 +1.5
SIM   Simferopol'       11.41  49  P       Pn     20 27 54.0 +0.7
SIM                                pmax    pmax
      comp=Z,9.0nm,1.2s
SIM   Simferopol'       11.41  49  P       Pn     20 27 54.0 +0.7
      comp=Z,9.0nm,1.2s
SARI  SarD1z-Kayseri    11.62  83 eP       Pn     20 27 53.5 -2.6
RJOB  Jochberg          11.71 328 ePn      Pn     20 27 56.8 -0.6
RJOB                              eSn      Sn     20 30 04.1 -3.4
LVV   L'vov             11.81   7 eP       Pn     20 28 06.2 +7.5
VRAC  Vranov            11.84 343⇑iP       Pn     20 27 59.4 +0.3
VRAC  Vranov            11.84 343  Pn      Pn     20 27 59.3 +0.2
      comp=Z,0.3nm,0.3s,baz=173,slow=10,SNR=5.4
VRAC                               Sn      Sn     20 30 07.0 -3.6
      comp=Z,0.3nm,0.3s,baz=204,slow=10.0,SNR=2.0
VRAC  Vranov            11.84 343 ePn      Pn     20 27 57.8 -1.3
VRAC  Vranov            11.84 343  P       Pn     20 27 59.3 +0.2
WTTA  Wattenberg        11.86 324⇑iPn      Pn     20 27 58.5 -0.9
      SNR=23
WTTA                             ⇓iSn      Sn     20 30 07.8 -3.4
WTTA  Wattenberg        11.86 324  P       Pn     20 28 00.1 +0.6
WTTA  Wattenberg        11.86 324  Pn      Pn     20 27 58.5 -1.0
      SNR=23
WTTA  Wattenberg        11.86 324  P       Pn     20 28 00.1 +0.6
WATA  Walderalm         11.94 324⇑iPn      Pn     20 28 00.1 -0.5
      SNR=18
WATA                             ⇓iSn      Sn     20 30 08.1 -5.1
WATA  Walderalm         11.94 324  P       Pn     20 28 00.6  0.0
WATA  Walderalm         11.94 324  P       Pn     20 28 00.6  0.0
OKC   Ostrava-Krasne    12.04 348 eP       Pn     20 28 01.9 +0.1
OKC                                AMS     AMS    20 33 30.0
      comp=Z,1µm,6.6s
OKC   Ostrava-Krasne    12.04 348  Pn      Pn     20 28 01.9 +0.1
MORC  Moravsky Berou    12.08 346 ePn      Pn     20 28 02.1 -0.4
MMAI  Mount Meron Ar    12.10 111  Pn      Pn     20 28 02.8  0.0
      comp=Z,1.7nm,0.3s,baz=310,slow=12,SNR=11
MMAI                               Sn      Sn     20 30 18.4 +1.3
      comp=Z,1.0nm,0.3s,baz=298,slow=32,SNR=4.1
FETA  Feichten          12.13 321⇓iPn      Pn     20 28 02.9 -0.2
      SNR=15
FETA  Feichten          12.13 321  Sn      Sn     20 30 14.9 -2.8
FETA  Feichten          12.13 321  Pn      Pn     20 28 02.9 -0.2
      SNR=15
MOTA  Moosalm           12.17 323⇑iPn      Pn     20 28 02.9 -0.8
      SNR=24
MOTA  Moosalm           12.17 323  Sn      Sn     20 30 16.0 -2.8
MOTA  Moosalm           12.17 323  P       Pn     20 28 03.3 -0.4
MOTA  Moosalm           12.17 323  P       Pn     20 28 03.3 -0.4
OJC   Ojcow             12.21 354 eP       Pn     20 28 08.8 +4.7
OJC                               ePP             20 28 18.1
OJC                               eS       Sn     20 30 34.8  +15
OJC                                L              20 34 38.9
      comp=Z,0.5nm,16.9s
OJC   Ojcow             12.21 354 eP       Pn     20 28 08.8 +4.7
OJC                               ePP             20 28 18.1
OJC                               eS       Sn     20 30 34.6  +15
GEC2  GERESS Array S    12.27 334 ePn      Pn     20 28 05.6 +0.6
GEC2                              eSn      Sn     20 30 19.8 -1.4
GEC2  GERESS Array S    12.27 334 eP       Pn     20 28 05.6 +0.6
GEC2                              eS       Sn     20 30 19.8 -1.4
GERES GERESS Array B    12.27 334  P       Pn     20 28 04.7 -0.3
GERES                                             20 30 20.0
GERES                              pmax    pmax
      comp=Z,1.0nm,0.3s
GERES                              smax
      comp=N,1.0nm,0.3s
GERES GERESS Array B    12.27 334  Pn      Pn     20 28 04.7 -0.3
      comp=N,1.3nm,0.3s,baz=158,slow=14,SNR=44
GERES                              Sn      Sn     20 30 20.0 -1.2
      comp=N,1.4nm,0.3s,baz=159,slow=24,SNR=6.6
GERES GERESS Array B    12.27 334  P       Pn     20 28 04.7 -0.3
      comp=N,1.0nm,0.3s
GERES                              S       Sn     20 30 20.0 -1.2
      comp=N,1.0nm,0.3s
SBF   Sospel            12.36 302 eP       Pn     20 28 03.1 -3.1
      comp=N,77nm,0.9s
SBF   Sospel            12.36 302 eP       Pn     20 28 03.1 -3.1
SBF                                pmax    pmax
      comp=Z,39nm,0.9s
SBF   Sospel            12.36 302 eP       Pn     20 28 03.1 -3.1
      comp=Z,38nm,0.9s
DAVOX Davos/Dischmat    12.40 318  Pn      Pn     20 28 07.9 +1.0
      comp=Z,1.7nm,0.3s,baz=114,slow=17,SNR=13
DAVOX                              Sn      Sn     20 30 19.5 -5.0
      comp=Z,1.2nm,0.3s,baz=337,slow=20,SNR=3.8
DAVOX Davos/Dischmat    12.40 318  Pn      Pn     20 28 07.9 +1.0
DAVOS Davos             12.49 318  P       Pn     20 28 07.9 -0.1
DAVOS                                             20 30 19.5
DAVOS Davos             12.49 318  P       Pn     20 28 07.9 -0.1
TUE   Stuetta           12.50 316  P       Pn     20 28 08.2  0.0
TUE   Stuetta           12.50 316  P       Pn     20 28 08.2  0.0
KZIT  Kziot             12.54 121  P       Pn     20 28 11.3 +2.4
KHC   Kasperske Hory    12.56 334 eP       Pn     20 28 09.1 +0.1
KHC                               ex       x      20 28 20.0
KHC                               eS       Sn     20 30 22.5 -5.7
KHC                                AMS     AMS    20 34 00.0
      comp=Z,1µm,15.6s
KHC   Kasperske Hory    12.56 334 ePn      Pn     20 28 09.1 +0.1
KHC                               e               20 28 20.0
KHC                               eSn      Sn     20 30 22.5 -5.7
KHC   Kasperske Hory    12.56 334  Pn      Pn     20 28 09.1 +0.1
AKCD  Akcadag           12.60  84 eP       Pn     20 28 16.4 +6.9
DAVA  Damuels           12.74 320⇓iPn      Pn     20 28 10.8 -0.6
      SNR=7.1
DAVA  Damuels           12.74 320  Sn      Sn     20 30 29.7 -2.9
DAVA  Damuels           12.74 320  P       Pn     20 28 13.9 +2.5
DAVA  Damuels           12.74 320  Pn      Pn     20 28 10.8 -0.6
      SNR=7.1
DAVA  Damuels           12.74 320  P       Pn     20 28 13.9 +2.5
FRF   La Foret Royal    12.78 300 eP       Pn     20 28 11.4 -0.6
      comp=Z,22nm,0.8s
FRF   La Foret Royal    12.78 300 eP       Pn     20 28 11.4 -0.6
FRF                                pmax    pmax
      comp=Z,11nm,0.8s
FRF   La Foret Royal    12.78 300 eP       Pn     20 28 11.4 -0.6
      comp=Z,11nm,0.8s
FRF   La Foret Royal    12.78 300 eP       Pn     20 28 11.4 -0.6
      comp=Z,11nm,0.8s
LMR   La Mourre         12.80 299 eP       Pn     20 28 13.5 +1.2
LMR   La Mourre         12.80 299 eP       Pn     20 28 13.5 +1.2
DPC   Dobruska-Polom    12.88 344 eP       Pn     20 28 13.0 -0.3
DPC                                AMS     AMS    20 33 40.0
      comp=Z,1µm,8.2s
DPC   Dobruska-Polom    12.88 344  Pn      Pn     20 28 13.0 -0.3
MALT  Malatya           12.99  84⇑iP       Pn     20 28 14.5 -0.4
MALT  Malatya           12.99  84 ⇑P       Pn     20 28 14.5 -0.5
MALT  Malatya           12.99  84  P       Pn     20 28 14.5 -0.4
PRU   Pruhonice         13.00 338 eP       Pn     20 28 15.4 +0.4
PRU                               eS       Sn     20 30 32.1 -6.9
PRU                                AMS     AMS    20 34 10.0
      comp=Z,1µm,20.1s
PRU   Pruhonice         13.00 338 ePn      Pn     20 28 15.4 +0.4
PRU                               eSn      Sn     20 30 32.1 -6.9
PRU   Pruhonice         13.00 338  Pn      Pn     20 28 15.4 +0.4
MBDF  Montbardon        13.14 305 eP       Pn     20 28 13.3 -3.7
      comp=Z,44nm,0.9s
MBDF  Montbardon        13.14 305 eP       Pn     20 28 13.3 -3.7
MBDF                               pmax    pmax
      comp=Z,22nm,0.9s
MBDF  Montbardon        13.14 305 eP       Pn     20 28 13.3 -3.7
      comp=Z,22nm,0.9s
BNI   Bardonecchia      13.34 306 eP       Pn     20 28 26.3 +6.6
BNI                                pmax    pmax
      comp=Z,22nm,0.9s
BNI   Bardonecchia      13.34 306 eP       Pn     20 28 26.3 +6.6
      comp=Z,22nm,0.9s
LPG   La Plagne         13.50 308 eP       Pn     20 28 20.4 -1.4
      comp=Z,91nm,0.9s
LPG   La Plagne         13.50 308 eP       Pn     20 28 20.4 -1.4
LPG                                pmax    pmax
      comp=Z,45nm,0.9s
LPG   La Plagne         13.50 308 eP       Pn     20 28 20.4 -1.4
      comp=Z,46nm,0.9s
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LPG   La Plagne         13.50 308 eP       Pn     20 28 20.4 -1.4
      comp=Z,46nm,0.9s
LPL   La Plagne         13.52 308 eP       Pn     20 28 20.5 -1.6
      comp=Z,58nm,0.9s
LPL   La Plagne         13.52 308 eP       Pn     20 28 20.5 -1.6
LPL                                pmax    pmax
      comp=Z,29nm,0.9s
LPL   La Plagne         13.52 308 eP       Pn     20 28 20.5 -1.6
      comp=Z,29nm,0.9s
LPL   La Plagne         13.52 308 eP       Pn     20 28 20.5 -1.6
      comp=Z,29nm,0.9s
ASF   Jabal al Asfar    13.61 111  Pn      Pn     20 28 26.1 +2.7
      comp=Z,0.2nm,0.3s,baz=117,slow=2.3,SNR=2.0
ASF                                LR      LR     20 34 48.0
      comp=Z,233nm,18.2s,baz=318,slow=42
KIEV  Kiev              13.61  20 eP       Pn     20 28 23.9 +0.6
KIEV                               pmax    pmax
      comp=Z,9.0nm,0.8s
KIEV  Kiev              13.61  20 eP       Pn     20 28 23.9 +0.5
      comp=Z,9.1nm,0.8s
KIEV  Kiev              13.61  20 eP       Pn     20 28 23.9 +0.6
      comp=Z,9.1nm,0.8s
AKASG Malin Array Be    13.62  20  P       Pn     20 28 22.1 -1.4
AKASG                              pmax    pmax
      comp=Z,1.0nm,0.3s
AKASG Malin Array Be    13.62  20  Pn      Pn     20 28 22.1 -1.4
      comp=Z,0.9nm,0.3s,baz=209,slow=13,SNR=7.8
AKASG Malin Array Be    13.62  20  P       Pn     20 28 22.1 -1.4
      comp=Z,1.0nm,0.3s
AKBB  Malin Array Si    13.62  20 eP       Pn     20 28 23.8 +0.3
AKBB  Malin Array Si    13.62  20 eP       Pn     20 28 23.8 +0.3
SMRF  Simiane la Rot    13.65 301 eP       Pn     20 28 18.8 -5.1
EIL   Elat              13.70 124  Pn      Pn     20 28 26.2 +1.5
      comp=Z,0.6nm,0.3s,baz=345,slow=16,SNR=3.8
EIL   Elat              13.70 124  Pn      Pn     20 28 26.2 +1.5
ORIF  Oris-en-Rattie    13.80 305 eP       Pn     20 28 26.7 +0.8
      comp=Z,63nm,1.0s
ORIF                              eMLR     MLR
      comp=Z,1µm,21.8s
ORIF  Oris-en-Rattie    13.80 305 eP       Pn     20 28 26.7 +0.8
ORIF                               pmax    pmax
      comp=Z,32nm,1.0s
ORIF  Oris-en-Rattie    13.80 305 eP       Pn     20 28 26.7 +0.8
      comp=Z,32nm,1.0s
ORIF  Oris-en-Rattie    13.80 305 eP       Pn     20 28 26.7 +0.8
      comp=Z,32nm,1.0s
SPAK  Spaichingen-Ko    13.83 320 eP       Pn     20 28 24.4 -1.9
SPAK  Spaichingen-Ko    13.83 320 eP       Pn     20 28 25.7 -0.6
NKC   Novy Kostel       13.88 334 eP       Pn     20 28 26.6 -0.4
NKC                                AMS     AMS    20 34 50.0
      comp=Z,1µm,14.6s
NKC   Novy Kostel       13.88 334  Pn      Pn     20 28 26.6 -0.4
GRF   Grafenberg Arr    13.90 330 eL              20 34 36.5
      comp=Z,1µm,18.7s
FELD  Feldberg im Sc    14.09 318 eP       Pn     20 28 27.6 -2.2
FELD  Feldberg im Sc    14.09 318 eP       Pn     20 28 29.4 -0.4
STU   Stuttgart         14.09 323 eP       Pn     20 28 23.8 -6.0
STU                                pmax    pmax
      comp=Z,29nm,0.5s
STU   Stuttgart         14.09 323 eP       Pn     20 28 23.8 -6.0
      comp=Z,29nm,0.5s
BFO   Black Forest      14.21 320 ePn      Pn     20 28 29.7 -1.8
BFO   Black Forest      14.21 320 eP       Pn     20 28 29.2 -2.3
BFO                               ePn      Pn     20 28 29.7 -1.8
BFO   Black Forest      14.21 320 ePn      Pn     20 28 29.7 -1.8
LOMF  Lomont            14.41 315 eP       Pn     20 28 33.7 -0.6
CABF  La Chapelle       14.44 311 eP       Pn     20 28 33.4 -1.3
      comp=Z,100nm,1.0s
CABF  La Chapelle       14.44 311 eP       Pn     20 28 33.4 -1.3
CABF                               pmax    pmax
      comp=Z,50nm,1.0s
CABF  La Chapelle       14.44 311 eP       Pn     20 28 33.4 -1.3
      comp=Z,50nm,1.0s
MOX   Moxa              14.52 333 eP       Pn     20 28 36.0 +0.3
      comp=Z,12nm,0.8s
MOX
      comp=Z,800nm,19.0s
MOX   Moxa              14.52 333 eP       Pn     20 28 36.0 +0.3
MOX                                pmax    pmax
      comp=Z,12nm,0.8s
MOX                                MLR     MLR
      comp=Z,800nm,19.0s
MOX   Moxa              14.52 333 ePn      Pn     20 28 34.8 -0.9
MOF   Molkenrain        14.54 317 eP       Pn     20 28 37.1 +1.2
MOF   Molkenrain        14.54 317 eP       Pn     20 28 34.8 -1.1
CLL   Collm             14.63 337 i PP     Pn     20 28 44.7 +7.5
      comp=Z,12nm,0.8s
CLL                               e               20 28 49.0
CLL                               i               20 28 55.5
CLL                               e               20 29 35.0
CLL                                Lmax           20 34 01.0
HINF  Hinteralfeld      14.67 316 eP       Pn     20 28 34.4 -3.3
      comp=Z,23nm,0.6s
HINF  Hinteralfeld      14.67 316 eP       Pn     20 28 34.4 -3.3
HINF                               pmax    pmax
      comp=Z,11nm,0.6s
HINF  Hinteralfeld      14.67 316 eP       Pn     20 28 34.4 -3.3
      comp=Z,11nm,0.6s
ECH   Echery            14.74 318 eP       Pn     20 28 43.4 +4.6
ECH   Echery            14.74 318 eP       Pn     20 28 37.9 -0.9
ECH   Echery            14.74 318 eP       Pn     20 28 43.4 +4.6
CDF   Champ du Feu      14.80 319 eP       Pn     20 28 38.5 -1.1
      comp=Z,42nm,0.9s
CDF   Champ du Feu      14.80 319 eP       Pn     20 28 38.5 -1.1
CDF                                pmax    pmax
      comp=Z,21nm,0.9s
CDF   Champ du Feu      14.80 319 eP       Pn     20 28 38.5 -1.1
      comp=Z,21nm,0.9s
LANF  Langenberg        14.90 321 eP       Pn     20 28 46.9 +6.0
LANF  Langenberg        14.90 321 eP       Pn     20 28 41.8 +0.9
LANF  Langenberg        14.90 321 eP       Pn     20 28 46.9 +6.0
HAU   Haudompre         15.05 316 eP       Pn     20 28 41.2 -1.8
      comp=Z,95nm,0.9s
HAU                               eMLR     MLR
      comp=Z,590nm,18.2s
HAU   Haudompre         15.05 316 eP       Pn     20 28 41.2 -1.8
HAU                                pmax    pmax
      comp=Z,48nm,0.9s
HAU   Haudompre         15.05 316 eP       Pn     20 28 41.2 -1.8
      comp=Z,48nm,0.9s
THEF  They Montfort     15.38 316 eP       Pn     20 28 45.7 -1.5
PLDF  La Plantade       15.68 306 eP       Pn     20 28 53.0 +1.9
PLDF  La Plantade       15.68 306 eP       Pn     20 28 53.0 +1.9
RUP   Ruppelstein       15.75 322 eP       Pn     20 28 54.9 +2.9
MTLF  Montolieu         15.81 296 eP       Pn     20 28 48.9 -4.0
      comp=Z,44nm,1.2s
MTLF  Montolieu         15.81 296 eP       Pn     20 28 48.9 -4.0
MTLF                               pmax    pmax
      comp=Z,22nm,1.2s
MTLF  Montolieu         15.81 296 eP       Pn     20 28 48.9 -4.0
      comp=Z,22nm,1.2s
SMF   Signal de Mont    15.82 308 eP       Pn     20 28 52.5 -0.5
      comp=Z,126nm,1.0s
SMF   Signal de Mont    15.82 308 eP       Pn     20 28 52.5 -0.5
SMF                                pmax    pmax
      comp=Z,63nm,1.0s
SMF   Signal de Mont    15.82 308 eP       Pn     20 28 52.5 -0.5
      comp=Z,63nm,1.0s
SUW   Suwalki           15.93   3 eP       Pn     20 28 56.7 +2.3
SUW   Suwalki           15.93   3 eP       Pn     20 28 56.7 +2.3
SUW   Suwalki           15.93   3 eP       Pn     20 28 56.7 +2.3
PYM   Petit Puy Mans    15.99 305 eP       Pn     20 28 55.8 +0.6
AGO   Saint Agoulin     16.02 306 eP       Pn     20 28 58.7 +3.1
AGO   Saint Agoulin     16.02 306 eP       Pn     20 28 55.5 -0.1
AGO   Saint Agoulin     16.02 306 eP       Pn     20 28 58.7 +3.1
MEZF  Maizieres J'vi    16.05 316 eP       Pn     20 28 55.5 -0.4
      comp=Z,65nm,0.8s
MEZF  Maizieres J'vi    16.05 316 eP       Pn     20 28 55.5 -0.4
      comp=Z,65nm,0.8s
LOR   Lormes            16.10 310 eP       Pn     20 28 56.8 +0.2
      comp=Z,153nm,1.1s
LOR                               eMLR     MLR
      comp=Z,431nm,20.0s
LOR   Lormes            16.10 310 eP       Pn     20 28 56.8 +0.2
LOR                                pmax    pmax
      comp=Z,76nm,1.1s
LOR   Lormes            16.10 310 eP       Pn     20 28 56.8 +0.2
      comp=Z,76nm,1.1s
WLF   Walferdange       16.17 321  P       Pn     20 28 59.5 +2.1
      comp=Z,24nm,1.3s
WLF   Walferdange       16.17 321 eP       Pn     20 28 58.6 +1.2
WLF                                pmax    pmax
      comp=Z,29nm,0.9s
WLF   Walferdange       16.17 321 eP       Pn     20 28 58.6 +1.2
      comp=Z,29nm,0.9s
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WLF   Walferdange       16.17 321 eP       Pn     20 28 58.6 +1.2
      comp=Z,29nm,0.9s
AVF   Avril sur Loir    16.19 308 eP       Pn     20 28 57.5 -0.2
      comp=Z,184nm,0.9s
AVF   Avril sur Loir    16.19 308 eP       Pn     20 28 57.5 -0.2
AVF                                pmax    pmax
      comp=Z,92nm,0.9s
AVF   Avril sur Loir    16.19 308 eP       Pn     20 28 57.5 -0.2
      comp=Z,92nm,0.9s
SSF   Saint Saulge      16.22 309 eP       Pn     20 28 59.9 +1.8
      comp=Z,411nm,0.9s
SSF   Saint Saulge      16.22 309 eP       Pn     20 28 59.9 +1.8
SSF                                pmax    pmax
      comp=Z,205nm,0.9s
SSF   Saint Saulge      16.22 309 eP       Pn     20 28 59.9 +1.8
      comp=Z,205nm,0.9s
SSF   Saint Saulge      16.22 309 eP       Pn     20 28 59.9 +1.8
      comp=Z,205nm,0.9s
CAF   Calviac           16.34 301 eP       Pn     20 28 59.9 +0.3
      comp=Z,68nm,1.2s
CAF   Calviac           16.34 301 eP       Pn     20 28 59.9 +0.3
CAF                                pmax    pmax
      comp=Z,34nm,1.2s
CAF   Calviac           16.34 301 eP       Pn     20 28 59.9 +0.3
      comp=Z,34nm,1.2s
BGF   Bois d'Agland     16.41 307 eP       Pn     20 29 01.2 +0.7
      comp=Z,128nm,1.0s
BGF   Bois d'Agland     16.41 307 eP       Pn     20 29 01.2 +0.7
BGF                                pmax    pmax
      comp=Z,64nm,1.0s
BGF   Bois d'Agland     16.41 307 eP       Pn     20 29 01.2 +0.7
      comp=Z,64nm,1.0s
BGF   Bois d'Agland     16.41 307 eP       Pn     20 29 01.2 +0.7
      comp=Z,64nm,1.0s
TCF   Toulx Ste Croi    16.71 306 eP       Pn     20 29 06.6 +2.3
      comp=Z,51nm,1.2s
TCF   Toulx Ste Croi    16.71 306 eP       Pn     20 29 06.6 +2.3
TCF                                pmax    pmax
      comp=Z,26nm,1.2s
TCF   Toulx Ste Croi    16.71 306 eP       Pn     20 29 06.6 +2.3
      comp=Z,26nm,1.2s
TCF   Toulx Ste Croi    16.71 306 eP       Pn     20 29 06.6 +2.3
      comp=Z,26nm,1.2s
KIV   Kislovodsk        16.71  63 eP       Pn     20 29 06.7 +2.3
KIV                               eS       Sn     20 32 13.4 +4.0
KIV                                pmax    pmax
      comp=Z,8.0nm,1.1s
KIV                                MLR     MLR
      comp=Z,168nm,10.0s
KIV   Kislovodsk        16.71  63 eP       Pn     20 29 07.0 +2.7
KIV   Kislovodsk        16.71  63 eP       Pn     20 29 06.7 +2.3
      comp=Z,8.0nm,1.1s
RJF   Les Rejaudoux     16.82 302 eP       Pn     20 29 06.6 +0.8
RJF                               eMLR     MLR
      comp=Z,466nm,22.0s
RJF   Les Rejaudoux     16.82 302 eP       Pn     20 29 06.6 +0.8
HYF   Humbligny         16.84 309 eP       Pn     20 29 10.4 +4.4
HYF   Humbligny         16.84 309 eP       Pn     20 29 10.4 +4.4
GIVF  Givet             17.11 320 eP       Pn     20 29 09.8 +0.4
      comp=Z,27nm,0.7s
GIVF  Givet             17.11 320 eP       Pn     20 29 09.8 +0.4
GIVF                               pmax    pmax
      comp=Z,14nm,0.7s
GIVF  Givet             17.11 320 eP       Pn     20 29 09.8 +0.4
      comp=Z,14nm,0.7s
GIVF  Givet             17.11 320 eP       Pn     20 29 09.8 +0.4
      comp=Z,14nm,0.7s
NACGM Naroch            17.12  10 e        Pn     20 29 07.0 -2.5
EBIE  Bielsa            17.19 292  P       Pn     20 29 13.1 +2.7
      comp=Z,2.2nm,0.5s
EBIE  Bielsa            17.19 292  P       Pn     20 29 13.1 +2.6
      comp=Z,2.2nm,0.5s
DOU   Dourbes           17.23 320  P       Pn     20 29 11.7 +0.9
      comp=Z,30nm,2.5s
DOU   Dourbes           17.23 320  P       Pn     20 29 11.6 +0.8
      comp=Z,30nm,2.5s
LFF   La Frestale       17.24 300 eP       Pn     20 29 08.7 -2.3
      comp=Z,143nm,1.4s
LFF   La Frestale       17.24 300 eP       Pn     20 29 08.7 -2.3
LFF                                pmax    pmax
      comp=Z,71nm,1.4s
LFF   La Frestale       17.24 300 eP       Pn     20 29 08.7 -2.3
      comp=Z,71nm,1.4s
BAIF  Baives            17.40 319 eP       Pn     20 29 09.5 -3.5
      comp=Z,50nm,0.7s
BAIF  Baives            17.40 319 eP       Pn     20 29 09.5 -3.5
BAIF                               pmax    pmax
      comp=Z,25nm,0.7s
BAIF  Baives            17.40 319 eP       Pn     20 29 09.5 -3.5
      comp=Z,25nm,0.7s
ETSF  Etsaut            17.73 293 eP       Pn     20 29 17.7 +0.5
      comp=Z,13nm,0.6s
ETSF  Etsaut            17.73 293 eP       Pn     20 29 17.7 +0.5
ETSF                               pmax    pmax
      comp=Z,6.0nm,0.6s
ETSF  Etsaut            17.73 293 eP       Pn     20 29 17.7 +0.5
      comp=Z,6.4nm,0.6s
ETSF  Etsaut            17.73 293 eP       Pn     20 29 17.7 +0.5
      comp=Z,6.4nm,0.6s
UCC   Uccle             17.78 321  P       Pn     20 29 19.1 +1.5
UCC   Uccle             17.78 321  P       Pn     20 29 19.1 +1.5
VORD  Divnogorie        17.80  38 eP       Pn     20 29 18.7 +0.8
VORD                               pmax    pmax
      comp=Z,7.0nm,0.5s
VORD                               pmax    pmax
      comp=N,20nm,0.6s
VORD                               pmax    pmax
      comp=E,10.0nm,0.6s
VORD  Divnogorie        17.80  38 eP       Pn     20 29 18.7 +0.8
      comp=E,7.0nm,0.5s
GNI   Garni             17.82  76  P       Pn     20 29 19.9 +1.6
GNI                                pmax    pmax
      comp=Z,1.0nm,0.3s
GNI   Garni             17.82  76  P       Pn     20 29 19.9 +1.6
      comp=Z,0.5nm,0.3s,baz=322,slow=3.1,SNR=8.4
GNI   Garni             17.82  76 eP       Pn     20 29 21.5 +3.2
      comp=Z,137nm,2.1s
GNI   Garni             17.82  76  P       Pn     20 29 19.9 +1.6
      comp=Z,1.0nm,0.3s
VSR   Storozhevoye      17.89  37 eP       Pn     20 29 19.3 +0.2
VSR                                pmax    pmax
      comp=N,5.0nm,0.5s
VSR                                pmax    pmax
      comp=E,6.0nm,0.5s
VSR                                pmax    pmax
      comp=Z,4.0nm,0.5s
VSR   Storozhevoye      17.89  37 eP       Pn     20 29 19.3 +0.2
SJPF  Ste Jean          18.25 293 eP       Pn     20 29 24.5 +1.0
      comp=Z,10.0nm,0.6s
SJPF  Ste Jean          18.25 293 eP       Pn     20 29 24.5 +1.0
SJPF                               pmax    pmax
      comp=Z,5.0nm,0.6s
SJPF  Ste Jean          18.25 293 eP       Pn     20 29 24.5 +1.0
      comp=Z,5.0nm,0.6s
SJPF  Ste Jean          18.25 293 eP       Pn     20 29 24.5 +1.0
      comp=Z,5.0nm,0.6s
MFF   Saint Martin d    18.34 305 eP       Pn     20 29 25.5 +0.9
      comp=Z,157nm,1.1s
MFF   Saint Martin d    18.34 305 eP       Pn     20 29 25.5 +0.9
MFF                                pmax    pmax
      comp=Z,78nm,1.1s
MFF   Saint Martin d    18.34 305 eP       Pn     20 29 25.5 +0.9
      comp=Z,78nm,1.1s
MFF   Saint Martin d    18.34 305 eP       Pn     20 29 25.5 +0.9
      comp=Z,78nm,1.1s
ETOR  Torete            18.70 286 ⇑P       Pn     20 29 29.7 +0.7
ETOR                               pmax    pmax
      comp=Z,21nm,0.5s
ETOR  Torete            18.70 286 ⇑P       Pn     20 29 29.7 +0.8
      comp=Z,21nm,0.5s
ETOR  Torete            18.70 286 ⇑P       Pn     20 29 29.7 +0.7
      comp=Z,21nm,0.5s
VRHR  Novokhopersk      19.04  41 eP       Pn     20 29 32.0 -1.1
VRHR                               pmax    pmax
      comp=N,6.0nm,0.7s
VRHR                               pmax    pmax
      comp=E,10.0nm,0.7s
VRHR                               pmax    pmax
      comp=Z,20nm,0.7s
VRHR  Novokhopersk      19.04  41 eP       Pn     20 29 32.0 -1.1
LDF   La Druitiere      19.09 310 eP       Pn     20 29 33.7 +0.1
      comp=Z,78nm,1.0s
LDF   La Druitiere      19.09 310 eP       Pn     20 29 33.7 +0.1
LDF                                pmax    pmax
      comp=Z,39nm,1.0s
LDF   La Druitiere      19.09 310 eP       Pn     20 29 33.7 +0.1
      comp=Z,39nm,1.0s
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LDF    La Druitiere      19.09 310  eP     Pn     20 29 33.7 +0.1
              comp=Z,39nm,1.0s
ECRI   Cripan            19.13 291  P      Pn     20 29 34.7 +0.5
ECRI                                pmax   pmax
              comp=Z,8.0nm,0.7s
ECRI   Cripan            19.13 291  P      Pn     20 29 34.7 +0.6
              comp=Z,8.4nm,0.7s
ECRI   Cripan            19.13 291  P      Pn     20 29 34.7 +0.5
              comp=Z,8.4nm,0.7s
EVIA   Vianos            19.14 279  P      Pn     20 29 34.9 +0.5
EVIA                                pmax   pmax
              comp=Z,4.0nm,0.5s
EVIA   Vianos            19.14 279  P      Pn     20 29 34.9 +0.5
              comp=Z,3.9nm,0.5s
EVIA   Vianos            19.14 279  P      Pn     20 29 34.9 +0.5
              comp=Z,3.9nm,0.5s
EHUE   Huescar           19.32 277  P      Pn     20 29 37.1 +0.6
EHUE                                pmax   pmax
              comp=Z,2.0nm,0.8s
EHUE   Huescar           19.32 277  P      Pn     20 29 37.0 +0.5
              comp=Z,1.7nm,0.8s
EHUE   Huescar           19.32 277  P      Pn     20 29 37.0 +0.5
              comp=Z,1.7nm,0.8s
FLN    La Foliniere      19.37 311  eP     Pn     20 29 37.3 +0.3
              comp=Z,31nm,0.6s
FLN                                 eMLR   MLR
              comp=Z,380nm,19.8s
FLN    La Foliniere      19.37 311  eP     Pn     20 29 37.3 +0.3
FLN                                 pmax   pmax
              comp=Z,15nm,0.6s
FLN    La Foliniere      19.37 311  eP     Pn     20 29 37.3 +0.3
              comp=Z,15nm,0.6s
FLN    La Foliniere      19.37 311  eP     Pn     20 29 37.3 +0.3
              comp=Z,15nm,0.6s
GRR    Gorron            19.45 309  eP     Pn     20 29 38.4 +0.5
GRR    Gorron            19.45 309  eP     Pn     20 29 38.4 +0.5
EQES   Quesada           19.70 277  P      Pn     20 29 40.8 -0.2
              comp=Z,4.9nm,0.8s
EQES   Quesada           19.70 277  P      Pn     20 29 40.8 -0.2
              comp=Z,4.9nm,0.8s
OBN    Obninsk           19.70  26ceP      Pn     20 29 39.3 -1.5
OBN                                 pmax   pmax
              comp=Z,63nm,1.8s
OBN                                 MLR    MLR
              comp=Z,200nm,18.0s
OBN    Obninsk           19.70  26  eP     Pn     20 29 39.3 -1.5
              comp=Z,200nm,18.0s
ESDC   Sonseca Array     20.19 283  P      P      20 29 45.1 +0.2
              comp=Z,12nm,0.6s,baz=73,slow=11,SNR=54
ESDC                                LR     LR     20 37 30.8
              comp=Z,266nm,18.9s,MS3.6,baz=110,slow=37
ESDC   Sonseca Array     20.19 283  P      P      20 29 44.9  0.0
              comp=Z,11nm,0.6s
ESDC   Sonseca Array     20.19 283  P      P      20 29 44.9  0.0
              comp=Z,11nm,0.6s
ESLA   Sonseca Array     20.19 283  eP     P      20 29 45.1 +0.2
              comp=Z,4.3nm,0.8s
ESLA   Sonseca Array     20.19 283  eP     P      20 29 45.1 +0.2
              comp=Z,4.2nm,0.8s
EBAN   Banos Encina      20.20 278  P      P      20 29 45.4 +0.4
EBAN                                pmax   pmax
              comp=Z,11nm,0.7s
EBAN   Banos Encina      20.20 278  P      P      20 29 45.4 +0.3
              comp=Z,11nm,0.7s
EBAN   Banos Encina      20.20 278  P      P      20 29 45.4 +0.4
              comp=Z,11nm,0.7s
GUD    Guadarrama        20.29 285  P      P      20 29 46.5 +0.5
GUD                                 pmax   pmax
              comp=Z,12nm,0.7s
GUD    Guadarrama        20.29 285  P      P      20 29 46.5 +0.5
              comp=Z,12nm,0.7s
GUD    Guadarrama        20.29 285  P      P      20 29 46.5 +0.5
              comp=Z,12nm,0.7s
SGMF   Saint Gilles      20.45 308  eP     P      20 29 48.1 +0.5
              comp=Z,92nm,0.9s
SGMF   Saint Gilles      20.45 308  eP     P      20 29 48.1 +0.5
SGMF                                pmax   pmax
              comp=Z,46nm,0.9s
SGMF   Saint Gilles      20.45 308  eP     P      20 29 48.1 +0.5
              comp=Z,46nm,0.9s
SGMF   Saint Gilles      20.45 308  eP     P      20 29 48.1 +0.5
              comp=Z,46nm,0.9s
PAB    San Pablo         20.49 282  eP     P      20 29 48.7 +0.5
PAB                                 pmax   pmax
              comp=Z,19nm,0.8s
PAB    San Pablo         20.49 282  eP     P      20 29 48.6 +0.5
              comp=Z,19nm,0.8s
PAB    San Pablo         20.49 282  eP     P      20 29 48.7 +0.5
              comp=Z,19nm,0.8s
MOS    Moscow            20.56  26  eP     P      20 29 46.5 -2.2
MOS    Moscow            20.56  26  eP     P      20 29 46.5 -2.2
VSU    Vasula            20.61   7diP      P      20 29 49.0 -0.3
VSU    Vasula            20.61   7 iP      P      20 29 49.0 -0.3
ELUQ   Luque             20.67 277  P      P      20 29 49.5 -0.6
ELUQ                                pmax   pmax
              comp=Z,10.0nm,0.6s
ELUQ   Luque             20.67 277  P      P      20 29 49.5 -0.7
              comp=Z,9.8nm,0.6s
ELUQ   Luque             20.67 277  P      P      20 29 49.5 -0.6
              comp=Z,9.8nm,0.6s
QUIF   Quistinic         20.72 306  eP     P      20 29 50.7 +0.2
QUIF   Quistinic         20.72 306  eP     P      20 29 50.7 +0.2
EADA   Adamuz            20.82 278  P      P      20 29 51.7 -0.1
              comp=Z,7.5nm,0.7s
EADA   Adamuz            20.82 278  P      P      20 29 51.7  0.0
              comp=Z,7.5nm,0.7s
ROSF   Rostrenen         20.92 307  eP     P      20 29 52.6 -0.2
              comp=Z,164nm,1.1s
ROSF   Rostrenen         20.92 307  eP     P      20 29 52.6 -0.2
ROSF                                pmax   pmax
              comp=Z,82nm,1.1s
ROSF   Rostrenen         20.92 307  eP     P      20 29 52.6 -0.2
              comp=Z,82nm,1.1s
ROSF   Rostrenen         20.92 307  eP     P      20 29 52.6 -0.2
              comp=Z,82nm,1.1s
EMIJ   Mijas             21.26 274  P      P      20 29 56.8 +0.4
              comp=Z,1.6nm,0.5s,mb3.6
EMIJ   Mijas             21.26 274  P      P      20 29 56.8 +0.3
              comp=Z,1.6nm,0.5s,mb3.6
TZK    Tazeka            21.44 267  iP     P      20 30 01.0 +2.5
ECAB   El Cabril         21.49 278  P      P      20 30 00.3 +1.3
              comp=Z,4.6nm,0.6s,mb4.0
ECAB   El Cabril         21.49 278  P      P      20 30 00.3 +1.3
              comp=Z,4.6nm,0.6s,mb4.0
CWF    Charnwood Fore    21.77 320  eP     P      20 30 01.3 -0.5
CWF                                 AMb    AMB    20 30 16.2
              comp=Z,56nm,1.5s,mb4.8
CWF    Charnwood Fore    21.77 320  eP     P      20 30 01.3 -0.5
              comp=Z,56nm,1.5s,mb4.8
EJIF   Jimena Fronter    21.83 274  P      P      20 30 05.2 +2.6
              comp=Z,0.9nm,0.4s,mb3.5
HGH    Gray Hill         22.00 316  eP     P      20 30 03.7 -0.6
HGH    Gray Hill         22.00 316  eP     P      20 30 03.7 -0.6
ESPR   Espera            22.05 275  P      P      20 30 05.0 +0.1
              comp=Z,1.9nm,0.6s,mb3.7
ESPR   Espera            22.05 275  P      P      20 30 05.0 +0.1
              comp=Z,1.9nm,0.6s,mb3.7
MDT    Midelt            22.21 264  P      P      20 30 07.1 +0.4
              comp=Z,8.3nm,0.9s,mb4.2,baz=65,slow=9.7,SNR=17
MDT    Midelt            22.21 264  P      P      20 30 07.1 +0.4
PBRG   Braganca          22.23 289  eP     P      20 30 06.3 -0.5
              comp=Z,47nm,2.0s,mb4.6
PBRG   Braganca          22.23 289  eP     P      20 30 06.3 -0.5
              comp=Z,47nm,2.0s,mb4.6
MCH1   Michaelchurch     22.28 317⇑eP      P      20 30 06.8 -0.4
MCH1                                AMb    AMB    20 30 08.3
              comp=Z,144nm,1.5s,mb5.2
MCH1   Michaelchurch     22.28 317⇑eP      P      20 30 06.8 -0.4
              comp=Z,144nm,1.5s,mb5.2
HEX    Exmoor            22.30 314  eP     P      20 30 07.2 -0.3
HEX    Exmoor            22.30 314  eP     P      20 30 07.2 -0.3
MVO    Moncorvo          22.46 287  eP     P      20 30 08.4 -0.8
              comp=Z,23nm,1.6s,mb4.4
MVO    Moncorvo          22.46 287  eP     P      20 30 08.4 -0.8
              comp=Z,23nm,1.6s,mb4.4
MIF    Mishlifen         22.49 266  iP     P      20 30 10.0 +0.4
LHO    Holmfirth         22.49 321  eP     P      20 30 09.2 -0.3
LHO    Holmfirth         22.49 321  eP     P      20 30 09.2 -0.3
EMIN   Mina Concepcio    22.52 278  P      P      20 30 09.6 -0.4
              comp=Z,3.4nm,0.8s,mb3.8
EMIN   Mina Concepcio    22.52 278  P      P      20 30 09.6 -0.3
              comp=Z,3.4nm,0.8s,mb3.8
MIB    Mutribah          22.61 104  eP     P      20 30 09.8 -1.1
MIB                                 AMb    AMB    20 30 17.7
              comp=Z,70nm,0.6s,mb5.2
MIB    Mutribah          22.61 104  eP     P      20 30 09.8 -1.1
              comp=Z,70nm,0.6s,mb5.3
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HPK    Haverah Park      22.61 322⇑eP      P      20 30 10.0 -0.7
HPK                                 AMb    AMB    20 30 13.2
              comp=Z,87nm,1.5s,mb5.0
HPK    Haverah Park      22.61 322⇑eP      P      20 30 10.0 -0.7
              comp=Z,87nm,1.5s,mb5.0
EBAD   Badajoz           22.64 281  P      P      20 30 09.4 -1.7
EBAD   Badajoz           22.64 281  P      P      20 30 09.4 -1.8
HTL    Hartland          22.66 313  eP     P      20 30 09.9 -1.4
HTL                                 AMb    AMB    20 30 18.1
              comp=Z,136nm,1.3s,mb5.2
HTL    Hartland          22.66 313  eP     P      20 30 09.9 -1.4
              comp=Z,136nm,1.3s,mb5.2
HFS    Hagfors           22.66 349  P      P      20 30 08.9 -2.3
HFS                                 pmax   pmax
              comp=Z,20nm,0.6s
HFS    Hagfors           22.66 349  P      P      20 30 08.9 -2.3
              comp=Z,20nm,0.6s,mb4.7,baz=152,slow=13,SNR=37
HFS    Hagfors           22.66 349  P      P      20 30 08.9 -2.3
              comp=Z,20nm,0.6s,mb4.7
HFA0   Hagfors New Ar    22.67 349  P      P      20 30 09.0 -2.3
HFA0   Hagfors New Ar    22.67 349  P      P      20 30 09.0 -2.3
NAY    Al-Naaiem         22.80 105  eP     P      20 30 12.3 -0.7
NAY                                 AMb    AMB    20 30 18.3
              comp=Z,32nm,0.7s,mb4.9
NAY    Al-Naaiem         22.80 105  eP     P      20 30 12.3 -0.7
              comp=Z,32nm,0.7s,mb4.9
PMRV   Marv??o           22.85 282  eP     P      20 30 12.5 -0.9
              comp=Z,27nm,1.4s,mb4.5
PMRV   Marv??o           22.85 282  eP     P      20 30 12.5 -0.9
              comp=Z,27nm,1.4s,mb4.5
SBD1   Bryn Du           22.86 318  eP     P      20 30 13.1 -0.4
SBD1   Bryn Du           22.86 318  eP     P      20 30 13.1 -0.3
MTE    Manteigas         22.88 285  eP     P      20 30 12.7 -1.1
              comp=Z,64nm,1.7s,mb4.8
MTE    Manteigas         22.88 285  eP     P      20 30 12.7 -1.1
              comp=Z,64nm,1.7s,mb4.8
KONO   Kongsberg         22.96 344  eP     P      20 30 13.7 -0.7
KONO   Kongsberg         22.96 344  eP     P      20 30 13.7 -0.7
              SNR=34
UMR    Umm Al-Rimmam     23.01 104  eP     P      20 30 14.8 -0.4
UMR                                 AMb    AMB    20 30 21.0
              comp=Z,36nm,1.2s,mb4.7
UMR    Umm Al-Rimmam     23.01 104  eP     P      20 30 14.8 -0.4
              comp=Z,36nm,1.2s,mb4.7
PESTR  Estremoz          23.07 281  eP     P      20 30 14.3 -1.5
              comp=Z,23nm,1.3s,mb4.5
PESTR  Estremoz          23.07 281  eP     P      20 30 14.3 -1.5
              comp=Z,23nm,1.3s,mb4.5
PVIS   Viseu             23.13 286  eP     P      20 30 15.1 -1.3
              comp=Z,56nm,1.7s,mb4.7
PVIS   Viseu             23.13 286  eP     P      20 30 15.1 -1.3
              comp=Z,56nm,1.7s,mb4.7
EGRO   El Granado        23.19 278  P      P      20 30 14.9 -2.2
EGRO   El Granado        23.19 278  P      P      20 30 14.9 -2.2
WPM1   Penmaenmawr       23.38 319  eP     P      20 30 19.1 +0.3
WPM1   Penmaenmawr       23.38 319  eP     P      20 30 19.1 +0.2
PVAQ   Vaqueiros         23.40 277  eP     P      20 30 18.3 -1.0
              comp=Z,36nm,1.9s,mb4.5
PVAQ   Vaqueiros         23.40 277  eP     P      20 30 18.3 -1.0
              comp=Z,36nm,1.9s,mb4.5
PBEJ   Beja              23.41 279  eP     P      20 30 17.5 -1.8
              comp=Z,23nm,1.3s,mb4.4
PBEJ   Beja              23.41 279  eP     P      20 30 17.5 -1.8
              comp=Z,23nm,1.3s,mb4.4
KIB    El Ksiba          23.42 265  iP     P      20 30 20.0 +0.5
EVO    Evora             23.44 280  eP     P      20 30 19.0 -0.7
              comp=Z,114nm,1.7s,mb4.7
EVO                                 eMLR   MLR
              comp=Z,374nm,19.8s,MS3.5
FINES  FINESS Array B    23.51   5  P      P      20 30 18.0 -2.1
FINES  FINESS Array B    23.51   5  P      P      20 30 18.0 -2.1
YRE    Yr Eifl           23.52 318  eP     P      20 30 19.0 -1.3
YRE    Yr Eifl           23.52 318  eP     P      20 30 19.0 -1.3
BLS5   Blasjo            23.53 340  eP     P      20 30 19.9 -0.4
BLS5   Blasjo            23.53 340  eP     P      20 30 19.9 -0.4
              SNR=33
EVOP   Sao Brissos       23.53 280  eP     P      20 30 19.0 -1.6
              comp=Z,57nm,1.7s,mb4.7
PBDV   Barranco-do-Ve    23.60 277  eP     P      20 30 20.8 -0.4
              comp=Z,78nm,1.6s,mb4.9
PBDV   Barranco-do-Ve    23.60 277  eP     P      20 30 20.8 -0.4
              comp=Z,78nm,1.6s,mb4.9
NAO01  NORSAR Array S    23.80 347  eP     P      20 30 22.2 -0.6
              comp=Z,7.7nm,0.4s,mb4.5
NAO01  NORSAR Array S    23.80 347  eP     P      20 30 22.2 -0.5
              comp=Z,7.7nm,0.4s,mb4.5
XSO    Sourhope Farm     23.80 325  eP     P      20 30 22.7 -0.2
XSO    Sourhope Farm     23.80 325  eP     P      20 30 22.7 -0.2
ODD1   Odda              23.90 341  eP     P      20 30 25.9 +2.2
ODD1                                AMb    AMB    20 30 53.9
              comp=Z,231nm,3.0s
ODD1   Odda              23.90 341  eP     P      20 30 25.9 +2.2
              comp=Z,231nm,3.0s,SNR=33
NB2    NORSAR Subarra    23.92 347  P      P      20 30 22.8 -1.1
              comp=Z,16nm,0.9s,mb4.4,baz=163,slow=10
NB2    NORSAR Subarra    23.92 347  P      P      20 30 22.8 -1.1
              comp=Z,16nm,0.9s,mb4.4,SNR=8.1
NOA    NORSAR Array B    23.92 347  P      P      20 30 22.5 -1.4
NOA                                 pmax   pmax
              comp=Z,4.0nm,0.5s
NOA    NORSAR Array B    23.92 347  P      P      20 30 22.4 -1.4
              comp=Z,3.7nm,0.5s,mb4.1,baz=153,slow=10,SNR=42
NOA    NORSAR Array B    23.92 347  P      P      20 30 22.5 -1.4
              comp=Z,4.0nm,0.5s,mb4.1
EKA    Eskdalemuir Ar    24.13 324  P      P      20 30 25.8 -0.1
EKA                                 pmax   pmax
              comp=Z,19nm,0.5s
EKA    Eskdalemuir Ar    24.13 324  P      P      20 30 25.8 -0.1
              comp=Z,18nm,0.5s,mb4.7,baz=122,slow=8.5,SNR=78
EKA    Eskdalemuir Ar    24.13 324  P      P      20 30 25.8 -0.1
              comp=Z,19nm,0.5s,mb4.8
ESK    Eskdalemuir       24.14 324⇑eP      P      20 30 25.8 -0.2
ESK                                 AMb    AMB    20 30 33.8
              comp=Z,88nm,1.1s,mb5.1
ESK    Eskdalemuir       24.14 324  eP     P      20 30 25.4 -0.6
ESK                                 pmax   pmax
              comp=Z,38nm,0.9s,mb4.8
ESK    Eskdalemuir       24.14 324  eP     P      20 30 25.4 -0.6
              comp=Z,38nm,0.9s,mb4.8
ESK    Eskdalemuir       24.14 324  eP     P      20 30 25.4 -0.6
              comp=Z,38nm,0.9s,mb4.8
KAF    Kangasniemi       24.19   5  eP     P      20 30 23.3 -3.0
KAF                                 pmax   pmax
              comp=Z,6.0nm,0.5s,mb4.3
KAF    Kangasniemi       24.19   5  ep     P      20 30 23.3 -3.0
              comp=Z,5.5nm,0.5s,mb4.2
WIM    Isle of Man       24.22 320  eP     P      20 30 25.5 -1.2
WIM    Isle of Man       24.22 320  eP     P      20 30 25.5 -1.2
EBL    Broad Law         24.33 325  eP     P      20 30 27.5 -0.3
EBL    Broad Law         24.33 325  eP     P      20 30 27.5 -0.2
EDI    Edinburgh         24.49 325⇑eP      P      20 30 29.2 +0.1
EDI                                 AMb    AMB    20 30 37.6
              comp=Z,110nm,2.3s,mb4.9
EDI    Edinburgh         24.49 325⇑eP      P      20 30 29.2 +0.1
              comp=Z,110nm,2.3s,mb4.9
EBH    Black Hill        24.83 325  eP     P      20 30 31.8 -0.4
EBH    Black Hill        24.83 325  eP     P      20 30 31.8 -0.4
EAB    Aberfoyle         25.17 324  eP     P      20 30 34.9 -0.4
EAB    Aberfoyle         25.17 324  eP     P      20 30 34.9 -0.4
DOMB   Dombas            25.25 346  eP     P      20 30 36.8 +0.9
DOMB   Dombas            25.25 346  eP     P      20 30 36.8 +0.9
              SNR=28
KLMR   Klimovskoe        25.31  20⇓iP      P      20 30 35.2 -1.4
KLMR                                pmax   pmax
              comp=Z,93nm,1.4s,mb5.1
KLMR   Klimovskoe        25.31  20 iP      P      20 30 35.2 -1.4
              comp=Z,93nm,1.4s,mb5.1
JOF    Joensuu           25.50  10  eP     P      20 30 35.0 -3.2
JOF                                 pmax   pmax
              comp=Z,6.0nm,0.6s,mb4.3
JOF    Joensuu           25.50  10  ep     P      20 30 35.0 -3.2
              comp=Z,5.5nm,0.6s,mb4.3
MCD    Coleburn Disti    25.53 328  eP     P      20 30 38.2 -0.4
MCD    Coleburn Disti    25.53 328  eP     P      20 30 38.2 -0.4
MLA1   Latheron          26.04 329  eP     P      20 30 42.2 -1.0
MLA1   Latheron          26.04 329  eP     P      20 30 42.2 -0.9
KAR1   Arisaig           26.26 325  eP     P      20 30 45.0 -0.2
KAR1   Arisaig           26.26 325  eP     P      20 30 45.0 -0.2
KAC    Achnashellach     26.36 326  eP     P      20 30 44.7 -1.4
KAC    Achnashellach     26.36 326  eP     P      20 30 44.7 -1.4
KPL    Plockton          26.42 326  eP     P      20 30 45.6 -1.1
KPL                                 AMb    AMB    20 30 49.5
              comp=Z,116nm,1.9s,mb5.1
KPL    Plockton          26.42 326  eP     P      20 30 45.6 -1.0
              comp=Z,116nm,1.9s,mb5.1
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NSS    Namsos            27.11 351  eP     P      20 30 51.2 -1.6
NSS                                 AMb    AMB    20 30 57.0
              comp=Z,106nm,3.8s
NSS    Namsos            27.11 351  eP     P      20 30 51.2 -1.6
              comp=Z,106nm,3.8s,SNR=28
PRGR   Permogore         27.77  24⇓iP      P      20 30 57.4 -1.3
PRGR                                eS     S      20 35 35.9 -4.2
PRGR                                pmax   pmax
              comp=Z,21nm,0.7s,mb4.9
PRGR   Permogore         27.77  24 iP      P      20 30 57.4 -1.3
              comp=Z,21nm,0.7s,mb4.9
AKTK   Aktyubinsk        28.35  53  P      P      20 31 02.9 -1.1
AKTK   Aktyubinsk        28.35  53  P      P      20 31 02.9 -1.1
              comp=Z,2.0nm,0.5s,mb4.0
AKTO   Aktyubinsk        28.35  53  P      P      20 31 02.9 -1.1
AKTO                                pmax   pmax
              comp=Z,2.0nm,0.5s,mb4.0
AKTO   Aktyubinsk        28.35  53  P      P      20 31 02.9 -1.1
              comp=Z,1.6nm,0.5s,mb3.9,baz=238,slow=9.1,SNR=6.1
ARU    Arti              30.39  41  eP     P      20 31 20.1 -1.9
ARU    Arti              30.39  41  eP     P      20 31 20.1 -1.9
ARU    Arti              30.39  41  eP     P      20 31 20.1 -1.9
TOA0   Torodi Ar. Sit    30.68 221  eP     P      20 31 24.6 -0.4
TOA0   Torodi Ar. Sit    30.68 221  eP     P      20 31 24.6 -0.4
TORD   Torodi Ar. Bea    30.68 221  P      P      20 31 25.2 +0.2
              comp=Z,4.9nm,0.8s,mb4.4,baz=26,slow=8.0,SNR=38
ARCES  ARCESS Array B    31.55   2  P      P      20 31 30.9 -1.2
ARCES                               pmax   pmax
              comp=Z,4.0nm,0.6s
ARCES  ARCESS Array B    31.55   2  P      P      20 31 30.9 -1.2
              comp=Z,4.0nm,0.6s,mb4.4,baz=193,slow=10,SNR=61
ARCES  ARCESS Array B    31.55   2  P      P      20 31 30.9 -1.2
ARCES  ARCESS Array B    31.55   2  P      P      20 31 30.9 -1.2
              comp=Z,4.0nm,0.6s,mb4.4
SVE    Sverdlovsk        31.60  41⇑eP      P      20 31 31.8 -0.9
SVE                                 pmax   pmax
              comp=Z,19nm,0.8s,mb5.0
SVE    Sverdlovsk        31.60  41  eP     P      20 31 31.8 -0.9
              comp=Z,19nm,0.8s,mb5.0
KEV    Kevo              31.83   3  eP     P      20 31 32.8 -1.8
KEV                                 pmax   pmax
              comp=Z,3.0nm,0.5s,mb4.4
KEV    Kevo              31.83   3  ep     P      20 31 32.8 -1.8
              comp=Z,2.9nm,0.5s,mb4.4
KEV    Kevo              31.83   3  eP     P      20 31 32.8 -1.8
              comp=Z,2.9nm,0.5s,mb4.4
BRVK   Borovoye          36.26  50  eP     P      20 32 12.2 -1.0
BRVK                                pmax   pmax
              comp=Z,6.0nm,0.6s,mb4.7
BRVK   Borovoye          36.26  50  eP     P      20 32 12.2 -1.1
              comp=Z,6.4nm,0.6s,mb4.7
BRVK   Borovoye          36.26  50  eP     P      20 32 12.2 -1.0
              comp=Z,6.0nm,0.6s,mb4.7
BVAR   Borovoye Array    36.32  50  P      P      20 32 13.0 -0.7
BVAR                                pmax   pmax
              comp=Z,3.0nm,0.5s
BVAR   Borovoye Array    36.32  50  P      P      20 32 13.0 -0.7
              comp=Z,2.9nm,0.5s,mb4.5,baz=261,slow=6.7,SNR=25
BVAR   Borovoye Array    36.32  50  P      P      20 32 13.0 -0.7
              comp=Z,3.0nm,0.5s,mb4.5
DBIC   Dimbokro          39.60 225  P      P      20 32 41.5 -0.3
DBIC                                pmax   pmax
              comp=Z,2.0nm,0.5s
DBIC   Dimbokro          39.60 225  P      P      20 32 41.5 -0.3
              comp=Z,2.2nm,0.5s,mb4.2,baz=7.9,slow=6.2,SNR=6.5
DBIC   Dimbokro          39.60 225  P      P      20 32 41.5 -0.3
DBIC   Dimbokro          39.60 225  P      P      20 32 41.5 -0.3
              comp=Z,2.0nm,0.5s,mb4.1
TIC    Toumodi           39.71 225  eP     P      20 32 45.8 +3.1
              comp=Z,78nm,1.1s,mb5.3
AAK    Ala-Archa         39.78  66  eP     P      20 32 43.0  0.0
AAK                                 pmax   pmax
              comp=Z,10.0nm,0.8s,mb4.6
AAK    Ala-Archa         39.78  66  eP     P      20 32 43.0 -0.1
              comp=Z,9.7nm,0.8s,mb4.6
AAK    Ala-Archa         39.78  66  eP     P      20 32 43.0  0.0
              comp=Z,9.7nm,0.8s,mb4.6
KIC    Kosan Boka        39.79 224  eP     P      20 32 42.5 -0.9
              comp=Z,87nm,1.2s,mb5.3
LIC    Lamto             40.06 224  eP     P      20 32 45.2 -0.4
              comp=Z,21nm,0.7s,mb4.7
LIC    Lamto             40.06 224  eP     P      20 32 45.6  0.0
              comp=Z,42nm,0.8s,mb5.2
LIC    Lamto             40.06 224  eP     P      20 32 45.2 -0.4
              comp=Z,11nm,0.7s,mb4.7
LIC    Lamto             40.06 224  eP     P      20 32 45.2 -0.4
              comp=Z,11nm,0.7s,mb4.7
SPITS  Spitsbergen Ar    40.25 358  P      P      20 32 46.4 -0.1
SPITS                               pmax   pmax
              comp=Z,7.0nm,0.8s
SPITS  Spitsbergen Ar    40.25 358  P      P      20 32 46.4 -0.1
              comp=Z,6.6nm,0.8s,mb4.4,baz=285,slow=9.7,SNR=12
SPITS  Spitsbergen Ar    40.25 358  P      P      20 32 46.4 -0.1
              comp=Z,7.0nm,0.8s,mb4.4
KURK   Kurchatov         41.44  53  P      P      20 32 55.1 -1.5
KURK                                pmax   pmax
              comp=Z,4.0nm,0.5s,mb4.3
KURK   Kurchatov         41.44  53  P      P      20 32 55.1 -1.5
              comp=Z,4.2nm,0.5s,mb4.3,baz=274,slow=8.5,SNR=10
KURK   Kurchatov         41.44  53  P      P      20 32 55.1 -1.5
              comp=Z,4.0nm,0.5s,mb4.3
KMBO   Kilima Mbogo      41.53 156  P      P      20 33 05.9 +8.2
KMBO                                pmax   pmax
              comp=Z,1.0nm,0.5s
KMBO   Kilima Mbogo      41.53 156  P      P      20 33 05.8 +8.2
              comp=Z,1.1nm,0.5s,mb3.8,baz=84,slow=7.3,SNR=6.9
NVS    Novosibirsk       43.92  47⇑iP      P      20 33 15.6 -1.1
NVS                                 eS     S      20 39 46.7 -0.3
NVS                                 pmax   pmax
              comp=N,7.0nm,1.4s
NVS                                 pmax   pmax
              comp=E,16nm,1.4s
NVS                                 pmax   pmax
              comp=Z,38nm,1.4s,mb4.9
NVS                                 smax
              comp=N,46nm,3.3s
NVS    Novosibirsk       43.92  47 iP      P      20 33 15.6 -1.1
              comp=N,46nm,3.3s
MK31   Makanchi Array    44.40  59  eP     P      20 33 18.7 -2.0
MK31   Makanchi Array    44.40  59  eP     P      20 33 18.7 -2.0
MKAR   Makanchi Array    44.40  59  P      P      20 33 19.7 -0.9
              comp=N,5.0nm,0.4s,mb4.6,baz=276,slow=7.4,SNR=77
MKAR                                ScP    ScP    20 38 53.6 -1.6
              comp=N,1.1nm,0.8s,baz=289,slow=3.7,SNR=5.4
MKAR                                LR     LR     20 53 57.6
              comp=N,134nm,18.3s,MS3.9,baz=272,slow=39
ZAA0   Zalesovo Array    44.92  48  eP     P      20 33 23.0 -1.7
ZAA0   Zalesovo Array    44.92  48  eP     P      20 33 23.0 -1.7
ZALV   Zalesovo Beam     44.92  48  P      P      20 33 23.3 -1.4
ZALV                                pmax   pmax
              comp=Z,20nm,0.4s,mb5.3
ZALV                                MLR    MLR
              comp=Z,109nm,18.1s,MS3.8
ZALV   Zalesovo Beam     44.92  48  P      P      20 33 23.3 -1.4
              comp=Z,20nm,0.4s,mb5.3,baz=273,slow=8.5,SNR=125
ZALV                                LR     LR     20 55 05.4
              comp=Z,109nm,18.1s,MS3.8,baz=233,slow=40
ZALV   Zalesovo Beam     44.92  48  P      P      20 33 23.3 -1.4
ZALV                                LR     LR     20 55 05.4
ZALV   Zalesovo Beam     44.92  48  P      P      20 33 23.3 -1.4
              comp=Z,109nm,18.1s
MSEY   Mahe Island       52.74 136  iP     P      20 34 29.0 +3.9
LSZ    Lusaka            53.42 172  P      P      20 34 30.6 +0.6
              comp=Z,0.5nm,0.3s,mb3.9,baz=141,slow=7.6,SNR=2.3
LSZ    Lusaka            53.42 172  eP     P      20 34 28.7 -1.3
LSZ    Lusaka            53.42 172  eP     P      20 34 28.7 -1.4
TLY    Talaya            56.52  48  eP     P      20 34 52.8 +0.6
TLY                                 pmax   pmax
              comp=Z,6.0nm,1.6s,mb4.4
TLY                                 MLR    MLR
              comp=Z,130nm,19.0s,MS4.0
TLY    Talaya            56.52  48  eP     P      20 34 52.8 +0.6
              comp=Z,130nm,19.0s
ZAK    Zakamensk         56.77  49  eP     P      20 34 54.0  0.0
ZAK                                 pmax   pmax
              comp=Z,4.0nm,1.0s,mb4.4
ZAK    Zakamensk         56.77  49  eP     P      20 34 54.0  0.0
              comp=Z,4.0nm,1.0s,mb4.4
FRB    Frobisher Bay     56.80 328  P      P      20 34 54.1 +0.1
FRB                                 pmax   pmax
              comp=Z,4.0nm,0.5s
FRB    Frobisher Bay     56.80 328  P      P      20 34 54.0 +0.1
              comp=Z,4.2nm,0.5s,mb4.7,baz=71,slow=7.4,SNR=10
FRB    Frobisher Bay     56.80 328  P      P      20 34 54.1 +0.1
              comp=Z,4.0nm,0.5s,mb4.7
LSA    Lhasa             56.89  76  eP     P      20 34 54.1 -1.0
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LSA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
LSA	Lhasa	56.89	76	eP	P	20 34 54.1	-1.0
	comp=Z,3.5nm,0.8s,mb4.4						
LSA	Lhasa	56.89	76	eP	P	20 34 54.1	-1.0
	comp=Z,3.5nm,0.8s,mb4.4						
GTA	Gaotai	58.89	62	eP	P	20 35 10.2	+1.2
GTA				pP	pP	20 35 14.8	-0.3
GTA				sP	sP	20 35 17.3	-0.1
GTA				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
SCHQ	Schefferville	59.26	318	P	P	20 35 10.4	-0.9
	comp=Z,3.8nm,0.5s,mb4.7,baz=68,slow=4.6,SNR=19						
SCHQ				LR	LR	21 01 07.9	
	comp=Z,127nm,20.4s,MS4.0,baz=179,slow=36						
SCHQ	Schefferville	59.26	318	eP	P	20 35 10.8	-0.5
	comp=Z,5.7nm,0.7s,mb4.7						
SCHQ	Schefferville	59.26	318	eP	P	20 35 10.8	-0.5
	comp=Z,5.7nm,0.7s,mb4.7						
TIXI	Tiksi	59.33	21⇓	eP	P	20 35 10.4	-1.2
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.5						
TIXI	Tiksi	59.33	21	eP	P	20 35 10.4	-1.2
	comp=Z,9.0nm,1.7s,mb4.5						
SONM	Songino Array	59.65	51	P	P	20 35 13.0	-1.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	59.65	51	P	P	20 35 13.0	-1.2
	comp=Z,1.2nm,0.7s,mb4.1,baz=281,slow=7.4,SNR=10						
SONM	Songino Array	59.65	51	P	P	20 35 13.0	-1.2
	comp=Z,1.0nm,0.7s,mb4.0						
BOD	Bodaibo	59.75	38	eP	P	20 35 11.4	-3.3
BOD				e		20 35 20.6	
BOD				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
BOSA	Boshof	66.44	177	P	P	20 36 00.0	+0.7
	comp=Z,2.0nm,0.7s,mb4.3,baz=9.5,slow=6.1,SNR=2.6						
BOSA	Boshof	66.44	177	eP	P	20 35 58.7	-0.7
CMAR	Chiang Mai Arr	68.81	83	P	P	20 36 13.9	-0.8
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CMAR	Chiang Mai Arr	68.81	83	P	P	20 36 13.9	-0.8
	comp=Z,1.2nm,0.8s,mb3.9,baz=302,slow=7.7,SNR=6.5						
BILL	Bilibino	70.84	13⇓	eP	P	20 36 25.6	-0.7
BILL				e		20 36 37.1	
BILL						20 36 45.0	
BILL				e		20 46 17.4	
BILL				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BILL				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.1						
BILL	Bilibino	70.84	13	eP	P	20 36 25.9	-0.4
	comp=Z,6.5nm,1.1s,mb4.5						
SEY	Seymchan	71.81	21⇑	eP	P	20 36 31.4	-0.9
CN2	Changchun	73.13	47	eP	P	20 36 39.6	-0.9
CN2				epP	pP	20 36 44.2	-2.5
CN2				eS	S	20 46 03.8	-3.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
YKA	Yellowknife Ar	73.83	341	P	P	20 36 43.6	-0.7
	comp=Z,1.1nm,0.7s,mb3.9,baz=29,slow=5.9,SNR=14						
ULM	Lac du Bonnet	76.41	324	P	P	20 36 59.1	-0.3
	comp=Z,5.5nm,0.7s,mb4.6,baz=16,slow=6.5,SNR=6.4						
DAWY	Dawson	77.09	352	eP	P	20 37 03.1	+0.1
PSI	Prapat	78.05	96	P	P	20 37 12.1	+2.9
PSI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
PSI	Prapat	78.05	96	P	P	20 37 12.1	+2.9
	comp=Z,2.0nm,0.5s,mb4.3,baz=323,slow=15,SNR=3.4						
KSRS	Korea Array	78.52	51	P	P	20 37 09.7	-1.8
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KSRS				MLR	MLR		
	comp=Z,80nm,19.6s,MS4.1						
KSRS	Korea Array	78.52	51	P	P	20 37 09.7	-1.8
	comp=Z,1.2nm,0.5s,mb4.1,baz=314,slow=4.5,SNR=5.9						
KSRS				LR	LR	21 16 05.3	
	comp=Z,80nm,19.6s,MS4.1,baz=217,slow=39						
TKL	Tuckaleechee C	79.46	307	P	P	20 37 17.1	+0.5
TKL				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
TKL	Tuckaleechee C	79.46	307	P	P	20 37 17.1	+0.5
	comp=Z,1.4nm,0.3s,mb4.4,baz=98,slow=7.2,SNR=4.1						
YSS	Yuzh-Sakhalins	80.17	37	eP	P	20 37 20.0	-0.3
YSS				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
LRAL	Lakeview Retre	83.19	307	eP	P	20 37 36.9	+0.5
	comp=Z,5.6nm,0.7s,mb4.7						
EGMT	Eagleton	84.07	330	eP	P	20 37 41.9	+1.2
	comp=Z,20nm,1.0s,mb5.2						
MIAR	Mount Ida	86.18	312	eP	P	20 37 52.7	+1.2
MIAR				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.0						
MIAR	Mount Ida	86.18	312	eP	P	20 37 52.7	+1.2
	comp=Z,11nm,1.1s,mb5.0						
RLMT	Red Lodge	86.20	328	eP	P	20 37 53.7	+2.3
PDAR	Pinedale Array	88.22	326	P	P	20 38 00.8	-0.5
	comp=Z,0.4nm,0.3s,mb4.1,baz=70,slow=2.2,SNR=4.3						
PDAR				LR	LR	21 16 57.7	
	comp=Z,132nm,18.6s,MS4.4,baz=141,slow=35						
WMOK	Wichita Mounta	89.03	315	eP	P	20 38 06.3	+1.1
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.7						
WMOK	Wichita Mounta	89.03	315	eP	P	20 38 06.3	+1.0
	comp=Z,3.0nm,0.8s,mb4.7						
TXAR	Lajitas Array	95.81	314	P	P	20 38 37.5	+0.8
TXAR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
TXAR	Lajitas Array	95.81	314	P	P	20 38 37.5	+0.8
	comp=Z,1.6nm,1.0s,mb4.4,baz=28,slow=5.7,SNR=6.2						
TXAR	Lajitas Array	95.81	314	P	P	20 38 37.5	+0.8
CPUP	Villa Florida	97.99	243	LR	LR	21 24 12.6	
	comp=Z,105nm,18.9s,MS4.3,baz=3.0,slow=36						
WRA	Warramunga Arr	119.44	93	PKP	PKPdf	20 43 59.4	-0.5
	comp=Z,0.3nm,0.8s,baz=317,slow=2.0,SNR=4.5						
ASAR	Alice Springs	121.07	97	PKP	PKPdf	20 44 02.2	-0.7
	comp=Z,0.2nm,0.4s,baz=290,slow=1.8,SNR=4.3						

ISCJB ***04*** *20:31:40.1±3.3, 7°.2S±0°.1×156°.0E±0°.1, h57^{km}±35^{km}, mb4.6/22, Error ellipse: s-maj=26.4km s-min=12.6km az=147.8*

NEIC ***04*** *20:31:40.6±0.4, 7°.18S×155°.99E, mb4.6/3, Error ellipse: s-maj=11.0km s-min=8.7km az=112.0*

IDC ***04*** *20:31:40.6±0.9, 7°.24S×156°.06E, h51^{km}±4^{km}, mb4.1/10, mb1 4.2/12, mb1mx4.0/20, mbtmp4.1/12, MS3.1/1, Ms1 3.1/1, ms1mx2.8/20, Error ellipse: s-maj=26.1km s-min=15.6km az=109.0*

ISC 04 20:31:41.6±3.1, **7°.2S**±0°.1×**155°.9E**±0°.1, **h54**^{km}±34^{km}, **h52**^{km}±1.1^{km}**:pP-P, n38,** σ**0^{s}64**/34, **mb4.6**/22, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	4.55	120	P	Pn	20 32 47.0	-0.9
	7.0nm,0.3s,baz=228,slow=15,SNR=2.7						
HNR				S	Sn	20 33 40.3	+0.9
	14nm,0.3s,baz=158,slow=19,SNR=5.1						
HNR				LR	LR	20 34 24.8	
	comp=Z,214nm,19.0s,baz=239,slow=37						
CTA	Charters Tower	15.89	215	P	Pn	20 35 20.1	-1.7
	0.2nm,0.3s,baz=63,slow=4.5,SNR=1.9						
CTAO	Charters Tower	15.89	215	eP	Pn	20 35 22.7	+0.9
KAKA	Kakadu	23.78	255	eP	P	20 36 49.6	+0.2
	50nm,0.6s,mb5.1						
WRAB	Tennant Creek	24.47	237	eP	P	20 36 56.2	+0.5
	9.7nm,0.8s,mb4.3						
WRAB				epP		20 37 08.7	
WB2	Warramunga Arr	24.47	237	eP	P	20 36 56.3	+0.6
WRA	Warramunga Arr	24.48	237	P	P	20 36 56.6	+0.7
	9.3nm,0.7s,mb4.3,baz=59,slow=9.7,SNR=70						
WRA				pP		20 37 08.2	
	5.9nm,0.8s,baz=62,slow=9.5,SNR=11						
WRA				pPcP		20 40 47.0	
	1.1nm,0.8s,baz=49,slow=2.0,SNR=5.2						
ASAR	Alice Springs	26.75	230	P	P	20 37 15.9	-0.5
	1.0nm,0.6s,mb3.5,baz=58,slow=9.7,SNR=16						
ASAR				pPcP		20 40 51.5	
	0.7nm,0.6s,baz=62,slow=2.5,SNR=6.2						
STKA	Stephens Creek	27.97	207	P	P	20 37 26.6	-0.5
	3.5nm,1.0s,mb3.9,baz=53,slow=10,SNR=3.5						
FITZ	Fitzroy Crossi	31.44	247	P	P	20 37 58.1	0.0
	6.2nm,0.6s,mb4.6,baz=97,slow=8.2,SNR=18						
FITZ				pP	pP	20 38 12.0	+0.3
	4.9nm,0.8s,baz=82,slow=6.3,SNR=4.6						
MBWA	Marble Bar	37.63	245	eP	P	20 38 50.9	-0.7
KSRS	Korea Array	51.55	331	P	P	20 40 42.8	+0.5
	1.7nm,0.8s,mb4.0,baz=157,slow=7.2,SNR=5.1						
KSRS				pP	pP	20 40 56.3	-0.3
	1.3nm,0.6s,baz=149,slow=7.6,SNR=2.9						
CMAR	Chiang Mai Arr	61.72	295	P	P	20 41 55.5	+0.8
	3.5nm,0.8s,mb4.6,baz=118,slow=5.3,SNR=26						
CMAR				pP	pP	20 42 10.3	+0.8
	3.4nm,0.8s,baz=114,slow=5.2,SNR=10						
CHTO	Chiang Mai	61.83	296	eP	P	20 41 54.9	-0.7
	5.5nm,1.3s,mb4.5						
SONM	Songino Array	70.01	327	P	P	20 42 48.2	+0.7
	1.7nm,0.7s,mb4.1,baz=142,slow=6.3,SNR=11						
SONM				pP	pP	20 43 03.4	+0.8
	1.9nm,0.6s,baz=146,slow=6.2,SNR=6.4						
LSA	Lhasa	72.16	304	eP	P	20 43 01.9	+0.9
TAPN	Taplejung	74.31	301	eP	P	20 43 14.2	+0.5
	14nm,0.8s,mb5.0						
ODAN	Odare	74.44	300	eP	P	20 43 15.0	+0.5
	29nm,0.7s,mb5.3						
RAMN	Ramite	75.14	300	eP	P	20 43 18.9	+0.4
GUN	Gumba	76.02	301	eP	P	20 43 24.1	+0.5
	24nm,0.7s,mb5.2						
KKN	Kakani	76.50	301	eP	P	20 43 26.3	0.0
	11nm,0.7s,mb4.9						
DMN	Daman	76.60	300	eP	P	20 43 27.1	+0.2
	14nm,0.7s,mb5.0						
GKN	Gorkha	77.11	301	eP	P	20 43 29.7	0.0
	14nm,0.7s,mb5.0						
KOLN	Koldanda	77.93	300	eP	P	20 43 33.9	-0.4
	12nm,0.8s,mb4.9						
DANN	Dangsing	77.94	301	eP	P	20 43 34.1	-0.3
	12nm,0.6s,mb5.0						
PYUN	Piuthan	78.54	300	eP	P	20 43 37.3	-0.3
	8.7nm,0.7s,mb4.8						
MK31	Makanchi Array	84.17	318	eP	P	20 44 06.9	-0.1
MK31				epP	pP	20 44 20.9	-1.6
MKAR	Makanchi Array	84.17	318	P	P	20 44 07.0	-0.1
	6.3nm,0.7s,mb4.9,baz=101,slow=6.0,SNR=74						
MKAR				pP	pP	20 44 20.9	-1.6
	4.9nm,0.7s,baz=99,slow=6.2,SNR=14						
ZAA0	Zalesovo Array	84.87	326	eP	P	20 44 09.2	-1.2
ZALV	Zalesovo Beam	84.87	326	P	P	20 44 09.6	-0.8
	2.8nm,0.4s,mb4.7,baz=109,slow=5.5,SNR=20						
ZALV				pP	pP	20 44 23.7	-2.1
	1.7nm,0.5s,baz=129,slow=6.7,SNR=5.0						
ZALV	Zalesovo Beam	84.87	326	P	P	20 44 09.6	-0.8
ZALV				pP	pP	20 44 23.7	-2.1
KURK	Kurchatov	87.57	322	P	P	20 44 22.8	-1.0
	1.4nm,0.7s,mb4.3,baz=102,slow=4.0,SNR=9.5						
KURK				pP	pP	20 44 37.2	-2.0
	0.8nm,0.6s,baz=94,slow=5.7,SNR=5.6						
KURK	Kurchatov	87.57	322	P	P	20 44 22.8	-1.0
KURK				pP	pP	20 44 37.2	-2.0
GERES	GERESS Array B	127.70	329	PKP	PKPdf	20 50 40.7	-0.3
	0.4nm,0.9s,baz=238,slow=2.5,SNR=6.3						
GERES				pPKP	pPKPdf	20 50 56.3	-0.8
	0.2nm,0.5s,baz=90,slow=2.0,SNR=2.5						
MDT	Midelt	148.75	327	PKPbc	PKPbc	20 51 23.8	+0.2
	1.6nm,0.7s,baz=8.3,slow=3.4,SNR=4.9						
TORD	Torodi Ar. Bea	153.98	285	PKPbc	PKPbc	20 51 34.4	-1.8
	1.2nm,0.7s,baz=68,slow=2.4,SNR=6.6						
TORD				PKPab	PKPab	20 51 49.0	-0.6
	0.8nm,0.7s,baz=76,slow=2.3,SNR=4.3						
TORD	Torodi Ar. Bea	153.98	285	PKPbc	PKPbc	20 51 34.4	-1.8
TORD				PKPab	PKPab	20 51 49.0	-0.6
DBIC	Dimbokro	160.93	270	PKPab	PKPab	20 52 19.4	-0.3
	1.9nm,0.6s,baz=102,slow=6.7,SNR=5.8						

ISCJB ***04*** *20:32:47.6±0.5, 38°.10N±0°.02×21°.90E±0°.03, h4^{km}±5^{km}, Error ellipse: s-maj=4.4km s-min=3.8km az=176.0*

NEIC ***04*** *20:32:47.7, 38°.10N×21°.88E, h21^{km}, MD3.3(ATH), After ATH.*

THE ***04*** *20:32:47.7, 38°.11N×21°.88E, h4^{km}±2^{km}, ML3.3/2, Error ellipse: s-maj=2.6km s-min=0.9km az=161.0*

ATH ***04*** *20:32:47.7, 38°.10N×21°.88E, h21^{km}±2^{km}, MD3.3/9*

CSEM ***04*** *20:32:48.4±0.2, 38°.11N×21°.90E, h20^{km}, MD3.3, Error ellipse: s-maj=6.0km s-min=5.3km az=81.0*

ISC 04 20:32:48.3±0.5, **38°.10N**±0°.02×**21°.90E**±0°.03, **h10**^{km}±4^{km}, **n51,** σ**1^{s}00**/69, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFP	Efpalio	0.33	1	ePB	Pg	20 32 55.2	+0.4
EFP				eSB	Sg	20 33 00.7	+1.5
EFP	Efpalio	0.33	1	ePb	Pg	20 32 55.2	+0.4
EFP				eSb	Sg	20 33 00.7	+1.5
RLS	Riolos of Patr	0.34	263	ePB	Pg	20 32 55.4	+0.4
RLS	Riolos of Patr	0.34	263	ePb	Pg	20 32 55.4	+0.4
GUR	Goura	0.39	114	ePB	Pg	20 32 55.8	-0.1
GUR	Goura	0.39	114	ePb	Pg	20 32 55.8	-0.1
EVR	Evrytania	0.82	355	ePN	Pg	20 33 04.0	-0.1
EVR				eSN	Sg	20 33 15.0	+0.2
EVR	Evrytania	0.82	355	ePn	Pg	20 33 04.0	-0.1
EVR				eSn	Sg	20 33 15.0	+0.2
VLX	Vlachokerasia	0.82	152	ePN	Pg	20 33 03.6	-0.5
VLX	Vlachokerasia	0.82	152	ePn	Pg	20 33 03.6	-0.5
LTK	Loutraki	0.85	95	P	Pg	20 33 04.3	-0.3
LTK				S	Sg	20 33 16.6	+0.9
LTK	Loutraki	0.85	95	ePN	Pg	20 33 04.4	-0.2
LTK	Loutraki	0.85	95	ePn	Pg	20 33 04.4	-0.2
LTK				S	Sg	20 33 16.6	+0.9
ITM	Ithomi	0.92	178	ePN	Pg	20 33 05.5	-0.4
ITM	Ithomi	0.92	178	ePn	Pg	20 33 05.5	-0.4
AGG	Agios Georgios	0.98	20	P	Pg	20 33 05.7	-1.5
AGG				S	Sg	20 33 20.0	0.0
AGG	Agios Georgios	0.98	20	ePN	Pg	20 33 06.6	-0.6
AGG	Agios Georgios	0.98	20	ePn	Pg	20 33 06.6	-0.6
AGG				S	Sg	20 33 20.0	0.0
LKR	Lokris	1.03	57	P	Pg	20 33 06.8	-1.3
LKR				S	Sg	20 33 22.2	+0.8
LKR	Lokris	1.03	57	ePN	Pg	20 33 07.2	-0.9
LKR	Lokris	1.03	57	ePN	Pg	20 33 07.3	-0.8
LKR	Lokris	1.03	57	ePn	Pg	20 33 07.2	-0.9
LKR				S	Sg	20 33 22.2	+0.8
VLS	Valsamata	1.03	275	P	Pg	20 33 06.4	-1.7
VLS				S	Sg	20 33 22.5	+0.9
VLS	Valsamata	1.03	275	ePB	Pg	20 33 06.5	-1.6
VLS	Valsamata	1.03	275	P	Pg	20 33 06.4	-1.7
VLS				S	Sg	20 33 22.5	+0.9
PYL	PYLOS	1.21	186	P	Pb	20 33 10.2	-1.0
PYL				S	Sb	20 33 27.7	+0.8
PYL	PYLOS	1.21	186	ePN	Pn	20 33 10.8	-0.4
PYL	PYLOS	1.21	186	ePn	Pn	20 33 10.8	-0.4
PYL				S	Sb	20 33 27.7	+0.8
DID	Didima	1.22	119	P	Pn	20 33 10.0	-1.4
DID				S	Sb	20 33 29.1	+1.9
DID	Didima	1.22	119	ePN	Pn	20 33 10.2	-1.2
DID	Didima	1.22	119	ePN	Pn	20 33 10.2	-1.2
DID	Didima	1.22	119	ePn	Pn	20 33 10.2	-1.2
DID				S	Sb	20 33 29.1	+1.9
NAIG	Nisos Aigina	1.30	105	ePN	Pn	20 33 12.0	-0.6
NAIG	Nisos Aigina	1.30	105	ePn	Pn	20 33 12.0	-0.6
THL	Klokotos Trika	1.47	4	P	Pn	20 33 15.0	+0.2
THL				S	Sn	20 33 34.4	+0.3
THL	Klokotos Trika	1.47	4	P	Pn	20 33 15.0	+0.2
THL				S	Sn	20 33 34.4	+0.3
PTL	Penteli	1.56	91	ePN	Pn	20 33 16.5	+0.5
PTL	Penteli	1.56	91	ePn	Pn	20 33 16.5	+0.5
NEO	Neokhori	1.59	40	ePB	Pb	20 33 16.0	-1.8
NEO	Neokhori	1.59	40	ePb	Pb	20 33 16.0	-1.8
VLI	Veliai	1.61	149	ePN	Pn	20 33 17.5	+0.7
VLI	Veliai	1.61	149	ePn	Pn	20 33 17.5	+0.7
XOR	Xorichti	1.62	38	P	Pn	20 33 15.5	-1.5
XOR	Xorichti	1.62	38	P	Pn	20 33 15.5	-1.5
JAN	Janina	1.76	333	ePN	Pn	20 33 19.5	+0.7
JAN	Janina	1.76	333	ePn	Pn	20 33 19.5	+0.7
MEV	Metsovon	1.76	343	P	Pn	20 33 22.2	+3.3
MEV	Metsovon	1.76	343	P	Pn	20 33 22.2	+3.3
AOS	Alonnisos	1.89	55	P	Pn	20 33 19.4	-1.2
AOS	Alonnisos	1.89	55	P	Pn	20 33 19.4	-1.2
KYTH	Kithira	2.03	153	ePN	Pn	20 33 24.5	+1.9

BEO ***04*** *20:39:10.6, 33°.44N×22°.04E, h0^{km}*

IDC ***04*** *20:40:12.2±1.3, 38°.13N×22°.04E, h0^{km}, mb3.6/4, mb1 3.5/6, mb1mx3.3/25, mbtmp3.4/6, ML2.6/2, MS3.4/2, Ms1 3.4/2, ms1mx2.7/37, Error ellipse: s-maj=25.7km s-min=25.1km az=167.0*

NEIC ***04*** *20:40:14.1, 38°.11N×21°.90E, h30^{km}, ML3.5(ATH), After ATH.*

THE ***04*** *20:40:14.9, 38°.12N×21°.95E, h12^{km}±1^{km}, ML4.0/7, Error ellipse: s-maj=1.8km s-min=0.9km az=39.0*

ATH ***04*** *20:40:14.1, 38°.11N×21°.90E, h30^{km}, MD3.6/13, ML3.5*

ISCJB ***04*** *20:40:14.8±0.4, 38°.10N±0°.02×21°.88E±0°.03, h26^{km}±3^{km}, mb3.5/4, Error ellipse: s-maj=4.4km s-min=3.1km az=152.0*

CSEM ***04*** *20:40:15.1±0.2, 38°.09N×21°.92E, h20^{km}, ML3.5, Error ellipse: s-maj=4.6km s-min=3.1km az=60.0*

ISC 04 20:40:15.2±0.5, **38°.10N**±0°.02×**21°.91E**±0°.03, **h18**^{km}±3^{km}, **n132,** σ**1^{s}12**/165, **mb3.5**/4, **6C-3D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFP	Efpalio	0.33	359	ePB	Pg	20 40 22.2	0.0
EFP				eSB	Sg	20 40 27.7	+0.7
EFP	Efpalio	0.33	359	ePb	Pg	20 40 22.2	0.0
EFP				eSb	Sg	20 40 27.7	+0.7
RLS	Riolos of Patr	0.35	264	ePB	Pg	20 40 22.7	+0.1
RLS	Riolos of Patr	0.35	264	ePb	Pg	20 40 22.7	+0.1
GUR	Goura	0.38	115	ePB	Pg	20 40 22.5	-0.5
GUR				eSB	Sg	20 40 29.3	+1.0
GUR	Goura	0.38	115	ePb	Pg	20 40 22.5	-0.5
GUR				eSb	Sg	20 40 29.3	+1.0
VLX	Vlachokerasia	0.81	153	ePN	Pn	20 40 30.3	-1.4
VLX				eSN	Sn	20 40 43.5	+0.2
VLX	Vlachokerasia	0.81	153	ePn	Pn	20 40 30.3	-1.4
VLX				eSn	Sn	20 40 43.5	+0.2
EVR	Evrytania	0.82	354	ePN	Pn	20 40 30.5	-1.3
EVR	Evrytania	0.82	354	ePn	Pn	20 40 30.5	-1.3
LTK	Loutraki	0.83	95	P	Pb	20 40 30.4	-0.7
LTK				S	Sb	20 40 42.4	+0.4
LTK	Loutraki	0.83	95	ePN	Pn	20 40 31.2	-0.8
LTK	Loutraki	0.83	95	P	Pb	20 40 30.4	-0.7
LTK	Loutraki	0.83	95	ePn	Pn	20 40 31.2	-0.8
LTK				S	Sb	20 40 42.4	+0.4
ITM	Ithomi	0.92	179	ePN	Pn	20 40 32.0	-1.1
ITM	Ithomi	0.92	179	ePn	Pn	20 40 32.0	-1.1
AGG	Agios Georgios	0.98	19	P	Pb	20 40 32.5	-1.1
AGG				S	Sb	20 40 47.2	+1.1
AGG	Agios Georgios	0.98	19	ePN	Pb	20 40 32.5	-1.1
AGG	Agios Georgios	0.98	19	ePn	Pb	20 40 32.5	-1.1
AGG				S	Sb	20 40 47.2	+1.1
LKR	Lokris	1.02	57	P	Pb	20 40 33.5	-0.7
LKR				S	Sb	20 40 47.6	+0.4
LKR	Lokris	1.02	57	ePN	Pn	20 40 33.9	-0.6
LKR	Lokris	1.02	57	ePn	Pn	20 40 33.9	-0.6
LKR				S	Sb	20 40 47.6	+0.4
VLS	Valsamata	1.05	275	P	Pb	20 40 33.5	-1.2
VLS				S	Sb	20 40 50.5	+2.4
VLS	Valsamata	1.05	275	ePN	Pn	20 40 33.7	-1.2
VLS	Valsamata	1.05	275	ePn	Pn	20 40 33.7	-1.2
VLS				S	Sb	20 40 50.5	+2.4
DID	Didima	1.20	119	P	Pn	20 40 36.5	-0.5
DID				S	Sb	20 40 53.8	+1.2
DID	Didima	1.20	119	ePN	Pn	20 40 36.7	-0.3
DID	Didima	1.20	119	ePn	Pn	20 40 36.7	-0.3
DID				S	Sb	20 40 53.8	+1.2
PYL	PYLOS	1.21	187	P	Pn	20 40 36.8	-0.3
PYL				S	Sb	20 40 55.4	+2.7
PYL	PYLOS	1.21	187	ePN	Pn	20 40 37.0	-0.1
PYL	PYLOS	1.21	187	ePn	Pn	20 40 37.0	-0.1
PYL				S	Sb	20 40 55.4	+2.7
NAIG	Nisos Aigina	1.29	105	ePN	Pn	20 40 38.0	-0.2
NAIG	Nisos Aigina	1.29	105	ePn	Pn	20 40 38.0	-0.2
ATH	Athens Observa	1.43	95	ePN	Pn	20 40 40.6	+0.4
ATH	Athens Observa	1.43	95	ePn	Pn	20 40 40.6	+0.4
THL	Klokotos Trika	1.47	3	P	Pn	20 40 40.9	+0.2
THL	Klokotos Trika	1.47	3	P	Pn	20 40 40.9	+0.2
PTL	Penteli	1.54	91	ePN	Pn	20 40 41.9	+0.2
PTL	Penteli	1.54	91	ePn	Pn	20 40 41.9	+0.2
NEO	Neokhori	1.58	40	ePN	Pn	20 40 42.0	-0.3
NEO	Neokhori	1.58	40	ePn	Pn	20 40 42.0	-0.3
VLI	Veliai	1.60	149	ePN	Pn	20 40 43.0	+0.5
VLI	Veliai	1.60	149	ePn	Pn	20 40 43.0	+0.5
XOR	Xorichti	1.61	38	P	Pn	20 40 42.0	-0.7
XOR				S	Sn	20 41 03.5	+0.5
XOR	Xorichti	1.61	38	P	Pn	20 40 42.0	-0.7
XOR				S	Sn	20 41 03.5	+0.5
JAN	Janina	1.76	332	ePB	Pb	20 40 45.5	-1.4
MEV	Metsovon	1.77	343	P	Pn	20 40 48.3	+3.5
MEV	Metsovon	1.77	343	P	Pn	20 40 48.3	+3.5
AOS	Alonnisos	1.88	55	P	Pn	20 40 45.3	-1.0
AOS	Alonnisos	1.88	55	P	Pn	20 40 45.3	-1.0
LIT	Litokhoron	2.05	12	P	Pn	20 40 48.3	-0.4
LIT				S	Sn	20 41 14.0	+0.2
LIT	Litokhoron	2.05	12	P	Pn	20 40 48.3	-0.4
LIT				S	Sn	20 41 14.0	+0.2
KZN	Kozani	2.21	357	ePn	Pn	20 40 51.0	+0.1
KZN				P		20 40 54.1	
KZN	Kozani	2.21	357	ePn	Pn	20 40 51.0	+0.1
PAIG	Paliouri	2.29	36	P	Pn	20 40 50.8	-1.1
PAIG				S	Sn	20 41 19.6	0.0
PAIG	Paliouri	2.29	36	P	Pn	20 40 50.8	-1.1
PAIG				S	Sn	20 41 19.6	0.0
KEK	Kerkira	2.31	315	ePB	Pb	20 40 53.0	-3.2
PLG	Polygyros	2.56	27	P	Pn	20 40 54.7	-1.1
PLG	Polygyros	2.56	27	ePN	Pn	20 40 54.8	-1.0
PLG	Polygyros	2.56	27	ePn	Pn	20 40 54.8	-1.0
FNA	Florina	2.71	351	P	Pn	20 40 59.8	+2.0
FNA	Florina	2.71	351	P	Pn	20 40 59.8	+2.0
OUR	Ouranopolis	2.75	35	P	Pn	20 40 57.5	-0.8
OUR	Ouranopolis	2.75	35	P	Pn	20 40 57.5	-0.8
GRG	Griva	2.88	7	P	Pn	20 41 00.3	+0.2
GRG	Griva	2.88	7	P	Pn	20 41 00.3	+0.2
SOH	Sokhos	2.94	22	P	Pn	20 41 00.9	0.0
SOH	Sokhos	2.94	22	P	Pn	20 41 00.9	0.0
APE	Apeiranthos	3.05	109	ePN	Pn	20 41 02.2	-0.3
APE	Apeiranthos	3.05	109	ePN	Pn	20 41 02.1	-0.4
APE	Apeiranthos	3.05	109⇑	iP	Pn	20 41 02.2	-0.3
APE	Apeiranthos	3.05	109	ePn	Pn	20 41 02.2	-0.3
LOS	Limnos	3.07	52	P	Pn	20 41 02.0	-0.8
LOS	Limnos	3.07	52	P	Pn	20 41 02.0	-0.8
LIA	Limnos Island	3.12	54	P	Pn	20 41 02.7	-0.7
LIA	Limnos Island	3.12	54	ePN	Pn	20 41 03.1	-0.3
LIA	Limnos Island	3.12	54	ePn	Pn	20 41 03.1	-0.3
KARN	Karanos	3.14	149	P	Pn	20 41 04.0	+0.4
KARN	Karanos	3.14	149	P	Pn	20 41 04.0	+0.4
KNT	Kendrikon	3.15	14	P	Pn	20 41 03.9	+0.1
KNT	Kendrikon	3.15	14	P	Pn	20 41 03.9	+0.1
THR3	Thira Island,	3.25	120	P	Pn	20 41 06.2	+1.0
THR3	Thira Island,	3.25	120	P	Pn	20 41 06.2	+1.0
VAY	Valandovo	3.26	9	ePn	Pn	20 41 08.3	+3.0
VAY				eSn	Sn	20 41 47.9	+4.3
VAY	Valandovo	3.26	9	ePn	Pn	20 41 08.3	+3.0
VAY				eSn	Sn	20 41 47.9	+4.3
CHOS	Chios island	3.27	84	P	Pn	20 41 05.7	+0.2
CHOS				S	Sn	20 41 45.1	+1.1
CHOS	Chios island	3.27	84	P	Pn	20 41 05.7	+0.2
CHOS				S	Sn	20 41 45.1	+1.1
KRUS	Krusevo	3.31	351	ePn	Pn	20 41 07.7	+1.7
KRUS	Krusevo	3.31	351	ePn	Pn	20 41 07.6	+1.6
TIR	Tirane	3.61	335	ePn	Pn	20 41 07.1	-3.0
TIR	Tirane	3.61	335	ePn	Pn	20 41 07.1	-3.0
IDI	Anoyia	3.69	139	Pn	Pn	20 41 10.2	-1.0
	0.8nm,0.3s,baz=322,slow=15,SNR=15						
IDI				Sn	Sn	20 41 53.4	-0.7
	2.6nm,0.3s,baz=91,slow=23,SNR=4.4						
IDI	Anoyia	3.69	139	Pn	Pn	20 41 10.2	-1.0
IDI				Sn	Sn	20 41 53.4	-0.8
MMB	Musomiste	3.76	21	P	Pn	20 41 11.9	-0.2
KKB	Krupnik	3.87	13	P	Sn	20 42 00.4	+1.8
SMG	Samos	3.91	94	ePN	Pn	20 41 14.6	+0.3
SMG	Samos	3.91	94	ePn	Pn	20 41 14.6	+0.3
LAST	Lasithi	4.10	135	P	Pn	20 41 16.8	-0.1
LAST	Lasithi	4.10	135	P	Pn	20 41 16.8	-0.1
NPS	Neapolis	4.11	132	P	Pn	20 41 19.8	+2.9
NPS	Neapolis	4.11	132	P	Pn	20 41 19.8	+2.9
TIP	Timpagrande	4.18	287	P	Pn	20 41 20.5	+2.6
TIP	Timpagrande	4.18	287	P	Pn	20 41 20.5	+2.6
VTS	Vitosha	4.60	12	ePn	Pn	20 41 24.4	+0.7
VTS	Vitosha	4.60	12	P	Pn	20 41 24.7	+1.0
VTS	Vitosha	4.60	12	ePn	Pn	20 41 24.4	+0.7
BARS	Barje	4.71	359	ePn	Pn	20 41 27.4	+2.1
BARS	Barje	4.71	359	ePn	Pn	20 41 27.4	+2.1
ZAPS	Zavoj	5.20	6	ePn	Pn	20 41 28.0	-4.0
TREB	Trebinje	5.36	331	i Pn	Pn	20 41 32.4	-1.7
TREB				eSn	Sn	20 42 35.1	-0.2
TREB	Trebinje	5.36	331	i Pn	Pn	20 41 32.4	-1.7

TREB				eSn	Sn	20 42 35.1	-0.2
DIVS	Divibare	6.17	347	ePn	Pn	20 41 45.3	0.0
DIVS	Divibare	6.17	347	ePn	Pn	20 41 45.3	0.0
GZR	Gura Zlata	7.32	5	⇑iP	Pn	20 42 00.3	-0.7
GZR	Gura Zlata	7.32	5	⇑iP	Pn	20 42 00.3	-0.7
BZS	Buzias	7.52	358	⇓iP	Pn	20 41 57.9	-5.9
VOIR		7.70	17	⇑iP	Pn	20 42 08.7	+2.5
VOIR		7.70	17	⇑iP	Pn	20 42 08.7	+2.5
MLR	Muntele Rosu	7.97	21	⇓iP	Pn	20 42 14.8	+4.7
PLOR	Plostina	8.51	23	⇑iP	Pn	20 42 24.9	+7.5
VRI	Vrincioaia	8.55	23	⇓iP	Pn	20 42 22.1	+4.2
BOJS	Bojanci	8.91	328	i Pn	Pn	20 42 23.9	+1.0
BOJS				i Sn	Sn	20 44 01.4	-1.3
BOJS	Bojanci	8.91	328	i Pn	Pn	20 42 23.9	+1.0
BOJS				i Sn	Sn	20 44 01.4	-1.4
BRTR	Keskin Array B	9.28	76	Pn	Pn	20 42 26.4	-1.7
	0.0nm,0.3s,baz=256,slow=13,SNR=2.9						
BRTR	Keskin Array B	9.28	76	Pn	Pn	20 42 26.4	-1.6
PERS	Pernice	9.90	332	i Pn	Pn	20 42 39.3	+2.9
PERS				i Sn	Sn	20 44 21.9	-5.0
GERES	GERESS Array B	12.28	334	LR	LR	20 48 08.6	
	comp=Z,116nm,18.9s,baz=305,slow=39						
EKA	Eskdalemuir Ar	24.14	324	P	P	20 45 29.6	-0.1
	1.2nm,0.7s,mb3.4,baz=125,slow=8.5,SNR=4.2						
TORD	Torodi Ar. Bea	30.68	221	P	P	20 46 29.6	+0.9
	0.2nm,0.4s,mb3.3,baz=38,slow=8.4,SNR=4.4						
JMIC	Jan Mayen	36.54	344	LR	LR	21 00 50.7	
	comp=Z,79nm,20.9s,baz=318,slow=34						
MKAR	Makanchi Array	44.41	59	P	P	20 48 23.7	-0.8
	0.4nm,0.5s,mb3.4,baz=275,slow=7.6,SNR=9.8						
ZALV	Zalesovo Beam	44.93	48	P	P	20 48 27.3	-1.3
	0.7nm,0.3s,mb3.9,baz=278,slow=9.0,SNR=4.3						

*IDC **04** 20:54:37.1±1.2, 38°.10N×22°.11E, h0^{km}, mb3.6/8, mb1 3.7/9, mb1mx3.5/26, mbtmp3.6/9, ML3.3/1, MS3.0/1, Ms1 3.0/1, ms1mx2.4/41, Error ellipse: s-maj=25.1km s-min=21.9km az=69.0*

*ISCJB **04** 20:54:38.8±0.5, 38°.11N±0°.02×21°.93E±0°.03, h10^{km}±3^{km}, mb3.6/7, Error ellipse: s-maj=3.9km s-min=2.9km az=155.5*

*NEIC **04** 20:54:39.1, 38°.09N×21°.91E, h20^{km}, ML3.7(ATH), After ATH.*

*ATH **04** 20:54:39.1, 38°.09N×21°.91E, h20^{km}±1^{km}, MD3.6/14, ML3.7*

*THE **04** 20:54:39.4, 38°.12N×21°.96E, h5^{km}±1^{km}, ML3.9/8, Error ellipse: s-maj=1.7km s-min=0.9km az=142.0*

*CSEM **04** 20:54:40.5±0.2, 38°.10N×21°.94E, h20^{km}, ML3.7, Error ellipse: s-maj=5.2km s-min=3.6km az=59.0*

ISC 04 20:54:39.7±0.4**, 38°.12N**±0°.02×**21°.95E**±0°.03**, h10**^{km}±3^{km}**, n145, σ1^{s}05**/175**, mb3.6**/7**, 5D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFP	Efpalio	0.31	354	ePB	Pg	20 54 46.8	+0.8
EFP	Efpalio	0.31	354	ePb	Pg	20 54 46.8	+0.8
GUR	Goura	0.36	120	ePB	Pg	20 54 47.0	+0.2
GUR				eSB	Sg	20 54 53.3	+1.7
GUR	Goura	0.36	120	ePb	Pg	20 54 47.0	+0.2
GUR				eSb	Sg	20 54 53.3	+1.7
RLS	Riolos of Patr	0.38	262	ePB	Pg	20 54 47.3	+0.1
RLS	Riolos of Patr	0.38	262	ePb	Pg	20 54 47.3	+0.1
EVR	Evrytania	0.81	352	ePn	Pg	20 54 55.0	-0.3
EVR				P		20 54 58.6	
EVR	Evrytania	0.81	352	ePn	Pg	20 54 55.0	-0.3
LTK	Loutraki	0.81	96	P	Pg	20 54 55.0	-0.4
LTK				S	Sg	20 55 05.8	-0.1
LTK	Loutraki	0.81	96	ePN	Pg	20 54 55.6	+0.2
LTK	Loutraki	0.81	96	P	Pg	20 54 55.0	-0.4
LTK	Loutraki	0.81	96	ePn	Pg	20 54 55.6	+0.2
LTK				S	Sg	20 55 05.8	-0.1
VLX	Vlachokerasia	0.82	155	ePB	Pg	20 54 54.3	-1.2
VLX	Vlachokerasia	0.82	155	ePb	Pg	20 54 54.3	-1.2
ITM	Ithomi	0.93	181	ePN	Pg	20 54 56.5	-1.2
ITM	Ithomi	0.93	181	ePn	Pg	20 54 56.5	-1.2
AGG	Agios Georgios	0.95	18	P	Pg	20 54 57.3	-0.8
AGG				S	Sg	20 55 10.7	+0.2
AGG	Agios Georgios	0.95	18	ePN	Pg	20 54 57.7	-0.4
AGG	Agios Georgios	0.95	18	ePB	Pg	20 54 57.3	-0.8
AGG	Agios Georgios	0.95	18	ePb	Pg	20 54 57.3	-0.8
AGG				ePn	Pg	20 54 57.7	-0.4
AGG	Agios Georgios	0.95	18	ePb	Pg	20 54 57.3	-0.8
AGG	Agios Georgios	0.95	18	ePn	Pg	20 54 57.7	-0.4
AGG				S	Sg	20 55 10.7	+0.2
LKR	Lokris	0.99	57	P	Pg	20 54 58.3	-0.4
LKR				S	Sg	20 55 11.9	+0.4
LKR	Lokris	0.99	57	P	Pg	20 54 58.8	+0.1
LKR	Lokris	0.99	57	P	Pg	20 54 58.3	-0.4
LKR				S	Sg	20 55 11.9	+0.4
VLS	Valsamata	1.07	274	P	Pg	20 54 58.4	-1.9
VLS				S	Sg	20 55 15.4	+1.2
VLS	Valsamata	1.07	274	ePB	Pg	20 54 58.4	-1.9
VLS	Valsamata	1.07	274	P	Pg	20 54 58.4	-1.9
VLS				S	Sg	20 55 15.4	+1.2
DID	Didima	1.19	120	P	Pb	20 55 01.4	-1.0
DID				S	Sb	20 55 18.9	+1.1
DID	Didima	1.19	120	ePN	Pn	20 55 01.7	-0.7
DID	Didima	1.19	120	ePn	Pn	20 55 01.7	-0.7
DID				S	Sb	20 55 18.9	+1.1
PYL	PYLOS	1.23	188	P	Pn	20 55 01.3	-1.7
PYL				S	Sb	20 55 20.4	+1.5
PYL	PYLOS	1.23	188	ePN	Pn	20 55 01.5	-1.5
PYL	PYLOS	1.23	188	ePn	Pn	20 55 01.5	-1.5
PYL				S	Sb	20 55 20.4	+1.5
NAIG	Nisos Aigina	1.27	106	ePN	Pn	20 55 03.0	-0.6
NAIG	Nisos Aigina	1.27	106	ePn	Pn	20 55 03.0	-0.6
ATH	Athens Observa	1.41	95	ePN	Pn	20 55 06.3	+0.9
ATH	Athens Observa	1.41	95	ePn	Pn	20 55 06.3	+0.9
THL	Klokotos Trika	1.45	2	P	Pn	20 55 06.3	+0.3
THL				S	Sn	20 55 26.5	+1.4
THL	Klokotos Trika	1.45	2	ePN	Pn	20 55 06.3	+0.3
THL	Klokotos Trika	1.45	2	ePn	Pn	20 55 06.3	+0.3
THL				S	Sn	20 55 26.5	+1.4
PTL	Penteli	1.52	92	ePB	Pn	20 55 06.5	-0.4
PTL	Penteli	1.52	92	ePb	Pn	20 55 06.5	-0.4
NEO	Neokhori	1.55	40	ePB	Pn	20 55 07.0	-0.5
NEO	Neokhori	1.55	40	ePb	Pn	20 55 07.0	-0.5
XOR	Xorichti	1.58	38	P	Pn	20 55 07.2	-0.7
XOR				S	Sn	20 55 28.3	-0.1
XOR	Xorichti	1.58	38	P	Pn	20 55 07.2	-0.7
XOR	Xorichti	1.58	38	P	Pn	20 55 07.2	-0.7
XOR				S	Sn	20 55 28.3	-0.1
VLI	Veliai	1.60	150	ePN	Pn	20 55 08.0	-0.1
VLI	Veliai	1.60	150	ePn	Pn	20 55 08.0	-0.1
JAN	Janina	1.76	331	ePN	Pn	20 55 12.0	+1.7
JAN	Janina	1.76	331	ePn	Pn	20 55 12.0	+1.7
AOS	Alonnisos	1.84	55	P	Pn	20 55 10.2	-1.3
AOS	Alonnisos	1.84	55	P	Pn	20 55 10.2	-1.3
IGT	Igoumenitsa	1.90	319	P	Pn	20 55 13.1	+1.0
IGT	Igoumenitsa	1.90	319	P	Pn	20 55 13.1	+1.0
KYTH	Kithira	2.03	154	ePN	Pn	20 55 15.5	+1.5
KYTH	Kithira	2.03	154	ePn	Pn	20 55 15.5	+1.5
LIT	Litokhoron	2.03	12	P	Pn	20 55 13.5	-0.5
LIT				S	Sn	20 55 40.1	+0.7
LIT	Litokhoron	2.03	12	ePB	Pn	20 55 14.0	0.0
LIT	Litokhoron	2.03	12	P	Pn	20 55 13.5	-0.5
LIT				S	Sn	20 55 40.1	+0.7
KZN	Kozani	2.19	357	ePN	Pn	20 55 18.1	+1.9
KZN	Kozani	2.19	357	ePn	Pn	20 55 18.1	+1.9
PAIG	Paliouri	2.26	36	P	Pn	20 55 15.8	-1.3
PAIG				S	Sn	20 55 45.0	-0.1
PAIG	Paliouri	2.26	36	P	Pn	20 55 15.8	-1.3
PAIG				S	Sn	20 55 45.0	-0.1
KEK	Kerkira	2.31	314	ePB	Pn	20 55 18.9	+1.0
PLG	Polygyros	2.54	27	P	Pn	20 55 20.1	-0.9
PLG	Polygyros	2.54	27	ePN	Pn	20 55 21.4	+0.4
PLG	Polygyros	2.54	27	P	Pn	20 55 20.1	-0.9
PLG	Polygyros	2.54	27	ePn	Pn	20 55 21.4	+0.4
HORT	Hortiatis	2.64	19	P	Pn	20 55 21.4	-0.9
HORT	Hortiatis	2.64	19	P	Pn	20 55 21.4	-0.9
FNA	Florina	2.70	351	P	Pn	20 55 24.5	+1.3
FNA				S	Sn	20 55 56.4	+0.4
FNA	Florina	2.70	351	P	Pn	20 55 24.5	+1.3
FNA				S	Sn	20 55 56.4	+0.4
OUR	Ouranopolis	2.72	35	P	Pn	20 55 22.6	-0.9
OUR	Ouranopolis	2.72	35	P	Pn	20 55 22.6	-0.9
GRG	Griva	2.86	7	P	Pn	20 55 25.7	+0.3
GRG	Griva	2.86	7	P	Pn	20 55 25.7	+0.3
SOH	Sokhos	2.91	22	P	Pn	20 55 25.8	-0.4
SOH				S	Sn	20 56 02.6	+1.4
SOH	Sokhos	2.91	22	P	Pn	20 55 25.8	-0.4
SOH				S	Sn	20 56 02.6	+1.4
APE	Apeiranthos	3.03	109	P	Pn	20 55 27.1	-0.7
APE	Apeiranthos	3.03	109	⇓iP	Pn	20 55 27.0	-0.8
APE	Apeiranthos	3.03	109	P	Pn	20 55 27.5	-0.3
APE	Apeiranthos	3.03	109	P	Pn	20 55 27.5	-0.3
LIA	Limnos Island	3.09	54	P	Pn	20 55 27.6	-0.9
LIA	Limnos Island	3.09	54	P	Pn	20 55 28.5	0.0
LIA	Limnos Island	3.09	54	P	Pn	20 55 28.5	0.0
KNT	Kendrikon	3.13	13	P	Pn	20 55 29.6	+0.5
KNT	Kendrikon	3.13	13	P	Pn	20 55 29.6	+0.5
KARN	Karanos	3.14	149	P	Pn	20 55 29.8	+0.6
KARN	Karanos	3.14	149	P	Pn	20 55 29.8	+0.6
THR3	Thira Island,	3.24	121	P	Pn	20 55 31.6	+1.0
THR3	Thira Island,	3.24	121	P	Pn	20 55 31.6	+1.0
CHOS	Chios island	3.25	84	P	Pn	20 55 30.4	-0.3
CHOS	Chios island	3.25	84	P	Pn	20 55 30.4	-0.3
SIGR	SIGRI	3.25	69	P	Pn	20 55 29.8	-1.0
SIGR	SIGRI	3.25	69	P	Pn	20 55 29.8	-1.0
VAM	Vamos	3.25	146	ePN	Pn	20 55 32.5	+1.7
VAM	Vamos	3.25	146	ePn	Pn	20 55 32.5	+1.7
THR6	Thira Island,	3.27	121	P	Pn	20 55 31.4	+0.4
THR6	Thira Island,	3.27	121	P	Pn	20 55 31.4	+0.4
KRUS	Krusevo	3.29	351	ePn	Pn	20 55 33.3	+1.9
KRUS	Krusevo	3.29	351	ePn	Pn	20 55 33.3	+1.9
IDI	Anoyia	3.68	139	Pn	Pn	20 55 35.5	-1.3
	2.4nm,0.3s,baz=316,slow=15,SNR=31						
IDI				Sn	Sn	20 56 21.5	+1.3
	3.9nm,0.3s,baz=304,slow=18,SNR=3.3						
IDI	Anoyia	3.68	139	Pn	Pn	20 55 35.5	-1.2
IDI				Sn	Sn	20 56 21.5	+1.3
MMB	Musomiste	3.73	21	P	Pn	20 55 36.7	-0.7
SMG	Samos	3.89	94	P	Pn	20 55 39.8	+0.2
SMG	Samos	3.89	94	P	Pn	20 55 39.8	+0.2
LAST	Lasithi	4.09	135	P	Pn	20 55 41.6	-0.8
LAST	Lasithi	4.09	135	P	Pn	20 55 41.6	-0.8
RZN	Rozhen	4.16	30	P	Pn	20 55 43.8	+0.6
TIP	Timpagrande	4.20	286	P	Pn	20 55 45.4	+1.6
TIP	Timpagrande	4.20	286	P	Pn	20 55 45.4	+1.6
TAR1	Taranto	4.34	305	ePn	Pn	20 55 45.6	-0.2
PE1	Pezze di Greco	4.41	309	ePn	Pn	20 55 47.0	+0.3
KDZ	Kurdzhali	4.43	36	P	Pn	20 55 46.0	-0.9
ZKR	Zakros	4.56	130	P	Pn	20 55 49.7	+1.0
ZKR	Zakros	4.56	130	P	Pn	20 55 49.7	+1.0
VTS	Vitosha	4.57	12	P	Pn	20 55 43.7	-5.3
SG1	Sgolgore (BA)	4.90	305	ePn	Pn	20 55 53.0	-0.4
VAE	Valguarnera	6.00	266	LR	LR	20 59 02.8	
	comp=Z,121nm,19.0s,baz=114,slow=43						
VOIR		7.67	17	⇓iP	Pn	20 56 32.9	+1.4
VOIR		7.67	17	⇓iP	Pn	20 56 32.9	+1.4
MLR	Muntele Rosu	7.95	21	⇓iP	Pn	20 56 36.9	+1.6
MLR	Muntele Rosu	7.95	21	⇓iP	Pn	20 56 36.9	+1.6
BOJS	Bojanci	8.91	328	i Pn	Pn	20 56 47.4	-1.1
BOJS				i Sn	Sn	20 58 26.2	-2.7
BOJS	Bojanci	8.91	328	i Pn	Pn	20 56 47.4	-1.1
BRTR	Keskin Array B	9.26	76	Pn	Pn	20 56 53.6	+0.4
	0.1nm,0.3s,baz=290,slow=36,SNR=3.6						
BRTR	Keskin Array B	9.26	76	Pn	Pn	20 56 53.7	+0.5
PERS	Pernice	9.90	332	i Pn	Pn	20 57 00.9	-1.1
PERS				i Sn	Sn	20 58 49.5	-3.6
PERS	Pernice	9.90	332	i Pn	Pn	20 57 00.9	-1.1
HFS	Hagfors	22.66	349	P	P	20 59 40.6	-0.1
	2.2nm,0.7s,mb3.7,baz=155,slow=11,SNR=5.8						
HFS	Hagfors	22.66	349	P	P	20 59 40.6	-0.2
NOA	NORSAR Array B	23.91	347	P	P	20 59 54.6	+1.1
	1.1nm,0.8s,mb3.4,baz=159,slow=12,SNR=3.0						
NOA	NORSAR Array B	23.91	347	P	P	20 59 54.6	+1.1
EKA	Eskdalemuir Ar	24.14	324	P	P	20 59 55.0	-0.7
	1.9nm,0.6s,mb3.7,baz=123,slow=8.9,SNR=10						
EKA	Eskdalemuir Ar	24.14	324	P	P	20 59 55.0	-0.6
TORD	Torodi Ar. Bea	30.71	221	P	P	21 00 54.0	-0.9
	0.2nm,0.4s,baz=29,slow=8.3,SNR=4.6						
ARCES	ARCESS Array B	31.54	2	P	P	21 00 59.8	-1.9
	1.5nm,0.8s,mb3.9,baz=200,slow=10,SNR=3.0						
ARCES	ARCESS Array B	31.54	2	P	P	21 00 59.8	-1.9
KURK	Kurchatov	41.41	53	P	P	21 02 23.1	-3.0
	0.8nm,0.8s,mb3.4,baz=282,slow=9.4,SNR=5.5						
KURK	Kurchatov	41.41	53	P	P	21 02 23.1	-3.0
MKAR	Makanchi Array	44.38	59	P	P	21 02 48.3	-1.9
	0.5nm,0.6s,mb3.5,baz=276,slow=7.8,SNR=8.8						
ZALV	Zalesovo Beam	44.90	48	P	P	21 02 52.3	-1.9
	0.8nm,0.4s,mb3.9,baz=281,slow=9.0,SNR=4.2						
ZALV	Zalesovo Beam	44.90	48	P	P	21 02 52.3	-1.9

DJA 04 21:16:16, 3°.70S×101°.40E, h10^{km}**, MLv4.0**/4**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSI	Kapahiang	1.19	88	P	Pb	21 16 36.9	-1.8
MNAI	Manna	1.69	113	P	Pn	21 16 44.9	-0.6
PDSI	Padang	2.92	341	P	Pn	21 17 01.6	-1.0
PDSI				S	Sn	21 17 39.3	+1.5
PPI	Padang Panjang	3.37	343	P	Pn	21 17 09.7	+0.9

*ISCJB **04** 21:19:21.1±0.4, 37°.12N±0°.02×71°.54E±0°.03, h95^{km}±4^{km}, mb4.3/73, Error ellipse: s-maj=3.9km s-min=3.0km az=163.0*

*MOS **04** 21:19:21.9±1.3, 37°.20N×71°.52E, h100^{km}, mb4.4/40, Error ellipse: s-maj=7.2km s-min=4.9km az=95.1*

*BJI **04** 21:19:21.9, 37°.28N×71°.44E, h100^{km}, mB4.9/22, mb4.7/36*

*IDC **04** 21:19:22.1±0.7, 37°.04N×71°.50E, h93^{km}±6^{km}, mb3.9/25, mb1 4.0/27, mb1mx4.0/30, mbtmp3.9/27, MS3.2/5, Ms1 3.2/5, ms1mx2.9/28, Error ellipse: s-maj=12.8km s-min=9.5km az=15.0*

*NEIC **04** 21:19:23.0±0.7, 37°.15N×71°.50E, h97^{km}±6^{km}, mb4.5/35, Error ellipse: s-maj=5.9km s-min=5.2km az=188.0*

*DJA **04** 21:19:25, 36°.97N×73°.40E, h10^{km}, mb5.2/8*

*NNC **04** 21:19:29.4±3.2, 37°.73N×71°.34E, h200^{km}±29^{km}, mb3.9, mpv5.3, Error ellipse: s-maj=28.9km s-min=14.5km az=10.0*

*SZGRF **04** 21:19:33.8, 36°.93N×72°.83E, h33^{km}, mb4.7, Afghanistan-Tajikistan border region*

*CSEM **04** 21:20:33.7, 43°.82N×64°.39E, h97^{km}, mb4.8, After BER*

ISC 04 21:19:22.9±0.3**, 37°.13N**±0°.02×**71°.58E**±0°.03**, h96**^{km}±3^{km}**, h97**^{km}±1.8^{km}**:pP-P, n259, σ1^{s}29**/287**, mb4.3**/72**, 16C-17D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	3.31	219	ePn	Pn	21 20 13.6	+1.1
KBL				eSn	Px	21 20 30.9	
CEP	Cherat	3.31	175	⇑P	Pn	21 20 15.5	+2.8
CEP				S	Sn	21 20 57.0	+5.8
CHCP	Chirah Chowk	3.73	158	P	Pn	21 20 22.2	+3.9
KSH	Kashi	4.20	54	eP	Pn	21 20 24.5	-0.1
KSH				S	Sn	21 21 07.8	-4.7
KSH				smax			
	comp=N,9μm,0.4s						
KSH				smax			
	comp=E,7μm,0.6s						
SBDP	Sheikh Budin	4.86	188	P	Pn	21 20 34.9	+1.2
SBDP				S	Sn	21 21 29.0	+0.3
JMU	Jammu	5.18	147	ePKP	Pn	21 20 40.0	+2.0
JMU				eS	Sn	21 21 36.5	0.0
AML	Almayashu	5.25	17	P	Pn	21 20 39.6	+0.7
	SNR=795						
AML	Almayashu	5.25	17	⇓iPn	Pn	21 20 39.5	+0.6
	comp=E,984nm,0.6s						
AML				eSn	Sn	21 21 27.1	-11
SARP	Sargodha	5.28	170	P	Pn	21 20 40.8	+1.5
UCH	Uchtor	5.57	23	P	Pn	21 20 44.5	+1.3
	SNR=26						
UCH	Uchtor	5.57	23	ePn	Pn	21 20 44.1	+1.0
	comp=E,59nm,0.6s						
UCH				eSn	Sn	21 21 39.7	-6.1
KZA	Kyzart	5.70	29	P	Pn	21 20 46.0	+1.2
	SNR=179						
EKS2	Erkin-Say	5.78	16	P	Pn	21 20 46.7	+0.7
	SNR=130						
EKS2	Erkin-Say	5.78	16	⇓iPn	Pn	21 20 46.1	+0.2
	comp=E,229nm,0.6s						
EKS2				eSn	Sn	21 21 39.6	-11
DLH	Dalhousie	5.83	140	ePKP	Pn	21 20 48.0	+1.2
DLH				ex	Sn	21 21 54.0	+1.7
AAK	Ala-Archa	5.93	21	ePN	Pn	21 20 49.3	+1.2
AAK				pmax	pmax		
	comp=Z,216nm,0.6s						
AAK	Ala-Archa	5.93	21	P	Pn	21 20 49.2	+1.1
	SNR=224						
AAK	Ala-Archa	5.93	21	ePn	Pn	21 20 49.3	+1.1
	comp=Z,216nm,0.6s						
AAK				eSn	Sn	21 21 41.5	-13
KK31	Karatay Array	6.02	353	PN	Pn	21 20 47.9	-1.4
KK31				pmax	pmax		
	comp=Z,99nm,0.2s						
KK31	Karatay Array	6.02	353	⇑P	Pn	21 20 48.0	-1.3
	comp=Z,162nm,0.5s,baz=177,slow=13,SNR=1222						
KK31				⇓S	Sn	21 21 53.2	-3.6
	comp=Z,55nm,0.4s,baz=171,slow=23,SNR=4.2						
KBK	Karagaybulak	6.09	24	P	Pn	21 20 51.8	+1.4
	SNR=59						
FRU	Bishkek	6.15	21	⇓iPN	Pn	21 20 52.0	+0.9
FRU				pmax	pmax		
	comp=Z,350nm,1.6s						
FRU				pmax	pmax		
	comp=E,800nm,1.8s						
ULHL	Ulahol	6.25	34	P	Pn	21 20 54.4	+2.0
	SNR=63						
CHMS	Chumysh	6.34	22	P	Pn	21 20 54.5	+0.8
	SNR=476						
USP	Ospenovka	6.52	19	P	Pn	21 20 56.3	+0.2
	SNR=155						
TKM2	Tokmak 2	6.55	27	PN	Pn	21 20 57.6	+1.1
TKM2				pmax	pmax		
	comp=Z,86nm,0.6s						
TKM2	Tokmak 2	6.55	27	P	Pn	21 20 57.9	+1.4
	SNR=60						
TKM2	Tokmak 2	6.55	27	ePn	Pn	21 20 57.5	+1.0
	comp=Z,238nm,0.7s						
TKM2				eSn	Sn	21 21 54.0	-16
TKM2	Tokmak 2	6.55	27	⇓P	Pn	21 20 57.7	+1.1
	comp=Z,177nm,0.6s						
TKM2				⇓S	Sn	21 22 09.2	-0.6
	comp=Z,109nm,0.8s						
BHK	Bhakra	6.97	144	ePKP	Pn	21 21 01.4	-0.9
BHK				ex	Sn	21 22 18.8	-1.2
SDNR	Sundarnagar	7.17	140	ePKP	Pn	21 21 05.9	+0.8
SDNR				eS	Sn	21 22 21.9	-3.1
KNDC	Almaty	7.34	32	⇑P	Pn	21 21 09.3	+2.0
	comp=Z,157nm,0.6s						
KNDC				⇑S	Sn	21 22 28.2	-0.9
	comp=Z,150nm,0.9s						
NDI	New Delhi	9.66	149	ePKP	Pn	21 21 38.5	-0.5
PTH	Pithoragarh	10.45	134	ePKP	Pn	21 21 50.4	+0.7
PTH				ex	Sn	21 23 41.2	-3.7
LGTI	Lohaghat	10.55	134	ePKP	Pn	21 21 46.5	-4.5
LGTI				eS	Sn	21 23 35.0	-12
AJM	Ajmer	10.94	165	ePKP	Pn	21 21 55.0	-1.3
AJM				ex	x	21 23 40.2	
MK31	Makanchi Array	12.51	36	eP	Pn	21 22 16.8	-0.4
MK31				pmax	pmax		
	comp=Z,11nm,0.6s						
MK31	Makanchi Array	12.51	36	ePn	Pn	21 22 16.6	-0.7
MK31	Makanchi Array	12.51	36	P	Pn	21 22 16.8	-0.4
	comp=Z,6.1nm,0.5s,baz=224,slow=13,SNR=192						
MKAR	Makanchi Array	12.51	36	P	Pn	21 22 16.6	-0.6
	comp=Z,2.1nm,0.3s,baz=225,slow=15,SNR=172						
MKAR				LR	LR	21 28 06.0	
	comp=Z,27nm,21.3s,baz=228,slow=42						
PYUN	Piuthan	13.17	130	eP	Pn	21 22 24.0	-2.1
	comp=Z,104nm,0.4s						
PYUN				eS	Sn	21 24 41.2	-10
DANN	Dangsing	13.47	127	eP	Pn	21 22 28.0	-2.1
	comp=Z,98nm,0.4s						
KOLN	Koldanda	13.78	129	eP	Pn	21 22 32.5	-1.6
	comp=Z,97nm,0.5s						
BHJ	Bhuj	13.93	187	ePKP	Pn	21 22 34.1	-1.9
BHJ				ex	x	21 24 55.8	
WMQ	Urumqi	13.96	56	eP	Pn	21 22 36.2	-0.1
WMQ				sP		21 23 04.0	
WMQ				S	Sn	21 25 10.0	+0.2
WMQ				SS		21 25 30.0	
WMQ				pmax	pmax		
	comp=Z,16nm,0.8s						
WMQ				pmax	pmax		
	comp=Z,210nm,4.7s						
GKN	Gorkha	14.28	126	eP	Pn	21 22 38.0	-2.5
KURBB	Kurchatov Arra	14.38	18	⇓P	Pn	21 22 37.3	-4.3
	comp=Z,1.9nm,0.6s						
KURK	Kurchatov	14.49	18	P	Pn	21 22 37.8	-5.2
	comp=Z,0.3nm,0.3s,baz=215,slow=13,SNR=23						
KURK	Kurchatov	14.49	18	ePn	Pn	21 22 38.8	-4.2
KURK				eSn	Sn	21 25 15.9	-6.5
KURK	Kurchatov	14.49	18	⇑P	Pn	21 22 38.2	-4.8
	comp=Z,12nm,0.9s						
BHPL	Bhopal	14.73	158	ePKP	Pn	21 22 48.1	+1.8
BHPL				ex	x	21 25 18.3	
AB31	Akbulak array	14.77	329	P	Pn	21 22 41.3	-5.3
AB31				pmax	pmax		
	comp=Z,27nm,0.4s						
AB09	Akbulak array	14.78	329	⇑P	Pn	21 22 41.2	-5.6
	comp=Z,16nm,0.4s						
AB09				⇓S	Sn	21 25 14.3	-15
	comp=Z,22nm,0.8s						
KKN	Kakani	14.84	125	eP	Pn	21 22 45.2	-2.5
	comp=Z,108nm,0.6s						
DMN	Daman	14.85	126	eP	Pn	21 22 45.9	-1.9
	comp=Z,41nm,0.3s						
PKIN	Phulchoki	15.06	125	eP	Pn	21 22 49.1	-1.4
PKI	Pulchoki	15.07	125	eP	Pn	21 22 49.0	-1.6
GUN	Gumba	15.15	123	eP	Pn	21 22 49.5	-2.2
	comp=Z,702nm,0.9s						
JIRN	Jiri	15.53	123	eP	Pn	21 22 55.2	-1.2
	comp=Z,368nm,0.7s						
VOSK	Vostochnaya	15.60	359	P	Pn	21 22 53.4	-3.6
VOSK				pmax	pmax		
	comp=Z,63nm,1.0s						
VOSK	Vostochnaya	15.60	359	⇓P	Pn	21 22 53.1	-4.0
	comp=Z,63nm,0.9s						
JBP	Jabalpur	15.69	150	⇑ePKP	Pn	21 23 00.9	+2.4
JBP				ex	x	21 23 04.1	
	comp=Z,30nm,1.4s						
JBP				i x	x	21 25 39.9	
BVA0	Borovoye Array	15.91	357	⇑P	Pn	21 22 57.2	-3.8
	comp=Z,3.0nm,0.6s,baz=172,slow=12,SNR=8.8						
BVAR	Borovoye Array	15.91	357	P	Pn	21 22 57.6	-3.4
BVAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
BVAR				MLR	MLR		
	comp=Z,50nm,20.1s						
BVAR	Borovoye Array	15.91	357	P	Pn	21 22 57.6	-3.4
	comp=Z,3.9nm,0.3s,baz=156,slow=13,SNR=85						
BVAR				LR	LR	21 29 58.8	
	comp=Z,50nm,20.1s,baz=205,slow=40						
BVAR	Borovoye Array	15.91	357	P	Pn	21 22 57.6	-3.4
BVAR				LR	LR	21 29 58.8	
BRVK	Borovoye	15.95	357	ePn	Pn	21 22 58.5	-3.0
BRVK				eSn	Sn	21 25 54.0	-3.8
RAMN	Ramite	16.27	124	eP	Pn	21 23 03.4	-2.2
	comp=Z,232nm,0.8s						
AKTK	Aktyubinsk	16.48	328	P	Pn	21 23 04.7	-3.3
AKTK				S	S	21 25 54.4	-22
AKTK				LR	LR	21 30 03.6	
AKTO	Aktyubinsk	16.48	328	P	Pn	21 23 04.7	-3.3
	comp=Z,4.0nm,0.3s,baz=136,slow=12,SNR=49						
AKTO				S	S	21 25 54.4	-22
	comp=Z,1.6nm,0.3s,baz=233,slow=17,SNR=4.7						
AKTO				LR	LR	21 30 03.6	
	comp=Z,89nm,19.6s,baz=252,slow=39						
AKTO	Aktyubinsk	16.48	328	⇓P	Pn	21 23 02.8	-5.2
	comp=Z,21nm,0.8s						
AKTO				⇑S	S	21 25 55.8	-20
	comp=Z,4.7nm,1.2s						
TAPN	Taplejung	16.75	121	eP	Pn	21 23 09.8	-1.8
	comp=Z,141nm,0.5s						
ODAN	Odare	16.85	123	eP	Pn	21 23 10.8	-2.1
	comp=Z,198nm,0.9s						
LSA	Lhasa	17.93	109	P	Pn	21 23 28.0	+2.1
LSA	Lhasa	17.93	109	eP	Pn	21 23 27.8	+1.9
LSA				eS	S	21 26 44.3	-1.5
LSA				pmax	pmax		
	comp=Z,43nm,0.8s						
LSA	Lhasa	17.93	109	eP	Pn	21 23 27.8	+2.0
	comp=Z,43nm,0.8s						
LSA				eS	S	21 26 44.2	-1.6
BOK	Bokaro	18.10	133	ePKP	Pn	21 23 28.7	+0.7
BOK				AMb	AMB	21 23 30.7	
	comp=Z,48nm,0.5s						
BOK				ex	x	21 26 34.6	
ZAA0	Zalesovo Array	19.15	24	eP	Pn	21 23 37.8	-2.4
ZAA0				eS	S	21 26 51.5	-19

ZALV	Zalesovo Beam	19.15	24	P	Pn	21 23 38.2	-2.0
ZALV				S	S	21 27 06.9	-3.2
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ZALV	Zalesovo Beam	19.15	24	P	Pn	21 23 38.2	-2.0
	comp=Z,4.9nm,0.3s,baz=219,slow=10,SNR=112						
ZALV				S	S	21 27 06.9	-3.2
	comp=Z,0.3nm,0.3s,baz=213,slow=18,SNR=3.8						
LATR	Latur	19.15	165	ex	x	21 27 02.5	
NVS	Novosibirsk	19.43	21	eP	Pn	21 23 40.3	-3.2
NVS				eS	S	21 27 11.1	-4.5
NVS				pmax	pmax		
	comp=N,24nm,1.7s						
NVS				pmax	pmax		
	comp=Z,24nm,1.7s						
NVS				smax			
	comp=N,43nm,1.7s						
HYB	Hyderabad	20.58	161	i P	P	21 23 58.0	+3.9
HYB				eS	S	21 27 40.0	+1.0
HYB	Hyderabad	20.58	161	eP	P	21 23 56.0	+1.9
SHL	Shillong	20.78	118	ePKP	P	21 24 00.0	+3.8
SHL				ex	x	21 27 38.0	
SVE	Sverdlovsk	21.02	343⇓	eP	P	21 23 57.2	-1.3
SVE				eS	S	21 27 46.2	-0.7
SVE				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.5						
GNI	Garni	21.15	286	eP	P	21 24 01.6	+1.5
GNI				eS	S	21 27 51.7	+1.9
GNI				pmax	pmax		
	comp=Z,19nm,0.9s						
GNI	Garni	21.15	286	P	P	21 23 59.1	-0.9
	comp=Z,9.4nm,0.8s,mb4.2,baz=29,slow=2.0,SNR=15						
GNI	Garni	21.15	286	eP	P	21 24 01.6	+1.6
	comp=Z,19nm,0.9s,mb4.4						
GNI				eS	S	21 27 51.7	+1.9
ARU	Arti	21.19	340	eP	P	21 23 59.2	-1.2
ARU				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.6						
ARU	Arti	21.19	340	eP	P	21 23 59.2	-1.1
	comp=Z,20nm,0.7s,mb4.6						
GTA	Gaotai	22.25	75	P	P	21 24 14.4	+2.6
GTA				pP		21 24 34.9	
GTA				sP	sP	21 24 47.0	+4.5
GTA				PcP	PcP	21 28 01.8	-2.5
GTA				S	S	21 28 14.6	+4.4
GTA				ScP	ScP	21 31 29.3	-3.7
GTA				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.4						
GTA				pmax	pmax		
	comp=Z,180nm,5.4s						
GTA				LR	LR		
	comp=N,89nm,15.0s						
GTA				LR	LR		
	comp=E,96nm,13.8s						
GTA				LR	LR		
	comp=Z,99nm,16.5s						
KIV	Kislovodsk	22.91	296	eP	P	21 24 19.2	+0.6
KIV				eS	S	21 28 24.3	+3.4
KIV				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb3.8						
KIV				MLR	MLR		
	comp=Z,36nm,14.0s						
KIV	Kislovodsk	22.91	296	eP	P	21 24 18.8	+0.3
	comp=Z,19nm,0.8s,mb4.5						
KIV				eS	S	21 28 23.2	+2.3
SOC	Sochi	25.02	295	eP	P	21 24 37.0	-0.7
SOC				e*SP	sP	21 24 56.0	-14
SOC				e		21 25 10.1	
SOC				eS	S	21 28 58.4	+3.7
SOC				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.2						
MOY	Mondy	25.33	46	eP	P	21 24 43.1	+2.6
VRHR	Novokhopersk	25.42	313	eP	P	21 24 41.5	+0.2
VRHR				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.3						
VRHR				pmax	pmax		
	comp=N,3.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,8.0nm,0.8s						
LZH	Lanzhou	25.86	82	eP	P	21 24 47.2	+1.8
LZH				PP		21 25 33.0	
LZH				eS	S	21 29 02.0	-6.2
LZH				sS	sS	21 29 46.5	+1.1
LZH				SS		21 30 23.0	
LZH				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.4						
LZH				pmax	pmax		
	comp=Z,85nm,4.8s						
LZH				LR	LR		
	comp=E,600nm,14.6s						
LZH				LR	LR		
	comp=Z,970nm,15.2s						
MALT	Malatya	26.17	283	P	P	21 24 50.1	+1.9
MALT				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb3.9						
MALT	Malatya	26.17	283	P	P	21 24 50.0	+1.8
	comp=Z,6.1nm,1.1s,mb3.9						
ZAK	Zakamensk	26.23	50⇑	eP	P	21 24 50.4	+1.8
ZAK				e		21 25 28.8	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.8						
VORD	Divnogorie	26.76	311	eP	P	21 24 54.7	+1.3
VORD				e*SP	sP	21 25 15.5	-10
VORD				pmax	pmax		
	comp=N,4.0nm,0.6s						
VORD				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
VORD				pmax	pmax		
	comp=E,9.0nm,0.8s						
VSR	Storozhevoye	26.92	312	i P	P	21 24 55.1	+0.3
CD2	Chengdu	27.30	94	P	P	21 25 00.4	+1.9
CD2				pP	pP	21 25 21.9	+2.0
CD2				sP	sP	21 25 33.7	+2.7
CD2				PP	PP	21 25 51.4	-10
CD2				PcP	PcP	21 28 17.7	+2.0
CD2				S	S	21 29 31.1	+0.1
CD2				SS		21 30 54.3	
CD2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
CD2				pmax	pmax		
	comp=Z,130nm,5.0s						
CD2				LR	LR		
	comp=N,310nm,4.8s						
CD2				LR	LR		
	comp=Z,210nm,6.0s						
SONM	Songino Array	27.60	56	P	P	21 25 03.0	+2.1
SONM				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SONM	Songino Array	27.60	56	P	P	21 25 03.0	+2.1
	comp=Z,5.4nm,0.9s,mb4.1,baz=257,slow=9.8,SNR=27						
KMI	Kunming	29.11	105	P	P	21 25 14.6	0.0
KMI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
BRTR	Keskin Array B	29.69	287	P	P	21 25 19.9	+0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	29.69	287	P	P	21 25 19.9	+0.3
	comp=Z,1.4nm,0.6s,mb3.7,baz=108,slow=7.9,SNR=7.2						
OBN	Obninsk	29.77	318	P	P	21 25 26.0	+5.9
OBN				e		21 26 20.0	
CHTO	Chiang Mai	30.12	120	eP	P	21 25 26.0	+2.4
CMAR	Chiang Mai Arr	30.36	120	P	P	21 25 26.3	+0.6
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
CMAR	Chiang Mai Arr	30.36	120	P	P	21 25 26.3	+0.6
	comp=Z,2.5nm,0.7s,mb4.0,baz=313,slow=9.1,SNR=17						
XAN	Xi'an	30.40	85	P	P	21 25 27.5	+1.6
XAN				pP	pP	21 25 49.3	+1.8
XAN				S	S	21 30 19.2	-0.4
XAN				sS	sS	21 30 57.3	+0.2
XAN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
XAN				pmax	pmax		
	comp=Z,71nm,4.6s						
HHC	Hu-ho-hao-te	31.11	71	eP	P	21 25 33.4	+1.3
HHC				pP	pP	21 25 54.7	+1.0
HHC				sP	sP	21 26 06.8	+2.0
HHC				PP	PP	21 26 38.9	-5.1
HHC				S	S	21 30 29.5	-1.1
HHC				sS	sS	21 31 07.6	-0.5
HHC				PcS	PcS	21 32 09.6	+0.3
HHC				SS	SS	21 32 20.9	-26
HHC				ScS	ScS	21 35 55.3	-1.2
HHC				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
HHC				pmax	pmax		
	comp=Z,180nm,5.6s						
HHC				LR	LR		
	comp=N,130nm,14.3s						
HHC				LR	LR		
	comp=E,180nm,14.3s						
HHC				LR	LR		
	comp=Z,130nm,13.1s						
KLMR	Klimovskoe	31.16	330	P	P	21 25 34.9	+2.6
KLMR				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.4						
GYA	Guiyang	31.50	100	P	P	21 25 37.2	+1.5
GYA				pP	pP	21 26 01.5	+4.2
GYA				sP	sP	21 26 11.3	+2.9
GYA				PP	PP	21 26 45.0	-3.5
GYA				S	S	21 30 37.9	+0.9
GYA				sS	sS	21 31 15.6	+1.1
GYA				ScP	ScP	21 32 01.2	+0.3
GYA				ScS	ScS	21 35 57.0	-1.9
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
AKASG	Malin Array Be	32.92	308	P	P	21 25 46.6	-1.2
AKASG				*PP	pP	21 26 09.2	-0.3
AKASG						21 28 29.6	
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	32.92	308	P	P	21 25 46.6	-1.2
	comp=Z,0.8nm,0.4s,mb3.9,baz=79,slow=7.3,SNR=6.5						
AKASG				pP	pP	21 26 09.2	-0.3
	comp=Z,3.5nm,0.7s,baz=80,slow=7.7,SNR=4.3						
AKASG				PcP	PcP	21 28 29.6	-0.3
	comp=Z,1.9nm,0.7s,baz=86,slow=3.1,SNR=6.7						
TIRR	Tirgusor	33.18	296	P	P	21 25 51.0	+0.9
VRI	Vrincioaia	34.32	299⇓	iP	pP	21 26 23.8	+2.0
BOD	Bodaibo	34.57	40	eP	P	21 26 01.9	-0.1
BOD				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.3						
BJT	Baijiatuau	34.71	71	eP	P	21 26 05.6	+2.2
BJT				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BJT	Baijiatuau	34.71	71	eP	P	21 26 05.6	+2.2
	comp=Z,5.6nm,0.6s,mb4.6						
BJI	Beijing	34.71	71	P	P	21 26 05.6	+2.1
BJI				PP	PP	21 27 21.6	-2.2
BJI				S	S	21 31 26.6	+0.2
BJI				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.7						
BJI				pmax	pmax		
	comp=Z,110nm,4.7s						
BJI				LR	LR		
	comp=N,170nm,25.7s						
BJI				LR	LR		
	comp=E,280nm,25.7s						
BJI				LR	LR		
	comp=Z,51nm,31.1s						
MLR	Muntele Rosu	34.88	298⇓	iP	P	21 26 06.3	+1.4
BURAR	Bucovina Array	35.34	302⇑	iP	pP	21 26 31.5	+0.9
BUR08	Bucovina Ar. S	35.35	302	eP	P	21 26 08.5	-0.3
VOIR		35.51	298⇓	iP	P	21 26 16.8	+6.5
JOF	Joensuu	35.56	329	eP	P	21 26 08.8	-1.6
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
JOF	Joensuu	35.56	329	ep	P	21 26 08.8	-1.6
	comp=Z,1.1nm,0.4s,mb4.1						
WHN	Wuhan	35.90	88	P	sP	21 26 48.0	+1.3
APE	Apeiranthos	36.44	284⇓	iP	P	21 26 18.0	-0.3
HIA	Hailar	36.55	55	eP	P	21 26 21.0	+1.9
HIA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HIA	Hailar	36.55	55	eP	P	21 26 20.9	+1.9
	comp=Z,3.8nm,0.6s,mb4.5						
KWP	Kalwaria Pacla	37.02	306	eP	P	21 26 24.3	+1.3
KAF	Kangasniemi	37.35	327	ep	P	21 26 30.0	+4.3
IDI	Anoyia	37.42	282	P	P	21 26 25.6	-1.1
	comp=Z,1.2nm,0.6s,mb4.0,baz=34,slow=12,SNR=4.7						
BZS	Buzias	37.91	299⇓	iP	pP	21 26 53.5	+0.8
NIE	Niedzica	38.58	305	eP	pP	21 26 59.8	+1.5
PSZ	Piszkesteto	38.91	303	eP	P	21 26 39.4	+0.4
PSZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
PSZ	Piszkesteto	38.91	303	eP	P	21 26 39.4	+0.4
	comp=Z,2.2nm,0.6s,mb4.2						
MORC	Moravsky Berou	40.37	306	P	P	21 26 50.6	-0.4
MORC				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.2						
MORC	Moravsky Berou	40.37	306	P	P	21 26 50.6	-0.3
	comp=Z,4.0nm,1.1s,mb4.2						
KEV	Kevo	40.39	338	eP	P	21 26 49.9	-1.0
KEV				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
KEV	Kevo	40.39	338	ep	P	21 26 49.9	-1.0
	comp=Z,1.4nm,0.6s,mb4.0						
ARCES	ARCESS Array B	40.74	337	P	P	21 26 53.7	-0.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,98nm,18.7s						
ARCES	ARCESS Array B	40.74	337	P	P	21 26 53.6	-0.2
	comp=Z,2.0nm,0.6s,mb4.2,baz=111,slow=7.7,SNR=32						
ARCES				LR	LR	21 45 02.2	
	comp=Z,98nm,18.6s,baz=297,slow=38						
ARCES	ARCESS Array B	40.74	337	P	P	21 26 53.6	-0.2
ARCES				LR	LR	21 45 02.2	
ARE0	ARCESS Array S	40.74	337	eP	P	21 26 54.0	+0.1
CN2	Changchun	40.91	63	eP	P	21 26 55.1	-0.4
KTK1	Kautokeino	41.23	336	eP	P	21 26 57.6	-0.2
KTK1	Kautokeino	41.23	336	eP	P	21 26 57.6	-0.2
	SNR=39						
PSI	Prapat	42.42	137	P	P	21 27 07.9	-0.3
PSI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
PSI	Prapat	42.42	137	P	P	21 27 07.9	-0.2
	comp=Z,6.7nm,0.7s,mb4.5,baz=322,slow=9.2,SNR=10						
BRG	Berggiesshubel	42.60	308	eP	pP	21 27 32.6	+0.9
	comp=Z,14nm,1.3s						
BRG				e		21 27 47.8	
	comp=Z,6.8nm,1.0s						
GERES	GERESS Array B	42.95	305	P	P	21 27 12.2	+0.1
GERES				*PP	pP	21 27 34.1	-0.4
GERES						21 28 59.0	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	42.95	305	P	P	21 27 12.2	+0.1
	comp=Z,0.6nm,0.7s,mb3.4,baz=82,slow=7.0,SNR=3.8						
GERES				pP	pP	21 27 34.1	-0.4
	comp=Z,1.1nm,0.8s,baz=99,slow=8.2,SNR=4.3						
GERES				PcP	PcP	21 28 59.0	-1.9
	comp=Z,1.1nm,0.8s,baz=72,slow=4.3,SNR=4.9						
CLL	Collm	43.16	308	epP	pP	21 27 36.0	-0.2
YAK	Yakutsk	43.18	36	eP	P	21 27 13.3	-0.5
YAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.8						
YAK	Yakutsk	43.18	36	eP	P	21 27 14.2	+0.4
	comp=Z,25nm,0.8s,mb5.0						
MOR8	Moi Rana	43.50	330	eP	P	21 27 15.5	-0.8
MOR8				AMb	AMB	21 27 22.2	
	comp=Z,112nm,4.1s						
MOR8	Moi Rana	43.50	330	eP	P	21 27 15.5	-0.7
	comp=Z,112nm,4.1s,SNR=38						
MDJ	Mudanjiang	43.69	61	P	P	21 27 15.1	-3.0
MDJ				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,130nm,4.9s						
MDJ	Mudanjiang	43.69	61	eP	P	21 27 19.7	+1.6
	comp=Z,3.4nm,0.5s,mb4.3						
NB2	NORSAR Subarra	44.16	323	P	P	21 27 20.5	-1.1
	comp=Z,2.2nm,0.5s,mb4.1,baz=93,slow=7.9						
NB2	NORSAR Subarra	44.16	323	P	P	21 27 20.5	-1.1
	SNR=38						
NOA	NORSAR Array B	44.16	323	P	P	21 27 21.3	-0.3
NOA				*PP	pP	21 27 43.9	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,40nm,18.5s						
NOA	NORSAR Array B	44.16	323	P	P	21 27 21.3	-0.3
	comp=Z,1.1nm,0.5s,mb3.9,baz=97,slow=7.2,SNR=15						
NOA				pP	pP	21 27 43.9	-0.2
	comp=Z,3.2nm,0.7s,baz=94,slow=8.0,SNR=3.4						
NOA				LR	LR	21 47 42.4	
	comp=Z,40nm,18.5s,baz=10.0,slow=38						
NOA	NORSAR Array B	44.16	323	P	P	21 27 21.3	-0.3
NOA				pP	pP	21 27 43.9	-0.2
NOA				LR	LR	21 47 42.4	
KSRS	Korea Array	44.24	72	P	P	21 27 23.4	+0.8
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
KSRS	Korea Array	44.24	72	P	P	21 27 23.4	+0.8
	comp=Z,2.4nm,0.6s,mb4.1,baz=285,slow=6.1,SNR=5.9						
NAO01	NORSAR Array S	44.30	322	eP	P	21 27 24.3	+1.6
	comp=Z,4.4nm,0.7s,mb4.3						
KLR	Kul'dur	44.40	54	eP	P	21 27 20.8	-2.9
GRF	Grafenberg Arr	44.46	306	eP	pP	21 27 48.2	+1.5
	comp=Z,14nm,1.2s						
KONO	Kongsberg	44.89	321	eP	P	21 27 27.3	-0.2
KONO	Kongsberg	44.89	321	eP	P	21 27 27.3	-0.1
	SNR=38						
TIXI	Tiksi	45.02	22	eP	P	21 27 28.3	0.0
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
TIXI	Tiksi	45.02	22	eP	P	21 27 28.4	+0.1
	comp=Z,12nm,0.8s,mb4.7						
DAVOX	Davos/Dischmat	45.81	302	P	P	21 27 34.1	-0.8
	comp=Z,2.2nm,0.7s,mb4.0,baz=127,slow=10						
DAVOS	Davos	45.86	303	P	P	21 27 34.1	-1.2
STU	Stuttgart	45.91	305	P	P	21 27 37.0	+1.4
VLC	Villacollemand	46.01	299	P	P	21 27 35.7	-0.8
HABR	Khabarovsk	46.67	55	eP	pP	21 27 59.2	-5.2
HABR				e		21 29 13.5	
HABR				e		21 29 26.9	
HABR				MLR	MLR		
	comp=Z,62nm,17.0s						
WLF	Walferdange	47.71	307	P	P	21 27 51.5	+1.8
LPL	La Plagne	48.22	301	eP	P	21 27 53.4	-0.3
	comp=Z,6.8nm,0.6s,mb4.3						
LPL	La Plagne	48.22	301	eP	P	21 27 53.4	-0.3
LPL				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
LPL	La Plagne	48.22	301	eP	P	21 27 53.4	-0.3
	comp=Z,3.4nm,0.6s,mb4.3						
MBDF	Montbardon	48.39	300	eP	P	21 27 54.0	-1.0
	comp=Z,16nm,1.0s,mb4.5						
MBDF	Montbardon	48.39	300	eP	P	21 27 54.0	-1.0
MBDF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
MBDF	Montbardon	48.39	300	eP	P	21 27 54.0	-1.0
	comp=Z,7.8nm,1.0s,mb4.5						
KEST	Kesra	49.28	288	P	P	21 28 02.0	+0.1
	comp=Z,0.5nm,0.6s,mb3.6,baz=72,slow=19,SNR=3.0						
KMBO	Kilima Mbogo	49.60	228	P	P	21 28 04.7	+0.2
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KMBO	Kilima Mbogo	49.60	228	P	P	21 28 04.7	+0.2
	comp=Z,2.6nm,0.7s,mb4.2,baz=22,slow=11,SNR=6.6						
LOR	Lormes	49.72	304	eP	P	21 28 04.6	-0.5
SMF	Signal de Mont	49.89	304	eP	P	21 28 05.6	-0.8
AVF	Avril sur Loir	50.18	304	eP	P	21 28 07.7	-0.8
	comp=Z,12nm,0.8s,mb4.6						
AVF	Avril sur Loir	50.18	304	eP	P	21 28 07.7	-0.8
AVF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
AVF	Avril sur Loir	50.18	304	eP	P	21 28 07.7	-0.8
	comp=Z,6.1nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	51.07	303	eP	P	21 28 14.8	-0.5
	comp=Z,10.0nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	51.07	303	eP	P	21 28 14.8	-0.5
TCF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	51.07	303	eP	P	21 28 14.8	-0.5
	comp=Z,5.0nm,0.8s,mb4.6						
YSS	Yuzh-Sakhalins	52.08	55⇑	eP	P	21 28 24.0	+1.2
MAJO	Matsushiro	52.29	69	eP	P	21 28 24.4	-0.1
MAJO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
MAJO	Matsushiro	52.29	69	eP	P	21 28 24.4	-0.1
	comp=Z,4.8nm,0.6s,mb4.7						
MJAR	Matsushiro Arr	52.30	69	P	P	21 28 24.8	+0.3
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MJAR	Matsushiro Arr	52.30	69	P	P	21 28 24.8	+0.3
	comp=Z,4.3nm,0.8s,mb4.5,baz=287,slow=10.0,SNR=9.9						
SEY	Seymchan	53.64	34⇑	eP	P	21 28 34.4	+0.4
DAG	Danmarks Havn	54.26	344⇑	eP	P	21 28 38.4	+0.1
DAG				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
DAG	Danmarks Havn	54.26	344⇑	iP	P	21 28 38.4	+0.1
	comp=Z,2.8nm,0.5s,mb4.5						
DAG	Danmarks Havn	54.26	344⇑	eP	P	21 28 38.4	+0.1
	comp=Z,2.8nm,0.5s,mb4.5						
ESDC	Sonseca Array	57.57	298	P	P	21 29 02.0	-0.5
	comp=Z,1.6nm,0.6s,mb4.2,baz=54,slow=7.6,SNR=8.7						
ESDC				pP	pP	21 29 25.1	-1.0
	comp=Z,3.8nm,0.9s,baz=61,slow=7.6,SNR=6.1						
ESLA	Sonseca Array	57.57	298	eP	P	21 29 02.2	-0.3
	comp=Z,0.5nm,0.6s,mb3.7						
BILL	Bilibino	57.84	26⇓	iP	P	21 29 05.3	+1.4
BILL				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
PETK	Petropavlovsk-	59.19	44	P	P	21 29 13.4	-0.2
PETK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
PETK	Petropavlovsk-	59.19	44	P	P	21 29 13.4	-0.2
	comp=Z,2.3nm,0.7s,mb4.3,baz=310,slow=4.1,SNR=6.1						
OPO	Ambohidratompo	59.99	207	P	P	21 29 19.0	-0.3
	comp=Z,2.3nm,0.7s,mb4.3,baz=120,slow=15,SNR=3.8						
SUMG	Summit	60.62	341	eP	P	21 29 23.4	+0.5
	comp=Z,4.9nm,0.6s,mb4.7						
TOA0	Torodi Ar. Sit	66.19	269	eP	P	21 29 58.7	-1.9
TORD	Torodi Ar. Bea	66.19	269	P	P	21 29 58.9	-1.8
	comp=Z,1.4nm,0.5s,mb4.1,baz=50,slow=5.9,SNR=33						
TORD				pP	pP	21 30 21.9	-2.9
	comp=Z,1.6nm,0.8s,baz=46,slow=5.5,SNR=3.8						
LSZ	Lusaka	66.22	226	eP	P	21 30 00.3	-0.4
LSZ				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
LSZ	Lusaka	66.22	226	eP	P	21 30 00.2	-0.4
	comp=Z,1.6nm,0.5s,mb4.1						
COLD	Coldfoot	71.24	16	eP	P	21 30 31.4	+0.3
	comp=Z,11nm,1.0s,mb4.6						
INK	Inuvik	73.21	9	eP	P	21 30 43.5	+0.7
INK				pmax	pmax		
	comp=Z,15nm,1.2s						
INK	Inuvik	73.21	9	eP	P	21 30 43.5	+0.7
	comp=Z,15nm,1.2s,mb4.7						
MBWA	Marble Bar	73.62	134	eP	P	21 30 45.9	0.0
	comp=Z,3.3nm,0.6s,mb4.2						
COLA	College	73.74	16	eP	P	21 30 46.4	+0.4
COLA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
COLA	College	73.74	16	eP	P	21 30 46.4	+0.4
	comp=Z,8.7nm,0.8s,mb4.5						
KTH	Kantishna Hill	74.12	18	eP	P	21 30 48.1	-0.1
	comp=Z,17nm,1.3s,mb4.6						
MCK	McKinley	74.46	17	eP	P	21 30 50.7	+0.5
MCK				pmax	pmax		
	comp=Z,251nm,3.0s						
MCK	McKinley	74.46	17	eP	P	21 30 50.7	+0.5
	comp=Z,252nm,3.0s						
LBTB	Lobatse	75.46	222	eP	P	21 30 55.5	-0.9
LBTB				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
LBTB	Lobatse	75.46	222	eP	P	21 30 55.5	-0.9
	comp=Z,5.9nm,0.7s,mb4.4						
DAWY	Dawson	76.20	13	eP	P	21 31 00.5	+0.3
BOSA	Boshof	78.53	220	P	P	21 31 12.6	-0.9
BOSA				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
BOSA	Boshof	78.53	220	P	P	21 31 12.6	-0.9
	comp=Z,6.7nm,0.8s,mb4.5,baz=35,slow=6.2,SNR=8.4						
BOSA	Boshof	78.53	220	eP	P	21 31 11.9	-1.7
	comp=Z,4.4nm,0.6s,mb4.5						
HYT	Haines Junctio	79.53	14	eP	P	21 31 20.1	+1.4
YKA	Yellowknife Ar	80.59	3	P	P	21 31 24.5	+0.1
YKA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YKA	Yellowknife Ar	80.59	3	P	P	21 31 24.5	+0.1
	comp=Z,3.9nm,0.7s,mb4.4,baz=346,slow=5.5,SNR=79						
NWAO	Narrogin (SRO)	81.68	143	eP	P	21 31 29.3	-1.1
NWAO				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NWAO	Narrogin (SRO)	81.68	143	P	P	21 31 28.9	-1.5
	comp=Z,5.1nm,0.7s,mb4.5,baz=301,slow=6.5,SNR=3.9						
NWAO	Narrogin (SRO)	81.68	143	eP	P	21 31 29.3	-1.1
	comp=Z,4.2nm,0.6s,mb4.5						
SCHQ	Schefferville	81.70	337	P	P	21 31 30.2	-0.1
	comp=Z,3.2nm,1.1s,mb4.1,baz=329,slow=5.9,SNR=3.3						
WRA	Warramunga Arr	81.93	122	P	P	21 31 31.1	-0.9
	comp=Z,1.1nm,0.8s,mb3.8,baz=324,slow=4.8,SNR=8.9						
WRA				PKKPbc	PKKPbc	21 50 01.8	+0.6

	comp=Z,0.5nm,0.4s,baz=129,slow=2.3,SNR=16						
WRAB	Tennant Creek	81.93	122	*e*P	P	21 31 31.7	-0.3
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
WRAB	Tennant Creek	81.93	122	*e*P	P	21 31 31.7	-0.3
	comp=Z,2.3nm,0.7s,mb4.1						
WB2	Warramunga Arr	81.94	122	*e*P	P	21 31 30.8	-1.3
ASAR	Alice Springs	84.24	125	P	P	21 31 42.2	-1.6
	comp=Z,0.6nm,0.6s,mb3.6,baz=313,slow=5.0,SNR=7.9						
ASAR				PKKPbc	PKKPbc	21 49 56.5	+0.4
	comp=Z,0.5nm,0.6s,baz=118,slow=2.6,SNR=6.0						
FFC	Flin Flon	88.34	356	*i* P	P	21 32 04.0	+0.5
FFC	Flin Flon	88.34	356	*e*P	P	21 32 03.6	+0.1
	comp=Z,4.8nm,0.8s,mb4.6						
EDM	Edmonton	89.92	3	*e*P	P	21 32 11.9	+1.0
WALA	Waterton Lakes	94.05	4	*e*P	P	21 32 30.5	+0.3
	comp=Z,2.7nm,2.8s,mb4.1						
DGMT	Dagmar	94.69	357	*e*P	P	21 32 34.7	+1.6
	comp=Z,56nm,1.1s						
EGMT	Eagleton	95.21	1	*e*P	P	21 32 36.4	+0.9
	comp=Z,30nm,0.8s						
ACSO	Alum Creek Sta	99.55	341	*e*P	Pdif	21 32 55.2	0.0
	comp=Z,58nm,1.1s						
ROSC	El Rosal	127.51	315	PKP	PKPdf	21 38 18.6	+1.4
	comp=Z,7.1nm,0.4s,baz=283,slow=22,SNR=4.5						
CPUP	Villa Florida	135.69	269	PKP	PKPdf	21 38 32.2	0.0
	comp=Z,0.3nm,0.4s,baz=315,slow=5.7,SNR=3.1						
PLCA	Paso Flores	150.47	251	PKPbc	PKPbc	21 39 03.4	+0.3
	comp=Z,1.2nm,0.6s,baz=100,slow=6.1,SNR=3.0						

GUC 04 21:24:35.4±0.5, 21°.10S×68°.64W, h115km±10km, ML3.7, 1C-1D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB04	Plate Boundary	1.40	214	*e*P	Pn	21 25 07.5	+6.2
PB04				*i* S	Sn	21 25 31.7	+11
PB04				AML	AML	21 25 33.3	
	comp=E,615nm,0.3s						
HMBC	Humberston	1.43	305	⇓*i*P	Pn	21 25 01.7	0.0
HMBC				*e*S	Sn	21 25 22.6	+0.9
MACH	Maria Elena	1.51	224	*e*P	Pn	21 25 03.7	+1.1
MACH				*i* S	Sn	21 25 25.0	+1.8
LVC	Limon Verde	1.52	190	⇑*i*P	Pn	21 25 03.9	+1.1
LVC				*i* S	Sn	21 25 25.8	+2.1
TOCH	Tocopilla	1.76	236	*e*P	Pn	21 25 06.3	+0.7
TOCH				*i* S	Sn	21 25 29.5	+0.9
TOCH				AML	AML	21 25 30.2	
	comp=N,2μm,0.1s						
PECH	Pedro de Valdi	1.77	213	*e*P	Pn	21 25 06.9	+1.1
PECH				*i* S	Sn	21 25 30.7	+1.7
PECH				AML	AML	21 25 31.2	
	comp=E,848nm,0.4s						

IDC 04 21:48:38.1±4.0, 3°.10S×101°.79E, h0km, mb3.3/3, mb1 3.4/3, mb1mx3.2/20, mbtmp3.3/3, Error ellipse: s-maj=165.4km s-min=29.4km az=54.0, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	35.90	120	P	P	21 55 40.1	-0.3
	0.2nm,0.4s,baz=305,slow=9.0,SNR=2.9						
SONM	Songino Array	50.88	4	P	P	21 57 42.2	+1.5
	0.5nm,0.6s,baz=189,slow=8.2,SNR=3.8						
MKAR	Makanchi Array	52.57	343	P	P	21 57 52.5	-0.9
	0.2nm,0.6s,baz=153,slow=8.3,SNR=4.0						
TXAR	Lajitas Array	144.43	40	PKP	PKPdf	22 08 17.1	-0.1
	0.6nm,0.6s,baz=186,slow=1.3,SNR=4.6						

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*ISCJB **04** 22:07:58.5±0.6, 39°.07N±0°.03×19°.93E±0°.06, h10km, Error ellipse: s-maj=6.5km s-min=3.7km az=166.7*

*CSEM **04** 22:07:58.0±0.1, 39°.05N×19°.96E, h2km, MD3.6, Error ellipse: s-maj=2.5km s-min=1.9km az=64.0*

*NEIC **04** 22:07:58.2, 38°.99N×19°.94E, h8km, MD3.6(ATH), After ATH.*

*THE **04** 22:07:58.6, 39°.00N×20°.00E, h0km±4km, ML3.7/5, Error ellipse: s-maj=6.4km s-min=1.6km az=260.0*

*ATH **04** 22:07:58.2, 38°.99N×19°.94E, h8km±2km, MD3.6/7*

ISC 04 22:07:58.4±0.8, 39°.04N±0°.03×19°.95E±0°.06, h0km±5km, n75, σ0s.90/91, 1C-1D, Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	Kerkira	0.69	350	*e*PB	Pg	22 08 12.2	+0.7
KEK	Kerkira	0.69	350	*e*Pb	Pg	22 08 12.2	+0.7
JAN	Janina	0.93	48	*e*PG	Pg	22 08 16.2	-0.1
JAN	Janina	0.93	48	*e*Pg	Pg	22 08 16.2	-0.1
VLS	Valsamata	0.99	149	P	Pg	22 08 15.4	-2.0
VLS				S	Sg	22 08 30.4	+0.1
VLS	Valsamata	0.99	149	*e*PN	Pg	22 08 17.0	-0.4
VLS	Valsamata	0.99	149	P	Pg	22 08 15.4	-2.0
VLS	Valsamata	0.99	149	*e*Pn	Pg	22 08 17.0	-0.4
VLS				S	Sg	22 08 30.4	+0.1
MEV	Metsovon	1.24	53	P	Pg	22 08 21.6	-0.6
MEV	Metsovon	1.24	53	P	Pg	22 08 21.6	-0.6
EVR	Evrytania	1.46	94	*e*PB	Pn	22 08 26.0	+0.2
EVR	Evrytania	1.46	94	*e*Pb	Pn	22 08 26.0	+0.2
RLS	Riolos of Patr	1.54	129	*e*PB	Pn	22 08 26.8	-0.2
RLS	Riolos of Patr	1.54	129	*e*Pb	Pn	22 08 26.8	-0.2
EFP	Efpalio	1.65	111	*e*PB	Pn	22 08 29.1	+0.6
EFP	Efpalio	1.65	111	*e*Pb	Pn	22 08 29.1	+0.6
THL	Klokotos Trika	1.69	71	P	Pn	22 08 29.2	+0.2
THL				S	Sn	22 08 50.9	-0.4
THL	Klokotos Trika	1.69	71	P	Pn	22 08 29.2	+0.2
THL				S	Sn	22 08 50.9	-0.4
AGG	Agios Georgios	1.86	90	P	Pn	22 08 32.0	+0.7
AGG				S	Sn	22 08 55.2	-0.3
AGG	Agios Georgios	1.86	90	P	Pn	22 08 32.0	+0.7
AGG				S	Sn	22 08 55.2	-0.3
KZN	Kozani	1.89	47	*e*PG	Pn	22 08 34.0	+2.1
KZN	Kozani	1.89	47	*e*Pg	Pn	22 08 34.0	+2.1
FNA	Florina	2.06	32	P	Pn	22 08 34.5	+0.3
FNA				S	Sn	22 09 02.3	+1.7
FNA	Florina	2.06	32	P	Pn	22 08 34.5	+0.3
FNA				S	Sn	22 09 02.3	+1.7
GUR	Goura	2.18	120	*e*PN	Pn	22 08 36.2	+0.4
GUR	Goura	2.18	120	*e*Pn	Pn	22 08 36.2	+0.4
LIT	Litokhoron	2.23	61	P	Pn	22 08 35.9	-0.6
LIT				S	Sn	22 09 05.1	+0.3
LIT	Litokhoron	2.23	61	P	Pn	22 08 35.9	-0.6
LIT				S	Sn	22 09 05.1	+0.3
BIA	Bitola	2.24	28	P	Pn	22 08 36.1	-0.6
BIA	Bitola	2.24	28	*e*Pn	Pn	22 08 40.3	+3.6
BIA				*e*Sn	Sg	22 09 10.6	+0.2
BIA	Bitola	2.24	28	P	Pn	22 08 36.1	-0.6
BIA	Bitola	2.24	28	*e*Pn	Pn	22 08 40.3	+3.6
TIR	Tirane	2.31	358	P	Pn	22 08 37.8	+0.2
TIR	Tirane	2.31	358	*e*Pn	Pn	22 08 36.1	-1.5
TIR				*e*Sn	Sn	22 09 05.0	-1.7
TIR	Tirane	2.31	358	*e*Pn	Pn	22 08 36.1	-1.5
TIR	Tirane	2.31	358	P	Pn	22 08 37.8	+0.2
TIR				*e*Sn	Sn	22 09 05.0	-1.7
LKR	Lokris	2.41	98	P	Pn	22 08 39.4	+0.4
LKR				S	Sn	22 09 08.5	-0.7
LKR	Lokris	2.41	98	P	Pn	22 08 39.4	+0.4
LKR				S	Sn	22 09 08.5	-0.7
ITM	Ithomi	2.42	139	*e*PN	Pn	22 08 39.6	+0.4
ITM	Ithomi	2.42	139	*e*Pn	Pn	22 08 39.6	+0.4
KRUS	Krusevo	2.53	23	*i* Pn	Pn	22 08 40.3	-0.4
KRUS				*e*Sn	Sg	22 09 19.9	+0.1
KRUS	Krusevo	2.53	23	*i* Pn	Pn	22 08 40.2	-0.5
VLX	Vlachokerasia	2.54	130	*e*PN	Pn	22 08 42.4	+1.7
VLX	Vlachokerasia	2.54	130	*e*Pn	Pn	22 08 42.4	+1.7
XOR	Xorichti	2.54	82	P	Pn	22 08 41.4	+0.6
XOR	Xorichti	2.54	82	P	Pn	22 08 41.4	+0.6
PYL	PYLOS	2.56	146	P	Pn	22 08 40.5	-0.6
PYL	PYLOS	2.56	146	*e*PB	Pn	22 08 40.1	-1.0
PYL	PYLOS	2.56	146	P	Pn	22 08 40.5	-0.6
GRG	Griva	2.69	44	P	Pn	22 08 42.2	-0.6
GRG	Griva	2.69	44	P	Pn	22 08 42.2	-0.6
DID	Didima	3.01	120	P	Pn	22 08 46.1	-1.1
DID	Didima	3.01	120	*e*PN	Pn	22 08 46.7	-0.5
DID	Didima	3.01	120	P	Pn	22 08 46.1	-1.1
DID	Didima	3.01	120	*e*Pn	Pn	22 08 46.7	-0.5
PLG	Polygyros	3.01	63	P	Pn	22 08 46.3	-0.9
PLG	Polygyros	3.01	63	P	Pn	22 08 47.2	0.0
PLG	Polygyros	3.01	63	P	Pn	22 08 46.3	-0.9
PAIG	Paliouri	3.02	72	P	Pn	22 08 46.2	-1.2
PAIG	Paliouri	3.02	72	P	Pn	22 08 46.2	-1.2
VAY	Valandovo	3.04	41	*e*Pn	Pn	22 08 46.7	-1.0
VAY	Valandovo	3.04	41	*e*Pn	Pn	22 08 46.6	-1.0
SG1	Sgolgore (BA)	3.09	307	*e*Pn	Pn	22 08 48.2	-0.1
KNT	Kendrikon	3.10	46	P	Pn	22 08 47.6	-0.9
KNT	Kendrikon	3.10	46	P	Pn	22 08 47.6	-0.9
OUR	Ouranopolis	3.37	66	P	Pn	22 08 50.4	-1.8
OUR	Ouranopolis	3.37	66	P	Pn	22 08 50.4	-1.8
KYTH	Kithira	3.68	137	*e*PN	Pn	22 08 57.5	+1.0
KYTH	Kithira	3.68	137	*e*Pn	Pn	22 08 57.5	+1.0
NVR	Nevrokopi	3.78	51	P	Pn	22 08 58.6	+0.7
NVR	Nevrokopi	3.78	51	P	Pn	22 08 58.6	+0.7
VTS	Vitosha	4.33	34	P	Pn	22 09 05.8	+0.5
VTS	Vitosha	4.33	34	P	Pn	22 09 05.8	+0.5
VOIR		7.43	29	⇑*i*P	Pn	22 09 48.0	+0.1
MLR	Muntele Rosu	7.83	33	⇓*i*P	Pn	22 09 55.9	+2.5

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*ISCJB **04** 22:15:37.6±0.2, 38°.13N±0°.01×21°.92E±0°.01, h23km±2km, mb4.7/104, MS4.0/28, Error ellipse: s-maj=2.0km s-min=1.3km az=21.5*

*CSEM **04** 22:15:37.5±0.1, 38°.10N×21°.93E, h10km, mb4.8/39, Ms3.6, Error ellipse: s-maj=2.5km s-min=1.7km az=19.0*

*ATH **04** 22:15:37.3, 38°.09N×21°.94E, h25km±1km, MD4.5/19, ML5.0*

*THE **04** 22:15:37.4, 38°.09N×21°.95E, h4km±1km, ML5.2/8, Error ellipse: s-maj=2.0km s-min=0.9km az=150.0*

*MOS **04** 22:15:37.3±1.1, 38°.15N×21°.91E, h21km, mb4.8/41, Error ellipse: s-maj=3.2km s-min=2.1km az=106.5*

*PDG **04** 22:15:37.6±0.9, 38°.14N×21°.95E, h13km±1km, ML4.5/10, Error ellipse: s-maj=1.2km s-min=0.8km az=90.0*

*NEIC **04** 22:15:37.3, 38°.09N×21°.94E, h25km, mb4.7/71, ML5.0(ATH), ML5.2(THE), After ATH.*

NEIC Felt [IV] at Patrai. Also felt at Arkhaia Epidauros, Corinth, Kalamata, Kallithea, Khalandritsa, Nea Smirni, Piraeus, Pirgos and Zakynthos.

*PRU **04** 22:15:38.9, 38°.07N×21°.78E, h15km, M4.7*

*BGS **04** 22:15:38.3±1.9, 38°.44N×22°.19E, h10km, mb5.2*

*TIR **04** 22:15:38.7, 38°.71N×21°.89E, h0km*

*SZGRF **04** 22:15:39.9, 38°.15N×21°.93E, h10km, Greece*

*IDC **04** 22:15:39.2±0.5, 38°.16N×22°.02E, h23km±3km, mb4.3/28, mb1 4.4/38, mb1mx4.4/42, mbtmp4.3/38, ML4.1/10, MS3.9/19, Ms1 3.9/19, ms1mx3.7/40, Error ellipse: s-maj=9.3km s-min=8.9km az=44.0*

*GII **04** 22:15:45.8±0.0, 36°.69N×22°.13E, h1km, Mb4.6/2, Md4.5/2, Mm4.3/2*

*BJI **04** 22:15:45.2, 39°.02N×22°.69E, h30km, mB5.1/19, mb4.8/25, Ms5.1/14, Ms7 4.8/14*

*HLW **04** 22:16:03.0, 36°.61N×23°.61E, h33km, Mb4.9*

ISC 04 22:15:38.3±0.3, 38°.09N±0°.01×21°.94E±0°.01, h15km±2km, h29km±1.4km:pP-P, n1251, σ1s.22/1368, mb4.7/104, MS4.0/28, 48C-52D, Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EFP	Efpalio	0.34	356	*e*PB	Pg	22 15 45.3	0.0
EFP				*e*SB	Sg	22 15 51.2	+1.1
EFP	Efpalio	0.34	356	*e*Pb	Pg	22 15 45.3	0.0
GUR	Goura	0.35	115	*e*PB	Pg	22 15 45.4	-0.1
GUR				*e*SB	Sg	22 15 51.5	+1.2
GUR	Goura	0.35	115	*e*Pb	Pg	22 15 45.4	-0.1
GUR				*e*Sb	Sg	22 15 51.5	+1.2
RLS	Riolos of Patr	0.37	266	*e*PB	Pg	22 15 45.6	-0.3
RLS				*e*SB	Sg	22 15 52.0	+1.1
RLS	Riolos of Patr	0.37	266	*e*Pb	Pg	22 15 45.6	-0.3
RLS				*e*Sb	Sg	22 15 52.0	+1.1
VLX	Vlachokerasia	0.80	154	*e*PN	Pg	22 15 52.7	-1.0
VLX				*e*SN	Sg	22 16 04.7	+0.5
LTK	Loutraki	0.81	94	P	Pg	22 15 53.3	-0.8
LTK				S	Sg	22 16 04.7	-0.1
LTK	Loutraki	0.81	94	*e*PN	Pg	22 15 53.6	-0.5
LTK				*e*SN	Sg	22 16 04.8	0.0
LTK	Loutraki	0.81	94	*e*Pn	Pg	22 15 53.6	-0.5
LTK				*e*Sn	Sg	22 16 04.8	0.0
EVR	Evrytania	0.84	353	*e*PN	Pg	22 15 53.5	-1.0
EVR	Evrytania	0.84	353	*e*Pn	Pg	22 15 53.5	-1.0
ITM	Ithomi	0.90	181	*e*PN	Pg	22 15 54.8	-1.0
ITM	Ithomi	0.90	181	*e*Pn	Pg	22 15 54.8	-1.0
AGG	Agios Georgios	0.99	18	P	Pg	22 15 55.6	-1.8
AGG				S	Sg	22 16 10.6	+0.3
AGG	Agios Georgios	0.99	18	*e*PN	Pg	22 15 55.8	-1.6
AGG				*e*SN	Sg	22 16 10.3	0.0
AGG	Agios Georgios	0.99	18	*e*Pn	Pg	22 15 55.8	-1.6
AGG				*e*Sn	Sg	22 16 10.3	0.0
LKR	Lokris	1.01	56	P	Pg	22 15 56.0	-1.8
LKR				S	Sg	22 16 10.6	-0.4
LKR	Lokris	1.01	56	*e*PN	Pg	22 15 56.2	-1.6
LKR				*e*SN	Sg	22 16 10.2	-0.8
LKR	Lokris	1.01	56	*e*Pn	Pg	22 15 56.2	-1.6
LKR				*e*Sn	Sg	22 16 10.2	-0.8
VLS	Valsamata	1.07	275	P	Pg	22 15 56.5	-2.4
VLS	Valsamata	1.07	275	*e*PB	Pg	22 15 57.0	-1.9
VLS	Valsamata	1.07	275	*e*Pb	Pg	22 15 57.0	-1.9
DID	Didima	1.18	119	P	Pn	22 15 59.4	-0.9
DID				S	Sb	22 16 16.2	+0.7
DID	Didima	1.18	119	*e*PN	Pn	22 15 59.7	-0.6
DID	Didima	1.18	119	*e*Pn	Pn	22 15 59.7	-0.6
DID				S	Sb	22 16 16.2	+0.7
PYL	PYLOS	1.20	188	P	Pn	22 15 59.3	-1.2
PYL	PYLOS	1.20	188	*e*PN	Pn	22 15 59.6	-0.9
PYL				*e*SN	Sn	22 16 17.8	+1.3
PYL	PYLOS	1.20	188	*e*Pn	Pn	22 15 59.6	-0.9
PYL				*e*Sn	Sn	22 16 17.8	+1.3
NAIG	Nisos Aigina	1.27	104	*e*PN	Pn	22 16 00.7	-0.8
NAIG	Nisos Aigina	1.27	104	*e*Pn	Pn	22 16 00.7	-0.8
ATH	Athens Observa	1.41	94	*e*PN	Pn	22 16 03.2	-0.2
ATH	Athens Observa	1.41	94	*e*Pn	Pn	22 16 03.2	-0.2
THL	Klokotos Trika	1.48	2	P	Pn	22 16 04.5	+0.1
THL				S	Sn	22 16 25.4	+1.9
THL	Klokotos Trika	1.48	2	P	Pn	22 16 04.5	+0.1
THL				S	Sn	22 16 25.4	+1.9
PTL	Penteli	1.52	91	*e*PN	Pn	22 16 04.2	-0.8
PTL	Penteli	1.52	91	*e*Pn	Pn	22 16 04.2	-0.8
VLI	Veliai	1.58	149	*e*PN	Pn	22 16 06.0	+0.2
VLI	Veliai	1.58	149	*e*Pn	Pn	22 16 06.0	+0.2
NEO	Neokhori	1.58	39	*e*PB	Pb	22 16 05.0	-2.2
XOR	Xorichti	1.61	37	P	Pn	22 16 05.4	-0.8
XOR				S	Sn	22 16 28.6	+1.8
XOR	Xorichti	1.61	37	P	Pn	22 16 05.4	-0.8
XOR				S	Sn	22 16 25.7	-1.1
XOR	Xorichti	1.61	37	P	Pn	22 16 05.4	-0.8
XOR				S	Sn	22 16 25.7	-1.1
JAN	Janina	1.78	332	*e*PN	Pn	22 16 10.0	+1.4
JAN	Janina	1.78	332	*e*Pn	Pn	22 16 10.0	+1.4
AOS	Alonnisos	1.87	54	P	Pn	22 16 09.0	-0.7
AOS	Alonnisos	1.87	54	P	Pn	22 16 09.0	-0.7
IGT	Igoumenitsa	1.91	320	P	Pn	22 16 11.3	+0.9
IGT				S	Sn	22 16 35.0	+0.8
IGT	Igoumenitsa	1.91	320	P	Pn	22 16 11.3	+0.9
IGT				S	Sn	22 16 35.0	+0.8
KYTH	Kithira	2.00	154	*e*PN	Pn	22 16 13.0	+1.4
KYTH	Kithira	2.00	154	*e*Pn	Pn	22 16 13.0	+1.4
LIT	Litokhoron	2.06	12	P	Pn	22 16 12.4	0.0
LIT	Litokhoron	2.06	12	*e*PN	Pn	22 16 12.0	-0.4
LIT	Litokhoron	2.06	12	*e*Pn	Pn	22 16 12.0	-0.4
LIT	Litokhoron	2.06	12	P	Pn	22 16 12.4	0.0
KZN	Kozani	2.22	357	*e*PB	Pb	22 16 15.8	-2.4
PAIG	Paliouri	2.29	36	P	Pn	22 16 14.2	-1.3
PAIG				S	Sn	22 16 44.2	+0.8
PAIG	Paliouri	2.29	36	P	Pn	22 16 14.2	-1.3
PAIG				S	Sn	22 16 42.7	-0.7
PAIG	Paliouri	2.29	36	P	Pn	22 16 14.2	-1.3
PAIG				S	Sn	22 16 42.7	-0.7
KEK	Kerkira	2.33	315	*e*PB	Pb	22 16 17.1	-2.9
SRN	Sarande	2.34	321	*e*PN	Pn	22 16 17.6	+1.3
SRN	Sarande	2.34	321	*e*Pn	Pn	22 16 17.6	+1.3
	SNR=35						
PLG	Polygyros	2.57	27	P	Pn	22 16 18.6	-0.8
PLG	Polygyros	2.57	27	*e*PN	Pn	22 16 18.0	-1.4
PLG	Polygyros	2.57	27	*e*Pn	Pn	22 16 18.0	-1.4
PLG	Polygyros	2.57	27	P	Pn	22 16 18.6	-0.8
THE	Thessaloniki	2.67	17	P	Pn	22 16 19.3	-1.4
THE	Thessaloniki	2.67	17	P	Pn	22 16 19.3	-1.4
HORT	Hortiatis	2.67	19	P	Pn	22 16 19.6	-1.1
HORT	Hortiatis	2.67	19	P	Pn	22 16 19.6	-1.1
KBN	Korca	2.69	341	*e*PN	Pn	22 16 24.6	+3.6
KBN	Korca	2.69	341	*e*Pn	Pn	22 16 24.6	+3.6
	SNR=35						
FNA	Florina	2.73	351	P	Pn	22 16 22.9	+1.3
FNA				S	Sn	22 16 54.6	+0.3
FNA	Florina	2.73	351	P	Pn	22 16 22.9	+1.3
FNA				S	Sn	22 16 54.6	+0.3
GRG	Griva	2.89	7	P	Pn	22 16 23.7	-0.1
GRG	Griva	2.89	7	P	Pn	22 16 23.7	-0.1
SOH	Sokhos	2.94	21	P	Pn	22 16 24.3	-0.2
SOH	Sokhos	2.94	21	*e*PN	Pn	22 16 24.2	-0.3
SOH	Sokhos	2.94	21	*e*Pn	Pn	22 16 24.2	-0.3
BIA	Bitola	2.97	351	*i* Pn	Pn	22 16 26.9	+2.1
BIA	Bitola	2.97	351	*i* Pn	Pn	22 16 26.9	+2.0
APE	Apeiranthos	3.03	108	P	Pn	22 16 25.3	-0.4
APE	Apeiranthos	3.03	108	*e*PN	Pn	22 16 25.4	-0.3
APE	Apeiranthos	3.03	108	⇓*i*P	Pn	22 16 25.2	-0.5
APE	Apeiranthos	3.03	108	*e*Pn	Pn	22 16 25.4	-0.3
LIA	Limnos Island	3.11	53	P	Pn	22 16 26.2	-0.6
LIA	Limnos Island	3.11	53	P	Pn	22 16 26.2	-0.6
KARN	Karanos	3.11	149	P	Pn	22 16 27.4	+0.5
KARN	Karanos	3.11	149	P	Pn	22 16 27.4	+0.5
KNT	Kendrikon	3.16	13	P	Pn	22 16 27.9	+0.4
KNT	Kendrikon	3.16	13	P	Pn	22 16 27.9	+0.4
THR4	Thira Island,	3.20	119	P	Pn	22 16 28.1	0.0
THR4	Thira Island,	3.20	119	P	Pn	22 16 28.1	0.0
THR3	Thira Island,	3.23	120	P	Pn	22 16 28.9	+0.4
THR3	Thira Island,	3.23	120	P	Pn	22 16 28.9	+0.4
CHOS	Chios island	3.26	83	P	Pn	22 16 28.9	+0.1
CHOS	Chios island	3.26	83	*e*PN	Pn	22 16 28.8	0.0
CHOS	Chios island	3.26	83	*e*Pn	Pn	22 16 28.8	0.0
THR6	Thira Island,	3.26	121	P	Pn	22 16 29.2	+0.4
THR6	Thira Island,	3.26	121	P	Pn	22 16 29.2	+0.4
SIGR	SIGRI	3.27	69	P	Pn	22 16 28.7	-0.3
SIGR				S	Sn	22 17 08.9	+1.3
SIGR	SIGRI	3.27	69	P	Pn	22 16 28.7	-0.3
SIGR				S	Sn	22 17 08.9	+1.3
VAY	Valandovo	3.27	8	P	Pn	22 16 30.3	+1.3
VAY	Valandovo	3.27	8	*i* Pn	Pn	22 16 29.9	+1.0
VAY	Valandovo	3.27	8	*i* Pn	Pn	22 16 29.9	+0.9
VAY	Valandovo	3.27	8	P	Pn	22 16 30.3	+1.3
SRS	Serrai	3.29	22	P	Pn	22 16 28.5	-0.7
SRS	Serrai	3.29	22	P	Pn	22 16 28.5	-0.7
THR1	Thera Island	3.29	120	P	Pn	22 16 30.4	+1.1
THR1	Thera Island	3.29	120	P	Pn	22 16 30.4	+1.1
KRUS	Krusevo	3.32	351	*i* Pn	Pn	22 16 31.7	+2.0
KRUS	Krusevo	3.32	351	*i* Pn	Pn	22 16 31.7	+2.0
NVR	Nevrokopi	3.58	24	P	Pn	22 16 33.9	+0.6
NVR	Nevrokopi	3.58	24	P	Pn	22 16 33.9	+0.6
PRK	Paraskevi	3.59	70	P	Pn	22 16 32.2	-1.1
PRK	Paraskevi	3.59	70	*e*PN	Pn	22 16 33.5	+0.2
PRK	Paraskevi	3.59	70	P	Pn	22 16 32.2	-1.1
PRK	Paraskevi	3.59	70	*e*Pn	Pn	22 16 33.5	+0.2
TIR	Tirane	3.63	335	P	Pn	22 16 35.8	+1.9
TIR	Tirane	3.63	335	P	Pn	22 16 35.8	+1.9
BOZC	Bozcaada	3.66	60	*i* P	Pn	22 16 33.3	-1.0
IDI	Anoyia	3.66	139	Pn	Pn	22 16 33.7	-0.7
	13nm,0.3s,baz=317,slow=18,SNR=123						
IDI				Sn	Sn	22 17 18.5	+1.2
	52nm,0.3s,baz=146,slow=22,SNR=5.0						
IDI	Anoyia	3.66	139	Pn	Pn	22 16 33.7	-0.7
IDI				Sn	Sn	22 17 18.5	+1.1
GADA	Gvkgeada	3.73	54	*e*PN	Pn	22 16 34.6	-0.7
GADA	Gvkgeada	3.73	54	Pn	Pn	22 16 34.6	-0.7
MMB	Musomiste	3.76	21	P	Pn	22 16 35.0	-0.8
EZN	Ezine	3.84	62	*e*PN	Pn	22 16 37.7	+0.9
EZN	Ezine	3.84	62	Pn	Pn	22 16 37.6	+0.8
EZN	Ezine	3.84	62	Pn	Pn	22 16 37.6	+0.8
KKB	Krupnik	3.88	13	P	Pn	22 16 37.3	-0.1
SMG	Samos	3.89	94	*e*PN	Pn	22 16 37.7	+0.1
SMG	Samos	3.89	94	*e*Pn	Pn	22 16 37.7	+0.1
SKO	Skopje	3.90	355	*i* Pn	Pn	22 16 40.3	+2.6
SKO				*i* Sn	Sn	22 17 25.1	+1.9
SKO	Skopje	3.90	355	P	Pn	22 16 39.9	+2.2
SKO	Skopje	3.90	355	*i* Pn	Pn	22 16 40.3	+2.6
SKO				*i* Sn	Sn	22 17 25.1	+1.9
AYVA	Ayvalik	3.91	70	*i* P	Pn	22 16 38.6	+0.8
AYVA	Ayvalik	3.91	70	*i* P	Pn	22 16 38.7	+0.8
BLCB	Balcova	4.03	84	*e*PN	Pn	22 16 40.7	+1.2
BLCB	Balcova	4.03	84	P	Pn	22 16 40.2	+0.7
BLCB	Balcova	4.03	84	*e*Pn	Pn	22 16 40.7	+1.2
NPS	Neapolis	4.08	133	*e*PN	Pn	22 16 40.9	+0.7
NPS	Neapolis	4.08	133	*e*Pn	Pn	22 16 40.9	+0.7
RDO	Rodhopi	4.13	41	P	Pn	22 16 39.1	-1.8
RDO	Rodhopi	4.13	41	P	Pn	22 16 39.1	-1.8
RZN	Rozhen	4.19	30	P	Pn	22 16 41.2	-0.4
TIP	Timpagrande	4.20	287	*e*Pn	Pn	22 16 41.7	-0.1
TIP	Timpagrande	4.20	287	*e*Pn	Pn	22 16 41.7	-0.1
ENEZ	Enez	4.20	50	*e*PN	Pn	22 16 41.7	-0.1
ENEZ	Enez	4.20	50	*e*Pn	Pn	22 16 41.7	-0.1
IZM	Izmir	4.20	84	*e*PN	Pn	22 16 42.6	+0.8
IZM	Izmir	4.20	84	Pn	Pn	22 16 42.7	+0.9
GCAM	G?zelcaml?	4.21	94	*i* P	Pn	22 16 42.8	+0.9
GCAM	G?zelcaml?	4.21	94	*i* P	Pn	22 16 42.8	+0.9
ALN	Alexandroupoli	4.24	47	P	Pn	22 16 41.6	-0.7
ALN	Alexandroupoli	4.24	47	*e*PN	Pn	22 16 42.7	+0.4
ALN	Alexandroupoli	4.24	47	P	Pn	22 16 41.6	-0.7
ALN	Alexandroupoli	4.24	47	*e*Pn	Pn	22 16 42.7	+0.4
TAR1	Taranto	4.36	305	*e*Pn	Pn	22 16 44.1	+0.2
LPK	Lapseki	4.39	57	*e*PN	Pn	22 16 44.1	-0.2
LPK	Lapseki	4.39	57	Pn	Pn	22 16 44.1	-0.2
LPK	Lapseki	4.39	57	Pn	Pn	22 16 44.1	-0.2
BODT	Bodrum	4.39	102	*e*PN	Pn	22 16 45.7	+1.3
BODT	Bodrum	4.39	102	Pn	Pn	22 16 45.6	+1.2
BODT	Bodrum	4.39	102	Pn	Pn	22 16 45.6	+1.2
ULC	Ulcinj	4.39	333	⇓*i*Pn	Pn	22 16 44.6	+0.2
ULC				*e*Sn	Sn	22 17 36.0	+0.8
ULC	Ulcinj	4.39	333	⇓*i*Pn	Pn	22 16 44.6	+0.2
ULC				*e*Sn	Sn	22 17 36.0	+0.8
GRI	Girifalco	4.39	281	P	Pn	22 16 44.5	+0.1
GRI	Girifalco	4.39	281	P	Pn	22 16 44.5	+0.1
PE1	Pezze di Greco	4.43	309	*i* Pn	Pn	22 16 44.6	-0.3
KDZ	Kurdzhali	4.46	36	P	Pn	22 16 43.4	-1.9
BDRM	Kayabasi	4.49	101	*i* P	Pn	22 16 46.7	+0.9
BDRM	Kayabasi	4.49	101	*i* P	Pn	22 16 46.7	+0.9
PLD	Plovdiv	4.54	27	P	Pn	22 16 47.0	+0.5
PLD	Plovdiv	4.54	27	P	Pn	22 16 46.7	+0.2
PLD	Plovdiv	4.54	27	P	Pn	22 16 47.0	+0.5
VTS	Vitosha	4.61	12	P	Pn	22 16 48.0	+0.7
VTS	Vitosha	4.61	12	P	Pn	22 16 47.6	+0.3
VTS	Vitosha	4.61	12	P	Pn	22 16 48.0	+0.7
SOI	Samo	4.64	272	P	Pn	22 16 48.7	+0.8
SOI	Samo	4.64	272	P	Pn	22 16 48.7	+0.8
AKS	Akhisar	4.68	78	*e*PN	Pn	22 16 50.6	+2.3
AKS	Akhisar	4.68	78	Pn	Pn	22 16 50.6	+2.2
AKS	Akhisar	4.68	78	Pn	Pn	22 16 50.6	+2.2
AKHS	Akhisar	4.68	78	*i* P	Pg	22 17 07.0	-0.9
DAT	Datca	4.69	105	*e*PN	Pn	22 16 49.9	+1.4
DAT	Datca	4.69	105	*e*Pn	Pn	22 16 49.9	+1.4
LTRZ	Laterza	4.70	304	P	Pn	22 16 48.8	+0.2
LTRZ	Laterza	4.70	304	P	Pn	22 16 48.8	+0.2
MLSB	Milas	4.70	98	*e*PN	Pn	22 16 50.3	+1.7
MLSB	Milas	4.70	98	Pn	Pn	22 16 50.3	+1.7
MLSB	Milas	4.70	98	Pn	Pn	22 16 50.3	+1.7
ORI	Oriolo Calabro	4.71	297	P	Pn	22 16 49.3	+0.6
ORI	Oriolo Calabro	4.71	297	P	Pn	22 16 49.3	+0.6
AYDN	Tasoluk	4.72	93	*i* P	Pn	22 16 50.3	+1.3
AYDN	Tasoluk	4.72	93	*i* P	Pn	22 16 50.3	+1.4
PVY	Plav	4.75	342	⇑*i*Pn	Pn	22 16 50.4	+1.1
PVY				*e*Sn	Sn	22 17 44.8	+0.7
PVY	Plav	4.75	342	⇑*i*Pn	Pn	22 16 50.4	+1.1
PVY				*e*Sn	Sn	22 17 44.8	+0.7
CEL	Celeste	4.77	274	*e*Pn	Pn	22 16 49.0	-0.6
CEL				*e*Sn	Sn	22 17 43.9	-0.6
CEL	Celeste	4.77	274	*e*Pn	Pn	22 16 49.0	-0.6
CEL				*e*Sn	Sn	22 17 43.9	-0.6
PDG	Podgorica	4.80	336	⇓*i*Pn	Pn	22 16 50.1	+0.1
PDG				*e*Sn	Sn	22 17 45.9	+0.6
TTG	Podgorica	4.80	336	⇓*i*Pn	Pn	22 16 50.1	+0.1
TTG				*e*Sn	Sn	22 17 45.9	+0.6
TTG	Podgorica	4.80	336	⇓*i*Pn	Pn	22 16 50.1	+0.1
TTG				*e*Sn	Sn	22 17 45.9	+0.6
BUM	Brajici-Budva	4.81	332	⇓*i*Pn	Pn	22 16 50.0	-0.2
BUM				*e*Sn	Sn	22 17 45.9	+0.3
BUM	Brajici-Budva	4.81	332	⇓*i*Pn	Pn	22 16 50.0	-0.2
BUM				*e*Sn	Sn	22 17 45.9	+0.3
SART	Tekirdag	4.82	56	*i* P	Pn	22 16 49.7	-0.7
SART	Tekirdag	4.82	56	*i* P	Pn	22 16 49.7	-0.6
DIM	Dimitrovgrad	4.83	34	P	Pn	22 16 49.8	-0.6
BALB	Balikesir	4.89	70	*e*PN	Pn	22 16 49.8	-1.5

BALB	Balikesir	4.89	70	Pn	Pn	22 16 49.8	-1.5
BALB	Balikesir	4.89	70	Pn	Pn	22 16 49.8	-1.5
KARP	Karpathos	4.90	120	*e*PN	Pn	22 16 53.2	+1.8
KARP	Karpathos	4.90	120	*e*Pn	Pn	22 16 53.2	+1.8
SCLL	Scilla	4.91	274	P	Pn	22 16 52.3	+0.8
SCLL	Scilla	4.91	274	P	Pn	22 16 52.3	+0.8
SG1	Sgolgore (BA)	4.91	306	*i* Pn	Pn	22 16 51.8	+0.2
MTTG	Motta San Giov	4.93	271	P	Pn	22 16 52.2	+0.4
MTTG	Motta San Giov	4.93	271	P	Pn	22 16 52.2	+0.4
BAI	Bari	4.94	309	*i* Pn	Pn	22 16 51.7	-0.2
MFT	Murefte	4.94	55	*e*PN	Pn	22 16 51.6	-0.3
MFT	Murefte	4.94	55	Pn	Pn	22 16 51.6	-0.3
MFT	Murefte	4.94	55	Pn	Pn	22 16 51.6	-0.3
BEY	Berane	5.03	343	⇑*i*Pn	Pn	22 16 54.6	+1.4
BEY				*e*Sn	Sn	22 17 51.0	0.0
IVA	Berane	5.03	343	⇑*i*Pn	Pn	22 16 54.6	+1.4
IVA				*e*Sn	Sn	22 17 51.0	0.0
IVA	Berane	5.03	343	⇑*i*Pn	Pn	22 16 54.6	+1.4
IVA				*e*Sn	Sn	22 17 51.0	0.0
MRMT	Marmara Adasi	5.06	58	*e*PN	Pn	22 16 53.3	-0.3
MRMT	Marmara Adasi	5.06	58	Pn	Pn	22 16 53.2	-0.3
MRMT	Marmara Adasi	5.06	58	Pn	Pn	22 16 53.2	-0.3
HCY	Herceg Novi	5.09	330	⇑*i*Pn	Pn	22 16 53.7	-0.3
HCY				*e*Sn	Sn	22 17 52.4	-0.1
HCY	Herceg Novi	5.09	330	⇑*i*Pn	Pn	22 16 53.7	-0.3
HCY				*e*Sn	Sn	22 17 52.4	-0.1
EDC	Edincik	5.13	62	*e*PN	Pn	22 16 53.0	-1.5
EDC	Edincik	5.13	62	Pn	Pn	22 16 53.0	-1.5
EDC	Edincik	5.13	62	Pn	Pn	22 16 53.0	-1.5
YER	Yerkesik	5.13	99	*e*PN	Pn	22 16 56.6	+2.1
YER	Yerkesik	5.13	99	Pn	Pn	22 16 55.4	+0.9
YER	Yerkesik	5.13	99	Pn	Pn	22 16 55.4	+0.9
CUC	Castrocucco	5.13	294	*e*Pn	Pn	22 16 56.0	+1.4
	220nm,0.6s						
CUC				*e*Sn	Sn	22 17 53.6	+0.1
CUC	Castrocucco	5.13	294	*e*Pn	Pn	22 16 56.0	+1.4
	220nm,0.6s						
CUC				*e*Sn	Sn	22 17 53.6	0.0
PTRP	Pietrapertosa	5.17	300	P	Pn	22 16 56.4	+1.3
PTRP	Pietrapertosa	5.17	300	P	Pn	22 16 56.4	+1.3
BNT	Bandirma	5.17	62	*e*PN	Pn	22 16 54.7	-0.4
BNT	Bandirma	5.17	62	Pn	Pn	22 16 54.6	-0.5
TKR	Tekirdag	5.21	54	*e*PN	Pn	22 16 53.9	-1.8
TKR	Tekirdag	5.21	54	Pn	Pn	22 16 53.8	-1.9
TKR	Tekirdag	5.21	54	Pn	Pn	22 16 53.8	-1.9
NKY	Niksic	5.23	336	⇓*i*Pn	Pn	22 16 56.4	+0.5
NKY				*e*Sn	Sn	22 17 56.9	+1.0
NKY	Niksic	5.23	336	⇓*i*Pn	Pn	22 16 56.4	+0.5
NKY				*e*Sn	Sn	22 17 56.9	+1.0
EDRB	Edirne	5.27	43	*e*PN	Pn	22 16 56.3	-0.2
EDRB	Edirne	5.27	43	Pn	Pn	22 16 56.2	-0.2
EDRB	Edirne	5.27	43	Pn	Pn	22 16 56.2	-0.2
ARG	Arkhangelos	5.28	109	*e*PN	Pn	22 16 58.7	+2.0
ARG	Arkhangelos	5.28	109	*e*Pn	Pn	22 16 58.7	+2.0
KULA	Kula-Manisa	5.31	83	*e*PN	Pn	22 16 57.8	+0.8
KULA	Kula-Manisa	5.31	83	*e*Pn	Pn	22 16 57.8	+0.8
DURS	Dursunbey	5.32	71	*i* P	Pn	22 16 58.0	+0.8
DURS	Dursunbey	5.32	71	*i* P	Pn	22 16 58.0	+0.8
ACER	Acerenza	5.37	302	P	Pn	22 16 57.0	-0.8
ACER	Acerenza	5.37	302	P	Pn	22 16 57.0	-0.8
MGR	Morigerati	5.37	294	P	Pn	22 16 58.7	+0.8
MGR	Morigerati	5.37	294	P	Pn	22 16 58.7	+0.8
TURN	Turunc	5.44	101	*i* P	Pn	22 16 56.6	-2.2
DST	Dursunbey	5.44	72	*e*PN	Pn	22 16 59.5	+0.7
DST	Dursunbey	5.44	72	Pn	Pn	22 17 00.0	+1.2
DST	Dursunbey	5.44	72	Pn	Pn	22 17 00.0	+1.2
KCT	Karacabey	5.44	64	*e*PN	Pn	22 16 59.5	+0.7
KCT	Karacabey	5.44	64	Pn	Pn	22 16 59.5	+0.6
KCT	Karacabey	5.44	64	Pn	Pn	22 16 59.5	+0.6
BRY	Bratogost	5.46	333	⇓*i*Pn	Pn	22 16 59.2	+0.1
BRY				*e*Sn	Sn	22 18 01.7	0.0
BRY	Bratogost	5.46	333	⇓*i*Pn	Pn	22 16 59.2	+0.1
BRY				*e*Sn	Sn	22 18 01.7	0.0
DALT	Dalyan (Mudla)	5.49	102	*e*PN	Pn	22 17 01.3	+1.8
DALT	Dalyan (Mudla)	5.49	102	Pn	Pn	22 17 02.1	+2.6
DALT	Dalyan (Mudla)	5.49	102	Pn	Pn	22 17 02.1	+2.6
SSY	Sortino	5.53	262	P	Pn	22 17 00.6	+0.6
SSY	Sortino	5.53	262	P	Pn	22 17 00.6	+0.6
HAVL	Avola	5.53	260	P	Pn	22 16 59.5	-0.6
HAVL	Avola	5.53	260	P	Pn	22 16 59.5	-0.6
PLE	Pljevlja	5.58	341	⇓*i*Pn	Pn	22 17 01.9	+1.1
PLE				*e*Sn	Sn	22 18 05.2	+0.5
PLE	Pljevlja	5.58	341	⇓*i*Pn	Pn	22 17 01.9	+1.1
PLE				*e*Sn	Sn	22 18 05.2	+0.5
SLNA	Salina	5.61	277	P	Pn	22 17 01.9	+0.8
SLNA	Salina	5.61	277	P	Pn	22 17 01.9	+0.8
UPM	Unac-Piva	5.61	337	⇓*i*Pn	Pn	22 17 01.6	+0.5
UPM				*e*Sn	Sn	22 18 05.8	+0.6
UPM	Unac-Piva	5.61	337	⇓*i*Pn	Pn	22 17 01.6	+0.5
UPM				*e*Sn	Sn	22 18 05.8	+0.6
DENT	Denizli	5.62	91	*e*PN	Pn	22 17 04.0	+2.7
DENT	Denizli	5.62	91	Pn	Pn	22 17 03.3	+2.0
DENT	Denizli	5.62	91	Pn	Pn	22 17 03.3	+2.0
JMB	Yambol	5.64	38	P	Pn	22 17 01.9	+0.4
JMB	Yambol	5.64	38	P	Pn	22 17 02.3	+0.8
JMB	Yambol	5.64	38	P	Pn	22 17 02.3	+0.8
SGO	Sicignano	5.70	298	P	Pn	22 17 03.6	+1.2
SGO	Sicignano	5.70	298	P	Pn	22 17 03.6	+1.2
PVL	Pavlikeni	5.74	26	P	Pn	22 17 00.7	-2.2
SLVT	Silivri	5.77	55	*e*PN	Pn	22 17 05.2	+1.8
SLVT	Silivri	5.77	55	Pn	Pn	22 17 05.1	+1.8
SLVT	Silivri	5.77	55	Pn	Pn	22 17 05.1	+1.8
STON	Ston	5.77	327	*e*Pn	Pn	22 17 01.6	-1.8
STON				Sn	Sn	22 18 06.2	-3.0
STON	Ston	5.77	327	*e*Pn	Pn	22 17 01.5	-1.8
HMDC	Modica	5.80	261	P	Pn	22 17 05.5	+1.8
HMDC	Modica	5.80	261	P	Pn	22 17 05.5	+1.8
HVZN	Vizzini	5.80	263	P	Pn	22 17 03.2	-0.6
HVZN	Vizzini	5.80	263	P	Pn	22 17 03.2	-0.6
FGMS	Monte Sant'Ang	5.85	310	P	Pn	22 17 07.3	+2.8
ELBA	Catalca	5.87	57	*i* P	Pn	22 17 04.3	-0.4
ELBA	Catalca	5.87	57	*i* P	Pn	22 17 04.3	-0.5
GRUS	Gruza	5.87	351	P	Pn	22 17 05.0	+0.3
GRUS	Gruza	5.87	351	P	Pn	22 17 05.0	+0.3
FETY	Fethiye	5.87	102	*e*PN	Pn	22 17 08.7	+3.9
MSAG	Monte S. Angel	5.88	310	P	Pn	22 17 04.9	0.0
MSAG	Monte S. Angel	5.88	310	P	Pn	22 17 04.9	0.0
CTYL	Yal??k??y-??at	5.95	53	*e*PN	Pn	22 17 03.6	-2.2
KHAL	Karahalli	5.96	85	*i* P	Pn	22 17 08.2	+2.3
KHAL	Karahalli	5.96	85	*i* P	Pn	22 17 08.2	+2.3
ULDT	Uludag	5.96	68	*i* P	Pn	22 17 06.3	+0.3
ULDT	Uludag	5.96	68	*i* P	Pn	22 17 06.3	+0.3
CTKS	Kestanelik-??a	5.97	56	*e*PN	Pn	22 17 05.4	-0.6
VAE	Valguarnera	5.99	267	Pn	Pn	22 17 08.2	+1.8
	6.3nm,0.3s,baz=91,slow=8.1,SNR=17						
VAE				Sn	Sn	22 18 19.8	+5.0
	9.1nm,0.3s,baz=347,slow=16,SNR=5.0						
VAE	Valguarnera	5.99	267	Pn	Pn	22 17 08.2	+1.8
GDZ	Gediz	6.00	78	*i* P	Pn	22 17 08.4	+1.9
GDZ	Gediz	6.00	78	*i* P	Pn	22 17 08.4	+2.0
SZH	Strazhica	6.00	29	P	Pn	22 17 07.4	+0.9
SGRT	San Giovanni R	6.01	310	P	Pn	22 17 06.5	-0.1
SGRT	San Giovanni R	6.01	310	P	Pn	22 17 06.5	-0.1
CSSN	Cassano Irpino	6.02	300	P	Pn	22 17 08.3	+1.5
CSSN	Cassano Irpino	6.02	300	P	Pn	22 17 08.3	+1.5
RGNG	Rignano Grg	6.06	308	P	Pn	22 17 07.1	-0.2
RGNG	Rignano Grg	6.06	308	P	Pn	22 17 07.1	-0.2
RAFF	Raffo Rosso	6.07	264	P	Pn	22 17 09.1	+1.6
RAFF	Raffo Rosso	6.07	264	P	Pn	22 17 09.1	+1.6
BBLS	Lazići	6.08	342	P	Pn	22 17 07.8	+0.1
BBLS	Lazići	6.08	342	P	Pn	22 17 07.8	+0.1
GEMT	Gemlik	6.10	65	*e*PN	Pn	22 17 08.1	+0.3
GEMT	Gemlik	6.10	65	Pn	Pn	22 17 08.1	+0.3
GEMT	Gemlik	6.10	65	Pn	Pn	22 17 08.1	+0.3
GOLH	Golhisar	6.11	96	*i* P	Pn	22 17 10.6	+2.6
BGKT	Bogazkoy	6.12	57	*e*PN	Pn	22 17 07.6	-0.5
BGKT	Bogazkoy	6.12	57	Pn	Pn	22 17 07.5	-0.6
BGKT	Bogazkoy	6.12	57	Pn	Pn	22 17 07.5	-0.6
MRB1	Monte Rocchett	6.18	302	P	Pn	22 17 10.5	+1.6
MRB1	Monte Rocchett	6.18	302	P	Pn	22 17 10.5	+1.6
CSLB	Castelbuono	6.22	271	P	Pn	22 17 11.3	+1.7
CSLB	Castelbuono	6.22	271	P	Pn	22 17 11.3	+1.7
LTBQ	Tobruq	6.23	164	*i* P	Pn	22 17 11.5	+1.8
	SNR=22						
LTBQ				*e*S	Sn	22 18 19.0	-1.7
	76nm,0.6s,SNR=22						
GIB	Gibilmanna	6.25	272	P	Pn	22 17 11.1	+1.2
GIB	Gibilmanna	6.25	272	P	Pn	22 17 11.1	+1.2
ISK	Istanbul-Kandi	6.25	59	*e*PN	Pn	22 17 09.8	-0.2
ISK	Istanbul-Kandi	6.25	59	Pn	Pn	22 17 09.8	-0.2
ISK	Istanbul-Kandi	6.25	59	Pn	Pn	22 17 09.8	-0.2
YLV	Yalova	6.28	64	*e*PN	Pn	22 17 11.0	+0.7
YLV	Yalova	6.28	64	Pn	Pn	22 17 11.0	+0.7
YLV	Yalova	6.28	64	Pn	Pn	22 17 11.0	+0.7
KLYT	Kilyos	6.33	58	*e*PN	Pn	22 17 11.5	+0.4
PSB1	Pescosannita	6.33	302	P	Pn	22 17 12.1	+1.1
PSB1	Pescosannita	6.33	302	P	Pn	22 17 12.1	+1.1
WDD	Wield Dalam	6.33	252	*e*Pn	Pn	22 17 10.9	-0.2
	479nm,0.5s						
WDD				*e*Sn	Sn	22 18 19.0	-4.2
WDD	Wield Dalam	6.33	252	*e*Pn	Pn	22 17 10.9	-0.2
	479nm,0.5s						
AKAS	Kas	6.40	104	*i* P	Pn	22 17 15.4	+3.4
ALT	Altintas	6.48	79	*e*PN	Pn	22 17 15.6	+2.5
ALT	Altintas	6.48	79	Pn	Pn	22 17 15.5	+2.4
ALT	Altintas	6.48	79	Pn	Pn	22 17 15.5	+2.4
CIGN	Sant'Elia a Pi	6.48	306	P	Pn	22 17 14.3	+1.2
CIGN	Sant'Elia a Pi	6.48	306	P	Pn	22 17 14.3	+1.2
ELL	Elmali	6.48	99	*e*PN	Pn	22 17 16.5	+3.3
ADVT	Abdulvahap	6.49	66	*e*PN	Pn	22 17 13.3	0.0
ADVT	Abdulvahap	6.49	66	Pn	Pn	22 17 13.2	-0.1
ADVT	Abdulvahap	6.49	66	Pn	Pn	22 17 13.2	-0.1
CAVI	Cavuskoy	6.50	69	*e*PN	Pn	22 17 14.9	+1.5
HRT	Hereke	6.58	63	*e*PN	Pn	22 17 15.1	+0.7
HRT	Hereke	6.58	63	Pn	Pn	22 17 15.1	+0.7
HRT	Hereke	6.58	63	Pn	Pn	22 17 15.1	+0.7
PRD	Provadia	6.58	37	P	Pn	22 17 14.0	-0.5
SILT	Sile	6.69	60	*e*PN	Pn	22 17 15.7	-0.3
SILT	Sile	6.69	60	Pn	Pn	22 17 15.6	-0.4
SILT	Sile	6.69	60	Pn	Pn	22 17 15.6	-0.4
SGG	Gregorio Mates	6.69	302	P	Pn	22 17 17.6	+1.6
SGG	Gregorio Mates	6.69	302	P	Pn	22 17 17.6	+1.6
ISP	Isparta	6.78	89	*e*PN	Pn	22 17 20.4	+3.3
ISP	Isparta	6.78	89	P	Pn	22 17 20.3	+3.1
ISP	Isparta	6.78	89	⇑*i*P	Pn	22 17 18.0	+0.8
ISP	Isparta	6.78	89	*e*Pn	Pn	22 17 19.3	+2.1
SHUT	Suhut-Afyon	6.79	83	*e*PN	Pn	22 17 21.4	+4.0
BCK	Bucak	6.88	93	*e*PN	Pn	22 17 21.4	+2.7
BCK	Bucak	6.88	93	Pn	Pn	22 17 21.3	+2.7
MIDA	Miranda	6.89	303	P	Pn	22 17 20.6	+1.8
MIDA	Miranda	6.89	303	P	Pn	22 17 20.6	+1.8
USI	Ustica	6.91	278	P	Pn	22 17 18.7	-0.3
USI	Ustica	6.91	278	P	Pn	22 17 18.7	-0.3
RNI2	Rionero Sannit	6.99	304	P	Pn	22 17 22.3	+2.2
RNI2	Rionero Sannit	6.99	304	P	Pn	22 17 22.3	+2.2
ANTB	Antalya	7.03	97	*e*PN	Pn	22 17 24.6	+3.9
ESKT	Eskisehir	7.11	76	*e*PN	Pn	22 17 19.7	-2.0
ESKT	Eskisehir	7.11	76	*i* P	Pn	22 17 22.9	+1.2
ESKT	Eskisehir	7.11	76	Pn	Pn	22 17 19.7	-2.0
ESKT	Eskisehir	7.11	76	Pn	Pn	22 17 19.7	-2.0
SDI	San Donato	7.22	303	P	Pn	22 17 24.2	+0.9
SDI	San Donato	7.22	303	P	Pn	22 17 24.2	+0.9
LJBD	Adjabya	7.30	192	*i* P	Pn	22 17 23.7	-0.6
	77nm,1.4s,SNR=22						
INTR	Introdacqua	7.30	305	P	Pn	22 17 26.1	+1.7
INTR	Introdacqua	7.30	305	P	Pn	22 17 26.1	+1.7
PSN	Preselentsi	7.32	38	P	Pn	22 17 23.4	-1.3
GZR	Gura Zlata	7.33	5	⇓*i*P	Pn	22 17 25.9	+1.2
GZR	Gura Zlata	7.33	5	P	Pn	22 17 25.9	+1.2
VVLD	Villa Vallelon	7.42	303	P	Pn	22 17 27.0	+1.0
VVLD	Villa Vallelon	7.42	303	P	Pn	22 17 27.0	+1.0
HENT	Hendek	7.45	66	*i* P	Pn	22 17 27.1	+0.6
MDU	Mudurnu	7.58	69	*e*PN	Pn	22 17 29.1	+0.9
MDU	Mudurnu	7.58	69	Pn	Pn	22 17 29.4	+1.2
MDU	Mudurnu	7.58	69	Pn	Pn	22 17 29.4	+1.2
SVRH	Sivrihisar-ESK	7.61	77	*e*PN	Pn	22 17 28.6	0.0
PTQR	Pietraquaria	7.64	304	P	Pn	22 17 30.8	+1.8
PTQR	Pietraquaria	7.64	304	P	Pn	22 17 30.8	+1.8
VOIR		7.71	17	⇑*i*P	Pn	22 17 30.3	+0.4
VOIR		7.71	17	⇑P	Pn	22 17 30.3	+0.4
VOIR		7.71	17	P	Pn	22 17 30.3	+0.4
CVD	Cernavoda	7.73	34	⇓*i*P	Pn	22 17 33.2	+2.9
CVD	Cernavoda	7.73	34	⇓P	Pn	22 17 33.1	+2.9
AQU	L'Aquila	7.80	306	P	Pn	22 17 33.0	+1.8
AQU	L'Aquila	7.80	306	P	Pn	22 17 33.0	+1.8
TERO	Teramo	7.81	308	P	Pn	22 17 32.5	+1.1
TERO	Teramo	7.81	308	P	Pn	22 17 32.5	+1.1
KIZT	Kizilcal	7.84	81	*e*PN	Pn	22 17 33.5	+1.7
KIZT	Kizilcal	7.84	81	Pn	Pn	22 17 33.4	+1.6
KIZT	Kizilcal	7.84	81	Pn	Pn	22 17 33.4	+1.6
CERT	Cerreto	7.88	302	P	Pn	22 17 33.5	+1.2
CERT	Cerreto	7.88	302	P	Pn	22 17 33.5	+1.2
FIAM	Fiamignano	7.94	305	P	Pn	22 17 35.8	+2.7
MLR	Muntele Rosu	7.98	21	⇓*i*P	Pn	22 17 34.7	+1.0
MLR	Muntele Rosu	7.98	21	P	Pn	22 17 34.5	+0.8
MLR	Muntele Rosu	7.98	21	P	Pn	22 17 34.5	+0.8
HARR	Harsova	7.99	32	⇓*i*P	Pn	22 17 34.5	+0.7
HARR	Harsova	7.99	32	⇓P	Pn	22 17 34.5	+0.7
HARR	Harsova	7.99	32	P	Pn	22 17 34.5	+0.7
KDHN	Kadinhani	8.02	84	*i* P	Pn	22 17 36.7	+2.5
TIRR	Tirgusor	8.02	35	*e*P	Pn	22 17 34.3	+0.1
TIRR				*e*		22 18 56.0	
TIRR				pmax	pmax		
	comp=Z,20nm,0.8s						
TIRR	Tirgusor	8.02	35	⇑*i*P	Pn	22 17 34.7	+0.5
TIRR	Tirgusor	8.02	35	*e*Pn	Pn	22 17 34.3	+0.1
	comp=Z,20nm,0.8s						
TIRR				*e*Sn	Sn	22 18 56.0	-8.5
TIRR	Tirgusor	8.02	35	*e*P	Pn	22 17 34.3	+0.1
	comp=Z,20nm,0.8s						
LMSR	Misrath	8.08	227	*i* P	Pn	22 17 34.5	-0.6
	SNR=22						
LSRT	Sirt	8.23	213	*i* P	Pn	22 17 36.2	-0.9
	SNR=22						
KONT	Konya--Tatoy	8.23	88	*e*PN	Pn	22 17 39.1	+2.0
KONT	Konya--Tatoy	8.23	88	Pn	Pn	22 17 39.1	+2.0
KONT	Konya--Tatoy	8.23	88	Pn	Pn	22 17 39.1	+2.0
RHK3	Tenkes	8.27	342	⇑*e*P	Pn	22 17 36.4	-1.2
NVLJ	Novalja	8.37	323	*e*Pn	Pn	22 17 38.9	-0.1
NVLJ				Sn	Sn	22 19 08.2	-5.1
NVLJ	Novalja	8.37	323	*e*Pn	Pn	22 17 38.9	-0.2
HDMB	Hadim	8.46	94	*e*PN	Pn	22 17 43.2	+2.9
HDMB	Hadim	8.46	94	Pn	Pn	22 17 43.1	+2.9
PKSM	Moragy	8.48	344	⇓*i*P	Pn	22 17 39.0	-1.5
PKSM	Moragy	8.48	344	P	Pn	22 17 39.5	-1.1
PKSM	Moragy	8.48	344	P	Pn	22 17 39.5	-1.0
CING	Cingoli	8.48	311	P	Pn	22 17 40.9	+0.3
CING	Cingoli	8.48	311	P	Pn	22 17 40.9	+0.3
PLOR	Plostina	8.52	23	P	Pn	22 17 42.1	+1.1
PLOR	Plostina	8.52	23	⇑*i*P	Pn	22 17 43.1	+2.1
PLOR	Plostina	8.52	23	P	Pn	22 17 42.1	+1.1
VRI	Vrincioaia	8.55	23	⇑*i*P	Pn	22 17 42.8	+1.3
VRI	Vrincioaia	8.55	23	P	Pn	22 17 43.2	+1.6
VRI	Vrincioaia	8.55	23	P	Pn	22 17 42.8	+1.3
SNTG	Esanatoglia	8.56	310	P	Pn	22 17 42.3	+0.6
SNTG	Esanatoglia	8.56	310	P	Pn	22 17 42.3	+0.6
TLCR		8.76	34	⇓*i*P	Pn	22 17 46.9	+2.5
TLCR		8.76	34	⇓P	Pn	22 17 46.9	+2.5
MURB	Monte Urbino	8.82	309	P	Pn	22 17 48.6	+3.4
SAFT	Safranbolu	8.87	66	*e*PN	Pn	22 17 45.6	-0.3
SAFT	Safranbolu	8.87	66	Pn	Pn	22 17 45.6	-0.3
SAFT	Safranbolu	8.87	66	Pn	Pn	22 17 45.6	-0.3
FSSB	Fossombrone	8.91	312	P	Pn	22 17 45.7	-0.8
FSSB	Fossombrone	8.91	312	P	Pn	22 17 45.7	-0.8
PKS9	Tamasi	8.92	344	⇑*e*P	Pn	22 17 45.3	-1.2
BOJS	Bojanci	8.93	328	*i* Pn	Pn	22 17 45.8	-1.0
BOJS				*i* Sn	Sn	22 19 21.0	-6.1
BOJS	Bojanci	8.93	328	*i* Pn	Pn	22 17 45.8	-0.9
PIEI	Pieia	8.97	310	P	Pn	22 17 47.8	+0.6
PIEI	Pieia	8.97	310	P	Pn	22 17 47.8	+0.6
PPCY	Paphos	8.97	108	P	Pn	22 17 49.1	+1.8
PPCY	Paphos	8.97	108	P	Pn	22 17 49.1	+1.8
ALFC	Alevga	9.05	106	⇑P	Pn	22 17 50.5	+2.0
	comp=Z,1.6nm,0.7s						
ALFC	Alevga	9.05	106	⇑*e*P	Pn	22 17 50.5	+2.0
ALFC	Alevga	9.05	106	⇑*e*P	Pn	22 17 50.5	+2.0
CDCA	Citt' di Caste	9.11	309	P	Pn	22 17 51.4	+2.3
CDCA	Citt' di Caste	9.11	309	P	Pn	22 17 51.4	+2.3
CRES	Cresnjev	9.11	330	P	Pn	22 17 48.2	-1.0
CRES	Cresnjev	9.11	330	P	Pn	22 17 48.2	-1.0
SULT	Sultanhani-AKS	9.12	86	*e*PN	Pn	22 17 51.6	+2.2
SULT	Sultanhani-AKS	9.12	86	*e*Pn	Pn	22 17 51.6	+2.2
BADI	Badiali	9.13	309	P	Pn	22 17 51.8	+2.4
BADI	Badiali	9.13	309	P	Pn	22 17 51.8	+2.4
BEHE	Becsehely	9.21	337	⇑*e*P	Pn	22 17 49.7	-0.8
ELDT	Eldivan	9.23	71	*i* P	Pn	22 17 52.8	+2.0
ELDT	Eldivan	9.23	71	*i* P	Pn	22 17 52.8	+2.0
RSM	Repubblica di	9.24	312	P	Pn	22 17 51.9	+0.9
RSM	Repubblica di	9.24	312	P	Pn	22 17 51.9	+0.9
BR131	Keskin Array S	9.27	76	*e*Pn	Pn	22 17 53.6	+2.3
	comp=Z,14nm,0.6s						
BR131				*e*Sn	Sn	22 19 35.1	-0.3
BR131	Keskin Array S	9.27	76	*e*Pn	Pn	22 17 53.6	+2.2
	comp=Z,14nm,0.6s						
BR131				*e*Sn	Sn	22 19 35.1	-0.3
BRTR	Keskin Array B	9.27	76	P	Pn	22 17 53.3	+1.9
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BRTR				MLR	MLR		
	comp=Z,730nm,19.2s						
BRTR	Keskin Array B	9.27	76	Pn	Pn	22 17 53.2	+1.9
	comp=Z,2.0nm,0.3s,baz=259,slow=13,SNR=49						
BRTR				LR	LR	22 21 24.0	
	comp=Z,730nm,19.2s,baz=255,slow=38						
BRTR	Keskin Array B	9.27	76	P	Pn	22 17 53.3	+1.9
	comp=Z,730nm,19.2s						
SWA2		9.29	161	P	Pn	22 17 51.1	-0.7
KOGS	Kog	9.36	335	P	Pn	22 17 51.5	-1.0
KOGS	Kog	9.36	335	P	Pn	22 17 51.5	-1.0
CANT	Cankiri	9.39	71	*e*P	Pn	22 17 54.5	+1.4
SZAC	Souni-Zanaja	9.43	107	P	Pn	22 17 55.8	+2.3
	comp=Z,2.1nm,0.4s						
SZAC	Souni-Zanaja	9.43	107	P	Pn	22 17 55.8	+2.3
BALT	Daday	9.46	65	*i* P	Pn	22 17 55.2	+1.3
BALT	Daday	9.46	65	*i* P	Pn	22 17 55.2	+1.2
MAMC	Mammari	9.52	104	P	Pn	22 17 56.8	+1.9
MAMC	Mammari	9.52	104	P	Pn	22 17 56.8	+1.9
ILGA	Ilgaz	9.57	68	*i* P	Pn	22 17 57.5	+2.0
ILGA	Ilgaz	9.57	68	*i* P	Pn	22 17 57.5	+2.1
SFI	Santa Sofia	9.59	311	P	Pn	22 17 56.8	+1.1
SFI	Santa Sofia	9.59	311	P	Pn	22 17 56.8	+1.1
BUD	Budapest	9.63	348	⇓*e*	Pn	22 17 56.8	+0.5
BUD	Budapest	9.63	348	P	Pn	22 17 56.6	+0.3
BUD	Budapest	9.63	348	P	Pn	22 17 56.6	+0.3
BMR	Baia Mare	9.65	6	⇑*i*P	Pn	22 17 56.3	-0.3
BMR	Baia Mare	9.65	6	⇑P	Pn	22 17 56.3	-0.2
BMR	Baia Mare	9.65	6	P	Pn	22 17 56.3	-0.3
PKSG		9.66	345	⇓*e*P	Pn	22 17 56.9	+0.2
LJU	Ljubljana	9.67	328	*i* Pn	Pn	22 17 55.6	-1.3
LJU				*i* Sn	Sn	22 19 42.6	-2.6
LJU	Ljubljana	9.67	328	*i* P	Pn	22 17 55.6	-1.2
CSS	Prodhromos	9.68	105	*e*Pn	Pn	22 18 00.9	+3.8
	comp=Z,37nm,0.8s						
CSS				*e*Sn	Sn	22 19 44.6	-0.9
JAVS	Javornik	9.75	326	*i* Pn	Pn	22 17 56.4	-1.6
JAVS				*i* Sn	Sn	22 19 42.7	-4.5
JAVS	Javornik	9.75	326	*i* Pn	Pn	22 17 56.4	-1.6
VMG	Vicchio	9.80	310	P	Pn	22 18 00.1	+1.5
VMG	Vicchio	9.80	310	P	Pn	22 18 00.1	+1.5
CDAG	Cicekdag	9.82	77	*e*P	Pn	22 18 05.4	+6.4
BURAR	Bucovina Array	9.82	13	⇑*i*P	Pn	22 18 00.5	+1.6
BURAR	Bucovina Array	9.82	13	⇑*i*P	Pn	22 18 00.5	+1.6
BUR02	Bucovina Ar. S	9.83	13	⇑P	Pn	22 18 00.5	+1.5
BUR02	Bucovina Ar. S	9.83	13	⇑P	Pn	22 18 00.5	+1.5
BUR08	Bucovina Ar. S	9.85	13	*e*Pn	Pn	22 17 60.0	+0.7
BUR08				*e*Sn	Sn	22 19 50.8	+1.3
BUR08	Bucovina Ar. S	9.85	13	*e*Pn	Pn	22 18 00.0	+0.7
BUR08				*e*Sn	Sn	22 19 50.8	+1.3
VSL	Villasalto	9.91	282	*e*Pn	Pn	22 18 00.6	+0.5
VSL	Villasalto	9.91	282	*e*Pn	Pn	22 18 00.6	+0.5
ALAS	Alassa	9.91	241	*i* P	Pn	22 17 58.4	-1.8
	comp=Z,38nm,1.3s,SNR=22						
VOY	Vojsko	9.94	326	*e*Pn	Pn	22 17 58.8	-1.7
VOY				*e*Sn	Sn	22 19 47.3	-4.4
VOY	Vojsko	9.94	326	*e*Pn	Pn	22 17 58.8	-1.7
PSZ	Piszkesteto	9.94	352	⇑*i*P	Pn	22 18 00.9	+0.4
PSZ	Piszkesteto	9.94	352	⇓*e*	Pn	22 18 00.6	+0.1
PSZ	Piszkesteto	9.94	352	*e*Pn	Pn	22 18 00.6	+0.1
PSZ	Piszkesteto	9.94	352	*e*P	Pn	22 18 00.6	+0.1
SEI	Scarperia	9.96	310	P	Pn	22 18 03.7	+2.8
SOKA	Soboth	9.99	331	⇑*i*Pn	Pn	22 17 59.9	-1.3
SOKA				⇑*i*Sn	Sn	22 19 46.8	-6.1
SOKA	Soboth	9.99	331	Pn	Pn	22 17 59.9	-1.3
OBKA	Obir	10.04	329	⇓*i*Pn	Pn	22 17 59.9	-1.9
	SNR=14						
OBKA				⇓*i*Sn	Sn	22 19 48.0	-6.1
OBKA	Obir	10.04	329	P	Pn	22 18 01.0	-0.8
OBKA	Obir	10.04	329	P	Pn	22 18 01.0	-0.8
LZLA	Zalla	10.18	202	*i* P	Pn	22 18 02.5	-1.4
	SNR=22						
CTKT	Corum	10.27	72	*i* P	Pn	22 18 07.3	+2.2
CTKT	Corum	10.27	72	*i* P	Pn	22 18 07.3	+2.2
LSHF	Shwairf	10.29	221	*i* P	Pn	22 18 04.0	-1.4
	SNR=22						
ARSA	Arzberg	10.30	335	⇓*i*Pn	Pn	22 18 03.7	-1.7
ARSA				⇑*i*Sn	Sn	22 19 54.5	-6.1
ARSA	Arzberg	10.30	335	Pn	Pn	22 18 03.7	-1.8
KEST	Kesra	10.35	261	Pn	Pn	22 18 07.6	+1.4
	comp=Z,0.2nm,0.3s,baz=240,slow=1.9,SNR=9.7						
GMNA	Gemona	10.42	325	P	Pn	22 18 07.1	0.0
GMNA	Gemona	10.42	325	P	Pn	22 18 07.1	0.0
PTCC	Patocco-Chiusa	10.46	325	P	Pn	22 18 05.7	-2.0
PTCC	Patocco-Chiusa	10.46	325	P	Pn	22 18 05.7	-2.0
BOYT	Boyabat	10.52	68	*i* P	Pn	22 18 11.8	+3.3
UZH	Uzhgorod	10.54	1	*e*P	Pn	22 18 18.2	+9.4
UZH				MLR	MLR		
	comp=N,1µm,10.0s						
UZH				MLR	MLR		
	comp=E,1µm,10.0s						
UZH				MLR	MLR		
	comp=Z,900nm,10.0s						
UZH				MLR	MLR		
	comp=E,1µm,11.0s						
UZH				MLR	MLR		
	comp=Z,900nm,11.0s						
VLC	Villacollemand	10.61	309	*e*Pn	Pn	22 18 10.4	+0.6
VLC	Villacollemand	10.61	309	*e*Pn	Pn	22 18 10.4	+0.6
VYHS	Vyhne	10.65	349	*i* PN	Pn	22 18 09.3	-0.9
VYHS	Vyhne	10.65	349	*i* P	Pn	22 18 09.3	-0.9
CONA	Conrad Observa	10.79	338	⇑*i*Pn	Pn	22 18 10.5	-1.7
CONA				⇑*i*Sn	Sn	22 20 05.9	-6.8
CONA	Conrad Observa	10.79	338	Pn	Pn	22 18 10.5	-1.7
CSNA	Conrad Observa	10.79	338	⇑*i*Pn	Pn	22 18 10.5	-1.7
CSNA				⇑*i*Sn	Sn	22 20 05.9	-6.7
CSNA	Conrad Observa	10.79	338	Pn	Pn	22 18 10.5	-1.7
CRVS	Cervenica-Dubn	10.82	358	*i* PN	Pn	22 18 13.5	+1.0
CRVS	Cervenica-Dubn	10.82	358	*i* P	Pn	22 18 13.5	+1.0
MODS	Modra-Piesok	10.83	343	*i* PN	Pn	22 18 11.9	-0.8
MODS	Modra-Piesok	10.83	343	*i* P	Pn	22 18 11.9	-0.8
PGF	Pioggiola	10.84	298	*e*P	Pn	22 18 11.8	-1.0
	comp=Z,199nm,1.2s						
PGF	Pioggiola	10.84	298	*e*P	Pn	22 18 11.8	-1.0
PGF				pmax	pmax		
	comp=Z,100nm,1.2s						
PGF	Pioggiola	10.84	298	*e*P	Pn	22 18 11.8	-1.0
	comp=Z,100nm,1.2s						
PGF	Pioggiola	10.84	298	*e*P	Pn	22 18 11.8	-1.0
	comp=Z,100nm,1.2s						
KOLS	Kolonicke sedl	10.85	1	*i* PN	Pn	22 18 14.0	+1.1
KOLS	Kolonicke sedl	10.85	1	*i* P	Pn	22 18 14.0	+1.1
KBA	Koelnbreinsper	10.99	328	⇑*i*Pn	Pn	22 18 13.8	-1.1
	SNR=8.7						
KBA				⇓*i*Sn	Sn	22 20 12.3	-5.2
KBA	Koelnbreinsper	10.99	328	Pn	Pn	22 18 13.8	-1.1
	SNR=8.7						
ABTA	Abfaltersbach	11.10	324	⇓*i*Pn	Pn	22 18 14.5	-1.9
	SNR=15						
ABTA				⇓*i*Sn	Sn	22 20 12.1	-8.1
ABTA	Abfaltersbach	11.10	324	Pn	Pn	22 18 14.5	-1.9
	SNR=15						
SEST	Monte Rota	11.24	323	P	Pn	22 18 19.4	+1.1
SEST	Monte Rota	11.24	323	P	Pn	22 18 19.4	+1.1
MOA	Molln	11.26	333	⇑*i*Pn	Pn	22 18 17.3	-1.2
	SNR=20						
MOA				⇑*i*Sn	Sn	22 20 17.7	-6.2
MOA	Molln	11.26	333	P	Pn	22 18 18.1	-0.4
MOA	Molln	11.26	333	Pn	Pn	22 18 17.3	-1.2
	SNR=20						
MOA	Molln	11.26	333	P	Pn	22 18 18.1	-0.4
AWBH		11.35	147	⇓*e*P	Pn	22 18 16.8	-3.1
AWBH		11.35	147	P	Pn	22 18 16.8	-3.1
PINB	Pinarbasi	11.37	83	*e*P	Px	22 18 34.1	
NIE	Niedzica	11.39	355	*e*P	Pn	22 18 22.2	+1.8
NIE	Niedzica	11.39	355	*e*P	Pn	22 18 22.2	+1.8
MAGA	Magasa	11.39	316	P	Pn	22 18 19.5	-0.9
MAGA	Magasa	11.39	316	P	Pn	22 18 19.5	-0.9
ANDN	Andirin	11.41	88	*i* P	Pn	22 18 27.8	+7.1
SIM	Simferopol'	11.41	49	P	Pn	22 18 24.0	+3.3
SIM				pmax	pmax		
	comp=Z,10.0nm,1.4s						
COBT	Iskenderun	11.51	93	*e*P	Pn	22 18 26.7	+4.6
KOT	Kottamia	11.55	132	⇓P	Pn	22 18 19.5	-3.2

KOT	Kottamia	11.55	132	P	Pn	22 18 19.5	-3.1
KWP	Kalwaria Pacla	11.56	3	⇓*i*P	Pn	22 18 23.6	+1.0
KWP	Kalwaria Pacla	11.56	3	*e*Pn	Pn	22 18 23.8	+1.2
	comp=Z,40nm,1.3s						
KWP	Kalwaria Pacla	11.56	3	P	Pn	22 18 23.6	+1.0
HSAF	As Saff	11.62	134	P	Pn	22 18 20.9	-2.7
HSAF	As Saff	11.62	134	P	Pn	22 18 20.9	-2.7
KRUC	Moravsky	11.68	342	P	Pn	22 18 23.9	-0.4
KRUC	Moravsky	11.68	342	P	Pn	22 18 23.9	-0.4
RJOB	Jochberg	11.74	328	*e*Pn	Pn	22 18 24.1	-1.0
GLL	Jalalah	11.74	133	⇓P	Pn	22 18 21.7	-3.5
GLL	Jalalah	11.74	133	P	Pn	22 18 21.7	-3.5
LVV	L'vov	11.83	7	*e*P	Px	22 18 38.2	
VRAC	Vranov	11.86	343	⇓*i*P	Pn	22 18 25.1	-1.7
VRAC	Vranov	11.86	343	Pn	Pn	22 18 25.9	-1.0
	comp=Z,0.4nm,0.3s,baz=166,slow=9.6,SNR=7.9						
VRAC	Vranov	11.86	343	*e*Pn	Pn	22 18 25.1	-1.7
VRAC	Vranov	11.86	343	P	Pn	22 18 25.9	-0.9
WTTA	Wattenberg	11.89	324	⇑*i*Pn	Pn	22 18 26.5	-0.7
	SNR=11						
WTTA				⇑*i*Sn	Sn	22 20 33.9	-5.7
WTTA	Wattenberg	11.89	324	P	Pn	22 18 26.7	-0.5
WTTA	Wattenberg	11.89	324	P	Pn	22 18 26.7	-0.5
AMAG	Maghara	11.90	125	⇓P	Pn	22 18 25.2	-2.2
AMAG	Maghara	11.90	125	P	Pn	22 18 25.2	-2.3
OFRI	'Ofer	11.96	113	Pn	Pn	22 18 28.9	+0.6
WATA	Walderalm	11.97	324	⇑*i*Pn	Pn	22 18 27.4	-0.9
	SNR=15						
WATA				⇓*i*Sn	Sn	22 20 36.2	-5.3
WATA	Walderalm	11.97	324	P	Pn	22 18 28.1	-0.2
WATA	Walderalm	11.97	324	Pn	Pn	22 18 27.4	-0.9
	SNR=15						
WATA	Walderalm	11.97	324	P	Pn	22 18 28.1	-0.2
RSH		12.03	123	P	Pn	22 18 27.1	-2.1
RSH				S	Sn	22 20 12.5	-31
OKC	Ostrava-Krasne	12.06	348	*e*P	Pn	22 18 29.1	-0.4
OKC				AMS	AMS	22 23 40.0	
	comp=Z,1µm,8.1s						
OKC	Ostrava-Krasne	12.06	348	Pn	Pn	22 18 29.1	-0.4
MMAI	Mount Meron Ar	12.07	111	Pn	Pn	22 18 29.4	-0.4
	comp=Z,2.0nm,0.3s,baz=302,slow=12,SNR=13						
MMAI				Sn	Sn	22 20 42.4	-1.8
	comp=Z,1.8nm,0.3s,baz=302,slow=25,SNR=3.4						
MORC	Moravsky Berou	12.11	346	⇓*i*P	Pn	22 18 29.9	-0.2
MORC	Moravsky Berou	12.11	346	*e*Pn	Pn	22 18 29.6	-0.5
MORC				*e*Sn	Sn	22 20 42.4	-2.4
MORC	Moravsky Berou	12.11	346	P	Pn	22 18 29.9	-0.2
KUZU	Kuzuini	12.11	92	*e*P	Pn	22 18 34.5	+4.2
TREC	Trest	12.13	340	*e*P	Pn	22 18 29.2	-1.3
TREC				AMS	AMS	22 23 40.0	
	comp=Z,1µm,15.4s						
TREC	Trest	12.13	340	Pn	Pn	22 18 29.2	-1.3
HRSH	Kfar Ka'horesh	12.14	112	⇓P	Pn	22 18 27.1	-3.6
HRSH				S	Sn	22 20 12.5	-33
HFRF	Wahat Farafira	12.15	152	⇓*e*P	Pn	22 18 28.6	-2.2
HFRF	Wahat Farafira	12.15	152	P	Pn	22 18 28.6	-2.3
FETA	Feichten	12.16	321	⇑*i*Pn	Pn	22 18 30.6	-0.2
	SNR=9.3						
FETA				⇑*i*Sn	Sn	22 20 40.1	-5.9
FETA	Feichten	12.16	321	Pn	Pn	22 18 30.6	-0.2
	SNR=9.3						
KSDI	Kefar Szold	12.18	109	Pn	Pn	22 18 32.7	+1.4
MOTA	Moosalm	12.20	323	⇑*i*Pn	Pn	22 18 30.6	-0.9
	SNR=31						
MOTA				⇓*i*Sn	Sn	22 20 40.5	-6.6
MOTA	Moosalm	12.20	323	P	Pn	22 18 30.7	-0.7
MOTA	Moosalm	12.20	323	P	Pn	22 18 30.7	-0.7
SUZ		12.21	129	P	Pn	22 18 29.1	-2.6
SUZ		12.21	129	P	Pn	22 18 29.1	-2.6
OJC	Ojcow	12.23	354	*e*P	Pn	22 18 32.9	+1.1
OJC	Ojcow	12.23	354	*e*P	Pn	22 18 32.9	+1.1
GEC2	GERESS Array S	12.30	334	*e*Pn	Pn	22 18 32.6	-0.2
GEC2	GERESS Array S	12.30	334	*e*P	Pn	22 18 32.6	-0.2
GERES	GERESS Array B	12.30	334	P	Pn	22 18 32.5	-0.3
GERES						22 20 48.9	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES				smax			
	comp=N,1.0nm,0.3s						
GERES	GERESS Array B	12.30	334	Pn	Pn	22 18 32.5	-0.2
	comp=N,1.0nm,0.3s,baz=158,slow=14,SNR=38						
GERES				Sn	Sn	22 20 48.9	-0.6
	comp=N,0.5nm,0.3s,baz=152,slow=23,SNR=3.3						
GERES	GERESS Array B	12.30	334	P	Pn	22 18 32.5	-0.3
	comp=N,1.0nm,0.3s						
GERES				S	Sn	22 20 48.9	-0.6
	comp=N,1.0nm,0.3s						
MMLI	Mount Malkishu	12.37	113	Pn	Pn	22 18 34.8	+0.9
SBF	Sospel	12.38	302	*e*P	Pn	22 18 32.5	-1.4
	comp=N,160nm,1.2s						
SBF	Sospel	12.38	302	*e*P	Pn	22 18 32.5	-1.4
SBF				pmax	pmax		
	comp=Z,80nm,1.2s						
SBF	Sospel	12.38	302	*e*P	Pn	22 18 32.5	-1.4
	comp=Z,80nm,1.2s						
SBF	Sospel	12.38	302	*e*P	Pn	22 18 32.5	-1.4
	comp=Z,80nm,1.2s						
GZT	Gaziantep	12.40	89	*i* P	Pn	22 18 43.7	+9.5
DAVOX	Davos/Dischmat	12.43	318	Pn	Pn	22 18 35.3	+0.7
	comp=Z,1.7nm,0.3s,baz=163,slow=16,SNR=14						
DAVOX				Sn	Sn	22 20 55.1	+2.3
	comp=Z,1.2nm,0.3s,baz=66,slow=9.5,SNR=4.7						
DAVOX	Davos/Dischmat	12.43	318	Pn	Pn	22 18 35.3	+0.7
DAVOX				Sn	Sn	22 20 55.1	+2.3
DAVOS	Davos	12.51	318	P	Pn	22 18 35.3	-0.4
DAVOS						22 20 55.1	
DAVOS	Davos	12.51	318	P	Pn	22 18 35.3	-0.4
DAVOS				S	Sn	22 20 55.1	+0.3
KZIT	Kziot	12.52	121	Pn	Pn	22 18 34.1	-1.8
KZIT				Sn	Sn	22 20 46.4	-8.7
TUE	Stuetta	12.52	316	*e*Pn	Pn	22 18 35.5	-0.4
	comp=Z,24nm,0.8s						
TUE				*e*Sn	Sn	22 20 47.3	-7.7
TUE	Stuetta	12.52	316	*e*Pn	Pn	22 18 35.5	-0.4
	comp=Z,24nm,0.8s						
HMDT	Nahal Hemdat	12.54	114	Pn	Pn	22 18 36.5	+0.3
HMDT				Sn	Sn	22 20 52.2	-3.5
ZNM		12.57	130	⇓P	Pn	22 18 33.7	-3.0
ZNM		12.57	130	P	Pn	22 18 33.7	-2.9
AKCD	Akcadag	12.58	84	*i* P	Pn	22 18 45.6	+8.9
KHC	Kasperske Hory	12.58	334	*e*P	Pn	22 18 35.2	-1.5
KHC				*e*x	x	22 18 42.5	
KHC				*e*SN	Sn	22 20 47.6	-8.9
KHC				AMS	AMS	22 24 00.0	
	comp=Z,2µm,14.1s						
KHC	Kasperske Hory	12.58	334	*e*Pn	Pn	22 18 35.2	-1.5
KHC				*e*		22 18 42.5	
KHC				*e*Sn	Sn	22 20 47.6	-8.9
KHC	Kasperske Hory	12.58	334	Pn	Pn	22 18 35.2	-1.5
RTMI	Retamim	12.63	120	Pn	Pn	22 18 35.1	-2.3
RTMI				Sn	Sn	22 20 50.9	-6.8
YTIR	Yattir	12.74	118	Pn	Pn	22 18 38.5	-0.4
DAVA	Damuels	12.76	320	⇑*i*Pn	Pn	22 18 38.7	-0.4
DAVA				⇑*i*Sn	Sn	22 20 55.9	-5.0
DAVA	Damuels	12.76	320	Pn	Pn	22 18 38.7	-0.4
FRF	La Foret Royal	12.80	300	*e*P	Pn	22 18 39.2	-0.5
FRF	La Foret Royal	12.80	300	*e*P	Pn	22 18 39.2	-0.5
DSI	Dead Sea	12.81	116	Pn	Pn	22 18 39.5	-0.3
DSI				Sn	Sn	22 20 56.4	-5.7
LMR	La Mourre	12.82	299	*e*P	Pn	22 18 41.9	+1.9
LMR	La Mourre	12.82	299	*e*P	Pn	22 18 41.9	+1.9
WET	Wettzell	12.84	332	*e*Pn	Pn	22 18 40.8	+0.6
WET	Wettzell	12.84	332	*e*P	Pn	22 18 40.8	+0.6
HNKL	Nakhl	12.87	126	⇑P	Pn	22 18 38.5	-2.2
HNKL				S	Sn	22 20 32.3	-31
HNKL	Nakhl	12.87	126	P	Pn	22 18 38.5	-2.2
HNKL				S	Sn	22 20 32.3	-31
DPC	Dobruska-Polom	12.90	344	*e*P	Pn	22 18 39.8	-1.2
DPC				*e*S	Sn	22 20 56.8	-7.4
DPC				AMS	AMS	22 25 00.0	
	comp=Z,900nm,13.2s						
DPC	Dobruska-Polom	12.90	344	*e*Pn	Pn	22 18 39.8	-1.2
DPC				*e*Sn	Sn	22 20 56.8	-7.4
DPC	Dobruska-Polom	12.90	344	Pn	Pn	22 18 39.8	-1.2
GRSN	GIRESUNGRSN	12.93	72	*i* P	Px	22 18 51.8	
MZDA	Masada	12.94	117	Pn	Pn	22 18 41.5	-0.2
MZDA				Sn	Sn	22 20 59.0	-6.4
MALT	Malatya	12.98	84	⇑*i*P	Pn	22 18 43.9	+1.8
MALT	Malatya	12.98	84	*e*Pn	Pn	22 18 45.2	+3.1
	comp=Z,11nm,0.7s						
MALT	Malatya	12.98	84	P	Pn	22 18 43.9	+1.8
KEMA	Kemaliye	12.99	80	*i* P	Pn	22 18 51.7	+9.4
PRU	Pruhonice	13.03	338	*e*P	Pn	22 18 41.0	-1.7
PRU				*e*S	Sn	22 20 57.7	-10
PRU				AMS	AMS	22 24 50.0	
	comp=Z,1µm,17.1s						
PRU	Pruhonice	13.03	338	*e*Pn	Pn	22 18 41.0	-1.7
PRU				*e*Sn	Sn	22 20 57.7	-10
PRU	Pruhonice	13.03	338	Pn	Pn	22 18 41.0	-1.7
MBDF	Montbardon	13.17	305	*e*P	Pn	22 18 42.5	-2.2
	comp=Z,139nm,1.4s						
MBDF	Montbardon	13.17	305	*e*P	Pn	22 18 42.5	-2.2
MBDF				pmax	pmax		
	comp=Z,70nm,1.4s						
MBDF	Montbardon	13.17	305	*e*P	Pn	22 18 42.5	-2.2
	comp=Z,70nm,1.4s						
MBDF	Montbardon	13.17	305	*e*P	Pn	22 18 42.5	-2.2
	comp=Z,70nm,1.4s						
KRMI	Paran Flat	13.24	123	Pn	Pn	22 18 43.5	-2.2
ZFRI	Zfri	13.26	121	Pn	Pn	22 18 45.1	-1.0
PRNI	Paran	13.27	122	Pn	Pn	22 18 44.7	-1.5
BNI	Bardonecchia	13.37	306	*e*Pn	Pn	22 18 48.0	+0.6
BNI				*e*Sn	Sn	22 21 13.2	-2.4
BNI	Bardonecchia	13.37	306	*e*P	Pn	22 18 48.0	+0.6
ANN	Anapa	13.41	55	*e*P	Pn	22 18 51.6	+3.6
ANN				*e*S	Sn	22 21 23.4	+6.7
ANN				pmax	pmax		
	comp=Z,15nm,1.2s						
ANN				MLR	MLR		
	comp=Z,199nm,10.0s						
HRFI	Mount Harif	13.49	123	Pn	Pn	22 18 46.8	-2.4
PVCC	Panska Ves	13.50	339	*e*P	Pn	22 18 46.9	-2.3
PVCC				AMS	AMS	22 25 10.0	
	comp=Z,1µm,12.9s						
PVCC	Panska Ves	13.50	339	Pn	Pn	22 18 46.9	-2.3
LPG	La Plagne	13.52	308	*e*P	Pn	22 18 48.5	-1.0
	comp=Z,67nm,0.9s						
LPG	La Plagne	13.52	308	*e*P	Pn	22 18 48.5	-1.0
LPG				pmax	pmax		
	comp=Z,34nm,0.9s						
LPG	La Plagne	13.52	308	*e*P	Pn	22 18 48.5	-1.0
	comp=Z,34nm,0.9s						
LPG	La Plagne	13.52	308	*e*P	Pn	22 18 48.5	-1.0
	comp=Z,34nm,0.9s						
LPL	La Plagne	13.54	308	*e*P	Pn	22 18 48.4	-1.4
	comp=Z,68nm,1.0s						
LPL	La Plagne	13.54	308	*e*P	Pn	22 18 48.4	-1.4
LPL				pmax	pmax		
	comp=Z,34nm,1.0s						
LPL	La Plagne	13.54	308	*e*P	Pn	22 18 48.4	-1.4
	comp=Z,34nm,1.0s						
LPL	La Plagne	13.54	308	*e*P	Pn	22 18 48.4	-1.4
	comp=Z,34nm,1.0s						
MBRI	Mt Berech	13.57	124	Pn	Pn	22 18 48.0	-2.2
MBRI				Sn	Sn	22 21 11.9	-8.9
ASF	Jabal al Asfar	13.59	111	Pn	Pn	22 18 50.2	-0.3
	comp=Z,0.3nm,0.3s,baz=222,slow=4.3,SNR=2.3						
ASF				LR	LR	22 25 24.5	
	comp=Z,235nm,19.1s,baz=313,slow=43						
KIEV	Kiev	13.63	20	*e*P	Pn	22 18 50.9	0.0
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KIEV	Kiev	13.63	20	*e*Pn	Pn	22 18 50.9	0.0
	comp=Z,9.5nm,0.9s						
KIEV	Kiev	13.63	20	*e*P	Pn	22 18 50.9	0.0
	comp=Z,9.0nm,0.9s						
AKASG	Malin Array Be	13.64	20	P	Pn	22 18 49.2	-1.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	13.64	20	Pn	Pn	22 18 49.1	-1.9
	comp=Z,0.7nm,0.3s,baz=207,slow=12,SNR=4.6						
AKASG	Malin Array Be	13.64	20	P	Pn	22 18 49.2	-1.8
	comp=Z,1.0nm,0.3s						
AKBB	Malin Array Si	13.64	20	*e*P	Pn	22 18 50.9	-0.1
AKBB	Malin Array Si	13.64	20	*e*P	Pn	22 18 50.9	-0.1
EIL	Elat	13.68	124	Pn	Pn	22 18 51.0	-0.7
	comp=Z,2.3nm,0.3s,baz=341,slow=19,SNR=8.4						
EIL				Sn	Sn	22 21 15.9	-7.5
	comp=Z,1.5nm,0.3s,baz=90,slow=20,SNR=3.8						
EIL	Elat	13.68	124	Pn	Pn	22 18 51.0	-0.7
EIL				Sn	Sn	22 21 15.9	-7.5
EIL	Elat	13.68	124	Pn	Pn	22 18 49.7	-2.0
EIL				Sn	Sn	22 21 13.5	-10
EIL	Elat	13.68	124	Pn	Pn	22 18 51.0	-0.7
RSL	Roselend	13.69	309	*e*P	Pn	22 18 52.8	+1.0
RSL	Roselend	13.69	309	*e*P	Pn	22 18 52.8	+1.0
ORIF	Oris-en-Rattie	13.82	305	*e*P	Pn	22 18 54.8	+1.2
	comp=Z,46nm,1.1s						
ORIF				*e*MLR	MLR		
	comp=Z,1µm,21.8s						
ORIF	Oris-en-Rattie	13.82	305	*e*P	Pn	22 18 54.8	+1.2
ORIF				pmax	pmax		
	comp=Z,23nm,1.1s						
ORIF	Oris-en-Rattie	13.82	305	*e*P	Pn	22 18 54.8	+1.2
	comp=Z,23nm,1.1s						
ORIF	Oris-en-Rattie	13.82	305	*e*P	Pn	22 18 54.8	+1.2
	comp=Z,23nm,1.1s						
SPAK	Spaichingen-Ko	13.86	320	*e*P	Pn	22 18 51.0	-3.1
HKAT	Jabal Katrina	13.86	130	⇓P	Pn	22 18 51.9	-2.4
HKAT	Jabal Katrina	13.86	130	P	Pn	22 18 51.9	-2.4
NKC	Novy Kostel	13.91	334	*e*P	Pn	22 18 52.5	-2.2
NKC				AMS	AMS	22 24 50.0	
	comp=Z,1µm,10.9s						
NKC	Novy Kostel	13.91	334	Pn	Pn	22 18 52.5	-2.2
BRG	Berggiesshubel	13.99	339	*e*P	Pn	22 19 02.6	+6.8
BRG				pmax	pmax		
	comp=Z,10.0nm,1.5s						
BRG	Berggiesshubel	13.99	339	*e*P	Pn	22 19 02.6	+6.8
	comp=Z,16nm,1.4s						
HDK1	Dakhla	14.01	151	⇑P	Pn	22 18 54.5	-1.9
HDK1	Dakhla	14.01	151	P	Pn	22 18 54.5	-1.8
MACK	Trabzon	14.06	73	*e*P	Px	22 19 10.1	
HDHB	Dhahab	14.11	128	P	Pn	22 18 55.2	-2.3
HDHB	Dhahab	14.11	128	P	Pn	22 18 55.2	-2.4
FELD	Feldberg im Sc	14.11	318	*e*P	Pn	22 18 59.6	+2.1
FELD	Feldberg im Sc	14.11	318	*e*P	Pn	22 18 59.6	+2.1
STU	Stuttgart	14.12	323	*e*Pn	Pn	22 18 55.1	-2.5
STU				*e*Sn	Sn	22 21 32.6	-1.2
STU	Stuttgart	14.12	323	*e*Pn	Pn	22 18 55.1	-2.5
STU				*e*Sn	Sn	22 21 32.7	-1.1
BBS	Basel-Blauen	14.13	316	*e*P	Pn	22 18 57.5	-0.2
BBS	Basel-Blauen	14.13	316	*e*P	Pn	22 18 57.5	-0.2
TR1		14.22	131	P	Pn	22 18 56.3	-2.8
TR1		14.22	131	P	Pn	22 18 56.3	-2.8
LBG	Lerchenberg	14.23	322	P	Pn	22 18 57.7	-1.4
BFO	Black Forest	14.24	320	*e*Pn	Pn	22 18 58.5	-0.7
BFO	Black Forest	14.24	320	*e*Pn	Pn	22 18 58.5	-0.7
SIND	Sindeldorf	14.34	326	P	Pn	22 19 00.5	-0.1
LOMF	Lomont	14.44	315	*e*P	Pn	22 19 03.3	+1.3
CABF	La Chapelle	14.47	311	*e*P	Pn	22 19 01.2	-1.2
	comp=Z,156nm,1.2s						
CABF	La Chapelle	14.47	311	*e*P	Pn	22 19 01.2	-1.2
CABF				pmax	pmax		
	comp=Z,78nm,1.2s						
CABF	La Chapelle	14.47	311	*e*P	Pn	22 19 01.2	-1.2
	comp=Z,78nm,1.2s						
AKRG	Al Kharijah	14.49	147	⇓P	Pn	22 19 00.7	-2.2
GTR	Jabal at Tayr	14.51	147	⇓P	Pn	22 19 00.8	-2.3
GTR	Jabal at Tayr	14.51	147	P	Pn	22 19 00.8	-2.3
SOC	Sochi	14.53	62	*e*P	Pn	22 19 02.3	-0.9
SOC				*e*		22 21 43.5	
SOC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SOC				MLR	MLR		
	comp=Z,126nm,8.0s						
MOX	Moxa	14.55	333	*e*P	Pn	22 19 04.3	+0.9
	comp=Z,24nm,1.4s						
MOX							
	comp=Z,1µm,19.0s						
MOX	Moxa	14.55	333	*e*P	Pn	22 19 04.3	+0.9
MOX				pmax	pmax		
	comp=Z,24nm,1.4s						
MOX				MLR	MLR		
	comp=Z,1µm,19.0s						
KOPT	Kop Dagi	14.55	77	*i* P	Px	22 19 17.6	
OG05	Jujurieux	14.58	308	*e*P	Pn	22 19 04.0	+0.1
HHRG	Al Ghardaqah	14.59	135	P	Pn	22 19 01.6	-2.6
HHRG	Al Ghardaqah	14.59	135	P	Pn	22 19 01.6	-2.6
CLL	Collm	14.65	337	*i* P	Pn	22 19 11.8	+6.9
CLL				MLR	MLR		
	comp=Z,1µm,15.2s						
CLL	Collm	14.65	337	*i* PP	Pn	22 19 11.8	+6.9
	comp=Z,37nm,1.4s						
CLL				*i* sPP		22 19 19.1	
CLL				*e*		22 19 24.0	
CLL				*e*		22 19 42.0	
CLL				Lmax		22 23 32.0	
CLL	Collm	14.65	337	*i* P	Pn	22 19 11.8	+6.9
	comp=Z,1µm,15.2s						
HINF	Hinteralfeld	14.69	316	*e*P	Pn	22 19 02.5	-3.0
	comp=Z,16nm,0.6s						
HINF	Hinteralfeld	14.69	316	*e*P	Pn	22 19 02.5	-3.0
HINF				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HINF	Hinteralfeld	14.69	316	*e*P	Pn	22 19 02.5	-3.0
	comp=Z,7.8nm,0.6s						
ECH	Echery	14.77	318	*e*P	Pn	22 19 04.9	-1.6
ECH	Echery	14.77	318	*e*P	Pn	22 19 05.4	-1.1
ECH				*e*		22 21 45.4	
ECH				pmax	pmax		
	comp=Z,26nm,1.0s						
ECH	Echery	14.77	318	*e*Pn	Pn	22 19 05.4	-1.1
	comp=Z,26nm,1.0s						
ECH				*e*Sn	Sn	22 21 45.4	-4.4
ECH	Echery	14.77	318	*e*Pn	Pn	22 19 05.4	-1.1
	comp=Z,26nm,1.0s						
CDF	Champ du Feu	14.83	319	*e*P	Pn	22 19 06.6	-0.7
	comp=Z,54nm,0.9s						
CDF	Champ du Feu	14.83	319	*e*P	Pn	22 19 06.6	-0.7
CDF				pmax	pmax		
	comp=Z,27nm,0.9s						
CDF	Champ du Feu	14.83	319	*e*P	Pn	22 19 06.6	-0.7
	comp=Z,27nm,0.9s						
SSB	Saint Sauveur	14.84	304	P	Pn	22 19 04.1	-3.3
TOD	Tromm	14.89	325	*e*P	Pn	22 19 10.2	+2.1
LANF	Langenberg	14.93	321	*e*P	Pn	22 19 09.6	+1.0
HAU	Haudompre	15.08	316	*e*P	Pn	22 19 09.1	-1.6
	comp=Z,123nm,1.0s						
HAU				*e*MLR	MLR		
	comp=Z,455nm,19.8s						
HAU	Haudompre	15.08	316	*e*P	Pn	22 19 09.1	-1.6
HAU				pmax	pmax		
	comp=Z,61nm,1.0s						
HAU	Haudompre	15.08	316	*e*P	Pn	22 19 09.1	-1.6
	comp=Z,61nm,1.0s						
ERZM	Erzurum	15.22	77	*e*P	Pn	22 19 22.0	+9.5
BEST	Besiri	15.25	85	*i* P	Pn	22 19 19.8	+6.8
THEF	They Montfort	15.40	316	*e*P	Pn	22 19 11.5	-3.5
RUE	Ruedersdorf	15.48	341	*e*Pn	Pn	22 19 16.8	+0.9
	comp=Z,51nm,1.0s						
RUE	Ruedersdorf	15.48	341	*e*Pn	Pn	22 19 16.8	+0.9
	comp=Z,51nm,1.0s						
LBL	Lubilhac	15.67	303	*e*P	Pn	22 19 20.9	+2.5
LBL	Lubilhac	15.67	303	*e*P	Pn	22 19 20.9	+2.5
PLDF	La Plantade	15.70	306	*e*P	Pn	22 19 21.2	+2.3
PLDF	La Plantade	15.70	306	*e*P	Pn	22 19 21.2	+2.3
MTLF	Montolieu	15.84	296	*e*P	Pn	22 19 19.1	-1.5
	comp=Z,56nm,1.4s						
MTLF	Montolieu	15.84	296	*e*P	Pn	22 19 19.1	-1.5
MTLF				pmax	pmax		
	comp=Z,28nm,1.4s						
MTLF	Montolieu	15.84	296	*e*P	Pn	22 19 19.1	-1.5
	comp=Z,28nm,1.4s						
SMF	Signal de Mont	15.85	308	*e*P	Pn	22 19 20.7	-0.1
	comp=Z,161nm,1.0s						
SMF	Signal de Mont	15.85	308	*e*P	Pn	22 19 20.7	-0.1
SMF				pmax	pmax		
	comp=Z,81nm,1.0s						
SMF	Signal de Mont	15.85	308	*e*P	Pn	22 19 20.7	-0.1
	comp=Z,81nm,1.0s						
SUW	Suwalki	15.95	3	*e*P	Pn	22 19 22.4	+0.4
SUW	Suwalki	15.95	3	*e*P	Pn	22 19 22.4	+0.4
AGO	Saint Agoulin	16.05	306	*e*P	Pn	22 19 23.3	0.0
MEZF	Maizieres J'vi	16.07	316	*e*P	Pn	22 19 23.6	0.0
	comp=Z,105nm,1.1s						
MEZF	Maizieres J'vi	16.07	316	*e*P	Pn	22 19 23.6	0.0
	comp=Z,105nm,1.0s						
LOR	Lormes	16.12	310	*e*P	Pn	22 19 24.1	-0.2
	comp=Z,210nm,1.2s						
LOR				*e*MLR	MLR		
	comp=Z,331nm,18.5s						
LOR	Lormes	16.12	310	*e*P	Pn	22 19 24.1	-0.2
LOR				pmax	pmax		
	comp=Z,105nm,1.2s						
LOR	Lormes	16.12	310	*e*P	Pn	22 19 24.1	-0.2
	comp=Z,105nm,1.2s						
WLF	Walferdange	16.19	321	P	Pn	22 19 26.0	+0.9
	comp=Z,38nm,2.0s						
WLF	Walferdange	16.19	321	*e*P	Pn	22 19 26.9	+1.7
WLF				*e*		22 22 22.4	
WLF				pmax	pmax		
	comp=Z,60nm,1.2s						
WLF	Walferdange	16.19	321	*e*Pn	Pn	22 19 26.9	+1.7
	comp=Z,60nm,1.2s						
WLF				*e*Sn	Sn	22 22 22.4	-2.1
WLF	Walferdange	16.19	321	*e*P	Pn	22 19 26.9	+1.7
	comp=Z,60nm,1.2s						
WLF				*e*Sn	Sn	22 22 22.4	-2.0
AVF	Avril sur Loir	16.22	308	*e*P	Pn	22 19 25.3	-0.2
	comp=Z,181nm,1.0s						
AVF	Avril sur Loir	16.22	308	*e*P	Pn	22 19 25.3	-0.2
AVF				pmax	pmax		
	comp=Z,91nm,1.0s						
AVF	Avril sur Loir	16.22	308	*e*P	Pn	22 19 25.3	-0.2
	comp=Z,90nm,1.0s						
SSF	Saint Saulge	16.24	309	*e*P	Pn	22 19 27.5	+1.7
	comp=Z,444nm,1.0s						
SSF	Saint Saulge	16.24	309	*e*P	Pn	22 19 27.5	+1.7
SSF				pmax	pmax		
	comp=Z,222nm,1.0s						
SSF	Saint Saulge	16.24	309	*e*P	Pn	22 19 27.5	+1.7
	comp=Z,222nm,1.0s						
SSF	Saint Saulge	16.24	309	*e*P	Pn	22 19 27.5	+1.7
	comp=Z,222nm,1.0s						
CAF	Calviac	16.36	301	*e*P	Pn	22 19 28.2	+0.9
CAF	Calviac	16.36	301	*e*P	Pn	22 19 28.2	+0.9
BGF	Bois d'Agland	16.43	307	*e*P	Pn	22 19 29.2	+1.0
	comp=Z,234nm,1.4s						
BGF	Bois d'Agland	16.43	307	*e*P	Pn	22 19 29.2	+1.0
BGF				pmax	pmax		
	comp=Z,117nm,1.4s						
BGF	Bois d'Agland	16.43	307	*e*P	Pn	22 19 29.2	+1.0
	comp=Z,117nm,1.4s						
BGF	Bois d'Agland	16.43	307	*e*P	Pn	22 19 29.2	+1.0
	comp=Z,117nm,1.4s						
KIV	Kislovodsk	16.70	63	*e*P	Pn	22 19 33.3	+1.6
KIV				*e*S	Sn	22 22 39.9	+3.0
KIV				pmax	pmax		
	comp=Z,16nm,1.2s						
KIV				MLR	MLR		
	comp=Z,112nm,11.0s						
KIV	Kislovodsk	16.70	63	*e*Pn	Pn	22 19 34.2	+2.5
	comp=Z,22nm,1.0s						
KIV	Kislovodsk	16.70	63	*e*P	Pn	22 19 33.3	+1.6
	comp=Z,16nm,1.2s						
KIV	Kislovodsk	16.70	63	*e*Pn	Pn	22 19 34.2	+2.5
	comp=Z,22nm,1.0s						
TCF	Toulx Ste Croi	16.73	306	*e*P	Pn	22 19 33.4	+1.4
TCF	Toulx Ste Croi	16.73	306	*e*P	Pn	22 19 33.4	+1.4
RJF	Les Rejaudoux	16.85	302	*e*P	Pn	22 19 34.0	+0.5
RJF				*e*MLR	MLR		
	comp=Z,418nm,17.2s						
RJF	Les Rejaudoux	16.85	302	*e*P	Pn	22 19 34.0	+0.5
HYF	Humbligny	16.86	309	*e*P	Pn	22 19 37.9	+4.2
HYF	Humbligny	16.86	309	*e*P	Pn	22 19 37.9	+4.2
MEM	Membach	16.88	323	P	Pn	22 19 36.6	+2.7
	comp=Z,18nm,1.5s						
MEM	Membach	16.88	323	P	Pn	22 19 36.5	+2.6
	comp=Z,18nm,1.5s						
HGN	Heimansgroeve	17.02	323	*e*P	Pn	22 19 36.2	+0.6
	comp=Z,43nm,2.6s						
HGN	Heimansgroeve	17.02	323	*e*P	Pn	22 19 36.2	+0.6
	comp=Z,43nm,2.6s						
BCLA	Clavier	17.10	321	P	Pn	22 19 35.8	-0.8
GIVF	Givet	17.14	320	*e*P	Pn	22 19 37.8	+0.7
GIVF	Givet	17.14	320	*e*P	Pn	22 19 37.8	+0.7
NACGM	Naroch	17.14	10	*e*	Pn	22 19 34.0	-3.1
EBIE	Bielsa	17.22	292	P	Pn	22 19 39.7	+1.5
	comp=Z,22nm,1.2s						
EBIE	Bielsa	17.22	292	P	Pn	22 19 39.7	+1.6
	comp=Z,22nm,1.2s						
DOU	Dourbes	17.25	320	P	Pn	22 19 38.7	+0.2
DOU	Dourbes	17.25	320	P	Pn	22 19 38.7	+0.2
LFF	La Frestale	17.27	300	*e*P	Pn	22 19 37.0	-1.7
	comp=Z,34nm,0.8s						
LFF	La Frestale	17.27	300	*e*P	Pn	22 19 37.0	-1.7
LFF				pmax	pmax		
	comp=Z,17nm,0.8s						
LFF	La Frestale	17.27	300	*e*P	Pn	22 19 37.0	-1.7
	comp=Z,17nm,0.8s						
BAIF	Baives	17.43	319	*e*P	Pn	22 19 38.0	-2.7
	comp=Z,35nm,0.6s						

BAIF	Baives	17.43	319	*e*P	Pn	22 19 38.0	-2.7
BAIF				pmax	pmax		
	comp=Z,18nm,0.6s						
BAIF	Baives	17.43	319	*e*P	Pn	22 19 38.0	-2.7
	comp=Z,18nm,0.6s						
ETSF	Etsaut	17.76	293	*e*P	Pn	22 19 45.4	+0.5
	comp=Z,28nm,1.0s						
ETSF	Etsaut	17.76	293	*e*P	Pn	22 19 45.4	+0.5
ETSF				pmax	pmax		
	comp=Z,14nm,1.0s						
ETSF	Etsaut	17.76	293	*e*P	Pn	22 19 45.4	+0.5
	comp=Z,14nm,1.0s						
ETSF	Etsaut	17.76	293	*e*P	Pn	22 19 45.4	+0.5
	comp=Z,14nm,1.0s						
VORD	Divnogorie	17.80	38	*e*P	Pn	22 19 45.6	+0.3
VORD				pmax	pmax		
	comp=Z,3.0nm,0.4s						
VORD				pmax	pmax		
	comp=N,5.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,5.0nm,0.6s						
VORD				MLR	MLR		
	comp=Z,330nm,10.0s						
VORD				MLR	MLR		
	comp=N,260nm,13.0s						
VORD				MLR	MLR		
	comp=E,440nm,16.0s						
VORD	Divnogorie	17.80	38	*e*P	Pn	22 19 45.6	+0.3
	comp=E,260nm,13.0s						
UCC	Uccle	17.80	321	P	Pn	22 19 46.1	+0.7
UCC	Uccle	17.80	321	P	Pn	22 19 46.1	+0.7
GNI	Garni	17.81	76	*i* P	Pn	22 19 47.4	+1.9
GNI				pmax	pmax		
	comp=Z,14nm,1.4s						
GNI	Garni	17.81	76	P	Pn	22 19 49.1	+3.5
	comp=Z,0.4nm,0.3s,baz=317,slow=5.9,SNR=14						
GNI	Garni	17.81	76	*e*Pn	Pn	22 19 48.0	+2.5
	comp=Z,19nm,0.8s						
GNI	Garni	17.81	76	*i* P	Pn	22 19 47.4	+1.9
	comp=Z,14nm,1.4s						
VSR	Storozhevoye	17.90	37	*e*P	Pn	22 19 46.5	-0.1
VSR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
VSR				pmax	pmax		
	comp=N,2.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,2.0nm,0.5s						
VSR				MLR	MLR		
	comp=Z,170nm,13.0s						
VSR				MLR	MLR		
	comp=N,250nm,14.0s						
VSR				MLR	MLR		
	comp=E,170nm,11.0s						
VSR	Storozhevoye	17.90	37	*e*P	Pn	22 19 46.5	-0.1
	comp=E,250nm,14.0s						
CART	Cartagena	18.12	276	Pn	Pn	22 19 50.5	+1.1
CART	Cartagena	18.12	276	Pn	Pn	22 19 50.5	+1.1
SJPF	Ste Jean	18.27	293	*e*P	Pn	22 19 51.6	+0.4
SJPF	Ste Jean	18.27	293	*e*P	Pn	22 19 51.6	+0.4
MFF	Saint Martin d	18.36	305	*e*P	Pn	22 19 53.0	+0.7
	comp=E,169nm,1.3s						
MFF	Saint Martin d	18.36	305	*e*P	Pn	22 19 53.0	+0.7
MFF				pmax	pmax		
	comp=Z,85nm,1.3s						
MFF	Saint Martin d	18.36	305	*e*P	Pn	22 19 53.0	+0.7
	comp=Z,85nm,1.3s						
MFF	Saint Martin d	18.36	305	*e*P	Pn	22 19 53.0	+0.7
	comp=Z,85nm,1.3s						
ETOR	Torete	18.72	286	P	Pn	22 19 56.6	0.0
ETOR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ETOR	Torete	18.72	286	P	Pn	22 19 56.5	-0.1
	comp=Z,8.6nm,0.8s						
ETOR	Torete	18.72	286	P	Pn	22 19 56.6	0.0
	comp=Z,9.0nm,0.8s						
VRHR	Novokhopersk	19.05	41	*e*P	Pn	22 19 59.9	-0.6
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
VRHR				pmax	pmax		
	comp=N,9.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,6.0nm,0.5s						
VRHR				MLR	MLR		
	comp=Z,140nm,6.0s						
VRHR				MLR	MLR		
	comp=N,200nm,12.0s						
VRHR				MLR	MLR		
	comp=E,300nm,13.0s						
VRHR	Novokhopersk	19.05	41	*e*P	Pn	22 19 59.9	-0.6
	comp=E,200nm,12.0s						
LDF	La Druitiere	19.11	310	*e*P	Pn	22 20 01.4	+0.1
	comp=E,88nm,1.1s						
LDF	La Druitiere	19.11	310	*e*P	Pn	22 20 01.4	+0.1
LDF				pmax	pmax		
	comp=Z,44nm,1.1s						
LDF	La Druitiere	19.11	310	*e*P	Pn	22 20 01.4	+0.1
	comp=Z,44nm,1.1s						
LDF	La Druitiere	19.11	310	*e*P	Pn	22 20 01.4	+0.1
	comp=Z,44nm,1.1s						
ECRI	Cripan	19.15	291	P	Pn	22 20 01.2	-0.7
ECRI				pmax	pmax		
	comp=Z,9.0nm,0.7s						
ECRI	Cripan	19.15	291	P	Pn	22 20 01.2	-0.7
	comp=Z,8.8nm,0.7s						
ECRI	Cripan	19.15	291	P	Pn	22 20 01.2	-0.7
	comp=Z,8.8nm,0.7s						
FLN	La Foliniere	19.40	311	*e*P	Pn	22 20 04.6	-0.2
FLN				*e*MLR	MLR		
	comp=Z,329nm,18.5s						
FLN	La Foliniere	19.40	311	*e*P	Pn	22 20 04.6	-0.2
GRR	Gorron	19.47	309	*e*P	Pn	22 20 04.6	-1.1
	comp=Z,133nm,1.2s						
GRR	Gorron	19.47	309	*e*P	Pn	22 20 04.6	-1.1
GRR				pmax	pmax		
	comp=Z,67nm,1.2s						
GRR	Gorron	19.47	309	*e*P	Pn	22 20 04.6	-1.1
	comp=Z,67nm,1.2s						
GRR	Gorron	19.47	309	*e*P	Pn	22 20 04.6	-1.1
	comp=Z,67nm,1.2s						
OBN	Obninsk	19.71	25⇓	*i*P	Pn	22 20 07.2	-1.2
OBN				pmax	pmax		
	comp=Z,49nm,2.0s						
OBN				MLR	MLR		
	comp=Z,100nm,12.0s						
OBN	Obninsk	19.71	25	*e*P	Pn	22 20 07.2	-1.2
OBN	Obninsk	19.71	25	*i* P	Pn	22 20 07.2	-1.2
	comp=Z,100nm,12.0s						
EQES	Quesada	19.71	277	P	Pn	22 20 08.9	+0.3
	comp=Z,21nm,1.6s						
EQES	Quesada	19.71	277	P	Pn	22 20 08.9	+0.3
	comp=Z,21nm,1.6s						
EBER	Berja	19.73	274	P	Pn	22 20 11.8	+3.0
	comp=Z,22nm,0.8s						
ELAN	Lanestosa	19.89	293	P	Pn	22 20 09.8	-0.9
	comp=Z,78nm,1.3s						
ELAN	Lanestosa	19.89	293	P	Pn	22 20 09.8	-0.9
	comp=Z,78nm,1.3s						
ECOG	Cogollos-Vega	20.19	276	P	P	22 20 14.0	+1.7
ECOG				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ECOG	Cogollos-Vega	20.19	276	P	P	22 20 14.0	+1.7
	comp=Z,6.7nm,0.8s						
ECOG	Cogollos-Vega	20.19	276	P	P	22 20 14.0	+1.7
	comp=Z,6.7nm,0.8s						
ESDC	Sonseca Array	20.21	283	P	P	22 20 13.1	+0.6
	comp=Z,14nm,0.8s,baz=76,slow=11,SNR=38						
ESDC				LR	LR	22 28 39.2	
	comp=Z,122nm,21.3s,MS3.2,baz=85,slow=38						
ESDC	Sonseca Array	20.21	283	P	P	22 20 12.7	+0.2
	comp=Z,10nm,0.7s						
ESDC	Sonseca Array	20.21	283	P	P	22 20 12.7	+0.2
	comp=Z,10nm,0.7s						
ESLA	Sonseca Array	20.21	283	*e*P	P	22 20 13.1	+0.6
ESLA	Sonseca Array	20.21	283	*e*P	P	22 20 13.1	+0.6
EBAN	Banos Encina	20.22	278	P	P	22 20 12.9	+0.2
EBAN	Banos Encina	20.22	278	P	P	22 20 12.9	+0.2
MUD	Monsted U’grnd	20.25	339	*i* P	P	22 20 13.0	+0.1
MUD				pmax	pmax		
	comp=Z,17nm,0.9s						
MUD				MLR	MLR		
	comp=Z,350nm,16.0s,MS3.8						
MUD	Monsted U’grnd	20.25	339	*i* P	P	22 20 13.0	+0.1
	comp=Z,17nm,0.9s						
MUD							
	comp=Z,350nm,16.0s						
MUD	Monsted U’grnd	20.25	339	*i* P	P	22 20 13.0	+0.1
	comp=Z,17nm,0.9s						
GUD	Guadarrama	20.31	285	P	P	22 20 14.5	+0.9
GUD	Guadarrama	20.31	285	P	P	22 20 14.5	+0.9
ERON	Agron	20.42	275	P	P	22 20 16.2	+1.4
ERON	Agron	20.42	275	P	P	22 20 16.2	+1.3
SGMF	Saint Gilles	20.47	308	*e*P	P	22 20 14.7	-0.6
	comp=Z,108nm,1.1s						
SGMF	Saint Gilles	20.47	308	*e*P	P	22 20 14.7	-0.6
SGMF				pmax	pmax		
	comp=Z,54nm,1.1s						
SGMF	Saint Gilles	20.47	308	*e*P	P	22 20 14.7	-0.6
	comp=Z,54nm,1.1s						
SGMF	Saint Gilles	20.47	308	*e*P	P	22 20 14.7	-0.6
	comp=Z,54nm,1.1s						
PAB	San Pablo	20.51	282	*e*P	P	22 20 16.0	+0.1
PAB				pmax	pmax		
	comp=Z,32nm,1.3s						
PAB	San Pablo	20.51	282	*e*P	P	22 20 16.0	+0.2
	comp=Z,32nm,1.3s						
PAB	San Pablo	20.51	282	*e*P	P	22 20 16.0	+0.1
	comp=Z,32nm,1.3s						
MOS	Moscow	20.57	26	*e*P	P	22 20 13.2	-3.1
MOS				pmax	pmax		
	comp=Z,66nm,1.5s						
VSU	Vasula	20.63	7⇓	*e*P	P	22 20 15.0	-1.9
VSU	Vasula	20.63	7	*e*P	P	22 20 15.0	-1.9
ELOJ	Sierra Loja	20.67	275	P	P	22 20 18.2	+0.6
	comp=Z,2.5nm,0.6s						
ELOJ	Sierra Loja	20.67	275	P	P	22 20 18.2	+0.6
	comp=Z,2.5nm,0.6s						
ELUQ	Luque	20.69	277	P	P	22 20 16.5	-1.3
ELUQ	Luque	20.69	277	P	P	22 20 16.5	-1.3
QUIF	Quistinic	20.74	306	*e*P	P	22 20 18.6	+0.4
	comp=Z,143nm,1.2s						
QUIF	Quistinic	20.74	306	*e*P	P	22 20 18.6	+0.4
QUIF				pmax	pmax		
	comp=Z,72nm,1.2s						
QUIF	Quistinic	20.74	306	*e*P	P	22 20 18.6	+0.4
	comp=Z,72nm,1.2s						
QUIF	Quistinic	20.74	306	*e*P	P	22 20 18.6	+0.4
	comp=Z,72nm,1.2s						
TAM	Tamanrasset	20.75	227	*e*P	P	22 20 20.1	+1.6
TAM				*e*S	S	22 24 09.9	+0.2
TAM				pmax	pmax		
	comp=Z,27nm,1.2s						
TAM	Tamanrasset	20.75	227	*e*P	P	22 20 20.1	+1.6
	comp=Z,27nm,1.2s						
TAM				*e*S	S	22 24 09.9	+0.1
TAM	Tamanrasset	20.75	227	*e*P	P	22 20 20.1	+1.6
	comp=Z,27nm,1.2s						
EADA	Adamuz	20.84	278	P	P	22 20 18.2	-1.2
	comp=Z,16nm,0.9s						
EADA	Adamuz	20.84	278	P	P	22 20 18.2	-1.2
	comp=Z,16nm,0.9s						
ROSF	Rostrenen	20.95	307	*e*P	P	22 20 20.7	+0.2
	comp=Z,174nm,1.1s						
ROSF	Rostrenen	20.95	307	*e*P	P	22 20 20.7	+0.2
ROSF				pmax	pmax		
	comp=Z,87nm,1.1s						
ROSF	Rostrenen	20.95	307	*e*P	P	22 20 20.7	+0.2
	comp=Z,87nm,1.1s						
ROSF	Rostrenen	20.95	307	*e*P	P	22 20 20.7	+0.2
	comp=Z,87nm,1.1s						
EARI	Arriondas	21.19	293	P	P	22 20 22.4	-0.7
EARI	Arriondas	21.19	293	P	P	22 20 22.4	-0.7
EMIJ	Mijas	21.27	274	P	P	22 20 25.8	+1.7
EMIJ	Mijas	21.27	274	P	P	22 20 25.8	+1.7
TZK	Tazeka	21.46	267	*i* P	P	22 20 27.0	+0.9
ECAB	El Cabril	21.51	278	P	P	22 20 26.6	0.0
ECAB	El Cabril	21.51	278	P	P	22 20 26.6	0.0
CWF	Charnwood Fore	21.80	320	*e*P	P	22 20 28.7	-0.9
CWF				AMb	AMB	22 20 29.1	
	comp=Z,103nm,1.3s,mb5.1						
CWF	Charnwood Fore	21.80	320	*e*P	P	22 20 28.7	-0.8
	comp=Z,103nm,1.3s,mb5.1						
HGH	Gray Hill	22.03	316	*e*P	P	22 20 31.3	-0.7
HGH	Gray Hill	22.03	316	*e*P	P	22 20 31.3	-0.7
MDT	Midelt	22.22	264	P	P	22 20 34.5	+0.2
	comp=Z,9.3nm,1.0s,mb4.2,baz=88,slow=13,SNR=16						
MDT				LR	LR	22 29 46.2	
	comp=Z,180nm,18.3s,MS3.5,baz=69,slow=38						
MDT	Midelt	22.22	264	P	P	22 20 34.5	+0.2
MDT				LR	LR	22 29 46.2	
MDT	Midelt	22.22	264	P	P	22 20 34.5	+0.2
PBRG	Braganca	22.25	289	*e*P	P	22 20 35.0	+0.5
	comp=Z,37nm,1.7s,mb4.5						
PBRG	Braganca	22.25	289	*e*P	P	22 20 35.0	+0.5
	comp=Z,37nm,1.7s,mb4.5						
MCH1	Michaelchurch	22.30	317	*e*P	P	22 20 34.3	-0.7
MCH1				AMb	AMB	22 20 39.7	
	comp=Z,170nm,1.7s,mb5.2						
MCH1	Michaelchurch	22.30	317	*e*P	P	22 20 34.3	-0.7
	comp=Z,170nm,1.7s,mb5.2						
ZFT	Errachidia	22.31	262	*i* P	P	22 20 35.0	-0.2
MVO	Moncorvo	22.48	287	*e*P	P	22 20 35.9	-1.0
	comp=Z,58nm,1.6s,mb4.8						
MVO	Moncorvo	22.48	287	*e*P	P	22 20 35.9	-1.0
	comp=Z,58nm,1.6s,mb4.8						
MIF	Mishlifen	22.50	266	*i* P	P	22 20 38.0	+0.8
LHO	Holmfirth	22.52	321	*e*P	P	22 20 36.1	-1.1
LHO	Holmfirth	22.52	321	*e*P	P	22 20 36.1	-1.1
EMIN	Mina Concepcio	22.54	278	P	P	22 20 39.0	+1.4
	comp=Z,20nm,1.2s,mb4.4						
EMIN	Mina Concepcio	22.54	278	P	P	22 20 39.0	+1.4
	comp=Z,20nm,1.2s,mb4.4						
MIB	Mutribah	22.58	104	*e*P	P	22 20 37.4	-0.8
MIB				AMb	AMB	22 20 44.9	
	comp=Z,107nm,0.9s,mb5.3						
MIB	Mutribah	22.58	104	*e*P	P	22 20 37.4	-0.7
	comp=Z,107nm,0.9s,mb5.3						
EBAD	Badajoz	22.66	281	P	P	22 20 37.3	-1.6
	comp=Z,16nm,1.0s,mb4.4						
EBAD	Badajoz	22.66	281	P	P	22 20 37.3	-1.5
	comp=Z,16nm,1.0s,mb4.4						
HFS	Hagfors	22.68	349	P	P	22 20 37.8	-1.1
HFS				pmax	pmax		
	comp=Z,19nm,0.7s						
HFS				MLR	MLR		
	comp=Z,216nm,18.3s						
HFS	Hagfors	22.68	349	P	P	22 20 37.8	-1.1
	comp=Z,19nm,0.7s,mb4.7,baz=158,slow=12,SNR=28						
HFS				LR	LR	22 30 18.1	
	comp=Z,216nm,18.3s,MS3.6,baz=167,slow=39						
HFS	Hagfors	22.68	349	P	P	22 20 37.8	-1.1
	comp=Z,216nm,18.3s						
HFA0	Hagfors New Ar	22.69	349	P	P	22 20 37.0	-2.0
HFA0	Hagfors New Ar	22.69	349	P	P	22 20 37.0	-2.0
NAY	Al-Naaiem	22.78	105	*e*P	P	22 20 39.5	-0.7
NAY				AMb	AMB	22 20 50.4	
	comp=Z,65nm,0.7s,mb5.2						
NAY	Al-Naaiem	22.78	105	*e*P	P	22 20 39.5	-0.7
	comp=Z,65nm,0.7s,mb5.2						
PMRV	Marv??o	22.87	283	*e*P	P	22 20 39.7	-1.4
	comp=Z,36nm,1.6s,mb4.6						
PMRV	Marv??o	22.87	283	*e*P	P	22 20 39.6	-1.5
PMRV	Marv??o	22.87	283	*e*P	P	22 20 39.7	-1.4
	comp=Z,36nm,1.6s,mb4.6						
SBD1	Bryn Du	22.89	318	*e*P	P	22 20 39.9	-1.3
SBD1	Bryn Du	22.89	318	*e*P	P	22 20 39.9	-1.3
MTE	Manteigas	22.91	285	*e*P	P	22 20 40.4	-1.1
	comp=Z,52nm,1.4s,mb4.8						
MTE	Manteigas	22.91	285	*e*P	P	22 20 40.4	-1.1
	comp=Z,52nm,1.4s,mb4.8						
KONO	Kongsberg	22.98	344	*e*P	P	22 20 43.1	+1.0
KONO				pmax	pmax		
	comp=Z,198nm,1.8s,mb5.2						
KONO	Kongsberg	22.98	344	*e*P	P	22 20 43.1	+1.1
	comp=Z,198nm,1.8s,mb5.2						
KONO	Kongsberg	22.98	344	*e*P	P	22 20 43.1	+1.0
	comp=Z,198nm,1.8s,mb5.2						
PESTR	Estremoz	23.09	281	*e*P	P	22 20 41.8	-1.6
	comp=Z,40nm,1.5s,mb4.6						
PESTR	Estremoz	23.09	281	*e*P	P	22 20 41.8	-1.6
	comp=Z,40nm,1.5s,mb4.6						
PVIS	Viseu	23.15	286	*e*P	P	22 20 42.8	-1.3
	comp=Z,50nm,1.5s,mb4.7						
PVIS	Viseu	23.15	286	*e*P	P	22 20 42.7	-1.4
PVIS	Viseu	23.15	286	*e*P	P	22 20 42.8	-1.3
	comp=Z,50nm,1.5s,mb4.7						
RDF	Al-Radifah	23.17	106	*e*P	P	22 20 44.0	-0.3
RDF				AMb	AMB	22 20 58.8	
	comp=Z,51nm,1.7s,mb4.7						
RDF	Al-Radifah	23.17	106	*e*P	P	22 20 44.0	-0.3
	comp=Z,51nm,1.7s,mb4.7						
WPM1	Penmaenmawr	23.41	319	*e*P	P	22 20 45.8	-0.8
WPM1	Penmaenmawr	23.41	319	*e*P	P	22 20 45.8	-0.8
PVAQ	Vaqueiros	23.42	278	*e*P	P	22 20 45.9	-1.0
	comp=Z,48nm,1.5s,mb4.7						
PVAQ	Vaqueiros	23.42	278	*e*P	P	22 20 45.9	-1.0
	comp=Z,48nm,1.5s,mb4.7						
PBEJ	Beja	23.43	279	*e*P	P	22 20 44.8	-2.2
	comp=Z,26nm,1.4s,mb4.5						
PBEJ	Beja	23.43	279	*e*P	P	22 20 44.7	-2.3
PBEJ	Beja	23.43	279	*e*P	P	22 20 44.8	-2.2
	comp=Z,26nm,1.4s,mb4.5						
KIB	El Ksiba	23.43	265	*i* P	P	22 20 49.0	+1.9
XAL	Allendale	23.44	324	*e*P	P	22 20 46.7	-0.2
XAL	Allendale	23.44	324	*e*P	P	22 20 46.7	-0.3
EVO	Evora	23.46	280	*e*P	P	22 20 45.1	-2.3
	comp=Z,51nm,1.3s,mb4.5						
EVO				*e*MLR	MLR		
	comp=Z,316nm,22.2s,MS3.4						
YRE	Yr Eifl	23.54	318	*e*P	P	22 20 47.8	-0.2
YRE	Yr Eifl	23.54	318	*e*P	P	22 20 47.8	-0.2
PBDV	Barranco-do-Ve	23.62	277	*e*P	P	22 20 48.5	-0.3
	comp=Z,53nm,2.1s,mb4.6						
PBDV	Barranco-do-Ve	23.62	277	*e*P	P	22 20 48.5	-0.3
	comp=Z,53nm,2.1s,mb4.6						
YRC	Rhoscolyn	23.75	318	*e*P	P	22 20 49.8	-0.1
YRC	Rhoscolyn	23.75	318	*e*P	P	22 20 49.8	-0.1
NAO01	NORSAR Array S	23.82	347	*e*P	P	22 20 50.7	+0.2
NAO01	NORSAR Array S	23.82	347	*e*P	P	22 20 50.7	+0.2
XSO	Sourhope Farm	23.83	325	*e*P	P	22 20 49.5	-1.1
XSO	Sourhope Farm	23.83	325	*e*P	P	22 20 49.5	-1.1
NB2	NORSAR Subarra	23.94	347	P	P	22 20 50.5	-1.1
	comp=Z,31nm,1.1s,mb4.7,baz=162,slow=11						
NB2	NORSAR Subarra	23.94	347	P	P	22 20 50.5	-1.1
	comp=Z,31nm,1.1s,mb4.7,SNR=3.3						
NOA	NORSAR Array B	23.94	347	P	P	22 20 50.7	-0.9
NOA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
NOA	NORSAR Array B	23.94	347	P	P	22 20 50.7	-0.9
	comp=Z,3.5nm,0.7s,mb3.9,baz=165,slow=11,SNR=32						
NOA	NORSAR Array B	23.94	347	P	P	22 20 50.7	-0.9
NOA	NORSAR Array B	23.94	347	P	P	22 20 50.7	-0.9
	comp=Z,4.0nm,0.7s,mb4.0						
EKA	Eskdalemuir Ar	24.16	324	P	P	22 20 52.8	-0.8
EKA				pmax	pmax		
	comp=Z,28nm,0.8s						
EKA	Eskdalemuir Ar	24.16	324	P	P	22 20 52.8	-0.8
	comp=Z,28nm,0.8s,mb4.7,baz=122,slow=8.6,SNR=99						
EKA	Eskdalemuir Ar	24.16	324	P	P	22 20 52.8	-0.8
	comp=Z,28nm,0.8s,mb4.7						
ESK	Eskdalemuir	24.17	324	*e*P	P	22 20 53.0	-0.7
ESK				AMb	AMB	22 20 55.4	
	comp=Z,112nm,1.3s,mb5.1						
ESK	Eskdalemuir	24.17	324	*e*P	P	22 20 52.9	-0.8
ESK				pmax	pmax		
	comp=Z,244nm,1.8s,mb5.3						
ESK	Eskdalemuir	24.17	324	*e*P	P	22 20 52.9	-0.8
	comp=Z,244nm,1.8s,mb5.3						
ESK	Eskdalemuir	24.17	324	*e*P	P	22 20 52.9	-0.8
	comp=Z,244nm,1.8s,mb5.3						
KAF	Kangasniemi	24.21	5	*e*P	P	22 20 51.5	-2.5
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.1						
KAF	Kangasniemi	24.21	5	*e*p	P	22 20 51.5	-2.5
	comp=Z,4.1nm,0.5s,mb4.1						
EBL	Broad Law	24.36	325	*e*P	P	22 20 54.6	-0.8
EBL	Broad Law	24.36	325	*e*P	P	22 20 54.6	-0.8
EDI	Edinburgh	24.51	325	*e*P	P	22 20 56.4	-0.4
EDI				AMb	AMB	22 20 59.4	
	comp=Z,188nm,1.9s,mb5.3						
EDI	Edinburgh	24.51	325	*e*P	P	22 20 56.4	-0.4
	comp=Z,188nm,1.9s,mb5.3						
GAL1	Galloway	24.64	322	*e*P	P	22 20 56.8	-1.2
GAL1				AMb	AMB	22 21 08.5	
	comp=Z,93nm,1.5s,mb5.1						
GAL1	Galloway	24.64	322	*e*P	P	22 20 56.8	-1.2
	comp=Z,93nm,1.5s,mb5.1						
EBH	Black Hill	24.85	325	*e*P	P	22 20 59.7	-0.2
EBH	Black Hill	24.85	325	*e*P	P	22 20 59.7	-0.2
EAB	Aberfoyle	25.20	324	*e*P	P	22 21 02.5	-0.5
EAB	Aberfoyle	25.20	324	*e*P	P	22 21 02.5	-0.5
KLMR	Klimovskoe	25.33	20⇓	*i*P	P	22 21 02.8	-1.4
KLMR				pmax	pmax		
	comp=Z,99nm,1.6s,mb5.1						
KLMR	Klimovskoe	25.33	20	*i* P	P	22 21 02.8	-1.4
	comp=Z,99nm,1.6s,mb5.1						
JOF	Joensuu	25.51	10	*e*P	P	22 21 03.6	-2.2
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.7						
JOF	Joensuu	25.51	10	*e*p	P	22 21 03.6	-2.2
	comp=Z,1.1nm,0.4s,mb3.7						
MCD	Coleburn Disti	25.56	328	*e*P	P	22 21 04.8	-1.5
MCD	Coleburn Disti	25.56	328	*e*P	P	22 21 04.8	-1.5
MDO	Dochfour	25.94	327	*e*P	P	22 21 07.9	-1.9
MDO	Dochfour	25.94	327	*e*P	P	22 21 07.9	-1.9
KAR1	Arisaig	26.29	325	*e*P	P	22 21 12.4	-0.5
KAR1	Arisaig	26.29	325	*e*P	P	22 21 12.4	-0.5
KPL	Plockton	26.45	326	*e*P	P	22 21 13.2	-1.1
KPL				AMb	AMB	22 21 24.9	
	comp=Z,129nm,2.1s,mb5.1						
KPL	Plockton	26.45	326	*e*P	P	22 21 13.2	-1.2
	comp=Z,129nm,2.1s,mb5.1						
PRGR	Permogore	27.78	24	*e*P	P	22 21 23.6	-2.7
PRGR				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.6						
AKTK	Aktyubinsk	28.35	52	P	P	22 21 30.4	-1.1
AKTK				LR	LR	22 35 12.1	
AKTK	Aktyubinsk	28.35	52	P	P	22 21 30.4	-1.1
	comp=Z,103nm,19.1s						
AKTO	Aktyubinsk	28.35	52	P	P	22 21 30.4	-1.1
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.1						
AKTO				MLR	MLR		
	comp=Z,103nm,19.1s,MS3.4						
AKTO	Aktyubinsk	28.35	52	P	P	22 21 30.4	-1.1
	comp=Z,2.0nm,0.4s,mb4.1,baz=283,slow=7.1,SNR=8.5						
AKTO				LR	LR	22 35 12.1	
	comp=Z,103nm,19.1s,MS3.4,baz=76,slow=42						
ARU	Arti	30.39	41	*e*P	P	22 21 47.9	-1.6
ARU				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.6						
ARU	Arti	30.39	41	*e*P	P	22 21 47.9	-1.7
	comp=Z,19nm,1.4s,mb4.6						
ARU	Arti	30.39	41	*e*P	P	22 21 47.9	-1.6
	comp=Z,19nm,1.4s,mb4.6						
TOA0	Torodi Ar. Sit	30.68	221	*e*P	P	22 21 52.7	+0.3
TOA0	Torodi Ar. Sit	30.68	221	*e*P	P	22 21 52.7	+0.3
TORD	Torodi Ar. Bea	30.68	221	P	P	22 21 52.1	-0.3
	comp=Z,6.5nm,0.6s,mb4.7,baz=30,slow=9.1,SNR=55						
ARCES	ARCESS Array B	31.57	2	P	P	22 21 58.4	-1.4
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES	ARCESS Array B	31.57	2	P	P	22 21 58.4	-1.4
	comp=Z,1.7nm,0.5s,mb4.2,baz=193,slow=9.5,SNR=23						
ARCES	ARCESS Array B	31.57	2	P	P	22 21 58.4	-1.4
	comp=Z,2.0nm,0.5s,mb4.2						
ARE0	ARCESS Array S	31.57	2	*e*P	P	22 21 59.1	-0.7
ARE0	ARCESS Array S	31.57	2	*e*P	P	22 21 59.1	-0.7
SVE	Sverdlovsk	31.61	41	*e*P	P	22 21 59.3	-0.9
SVE				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.9						
SVE				MLR	MLR		
	comp=Z,308nm,15.0s,MS4.1						
SVE	Sverdlovsk	31.61	41	*e*P	P	22 21 59.3	-0.9
	comp=Z,308nm,15.0s						
KEV	Kevo	31.85	3	*e*P	P	22 21 59.8	-2.4
KEV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
KEV	Kevo	31.85	3	*e*p	P	22 21 59.8	-2.4
	comp=Z,2.4nm,0.6s,mb4.2						
BRVK	Borovoye	36.26	50	*e*P	P	22 22 40.2	-0.5
BRVK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
BRVK	Borovoye	36.26	50	*e*P	P	22 22 40.1	-0.6
	comp=Z,12nm,1.0s,mb4.8						
BRVK	Borovoye	36.26	50	*e*P	P	22 22 40.2	-0.5
	comp=Z,12nm,1.0s,mb4.8						
BVAR	Borovoye Array	36.33	50	P	P	22 22 40.9	-0.3
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BVAR	Borovoye Array	36.33	50	P	P	22 22 40.9	-0.3
	comp=Z,2.2nm,0.5s,mb4.4,baz=273,slow=6.4,SNR=18						
BVAR	Borovoye Array	36.33	50	P	P	22 22 40.9	-0.3
	comp=Z,2.0nm,0.5s,mb4.3						
KBL	Kabul	37.81	81	*e*P	P	22 22 55.2	+1.1
	comp=Z,4.1nm,0.8s,mb4.2						
KBL	Kabul	37.81	81	*e*P	P	22 22 55.2	+1.1
	comp=Z,4.1nm,0.8s,mb4.2						
EKS2	Erkin-Say	39.25	66	*e*P	P	22 23 05.8	-0.3
	comp=Z,12nm,0.9s,mb4.6						

EKS2				*e*PcP	PcP	22 25 14.1	-0.8
EKS2	**Erkin-Say**	**39.25**	**66**	*e*P	**P**	**22 23 05.8**	**-0.3**
	comp=Z,12nm,0.9s,mb4.6						
AML	**Almayashu**	**39.30**	**67**	*e*P	**P**	**22 23 03.1**	**-3.4**
	comp=Z,5.1nm,0.8s,mb4.3						
AML				*e*PP	PP	22 24 37.2	+0.7
DBIC	**Dimbokro**	**39.60**	**225**	*e*P	**P**	**22 23 09.3**	**+0.1**
DBIC				*e*		22 24 39.4	
DBIC				pmax	pmax		
	comp=Z,14nm,0.7s						
DBIC	**Dimbokro**	**39.60**	**225**	P	**P**	**22 23 09.6**	**+0.3**
	comp=Z,7.7nm,0.5s,mb4.7,baz=12,slow=11,SNR=22						
DBIC				LR	LR	22 40 42.7	
	comp=Z,117nm,19.8s,MS3.7,baz=9.0,slow=38						
DBIC	**Dimbokro**	**39.60**	**225**	*e*P	**P**	**22 23 09.3**	**+0.1**
	comp=Z,14nm,0.7s,mb4.8						
DBIC				*e*PP	PP	22 24 39.4	-0.9
DBIC	**Dimbokro**	**39.60**	**225**	*e*P	**P**	**22 23 09.3**	**+0.1**
	comp=Z,14nm,0.7s,mb4.8						
TIC	**Toumodi**	**39.71**	**225**	*e*P	**P**	**22 23 09.9**	**-0.3**
	comp=Z,33nm,0.6s,mb5.2						
KIC	**Kosan Boka**	**39.79**	**224**	*e*P	**P**	**22 23 10.9**	**+0.1**
	comp=Z,52nm,0.7s,mb5.4						
UCH	**Uchtor**	**39.87**	**67**	P	**P**	**22 23 10.7**	**-0.6**
UCH	**Uchtor**	**39.87**	**67**	P	**P**	**22 23 10.7**	**-0.6**
LIC	**Lamto**	**40.06**	**224**	*e*P	**P**	**22 23 13.2**	**+0.1**
	comp=Z,44nm,0.7s,mb5.0						
LIC				*e*MLR	MLR		
	comp=Z,162nm,20.8s,MS3.5						
LIC	**Lamto**	**40.06**	**224**	*e*P	**P**	**22 23 13.2**	**+0.1**
	comp=Z,22nm,0.7s,mb5.0						
LIC				LR	LR		
	comp=Z,80nm,20.8s,MS3.5						
LIC	**Lamto**	**40.06**	**224**	*e*P	**P**	**22 23 13.2**	**+0.1**
	comp=Z,22nm,0.7s,mb5.0						
SPITS	**Spitsbergen Ar**	**40.27**	**358**	P	**P**	**22 23 13.5**	**-0.7**
SPITS				pmax	pmax		
	comp=Z,11nm,1.0s						
SPITS	**Spitsbergen Ar**	**40.27**	**358**	P	**P**	**22 23 13.5**	**-0.6**
	comp=Z,11nm,1.0s,mb4.5,baz=284,slow=7.8,SNR=9.6						
SPITS	**Spitsbergen Ar**	**40.27**	**358**	P	**P**	**22 23 13.5**	**-0.7**
	comp=Z,11nm,1.0s,mb4.5						
KURK	**Kurchatov**	**41.44**	**53**	*e*P	**P**	**22 23 22.3**	**-1.8**
KURK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.7						
KURK	**Kurchatov**	**41.44**	**53**	P	**P**	**22 23 21.6**	**-2.4**
	comp=Z,5.3nm,0.5s,mb4.5,baz=275,slow=8.5,SNR=33						
KURK				S	**S**	**22 29 38.6**	**+0.2**
	comp=Z,0.6nm,0.8s,baz=286,slow=16,SNR=3.8						
KURK				LR	LR	22 43 29.9	
	comp=Z,201nm,18.4s,MS4.0,baz=270,slow=40						
KURK	**Kurchatov**	**41.44**	**53**	*e*P	**P**	**22 23 22.3**	**-1.8**
	comp=Z,19nm,0.9s,mb4.7						
KURK	**Kurchatov**	**41.44**	**53**	*e*P	**P**	**22 23 22.3**	**-1.8**
	comp=Z,19nm,0.9s,mb4.7						
NVS	**Novosibirsk**	**43.92**	**47**	*e*P	**P**	**22 23 43.2**	**-1.0**
NVS				*e*S	**S**	**22 30 10.2**	**-4.8**
NVS				pmax	pmax		
	comp=E,16nm,0.9s						
NVS				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.0						
NVS				smax			
	comp=N,25nm,2.2s						
NVS	**Novosibirsk**	**43.92**	**47**	*e*P	**P**	**22 23 43.2**	**-1.0**
MK31	**Makanchi Array**	**44.40**	**59**	*e*P	**P**	**22 23 47.0**	**-1.1**
MK31	**Makanchi Array**	**44.40**	**59**	*e*P	**P**	**22 23 47.0**	**-1.1**
MKAR	**Makanchi Array**	**44.40**	**59**	P	**P**	**22 23 47.0**	**-1.1**
	comp=N,7.3nm,0.6s,mb4.6,baz=277,slow=8.1,SNR=37						
MKAR				pP	pP	22 23 53.5	+0.7
	comp=N,25nm,0.6s,baz=281,slow=7.1,SNR=40						
MKAR				pPcP		22 25 37.9	
	comp=N,2.6nm,0.7s,baz=271,slow=4.5,SNR=3.0						
MKAR				ScP	ScP	22 29 20.2	-3.1
	comp=N,0.5nm,0.7s,baz=276,slow=4.3,SNR=5.7						
ZAA0	**Zalesovo Array**	**44.92**	**48**	*e*P	**P**	**22 23 50.5**	**-1.7**
ZAA0	**Zalesovo Array**	**44.92**	**48**	*e*P	**P**	**22 23 50.5**	**-1.7**
ZALV	**Zalesovo Beam**	**44.92**	**48**	P	**P**	**22 23 50.7**	**-1.5**
ZALV				S	**S**	**22 30 33.4**	**+3.9**
ZALV	**Zalesovo Beam**	**44.92**	**48**	P	**P**	**22 23 50.7**	**-1.5**
	comp=N,21nm,0.4s,mb5.3,baz=274,slow=8.5,SNR=111						
ZALV				S	**S**	**22 30 33.3**	**+3.8**
	comp=N,0.3nm,0.5s,baz=283,slow=13,SNR=2.9						
ZALV				LR	LR	22 44 22.8	
	comp=N,66nm,19.2s,MS3.6,baz=247,slow=38						
ZALV	**Zalesovo Beam**	**44.92**	**48**	P	**P**	**22 23 50.7**	**-1.5**
ZALV				S	**S**	**22 30 33.4**	**+3.8**
ZALV				LR	LR	22 44 22.8	
ZALV	**Zalesovo Beam**	**44.92**	**48**	P	**P**	**22 23 50.7**	**-1.5**
SUMG	**Summit**	**45.32**	**338**	*e*P	**P**	**22 23 55.8**	**+0.7**
	comp=N,240nm,3.0s						
WMQ	**Urumqi**	**48.83**	**61**	P	**P**	**22 24 23.2**	**+0.3**
WMQ				pP	pP	22 24 33.0	+5.4
WMQ				sP	sP	22 24 37.0	+7.6
WMQ				PcP	PcP	22 25 48.0	+0.6
WMQ				S	**S**	**22 31 23.0**	**-2.6**
WMQ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
WMQ				pmax	pmax		
	comp=Z,330nm,5.7s						
WMQ				LR	LR		
	comp=N,310nm,30.4s						
WMQ				LR	LR		
	comp=E,240nm,18.3s						
WMQ				LR	LR		
	comp=Z,210nm,19.2s						
PYUN	**Piuthan**	**51.30**	**82**	*e*P	**P**	**22 24 42.5**	**+0.6**
	comp=Z,26nm,0.6s,mb5.4						
DANN	**Dangsing**	**51.79**	**81**	*e*P	**P**	**22 24 45.7**	**+0.2**
	comp=Z,55nm,0.7s,mb5.6						
KOLN	**Koldanda**	**51.93**	**82**	*e*P	**P**	**22 24 48.1**	**+1.5**
	comp=Z,20nm,0.8s,mb5.1						
GKN	**Gorkha**	**52.63**	**81**	*e*P	**P**	**22 24 52.6**	**+0.8**
DMN	**Daman**	**53.19**	**82**	*e*P	**P**	**22 24 55.7**	**-0.2**
	comp=Z,22nm,0.7s,mb5.2						
KKN	**Kakani**	**53.23**	**81**	*e*P	**P**	**22 24 56.2**	**-0.1**
	comp=Z,14nm,0.7s,mb5.0						
LSZ	**Lusaka**	**53.40**	**172**	*e*P	**P**	**22 24 58.2**	**+0.8**
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
LSZ	**Lusaka**	**53.40**	**172**	P	**P**	**22 24 58.7**	**+1.3**
	comp=Z,3.7nm,0.8s,mb4.3,baz=348,slow=6.8,SNR=6.5						
LSZ	**Lusaka**	**53.40**	**172**	*e*P	**P**	**22 24 58.2**	**+0.8**
	comp=Z,4.2nm,0.9s,mb4.4						
GUN	**Gumba**	**53.65**	**81**	*e*P	**P**	**22 24 58.5**	**-0.8**
	comp=Z,16nm,0.5s,mb5.2						
RAMN	**Ramite**	**54.67**	**81**	*e*P	**P**	**22 25 07.9**	**+1.1**
	comp=Z,41nm,0.8s,mb5.5						
MOY	**Mondy**	**54.98**	**48**	*e*P	**P**	**22 25 14.6**	**+6.0**
ODAN	**Odare**	**55.33**	**81**	*e*P	**P**	**22 25 11.6**	**+0.1**
TAPN	**Taplejung**	**55.34**	**80**	*e*P	**P**	**22 25 11.9**	**+0.3**
TLY	**Talaya**	**56.53**	**48**	*e*P	**P**	**22 25 20.0**	**+0.3**
TLY				*e*SSS		22 39 04.7	
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
TLY				MLR	MLR		
	comp=Z,92nm,15.0s,MS4.0						
TLY	**Talaya**	**56.53**	**48**	*e*P	**P**	**22 25 19.0**	**-0.8**
ZAK	**Zakamensk**	**56.78**	**49**	*e*P	**P**	**22 25 21.4**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
LSA	**Lhasa**	**56.88**	**76**	*e*P	**P**	**22 25 23.4**	**+0.8**
TSUM	**Tsumeb**	**57.13**	**185**	P	**P**	**22 25 24.4**	**+0.2**
	comp=Z,2.1nm,0.7s,mb4.3,baz=314,slow=11,SNR=6.2						
TSUM	**Tsumeb**	**57.13**	**185**	*e*P	**P**	**22 25 24.6**	**+0.4**
GTA	**Gaotai**	**58.88**	**62**	*e*P	**P**	**22 25 36.8**	**+0.3**
GTA				pP	pP	22 25 47.0	+5.7
GTA				sP	sP	22 25 50.8	+7.7
GTA				S	**S**	**22 33 34.8**	**-7.0**
GTA				sS	sS	22 33 51.8	+2.2
GTA				SS	SS	22 37 29.3	-5.6
GTA				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.3						
GTA				pmax	pmax		
	comp=Z,38nm,5.4s						
GTA				LR	LR		
	comp=N,73nm,15.0s,MS4.1						
GTA				LR	LR		
	comp=E,72nm,15.6s,MS4.1						
GTA				LR	LR		
	comp=Z,100nm,16.2s,MS4.0						
SCHQ	**Schefferville**	**59.28**	**318**	P	**P**	**22 25 38.5**	**-0.5**
	comp=Z,5.2nm,0.5s,mb4.8,baz=56,slow=6.4,SNR=23						
SCHQ				LR	LR	22 52 42.3	
	comp=Z,95nm,18.1s,MS4.0,baz=12,slow=38						
SCHQ	**Schefferville**	**59.28**	**318**	*e*P	**P**	**22 25 38.5**	**-0.6**
TIXI	**Tiksi**	**59.35**	**21**	*e*P	**P**	**22 25 37.0**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.4						
TIXI				MLR	MLR		
	comp=Z,308nm,16.0s,MS4.5						
TIXI	**Tiksi**	**59.35**	**21**	*e*P	**P**	**22 25 38.5**	**-0.7**
	comp=Z,3.3nm,0.8s,mb4.4						
SONM	**Songino Array**	**59.65**	**51**	P	**P**	**22 25 40.4**	**-1.3**
SONM				*PP	pP	22 25 47.4	+1.0
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,108nm,19.7s						
SONM	**Songino Array**	**59.65**	**51**	P	**P**	**22 25 40.4**	**-1.3**
	comp=Z,2.3nm,0.9s,mb4.2,baz=279,slow=7.6,SNR=12						
SONM				pP	pP	22 25 47.4	+1.0
	comp=Z,4.7nm,0.9s,baz=284,slow=9.0,SNR=12						
SONM				LR	LR	22 54 36.9	
	comp=Z,108nm,19.7s,MS4.0,baz=330,slow=39						
BOD	**Bodaibo**	**59.76**	**38**	*e*P	**P**	**22 25 39.6**	**-2.7**
BOD				*e*	pP	22 25 44.7	-2.3
BOD				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
RES	**Resolute Bay**	**60.17**	**344**	*e*P	**P**	**22 25 45.5**	**+0.7**
RES				pmax	pmax		
	comp=Z,64nm,2.8s,mb5.2						
RES	**Resolute Bay**	**60.17**	**344**	*e*P	**P**	**22 25 45.5**	**+0.6**
	comp=Z,64nm,2.8s,mb5.2						
OPO	**Ambohidratompo**	**61.15**	**152**	P	**P**	**22 25 53.4**	**+1.3**
	comp=Z,6.3nm,0.9s,mb4.7,baz=299,slow=6.9,SNR=5.6						
LBTB	**Lobatse**	**62.86**	**176**	*e*P	**P**	**22 26 04.2**	**+0.7**
LBTB				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
LBTB	**Lobatse**	**62.86**	**176**	*e*P	**P**	**22 26 04.2**	**+0.7**
	comp=Z,7.7nm,0.9s,mb4.8						
LZH	**Lanzhou**	**63.24**	**64**	*e*P	**P**	**22 26 05.3**	**-0.9**
LZH				pP	pP	22 26 14.5	+3.6
LZH				sP	sP	22 26 19.5	+6.8
LZH				PP	PP	22 28 23.0	-2.0
LZH				*e*S	**S**	**22 34 31.1**	**-6.4**
LZH				sS	sS	22 34 51.0	+5.7
LZH				pmax	pmax		
	comp=Z,20nm,1.6s,mb5.0						
LZH				pmax	pmax		
	comp=Z,120nm,5.8s						
LZH				LR	LR		
	comp=N,250nm,15.4s						
LZH				LR	LR		
	comp=Z,530nm,16.2s,MS4.8						
YAK	**Yakutsk**	**64.64**	**30**	P	**P**	**22 26 15.7**	**+0.8**
YAK				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
YAK	**Yakutsk**	**64.64**	**30**	P	**P**	**22 26 15.7**	**+0.8**
	comp=Z,18nm,0.8s,mb5.2						
CD2	**Chengdu**	**65.77**	**69**	P	**P**	**22 26 23.7**	**+0.9**
CD2				pP	pP	22 26 34.0	+6.5
CD2				sP	sP	22 26 37.9	+8.6
CD2				PcP	PcP	22 26 55.0	+1.1
CD2				PP	PP	22 28 50.4	+3.1
CD2				S	S	22 35 05.3	-3.5
CD2				sS	sS	22 35 22.3	+5.7
CD2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
CD2				pmax	pmax		
	comp=Z,130nm,5.4s						
CD2				LR	LR		
	comp=N,270nm,5.2s						
CD2				LR	LR		
	comp=Z,210nm,4.9s						
HHC	**Hu-ho-hao-te**	**66.17**	**56**	*e*P	**P**	**22 26 26.0**	**+0.8**
HHC				pP	pP	22 26 36.3	+6.4
HHC				sP	sP	22 26 40.7	+9.0
HHC				PcP	PcP	22 26 56.7	+1.3
HHC				PP	PP	22 28 53.3	+2.8
HHC				PcS		22 30 59.5	
HHC				*e*S	S	22 35 07.9	-5.4
HHC				sS	sS	22 35 25.0	+3.8
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
HHC				pmax	pmax		
	comp=Z,89nm,4.6s						
HHC				LR	LR		
	comp=N,150nm,16.6s,MS4.4						
HHC				LR	LR		
	comp=E,140nm,14.7s,MS4.4						
HHC				LR	LR		
	comp=Z,120nm,15.5s,MS4.2						
BOSA	**Boshof**	**66.42**	**177**	P	**P**	**22 26 27.8**	**+1.1**
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
BOSA				MLR	MLR		
	comp=Z,261nm,20.2s,MS4.4						
BOSA	**Boshof**	**66.42**	**177**	P	**P**	**22 26 27.8**	**+1.0**
	comp=Z,3.1nm,0.5s,mb4.6,baz=332,slow=9.6,SNR=8.4						
BOSA				LR	LR	22 57 54.0	
	comp=Z,261nm,20.2s,MS4.4,baz=348,slow=38						
BOSA	**Boshof**	**66.42**	**177**	*e*P	**P**	**22 26 27.5**	**+0.8**
	comp=Z,2.9nm,0.6s,mb4.5						
XAN	**Xi'an**	**67.87**	**64**	P	**P**	**22 26 40.4**	**+4.3**
XAN				pP	pP	22 26 48.6	+7.7
XAN				sP	sP	22 26 52.7	+10
XAN				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.3						
XAN				pmax	pmax		
	comp=Z,62nm,6.8s						
KMI	**Kunming**	**68.06**	**75**	P	**P**	**22 26 41.1**	**+3.7**
KMI				pmax	pmax		
	comp=Z,4.0nm,2.0s,mb4.1						
CHTO	**Chiang Mai**	**68.59**	**82**	*e*P	**P**	**22 26 41.5**	**+0.6**
CHTO				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
CHTO	**Chiang Mai**	**68.59**	**82**	*e*P	**P**	**22 26 41.5**	**+0.6**
	comp=Z,5.0nm,1.1s,mb4.4						
ACCN	**Adirondack Com**	**68.64**	**309**	*e*P	**P**	**22 26 42.1**	**+1.3**
	comp=Z,14nm,1.0s,mb4.9						
CMAR	**Chiang Mai Arr**	**68.79**	**83**	P	**P**	**22 26 41.2**	**-0.9**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
CMAR				MLR	MLR		
	comp=Z,58nm,19.9s						
CMAR	**Chiang Mai Arr**	**68.79**	**83**	P	**P**	**22 26 41.2**	**-0.9**
	comp=Z,1.6nm,0.9s,mb3.9,baz=306,slow=7.7,SNR=8.0						
CMAR				LR	LR	23 02 53.0	
	comp=Z,58nm,19.9s,MS3.8,baz=22,slow=41						
BJI	**Beijing**	**69.58**	**55**	P	**P**	**22 26 45.6**	**-1.1**
BJI				PP	PP	22 29 19.8	-0.4
BJI				S	S	22 35 50.1	-4.2
BJI				SS	SS	22 40 13.8	-7.6
BJI				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
BJI				pmax	pmax		
	comp=Z,280nm,5.8s						
BJI				LR	LR		
	comp=N,250nm,26.1s,MS4.5						
BJI				LR	LR		
	comp=E,220nm,25.8s,MS4.5						
BJI				LR	LR		
	comp=Z,74nm,21.3s,MS3.9						
FCC	**Fort Churchill**	**69.89**	**330**	*e*P	**P**	**22 26 48.7**	**+0.4**
	comp=Z,0.2nm,0.9s						
GYA	**Guiyang**	**70.29**	**71**	P	**P**	**22 26 51.9**	**+0.6**
GYA				pP	pP	22 27 01.0	+4.9
GYA				sP	sP	22 27 06.5	+8.6
GYA				PcP	PcP	22 27 15.2	+2.3
GYA				PP	PP	22 29 30.0	+3.3
GYA				SKS		22 36 45.6	
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GYA				pmax	pmax		
	comp=Z,120nm,5.0s						
GYA				LR	LR		
	comp=N,480nm,19.4s,MS4.9						
GYA				LR	LR		
	comp=E,540nm,19.9s,MS4.9						
GYA				LR	LR		
	comp=Z,460nm,20.6s,MS4.7						
BILL	**Bilibino**	**70.85**	**13⇑**	*e*P	**P**	**22 26 53.5**	**-0.5**
BILL				*e*		22 27 03.4	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
SEY	**Seymchan**	**71.82**	**21**	*i* P	**P**	**22 26 58.5**	**-1.4**
SSPA	**Standing Stone**	**72.78**	**308**	*e*P	**P**	**22 27 06.7**	**+0.6**
	comp=Z,16nm,1.1s,mb4.9						
CN2	**Changchun**	**73.13**	**47**	*e*P	**P**	**22 27 11.3**	**+3.2**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
ERPA	**Erie**	**73.20**	**310**	*e*P	**P**	**22 27 09.5**	**+1.0**
	comp=Z,42nm,1.1s,mb5.3						
KLR	**Kul'dur**	**73.23**	**40**	*e*P	**P**	**22 27 03.0**	**-5.6**
YKA	**Yellowknife Ar**	**73.86**	**341**	P	**P**	**22 27 11.5**	**-0.4**
	comp=Z,0.9nm,0.6s,mb3.9,baz=31,slow=5.5,SNR=15						
YKA				pP	pP	22 27 18.7	+1.9
	comp=Z,1.9nm,0.6s,baz=34,slow=5.6,SNR=16						
YKA	**Yellowknife Ar**	**73.86**	**341**	P	**P**	**22 27 11.6**	**-0.4**
YKA				pP	pP	22 27 18.7	+1.9
COLD	**Coldfoot**	**74.84**	**357**	*e*P	**P**	**22 27 17.5**	**-0.1**
	comp=Z,7.4nm,0.9s,mb4.6						
FFC	**Flin Flon**	**75.82**	**330**	*e*P	**P**	**22 27 22.8**	**-0.7**
NJ2	**Nanjing**	**75.89**	**60**	*e*P	**P**	**22 27 26.2**	**+1.9**
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
VWCC	**Virginia Weste**	**76.10**	**306**	*e*P	**P**	**22 27 23.1**	**-2.3**
ACSO	**Alum Creek Sta**	**76.14**	**310**	P	**P**	**22 27 25.3**	**-0.2**
ULM	**Lac du Bonnet**	**76.43**	**324**	P	**P**	**22 27 26.9**	**-0.2**
	comp=Z,14nm,0.9s,mb4.9,baz=43,slow=5.7,SNR=15						
ULM				pP	pP	22 27 35.8	+3.9
	comp=Z,10nm,0.8s,baz=49,slow=5.2,SNR=7.3						
ULM				LR	LR	22 58 25.9	
	comp=Z,125nm,20.2s,MS4.2,baz=82,slow=34						
ULM	**Lac du Bonnet**	**76.43**	**324**	*e*P	**P**	**22 27 27.0**	**-0.1**
	comp=Z,19nm,1.1s,mb4.9						
ULM				*e*		22 27 35.9	
DAWY	**Dawson**	**77.12**	**352**	*e*P	**P**	**22 27 31.1**	**+0.5**
PSI	**Prapat**	**78.04**	**96**	P	**P**	**22 27 39.4**	**+2.8**
PSI				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
PSI	**Prapat**	**78.04**	**96**	P	**P**	**22 27 39.4**	**+2.8**
	comp=Z,2.3nm,0.3s,mb4.5,baz=321,slow=6.9,SNR=4.2						
MCK	**McKinley**	**78.26**	**356**	*e*P	**P**	**22 27 36.9**	**-0.2**
MCK				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
MCK	**McKinley**	**78.26**	**356**	*e*P	**P**	**22 27 36.9**	**-0.1**
	comp=Z,17nm,1.3s,mb4.8						
KSRS	**Korea Array**	**78.52**	**51**	P	**P**	**22 27 37.8**	**-1.2**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KSRS				MLR	MLR		
	comp=Z,93nm,18.2s,MS4.2						
KSRS	**Korea Array**	**78.52**	**51**	P	**P**	**22 27 37.8**	**-1.2**
	comp=Z,0.9nm,0.4s,mb4.0,baz=317,slow=4.9,SNR=3.7						
KSRS				LR	LR	23 06 31.7	
	comp=Z,93nm,18.2s,MS4.2,baz=160,slow=39						
PPLA	**Purkeypile**	**79.25**	**357**	*e*P	**P**	**22 27 42.5**	**0.0**
	comp=Z,6.5nm,0.7s,mb4.7						
WCI	**Wyandotte Cave**	**79.39**	**310**	*e*P	**P**	**22 27 43.7**	**-0.1**
WCI				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.3						
WCI	**Wyandotte Cave**	**79.39**	**310**	*e*P	**P**	**22 27 43.7**	**-0.1**
	comp=Z,25nm,0.6s,mb5.3						
CPCT	**Cooper Cave**	**80.09**	**307**	*e*P	**P**	**22 27 49.0**	**+1.4**
YSS	**Yuzh-Sakhalins**	**80.18**	**37**	*e*P	**P**	**22 27 48.0**	**+0.1**
PMR	**Palmer**	**80.41**	**356**	P	**P**	**22 27 49.1**	**+0.3**
DLBC	**Dease Lake**	**81.02**	**346**	P	**P**	**22 27 51.0**	**-1.2**
PETK	**Petropavlovsk-**	**81.42**	**25**	LR	LR	23 08 29.5	
	comp=Z,65nm,20.0s,MS4.0,baz=148,slow=39						
WVT	**Waverly**	**81.69**	**310**	P	**P**	**22 27 54.6**	**-1.5**
RSO	**Redoubt South**	**81.71**	**357**	*e*P	**P**	**22 27 56.2**	**+0.4**
FVM	**French Village**	**82.00**	**312**	*e*P	**P**	**22 27 57.9**	**+0.2**
FVM				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
FVM	**French Village**	**82.00**	**312**	*e*P	**P**	**22 27 57.9**	**+0.2**
	comp=Z,14nm,0.9s,mb4.9						
CCM	**Cathedral Cave**	**82.42**	**313**	*e*P	**P**	**22 27 59.8**	**-0.2**
CCM				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
CCM	**Cathedral Cave**	**82.42**	**313**	*e*P	**P**	**22 27 59.8**	**-0.1**
	comp=Z,5.5nm,0.7s,mb4.6						
NACB	**Ninganchiao**	**82.58**	**65**	P	**P**	**22 27 59.6**	**-1.4**
LRAL	**Lakeview Retre**	**83.21**	**307**	*e*P	**P**	**22 28 03.7**	**-0.5**
	comp=Z,23nm,1.1s,mb5.1						
OXF	**Oxford**	**83.73**	**309**	*e*P	**P**	**22 28 06.3**	**-0.5**
EGMT	**Eagleton**	**84.09**	**330**	*e*P	**P**	**22 28 09.0**	**+0.6**
	comp=Z,17nm,1.0s,mb5.1						
RSSD	**Black Hills**	**84.70**	**324**	*e*P	**P**	**22 28 11.9**	**+0.4**
RSSD				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
RSSD	**Black Hills**	**84.70**	**324**	*e*P	**P**	**22 28 11.9**	**+0.3**
	comp=Z,3.9nm,1.0s,mb4.5						
WALA	**Waterton Lakes**	**84.83**	**333**	*e*P	**P**	**22 28 12.1**	**0.0**
	comp=Z,4.9nm,3.0s						
MJAR	**Matsushiro Arr**	**85.25**	**46**	P	**P**	**22 28 15.0**	**+0.6**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MJAR	**Matsushiro Arr**	**85.25**	**46**	P	**P**	**22 28 15.0**	**+0.5**
	comp=Z,1.1nm,0.5s,mb4.2,baz=322,slow=3.8,SNR=3.5						
YBMT	**Yellow Bay**	**85.86**	**332**	*e*P	**P**	**22 28 17.9**	**+0.6**
JTMT	**Jette**	**86.06**	**332**	*e*P	**P**	**22 28 19.1**	**+0.9**
SWMT	**Swartz Lake**	**86.15**	**332**	*e*P	**P**	**22 28 19.5**	**+0.9**
RLMT	**Red Lodge**	**86.23**	**328**	*e*P	**P**	**22 28 20.4**	**+1.2**
RLMT				*e*pP	pP	22 28 29.1	+5.1
SDV	**Santo Domingo**	**86.60**	**279**	LR	LR	23 01 33.0	
	comp=Z,54nm,18.8s,MS4.0,baz=174,slow=32						
SDV	**Santo Domingo**	**86.60**	**279**	*e*P	**P**	**22 28 21.9**	**+0.5**
NEW	**Newport**	**86.64**	**334**	*e*P	**P**	**22 28 21.3**	**+0.2**
BOZ	**Bozeman (W)**	**86.78**	**329**	*e*P	**P**	**22 28 22.6**	**+0.8**
BOZ				*e**PP	pP	22 28 32.2	+5.5
PHWY	**Pilot Hill**	**87.55**	**323**	*e*P	**P**	**22 28 26.5**	**+0.9**
LOHW	**Long Hollow**	**88.01**	**328**	*e*P	**P**	**22 28 28.7**	**+0.9**
PDAR	**Pinedale Array**	**88.25**	**327**	P	**P**	**22 28 28.6**	**-0.3**
	comp=Z,1.5nm,0.9s,mb4.2,baz=52,slow=3.6,SNR=13						
PDAR				LR	LR	23 07 37.8	
	comp=Z,151nm,21.2s,MS4.4,baz=40,slow=35						
RRI2	**Red Ridge**	**88.53**	**328**	*e*P	**P**	**22 28 31.5**	**+1.2**
RRI2				*e*pP	pP	22 28 40.7	+5.5
ISCO	**Idaho Springs**	**88.79**	**322**	*e*P	**P**	**22 28 32.3**	**+0.7**
WMOK	**Wichita Mounta**	**89.06**	**315**	*e*P	**P**	**22 28 33.7**	**+0.8**
HLID	**Hailey**	**89.61**	**330**	*e*P	**P**	**22 28 35.0**	**-0.4**
PV04	**Paradox Valley**	**91.47**	**324**	*e*P	**P**	**22 28 44.7**	**+0.6**
PV01	**Paradox Valley**	**91.52**	**323**	*e*P	**P**	**22 28 43.4**	**-0.9**
	comp=Z,639nm,1.0s						
SRU	**San Rafael**	**91.64**	**325**	*e*P	**P**	**22 28 44.8**	**0.0**
NVAR	**Mina Array Bea**	**95.52**	**330**	P	**P**	**22 29 03.6**	**+0.9**
	comp=Z,0.6nm,0.4s,mb4.4,baz=21,slow=8.1,SNR=4.7						
TXAR	**Lajitas Array**	**95.84**	**314**	P	**P**	**22 29 04.9**	**+0.5**
TXAR				*PP	pP	22 29 12.9	+3.6
TXAR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
TXAR				MLR	MLR		
	comp=Z,81nm,20.5s						
TXAR	**Lajitas Array**	**95.84**	**314**	P	**P**	**22 29 04.9**	**+0.6**
	comp=Z,2.2nm,0.9s,mb4.6,baz=65,slow=3.3,SNR=10						
TXAR				pP	pP	22 29 12.9	+3.6
	comp=Z,1.0nm,0.7s,baz=70,slow=4.4,SNR=4.5						
TXAR				LR	LR	23 13 37.0	
	comp=Z,81nm,20.5s,MS4.2,baz=175,slow=36						
FITZ	**Fitzroy Crossi**	**111.56**	**97**	PKiKP	PKiKP	22 34 12.6	+0.1
NWAO	**Narrogin (SRO)**	**113.18**	**114**	PKIKP	PKiKP	22 34 14.8	-0.3
WRA	**Warramunga Arr**	**119.42**	**93**	PKP	PKPdf	22 34 25.8	-1.7
	comp=Z,0.3nm,0.8s,baz=322,slow=2.0,SNR=5.2						
WRAB	**Tennant Creek**	**119.42**	**93**	*e*PKIKP	PKPdf	22 34 27.8	+0.3
WB2	**Warramunga Arr**	**119.43**	**93**	*e*PKPdf	PKPdf	22 34 26.6	-0.9
ASAR	**Alice Springs**	**121.05**	**97**	PKIKP	PKPdf	22 34 27.7	-2.8
ASAR						22 34 36.3	
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.1s						
ASAR	**Alice Springs**	**121.05**	**97**	PKP	PKPdf	22 34 27.7	-2.8
	comp=Z,1.0nm,1.1s,baz=317,slow=1.7,SNR=3.9						
ASAR				pPKP	pPKPdf	22 34 36.3	+0.7
	comp=Z,0.8nm,0.7s,baz=310,slow=1.7,SNR=4.8						
CTAO	**Charters Tower**	**128.89**	**86**	PKIKP	PKPdf	22 34 46.0	+0.4

ISCJB ***04*** *22:17:35.8±0.6, 23°.14N±0°.07×93°.83E±0°.06, h34*^{km}*±7*^{km}*, mb4.2/22, MS2.9/2, Error ellipse: s-maj=13.9km s-min=4.3km az=34.9*

MOS ***04*** *22:17:35.7±1.0, 23°.25N×94°.08E, h33*^{km}*, mb4.5/6, Error ellipse: s-maj=23.5km s-min=7.4km az=123.3*

BJI ***04*** *22:17:35.4, 22°.97N×93°.84E, h41*^{km}*, mB4.9/2, mb4.0/7, Ms4.7/1, Ms7 4.5/1*

NEIC ***04*** *22:17:38.8±0.8, 23°.24N×94°.06E, h46*^{km}*±8*^{km}*, mb4.3/4, Error ellipse: s-maj=13.3km s-min=5.6km az=59.0*

IDC ***04*** *22:17:39.0±3.6, 23°.30N×94°.10E, h46*^{km}*±36*^{km}*, mb3.9/16, mb1 4.0/17, mb1mx3.8/30, mbtmp3.9/17, ML4.0/1, MS3.0/2, Ms1 3.0/2, ms1mx2.6/35, Error ellipse: s-maj=28.1km s-min=13.6km az=60.0*

ISC 04 22:17:38.8±0.5, **23°.17N**±0°.06×**93°.86E**±0°.05, **h42**^{km}±5^{km}, **n61**, σ**1**^{s}**08**/74, **mb4.2**/22, **MS2.9**/2, **Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGT	**Agartala**	**2.50**	**287**	*e*PKP	**Pn**	**22 18 17.0**	**+0.1**
SHL	**Shillong**	**2.99**	**323**	*e*PN	**Pn**	**22 18 26.0**	**+2.3**
SHL				*e*SN	**Sn**	**22 19 02.5**	**+4.2**
CHTO	**Chiang Mai**	**6.43**	**131**	*e*P	**Pn**	**22 19 09.2**	**-1.7**
CHTO				*e*		22 20 22.4	
CHTO				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CHTO	**Chiang Mai**	**6.43**	**131**	*e*Pn	**Pn**	**22 19 09.2**	**-1.7**
	comp=Z,9.6nm,0.8s						
CHTO				*e*Sn	**Sn**	**22 20 22.4**	**-0.6**
CM31	**Chiang Mai Arr**	**6.67**	**134**	*e*Pn	**Pn**	**22 19 13.0**	**-1.3**
	comp=Z,7.9nm,0.6s						
CMAR	**Chiang Mai Arr**	**6.67**	**134**	P	**Pn**	**22 19 13.1**	**-1.2**
	comp=Z,0.9nm,0.3s,baz=312,slow=13,SNR=13						
ODAN	**Odare**	**6.93**	**303**	*e*Pn	**Pn**	**22 19 19.0**	**+1.3**
ODAN				*e*Sn	**Sn**	**22 20 35.2**	**0.0**
	comp=Z,190nm,0.6s						
LSA	**Lhasa**	**6.94**	**340**	P	**Pn**	**22 19 19.0**	**+1.1**
LSA	**Lhasa**	**6.94**	**340**	*e*P	**Pn**	**22 19 19.1**	**+1.2**
LSA				*e*		22 20 33.7	
LSA				pmax	pmax		
	comp=Z,5.0nm,0.3s						
LSA	**Lhasa**	**6.94**	**340**	*e*Pn	**Pn**	**22 19 19.1**	**+1.2**
	comp=Z,4.8nm,0.3s						
LSA				*e*Sn	**Sn**	**22 20 33.7**	**-2.0**
TAPN	**Taplejung**	**6.95**	**308**	*e*Pn	**Pn**	**22 19 19.2**	**+1.1**
TAPN				*e*Sn	**Sn**	**22 20 37.3**	**+1.4**
	comp=Z,114nm,0.6s						
RAMN	**Ramite**	**7.58**	**301**	*e*Pn	**Pn**	**22 19 28.3**	**+1.5**
RAMN				*e*Sn	**Sn**	**22 20 50.4**	**-1.0**
	comp=Z,75nm,0.6s						
JIRN	**Jiri**	**8.25**	**304**	*e*Pn	**Pn**	**22 19 37.1**	**+1.2**
JIRN				*e*Sn	**Sn**	**22 21 07.4**	**-0.4**
KMI	**Kunming**	**8.34**	**75**	P	**Pn**	**22 19 38.5**	**+1.4**
KMI				pmax	pmax		
	comp=Z,9.0nm,1.7s						
GUN	**Gumba**	**8.62**	**305**	*e*Pn	**Pn**	**22 19 41.6**	**+0.7**
GUN				*e*Sn	**Sn**	**22 21 16.5**	**-0.3**
PKI	**Pulchoki**	**8.81**	**302**	*e*Pn	**Pn**	**22 19 44.2**	**+0.6**
PKI				*e*Sn	**Sn**	**22 21 20.5**	**-1.1**
	comp=Z,35nm,0.5s						
PKIN	**Phulchoki**	**8.82**	**302**	*e*Pn	**Pn**	**22 19 44.3**	**+0.5**
KKN	**Kakani**	**9.02**	**302**	*e*Pn	**Pn**	**22 19 47.6**	**+1.2**
KKN				*e*Sn	**Sn**	**22 21 24.7**	**-1.9**
	comp=Z,41nm,0.5s						
DMN	**Daman**	**9.07**	**301**	*e*Pn	**Pn**	**22 19 48.2**	**+1.1**
DMN				*e*Sn	**Sn**	**22 21 27.0**	**-0.9**
	comp=Z,54nm,0.7s						
GKN	**Gorkha**	**9.62**	**302**	*e*Pn	**Pn**	**22 19 54.8**	**+0.2**
GKN				*e*Sn	**Sn**	**22 21 40.2**	**-1.2**
KOLN	**Koldanda**	**10.34**	**298**	*e*Pn	**Pn**	**22 20 04.3**	**-0.2**
KOLN				*e*Sn	**Sn**	**22 21 56.2**	**-2.9**
	comp=Z,33nm,0.4s						
DANN	**Dangsing**	**10.46**	**302**	*e*Pn	**Pn**	**22 20 06.2**	**0.0**
DANN				*e*Sn	**Sn**	**22 21 59.4**	**-2.7**
PYUN	**Piuthan**	**10.97**	**299**	*e*Pn	**Pn**	**22 20 12.9**	**-0.2**
PYUN				*e*Sn	**Sn**	**22 22 10.9**	**-3.6**
	comp=Z,34nm,0.7s						
PSI	**Prapat**	**20.83**	**166**	LR	LR	22 32 36.9	
	comp=Z,38nm,18.6s,MS2.8,baz=38,slow=43						
KSH	**Kashi**	**22.27**	**321**	*e*P	**P**	**22 22 33.0**	**+0.8**
KSH				*e*pP		22 22 42.6	
KSH				*e*sP	sP	22 22 46.2	-1.7
KSH				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
KSH				pmax	pmax		
	comp=Z,220nm,3.3s						
KSH				LR	LR		
	comp=N,420nm,5.2s						
KSH				LR	LR		
	comp=E,320nm,4.6s						
KSH				LR	LR		
	comp=Z,480nm,6.2s						
TKM2	**Tokmak 2**	**24.85**	**327**	*e*P	**P**	**22 22 57.5**	**+0.3**
AAK	**Ala-Archa**	**25.21**	**325**	*e*P	**P**	**22 23 02.2**	**+1.7**
AAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.4						
AAK	**Ala-Archa**	**25.21**	**325**	*e*P	**P**	**22 23 02.2**	**+1.7**
	comp=Z,11nm,0.9s,mb4.4						
MK31	**Makanchi Array**	**25.35**	**341**	*e*P	**P**	**22 23 01.7**	**0.0**
MKAR	**Makanchi Array**	**25.35**	**341**	P	**P**	**22 23 01.6**	**-0.1**
	comp=Z,6.6nm,0.7s,mb4.3,baz=151,slow=9.9,SNR=100						
MKAR				LR	LR	22 35 39.6	
	comp=Z,40nm,20.6s,MS2.9,baz=86,slow=43						
SONM	**Songino Array**	**26.57**	**19**	P	**P**	**22 23 12.4**	**-0.3**
	comp=Z,0.7nm,0.7s,mb3.3,baz=198,slow=8.9,SNR=4.1						
BVAR	**Borovoye Array**	**34.75**	**335**	P	**P**	**22 24 23.6**	**-1.2**
	comp=Z,1.2nm,0.6s,mb4.0,baz=130,slow=9.2,SNR=2.7						
BRVK	**Borovoye**	**34.81**	**335**	P	**P**	**22 24 24.4**	**-1.0**
AKTK	**Aktyubinsk**	**38.94**	**323**	P	**P**	**22 25 01.1**	**+0.6**
AKTO	**Aktyubinsk**	**38.94**	**323**	P	**P**	**22 25 01.1**	**+0.6**
	comp=Z,2.0nm,0.6s,mb4.0,baz=108,slow=11,SNR=4.0						
ARU	**Arti**	**42.05**	**331**	*e*P	**P**	**22 25 26.3**	**+0.2**
ARU				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
ARU	**Arti**	**42.05**	**331**	*e*P	**P**	**22 25 26.3**	**+0.2**
	comp=Z,2.2nm,0.5s,mb4.0						
GNI	**Garni**	**44.53**	**304**	P	**P**	**22 25 46.7**	**+0.3**
KIV	**Kislovodsk**	**46.59**	**309**	*e*P	**P**	**22 26 02.7**	**+0.1**
KIV				*e*		22 27 37.0	
KIV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KIV	**Kislovodsk**	**46.59**	**309**	*e*P	**P**	**22 26 02.7**	**+0.1**
	comp=Z,2.2nm,0.6s,mb4.3						
KIV				*e*PcP	PcP	22 27 37.0	+0.8
AKASG	**Malin Array Be**	**56.45**	**316**	P	**P**	**22 27 15.7**	**-0.5**
	comp=Z,3.0nm,0.5s,mb4.5,baz=84,slow=6.3,SNR=14						
WRA	**Warramunga Arr**	**58.27**	**134**	P	**P**	**22 27 28.3**	**-1.0**
	comp=Z,0.4nm,0.3s,mb3.9,baz=324,slow=7.4,SNR=27						
KWP	**Kalwaria Pacla**	**60.63**	**315**	*e*P	**P**	**22 27 46.0**	**+0.7**
KWP				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.9						
KWP	**Kalwaria Pacla**	**60.63**	**315**	*e*P	**P**	**22 27 46.0**	**+0.7**
	comp=Z,5.4nm,0.5s,mb4.9						
ASAR	**Alice Springs**	**60.67**	**137**	P	**P**	**22 27 45.5**	**-0.4**
	comp=Z,0.6nm,0.6s,mb3.9,baz=319,slow=6.8,SNR=8.7						
ARCES	**ARCESS Array B**	**60.95**	**338**	P	**P**	**22 27 46.3**	**-0.9**
	comp=Z,1.1nm,0.6s,mb4.2,baz=88,slow=11,SNR=3.9						
MORC	**Moravsky Berou**	**63.96**	**315**	*e*P	**P**	**22 28 07.4**	**-0.2**
MORC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
MORC	**Moravsky Berou**	**63.96**	**315**	*e*P	**P**	**22 28 07.4**	**-0.2**
	comp=Z,2.4nm,0.8s,mb4.3						
VRAC	**Vranov**	**64.63**	**315**	P	**P**	**22 28 12.9**	**+0.9**
	comp=Z,3.2nm,0.9s,mb4.4,baz=80,slow=6.1,SNR=4.0						
HFS	**Hagfors**	**65.33**	**327**	P	**P**	**22 28 15.5**	**-0.9**
	comp=Z,3.8nm,1.0s,mb4.4,baz=94,slow=9.1,SNR=4.2						
TIP	**Timpagrande**	**66.06**	**304**	P	**P**	**22 28 21.3**	**-0.2**
GERES	**GERESS Array B**	**66.57**	**315**	P	**P**	**22 28 25.2**	**+0.6**
	comp=Z,1.9nm,0.7s,mb4.2,baz=76,slow=6.2,SNR=13						
DAVOX	**Davos/Dischmat**	**69.48**	**313**	P	**P**	**22 28 41.6**	**-1.2**
	comp=Z,2.1nm,0.8s,mb4.1,baz=130,slow=7.9,SNR=3.2						
DAVOS	**Davos**	**69.53**	**313**	P	**P**	**22 28 41.6**	**-1.6**
GAMB	**Gambell**	**71.41**	**28**	P	**P**	**22 28 53.4**	**-0.9**
LSZ	**Lusaka**	**74.73**	**246**	P	**P**	**22 29 16.6**	**+1.9**
	comp=Z,2.6nm,0.6s,mb4.3,baz=51,slow=5.5,SNR=6.1						
BOSA	**Boshof**	**83.76**	**235**	P	**P**	**22 30 05.5**	**+1.7**
	comp=Z,3.1nm,0.8s,mb4.5,baz=68,slow=2.0,SNR=4.8						
TSUM	**Tsumeb**	**85.50**	**247**	P	**P**	**22 30 14.0**	**+1.3**
	comp=Z,3.3nm,1.0s,mb4.5,baz=102,slow=9.3,SNR=2.3						
TSUM	**Tsumeb**	**85.50**	**247**	P	**P**	**22 30 13.4**	**+0.7**
TORD	**Torodi Ar. Bea**	**86.88**	**283**	P	**P**	**22 30 20.6**	**+1.0**
	comp=Z,0.4nm,0.7s,mb3.8,baz=45,slow=4.8,SNR=3.9						
TXAR	**Lajitas Array**	**125.14**	**19**	PKP	PKPdf	22 36 34.2	-1.1
	comp=Z,0.4nm,0.7s,baz=235,slow=3.2,SNR=3.0						

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*JMA **04** 22:24:54.6±0.2, 24°.62N×122°.87E, h75^{km}, M2.0*
*ISCJB **04** 22:24:55.1±0.7, 24°.50N±0°.05×122°.85E±0°.03, h70^{km}±8^{km}, Error ellipse: s-maj=9.1km s-min=3.8km az=177.2*
*TAP **04** 22:24:55.0, 24°.56N×122°.81E, h76^{km}±1^{km}, ML3.0, D*
ISC 04 22:24:55.7±0.7**, 24°.51N**±0°.05×**122°.85E**±0°.02**, h67**^{km}±8^{km}**, n28, σ0^{s}.65**/51**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.15**	**107**	P	**Pn**	**22 25 05.8**	**+0.1**
YOJ				S	**Sn**	**22 25 14.0**	**+0.9**
IRIF	**Iriomote-Funau**	**0.82**	**102**	P	**Pn**	**22 25 11.2**	**-0.6**
IRIF				S	**Sn**	**22 25 24.2**	**+0.5**
TWC	**Suao**	**0.92**	**277**	P	**Pn**	**22 25 12.5**	**-0.5**
	baz=279						
TWC				*e*S	**Sn**	**22 25 24.9**	**-1.0**
	baz=279						
ENA	**Nanau**	**1.01**	**266**	*e*P	**Pn**	**22 25 14.6**	**+0.4**
	baz=265						
ENA				*e*S	**Sn**	**22 25 27.7**	**-0.3**
	baz=265						
JKRS	**Kuro-shima**	**1.09**	**104**	P	**Pn**	**22 25 15.0**	**-0.2**
JKRS				S	**Sn**	**22 25 30.6**	**+0.9**
TWE	**Neicheng**	**1.10**	**281**	*e*P	**Pn**	**22 25 14.4**	**-0.8**
	baz=279						
TWE				*e*S	**Sn**	**22 25 29.3**	**-0.6**
	baz=279						
ENTT	**Nioudou**	**1.18**	**277**	P	**Pn**	**22 25 16.1**	**-0.1**
	baz=274						
ENTT				*e*S	**Sn**	**22 25 32.2**	**+0.5**
	baz=274						
JIJ	**Ishigaki jima**	**1.19**	**97**	P	**Pn**	**22 25 15.7**	**-0.7**
JIJ				S	**Sn**	**22 25 31.2**	**-0.7**
TWD	**Chiawan**	**1.22**	**250**	*e*P	**Pn**	**22 25 16.5**	**-0.4**
	baz=238						
TWD				*e*S	**Sn**	**22 25 32.1**	**-0.7**
	baz=238						
NNS	**Nan Shan**	**1.35**	**267**	*e*P	**Pn**	**22 25 18.3**	**-0.3**
	baz=256						
NNS				*e*S	**Sn**	**22 25 35.9**	**+0.2**
	baz=256						
NSK	**Sanguang**	**1.37**	**277**	*e*P	**Pn**	**22 25 19.1**	**+0.3**
	baz=275						
NSK				*e*S	**Sn**	**22 25 36.3**	**+0.1**
	baz=275						
TWS1	**Kuangyinshan**	**1.43**	**295**	*e*P	**Pn**	**22 25 20.4**	**+0.8**
	baz=284						
ESL	**Shilin**	**1.47**	**242**	*e*S	**Sn**	**22 25 37.4**	**-1.2**
	baz=232						
WHF	**Hehuan Shan**	**1.49**	**256**	*e*P	**Pn**	**22 25 19.2**	**-1.2**
	baz=254						
WHF				*e*S	**Sn**	**22 25 39.2**	**+0.2**
	baz=254						
NSTT	**Nanjuang**	**1.69**	**275**	*e*P	**Pn**	**22 25 23.4**	**+0.3**
	baz=272						
JTJ	**Tarama**	**1.69**	**85**	P	**Pn**	**22 25 23.0**	**-0.1**
EHY	**Hungye**	**1.72**	**235**	*e*P	**Pn**	**22 25 23.5**	**+0.1**
	baz=240						
EHY				*e*S	**Sn**	**22 25 43.9**	**-0.6**
	baz=240						
TWF1	**Yuli**	**1.83**	**231**	*e*P	**Pn**	**22 25 24.5**	**-0.5**
	baz=240						
TWF1				*e*S	**Sn**	**22 25 45.9**	**-1.3**
	baz=240						
SMLT	**Sun Moon Lake**	**1.89**	**251**	*e*P	**Pn**	**22 25 27.1**	**+1.3**
	baz=242						
SMLT				*e*S	**Sn**	**22 25 49.0**	**+0.4**
	baz=242						
TYC	**Yuchr**	**1.92**	**252**	*e*P	**Pn**	**22 25 26.4**	**+0.3**
	baz=244						
TYC				*e*S	**Sn**	**22 25 49.9**	**+0.6**
	baz=244						
ALS	**Alishan**	**2.12**	**242**	*e*P	**Pn**	**22 25 28.8**	**-0.1**
	baz=235						
ALS				*e*S	**Sn**	**22 25 54.4**	**+0.3**
	baz=235						
ELDTW	**Lidau**	**2.13**	**232**	*e*P	**Pn**	**22 25 28.7**	**-0.3**
	baz=225						
ELDTW				*e*S	**Sn**	**22 25 53.5**	**-1.0**
	baz=225						
CHN5	**Tsauling**	**2.18**	**246**	*e*P	**Pn**	**22 25 30.8**	**+1.0**
	baz=235						
CHN5				*e*S	**Sn**	**22 25 56.3**	**+0.6**
	baz=235						
STYT	**Tauyuan**	**2.34**	**236**	*e*P	**Pn**	**22 25 32.7**	**+0.8**
	baz=229						
STYT				*e*S	**Sn**	**22 26 00.4**	**+0.9**
	baz=229						
TWG	**Pinlang**	**2.34**	**225**	*e*P	**Pn**	**22 25 31.4**	**-0.5**
	baz=229						
CHN4	**Tsaushan**	**2.37**	**241**	*e*P	**Pn**	**22 25 31.9**	**-0.3**
	baz=234						
CHN4				*e*S	**Sn**	**22 26 01.4**	**+1.2**
	baz=234						
WTP	**Ta-pu**	**2.40**	**239**	*e*P	**Pn**	**22 25 32.7**	**0.0**
	baz=237						
WTP				*e*S	**Sn**	**22 26 01.4**	**+0.3**
	baz=237						
CHN1	**Nanshi**	**2.50**	**239**	*e*P	**Pn**	**22 25 34.5**	**+0.4**
	baz=236						
CHN1				*e*S	**Sn**	**22 26 03.9**	**+0.4**
	baz=236						

IDC 04 22:25:39.5±1.9**, 5°.64S**×**125°.96E, h0**^{km}**, mb3.3**/1**, mb1 3.6**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, Error ellipse: s-maj=154.1km s-min=30.3km az=63.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**16.39**	**151**	Pn	Pn	22 29 32.3	+1.2
	0.1nm,0.3s,baz=328,slow=11,SNR=9.1						
ASAR	**Alice Springs**	**19.48**	**158**	P	Pn	22 30 07.7	-1.6
	0.0nm,0.3s,baz=341,slow=12,SNR=5.3						
MKAR	**Makanchi Array**	**64.93**	**328**	P	P	22 36 21.0	+0.1
	0.2nm,0.5s,baz=130,slow=7.8,SNR=4.4						

KRSC 04 22:28:41.8±0.3**, 54°.44N**×**161°.55E, h35**^{km}±34^{km}**, ML3.8, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TUMR	**Tumrok**	**1.17**	**317**	*e*P	Pn	22 29 03.1	+1.5
TUMR				*i* S	Sn	22 29 18.6	+2.2
KMNR	**Kamenistaya**	**1.52**	**331**	*e*P	Pn	22 29 08.6	+2.2
KMNR				*i* S	Sn	22 29 28.4	+3.5
BZMR	**Bezymyannaya**	**1.62**	**338**	*e*P	Pn	22 29 09.6	+1.8
ZLN	**Zelenaya**	**1.64**	**345**	*e*P	Pn	22 29 10.0	+2.0
KIRR	**Kirishev**	**1.67**	**336**	*e*P	Pn	22 29 10.6	+2.2
KPT	**Kopyto**	**1.71**	**334**	*e*P	Pn	22 29 11.6	+2.6
KPT				*i* S	Sn	22 29 32.8	+3.2
CIRR	**Tsirk**	**1.74**	**345**	*e*P	Pn	22 29 11.5	+2.0
NLC	**Nalytchevo**	**1.82**	**227**	*e*P	Pn	22 29 11.9	+1.3
NLC				*i* S	Sn	22 29 33.2	+0.8
KRSR	**Krestovskiy**	**1.87**	**343**	*e*P	Pn	22 29 12.9	+1.7
KOZ	**Kozyrevsk**	**1.89**	**330**	*e*P	Pn	22 29 13.9	+2.5
KBTR	**Krutoberegovo**	**1.92**	**22**	*e*P	Pn	22 29 13.4	+1.6
KBTR				*i* S	Sn	22 29 37.2	+2.5
KLY	**Klyuchi**	**1.95**	**345**	*e*P	Pn	22 29 13.5	+1.2
KLY				*i* S	Sn	22 29 36.8	+1.3
AVH	**Avacha**	**2.04**	**236**	*e*P	Pn	22 29 16.7	+3.1
AVH				*i* S	Sn	22 29 41.8	+4.0
BDR	**Baidarnaya**	**2.14**	**355**	*e*P	Pn	22 29 17.1	+2.1
SMKR	**Semkarok**	**2.15**	**359**	*e*P	Pn	22 29 17.0	+2.0
SRDR	**Sredinnyy**	**2.15**	**332**	*e*P	Pn	22 29 16.9	+1.8
PET	**Petropavlovsk**	**2.23**	**232**	*e*P	Pn	22 29 18.6	+2.4
PET				*i* S	Sn	22 29 45.3	+2.8
SRKR	**Sorokina**	**2.23**	**355**	*e*P	Pn	22 29 18.5	+2.3
GNL	**Ganaly**	**2.25**	**252**	*e*P	Pn	22 29 19.6	+3.1
RUS	**Russkaya**	**2.71**	**223**	*e*P	Pn	22 29 24.9	+2.1
RUS				*i* S	Sn	22 29 55.5	+1.2

PRE 04 22:51:47.1±0.5**, 21°.60S**×**33°.52E, h5**^{km}**, ML3.5, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSNA	**Messina**	**3.33**	**256**	*e*P	Pn	22 52 41.0	+1.2
MSNA				*e*S	Sn	22 53 19.8	0.0
MSNA				AML	AML	22 53 32.6	
	comp=Z,46nm,0.6s						
POGA	**Pongola**	**6.00**	**196**	*e*P	Pn	22 53 16.9	+0.3
POGA				*e*S	Sn	22 54 22.2	-3.5
POGA				AML	AML	22 55 09.6	
	comp=Z,7.2nm,0.5s						
LBTB	**Lobatse**	**8.04**	**243**	*e*P	Pn	22 53 45.5	+0.9
LBTB				*e*S	Sn	22 55 12.5	-3.4
LBTB				AML	AML	22 56 00.0	
	comp=Z,6.7nm,0.6s						
BOSA	**Boshof**	**10.24**	**225**	*e*P	Pn	22 54 16.0	+1.3
BOSA				*e*S	Sn	22 56 04.9	-5.0
BOSA				AML	AML	22 57 19.4	
	comp=Z,2.9nm,0.6s						

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*CSEM **04** 23:32:09.9±0.2, 38°.12N×21°.93E, h20^{km}, MD3.0, Error ellipse: s-maj=4.9km s-min=4.8km az=116.0*
*NEIC **04** 23:32:09.5, 38°.11N×21°.93E, h24^{km}, MD3.0(ATH), After ATH.*
*THE **04** 23:32:09.1, 38°.12N×21°.94E, h2^{km}±2^{km}, ML2.7/3, Error ellipse: s-maj=2.5km s-min=0.7km az=176.0*
*ATH **04** 23:32:09.5, 38°.11N×21°.93E, h24^{km}±1^{km}, MD3.0/3*
*ISCJB **04** 23:32:10.3±0.5, 38°.13N±0°.03×21°.94E±0°.04, h19^{km}±6^{km}, Error ellipse: s-maj=4.9km s-min=4.5km az=144.8*
ISC 04 23:32:10.1±0.6**, 38°.12N**±0°.03×**21°.95E**±0°.04**, h16**^{km}±4^{km}**, n28, σ0^{s}.93**/46**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EFP	**Efpalio**	**0.30**	**354**	*e*PB	**Pg**	**23 32 16.6**	**0.0**
EFP				*e*SB	**Sg**	**23 32 22.0**	**+1.1**
EFP	**Efpalio**	**0.30**	**354**	*e*Pb	**Pg**	**23 32 16.6**	**0.0**
EFP				*e*Sb	**Sg**	**23 32 22.0**	**+1.1**
GUR	**Goura**	**0.36**	**121**	*e*PB	**Pg**	**23 32 17.5**	**-0.1**
GUR	**Goura**	**0.36**	**121**	*e*Pb	**Pg**	**23 32 17.5**	**-0.1**
RLS	**Riolos of Patr**	**0.39**	**260**	*e*PB	**Pg**	**23 32 17.4**	**-0.6**
RLS				*e*SB	**Sg**	**23 32 23.8**	**+0.6**
RLS	**Riolos of Patr**	**0.39**	**260**	*e*Pb	**Pg**	**23 32 17.4**	**-0.6**
RLS				*e*Sb	**Sg**	**23 32 23.8**	**+0.6**
EVR	**Evrytania**	**0.80**	**352**	*e*PN	**Pn**	**23 32 25.3**	**-1.4**
EVR	**Evrytania**	**0.80**	**352**	*e*Pn	**Pn**	**23 32 25.3**	**-1.4**
ITM	**Ithomi**	**0.94**	**181**	*e*PN	**Pn**	**23 32 27.4**	**-1.2**
ITM	**Ithomi**	**0.94**	**181**	*e*Pn	**Pn**	**23 32 27.4**	**-1.2**
AGG	**Agios Georgios**	**0.95**	**18**	P	**Pb**	**23 32 27.3**	**-0.8**
AGG				S	**Sb**	**23 32 40.9**	**+0.5**
AGG	**Agios Georgios**	**0.95**	**18**	P	**Pb**	**23 32 27.3**	**-0.8**
AGG				S	**Sb**	**23 32 40.9**	**+0.5**
LKR	**Lokris**	**0.98**	**57**	P	**Pb**	**23 32 27.4**	**-1.3**
LKR				S	**Sb**	**23 32 41.3**	**-0.1**
LKR	**Lokris**	**0.98**	**57**	*e*PN	**Pn**	**23 32 28.6**	**-0.6**
LKR	**Lokris**	**0.98**	**57**	P	**Pb**	**23 32 27.4**	**-1.3**
LKR	**Lokris**	**0.98**	**57**	*e*Pn	**Pn**	**23 32 28.6**	**-0.6**
LKR				S	**Sb**	**23 32 41.3**	**-0.1**
VLS	**Valsamata**	**1.07**	**273**	P	**Pb**	**23 32 28.5**	**-1.7**
VLS				S	**Sb**	**23 32 44.6**	**+0.6**
VLS	**Valsamata**	**1.07**	**273**	*e*PB	**Pb**	**23 32 28.5**	**-1.7**
VLS				*e*SN	**Sn**	**23 32 45.2**	**+0.2**
VLS	**Valsamata**	**1.07**	**273**	*e*Pb	**Pb**	**23 32 28.5**	**-1.7**
VLS				S	**Sb**	**23 32 44.6**	**+0.6**
VLS				*e*Sn	**Sn**	**23 32 45.2**	**+0.2**
DID	**Didima**	**1.19**	**121**	P	**Pn**	**23 32 31.2**	**-0.9**
DID				S	**Sb**	**23 32 49.0**	**+1.5**
DID	**Didima**	**1.19**	**121**	*e*PN	**Pn**	**23 32 32.8**	**+0.7**
DID	**Didima**	**1.19**	**121**	P	**Pn**	**23 32 31.2**	**-0.9**
DID	**Didima**	**1.19**	**121**	*e*Pn	**Pn**	**23 32 32.8**	**+0.7**
DID				S	**Sb**	**23 32 49.0**	**+1.5**
PYL	**PYLOS**	**1.24**	**188**	P	**Pn**	**23 32 32.5**	**-0.2**
PYL				S	**Sb**	**23 32 50.1**	**+1.4**
PYL	**PYLOS**	**1.24**	**188**	P	**Pn**	**23 32 32.5**	**-0.2**
PYL				S	**Sb**	**23 32 50.1**	**+1.4**
THL	**Klokotos Trika**	**1.44**	**2**	P	**Pn**	**23 32 36.1**	**+0.6**
THL				S	**Sn**	**23 32 55.4**	**+1.3**
THL	**Klokotos Trika**	**1.44**	**2**	*e*PN	**Pn**	**23 32 36.2**	**+0.7**
THL	**Klokotos Trika**	**1.44**	**2**	*e*Pn	**Pn**	**23 32 36.2**	**+0.7**
THL				S	**Sn**	**23 32 55.4**	**+1.3**

IDC 04 23:36:34.9±26.0**, 22°.10S**×**172°.09W, h0**^{km}**, mb4.2**/4**, mb1 4.3**/4**, mb1mx3.9**/18**, mbtmp4.2**/4**, Error ellipse: s-maj=497.6km s-min=160.1km az=77.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**38.83**	**265**	P	P	23 44 02.4	+0.5
	2.5nm,0.3s,baz=85,slow=9.5,SNR=6.0						
STKA	**Stephens Creek**	**42.14**	**246**	P	P	23 44 27.6	-1.6
	1.5nm,0.5s,baz=112,slow=5.4,SNR=3.8						
ASAR	**Alice Springs**	**49.53**	**257**	P	P	23 45 27.8	0.0
	0.5nm,0.3s,baz=95,slow=6.5,SNR=10						
WRA	**Warramunga Arr**	**49.84**	**262**	P	P	23 45 30.7	+0.6
	1.5nm,0.3s,baz=99,slow=8.2,SNR=38						

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*IDC **04** 23:53:06.8±5.8, 3°.60S×137°.69E, h91^{km}±49^{km}, mb3.0/2, mb1 3.3/4, mb1mx3.1/14, mbtmp3.1/4, Error ellipse: s-maj=118.9km s-min=17.3km az=89.0*
ISC 04 23:53:09.3±2.4**, 3°.6S**±0°.1×**137°.5E**±0°.2**, h111**^{km}±19^{km}**, n7, σ0^{s}.76**/11**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**10.33**	**209**	*e*P	**Pn**	**23 55 34.8**	**+0.3**
	3.9nm,0.4s						
KAKA				*e*S	**Sn**	**23 57 28.8**	**+0.5**
COEN	**Coen**	**11.71**	**152**	*e*P	**Pn**	**23 55 43.6**	**-9.4**
COEN				*e*S	Sx	23 57 42.4	
WRA	**Warramunga Arr**	**16.52**	**190**	P	**Pn**	**23 56 53.2**	**-1.3**
	0.4nm,0.3s,baz=14,slow=12,SNR=17						
WRA				S	Sx	23 59 49.1	
	0.2nm,0.3s,baz=17,slow=24,SNR=5.2						
FITZ	**Fitzroy Crossi**	**18.49**	**218**	*e*P	**P**	**23 57 23.9**	**+6.9**
	4.5nm,1.1s						
FITZ				*e*S	**S**	**00 00 41.6**	**-0.7**
FITZ	**Fitzroy Crossi**	**18.49**	**218**	P	**P**	**23 57 16.6**	**-0.3**
	0.1nm,0.3s,baz=59,slow=5.9,SNR=2.2						
FITZ				S	**S**	**00 00 41.8**	**-0.5**
	0.2nm,0.3s,baz=207,slow=2.3,SNR=3.8						
ASAR	**Alice Springs**	**20.24**	**190**	P	**P**	**23 57 36.0**	**+0.2**
	0.8nm,0.4s,baz=17,slow=9.6,SNR=9.7						
ASAR				S	**S**	**00 01 18.6**	**+1.7**
	0.6nm,0.6s,baz=14,slow=27,SNR=3.8						
MKAR	**Makanchi Array**	**69.76**	**323**	P	**P**	**00 04 08.0**	**+0.4**
	0.2nm,0.7s,baz=137,slow=5.5,SNR=5.8						

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*BJI **05** 01:31:07.4, 18°.80N×95°.40E, h30^{km}, mB4.9/26, mb4.6/36, ML4.8/2, Ms4.4/26, Ms7 4.2/28*
*IDC **05** 01:31:08.1±0.5, 19°.20N×95°.56E, h0^{km}, mb4.3/16, mb1 4.4/17, mb1mx4.3/23, mbtmp4.2/17, ML3.8/1, MS3.6/6, Ms1 3.6/6, ms1mx3.1/31, Error ellipse: s-maj=22.1km s-min=11.5km az=37.0*
*ISCJB **05** 01:31:11.7±1.0, 19°.34N±0°.03×95°.53E±0°.03, h29^{km}±7^{km}, mb4.5/63, MS3.6/12, Error ellipse: s-maj=5.8km s-min=3.9km az=28.6*
*MOS **05** 01:31:12.0±1.0, 19°.43N×95°.80E, h33^{km}, mb4.8/27, Error ellipse: s-maj=11.5km s-min=5.2km az=124.8*
*NEIC **05** 01:31:14.6±0.7, 19°.36N×95°.79E, h40^{km}±6^{km}, mb4.6/22, Error ellipse: s-maj=8.9km s-min=4.6km az=46.0*
ISC 05 01:31:11.4±0.9**, 19°.29N**±0°.04×**95°.64E**±0°.03**, h16**^{km}±6^{km}**, h32**^{km}±.6^{km}**:pP-P, n186, σ1^{s}.12**/199**, mb4.5**/63**, MS3.6**/12**, 21C-7D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHG	**Chiang Mai**	**3.16**	**98**	PN	**Pn**	**01 32 01.1**	**+0.7**
CHG	**Chiang Mai**	**3.16**	**98**	PG	**Pg**	**01 32 09.8**	**-2.2**
CHG				SG	**Sg**	**01 32 48.2**	**-4.8**
CHTO	**Chiang Mai**	**3.16**	**98**	*e*Pn	**Pn**	**01 31 59.4**	**-1.0**
CHTO				Sn	**Sn**	**01 32 37.0**	**-0.8**
CM31	**Chiang Mai Arr**	**3.23**	**104**	*e*Pn	**Pn**	**01 32 01.5**	**0.0**
CMAR	**Chiang Mai Arr**	**3.23**	**104**	Pn	**Pn**	**01 31 59.9**	**-1.5**
	2.5nm,0.3s,baz=278,slow=14,SNR=49						
CMAR				Pg	**Pg**	**01 32 09.9**	**-3.5**
	42nm,0.3s,baz=279,slow=19,SNR=168						
CMAR				Lg		01 32 51.3	
	48nm,0.3s,baz=285,slow=32,SNR=8.2						
CHRT	**Chiangrai**	**3.95**	**81**	⇑PN	**Pn**	**01 32 10.0**	**-1.3**
CHRT	**Chiangrai**	**3.95**	**81**	PG	**Pg**	**01 32 25.0**	**-2.0**
CHRT				SG	**Sg**	**01 33 11.5**	**-6.7**
NST	**Nakhon Sawan**	**5.60**	**129**	PG	Px	01 32 43.0	
NST				SG	**Sg**	**01 34 03.0**	**-8.1**
AGT	**Agartala**	**6.13**	**319**	*e*PKP	**Pn**	**01 32 42.0**	**+0.8**
SHL	**Shillong**	**7.15**	**332**	*e*PN	**Pn**	**01 32 58.0**	**+2.8**
SHL				*e*SN	**Sn**	**01 34 17.0**	**+0.9**
KKTK	**Khon Kaen**	**7.45**	**112**	P	Px	01 33 09.0	
	926nm,0.5s						
NNT	**Nongplab**	**7.74**	**149**	P	**Pn**	**01 33 08.5**	**+5.1**
KMI	**Kunming**	**8.77**	**47**	Pg	Px	01 33 43.4	
KMI				Sg	Sx	01 35 32.4	
KMI				smax			
	comp=N,83nm,1.4s						
KMI				smax			
	comp=E,70nm,1.3s						
KMI				LR	LR		
	comp=N,800nm,4.4s						
KMI				LR	LR		
	comp=E,590nm,4.8s						
KMI				LR	LR		
	comp=Z,660nm,11.3s						

ODAN	Odare	10.69	316	ePn	Pn	01 33 45.3	+1.4
ODAN				eSn	Sn	01 35 42.9	-0.4
	comp=Z,48nm,0.6s						
TAPN	Taplejung	10.83	319	ePn	Pn	01 33 46.3	+0.5
TAPN				eSn	Sn	01 35 46.7	0.0
	comp=Z,64nm,0.8s						
LSA	Lhasa	11.14	339	P	Pn	01 33 49.0	-0.9
LSA	Lhasa	11.14	339	ePn	Pn	01 33 51.3	+1.3
LSA				eSn	Sn	01 35 50.3	-3.8
RAMN	Ramite	11.28	314	ePn	Pn	01 33 52.9	+1.0
RAMN				eSn	Sn	01 35 55.1	-2.5
	comp=Z,40nm,0.7s						
JIRN	Jiri	12.02	316	ePn	Pn	01 34 03.6	+1.6
JIRN				eSn	Sn	01 36 13.4	-2.4
	comp=Z,14nm,0.3s						
GUN	Gumba	12.39	316	ePn	Pn	01 34 08.5	+1.4
GUN				eSn	Sn	01 36 23.8	-1.0
	comp=Z,49nm,0.8s						
GYA	Guiyang	12.41	53	P	Pn	01 34 09.1	+1.7
GYA				pP		01 34 16.8	
GYA				sP		01 34 22.7	
GYA				S	Sn	01 36 27.6	+2.3
GYA				pmax	pmax		
	comp=Z,20nm,0.7s						
GYA				pmax	pmax		
	comp=Z,120nm,4.0s						
GYA				LR	LR		
	comp=N,2µm,11.4s						
GYA				LR	LR		
	comp=E,2µm,10.9s						
GYA				LR	LR		
	comp=Z,2µm,11.6s						
PKI	Pulchoki	12.49	313	ePn	Pn	01 34 08.7	+0.3
PKI				eSn	Sn	01 36 24.9	-2.3
	comp=Z,18nm,0.6s						
DMN	Daman	12.72	313	ePn	Pn	01 34 11.8	+0.2
DMN				eSn	Sn	01 36 30.2	-2.8
	comp=Z,59nm,0.9s						
GKN	Gorkha	13.29	313	ePn	Pn	01 34 18.9	-0.5
GKN				eSn	Sn	01 36 43.7	-3.2
QIZ	Qiongzhong	13.42	89	P	Pn	01 34 21.7	+0.4
QIZ				S	Sn	01 36 50.4	+0.2
QIZ				pmax	pmax		
	comp=Z,25nm,1.9s						
QIZ				LR	LR		
	comp=N,760nm,13.2s						
QIZ				LR	LR		
	comp=Z,380nm,10.6s						
CD2	Chengdu	13.70	31	P	Pn	01 34 28.2	+3.2
CD2				pP		01 34 35.5	
CD2				PP		01 34 39.4	
CD2				sP		01 34 40.4	
CD2				S	Sn	01 37 00.2	+3.4
CD2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CD2				pmax	pmax		
	comp=Z,180nm,5.5s						
CD2				LR	LR		
	comp=N,810nm,7.7s						
CD2				LR	LR		
	comp=Z,660nm,10.7s						
KOLN	Koldanda	13.89	310	ePn	Pn	01 34 27.2	-0.4
KOLN				eSn	Sn	01 36 57.4	-4.1
	comp=Z,18nm,0.5s						
DANN	Dangsing	14.12	312	ePn	Pn	01 34 29.8	-0.9
PYUN	Piuthan	14.52	309	ePn	Pn	01 34 36.1	-0.1
PYUN				eSn	Sn	01 37 11.1	-5.8
	comp=Z,17nm,0.5s						
HYB	Hyderabad	16.33	266	i P	Pn	01 35 05.0	+4.9
HYB	Hyderabad	16.33	266	eP	Pn	01 35 05.0	+4.9
PSI	Prapat	16.70	169	Pn	Pn	01 35 08.2	+3.4
	comp=Z,0.4nm,0.3s,baz=330,slow=14,SNR=4.0						
PSI				LR	LR	01 42 21.9	
	comp=Z,107nm,18.0s,baz=174,slow=40						
LZH	Lanzhou	18.23	22	eP	Pn	01 35 28.0	+4.4
LZH				PP		01 35 42.1	
LZH				eS	Sn	01 38 45.1	-1.6
LZH				sS	sS	01 38 59.1	-0.1
LZH				SS		01 39 11.0	
LZH				pmax	pmax		
	comp=Z,40nm,1.3s						
LZH				pmax	pmax		
	comp=Z,140nm,4.0s						
LZH				LR	LR		
	comp=E,580nm,12.4s						
LZH				LR	LR		
	comp=Z,890nm,14.8s						
XAN	Xi'an	18.86	36	P	Pn	01 35 31.3	0.0
XAN				pP	pP	01 35 39.5	+4.2
XAN				sP	sP	01 35 43.6	+6.1
XAN				PP		01 35 47.5	
XAN				S	Sn	01 38 55.4	-6.6
XAN				pmax	pmax		
	comp=Z,4.0nm,0.8s						
XAN				pmax	pmax		
	comp=Z,28nm,4.4s						
XAN				LR	LR		
	comp=N,180nm,10.6s						
XAN				LR	LR		
	comp=E,200nm,10.6s						
XAN				LR	LR		
	comp=Z,270nm,10.2s						
WHN	Wuhan	20.30	53	⇑P	P	01 35 50.8	+4.2
WHN				S	S	01 39 37.4	+3.7
WHN				LR	LR		
	comp=Z,480nm,20.3s,MS3.8						
GTA	Gaotai	20.37	9	eP	P	01 35 50.0	+2.8
GTA				pP		01 35 58.3	
GTA				sP	sP	01 36 02.7	+8.7
GTA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NJ2	Nanjing	24.41	54	eP	P	01 36 28.2	-0.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.1						
WMQ	Urumqi	25.35	346	eP	P	01 36 38.4	+0.9
WMQ				pP	pP	01 36 47.5	+5.0
WMQ				sP	sP	01 36 52.0	+7.5
WMQ				PP		01 37 18.0	
WMQ				eS	S	01 41 00.0	-3.1
WMQ				sS	sS	01 41 17.0	+5.7
WMQ				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.4						
WMQ				pmax	pmax		
	comp=Z,250nm,4.7s						
WMQ				LR	LR		
	comp=Z,180nm,20.0s,MS3.6						
HHC	Hu-ho-hao-te	25.44	29	eP	P	01 36 39.7	+1.3
HHC				pP	pP	01 36 49.0	+5.6
HHC				sP	sP	01 36 53.2	+7.8
HHC				PP		01 37 18.8	
HHC				eS	S	01 41 01.0	-3.7
HHC				sS	sS	01 41 16.7	+3.8
HHC				PcS	PcS	01 43 50.3	-0.3
HHC				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.4						
HHC				pmax	pmax		
	comp=Z,130nm,4.2s						
HHC				LR	LR		
	comp=N,210nm,9.8s						
HHC				LR	LR		
	comp=E,440nm,12.0s						
HHC				LR	LR		
	comp=Z,190nm,10.9s,MS3.9						
KSH	Kashi	26.34	324	P	P	01 36 46.2	-0.4
KSH				epP	pP	01 36 54.7	+3.1
KSH				esP	sP	01 36 59.4	+5.8
KSH				ePP		01 37 28.1	
KSH				ePcP	PcP	01 40 13.0	+0.7
KSH				eS	S	01 41 12.5	-6.5
KSH				esS	sS	01 41 29.1	+1.9
KSH				eScP	ScP	01 43 49.1	-2.5
KSH				ePcS	PcS	01 43 53.2	-0.1
KSH				eScS	ScS	01 47 37.2	-4.5
KSH				pmax	pmax		
	comp=Z,15nm,0.5s,mb4.8						
KSH				pmax	pmax		
	comp=Z,93nm,3.9s						
KSH				LR	LR		
	comp=N,260nm,6.7s						
KSH				LR	LR		
	comp=E,360nm,4.9s						
KSH				LR	LR		
	comp=Z,460nm,5.0s						
BJT	Baijiatuau	27.17	36	P	P	01 36 56.5	+2.5
BJT				pmax	pmax		
	comp=Z,12nm,0.6s						
BJT	Baijiatuau	27.17	36	P	P	01 36 56.5	+2.5
	comp=Z,12nm,0.6s,mb4.6						
BJI	Beijing	27.19	36	P	P	01 36 55.8	+1.6
BJI				S	S	01 41 31.4	-0.9
BJI				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.5						
BJI				pmax	pmax		
	comp=Z,190nm,7.2s						
BJI				LR	LR		
	comp=N,150nm,16.7s,MS4.0						
BJI				LR	LR		
	comp=E,290nm,15.7s,MS4.0						
BJI				LR	LR		
	comp=Z,79nm,14.2s,MS3.4						
KBL	Kabul	28.05	308	eP	P	01 37 03.3	+1.3
KBL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
KBL	Kabul	28.05	308	eP	P	01 37 03.3	+1.4
	comp=Z,9.2nm,0.9s,mb4.4						
AAK	Ala-Archa	29.34	327	eP	P	01 37 14.1	+0.8
AAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
AAK	Ala-Archa	29.34	327	eP	P	01 37 14.1	+0.8
	comp=Z,6.7nm,1.0s,mb4.3						
AML	Almayashu	29.41	326	eP	P	01 37 15.1	+1.1
	comp=Z,7.5nm,0.7s,mb4.5						
MK31	Makanchi Array	29.54	341	eP	P	01 37 15.2	+0.2
MK31				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
MK31	Makanchi Array	29.54	341	eP	P	01 37 15.0	0.0
MKAR	Makanchi Array	29.54	341	P	P	01 37 15.0	0.0
	comp=Z,3.7nm,0.6s,mb4.3,baz=152,slow=9.0,SNR=31						
MKAR				PcP	PcP	01 40 19.7	-0.3
	comp=Z,0.5nm,0.8s,baz=146,slow=2.4,SNR=3.3						
MKAR	Makanchi Array	29.54	341	P	P	01 37 15.0	0.0
MKAR				PcP	PcP	01 40 19.7	-0.3
EKS2	Erkin-Say	29.73	326	eP	P	01 37 18.5	+1.7
	comp=Z,7.6nm,0.8s,mb4.5						
SONM	Songino Array	29.79	15	P	P	01 37 18.6	+1.4
	comp=Z,1.8nm,0.7s,mb3.9,baz=200,slow=9.1,SNR=11						
SONM				LR	LR	01 51 02.5	
	comp=Z,62nm,18.5s,MS3.3,baz=267,slow=40						
ZAK	Zakamensk	31.61	9	eP	P	01 37 32.7	-0.6
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.5s,mb3.4						
KK31	Karatay Array	31.80	324	P	P	01 37 34.2	-0.8
KK31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
TLY	Talaya	32.93	9	eP	P	01 37 40.1	-4.7
TLY				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
TLY				MLR	MLR		
	comp=Z,38nm,12.0s,MS3.3						
KSRS	Korea Array	33.45	50	LR	LR	01 53 32.4	
	comp=Z,66nm,20.0s,MS3.4,baz=220,slow=40						
KURK	Kurchatov	34.14	341	eP	P	01 37 55.2	-0.2
KURK				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
KURK	Kurchatov	34.14	341	PcP	PcP	01 40 31.6	-0.8
	comp=Z,1.3nm,0.6s,baz=146,slow=2.1,SNR=5.3						
KURK				ScP	ScP	01 44 17.5	+0.7
	comp=Z,0.6nm,0.4s,baz=152,slow=3.4,SNR=4.2						
KURK	Kurchatov	34.14	341	eP	P	01 37 55.1	-0.3
	comp=Z,6.3nm,0.7s,mb4.7						
CN2	Changchun	34.92	39	eP	P	01 38 04.5	+2.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
ZAA0	Zalesovo Array	35.58	349	eP	P	01 38 08.1	+0.3
ZALV	Zalesovo Beam	35.58	349	P	P	01 38 08.0	+0.2
	comp=Z,5.5nm,0.7s,mb4.6,baz=167,slow=8.8,SNR=21						
ZALV				PcP	PcP	01 40 35.5	-0.9
	comp=Z,0.4nm,0.3s,baz=167,slow=4.1,SNR=3.0						
ZALV	Zalesovo Beam	35.58	349	P	P	01 38 08.0	+0.2
ZALV				PcP	PcP	01 40 35.5	-0.9
NVS	Novosibirsk	36.73	348	eP	P	01 38 17.2	-0.4
MDJ	Mudanjiang	37.87	41	P	P	01 38 27.9	+0.5
MDJ				pP	pP	01 38 36.8	+4.3
MDJ				sP	sP	01 38 40.7	+6.2
MDJ				PP	PP	01 39 54.7	+0.7
MDJ				S	S	01 44 17.7	-0.4
MDJ				ScP	ScP	01 44 28.8	-1.8
MDJ				PcS	PcS	01 44 32.5	+0.3
MDJ				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,120nm,5.0s						
MDJ				LR	LR		
	comp=N,55nm,26.2s						
MDJ				LR	LR		
	comp=E,36nm,35.6s						
MDJ				LR	LR		
	comp=Z,59nm,25.3s,MS3.3						
VOSK	Vostochnaya	38.48	336	P	P	01 38 32.0	-0.5
VOSK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
BRVK	Borovoye	39.01	336	P	P	01 38 36.8	-0.1
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
BRVK	Borovoye	39.01	336	P	P	01 38 36.8	-0.1
	comp=Z,2.7nm,0.8s,mb4.0						
BOD	Bodaibo	40.78	15	eP	P	01 38 52.5	+0.9
BOD				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
AB31	Akbulak array	41.35	325	P	P	01 38 56.2	-0.2
AB31				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
KLR	Kul'dur	41.56	36	eP	P	01 38 54.8	-3.3
AKTO	Aktyubinsk	43.04	325	P	P	01 39 09.5	-0.6
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.6						
ARU	Arti	46.23	332	eP	P	01 39 34.7	-0.8
ARU				pmax	pmax		
	comp=Z,61nm,2.4s,mb5.1						
ARU	Arti	46.23	332	eP	P	01 39 34.7	-0.8
	comp=Z,61nm,2.4s,mb5.1						
KAKA	Kakadu	48.22	128	eP	P	01 39 52.2	+0.6
	comp=Z,13nm,0.6s,mb5.1						
KAKA	Kakadu	48.22	128	eP	P	01 39 52.5	+0.9
	comp=Z,40nm,0.6s,mb5.6						
KIV	Kislovodsk	50.35	312	eP	P	01 40 06.4	-1.1
KIV				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
KIV	Kislovodsk	50.35	312	eP	P	01 40 07.5	-0.1
	comp=Z,10.0nm,0.9s,mb4.8						
VORD	Divnogorie	54.17	320	eP	P	01 40 35.9	+0.1
VORD				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.8						
VORD				pmax	pmax		
	comp=N,8.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
WRA	Warramunga Arr	54.40	134	P	P	01 40 37.0	-0.8
	comp=E,2.5nm,0.8s,mb4.2,baz=322,slow=7.9,SNR=21						
WRAB	Tennant Creek	54.40	134	eP	P	01 40 37.9	+0.1
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
WRAB	Tennant Creek	54.40	134	eP	P	01 40 37.9	+0.1
	comp=Z,2.5nm,0.8s,mb4.2						
WB2	Warramunga Arr	54.41	134	eP	P	01 40 37.2	-0.7
PRGR	Permogore	54.66	333	eP	P	01 40 37.1	-2.1
PRGR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
TIXI	Tiksi	55.82	12	eP	P	01 40 44.9	-2.5
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
TIXI	Tiksi	55.82	12	eP	P	01 40 46.9	-0.6
	comp=Z,5.0nm,0.5s,mb4.8						
BRTR	Keskin Array B	56.56	305	P	P	01 40 52.8	-0.4
	comp=Z,1.1nm,0.8s,mb4.0,baz=113,slow=6.6,SNR=7.6						
ASAR	Alice Springs	56.71	137	P	P	01 40 54.0	-0.4
	comp=Z,1.7nm,0.6s,mb4.3,baz=320,slow=6.5,SNR=21						
OBN	Obninsk	56.79	324	⇓eP	P	01 40 51.3	-3.3
OBN				e		01 41 05.7	
OBN				e		01 42 59.6	
OBN				eS	S	01 48 43.9	-3.0
OBN				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
PETK	Petropavlovsk-	58.07	39	LR	LR	02 06 03.6	
	comp=Z,58nm,18.9s,MS3.7,baz=134,slow=36						
AKASG	Malin Array Be	60.41	318	P	P	01 41 18.7	-1.2
	comp=Z,2.9nm,0.4s,mb4.6,baz=84,slow=6.5,SNR=16						
KIEV	Kiev	60.42	318	eP	P	01 41 17.7	-2.3
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KIEV	Kiev	60.42	318	eP	P	01 41 17.7	-2.2
	comp=Z,9.0nm,0.8s,mb4.8						
TIRR	Tirgusor	60.59	311	⇑iP	P	01 41 22.3	+1.1
TIRR	Tirgusor	60.59	311	⇑P	P	01 41 22.3	+1.0
HARR	Harsova	60.94	311	⇓iP	P	01 41 23.6	0.0
JOF	Joensuu	61.36	332	ep	P	01 41 25.0	-1.1
	comp=Z,3.4nm,0.5s,mb4.7						
VRI	Vrincioaia	61.81	312	⇑iP	P	01 41 29.0	-0.5
VRI	Vrincioaia	61.81	312	⇑P	P	01 41 29.0	-0.5
APA	Apatity	61.83	337	⇑eP	sP	01 41 42.0	+5.5
APA				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.1						
PLOR	Plostina	61.87	312	⇑iP	P	01 41 30.6	+0.8
NACGM	Naroch	62.30	323	e	P	01 41 29.0	-3.6
MLR	Muntele Rosu	62.36	312	⇑iP	P	01 41 34.5	+1.4
MLR	Muntele Rosu	62.36	312	⇑P	P	01 41 34.5	+1.3
BUR02	Bucovina Ar. S	62.87	314	⇑P	P	01 41 37.5	+1.0
BURAR	Bucovina Array	62.87	314	⇑iP	P	01 41 37.5	+0.9
BUR08	Bucovina Ar. S	62.89	314	eP	P	01 41 36.8	+0.2
VOIR		62.99	312	⇑iP	P	01 41 38.3	+0.9
VOIR		62.99	312	⇑P	P	01 41 38.3	+1.0
KAF	Kangasniemi	63.48	331	ep	P	01 41 36.8	-3.5
SUW	Suwalki	64.33	321	eP	P	01 41 47.3	+1.2
SUW	Suwalki	64.33	321	eP	P	01 41 47.3	+1.2
KWP	Kalwaria Pacla	64.55	316	eP	P	01 41 47.7	+0.1
KWP	Kalwaria Pacla	64.55	316	⇑iP	P	01 41 47.8	+0.2
KWP	Kalwaria Pacla	64.55	316	eP	P	01 41 47.7	+0.1
BILL	Bilibino	65.03	23	⇑iP	P	01 41 50.4	0.0
BILL				e		01 42 09.0	
BILL				e		01 42 21.1	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.4						
BILL				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.0						
ARCES	ARCESS Array B	65.15	339	P	P	01 41 50.8	-0.3
	comp=Z,2.5nm,0.7s,mb4.3,baz=106,slow=6.7,SNR=6.9						
CRVS	Cervenica-Dubn	65.38	316	eP	P	01 41 52.9	-0.1
CRVS				pmax	pmax		
	comp=Z,101nm,3.3s						
CRVS	Cervenica-Dubn	65.38	316	eP	P	01 41 52.9	-0.1
	comp=Z,101nm,3.3s						
BZS	Buzias	65.39	312	⇑iP	P	01 41 53.2	+0.1
STHS	Stebnicka Huta	65.50	316	eP	P	01 41 53.5	-0.3
STHS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
STHS	Stebnicka Huta	65.50	316	eP	P	01 41 53.5	-0.3
	comp=Z,1.7nm,0.8s,mb4.1						
NIE	Niedzica	66.11	316	eP	P	01 41 58.4	+0.7
OJC	Ojcow	66.42	317	eP	P	01 42 00.0	+0.4
VYHS	Vyhne	67.13	315	eP	P	01 42 03.5	-0.7
STKA	Stephens Creek	67.29	138	P	P	01 42 05.1	-0.3
	comp=Z,2.9nm,0.8s,mb4.4,baz=296,slow=8.7,SNR=5.5						
STKA	Stephens Creek	67.29	138	eP	P	01 42 05.2	-0.2
	comp=Z,0.6nm,0.8s,mb3.7						
PKSM	Moragy	67.43	313	⇓iP	P	01 42 06.1	-0.1
PKSM	Moragy	67.43	313	⇓P	P	01 42 06.0	-0.1
OKC	Ostrava-Krasne	67.50	317	eP	P	01 42 08.0	+1.5
MORC	Moravsky Berou	67.89	317	⇓iP	P	01 42 09.5	+0.5
MORC	Moravsky Berou	67.89	317	⇓P	P	01 42 09.5	+0.5
VRAC	Vranov	68.55	316	⇓iP	P	01 42 13.4	+0.3
DPC	Dobruska-Polom	68.63	317	eP	P	01 42 14.9	+1.2
PRU	Pruhonice	69.81	317	eP	P	01 42 22.7	+1.7
BRG	Berggiesshubel	70.09	318	eP	P	01 42 22.9	+0.2
BRG				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
BRG	Berggiesshubel	70.09	318	eP	P	01 42 22.9	+0.2
	comp=Z,7.0nm,0.9s,mb4.6						
GERES	GERESS Array B	70.49	316	P	P	01 42 25.4	+0.2
	comp=Z,5.3nm,0.7s,mb4.6,baz=78,slow=5.9,SNR=35						
KHC	Kasperske Hory	70.53	316	eP	P	01 42 25.4	0.0
CLL	Collm	70.63	319	eP	P	01 42 27.0	+1.0
NB2	NORSAR Subarra	70.64	329	P	P	01 42 24.9	-0.9
	comp=Z,2.4nm,0.7s,mb4.2,baz=85,slow=6.2						
NOA	NORSAR Array B	70.64	329	P	P	01 42 25.1	-0.7
	comp=Z,2.7nm,0.7s,mb4.3,baz=86,slow=6.2,SNR=11						
NOA				LR	LR	02 18 56.6	
	comp=Z,36nm,18.3s,MS3.7,baz=280,slow=41						
KBA	Koelnbreinsper	70.96	314	⇑iP	P	01 42 25.4	-2.6
	comp=Z,8.9nm,1.1s,mb4.6						
ABTA	Abfaltersbach	71.57	314	⇑iP	P	01 42 32.5	+0.7
	comp=Z,5.4nm,0.9s,mb4.5						
RETA	Reutte	72.63	315	⇑iP	P	01 42 37.6	-0.5
	comp=Z,8.2nm,0.8s,mb4.7						
DAVA	Damuels	73.26	315	⇑iP	P	01 42 40.6	-1.2
	comp=Z,6.8nm,0.8s,mb4.7						
HAU	Haudompre	75.45	316	eP	P	01 42 54.9	+0.3
LPG	La Plagne	75.74	313	eP	P	01 42 56.7	+0.4
	comp=Z,14nm,0.9s,mb4.6						
LPG	La Plagne	75.74	313	eP	P	01 42 56.7	+0.4
LPG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
LPG	La Plagne	75.74	313	eP	P	01 42 56.7	+0.4
	comp=Z,7.3nm,0.9s,mb4.6						
LPL	La Plagne	75.75	314	eP	P	01 42 56.7	+0.4
MBDF	Montbardon	75.90	313	eP	P	01 42 58.2	+1.0
CABF	La Chapelle	75.94	315	eP	P	01 42 57.5	+0.1
	comp=Z,26nm,1.0s,mb4.8						
CABF	La Chapelle	75.94	315	eP	P	01 42 57.5	+0.1
CABF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
CABF	La Chapelle	75.94	315	eP	P	01 42 57.5	+0.1
	comp=Z,13nm,1.0s,mb4.8						
KEST	Kesra	76.08	303	P	P	01 42 58.3	-0.1
	comp=Z,1.8nm,0.9s,mb4.0,baz=265,slow=11,SNR=4.3						
LOR	Lormes	77.26	316	eP	P	01 43 05.5	+0.6
SMF	Signal de Mont	77.43	315	eP	P	01 43 05.4	-0.4
	comp=Z,5.1nm,0.6s,mb4.4						
SMF	Signal de Mont	77.43	315	eP	P	01 43 05.4	-0.4
SMF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
SMF	Signal de Mont	77.43	315	eP	P	01 43 05.4	-0.4
	comp=Z,2.5nm,0.6s,mb4.3						
SSF	Saint Saulge	77.55	316	eP	P	01 43 06.3	-0.2
	comp=Z,5.3nm,0.6s,mb4.3						
SSF	Saint Saulge	77.55	316	eP	P	01 43 06.3	-0.2
SSF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
SSF	Saint Saulge	77.55	316	eP	P	01 43 06.3	-0.2
	comp=Z,2.7nm,0.6s,mb4.3						
AVF	Avril sur Loir	77.72	315	eP	P	01 43 07.1	-0.3
	comp=Z,12nm,0.8s,mb4.6						
AVF	Avril sur Loir	77.72	315	eP	P	01 43 07.1	-0.3
AVF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
AVF	Avril sur Loir	77.72	315	eP	P	01 43 07.1	-0.3
	comp=Z,5.9nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	78.61	315	eP	P	01 43 12.6	+0.2
RJF	Les Rejaudoux	79.36	314	eP	P	01 43 16.9	+0.4
BOSA	Boshof	82.97	237	P	P	01 43 35.7	-0.2
	comp=Z,1.6nm,0.8s,mb4.1,baz=79,slow=4.4,SNR=3.1						
SUMG	Summit	83.39	347	eP	P	01 43 37.5	+0.1
	comp=Z,35nm,1.7s,mb5.1						
ESDC	Sonseca Array	85.00	310	P	P	01 43 45.4	-0.8
	comp=Z,0.8nm,0.7s,mb4.0,baz=48,slow=4.9,SNR=4.5						
RES	Resolute Bay	86.00	3	eP	P	01 43 50.6	+0.1
RES				pmax	pmax		
	comp=Z,31nm,2.3s,mb5.1						
RES	Resolute Bay	86.00	3	eP	P	01 43 50.6	+0.1
	comp=Z,31nm,2.3s,mb5.1						
TORD	Torodi Ar. Bea	89.38	284	P	P	01 44 07.0	-0.9
	comp=Z,1.2nm,1.0s,mb4.2,baz=71,slow=4.1,SNR=6.8						
YKA	Yellowknife Ar	95.05	14	P	P	01 44 32.6	-0.6
	comp=Z,0.3nm,0.6s,mb3.9,baz=330,slow=4.3,SNR=8.1						
DBIC	Dimbokro	97.64	280	LR	LR	02 28 55.5	
	comp=Z,75nm,18.5s,MS4.2,baz=69,slow=36						
PDAR	Pinedale Array	114.03	20	PKiKP	PKiKP	01 49 49.1	-0.9
	comp=Z,0.3nm,0.7s,baz=306,slow=3.0,SNR=4.2						
ANMO	Albuquerque	122.11	21	ePKIKP	PKPdf	01 50 06.5	+0.8
TXAR	Lajitas Array	128.19	22	PKP	PKPdf	01 50 17.4	-0.1
	comp=Z,0.4nm,0.5s,baz=290,slow=0.3,SNR=10						
JCT	Junction City	128.33	17	ePKIKP	PKPdf	01 50 18.0	+0.3
CELP	Cerrillos	138.97	334	ePKPdf	PKPdf	01 50 38.6	+0.7
SDV	Santo Domingo	148.90	333	ePKPbc	PKPbc	01 50 59.3	0.0
CPUP	Villa Florida	154.15	249	PKPbc	PKPbc	01 51 09.7	-1.4
	comp=Z,0.8nm,0.4s,baz=89,slow=3.6,SNR=8.7						
CPUP	Villa Florida	154.15	249	ePKPbc	PKPbc	01 51 10.0	-1.1

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*MAN **05** 01:35:21, 6°.27N×126°.37E, h31^{km}, mb4.8, ML3.7, MS3.7*

*ISCJB **05** 01:35:22.8±0.7, 6°.38N±0°.07×126°.37E±0°.07, h66^{km}±8^{km}, mb4.4/12, Error ellipse: s-maj=13.7km s-min=10.3km az=38.5*

*IDC **05** 01:35:24.0±2.6, 6°.56N×126°.41E, h69^{km}±19^{km}, mb4.0/7, mb1 4.1/7, mb1mx3.7/21, mbtmp4.0/7, Error ellipse:*

s-maj=58.4km s-min=13.7km az=65.0

*NEIC **05** 01:35:24.4±1.9, 6°.56N×126°.41E, h76km±15km, mb4.1/2, Error ellipse: s-maj=49.0km s-min=9.0km az=69.0*

*DJA **05** 01:35:24, 6°.60N×126°.15E, h88km, mb4.8/5*

ISC 05 01:35:24.0±0.7**, 6°.44N**±0°.08×**126°.36E**±0°.07**, h64**km±8km**, n28, σ0ˢ.97**/33**, mb4.4**/12**, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.52	348	eP	Pn	01 35 35.5	-1.0
MATI				eS	Sn	01 35 45.6	+0.1
DAV	Davao City (W)	1.00	309	P	Pn	01 35 42.8	+0.6
	801nm,0.3s,baz=254,slow=7.4,SNR=62						
DAV				S	Sn	01 35 55.9	+0.2
	494nm,0.3s,baz=261,slow=19,SNR=22						
DAV	Davao City (W)	1.00	309	ePn	Pn	01 35 42.8	+0.6
DAV				eSn	Sn	01 35 55.6	-0.1
DMPH	Davao City--Mi	1.06	307	⇓iP	Pn	01 35 43.3	+0.3
DMPH				i S	Sn	01 35 57.7	+0.5
KCP	Kidapawan	1.39	294	i P	Pn	01 35 46.7	-0.5
KCP				i S	Sn	01 36 04.5	-0.2
GSPH	General Santos	1.45	256	i P	Pn	01 35 46.0	-2.1
BUKP	Musuan	1.93	318	eP	Pn	01 35 54.4	-0.1
BUKP				eS	Sn	01 36 21.4	+3.7
CTBH	Cotabato--PC H	2.24	290	eP	Pn	01 35 58.0	-0.8
CTBH				i S	Sn	01 36 26.4	+1.0
BUTP	Butuan	2.62	344	eP	Pn	01 36 06.9	+3.0
PAGZ	Pagadian	3.27	296	eP	Pn	01 36 12.8	-0.1
FITZ	Fitzroy Crossi	24.39	182	eP	P	01 40 37.3	+0.9
	8.1nm,0.4s,mb4.5						
FITZ	Fitzroy Crossi	24.39	182	eP	P	01 40 36.9	+0.5
	7.6nm,0.8s,mb4.2						
WRAB	Tennant Creek	27.36	163	eP	P	01 41 03.3	+0.1
	3.3nm,0.8s,mb3.9						
WRA	Warramunga Arr	27.36	164	P	P	01 41 02.9	-0.4
	1.8nm,0.5s,mb3.9,baz=339,slow=10,SNR=16						
WRA				ScP	ScP	01 47 56.3	-0.1
	0.4nm,0.8s,baz=342,slow=3.6,SNR=3.2						
WRA	Warramunga Arr	27.36	164	P	P	01 41 02.9	-0.4
WRA				ScP	ScP	01 47 56.3	-0.1
ASAR	Alice Springs	30.81	166	P	P	01 41 34.1	+0.2
	1.4nm,0.3s,mb4.3,baz=347,slow=7.3,SNR=16						
ASAR				PcP	PcP	01 44 30.3	+0.3
	0.5nm,0.6s,baz=347,slow=2.9,SNR=5.0						
LZH	Lanzhou	36.01	328	eP	P	01 42 21.5	+2.5
LZH				pP	pP	01 42 25.0	-10
LZH				sP	sP	01 42 27.8	-14
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,75nm,4.3s						
FORT	Forrest	37.04	178	eP	P	01 42 28.5	+0.7
	comp=Z,28nm,0.5s,mb5.3						
KLBR	Kellerberrin	38.70	192	eP	P	01 42 41.8	+0.1
	comp=Z,5.1nm,0.4s,mb4.6						
MUN	Mundaring	39.41	194	eP	P	01 42 47.7	0.0
NWAO	Narrogin (SRO)	40.10	192	P	P	01 42 53.9	+0.5
	comp=Z,7.4nm,0.4s,mb4.7,baz=351,slow=13,SNR=13						
STKA	Stephens Creek	40.78	160	eP	P	01 42 59.9	+0.9
	comp=Z,4.9nm,0.9s,mb4.1						
STKA	Stephens Creek	40.78	160	P	P	01 42 59.7	+0.7
	comp=Z,5.9nm,0.7s,mb4.3,baz=344,slow=7.4,SNR=8.2						
SONM	Songino Array	44.63	341	PcP	PcP	01 45 11.3	-0.6
	comp=Z,0.4nm,0.7s,baz=148,slow=3.5,SNR=4.9						
MKAR	Makanchi Array	55.15	324	P	P	01 44 48.6	-1.2
	comp=Z,0.9nm,0.5s,mb4.1,baz=117,slow=7.2,SNR=32						
KURK	Kurchatov	59.28	327	P	P	01 45 17.1	-1.9
	comp=Z,1.1nm,0.6s,mb4.1,baz=125,slow=7.0,SNR=5.1						
ARCES	ARCESS Array B	87.80	340	P	P	01 48 04.8	-1.0
	comp=Z,3.3nm,1.0s,mb4.5,baz=82,slow=6.3,SNR=8.1						
TORD	Torodi Ar. Bea	121.70	290	PKP	PKPdf	01 54 10.4	-1.3
	comp=Z,0.6nm,0.6s,baz=70,slow=1.8,SNR=6.5						

IGQ 05 01:37:26.5, 2°.04S×77°.90W, h173km±2km**, Mb4.1, Ms3.9, 5C-17D, Error ellipse: s-maj=4.8km s-min=2.6km az=48.9, Peru-Ecuador border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PATA	Patacocha	0.75	315	⇓P	Pn	01 37 52.7	+0.8
PATA	Patacocha	0.75	315	⇓S	Sn	01 38 10.9	-0.4
ARRY	Arrayan	0.77	313	⇓S	Sn	01 38 09.8	-1.7
ARRY	Arrayan	0.77	313	⇓P	Pn	01 37 52.3	+0.4
RUN5	Runtun	0.81	319	⇓S	Sn	01 38 12.2	+0.2
RUN5	Runtun	0.81	319	⇓P	Pn	01 37 52.7	+0.5
JUI6	Juive	0.83	317	⇓P	Pn	01 37 52.8	+0.4
BIL2	Estacion Bilba	0.84	314	⇑P	Pn	01 37 53.4	+1.0
IGUA	Igualata	0.92	306	P	Pn	01 37 53.9	+1.0
PISA	Pisayambo	1.09	333	⇑S	Sn	01 38 16.3	+0.7
PISA	Pisayambo	1.09	333	⇑P	Pn	01 37 55.3	+1.1
TAMB	Tambo	1.41	341	⇓P	Pn	01 37 58.3	+1.2
MOV1	Cotopaxi Vol s	1.42	338	⇑P	Pn	01 37 58.8	+1.6
COV1	Cotopaxi Volc	1.44	342	⇓P	Pn	01 37 59.3	+1.9
VC1	Cotopaxi 1	1.48	340	⇓P	Pn	01 37 59.0	+1.3
CAMI	Rancho Maria	1.48	336	P	Pn	01 37 59.4	+1.6
NAS2	Nasa	1.50	338	⇓P	Pn	01 37 59.6	+1.7
PITA	Cotopaxi Volc	1.56	340	P	Pn	01 37 59.6	+1.1
ANTI	Antisana	1.60	350	⇓P	Pn	01 38 00.0	+1.1
JUA2	San Juan 2	1.94	339	⇓P	Pn	01 38 03.5	+1.0
CHAR	Charly	1.95	7	⇑P	Pn	01 38 04.0	+1.4
CONE	Cono NE Rev Vo	1.97	7	⇓P	Pn	01 38 03.9	+1.0
GGP	Refugio Guagua	1.98	339	⇓P	Pn	01 38 04.0	+1.1
TERV	Terraza Guagua	1.98	339	P	Pn	01 38 04.1	+1.1
PINO	Pino	2.00	339	⇓P	Pn	01 38 04.2	+1.1
YANA	Yana	2.02	341	P	Pn	01 38 04.3	+0.9
CAYA	Cayambe	2.10	357	⇓P	Pn	01 38 05.7	+1.5
COTA	Cotacachi	2.40	349	P	Pn	01 38 09.0	+1.3
JAMA	Jama	2.91	307	P	Pn	01 38 15.1	+1.4
CHIS	Cerro-Chispas-	2.99	289	S	Sn	01 38 54.9	+2.7
CHIS	Cerro-Chispas-	2.99	289	P	Pn	01 38 14.9	+0.1

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*IDC **05** 01:55:54.5±1.2, 1°.62N×127°.22E, h0km, mb3.8/5, mb1 4.0/6, mb1mx3.8/18, mbtmp3.8/6, Error ellipse: s-maj=95.2km s-min=17.8km az=71.0*

*ISCJB **05** 01:56:08.2±4.2, 1°.5N±0°.2×127°.3E±0°.3, h141km±40km, mb3.7/6, Error ellipse: s-maj=63.3km s-min=14.5km az=149.6*

*NEIC **05** 01:56:08.4±4.0, 1°.55N×127°.41E, h126km±41km, mb4.0/2, Error ellipse: s-maj=50.3km s-min=14.5km az=70.0*

ISC 05 01:56:08.0±4.4**, 1°.6N**±0°.2×**127°.4E**±0°.3**, h121**km±43km**, n10, σ0ˢ.16**/11**, mb3.8**/6**, 1D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	2.59	268	⇓eP	Pn	01 57 04.0	+15
MNI				eS	Sn	01 57 20.5	0.0
KAKA	Kakadu	15.02	161	eP	Pn	01 59 34.1	0.0
	5.1nm,0.6s						
FITZ	Fitzroy Crossi	19.61	185	P	P	02 00 27.0	+0.1
	baz=11,slow=10						
WRAB	Tennant Creek	22.40	163	eP	P	02 00 56.7	0.0
	3.8nm,0.6s,mb3.9						
WRA	Warramunga Arr	22.41	163	P	P	02 00 56.7	-0.1
	2.9nm,0.4s,mb4.0,baz=339,slow=11,SNR=60						
WB2	Warramunga Arr	22.41	163	eP	P	02 00 56.6	-0.2
ASAR	Alice Springs	25.84	166	P	P	02 01 28.1	-0.1
	0.8nm,0.6s,mb3.4,baz=348,slow=8.5,SNR=7.4						
STKA	Stephens Creek	35.86	159	P	P	02 02 56.5	+0.4
	1.6nm,0.7s,mb4.1,baz=348,slow=6.8,SNR=3.9						
SONM	Songino Array	49.57	341	P	P	02 04 46.7	+0.1
	0.4nm,0.7s,mb3.4,baz=163,slow=7.2,SNR=2.4						
MKAR	Makanchi Array	59.73	326	P	P	02 05 59.8	-0.2
	0.7nm,0.5s,mb4.0,baz=118,slow=6.8,SNR=20						

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*ISCJB **05** 02:07:07.7±0.7, 37°.1N±0°.1×135°.14E±0°.09, h376km±8km, mb2.6/2, Error ellipse: s-maj=18.0km s-min=9.0km az=153.2*

*NEIC **05** 02:07:07.7, 37°.10N×135°.03E, h377km, MG3.2(JMA), After JMA.*

*JMA **05** 02:07:07.7±0.4, 37°.10N×135°.03E, h377km±4km, M3.2*

*IDC **05** 02:07:08.6±1.4, 37°.07N×135°.02E, h366km±18km, mb2.4/2, mb1 2.7/4, mb1mx2.5/25, mbtmp2.6/4, Error ellipse: s-maj=48.4km s-min=21.8km az=40.0*

ISC 05 02:07:08.7±0.7**, 37°.1N**±0°.1×**135°.09E**±0°.10**, h369**km±8km**, n23, σ0ˢ.54**/27**, mb2.6**/2**, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKY	Yasaka	1.46	180	P	Pn	02 07 58.6	0.0
JKSM	Kasumi	1.54	193	P	Pn	02 07 58.7	-0.3
JWT	Wachi	1.82	172	P	Pn	02 08 00.6	-0.1
JWT				eS	S	02 08 41.9	-0.5
JSZ	Suzu	1.85	78	P	Pn	02 08 01.2	+0.5
JGM	Miyama	1.91	136	P	Pn	02 08 01.4	+0.2
JGM				eS	S	02 08 43.1	-0.3
JNG	Nsakai	2.51	105	P	Pn	02 08 05.6	+0.2
MAJO	Matsushiro	2.56	101	ePn	Pn	02 08 06.1	+0.3
MAT	Matsushiro	2.56	101	P	Pn	02 08 05.9	+0.1
MAT	Matsushiro	2.56	101	P	Pn	02 08 06.2	+0.4
MJAR	Matsushiro Arr	2.56	101	P	Pn	02 08 06.1	+0.3
	2.1nm,0.3s,baz=277,slow=10.0,SNR=24						
JHS	Saijyo	2.63	218	P	Pn	02 08 06.0	-0.4
JSD	Sado	2.69	68	P	Pn	02 08 07.3	+0.5
JIE	Ise	2.99	153	P	Pn	02 08 10.2	+0.7
JHK	Hiroka	3.14	86	P	Pn	02 08 10.8	+0.1
JRY	Ryogami san	3.25	108	P	Pn	02 08 12.6	+0.9
JMM	Marumori	4.60	79	P	Pn	02 08 25.1	+0.2
JFK	Kawauchi	4.62	85	P	Pn	02 08 24.8	-0.3
JFK				eS	S	02 09 23.7	-3.3
JMK	Ichinoseki	5.18	67	P	Pn	02 08 31.3	+0.2
JMK				eS	S	02 09 33.9	-4.0
BSO1	Boso 1	5.36	115	P	Pn	02 08 32.4	-0.7
KSRS	Korea Array	5.73	276	P	Pn	02 08 37.0	-0.1
	1.0nm,0.3s,baz=93,slow=12,SNR=16						
ERM	Erimo	7.94	49	ePn	Pn	02 09 01.9	-0.3
	14nm,0.3s						
MKAR	Makanchi Array	39.78	301	P	P	02 14 06.9	-0.4
	0.2nm,0.5s,mb2.6,baz=94,slow=11,SNR=3.1						
WRA	Warramunga Arr	56.73	181	P	P	02 16 15.4	+0.1
	0.2nm,0.5s,mb2.7,baz=355,slow=7.8,SNR=5.3						

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*NEIC **05** 02:14:02.4, 17°.95N×68°.39W, h91km, MD3.5(RSPR), After RSPR.*

RSPR 05 02:14:02.4, 17°.95N×68°.39W, h91km±5km**, MD3.4**/9**, MD3.4**/9**, 9C, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRPR	Cabo Rojo, PR	1.22	87	⇑eP	Pn	02 14 24.3	-0.5
CRPR	Cabo Rojo, PR	1.22	87	eS	Sn	02 14 40.3	-1.2
CRPR	Cabo Rojo, PR	1.22	87	ePn	Pn	02 14 24.5	-0.2
CRPR				eSn	Sn	02 14 40.8	-0.8
LSP	Las Mesas	1.26	80	⇑eP	Pn	02 14 25.5	+0.3
LSP				eS	Sn	02 14 41.5	-0.9
AGPR	Aguadilla, PR	1.32	67	⇑eP	Pn	02 14 25.6	-0.3
AGPR	Aguadilla, PR	1.32	67	eS	Sn	02 14 43.5	-0.2
AGPR	Aguadilla, PR	1.32	67	ePn	Pn	02 14 25.4	-0.6
AGPR				eS	Sn	02 14 43.5	-0.2
GBPR	Guanica, Bosqu	1.44	89	eS	Sn	02 14 47.0	+0.6
LRS	Lares	1.51	77	⇑eP	Pn	02 14 27.5	-0.8
LRS				eS	Sn	02 14 47.9	0.0
AOPR	Arecibo Observ	1.60	76	⇑eP	Pn	02 14 28.9	-0.6
AOPR	Arecibo Observ	1.60	76	eS	Sn	02 14 49.9	-0.1
AOPR	Arecibo Observ	1.60	76	ePn	Pn	02 14 29.0	-0.5
AOPR				eSn	Sn	02 14 49.7	-0.4
OBIP	Obispado Ponce	1.70	87	⇑eP	Pn	02 14 30.5	-0.2
HUMP	Col San Antoni	2.42	85	⇑eP	Pn	02 14 40.2	0.0
HUMP				eS	Sn	02 15 09.0	-0.3
CBYP	Canovanas	2.43	82	⇑eP	Pn	02 14 39.2	-1.1
MTP	Monte Pirata	2.70	86	⇑eP	Pn	02 14 43.4	-0.6
MTP	Monte Pirata	2.70	86	eS	Sn	02 15 16.2	+0.3
MTP	Monte Pirata	2.70	86	ePn	Pn	02 14 43.6	-0.3
MTP				eSn	Sn	02 15 17.4	+1.5

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*ISCJB **05** 02:18:00.2±1.2, 6°.4N±0°.1×95°.4E±0°.2, h250km±8km, mb3.4/4, Error ellipse: s-maj=30.4km s-min=13.6km az=156.4*

*NEIC **05** 02:18:00.1±2.8, 6°.44N×95°.29E, h239km±16km, Error ellipse: s-maj=50.8km s-min=11.8km az=76.0*

*IDC **05** 02:18:01.2±3.9, 6°.53N×95°.68E, h234km±23km, mb3.2/4, mb1 3.4/6, mb1mx3.1/25, mbtmp3.3/6, Error ellipse: s-maj=75.8km s-min=16.1km az=75.0*

ISC 05 02:18:01.2±1.2**, 6°.4N**±0°.1×**95°.5E**±0°.2**, h241**km±8km**, n11, σ0ˢ.72**/14**, mb3.4**/4**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	0.95	189	⇓eP	Pn	02 18 35.0	-0.1
BSI				eS	S	02 18 54.0	-7.7
PSI	Prapat	5.01	136	P	Pn	02 19 17.6	+0.6
	2.1nm,0.3s,baz=296,slow=11,SNR=17						
PSI				S	S	02 20 15.8	-1.3
	1.4nm,0.3s,baz=226,slow=21,SNR=5.7						
PSI	Prapat	5.01	136	P	Pn	02 19 17.6	+0.6
PSI				S	S	02 20 15.8	-1.3
KULM	Kulim	5.30	102	ePn	Pn	02 19 21.6	+1.2
CMAR	Chiang Mai Arr	12.42	16	P	Pn	02 20 50.2	0.0
	0.3nm,0.3s,baz=209,slow=12,SNR=16						
SONM	Songino Array	42.29	11	P	P	02 25 30.2	-1.0
	0.3nm,0.5s,mb3.0,baz=194,slow=9.8,SNR=3.1						
NWAO	Narrogin (SRO)	44.29	153	P	P	02 25 48.0	+0.6
	2.4nm,0.5s,mb3.8,baz=0.0,slow=11,SNR=3.2						
WRA	Warramunga Arr	46.38	125	P	P	02 26 03.1	-0.8
	1.1nm,0.3s,mb3.6,baz=303,slow=9.1,SNR=34						
WRAB	Tennant Creek	46.38	125	eP	P	02 26 04.4	+0.4
WB2	Warramunga Arr	46.39	125	eP	P	02 26 04.4	+0.4
ASAR	Alice Springs	48.01	130	P	P	02 26 16.4	0.0
	0.5nm,0.3s,mb3.2,baz=302,slow=8.1,SNR=8.3						

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*ISK **05** 02:17:59.5, 37°.67N×36°.04E, h5km, MD2.8*

*CSEM **05** 02:18:00.5±0.3, 37°.68N×35°.98E, h2km, ML2.9, Error ellipse: s-maj=6.8km s-min=5.9km az=79.0*

*DDA **05** 02:18:00.9, 37°.72N×36°.05E, h7km±4km, Md2.8, Ml2.9*

*ISCJB **05** 02:18:01.3±0.6, 37°.68N±0°.03×36°.00E±0°.05, h10km, Error ellipse: s-maj=5.5km s-min=4.9km az=14.5*

ISC 05 02:18:01.6±0.6**, 37°.67N**±0°.03×**36°.00E**±0°.05**, h10**km**, n20, σ1ˢ.23**/29**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOZT	Kozan	0.23	217	ePG	Pg	02 18 05.5	-0.8
KOZT				eSG	Sg	02 18 10.3	+0.9
ANDN	Andirin	0.29	107	i P	Pg	02 18 05.8	-1.5
ANDN				i S	Sg	02 18 10.1	-1.1
ANDN	Andirin	0.29	107	i P	Pg	02 18 05.8	-1.5
ANDN				i S	Sg	02 18 10.1	-1.1
KMRS	Kahramanmaras	0.73	102	ePG	Pg	02 18 14.1	-1.6
KMRS	Kahramanmaras	0.73	102	ePg	Pg	02 18 14.1	-1.6
PINB	Pinarbasi	1.06	17	i P	Pg	02 18 19.9	-2.1
PINB				i S	Sg	02 18 36.8	+1.1
PINB	Pinarbasi	1.06	17	i P	Pg	02 18 19.9	-2.0
PINB				i S	Sg	02 18 36.8	+1.1
SARI	SarD1z-Kayseri	1.15	28	ePG	Pg	02 18 16.0	-7.7
NIG	Nigde	1.19	292	ePN	Pn	02 18 24.1	-0.1
NIG	Nigde	1.19	292	ePn	Pn	02 18 24.1	-0.1
BNN	Bunyan	1.19	354	ePN	Pn	02 18 23.3	-0.9
BNN	Bunyan	1.19	354	ePn	Pn	02 18 23.3	-1.0
KUZU	Kuzuini	1.24	136	i P	Pn	02 18 25.1	+0.2
KUZU				i S	Sb	02 18 42.8	+1.9
KUZU	Kuzuini	1.24	136	i P	Pn	02 18 25.1	+0.2
KUZU				i S	Sb	02 18 42.8	+1.8
AKCD	Akcadag	1.64	67	i P	Pn	02 18 31.0	+0.5
AKCD				i S	Sn	02 18 54.1	+2.4
AKCD	Akcadag	1.64	67	i P	Pn	02 18 31.0	+0.5
AKCD				i S	Sn	02 18 54.1	+2.4
MALT	Malatya	2.02	71	ePN	Pn	02 18 36.5	+0.8
MALT	Malatya	2.02	71	ePn	Pn	02 18 36.5	+0.8
YOZ	Yozgat	2.04	345	ePN	Pn	02 18 36.8	+0.8
YOZ	Yozgat	2.04	345	ePn	Pn	02 18 36.8	+0.8

DHMR 05 02:28:08.3±1.1**, 13°.72N×40°.86E, h8**km±24km**, ML3.5, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNSH	Hunish Island	1.80	91	i P	Pn	02 28 41.0	+1.3
HNSH				i S	Sn	02 29 05.0	+2.3
HNSH				AML	AML	02 29 12.3	
	comp=N,663nm,0.4s						
ZUQR	Zugar Island	1.85	82	i P	Pn	02 28 40.9	+0.6
ZUQR				i S	Sn	02 29 07.0	+3.0
ZUQR				AML	AML	02 29 14.1	
	comp=E,444nm,0.6s						
TRBA	At Turbah	3.20	98	i P	Pn	02 29 01.5	+2.5
TRBA				i S	Sn	02 29 43.8	+6.5

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*NEIC **05** 02:35:35.9, 30°.75S×71°.72W, h22km, ML3.5(GUC), After GUC.*

GUC 05 02:35:35.9±0.8**, 30°.75S×71°.72W, h22**km±4km**, MD4.3, ML3.5, 4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	Ovalle	0.47	72	⇓iP	Pb	02 35 45.5	0.0
OVCH				i S	Sb	02 35 52.3	+0.4
OVCH				AML	AML	02 35 52.8	
	comp=N,6µm,0.1s						
CMCH	Combarbala	0.74	125	⇓eP	Pb	02 35 49.6	-0.6
CMCH				i S	Sb	02 35 59.8	-0.1
CMCH	Combarbala	0.74	125	⇓eP	Pb	02 35 49.6	-0.6
CMCH				i S	Sb	02 35 59.8	-0.1
CMCH				AML	AML	02 36 01.0	
	comp=N,4µm,0.7s						
LSCH	La Serena	0.93	26	eP	Pb	02 35 52.5	-0.9
LSCH				i S	Sb	02 36 05.0	-0.3
CHNG	Los Chungos	1.14	171	eP	Pn	02 35 56.0	-0.6
CHNG				i S	Sb	02 36 11.0	-0.4
LCO	Las Campanas	1.95	27	ePn	Pn	02 36 07.9	+0.3
JACH	Jahuel	2.15	154	i P	Pn	02 36 11.4	+1.0
JACH				i S	Sn	02 36 39.0	+2.7
PEL	Peldehue	2.54	160	eP	Pn	02 36 17.5	+1.8
PEL				i S	Sn	02 36 48.3	+2.3
PEL				AML	AML	02 36 57.9	
	comp=E,351nm,0.3s						
RCDM	Rinconada Maip	2.84	164	eP	Pn	02 36 20.8	+1.0
RCDM				i S	Sn	02 36 55.4	+2.1
FCH	Farellones	2.84	155	eP	Pn	02 36 20.9	+1.0
FCH				i S	Sn	02 36 56.2	+2.8
TACH	Talagante	2.97	167	eP	Pn	02 36 22.7	+1.1
PCH	Pirque	3.04	161	⇓eP	Pn	02 36 24.1	+1.5
PCH				i S	Sn	02 37 01.2	+3.0

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*NEIC **05** 02:53:46.1±1.9, 36°.06N×70°.22E, h181km±16km, mb4.4/4, Error ellipse: s-maj=19.4km s-min=11.8km az=210.0*

*IDC **05** 02:53:47.5±4.6, 36°.18N×70°.24E, h195km±44km, mb3.4/9, mb1 3.5/12, mb1mx3.2/26, mbtmp3.3/12, MS4.0/2, Ms1 4.0/2, ms1mx2.6/36, Error ellipse: s-maj=23.0km s-min=14.8km az=23.0*

*ISCJB **05** 02:53:50.8±0.5, 36°.50N±0°.03×70°.41E±0°.06, h215km±6km, mb3.9/17, Error ellipse: s-maj=7.9km s-min=4.0km az=164.5*

*BJI **05** 02:53:52.7, 37°.06N×70°.24E, h160km, mB4.9/8, mb4.4/12*

*NNC **05** 02:53:55.6±3.9, 36°.88N×70°.32E, h204km±37km, mb2.8, mpv4.0, Error ellipse: s-maj=34.6km s-min=22.1km az=8.0*

ISC 05 02:53:49.9±0.6**, 36°.49N**±0°.03×**70°.19E**±0°.06**, h184**km±7km**, h158**km±3.0km**:pP-P, n83, σ1ˢ.42**/87**, mb4.0**/17**, 8C-4D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	2.16	206	ePn	Pn	02 54 32.7	+3.7
KBL				eSn	x	02 55 02.2	
CEP	Cherat	3.01	152	⇓P	Pn	02 54 41.9	+3.0
CEP				S	x	02 55 19.0	
SBDP	Sheikh Budin	4.21	173	⇓P	Pn	02 54 55.6	+1.8
SARP	Sargodha	5.00	155	P	Pn	02 55 05.0	+1.1
KSH	Kashi	5.47	55	⇑iP	Pn	02 55 06.8	-3.2
KSH				S	Sn	02 56 03.7	-9.3
KSH				smax			
	comp=N,300nm,0.4s						
KSH				smax			
	comp=E,290nm,0.4s						
THN	Thein Dam	6.10	130	ePKP	Pn	02 55 18.2	0.0
THN				ex	x	02 56 25.0	
DLH	Dalhousie	6.18	128	ePKP	Pn	02 55 22.0	+2.7
DLH				eS	x	02 56 26.0	
AML	Almayashu	6.25	25	P	Pn	02 55 21.7	+1.6
	SNR=50						
AML	Almayashu	6.25	25	ePn	Pn	02 55 21.7	+1.6
	comp=E,54nm,0.5s						
AML				eSn	Sn	02 56 29.0	-2.3
KK31	Karatay Array	6.61	2	⇑P	Pn	02 55 26.0	+1.2
	comp=E,3.5nm,0.2s,baz=186,slow=12,SNR=239						
KK31				⇓S	Sn	02 56 37.5	-2.2
	comp=E,11nm,0.6s,baz=203,slow=27,SNR=4.7						
UCH	Uchtor	6.63	29	P	Sn	02 56 39.9	-0.4
	SNR=5.3						
UCH	Uchtor	6.63	29	ePn	Pn	02 55 25.9	+0.8
EKS2	Erkin-Say	6.76	23	P	Pn	02 55 28.3	+1.6
	SNR=10						
EKS2	Erkin-Say	6.76	23	ePn	Pn	02 55 28.2	+1.6
	comp=E,14nm,0.5s						
EKS2				eSn	Sn	02 56 39.4	-3.9
KZA	Kyzart	6.82	34	P	Pn	02 55 28.8	+1.3
	SNR=6.5						
AAK	Ala-Archa	6.98	27	P	Pn	02 55 31.1	+1.5
	SNR=13						
AAK	Ala-Archa	6.98	27	ePn	Pn	02 55 31.0	+1.4
	comp=E,45µm,2.8s						
AAK				eSn	Sn	02 56 48.1	-0.3
KBK	Karagaybulak	7.17	29	P	Pn	02 55 33.8	+1.7
	SNR=7.3						
BHK	Bhakra	7.24	133	eS	x	02 56 48.8	
CHMS	Chumysh	7.39	27	P	Pn	02 55 36.2	+1.3
	SNR=5.7						
ULHL	Ulahol	7.41	37	P	Pn	02 55 37.0	+1.6
	SNR=6.3						
SDNR	Sundarnagar	7.51	130	ePKP	Pn	02 55 35.9	-0.8
SDNR				eS	x	02 56 55.9	
USP	Ospenovka	7.53	25	P	Pn	02 55 37.8	+0.9
	SNR=19						
TKM2	Tokmak 2	7.65	31	P	Pn	02 55 39.7	+1.3
	SNR=5.5						
TKM2	Tokmak 2	7.65	31	ePn	Pn	02 55 39.6	+1.1
	comp=E,8.9nm,0.6s						
TKM2	Tokmak 2	7.65	31	⇑P	Pn	02 55 39.3	+0.9
	comp=E,8.3nm,0.7s						
TKM2				⇑S	Sn	02 57 02.5	-2.0
	comp=E,18nm,0.8s						
KLP	Kalpa	8.32	124	ePKP	Pn	02 55 47.6	+0.3
KLP				eS	x	02 57 14.4	
KLP				AML	AML	02 57 18.6	
	comp=N,247nm,0.2s						
KLP				AML	AML	02 57 23.6	
	comp=E,242nm,0.1s						
DDI	Dehra Dun	9.00	131	ex	x	02 57 15.0	
KHET	Khetri	9.64	149	ePKP	x	02 56 03.0	
KHET				eS	x	02 57 38.5	
NDI	New Delhi	9.78	141	ePKP	x	02 56 04.0	
NDI				ex	x	02 57 48.0	
JOSI	Joshimath	9.80	124	ePKP	Pn	02 56 06.7	0.0
JOSI				eS	x	02 57 48.4	
JOSI				AML	AML	02 57 55.7	
	comp=N,158nm,0.5s						
JOSI				AML	AML	02 58 00.8	
	comp=E,134nm,0.5s						
AYAN	Aya Nagar	9.90	142	ePKP	Pn	02 56 08.0	-0.1
AYAN				eS	x	02 57 49.0	
AJM	Ajmer	10.68	158	ePKP	x	02 56 14.5	
AJM				eS	x	02 58 02.5	
PYUN	Piuthan	13.67	124	eP	Pn	02 56 54.2	-2.1
	comp=E,28nm,0.4s						
MK31	Makanchi Array	13.69	37	ePn	Pn	02 56 57.5	+1.1
MK31	Makanchi Array	13.69	37	⇑P	Pn	02 56 56.7	+0.4
	comp=E,0.5nm,0.5s,baz=232,slow=7.7,SNR=15						
MKAR	Makanchi Array	13.69	37	P	Pn	02 56 56.2	-0.2
	comp=E,0.2nm,0.3s,baz=211,slow=12,SNR=9.1						
DANN	Dangsing	14.03	121	eP	Pn	02 56 59.8	-1.0
	comp=E,18nm,0.2s						
KOLN	Koldanda	14.29	124	eP	Pn	02 57 02.7	-1.4
BHPL	Bhopal	14.61	153	ex	x	02 57 08.6	
BHPL				ex	x	02 59 40.2	
AB01	Akbulak array	14.79	333	⇑P	Pn	02 57 10.5	+0.6
	comp=E,3.5nm,0.5s						
GKN	Gorkha	14.86	121	eP	Pn	02 57 09.6	-1.4
	comp=E,48nm,0.4s						
WMQ	Urumqi	15.24	56	eP	Pn	02 57 20.0	+4.5
WMQ				pmax	pmax		
	comp=Z,7.0nm,0.7s						
KURBB	Kurchatov Arra	15.35	20	⇑P	Pn	02 57 15.4	-1.4
	comp=Z,0.4nm,0.7s						
DMN	Daman	15.42	121	eP	Pn	02 57 16.7	-1.2
	comp=Z,9.7nm,0.2s						
KKN	Kakani	15.43	120	eP	Pn	02 57 16.6	-1.5
	comp=Z,70nm,0.6s						
KURK	Kurchatov	15.46	20	P	Pn	02 57 15.5	-2.6
	comp=Z,0.1nm,0.3s,baz=210,slow=10,SNR=8.7						

PKIN	Phulchoki	15.65	120	*e*P	Pn	02 57 20.5	-0.1
PKI	Pulchoki	15.66	120	*e*P	Pn	02 57 20.5	-0.3
	comp=Z,66nm,0.7s						
GUN	Gumba	15.78	118	*e*P	Pn	02 57 21.6	-0.7
JIRN	Jiri	16.15	118	*e*P	Pn	02 57 26.1	-0.7
	comp=Z,21nm,0.3s						
VOSK	Vostochnaya	16.24	2	⇓P	Pn	02 57 26.8	-0.8
	comp=Z,4.0nm,1.1s						
AKTK	Aktyubinsk	16.47	332	P	Pn	02 57 30.5	+0.2
AKTK				S	S	03 00 30.2	-2.3
AKTO	Aktyubinsk	16.47	332	P	Pn	02 57 30.5	+0.2
	comp=Z,0.7nm,0.3s,baz=149,slow=8.9,SNR=12						
AKTO				S	S	03 00 30.2	-2.3
	comp=Z,0.0nm,0.3s,baz=143,slow=20,SNR=2.3						
BVA0	Borovoye Array	16.53	0	⇑P	Pn	02 57 33.0	+1.9
	comp=Z,0.5nm,0.8s,baz=161,slow=12,SNR=11						
BVAR	Borovoye Array	16.53	0	P	Pn	02 57 32.1	+1.1
	comp=Z,0.5nm,0.3s,baz=162,slow=12,SNR=10						
BRVK	Borovoye	16.57	0	*e*P	Pn	02 57 33.0	+1.5
	comp=Z,1.0nm,0.5s						
RAMN	Ramite	16.87	120	*e*P	Pn	02 57 34.0	-1.4
	comp=Z,47nm,0.6s						
TAPN	Taplejung	17.42	117	*e*P	Pn	02 57 40.8	-1.1
	comp=Z,25nm,0.6s						
ODAN	Odare	17.48	118	*e*P	Pn	02 57 41.1	-1.6
	comp=Z,46nm,0.6s						
ZALV	Zalesovo Beam	20.20	26	P	P	02 58 10.4	+0.2
	comp=Z,1.8nm,0.4s,baz=215,slow=10,SNR=9.6						
GNI	Garni	20.28	288	P	P	02 58 14.3	+3.1
	comp=Z,5.6nm,0.7s,baz=37,slow=3.3,SNR=8.9						
ARU	Arti	21.44	342	P	P	02 58 24.4	+1.2
	comp=Z,4.4nm,0.9s,mb3.8						
LZH	Lanzhou	27.05	81	*e*P	P	02 59 21.0	+5.9
LZH				pP	pP	02 59 53.5	+0.9
LZH				sP	sP	03 00 12.5	-1.5
LZH				PP	PP	03 00 13.6	-6.3
LZH				*e*S	S	03 03 44.4	+5.3
LZH				sS	sS	03 04 42.0	-4.2
LZH				SS	SS	03 05 15.3	-25
LZH				pmax	pmax		
	comp=Z,17nm,1.5s,mb4.5						
LZH				pmax	pmax		
	comp=Z,74nm,4.7s						
LZH				LR	LR		
	comp=N,550nm,13.9s						
LZH				LR	LR		
	comp=Z,860nm,15.1s						
CD2	Chengdu	28.39	91	P	P	02 59 34.4	+7.5
CD2				pP	pP	03 00 07.7	+3.0
CD2				sP	sP	03 00 26.5	+0.5
CD2				PP	PP	03 00 32.8	-1.9
CD2				PcP	PcP	03 02 42.6	+8.0
CD2				S	S	03 04 08.1	+7.9
CD2				sS	sS	03 05 07.0	-0.3
CD2				SS	SS	03 05 47.2	-21
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
CD2				pmax	pmax		
	comp=Z,120nm,4.7s						
CD2				LR	LR		
	comp=N,440nm,7.7s						
CD2				LR	LR		
	comp=Z,210nm,7.9s						
BRTR	Keskin Array B	28.82	288	P	P	02 59 29.1	-1.5
	comp=Z,0.4nm,0.6s,mb3.3,baz=102,slow=7.1,SNR=3.2						
KMI	Kunming	30.03	103	P	P	02 59 52.3	+11
KMI				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.0						
CMAR	Chiang Mai Arr	31.03	118	P	P	02 59 45.3	-5.1
	comp=Z,1.2nm,0.3s,mb4.1,baz=302,slow=8.4,SNR=2.9						
HHC	Hu-ho-hao-te	32.38	69	*e*P	P	03 00 07.2	+5.3
HHC				pP	pP	03 00 40.7	+0.6
HHC				sP	sP	03 00 59.1	-2.2
HHC				PP	PP	03 01 20.7	+1.9
HHC				*e*S	S	03 05 06.5	+4.2
HHC				sS	sS	03 06 06.3	-3.6
HHC				PcS	PcS	03 06 35.5	+5.4
HHC				SS	SS	03 07 13.7	-16
HHC				ScS	ScS	03 10 16.0	+5.3
HHC				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
HHC				pmax	pmax		
	comp=Z,130nm,5.1s						
HHC				LR	LR		
	comp=N,170nm,15.5s						
HHC				LR	LR		
	comp=E,53nm,11.9s						
HHC				LR	LR		
	comp=Z,89nm,14.3s						
GYA	Guiyang	32.51	97	P	P	03 00 12.1	+8.8
GYA				pP	pP	03 00 46.2	+4.8
GYA				sP	sP	03 01 04.5	+1.9
GYA				PP	PP	03 01 25.9	+5.4
GYA				PcP	PcP	03 02 52.6	+7.0
GYA				S	S	03 05 12.7	+8.1
GYA				ScP	ScP	03 06 21.4	+10
GYA				PcS	PcS	03 06 38.0	+7.0
GYA				ScS	ScS	03 10 20.3	+8.4
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
BJI	Beijing	35.97	70	P	P	03 00 38.2	+5.3
BJI				pP	pP	03 01 09.7	-1.9
BJI				sP	sP	03 01 27.7	-4.9
BJI				PP	PP	03 02 02.8	+4.3
BJI				S	S	03 06 03.8	+6.3
BJI				sS	sS	03 07 02.8	-3.0
BJI				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.3						
BJI				pmax	pmax		
	comp=Z,260nm,4.6s						
BJI				LR	LR		
	comp=N,200nm,25.4s						
BJI				LR	LR		
	comp=E,150nm,26.8s						
BJI				LR	LR		
	comp=Z,19nm,28.6s						
NJ2	Nanjing	40.12	82	*e*P	P	03 01 14.6	+6.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
ARCES	ARCESS Array B	40.91	338	P	P	03 01 12.6	-0.9
	comp=Z,2.3nm,0.7s,mb3.9,baz=112,slow=9.3,SNR=13						
NB2	NORSAR Subarra	44.00	323	P	P	03 01 37.1	-1.4
	comp=Z,1.3nm,0.5s,mb3.8,baz=98,slow=7.9						
NOA	NORSAR Array B	44.00	323	P	P	03 01 37.0	-1.6
	comp=Z,0.9nm,0.5s,mb3.7,baz=97,slow=7.9,SNR=3.7						
MDJ	Mudanjiang	44.98	60	P	P	03 01 50.4	+3.8
MDJ				pmax	pmax		
	comp=Z,4.0nm,2.2s,mb3.7						
MDJ				pmax	pmax		
	comp=Z,110nm,4.2s						
JOW	Kunigami	49.72	84	LR	LR	03 25 26.3	
	comp=Z,74nm,19.1s,baz=79,slow=38						
JHJ	Hachijo jima 2	56.10	71	LR	LR	03 29 01.1	
	comp=Z,212nm,19.3s,baz=89,slow=38						
TORD	Torodi Ar. Bea	65.06	268	P	P	03 04 07.6	-3.2
	comp=Z,0.4nm,0.4s,mb3.6,baz=49,slow=6.1,SNR=19						
DBIC	Dimbokro	74.05	266	P	P	03 05 02.1	-3.8
	comp=Z,3.8nm,1.1s,mb4.0,baz=90,slow=3.0,SNR=3.2						
YKA	Yellowknife Ar	81.28	2	P	P	03 05 42.9	-2.1
	comp=Z,0.3nm,0.5s,mb3.1,baz=345,slow=5.5,SNR=10						
YKA				pP	pP	03 06 36.2	+6.3
	comp=Z,0.1nm,0.4s,baz=345,slow=5.2,SNR=3.0						
WRA	Warramunga Arr	82.54	121	P	P	03 05 48.1	-4.1
	comp=Z,0.4nm,0.9s,mb3.2,baz=318,slow=4.5,SNR=2.9						
PLCA	Paso Flores	149.21	250	PKPbc	PKPbc	03 13 12.7	-3.6
	comp=Z,2.0nm,0.9s,baz=136,slow=2.1,SNR=2.9						

ISCJB ***05*** *03:02:14.1±1.4, 19°.4N±0°.1×95°.46E±0°.09, h65^{km}±12^{km}, mb3.8/15, Error ellipse: s-maj=21.0km s-min=8.1km az=39.9*

NEIC ***05*** *03:02:15.3±1.8, 19°.20N×95°.57E, h77^{km}±17^{km}, mb4.2/1, Error ellipse: s-maj=25.6km s-min=11.2km az=54.0*

IDC ***05*** *03:02:17.9±2.9, 19°.24N×95°.55E, h100^{km}±27^{km}, mb3.6/15, mb1 3.7/16, mb1mx3.5/28, mbtmp3.6/16, Error ellipse: s-maj=29.7km s-min=13.6km az=52.0*

ISC 05 03:02:16.0±1.3, **19°.4N**±0°.1×**95°.47E**±0°.10, **h69**^{km}±11^{km}, **n31, σ1^{s}.11**/35, **mb3.8**/15, **1C-2D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHG	Chiang Mai	3.33	99	PN	Pn	03 02 57.0	-8.7
CHG	Chiang Mai	3.33	99	PG	Pn	03 03 08.6	+2.9
	12nm,1.0s						
CHG				SG	Pn	03 03 08.6	+2.9
CHTO	Chiang Mai	3.33	99	Pn	Pn	03 03 02.1	-3.6
CHTO				*e*Sn	Sn	03 03 44.9	+0.8
CM31	Chiang Mai Arr	3.41	105	*e*Pn	Pn	03 03 04.0	-2.8
CMAR	Chiang Mai Arr	3.41	105	P	Pn	03 03 06.2	-0.6
	7.5nm,0.3s,baz=279,slow=20,SNR=96						
CMAR				S	Sn	03 03 47.8	+1.7
	11nm,0.3s,baz=278,slow=30,SNR=9.1						
BDT	Bhumibol Dam	3.97	122	P	Pn	03 03 15.0	+0.6
NST	Nakhon Sawan	5.77	129	PN	Pn	03 03 33.0	-6.1
SHL	Shillong	7.00	332	*e*PN	Pn	03 03 55.0	-0.8
SHL				*e*SN	Sn	03 05 14.0	0.0
XAN	Xi’an	18.88	37	P	Pn	03 06 31.1	-1.0
XAN				pP	pP	03 06 39.0	-6.1
XAN				sP	sP	03 06 43.0	-11
XAN				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MK31	Makanchi Array	29.41	341	*e*P	P	03 08 12.8	0.0
MKAR	Makanchi Array	29.41	341	P	P	03 08 12.1	-0.6
	comp=Z,1.4nm,0.6s,mb3.8,baz=152,slow=9.1,SNR=20						
SONM	Songino Array	29.75	15	P	P	03 08 16.3	+0.6
	comp=Z,0.3nm,0.6s,mb3.1,baz=182,slow=11,SNR=3.6						
KURK	Kurchatov	34.01	341	P	P	03 08 51.7	-1.4
	comp=Z,2.6nm,0.6s,mb4.2,baz=145,slow=9.4,SNR=19						
KURK	Kurchatov	34.01	341	*e*P	P	03 08 53.5	+0.4
	comp=Z,2.1nm,0.7s,mb4.1						
ZALV	Zalesovo Beam	35.47	349	P	P	03 09 05.6	-0.1
	comp=Z,1.9nm,0.6s,mb4.1,baz=169,slow=8.5,SNR=7.6						
ZALV	Zalesovo Beam	35.47	349	P	P	03 09 05.6	-0.1
BVAR	Borovoye Array	38.80	336	P	P	03 09 34.1	+0.2
	comp=Z,0.4nm,0.6s,mb3.4,baz=141,slow=7.4,SNR=2.8						
AKTK	Aktyubinsk	42.88	325	P	P	03 10 08.2	+0.7
AKTO	Aktyubinsk	42.88	325	P	P	03 10 08.2	+0.7
	comp=Z,1.3nm,0.6s,mb3.9,baz=134,slow=8.1,SNR=8.4						
WRA	Warramunga Arr	54.57	134	P	P	03 11 34.4	-3.1
	comp=Z,0.2nm,0.6s,mb3.3,baz=322,slow=7.4,SNR=6.8						
ASAR	Alice Springs	56.88	137	P	P	03 11 50.8	-3.1
	comp=Z,0.5nm,0.6s,mb3.7,baz=318,slow=7.1,SNR=7.2						
PETK	Petropavlovsk-	58.11	39	P	P	03 12 01.7	-0.5
	comp=Z,1.7nm,0.7s,mb4.2,baz=283,slow=7.1,SNR=2.8						
AKASG	Malin Array Be	60.24	318	P	P	03 12 15.8	-1.2
	comp=Z,0.9nm,0.5s,mb4.1,baz=86,slow=6.3,SNR=5.9						
PLOR	Plostina	61.69	312	⇓*i*P	P	03 12 28.9	+2.0
MLR	Muntele Rosu	62.18	312	⇑*i*P	P	03 12 31.4	+1.2
BURAR	Bucovina Array	62.70	314	⇓*i*P	P	03 12 35.2	+1.6
IDI	Anoyia	63.48	300	P	P	03 12 39.6	+0.6
	comp=Z,1.9nm,0.9s,mb4.0,baz=102,slow=7.8,SNR=3.8						
HFS	Hagfors	69.32	328	P	P	03 13 14.6	-1.2
	comp=Z,1.3nm,0.5s,mb4.0,baz=105,slow=9.3,SNR=7.1						
GERES	GERESS Array B	70.31	316	P	P	03 13 22.3	+0.1
	comp=Z,1.8nm,0.6s,mb4.0,baz=74,slow=6.0,SNR=18						
NOA	NORSAR Array B	70.48	329	P	P	03 13 23.2	+0.2
	comp=Z,1.5nm,1.0s,mb3.8,baz=72,slow=4.6,SNR=2.8						
TORD	Torodi Ar. Bea	89.20	284	P	P	03 15 04.8	0.0
	comp=Z,0.7nm,1.2s,mb3.6,baz=64,slow=1.1,SNR=2.4						

ISCJB ***05*** *03:03:13.9±0.6, 23°.93N±0°.02×122°.44E±0°.02, h6^{km}±4^{km}, Error ellipse: s-maj=3.1km s-min=2.4km az=161.9*

TAP ***05*** *03:03:15.2, 24°.02N×122°.45E, h27^{km}, ML3.5, D*

NEIC ***05*** *03:03:15.6±1.3, 23°.96N×122°.53E, h35^{km}, MG3.0(JMA), Error ellipse: s-maj=20.2km s-min=11.2km az=135.0*

JMA ***05*** *03:03:16.4±0.3, 24°.26N×122°.37E, h45^{km}, M3.0*

ISC 05 03:03:14.2±0.5, **23°.94N**±0°.02×**122°.45E**±0°.02, **h8**^{km}±2^{km}, **n57, σ0^{s}.85**/103, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.73	45	P	Pg	03 03 28.8	+0.5
YOJ				S	Sg	03 03 37.8	0.0
YOJ	Yonaguni jima	0.73	45	*e*Pg	Pg	03 03 28.6	+0.3
YOJ				*e*Sg	Sg	03 03 38.2	+0.4
HWA	Hwalien	0.77	273	*e*P	Pg	03 03 29.6	+0.6
	baz=253						
TWD	Chiawan	0.79	280	P	Pg	03 03 29.9	+0.6
	baz=274						
TWD				*i* S	Sg	03 03 40.5	+0.8
	baz=274						
ENA	Nanau	0.81	307	P	Pg	03 03 29.9	+0.2
	baz=308						
ENA				*e*S	Sg	03 03 41.4	+1.2
	baz=308						
NACB	Ninganchiao	0.81	287	*e*Pg	Pg	03 03 30.2	+0.4
TWC	Suao	0.86	321	*i* P	Pg	03 03 30.2	-0.5
	baz=317						
TWC				*e*S	Sg	03 03 41.4	-0.5
	baz=317						
ESL	Shilin	0.94	262	P	Pg	03 03 32.2	+0.1
	baz=245						
ESL				*e*S	Sg	03 03 43.8	-0.6
	baz=245						
ILA	Ilan	1.04	322	*e*P	Pg	03 03 33.9	-0.3
	baz=309						
ILA				S	Sg	03 03 48.6	+1.0
	baz=309						
TWE	Neicheng	1.05	318	P	Pg	03 03 34.0	-0.4
	baz=314						
TWE				S	Sg	03 03 48.3	+0.2
	baz=314						
ENTT	Nioudou	1.06	311	P	Pg	03 03 34.3	-0.3
	baz=307						
ENTT				S	Sg	03 03 49.1	+0.7
	baz=307						
NNS	Nan Shan	1.10	297	P	Pg	03 03 34.8	-0.4
	baz=292						
NNS				S	Sg	03 03 48.9	-0.6
	baz=292						
WHF	Hehuan Shan	1.10	281	P	Pg	03 03 34.8	-0.4
	baz=263						
WHF				S	Sg	03 03 49.0	-0.5
	baz=263						
EHY	Hungye	1.12	247	*i* P	Pg	03 03 35.3	-0.3
	baz=243						
EHY				S	Sg	03 03 49.5	-0.6
	baz=243						
TWB1	Santiao Chiao	1.14	339	P	Pg	03 03 35.0	-1.1
	baz=353						
TWB1				*e*S	Sg	03 03 51.1	+0.2
	baz=353						
YULB	Yu-li	1.19	243	*e*Pn	Pn	03 03 36.1	-1.0
YULB				*e*Sn	Sn	03 03 50.2	-3.3
TWT	Tachien	1.20	285	P	Pb	03 03 37.0	-0.2
	baz=267						
TWT				*i* S	Sg	03 03 53.3	+0.4
	baz=267						
TWF1	Yuli	1.21	241	*i* P	Pb	03 03 36.7	-0.5
	baz=237						
TWF1				S	Sg	03 03 52.7	-0.3
	baz=237						
YHNB	Yeheng	1.22	307	*e*Pn	Pn	03 03 36.5	-1.1
NSK	Sanguang	1.23	307	*i* P	Pb	03 03 36.9	-0.8
	baz=287						
NSK				S	Sb	03 03 54.1	+0.3
	baz=287						
IRIF	Iriomote-Funau	1.24	71	P	Pn	03 03 37.8	0.0
IRIF				S	Sb	03 03 53.5	-0.5
HATJ	Hateruma jima	1.25	84	P	Pn	03 03 39.2	+1.2
HATJ				S	Sb	03 03 54.2	-0.1
NWF	Wu-fen Shan	1.28	332	P	Pn	03 03 37.1	-1.2
	baz=329						
NWF				S	Sb	03 03 54.8	-0.4
	baz=329						
CHKT	Chengkung	1.30	230	P	Pn	03 03 37.3	-1.4
	baz=216						
CHKT				*e*S	Sb	03 03 53.2	-2.5
	baz=216						
TWA	Mucha	1.30	323	*e*P	Pn	03 03 38.2	-0.4
	baz=320						
TWA				S	Sb	03 03 56.0	+0.2
	baz=320						
TATO	Taipei	1.35	320	*e*Pn	Pn	03 03 38.9	-0.5
SSLB	Suanglung	1.37	264	*e*Pn	Pn	03 03 41.0	+1.3
TAP1	Taipei	1.38	323	*e*P	Pn	03 03 39.7	-0.1
	baz=319						
TAP1				*e*S	Sb	03 03 58.6	+0.6
	baz=319						
SMLT	Sun Moon Lake	1.42	268	*e*P	Pn	03 03 39.8	-0.4
	baz=263						
SMLT				S	Sb	03 03 57.4	-1.7
	baz=263						
YUS	Yu-Shan	1.44	252	*e*P	Pn	03 03 40.7	+0.1
	baz=248						
YUS				S	Sn	03 03 58.7	-1.0
	baz=248						
TYC	Yuchr	1.45	269	*e*P	Pn	03 03 40.7	-0.1
	baz=264						
TYC				S	Sn	03 03 59.0	-1.1
	baz=264						
JKRS	Kuro-shima	1.46	78	P	Pn	03 03 41.3	+0.4
JKRS				S	Sn	03 04 00.8	+0.6
NSTT	Nanjuang	1.49	298	*i* P	Pn	03 03 41.5	+0.2
	baz=294						
NSTT				S	Sn	03 04 00.1	-0.7
	baz=294						
TWS1	Kuangyinshan	1.49	321	P	Pn	03 03 40.8	-0.5
	baz=336						
TWS1				*e*S	Sn	03 04 00.3	-0.6
	baz=336						
ELDTW	Lidau	1.51	241	P	Pn	03 03 40.7	-0.9
	baz=237						
ELDTW				*e*S	Sn	03 03 59.2	-2.3
	baz=237						
TWY	Chenhua	1.54	330	*e*P	Pn	03 03 41.1	-0.9
	baz=327						
ALS	Alishan	1.56	254	*i* P	Pn	03 03 42.5	+0.2
	baz=250						
ALS				S	Sn	03 04 02.9	+0.1
	baz=250						
TWQ1	Liyutan	1.58	285	P	Pn	03 03 42.9	+0.3
	baz=281						
TWQ1				*e*S	Sn	03 04 03.2	0.0
	baz=281						
JIJ	Ishigaki jima	1.61	74	P	Pn	03 03 42.4	-0.5
JIJ				S	Sn	03 04 02.2	-1.6
NSY	Sanyi	1.61	287	*e*P	Pn	03 03 43.1	+0.1
	baz=283						
NSY				*e*S	Sn	03 04 04.4	+0.5
	baz=283						
CHN5	Tsauling	1.66	258	*e*P	Pn	03 03 44.3	+0.7
	baz=254						
CHN5				S	Sn	03 04 05.8	+0.7
	baz=254						
TWG	Pinlang	1.68	229	*e*Pn	Pn	03 03 42.9	-1.0
TWG	Pinlang	1.68	229	*e*P	Pn	03 03 43.2	-0.8
	baz=237						
TWG				*e*S	Sn	03 04 03.4	-2.3
	baz=237						
STYT	Tauyuan	1.73	244	*e*P	Pn	03 03 44.8	+0.2
	baz=230						
STYT				*e*S	Sn	03 04 06.8	-0.1
	baz=230						
WGK	Gukeng	1.74	262	*e*S	Sn	03 04 09.2	+2.0
	baz=258						
TPUB	Ta-pu	1.78	249	*e*Pn	Pn	03 03 46.1	+0.8
CHN4	Tsaushan	1.80	251	*e*P	Pn	03 03 47.4	+1.9
	baz=247						
CHN4				*e*S	Sn	03 04 09.9	+1.4
	baz=247						
WTP	Ta-pu	1.82	248	P	Pn	03 03 46.7	+0.9
	baz=235						
WTP				S	Sn	03 04 09.2	+0.2
	baz=235						
SGST	Jiashian	1.91	244	*e*P	Pn	03 03 47.4	+0.3
	baz=232						
SGST				*e*S	Sn	03 04 12.7	+1.3
	baz=232						
CHN1	Nanshi	1.91	247	P	Pn	03 03 48.5	+1.4
	baz=244						
CHN1				*e*S	Sn	03 04 12.9	+1.5
	baz=244						
ECL	Taimali	1.92	226	*e*P	Pn	03 03 47.3	+0.2
	baz=233						
TWK	Hsinying	1.92	250	*e*P	Pn	03 03 48.4	+1.3
	baz=246						
TWK				*e*S	Sn	03 04 12.9	+1.3
	baz=246						
SSD	Sandimen	2.05	235	P	Pn	03 03 49.5	+0.5
	baz=225						
SSD				S	Sn	03 04 15.4	+0.6
	baz=225						
LAY	Lan-yu	2.06	204	*e*P	Pn	03 03 48.7	-0.5
	baz=203						
JTJ	Tarama	2.17	71	P	Pn	03 03 51.7	+1.0
JTJ				S	Sn	03 04 18.2	+0.4
TWK1	Hengchun	2.50	218	*e*P	Pn	03 03 55.8	+0.6
	baz=216						
TWK1				*e*S	Sn	03 04 26.6	+0.7
	baz=216						
WDGT	Dungji	2.64	256	*e*P	Pn	03 03 57.9	+0.7
	baz=252						
WDGT				*e*S	Sn	03 04 28.7	-0.7
	baz=252						

IDC 05 03:05:09.1±14.0, **3°.14S**×**100°.27E, h126**^{km}±133^{km}, **mb3.2**/6, **mb1 3.2**/6, **mb1mx3.1**/22, **mbtmp3.2**/6, **Error ellipse: s-maj=129.5km s-min=20.3km az=54.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	37.20	119	P	P	03 12 07.5	-0.8
	0.3nm,0.5s,baz=309,slow=9.2,SNR=5.0						
ASAR	Alice Springs	38.38	125	P	P	03 12 18.8	+0.6
	0.4nm,0.6s,baz=303,slow=7.6,SNR=2.6						
SONM	Songino Array	51.05	5	P	P	03 13 58.5	+0.3
	0.6nm,0.7s,baz=187,slow=10,SNR=3.7						
MKAR	Makanchi Array	52.19	344	P	P	03 14 07.1	+0.3
	0.5nm,0.6s,baz=163,slow=7.1,SNR=5.1						
ZALV	Zalesovo Beam	58.33	349	P	P	03 14 50.5	-0.1
	0.4nm,0.3s,baz=158,slow=9.3,SNR=2.5						
BVAR	Borovoye Array	61.34	340	P	P	03 15 11.0	-0.2
	0.4nm,0.6s,baz=130,slow=8.1,SNR=3.8						
TXAR	Lajitas Array	145.43	39	PKPbc	PKPbc	03 24 32.3	-0.7
	0.8nm,0.6s,baz=1.2,slow=2.8,SNR=5.2						

ISCJB ***05*** *03:05:30.8±0.6, 50°.22N±0°.05×19°.04E±0°.03, h0^{km}, Error ellipse: s-maj=7.0km s-min=2.8km az=8.6*

CSEM ***05*** *03:05:31.6±0.3, 50°.24N×19°.06E, h2^{km}, ML2.6/5, Error ellipse: s-maj=7.1km s-min=3.0km az=4.0*

IPEC ***05*** *03:05:32.2±0.1, 50°.23N×19°.10E, h3^{km}±1^{km}, ML1.7/3, Error ellipse: s-maj=2.8km s-min=0.9km az=171.0*

NEIC ***05*** *03:05:32.8±1.1, 50°.21N×19°.03E, h5^{km}, MG2.5(WAR), Error ellipse: s-maj=19.0km s-min=7.0km az=182.0*

WAR ***05*** *03:05:32.5, 50°.21N×19°.13E, ML2.5, Mining Induced*

PRU ***05*** *03:05:33.2, 50°.24N×19°.01E, h0^{km}*

ISC 05 03:05:31.6±0.6, **50°.23N**±0°.05×**19°.05E**±0°.03, **h0**^{km}**, n29, σ1^{s}.18**/52, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.48	90	*e*Pg	Pg	03 05 41.0	+0.2
OJC				*e*Sg	Sg	03 05 47.4	+0.3
OJC	Ojcow	0.48	90	*e*Pg	Pg	03 05 41.0	+0.2
OJC				*e*Sg	Sg	03 05 46.8	-0.3
	baz=271						
OKC	Ostrava-Krasne	0.70	237	*e*PG	Pg	03 05 46.1	+1.2
OKC				*e*SG	Sg	03 05 55.9	+2.0
	comp=Z,10nm,0.5s						
OKC	Ostrava-Krasne	0.70	237	Pg	Pg	03 05 46.1	+1.2
OKC				Sg	Sg	03 05 55.9	+2.0
	comp=Z,10nm,0.5s						
MORC	Moravsky Berou	1.07	246	*e*Pg	Pn	03 05 52.5	-1.3
MORC				*e*Sg	Sn	03 06 06.4	-2.8
MORC	Moravsky Berou	1.07	246	*e*Pg	Pn	03 05 52.5	-1.3
MORC				*e*Sg	Sn	03 06 06.8	-2.5
	comp=Z,10nm,0.2s,baz=65						
NIE	Niedzica	1.15	134	*e*Pg	Pg	03 05 53.9	+0.3
NIE				*e*Sg	Sg	03 06 09.9	+1.4
NIE	Niedzica	1.15	134	*e*Pg	Pg	03 05 53.9	+0.3
NIE				*e*Sg	Sg	03 06 09.9	+1.4
JAVC	Velka Javorina	1.63	214	*e*Pg	Pg	03 06 02.2	-0.7
STHS	Stebnicka Huta	1.64	119	*e*Pg	Pg	03 06 03.1	+0.2
STHS				*e*Sg	Sg	03 06 27.5	+3.4
STHS	Stebnicka Huta	1.64	119	*e*Pg	Pg	03 06 03.1	+0.2
STHS				*e*Sg	Sg	03 06 27.5	+3.4
STHS				*e*SG	Sg	03 06 27.5	+3.4
STHS	Stebnicka Huta	1.64	119	*e*PG	Pg	03 06 03.1	+0.2
VYHS	Vyhne	1.74	185	*e*PN	Pn	03 06 02.7	-0.3
VYHS				*e*SN	Sn	03 06 24.7	-1.1
VYHS	Vyhne	1.74	185	*e*Pn	Pn	03 06 02.7	-0.3
VYHS				*e*Sn	Sn	03 06 24.7	-1.1
DPC	Dobruska-Polom	1.75	275	*e*PG	Pg	03 06 03.8	-1.3
DPC				*e*SG	Sg	03 06 29.0	+1.2
	comp=Z,10nm,0.7s						
DPC	Dobruska-Polom	1.75	275	*e*Pn	Pn	03 06 03.6	+0.5
DPC				*e*Pg	Pg	03 06 03.8	-1.3
DPC				*e*Sn	Sn	03 06 25.5	-0.7
DPC				*e*Sg	Sg	03 06 29.0	+1.2
DPC	Dobruska-Polom	1.75	275	*e*Pn	Pn	03 06 03.7	+0.6

	baz=93						
DPC	Dobruska-Polom	1.75	275	Pg	Pg	03 06 03.8	-1.3
DPC				Sg	Sg	03 06 29.0	+1.2
	comp=Z,10nm,0.7s						
VRAC	Vranov	1.83	241	*e*Pn	Pn	03 06 05.1	+0.8
	baz=60						
VRAC				*e*Sg	Sg	03 06 30.6	+0.1
	comp=Z,5.5nm,0.3s,baz=60						
UPC	Upice	1.96	279	*e*SG	Sg	03 06 36.4	+1.8
UPC	Upice	1.96	279	Sg	Sg	03 06 36.4	+1.8
CRVS	Cervenica-Dubn	2.06	129	*e*PN	Pg	03 06 10.2	-0.8
CRVS				*e*SN	Sg	03 06 36.4	-1.2
CRVS	Cervenica-Dubn	2.06	129	*e*Pn	Pg	03 06 10.2	-0.8
CRVS				*e*Sn	Sg	03 06 36.4	-1.2
KRUC	Moravsky	2.08	237	*e*Sn	Sn	03 06 36.2	+2.0
	comp=Z,4.4nm,0.4s,baz=55						
KOLS	Kolonicke sedl	2.47	120	*e*PN	Pn	03 06 18.0	+5.0
PRU	Pruhonice	2.91	267	*e*SG	Sg	03 07 03.4	-1.6
PRU	Pruhonice	2.91	267	Sg	Sg	03 07 03.4	-1.6
KHC	Kasperske Hory	3.71	255	*e*PN	Pn	03 06 30.0	-0.1
KHC				*e*SG	Sg	03 07 29.6	-1.3
KHC	Kasperske Hory	3.71	255	Pn	Pn	03 06 30.0	-0.1
KHC				Sg	Sg	03 07 29.6	-1.3

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*NIED **05** 03:24:00, 25°.50N×126°.20E, h35^{km}, Mw4.0 Best double couple: M$_0$1.22000×10^{15} NP1:φ$_s$201.00000°, δ71.00000°, λ-123.00000°. NP2:φ$_s$84.00000°, δ38.00000°, λ-33.00000°.*

*ISCJB **05** 03:24:06.6±0.5, 25°.54N±0°.09×126°.16E±0°.08, h61^{km}±6^{km}, mb3.9/12, Error ellipse: s-maj=19.4km s-min=3.6km az=143.3*

*NEIC **05** 03:24:06.4±0.9, 25°.65N×126°.08E, h35^{km}, MG4.0(JMA), Error ellipse: s-maj=23.7km s-min=7.8km az=143.0*

*JMA **05** 03:24:06.2±0.1, 25°.48N×126°.25E, h76^{km}±3^{km}, M4.0*

*IDC **05** 03:24:12.7±3.5, 26°.44N×126°.10E, h53^{km}±34^{km}, mb3.6/14, mb1 3.7/15, mb1mx3.7/28, mbtmp3.6/15, ML3.5/1, Error ellipse: s-maj=28.3km s-min=17.6km az=62.0*

ISC 05 03:24:07.1±0.6, **25°.44N**±0°.09×**126°.26E**±0°.08, **h56**^{km}±5^{km}, **n41**, σ**1^{s}01**/51, **mb3.9**/12, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKE	Kume jima 2	1.00	28	P	Pn	03 24 24.7	-0.3
JKE				*e*S	Sn	03 24 38.9	+0.6
JOGS	Gusukube	1.03	229	P	Pn	03 24 25.5	+0.1
JOGS				*e*S	Sn	03 24 40.1	+1.2
JMJ	Miyako jima 2	1.08	235	P	Pn	03 24 26.5	+0.5
JMJ				*e*S	Sn	03 24 41.2	+1.2
JAGN	Aguni-jima	1.45	37	P	Pn	03 24 31.0	0.0
JAGN				*e*S	Sn	03 24 50.1	+1.2
JJT2	Tamagusuku 2	1.51	62	P	Pn	03 24 31.8	0.0
JTJ	Tarama	1.62	241	P	Pn	03 24 33.1	-0.3
JTJ				*e*S	Sn	03 24 53.7	+0.5
JIJ	Ishigaki jima	2.20	241	P	Pn	03 24 41.2	0.0
JIJ				*e*S	Sn	03 25 06.5	-0.8
JOW	Kunigami	2.28	52	P	Pn	03 24 42.3	0.0
JOW	Kunigami	2.28	52	P	Pn	03 24 42.5	+0.2
	13nm,0.3s,baz=244,slow=9.5,SNR=29						
JOW				S	Sn	03 25 13.2	+4.0
	24nm,0.3s,baz=119,slow=29,SNR=6.0						
JKRS	Kuro-shima	2.37	240	P	Pn	03 24 44.2	+0.7
IRIF	Iriomote-Funau	2.55	245	P	Pn	03 24 46.2	+0.2
IRIF				*e*S	Sn	03 25 16.2	+0.4
JTK	Tokunoshima	3.35	45	P	Pn	03 24 56.5	-0.5
JAM	Amami Oshima	4.20	45	P	Pn	03 25 07.6	-1.0
JZK	Kikaishima	4.38	48	P	Pn	03 25 10.4	-0.7
NACB	Ninganchiao	4.42	254	*e*Pn	Pn	03 25 10.9	-0.7
JMZ	Minamidaito 2	4.49	84	P	Pn	03 25 08.4	-4.2
JMZ				*e*S	Sn	03 25 55.2	-8.4
YHNB	Yeheng	4.50	261	*e*Pn	Pn	03 25 15.3	+2.6
YULB	Yu-li	4.96	247	*e*Pn	Pn	03 25 16.5	-2.6
YULB				*e*Sn	Sn	03 26 14.5	-0.6
SSLB	Suanglung	5.10	252	*e*Pn	Pn	03 25 20.0	-1.0
SSLB				*e*Sn	Sn	03 26 18.2	-0.4
TWG	Pinlang	5.41	242	*e*Pn	Pn	03 25 21.8	-3.5
	35nm,0.4s						
TPUB	Ta-pu	5.56	249	*e*Pn	Pn	03 25 27.0	-0.2
	30nm,0.5s						
TPUB				*e*Sn	Sn	03 26 29.1	-0.8
MJAR	Matsushiro Arr	15.06	40	P	Pn	03 27 35.6	-0.8
	0.2nm,0.3s,baz=238,slow=11,SNR=3.0						
CD2	Chengdu	20.56	290	P	P	03 28 41.7	+0.6
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
ASAJ	Asahikawa	22.88	31	P	P	03 29 05.0	-0.7
	comp=Z,3.1nm,0.5s,mb4.0,baz=264,slow=9.2,SNR=2.5						
SONM	Songino Array	27.30	330	P	P	03 29 44.0	-2.2
	comp=Z,0.6nm,0.8s,mb3.2,baz=131,slow=8.1,SNR=3.0						
MKAR	Makanchi Array	40.76	313	P	P	03 31 42.0	-0.4
	comp=Z,1.6nm,0.5s,mb3.9,baz=97,slow=10,SNR=74						
ZALV	Zalesovo Beam	41.82	324	P	P	03 31 50.0	-1.1
	comp=Z,1.7nm,0.5s,mb3.9,baz=108,slow=8.7,SNR=9.0						
KURK	Kurchatov	44.19	318	P	P	03 32 09.7	-0.6
	comp=Z,0.9nm,0.4s,mb3.8,baz=107,slow=8.4,SNR=5.2						
WRA	Warramunga Arr	45.79	169	P	pP	03 32 36.2	-1.8
	comp=Z,0.9nm,0.8s,baz=352,slow=9.1,SNR=4.7						
ASAR	Alice Springs	49.37	171	P	pP	03 33 06.3	+0.4
	comp=Z,0.6nm,0.8s,baz=355,slow=7.3,SNR=4.9						
BVAR	Borovoye Array	49.69	319	P	P	03 32 52.7	-0.5
	comp=Z,1.1nm,0.7s,mb4.0,baz=97,slow=9.2,SNR=6.1						
AKTK	Aktyubinsk	57.13	315	P	P	03 33 49.8	+2.1
AKTO	Aktyubinsk	57.13	315	P	P	03 33 49.8	+2.1
	comp=Z,1.3nm,0.5s,mb4.2,baz=100,slow=12,SNR=6.2						
KEV	Kevo	69.52	338	*e*p	P	03 35 11.2	+1.9
KAF	Kangasniemi	72.33	331	*e*p	P	03 35 25.4	-1.1
AKASG	Malin Array Be	74.97	319	P	P	03 35 42.3	+0.1
	comp=Z,0.7nm,0.5s,mb3.8,baz=57,slow=5.0,SNR=4.6						
BRTR	Keskin Array B	76.11	307	P	P	03 35 49.5	+0.6
	comp=Z,1.9nm,0.8s,mb4.1,baz=94,slow=5.0,SNR=12						
RES	Resolute Bay	76.65	10	P	P	03 35 52.5	+1.1
	comp=Z,0.7nm,0.8s,mb3.6,baz=330,slow=9.8,SNR=4.4						
NOA	NORSAR Array B	79.23	333	P	P	03 36 06.0	+0.1
	comp=Z,1.8nm,0.8s,mb4.0,baz=56,slow=5.8,SNR=3.4						
YKA	Yellowknife Ar	79.98	24	P	P	03 36 10.7	+0.8
	comp=Z,0.5nm,0.7s,mb3.5,baz=300,slow=5.6,SNR=6.1						
YKA	Yellowknife Ar	79.98	24	P	P	03 36 10.7	+0.8

IDC 05 03:47:15.3±2.3, **6°.11S**×**130°.16E**, **h0**^{km}, **mb3.5**/1, **mb1 3.7**/3, **mb1mx3.5**/15, **mbtmp3.5**/3, **ML3.8**/1, **MS3.6**/1, **Ms1 3.6**/1, **ms1mx2.4**/15, **Error ellipse: s-maj=149.1km s-min=30.7km az=70.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.34	164	Pn	Pn	03 50 39.9	+0.2
	0.4nm,0.3s,baz=344,slow=9.6,SNR=12						
WRA				Sn	Sn	03 53 08.0	-12
	0.6nm,0.3s,baz=333,slow=23,SNR=11						
ASAR	Alice Springs	17.83	169	P	Pn	03 51 25.0	0.0
	0.2nm,0.3s,baz=348,slow=9.1,SNR=22						
ASAR				S	Sn	03 54 34.0	-10
	0.2nm,0.3s,baz=348,slow=26,SNR=4.8						
HNR	Honiara	29.69	98	LR	LR	04 04 43.4	
	comp=Z,100nm,18.9s,baz=327,slow=35						
MKAR	Makanchi Array	67.57	327	P	P	03 58 13.8	+0.1
	0.2nm,0.3s,baz=119,slow=7.2,SNR=8.1						

CASC 05 03:49:15.9±1.9, **11°.09N**×**86°.88W**, **h59**^{km}±45^{km}, **mb5.6**, **MD4.1**, **ML3.7**, **1D**, **Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRUN	El Crucero	1.05	33	*e*P	Pn	03 49 34.9	+0.3
COPN	Copaltepe	1.12	15	*e*P	Pn	03 49 35.2	-0.3
COPN				⇓*i*P		03 49 35.4	
COPN				*e*S	Sn	03 49 51.7	+1.8
TICN	Ticuantepe	1.13	34	*e*P	Pn	03 49 35.9	+0.3
APON	Apoyo	1.15	44	*e*P	Pn	03 49 36.0	+0.1
CSAN		1.17	23	*e*P	Pn	03 49 35.8	-0.4
XAVN	Gruta Xavier	1.18	27	*e*P	Pn	03 49 36.3	0.0
TISN	Laguna Tiscapa	1.20	30	*e*P	Pn	03 49 36.4	-0.2
MGAN	Managua	1.22	31	*e*P	Pn	03 49 36.5	-0.3
MGAN				*e*S	Sn	03 49 57.1	+4.7
MGAN				AMP		03 49 57.7	
	comp=N,1μm,0.2s						
MIRN	Miramar	1.35	7	*e*P	Pn	03 49 38.5	0.0
MOMN	Momotombo	1.35	14	*e*P	Pn	03 49 38.8	+0.2
CNGN	Cerro Negro	1.41	7	*e*P	Pn	03 49 38.8	-0.6
CNGN				*e*P		03 49 39.0	
HUEN		1.42	29	*e*P	Pn	03 49 39.0	-0.4
HUEN				*e*P		03 49 39.3	
VCR	Vista de Mar	1.56	128	*e*P	Pn	03 49 39.3	-2.1
CRIN	San Cristobal	1.60	354	*e*P	Pn	03 49 42.2	+0.2
BOAB	BOACO BROADBAN	1.80	41	*e*P	Pn	03 49 44.1	-0.5
JCR	Jicaral	2.14	125	*e*P	Pn	03 49 49.1	-0.1
CNCH	Conchagua	2.36	337	*e*P	Pn	03 49 52.6	+0.3
CNCH				*e*S	Sn	03 50 21.8	+1.7
CGA2	Cerro Gallo 2	2.61	114	*e*P	Pn	03 49 55.7	0.0
BLLM	Bellamira	2.68	331	*e*P	Pn	03 49 56.6	-0.1
PRS1	Puriscal	2.76	113	*e*P	Pn	03 49 55.4	-2.4
TGUH	Tegucigalpa,Un	2.97	353	*e*P	Pn	03 50 01.6	+1.0
LAJ	Bijagual	2.98	114	*e*P	Pn	03 49 57.6	-3.1
LCR2	La Lucha 2	3.14	115	*e*P	Pn	03 50 04.9	+2.0
URSC	Urasca	3.30	112	*e*P	Pn	03 50 07.7	+2.5
BUS	Buena Vista	3.44	116	*e*P	Pn	03 50 10.4	+3.4
BUS				*e*S	Sn	03 50 47.5	+1.0
BAR1		3.97	117	*e*P	Pn	03 50 17.2	+2.9
BAR1				*e*S	Sn	03 50 59.7	+0.1

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*ISCJB **05** 03:58:15.2±1.3, 6°.2S±0°.1×149°.9E±0°.2, h33^{km}, mb3.8/6, Error ellipse: s-maj=28.5km s-min=17.0km az=18.9*

*NEIC **05** 03:58:16.6±0.9, 6°.16S×149°.95E, h35^{km}, mb4.4/3, Error ellipse: s-maj=24.5km s-min=12.2km az=113.0*

*IDC **05** 03:58:29.8±9.0, 6°.30S×149°.54E, h142^{km}±75^{km}, mb3.6/7, mb1 3.8/8, mb1mx3.7/16, mbtmp3.6/8, MS3.2/2, Ms1 3.2/2, ms1mx2.9/18, Error ellipse: s-maj=50.5km s-min=24.6km az=71.0*

ISC 05 03:58:17.3±1.3, **6°.2S**±0°.1×**149°.9E**±0°.2, **h35**^{km}, **n17**, σ**0^{s}65**/15, **mb3.8**/6, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	Coen	10.16	220	*e*Pn	Pn	04 00 39.5	-1.3
	22nm,0.6s						
CTA	Charters Tower	14.26	194	P	Pn	04 01 45.0	+8.2
	0.1nm,0.3s,baz=0.0,slow=13,SNR=4.2						
CTA				LR	LR	04 06 39.5	
	comp=Z,88nm,18.1s,baz=54,slow=35						
CTA	Charters Tower	14.26	194	P	Pn	04 01 45.0	+8.2
CTA				LR	LR	04 06 39.5	
KAKA	Kakadu	18.39	248	*e*P	Pn	04 02 30.0	+0.3
	18nm,0.4s						
WRAB	Tennant Creek	20.36	226	*e*P	P	04 02 51.6	+0.6
	18nm,0.8s						
WB2	Warramunga Arr	20.37	226	*e*P	P	04 02 51.6	+0.6
WRA	Warramunga Arr	20.38	226	P	P	04 02 51.5	+0.3
	14nm,0.6s,baz=52,slow=11,SNR=74						
WRA				LR	LR	04 11 28.9	
	comp=Z,74nm,18.8s,baz=175,slow=39						
ASAR	Alice Springs	23.20	220	P	P	04 03 20.9	-0.5
	1.2nm,0.5s,mb3.6,baz=56,slow=9.4,SNR=24						
FITZ	Fitzroy Crossi	26.46	241	*e*P	P	04 03 51.3	0.0
	12nm,0.9s,mb4.4						
FITZ	Fitzroy Crossi	26.46	241	P	P	04 03 51.1	-0.2
	4.5nm,0.6s,mb4.2,baz=64,slow=9.5,SNR=22						
FITZ	Fitzroy Crossi	26.46	241	*e*P	P	04 03 51.5	+0.2
	6.0nm,1.2s,mb4.0						
STKA	Stephens Creek	26.70	196	P	P	04 03 53.6	+0.3
	3.1nm,0.7s,mb4.0,baz=14,slow=12,SNR=4.7						
SONM	Songino Array	66.00	329	P	P	04 09 00.9	+0.7
	0.4nm,0.5s,mb3.7,baz=144,slow=5.5,SNR=4.4						
VNDA	Vanda	71.56	177	P	P	04 09 34.5	+0.1
	1.6nm,1.0s,mb3.9,baz=3.7,slow=4.6,SNR=3.2						
MKAR	Makanchi Array	79.50	320	P	P	04 10 19.2	-1.2
	0.2nm,0.4s,mb3.4,baz=95,slow=8.3,SNR=6.9						
GERES	GERESS Array B	123.68	327	PKP	PKPdf	04 17 10.1	-1.3
	0.4nm,0.5s,baz=48,slow=1.5,SNR=4.7						
TORD	Torodi Ar. Bea	147.93	285	PKPbc	PKPbc	04 17 58.5	-1.4
	2.2nm,0.3s,baz=81,slow=2.3,SNR=161						

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*CSEM **05** 04:19:16.9±0.1, 39°.35N×33°.16E, h2^{km}, MD3.3, Error ellipse: s-maj=3.8km s-min=3.2km az=152.0*

*DDA **05** 04:19:17.0, 39°.35N×33°.19E, h2^{km}, Md3.1*

*ISCJB **05** 04:19:17.8±0.4, 39°.37N±0°.03×33°.17E±0°.03, h10^{km}, Error ellipse: s-maj=4.1km s-min=3.7km az=152.1*

*ISK **05** 04:19:17.0, 39°.39N×33°.18E, h8^{km}, MD3.3*

ISC 05 04:19:17.4±0.6, **39°.35N**±0°.03×**33°.15E**±0°.03, **h3**^{km}±6^{km}, **n36**, σ**0^{s}80**/51, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALAT	Bala	0.21	353	*i* P	Pg	04 19 21.1	-0.4
BALAT				*i* S	Sg	04 19 24.6	+0.3
KAMT	Kaman	0.44	87	PG	Pg	04 19 25.1	-0.7
KAMT				*e*SG	Sg	04 19 32.4	+0.9
KAMT	Kaman	0.44	87	*i* Pg	Pg	04 19 25.1	-0.7
KAMT				*e*Sg	Sg	04 19 32.4	+1.0
LOD	Lodumlu	0.62	331	*e*PG	Pg	04 19 28.9	-0.4
LOD				*e*SG	Sg	04 19 38.0	+0.7
LOD	Lodumlu	0.62	331	*e*Pg	Pg	04 19 28.9	-0.4
LOD				*e*Sg	Sg	04 19 38.0	+0.7
CDAG	Cicekdag	0.98	73	*i* P	Pg	04 19 34.7	-1.6
CDAG				*i* S	Sg	04 19 49.8	+0.8
CDAG	Cicekdag	0.98	73	*i* P	Pg	04 19 34.7	-1.6
CDAG				*i* S	Sg	04 19 49.8	+0.8
KIZT	Kizilcal	1.09	245	*e*PN	Pn	04 19 38.9	-0.7
KIZT				*e*SN	Sn	04 19 55.8	+0.6
KIZT	Kizilcal	1.09	245	*e*Pn	Pn	04 19 38.9	-0.7
KIZT				*e*Sn	Sn	04 19 55.8	+0.6
KDHN	Kadinhani	1.15	225	*i* P	Pg	04 19 39.2	-0.3
KDHN				*i* S	Sg	04 19 56.1	+1.6
KDHN	Kadinhani	1.15	225	*i* P	Pg	04 19 39.2	-0.3
KDHN				*i* S	Sg	04 19 56.1	+1.6
ELDT	Eldivan	1.16	10	*i* P	Pg	04 19 38.7	-0.9
ELDT				*i* S	Sg	04 19 55.6	+0.8
ELDT	Eldivan	1.16	10	*i* P	Pg	04 19 38.7	-1.0
ELDT				*i* S	Sg	04 19 55.6	+0.9
SULT	Sultanhani-AKS	1.18	166	*e*PN	Pn	04 19 40.2	-0.6
SULT	Sultanhani-AKS	1.18	166	*e*Pn	Pn	04 19 40.2	-0.6
SVRH	Sivrihisar-ESK	1.27	275	*e*PN	Pn	04 19 41.4	-0.6
SVRH	Sivrihisar-ESK	1.27	275	*e*Pn	Pn	04 19 41.4	-0.6
CANT	Cankiri	1.31	16	*e*PN	Pn	04 19 41.0	-1.5
KONT	Konya--Tatoy	1.53	204	*e*PN	Pn	04 19 45.7	+0.1
KONT	Konya--Tatoy	1.53	204	*e*Pn	Pn	04 19 45.7	+0.1
NIG	Nigde	1.68	137	*e*PN	Pn	04 19 48.1	+0.4
NIG	Nigde	1.68	137	*e*Pn	Pn	04 19 48.1	+0.4
YOZ	Yozgat	1.70	79	*e*PN	Pn	04 19 48.0	0.0
YOZ	Yozgat	1.70	79	*e*Pn	Pn	04 19 48.0	0.0
CTKT	Corum	1.79	44	*i* P	Pn	04 19 50.0	+0.8
CTKT				*i* S	Sn	04 20 15.7	+3.3
CTKT	Corum	1.79	44	*i* P	Pn	04 19 50.0	+0.8
CTKT				*i* S	Sn	04 20 15.7	+3.3
ESKT	Eskisehir	1.79	276	*e*PN	Pn	04 19 49.0	-0.2
ESKT	Eskisehir	1.79	276	*e*Pn	Pn	04 19 49.0	-0.2
TOS	Tosya	1.81	21	*e*PN	Pn	04 19 49.0	-0.5
TOS	Tosya	1.81	21	*e*Pn	Pn	04 19 49.0	-0.5
MDU	Mudurnu	1.86	307	*e*PN	Pn	04 19 50.3	+0.2
MDU	Mudurnu	1.86	307	*e*Pn	Pn	04 19 50.3	+0.1
SAFT	Safranbolu	1.92	350	*e*PN	Pn	04 19 51.2	+0.2
SAFT	Safranbolu	1.92	350	*e*Pn	Pn	04 19 51.2	+0.2
BNN	Bunyan	2.15	102	*e*PN	Pn	04 19 54.0	-0.2
BNN	Bunyan	2.15	102	*e*Pn	Pn	04 19 54.0	-0.2

NEIC 05 04:27:39.5, **41°.57S**×**173°.53E**, **h66**^{km}, **ML4.3**(WEL), **After WEL.**, **South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSWZ	Blackbirch Sta	0.30	119	P	Pn	04 27 49.9	-0.3
BSWZ				S	Sn	04 27 58.0	0.0
NNZ	Nelson	0.37	342	P	Pn	04 27 49.8	-0.9
NNZ				S	Sn	04 27 57.3	-1.6
THZ	Tophouse	0.51	247	P	Pn	04 27 51.1	-0.9
CMWZ	Cape Campbell	0.54	109	P	Pn	04 27 52.6	+0.2
TCW	Tory Channel	0.67	58	P	Pn	04 27 53.7	0.0
KHZ	Kahutara	0.85	180	P	Pn	04 27 55.9	0.0
SNZO	South Karori	0.92	74	*e*Pn	Pn	04 27 56.6	-0.1
SNZO				*e*Sn	Sn	04 28 10.2	+0.6
MRW	Makara Radio	0.94	69	P	Pn	04 27 57.0	0.0
WEL	Wellington	0.97	73	P	Pn	04 27 57.3	-0.1
BHW	Baring Head	1.02	81	P	Pn	04 27 57.5	-0.5
QRZ	Quartz Range	1.06	314	P	Pn	04 27 58.1	-0.4
CAW	Cannon Point	1.25	69	P	Pn	04 28 00.5	-0.4
KIW	Kapiti Island	1.26	56	P	Pn	04 28 01.2	+0.1
MSWZ	Moikau Station	1.30	84	P	Pn	04 28 00.8	-0.9
DSZ	Denniston Nort	1.31	262	P	Pn	04 28 01.6	-0.1
PAWZ	Paruwai Farm	1.44	83	P	Pn	04 28 02.3	-1.2
LTZ	Lake Taylor	1.53	217	P	Pn	04 28 04.4	-0.3
MTW	Mount Morrison	1.54	75	P	Pn	04 28 03.7	-1.1
MRZ	Mangatainoka R	1.79	60	P	Pn	04 28 07.2	-1.0
WAZ	Wanganui	2.12	32	P	Pn	04 28 14.0	+1.3
MQZ	McQueen's Vall	2.23	197	P	Pn	04 28 12.1	-2.1
BFZ	Birch Farm	2.23	68	P	Pn	04 28 12.4	-1.8
NRZ	Ngariki Road	2.25	8	P	Pn	04 28 17.4	+3.0
DFE	Dawson Falls	2.28	11	P	Pn	04 28 16.6	+1.7
NEZ	North Egmont	2.34	11	P	Pn	04 28 17.4	+1.8
RAEZ	Rainy Point	2.37	16	P	Pn	04 28 19.0	+2.9
TSZ	Takapari Road	2.38	52	P	Pn	04 28 15.1	-1.1
PKE	Pukeiti	2.40	9	P	Pn	04 28 17.8	+1.4
WVZ	Waitaha Valley	2.56	233	P	Pn	04 28 19.1	+0.5
VRZ	Vera Road	2.62	21	P	Pn	04 28 22.8	+3.4
WNVZ	Wahianoa	2.74	36	P	Pn	04 28 21.5	+0.4
MOVZ	Moawhango	2.75	39	P	Pn	04 28 20.7	-0.4
FWVZ	Far West T-bar	2.78	34	P	Pn	04 28 22.0	+0.4
TUVZ	Tukino	2.81	36	P	Pn	04 28 22.6	+0.5
WTVZ	West Tongariro	2.91	33	P	Pn	04 28 23.7	+0.3
HIZ	Hauiti	3.22	19	P	Pn	04 28 28.7	+1.1
BKZ	Black Stump Fm	3.30	44	P	Pn	04 28 27.0	-1.7
FOZ	Fox Glacier	3.47	234	P	Pn	04 28 29.1	-1.9
LBZ	Lake Benmore	3.73	220	P	Pn	04 28 33.2	-1.4
JCZ	Jackson Bay	4.31	233	P	Pn	04 28 41.6	-0.9
MWZ	Matawai	4.46	45	P	Pn	04 28 41.6	-2.9
MKAZ	Moumakai	4.63	16	P	Pn	04 28 47.6	+0.7
WKZ	Wanaka	4.63	224	P	Pn	04 28 51.9	+5.0
TUZ	Tuapeka	5.21	211	P	Pn	04 28 53.7	-1.1
WCZ	Waipu Caves	5.66	7	P	Pn	04 29 02.0	+1.1
DCZ	Deep Cove	6.06	228	P	Pn	04 29 07.7	+1.3

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*ISCJB **05** 04:46:35.6±0.2, 47°.40N±0°.01×122°.09W±0°.02, h17^{km}±3^{km}, Error ellipse: s-maj=2.9km s-min=2.2km az=148.1*

*PGC **05** 04:46:36.0, 47°.40N×122°.07W, h11^{km}, ML2.2/4, 29km southeast of Seattle, Wa Washington*

*NEIC **05** 04:46:36.2, 47°.40N×122°.07W, h11^{km}, MD2.6(SEA), After SEA.*

NEIC Felt [II] at Issaquah and North Bend. Also felt at Maple Valley and Ravensdale.

*PNSN **05** 04:46:36.2, 47°.40N×122°.07W, h11^{km}, MD2.6, Fault plane solution: NP1:φ$_s$60.00000°, δ75.00000°, NP2: φ$_s$174.00000°, δ33.00000°, Principal axes: T Plg51.0000°, Azm4.0000°; P Plg24.0000°, Azm127.0000°;*

ISC 05 04:46:35.5±0.3, **47°.41N**±0°.01×**122°.09W**±0°.02, **h14**^{km}±2^{km}, **n81**, σ**0^{s}77**/101, **40C-35D**, **Washington**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAW	Raver	0.13	122	⇑P	Pg	04 46 39.1	+0.2
RHAZ	Hazelwood Elem	0.15	335	P	Pg	04 46 39.9	+0.7
ELW	Echo Lake	0.17	60	⇑P	Pg	04 46 39.6	0.0
PNLK	Pine Lake Midd	0.18	14	P	Pg	04 46 40.6	+0.9
RMW	Rattlesnake Mo	0.20	75	⇓P	Pg	04 46 40.2	+0.2
D05A	Enumclaw	0.23	162	⇓P	Pg	04 46 41.1	+0.6
	baz=0.2,SNR=177						
D05A				⇓S	Sg	04 46 44.9	+1.0
	baz=0.2						
ALCT	Alcott Element	0.24	9	⇑P	Pg	04 46 42.0	+1.2
C05A	Tolt Reservoir	0.40	43	⇑P	Pg	04 46 43.3	-0.1
	baz=0.4,SNR=22						
C05A				⇑S	Sg	04 46 48.9	+0.1
	baz=0.4						
BLH	Bald Hill	0.43	5	P	Pg	04 46 44.4	+0.3
HTW	Haystack Looko	0.45	29	⇓P	Pg	04 46 44.3	-0.1
GMW	Gold Mountain	0.49	287	⇓P	Pg	04 46 46.0	+0.9
GNW	Green Mountain	0.52	288	*e*Pg	Pg	04 46 46.0	+0.3
GNW				*e*Sg	Sg	04 46 54.4	+1.7
PCMD	Pierce County	0.54	195	⇑P	Pg	04 46 45.7	-0.3
D04A	Dobbs Creek Ra	0.57	239	⇑P	Pg	04 46 47.0	+0.4
	baz=0.6						
RCS	Mount Rainier-	0.59	155	⇓P	Pg	04 46 46.7	-0.3
C04A	Brinnon	0.67	298	⇓P	Pg	04 46 48.3	-0.3
	baz=0.7						
C04A				⇑S	Sg	04 46 58.1	+0.7
	baz=0.7						
LON	Longmire	0.69	164	*e*Pg	Pg	04 46 48.0	-0.8
LON				*e*Sg	Sg	04 46 56.9	-0.9
HDW	Hoodsport	0.69	291	⇑P	Pg	04 46 48.8	-0.2
JCW	Jim Creek	0.80	8	⇑P	Pg	04 46 50.5	-0.4
WPW	White Pass	0.80	152	⇑P	Pg	04 46 50.2	-0.8
BLN	Blyn Mountain	0.84	316	P	Pg	04 46 51.2	-0.6
B05A	Bryant	0.86	360	⇓P	Pg	04 46 51.4	-0.7
	baz=0.9,SNR=96						
B05A				⇑S	Sg	04 47 03.1	-0.2
	baz=0.9						
D06A	Cle Elum	0.88	104	⇓P	Pg	04 46 51.4	-1.0
	baz=0.9,SNR=42						
D06A				⇑S	Sg	04 47 03.0	-0.8
	baz=0.9						
WRW	Wenatchee Ridg	0.94	61	⇓P	Pb	04 46 52.7	-0.7
KOSW	Kosmos	0.95	184	⇓P	Pb	04 46 52.9	-0.8
LTY	Liberty	0.98	98	⇓P	Pb	04 46 53.1	-1.1
TBM	Table Mountain	1.04	103	⇓P	Pb	04 46 54.6	-0.7
NAC	Naches	1.10	127	⇑P	Pb	04 46 55.6	-0.6
RPW	Rockport	1.11	20	⇑P	Pb	04 46 55.9	-0.6
ERK	Elk Rock	1.11	189	⇑P	Pb	04 46 55.6	-0.8
E06A	Yakima	1.15	138	⇑P	Pb	04 46 55.9	-1.3
	baz=1.1,SNR=91						
E06A				⇑S	Sb	04 47 11.5	-0.4
	baz=1.1						
EBG	Ellensburg	1.15	115	P	Pb	04 46 56.5	-0.6
B04A	Port Angeles	1.15	305	⇓P	Pn	04 46 56.3	-0.9
	baz=1.2,SNR=20						
SOSW	Source of Smit	1.16	182	⇑P	Pn	04 46 56.4	-0.9
B06A	Marblemount	1.19	20	⇑P	Pn	04 46 56.8	-0.8
	baz=1.2,SNR=28						
B06A				⇑S	Sb	04 47 12.6	-0.3
	baz=1.2						
NLWA	Neilton Lookou	1.21	270	⇑P	Pn	04 46 57.4	-0.4
	baz=1.2,SNR=104						
NLWA	Neilton Lookou	1.21	270	*e*Pn	Pn	04 46 57.7	-0.2
NLWA				*e*Sn	Sn	04 47 14.5	+0.5
ETW	Entiat	1.21	80	⇑P	Pn	04 46 57.4	-0.5
VGZ	Gonzales	1.30	321	⇓P	Pn	04 46 58.2	-1.0
VGZ				⇑S	Sb	04 47 14.8	-1.5
LVP	Lakeview Peak	1.36	189	⇑P	Pn	04 46 59.8	-0.1
NLW	Nelson Butte	1.36	60	⇑P	Pn	04 47 00.2	+0.2
A04A	Legoe Bay, Lum	1.38	343	⇓Pb	Pb	04 47 00.2	-0.8
	baz=1.4,SNR=7.1						
MBW	Mount Baker	1.38	5	⇑P	Pn	04 47 00.8	+0.5
C07A	Waterville	1.41	78	⇓Pb	Pb	04 47 00.7	-0.7
	baz=1.4,SNR=150						
CBSW	Chelan Butte S	1.44	73	⇓P	Pn	04 47 01.8	+0.7
D07A	Quincy	1.46	98	⇑Pb	Pb	04 47 01.6	-0.7
	baz=1.4,SNR=72						
WTV	Waterville	1.48	78	⇓P	Pn	04 47 02.1	+0.5
MXC	Moxie City	1.48	123	P	Pn	04 47 02.1	+0.4
F04A	Amboy	1.49	189	⇑P	Pn	04 47 01.5	-0.3
	baz=1.5,SNR=8.8						
F04A				⇑S	Sn	04 47 21.3	+0.2
	baz=1.5						
PGC	Sidney	1.54	324	P	Pn	04 47 02.4	-0.1
PGC				⇑S	Sn	04 47 21.9	-0.4
PGC	Sidney	1.54	324	*e*Pn	Pn	04 47 02.6	+0.1
PGC				*e*Sn	Sn	04 47 21.8	-0.5
SNB	Saturna Island	1.55	333	⇓P	Pn	04 47 03.0	+0.4
SNB				⇓S	Sn	04 47 22.3	-0.1
A05A	Maple Falls	1.59	0	⇓Sb	Sb	04 47 25.1	+0.5
	baz=1.6						
VDB	Vedder Mountai	1.62	360	⇑P	Pn	04 47 04.2	+0.6
VDB				⇑S	Sn	04 47 23.8	-0.4
VDB	Vedder Mountai	1.62	360	⇑P	Pn	04 47 04.4	+0.8
DHW2	Dyer Hill 2	1.67	69	⇑P	Pn	04 47 06.1	+1.8
B07A	Winthrop	1.69	51	⇑Pb	Pb	04 47 05.2	-1.2
	baz=1.7,SNR=55						
EPH	Ephrata	1.70	91	P	Pn	04 47 05.0	+0.4
A06A	Chilliwack	1.74	13	⇑Pb	Pb	04 47 06.2	-1.0
	baz=1.7						
A06A				⇓Sb	Sb	04 47 29.0	+0.1
	baz=1.7						
E07A	Sunnyside	1.75	118	⇓Pb	Pb	04 47 05.9	-1.4
	baz=1.7,SNR=27						
MDW	Midway	1.78	116	P	Pn	04 47 06.4	+0.7
FHE	Frenchman Hill	1.83	103	⇑P	Pn	04 47 08.0	+1.6
WAH2	Wahluke Slope	1.84	110	⇑P	Pn	04 47 08.2	+1.5
GBB	Gable Butte	1.87	114	⇓P	Pn	04 47 08.6	+1.7
F06A	Goldendale	1.87	151	⇓Pb	Pb	04 47 08.7	-0.7
	baz=1.9						
GBL	Gable Mountain	1.97	113	⇓P	Pn	04 47 09.8	+1.4
A07A	Ashnola River,	2.00	34	⇓Pb	Pb	04 47 10.7	-0.9
	baz=2.0						
A07A				⇑Sb	Sb	04 47 36.9	+0.6

	baz=2.0						
HAWA	**Hanford**	**2.03**	**119**	*e*Pn	**Pn**	**04 47 09.5**	**+0.3**
HAWA				*e*Sn	**Sn**	**04 47 34.9**	**+0.7**
B08A	**Colville Reser**	**2.09**	**62**	⇓Sb	**Sb**	**04 47 39.2**	**+0.3**
	baz=2.1						
OT3	**Othello 3**	**2.09**	**110**	⇑P	**Pn**	**04 47 11.8**	**+1.8**
H2OWA	**Water**	**2.09**	**118**	⇑P	**Pn**	**04 47 11.6**	**+1.5**
C08A	**Higginbotham F**	**2.10**	**78**	⇓P	**Pn**	**04 47 09.9**	**-0.2**
	baz=2.1,SNR=8.1						
F07A	**Phinny Hill Vi**	**2.12**	**135**	⇑Sb	**Sb**	**04 47 40.5**	**+0.7**
	baz=2.1						
E08A	**Dider Farm, El**	**2.27**	**113**	⇓P	**Pn**	**04 47 12.6**	**+0.1**
	baz=2.2,SNR=7.2						
NEW	**Newport**	**3.46**	**74**	*e*Pn	**Pn**	**04 47 28.2**	**-0.5**
NEW				*e*Sn	**Sn**	**04 48 10.1**	**+0.6**
E10A	**Myers Farm, Un**	**3.54**	**103**	⇑P	**Pn**	**04 47 30.0**	**+0.2**
	baz=3.5,SNR=7.1						
F10A	**Beach Ranch, E**	**3.64**	**111**	⇓P	**Pn**	**04 47 31.6**	**+0.2**
	baz=3.6,SNR=11						
G09A	**Cove**	**3.67**	**124**	⇓P	**Pn**	**04 47 32.1**	**+0.4**
	baz=3.6,SNR=8.1						
D11A	**Klaveano Farm,**	**3.94**	**93**	⇓P	**Pn**	**04 47 35.2**	**-0.2**
	baz=3.9,SNR=11						
BMO	**Blue Mountains**	**4.20**	**126**	*e*Pn	**Pn**	**04 47 39.7**	**+0.8**
H10A	**Noah's Angus R**	**4.67**	**125**	⇓P	**Pn**	**04 47 45.5**	**+0.1**
	baz=4.6,SNR=15						

ISCJB ***05*** *04:51:19.9±0.3, 41.°94N±0.°01×21.°82E±0.°03, h10^{km}, Error ellipse: s-maj=3.1km s-min=2.0km az=174.6*

SKO ***05*** *04:51:19.3, 41.°87N×21.°88E, h22^{km}, M1.9, ML2.4*

CSEM ***05*** *04:51:20.1±0.1, 41.°91N×21.°85E, h2^{km}, ML2.3, Error ellipse: s-maj=2.5km s-min=1.7km az=82.0*

THE ***05*** *04:51:21.2, 41.°87N×21.°88E, h2^{km}±1^{km}, ML2.9/8, Error ellipse: s-maj=1.1km s-min=0.6km az=303.0*

BEO ***05*** *04:51:22.3±0.6, 41.°97N×21.°82E, h13^{km}±5^{km}, ML2.3/8*

ISC 05 04:51:20.3±0.4**, 41.°92N**±0.°01×**21.°85E**±0.°03**, h2**^{km}±4^{km}**, n55,** σ0^{s}.**66**/99**, 1C-6D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKO	**Skopje**	**0.31**	**280**	P	**Pg**	**04 51 27.1**	**+0.8**
SKO				S	**Sg**	**04 51 30.3**	**0.0**
SKO	**Skopje**	**0.31**	**280**	⇓*i*Pg	**Pg**	**04 51 27.0**	**+0.7**
SKO	**Skopje**	**0.31**	**280**	*e*Pg	**Pg**	**04 51 27.0**	**+0.7**
SKO				*e*Sg	**Sg**	**04 51 31.8**	**+1.5**
SKO				*e*Lg		04 51 31.9	
	comp=E,295nm,0.6s						
SKO				*e*Lg		04 51 31.9	
	comp=N,368nm,0.3s						
SKO	**Skopje**	**0.31**	**280**	⇓*i*Pg	**Pg**	**04 51 27.0**	**+0.7**
SKO				S	**Sg**	**04 51 30.3**	**0.0**
SKO				*e*Sg	**Sg**	**04 51 31.8**	**+1.5**
KRUS	**Krusevo**	**0.71**	**220**	*e*Pg	**Pg**	**04 51 33.4**	**-0.5**
KRUS				*e*Sg	**Sg**	**04 51 43.3**	**+0.3**
KRUS				*e*Lg		04 51 44.4	
	comp=N,26nm,0.2s						
KRUS				*e*Lg		04 51 44.5	
	comp=E,21nm,0.2s						
KRUS	**Krusevo**	**0.71**	**220**	*e*Pg	**Pg**	**04 51 33.3**	**-0.6**
KRUS				*e*Sg	**Sg**	**04 51 43.3**	**+0.2**
KRUS				*e*Lg		04 51 44.3	
	comp=E,26nm,0.2s						
VAY	**Valandovo**	**0.80**	**138**	P	**Pg**	**04 51 34.6**	**-1.1**
VAY				S	**Sg**	**04 51 45.9**	**-0.2**
VAY	**Valandovo**	**0.80**	**138**	*e*Pg	**Pg**	**04 51 34.6**	**-1.1**
VAY				*e*Sg	**Sg**	**04 51 46.1**	**0.0**
VAY				*e*Lg		04 51 47.0	
	comp=E,182nm,0.8s						
VAY				*e*Lg		04 51 48.2	
	comp=N,186nm,1.0s						
VAY	**Valandovo**	**0.80**	**138**	*e*Pg	**Pg**	**04 51 34.6**	**-1.1**
VAY				*e*Sg	**Sg**	**04 51 46.1**	**0.0**
VAY				*e*Lg		04 51 47.0	
	comp=N,182nm,0.8s						
BARS	**Barje**	**0.90**	**358**	⇓*i*Pg	**Pg**	**04 51 37.6**	**0.0**
BARS				*e*Sg	**Sg**	**04 51 50.1**	**+0.9**
BARS	**Barje**	**0.90**	**358**	⇓*i*Pg	**Pg**	**04 51 37.6**	**0.0**
BARS				*e*Sg	**Sg**	**04 51 50.1**	**+0.9**
BIA	**Bitola**	**0.98**	**204**	P	**Pg**	**04 51 38.4**	**-0.7**
BIA				S	**Sg**	**04 51 52.2**	**+0.4**
BIA	**Bitola**	**0.98**	**204**	*e*Pg	**Pg**	**04 51 38.5**	**-0.6**
BIA				*e*Sg	**Sg**	**04 51 51.9**	**+0.1**
BIA				*e*Lg		04 51 52.2	
	comp=E,34nm,0.2s						
BIA				*e*Lg		04 51 52.3	
	comp=N,101nm,0.4s						
BIA	**Bitola**	**0.98**	**204**	*e*Pg	**Pg**	**04 51 38.4**	**-0.7**
BIA				*e*Sg	**Sg**	**04 51 51.8**	**0.0**
BIA				*e*Lg		04 51 52.1	
	comp=N,34nm,0.2s						
GRG	**Griva**	**1.04**	**156**	P	**Pg**	**04 51 39.8**	**-0.5**
GRG				S	**Sg**	**04 51 54.6**	**+0.8**
GRG	**Griva**	**1.04**	**156**	P	**Pg**	**04 51 39.8**	**-0.5**
GRG				S	**Sg**	**04 51 54.6**	**+0.8**
KNT	**Kendrikon**	**1.09**	**133**	P	**Pg**	**04 51 40.4**	**-0.8**
KNT				S	**Sg**	**04 51 55.3**	**0.0**
KNT	**Kendrikon**	**1.09**	**133**	P	**Pg**	**04 51 40.4**	**-0.8**
KNT				S	**Sg**	**04 51 55.3**	**0.0**
FNA	**Florina**	**1.19**	**198**	P	**Pg**	**04 51 42.6**	**-0.4**
FNA				S	**Sg**	**04 51 59.2**	**+0.8**
FNA	**Florina**	**1.19**	**198**	P	**Pg**	**04 51 42.6**	**-0.4**
FNA				S	**Sg**	**04 51 59.2**	**+0.8**
VTS	**Vitosha**	**1.21**	**56**	P	**Pg**	**04 51 43.6**	**+0.1**
VTS				S	**Sg**	**04 52 01.7**	**+2.4**
VTS	**Vitosha**	**1.21**	**56**	*e*Pg	**Pg**	**04 51 43.9**	**+0.4**
VTS				*e*Sg	**Sg**	**04 52 01.5**	**+2.2**
VTS	**Vitosha**	**1.21**	**56**	*e*Pg	**Pg**	**04 51 43.9**	**+0.4**
VTS				S	**Sg**	**04 52 01.7**	**+2.4**
ZAPS	**Zavoj**	**1.47**	**23**	⇓*i*Pg	**Pg**	**04 51 48.5**	**-0.1**
ZAPS				*e*Sg	**Sg**	**04 52 07.7**	**0.0**
NISS		**1.49**	**3**	*e*Pg	**Pg**	**04 51 49.1**	**+0.3**
NISS				*e*Sg	**Sg**	**04 52 07.7**	**-0.4**
NISS		**1.49**	**3**	*e*Pg	**Pg**	**04 51 49.1**	**+0.3**
NISS				*e*Sg	**Sg**	**04 52 07.7**	**-0.4**
SRS	**Serrai**	**1.53**	**121**	P	**Pn**	**04 51 48.8**	**+0.1**
SRS				S	**Sn**	**04 52 09.1**	**0.0**
SRS	**Serrai**	**1.53**	**121**	P	**Pn**	**04 51 48.8**	**+0.1**
SRS				S	**Sn**	**04 52 09.1**	**0.0**
SOH	**Sokhos**	**1.57**	**134**	P	**Pn**	**04 51 49.2**	**0.0**
SOH				S	**Sn**	**04 52 10.1**	**-0.1**
SOH	**Sokhos**	**1.57**	**134**	P	**Pn**	**04 51 49.2**	**0.0**
SOH				S	**Sn**	**04 52 10.1**	**-0.1**
LIT	**Litokhoron**	**1.88**	**165**	P	**Pn**	**04 51 53.0**	**-0.4**
LIT				S	**Sn**	**04 52 17.4**	**-0.3**
LIT	**Litokhoron**	**1.88**	**165**	P	**Pn**	**04 51 53.0**	**-0.4**
LIT				S	**Sn**	**04 52 17.4**	**-0.3**
BOLS	**Boljevac**	**1.91**	**2**	*e*Pn	**Pn**	**04 51 52.7**	**-1.2**
BOLS				*e*Sg	**Sg**	**04 52 19.8**	**-1.9**
BOLS	**Boljevac**	**1.91**	**2**	*e*Pn	**Pn**	**04 51 52.7**	**-1.2**
BOLS				*e*Sg	**Sg**	**04 52 19.8**	**-1.9**
PLG	**Polygyros**	**1.96**	**141**	P	**Pn**	**04 51 54.8**	**+0.3**
PLG	**Polygyros**	**1.96**	**141**	P	**Pn**	**04 51 54.8**	**+0.3**
PLD	**Plovdiv**	**2.13**	**84**	P	**Pn**	**04 51 56.3**	**-0.6**
PLD	**Plovdiv**	**2.13**	**84**	P	**Pn**	**04 51 56.3**	**-0.6**
GRUS	**Gruza**	**2.14**	**337**	*e*Pn	**Pn**	**04 51 58.0**	**+1.0**
GRUS				*e*Sg	**Sg**	**04 52 29.7**	**+0.6**
GRUS	**Gruza**	**2.14**	**337**	*e*Pn	**Pn**	**04 51 58.0**	**+1.0**
GRUS				*e*Sg	**Sg**	**04 52 29.7**	**+0.6**
THL	**Klokotos Trika**	**2.35**	**177**	P	**Pn**	**04 51 59.4**	**-0.6**
THL				S	**Sn**	**04 52 29.6**	**+0.2**
THL	**Klokotos Trika**	**2.35**	**177**	P	**Pn**	**04 51 59.4**	**-0.6**
THL				S	**Sn**	**04 52 29.6**	**+0.2**
PAIG	**Paliouri**	**2.42**	**145**	P	**Pn**	**04 52 01.1**	**+0.2**
PAIG	**Paliouri**	**2.42**	**145**	P	**Pn**	**04 52 01.1**	**+0.2**
DIVS	**Divibare**	**2.57**	**329**	*e*Pn	**Pn**	**04 52 03.0**	**0.0**
DIVS				*e*Sg	**Sg**	**04 52 42.6**	**-0.3**
XOR	**Xorichti**	**2.75**	**158**	P	**Pn**	**04 52 05.4**	**+0.1**
XOR	**Xorichti**	**2.75**	**158**	P	**Pn**	**04 52 05.4**	**+0.1**
AGG	**Agios Georgios**	**2.92**	**173**	P	**Pn**	**04 52 07.5**	**-0.2**
AGG				S	**Sn**	**04 52 43.6**	**+0.3**
AGG	**Agios Georgios**	**2.92**	**173**	P	**Pn**	**04 52 07.5**	**-0.2**
AGG				S	**Sn**	**04 52 43.6**	**+0.3**
ALN	**Alexandroupoli**	**3.31**	**107**	P	**Pn**	**04 52 13.4**	**+0.2**
ALN				S	**Sn**	**04 52 54.0**	**+0.9**
ALN	**Alexandroupoli**	**3.31**	**107**	P	**Pn**	**04 52 13.4**	**+0.2**
ALN				S	**Sn**	**04 52 54.0**	**+0.9**
GZR	**Gura Zlata**	**3.54**	**11**	⇑*i*P	**Pn**	**04 52 16.3**	**0.0**
BZS	**Buzias**	**3.70**	**357**	*e*Sg	**Sg**	**04 53 18.3**	**-0.9**
BZS	**Buzias**	**3.70**	**357**	⇓*i*P	**Pn**	**04 52 18.2**	**-0.3**
BZS				S	**Sg**	**04 53 19.9**	**+0.7**
BZS	**Buzias**	**3.70**	**357**	*e*Sg	**Sg**	**04 53 18.3**	**-0.9**

NIED ***05*** *04:54:00, 47.°00N×152.°70E, h23^{km}, Mw4.2 Best double couple: M$_0$2.11000×10^{15} NP1:φ$_s$121.00000°, δ81.00000°, λ-30.00000°. NP2:φ$_s$216.00000°, δ60.00000°, λ-170.00000°.*

BJI ***05*** *04:54:10.9, 46.°90N×152.°80E, h20^{km}, mB4.9/12, mb4.7/20, Ms4.5/1, Ms7 4.3/2*

SKHL ***05*** *04:54:12.6±1.6, 46.°50N×153.°20E, h90^{km}±26^{km}, mb4.9/6, msha6.0/3*

JMA ***05*** *04:54:13.9±0.7, 46.°97N×152.°72E, h30^{km}, M4.9*

IDC ***05*** *04:54:13.6±0.6, 46.°89N×152.°68E, h35^{km}±3^{km}, mb4.0/22, mb1 4.2/24, mb1mx4.1/28, mbtmp4.0/24, ML3.4/2, MS3.6/10, Ms1 3.6/10, ms1mx3.3/30, Error ellipse: s-maj=16.8km s-min=12.0km az=161.0*

MOS ***05*** *04:54:13.9±1.4, 46.°78N×152.°79E, h57^{km}, mb4.5/10, Error ellipse: s-maj=9.4km s-min=7.1km az=88.1*

ISCJB ***05*** *04:54:14.3±0.8, 46.°66N±0.°05×152.°79E±0.°07, h63^{km}±6^{km}, mb4.5/46, Error ellipse: s-maj=10.5km s-min=5.6km az=142.0*

NEIC ***05*** *04:54:14.9±0.7, 46.°89N×152.°78E, h47^{km}±6^{km}, mb4.6/9, Error ellipse: s-maj=9.0km s-min=5.2km az=149.0*

ISC 05 04:54:15.9±0.6**, 46.°70N**±0.°05×**152.°84E**±0.°07**, h59**^{km}±5^{km}**, h28**^{km}±4.8^{km}**: pP-P, n146,** σ1^{s}.**13**/156**, mb4.5**/46**, MS3.7**/9**, 15C-9D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**3.77**	**249**	⇑*i*PN	**Pn**	**04 55 09.2**	**-2.2**
KUR				*e*S	**Sn**	**04 55 53.0**	**-1.4**
KUR				pmax	pmax		
	comp=N,80nm,0.4s						
KUR				pmax	pmax		
	comp=Z,240nm,0.4s						
KUR				smax			
	comp=N,860nm,0.6s						
KUR				smax			
	comp=E,290nm,0.6s						
KUR				smax			
	comp=N,2µm,1.0s						
KUR				smax			
	comp=E,1µm,1.0s						
KUR	**Kuril'sk**	**3.77**	**249**	⇑*i*P	**Pn**	**04 55 09.2**	**-2.2**
KUR				AMB	AMB	04 55 11.0	
	comp=E,80nm,0.4s						
KUR				AMB	AMB	04 55 11.0	
	comp=E,240nm,0.4s						
KUR				*e*S	**Sn**	**04 55 53.0**	**-1.4**
KUR				A		04 56 04.0	
	comp=E,860nm,0.6s						
KUR				A		04 56 04.0	
	comp=E,290nm,0.6s						
KUR				A		04 56 06.0	
	comp=E,2µm,1.0s						
KUR				A		04 56 06.0	
	comp=E,1µm,1.0s						
SKR	**Severo-Kuril's**	**4.54**	**27**	*e*PN	**Pn**	**04 55 23.5**	**+1.6**
SKR				*e*S	**Sn**	**04 56 09.5**	**-3.9**
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=N,490nm,1.0s						
SKR				smax			
	comp=E,140nm,0.5s						
SKR				smax			
	comp=Z,220nm,1.0s						
SKR	**Severo-Kuril's**	**4.54**	**27**	*e*P	**Pn**	**04 55 23.5**	**+1.6**
SKR				AMB	AMB	04 55 24.0	
	comp=Z,60nm,0.5s						
SKR				*e*S	**Sn**	**04 56 09.5**	**-3.9**
SKR				A		04 56 24.0	
	comp=Z,490nm,0.8s						
SKR				A		04 56 24.0	
	comp=Z,140nm,0.8s						
YUK	**Yuzh-Kuril'sk**	**5.59**	**244**	*e*PN	**Pn**	**04 55 38.7**	**+2.3**
YUK				*e*S	**Sn**	**04 56 42.9**	**+3.7**
YUK				smax			
	comp=N,750nm,0.8s						
YUK				smax			
	comp=E,1µm,0.8s						
YUK				smax			
	comp=N,3µm,1.0s						
YUK				smax			
	comp=E,3µm,1.0s						
YUK	**Yuzh-Kuril'sk**	**5.59**	**244**	*e*P	**Pn**	**04 55 38.7**	**+2.3**
YUK				*e*S	**Sn**	**04 56 42.9**	**+3.7**
YUK				A		04 56 59.5	
	comp=E,750nm,0.8s						
YUK				A		04 56 59.5	
	comp=E,1µm,0.8s						
YUK				A		04 57 04.8	
	comp=E,3µm,1.0s						
NEM2	**Nemuro 2**	**6.03**	**239**	P	**Pn**	**04 55 41.2**	**-1.2**
NEM2				*e*S	**Sn**	**04 56 46.2**	**-3.9**
JRA	**Rausu**	**6.10**	**246**	P	**Pn**	**04 55 44.7**	**+1.3**
JNK	**Nakash**	**6.53**	**245**	P	**Pn**	**04 55 50.1**	**+0.8**
JTKR	**Abashiri--Toko**	**6.86**	**250**	P	**Pn**	**04 55 55.2**	**+1.4**
JAK	**Akkeshi**	**6.87**	**240**	P	**Pn**	**04 55 52.6**	**-1.3**
JAK				*e*S	**Sn**	**04 57 05.8**	**-4.8**
YSS	**Yuzh-Sakhalins**	**6.93**	**276**	*e*PN	**Pn**	**04 55 56.2**	**+1.6**
YSS				*e*S	**Sn**	**04 57 13.0**	**+1.0**
YSS				pmax	pmax		
	comp=E,40nm,1.0s						
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS	**Yuzh-Sakhalins**	**6.93**	**276**	*e*P	**Pn**	**04 55 56.2**	**+1.6**
YSS				AMB	AMB	04 55 58.3	
	comp=Z,60nm,1.0s						
YSS				AMB	AMB	04 55 58.3	
	comp=Z,40nm,1.0s						
YSS				*e*S	**Sn**	**04 57 13.0**	**+1.0**
YSS	**Yuzh-Sakhalins**	**6.93**	**276**	*e*Pn	**Pn**	**04 55 53.7**	**-0.9**
	comp=Z,33nm,0.8s						
PEA0B	**Petropavlovsk-**	**7.14**	**24**	*e*Pn	**Pn**	**04 55 54.4**	**-3.2**
PETK	**Petropavlovsk-**	**7.14**	**24**	Pn	**Pn**	**04 55 54.0**	**-3.5**
	comp=Z,0.5nm,0.3s,baz=179,slow=12,SNR=9.2						
PETK				Sn	**Sn**	**04 57 26.3**	**+9.2**
	baz=183,slow=24,SNR=1.9						
JMP	**Maruseppu**	**7.20**	**252**	P	**Pn**	**04 56 00.7**	**+2.3**
JAR	**Ashorobuto**	**7.27**	**245**	P	**Pn**	**04 56 00.1**	**+0.7**
JAR				*e*S	**Sn**	**04 57 21.2**	**+0.7**
JOB	**Onbets**	**7.44**	**243**	P	**Pn**	**04 56 01.8**	**+0.1**
JOB				*e*S	**Sn**	**04 57 21.2**	**-3.5**
UGL	**Uglegorsk**	**7.63**	**292**	*e*P	**Pn**	**04 56 06.0**	**+1.8**
UGL				AMB	AMB	04 56 07.0	
	comp=Z,101nm,1.0s						
JKK2	**Kamakawa 2**	**7.66**	**252**	P	**Pn**	**04 56 06.7**	**+2.0**
JWK2	**Keihoku**	**7.75**	**264**	P	**Pn**	**04 56 10.7**	**+4.8**
JCH	**Churui**	**7.89**	**242**	P	**Pn**	**04 56 07.0**	**-0.9**
JCH				*e*S	**Sn**	**04 57 31.3**	**-4.4**
TYV	**Tymovskoe**	**7.91**	**306**	*e*P	**Pn**	**04 56 10.0**	**+1.9**
TYV				AMB	AMB	04 56 13.0	
	comp=Z,9.0nm,0.8s						
TYV				AMB	AMB	04 56 13.0	
	comp=Z,20nm,0.8s						
TYV				AMB	AMB	04 56 13.0	
	comp=Z,25nm,0.5s						
ERM	**Erimo**	**8.37**	**239**	*e*PN	**Pn**	**04 56 14.5**	**+0.1**
ERM				pmax	pmax		
	comp=Z,68nm,0.5s						
ERM	**Erimo**	**8.37**	**239**	*e*Pn	**Pn**	**04 56 14.5**	**+0.1**
	comp=Z,68nm,0.5s						
ERM				*e*Sn	**Sn**	**04 57 46.9**	**-0.4**
JEM	**Erimo**	**8.37**	**239**	P	**Pn**	**04 56 14.0**	**-0.4**
JBT2	**Biratori 2**	**8.42**	**246**	P	**Pn**	**04 56 15.3**	**+0.2**
JNBK	**Urakawa-nobuka**	**8.46**	**242**	P	**Pn**	**04 56 14.4**	**-1.2**
JNBK				*e*S	**Sn**	**04 57 44.0**	**-5.5**
JNB	**Noboribetsu**	**9.42**	**248**	*e*S	**Sn**	**04 58 09.9**	**-3.2**
JKB	**Kayabe**	**9.73**	**245**	P	**Pn**	**04 56 31.9**	**-1.2**
NKL	**Nikolayevsk**	**10.15**	**314**	*e*P	**Pn**	**04 56 35.0**	**-3.7**
NKL				AMB	AMB	04 56 37.8	
	comp=Z,28nm,1.1s						
NKL				AMB	AMB	04 56 37.8	
	comp=Z,55nm,1.1s						
NKL				*e*L		04 59 57.0	
NKL				AMS	AMS	05 01 22.0	
	comp=Z,500nm,15.0s						
JTM	**Tenmabayashi**	**10.36**	**239**	*e*S	**Sn**	**04 58 25.5**	**-11**
JANG	**Nango**	**10.37**	**237**	P	**Pn**	**04 56 37.9**	**-3.8**
JANG				*e*S	**Sn**	**04 58 25.5**	**-11**
JTH	**Tanohata**	**10.46**	**234**	*e*S	**Sn**	**04 58 26.8**	**-12**
JOSM	**Okushiri--Mats**	**10.62**	**249**	P	**Pn**	**04 56 44.5**	**-0.6**
JRG	**Rokugo**	**11.53**	**235**	P	**Pn**	**04 56 54.9**	**-2.6**
JIO	**Ouri**	**11.81**	**230**	*e*S	**Sn**	**04 59 00.2**	**-11**
KLR	**Kul'dur**	**14.35**	**288**	*e*P	**Pn**	**04 57 37.2**	**+1.5**
FX1	**Attu Island--F**	**14.49**	**57**	*e*P	**Pn**	**04 57 35.0**	**-2.4**
MJAR	**Matsushiro Arr**	**14.90**	**232**	Pn	**Pn**	**04 57 44.0**	**+1.2**
	comp=Z,0.2nm,0.3s,baz=37,slow=8.6,SNR=4.5						
MJAR				LR	LR	05 02 51.7	
	comp=Z,96nm,20.9s,baz=35,slow=35						
SEY	**Seymchan**	**16.27**	**359**	⇑*e*P	**Pn**	**04 58 01.7**	**+1.5**
YAK	**Yakutsk**	**20.27**	**328**	*e*P	**P**	**04 58 46.4**	**+0.3**
YAK				pmax	pmax		
	comp=E,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,28nm,1.3s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
KSRS	**Korea Array**	**20.60**	**252**	P	**P**	**04 58 50.6**	**+0.6**
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.6s						
KSRS	**Korea Array**	**20.60**	**252**	P	**P**	**04 58 50.5**	**+0.6**
	comp=Z,5.4nm,0.6s,baz=57,slow=9.3,SNR=20						
BILL	**Bilibino**	**22.49**	**13**	⇑*e*P	**P**	**04 59 11.8**	**+2.0**
BILL				*e*		04 59 24.7	
BILL				pmax	pmax		
	comp=Z,14nm,2.5s,mb4.0						
BOD	**Bodaibo**	**25.88**	**310**	*e*P	**P**	**04 59 40.4**	**-1.3**
SONM	**Songino Array**	**31.18**	**289**	P	**P**	**05 00 28.9**	**-0.1**
SONM						05 03 23.0	
SONM	**Songino Array**	**31.18**	**289**	P	**P**	**05 00 28.9**	**0.0**
	comp=Z,0.8nm,0.7s,mb3.6,baz=71,slow=8.3,SNR=7.8						
SONM				PcP	PcP	05 03 23.0	+0.6
	comp=Z,0.5nm,0.8s,baz=80,slow=4.0,SNR=3.8						
SONM				LR	LR	05 14 01.9	
	comp=Z,122nm,19.2s,MS3.6,baz=19,slow=38						
ZAK	**Zakamensk**	**32.53**	**295**	*e*P	**P**	**05 00 41.2**	**+0.4**
ZAK				*e*		05 03 26.5	
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
WHN	**Wuhan**	**33.74**	**255**	P	**P**	**05 00 59.5**	**+8.0**
XAN	**Xi'an**	**35.33**	**265**	P	**P**	**05 01 04.8**	**-0.4**
XAN				pP	pP	05 01 11.0	-9.0
XAN				sP	sP	05 01 14.2	-13
XAN				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
XAN				pmax	pmax		
	comp=Z,85nm,4.6s						
LZH	**Lanzhou**	**37.70**	**272**	*e*P	**P**	**05 01 32.1**	**+6.6**
LZH				pP	pP	05 01 37.0	-3.4
LZH				sP	sP	05 01 40.3	-7.0
LZH				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.6						
LZH				pmax	pmax		
	comp=Z,78nm,4.5s						
GTA	**Gaotai**	**38.80**	**279**	*e*P	**P**	**05 01 35.4**	**+0.8**
GTA				pP	pP	05 01 40.0	-10
GTA				sP	sP	05 01 43.7	-13
GTA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
EGAK	**Eagle**	**39.16**	**38**	*e*P	**P**	**05 01 37.4**	**+0.1**
	comp=Z,4.9nm,0.5s,mb4.5						
CD2	**Chengdu**	**40.69**	**265**	P	**P**	**05 01 50.9**	**+0.5**
CD2				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.0						
CD2				pmax	pmax		
	comp=Z,190nm,5.9s						
INK	**Inuvik**	**41.80**	**32**	P	**P**	**05 01 59.5**	**+0.5**
	comp=Z,3.6nm,0.7s,mb4.1,baz=290,slow=5.0						
ZALV	**Zalesovo Beam**	**42.49**	**306**	P	**P**	**05 02 01.7**	**-3.2**
ZALV						05 03 56.3	
ZALV	**Zalesovo Beam**	**42.49**	**306**	P	**P**	**05 02 01.7**	**-3.2**
	comp=Z,0.6nm,0.4s,mb3.6,baz=60,slow=5.7,SNR=3.0						
ZALV				PcP	PcP	05 03 56.3	-0.3
	comp=Z,0.8nm,0.3s,baz=66,slow=3.7,SNR=5.6						
ZALV				LR	LR	05 20 52.3	
	comp=Z,86nm,18.6s,MS3.7,baz=66,slow=38						
MK31	**Makanchi Array**	**46.80**	**297**	*e*P	**P**	**05 02 38.0**	**-1.3**
MK31				*e**PP	pP	05 02 48.4	-6.2
MK31				*e*		05 04 11.8	
MKAR	**Makanchi Array**	**46.80**	**297**	P	**P**	**05 02 37.8**	**-1.5**
MKAR						05 04 11.6	
MKAR	**Makanchi Array**	**46.80**	**297**	P	**P**	**05 02 37.8**	**-1.5**
	comp=Z,2.3nm,0.7s,mb4.2,baz=68,slow=7.3,SNR=25						
MKAR				PcP	PcP	05 04 11.6	+0.1
	comp=Z,1.1nm,0.6s,baz=66,slow=1.2,SNR=6.5						
MKAR				LR	LR	05 23 26.1	
	comp=Z,105nm,19.5s,MS3.8,baz=248,slow=38						
KURK	**Kurchatov**	**47.24**	**304**	P	**P**	**05 02 41.1**	**-1.5**
	comp=Z,2.6nm,0.7s,mb4.3,baz=69,slow=8.7,SNR=21						
KURK				PcP	PcP	05 04 13.2	+0.3
	comp=Z,0.8nm,0.6s,baz=65,slow=3.9,SNR=3.7						
BVAR	**Borovoye Array**	**50.75**	**309**	P	**P**	**05 03 07.8**	**-1.6**
BVAR						05 04 25.5	
BVAR	**Borovoye Array**	**50.75**	**309**	P	**P**	**05 03 07.8**	**-1.7**
	comp=Z,0.8nm,0.4s,mb4.0,baz=46,slow=8.5,SNR=5.9						
BVAR				PcP	PcP	05 04 25.5	-0.1
	comp=Z,1.7nm,0.5s,baz=31,slow=3.5,SNR=7.6						
BVAR				LR	LR	05 26 46.2	
	comp=Z,57nm,18.3s,MS3.6,baz=152,slow=39						
YKA	**Yellowknife Ar**	**51.08**	**37**	P	**P**	**05 03 11.8**	**+0.1**
	comp=Z,0.8nm,0.7s,mb3.7,baz=295,slow=7.3,SNR=16						
YKA				sP	sP	05 03 26.5	-7.5
	comp=Z,1.5nm,0.7s,baz=296,slow=7.4,SNR=12						
YKA				PcP	PcP	05 04 26.9	+0.2
	comp=Z,0.6nm,0.5s,baz=301,slow=3.9,SNR=13						
CHTO	**Chiang Mai**	**51.92**	**256**	*e*P	**P**	**05 03 20.0**	**+1.4**
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
CHTO	**Chiang Mai**	**51.92**	**256**	*e*P	**P**	**05 03 20.0**	**+1.3**
	comp=Z,6.8nm,0.8s,mb4.6						
CMAR	**Chiang Mai Arr**	**52.18**	**256**	P	**P**	**05 03 21.4**	**+0.9**
	comp=Z,3.7nm,0.6s,mb4.5,baz=37,slow=7.1,SNR=15						
CMAR				LR	LR	05 27 43.5	
	comp=Z,23nm,18.9s,MS3.2,baz=45,slow=39						
SHL	**Shillong**	**52.18**	**268**	*e*PKP	**P**	**05 03 21.0**	**+0.5**
SPITS	**Spitsbergen Ar**	**52.63**	**350**	LR	LR	05 24 40.2	
	comp=Z,30nm,18.9s,MS3.4,baz=45,slow=35						
TAPN	**Taplejung**	**53.92**	**273**	*e*P	**P**	**05 03 34.0**	**+0.8**
	comp=Z,20nm,0.8s,mb5.1						
ODAN	**Odare**	**54.45**	**273**	*e*P	**P**	**05 03 38.0**	**+0.9**
	comp=Z,8.9nm,0.5s,mb5.0						
JIRN	**Jiri**	**54.77**	**274**	*e*P	**P**	**05 03 39.9**	**+0.5**
	comp=Z,6.1nm,0.2s,mb5.2						
GUN	**Gumba**	**54.82**	**275**	*e*P	**P**	**05 03 40.5**	**+0.7**
	comp=Z,12nm,0.4s,mb5.2						
RAMN	**Ramite**	**54.93**	**273**	*e*P	**P**	**05 03 41.2**	**+0.6**
KKN	**Kakani**	**55.31**	**275**	*e*P	**P**	**05 03 43.5**	**+0.2**
PKI	**Pulchoki**	**55.36**	**275**	*e*P	**P**	**05 03 44.3**	**+0.6**
	comp=Z,12nm,0.7s,mb5.0						
PKIN	**Phulchoki**	**55.36**	**275**	*e*P	**P**	**05 03 45.1**	**+1.4**
DMN	**Daman**	**55.54**	**275**	*e*P	**P**	**05 03 45.2**	**+0.2**
	comp=Z,39nm,0.8s,mb5.5						
GKN	**Gorkha**	**55.61**	**276**	*e*P	**P**	**05 03 45.9**	**+0.4**
DANN	**Dangsing**	**55.99**	**277**	*e*P	**P**	**05 03 49.2**	**+1.0**
	comp=Z,19nm,0.5s,mb5.3						
KOLN	**Koldanda**	**56.47**	**276**	*e*P	**P**	**05 03 52.0**	**+0.4**
	comp=Z,30nm,0.9s,mb5.3						
PYUN	**Piuthan**	**56.68**	**277**	*e*P	**P**	**05 03 53.8**	**+0.7**
ARCES	**ARCESS Array B**	**57.84**	**341**	P	**P**	**05 03 59.5**	**-1.2**
	comp=Z,5.4nm,1.0s,mb4.5,baz=19,slow=4.4,SNR=4.5						
ARCES				LR	LR	05 34 36.1	
	comp=Z,68nm,18.2s,MS3.8,baz=78,slow=42						
AKTK	**Aktyubinsk**	**58.62**	**312**	P	**P**	**05 04 06.2**	**-0.3**
AKTK				LR	LR	05 31 47.3	
AKTO	**Aktyubinsk**	**58.62**	**312**	P	**P**	**05 04 06.2**	**-0.3**
	comp=Z,0.8nm,0.5s,mb4.0,baz=34,slow=7.3,SNR=2.6						
AKTO				LR	LR	05 31 47.3	
	comp=Z,90nm,18.1s,MS3.9,baz=295,slow=39						
BWNR	**Bhubaneshwar**	**59.85**	**268**	*e*PKP	**P**	**05 04 14.0**	**-1.3**
SUMG	**Summit**	**60.77**	**4**	*e*P	**P**	**05 04 20.8**	**0.0**
	comp=Z,4.1nm,0.7s,mb4.7						
FFC	**Flin Flon**	**60.90**	**40**	*i* P	**P**	**05 04 23.1**	**+1.1**
JOF	**Joensuu**	**61.30**	**334**	*e*P	**P**	**05 04 22.5**	**-2.1**
JOF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
JOF	**Joensuu**	**61.30**	**334**	*e*p	**P**	**05 04 22.5**	**-2.1**
	comp=Z,2.4nm,0.6s,mb4.5						
NVAR	**Mina Array Bea**	**62.62**	**62**	P	**P**	**05 04 35.1**	**+1.2**
	comp=Z,1.2nm,0.7s,mb4.2,baz=294,slow=7.2,SNR=8.8						
NVAR				pP	pP	05 04 44.9	-4.9
	comp=Z,1.3nm,0.8s,baz=295,slow=6.7,SNR=5.6						
NVAR				sP	sP	05 04 50.0	-6.5
	comp=Z,0.6nm,0.7s,baz=316,slow=4.1,SNR=3.1						
KAF	**Kangasniemi**	**63.41**	**335**	*e*P	**P**	**05 04 36.9**	**-1.8**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						

KAF	Kangasniemi	63.41	335	ep	P	05 04 36.9	-1.8
	comp=Z,2.4nm,0.5s,mb4.6						
PDAR	Pinedale Array	64.93	54	P	P	05 04 49.2	+0.3
	comp=Z,1.8nm,0.8s,mb4.2,baz=305,slow=1.1,SNR=17						
PDAR				pP	pP	05 05 00.5	-4.5
	comp=Z,0.9nm,0.8s,baz=310,slow=3.3,SNR=5.2						
PDAR				sP	sP	05 05 05.2	-6.4
	comp=Z,0.8nm,0.7s,baz=295,slow=1.7,SNR=4.1						
OBN	Obninsk	65.25	325	eP	P	05 04 49.4	-1.4
OBN				eS	S	05 13 24.4	-5.0
OBN				eSS	SS	05 17 39.2	-2.8
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
ULM	Lac du Bonnet	66.68	41	P	P	05 04 59.6	-0.5
	comp=Z,1.4nm,0.5s,mb4.2,baz=309,slow=6.5,SNR=2.9						
NB2	NORSAR Subarra	68.22	341	P	P	05 05 08.6	-1.0
	comp=Z,6.9nm,0.7s,mb4.8,baz=28,slow=6.2						
NOA	NORSAR Array B	68.22	341	P	P	05 05 08.5	-1.1
	comp=Z,4.2nm,0.6s,mb4.7,baz=28,slow=6.3,SNR=17						
WRA	Warramunga Arr	68.40	199	P	P	05 05 11.1	0.0
	comp=Z,1.5nm,0.8s,mb4.1,baz=13,slow=6.8,SNR=3.9						
AKASG	Malin Array Be	71.49	326	P	P	05 05 28.3	-1.5
	comp=Z,8.4nm,0.5s,mb4.9,baz=33,slow=6.3,SNR=30						
ASAR	Alice Springs	72.10	198	P	P	05 05 35.0	+1.4
	comp=Z,2.2nm,0.7s,mb4.2,baz=14,slow=5.4,SNR=27						
PALK	Pallekele	72.50	262	iP	P	05 05 37.6	+1.2
SCHQ	Schefferville	73.43	23	P	P	05 05 41.4	+0.1
	comp=Z,2.4nm,1.0s,mb4.1,baz=319,slow=9.3,SNR=3.6						
SCIA	State Center	74.08	45	eP	P	05 05 45.7	+0.3
	comp=Z,6.5nm,0.6s,mb4.7						
KWP	Kalwaria Pacla	74.78	329	⇓iP	P	05 05 49.0	-0.2
KWP	Kalwaria Pacla	74.78	329	⇓P	P	05 05 49.0	-0.2
OJC	Ojcow	75.28	331	eP	P	05 05 51.5	-0.6
STHS	Stebnicka Huta	75.47	330	iP	P	05 05 53.7	+0.5
STHS				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
STHS	Stebnicka Huta	75.47	330	iP	P	05 05 53.7	+0.5
	comp=Z,3.7nm,0.7s,mb4.4						
BUR08	Bucovina Ar. S	75.51	326	eP	P	05 05 53.3	-0.2
KOLS	Kolonicke sedl	75.52	329	iP	P	05 05 52.7	-0.8
KOLS				pmax	pmax		
	comp=Z,38nm,2.2s,mb4.9						
KOLS	Kolonicke sedl	75.52	329	iP	P	05 05 52.7	-0.8
	comp=Z,38nm,2.2s,mb4.9						
BURAR	Bucovina Array	75.53	326	⇓iP	P	05 05 53.5	-0.1
BURAR	Bucovina Array	75.53	326	⇓P	P	05 05 53.5	-0.1
CRVS	Cervenica-Dubn	75.83	329	iP	P	05 05 55.1	-0.2
TLCR		76.08	323	⇑iP	P	05 05 56.1	-0.7
MORC	Moravsky Berou	76.40	332	⇑iP	P	05 05 58.7	+0.2
MORC	Moravsky Berou	76.40	332	⇑P	P	05 05 58.7	+0.2
CLL	Collm	76.44	335	iP	P	05 05 57.7	-1.0
CLL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
CLL	Collm	76.44	335	iP	P	05 05 57.7	-1.0
	comp=Z,9.0nm,0.9s,mb4.7						
HARR	Harsova	76.85	323	⇓iP	P	05 06 01.0	-0.2
HARR	Harsova	76.85	323	⇓P	P	05 06 01.0	-0.2
MLR	Muntele Rosu	77.00	325	⇓iP	P	05 06 02.5	+0.5
MLR	Muntele Rosu	77.00	325	⇓P	P	05 06 02.5	+0.5
MALT	Malatya	77.05	313	⇑iP	P	05 06 04.0	+1.6
MALT	Malatya	77.05	313	⇑P	P	05 06 04.0	+1.6
VOIR		77.40	325	⇑iP	P	05 06 04.8	+0.6
VOIR		77.40	325	⇑P	P	05 06 04.8	+0.5
TXAR	Lajitas Array	77.68	60	P	P	05 06 07.0	+0.9
	comp=Z,0.8nm,0.7s,mb3.8,baz=299,slow=5.5,SNR=5.5						
TXAR				pP	pP	05 06 17.3	-5.2
	comp=Z,2.1nm,0.5s,baz=292,slow=4.1,SNR=6.3						
TXAR				sP	sP	05 06 21.4	-7.7
	comp=Z,2.1nm,0.5s,baz=290,slow=4.2,SNR=10						
KHC	Kasperske Hory	78.21	334	eP	P	05 06 08.5	-0.1
BR131	Keskin Array S	78.30	317	eP	P	05 06 09.2	-0.1
	comp=Z,0.8nm,0.6s,mb3.8						
BRTR	Keskin Array B	78.30	317	P	P	05 06 09.1	-0.3
	comp=Z,2.0nm,0.8s,mb4.1,baz=80,slow=3.0,SNR=13						
GZR	Gura Zlata	78.31	327	⇑iP	P	05 06 08.5	-0.8
GZR	Gura Zlata	78.31	327	⇑P	P	05 06 08.5	-0.8
GERES	GERESS Array B	78.42	334	P	P	05 06 08.7	-1.1
	comp=Z,0.9nm,0.6s,mb3.9,baz=31,slow=5.4,SNR=8.1						
GERES				LR	LR	05 44 41.5	
	comp=Z,85nm,18.9s,MS4.1,baz=292,slow=39						
BZS	Buzias	78.56	327	⇑iP	P	05 06 10.1	-0.6
BZS	Buzias	78.56	327	⇑P	P	05 06 10.1	-0.5
KBA	Koelnbreinsper	80.11	333	⇓iP	P	05 06 19.5	+0.5
	comp=Z,7.4nm,0.9s,mb4.6						
ABPO	Ambohimpanom	114.22	268	iPKIKP	PKiKP	05 12 44.3	-4.3
TORD	Torodi Ar. Bea	115.05	329	PKP	PKiKP	05 12 49.1	-1.3
	comp=Z,0.2nm,0.6s,baz=16,slow=1.8,SNR=3.1						
CFAA	Coronel Fontan	145.19	79	PKPbc	PKPbc	05 13 45.8	-0.4
	comp=Z,0.4nm,0.7s,baz=282,slow=5.5,SNR=11						
PLCA	Paso Flores	148.39	95	PKPbc	PKPbc	05 13 56.0	+1.0
	comp=Z,2.7nm,0.8s,baz=341,slow=0.9,SNR=4.8						
CPUP	Villa Florida	148.65	60	PKPbc	PKPbc	05 13 55.9	-0.2
	comp=Z,0.9nm,0.5s,baz=300,slow=4.3,SNR=5.9						
CPUP	Villa Florida	148.65	60	PKPbc	PKPbc	05 13 55.9	-0.2

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*DDA **05** 05:24:53.4, 36°.99N×27°.65E, h7^{km}±5^{km}, Md2.6*
*ISCJB **05** 05:24:54.9±0.7, 37°.09N±0°.04×27°.51E±0°.06, h21^{km}±6^{km}, Error ellipse: s-maj=7.9km s-min=6.1km az=176.4*
*CSEM **05** 05:24:54.6±0.2, 37°.09N×27°.52E, h24^{km}±2^{km}, MD2.6, Error ellipse: s-maj=5.7km s-min=4.6km az=65.0*
*ISK **05** 05:24:54.0, 37°.13N×27°.48E, h25^{km}, MD2.6*
ISC 05 05:24:55.0±0.6, **37°.10N**±0°.04×**27°.52E**±0°.05, **h19**^{km}±4^{km}, **n21, σ0^{s}88**/34, **2C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.07	242	⇓iP	Pg	05 24 58.2	-0.4
BDRM				iS	Sg	05 24 59.5	-1.3
BODT	Bodrum	0.17	258	PG	Pg	05 24 59.5	-0.1
BODT				eSG	Sg	05 25 02.9	+0.2
BODT	Bodrum	0.17	258	iPg	Pg	05 24 59.5	-0.1
BODT				eSg	Sg	05 25 02.9	+0.2
MLSB	Milas	0.29	46	ePG	Pg	05 25 01.0	-0.4
MLSB				eSG	Sg	05 25 06.6	+0.9
MLSB	Milas	0.29	46	ePg	Pg	05 25 01.0	-0.4
MLSB				eSg	Sg	05 25 06.6	+0.9
DAT	Datca	0.37	172	ePG	Pg	05 25 03.3	+0.5
DAT				eSG	Sg	05 25 10.0	+2.0
DAT	Datca	0.37	172	ePg	Pg	05 25 03.3	+0.5
DAT				eSg	Sg	05 25 10.0	+1.9
YER	Yerkesik	0.61	86	ePG	Pg	05 25 07.2	0.0
YER	Yerkesik	0.61	86	ePg	Pg	05 25 07.2	0.0
AYDN	Tasoluk	0.63	27	⇑iP	Pb	05 25 07.8	+0.4
AYDN				iS	Sb	05 25 16.1	+0.2
AYDN	Tasoluk	0.63	27	iP	Pb	05 25 07.8	+0.4
AYDN				iS	Sb	05 25 16.1	+0.2
GCAM	G?zelcaml?	0.64	340	eP	Pb	05 25 07.9	+0.3
GCAM				eS	Sb	05 25 17.3	+1.1
GCAM	G?zelcaml?	0.64	340	eP	Pb	05 25 07.9	+0.3
GCAM				eS	Sb	05 25 17.3	+1.1
TURN	Turunc	0.90	104	⇑iP	Pb	05 25 08.2	-3.7
TURN				iS	Sb	05 25 19.1	-4.4
TURN	Turunc	0.90	104	iP	Pb	05 25 08.2	-3.7
TURN				iS	Sb	05 25 19.0	-4.5
DALT	Dalyan (Mudla)	0.95	110	ePG	Pg	05 25 12.7	-0.9
DALT	Dalyan (Mudla)	0.95	110	ePg	Pg	05 25 12.7	-0.9
FETY	Fethiye	1.34	110	ePN	Pn	05 25 18.1	-0.5
FETY	Fethiye	1.34	110	ePn	Pn	05 25 18.1	-0.5
BLCB	Balcova	1.34	344	ePN	Pn	05 25 17.2	-1.4
BLCB	Balcova	1.34	344	ePn	Pn	05 25 17.2	-1.5

JMA 05 05:37:06.3±0.1, **28°.15N×140°.49E, h466**^{km}, **M3.6, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.83	125	P	P	05 38 07.7	+0.2
JHHJ	Haha-jima-NKT	2.13	135	P	P	05 38 09.6	+0.5
BSO1	Boso 1	6.50	4	P	P	05 38 48.1	+2.0
JKN2	Miekihoku	7.06	330	P	P	05 38 53.1	+1.2
JRY	Ryogami san	7.96	351	P	P	05 39 02.8	+1.4
JAG	Ashikaga	8.30	354	P	P	05 39 05.4	+0.4
JHO	Hitachi	8.44	0	P	P	05 39 08.3	+1.8
JHK	Hiroka	9.16	353	P	P	05 39 15.4	+1.2
JFK	Kawauchi	9.20	2	P	P	05 39 16.8	+2.2

NEIC 05 05:40:14.7, 37°.74S×176°.24E, h176^{km}, **MG3.8**(WEL), **After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.86	127	P	Pn	05 40 41.0	0.0
MWZ	Matawai	1.18	121	P	Pn	05 40 43.7	+0.3
MWZ				S	Sn	05 41 05.6	+0.1
BKZ	Black Stump Fm	1.44	172	P	Pn	05 40 45.9	+0.2
PUZ	Puketiti	1.63	102	P	Pn	05 40 46.8	-0.7
WNVZ	Wahianoa	1.66	197	P	Pn	05 40 48.7	+0.8
KNZ	Kokohu	1.71	139	P	Pn	05 40 48.4	+0.1
MOVZ	Moawhango	1.71	193	P	Pn	05 40 48.5	+0.2
WAZ	Wanganui	2.24	206	P	Pn	05 40 54.7	+0.6
TSZ	Takapari Road	2.33	185	P	Pn	05 40 54.6	-0.5
BFZ	Birch Farm	2.94	180	P	Pn	05 41 01.0	-1.3
MRZ	Mangatainoka R	2.96	190	P	Pn	05 41 00.9	-1.7
KIW	Kapiti Island	3.29	198	P	Pn	05 41 04.7	-1.9
MTW	Mount Morrison	3.46	189	P	Pn	05 41 06.3	-2.5
CAW	Cannon Point	3.48	195	P	Pn	05 41 07.0	-2.1
MRW	Makara Radio	3.68	198	P	Pn	05 41 09.1	-2.5
PAWZ	Paruwai Farm	3.69	190	P	Pn	05 41 09.3	-2.4
PAWZ				S	Sn	05 41 52.6	-3.6
MSWZ	Moikau Station	3.75	191	P	Pn	05 41 09.5	-2.9
TCW	Tory Channel	3.79	203	P	Pn	05 41 10.8	-2.1
QRZ	Quartz Range	4.22	222	P	Pn	05 41 16.1	-2.3
THZ	Tophouse	4.77	212	P	Pn	05 41 23.6	-1.9
KHZ	Kahutara	5.11	203	P	Pn	05 41 26.7	-3.2

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*NEIC **05** 05:56:47.0±0.1, 3°.52S×118°.07E, h13^{km}, mb5.7/80, MS5.3/138, MW5.7, MW5.9, Error ellipse: s-maj=6.8km s-min=4.4km az=58.0, Moment Tensor Solution. s54 Moment tensor: Scale 10^{17}Nm; M_{rr}2.49; $M_{\theta\theta}$-2.07; $M_{\phi\phi}$-0.42; $M_{r\theta}$-1.15; $M_{\theta\phi}$-3.47; $M_{\phi r}$1.00; Best double couple: $M_0$4.40000×10^{17} NP1:ϕ_s17.00000°, δ57.00000°, λ35.00000°. NP2:ϕ_s266.00000°, δ61.00000°, λ142.00000°. Principal axes: T 3.9100, Plg46.0000°, Azm229.0000°; N 0.9100, Plg43.0000°, Azm54.0000°; P -4.8200, Plg2.0000°, Azm322.0000°;*
NEIC Felt [V] at Majene and [III] at Makassar. Felt [III] at Balikpapan, Banjarmasin and Kotabaru, Borneo.
*GCMT **05** 05:56:47.0±0.1, 3°.44S×118°.12E, h19^{km}, MW5.8/107, Moment Tensor Solution. s93,c186; s107,c316; Duration: 1^{s}9 Moment tensor: Scale 10^{17}Nm; M_{rr}4.43±.06; $M_{\theta\theta}$-3.24±.04; $M_{\phi\phi}$-1.19±.05; $M_{r\theta}$-1.78±.10; $M_{\theta\phi}$-3.02±.04; $M_{\phi r}$2.27±.12; Best double couple: $M_0$5.73500×10^{17} NP1:ϕ_s28.00000°, δ51.00000°, λ51.00000°. NP2:ϕ_s261.00000°, δ53.00000°, λ128.00000°. Principal axes: T 6.0630, Plg60.0000°, Azm233.0000°; N -0.6570, Plg30.0000°, Azm55.0000°; P -5.4060, Plg1.0000°, Azm325.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*MOS **05** 05:56:48.7±1.1, 3°.39S×118°.03E, h33^{km}, mb5.9/60, MS5.3/51 Error ellipse: s-maj=9.6km s-min=5.1km az=118.6*
*ISCJB **05** 05:56:49.3±0.1, 3°.53S±0°.02×118°.06E±0°.02, h40^{km}, mb5.7/178, MS5.3/185, Error ellipse: s-maj=2.9km s-min=2.5km az=158.1*
*BJI **05** 05:56:50.9, 3°.50S×118°.10E, h45^{km}, mB5.8/49, mb5.5/64, Ms5.5/68, Ms7 5.3/58*
*IDC **05** 05:56:52.6±2.9, 3°.47S×118°.12E, h53^{km}±26^{km}, mb5.3/27, mb1 5.4/29, mb1mx5.4/30, mbtmp5.4/29, ML4.6/1, MS5.3/24, Ms1 5.3/24, ms1mx5.2/28, Error ellipse: s-maj=13.9km s-min=9.4km az=69.0*
*DJA **05** 05:56:53, 3°.52S×118°.06E, h47^{km}, mb5.7/28*
ISC 05 05:56:51.3±0.1, **3°.54S**±0°.02×**118°.08E**±0°.02, **h42**^{km}, **h42**^{km}±1.9^{km}**:pP-P, n974, σ1^{s}21**/524, **mb5.7**/178, **MS5.3**/185, **215C-149D, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKS	Makassar	2.17	140	⇓eP	Pn	05 57 24.2	-0.8
MKS				eS	Sn	05 57 50.3	-0.4
KAPI	Kappang	2.22	131	Pn	Pn	05 57 23.7	-2.0
	35µm,0.5s						
PCI	Palu	3.15	34	⇓iP	Pn	05 57 37.5	-1.0
PCI				iS	Px	05 57 42.0	
BBKI	Banjar Baru	3.23	271	P	Pn	05 57 38.9	-0.7
PLKI	Palangkaraya	4.33	287	P	Pn	05 57 54.2	-0.5
KDI	Kendari	4.55	95	⇓eP	Pn	05 57 57.7	0.0
KDI				eS	Sn	05 58 51.3	+1.9
KDI	Kendari	4.55	95	P	Pn	05 57 58.0	+0.3
KHKI	Kahang-Kahang	5.39	207	P	Pn	05 58 08.1	-1.1
	2µm,1.1s,9.8nm						
NBBI	Negara	5.91	215	P	Pn	05 58 16.0	-0.3
	2µm,1.1s,18nm						
WSI	Waingapu	6.48	160	⇑eP	Pn	05 58 23.2	-1.0
WSI				eS	Sn	05 59 39.4	+2.5
WSI	Waingapu	6.48	160	P	Pn	05 58 24.6	+0.4
	6µm,0.6s,27nm						
TRT	Tretes	6.82	232	⇑eP	Pn	05 58 27.5	-1.4
TRT				eS	Sn	05 59 47.0	+1.8
KRKI	Karangkates	7.24	230	⇓eP	Pn	05 58 32.2	-2.4
KRKI	Karangkates	7.24	230	P	Pn	05 58 36.4	+1.8
SJI	Sawahan	7.54	236	P	Pn	05 58 38.1	-0.7
	171nm,1.1s,4.3nm						
TSM	Tawau	7.78	358	P	Pn	05 58 41.4	-0.7
SBUM	Sibu	8.35	315	P	Pn	05 58 50.5	+0.6
SBUM	Sibu	8.35	315	P	Pn	05 58 48.5	-1.4
	237nm,0.9s,4µm						
BTM	Bintulu	8.35	323	P	Pn	05 58 50.5	+0.6
SMRI	Semarang	8.37	245	P	Pn	05 58 50.2	+0.1
	342nm,0.9s						
MNI	Manado	8.38	54	⇓eP	Pn	05 58 55.0	+4.7
MNI				eS	Px	05 59 12.0	
MNI	Manado	8.38	54	P	Pn	05 58 52.3	+2.0
	624nm,0.9s						
MYLDM	Lahad Datu	8.67	3	P	Pn	05 58 53.1	-1.2
BJII	Banjamegara	9.14	245	⇑eP	Pn	05 59 02.8	+2.0
BJII				eS	Sn	06 00 43.9	+1.4
SDKM	Sandakan	9.16	354	P	Pn	05 59 00.3	-0.8
KSM	Kuching	9.22	303	P	Pn	05 59 03.1	+1.2
KSM	Kuching	9.22	303	ePn	Pn	05 59 01.8	-0.1
	206nm,0.8s						
KKM	Kota Kinabalu	9.70	349	P	Pn	05 59 07.5	-0.9
KKM	Kota Kinabalu	9.70	349	ePn	Pn	05 59 07.7	-0.7
	537nm,1.1s						
KKM	Kota Kinabalu	9.70	349	P	Pn	05 59 09.9	+1.5
	458nm,1.3s,4µm						
LBMI	Labuha	9.85	73	P	Pn	05 59 15.0	+4.6
	770nm,1.2s,6µm						
TNTI	Ternate	10.22	65	P	Pn	05 59 16.6	+1.0
	223nm,1.1s						
TNE	Ternate	10.23	65	⇓eP	Pn	05 59 15.0	-0.7
TPI	Tanjungpandan	10.44	274	P	Pn	05 59 17.0	-1.5
	179nm,0.8s,2µm						
KDM	Kudat	10.46	353	P	Pn	05 59 18.2	-0.6
LEM	Lembang	10.92	252	⇓eP	Pn	05 59 28.7	+3.6
SBJI	Serang	12.18	257	P	Pn	05 59 47.9	+5.5
	352nm,1.2s						
DAV	Davao City (W)	12.93	35	P	Pn	05 59 56.1	+3.5
	103nm,0.3s,baz=102,slow=19,SNR=2.3						
DAV				S	Sn	06 02 19.4	+4.3
	53nm,0.3s,baz=150,slow=20,SNR=2.0						
DAV				LR	LR	06 05 22.2	
	comp=Z,17µm,19.0s,baz=222,slow=40						
DAV	Davao City (W)	12.93	35	⇓eP	Px	06 00 05.1	
DAV	Davao City (W)	12.93	35	P	Pn	05 59 56.1	+3.5
DAV				S	Sn	06 02 19.4	+4.3
DAV				LR	LR	06 05 22.2	
PPR	Puerto Princes	13.24	3	⇓eP	Pn	06 00 04.0	+7.1
SWI	Sorong	13.44	79	P	Pn	06 00 01.0	+1.5
	99nm,1.1s						
XMIS	Christmas Isla	14.12	240	eP	Pn	06 00 05.5	-3.4
LLP	Lapu-Lapu	14.96	23	eP	Pn	06 00 25.0	+4.9
MNAI	Manna	15.11	266	P	Pn	06 00 25.9	+3.8
	1µm,0.8s						
MYKOM	Kota Tinggi	15.18	290	P	Pn	06 00 24.8	+1.8
RCP	Roxas	15.70	17	⇑eP	Pn	06 00 35.9	+6.2
KGM	Kluang	15.75	290	P	Pn	06 00 32.2	+1.8
SJMP	San Jose	16.18	11	eP	Pn	06 00 38.7	+2.9
FITZ	Fitzroy Crossi	16.26	153	eP	Pn	06 00 35.4	-1.4
	1µm,1.1s						
FITZ				eS	S	06 03 47.2	-0.4
FITZ	Fitzroy Crossi	16.26	153	P	Pn	06 00 38.5	+1.7
	1.9nm,0.3s,baz=316,slow=8.4,SNR=31						
FITZ				S	S	06 03 32.3	-15
	0.7nm,0.3s,baz=152,slow=17,SNR=2.4						
FITZ				LR	LR	06 08 23.9	
	comp=Z,6µm,19.4s,baz=333,slow=42						
FITZ	Fitzroy Crossi	16.26	153	eP	Pn	06 00 36.2	-0.6
	1µm,1.2s						
FITZ				eS	S	06 03 49.3	+1.7
OTRP	Odiongan	16.27	14	eP	Pn	06 00 38.2	+1.1
KAKA	Kakadu	16.88	124	eP	Pn	06 00 42.8	-1.8
	126nm,0.7s						
KAKA	Kakadu	16.88	124	eP	Pn	06 00 43.1	-1.5
	400nm,0.8s						
LUBP	Lubang	17.29	7	eP	Pn	06 00 51.4	+1.6
KTGM	Kuala Trenggan	17.33	300	P	Pn	06 00 53.2	+2.9
MBWA	Marble Bar	17.59	175	eP	Pn	06 00 52.6	-0.9
	249nm,1.1s						
MBWA	Marble Bar	17.59	175	⇓P	Pn	06 00 53.8	+0.3
	SNR=19						
MBWA				⇓P		06 00 53.8	
	SNR=19						
TGY	Tagaytay City	17.75	9	P	Pn	06 00 57.1	+1.6
	39nm,0.3s,baz=213,slow=6.1,SNR=4.0						
FRIM	Kepong	17.77	292	P	Pn	06 00 57.2	+1.5
PVCP	Virac	18.06	19	eP	Pn	06 01 05.0	+5.8
IPM	Ipoh	18.81	295	P	Pn	06 01 09.4	+1.0
KULM	Kulim	19.49	297	P	Pn	06 01 17.3	+0.7
KULM	Kulim	19.49	297	eP	Pn	06 01 15.7	-0.9
	1µm,1.5s						
KULM	Kulim	19.49	297	P	Pn	06 01 16.1	-0.5
	539nm,1.6s,7µm						
BOLP	Bolinao	19.87	5	eP	Pn	06 01 18.1	-2.9
PSI	Prapat	20.15	288	P	P	06 01 23.6	+1.3
	344nm,0.8s,baz=108,slow=8.1,SNR=138						
PSI				LR	LR	06 09 52.3	
	comp=Z,25µm,18.7s,MS5.6,baz=106,slow=39						
TSI	Tuntungan	20.72	290	⇓eP	P	06 01 30.0	+1.6
PALP	Palanan	20.91	12	eP	P	06 01 37.0	+6.5
ABRA	Dolores	21.21	7	eP	P	06 01 41.2	+7.6
UBT	Ubonrachathani	22.71	326	P	pP	06 02 04.9	+4.9
COCO	West Island	22.71	247	eP	P	06 01 48.8	-1.0
COCO				pmax	pmax		
	comp=Z,276nm,1.0s,mb5.6						
COCO				MLR	MLR		
	comp=Z,8µm,22.0s,MS5.1						
COCO	West Island	22.71	247	eP	P	06 01 48.8	-0.9
	comp=Z,276nm,1.0s,mb5.6						
COCO				LR	LR		
	comp=Z,8µm,22.0s,MS5.1						
WRA	Warramunga Arr	22.75	137	P	P	06 01 49.9	-0.2
WRA				S	S	06 06 02.1	+5.8
WRA	Warramunga Arr	22.75	137	P	P	06 01 49.9	-0.2
	comp=Z,120nm,0.9s,mb5.3,baz=316,slow=11,SNR=93						
WRA				S	S	06 06 02.1	+5.9
	comp=Z,18nm,1.2s,baz=305,slow=20,SNR=2.9						
WRA				LR	LR	06 11 52.9	
	comp=Z,10µm,19.9s,MS5.2,baz=315,slow=40						
WRA				P3KPbc		06 35 23.9	
	comp=Z,1.7nm,0.9s,baz=138,slow=4.2,SNR=11						
WRA	Warramunga Arr	22.75	137	P	P	06 01 49.9	-0.2
WRA				S	S	06 06 02.1	+5.9
WRA				LR	LR	06 11 52.9	
WRAB	Tennant Creek	22.75	137	P	P	06 01 50.0	-0.1
	comp=Z,3µm,1.0s,mb6.7,SNR=96						
WRAB	Tennant Creek	22.75	137	eP	P	06 01 50.2	+0.1
WRAB				pmax	pmax		
	comp=Z,598nm,1.0s,mb6.0						
WRAB	Tennant Creek	22.75	137	eP	P	06 01 50.2	+0.2
	comp=Z,598nm,1.0s,mb6.0						
WB2	Warramunga Arr	22.75	137	eP	P	06 01 50.1	0.0
QIZ	Qiongzhong	23.84	340	P	P	06 02 02.2	+1.3
QIZ				pP		06 02 13.3	
QIZ				sP	sP	06 02 18.1	+1.0
QIZ				S	S	06 06 14.5	+0.4
QIZ				pmax	pmax		
	comp=Z,260nm,1.4s,mb5.5						
QIZ				pmax	pmax		
	comp=Z,1µm,12.2s						
QIZ				LR	LR		
	comp=N,4µm,20.3s,MS5.1						
QIZ				LR	LR		
	comp=E,6µm,19.9s,MS5.1						
QIZ				LR	LR		
	comp=Z,9µm,18.7s,MS5.2						
QIZ	Qiongzhong	23.84	340	eP	P	06 02 01.4	+0.5
	comp=Z,401nm,1.2s,mb5.7						
NNT	Nongplab	24.27	312	P	P	06 02 06.3	+1.5
BSI	Banda Aceh	24.46	291	⇑eP	P	06 02 07.5	+0.9
KKTK	Khon Kaen	24.85	323	P	P	06 02 11.0	+0.9
	comp=Z,1µm,0.5s,mb6.7						
ASAR	Alice Springs	25.18	144	P	P	06 02 13.4	+0.4
	comp=Z,188nm,1.1s,mb5.5,baz=321,slow=8.1,SNR=113						
ASAR				PcP	PcP	06 05 46.5	+0.1
	comp=Z,16nm,0.9s,baz=329,slow=2.0,SNR=7.7						
HKC	Hong Kong Obse	25.96	352	P	P	06 02 24.0	+3.9
HKC				S	S	06 06 52.0	+4.1
NST	Nakhon Sawan	26.07	318	P	P	06 02 20.4	-0.8
	comp=Z,72nm,1.4s,mb5.0						
TWG	Pinlang	26.36	6	eP	P	06 02 24.6	+0.8
	comp=Z,166nm,1.1s,mb5.5						
TPUB	Ta-pu	26.79	5	eP	P	06 02 29.3	+1.7
	comp=Z,129nm,1.0s,mb5.4						
COEN	Coen	26.84	114	eP	P	06 02 27.3	-0.9
	comp=Z,825nm,1.3s,mb6.1						
COEN				ePcP	PcP	06 05 50.2	-0.1
GZH	Guangzhou	26.86	350	P	P	06 02 30.6	+2.4
GZH				S	S	06 07 08.6	+6.5
GZH				LR	LR		
	comp=N,5µm,17.1s,MS5.2						
GZH				LR	LR		
	comp=E,3µm,15.3s,MS5.2						
GZH				LR	LR		
	comp=Z,8µm,20.9s						
YULB	Yu-li	26.95	7	eP	P	06 02 30.2	+1.1
	comp=Z,168nm,1.1s,mb5.5						
SSLB	Suanglung	27.30	6	eP	P	06 02 33.8	+1.6
	comp=Z,122nm,1.1s,mb5.3						
NACB	Ninganchiao	27.76	7	eP	P	06 02 37.7	+1.4
	comp=Z,76nm,1.0s,mb5.3						
KLBR	Kellerberrin	27.91	181	eP	P	06 02 37.1	-0.4
	comp=Z,113nm,1.2s,mb5.4						
BDT	Bhumibol Dam	27.95	318	P	P	06 02 39.0	+1.0
	comp=Z,69nm,1.1s,mb5.2						
YHNB	Yeheng	28.22	6	eP	P	06 02 41.9	+1.6
	comp=Z,237nm,1.4s,mb5.6						
QZH	Quanzhou	28.31	1	⇑iP	P	06 02 43.8	+2.6
QZH				S	S	06 07 25.0	+0.1
QZH				pmax	pmax		
	comp=Z,210nm,1.2s,mb5.6						
QZH				pmax	pmax		
	comp=Z,1µm,9.7s						
QZH				LR	LR		
	comp=N,4µm,12.0s,MS5.3						
QZH				LR	LR		
	comp=E,3µm,11.8s,MS5.3						
QZH				LR	LR		
	comp=Z,5µm,14.8s,MS5.3						
MUN	Mundaring	28.34	183	eP	P	06 02 41.3	-0.1
TATO	Taipei	28.54	6	eP	P	06 02 43.3	+0.1
	comp=Z,324nm,1.2s,mb5.9						
FORT	Forrest	28.69	162	eP	P	06 02 44.5	0.0
	comp=Z,234nm,0.9s,mb5.9						
FORT	Forrest	28.69	162	eP	P	06 02 44.6	+0.1
	comp=Z,539nm,1.2s,mb6.2						
CM31	Chiang Mai Arr	28.86	320	eP	P	06 02 47.1	+0.9
	comp=Z,91nm,0.7s,mb5.6						
CM31				LR	LR		
	comp=Z,7µm,19.0s,MS5.3						
CMAR	Chiang Mai Arr	28.86	320	P	P	06 02 47.0	+0.8
	comp=Z,81nm,0.6s,mb5.6,baz=145,slow=7.1,SNR=236						
CMAR				PcP	PcP	06 05 55.4	+0.3
	comp=Z,13nm,0.8s,baz=177,slow=2.9,SNR=5.0						
CMAR				PKiKP	PKiKP	06 13 28.6	-1.2
	comp=Z,2.1nm,0.8s,baz=90,slow=0.3,SNR=5.6						
CMAR				LR	LR	06 14 44.6	
	comp=Z,5µm,20.9s,MS5.1,baz=270,slow=37						
CMAR	Chiang Mai Arr	28.86	320	P	P	06 02 47.0	+0.8
CMAR				PcP	PcP	06 05 55.4	+0.3
CHG	Chiang Mai	29.12	320	⇑P	P	06 02 49.0	+0.5
	comp=Z,190nm,1.0s,mb5.8						
CHTO	Chiang Mai	29.12	320	eP	P	06 02 48.9	+0.4
CHTO				pmax	pmax		
	comp=Z,189nm,1.0s,mb5.8						
CHTO				MLR	MLR		
	comp=Z,8µm,19.0s,MS5.4						
CHTO	Chiang Mai	29.12	320	eP	P	06 02 48.9	+0.4
	comp=Z,189nm,1.0s,mb5.8						
CHTO				LR	LR		
	comp=Z,8µm,19.0s,MS5.4						
CHTO	Chiang Mai	29.12	320	⇓P	P	06 02 49.6	+1.1
	SNR=64						
CHTO				⇓P		06 02 49.6	

	SNR=64						
NWAO	**Narrogin (SRO)**	**29.25**	**181**	*e*P	**P**	**06 02 49.5**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,142nm,1.1s						
NWAO				MLR	MLR		
	comp=Z,6µm,21.0s						
NWAO	**Narrogin (SRO)**	**29.25**	**181**	P	**P**	**06 02 49.6**	**+0.1**
	comp=Z,142nm,1.1s,mb5.6,baz=2.5,slow=11,SNR=20						
NWAO				LR	LR	06 14 07.9	
	comp=Z,8µm,21.4s,MS5.3,baz=154,slow=35						
NWAO	**Narrogin (SRO)**	**29.25**	**181**	*e*P	**P**	**06 02 49.5**	**+0.1**
	comp=Z,142nm,1.1s,mb5.6						
NWAO				LR	LR		
	comp=Z,6µm,21.0s,MS5.2						
NWAO	**Narrogin (SRO)**	**29.25**	**181**	P	**P**	**06 02 50.5**	**+1.1**
	SNR=6.2						
NWAO				P		06 02 50.5	
	SNR=6.2						
GUMO	**Guam**	**31.57**	**57**	P	**P**	**06 03 09.3**	**-0.9**
	comp=Z,60nm,0.5s,mb5.7,baz=218,slow=17,SNR=3.0						
GUMO	**Guam**	**31.57**	**57**	*e*P	**P**	**06 03 10.0**	**-0.1**
	comp=Z,244nm,0.9s,mb6.0						
GUMO				*e*pP	pP	06 03 19.9	-1.6
GUMO				LR	LR		
	comp=Z,2µm,21.0s,MS4.7						
GYA	**Guiyang**	**31.80**	**340**	⇑*i*P	**P**	**06 03 14.6**	**+2.6**
GYA				pP	pP	06 03 26.8	+3.4
GYA				sP	sP	06 03 33.6	+5.2
GYA				PP	PP	06 04 21.0	-3.5
GYA				PcP	PcP	06 06 03.0	+0.4
GYA				S	**S**	**06 08 21.8**	**+2.2**
GYA				sS	sS	06 08 42.3	+3.7
GYA				ScP	ScP	06 09 42.5	-0.4
GYA				PcS	PcS	06 09 48.1	+0.8
GYA				SS	SS	06 10 15.6	-22
GYA				pmax	pmax		
	comp=Z,110nm,0.8s,mb5.7						
GYA				pmax	pmax		
	comp=Z,3µm,4.5s						
GYA				LR	LR		
	comp=N,29µm,16.8s,MS6.1						
GYA				LR	LR		
	comp=E,18µm,15.3s,MS6.1						
GYA				LR	LR		
	comp=Z,24µm,14.9s,MS6.0						
CTA	**Charters Tower**	**32.02**	**123**	*e*P	**P**	**06 03 14.4**	**+0.3**
	comp=Z,24nm,1.1s,mb4.9						
CTA				*e*PCP	PcP	06 06 04.2	+0.8
CTA				*e*S	**S**	**06 08 25.7**	**+2.5**
CTAO	**Charters Tower**	**32.02**	**123**	*e*P	**P**	**06 03 14.2**	**+0.1**
CTAO				*e*		06 06 03.9	
CTAO				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.1						
CTAO	**Charters Tower**	**32.02**	**123**	*e*P	**P**	**06 03 14.2**	**+0.1**
	comp=Z,80nm,1.3s,mb5.4						
CTAO				*e*PcP	PcP	06 06 03.9	+0.6
CTAO				LR	LR		
	comp=Z,4µm,19.0s,MS5.1						
KMI	**Kunming**	**32.15**	**333**	P	**P**	**06 03 18.3**	**+3.2**
KMI				pP	pP	06 03 27.2	+0.7
KMI				sP	sP	06 03 30.6	-0.9
KMI				PP	PP	06 04 23.5	-4.9
KMI				S	**S**	**06 08 24.5**	**-0.6**
KMI				sS	sS	06 08 40.5	-3.5
KMI				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.0						
KMI				pmax	pmax		
	comp=Z,370nm,5.6s						
KMI				LR	LR		
	comp=N,2µm,19.5s,MS5.3						
KMI				LR	LR		
	comp=E,6µm,19.5s,MS5.3						
KMI				LR	LR		
	comp=Z,6µm,14.6s,MS5.4						
WHN	**Wuhan**	**34.08**	**354**	⇓P	**P**	**06 03 34.1**	**+2.2**
WHN				sP	sP	06 03 53.4	+5.1
WHN				S	**S**	**06 08 53.6**	**-1.3**
WHN				pmax	pmax		
	comp=Z,1µm,10.5s						
WHN				LR	LR		
	comp=N,6µm,12.5s,MS5.5						
WHN				LR	LR		
	comp=E,2µm,14.3s,MS5.5						
WHN				LR	LR		
	comp=Z,12µm,15.2s,MS5.7						
SSE	**Sheshan**	**34.57**	**5**	P	**P**	**06 03 38.5**	**+2.4**
SSE				S	**S**	**06 09 06.9**	**+4.4**
SSE				pmax	pmax		
	comp=Z,250nm,1.2s,mb6.0						
SSE				pmax	pmax		
	comp=Z,730nm,5.7s						
SSE				LR	LR		
	comp=N,2µm,18.2s,MS4.9						
SSE				LR	LR		
	comp=E,1µm,18.9s,MS4.9						
SSE				LR	LR		
	comp=Z,3µm,20.5s,MS5.0						
NJ2	**Nanjing**	**35.40**	**1**	*e*P	**P**	**06 03 45.6**	**+2.3**
NJ2				PP	PP	06 05 06.4	+2.1
NJ2				S	**S**	**06 09 15.0**	**-0.3**
NJ2				sS	sS	06 09 36.0	+1.7
NJ2				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.7						
NJ2				pmax	pmax		
	comp=Z,510nm,9.3s						
NJ2				LR	LR		
	comp=N,1µm,14.4s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,16.6s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,17.2s,MS4.9						
STKA	**Stephens Creek**	**35.82**	**145**	⇑*i*P	**P**	**06 03 47.5**	**+0.5**
	comp=Z,92nm,0.9s,mb5.7						
STKA				*e*S	**S**	**06 09 18.8**	**-3.0**
STKA	**Stephens Creek**	**35.82**	**145**	P	**P**	**06 03 47.6**	**+0.7**
	comp=Z,132nm,1.1s,mb5.8,baz=313,slow=8.5,SNR=75						
STKA				LR	LR	06 19 25.1	
	comp=Z,6µm,19.9s,MS5.3,baz=306,slow=38						
STKA	**Stephens Creek**	**35.82**	**145**	*e*P	**P**	**06 03 47.6**	**+0.7**
	comp=Z,38nm,1.0s,mb5.3						
IMP	**Imphal**	**36.65**	**321**	*e*PKP	**P**	**06 03 54.0**	**-0.1**
CD2	**Chengdu**	**36.88**	**339**	P	**P**	**06 03 56.8**	**+0.8**
CD2				pP	pP	06 04 08.5	+1.0
CD2				sP	sP	06 04 12.6	+0.2
CD2				PP	PP	06 05 24.3	+3.7
CD2				PcP	PcP	06 06 17.5	+0.4
CD2				S	**S**	**06 09 34.7**	**-3.2**
CD2				sS	sS	06 09 59.0	+1.9
CD2				SS	SS	06 12 09.2	-11
CD2				pmax	pmax		
	comp=Z,220nm,0.9s,mb6.0						
CD2				pmax	pmax		
	comp=Z,1µm,8.4s						
CD2				LR	LR		
	comp=N,7µm,20.8s						
CD2				LR	LR		
	comp=Z,7µm,20.8s,MS5.4						
AGT	**Agartala**	**37.76**	**318**	*i* P	**P**	**06 04 01.0**	**-2.5**
XAN	**Xi’an**	**38.36**	**348**	P	**P**	**06 04 09.0**	**+0.5**
XAN				pP	pP	06 04 21.3	+1.3
XAN				sP	sP	06 04 26.4	+1.5
XAN				PP	PP	06 05 39.7	+2.8
XAN				S	**S**	**06 09 57.2**	**-3.1**
XAN				sS	sS	06 10 19.5	0.0
XAN				SS	SS	06 12 44.5	-6.0
XAN				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
XAN				pmax	pmax		
	comp=Z,870nm,12.2s						
XAN				LR	LR		
	comp=N,2µm,21.2s,MS5.2						
XAN				LR	LR		
	comp=E,3µm,17.1s,MS5.2						
XAN				LR	LR		
	comp=Z,7µm,20.7s,MS5.4						
EIDS	**Eidsvold**	**38.43**	**128**	*e*P	**P**	**06 04 09.3**	**+0.1**
	comp=Z,35nm,1.4s,mb4.9						
SHL	**Shillong**	**38.50**	**320**	*e*PKP	**P**	**06 04 09.5**	**-0.3**
SHL				*e*x	x	06 05 48.0	
SHL				*e*S	**S**	**06 10 04.0**	**+1.3**
PALK	**Pallekele**	**38.82**	**286**	*e*P	**P**	**06 04 12.3**	**-0.3**
PALK				*e*		06 04 18.8	
PALK				pmax	pmax		
	comp=Z,77nm,1.2s,mb5.3						
PALK	**Pallekele**	**38.82**	**286**	*e*P	**P**	**06 04 12.3**	**-0.3**
	comp=Z,77nm,1.2s,mb5.3						
PALK				*e*		06 04 18.8	
PALK	**Pallekele**	**38.82**	**286**	P	**P**	**06 04 14.1**	**+1.5**
	comp=Z,28nm,1.6s,mb4.7						
CAL	**Calcutta**	**38.94**	**313**	*e*PKP	**P**	**06 04 16.3**	**+2.8**
CAL				*e*S	**S**	**06 10 16.8**	**+7.4**
TIA	**Tai’an**	**39.55**	**359**	P	**P**	**06 04 18.2**	**-0.2**
TIA				pP	pP	06 04 29.0	-0.9
TIA				S	**S**	**06 10 14.0**	**-4.2**
TIA				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.2						
TIA				LR	LR		
	comp=N,1µm,11.0s						
VIS	**Vishakhapatnam**	**40.26**	**303**	*e*PKP	**P**	**06 04 23.9**	**-0.7**
VIS				AMb	AMB	06 04 35.1	
	comp=Z,346nm,1.0s,mb6.0						
ARMA	**Armidale**	**41.46**	**134**	*e*P	**P**	**06 04 36.5**	**+2.2**
ARMA				*e*S	**S**	**06 10 53.0**	**+6.1**
ARMA	**Armidale**	**41.46**	**134**	*e*P	**P**	**06 04 36.0**	**+1.8**
	comp=Z,72nm,1.3s,mb5.1						
BOK	**Bokaro**	**41.49**	**313**	*e*PKP	**P**	**06 04 35.3**	**+0.7**
BOK				AMb	AMB	06 04 44.8	
	comp=Z,106nm,0.9s,mb5.5						
INCN	**Inchon**	**41.58**	**10**	PFAKE		06 04 50.0	+15
INCN				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
LZH	**Lanzhou**	**41.61**	**343**	⇓P	**P**	**06 04 36.5**	**+1.1**
LZH				pP	pP	06 04 47.0	0.0
LZH				sP	sP	06 04 52.3	+0.4
LZH				PP	PP	06 06 19.0	+6.8
LZH				S	**S**	**06 10 50.3**	**+1.5**
LZH				sS	sS	06 11 12.1	+3.9
LZH				SS	SS	06 13 54.6	-0.6
LZH				pmax	pmax		
	comp=Z,190nm,1.3s,mb5.6						
LZH				pmax	pmax		
	comp=Z,1µm,7.8s						
LZH				LR	LR		
	comp=E,3µm,14.8s						
LZH				LR	LR		
	comp=Z,5µm,15.4s,MS5.5						
KSRS	**Korea Array**	**41.80**	**12**	P	**P**	**06 04 36.4**	**-0.6**
	comp=Z,39nm,1.0s,mb5.0,baz=187,slow=10,SNR=38						
KSRS				LR	LR	06 24 17.5	
	comp=Z,2µm,18.3s,MS5.0,baz=198,slow=39						
LSA	**Lhasa**	**41.92**	**324**	P	**P**	**06 04 40.0**	**+1.9**
LSA				S	**S**	**06 10 56.7**	**+3.0**
LSA				LR	LR		
	comp=N,2µm,22.8s,MS5.0						
LSA				LR	LR		
	comp=E,2µm,23.6s,MS5.0						
LSA				LR	LR		
	comp=Z,890nm,10.2s						
LSA	**Lhasa**	**41.92**	**324**	*e*P	**P**	**06 04 39.7**	**+1.6**
LSA				*e*S	**S**	**06 10 54.8**	**+1.1**
LSA				pmax	pmax		
	comp=Z,147nm,1.0s,mb5.6						
LSA				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.2						
LSA	**Lhasa**	**41.92**	**324**	*e*P	**P**	**06 04 39.7**	**+1.6**
	comp=Z,147nm,1.0s,mb5.6						
LSA				*e*S	**S**	**06 10 54.8**	**+1.0**
LSA				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
HNR	**Honiara**	**41.98**	**100**	PFAKE		06 04 50.0	+11
HNR				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
TOO	**Toolangi**	**42.16**	**147**	*e*P	**P**	**06 04 41.5**	**+1.6**
ODAN	**Odare**	**42.33**	**317**	*e*P	**P**	**06 04 42.4**	**+0.9**
	comp=Z,694nm,1.1s,mb6.2						
DL2	**Dalian**	**42.36**	**4**	P	**P**	**06 04 41.8**	**+0.3**
DL2				PP	PP	06 06 27.7	+7.4
DL2				S	**S**	**06 10 59.5**	**-0.4**
DL2				SS	SS	06 14 03.1	-6.9
DL2				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.5						
DL2				pmax	pmax		
	comp=Z,510nm,5.4s						
DL2				LR	LR		
	comp=N,1µm,17.1s						
DL2				LR	LR		
	comp=Z,2µm,16.7s,MS5.0						
TAPN	**Taplejung**	**42.44**	**318**	*e*P	**P**	**06 04 43.1**	**+0.8**
	comp=Z,812nm,1.1s,mb6.3						
CAN	**Canberra**	**42.65**	**142**	*e*P	**P**	**06 04 45.4**	**+1.5**
CAN				*e*		06 04 51.4	
CAN				pmax	pmax		
	comp=Z,294nm,1.5s,mb5.8						
CAN				MLR	MLR		
	comp=Z,6µm,19.0s,MS5.5						
CAN	**Canberra**	**42.65**	**142**	*e*P	**P**	**06 04 45.4**	**+1.5**
	comp=Z,294nm,1.5s,mb5.8						
CAN				*e*		06 04 51.4	
CAN				LR	LR		
	comp=Z,6µm,19.0s,MS5.5						
TRD	**Trivandrum**	**42.72**	**286**	⇑*e*PKP	**P**	**06 04 44.0**	**-0.8**
TRD				*e*x	x	06 11 02.0	
CNB	**Canberra Magne**	**42.87**	**141**	*e*P	**P**	**06 04 46.8**	**+1.1**
RAMN	**Ramite**	**42.93**	**317**	*e*P	**P**	**06 04 47.5**	**+1.2**
	comp=Z,1µm,1.2s,mb6.5						
BJT	**Baijiatuau**	**43.38**	**358**	*e*P	**P**	**06 04 50.3**	**+0.6**
BJT				pmax	pmax		
	comp=Z,410nm,1.0s						
BJT				MLR	MLR		
	comp=Z,4µm,21.0s						
BJT	**Baijiatuau**	**43.38**	**358**	*e*P	**P**	**06 04 50.2**	**+0.6**
	comp=Z,410nm,1.0s,mb6.1						
BJT				LR	LR		
	comp=Z,4µm,21.0s,MS5.3						
BJI	**Beijing**	**43.40**	**358**	P	**P**	**06 04 50.6**	**+0.7**
BJI				pP	pP	06 05 03.2	+1.7
BJI				sP	sP	06 05 08.2	+1.8
BJI				PP	PP	06 06 33.2	+1.8
BJI				S	**S**	**06 11 17.2**	**+2.1**
BJI				sS	sS	06 11 38.4	+3.9
BJI				pmax	pmax		
	comp=Z,270nm,0.8s,mb6.0						
BJI				pmax	pmax		
	comp=Z,2µm,5.4s						
BJI				LR	LR		
	comp=N,3µm,20.7s,MS5.3						
BJI				LR	LR		
	comp=E,3µm,21.6s,MS5.3						
BJI				LR	LR		
	comp=Z,3µm,21.1s,MS5.2						
JIRN	**Jiri**	**43.66**	**317**	*e*P	**P**	**06 04 52.9**	**+0.7**
	comp=Z,652nm,1.0s,mb6.3						
GUN	**Gumba**	**44.03**	**317**	*e*P	**P**	**06 04 56.0**	**+0.8**
	comp=Z,794nm,0.9s,mb6.4						
MAJO	**Matsushiro**	**44.08**	**23**	*e*P	**P**	**06 04 56.9**	**+1.5**
MAJO				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.3						
MAJO				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.1						
MAJO	**Matsushiro**	**44.08**	**23**	*e*P	**P**	**06 04 56.9**	**+1.5**
	comp=Z,84nm,1.3s,mb5.3						
MAJO				LR	LR		
	comp=Z,3µm,21.0s,MS5.1						
MAT	**Matsushiro**	**44.08**	**23**	P	**P**	**06 04 57.9**	**+2.5**
MAT				S	**S**	**06 11 25.0**	**-0.2**
MJAR	**Matsushiro Arr**	**44.08**	**23**	P	**P**	**06 04 53.3**	**-2.1**
	comp=Z,15nm,1.1s,mb4.7,baz=190,slow=8.3,SNR=6.8						
MJAR				LR	LR	06 23 43.5	
	comp=Z,2µm,20.8s,MS5.1,baz=215,slow=37						
PKI	**Pulchoki**	**44.14**	**317**	*e*P	**P**	**06 04 56.9**	**+0.8**
	comp=Z,570nm,1.1s,mb6.2						
PKIN	**Phulchoki**	**44.15**	**317**	*e*P	**P**	**06 04 56.4**	**+0.2**
	comp=Z,270nm,0.8s,mb6.0						
HYB	**Hyderabad**	**44.21**	**299**	*e*P	**P**	**06 04 56.5**	**-0.3**
HYB				*e*S	**S**	**06 11 30.0**	**+2.4**
HYB				pmax	pmax		
	comp=Z,280nm,1.0s,mb6.0						
HYB	**Hyderabad**	**44.21**	**299**	*i* P	**P**	**06 04 56.5**	**-0.3**
	comp=Z,280nm,1.0s,mb6.0						
HYB				*e*	pP	06 05 07.0	-1.4
HYB				*e*S	**S**	**06 11 30.0**	**+2.4**
HYB				LR	LR	06 25 46.0	
	comp=Z,3.4nm,16.0s						
HYB	**Hyderabad**	**44.21**	**299**	*e*P	**P**	**06 04 56.5**	**-0.3**
	comp=Z,280nm,1.0s,mb6.0						
HYB				*e*S	**S**	**06 11 30.0**	**+2.4**
HYB				*e*		06 25 46.0	
KKN	**Kakani**	**44.37**	**317**	*e*P	**P**	**06 04 58.6**	**+0.7**
	comp=Z,525nm,1.1s,mb6.2						
DMN	**Daman**	**44.37**	**316**	*e*P	**P**	**06 04 58.7**	**+0.8**
	comp=Z,802nm,1.0s,mb6.4						
BTO	**Baotou**	**44.55**	**351**	*e*P	**P**	**06 04 58.7**	**-0.4**
BTO				S	**S**	**06 11 21.6**	**-10**
BTO				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.0						
HHC	**Hu-ho-hao-te**	**44.57**	**353**	*e*P	**P**	**06 05 00.2**	**+0.9**
HHC				pP	pP	06 05 12.6	+1.6
HHC				sP	sP	06 05 17.3	+1.4
HHC				PP	PP	06 06 45.3	+1.3
HHC				PcS	PcS	06 10 34.2	-0.9
HHC				S	**S**	**06 11 33.7**	**+1.5**
HHC				sS	sS	06 11 54.7	+3.1
HHC				SS	SS	06 14 47.4	-5.8
HHC				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.1						
HHC				pmax	pmax		
	comp=Z,830nm,5.8s						
HHC				LR	LR		
	comp=N,2µm,21.7s,MS5.2						
HHC				LR	LR		
	comp=E,2µm,17.5s,MS5.2						
HHC				LR	LR		
	comp=Z,3µm,21.3s,MS5.1						
GKN	**Gorkha**	**44.94**	**316**	*e*P	**P**	**06 05 03.1**	**+0.6**
	comp=Z,891nm,1.1s,mb6.5						
ALBI	**Allahabad**	**45.39**	**311**	*e*PKP	**P**	**06 05 05.0**	**-1.0**
SNY	**Shenyang**	**45.43**	**6**	⇑P	**P**	**06 05 04.8**	**-1.2**
SNY				S	**S**	**06 11 45.8**	**+1.3**
SNY				sS	sS	06 12 10.1	+6.1
SNY				SS	SS	06 15 01.6	-7.4
SNY				pmax	pmax		
	comp=Z,82nm,1.4s,mb5.4						
SNY				pmax	pmax		
	comp=Z,890nm,5.9s						
SNY				LR	LR		
	comp=N,1µm,17.7s						
SNY				LR	LR		
	comp=Z,2µm,18.0s,MS5.1						
KOLN	**Koldanda**	**45.52**	**315**	*e*P	**P**	**06 05 07.8**	**+0.8**
	comp=Z,450nm,0.9s,mb6.4						
JBP	**Jabalpur**	**45.66**	**307**	⇑*i*P	**P**	**06 05 09.0**	**+0.8**
JBP				*e*x	x	06 05 18.1	
	comp=Z,335nm,1.5s						
JBP				*e*S	**S**	**06 11 52.7**	**+4.2**
DANN	**Dangsing**	**45.76**	**316**	*e*P	**P**	**06 05 09.8**	**+0.8**
	comp=Z,585nm,0.6s,mb6.7						
GTA	**Gaotai**	**45.93**	**340**	P	**P**	**06 05 11.5**	**+1.4**
GTA				pP	pP	06 05 23.7	+1.9
GTA				sP	sP	06 05 29.4	+2.7
GTA				PP	PP	06 06 56.7	-1.7
GTA				S	**S**	**06 11 56.1**	**+4.2**
GTA				sS	sS	06 12 14.7	+3.4
GTA				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
GTA				pmax	pmax		
	comp=Z,2µm,8.4s						
GTA				LR	LR		
	comp=N,2µm,19.8s,MS5.5						
GTA				LR	LR		
	comp=E,5µm,19.2s,MS5.5						
GTA				LR	LR		
	comp=Z,3µm,20.4s,MS5.3						
MNGI	**Mangalore**	**45.97**	**292**	*e*PKP	**P**	**06 05 10.9**	**+0.1**
PYUN	**Piuthan**	**46.15**	**315**	*e*P	**P**	**06 05 12.9**	**+0.9**
LATR	**Latur**	**46.35**	**300**	*e*PKP	**P**	**06 05 13.2**	**-0.5**
MOO	**Moorlands**	**46.63**	**150**	*e*P	**P**	**06 05 17.0**	**+1.4**
MOO				*e*S	**S**	**06 12 11.9**	**+10**
TAU	**Tasmania Unive**	**47.04**	**151**	*e*P	**P**	**06 05 20.3**	**+1.5**
TAU				*e*		06 05 26.8	
TAU				pmax	pmax		
	comp=Z,335nm,1.4s,mb6.1						
TAU				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.4						
TAU	**Tasmania Unive**	**47.04**	**151**	*e*P	**P**	**06 05 20.3**	**+1.5**
	comp=Z,334nm,1.4s,mb6.1						
TAU				*e*		06 05 26.8	
TAU				LR	LR		
	comp=Z,5µm,21.0s,MS5.4						
CN2	**Changchun**	**47.59**	**7**	*e*P	**P**	**06 05 23.6**	**+0.6**
CN2				PP	PP	06 07 18.9	+4.1
CN2				*e*S	**S**	**06 12 19.2**	**+3.8**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,1µm,12.0s,MS5.3						
CN2				LR	LR		
	comp=E,2µm,12.0s,MS5.3						
CN2				LR	LR		
	comp=Z,1µm,16.0s,MS5.0						
BHPL	**Bhopal**	**47.74**	**306**	*e*PKP	**P**	**06 05 24.6**	**0.0**
POO	**Poona**	**48.76**	**298**	*e*PKP	**P**	**06 05 30.9**	**-1.6**
POO				AMb	AMB	06 05 40.0	
	comp=Z,157nm,1.0s,mb6.0						
PTH	**Pithoragarh**	**48.96**	**315**	*e*PKP	**P**	**06 05 34.0**	**+0.2**
PTH				*e*x	x	06 07 06.8	
MDJ	**Mudanjiang**	**49.03**	**11**	P	**P**	**06 05 33.2**	**-0.9**
MDJ				sP	sP	06 05 48.9	-1.9
MDJ				PP	PP	06 07 26.7	-1.3
MDJ				ScP	ScP	06 10 48.8	-0.7
MDJ				PcS	PcS	06 10 53.3	-0.4
MDJ				S	**S**	**06 12 30.4**	**-5.4**
MDJ				sS	sS	06 12 54.4	-1.1
MDJ				ScS	ScS	06 15 21.5	-1.3
MDJ				SS	SS	06 16 06.5	-0.9
MDJ				pmax	pmax		
	comp=Z,16nm,1.9s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,470nm,6.0s						
MDJ				LR	LR		
	comp=N,980nm,46.4s						
MDJ				LR	LR		
	comp=E,2µm,40.0s						
MDJ				LR	LR		
	comp=Z,2µm,27.4s						
MDJ	**Mudanjiang**	**49.03**	**11**	*e*P	**P**	**06 05 33.6**	**-0.5**
	comp=Z,124nm,1.3s,mb5.8						
MDJ				*e*		06 05 40.1	
MDJ				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
DZM	**Mont Dzumac**	**50.36**	**116**	*e*P	**P**	**06 05 45.5**	**+0.9**
	comp=Z,39nm,1.0s,mb5.4						
NDI	**New Delhi**	**50.66**	**312**	*e*PKP	**P**	**06 05 44.0**	**-2.7**
NDI				*e*x	x	06 12 57.0	
NDI				*e*x	x	06 16 08.0	
ERM	**Erimo**	**50.74**	**24**	PFAKE		06 06 00.0	+13
ERM				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
BHV	**Bhavnagar**	**51.48**	**301**	*e*PKP	**P**	**06 05 52.5**	**-0.6**
AJM	**Ajmer**	**51.51**	**308**	*e*PKP	**P**	**06 05 52.0**	**-1.2**
AJM				*e*PKP		06 05 53.2	
SONM	**Songino Array**	**52.17**	**350**	P	**P**	**06 05 58.5**	**+0.8**
	comp=Z,46nm,0.5s,mb5.6,baz=165,slow=8.3,SNR=211						
SONM				LR	LR	06 31 51.7	
	comp=Z,3µm,19.4s,MS5.3,baz=63,slow=40						
SDNR	**Sundarnagar**	**52.37**	**315**	*e*PKP	**P**	**06 06 00.0**	**+0.5**
HIA	**Hailar**	**52.61**	**1**	*e*P	**P**	**06 06 00.4**	**-0.5**
HIA				pmax	pmax		
	comp=Z,143nm,1.2s						
HIA				MLR	MLR		
	comp=Z,3µm,21.0s						
HIA	**Hailar**	**52.61**	**1**	*e*P	**P**	**06 06 00.4**	**-0.5**
	comp=Z,143nm,1.2s,mb5.8						
HIA				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
BHK	**Bhakra**	**52.72**	**314**	*e*PKP	**P**	**06 05 59.2**	**-2.9**
BHK				*e*x	x	06 16 20.0	
DLH	**Dalhousie**	**53.66**	**315**	*e*PKP	**P**	**06 06 09.0**	**0.0**
THN	**Thein Dam**	**53.77**	**315**	*e*PKP	**P**	**06 06 08.0**	**-1.8**
HABR	**Khabarovsk**	**53.88**	**14**	*e*P	**P**	**06 06 05.7**	**-4.5**
HABR				*e**PP	pP	06 06 15.6	-6.6
HABR				*e*S	**S**	**06 13 37.6**	**-4.8**
HABR				SS	SS	06 17 20.0	-4.2
HABR				pmax	pmax		
	comp=N,14nm,1.5s						
HABR				pmax	pmax		
	comp=E,22nm,1.5s						
HABR				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.3						
HABR				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
KLR	**Kul’dur**	**53.88**	**11**	*e*P	**P**	**06 06 04.2**	**-6.1**
KLR				*e*S	**S**	**06 13 38.0**	**-4.4**

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KLR                              eSS      SS      06 17 17.0  -7.2
KLR                               pmax    pmax
      comp=Z,800nm,11.0s
BHJ   Bhuj               54.19 302 ePKP   P       06 06 12.5  -0.5
WMQ   Urumqi             54.48 333⇑iP     P       06 06 15.9  +1.1
WMQ                               pP      pP      06 06 28.5  +1.8
WMQ                               sP      sP      06 06 34.0  +2.4
WMQ                               PcP     PcP     06 07 20.0  +2.1
WMQ                               PP      PP      06 08 24.0  +6.6
WMQ                               S       S       06 13 51.0  +0.2
WMQ                               sS      sS      06 14 08.0  -2.7
WMQ                               SS      SS      06 17 36.0  +2.1
WMQ                               pmax    pmax
      comp=Z,200nm,1.0s,mb6.0
WMQ                               pmax    pmax
      comp=Z,2µm,4.2s
WMQ                               LR      LR
      comp=N,8µm,19.2s,MS6.0
WMQ                               LR      LR
      comp=E,7µm,17.2s,MS6.0
WMQ                               LR      LR
      comp=Z,5µm,19.2s,MS5.6
YSS   Yuzh-Sakhalins     54.78  20 eP     P       06 06 16.0  -0.9
YSS   Yuzh-Sakhalins     54.78  20  P     P       06 06 16.7  -0.2
      comp=Z,14nm,0.5s,mb5.2
ZAK   Zakamensk          55.20 349⇑iP     P       06 06 20.5  +0.7
ZAK                              e                06 07 23.6
ZAK                               pmax    pmax
      comp=Z,56nm,1.4s,mb5.4
NIL   Nilore             56.17 315  PFAKE         06 06 40.0   +13
NIL                               LR      LR
      comp=Z,488nm,20.0s,MS4.6
TLY   Talaya             56.37 349  P     P       06 06 29.6  +1.4
      comp=Z,635nm,1.2s,mb6.5,SNR=23
TLY   Talaya             56.37 349c iP    P       06 06 29.0  +0.8
TLY                              e                06 08 32.1
TLY                              eS       S       06 14 12.9  -2.8
TLY                              eSS      SS      06 17 53.2   -10
TLY                               pmax    pmax
      comp=Z,136nm,1.2s,mb5.8
TLY                               MLR     MLR
      comp=Z,2µm,20.0s,MS5.3
TLY   Talaya             56.37 349 eP     P       06 06 29.4  +1.2
      comp=Z,156nm,1.2s,mb5.9
TLY                               LR      LR
      comp=Z,2µm,20.0s,MS5.3
TLY   Talaya             56.37 349 ⇓P     P       06 06 29.9  +1.7
      SNR=70
TLY                                ⇓P             06 06 29.9
      SNR=70
IRK   Irkutsk            56.79 350 eP     P       06 06 31.4  +0.2
IRK                               pmax    pmax
      comp=Z,150nm,1.6s,mb5.8
MOY   Mondy              56.89 347 eP     P       06 06 32.6  +0.7
MOY                               pmax    pmax
      comp=Z,160nm,1.4s,mb5.9
KSH   Kashi              57.73 322  P     P       06 06 38.7  +0.7
KSH                               pP      pP      06 06 51.1  +1.0
KSH                               sP      sP      06 06 57.2  +2.3
KSH                              ePcP     PcP     06 07 32.2  +1.6
KSH                              ePP      PP      06 08 47.1  +0.6
KSH                              eScP     ScP     06 11 26.0  -1.5
KSH                              ePcS     PcS     06 11 30.9  -0.9
KSH                               S       S       06 14 30.7  -3.3
KSH                               sS      sS      06 14 51.1  -2.9
KSH                               ScS     ScS     06 16 20.3  -4.0
KSH                               pmax    pmax
      comp=Z,62nm,1.0s,mb5.6
KSH                               LR      LR
      comp=N,3µm,19.1s
KSH                               LR      LR
      comp=E,2µm,11.4s
KSH                               LR      LR
      comp=Z,4µm,15.8s,MS5.6
MK31  Makanchi Array     59.22 332 eP     P       06 06 49.0  +0.7
MKAR  Makanchi Array     59.22 332  P     P       06 06 48.9  +0.6
      comp=Z,204nm,0.6s,mb6.3,baz=139,slow=6.6,SNR=943
MKAR                              PKP2bc          06 36 30.6
      comp=Z,1.3nm,1.0s,baz=346,slow=2.5,SNR=4.9
MKAR                              PKP2ab          06 36 44.6
      comp=Z,1.3nm,1.1s,baz=297,slow=4.0,SNR=3.6
MKAR  Makanchi Array     59.22 332  P     P       06 06 48.9  +0.6
MKAR                            ⇑e                06 36 30.6
MKAR                              P'P'ab          06 36 44.6
KBL   Kabul              59.63 314 eP     P       06 06 51.0  -0.4
KBL                              e                06 06 57.7
KBL                               pmax    pmax
      comp=Z,393nm,1.2s,mb6.3
KBL   Kabul              59.63 314 eP     P       06 06 51.0  -0.5
      comp=Z,392nm,1.2s,mb6.3
KBL                              e                06 06 57.7
KZA   Kyzart             59.73 324  P     P       06 06 54.2  +2.3
      SNR=6.2
TKM2  Tokmak 2           60.06 325 eP     P       06 06 54.6  +0.4
TKM2                             e                06 07 02.4
TKM2                              pmax    pmax
      comp=Z,274nm,1.5s,mb6.1
TKM2                              MLR     MLR
      comp=Z,2µm,20.0s,MS5.1
TKM2  Tokmak 2           60.06 325  P     P       06 06 55.0  +0.8
      SNR=19
TKM2  Tokmak 2           60.06 325 eP     P       06 06 54.6  +0.5
      comp=Z,274nm,1.5s,mb6.1
TKM2                             e                06 07 02.4
TKM2                              LR      LR
      comp=Z,2µm,20.0s,MS5.1
NRGR  Nerungri           60.24   4 eP     P       06 07 00.8  +5.7
NRGR                              S       S       06 15 14.9  +8.9
NRGR                              smax
      comp=N,26nm,0.6s
UCH   Uchtor             60.26 324  P     P       06 06 57.5  +1.9
      SNR=6.8
UCH   Uchtor             60.26 324 eP     P       06 06 57.3  +1.8
      comp=N,35nm,1.1s,mb5.3
KBK   Karagaybulak       60.27 324  P     P       06 06 56.9  +1.3
      SNR=42
CLNS  Chul'man           60.43   4 eP     P       06 06 55.5  -0.9
CLNS                              pmax    pmax
      comp=N,20nm,1.1s
CLNS                              pmax    pmax
      comp=E,23nm,1.0s
CLNS                              pmax    pmax
      comp=Z,44nm,1.1s,mb5.4
AAK   Ala-Archa          60.52 324  P     P       06 06 58.9  +1.6
      comp=Z,563nm,1.0s,mb6.7,SNR=32
AAK   Ala-Archa          60.52 324 eP     P       06 06 57.7  +0.4
AAK                               pmax    pmax
      comp=Z,61nm,0.7s,mb5.8
AAK                               MLR     MLR
      comp=Z,3µm,20.0s,MS5.4
AAK   Ala-Archa          60.52 324  P     P       06 06 59.0  +1.7
      SNR=57
AAK   Ala-Archa          60.52 324 eP     P       06 06 57.6  +0.4
      comp=Z,61nm,0.7s,mb5.8
AAK                               LR      LR
      comp=Z,3µm,20.0s,MS5.4
AAK   Ala-Archa          60.52 324 ⇑P     P       06 06 58.7  +1.4
      SNR=42
AAK                                ⇑P             06 06 58.7
      SNR=42
AAK   Ala-Archa          60.52 324  P     P       06 06 58.3  +1.0
      comp=Z,40nm,1.3s,comp=Z,573nm,mb5.4
FRU   Bishkek            60.57 324 eP     P       06 06 57.0  -0.6
FRU                              e                06 15 16.0
FRU                               pmax    pmax
      comp=Z,120nm,2.0s,mb5.7
FRU                               MLR     MLR
      comp=Z,2µm,20.0s,MS5.1
CHMS  Chumysh            60.59 325  P     P       06 06 58.5  +0.7
      SNR=14
AML   Almayashu          60.68 323  P     P       06 07 00.8  +2.4
      SNR=7.0
AML   Almayashu          60.68 323 eP     P       06 06 59.1  +0.6
      comp=Z,203nm,1.1s,mb6.2
AML                               LR      LR
      comp=Z,2µm,22.0s,MS5.2
USP   Ospenovka          60.90 325  P     P       06 07 00.3  +0.4
      SNR=39
EKS2  Erkin-Say          60.95 324  P     P       06 07 01.4  +1.1
      SNR=36
EKS2  Erkin-Say          60.95 324 eP     P       06 07 00.9  +0.7
      comp=Z,245nm,1.4s,mb6.1
EKS2                              LR      LR
      comp=Z,2µm,20.0s,MS5.2
PAF   Port-aux-Franc     61.03 214  PFAKE         06 07 10.0  +9.3
PAF                               LR      LR
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      comp=Z,5µm,22.0s,MS5.6
BOD   Bodaibo            61.25 358 eP     P       06 07 01.1  -0.8
BOD                              e                06 07 06.9
BOD                               pmax    pmax
      comp=Z,34nm,1.0s,mb5.4
MSEY  Mahe Island        62.43 267  PFAKE         06 07 20.0  +9.2
MSEY                              LR      LR
      comp=Z,3µm,19.0s,MS5.4
KRAR  Krasnoyarsk        62.84 344⇓iP     P       06 07 13.2  +0.5
KRAR                              pmax    pmax
      comp=Z,158nm,1.0s,mb6.1
CASY  Casey              62.85 183 eP     P       06 07 12.4  -0.2
CASY  Casey              62.85 183 eP     P       06 07 12.4  -0.2
      comp=Z,110nm,1.1s,mb5.9
CASY                              LR      LR
      comp=Z,4µm,22.0s,MS5.5
RER   Riviere de l'E     62.96 248  PFAKE         06 07 30.0   +16
RER                               LR      LR
      comp=Z,2µm,21.0s,MS5.3
KK31  Karatay Array      63.16 323 i P    P       06 07 14.7  -0.4
ZAA0  Zalesovo Array     63.65 339 eP     P       06 07 17.1  -0.9
ZALV  Zalesovo Beam      63.65 339  P     P       06 07 17.4  -0.7
ZALV                                              06 09 44.4
ZALV  Zalesovo Beam      63.65 339  P     P       06 07 17.4  -0.7
      comp=Z,257nm,0.8s,mb6.3,baz=138,slow=5.1,SNR=481
ZALV                              PP      PP      06 09 44.4  +5.9
      comp=Z,11nm,0.9s,baz=158,slow=9.0,SNR=3.7
ZALV                              PKP2bc          06 36 20.6
      comp=Z,2.1nm,0.8s,baz=278,slow=4.3,SNR=7.3
ZALV                              LR      LR      06 39 16.8
      comp=Z,1µm,18.3s,MS5.0,baz=18,slow=40
ZALV  Zalesovo Beam      63.65 339  P     P       06 07 17.4  -0.7
ZALV                              PP      PP      06 09 44.4  +5.9
ZALV                            ⇑e                06 36 20.6
ZALV                              LR      LR      06 39 16.8
KURK  Kurchatov          63.73 333  P     P       06 07 19.6  +0.9
      comp=Z,2µm,1.0s
KURK  Kurchatov          63.73 333  P     P       06 07 18.5  -0.2
KURK                              pmax    pmax
      comp=Z,547nm,1.3s,mb6.4
KURK  Kurchatov          63.73 333  P     P       06 07 18.4  -0.3
      comp=Z,71nm,0.9s,mb5.7,baz=134,slow=6.4,SNR=63
KURK                              PKPPKP          06 36 14.5
      comp=Z,2.9nm,0.9s,baz=305,slow=3.8,SNR=5.3
KURK                              LR      LR      06 39 18.3
      comp=Z,4µm,18.8s,MS5.6,baz=135,slow=40
KURK  Kurchatov          63.73 333 eP     P       06 07 18.3  -0.4
      comp=Z,331nm,1.0s,mb6.3
KURK                             e                06 07 25.6
KURK                              LR      LR
      comp=Z,4µm,19.0s,MS5.7
KURK  Kurchatov          63.73 333 ⇑P     P       06 07 19.2  +0.5
      SNR=217
KURK                               ⇑P             06 07 19.2
      SNR=217
URZ   Urewera            63.76 131  LR    LR      06 37 36.9
      comp=Z,4µm,18.8s,MS5.6,baz=103,slow=38
JMDO  Jabal Madar        63.95 297 ⇑P     P       06 07 20.4  -0.3
      SNR=7.3
BIDO  Bidbid             64.25 298  P     P       06 07 22.5  -0.2
      SNR=5.0
BSY   Bisya              64.86 297 ⇓P     P       06 07 26.4  -0.3
      SNR=8.0
NVS   Novosibirsk        64.92 339⇑iP     P       06 07 25.3  -1.1
NVS                              eS       S       06 16 03.8  -1.1
NVS                               pmax    pmax
      comp=Z,260nm,1.4s,mb6.1
NVS                               pmax    pmax
      comp=N,240nm,1.5s
NVS                               pmax    pmax
      comp=E,195nm,1.3s
NVS                               smax
      comp=N,25nm,2.2s
NVS                               smax
      comp=E,33nm,2.2s
MIR   Mirnyy             65.29 191⇑iP     P       06 07 30.0  +1.4
MIR                              i                06 07 37.0
MIR                              i                06 08 05.0
MIR                              eS       S       06 16 14.0  +4.9
MIR                              eSSS             06 23 14.0
MIR                               pmax    pmax
      comp=Z,600nm,1.0s,mb6.6
PETK  Petropavlovsk-     65.50  25  P     P       06 07 29.3  -0.9
      comp=Z,24nm,1.0s,mb5.2,baz=208,slow=1.2,SNR=8.3
PETK                              LR      LR      06 36 47.2
      comp=Z,792nm,18.4s,MS5.0,baz=215,slow=37
PET   Petropavlovsk      65.85  26 eP     P       06 07 37.1  +4.7
PET                              eS       S       06 16 21.7  +5.4
PET                               pmax    pmax
      comp=Z,500nm,15.7s
PET                               MLR     MLR
      comp=Z,1µm,19.0s,MS5.1
PET                               MLR     MLR
      comp=Z,1µm,13.0s
PET   Petropavlovsk      65.85  26  PFAKE         06 07 40.0  +7.6
PET                               LR      LR
      comp=Z,1µm,21.0s,MS5.1
YAK   Yakutsk            65.99   6 eP     P       06 07 31.4  -1.8
YAK                              e*PP     pP      06 07 37.5  -7.9
YAK                              e                06 07 59.0
YAK                              e                06 09 56.6
YAK                              eS       S       06 16 15.0  -2.7
YAK                              e*SS     sS      06 16 39.1  +1.1
YAK                              e                06 17 22.5
YAK                              eSS      SS      06 20 26.6  -7.0
YAK                               pmax    pmax
      comp=Z,62nm,1.0s,mb5.6
YAK                               pmax    pmax
      comp=E,4.0nm,1.1s
YAK                               pmax    pmax
      comp=N,16nm,1.0s
YAK                               pmax    pmax
      comp=Z,43nm,1.5s,mb5.3
YAK                               pmax    pmax
      comp=N,50nm,2.0s
YAK                               pmax    pmax
      comp=E,23nm,1.5s
YAK                               smax
      comp=N,458nm,7.3s
YAK                               smax
      comp=E,63nm,2.7s
YAK                               MLR     MLR
      comp=E,786nm,19.0s,MS5.2
YAK                               MLR     MLR
      comp=Z,2µm,20.0s,MS5.2
YAK                               MLR     MLR
      comp=N,1µm,19.0s,MS5.2
YAK   Yakutsk            65.99   6 eP     P       06 07 31.5  -1.6
      comp=N,66nm,0.8s,mb5.7
RBK   Rabkut             66.35 291  P     P       06 07 35.9  -0.5
      SNR=14
WHFO  Wadi Hawf          66.84 291  P     P       06 07 38.3  -1.2
      SNR=32
ASUD  Al Ashush, Dub     67.01 298 ⇓P     P       06 07 40.7  +0.2
      SNR=8.2
ABTO  Aybut              67.17 290  P     P       06 07 40.7  -0.9
      SNR=14
VOSK  Vostochnaya        68.62 331  P     P       06 07 48.8  -1.2
VOSK                              pmax    pmax
      comp=Z,137nm,1.2s,mb5.8
ABKT  Ailbek             69.05 313  P     P       06 07 53.4  +0.4
      comp=Z,899nm,1.1s,mb6.6,SNR=21
BVA0  Borovoye Array     69.08 331 i P    P       06 07 52.5  -0.4
BVA0                              pmax    pmax
      comp=Z,66nm,1.2s,mb5.4
BVAR  Borovoye Array     69.08 331  P     P       06 07 52.5  -0.4
      comp=Z,103nm,0.8s,mb5.8,baz=137,slow=7.4,SNR=348
BVAR                              LR      LR      06 41 02.0
      comp=Z,4µm,21.2s,MS5.6,baz=124,slow=38
BRVK  Borovoye           69.16 331  P     P       06 07 53.6  +0.3
      comp=Z,1µm,1.1s,mb6.8
BRVK  Borovoye           69.16 331 eP     P       06 07 52.9  -0.4
BRVK                              pmax    pmax
      comp=Z,452nm,1.2s,mb6.3
BRVK                              MLR     MLR
      comp=Z,4µm,22.0s,MS5.6
BRVK  Borovoye           69.16 331 eP     P       06 07 52.9  -0.4
      comp=Z,452nm,1.2s,mb6.3
BRVK                              LR      LR
      comp=Z,4µm,22.0s,MS5.6
BRVK  Borovoye           69.16 331  P     P       06 07 53.4  +0.1
      SNR=141
BRVK                              P               06 07 53.4
      SNR=141
AFI   Afiamalu           69.89 103 eP     P       06 08 00.3  +1.7
AFI                               pmax    pmax
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      comp=Z,106nm,1.4s,mb5.6
AFI                               MLR     MLR
      comp=Z,1µm,19.0s,MS5.1
AFI   Afiamalu           69.89 103 eP     P       06 08 00.3  +1.6
      comp=Z,106nm,1.4s,mb5.6
AFI                               LR      LR
      comp=Z,1µm,19.0s,MS5.1
ABPO  Ambohimpanom       70.75 251 eP     P       06 08 04.1  +0.2
ABPO                              pmax    pmax
      comp=Z,201nm,1.4s,mb5.9
ABPO                              MLR     MLR
      comp=Z,1µm,19.0s,MS5.2
ABPO  Ambohimpanom       70.75 251 eP     P       06 08 04.1  +0.2
      comp=Z,201nm,1.4s,mb5.9
ABPO                              LR      LR
      comp=Z,1µm,19.0s,MS5.2
OPO   Ambohidratompo     70.77 252  P     P       06 08 03.8  -0.2
      comp=Z,56nm,0.9s,mb5.5,baz=86,slow=5.0,SNR=29
SEY   Seymchan           71.17  16⇑eP     P       06 08 04.0  -1.5
SEY   Seymchan           71.17  16⇑eP     P       06 08 04.1  -1.4
AB31  Akbulak array      72.61 324  P     P       06 08 13.6  -0.8
AB31                              pmax    pmax
      comp=Z,469nm,1.1s,mb6.3
MAW   Mawson             74.05 199 eP     P       06 08 23.4  +0.9
MAW                               pmax    pmax
      comp=Z,42nm,1.2s
MAW                               MLR     MLR
      comp=Z,4µm,22.0s
MAW   Mawson             74.05 199 eP     P       06 08 23.8  +1.3
      comp=Z,90nm,1.0s,mb5.7
MAW   Mawson             74.05 199  P     P       06 08 23.4  +0.8
      comp=Z,101nm,0.9s,mb5.7,baz=41,slow=11,SNR=8.9
MAW                               LR      LR      06 33 53.2
      comp=Z,1µm,21.8s,MS5.2,baz=196,slow=30
MAW   Mawson             74.05 199 eP     P       06 08 23.4  +0.9
      comp=Z,42nm,1.2s,mb5.2
MAW                               LR      LR
      comp=Z,4µm,22.0s,MS5.6
AKTK  Aktyubinsk         74.25 325  P     P       06 08 23.6  -0.5
AKTO  Aktyubinsk         74.25 325  P     P       06 08 23.3  -0.7
AKTO                              pmax    pmax
      comp=Z,75nm,1.4s,mb5.4
AKTO  Aktyubinsk         74.25 325  P     P       06 08 23.6  -0.5
      comp=Z,65nm,0.9s,mb5.5,baz=112,slow=5.7,SNR=117
QRN   Al-Qurain          74.45 301 eP     P       06 08 24.4  -1.3
QRN                               AMb     AMB     06 08 32.5
      comp=Z,204nm,1.4s,mb5.9
KBD   Kabd               74.73 301 eP     P       06 08 25.6  -1.7
KBD                               AMb     AMB     06 08 34.3
      comp=Z,100nm,1.1s,mb5.7
RDF   Al-Radifah         74.80 301 eP     P       06 08 25.8  -1.9
RDF                               AMb     AMB     06 08 29.8
      comp=Z,176nm,1.0s,mb5.9
NAY   Al-Naaiem          75.14 301 eP     P       06 08 27.8  -1.8
NAY                               AMb     AMB     06 08 36.2
      comp=Z,61nm,1.5s,mb5.3
MIB   Mutribah           75.18 302 eP     P       06 08 28.4  -1.5
MIB                               AMb     AMB     06 08 32.4
      comp=Z,108nm,0.7s,mb5.9
TIXI  Tiksi              75.38   4c iP    P       06 08 27.5  -2.6
TIXI                             eS       S       06 18 00.1  -6.5
TIXI                             e                06 18 35.2
TIXI                              pmax    pmax
      comp=Z,105nm,1.1s,mb5.7
TIXI                              MLR     MLR
      comp=Z,1µm,15.0s,MS5.3
TIXI  Tiksi              75.38   4 eP     P       06 08 27.6  -2.5
      comp=Z,99nm,1.0s,mb5.7
SVE   Sverdlovsk         75.87 331⇑eP     P       06 08 32.6  -0.6
SVE                              ePPP             06 13 12.0
SVE                              eS       S       06 18 11.7  -0.8
SVE                              eSS      SS      06 23 02.7  -2.8
SVE                              eSSS             06 26 23.7
SVE                               pmax    pmax
      comp=Z,277nm,1.3s,mb6.0
SVE                               MLR     MLR
      comp=Z,2µm,19.0s,MS5.5
ARU   Arti               76.68 331  P     P       06 08 36.8  -1.0
      comp=Z,705nm,1.0s,mb6.5,SNR=8.6
ARU   Arti               76.68 331 eP     P       06 08 36.4  -1.4
ARU                              e                06 08 43.6
ARU                               pmax    pmax
      comp=Z,307nm,1.4s,mb6.0
ARU                               MLR     MLR
      comp=Z,3µm,20.0s,MS5.5
ARU   Arti               76.68 331 eP     P       06 08 36.4  -1.4
      comp=Z,307nm,1.4s,mb6.0
ARU                              e                06 08 43.6
ARU                               LR      LR
      comp=Z,3µm,20.0s,MS5.5
VNDA  Vanda              77.49 171 eP     P       06 08 42.6  +0.5
VNDA                              pmax    pmax
      comp=Z,27nm,1.1s
VNDA  Vanda              77.49 171  P     P       06 08 42.2  +0.1
      comp=Z,20nm,1.0s,mb5.0,baz=319,slow=5.4,SNR=26
VNDA                              PP      PP      06 11 42.6  +5.6
      comp=Z,8.6nm,1.1s,baz=330,slow=8.5,SNR=3.4
VNDA                              LR      LR      06 39 53.3
      comp=Z,2µm,20.6s,MS5.5,baz=330,slow=33
VNDA  Vanda              77.49 171 eP     P       06 08 42.6  +0.5
      comp=Z,27nm,1.1s,mb5.1
MAK   Makhachkala        78.34 315 eP     P       06 08 45.6  -1.8
MAK                              e                06 11 46.5
MAK                              i S      S       06 18 40.8  +0.8
MAK                               pmax    pmax
      comp=Z,218nm,1.5s,mb5.9
MAK                               MLR     MLR
      comp=Z,1µm,18.0s,MS5.2
SBA   Scott Base         78.49 171 eP     P       06 08 47.2  -0.4
SBA                              e                06 08 55.5
SBA                               pmax    pmax
      comp=Z,93nm,1.4s,mb5.5
SBA   Scott Base         78.49 171 eP     P       06 08 47.2  -0.5
      comp=Z,93nm,1.4s,mb5.5
SBA                              e                06 08 55.5
BILL  Bilibino           78.84  17⇓eP     P       06 08 47.4  -2.2
BILL                             e        pP      06 08 57.4  -4.7
BILL                             eS       S       06 18 43.1  -1.3
BILL                              pmax    pmax
      comp=Z,13nm,1.3s,mb4.7
BILL                              MLR     MLR
      comp=Z,700nm,15.0s,MS5.1
BILL  Bilibino           78.84  17 eP     P       06 08 47.6  -2.0
      comp=Z,12nm,1.1s,mb4.7
BILL                              LR      LR
      comp=Z,917nm,20.0s,MS5.1
SOKR  Solikamsk          78.97 333c iP    P       06 08 48.4  -2.1
SOKR                                              06 11 48.4
SOKR                              S       S       06 18 48.4  +2.4
SOKR                              SS      SS      06 23 51.5  -0.6
SOKR                              pmax    pmax
      comp=Z,90nm,1.4s,mb5.5
GNI   Garni              79.63 312 eP     P       06 08 54.6   0.0
GNI                              e                06 09 01.1
GNI                               pmax    pmax
      comp=Z,130nm,1.4s
GNI                               MLR     MLR
      comp=Z,765nm,20.0s
GNI   Garni              79.63 312  P     P       06 08 54.6  +0.1
      comp=Z,3.0nm,0.5s,mb4.4,baz=304,slow=1.2,SNR=8.9
GNI   Garni              79.63 312 eP     P       06 08 54.6  +0.1
      comp=Z,130nm,1.4s,mb5.7
GNI                              e                06 09 01.1
GNI                               LR      LR
      comp=Z,765nm,20.0s,MS5.0
GNI   Garni              79.63 312 ⇓P     P       06 08 55.0  +0.5
      SNR=23
GNI                                ⇓P             06 08 55.0
      SNR=23
HAKT  HAKKARI            79.83 309 i P    Px      06 09 11.6
MTA   Mtatsminda         79.96 313  P     P       06 08 56.1  -0.2
TBLG  Delisi             80.01 313 eP     P       06 08 56.3  -0.3
TBLG  Delisi             80.01 313  P     P       06 08 56.3  -0.2
DYDN  Diyadin            80.28 311 i P    P       06 08 58.4  +0.3
KMBO  Kilima Mbogo       80.78 269  P     P       06 09 01.7  +0.4
      comp=Z,16nm,0.9s,mb4.9,baz=67,slow=7.2,SNR=23
KMBO                              LR      LR      06 41 13.9
      comp=Z,2µm,20.1s,MS5.3,baz=339,slow=33
KMBO  Kilima Mbogo       80.78 269  P     P       06 09 01.7  +0.4
KMBO                              LR      LR      06 41 13.9
ONI   Oni                81.14 314  P     P       06 09 02.9  +0.3
HOMI  Horasan            81.73 311 i P    P       06 09 06.5  +0.7
BEST  Besiri             81.80 309 i P    P       06 09 06.1  -0.1
KIV   Kislovodsk         81.99 315 eP     P       06 09 06.2  -0.9
KIV                              e                06 12 14.9
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KIV                                eS      S       06 19 17.9 -0.4
KIV                                 pmax   pmax
      comp=Z,39nm,1.2s,mb5.2
KIV                                 pmax   pmax
      comp=Z,562nm,9.1s
KIV   Kislovodsk         81.99 315 eP      P       06 09 06.2 -0.8
      comp=Z,40nm,1.0s,mb5.3
KIV                                 LR     LR
      comp=Z,852nm,19.0s,MS5.1
KIV   Kislovodsk         81.99 315 ⇓P      P       06 09 07.1  0.0
      SNR=11
KIV                                ⇓P              06 09 07.1
      SNR=11
MARD  Mardin             82.07 308 i P     P       06 09 06.8 -0.8
ERZM  Erzurum            82.11 311 i P     P       06 09 08.9 +1.1
SYO   Syowa Base         82.59 201⇓ePcP    PcP     06 09 14.8 +0.1
DIYA  Diyarbakir         82.69 309 i P     P       06 09 10.5 -0.4
KOPT  Kop Dagi           82.79 311 i P     P       06 09 11.7 +0.3
ELZG  Elazig             83.67 309 i P     P       06 09 16.7 +0.8
SOC   Sochi              84.02 314c iP     P       06 09 15.7 -1.9
SOC                                e               06 12 30.4
SOC                                i S     S       06 19 34.3 -4.6
SOC                                 pmax   pmax
      comp=Z,43nm,0.8s,mb5.6
MALT  Malatya            84.08 309 eP      P       06 09 18.3 +0.3
MALT                                pmax   pmax
      comp=Z,34nm,1.3s,mb5.3
MALT                                MLR    MLR
      comp=Z,1µm,20.0s,MS5.2
MALT  Malatya            84.08 309 eP      P       06 09 18.2 +0.2
      comp=Z,34nm,1.3s,mb5.3
MALT                                LR     LR
      comp=Z,1µm,20.0s,MS5.2
MALT  Malatya            84.08 309  P      P       06 09 18.4 +0.4
      comp=Z,23nm,1.3s,comp=Z,636nm,mb5.2
KEMA  Kemaliye           84.18 310 i P     P       06 09 18.5  0.0
VRHR  Novokhopersk       84.27 322 eP      P       06 09 17.1 -1.6
VRHR                               e*PP    pP      06 09 23.9 -7.4
VRHR                               eS      S       06 19 37.4 -3.7
VRHR                                pmax   pmax
      comp=Z,70nm,0.6s,mb6.0
VRHR                                pmax   pmax
      comp=N,30nm,0.5s
VRHR                                pmax   pmax
      comp=E,40nm,0.6s
VRHR                                smax
      comp=N,290nm,3.1s
VRHR                                smax
      comp=Z,140nm,2.0s
VRHR                                smax
      comp=E,190nm,1.9s
VRHR                                MLR    MLR
      comp=Z,1µm,20.0s,MS5.2
VRHR                                MLR    MLR
      comp=N,850nm,16.0s
VRHR                                MLR    MLR
      comp=E,2µm,23.0s
UNV   Unalaska Valle     84.29  35 eP      P       06 09 17.6 -1.1
      comp=E,137nm,1.3s,mb5.9
ASF   Jabal al Asfar     84.42 303  P      P       06 09 20.3 +0.4
      comp=E,18nm,0.9s,mb5.2,baz=360,slow=3.9,SNR=20
AKCD  Akcadag            84.47 309 i P     P       06 09 19.6 -0.3
GAMB  Gambell            84.54  25 eP      P       06 09 18.8 -0.9
      comp=E,112nm,1.3s,mb5.8
GZT   Gaziantep          84.60 308 i P     P       06 09 20.9 +0.2
GRSN  GIRESUNGRSN        84.62 311 i P     P       06 09 19.4 -1.3
PRGR  Permogore          84.84 333⇑iP      P       06 09 19.5 -1.8
PRGR                                pmax   pmax
      comp=Z,49nm,0.8s,mb5.7
POGA  Pongola            85.25 243⇑iP      P       06 09 24.2  0.0
POGA                                AMb    AMB     06 09 25.9
      comp=Z,280nm,1.0s,mb6.3
ANDN  Andirin            85.60 308 i P     P       06 09 25.1 -0.5
VORD  Divnogorie         85.68 322 eP      P       06 09 23.7 -2.1
PINB  Pinarbasi          85.70 309 i P     P       06 09 26.0 -0.2
EIL   Elat               85.77 300  P      P       06 09 26.7  0.0
      comp=Z,29nm,1.0s,mb5.5,baz=61,slow=3.5,SNR=12
MMAI  Mount Meron Ar     85.78 303  P      P       06 09 27.3 +0.7
      comp=Z,9.3nm,0.6s,mb5.2,baz=84,slow=8.5,SNR=13
VSR   Storozhevoye       85.81 322c iP     P       06 09 24.6 -1.8
VSR                                i *SP   sP      06 09 38.8 -4.9
VSR                                e               06 12 43.1
VSR                                eS      S       06 19 54.2 -2.1
VSR                                 pmax   pmax
      comp=N,6.0nm,0.8s
VSR                                 pmax   pmax
      comp=Z,40nm,0.8s,mb5.7
VSR                                 pmax   pmax
      comp=E,60nm,0.9s
VSR                                 pmax   pmax
      comp=Z,50nm,3.4s
VSR                                 pmax   pmax
      comp=N,250nm,4.9s
VSR                                 pmax   pmax
      comp=E,120nm,2.8s
VSR                                 smax
      comp=E,310nm,4.8s
VSR                                 smax
      comp=Z,220nm,5.7s
VSR                                 smax
      comp=N,250nm,4.9s
VSR                                 MLR    MLR
      comp=N,330nm,19.0s,MS4.9
VSR                                 MLR    MLR
      comp=Z,260nm,19.0s,MS4.7
VSR                                 MLR    MLR
      comp=E,340nm,16.0s,MS4.9
VOR   Voronezh           85.89 322  P      P       06 09 26.0 -0.8
VOR                                 pmax   pmax
      comp=Z,400nm,2.0s,mb6.3
QSPA  South Pole Qui     86.42 180  PKPPKP         06 35 32.7
      comp=Z,2.1nm,1.0s,baz=157,slow=1.9,SNR=3.8
QSPA                                LR     LR      06 44 09.4
      comp=Z,2µm,21.9s,MS5.6,baz=151,slow=33
TNA   Tin City           86.63  24 eP      P       06 09 29.9 -0.2
      comp=Z,23nm,1.5s,mb5.2
TNA                                e               06 09 36.7
MSNA  Messina            86.87 248⇑iP      P       06 09 33.0 +0.7
MSNA                                AMb    AMB     06 09 34.3
      comp=Z,183nm,1.5s,mb6.1
KSD   Kokstad            87.07 240⇑iP      P       06 09 34.2 +1.1
KSD                                 AMb    AMB     06 09 35.4
      comp=Z,1µm,1.1s,mb7.0
CTKT  Corum              87.19 311 i P     P       06 09 33.0 -0.4
BOYT  Boyabat            87.20 312 i P     P       06 09 33.4 -0.1
MBAR  Mbarara            87.31 270  P      P       06 09 34.3 -0.3
      comp=Z,102nm,0.9s,mb6.0,SNR=9.4
MBAR  Mbarara            87.31 270⇑iP      P       06 09 34.6  0.0
MBAR  Mbarara            87.31 270 eP      P       06 09 34.4 -0.3
CDAG  Cicekdag           87.39 310 i P     P       06 09 33.5 -0.9
KLMR  Klimovskoe         87.51 331 eP      P       06 09 32.5 -2.0
KLMR                               e               06 12 53.7
KLMR                               eS      S       06 19 58.2  -14
KLMR                                pmax   pmax
      comp=Z,207nm,1.3s,mb6.2
MOS   Moscow             87.53 326 eP      P       06 09 39.1 +4.4
MOS                                e               06 13 03.7
MOS                                e               06 20 00.0
MOS                                 pmax   pmax
      comp=Z,119nm,1.4s,mb5.9
MOS                                 MLR    MLR
      comp=Z,2µm,23.0s,MS5.5
CSS   Prodhromos         87.70 305  PFAKE          06 09 50.0  +14
CSS                                 LR     LR
      comp=Z,2µm,19.0s,MS5.6
BR131 Keskin Array S     87.96 310 eP      P       06 09 35.9 -1.3
      comp=Z,12nm,0.8s,mb5.2
BR131                               LR     LR
      comp=Z,621nm,19.0s,MS5.0
BRTR  Keskin Array B     87.96 310  P      P       06 09 35.5 -1.6
      comp=Z,12nm,0.9s,mb5.1,baz=130,slow=5.2,SNR=52
OBN   Obninsk            88.02 325⇓eP      P       06 09 35.5 -1.6
OBN                                e               06 09 42.6
OBN                                e               06 13 05.4
OBN                                eS      S       06 20 03.1  -14
OBN                                 pmax   pmax
      comp=Z,92nm,1.5s,mb5.8
ILGA  Ilgaz              88.05 311 i P     P       06 09 37.1 -0.4
SIM   Simferopol’        88.20 315c iP     P       06 09 36.6 -1.6
SIM                                eS      S       06 20 21.0 +1.3
SIM                                ePS             06 21 23.0
SIM                                 pmax   pmax
      comp=Z,46nm,0.9s,mb5.7
ELDT  Eldivan            88.21 311 i P     P       06 09 36.8 -1.5
SLR   Silverton          88.30 244⇑iP      P       06 09 39.7 +0.6
SLR                                 AMb    AMB     06 09 41.1
      comp=Z,323nm,1.0s,mb6.5
ERPM  east rand prop     88.30 244 eP      P       06 09 39.3 +0.2
ERPM                                AMb    AMB     06 09 40.9
      comp=Z,134nm,1.0s,mb6.1
BALT  Daday              88.35 312 i P     P       06 09 38.3 -0.6
LSZ   Lusaka             88.97 255 eP      P       06 09 42.0 -0.4
LSZ                                 pmax   pmax
      comp=Z,38nm,1.1s,mb5.6
LSZ                                 MLR    MLR
      comp=Z,4µm,20.0s,MS5.9
LSZ   Lusaka             88.97 255 eP      P       06 09 42.0 -0.5
      comp=Z,38nm,1.1s,mb5.6
LSZ                                 LR     LR
      comp=Z,4µm,20.0s,MS5.9
LSZ   Lusaka             88.97 255 ⇑P      P       06 09 42.7 +0.3
      SNR=6.0
LSZ                                ⇑P              06 09 42.7
      SNR=6.0
LSZ   Lusaka             88.97 255⇑iP      P       06 09 42.5 +0.1
LSZ                                 AMb    AMB     06 09 43.9
      comp=Z,364nm,1.9s,mb6.4
PRYS  Parys              89.06 243⇑iP      P       06 09 43.4 +0.7
PRYS                                AMb    AMB     06 09 46.1
      comp=Z,370nm,1.4s,mb6.5
GRM   Grahamstown        89.39 237 eP      P       06 09 44.4 +0.3
GRM                                 AMb    AMB     06 09 47.7
      comp=Z,186nm,1.5s,mb6.2
KSR   Koster             89.54 244 eP      P       06 09 47.1 +2.2
KSR                                 AMb    AMB     06 09 58.5
      comp=Z,54nm,1.0s,mb5.8
ESKT  Eskisehir          90.09 309 i P     P       06 09 46.0 -1.1
HENT  Hendek             90.15 311 i P     P       06 09 46.0 -1.4
ISP   Isparta            90.22 308  PFAKE          06 10 00.0  +12
ISP                                 LR     LR
      comp=Z,749nm,19.0s,MS5.1
SOE   Somerset East      90.23 237 eP      P       06 09 49.2 +1.2
HVD   Gariep Dam         90.44 239 eP      P       06 09 50.0 +0.9
LBTB  Lobatse            90.77 245 eP      P       06 09 50.7  0.0
LBTB                                pmax   pmax
      comp=Z,114nm,1.0s,mb6.2
LBTB  Lobatse            90.77 245  P      P       06 09 51.3 +0.7
      comp=Z,59nm,0.7s,mb6.0,baz=122,slow=4.8,SNR=57
LBTB                                LR     LR      06 50 08.5
      comp=Z,2µm,18.2s,MS5.5,baz=109,slow=35
LBTB  Lobatse            90.77 245 eP      P       06 09 50.7 +0.1
      comp=Z,114nm,1.0s,mb6.2
LBTB  Lobatse            90.77 245⇑iP      P       06 09 51.6 +1.0
LBTB                                AMb    AMB     06 09 54.3
      comp=Z,141nm,1.2s,mb6.2
LVZ   Lovozero           90.77 338⇑eP      P       06 09 49.1 -0.6
LVZ                                 pmax   pmax
      comp=Z,34nm,1.0s,mb5.6
LVZ   Lovozero           90.77 338  PFAKE          06 10 00.0  +10
LVZ                                 LR     LR
      comp=Z,2µm,19.0s,MS5.6
BOSA  Boshof             90.80 241 eP      P       06 09 51.0 +0.2
BOSA                                pmax   pmax
      comp=Z,140nm,1.0s,mb6.2
BOSA                                MLR    MLR
      comp=Z,3µm,20.0s,MS5.7
BOSA  Boshof             90.80 241  P      P       06 09 51.3 +0.6
      comp=Z,117nm,1.0s,mb6.2,baz=99,slow=5.0,SNR=46
BOSA                                LR     LR      06 44 10.9
      comp=Z,3µm,21.6s,MS5.7,baz=101,slow=31
BOSA  Boshof             90.80 241 eP      P       06 09 51.0 +0.2
      comp=Z,140nm,1.0s,mb6.2
BOSA                                LR     LR
      comp=Z,3µm,20.0s,MS5.7
AKAS  Kas                90.83 306 eP      P       06 09 47.8 -2.9
SWZ   Schweizer          90.84 243 eP      P       06 09 51.7 +0.7
SWZ                                 AMb    AMB     06 09 53.9
      comp=Z,388nm,1.9s,mb6.4
GDZ   Gediz              91.12 309 i P     P       06 09 49.7 -2.2
PPT   Papeete            91.18 108 eS      S       06 20 46.9 -1.6
      comp=Z,2µm,27.2s
PPT                                eLQ             06 35 24.4
      comp=Z,3µm,36.0s
PPT                                eLR     LR      06 39 19.0
      comp=Z,745nm,22.8s
PPT   Papeete            91.18 108  LR     LR      06 47 54.2
      comp=Z,659nm,18.7s,MS5.1,baz=118,slow=34
APA   Apatity            91.21 338⇓eP      P       06 09 50.0 -1.7
APA                                e               06 20 22.0
APA                                i S     S       06 20 42.0 -4.7
APA                                ePPS            06 22 24.0
APA                                eSS     SS      06 27 00.0 +8.3
APA                                 pmax   pmax
      comp=Z,76nm,1.4s,mb5.8
ULDT  Uludag             91.45 310 i P     P       06 09 52.4 -1.1
JOF   Joensuu            91.65 333 eP      P       06 09 50.5 -3.3
JOF                                 pmax   pmax
      comp=Z,16nm,1.1s,mb5.3
JOF   Joensuu            91.65 333 ep      P       06 09 50.5 -3.3
      comp=Z,16nm,1.1s,mb5.3
DURS  Dursunbey          91.92 309 i P     P       06 10 01.8 +6.1
AKASG Malin Array Be     91.98 320  P      P       06 09 52.8 -2.9
AKASG                                              06 13 35.7
AKASG                                              06 27 09.6
AKASG Malin Array Be     91.98 320  P      P       06 09 52.8 -2.9
      comp=Z,32nm,1.0s,mb5.6,baz=78,slow=4.5,SNR=56
AKASG                               PP     PP      06 13 35.7 +0.2
      comp=Z,2.4nm,0.7s,baz=76,slow=7.5,SNR=4.2
AKASG                               PKKP   PKKPbc  06 27 09.6 -5.1
      comp=Z,0.4nm,0.3s,baz=291,slow=1.2,SNR=6.3
AKASG                               LR     LR      06 57 00.3
      comp=Z,1µm,19.8s,MS5.4,baz=115,slow=39
AKASG Malin Array Be     91.98 320  P      P       06 09 52.8 -2.9
AKASG                               PP     PP      06 13 35.7 +0.1
AKASG                               PKKP   PKKPbc  06 27 09.6 -5.1
AKASG                               LR     LR      06 57 00.3
AKBB  Malin Array Si     91.98 320 eP      P       06 09 53.2 -2.5
NVL   N’lazarevskaya     91.99 199  P      P       06 09 55.3  0.0
NVL                                 pmax   pmax
      comp=Z,37nm,1.2s,mb5.6
NVL                                 MLR    MLR
      comp=N,579nm,20.0s,MS5.4
NVL                                 MLR    MLR
      comp=E,1µm,20.0s,MS5.4
NVL                                 MLR    MLR
      comp=Z,1µm,20.0s,MS5.4
KIEV  Kiev               91.99 320 eP      P       06 09 52.9 -2.8
KIEV                                pmax   pmax
      comp=Z,20nm,0.8s,mb5.5
KIEV                                MLR    MLR
      comp=Z,1µm,20.0s,MS5.3
KIEV  Kiev               91.99 320 eP      P       06 09 52.9 -2.8
      comp=Z,20nm,0.8s,mb5.5
KIEV                                LR     LR
      comp=Z,1µm,20.0s,MS5.3
MAIT  Maitri             92.02 199 eP      P       06 09 55.7 +0.2
KIS   Kishinev           92.06 317 eP      P       06 09 56.0 -0.1
KIS                                e               06 13 37.0
KIS                                eS      S       06 20 54.0 -1.2
KIS                                ePS     PS      06 22 11.0 +0.4
KIS                                ePPS            06 22 44.0
KIS                                eSS     SS      06 27 02.0 -3.0
KIS                                 pmax   pmax
      comp=Z,400nm,12.0s
KIS                                 pmax   pmax
      comp=Z,400nm,12.0s
KIS   Kishinev           92.06 317 eP      P       06 09 56.0 -0.1
      comp=Z,400nm,12.0s
KIS   Kishinev           92.06 317 ePP     PP      06 13 37.0 +0.7
KIS                                eS      S       06 20 54.0 -1.2
KIS   Kishinev           92.06 317 ePS     PS      06 22 11.0 +0.4
TIRR  Tirgusor           92.21 314⇓iP      P       06 09 55.2 -1.7
TIRR  Tirgusor           92.21 314 eP      P       06 09 54.6 -2.3
      comp=Z,18nm,0.9s,mb5.4
AKHS  Akhisar            92.40 309 i P     P       06 10 00.8 +2.9
KDAK  Kodiak Island      92.61  32  PFAKE          06 10 10.0  +12
KDAK                                LR     LR
      comp=Z,1µm,19.0s,MS5.4
RSO   Redoubt South      92.64  30 eP      P       06 09 59.9 +1.4
PKA   Prieska            92.89 240⇑iP      P       06 10 01.3 +0.9
PKA                                 AMb    AMB     06 10 02.6
      comp=Z,35nm,1.1s,mb5.7
MICGM Minsk              92.97 324 e       P       06 09 52.0 -8.1
CHUM  Lake Minchumin     92.98  26 eP      P       06 09 58.9 -1.1
      comp=Z,31nm,1.3s,mb5.6
CHUM                               e               06 10 05.3
MNK   Minsk              93.00 324 eP      P       06 09 52.0 -8.3
VRI   Vrincioaia         93.46 316⇑iP      P       06 10 02.0 -0.6
VRI   Vrincioaia         93.46 316 ⇑P      P       06 10 02.0 -0.6
PLOR  Plostina           93.51 316⇑iP      P       06 09 59.8 -3.1
KEV   Kevo               93.67 340 eP      P       06 09 58.3 -4.7
KEV                                 LR     LR
      comp=Z,2µm,19.0s,MS5.6
COLD  Coldfoot           93.91  23 eP      P       06 10 02.7 -1.5
      comp=Z,6.9nm,0.8s,mb5.1
KAF   Kangasniemi        93.94 332 eP      P       06 10 00.2 -4.2
KAF                                 pmax   pmax
      comp=Z,15nm,1.0s,mb5.4
KAF   Kangasniemi        93.94 332 ep      P       06 10 00.2 -4.2
      comp=Z,15nm,1.0s,mb5.4
MLR   Muntele Rosu       94.00 315⇑iP      P       06 09 58.8 -6.3
RC01  Rabbit Creek A     94.13  29 eP      P       06 10 02.9 -2.4
      comp=Z,20nm,1.0s,mb5.5
ARCES ARCESS Array B     94.19 339  P      P       06 10 03.5 -2.0
      comp=Z,7.1nm,0.8s,mb5.1,baz=79,slow=5.1,SNR=16
ARCES                               LR     LR      06 58 56.7
      comp=Z,2µm,18.2s,MS5.7,baz=100,slow=40
SUR   Sutherland         94.25 237  P      P       06 10 08.5 +1.9
      comp=Z,706nm,1.0s,mb7.0,SNR=11
SUR   Sutherland         94.25 237 eP      P       06 10 07.7 +1.0
      comp=Z,133nm,1.0s,mb6.3
SUR   Sutherland         94.25 237 eP      P       06 10 08.2 +1.6
SUR                                 AMb    AMB     06 10 09.5
      comp=Z,118nm,1.1s,mb6.2
UPI   Upington           94.33 241 eP      P       06 10 08.1 +1.0
UPI                                 AMb    AMB     06 10 10.1
      comp=Z,70nm,1.6s,mb5.8
MCK   McKinley           94.48  26 eP      P       06 10 04.2 -2.7
MCK                                e               06 10 12.0
MCK                                 pmax   pmax
      comp=Z,31nm,1.2s,mb5.6
MCK   McKinley           94.48  26 eP      P       06 10 04.2 -2.7
      comp=Z,31nm,1.2s,mb5.6
MCK                                e               06 10 12.0
BURAR Bucovina Array     94.52 317⇑iP      P       06 10 07.1 -0.4
BURAR Bucovina Array     94.52 317 ⇑P      P       06 10 07.0 -0.4
BUR08 Bucovina Ar. S     94.53 317 eP      P       06 10 06.2 -1.3
VOIR                     94.63 315⇑iP      P       06 10 04.6 -3.4
VOIR                     94.63 315 ⇑P      P       06 10 04.6 -3.4
COLA  College            94.92  25 eP      P       06 10 07.8 -1.1
COLA                                pmax   pmax
      comp=Z,2.0nm,0.7s,mb4.7
COLA                                MLR    MLR
      comp=Z,505nm,22.0s,MS4.9
COLA  College            94.92  25 eP      P       06 10 07.8 -1.1
      comp=Z,2.3nm,0.7s,mb4.7
COLA                                LR     LR
      comp=Z,505nm,22.0s,MS4.9
LVV   L’vov              95.30 320 eP      P       06 10 16.2 +5.2
CER   Ceres              95.39 236 eP      P       06 10 12.8 +0.9
CER                                 AMb    AMB     06 11 37.8
      comp=Z,24nm,2.0s,mb5.3
BJO   Bjornoya           95.77 345  AMS    AMS     07 01 45.4
      comp=Z,2µm,25.0s,MS5.4
SPB4  Spitsbergen Ar     95.84 348 eP      P       06 10 14.5 +1.6
PAX   Paxson             96.07  27 eP      P       06 10 12.3 -1.9
PAX                                 pmax   pmax
      comp=Z,11nm,1.0s,mb5.2
PAX   Paxson             96.07  27 eP      P       06 10 12.3 -1.9
      comp=Z,10nm,1.0s,mb5.2
KWP   Kalwaria Pacla     96.16 319 eP      P       06 10 13.7 -1.2
KWP                                 pmax   pmax
      comp=Z,36nm,1.1s,mb5.7
KWP                                 MLR    MLR
      comp=Z,1µm,20.0s,MS5.4
KWP   Kalwaria Pacla     96.16 319 eP      P       06 10 13.7 -1.2
      comp=Z,36nm,1.1s,mb5.7
KWP                                 LR     LR
      comp=Z,1µm,20.0s,MS5.4
UZH   Uzhgorod           96.47 318 eP      P       06 10 14.2 -2.1
UZH                                e       pP      06 10 28.8 -0.2
UZH                                eS      S       06 21 25.2 -8.6
UZH                                ePS     PS      06 22 50.0 -9.1
KOLS  Kolonicke sedl     96.47 319 eP      P       06 10 16.1 -0.2
KOLS                                pmax   pmax
      comp=Z,16nm,1.0s,mb5.4
KOLS  Kolonicke sedl     96.47 319 eP      P       06 10 16.1 -0.2
      comp=Z,16nm,1.0s,mb5.4
TRO   Tromso             96.49 340 ePP     PP      06 14 17.0 +6.9
TRO                                eSS     SS      06 28 18.8  +12
TRO                                 AMS    AMS     07 00 12.0
      comp=Z,2µm,20.7s,MS5.5
KBS   Kingsbay           96.53 349  PFAKE          06 10 30.0  +14
KBS                                 LR     LR
      comp=Z,1µm,19.0s,MS5.4
CRVS  Cervenica-Dubn     97.00 319 eP      P       06 10 17.4 -1.3
CRVS                                pmax   pmax
      comp=Z,14nm,1.3s,mb5.2
CRVS  Cervenica-Dubn     97.00 319 eP      P       06 10 17.4 -1.3
      comp=Z,14nm,1.3s,mb5.2
BZS   Buzias             97.04 315⇑iP      P       06 10 17.1 -1.9
STHS  Stebnicka Huta     97.12 319 eP      P       06 10 17.8 -1.5
VNA2  Neumayer--Watz     97.62 196 eP      P       06 10 22.0 +0.9
VNA2                               e               06 10 38.4
EGAK  Eagle              97.77  25 eP      P       06 10 20.6 -1.3
      comp=Z,8.6nm,1.0s,mb5.2
EGAK                                LR     LR
      comp=Z,466nm,19.0s,MS5.0
OJC   Ojcow              98.01 320 eP      P       06 10 21.8 -1.4
OJC                                ePP     PP      06 14 22.8 +0.4
OJC                                eS      S       06 21 51.5 +4.6
OJC                                ePS     PS      06 23 16.0 +0.2
OJC                                eSS     SS      06 28 43.4  +14
OJC                                 L              06 59 53.5
      comp=Z,1.6nm,21.5s
OJC   Ojcow              98.01 320 eP      P       06 10 21.8 -1.4
OJC                                e               06 14 22.8
OJC                                eS      S       06 21 51.5 +4.6
OJC                                ePS     PS      06 23 16.0 +0.2
OJC                                 MLR    MLR
      comp=Z,2µm,21.5s,MS5.5
VNA3  Neumayer Olymp     98.03 195 eP      P       06 10 23.6 +0.7
PSZ   Piszkesteto        98.10 318  PFAKE          06 10 30.0 +6.3
PSZ                                 LR     LR
      comp=Z,936nm,21.0s,MS5.3
TIR   Tirane             98.49 311  PFAKE          06 10 40.0  +14
TIR                                 LR     LR
      comp=Z,1µm,19.0s,MS5.3
DAWY  Dawson             98.64  26 eP      P       06 10 24.2 -1.6
TSUM  Tsumeb             98.73 250  P      P       06 10 26.8 -0.4
      comp=Z,6.7nm,1.1s,mb5.1,baz=227,slow=3.6,SNR=4.2
TSUM  Tsumeb             98.73 250 eP      P       06 10 26.7 -0.4
      comp=Z,16nm,1.3s,mb5.4
TSUM  Tsumeb             98.73 250 eP      P       06 10 26.6 -0.6
TSUM                                AMb    AMB     06 10 40.2
      comp=Z,178nm,1.9s,mb6.3
VYHS  Vyhne              98.77 318 eP      P       06 10 32.1 +5.4
VYHS                               e               06 14 33.0
VYHS  Vyhne              98.77 318  PDIF   P       06 10 32.1 +5.4
VYHS                               ePP     PP      06 14 33.0 +4.8
OKC   Ostrava-Krasne     99.10 320 ePP     PP      06 14 34.0 +3.3
OKC                                 AMS    AMS     06 59 40.0
      comp=Z,1µm,20.1s
MODS  Modra-Piesok       99.81 318 ePP     PP      06 14 41.9 +5.7
VRAC  Vranov            100.16 319  PP     PP      06 14 46.0 +7.2
      comp=Z,4.2nm,0.6s,baz=103,slow=10,SNR=4.2
DPC   Dobruska-Polom    100.22 320 ePP     PP      06 14 43.1 +3.9
DPC                                 AMS    AMS     07 00 10.0
      comp=Z,1µm,22.6s
UPC   Upice             100.39 321 ePP     PP      06 14 47.4 +6.9
BSD   Bornholm Skovb    100.42 325 i P     PP      06 14 29.7  -11
BSD                                i               06 23 16.3
BSD
      comp=Z,1µm,20.0s
TREC  Trest             100.88 319  AMS    AMS     06 59 20.0
      comp=Z,2µm,23.0s
TIP   Timpagrande       101.00 309  PFAKE          06 10 50.0  +14
TIP                                 LR     LR
      comp=Z,811nm,22.0s,MS5.2
NB2   NORSAR Subarra101.21 332      P      Pdif    06 10 34.4 -3.0
      comp=Z,23nm,1.7s,baz=79,slow=4.4
NOA   NORSAR Array B101.21 332      P      Pdif    06 10 34.3 -3.1
      comp=Z,2.6nm,0.9s,baz=76,slow=4.6,SNR=4.2
NOA                                 PP     PP      06 14 48.1 +1.7
      comp=Z,4.0nm,0.8s,baz=80,slow=7.6,SNR=6.0
PVCC  Panska Ves        101.30 321  AMS    AMS     07 00 40.0
      comp=Z,1µm,17.4s
PRU   Pruhonice         101.40 320 ePP     PP      06 14 48.2 +0.1
PRU                                 AMS    AMS     07 01 00.0
      comp=Z,2µm,21.7s
BRG   Berggiesshubel    101.65 321 eP      Pdif    06 10 37.6 -1.7
BRG                                                06 14 55.0
BRG                                 PS     PS      06 23 49.0 -5.8
BRG                                 pmax   pmax
      comp=Z,3.0nm,1.2s
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BRG                              MLR     MLR
      comp=N,711nm,25.1s,MS5.3
BRG                              MLR     MLR
      comp=E,865nm,22.9s,MS5.3
BRG                              MLR     MLR
      comp=Z,1µm,23.7s,MS5.3
BRG   Berggiesshubel 101.65 321 eP       Pdif    06 10 37.6 -1.7
      comp=Z,5.2nm,1.2s
BRG                             e                06 10 45.5
      comp=Z,28nm,1.8s
BRG                             e                06 14 11.8
      comp=Z,31nm,1.7s
BRG                              PP      PP      06 14 55.0 +5.0
BRG                              S       Sdif    06 22 24.0 +6.8
BRG                              PS      PS      06 23 49.0 -5.8
BRG                              SS      SS      06 29 08.0  -12
BRG
      comp=N,1µm,25.1s
BRG
      comp=E,1µm,22.9s
BRG
      comp=Z,2µm,23.7s
BRG   Berggiesshubel 101.65 321 eP       Pdif    06 10 37.6 -1.7
      comp=Z,3.1nm,1.2s
BRG                             e                06 10 45.5
BRG                             e                06 14 11.8
BRG                              PP      PP      06 14 55.0 +5.0
BRG                              S       Sdif    06 22 24.0 +6.8
BRG                              PS      PS      06 23 49.0 -5.8
BRG                              SS      SS      06 29 08.0  -12
BRG                              LR      LR
      comp=Z,1µm,23.7s,MS5.3
CUC   Castrocucco    101.66 310  PFAKE           06 10 50.0  +11
CUC                              LR      LR
      comp=Z,835nm,22.0s,MS5.2
CEL   Celeste        101.75 308  PFAKE           06 10 50.0  +10
CEL                              LR      LR
      comp=Z,402nm,19.0s,MS5.0
GERES GERESS Array B 102.11 319  P       Pdif    06 10 39.2 -2.2
GERES                                            06 14 53.4
GERES GERESS Array B 102.11 319  P       Pdif    06 10 39.2 -2.2
      comp=Z,1.0nm,0.8s,baz=95,slow=4.6,SNR=7.4
GERES                            PP      PP      06 14 53.4 -0.1
      comp=Z,1.1nm,0.8s,baz=74,slow=4.7,SNR=3.5
GERES                            PKKPbc  PKKPbc  06 26 46.8 +0.1
      comp=Z,0.5nm,0.7s,baz=229,slow=1.2,SNR=4.6
KHC   Kasperske Hory 102.14 319 ePP      PP      06 14 51.0 -2.8
KHC                              AMS     AMS     07 00 50.0
      comp=Z,2µm,22.1s
CLL   Collm          102.16 322 eP       Pdif    06 10 35.0 -6.6
CLL                             e                06 14 56.0
CLL                             eS       Sdif    06 22 19.0 -2.5
CLL                              MLR     MLR
      comp=Z,1µm,21.8s,MS5.4
CLL   Collm          102.16 322 ePdif    Pdif    06 10 41.0 -0.6
CLL                             ePP      PP      06 14 56.0 +2.2
CLL                             ePPPP            06 19 06.0
CLL                             eSdif    Sdif    06 22 19.0 -2.5
CLL                             ePS      PS      06 23 55.0 -5.3
CLL                             ePPS             06 24 56.0
CLL                             eSS      SS      06 29 16.0  -11
CLL                             e(PSPS)          06 30 40.0
CLL                             e                06 35 06.0
CLL                             e                06 37 36.0
CLL                              Lm              07 01 00.0
      comp=Z,1µm,21.8s
KONO  Kongsberg      102.33 330 ePP      PP      06 14 57.8 +3.1
KONO                            i                06 23 51.0
KONO                            eSS      SS      06 29 31.7 +2.8
NKC   Novy Kostel    102.69 321  AMS     AMS     07 01 40.0
      comp=Z,1µm,20.4s
MOX   Moxa           103.14 321 e(P)     PKiKP   06 15 06.1 +0.5
MOX
      comp=Z,700nm,20.0s
GRF   Grafenberg Arr 103.57 320 ePP      PP      06 15 07.2 +2.8
GRF                             eL               07 02 43.0
      comp=Z,1µm,21.2s
BER   Bergen         104.17 332 ePP      PP      06 15 07.6 -0.9
TUE   Stuetta        105.42 317  PFAKE           06 15 20.0  +10
TUE                              LR      LR
      comp=Z,2µm,22.0s,MS5.5
BFO   Black Forest   105.71 319  PFAKE           06 15 20.0  +10
BFO                              LR      LR
      comp=Z,1µm,21.0s,MS5.4
RES   Resolute Bay   106.36   9  PKKP    PKKPab  06 26 46.9 -1.4
      comp=Z,2.2nm,1.1s,baz=102,slow=9.3,SNR=5.5
CDF   Champ du Feu   106.37 320 ePKIKP   PKiKP   06 15 09.4 -2.2
ECH   Echery         106.50 319  PFAKE           06 15 20.0 +8.1
ECH                              LR      LR
      comp=Z,1µm,20.0s,MS5.4
KEST  Kesra          107.24 306  PP      PP      06 15 31.3 -0.8
      comp=Z,3.2nm,0.9s,baz=175,slow=5.7,SNR=4.1
LPG   La Plagne      107.39 317 ePKIKP   PKiKP   06 15 12.1 -1.5
BNI   Bardonecchia   107.54 316  PFAKE           06 15 30.0  +16
BNI                              LR      LR
      comp=Z,2µm,22.0s,MS5.5
SSB   Saint Sauveur  108.95 317  PFAKE           06 15 30.0  +13
SSB                              LR      LR
      comp=Z,397nm,21.0s,MS5.0
SSF   Saint Saulge   109.18 319 ePKIKP   PKiKP   06 15 16.2 -0.7
      comp=Z,55nm,1.3s
AVF   Avril sur Loir 109.35 319 ePKIKP   PKiKP   06 15 15.3 -1.9
YKA   Yellowknife Ar 109.59  23  P       Pdif    06 11 13.6 -1.0
YKA                                              06 26 23.7
YKA   Yellowknife Ar 109.59  23  Pdiff   Pdif    06 11 13.6 -1.0
      comp=Z,1.0nm,1.1s,baz=306,slow=4.2,SNR=6.3
YKA                              PKiKP   PKiKP   06 15 16.4 -0.8
      comp=Z,5.2nm,0.9s,baz=305,slow=2.2,SNR=39
YKA                              PKKPbc  PKKPbc  06 26 23.6 -0.6
      comp=Z,1.2nm,0.9s,baz=94,slow=3.6,SNR=7.3
YKA                              PKKPab  PKKPab  06 26 35.3 +1.3
      comp=Z,0.8nm,0.9s,baz=104,slow=2.5,SNR=5.6
YKA   Yellowknife Ar 109.59  23  Pdif    Pdif    06 11 13.6 -1.0
YKA                              PKPdf   PKiKP   06 15 16.4 -0.8
YKA                              PKKPbc  PKKPbc  06 26 23.6 -0.6
YKA                              PKKPab  PKKPab  06 26 35.3 +1.3
BGF   Bois d’Agland  109.75 318 ePKIKP   PKiKP   06 15 16.5 -1.5
      comp=Z,20nm,0.8s
NLWA  Neilton Lookou 111.34  40  PFAKE           06 15 30.0 +9.0
NLWA                             LR      LR
      comp=Z,2µm,21.0s,MS5.6
PMSA  Palmer Station 111.84 179  PFAKE           06 15 30.0 +8.6
PMSA                             LR      LR
      comp=Z,2µm,21.0s,MS5.7
A05A  Maple Falls    111.91  38 ⇑P       PKiKP   06 15 21.5 -0.5
      baz=112
TAM   Tamanrasset    112.14 293 ePKIKP   PKiKP   06 15 24.1 +0.9
TAM                              MLR     MLR
      comp=Z,1µm,21.0s,MS5.4
B05A  Bryant         112.17  39 ⇓P       PKiKP   06 15 22.5 -0.1
      baz=112
C05A  Tolt Reservoir 112.62  39 ⇓P       PKiKP   06 15 23.7 +0.3
      baz=113
F04A  Amboy          112.77  41 ⇑P       PKiKP   06 15 24.2 +0.5
      baz=113
A07A  Ashnola River, 112.93  38 ⇑P       PKiKP   06 15 24.2 +0.2
      baz=113
B07A  Winthrop       113.32  38 ⇑P       PKiKP   06 15 24.8 +0.1
      baz=113
D06A  Cle Elum       113.34  40 ⇓P       PKiKP   06 15 24.8  0.0
      baz=113
HUMO  Hull Mountain  113.47  45 ePKPdf   PKiKP   06 15 25.6 +0.4
HUMO                             LR      LR
      comp=Z,819nm,19.0s,MS5.3
E06A  Yakima         113.49  40 ⇑P       PKiKP   06 15 25.3 +0.3
      baz=113
A08A  Turner Farm, O 113.64  37 ⇓P       PKiKP   06 15 25.6 +0.3
      baz=114
B08A  Colville Reser 113.84  38 ⇓P       PKiKP   06 15 25.3 -0.4
      baz=114,SNR=5.8
D07A  Quincy         113.89  39 ⇑P       PKiKP   06 15 25.9  0.0
      baz=114
F06A  Goldendale     113.90  41 ⇑P       PKiKP   06 15 26.6 +0.7
      baz=114
YBH   Yreka Blue Hor 113.91  46  PKKPab  PKKPab  06 26 14.2 -1.0
      comp=Z,7.2nm,0.9s,baz=114,slow=2.5,SNR=12
A09A  Danville       114.05  37 ⇓P       PKiKP   06 15 26.7 +0.6
      baz=114
G06A  Carlson Farm,  114.18  41 ⇓P       PKiKP   06 15 26.7 +0.2
      baz=114
C08A  Higginbotham F 114.25  38 ⇓P       PKiKP   06 15 26.4 -0.1
      baz=114
HOPS  Hopland        114.44  49  PFAKE           06 15 40.0  +13
HOPS                             LR      LR
      comp=Z,751nm,19.0s,MS5.3
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HAWA  Hanford        114.48  40  PFAKE           06 15 40.0  +13
HAWA                             LR      LR
      comp=Z,1µm,19.0s,MS5.6
B09A  Rice           114.54  37 ⇑P       PKiKP   06 15 27.0 -0.1
      baz=114,SNR=7.0
D08A  Wollman Farm,  114.61  39 ⇑P       PKiKP   06 15 27.5 +0.3
      baz=114
A10A  Northport      114.66  37 ⇑P       PKiKP   06 15 27.6 +0.3
      baz=115
C09A  Chrisman Ranch 114.72  38 ⇑P       PKiKP   06 15 27.6 +0.2
      baz=115
E08A  Dider Farm, El 114.74  40 ⇓P       PKiKP   06 15 28.0 +0.5
      baz=115
K05A  Summer Lake    114.87  44 ⇑P       PKiKP   06 15 28.2 +0.4
      baz=115
I06A  Prineville     114.92  43 ⇑P       PKiKP   06 15 28.2 +0.3
      baz=115
D09A  Jones Farm, Ri 114.99  39 ⇓P       PKiKP   06 15 28.3 +0.4
      baz=115
EDM   Edmonton       115.04  31 ePKIKP   PKiKP   06 15 27.5 -0.3
H07A  Lands Inn, Kim 115.12  42 ⇑P       PKiKP   06 15 28.6 +0.3
      baz=115
J06A  Christmas Vall 115.20  43 ⇓P       PKiKP   06 15 28.8 +0.3
      baz=115
NEW   Newport        115.23  37 ePKIKP   PKiKP   06 15 27.7 -0.7
NEW                              MLR     MLR
      comp=Z,659nm,21.0s
G08A  Pilot Rock     115.26  41 ⇑P       PKiKP   06 15 28.6 +0.1
      baz=115
C10A  Spilker Farm,  115.30  38 ⇓P       PKiKP   06 15 28.7 +0.1
      baz=115
I07A  Izee           115.35  42 ⇑P       PKiKP   06 15 29.2 +0.4
      baz=115
A11A  Hall Mountain, 115.38  36 ⇑P       PKiKP   06 15 29.2 +0.5
      baz=115
MOD   Modoc          115.56  45 ePKPdf   PKPdf   06 15 29.1 -0.1
H08A  Prairie City   115.74  42 ⇑P       PKiKP   06 15 29.8 +0.3
      baz=116
A12A  Yaak River Ran 115.81  36 ⇑P       PKiKP   06 15 29.9 +0.4
      baz=116
E10A  Myers Farm, Un 115.98  39 ⇓P       PKiKP   06 15 30.2 +0.3
      baz=116
K07A  Rock Creek Ran 116.02  44 ⇑P       PKPdf   06 15 30.2 +0.1
      baz=116
G09A  Cove           116.04  41 ⇑P       PKiKP   06 15 30.0 -0.1
      baz=116
I08A  Drewsey        116.04  42 ⇑P       PKPdf   06 15 30.3 +0.3
      baz=116
F10A  Beach Ranch, E 116.11  40 ⇓P       PKPdf   06 15 30.2 +0.1
      baz=116,SNR=5.2
SFJD  Kangerlussuaq  116.17 355 i P      PP      06 16 34.2 -0.4
SFJD                            i                06 26 23.0
SFJD
      comp=Z,560nm,20.0s
L07A  Adell          116.19  44 ⇓P       PKPdf   06 15 30.4  0.0
      baz=116
D11A  Klaveano Farm, 116.23  38 ⇑P       PKPdf   06 15 29.8 -0.5
      baz=116,SNR=5.5
N06A  Buffalo Meadow 116.28  46 ⇑P       PKPdf   06 15 30.6 -0.1
      baz=116
J08A  Circle Bar Ran 116.31  43 ⇓P       PKPdf   06 15 30.5 -0.1
      baz=116
H09A  Durkee         116.35  41 ⇑P       PKPdf   06 15 30.7  0.0
      baz=116
C12B  Naegeli Ranch, 116.47  37 ⇑P       PKPdf   06 15 30.6 -0.1
      baz=116
O06A  Flanigan       116.47  46 ⇓P       PKPdf   06 15 30.9 -0.1
      baz=116
TOA0  Torodi Ar. Sit 116.48 283 ePKPdf   PKPdf   06 15 30.4 -1.3
TORD  Torodi Ar. Bea 116.48 283  PKP     PKPdf   06 15 30.4 -1.3
      comp=Z,12nm,0.8s,baz=55,slow=2.0,SNR=64
TORD                             PP      PP      06 16 33.9 -5.1
      comp=Z,4.0nm,0.9s,baz=68,slow=4.8,SNR=4.1
TORD                             PKKPbc  PKKPbc  06 26 00.8 +1.1
      comp=Z,3.3nm,1.0s,baz=294,slow=3.1,SNR=10
TORD  Torodi Ar. Bea 116.48 283  PKP     PKPdf   06 15 30.4 -1.3
TORD                             PP      PP      06 16 33.9 -5.0
TORD                             PKKPbc  PKKPbc  06 26 00.8 +1.1
BMO   Blue Mountains 116.51  41  PFAKE           06 15 40.0 +9.0
BMO                              LR      LR
      comp=Z,529nm,20.0s,MS5.2
K08A  Mann Creek Ran 116.53  43 ⇓P       PKPdf   06 15 31.0  0.0
      baz=116
M07A  Soldier Meadow 116.53  45 ⇑P       PKPdf   06 15 31.4 +0.3
      baz=116
WVOR  Wild Horse Val 116.53  44 ePKIKP   PKPdf   06 15 31.4 +0.3
ESDC  Sonseca Array  116.59 313  PKP     PKPdf   06 15 30.1 -1.2
      comp=Z,1.8nm,0.7s,baz=44,slow=3.8,SNR=5.9
ESDC                             PP      PP      06 16 37.4 -1.4
      comp=Z,1.0nm,0.6s,baz=69,slow=5.6,SNR=4.4
ESLA  Sonseca Array  116.59 313  PFAKE           06 15 40.0 +8.7
ESLA                             LR      LR
      comp=Z,4µm,21.0s,MS6.0
E11A  Bogner Ranch,  116.60  39 ⇓P       PKPdf   06 15 30.7 -0.4
      baz=116,SNR=14
CMB   Columbia Colle 116.73  49  PFAKE           06 15 40.0 +8.4
CMB                              LR      LR
      comp=Z,806nm,21.0s,MS5.3
B13A  Whitefish      116.77  36 ⇑P       PKPdf   06 15 31.0 -0.4
      baz=117,SNR=7.6
WALA  Waterton Lakes 116.78  35 ePKPdf   PKPdf   06 15 31.2 -0.1
J09A  Fry Pan Ranch, 116.80  43 ⇓P       PKPdf   06 15 31.8 +0.2
      baz=117,SNR=6.8
WCN   Washoe City    116.81  47 ⇓P       PKPdf   06 15 31.7  0.0
      baz=117
L08A  Fields         116.83  44 ⇓P       PKPdf   06 15 31.7 +0.1
      baz=117
N07B  Gerlach        116.88  46 ⇓P       PKPdf   06 15 32.1 +0.3
      baz=117
PAB   San Pablo      116.92 313  PFAKE           06 15 40.0 +8.1
PAB                              LR      LR
      comp=Z,1µm,22.0s,MS5.4
H10A  Noah’s Angus R 116.98  41 ⇑P       PKPdf   06 15 31.8 -0.1
      baz=117,SNR=12
C13A  Hot Springs    117.02  37 ⇑P       PKPdf   06 15 31.5 -0.4
      baz=117,SNR=6.7
K09A  Rome           117.06  43 ⇑P       PKPdf   06 15 32.3 +0.2
      baz=117
M08A  Happy Creek Ra 117.07  45 ⇓P       PKPdf   06 15 32.6 +0.4
      baz=117
I10A  Payette        117.15  41 ⇓P       PKPdf   06 15 32.5 +0.3
      baz=117
R06C  Coleville      117.28  48 ⇑P       PKPdf   06 15 32.9 +0.2
      baz=117
L09A  Wilkinson Ranc 117.36  44 ⇑P       PKPdf   06 15 32.9 +0.2
      baz=117
D13A  Huson          117.36  38 ⇑P       PKPdf   06 15 31.9 -0.7
      baz=117,SNR=9.7
H11A  Donnelly       117.42  41 ⇑P       PKPdf   06 15 32.8 +0.1
      baz=117,SNR=12
J10A  Berg Farm, Mel 117.43  42 ⇑P       PKPdf   06 15 33.1 +0.4
      baz=117
N08A  GE Springer Mi 117.48  45 ⇓P       PKPdf   06 15 32.9 -0.1
      baz=117
A15A  Johnson Ranch, 117.49  35 ⇑P       PKPdf   06 15 32.1 -0.6
      baz=117,SNR=7.2
K10A  MacKenzie Ranc 117.61  43 ⇑P       PKPdf   06 15 33.1  0.0
      baz=118,SNR=8.3
O08A  Rochester Mine 117.64  46 ⇓P       PKPdf   06 15 33.4 +0.1
      baz=118
I11A  Placerville    117.78  41 ⇑P       PKPdf   06 15 33.3 -0.1
      baz=118,SNR=10
MSO   Missoula       117.80  38 ePKPdf   PKPdf   06 15 32.8 -0.6
MSO                              LR      LR
      comp=Z,401nm,20.0s,MS5.0
E13A  Victor         117.82  38 ⇓P       PKPdf   06 15 33.2 -0.2
      baz=118,SNR=17
N09A  Rock Creek Ran 117.88  45 ⇑P       PKPdf   06 15 33.9 +0.2
      baz=118
B15A  Bradely Ranch, 117.92  36 ⇓P       PKPdf   06 15 32.9 -0.6
      baz=118
D14A  Greenough      117.94  37 ⇑P       PKPdf   06 15 33.1 -0.6
      baz=118,SNR=8.3
F13A  Darby          118.02  39 ⇓P       PKPdf   06 15 33.4 -0.5
      baz=118,SNR=11
MFID  Camas Ranch    118.06  42 ⇑P       PKPdf   06 15 33.8 -0.2
      baz=118,SNR=14
C15A  Salmond Ranch, 118.15  36 ⇓P       PKPdf   06 15 33.6 -0.4
      baz=118,SNR=11
A16A  West Butte Ran 118.16  35 ⇑P       PKPdf   06 15 33.9 -0.1
      baz=118,SNR=8.0
L10A  Juniper Basin  118.16  43 ⇓P       PKPdf   06 15 34.8 +0.6
      baz=118,SNR=6.8
NVAR  Mina Array Bea 118.16  48  PKP     PKPdf   06 15 35.1 +0.8
      comp=Z,5.0nm,0.8s,baz=243,slow=2.4,SNR=25
NVAR                             PKKPab  PKKPab  06 25 57.2 +0.8
      comp=Z,7.1nm,0.9s,baz=130,slow=5.2,SNR=25
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K11A  Parker Ranch,  118.19  43 ⇑P       PKPdf   06 15 34.3 +0.1
      baz=118,SNR=7.9
H12A  Diamond D Ranc 118.23  40 ⇓P       PKPdf   06 15 34.4 +0.1
      baz=118,SNR=13
BMN   Battle Mountai 118.25  45  PFAKE           06 15 50.0  +16
BMN                              LR      LR
      comp=Z,607nm,21.0s,MS5.2
E14A  Clinton        118.26  38 ⇓P       PKPdf   06 15 34.2 -0.1
      baz=118,SNR=10
MVO   Moncorvo       118.27 315 ePKPdf   PKPdf   06 15 34.5  0.0
Q08A  Gabbs          118.29  47 ⇓P       PKPdf   06 15 34.9 +0.3
      baz=118
B16A  M & M Farms, S 118.36  35 ⇓P       PKPdf   06 15 33.9 -0.5
      baz=118,SNR=9.0
G13A  Cobalt         118.39  40 ⇑P       PKPdf   06 15 34.6  0.0
      baz=118
D15A  Lincoln        118.56  37 ⇓P       PKPdf   06 15 34.8 -0.1
      baz=118,SNR=11
H13A  Challis        118.61  40 ⇑P       PKPdf   06 15 35.4 +0.4
      baz=118,SNR=21
F14A  Wisdom         118.61  39 ⇑P       PKPdf   06 15 35.1 +0.1
      baz=118,SNR=7.6
L11A  Cat Creek Ranc 118.61  43 ⇑P       PKPdf   06 15 35.5 +0.4
      baz=119,SNR=12
J12A  Stokes Ranch,  118.62  42 ⇑P       PKPdf   06 15 35.8 +0.7
      baz=118,SNR=24
C16A  Fuhringer Ranc 118.65  36 ⇑P       PKPdf   06 15 34.3 -0.7
      baz=119,SNR=15
A17A  Triple J Farms 118.67  34 ⇓P       PKPdf   06 15 34.6 -0.4
      baz=119,SNR=23
PVRL  Vila Real      118.70 316 ePKPdf   PKPdf   06 15 35.3  0.0
E15A  Deer Lodge     118.78  38 ⇑P       PKPdf   06 15 35.3  0.0
      baz=119,SNR=9.6
G14A  Jackson        118.81  39 ⇑P       PKPdf   06 15 35.6 +0.3
      baz=119
M11A  Holland Ranch, 118.88  44 ⇓P       PKPdf   06 15 36.5 +0.9
      baz=119,SNR=12
MTE   Manteigas      118.92 315 ePKPdf   PKPdf   06 15 36.2 +0.5
MTE   Manteigas      118.92 315  PFAKE           06 15 50.0  +14
MTE                              LR      LR
      comp=Z,1µm,20.0s,MS5.5
ISA   Isabella       118.92  51 ⇓P       PKPdf   06 15 36.4 +0.5
      baz=119
HLID  Hailey         118.94  41 ⇑P       PKPdf   06 15 36.4 +0.7
      baz=119,SNR=23
HLID  Hailey         118.94  41 ePKPdf   PKPdf   06 15 36.5 +0.8
HLID                             LR      LR
      comp=Z,557nm,22.0s,MS5.2
B17A  L&G Farms, Che 118.95  35 ⇑P       PKPdf   06 15 35.2 -0.3
      baz=119,SNR=9.0
CWC   Cottonwood Cre 118.98  50 ⇑P       PKPdf   06 15 36.4 +0.4
      baz=119
I13A  Wildhorse Cree 118.98  41 ⇓P       PKPdf   06 15 36.2 +0.5
      baz=119,SNR=25
K12A  Draper Farm, C 119.00  42 ⇑P       PKPdf   06 15 36.3 +0.4
      baz=119
PVIS  Viseu          119.05 315 ePKPdf   PKPdf   06 15 36.8 +0.8
TPH   Tonopah        119.08  48  PFAKE           06 15 50.0  +14
TPH                              LR      LR
      comp=Z,628nm,22.0s,MS5.2
L12A  House Creek Ra 119.12  43 ⇑P       PKPdf   06 15 36.6 +0.5
      baz=119,SNR=11
R09A  Tonopah        119.14  48 ⇓P       PKPdf   06 15 36.4 +0.2
      baz=119
D16A  Dana Ranch, Ca 119.14  37 ⇓P       PKPdf   06 15 36.1 +0.2
      baz=119,SNR=28
F15A  Butte          119.14  38 ⇓P       PKPdf   06 15 36.1 +0.1
      baz=119,SNR=9.5
N11A  Elko Archery C 119.16  45 ⇓P       PKPdf   06 15 36.4 +0.3
      baz=119
A18A  Metzger Ranch, 119.16  34 ⇓P       PKPdf   06 15 35.8 -0.2
      baz=119,SNR=13
J13A  Cove Ranch, Pi 119.17  41 ⇑P       PKPdf   06 15 37.1 +0.9
      baz=119,SNR=56
PMRV  Marv??o        119.17 314 ePKPdf   PKPdf   06 15 36.4 +0.2
S09A  Goldfield      119.20  48 ⇓P       PKPdf   06 15 37.0 +0.7
      baz=119,SNR=11
DLMT  Dillon         119.30  39 ePKPdf   PKPdf   06 15 36.7 +0.4
C17A  Wharram Farm,  119.31  36 ⇑P       PKPdf   06 15 35.7 -0.6
      baz=119,SNR=18
SFS   San Fernando   119.31 310  PFAKE           06 15 50.0  +13
SFS                              LR      LR
      comp=Z,1µm,21.0s,MS5.6
E16A  East Helena    119.31  37 ⇑P       PKPdf   06 15 36.2 -0.1
      baz=119,SNR=9.0
DAC   Darwin (Calif) 119.40  50  PFAKE           06 15 50.0  +13
DAC                              LR      LR
      comp=Z,883nm,21.0s,MS5.4
I14A  Mackay         119.41  40 ⇓P       PKPdf   06 15 37.0 +0.5
      baz=119,SNR=12
G15A  Dillon         119.46  39 ⇓P       PKPdf   06 15 37.1 +0.5
      baz=119,SNR=17
O11A  Cowboy Ranch,  119.47  45 ⇑P       PKPdf   06 15 37.3 +0.5
      baz=119,SNR=9.5
B18A  Beardsley Farm 119.48  35 ⇓P       PKPdf   06 15 36.4 -0.2
      baz=119,SNR=8.3
FCC   Fort Churchill 119.52  19 ePKIKP   PKPdf   06 15 35.0 -1.3
ELK   Elko           119.53  44 ePKIKP   PKPdf   06 15 37.4 +0.5
ELK                              MLR     MLR
      comp=Z,616nm,20.0s
EDW2  Edwards Air Fo 119.53  52 ⇑P       PKPdf   06 15 37.3 +0.2
      baz=120
FFC   Flin Flon      119.55  25 ePKIKP   PKPdf   06 15 35.4 -1.1
FFC                              MLR     MLR
      comp=Z,648nm,21.0s,MS5.2
K13A  Stover Farm, H 119.55  42 ⇑P       PKPdf   06 15 37.7 +0.8
      baz=120,SNR=12
MPMC  Manual Prospec 119.55  50 ⇑P       PKPdf   06 15 37.7 +0.6
      baz=120,SNR=8.1
D17A  Six Diamond Ra 119.59  36 ⇑P       PKPdf   06 15 37.0 +0.2
      baz=120,SNR=12
S10A  Tonopah Range, 119.60  48 ⇓P       PKPdf   06 15 37.7 +0.5
      baz=120,SNR=7.5
H15A  Lima           119.62  39 ⇓P       PKPdf   06 15 37.7 +0.7
      baz=120,SNR=13
N12A  Clover Valley, 119.63  44 ⇓P       PKPdf   06 15 37.7 +0.6
      baz=120,SNR=9.6
EGMT  Eagleton       119.69  35 ⇓P       PKPdf   06 15 37.1 +0.2
      baz=120,SNR=38
EGMT  Eagleton       119.69  35 ePKPdf   PKPdf   06 15 36.7 -0.3
EGMT                             LR      LR
      comp=Z,430nm,20.0s,MS5.1
BOZ   Bozeman (W)    119.77  38 ⇑P       PKPdf   06 15 37.6 +0.4
      baz=120,SNR=19
BOZ   Bozeman (W)    119.77  38 ePKPdf   PKPdf   06 15 37.6 +0.4
BOZ                              LR      LR
      comp=Z,510nm,22.0s,MS5.1
E17A  Martinsdale    119.84  37 ⇑P       PKPdf   06 15 37.3  0.0
      baz=120,SNR=8.2
G16A  Moss Hill, Enn 119.86  39 ⇑P       PKPdf   06 15 37.9 +0.5
      baz=120,SNR=24
L13A  Double Diamond 119.88  43 ⇑P       PKPdf   06 15 38.4 +0.9
      baz=120,SNR=13
FURC  Furnace Creek, 119.90  50 ⇓P       PKPdf   06 15 38.4 +0.6
      baz=120,SNR=6.0
EVO   Evora          119.94 313 ePKIKP   PKPdf   06 15 37.8  0.0
      comp=Z,38nm,1.1s
Q11A  Duckwater      119.96  47 ⇑P       PKPdf   06 15 38.2 +0.4
      baz=120,SNR=6.5
BFSC  Mount Baldy St 119.99  52 ⇓P       PKPdf   06 15 38.2 +0.2
      baz=120
I15A  Monteview      120.00  40 ⇑P       PKPdf   06 15 38.5 +0.8
      baz=120,SNR=5.7
PBEJ  Beja           120.02 312 ePKPdf   PKPdf   06 15 38.1 +0.2
M13A  Montello       120.03  43 ⇑P       PKPdf   06 15 38.6 +0.7
      baz=120,SNR=13
O12A  Currie         120.06  45 ⇑P       PKPdf   06 15 38.5 +0.6
      baz=120,SNR=15
D18A  Linhart Farms, 120.09  36 ⇓P       PKPdf   06 15 37.7 -0.1
      baz=120
PVAQ  Vaqueiros      120.13 312 ePKPdf   PKPdf   06 15 38.2  0.0
R11A  Troy Canyon, C 120.19  47 ⇑P       PKPdf   06 15 38.9 +0.7
      baz=120,SNR=12
K14A  Jones Ranch, D 120.19  42 ⇓P       PKPdf   06 15 38.9 +0.8
      baz=120,SNR=12
N13A  Wendover, West 120.21  44 ⇑P       PKPdf   06 15 38.1 -0.1
      baz=120
F17A  Fitzpatrick Pl 120.23  37 ⇑P       PKPdf   06 15 38.6 +0.5
      baz=120,SNR=17
P12A  McGill         120.26  46 ⇓P       PKPdf   06 15 39.2 +0.8
      baz=120,SNR=6.7
J15A  Blackfoot      120.31  41 ⇑P       PKPdf   06 15 39.4 +1.0
      baz=120,SNR=23
U10A  Ash Meadows, A 120.32  49 ⇑P       PKPdf   06 15 39.2 +0.6
      baz=120
GSC   Goldstone      120.32  51 ⇑P       PKPdf   06 15 39.3 +0.7
      baz=120
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GSC   Goldstone        120.32  51 ePKPdf   PKPdf    06 15 39.6 +1.0
PBDV  Barranco-do-Ve   120.35 312 ePKPdf   PKPdf    06 15 39.1 +0.5
E18A  Harlowton        120.35  36 ⇑P       PKPdf    06 15 38.5 +0.3
      baz=120
L14A  Malta            120.37  42 ⇓P       PKPdf    06 15 39.4 +0.9
      baz=120,SNR=11
H16A  Russell Place,   120.46  39 ⇓P       PKPdf    06 15 39.4 +0.8
      baz=120,SNR=8.0
G17A  Pierce Place,    120.47  38 ⇓P       PKPdf    06 15 39.7 +1.1
      baz=120,SNR=14
Q12A  Willow Creek R   120.48  46 ⇓P       PKPdf    06 15 39.1 +0.3
      baz=120
M14A  Sheep Mountain   120.53  43 ⇓P       PKPdf    06 15 39.7 +0.9
      baz=120,SNR=15
K15A  Arbon            120.56  41 ⇑P       PKPdf    06 15 39.6 +0.8
      baz=120,SNR=25
RTC   Rabat Centre     120.60 308  PFAKE            06 15 50.0  +11
RTC                                LR      LR
      comp=Z,973nm,19.0s,MS5.5
I16A  Newdale          120.70  40 ⇑P       PKPdf    06 15 39.8 +0.8
      baz=121,SNR=12
F18A  Big Timber       120.80  37 ⇑P       PKPdf    06 15 39.7 +0.5
      baz=121,SNR=21
PTEO  Sao Teotonio     120.83 312 ePKPdf   PKPdf    06 15 40.2 +0.7
MORF  Marmelete        120.86 312 ePKPdf   PKPdf    06 15 38.3  -1.3
T11A  Corn Creek, Al   120.86  48 ⇑P       PKPdf    06 15 40.3 +0.8
      baz=121,SNR=15
P13A  Bates Ranch, G   120.90  45 ⇑P       PKPdf    06 15 40.1 +0.6
      baz=121,SNR=7.5
N14A  Grayback Hills   120.91  44 ⇑P       PKPdf    06 15 39.9 +0.3
      baz=121,SNR=6.9
R12A  Pony Springs,    120.91  47 ⇑P       PKPdf    06 15 40.0 +0.4
      baz=121
L15A  Malad City       120.96  42 ⇓P       PKPdf    06 15 40.4 +0.7
      baz=121,SNR=16
S12A  Delamar Landin   121.00  48 ⇓P       PKPdf    06 15 41.0 +1.1
      baz=121,SNR=5.6
DCID1 Drake Creek      121.02  40 ePKPdf   PKPdf    06 15 40.2 +0.5
H17A  Grant Village    121.03  39 ⇑P       PKPdf    06 15 41.0 +1.3
      baz=121,SNR=7.5
U11A  Corn Creek       121.03  49 ⇓P       PKPdf    06 15 40.4 +0.5
      baz=121
RRI2  Red Ridge        121.05  40 ePKPdf   PKPdf    06 15 40.2 +0.5
PFVI  Vila Bisbo       121.06 312 ePKPdf   PKPdf    06 15 40.2 +0.3
Q13A  Wheeler Ranch,   121.09  46 ⇓P       PKPdf    06 15 40.5 +0.5
      baz=121,SNR=5.9
PFO   Pinyon Flat Ob   121.14  53 ⇑P       PKPdf    06 15 40.6 +0.4
      baz=121
PFO   Pinyon Flat Ob   121.14  53  PFAKE            06 15 50.0  +10
PFO                                LR      LR
      comp=Z,371nm,22.0s,MS5.0
M15A  Larsen Ranch,    121.15  43 ⇓P       PKPdf    06 15 40.2 +0.2
      baz=121
SHEL  Horse Pasture    121.18 249  PFAKE            06 15 50.0 +9.3
SHEL                               LR      LR
      comp=Z,1µm,22.0s,MS5.5
V11A  Goodsprings      121.20  50 ⇑P       PKPdf    06 15 41.2 +1.0
      baz=121,SNR=6.0
I17A  Pilgrim Ck.      121.25  39 ⇓P       PKPdf    06 15 41.2 +1.0
      baz=121,SNR=6.1
N15A  Stansbury Isla   121.35  43 ⇓P       PKPdf    06 15 41.0 +0.6
      baz=121
GMRC  Granite Mounta   121.38  51 ⇑P       PKPdf    06 15 41.7 +1.1
      baz=121,SNR=15
LOHW  Long Hollow      121.39  40 ePKPdf   PKPdf    06 15 40.8 +0.4
MONP  Monument Peak    121.39  53 ⇑P       PKPdf    06 15 41.5 +0.8
      baz=121
R13A  O'Grain Ranch,   121.43  47 ⇑P       PKPdf    06 15 41.2 +0.5
      baz=121
J17A  Brown Place, J   121.44  40 ⇑P       PKPdf    06 15 41.4 +0.9
      baz=121,SNR=39
AHID  Auburn Hatcher   121.46  41  PFAKE            06 15 50.0 +9.4
AHID                               LR      LR
      comp=Z,710nm,19.0s,MS5.3
RLMT  Red Lodge        121.47  38 ⇑P       PKPdf    06 15 41.2 +0.7
      baz=121,SNR=8.4
RLMT  Red Lodge        121.47  38 ePKPdf   PKPdf    06 15 41.0 +0.5
RLMT                               LR      LR
      comp=Z,667nm,19.0s,MS5.3
P14A  Drum Mountains   121.52  45 ⇓P       PKPdf    06 15 41.4 +0.7
      baz=122,SNR=7.6
K17A  Gardner Place,   121.59  41 ⇓P       PKPdf    06 15 41.4 +0.6
      baz=122
L16A  Fish Haven       121.59  42 ⇑P       PKPdf    06 15 41.4 +0.6
      baz=122,SNR=18
Q14A  Sevier Lake (B   121.61  46 ⇓P       PKPdf    06 15 41.5 +0.5
      baz=122
O15A  The Old Anders   121.65  44 ⇓P       PKPdf    06 15 41.8 +0.8
      baz=122
U12A  Valley of Fire   121.67  49 ⇑P       PKPdf    06 15 41.7 +0.6
      baz=122
V12A  Nelson           121.68  50 ⇓P       PKPdf    06 15 42.0 +0.8
      baz=122,SNR=13
S13A  Holt Ranch, En   121.74  47 ⇑P       PKPdf    06 15 42.1 +0.9
      baz=122,SNR=13
W12A  Cal Nev Ari      121.81  50 ⇓P       PKPdf    06 15 42.0 +0.6
      baz=122
SWSC  Sam W. Stewart   121.87  53 ⇑P       PKPdf    06 15 42.3 +0.6
      baz=122
T13A  Saint George     121.92  48 ⇑P       PKPdf    06 15 42.3 +0.7
      baz=122
L17A  Cokeville        121.92  41 ⇑P       PKPdf    06 15 42.1 +0.6
      baz=122
IRM   Iron Mountain    121.99  52 ⇓P       PKPdf    06 15 43.0 +1.2
      baz=122,SNR=6.2
P15A  Leamington       122.08  45 ⇑P       PKPdf    06 15 42.5 +0.7
      baz=122,SNR=5.9
N16A  Rees Ranch, Co   122.09  43 ⇓P       PKPdf    06 15 42.1 +0.3
      baz=122
U13A  Pakoon Wash      122.10  49 ⇑P       PKPdf    06 15 42.8 +0.8
      baz=122
S14A  Cedar City       122.18  47 ⇑P       PKPdf    06 15 43.2 +1.1
      baz=122,SNR=10
K18A  Toltan Ranch,    122.21  40 ⇓P       PKPdf    06 15 42.6 +0.6
      baz=122,SNR=25
Q15A  Fillmore         122.25  45 ⇓P       PKPdf    06 15 43.0 +0.8
      baz=122,SNR=8.4
V13A  Grand Canyon W   122.29  49 ⇓P       PKPdf    06 15 43.4 +1.1
      baz=122,SNR=7.4
M17A  Scullys Gap (B   122.35  42 ⇑P       PKPdf    06 15 42.6 +0.3
      baz=122,SNR=11
LAO   LASA Array       122.43  35 ePKPdf   PKPdf    06 15 42.5 +0.2
LAO                                LR      LR
      comp=Z,674nm,22.0s,MS5.2
BW06  Boulder Array    122.46  40 ⇑P       PKPdf    06 15 42.6 +0.1
      baz=122,SNR=12
BW06  Boulder Array    122.46  40  PFAKE            06 15 50.0 +7.5
BW06                               LR      LR
      comp=Z,1µm,21.0s,MS5.5
PDAR  Pinedale Array   122.46  40  PKP     PKPdf    06 15 42.3  -0.2
      comp=Z,6.3nm,1.0s,baz=225,slow=1.7,SNR=26
PDAR                               PKKPbc  PKKPbc   06 25 37.6  -0.8
      comp=Z,10nm,0.9s,baz=121,slow=5.3,SNR=57
N17A  Moffit Pass      122.48  43 ⇓P       PKPdf    06 15 43.2 +0.7
      baz=122,SNR=12
P16A  Fountain Green   122.50  44 ⇑P       PKPdf    06 15 43.2 +0.5
      baz=122
DGMT  Dagmar           122.50  32 ⇓P       PKPdf    06 15 42.4  0.0
      baz=122
DGMT  Dagmar           122.50  32 ePKPdf   PKPdf    06 15 42.6 +0.2
DGMT                               LR      LR
      comp=Z,526nm,20.0s,MS5.2
T14A  Hurricane        122.51  48 ⇓P       PKPdf    06 15 43.2 +0.5
      baz=122
L18A  Fontenelle, Gr   122.56  41 ⇑P       PKPdf    06 15 43.3 +0.6
      baz=122,SNR=30
MVU   Marysvale        122.57  46  PFAKE            06 15 50.0 +7.2
MVU                                LR      LR
      comp=Z,947nm,21.0s,MS5.4
GLA   Glamis           122.61  53 ⇓P       PKPdf    06 15 43.4 +0.4
      baz=123
Y12C  Blythe           122.61  52 ⇓P       PKPdf    06 15 43.8 +0.8
      baz=123,SNR=5.9
W13A  Hualapai Mount   122.64  50 ⇑P       PKPdf    06 15 43.8 +0.8
      baz=123,SNR=10.0
U14A  Mt Trumbull      122.69  48 ⇓P       PKPdf    06 15 43.9 +0.8
      baz=123,SNR=6.1
PDMCI Parker Dam,Lak   122.73  51 ⇑P       PKPdf    06 15 43.6 +0.4
      baz=123
M18A  Lyman            122.77  42 ⇓P       PKPdf    06 15 43.7 +0.6
      baz=123,SNR=7.4
X13A  Yucca            122.86  51 ⇓P       PKPdf    06 15 44.3 +0.8
      baz=123,SNR=8.0
O17A  Robinson Place   122.88  43 ⇑P       PKPdf    06 15 44.0 +0.7
      baz=123,SNR=8.4
K19A  Absolon Red Bu   122.89  40 ⇑P       PKPdf    06 15 43.4 +0.1
      baz=123,SNR=25
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L19A  Farson           122.92  41 ⇑P       PKPdf    06 15 44.0 +0.6
      baz=123,SNR=16
KIC   Kosan Boka       122.99 275 ePKIKP   PKPdf    06 15 43.3  -1.0
      comp=Z,96nm,0.9s
V14A  Boquillas Ranc   123.04  49 ⇑P       PKPdf    06 15 45.1 +1.3
      baz=123,SNR=15
T15A  Red Dirt Ranch   123.05  47 ⇑P       PKPdf    06 15 44.7 +1.0
      baz=123
DBIC  Dimbokro         123.10 276  PKP     PKPdf    06 15 43.6  -1.0
      comp=Z,30nm,1.1s,baz=48,slow=1.7,SNR=16
DBIC  Dimbokro         123.10 276 ePKPdf   PKPdf    06 15 43.7  -0.8
DBIC                               LR      LR
      comp=Z,1µm,21.0s,MS5.6
Q16A  Castle Valley    123.14  45 ⇓P       PKPdf    06 15 44.5 +0.6
      baz=123
Y13A  Salome           123.14  51 ⇓P       PKPdf    06 15 44.9 +0.9
      baz=123,SNR=6.0
R16A  Teasdale         123.18  46 ⇓P       PKPdf    06 15 45.0 +1.0
      baz=123,SNR=8.1
P17A  Butcher Ranch,   123.20  44 ⇓P       PKPdf    06 15 44.5 +0.5
      baz=123,SNR=5.5
W14A  Seligman         123.21  50 ⇑P       PKPdf    06 15 45.3 +1.2
      baz=123,SNR=14
TIC   Toumodi          123.26 276 ePKIKP   PKPdf    06 15 43.9  -0.9
      comp=Z,86nm,0.9s
LIC   Lamto            123.27 275⇑iPKIKP   PKPdf    06 15 43.9  -1.0
      comp=Z,56nm,0.9s
LIC   Lamto            123.27 275 ePKIKP   PKPdf    06 15 43.8  -1.1
      comp=Z,82nm,0.9s
K20A  Yellowstone Ra   123.30  40 ⇑P       PKPdf    06 15 44.2 +0.1
      baz=123,SNR=7.2
M19A  Rock Springs     123.33  41 ⇑P       PKPdf    06 15 44.6 +0.4
      baz=123,SNR=12
S16A  Weppner Ranch,   123.34  46 ⇑P       PKPdf    06 15 44.8 +0.5
      baz=123,SNR=11
P18A  Preston Nutter   123.47  44 ⇑P       PKPdf    06 15 45.4 +0.9
      baz=123,SNR=18
SRU   San Rafael       123.51  44 ⇓P       PKPdf    06 15 44.8 +0.2
      baz=123,SNR=7.6
113A  Mohawk Valley,   123.54  53 ⇑P       PKPdf    06 15 45.3 +0.5
      baz=124
N19A  John Jarvie Ra   123.61  42 ⇑P       PKPdf    06 15 44.7  -0.1
      baz=124,SNR=9.9
L20A  Wamsutter        123.62  40 ⇑P       PKPdf    06 15 45.2 +0.4
      baz=124,SNR=17
X14A  Yava             123.63  50 ⇑P       PKPdf    06 15 45.6 +0.6
      baz=124,SNR=7.4
V15A  Kaibab Nationa   123.67  49 ⇑P       PKPdf    06 15 46.0 +1.0
      baz=124,SNR=17
R17A  Hanksville Air   123.68  45 ⇑P       PKPdf    06 15 45.3 +0.4
      baz=124,SNR=14
T16A  Glen Canyon Da   123.70  47 ⇑P       PKPdf    06 15 45.7 +0.7
      baz=124
Y14A  Wickenburg       123.73  51 ⇑P       PKPdf    06 15 45.6 +0.4
      baz=124,SNR=7.4
Q18A  Rafter H Ranch   123.78  44 ⇓P       PKPdf    06 15 45.5 +0.4
      baz=124,SNR=14
W15A  Williams         123.84  49 ⇑P       PKPdf    06 15 46.4 +1.0
      baz=124
O19A  Miners Draw (B   123.93  43 ⇑P       PKPdf    06 15 45.5 +0.1
      baz=124,SNR=12
M20A  Sweetwater, Wa   123.98  41 ⇓P       PKPdf    06 15 46.0 +0.5
      baz=124,SNR=12
Z14A  Wintersburg      123.98  52 ⇑P       PKPdf    06 15 46.5 +0.8
      baz=124
X15A  Humboldt         124.13  50 ⇑P       PKPdf    06 15 46.6 +0.6
      baz=124,SNR=13
T17A  Navajo Res., N   124.21  47 ⇑P       PKPdf    06 15 46.9 +0.9
      baz=124,SNR=20
N20A  Spence Gulch,    124.25  42 ⇑P       PKPdf    06 15 46.9 +0.9
      baz=124,SNR=27
Y15A  Casa Rosa Ranc   124.25  51 ⇑P       PKPdf    06 15 46.9 +0.7
      baz=124,SNR=17
R18A  Canyonlands Na   124.27  45 ⇑P       PKPdf    06 15 46.7 +0.6
      baz=124,SNR=11
L21A  Rawlins          124.27  40 ⇓P       PKPdf    06 15 46.1 +0.2
      baz=124,SNR=22
U16A  Tuba City        124.32  48 ⇓P       PKPdf    06 15 47.5 +1.3
      baz=124,SNR=19
P19A  Cripple Cowboy   124.34  43 ⇑P       PKPdf    06 15 47.2 +1.0
      baz=124,SNR=8.1
WUAZ  Wupatki          124.39  49 ⇑P       PKPdf    06 15 47.3 +0.9
      baz=124,SNR=11
WUAZ  Wupatki          124.39  49 ePKPdf   PKPdf    06 15 47.5 +1.1
W16A  Flagstaff        124.43  49 ⇓P       PKPdf    06 15 47.4 +0.9
      baz=124
Q19A  Hogan Spring (   124.45  44 ⇑P       PKPdf    06 15 47.0 +0.6
      baz=124,SNR=13
U17A  Shonto           124.48  47 ⇑P       PKPdf    06 15 47.6 +1.0
      baz=124,SNR=9.8
S18A  Hurst Farm, Bl   124.50  46 ⇓P       PKPdf    06 15 47.4 +0.8
      baz=124,SNR=14
RWWY  Rawlins          124.51  40 ePKPdf   PKPdf    06 15 46.5 +0.1
214A  Organ Pipe Nat   124.58  53 ⇑P       PKPdf    06 15 47.2 +0.3
      baz=124
O20A  White River Ci   124.60  42 ⇓P       PKPdf    06 15 47.3 +0.6
      baz=124,SNR=26
R19A  Curley Farm, L   124.75  45 ⇓P       PKPdf    06 15 47.6 +0.6
      baz=125,SNR=13
X16A  Lo Mia Camp, P   124.76  50 ⇑P       PKPdf    06 15 48.0 +0.9
      baz=125,SNR=19
N21A  Black Mountain   124.78  41 ⇑P       PKPdf    06 15 47.6 +0.6
      baz=125,SNR=57
P20A  De Beque         124.80  43 ⇑P       PKPdf    06 15 47.9 +0.9
      baz=125,SNR=12
T18A  Mexican Hat      124.83  46 ⇑P       PKPdf    06 15 47.9 +0.7
      baz=125,SNR=20
EFI   East Falkland    124.90 183  PFAKE            06 16 00.0  +13
EFI                                LR      LR
      comp=Z,1µm,22.0s,MS5.5
M22A  Cedar Creek Ra   125.05  40 ⇑P       PKPdf    06 15 48.1 +0.6
      baz=125,SNR=19
O21A  Pagoda           125.08  42 ⇑P       PKPdf    06 15 48.1 +0.5
      baz=125,SNR=8.9
S19A  Harvey Farm, M   125.09  45 ⇑P       PKPdf    06 15 48.2 +0.6
      baz=125
Q20A  Ridgley Place,   125.12  44 ⇓P       PKPdf    06 15 48.3 +0.6
      baz=125,SNR=16
U18A  Rough Rock, Ch   125.13  47 ⇓P       PKPdf    06 15 48.9 +1.1
      baz=125,SNR=7.4
RSSD  Black Hills      125.15  36 ePKIKP   PKPdf    06 15 47.0  -0.6
Z16A  Peralta Trail,   125.18  51 ⇑P       PKPdf    06 15 48.6 +0.6
      baz=125,SNR=6.1
116A  Eloy             125.24  52 ⇓P       PKPdf    06 15 48.8 +0.7
      baz=125,SNR=6.9
X17A  Forest Lakes     125.28  50 ⇓P       PKPdf    06 15 49.1 +1.0
      baz=125,SNR=17
ULM   Lac du Bonnet    125.35  26  PKP     PKPdf    06 15 46.5  -1.3
      comp=Z,16nm,0.9s,baz=330,slow=3.9,SNR=23
ULM   Lac du Bonnet    125.35  26 ePKPdf   PKPdf    06 15 46.8  -1.0
V18A  Ganado           125.38  48 ⇑P       PKPdf    06 15 49.3 +1.0
      baz=125,SNR=11
R20A  Redvale          125.42  44 ⇑P       PKPdf    06 15 49.2 +0.9
      baz=125,SNR=8.8
P21A  Newcastle        125.43  43 ⇓P       PKPdf    06 15 49.2 +1.0
      baz=125,SNR=9.0
N22A  Wattenberg Ran   125.45  41 ⇑P       PKPdf    06 15 48.9 +0.6
      baz=125,SNR=17
Y17A  Roosevelt        125.50  51 ⇑P       PKPdf    06 15 49.4 +0.8
      baz=125,SNR=7.1
T19A  Beclabito        125.57  46 ⇓P       PKPdf    06 15 49.3 +0.7
      baz=126,SNR=10
W18A  Petrified Fore   125.77  48 ⇓P       PKPdf    06 15 49.9 +0.9
      baz=126,SNR=9.8
MVCO  Mesa Verde       125.78  46  PFAKE            06 16 00.0  +11
MVCO                               LR      LR
      comp=Z,983nm,21.0s,MS5.5
PHWY  Pilot Hill       125.84  40 ePKPdf   PKPdf    06 15 49.1 +0.1
X18A  Snowflake        125.85  49 ⇓P       PKPdf    06 15 50.2 +1.0
      baz=126,SNR=6.4
Z17A  San Carlos Hig   125.94  51 ⇑P       PKPdf    06 15 50.2 +0.8
      baz=126
117A  Oracle           126.00  52 ⇑P       PKPdf    06 15 50.1 +0.5
      baz=126,SNR=6.0
V19A  Window Rock      126.04  48 ⇓P       PKPdf    06 15 50.0 +0.5
      baz=126
W19A  Sanders          126.04  48 ⇓P       PKPdf    06 15 50.4 +0.8
      baz=126
TUC   Tucson           126.06  52 ePKIKP   PKPdf    06 15 50.4 +0.7
S21A  Coal Bank Pass   126.08  45 ⇓P       PKPdf    06 15 51.1 +1.5
      baz=126,SNR=45
Q22A  Crested Butte,   126.12  43 ⇓P       PKPdf    06 15 50.9 +1.3
      baz=126,SNR=19
217A  Green Valley     126.23  53 ⇓P       PKPdf    06 15 50.8 +0.8
      baz=126,SNR=12
ISCO  Idaho Springs    126.52  41 ePKIKP   PKPdf    06 15 50.5 +0.2
ISCO                               MLR     MLR
      comp=Z,602nm,20.0s,MS5.3
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118A  Homack Ranch,    126.58  51 ⇑P       PKPdf    06 15 51.6 +0.9
      baz=126,SNR=7.0
W20A  Ramah            126.69  48 ⇑P       PKPdf    06 15 51.8 +1.0
      baz=127,SNR=16
218A  Dragoon          126.77  52 ⇑P       PKPdf    06 15 51.8 +0.8
      baz=127,SNR=7.2
AGMN  Agassiz Refuge   126.77  28 ePKPdf   PKPdf    06 15 49.3  -1.2
AGMN                               LR      LR
      comp=Z,657nm,22.0s,MS5.3
Z19A  T-Link Ranch,    126.87  50 ⇓P       PKPdf    06 15 52.3 +1.0
      baz=127
318A  Bisbee           127.01  53 ⇓P       PKPdf    06 15 52.0 +0.5
      baz=127,SNR=10
119A  Ashpeak Ranch,   127.05  51 ⇑P       PKPdf    06 15 52.2 +0.7
      baz=127
319A  Douglas          127.59  53 ⇑P       PKPdf    06 15 53.8 +1.1
      baz=128
SDCO  Great Sand Dun   127.63  44 ePKPdf   PKPdf    06 15 52.9 +0.4
SDCO                               LR      LR
      comp=Z,535nm,20.0s,MS5.2
X22A  Bernardo         128.06  48 ⇓P       PKPdf    06 15 55.0 +1.5
      baz=128
OGNE  Ogallala         128.19  38  PFAKE            06 16 10.0  +16
OGNE                               LR      LR
      comp=Z,579nm,21.0s,MS5.2
ANMO  Albuquerque      128.27  47 ePKIKP   PKPdf    06 15 55.4 +1.6
ANMO                               MLR     MLR
      comp=Z,774nm,22.0s
SCHQ  Schefferville    128.71   4  PKP     PKPdf    06 15 53.6  -0.5
      comp=Z,15nm,1.0s,baz=326,slow=3.0,SNR=12
SCHQ  Schefferville    128.71   4 ePKPdf   PKPdf    06 15 53.9  -0.2
EYMN  Ely              128.98  25 ePKPdf   PKPdf    06 15 54.3  -0.5
EYMN                               LR      LR
      comp=Z,669nm,21.0s,MS5.3
CBKS  Cedar Bluff      130.87  39  PFAKE            06 16 10.0  +11
CBKS                               LR      LR
      comp=Z,949nm,22.0s,MS5.5
AMTX  Amarillo         131.74  45  PFAKE            06 16 10.0  +10
AMTX                               LR      LR
      comp=Z,777nm,20.0s,MS5.4
KSU1  Kansas State U   132.62  37 ePKPdf   PKPdf    06 16 01.6  -0.3
KSU1                               LR      LR
      comp=Z,591nm,22.0s,MS5.2
SCIA  State Center     132.65  32 ePKPdf   PKPdf    06 16 01.7  -0.2
TXAR  Lajitas Array    132.85  52  PKhKP            06 15 57.1
      comp=Z,1.7nm,1.0s,baz=286,slow=0.9,SNR=3.9
TXAR                               PKP     PKPdf    06 16 01.9  -0.8
      comp=Z,3.9nm,0.9s,baz=318,slow=1.7,SNR=14
TXAR  Lajitas Array    132.85  52  PKP     PKPdf    06 16 01.9  -0.8
JFWS  Jewell Farm      133.40  29 ePKIKP   PKPdf    06 16 01.6  -1.7
JFWS                               MLR     MLR
      comp=Z,625nm,19.0s,MS5.3
WMOK  Wichita Mounta   133.83  43 ePKIKP   PKPdf    06 16 03.8  -0.6
GLMI  Grayling         134.30  23  PFAKE            06 16 20.0  +15
GLMI                               LR      LR
      comp=Z,608nm,20.0s,MS5.3
PLCA  Paso Flores      135.24 171  PKP     PKPdf    06 16 07.7 +0.8
      comp=Z,2.8nm,1.0s,baz=211,slow=2.8,SNR=3.0
PLCA  Paso Flores      135.24 171 ePKPdf   PKPdf    06 16 07.1 +0.2
PLCA                               LR      LR
      comp=Z,731nm,20.0s,MS5.4
JCT   Junction City    135.32  49 ePKIKP   PKPdf    06 16 07.4 +0.1
JCT                                MLR     MLR
      comp=Z,521nm,21.0s,MS5.2
CCM   Cathedral Cave   136.44  34 ePKIKP   PKPdf    06 16 09.0  -0.1
CCM                                MLR     MLR
      comp=Z,585nm,20.0s,MS5.3
AAM   Ann Arbor        136.80  24  PFAKE            06 16 20.0  +10
AAM                                LR      LR
      comp=Z,622nm,20.0s,MS5.3
FVM   French Village   136.94  34 ePKIKP   PKPdf    06 16 09.0  -1.1
MIAR  Mount Ida        137.39  40 ePKHKP            06 16 02.0
MIAR                              e                 06 16 10.9
MIAR                               MLR     MLR
      comp=Z,718nm,20.0s,MS5.4
LONY  Lake Ozonia      137.59  13  PFAKE            06 16 20.0 +8.9
LONY                               LR      LR
      comp=Z,717nm,21.0s,MS5.4
OLIL  Olney            137.63  31 ePKPdf   PKPdf    06 16 11.0  -0.3
UALR  University of    138.02  39 ePKPdf   PKPdf    06 16 14.0 +1.8
BLO   Bloomington      138.07  29 ePKIKP   PKPdf    06 16 11.8  -0.3
KVTX  Kingsville       138.20  51  PFAKE            06 16 20.0 +7.3
KVTX                               LR      LR
      comp=Z,457nm,19.0s,MS5.2
NCB   Newcomb          138.29  13 ePKPdf   PKPdf    06 16 11.8  -0.6
NCB                                LR      LR
      comp=Z,740nm,19.0s,MS5.4
ERPA  Erie             138.33  20  PFAKE            06 16 20.0 +7.5
ERPA                               LR      LR
      comp=Z,632nm,20.0s,MS5.3
NATX  Nacogdoches      138.35  44 ePKPdf   PKPdf    06 16 13.5 +0.6
NATX                               LR      LR
      comp=Z,962nm,22.0s,MS5.5
USIN  University of    138.43  31 ePKPdf   PKPdf    06 16 12.3  -0.5
LBNH  Lisbon           138.51  11  PFAKE            06 16 20.0 +7.2
LBNH                               LR      LR
      comp=Z,843nm,22.0s,MS5.4
HKT   Hockley          138.54  47  PFAKE            06 16 20.0 +6.7
HKT                                LR      LR
      comp=Z,747nm,20.0s,MS5.4
ACSO  Alum Creek Sta   138.81  25 ePKPpre           06 16 04.2
ACSO                              ePKPdf   PKPdf    06 16 12.8  -0.7
ACSO                               LR      LR
      comp=Z,663nm,20.0s,MS5.4
WCI   Wyandotte Cave   138.92  30 ePKIKP   PKPdf    06 16 13.4  -0.3
BINY  Binghamton       139.50  16 ePKPdf   PKPdf    06 16 13.5  -1.1
BINY                               LR      LR
      comp=Z,610nm,20.0s,MS5.3
WVT   Waverly          139.71  33 ePKHKP            06 16 05.8
WVT                               e                 06 16 15.1
OXF   Oxford           139.97  36  PFAKE            06 16 30.0  +14
OXF                                LR      LR
      comp=Z,616nm,22.0s,MS5.3
MCWV  Mont Chateau     140.54  22 ePKPdf   PKPdf    06 16 15.4  -1.3
MCWV                               LR      LR
      comp=Z,1µm,20.0s,MS5.6
VBMS  Vicksburg        140.84  40 ePKPdf   PKPdf    06 16 16.5  -0.9
PPM   Popocatepetl     140.97  64 i PKIKP  PKPdf    06 16 17.6  -0.3
BLA   Blacksburg       142.43  25 ePKIKP   PKPdf    06 16 16.6  -3.5
BLA                                MLR     MLR
      comp=Z,602nm,20.0s,MS5.3
LRAL  Lakeview Retre   142.44  36 ePKPpre           06 16 14.3
LRAL                               LR      LR
      comp=Z,652nm,22.0s,MS5.3
CBN   Corbin           142.72  20 ePKPdf   PKPdf    06 16 20.7 +0.2
CBN                                LR      LR
      comp=Z,771nm,21.0s,MS5.4
BRAL  Brewton          143.83  38 ePKPdf   PKPdf    06 16 20.6  -2.1
BRAL                               LR      LR
      comp=Z,891nm,22.0s,MS5.5
GOGA  Godfrey          144.11  32 ePKIKP   PKPdf    06 16 20.2  -3.0
GOGA                               MLR     MLR
      comp=Z,660nm,20.0s,MS5.4
HUIG  Huatulco         144.25  68 i P      PKPdf    06 16 28.1 +4.2
CMIG  Matias Romero    144.97  65 i P      PKPdf    06 16 24.6  -0.5
TUIG  Tuzandepetl      145.07  63 i P      PKPbc    06 16 26.1 +1.4
CNNC  Cliffs of the    145.16  23 ePKPdf   PKPdf    06 16 23.6  -1.3
CNNC                               LR      LR
      comp=Z,723nm,21.0s,MS5.4
NHSC  New Hope         145.99  28 ePKPdf   PKPdf    06 16 26.4   0.0
NHSC                               LR      LR
      comp=Z,744nm,22.0s,MS5.4
LCO   Las Campanas     146.56 166 ePKPdf   PKPdf    06 16 29.0 +1.5
LCO                                LR      LR
      comp=Z,889nm,22.0s,MS5.5
CCIG  Comitan          147.72  65 i P      PKPab    06 16 33.0  -2.0
DWPF  Disney           149.29  35 ePKPdf   PKPdf    06 16 32.5 +0.5
DWPF                              ePKPbc   PKPbc    06 16 36.1  -0.3
DWPF                               LR      LR
      comp=Z,781nm,20.0s,MS5.5
TEIG  Tepich           149.43  55  PKPbc   PKPbc    06 16 36.6  -0.3
      baz=324,slow=4.2
TEIG  Tepich           149.43  55 ePKPdf   PKPdf    06 16 33.2 +0.8
TEIG                              ePKPbc   PKPbc    06 16 36.4  -0.5
CPUP  Villa Florida    149.98 188  PKP     PKPdf    06 16 33.5 +0.3
      comp=Z,12nm,1.0s,baz=106,slow=1.2,SNR=22
CPUP                               PKPbc   PKPbc    06 16 38.1 +0.1
      comp=Z,37nm,1.0s,baz=131,slow=1.8,SNR=22
CPUP  Villa Florida    149.98 188 ePKPdf   PKPdf    06 16 33.7 +0.5
CPUP                               LR      LR
      comp=Z,176nm,20.0s,MS4.9
BBSR  BB Station       151.20   5 ePKPdf   PKPdf    06 16 34.7  -0.2
BBSR                              ePKPbc   PKPbc    06 16 40.5  -0.3
BBSR                               LR      LR
      comp=Z,540nm,19.0s,MS5.4
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RCBR	Riachuelo	152.40	250	*e*PKPbc	PKPbc	06 16 44.1	0.0
TGUH	Tegucigalpa,Un	152.89	66	*e*PKPbc	PKPbc	06 16 45.3	+0.2
LVC	Limon Verde	153.13	166	*e*PKPdf	PKPdf	06 16 40.3	+2.2
LVC				LR	LR		
	comp=Z,584nm,20.0s,MS5.4						
JTS	JuntasAbangare	156.19	72	PKP	PKPdf	06 16 42.1	-0.4
	comp=Z,8.0nm,1.0s,baz=283,slow=6.4,SNR=4.1						
JTS				PKPab	PKPab	06 17 09.0	-1.4
	comp=Z,20nm,1.0s,baz=247,slow=5.2,SNR=5.8						
JTS	JuntasAbangare	156.19	72	PKP	PKPdf	06 16 42.1	-0.4
JTS				PKPab	PKPab	06 17 08.9	-1.4
JTS				LR	LR		
	comp=Z,708nm,22.0s,MS5.5						
ARE	Arequipa	157.99	155	*e*PKIKP	PKPdf	06 16 47.0	+2.3
NNA	Nana	158.60	136	PKP	PKPdf	06 16 46.1	+0.6
	comp=Z,15nm,0.9s,baz=279,slow=4.7,SNR=4.8						
NNA	Nana	158.60	136	PKP	PKPdf	06 16 46.1	+0.6
NNA				LR	LR		
	comp=Z,695nm,21.0s,MS5.5						
GTBY	Guantanamo Bay	159.24	37	PFAKE		06 17 00.0	+14
GTBY				LR	LR		
	comp=Z,761nm,21.0s,MS5.5						
ATAH	Atahualpa	160.51	122	PKP	PKPdf	06 16 49.5	+1.7
	comp=Z,12nm,1.0s,baz=255,slow=5.4,SNR=7.6						
SIV	San Ignacio	160.58	182	PKPab	PKPab	06 17 29.8	+0.8
	baz=182,slow=5.0						
SIV				PP	PP	06 21 11.0	+1.3
	comp=Z,4.4nm,1.1s,baz=177,slow=4.6,SNR=3.3						
BCIP	Isla Barro Col	161.34	72	PFAKE		06 17 00.0	+11
BCIP				LR	LR		
	comp=Z,687nm,21.0s						
OTAV	Otavalo	163.16	101	*e*PKPdf	PKPdf	06 16 51.5	+1.0
OTAV				LR	LR		
	comp=Z,722nm,20.0s						
ANWB	Willy Bob	165.96	359	PFAKE		06 17 00.0	+7.2
ANWB				LR	LR		
	comp=Z,940nm,21.0s						
ROSC	El Rosal	167.56	84	PKP	PKPdf	06 16 54.2	0.0
	comp=Z,2.2nm,0.4s,baz=270,slow=20,SNR=7.8						
ROSC				PKPab	PKPab	06 18 01.0	+0.8
	comp=Z,15nm,1.0s,baz=289,slow=16,SNR=6.5						
ROSC	El Rosal	167.56	84	*e*PKPdf	PKPdf	06 16 54.4	+0.2
FDF	Fort de France	168.85	356	PFAKE		06 17 10.0	+15
FDF				LR	LR		
	comp=Z,831nm,22.0s						
SDV	Santo Domingo	169.84	58	PKP	PKPdf	06 16 54.4	-1.2
	comp=Z,11nm,0.9s,baz=338,slow=3.5,SNR=9.6						
SDV				PKPab	PKPab	06 18 10.2	+0.1
	comp=Z,5.0nm,0.7s,baz=299,slow=4.1,SNR=3.6						
SDV	Santo Domingo	169.84	58	*e*PKPdf	PKPdf	06 16 54.9	-0.7
GRGR	Grenville	171.46	358	PFAKE		06 17 10.0	+14
GRGR				LR	LR		
	comp=Z,808nm,21.0s						

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*IDC **05** 06:22:37.1±0.8, 59°.86N×151°.85W, h0^{km}, mb4.0/9, mb1 4.0/13, mb1mx3.8/29, mbtmp3.9/13, ML3.8/2, Error ellipse: s-maj=20.5km s-min=14.7km az=112.0*

*ISCJB **05** 06:22:42.1±0.4, 59°.52N±0°.04×151°.39W±0°.07, h74^{km}±4^{km}, mb4.1/14, Error ellipse: s-maj=7.2km s-min=5.0km az=140.6*

*NEIC **05** 06:22:44.3, 59°.55N×151°.41W, h49^{km}, ML3.7(AEIC), ML4.0(PMR), After AEIC.*

NEIC Felt [III] at Homer. Also felt at Anchor Point and Ninilchik.

ISC 05 06:22:43.4±0.4**, 59°.51N**±0°.04×**151°.40W**±0°.07**, h65**^{km}±4^{km}**, n53, σ0^{s}.85**/58**, mb4.2**/14**, Kenai Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUL	Augustine Lava	1.05	264	P	Pn	06 23 02.2	0.0
AUL				S	Sn	06 23 17.1	+1.0
SEW	Seward	1.15	58	P	Pn	06 23 04.0	+0.5
SEW				S	Sn	06 23 19.8	+1.2
SLKM	Skilak Lake	1.16	30	P	Pn	06 23 03.1	-0.6
FIB	Fire Island	1.77	20	P	Pn	06 23 12.4	+0.6
FIB				S	Sn	06 23 32.0	-1.2
RC01	Rabbit Creek A	1.79	27	P	Pn	06 23 11.8	-0.2
RC01				S	Sn	06 23 33.4	-0.3
KDAK	Kodiak Island	1.84	200	Pn	Pn	06 23 12.5	-0.2
	24nm,0.3s,baz=38,slow=9.7,SNR=186						
KDAK				Sn	Sn	06 23 41.4	+6.4
	34nm,0.3s,baz=177,slow=24,SNR=12						
PMR	Palmer	2.37	27	*e*P	Pn	06 23 19.5	-0.4
SKT	Skwentna	2.48	359	P	Pn	06 23 21.9	+0.5
SKT				S	Sn	06 23 51.6	+1.2
OHAK	Old Harbor	2.50	204	*e*P	Pn	06 23 20.8	-0.9
SVW2	Sparrevohn	2.62	309	*e*P	Pn	06 23 22.3	-1.0
EYAK	Cordova Ski Ar	3.02	67	P	Pn	06 23 29.0	+0.2
SII	Sitkinak Islan	3.31	208	P	Pn	06 23 32.1	-0.6
PPLA	Purkeypile	3.42	354	P	Pn	06 23 35.0	+0.8
TRF	Thorofare Moun	3.99	7	P	Pn	06 23 42.3	+0.4
KTH	Kantishna Hill	4.06	3	P	Pn	06 23 43.2	+0.3
TT01	Tatalina	4.07	329	P	Pn	06 23 42.7	-0.4
MCK	McKinley	4.40	14	P	Pn	06 23 48.1	+0.6
CHUM	Lake Minchumin	4.41	355	*e*Pn	Pn	06 23 47.2	-0.4
PAX	Paxson	4.50	37	P	Pn	06 23 49.0	+0.1
BPAW	Bear Paw Mtn.	4.61	2	P	Pn	06 23 50.9	+0.5
MENT	Mentasta	5.06	44	*e*Pn	Pn	06 23 57.6	+1.1
DOT	Dot Lake	5.43	37	P	Pn	06 24 01.7	+0.1
COLA	College	5.63	16	P	Pn	06 24 04.2	-0.2
IL1	Eielson Array	5.69	20	P	Pn	06 24 05.3	+0.2
BCA3	Beaver Creek A	5.85	48	P	Pn	06 24 07.4	+0.1
PNL	Peninsula	6.10	83	P	Pn	06 24 10.8	0.0
IM3	Indian Mountai	6.58	352	P	Pn	06 24 16.4	-1.0
EGAK	Eagle	7.13	38	P	Pn	06 24 24.2	-0.7
DAWY	Dawson	7.29	46	P	Pn	06 24 26.3	-0.8
COLD	Coldfoot	7.76	3	P	Pn	06 24 32.9	-0.6
WHY	Whitehorse	8.34	75	P	Pn	06 24 40.4	-1.0
BM3	Burnt Mountain	8.49	18	P	Pn	06 24 42.3	-1.1
TNA	Tin City	9.72	316	*e*Pn	Pn	06 25 01.5	+1.2
	3.6nm,0.4s						
DLBC	Dease Lake	11.08	86	Pn	Pn	06 25 20.0	+1.3
	0.9nm,0.3s,baz=122,slow=27,SNR=13						
INK	Inuvik	11.77	34	Pn	Pn	06 25 26.6	-1.4
	baz=180,slow=16						
YKA	Yellowknife Ar	17.92	65	P	Pn	06 26 48.5	+0.7
	0.2nm,0.3s,baz=276,slow=10,SNR=13						
FX1	Attu Island--F	20.60	267	P	P	06 27 16.0	-0.9
	9.8nm,0.6s,baz=172,slow=15,SNR=3.1						
RES	Resolute Bay	25.30	31	P	P	06 28 04.2	+0.9
	2.0nm,0.5s,mb3.9,baz=261,slow=8.1,SNR=23						
SPITS	Spitsbergen Ar	42.35	4	P	P	06 30 29.7	-0.7
	48nm,1.4s,mb5.0,baz=347,slow=8.0,SNR=10						
SCHQ	Schefferville	43.15	57	P	P	06 30 38.1	+1.1
	1.9nm,1.1s,mb3.8,baz=349,slow=16,SNR=3.7						
MDJ	Mudanjiang	47.81	289	P	P	06 31 15.4	+1.4
MDJ				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.1						
MDJ				pmax	pmax		
	comp=Z,680nm,22.6s						
ARCES	ARCESS Array B	51.23	1	P	P	06 31 39.0	-0.6
	comp=Z,1.6nm,0.5s,mb4.2,baz=12,slow=6.7,SNR=13						
JOF	Joensuu	57.88	359	*e*p	P	06 32 25.4	-2.4
	comp=Z,2.0nm,0.5s,mb4.4						
KAF	Kangasniemi	58.69	1	*e*p	P	06 32 32.5	-1.0
	comp=Z,2.3nm,0.6s,mb4.4						
NB2	NORSAR Subarra	59.03	10	P	P	06 32 36.5	+0.7
	comp=Z,1.5nm,0.7s,mb4.1,baz=349,slow=6.9						
NOA	NORSAR Array B	59.03	10	P	P	06 32 35.8	0.0
	comp=Z,2.5nm,0.8s,mb4.3,baz=350,slow=7.1,SNR=5.6						
HHC	Hu-ho-hao-te	59.13	299	*e*P	P	06 32 38.0	+1.1
HHC				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
HHC				pmax	pmax		
	comp=Z,580nm,7.6s						
BVAR	Borovoye Array	62.88	333	P	P	06 33 01.5	-0.5
	comp=Z,0.9nm,0.6s,mb4.1,baz=57,slow=5.5,SNR=6.3						
MKAR	Makanchi Array	65.32	322	P	P	06 33 17.5	-0.6
	comp=Z,0.1nm,0.6s,mb3.1,baz=20,slow=4.6,SNR=2.1						
AKASG	Malin Array Be	70.14	360	P	P	06 33 48.0	-0.4
	comp=Z,2.2nm,0.6s,mb4.2,baz=1.7,slow=6.4,SNR=8.0						
GERES	GERESS Array B	71.32	10	P	P	06 33 56.4	+0.8
	comp=Z,0.2nm,0.5s,mb3.3,baz=357,slow=5.6,SNR=3.9						
GYA	Guiyang	73.34	294	*e*P	P	06 34 10.6	+2.6
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
LBTB	Lobatse	145.46	5	PKPbc	PKPbc	06 42 14.4	+0.7
	comp=Z,1.6nm,0.5s,baz=38,slow=1.6,SNR=6.0						

GUC 05 06:25:32.6±0.6**, 33°.93S**×**70°.44W, h8**^{km}±53^{km}**, MD3.6, ML2.4, 3C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHCH	Chadas Angostu	0.17	267	⇑*i*P	Pg	06 25 36.5	+0.3
CHCH				*i* S	Sg	06 25 38.9	+0.2
LMEL	Las Melosas	0.21	69	*e*P	Pg	06 25 37.2	+0.3
LMEL				*i* S	Sg	06 25 40.5	+0.7
LMEL				AML	AML	06 25 40.9	
	comp=N,3µm,0.2s						
CACH	El Canelo	0.23	214	⇑*i*P	Pg	06 25 37.8	+0.6
CACH				*i* S	Sg	06 25 41.5	+1.1
SJCH	San Jose de Ma	0.29	15	⇑*i*P	Pg	06 25 38.8	+0.4
SJCH				*i* S	Sg	06 25 43.0	+0.7
SJCH				AML	AML	06 25 43.2	
	comp=N,415nm,0.1s						
ANTU	Antumapu	0.39	336	*e*P	Pg	06 25 40.3	+0.1
ANTU				*i* S	Sg	06 25 45.9	+0.6
ANTU				AML	AML	06 25 46.4	
	comp=E,715nm,0.2s						
CICH	Cipreses	0.39	177	⇓*i*P	Pg	06 25 40.5	+0.2
CICH				*i* S	Sg	06 25 46.0	+0.5
FSR	Penalolen	0.45	351	*i* P	Pg	06 25 41.5	+0.1
FSR				*i* S	Sg	06 25 47.8	+0.5
RCDM	Rinconada Maip	0.53	325	*e*P	Pg	06 25 42.6	-0.3
RCDM				*i* S	Sg	06 25 49.9	+0.1
RCDM				AML	AML	06 25 50.0	
	comp=E,409nm,0.1s						
FCH	Farellones	0.61	12	*e*P	Pg	06 25 43.9	-0.4
FCH				*i* S	Sg	06 25 52.8	+0.5
FCH				AML	AML	06 25 53.2	
	comp=E,454nm,0.2s						
PEL	Peldehue	0.81	345	⇓*i*P	Pg	06 25 47.7	-0.4
PEL				*i* S	Sg	06 25 58.8	+0.2
PEL				AML	AML	06 25 59.6	
	comp=N,254nm,0.3s						

ISC 05 06:29:05.4±1.2**, 35°.76N**±0°.06×**72°.3E**±0°.2**, h106**^{km}±20^{km}**, n27, σ0^{s}.73**/32**, 2C-2D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	4.37	138	*e*PKP	Pn	06 30 13.9	+4.2
THN				*e*x	Sn	06 31 04.9	+5.4
DLH	Dalhousie	4.42	135	*e*x	Sn	06 31 09.0	+8.1
AML	Almayashu	6.46	9	P	Pn	06 30 37.6	-0.2
	SNR=69						
KLP	Kalpa	6.51	129	*e*PKP	Pn	06 30 41.6	+2.9
KLP				*e*S	Sn	06 31 51.7	+0.1
KLP				AML	AML	06 31 54.1	
	comp=E,84nm,0.5s						
KLP				AML	AML	06 31 54.7	
	comp=N,60nm,0.3s						
UCH	Uchtor	6.69	14	P	Sn	06 31 51.5	-4.1
	SNR=5.6						
KZA	Kyzart	6.72	19	P	Pn	06 30 41.1	-0.2
	SNR=14						
EKS2	Erkin-Say	6.99	9	P	Pn	06 30 44.9	-0.1
	SNR=6.0						
AAK	Ala-Archa	7.07	13	P	Pn	06 30 46.9	+0.7
	SNR=11						
ULHL	Ulahol	7.17	24	P	Pn	06 30 47.7	+0.2
	SNR=9.4						
KK31	Karatay Array	7.46	350	⇓P	Pn	06 30 50.8	-0.7
	comp=N,0.6nm,0.2s,baz=158,slow=11,SNR=32						
KK31				⇑S	Sn	06 32 05.9	-8.6
	comp=N,2.6nm,0.6s,baz=158,slow=25,SNR=7.3						
TKM2	Tokmak 2	7.59	19	⇑P	Pn	06 30 53.3	0.0
	comp=N,2.7nm,0.7s						
TKM2				⇓S	Sn	06 32 10.8	-6.8
	comp=N,6.5nm,1.0s						
JOSI	Joshimath	8.00	128	*e*PKP	Pn	06 31 03.1	+4.2
JOSI				*e*S	Sn	06 32 26.4	-1.3
JOSI				AML	AML	06 32 33.1	
	comp=N,67nm,0.8s						
JOSI				AML	AML	06 32 39.4	
	comp=E,56nm,0.6s						
KHET	Khetri	8.22	158	*e*S	Sn	06 32 32.4	-0.8
AYAN	Aya Nagar	8.33	149	*e*S	Sn	06 32 36.2	+0.4
KUDL	Kundal	8.39	154	*e*S	Sn	06 32 36.7	-0.4
SONA	Sohna	8.52	150	*e*S	Sn	06 32 40.5	+0.1
PYUN	Piuthan	11.86	127	*e*P	Pn	06 31 51.6	+0.5
	comp=E,20nm,0.3s						
DANN	Dangsing	12.21	124	*e*P	Pn	06 31 55.6	0.0
	comp=E,6.8nm,0.2s						
KOLN	Koldanda	12.48	127	*e*P	Pn	06 31 59.8	+0.5
	comp=E,6.1nm,0.3s						
GKN	Gorkha	13.02	123	*e*P	Pn	06 32 06.7	+0.3
	comp=E,16nm,0.4s						
DMN	Daman	13.59	123	*e*P	Pn	06 32 14.3	+0.5
	comp=E,5.1nm,0.3s						
KKN	Kakani	13.60	122	*e*P	Pn	06 32 13.9	0.0
	comp=E,12nm,0.5s						
PKI	Pulchoki	13.82	123	*e*P	Pn	06 32 16.6	-0.2
	comp=E,5.6nm,0.3s						
GUN	Gumba	13.94	120	*e*P	Pn	06 32 16.7	-1.6
	comp=E,5.4nm,0.3s						
JIRN	Jiri	14.31	120	*e*P	Pn	06 32 23.1	0.0
	comp=E,10nm,0.3s						
RAMN	Ramite	15.04	122	*e*P	Pn	06 32 32.0	-0.3
	comp=E,6.7nm,0.4s						
ODAN	Odare	15.64	120	*e*P	Pn	06 32 40.6	+0.7

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*ISK **05** 07:02:15.8, 40°.20N×33°.26E, h7^{km}, MD2.9*

*ISCJB **05** 07:02:16.2±0.5, 40°.20N±0°.02×33°.29E±0°.04, h5^{km}±5^{km}, Error ellipse: s-maj=5.1km s-min=3.4km az=32.9*

*CSEM **05** 07:02:16.1±0.1, 40°.20N×33°.28E, h5^{km}, ML3.1, Error ellipse: s-maj=3.3km s-min=2.7km az=134.0*

*DDA **05** 07:02:16.2, 40°.21N×33°.31E, h7^{km}±3^{km}, Md3.0, Ml3.1*

ISC 05 07:02:16.6±0.4**, 40°.21N**±0°.02×**33°.29E**±0°.03**, h4**^{km}±5^{km}**, n34, σ0^{s}.85**/51**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELDT	Eldivan	0.30	20	*i* P	Pg	07 02 22.3	-0.1
ELDT				*i* S	Sg	07 02 27.3	+0.9
ELDT	Eldivan	0.30	20	*i* P	Pg	07 02 22.3	-0.1
ELDT				*i* S	Sg	07 02 27.3	+0.9
CANT	Cankiri	0.47	32	*e*PG	Pg	07 02 25.9	+0.2
CANT				*e*SG	Sg	07 02 33.3	+1.5
LOD	Lodumlu	0.52	232	*e*PG	Pg	07 02 26.1	-0.3
LOD				*e*SG	Sg	07 02 32.9	-0.2
LOD	Lodumlu	0.52	232	*e*Pg	Pg	07 02 26.1	-0.4
LOD				*e*Sg	Sg	07 02 32.9	-0.2
BALAT	Bala	0.66	192	*e*P	Pg	07 02 29.5	+0.2
BALAT				*i* S	Sg	07 02 39.6	+1.7
KAMT	Kaman	0.90	159	*e*PG	Pg	07 02 32.9	-0.9
KAMT	Kaman	0.90	159	*e*Pg	Pg	07 02 32.9	-0.9
ILGA	Ilgaz	0.91	21	*i* P	Pg	07 02 33.5	-0.5
ILGA				*e*S	Sg	07 02 45.9	+0.2
ILGA	Ilgaz	0.91	21	*i* P	Pg	07 02 33.5	-0.5
ILGA				*e*S	Sg	07 02 45.9	+0.2
TOS	Tosya	1.00	34	*e*PG	Pg	07 02 35.5	-0.3
TOS	Tosya	1.00	34	*e*Pg	Pg	07 02 35.5	-0.2
SGKT	Sivrigoynuk	1.01	292	*i* P	Pg	07 02 35.6	-0.4
SGKT				*e*S	Sg	07 02 49.9	+0.8
SGKT	Sivrigoynuk	1.01	292	*i* P	Pg	07 02 35.6	-0.4
SGKT				*e*S	Sg	07 02 49.9	+0.7
CDAG	Cicekdag	1.01	125	*i* P	Pg	07 02 35.3	-0.7
CDAG				*e*S	Sg	07 02 49.0	-0.2
CDAG	Cicekdag	1.01	125	*i* P	Pg	07 02 35.3	-0.7
CDAG				*e*S	Sg	07 02 49.0	-0.2
SAFT	Safranbolu	1.13	336	*e*PN	Pn	07 02 37.2	-2.0
SAFT	Safranbolu	1.13	336	*e*Pn	Pn	07 02 37.2	-2.0
CTKT	Corum	1.22	69	*i* P	Pg	07 02 39.6	-0.3
CTKT				*e*S	Sg	07 02 55.0	-0.7
CTKT	Corum	1.22	69	*i* P	Pg	07 02 39.6	-0.3
CTKT				*e*S	Sg	07 02 55.0	-0.7
BALT	Daday	1.33	3	*i* P	Pn	07 02 41.4	-0.5
BALT	Daday	1.33	3	*i* P	Pn	07 02 41.4	-0.5
SVRH	Sivrihisar-ESK	1.56	241	*e*PN	Pn	07 02 44.1	-1.0
SVRH	Sivrihisar-ESK	1.56	241	*e*Pn	Pn	07 02 44.1	-1.0
MDU	Mudurnu	1.61	280	*e*PN	Pn	07 02 45.1	-0.7
MDU	Mudurnu	1.61	280	*e*Pn	Pn	07 02 45.1	-0.6
YOZ	Yozgat	1.66	109	*e*PN	Pn	07 02 46.5	0.0
YOZ	Yozgat	1.66	109	*e*Pn	Pn	07 02 46.5	+0.1
BOYT	Boyabat	1.72	45	*e*P	Pn	07 02 48.4	+1.1
BOYT				*e*S	Sn	07 03 10.2	+0.4
BOYT	Boyabat	1.72	45	*e*P	Pn	07 02 48.4	+1.1
BOYT				*e*S	Sn	07 03 10.2	+0.5
KDHN	Kadinhani	1.91	209	*e*P	Pn	07 02 49.8	-0.2
KDHN				*e*S	Sn	07 03 16.9	+2.5
KDHN	Kadinhani	1.91	209	*e*P	Pn	07 02 49.8	-0.1
BNN	Bunyan	2.39	124	*e*PN	Pn	07 02 56.6	+0.1
BNN	Bunyan	2.39	124	*e*Pn	Pn	07 02 56.7	+0.2

IDC 05 07:11:22.4±1.4**, 2°.35S**×**119°.58E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.4**/19**, mbtmp3.5**/4**, Error ellipse: s-maj=265.9km s-min=21.3km az=57.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.66	142	P	P	07 16 24.9	-0.5
	0.8nm,0.8s,baz=314,slow=12,SNR=6.7						
ASAR	Alice Springs	25.32	148	P	P	07 16 51.6	+0.6
	0.8nm,0.8s,baz=343,slow=15,SNR=5.4						
MKAR	Makanchi Array	58.90	331	P	P	07 21 24.4	+1.3
	0.9nm,0.6s,baz=138,slow=7.6,SNR=11						
KURK	Kurchatov	63.37	332	P	P	07 21 52.0	-1.4
	0.2nm,0.3s,baz=126,slow=6.2,SNR=2.9						

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*ISCJB **05** 07:49:48.3±0.5, 31°.45N±0°.03×114°.27W±0°.03, h10^{km}, Error ellipse: s-maj=4.8km s-min=3.1km az=3.0*

*ECX **05** 07:49:52.9±1.4, 31°.52N×114°.56W, h3^{km}, ML3.6*

ISC 05 07:49:49.2±0.5**, 31°.43N**±0°.03×**114°.30W**±0°.03**, h10**^{km}**, n56, σ1^{s}.16**/66**, 35C-28D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECBX	El Chinero	0.64	274	⇑*e*P	Pg	07 50 01.0	-0.6
SPX	San Pedro Mart	1.07	249	*e*P	Pg	07 50 08.3	-1.4
SPX				*e*S	Sg	07 50 22.3	-1.3
SPX				⇑*e*		07 50 23.5	
	comp=N,1µm,0.4s						
112A	Yuma	1.12	348	⇓P	Pb	07 50 09.1	-1.6
	baz=1.1						
112A				⇓Sb	Sb	07 50 25.1	-0.3
	baz=1.1						
214A	Organ Pipe Nat	1.37	67	⇓P	Pn	07 50 13.1	-1.3
	baz=1.4						
214A				⇓S	Sb	07 50 30.9	-1.6
	baz=1.4						
113A	Mohawk Valley,	1.41	19	⇑P	Pn	07 50 13.6	-1.2
	baz=1.4,SNR=48						
113A				⇑S	Sn	07 50 30.9	-2.6
	baz=1.4						
RDX	Rancho Dawling	1.48	290	*e*S	Sn	07 50 36.5	+1.1
RDX				⇑*e*		07 50 45.9	
	comp=N,490nm,0.9s						
GLA	Glamis	1.68	345	⇑P	Pn	07 50 17.1	-1.4
	baz=1.6						
GLA				⇑S	Sn	07 50 38.7	-1.4
	baz=1.6						
ECNX	Esteban Cantu	1.97	277	*e*S	Sn	07 50 53.1	+5.7
PBX	Punta Banda	2.09	279	*e*S	Sn	07 50 53.4	+3.1
Z14A	Wintersburg	2.24	30	⇓P	Pn	07 50 25.5	-0.8
	baz=2.2,SNR=23						
Y12C	Blythe	2.32	355	⇓P	Pn	07 50 26.6	-0.7
	baz=2.3						
Y13A	Salome	2.41	9	⇑P	Pn	07 50 27.8	-0.8
	baz=2.4,SNR=24						
Y13A				⇓S	Sn	07 50 56.9	-1.3
	baz=2.4						
116A	Eloy	2.48	62	⇑P	Pn	07 50 28.7	-0.8
	baz=2.5						
216A	Three Points,	2.49	76	⇓P	Pn	07 50 28.5	-1.2
	baz=2.5						
Z15A	Gila River Ind	2.59	44	⇑P	Pn	07 50 30.7	-0.5
	baz=2.6						
Y14A	Wickenburg	2.73	23	⇑P	Pn	07 50 32.4	-0.6
	baz=2.7,SNR=20						
109C	Camp Elliot, M	2.79	302	⇑P	Pn	07 50 33.1	-0.8
	baz=2.8						
IRM	Iron Mountain	2.81	346	⇑S	Sn	07 51 07.0	-1.1
	baz=2.8						
217A	Green Valley	2.99	83	⇓P	Pn	07 50 36.2	-0.5
	baz=3.0						
Y15A	Casa Rosa Ranc	3.01	33	⇓P	Pn	07 50 36.0	-0.9
	baz=3.0						
X13A	Yucca	3.18	7	⇓P	Pn	07 50 39.0	-0.2
	baz=3.1,SNR=8.2						
117A	Oracle	3.23	68	⇑P	Pn	07 50 39.3	-0.6
	baz=3.2						
X14A	Yava	3.25	21	⇓P	Pn	07 50 40.5	+0.3
	baz=3.2,SNR=27						
Y16A	Circle Bar Ran	3.41	44	⇑P	Pn	07 50 42.0	-0.4
	baz=3.4						
X15A	Humboldt	3.51	29	⇓P	Pn	07 50 43.8	+0.1
	baz=3.5,SNR=15						
GMRC	Granite Mounta	3.53	342	⇑S	Sn	07 51 24.5	-1.3
	baz=3.5						
218A	Dragoon	3.67	80	⇓P	Pn	07 50 45.3	-0.6
	baz=3.7						
318A	Bisbee	3.69	89	⇓P	Pn	07 50 45.7	-0.4
	baz=3.7						
318A				⇑S	Sn	07 51 29.8	+0.1
	baz=3.7						
Y17A	Roosevelt	3.69	51	⇓P	Pn	07 50 45.4	-0.9
	baz=3.7						
Y17A				⇓S	Sn	07 51 29.5	-0.3
	baz=3.7						
HEC	Hector,Ludlow	3.79	334	⇑S	Sn	07 51 31.6	-0.7
	baz=3.8						
X16A	Lo Mia Camp, P	3.83	38	⇑P	Pn	07 50 48.0	-0.1
	baz=3.8						
X16A				⇑S	Sn	07 51 33.0	-0.2
	baz=3.8						
118A	Homack Ranch,	3.87	71	⇓P	Pn	07 50 48.4	-0.4
	baz=3.9						
118A				⇓S	Sn	07 51 33.4	-0.9
	baz=3.9						
W14A	Seligman	3.91	15	⇑P	Pn	07 50 49.7	+0.5
	baz=3.9						
Z18A	Geronimo	3.97	64	⇑P	Pn	07 50 50.0	-0.1
	baz=4.0						
X17A	Forest Lakes	4.13	45	⇑P	Pn	07 50 52.5	+0.2
	baz=4.1						
319A	Douglas	4.29	89	⇓P	Pn	07 50 54.5	0.0
	baz=4.3						
V14A	Boquillas Ranc	4.31	13	⇑P	Pn	07 50 55.9	+1.2
	baz=4.3,SNR=11						
W16A	Flagstaff	4.33	32	⇑P	Pn	07 50 55.8	+0.8
	baz=4.3,SNR=8.3						
V13A	Grand Canyon W	4.42	3	⇓P	Pn	07 50 57.5	+1.3
	baz=4.4,SNR=5.2						
W17A	Winslow	4.72	39	⇑P	Pn	07 51 01.3	+0.9
	baz=4.7,SNR=5.6						
V15A	Kaibab Nationa	4.72	22	⇓P	Pn	07 51 02.0	+1.6
	baz=4.7,SNR=65						
WUAZ	Wupatki	4.75	30	⇑P	Pn	07 51 01.8	+0.9
	baz=4.7,SNR=11						
X18A	Snowflake	4.79	49	⇑P	Pn	07 51 02.2	+0.9
	baz=4.8						
U13A	Pakoon Wash	4.98	3	⇑P	Pn	07 51 05.1	+1.2
	baz=5.0						
U12A	Valley of Fire	4.99	358	⇑P	Pn	07 51 05.1	+1.0
	baz=5.0						
U14A	Mt Trumbull	5.06	10	⇑P	Pn	07 51 06.6	+1.6
	baz=5.0,SNR=13						
W18A	Petrified Fore	5.30	45	⇓P	Pn	07 51 10.0	+1.6
	baz=5.3						
U16A	Tuba City	5.39	28	⇑P	Pn	07 51 11.5	+2.0
	baz=5.4,SNR=12						
W19A	Sanders	5.51	47	⇓P	Pn	07 51 12.7	+1.4
	baz=5.5						
T13A	Saint George	5.58	3	⇑P	Pn	07 51 14.1	+1.8
	baz=5.6						
V18A	Ganado	5.61	39	⇓P	Pn	07 51 14.2	+1.6
	baz=5.6						
T15A	Red Dirt Ranch	5.79	15	⇓P	Pn	07 51 17.5	+2.4
	baz=5.8						
T11A	Corn Creek, Al	5.84	353	⇑P	Pn	07 51 18.0	+2.1
	baz=5.8						
V19A	Window Rock	6.12	44	⇓P	Pn	07 51 21.2	+1.6
	baz=6.1						
U18A	Rough Rock, Ch	6.19	35	⇓P	Pn	07 51 22.9	+2.4
	baz=6.2,SNR=12						
T17A	Navajo Res., N	6.26	27	⇑P	Pn	07 51 24.7	+3.2
	baz=6.2						

DHMR 05 08:41:13.4±0.8**, 13°.57N**×**40°.78E, h14**^{km}±8^{km}**, ML4.0, 1C-1D, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNSH	Hunish Island	1.88	86	⇑*i*P	Pn	08 41 46.7	+1.4
HNSH				*i* S	Sn	08 42 12.1	+3.2
HNSH				AML	AML	08 42 19.2	

	comp=N,3μm,0.4s						
ZUQR	**Zugar Island**	1.96	78	⇓iP	Pn	08 41 47.6	+1.3
ZUQR				i S	Sn	08 42 13.9	+3.2
ZUQR				AML	AML	08 42 17.5	
	comp=N,2μm,0.5s						
TRBA	**At Turbah**	3.26	95	i P	Pn	08 42 06.7	+2.5
TRBA				i S	Sn	08 42 49.1	+6.3
TRBA				AML	AML	08 43 01.8	
	comp=N,297nm,0.7s						
DHBB	**Dhamar BB**	3.64	74	i S	Sn	08 42 58.4	+6.1
FURI	**Furi**	5.08	204	eP	Pb	08 42 45.7	+3.5
FURI				S	Sb	08 43 45.3	+2.2

IDC 05 08:55:43.3±2.1**, 2°.19N**×**127°.21E, h0^{km}, mb3.4**/4**, mb1 3.7**/4**, mb1mx3.5**/17**, mbtmp3.4**/4**, Error ellipse: s-maj=112.7km s-min=22.1km az=61.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	23.08	163	P	P	09 00 49.4	-1.3
	0.6nm,0.5s,baz=339,slow=11,SNR=7.3						
ASAR	**Alice Springs**	26.51	166	P	P	09 01 24.0	+1.4
	0.2nm,0.3s,baz=342,slow=9.1,SNR=3.5						
CMAR	**Chiang Mai Arr**	32.08	302	P	P	09 02 13.3	+1.1
	1.1nm,0.4s,baz=114,slow=13,SNR=4.9						
MKAR	**Makanchi Array**	59.09	326	P	P	09 05 44.4	-1.0
	0.1nm,0.4s,baz=119,slow=6.6,SNR=5.3						

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*ISCJB **05** 09:00:35.7±0.8, 38°.50N±0°.04×39°.17E±0°.04, h4^{km}±6^{km}, Error ellipse: s-maj=7.2km s-min=4.5km az=21.8*

*CSEM **05** 09:00:35.9±0.2, 38°.50N×39°.16E, h5^{km}, ML3.2, Error ellipse: s-maj=4.9km s-min=3.8km az=14.0*

*DDA **05** 09:00:35.7, 38°.49N×39°.16E, h7^{km}±3^{km}, Md3.1, Ml3.2*

*ISK **05** 09:00:35.3, 38°.51N×39°.14E, h5^{km}, MD3.0*

ISC 05 09:00:36.2±0.6**, 38°.51N**±0°.04×**39°.17E**±0°.04**, h5^{km}**±5^{km}**, n30, σ0^{s}.93**/44**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	0.14	267	i P	Pg	09 00 39.5	+0.4
ELZG				i S	Sg	09 00 42.1	+1.0
ELZG	**Elazig**	0.14	267	i P	Pg	09 00 39.5	+0.4
ELZG				i S	Sg	09 00 42.1	+1.0
MYA	**Malataya**	0.61	253	ePG	Pg	09 00 47.3	-0.6
MYA				eSG	Sg	09 00 56.0	+0.1
MYA	**Malataya**	0.61	253	ePg	Pg	09 00 47.3	-0.6
MYA				eSg	Sg	09 00 56.0	+0.1
MALT	**Malatya**	0.61	252	PG	Pg	09 00 47.3	-0.7
MALT				eSG	Sg	09 00 56.0	0.0
MALT	**Malatya**	0.61	252	i Pg	Pg	09 00 47.3	-0.7
MALT				eSg	Sg	09 00 56.0	+0.1
KEMA	**Kemaliye**	0.93	326	i P	Pg	09 00 53.1	-0.9
KEMA				eS	Sg	09 01 06.9	+0.9
KEMA	**Kemaliye**	0.93	326	i P	Pg	09 00 53.1	-0.9
KEMA				eS	Sg	09 01 06.9	+0.9
DIYA	**Diyarbakir**	0.95	127	i P	Pg	09 00 54.5	+0.1
DIYA				i S	Sg	09 01 07.7	+0.9
DIYA	**Diyarbakir**	0.95	127	i P	Pg	09 00 54.5	+0.1
DIYA				i S	Sg	09 01 07.7	+1.0
AKCD	**Akcadag**	1.00	258	i P	Pg	09 00 54.1	-1.3
AKCD				eS	Sg	09 01 08.3	-0.1
AKCD	**Akcadag**	1.00	258	i P	Pg	09 00 54.1	-1.3
AKCD				eS	Sg	09 01 08.3	-0.1
DIY	**Diyarbakir**	1.03	126	ePG	Pg	09 00 56.0	-0.1
DIY	**Diyarbakir**	1.03	126	ePg	Pg	09 00 56.0	0.0
URFA	**Urfa**	1.10	195	ePN	Pn	09 00 56.7	-1.5
URFA	**Urfa**	1.10	195	ePn	Pn	09 00 56.7	-1.5
DARE	**Darende-Malaty**	1.16	293	ePN	Pn	09 01 00.2	+1.2
DARE	**Darende-Malaty**	1.16	293	ePn	Pn	09 01 00.2	+1.2
EZC	**Erzincan**	1.34	22	ePN	Pn	09 00 59.7	-1.9
MARD	**Mardin**	1.74	133	eP	Pn	09 01 07.4	+0.3
MARD				eS	Sn	09 01 29.7	0.0
BEST	**Besiri**	1.77	110	i P	Pn	09 01 06.0	-1.4
BEST				i S	Sn	09 01 31.6	+1.3
SARI	**SarD1z-Kayseri**	1.94	276	ePN	Pn	09 01 12.9	+3.0
SARI	**SarD1z-Kayseri**	1.94	276	ePn	Pn	09 01 12.9	+3.0
GUMT	**Gumushane**	1.97	7	ePN	Pn	09 01 10.4	+0.2
GUMT	**Gumushane**	1.97	7	ePn	Pn	09 01 10.4	+0.2
GAZ	**Gaziantep**	2.04	230	ePN	Pn	09 01 11.1	-0.1
GAZ	**Gaziantep**	2.04	230	ePn	Pn	09 01 11.1	-0.1
KMRS	**Kahramanmaras**	2.05	242	ePN	Pn	09 01 11.2	-0.1
KMRS	**Kahramanmaras**	2.05	242	ePn	Pn	09 01 11.2	-0.1
KOZT	**Kozan**	2.83	250	ePN	Pn	09 01 22.6	+0.5

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*NEIC **05** 09:03:37.2, 32°.37N×117°.51W, h6^{km}, ML3.4(PAS), After PAS.*

ECX 05 09:03:38.4±0.4**, 32°.36N**×**117°.46W, h12^{km}**±3^{km}**, MD3.2, ML3.3, 6C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BAR	**Barrett**	0.73	64	⇑iP	Pg	09 03 51.4	-1.2
BAR	**Barrett**	0.73	64	eP	Pg	09 03 51.3	-1.3
BAR				eS	Sg	09 04 00.6	-1.6
DPP	**Dos Picos Cty**	0.77	34	eP	Pg	09 03 51.8	-1.5
PBX	**Punta Banda**	0.88	135	⇑eP	Pg	09 03 53.5	-1.8
PBX				eS	Sg	09 04 05.6	-1.2
PBX				⇑e		09 04 06.7	
	comp=N,843nm,0.3s						
ECNX	**Esteban Cantu**	1.01	134	⇓eP	Pb	09 03 56.1	-1.8
ECNX				⇓eP		09 03 53.2	
ECNX				eS	Sb	09 04 04.5	-6.6
ECNX				eS	Sb	09 04 09.8	-1.3
PLM	**Palomar**	1.11	27	⇑iP	Pb	09 03 57.4	-2.1
RDX	**Rancho Dawling**	1.35	108	⇓eP	Pn	09 04 01.8	-1.2
RDX				eS	Sb	09 04 19.9	-0.8
RDX				⇑e		09 04 20.8	
	comp=N,460nm,0.3s						
PFO	**Pinyon Flat Ob**	1.50	34	ePn	Pn	09 04 04.2	-0.9
PFO				eSn	Sn	09 04 24.0	-0.6
MWC	**Mount Wilson**	1.92	345	ePn	Pn	09 04 09.1	-1.8
MWC				eSn	Sn	09 04 33.2	-1.8
SPX	**San Pedro Mart**	2.15	127	⇑eP	Pn	09 04 14.0	0.0
GLA	**Glamis**	2.32	72	ePn	Pn	09 04 14.8	-1.5
GLA				eSn	Sn	09 04 45.4	+0.6
GSC	**Goldstone**	2.98	10	Pn	Pn	09 04 25.3	-0.1
GSC				Sn	Sn	09 05 00.5	-0.6

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*ISCJB **05** 09:18:05.9±0.6, 56°.2S±0°.1×26°.9W±0°.2, h100^{km}, mb4.4/9, Error ellipse: s-maj=17.8km s-min=14.3km az=27.2*

*IDC **05** 09:18:07.8±0.7, 56°.17S×27°.02W, h105^{km}±6^{km}, mb4.3/7, mb1 4.4/8, mb1mx4.1/17, mbtmp4.3/8, Error ellipse: s-maj=26.9km s-min=16.3km az=93.0*

*NEIC **05** 09:18:09.8±3.3, 56°.18S×26°.95W, h126^{km}±29^{km}, mb4.5/3, Error ellipse: s-maj=13.4km s-min=11.9km az=100.0*

ISC 05 09:18:01.5±5.6**, 56°.2S**±0°.1×**26°.9W**±0°.3**, h43^{km}**±53^{km}**, n24, σ0^{s}.47**/14**, mb4.5**/9**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	**Palmer Station**	19.95	229	P	Pn	09 22 31.5	+0.1
	1.7nm,0.3s,baz=16,slow=8.3,SNR=6.1						
PMSA	**Palmer Station**	19.95	229	eP	Pn	09 22 31.2	-0.2
	22nm,0.6s						
QSPA	**South Pole Qui**	34.07	180	P	P	09 24 41.3	+0.2
	6.7nm,0.5s,mb4.8,baz=187,slow=3.3,SNR=40						
QSPA	**South Pole Qui**	34.07	180	P	P	09 24 41.3	+0.2
CPUP	**Villa Florida**	37.03	311	P	P	09 25 06.8	-0.2
	2.0nm,0.6s,mb4.1,baz=136,slow=8.6,SNR=7.5						
LVC	**Limon Verde**	45.52	300	eP	P	09 26 17.0	+0.4
	5.0nm,0.5s,mb4.7						
VNDA	**Vanda**	46.45	183	P	P	09 26 23.4	0.0
	9.3nm,0.6s,mb4.9,baz=188,slow=6.7,SNR=39						
LBTB	**Lobatse**	48.88	73	eP	P	09 26 42.8	+0.1
	2.0nm,0.6s,mb4.3						
LSZ	**Lusaka**	58.25	68	P	P	09 27 51.2	-0.3
TOA0	**Torodi Ar. Sit**	73.08	29	eP	P	09 29 26.8	-0.1
TORD	**Torodi Ar. Bea**	73.08	29	P	P	09 29 26.9	0.0
	0.9nm,0.6s,mb3.9,baz=199,slow=6.2,SNR=11						
TORD				pP	pP	09 29 53.4	+14
	2.6nm,0.6s,baz=200,slow=6.7,SNR=7.6						
RPZ	**Rata Peaks**	79.33	193	P	P	09 30 00.9	-1.3
	9.7nm,0.8s,mb4.8,baz=163,slow=7.7,SNR=4.0						
STKA	**Stephens Creek**	91.75	170	P	P	09 31 04.5	+0.3
	1.8nm,0.6s,mb4.6,baz=152,slow=13,SNR=5.5						
ASAR	**Alice Springs**	98.82	162	P	P	09 31 37.4	+0.8
	0.7nm,0.5s,mb4.5,baz=181,slow=4.4,SNR=6.8						
PDAR	**Pinedale Array**	120.56	302	PKP	PKPdf	09 36 44.8	-2.6
	0.2nm,0.6s,baz=133,slow=5.4,SNR=4.3						
YKA	**Yellowknife Ar**	136.38	318	PKP	PKPdf	09 37 14.6	-2.2
	0.6nm,0.5s,baz=131,slow=2.1,SNR=13						
YKA				pPKP	pPKPdf	09 37 42.7	+12
	0.3nm,0.6s,baz=127,slow=2.1,SNR=2.2						
MKAR	**Makanchi Array**	136.76	71	PKP	PKPdf	09 37 16.3	-1.7
	0.1nm,0.6s,baz=286,slow=2.7,SNR=1.9						
KURK	**Kurchatov**	137.30	65	PKP	PKPdf	09 37 15.7	-3.2
	0.3nm,0.8s,baz=266,slow=3.5,SNR=2.6						
ZALV	**Zalesovo Beam**	142.27	64	PKP	PKPdf	09 37 27.3	-0.5
	0.9nm,0.4s,baz=231,slow=4.2,SNR=4.6						
INK	**Inuvik**	146.01	320	PKPbc	PKPbc	09 37 32.8	-2.0
	2.9nm,0.7s,baz=101,slow=4.3,SNR=13						
INK				pPKPbc	pPKPbc	09 38 00.5	+12
	1.4nm,0.6s,baz=193,slow=1.5,SNR=2.0						
SONM	**Songino Array**	150.56	86	PKPbc	PKPbc	09 37 45.8	-1.6
	1.9nm,0.6s,baz=212,slow=3.3,SNR=14						
SONM				pPKP	pPKPdf	09 38 10.0	+15
	0.8nm,0.5s,baz=222,slow=3.9,SNR=3.0						
MCK	**McKinley**	150.99	309	ePKPbc	PKPbc	09 37 46.1	-1.8
KDAK	**Kodiak Island**	151.03	296	PKPbc	PKPbc	09 37 46.7	-1.5
	4.5nm,0.4s,baz=137,slow=2.4,SNR=11						
KDAK	**Kodiak Island**	151.03	296	PKPbc	PKPbc	09 37 46.7	-1.5

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*NIED **05** 09:22:00, 27°.70N×127°.60E, h122^{km}, Mw4.2 Best double couple: $M_0$2.48000×10^{15} NP1:ϕ_s208.00000°, δ82.00000°, λ54.00000°. NP2:ϕ_s107.00000°, δ37.00000°, λ166.00000°.*

*BJI **05** 09:22:30.7, 27°.25N×128°.21E, h126^{km}, mB4.1/4, mb4.2/11*

*ISCJB **05** 09:22:36.3±0.3, 27°.61N±0°.04×127°.61E±0°.05, h128^{km}±4^{km}, mb4.1/18, Error ellipse: s-maj=8.2km s-min=4.7km az=135.1*

*NEIC **05** 09:22:37.8±0.8, 27°.60N×127°.50E, h126^{km}±8^{km}, mb4.4/4, Error ellipse: s-maj=8.1km s-min=6.7km az=105.0*

*JMA **05** 09:22:38.2±0.1, 27°.69N×127°.64E, h107^{km}±3^{km}, M4.1*

*IDC **05** 09:22:38.6±0.7, 27°.64N×127°.53E, h132^{km}±6^{km}, mb3.8/14, mb1 3.9/16, mb1mx3.8/28, mbtmp3.7/16, Error ellipse: s-maj=21.6km s-min=10.2km az=69.0*

ISC 05 09:22:37.3±0.3**, 27°.63N**±0°.04×**127°.61E**±0°.04**, h121^{km}**±4^{km}**, h134^{km}**±2.5^{km}**:pP-P, n50, σ0^{s}.96**/60**, mb4.1**/18**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIH	**Iheya**	0.68	152	P	Pn	09 22 56.8	+0.2
JIH				S	Sn	09 23 09.8	-1.3
JOW	**Kunigami**	0.99	143	P	Pn	09 22 59.5	+0.1
JOW				S	Sn	09 23 15.6	-0.4
JAGN	**Aguni-jima**	1.09	198	P	Pn	09 23 01.0	+0.6
JAGN				S	Sn	09 23 17.9	+0.1
JTK	**Tokunoshima**	1.20	82	P	Pn	09 23 01.0	-0.5
JTK				S	Sn	09 23 18.0	-1.8
NAH1	**Naha**	1.43	177	P	Pn	09 23 04.8	+0.8
NAH1				S	Sn	09 23 24.4	+0.2
JJT2	**Tamagusuku 2**	1.49	175	P	Pn	09 23 05.9	+1.1
JJT2				S	Sn	09 23 27.0	+1.4
JKE	**Kume jima 2**	1.49	210	P	Pn	09 23 05.5	+0.7
JKE				S	Sn	09 23 26.1	+0.5
JAM	**Amami Oshima**	1.93	66	P	Pn	09 23 09.7	-0.2
JAM				S	Sn	09 23 33.4	-1.4
JZK	**Kikaishima**	2.20	71	P	Pn	09 23 13.6	+0.3
JZK				S	Sn	09 23 40.5	-0.3
JNN	**Nakanoshima**	2.97	42	P	Pn	09 23 23.1	-0.1
TATO	**Taipei**	6.10	246	Pn	Pn	09 24 03.4	-1.7
NACB	**Ninganchiao**	6.42	239	ePn	Pn	09 24 08.4	-1.0
NACB				Sn	Sn	09 25 20.6	-0.8
KS15	**Wonju Array Si**	9.79	1	Pn	Pn	09 24 54.9	0.0
KSRS	**Korea Array**	9.80	1	P	Pn	09 24 56.6	+1.6
	0.1nm,0.3s,baz=178,slow=14,SNR=19						
MAJO	**Matsushiro**	12.63	43	ePn	Pn	09 25 34.2	+1.6
MJAR	**Matsushiro Arr**	12.63	43	P	Pn	09 25 34.1	+1.5
	0.6nm,0.3s,baz=246,slow=14,SNR=4.8						
BJT	**Baijiatuau**	15.57	325	ePn	Pn	09 26 12.3	+2.2
	29nm,0.7s						
CN2	**Changchun**	16.23	354	eP	Pn	09 26 20.2	+2.0
XAN	**Xi’an**	17.26	296	P	Pn	09 26 31.8	+0.9
XAN				pP	pP	09 26 41.6	-11
XAN				pmax	pmax		
	comp=Z,12nm,0.7s						
XAN				pmax	pmax		
	comp=Z,90nm,4.4s						
CD2	**Chengdu**	21.05	285	P	P	09 27 11.0	-0.7
CD2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.2						
GTA	**Gaotai**	25.87	304	eP	P	09 27 57.5	-0.2
GTA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.0						
SONM	**Songino Array**	26.08	326	P	P	09 28 00.5	+1.0
	comp=Z,3.7nm,0.5s,mb4.1,baz=138,slow=9.8,SNR=34						
CHTO	**Chiang Mai**	27.71	258	eP	P	09 28 13.8	-0.6
LSA	**Lhasa**	31.98	282	P	P	09 28 52.0	0.0
MKAR	**Makanchi Array**	40.20	311	P	P	09 30 01.1	-0.6
	comp=Z,0.9nm,0.4s,mb3.9,baz=91,slow=11,SNR=13						
MKAR				pP	pP	09 30 31.8	+2.9
	comp=Z,1.4nm,0.7s,baz=99,slow=10,SNR=4.9						
MKAR				PcP	PcP	09 32 03.9	+0.4
	comp=Z,1.0nm,0.5s,baz=75,slow=3.0,SNR=7.9						
MKAR				ScP	ScP	09 35 42.6	+1.1
	comp=Z,0.7nm,0.8s,baz=98,slow=4.4,SNR=6.1						
MKAR	**Makanchi Array**	40.20	311	P	P	09 30 01.1	-0.6
MKAR				pP	pP	09 30 31.8	+2.9
MKAR				PcP	PcP	09 32 03.9	+0.4
MKAR				ScP	ScP	09 35 42.6	+1.1
ZALV	**Zalesovo Beam**	40.80	322	P	P	09 30 06.3	-0.3
	comp=Z,1.9nm,0.5s,mb4.2,baz=102,slow=8.9,SNR=6.6						
ZALV				pP	pP	09 30 36.2	+2.3
	comp=Z,1.8nm,0.8s,baz=111,slow=8.1,SNR=2.7						
ZALV				PcP	PcP	09 32 03.8	-1.5
	comp=Z,0.5nm,0.3s,baz=151,slow=3.3,SNR=3.1						
ZALV				ScP	ScP	09 35 42.0	-1.7
	comp=Z,1.4nm,0.6s,baz=96,slow=2.9,SNR=6.9						
ZALV	**Zalesovo Beam**	40.80	322	P	P	09 30 06.3	-0.3
ZALV				pP	pP	09 30 36.2	+2.3
ZALV				PcP	PcP	09 32 03.8	-1.5
ZALV				ScP	ScP	09 35 42.0	-1.7
KURK	**Kurchatov**	43.43	316	P	P	09 30 27.1	-0.8
	comp=Z,1.1nm,0.3s,mb4.0,baz=101,slow=9.8,SNR=8.4						
KURK				PcP	PcP	09 32 12.8	-1.3
	comp=Z,0.9nm,0.5s,baz=112,slow=3.7,SNR=4.0						
KURK	**Kurchatov**	43.43	316	P	P	09 30 27.8	-0.2
KURK				PcP	PcP	09 32 12.8	-1.3
AAK	**Ala-Archa**	45.23	304	eP	P	09 30 42.8	+0.4
WRA	**Warramunga Arr**	47.74	171	P	P	09 31 02.7	+0.6
	comp=Z,2.4nm,0.7s,mb4.1,baz=352,slow=8.3,SNR=11						
WRA				pP	pP	09 31 31.3	+1.1
	comp=Z,2.5nm,1.2s,baz=353,slow=8.0,SNR=3.6						
WB2	**Warramunga Arr**	47.74	171	eP	P	09 31 02.5	+0.4
BVAR	**Borovoye Array**	48.87	318	P	P	09 31 09.5	-1.0
	comp=Z,1.3nm,0.5s,mb4.1,baz=73,slow=8.1,SNR=6.1						
BVAR				PcP	PcP	09 32 33.4	+0.3
	comp=Z,1.3nm,0.4s,baz=110,slow=3.7,SNR=8.3						
BRVK	**Borovoye**	48.93	318	eP	P	09 31 10.2	-0.8
	comp=Z,2.2nm,0.4s,mb4.4						
KBL	**Kabul**	50.03	293	P	P	09 31 17.2	-2.4
CTA	**Charters Tower**	50.76	157	P	P	09 31 24.8	-0.3
	comp=Z,3.3nm,0.8s,mb4.4,baz=332,slow=8.1,SNR=4.7						
CTAO	**Charters Tower**	50.76	157	eP	P	09 31 24.8	-0.3
ASAR	**Alice Springs**	51.36	173	P	P	09 31 30.1	+0.6
	comp=Z,1.3nm,0.7s,mb4.1,baz=2.7,slow=13,SNR=12						
ASAR				pP	pP	09 32 01.0	+3.1
	comp=Z,0.8nm,0.8s,baz=359,slow=10.0,SNR=4.2						
ASAR	**Alice Springs**	51.36	173	P	P	09 31 30.1	+0.6
ASAR				pP	pP	09 32 01.0	+3.1
STKA	**Stephens Creek**	60.66	166	P	P	09 32 35.6	0.0
	comp=Z,3.0nm,0.6s,mb4.5,baz=201,slow=18,SNR=7.1						
STKA	**Stephens Creek**	60.66	166	eP	P	09 32 35.8	+0.2
	comp=Z,0.6nm,0.5s,mb3.9						
COLA	**College**	63.05	28	eP	P	09 32 50.9	-0.4
EGAK	**Eagle**	65.88	28	eP	P	09 33 06.4	-3.3
	comp=Z,4.9nm,0.8s,mb4.4						
INK	**Inuvik**	67.83	23	P	P	09 33 22.0	0.0
	comp=Z,1.4nm,0.5s,mb4.1,baz=298,slow=5.8,SNR=8.2						
AKASG	**Malin Array Be**	74.11	319	P	P	09 33 58.5	-1.7
	comp=Z,0.6nm,0.3s,mb3.8,baz=66,slow=5.2,SNR=3.3						
AKASG				pP	pP	09 34 32.4	+2.0
	comp=Z,0.6nm,0.4s,baz=221,slow=32,SNR=2.4						
YKA	**Yellowknife Ar**	77.49	25	P	P	09 34 19.5	+0.3
	comp=Z,2.0nm,0.7s,mb4.0,baz=305,slow=6.0,SNR=32						
YKA	**Yellowknife Ar**	77.49	25	P	P	09 34 19.5	+0.3
NOA	**NORSAR Array B**	77.82	334	P	P	09 34 21.3	+0.3
	comp=Z,0.8nm,0.6s,mb3.6,baz=56,slow=5.6,SNR=2.8						
PDAR	**Pinedale Array**	92.41	38	P	P	09 35 34.7	+0.2
	comp=Z,0.4nm,0.8s,mb3.7,baz=346,slow=0.7,SNR=4.5						

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*KRSC **05** 09:43:43.0±0.3, 52°.60N×159°.70E, h24^{km}±24^{km}, ML4.5*

*MOS **05** 09:43:43.4±1.4, 52°.69N×159°.46E, h63^{km}, mb4.5/2, Error ellipse: s-maj=15.8km s-min=8.3km az=82.3*

*ISCJB **05** 09:43:44.2±0.6, 52°.60N±0°.04×159°.53E±0°.08, h68^{km}±4^{km}, mb3.7/16, Error ellipse: s-maj=9.5km s-min=3.6km az=37.3*

*NEIC **05** 09:43:46.0±0.8, 52°.77N×159°.38E, h69^{km}±6^{km}, mb4.4/4, Error ellipse: s-maj=10.8km s-min=7.6km az=132.0*

*IDC **05** 09:43:47.6±1.5, 52°.77N×159°.36E, h81^{km}±12^{km}, mb3.3/12, mb1 3.6/12, mb1mx3.5/23, mbtmp3.3/12, MS3.3/1, Ms1 3.3/1, ms1mx2.7/18, Error ellipse: s-maj=20.3km s-min=16.5km az=145.0*

ISC 05 09:43:45.7±0.6**, 52°.60N**±0°.04×**159°.46E**±0°.08**, h64^{km}**±4^{km}**, n60, σ0^{s}.97**/79**, mb3.8**/16**, 4D, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLC	**Nalytchevo**	0.57	353	i P	Pn	09 43 55.8	-2.9
NLC				i S	Sn	09 44 04.3	-4.0
RUS	**Russkaya**	0.60	254	eP	Pn	09 43 57.7	-1.3
RUS				i S	Sn	09 44 08.1	-0.7
PET	**Petropavlovsk**	0.65	311	κ iPN	Pn	09 43 57.5	-2.0
PET				i S	Sn	09 44 07.9	-1.8
PET				pmax	pmax		
	comp=Z,200nm,1.1s						
PET				pmax	pmax		
	comp=Z,1μm,0.9s						
PET				pmax	pmax		
	comp=Z,1μm,0.6s						
PET				smax			
	comp=E,2μm,1.5s						
PET				smax			
	comp=E,2μm,0.7s						
PET				smax			
	comp=N,3μm,0.7s						
PET	**Petropavlovsk**	0.65	311	i P	Pn	09 43 57.9	-1.6
PET				i S	Sn	09 44 07.9	-1.8
PET	**Petropavlovsk**	0.65	311	⇓iP	Pn	09 43 57.8	-1.7
PET				eS	Sn	09 44 08.3	-1.4
AVH	**Avacha**	0.79	327	eP	Pn	09 44 00.3	-0.9
AVH				i S	Sn	09 44 11.8	-0.9
GRL	**Gorelyy**	0.85	267	eP	Pn	09 44 02.0	+0.1
GRL				i S	Sn	09 44 15.1	+1.2
PEA0B	**Petropavlovsk-**	1.18	296	⇓eP	Pn	09 44 05.8	-0.4
PEA0B				eS	Sn	09 44 21.7	+0.2
PETK	**Petropavlovsk-**	1.18	296	P	Pn	09 44 06.0	-0.2
	comp=N,59nm,0.3s,baz=105,slow=21,SNR=1539						
PETK				S	Sn	09 44 22.8	+1.3
	comp=N,66nm,0.3s,baz=154,slow=17,SNR=12						
GNL	**Ganaly**	1.42	321	eP	Pn	09 44 09.5	+0.1
GNL				i S	Sn	09 44 28.0	+0.8
MIPR	**Malaya Ipel’ka**	1.69	260	eP	Pn	09 44 14.2	+1.3
MKZ	**Mys Kozlova**	2.38	34	eP	Pn	09 44 18.9	-3.4
MKZ				i S	Sn	09 44 44.5	-5.8
TUMR	**Tumrok**	2.71	8	eP	Pn	09 44 26.6	-0.2
TUMR				i S	Sn	09 44 59.1	+0.6
SKR	**Severo-Kuril’s**	2.83	229	ePN	Pn	09 44 28.5	0.0
SKR				eS	Sn	09 45 02.5	+1.1
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=E,450nm,1.0s						
SKR				smax			
	comp=N,220nm,0.5s						
SKR				smax			
	comp=Z,80nm,0.5s						
KMNR	**Kamenistaya**	3.19	8	eP	Pn	09 44 33.6	+0.3
BZMR	**Bezymyannaya**	3.39	10	eP	Pn	09 44 36.5	+0.4
KIRR	**Kirishev**	3.40	8	eP	Pn	09 44 36.8	+0.7
KIRR				i S	Sn	09 45 14.9	-0.2
KPT	**Kopyto**	3.40	7	eP	Pn	09 44 36.2	0.0
KOZ	**Kozyrevsk**	3.47	4	eP	Pn	09 44 37.2	+0.1
KOZR	**Kozyr**	3.48	4	PN	Pn	09 44 37.2	0.0
ZLN	**Zelenaya**	3.51	12	eP	Pn	09 44 37.8	+0.1
CIRR	**Tsirk**	3.60	12	eP	Pn	09 44 39.4	+0.5
CIRR				i S	Sn	09 45 22.0	+1.9
KRSR	**Krestovskiy**	3.68	10	eP	Pn	09 44 40.1	+0.1
SRDR	**Sredinnyy**	3.72	2	eP	Pn	09 44 40.3	-0.3
KLY	**Klyuchi**	3.78	10	eP	Pn	09 44 42.5	+1.1
KLY				i S	Sn	09 45 25.7	+1.1
BDR	**Baidarnaya**	4.10	14	eP	Pn	09 44 46.5	+0.8
BDR				i S	Sn	09 45 33.6	+1.2
KBTR	**Krutoberegovo**	4.11	27	eP	Pn	09 44 45.0	-0.9
KBTR				i S	Sn	09 45 30.2	-2.4
SMKR	**Semkarok**	4.16	16	eP	Pn	09 44 47.3	+0.8
SMKR				i S	Sn	09 45 33.5	-0.2
SRKR	**Sorokina**	4.18	13	eP	Pn	09 44 47.4	+0.6
SRKR				i S	Sn	09 45 35.1	+0.8
YAK	**Yakutsk**	18.48	312	eP	Pn	09 47 56.9	+0.1
YAK				pmax	pmax		
	comp=Z,20nm,0.8s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.1s						
MDJ	**Mudanjiang**	21.18	260	eP	P	09 48 25.0	-0.5
MAJO	**Matsushiro**	21.94	231	eP	P	09 48 35.0	+1.4
MAJO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.1						
MAJO	**Matsushiro**	21.94	231	eP	P	09 48 35.0	+1.4
	comp=Z,4.6nm,0.6s,mb4.1						
MJAR	**Matsushiro Arr**	21.94	231	P	P	09 48 35.9	+2.3
	comp=Z,1.1nm,0.6s,mb3.5,baz=112,slow=13,SNR=4.5						
HIA	**Hailar**	25.03	278	P	P	09 49 03.4	0.0
SONM	**Songino Array**	33.64	284	LR	LR	10 05 35.0	
	comp=Z,44nm,19.8s,baz=187,slow=39						
NACB	**Ninganchiao**	40.32	240	P	P	09 51 17.7	+1.0
YKA	**Yellowknife Ar**	43.78	42	P	P	09 51 42.9	-1.5
	comp=Z,0.2nm,0.8s,mb2.9,baz=296,slow=7.7,SNR=4.8						
YKA	**Yellowknife Ar**	43.78	42	P	P	09 51 42.9	-1.5
MK31	**Makanchi Array**	48.02	296	eP	P	09 52 16.6	-1.3
MKAR	**Makanchi Array**	48.02	296	P	P	09 52 16.2	-1.7
	comp=Z,0.6nm,0.5s,mb3.9,baz=58,slow=7.3,SNR=18						
BRVK	**Borovoye**	50.42	308	eP	P	09 52 33.5	-2.6
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
BRVK	**Borovoye**	50.42	308	eP	P	09 52 33.5	-2.7
	comp=Z,2.2nm,0.4s,mb4.5						
SUMG	**Summit**	54.49	7	eP	P	09 53 05.6	-0.4
	comp=Z,6.5nm,0.8s,mb4.6						
UCH	**Uchtor**	55.21	296	P	P	09 53 11.6	-0.1
	comp=Z,1.5nm,0.4s,mb4.4						
NVAR	**Mina Array Bea**	56.27	69	P	P	09 53 19.5	+0.3
	comp=Z,0.5nm,0.6s,mb3.7,baz=308,slow=7.4,SNR=3.9						
NVAR	**Mina Array Bea**	56.27	69	P	P	09 53 19.5	+0.2
CHTO	**Chiang Mai**	57.43	258	P	P	09 53 27.3	-0.3
PDAR	**Pinedale Array**	58.10	60	P	P	09 53 32.9	+0.8
	comp=Z,0.3nm,0.5s,mb3.6,baz=329,slow=3.1,SNR=4.0						
NOA	**NORSAR Array B**	63.90	343	P	P	09 54 10.6	-0.5
	comp=Z,0.5nm,0.5s,mb3.8,baz=32,slow=7.5,SNR=2.9						
AKASG	**Malin Array Be**	68.83	329	P	P	09 54 41.6	-1.2
	comp=Z,0.5nm,0.4s,mb3.8,baz=30,slow=6.3,SNR=3.0						
TXAR	**Lajitas Array**	71.19	66	P	P	09 54 58.1	+0.6
	comp=Z,0.7nm,0.6s,mb3.8,baz=296,slow=5.0,SNR=14						
CTAO	**Charters Tower**	73.29	193	P	P	09 55 09.7	-0.2
GERES	**GERESS Array B**	74.82	337	P	P	09 55 17.5	-1.1
	comp=Z,0.3nm,0.4s,mb3.5,baz=29,slow=6.7,SNR=4.9						
WRAB	**Tennant Creek**	75.46	204	P	P	09 55 22.2	-0.3
WB2	**Warramunga Arr**	75.47	204	eP	P	09 55 22.3	-0.3
WRA	**Warramunga Arr**	75.47	204	P	P	09 55 22.9	+0.3
	comp=Z,0.7nm,1.0s,mb3.5,baz=20,slow=5.9,SNR=3.1						
FITZ	**Fitzroy Crossi**	76.28	213	P	P	09 55 27.5	+0.2
BRTR	**Keskin Array B**	76.75	320	P	P	09 55 29.6	-0.2
	comp=Z,0.5nm,0.5s,mb3.7						
ASAR	**Alice Springs**	79.15	204	P	P	09 55 44.1	+1.0
	comp=Z,0.3nm,0.6s,mb3.4,baz=15,slow=5.3,SNR=3.0						

KRSC 05 09:45:50.9±0.4**, 52°.61N**×**159°.67E, h26^{km}**±26^{km}**, ML3.5, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLC	**Nalytchevo**	0.60	341	eP	Pb	09 46 03.3	+0.6
NLC				i S	Sb	09 46 12.1	+1.3
RUS	**Russkaya**	0.73	256	eP	Pb	09 46 05.3	+0.4
RUS				i S	Sb	09 46 15.4	+0.9
PET	**Petropavlovsk**	0.74	304	eP	Pb	09 46 05.4	+0.2

PET				*i* S	Sb	09 46 15.9	+1.0
AVH	Avacha	0.86	320	*e*P	Pb	09 46 07.7	+0.5
AVH				*i* S	Sb	09 46 19.9	+1.5
GRL	Gorelyy	0.98	267	*e*P	Pn	09 46 09.7	+0.8
GNL	Ganaly	1.50	317	*e*P	Pn	09 46 17.4	+1.3
GNL				*i* S	Sn	09 46 36.1	+1.2
MIPR	Malaya Ipel'ka	1.81	261	*e*P	Pn	09 46 21.5	+1.1
MKZ	Mys Kozlova	2.30	31	P	Pn	09 46 28.6	+1.5
MKZ				*i* S	Sn	09 46 55.2	+0.6
KBTR	Krutoberegovo	4.05	26	*e*P	Pn	09 46 52.5	+1.4
KBTR				*i* S	Sn	09 47 39.1	+1.6

ISCJB **05** *10:04:03.6±0.5, 30°.78N±0°.03×35°.01E±0°.05, h0km, Error ellipse: s-maj=6.1km s-min=3.6km az=0.6*

CSEM **05** *10:04:03.7±0.3, 30°.77N×34°.95E, h0km±3km, ML2.9, Error ellipse: s-maj=5.7km s-min=3.4km az=111.0*

HLW **05** *10:04:03.0, 30°.89N×35°.19E, h15km, Mb2.8*

GII **05** *10:04:03.1±0.8, 30°.77N×35°.05E, h1km, Md2.5/6, Mining explosion.*

SGS **05** *10:04:04.7, 30°.79N×34°.48E, h6km*

ISC 05 10:04:03.9±0.5, **30°.78N**±0°.03×**35°.00E**±0°.05, **h0km, n30, σ0s.90**/35, **3D, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZFRI	Zfri	0.27	146	Pg	Pg	10 04 08.6	-0.5
RMNI	Mount Ramon	0.28	229	Pg	Pg	10 04 10.3	+1.1
RTMI	Retamim	0.39	316	Pg	Pg	10 04 12.3	+1.0
PRNI	Paran	0.42	180	Pg	Pg	10 04 12.2	+0.1
PRNI				Sg	Sg	10 04 19.4	+1.8
KZIT	Kziot	0.54	284	Pg	Pg	10 04 15.6	+1.4
YTIR	Yattir	0.59	9	Pg	Pg	10 04 15.8	+0.5
MZDA	Masada	0.61	30	Pg	Pg	10 04 15.4	-0.3
KRMI	Paran Flat	0.70	200	Pg	Pg	10 04 16.8	-0.6
HRFI	Mount Harif	0.74	178	Pg	Pg	10 04 18.1	0.0
DSI	Dead Sea	0.85	22	Pg	Pg	10 04 21.6	+1.3
MBRI	Mt Berech	0.98	185	Pg	Pg	10 04 23.1	+0.3
MBRI				Sg	Sg	10 04 38.4	+2.9
EIL	Elat	1.11	182	Pg	Pg	10 04 24.6	-0.5
HNKL	Nakhl	1.22	227	P	Pg	10 04 26.9	-0.5
HNKL	Nakhl	1.22	227	P	Pg	10 04 26.9	-0.5
HQLS		1.47	178	P	Pn	10 04 32.3	+0.6
HQLS		1.47	178	P	Pn	10 04 32.3	+0.6
HQLS				S	Sg	10 04 50.9	-0.4
HMDT	Nahal Hemdat	1.54	17	Pn	Pn	10 04 31.8	-0.8
AMAG	Maghara	1.55	265	⇓P	Pn	10 04 31.9	-0.9
AMAG				S	Sn	10 04 53.0	-0.6
AMAG	Maghara	1.55	265	P	Pn	10 04 31.9	-0.9
AMAG				S	Sn	10 04 53.0	-0.7
HBST	Basata	1.57	189	⇓P	Pn	10 04 32.0	-1.1
HBST	Basata	1.57	189	P	Pn	10 04 32.0	-1.1
MMLI	Mount Malkishu	1.69	12	Pn	Pn	10 04 34.5	-0.2
JLOS		2.08	168	P	Pn	10 04 40.2	+0.1
JLOS		2.08	168	P	Pn	10 04 40.2	+0.1
SUZ		2.10	244	P	Pn	10 04 39.4	-0.9
SUZ		2.10	244	P	Pn	10 04 39.4	-0.9
BDAS	Al Bad‘	2.34	178	P	Pn	10 04 42.7	-0.9
BDAS	Al Bad‘	2.34	178	P	Pn	10 04 42.7	-1.0
HKAT	Jabal Katrina	2.41	202	⇓P	Pn	10 04 43.6	-1.0
HKAT	Jabal Katrina	2.41	202	P	Pn	10 04 43.6	-1.1

MEX 05 10:04:51.1±0.4, **14°.50N×92°.48W, h22km**±36km, **MD3.8, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.39	329	*i* P	Pn	10 05 12.3	-2.9
PCIG				*i* S	Sn	10 05 28.9	-4.0
CCIG	Comitan	1.80	11	*i* P	Pn	10 05 18.3	-2.5
CCIG				*i* S	Sn	10 05 39.5	-3.5
TGIG		2.35	345	*i* P	Pn	10 05 26.6	-1.7
TGIG				*i* S	Sn	10 05 53.3	-3.2
VHO	Vista Hermosa	4.83	303	*e*P	Pn	10 06 00.6	-1.8
VHO				*i* S	Sn	10 06 54.5	-3.2
CAIG	El Cayaco	7.91	290	*e*P	Pn	10 06 50.5	+5.7

IDC **05** *10:28:06.3±7.5, 37°.93N×73°.28E, h97km±57km, mb3.0/2, mb1 3.3/7, mb1mx3.1/28, mbtmp3.3/7, Error ellipse: s-maj=79.7km s-min=36.1km az=150.0*

ISCJB **05** *10:28:08.6±0.5, 38°.03N±0°.03×73°.38E±0°.09, h138km±10km, Error ellipse: s-maj=11.7km s-min=4.4km az=174.6*

NEIC **05** *10:28:12.5±2.1, 38°.27N×73°.43E, h162km±14km, mb3.7/1, Error ellipse: s-maj=27.2km s-min=17.3km az=158.0*

NNC **05** *10:28:13.1±6.0, 38°.33N×72°.65E, h88km±85km, mb3.2, mpv3.6, Error ellipse: s-maj=69.2km s-min=29.8km az=34.0*

ISC 05 10:28:09.9±0.4, **38°.05N**±0°.03×**73°.32E**±0°.09, **h129km**±9km, **n41, σ1s.41**/50, **2C-2D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	2.54	54	⇓*i*Pn	Pn	10 28 49.4	-1.1
KSH				Sn	Sn	10 29 16.9	-4.8
KSH				smax			
	comp=N,530nm,0.4s						
KSH				smax			
	comp=E,780nm,0.5s						
AML	Almayashu	4.09	4	P	Pn	10 29 10.9	+0.2
	SNR=233						
AML	Almayashu	4.09	4	*e*Pn	Pn	10 29 10.8	+0.1
AML				*e*Sn	Sn	10 29 55.3	-2.6
UCH	Uchtor	4.27	12	P	Sn	10 30 03.2	+0.9
	SNR=5.2						
UCH	Uchtor	4.27	12	*e*Pn	Pn	10 29 14.2	+1.0
UCH				*e*Sn	Sn	10 30 01.8	-0.5
KZA	Kyzart	4.29	20	P	Pn	10 29 14.8	+1.5
	SNR=17						
CEP	Cherat	4.37	196	P	Pn	10 29 16.4	+1.9
EKS2	Erkin-Say	4.62	4	P	Pn	10 29 18.6	+0.8
	SNR=14						
EKS2	Erkin-Say	4.62	4	*e*Pn	Pn	10 29 18.3	+0.5
EKS2				*e*Sn	Sn	10 30 09.2	-1.4
AAK	Ala-Archa	4.67	11	P	Pn	10 29 19.5	+1.1
	SNR=19						
AAK	Ala-Archa	4.67	11	*e*Pn	Pn	10 29 19.2	+0.8
AAK				*e*Sn	Sn	10 30 11.0	-0.7
ULHL	Ulahol	4.75	27	P	Pn	10 29 21.9	+2.3
	SNR=9.8						
KBK	Karagaybulak	4.77	15	P	Pn	10 29 22.3	+2.5
	SNR=6.2						
CHMS	Chumysh	5.06	12	P	Pn	10 29 25.4	+1.7
	SNR=8.4						
TKM2	Tokmak 2	5.17	19	*e*Pn	Pn	10 29 26.0	+0.9
TKM2				Sn	Sn	10 30 22.3	-1.4
TKM2	Tokmak 2	5.17	19	⇓P	Pn	10 29 26.4	+1.3
	comp=E,3.0nm,0.5s						
USP	Ospenovka	5.29	9	P	Pn	10 29 27.2	+0.5
	SNR=22						
KK31	Karatay Array	5.48	338	P	Pn	10 29 26.9	-2.5
	comp=E,2.3nm,0.2s,baz=156,slow=12,SNR=89						
KK31				S	Sn	10 30 23.6	-7.6
	comp=E,36nm,0.7s,baz=162,slow=25,SNR=32						
DLH	Dalhousie	5.91	158	*e*S	Sn	10 30 41.0	-0.6
THN	Thein Dam	5.94	160	*e*PKP	Pn	10 29 37.1	+1.6
THN				*e*x	x	10 32 40.7	
SBDP	Sheikh Budin	6.09	200	P	Pn	10 29 37.9	+0.3
SBDP				S	Sn	10 30 43.0	-3.1
KLP	Kalpa	7.66	147	*e*PKP	Pn	10 30 00.8	+2.0
KLP				*e*S	Sn	10 31 22.3	-1.6
JOSI	Joshimath	9.08	144	*e*S	Sn	10 31 54.3	-4.0
JOSI				AML	AML	10 32 00.8	
	comp=N,47nm,0.4s						
JOSI				AML	AML	10 32 01.1	
	comp=E,73nm,0.5s						
AYAN	Aya Nagar	10.06	160	*e*S	Sn	10 32 16.8	-5.2
KUDL	Kundal	10.23	164	*e*S	Sn	10 32 20.4	-5.7
KUDL				AML	AML	10 32 50.5	
	comp=N,15nm,0.6s						
KUDL				AML	AML	10 32 50.8	
	comp=E,15nm,0.7s						
SONA	Sohna	10.27	161	*e*S	Sn	10 32 21.7	-5.4
SONA				AML	AML	10 32 26.9	
	comp=N,12nm,0.3s						
SONA				AML	AML	10 32 27.2	
	comp=E,22nm,0.3s						
MK31	Makanchi Array	10.96	34	P	Pn	10 30 50.7	+7.8
	comp=E,0.1nm,0.2s,baz=11,slow=8.5,SNR=2.5						
MKAR	Makanchi Array	10.96	34	P	Pn	10 30 41.7	-1.1
	comp=E,0.1nm,0.3s,baz=303,slow=23,SNR=5.2						
KURK	Kurchatov	13.21	15	P	Pn	10 31 09.0	-3.3
	comp=E,0.0nm,0.3s,baz=206,slow=12,SNR=4.8						
KURK	Kurchatov	13.21	15	*e*Pn	Pn	10 31 10.1	-2.2
AB01	Akbulak array	14.78	324	⇑P	Pn	10 31 27.8	-4.5
	comp=E,1.5nm,0.5s						
BVA0	Borovoye Array	15.12	353	P	Pn	10 31 38.7	+2.3
	comp=E,0.2nm,0.4s,baz=156,slow=9.4,SNR=16						
BVAR	Borovoye Array	15.12	353	P	Pn	10 31 34.6	-1.8
	comp=E,1.2nm,0.3s,baz=164,slow=11,SNR=9.0						
BRVK	Borovoye	15.16	353	*e*Pn	Pn	10 31 35.6	-1.4
	comp=E,1.6nm,0.4s						
AKTK	Aktyubinsk	16.50	324	P	Pn	10 31 53.6	+0.1
AKTO	Aktyubinsk	16.50	324	P	Pn	10 31 53.6	+0.1
	comp=E,1.1nm,0.3s,baz=117,slow=10,SNR=18						
AKTO	Aktyubinsk	16.50	324	⇑P	Pn	10 31 53.2	-0.3
	comp=E,0.3nm,0.4s						
ZALV	Zalesovo Beam	17.76	23	P	Pn	10 32 09.5	+0.8
	comp=E,0.8nm,0.3s,baz=205,slow=11,SNR=9.6						
BR131	Keskin Array S	30.76	286	P	P	10 34 12.5	-0.4
TORD	Torodi Ar. Bea	67.59	269	P	P	10 38 52.7	-0.1
	comp=E,0.3nm,0.6s,baz=44,slow=7.1,SNR=2.6						
YKA	Yellowknife Ar	79.60	4	P	P	10 40 02.8	+0.6
	comp=E,0.1nm,0.5s,baz=349,slow=5.6,SNR=4.8						

IDC **05** *10:29:41.1±0.6, 34°.57N×24°.16E, h0km, mb4.3/18, mb1 4.3/25, mb1mx4.2/34, mbtmp4.3/25, ML3.9/5, MS3.4/2, Ms1 3.4/2, ms1mx2.5/34, Error ellipse: s-maj=14.3km s-min=9.4km az=145.0*

ISCJB **05** *10:29:42.8±0.6, 34°.53N±0°.02×24°.17E±0°.02, h29km±4km, mb4.4/36, MS3.3/3, Error ellipse: s-maj=3.9km s-min=2.9km az=29.7*

HLW **05** *10:29:42.5, 34°.83N×24°.13E, h33km, Mb4.2*

MOS **05** *10:29:43.2±1.2, 34°.64N×24°.12E, h25km, mb4.5/13, Error ellipse: s-maj=6.3km s-min=3.6km az=95.7*

CSEM **05** *10:29:44.1±0.2, 34°.56N×24°.18E, h20km, mb4.4/17, Error ellipse: s-maj=4.6km s-min=3.6km az=10.0*

THE **05** *10:29:45.1, 34°.70N×24°.08E, h1km±1km, ML4.3/8, Error ellipse: s-maj=2.0km s-min=0.6km az=196.0*

ATH **05** *10:29:49.1, 35°.02N×24°.26E, h27km±1km, MD4.1/14*

DDA **05** *10:29:49.7, 34°.79N×25°.20E, h6km, Md3.7*

NEIC **05** *10:29:49.1, 35°.02N×24°.26E, h27km, mb4.1/20, MD4.1(ATH), ML4.3(THE), After ATH.*

ISC 05 10:29:43.6±0.7, **34°.55N**±0°.02×**24°.15E**±0°.02, **h16km**±4km, **n353, σ1s.24**/402, **mb4.4**/36, **MS3.3**/3, **5C-5D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.71	49	P	Pg	10 29 57.5	-0.1
SIVA				S	Sg	10 30 08.4	+1.3
SIVA	Sivas	0.71	49	P	Pg	10 29 57.9	+0.3
SIVA				S	Sg	10 30 08.4	+1.3
SIVA	Sivas	0.71	49	P	Pg	10 29 57.9	+0.3
SIVA				S	Sg	10 30 08.4	+1.3
VAM	Vamos	0.85	3	⇓*i*PB	Pb	10 29 58.0	-2.1
VAM	Vamos	0.85	3	⇓*i*Pb	Pb	10 29 58.0	-2.1
KARN	Karanos	0.87	347	P	Pb	10 29 58.5	-1.8
KARN				S	Sb	10 30 10.3	-1.4
KARN	Karanos	0.87	347	P	Pb	10 29 58.5	-1.8
KARN				S	Sb	10 30 10.3	-1.4
IDI	Anoyia	0.95	39	Pg	Pg	10 30 00.8	-1.3
	96nm,0.3s,baz=227,slow=16,SNR=154						
IDI				Lg		10 30 14.7	
	136nm,0.3s,baz=297,slow=23,SNR=13						
IDI	Anoyia	0.95	39	Pg	Pg	10 30 00.8	-1.3
IDI				Lg		10 30 14.7	
LAST	Lasithi	1.25	61	P	Pn	10 30 07.0	+0.6
LAST				S	Sb	10 30 25.9	+3.2
LAST	Lasithi	1.25	61	P	Pn	10 30 07.4	+1.0
LAST				S	Sb	10 30 25.9	+3.2
LAST	Lasithi	1.25	61	P	Pn	10 30 07.0	+0.6
LAST				S	Sb	10 30 25.9	+3.2
NPS	Neapolis	1.40	59	*e*PN	Pn	10 30 10.3	+1.9
NPS	Neapolis	1.40	59	*e*Pn	Pn	10 30 10.3	+1.9
ZKR	Zakros	1.79	71	P	Pn	10 30 16.4	+2.5
ZKR				S	Sn	10 30 40.8	+4.5
ZKR	Zakros	1.79	71	P	Pn	10 30 19.6	+5.7
ZKR				S	Sn	10 30 40.8	+4.5
ZKR	Zakros	1.79	71	P	Pn	10 30 16.4	+2.5
KYTH	Kithira	1.95	333	*e*PN	Pn	10 30 17.5	+1.5
KYTH	Kithira	1.95	333	*e*Pn	Pn	10 30 17.5	+1.5
THR6	Thira Island,	2.07	29	P	Pn	10 30 18.8	+1.1
THR6	Thira Island,	2.07	29	P	Pn	10 30 19.1	+1.4
THR6	Thira Island,	2.07	29	P	Pn	10 30 18.8	+1.1
THR5	Thira Island,	2.10	27	P	Pn	10 30 19.2	+1.1
THR5	Thira Island,	2.10	27	P	Pn	10 30 19.5	+1.4
THR5	Thira Island,	2.10	27	P	Pn	10 30 19.2	+1.1
THR1	Thera Island	2.11	30	P	Pn	10 30 19.5	+1.3
THR1	Thera Island	2.11	30	P	Pn	10 30 19.5	+1.3
THR3	Thira Island,	2.12	29	P	Pn	10 30 19.6	+1.3
THR3	Thira Island,	2.12	29	P	Pn	10 30 19.4	+1.1
THR3	Thira Island,	2.12	29	P	Pn	10 30 19.4	+1.1
THR4	Thira Island,	2.16	28	P	Pn	10 30 20.0	+1.1
THR4	Thira Island,	2.16	28	P	Pn	10 30 20.2	+1.3
THR4	Thira Island,	2.16	28	P	Pn	10 30 20.0	+1.1
VLI	Veliai	2.38	336	*e*PB	Pb	10 30 24.0	-2.0
LTBQ	Tobruq	2.50	184	*i* P	Pn	10 30 28.0	+4.4
	SNR=24						
KARP	Karpathos	2.66	67	*e*PN	Pn	10 30 29.5	+3.7
APE	Apeiranthos	2.75	24	P	Pn	10 30 27.5	+0.4
APE				S	Sn	10 31 01.2	+1.2
APE	Apeiranthos	2.75	24	*e*PN	Pn	10 30 27.3	+0.2
APE	Apeiranthos	2.75	24	*e*Pn	Pn	10 30 27.3	+0.2
APE	Apeiranthos	2.75	24	P	Pn	10 30 27.5	+0.4
APE				S	Sn	10 31 01.2	+1.2
DID	Didima	3.04	346	P	Pn	10 30 31.7	+0.7
DID				S	Sn	10 31 06.8	-0.3
DID	Didima	3.04	346	P	Pn	10 30 31.7	+0.7
DID				S	Sn	10 31 06.8	-0.3
PYL	PYLOS	3.05	321	P	Pn	10 30 31.1	-0.1
PYL				S	Sn	10 31 07.7	+0.4
PYL	PYLOS	3.05	321	P	Pn	10 30 31.1	-0.1
PYL				S	Sn	10 31 07.7	+0.4
ITM	Ithomi	3.18	326	*e*PN	Pn	10 30 35.8	+2.8
ITM	Ithomi	3.18	326	*e*Pn	Pn	10 30 35.8	+2.8
NAIG	Nisos Aigina	3.24	351	*e*PN	Pn	10 30 34.0	+0.2
NAIG	Nisos Aigina	3.24	351	*e*Pn	Pn	10 30 34.0	+0.2
ATH	Athens Observa	3.43	354	P	Pn	10 30 38.3	+1.9
ATH	Athens Observa	3.43	354	P	Pn	10 30 38.3	+1.9
PTL	Penteli	3.50	356	*e*PN	Pn	10 30 37.5	+0.2
PTL	Penteli	3.50	356	*e*PN	Pn	10 30 37.5	+0.2
PTL	Penteli	3.50	356	*e*Pn	Pn	10 30 37.5	+0.2
BODT	Bodrum	3.59	45	Pn	Pn	10 30 37.6	-1.0
BODT	Bodrum	3.59	45	Pn	Pn	10 30 37.6	-1.0
LTK	Loutraki	3.59	345	P	Pn	10 30 39.2	+0.6
LTK				S	Sn	10 31 20.5	-0.2
LTK	Loutraki	3.59	345	P	Pn	10 30 39.2	+0.6
LTK				S	Sn	10 31 20.5	-0.2
ARG	Arkhangelos	3.65	62	*e*PN	Pn	10 30 42.2	+2.8
SMG	Samos	3.83	34	*e*PN	Pn	10 30 43.3	+1.4
SMG	Samos	3.83	34	*e*Pn	Pn	10 30 43.3	+1.4
CHOS	Chios island	4.12	21	P	Pn	10 30 46.6	+0.7
CHOS				S	Sn	10 31 34.8	+1.0
CHOS	Chios island	4.12	21	P	Pn	10 30 46.6	+0.7
CHOS				S	Sn	10 31 34.8	+1.0
LKR	Lokris	4.19	348	P	Pn	10 30 47.0	+0.1
LKR				S	Sn	10 31 35.8	+0.3
LKR	Lokris	4.19	348	P	Pn	10 30 47.0	+0.1
LKR				S	Sn	10 31 35.8	+0.3
YER	Yerkesik	4.23	51	P	Pn	10 30 47.1	-0.3
YER	Yerkesik	4.23	51	Pn	Pn	10 30 47.1	-0.3
DALT	Dalyan (Mudla)	4.27	58	Pn	Pn	10 30 47.9	-0.1
DALT	Dalyan (Mudla)	4.27	58	Pn	Pn	10 30 47.9	-0.1
TURN	Turunc	4.30	56	*i* P	Pn	10 30 45.0	-3.3
TURN				*i* S	Sn	10 31 31.2	-6.9
TURN	Turunc	4.30	56	*i* P	Pn	10 30 45.0	-3.4
AYDN	Tasoluk	4.33	43	*i* P	Pn	10 30 49.1	+0.3
AYDN				*i* S	Sn	10 31 39.7	+0.8
AYDN	Tasoluk	4.33	43	*i* P	Pn	10 30 49.1	+0.4
AYDN				*i* S	Sn	10 31 39.7	+0.8
BLCB	Balcova	4.48	31	Pn	Pn	10 30 49.7	-1.1
BLCB	Balcova	4.48	31	Pn	Pn	10 30 49.7	-1.1
FETY	Fethiye	4.53	61	Pn	Pn	10 30 51.2	-0.3
FETY	Fethiye	4.53	61	Pn	Pn	10 30 51.2	-0.3
IZM	Izmir	4.58	32	P	Pn	10 30 50.4	-1.9
IZM	Izmir	4.58	32	Pn	Pn	10 30 50.4	-1.9
VLS	Valsamata	4.62	323	*e*PN	Pn	10 30 55.5	+2.8
VLS	Valsamata	4.62	323	*e*Pn	Pn	10 30 55.5	+2.8
AGG	Agios Georgios	4.69	342	P	Pn	10 30 54.7	+0.9
AGG				S	Sn	10 31 48.0	+0.1
AGG	Agios Georgios	4.69	342	P	Pn	10 30 54.7	+0.9
AGG				S	Sn	10 31 48.0	+0.1
EVR	Evrytania	4.74	337	*e*PN	Pn	10 30 56.5	+2.1
EVR	Evrytania	4.74	337	*e*Pn	Pn	10 30 56.5	+2.1
AKAS	Kas	4.76	68	*i* P	Pn	10 30 53.5	-1.2
AKAS				*i* S	Sn	10 31 52.5	+2.9
AKAS	Kas	4.76	68	*i* P	Pn	10 30 53.5	-1.2
AKAS				*i* S	Sn	10 31 52.5	+2.9
SIGR	SIGRI	4.85	16	P	Pn	10 30 56.3	+0.4
SIGR				S	Sn	10 31 52.4	+0.8
SIGR	SIGRI	4.85	16	P	Pn	10 30 56.3	+0.4
SIGR				S	Sn	10 31 52.4	+0.8
XOR	Xorichti	4.87	351	P	Pn	10 30 56.6	+0.5
XOR				S	Sn	10 31 51.9	-0.2
XOR	Xorichti	4.87	351	P	Pn	10 30 56.6	+0.5
XOR				S	Sn	10 31 53.5	+1.4
XOR	Xorichti	4.87	351	P	Pn	10 30 56.6	+0.5
XOR				S	Sn	10 31 51.9	-0.2
LJBD	Adjabya	4.92	224	*i* P	Pn	10 30 57.2	+0.3
	SNR=23						
ELL	Elmali	5.18	63	P	Pn	10 31 00.5	+0.1
ELL	Elmali	5.18	63	Pn	Pn	10 31 00.5	+0.1
THL	Klokotos Trika	5.29	342	P	Pn	10 31 02.1	+0.2
THL				S	Sn	10 32 03.5	+1.0
THL	Klokotos Trika	5.29	342	P	Pn	10 31 02.1	+0.2
THL				S	Sn	10 32 03.5	+1.0
PAIG	Paliouri	5.38	356	P	Pn	10 31 03.8	+0.6
PAIG				S	Sn	10 32 05.1	+0.4
PAIG	Paliouri	5.38	356	P	Pn	10 31 03.8	+0.6
PAIG				S	Sn	10 32 05.1	+0.4
EZN	Ezine	5.54	18	P	Pn	10 31 04.5	-0.9
EZN	Ezine	5.54	18	Pn	Pn	10 31 04.5	-0.9
LIT	Litokhoron	5.69	347	P	Pn	10 31 07.9	+0.4
LIT				S	Sn	10 32 13.8	+1.3
LIT	Litokhoron	5.69	347	P	Pn	10 31 07.9	+0.4
LIT				S	Sn	10 32 13.8	+1.3
MEV	Metsovon	5.72	337	P	Pn	10 31 09.1	+1.3
MEV	Metsovon	5.72	337	P	Pn	10 31 09.1	+1.3
KHL	Karahalli	5.74	47	Pn	Pn	10 31 08.4	+0.3
KHL	Karahalli	5.74	47	Pn	Pn	10 31 08.4	+0.3
PLG	Polygyros	5.84	355	P	Pn	10 31 10.3	+0.8
PLG	Polygyros	5.84	355	P	Pn	10 31 11.1	+1.6
PLG	Polygyros	5.84	355	P	Pn	10 31 10.3	+0.8
BCK	Bucak	5.97	59	P	Pn	10 31 11.7	+0.4
BCK	Bucak	5.97	59	Pn	Pn	10 31 11.7	+0.4
LPK	Lapseki	6.17	19	Pn	Pn	10 31 13.1	-0.9
LPK	Lapseki	6.17	19	Pn	Pn	10 31 13.1	-0.9
GRG	Griva	6.54	348	P	Pn	10 31 20.1	+1.0
GRG				S	Sn	10 32 33.5	+0.1
GRG	Griva	6.54	348	P	Pn	10 31 20.1	+1.0
GRG				S	Sn	10 32 33.5	+0.1
ALT	Altintas	6.56	45	Pn	Pn	10 31 19.2	-0.2
ALT	Altintas	6.56	45	Pn	Pn	10 31 19.2	-0.2
FNA	Florina	6.60	341	P	Pn	10 31 21.4	+1.5
FNA	Florina	6.60	341	P	Pn	10 31 21.4	+1.5
HDMB	Hadim	7.19	68	Pn	Pn	10 31 28.1	+0.1
HDMB	Hadim	7.19	68	Pn	Pn	10 31 28.1	0.0
LEF	Lefka	7.21	83	Pn	Pn	10 31 27.4	-0.9
LEF	Lefka	7.21	83	Pn	Pn	10 31 27.4	-0.9
KONT	Konya--Tatoy	7.45	61	Pn	Pn	10 31 31.5	-0.1
KONT	Konya--Tatoy	7.45	61	Pn	Pn	10 31 31.5	-0.1
KIZT	Kizilcal	7.56	53	Pn	Pn	10 31 32.8	-0.3
KIZT	Kizilcal	7.56	53	Pn	Pn	10 31 32.8	-0.3
CSS	Prodhromos	7.57	84	Pn	Pn	10 31 32.7	-0.5
CSS	Prodhromos	7.57	84	Pn	Pn	10 31 32.7	-0.5
HAVL	Avola	7.72	291	Pn	Pn	10 31 35.8	+0.5
HAVL				Sn	Sn	10 32 54.4	-8.0
HAVL	Avola	7.72	291	Pn	Pn	10 31 35.8	+0.5
LFK	Lefkose	7.74	82	Pn	Pn	10 31 35.1	-0.6
LFK	Lefkose	7.74	82	Pn	Pn	10 31 35.1	-0.5
SSY	Sortino	7.81	292	Pn	Pn	10 31 38.3	+1.7
SSY				Sn	Sn	10 32 58.5	-6.2
SSY	Sortino	7.81	292	Pn	Pn	10 31 38.3	+1.7
IKL	Isikli	7.97	75	Pn	Pn	10 31 37.8	-0.9
IKL	Isikli	7.97	75	Pn	Pn	10 31 37.8	-0.9
HMDC	Modica	7.98	290	Pn	Pn	10 31 40.2	+1.3
HMDC				Sn	Sn	10 33 01.9	-7.0
HMDC	Modica	7.98	290	Pn	Pn	10 31 40.2	+1.3
HVZN	Vizzini	8.09	292	Pn	Pn	10 31 41.5	+1.0
HVZN				Sn	Sn	10 33 04.3	-7.3
HVZN	Vizzini	8.09	292	Pn	Pn	10 31 41.5	+1.0
GLL	Jalalah	8.11	126	P	Pn	10 31 41.4	+0.7
GLL	Jalalah	8.11	126	P	Pn	10 31 41.4	+0.7
HFRF	Wahat Farafira	8.20	153	P	Pn	10 31 43.2	+1.3
HFRF	Wahat Farafira	8.20	153	P	Pn	10 31 43.2	+1.3
VAE	Valguarnera	8.41	293	Pn	Pn	10 31 46.4	+1.6
	0.9nm,0.3s,baz=87,slow=5.1,SNR=3.1						
VAE				Sn	Sn	10 33 13.1	-6.3
	1.5nm,0.3s,baz=326,slow=3.6,SNR=3.4						
VAE	Valguarnera	8.41	293	Pn	Pn	10 31 46.4	+1.6
AMAG	Maghara	8.58	115	P	Pn	10 31 47.1	-0.1
AMAG	Maghara	8.58	115	P	Pn	10 31 47.1	0.0
LOD	Lodumlu	8.69	50	Pn	Pn	10 31 47.8	-0.8
LOD	Lodumlu	8.69	50	Pn	Pn	10 31 47.8	-0.8
BR131	Keskin Array S	9.17	53	*e*Pn	Pn	10 31 56.8	+1.6
	3.9nm,0.6s						
BR131	Keskin Array S	9.17	53	*e*Pn	Pn	10 31 56.8	+1.7
	3.9nm,0.6s						
BRTR	Keskin Array B	9.17	53	Pn	Pn	10 31 57.9	+2.7
BRTR	Keskin Array B	9.17	53	Pn	Pn	10 31 57.9	+2.8
MMAI	Mount Meron Ar	9.49	96	Pn	Pn	10 31 58.7	-0.9
	1.8nm,0.3s,baz=283,slow=13,SNR=4.7						
MMAI				Sn	Sn	10 33 45.6	-0.4
	2.5nm,0.3s,baz=302,slow=30,SNR=4.5						
HNKL	Nakhl	9.51	116	P	Pn	10 31 59.8	-0.2
HNKL				S	Sn	10 33 40.7	-5.8
HNKL	Nakhl	9.51	116	P	Pn	10 31 59.8	-0.2
EIL	Elat	10.37	115	Pn	Pn	10 32 10.1	-1.6
	0.9nm,0.3s,baz=335,slow=17,SNR=5.8						
EIL				Sn	Sn	10 34 08.0	+0.4
	2.0nm,0.3s,baz=299,slow=22,SNR=6.2						
EIL	Elat	10.37	115	Pn	Pn	10 32 10.1	-1.6
EIL				Sn	Sn	10 34 07.9	+0.3
VOIR		10.89	3	⇓*i*P	Pn	10 32 20.8	+2.0
MLR	Muntele Rosu	11.01	7	⇑*i*P	Pn	10 32 20.7	+0.3
KBA	Koelnbreinsper	14.93	330	⇑*i*P	Pn	10 33 20.5	+6.7
	6.7nm,0.9s						
WTTA	Wattenberg	15.81	327	⇑*i*P	Pn	10 33 29.2	+3.8
	23nm,1.2s						
SBF	Sospel	15.92	311	*e*P	Pn	10 33 22.4	-4.5
	37nm,0.8s						
SBF	Sospel	15.92	311	*e*P	Pn	10 33 22.4	-4.5
SBF				pmax	pmax		
	comp=Z,19nm,0.8s						
SBF	Sospel	15.92	311	*e*P	Pn	10 33 22.4	-4.5
	comp=Z,19nm,0.8s						
FETA	Feichten	16.05	325	⇑*i*P	Pn	10 33 33.7	+5.2
	comp=Z,12nm,0.9s						
MOTA	Moosalm	16.11	326	⇑*i*P	Pn	10 33 34.1	+4.8
	comp=Z,13nm,0.9s						
GERES	GERESS Array B	16.25	335	Pn	Pn	10 33 32.8	+1.7
	comp=Z,0.2nm,0.3s,baz=153,slow=12,SNR=13						
GERES	GERESS Array B	16.25	335	Pn	Pn	10 33 32.8	+1.7
LMR	La Mourre	16.26	308	*e*P	Pn	10 33 27.2	-4.1
	comp=Z,22nm,0.9s						
LMR	La Mourre	16.26	308	*e*P	Pn	10 33 27.2	-4.1
LMR				pmax	pmax		
	comp=Z,11nm,0.9s						
LMR	La Mourre	16.26	308	*e*P	Pn	10 33 27.2	-4.1
	comp=Z,11nm,0.9s						
DAVOX	Davos/Dischmat	16.29	323	Pn	Pn	10 33 31.6	0.0
	comp=Z,0.3nm,0.3s,baz=343,slow=14,SNR=2.4						
DAVOX	Davos/Dischmat	16.29	323	Pn	Pn	10 33 31.6	0.0
DAVOS	Davos	16.37	323	P	Pn	10 33 31.6	-1.1
KHC	Kasperske Hory	16.53	335	*e*P	Pn	10 33 37.6	+2.9
KHC				*e*x	x	10 33 46.0	
KHC	Kasperske Hory	16.53	335	*e*P	Pn	10 33 37.6	+2.9
KIEV	Kiev	16.55	11	*e*P	Pn	10 33 32.2	-2.7
KIEV				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KIEV	Kiev	16.55	11	*e*Pn	Pn	10 33 32.2	-2.7
	comp=Z,6.9nm,0.6s						
AKASG	Malin Array Be	16.56	11	Pn	Pn	10 33 31.6	-3.4
	comp=Z,3.7nm,0.3s,baz=204,slow=10,SNR=16						
AKBB	Malin Array Si	16.56	11	*e*P	Pn	10 33 32.5	-2.5
MBDF	Montbardon	16.77	312	*e*P	Pn	10 33 33.5	-4.2
DPC	Dobruska-Polom	16.80	342	*e*P	Pn	10 33 38.2	+0.2
DPC	Dobruska-Polom	16.80	342	*e*P	Pn	10 33 38.2	+0.2
PRU	Pruhonice	16.96	338	*e*P	Pn	10 33 39.6	-0.5

PRU	**Pruhonice**	**16.96**	**338**	*e*P	**Pn**	**10 33 39.6**	**-0.5**
KIV	**Kislovodsk**	**17.12**	**51**	*e*P	**Pn**	**10 33 45.1**	**+2.9**
KIV				pmax	pmax		
	comp=Z,12nm,0.9s						
KIV				MLR	MLR		
	comp=Z,26nm,11.0s						
KIV	**Kislovodsk**	**17.12**	**51**	*e*P	**Pn**	**10 33 45.1**	**+2.9**
	comp=Z,26nm,11.0s						
LPG	**La Plagne**	**17.20**	**315**	*e*P	**Pn**	**10 33 39.9**	**-3.2**
	comp=Z,4.5nm,0.7s						
LPG	**La Plagne**	**17.20**	**315**	*e*P	**Pn**	**10 33 39.9**	**-3.2**
LPG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPG	**La Plagne**	**17.20**	**315**	*e*P	**Pn**	**10 33 39.9**	**-3.2**
	comp=Z,2.3nm,0.7s						
GNI	**Garni**	**17.29**	**65**	P	**Pn**	**10 33 43.6**	**-0.6**
	comp=Z,0.5nm,0.3s,baz=172,slow=19,SNR=2.1						
GNI	**Garni**	**17.29**	**65**	P	**Pn**	**10 33 43.7**	**-0.5**
GRA1	**Grafenberg Arr**	**17.87**	**332**	*e*P	**Pn**	**10 33 52.6**	**+1.2**
	comp=Z,15nm,1.4s						
GRA1	**Grafenberg Arr**	**17.87**	**332**	*e*P	**Pn**	**10 33 52.6**	**+1.2**
	comp=Z,15nm,1.4s						
GRF	**Grafenberg Arr**	**17.87**	**332**	*e*P	**Pn**	**10 33 52.6**	**+1.2**
GRF				pmax	pmax		
	comp=Z,15nm,1.4s						
GRF	**Grafenberg Arr**	**17.87**	**332**	*e*P	**Pn**	**10 33 52.6**	**+1.2**
GRF				pmax	pmax		
	comp=Z,15nm,1.4s						
GRF	**Grafenberg Arr**	**17.87**	**332**	*e*P	**Pn**	**10 33 52.6**	**+1.2**
	comp=Z,15nm,1.4s						
GRF	**Grafenberg Arr**	**17.87**	**332**	*e*P	**Pn**	**10 33 52.6**	**+1.2**
	comp=Z,15nm,1.4s						
VIVF	**Saint-Julien-l**	**18.14**	**310**	*e*P	**Pn**	**10 33 52.8**	**-1.9**
CABF	**La Chapelle**	**18.21**	**317**	*e*P	**Pn**	**10 33 54.3**	**-1.2**
	comp=Z,10nm,0.7s						
CABF	**La Chapelle**	**18.21**	**317**	*e*P	**Pn**	**10 33 54.3**	**-1.2**
CABF				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CABF	**La Chapelle**	**18.21**	**317**	*e*P	**Pn**	**10 33 54.3**	**-1.2**
	comp=Z,5.1nm,0.7s						
CABF	**La Chapelle**	**18.21**	**317**	*e*P	**Pn**	**10 33 54.3**	**-1.2**
	comp=Z,5.1nm,0.7s						
HINF	**Hinteralfeld**	**18.52**	**321**	*e*P	**Pn**	**10 33 57.8**	**-1.6**
HINF	**Hinteralfeld**	**18.52**	**321**	*e*P	**Pn**	**10 33 57.8**	**-1.6**
CLL	**Collm**	**18.59**	**338**	*e*P	**Pn**	**10 34 00.0**	**-0.2**
CLL	**Collm**	**18.59**	**338**	*e*P	**Pn**	**10 34 00.0**	**-0.2**
CDF	**Champ du Feu**	**18.69**	**323**	*e*P	**Pn**	**10 34 00.4**	**-1.0**
CDF	**Champ du Feu**	**18.69**	**323**	*e*P	**Pn**	**10 34 00.4**	**-1.0**
HAU	**Haudompre**	**18.90**	**321**	*e*P	**Pn**	**10 34 02.2**	**-1.8**
	comp=Z,20nm,0.8s						
HAU	**Haudompre**	**18.90**	**321**	*e*P	**Pn**	**10 34 02.2**	**-1.8**
HAU				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HAU	**Haudompre**	**18.90**	**321**	*e*P	**Pn**	**10 34 02.2**	**-1.8**
	comp=Z,9.9nm,0.8s						
HAU	**Haudompre**	**18.90**	**321**	*e*P	**Pn**	**10 34 02.2**	**-1.8**
	comp=Z,9.9nm,0.8s						
MTLF	**Montolieu**	**19.14**	**304**	*e*P	**Pn**	**10 34 06.1**	**-0.8**
	comp=Z,5.9nm,0.6s						
MTLF	**Montolieu**	**19.14**	**304**	*e*P	**Pn**	**10 34 06.1**	**-0.8**
MTLF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MTLF	**Montolieu**	**19.14**	**304**	*e*P	**Pn**	**10 34 06.1**	**-0.8**
	comp=Z,3.0nm,0.6s						
MTLF	**Montolieu**	**19.14**	**304**	*e*P	**Pn**	**10 34 06.1**	**-0.8**
	comp=Z,3.0nm,0.6s						
SUW	**Suwalki**	**19.47**	**358**	*e*P	**Pn**	**10 34 08.8**	**-1.9**
SUW	**Suwalki**	**19.47**	**358**	*e*P	**Pn**	**10 34 08.8**	**-1.9**
SUW	**Suwalki**	**19.47**	**358**	*e*P	**Pn**	**10 34 08.8**	**-1.9**
SMF	**Signal de Mont**	**19.52**	**314**	*e*P	**Pn**	**10 34 07.4**	**-4.1**
LOR	**Lormes**	**19.84**	**316**	*e*P	**Pn**	**10 34 14.2**	**-1.0**
	comp=Z,9.4nm,0.7s						
LOR	**Lormes**	**19.84**	**316**	*e*P	**Pn**	**10 34 14.2**	**-1.0**
LOR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LOR	**Lormes**	**19.84**	**316**	*e*P	**Pn**	**10 34 14.2**	**-1.0**
	comp=Z,4.7nm,0.7s						
LOR	**Lormes**	**19.84**	**316**	*e*P	**Pn**	**10 34 14.2**	**-1.0**
	comp=Z,4.7nm,0.7s						
AVF	**Avril sur Loir**	**19.89**	**314**	*e*P	**Pn**	**10 34 13.6**	**-2.2**
	comp=Z,10nm,0.8s						
AVF	**Avril sur Loir**	**19.89**	**314**	*e*P	**Pn**	**10 34 13.6**	**-2.2**
AVF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AVF	**Avril sur Loir**	**19.89**	**314**	*e*P	**Pn**	**10 34 13.6**	**-2.2**
	comp=Z,5.1nm,0.8s						
AVF	**Avril sur Loir**	**19.89**	**314**	*e*P	**Pn**	**10 34 13.6**	**-2.2**
	comp=Z,5.1nm,0.8s						
VSR	**Storozhevoye**	**19.89**	**29**	*i* P	**Pn**	**10 34 14.0**	**-1.8**
VSR	**Storozhevoye**	**19.89**	**29**	*i* P	**Pn**	**10 34 14.0**	**-1.8**
SSF	**Saint Saulge**	**19.94**	**315**	*e*P	**Pn**	**10 34 15.1**	**-1.3**
SSF	**Saint Saulge**	**19.94**	**315**	*e*P	**Pn**	**10 34 15.1**	**-1.3**
BGF	**Bois d'Agland**	**20.07**	**313**	*e*P	**P**	**10 34 16.7**	**+0.5**
	comp=Z,29nm,0.9s						
BGF	**Bois d'Agland**	**20.07**	**313**	*e*P	**P**	**10 34 16.7**	**+0.5**
BGF				pmax	pmax		
	comp=Z,15nm,0.9s						
BGF	**Bois d'Agland**	**20.07**	**313**	*e*P	**P**	**10 34 16.7**	**+0.5**
	comp=Z,15nm,0.9s						
BGF	**Bois d'Agland**	**20.07**	**313**	*e*P	**P**	**10 34 16.7**	**+0.5**
	comp=Z,15nm,0.9s						
TCF	**Toulx Ste Croi**	**20.33**	**312**	*e*P	**P**	**10 34 19.3**	**+0.3**
TCF	**Toulx Ste Croi**	**20.33**	**312**	*e*P	**P**	**10 34 19.3**	**+0.3**
RJF	**Les Rejaudoux**	**20.34**	**309**	*e*P	**P**	**10 34 19.2**	**+0.1**
RJF	**Les Rejaudoux**	**20.34**	**309**	*e*P	**P**	**10 34 19.2**	**+0.1**
NACGM	**Naroch**	**20.43**	**4**	*e*	**P**	**10 34 14.0**	**-5.9**
MEM	**Membach**	**20.79**	**326**	P	**P**	**10 34 25.1**	**+1.2**
	comp=Z,7.2nm,1.0s						
GIVF	**Givet**	**21.01**	**324**	*e*P	**P**	**10 34 25.3**	**-1.0**
GIVF	**Givet**	**21.01**	**324**	*e*P	**P**	**10 34 25.3**	**-1.0**
DOU	**Dourbes**	**21.12**	**323**	P	**P**	**10 34 28.2**	**+0.8**
BAIF	**Baives**	**21.29**	**323**	*e*P	**P**	**10 34 29.1**	**-0.2**
BAIF	**Baives**	**21.29**	**323**	*e*P	**P**	**10 34 29.1**	**-0.2**
OBN	**Obninsk**	**22.30**	**19**	*i* P	**P**	**10 34 40.7**	**+0.6**
OBN				*e*S	**S**	**10 38 39.0**	**-5.8**
OBN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.3						
OBN	**Obninsk**	**22.30**	**19**	*i* P	**P**	**10 34 40.7**	**+0.6**
	comp=Z,9.0nm,1.0s,mb4.2						
LDF	**La Druitiere**	**22.82**	**315**	*e*P	**P**	**10 34 43.5**	**-2.1**
	comp=Z,12nm,0.5s,mb4.3						
LDF	**La Druitiere**	**22.82**	**315**	*e*P	**P**	**10 34 43.5**	**-2.1**
LDF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.3						
LDF	**La Druitiere**	**22.82**	**315**	*e*P	**P**	**10 34 43.5**	**-2.1**
	comp=Z,5.8nm,0.5s,mb4.3						
LDF	**La Druitiere**	**22.82**	**315**	*e*P	**P**	**10 34 43.5**	**-2.1**
	comp=Z,5.8nm,0.5s,mb4.3						
ESDC	**Sonseca Array**	**22.95**	**291**	P	**P**	**10 34 47.4**	**+0.3**
	comp=Z,0.6nm,0.4s,mb3.4,baz=84,slow=9.2,SNR=6.4						
ESDC	**Sonseca Array**	**22.95**	**291**	P	**P**	**10 34 47.4**	**+0.3**
FLN	**La Foliniere**	**23.11**	**315**	*e*P	**P**	**10 34 46.9**	**-1.8**
FLN	**La Foliniere**	**23.11**	**315**	*e*P	**P**	**10 34 46.9**	**-1.8**
GRR	**Gorron**	**23.15**	**314**	*e*P	**P**	**10 34 47.4**	**-1.8**
GRR	**Gorron**	**23.15**	**314**	*e*P	**P**	**10 34 47.4**	**-1.8**
MDT	**Midelt**	**23.97**	**274**	LR	LR	10 45 06.2	
	comp=Z,63nm,18.6s,MS3.1,baz=261,slow=39						
VSU	**Vasula**	**23.98**	**3**	*i* P	**P**	**10 34 55.3**	**-1.8**
VSU	**Vasula**	**23.98**	**3**	*i* P	**P**	**10 34 55.3**	**-1.8**
QUIF	**Quistinic**	**24.35**	**312**	*e*P	**P**	**10 34 59.5**	**-1.1**
	comp=Z,66nm,0.9s,mb4.8						
QUIF	**Quistinic**	**24.35**	**312**	*e*P	**P**	**10 34 59.5**	**-1.1**
QUIF				pmax	pmax		
	comp=Z,33nm,0.9s,mb4.8						
QUIF	**Quistinic**	**24.35**	**312**	*e*P	**P**	**10 34 59.5**	**-1.1**
	comp=Z,33nm,0.9s,mb4.8						
QUIF	**Quistinic**	**24.35**	**312**	*e*P	**P**	**10 34 59.5**	**-1.1**
	comp=Z,33nm,0.9s,mb4.8						
HFS	**Hagfors**	**26.49**	**348**	P	**P**	**10 35 19.0**	**-0.9**
	comp=Z,7.7nm,0.6s,mb4.4,baz=155,slow=11,SNR=20						
HFS	**Hagfors**	**26.49**	**348**	P	**P**	**10 35 19.0**	**-0.9**
KAF	**Kangasniemi**	**27.61**	**2**	*e*P	**P**	**10 35 27.8**	**-2.2**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.2						
KAF	**Kangasniemi**	**27.61**	**2**	*e*p	**P**	**10 35 27.8**	**-2.2**
	comp=Z,2.6nm,0.5s,mb4.1						
KAF	**Kangasniemi**	**27.61**	**2**	*e*P	**P**	**10 35 27.8**	**-2.2**
	comp=Z,2.6nm,0.5s,mb4.1						
NB2	**NORSAR Subarra**	**27.78**	**346**	P	**P**	**10 35 29.9**	**-1.6**
	comp=Z,2.2nm,0.5s,mb4.0,baz=150,slow=9.3						
NB2	**NORSAR Subarra**	**27.78**	**346**	P	**P**	**10 35 29.9**	**-1.6**
	comp=Z,2.2nm,0.5s,mb4.0,SNR=8.8						
NOA	**NORSAR Array B**	**27.78**	**346**	P	**P**	**10 35 30.3**	**-1.2**
	comp=Z,2.5nm,0.5s,mb4.1,baz=153,slow=8.6,SNR=21						
NOA	**NORSAR Array B**	**27.78**	**346**	P	**P**	**10 35 30.3**	**-1.2**
EKA	**Eskdalemuir Ar**	**28.07**	**326**	P	**P**	**10 35 35.1**	**+1.0**
	comp=Z,4.0nm,1.0s,mb4.0,baz=124,slow=9.1,SNR=3.3						
EKA	**Eskdalemuir Ar**	**28.07**	**326**	P	**P**	**10 35 35.1**	**+1.0**
KLMR	**Klimovskoe**	**28.13**	**16**	*e*P	**P**	**10 35 32.1**	**-2.5**
KLMR				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.5						
KLMR	**Klimovskoe**	**28.13**	**16**	*e*P	**P**	**10 35 32.1**	**-2.5**
	comp=Z,12nm,1.0s,mb4.5						
JOF	**Joensuu**	**28.74**	**7**	*e*P	**P**	**10 35 36.3**	**-3.7**
JOF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
JOF	**Joensuu**	**28.74**	**7**	*e*p	**P**	**10 35 36.3**	**-3.7**
	comp=Z,2.0nm,0.7s,mb4.0						
AKTK	**Aktyubinsk**	**29.27**	**47**	P	**P**	**10 35 44.4**	**-0.5**
AKTK	**Aktyubinsk**	**29.27**	**47**	P	**P**	**10 35 44.3**	**-0.6**
AKTO	**Aktyubinsk**	**29.27**	**47**	P	**P**	**10 35 44.4**	**-0.5**
	comp=Z,4.4nm,0.5s,mb4.4,baz=253,slow=9.1,SNR=6.0						
TOA0	**Torodi Ar. Sit**	**29.46**	**229**	*e*P	**P**	**10 35 48.9**	**+2.0**
TOA0	**Torodi Ar. Sit**	**29.46**	**229**	*e*P	**P**	**10 35 48.9**	**+2.0**
TORD	**Torodi Ar. Bea**	**29.46**	**229**	P	**P**	**10 35 49.0**	**+2.1**
	comp=Z,7.6nm,0.5s,mb4.7,baz=34,slow=8.7,SNR=109						
PRGR	**Permogore**	**30.36**	**20**	*e*P	**P**	**10 35 52.3**	**-2.1**
PRGR				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.0						
PRGR	**Permogore**	**30.36**	**20**	*e*P	**P**	**10 35 52.3**	**-2.1**
	comp=Z,27nm,0.8s,mb5.0						
ARU	**Arti**	**32.04**	**36**	*e*P	**P**	**10 36 07.3**	**-1.9**
ARU				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
ARU	**Arti**	**32.04**	**36**	*e*P	**P**	**10 36 07.3**	**-1.8**
	comp=Z,12nm,0.9s,mb4.7						
ARU	**Arti**	**32.04**	**36**	*e*P	**P**	**10 36 07.3**	**-1.9**
	comp=Z,12nm,0.9s,mb4.7						
ARCES	**ARCESS Array B**	**35.04**	**1**	P	**P**	**10 36 33.1**	**-2.1**
	comp=Z,3.1nm,0.7s,mb4.3,baz=186,slow=9.6,SNR=21						
ARCES				LR	LR	10 51 38.9	
	comp=Z,63nm,18.2s,MS3.4,baz=7.9,slow=38						
ARCES	**ARCESS Array B**	**35.04**	**1**	P	**P**	**10 36 33.1**	**-2.1**
KEV	**Kevo**	**35.29**	**2**	*e*p	**P**	**10 36 35.1**	**-2.3**
KEV	**Kevo**	**35.29**	**2**	*e*P	**P**	**10 36 35.1**	**-2.3**
DBIC	**Dimbokro**	**38.54**	**231**	P	**P**	**10 37 07.0**	**+1.4**
	comp=Z,1.9nm,0.4s,mb4.2,baz=18,slow=9.1,SNR=10						
DBIC	**Dimbokro**	**38.54**	**231**	P	**P**	**10 37 07.0**	**+1.4**
TIC	**Toumodi**	**38.66**	**231**	*e*PKIKP	**P**	**10 37 08.5**	**+1.9**
	comp=Z,17nm,0.2s,mb5.4						
KIC	**Kosan Boka**	**38.70**	**230**	*e*PKIKP	**P**	**10 37 08.4**	**+1.5**
	comp=Z,30nm,0.8s,mb5.1						
LIC	**Lamto**	**38.99**	**230**	*e*P	**P**	**10 37 10.7**	**+1.4**
	comp=Z,4.0nm,0.4s,mb4.2						
LIC	**Lamto**	**38.99**	**230**	*e*PKIKP	**P**	**10 37 10.9**	**+1.6**
	comp=Z,42nm,1.6s,mb4.9						
LIC	**Lamto**	**38.99**	**230**	*e*P	**P**	**10 37 10.7**	**+1.4**
	comp=Z,2.0nm,0.4s,mb4.2						
LIC	**Lamto**	**38.99**	**230**	*e*P	**P**	**10 37 10.7**	**+1.4**
	comp=Z,2.0nm,0.4s,mb4.2						
EKS2	**Erkin-Say**	**39.14**	**63**	*e*P	**P**	**10 37 10.4**	**+0.1**
	comp=Z,5.4nm,1.0s,mb4.2						
EKS2	**Erkin-Say**	**39.14**	**63**	*e*P	**P**	**10 37 10.4**	**0.0**
	comp=Z,5.4nm,1.0s,mb4.2						
AAK	**Ala-Archa**	**39.67**	**63**	*e*P	**P**	**10 37 15.9**	**+1.1**
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
AAK	**Ala-Archa**	**39.67**	**63**	*e*P	**P**	**10 37 15.9**	**+1.1**
	comp=Z,3.0nm,0.7s,mb4.1						
AAK	**Ala-Archa**	**39.67**	**63**	*e*P	**P**	**10 37 15.9**	**+1.1**
	comp=Z,3.0nm,0.7s,mb4.1						
KURK	**Kurchatov**	**42.21**	**50**	P	**P**	**10 37 34.8**	**-0.8**
	comp=Z,5.7nm,0.7s,mb4.3,baz=272,slow=8.8,SNR=4.0						
KURK	**Kurchatov**	**42.21**	**50**	P	**P**	**10 37 34.8**	**-0.8**
SPITS	**Spitsbergen Ar**	**43.86**	**358**	P	**P**	**10 37 47.0**	**-1.6**
	comp=Z,2.4nm,0.6s,mb4.1,baz=220,slow=5.1,SNR=16						
SPITS	**Spitsbergen Ar**	**43.86**	**358**	P	**P**	**10 37 47.0**	**-1.6**
MK31	**Makanchi Array**	**44.80**	**56**	P	**P**	**10 37 57.0**	**+0.5**
MK31	**Makanchi Array**	**44.80**	**56**	P	**P**	**10 37 57.0**	**+0.5**
MKAR	**Makanchi Array**	**44.80**	**56**	P	**P**	**10 37 54.9**	**-1.6**
	comp=Z,6.3nm,0.6s,mb4.6,baz=311,slow=26,SNR=6.6						
NVS	**Novosibirsk**	**45.10**	**44**	*e*P	**P**	**10 37 57.2**	**-1.6**
NVS				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
NVS				pmax	pmax		
	comp=N,8.0nm,1.2s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.9s						
NVS	**Novosibirsk**	**45.10**	**44**	*e*P	**P**	**10 37 57.2**	**-1.6**
	comp=E,8.0nm,1.2s,mb4.4						
ZAA0	**Zalesovo Array**	**46.02**	**46**	*e*P	**P**	**10 38 05.3**	**-0.8**
ZAA0	**Zalesovo Array**	**46.02**	**46**	*e*P	**P**	**10 38 05.3**	**-0.8**
ZALV	**Zalesovo Beam**	**46.02**	**46**	P	**P**	**10 38 05.5**	**-0.6**
	comp=E,7.5nm,0.4s,mb5.0,baz=270,slow=8.6,SNR=19						
ZALV	**Zalesovo Beam**	**46.02**	**46**	P	**P**	**10 38 05.5**	**-0.6**
ZALV	**Zalesovo Beam**	**46.02**	**46**	P	**P**	**10 38 05.5**	**-0.6**
ZAK	**Zakamensk**	**57.77**	**48**⇓	*e*P	**P**	**10 39 34.2**	**+0.5**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
ZAK	**Zakamensk**	**57.77**	**48**	*e*P	**P**	**10 39 34.2**	**+0.5**
	comp=Z,3.0nm,1.1s,mb4.2						
SONM	**Songino Array**	**60.51**	**50**	P	**P**	**10 39 53.4**	**+0.7**
	comp=Z,1.8nm,0.6s,mb4.4,baz=287,slow=7.2,SNR=16						
SONM	**Songino Array**	**60.51**	**50**	P	**P**	**10 39 53.4**	**+0.6**
ULN	**Ulaanbaatar**	**60.92**	**50**	*e*P	**P**	**10 39 56.0**	**+0.5**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
ULN	**Ulaanbaatar**	**60.92**	**50**	*e*P	**P**	**10 39 56.0**	**+0.5**
	comp=Z,3.1nm,0.9s,mb4.4						
ULN	**Ulaanbaatar**	**60.92**	**50**	*e*P	**P**	**10 39 56.0**	**+0.5**
	comp=Z,3.1nm,0.9s,mb4.4						
BOD	**Bodaibo**	**61.44**	**38**	*e*P	**P**	**10 39 57.7**	**-1.2**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.4						
BOD	**Bodaibo**	**61.44**	**38**	*e*P	**P**	**10 39 57.7**	**-1.2**
	comp=Z,3.0nm,1.0s,mb4.4						
TIXI	**Tiksi**	**62.03**	**20**⇓	*e*P	**P**	**10 40 01.7**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
TIXI	**Tiksi**	**62.03**	**20**	*e*P	**P**	**10 40 01.7**	**-1.0**
	comp=Z,3.0nm,0.8s,mb4.5						
SCHQ	**Schefferville**	**63.11**	**320**	P	**P**	**10 40 10.2**	**+0.1**
	comp=Z,1.5nm,0.6s,mb4.3,baz=46,slow=5.2,SNR=7.0						
SCHQ	**Schefferville**	**63.11**	**320**	P	**P**	**10 40 10.2**	**+0.1**
CMAR	**Chiang Mai Arr**	**67.47**	**83**	P	**P**	**10 40 38.5**	**-0.5**
	comp=Z,0.7nm,0.3s,mb4.1,baz=150,slow=26,SNR=4.6						
CMAR	**Chiang Mai Arr**	**67.47**	**83**	P	**P**	**10 40 38.5**	**-0.5**
YKA	**Yellowknife Ar**	**77.77**	**342**	P	**P**	**10 41 39.4**	**-0.1**
	comp=Z,0.5nm,0.4s,mb3.8,baz=32,slow=5.4,SNR=24						
YKA	**Yellowknife Ar**	**77.77**	**342**	P	**P**	**10 41 39.4**	**-0.1**
YKA	**Yellowknife Ar**	**77.77**	**342**	P	**P**	**10 41 39.4**	**-0.1**
KSRS	**Korea Array**	**79.31**	**52**	P	**P**	**10 41 48.5**	**0.0**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
KSRS	**Korea Array**	**79.31**	**52**	P	**P**	**10 41 48.5**	**0.0**
	comp=Z,1.2nm,0.7s,mb4.0,baz=307,slow=4.1,SNR=7.1						
KSRS	**Korea Array**	**79.31**	**52**	P	**P**	**10 41 48.5**	**0.0**
	comp=Z,1.0nm,0.7s,mb3.9						
PETK	**Petropavlovsk-**	**83.83**	**26**	P	**P**	**10 42 12.8**	**+0.8**
	comp=Z,0.8nm,0.5s,mb4.2,baz=225,slow=31,SNR=4.6						
PETK	**Petropavlovsk-**	**83.83**	**26**	P	**P**	**10 42 12.8**	**+0.7**
PETK	**Petropavlovsk-**	**83.83**	**26**	P	**P**	**10 42 12.8**	**+0.7**
WRA	**Warramunga Arr**	**117.35**	**96**	PKP	PKPdf	10 48 28.8	+0.1
	comp=Z,0.4nm,0.5s,baz=310,slow=2.0,SNR=9.0						
ASAR	**Alice Springs**	**118.76**	**100**	PKP	PKPdf	10 48 31.8	+0.4
	comp=Z,0.4nm,0.5s,baz=346,slow=1.6,SNR=6.3						

DHMR 05 10:33:54.2±0.5**, 13.°62N×40.°81E, h14**^{km}±12^{km}**, ML3.6, 1D, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNSH	**Hunish Island**	**1.85**	**87**	*i* P	Pn	10 34 26.6	+1.0
HNSH				*i* S	Sn	10 34 52.1	+3.2
HNSH				AML	AML	10 34 57.5	
	comp=N,1µm,0.3s						
ZUQR	**Zugar Island**	**1.92**	**79**⇓	*i*P	Pn	10 34 27.6	+1.1
ZUQR				*i* S	Sn	10 34 54.0	+3.5
ZUQR				AML	AML	10 34 55.3	
	comp=N,1µm,0.3s						
TRBA	**At Turbah**	**3.24**	**96**	*i* P	Pn	10 34 47.9	+3.2
TRBA				*i* S	Sn	10 35 29.2	+6.1
TRBA				AML	AML	10 35 41.9	
	comp=N,100nm,0.6s						

ISCJB ***05*** *10:36:03.8±2.2, 5.°5S±0.°1×147.°6E±0.°1, h206*^{km}*±25*^{km}*, mb4.4/5, Error ellipse: s-maj=22.3km s-min=12.3km az=140.1*

IDC ***05*** *10:36:03.8±9.9, 5.°53S×147.°81E, h193*^{km}*±87*^{km}*, mb4.1/3, mb1 4.2/5, mb1mx3.7/16, mbtmp4.1/5, Error ellipse: s-maj=53.2km s-min=40.0km az=63.0*

NEIC ***05*** *10:36:05.0±1.5, 5.°46S×147.°63E, h204*^{km}*±17*^{km}*, mb3.8/3, Error ellipse: s-maj=13.2km s-min=8.1km az=141.0*

ISC 05 10:36:04.0±2.1**, 5.°5S**±0.°1×**147.°61E**±0.°10**, h191**^{km}±24^{km}**, n28,** σ**0**^{s}**.80**/29**, mb4.3**/5**, 2D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	**Coen**	**9.51**	**207**⇓	*i*P	**Pn**	**10 38 18.2**	**+1.1**
COEN				*e*S	**Sn**	**10 40 00.5**	**-2.9**
COEN	**Coen**	**9.51**	**207**⇓	*e*P	**Pn**	**10 38 18.1**	**+1.0**
	87nm,0.7s						
COEN				*e*Sn	**Sn**	**10 40 02.1**	**-1.3**
HNR	**Honiara**	**12.85**	**109**	Pn	**Pn**	**10 38 59.7**	**-0.3**
CTA	**Charters Tower**	**14.61**	**185**	*e*P	**Pn**	**10 39 25.2**	**+3.4**
	8.1nm,0.7s						
CTA	**Charters Tower**	**14.61**	**185**	P	**Pn**	**10 39 22.9**	**+1.1**
	0.6nm,0.3s,baz=11,slow=12,SNR=15						
CTAO	**Charters Tower**	**14.61**	**185**	*e*P	**Pn**	**10 39 23.4**	**+1.5**
	9.0nm,0.6s						
KAKA	**Kakadu**	**16.62**	**243**	*e*P	**Pn**	**10 39 45.4**	**-0.9**
	28nm,0.5s						
KAKA	**Kakadu**	**16.62**	**243**	*e*P	**Pn**	**10 39 45.5**	**-0.8**
	136nm,0.7s						
WRAB	**Tennant Creek**	**19.33**	**221**	*e*P	**P**	**10 40 15.1**	**+0.2**
	24nm,0.4s						
WB2	**Warramunga Arr**	**19.34**	**221**	*e*P	**P**	**10 40 15.3**	**+0.3**
WRA	**Warramunga Arr**	**19.34**	**221**	P	**P**	**10 40 15.3**	**+0.3**
	6.1nm,0.3s,baz=48,slow=11,SNR=318						
KNA	**Kununurra**	**21.14**	**240**	*e*P	**P**	**10 40 35.2**	**+1.0**
	28nm,1.1s,mb4.5						
ASAR	**Alice Springs**	**22.41**	**215**	P	**P**	**10 40 47.6**	**+0.8**
	11nm,0.4s,mb4.7,baz=53,slow=8.7,SNR=249						
FITZ	**Fitzroy Crossi**	**24.87**	**238**	*e*P	**P**	**10 41 09.2**	**-0.1**
	23nm,0.3s,mb5.2						
FITZ	**Fitzroy Crossi**	**24.87**	**238**	P	**P**	**10 41 09.7**	**+0.4**
	14nm,0.4s,mb4.9,baz=78,slow=7.6,SNR=50						
FITZ	**Fitzroy Crossi**	**24.87**	**238**	*e*P	**P**	**10 41 09.4**	**+0.2**
	14nm,0.4s,mb4.9						
STKA	**Stephens Creek**	**26.89**	**191**	P	**P**	**10 41 26.0**	**-1.1**
	2.3nm,0.8s,mb3.9,baz=16,slow=11,SNR=6.1						
STKA	**Stephens Creek**	**26.89**	**191**	*e*P	**P**	**10 41 26.1**	**-1.1**
	0.4nm,0.6s,mb3.2						
KSM	**Kuching**	**37.89**	**279**	P	**P**	**10 43 01.9**	**-1.1**
NWAO	**Narrogin (SRO)**	**39.34**	**222**	P	**P**	**10 43 14.3**	**-0.5**
KS15	**Wonju Array Si**	**46.47**	**338**	P	**P**	**10 44 12.1**	**+0.2**
MDJ	**Mudanjiang**	**52.41**	**344**	P	**P**	**10 44 56.8**	**+0.2**
BILL	**Bilibino**	**74.49**	**7**	P	**P**	**10 47 20.6**	**-0.4**
MK31	**Makanchi Array**	**77.47**	**320**	P	**P**	**10 47 33.9**	**-4.4**
MKAR	**Makanchi Array**	**77.47**	**320**	P	**P**	**10 47 38.7**	**+0.5**
	0.2nm,0.4s,baz=117,slow=5.9,SNR=4.5						
PMR	**Palmer**	**82.45**	**26**	P	**P**	**10 48 04.1**	**-0.5**
BRVK	**Borovoye**	**86.76**	**324**	*e*P	**P**	**10 48 26.7**	**+0.3**
	1.2nm,0.7s,mb3.8						
TORD	**Torodi Ar. Bea**	**145.54**	**285**	PKPbc	PKPbc	10 55 20.9	0.0
	0.3nm,0.3s,baz=68,slow=3.7,SNR=7.5						

ISCJB ***05*** *10:51:51.4±0.6, 42.°21N±0.°02×23.°71E±0.°04, h3*^{km}*±5*^{km}*, Error ellipse: s-maj=4.6km s-min=3.9km az=158.7*

CSEM ***05*** *10:51:52.2±0.1, 42.°17N×23.°71E, h5*^{km}*, ML2.5, Error ellipse: s-maj=3.2km s-min=2.1km az=72.0*

THE ***05*** *10:51:52.2, 42.°16N×23.°72E, h0*^{km}*±1*^{km}*, ML3.3/5, Error ellipse: s-maj=1.5km s-min=0.7km az=354.0*

SKO ***05*** *10:51:53.1, 42.°17N×23.°72E, h2*^{km}*, M2.4, ML2.7*

BEO ***05*** *10:51:55.1±1.3, 42.°14N×23.°54E, h0*^{km}*, ML2.5/3*

ISC 05 10:51:52.3±0.5**, 42.°19N**±0.°02×**23.°71E**±0.°04**, h4**^{km}±4^{km}**, n41,** σ**0**^{s}**.83**/70**, 5C-6D, Bulgaria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VTS	**Vitosha**	**0.55**	**317**	P	**Pg**	**10 52 03.4**	**+0.6**
VTS				S	**Sg**	**10 52 11.4**	**+1.5**
VTS	**Vitosha**	**0.55**	**317**⇑	*i*Pg	**Pg**	**10 52 03.6**	**+0.8**
VTS				*e*Sg	**Sg**	**10 52 11.3**	**+1.4**
VTS	**Vitosha**	**0.55**	**317**⇑	*i*Pg	**Pg**	**10 52 03.6**	**+0.8**
VTS				*e*Sg	**Sg**	**10 52 11.3**	**+1.4**
PLD	**Plovdiv**	**0.74**	**96**	P	**Pg**	**10 52 06.4**	**-0.1**
PLD				S	**Sg**	**10 52 17.0**	**+0.8**
PLD	**Plovdiv**	**0.74**	**96**	P	**Pg**	**10 52 06.4**	**-0.1**
PLD				S	**Sg**	**10 52 17.0**	**+0.8**
SRS	**Serrai**	**1.08**	**185**	P	**Pg**	**10 52 12.1**	**-0.8**
SRS				S	**Sg**	**10 52 27.7**	**+0.8**
SRS	**Serrai**	**1.08**	**185**	P	**Pg**	**10 52 12.1**	**-0.8**
SRS				S	**Sg**	**10 52 27.7**	**+0.8**
KNT	**Kendrikon**	**1.20**	**211**	P	**Pg**	**10 52 14.3**	**-0.9**
KNT				S	**Sg**	**10 52 31.0**	**+0.3**
KNT	**Kendrikon**	**1.20**	**211**	P	**Pg**	**10 52 14.3**	**-0.9**
KNT				S	**Sg**	**10 52 31.0**	**+0.3**
VAY	**Valandovo**	**1.22**	**225**	P	**Pg**	**10 52 14.7**	**-0.9**
VAY				S	**Sg**	**10 52 32.1**	**+0.7**
VAY	**Valandovo**	**1.22**	**225**⇓	*i*Pg	**Pg**	**10 52 14.8**	**-0.8**
VAY				*i* Sg	**Sg**	**10 52 31.1**	**-0.3**
VAY				*e*Lg		10 52 31.9	
	comp=N,100nm,0.4s						
VAY				*e*Lg		10 52 32.8	
	comp=E,145nm,0.5s						
VAY	**Valandovo**	**1.22**	**225**⇓	*i*Pg	**Pg**	**10 52 14.8**	**-0.8**
VAY				*i* Sg	**Sg**	**10 52 31.1**	**-0.3**
VAY				*e*Lg		10 52 31.8	
	comp=E,100nm,0.4s						
ZAPS	**Zavoj**	**1.34**	**324**	*i* Pg	**Pg**	**10 52 19.0**	**+1.0**
ZAPS				*e*Sg	**Sg**	**10 52 37.6**	**+2.2**
SOH	**Sokhos**	**1.40**	**191**	P	**Pn**	**10 52 17.9**	**-0.6**
SOH				S	**Sb**	**10 52 37.6**	**+0.6**
SOH	**Sokhos**	**1.40**	**191**	P	**Pn**	**10 52 17.9**	**-0.6**
SOH				S	**Sb**	**10 52 37.6**	**+0.6**
BARS	**Barje**	**1.53**	**295**	*e*Pg	**Pg**	**10 52 21.4**	**-0.3**
BARS				*e*Sg	**Sg**	**10 52 40.9**	**-0.7**
BARS	**Barje**	**1.53**	**295**	*e*Pg	**Pg**	**10 52 21.4**	**-0.3**
BARS				*e*Sg	**Sg**	**10 52 40.9**	**-0.7**
GRG	**Griva**	**1.58**	**219**	P	**Pn**	**10 52 21.0**	**0.0**
GRG				S	**Sn**	**10 52 42.1**	**+0.3**
GRG	**Griva**	**1.58**	**219**	P	**Pn**	**10 52 21.0**	**0.0**
GRG				S	**Sn**	**10 52 42.1**	**+0.3**
THE	**Thessaloniki**	**1.66**	**200**	P	**Pn**	**10 52 21.4**	**-0.7**
THE				S	**Sn**	**10 52 44.6**	**+0.9**
THE	**Thessaloniki**	**1.66**	**200**	P	**Pn**	**10 52 21.4**	**-0.7**
THE				S	**Sn**	**10 52 44.6**	**+0.9**
NISS		**1.77**	**314**⇑	*i*Pg	**Pg**	**10 52 25.9**	**-0.4**
NISS				*e*Sg	**Sg**	**10 52 49.1**	**-0.2**
PLG	**Polygyros**	**1.83**	**186**	P	**Pn**	**10 52 23.3**	**-1.1**
PLG				S	**Sn**	**10 52 48.9**	**+0.9**
PLG	**Polygyros**	**1.83**	**186**	P	**Pn**	**10 52 23.3**	**-1.1**
PLG				S	**Sn**	**10 52 48.9**	**+0.9**
OUR	**Ouranopolis**	**1.87**	**174**	P	**Pn**	**10 52 24.0**	**-1.0**
OUR	**Ouranopolis**	**1.87**	**174**	P	**Pn**	**10 52 24.0**	**-1.0**
ALN	**Alexandroupoli**	**2.18**	**126**	P	**Pn**	**10 52 29.0**	**-0.2**
ALN				S	**Sn**	**10 52 56.9**	**+0.3**
ALN	**Alexandroupoli**	**2.18**	**126**	P	**Pn**	**10 52 29.0**	**-0.2**
ALN				S	**Sn**	**10 52 56.9**	**+0.3**
PAIG	**Paliouri**	**2.26**	**181**	P	**Pn**	**10 52 29.5**	**-0.9**
PAIG				S	**Sn**	**10 52 59.8**	**+1.1**
PAIG	**Paliouri**	**2.26**	**181**	P	**Pn**	**10 52 29.5**	**-0.9**
PAIG				S	**Sn**	**10 52 59.8**	**+1.1**
LIT	**Litokhoron**	**2.28**	**204**	P	**Pn**	**10 52 30.7**	**0.0**
LIT	**Litokhoron**	**2.28**	**204**	P	**Pn**	**10 52 30.7**	**0.0**
XOR	**Xorichti**	**2.85**	**188**	P	**Pn**	**10 52 37.8**	**-0.7**
XOR	**Xorichti**	**2.85**	**188**	P	**Pn**	**10 52 37.8**	**-0.7**
GZR	**Gura Zlata**	**3.27**	**348**⇓	*i*P	**Pn**	**10 52 44.5**	**+0.2**
GZR	**Gura Zlata**	**3.27**	**348**⇓	*i*P	**Pn**	**10 52 44.5**	**+0.2**
GZR				S	**Sn**	**10 53 22.7**	**-0.9**
MLR	**Muntele Rosu**	**3.67**	**25**⇓	*i*P	**Pn**	**10 52 54.8**	**+5.0**
MLR	**Muntele Rosu**	**3.67**	**25**⇓	*i*P	**Pn**	**10 52 54.8**	**+5.0**
BZS	**Buzias**	**3.74**	**337**⇑	*i*P	**Pn**	**10 52 51.4**	**+0.6**
BZS	**Buzias**	**3.74**	**337**	S	**Sg**	**10 53 50.8**	**-1.7**
BZS	**Buzias**	**3.74**	**337**⇑	*i*P	**Pn**	**10 52 51.4**	**+0.6**

NEIC ***05*** *11:38:50.7, 38.°07N×21.°96E, h39*^{km}*, MD3.1(ATH), After ATH.*

ATH ***05*** *11:38:50.7, 38.°07N×21.°96E, h39*^{km}*±2*^{km}*, MD3.1/3*

ISCJB ***05*** *11:38:52.8±0.5, 38.°01N±0.°03×21.°95E±0.°03, h7*^{km}*±7*^{km}*, Error ellipse: s-maj=4.8km s-min=4.1km az=173.9*

CSEM ***05*** *11:38:53.1±0.2, 37.°93N×21.°96E, h20*^{km}*, MD3.1, Error ellipse: s-maj=6.0km s-min=5.6km az=136.0*

THE ***05*** *11:38:53.3, 38.°02N×21.°95E, h4*^{km}*±1*^{km}*, ML3.0/4, Error*

ellipse: s-maj=1.4km s-min=0.6km az=167.0

ISC 05 11:38:53.5±0.5**,38.°00N**±0.°03×**21.°95E**±0.°03**,h11**^{km}±6^{km}**,n31,**σ**1.^{s}07**/50**,Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUR	Goura	0.32	102	*e*PB	Pg	11 38 59.8	-0.1
GUR				*e*SB	Sg	11 39 05.7	+1.5
GUR	Goura	0.32	102	*e*Pb	Pg	11 38 59.8	-0.1
GUR				*e*Sb	Sg	11 39 05.7	+1.5
RLS	Riolos of Patr	0.39	278	*e*PB	Pg	11 39 00.6	-0.5
RLS				*e*SB	Sg	11 39 07.6	+1.3
RLS	Riolos of Patr	0.39	278	*e*Pb	Pg	11 39 00.6	-0.5
RLS				*e*Sb	Sg	11 39 07.6	+1.3
VLX	Vlachokerasia	0.72	151	*e*PB	Pg	11 39 04.4	-3.0
VLX				*e*SN	Sg	11 39 17.1	+0.3
VLX	Vlachokerasia	0.72	151	*e*Pb	Pg	11 39 04.4	-3.0
LTK	Loutraki	0.81	88	P	Pg	11 39 08.4	-0.6
LTK				S	Sg	11 39 20.5	+0.9
LTK	Loutraki	0.81	88	P	Pg	11 39 08.4	-0.6
ITM	Ithomi	0.82	181	*e*PN	Pg	11 39 08.5	-0.9
ITM	Ithomi	0.82	181	*e*Pn	Pg	11 39 08.5	-0.9
EVR	Evrytania	0.92	353	*e*PN	Pg	11 39 07.4	-3.8
EVR	Evrytania	0.92	353	*e*Pn	Pg	11 39 07.4	-3.8
LKR	Lokris	1.05	52	P	Pg	11 39 13.2	-0.5
LKR				S	Sg	11 39 27.5	+0.1
LKR	Lokris	1.05	52	P	Pg	11 39 13.3	-0.4
LKR				S	Sg	11 39 27.5	+0.1
LKR	Lokris	1.05	52	P	Pg	11 39 13.2	-0.5
LKR				S	Sg	11 39 27.5	+0.1
AGG	Agios Georgios	1.06	16	P	Pg	11 39 12.4	-1.5
AGG				S	Sg	11 39 28.1	+0.3
AGG	Agios Georgios	1.06	16	P	Pg	11 39 12.4	-1.5
AGG				S	Sg	11 39 28.1	+0.3
VLS	Valsamata	1.09	280	P	Pg	11 39 13.3	-1.1
VLS				S	Sg	11 39 29.8	+1.3
VLS	Valsamata	1.09	280	*e*PB	Pg	11 39 10.2	-4.2
VLS	Valsamata	1.09	280	P	Pg	11 39 13.3	-1.1
VLS				S	Sg	11 39 30.1	+1.6
VLS	Valsamata	1.09	280	P	Pg	11 39 13.3	-1.1
VLS				S	Sg	11 39 29.8	+1.3
PYL	PYLOS	1.12	189	P	Pg	11 39 14.4	-0.6
PYL				S	Sg	11 39 31.0	+1.5
PYL	PYLOS	1.12	189	*e*PN	Pg	11 39 12.9	-2.1
PYL	PYLOS	1.12	189	*e*Pn	Pg	11 39 12.9	-2.1
PYL	PYLOS	1.12	189	P	Pg	11 39 14.4	-0.6
THL	Klokotos Trika	1.56	2	P	Pn	11 39 20.9	-0.3
THL				S	Sn	11 39 41.6	+0.2
THL	Klokotos Trika	1.56	2	P	Pn	11 39 20.9	-0.3
THL				S	Sn	11 39 41.6	+0.2
NEO	Neokhori	1.64	37	*e*PB	Pn	11 39 18.2	-4.1
NEO	Neokhori	1.64	37	*e*Pb	Pn	11 39 18.2	-4.1
XOR	Xorichti	1.67	35	P	Pn	11 39 22.3	-0.4
XOR				S	Sn	11 39 45.4	+1.2
XOR	Xorichti	1.67	35	P	Pn	11 39 22.3	-0.4
XOR				S	Sn	11 39 45.4	+1.2

MOS ***05*** *11:43:18.8±1.6,51.°41N×98.°15E,h10^{km},mb4.6/5,Error ellipse: s-maj=11.1km s-min=8.2km az=17.4*

IDC ***05*** *11:43:18.7±0.8,51.°36N×98.°18E,h0^{km},mb3.7/7, mb1 3.7/12,mb1mx3.6/29,mbtmp3.6/12,ML3.1/5,Error ellipse: s-maj=22.4km s-min=10.8km az=9.0*

ISCJB ***05*** *11:43:18.4±0.3,51.°42N±0.°06×98.°18E±0.°04,h10^{km}, mb3.8/11,Error ellipse: s-maj=8.0km s-min=3.5km az=0.8*

NEIC ***05*** *11:43:19.8±0.4,51.°43N×98.°22E,h10^{km},mb3.9/7,Error ellipse: s-maj=12.1km s-min=6.7km az=191.0*

ASRS ***05*** *11:43:19.7±2.0,51.°44N×98.°02E,h15^{km},Ms3.5/4*

NNC ***05*** *11:43:24.0±10.0,50.°76N×97.°38E,h0^{km},mb3.7,Error ellipse: s-maj=124.6km s-min=97.3km az=178.0*

ISC 05 11:43:20.3±0.3**,51.°40N**±0.°05×**98.°20E**±0.°03**,h10**^{km}**,n70,**σ**1.^{s}39**/85**,mb3.8**/11**,5C-3D,Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ORL	Orlik	1.51	41	*e*PG	Pg	11 43 47.5	-1.8
ORL				*e*		11 44 11.0	
ORL				pmax	pmax		
	comp=Z,248nm,0.8s						
ORL				smax			
	comp=N,2μm,1.4s						
MOY	Mondy	1.76	80	⇑*i*PN	Pn	11 43 52.4	+1.5
MOY				*e*		11 44 17.3	
MOY				pmax	pmax		
	comp=Z,276nm,0.2s						
MOY				smax			
	comp=N,2μm,1.0s						
KZLR	Kyzyl	2.36	279	⇓*e*PN	Pn	11 43 59.2	+0.1
KZLR				*e*		11 44 02.7	
KZLR				*e*		11 44 24.0	
KZLR				*e*		11 44 31.5	
ARS	Arshan	2.68	77	*e*PN	Pn	11 44 05.9	+2.4
ARS				*e*S	Sg	11 44 46.0	-0.4
ARS				smax			
	comp=E,3μm,0.8s						
HVS	Khovu-Aksy	2.84	266	⇓*e*PN	Pn	11 44 07.2	+1.6
HVS				*e*		11 44 11.4	
HVS				*e*		11 44 35.7	
HVS				*e*		11 44 45.3	
ZAK	Zakamensk	3.38	106	*e*PN	Pn	11 44 15.3	+2.3
ZAK				*e*		11 44 19.9	
ZAK				*e*		11 45 05.5	
ZAK				pmax	pmax		
	comp=Z,174nm,1.0s						
ZAK				smax			
	comp=N,1μm,1.4s						
TLY	Talaya	3.41	83	PN	Pn	11 44 14.1	+0.6
TLY				*e*		11 44 21.9	
TLY				*e*S	Sg	11 45 06.9	-2.9
IRK	Irkutsk	3.86	75	*e*PN	Pb	11 44 29.4	+1.0
IRK				*e*		11 45 20.3	
IRK				pmax	pmax		
	comp=Z,161nm,0.2s						
IRK				smax			
	comp=N,2μm,1.0s						
CERR	Cheremushki	4.43	292	*e*PN	Pn	11 44 27.4	-0.1
CERR				*i*		11 44 37.3	
CERR				*e*		11 45 33.1	
CERR	Cheremushki	4.43	292	*e*Pn	Pn	11 44 27.4	-0.1
CERR				*i* Pg	Pb	11 44 37.3	-0.8
CERR				*e*Sg	Sg	11 45 33.1	-9.3
TRG	Tyrgan	5.21	72	*e*PN	Pb	11 44 53.7	+2.3
TRG				*e*		11 46 01.2	
TRG				pmax	pmax		
	comp=Z,42nm,1.0s						
TRG				smax			
	comp=N,508nm,1.6s						
KAB	Kabansk	5.29	80	*e*PN	Pb	11 44 55.1	+2.2
KAB				pmax	pmax		
	comp=Z,114nm,0.6s						
OGRR	Ongureny	6.16	65	*e*PN	Pg	11 45 11.8	-6.4
SONM	Songino Array	6.41	121	PN	Pn	11 44 54.9	+0.2
SONM						11 45 13.5	
SONM	Songino Array	6.41	121	Pn	Pn	11 44 54.9	+0.2
	comp=Z,0.2nm,0.3s,baz=300,slow=14,SNR=4.1						
SONM				Pg	Pb	11 45 13.5	+1.6
	comp=Z,2.6nm,0.3s,baz=300,slow=18,SNR=53						
SONM				Lg		11 46 42.3	
	comp=Z,8.4nm,0.3s,baz=305,slow=26,SNR=14						
TASR	Tashtagol	6.51	286	*e*PN	Pb	11 45 14.3	+0.8
TASR				*e*		11 46 37.8	
TASR	Tashtagol	6.51	286	*e*Pg	Pb	11 45 14.3	+0.8
TASR				*e*Sg	Sg	11 46 37.8	-11
ULN	Ulaanbaatar	6.75	118	*e*PN	Pn	11 44 58.7	-0.7
ULN				*e*		11 45 20.2	
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ULN	Ulaanbaatar	6.75	118	*e*Pn	Pn	11 44 58.7	-0.7
	comp=Z,1.1nm,0.6s						
ULN				*e*Pg	Pg	11 45 20.2	-9.3
ULN				*e*S	Sg	11 46 54.3	-2.6
AKAR	Aktash	6.79	265	*e*PN	Pn	11 45 00.5	+0.6
AKAR				*e*		11 45 20.5	
AKAR				*e*		11 46 16.7	
AKAR				*e*		11 46 45.1	
AKAR	Aktash	6.79	265	*e*Pn	Pn	11 45 00.5	+0.6
AKAR				*e*Pg	Pg	11 45 20.5	-10
AKAR				*e*Sn	Sn	11 46 16.7	-0.4
AKAR				*e*Sg	Sg	11 46 45.1	-13
UKR	Ust'-Kan	8.46	272	*e*Pg	Px	11 45 49.9	
UKR				*e*Sg	Sx	11 47 42.2	
ZAA0	Zalesovo Array	8.52	293	*e*Pn	Pn	11 45 23.1	-0.5
ZAA0				Sn	Sn	11 47 01.6	+1.9
ZALV	Zalesovo Beam	8.52	293	Pn	Pn	11 45 24.0	+0.4
	comp=Z,0.4nm,0.3s,baz=96,slow=12,SNR=14						
ZALV				Pg	Pn	11 45 52.5	+29
	comp=Z,0.6nm,0.3s,baz=103,slow=14,SNR=12						
ZALV				Lg		11 47 42.1	
	comp=Z,1.3nm,0.3s,baz=122,slow=30,SNR=6.1						
ZALV	Zalesovo Beam	8.52	293	Pn	Pn	11 45 24.0	+0.4
ZALV				Pg	Pn	11 45 52.5	+29
ZALV				Lg		11 47 42.1	
NVS	Novosibirsk	9.63	297	*e*P	Pn	11 45 41.2	+2.4
NVS				*e*		11 47 23.8	
NVS	Novosibirsk	9.63	297	*e*Pn	Pn	11 45 41.2	+2.4
NVS				*e*Pg	Pn	11 46 12.9	+34
NVS				*e*Sn	Sn	11 47 23.8	-3.2
NVS				*e*Sg	Sn	11 48 15.9	+49
MK31	Makanchi Array	11.40	252	Pn	Pn	11 45 59.8	-3.3
	comp=Z,1.0nm,0.6s,baz=82,slow=12,SNR=5.2						
MK31				⇑Lg		11 49 07.5	
	comp=Z,9.6nm,0.8s,baz=72,slow=24,SNR=4.0						
MKAR	Makanchi Array	11.40	252	Pn	Pn	11 46 01.7	-1.3
	comp=Z,0.1nm,0.3s,baz=81,slow=14,SNR=6.4						
MKAR				Pg	Pn	11 46 47.2	+44
	comp=Z,0.1nm,0.3s,baz=69,slow=13,SNR=4.4						
MKAR				Sn	Sn	11 48 06.1	-4.2
	comp=Z,0.1nm,0.3s,baz=65,slow=18,SNR=3.7						
MKAR				Lg		11 49 17.6	
	comp=Z,0.2nm,0.3s,baz=50,slow=30,SNR=3.3						
MKAR	Makanchi Array	11.40	252	Pn	Pn	11 46 01.7	-1.3
MKAR				Pg	Pn	11 46 47.2	+44
MKAR				Sn	Sn	11 48 06.1	-4.2
MKAR				Lg		11 49 17.6	
GTA	Gaotai	12.05	174	*e*P	Px	11 46 58.9	
GTA				pP		11 47 02.1	
GTA				sP		11 47 05.4	
GTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KURK	Kurchatov	12.34	274	*e*P	Pn	11 46 14.9	-1.0
KURK						11 48 35.0	
KURK	Kurchatov	12.34	274	Pn	Pn	11 46 17.3	+1.4
	comp=Z,0.0nm,0.3s,baz=90,slow=14,SNR=6.6						
KURK				Lg		11 49 46.4	
	comp=Z,0.1nm,0.3s,baz=83,slow=32,SNR=4.5						
KURK	Kurchatov	12.34	274	*e*Pn	Pn	11 46 14.9	-1.0
KURK				Sn	Sn	11 48 35.0	+1.7
KURK				Lg		11 49 46.4	
KURK	Kurchatov	12.34	274	⇑Pn	Pn	11 46 14.2	-1.7
	comp=Z,3.6nm,1.1s						
KURK				⇑Lg		11 49 41.1	
	comp=Z,23nm,1.0s						
KURBB	Kurchatov Arra	12.41	274	⇑Pn	Pn	11 46 14.3	-2.6
	comp=Z,0.6nm,1.1s,baz=87,slow=15						
KURBB				⇓Lg		11 49 42.5	
	comp=Z,4.9nm,1.2s						
BVAR	Borovoye Array	17.08	286	P	Pn	11 47 20.4	+1.5
	comp=Z,0.1nm,0.3s,baz=89,slow=14,SNR=12						
BRVK	Borovoye	17.14	286	*e*P	Pn	11 47 21.3	+1.6
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
BRVK	Borovoye	17.14	286	*e*Pn	Pn	11 47 21.3	+1.6
	comp=Z,6.7nm,1.1s						
TKM2	Tokmak 2	17.50	250	*e*P	Pn	11 47 26.6	+2.3
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.5s						
TKM2	Tokmak 2	17.50	250	*e*Pn	Pn	11 47 26.6	+2.3
	comp=Z,3.1nm,0.5s						
AAK	Ala-Archa	18.32	251	*e*P	Pn	11 47 34.7	+0.3
AAK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AAK	Ala-Archa	18.32	251	*e*P	Pn	11 47 34.7	+0.3
	comp=Z,2.6nm,0.9s						
UCH	Uchtor	18.56	250	*e*P	Pn	11 47 35.4	-1.8
EKS2	Erkin-Say	18.73	252	*e*P	Pn	11 47 39.1	-0.3
	comp=Z,6.8nm,0.8s						
MDJ	Mudanjiang	21.95	96	*e*P	P	11 48 12.8	-1.0
LSA	Lhasa	22.31	196	*e*P	P	11 48 17.3	-0.5
LSA				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.0						
LSA	Lhasa	22.31	196	*e*P	P	11 48 17.3	-0.6
	comp=Z,10nm,1.7s,mb4.0						
TIXI	Tiksi	24.49	23	*e*P	P	11 48 38.0	-1.2
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.9						
TIXI	Tiksi	24.49	23	*e*P	P	11 48 38.7	-0.4
	comp=Z,3.3nm,0.7s,mb3.9						
AKTK	Aktyubinsk	25.14	284	P	P	11 48 46.5	+1.2
AKTO	Aktyubinsk	25.14	284	P	P	11 48 46.5	+1.2
	comp=Z,1.3nm,0.6s,mb3.6,baz=110,slow=8.3,SNR=6.1						
KSRS	Korea Array	25.18	112	P	P	11 48 46.1	+0.3
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.5						
KSRS	Korea Array	25.18	112	P	P	11 48 46.1	+0.3
	comp=Z,0.5nm,0.7s,mb3.1,baz=313,slow=7.8,SNR=5.0						
BILL	Bilibino	35.88	37	*e*P	P	11 50 21.1	+1.2
BILL				*e*S	S	11 55 55.8	-1.5
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
BILL				MLR	MLR		
	comp=Z,100nm,16.0s						
MALT	Malatya	43.17	277	P	P	11 51 19.3	-1.7
SUW	Suwalki	43.55	304	P	P	11 51 23.3	-0.5
NB2	NORSAR Subarra	45.82	317	P	P	11 51 41.5	-0.3
	comp=Z,2.3nm,0.7s,mb4.2,baz=59,slow=7.9						
NOA	NORSAR Array B	45.82	317	P	P	11 51 41.1	-0.7
	comp=Z,2.3nm,0.8s,mb4.2,baz=60,slow=7.9,SNR=4.6						
NAO01	NORSAR Array S	46.05	317	*e*P	P	11 51 43.1	-0.6
MORC	Moravsky Berou	48.74	302	P	P	11 52 02.0	-2.8
MORC				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
MORC	Moravsky Berou	48.74	302	P	P	11 52 02.0	-2.8
	comp=Z,4.1nm,0.6s,mb4.6						
STU	Stuttgart	53.72	305	P	P	11 52 41.0	-1.1
YKA	Yellowknife Ar	63.52	16	P	P	11 53 49.2	-0.9
	comp=Z,0.2nm,0.8s,mb3.2,baz=340,slow=6.7,SNR=5.1						
YKA	Yellowknife Ar	63.52	16	P	P	11 53 49.2	-1.0
ESLA	Sonseca Array	66.81	305	*e*P	P	11 54 08.9	-3.0
WRA	Warramunga Arr	77.78	145	P	P	11 55 17.3	-0.2
	comp=Z,0.5nm,0.5s,mb3.7,baz=344,slow=6.3,SNR=14						
ASAR	Alice Springs	81.07	147	P	P	11 55 36.0	+0.7
	comp=Z,0.3nm,0.6s,mb3.4,baz=340,slow=5.0,SNR=3.2						
TOA0	Torodi Ar. Sit	83.86	283	*e*P	P	11 55 49.4	-0.8
TORD	Torodi Ar. Bea	83.86	283	P	P	11 55 49.8	-0.5
	comp=Z,0.6nm,0.5s,mb4.0,baz=33,slow=5.1,SNR=7.2						

ISCJB ***05*** *11:45:32.1±0.4,48.°05N±0.°02×16.°22E±0.°03,h1^{km}±4^{km}, Error ellipse: s-maj=4.0km s-min=2.6km az=42.5*

IPEC ***05*** *11:45:32.9±0.1,48.°00N×16.°34E,h5^{km}±1^{km},ML2.2/5, Error ellipse: s-maj=1.0km s-min=0.6km az=126.0*

CSEM ***05*** *11:45:32.8±0.2,48.°02N×16.°29E,h5^{km},ML3.0/13,Error ellipse: s-maj=4.1km s-min=2.5km az=135.0*

VIE ***05*** *11:45:32.7±0.3,47.°98N×16.°32E,h10^{km},mb1.9/4,ML2.5/4, Error ellipse: s-maj=2.0km s-min=1.8km az=93.0 5 km SSE of Traiskirchen felt 3-4EMS98 near Ebreichsdorf / LOWER AUSTRIA*

PRU ***05*** *11:45:34.6,48.°04N×16.°21E,h0^{km}*

ISC 05 11:45:33.1±0.4**,48.°02N**±0.°02×**16.°28E**±0.°03**,h6**^{km}±4^{km}**, n35,**σ**1.^{s}09**/73**,10C-6D,Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CONA	Conrad Observa	0.29	251	⇑*i*Pg	Pg	11 45 39.2	+0.4
	11nm,0.1s						
CONA				⇑*i*Sg	Sg	11 45 44.4	+1.7
	55nm,0.1s						
CONA	Conrad Observa	0.29	251	Pg	Pg	11 45 39.2	+0.3
	11nm,0.1s						
CONA				Sg	Sg	11 45 44.4	+1.7
	55nm,0.1s						
CSNA	Conrad Observa	0.29	251	⇑*i*Pg	Pg	11 45 39.3	+0.4
	14nm,0.1s						
CSNA				⇓*i*Sg	Sg	11 45 44.5	+1.7
	96nm,0.1s						
CSNA	Conrad Observa	0.29	251	Pg	Pg	11 45 39.3	+0.4
	14nm,0.1s						
CSNA				Sg	Sg	11 45 44.5	+1.7
	96nm,0.1s						
ZST	Bratislava	0.58	72	*e*PG	Pg	11 45 43.4	-0.9
ZST				*e*SG	Sg	11 45 52.5	+0.6
ZST	Bratislava	0.58	72	*e*Pg	Pg	11 45 43.5	-0.8
ZST				*e*Sg	Sg	11 45 52.0	+0.1
MODS	Modra-Piesok	0.76	62	*e*PG	Pg	11 45 47.5	-0.2
MODS				*e*SG	Sg	11 45 58.0	+0.5
MODS	Modra-Piesok	0.76	62	*e*Pg	Pg	11 45 47.5	-0.2
MODS				*e*Sg	Sg	11 45 58.0	+0.5
SMOL	Smolenice	0.91	57	*e*PG	Pg	11 45 52.2	+1.5
SMOL				*e*SG	Sg	11 46 05.6	+3.1
SMOL	Smolenice	0.91	57	*e*Pg	Pg	11 45 52.2	+1.5
SMOL				*e*Sg	Sg	11 46 05.6	+3.1
ARSA	Arzberg	0.93	214	⇓*i*Pg	Pg	11 45 50.0	-0.9
	4.4nm,0.1s						
ARSA				⇑*i*Sg	Sg	11 46 02.5	-0.4
	9.6nm,0.2s						
ARSA	Arzberg	0.93	214	*e*Pg	Pg	11 45 50.1	-0.8
ARSA				Sg	Sg	11 46 02.5	-0.4
	9.6nm,0.2s						
KRUC	Moravsky	1.04	4	*e*Pg	Pg	11 45 53.4	+0.3
KRUC				*e*Sg	Sg	11 46 07.1	+0.5
	54nm,0.3s						
JAVC	Velka Javorina	1.25	48	*e*Pg	Pg	11 45 57.2	+0.1
JAVC				*e*Sg	Sg	11 46 16.1	+2.8
	29nm,1.3s						
VRAC	Vranov	1.30	9	*e*Pg	Pg	11 45 57.4	-0.7
VRAC				*e*Sg	Sg	11 46 14.2	-0.8
	33nm,0.2s						
MOA	Molln	1.36	263	⇑*i*Pg	Pg	11 45 59.2	0.0
	3.5nm,0.1s						
MOA				⇓*i*Sg	Sg	11 46 17.7	+0.8
	17nm,0.2s						
MOA	Molln	1.36	263	Pg	Pg	11 45 59.2	0.0
	3.5nm,0.1s						
MOA				*e*Sg	Sg	11 46 16.3	-0.6
	19nm,0.3s						
TREC	Trest	1.38	338	*e*PG	Pg	11 45 59.2	-0.3
TREC				*e*SG	Sg	11 46 17.0	-0.3
	comp=Z,35nm,0.2s						
TREC	Trest	1.38	338	Pg	Pg	11 45 59.2	-0.3
TREC				Sg	Sg	11 46 17.0	-0.3
	comp=Z,35nm,0.2s						
SOKA	Soboth	1.59	213	⇑*i*Pn	Pn	11 46 00.3	-1.4
SOKA				⇑*i*Pg	Pg	11 46 02.5	-1.1
	comp=Z,1.5nm,0.2s						
SOKA				⇑*i*Sn	Sn	11 46 22.2	-0.4
SOKA				⇓*i*Sg	Sg	11 46 24.7	+0.5
	comp=Z,3.2nm,0.3s						
SOKA	Soboth	1.59	213	Pn	Pn	11 46 00.3	-1.4
VYHS	Vyhne	1.77	74	*e*PG	Pg	11 46 02.9	-4.3
VYHS				*e*SN	Sn	11 46 24.4	-2.7
VYHS	Vyhne	1.77	74	*e*Pn	Pn	11 46 02.8	-1.5
VYHS				*e*Sn	Sn	11 46 24.4	-2.7
MORC	Moravsky Berou	1.94	25	*e*Pn	Pn	11 46 06.6	0.0
MORC				*e*Sn	Sn	11 46 31.0	-0.3
KHC	Kasperske Hory	2.10	303	*e*PN	Pn	11 46 10.5	+1.7
KHC				*e*SG	Sg	11 46 40.1	-0.7
	comp=Z,17nm,0.3s						
KHC	Kasperske Hory	2.10	303	*e*Pn	Pn	11 46 10.2	+1.4
KHC				Sg	Sg	11 46 40.1	-0.7
	comp=Z,17nm,0.3s						
KBA	Koelnbreinsper	2.20	246	⇑*i*Pn	Pn	11 46 10.0	-0.1
KBA				⇓*i*Pg	Pg	11 46 15.1	-0.2
	comp=Z,2.5nm,0.3s						
KBA				⇑*i*Sn	Sn	11 46 36.7	-0.9
KBA				⇓*i*Sg	Sg	11 46 43.3	-0.4
	comp=Z,4.7nm,0.3s						
KBA	Koelnbreinsper	2.20	246	*e*Pn	Pn	11 46 11.1	+1.0
KBA	Koelnbreinsper	2.20	246	Pg	Pg	11 46 15.1	-0.2
	comp=Z,2.5nm,0.3s						
KBA				*e*Sn	Sn	11 46 39.6	+2.0
KBA				Sg	Sg	11 46 43.3	-0.4
	comp=Z,4.7nm,0.3s						
PRU	Pruhonice	2.27	331	*e*PG	Pg	11 46 15.2	-1.5
PRU				*e*SG	Sg	11 46 44.6	-1.5
	comp=Z,12nm,0.3s						
PRU	Pruhonice	2.27	331	Pg	Pg	11 46 15.2	-1.5
PRU				*e*Sn	Sn	11 46 41.0	+1.6
PRU				Sg	Sg	11 46 44.6	-1.5
	comp=Z,12nm,0.3s						
DPC	Dobruska-Polom	2.33	1	*e*PN	Pn	11 46 15.1	+3.2
DPC				*e*SG	Sg	11 46 47.4	-0.5
	comp=Z,5.7nm,0.2s						
DPC	Dobruska-Polom	2.33	1	*e*Pn	Pn	11 46 12.7	+0.8
DPC				*e*Sn	Sn	11 46 42.4	+1.6
DPC				Sg	Sg	11 46 47.4	-0.5
	comp=Z,5.7nm,0.2s						
PVCC	Panska Ves	2.74	337	*e*SG	Sg	11 47 00.1	-1.1
	comp=Z,25nm,0.2s						
PVCC	Panska Ves	2.74	337	Sg	Sg	11 47 00.1	-1.1
	comp=Z,25nm,0.2s						

VIE ***05*** *11:46:24.7±0.8,44.°98N×14.°94E,h9^{km}±2^{km},ML2.5/2, Error ellipse: s-maj=4.7km s-min=3.4km az=171.0 58 km SE of Rijeka*

CSEM 05 11:46:25.7±0.3**,45.°03N**×**14.°99E,h8**^{km}**,ML2.2,5C-4D, Error ellipse: s-maj=7.2km s-min=4.3km az=86.0, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NVLJ	Novalja	0.47	191	*e*Pg	Pg	11 46 35.1	+0.3
NVLJ				Sg	Sg	11 46 42.8	+1.6
NVLJ	Novalja	0.47	191	*e*Pg	Pg	11 46 35.1	+0.2
NVLJ				Sg	Sg	11 46 42.7	+1.6
BOJS	Bojanci	0.51	21	*i* Pg	Pg	11 46 36.2	+0.7
BOJS							
	comp=Z,20nm,0.1s						
BOJS	Bojanci	0.51	21	*i* Pg	Pg	11 46 36.2	+0.7
	comp=Z,20nm,0.1s						
KNDS	Knezji Dol	0.66	319	*i* Pg	Pg	11 46 37.8	-0.6
KNDS				*i* Sg	Sg	11 46 48.2	+1.2
KNDS	Knezji Dol	0.66	319	*i* Pg	Pg	11 46 37.8	-0.6
KNDS				*i* Sg	Sg	11 46 48.2	+1.2
CEY	Cerknica	0.81	331	*i* Pg	Pg	11 46 41.0	-0.3
CEY	Cerknica	0.81	331	*i* Pg	Pg	11 46 41.0	-0.3
PDKS	Podkum	1.03	0	*e*Pg	Pg	11 46 45.6	+0.1
PDKS							
	comp=Z,17nm,0.1s						
VOY	Vojsko	1.27	323	*e*Pg	Pg	11 46 50.9	+0.9
VOY				*e*Sg	Sg	11 47 07.6	+1.2
VOY	Vojsko	1.27	323	*e*Pg	Pg	11 46 50.9	+0.9
VOY				*e*Sg	Sg	11 47 07.6	+1.2
DRE	Drenchia	1.48	321	⇓*e*Pg	Pg	11 46 54.0	-0.2
DRE				*e*Sg	Sg	11 47 14.6	+1.2
DRE	Drenchia	1.48	321	*e*Pg	Pg	11 46 54.0	-0.2
DRE				*e*Sg	Sg	11 47 14.6	+1.2
OBKA	Obir	1.51	348	⇑*i*Pg	Pg	11 46 53.7	-1.0
OBKA				⇓*i*Sn	Sn	11 47 14.2	+1.3
OBKA				⇑*i*Sg	Sg	11 47 16.4	+2.1
	comp=Z,28nm,0.3s						
OBKA	Obir	1.51	348	Pg	Pg	11 46 53.7	-1.0
OBKA				Sn	Sn	11 47 14.2	+1.3
OBKA				Sg	Sg	11 47 16.4	+2.1
	comp=Z,28nm,0.3s						
COLI	Coloredo	1.58	315	⇑*i*Pg	Pg	11 46 55.4	-0.6
COLI				*i* Sg	Sg	11 47 17.9	+1.4
COLI	Coloredo	1.58	315	*i* Pg	Pg	11 46 55.4	-0.6
COLI				*i* Sg	Sg	11 47 17.9	+1.4
SOKA	Soboth	1.65	1	⇑*i*Pn	Pn	11 46 54.9	0.0
SOKA				⇓*i*Pg	Pg	11 46 57.6	+0.3
SOKA				⇓*i*Sn	Sn	11 47 16.9	+0.7
SOKA				⇑*i*Sg	Sg	11 47 19.9	+1.2
	comp=Z,9.9nm,0.4s						
SOKA	Soboth	1.65	1	Pn	Pn	11 46 54.9	0.0

IDC ***05*** *11:49:55.4±0.8,51.°43N×98.°32E,h0^{km},mb3.7/8, mb1 3.8/13,mb1mx3.7/29,mbtmp3.6/13,ML3.0/5,MS3.2/8, Ms1 3.2/8,ms1mx3.1/29,Error ellipse: s-maj=26.6km s-min=12.2km az=18.0*

MOS ***05*** *11:49:55.9±1.4,51.°31N×98.°11E,h11^{km},mb4.8/3,Error ellipse: s-maj=11.8km s-min=8.4km az=13.6*

ISCJB ***05*** *11:49:56.3±0.4,51.°33N±0.°07×98.°14E±0.°04,h10^{km}, mb3.8/10,MS3.4/4,Error ellipse: s-maj=10.0km s-min=3.7km az=8.5*

NEIC ***05*** *11:49:57.6±0.5,51.°33N×98.°13E,h10^{km},mb3.9/2,Error ellipse: s-maj=17.5km s-min=7.2km az=193.0*

ASRS ***05*** *11:49:58.4±1.7,51.°29N×97.°76E,h15^{km},Ms3.6/4*

NNC ***05*** *11:50:30.1±0.9,51.°07N×95.°88E,h0^{km},mb3.9,Error ellipse: s-maj=9.1km s-min=5.8km az=37.0*

ISC 05 11:49:57.8±0.3**,51.°40N**±0.°06×**98.°22E**±0.°04**,h10**^{km}**,n58,** σ**1.^{s}20**/68**,mb3.8**/10**,MS3.4**/4**,3C-5D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ORL	**Orlik**	1.51	40	*e*PN	Pn	11 50 24.1	-0.8
ORL				*e*		11 50 44.3	
ORL				pmax	pmax		
	comp=Z,240nm,0.7s						
ORL				smax			
	comp=N,3µm,1.5s						
MOY	**Mondy**	1.75	80	⇑*i*PN	Pn	11 50 28.8	+0.6
MOY				*e*		11 50 53.8	
MOY				pmax	pmax		
	comp=Z,271nm,0.8s						
MOY				smax			
	comp=N,3µm,1.1s						
KZLR	**Kyzyl**	2.37	279	*d i*PN	Pn	11 50 35.5	-1.2
KZLR				*i*		11 50 39.8	
KZLR				*e*		11 51 09.9	
HVS	**Khovu-Aksy**	2.85	266	κ*e*PN	Pn	11 50 43.5	+0.2
HVS				*e*		11 50 50.6	
HVS				*e*		11 51 12.9	
HVS				*e*		11 51 21.8	
ZAK	**Zakamensk**	3.36	106	*e*PN	Pn	11 50 52.3	+2.0
ZAK				*e*		11 50 56.1	
ZAK				*e*		11 51 42.2	
ZAK				pmax	pmax		
	comp=Z,201nm,0.6s						
ZAK				smax			
	comp=N,1µm,1.5s						
TLY	**Talaya**	3.40	83	*e*Pn	Pn	11 50 53.8	+3.0
TLY				*e*Sn	Sg	11 51 43.3	-3.6
IRK	**Irkutsk**	3.85	75	*e*PN	Pb	11 51 06.1	+0.4
IRK				*e*		11 51 57.0	
IRK				pmax	pmax		
	comp=Z,296nm,0.1s						
IRK				smax			
	comp=N,2µm,1.1s						
CERR	**Cheremushki**	4.44	292	*e*PN	Pn	11 51 05.1	0.0
CERR				*i*		11 51 15.2	
CERR				*i*		11 52 09.7	
CERR	**Cheremushki**	4.44	292	*e*Pn	Pn	11 51 05.1	0.0
CERR				*i* Pg	Pb	11 51 15.2	-0.6
CERR				*i* Sg	Sb	11 52 09.7	+0.4
TRG	**Tyrgan**	5.20	72	*e*PN	Pb	11 51 30.3	+1.6
TRG				*e*		11 52 38.0	
TRG				pmax	pmax		
	comp=Z,46nm,0.6s						
TRG				smax			
	comp=N,590nm,1.6s						
KRAR	**Krasnoyarsk**	5.61	328	*i* PN	Pn	11 51 16.1	-5.0
OGRR	**Ongureny**	6.15	65	*e*PN	Pn	11 51 30.2	+1.6
OGRR				*e*		11 51 48.8	
OGRR				*e*		11 53 07.0	
OGRR				pmax	pmax		
	comp=Z,43nm,1.0s						
OGRR				smax			
	comp=N,419nm,1.2s						
SONM	**Songino Array**	6.40	121	PN	Pn	11 51 30.6	-1.4
SONM						11 51 50.2	
SONM	**Songino Array**	6.40	121	Pn	Pn	11 51 30.6	-1.4
	comp=N,0.2nm,0.3s,baz=306,slow=14,SNR=2.7						
SONM				Pg	Pb	11 51 50.2	+1.1
	comp=N,2.5nm,0.3s,baz=301,slow=18,SNR=19						
SONM				Lg		11 53 18.4	
	comp=N,10nm,0.3s,baz=300,slow=25,SNR=15						
SONM				LR	LR	11 54 08.4	
	comp=N,226nm,20.6s,baz=29,slow=40						
SONM	**Songino Array**	6.40	121	Pn	Pn	11 51 30.6	-1.4
SONM				Pg	Pb	11 51 50.2	+1.1
SONM				Lg		11 53 18.4	
SONM				LR	LR	11 54 08.4	
TASR	**Tashtagol**	6.52	286	*e*PN	Pb	11 51 50.6	-0.6
TASR				*e*		11 53 13.2	
TASR	**Tashtagol**	6.52	286	*e*Pg	Pb	11 51 50.6	-0.6
TASR				*e*Sg	Sb	11 53 13.2	+4.1
ULN	**Ulaanbaatar**	6.74	118	*e*PN	Pn	11 51 37.9	+1.2
ULN				*e*		11 51 58.2	
ULN	**Ulaanbaatar**	6.74	118	*e*Pn	Pn	11 51 37.9	+1.2
ULN				*e*Pg	Pg	11 51 58.1	-8.6
ULN				*e*S	Sg	11 53 29.9	-4.1
AKAR	**Aktash**	6.80	265	*e*PN	Pn	11 51 32.3	-5.2
AKAR				*e*		11 51 55.7	
AKAR				*e*		11 53 20.4	
AKAR	**Aktash**	6.80	265	*e*Pn	Pn	11 51 32.3	-5.2
AKAR				*e*Pg	Pg	11 51 55.7	-12
AKAR				*e*Sg	Sg	11 53 20.4	-15
UKR	**Ust'-Kan**	8.47	272	*e*Pg	Px	11 52 28.9	
ZAA0	**Zalesovo Array**	8.54	293	*e*Pn	Pn	11 52 01.8	+0.5
ZAA0				Sn	Sn	11 53 39.2	+1.6
ZALV	**Zalesovo Beam**	8.54	293	Pn	Pn	11 52 00.6	-0.8
	comp=N,0.3nm,0.3s,baz=98,slow=12,SNR=6.1						
ZALV				Pg	Pn	11 52 28.4	+27
	comp=N,0.6nm,0.3s,baz=101,slow=14,SNR=9.4						
ZALV				Lg		11 54 15.6	
	comp=N,0.8nm,0.3s,baz=93,slow=31,SNR=6.8						
ZALV				LR	LR	11 55 28.8	
	comp=N,102nm,18.7s,baz=192,slow=39						
KMO	**Kumora**	8.92	55	*e*P	Pn	11 52 07.5	+0.9
KMO				*e*S	Sn	11 53 44.6	-2.4
NVS	**Novosibirsk**	9.64	297	*e*P	Pn	11 52 18.2	+1.7
NVS				*e*		11 53 58.1	
NVS	**Novosibirsk**	9.64	297	*e*Pn	Pn	11 52 18.2	+1.7
NVS				*e*Pg	Pn	11 52 48.3	+32
NVS				*e*Sn	Sn	11 53 58.1	-6.7
NVS				*e*Sg	Sn	11 54 52.4	+48
MK31	**Makanchi Array**	11.41	252	⇓Pn	Pn	11 52 53.7	+13
	comp=N,1.9nm,0.8s,baz=60,slow=12,SNR=2.6						
MK31				⇑Lg		11 55 45.3	
	comp=N,11nm,0.8s,baz=60,slow=24,SNR=4.0						
MKAR	**Makanchi Array**	11.41	252	Pn	Pn	11 52 40.3	-0.3
	comp=N,0.1nm,0.3s,baz=62,slow=18,SNR=4.9						
MKAR				Pg	Pn	11 53 24.5	+44
	comp=N,0.2nm,0.3s,baz=70,slow=13,SNR=4.8						
MKAR				Lg		11 55 49.5	
	comp=N,0.1nm,0.3s,baz=66,slow=32,SNR=3.9						
MKAR				LR	LR	11 57 19.8	
	comp=N,47nm,20.7s,baz=74,slow=39						
MKAR	**Makanchi Array**	11.41	252	Pn	Pn	11 52 40.3	-0.3
MKAR				Pg	Pn	11 53 24.5	+44
MKAR				Lg		11 55 49.5	
MKAR				LR	LR	11 57 19.8	
KURK	**Kurchatov**	12.35	274	P	Pn	11 52 52.2	-1.3
KURK						11 55 04.5	
KURK	**Kurchatov**	12.35	274	Pn	Pn	11 52 54.8	+1.2
	comp=N,0.0nm,0.3s,baz=82,slow=14,SNR=3.1						
KURK				Lg		11 56 24.9	
	comp=N,0.1nm,0.3s,baz=81,slow=35,SNR=7.7						
KURK				LR	LR	11 57 36.4	
	comp=N,115nm,19.3s,baz=70,slow=37						
KURK	**Kurchatov**	12.35	274	Pn	Pn	11 52 52.1	-1.4
KURK				Sn	Sn	11 55 04.5	-6.6
KURK				Lg		11 56 24.9	
KURK				LR	LR	11 57 36.4	
KURK	**Kurchatov**	12.35	274	⇑Lg		11 56 16.2	
	comp=N,28nm,1.0s						
KURBB	**Kurchatov Arra**	12.43	274	⇓Lg		11 56 19.0	
	comp=N,7.9nm,1.5s						
BVAR	**Borovoye Array**	17.09	286	P	Pn	11 53 57.2	+0.6
	comp=N,0.1nm,0.3s,baz=93,slow=8.9,SNR=9.7						
BVAR				LR	LR	12 00 32.9	
	comp=N,99nm,20.2s,baz=141,slow=37						
BRVK	**Borovoye**	17.15	287	*e*P	Pn	11 53 57.5	+0.1
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
BRVK	**Borovoye**	17.15	287	*e*Pn	Pn	11 53 57.5	+0.1
	comp=Z,2.6nm,0.6s						
ARU	**Arti**	23.65	298	P	P	11 55 09.3	+0.2
ARU	**Arti**	23.65	298	P	P	11 55 09.3	+0.2
TIXI	**Tiksi**	24.49	23	*e*P	P	11 55 15.7	-0.9
TIXI				pmax	pmax		
	comp=Z,30nm,0.7s,mb4.8						
TIXI	**Tiksi**	24.49	23	*e*P	P	11 55 16.0	-0.6
	comp=Z,5.0nm,0.8s,mb4.0						
AKTK	**Aktyubinsk**	25.15	284	P	P	11 55 24.0	+1.2
AKTO	**Aktyubinsk**	25.15	284	P	P	11 55 24.0	+1.2
	comp=Z,0.8nm,0.5s,mb3.5,baz=93,slow=9.9,SNR=5.1						
KSRS	**Korea Array**	25.17	112	P	P	11 55 23.2	+0.1
	comp=Z,0.7nm,0.7s,mb3.3,baz=316,slow=9.0,SNR=4.7						
KSRS				LR	LR	12 06 08.0	
	comp=Z,31nm,18.5s,MS2.9,baz=315,slow=39						
YSS	**Yuzh-Sakhalins**	29.10	81	*e*P	P	11 56 00.3	+1.9
BILL	**Bilibino**	35.88	37	*e*P	P	11 56 53.7	-3.7
BILL				*e**PP	pP	11 56 58.4	-2.0
BILL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BILL				MLR	MLR		
	comp=Z,200nm,21.0s,MS3.9						
ARCES	**ARCESS Array B**	37.33	326	LR	LR	12 14 36.3	
	comp=Z,48nm,18.6s,MS3.3,baz=108,slow=40						
MALT	**Malatya**	43.18	277	P	P	11 57 56.8	-1.8
BRTR	**Keskin Array B**	45.29	281	P	P	11 58 14.1	-1.3
	comp=Z,0.4nm,0.5s,mb3.5,baz=50,slow=9.6,SNR=2.9						
TIRR	**Tirgusor**	45.66	290	P	P	11 58 18.7	+0.4
NB2	**NORSAR Subarra**	45.83	317	P	P	11 58 18.2	-1.2
	comp=Z,3.0nm,0.7s,mb4.3,baz=61,slow=7.9						
NOA	**NORSAR Array B**	45.83	317	P	P	11 58 17.8	-1.6
	comp=Z,2.5nm,0.8s,mb4.2,baz=61,slow=7.9,SNR=4.7						
NOA				LR	LR	12 19 24.9	
	comp=Z,48nm,18.9s,MS3.5,baz=180,slow=39						
YKA	**Yellowknife Ar**	63.52	16	P	P	12 00 26.7	-0.9
	comp=Z,0.1nm,0.5s,mb3.1,baz=336,slow=6.9,SNR=4.5						
YKA	**Yellowknife Ar**	63.52	16	P	P	12 00 26.7	-0.9
WRA	**Warramunga Arr**	77.77	145	P	P	12 01 53.8	-1.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=343,slow=6.4,SNR=12						
ASAR	**Alice Springs**	81.06	147	P	P	12 02 11.9	-0.8
	comp=Z,0.3nm,0.7s,mb3.3,baz=331,slow=4.4,SNR=5.0						
TORD	**Torodi Ar. Bea**	83.87	283	P	P	12 02 26.3	-1.4
	comp=Z,0.9nm,0.6s,mb4.1,baz=35,slow=4.9,SNR=6.3						

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*ISCJB **05** 11:50:19.7±0.4, 14°.24N±0°.05×90°.68W±0°.05, h133^{km}±4^{km}, Error ellipse: s-maj=9.9km s-min=4.7km az=39.1*

*CASC **05** 11:50:20.3±1.8, 14°.13N×90°.72W, h117^{km}±7^{km}, MD3.7, ML3.2, mb4.0(NEIC)*

*NEIC **05** 11:50:21.2±0.7, 14°.28N×90°.56W, h136^{km}±9^{km}, mb4.0/2, Error ellipse: s-maj=16.4km s-min=8.7km az=213.0*

*IDC **05** 11:50:23.6±3.0, 14°.30N×90°.36W, h144^{km}±28^{km}, mb4.0/1, mb1 3.5/4, mb1mx3.3/19, mbtmp3.4/4, Error ellipse: s-maj=39.5km s-min=15.9km az=69.0*

ISC 05 11:50:20.4±0.5, **14°.24N**±0°.05×**90°.70W**±0°.05, **h130**^{km}±4^{km}, **n55**, σ**1ˢ02**/61, **9C-2D**, **Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCG	**Pacaya**	0.18	31	⇑*e*P	Pn	11 50 37.5	-0.6
FUG	**Fuego 3**	0.25	328	⇑*i*P	Pn	11 50 37.3	-1.0
IXG	**Ixpaco**	0.25	104	⇓*e*P	Pn	11 50 37.1	-1.2
FG6		0.37	332	⇑*e*P	Pn	11 50 38.2	-0.5
FG6				*e*S	Sn	11 50 52.0	-0.6
NBG	**Las Nubes**	0.49	45	⇑*e*P	Pn	11 50 39.6	+0.3
TP2	**Tecpan 2**	0.62	331	⇑*e*P	Pn	11 50 40.7	+0.5
TP2				*e*S	Sn	11 50 56.1	+0.9
JAT	**Jato**	0.91	275	⇓*i*P	Pn	11 50 42.4	0.0
RBDL	**Robledal**	0.99	97	⇑*i*P	Pn	11 50 42.1	-1.1
SBLS	**San Blas**	1.12	110	*e*P	Pn	11 50 43.5	-0.9
SNJE	**San Jose**	1.13	109	*e*P	Pn	11 50 43.5	-0.9
MRL	**Marmol**	1.28	50	⇑*e*P	Pn	11 50 47.4	+1.3
MTO2	**Montecristo 2**	1.31	83	*e*S	Sn	11 51 06.4	+0.3
LBRS	**Las Brisas**	1.69	107	*e*P	Pn	11 50 48.6	-2.0
LFRS	**El Faro**	1.71	111	*e*P	Pn	11 50 49.9	-0.9
LFRS				*e*S	Sn	11 51 15.6	+1.6
SNVI	**San Vicente**	1.91	109	*e*P	Pn	11 50 52.7	-0.6
CCIG	**Comitan**	2.46	326	*i* P	Pn	11 51 01.6	+1.5
CAHU	**Cacacuatique**	2.46	101	*e*P	Pn	11 50 59.5	-0.6
BLLM	**Bellamira**	2.52	108	*e*P	Pn	11 51 00.4	-0.5
CNCH	**Conchagua**	2.95	109	*e*P	Pn	11 51 05.7	-0.6
SCX	**San Cristobal**	3.10	323	*e*P	Pn	11 51 08.5	+0.1
TGUH	**Tegucigalpa,Un**	3.33	93	*e*Pn	Pn	11 51 11.5	+0.1
TGUH				Sn	Sn	11 51 44.0	-6.7
CRIN	**San Cristobal**	3.87	113	*e*P	Pn	11 51 19.4	+1.0
TEL3	**Telica 3**	4.10	113	*e*P	Pn	11 51 21.7	+0.1
CNGN	**Cerro Negro**	4.26	113	*e*P	Pn	11 51 23.8	+0.1
CNGN				*e*S	Sn	11 52 14.9	+2.1
CNGN				AML	AML	11 52 15.0	
	comp=E,56nm,0.5s						
MOMN	**Momotombo**	4.44	114	*e*P	Pn	11 51 27.0	+0.9
COPN	**Copaltepe**	4.50	117	*e*P	Pn	11 51 26.7	-0.1
COPN				*e*P		11 51 26.9	
CSAN		4.64	116	*e*P	Pn	11 51 29.4	+0.7
TISN	**Laguna Tiscapa**	4.79	115	*e*P	Pn	11 51 29.9	-0.8
TICN	**Ticuantepe**	4.88	116	*e*P	Pn	11 51 32.4	+0.5
BOAB	**BOACO BROADBAN**	5.21	109	*e*P	Pn	11 51 36.3	-0.1
HUIG	**Huatulco**	5.44	287	*e*P	Pn	11 51 42.5	+3.1
SSN	**San Juan del S**	5.56	121	*e*P	Pn	11 51 41.8	+0.8
TEIG	**Tepich**	6.39	21	P	Pn	11 51 53.1	+0.9
	comp=E,3.8nm,0.3s,baz=17,slow=1.7,SNR=7.1						
TEIG				S	Sn	11 53 03.8	-0.1
	comp=E,0.9nm,0.3s,baz=286,slow=19,SNR=2.5						
VCR	**Vista de Mar**	6.42	129	*e*P	Pn	11 51 53.4	+0.8
VHO	**Vista Hermosa**	6.46	297	*e*P	Pn	11 51 52.2	-0.9
JTS	**JuntasAbangare**	6.85	124	P	Pn	11 51 58.0	-0.5
	comp=E,5.7nm,0.3s,baz=301,slow=13,SNR=17						
JTS				S	Sn	11 53 14.0	-1.1
	comp=E,1.0nm,0.3s,baz=273,slow=17,SNR=1.7						
JTS	**JuntasAbangare**	6.85	124	*e*Pn	Pn	11 51 58.3	-0.2
	comp=E,20nm,0.5s						
JTS				S	Sn	11 53 13.9	-1.2
JCR	**Jicaral**	6.99	128	*e*P	Pn	11 52 01.2	+0.9
PNIG	**Pinotepa**	7.48	288	*e*P	Pn	11 52 03.1	-3.7
PRS1	**Puriscal**	7.54	123	*e*P	Pn	11 52 05.3	-2.5
LCR2	**La Lucha 2**	7.93	124	⇑*e*P	Pn	11 52 13.7	+0.7
URSC	**Urasca**	8.06	122	⇑*e*P	Pn	11 52 15.8	+1.0
BUS	**Buena Vista**	8.24	124	*e*P	Pn	11 52 18.1	+1.0
BAR1		8.78	124	*e*P	Pn	11 52 25.7	+1.4
PPM	**Popocatepetl**	8.98	303	*i* P	Pn	11 52 31.8	+4.6
ACR	**Cerro Adams**	9.24	126	*e*P	Pn	11 52 31.9	+1.3
BCIP	**Isla Barro Col**	11.77	114	*e*Pn	Pn	11 53 03.2	-1.2
OTAV	**Otavalo**	18.45	138	P	P	11 54 26.0	-0.1
	comp=E,0.5nm,0.4s						
TXAR	**Lajitas Array**	19.23	323	P	P	11 54 38.6	+4.2
	comp=E,0.1nm,0.3s,baz=144,slow=11,SNR=9.0						
AOPR	**Arecibo Observ**	23.34	77	P	P	11 55 16.2	-1.1
SJG	**San Juan**	23.89	77	*e*P	P	11 55 20.5	-1.7
HUMP	**Col San Antoni**	24.18	77	P	P	11 55 21.9	-3.0
SCHQ	**Schefferville**	44.57	19	P	P	11 58 19.6	+0.3
	comp=E,2.7nm,0.5s,baz=229,slow=6.4,SNR=17						
YKA	**Yellowknife Ar**	51.09	346	pP	pP	11 59 38.5	-0.9
	comp=E,0.3nm,0.8s,baz=148,slow=7.1,SNR=4.2						
WRA	**Warramunga Arr**	136.67	256	PKP	PKPdf	12 09 29.8	+1.7
	comp=E,0.4nm,0.9s,baz=91,slow=3.1,SNR=3.0						

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*NSSP **05** 12:42:15.6, 39°.15N×45°.72E, h5^{km}, Ms3.5*

*THR **05** 12:42:18.8±0.4, 40°.04N×46°.29E, h14^{km}±8^{km}, ML3.8*

*CSEM **05** 12:42:19.8±0.5, 39°.18N×45°.38E, h10^{km}, ML3.9, Error ellipse: s-maj=13.5km s-min=7.2km az=29.0*

*ISCJB **05** 12:42:23.5±0.6, 39°.05N±0°.04×45°.66E±0°.04, h33^{km}, Error ellipse: s-maj=6.4km s-min=3.6km az=24.1*

ISC 05 12:42:17.3±0.5, **39°.14N**±0°.03×**45°.72E**±0°.02, **h20**^{km}±3^{km}, **n62**, σ**1ˢ45**/97, **28C-27D**, **Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NAX	**Nakhchivan**	0.18	281	P	Pg	12 42 22.7	+0.6
	SNR=1000						
NAX				S	Sg	12 42 25.6	+0.2
MGRZ	**Megri**	0.47	121	⇓*i*P	Px	12 42 16.6	
MGRZ				⇓*i*S	Sx	12 42 23.5	
MGRZ	**Megri**	0.47	121	⇓P	Px	12 42 16.6	
MGRZ				S	Sx	12 42 23.5	
GRS	**Goris**	0.60	53	⇑*i*P	Pg	12 42 29.8	+0.6
GRS				⇓*i*S	Sg	12 42 38.8	+1.6
GRS	**Goris**	0.60	53	⇑P	Pg	12 42 29.8	+0.6
GRS				S	Sg	12 42 38.8	+1.6
EGVZ	**Egvard**	0.65	82	⇓*i*P	Px	12 42 19.6	
EGVZ				⇑*i*S	Sx	12 42 27.5	
EGVZ	**Egvard**	0.65	82	⇓P	Px	12 42 19.5	
EGVZ				S	Sx	12 42 27.5	
MAKU	**Maku**	0.83	285	*e*Pg	Sg	12 42 45.0	+0.4
MAKU				AML	AML	12 42 53.9	
	comp=N,1µm,0.8s						
MAKU	**Maku**	0.83	285	*e*Pg	Sg	12 42 45.0	+0.3
VADZ	**Vardenis**	1.03	1	*e*P	Pg	12 42 38.0	+0.7
VADZ				S	Sg	12 42 53.0	+2.1
STKZ		1.04	50	⇑*i*P	Pg	12 42 36.1	-1.5
STKZ				⇑*i*S	Sg	12 42 51.0	-0.4
STKZ		1.04	50	⇑P	Pg	12 42 36.1	-1.5
STKZ				S	Sg	12 42 51.0	-0.3
GNI	**Garni**	1.26	323	⇓*i*P	Pg	12 42 42.0	+0.4
GNI				⇑*i*S	Sg	12 43 00.2	+2.1
GNI	**Garni**	1.26	323	⇓P	Pg	12 42 42.0	+0.3
GNI				S	Sg	12 43 00.2	+2.1
ERE	**Yerevan**	1.41	317	*e*P	Pn	12 42 40.0	-1.8
KAPZ	**Kaputan**	1.42	327	⇓*i*P	Pn	12 42 41.1	-0.8
KAPZ				⇑*i*S	Sn	12 43 01.2	+1.3
KAPZ	**Kaputan**	1.42	327	⇓P	Pn	12 42 41.1	-0.8
KAPZ				S	Sn	12 43 01.2	+1.2
PAAR	**P'arak'ar**	1.44	315	⇑*i*P	Pn	12 42 41.1	-1.2
PAAR				⇑*i*S	Sx	12 43 59.8	
PAAR	**P'arak'ar**	1.44	315	⇑P	Pn	12 42 41.1	-1.2
PAAR				S	Sx	12 43 59.8	
GANJ	**Ganja**	1.57	17	P	Pg	12 42 48.1	+0.5
	SNR=76						
GANJ				S	Sg	12 43 08.7	+0.6
BRDA	**Brd**	1.59	45	P	Pg	12 42 49.2	+1.3
	SNR=12						
BRDA				S	Sg	12 43 12.7	+4.1
DYDN	**Diyadin**	1.62	285	*i* P	Pg	12 42 48.4	-0.2
AMBZ	**Amberd**	1.68	318	⇑*i*P	Pn	12 42 45.1	-0.4
AMBZ				⇑*i*S	Sn	12 43 08.1	+1.7
AMBZ	**Amberd**	1.68	318	⇑P	Pn	12 42 45.1	-0.4
AMBZ				S	Sn	12 43 08.1	+1.7
ARUZ	**Aruch**	1.70	313	⇓*i*P	Pn	12 42 45.4	-0.4
ARUZ				⇓*i*S	Sn	12 43 08.5	+1.6
ARUZ	**Aruch**	1.70	313	⇓P	Pn	12 42 45.4	-0.3
ARUZ				S	Sn	12 43 08.5	+1.6
GRMI	**Germi**	1.73	100	*e*Pg	Pg	12 42 50.7	+0.2
GRMI				*e*Sg	Sg	12 43 14.2	+1.2
GRMI				AML	AML	12 43 16.5	
	comp=E,904nm,0.4s						
GRMI				AML	AML	12 43 18.2	
	comp=N,944nm,0.4s						
GRMI	**Germi**	1.73	100	*e*Pg	Pg	12 42 50.7	+0.2
GRMI				*e*Sg	Sg	12 43 14.2	+1.2
VNNZ	**Vanand**	1.75	304	⇓*i*P	Pg	12 42 48.5	-2.5
VNNZ				⇓*i*S	Sg	12 43 11.2	-2.6
VNNZ	**Vanand**	1.75	304	⇓P	Pg	12 42 48.5	-2.5
VNNZ				S	Sg	12 43 11.2	-2.6
LMTZ	**Lermontov**	1.81	333	⇓*i*P	Pg	12 42 56.5	+4.3
LMTZ				⇓*i*S	Sg	12 43 21.7	+5.9
TVAN	**Van**	1.91	252	*i* P	Pg	12 42 53.7	-0.3
HNAZ	**Hnaberd**	1.92	321	⇑*i*P	Pg	12 42 55.0	+0.8
HNAZ				⇓*i*S	Sg	12 43 20.3	+1.1
HNAZ	**Hnaberd**	1.92	321	⇑P	Pg	12 42 55.0	+0.8
HNAZ				S	Sg	12 43 20.3	+1.1
CKLZ	**Chkalov**	1.97	336	⇑*i*P	Pg	12 42 59.2	+4.0
CKLZ				⇓*i*S	Sg	12 43 25.7	+4.9
LERZ	**Lernakert**	1.97	317	⇑*i*P	Pg	12 42 57.0	+1.8
LERZ				⇑*i*S	Sg	12 43 22.9	+2.1
HARI	**Harich**	1.97	318	⇑*i*P	Pg	12 42 56.0	+0.7
HARI				⇑*i*S	Sg	12 43 21.4	+0.5
HARI	**Harich**	1.97	318	⇑P	Pg	12 42 56.0	+0.8
HARI				S	Sg	12 43 21.4	+0.5
SPIZ	**Spitak**	2.02	327	⇓*i*P	Pg	12 42 59.9	+3.8
SPIZ				⇓*i*S	Sg	12 43 27.8	+5.5
NARZ	**Nor Artik**	2.03	311	⇑*i*P	Pg	12 42 55.4	-0.9
NARZ				⇓*i*S	Sg	12 43 21.4	-1.4
GLBA	**Clilabad**	2.08	86	P	Pg	12 42 56.8	-0.5
	SNR=29						
GLBA				S	Sg	12 43 25.8	+1.5
STEZ	**Stepenevan**	2.12	332	⇓*i*P	Pg	12 43 01.7	+3.8
STEZ				⇓*i*S	Sg	12 43 29.8	+4.4
STEZ	**Stepenevan**	2.12	332	⇑*e*P	Pg	12 42 55.0	-2.9
STEZ				⇑S	Sg	12 43 29.5	+4.1
STE	**Stepanavan**	2.13	331	⇑P	Pn	12 42 55.0	+3.3
STE	**Stepanavan**	2.13	331	⇓P	Pg	12 43 01.7	+3.6
KAMZ	**Kamo**	2.16	322	⇑*i*P	Pg	12 42 59.1	+0.3
KAMZ				⇓*i*S	Sg	12 43 28.9	+2.0
KAMZ	**Kamo**	2.16	322	⇑P	Pg	12 42 59.1	+0.3
KAMZ				S	Sg	12 43 28.9	+2.0
HAKT	**HAKKARI**	2.24	226	*i* P	Sx	12 43 17.4	
SEKA	**Sheki**	2.35	28	P	Pg	12 43 01.5	-1.0
	SNR=41						
SEKA				S	Sg	12 43 32.2	-0.9
MTA	**Mtatsminda**	2.65	345	P	Pg	12 43 05.2	-2.8
MTA				S	Sg	12 43 40.0	-2.4
ALIB	**Ii-Bayraml**	2.67	71	P	Pg	12 43 05.3	-3.2
TBLG	**Delisi**	2.69	344	P	Pg	12 43 07.3	-1.7
TBLG				S	Sg	12 43 41.8	-2.1
PQL	**Pirkuli**	2.75	52	P	Pg	12 43 06.7	-3.4
	SNR=37						
PQL				S	Sg	12 43 44.4	-1.4
HOMI	**Horasan**	3.08	288	*i* P	Pg	12 43 15.1	-1.2
GOR	**Gori**	3.09	337	P	Pg	12 43 14.3	-2.3
GOR				S	Sg	12 43 55.3	-1.4
SIZA	**Siyzn**	3.11	51	P	Pg	12 43 12.6	-4.3
	SNR=9.2						
ERZM	**Erzurum**	3.45	284	*i* P	Pg	12 43 21.8	-1.6
ONI	**Oni**	3.84	334	P	Pg	12 43 26.9	-4.0
ONI				S	Sg	12 44 19.0	-1.6
KOPT	**Kop Dagi**	4.13	284	*i* P	Pg	12 43 39.0	+2.6
THKV	**Tehran--Karaj**	5.21	127	*e*Pn	Pn	12 43 42.5	+8.4
CHTH	**Charan**	5.37	125	*e*Pn	Pn	12 43 44.5	+8.2
CHTH	**Charan**	5.37	125	*e*Pn	Pn	12 43 44.5	+8.2

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*DDA **05** 12:42:25.5, 39°.55N×25°.89E, h21^{km}, Md3.0*

*ISCJB **05** 12:42:26.3±0.6, 39°.56N±0°.02×25°.99E±0°.06, h9^{km}±5^{km}, Error ellipse: s-maj=7.3km s-min=3.8km az=174.4*

*CSEM **05** 12:42:26.3±0.1, 39°.54N×25°.98E, h15^{km}, ML2.9/4, Error ellipse: s-maj=4.5km s-min=2.7km az=76.0*

*THE **05** 12:42:26.8, 39°.53N×25°.96E, h10^{km}, ML2.9/4, Error ellipse: s-maj=0.7km s-min=0.3km az=235.0*

ISC 05 12:42:26.5±0.5, **39°.55N**±0°.02×**26°.00E**±0°.06, **h13**^{km}±5^{km}, **n15**, σ**0ˢ48**/30, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	**Bozcaada**	0.29	9	*i* P	Pg	12 42 32.2	-0.3
BOZC				*i* S	Sg	12 42 36.5	-0.1
SIGR	**SIGRI**	0.36	198	P	Pg	12 42 33.5	-0.2
SIGR				S	Sg	12 42 38.5	0.0
SIGR	**SIGRI**	0.36	198	P	Pg	12 42 33.5	-0.2
SIGR				S	Sg	12 42 38.5	0.0
PRK	**Paraskevi**	0.37	145	P	Pg	12 42 34.0	0.0
PRK				S	Sg	12 42 39.7	+0.7
PRK	**Paraskevi**	0.37	145	P	Pg	12 42 34.0	0.0
PRK				S	Sg	12 42 39.7	+0.7
LIA	**Limnos Island**	0.71	299	P	Pg	12 42 40.1	-0.3
LIA				S	Sg	12 42 50.4	+0.6
LIA	**Limnos Island**	0.71	299	P	Pg	12 42 40.1	-0.3
LIA				S	Sg	12 42 50.4	+0.6
CHOS	**Chios island**	1.17	178	P	Pb	12 42 47.9	-0.6
CHOS				S	Sb	12 43 04.1	+0.6
CHOS	**Chios island**	1.17	178	P	Pb	12 42 47.9	-0.6
CHOS				S	Sb	12 43 04.1	+0.6
URLA	**Izmir**	1.28	158	*i* P	Pn	12 42 49.1	-0.9
URLA				*i* S	Sb	12 43 07.0	+0.2
URLA	**Izmir**	1.28	158	*i* P	Pn	12 42 49.2	-0.9
URLA				*i* S	Sb	12 43 07.0	+0.2
ALN	**Alexandroupoli**	1.34	2	P	Pn	12 42 50.8	-0.2
ALN				S	Sb	12 43 09.4	+0.7
ALN	**Alexandroupoli**	1.34	2	P	Pn	12 42 50.8	-0.2
ALN				S	Sb	12 43 09.4	+0.7
SART	**Tekirdag**	1.45	38	*i* P	Pn	12 42 51.9	-0.6
SART				*i* S	Sn	12 43 11.8	+0.4
SART	**Tekirdag**	1.45	38	*i* P	Pn	12 42 51.9	-0.6
SART				*i* S	Sn	12 43 11.8	+0.4

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*MOS **05** 12:55:48.6±0.8, 19°.36N×145°.37E, h184^{km}, mb4.3/9, Error ellipse: s-maj=17.2km s-min=7.8km az=93.1*

*ISCJB **05** 12:55:50.3±1.2, 19°.34N±0°.04×145°.39E±0°.08, h199^{km}±12^{km}, mb4.1/32, Error ellipse: s-maj=11.6km s-min=7.1km az=176.9*

*NEIC **05** 12:55:50.0±1.1, 19°.34N×145°.41E, h181^{km}±10^{km}, mb4.4/15, Error ellipse: s-maj=7.5km s-min=4.8km az=93.0*

*IDC **05** 12:55:50.1±0.8, 19°.35N×145°.39E, h178^{km}±7^{km}, mb3.9/18, mb1 4.0/20, mb1mx4.0/27, mbtmp3.8/20, Error ellipse: s-maj=16.2km s-min=7.9km az=92.0*

ISC 05 12:55:51.3±1.2, **19°.33N**±0°.04×**145°.39E**±0°.08, **h193**^{km}±11^{km}, **n79**, σ**0ˢ76**/81, **mb4.1**/32, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	5.74	185	P	Pn	12 57 14.9	-0.2
	11nm,0.3s,baz=208,slow=14,SNR=12						
GUMO				S	Sn	12 58 22.6	+1.4
	24nm,0.3s,baz=327,slow=22,SNR=4.2						
GUMO	**Guam**	5.74	185	*e*Pn	Pn	12 57 13.1	-2.0
GUMO				*e*Sn	Sn	12 58 21.4	+0.3
MJAR	**Matsushiro Arr**	18.27	341	P	P	12 59 49.8	-0.6
	1.0nm,0.3s,baz=148,slow=14,SNR=8.6						

MAJO	Matsushiro	18.27	341	eP	P	12 59 50.5	+0.1
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.3s						
MAJO	Matsushiro	18.27	341	eP	P	12 59 50.5	+0.1
	comp=Z,6.5nm,0.3s						
NACB	Ninganchiao	22.61	287	P	P	13 00 35.4	-0.4
YULB	Yu-li	22.79	284	P	P	13 00 37.5	+0.1
TPUB	Ta-pu	23.39	284	eP	P	13 00 42.9	-0.1
KSRS	Korea Array	23.64	323	P	P	13 00 44.9	-0.1
	comp=Z,4.0nm,0.7s,mb4.2,baz=149,slow=9.0,SNR=20						
KSRS				pP		13 01 19.4	
	comp=Z,0.5nm,0.6s,baz=141,slow=44,SNR=2.2						
KS15	Wonju Array Si	23.65	323	eP	P	13 00 44.9	-0.2
YSS	Yuzh-Sakhalins	27.63	356	eP	P	13 01 20.1	-0.7
KKM	Kota Kinabalu	31.31	249	eP	P	13 01 54.6	+1.0
COEN	Coen	33.15	184	eP	P	13 02 08.6	-1.0
ENH	Enshi	34.23	296	eP	P	13 02 18.3	-0.5
KAKA	Kakadu	34.30	203	eP	P	13 02 18.8	-0.7
	comp=Z,15nm,0.5s,mb4.8						
PETK	Petropavlovsk-	35.04	13	P	P	13 02 26.4	+1.1
	comp=Z,2.0nm,0.6s,mb3.8,baz=178,slow=6.1,SNR=6.7						
HIA	Hailar	36.27	331	P	P	13 02 35.8	-0.1
MTSU	Mount Surprise	37.25	182	eP	P	13 02 43.8	-0.7
	comp=Z,8.9nm,0.6s,mb4.5						
KNA	Kununurra	38.51	206	eP	P	13 02 55.7	+0.6
	comp=Z,14nm,0.7s,mb4.6						
CTA	Charters Tower	39.19	179	P	P	13 03 00.2	-0.4
	comp=Z,2.5nm,0.6s,mb4.0,baz=6.2,slow=6.3,SNR=4.8						
CTA	Charters Tower	39.19	179	P	P	13 03 00.2	-0.5
CTAO	Charters Tower	39.19	179	eP	P	13 03 00.1	-0.6
CTAO				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
CTAO	Charters Tower	39.19	179	eP	P	13 03 00.1	-0.6
	comp=Z,1.8nm,0.5s,mb3.9						
WRAB	Tennant Creek	40.50	196	eP	P	13 03 11.8	+0.3
WRAB				e		13 04 52.5	
WRAB				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.6						
WRAB	Tennant Creek	40.50	196	eP	P	13 03 11.8	+0.4
	comp=Z,13nm,0.5s,mb4.6						
WRAB				ePP	PP	13 04 52.5	+3.4
WB2	Warramunga Arr	40.51	196	eP	P	13 03 11.6	+0.1
WRA	Warramunga Arr	40.51	196	P	P	13 03 12.0	+0.4
	comp=Z,10nm,0.4s,mb4.6,baz=18,slow=9.1,SNR=118						
FITZ	Fitzroy Crossi	41.96	209	eP	P	13 03 24.0	+0.6
	comp=Z,22nm,0.6s,mb4.8						
FITZ	Fitzroy Crossi	41.96	209	P	P	13 03 24.1	+0.7
	comp=Z,18nm,0.7s,mb4.6,baz=32,slow=8.8,SNR=48						
FITZ	Fitzroy Crossi	41.96	209	eP	P	13 03 23.9	+0.6
	comp=Z,11nm,0.5s,mb4.5						
SONM	Songino Array	42.47	321	P	P	13 03 28.1	+0.9
	comp=Z,1.6nm,0.6s,mb3.6,baz=136,slow=8.4,SNR=10						
CMAR	Chiang Mai Arr	43.85	277	P	P	13 03 39.6	+0.9
	comp=Z,0.8nm,0.4s,mb3.4,baz=76,slow=6.4,SNR=6.1						
YAK	Yakutsk	44.05	349	eP	P	13 03 39.5	-0.1
YAK				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.3						
YAK	Yakutsk	44.05	349	eP	P	13 03 39.5	-0.1
	comp=Z,10nm,0.6s,mb4.3						
ASAR	Alice Springs	44.18	195	P	P	13 03 41.1	-0.1
	comp=Z,6.9nm,0.5s,mb4.2,baz=15,slow=7.6,SNR=129						
RMQ	Roma	45.66	176	eP	P	13 03 51.7	-1.1
	comp=Z,4.2nm,0.5s,mb4.0						
KULM	Kulim	45.73	258	eP	P	13 03 55.6	+2.0
	comp=Z,7.1nm,0.5s,mb4.2						
MBWA	Marble Bar	47.44	213	eP	P	13 04 07.0	+0.3
	comp=Z,8.9nm,0.8s,mb4.2						
BILL	Bilibino	50.45	10	eP	P	13 04 30.2	+1.3
BILL				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.2						
BILL	Bilibino	50.45	10	eP	P	13 04 29.9	+1.0
	comp=Z,7.4nm,0.7s,mb4.1						
STKA	Stephens Creek	51.05	184	eP	P	13 04 32.5	-1.3
	comp=Z,4.0nm,1.1s,mb3.8						
STKA	Stephens Creek	51.05	184	P	P	13 04 32.8	-1.0
	comp=Z,2.4nm,0.4s,mb4.0,baz=339,slow=9.4,SNR=13						
STKA	Stephens Creek	51.05	184	eP	P	13 04 32.8	-1.1
	comp=Z,0.5nm,0.5s,mb3.2						
ZAA0	Zalesovo Array	57.34	322	eP	P	13 05 18.8	-0.2
ZALV	Zalesovo Beam	57.34	322	P	P	13 05 18.5	-0.5
	comp=Z,3.1nm,0.5s,mb4.2,baz=106,slow=8.3,SNR=19						
ZALV				pP	pP	13 06 00.3	-2.5
	comp=Z,1.1nm,0.6s,baz=121,slow=7.6,SNR=2.8						
MK31	Makanchi Array	57.82	314	eP	P	13 05 23.0	+0.5
MKAR	Makanchi Array	57.82	314	P	P	13 05 22.9	+0.4
	comp=Z,0.9nm,0.6s,mb3.5,baz=86,slow=8.6,SNR=19						
MKAR	Makanchi Array	57.82	314	P	P	13 05 22.9	+0.4
NWAO	Narrogin (SRO)	58.52	208	eP	P	13 05 28.3	+0.8
NWAO				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NWAO	Narrogin (SRO)	58.52	208	P	P	13 05 28.0	+0.6
	comp=Z,7.2nm,0.9s,mb4.3,baz=165,slow=17,SNR=5.1						
NWAO	Narrogin (SRO)	58.52	208	eP	P	13 05 28.3	+0.8
	comp=Z,2.3nm,0.5s,mb4.1						
KURK	Kurchatov	60.61	318	P	P	13 05 40.9	-0.6
PMR	Palmer	61.55	30	eP	P	13 05 47.9	+0.2
SML	Sawmill	61.96	30	eP	P	13 05 50.4	0.0
MCK	McKinley	62.11	27	eP	P	13 05 50.7	-0.7
COLA	College	62.83	26	eP	P	13 05 56.4	+0.3
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
COLA	College	62.83	26	eP	P	13 05 56.4	+0.2
	comp=Z,3.1nm,0.6s,mb4.1						
EKS2	Erkin-Say	63.77	309	P	P	13 06 02.3	-0.5
BRVK	Borovoye	65.87	320	eP	P	13 06 16.1	0.0
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
BRVK	Borovoye	65.87	320	eP	P	13 06 16.1	+0.1
	comp=Z,3.1nm,0.6s,mb4.1						
INK	Inuvik	68.91	23	eP	P	13 06 35.3	+0.5
INK				pmax	pmax		
	comp=Z,7.0nm,1.0s						
INK	Inuvik	68.91	23	P	P	13 06 35.5	+0.7
	comp=Z,4.4nm,0.8s,mb4.2,baz=268,slow=6.8,SNR=13						
INK	Inuvik	68.91	23	eP	P	13 06 35.3	+0.4
	comp=Z,6.8nm,1.0s,mb4.2						
YKA	Yellowknife Ar	77.57	28	P	P	13 07 26.1	+0.5
	comp=Z,2.2nm,0.6s,mb4.0,baz=289,slow=5.7,SNR=18						
YKA				pP	pP	13 08 07.7	-4.3
	comp=Z,0.7nm,0.7s,baz=288,slow=5.5,SNR=3.6						
YKA	Yellowknife Ar	77.57	28	P	P	13 07 26.1	+0.5
YKA				pP	pP	13 08 07.7	-4.3
RES	Resolute Bay	78.88	14	eP	P	13 07 32.9	+0.3
RES				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
RES	Resolute Bay	78.88	14	eP	P	13 07 32.9	+0.3
	comp=Z,1.6nm,0.5s,mb3.9						
NEW	Newport	80.64	42	P	P	13 07 41.6	-1.0
KEV	Kevo	81.24	342	ep	P	13 07 44.1	-1.2
ARCES	ARCESS Array B	81.80	342	P	P	13 07 48.3	0.0
	comp=Z,2.0nm,0.5s,mb4.0,baz=85,slow=9.2,SNR=17						
WALA	Waterton Lakes	82.38	41	P	P	13 07 51.9	+0.3
NVAR	Mina Array Bea	82.98	52	P	P	13 07 56.4	+1.4
	comp=Z,1.4nm,0.7s,mb3.8,baz=270,slow=5.5,SNR=12						
JOF	Joensuu	83.32	335	ep	P	13 07 54.8	-1.4
	comp=Z,5.7nm,0.5s,mb4.6						
KAF	Kangasniemi	85.72	336	ep	P	13 08 06.1	-2.2
FFC	Flin Flon	86.72	32	eP	P	13 08 13.5	+0.2
FFC				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
FFC	Flin Flon	86.72	32	eP	P	13 08 13.5	+0.2
	comp=Z,1.7nm,0.6s,mb4.0						
BW06	Boulder Array	87.59	45	P	P	13 08 18.5	+0.8
PDAR	Pinedale Array	87.59	45	P	P	13 08 18.7	+1.0
	comp=Z,0.3nm,0.5s,mb3.4,baz=151,slow=3.4,SNR=4.6						
BRTR	Keskin Array B	93.46	314	P	P	13 08 44.7	-0.5
	comp=Z,0.3nm,0.6s,mb3.5,baz=56,slow=5.1,SNR=2.8						

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*IDC **05** 13:28:42.4±0.9, 53°.32S×23°.83E, h0^{km}, mb4.0/5, mb1 4.1/5, mb1mx3.9/17, mbtmp4.0/5, MS3.4/3, Ms1 3.4/3, ms1mx3.1/19, Error ellipse: s-maj=47.4km s-min=25.1km az=63.0*

*NEIC **05** 13:28:43.7±0.7, 53°.35S×23°.68E, h10^{km}, Error ellipse: s-maj=33.4km s-min=19.3km az=69.0*

ISC 05 13:28:45.2±2.1, 53°.1S±0°.4×2°4E±°, h10^{km}, n11, σ0^{s}.30/5, mb4.0/4, MS3.3/3, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	24.49	2	P	P	13 34 04.2	-0.2
	2.8nm,0.8s,mb3.7,baz=215,slow=2.1,SNR=2.7						
BOSA				LR	LR	13 42 22.2	
	comp=Z,117nm,18.4s,MS3.4,baz=221,slow=33						
LBTB	Lobatse	28.08	2	LR	LR	13 45 04.9	
	comp=Z,80nm,18.1s,MS3.4,baz=22,slow=35						
TSUM	Tsumeb	34.26	349	P	P	13 35 31.6	+0.4
	1.6nm,0.6s,mb4.1,baz=236,slow=18,SNR=2.9						
TSUM				LR	LR	13 47 27.9	
	comp=Z,45nm,18.8s,MS3.2,baz=313,slow=33						
TORD	Torodi Ar. Bea	68.80	336	P	P	13 39 49.2	-0.2
	0.8nm,0.9s,mb3.6,baz=172,slow=4.4,SNR=3.4						
ASAR	Alice Springs	82.33	119	P	P	13 41 07.0	-0.1
	0.6nm,1.0s,baz=226,slow=5.0,SNR=6.5						
WRA	Warramunga Arr	85.61	118	P	P	13 41 24.0	+0.1
	2.0nm,0.9s,mb4.3,baz=209,slow=3.6,SNR=9.8						
PDAR	Pinedale Array	147.95	270	PKPbc	PKPdf	13 48 27.1	+0.3
	1.6nm,1.1s,baz=111,slow=4.0,SNR=6.4						
NVAR	Mina Array Bea	150.48	255	PKPbc	PKPdf	13 48 33.4	+2.4
	0.8nm,1.0s,baz=160,slow=2.9,SNR=3.5						
BOZ	Bozeman (W)	150.77	273	ePKPbc	PKPdf	13 48 33.7	+2.5
YKA	Yellowknife Ar	156.60	310	PKPab	PKPab	13 49 07.5	-0.7
	0.1nm,0.4s,baz=89,slow=4.9,SNR=5.8						
YKA	Yellowknife Ar	156.60	310	PKPab	PKPab	13 49 07.5	-0.7

IDC 05 13:30:15.9±1.1, 53°.28S×23°.89E, h0^{km}, mb3.8/3, mb1 4.0/3, mb1mx3.7/16, mbtmp3.8/3, MS3.8/1, Ms1 3.8/1, ms1mx3.1/16, Error ellipse: s-maj=94.3km s-min=31.7km az=43.0, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	46.89	168	LR	LR	13 59 51.6	
	comp=Z,99nm,19.4s,baz=48,slow=38						
TORD	Torodi Ar. Bea	68.84	337	P	P	13 41 21.9	-0.1
	0.3nm,0.6s,baz=163,slow=5.9,SNR=3.7						
ASAR	Alice Springs	82.49	120	P	P	13 42 40.5	+0.2
	0.5nm,0.6s,baz=206,slow=4.7,SNR=6.9						
WRA	Warramunga Arr	85.77	118	P	P	13 42 57.2	+0.2
	1.4nm,0.8s,baz=213,slow=4.9,SNR=7.2						
PDAR	Pinedale Array	147.68	270	PKPbc	PKPbc	13 50 00.7	-0.9
	0.4nm,0.9s,baz=97,slow=4.1,SNR=2.5						
YKA	Yellowknife Ar	156.49	310	PKPab	PKPab	13 50 40.6	+0.5
	0.2nm,0.6s,baz=88,slow=4.8,SNR=4.5						

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*NNC **05** 13:57:09.5±1.1, 42°.29N×70°.66E, h0^{km}, mb3.6, mpv3.0, Error ellipse: s-maj=10.4km s-min=4.1km az=55.0*

ISC 05 13:57:08.5±2.3, 42°.2N±0°.1×70°.3E±0°.2, h35^{km}, n12, σ1^{s}.35/11, 2C-5D, Central Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	0.95	10	⇓P	Pn	13 57 25.4	+0.1
	3.8nm,0.2s,baz=164,slow=18,SNR=550						
KK31				⇑S	Sn	13 57 37.1	-0.5
	20nm,0.2s,baz=156,slow=30,SNR=27						
AML	Almayashu	2.53	90	P	Pn	13 57 44.3	-2.7
	SNR=61						
EKS2	Erkin-Say	2.63	78	P	Pn	13 57 45.9	-2.5
	SNR=27						
UCH	Uchtor	3.14	87	P	Sn	13 58 29.9	-1.8
	SNR=7.0						
AAK	Ala-Archa	3.15	80	P	Pn	13 57 56.3	+0.8
	SNR=20						
USP	Ospenovka	3.29	69	P	Pn	13 57 58.1	+0.6
	SNR=5.9						
KBK	Karagaybulak	3.48	80	P	Pn	13 58 01.8	+1.6
	SNR=9.5						
KZA	Kyzart	3.69	90	P	Pn	13 58 03.0	0.0
	SNR=6.7						
TKM2	Tokmak 2	3.99	77	⇓Pn	Pn	13 58 08.3	+1.2
	5.7nm,0.8s						
TKM2				⇑Sn	Sn	13 58 54.1	+1.4
	9.6nm,0.6s						
MK31	Makanchi Array	9.74	58	⇓Lg		14 02 07.2	
	1.5nm,0.9s,baz=243,slow=26,SNR=2.5						
KURBB	Kurchatov Arra	10.19	31	⇓Lg		14 02 24.3	
	0.6nm,1.2s						
KURK	Kurchatov	10.30	31	⇓Lg		14 02 27.6	
	3.0nm,0.9s						

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*ISCJB **05** 14:07:32.0±0.9, 37°.37N±0°.07×96°.17E±0°.08, h10^{km}, Error ellipse: s-maj=10.6km s-min=8.2km az=26.7*

*BJI **05** 14:07:36.2, 37°.22N×96°.74E, h16^{km}, ML3.2/6*

*IDC **05** 14:07:38.8±4.8, 37°.42N×96°.29E, h55^{km}±57^{km}, mb3.1/1, mb1 3.2/5, mb1mx3.0/26, mbtmp3.1/5, ML3.5/4, Error ellipse: s-maj=49.6km s-min=30.4km az=60.0*

ISC 05 14:07:34.2±0.9, 37°.35N±0°.07×96°.21E±0°.08, h10^{km}, n7, σ1^{s}.09/12, Qinghai

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTA	Gaotai	3.50	53	Pn	Pn	14 08 29.4	+0.7
GTA				Pg	Pg	14 08 33.1	-8.2
GTA				Sn	Sn	14 09 09.6	-0.5
GTA				smax			
	comp=N,28nm,0.8s						
GTA				smax			
	comp=E,17nm,0.8s						
LZH	Lanzhou	6.26	99	eP	Pn	14 09 11.5	+4.9
LZH				pP		14 09 16.0	
LZH				sP		14 09 19.3	
LZH				Pg	Pg	14 09 37.7	+3.6
LZH				Sg	Sg	14 10 40.6	-14
LZH				pmax	pmax		
	comp=Z,17nm,1.3s						
LZH				pmax	pmax		
	comp=Z,70nm,4.0s						
LZH				smax			
	comp=N,46nm,1.1s						
LZH				smax			
	comp=E,40nm,0.6s						
LZH				LR	LR		
	comp=E,240nm,4.6s						
LZH				LR	LR		
	comp=Z,220nm,5.6s						
SONM	Songino Array	12.87	32	P	Pn	14 10 37.1	-0.1
	comp=Z,0.3nm,0.3s,baz=213,slow=15,SNR=7.1						
MKAR	Makanchi Array	13.98	317	P	Pn	14 10 54.9	+2.6
	comp=Z,0.1nm,0.3s,baz=125,slow=14,SNR=5.9						
MKAR				S	Sn	14 13 26.7	-0.7
	comp=Z,0.1nm,0.3s,baz=142,slow=26,SNR=3.6						
ZALV	Zalesovo Beam	18.37	338	P	Pn	14 11 48.6	-0.3
	comp=Z,0.1nm,0.3s,baz=149,slow=17,SNR=2.2						
CMAR	Chiang Mai Arr	18.97	172	P	Pn	14 11 56.6	+0.2
	comp=Z,0.2nm,0.3s,baz=353,slow=10,SNR=5.8						
ASAR	Alice Springs	70.30	143	P	P	14 18 46.5	-1.4
	comp=Z,0.2nm,0.8s,baz=323,slow=5.9,SNR=4.9						

IDC 05 14:26:48.9±1.3, 52°.88S×24°.40E, h0^{km}, mb3.8/3, mb1 4.1/3, mb1mx3.7/16, mbtmp3.8/3, Error ellipse: s-maj=100.5km s-min=32.8km az=44.0, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	68.60	336	P	P	14 37 53.5	+0.1
	0.2nm,0.5s,baz=184,slow=7.1,SNR=2.4						
ASAR	Alice Springs	82.42	119	P	P	14 39 13.1	+0.2
	1.0nm,0.8s,baz=209,slow=5.1,SNR=9.5						
WRA	Warramunga Arr	85.68	118	P	P	14 39 29.6	0.0
	1.3nm,0.7s,baz=206,slow=3.9,SNR=10						
PDAR	Pinedale Array	147.99	270	PKPbc	PKPbc	14 46 35.0	-0.3
	0.2nm,0.6s,baz=144,slow=3.2,SNR=3.3						

NEIC 05 14:29:12.9, 37°.46S×176°.05E, h267^{km}, MG3.9(WEL), After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	1.16	134	P	Pn	14 29 50.6	+0.1
MWZ	Matawai	1.46	127	P	Pn	14 29 52.7	+0.2
MWZ				S	S	14 30 24.1	+0.3
BKZ	Black Stump Fm	1.74	169	P	Pn	14 29 54.9	+0.4
BKZ				S	S	14 30 27.1	-0.4
PUZ	Puketiti	1.85	110	P	Pn	14 29 55.5	0.0
WNVZ	Wahianoa	1.90	191	P	Pn	14 29 56.4	+0.6
MOVZ	Moawhango	1.96	187	P	Pn	14 29 56.4	+0.1
KNZ	Kokohu	2.02	141	P	Pn	14 29 56.6	-0.2
WAZ	Wanganui	2.44	200	P	Pn	14 30 00.9	+0.2
TSZ	Takapari Road	2.60	182	P	Pn	14 30 01.4	-0.8
MRZ	Mangatainoka R	3.22	186	P	Pn	14 30 06.9	-1.7
BFZ	Birch Farm	3.22	177	P	Pn	14 30 07.3	-1.4
KIW	Kapiti Island	3.51	194	P	Pn	14 30 09.9	-1.9
MTW	Mount Morrison	3.72	186	P	Pn	14 30 11.7	-2.4
CAW	Cannon Point	3.72	192	P	Pn	14 30 12.0	-2.2
MRW	Makara Radio	3.91	195	P	Pn	14 30 14.2	-2.1
WEL	Wellington	3.95	194	P	Pn	14 30 12.8	-3.9
WEL				S	S	14 30 48.8	-19
SNZO	South Karori	3.98	195	P	Pn	14 30 14.9	-2.2
TCW	Tory Channel	3.99	200	P	Pn	14 30 15.2	-2.0
MSWZ	Moikau Station	4.00	189	P	Pn	14 30 14.8	-2.5
NNZ	Nelson	4.29	208	P	Pn	14 30 18.0	-2.6
QRZ	Quartz Range	4.34	218	P	Pn	14 30 18.5	-2.7
THZ	Tophouse	4.94	208	P	Pn	14 30 25.8	-2.5
KHZ	Kahutara	5.31	200	P	Pn	14 30 28.5	-4.4
DSZ	Denniston Nort	5.39	216	P	Pn	14 30 30.6	-3.2
LTZ	Lake Taylor	6.05	207	P	Pn	14 30 38.2	-3.7

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*ISCJB **05** 14:42:24.2±0.5, 12°.94N±0°.07×88°.86W±0°.06, h74^{km}±5^{km}, mb3.6/6, Error ellipse: s-maj=13.8km s-min=4.1km az=37.9*

*CASC **05** 14:42:24.7±2.0, 12°.89N×88°.90W, h35^{km}±999^{km}, MD3.8, ML3.6*

*NEIC **05** 14:42:29.5±1.4, 13°.12N×88°.47W, h99^{km}±12^{km}, Error ellipse: s-maj=26.2km s-min=10.0km az=66.0*

*IDC **05** 14:42:29.2±3.0, 13°.18N×88°.48W, h93^{km}±26^{km}, mb3.3/6, mb1 3.6/8, mb1mx3.4/22, mbtmp3.4/8, MS2.9/2, Ms1 2.9/2, ms1mx2.6/19, Error ellipse: s-maj=48.8km s-min=24.5km az=59.0*

ISC 05 14:42:25.3±0.5, 12°.95N±0°.06×88°.86W±0°.05, h64^{km}±6^{km}, n43, σ1^{s}.21/47, mb3.7/6, 1C-1D, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLLM	Bellamira	0.78	51	eP	Pn	14 42 40.2	-0.7
BLLM				eS	Sn	14 42 53.9	+1.7
LBRS	Las Brisas	0.81	347	eP	Pn	14 42 40.3	-0.9
BOQS	Boqueron	0.88	332	⇑iP	Pn	14 42 41.1	-1.0
CAHU	Cacacuatique	1.03	38	eP	Pn	14 42 44.5	+0.5
CNCH	Conchagua	1.05	72	eP	Pn	14 42 43.5	-0.7
SBLS	San Blas	1.16	320	eP	Pn	14 42 44.6	-1.0
SBLS				eS	Sn	14 43 00.5	-0.2
SNJE	San Jose	1.17	322	eP	Pn	14 42 44.8	-1.0
SNJE				eS	Sn	14 43 00.6	-0.4
RTR	El Retiro	1.22	321	eP	Pn	14 42 45.7	-0.7
RTR				eS	Sn	14 43 02.3	+0.2
RBDL	Robledal	1.41	325	⇓eP	Pn	14 42 48.6	-0.3
MTO2	Montecristo 2	1.52	341	eP	Pn	14 42 50.5	0.0
CRIN	San Cristobal	1.78	98	eP	Pn	14 42 53.4	-0.5
CRIN				AML	AML	14 43 18.1	
	comp=E,1μm,0.2s						
TGUH	Tegucigalpa,Un	1.90	54	eP	Pn	14 42 55.8	+0.3
TGUH	Tegucigalpa,Un	1.90	54	eP	Pn	14 42 56.1	+0.6
TGUH				eP		14 42 56.1	
IXG	Ixpaco	1.97	308	eP	Pn	14 42 56.1	-0.4
CNGN	Cerro Negro	2.15	102	eP	Pn	14 42 57.5	-1.5
NBG	Las Nubes	2.18	319	eP	Pn	14 43 00.5	+1.2
MRL	Marmol	2.26	339	eP	Pn	14 43 02.1	+1.7
MOMN	Momotombo	2.33	103	eP	Pn	14 43 00.1	-1.2
COPN	Copaltepe	2.34	109	eP	Pn	14 43 00.8	-0.8
CSAN		2.50	107	eP	Pn	14 43 03.0	-0.6
TP2	Tecpan 2	2.78	311	eP	Pn	14 43 11.4	+3.9
BOAB	BOACO BROADBAN	3.15	99	eP	Pn	14 43 11.3	-1.3
VCR	Vista de Mar	4.23	131	eP	Pn	14 43 27.2	-0.1
JTS	JuntasAbangare	4.65	124	P	Pn	14 43 34.5	+1.4
	comp=E,2.7nm,0.3s,baz=314,slow=18,SNR=9.5						
JTS	JuntasAbangare	4.65	124	ePn	Pn	14 43 34.2	+1.2
JTS				S	Sn	14 44 36.4	+11
PRS1	Puriscal	5.34	123	eP	Pn	14 43 45.0	+2.4
LCR2	La Lucha 2	5.73	123	eP	Pn	14 43 49.8	+1.9
URSC	Urasca	5.86	121	eP	Pn	14 43 53.1	+3.4
URSC				eS	Sn	14 44 56.2	+0.7
BUS	Buena Vista	6.03	123	eP	Pn	14 43 54.0	+1.9
BUS				eS	Sn	14 44 58.2	-1.6
BAR1		6.57	124	eP	Pn	14 44 01.0	+1.6
BAR1				eS	Sn	14 45 10.4	-2.6
TEIG	Tepich	7.26	4	P	Pn	14 44 10.4	+1.6
	comp=E,2.5nm,0.3s,baz=12,slow=1.5,SNR=7.6						
TEIG				LR	LR	14 47 13.6	
	comp=E,60nm,19.0s,baz=304,slow=41						
TEIG	Tepich	7.26	4	eP	Pn	14 44 11.0	+2.2
TEIG				LR	LR	14 47 13.6	
TXAR	Lajitas Array	21.33	322	P	P	14 47 09.2	+2.1
	comp=E,0.7nm,0.6s,mb3.2,baz=141,slow=11,SNR=8.6						
ATAH	Atahualpa	22.38	152	LR	LR	14 54 40.3	
	comp=E,52nm,19.6s,baz=320,slow=32						
PDAR	Pinedale Array	34.70	333	P	P	14 49 09.9	+0.9
	comp=E,0.3nm,0.8s,mb3.3,baz=123,slow=9.9,SNR=3.4						
PDAR				PcP	PcP	14 51 42.5	+0.8
	comp=E,0.2nm,0.5s,baz=157,slow=4.9,SNR=3.5						
SCHQ	Schefferville	45.21	18	P	P	14 50 34.3	-1.6
	comp=E,1.1nm,0.5s,mb3.9,baz=166,slow=8.3,SNR=4.2						
YKA	Yellowknife Ar	52.78	345	P	P	14 51 33.2	-0.4
	comp=E,0.7nm,0.4s,mb4.0,baz=147,slow=7.1,SNR=21						
YKA	Yellowknife Ar	52.78	345	P	P	14 51 33.2	-0.4
RES	Resolute Bay	61.82	358	P	P	14 52 36.0	-1.1
	comp=E,0.5nm,0.6s,mb3.8,baz=214,slow=3.6,SNR=7.1						
INK	Inuvik	62.32	343	P	P	14 52 40.3	-0.3
	comp=E,0.7nm,0.6s,mb4.0,baz=132,slow=8.6,SNR=3.6						
WRA	Warramunga Arr	138.08	255	PKP	PKPdf	15 01 45.2	+1.4
	comp=E,0.2nm,0.5s,baz=88,slow=2.6,SNR=5.0						
ASAR	Alice Springs	138.17	249	PKP	PKPdf	15 01 45.2	+1.3
	comp=E,0.4nm,0.9s,baz=100,slow=2.8,SNR=3.4						
CMAR	Chiang Mai Arr	147.86	346	PKPbc	PKPbc	15 02 03.8	-0.3
	comp=E,0.3nm,0.6s,baz=328,slow=2.9,SNR=3.7						

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*NEIC **05** 14:45:17.9, 23°.92N×121°.45E, h17^{km}, ML4.0(TAP), After TAP.*

NEIC Recorded [4 TAP] in Hua-lien and [2 TAP] in Nan-t'ou.

*ISCJB **05** 14:45:18.4±0.3, 23°.91N±0°.01×121°.51E±0°.02, h12^{km}±2^{km}, Error ellipse: s-maj=4.0km s-min=1.9km az=20.9*

*TAP **05** 14:45:18.4, 23°.93N×121°.44E, h16^{km}, ML3.5, B*

ISC 05 14:45:18.4±0.3, 23°.91N±0°.01×121°.51E±0°.02, h14^{km}±2^{km}, n59, σ0^{s}.88/100, 7C-2D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESF	Shoufeng Towns	0.04	179	⇓iP	Pg	14 45 21.7	+0.8
	baz=132						
ESF				i S	Sg	14 45 23.9	+1.2
	baz=132						
HWA	Hwalien	0.11	54	⇑iP	Pg	14 45 22.8	+1.1
	baz=66						
HWA				i S	Sg	14 45 26.2	+2.2
	baz=66						
ESL	Shilin	0.12	215	⇓iP	Pg	14 45 22.1	+0.4
	baz=181						
ESL				S	Sg	14 45 24.2	+0.2
	baz=181						
TWD	Chiawan	0.19	26	i P	Pg	14 45 23.4	+0.6
	baz=39						
TWD				i S	Sg	14 45 26.7	+1.0
	baz=39						
TEGC	Jichi Village	0.20	171	eP	Pg	14 45 23.9	+1.0
	baz=161						
TEGC				eS	Sg	14 45 29.0	+2.9
	baz=161						
NACB	Ninganchiao	0.28	17	ePg	Pg	14 45 23.4	-0.8
NACB				eSg	Sg	14 45 27.8	-0.3
WHF	Hehuan Shan	0.32	317	⇑iP	Pg	14 45 24.8	-0.2
	baz=319						
WHF				S	Sg	14 45 29.4	0.0
	baz=319						
EHY	Hungye	0.44	203	⇑P	Pg	14 45 26.1	-1.0
	baz=187						
EHY				eS	Sg	14 45 32.7	-0.2
	baz=187						
SSLB	Suanglung	0.52	257	ePg	Pg	14 45 27.7	-0.9
SSLB				eSg	Sg	14 45 34.1	-1.4
NNS	Nan Shan	0.54	347	⇑iP	Pg	14 45 29.0	0.0
	baz=355						
NNS				S	Sg	14 45 36.0	-0.3
	baz=355						
YULB	Yu-li	0.55	200	ePg	Pg	14 45 27.6	-1.6
YULB				eSg	Sg	14 45 36.1	-0.4
SMLT	Sun Moon Lake	0.56	267	⇑iP	Pg	14 45 28.9	-0.4
	baz=265						
SMLT				S	Sg	14 45 35.7	-1.0
	baz=265						
ENA	Nanau	0.56	23	i P	Pg	14 45 29.0	-0.4
	baz=30						
TWF1	Yuli	0.59	199	eP	Pg	14 45 29.5	-0.4
	baz=187						
TWF1				eS	Sg	14 45 37.6	0.0
	baz=187						

TYC	Yuchr baz=267	0.59	270	⇑iP	Pg	14 45 29.4	-0.6
TYC	baz=267			S	Sg	14 45 36.4	-1.5
YUS	Yu-Shan baz=215	0.66	231	eP	Pg	14 45 31.2	0.0
YUS	baz=215			eS	Sg	14 45 40.1	+0.2
ENTT	Nioudou baz=10.0	0.73	4	P	Pg	14 45 32.1	-0.4
ENTT	baz=10.0			eS	Sg	14 45 41.9	-0.3
WNT	Mingjian baz=268	0.75	268	eP	Pg	14 45 33.2	+0.2
WNT	baz=268			eS	Sg	14 45 43.6	+0.7
ALS	Alishan baz=225	0.76	238	P	Pg	14 45 32.9	-0.1
ALS	baz=225			eS	Sg	14 45 42.2	-0.8
TWC	Suao baz=30	0.76	24	P	Pg	14 45 32.3	-0.9
TWC	baz=30			S	Sg	14 45 43.2	-0.1
YHNB	Yeheng	0.77	351	eP	Pg	14 45 32.5	-0.7
NSK	Sanguang baz=346	0.77	350	eP	Pg	14 45 32.4	-1.0
NSK	baz=346			i S	Sg	14 45 42.8	-0.8
TCU	Taichung baz=288	0.80	287	eP	Pg	14 45 34.2	+0.4
TWQ1	Liyutan baz=305	0.80	303	eP	Pg	14 45 34.0	+0.1
CHKT	Chengkung baz=171	0.82	189	eP	Pg	14 45 32.9	-1.3
CHKT	baz=171			eS	Sg	14 45 44.7	-0.2
CHN5	Tsauling baz=244	0.82	248	⇑iP	Pg	14 45 34.4	+0.1
CHN5	baz=244			S	Sg	14 45 46.0	+1.0
TWE	Neicheng baz=16	0.82	10	eP	Pg	14 45 33.2	-1.1
TWE	baz=16			eS	Sg	14 45 44.9	-0.1
NSY	Sanyi baz=309	0.85	307	P	Pb	14 45 35.2	+0.3
NSY	baz=309			eS	Sg	14 45 47.8	+1.9
ELDTW	Lidau baz=214	0.85	212	eP	Pb	14 45 33.9	-1.0
ELDTW	baz=214			eS	Sg	14 45 44.4	-1.4
NSTT	Nanjuang baz=331	0.85	327	i P	Pb	14 45 34.7	-0.3
NSTT	baz=331			S	Sg	14 45 44.9	-1.2
ILA	Ilan baz=21	0.88	14	eP	Pb	14 45 33.7	-1.7
WGK	Gukeng baz=253	0.89	256	eP	Pb	14 45 35.6	-0.1
WGK	baz=253			eS	Sb	14 45 48.2	+0.8
CHN4	Tsaushan baz=233	1.00	237	eP	Pb	14 45 37.4	-0.1
CHN4	baz=233			eS	Sb	14 45 51.7	+1.1
TPUB	Ta-pu	1.01	233	eP	Pb	14 45 37.2	-0.4
TPUB				eS	Sb	14 45 50.3	-0.4
STYT	Tauyuan baz=214	1.01	223	eP	Pb	14 45 37.2	-0.5
STYT	baz=214			eS	Sb	14 45 50.0	-0.8
HSN	Hsinchu baz=330	1.01	331	eP	Pb	14 45 38.9	+1.2
HSN	baz=330			eS	Sb	14 45 53.2	+2.3
CHN2	Minshiung baz=244	1.02	248	eP	Pb	14 45 37.4	-0.4
WTP	Ta-pu baz=215	1.05	231	eP	Pb	14 45 38.0	-0.3
WTP	baz=215			eS	Sb	14 45 53.0	+1.0
TWA	Mucha baz=8.0	1.07	4	eP	Pb	14 45 38.2	-0.5
TWA	baz=8.0			eS	Sb	14 45 51.9	-0.6
CHY	Chiayi baz=243	1.07	248	eP	Pb	14 45 39.1	+0.4
NCU	National Centr baz=349	1.09	345	eP	Pb	14 45 39.5	+0.4
NCU	baz=349			eS	Sb	14 45 55.5	+2.3
WTCT	Ta-ch’eng baz=266	1.12	268	eP	Pb	14 45 39.3	-0.3
WTCT	baz=266			eS	Sb	14 45 54.7	+0.7
TAP1	Taipei baz=22	1.12	1	eP	Pb	14 45 39.6	0.0
TWK	Hsinying baz=232	1.13	236	eP	Pb	14 45 40.0	+0.3
TWK	baz=232			eS	Sb	14 45 55.0	+0.7
CHN1	Nanshi baz=228	1.15	231	P	Pn	14 45 40.2	+0.2
CHN1	baz=228			S	Sb	14 45 56.2	+1.4
TWG	Pinlang	1.16	200	eP	Pn	14 45 39.5	-0.6
TWG	Pinlang baz=178	1.16	200	eP	Pn	14 45 39.3	-0.8
NWF	Wu-fen Shan baz=30	1.18	12	eP	Pn	14 45 39.8	-0.7
SGST	Jiashian baz=209	1.18	226	eP	Pn	14 45 40.4	0.0
SGST	baz=209			eS	Sb	14 45 56.9	+1.1
TWS1	Kuangyinshan baz=1.0	1.19	356	eP	Pn	14 45 40.6	0.0
TWS1	baz=1.0			eS	Sb	14 45 58.1	+2.2
WSF	Szhu baz=254	1.21	257	eP	Pn	14 45 40.7	-0.1
CHN8	Yiju baz=242	1.31	245	eP	Pn	14 45 42.0	-0.3
CHN8	baz=242			eS	Sb	14 46 00.8	+1.2
ECL	Taimali baz=181	1.40	201	eP	Pn	14 45 43.6	+0.1
SSD	Sandimen baz=208	1.41	215	eP	Pn	14 45 44.3	+0.7
TWM1	Shoushan baz=215	1.47	223	eP	Pn	14 45 45.9	+1.5
WDGT	Dungji baz=244	1.81	249	eP	Pn	14 45 48.2	-1.0
PNG	Penghu baz=256	1.82	260	eP	Pn	14 45 48.0	-1.2
QZH	Quanzhou	2.85	292	Pn	Pn	14 46 03.1	-0.3
QZH				Sn	Sn	14 46 33.5	-4.0
QZH	comp=N,60nm,0.2s			smax			
QZH	comp=E,30nm,0.5s			smax			
KNM	Kinmen baz=294	2.85	281	eP	Pn	14 46 04.1	+0.6

MAN 05 14:50:25, 18°.41N×122°.51E, h10^{km}, mb3.7, ML2.5, MS2.0, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	0.47	249	eP	Pg	14 50 35.2	+0.9
PALP	Palanan	1.35	184	eP	Pn	14 50 49.4	-0.4
CAUP	Cauayan	1.60	204	eP	Pn	14 50 55.3	+1.9
ABRA	Dolores	1.88	246	eP	Pn	14 50 57.6	+0.4

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*ISCJB **05** 14:50:28.2±0.2, 47°.21N±0°.01×6°.38E±0°.02, h8^{km}±2^{km}, Error ellipse: s-maj=2.3km s-min=1.8km az=19.0*

*CSEM **05** 14:50:29.3±0.1, 47°.20N×6°.44E, h10^{km}, ML2.8/22, Error ellipse: s-maj=2.3km s-min=1.8km az=105.0*

*ZUR **05** 14:50:29.8, 47°.22N×6°.49E, h8^{km}±2^{km}, ML2.2/10*

*STR **05** 14:50:29.8±0.2, 47°.22N×6°.48E, h10^{km}, Ml2.4, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*LDG **05** 14:50:30.3±0.1, 47°.20N×6°.45E, h10^{km}, Md2.7/3, Ml2.8/18, Error ellipse: s-maj=1.2km s-min=1.0km az=129.0*

*NEIC **05** 14:50:30.3, 47°.20N×6°.45E, h10^{km}, ML2.2(ZUR), ML2.4(STR), ML2.8(LDG), After LDG.*

*GEN **05** 14:50:33.2, 47°.04N×6°.51E, h2^{km}, ML2.1*

ISC 05 14:50:29.4±0.2, **47°.20N**±0°.01×**6°.43E**±0°.02, **h12**^{km}±2^{km}, **n108,** σ**0^{s}93**/199, **4C-6D, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRANT	Les Verrieres 761nm,0.6s	0.27	173	⇓iPg	Pg	14 50 35.6	+0.7
BRANT	761nm,0.6s			i Sg	Sg	14 50 39.7	+1.2
BRANT	Les Verrieres 761nm,0.6s	0.27	173	⇓iPg	Pg	14 50 35.6	+0.7
BRANT	761nm,0.6s			i Sg	Sg	14 50 39.7	+1.2
LOMF	Lomont	0.31	61	Pg	Pg	14 50 35.9	+0.2
LOMF				Sg	Sg	14 50 40.2	+0.3
LOMF	Lomont	0.31	61	Pg	Pg	14 50 35.9	+0.2
LOMF				Sg	Sg	14 50 40.2	+0.3
TORNY	Torny/Romont 143nm,0.2s	0.56	139	⇓iPg	Pg	14 50 40.7	+0.4
TORNY	143nm,0.2s			eSg	Sg	14 50 48.5	+0.8
TORNY	Torny/Romont 143nm,0.2s	0.56	139	⇓iPg	Pg	14 50 40.7	+0.4
TORNY	143nm,0.2s			eSg	Sg	14 50 48.5	+0.8
BOURR	Bourrignon 94nm,0.5s	0.58	70	⇑iPg	Pg	14 50 40.7	0.0
BOURR	94nm,0.5s			i Sg	Sg	14 50 48.2	-0.1
BOURR	Bourrignon 94nm,0.5s	0.58	70	⇑iPg	Pg	14 50 40.7	0.0
BOURR	94nm,0.5s			i Sg	Sg	14 50 48.2	-0.1
CABF	La Chapelle SNR=1.0	0.64	202	ePg	Pg	14 50 42.6	+0.9
CABF				eSg	Sg	14 50 50.3	+0.3
CABF	53nm,0.2s,SNR=1.0			eSn	Sg	14 50 54.2	+4.2
CABF	La Chapelle SNR=1.0	0.64	202	ePg	Pg	14 50 42.6	+0.9
CABF				eSg	Sg	14 50 50.3	+0.3
GIMEL	St. Georges / 286nm,0.2s	0.68	189	⇑iPg	Pg	14 50 43.3	+0.8
GIMEL	St. Georges / 286nm,0.2s	0.68	189	⇑iPg	Pg	14 50 43.3	+0.8
HINF	Hinteralfeld SNR=1.0	0.68	25	ePg	Pg	14 50 42.7	+0.1
HINF				eSg	Sg	14 50 51.2	-0.3
HINF	68nm,0.2s,SNR=1.0			eSn	Sg	14 50 54.0	+2.5
HINF	Hinteralfeld SNR=1.0	0.68	25	ePg	Pg	14 50 42.7	+0.1
HINF				eSg	Sg	14 50 51.2	-0.3
BBS	Basel-Blauen	0.78	70	Pg	Pg	14 50 44.3	-0.2
BBS				Sg	Sg	14 50 54.0	-0.7
BBS	Basel-Blauen	0.78	70	Pg	Pg	14 50 44.3	-0.2
BBS				Sg	Sg	14 50 54.0	-0.7
HAU	Haudompre SNR=1.0	0.81	356	ePn	Pn	14 50 47.0	+0.5
HAU	83nm,0.2s,SNR=1.0			eSg	Sg	14 50 55.8	+0.3
HAU	Haudompre	0.81	356	ePg	Pg	14 50 45.4	+0.4
HAU				ePn	Pn	14 50 47.0	+0.5
HAU				eSg	Sg	14 50 55.8	+0.3
HAU	Haudompre SNR=1.0	0.81	356	ePg	Pg	14 50 45.4	+0.4
HAU	Haudompre SNR=1.0	0.81	356	ePn	Pn	14 50 47.0	+0.5
HAU	42nm,0.2s,SNR=1.0			eSg	Sg	14 50 55.8	+0.3
MOF	Molkenrain	0.81	36	Pg	Pg	14 50 45.4	+0.4
MOF				Sg	Sg	14 50 56.0	+0.4
MOF	Molkenrain	0.81	36	Pg	Pg	14 50 45.4	+0.4
MOF				Sg	Sg	14 50 56.0	+0.4
BALST	Balsthal 165nm,0.3s	0.87	81	eP	Pg	14 50 44.9	-1.3
BALST	Balsthal 165nm,0.3s	0.87	81	eP	Pg	14 50 44.9	-1.3
OG01	Vacheresse	0.89	168	Pg	Pg	14 50 47.5	+1.0
OG01				Sg	Sg	14 51 00.1	+2.0
OG01	Vacheresse	0.89	168	Pg	Pg	14 50 47.5	+1.0
OG01				Sg	Sg	14 51 00.1	+2.0
AIGLE	Aigle 138nm,0.7s	0.93	157	eP	Pg	14 50 46.1	-1.3
AIGLE	Aigle	0.93	157	eP	Pg	14 50 46.5	-0.9
AIGLE	Aigle	0.93	157	eP	Pg	14 50 46.5	-0.9
GRYON	Gryon 13nm,0.5s	1.06	153	eP	Pb	14 50 47.7	-1.9
GRYON	Gryon 13nm,0.5s	1.06	153	eP	Pb	14 50 47.7	-1.9
THEF	They Montfort	1.07	344	Pg	Pg	14 50 50.6	+0.7
THEF				Sg	Sg	14 51 05.0	+1.2
THEF	They Montfort	1.07	344	Pg	Pg	14 50 50.6	+0.7
THEF				Sg	Sg	14 51 05.0	+1.2
SALAN	Lac Salanfe 22nm,0.4s	1.12	160	⇓iP	Pb	14 50 49.7	-1.0
SALAN	Lac Salanfe 22nm,0.4s	1.12	160	⇓iP	Pb	14 50 49.7	-1.0
ECH	Echery	1.13	26	Pg	Pg	14 50 50.2	-0.9
ECH				Sg	Sg	14 51 05.5	-0.3
ECH	Echery	1.13	26	Pg	Pg	14 50 50.2	-0.9
ECH				Sg	Sg	14 51 05.5	-0.3
EMV	Vieux Emosson 85nm,0.3s	1.18	164	eP	Pn	14 50 51.3	-0.4
EMV	Vieux Emosson 85nm,0.3s	1.18	164	eP	Pn	14 50 51.3	-0.4
FELD	Feldberg im Sc	1.26	57	Pg	Pg	14 50 53.1	-0.6
FELD				Sg	Sg	14 51 09.2	-0.9
FELD	Feldberg im Sc	1.26	57	Pg	Pg	14 50 53.1	-0.6
FELD				Sg	Sg	14 51 09.2	-0.9
CDF	Champ du Feu	1.34	25	ePg	Pg	14 50 54.4	-0.7
CDF	49nm,0.4s			eSg	Sg	14 51 12.1	-0.4
CDF	Champ du Feu	1.34	25	ePn	Pn	14 50 52.9	-0.9
CDF				ePg	Pg	14 50 54.4	-0.7
CDF				eSg	Sg	14 51 12.1	-0.4
CDF	Champ du Feu SNR=1.0	1.34	25	ePn	Pn	14 50 52.9	-0.9
CDF	Champ du Feu	1.34	25	ePg	Pg	14 50 54.4	-0.7
CDF	24nm,0.4s			eSg	Sg	14 51 12.1	-0.4
OG05	Jujurieux	1.34	210	Pg	Pg	14 50 55.4	+0.3
OG05				Sg	Sg	14 51 13.7	+1.2
OG05	Jujurieux	1.34	210	Pg	Pg	14 50 55.4	+0.3
OG05				Sg	Sg	14 51 13.7	+1.2
SFTF	Sexfontaines baz=139	1.37	317	ePg	Pg	14 50 56.0	+0.2
SFTF	22nm,0.2s,baz=140			eSg	Sg	14 51 14.1	+0.5
SFTF	Sexfontaines	1.37	317	ePg	Pg	14 50 56.0	+0.2
SFTF	11nm,0.2s			eSg	Sg	14 51 14.1	+0.5
SLE	Schleitheim 156nm,0.4s	1.51	67	ePn	Pn	14 50 52.3	-3.9
SLE	Schleitheim 156nm,0.4s	1.51	67	ePn	Pn	14 50 52.3	-3.9
RFYF	Reffroy	1.57	336	ePg	Pg	14 50 59.4	0.0
RFYF	35nm,0.4s			eSg	Sg	14 51 19.9	+0.2
RFYF	Reffroy	1.57	336	ePg	Pg	14 50 59.4	0.0
RFYF	18nm,0.4s			eSg	Sg	14 51 19.9	+0.2
MEZF	Maizieres J’vi baz=149,SNR=1.0	1.60	325	ePg	Pg	14 51 00.1	+0.1
MEZF	12nm,0.3s,baz=144			eSg	Sg	14 51 20.5	-0.2
MEZF	Maizieres J’vi SNR=1.0	1.60	325	ePg	Pg	14 51 00.1	+0.1
MEZF	6.2nm,0.3s			eSg	Sg	14 51 20.5	-0.2
LPL	La Plagne	1.70	173	ePg	Pg	14 51 01.7	-0.2
LPL	9.6nm,0.4s			eSg	Sg	14 51 23.9	-0.1
LPL	La Plagne	1.70	173	ePn	Pn	14 50 59.2	+0.4
LPL				ePg	Pg	14 51 01.7	-0.2
LPL				eSg	Sg	14 51 23.9	-0.1
LPL	La Plagne	1.70	173	ePn	Pn	14 50 59.2	+0.4
LPL	La Plagne	1.70	173	ePg	Pg	14 51 01.7	-0.2
LPL	4.8nm,0.4s			eSg	Sg	14 51 23.9	-0.1
BFO	Black Forest SNR=5.1	1.71	48	ePg	Pg	14 51 01.8	-0.3
BFO				eSg	Sg	14 51 23.0	-1.3
BFO	Black Forest	1.71	48	ePn	Pn	14 51 01.5	+2.6
BFO				eS	Sn	14 51 22.8	+2.2
BFO	Black Forest	1.71	48	ePn	Pn	14 51 01.5	+2.6
BFO				eS	Sn	14 51 22.8	+2.1
LPG	La Plagne	1.72	172	ePg	Pg	14 51 02.2	-0.1
LPG	7.7nm,0.3s,SNR=1.0			eSg	Sg	14 51 24.6	0.0
LPG	La Plagne	1.72	172	ePn	Pn	14 50 59.8	+0.8
LPG				ePg	Pg	14 51 02.2	-0.1
LPG				eSg	Sg	14 51 24.6	0.0
LPG	La Plagne	1.72	172	ePn	Pn	14 50 59.8	+0.8
LPG	La Plagne	1.72	172	ePg	Pg	14 51 02.2	-0.1
LPG	3.8nm,0.3s,SNR=1.0			eSg	Sg	14 51 24.6	0.0
LOR	Lormes baz=101,SNR=1.0	1.75	273	ePn	Pn	14 51 00.0	+0.5
LOR	Lormes baz=105	1.75	273	eP	Pn	14 51 02.1	+2.6
LOR	Lormes baz=98	1.75	273	ePg	Pg	14 51 03.2	+0.2
LOR	24nm,0.3s,baz=94			eSg	Sg	14 51 25.4	-0.3
LOR	Lormes	1.75	273	ePn	Pn	14 51 00.0	+0.5
LOR				eP		14 51 02.1	
LOR				ePg	Pg	14 51 03.2	+0.2
LOR				eSg	Sg	14 51 25.4	-0.3
LOR	Lormes SNR=1.0	1.75	273	ePn	Pn	14 51 00.0	+0.5
LOR	Lormes	1.75	273	eP	Pn	14 51 02.1	+2.6
LOR	Lormes	1.75	273	ePg	Pg	14 51 03.2	+0.2
LOR	12nm,0.3s			eSg	Sg	14 51 25.4	-0.3
LSD	Lago del Serru	1.81	164	P	Pn	14 51 03.3	+3.0
LSD				S	Sn	14 51 23.9	+0.8
SMF	Signal de Mont	1.86	254	ePg	Pg	14 51 04.8	-0.2
SMF	9.5nm,0.2s,SNR=1.0			eSg	Sg	14 51 29.6	+0.5
SMF	Signal de Mont	1.86	254	ePn	Pn	14 51 00.8	-0.1
SMF				ePg	Pg	14 51 04.8	-0.2
SMF				eSg	Sg	14 51 29.6	+0.5
SMF	Signal de Mont SNR=1.0	1.86	254	ePn	Pn	14 51 00.8	-0.1
SMF	Signal de Mont	1.86	254	ePg	Pg	14 51 04.8	-0.2
SMF	4.8nm,0.2s,SNR=1.0			eSg	Sg	14 51 29.6	+0.5
SSF	Saint Saulge	2.00	267	ePg	Pg	14 51 07.6	-0.1
SSF	6.3nm,0.2s,SNR=1.0			eSg	Sg	14 51 33.6	0.0
SSF	Saint Saulge	2.00	267	eP	Pn	14 51 05.5	+2.6
SSF				ePg	Pg	14 51 07.6	-0.1
SSF				eSg	Sg	14 51 33.6	0.0
SSF	Saint Saulge SNR=1.0	2.00	267	eP	Pn	14 51 05.5	+2.6
SSF	Saint Saulge	2.00	267	ePg	Pg	14 51 07.6	-0.1
SSF	3.2nm,0.2s,SNR=1.0			eSg	Sg	14 51 33.6	0.0
RSP	Reno Superiore	2.13	164	P	Pn	14 51 06.5	+1.7
RSP				S	Sn	14 51 29.2	-1.9
AVF	Avril sur Loir	2.14	260	ePg	Pg	14 51 10.5	0.0
AVF	3.5nm,0.2s,SNR=1.0			eSg	Sg	14 51 38.0	-0.2
AVF	Avril sur Loir	2.14	260	ePn	Pn	14 51 05.4	+0.5
AVF				ePg	Pg	14 51 10.5	0.0
AVF				eSg	Sg	14 51 38.0	-0.2
AVF	Avril sur Loir SNR=1.0	2.14	260	ePn	Pn	14 51 05.4	+0.5
AVF	Avril sur Loir	2.14	260	ePg	Pg	14 51 10.5	0.0
AVF	1.8nm,0.2s,SNR=1.0			eSg	Sg	14 51 38.0	-0.2
ORIF	Oris-en-Rattie	2.31	190	ePg	Pg	14 51 13.5	-0.2
ORIF	12nm,0.4s,SNR=1.0			eSg	Sg	14 51 43.0	-0.7
ORIF	Oris-en-Rattie	2.31	190	ePn	Pn	14 51 07.5	+0.3
ORIF				ePg	Pg	14 51 13.5	-0.2
ORIF				eSg	Sg	14 51 43.0	-0.7
ORIF	Oris-en-Rattie SNR=1.0	2.31	190	ePn	Pn	14 51 07.5	+0.3
ORIF	Oris-en-Rattie	2.31	190	ePg	Pg	14 51 13.5	-0.2
ORIF	6.2nm,0.4s,SNR=1.0			eSg	Sg	14 51 43.0	-0.7
MBDF	Montbardon 2.4nm,0.3s,SNR=1.0	2.49	174	eSg	Sg	14 51 48.5	-0.7
MBDF	Montbardon 1.2nm,0.3s,SNR=1.0	2.49	174	eSg	Sg	14 51 48.5	-0.7
BGF	Bois d’Agland	2.54	257	ePg	Pg	14 51 17.4	-0.6
BGF	10nm,0.3s			eSg	Sg	14 51 50.0	-0.9
BGF	Bois d’Agland	2.54	257	ePg	Pg	14 51 17.4	-0.6
BGF	5.1nm,0.3s			eSg	Sg	14 51 50.0	-0.9
VIVF	Saint-Julien-l SNR=1.0	2.65	208	ePg	Pg	14 51 19.0	-1.0
VIVF	6.6nm,0.2s,SNR=1.0			eSg	Sg	14 51 53.6	-0.7
VIVF	Saint-Julien-l SNR=1.0	2.65	208	ePg	Pg	14 51 19.0	-1.0
VIVF	3.3nm,0.2s,SNR=1.0			eSg	Sg	14 51 53.6	-0.7
PZZ	Stroppo	2.74	170	P	Pn	14 51 14.9	+1.9
PZZ				S	Sn	14 51 43.4	-2.6
TCF	Toulx Ste Croi	3.04	254	ePg	Pg	14 51 26.8	-0.8
TCF				eSn	Sn	14 51 53.0	-0.5
TCF	4.9nm,0.5s			eSg	Sg	14 52 06.2	-0.8
TCF	Toulx Ste Croi	3.04	254	ePn	Pn	14 51 17.4	+0.2
TCF				ePg	Pg	14 51 26.8	-0.8
TCF				eSn	Sn	14 51 53.0	-0.5
TCF				eSg	Sg	14 52 06.2	-0.8
TCF	Toulx Ste Croi	3.04	254	ePn	Pn	14 51 17.4	+0.2
TCF	Toulx Ste Croi	3.04	254	ePg	Pg	14 51 26.8	-0.8
TCF				eSn	Sn	14 51 53.0	-0.5
TCF	2.5nm,0.5s			eSg	Sg	14 52 06.2	-0.8
GIVF	Givet SNR=1.0	3.09	340	eSn	Sn	14 51 53.4	-1.3
GIVF	21nm,0.4s			eSg	Sg	14 52 08.6	0.0
GIVF	Givet SNR=1.0	3.09	340	eSn	Sn	14 51 53.4	-1.3
GIVF	10nm,0.4s			eSg	Sg	14 52 08.6	0.0
BAIF	Baives 16nm,0.6s	3.22	334	eSg	Sg	14 52 12.1	-0.5
BAIF	Baives 8.1nm,0.6s	3.22	334	eSg	Sg	14 52 12.1	-0.5
LASF	Ste Croix	3.61	211	ePn	Pn	14 51 24.2	-0.8
LASF	3.8nm,0.4s,SNR=1.0			eSg	Sg	14 52 23.0	-2.2
LASF	Ste Croix	3.61	211	ePn	Pn	14 51 24.2	-0.8
LASF	1.9nm,0.4s,SNR=1.0			eSg	Sg	14 52 23.0	-2.2

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*ISCJB **05** 15:04:36.7±0.7, 13°.27N±0°.09×50°.19E±0°.05, h10^{km}, mb4.0/13, MS3.2/7, Error ellipse: s-maj=13.4km s-min=6.4km az=3.7*

*IDC **05** 15:04:37.4±0.9, 13°.30N×50°.39E, h0^{km}, mb4.0/14, mb1 4.1/14, mb1mx4.0/26, mbtmp4.0/14, MS3.3/7, Ms1 3.3/7, ms1mx3.0/31, Error ellipse: s-maj=26.3km s-min=18.2km az=21.0*

*NEIC **05** 15:04:38.5±0.7, 13°.26N×50°.34E, h10^{km}, mb4.0/1, Error ellipse: s-maj=17.3km s-min=11.0km az=201.0*

*CSEM **05** 15:04:41.7±0.4, 13°.25N×50°.24E, h30^{km}, ML3.3, Error ellipse: s-maj=16.4km s-min=8.4km az=4.0*

*DHMR **05** 15:04:43.5±1.1, 13°.38N×49°.77E, h12^{km}±93^{km}, ML3.3*

ISC 05 15:04:38.9±0.7, **13°.33N**±0°.10×**50°.20E**±0°.05, **h10**^{km}**, n45,** σ**1^{s}10**/42, **mb4.0**/13, **MS3.2**/7, **5C, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	Al Mukalla	1.60	315	⇑iP	Pn	15 05 07.2	0.0
MUKL				i S	Sn	15 05 25.9	-2.1
MUKL	comp=N,313nm,0.6s			AML	AML	15 05 30.6	
BDHA	Al Bayda’	4.54	279	⇑iP	Pn	15 05 49.6	+1.9
BDHA	comp=E,148nm,0.7s			AML	AML	15 05 56.3	
BDHA				i S	Sn	15 06 39.9	-0.7
BDHA	Al Bayda’	4.54	279	⇑iP	Pn	15 05 49.7	+2.0
BDHA				i S	Sn	15 06 39.9	-0.8
TRBA	At Turbah	5.92	270	⇑iP	Pn	15 06 07.0	+0.4
TRBA				i S	Sn	15 07 13.4	-1.2

TRBA	At Turbah	5.92	270	⇑iP	Pn	15 06 07.0	+0.3
TRBA				i S	Sn	15 07 13.4	-1.2
EIL	Elat	21.54	321	P	P	15 09 28.3	0.0
	comp=E,1.8nm,0.4s,mb3.9,baz=63,slow=16,SNR=2.1						
EIL				LR	LR	15 16 57.2	
	comp=E,49nm,19.5s,MS2.9,baz=277,slow=34						
EIL	Elat	21.54	321	P	P	15 09 28.3	0.0
EIL				LR	LR	15 16 57.2	
EIL	Elat	21.54	321	P	P	15 09 28.3	0.0
ASF	Jabal al Asfar	22.37	329	LR	LR	15 18 58.9	
	comp=E,75nm,21.4s,MS3.1,baz=40,slow=38						
MMAI	Mount Meron Ar	23.80	328	LR	LR	15 20 01.3	
	comp=E,67nm,18.5s,MS3.1,baz=150,slow=39						
GNI	Garni	27.14	351	LR	LR	15 23 04.2	
	comp=E,113nm,18.6s,MS3.5,baz=278,slow=41						
IDI	Anoyia	31.61	318	P	P	15 11 02.4	+0.4
	comp=E,1.8nm,0.7s,mb4.0,baz=125,slow=7.5,SNR=4.9						
IDI	Anoyia	31.61	318	P	P	15 11 02.4	+0.5
AKASG	Malin Array Be	40.99	340	P	P	15 12 23.0	+1.1
	comp=E,2.7nm,0.7s,mb4.0,baz=147,slow=7.1,SNR=12						
AKASG	Malin Array Be	40.99	340	P	P	15 12 23.0	+1.1
BVAR	Borovoye Array	42.74	18	P	P	15 12 36.5	+0.4
	comp=E,0.5nm,0.6s,baz=202,slow=7.5,SNR=5.6						
BVAR				PcP	PcP	15 14 28.0	+0.4
	comp=E,0.6nm,0.7s,baz=222,slow=4.0,SNR=5.1						
BVAR	Borovoye Array	42.74	18	P	P	15 12 36.5	+0.3
BVAR	Borovoye Array	42.74	18	PcP	PcP	15 14 28.0	+0.4
MKAR	Makanchi Array	42.86	32	P	P	15 12 37.1	-0.1
	comp=E,0.7nm,0.6s,mb3.6,baz=220,slow=8.5,SNR=12						
MKAR	Makanchi Array	42.86	32	P	P	15 12 37.1	-0.1
KURK	Kurchatov	43.86	26	eP	P	15 12 45.5	+0.2
	comp=E,2.1nm,0.8s,mb3.9						
KURK	Kurchatov	43.86	26	eP	P	15 12 45.5	+0.3
	comp=E,2.1nm,0.8s,mb3.9						
GERES	GERESS Array B	46.45	327	P	P	15 13 07.2	+1.3
	comp=E,0.3nm,0.6s,baz=67,slow=3.5,SNR=3.8						
GERES	GERESS Array B	46.45	327	P	P	15 13 07.2	+1.3
CMAR	Chiang Mai Arr	47.05	77	P	P	15 13 08.9	-2.2
	comp=E,0.8nm,0.7s,mb3.8,baz=268,slow=7.3,SNR=7.7						
CMAR				LR	LR	15 31 59.3	
	comp=E,14nm,18.1s,MS3.0,baz=230,slow=35						
CMAR	Chiang Mai Arr	47.05	77	P	P	15 13 08.9	-2.2
TORD	Torodi Ar. Bea	47.15	276	P	P	15 13 13.8	+1.9
	comp=E,1.0nm,0.8s,mb3.8,baz=82,slow=7.5,SNR=6.5						
TORD				PcP	PcP	15 14 45.4	+1.8
	comp=E,0.5nm,0.9s,baz=88,slow=2.5,SNR=2.4						
TORD	Torodi Ar. Bea	47.15	276	P	P	15 13 13.8	+1.9
TORD	Torodi Ar. Bea	47.15	276	PcP	PcP	15 14 45.4	+1.8
BOSA	Boshof	48.17	210	LR	LR	15 36 46.0	
	comp=E,54nm,19.1s,MS3.5,baz=230,slow=40						
ZALV	Zalesovo Beam	48.83	26	P	P	15 13 23.4	-0.9
	comp=E,1.9nm,0.7s,mb4.2,baz=231,slow=9.4,SNR=10.0						
HFS	Hagfors	53.84	338	P	P	15 14 02.4	+0.6
	comp=E,4.6nm,0.7s,mb4.5,baz=166,slow=7.2,SNR=6.6						
HFS	Hagfors	53.84	338	P	P	15 14 02.4	+0.6
NB2	NORSAR Subarra	55.36	338	P	P	15 14 13.1	+0.3
	comp=Z,3.2nm,0.8s,mb4.4,baz=131,slow=7.4						
NB2	NORSAR Subarra	55.36	338	P	P	15 14 13.1	+0.3
	comp=Z,3.2nm,0.8s,mb4.4,SNR=4.3						
NOA	NORSAR Array B	55.36	338	P	P	15 14 13.1	+0.4
	comp=Z,1.7nm,0.8s,mb4.1,baz=134,slow=5.6,SNR=4.7						
NOA				LR	LR	15 42 29.2	
	comp=Z,23nm,19.1s,MS3.3,baz=90,slow=41						
NOA	NORSAR Array B	55.36	338	P	P	15 14 13.1	+0.3
SONM	Songino Array	57.71	41	P	P	15 14 30.4	+0.6
	comp=Z,1.6nm,0.9s,mb4.0,baz=240,slow=7.5,SNR=9.6						
SONM	Songino Array	57.71	41	P	P	15 14 30.4	+0.6
WRA	Warramunga Arr	89.10	111	P	P	15 17 34.4	-0.6
	comp=Z,1.5nm,0.8s,mb4.4,baz=301,slow=3.7,SNR=12						
WRA	Warramunga Arr	89.10	111	P	P	15 17 34.4	-0.6
ASAR	Alice Springs	89.64	114	P	P	15 17 35.6	-1.8
	comp=Z,1.2nm,0.9s,mb4.2,baz=278,slow=5.4,SNR=7.6						
ASAR	Alice Springs	89.64	114	P	P	15 17 35.7	-1.8
NVAR	Mina Array Bea	127.40	349	PKP	PKPdf	15 23 45.0	+0.6
	comp=Z,0.5nm,0.7s,baz=335,slow=1.5,SNR=3.5						
NVAR	Mina Array Bea	127.40	349	PKIKP	PKPdf	15 23 45.0	+0.6

IDC 05 15:14:49.6±50.0**, 16°.49S×179°.04W, h0km, mb4.0**/3**, mb1 4.2**/3**, mb1mx3.7**/17**, mbtmp4.0**/3**, Error ellipse: s-maj=909.7km s-min=158.5km az=77.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	38.80	239	P	P	15 22 15.8	-0.5
	1.5nm,0.8s,baz=100,slow=11,SNR=3.5						
WRA	Warramunga Arr	44.31	258	P	P	15 23 01.9	+0.3
	0.4nm,0.3s,baz=91,slow=7.3,SNR=28						
ASAR	Alice Springs	44.61	253	P	P	15 23 03.9	-0.1
	4.5nm,0.6s,baz=87,slow=8.8,SNR=110						

*ISCJB **05** 15:20:26.7±0.6, 36°.98N±0°.04×29°.21E±0°.04, h4km±7km, Error ellipse: s-maj=7.5km s-min=4.6km az=165.8*
*CSEM **05** 15:20:26.9±0.1, 36°.99N×29°.22E, h8km, MD2.9, Error ellipse: s-maj=3.3km s-min=2.9km az=165.0*
*ISK **05** 15:20:26.1, 36°.99N×29°.22E, h6km, MD2.9*
*DDA **05** 15:20:30.2, 37°.10N×29°.29E, h28km, Md2.9*
ISC 05 15:20:27.2±0.6**, 36°.98N**±0°.04×**29°.22E**±0°.04**, h9**km±6km**, n28, σ0ˢ.59**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.36	197	ePG	Pg	15 20 33.8	-0.5
FETY	Fethiye	0.36	197	ePg	Pg	15 20 33.8	-0.5
GOLH	Golhisar	0.38	47	i P	Pg	15 20 34.2	-0.4
GOLH				i S	Sg	15 20 41.1	+1.5
GOLH	Golhisar	0.38	47	i P	Pg	15 20 34.2	-0.4
GOLH				i S	Sg	15 20 41.1	+1.4
TURN	Turunc	0.50	258	i P	Pg	15 20 41.8	+4.8
TURN				i S	Sg	15 20 50.9	+7.3
DALT	Dalyan (Mudla)	0.51	246	ePG	Pg	15 20 36.5	-0.6
DALT				eSG	Sg	15 20 44.3	+0.5
DALT	Dalyan (Mudla)	0.51	246	ePg	Pg	15 20 36.5	-0.6
DALT				eSg	Sg	15 20 44.3	+0.5
ELL	Elmali	0.60	112	ePG	Pg	15 20 38.3	-0.5
ELL	Elmali	0.60	112	ePg	Pg	15 20 38.3	-0.5
YER	Yerkesik	0.76	282	ePG	Pg	15 20 41.4	-0.5
YER				eSG	Sg	15 20 52.1	+0.2
YER	Yerkesik	0.76	282	ePg	Pg	15 20 41.4	-0.5
YER				eSg	Sg	15 20 52.1	+0.2
DENT	Denizli	0.79	349	ePG	Pg	15 20 41.5	-0.9
DENT	Denizli	0.79	349	ePg	Pg	15 20 41.5	-0.9
AKAS	Kas	0.81	157	i P	Pg	15 20 43.7	+1.0
AKAS				i S	Sg	15 20 58.9	+5.6
AKAS	Kas	0.81	157	i P	Pg	15 20 43.7	+1.0
AYDN	Tasoluk	1.27	303	i P	Pn	15 20 51.4	+0.4
AYDN				i S	Sb	15 21 08.1	+0.6
AYDN	Tasoluk	1.27	303	i P	Pn	15 20 51.4	+0.4
AYDN				i S	Sb	15 21 08.1	+0.6
DAT	Datca	1.34	260	ePN	Pn	15 20 52.1	+0.1
DAT	Datca	1.34	260	ePn	Pn	15 20 52.1	+0.1
ISP	Isparta	1.34	50	ePN	Pn	15 20 51.7	-0.4
ISP	Isparta	1.34	50	ePn	Pn	15 20 51.7	-0.4
KHL	Karahalli	1.36	10	ePN	Pn	15 20 52.1	-0.3
KHL	Karahalli	1.36	10	ePn	Pn	15 20 52.1	-0.3
BDRM	Kayabasi	1.42	274	i P	Sg	15 21 12.9	0.0
BODT	Bodrum	1.53	274	ePN	Pn	15 20 54.8	+0.2
BODT	Bodrum	1.53	274	ePn	Pn	15 20 54.8	+0.2
KULA	Kula-Manisa	1.60	344	ePN	Pn	15 20 55.2	-0.3
KULA	Kula-Manisa	1.60	344	ePn	Pn	15 20 55.2	-0.3

*IDC **05** 15:31:55.7±1.8, 0°.78N×124°.85E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.4/18, mbtmp3.5/3, Error ellipse: s-maj=178.2km s-min=24.3km az=64.0*
*ISCJB **05** 15:32:08.4±0.8, 0°.50S±0°.06×122°.90E±0°.06, h33km, mb3.4/3, Error ellipse: s-maj=10.0km s-min=7.3km az=137.6*
*DJA **05** 15:32:09, 0°.56S×122°.94E, h30km, MLv4.1/5*
ISC 05 15:32:10.3±0.8**, 0°.51S**±0°.06×**122°.89E**±0°.06**, h35**km**, n12, σ0ˢ.99**/15**, mb3.4**/3**, 3D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	2.75	45	⇓eP	Pn	15 32 50.0	-2.0
MNI				eS	Sx	15 33 14.0	
MNI	Manado	2.75	45	P	Pn	15 32 50.6	-1.4
PCI	Palu	3.07	263	⇓eP	Pn	15 32 56.5	+0.1
PCI				i S	x	15 32 58.5	
PCI	Palu	3.07	263	P	Pn	15 32 56.2	-0.2
KDI	Kendari	3.43	184	⇓eP	Pn	15 33 00.7	-0.7
KDI				eS	Sn	15 33 41.2	+0.3
KDI	Kendari	3.43	184	P	Pn	15 33 00.9	-0.5
KDI				S	Sn	15 33 41.5	+0.6
LBMI	Labuha	4.62	92	P	Pn	15 33 16.4	-1.2
TNTI	Ternate	4.66	74	P	Pn	15 33 19.5	+1.3
TNTI				S	Sn	15 34 12.0	+0.9
MYLDM	Lahad Datu	7.15	322	P	Pn	15 33 53.2	+0.7
WRA	Warramunga Arr	22.33	151	P	P	15 36 58.5	-6.6
	1.0nm,0.7s,mb3.4,baz=338,slow=10,SNR=12						
ASAR	Alice Springs	25.38	156	P	P	15 37 28.7	-5.7
	0.5nm,0.6s,mb3.2,baz=343,slow=14,SNR=16						
MKAR	Makanchi Array	58.98	329	P	P	15 41 57.0	-9.3
	0.3nm,0.6s,mb3.5,baz=127,slow=7.9,SNR=7.6						

*ISCJB **05** 15:50:52.2±0.3, 45°.74N±0°.02×14°.33E±0°.02, h10km, Error ellipse: s-maj=2.6km s-min=2.1km az=18.9*
*CSEM **05** 15:50:52.0±0.1, 45°.73N×14°.33E, h20km, ML2.7/13, Error ellipse: s-maj=2.4km s-min=1.7km az=6.0*
*VIE **05** 15:50:52.6±0.3, 45°.77N×14°.35E, h11km±2km, mb1.7/1, ML2.1/5, Error ellipse: s-maj=1.6km s-min=0.8km az=177.0   35 km SSW of Ljubljana*
*LJU **05** 15:50:52.2, 45°.74N×14°.34E, h14km, ML2.1*
ISC 05 15:50:52.5±0.5**, 45°.73N**±0°.02×**14°.35E**±0°.02**, h16**km±5km**, n63, σ0ˢ.62**/104**, 14C-7D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEY	Cerknica	0.06	83	⇑iPg	Pg	15 50 55.3	-0.2
CEY				i Sg	Sg	15 50 57.0	-0.5
CEY							
	comp=Z,237nm,0.1s						
KNDS	Knezji Dol	0.21	174	⇓iPg	Pg	15 50 57.1	-0.2
KNDS				i Sg	Sg	15 51 00.5	0.0
KNDS							
	comp=Z,57nm,0.1s						
JAVS	Javornik	0.26	309	i Pg	Pg	15 50 57.8	-0.3
JAVS				i Sg	Sg	15 51 01.8	-0.1
JAVS							
	comp=Z,230nm,0.2s						
SKDS	Skadanscina	0.30	232	i Pg	Pg	15 50 58.5	-0.4
SKDS				i Sg	Sg	15 51 03.4	+0.3
SKDS							
	comp=Z,184nm,0.1s						
SKDS	Skadanscina	0.30	232	i Pg	Pg	15 50 58.5	-0.3
SKDS				i Sg	Sg	15 51 03.4	+0.3
	comp=Z,184nm,0.1s						
LJU	Ljubljana	0.34	22	i Pg	Pg	15 50 59.8	+0.3
LJU				i Sg	Sg	15 51 04.4	+0.2
LJU	Ljubljana	0.34	22	i Pg	Pg	15 50 59.8	+0.3
LJU				i Sg	Sg	15 51 04.4	+0.2
VISS	Visnje	0.35	78	i Pg	Pg	15 50 59.7	-0.1
VISS				i Sg	Sg	15 51 04.7	+0.1
VISS							
	comp=Z,59nm,0.1s						
VISS	Visnje	0.35	78	i Pg	Pg	15 50 59.7	-0.1
VISS				i Sg	Sg	15 51 04.7	0.0
	comp=Z,59nm,0.1s						
TRI	Trieste	0.41	267	⇑iPg	Pg	15 51 00.2	-0.6
TRI				i Sg	Sg	15 51 06.7	+0.4
TRI	Trieste	0.41	267	i Pg	Pg	15 51 00.2	-0.6
TRI				i Sg	Sg	15 51 06.7	+0.3
VOJS	Vojsko	0.44	313	⇑iPg	Pg	15 51 00.9	-0.5
VOJS				i Sg	Sg	15 51 07.8	+0.5
VOJS							
	comp=Z,50nm,0.1s						
VOJS	Vojsko	0.44	313	⇑iPg	Pg	15 51 00.9	-0.5
VOJS				i Sg	Sg	15 51 07.8	+0.4
	comp=Z,50nm,0.1s						
VNDS	Vrh nad Dolski	0.44	34	⇓iPg	Pg	15 51 01.7	+0.2
VNDS				i Sg	Sg	15 51 07.5	0.0
VNDS	Vrh nad Dolski	0.44	34	⇓iPg	Pg	15 51 01.7	+0.3
VNDS				i Sg	Sg	15 51 07.5	0.0
PDKS	Podkum	0.56	54	i Pg	Pg	15 51 03.8	+0.3
PDKS							
	comp=Z,21nm,0.1s						
PDKS	Podkum	0.56	54	i Pg	Pg	15 51 03.8	+0.2
	comp=Z,21nm,0.1s						
MOZS	Mozjanca	0.57	7	i Pg	Pg	15 51 04.2	+0.5
MOZS	Mozjanca	0.57	7	i Pg	Pg	15 51 04.2	+0.5
GORS	Gorjuse	0.63	337	i Pg	Pg	15 51 05.2	+0.2
GORS				i Sg	Sg	15 51 14.1	+0.7
GORS							
	comp=Z,18nm,0.1s						
GORS	Gorjuse	0.63	337	i Pg	Pg	15 51 05.2	+0.3
GORS				i Sg	Sg	15 51 14.1	+0.7
	comp=Z,18nm,0.1s						
CADS	Cadrg	0.65	320	ePg	Pg	15 51 04.9	-0.4
CADS				i Sg	Sg	15 51 14.4	+0.4
CADS							
	comp=Z,26nm,0.1s						
CADS	Cadrg	0.65	320	ePg	Pg	15 51 04.9	-0.4
CADS				i Sg	Sg	15 51 14.4	+0.4
	comp=Z,26nm,0.1s						
DRE	Drenchia	0.66	312	⇑iPg	Pg	15 51 04.6	-0.8
DRE				i Sg	Sg	15 51 14.7	+0.5
DRE	Drenchia	0.66	312	i Pg	Pg	15 51 04.6	-0.8
DRE				i Sg	Sg	15 51 14.7	+0.5
BOJS	Bojanci	0.68	109	i Pg	Pg	15 51 05.5	-0.1
BOJS	Bojanci	0.68	109	i Pg	Pg	15 51 05.5	-0.2
LEGS	Legarje	0.71	72	ePg	Pg	15 51 06.4	0.0
LEGS	Legarje	0.71	72	ePg	Pg	15 51 06.4	0.0
CRES	Cresnjev	0.78	83	i Pg	Pg	15 51 07.8	+0.1
CRES	Cresnjev	0.78	83	i Pg	Pg	15 51 07.8	+0.1
COLI	Coloredo	0.79	301	⇑iPg	Pg	15 51 07.3	-0.5
COLI				i Sg	Sg	15 51 19.1	+1.0
COLI	Coloredo	0.79	301	i Pg	Pg	15 51 07.3	-0.5
COLI				i Sg	Sg	15 51 19.1	+0.9
OBKA	Obir	0.79	10	⇓iPg	Pg	15 51 07.7	-0.1
OBKA				⇑iSg	Sg	15 51 18.0	-0.3
	comp=Z,8.4nm,0.1s						
OBKA	Obir	0.79	10	Pg	Pg	15 51 07.7	-0.2
OBKA				Sg	Sg	15 51 18.0	-0.3
	comp=Z,8.4nm,0.1s						
ZAVS	Zavodnje	0.84	34	i Pg	Pg	15 51 09.0	+0.1
ZAVS	Zavodnje	0.84	34	i Pg	Pg	15 51 09.0	+0.1
BAD	Bernadia	0.92	304	ePg	Pg	15 51 09.8	-0.5
BAD				eSg	Sg	15 51 23.4	+1.0
BAD	Bernadia	0.92	304	ePg	Pg	15 51 09.8	-0.5
BAD				eSg	Sg	15 51 23.4	+1.0
GOLS	Golise	0.94	72	i Pg	Pg	15 51 10.9	+0.3
GOLS							
	comp=Z,17nm,0.2s						
GOLS	Golise	0.94	72	i Pg	Pg	15 51 10.9	+0.3
	comp=Z,17nm,0.2s						
ACOM	Acomizza, Ital	1.00	325	ePg	Pg	15 51 12.8	+0.9
ACOM	Acomizza, Ital	1.00	325	ePg	Pg	15 51 12.8	+0.9
MYKA	Terra Mystica	1.02	332	⇑iPg	Pg	15 51 12.5	+0.2
MYKA				⇑iSg	Sg	15 51 26.0	+0.3
	comp=Z,8.2nm,0.2s						
MYKA	Terra Mystica	1.02	332	Pg	Pg	15 51 12.5	+0.2
MYKA				Sg	Sg	15 51 26.0	+0.3
	comp=Z,8.2nm,0.2s						
PERS	Pernice	1.05	30	i Pg	Pg	15 51 12.5	-0.3
PERS							
	comp=Z,29nm,0.2s						
PERS	Pernice	1.05	30	i Pg	Pg	15 51 12.5	-0.3
	comp=Z,29nm,0.2s						
SOKA	Soboth	1.06	26	⇑iPg	Pg	15 51 12.6	-0.3
SOKA				⇑iSg	Sg	15 51 26.1	-0.7
	comp=Z,2.6nm,0.2s						
SOKA	Soboth	1.06	26	Pg	Pg	15 51 12.6	-0.4
SOKA				Sg	Sg	15 51 26.1	-0.7
	comp=Z,2.6nm,0.2s						
BISS	Bistriski jare	1.06	30	i Pg	Pg	15 51 12.8	-0.2
BISS	Bistriski jare	1.06	30	i Pg	Pg	15 51 12.8	-0.3
NVLJ	Novalja	1.23	162	ePg	Pg	15 51 16.7	+0.6
NVLJ				Sg	Sg	15 51 34.1	+2.0
NVLJ	Novalja	1.23	162	ePg	Pg	15 51 16.7	+0.6
NVLJ				Sg	Sg	15 51 34.1	+2.0
CAE	Caneva	1.36	282	⇓iPg	Pg	15 51 18.2	-0.5
CAE				i Sg	Sg	15 51 36.8	+0.3
CAE	Caneva	1.36	282	i Pg	Pg	15 51 18.2	-0.5
CAE				i Sg	Sg	15 51 36.8	+0.3
CIMO	Cimolais	1.45	294	⇓iPg	Pg	15 51 18.4	-1.9
CIMO				eSg	Sg	15 51 39.0	-0.2
CIMO	Cimolais	1.45	294	i Pg	Pg	15 51 18.5	-1.9
CIMO				eSg	Sg	15 51 39.0	-0.2
KBA	Koelnbreinsper	1.52	333	⇓iPg	Pg	15 51 21.0	-0.6
KBA				⇑iSg	Sg	15 51 42.0	+0.7
	comp=Z,7.7nm,0.4s						
KBA	Koelnbreinsper	1.52	333	Pg	Pg	15 51 21.0	-0.6
KBA				Sg	Sg	15 51 42.0	+0.7
	comp=Z,7.7nm,0.4s						
VARN	Col Varnada, M	1.59	280	⇑iPg	Pg	15 51 20.9	-2.1
VARN				i Sg	Sg	15 51 43.4	-0.3
VARN	Col Varnada, M	1.59	280	i Pg	Pg	15 51 20.9	-2.1
VARN				i Sg	Sg	15 51 43.4	-0.3
ABTA	Abfaltersbach	1.63	309	⇑iSg	Sg	15 51 45.7	+0.8
	comp=Z,12nm,0.2s						
ABTA	Abfaltersbach	1.63	309	Sg	Sg	15 51 45.7	+0.7
	comp=Z,12nm,0.2s						

*ISCJB **05** 15:52:31.7±0.9, 1°.2S±0°.2×24°.1W±0°.1, h10km, mb3.8/3, MS3.6/12, Error ellipse: s-maj=30.5km s-min=14.2km az=155.8*
*NEIC **05** 15:52:34.2±1.0, 1°.39S×24°.02W, h10km, Error ellipse: s-maj=28.3km s-min=15.8km az=155.0*
*IDC **05** 15:52:38.7±1.9, 1°.23S×23°.40W, h0km, mb3.8/4, mb1 3.8/4, mb1mx3.6/22, mbtmp3.9/4, MS3.6/13, Ms1 3.6/13, ms1mx3.4/31, Error ellipse: s-maj=68.3km s-min=38.3km az=119.0*
ISC 05 15:52:34.4±0.9**, 1°.4S**±0°.2×**24°.0W**±0°.1**, h10**km**, n19, σ1ˢ.16**/9**, mb3.8**/3**, MS3.6**/12**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RCBR	Riachuelo	12.64	249	ePn	Pn	15 55 34.1	-0.3
RCBR				eSn	Sn	15 57 43.9	-12
BBTS	Babate	17.59	25	LR	LR	16 01 37.2	
	comp=Z,220nm,21.1s,baz=190,slow=31						
DBIC	Dimbokro	20.74	67	P	P	15 57 15.3	-0.1
	3.9nm,0.8s,baz=236,slow=13,SNR=3.2						
DBIC				LR	LR	16 02 33.0	
	comp=Z,71nm,19.4s,MS3.0,baz=230,slow=30						
DBIC	Dimbokro	20.74	67	P	P	15 57 15.3	-0.1
DBIC				LR	LR	16 02 33.0	
SHEL	Horse Pasture	23.11	130	P	P	15 57 41.3	+0.6
TORD	Torodi Ar. Bea	29.32	60	P	P	15 58 36.4	-1.0
	1.5nm,1.1s,mb3.6,baz=255,slow=6.2,SNR=4.6						
TORD				LR	LR	16 08 41.5	
	comp=Z,70nm,18.0s,MS3.3,baz=245,slow=34						
TAM	Tamanrasset	37.51	48	P	P	15 59 47.4	-1.2
MDT	Midelt	38.65	27	P	P	16 00 00.2	+2.0
	1.3nm,0.5s,mb3.9,baz=236,slow=6.5,SNR=6.0						
MDT				LR	LR	16 13 27.2	
	comp=Z,171nm,21.3s,MS3.8,baz=68,slow=33						
CPUP	Villa Florida	40.49	229	LR	LR	16 16 21.8	
	comp=Z,91nm,19.3s,MS3.6,baz=245,slow=35						
BOSA	Boshof	54.20	125	LR	LR	16 19 45.6	
	comp=Z,81nm,20.2s,MS3.8,baz=81,slow=30						
GERES	GERESS Array B	59.72	28	LR	LR	16 28 17.1	
	comp=Z,68nm,18.2s,MS3.8,baz=270,slow=36						
EIL	Elat	64.11	56	LR	LR	16 30 26.9	
	comp=Z,43nm,19.1s,MS3.6,baz=281,slow=36						
MMAI	Mount Meron Ar	65.53	53	LR	LR	16 30 14.7	
	comp=Z,19nm,20.2s,MS3.3,baz=115,slow=35						
SCHQ	Schefferville	66.14	335	LR	LR	16 27 35.7	
	comp=Z,65nm,18.6s,MS3.9,baz=94,slow=32						
AKASG	Malin Array Be	68.79	33	P	P	16 03 42.3	+3.7
	0.4nm,0.4s,mb3.7,baz=239,slow=7.4,SNR=3.0						
GNI	Garni	74.81	48	LR	LR	16 41 32.0	
	comp=Z,26nm,19.5s,MS3.5,baz=91,slow=40						
AKTO	Aktyubinsk	85.99	39	LR	LR	16 43 21.1	
	comp=Z,36nm,21.9s,MS3.7,baz=76,slow=36						
YKA	Yellowknife Ar	91.50	332	LR	LR	16 41 07.0	
	comp=Z,58nm,18.1s,MS4.1,baz=80,slow=32						
ASAR	Alice Springs	147.12	141	PKP	PKPdf	16 12 20.4	+4.0
	1.1nm,0.9s,baz=209,slow=2.2,SNR=13						
ASAR				PKPbc	PKPbc	16 12 23.6	+5.1
	1.1nm,0.9s,baz=208,slow=2.3,SNR=14						

*ISCJB **05** 16:17:08.0±1.1, 13°.4N±0°.1×50°.29E±0°.06, h10km, mb3.6/6, Error ellipse: s-maj=20.7km s-min=8.7km az=7.4*
*IDC **05** 16:17:08.1±2.0, 13°.29N×50°.39E, h0km, mb3.5/6, mb1 3.6/6, mb1mx3.5/20, mbtmp3.5/6, MS3.7/1, Ms1 3.7/1, ms1mx2.7/21, Error ellipse: s-maj=54.9km s-min=26.7km az=171.0*
ISC 05 16:17:10.3±1.1**, 13°.5N**±0°.1×**50°.27E**±0°.06**, h10**km**, n9, σ0ˢ.82**/10**, mb3.6**/6**, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MUKL	Al Mukalla	1.58	311	i P	Pn	16 17 39.4	+1.1
MUKL				i S	Sn	16 17 58.0	-0.7
MUKL				AML	AML	16 18 02.2	
	comp=N,319nm,0.4s						
BDHA	Al Bayda’	4.60	277	i P	Pn	16 18 20.6	+0.7
BDHA				e		16 18 21.0	
	baz=107,slow=16						
BDHA				i S	Sn	16 19 12.6	-0.9
AKASG	Malin Array Be	40.91	340	P	P	16 24 53.5	+0.9
	comp=N,0.3nm,0.4s,mb3.3,baz=153,slow=7.1,SNR=4.1						
MKAR	Makanchi Array	42.72	32	P	P	16 25 07.8	+0.3
	comp=N,0.4nm,0.6s,mb3.3,baz=226,slow=9.3,SNR=6.2						
CMAR	Chiang Mai Arr	46.95	77	P	P	16 25 40.3	-1.4
	comp=N,0.4nm,0.4s,mb3.7,baz=274,slow=9.3,SNR=5.1						
TORD	Torodi Ar. Bea	47.21	276	P	P	16 25 44.1	+0.4
	comp=N,0.4nm,0.7s,mb3.5,baz=90,slow=6.8,SNR=2.8						
ZALV	Zalesovo Beam	48.70	27	P	P	16 25 53.9	-0.7
	comp=N,0.9nm,0.6s,mb4.0,baz=226,slow=8.0,SNR=4.7						
DBIC	Dimbokro	54.60	269	LR	LR	16 52 46.3	
	comp=N,63nm,19.3s,baz=87,slow=39						
SONM	Songino Array	57.58	42	P	P	16 27 00.7	+0.4
	comp=N,0.4nm,0.6s,mb3.7,baz=253,slow=7.7,SNR=4.4						

*NEIC **05** 16:17:16.1, 32°.04N×116°.38W, h7km, ML2.7(ECX), ML2.9(PAS), After ECX.*
ECX 05 16:17:16.1±0.5**, 32°.04N**×**116°.38W, h7**km**, MD2.6, ML2.8, 2C-6D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RDX	Rancho Dawling	0.39	106	⇑eP	Pg	16 17 23.2	-0.4
RDX				eS	Sg	16 17 29.0	+0.4
RDX				⇓e		16 17 29.9	
	comp=N,777nm,0.4s						
PBX	Punta Banda	0.42	224	⇓eP	Pg	16 17 23.4	-0.7
PBX				eS	Sg	16 17 29.6	0.0
PBX				⇓e		16 17 30.2	
	comp=E,554nm,0.2s						
ECNX	Esteban Cantu	0.42	205	⇓eP	Pg	16 17 23.7	-0.6
ECNX				⇑eP		16 17 21.5	
ECNX				eS	Sg	16 17 25.6	-4.2
ECNX				eS	Sg	16 17 30.1	+0.2
BAR	Barrett	0.68	339	ePg	Pg	16 17 26.2	-3.0
BAR				eSg	Sg	16 17 34.5	-3.7
CPBX	Cerro Prieto	0.99	67	eS	Sg	16 17 48.1	+0.1
SPX	San Pedro Mart	1.27	141	eP	Pn	16 17 38.0	-2.1
SPX				eS	Sb	16 17 54.9	-1.8
SPX				⇓e		16 17 58.4	
	comp=E,101nm,0.3s						
SPX				⇓e		16 17 58.4	
	comp=N,98nm,0.2s						
PFO	Pinyon Flat Ob	1.56	358	eP	Pn	16 17 41.5	-2.8
PFO				eS	Sn	16 18 00.6	-4.3
GLA	Glamis	1.66	52	ePn	Pn	16 17 41.5	-4.0
GLA				eSn	Sn	16 18 02.8	-4.3
MWC	Mount Wilson	2.59	328	Pg	Pg	16 18 00.2	-5.5

*ISCJB **05** 16:21:49.0±2.1, 21°.45S±0°.10×175°.9W±0°.1, h43km±22km, mb4.9/17, Error ellipse: s-maj=21.3km s-min=11.5km az=40.8*
*NEIC **05** 16:21:52.3±1.4, 21°.51S×175°.79W, h66km±13km, mb5.0/9, Error ellipse: s-maj=15.1km s-min=9.1km az=140.0*
*IDC **05** 16:21:52.9±3.0, 21°.43S×175°.87W, h66km±26km, mb4.4/9, mb1 4.5/12, mb1mx4.2/20, mbtmp4.4/12, ML4.5/2, MS3.4/1, Ms1 3.4/1, ms1mx3.0/19, Error ellipse: s-maj=24.8km s-min=15.7km az=131.0*
*DJA **05** 16:22:46, 21°.90S×178°.21W, h473km, mb4.7/10*
ISC 05 16:21:51.6±1.7**, 21°.49S**±0°.10×**175°.9W**±0°.1**, h53**km±18km**, n69, σ0ˢ.94**/42**, mb4.9**/17**, 5C-5D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	8.48	28	P	Pn	16 23 51.9	0.0
	5.6nm,0.3s,baz=287,slow=1.8,SNR=13						
AFI				S	Sn	16 25 16.7	-10
	8.4nm,0.3s,baz=192,slow=22,SNR=3.0						
AFI	Afiamalu	8.48	28	eP	Pn	16 23 51.8	-0.1

AFI				*e*S	Sn	16 25 17.8	-8.5
RAR	**Rarotonga**	15.00	92	P	Pn	16 25 20.4	+0.1
	1.7nm,0.3s,baz=264,slow=10.0,SNR=3.4						
RAR				S	Sn	16 27 51.0	-14
	2.8nm,0.3s,baz=63,slow=16,SNR=4.9						
RAR				LR	LR	16 29 13.1	
	comp=Z,162nm,21.2s,baz=284,slow=29						
RAR	**Rarotonga**	15.00	92	*e*P	Pn	16 25 20.0	-0.4
RAR				S	Sn	16 27 52.3	-13
RAR				LR	LR	16 29 13.1	
DZM	**Mont Dzumac**	16.44	265	*e*P	Pn	16 25 47.6	+8.8
	48nm,0.8s						
NOUC	**Port Laguerre**	16.57	265	*e*P	Pn	16 25 48.8	+8.3
URZ	**Urewera**	17.78	198	P	Pn	16 25 55.6	+0.3
	2.2nm,0.3s,baz=305,slow=5.5,SNR=7.4						
URZ				S	S	16 28 59.0	-18
	0.4nm,0.3s,baz=146,slow=23,SNR=3.1						
URZ	**Urewera**	17.78	198	*e*P	Pn	16 25 53.9	-1.3
URZ				S	S	16 28 59.0	-18
RPZ	**Rata Peaks**	24.69	203	P	P	16 27 08.8	+1.2
	13nm,0.6s,mb4.7,baz=338,slow=4.4,SNR=12						
ARMA	**Armidale**	30.46	246	*e*P	P	16 28 01.1	+1.7
EIDS	**Eidsvold**	30.53	256	*e*P	P	16 28 01.5	+1.4
	18nm,0.7s,mb5.0						
CNB	**Canberra Magne**	33.36	238	*e*P	P	16 28 21.5	-3.3
CTA	**Charters Tower**	35.39	265	*e*P	P	16 28 43.6	+1.1
	21nm,0.7s,mb5.2						
CTA	**Charters Tower**	35.39	265	P	P	16 28 43.3	+0.8
	29nm,0.8s,mb5.3,baz=97,slow=11,SNR=41						
CTAO	**Charters Tower**	35.39	265	*e*P	P	16 28 43.2	+0.7
	19nm,0.8s,mb5.1						
TOO	**Toolangi**	36.95	236	*e*P	P	16 28 56.2	+0.5
STKA	**Stephens Creek**	39.17	246	*e*P	P	16 29 14.6	+0.1
	8.2nm,0.7s,mb4.6						
STKA	**Stephens Creek**	39.17	246	P	P	16 29 14.5	0.0
	10nm,0.7s,mb4.7,baz=89,slow=10,SNR=18						
COEN	**Coen**	39.64	274	*e*P	P	16 29 19.4	+0.9
	134nm,1.1s,mb5.6						
WRAB	**Tennant Creek**	46.44	263	*e*P	P	16 30 12.3	-1.1
	29nm,1.0s,mb5.2						
FORT	**Forrest**	50.74	247	*e*P	P	16 30 45.3	-1.1
	63nm,0.7s,mb5.7						
FORT	**Forrest**	50.74	247	*e*P	P	16 30 45.2	-1.2
	64nm,0.7s,mb5.7						
FITZ	**Fitzroy Crossi**	54.87	263	⇓*i*P	P	16 31 16.6	-0.5
	12nm,0.5s,mb5.2						
FITZ	**Fitzroy Crossi**	54.87	263	P	P	16 31 16.3	-0.8
	6.3nm,0.5s,mb4.9,baz=94,slow=4.2,SNR=31						
KLBR	**Kellerberrin**	59.45	245	*e*P	P	16 31 48.2	-1.0
	25nm,0.7s,mb5.4						
MBWA	**Marble Bar**	59.58	257	*e*P	P	16 31 49.1	-1.2
	14nm,0.7s,mb5.1						
MUN	**Mundaring**	60.70	245	*e*P	P	16 31 57.3	-0.5
MJAR	**Matsushiro Arr**	72.19	323	P	P	16 33 10.1	-0.9
	3.4nm,0.7s,mb4.4,baz=161,slow=6.2,SNR=11						
PETK	**Petropavlovsk-**	77.75	344	P	P	16 33 42.2	-0.4
	5.8nm,0.7s,mb4.6,baz=100,slow=5.3,SNR=9.0						
PETK	**Petropavlovsk-**	77.75	344	P	P	16 33 42.2	-0.4
YBH	**Yreka Blue Hor**	79.83	37	P	P	16 33 55.7	+1.3
	4.2nm,0.9s,mb4.4,baz=312,slow=1.0,SNR=7.3						
MDJ	**Mudanjiang**	82.47	324	*e*P	P	16 34 08.4	+0.1
	8.8nm,1.0s,mb4.6						
CMAR	**Chiang Mai Arr**	92.32	289	P	P	16 34 57.4	+0.7
	1.8nm,0.8s,mb4.5,baz=114,slow=2.5,SNR=22						
CHTO	**Chiang Mai**	92.45	289	*e*P	P	16 34 57.5	+0.2
	3.1nm,0.7s,mb4.8						
YKA	**Yellowknife Ar**	96.58	24	P	P	16 35 15.0	-0.2
	0.8nm,0.9s,mb4.2,baz=240,slow=4.1,SNR=13						
YKA	**Yellowknife Ar**	96.58	24	P	P	16 35 15.0	-0.2
ZALV	**Zalesovo Beam**	112.51	321	PKiKP	PKiKP	16 40 19.3	-2.2
	1.1nm,0.5s,baz=126,slow=1.4,SNR=6.9						
MKAR	**Makanchi Array**	113.32	313	PKiKP	PKiKP	16 40 21.8	-1.6
	1.1nm,0.6s,baz=208,slow=1.0,SNR=15						
MKAR	**Makanchi Array**	113.32	313	PKPdf	PKiKP	16 40 21.8	-1.6
KURK	**Kurchatov**	116.07	317	PKP	PKPdf	16 40 26.7	-1.8
	1.2nm,0.6s,baz=91,slow=1.8,SNR=12						
BVAR	**Borovoye Array**	121.11	320	PKP	PKPdf	16 40 36.5	-1.6
	2.3nm,0.5s,baz=125,slow=2.0,SNR=16						
AKTK	**Aktyubinsk**	129.13	318	PKP	PKPdf	16 40 52.4	-1.1
AKTO	**Aktyubinsk**	129.13	318	PKP	PKPdf	16 40 52.4	-1.1
	1.2nm,0.7s,baz=60,slow=3.9,SNR=5.0						
ARCES	**ARCESS Array B**	130.24	350	PKP	PKPdf	16 40 53.7	-1.4
	3.4nm,0.8s,baz=356,slow=3.6,SNR=5.1						
ARCES	**ARCESS Array B**	130.24	350	PKP	PKPdf	16 40 53.7	-1.4
AKASG	**Malin Array Be**	144.83	332	PKP	PKPdf	16 41 19.9	-2.5
	3.5nm,0.6s,baz=43,slow=4.1,SNR=19						
KIEV	**Kiev**	144.84	332	*e*PKP	PKPdf	16 41 19.6	-2.9
MALT	**Malatya**	146.11	307	⇓*i*P	PKPdf	16 41 25.4	+0.4
MALT	**Malatya**	146.11	307	*e*PKPbc	PKPbc	16 41 26.2	+0.2
KWP	**Kalwaria Pacla**	148.29	337	⇑*i*P	PKPbc	16 41 31.4	-0.3
KWP	**Kalwaria Pacla**	148.29	337	⇑P	PKPbc	16 41 31.4	-0.3
BUR08	**Bucovina Ar. S**	148.87	332	*e*PKPbc	PKPbc	16 41 34.0	+0.7
BURAR	**Bucovina Array**	148.88	332	⇑*i*P	PKPbc	16 41 34.4	+1.1
BRTR	**Keskin Array B**	148.97	313	PKPbc	PKPbc	16 41 32.9	-0.9
	3.2nm,0.7s,baz=153,slow=3.8,SNR=21						
ASF	**Jabal al Asfar**	149.00	297	PKPbc	PKPbc	16 41 35.4	+1.2
	4.5nm,0.7s,baz=322,slow=2.3,SNR=8.3						
CLL	**Collm**	149.44	349	*i* PKPbc	PKPbc	16 41 34.2	-0.4
	comp=Z,10.0nm,0.9s						
TIRR	**Tirgusor**	149.56	324	⇓*i*P	PKPbc	16 41 36.7	+1.6
TRPA	**Tarpa**	149.59	335	⇑*i*P	PKPbc	16 41 33.6	-1.4
DPC	**Dobruska-Polom**	149.64	344	*e*PKPbc	PKPbc	16 41 35.7	+0.6
HARR	**Harsova**	149.66	325	⇓*i*P	PKPbc	16 41 35.0	-0.4
BRG	**Berggiesshubel**	149.68	348	*e*(P)	PKPbc	16 41 34.8	-0.4
	comp=Z,7.8nm,1.3s						
PVCC	**Panska Ves**	149.88	347	*e*PKPbc	PKPbc	16 41 35.9	+0.2
MMAI	**Mount Meron Ar**	150.03	299	PKPbc	PKPbc	16 41 36.7	0.0
	comp=Z,6.4nm,0.6s,baz=69,slow=4.6,SNR=15						
EIL	**Elat**	151.10	293	PKPbc	PKPbc	16 41 38.8	-0.5
	comp=Z,4.2nm,0.7s,baz=32,slow=1.8,SNR=6.0						
KHC	**Kasperske Hory**	151.41	347	*e*PKPbc	PKPbc	16 41 39.2	-0.1
GERES	**GERESS Array B**	151.65	347	PKPbc	PKPbc	16 41 39.5	-0.5
	comp=Z,1.0nm,0.7s,baz=38,slow=2.4,SNR=7.0						
BZS	**Buzias**	151.99	333	⇑*i*P	PKPbc	16 41 38.7	-2.1
PKSM	**Moragy**	152.64	338	⇓*i*P	PKPbc	16 41 44.0	+1.8
TORD	**Torodi Ar. Bea**	171.38	164	PKPab	PKPab	16 43 15.1	-0.2
	comp=Z,0.6nm,0.8s,baz=182,slow=3.5,SNR=3.3						
TORD				pPKPab	pPKPab	16 43 31.9	+1.2
	comp=Z,1.8nm,0.7s,baz=168,slow=4.1,SNR=9.2						

MDD 05 16:22:24.8±5.3**, 32°.88N**×**5°.42W, h0^{km}, mb3.9**/3**, Error ellipse: s-maj=66.4km s-min=23.1km az=37.0, PRIMO SIN SOLUCI, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EGRO	**El Granado**	4.94	341	P	Pn	16 23 38.3	-1.9
	2.6nm,0.2s,SNR=7.9						
EGRO				S	Sn	16 24 30.7	-7.3
	3.8nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	4.98	349	P	Pn	16 23 40.5	-0.3
	0.7nm,0.2s,SNR=7.9						
EMIN				S	Sn	16 24 36.0	-3.1
	0.6nm,0.4s,SNR=7.9						
ODJA	**Bouhanifia**	5.01	59	P	Pn	16 23 39.0	-2.2
EBAD	**Badajoz**	6.00	348	P	Pn	16 23 54.3	-0.5
	1.4nm,0.2s,SNR=6.3						
EBAD				S	Sn	16 24 59.5	-4.7
	1.3nm,0.3s,SNR=7.9						

CSEM ***05*** *16:24:19.2, 35°.62N×0°.16W, h0^{km}, ML3.2, After ALG*

CRAAG 05 16:24:19.2, 35°.62N×0°.16W, Ml3.2, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ODJA	**Bouhanifia**	0.28	179	P	Pg	16 24 29.0	+4.4
ODJA	**Bouhanifia**	0.28	179	S	Pg	16 24 29.0	+4.4
USTO	**Oran**	0.34	290	P	Pg	16 24 26.0	+0.3
USTO	**Oran**	0.34	290	S	Pg	16 24 26.0	+0.3
USTO	**Oran**	0.34	290	P	Pg	16 24 26.0	+0.3
OJBR	**Djebel Berber**	0.41	94	P	Pg	16 24 32.0	+4.9
OJBR	**Djebel Berber**	0.41	94	S	Pg	16 24 32.0	+4.9
OJBR	**Djebel Berber**	0.41	94	P	Pg	16 24 32.0	+4.9
OKGL	**Djebel Kef Gue**	0.78	57	P	Pg	16 24 39.0	+4.9
OKGL	**Djebel Kef Gue**	0.78	57	S	Pg	16 24 39.0	+4.9
OKGL	**Djebel Kef Gue**	0.78	57	P	Pg	16 24 39.0	+4.9

ATH ***05*** *16:59:50.7, 40°.14N×20°.26E, h26^{km}±2^{km}, MD3.3/4*

NEIC ***05*** *16:59:52.2, 40°.01N×20°.27E, h23^{km}, MD3.3(ATH), After ATH.*

CSEM ***05*** *16:59:55.3±0.4, 39°.76N×20°.21E, h0^{km}±6^{km}, ML3.5/6, Error ellipse: s-maj=8.0km s-min=7.6km az=156.0*

THE ***05*** *16:59:55.0, 39°.80N×20°.16E, h0^{km}±1^{km}, ML3.5/6, Error ellipse: s-maj=2.1km s-min=0.8km az=276.0*

ISCJB ***05*** *16:59:56.1±0.5, 39°.73N±0°.03×20°.16E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=3.9km az=29.9*

ISC 05 16:59:55.7±0.8**, 39°.75N**±0°.03×**20°.18E**±0°.05**, h1^{km}±5^{km}, n34, σ1^{s}22**/56**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGT	**Igoumenitsa**	0.24	152	P	Pg	17 00 00.4	+0.1
IGT				S	Sg	17 00 05.2	+1.7
IGT	**Igoumenitsa**	0.24	152	P	Pg	17 00 00.4	+0.1
IGT				S	Sg	17 00 05.2	+1.7
KEK	**Kerkira**	0.30	263	*e*Pb	Pg	17 00 02.1	+0.7
KEK				*e*Sb	Sg	17 00 08.9	+3.7
KEK	**Kerkira**	0.30	263	*e*Pb	Pg	17 00 02.1	+0.7
JAN	**Janina**	0.52	100	*e*Pn	Pg	17 00 03.8	-1.9
JAN				*e*Sn	Sg	17 00 11.7	-0.8
JAN	**Janina**	0.52	100	*e*Pn	Pg	17 00 03.8	-1.9
MEV	**Metsovon**	0.81	87	P	Pg	17 00 10.2	-0.9
MEV				S	Sg	17 00 22.9	+1.3
MEV	**Metsovon**	0.81	87	P	Pg	17 00 10.2	-0.9
MEV				S	Sg	17 00 22.9	+1.3
FNA	**Florina**	1.38	41	P	Pn	17 00 19.9	-2.1
FNA				S	Sg	17 00 40.9	+0.9
FNA	**Florina**	1.38	41	P	Pn	17 00 19.9	-2.1
THL	**Klokotos Trika**	1.43	97	P	Pn	17 00 22.1	-0.5
THL				S	Sg	17 00 42.6	+1.1
THL	**Klokotos Trika**	1.43	97	P	Pn	17 00 22.1	-0.5
THL				S	Sg	17 00 42.6	+1.1
EVR	**Evrytania**	1.51	123	*e*PN	Pn	17 00 20.8	-3.0
EVR	**Evrytania**	1.51	123	*e*Pb	Pn	17 00 20.8	-3.0
BIA	**Bitola**	1.54	34	P	Pn	17 00 22.3	-1.9
BIA	**Bitola**	1.54	34	*i* Pn	Pn	17 00 26.0	+1.8
BIA				*e*Sn	Sn	17 00 47.0	+2.2
BIA	**Bitola**	1.54	34	P	Pn	17 00 22.3	-1.9
BIA	**Bitola**	1.54	34	*i* Pn	Pn	17 00 25.9	+1.7
BIA				*e*Sn	Sn	17 00 47.0	+2.2
VLS	**Valsamata**	1.60	168	P	Pn	17 00 24.7	-0.3
VLS				S	Sn	17 00 47.7	+1.4
VLS	**Valsamata**	1.60	168	*e*Pb	Pb	17 00 24.6	-1.4
VLS				*e*Sn	Sn	17 00 49.5	+3.2
VLS	**Valsamata**	1.60	168	*e*Pb	Pb	17 00 24.6	-1.4
VLS				*e*Sn	Sn	17 00 49.5	+3.2
LIT	**Litokhoron**	1.81	78	P	Pn	17 00 27.4	-0.5
LIT				S	Sn	17 00 51.2	-0.2
LIT	**Litokhoron**	1.81	78	P	Pn	17 00 27.4	-0.5
LIT				S	Sn	17 00 51.2	-0.2
KRUS	**Krusevo**	1.81	26	*i* Pn	Pn	17 00 27.6	-0.3
KRUS				*e*Sn	Sn	17 00 52.5	+1.0
KRUS	**Krusevo**	1.81	26	*i* Pn	Pn	17 00 27.5	-0.4
KRUS				*e*Sn	Sn	17 00 52.5	+1.0
AGG	**Agios Georgios**	1.82	113	P	Pn	17 00 27.2	-0.8
AGG				S	Sn	17 00 53.0	+1.4
AGG	**Agios Georgios**	1.82	113	P	Pn	17 00 27.2	-0.8
AGG				S	Sn	17 00 53.0	+1.4
GRG	**Griva**	2.08	54	P	Pn	17 00 30.6	-1.0
GRG				S	Sn	17 00 58.0	-0.1
GRG	**Griva**	2.08	54	P	Pn	17 00 30.6	-1.0
GRG				S	Sn	17 00 58.0	-0.1
ITM	**Ithomi**	2.91	151	*e*PN	Pn	17 00 43.1	+0.1
ITM	**Ithomi**	2.91	151	*e*Pb	Pb	17 00 44.1	-4.1
ITM	**Ithomi**	2.91	151	*e*Pb	Pb	17 00 44.1	-4.1
PYL	**PYLOS**	3.10	156	*e*PN	Pn	17 00 45.8	+0.2
PYL	**PYLOS**	3.10	156	*e*Pn	Pn	17 00 45.8	+0.2

IDC ***05*** *17:06:35.8±72.0, 21°.29N×122°.63E, h0^{km}, mb3.6/3, mb1 3.6/3, mb1mx3.3/17, mbtmp3.6/3, Error ellipse: s-maj=1287.0km s-min=168.9km az=136.0*

NEIC ***05*** *17:06:46.5±2.3, 22°.01N×121°.40E, h10^{km}, mb3.9/1, Error ellipse: s-maj=36.5km s-min=22.9km az=110.0*

ISCJB ***05*** *17:06:53.0±0.3, 22°.30N±0°.02×121°.23E±0°.02, h28^{km}±3^{km}, mb3.5/4, Error ellipse: s-maj=3.9km s-min=3.4km az=7.6*

TAP ***05*** *17:06:53.7, 22°.34N×121°.14E, h30^{km}, ML3.9, B*

JMA ***05*** *17:06:54.6±0.5, 22°.47N×121°.21E, h128^{km}, M3.2*

ISC 05 17:06:53.6±0.3**, 22°.31N**±0°.02×**121°.20E**±0°.02**, h24**^{km}±3^{km}**, n75, σ1^{s}00**/116**, mb3.5**/4**, 5C-15D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAW	**Tawu**	0.29	281	⇓*i*P	Pb	17 07 00.4	+0.1
	baz=281						
TAW				S	Sb	17 07 05.0	+0.1
	baz=281						
EAST	**Anshuo**	0.34	283	⇓*e*P	Pb	17 07 01.0	0.0
	baz=284						
EAST				*e*S	Sb	17 07 05.8	-0.4
	baz=284						
ECL	**Taimali**	0.37	322	⇓*i*P	Pb	17 07 01.3	-0.3
	baz=325						
ECL				*e*S	Sb	17 07 06.0	-1.0
	baz=325						
LAY	**Lan-yu**	0.42	129	⇓P	Pb	17 07 03.3	+0.9
	baz=121						
LAY				*e*S	Sb	17 07 10.1	+1.7
	baz=121						
TTN	**Taitung**	0.45	354	*e*P	Pb	17 07 03.4	+0.5
	baz=350						
TTN				*e*S	Sb	17 07 10.8	+1.5
	baz=350						
TSEB	**Hengchuen, Pin**	0.49	215	⇑P	Pb	17 07 04.0	+0.4
	baz=209						
TSEB				*e*S	Sb	17 07 12.0	+1.6
	baz=209						
TWK1	**Hengchun**	0.51	226	⇑*i*P	Pb	17 07 03.8	-0.2
	baz=215						
TWK1				*e*S	Sb	17 07 11.3	+0.2
	baz=215						
HEN	**Hengchun**	0.52	235	⇑*i*P	Pb	17 07 04.2	0.0
	baz=229						
HEN				S	Sb	17 07 11.5	+0.3
	baz=229						
TWG	**Pinlang**	0.53	347	*e*Pg	Pb	17 07 02.8	-1.4
TWG				*e*Sg	Sb	17 07 10.2	-1.2
TWG	**Pinlang**	0.53	347	⇓*i*P	Pb	17 07 03.5	-0.7
	baz=345						
TWG				S	Sb	17 07 10.4	-1.0
	baz=345						
SSD	**Sandimen**	0.69	310	⇓*i*P	Pb	17 07 06.2	-0.6
	baz=313						
TWP	**Hsiaoliuchiu**	0.78	273	*e*P	Pb	17 07 06.9	-1.5
	baz=271						
SGLT	**Jiouru**	0.78	303	*e*P	Pb	17 07 08.8	+0.4
	baz=304						
CHKT	**Chengkung**	0.81	11	P	Pb	17 07 08.0	-0.9
	baz=15						
CHKT				*e*S	Sb	17 07 18.9	-0.5
	baz=15						
TWM1	**Shoushan**	0.89	306	*e*P	Pb	17 07 11.0	+0.8
	baz=306						
ELDTW	**Lidau**	0.90	349	⇓*i*P	Pb	17 07 08.8	-1.7
	baz=357						
STYT	**Tauyuan**	0.95	334	⇓*i*P	Pn	17 07 10.7	-0.7
	baz=340						
STYT				*e*S	Sb	17 07 22.6	-0.9
	baz=340						
SGST	**Jiashian**	0.96	324	⇓*i*P	Pn	17 07 11.9	+0.4
	baz=324						
SGST				S	Sb	17 07 25.8	+2.0
	baz=324						
TWF1	**Yuli**	1.05	5	⇓*e*P	Pn	17 07 10.4	-2.3
	baz=8.0						
CHN1	**Nanshi**	1.07	325	⇓P	Pn	17 07 13.2	+0.1
	baz=325						
CHN1				*e*S	Sb	17 07 28.1	+1.0
	baz=325						
WTP	**Ta-pu**	1.08	330	⇓*i*P	Pn	17 07 13.5	+0.3
	baz=330						
WTP				*e*S	Sn	17 07 28.8	+1.4
	baz=330						
YULB	**Yu-li**	1.09	5	*e*Pn	Pn	17 07 10.3	-3.0
CHN3	**Shinhua**	1.09	315	*e*P	Pn	17 07 14.0	+0.7
	baz=315						
CHN3				*e*S	Sn	17 07 29.3	+1.7
	baz=315						
TPUB	**Ta-pu**	1.12	332	*e*Pn	Pn	17 07 13.5	-0.3
TPUB				*e*Sn	Sn	17 07 26.3	-2.2
TWK	**Hsinying**	1.16	326	*e*P	Pn	17 07 14.3	0.0
	baz=326						
TWK				*e*S	Sn	17 07 29.9	+0.6
	baz=326						
CHN4	**Tsaushan**	1.18	332	*e*P	Pn	17 07 14.9	+0.3
	baz=332						
CHN4				*e*S	Sn	17 07 31.6	+1.7
	baz=332						
EHY	**Hungye**	1.20	5	*e*P	Pn	17 07 12.6	-2.2
	baz=18						
YUS	**Yu-Shan**	1.20	349	*e*P	Pn	17 07 14.4	-0.5
	baz=1.0						
ALS	**Alishan**	1.25	343	⇓P	Pn	17 07 15.8	+0.2
	baz=351						
ALS				*e*S	Sn	17 07 32.5	+0.8
	baz=351						
SCLT	**Jiali**	1.27	313	*e*P	Pn	17 07 15.3	-0.5
	baz=313						
SCLT				*e*S	Sn	17 07 32.4	+0.3
	baz=313						
CHN5	**Tsauling**	1.37	340	*e*P	Pn	17 07 17.6	+0.4
	baz=340						
CHN5				*e*S	Sn	17 07 35.5	+0.9
	baz=340						
CHN8	**Yiju**	1.38	319	*e*P	Pn	17 07 16.5	-0.8
	baz=319						
CHN8				*e*S	Sn	17 07 34.3	-0.5
	baz=319						
CHY	**Chiayi**	1.39	329	*e*P	Pn	17 07 17.2	-0.2
	baz=331						
CHN2	**Minshiung**	1.39	331	*e*P	Pn	17 07 17.5	0.0
	baz=332						
CHN2				*e*S	Sn	17 07 35.3	+0.2
	baz=332						
SSLB	**Suanglung**	1.49	351	*e*Pn	Pn	17 07 18.1	-0.7
SSLB				*e*Sg	Sn	17 07 38.0	+0.4
WGK	**Gukeng**	1.50	337	*e*P	Pn	17 07 19.0	+0.1
	baz=339						
ESL	**Shilin**	1.52	8	*e*P	Pn	17 07 17.3	-1.9
	baz=10.0						
SMLT	**Sun Moon Lake**	1.59	350	⇑*e*P	Pn	17 07 21.5	+1.3
	baz=3.0						
SMLT				*e*S	Sn	17 07 41.6	+1.5
	baz=3.0						
WSF	**Szhu**	1.60	326	*e*P	Pn	17 07 19.9	-0.5
	baz=326						
WSF				*e*S	Sn	17 07 40.3	-0.1
	baz=326						
TYC	**Yuchr**	1.62	349	⇑P	Pn	17 07 21.6	+0.9
	baz=5.0						
TYC				*e*S	Sn	17 07 42.1	+1.3
	baz=5.0						
WNT	**Mingjian**	1.64	343	*e*P	Pn	17 07 21.5	+0.7
	baz=328						
WNT				*e*S	Sn	17 07 42.0	+0.8
	baz=328						
HWA	**Hwalien**	1.71	13	*e*P	Pn	17 07 21.4	-0.4
	baz=15						
WDGT	**Dungji**	1.71	304	⇓*i*P	Pn	17 07 20.2	-1.7
	baz=304						
WTCT	**Ta-ch'eng**	1.77	332	*e*P	Pn	17 07 22.4	-0.3
	baz=334						
TWD	**Chiawan**	1.80	12	*e*P	Pn	17 07 21.0	-2.2
	baz=14						
WHF	**Hehuan Shan**	1.83	2	*e*P	Pn	17 07 23.1	-0.4
	baz=15						
NACB	**Ninganchiao**	1.90	11	*e*Pn	Pn	17 07 21.6	-2.8
NACB				*e*Sn	Sn	17 07 42.3	-5.2
TCU	**Taichung**	1.90	345	*e*P	Pn	17 07 23.7	-0.7
	baz=333						
PNG	**Penghu**	1.97	310	⇓P	Pn	17 07 23.7	-1.7
	baz=310						
TWQ1	**Liyutan**	2.07	349	*e*P	Pn	17 07 27.2	+0.4
	baz=351						
TWQ1				*e*S	Sn	17 07 53.7	+1.9
	baz=351						
NNS	**Nan Shan**	2.13	4	*e*P	Pn	17 07 27.7	+0.1
	baz=18						
NSY	**Sanyi**	2.14	349	*e*P	Pn	17 07 28.9	+1.2
	baz=337						
NSY				*e*S	Sn	17 07 55.8	+2.3
	baz=337						
ENA	**Nanau**	2.17	13	*e*P	Pn	17 07 27.6	-0.6
	baz=15						
NSTT	**Nanjuang**	2.32	356	*e*P	Pn	17 07 31.5	+1.2
	baz=358						
ENTT	**Nioudou**	2.35	8	*e*P	Pn	17 07 30.3	-0.3
	baz=19						
YHNB	**Yeheng**	2.36	4	*e*Pn	Pn	17 07 31.0	+0.3
YHNB				*e*Sn	Sn	17 07 58.0	-1.0
NSK	**Sanguang**	2.37	3	*e*P	Pn	17 07 31.0	+0.1
	baz=351						
TWC	**Suao**	2.37	14	*e*P	Pn	17 07 30.8	-0.1
	baz=16						
TWE	**Neicheng**	2.44	10	*e*P	Pn	17 07 32.2	+0.2
	baz=12						
TATO	**Taipei**	2.67	6	*e*Pn	Pn	17 07 34.6	-0.4
TATO				*e*Sn	Sn	17 08 06.2	-0.5
TWA	**Mucha**	2.69	7	*e*P	Pn	17 07 36.2	+0.9
	baz=20						
YOJ	**Yonaguni jima**	2.72	37	P	Pn	17 07 36.0	+0.3
YOJ				*e*S	Sn	17 08 09.3	+1.5
NWF	**Wu-fen Shan**	2.81	11	*e*P	Pn	17 07 37.7	+0.8
	baz=13						
HATJ	**Hateruma jima**	2.96	53	P	Pn	17 07 39.9	+0.8
HATJ				S	Sn	17 08 13.7	-0.2
IRIF	**Iriomote-Funau**	3.08	49	P	Pn	17 07 41.1	+0.4
IRIF				S	Sn	17 08 17.2	+0.4
JKRS	**Kuro-shima**	3.22	53	P	Pn	17 07 43.9	+1.3
JKRS				*e*S	Sn	17 08 20.6	+0.4
KNM	**Kinmen**	3.30	310	*e*P	Pn	17 07 43.5	-0.2
	baz=309						
JIJ	**Ishigaki jima**	3.39	52	P	Pn	17 07 45.5	+0.5
JIJ				S	Sn	17 08 23.3	-1.2
QZH	**Quanzhou**	3.55	318	Pn	Pn	17 07 46.6	-0.6
QZH				Sn	Sn	17 08 13.3	-15
QZH				smax			
	comp=N,90nm,0.6s						
QZH				smax			
	comp=E,80nm,0.9s						
JTJ	**Tarama**	3.97	53	P	Pn	17 07 53.2	+0.3
JTJ				*e*S	Sn	17 08 38.1	-0.6
ULN	**Ulaanbaatar**	27.91	339	P	P	17 12 38.9	-2.7
SONM	**Songino Array**	28.11	339	P	P	17 12 42.3	-1.0
	comp=E,0.5nm,0.8s,mb3.2,baz=153,slow=9.4,SNR=4.3						
MKAR	**Makanchi Array**	39.71	318	P	P	17 14 23.4	-0.5
	comp=E,0.6nm,0.6s,mb3.5,baz=108,slow=10.0,SNR=9.3						
ZALV	**Zalesovo Beam**	41.83	328	P	P	17 14 39.6	-1.7
	comp=E,0.7nm,0.7s,mb3.4,baz=115,slow=10.0,SNR=4.7						
KURK	**Kurchatov**	43.55	321	P	P	17 14 51.3	-4.0
	comp=E,1.1nm,0.6s,mb3.8						

NIED ***05*** *17:08:00, 43°.00N×144°.90E, h86^{km}, Mw3.8 Best double couple: M$_0$6.33000×10^{14} NP1:φ$_s$77.00000°, δ78.00000°, λ105.00000°. NP2:φ$_s$204.00000°, δ19.00000°, λ39.00000°.*

NEIC ***05*** *17:08:49.6±5.6, 43°.68N×144°.78E, h4^{km}±37^{km}, mb4.2/8, Error ellipse: s-maj=15.8km s-min=11.7km az=136.0*

NEIC Recorded [2 JMA] in eastern Hokkaido.

ISCJB ***05*** *17:08:56.2±0.4, 43°.03N±0°.05×144°.96E±0°.05, h104^{km}±2^{km}, mb4.0/21, Error ellipse: s-maj=9.0km s-min=4.5km az=146.1*

MOS ***05*** *17:08:56.7±1.4, 43°.22N×144°.79E, h100^{km}, mb4.3/9, Error ellipse: s-maj=13.4km s-min=8.4km az=75.4*

IDC ***05*** *17:08:56.4±3.3, 43°.19N×144°.92E, h75^{km}±35^{km}, mb3.8/11, mb1 3.9/13, mb1mx3.8/23, mbtmp3.8/13, ML3.3/2, Error ellipse: s-maj=40.5km s-min=16.3km az=165.0*

JMA ***05*** *17:08:58.0±0.1, 43°.05N×144°.95E, h94^{km}±1^{km}, M3.9*

JMA Felt II J1.

SKHL ***05*** *17:08:58.8±0.4, 43°.10N×145°.00E, h94^{km}±9^{km}, mb4.9/2, msh5.7/1, msha5.7/2*

ISC 05 17:08:57.4±0.4**, 43°.04N**±0°.05×**144°.95E**±0°.05**, h98**^{km}±2^{km}**, n63, σ1^{s}02**/80**, mb4.0**/21**, 5C-11D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	0.19	258	⇑P	Pn	17 09 11.4	+0.2
JAK				*e*S	Sn	17 09 21.3	-0.2
JNK	**Nakash**	0.57	343	⇓P	Pn	17 09 13.3	-0.2
JNK				*e*S	Sn	17 09 24.8	-0.7
NEM2	**Nemuro 2**	0.67	60	⇓P	Pn	17 09 14.3	0.0
NEM2				*e*S	Sn	17 09 26.1	-0.8
JOB	**Onbets**	0.82	261	⇑P	Pn	17 09 16.3	+0.6
JOB				*e*S	Sn	17 09 29.8	+0.3
JAR	**Ashorobuto**	0.90	287	⇓P	Pn	17 09 16.9	+0.4
JAR				*e*S	Sn	17 09 30.5	-0.4
JRA	**Rausu**	0.91	8	⇓P	Pn	17 09 17.1	+0.5
JRA				*e*S	Sn	17 09 31.6	+0.5

YUK	Yuzh-Kuril'sk	1.20	33	⇓iPN	Pn	17 09 21.4	+1.5
YUK				i S	Sn	17 09 38.0	+1.2
YUK				pmax	pmax		
	comp=Z,760nm,0.3s						
YUK				smax			
	comp=N,8µm,0.5s						
YUK				smax			
	comp=E,10µm,0.5s						
YUK				smax			
	comp=N,5µm,0.5s						
YUK				smax			
	comp=E,6µm,0.5s						
YUK	Yuzh-Kuril'sk	1.20	33	⇓iP	Pn	17 09 21.4	+1.5
YUK				AMB	AMB	17 09 21.7	
	comp=E,760nm,0.2s						
YUK				i rx	rx	17 09 27.0	
YUK				i S	Sn	17 09 38.0	+1.2
YUK				A		17 09 39.0	
	comp=E,8µm,0.5s						
YUK				A		17 09 39.0	
	comp=E,10µm,0.5s						
YUK				A		17 09 39.4	
	comp=E,5µm,0.5s						
YUK				A		17 09 39.4	
	comp=E,6µm,0.5s						
JTKR	Abashiri--Toko	1.20	321	⇓P	Pn	17 09 20.6	+0.7
JCH	Churui	1.24	251	⇑P	Pn	17 09 20.8	+0.5
JCH				eS	Sn	17 09 36.9	-0.7
JMP	Maruseppu	1.51	311	⇓P	Pn	17 09 24.2	+0.6
JMP				eS	Sn	17 09 43.6	+0.2
ERM	Erimo	1.67	233	d iPN	Pn	17 09 26.9	+1.3
ERM	Erimo	1.67	233	eP	Pn	17 09 26.9	+1.3
ERM	Erimo	1.67	233	ePn	Pn	17 09 26.8	+1.2
ERM				eSn	Sn	17 09 44.1	-3.0
JEM	Erimo	1.67	233	P	Pn	17 09 26.2	+0.6
JFR	Furan	1.73	275	P	Pn	17 09 26.5	+0.2
JFR				eS	Sn	17 09 48.0	-0.3
JNBK	Urakawa-nobuka	1.79	246	⇑P	Pn	17 09 26.7	-0.4
JNBK				eS	Sn	17 09 47.5	-2.1
JKK2	Kamakawa 2	1.81	298	⇓P	Pn	17 09 28.2	+0.9
JKK2				eS	Sn	17 09 50.4	+0.3
KUR	Kuril'sk	3.04	43	ePN	Pn	17 09 42.0	-1.6
KUR				eS	Sn	17 10 18.0	-1.2
KUR				pmax	pmax		
	comp=Z,60nm,0.5s						
KUR				smax			
	comp=N,230nm,0.5s						
KUR				smax			
	comp=E,150nm,0.5s						
KUR	Kuril'sk	3.04	43	eP	Pn	17 09 42.0	-1.6
KUR				AMB	AMB	17 09 46.8	
	comp=E,60nm,0.5s						
KUR				eS	Sn	17 10 18.0	-1.2
KUR				A		17 10 19.0	
	comp=E,230nm,0.5s						
KUR				A		17 10 19.0	
	comp=E,150nm,0.5s						
MAJO	Matsushiro	8.30	221	PN	Pn	17 10 55.6	+0.7
MJAR	Matsushiro Arr	8.30	221	P	Pn	17 10 55.3	+0.4
	comp=E,0.4nm,0.3s,baz=32,slow=11,SNR=5.8						
HABR	Khabarovsk	8.79	312	cePN	Pn	17 10 57.9	-3.6
HABR				S	Sn	17 12 35.0	-3.8
HABR				MLR	MLR		
	comp=Z,62nm,6.0s						
PETK	Petropavlovsk-	13.18	36	P	Pn	17 11 57.5	-3.0
	comp=Z,0.2nm,0.3s,baz=201,slow=9.0,SNR=5.2						
SEY	Seymchan	20.40	10	⇓eP	P	17 13 26.8	+0.7
SONM	Songino Array	27.27	294	P	P	17 14 33.5	+1.2
	comp=Z,2.4nm,0.7s,mb3.9,baz=81,slow=8.3,SNR=18						
BILL	Bilibino	27.50	17	eP	P	17 14 30.1	-4.0
BILL				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.3						
BILL	Bilibino	27.50	17	eP	P	17 14 32.4	-1.8
ZAK	Zakamensk	29.18	299	eP	P	17 14 50.3	+1.0
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.7s,mb3.2						
ZALV	Zalesovo Beam	40.15	307	P	P	17 16 24.2	+0.8
	comp=Z,0.9nm,0.4s,mb3.9,baz=96,slow=6.1,SNR=7.8						
ZALV				PcP	PcP	17 18 26.7	+0.9
	comp=Z,0.8nm,0.5s,baz=93,slow=3.0,SNR=6.0						
ZALV	Zalesovo Beam	40.15	307	P	P	17 16 24.2	+0.8
ZALV				PcP	PcP	17 18 26.7	+0.9
KDAK	Kodiak Island	40.91	47	i P	P	17 16 30.2	+0.6
KDAK	Kodiak Island	40.91	47	P	P	17 16 30.1	+0.4
	comp=Z,6.7nm,0.8s,mb4.5,baz=274,slow=8.2,SNR=5.4						
MCK	McKinley	42.18	37	P	P	17 16 37.9	-2.0
MCK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
MCK	McKinley	42.18	37	P	P	17 16 37.9	-2.0
	comp=Z,5.1nm,1.1s,mb4.2						
COLA	College	42.59	36	eP	P	17 16 44.1	+0.9
COLA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
COLA	College	42.59	36	eP	P	17 16 44.1	+0.8
	comp=Z,4.3nm,0.8s,mb4.2						
MKAR	Makanchi Array	43.49	298	P	P	17 16 51.1	+0.4
	comp=Z,1.4nm,0.6s,mb3.9,baz=83,slow=10,SNR=37						
KURK	Kurchatov	44.60	304	eP	P	17 16 59.1	-0.4
KURK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.1						
KURK	Kurchatov	44.60	304	eP	P	17 16 59.1	-0.4
	comp=Z,4.1nm,1.0s,mb4.1						
INK	Inuvik	47.83	30	P	P	17 17 25.2	+0.7
	comp=Z,1.3nm,0.4s,mb4.1,baz=270,slow=6.1,SNR=14						
BRVK	Borovoye	48.76	309	P	P	17 17 30.1	-1.8
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
BRVK	Borovoye	48.76	309	P	P	17 17 30.1	-1.8
	comp=Z,1.8nm,0.7s,mb4.1						
TKM2	Tokmak 2	49.36	295	eP	P	17 17 37.6	+1.0
TKM2				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
TKM2	Tokmak 2	49.36	295	eP	P	17 17 37.6	+0.9
	comp=Z,1.4nm,0.5s,mb4.2						
ARU	Arti	53.76	317	eP	P	17 18 09.2	0.0
ARU				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
ARU	Arti	53.76	317	eP	P	17 18 09.2	-0.1
	comp=Z,2.2nm,0.6s,mb4.4						
RES	Resolute Bay	56.11	16	P	P	17 18 26.1	+0.2
RES				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
RES	Resolute Bay	56.11	16	P	P	17 18 26.1	+0.2
	comp=Z,5.0nm,0.7s,mb4.7,baz=309,slow=6.8,SNR=53						
RES	Resolute Bay	56.11	16	eP	P	17 18 25.7	-0.1
	comp=Z,4.8nm,0.6s,mb4.7						
YKA	Yellowknife Ar	57.28	33	P	P	17 18 35.0	+0.7
	comp=Z,0.7nm,0.7s,mb3.8,baz=304,slow=6.7,SNR=11						
YKA	Yellowknife Ar	57.28	33	P	P	17 18 35.0	+0.7
KEV	Kevo	58.81	339	ep	P	17 18 43.4	-1.5
ARCES	ARCESS Array B	59.35	339	P	P	17 18 49.1	+0.5
	comp=Z,1.1nm,0.5s,mb4.1,baz=42,slow=7.2,SNR=7.9						
JOF	Joensuu	61.96	332	eP	P	17 19 04.5	-1.9
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
JOF	Joensuu	61.96	332	ep	P	17 19 04.5	-1.9
	comp=Z,2.3nm,0.5s,mb4.5						
KAF	Kangasniemi	64.22	333	eP	P	17 19 19.2	-2.2
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
KAF	Kangasniemi	64.22	333	ep	P	17 19 19.2	-2.2
	comp=Z,1.9nm,0.5s,mb4.2						
NB2	NORSAR Subarra	69.67	338	P	P	17 19 55.9	0.0
	comp=Z,1.4nm,0.7s,mb3.9,baz=34,slow=6.5						
NOA	NORSAR Array B	69.67	338	P	P	17 19 56.2	+0.3
	comp=Z,1.9nm,0.7s,mb4.0,baz=36,slow=6.2,SNR=7.4						
NOA	NORSAR Array B	69.67	338	P	P	17 19 56.2	+0.2
AKASG	Malin Array Be	71.19	323	P	P	17 20 05.2	-0.1
	comp=Z,1.3nm,0.5s,mb4.0,baz=40,slow=6.5,SNR=8.7						
PDAR	Pinedale Array	71.59	48	P	P	17 20 09.2	+1.4
	comp=Z,0.6nm,0.6s,mb3.6,baz=237,slow=1.4,SNR=6.9						

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*IDC **05** 17:11:43.8±2.0, 1°.79S×125°.36E, h0^{km}, mb4.0/7, mb1 4.1/8, mb1mx4.0/17, mbtmp4.0/8, ML3.4/1, MS3.4/1, Ms1 3.3/1, ms1mx2.4/28, Error ellipse: s-maj=43.6km s-min=38.5km az=122.0*

*ISCJB **05** 17:11:45.6±0.8, 2°.06S±0°.05×125°.40E±0°.06, h40^{km}±8^{km}, mb4.4/18, Error ellipse: s-maj=9.8km s-min=8.5km az=167.5*

*DJA **05** 17:11:46, 2°.07S×125°.44E, h20^{km}, MLv4.2/5*

*BJI **05** 17:11:46.9, 1°.90S×125°.30E, h35^{km}, mB5.4/1, mb4.5/4*

*NEIC **05** 17:11:48.0±0.7, 1°.91S×125°.30E, h35^{km}, mb4.6/11, Error ellipse: s-maj=20.8km s-min=12.0km az=98.0*

ISC 05 17:11:47.3±0.7**, 2°.06S**±0°.05×**125°.44E**±0°.06**, h37**^{km}±8^{km}**, n35, σ1^{s}.08**/35**, mb4.4**/18**, 2D, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LBMI	Labuha	2.50	56	P	Pn	17 12 24.5	-0.9
AAI	Ambon	3.20	121	P	Pn	17 12 36.2	+1.2
KDI	Kendari	3.39	236	P	Pn	17 12 35.5	-2.2
TNTI	Ternate	3.41	35	P	Pn	17 12 38.0	+0.1
MNI	Manado	3.53	350	⇓eP	Pn	17 12 39.5	-0.1
MNI				eS	Sn	17 13 19.0	-1.1
MNI	Manado	3.53	350	P	Pn	17 12 40.4	+0.8
PCI	Palu	5.71	281	⇓eP	Pn	17 13 11.0	+1.4
PCI	Palu	5.71	281	P	Pn	17 13 11.5	+1.9
	103nm,0.9s,940nm0.4nm						
KAPI	Kappang	6.39	242	ePn	Pn	17 13 17.7	-1.2
	20nm,0.6s						
MYLDM	Lahad Datu	9.98	316	P	Pn	17 14 10.6	+2.3
	26nm,1.1s						
FITZ	Fitzroy Crossi	15.95	179	Pn	Pn	17 15 33.4	+4.4
	0.1nm,0.3s,baz=28,slow=11,SNR=3.8						
WRAB	Tennant Creek	19.79	154	P	Pn	17 16 15.9	-0.4
	21nm,1.0s						
COEN	Coen	21.15	125	P	P	17 16 29.7	+0.4
CMAR	Chiang Mai Arr	33.09	309	P	P	17 18 20.5	+0.6
	0.5nm,0.8s,mb3.5,baz=136,slow=6.1,SNR=4.6						
CHTO	Chiang Mai	33.30	310	P	P	17 18 21.9	+0.2
STKA	Stephens Creek	33.35	154	LR	LR	17 31 09.0	
	comp=Z,70nm,20.9s,baz=212,slow=35						
KSRS	Korea Array	39.38	3	P	P	17 19 14.2	+0.9
	2.0nm,0.9s,mb3.9,baz=176,slow=8.8,SNR=5.1						
MJAR	Matsushiro Arr	40.20	16	P	P	17 19 18.5	-1.7
	0.6nm,0.6s,mb3.5,baz=217,slow=20,SNR=2.9						
BJT	Baijiatuau	42.72	349	P	P	17 19 40.1	-0.7
	8.5nm,0.6s,mb4.7						
LSA	Lhasa	45.50	317	eP	P	17 20 03.7	+0.4
	1.2nm,0.6s,mb4.0						
MDJ	Mudanjiang	46.61	4	P	P	17 20 11.6	-0.2
ULN	Ulaanbaatar	52.25	344	eP	P	17 20 54.6	0.0
	5.9nm,0.9s,mb4.5						
SONM	Songino Array	52.40	344	P	P	17 20 56.2	+0.4
	4.0nm,0.8s,mb4.4,baz=159,slow=8.9,SNR=28						
PETK	Petropavlovsk-	61.24	22	P	P	17 21 59.7	+1.2
	1.5nm,0.7s,mb4.2,baz=195,slow=7.3,SNR=3.4						
PETK	Petropavlovsk-	61.24	22	P	P	17 21 59.7	+1.2
MKAR	Makanchi Array	61.63	328	P	P	17 22 01.8	+0.5
	3.0nm,0.6s,mb4.6,baz=124,slow=8.6,SNR=50						
TKM2	Tokmak 2	63.30	321	eP	P	17 22 12.8	+0.3
	3.5nm,0.6s,mb4.7						
AAK	Ala-Archa	63.85	320	eP	P	17 22 17.0	+0.9
	6.9nm,1.4s,mb4.5						
YAK	Yakutsk	63.99	2	P	P	17 22 13.0	-3.6
	5.3nm,0.7s,mb4.7						
EKS2	Erkin-Say	64.33	320	P	P	17 22 16.4	-2.8
	16nm,1.6s,mb4.8						
CASY	Casey	64.96	187	eP	P	17 22 23.1	+0.2
	37nm,1.4s,mb5.2						
ZALV	Zalesovo Beam	65.19	335	P	P	17 22 23.4	-1.1
	1.6nm,0.7s,mb4.1,baz=121,slow=5.5,SNR=9.2						
KURK	Kurchatov	65.97	329	eP	P	17 22 29.8	+0.1
	11nm,1.0s,mb4.8						
BRVK	Borovoye	71.56	329	eP	P	17 23 03.0	-1.5
	4.5nm,1.0s,mb4.3						
ARU	Arti	79.14	329	P	P	17 23 49.0	+1.0
	7.6nm,1.3s,mb4.5						

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*ISK **05** 17:18:46.6, 37°.54N×36°.07E, h8^{km}, MD2.8*

*ISCJB **05** 17:18:47.3±0.7, 37°.53N±0°.06×36°.05E±0°.04, h10^{km}, Error ellipse: s-maj=8.3km s-min=4.0km az=175.3*

*CSEM **05** 17:18:47.4±0.5, 37°.54N×36°.00E, h1^{km}±5^{km}, MD2.8, Error ellipse: s-maj=14.4km s-min=6.2km az=167.0*

*DDA **05** 17:18:48.2, 37°.51N×36°.05E, h7^{km}±3^{km}, Md2.9*

ISC 05 17:18:47.6±0.8**, 37°.53N**±0°.06×**36°.02E**±0°.04**, h14**^{km}±7^{km}**, n14, σ0^{s}.66**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	Kozan	0.16	254	ePG	Pg	17 18 51.1	-0.4
KOZT				eSG	Sg	17 18 54.5	+0.1
ANDN	Andirin	0.26	78	i P	Pg	17 18 53.4	+0.2
ANDN				i S	Sg	17 18 57.9	+0.9
ANDN	Andirin	0.26	78	i P	Pg	17 18 53.4	+0.2
ANDN				i S	Sg	17 18 57.9	+0.9
KMRS	Kahramanmaras	0.70	91	ePG	Pg	17 18 60.0	-1.3
KMRS				eSG	Sg	17 19 09.6	-0.9
KMRS	Kahramanmaras	0.70	91	ePg	Pg	17 19 00.0	-1.2
KMRS				eSg	Sg	17 19 09.6	-0.9
GULE	Gulek	1.02	257	i P	Px	17 18 37.6	
GULE				i P	Sx	17 18 53.5	
KUZU	Kuzuini	1.13	131	i P	Pg	17 19 09.4	0.0
KUZU				i S	Sg	17 19 24.8	+0.7
KUZU	Kuzuini	1.13	131	i P	Pg	17 19 09.4	0.0
KUZU				i S	Sg	17 19 24.8	+0.7
GZT	Gaziantep	1.24	97	i P	Pg	17 19 11.7	+0.2
GZT				i S	Sg	17 19 27.6	-0.1
NIG	Nigde	1.26	298	ePN	Pn	17 19 11.4	+0.6
NIG	Nigde	1.26	298	ePn	Pn	17 19 11.4	+0.6
SARI	SarD1z-Kayseri	1.27	25	ePG	Px	17 19 04.5	
AKCD	Akcadag	1.69	62	i P	Pg	17 19 19.1	-0.9
AKCD				i S	Sg	17 19 42.8	+0.8
AKCD	Akcadag	1.69	62	i P	Pg	17 19 19.1	-1.0
AKCD				i S	Sg	17 19 42.8	+0.8

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*ISCJB **05** 17:29:05.9±0.5, 2°.63S±0°.07×28°.89E±0°.08, h10^{km}, mb4.1/18, Error ellipse: s-maj=13.4km s-min=7.7km az=30.3*

*IDC **05** 17:29:07.0±0.8, 2°.49S×28°.93E, h0^{km}, mb4.0/13, mb1 4.1/15, mb1mx4.0/24, mbtmp4.0/15, ML3.8/1, MS3.2/4, Ms1 3.2/4, ms1mx2.7/33, Error ellipse: s-maj=23.6km s-min=17.1km az=102.0*

*NEIC **05** 17:29:08.3±0.4, 2°.53S×28°.89E, h10^{km}, mb4.7/5, Error ellipse: s-maj=11.4km s-min=8.0km az=113.0*

ISC 05 17:29:08.4±0.5**, 2°.54S**±0°.07×**28°.89E**±0°.09**, h10**^{km}**, n23, σ0^{s}.94**/27**, mb4.1**/18**, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBAR	Mbarara	2.67	44	ePn	Pn	17 29 52.6	+1.2
KMBO	Kilima Mbogo	8.47	81	Pn	Pn	17 31 10.6	-0.7
	1.3nm,0.3s,baz=240,slow=18,SNR=16						
KMBO				Sn	Sn	17 32 37.0	-10
	1.7nm,0.3s,baz=227,slow=21,SNR=3.5						
KMBO				Lg		17 33 27.9	
	6.8nm,0.3s,baz=3.8,slow=19,SNR=9.9						
KMBO				LR	LR	17 34 40.7	
	comp=Z,222nm,19.6s,baz=98,slow=40						
KMBO	Kilima Mbogo	8.47	81	Pn	Pn	17 31 10.6	-0.7
KMBO				Sn	Sn	17 32 37.0	-10
KMBO				Lg		17 33 27.9	
KMBO				LR	LR	17 34 40.7	
LSZ	Lusaka	12.67	183	Pn	Pn	17 32 08.1	-0.7
	0.2nm,0.3s,baz=11,slow=15,SNR=2.6						
LSZ				Sn	Sn	17 34 20.3	-10
	0.5nm,0.3s,baz=354,slow=11,SNR=2.0						
LSZ				Lg		17 35 44.9	
	1.0nm,0.3s,baz=133,slow=22,SNR=7.8						
LSZ				LR	LR	17 37 47.0	
	comp=Z,22nm,20.6s,baz=204,slow=41						
TSUM	Tsumeb	19.91	213	P	Pn	17 33 45.3	+3.3
	0.1nm,0.3s,baz=324,slow=6.0,SNR=3.7						
TSUM				S	Sn	17 37 16.5	-10
	0.1nm,0.3s,baz=258,slow=9.4,SNR=2.4						
TSUM				Lg		17 39 34.1	
	0.1nm,0.3s,baz=51,slow=12,SNR=3.3						
TSUM				LR	LR	17 41 11.6	
	comp=Z,60nm,18.1s,baz=143,slow=36						
LBTB	Lobatse	22.57	188	P	P	17 34 11.5	+2.6
	6.4nm,1.0s,mb4.0,baz=7.1,slow=12,SNR=6.9						
LBTB				Lg		17 40 57.1	
	3.0nm,0.8s,baz=331,slow=17,SNR=1.8						
BOSA	Boshof	26.16	187	P	P	17 34 43.3	+0.4
	1.6nm,0.7s,mb3.7,baz=330,slow=2.9,SNR=5.3						
TORD	Torodi Ar. Bea	31.17	301	P	P	17 35 27.9	0.0
	2.0nm,0.9s,mb4.0,baz=114,slow=8.4,SNR=12						
TORD				LR	LR	17 48 17.8	
	comp=Z,116nm,19.0s,baz=130,slow=37						
DBIC	Dimbokro	34.91	285	P	P	17 36 00.6	0.0
	2.5nm,0.7s,mb4.2,baz=96,slow=8.5,SNR=3.4						
SHEL	Horse Pasture	36.61	246	eP	P	17 36 14.5	-0.6
	59nm,0.9s,mb5.4						
MALT	Malatya	41.60	11	P	P	17 36 58.0	+1.5
	2.0nm,0.8s,mb3.8						
BRTR	Keskin Array B	42.29	5	P	P	17 37 03.2	+1.1
	2.3nm,0.7s,mb4.0,baz=187,slow=9.7,SNR=18						
GERES	GERESS Array B	52.85	347	P	P	17 38 24.5	+0.4
	1.6nm,0.7s,mb4.1,baz=167,slow=6.7,SNR=7.2						
AKASG	Malin Array Be	53.04	0	P	P	17 38 24.7	-0.8
	1.5nm,0.7s,mb4.0,baz=188,slow=7.4,SNR=6.1						
KHC	Kasperske Hory	53.15	347	eP	P	17 38 25.9	-0.5
	3.3nm,0.8s,mb4.3						
ARU	Arti	63.54	18	eP	P	17 39 37.3	-1.5
	4.7nm,0.8s,mb4.6						
NOA	NORSAR Array B	64.86	351	P	P	17 39 48.0	+0.5
	2.5nm,1.0s,mb4.2,baz=162,slow=6.1,SNR=3.4						
MKAR	Makanchi Array	67.83	37	P	P	17 40 06.7	-0.1
	1.5nm,0.6s,mb4.2,baz=244,slow=5.4,SNR=20						
KURK	Kurchatov	67.88	32	P	P	17 40 06.4	-0.6
	1.7nm,0.8s,mb4.1,baz=242,slow=6.7,SNR=4.4						
ARCES	ARCESS Array B	71.97	359	P	P	17 40 31.2	-0.5
	2.4nm,0.9s,mb4.1,baz=216,slow=6.0,SNR=3.9						
ZALV	Zalesovo Beam	72.82	31	P	P	17 40 36.3	-0.8
	0.3nm,0.3s,mb3.6,baz=298,slow=3.2,SNR=4.4						
SONM	Songino Array	83.50	41	P	P	17 41 37.0	+0.5
	0.2nm,0.5s,mb3.5,baz=264,slow=2.9,SNR=3.4						
SFJD	Kangerlussuaq	88.23	337	P	P	17 41 59.1	-0.4
	6.1nm,1.0s,mb4.8						

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*IDC **05** 18:14:40.5±1.4, 2°.70N×95°.57E, h0^{km}, mb4.3/7, mb1 4.4/9, mb1mx4.1/21, mbtmp4.3/9, ML4.0/2, MS3.6/6, Ms1 3.7/6, ms1mx3.3/24, Error ellipse: s-maj=37.2km s-min=22.0km az=41.0*

*BJI **05** 18:14:42.0, 2°.83N×95°.84E, h15^{km}, mB5.1/15, mb4.7/24, Ms4.1/6, Ms7 3.9/8*

*MOS **05** 18:14:42.6±0.9, 2°.66N×95°.66E, h33^{km}, mb4.8/20, Error ellipse: s-maj=15.1km s-min=6.9km az=95.3*

*ISCJB **05** 18:14:44.0±0.9, 2°.71N±0°.05×95°.65E±0°.05, h42^{km}±8^{km}, mb4.6/50, MS3.8/13, Error ellipse: s-maj=10.1km s-min=6.8km az=141.8*

*NEIC **05** 18:14:45.7±1.7, 2°.71N×95°.65E, h38^{km}±15^{km}, mb4.6/23, Error ellipse: s-maj=14.4km s-min=8.0km az=55.0*

*DJA **05** 18:14:47, 2°.84N×95°.94E, h17^{km}, mb4.5/8*

ISC 05 18:14:46.6±0.8**, 2°.74N**±0°.05×**95°.70E**±0°.06**, h45**^{km}±8^{km}**, h21**^{km}±3.5^{km}**:pP-P, n113, σ1^{s}.02**/112**, mb4.6**/50**, MS3.8**/13**, 3C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	2.35	127	P	Pn	18 15 22.0	-0.8
GSI				S	Sn	18 15 50.0	-0.5
BSI	Banda Aceh	2.77	352	P	Pn	18 15 26.1	-2.4
TSI	Tuntungan	2.96	75	eP	Pn	18 15 32.0	+0.9
PSI	Prapat	3.22	89	⇑eP	Pn	18 15 34.1	-0.6
PSI	Prapat	3.22	89	Pn	Pn	18 15 35.6	+0.9
	7.2nm,0.3s,baz=297,slow=7.7,SNR=35						
PSI				LR	LR	18 17 12.1	
	comp=Z,814nm,18.9s,baz=269,slow=45						
KULM	Kulim	5.55	63	P	Pn	18 16 08.1	+1.4
KULM	Kulim	5.55	63	ePn	Pn	18 16 06.7	0.0
	124nm,0.9s						
IPM	Ipoh	5.59	72	P	Pn	18 16 08.6	+1.4
IPM	Ipoh	5.59	72	P	Pn	18 16 07.8	+0.6
	60nm,1.0s,0.2nm						
PPI	Padang Panjang	5.67	124	P	Pn	18 16 08.1	-0.2
	56nm,1.1s,897nm0.2nm						
KGM	Kluang	7.65	95	P	Pn	18 16 36.4	+0.9
KTGM	Kuala Trenggan	7.85	71	P	Pn	18 16 38.7	+0.5
MYKOM	Kota Tinggi	8.20	96	P	Pn	18 16 43.2	+0.1
MYKOM	Kota Tinggi	8.20	96	P	Pn	18 16 44.3	+1.2
	25nm,1.0s,0.1nm						
KSI	Kapahiang	9.37	133	P	Pn	18 16 59.6	+0.5
	53nm,0.8s						
KSM	Kuching	14.65	95	ePn	Pn	18 18 07.7	-3.5
PALK	Pallekele	15.60	287	eP	Pn	18 18 28.9	+5.3
PALK				pmax	pmax		
	comp=Z,39nm,1.1s						
PALK	Pallekele	15.60	287	ePn	Pn	18 18 28.9	+5.3
	comp=Z,39nm,1.1s						
PALK	Pallekele	15.60	287	P	Pn	18 18 30.5	+6.9
	comp=Z,16nm,1.4s						
CMAR	Chiang Mai Arr	15.94	11	Pn	Pn	18 18 27.0	-0.8
	comp=Z,0.4nm,0.3s,baz=201,slow=14,SNR=114						
CMAR				LR	LR	18 24 16.1	
	comp=Z,150nm,20.4s,baz=195,slow=36						
CHTO	Chiang Mai	16.29	11	eP	Pn	18 18 30.5	-1.8
CHTO				pmax	pmax		
	comp=Z,24nm,1.4s						
CHTO	Chiang Mai	16.29	11	eP	Pn	18 18 30.5	-1.8
	comp=Z,24nm,1.4s						
CHTO	Chiang Mai	16.29	11	P	Pn	18 18 31.7	-0.6
	comp=Z,16nm,1.6s						
VIS	Vishakhapatnam	19.21	322	ex	x	18 19 09.8	
KKM	Kota Kinabalu	20.71	80	P	P	18 19 20.0	-3.4
KKM	Kota Kinabalu	20.71	80	eP	P	18 19 24.3	+1.0
	comp=Z,33nm,0.8s						
KKM	Kota Kinabalu	20.71	80	P	P	18 19 24.4	+1.0
	comp=Z,43nm,0.9s						
QIZ	Qiongzhong	21.30	40	P	P	18 19 28.4	-1.2
QIZ				S	S	18 23 21.7	-2.1
QIZ				LR	LR		
	comp=N,470nm,15.9s						
QIZ				LR	LR		
	comp=Z,240nm,16.8s,MS3.7						
SDKM	Sandakan	21.63	82	P	P	18 19 30.5	-2.7
MYLDM	Lahad Datu	22.87	83	P	P	18 19 43.6	-2.9
MYLDM	Lahad Datu	22.87	83	P	P	18 19 48.2	+1.7
BOK	Bokaro	22.98	336	ex	x	18 19 48.0	
BOK				AMb	AMB	18 19 51.6	
	comp=Z,29nm,0.5s,mb4.9						
SHL	Shillong	22.99	351	ePKP	P	18 19 46.0	-1.5
KMI	Kunming	23.27	16	P	P	18 19 50.8	+0.4
KMI				pP		18 19 58.3	
KMI				sP	sP	18 20 01.5	-5.6
KMI				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.6						
KMI				pmax	pmax		
	comp=Z,38nm,3.6s						
KMI				LR	LR		
	comp=N,370nm,13.4s,MS4.0						
KMI				LR	LR		
	comp=E,190nm,16.8s,MS4.0						
KMI				LR	LR		
	comp=Z,440nm,12.6s,MS4.1						
LSA	Lhasa	27.16	351	P	P	18 20 27.4	+1.6
LSA	Lhasa	27.16	351	eP	P	18 20 27.3	+1.5
LSA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.5						
LSA	Lhasa	27.16	351	eP	P	18 20 27.3	+1.5
	comp=Z,14nm,0.8s,mb4.5						
WHN	Wuhan	32.80	31	P	P	18 21 15.1	-0.7
XAN	Xi'an	33.50	20	P	P	18 21 21.1	-0.6
XAN				pP	pP	18 21 29.4	-4.4
XAN				sP	sP	18 21 33.5	-5.7
XAN				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.3						
XAN				pmax	pmax		
	comp=Z,130nm,4.4s						
XAN				LR	LR		
	comp=E,160nm,12.2s						
XAN				LR	LR		
	comp=Z,230nm,12.2s,MS4.1						
LZH	Lanzhou	34.03	12	eP	P	18 21 26.0	-0.3
LZH				pP	pP	18 21 32.0	-6.4
LZH				sP	sP	18 21 35.0	-8.8
LZH				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
LZH				pmax	pmax		
	comp=Z,120nm,4.1s						
FITZ	Fitzroy Crossi	36.04	126	P	P	18 21 44.2	+0.2
	comp=Z,2.1nm,0.8s,mb4.2,baz=148,slow=14,SNR=3.8						
GTA	Gaotai	36.69	5	P	P	18 21 49.5	+0.3
GTA				pP	pP	18 21 55.7	-5.7
GTA				sP	sP	18 22 00.9	-5.8
GTA				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
BTO	Baotou	39.86	17	eP	P	18 22 15.4	-0.4
BJT	Baijiatuau	41.49	24	eP	P	18 22 30.1	+0.8
BJT				e		18 22 36.7	
BJT				pmax	pmax		
	comp=Z,12nm,0.8s						
BJT	Baijiatuau	41.49	24	eP	P	18 22 30.1	+0.8
	comp=Z,12nm,0.8s,mb4.6						
BJT				e		18 22 36.7	
BJI	Beijing	41.51	24	P	P	18 22 30.6	+1.1
BJI				pmax	pmax		

	comp=Z,24nm,0.9s,mb4.8						
BJI				pmax	pmax		
	comp=Z,170nm,3.8s						
BJI				LR	LR		
	comp=N,160nm,27.1s,MS4.0						
BJI				LR	LR		
	comp=E,230nm,25.1s,MS4.0						
BJI				LR	LR		
	comp=Z,48nm,30.6s						
WMQ	**Urumqi**	**41.52**	**351**	P	**P**	**18 22 30.2**	**+0.7**
WMQ				pP	pP	18 22 37.5	-4.3
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
WMQ				pmax	pmax		
	comp=Z,180nm,4.9s						
WMQ				LR	LR		
	comp=Z,100nm,20.4s,MS3.7						
TKM2	**Tokmak 2**	**43.84**	**339**	*e*P	**P**	**18 22 48.1**	**-0.2**
AML	**Almayashu**	**43.90**	**336**	*e*P	**P**	**18 22 50.6**	**+1.8**
	comp=Z,20nm,1.2s,mb4.7						
AML				*e*		18 22 57.2	
AAK	**Ala-Archa**	**44.01**	**337**	*e*P	**P**	**18 22 50.5**	**+0.9**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
AAK	**Ala-Archa**	**44.01**	**337**	*e*P	**P**	**18 22 50.5**	**+0.9**
	comp=Z,4.5nm,0.9s,mb4.2						
WRAB	**Tennant Creek**	**44.12**	**122**	*e*P	**P**	**18 22 50.3**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
WRAB	**Tennant Creek**	**44.12**	**122**	*e*P	**P**	**18 22 50.3**	**-0.6**
	comp=Z,6.5nm,1.0s,mb4.3						
EKS2	**Erkin-Say**	**44.31**	**337**	*e*P	**P**	**18 22 53.3**	**+1.3**
	comp=Z,6.2nm,0.8s,mb4.4						
MK31	**Makanchi Array**	**45.41**	**347**	*e*P	**P**	**18 23 00.9**	**+0.2**
MKAR	**Makanchi Array**	**45.41**	**347**	P	**P**	**18 23 01.4**	**+0.6**
	comp=Z,13nm,0.8s,mb4.8,baz=162,slow=8.3,SNR=152						
KSRS	**Korea Array**	**45.47**	**37**	P	**P**	**18 23 01.3**	**-0.1**
	comp=Z,2.5nm,0.7s,mb4.1,baz=222,slow=8.8,SNR=9.3						
KSRS				LR	LR	18 44 22.2	
	comp=Z,93nm,18.4s,MS3.8,baz=133,slow=39						
SONM	**Songino Array**	**45.86**	**10**	P	**P**	**18 23 04.8**	**+0.5**
	comp=Z,4.5nm,0.7s,mb4.5,baz=190,slow=8.7,SNR=32						
SONM				PcP	PcP	18 24 42.3	+1.4
	comp=Z,2.1nm,0.6s,baz=195,slow=3.9,SNR=7.1						
ULN	**Ulaanbaatar**	**46.01**	**11**	*e*P	**P**	**18 23 05.3**	**-0.2**
ULN				*e*		18 23 11.8	
ULN				*e*		18 24 42.5	
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ULN	**Ulaanbaatar**	**46.01**	**11**	*e*P	**P**	**18 23 05.3**	**-0.2**
	comp=Z,4.2nm,0.8s,mb4.4						
ULN				*e*		18 23 11.8	
ULN				*e*PcP	PcP	18 24 42.5	+1.0
ULN	**Ulaanbaatar**	**46.01**	**11**	P	**P**	**18 23 06.2**	**+0.7**
KK31	**Karatay Array**	**46.02**	**334**	*i* P	**P**	**18 23 06.5**	**+0.8**
KK31				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
ZAK	**Zakamensk**	**47.90**	**7**⇑	*i*P	**P**	**18 23 20.4**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.3						
CN2	**Changchun**	**48.65**	**29**	*e*P	**P**	**18 23 26.8**	**+0.7**
TLY	**Talaya**	**49.23**	**7**	*e*P	**P**	**18 23 31.8**	**+1.5**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
TLY				MLR	MLR		
	comp=Z,73nm,18.0s,MS3.7						
TLY	**Talaya**	**49.23**	**7**	*e*P	**P**	**18 23 31.3**	**+0.9**
	comp=Z,2.9nm,0.6s,mb4.5						
GUMO	**Guam**	**49.75**	**75**	P	**P**	**18 23 34.3**	**-0.7**
	comp=Z,163nm,1.0s						
KURK	**Kurchatov**	**49.94**	**346**	*e*P	**P**	**18 23 36.1**	**+0.3**
KURK				*e*		18 23 42.6	
KURK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
KURK	**Kurchatov**	**49.94**	**346**	*e*P	**P**	**18 23 36.1**	**+0.3**
	comp=Z,6.4nm,0.8s,mb4.7						
KURK				*e*		18 23 42.6	
HIA	**Hailar**	**50.70**	**20**	*e*P	**P**	**18 23 42.4**	**+0.8**
HIA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
HIA	**Hailar**	**50.70**	**20**	*e*P	**P**	**18 23 42.4**	**+0.9**
	comp=Z,4.1nm,0.7s,mb4.5						
MDJ	**Mudanjiang**	**51.29**	**31**	*e*P	**P**	**18 23 47.6**	**+1.5**
	comp=Z,7.9nm,0.9s,mb4.6						
ZALV	**Zalesovo Beam**	**51.82**	**352**	P	**P**	**18 23 50.4**	**+0.5**
	comp=Z,12nm,0.7s,mb5.0,baz=182,slow=7.1,SNR=70						
RDF	**Al-Radifah**	**52.62**	**305**	*e*P	**P**	**18 23 56.9**	**+0.5**
RDF				AMb	AMB	18 23 58.9	
	comp=Z,25nm,1.3s,mb5.0						
NVS	**Novosibirsk**	**52.92**	**351**⇑	*i*P	**P**	**18 23 57.9**	**-0.1**
NVS				*e*S	**S**	**18 31 34.9**	**+11**
NVS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
NVS				pmax	pmax		
	comp=N,6.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,4.0nm,0.8s						
NAY	**Al-Naaiem**	**52.99**	**305**	*e*P	**P**	**18 23 59.1**	**+0.1**
NAY				AMb	AMB	18 24 00.7	
	comp=Z,10nm,1.6s,mb4.5						
MIB	**Mutribah**	**53.11**	**306**	*e*P	**P**	**18 24 00.8**	**+0.9**
MIB				AMb	AMB	18 24 08.5	
	comp=Z,25nm,0.7s,mb5.2						
KRAR	**Krasnoyarsk**	**53.16**	**358**	*i* P	**P**	**18 24 00.7**	**+0.9**
KRAR				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
KRAR				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.9						
VOSK	**Vostochnaya**	**53.87**	**342**	P	**P**	**18 24 03.9**	**-1.2**
VOSK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BVA0	**Borovoye Array**	**54.32**	**341**	*i* P	**P**	**18 24 07.6**	**-0.7**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BRVK	**Borovoye**	**54.38**	**341**	*e*P	**P**	**18 24 09.1**	**+0.3**
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
BRVK	**Borovoye**	**54.38**	**341**	*e*P	**P**	**18 24 09.1**	**+0.3**
	comp=Z,4.4nm,0.6s,mb4.6						
CTAO	**Charters Tower**	**54.53**	**117**	*e*P	**P**	**18 24 10.4**	**0.0**
CTAO				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
CTAO	**Charters Tower**	**54.53**	**117**	*e*P	**P**	**18 24 10.4**	**-0.1**
	comp=Z,16nm,1.3s,mb4.9						
AB31	**Akbulak array**	**55.46**	**332**	P	**P**	**18 24 15.8**	**-0.8**
AB31				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
STKA	**Stephens Creek**	**55.49**	**132**	LR	LR	18 52 18.0	
	comp=Z,74nm,19.0s,MS3.8,baz=25,slow=41						
KLR	**Kul'dur**	**55.58**	**28**	*e*P	**P**	**18 24 14.2**	**-3.3**
HABR	**Khabarovsk**	**56.67**	**30**	*e*P	**P**	**18 24 23.4**	**-1.9**
HABR				*e*		18 25 18.3	
HABR				*e*		18 26 28.4	
HABR				S	**S**	**18 32 15.4**	**+0.9**
HABR				*e*		18 34 10.8	
HABR				SS	SS	18 36 04.1	+1.3
HABR				MLR	MLR		
	comp=Z,87nm,19.0s,MS3.9						
BOD	**Bodaibo**	**56.80**	**12**	*e*P	**P**	**18 24 26.0**	**0.0**
BOD				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
AKTO	**Aktyubinsk**	**57.18**	**332**	P	**P**	**18 24 27.7**	**-1.2**
AKTO				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.7						
YSS	**Yuzh-Sakhalins**	**59.95**	**35**	P	**P**	**18 24 49.4**	**+1.2**
YSS				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
YSS	**Yuzh-Sakhalins**	**59.95**	**35**	P	**P**	**18 24 49.4**	**+1.1**
	comp=Z,3.4nm,0.6s,mb4.5						
SVE	**Sverdlovsk**	**60.72**	**339**	*e*P	**P**	**18 24 53.3**	**0.0**
SVE				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.1						
ARU	**Arti**	**61.19**	**337**	*e*P	**P**	**18 24 56.0**	**-0.5**
ARU				*e*		18 25 03.0	
ARU				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
ARU	**Arti**	**61.19**	**337**	*e*P	**P**	**18 24 56.0**	**-0.5**
	comp=Z,3.7nm,1.0s,mb4.5						
ARU				*e*		18 25 03.0	
KIV	**Kislovodsk**	**62.17**	**319**	*e*P	**P**	**18 25 06.1**	**+2.7**
KIV				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
KIV				MLR	MLR		
	comp=Z,21nm,19.0s,MS3.3						
KIV	**Kislovodsk**	**62.17**	**319**	*e*P	**P**	**18 25 03.5**	**+0.1**
	comp=Z,8.1nm,1.1s,mb4.8						
MALT	**Malatya**	**62.99**	**312**	P	**P**	**18 25 09.8**	**+0.8**
YAK	**Yakutsk**	**64.38**	**17**	*e*P	**P**	**18 25 17.1**	**-0.5**
YAK				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.4s						
YAK	**Yakutsk**	**64.38**	**17**	*e*P	**P**	**18 25 16.1**	**-1.5**
	comp=E,17nm,0.8s,mb5.1						
BRTR	**Keskin Array B**	**66.97**	**312**	P	**P**	**18 25 34.9**	**+0.1**
	comp=E,0.5nm,0.7s,mb3.6,baz=173,slow=12,SNR=3.7						
PRGR	**Permogore**	**69.64**	**337**	*e*P	**P**	**18 25 50.1**	**-1.0**
PRGR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CASY	**Casey**	**69.68**	**174**	*e*P	**P**	**18 25 51.6**	**+0.4**
	comp=Z,48nm,1.5s,mb5.2						
OBN	**Obninsk**	**70.53**	**328**	*e*P	**P**	**18 25 53.7**	**-2.9**
OBN				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
TIXI	**Tiksi**	**71.95**	**11**	*e*P	**P**	**18 26 04.3**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.5						
TIXI	**Tiksi**	**71.95**	**11**	*e*P	**P**	**18 26 03.8**	**-1.1**
	comp=Z,8.6nm,1.1s,mb4.6						
SEY	**Seymchan**	**72.95**	**24**⇓	*e*P	**P**	**18 26 11.0**	**0.0**
AKASG	**Malin Array Be**	**73.13**	**322**	P	**P**	**18 26 09.9**	**-2.4**
	comp=Z,1.2nm,0.8s,mb3.9,baz=82,slow=6.0,SNR=4.2						
LBTB	**Lobatse**	**73.23**	**243**	P	**P**	**18 26 12.1**	**-1.4**
LBTB				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
LBTB	**Lobatse**	**73.23**	**243**	P	**P**	**18 26 12.1**	**-1.4**
	comp=Z,4.7nm,0.9s,mb4.4						
ARCES	**ARCESS Array B**	**80.59**	**340**	LR	LR	19 10 52.5	
	comp=Z,36nm,18.0s,MS3.8,baz=38,slow=42						
GERES	**GERESS Array B**	**82.67**	**319**	P	**P**	**18 27 05.9**	**+0.5**
	comp=Z,0.5nm,0.6s,mb3.7,baz=64,slow=6.7,SNR=3.4						
NOA	**NORSAR Array B**	**84.94**	**331**	LR	LR	19 07 16.1	
	comp=Z,24nm,18.4s,MS3.6,baz=270,slow=37						

ISCJB ***05*** *18:39:41.4±0.6, 37.°00N±0.°03×29.°09E±0.°03, h1^{km}±7^{km}, Error ellipse: s-maj=5.0km s-min=3.7km az=154.1*

CSEM ***05*** *18:39:41.6±0.1, 37.°00N×29.°11E, h2^{km}, MD3.2, Error ellipse: s-maj=3.0km s-min=2.6km az=171.0*

ISK ***05*** *18:39:41.0, 36.°99N×29.°11E, h3^{km}, MD3.2*

DDA ***05*** *18:39:41.6, 37.°02N×29.°12E, h7^{km}±10^{km}, Md3.2*

ISC 05 18:39:41.9±0.5**, 37.°01N**±0.°03×**29.°09E**±0.°03**, h4**^{km}±5^{km}**, n47, σ0^{s}85**/64**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	**Fethiye**	**0.37**	**180**	*e*PG	**Pg**	**18 39 48.2**	**-0.9**
FETY				*e*SG	**Sg**	**18 39 54.3**	**+0.4**
FETY	**Fethiye**	**0.37**	**180**	*e*Pg	**Pg**	**18 39 48.2**	**-0.9**
FETY				*e*Sg	**Sg**	**18 39 54.3**	**+0.4**
TURN	**Turunc**	**0.41**	**251**	*i* P	**Pg**	**18 39 54.3**	**+4.5**
TURN				*i* S	**Sg**	**18 40 05.1**	**+10**
TURN	**Turunc**	**0.41**	**251**	*i* P	**Pg**	**18 39 54.3**	**+4.5**
DALT	**Dalyan (Mudla)**	**0.43**	**237**	*e*PG	**Pg**	**18 39 50.1**	**-0.1**
DALT				*e*SG	**Sg**	**18 39 56.8**	**+1.0**
DALT	**Dalyan (Mudla)**	**0.43**	**237**	*e*Pg	**Pg**	**18 39 50.1**	**-0.1**
DALT				*e*Sg	**Sg**	**18 39 56.8**	**+1.0**
GOLH	**Golhisar**	**0.44**	**59**	*i* P	**Pg**	**18 39 49.3**	**-1.2**
GOLH				*i* S	**Sg**	**18 39 56.9**	**+0.7**
GOLH	**Golhisar**	**0.44**	**59**	*i* P	**Pg**	**18 39 49.3**	**-1.2**
GOLH				*i* S	**Sg**	**18 39 56.9**	**+0.7**
YER	**Yerkesik**	**0.66**	**281**	*e*PG	**Pg**	**18 39 55.0**	**+0.5**
YER	**Yerkesik**	**0.66**	**281**	*e*Pg	**Pg**	**18 39 55.0**	**+0.5**
ELL	**Elmali**	**0.71**	**111**	*e*PG	**Pg**	**18 39 54.8**	**-0.7**
ELL				*e*SG	**Sg**	**18 40 05.2**	**+0.5**
ELL	**Elmali**	**0.71**	**111**	*e*Pg	**Pg**	**18 39 54.8**	**-0.7**
ELL				*e*Sg	**Sg**	**18 40 05.2**	**+0.5**
DENT	**Denizli**	**0.75**	**357**	*e*PG	**Pg**	**18 39 55.6**	**-0.6**
DENT	**Denizli**	**0.75**	**357**	*e*Pg	**Pg**	**18 39 55.6**	**-0.7**
AKAS	**Kas**	**0.88**	**151**	*i* P	**Pg**	**18 39 57.4**	**-1.3**
AKAS				*i* S	**Sg**	**18 40 11.8**	**+1.7**
AKAS	**Kas**	**0.88**	**151**	*i* P	**Pg**	**18 39 57.4**	**-1.4**
AKAS				*i* S	**Sg**	**18 40 11.8**	**+1.7**
KSL	**Kastellorizon**	**0.94**	**155**	*e*P	**Pg**	**18 40 00.0**	**0.0**
MLSB	**Milas**	**1.08**	**286**	*e*PN	**Pn**	**18 40 03.2**	**-0.7**
MLSB	**Milas**	**1.08**	**286**	*e*Pn	**Pn**	**18 40 03.2**	**-0.7**
ARG	**Arkhangelos**	**1.10**	**225**	*e*P	**Pg**	**18 40 01.6**	**-1.5**
AYDN	**Tasoluk**	**1.16**	**304**	*i* P	**Pg**	**18 40 03.9**	**-0.3**
AYDN				*i* S	**Sg**	**18 40 21.5**	**+2.2**
AYDN	**Tasoluk**	**1.16**	**304**	*i* P	**Pg**	**18 40 03.9**	**-0.3**
AYDN				*i* S	**Sg**	**18 40 21.5**	**+2.2**
DAT	**Datca**	**1.24**	**258**	*e*PN	**Pn**	**18 40 06.4**	**+0.4**
DAT	**Datca**	**1.24**	**258**	*e*Pn	**Pn**	**18 40 06.4**	**+0.4**
BCK	**Bucak**	**1.28**	**69**	*e*PN	**Pn**	**18 40 05.9**	**-0.7**
BCK	**Bucak**	**1.28**	**69**	*e*Pn	**Pn**	**18 40 05.9**	**-0.7**
BDRM	**Kayabasi**	**1.31**	**273**	*i* P	**Pn**	**18 40 07.0**	**0.0**
BDRM				*i* S	**Sg**	**18 40 24.1**	**-0.1**
BDRM	**Kayabasi**	**1.31**	**273**	*i* P	**Pn**	**18 40 07.0**	**0.0**
BDRM				*i* S	**Sg**	**18 40 24.1**	**-0.1**
KHL	**Karahalli**	**1.36**	**15**	*e*PN	**Pn**	**18 40 08.1**	**+0.4**
KHL	**Karahalli**	**1.36**	**15**	*e*Pn	**Pn**	**18 40 08.1**	**+0.5**
KHAL	**Karahalli**	**1.40**	**13**	*i* P	**Pn**	**18 40 08.3**	**+0.1**
KHAL				*i* S	**Sb**	**18 40 26.6**	**-0.1**
KHAL	**Karahalli**	**1.40**	**13**	*i* P	**Pn**	**18 40 08.3**	**+0.1**
KHAL				*i* S	**Sb**	**18 40 26.6**	**-0.1**
ISP	**Isparta**	**1.41**	**53**	*e*PN	**Pn**	**18 40 08.7**	**+0.4**
ISP	**Isparta**	**1.41**	**53**	*e*Pn	**Pn**	**18 40 08.7**	**+0.4**
BODT	**Bodrum**	**1.42**	**273**	*e*PN	**Pn**	**18 40 09.1**	**+0.6**
BODT	**Bodrum**	**1.42**	**273**	*e*Pn	**Pn**	**18 40 09.1**	**+0.6**
KULA	**Kula-Manisa**	**1.54**	**347**	*e*PN	**Pn**	**18 40 10.4**	**+0.2**
KULA	**Kula-Manisa**	**1.54**	**347**	*e*Pn	**Pn**	**18 40 10.4**	**+0.3**
SMG	**Samos**	**1.92**	**292**	*e*P	**Pn**	**18 40 14.1**	**-1.3**
SHUT	**Suhut-Afyon**	**1.93**	**37**	*e*PN	**Pn**	**18 40 15.7**	**+0.2**
SHUT	**Suhut-Afyon**	**1.93**	**37**	*e*Pn	**Pn**	**18 40 15.7**	**+0.2**
KARP	**Karpathos**	**2.13**	**227**	*e*P	**Pn**	**18 40 19.0**	**+0.8**
HDMB	**Hadim**	**2.72**	**90**	*e*PN	**Pn**	**18 40 26.9**	**+0.5**
HDMB	**Hadim**	**2.72**	**90**	*e*Pn	**Pn**	**18 40 26.9**	**+0.5**
APE	**Apeiranthos**	**2.85**	**272**	*e*P	**Pn**	**18 40 26.4**	**-1.7**
KIZT	**Kizilcal**	**2.89**	**49**	*e*PN	**Pn**	**18 40 29.5**	**+0.7**
KIZT	**Kizilcal**	**2.89**	**49**	*e*Pn	**Pn**	**18 40 29.5**	**+0.8**

ISCJB ***05*** *19:07:41.3±1.2, 34.°11N±0.°06×32.°59E±0.°09, h21^{km}±19^{km}, Error ellipse: s-maj=13.7km s-min=10.0km az=25.9*

NEIC ***05*** *19:07:44.2, 34.°30N×32.°46E, h20^{km}, ML3.2(NIC), After NIC.*

NIC ***05*** *19:07:44.2±0.2, 34.°30N×32.°46E, h20^{km}, ML3.2, MW3.0*

GII ***05*** *19:07:44.8±0.0, 34.°06N×32.°76E, h15^{km}±1^{km}, Md2.4/2*

ISC 05 19:07:42.4±1.3**, 34.°17N**±0.°06×**32.°59E**±0.°09**, h22**^{km}±19^{km}**, n18, σ0^{s}74**/25**, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SZAC	**Souni-Zanaja**	**0.63**	**22**	P	**Pb**	**19 07 55.6**	**+0.8**
	13nm,0.2s						
SZAC				S	**Sb**	**19 08 03.8**	**+0.6**
PPCY	**Paphos**	**0.74**	**344**	P	**Pb**	**19 07 56.1**	**-0.5**
ALFC	**Alevga**	**0.98**	**0**	P	**Pb**	**19 07 59.6**	**-1.2**
	13nm,0.1s						
ALFC				S	**Sb**	**19 08 12.0**	**-1.3**
CSS	**Prodhromos**	**1.00**	**37**	*e*Pg	**Pb**	**19 08 00.4**	**-0.6**
CSS				*e*Sb	**Sb**	**19 08 14.1**	**+0.4**
MAMC	**Mammari**	**1.12**	**27**	P	**Pn**	**19 08 03.1**	**+0.3**
PHNC	**Paralimni**	**1.45**	**55**	P	**Pn**	**19 08 08.6**	**+1.3**
	2.4nm,1.0s						
OFRI	**'Ofer**	**2.53**	**127**	Sn	**Sn**	**19 08 51.1**	**-1.2**
MMA1	**Mount Meron ar**	**2.62**	**115**	Pn	**Pn**	**19 08 23.3**	**0.0**
MMC4	**Mount Meron ar**	**2.63**	**115**	Pn	**Pn**	**19 08 23.4**	**-0.1**
KSDI	**Kefar Szold**	**2.74**	**110**	Pn	**Pn**	**19 08 25.0**	**0.0**
KSDI				Sn	**Sn**	**19 08 56.9**	**-0.5**
HMDT	**Nahal Hemdat**	**3.12**	**127**	Pn	**Pn**	**19 08 31.3**	**+1.1**
HMDT				Sn	**Sn**	**19 09 06.9**	**+0.2**
DSI	**Dead Sea**	**3.50**	**137**	Pn	**Pn**	**19 08 35.7**	**+0.2**
DSI				Sn	**Sn**	**19 09 16.2**	**0.0**
RTMI	**Retamim**	**3.58**	**150**	Sn	**Sn**	**19 09 17.0**	**-1.1**
MZDA	**Masada**	**3.69**	**140**	Sn	**Sn**	**19 09 20.3**	**-0.5**
PRNI	**Paran**	**4.32**	**151**	Pn	**Pn**	**19 08 47.4**	**+0.6**
KRMI	**Paran Flat**	**4.43**	**155**	Pn	**Pn**	**19 08 49.2**	**+0.9**
MBRI	**Mt Berech**	**4.79**	**155**	Pn	**Pn**	**19 08 54.2**	**+1.0**
EIL	**Elat**	**4.92**	**155**	Pn	**Pn**	**19 08 55.3**	**+0.3**
EIL				Sn	**Sn**	**19 09 50.5**	**-0.7**

IDC 05 19:15:32.2±9.6**, 3.°56S**×**126.°45E, h395**^{km}±119^{km}**, mb2.9**/3**, mb1 3.2**/4**, mb1mx2.9**/17**, mbtmp3.0**/4**, Error ellipse: s-maj=128.0km s-min=23.3km az=51.0, Buru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**18.01**	**155**	P	P	19 19 17.9	+0.7
	0.8nm,0.3s,baz=336,slow=10,SNR=64						
STKA	**Stephens Creek**	**31.56**	**155**	P	P	19 21 19.2	-0.7
	1.5nm,0.6s,baz=321,slow=13,SNR=5.3						
CMAR	**Chiang Mai Arr**	**34.83**	**310**	P	P	19 21 47.2	-0.8
	0.6nm,0.6s,baz=132,slow=7.6,SNR=6.9						
MKAR	**Makanchi Array**	**63.44**	**328**	P	P	19 25 22.1	+0.7
	0.3nm,0.4s,baz=118,slow=7.6,SNR=9.4						

CRAAG ***05*** *19:16:18.0, 32.°14N×1.°36W, Ml4.0*

CNRM ***05*** *19:16:18.3, 31.°84N×0.°66W, h30^{km}, MD4.1*

NEIC ***05*** *19:16:18.2, 32.°14N×1.°36W, h0^{km}, MG4.0(MDD), After MDD.*

MDD ***05*** *19:16:22.8±1.5, 32.°42N×1.°21W, h0^{km}, mb4.0/8, Error ellipse: s-maj=16.5km s-min=8.4km az=144.0, PRIMO*

ISCJB ***05*** *19:16:23.1±0.7, 32.°69N±0.°04×1.°36W±0.°04, h10^{km}, Error ellipse: s-maj=6.2km s-min=4.3km az=143.0*

CSEM ***05*** *19:16:29.6±0.8, 32.°82N×1.°83W, h10^{km}, MD4.1, Error ellipse: s-maj=18.9km s-min=9.8km az=147.0*

ISC 05 19:16:23.6±0.9**, 32.°63N**±0.°04×**1.°37W**±0.°04**, h2**^{km}±5^{km}**, n77, σ1^{s}26**/114**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZFT	**Errachidia**	**2.59**	**257**	P	**Pn**	**19 17 06.0**	**-0.6**
ZFT				S	**Sn**	**19 17 38.0**	**-0.6**
ZFT	**Errachidia**	**2.59**	**257**	*i* P	**Pn**	**19 17 06.0**	**-0.6**
ZFT				*i* S	**Sn**	**19 17 38.0**	**-0.6**
ZAI	**Zaio**	**2.60**	**334**	P	**Pg**	**19 17 11.5**	**-1.9**
ZAI				S	**Sg**	**19 17 49.5**	**+2.4**
ZAI	**Zaio**	**2.60**	**334**	*i* P	**Pg**	**19 17 11.5**	**-1.9**
ODZI	**Dziouia**	**2.65**	**3**	P	**Pg**	**19 17 14.0**	**-0.5**
TZK	**Tazeka**	**2.77**	**302**	P	**Pn**	**19 17 12.0**	**+3.1**
TZK				S	**Sn**	**19 17 51.0**	**+8.1**
TZK	**Tazeka**	**2.77**	**302**	*e*P	**Pn**	**19 17 12.0**	**+3.1**
TZK				*i* S	**Sn**	**19 17 51.0**	**+8.1**
ODJA	**Bouhanifia**	**2.88**	**20**	P	**Pg**	**19 17 19.0**	**+0.2**
TOU	**Touzarine**	**3.06**	**320**	P	**Pn**	**19 17 15.5**	**+2.6**
TOU				S	**Sg**	**19 18 01.0**	**-0.8**
TOU	**Touzarine**	**3.06**	**320**	*i* P	**Pn**	**19 17 15.5**	**+2.6**
CZD	**Col de Zad**	**3.12**	**278**	P	**Pn**	**19 17 15.0**	**+1.2**
CZD				S	**Sn**	**19 18 00.0**	**+8.4**
CZD	**Col de Zad**	**3.12**	**278**	*i* P	**Pn**	**19 17 15.0**	**+1.2**
USTO	**Oran**	**3.17**	**12**	P	**Pg**	**19 17 26.0**	**+1.7**
OJBR	**Djebel Berber**	**3.27**	**25**	P	**Pg**	**19 17 25.0**	**-1.3**
OJBR	**Djebel Berber**	**3.27**	**25**	P	**Pg**	**19 17 25.0**	**-1.3**
MIF	**Mishlifen**	**3.33**	**284**	P	**Pn**	**19 17 18.0**	**+1.3**
MIF				S	**Sn**	**19 18 03.0**	**+6.1**
MIF	**Mishlifen**	**3.33**	**284**	*e*P	**Pn**	**19 17 18.0**	**+1.3**
OJGS	**Djebel Guires**	**3.36**	**31**	P	**Pn**	**19 17 24.0**	**+6.9**
OJGS	**Djebel Guires**	**3.36**	**31**	P	**Pn**	**19 17 24.0**	**+6.9**
ETRT	**Tiaret**	**3.53**	**38**	P	**Pn**	**19 17 20.0**	**+0.5**
ETRT	**Tiaret**	**3.53**	**38**	P	**Pn**	**19 17 20.0**	**+0.5**
EALB	**Alboran**	**3.58**	**338**	P	**Pn**	**19 17 20.1**	**0.0**
	0.8nm,0.1s,SNR=9.9						
EALB				S	**Sn**	**19 18 01.6**	**-1.3**
	12nm,0.4s,SNR=4.0						
EALB	**Alboran**	**3.58**	**338**	P	**Pn**	**19 17 20.1**	**0.0**
EALB				S	**Sn**	**19 18 01.5**	**-1.3**
EALB	**Alboran**	**3.58**	**338**	P	**Pn**	**19 17 20.1**	**0.0**
	0.8nm,0.1s,SNR=9.9						
OKGL	**Djebel Kef Gue**	**3.78**	**26**	P	**Pn**	**19 17 29.0**	**+6.1**
OKGL	**Djebel Kef Gue**	**3.78**	**26**	P	**Pn**	**19 17 29.0**	**+6.1**
EANR	**'Ain N'Sour**	**3.89**	**31**	P	**Pn**	**19 17 24.9**	**+0.5**
EANR	**'Ain N'Sour**	**3.89**	**31**	P	**Pn**	**19 17 24.9**	**+0.5**
KIB	**El Ksiba**	**3.94**	**270**	P	**Pn**	**19 17 25.0**	**-0.1**
KIB				S	**Sn**	**19 18 13.0**	**+1.1**
KIB	**El Ksiba**	**3.94**	**270**	*i* P	**Pn**	**19 17 25.0**	**-0.1**
KIB				*i* S	**Sn**	**19 18 13.0**	**+1.1**
ECHF	**Ech Chlef**	**4.17**	**32**	P	**Pn**	**19 17 28.0**	**-0.2**
ECHA	**Ech Chlef**	**4.18**	**32**	P	**Pn**	**19 17 28.0**	**-0.3**
ECHA	**Ech Chlef**	**4.18**	**32**	P	**Pn**	**19 17 28.0**	**-0.3**
RSA	**Sarsar**	**4.33**	**302**	P	**Pn**	**19 17 35.0**	**+4.5**
RSA				S	**Sn**	**19 18 32.0**	**+10**
EBNR	**Beni Rached**	**4.37**	**32**	P	**Pn**	**19 17 37.0**	**+6.1**
EBNR	**Beni Rached**	**4.37**	**32**	P	**Pn**	**19 17 37.0**	**+6.1**
ENIJ	**Nijar**	**4.38**	**351**	P	**Pn**	**19 17 32.5**	**+1.3**
	1.5nm,0.1s,SNR=7.9						
ENIJ				S	**Sn**	**19 18 24.6**	**+1.8**
	3.6nm,0.3s,SNR=4.0						
ENIJ	**Nijar**	**4.38**	**351**	P	**Pn**	**19 17 32.5**	**+1.3**
ENIJ				S	**Sn**	**19 18 21.7**	**-1.1**
ENIJ	**Nijar**	**4.38**	**351**	P	**Pn**	**19 17 32.5**	**+1.3**
	1.5nm,0.1s,SNR=7.9						
ENIJ				S	**Sn**	**19 18 21.7**	**-1.1**
	3.6nm,0.3s,SNR=4.0						
EBER	**Berja**	**4.43**	**344**	P	**Pn**	**19 17 30.6**	**-1.2**
	1.6nm,0.3s,SNR=8.1						
EBER				S	**Sn**	**19 18 27.3**	**+3.2**
	39nm,0.7s,SNR=8.5						
EBER	**Berja**	**4.43**	**344**	P	**Pn**	**19 17 30.6**	**-1.2**
EBER				S	**Sn**	**19 18 31.8**	**+7.7**
EBER	**Berja**	**4.43**	**344**	P	**Pn**	**19 17 30.6**	**-1.3**
	1.6nm,0.3s,SNR=8.1						
EBER				S	**Sn**	**19 18 31.8**	**+7.7**
	39nm,0.7s,SNR=8.5						
EGUA	**Guajares**	**4.56**	**337**	P	**Pn**	**19 17 32.1**	**-1.6**
	2.6nm,0.2s,SNR=7.9						
EGUA	**Guajares**	**4.56**	**337**	P	**Pn**	**19 17 32.1**	**-1.6**
EGUA				S	**Sn**	**19 18 20.2**	**-7.0**
EGUA	**Guajares**	**4.56**	**337**	P	**Pn**	**19 17 32.1**	**-1.6**
	2.6nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**4.82**	**325**	P	**Pn**	**19 17 36.3**	**-0.9**
	1.6nm,0.3s,SNR=4.0						
EMIJ				S	**Sn**	**19 18 34.9**	**+1.3**
	9.2nm,0.5s,SNR=4.0						
EMIJ	**Mijas**	**4.82**	**325**	P	**Pn**	**19 17 33.9**	**-3.3**
EMIJ				S	**Sn**	**19 18 34.9**	**+1.3**
EMIJ	**Mijas**	**4.82**	**325**	P	**Pn**	**19 17 33.9**	**-3.3**
	1.6nm,0.3s,SNR=4.0						
EMIJ				S	**Sn**	**19 18 34.9**	**+1.3**
	9.2nm,0.5s,SNR=4.0						
EQUE	**Quentar**	**4.87**	**340**	P	**Pn**	**19 17 37.8**	**0.0**
	2.7nm,0.2s,SNR=6.9						
EQUE	**Quentar**	**4.87**	**340**	P	**Pn**	**19 17 37.8**	**0.0**
	2.7nm,0.2s,SNR=6.9						
EMHD	**Djebel Mahouad**	**5.04**	**44**	P	**Pn**	**19 17 50.0**	**+10**
EMHD	**Djebel Mahouad**	**5.04**	**44**	P	**Pn**	**19 17 50.0**	**+10**
EHUE	**Huescar**	**5.27**	**349**	P	**Pn**	**19 17 43.7**	**+0.4**
	0.1nm,0.2s,SNR=7.9						
EHUE				S	**Sn**	**19 18 45.7**	**+1.1**
	SNR=4.0						
EQES	**Quesada**	**5.34**	**345**	P	**Pn**	**19 17 46.4**	**+2.0**
	0.4nm,0.2s,SNR=6.5						
EQES				S	**Sn**	**19 18 49.2**	**+2.7**
	2.6nm,0.3s,SNR=7.9						
ETOB	**Tobarra**	**6.00**	**359**	P	**Pn**	**19 17 54.2**	**+0.8**
	1.0nm,0.2s,SNR=7.6						
ETOB				S	**Sn**	**19 19 00.8**	**-1.9**
	17nm,1.0s						
ETOB	**Tobarra**	**6.00**	**359**	P	**Pn**	**19 17 54.2**	**+0.8**
	1.0nm,0.2s,SNR=7.6						
EVIA	**Vianos**	**6.06**	**352**	P	**Pn**	**19 18 01.8**	**+7.5**
	0.5nm,0.2s,SNR=4.0						
EVIA				S	**Sn**	**19 19 04.2**	**0.0**
	5.3nm,0.5s,SNR=4.0						
EADA	**Adamuz**	**6.11**	**336**	S	**Sn**	**19 19 06.5**	**+1.1**
	1.4nm,0.3s,SNR=4.0						
EADA	**Adamuz**	**6.11**	**336**	P	**Pn**	**19 17 54.2**	**-0.7**
EADA				S	**Sn**	**19 19 06.5**	**+1.1**
EADA	**Adamuz**	**6.11**	**336**	P	**Pn**	**19 17 54.2**	**-0.7**
	0.2nm,0.2s,SNR=4.0						
EADA				S	**Sn**	**19 19 06.5**	**+1.1**
	1.4nm,0.3s,SNR=4.0						
EMIN	**Mina Concepcio**	**6.71**	**321**	P	**Pn**	**19 18 03.1**	**-0.1**
	0.3nm,0.2s,SNR=7.9						
EMIN				S	**Sn**	**19 19 18.9**	**-1.3**
	0.5nm,0.3s,SNR=4.0						
EMIN	**Mina Concepcio**	**6.71**	**321**	P	**Pn**	**19 18 02.3**	**-0.9**
EMIN				S	**Sn**	**19 19 18.9**	**-1.3**
EMIN	**Mina Concepcio**	**6.71**	**321**	P	**Pn**	**19 18 02.3**	**-0.9**
	0.3nm,0.2s,SNR=7.9						
EMIN				S	**Sn**	**19 19 18.9**	**-1.3**
	0.5nm,0.3s,SNR=4.0						
EIBI	**Ibiza**	**6.75**	**18**	P	**Pn**	**19 18 03.9**	**+0.2**
	5.7nm,0.2s,SNR=14						
EIBI				S	**Sn**	**19 19 20.0**	**-1.1**
	2.9nm,0.3s,SNR=4.0						
EIBI	**Ibiza**	**6.75**	**18**	P	**Pn**	**19 18 03.9**	**+0.2**

	5.7nm,0.2s,SNR=14						
EIBI				S	**Sn**	**19 19 20.0**	**-1.1**
	2.9nm,0.3s,SNR=4.0						
EGRO	**El Granado**	**7.00**	**316**	P	**Pn**	**19 18 05.5**	**-1.6**
	2.3nm,0.2s,SNR=7.4						
EGRO				S	**Sn**	**19 19 24.8**	**-2.5**
	1.8nm,0.4s,SNR=4.0						
EGRO	**El Granado**	**7.00**	**316**	P	**Pn**	**19 18 05.5**	**-1.6**
EGRO				S	**Sn**	**19 19 24.8**	**-2.5**
EGRO	**El Granado**	**7.00**	**316**	P	**Pn**	**19 18 05.5**	**-1.6**
	2.3nm,0.2s,SNR=7.4						
EGRO				S	**Sn**	**19 19 24.8**	**-2.5**
	1.8nm,0.4s,SNR=4.0						
PVAQ	**Vaqueiros**	**7.05**	**314**	*e*P	**Pn**	**19 18 06.8**	**-1.0**
PVAQ	**Vaqueiros**	**7.05**	**314**	*e*P	**Pn**	**19 18 06.8**	**-1.0**
PBDV	**Barranco-do-Ve**	**7.08**	**312**	*e*P	**Pn**	**19 18 06.5**	**-1.8**
PBDV	**Barranco-do-Ve**	**7.08**	**312**	*e*P	**Pn**	**19 18 06.5**	**-1.8**
EBAD	**Badajoz**	**7.64**	**325**	P	**Pn**	**19 18 15.7**	**-0.2**
	0.4nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	**7.75**	**5**	P	**Pn**	**19 18 18.9**	**+1.5**
	0.3nm,0.2s,SNR=4.0						
EMOS	**Mosqueruela**	**7.75**	**5**	P	**Pn**	**19 18 18.9**	**+1.5**
	0.3nm,0.2s,SNR=4.0						
ETOS	**Mallorca**	**7.88**	**24**	P	**Pn**	**19 18 18.7**	**-0.5**
	0.6nm,0.2s,SNR=7.2						
ETOS	**Mallorca**	**7.88**	**24**	P	**Pn**	**19 18 18.7**	**-0.5**
	0.6nm,0.2s,SNR=7.2						

ISCJB ***05*** *19:23:45.8±0.9, 13°.5N±0°.1×50°.24E±0°.06, h10^{km}, mb3.6/7, Error ellipse: s-maj=18.3km s-min=7.8km az=13.9*

IDC ***05*** *19:23:46.9±1.4, 13°.46N×50°.47E, h0^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.6/21, mbtmp3.6/7, MS2.8/1, Ms1 2.8/1, ms1mx2.3/23, Error ellipse: s-maj=37.8km s-min=25.9km az=177.0*

ISC 05 19:23:48.0±5.0**, 13°.5N**±0°.1×**50°.22E**±0°.06**, h11**^{km}±31^{km}**, n10, σ1^{s}15**/11**, mb3.6**/7**, 1C, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	**Al Mukalla**	**1.48**	**309**	*i* P	**Pn**	**19 24 12.9**	**-1.7**
MUKL				*i* S	**Sn**	**19 24 34.0**	**+0.1**
MUKL				AML	AML	19 24 35.3	
	comp=N,145nm,0.3s						
BDHA	**Al Bayda’**	**4.54**	**276**	⇑*i*P	**Pn**	**19 24 57.4**	**+0.7**
BDHA				*e*		19 24 57.4	
	baz=112,slow=16						
BDHA				*i* S	**Sn**	**19 25 48.7**	**-0.8**
EIL	**Elat**	**21.39**	**321**	LR	LR	19 37 37.9	
	comp=N,26nm,21.7s,baz=281,slow=38						
AKASG	**Malin Array Be**	**40.81**	**340**	P	**P**	**19 31 31.2**	**+1.9**
	comp=N,0.3nm,0.4s,mb3.3,baz=162,slow=7.9,SNR=5.1						
MKAR	**Makanchi Array**	**42.67**	**33**	P	**P**	**19 31 45.0**	**+0.3**
	comp=N,0.4nm,0.5s,mb3.4,baz=222,slow=5.7,SNR=11						
CMAR	**Chiang Mai Arr**	**46.98**	**77**	P	**P**	**19 32 18.8**	**-0.8**
	comp=N,0.3nm,0.6s,mb3.4,baz=269,slow=7.2,SNR=3.4						
TORD	**Torodi Ar. Bea**	**47.15**	**275**	P	**P**	**19 32 23.6**	**+2.7**
	comp=N,0.4nm,0.7s,mb3.5,baz=94,slow=7.9,SNR=3.2						
ZALV	**Zalesovo Beam**	**48.64**	**27**	P	**P**	**19 32 31.0**	**-0.8**
	comp=N,0.6nm,0.6s,mb3.8,baz=231,slow=10,SNR=3.4						
SONM	**Songino Array**	**57.55**	**42**	P	**P**	**19 33 38.2**	**+0.6**
	comp=N,0.7nm,0.8s,mb3.7,baz=263,slow=7.0,SNR=5.7						
WRA	**Warramunga Arr**	**89.15**	**111**	P	**P**	**19 36 43.3**	**-0.9**
	comp=N,0.8nm,1.0s,mb4.0,baz=298,slow=3.5,SNR=3.4						

TAP 05 19:24:22.3, 24°.83N×122°.23E, h12^{km}**, ML3.6, 2C-1D, D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	**Santiao Chiao**	**0.28**	**309**	P	Pg	19 24 28.7	+0.6
	baz=308						
TWB1				S	Sg	19 24 32.9	+0.8
	baz=308						
TWC	**Suao**	**0.41**	**238**	⇓*i*P	Pg	19 24 30.6	+0.1
	baz=245						
TWC				*i* S	Sg	19 24 36.5	+0.6
	baz=245						
ILA	**Ilan**	**0.44**	**262**	*e*P	Pg	19 24 32.9	+1.8
	baz=250						
NWF	**Wu-fen Shan**	**0.47**	**301**	P	Pg	19 24 33.3	+1.6
	baz=290						
NWF				*e*S	Sg	19 24 40.1	+2.2
	baz=290						
TWE	**Neicheng**	**0.52**	**258**	P	Pg	19 24 32.9	+0.3
	baz=257						
TWE				S	Sg	19 24 40.4	+0.9
	baz=257						
ENA	**Nanau**	**0.60**	**228**	*i* P	Pg	19 24 33.9	-0.1
	baz=222						
ENA				S	Sg	19 24 41.8	-0.1
	baz=222						
TWA	**Mucha**	**0.60**	**285**	⇑*i*P	Pg	19 24 35.8	+1.6
	baz=274						
TWA				S	Sg	19 24 44.8	+2.6
	baz=274						
ENTT	**Nioudou**	**0.63**	**253**	*i* P	Pg	19 24 35.1	+0.5
	baz=260						
ENTT				S	Sg	19 24 44.5	+1.5
	baz=260						
TAP1	**Taipei**	**0.67**	**288**	P	Pg	19 24 36.9	+1.5
	baz=286						
TAP1				*e*S	Sg	19 24 46.9	+2.5
	baz=286						
TWY	**Chenhua**	**0.72**	**308**	*e*P	Pg	19 24 37.1	+0.7
	baz=305						
TWY				*e*S	Sg	19 24 48.1	+2.1
	baz=305						
TWS1	**Kuangyinshan**	**0.79**	**290**	P	Pg	19 24 38.6	+1.1
	baz=288						
TWS1				*e*S	Sg	19 24 50.3	+2.5
	baz=288						
NSK	**Sanguang**	**0.81**	**259**	*i* P	Pg	19 24 38.2	+0.3
	baz=267						
NSK				S	Sg	19 24 48.5	0.0
	baz=267						
PCYT	**Pengchaiyu**	**0.81**	**350**	*e*P	Pg	19 24 38.7	+0.6
	baz=347						
NNS	**Nan Shan**	**0.87**	**244**	⇑*i*P	Pg	19 24 39.3	+0.1
	baz=249						
NNS				*e*S	Sg	19 24 51.6	+1.1
	baz=249						
TWD	**Chiawan**	**0.94**	**218**	P	Pg	19 24 40.1	-0.4
	baz=228						
TWD				*e*S	Sg	19 24 53.3	+0.4
	baz=228						
NCU	**National Centr**	**0.96**	**279**	*e*P	Pg	19 24 41.2	+0.4
	baz=277						
HWA	**Hwalien**	**1.02**	**214**	*e*P	Pb	19 24 43.9	+1.9
	baz=224						
WHF	**Hehuan Shan**	**1.11**	**232**	P	Pb	19 24 43.7	+0.2
	baz=234						
WHF				*i* S	Sb	19 24 58.7	+0.8
	baz=234						
NSTT	**Nanjuang**	**1.13**	**260**	P	Pb	19 24 44.1	+0.2
	baz=259						
NSTT				*e*S	Sb	19 25 01.1	+2.5
	baz=259						
ESL	**Shilin**	**1.24**	**216**	*e*P	Pn	19 24 45.5	0.0
	baz=225						
NSY	**Sanyi**	**1.40**	**253**	P	Pn	19 24 50.7	+3.1
	baz=252						
NSY				*e*S	Sn	19 25 10.3	+4.3
	baz=252						
TWQ1	**Liyutan**	**1.41**	**250**	P	Pn	19 24 50.3	+2.5
	baz=244						
TWQ1				*e*S	Sn	19 25 09.9	+3.7
	baz=244						
SMLT	**Sun Moon Lake**	**1.54**	**232**	P	Pn	19 24 51.9	+2.4
	baz=233						
SMLT				*e*S	Sn	19 25 13.7	+4.3
	baz=233						
TYC	**Yuchr**	**1.55**	**234**	P	Pn	19 24 52.1	+2.4
	baz=235						
TYC				*e*S	Sn	19 25 12.5	+2.7
	baz=235						
EHY	**Hungye**	**1.56**	**212**	*e*P	Pn	19 24 50.0	+0.2
	baz=215						
WNT	**Mingjian**	**1.70**	**236**	*e*P	Pn	19 24 54.8	+3.1
	baz=237						
WNT				*e*S	Sn	19 25 18.4	+5.1
	baz=237						
TWF1	**Yuli**	**1.70**	**210**	P	Pn	19 24 51.4	-0.4
	baz=215						
YUS	**Yu-Shan**	**1.77**	**221**	*e*P	Pn	19 24 55.0	+2.3
	baz=226						
ALS	**Alishan**	**1.85**	**225**	P	Pn	19 24 56.6	+2.8
	baz=215						
ALS				*e*S	Sn	19 25 22.3	+5.2
	baz=215						
CHN5	**Tsauling**	**1.87**	**229**	P	Pn	19 24 57.2	+3.1
	baz=233						
CHN5				*e*S	Sn	19 25 23.7	+6.0
	baz=233						
ELDTW	**Lidau**	**1.97**	**214**	*e*P	Pn	19 24 56.3	+0.8
	baz=206						
CHN2	**Minshiung**	**2.06**	**231**	*e*P	Pn	19 25 00.3	+3.6
	baz=249						
CHN4	**Tsaushan**	**2.10**	**226**	*e*P	Pn	19 25 00.6	+3.4
	baz=229						
STYT	**Tauyuan**	**2.14**	**219**	*e*P	Pn	19 25 00.7	+2.9
	baz=224						
WTP	**Ta-pu**	**2.16**	**223**	*e*P	Pn	19 25 01.1	+3.0
	baz=213						
WTP				*e*S	Sn	19 25 31.2	+6.5
	baz=213						
TWK	**Hsinying**	**2.23**	**226**	*e*P	Pn	19 25 02.2	+3.2
	baz=230						
CHN1	**Nanshi**	**2.26**	**224**	P	Pn	19 25 02.4	+3.0
	baz=228						
SGST	**Jiashian**	**2.30**	**221**	*e*P	Pn	19 25 02.9	+2.8
	baz=226						
SSD	**Sandimen**	**2.54**	**216**	*e*P	Pn	19 25 05.9	+2.6
	baz=207						

ISCJB ***05*** *19:28:21.3±0.5, 43°.83N±0°.05×105°.26W±0°.07, h0^{km}, mb3.8/3, Error ellipse: s-maj=7.1km s-min=6.6km az=23.4*

IDC ***05*** *19:28:23.0±2.2, 43°.96N×105°.73W, h0^{km}, mb3.7/3, mb1 3.7/6, mb1mx3.5/23, mbtmp3.6/6, ML3.4/3, Error ellipse: s-maj=66.2km s-min=8.9km az=147.0*

NEIC ***05*** *19:28:22.8±0.5, 43°.79N×105°.28W, h0^{km}, ML3.2, Error ellipse: s-maj=6.3km s-min=6.0km az=149.0, Suspected Mining explosion.*

NEIC 60 km [35 miles] SSE of Gillette.

ISC 05 19:28:22.7±0.5**, 43°.82N**±0°.05×**105°.26W**±0°.07**, h0**^{km}**, n23, σ0^{s}97**/23**, mb3.8**/3**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	**Black Hills**	**0.93**	**71**	*e*Pg	**Pg**	**19 28 41.6**	**+1.0**
PHWY	**Pilot Hill**	**2.52**	**183**	*e*Pn	**Pn**	**19 29 04.6**	**-0.2**
RWWY	**Rawlins**	**2.57**	**215**	*e*Pn	**Pn**	**19 29 06.5**	**+1.0**
LAO	**LASA Array**	**2.95**	**347**	*e*Pn	**Pn**	**19 29 11.6**	**+0.9**
RLMT	**Red Lodge**	**3.15**	**296**	*e*Pn	**Pn**	**19 29 14.5**	**+1.0**
PDAR	**Pinedale Array**	**3.31**	**253**	Pn	**Pn**	**19 29 16.4**	**+0.8**
	6.1nm,0.3s,baz=70,slow=16,SNR=73						
PDAR				Lg		19 29 56.5	
	3.7nm,0.3s,baz=73,slow=18,SNR=3.3						
OGNE	**Ogallala**	**3.74**	**139**	*e*Pn	**Pn**	**19 29 21.1**	**-0.4**
LOHW	**Long Hollow**	**3.88**	**269**	*e*Pn	**Pn**	**19 29 24.1**	**+0.6**
MOOW	**Moose Ponds**	**3.97**	**271**	*e*Pn	**Pn**	**19 29 25.7**	**+0.9**
ISCO	**Idaho Springs**	**4.03**	**184**	*e*Pn	**Pn**	**19 29 25.6**	**0.0**
AHID	**Auburn Hatcher**	**4.39**	**258**	*e*Pn	**Pn**	**19 29 30.9**	**+0.3**
RRI2	**Red Ridge**	**4.43**	**266**	*e*Pn	**Pn**	**19 29 31.8**	**+0.7**
DGMT	**Dagmar**	**4.71**	**9**	*e*Pn	**Pn**	**19 29 36.4**	**+1.5**
BOZ	**Bozeman (W)**	**4.89**	**294**	*e*Pn	**Pn**	**19 29 36.4**	**-1.1**
EGMT	**Eagleton**	**5.25**	**325**	*e*Pn	**Pn**	**19 29 42.5**	**+0.2**
	24nm,0.5s						
DLMT	**Dillon**	**5.46**	**289**	*e*Pn	**Pn**	**19 29 43.0**	**-2.2**
	4.4nm,0.4s						
SDCO	**Great Sand Dun**	**6.07**	**182**	*e*Pn	**Pn**	**19 29 53.2**	**-0.4**
	1.4nm,0.5s						
ELK	**Elko**	**8.01**	**251**	*e*Pn	**Pn**	**19 30 19.2**	**-1.0**
ULM	**Lac du Bonnet**	**9.07**	**42**	Pn	**Pn**	**19 30 34.3**	**-0.5**
	1.2nm,0.3s,baz=232,slow=13,SNR=5.1						
ULM				Lg		19 33 06.3	
	0.5nm,0.3s,baz=137,slow=22,SNR=3.0						
YKA	**Yellowknife Ar**	**19.49**	**347**	P	**Pn**	**19 32 50.2**	**-1.8**
	0.1nm,0.3s,baz=161,slow=13,SNR=5.0						
ZALV	**Zalesovo Beam**	**82.23**	**354**	P	**P**	**19 40 43.8**	**-1.6**
	0.5nm,0.4s,mb4.0,baz=353,slow=8.7,SNR=3.7						
SONM	**Songino Array**	**84.57**	**339**	P	**P**	**19 40 56.9**	**-0.6**
	0.3nm,0.6s,mb3.7,baz=0.0,slow=2.0,SNR=2.9						
MKAR	**Makanchi Array**	**89.53**	**355**	P	**P**	**19 41 21.9**	**+0.2**
	0.3nm,0.7s,mb3.6,baz=18,slow=4.2,SNR=3.7						

ISCJB ***05*** *19:40:07.4±3.8, 56°.1S±0°.1×27°.0W±0°.1, h70^{km}±37^{km}, mb4.7/22, Error ellipse: s-maj=16.9km s-min=11.9km az=177.1*

NEIC ***05*** *19:40:09.9±2.9, 56°.12S×26°.98W, h81^{km}±26^{km}, mb5.0/10, Error ellipse: s-maj=10.3km s-min=8.0km az=185.0*

IDC ***05*** *19:40:12.3±1.7, 56°.15S×27°.09W, h103^{km}±14^{km}, mb4.2/12, mb1 4.2/13, mb1mx4.2/19, mbtmp4.2/13, MS3.7/5, Ms1 3.7/5, ms1mx3.5/14, Error ellipse: s-maj=15.1km s-min=14.6km az=0.0*

ISC 05 19:40:08.9±3.3**, 56°.1S**±0°.1×**27°.1W**±0°.1**, h68**^{km}±33^{km}**, n45, σ0^{s}71**/33**, mb4.7**/22**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	**Neumayer Olymp**	**16.91**	**161**	*e*P	**Pn**	**19 44 01.9**	**+1.2**
VNA2	**Neumayer--Watz**	**17.11**	**158**	*e*P	**Pn**	**19 44 03.5**	**+0.4**
	baz=313,slow=13						
PMSA	**Palmer Station**	**19.92**	**229**	P	**Pn**	**19 44 36.0**	**-0.8**
	1.6nm,0.3s,baz=46,slow=6.5,SNR=7.3						
PMSA	**Palmer Station**	**19.92**	**229**	*e*P	**Pn**	**19 44 35.3**	**-1.5**
	113nm,1.0s						
USHA	**Ushuaia**	**23.24**	**256**	LR	LR	19 51 48.8	
	comp=Z,464nm,19.1s,baz=40,slow=30						
PLCA	**Paso Flores**	**32.08**	**280**	P	**P**	**19 46 27.9**	**-1.2**
	1.4nm,0.8s,mb3.7,baz=144,slow=11,SNR=2.6						
PLCA				ScP	ScP	19 52 50.0	-4.2
	2.7nm,0.7s,baz=178,slow=3.5,SNR=8.2						
PLCA				LR	LR	19 59 08.2	
	comp=Z,94nm,19.9s,baz=178,slow=35						
PLCA	**Paso Flores**	**32.08**	**280**	P	**P**	**19 46 27.9**	**-1.2**
PLCA				ScP	ScP	19 52 50.0	-4.2
PLCA				LR	LR	19 59 08.2	
QSPA	**South Pole Qui**	**34.14**	**180**	P	**P**	**19 46 46.1**	**-0.6**
	5.3nm,0.4s,mb4.7,baz=182,slow=0.6,SNR=18						
QSPA				PcP	PcP	19 49 21.1	-0.9
	2.1nm,0.5s,baz=129,slow=1.2,SNR=4.4						
QSPA				ScP	ScP	19 52 55.8	-4.9
	7.1nm,0.9s,baz=194,slow=2.5,SNR=13						
QSPA	**South Pole Qui**	**34.14**	**180**	P	**P**	**19 46 46.1**	**-0.6**
QSPA				PcP	PcP	19 49 21.1	-0.9
QSPA				ScP	ScP	19 52 55.8	-4.9
CPUP	**Villa Florida**	**36.90**	**311**	P	**P**	**19 47 11.5**	**+0.7**
	5.2nm,0.6s,mb4.7,baz=143,slow=7.1,SNR=20						
CPUP				ScP	ScP	19 53 06.4	-5.2
	1.6nm,0.7s,baz=162,slow=5.6,SNR=5.4						
CPUP	**Villa Florida**	**36.90**	**311**	*e*P	**P**	**19 47 11.2**	**+0.4**
	26nm,0.6s,mb5.3						
CPUP				ScP	ScP	19 53 06.4	-5.2
CFAA	**Coronel Fontan**	**37.65**	**293**	P	**P**	**19 47 16.1**	**-1.1**
	0.4nm,0.3s,mb3.7,baz=138,slow=7.8,SNR=8.4						
CFAA				PcP	PcP	19 49 32.5	-0.7
	0.3nm,0.6s,baz=225,slow=2.9,SNR=3.5						
SUR	**Sutherland**	**40.59**	**75**	P	**P**	**19 47 41.6**	**0.0**
	7.0nm,0.9s,mb4.5,baz=204,slow=12,SNR=2.6						
LVC	**Limon Verde**	**45.39**	**300**	*e*P	**P**	**19 48 21.9**	**+1.4**
	26nm,0.6s,mb5.1						
BOSA	**Boshof**	**45.91**	**76**	P	**P**	**19 48 24.1**	**-0.5**
	4.5nm,0.9s,mb4.2,baz=191,slow=4.4,SNR=5.7						
BOSA				LR	LR	20 04 44.1	
	comp=Z,72nm,19.3s,baz=57,slow=32						
VNDA	**Vanda**	**46.52**	**183**	P	**P**	**19 48 28.4**	**-0.4**
	4.9nm,0.5s,mb4.5,baz=179,slow=7.2,SNR=36						
LBTB	**Lobatse**	**48.96**	**73**	*e*P	**P**	**19 48 47.6**	**-0.6**
	11nm,0.9s,mb4.8						
TSUM	**Tsumeb**	**49.65**	**61**	*e*P	**P**	**19 48 53.4**	**-0.1**
	11nm,0.9s,mb4.8						
LSZ	**Lusaka**	**58.33**	**69**	*e*P	**P**	**19 49 56.2**	**-0.5**
	17nm,1.0s,mb5.0						
NNA	**Nana**	**58.34**	**299**	*e*P	**P**	**19 49 57.2**	**+0.3**
	18nm,0.8s,mb5.2						
LIC	**Lamto**	**64.72**	**24**	*e*P	**P**	**19 50 39.9**	**+0.2**
	50nm,1.3s,mb5.2						
KIC	**Kosan Boka**	**64.92**	**25**	*e*P	**P**	**19 50 41.0**	**0.0**
	38nm,0.8s,mb5.3						
TIC	**Toumodi**	**65.12**	**24**	*e*P	**P**	**19 50 42.3**	**-0.1**
	33nm,0.7s,mb5.3						
DBIC	**Dimbokro**	**65.19**	**24**	P	**P**	**19 50 43.1**	**+0.3**
	4.7nm,0.7s,mb4.4,baz=170,slow=7.1,SNR=6.2						
DBIC				LR	LR	20 13 02.2	
	comp=Z,75nm,18.5s,baz=212,slow=30						
DBIC	**Dimbokro**	**65.19**	**24**	*e*P	**P**	**19 50 42.2**	**-0.6**
	5.8nm,0.7s,mb4.5						
DBIC				*e*		19 50 48.6	
DBIC				LR	LR	20 13 02.2	
OTAV	**Otavalo**	**69.75**	**304**	*e*P	**P**	**19 51 13.3**	**+1.7**
	29nm,1.4s,mb4.9						
TORD	**Torodi Ar. Bea**	**73.07**	**29**	P	**P**	**19 51 31.6**	**+0.1**
	7.8nm,0.8s,mb4.6,baz=196,slow=6.5,SNR=38						
TORD				LR	LR	20 16 26.8	
	comp=Z,39nm,21.6s,baz=200,slow=30						
SDV	**Santo Domingo**	**74.10**	**315**	*e*P	**P**	**19 51 37.5**	**-0.1**
	6.6nm,0.8s,mb4.4						
JTS	**JuntasAbangare**	**81.60**	**303**	*e*P	**P**	**19 52 19.6**	**+0.4**
TEIG	**Tepich**	**91.80**	**305**	P	**P**	**19 53 09.0**	**0.0**
	9.9nm,0.9s,mb5.0,baz=126,slow=8.7,SNR=3.8						
TEIG	**Tepich**	**91.80**	**305**	P	**P**	**19 53 09.0**	**0.0**
STKA	**Stephens Creek**	**91.83**	**170**	P	**P**	**19 53 10.0**	**+0.8**
	2.4nm,0.7s,mb4.5,baz=341,slow=2.9,SNR=3.8						
CMIG	**Matias Romero**	**92.27**	**298**	P	**P**	**19 53 10.8**	**-0.4**
	2.1nm,0.7s,mb4.5,baz=120,slow=17,SNR=4.4						
CMIG	**Matias Romero**	**92.27**	**298**	P	**P**	**19 53 10.8**	**-0.4**
WRA	**Warramunga Arr**	**102.63**	**162**	P	Pdif	19 53 58.2	0.0
	0.1nm,0.4s,baz=200,slow=4.5,SNR=4.8						
CMAR	**Chiang Mai Arr**	**124.98**	**110**	PKP	PKPdf	19 58 59.4	-1.6
	0.2nm,0.4s,baz=258,slow=3.6,SNR=3.3						
ARCES	**ARCESS Array B**	**130.97**	**22**	PKP	PKPdf	19 59 09.8	-1.0
	4.6nm,1.1s,baz=219,slow=2.2,SNR=5.5						
YKA	**Yellowknife Ar**	**136.26**	**318**	PKP	PKPdf	19 59 20.1	-0.9
	1.1nm,0.6s,baz=130,slow=2.2,SNR=15						
YKA				SKPbc	SKPbc	20 02 41.1	-5.7
	1.3nm,0.7s,baz=129,slow=2.9,SNR=15						
YKA	**Yellowknife Ar**	**136.26**	**318**	PKP	PKPdf	19 59 20.1	-0.9
YKA				SKPbc	SKPbc	20 02 41.1	-5.7
MKAR	**Makanchi Array**	**136.84**	**71**	PKhKP		19 59 18.3	
	0.2nm,0.8s,baz=218,slow=1.3,SNR=3.6						
MKAR				SKPbc	SKPbc	20 02 44.0	-5.2
	0.5nm,0.7s,baz=235,slow=3.3,SNR=4.8						
ZALV	**Zalesovo Beam**	**142.33**	**64**	PKhKP		19 59 24.9	
	0.3nm,0.3s,baz=207,slow=1.6,SNR=2.6						
ZALV				PKP	PKPdf	19 59 33.3	+1.0
	0.7nm,0.3s,baz=241,slow=3.2,SNR=5.4						
SONM	**Songino Array**	**150.66**	**86**	PKPbc	PKPbc	19 59 50.7	-1.3
	2.7nm,0.6s,baz=223,slow=3.7,SNR=31						
MCK	**McKinley**	**150.86**	**309**	*e*P	PKPdf	19 59 51.4	+5.1
ULN	**Ulaanbaatar**	**151.04**	**87**	P	PKPdf	19 59 51.2	+4.2
BPAW	**Bear Paw Mtn.**	**151.82**	**309**	*e*P	PKPdf	19 59 53.2	+5.5

NEIC ***05*** *20:00:32.1, 16°.24N×97°.25W, h25^{km}, MD4.1(MEX), After MEX.*

MEX 05 20:00:32.1±0.8**, 16°.24N**×**97°.25W, h25**^{km}±13^{km}**, MD4.1, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.86**	**280**	*i* P	Pb	20 00 45.3	-3.1
PNIG				*i* S	Sb	20 00 57.0	-2.5
VHO	**Vista Hermosa**	**0.96**	**31**	*i* P	Pn	20 00 48.1	-1.9
VHO				*i* S	Sb	20 00 58.4	-4.2
OXX	**Oaxaca**	**0.98**	**31**	*i* P	Pn	20 00 47.2	-3.0
OXX				*i* S	Sb	20 01 00.5	-2.4
HUIG	**Huatulco**	**1.19**	**113**	*i* P	Pn	20 00 50.5	-2.6
HUIG				*i* S	Sn	20 01 05.2	-3.3
UTMO	**Huajuapan**	**1.67**	**341**	*e*P	Pn	20 00 57.8	-2.0
UTMO				*i* S	Sn	20 01 17.7	-2.7
TPIG	**Tehuac#an**	**2.17**	**357**	*e*P	Pn	20 01 04.1	-2.6
TPIG				*i* S	Sn	20 01 30.2	-2.6
CMIG	**Matias Romero**	**2.42**	**69**	*e*P	Pn	20 01 06.7	-3.3
CMIG				*i* S	Sn	20 01 36.7	-2.1
ACX	**Acapulco**	**2.64**	**284**	*e*P	Pn	20 01 10.9	-2.1
ACX				*i* S	Sn	20 01 40.7	-3.5
MEIG	**Mezcala**	**2.82**	**307**	*e*P	Pn	20 01 14.2	-1.4
MEIG				*i* S	Sn	20 01 45.0	-3.9
CAIG	**El Cayaco**	**3.01**	**286**	*i* P	Pn	20 01 15.8	-2.3
CAIG				*i* S	Sn	20 01 52.5	-0.9
PLIG	**Platanillo**	**3.04**	**315**	*i* P	Pn	20 01 17.1	-1.5
PLIG				*i* S	Sn	20 01 52.0	-2.2
PPM	**Popocatepetl**	**3.11**	**335**	*i* P	Pn	20 01 17.6	-1.9
PPM				*i* S	Sn	20 01 54.4	-1.5
MZVM		**3.49**	**328**	*e*P	Pn	20 01 23.6	-1.2
MZVM				*i* S	Sn	20 02 01.9	-3.5
LVIG	**Laguna Verde**	**3.56**	**13**	*e*P	Pn	20 01 24.3	-1.4
LVIG				*i* S	Sn	20 02 03.5	-3.4
IIO	**Organos**	**3.62**	**337**	*e*P	Pn	20 01 25.5	-1.1
IIO				*i* S	Sn	20 02 08.0	-0.5
PTVM	**Pico Tres Padr**	**3.78**	**332**	*e*P	Pn	20 01 27.8	-1.0
PTVM				*i* S	Sn	20 02 10.8	-1.7
PCIG		**3.91**	**97**	*e*P	Pn	20 01 28.8	-1.7
PCIG				*i* S	Sn	20 02 12.4	-3.2
TGIG		**3.99**	**82**	*e*P	Pn	20 01 30.5	-1.2
TGIG				*i* S	Sn	20 02 15.8	-1.9
CCIG	**Comitan**	**4.91**	**89**	*e*P	Pn	20 01 42.3	-2.0
CCIG				*i* S	Sn	20 02 43.2	+2.9
EZ5V		**6.86**	**299**	*e*P	Pn	20 02 10.8	-0.3
EZ5V				*i* S	Sn	20 03 26.9	-1.5
R15V		**7.05**	**295**	*e*P	Pn	20 02 12.9	-0.9
R15V				*i* S	Sn	20 03 31.5	-1.6

ISCJB ***05*** *20:13:29.9±0.7, 13°.10N±0°.10×50°.38E±0°.08, h10^{km}, mb4.0/16, Error ellipse: s-maj=14.6km s-min=11.2km az=161.3*

IDC ***05*** *20:13:30.1±1.5, 13°.07N×50°.40E, h0^{km}, mb3.8/11, mb1 3.9/11, mb1mx3.8/24, mbtmp3.8/11, MS3.1/1, Ms1 3.1/1, ms1mx2.3/41, Error ellipse: s-maj=35.0km s-min=25.8km az=5.0*

NEIC ***05*** *20:13:31.9±0.7, 13°.20N×50°.38E, h10^{km}, mb4.5/5, Error ellipse: s-maj=16.8km s-min=13.4km az=146.0*

CSEM ***05*** *20:13:32.3±0.4, 13°.24N×50°.34E, h10^{km}, mb4.5/5, Error ellipse: s-maj=15.9km s-min=11.4km az=163.0*

ISC 05 20:13:31.8±0.7**, 13°.12N**±0°.10×**50°.34E**±0°.07**, h10**^{km}**, n39, σ1^{s}29**/39**, mb4.0**/16**, 2C, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDHA	**Al Bayda’**	**4.72**	**281**	⇑*i*P	**Pn**	**20 14 43.4**	**+0.3**
BDHA				*e*		20 14 43.5	
	baz=115,slow=16						
BDHA				AML	AML	20 14 50.0	
	comp=E,73nm,0.3s						
BDHA				*i* S	**Sn**	**20 15 35.3**	**-2.6**
BDHA	**Al Bayda’**	**4.72**	**281**	⇑*i*P	**Pn**	**20 14 43.4**	**+0.3**
BDHA				*i* S	**Sn**	**20 15 35.3**	**-2.6**
	comp=E,37nm,0.3s						
RDF	**Al-Radifah**	**15.95**	**351**	*e*P	**Pn**	**20 17 21.9**	**+5.6**
NAY	**Al-Naaiem**	**16.31**	**350**	*e*P	**Pn**	**20 17 23.1**	**+2.1**
NAY				AMb	AMB	20 17 25.8	
	comp=Z,7.5nm,1.4s						
NAY	**Al-Naaiem**	**16.31**	**350**	*e*P	**Pn**	**20 17 23.1**	**+2.0**
	comp=Z,8.0nm,1.4s						
MIB	**Mutribah**	**16.84**	**351**	*e*P	**Pn**	**20 17 29.6**	**+1.8**
MIB				AMb	AMB	20 17 31.7	
	comp=Z,19nm,0.9s						
MIB	**Mutribah**	**16.84**	**351**	*e*P	**Pn**	**20 17 29.6**	**+1.8**
	comp=Z,19nm,0.9s						
KMBO	**Kilima Mbogo**	**19.20**	**223**	LR	LR	20 25 02.3	
	comp=Z,56nm,20.1s,baz=94,slow=36						
EIL	**Elat**	**21.79**	**322**	P	**P**	**20 18 28.6**	**+4.5**
	comp=Z,3.8nm,0.9s,mb3.9,baz=96,slow=10,SNR=3.3						
CSS	**Prodhromos**	**26.64**	**328**	P	**P**	**20 19 09.6**	**-1.2**
	comp=Z,25nm,1.3s,mb4.6						
CSS	**Prodhromos**	**26.64**	**328**	P	**P**	**20 19 09.6**	**-1.2**
	comp=Z,25nm,1.3s,mb4.6						
GNI	**Garni**	**27.38**	**351**	P	**P**	**20 19 19.0**	**+1.7**
	comp=Z,1.3nm,0.5s,mb3.7,baz=156,slow=10.0,SNR=4.4						
GNI	**Garni**	**27.38**	**351**	*e*P	**P**	**20 19 18.6**	**+1.3**
	comp=Z,9.1nm,1.2s,mb4.2						
GNI	**Garni**	**27.38**	**351**	*e*P	**P**	**20 19 18.6**	**+1.3**
	comp=Z,9.1nm,1.2s,mb4.2						
LSZ	**Lusaka**	**35.72**	**219**	P	**P**	**20 20 32.8**	**+1.9**
	comp=Z,2.2nm,1.0s,mb4.0						
LSZ	**Lusaka**	**35.72**	**219**	P	**P**	**20 20 32.8**	**+1.9**
	comp=Z,2.2nm,1.0s,mb4.0						
TIRR	**Tirgusor**	**36.43**	**333**	P	**P**	**20 20 35.1**	**-1.6**
	comp=Z,5.4nm,1.1s,mb4.4						
TIRR	**Tirgusor**	**36.43**	**333**	P	**P**	**20 20 35.1**	**-1.6**
	comp=Z,5.4nm,1.1s,mb4.4						
AKASG	**Malin Array Be**	**41.24**	**340**	P	**P**	**20 21 16.1**	**-0.8**
	comp=Z,2.0nm,0.8s,mb3.8,baz=146,slow=7.0,SNR=6.5						
AKASG	**Malin Array Be**	**41.24**	**340**	P	**P**	**20 21 16.1**	**-0.8**
BVAR	**Borovoye Array**	**42.90**	**18**	P	**P**	**20 21 30.1**	**-0.3**
	comp=Z,0.5nm,0.6s,mb3.4,baz=260,slow=34,SNR=3.5						
BVAR				PcP	PcP	20 23 22.1	+0.9
	comp=Z,0.7nm,0.8s,baz=192,slow=4.3,SNR=3.1						
BVAR	**Borovoye Array**	**42.90**	**18**	P	**P**	**20 21 30.1**	**-0.4**

BVAR	Borovoye Array	42.90	18	PcP	PcP	20 23 22.1	+0.9
MKAR	Makanchi Array	42.96	32	P	P	20 21 31.2	+0.2
	comp=Z,0.5nm,0.5s,mb3.5,baz=224,slow=8.8,SNR=13						
KURK	Kurchatov	43.99	26	P	P	20 21 38.4	-0.9
	comp=Z,0.9nm,0.8s,mb3.6,baz=228,slow=8.4,SNR=5.0						
KURK	Kurchatov	43.99	26	P	P	20 21 38.4	-0.9
CMAR	Chiang Mai Arr	46.97	77	P	P	20 22 03.3	0.0
	comp=Z,0.5nm,0.5s,mb3.7,baz=278,slow=6.2,SNR=3.6						
CMAR	Chiang Mai Arr	46.97	77	P	P	20 22 03.3	-0.1
TORD	Torodi Ar. Bea	47.31	276	P	P	20 22 07.4	+1.3
	comp=Z,0.4nm,0.6s,mb3.6,baz=94,slow=7.5,SNR=3.9						
TORD	Torodi Ar. Bea	47.31	276	P	P	20 22 07.4	+1.3
ZALV	Zalesovo Beam	48.96	26	P	P	20 22 17.1	-1.2
	comp=Z,0.9nm,0.6s,mb4.0,baz=218,slow=9.3,SNR=5.3						
DBIC	Dimbokro	54.66	269	P	P	20 23 01.9	+0.4
	comp=Z,16nm,1.4s,mb4.9						
DBIC	Dimbokro	54.66	269	P	P	20 23 02.0	+0.5
	comp=Z,16nm,1.4s,mb4.9						
NOA	NORSAR Array B	55.61	338	P	P	20 23 06.8	-0.7
	comp=Z,1.1nm,0.7s,mb4.0,baz=124,slow=7.5,SNR=4.1						
NOA	NORSAR Array B	55.61	338	P	P	20 23 06.8	-0.8
SONM	Songino Array	57.78	41	P	P	20 23 24.2	+0.9
	comp=Z,1.3nm,1.0s,mb3.9,baz=253,slow=7.0,SNR=8.6						
SONM	Songino Array	57.78	41	P	P	20 23 24.2	+1.0
WRA	Warramunga Arr	88.89	111	P	P	20 26 25.0	-2.1
	comp=Z,0.8nm,1.0s,mb4.0,baz=299,slow=4.0,SNR=2.8						
WRA	Warramunga Arr	88.89	111	P	P	20 26 25.0	-2.0

ISCJB ***05*** *20:20:17.0±0.8, 43°.68N±0°.05×45°.68E±0°.03, h21^{km}±6^{km}, Error ellipse: s-maj=8.6km s-min=4.1km az=177.5*

CSEM ***05*** *20:20:17.4±0.5, 43°.48N×45°.61E, h20^{km}, mb3.9, Error ellipse: s-maj=12.6km s-min=5.2km az=2.0*

MOS ***05*** *20:20:19.3±0.6, 43°.36N×45°.61E, h21^{km}, mb3.9/1, Error ellipse: s-maj=16.6km s-min=10.4km az=178.3*

ISC 05 20:20:16.1±0.7, **43°.66N**±0°.04×**45°.67E**±0°.03, **h12**^{km}±4^{km}, **n31**, σ**1^{s}.31**/59, **5C-1D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNJR	Sundja	0.86	227	*e*PG	Pg	20 20 32.6	-0.1
SNJR				*i* S	Sg	20 20 43.6	-0.4
SNJR	Sundja	0.86	227	*e*Pg	Pg	20 20 32.6	-0.1
SNJR				*i* Sg	Sg	20 20 43.6	-0.4
VLKR	Vladikavkaz	0.95	230	*e*PG	Pg	20 20 34.0	-0.4
VLKR				*e*S	Sg	20 20 46.5	-0.3
VLKR	Vladikavkaz	0.95	230	*e*Pg	Pg	20 20 34.0	-0.4
VLKR				*e*Sg	Sg	20 20 46.5	-0.3
KMSR	Komsomolskaya	1.04	254	⇑*i*PG	Pg	20 20 37.8	+1.6
KMSR				*e*S	Sg	20 20 52.7	+3.0
KMSR	Komsomolskaya	1.04	254	*i* Pg	Pg	20 20 37.8	+1.6
KMSR				*e*Sg	Sg	20 20 52.7	+3.0
DBC	Dubki	1.06	127	*e*PG	Pg	20 20 36.0	-0.5
DBC				*e*S	Sg	20 20 53.5	+3.1
DBC				pmax	pmax		
	comp=Z,69nm,0.1s						
DBC	Dubki	1.06	127	*e*Pg	Pg	20 20 36.0	-0.5
	comp=Z,69nm,0.1s						
DBC				*e*Sg	Sg	20 20 53.5	+3.1
BTLR	Botlikh	1.08	158	*e*PG	Pg	20 20 35.2	-1.6
BTLR				*e*S	Sb	20 20 48.5	-2.2
BTLR				pmax	pmax		
	comp=Z,53nm,0.2s						
BTLR	Botlikh	1.08	158	*e*Pg	Pg	20 20 35.2	-1.6
	comp=Z,53nm,0.2s						
BTLR				*e*Sg	Sb	20 20 48.5	-2.2
ARNR	Ardon	1.12	245	*e*PG	Pg	20 20 37.9	+0.3
ARNR				*e*S	Sg	20 20 53.0	+0.9
ARNR	Ardon	1.12	245	*e*Pg	Pg	20 20 37.9	+0.3
ARNR				*e*Sg	Sg	20 20 53.0	+0.9
KRNR	Karanay	1.23	132	*e*PG	Pg	20 20 40.2	+0.5
KRNR				*i* S	Sg	20 20 57.2	+1.5
KRNR				pmax	pmax		
	comp=Z,46nm,0.2s						
KRNR	Karanay	1.23	132	*e*Pg	Pg	20 20 40.2	+0.5
	comp=Z,46nm,0.2s						
KRNR				*i* Sg	Sg	20 20 57.2	+1.5
UNCR	Uncukul	1.25	139	*e*PG	Pg	20 20 39.2	-1.0
UNCR				*i* S	Sg	20 20 56.7	+0.2
UNCR				pmax	pmax		
	comp=Z,47nm,0.2s						
UNCR	Uncukul	1.25	139	*e*Pg	Pg	20 20 39.2	-1.0
	comp=Z,47nm,0.2s						
UNCR				*i* Sg	Sg	20 20 56.7	+0.2
KORR	Kora	1.30	244	⇑*i*PG	Pg	20 20 40.6	-0.5
KORR				*e*S	Sg	20 20 57.7	-0.3
KORR	Kora	1.30	244	*i* Pg	Pg	20 20 40.6	-0.5
KORR				*e*Sg	Sg	20 20 57.7	-0.3
LSNR	Lesken	1.40	255	*e*PG	Pg	20 20 42.2	-0.9
LSNR				*e*S	Sg	20 21 01.7	+0.4
LSNR	Lesken	1.40	255	*e*Pg	Pg	20 20 42.2	-0.9
LSNR				*e*Sg	Sg	20 21 01.7	+0.4
ZEI	Tsey	1.57	236	⇑*i*PG	Pg	20 20 43.3	-3.0
ZEI				*i* S	Sn	20 21 02.4	-1.7
ZEI	Tsey	1.57	236	*i* Pg	Pg	20 20 43.3	-3.0
ZEI				*i* Sg	Sn	20 21 02.4	-1.7
DIGR	Digorskoe uzhe	1.71	244	*e*PG	Pg	20 20 46.1	-2.7
DIGR				*i* S	Sn	20 21 06.9	-0.5
DIGR	Digorskoe uzhe	1.71	244	*e*Pg	Pg	20 20 46.1	-2.7
DIGR				*i* Sg	Sn	20 21 06.9	-0.5
ONI	Oni	1.95	237	P	Pn	20 20 50.9	+1.8
ONI				S	Sn	20 21 13.9	+0.5
GOR	Gori	2.03	215	P	Pn	20 20 60.0	+10
MTA	Mtatsminda	2.07	198	P	Pn	20 20 52.1	+1.4
MTA				S	Sn	20 21 19.1	+2.7
AKTO	Aktyubinsk	10.80	47	S	Sn	20 24 49.6	-1.6
	comp=Z,0.4nm,0.8s						
AKTO	Aktyubinsk	10.80	47	⇑S	Sn	20 24 49.6	-1.6
	comp=Z,0.4nm,0.8s						
AB01	Akbulak array	11.32	55	P	Pn	20 23 01.4	+3.9
	comp=Z,0.4nm,0.5s						
AB01				S	Sn	20 25 04.6	+0.8
	comp=Z,0.8nm,0.6s						
AB01	Akbulak array	11.32	55	⇑P	Pn	20 23 01.4	+3.9
	comp=Z,0.4nm,0.5s,baz=247,slow=11						
AB01				⇓S	Sn	20 25 04.6	+0.8
	comp=Z,0.8nm,0.6s,baz=246,slow=25						

ISCJB ***05*** *20:28:02.3±0.9, 13°.1N±0°.1×50°.29E±0°.05, h10^{km}, mb3.9/18, MS3.3/7, Error ellipse: s-maj=17.6km s-min=7.6km az=175.9*

IDC ***05*** *20:28:03.5±1.1, 13°.23N×50°.41E, h0^{km}, mb3.9/13, mb1 4.0/13, mb1mx3.9/24, mbtmp3.9/13, MS3.3/7, Ms1 3.3/7, ms1mx3.0/31, Error ellipse: s-maj=27.9km s-min=19.6km az=9.0*

CSEM ***05*** *20:28:04.9±0.4, 13°.25N×50°.30E, h10^{km}, mb4.1/4, Error ellipse: s-maj=17.5km s-min=9.8km az=177.0*

NEIC ***05*** *20:28:04.8±1.1, 13°.22N×50°.48E, h10^{km}, mb4.0/5, Error ellipse: s-maj=24.3km s-min=15.2km az=192.0*

DHMR ***05*** *20:28:07.4±2.0, 13°.34N×49°.84E, h2^{km}±999^{km}, ML3.3*

ISC 05 20:28:03.8±0.9, **13°.0N**±0°.1×**50°.29E**±0°.05, **h10**^{km}, **n50**, σ**1^{s}.39**/48, **mb3.9**/18, **MS3.3**/7, **3C, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	Al Mukalla	1.88	320	⇑*i*P	Pn	20 28 32.9	-3.1
MUKL				*i* S	Sn	20 28 52.5	-7.3
MUKL				AML	AML	20 28 54.2	
	comp=N,298nm,0.6s						
BDHA	Al Bayda’	4.69	282	⇑*i*P	Pn	20 29 15.8	+1.1
BDHA				AML	AML	20 29 17.5	
	comp=E,131nm,0.4s						
BDHA				*i* S	Sn	20 30 09.0	-0.2
BDHA	Al Bayda’	4.69	282	⇑*i*P	Pn	20 29 15.8	+1.1
	comp=E,66nm,0.4s						
BDHA				*i* S	Sn	20 30 09.0	-0.1
TRBA	At Turbah	6.02	273	*i* P	Pn	20 29 32.8	-0.2
TRBA				*i* S	Sn	20 30 39.7	-2.3
RDF	Al-Radifah	16.01	351	*e*P	Pn	20 31 54.5	+5.3
NAY	Al-Naaiem	16.38	351	*e*P	Pn	20 31 56.1	+2.3
NAY				AMb	AMB	20 31 58.7	
	comp=Z,14nm,1.3s						
NAY	Al-Naaiem	16.38	351	*e*P	Pn	20 31 56.2	+2.3
	comp=Z,15nm,1.3s						
MIB	Mutribah	16.91	351	*e*P	Pn	20 32 02.5	+1.9
MIB				AMb	AMB	20 32 16.5	
	comp=Z,29nm,1.5s						
MIB	Mutribah	16.91	351	*e*P	Pn	20 32 02.5	+1.9
	comp=Z,29nm,1.5s						
EIL	Elat	21.82	322	P	P	20 32 59.4	+3.1
	comp=Z,6.6nm,0.9s,mb4.1,baz=203,slow=3.2,SNR=5.7						
EIL				LR	LR	20 40 48.2	
	comp=Z,44nm,19.1s,MS2.9,baz=112,slow=35						
MALT	Malatya	27.29	339	P	P	20 33 54.9	+6.3
	comp=Z,3.0nm,0.9s,mb3.8						
GNI	Garni	27.44	351	P	P	20 33 51.8	+1.9
	comp=Z,1.5nm,0.6s,mb3.7,baz=330,slow=8.2,SNR=4.6						
GNI				LR	LR	20 46 39.5	
	comp=Z,83nm,18.3s,MS3.3,baz=276,slow=41						
GNI	Garni	27.44	351	*e*P	P	20 33 51.4	+1.5
	comp=Z,4.1nm,0.8s,mb4.0						
GNI				LR	LR	20 46 39.5	
GNI	Garni	27.44	351	*e*P	P	20 33 51.4	+1.5
	comp=Z,4.1nm,0.8s,mb4.0						
KIV	Kislovodsk	31.49	349	P	P	20 34 23.7	-2.1
	comp=Z,4.5nm,0.9s,mb4.3						
KIV	Kislovodsk	31.49	349	P	P	20 34 23.7	-2.1
	comp=Z,4.5nm,0.9s,mb4.3						
AKTO	Aktyubinsk	37.82	8	LR	LR	20 53 55.7	
	comp=Z,45nm,21.0s,MS3.2,baz=227,slow=41						
AKASG	Malin Array Be	41.29	340	P	P	20 35 48.8	-0.5
	comp=Z,3.4nm,0.8s,mb4.0,baz=146,slow=6.9,SNR=11						
AKASG	Malin Array Be	41.29	340	P	P	20 35 48.8	-0.6
BVAR	Borovoye Array	42.99	18	P	P	20 36 02.3	-0.9
	comp=Z,0.6nm,0.7s,mb3.5,baz=199,slow=8.6,SNR=5.4						
BVAR				PcP	PcP	20 37 54.1	+0.6
	comp=Z,1.2nm,0.8s,baz=222,slow=2.0,SNR=7.3						
BVAR				LR	LR	20 56 29.1	
	comp=Z,32nm,18.1s,MS3.3,baz=234,slow=40						
BVAR	Borovoye Array	42.99	18	P	P	20 36 02.3	-0.9
BVAR	Borovoye Array	42.99	18	PcP	PcP	20 37 54.1	+0.6
MKAR	Makanchi Array	43.05	32	P	P	20 36 03.6	-0.2
	comp=Z,0.8nm,0.5s,mb3.7,baz=224,slow=8.5,SNR=14						
ARU	Arti	43.77	7	P	P	20 36 08.7	-0.6
	comp=Z,2.1nm,0.8s,mb3.9						
ARU	Arti	43.77	7	P	P	20 36 08.7	-0.7
	comp=Z,2.1nm,0.8s,mb3.9						
KURK	Kurchatov	44.08	26	*e*P	P	20 36 09.7	-2.3
	comp=Z,2.0nm,0.9s,mb3.9						
KURK	Kurchatov	44.08	26	*e*P	P	20 36 09.7	-2.3
	comp=Z,2.0nm,0.9s,mb3.9						
GERES	GERESS Array B	46.75	327	P	P	20 36 34.4	+1.2
	comp=Z,0.5nm,0.8s,mb3.5,baz=160,slow=12,SNR=3.6						
GERES	GERESS Array B	46.75	327	P	P	20 36 34.4	+1.2
CMAR	Chiang Mai Arr	47.03	77	P	P	20 36 35.4	-0.5
	comp=Z,0.8nm,0.8s,mb3.7,baz=272,slow=8.8,SNR=8.1						
CMAR				PcP	PcP	20 38 09.5	+1.4
	comp=Z,0.3nm,0.6s,baz=257,slow=6.6,SNR=3.5						
CMAR				LR	LR	20 54 57.7	
	comp=Z,18nm,18.3s,MS3.1,baz=200,slow=34						
CMAR	Chiang Mai Arr	47.03	77	P	P	20 36 35.4	-0.5
CMAR	Chiang Mai Arr	47.03	77	PcP	PcP	20 38 09.5	+1.4
TORD	Torodi Ar. Bea	47.27	276	P	P	20 36 39.8	+2.0
	comp=Z,0.7nm,0.7s,mb3.7,baz=90,slow=7.2,SNR=6.2						
TORD				PcP	PcP	20 38 10.9	+1.8
	comp=Z,0.6nm,0.9s,baz=90,slow=5.8,SNR=3.4						
TORD	Torodi Ar. Bea	47.27	276	P	P	20 36 39.8	+2.0
TORD	Torodi Ar. Bea	47.27	276	PcP	PcP	20 38 10.9	+1.9
BOSA	Boshof	47.97	210	LR	LR	20 56 51.7	
	comp=Z,61nm,19.0s,MS3.6,baz=185,slow=36						
ZALV	Zalesovo Beam	49.05	26	P	P	20 36 49.6	-1.4
	comp=Z,2.1nm,0.8s,mb4.2,baz=230,slow=6.9,SNR=11						
HFS	Hagfors	54.15	338	P	P	20 37 28.9	0.0
	comp=Z,5.6nm,0.8s,mb4.6,baz=153,slow=8.3,SNR=5.9						
HFS	Hagfors	54.15	338	P	P	20 37 28.9	-0.1
ESDC	Sonseca Array	54.41	310	P	P	20 37 32.4	+1.2
	comp=Z,0.5nm,0.5s,mb3.7,baz=101,slow=7.7,SNR=4.9						
ESDC	Sonseca Array	54.41	310	P	P	20 37 32.4	+1.1
ESDC	Sonseca Array	54.41	310	P	P	20 37 32.4	+1.1
NOA	NORSAR Array B	55.66	338	P	P	20 37 38.9	-1.0
	comp=Z,1.1nm,0.7s,mb4.0,baz=122,slow=9.6,SNR=3.8						
NOA	NORSAR Array B	55.66	338	P	P	20 37 38.9	-1.0
NOA	NORSAR Array B	55.66	338	P	P	20 37 38.9	-1.0
SONM	Songino Array	57.87	41	P	P	20 37 56.5	+0.6
	comp=Z,1.4nm,0.8s,mb4.1,baz=243,slow=6.9,SNR=15						
SONM	Songino Array	57.87	41	P	P	20 37 56.5	+0.6
ARCES	ARCESS Array B	58.60	350	LR	LR	21 03 12.3	
	comp=Z,41nm,18.7s,MS3.6,baz=142,slow=36						
WRA	Warramunga Arr	88.91	111	P	P	20 40 59.8	+0.7
	comp=Z,1.1nm,0.9s,mb4.2,baz=302,slow=3.5,SNR=8.2						
WRA	Warramunga Arr	88.91	111	P	P	20 40 59.8	+0.7

ISK ***05*** *20:53:34.0, 36°.99N×29°.21E, h3^{km}, MD3.2*

ISCJB ***05*** *20:53:35.1±0.5, 36°.99N±0°.03×29°.21E±0°.03, h2^{km}±6^{km}, Error ellipse: s-maj=5.1km s-min=3.8km az=150.9*

CSEM ***05*** *20:53:35.1±0.1, 36°.98N×29°.22E, h5^{km}, MD3.2, Error ellipse: s-maj=3.3km s-min=2.7km az=174.0*

DDA ***05*** *20:53:36.4, 37°.07N×29°.22E, h7^{km}±17^{km}, Md3.2*

ISC 05 20:53:35.6±0.5, **36°.99N**±0°.03×**29°.21E**±0°.03, **h4**^{km}±5^{km}, **n50**, σ**0^{s}.90**/68, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.37	195	PG	Pg	20 53 41.7	-1.0
FETY				*e*SG	Sg	20 53 47.8	+0.2
FETY	Fethiye	0.37	195	*i* Pg	Pg	20 53 41.7	-1.0
FETY				*e*Sg	Sg	20 53 47.8	+0.3
GOLH	Golhisar	0.37	49	*i* P	Pg	20 53 42.6	-0.2
GOLH				*i* S	Sg	20 53 49.4	+1.8
GOLH	Golhisar	0.37	49	*i* P	Pg	20 53 42.6	-0.2
GOLH				*i* S	Sg	20 53 49.4	+1.7
TURN	Turunc	0.50	256	*i* P	Pg	20 53 50.1	+4.9
TURN				*i* S	Sg	20 53 59.4	+7.7
DALT	Dalyan (Mudla)	0.51	244	*e*PG	Pg	20 53 45.0	-0.4
DALT				*e*SG	Sg	20 53 52.4	+0.5
DALT	Dalyan (Mudla)	0.51	244	*e*Pg	Pg	20 53 45.0	-0.4
DALT				*e*Sg	Sg	20 53 52.4	+0.4
ELL	Elmali	0.61	113	*e*PG	Pg	20 53 46.6	-0.8
ELL				*e*SG	Sg	20 53 55.8	+0.5
ELL	Elmali	0.61	113	*e*Pg	Pg	20 53 46.6	-0.8
ELL				*e*Sg	Sg	20 53 55.8	+0.5
YER	Yerkesik	0.75	281	*e*PG	Pg	20 53 50.1	0.0
YER	Yerkesik	0.75	281	*e*Pg	Pg	20 53 50.1	+0.1
DENT	Denizli	0.77	350	*e*PG	Pg	20 53 49.5	-0.9
DENT	Denizli	0.77	350	*e*Pg	Pg	20 53 49.6	-0.8
AKAS	Kas	0.82	157	*i* P	Pg	20 53 50.8	-0.6
AKAS				*i* S	Sg	20 54 04.6	+2.5
AKAS	Kas	0.82	157	*i* P	Pg	20 53 50.8	-0.6
KSL	Kastellorizon	0.90	160	*e*P	Pg	20 53 53.5	+0.8
ARG	Arkhangelos	1.17	229	*e*P	Pg	20 53 56.6	-1.3
MLSB	Milas	1.18	285	*e*PN	Pn	20 53 57.5	-1.4
MLSB	Milas	1.18	285	*e*Pn	Pn	20 53 57.5	-1.4
BCK	Bucak	1.20	67	*e*PN	Pn	20 53 57.4	-1.7
BCK	Bucak	1.20	67	*e*Pn	Pn	20 53 57.4	-1.7
AYDN	Tasoluk	1.25	303	*i* P	Pg	20 53 59.0	-0.6
AYDN				*i* S	Sg	20 54 16.7	+0.9
AYDN	Tasoluk	1.25	303	*i* P	Pg	20 53 59.0	-0.6
AYDN				*i* S	Sg	20 54 16.7	+0.9
DAT	Datca	1.33	259	*e*PN	Pn	20 54 00.5	-0.5
DAT	Datca	1.33	259	*e*Pn	Pn	20 54 00.5	-0.5
ISP	Isparta	1.34	50	*e*PN	Pn	20 54 00.5	-0.6
ISP	Isparta	1.34	50	*e*Pn	Pn	20 54 00.5	-0.6
KHAL	Karahalli	1.39	9	*i* P	Pn	20 54 01.2	-0.6
KHAL				*i* S	Sb	20 54 21.2	+0.9
KHAL	Karahalli	1.39	9	*i* P	Pn	20 54 01.2	-0.6
KHAL				*i* S	Sb	20 54 21.2	+0.9
BDRM	Kayabasi	1.41	273	*i* P	Pn	20 54 02.1	0.0
BDRM				*i* S	Sb	20 54 21.1	+0.2
BDRM	Kayabasi	1.41	273	*i* P	Pn	20 54 02.1	0.0
BDRM				*i* S	Sb	20 54 21.1	+0.3
BODT	Bodrum	1.52	273	*e*PN	Pn	20 54 03.2	-0.3
BODT	Bodrum	1.52	273	*e*Pn	Pn	20 54 03.3	-0.2
KULA	Kula-Manisa	1.58	344	*e*PN	Pn	20 54 03.8	-0.5
KULA	Kula-Manisa	1.58	344	*e*Pn	Pn	20 54 03.8	-0.6
GCAM	G?zelcaml?	1.72	295	*i* P	Pn	20 54 05.9	-0.5
GCAM				*i* S	Sn	20 54 30.8	+2.0
GCAM	G?zelcaml?	1.72	295	*i* P	Pn	20 54 05.9	-0.4
GCAM				*i* S	Sn	20 54 30.8	+2.0
SHUT	Suhut-Afyon	1.89	34	*e*PN	Pn	20 54 07.9	-0.7
SHUT	Suhut-Afyon	1.89	34	*e*Pn	Pn	20 54 07.9	-0.7
SMG	Samos	2.02	291	*e*P	Pn	20 54 10.2	-0.2
IZM	Izmir	2.08	313	*e*PN	Pn	20 54 10.8	-0.5
KARP	Karpathos	2.19	229	*e*P	Pn	20 54 13.5	+0.7
BLCB	Balcova	2.21	310	*e*PN	Pn	20 54 12.6	-0.4
BLCB	Balcova	2.21	310	*e*Pn	Pn	20 54 12.6	-0.4
HDMB	Hadim	2.63	90	*e*PN	Pn	20 54 19.4	+0.6
HDMB	Hadim	2.63	90	*e*Pn	Pn	20 54 19.4	+0.6
CHOS	Chios island	2.86	300	*e*P	Pn	20 54 22.7	+0.7
APE	Apeiranthos	2.94	273	*e*P	Pn	20 54 23.6	+0.5
PRK	Paraskevi	3.23	315	*e*P	Pn	20 54 28.9	+1.9
NPS	Neapolis	3.38	240	*e*P	Pn	20 54 29.3	+0.1

CASC 05 21:10:32.2±2.5, **13°.80N**×**89°.30W**, **h1**^{km}±3^{km}, **MD3.5, ML3.6, 2C-2D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOQS	Boqueron	0.07	165	⇑*i*P	Pg	21 10 34.5	+1.1
BOQS				*e*S	Sg	21 10 37.2	+2.9
SNET	Serv Nac Est T	0.13	150	*e*P	Pg	21 10 35.1	+0.4
LFU	La Fuente	0.18	106	*e*P	Pg	21 10 35.9	+0.1
LBRS	Las Brisas	0.25	104	*e*P	Pg	21 10 37.9	+0.8
LFRS	El Faro	0.29	127	*e*P	Pg	21 10 38.2	+0.5
SNJE	San Jose	0.31	283	*e*P	Pg	21 10 38.5	+0.4
SBLS	San Blas	0.32	277	⇓*i*P	Pg	21 10 38.9	+0.6
RTR	El Retiro	0.35	286	*e*P	Pg	21 10 39.6	+0.6
RTR				*e*S	Sg	21 10 46.3	+2.8
SNVI	San Vicente	0.48	113	*e*P	Pg	21 10 42.2	+0.7
SNVI				*e*S	Sg	21 10 50.8	+3.1
RBDL	Robledal	0.49	310	⇓*i*P	Pg	21 10 41.9	+0.3
MTO2	Montecristo 2	0.60	354	*e*P	Pg	21 10 44.2	+0.5
MTO2				*e*S	Sg	21 10 53.1	+1.6
CAHU	Cacacuatique	1.05	91	*e*P	Pg	21 10 52.0	-0.4
CAHU				*e*S	Sg	21 11 07.7	+1.6
VSM	San Miguel	1.06	110	*e*P	Pg	21 10 52.9	+0.3
BLLM	Bellamira	1.09	109	*e*P	Pg	21 10 53.1	0.0
IXG	Ixpaco	1.18	289	⇑*e*P	Pg	21 10 54.8	-0.1
IXG				*e*S	Sg	21 11 11.0	+0.7
NBG	Las Nubes	1.28	308	*e*P	Pg	21 10 57.3	+0.4
NBG				*e*S	Sg	21 11 15.0	+1.5
MRL	Marmol	1.32	343	*e*P	Pg	21 10 58.0	+0.5
MRL				*e*S	Sg	21 11 17.0	+2.5
PCG	Pacaya	1.40	295	*e*P	Pn	21 10 59.4	+0.4
PCG				*e*S	Sg	21 11 18.7	+1.3
FUG	Fuego 3	1.63	293	*e*P	Pn	21 11 02.9	+0.8
FUG				*e*S	Sn	21 11 25.3	+1.5
FG6		1.71	296	*e*P	Pn	21 11 05.2	+1.9
FG6				*e*S	Sn	21 11 29.0	+3.1
TP2	Tecpan 2	1.94	301	*e*P	Pn	21 11 08.5	+2.2
TP2				*e*S	Sn	21 11 37.4	+6.0
TGUH	Tegucigalpa,Un	1.98	82	*e*P	Pn	21 11 07.5	+0.5
TGUH				*e*S	Sn	21 11 34.4	+2.0
JAT	Jato	2.33	283	*e*P	Pn	21 11 14.4	+2.7
COPN	Copaltepe	3.09	121	*e*P	Pn	21 11 22.4	+0.2

ISCJB ***05*** *21:18:28.5±0.6, 36°.27N±0°.04×71°.05E±0°.07, h138^{km}±10^{km}, mb3.7/2, Error ellipse: s-maj=10.2km s-min=6.2km az=155.0*

IDC ***05*** *21:18:31.9±16.0, 35°.29N×72°.09E, h206^{km}±197^{km}, mb3.2/3, mb1 3.1/4, mb1mx2.8/23, mbtmp3.0/4, ML2.7/1, Error ellipse: s-maj=126.4km s-min=60.6km az=103.0*

NNC ***05*** *21:18:34.9±4.5, 36°.73N×70°.78E, h125^{km}±70^{km}, mb3.3, mpv3.9, Error ellipse: s-maj=38.0km s-min=31.7km az=17.0*

ISC 05 21:18:29.6±0.6, **36°.27N**±0°.04×**71°.06E**±0°.07, **h134**^{km}±9^{km}, **n31**, σ**0^{s}.99**/39, **mb3.7**/2, **3C-4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	2.54	164	⇑P	Pn	21 19 11.0	+0.6
CEP				S	Sn	21 19 43.0	+1.2
CHCP	Chirah Chowk	3.17	145	P	Pn	21 19 20.0	+1.5
SBDP	Sheikh Budin	3.96	183	P	Pn	21 19 29.2	+0.2
SBDP				S	Sn	21 20 14.0	-1.0
SARP	Sargodha	4.54	162	P	Pn	21 19 36.0	-0.6
THN	Thein Dam	5.43	133	*e*PKP	Pn	21 19 48.5	0.0
THN				*e*x	x	21 20 52.9	
DLH	Dalhousie	5.50	131	*e*PKP	Pn	21 19 50.0	+0.6
DLH				*e*S	Sn	21 20 52.0	+0.3
KK31	Karatay Array	6.84	357	⇓P	Pn	21 20 06.5	-0.7
	4.3nm,0.3s,baz=176,slow=12,SNR=248						
KK31				⇓S	Sn	21 21 18.2	-5.5
	2.9nm,0.3s,baz=188,slow=22,SNR=4.6						
TKM2	Tokmak 2	7.51	26	⇓P	Pn	21 20 17.5	+1.2
	6.5nm,1.0s						
TKM2				⇑S	Sn	21 21 38.9	-1.0
	13nm,0.8s						
KLP	Kalpa	7.62	126	*e*PKP	Pn	21 20 17.9	0.0
KLP				*e*S	Sn	21 21 43.0	+0.3
KLP				AML	AML	21 21 44.3	
	comp=E,50nm,0.3s						
KLP				AML	AML	21 21 44.4	
	comp=N,30nm,0.2s						
JOSI	Joshimath	9.11	126	*e*PKP	Pn	21 20 37.8	-0.1
JOSI				*e*S	Sn	21 22 16.5	-2.1
JOSI				AML	AML	21 22 28.5	
	comp=E,35nm,0.6s						
JOSI				AML	AML	21 22 29.6	
	comp=N,26nm,0.3s						
KHET	Khetri	9.11	152	*e*S	Sn	21 22 12.0	-6.7
AYAN	Aya Nagar	9.30	145	*e*S	Sn	21 22 16.9	-6.6
KUDL	Kundal	9.31	149	*e*PKP	Pn	21 20 38.7	-2.0
KUDL				*e*S	Sn	21 22 17.4	-6.3
PYUN	Piuthan	12.97	126	*e*P	Pn	21 21 27.8	-1.1
	comp=N,19nm,0.4s						
DANN	Dangsing	13.32	123	*e*P	Pn	21 21 32.8	-0.7
	comp=N,7.6nm,0.3s						
MKAR	Makanchi Array	13.45	35	P	Pn	21 21 39.3	+4.4
	comp=N,0.0nm,0.3s,baz=214,slow=15,SNR=3.2						
KOLN	Koldanda	13.59	125	*e*P	Pn	21 21 36.5	-0.4
	comp=N,6.2nm,0.5s						
GKN	Gorkha	14.14	122	*e*P	Pn	21 21 43.1	-0.8
	comp=N,15nm,0.5s						
DMN	Daman	14.71	122	*e*P	Pn	21 21 50.8	-0.3
	comp=N,16nm,0.5s						
KKN	Kakani	14.72	121	*e*P	Pn	21 21 51.0	-0.2
	comp=N,12nm,0.6s						
PKI	Pulchoki	14.94	121	*e*P	Pn	21 21 53.7	-0.3
	comp=N,9.4nm,0.3s						
GUN	Gumba	15.06	119	*e*P	Pn	21 21 55.6	+0.1
	comp=N,6.8nm,0.5s						
AB01	Akbulak array	15.31	331	⇑P	Pn	21 21 56.2	-2.1
	comp=N,5.7nm,0.5s						
JIRN	Jiri	15.43	120	*e*P	Pn	21 22 01.0	+0.9
	comp=N,9.2nm,0.2s						
RAMN	Ramite	16.16	121	*e*P	Pn	21 22 10.5	+1.5
	comp=N,8.1nm,0.3s						
TAPN	Taplejung	16.70	117	*e*P	Pn	21 22 16.3	+0.7
	comp=N,8.9nm,0.4s						
ODAN	Odare	16.77	119	*e*P	Pn	21 22 17.6	+1.2
	comp=N,12nm,0.6s						
AKTO	Aktyubinsk	17.00	330	⇓P	Pn	21 22 20.1	+1.0
	comp=N,0.6nm,0.6s						
ZALV	Zalesovo Beam	20.11	24	P	P	21 22 55.8	+3.3
	comp=N,1.1nm,0.5s,baz=218,slow=9.6,SNR=7.5						
NOA	NORSAR Array B	44.59	323	P	P	21 26 33.3	+5.4
	comp=N,1.5nm,0.9s,mb3.6,baz=99,slow=7.8,SNR=2.3						
TORD	Torodi Ar. Bea	65.76	269	P	P	21 29 00.4	0.0
	comp=N,0.6nm,0.4s,mb3.7,baz=50,slow=6.1,SNR=7.7						

IDC 05 21:19:40.5±1.0, **27°.00S**×**175°.69W**, **h0**^{km}, **mb4.1**/3, **mb1 4.6**/3, **mb1mx4.1**/12, **mbtmp4.1**/3, **MS3.7**/4, **Ms1 3.7**/4, **ms1mx3.3**/21, **Error ellipse: s-maj=53.4km s-min=34.3km az=168.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	15.63	72	LR	LR	21 27 47.9	
	comp=Z,182nm,21.5s,baz=300,slow=31						
PAE	Paea	25.84	74	*e*T		21 50 55.5	
	65nm,0.3s						
PPT	Papeete	25.88	74	*e*LR	LR	21 31 18.1	
	368nm,26.2s						
PPT				*e*T		21 50 59.2	
	21nm,0.3s						
PPT	Papeete	25.88	74	LR	LR	21 32 12.0	
	comp=Z,196nm,19.8s,baz=245,slow=29						
HNR	Honiara	28.90	303	LR	LR	21 35 37.2	
	comp=Z,114nm,18.1s,baz=145,slow=33						
STKA	Stephens Creek	37.34	252	LR	LR	21 39 10.8	
	comp=Z,179nm,18.4s,baz=25,slow=31						
WRA	Warramunga Arr	46.13	268	P	P	21 28 06.2	-0.7
	3.2nm,0.8s,baz=106,slow=7.7,SNR=14						
TXAR	Lajitas Array	88.84	56	P	P	21 32 37.3	+0.7
	0.8nm,0.6s,baz=240,slow=12,SNR=3.5						
PDAR	Pinedale Array	92.28	42	P	P	21 32 50.8	-1.5
	1.2nm,1.1s,baz=237,slow=6.0,SNR=3.8						
ZALV	Zalesovo Beam	116.82	319	PKP	PKPdf	21 38 26.5	+0.1
	0.3nm,0.3s,baz=122,slow=1.9,SNR=3.2						
MKAR	Makanchi Array	117.11	311	PKP	PKPdf	21 38 26.9	-0.3
	0.5nm,0.6s,baz=105,slow=0.4,SNR=7.0						
NB2	NORSAR Subarra	145.65	354	PKP	PKPdf	21 39 20.5	+0.3

	comp=Z,1.5nm,0.8s,baz=12,slow=3.0						
NOA	NORSAR Array B	145.65	354	PKPbc	PKPbc	21 39 19.8	-0.7
	comp=Z,2.0nm,1.0s,baz=5.3,slow=4.8,SNR=5.1						
AKASG	Malin Array Be	149.66	328	PKPbc	PKPbc	21 39 32.0	+0.2
	comp=Z,0.9nm,0.6s,baz=46,slow=2.7,SNR=8.6						
BRTR	Keskin Array B	152.54	305	PKPbc	PKPbc	21 39 39.6	+0.7
	comp=Z,0.7nm,0.8s,baz=19,slow=6.1,SNR=3.7						
BRTR				PKPab	PKPab	21 39 49.5	+0.2
	comp=Z,1.0nm,0.8s,baz=155,slow=4.4,SNR=4.2						
TORD	Torodi Ar. Bea	166.00	169	PKPab	PKPab	21 40 47.6	-0.3
	comp=Z,2.2nm,0.8s,baz=176,slow=3.8,SNR=12						

IDC ***05*** *21:41:11.9±2.3, 2.°22S×134.°15E, h0^{km}, mb3.8/3, mb1 4.0/4, mb1mx3.7/15, mbtmp3.8/4, ML3.9/1, Error ellipse: s-maj=111.4km s-min=35.9km az=79.0*

ISCJB ***05*** *21:41:14.7±0.9, 2.°31S±0.°08×134.°1E±0.°2, h33^{km}, mb3.8/4, Error ellipse: s-maj=25.6km s-min=10.4km az=168.3*

NEIC ***05*** *21:41:16.9±0.7, 2.°29S×134.°10E, h35^{km}, mb3.7/3, Error ellipse: s-maj=23.0km s-min=8.6km az=76.0*

ISC 05 21:41:17.1±0.9, 2.°33S±0.°08×134.°0E±0.°2, h35^{km}, n12, σ0ˢ.96/13, mb3.8/4, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	10.43	189	ePn	Pn	21 43 43.6	-0.8
KAKA				eSn	Sn	21 45 35.7	-4.4
WRAB	Tennant Creek	17.50	179	eP	Pn	21 45 19.0	+0.5
	3.0nm,0.6s						
WRA	Warramunga Arr	17.51	179	P	Pn	21 45 19.1	+0.5
	0.4nm,0.3s,baz=358,slow=12,SNR=36						
FITZ	Fitzroy Crossi	17.70	207	ePn	Pn	21 45 18.9	-2.1
	3.1nm,0.6s						
CTAO	Charters Tower	21.32	147	eP	P	21 46 01.1	0.0
	6.9nm,1.0s,mb3.9						
MBWA	Marble Bar	23.32	216	P	P	21 46 23.5	+1.1
KSM	Kuching	24.00	279	P	P	21 46 29.7	+0.8
NWAO	Narrogin (SRO)	34.27	206	P	P	21 48 00.8	+0.8
ENH	Enshi	39.99	326	eP	P	21 48 47.6	-1.0
SONM	Songino Array	55.48	338	P	P	21 50 49.2	+0.7
	0.3nm,0.7s,mb3.4,baz=160,slow=8.6,SNR=3.5						
MKAR	Makanchi Array	66.68	324	P	P	21 52 05.0	+0.6
	1.2nm,0.5s,mb4.2,baz=112,slow=7.8,SNR=32						
ZALV	Zalesovo Beam	69.31	331	P	P	21 52 19.5	-1.3
	0.3nm,0.3s,mb3.7,baz=94,slow=4.3,SNR=2.5						

IDC ***05*** *21:45:27.5±1.4, 28.°94N×142.°51E, h0^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.6/19, mbtmp3.6/6, ML3.5/1, Error ellipse: s-maj=44.5km s-min=25.1km az=76.0*

JMA ***05*** *21:45:29.6±0.2, 29.°10N×142.°52E, h43^{km}, M3.9*

ISCJB ***05*** *21:45:30.3±1.0, 29.°10N±0.°04×142.°4E±0.°2, h70^{km}±10^{km}, mb3.7/7, Error ellipse: s-maj=27.6km s-min=5.6km az=174.6*

NEIC ***05*** *21:45:33.9±2.2, 29.°22N×142.°32E, h81^{km}±19^{km}, mb4.3/2, Error ellipse: s-maj=24.8km s-min=13.0km az=91.0*

ISC 05 21:45:32.1±0.9, 29.°06N±0.°04×142.°4E±0.°2, h63^{km}±9^{km}, n25, σ1ˢ.27/29, mb3.8/7, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.96	185	P	Pn	21 46 02.0	-1.1
CBIJ				eS	Sn	21 46 26.6	-0.1
BSO1	Boso 1	5.70	348	P	Pn	21 46 53.9	-0.2
BSO1				eS	Sn	21 47 57.2	-0.9
BSO3	Boso 3	5.94	345	eS	Sn	21 48 04.8	+0.8
BSO4	Boso 4	6.16	344	eS	Sn	21 48 11.3	+1.9
JHU	Hanno	7.26	340	P	Pn	21 47 17.2	+1.8
JRY	Ryogami san	7.53	338	P	Pn	21 47 20.9	+1.8
JRY				eS	Sn	21 48 43.2	+0.2
JHO	Hitachi	7.68	349	P	Pn	21 47 19.0	-2.2
JHO				S	Sn	21 48 41.8	-4.9
MJAR	Matsushiro Arr	8.24	336	Pn	Pn	21 47 30.0	+1.1
	0.6nm,0.3s,baz=158,slow=11,SNR=5.4						
MAJO	Matsushiro	8.24	336	ePn	Pn	21 47 27.0	-1.8
KSRS	Korea Array	14.69	308	Pn	Pn	21 49 03.5	+7.3
	0.1nm,0.3s,baz=96,slow=15,SNR=3.7						
INCN	Inchon	15.60	307	Pn	Pn	21 49 06.7	-1.3
MDJ	Mudanjiang	18.55	330	P	Pn	21 49 43.0	-1.4
TWG	Pinlang	20.12	257	P	P	21 50 01.4	+0.6
TPUB	Ta-pu	20.32	259	eP	P	21 50 03.4	+0.3
HIA	Hailar	26.56	326	P	P	21 51 02.9	-1.0
ULN	Ulaanbaatar	33.04	314	P	P	21 52 00.7	-0.6
SONM	Songino Array	33.44	314	P	P	21 52 10.0	+5.2
	0.4nm,0.7s,mb3.5,baz=115,slow=7.8,SNR=4.5						
YAK	Yakutsk	34.02	349	eP	P	21 52 07.2	-2.4
ZALV	Zalesovo Beam	48.13	318	P	P	21 54 09.9	+4.4
	0.3nm,0.3s,mb3.7,baz=97,slow=10,SNR=2.4						
WRAB	Tennant Creek	49.32	190	eP	P	21 54 15.3	+0.4
	2.6nm,0.7s,mb4.4						
WRA	Warramunga Arr	49.33	190	P	P	21 54 17.7	+2.8
	1.7nm,0.7s,mb4.2,baz=12,slow=8.5,SNR=14						
MKAR	Makanchi Array	49.37	308	P	P	21 54 20.1	+5.1
	0.5nm,0.7s,mb3.7,baz=91,slow=9.7,SNR=4.7						
FITZ	Fitzroy Crossi	49.59	201	P	P	21 54 17.3	+0.3
KURK	Kurchatov	51.74	313	eP	P	21 54 32.2	-0.7
	3.3nm,1.1s,mb4.2						
YKA	Yellowknife Ar	70.34	29	P	P	21 56 43.1	+4.4
	0.1nm,0.4s,mb3.1,baz=294,slow=6.4,SNR=5.3						

IDC ***05*** *21:57:44.0±2.5, 4.°31S×101.°70E, h0^{km}, mb3.7/6, mb1 3.8/6, mb1mx3.6/19, mbtmp3.7/6, Error ellipse: s-maj=79.8km s-min=24.6km az=53.0*

ISCJB ***05*** *21:57:53.7±1.4, 4.°1S±0.°1×102.°1E±0.°1, h82^{km}±8^{km}, mb3.7/6, Error ellipse: s-maj=29.5km s-min=10.5km az=142.0*

DJA ***05*** *21:57:53, 4.°19S×102.°06E, h57^{km}, MLv4.1/7*

ISC 05 21:57:53.7±1.4, 4.°2S±0.°1×102.°0E±0.°1, h67^{km}±10^{km}, n14, σ1ˢ.09/16, mb3.7/6, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSI	Kapahiang	0.79	46	P	Pn	21 58 10.7	+1.3
KSI				S	Sn	21 58 19.9	-1.2
MNAI	Manna	0.94	100	P	Pn	21 58 12.0	+0.6
MNAI				S	Sn	21 58 24.5	0.0
PDSI	Padang	3.62	334	P	Pn	21 58 47.8	+0.4
RGRI	Rengat	3.84	5	P	Pn	21 58 50.1	-0.2
PPI	Padang Panjang	4.06	336	P	Pn	21 58 55.3	+1.9
SBJI	Serang	4.51	115	P	Pn	21 58 58.0	-1.6
MYKOM	Kota Tinggi	6.22	17	P	Pn	21 59 23.4	+0.4
	21nm,1.1s,0.1nm						
GSI	Gunungsitoli	7.04	321	P	Pn	21 59 31.7	-2.6
CMAR	Chiang Mai Arr	22.72	352	P	P	22 02 49.9	-0.2
	0.2nm,0.4s,mb2.8,baz=184,slow=8.3,SNR=3.7						
WRA	Warramunga Arr	35.15	119	P	P	22 04 42.4	+1.1
	0.5nm,0.4s,mb3.7,baz=305,slow=8.9,SNR=15						
SONM	Songino Array	51.95	4	P	P	22 06 56.7	+0.9
	0.7nm,0.5s,mb3.9,baz=185,slow=9.7,SNR=9.2						
SONM				PcP	PcP	22 08 07.0	-0.5
	0.3nm,0.8s,baz=184,slow=3.9,SNR=2.1						
MJAR	Matsushiro Arr	52.76	37	P	P	22 07 02.1	+0.1
	0.7nm,0.5s,mb4.0,baz=219,slow=7.7,SNR=3.4						
MKAR	Makanchi Array	53.69	343	P	P	22 07 08.0	-0.6
	0.6nm,0.6s,mb3.8,baz=155,slow=9.0,SNR=7.2						
ZALV	Zalesovo Beam	59.70	348	P	P	22 07 49.6	-1.5
	0.9nm,0.4s,mb4.2,baz=169,slow=5.2,SNR=6.7						

ISCJB ***05*** *22:01:36.0±1.3, 22.°95S±0.°06×67.°3W±0.°2, h232^{km}±9^{km}, mb3.8/2, Error ellipse: s-maj=25.5km s-min=9.7km az=180.0*

GUC ***05*** *22:01:37.8±0.7, 22.°79S×67.°34W, h216^{km}±8^{km}, ML4.3*

NEIC ***05*** *22:01:37.8, 22.°79S×67.°34W, h216^{km}, mb3.8/2, After GUC.*

ISC 05 22:01:37.0±1.3, 22.°99S±0.°06×67.°3W±0.°2, h226^{km}±9^{km}, n18, σ0ˢ.87/25, mb3.8/2, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.54	284	ePn	Pn	22 02 14.1	+0.8
LVC				eSn	S	22 02 41.4	-0.3
LVC	Limon Verde	1.54	284	eP	Pn	22 02 14.0	+0.6
LVC				i S	S	22 02 41.8	+0.1
PB04	Plate Boundary	2.15	289	eP	Pn	22 02 26.1	+7.2
PB04				i S	S	22 03 03.0	+11
PB04				AML	AML	22 03 07.0	
	comp=N,614nm,0.4s						
PECH	Pedro de Valdi	2.23	280	eP	Pn	22 02 21.2	+1.5
PECH				i S	S	22 02 54.1	+0.9
PECH				AML	AML	22 02 57.1	
	comp=N,1µm,0.3s						
MACH	Maria Elena	2.41	289	i S	S	22 02 56.6	+0.1
PB01	Plate Boundary	2.81	313	eP	Pn	22 02 25.9	0.0
PB01				eS	S	22 03 02.7	-1.6
PB01				AML	AML	22 03 04.2	
	comp=N,404nm,0.1s						
TOCH	Tocopilla	2.83	288	eP	Pn	22 02 27.0	+0.9
TOCH				i S	S	22 03 04.0	-0.7
TOCH				AML	AML	22 03 06.7	
	comp=N,444nm,0.4s						
LCO	Las Campanas	6.74	206	ePn	Pn	22 03 13.5	-0.5
	comp=N,6.1nm,0.4s						
LCO				eS	S	22 04 30.4	-1.1
NNA	Nana	14.22	319	Pn	Pn	22 04 47.9	-0.9
OTAV	Otavalo	25.51	333	eP	P	22 06 45.1	+0.1
	comp=N,2.0nm,0.5s,mb4.0						
PAYG	Puerto Ayora	31.48	312	eP	P	22 07 39.6	+1.8
SDV	Santo Domingo	31.84	354	eP	P	22 07 40.9	0.0
	comp=N,2.3nm,1.2s,mb3.6						
JTS	JuntasAbangare	37.32	331	eP	P	22 08 27.8	0.0
RPN	Rapa Nui	38.18	255	P	P	22 08 35.9	+0.9
SJG	San Juan	40.86	2	P	P	22 08 57.2	+0.2
TGUH	Tegucigalpa,Un	41.69	330	P	P	22 09 02.2	-1.6
DWPF	Disney	52.60	344	P	P	22 10 27.5	-0.2
BBSR	BB Station	55.10	3	P	P	22 10 45.3	-0.4

ISCJB ***05*** *22:09:31.3±0.4, 61.°61N±0.°04×146.°30W±0.°06, h62^{km}±7^{km}, mb3.9/7, Error ellipse: s-maj=6.5km s-min=5.1km az=171.9*

NEIC ***05*** *22:09:32.7, 61.°62N×146.°33W, h18^{km}, ML3.5(AEIC), ML3.7(PMR), After AEIC.*

IDC ***05*** *22:09:33.3±3.9, 61.°06N×145.°90W, h92^{km}±41^{km}, mb3.3/5, mb1 3.5/7, mb1mx3.3/22, mbtmp3.3/7, MS3.0/2, Ms1 3.0/2, ms1mx2.7/23, Error ellipse: s-maj=34.2km s-min=20.5km az=8.0*

ISC 05 22:09:32.5±0.4, 61.°59N±0.°04×146.°28W±0.°06, h52^{km}±7^{km}, n42, σ0ˢ.85/47, mb3.9/7, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SML	Sawmill	1.00	284	P	Pn	22 09 48.6	-1.6
SML				S	Sn	22 10 02.2	-1.2
EYAK	Cordova Ski Ar	1.08	166	P	Pn	22 09 51.5	+0.3
PMR	Palmer	1.36	271	eP	Pn	22 09 54.6	-0.5
PAX	Paxson	1.44	15	P	Pn	22 09 55.5	-0.6
RC01	Rabbit Creek A	1.74	255	P	Pn	22 10 00.1	-0.1
RC01				S	Sn	22 10 23.3	+2.1
MENT	Mentasta	1.81	40	eP	Pn	22 10 01.3	+0.1
FIB	Fire Island	1.92	259	P	Pn	22 10 04.0	+1.3
FIB				eS	Sn	22 10 29.9	+4.2
SEW	Seward	2.15	227	P	Pn	22 10 06.6	+0.7
SLKM	Skilak Lake	2.20	242	P	Pn	22 10 07.3	+0.8
DOT	Dot Lake	2.31	25	P	Pn	22 10 08.4	+0.4
MCK	McKinley	2.47	332	P	Pn	22 10 11.0	+0.7
SKT	Skwentna	2.52	281	P	Pn	22 10 10.8	-0.2
BCA3	Beaver Creek A	2.57	53	P	Pn	22 10 12.2	+0.7
TRF	Thorofare Moun	2.63	317	P	Pn	22 10 12.2	-0.3
KTH	Kantishna Hill	2.91	315	P	Pn	22 10 16.5	+0.2
PPLA	Purkeypile	3.06	298	P	Pn	22 10 18.1	-0.2
IL1	Eielson Array	3.21	355	P	Pn	22 10 20.0	-0.3
BPAW	Bear Paw Mtn.	3.32	322	P	Pn	22 10 21.1	-0.7
COLA	College	3.37	349	P	Pn	22 10 23.1	+0.5
CHUM	Lake Minchumin	3.60	312	P	Pn	22 10 25.1	-0.6
PNL	Peninsula	3.90	117	P	Pn	22 10 30.3	+0.4
PNL				eS	Sn	22 11 13.4	-0.9
EGAK	Eagle	3.95	34	P	Pn	22 10 31.3	+0.7
DAWY	Dawson	4.02	49	P	Pn	22 10 32.2	+0.8
SVW2	Sparrevohn	4.50	268	P	Pn	22 10 38.9	+0.8
TT01	Tatalina	4.74	290	P	Pn	22 10 39.9	-1.5
KDAK	Kodiak Island	4.98	223	P	Pn	22 10 44.2	-0.4
	1.8nm,0.3s,baz=39,slow=11,SNR=13						
KDAK				S	Sn	22 11 35.5	-5.2
	6.2nm,0.3s,baz=310,slow=23,SNR=12						
KDAK	Kodiak Island	4.98	223	P	Pn	22 10 43.5	-1.1
IM3	Indian Mountai	5.51	326	P	Pn	22 10 51.0	-0.8
OHAK	Old Harbor	5.65	222	P	Pn	22 10 52.5	-1.4
BM3	Burnt Mountain	5.90	6	P	Pn	22 10 56.9	-0.2
COLD	Coldfoot	5.91	345	P	Pn	22 10 58.9	+1.6
DLBC	Dease Lake	8.73	104	LR	LR	22 15 03.1	
	comp=Z,109nm,18.2s,baz=97,slow=39						
TNA	Tin City	10.40	302	ePn	Pn	22 11 59.2	+0.4
	6.2nm,0.9s						
TNA				eSn	Sn	22 13 54.0	+0.3
YKA	Yellowknife Ar	14.81	73	P	Pn	22 12 57.8	-0.6
	0.1nm,0.3s,baz=275,slow=12,SNR=6.1						
YKA				LR	LR	22 18 19.5	
	comp=Z,54nm,19.1s,baz=220,slow=36						
YKA	Yellowknife Ar	14.81	73	P	Pn	22 12 57.8	-0.6
YKA				LR	LR	22 18 19.5	
TXAR	Lajitas Array	42.66	119	P	P	22 17 16.9	-6.8
	0.4nm,0.5s,mb3.4,baz=328,slow=9.8,SNR=3.4						
MDJ	Mudanjiang	49.48	291	P	P	22 18 18.4	+1.2
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.8s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,64nm,4.1s						
SONM	Songino Array	56.42	309	P	P	22 19 08.7	+0.5
	comp=Z,0.8nm,0.8s,mb3.8,baz=29,slow=8.1,SNR=7.7						
MKAR	Makanchi Array	65.12	325	P	P	22 20 06.0	-1.3
	comp=Z,0.2nm,0.5s,mb3.4,baz=28,slow=6.0,SNR=5.2						
AKASG	Malin Array Be	68.00	3	P	P	22 20 25.2	-0.5
	comp=Z,0.2nm,0.2s,mb3.8,baz=357,slow=5.9,SNR=4.1						
GYA	Guiyang	74.72	297	eP	P	22 21 10.7	+4.2
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CMAR	Chiang Mai Arr	85.06	300	P	P	22 22 02.2	-0.2
	comp=Z,0.8nm,0.7s,mb4.0,baz=0.8,slow=5.7,SNR=7.9						

MAN ***05*** *22:20:58, 16.°36N×120.°06E, h94^{km}, mb4.2, ML3.0, MS2.7*

ISCJB ***05*** *22:20:59.6±0.6, 16.°41N±0.°05×120.°11E±0.°09, h91^{km}±8^{km}, mb3.3/3, Error ellipse: s-maj=14.0km s-min=7.5km az=178.3*

IDC ***05*** *22:21:03.6±2.4, 16.°21N×120.°35E, h137^{km}±22^{km}, mb3.0/4, mb1 3.2/4, mb1mx2.9/21, mbtmp3.0/4, Error ellipse: s-maj=58.6km s-min=18.6km az=54.0*

ISC 05 22:21:00.7±0.6, 16.°42N±0.°04×120.°12E±0.°09, h83^{km}±9^{km}, n15, σ0ˢ.93/17, mb3.3/3, 1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	Bolinao	0.20	260	eP	Pn	22 21 12.8	-0.1
SCZP	Santa Cruz	0.67	198	eP	Pn	22 21 16.1	-0.2
ABRA	Dolores	1.35	25	eP	Pn	22 21 23.4	-0.8
SIPP	Brgy, Tapao	1.53	12	⇓iP	Pn	22 21 26.9	+0.3
SIPP				eS	Sn	22 21 46.8	+0.7
BALP	Baler	1.55	115	eP	Pn	22 21 26.0	-0.8
CAUP	Cauayan	1.71	72	eP	Pn	22 21 28.9	0.0
PALP	Palanan	2.30	73	eP	Pn	22 21 36.4	-0.2
POLP	Polilio Island	2.43	133	eP	Pn	22 21 39.4	+1.1
TGY	Tagaytay City	2.43	161	P	Pn	22 21 38.8	+0.3
	283nm,0.3s,baz=317,slow=3.0,SNR=19						
TGY				S	Sn	22 22 09.1	+1.7
	109nm,0.3s,baz=182,slow=13,SNR=6.1						
BUSP	Coron	4.39	179	eP	Pn	22 22 03.6	-1.3
ENPP	El Nido	5.22	188	eP	Pn	22 22 14.9	-1.4
CMAR	Chiang Mai Arr	20.31	279	P	P	22 25 32.2	+2.2
	0.8nm,0.4s,baz=92,slow=8.4,SNR=10						
WRA	Warramunga Arr	38.74	158	P	P	22 28 12.3	-4.7
	0.7nm,0.7s,mb3.6,baz=327,slow=11,SNR=12						
MKAR	Makanchi Array	43.54	322	P	P	22 28 55.7	-0.4
	0.2nm,0.7s,mb2.9,baz=134,slow=8.3,SNR=3.3						
KURK	Kurchatov	47.64	325	P	P	22 29 28.0	-0.4
	0.4nm,0.7s,mb3.4,baz=123,slow=8.0,SNR=4.3						

ISCJB ***05*** *22:53:50.4±0.8, 37.°12N±0.°03×72.°05E±0.°10, h123^{km}±12^{km}, mb3.5/5, Error ellipse: s-maj=13.2km s-min=4.1km az=161.5*

IDC ***05*** *22:53:51.9±6.7, 37.°25N×71.°95E, h111^{km}±52^{km}, mb3.4/5, mb1 3.4/10, mb1mx3.2/26, mbtmp3.2/10, Error ellipse: s-maj=50.1km s-min=25.9km az=170.0*

NEIC ***05*** *22:53:53.4±2.3, 37.°27N×71.°95E, h126^{km}±14^{km}, mb3.9/3, Error ellipse: s-maj=27.5km s-min=12.5km az=170.0*

NNC ***05*** *22:54:02.2±5.8, 37.°99N×71.°85E, h166^{km}±68^{km}, mb2.6, mpv3.6, Error ellipse: s-maj=55.3km s-min=25.7km az=12.0*

ISC 05 22:53:52.5±0.7, 37.°19N±0.°04×72.°05E±0.°10, h124^{km}±10^{km}, n47, σ1ˢ.24/56, mb3.5/5, 2C-2D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.87	52	Pn	Pn	22 54 47.8	-2.4
KSH				Sn	Sn	22 55 28.3	-6.7
KSH				pmax	pmax		
	comp=Z,130nm,0.4s						
KSH				smax			
	comp=N,400nm,0.3s						
KSH				smax			
	comp=E,230nm,0.4s						
AML	Almayashu	5.10	14	P	Pn	22 55 07.4	+0.7
	SNR=52						
AML	Almayashu	5.10	14	ePn	Pn	22 55 07.6	+0.9
	comp=E,84nm,0.6s						
AML				eSn	Sn	22 55 56.8	-7.7
UCH	Uchtor	5.38	20	P	Sn	22 56 07.7	-3.7
	SNR=6.7						
UCH	Uchtor	5.38	20	ePn	Pn	22 55 11.2	+0.7
UCH				eSn	Sn	22 56 08.4	-2.9
KZA	Kyzart	5.47	26	P	Pn	22 55 12.2	+0.5
	SNR=27						
THN	Thein Dam	5.62	146	ePKP	Pn	22 55 18.2	+4.3
THN				eS	Sn	22 56 20.4	+3.1
EKS2	Erkin-Say	5.63	13	P	Pn	22 55 15.2	+1.4
	SNR=24						
EKS2	Erkin-Say	5.63	13	ePn	Pn	22 55 14.4	+0.6
	comp=E,3.3nm,0.4s						
EKS2				eSn	Sn	22 56 08.7	-8.6
DLH	Dalhousie	5.65	144	eS	Sn	22 56 21.0	+3.2
AAK	Ala-Archa	5.75	18	P	Pn	22 55 16.8	+1.2
	SNR=14						
AAK	Ala-Archa	5.75	18	ePn	Pn	22 55 16.3	+0.7
	comp=E,9.0nm,0.4s						
AAK				eSn	Sn	22 56 19.6	-0.7
KBK	Karagaybulak	5.90	21	P	Pn	22 55 18.9	+1.4
	SNR=8.7						
ULHL	Ulahol	6.00	31	P	Pn	22 55 19.2	+0.3
	SNR=14						
KK31	Karatay Array	6.02	349	P	Pn	22 55 18.7	-0.5
	comp=E,1.7nm,0.3s,baz=177,slow=14,SNR=90						
KK31				S	Sn	22 56 19.5	-7.3
	comp=E,6.2nm,0.3s,baz=183,slow=15,SNR=17						
CHMS	Chumysh	6.16	19	P	Pn	22 55 21.6	+0.5
	SNR=5.8						
TKM2	Tokmak 2	6.34	24	ePn	Pn	22 55 22.8	-0.6
TKM2				eSn	Sn	22 56 34.2	-0.2
TKM2	Tokmak 2	6.34	24	⇑P	Pn	22 55 24.1	+0.6
	comp=E,13nm,1.1s						
TKM2				⇓S	Sn	22 56 30.6	-3.9
	comp=E,14nm,1.0s						
USP	Ospenovka	6.36	16	P	Pn	22 55 23.7	+0.1
	SNR=6.9						
KLP	Kalpa	7.62	136	eS	Sn	22 57 05.8	+0.2
KLP				AML	AML	22 57 12.5	
	comp=N,89nm,0.5s						
KLP				AML	AML	22 57 12.9	
	comp=E,126nm,0.7s						
JOSI	Joshimath	9.10	134	eS	Sn	22 57 39.2	-2.2
JOSI				AML	AML	22 57 42.3	
	comp=Z,32nm,0.7s						
JOSI				AML	AML	22 57 42.5	
	comp=N,29nm,0.3s						
KHET	Khetri	9.62	160	eS	Sn	22 57 50.9	-3.2
AYAN	Aya Nagar	9.68	152	eS	Sn	22 57 53.8	-1.6
BISR	Bishrakh	9.71	151	eS	Sn	22 57 55.0	-1.3
KUDL	Kundal	9.76	156	eS	Sn	22 57 54.3	-3.3
SONA	Sohna	9.87	153	eS	Sn	22 57 56.6	-3.5
MK31	Makanchi Array	12.24	35	P	Pn	22 56 46.9	+4.4
	comp=N,0.4nm,0.5s,baz=207,slow=11,SNR=14						
MKAR	Makanchi Array	12.24	35	P	Pn	22 56 42.7	+0.2
	comp=N,0.0nm,0.3s,baz=215,slow=11,SNR=2.0						
KURK	Kurchatov	14.32	17	P	Pn	22 57 05.7	-3.6
	comp=N,0.0nm,0.3s,baz=205,slow=11,SNR=5.5						
KURK	Kurchatov	14.32	17	ePn	Pn	22 57 10.7	+1.5
	comp=N,3.3nm,0.8s						
AB01	Akbulak array	14.92	328	⇑P	Pn	22 57 15.3	-1.5
	comp=N,0.8nm,0.6s						
AB31	Akbulak array	14.92	328	S	Sn	22 59 51.3	-10
	comp=N,0.9nm,0.4s,baz=152,slow=22,SNR=9.1						
BVA0	Borovoye Array	15.88	356	P	Pn	22 57 23.4	-5.3
	comp=N,0.6nm,1.2s,baz=173,slow=11,SNR=11						
BVAR	Borovoye Array	15.88	356	P	Pn	22 57 26.6	-2.1
	comp=N,0.2nm,0.3s,baz=178,slow=10,SNR=12						
AKTK	Aktyubinsk	16.63	327	P	Pn	22 57 38.5	+0.4
AKTO	Aktyubinsk	16.63	327	P	Pn	22 57 38.5	+0.4
	comp=N,0.3nm,0.3s,baz=129,slow=14,SNR=6.5						
AKTO	Aktyubinsk	16.63	327	⇓P	Pn	22 57 37.9	-0.1
	comp=N,0.3nm,0.8s						
ZALV	Zalesovo Beam	18.95	24	P	P	22 58 03.6	-0.1
	comp=N,0.6nm,0.3s,baz=218,slow=9.6,SNR=8.3						
GNI	Garni	21.49	286	P	P	22 58 31.1	0.0
SONM	Songino Array	27.26	56	P	P	22 59 26.6	+1.8
	comp=N,0.2nm,0.5s,mb2.9,baz=270,slow=8.8,SNR=4.7						
JOF	Joensuu	35.70	329	ep	P	23 00 37.9	-0.6
KAF	Kangasniemi	37.51	326	ep	P	23 00 48.4	-5.5
ARCES	ARCESS Array B	40.83	337	P	P	23 01 21.6	+0.2
	comp=N,1.4nm,0.5s,mb4.1,baz=113,slow=8.0,SNR=8.1						
NOA	NORSAR Array B	44.34	323	P	P	23 01 50.3	+0.5
	comp=N,1.3nm,0.8s,mb3.7,baz=90,slow=7.4,SNR=2.8						
NOA	NORSAR Array B	44.34	323	P	P	23 01 50.3	+0.5
TORD	Torodi Ar. Bea	66.57	269	P	P	23 04 29.6	+0.1
	comp=N,0.3nm,0.5s,mb3.4,baz=44,slow=5.8,SNR=6.6						
YKA	Yellowknife Ar	80.52	3	P	P	23 05 50.5	+0.1
	comp=N,0.5nm,0.4s,mb3.7,baz=350,slow=5.6,SNR=14						

ISCJB ***05*** *22:54:43.0±0.5, 2.°39S±0.°05×29.°01E±0.°06, h10^{km}, mb3.7/9, MS3.2/2, Error ellipse: s-maj=8.9km s-min=7.2km az=32.1*

IDC ***05*** *22:54:43.6±0.8, 2.°42S×29.°03E, h0^{km}, mb3.7/10, mb1 3.8/12, mb1mx3.7/26, mbtmp3.8/12, ML3.5/2, MS3.3/2, Ms1 3.3/2, ms1mx2.8/30, Error ellipse: s-maj=19.7km s-min=15.1km az=120.0*

NEIC ***05*** *22:54:44.9±0.3, 2.°43S×29.°01E, h10^{km}, mb3.8/3, Error ellipse: s-maj=9.3km s-min=7.3km az=104.0*

ISC 05 22:54:45.2±0.5, 2.°37S±0.°05×28.°98E±0.°06, h10^{km}, n22, σ0ˢ.86/25, mb3.7/9, MS3.2/2, Lake Tanganyika region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	8.37	82	Pn	Pn	22 56 47.2	+0.6
	1.1nm,0.3s,baz=236,slow=21,SNR=17						
KMBO				Sn	Sn	22 58 21.9	+0.7
	0.8nm,0.3s,baz=342,slow=20,SNR=2.9						
KMBO				Lg		22 59 07.5	
	2.1nm,0.3s,baz=164,slow=22,SNR=15						
KMBO	Kilima Mbogo	8.37	82	Pn	Pn	22 56 47.2	+0.6
KMBO				Sn	Sn	22 58 21.9	+0.7
KMBO				Lg		22 59 07.5	
LSZ	Lusaka	12.85	183	Pn	Pn	22 57 46.9	-1.0
	0.1nm,0.3s,baz=24,slow=18,SNR=2.8						
LSZ				Sn	Sn	23 00 13.0	+1.9
	0.4nm,0.3s,baz=101,slow=18,SNR=3.3						
LSZ				Lg		23 01 21.8	
	0.5nm,0.3s,baz=101,slow=20,SNR=7.8						
TSUM	Tsumeb	20.10	213	P	P	22 59 19.9	+0.7
	1.3nm,0.8s,baz=41,slow=11,SNR=5.1						
TSUM	Tsumeb	20.10	213	eP	P	22 59 19.3	+0.2
	1.3nm,0.4s						
LBTB	Lobatse	22.74	188	P	P	22 59 47.4	-0.2
	2.9nm,0.7s,mb3.8,baz=332,slow=12,SNR=4.2						
LBTB				LR	LR	23 08 51.3	
	comp=Z,58nm,20.0s,MS3.0,baz=242,slow=37						
LBTB	Lobatse	22.74	188	eP	P	22 59 47.0	-0.6
	2.5nm,0.6s,mb3.8						
LBTB				LR	LR	23 08 51.3	
ABPO	Ambohimpanom	24.35	134	P	P	23 00 02.9	-0.6
BOSA	Boshof	26.33	187	P	P	23 00 20.1	-1.2
	2.4nm,0.8s,mb3.8,baz=353,slow=9.9,SNR=5.4						
BOSA	Boshof	26.33	187	eP	P	23 00 20.2	-1.1
	1.6nm,0.6s,mb3.7						
TORD	Torodi Ar. Bea	31.16	300	P	P	23 01 04.5	0.0
	0.7nm,0.5s,mb3.8,baz=107,slow=5.5,SNR=11						
TORD				LR	LR	23 13 41.3	
	comp=Z,78nm,18.0s,MS3.4,baz=195,slow=36						
DBIC	Dimbokro	34.95	285	P	P	23 01 39.3	+1.6
	4.0nm,1.0s,mb4.3,baz=178,slow=1.6,SNR=4.2						
SHEL	Horse Pasture	36.75	246	P	P	23 01 53.4	+0.3
BRTR	Keskin Array B	42.11	5	P	P	23 02 38.7	+1.2
	0.5nm,0.5s,mb3.4,baz=176,slow=10,SNR=3.3						
GERES	GERESS Array B	52.71	347	P	P	23 03 59.5	-0.4
	0.9nm,0.7s,mb3.8,baz=167,slow=6.6,SNR=6.8						
KHC	Kasperske Hory	53.01	347	eP	P	23 04 01.5	-0.6
BVAR	Borovoye Array	65.17	26	P	P	23 05 26.3	-0.1
	0.3nm,0.6s,mb3.5,baz=224,slow=6.0,SNR=3.7						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	65.17	26	P	P	23 05 26.3	-0.1
MKAR	Makanchi Array	67.65	37	P	P	23 05 42.7	+0.3
	0.6nm,0.6s,mb3.8,baz=264,slow=2.4,SNR=9.3						
KURK	Kurchatov	67.69	32	P	P	23 05 42.1	-0.5
	0.3nm,0.6s,mb3.5,baz=242,slow=6.5,SNR=3.0						
NWAO	Narrogin (SRO)	87.26	123	P	P	23 07 31.1	-1.4
MBWA	Marble Bar	89.86	111	P	P	23 07 44.5	-0.5

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*IDC **05** 23:11:27.4±18.0, 63°.21N×151°.17W, h0^{km}, mb3.8/2, mb1 3.7/3, mb1mx3.4/21, mbtmp3.6/3, ML3.0/1, Error ellipse: s-maj=565.1km s-min=30.3km az=8.0*

*ISCJB **05** 23:11:35.1±0.4, 63°.07N±0°.03×150°.01W±0°.08, h105^{km}±4^{km}, mb3.8/3, Error ellipse: s-maj=5.9km s-min=5.6km az=167.9*

*NEIC **05** 23:11:36.6, 63°.05N×149°.98W, h88^{km}, MG3.4(AEIC), After AEIC.*

ISC 05 23:11:36.4±0.4, **63°.06N**±0°.03×**150°.01W**±0°.08, **h97**^{km}±5^{km}, **n35**, σ**0^{s}.73**/41, **mb3.8**/3, **Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRF	Thorofare Moun	0.42	342	P	Pn	23 11 51.2	0.0
TRF				S	Sn	23 12 02.5	+0.2
KTH	Kantishna Hill	0.65	321	P	Pn	23 11 52.9	0.0
KTH				S	Sn	23 12 04.9	-0.5
MCK	McKinley	0.83	35	P	Pn	23 11 54.5	-0.2
MCK				S	Sn	23 12 07.8	-0.7
PPLA	Purkeypile	1.01	262	P	Pn	23 11 57.1	+0.5
PPLA				S	Sn	23 12 12.5	+0.7
BPAW	Bear Paw Mtn.	1.14	338	P	Pn	23 11 57.8	-0.3
BPAW				S	Sn	23 12 13.8	-0.6
SKT	Skwentna	1.29	214	P	Pn	23 11 59.3	-0.5
CHUM	Lake Minchumin	1.33	310	P	Pn	23 12 00.8	+0.5
CHUM				S	Sn	23 12 18.2	-0.2
GHO	Glory Hole Cre	1.38	158	P	Pn	23 12 01.1	+0.2
SML	Sawmill	1.48	147	P	Pn	23 12 01.8	-0.3
PMR	Palmer	1.52	164	*e*P	Pn	23 12 02.1	-0.6
FIB	Fire Island	1.90	182	P	Pn	23 12 10.0	+2.6
RC01	Rabbit Creek A	1.98	176	P	Pn	23 12 08.5	0.0
COLA	College	2.06	27	P	Pn	23 12 09.3	-0.1
PAX	Paxson	2.07	90	P	Pn	23 12 10.1	+0.4
IL1	Eielson Array	2.21	37	P	Pn	23 12 11.1	-0.4
SLKM	Skilak Lake	2.56	182	P	Pn	23 12 16.6	+0.5
DOT	Dot Lake	2.75	75	P	Pn	23 12 18.5	0.0
TT01	Tatalina	2.75	270	P	Pn	23 12 18.6	0.0
MENT	Mentasta	2.87	90	*e*P	Pn	23 12 20.2	0.0
SEW	Seward	2.98	175	P	Pn	23 12 21.5	-0.1
EYAK	Cordova Ski Ar	3.23	139	P	Pn	23 12 24.1	-0.9
SVW2	Sparrevohn	3.28	236	*e*P	Pn	23 12 25.4	-0.2
IM3	Indian Mountai	3.35	333	P	Pn	23 12 27.0	+0.3
GCSA	Galena City Sc	3.48	302	P	Pn	23 12 29.2	+0.9
BCA3	Beaver Creek A	3.74	86	P	Pn	23 12 31.4	-0.4
COLD	Coldfoot	4.19	359	P	Pn	23 12 38.7	+0.8
EGAK	Eagle	4.27	62	P	Pn	23 12 39.4	+0.3
DAWY	Dawson	4.85	73	P	Pn	23 12 46.7	-0.2
BM3	Burnt Mountain	4.93	25	P	Pn	23 12 48.3	+0.3
KDAK	Kodiak Island	5.44	195	P	Pn	23 12 53.8	-1.2
YKA	Yellowknife Ar	16.09	76	Pn	Pn	23 15 18.6	+2.2
	0.1nm,0.3s,baz=285,slow=13,SNR=5.4						
YKA	Yellowknife Ar	16.09	76	Pn	Pn	23 15 18.6	+2.2
MDJ	Mudanjiang	47.36	287	P	P	23 19 57.8	-2.3
MDJ				pmax	pmax		
	comp=Z,4.0nm,2.0s,mb3.8						
MDJ				pmax	pmax		
	comp=Z,92nm,5.7s						
ZALV	Zalesovo Beam	55.74	324	P	P	23 21 01.6	-0.8
	comp=Z,0.5nm,0.3s,mb4.0,baz=14,slow=6.4,SNR=4.3						
MKAR	Makanchi Array	62.91	322	P	P	23 21 52.3	+0.6
	comp=Z,0.5nm,0.5s,mb3.7,baz=39,slow=6.7,SNR=12						

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*VIE **05** 23:12:31.4±0.4, 44°.32N×17°.52E, h8^{km}, mb2.5/2, ML2.3/4, Error ellipse: s-maj=3.2km s-min=1.9km az=172.0 90 km NW of Sarajevo*

*BEO **05** 23:12:35.0±0.9, 44°.73N×17°.26E, h0^{km}, ML2.3/2*

*ISCJB **05** 23:12:36.3±0.8, 44°.81N±0°.04×17°.49E±0°.04, h5^{km}±6^{km}, Error ellipse: s-maj=7.4km s-min=4.1km az=26.9*

*CSEM **05** 23:12:37.5±0.2, 44°.79N×17°.44E, h10^{km}, ML2.3, Error ellipse: s-maj=6.4km s-min=3.8km az=34.0*

ISC 05 23:12:37.8±0.8, **44°.79N**±0°.04×**17°.45E**±0°.04, **h10**^{km}±6^{km}, **n26**, σ**0^{s}.72**/40, **6C-1D**, **Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SISC	Sisak	1.02	312	*e*Pg	Pg	23 12 56.9	-0.6
SISC				Sg	Sg	23 13 11.9	+1.2
SISC	Sisak	1.02	312	*e*Pg	Pg	23 12 56.8	-0.6
SISC				Sg	Sg	23 13 11.9	+1.2
PKSM	Moragy	1.65	30	*e*Pn	Pn	23 13 06.1	-0.7
PKSM	Moragy	1.65	30	*e*Pn	Pn	23 13 06.1	-0.7
BBLS	Lazići	1.68	123	*e*Pn	Pn	23 13 06.6	-0.6
BBLS				*e*Sg	Sg	23 13 31.2	-0.6
BBLS	Lazići	1.68	123	*e*Pn	Pn	23 13 06.6	-0.6
BBLS				*e*Sg	Sg	23 13 31.2	-0.6
NVLJ	Novalja	1.85	264	*e*Pn	Pn	23 13 09.1	-0.5
NVLJ				Sn	Sn	23 13 33.1	+0.1
NVLJ	Novalja	1.85	264	*e*Pn	Pn	23 13 09.0	-0.6
NVLJ				Sn	Sn	23 13 33.1	+0.1
STON	Ston	1.93	174	*e*Pn	Pn	23 13 10.7	+0.1
STON				Sn	Sn	23 13 36.3	+1.5
STON	Ston	1.93	174	*e*Pn	Pn	23 13 10.6	0.0
STON				Sn	Sn	23 13 36.3	+1.5
DIVS	Divibare	1.95	110	*e*Pn	Pn	23 13 10.2	-0.7
DIVS				*e*Sg	Sg	23 13 40.1	-0.3
DIVS	Divibare	1.95	110	*e*Pn	Pn	23 13 10.2	-0.7
DIVS				*e*Sg	Sg	23 13 40.1	-0.3
OBKA	Obir	2.66	311	⇑*i*Pn	Pn	23 13 19.9	-0.9
OBKA	Obir	2.66	311	Pn	Pn	23 13 19.9	-0.8
ARSA	Arzberg	2.80	332	⇑*i*Pn	Pn	23 13 22.2	-0.4
ARSA				⇑*i*Sn	Sn	23 14 02.6	+6.1
ARSA	Arzberg	2.80	332	Pn	Pn	23 13 22.2	-0.4
BZS	Buzias	3.06	73	*e*Pn	Pn	23 13 27.6	+1.4
BZS				*e*Sg	Sg	23 14 16.7	+0.6
BZS	Buzias	3.06	73	⇑*i*P	Pg	23 13 36.8	+0.4
BZS				S	Sg	23 14 16.9	+0.8
BZS	Buzias	3.06	73	*e*Pn	Pn	23 13 27.6	+1.4
BZS				*e*Sg	Sg	23 14 16.7	+0.6
CONA	Conrad Observa	3.33	341	⇓*i*Pn	Pn	23 13 30.1	+0.3
CONA	Conrad Observa	3.33	341	Pn	Pn	23 13 30.1	+0.3
CSNA	Conrad Observa	3.33	341	⇑*i*Pn	Pn	23 13 30.4	+0.5
CSNA	Conrad Observa	3.33	341	Pn	Pn	23 13 30.4	+0.6
MOA	Molln	3.77	325	⇑*i*Pn	Pn	23 13 35.3	-0.6
MOA	Molln	3.77	325	Pn	Pn	23 13 35.3	-0.6
GZR	Gura Zlata	3.82	79	S	Sn	23 14 21.6	0.0

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*NEIC **05** 23:19:03.2, 32°.65S×71°.64W, h17^{km}, MD3.8(GUC), After GUC.*

GUC 05 23:19:03.2±0.8, **32°.65S**×**71°.64W**, **h17**^{km}±53^{km}, **MD3.8**, **ML3.0**, **2C-2D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IHA	Instituto Hidr	0.38	180	⇓*i*P	Pg	23 19 11.0	+0.1
IHA				*i* S	Sg	23 19 16.6	+0.4
CHNG	Los Chungos	0.77	9	*e*P	Pb	23 19 17.4	-0.8
CHNG				*i* S	Sb	23 19 28.1	-0.3
PEL	Peldehue	0.94	122	⇑*e*P	Pb	23 19 20.3	-0.8
PEL				*i* S	Sb	23 19 33.3	0.0
PEL				AML	AML	23 19 35.7	
	comp=E,1μm,0.3s						
RCDM	Rinconada Maip	1.09	140	*e*P	Pb	23 19 22.3	-1.3
RCDM				*i* S	Sb	23 19 36.6	-1.0
RCDM	Rinconada Maip	1.09	140	*e*P	Pb	23 19 22.3	-1.3
RCDM				*i* S	Sb	23 19 36.6	-1.0
RCDM				AML	AML	23 19 38.0	
	comp=E,388nm,0.2s						
TACH	Talagante	1.16	150	⇑*i*P	Pn	23 19 23.6	-1.1
FCH	Farellones	1.32	121	⇓*i*P	Pn	23 19 24.4	-2.4
FCH				*i* S	Sn	23 19 41.7	-2.4
FCH				AML	AML	23 19 43.2	
	comp=N,195nm,0.1s						
PCH	Pirque	1.35	136	*e*P	Pn	23 19 26.5	-0.8
CHCH	Chadas Angostu	1.52	147	*e*P	Pn	23 19 29.4	-0.2
CHCH				*i* S	Sn	23 19 49.1	+0.1
CMCH	Combarbala	1.57	20	*e*P	Pn	23 19 29.9	-0.4
CMCH				*i* S	Sn	23 19 50.2	0.0
CMCH	Combarbala	1.57	20	*e*P	Pn	23 19 29.9	-0.4
CMCH				*i* S	Sn	23 19 50.2	0.0
CMCH				AML	AML	23 19 55.2	
	comp=N,860nm,0.7s						
LMEL	Las Melosas	1.69	135	*e*P	Pn	23 19 32.3	+0.3
LMEL				AML	AML	23 19 57.8	
	comp=N,254nm,0.2s						
CACH	El Canelo	1.70	150	*e*P	Pn	23 19 32.2	+0.1
CICH	Cipreses	1.95	149	*e*P	Pn	23 19 35.4	-0.1

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*NEIC **05** 23:30:24.3, 15°.82N×98°.81W, h19^{km}, MD4.0(MEX), After MEX.*

MEX 05 23:30:24.2±1.0, **15°.81N**×**98°.81W**, **h16**^{km}±22^{km}, **MD4.0**, **Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.88	49	*i* P	Pb	23 30 37.7	-3.4
PNIG				*i* S	Sb	23 30 48.7	-3.8
ACX	Acapulco	1.49	315	*i* P	Pn	23 30 46.1	-4.2
ACX				*i* S	Sn	23 31 04.5	-5.1
CAIG	El Cayaco	1.86	312	*e*P	Pn	23 30 51.5	-3.9
CAIG				*i* S	Sn	23 31 13.5	-5.1
UTMO	Huajuapan	2.23	26	*i* P	Pn	23 30 57.8	-2.7
UTMO				*i* S	Sn	23 31 23.0	-4.6
MEIG	Mezcala	2.24	340	*e*P	Pn	23 30 58.3	-2.3
MEIG				*i* S	Sn	23 31 24.0	-4.0
VHO	Vista Hermosa	2.36	58	*e*P	Pn	23 30 59.7	-2.6
VHO				*i* S	Sn	23 31 28.5	-2.3
HUIG	Huatulco	2.60	91	*e*P	Pn	23 31 03.8	-1.8
HUIG				*i* S	Sn	23 31 32.6	-4.3
PLIG	Platanillo	2.65	346	*e*P	Pn	23 31 05.3	-0.9
PLIG				*i* S	Sn	23 31 34.6	-3.4
TPIG	Tehuac#an	2.94	28	*e*P	Pn	23 31 16.4	+6.1
TPIG				*i* S	Sn	23 31 44.2	-1.1
PPM	Popocatepetl	3.24	3	*e*P	Pn	23 31 13.3	-1.1
PPM				*i* S	Sn	23 31 49.9	-2.8
MZVM		3.38	353	*e*P	Pn	23 31 15.7	-0.7
MZVM				*i* S	Sn	23 31 51.4	-4.8
IIO	Organos	3.76	1	*e*P	Pn	23 31 21.0	-0.6
IIO				*i* S	Sn	23 32 00.0	-5.5
PTVM	Pico Tres Padr	3.77	356	*e*P	Pn	23 31 20.9	-0.8
PTVM				*i* S	Sn	23 32 01.5	-4.3
CMIG	Matias Romero	3.98	71	*e*P	Pn	23 31 26.2	+1.6
CMIG				*i* S	Sn	23 32 12.8	+1.9

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*IDC **05** 23:48:13.6±1.9, 3°.62S×117°.90E, h0^{km}, mb4.0/5, mb1 4.2/5, mb1mx3.9/17, mbtmp4.0/5, Error ellipse: s-maj=122.1km s-min=25.9km az=53.0*

*NEIC **05** 23:48:15.2±0.5, 3°.58S×118°.00E, h10^{km}, mb3.8/3, Error ellipse: s-maj=25.8km s-min=7.2km az=60.0*

*ISCJB **05** 23:48:16.5±0.6, 3°.6S±0°.1×117°.9E±0°.1, h33^{km}, mb3.9/7, Error ellipse: s-maj=24.1km s-min=7.2km az=142.1*

ISC 05 23:48:18.7±0.6, **3°.7S**±0°.1×**117°.9E**±0°.1, **h35**^{km}, **n14**, σ**0^{s}.93**/15, **mb3.9**/7, **Borneo**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	2.29	126	*e*Pn	Pn	23 48 51.6	-2.4
KAPI				*e*Sn	Sn	23 49 22.2	+1.1
FITZ	Fitzroy Crossi	16.23	153	*e*Pn	Pn	23 52 03.2	-1.0
	5.4nm,1.2s						
MBWA	Marble Bar	17.48	174	Pn	Pn	23 52 20.3	+0.5
WRA	Warramunga Arr	22.79	137	P	P	23 53 18.2	-0.2
	1.8nm,0.9s,mb3.5,baz=314,slow=12,SNR=5.7						
WRAB	Tennant Creek	22.79	136	Pn	P	23 53 19.0	+0.6
CMAR	Chiang Mai Arr	28.84	320	P	P	23 54 13.8	-0.1
	0.6nm,0.3s,mb3.8,baz=146,slow=7.4,SNR=4.5						
LSA	Lhasa	41.91	324	P	P	23 56 05.5	-0.5
ULN	Ulaanbaatar	52.19	351	*e*P	P	23 57 25.8	-0.1
	0.8nm,0.5s,mb3.9						
SONM	Songino Array	52.27	350	P	P	23 57 26.8	+0.3
	0.4nm,0.5s,mb3.6,baz=166,slow=9.3,SNR=6.1						
HIA	Hailar	52.74	2	P	P	23 57 29.4	-0.6
MKAR	Makanchi Array	59.24	332	P	P	23 58 17.3	+0.8
	2.2nm,0.5s,mb4.4,baz=141,slow=7.6,SNR=46						
MKAR	Makanchi Array	59.24	332	P	P	23 58 17.3	+0.8
ZALV	Zalesovo Beam	63.70	339	P	P	23 58 45.6	-0.8
	1.5nm,0.6s,mb4.2,baz=134,slow=4.2,SNR=8.9						
KURK	Kurchatov	63.76	333	P	P	23 58 48.6	+1.7
	0.4nm,0.5s,mb3.7						

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*DDA **05** 23:50:51.9, 39°.55N×40°.84E, h11^{km}, Md2.7*

*CSEM **05** 23:50:54.8±0.5, 39°.77N×40°.86E, h10^{km}, MD2.7, Error ellipse: s-maj=15.7km s-min=5.1km az=2.0*

*ISK **05** 23:50:54.7, 39°.82N×40°.88E, h14^{km}, MD2.7*

*ISCJB **05** 23:50:56.2±0.7, 39°.96N±0°.07×40°.92E±0°.04, h10^{km}, Error ellipse: s-maj=10.7km s-min=3.8km az=14.2*

ISC 05 23:50:56.5±0.6, **40°.03N**±0°.08×**40°.93E**±0°.04, **h5**^{km}±9^{km}, **n13**, σ**0^{s}.95**/23, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOPT	Kop Dagi	0.34	268	*i* P	Pg	23 51 02.4	-0.6
KOPT				*i* S	Sg	23 51 08.2	+0.8
KOPT	Kop Dagi	0.34	268	*i* P	Pg	23 51 02.3	-0.7
KOPT				*i* S	Sg	23 51 08.1	+0.7
EZM	Erzurum	0.35	110	PG	Pg	23 51 02.5	-0.8
EZM				*e*SG	Sg	23 51 08.9	+1.0
ERZM	Erzurum	0.35	110	*i* P	Pg	23 51 02.4	-0.9
ERZM				*i* S	Sg	23 51 08.4	+0.5
ERZM	Erzurum	0.35	110	*i* P	Pg	23 51 02.4	-0.9
ERZM				*i* S	Sg	23 51 08.4	+0.4
HOMI	Horasan	0.75	88	*i* P	Pg	23 51 10.0	-0.8
HOMI				*i* S	Sg	23 51 24.6	+4.1
EZC	Erzincan	0.90	252	*e*PN	Pn	23 51 17.6	+1.7
EZC				*e*SN	Sn	23 51 35.3	+6.0
PZAR	Pazar-Rize	1.15	359	*e*PN	Pn	23 51 19.4	+0.1
PZAR				*e*SN	Sn	23 51 35.9	+0.5
PZAR	Pazar-Rize	1.15	359	*e*Pn	Pn	23 51 20.3	+1.0
GUMT	Gumushane	1.19	292	*e*PN	Pn	23 51 18.3	-1.5
GUMT				*e*SN	Sn	23 51 35.6	-0.8
GUMT	Gumushane	1.19	292	*e*Pn	Pn	23 51 18.3	-1.6
GUMT				*e*Sn	Sn	23 51 35.6	-0.9
MACK	Trabzon	1.27	316	*i* P	Pg	23 51 21.4	+0.4
MACK	Trabzon	1.27	316	*i* P	Pg	23 51 21.4	+0.4

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*NIED **06** 00:09:00, 45°.90N×152°.20E, h38^{km}, Mw3.9 Best double couple: M$_0$7.67000×10^{14} NP1:φ$_s$132.00000°, δ78.00000°, λ-34.00000°. NP2:φ$_s$230.00000°, δ56.00000°, λ-166.00000°.*

*JMA **06** 00:09:37.5±0.8, 45°.91N×152°.24E, h30^{km}, M4.4*

*MOS **06** 00:09:41.1±1.3, 46°.05N×151°.71E, h76^{km}, mb4.2/4, Error ellipse: s-maj=19.5km s-min=13.5km az=48.0*

*ISCJB **06** 00:09:42.1±1.2, 45°.7N±0°.1×151°.7E±0°.1, h91^{km}±11^{km}, mb3.6/10, Error ellipse: s-maj=19.5km s-min=10.0km az=146.5*

*IDC **06** 00:09:44.5±4.1, 46°.13N×151°.67E, h86^{km}±35^{km}, mb3.5/10, mb1 3.6/12, mb1mx3.5/23, mbtmp3.4/12, Error ellipse: s-maj=31.3km s-min=20.3km az=145.0*

ISC 06 00:09:42.6±0.9, **45°.8N**±0°.1×**151°.8E**±0°.1, **h76**^{km}±8^{km}, **n47**, σ**1^{s}.28**/59, **mb3.6**/10, **3D**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	2.81	259	*e*PN	Pn	00 10 23.0	-2.3
KUR				*e*S	Sn	00 10 57.5	-0.6
KUR				pmax	pmax		
	comp=Z,180nm,0.4s						
KUR				smax			
	comp=N,380nm,0.5s						
KUR				smax			
	comp=E,150nm,0.5s						
YUK	Yuzh-Kuril'sk	4.57	249	*e*PN	Pn	00 10 51.0	+1.8
YUK				*e*S	Sn	00 11 45.1	+4.2
YUK				pmax	pmax		
	comp=Z,250nm,0.4s						
YUK				smax			
	comp=N,350nm,0.4s						
YUK				smax			
	comp=E,310nm,0.5s						
NEM2	Nemuro 2	4.96	242	P	Pn	00 10 53.8	-0.8
NEM2				*e*S	Sn	00 11 50.0	-0.6
JRA	Rausu	5.09	250	P	Pn	00 10 58.2	+1.9
JNK	Nakash	5.51	248	P	Pn	00 11 02.6	+0.6
JNK				*e*S	Sn	00 12 06.3	+2.4
JAK	Akkeshi	5.81	243	P	Pn	00 11 05.2	-0.9
JAK				*e*S	Sn	00 12 09.9	-1.4
JTKR	Abashiri--Toko	5.89	254	P	Pn	00 11 09.1	+1.9
JMP	Maruseppu	6.25	256	P	Pn	00 11 14.5	+2.4
JAR	Ashorobuto	6.26	249	P	Pn	00 11 13.3	+1.1
JAR				*e*S	Sn	00 12 25.2	+3.0
YSS	Yuzh-Sakhalins	6.34	283	*e*PN	Pn	00 11 14.0	+0.7
JOB	Onbets	6.40	246	P	Pn	00 11 14.3	+0.1
JOB				*e*S	Sn	00 12 26.1	+0.4
JSE	Soyaes	6.53	266	P	Pn	00 11 20.2	+4.3
JKK2	Kamakawa 2	6.71	256	P	Pn	00 11 20.7	+2.3
JCH	Churui	6.85	245	P	Pn	00 11 19.6	-0.7
JCH				S	Sn	00 12 35.8	-0.9
JWK2	Keihoku	6.95	269	P	Pn	00 11 25.6	+3.9
ERM	Erimo	7.30	242	*e*PN	Pn	00 11 27.4	+1.0
JEM	Erimo	7.30	242	P	Pn	00 11 27.3	+0.9
JEM				*e*S	Sn	00 12 46.3	-1.4
JNBK	Urakawa-nobuka	7.41	245	P	Pn	00 11 26.8	-1.1
JBT2	Biratori 2	7.41	249	P	Pn	00 11 29.2	+1.3
PETK	Petropavlovsk-	8.23	26	P	Pn	00 11 37.9	-1.2
	comp=E,0.2nm,0.3s,baz=192,slow=12,SNR=3.7						
JNB	Noboribetsu	8.42	250	P	Pn	00 11 41.6	-0.1
JNB				*e*S	Sn	00 13 14.5	-0.6
JKB	Kayabe	8.71	247	P	Pn	00 11 44.7	-0.9
JKB				*e*S	Sn	00 13 19.1	-3.0
JSH	Shimam	9.01	253	P	Pn	00 11 50.6	+0.9
JYM2	Yakumo 2	9.02	250	P	Pn	00 11 49.0	-1.0
JANG	Nango	9.28	238	P	Pn	00 11 50.4	-3.0
JANG				*e*S	Sn	00 13 30.2	-5.8
JTM	Tenmabayashi	9.29	241	P	Pn	00 11 51.8	-1.8
JOSM	Okushiri--Mats	9.63	251	P	Pn	00 11 58.0	-0.2
JRG	Rokugo	10.43	236	P	Pn	00 12 07.5	-1.6
KSRS	Korea Array	19.64	253	P	Pn	00 14 08.1	+1.0
	comp=E,0.1nm,0.3s,baz=56,slow=12,SNR=4.4						
MKAR	Makanchi Array	46.54	298	P	P	00 18 01.2	-1.0
MKAR						00 19 36.3	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	46.54	298	P	P	00 18 01.2	-1.0
	comp=Z,0.3nm,0.5s,mb3.3,baz=67,slow=6.4,SNR=9.5						
MKAR				PcP	PcP	00 19 36.2	+1.0
	comp=Z,0.5nm,0.7s,baz=64,slow=4.2,SNR=5.8						
YKA	Yellowknife Ar	52.21	36	P	P	00 18 44.5	-0.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	52.21	36	P	P	00 18 44.5	-0.6
	comp=Z,0.5nm,0.6s,mb3.7,baz=297,slow=6.9,SNR=7.1						
WRA	Warramunga Arr	67.35	198	P	P	00 20 31.0	+1.6
	comp=Z,0.3nm,0.6s,mb3.3,baz=19,slow=6.2,SNR=2.8						
NOA	NORSAR Array B	68.79	341	*e*P	P	00 20 37.0	-1.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	68.79	341	P	P	00 20 36.7	-1.3
	comp=Z,1.0nm,0.8s,mb3.7,baz=27,slow=6.5,SNR=3.8						
HFS	Hagfors	68.98	339	P	P	00 20 37.2	-2.0
HFS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
HFS	Hagfors	68.98	339	P	P	00 20 37.2	-2.0
	comp=Z,2.7nm,0.7s,mb4.2,baz=92,slow=4.5,SNR=8.2						
SCHQ	Schefferville	74.51	22	P	P	00 21 13.2	+0.7
	comp=Z,3.1nm,1.1s,mb4.0,baz=315,slow=10.0,SNR=3.3						
BURAR	Bucovina Array	75.83	326	⇓*i*P	P	00 21 20.2	+0.1
EKA	Eskdalemuir Ar	77.00	346	P	P	00 21 25.6	-1.0
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA	Eskdalemuir Ar	77.00	346	P	P	00 21 25.6	-1.0
	comp=Z,0.9nm,0.7s,mb3.6,baz=21,slow=6.1,SNR=3.5						
MLR	Muntele Rosu	77.27	324	⇓*i*P	P	00 21 29.6	+1.3
VOIR		77.68	325	⇓*i*P	P	00 21 31.6	+1.0
BRTR	Keskin Array B	78.41	316	P	P	00 21 34.9	+0.2
	comp=Z,0.3nm,0.5s,mb3.3,baz=116,slow=5.7,SNR=3.7						
TXAR	Lajitas Array	78.75	60	P	P	00 21 37.3	+0.5
	comp=Z,0.3nm,0.6s,mb3.3,baz=276,slow=3.5,SNR=3.6						
GERES	GERESS Array B	78.86	333	P	P	00 21 36.9	-0.2
	comp=Z,0.4nm,0.4s,mb3.6,baz=57,slow=4.9,SNR=3.9						

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*CSEM **06** 00:18:26.5, 67°.88N×20°.47E, h0^{km}, ML1.6, Mining explosion. After HEL*

HEL 06 00:18:26.5, **67°.88N**×**20°.47E**, **h0**^{km}, **ML1.6**, **Explosion**, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	Kurravaara	0.09	328	*i* P	Pg	00 18 22.9	-5.4
KUA				*i* S	Sg	00 18 24.8	-4.7
LANU	Lannavaara	0.60	72	*e*S	Sg	00 18 44.4	-1.3
LANU	Lannavaara	0.60	72	Sg	Sg	00 18 44.4	-1.3
KIF	Kilpisjarvi	1.14	6	*e*SN	Sn	00 19 03.4	-2.6
KIF				MSG		00 19 03.4	
	comp=Z,5.5nm,0.2s						
KIF	Kilpisjarvi	1.14	6	Sg	Sg	00 19 03.3	+0.2
HEF	Hetta	1.31	64	MSG		00 19 09.9	
	comp=Z,5.3nm,0.2s						
HEF				*e*SN	Sn	00 19 09.9	-0.2
HEF	Hetta	1.31	64	Sg	Sg	00 19 09.9	+1.4
SGF	Sodankyl	2.35	98	*e*P	Pn	00 19 04.5	-1.9
	baz=284						
SGF				MSG		00 19 37.5	
	comp=Z,1.3nm,0.2s						
SGF				*e*SB	Sb	00 19 37.5	-1.8
SGF	Sodankyl	2.35	98	Pn	Pn	00 19 04.4	-1.9
SGF				Sg	Sg	00 19 37.4	-4.6
ARA0	ARCESS Array S	2.48	45	MSG		00 19 39.9	
	comp=Z,3.4nm,0.3s						
ARA0				*e*SG	Sg	00 19 39.9	-6.2
ARA0	ARCESS Array S	2.48	45	Sg	Sg	00 19 39.9	-6.2
RNF	Rovaniemi	2.50	118	*e*PG	Pg	00 19 11.1	-3.3
RNF				*e*S	Sn	00 19 39.6	+0.1
RNF				MSG		00 19 39.6	
	comp=Z,2.4nm,0.2s						
RNF	Rovaniemi	2.50	118	Pn	Pn	00 19 11.1	+2.7
RNF				Sg	Sg	00 19 39.6	-7.2
KU6	Riekki	4.14	112	*e*SG	Sg	00 20 34.5	-4.9
KU6				MSG		00 20 34.5	
	comp=Z,1.8nm,0.4s						
KU6	Riekki	4.14	112	Sg	Sg	00 20 34.5	-4.9

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*NIED **06** 00:20:00, 34°.90N×140°.20E, h98^{km}, Mw4.1 Best double couple: M$_0$1.50000×10^{15} NP1:φ$_s$353.00000°, δ90.00000°, λ96.00000°. NP2:φ$_s$87.00000°, δ6.00000°, λ4.00000°.*

*MOS **06** 00:20:15.7±0.9, 34°.96N×140°.28E, h112^{km}, mb4.4/5, Error ellipse: s-maj=21.0km s-min=8.8km az=125.7*

*ISCJB **06** 00:20:17.0±0.3, 34°.97N±0°.04×140°.12E±0°.05, h113^{km}±2^{km}, mb4.2/31, Error ellipse: s-maj=7.6km s-min=5.6km az=40.9*

*NEIC **06** 00:20:17.2±1.3, 34°.93N×140°.14E, h102^{km}±10^{km}, mb4.5/8, MW4.1(NIED), Error ellipse: s-maj=13.8km s-min=10.2km az=105.0*

*IDC **06** 00:20:17.4±2.3, 34°.94N×140°.16E, h99^{km}±17^{km}, mb3.7/12, mb1 3.8/14, mb1mx3.7/24, mbtmp3.7/14, Error ellipse: s-maj=24.8km s-min=19.1km az=61.0*

*JMA **06** 00:20:17.4±0.1, 34°.96N×140°.13E, h109^{km}±1^{km}, M3.7 Broadband fault plane solution: P waves. NP1: φ$_s$36.00000°, δ12.00000°, λ-46.00000°. NP2:φ$_s$172.00000°, δ81.00000°, λ-98.00000°. Principal axes: T Plg36.0000°, Azm269.0000°; N Plg8.0000°, Azm173.0000°; P Plg53.0000°, Azm72.0000°;*

JMA Felt I J1.

*BJI **06** 00:20:20.7, 35°.13N×139°.29E, h101^{km}, mB4.6/6, mb4.3/12*

ISC 06 00:20:18.1±0.3, **34°.98N**±0°.04×**140°.13E**±0°.05, **h107**^{km}±2^{km}, **n69**, σ**0^{s}.83**/83, **mb4.2**/31, **8D**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO4	Boso 4	0.17	86	P	Pn	00 20 33.1	+0.1
BSO4				S	Sn	00 20 45.2	+0.9
TATJ	Tateyama 2	0.20	285	⇓P	Pn	00 20 33.4	+0.3
TATJ				S	Sn	00 20 45.3	+0.9
KTR	Katsuura	0.23	43	P	Pn	00 20 33.3	+0.1
KTR				S	Sn	00 20 44.3	-0.3
BSO3	Boso 3	0.36	119	P	Pn	00 20 33.5	-0.3
BSO3				S	Sn	00 20 46.3	+0.8
JIM2	Oshima 3	0.63	246	⇓P	Pn	00 20 35.0	-0.6
JIM2				S	Sn	00 20 48.3	-0.4
BSO1	Boso 1	0.77	115	P	Pn	00 20 36.2	-0.6
JOD2	Odawara 2	0.90	289	⇓P	Pn	00 20 37.5	-0.5
JOD2				S	Sn	00 20 52.2	-0.8
JMY	Miyakejima3	1.04	209	P	Pn	00 20 38.9	-0.5
JIZS	Izushimoda	1.06	256	⇓P	Pn	00 20 39.4	-0.2

JIZS				S	Sn	00 20 56.0	+0.1
JYN	Shimob	1.39	292	⇓P	Pn	00 20 43.6	+0.2
JYN				S	Sn	00 21 03.1	+0.4
JRY	Ryogami san	1.44	316	⇓P	Pn	00 20 44.1	+0.1
JRY				S	Sn	00 21 03.7	+0.1
JAG	Ashikaga	1.54	339	⇓P	Pn	00 20 44.7	-0.5
JAG				S	Sn	00 21 05.2	-0.7
SHZ3	Shizuoka 3	1.57	274	⇓P	Pn	00 20 46.1	+0.5
SHZ3				S	Sn	00 21 07.5	+1.0
MJAR	Matsushiro Arr	2.21	316	P	Pn	00 20 53.7	+0.1
	22nm,0.3s,baz=152,slow=12,SNR=145						
MJAR				S	Sn	00 21 20.3	-0.4
	19nm,0.3s,baz=248,slow=37,SNR=28						
MAJO	Matsushiro	2.21	316	*e*Pn	Pn	00 20 54.1	+0.6
MAJO				*e*Sn	Sn	00 21 19.0	-1.7
MAT	Matsushiro	2.21	316	P	Pn	00 20 54.2	+0.6
MAT				S	Sn	00 21 21.0	+0.3
KSRS	Korea Array	10.16	288	P	Pn	00 22 41.9	+1.0
	0.2nm,0.3s,baz=103,slow=15,SNR=4.6						
YSS	Yuzh-Sakhalins	12.13	9	P	Pn	00 23 04.9	-2.2
CN2	Changchun	14.35	312	*e*P	Pn	00 23 39.9	+3.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NACB	Ninganchiao	19.35	241	P	P	00 24 34.2	-0.9
TPUB	Ta-pu	20.58	241	*e*P	P	00 24 47.6	-0.9
HIA	Hailar	20.70	320	*e*P	P	00 24 48.7	-0.9
HIA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HIA	Hailar	20.70	320	*e*P	P	00 24 48.7	-0.9
	comp=Z,3.7nm,0.6s						
XAN	Xi’an	25.68	277	P	P	00 25 36.5	-1.6
XAN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.1						
XAN				pmax	pmax		
	comp=Z,89nm,6.3s						
ULN	Ulaanbaatar	27.71	308	*e*P	P	00 25 56.0	-0.1
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.5						
ULN	Ulaanbaatar	27.71	308	*e*P	P	00 25 56.0	-0.2
	comp=Z,1.5nm,0.6s,mb3.7						
SONM	Songino Array	28.14	307	P	P	00 26 00.3	+0.4
	comp=Z,2.2nm,0.7s,mb3.8,baz=105,slow=8.7,SNR=22						
BOD	Bodaibo	28.76	331	*e*P	P	00 26 05.1	-0.2
ZAK	Zakamensk	30.78	311	*e*P	P	00 26 23.8	+0.5
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
TLY	Talaya	30.95	314	*e*P	P	00 26 23.4	-1.3
GTA	Gaotai	32.23	290	*e*P	P	00 26 36.5	+0.4
GTA				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
LSA	Lhasa	41.38	277	P	P	00 27 52.2	-1.6
ZALV	Zalesovo Beam	42.56	314	P	P	00 28 03.4	+0.5
	comp=Z,2.2nm,0.6s,mb4.0,baz=90,slow=7.4,SNR=13						
ZALV	Zalesovo Beam	42.56	314	P	P	00 28 03.4	+0.4
MKAR	Makanchi Array	44.36	304	P	P	00 28 17.9	+0.4
	comp=Z,2.5nm,0.7s,mb4.0,baz=85,slow=10,SNR=30						
TAPN	Taplejung	45.06	275	*e*P	P	00 28 23.7	+0.3
	comp=Z,2.8nm,0.4s,mb4.3						
ODAN	Odare	45.52	275	*e*P	P	00 28 27.0	0.0
	comp=Z,3.4nm,0.4s,mb4.5						
RAMN	Ramite	46.13	275	*e*P	P	00 28 32.1	+0.3
JIRN	Jiri	46.19	276	*e*P	P	00 28 33.2	+1.0
	comp=Z,3.3nm,0.3s,mb4.5						
GUN	Gumba	46.34	277	*e*P	P	00 28 34.2	+0.8
	comp=Z,11nm,0.9s,mb4.6						
KURK	Kurchatov	46.40	310	*e*P	P	00 28 33.3	-0.3
KURK				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.7						
KURK	Kurchatov	46.40	310	*e*P	P	00 28 33.3	-0.3
	comp=Z,14nm,0.8s,mb4.7						
PKI	Pulchoki	46.86	277	*e*P	P	00 28 37.7	+0.2
KKN	Kakani	46.88	277	*e*P	P	00 28 37.6	0.0
	comp=Z,8.4nm,0.7s,mb4.6						
DMN	Daman	47.09	277	*e*P	P	00 28 39.7	+0.4
GKN	Gorkha	47.32	278	*e*P	P	00 28 40.9	-0.1
DANN	Dangsing	47.90	278	*e*P	P	00 28 46.4	+0.9
	comp=Z,13nm,0.5s,mb5.0						
KOLN	Koldanda	48.25	278	*e*P	P	00 28 48.6	+0.3
BVAR	Borovoye Array	51.20	313	P	P	00 29 10.5	+0.3
	comp=Z,1.7nm,0.5s,mb4.3,baz=79,slow=6.9,SNR=16						
AML	Almayashu	51.27	299	P	P	00 29 12.7	+1.8
	comp=Z,4.7nm,0.6s,mb4.7						
WRAB	Tennant Creek	54.88	187	*e*P	P	00 29 36.6	-0.9
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
WRAB	Tennant Creek	54.88	187	*e*P	P	00 29 36.6	-1.0
	comp=Z,3.3nm,0.7s,mb4.5						
WRA	Warramunga Arr	54.89	187	P	P	00 29 37.0	-0.6
	comp=Z,2.6nm,0.6s,mb4.5,baz=4.0,slow=7.6,SNR=28						
ARU	Arti	57.22	319	*e*P	P	00 29 53.6	-0.2
ARU				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
ARU	Arti	57.22	319	*e*P	P	00 29 53.6	-0.2
	comp=Z,2.1nm,0.5s,mb4.4						
MBWA	Marble Bar	59.09	202	*e*P	P	00 30 06.3	-0.9
	comp=Z,3.1nm,0.6s,mb4.5						
AKTK	Aktyubinsk	59.28	313	P	P	00 30 10.4	+2.1
AKTO	Aktyubinsk	59.28	313	P	P	00 30 10.4	+2.1
	comp=Z,1.8nm,0.7s,mb4.2,baz=72,slow=12,SNR=6.4						
YKA	Yellowknife Ar	66.11	29	P	P	00 30 52.9	-0.4
	comp=Z,0.1nm,0.5s,mb2.9,baz=301,slow=6.6,SNR=4.6						
KIV	Kislovodsk	71.46	311	*e*P	P	00 31 27.9	+1.0
KIV				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
KIV	Kislovodsk	71.46	311	*e*P	P	00 31 27.0	+0.1
	comp=Z,9.1nm,0.8s,mb4.7						
AKASG	Malin Array Be	75.28	322	P	P	00 31 48.8	-0.3
	comp=Z,1.1nm,0.4s,mb3.9,baz=50,slow=5.5,SNR=8.2						
MIB	Mutribah	75.67	296	*e*P	P	00 31 51.1	-0.7
MIB				AMb	AMB	00 31 52.4	
	comp=Z,9.6nm,1.0s,mb4.5						
NOA	NORSAR Array B	75.67	337	P	P	00 31 50.3	-0.9
	comp=Z,1.5nm,0.8s,mb3.8,baz=38,slow=5.9,SNR=4.3						
RDF	Al-Radifah	75.98	295	*e*P	P	00 31 52.2	-1.3
RDF				AMb	AMB	00 31 54.8	
	comp=Z,16nm,0.8s,mb4.8						
NAY	Al-Naaiem	76.04	296	*e*P	P	00 31 52.9	-1.0
NAY				AMb	AMB	00 31 55.0	
	comp=Z,6.5nm,1.0s,mb4.3						
BRTR	Keskin Array B	79.42	311	P	P	00 32 13.7	+1.2
	comp=Z,1.2nm,0.8s,mb3.8,baz=119,slow=4.4,SNR=7.4						
PDAR	Pinedale Array	79.86	45	P	P	00 32 16.0	+1.2
	comp=Z,0.5nm,0.6s,mb3.5,baz=318,slow=1.7,SNR=6.0						
TXAR	Lajitas Array	92.21	52	P	P	00 33 17.2	+1.2
	comp=Z,0.4nm,0.6s,mb3.8,baz=262,slow=0.8,SNR=4.9						

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*ISCJB **06** 00:40:24.1±0.6, 38°.80N±0°.05×110°.6E±0°.1, h10^{km}, mb3.6/8, Error ellipse: s-maj=12.8km s-min=6.6km az=179.1*

*IDC **06** 00:40:24.9±1.1, 38°.81N×110°.59E, h0^{km}, mb3.6/8, mb1 3.8/9, mb1mx3.7/22, mbtmp3.7/9, MS3.1/2, Ms1 3.1/2, ms1mx2.5/25, Error ellipse: s-maj=30.8km s-min=19.9km az=74.0*

*NEIC **06** 00:40:26.4±0.7, 38°.86N×110°.60E, h10^{km}, mb3.7/1, Error ellipse: s-maj=13.6km s-min=11.8km az=69.0*

ISC 06 00:40:26.3±0.6**, 38°.82N**±0°.04×**110°.6E**±0°.1**, h10**^{km}**, n20, σ1**^{s}**01**/28**, mb3.6**/8**, Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTO	Baotou	1.85	345	*e*P	Pn	00 40 56.3	-1.8
BTO				pmax	pmax		
	comp=Z,60nm,1.1s						
BJT	Baijiatuau	4.45	73	Pn	Pn	00 41 34.1	+0.3
BJT				*e*S	Sn	00 42 33.9	+8.2
BJI	Beijing	4.46	72	Pg	Pg	00 41 44.6	-7.2
BJI				Sg	Sg	00 42 43.3	-6.3
BJI				smax			
	comp=N,90nm,1.1s						
BJI				smax			
	comp=E,39nm,1.9s						
XAN	Xi’an	4.96	197	Pn	Pn	00 41 45.0	+4.1
XAN				Pg	Pg	00 42 01.2	-0.2
XAN				Sn	Sn	00 42 44.1	+5.8
XAN				Sg	Sg	00 43 05.5	-0.2
XAN				smax			
	comp=N,50nm,1.0s						
XAN				smax			
	comp=E,49nm,1.1s						
LZH	Lanzhou	6.05	245	Pn	Pn	00 42 03.6	+7.8
LZH				Pg	Pg	00 42 17.8	-4.4
LZH				Sn	Sn	00 42 59.0	-6.1
LZH				Sg	Sg	00 43 26.0	-15
LZH				smax			
	comp=N,52nm,0.9s						
LZH				smax			
	comp=E,59nm,1.0s						
LZH				LR	LR		
	comp=E,280nm,5.0s						
LZH				LR	LR		
	comp=Z,200nm,6.3s						
GTA	Gaotai	8.43	277	*e*P	Pn	00 42 32.3	+3.8
GTA				pP		00 42 36.4	
GTA				sP		00 42 39.6	
GTA				pmax	pmax		
	comp=Z,3.0nm,1.3s						
ULN	Ulaanbaatar	9.41	345	*e*Pn	Pn	00 42 41.2	-0.7
	comp=Z,5.7nm,1.2s						
SONM	Songino Array	9.53	342	Pn	Pn	00 42 41.8	-1.7
	baz=293,slow=1.1,SNR=3.7						
SONM				Sn	Sn	00 44 32.0	+1.4
	comp=Z,0.1nm,0.3s,baz=149,slow=24,SNR=3.5						
SONM				Lg		00 45 19.5	
	comp=Z,0.1nm,0.3s,baz=166,slow=19,SNR=7.6						
SONM				LR	LR	00 46 02.8	
	comp=Z,28nm,21.6s,baz=231,slow=36						
LSA	Lhasa	18.47	246	*e*P	Pn	00 44 47.3	+4.9
	comp=Z,4.0nm,0.7s						
MKAR	Makanchi Array	22.18	300	P	P	00 45 22.9	+0.5
	comp=Z,0.8nm,0.8s,mb3.2,baz=104,slow=12,SNR=10						
CMAR	Chiang Mai Arr	22.69	210	P	P	00 45 28.2	+0.2
	comp=Z,4.5nm,0.7s,mb4.0,baz=14,slow=9.2,SNR=24						
ZALV	Zalesovo Beam	23.19	319	P	P	00 45 34.3	+1.3
	comp=Z,0.6nm,0.7s,mb3.1,baz=92,slow=12,SNR=2.9						
KURK	Kurchatov	25.45	308	P	P	00 45 55.0	+0.8
	comp=Z,0.5nm,0.6s,mb3.2,baz=106,slow=11,SNR=5.8						
BRTR	Keskin Array B	57.80	297	P	P	00 50 17.1	-0.7
	comp=Z,0.5nm,0.6s,mb3.7,baz=98,slow=6.4,SNR=4.1						
JMIC	Jan Mayen	62.29	341	LR	LR	01 19 50.5	
	comp=Z,65nm,18.6s,baz=295,slow=38						
WRA	Warramunga Arr	62.53	155	P	P	00 50 51.1	+0.9
	comp=Z,0.2nm,0.3s,mb3.7,baz=205,slow=6.1,SNR=4.2						
WRA	Warramunga Arr	62.53	155	P	P	00 50 51.1	+0.9
YKA	Yellowknife Ar	72.69	20	P	P	00 51 54.2	+0.3
	comp=Z,0.5nm,0.8s,mb3.5,baz=322,slow=5.4,SNR=9.0						
YKA	Yellowknife Ar	72.69	20	P	P	00 51 54.2	+0.3
KMBO	Kilima Mbogo	77.81	259	P	P	00 52 23.1	-1.0
	comp=Z,1.1nm,0.6s,mb3.9,baz=79,slow=9.6,SNR=3.6						

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*ISCJB **06** 00:52:51.4±0.4, 41°.41N±0°.02×19°.59E±0°.02, h7^{km}±3^{km}, mb3.6/2, Error ellipse: s-maj=3.7km s-min=2.3km az=138.0*

*CSEM **06** 00:52:52.4±0.2, 41°.41N×19°.57E, h10^{km}, ML3.6/4, Error ellipse: s-maj=4.6km s-min=3.1km az=46.0*

*IDC **06** 00:52:53.4±2.2, 41°.38N×20°.56E, h0^{km}, mb3.7/2, mb1 3.4/4, mb1mx3.2/22, mbtmp3.4/4, ML3.0/2, Error ellipse: s-maj=50.7km s-min=20.3km az=49.0*

*SKO **06** 00:52:53.3, 41°.27N×19°.59E, h14^{km}, M2.2, ML2.8*

*THE **06** 00:52:53.6, 41°.40N×19°.56E, h16^{km}±1^{km}, ML3.6/4, Error ellipse: s-maj=3.1km s-min=1.4km az=328.0*

*BEO **06** 00:52:54.5±0.4, 41°.57N×19°.74E, h3^{km}±2^{km}, ML2.7/9*

*PDG **06** 00:52:54.4±0.4, 41°.55N×19°.67E, h13^{km}, MD3.0/4, ML3.0/10, Error ellipse: s-maj=1.1km s-min=1.3km az=0.0*

*NEIC **06** 00:52:54.1, 41°.51N×19°.63E, h2^{km}, MD3.1(PDG), ML3.5(THE), After PDG.*

*ATH **06** 00:53:12.9, 39°.94N×20°.13E, h41^{km}±1^{km}, MD3.2/3*

ISC 06 00:52:52.4±0.4**, 41°.40N**±0°.02×**19°.56E**±0°.02**, h10**^{km}±3^{km}**, n144, σ1**^{s}**19**/223**, mb3.6**/2**, 29C-15D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.23	103	P	Pg	00 52 58.4	+1.2
TIR				S	Sg	00 53 03.0	+2.6
TIR	Tirane	0.23	103	⇑*i*Pg	Pg	00 52 58.4	+1.2
TIR				*e*Sg	Sg	00 53 02.8	+2.4
TIR	Tirane	0.23	103	P	Pg	00 52 58.4	+1.2
TIR				S	Sg	00 53 02.9	+2.5
TIR	Tirane	0.23	103	⇑*i*Pg	Pg	00 52 58.4	+1.2
TIR				*e*Sg	Sg	00 53 02.8	+2.4
ULC	Ulcinj	0.61	338	⇓*i*Pg	Pg	00 53 04.3	+0.1
ULC				*e*Sg	Sg	00 53 13.2	+1.0
ULC	Ulcinj	0.61	338	P	Pg	00 53 04.5	+0.2
ULC				S	Sg	00 53 16.8	+4.5
ULC	Ulcinj	0.61	338	⇓*i*Pg	Pg	00 53 04.3	+0.1
ULC				*e*Sg	Sg	00 53 13.2	+1.0
ULC				S	Sg	00 53 16.8	+4.6
BUM	Brajici-Budva	1.03	331	⇑*i*Pg	Pg	00 53 12.2	0.0
BUM				*e*Sg	Sg	00 53 27.6	+2.1
BUM	Brajici-Budva	1.03	331	P	Pg	00 53 12.4	+0.3
BUM				S	Sg	00 53 29.3	+3.7
BUM	Brajici-Budva	1.03	331	⇑*i*Pg	Pg	00 53 12.2	0.0
BUM				*e*Sg	Sg	00 53 27.6	+2.1
BUM				S	Sg	00 53 29.3	+3.8
PDG	Podgorica	1.05	348	⇑*i*Pg	Pg	00 53 11.8	-0.9
PDG				*e*Sg	Sg	00 53 26.7	+0.3
TTG	Podgorica	1.05	348	⇑*i*Pg	Pg	00 53 11.8	-0.9
TTG				*e*Sg	Sg	00 53 26.7	+0.3
PVY	Plav	1.23	14	⇓*i*Pg	Pg	00 53 14.2	-1.9
PVY				*e*Sg	Sg	00 53 31.6	-0.5
PVY	Plav	1.23	14	P	Pn	00 53 14.6	-1.1
PVY				S	Sb	00 53 33.9	+2.2
PVY	Plav	1.23	14	⇓*i*Pg	Pg	00 53 14.2	-1.9
PVY				*e*Sg	Sg	00 53 31.6	-0.5
PVY				S	Sb	00 53 33.9	+2.2
KRUS	Krusevo	1.27	91	*e*Pg	Pg	00 53 15.2	-1.6
KRUS				*i* Sg	Sg	00 53 33.0	-0.3
KRUS				*e*Lg		00 53 33.3	
	comp=N,25nm,0.2s						
KRUS				*e*Lg		00 53 33.7	
	comp=E,52nm,0.3s						
KRUS	Krusevo	1.27	91	*e*Pg	Pg	00 53 15.2	-1.6
KRUS				*i* Sg	Sg	00 53 32.9	-0.4
KRUS				*e*Lg		00 53 33.2	
	comp=E,25nm,0.2s						
HCY	Herceg Novi	1.31	323	⇑*i*Pg	Pg	00 53 17.2	-0.4
HCY				*e*Sg	Sg	00 53 36.6	+1.9
HCY	Herceg Novi	1.31	323	P	Pn	00 53 17.3	+0.6
HCY				S	Sb	00 53 36.1	+2.0
HCY	Herceg Novi	1.31	323	⇑*i*Pg	Pg	00 53 17.2	-0.4
HCY				*e*Sg	Sg	00 53 36.6	+1.9
BIA	Bitola	1.38	105	P	Pn	00 53 17.3	-0.4
BIA				S	Sb	00 53 36.0	0.0
BIA	Bitola	1.38	105	*e*Pg	Pg	00 53 17.5	-1.5
BIA				*e*Sg	Sg	00 53 36.1	-0.8
BIA				*e*Lg		00 53 36.7	
	comp=N,66nm,0.3s						
BIA				*e*Lg		00 53 37.9	
	comp=E,43nm,0.2s						
BIA	Bitola	1.38	105	P	Pn	00 53 17.3	-0.4
BIA				S	Sb	00 53 35.5	-0.5
BIA	Bitola	1.38	105	*e*Pg	Pg	00 53 17.4	-1.5
BIA				*e*Sg	Sb	00 53 36.0	0.0
BIA				*e*Lg		00 53 36.6	
	comp=E,66nm,0.3s						
NKY	Niksic	1.47	344	⇓*i*Pg	Pg	00 53 19.6	-1.1
NKY				*e*Sg	Sg	00 53 40.4	+0.6
NKY	Niksic	1.47	344	P	Pn	00 53 19.2	+0.2
NKY				S	Sn	00 53 42.9	+4.6
NKY	Niksic	1.47	344	⇓*i*Pg	Pg	00 53 19.6	-1.1
NKY				*e*Sg	Sg	00 53 40.4	+0.6
NKY				S	Sn	00 53 42.9	+4.6
BEY	Berane	1.49	10	⇑*i*Pg	Pg	00 53 19.3	-1.7
BEY				*e*Sg	Sg	00 53 40.9	+0.5
IVA	Berane	1.49	10	⇑*i*Pg	Pg	00 53 19.3	-1.7
IVA				*e*Sg	Sg	00 53 40.9	+0.5
FNA	Florina	1.50	114	P	Pn	00 53 19.8	+0.4
FNA				S	Sn	00 53 39.7	+0.7
FNA	Florina	1.50	114	P	Pn	00 53 20.0	+0.6
FNA				S	Sn	00 53 39.7	+0.7
FNA	Florina	1.50	114	P	Pn	00 53 19.8	+0.4
FNA				S	Sn	00 53 39.7	+0.7
SKO	Skopje	1.52	67	⇑*i*Pg	Pn	00 53 20.4	+0.8
SKO				*e*Sg	Sg	00 53 37.3	-3.9
SKO	Skopje	1.52	67	*e*Pn	Pn	00 53 20.4	+0.9
SKO				*e*Lg		00 53 40.8	
	comp=N,134nm,0.7s						
SKO				*e*Sn	Sn	00 53 40.9	+1.5
SKO				*e*Lg		00 53 41.3	
	comp=E,129nm,0.7s						
SKO	Skopje	1.52	67	P	Pn	00 53 20.4	+0.8
SKO	Skopje	1.52	67	*e*Pn	Pn	00 53 20.4	+0.8
SKO				*e*Lg		00 53 40.8	
	comp=E,134nm,0.7s						
SKO				*e*Sn	Sn	00 53 40.8	+1.4
BRY	Bratogost	1.68	334	⇓*i*Pn	Pn	00 53 23.0	+1.2
BRY				*e*Sn	Sn	00 53 46.4	+3.0
BRY	Bratogost	1.68	334	P	Pn	00 53 23.1	+1.3
BRY				S	Sn	00 53 50.0	+6.7
BRY	Bratogost	1.68	334	⇓*i*Pn	Pn	00 53 23.0	+1.2
BRY				*e*Sn	Sn	00 53 46.4	+3.0
KEK	Kerkira	1.69	174	*e*P	Pn	00 53 22.2	+0.2
KEK	Kerkira	1.69	174	*e*P	Pn	00 53 22.2	+0.2
PE1	Pezze di Greco	1.72	251	*e*Pn	Pn	00 53 23.1	+0.7
UPM	Unac-Piva	1.87	345	⇑*i*Pn	Pn	00 53 25.5	+1.1
UPM				*e*Sn	Sn	00 53 49.8	+1.8
UPM	Unac-Piva	1.87	345	P	Pn	00 53 26.2	+1.8
UPM	Unac-Piva	1.87	345	⇑*i*Pn	Pn	00 53 25.5	+1.1
UPM	Unac-Piva	1.87	345	P	Pn	00 53 26.2	+1.8
UPM				*e*Sn	Sn	00 53 49.8	+1.8
SJES	Sjenica	1.89	9	*e*Pg	Pg	00 53 25.6	-3.0
SJES				*e*Sg	Sg	00 53 50.5	-2.5
SJES	Sjenica	1.89	9	*e*Pg	Pg	00 53 25.6	-3.0
SJES				*e*Sg	Sg	00 53 50.5	-2.5
TAR1	Taranto	1.93	244	*e*Pn	Pn	00 53 24.5	-0.8
PLE	Pljevlja	1.93	356	⇓*i*Pn	Pn	00 53 26.4	+1.1
PLE				*e*Sn	Sn	00 53 51.5	+1.9
PLE	Pljevlja	1.93	356	P	Pn	00 53 28.9	+3.6
PLE				S	Sn	00 53 54.1	+4.5
PLE	Pljevlja	1.93	356	⇓*i*Pn	Pn	00 53 26.4	+1.1
PLE	Pljevlja	1.93	356	P	Pn	00 53 28.9	+3.6
PLE				*e*Sn	Sn	00 53 51.5	+1.9
PLE				S	Sn	00 53 54.1	+4.5
IGT	Igoumenitsa	1.96	162	P	Pn	00 53 25.9	+0.3
IGT				S	Sn	00 53 50.8	+0.7
IGT	Igoumenitsa	1.96	162	P	Pn	00 53 25.9	+0.3
IGT				S	Sn	00 53 49.8	-0.3
IGT	Igoumenitsa	1.96	162	P	Pn	00 53 25.9	+0.3
IGT				S	Sn	00 53 49.8	-0.3
JAN	Janina	2.00	150	*e*P	Pn	00 53 26.0	-0.2
JAN	Janina	2.00	150	*e*P	Pn	00 53 26.0	-0.2
STON	Ston	2.02	317	*e*Pn	Pn	00 53 25.9	-0.6
STON				Sn	Sn	00 53 50.8	-1.0
STON	Ston	2.02	317	*e*Pn	Pn	00 53 25.9	-0.6
STON				Sn	Sn	00 53 50.8	-1.0
BAI	Bari	2.04	263	*e*Pn	Pn	00 53 26.7	-0.1
MEV	Metsovon	2.05	141	P	Pn	00 53 29.6	+2.7
MEV	Metsovon	2.05	141	P	Pn	00 53 29.6	+2.7
GRG	Griva	2.19	101	P	Pn	00 53 29.1	+0.3
GRG				S	Sn	00 53 56.0	+0.1
GRG	Griva	2.19	101	P	Pn	00 53 29.1	+0.3
GRG				S	Sn	00 53 56.0	+0.1
BARS	Barje	2.19	49	*e*Pn	Pn	00 53 28.6	-0.3
BARS				*e*Sg	Sg	00 53 56.6	-6.3
BARS				*e*Sg	Sg	00 53 56.7	-6.2
LTRZ	Laterza	2.22	250	Pn	Pn	00 53 29.5	+0.3
LTRZ				Sn	Sn	00 53 54.5	-2.2
LTRZ	Laterza	2.22	250	Pn	Pn	00 53 29.5	+0.3
LTRZ				Sn	Sn	00 53 54.5	-2.2
SG1	Sgolgore (BA)	2.25	257	*e*Pn	Pn	00 53 31.6	+2.0
VAY	Valandovo	2.27	91	*e*Pn	Pn	00 53 30.0	+0.2
VAY				*e*Lg		00 54 00.7	
	comp=N,32nm,0.8s						
VAY				*e*Lg		00 54 02.3	
	comp=E,19nm,0.7s						
VAY	Valandovo	2.27	91	P	Pn	00 53 29.9	0.0
VAY				S	Sn	00 53 56.9	-0.9
VAY	Valandovo	2.27	91	*e*Pn	Pn	00 53 30.0	+0.1
VAY				S	Sn	00 53 56.9	-0.9
VAY				*e*Lg		00 54 00.6	
	comp=E,32nm,0.8s						
BBLS	Lazići	2.47	357	*e*Pn	Pn	00 53 34.2	+1.6
BBLS				*e*Sg	Sg	00 54 06.3	-5.4
BBLS	Lazići	2.47	357	*e*Pn	Pn	00 53 34.2	+1.6
KNT	Kendrikon	2.53	94	P	Pn	00 53 33.5	+0.1
KNT	Kendrikon	2.53	94	P	Pn	00 53 33.4	0.0
KNT	Kendrikon	2.53	94	P	Pn	00 53 33.5	+0.1
LIT	Litokhoron	2.58	119	P	Pn	00 53 34.1	0.0
LIT				S	Sn	00 54 05.7	+0.3
LIT	Litokhoron	2.58	119	P	Pn	00 53 34.1	0.0
LIT				S	Sn	00 54 05.7	+0.3
THL	Klokotos Trika	2.62	134	P	Pn	00 53 35.5	+0.8
THL	Klokotos Trika	2.62	134	P	Pn	00 53 35.5	+0.8
GRUS	Gruza	2.63	19	*e*Pn	Pn	00 53 35.4	+0.5
GRUS				*e*Sn	Sn	00 54 06.0	-0.8
GRUS	Gruza	2.63	19	*e*Pn	Pn	00 53 35.4	+0.5
GRUS				*e*Sn	Sn	00 54 06.0	-0.8
NISS		2.67	41	*e*Pn	Pn	00 53 34.4	-1.0
NISS		2.67	41	*e*Pn	Pn	00 53 34.4	-1.0
DIVS	Divibare	2.72	7	*e*Pn	Pn	00 53 35.7	-0.3
DIVS				*e*Sn	Sn	00 54 08.2	-0.7
TRUS	Trudelj	2.89	12	*e*Pn	Pn	00 53 39.2	+0.8
TRUS	Trudelj	2.89	12	*e*Pn	Pn	00 53 39.2	+0.8
ZAPS	Zavoj	2.95	50	⇑*i*Pn	Pn	00 53 40.2	+1.0
ZAPS				*e*Sn	Sn	00 54 13.4	-1.3
ZAPS	Zavoj	2.95	50	⇑*i*Pn	Pn	00 53 40.2	+1.0
ZAPS				*e*Sn	Sn	00 54 13.4	-1.3
VTS	Vitosha	2.97	65	*e*Pn	Pn	00 53 40.3	+0.8
VTS	Vitosha	2.97	65	*e*Pn	Pn	00 53 40.3	+0.8
BOLS	Boljevac	3.00	35	*e*Pn	Pn	00 53 39.2	-0.8
BOLS	Boljevac	3.00	35	*e*Pn	Pn	00 53 39.2	-0.8
EVR	Evrytania	3.02	144	*e*P	Pn	00 53 41.0	+0.8
EVR	Evrytania	3.02	144	*e*P	Pn	00 53 41.0	+0.8
AGG	Agios Georgios	3.18	137	P	Pn	00 53 43.3	+0.8
AGG				S	Sn	00 54 20.4	0.0
AGG	Agios Georgios	3.18	137	P	Pn	00 53 43.3	+0.8
AGG				S	Sn	00 54 20.4	0.0
VLS	Valsamata	3.31	166	*e*P	Pn	00 53 43.2	-1.1
VLS	Valsamata	3.31	166	P	Pn	00 53 43.2	-1.1
EFP	Efpalio	3.47	148	*e*P	Pn	00 53 46.6	+0.2
EFP	Efpalio	3.47	148	*e*P	Pn	00 53 46.6	+0.2
RLS	Riolos of Patr	3.65	156	*e*P	Pn	00 53 48.2	-0.6
RLS	Riolos of Patr	3.65	156	*e*P	Pn	00 53 48.2	-0.6
GUR	Goura	4.07	147	*e*P	Pn	00 53 55.0	+0.3
GUR	Goura	4.07	147	*e*P	Pn	00 53 55.0	+0.3
BZS	Buzias	4.47	19	⇑*i*Pn	Pn	00 53 59.3	-0.9
BZS				*e*Sn	Sn	00 54 48.2	-4.0
BZS	Buzias	4.47	19	⇓*i*P	Pn	00 53 59.5	-0.7
BZS	Buzias	4.47	19	⇓P	Pn	00 53 59.5	-0.7
BZS	Buzias	4.47	19	⇑*i*Pn	Pn	00 53 59.3	-0.9
GZR	Gura Zlata	4.63	29	⇑*i*P	Pn	00 54 03.4	+1.1
GZR	Gura Zlata	4.63	29	⇑P	Pn	00 54 03.4	+1.1
GZR	Gura Zlata	4.63	29	⇑P	Pn	00 54 03.4	+1.1
NVLJ	Novalja	4.67	314	*e*Pn	Pn	00 54 02.4	-0.5
NVLJ				Sn	Sn	00 54 54.4	-2.8
NVLJ	Novalja	4.67	314	*e*Pn	Pn	00 54 02.3	-0.6
NVLJ				Sn	Sn	00 54 54.3	-2.9
PKSM	Moragy	4.86	352	*e*Pn	Pn	00 54 06.1	+0.7
PKSM	Moragy	4.86	352	⇑*i*P	Pn	00 54 04.4	-1.0
PKSM	Moragy	4.86	352	⇑P	Pn	00 54 04.4	-1.1
PKSM	Moragy	4.86	352	⇑P	Pn	00 54 04.4	-1.0
PKSM	Moragy	4.86	352	*e*Pn	Pn	00 54 06.1	+0.7
BOJS	Bojanci	5.16	324	*i* Pn	Pn	00 54 10.0	+0.3
BOJS				*i* Sn	Sn	00 55 07.6	-1.6
BOJS	Bojanci	5.16	324	*i* Pn	Pn	00 54 10.0	+0.3
BOJS				*i* Sn	Sn	00 55 07.6	-1.7
VISS	Visnje	5.58	324	*i* Pn	Pn	00 54 15.7	+0.3
VISS				*i* Sn	Sn	00 55 17.4	-2.1
VISS	Visnje	5.58	324	*i* Pn	Pn	00 54 15.7	+0.3
VOIR		5.68	43	⇓*i*P	Pn	00 54 17.6	+0.9
VOIR		5.68	43	⇓P	Pn	00 54 17.6	+0.8
VOIR		5.68	43	⇓P	Pn	00 54 17.6	+0.9
JAVS	Javornik	6.01	320	*i* Pn	Pn	00 54 20.7	-0.5
JAVS				*i* Sn	Sn	00 55 25.9	-4.0
JAVS	Javornik	6.01	320	*i* Pn	Pn	00 54 20.7	-0.5
MLR	Muntele Rosu	6.19	47	⇑*i*P	Pn	00 54 25.8	+2.1
MLR	Muntele Rosu	6.19	47	⇑P	Pn	00 54 25.8	+2.1
MLR	Muntele Rosu	6.19	47	⇑P	Pn	00 54 25.8	+2.1
IDI	Anoyia	7.40	144	Pn	Pn	00 54 37.6	-2.8
	comp=E,0.1nm,0.3s,baz=320,slow=16,SNR=2.8						
IDI				Sn	Sn	00 55 55.5	-8.8
	comp=E,0.3nm,0.3s,baz=81,slow=19,SNR=5.5						
TLCR		7.74	58	⇑*i*P	Pn	00 54 46.2	+1.2
TLCR		7.74	58	⇑P	Pn	00 54 46.1	+1.1
TLCR		7.74	58	⇑P	Pn	00 54 46.2	+1.2
GERES	GERESS Array B	8.52	333	Pn	Pn	00 55 04.3	+8.6
	comp=E,0.1nm,0.3s,baz=143,slow=13,SNR=4.4						
ZALV	Zalesovo Beam	44.15	50	P	P	01 00 58.4	-2.5
	comp=E,0.7nm,0.4s,mb3.8,baz=280,slow=7.8,SNR=4.8						
ZALV	Zalesovo Beam	44.15	50	P	P	01 00 58.4	-2.4
MKAR	Makanchi Array	44.31	61	P	P	01 01 00.1	-2.2
	comp=E,0.4nm,0.5s,mb3.4,baz=280,slow=7.9,SNR=5.6						
MOD	Modoc	89.49	331	*e*P	P	01 05 47.4	-2.2
MOD	Modoc	89.49	331	*e*P	P	01 05 47.4	-2.2

EIDS	**Eidsvold**	137.04	84	eP	PKPdf	01 12 16.1	+0.5
EIDS	**Eidsvold**	137.04	84	eP	PKPdf	01 12 16.1	+0.5

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*ISCJB **06** 00:56:09.7±0.6, 40°.44N±0°.04×42°.42E±0°.04, h10^{km}, Error ellipse: s-maj=6.2km s-min=3.6km az=164.9*
*CSEM **06** 00:56:09.6±0.3, 40°.43N×42°.42E, h2^{km}, MD2.9, Error ellipse: s-maj=6.9km s-min=4.4km az=174.0*
*ISK **06** 00:56:09.6, 40°.44N×42°.46E, h5^{km}, MD2.9*
*DDA **06** 00:56:13.9, 40°.03N×42°.37E, h7^{km}±8^{km}, Md2.8*
ISC 06 00:56:09.8±0.7, **40°.46N**±0°.04×**42°.43E**±0°.04, **h4**^{km}±8^{km}, **n20, σ0ˢ.86**/30, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARS	**Kars**	0.53	73	PG	Pg	00 56 20.4	+0.4
KARS				eSG	Sg	00 56 27.3	+0.5
KARS	**Kars**	0.53	73	i Pg	Pg	00 56 20.4	+0.4
KARS				eSg	Sg	00 56 27.3	+0.4
HOMI	**Horasan**	0.58	224	i P	Pg	00 56 20.6	-0.3
HOMI				i S	Sg	00 56 26.5	-1.9
AGRB	**Hanur-Agry**	0.98	154	PG	Pg	00 56 28.0	-0.7
AGRB				eSG	Sg	00 56 42.4	+0.9
AGRB	**Hanur-Agry**	0.98	154	i Pg	Pg	00 56 28.0	-0.7
AGRB				eSg	Sg	00 56 42.4	+1.0
ERZM	**Erzurum**	0.98	236	i P	Pg	00 56 28.9	+0.2
ERZM				i S	Sg	00 56 41.9	+0.5
ERZM	**Erzurum**	0.98	236	i P	Pg	00 56 28.9	+0.2
ERZM				i S	Sg	00 56 41.9	+0.4
EZM	**Erzurum**	0.99	236	PG	Pg	00 56 29.1	+0.3
DYDN	**Diyadin**	1.33	133	i P	Pn	00 56 33.9	-1.2
DYDN				i S	Sg	00 56 52.9	+0.3
DYDN	**Diyadin**	1.33	133	i P	Pn	00 56 33.9	-1.3
DYDN				i S	Sg	00 56 52.9	+0.3
PZAR	**Pazar-Rize**	1.36	302	ePN	Pn	00 56 36.3	+0.7
PZAR	**Pazar-Rize**	1.36	302	ePn	Pn	00 56 36.3	+0.7
KOPT	**Kop Dagi**	1.54	254	i P	Pg	00 56 40.1	+0.7
KOPT				i S	Sg	00 57 03.4	+4.0
CLDR	**Caldiran**	1.75	138	ePN	Pn	00 56 41.4	+0.5
CLDR	**Caldiran**	1.75	138	ePn	Pn	00 56 41.4	+0.6
GNI	**Garni**	1.80	99	ePN	Pn	00 56 41.7	+0.2
GNI	**Garni**	1.80	99	ePn	Pn	00 56 41.7	+0.2
GOR	**Gori**	1.98	39	P	Pg	00 56 46.5	-1.3
MTA	**Mtatsminda**	2.17	55	P	Pn	00 56 46.0	-0.7
ONI	**Oni**	2.25	20	P	Pn	00 56 51.5	+3.7

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*ISCJB **06** 01:37:53.3±1.5, 23°.46S±0°.06×177°.6W±0°.1, h182^{km}±16^{km}, mb4.7/21, Error ellipse: s-maj=17.7km s-min=9.3km az=19.7*
*NEIC **06** 01:37:55.2±1.2, 23°.42S×177°.49W, h191^{km}±12^{km}, mb4.7/9, Error ellipse: s-maj=13.6km s-min=7.2km az=109.0*
*IDC **06** 01:38:02.5±2.2, 23°.29S×177°.89W, h244^{km}±19^{km}, mb4.1/9, mb1 4.3/10, mb1mx4.1/17, mbtmp4.2/10, Error ellipse: s-maj=15.8km s-min=11.1km az=100.0*
ISC 06 01:37:54.0±1.3, **23°.43S**±0°.06×**177°.5W**±0°.1, **h173**^{km}±14^{km}, **n93, σ1ˢ.14**/48, **mb4.7**/21, **1C-2D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	10.93	31	P	Pn	01 40 26.3	+0.5
	32nm,0.3s,baz=195,slow=3.1,SNR=32						
AFI				S	Sx	01 42 19.0	
	37nm,0.3s,baz=57,slow=17,SNR=7.2						
DZM	**Mont Dzumac**	14.84	272	eP	Pn	01 41 23.9	+8.4
DZM	**Mont Dzumac**	14.84	272	eP	Pn	01 41 23.7	+8.2
	98nm,0.6s						
MWZ	**Matawai**	15.44	195	P	Pn	01 41 25.4	+2.7
URZ	**Urewera**	15.47	196	P	Pn	01 41 26.5	+3.4
	41nm,0.3s,baz=353,slow=2.5,SNR=122						
URZ				S	Sx	01 44 05.3	
	9.6nm,0.3s,baz=322,slow=23,SNR=10						
URZ	**Urewera**	15.47	196	P	Pn	01 41 24.4	+1.3
KNZ	**Kokohu**	16.07	194	P	Pn	01 41 31.6	+1.3
KNZ				S	Sx	01 44 16.7	
BKZ	**Black Stump Fm**	16.49	197	P	Pn	01 41 34.0	-1.4
WNVZ	**Wahianoa**	16.89	199	P	Pn	01 41 39.4	-0.7
TSZ	**Takapari Road**	17.47	197	P	Pn	01 41 45.0	-2.0
BFZ	**Birch Farm**	17.98	195	P	Pn	01 41 51.0	-2.1
BFZ				S	Sx	01 44 58.8	
MRZ	**Mangatainoka R**	18.13	197	P	P	01 41 53.1	+0.2
MRZ				S	Sx	01 45 01.0	
KIW	**Kapiti Island**	18.50	198	P	P	01 41 56.1	-0.9
SNZO	**South Karori**	18.98	198	eP	P	01 42 01.4	-0.7
	44nm,0.6s						
TCW	**Tory Channel**	19.02	199	P	P	01 42 01.4	-1.1
QRZ	**Quartz Range**	19.25	203	P	P	01 42 05.5	+0.4
NNZ	**Nelson**	19.30	201	P	P	01 42 04.7	-0.9
RPZ	**Rata Peaks**	22.31	202	P	P	01 42 38.1	+0.9
	38nm,0.5s,mb5.1,baz=1.5,slow=2.2,SNR=34						
RPZ				S	S	01 46 29.3	-0.3
	3.7nm,0.5s,baz=99,slow=8.5,SNR=3.0						
CTA	**Charters Tower**	33.74	269	⇓iP	P	01 44 21.1	+1.9
	12nm,0.3s,mb5.1						
CTAO	**Charters Tower**	33.74	269	eP	P	01 44 20.8	+1.6
	14nm,0.4s,mb5.0						
TOO	**Toolangi**	34.60	237	eP	P	01 44 28.0	+1.6
STKA	**Stephens Creek**	36.99	248	eP	P	01 44 47.9	+1.1
	6.8nm,0.4s,mb4.6						
STKA	**Stephens Creek**	36.99	248	P	P	01 44 47.9	+1.0
	8.1nm,0.5s,mb4.6,baz=96,slow=9.8,SNR=36						
COEN	**Coen**	38.28	277	eP	P	01 44 59.2	+1.4
	41nm,0.8s,mb5.1						
WRAB	**Tennant Creek**	44.68	265	eP	P	01 45 49.5	-0.5
	15nm,0.8s,mb4.7						
WRA	**Warramunga Arr**	44.69	265	P	P	01 45 49.9	-0.1
	15nm,0.6s,mb4.8,baz=103,slow=8.1,SNR=126						
WRA				ScP	ScP	01 50 59.2	-6.3
	0.6nm,0.5s,baz=95,slow=3.6,SNR=6.1						
WRA				S	Sx	01 52 02.9	
	2.1nm,0.8s,baz=102,slow=14,SNR=7.7						
KAKA	**Kakadu**	48.52	274	eP	P	01 46 19.4	-0.4
	18nm,0.4s,mb5.0						
FORT	**Forrest**	48.59	249	eP	P	01 46 19.8	-0.3
	30nm,0.6s,mb5.1						
FORT	**Forrest**	48.59	249	eP	P	01 46 19.7	-0.4
	35nm,0.7s,mb5.1						
FITZ	**Fitzroy Crossi**	53.12	264	eP	P	01 46 53.9	-0.2
	14nm,0.7s,mb4.8						
VNDA	**Vanda**	55.04	185	P	P	01 47 10.2	+3.0
	3.1nm,0.7s,mb4.1,baz=5.0,slow=5.2,SNR=12						
VNDA				PcP	PcP	01 48 07.6	+1.1
	5.0nm,1.2s,baz=46,slow=6.5,SNR=5.5						
VNDA	**Vanda**	55.04	185	eP	P	01 47 10.0	+2.9
	3.4nm,0.6s,mb4.2						
VNDA				PcP	PcP	01 48 07.6	+1.1
KLBR	**Kellerberrin**	57.25	247	eP	P	01 47 22.8	-0.7
	7.5nm,0.6s,mb4.7						
MBWA	**Marble Bar**	57.68	259	eP	P	01 47 25.4	-1.3
	8.8nm,0.7s,mb4.7						
CASY	**Casey**	61.52	206	⇓iP	P	01 47 53.0	+0.8
CASY	**Casey**	61.52	206	eP	P	01 47 52.9	+0.7
	21nm,0.6s,mb5.2						
QSPA	**South Pole Qui**	66.65	180	P	P	01 48 27.8	+2.4
	24nm,0.6s,mb5.2,baz=13,slow=1.0,SNR=64						
QSPA	**South Pole Qui**	66.65	180	P	P	01 48 27.8	+2.4
MJAR	**Matsushiro Arr**	72.81	324	P	P	01 49 02.7	-0.9
	0.7nm,0.3s,mb3.9,baz=157,slow=5.6,SNR=4.8						
MJAR	**Matsushiro Arr**	72.81	324	P	P	01 49 02.7	-1.0
PETK	**Petropavlovsk-**	79.20	345	P	P	01 49 38.7	-0.6
	6.0nm,0.7s,mb4.4,baz=119,slow=7.0,SNR=17						
PETK				PP	PP	01 52 39.1	-2.6
	2.8nm,0.8s,baz=202,slow=11,SNR=4.3						
PETK	**Petropavlovsk-**	79.20	345	P	P	01 49 38.7	-0.6
PETK				PP	PP	01 52 39.1	-2.6
VNA2	**Neumayer--Watz**	85.65	177	ePKiKP	PcP	01 50 13.6	-1.7
	baz=195,slow=4.4						
TRF	**Thorofare Moun**	89.21	12	eP	P	01 50 28.6	-1.0
	4.9nm,0.6s,mb4.6						
MCK	**McKinley**	89.73	12	eP	P	01 50 31.4	-0.6
	8.8nm,1.1s,mb4.6						
PDAR	**Pinedale Array**	90.80	43	P	P	01 50 38.1	+0.7
	1.0nm,0.9s,mb3.9,baz=230,slow=2.4,SNR=6.9						
CHTO	**Chiang Mai**	91.63	290	eP	P	01 50 41.7	-0.2
	3.2nm,0.8s,mb4.4						
YKA	**Yellowknife Ar**	98.98	25	P	P	01 51 14.0	-0.3
	0.2nm,0.6s,mb3.8,baz=239,slow=4.9,SNR=5.5						
MK31	**Makanchi Array**	113.50	312	ePKP	PKiKP	01 56 09.7	-1.6
MKAR	**Makanchi Array**	113.50	312	PKiKP	PKiKP	01 56 09.8	-1.5
	0.2nm,0.5s,baz=214,slow=1.9,SNR=5.1						
KBL	**Kabul**	121.63	297	ePKPdf	PKPdf	01 56 26.5	-0.8
BOSA	**Boshof**	123.79	204	PKP	PKPdf	01 56 32.2	+0.4
	2.0nm,0.7s,baz=163,slow=9.8,SNR=4.5						
BOSA	**Boshof**	123.79	204	PKP	PKPdf	01 56 32.2	+0.4
AKTK	**Aktyubinsk**	129.51	317	PKP	PKPdf	01 56 41.9	0.0
AKTO	**Aktyubinsk**	129.51	317	PKP	PKPdf	01 56 41.9	0.0
	0.8nm,0.6s,baz=27,slow=4.5,SNR=2.5						
KEV	**Kevo**	131.41	349	epkp	PKiKP	01 56 50.6	+4.7
ARCES	**ARCESS Array B**	131.87	349	PKhKP		01 56 39.7	
	4.1nm,1.0s,baz=54,slow=9.1,SNR=3.6						
ARCES				PKP	PKPdf	01 56 45.6	-0.2
	1.2nm,0.6s,baz=29,slow=2.1,SNR=5.8						
ARCES	**ARCESS Array B**	131.87	349	PKP		01 56 39.7	
ARCES				PKP	PKPdf	01 56 45.6	-0.2
JOF	**Joensuu**	136.03	341	epkp	PKPdf	01 56 47.9	-5.9
	4.8nm,0.5s						
KAF	**Kangasniemi**	138.07	343	epkp		01 56 47.1	
	2.9nm,0.6s						
NB2	**NORSAR Subarra**	141.93	353	PKP		01 56 58.8	
	comp=Z,2.0nm,0.8s,baz=16,slow=3.2						
NOA	**NORSAR Array B**	141.93	353	PKhKP		01 56 58.0	
	comp=Z,3.1nm,0.7s,baz=17,slow=2.4,SNR=11						
NOA	**NORSAR Array B**	141.93	353	PKP		01 56 58.0	
HFS	**Hagfors**	142.49	351	PKhKP		01 56 59.2	
	comp=Z,5.9nm,0.5s,baz=52,slow=4.0,SNR=51						
HFS				PKP	PKPdf	01 57 05.3	-0.3
	comp=Z,2.8nm,0.5s,baz=56,slow=3.7,SNR=4.1						
AKASG	**Malin Array Be**	145.76	329	PKPbc	PKPdf	01 57 10.8	-0.8
	comp=Z,22nm,0.6s,baz=43,slow=4.0,SNR=56						
AKASG	**Malin Array Be**	145.76	329	PKPbc	PKPdf	01 57 10.8	-0.8
AKBB	**Malin Array Si**	145.76	329	ePKPbc	PKPdf	01 57 09.8	-1.8
KIEV	**Kiev**	145.77	329	ePKPbc	PKPdf	01 57 10.7	-0.9
MALT	**Malatya**	145.99	304	⇑iP	PKPdf	01 57 11.9	-0.5
MALT	**Malatya**	145.99	304	ePKPbc	PKPbc	01 57 13.1	-0.4
COP	**Copenhagen**	146.95	350	i P	PKPab	01 57 16.1	-1.4
	comp=Z,29nm,0.8s						
COP	**Copenhagen**	146.95	350	eP	PKPab	01 57 16.1	-1.4
EKA	**Eskdalemuir Ar**	147.87	6	PKPbc	PKPbc	01 57 17.4	-0.8
	comp=Z,3.6nm,0.7s,baz=315,slow=2.8,SNR=16						
ASF	**Jabal al Asfar**	148.43	294	PKPbc	PKPbc	01 57 20.2	-0.2
	comp=Z,4.3nm,0.7s,baz=197,slow=1.7,SNR=10.0						
BR131	**Keskin Array S**	149.06	309	ePKPbc	PKPbc	01 57 20.7	-1.1
BRTR	**Keskin Array B**	149.06	309	PKPbc	PKPbc	01 57 20.7	-1.1
	comp=Z,3.9nm,0.6s,baz=155,slow=5.0,SNR=29						
MMAI	**Mount Meron Ar**	149.55	296	PKPbc	PKPbc	01 57 22.9	-0.3
	comp=Z,6.8nm,0.5s,baz=75,slow=7.8,SNR=31						
MMAI				PKPab	PKPab	01 57 27.4	-1.4
	comp=Z,1.7nm,0.4s,baz=86,slow=5.9,SNR=6.4						
EIL	**Elat**	150.34	289	PKPbc	PKPbc	01 57 25.0	-0.2
	comp=Z,5.6nm,0.8s,baz=307,slow=3.6,SNR=6.0						
EIL				PKPab	PKPab	01 57 30.1	-2.1
	comp=Z,4.3nm,0.7s,baz=42,slow=6.1,SNR=5.2						
EIL	**Elat**	150.34	289	PKPbc	PKPbc	01 57 25.0	-0.2
EIL				PKPab	PKPab	01 57 30.1	-2.1
CSS	**Prodhromos**	150.82	300	ePKPbc	PKPbc	01 57 25.0	-1.1
CLL	**Collm**	151.00	346	i PKPab	PKPab	01 57 31.6	-2.5
	comp=Z,26nm,0.7s						
GIVF	**Givet**	153.31	357	ePKIKP	PKPbc	01 57 37.0	+5.8
	comp=Z,22nm,0.5s						
BAIF	**Baives**	153.39	357	ePKIKP	PKPbc	01 57 37.3	+5.9
FLN	**La Foliniere**	154.61	5	ePKIKP	PKPbc	01 57 39.9	+5.8
LDF	**La Druitiere**	154.81	4	ePKIKP	PKPbc	01 57 40.2	+5.7
HAU	**Haudompre**	155.28	354	ePKIKP	PKPdf	01 57 40.9	+15
	comp=Z,7.7nm,0.6s						
LIC	**Lamto**	161.44	156	eP	PKPab	01 58 20.3	+0.5
	comp=Z,56nm,1.6s						
KIC	**Kosan Boka**	161.67	157	eP	PKPab	01 58 21.4	+0.6
	comp=Z,13nm,0.5s						
TIC	**Toumodi**	161.82	156	eP	PKPab	01 58 21.9	+0.4
	comp=Z,44nm,1.2s						
DBIC	**Dimbokro**	161.91	156	PKPab	PKPab	01 58 22.3	+0.4
	comp=Z,0.8nm,0.5s,baz=181,slow=8.7,SNR=5.6						
TOA0	**Torodi Ar. Sit**	169.75	176	ePKPab	PKPab	01 58 56.1	-0.2
TORD	**Torodi Ar. Bea**	169.75	176	PKP	PKPdf	01 57 40.0	-1.6
	comp=Z,0.8nm,0.7s,baz=358,slow=1.5,SNR=6.3						
TORD				PKPab	PKPab	01 58 56.5	+0.2
	comp=Z,2.7nm,0.8s,baz=179,slow=3.6,SNR=30						
TORD	**Torodi Ar. Bea**	169.75	176	PKP	PKPdf	01 57 40.0	-1.6
TORD				PKPab	PKPab	01 58 56.5	+0.2

MAN 06 01:38:26, 11°.32N×125°.92E, h7^{km}, mb4.4, ML3.3, MS3.1, 1D, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	**Borongan**	0.54	300	eP	Pg	01 38 38.5	+2.0
PLP	**Palo**	0.93	260	⇓iP	Pg	01 38 43.6	-0.4
PLP				i S	Sg	01 38 55.2	-0.9
OCLP	**Ormoc**	1.31	258	eP	Pn	01 38 50.9	+0.1
MSLP	**Maasin**	1.57	221	eP	Pn	01 38 55.1	+0.7
MSLP				eS	Sn	01 39 17.4	+2.4
SCPH	**Surigao**	1.59	195	eP	Pn	01 38 54.6	0.0
SCPH				eS	Sn	01 39 13.4	-2.0
CNP	**Catarman**	1.70	314	eP	Pn	01 38 56.4	+0.3
CNP				eS	Sn	01 39 19.6	+1.4
PVCP	**Virac**	2.84	323	eP	Pn	01 39 16.3	+4.5
RCP	**Roxas**	3.12	275	eP	Pn	01 39 17.4	+1.8
RCP				eS	Sn	01 39 57.2	+4.1
GUIM	**Jordan**	3.34	258	eP	Pn	01 39 20.2	+1.5
BUKP	**Musuan**	3.52	194	eP	Pn	01 39 23.5	+2.3

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*NEIC **06** 01:41:43.0, 36°.97N×29°.18E, h5^{km}, ML3.3(ISK), After ISK.*
*ISK **06** 01:41:43.3, 36°.96N×29°.18E, h5^{km}, MD3.3, ML3.2*
*CSEM **06** 01:41:44.8±0.2, 36°.95N×29°.20E, h2^{km}, MD3.3, Error ellipse: s-maj=4.7km s-min=3.4km az=161.0*
*DDA **06** 01:41:44.3, 36°.95N×29°.19E, h7^{km}±6^{km}, Md3.4*
*ISCJB **06** 01:41:45.4±0.3, 36°.97N±0°.02×29°.20E±0°.03, h10^{km}, Error ellipse: s-maj=3.5km s-min=2.9km az=159.6*
ISC 06 01:41:45.2±0.5, **36°.99N**±0°.03×**29°.19E**±0°.03, **h1**^{km}±4^{km}, **n82, σ1ˢ.01**/97, **1C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	**Fethiye**	0.36	194	PG	Pg	01 41 50.8	-1.3
FETY				eSG	Sg	01 41 57.3	+0.5
FETY	**Fethiye**	0.36	194	i Pg	Pg	01 41 50.8	-1.3
FETY				eSg	Sg	01 41 57.3	+0.6
GOLH	**Golhisar**	0.39	50	i P	Pg	01 41 52.2	-0.4
GOLH				i S	Sg	01 41 58.9	+1.2
TURN	**Turunc**	0.48	257	i P	Pg	01 41 59.2	+4.8
TURN				i S	Sg	01 42 07.6	+6.8
DALT	**Dalyan (Mudla)**	0.49	244	PG	Pg	01 41 53.9	-0.7
DALT				eSG	Sg	01 42 01.5	+0.5
DALT	**Dalyan (Mudla)**	0.49	244	i Pg	Pg	01 41 53.9	-0.7
DALT				eSg	Sg	01 42 01.5	+0.5
ELL	**Elmali**	0.62	112	PG	Pg	01 41 55.8	-1.3
ELL	**Elmali**	0.62	112	i Pg	Pg	01 41 55.8	-1.3
YER	**Yerkesik**	0.74	282	PG	Pg	01 41 58.9	-0.5
YER	**Yerkesik**	0.74	282	i Pg	Pg	01 41 58.9	-0.5
DENT	**Denizli**	0.78	351	ePG	Pg	01 41 59.7	-0.4
DENT	**Denizli**	0.78	351	ePg	Pg	01 41 59.7	-0.4
AKAS	**Kas**	0.82	156	i P	Pg	01 41 59.8	-1.1
AKAS				i S	Sg	01 42 13.8	+2.2
KSL	**Kastellorizon**	0.89	159	eP	Pg	01 42 03.5	+1.2
ARG	**Arkhangelos**	1.15	228	eP	Pg	01 42 05.6	-1.6
ARG	**Arkhangelos**	1.15	228	P	Pg	01 42 06.1	-1.1
ARG	**Arkhangelos**	1.15	228	P	Pg	01 42 06.1	-1.1
MLSB	**Milas**	1.17	286	ePN	Pn	01 42 06.1	-2.5
MLSB				eSN	Sn	01 42 23.5	-1.7
MLSB	**Milas**	1.17	286	ePn	Pn	01 42 06.1	-2.6
MLSB				eSn	Sn	01 42 23.5	-1.7
ANTB	**Antalya**	1.18	94	ePN	Pn	01 42 07.9	-0.8
ANTB	**Antalya**	1.18	94	ePn	Pn	01 42 07.9	-0.8
BCK	**Bucak**	1.21	67	ePN	Pn	01 42 07.8	-1.4
BCK	**Bucak**	1.21	67	ePn	Pn	01 42 07.8	-1.4
AYDN	**Tasoluk**	1.24	303	i P	Pg	01 42 08.7	-0.4
AYDN				i S	Sg	01 42 26.2	+1.1
AYDN	**Tasoluk**	1.24	303	i P	Pg	01 42 08.6	-0.4
AYDN				i S	Sg	01 42 26.2	+1.0
DAT	**Datca**	1.32	259	ePN	Pn	01 42 09.8	-0.9
DAT	**Datca**	1.32	259	ePn	Pn	01 42 09.8	-0.9
ISP	**Isparta**	1.35	50	ePN	Pn	01 42 10.3	-0.8
ISP	**Isparta**	1.35	50	⇓iP	Pg	01 42 10.2	-1.0
ISP	**Isparta**	1.35	50	P	Pg	01 42 11.6	+0.4
ISP	**Isparta**	1.35	50	ePn	Pn	01 42 10.4	-0.8
ISP	**Isparta**	1.35	50	P	Pg	01 42 11.6	+0.4
KHL	**Karahalli**	1.36	11	ePN	Pn	01 42 10.7	-0.6
KHL	**Karahalli**	1.36	11	ePn	Pn	01 42 10.7	-0.6
BDRM	**Kayabasi**	1.40	274	i P	Pn	01 42 12.1	+0.3
BDRM				i S	Sg	01 42 30.9	+0.8
BDRM	**Kayabasi**	1.40	274	i P	Pn	01 42 12.1	+0.3
BDRM				i S	Sg	01 42 30.9	+0.7
BODT	**Bodrum**	1.51	273	ePN	Pn	01 42 12.6	-0.6
BODT	**Bodrum**	1.51	273	ePn	Pn	01 42 12.6	-0.7
KULA	**Kula-Manisa**	1.58	345	ePN	Pn	01 42 14.1	-0.2
KULA	**Kula-Manisa**	1.58	345	ePn	Pn	01 42 14.1	-0.2
GCAM	**G?zelcaml?**	1.71	295	i P	Pn	01 42 15.6	-0.6
GCAM				i S	Sn	01 42 39.2	+0.5
GCAM	**G?zelcaml?**	1.71	295	i P	Pn	01 42 15.6	-0.5
GCAM				i S	Sn	01 42 39.2	+0.5
SHUT	**Suhut-Afyon**	1.90	34	ePN	Pn	01 42 18.5	-0.1
SHUT	**Suhut-Afyon**	1.90	34	ePn	Pn	01 42 18.5	-0.2
SMG	**Samos**	2.01	292	eP	Pn	01 42 19.4	-0.8
SMG	**Samos**	2.01	292	P	Pn	01 42 20.2	0.0
SMG	**Samos**	2.01	292	P	Pn	01 42 20.2	0.0
IZM	**Izmir**	2.08	313	ePN	Pn	01 42 21.0	-0.1
IZM	**Izmir**	2.08	313	ePn	Pn	01 42 21.0	-0.2
KARP	**Karpathos**	2.18	229	eP	Pn	01 42 22.8	+0.3
KARP	**Karpathos**	2.18	229	P	Pn	01 42 23.4	+0.9
KARP	**Karpathos**	2.18	229	P	Pn	01 42 23.4	+0.9
AKS	**Akhisar**	2.18	330	ePN	Pn	01 42 21.8	-0.8
AKS	**Akhisar**	2.18	330	ePn	Pn	01 42 21.8	-0.8
ALT	**Altintas**	2.19	19	ePN	Pn	01 42 23.2	+0.6
ALT	**Altintas**	2.19	19	ePn	Pn	01 42 23.2	+0.5
BLCB	**Balcova**	2.20	310	ePN	Pn	01 42 22.5	-0.4
BLCB	**Balcova**	2.20	310	ePn	Pn	01 42 22.5	-0.4
HDMB	**Hadim**	2.64	89	ePN	Pn	01 42 29.1	+0.3
HDMB	**Hadim**	2.64	89	ePn	Pn	01 42 29.2	+0.4
DST	**Dursunbey**	2.65	351	ePN	Pn	01 42 29.0	0.0
DST	**Dursunbey**	2.65	351	ePn	Pn	01 42 29.0	0.0
KONT	**Konya--Tatoy**	2.70	68	ePN	Pn	01 42 29.8	+0.1
KONT	**Konya--Tatoy**	2.70	68	ePn	Pn	01 42 29.8	+0.1
KIZT	**Kizilcal**	2.85	48	ePN	Pn	01 42 32.2	+0.6
KIZT	**Kizilcal**	2.85	48	ePn	Pn	01 42 32.3	+0.6
APE	**Apeiranthos**	2.93	273	eP	Pn	01 42 32.9	+0.1
APE	**Apeiranthos**	2.93	273	⇑iP	Pn	01 42 33.0	+0.2
PRK	**Paraskevi**	3.22	315	P	Pn	01 42 37.8	+0.9
PRK	**Paraskevi**	3.22	315	P	Pn	01 42 37.8	+0.9
NPS	**Neapolis**	3.37	240	eP	Pn	01 42 38.9	0.0
NPS	**Neapolis**	3.37	240	P	Pn	01 42 41.0	+2.1
NPS	**Neapolis**	3.37	240	P	Pn	01 42 41.0	+2.1
YLV	**Yalova**	3.58	2	ePN	Pn	01 42 43.2	+1.5
YLV	**Yalova**	3.58	2	ePn	Pn	01 42 43.3	+1.5
ARMT	**Armutlu**	3.58	356	ePN	Pn	01 42 43.2	+1.4
ARMT	**Armutlu**	3.58	356	ePn	Pn	01 42 43.3	+1.5
IDI	**Anoyia**	3.87	245	P	Pn	01 42 48.5	+2.7
IDI	**Anoyia**	3.87	245	P	Pn	01 42 48.5	+2.7
SIVA	**Sivas**	4.06	242	P	Pn	01 42 52.5	+4.1
NVR	**Nevrokopi**	6.01	318	P	Pn	01 43 16.6	+1.4
NVR	**Nevrokopi**	6.01	318	P	Pn	01 43 16.6	+1.4

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*ISCJB **06** 01:55:51.9±0.2, 49°.80N±0°.02×18°.42E±0°.02, h0^{km}, mb3.3/2, Error ellipse: s-maj=2.3km s-min=1.7km az=15.8*
*IPEC **06** 01:55:53.1±0.2, 49°.84N×18°.55E, h0^{km}, ML3.0/4, Error ellipse: s-maj=2.3km s-min=1.1km az=161.0*
*CSEM **06** 01:55:53.1±0.1, 49°.82N×18°.44E, h2^{km}, ML3.6/9, Error ellipse: s-maj=3.1km s-min=2.2km az=22.0*
*NEIC **06** 01:55:53.9±0.3, 49°.82N×18°.43E, h10^{km}, ML2.8(BRA), ML3.0(BUC), ML3.4(SZGRF), Error ellipse: s-maj=5.3km s-min=4.0km az=23.0*
*IDC **06** 01:55:53.3±1.5, 49°.63N×18°.61E, h0^{km}, mb3.3/2, mb1 3.5/7, mb1mx3.4/22, mbtmp3.4/7, ML3.1/4, Error ellipse: s-maj=22.0km s-min=10.2km az=134.0*
*BGR **06** 01:55:53.5±0.4, 49°.84N×18°.54E, h1^{km}, ML3.4, Error ellipse: s-maj=10.0km s-min=3.3km az=171.0*
*VIE **06** 01:55:54.4±0.3, 49°.67N×18°.41E, h0^{km}, mb2.9/7, ML3.0/7, Error ellipse: s-maj=2.4km s-min=1.8km az=60.0 21 km SSE of Ostrava Suspected Mining induced.*
*PRU **06** 01:55:54.3, 49°.82N×18°.46E, h0^{km}, Rockburst In Mine 9.kvetna, E=4.2e6, Felt In Havirov Mining induced.*
ISC 06 01:55:53.3±0.2, **49°.80N**±0°.02×**18°.45E**±0°.02, **h0**^{km}, **n150, σ1ˢ.10**/242, **mb3.3**/2, **28C-22D, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	0.20	280	ePg	Pg	01 55 58.3	+1.2
OKC				eSg	Sg	01 56 03.0	+3.4
OKC	**Ostrava-Krasne**	0.20	280	ePG	Pg	01 55 58.9	+1.9
OKC				eSG	Sg	01 56 01.9	+2.3
	comp=Z,2μm,0.6s						
OKC	**Ostrava-Krasne**	0.20	280	Pg	Pg	01 55 58.3	+1.3
OKC				Sg	Sg	01 56 01.9	+2.3
	comp=Z,2μm,0.6s						
RAC	**Raciborz**	0.32	330	i Pg	Pg	01 56 01.0	+1.5
RAC				eSg	Sg	01 56 06.5	+2.8
RAC	**Raciborz**	0.32	330	⇓iPg	Pg	01 56 01.0	+1.5
RAC				eSg	Sg	01 56 06.5	+2.8
MORC	**Moravsky Berou**	0.59	268	ePg	Pg	01 56 05.2	+0.7
MORC				eSg	Sg	01 56 14.2	+2.1
MORC	**Moravsky Berou**	0.59	268	⇑iP	Pg	01 56 05.3	+0.8
MORC	**Moravsky Berou**	0.59	268	⇑P	Pg	01 56 05.3	+0.8
MORC	**Moravsky Berou**	0.59	268	Pg	Pg	01 56 05.2	+0.7
MORC				eSg	Sg	01 56 13.5	+1.4
	comp=Z,286nm,0.5s						
OJC	**Ojcow**	0.97	64	i Pg	Pg	01 56 10.6	-1.2
OJC				i Sg	Sg	01 56 24.0	-0.3
OJC	**Ojcow**	0.97	64	ePn	Pg	01 56 10.7	-1.1
OJC				eSg	Sg	01 56 24.1	-0.2
OJC	**Ojcow**	0.97	64	i Pg	Pg	01 56 10.6	-1.2
OJC				i Sg	Sg	01 56 24.0	-0.3
OJC	**Ojcow**	0.97	64	i Pg	Pg	01 56 10.6	-1.2
OJC				i Sg	Sg	01 56 24.0	-0.3
JAVC	**Velka Javorina**	1.07	209	eSg	Sg	01 56 32.1	+4.4
	comp=Z,247nm,0.7s						
NIE	**Niedzica**	1.27	107	ePg	Pg	01 56 17.1	-0.6
NIE				eSg	Sg	01 56 35.8	+1.7
NIE	**Niedzica**	1.27	107	ePg	Pg	01 56 17.1	-0.6
NIE				eSg	Sg	01 56 35.8	+1.7
VRAC	**Vranov**	1.30	248	Pg	Pg	01 56 18.7	+0.4
	comp=Z,84nm,0.3s,baz=68,slow=15,SNR=183						
VRAC				Lg		01 56 37.6	
	comp=Z,86nm,0.3s,baz=354,slow=22,SNR=16						
VRAC	**Vranov**	1.30	248	ePg	Pg	01 56 18.5	+0.2
VRAC				eSg	Sg	01 56 36.7	+1.5
	comp=Z,240nm,0.5s						
VRAC				Lg		01 56 37.5	
VYHS	**Vyhne**	1.34	169	i PG	Pg	01 56 18.5	-0.3
VYHS				eSG	Sg	01 56 36.4	+0.3
VYHS	**Vyhne**	1.34	169	i Pg	Pg	01 56 18.6	-0.2
VYHS				eSg	Sg	01 56 36.4	+0.3
VYHS	**Vyhne**	1.34	169	i Pg	Pg	01 56 18.6	-0.2
VYHS				eSg	Sg	01 56 36.4	+0.3
SMOL	**Smolenice**	1.45	208	i PG	Pg	01 56 20.9	-0.2
SMOL				eSG	Sg	01 56 40.6	+0.7
SMOL	**Smolenice**	1.45	208	i Pg	Pg	01 56 20.9	-0.2
SMOL				eSg	Sg	01 56 40.7	+0.8
SMOL	**Smolenice**	1.45	208	i Pg	Pg	01 56 20.9	-0.2
SMOL				eSg	Sg	01 56 40.7	+0.8
DPC	**Dobruska-Polom**	1.47	293	ePn	Pn	01 56 20.8	-0.3
DPC				eSg	Sg	01 56 42.5	+1.9
DPC	**Dobruska-Polom**	1.47	293	ePG	Pg	01 56 20.8	-0.7
DPC				eSG	Sg	01 56 41.9	+1.3
	comp=Z,76nm,0.4s						
DPC	**Dobruska-Polom**	1.47	293	Pg	Pg	01 56 20.8	-0.7
DPC				eSg	Sg	01 56 41.1	+0.5
KRUC	**Moravsky**	1.53	242	ePn	Pn	01 56 21.1	-0.7
KRUC				eSg	Sg	01 56 43.3	+0.9
	comp=Z,116nm,0.4s						
MODS	**Modra-Piesok**	1.62	209	i PG	Pg	01 56 23.6	-0.8
MODS				eSG	Sg	01 56 45.2	-0.2
MODS	**Modra-Piesok**	1.62	209	i Pg	Pg	01 56 23.6	-0.8
MODS				eSg	Sg	01 56 45.3	-0.1
MODS	**Modra-Piesok**	1.62	209	i Pg	Pg	01 56 23.6	-0.8
MODS				eSg	Sg	01 56 45.3	-0.1
UPC	**Upice**	1.72	295	ePG	Pg	01 56 25.2	-1.0
UPC				eSG	Sg	01 56 49.4	+1.0
UPC	**Upice**	1.72	295	Pg	Pg	01 56 25.2	-1.0
UPC				Sg	Sg	01 56 49.4	+1.0
KSP	**Ksiaz**	1.73	308	ePn	Pn	01 56 24.3	-0.2
KSP				ePg	Pg	01 56 26.8	+0.4
KSP				eSn	Sn	01 56 48.0	+0.7
KSP	**Ksiaz**	1.73	308	ePn	Pn	01 56 24.1	-0.4
KSP				i Pg	Pg	01 56 27.0	+0.6
KSP				eSg	Sg	01 56 49.3	+0.5
KSP	**Ksiaz**	1.73	308	ePn	Pn	01 56 24.2	-0.4
KSP				eSg	Sg	01 56 49.4	+0.7
KSP	**Ksiaz**	1.73	308	ePn	Pn	01 56 24.1	-0.4
KSP				ePg	Pg	01 56 26.4	0.0

KSP				eSg	Sg	01 56 49.3	+0.5
KSP	Ksiaz	1.73	308	Pn	Pn	01 56 24.2	-0.3
KSP	Ksiaz	1.73	308	ePg	Pg	01 56 26.4	0.0
KSP				eSg	Sg	01 56 49.3	+0.5
ZST	Bratislava	1.84	209	ePG	Pg	01 56 26.5	-1.9
ZST				eSG	Sg	01 56 50.7	-1.5
ZST	Bratislava	1.84	209	ePg	Pg	01 56 26.5	-1.9
ZST				eSg	Sg	01 56 50.7	-1.5
STHS	Stebnicka Huta	1.86	101	ePN	Pn	01 56 26.9	+0.6
STHS				eSG	Sg	01 56 54.5	+1.5
STHS	Stebnicka Huta	1.86	101	ePn	Pn	01 56 26.9	+0.6
STHS				eSg	Sg	01 56 54.5	+1.5
PSZ	Piszkesteto	2.12	153	⇓iP	Pn	01 56 29.7	-0.1
PSZ	Piszkesteto	2.12	153	⇓ePn	Pn	01 56 29.7	-0.1
PSZ				eSB	Sb	01 57 01.2	+2.0
PSZ	Piszkesteto	2.12	153	⇓P	Pn	01 56 29.7	-0.1
PSZ	Piszkesteto	2.12	153	⇓P	Pn	01 56 29.7	-0.1
PSZ				eSn	Sb	01 57 01.2	+2.0
CRVS	Cervenica-Dubn	2.17	113	ePN	Pn	01 56 32.1	+1.5
CRVS				eSG	Sg	01 57 02.7	-0.2
CRVS	Cervenica-Dubn	2.17	113	ePn	Pn	01 56 32.1	+1.5
CRVS				eSg	Sg	01 57 02.7	-0.2
BUD	Budapest	2.35	170	⇑ePB	Pb	01 56 37.4	+0.9
BUD				eSn	Sn	01 57 02.7	0.0
BUD	Budapest	2.35	170	⇑ePn	Pb	01 56 37.4	+0.9
BUD				eSn	Sn	01 57 02.7	0.0
PKSG		2.42	181	⇑ePn	Pn	01 56 33.8	-0.2
PKSG				eSn	Sn	01 57 04.6	+0.4
SOP	Sopron	2.46	211	⇑ePB	Pn	01 56 35.2	+0.6
SOP				eSB	Sn	01 57 06.0	+0.6
SOP	Sopron	2.46	211	⇑ePn	Pn	01 56 35.2	+0.6
SOP				eSn	Sn	01 57 06.0	+0.6
BEL	Belsk	2.52	35	ePn	Pg	01 56 43.5	+2.0
BEL				eSn	Sg	01 57 18.9	+4.8
PRU	Pruhonice	2.53	276	ePN	Pn	01 56 34.8	-0.8
PRU				ePG	Pg	01 56 39.6	-2.2
PRU				eSG	Sg	01 57 15.1	+0.5
	comp=Z,110nm,1.1s						
PRU	Pruhonice	2.53	276	Pn	Pn	01 56 34.8	-0.8
CONA	Conrad Observa	2.54	223	⇓ePn	Pn	01 56 35.5	-0.1
	SNR=13						
CONA				⇑iSn	Sn	01 57 06.0	-1.2
CONA	Conrad Observa	2.54	223	Pn	Pn	01 56 35.5	-0.1
	SNR=13						
CONA				Sn	Sn	01 57 06.0	-1.2
CSNA	Conrad Observa	2.54	223	⇓iPn	Pn	01 56 35.5	-0.1
CSNA				⇑iSn	Sn	01 57 06.1	-1.2
CSNA	Conrad Observa	2.54	223	Pn	Pn	01 56 35.5	-0.2
CSNA				Sn	Sn	01 57 06.1	-1.1
PVCC	Panska Ves	2.60	288	ePN	Pn	01 56 35.4	-1.1
PVCC				ePG	Pg	01 56 40.6	-2.4
PVCC				eSG	Sg	01 57 17.0	+0.3
	comp=Z,165nm,0.6s						
PVCC	Panska Ves	2.60	288	Pn	Pn	01 56 35.4	-1.1
KOLS	Kolonicke sedl	2.65	108	ePN	Pn	01 56 36.7	-0.5
KOLS				eSG	Sg	01 57 17.6	-0.7
KOLS	Kolonicke sedl	2.65	108	ePn	Pn	01 56 36.7	-0.5
KOLS				eSg	Sg	01 57 17.6	-0.7
KWP	Kalwaria Pacla	2.77	92	ePn	Pn	01 56 41.3	+2.4
KWP				e		01 56 46.0	
KWP	Kalwaria Pacla	2.77	92	⇑iP	Pn	01 56 38.2	-0.6
KWP	Kalwaria Pacla	2.77	92	ePn	Pn	01 56 41.3	+2.5
KWP				e		01 56 46.1	
KWP	Kalwaria Pacla	2.77	92	⇑iP	Pn	01 56 38.2	-0.6
KWP	Kalwaria Pacla	2.77	92	ePn	Pn	01 56 41.3	+2.5
BRG	Berggiesshubel	3.08	292	ePg	Pg	01 56 50.1	-2.2
BRG	Berggiesshubel	3.08	292	PN	Pn	01 56 48.9	+5.8
BRG				PG	Pg	01 56 49.7	-2.5
BRG				SG	Sg	01 57 32.9	+0.8
	comp=Z,41nm,0.7s						
BRG	Berggiesshubel	3.08	292	Pg	Pg	01 56 50.1	-2.1
TRPA	Tarpa	3.17	120	⇓ePn	Pn	01 56 44.8	+0.4
ARSA	Arzberg	3.21	218	⇑iPn	Pn	01 56 44.5	-0.3
	SNR=11						
ARSA				⇑iSn	Sn	01 57 22.8	-1.0
ARSA	Arzberg	3.21	218	Pn	Pn	01 56 44.5	-0.4
	SNR=11						
ARSA				Sn	Sn	01 57 22.8	-1.0
PKS9	Tamasi	3.22	182	⇑ePn	Pn	01 56 45.3	+0.3
KHC	Kasperske Hory	3.25	260	ePN	Pn	01 56 46.0	+0.6
KHC				ePG	Pg	01 56 52.8	-2.7
KHC				ex	x	01 57 12.5	
KHC				ex	x	01 57 34.5	
KHC				eSG	Sg	01 57 37.9	+0.4
	comp=Z,66nm,0.7s						
KHC	Kasperske Hory	3.25	260	Pn	Pn	01 56 46.0	+0.6
KHC				Sg	Sg	01 57 37.9	+0.4
	comp=Z,66nm,0.7s						
GEC2	GERESS Array S	3.25	255	ePn	Pn	01 56 46.5	+1.1
GEC2	GERESS Array S	3.25	255	Pn	Pn	01 56 46.5	+1.1
GERES	GERESS Array B	3.25	255	Pn	Pn	01 56 45.4	-0.1
	comp=Z,0.7nm,0.3s,baz=73,slow=13,SNR=18						
GERES				Pg	Pg	01 56 54.1	-1.4
	comp=Z,10.0nm,0.3s,baz=71,slow=17,SNR=60						
GERES				Sn	Sn	01 57 22.2	-2.5
	comp=Z,5.6nm,0.3s,baz=73,slow=27,SNR=7.2						
GERES				Lg		01 57 37.0	
	comp=Z,7.4nm,0.3s,baz=72,slow=28,SNR=12						
GERES	GERESS Array B	3.25	255	Pn	Pn	01 56 45.4	0.0
GERES	GERESS Array B	3.25	255	Pg	Pg	01 56 54.1	-1.4
MOA	Molln	3.38	236	⇓iPn	Pn	01 56 47.1	-0.2
	SNR=14						
MOA				⇑iSn	Sn	01 57 28.3	+0.2
MOA	Molln	3.38	236	Pn	Pn	01 56 47.1	-0.2
	SNR=14						
MOA				Sn	Sn	01 57 28.3	+0.2
FBE	Freiberg	3.45	291	ePg	Pg	01 56 58.0	-1.4
FBE	Freiberg	3.45	291	Pg	Pg	01 56 58.0	-1.3
BEHE	Becsehely	3.52	199	⇓ePn	Pn	01 56 51.0	+1.9
BEHE				eSn	Sn	01 57 32.3	+0.9
PKSM	Moragy	3.60	178	⇑iP	Pn	01 56 49.9	-0.3
PKSM	Moragy	3.60	178	⇓ePn	Pn	01 56 50.4	+0.2
PKSM				eSn	Sn	01 57 30.7	-2.6
WET	Wettzell	3.69	262	ePn	Pn	01 56 51.3	-0.2
WET	Wettzell	3.69	262	ePn	Pn	01 56 51.3	-0.2
WET	Wettzell	3.69	262	Pn	Pn	01 56 51.3	-0.2
CLL	Collm	3.78	296	ePn	Pn	01 56 51.9	-0.8
CLL				ePg	Pg	01 57 05.0	-0.7
CLL				eSg	Sg	01 57 54.0	-0.8
CLL	Collm	3.78	296	ePn	Pn	01 56 53.0	+0.2
CLL				ePg	Pg	01 57 05.0	-0.7
CLL				e		01 57 29.0	
CLL				eSg	Sg	01 57 54.0	-0.8
	comp=Z,63nm,0.9s						
CLL	Collm	3.78	296	ePn	Pn	01 56 53.0	+0.2
CLL				ePg	Pg	01 57 05.0	-0.7
CLL				eSg	Sg	01 57 54.0	-0.8
CLL	Collm	3.78	296	ePn	Pn	01 56 53.0	+0.2
NKC	Novy Kostel	3.89	279	eSG	Sg	01 57 59.8	+1.6
	comp=Z,54nm,0.6s						
NKC	Novy Kostel	3.89	279	Sg	Sg	01 57 59.8	+1.6
	comp=Z,54nm,0.6s						
TANN	Tannenbergstha	3.90	281	ePn	Pn	01 56 54.1	-0.3
TANN	Tannenbergstha	3.90	281	Pn	Pn	01 56 54.1	-0.3
RHK3	Tenkes	3.92	182	⇑ePn	Pn	01 56 55.1	+0.4
RHK3				eSn	Sn	01 57 38.4	-2.9
WERD	Werda	4.00	282	ePn	Pn	01 56 57.0	+1.2
WERD	Werda	4.00	282	Pn	Pn	01 56 57.0	+1.2
ROTZ	Rotzenmuhle	4.04	272	ePn	Pn	01 56 55.8	-0.6
ROTZ	Rotzenmuhle	4.04	272	Pn	Pn	01 56 55.8	-0.5
MANZ	Manzenberg	4.10	275	ePn	Pn	01 56 56.9	-0.2
MANZ	Manzenberg	4.10	275	Pn	Pn	01 56 56.9	-0.2
DRGR		4.14	135	⇑iP	Pn	01 56 57.5	-0.2
DRGR		4.14	135	⇑P	Pn	01 56 57.5	-0.2
DRGR		4.14	135	⇑P	Pn	01 56 57.5	-0.2
OBKA	Obir	4.20	220	⇑iPn	Pn	01 56 58.2	-0.3
OBKA				⇓iSn	Sn	01 57 47.7	-0.6
OBKA	Obir	4.20	220	Pn	Pn	01 56 58.2	-0.3
OBKA				Sn	Sn	01 57 47.7	-0.6
KBA	Koelnbreinsper	4.36	233	⇑iPn	Pn	01 57 01.5	+0.9
	SNR=15						
KBA				⇑iSn	Sn	01 57 52.2	+0.2
KBA				⇑iSg	Sg	01 58 15.8	+2.7
	comp=Z,13nm,0.6s						
KBA	Koelnbreinsper	4.36	233	Pn	Pn	01 57 01.5	+0.9
	SNR=15						
KBA				Sn	Sn	01 57 52.2	+0.2
KBA				Sg	Sg	01 58 15.8	+2.7
	comp=Z,13nm,0.6s						
MOX	Moxa	4.47	283	ePN	Pn	01 57 02.1	0.0
MOX				i PG	Pg	01 57 18.3	-0.5
MOX				i SG	Sg	01 58 21.3	+4.6
	comp=Z,49nm,0.8s						
MOX	Moxa	4.47	283	⇑ePn	Pn	01 57 02.1	0.0
MOX				ePg	Pg	01 57 16.3	-2.5
MOX				⇑iSg	Sg	01 58 21.3	+4.6
MOX	Moxa	4.47	283	ePn	Pn	01 57 02.1	0.0
MOX				i Pg	Pg	01 57 18.3	-0.5
MOX				i Sg	Sg	01 58 21.3	+4.6
MOX	Moxa	4.47	283	Pn	Pn	01 57 02.1	0.0
BZS	Buzias	4.70	152	⇓iP	Pn	01 57 05.5	+0.1
BZS	Buzias	4.70	152	⇓P	Pn	01 57 05.5	+0.1
BZS	Buzias	4.70	152	⇓P	Pn	01 57 05.5	+0.1
BURAR	Bucovina Array	4.99	113	⇓iP	Pn	01 57 09.1	-0.2
BURAR	Bucovina Array	4.99	113	⇓P	Pn	01 57 09.2	-0.2
BURAR	Bucovina Array	4.99	113	⇓P	Pn	01 57 09.1	-0.2
SUW	Suwalki	5.13	33	ePn	Pn	01 57 11.0	-0.3
SUW				e		01 57 12.3	
SUW	Suwalki	5.13	33	ePn	Pn	01 57 11.0	-0.3
SUW				e		01 57 12.3	
SUW	Suwalki	5.13	33	ePn	Pn	01 57 11.0	-0.3
GZR	Gura Zlata	5.30	145	⇓iP	Pn	01 57 14.6	+1.1
GZR	Gura Zlata	5.30	145	⇓P	Pn	01 57 14.6	+1.0
GZR	Gura Zlata	5.30	145	⇓P	Pn	01 57 14.6	+1.1
CLZ	Clausthal	5.51	295	ePn	Pn	01 57 16.3	-0.2
CLZ	Clausthal	5.51	295	ePn	Pn	01 57 16.3	-0.2
CLZ	Clausthal	5.51	295	Pn	Pn	01 57 16.3	-0.2
BSD	Bornholm Skovb	5.74	339	i P	Pn	01 57 16.9	-2.7
	comp=Z,28nm,0.8s						
BSD	Bornholm Skovb	5.74	339	i P	Pn	01 57 16.9	-2.7
	comp=Z,28nm,0.8s						
VOIR		6.24	132	⇑iP	Pn	01 57 26.7	+0.1
VOIR		6.24	132	⇑P	Pn	01 57 26.7	+0.1
DAVOX	Davos/Dischmat	6.47	245	Pn	Pn	01 57 31.1	+1.5
	comp=Z,0.7nm,0.3s,baz=63,slow=11,SNR=11						
DAVOX				Lg		01 59 19.9	
	comp=Z,0.8nm,0.3s,baz=217,slow=18,SNR=3.6						
DAVOX	Davos/Dischmat	6.47	245	Pn	Pn	01 57 31.1	+1.5
MLR	Muntele Rosu	6.65	128	⇓iP	Pn	01 57 25.1	-7.1
AKASG	Malin Array Be	6.97	78	Lg		01 59 33.3	
	comp=Z,0.2nm,0.3s,baz=267,slow=30,SNR=4.3						
HFS	Hagfors	10.70	347	Pn	Pn	01 58 26.7	-0.9
	comp=Z,0.2nm,0.3s,baz=161,slow=15,SNR=3.1						
HFS	Hagfors	10.70	347	Pn	Pn	01 58 26.7	-0.9
NOA	NORSAR Array B	11.98	343	Pn	Pn	01 58 42.1	-2.9
	comp=Z,0.2nm,0.3s,baz=161,slow=11,SNR=5.1						
ARCES	ARCESS Array B	20.09	7	Pn	P	02 00 26.4	-1.5
	comp=Z,2.5nm,0.9s,baz=200,slow=10,SNR=6.3						
TORD	Torodi Ar. Bea	39.05	206	P	P	02 03 21.6	-0.2
	comp=Z,0.5nm,0.8s,mb3.2,baz=13,slow=8.0,SNR=5.9						
YKA	Yellowknife Ar	62.02	337	P	P	02 06 14.8	+0.1
	comp=Z,0.1nm,0.5s,mb3.3,baz=30,slow=6.5,SNR=3.2						
YKA	Yellowknife Ar	62.02	337	P	P	02 06 14.8	+0.1

ISCJB ***06*** *02:08:45.3±0.6, 5.°94N±0.°09×126.°2E±0.°1, h154^{km}±6^{km}, mb4.1/8, Error ellipse: s-maj=21.9km s-min=11.5km az=151.6*

MAN ***06*** *02:08:45, 5.°94N×126.°27E, h141^{km}, mb4.4, ML3.3, MS3.1*

NEIC ***06*** *02:08:46.8±1.0, 5.°93N×126.°06E, h151^{km}±10^{km}, mb4.1/2, Error ellipse: s-maj=55.7km s-min=10.4km az=66.0*

IDC ***06*** *02:08:47.2±1.4, 5.°98N×126.°20E, h154^{km}±9^{km}, mb3.6/5, mb1 3.7/5, mb1mx3.3/19, mbtmp3.6/5, Error ellipse: s-maj=88.1km s-min=15.0km az=69.0*

ISC 06 02:08:46.4±0.6**, 5.°94N**±0.°09×**126.°2E**±0.°1**, h147**^{km}±6^{km}**, n21,** σ**1.^{s}02**/23**, mb4.1**/8**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	Mati	1.00	1	eP	Pn	02 09 10.1	-0.7
MATI				eS	Sn	02 09 28.3	-1.2
GSPH	General Santos	1.28	276	i P	Pn	02 09 11.0	-2.5
DAV	Davao City (W)	1.29	330	P	Pn	02 09 13.9	+0.3
	224nm,0.3s,baz=216,slow=1.8,SNR=31						
DAV				S	Sn	02 09 35.9	+1.5
	127nm,0.3s,baz=284,slow=18,SNR=4.6						
KCP	Kidapawan	1.55	313	⇑iP	Pn	02 09 16.2	0.0
KCP				i S	Sn	02 09 40.0	+0.9
BUKP	Musuan	2.25	329	eP	Pn	02 09 24.8	+0.5
BUTP	Butuan	3.07	349	eP	Pn	02 09 35.0	+0.5
PAGZ	Pagadian	3.41	304	eP	Pn	02 09 38.7	-0.1
KAKA	Kakadu	19.53	162	eP	P	02 13 01.8	-0.9
	51nm,0.6s						
FITZ	Fitzroy Crossi	23.90	181	P	P	02 13 45.8	-1.0
	1.2nm,0.7s,mb3.5,baz=18,slow=9.6,SNR=3.5						
COEN	Coen	25.95	140	eP	P	02 14 05.8	+0.4
	25nm,0.8s,mb4.9						
WRAB	Tennant Creek	26.93	163	eP	P	02 14 16.1	+2.1
	1.9nm,0.4s,mb4.1						
WRA	Warramunga Arr	26.93	163	P	P	02 14 16.3	+2.1
	1.4nm,0.4s,mb4.0,baz=346,slow=10,SNR=17						
STKA	Stephens Creek	40.36	160	P	P	02 16 09.6	-0.3
	1.1nm,0.5s,mb3.7,baz=350,slow=6.1,SNR=3.5						
STKA	Stephens Creek	40.36	160	P	P	02 16 09.6	-0.3
MK31	Makanchi Array	55.47	325	eP	P	02 18 05.4	-0.5
MKAR	Makanchi Array	55.47	325	P	P	02 18 05.8	0.0
	1.0nm,0.3s,mb4.0,baz=118,slow=7.5,SNR=35						
MKAR	Makanchi Array	55.47	325	P	P	02 18 05.8	0.0
KURK	Kurchatov	59.62	327	eP	P	02 18 34.0	-0.8
	1.7nm,0.5s,mb4.1						
ARCES	ARCESS Array B	88.21	340	P	P	02 21 20.3	-0.3
	5.2nm,1.0s,mb4.3,baz=64,slow=2.8,SNR=6.2						
ARCES	ARCESS Array B	88.21	340	P	P	02 21 20.3	-0.3
TORD	Torodi Ar. Bea	121.74	289	PKP	PKPdf	02 27 23.4	-0.6
	0.3nm,0.3s,baz=60,slow=1.7,SNR=14						

ISCJB ***06*** *02:10:23.9±0.5, 36.°96N±0.°03×29.°21E±0.°03, h4^{km}±6^{km}, Error ellipse: s-maj=6.1km s-min=4.0km az=157.8*

ISK ***06*** *02:10:23.2, 36.°97N×29.°20E, h4^{km}, MD3.1*

CSEM ***06*** *02:10:24.1±0.1, 36.°97N×29.°21E, h8^{km}, MD3.0, Error ellipse: s-maj=3.5km s-min=2.8km az=173.0*

DDA ***06*** *02:10:25.5, 37.°07N×29.°19E, h7^{km}±6^{km}, Md3.0*

ISC 06 02:10:24.4±0.5**, 36.°96N**±0.°03×**29.°21E**±0.°03**, h8**^{km}±6^{km}**, n40,** σ**0.^{s}73**/55**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	197	PG	Pg	02 10 30.5	-0.5
FETY				eSG	Sg	02 10 36.1	+0.6
FETY	Fethiye	0.34	197	i Pg	Pg	02 10 30.5	-0.5
FETY				eSg	Sg	02 10 36.1	+0.6
GOLH	Golhisar	0.40	46	i P	Pg	02 10 31.1	-1.1
GOLH				i S	Sg	02 10 38.0	+0.6
GOLH	Golhisar	0.40	46	i P	Pg	02 10 31.1	-1.1
GOLH				i S	Sg	02 10 38.0	+0.6
TURN	Turunc	0.49	260	i P	Pg	02 10 38.8	+4.8
TURN				i S	Sg	02 10 51.5	+11
DALT	Dalyan (Mudla)	0.49	247	PG	Pg	02 10 33.3	-0.7
DALT				eSG	Sg	02 10 41.1	+0.7
DALT	Dalyan (Mudla)	0.49	247	i Pg	Pg	02 10 33.3	-0.7
DALT				eSg	Sg	02 10 41.1	+0.6
ELL	Elmali	0.60	110	PG	Pg	02 10 36.1	+0.1
ELL				eSG	Sg	02 10 44.7	+0.9
ELL	Elmali	0.60	110	i Pg	Pg	02 10 36.1	+0.1
ELL				eSg	Sg	02 10 44.7	+0.8
YER	Yerkesik	0.76	284	ePG	Pg	02 10 38.4	-0.6
YER	Yerkesik	0.76	284	ePg	Pg	02 10 38.4	-0.6
AKAS	Kas	0.79	156	i P	Pg	02 10 40.2	+0.5
AKAS				i S	Sg	02 10 56.8	+6.8
AKAS	Kas	0.79	156	i P	Pg	02 10 40.2	+0.5
DENT	Denizli	0.80	350	ePG	Pg	02 10 39.3	-0.6
DENT	Denizli	0.80	350	ePg	Pg	02 10 39.3	-0.6
MLSB	Milas	1.19	287	ePN	Pn	02 10 45.7	-1.6
MLSB	Milas	1.19	287	ePn	Pn	02 10 45.7	-1.7
BCK	Bucak	1.21	65	ePN	Pn	02 10 46.5	-1.1
BCK	Bucak	1.21	65	ePn	Pn	02 10 46.5	-1.2
AYDN	Tasoluk	1.27	304	i P	Pn	02 10 48.0	-0.5
AYDN				i S	Sb	02 11 06.3	+1.2
AYDN	Tasoluk	1.27	304	i P	Pn	02 10 48.0	-0.4
AYDN				i S	Sb	02 11 06.3	+1.3
DAT	Datca	1.33	260	ePN	Pn	02 10 49.3	+0.1
DAT	Datca	1.33	260	ePn	Pn	02 10 49.3	+0.1
ISP	Isparta	1.36	49	ePN	Pn	02 10 49.5	-0.3
ISP	Isparta	1.36	49	ePn	Pn	02 10 49.5	-0.2
BDRM	Kayabasi	1.41	275	i P	Pn	02 10 50.8	+0.3
BDRM				i S	Sb	02 11 09.5	+0.3
BDRM	Kayabasi	1.41	275	i P	Pn	02 10 50.8	+0.4
BDRM				i S	Sb	02 11 09.5	+0.3
KHAL	Karahalli	1.43	9	i P	Pn	02 10 50.4	-0.2
KHAL				i S	Sb	02 11 11.4	+1.8
KHAL	Karahalli	1.43	9	i P	Pn	02 10 50.4	-0.2
BODT	Bodrum	1.52	274	ePN	Pn	02 10 52.2	+0.3
BODT	Bodrum	1.52	274	ePn	Pn	02 10 52.2	+0.3
KULA	Kula-Manisa	1.61	345	ePN	Pn	02 10 52.6	-0.5
KULA	Kula-Manisa	1.61	345	ePn	Pn	02 10 52.6	-0.5
SHUT	Suhut-Afyon	1.92	33	ePN	Pn	02 10 57.7	+0.4
SHUT	Suhut-Afyon	1.92	33	ePn	Pn	02 10 57.7	+0.4
IZM	Izmir	2.11	314	ePN	Pn	02 11 00.5	+0.5
BLCB	Balcova	2.23	310	ePN	Pn	02 11 01.4	-0.3
BLCB	Balcova	2.23	310	ePn	Pn	02 11 01.4	-0.3
HDMB	Hadim	2.63	89	ePN	Pn	02 11 06.9	-0.2
HDMB	Hadim	2.63	89	ePn	Pn	02 11 06.9	-0.2

ISK ***06*** *02:23:48.0, 36.°97N×29.°19E, h5^{km}, MD3.2*

ISCJB ***06*** *02:23:49.1±0.6, 36.°98N±0.°03×29.°19E±0.°03, h0^{km}±6^{km}, Error ellipse: s-maj=5.1km s-min=3.6km az=154.6*

CSEM ***06*** *02:23:49.1±0.1, 36.°96N×29.°21E, h2^{km}, MD3.2, Error ellipse: s-maj=3.8km s-min=3.1km az=165.0*

DDA ***06*** *02:23:49.6, 37.°00N×29.°23E, h22^{km}±2^{km}, Md3.1*

ISC 06 02:23:49.7±0.5**, 36.°97N**±0.°03×**29.°20E**±0.°03**, h4**^{km}±5^{km}**, n54,** σ**0.^{s}90**/71**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FETY	Fethiye	0.35	195	PG	Pg	02 23 55.4	-1.0
FETY				eSG	Sg	02 24 01.6	+0.7
FETY	Fethiye	0.35	195	i Pg	Pg	02 23 55.4	-1.0
FETY				eSg	Sg	02 24 01.7	+0.7
GOLH	Golhisar	0.39	48	i P	Pg	02 23 56.3	-0.9
GOLH				i S	Sg	02 24 03.3	+1.0
GOLH	Golhisar	0.39	48	i P	Pg	02 23 56.3	-1.0
GOLH				i S	Sg	02 24 03.3	+0.9
TURN	Turunc	0.49	258	i P	Pg	02 24 03.6	+4.6
TURN				i S	Sg	02 24 16.3	+11
TURN	Turunc	0.49	258	i P	Pg	02 24 03.7	+4.6
DALT	Dalyan (Mudla)	0.49	246	ePG	Pg	02 23 58.8	-0.5
DALT				eSG	Sg	02 24 06.7	+1.0
DALT	Dalyan (Mudla)	0.49	246	ePg	Pg	02 23 58.8	-0.4
DALT				eSg	Sg	02 24 06.7	+1.1
ELL	Elmali	0.61	111	ePG	Pg	02 24 00.4	-1.0
ELL				eSG	Sg	02 24 10.8	+1.4
ELL	Elmali	0.61	111	ePg	Pg	02 24 00.4	-1.0
YER	Yerkesik	0.75	283	ePG	Pg	02 24 03.9	-0.2
YER	Yerkesik	0.75	283	ePg	Pg	02 24 03.9	-0.2
DENT	Denizli	0.79	350	ePG	Pg	02 24 03.4	-1.5
DENT	Denizli	0.79	350	ePg	Pg	02 24 03.4	-1.5
AKAS	Kas	0.81	156	i P	Pg	02 24 04.3	-0.9
AKAS				i S	Sg	02 24 19.5	+3.9
AKAS	Kas	0.81	156	i P	Pg	02 24 04.3	-0.9
KSL	Kastellorizon	0.88	159	eP	Pg	02 24 08.0	+1.5
ARG	Arkhangelos	1.15	229	eP	Pg	02 24 10.9	-0.8
ANTB	Antalya	1.17	93	ePN	Pn	02 24 12.0	-0.8
ANTB	Antalya	1.17	93	ePn	Pn	02 24 12.0	-0.8
MLSB	Milas	1.18	286	ePN	Pn	02 24 11.5	-1.5
MLSB	Milas	1.18	286	ePn	Pn	02 24 11.5	-1.5
BCK	Bucak	1.21	66	ePN	Pn	02 24 12.5	-0.9
BCK	Bucak	1.21	66	ePn	Pn	02 24 12.5	-0.9
AYDN	Tasoluk	1.26	304	i P	Pg	02 24 13.6	-0.2
AYDN				i S	Sg	02 24 31.4	+1.3
AYDN	Tasoluk	1.26	304	i P	Pg	02 24 13.6	-0.2
AYDN				i S	Sg	02 24 31.4	+1.3
DAT	Datca	1.32	260	ePN	Pn	02 24 14.1	-0.8
DAT	Datca	1.32	260	ePn	Pn	02 24 14.1	-0.8
ISP	Isparta	1.36	50	ePN	Pn	02 24 16.0	+0.6
ISP	Isparta	1.36	50	ePn	Pn	02 24 16.0	+0.6
BDRM	Kayabasi	1.41	274	i P	Pn	02 24 15.6	-0.6
BDRM				i S	Sb	02 24 37.0	+2.2
BDRM	Kayabasi	1.41	274	i P	Pn	02 24 15.6	-0.5
BDRM				i S	Sb	02 24 37.0	+2.2
KHAL	Karahalli	1.41	9	i P	Pn	02 24 15.8	-0.4
KHAL				i S	Sb	02 24 36.3	+1.3
KHAL	Karahalli	1.41	9	i P	Pn	02 24 15.8	-0.4
KHAL				i S	Sb	02 24 36.3	+1.3
BODT	Bodrum	1.52	274	ePN	Pn	02 24 18.1	+0.5
BODT	Bodrum	1.52	274	ePn	Pn	02 24 18.1	+0.5
KULA	Kula-Manisa	1.60	345	ePN	Pn	02 24 18.2	-0.6
KULA	Kula-Manisa	1.60	345	ePn	Pn	02 24 18.2	-0.5
SHUT	Suhut-Afyon	1.91	34	ePN	Pn	02 24 23.0	0.0
SHUT	Suhut-Afyon	1.91	34	ePn	Pn	02 24 23.0	0.0
SMG	Samos	2.02	292	eP	Pn	02 24 24.3	-0.2
IZM	Izmir	2.09	313	ePN	Pn	02 24 25.7	+0.1
IZM	Izmir	2.09	313	ePn	Pn	02 24 25.7	+0.2
GDZ	Gediz	2.12	6	i P	Pn	02 24 26.1	+0.2
GDZ				i S	Sn	02 24 53.3	+0.5
GDZ	Gediz	2.12	6	i P	Pn	02 24 26.1	+0.1
GDZ				i S	Sn	02 24 53.3	+0.5
KARP	Karpathos	2.18	230	eP	Pn	02 24 27.5	+0.8
BLCB	Balcova	2.22	310	ePN	Pn	02 24 26.4	-0.9
BLCB	Balcova	2.22	310	ePn	Pn	02 24 26.4	-0.8
HDMB	Hadim	2.63	89	ePN	Pn	02 24 33.6	+0.6
HDMB	Hadim	2.63	89	ePn	Pn	02 24 33.6	+0.7
KONT	Konya--Tatoy	2.70	68	ePN	Pn	02 24 34.3	+0.5
KONT	Konya--Tatoy	2.70	68	ePn	Pn	02 24 34.3	+0.5
APE	Apeiranthos	2.94	273	eP	Pn	02 24 36.7	-0.5
NPS	Neapolis	3.37	241	eP	Pn	02 24 43.1	0.0

ISCJB ***06*** *02:38:58.9±0.5, 13.°12N±0.°07×50.°32E±0.°04, h10^{km}, mb4.3/38, MS3.6/19, Error ellipse: s-maj=10.5km s-min=6.1km az=176.5*

MOS ***06*** *02:38:59.3±1.2, 13.°17N×50.°43E, h10^{km}, mb4.7/16, Error ellipse: s-maj=13.1km s-min=7.4km az=89.2*

IDC ***06*** *02:38:59.4±0.9, 13.°17N×50.°41E, h0^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.1/27, mbtmp4.1/18, MS3.6/16, Ms1 3.7/16, ms1mx3.6/26, Error ellipse: s-maj=21.2km s-min=17.7km az=8.0*

BJI ***06*** *02:38:59.4, 12.°82N×50.°46E, h24^{km}, mB5.2/7, mb4.7/15, Ms7 4.3/2*

NEIC ***06*** *02:39:01.0±0.5, 13.°16N×50.°41E, h10^{km}, mb4.4/11, Error ellipse: s-maj=10.7km s-min=9.0km az=164.0*

CSEM ***06*** *02:39:02.7±0.3, 13.°16N×50.°31E, h20^{km}, mb4.4/13, Error ellipse: s-maj=11.5km s-min=8.0km az=172.0*

DHMR ***06*** *02:39:04.3±1.1, 13.°36N×49.°84E, h3^{km}±22^{km}, ML3.7*

ISC 06 02:39:00.7±0.5**, 13.°11N**±0.°07×**50.°32E**±0.°04**, h10**^{km}**, n116,** σ**1.^{s}08**/113**, mb4.3**/38**, MS3.6**/19**, 6C-5D, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MUKL	Al Mukalla	1.84	318	⇓iP	Pn	02 39 29.4	-3.0
MUKL				i S	Sn	02 39 48.9	-6.9
MUKL				AML	AML	02 39 50.3	
	comp=N,1μm,0.4s						
BDHA	Al Bayda’	4.70	281	⇑iP	Pn	02 40 12.4	+0.7
BDHA				AML	AML	02 40 26.1	
	comp=E,330nm,0.6s						
BDHA				i S	Sn	02 41 04.3	-2.0
BDHA	Al Bayda’	4.70	281	⇑iP	Pn	02 40 12.4	+0.7
	comp=E,165nm,0.6s						
BDHA				i S	Sn	02 41 04.3	-2.0
TRBA	At Turbah	6.04	272	⇑iP	Pn	02 40 29.6	-0.6
TRBA				i S	Sn	02 41 37.4	-2.1
TRBA	At Turbah	6.04	272	⇑iP	Pn	02 40 29.6	-0.6
TRBA				i S	Sn	02 41 37.4	-2.1
QRN	Al-Qurain	15.72	352	eP	Pn	02 42 47.0	+4.7
QRN	Al-Qurain	15.72	352	eP	Pn	02 42 47.0	+4.7
RDF	Al-Radifah	15.95	351	eP	Pn	02 42 50.1	+4.8
RDF				AMb	AMB	02 42 53.0	
	comp=Z,105nm,1.0s						
RDF	Al-Radifah	15.95	351	eP	Pn	02 42 50.1	+4.8
	comp=Z,105nm,1.0s						
KBD	Kabd	16.17	352	eP	Pn	02 42 52.8	+4.7
KBD	Kabd	16.17	352	eP	Pn	02 42 52.8	+4.6
NAY	Al-Naaiem	16.31	350	eP	Pn	02 42 54.1	+4.1
NAY				AMb	AMB	02 42 56.7	
	comp=Z,49nm,1.3s						
NAY	Al-Naaiem	16.31	350	eP	Pn	02 42 54.1	+4.1
	comp=Z,49nm,1.3s						
KMBO	Kilima Mbogo	19.18	223	P	Pn	02 43 27.3	+1.7
	baz=28,slow=12,SNR=7.4						
KMBO				LR	LR	02 50 58.5	
	comp=Z,184nm,19.8s,baz=38,slow=37						
KMBO	Kilima Mbogo	19.18	223	P	Pn	02 43 27.3	+1.7
EIL	Elat	21.78	322	P	P	02 43 53.0	+0.2
	comp=Z,2.9nm,0.8s,mb3.8,baz=162,slow=6.4,SNR=2.2						
EIL				LR	LR	02 51 46.9	
	comp=Z,234nm,19.7s,MS3.6,baz=356,slow=35						
EIL	Elat	21.78	322	P	P	02 43 53.0	+0.2
ASF	Jabal al Asfar	22.62	329	P	P	02 44 03.1	+1.4
	comp=Z,3.1nm,1.0s,mb3.7,baz=89,slow=14,SNR=1.7						

ASF				LR	LR	02 52 58.2	
	comp=Z,170nm,21.3s,MS3.5,baz=236,slow=37						
MMAI	**Mount Meron Ar**	**24.05**	**328**	LR	LR	02 53 32.5	
	comp=Z,83nm,19.9s,MS3.2,baz=105,slow=36						
MALT	**Malatya**	**27.24**	**339**	*e*P	**P**	**02 44 44.7**	**-0.3**
MALT				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.0						
MALT	**Malatya**	**27.24**	**339**	*e*P	**P**	**02 44 44.7**	**-0.2**
	comp=Z,5.2nm,1.0s,mb4.0						
MALT	**Malatya**	**27.24**	**339**	*e*P	**P**	**02 44 44.7**	**-0.3**
	comp=Z,5.2nm,1.0s,mb4.0						
KBL	**Kabul**	**27.27**	**35**	*e*P	**P**	**02 44 46.2**	**+0.9**
KBL				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.2						
KBL	**Kabul**	**27.27**	**35**	*e*P	**P**	**02 44 46.1**	**+0.9**
	comp=Z,7.8nm,1.1s,mb4.2						
KBL	**Kabul**	**27.27**	**35**	*e*P	**P**	**02 44 46.2**	**+0.9**
	comp=Z,7.8nm,1.1s,mb4.2						
GNI	**Garni**	**27.38**	**351**⇓	*e*P	**P**	**02 44 48.1**	**+1.9**
GNI				pmax	pmax		
	comp=Z,18nm,1.3s						
GNI				MLR	MLR		
	comp=Z,400nm,19.0s						
GNI	**Garni**	**27.38**	**351**	P	**P**	**02 44 47.8**	**+1.6**
	comp=Z,6.1nm,0.7s,mb4.2,baz=48,slow=1.4,SNR=8.4						
GNI				LR	LR	02 57 28.7	
	comp=Z,426nm,18.8s,MS4.0,baz=337,slow=41						
GNI	**Garni**	**27.38**	**351**	*e*P	**P**	**02 44 48.5**	**+2.3**
	comp=Z,15nm,1.0s,mb4.5						
GNI				LR	LR	02 57 28.7	
GNI	**Garni**	**27.38**	**351**	*e*P	**P**	**02 44 48.5**	**+2.3**
	comp=Z,15nm,1.0s,mb4.5						
BRTR	**Keskin Array B**	**30.32**	**334**	P	**P**	**02 45 13.3**	**+1.0**
	comp=Z,0.6nm,0.8s,mb3.4,baz=104,slow=5.2,SNR=3.7						
BRTR				LR	LR	02 56 52.3	
	comp=Z,82nm,18.6s,MS3.4,baz=128,slow=35						
BRTR	**Keskin Array B**	**30.32**	**334**	P	**P**	**02 45 13.4**	**+1.0**
KIV	**Kislovodsk**	**31.43**	**349**	*e*P	**P**	**02 45 24.2**	**+2.1**
KIV				*e*		02 48 16.9	
KIV				*e*S	**S**	**02 50 29.4**	**-0.4**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
KIV				MLR	MLR		
	comp=Z,148nm,12.0s,MS3.9						
KIV	**Kislovodsk**	**31.43**	**349**	*e*P	**P**	**02 45 22.8**	**+0.7**
	comp=Z,12nm,1.1s,mb4.6						
KIV	**Kislovodsk**	**31.43**	**349**	*e*P	**P**	**02 45 22.8**	**+0.7**
	comp=Z,12nm,1.1s,mb4.6						
KIV	**Kislovodsk**	**31.43**	**349**	*e*PcP	PcP	02 48 16.9	+1.5
	comp=Z,148nm,12.0s						
ANN	**Anapa**	**33.45**	**343**	*e*P	**P**	**02 45 39.0**	**-0.8**
ANN				*e*S	**S**	**02 51 01.5**	**+0.3**
ANN				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
ANN				MLR	MLR		
	comp=Z,209nm,14.0s,MS4.0						
AAK	**Ala-Archa**	**36.10**	**31**	*e*P	**P**	**02 46 04.0**	**+1.2**
AAK				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
AAK	**Ala-Archa**	**36.10**	**31**	*e*P	**P**	**02 46 04.0**	**+1.2**
	comp=Z,7.1nm,1.2s,mb4.5						
AAK	**Ala-Archa**	**36.10**	**31**	*e*P	**P**	**02 46 04.0**	**+1.2**
	comp=Z,7.1nm,1.2s,mb4.5						
AKTK	**Aktyubinsk**	**37.75**	**8**	P	**P**	**02 46 18.3**	**+1.6**
AKTK	**Aktyubinsk**	**37.75**	**8**	P	**P**	**02 46 18.3**	**+1.6**
AKTO	**Aktyubinsk**	**37.75**	**8**	P	**P**	**02 46 18.3**	**+1.6**
	comp=Z,3.0nm,1.0s,mb4.0,baz=180,slow=8.1,SNR=6.9						
VSR	**Storozhevoye**	**39.07**	**349**⇑	*e*P	**P**	**02 46 29.7**	**+1.9**
VSR				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.5						
AKASG	**Malin Array Be**	**41.24**	**340**	P	**P**	**02 46 45.2**	**-0.5**
	comp=Z,5.5nm,0.8s,mb4.2,baz=152,slow=7.3,SNR=4.4						
AKASG	**Malin Array Be**	**41.24**	**340**	P	**P**	**02 46 45.2**	**-0.6**
AKBB	**Malin Array Si**	**41.24**	**340**	*e*P	**P**	**02 46 45.2**	**-0.6**
AKBB	**Malin Array Si**	**41.24**	**340**	*e*P	**P**	**02 46 45.2**	**-0.6**
KIEV	**Kiev**	**41.24**	**340**	*e*P	**P**	**02 46 45.9**	**+0.1**
KIEV				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.3						
KIEV	**Kiev**	**41.24**	**340**	*e*P	**P**	**02 46 45.9**	**+0.1**
	comp=Z,7.0nm,0.9s,mb4.3						
KIEV	**Kiev**	**41.24**	**340**	*e*P	**P**	**02 46 45.9**	**+0.1**
	comp=Z,7.0nm,0.9s,mb4.3						
BRVK	**Borovoye**	**42.91**	**18**	*e*P	**P**	**02 46 58.0**	**-1.4**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
BRVK	**Borovoye**	**42.91**	**18**	*e*P	**P**	**02 46 58.0**	**-1.4**
	comp=Z,1.6nm,0.6s,mb3.9						
BRVK	**Borovoye**	**42.91**	**18**	*e*P	**P**	**02 46 58.0**	**-1.4**
	comp=Z,1.6nm,0.6s,mb3.9						
MK31	**Makanchi Array**	**42.98**	**32**	*e*P	**P**	**02 46 59.6**	**-0.5**
MK31	**Makanchi Array**	**42.98**	**32**	*e*P	**P**	**02 46 59.6**	**-0.5**
MKAR	**Makanchi Array**	**42.98**	**32**	P	**P**	**02 46 59.5**	**-0.6**
	comp=Z,1.3nm,0.5s,mb3.9,baz=222,slow=7.5,SNR=21						
MKAR				LR	LR	03 07 08.7	
	comp=Z,58nm,20.1s,MS3.5,baz=188,slow=39						
MKAR	**Makanchi Array**	**42.98**	**32**	P	**P**	**02 46 59.5**	**-0.6**
OBN	**Obninsk**	**43.27**	**349**⇓	*e*P	**P**	**02 47 03.0**	**+0.8**
OBN				*e*		02 48 49.7	
OBN				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.7						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.8						
TAM	**Tamanrasset**	**43.55**	**289**	*e*P	**P**	**02 47 06.8**	**+1.8**
TAM				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.1						
TAM	**Tamanrasset**	**43.55**	**289**	*e*P	**P**	**02 47 06.8**	**+1.8**
	comp=Z,4.3nm,1.0s,mb4.1						
TAM	**Tamanrasset**	**43.55**	**289**	*e*P	**P**	**02 47 06.8**	**+1.8**
	comp=Z,4.2nm,1.0s,mb4.1						
KURK	**Kurchatov**	**44.01**	**26**	*e*P	**P**	**02 47 07.9**	**-0.4**
KURK				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.3						
KURK	**Kurchatov**	**44.01**	**26**	*e*P	**P**	**02 47 07.8**	**-0.4**
	comp=Z,6.5nm,1.2s,mb4.2						
KURK	**Kurchatov**	**44.01**	**26**	*e*P	**P**	**02 47 07.8**	**-0.5**
	comp=Z,6.5nm,1.2s,mb4.2						
GERES	**GERESS Array B**	**46.70**	**327**	P	**P**	**02 47 29.4**	**-0.3**
	comp=Z,0.2nm,0.4s,mb3.4,baz=167,slow=6.3,SNR=4.7						
GERES				LR	LR	03 07 12.2	
	comp=Z,40nm,18.1s,MS3.4,baz=301,slow=36						
GERES	**GERESS Array B**	**46.70**	**327**	P	**P**	**02 47 29.4**	**-0.3**
CMAR	**Chiang Mai Arr**	**46.99**	**77**	P	**P**	**02 47 31.1**	**-1.3**
	comp=Z,2.9nm,0.7s,mb4.3,baz=274,slow=8.7,SNR=12						
CMAR				LR	LR	03 05 28.3	
	comp=Z,34nm,20.7s,MS3.3,baz=86,slow=34						
CMAR	**Chiang Mai Arr**	**46.99**	**77**	P	**P**	**02 47 31.1**	**-1.3**
TOA0	**Torodi Ar. Sit**	**47.29**	**276**	*e*P	**P**	**02 47 35.9**	**+1.1**
TOA0	**Torodi Ar. Sit**	**47.29**	**276**	*e*P	**P**	**02 47 35.9**	**+1.1**
TORD	**Torodi Ar. Bea**	**47.29**	**276**	P	**P**	**02 47 35.7**	**+0.9**
	comp=Z,1.5nm,0.8s,mb4.0,baz=92,slow=7.6,SNR=24						
TORD				LR	LR	03 07 48.5	
	comp=Z,78nm,18.2s,MS3.7,baz=265,slow=36						
TORD	**Torodi Ar. Bea**	**47.29**	**276**	P	**P**	**02 47 35.7**	**+0.9**
BOSA	**Boshof**	**48.04**	**210**	LR	LR	03 07 57.1	
	comp=Z,125nm,18.6s,MS3.9,baz=1.0,slow=36						
NVS	**Novosibirsk**	**48.94**	**25**	*e*P	**P**	**02 47 40.9**	**-6.0**
ZALV	**Zalesovo Beam**	**48.98**	**26**	P	**P**	**02 47 45.9**	**-1.4**
	comp=Z,3.6nm,0.7s,mb4.5,baz=226,slow=8.0,SNR=17						
ZALV				LR	LR	03 10 20.4	
	comp=Z,28nm,19.1s,MS3.3,baz=14,slow=38						
BFO	**Black Forest**	**49.38**	**324**	*i* P	**P**	**02 47 51.9**	**+1.5**
BFO	**Black Forest**	**49.38**	**324**	*i* P	**P**	**02 47 51.9**	**+1.5**
KMI	**Kunming**	**50.67**	**68**	P	**P**	**02 48 00.3**	**-0.4**
KMI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
KMI				LR	LR		
	comp=Z,61nm,22.0s,MS3.6						
HFS	**Hagfors**	**54.09**	**338**	P	**P**	**02 48 24.6**	**-0.9**
	comp=Z,6.5nm,0.7s,mb4.6,baz=128,slow=9.6,SNR=11						
HFS	**Hagfors**	**54.09**	**338**	P	**P**	**02 48 24.6**	**-0.9**
HFS	**Hagfors**	**54.09**	**338**	P	**P**	**02 48 24.6**	**-0.9**
ESDC	**Sonseca Array**	**54.39**	**310**	P	**P**	**02 48 28.1**	**+0.1**
	comp=Z,1.7nm,0.8s,mb4.0,baz=97,slow=6.0,SNR=6.0						
ESDC	**Sonseca Array**	**54.39**	**310**	P	**P**	**02 48 28.0**	**0.0**
DBIC	**Dimbokro**	**54.64**	**269**	LR	LR	03 10 32.9	
	comp=Z,52nm,19.1s,MS3.6,baz=89,slow=35						
NB2	**NORSAR Subarra**	**55.61**	**338**	P	**P**	**02 48 36.0**	**-0.4**
	comp=Z,3.0nm,0.8s,mb4.4,baz=127,slow=7.9						
NB2	**NORSAR Subarra**	**55.61**	**338**	P	**P**	**02 48 36.0**	**-0.4**
	comp=Z,3.0nm,0.8s,mb4.4,SNR=5.0						
NOA	**NORSAR Array B**	**55.61**	**338**	P	**P**	**02 48 35.8**	**-0.6**
	comp=Z,2.7nm,0.8s,mb4.3,baz=127,slow=7.6,SNR=5.2						
NOA				LR	LR	03 15 25.0	
	comp=Z,64nm,19.1s,MS3.7,baz=250,slow=39						
NOA	**NORSAR Array B**	**55.61**	**338**	P	**P**	**02 48 35.8**	**-0.6**
ZAK	**Zakamensk**	**56.72**	**38**	*e*P	**P**	**02 48 44.5**	**0.0**
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb3.6						
XAN	**Xi'an**	**56.84**	**58**	P	**P**	**02 48 44.4**	**-1.3**
XAN				pP	pP	02 48 52.4	+3.5
XAN				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
XAN				pmax	pmax		
	comp=Z,100nm,5.1s						
SONM	**Songino Array**	**57.80**	**41**	P	**P**	**02 48 52.5**	**+0.3**
	comp=Z,1.7nm,0.8s,mb4.1,baz=235,slow=8.4,SNR=11						
SONM				LR	LR	03 14 07.6	
	comp=Z,64nm,21.7s,MS3.7,baz=149,slow=36						
SONM	**Songino Array**	**57.80**	**41**	P	**P**	**02 48 52.5**	**+0.3**
ARCES	**ARCESS Array B**	**58.54**	**350**	P	**P**	**02 48 56.0**	**-0.9**
	comp=Z,3.8nm,0.8s,mb4.5,baz=160,slow=3.9,SNR=5.0						
ARCES				LR	LR	03 16 53.7	
	comp=Z,133nm,19.0s,MS4.1,baz=2.3,slow=39						
ARCES	**ARCESS Array B**	**58.54**	**350**	P	**P**	**02 48 56.0**	**-1.0**
NJ2	**Nanjing**	**65.06**	**61**	*e*P	**P**	**02 49 41.8**	**+0.2**
NJ2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
HIA	**Hailar**	**66.76**	**42**	*e*P	**P**	**02 49 51.5**	**-0.8**
HIA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
HIA	**Hailar**	**66.76**	**42**	*e*P	**P**	**02 49 51.5**	**-0.7**
	comp=Z,4.5nm,0.9s,mb4.5						
HIA	**Hailar**	**66.76**	**42**	*e*P	**P**	**02 49 51.5**	**-0.8**
	comp=Z,4.5nm,0.9s,mb4.5						
CN2	**Changchun**	**70.34**	**48**	*e*P	**P**	**02 50 14.4**	**-0.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
YAK	**Yakutsk**	**73.53**	**29**	*e*P	**P**	**02 50 31.9**	**-1.6**
YAK				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
TIXI	**Tiksi**	**74.04**	**19**⇓	*e*P	**P**	**02 50 35.6**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.5s,mb4.3						
SEY	**Seymchan**	**83.84**	**27**⇓	*e*P	**P**	**02 51 29.4**	**-0.9**
SEY	**Seymchan**	**83.84**	**27**	*e*P	**P**	**02 51 29.4**	**-0.9**
BILL	**Bilibino**	**87.23**	**20**⇑	*e*P	**P**	**02 51 47.0**	**-0.1**
BILL				*e*S	S	03 02 10.2	-16
BILL				pmax	pmax		
	comp=Z,8.0nm,2.5s,mb4.5						
BILL	**Bilibino**	**87.23**	**20**	*e*P	**P**	**02 51 47.0**	**-0.1**
	comp=Z,8.0nm,2.5s,mb4.5						
WRA	**Warramunga Arr**	**88.91**	**111**	P	**P**	**02 51 56.3**	**+0.3**
	comp=Z,4.8nm,0.9s,mb4.8,baz=298,slow=3.8,SNR=20						
WRA	**Warramunga Arr**	**88.91**	**111**	P	**P**	**02 51 56.3**	**+0.3**
WRAB	**Tennant Creek**	**88.92**	**111**	*e*P	**P**	**02 51 55.8**	**-0.2**
WRAB				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
WRAB	**Tennant Creek**	**88.92**	**111**	*e*P	**P**	**02 51 55.8**	**-0.2**
	comp=Z,6.2nm,1.0s,mb4.9						
WRAB	**Tennant Creek**	**88.92**	**111**	*e*P	**P**	**02 51 55.8**	**-0.2**
	comp=Z,6.2nm,1.0s,mb4.9						
PDAR	**Pinedale Array**	**121.41**	**343**	PKP	PKPdf	02 57 53.6	-1.0
	comp=Z,0.4nm,0.9s,baz=15,slow=3.7,SNR=3.8						
PDAR	**Pinedale Array**	**121.41**	**343**	PKIKP	PKPdf	02 57 53.7	-0.9
NVAR	**Mina Array Bea**	**127.64**	**349**	PKP	PKPdf	02 58 08.5	+1.8
	comp=Z,1.0nm,0.8s,baz=63,slow=0.4,SNR=8.8						
NVAR	**Mina Array Bea**	**127.64**	**349**	PKIKP	PKPdf	02 58 08.5	+1.8
TXAR	**Lajitas Array**	**130.90**	**330**	PKP	PKPdf	02 58 13.7	+0.5
	comp=Z,0.6nm,0.9s,baz=31,slow=2.9,SNR=4.3						
TXAR	**Lajitas Array**	**130.90**	**330**	PKIKP	PKPdf	02 58 13.6	+0.4

NEIC 06 02:48:34.2, 36°.29S × 177°.86E, h217^{km}, MG4.5(WEL), After WEL., Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**1.32**	**164**	P	Pn	02 49 07.9	0.0
MXZ				S	S	02 49 33.5	-0.9
PUZ	**Puketiti**	**1.81**	**170**	P	Pn	02 49 12.3	+0.2
URZ	**Urewera**	**2.06**	**197**	P	Pn	02 49 14.5	0.0
MWZ	**Matawai**	**2.06**	**187**	P	Pn	02 49 14.7	+0.2
MWZ				S	S	02 49 46.6	+0.4
KNZ	**Kokohu**	**2.73**	**183**	P	Pn	02 49 21.3	-0.3
BKZ	**Black Stump Fm**	**3.07**	**200**	P	Pn	02 49 24.7	-0.7
TWVZ	**Taurewa**	**3.38**	**214**	P	Pn	02 49 29.1	+0.1
WNVZ	**Wahianoa**	**3.52**	**210**	P	Pn	02 49 30.4	-0.4
MOVZ	**Moawhango**	**3.53**	**208**	P	Pn	02 49 29.9	-1.0
TSZ	**Takapari Road**	**4.05**	**201**	P	Pn	02 49 35.3	-1.8
WAZ	**Wanganui**	**4.14**	**212**	P	Pn	02 49 37.5	-0.7
BFZ	**Birch Farm**	**4.56**	**196**	P	Pn	02 49 41.3	-2.1
MRZ	**Mangatainoka R**	**4.72**	**202**	P	Pn	02 49 42.8	-2.6
KIW	**Kapiti Island**	**5.12**	**206**	P	Pn	02 49 47.7	-2.7
MTW	**Mount Morrison**	**5.20**	**200**	P	Pn	02 49 48.5	-2.9
CAW	**Cannon Point**	**5.28**	**204**	P	Pn	02 49 49.4	-3.1
PAWZ	**Paruwai Farm**	**5.43**	**200**	P	Pn	02 49 51.2	-3.1
MSWZ	**Moikau Station**	**5.51**	**201**	P	Pn	02 49 52.2	-3.1
MRW	**Makara Radio**	**5.52**	**206**	P	Pn	02 49 52.3	-3.1
SNZO	**South Karori**	**5.58**	**205**	P	Pn	02 49 53.0	-3.3
TCW	**Tory Channel**	**5.66**	**209**	P	Pn	02 49 54.1	-3.1
NNZ	**Nelson**	**6.04**	**214**	P	Pn	02 49 58.6	-3.5
QRZ	**Quartz Range**	**6.16**	**221**	P	Pn	02 50 00.2	-3.5
THZ	**Tophouse**	**6.69**	**214**	P	Pn	02 50 07.6	-2.8
KHZ	**Kahutara**	**6.97**	**207**	P	Pn	02 50 09.6	-4.5
LTZ	**Lake Taylor**	**7.79**	**212**	P	Pn	02 50 21.4	-3.2

IDC 06 03:35:05.7±2.0, 5°.63S × 130°.77E, h0^{km}, mb3.8/1, mb1 3.9/3, mb1mx3.6/15, mbtmp3.7/3, ML3.8/2, Error ellipse: s-maj=104.5km s-min=29.7km az=71.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.64**	**167**	Pn	Pn	03 38 33.6	-0.7
	0.4nm,0.3s,baz=347,slow=12,SNR=27						
WRA				Sn	Sn	03 41 09.7	-7.8
	0.5nm,0.3s,baz=341,slow=23,SNR=6.0						
ASAR	**Alice Springs**	**18.18**	**171**	P	Pn	03 39 19.9	+0.2
	0.4nm,0.3s,baz=345,slow=10.0,SNR=20						
ASAR				S	Sn	03 42 30.7	-13
	0.1nm,0.3s,baz=349,slow=24,SNR=3.2						
MKAR	**Makanchi Array**	**67.51**	**326**	P	P	03 46 03.8	+0.2
	0.6nm,0.5s,baz=116,slow=8.0,SNR=17						

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*ISCJB **06** 03:56:55.5±0.8, 13°.3N±0°.2×50°.39E±0°.09, h10^{km}, mb3.8/10, MS3.2/7, Error ellipse: s-maj=23.6km s-min=12.2km az=174.6*

*IDC **06** 03:56:55.6±1.2, 13°.24N×50°.42E, h0^{km}, mb3.8/9, mb1 3.9/9, mb1mx3.7/23, mbtmp3.8/9, MS3.3/7, Ms1 3.3/7, ms1mx3.1/30, Error ellipse: s-maj=31.6km s-min=26.0km az=4.0*

*NEIC **06** 03:56:57.0±0.6, 13°.26N×50°.39E, h10^{km}, mb3.8/1, Error ellipse: s-maj=18.0km s-min=12.5km az=175.0*

*CSEM **06** 03:56:57.0, 13°.26N×50°.39E, h10^{km}, mb3.8/1, After NEIC*

ISC 06 03:56:57.0±0.8, 13°.2N±0°.2×50°.39E±0°.09, h10^{km}, n30, σ0^{s}.63/25, mb3.8/10, MS3.2/7, Eastern Gulf of Aden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BDHA	**Al Bayda'**	**4.75**	**280**	*i* P	**Pn**	**03 58 08.4**	**-0.4**
BDHA				*e*		03 58 08.5	
	baz=110,slow=16						
BDHA				AML	AML	03 58 16.2	
	comp=E,74nm,0.3s						
BDHA				*i* S	**Sn**	**03 58 53.4**	**-10**
NAY	**Al-Naaiem**	**16.22**	**350**	*e*P	**Pn**	**04 00 49.8**	**+4.8**
NAY				AMb	AMB	04 00 57.2	
	comp=Z,12nm,1.7s						
MIB	**Mutribah**	**16.74**	**351**	*e*P	**Pn**	**04 00 55.5**	**+3.7**
MIB				AMb	AMB	04 01 09.0	
	comp=Z,27nm,1.4s						
EIL	**Elat**	**21.74**	**321**	LR	LR	04 10 06.0	
	comp=Z,119nm,18.7s,MS3.3,baz=280,slow=36						
ASF	**Jabal al Asfar**	**22.56**	**329**	LR	LR	04 10 54.4	
	comp=Z,52nm,20.2s,MS3.0,baz=238,slow=37						
MMAI	**Mount Meron Ar**	**23.99**	**328**	LR	LR	04 12 47.3	
	comp=Z,21nm,20.6s,MS2.6,baz=95,slow=40						
GNI	**Garni**	**27.28**	**351**	LR	LR	04 15 24.1	
	comp=Z,135nm,18.3s,MS3.5,baz=344,slow=41						
AKTO	**Aktyubinsk**	**37.63**	**8**	LR	LR	04 22 48.3	
	comp=Z,48nm,19.6s,MS3.3,baz=197,slow=41						
AKASG	**Malin Array Be**	**41.16**	**340**	P	**P**	**04 04 40.6**	**-0.8**
	comp=Z,0.8nm,0.5s,mb3.6,baz=154,slow=7.3,SNR=7.1						
AKASG	**Malin Array Be**	**41.16**	**340**	P	**P**	**04 04 40.7**	**-0.7**
MK31	**Makanchi Array**	**42.85**	**32**	*e*P	**P**	**04 04 55.7**	**+0.4**
MK31	**Makanchi Array**	**42.85**	**32**	*e*P	**P**	**04 04 55.7**	**+0.4**
MKAR	**Makanchi Array**	**42.85**	**32**	P	**P**	**04 04 55.7**	**+0.4**
	comp=Z,0.5nm,0.6s,mb3.5,baz=219,slow=7.3,SNR=6.5						
MKAR				LR	LR	04 22 50.6	
	comp=Z,38nm,18.1s,MS3.3,baz=175,slow=36						
MKAR	**Makanchi Array**	**42.85**	**32**	P	**P**	**04 04 55.7**	**+0.4**
TAM	**Tamanrasset**	**43.58**	**289**	*e*P	**P**	**04 05 01.5**	**0.0**
	comp=Z,1.7nm,1.0s,mb3.7						
TAM	**Tamanrasset**	**43.58**	**289**	*e*P	**P**	**04 05 01.5**	**-0.1**
	comp=Z,1.7nm,1.0s,mb3.7						
KURK	**Kurchatov**	**43.87**	**26**	P	**P**	**04 05 03.1**	**-0.4**
	comp=Z,0.9nm,0.8s,mb3.6,baz=226,slow=8.0,SNR=4.9						
KURK	**Kurchatov**	**43.87**	**26**	P	**P**	**04 05 03.1**	**-0.4**
CMAR	**Chiang Mai Arr**	**46.89**	**77**	P	**P**	**04 05 27.2**	**-0.7**
	comp=Z,0.7nm,0.4s,mb4.0,baz=273,slow=8.5,SNR=4.6						
CMAR	**Chiang Mai Arr**	**46.89**	**77**	P	**P**	**04 05 27.2**	**-0.7**
TORD	**Torodi Ar. Bea**	**47.35**	**276**	P	**P**	**04 05 32.2**	**+0.6**
	comp=Z,0.6nm,0.8s,mb3.6,baz=88,slow=7.6,SNR=7.2						
TORD	**Torodi Ar. Bea**	**47.35**	**276**	P	**P**	**04 05 32.2**	**+0.6**
ZALV	**Zalesovo Beam**	**48.84**	**26**	P	**P**	**04 05 41.6**	**-0.9**
	comp=Z,0.6nm,0.4s,mb4.0,baz=226,slow=8.0,SNR=4.8						
NOA	**NORSAR Array B**	**55.53**	**338**	LR	LR	04 33 39.8	
	comp=Z,23nm,20.1s,MS3.2,baz=90,slow=40						
SONM	**Songino Array**	**57.67**	**41**	P	**P**	**04 06 48.3**	**+0.7**
	comp=Z,0.8nm,0.9s,mb3.8,baz=254,slow=5.9,SNR=6.6						
SONM	**Songino Array**	**57.67**	**41**	P	**P**	**04 06 48.3**	**+0.7**
WRA	**Warramunga Arr**	**88.88**	**111**	P	**P**	**04 09 52.3**	**+0.2**
	comp=Z,1.1nm,0.8s,mb4.2,baz=299,slow=3.3,SNR=6.1						
WRA	**Warramunga Arr**	**88.88**	**111**	P	**P**	**04 09 52.3**	**+0.2**
ASAR	**Alice Springs**	**89.42**	**114**	P	**P**	**04 09 54.9**	**+0.3**
	comp=Z,0.9nm,0.9s,mb4.1,baz=292,slow=3.4,SNR=5.0						
ASAR	**Alice Springs**	**89.42**	**114**	P	**P**	**04 09 54.8**	**+0.2**

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*DDA **06** 04:07:51.8, 38°.90N×26°.01E, h7^{km}±6^{km}, Md2.7*

*ISCJB **06** 04:07:52.4±0.6, 38°.89N±0°.02×26°.05E±0°.05, h8^{km}±7^{km}, Error ellipse: s-maj=7.2km s-min=3.9km az=164.3*

*CSEM **06** 04:07:52.5±0.3, 38°.90N×26°.05E, h15^{km}, ML2.8/4, Error ellipse: s-maj=6.9km s-min=4.0km az=70.0*

*THE **06** 04:07:52.8, 38°.89N×26°.04E, h8^{km}±1^{km}, ML2.8/4, Error ellipse: s-maj=2.0km s-min=0.7km az=82.0*

ISC 06 04:07:52.7±0.6, 38°.89N±0°.03×26°.04E±0°.06, h16^{km}±7^{km}, n18, σ0^{s}.51/35, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIGR	**SIGRI**	**0.35**	**335**	P	**Pg**	**04 07 59.9**	**-0.1**
SIGR				S	**Sg**	**04 08 04.7**	**-0.1**
SIGR	**SIGRI**	**0.35**	**335**	P	**Pg**	**04 07 59.9**	**-0.1**
SIGR				S	**Sg**	**04 08 04.7**	**-0.1**
PRK	**Paraskevi**	**0.39**	**27**	P	**Pg**	**04 08 00.9**	**+0.1**
PRK				S	**Sg**	**04 08 06.4**	**+0.2**
PRK	**Paraskevi**	**0.39**	**27**	P	**Pg**	**04 08 00.9**	**+0.1**
PRK				S	**Sg**	**04 08 06.4**	**+0.2**
CHOS	**Chios island**	**0.51**	**179**	P	**Pg**	**04 08 03.0**	**+0.2**
CHOS				S	**Sg**	**04 08 09.5**	**-0.1**
CHOS	**Chios island**	**0.51**	**179**	P	**Pg**	**04 08 03.0**	**+0.2**
CHOS				S	**Sg**	**04 08 09.5**	**-0.1**
AYVA	**Ayvalik**	**0.65**	**50**	*i* P	**Pg**	**04 08 05.5**	**0.0**
AYVA				*i* S	**Sg**	**04 08 14.9**	**+0.7**
AYVA	**Ayvalik**	**0.65**	**50**	*i* P	**Pg**	**04 08 05.5**	**0.0**
AYVA				*i* S	**Sg**	**04 08 14.9**	**+0.7**
URLA	**Izmir**	**0.69**	**141**	*i* P	**Pg**	**04 08 06.1**	**-0.1**
URLA				*i* S	**Sg**	**04 08 15.4**	**+0.2**
URLA	**Izmir**	**0.69**	**141**	*i* P	**Pg**	**04 08 06.1**	**-0.1**
URLA				*i* S	**Sg**	**04 08 15.4**	**+0.1**
BLCB	**Balcova**	**0.93**	**123**	P	**Pg**	**04 08 10.7**	**-0.1**
BLCB				S	**Sg**	**04 08 23.3**	**+0.2**
BLCB	**Balcova**	**0.93**	**123**	P	**Pg**	**04 08 10.7**	**-0.1**
BLCB				S	**Sg**	**04 08 23.3**	**+0.2**
BOZC	**Bozcaada**	**0.95**	**1**	*i* P	**Pg**	**04 08 10.5**	**-0.6**
BOZC				*i* S	**Sg**	**04 08 23.1**	**-0.4**
LIA	**Limnos Island**	**1.20**	**327**	P	**Pn**	**04 08 15.1**	**+0.2**
LIA				S	**Sb**	**04 08 31.6**	**+1.2**
LIA	**Limnos Island**	**1.20**	**327**	P	**Pn**	**04 08 15.1**	**+0.2**
LIA				S	**Sb**	**04 08 31.6**	**+1.2**
SART	**Tekirdag**	**2.00**	**26**	*i* P	**Pn**	**04 08 24.4**	**-1.4**
SART				*i* S	**Sn**	**04 08 55.0**	**+4.6**
SART	**Tekirdag**	**2.00**	**26**	*i* P	**Pn**	**04 08 24.4**	**-1.4**
SART				*i* S	**Sn**	**04 08 55.0**	**+4.6**
DURS	**Dursunbey**	**2.02**	**69**	*i* P	**Pn**	**04 08 19.6**	**-6.4**

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*ISCJB **06** 04:08:07.7±0.5, 37°.01N±0°.03×29°.19E±0°.03, h5^{km}±5^{km}, Error ellipse: s-maj=4.8km s-min=3.4km az=158.4*

*CSEM **06** 04:08:07.8±0.1, 36°.99N×29°.18E, h5^{km}, MD3.2, Error ellipse: s-maj=3.5km s-min=2.7km az=165.0*

*DDA **06** 04:08:07.6, 36°.98N×29°.20E, h14^{km}±3^{km}, Md3.3*

*ISK **06** 04:08:07.2, 36°.99N×29°.18E, h8^{km}, MD3.2*

ISC 06 04:08:08.2±0.4, 37°.01N±0°.03×29°.18E±0°.03, h5^{km}±4^{km}, n57, σ0^{s}.85/77, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GOLH	**Golhisar**	**0.38**	**53**	*i* P	**Pg**	**04 08 15.2**	**-0.4**
GOLH				*i* S	**Sg**	**04 08 21.4**	**+0.8**
GOLH	**Golhisar**	**0.38**	**53**	*i* P	**Pg**	**04 08 15.2**	**-0.4**
GOLH				*i* S	**Sg**	**04 08 21.4**	**+0.9**
FETY	**Fethiye**	**0.38**	**192**	PG	**Pg**	**04 08 14.4**	**-1.3**
FETY				*e*SG	**Sg**	**04 08 20.2**	**-0.4**
FETY	**Fethiye**	**0.38**	**192**	*i* Pg	**Pg**	**04 08 14.4**	**-1.2**
FETY				*e*Sg	**Sg**	**04 08 20.2**	**-0.4**
TURN	**Turunc**	**0.48**	**254**	*i* P	**Pg**	**04 08 22.6**	**+5.1**
TURN				*i* S	**Sg**	**04 08 35.0**	**+11**
DALT	**Dalyan (Mudla)**	**0.50**	**241**	PG	**Pg**	**04 08 17.0**	**-0.8**
DALT				*e*SG	**Sg**	**04 08 25.3**	**+1.0**
DALT	**Dalyan (Mudla)**	**0.50**	**241**	*i* Pg	**Pg**	**04 08 17.0**	**-0.8**
DALT				*e*Sg	**Sg**	**04 08 25.3**	**+1.0**
ELL	**Elmali**	**0.64**	**114**	*e*PG	**Pg**	**04 08 19.6**	**-0.9**
ELL				*e*SG	**Sg**	**04 08 29.5**	**+0.6**
ELL	**Elmali**	**0.64**	**114**	*e*Pg	**Pg**	**04 08 19.6**	**-0.9**
ELL				*e*Sg	**Sg**	**04 08 29.5**	**+0.6**
YER	**Yerkesik**	**0.73**	**280**	*e*PG	**Pg**	**04 08 22.0**	**-0.2**
YER	**Yerkesik**	**0.73**	**280**	*e*Pg	**Pg**	**04 08 22.0**	**-0.2**
DENT	**Denizli**	**0.75**	**351**	*e*PG	**Pg**	**04 08 22.2**	**-0.5**
DENT	**Denizli**	**0.75**	**351**	*e*Pg	**Pg**	**04 08 22.2**	**-0.5**
AKAS	**Kas**	**0.85**	**156**	*i* P	**Pg**	**04 08 23.6**	**-0.9**
AKAS				*i* S	**Sg**	**04 08 37.7**	**+2.2**
AKAS	**Kas**	**0.85**	**156**	*i* P	**Pg**	**04 08 23.6**	**-0.9**
AKAS				*i* S	**Sg**	**04 08 37.7**	**+2.2**
KSL	**Kastellorizon**	**0.92**	**159**	*e*P	**Pg**	**04 08 26.5**	**+0.7**
MLSB	**Milas**	**1.16**	**285**	*e*PN	**Pn**	**04 08 30.3**	**-0.8**
MLSB	**Milas**	**1.16**	**285**	*e*Pn	**Pn**	**04 08 30.3**	**-0.7**
ARG	**Arkhangelos**	**1.16**	**227**	*e*P	**Pg**	**04 08 29.4**	**-1.1**
BCK	**Bucak**	**1.21**	**68**	*e*PN	**Pn**	**04 08 30.9**	**-0.9**
BCK	**Bucak**	**1.21**	**68**	*e*Pn	**Pn**	**04 08 30.9**	**-0.9**
AYDN	**Tasoluk**	**1.22**	**302**	*i* P	**Pg**	**04 08 32.1**	**+0.4**
AYDN				*i* S	**Sg**	**04 08 48.0**	**+0.4**
AYDN	**Tasoluk**	**1.22**	**302**	*i* S	**Sg**	**04 08 48.0**	**+0.4**
AYDN	**Tasoluk**	**1.22**	**302**	*i* P	**Pg**	**04 08 32.1**	**+0.4**
DAT	**Datca**	**1.31**	**258**	*e*PN	**Pn**	**04 08 32.6**	**-0.6**
DAT	**Datca**	**1.31**	**258**	*e*Pn	**Pn**	**04 08 32.6**	**-0.6**
ISP	**Isparta**	**1.35**	**51**	*e*PN	**Pn**	**04 08 33.4**	**-0.2**
ISP	**Isparta**	**1.35**	**51**	*e*Pn	**Pn**	**04 08 33.4**	**-0.2**
KHAL	**Karahalli**	**1.38**	**10**	*i* P	**Pn**	**04 08 34.1**	**0.0**
KHAL				*i* S	**Sb**	**04 08 54.7**	**+2.3**
KHAL	**Karahalli**	**1.38**	**10**	*i* P	**Pn**	**04 08 34.1**	**0.0**
BDRM	**Kayabasi**	**1.39**	**273**	*i* P	**Pn**	**04 08 34.4**	**+0.1**
BDRM				*i* S	**Sb**	**04 08 54.0**	**+1.3**
BDRM	**Kayabasi**	**1.39**	**273**	*i* P	**Pn**	**04 08 34.4**	**+0.2**
BODT	**Bodrum**	**1.50**	**273**	*e*PN	**Pn**	**04 08 34.9**	**-0.8**
BODT	**Bodrum**	**1.50**	**273**	*e*Pn	**Pn**	**04 08 34.9**	**-0.8**
KULA	**Kula-Manisa**	**1.56**	**345**	*e*PN	**Pn**	**04 08 35.4**	**-1.1**
KULA	**Kula-Manisa**	**1.56**	**345**	*e*Pn	**Pn**	**04 08 35.4**	**-1.1**
GCAM	**G?zelcaml?**	**1.70**	**295**	*i* P	**Pn**	**04 08 39.4**	**+1.0**
GCAM				*i* S	**Sn**	**04 09 00.8**	**+0.2**
GCAM	**G?zelcaml?**	**1.70**	**295**	*i* P	**Pn**	**04 08 38.7**	**+0.2**
GCAM				*i* S	**Sn**	**04 09 01.6**	**+1.1**
GCAM	**G?zelcaml?**	**1.70**	**295**	*i* P	**Pn**	**04 08 38.7**	**+0.2**
GCAM				*i* S	**Sn**	**04 09 00.8**	**+0.3**
SHUT	**Suhut-Afyon**	**1.89**	**35**	*e*PN	**Pn**	**04 08 41.4**	**+0.3**
SHUT	**Suhut-Afyon**	**1.89**	**35**	*e*Pn	**Pn**	**04 08 41.4**	**+0.4**
IZM	**Izmir**	**2.06**	**313**	*e*PN	**Pn**	**04 08 43.0**	**-0.4**
IZM	**Izmir**	**2.06**	**313**	*e*Pn	**Pn**	**04 08 43.0**	**-0.4**
GDZ	**Gediz**	**2.09**	**6**	*i* P	**Pn**	**04 08 44.1**	**+0.2**
GDZ				*i* S	**Sn**	**04 09 09.1**	**-1.1**
GDZ	**Gediz**	**2.09**	**6**	*i* P	**Pn**	**04 08 44.1**	**+0.2**
ALT	**Altintas**	**2.17**	**20**	*e*PN	**Pn**	**04 08 44.1**	**-0.8**
ALT	**Altintas**	**2.17**	**20**	*e*Pn	**Pn**	**04 08 44.1**	**-0.9**
KARP	**Karpathos**	**2.19**	**229**	*e*P	**Pn**	**04 08 46.2**	**+1.0**
HDMB	**Hadim**	**2.65**	**90**	*e*PN	**Pn**	**04 08 51.9**	**+0.4**
HDMB	**Hadim**	**2.65**	**90**	*e*Pn	**Pn**	**04 08 51.9**	**+0.4**
KONT	**Konya--Tatoy**	**2.70**	**69**	*e*PN	**Pn**	**04 08 51.9**	**-0.3**

KONT	Konya--Tatoy	2.70	69	ePn	Pn	04 08 51.9	-0.3
KDHN	Kadinhani	2.77	56	i P	Pn	04 08 54.6	+1.3
KDHN				i S	Sn	04 09 26.4	-0.7
KDHN	Kadinhani	2.77	56	i P	Pn	04 08 54.6	+1.3
KDHN				i S	Sn	04 09 26.4	-0.7
KIZT	Kizilcal	2.83	48	ePN	Pn	04 08 54.7	+0.6
KIZT	Kizilcal	2.83	48	ePn	Pn	04 08 54.7	+0.6
NPS	Neapolis	3.37	240	eP	Pn	04 09 01.8	+0.3

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*NEIC **06** 04:09:13.6, 16°.55N×99°.49W, h20^{km}, MD3.9(MEX), After MEX.*

MEX 06 04:09:13.6±1.0, 16°.55N×99°.49W, h20^{km}±7^{km}, MD3.9, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	Acapulco	0.52	308	i P	Pb	04 09 21.8	-2.3
ACX				i S	Sb	04 09 28.4	-2.8
CAIG	El Cayaco	0.90	304	i P	Pb	04 09 28.0	-2.6
CAIG				i S	Sb	04 09 39.8	-2.4
PNIG	Pinotepa	1.31	96	i P	Pn	04 09 33.8	-3.0
PNIG				i S	Sn	04 09 49.2	-4.5
MEIG	Mezcala	1.38	355	i P	Pn	04 09 35.0	-2.7
MEIG				i S	Sn	04 09 51.4	-3.9
PLIG	Platanillo	1.84	359	eP	Pn	04 09 41.7	-2.4
PLIG				i S	Sn	04 10 02.7	-4.0
PPM	Popocatepetl	2.64	18	eP	Pn	04 09 55.0	-0.1
PPM				i S	Sn	04 10 23.9	-2.5
MZVM		2.64	5	i P	Pn	04 09 53.6	-1.5
VHO	Vista Hermosa	2.69	78	i P	Pn	04 09 54.4	-1.3
VHO				i S	Sn	04 10 26.3	-1.4
TPIG	Tehuac#an	2.75	47	eP	Pn	04 10 00.7	+4.0
TPIG				i S	Sn	04 10 24.6	-4.7
PTVM	Pico Tres Padr	3.05	7	eP	Pn	04 10 00.3	-0.4
PTVM				i S	Sn	04 10 32.7	-4.0
IIO	Organos	3.12	13	i P	Pn	04 09 58.6	-3.0
IIO				i S	Sn	04 10 34.3	-3.9
HUIG	Huatulco	3.34	103	eP	Pn	04 10 03.6	-1.1
HUIG				i S	Sn	04 10 37.7	-6.0
CMIG	Matias Romero	4.44	82	eP	Pn	04 10 17.7	-2.1
CMIG				i S	Sn	04 11 09.0	-1.9

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*ATH **06** 04:37:00.5, 35°.55N×27°.53E, h31^{km}, MD3.1/3*
*ISCJB **06** 04:37:02.2±0.7, 35°.86N±0°.04×27°.19E±0°.07, h15^{km}±8^{km}, Error ellipse: s-maj=9.7km s-min=5.5km az=16.1*
*CSEM **06** 04:37:02.5±0.4, 35°.86N×27°.17E, h20^{km}, MD3.1, Error ellipse: s-maj=12.2km s-min=6.6km az=109.0*
*ISK **06** 04:37:02.2, 35°.78N×27°.23E, h29^{km}, MD3.1*
*DDA **06** 04:37:04.5, 36°.12N×27°.57E, h7^{km}±6^{km}, Md3.1*

ISC 06 04:37:02.0±0.6, 35°.81N±0°.05×27°.38E±0°.06, h19^{km}±5^{km}, n23, σ0^{s}.85/36, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.31	214	ePB	Pg	04 37 08.2	-0.6
KARP				eSB	Sg	04 37 13.9	+0.5
KARP	Karpathos	0.31	214	ePb	Pg	04 37 08.2	-0.6
KARP				eSb	Sg	04 37 13.9	+0.5
ARG	Arkhangelos	0.73	56	ePN	Pg	04 37 16.9	+0.5
ARG	Arkhangelos	0.73	56	ePn	Pg	04 37 16.9	+0.5
DAT	Datca	0.94	10	ePG	Pg	04 37 20.1	-0.1
DAT				eSG	Sg	04 37 33.9	+1.2
DAT	Datca	0.94	10	ePg	Pg	04 37 20.1	-0.2
DAT				eSg	Sg	04 37 33.9	+1.3
BODT	Bodrum	1.26	358	ePN	Pn	04 37 24.8	+0.2
BODT				eSN	Sn	04 37 41.1	+0.2
BODT	Bodrum	1.26	358	ePn	Pn	04 37 24.8	+0.2
BODT				eSn	Sn	04 37 41.1	+0.2
BDRM	Kayabasi	1.26	2	i P	Pn	04 37 22.6	-2.0
BDRM				i S	Sb	04 37 40.1	-0.8
BDRM	Kayabasi	1.26	2	i P	Pn	04 37 22.6	-2.0
BDRM				i S	Sb	04 37 40.2	-0.8
DALT	Dalyan (Mudla)	1.40	46	ePN	Pg	04 37 28.5	-0.6
DALT				eSN	Sg	04 37 46.6	-0.7
DALT	Dalyan (Mudla)	1.40	46	ePn	Pg	04 37 28.5	-0.6
DALT				eSn	Sg	04 37 46.6	-0.8
TURN	Turunc	1.46	43	i P	Px	04 37 23.9	
TURN				i S	Sx	04 37 41.9	
YER	Yerkesik	1.52	29	ePN	Pn	04 37 29.8	+1.6
YER	Yerkesik	1.52	29	ePn	Pn	04 37 29.8	+1.7
NPS	Neapolis	1.54	250	ePN	Pn	04 37 28.2	-0.2
NPS	Neapolis	1.54	250	ePn	Pn	04 37 28.2	-0.2
FETY	Fethiye	1.61	59	ePN	Pn	04 37 30.3	+0.9
FETY	Fethiye	1.61	59	ePn	Pn	04 37 30.3	+0.9
AKAS	Kas	1.86	76	i P	Pg	04 37 36.6	-1.2
AKAS				i S	Sg	04 38 02.3	+0.4
AKAS	Kas	1.86	76	i P	Pg	04 37 36.6	-1.1
AKAS				i S	Sg	04 38 02.3	+0.4
AYDN	Tasoluk	1.90	12	i P	Pn	04 37 34.1	+0.8
AYDN				i S	Sn	04 37 56.4	-0.3
AYDN	Tasoluk	1.90	12	i P	Pn	04 37 34.1	+0.7
AYDN				i S	Sn	04 37 56.4	-0.3

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*BJI **06** 04:43:15.9, 4°.00S×100°.65E, h25^{km}, mB4.9/3, mb4.8/8*
*IDC **06** 04:43:18.0±1.4, 3°.50S×100°.60E, h0^{km}, mb4.2/8, mb1 4.2/9, mb1mx4.0/22, mbtmp4.1/9, ML3.5/1, MS3.5/2, Ms1 3.6/2, ms1mx2.8/28, Error ellipse: s-maj=42.4km s-min=17.6km az=51.0*
*ISCJB **06** 04:43:20.5±0.8, 3°.58S±0°.10×100°.3E±0°.1, h33^{km}, mb4.3/14, MS3.3/2, Error ellipse: s-maj=17.4km s-min=10.8km az=138.9*
*NEIC **06** 04:43:20.9±5.4, 3°.57S×100°.56E, h22^{km}±34^{km}, mb4.5/5, Error ellipse: s-maj=31.7km s-min=10.7km az=47.0*
*DJA **06** 04:43:22, 1°.17S×103°.13E, h80^{km}, MLv4.5/5*

ISC 06 04:43:23.3±0.8, 3°.5S±0°.1×100°.5E±0°.1, h35^{km}, n29, σ0^{s}.83/26, mb4.3/14, MS3.3/2, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRJI	Kerinci	1.68	34	P	Pn	04 43 50.7	+0.5
KRJI				S	Sn	04 44 20.2	+10
KSI	Kapahiang	2.08	95	P	Pn	04 43 59.5	+3.8
KSI				S	Sn	04 44 34.2	+14
PDSI	Padang	2.56	359	P	Pn	04 44 02.1	-0.2
MNAI	Manna	2.59	110	P	Pn	04 44 12.3	+10
PPI	Padang Panjang	3.01	358	P	Pn	04 44 08.7	+0.1
PSI	Prapat	6.45	346	Pn	Pn	04 44 54.4	-1.4
	1.1nm,0.3s,baz=128,slow=6.2,SNR=4.9						
CMAR	Chiang Mai Arr	21.86	356	P	P	04 48 11.9	-1.2
	4.8nm,0.8s,mb4.0,baz=186,slow=8.8,SNR=20						
CMAR				LR	LR	04 58 31.5	
	comp=Z,104nm,18.2s,MS3.3,baz=190,slow=42						
DAV	Davao City (W)	27.13	67	P	P	04 49 01.9	-1.5
	504nm,0.4s,baz=39,slow=5.3,SNR=5.4						
FITZ	Fitzroy Crossi	28.57	122	LR	LR	05 00 25.1	
	comp=Z,78nm,18.8s,MS3.3,baz=324,slow=36						
SHL	Shillong	30.07	344	ePKP	P	04 49 30.0	+0.6
WRA	Warramunga Arr	36.81	119	P	P	04 50 27.0	-1.2
	0.4nm,0.3s,mb3.7,baz=306,slow=8.5,SNR=10						
ASAR	Alice Springs	37.98	125	P	P	04 50 37.4	-0.7
	1.0nm,0.5s,mb3.8,baz=301,slow=8.6,SNR=7.7						
LZH	Lanzhou	39.49	4	eP	P	04 50 50.3	-0.2
LZH				pP	pP	04 50 55.0	-5.8
LZH				sP	sP	04 50 58.3	-6.6
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.6						
LZH				pmax	pmax		
	comp=Z,97nm,5.0s						
KSRS	Korea Array	48.04	30	P	P	04 51 57.8	-1.5
	comp=Z,4.3nm,1.0s,mb4.4,baz=219,slow=8.2,SNR=8.3						
SONM	Songino Array	51.37	5	P	P	04 52 25.6	+1.3
	comp=Z,8.1nm,0.8s,mb4.7,baz=186,slow=9.2,SNR=65						
TKM2	Tokmak 2	51.39	337	eP	P	04 52 25.4	+0.8
	comp=Z,4.3nm,0.7s,mb4.5						
ULN	Ulaanbaatar	51.46	6	eP	P	04 52 25.6	+0.5
	comp=Z,6.4nm,0.9s,mb4.5						
EKS2	Erkin-Say	51.92	335	eP	P	04 52 29.5	+0.9
	comp=Z,4.8nm,0.8s,mb4.5						
MK31	Makanchi Array	52.59	344	eP	P	04 52 34.0	+0.5
MK31				epP	pP	04 52 41.7	-2.3
MKAR	Makanchi Array	52.59	344	P	P	04 52 34.0	+0.5
	comp=Z,4.7nm,0.8s,mb4.5,baz=148,slow=7.8,SNR=45						
KURK	Kurchatov	57.17	344	eP	P	04 53 06.6	+0.1
	comp=Z,6.4nm,0.9s,mb4.7						
ZAA0	Zalesovo Array	58.72	349	eP	P	04 53 17.4	+0.1
ZALV	Zalesovo Beam	58.72	349	P	P	04 53 17.0	-0.3
	comp=Z,8.5nm,0.9s,mb4.8,baz=164,slow=6.0,SNR=27						
BRVK	Borovoye	61.81	340	eP	P	04 53 38.5	0.0
	comp=Z,1.5nm,0.5s,mb4.4						
BRTR	Keskin Array B	74.70	313	P	P	04 54 59.5	-0.1
	comp=Z,0.4nm,0.8s,mb3.4,baz=130,slow=6.7,SNR=4.4						
WMOK	Wichita Mounta	144.11	28	ePKPdf	PKPdf	05 02 53.4	-2.6
WCI	Wyandotte Cave	144.87	9	ePKPdf	PKPdf	05 02 56.1	-1.0
TXAR	Lajitas Array	145.55	39	PKPbc	PKPbc	05 02 59.7	+1.0
	comp=Z,4.0nm,0.8s,baz=293,slow=1.5,SNR=40						
JCT	Junction City	147.00	33	ePKPbc	PKPbc	05 03 03.1	+0.2

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*ISCJB **06** 05:05:19.0±2.1, 42°.5N±0°.2×79°.3E±0°.2, h10^{km}, Error ellipse: s-maj=28.5km s-min=7.2km az=148.7*
*NNC **06** 05:05:23.4±1.0, 43°.23N×78°.75E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=16.0km s-min=3.3km az=147.0*

ISC 06 05:05:20.5±2.1, 42°.5N±0°.2×79°.2E±0°.1, h10^{km}, n12, σ1^{s}.01/11, 3C-2D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULHL	Ulahol	2.22	265	P	Pn	05 05 55.3	-2.0
	SNR=99						
TKM2	Tokmak 2	2.71	281	P	Pn	05 06 03.7	-0.3
	SNR=10						
TKM2	Tokmak 2	2.71	281	⇑Pn	Pn	05 06 03.4	-0.6
	15nm,0.4s						
TKM2				⇓Lg		05 06 37.5	
	89nm,0.8s						
KZA	Kyzart	2.97	264	P	Pn	05 06 07.9	+0.2
	SNR=20						
KBK	Karagaybulak	3.16	275	P	Pn	05 06 10.8	+0.5
	SNR=18						
AAK	Ala-Archa	3.49	274	P	Pn	05 06 19.8	+5.0
	SNR=9.7						
USP	Ospenovka	3.56	284	P	Pn	05 06 18.2	+2.5
	SNR=11						
EKS2	Erkin-Say	4.02	274	P	Sb	05 07 19.7	-0.4
	SNR=5.8						
MK31	Makanchi Array	4.84	26	Pn	Pn	05 06 33.6	+0.3
	0.5nm,0.3s,baz=212,slow=10.0,SNR=132						
MK31				⇑Sn	Sn	05 07 28.9	-0.5
	1.9nm,0.5s,baz=204,slow=21,SNR=6.7						
MK31				Lg		05 07 42.6	
	5.8nm,0.6s,baz=206,slow=32,SNR=5.2						
KK31	Karatay Array	6.44	279	Pg	Pb	05 07 12.7	+0.2
	2.0nm,0.7s,baz=89,slow=16,SNR=14						
KK31				⇓Lg		05 08 32.4	
	12nm,0.9s,baz=89,slow=30,SNR=10						
KURBB	Kurchatov Arra	8.16	357	Lg		05 09 16.9	
	1.4nm,0.6s						
KURK	Kurchatov	8.25	357	⇑Lg		05 09 21.8	
	8.1nm,1.2s						

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*MOS **06** 05:12:22.5±0.9, 2°.00N×127°.03E, h33^{km}, mb5.5/23, Error ellipse: s-maj=13.4km s-min=6.3km az=117.5*
*BJI **06** 05:12:23.0, 1°.66N×127°.06E, h52^{km}, mB5.2/31, mb5.0/47, Ms4.7/30, Ms7 4.4/29*
*GCMT **06** 05:12:29.0±0.3, 2°.00N×127°.09E, h95^{km}±3^{km}, MW5.0/67, Moment Tensor Solution. s35,c38; s67,c103; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.08±.18; $M_{\theta\theta}$2.14±.15; $M_{\phi\phi}$-2.05±.19; $M_{r\theta}$-1.30±.09; $M_{\theta\phi}$2.33±.14; $M_{\phi r}$-2.49±.11; Best double couple: $M_0$4.19800×10^{16} NP1:ϕ_s292.00000°, δ48.00000°, λ0.00000°. NP2: ϕ_s202.00000°, δ90.00000°, λ138.00000°. Principal axes: T 4.3750, Plg28.0000°, Azm149.0000°; N -0.3460, Plg48.0000°, Azm22.0000°; P -4.0210, Plg28.0000°, Azm255.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **06** 05:12:29.0±0.9, 1°.92N×127°.06E, h79^{km}±8^{km}, mb5.4/29 Error ellipse: s-maj=8.6km s-min=4.5km az=66.0*
NEIC Felt [III] on Ternate.
*IDC **06** 05:12:30.4±1.3, 1°.89N×126°.97E, h91^{km}±10^{km}, mb4.7/19, mb1 4.7/21, mb1mx4.7/25, mbtmp4.7/21, MS3.7/6, Ms1 3.8/6, ms1mx3.3/27, Error ellipse: s-maj=18.7km s-min=8.6km az=70.0*
*ISCJB **06** 05:12:30.2±0.4, 1°.99N±0°.02×127°.10E±0°.03, h104^{km}±3^{km}, mb5.2/100, Error ellipse: s-maj=5.3km s-min=3.3km az=171.9*
*DJA **06** 05:12:32, 2°.05N×127°.09E, h100^{km}, mb5.5/42*

ISC 06 05:12:31.5±0.3, 1°.96N±0°.02×127°.08E±0°.03, h98^{km}±3^{km}, h43^{km}±1.8^{km}:pP-P, n285, σ1^{s}.14/302, mb5.2/100, 12C-26D, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.22	166	P	Pn	05 12 55.5	+1.3
TNTI				S	Sn	05 13 13.4	+2.0
MNI	Manado	2.29	257	P	Pn	05 13 08.1	+0.3
MNI				S	Sn	05 13 36.1	+0.5
SGSI	Sangihe	2.31	318	P	Pn	05 13 06.7	-1.3
SGSI				S	Sn	05 13 34.9	-1.1
LBMI	Labuha	2.62	171	P	Pn	05 13 16.4	+4.3
GSPH	General Santos	4.62	333	i P	Pn	05 13 37.0	-2.0
MATI	Mati	5.02	351	eP	Pn	05 13 43.4	-1.1
SWI	Sorong	5.04	124	P	Pn	05 13 46.0	+1.3
	223nm,0.9s,3µm0.6nm						
DAV	Davao City (W)	5.29	344	P	Pn	05 13 47.4	-0.7
	150nm,0.3s,baz=144,slow=6.6,SNR=15						
DAV				S	Sn	05 14 48.7	+0.8
	218nm,0.3s,baz=28,slow=23,SNR=4.3						
DAV				LR	LR	05 15 34.1	
	comp=Z,611nm,18.7s,baz=173,slow=34						
KCP	Kidapawan	5.39	339	⇓eP	Pn	05 13 49.4	-0.1
MSAI	Masohi	5.59	161	P	Pn	05 13 55.9	+3.7
	579nm,0.9s,1.5nm						
AAI	Ambon	5.72	169	P	Pn	05 13 55.7	+1.7
	567nm,0.8s,5µm1.8nm						
CTBH	Cotabato--PC H	5.94	332	⇑eP	Pn	05 13 56.1	-0.8
CTBH				i S	Sn	05 15 00.7	-2.9
BUKP	Musuan	6.21	341	eP	Pn	05 13 60.0	-0.7
BIPH	Bislig	6.22	353	⇓eP	Pn	05 14 00.7	-0.1
BIPH				eS	Sn	05 15 11.1	+0.5
PAGZ	Pagadian	6.91	328	eP	Pn	05 14 08.5	-1.7
ZMPH	Zamboanga City	7.04	315	⇓i P	Pn	05 14 10.9	-1.1
ZMPH				i S	Sn	05 15 24.6	-5.9
BUTP	Butuan	7.11	348	eP	Pn	05 14 14.0	+1.1
BUTP				eS	Sn	05 15 36.2	+4.0
IPIL	Ipil	7.32	322	eP	Pn	05 14 15.0	-0.8
KDI	Kendari	7.37	217	⇓eP	Pn	05 14 15.4	-1.1
KDI				eS	Sn	05 15 33.8	-4.8
KDI	Kendari	7.37	217	P	Pn	05 14 15.8	-0.7
	516nm,0.7s,3.4nm						
PCI	Palu	7.78	249	⇓eP	Pn	05 14 21.5	-0.5
PCI	Palu	7.78	249	P	Pn	05 14 21.9	-0.1
	442nm,0.9s,1.4nm						
PCI	Palu	7.78	249	i S	Pn	05 14 24.0	+2.0
SCPH	Surigao	7.93	349	eP	Pn	05 14 23.8	-0.3
SCPH				eS	Sn	05 15 47.5	-4.6
MSLP	Maasin	8.41	345	eP	Pn	05 14 31.0	+0.4
MYLDM	Lahad Datu	9.13	291	P	Pn	05 14 43.0	+2.5
MYLDM	Lahad Datu	9.13	291	P	Pn	05 14 42.8	+2.3
	367nm,1.1s						
TSM	Tawau	9.48	284	P	Pn	05 14 45.5	+0.4
BAKI	Biak	9.56	109	P	Pn	05 14 50.8	+4.6
	840nm,1.4s						
GUIM	Jordan	9.69	333	eP	Pn	05 14 48.1	0.0
KAPI	Kappang	10.07	227	Pn	Pn	05 14 51.6	-1.7
	2µm,0.4s,SNR=22						
KAPI	Kappang	10.07	227	ePn	Pn	05 14 51.2	-2.1
	194nm,0.7s						
KAPI				eSn	Sn	05 16 41.0	-3.4
SMKI	Samarinda	10.15	256	P	Pn	05 14 55.7	+1.4
	413nm,0.9s						
RCP	Roxas	10.46	336	⇓eP	Pn	05 14 58.9	+0.4
SDKM	Sandakan	10.51	291	P	Pn	05 14 59.4	+0.1
BATP	Bataraza	11.46	307	eP	Pn	05 15 16.1	+4.0
KKM	Kota Kinabalu	11.57	291	P	Pn	05 15 15.3	+1.8
KKM	Kota Kinabalu	11.57	291	ePn	Pn	05 15 09.8	-3.7
	90nm,0.8s						
KKM				eSn	Sn	05 17 16.1	-4.7
KKM	Kota Kinabalu	11.57	291	P	Pn	05 15 15.4	+1.9
	118nm,1.0s,1µm						
BBKI	Banjar Baru	13.36	246	P	Pn	05 15 37.1	-0.2
	250nm,1.2s,4µm						
PLKI	Palangkaraya	13.77	252	P	Pn	05 15 42.2	-0.4
	659nm,1.0s,5µm						
BTM	Bintulu	14.03	275	P	Pn	05 15 46.3	+0.3
JAY	Jayapura	14.33	108	P	Pn	05 15 42.0	-7.9
SBUM	Sibu	14.85	272	P	Pn	05 15 57.3	+0.7
SBUM	Sibu	14.85	272	P	Pn	05 15 56.5	0.0
	371nm,1.0s,4µm						
KHKI	Kahang-Kahang	15.36	228	P	Pn	05 16 03.8	+0.9
	262nm,1.1s						
KAKA	Kakadu	15.52	160	eP	Pn	05 16 02.0	-2.9
	47nm,0.7s						
KAKA				e		05 16 06.6	
KAKA	Kakadu	15.52	160	ePn	Pn	05 16 01.8	-3.2
	2µm,1.2s						
KAKA				eS	S	05 19 05.7	0.0
KAKA	Kakadu	15.52	160	P	Pn	05 16 02.3	-2.6
	439nm,1.2s,3µm						
KMMI	Kalianget	15.85	236	P	Pn	05 16 10.4	+1.3
	1µm,0.9s						
DNP	Denpasar	15.86	228	P	Pn	05 16 14.1	+4.9
	2µm,1.1s						
IGBI	Denpasar	16.00	228	P	Pn	05 16 13.7	+2.8
	679nm,1.1s						
NBBI	Negara	16.11	230	P	Pn	05 16 16.3	+4.0
	624nm,0.8s,6µm						
KSM	Kuching	16.77	269	P	Pn	05 16 20.8	+0.4
KSM	Kuching	16.77	269	eP	Pn	05 16 19.7	-0.7
	117nm,1.0s						
KSM	Kuching	16.77	269	P	Pn	05 16 20.4	0.0
	132nm,1.1s,2µm						
TRT	Tretes	17.31	236	⇑eP	Pn	05 16 28.0	+0.9
KRKI	Karangkates	17.71	235	⇓i P	Pn	05 16 33.7	+1.8
KRKI	Karangkates	17.71	235	P	Pn	05 16 33.2	+1.3
SJI	Sawahan	18.05	238	P	Pn	05 16 35.5	-0.6
	281nm,0.8s,3µm						
UGM	Wanagama	19.20	239	P	Pn	05 16 49.1	-0.6
	290nm,1.0s						
TPI	Tanjungpandan	19.97	256	P	Pn	05 16 55.5	-3.3
	110nm,1.1s,1µm						
FITZ	Fitzroy Crossi	19.98	184	eP	Pn	05 16 54.8	-4.0
	48nm,0.9s						
FITZ				eS	S	05 20 30.4	-5.3
FITZ				eSCP	ScP	05 24 35.8	-0.7
FITZ	Fitzroy Crossi	19.98	184	P	Pn	05 16 55.0	-3.8
	2.1nm,0.3s,baz=22,slow=9.7,SNR=41						
FITZ				S	S	05 20 28.9	-6.8
	0.2nm,0.3s,baz=195,slow=12,SNR=4.1						
FITZ				ScP	ScP	05 24 35.7	-0.7
	0.3nm,0.3s,baz=311,slow=6.1,SNR=4.3						
FITZ	Fitzroy Crossi	19.98	184	P	Pn	05 16 55.0	-3.8
	104nm,1.1s						
LEM	Lembang	21.29	246	P	P	05 17 13.1	+2.8
	125nm,0.9s,mb5.2						
TWG	Pinlang	21.54	345	eP	P	05 17 10.3	-2.6
	62nm,0.6s,mb5.1						
CBJI	Citeko	21.84	247	P	P	05 17 16.1	-0.1
	274nm,0.8s,mb5.6						
TPUB	Ta-pu	22.11	344	eP	P	05 17 16.7	-2.3
	74nm,0.6s,mb5.2						
COEN	Coen	22.47	135	eP	P	05 17 20.0	-2.8
	381nm,1.0s,mb5.7						
COEN	Coen	22.47	135	P	P	05 17 20.0	-2.8
	184nm,1.0s,mb5.3						
WRAB	Tennant Creek	22.90	162	P	P	05 17 25.0	-2.1
	4µm,0.5s						
WRAB	Tennant Creek	22.90	162	eP	P	05 17 25.7	-1.4
WRAB				pmax	pmax		
	comp=Z,386nm,0.8s,mb5.8						
WRAB	Tennant Creek	22.90	162	eP	P	05 17 25.7	-1.4
	comp=Z,386nm,0.8s,mb5.8						
WRAB	Tennant Creek	22.90	162	P	P	05 17 25.6	-1.5
	comp=Z,613nm,0.8s,mb6.0						
WRA	Warramunga Arr	22.90	162	P	P	05 17 25.6	-1.5
WRA				S	S	05 21 26.1	-3.4
WRA	Warramunga Arr	22.90	162	P	P	05 17 25.6	-1.5
	comp=Z,61nm,0.5s,mb5.2,baz=339,slow=11,SNR=256						
WRA				S	S	05 21 26.1	-3.4
	comp=Z,9.3nm,0.9s,baz=343,slow=18,SNR=6.8						
WRA				ScP	ScP	05 24 42.7	-1.0
	comp=Z,4.6nm,0.8s,baz=340,slow=2.8,SNR=7.6						
WRA	Warramunga Arr	22.90	162	P	P	05 17 25.6	-1.5
WRA				S	S	05 21 26.1	-3.4
WRA				ScP	ScP	05 24 42.7	-1.0
MYKOM	Kota Tinggi	23.21	270	P	P	05 17 30.2	+0.1
MYKOM	Kota Tinggi	23.21	270	P	P	05 17 30.0	-0.1
	comp=Z,101nm,1.0s,comp=Z,1µm,mb5.1						
KGM	Kluang	23.74	271	P	P	05 17 35.0	+0.1
QIZ	Qiongzhong	23.93	316	P	P	05 17 33.5	-3.1
QIZ				S	S	05 21 44.9	-1.2
QIZ				LR	LR		
	comp=N,520nm,20.7s						
QIZ				LR	LR		
	comp=E,550nm,21.3s						
QIZ				LR	LR		
	comp=Z,310nm,15.4s						
MBWA	Marble Bar	24.07	197	eP	P	05 17 36.9	-0.9
	comp=Z,60nm,0.8s,mb5.0						
MBWA	Marble Bar	24.07	197	⇓P	P	05 17 37.6	-0.2
	SNR=5.8						
MBWA				⇓P		05 17 37.6	
	SNR=5.8						
MBWA	Marble Bar	24.07	197	P	P	05 17 37.4	-0.4
	comp=Z,86nm,1.1s,mb5.0						
KTGM	Kuala Trenggan	24.12	279	P	P	05 17 38.3	-0.1
XMIS	Christmas Isla	24.64	239	eP	P	05 17 42.1	-1.0
	comp=Z,235nm,0.9s,mb5.6						
XMIS	Christmas Isla	24.64	239	P	P	05 17 42.9	-0.2
	comp=Z,464nm,1.4s,mb5.7						
MNAI	Manna	24.91	255	P	P	05 17 47.6	+2.1
	comp=Z,243nm,0.9s,mb5.6						
KSI	Kapahiang	25.10	257	P	P	05 17 49.9	+2.6
	comp=Z,172nm,0.7s,mb5.6						
FRIM	Kepong	25.45	273	P	P	05 17 50.5	0.0
IPM	Ipoh	26.13	276	P	P	05 17 55.7	-0.9
IPM	Ipoh	26.13	276	P	P	05 17 55.6	-1.0
	comp=Z,36nm,1.0s,mb4.8						
ASAR	Alice Springs	26.32	166	P	P	05 17 57.2	-1.0
ASAR				S	S	05 22 17.7	-6.3
ASAR	Alice Springs	26.32	166	P	P	05 17 57.2	-1.0
	comp=Z,16nm,0.8s,mb4.5,baz=334,slow=5.9,SNR=110						
ASAR				S	S	05 22 17.7	-6.3
	comp=Z,1.8nm,0.8s,baz=343,slow=17,SNR=2.5						
ASAR				ScP	ScP	05 24 52.5	-0.6
	comp=Z,3.5nm,0.8s,baz=345,slow=2.6,SNR=7.0						
ASAR	Alice Springs	26.32	166	P	P	05 17 57.2	-1.0
ASAR				S	S	05 22 17.7	-6.3
ASAR				ScP	ScP	05 24 52.5	-0.6
KULM	Kulim	26.57	278	P	P	05 17 59.6	-1.0
PPI	Padang Panjang	26.78	265	P	P	05 18 02.1	-0.4
	comp=Z,21nm,1.1s,mb4.6						
PSI	Prapat	28.14	272	P	P	05 18 12.9	-1.7
	comp=Z,25nm,0.9s,mb4.8,baz=137,slow=1.8,SNR=15						
CTA	Charters Tower	28.88	140	eP	P	05 18 21.3	+0.2
	comp=Z,20nm,1.1s,mb4.7						
CTA				e		05 18 26.7	
CTA				eSCP	ScP	05 25 02.0	+0.9
CTA	Charters Tower	28.88	140	P	P	05 18 21.6	+0.5
	comp=Z,19nm,0.9s,mb4.7,baz=318,slow=11,SNR=13						
CTA				ScP	ScP	05 25 01.7	+0.7
	comp=Z,12nm,0.7s,baz=339,slow=1.8,SNR=8.3						
CTAO	Charters Tower	28.88	140	eP	P	05 18 20.1	-1.0
CTAO				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.0						
CTAO	Charters Tower	28.88	140	eP	P	05 18 20.1	-1.0
	comp=Z,46nm,1.1s,mb5.0						
CTAO	Charters Tower	28.88	140	P	P	05 18 21.7	+0.6
	comp=Z,48nm,1.2s,mb5.0						
GSI	Gunungsitoli	29.49	269	P	P	05 18 25.1	-1.6
	comp=Z,95nm,1.0s,mb5.4						
WHN	Wuhan	30.88	338	⇑P	P	05 18 48.5	+10
NJ2	Nanjing	30.92	346	eP	P	05 18 41.1	+2.1
NJ2				pP	pP	05 18 52.5	-8.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
GYA	Guiyang	31.27	323	⇑i P	P	05 18 43.6	+1.5
GYA				pP	pP	05 18 56.3	-8.0
GYA				sP	sP	05 19 01.4	-14
GYA				PP	PP	05 19 48.7	-5.9
GYA				PcP	PcP	05 21 37.0	+2.6
GYA				S	S	05 23 47.5	+5.7
GYA				sS	sS	05 24 08.7	-11
GYA				PcS	PcS	05 25 15.7	-3.2
GYA				SS	SS	05 25 36.8	-23
GYA				pmax	pmax		
	comp=Z,90nm,0.8s,mb5.5						
GYA				pmax	pmax		
	comp=Z,1µm,4.6s						
GYA				LR	LR		
	comp=N,3µm,15.4s						
GYA				LR	LR		
	comp=E,3µm,16.2s						
GYA				LR	LR		

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      comp=Z,4µm,16.0s
BSI   Banda Aceh      31.90 277  P       P        05 18 45.1  -2.8
      comp=Z,30nm,1.3s,mb4.9
CMAR  Chiang Mai Arr  32.08 303  P       P        05 18 48.9  -0.5
      comp=Z,14nm,0.8s,mb4.8,baz=119,slow=7.1,SNR=66
CMAR                             ScP     ScP      05 25 12.1  +0.5
      comp=Z,0.6nm,0.4s,baz=194,slow=0.6,SNR=5.4
CMAR                             LR      LR       05 31 26.9
      comp=Z,107nm,21.1s,baz=4.7,slow=36
CHG   Chiang Mai      32.25 303 ⇓P       P        05 18 50.3  -0.5
CHTO  Chiang Mai      32.25 303 eP       P        05 18 50.3  -0.5
CHTO                             pmax    pmax
      comp=Z,61nm,1.3s,mb5.2
CHTO  Chiang Mai      32.25 303 eP       P        05 18 50.3  -0.5
      comp=Z,61nm,1.3s,mb5.2
CHTO  Chiang Mai      32.25 303 ⇓P       P        05 18 50.3  -0.5
      SNR=13
CHTO                            ⇓P                05 18 50.3
      SNR=13
CHTO  Chiang Mai      32.25 303  P       P        05 18 50.2  -0.6
      comp=Z,45nm,1.2s,mb5.1
FORT  Forrest         32.57 178 eP       P        05 18 52.4  -1.1
      comp=Z,83nm,0.6s,mb5.7
FORT  Forrest         32.57 178 eP       P        05 18 52.0  -1.5
      comp=Z,108nm,0.8s,mb5.7
KMI   Kunming         32.88 317  P       P        05 18 57.4  +1.1
KMI                              pP      pP       05 19 05.1   -13
KMI                              PP      PP       05 20 11.0  -1.5
KMI                              S       S        05 24 12.8  +5.9
KMI                              SS      SS       05 26 15.0   -17
KMI                              pmax    pmax
      comp=Z,20nm,1.4s,mb4.8
KMI                              pmax    pmax
      comp=Z,95nm,4.4s
KMI                              LR      LR
      comp=N,280nm,21.8s
KMI                              LR      LR
      comp=E,250nm,22.5s
KMI                              LR      LR
      comp=Z,190nm,20.4s
COCO  West Island     33.17 244 i P      P        05 18 59.8  +0.9
KLBR  Kellerberrin    34.52 194 eP       P        05 19 09.9  -0.5
      comp=Z,49nm,0.6s,mb5.5
HNR   Honiara         34.65 110  LR      LR       05 32 12.5
      comp=Z,122nm,20.0s,baz=272,slow=34
MUN   Mundaring       35.29 196 eP       P        05 19 16.7  -0.3
KSRS  Korea Array     35.33   1  P       P        05 19 17.5  +0.2
      comp=Z,3.2nm,0.5s,mb4.4,baz=177,slow=9.5,SNR=17
EIDS  Eidsvold        35.76 141 eP       P        05 19 20.4  -0.7
      comp=Z,102nm,1.1s,mb5.7
MAT   Matsushiro      35.92  15  P       P        05 19 18.3  -4.0
MJAR  Matsushiro Arr  35.92  15  P       P        05 19 21.2  -1.1
      comp=Z,3.9nm,0.8s,mb4.4,baz=185,slow=9.3,SNR=8.3
MJAR                             ScP     ScP      05 25 25.1  +0.3
      comp=Z,0.5nm,0.3s,baz=178,slow=3.2,SNR=5.1
NWAO  Narrogin (SRO)  35.92 194 eP       P        05 19 22.1  -0.3
NWAO                             pmax    pmax
      comp=Z,29nm,0.8s
NWAO  Narrogin (SRO)  35.92 194 eP       P        05 19 22.1  -0.3
      comp=Z,29nm,0.8s,mb5.3
XAN   Xi'an           36.14 334  P       P        05 19 24.0  -0.3
XAN                              pP      pP       05 19 35.9   -11
XAN                              sP      sP       05 19 41.9   -16
XAN                              pmax    pmax
      comp=Z,12nm,0.7s,mb4.9
XAN                              pmax    pmax
      comp=Z,130nm,5.2s
XAN                              LR      LR
      comp=E,190nm,9.9s
XAN                              LR      LR
      comp=Z,170nm,10.8s
CD2   Chengdu         36.27 325  P       P        05 19 25.2  -0.2
CD2                              pP      pP       05 19 37.4   -11
CD2                              sP      sP       05 19 42.8   -16
CD2                              PP      PP       05 20 48.8  -1.1
CD2                              PcP     PcP      05 21 49.4  +0.8
CD2                              S       S        05 25 02.9  +3.9
CD2                              sS      sS       05 25 23.3   -15
CD2                              SS      SS       05 27 29.7  -8.7
CD2                              pmax    pmax
      comp=Z,20nm,0.8s,mb5.1
CD2                              pmax    pmax
      comp=Z,110nm,6.9s
CD2                              LR      LR
      comp=N,410nm,5.2s
CD2                              LR      LR
      comp=Z,280nm,5.4s
STKA  Stephens Creek  36.36 159⇑iP       P        05 19 25.5  -0.7
      comp=Z,66nm,0.8s,mb5.6
STKA                            ePP      PP       05 20 48.4  -2.5
STKA                            eS       S        05 24 58.0  -2.3
STKA  Stephens Creek  36.36 159  P       P        05 19 25.2  -0.9
      comp=Z,63nm,0.6s,mb5.7,baz=338,slow=8.2,SNR=90
STKA                             LR      LR       05 36 37.1
      comp=Z,153nm,19.3s,baz=15,slow=40
BJT   Baijiatuau      39.16 347 eP       P        05 19 49.7  +0.1
BJT                              pmax    pmax
      comp=Z,69nm,0.7s
BJT   Baijiatuau      39.16 347 eP       P        05 19 49.7  +0.1
      comp=Z,69nm,0.7s,mb5.6
BJI   Beijing         39.18 347  P       P        05 19 49.8   0.0
BJI                              pP      pP       05 20 02.5   -10
BJI                              sP      sP       05 20 07.5   -16
BJI                              PP      PP       05 21 22.0  +0.4
BJI                              S       S        05 25 49.5  +6.9
BJI                              sS      sS       05 26 09.6   -12
BJI                              pmax    pmax
      comp=Z,82nm,0.7s,mb5.7
BJI                              pmax    pmax
      comp=Z,170nm,3.5s
BJI                              LR      LR
      comp=N,200nm,24.9s
BJI                              LR      LR
      comp=E,200nm,24.9s
IMP   Imphal          39.21 308 ePKP     P        05 19 50.0  -0.3
ARMA  Armidale        39.81 146 eP       P        05 19 55.6  +0.4
ARMA  Armidale        39.81 146 eP       P        05 19 55.6  +0.4
      comp=E,110nm,0.8s,mb5.7
SNY   Shenyang        39.81 356 ⇑P       P        05 20 02.8  +7.8
SNY                              pmax    pmax
      comp=Z,30nm,0.8s,mb5.2
LZH   Lanzhou         40.20 330 eP       P        05 19 59.5  +1.2
LZH                              pP      pP       05 20 11.4   -10
LZH                              sP      sP       05 20 18.3   -14
LZH                              PP      PP       05 21 35.0  +2.3
LZH                             eS       S        05 26 02.1  +4.1
LZH                              sS      sS       05 26 24.4   -13
LZH                              SS      SS       05 28 57.0  -3.0
LZH                              pmax    pmax
      comp=Z,37nm,1.1s,mb5.1
LZH                              pmax    pmax
      comp=Z,180nm,4.0s
LZH                              LR      LR
      comp=N,1µm,14.8s
LZH                              LR      LR
      comp=Z,1µm,16.0s
HHC   Hu-ho-hao-te    41.18 342 eP       P        05 20 07.2  +0.9
HHC                              pP      pP       05 20 18.8   -10
HHC                              sP      sP       05 20 24.3   -16
HHC                              PP      PP       05 21 45.1  +1.9
HHC                              PcS     PcS      05 25 54.8   0.0
HHC                              S       S        05 26 16.8  +4.4
HHC                              sS      sS       05 26 37.8   -14
HHC                              SS      SS       05 29 17.6  -1.6
HHC                              ScS     ScS      05 30 05.4  +4.8
HHC                              pmax    pmax
      comp=Z,24nm,0.9s,mb5.0
HHC                              pmax    pmax
      comp=Z,53nm,3.9s
HHC                              LR      LR
      comp=N,160nm,14.3s
HHC                              LR      LR
      comp=E,130nm,14.3s
HHC                              LR      LR
      comp=Z,170nm,17.8s
SHL   Shillong        41.21 308⇓iP       P        05 20 06.0  -0.8
CN2   Changchun       41.69 358 eP       P        05 20 13.0  +2.6
CN2                             epP      pP       05 20 22.8   -11
CN2                             eS       S        05 26 28.5  +8.6
CN2                              pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.6
CN2                              LR      LR
      comp=N,400nm,16.0s
CN2                              LR      LR
      comp=E,400nm,16.0s
CN2                              LR      LR
      comp=Z,200nm,18.0s
MDJ   Mudanjiang      42.53   3  P       P        05 20 18.9  +1.6
MDJ                              pP      pP       05 20 30.1   -10
MDJ                              sP      sP       05 20 35.0   -16
MDJ                              PP      PP       05 21 59.7  +1.9
MDJ                              ScP     ScP      05 25 56.1  +5.9
MDJ                              S       S        05 26 40.2  +7.9
MDJ                              sS      sS       05 27 00.7   -11
MDJ                              pmax    pmax
      comp=Z,7.0nm,1.1s,mb4.3
MDJ                              pmax    pmax
      comp=Z,120nm,5.3s
MDJ                              LR      LR
      comp=N,79nm,19.6s
MDJ                              LR      LR
      comp=E,54nm,18.3s
MDJ                              LR      LR
      comp=Z,97nm,18.3s
MDJ   Mudanjiang      42.53   3 eP       P        05 20 18.6  +1.3
      comp=Z,24nm,1.0s,mb4.9
CNB   Canberra Magne  42.55 153 eP       P        05 20 18.0  +0.5
TOO   Toolangi        42.88 158 eP       P        05 20 21.6  +1.5
TOO                             e                 05 21 59.0
LSA   Lhasa           43.87 313  P       P        05 20 29.6  +1.3
LSA   Lhasa           43.87 313 eP       P        05 20 29.4  +1.1
GTA   Gaotai          44.78 330 eP       P        05 20 36.1  +0.7
GTA                              pP      pP       05 20 48.5   -10
GTA                              sP      sP       05 20 53.3   -16
GTA                              PcP     PcP      05 22 17.4  +1.5
GTA                              S       S        05 27 12.6  +7.3
GTA                              sS      sS       05 27 37.4  -7.8
GTA                              SS      SS       05 30 27.2  -2.0
GTA                              pmax    pmax
      comp=Z,8.0nm,1.2s,mb4.3
GTA                              pmax    pmax
      comp=Z,140nm,4.8s
GTA                              LR      LR
      comp=N,110nm,14.1s
GTA                              LR      LR
      comp=E,100nm,13.2s
GTA                              LR      LR
      comp=Z,130nm,15.9s
TAPN  Taplejung       45.35 308 eP       P        05 20 39.8  -0.3
      comp=Z,31nm,0.7s,mb5.2
ODAN  Odare           45.38 307 eP       P        05 20 39.9  -0.5
      comp=Z,50nm,0.7s,mb5.3
RAMN  Ramite          46.06 306 eP       P        05 20 45.6  -0.1
JIRN  Jiri            46.69 307 eP       P        05 20 50.9  +0.2
      comp=Z,13nm,0.3s,mb5.2
HABR  Khabarovsk      46.84   7 eP       P        05 20 48.2  -3.2
HABR                            e*SP     sP       05 21 02.9   -23
HABR                            e                 05 22 21.7
HABR                            ePPP              05 23 22.5
HABR                             S       S        05 27 36.7  +2.2
HABR                            e*SS     sS       05 27 53.4   -21
HABR                             MLR     MLR
      comp=Z,176nm,17.0s
GUN   Gumba           47.05 307 eP       P        05 20 53.3  -0.1
      comp=Z,53nm,0.6s,mb5.4
KLR   Kul'dur         47.26   4 eP       P        05 20 58.8  +4.1
PKI   Pulchoki        47.28 307 eP       P        05 20 54.9  -0.3
PKIN  Phulchoki       47.29 307 eP       P        05 20 55.0  -0.3
KKN   Kakani          47.48 307 eP       P        05 20 56.3  -0.4
DMN   Daman           47.54 306 eP       P        05 20 57.0  -0.2
      comp=Z,78nm,1.1s,mb5.4
HIA   Hailar          47.55 353 eP       P        05 20 57.1  +0.2
HIA                              pmax    pmax
      comp=Z,11nm,1.2s
HIA   Hailar          47.55 353 eP       P        05 20 57.1  +0.2
      comp=Z,11nm,1.2s,mb4.6
GKN   Gorkha          48.08 307 eP       P        05 21 01.0  -0.4
      comp=Z,98nm,1.4s,mb5.5
KOLN  Koldanda        48.82 306 eP       P        05 21 06.8  -0.3
ULN   Ulaanbaatar     48.90 342 eP       P        05 21 07.6  +0.3
ULN                              pmax    pmax
      comp=Z,20nm,0.6s,mb5.2
ULN   Ulaanbaatar     48.90 342 eP       P        05 21 07.6  +0.3
      comp=Z,20nm,0.6s,mb5.2
ULN   Ulaanbaatar     48.90 342 ⇓P       P        05 21 08.5  +1.2
      SNR=17
ULN                             ⇓P                05 21 08.5
      SNR=17
ULN   Ulaanbaatar     48.90 342  P       P        05 21 08.1  +0.8
DANN  Dangsing        48.93 307 eP       P        05 21 07.5  -0.4
      comp=Z,94nm,1.0s,mb5.7
SONM  Songino Array   49.07 342  P       P        05 21 09.4  +0.7
      comp=Z,9.1nm,0.6s,mb4.9,baz=156,slow=8.4,SNR=80
SONM                             LR      LR       05 41 41.0
      comp=Z,107nm,20.1s,baz=262,slow=36
PYUN  Piuthan         49.45 306 eP       P        05 21 11.6  -0.3
      comp=Z,42nm,0.6s,mb5.6
HYB   Hyderabad       50.05 291 i P      P        05 21 17.0  +0.4
HYB   Hyderabad       50.05 291 eP       P        05 21 16.0  -0.6
ZAK   Zakamensk       52.30 341 eP       P        05 21 33.2  +0.4
ZAK                              pmax    pmax
      comp=Z,5.0nm,1.5s,mb4.3
MOY   Mondy           54.15 340 eP       P        05 21 48.0  +1.6
MOY                              pmax    pmax
      comp=Z,40nm,1.5s,mb5.2
WMQ   Urumqi          54.37 326⇑iP       P        05 21 49.4  +1.3
WMQ                              pP      pP       05 22 02.0   -10
WMQ                              sP      sP       05 22 08.5   -14
WMQ                              PcP     PcP      05 22 53.0  +2.2
WMQ                              PP      PP       05 23 54.0  +2.9
WMQ                             eS       S        05 29 23.0  +4.2
WMQ                              sS      sS       05 29 46.0   -14
WMQ                              pmax    pmax
      comp=Z,49nm,1.2s,mb5.4
WMQ                              pmax    pmax
      comp=Z,370nm,4.9s
WMQ                              LR      LR
      comp=N,690nm,28.0s
WMQ                              LR      LR
      comp=E,360nm,27.4s
WMQ                              LR      LR
      comp=Z,270nm,25.2s
BOD   Bodaibo         56.65 352 eP       P        05 22 03.7  -0.5
BOD                              pmax    pmax
      comp=Z,10.0nm,1.2s,mb4.7
PETK  Petropavlovsk-  56.93  21  P       P        05 22 06.7  +0.4
      comp=Z,0.6nm,0.5s,baz=196,slow=5.9,SNR=4.5
PETK  Petropavlovsk-  56.93  21  P       P        05 22 06.7  +0.4
MK31  Makanchi Array  59.20 326 eP       P        05 22 22.7  +0.5
MKAR  Makanchi Array  59.20 326  P       P        05 22 22.8  +0.5
      comp=Z,44nm,0.5s,mb5.8,baz=120,slow=8.0,SNR=730
KSH   Kashi           59.54 316⇑iP       P        05 22 26.8  +2.1
KSH                             epP      pP       05 22 38.9   -10
KSH                             esP      sP       05 22 45.0   -15
KSH                             ePcP     PcP      05 23 15.1  +3.9
KSH                             ePP      PP       05 24 40.1  +2.8
KSH                             eScP     ScP      05 27 10.1  +6.9
KSH                             ePcS     PcS      05 27 15.0  +1.7
KSH                             eS       S        05 30 30.3  +3.3
KSH                             esS      sS       05 30 52.1   -17
KSH                             eSS      SS       05 34 27.5  +3.5
KSH                              pmax    pmax
      comp=Z,29nm,0.5s,mb5.6
KSH                              pmax    pmax
      comp=Z,280nm,6.0s
KSH                              LR      LR
      comp=N,200nm,5.3s
KSH                              LR      LR
      comp=E,250nm,5.5s
KSH                              LR      LR
      comp=Z,330nm,4.6s
YAK   Yakutsk         59.96   1 eP       P        05 22 27.3  +0.2
YAK                              pmax    pmax
      comp=Z,14nm,0.8s,mb5.0
YAK   Yakutsk         59.96   1 eP       P        05 22 26.8  -0.3
      comp=Z,36nm,0.8s,mb5.5
KZA   Kyzart          61.15 318  P       P        05 22 37.4  +1.8
      SNR=24
TKM2  Tokmak 2        61.30 319 eP       P        05 22 37.8  +1.2
TKM2                             pmax    pmax
      comp=Z,127nm,1.3s,mb5.8
TKM2  Tokmak 2        61.30 319  P       P        05 22 37.7  +1.1
      SNR=24
TKM2  Tokmak 2        61.30 319 eP       P        05 22 37.8  +1.2
      comp=Z,128nm,1.3s,mb5.8
KBK   Karagaybulak    61.60 319  P       P        05 22 39.9  +1.2
      SNR=14
UCH   Uchtor          61.71 318  P       P        05 22 41.3  +1.9
      SNR=14
UCH   Uchtor          61.71 318 eP       P        05 22 40.8  +1.4
      comp=Z,62nm,1.2s,mb5.5
CHMS  Chumysh         61.88 319  P       P        05 22 41.4  +0.9
      SNR=12
AAK   Ala-Archa       61.90 318  P       P        05 22 42.8  +2.1
      comp=Z,175nm,1.6s,mb5.8,SNR=13
AAK   Ala-Archa       61.90 318 eP       P        05 22 41.1  +0.4
AAK                              pmax    pmax
      comp=Z,56nm,1.3s,mb5.4
AAK   Ala-Archa       61.90 318  P       P        05 22 42.5  +1.8
      SNR=19
AAK   Ala-Archa       61.90 318 eP       P        05 22 41.1  +0.5
      comp=Z,56nm,1.3s,mb5.4
USP   Ospenovka       62.17 319  P       P        05 22 43.2  +0.7
      SNR=44
AML   Almayashu       62.22 318  P       P        05 22 44.4  +1.6
      SNR=42
AML   Almayashu       62.22 318 eP       P        05 22 44.2  +1.4
      comp=Z,119nm,1.0s,mb5.9
ZAA0  Zalesovo Array  62.31 333 eP       P        05 22 42.5  -0.7
ZALV  Zalesovo Beam   62.31 333  P       P        05 22 42.4  -0.8
      comp=Z,4.4nm,0.4s,mb4.8,baz=116,slow=6.8,SNR=32
EKS2  Erkin-Say       62.38 318  P       P        05 22 45.2  +1.2
      SNR=30
EKS2  Erkin-Say       62.38 318 eP       P        05 22 44.6  +0.7
      comp=Z,68nm,0.9s,mb5.7
AFI   Afiamalu        62.60 107  P       P        05 22 46.9  +1.0
      comp=Z,14nm,0.8s,mb5.0,baz=276,slow=19,SNR=3.2
KURK  Kurchatov       63.41 328  P       P        05 22 50.9  +0.4
      comp=Z,729nm,0.8s,SNR=76
KURK  Kurchatov       63.41 328 eP       P        05 22 50.7  +0.2
KURK                             pmax    pmax
      comp=Z,81nm,0.7s,mb5.8
KURK  Kurchatov       63.41 328  P       P        05 22 50.7  +0.2
      comp=Z,46nm,0.5s,mb5.7,baz=129,slow=6.1,SNR=115
KURK  Kurchatov       63.41 328 eP       P        05 22 50.7  +0.2
      comp=Z,81nm,0.7s,mb5.8
KURK  Kurchatov       63.41 328 ⇓P       P        05 22 50.8  +0.2
      SNR=20
KURK                            ⇓P                05 22 50.8
      SNR=20
NVS   Novosibirsk     63.60 333 eP       P        05 22 51.1  -0.6
NVS                             eS       S        05 31 17.0  -0.7
NVS                              pmax    pmax
      comp=Z,22nm,1.0s,mb4.9
NVS                              pmax    pmax
      comp=N,13nm,1.2s
NVS                              pmax    pmax
      comp=E,15nm,1.0s
NVS                              smax
      comp=E,14nm,1.5s
NVS                              smax
      comp=N,15nm,2.0s
SEY   Seymchan        63.67  13⇑eP       P        05 22 53.6  +1.6
KK31  Karatay Array   64.76 317 i P      P        05 22 59.8  +0.3
VOSK  Vostochnaya     68.53 327  P       P        05 23 22.6  -0.7
VOSK                             pmax    pmax
      comp=Z,25nm,0.7s,mb5.2
BVA0  Borovoye Array  68.98 327 i P      P        05 23 26.1   0.0
BVA0                             pmax    pmax
      comp=Z,6.0nm,1.0s,mb4.4
BVAR  Borovoye Array  68.98 327  P       P        05 23 25.7  -0.4
      comp=Z,17nm,0.7s,mb5.0,baz=131,slow=8.8,SNR=55
BRVK  Borovoye        69.06 327  P       P        05 23 26.7  +0.1
      comp=Z,232nm,1.1s,mb5.9,SNR=14
BRVK  Borovoye        69.06 327 eP       P        05 23 26.5  -0.1
BRVK                             pmax    pmax
      comp=Z,35nm,0.9s,mb5.2
BRVK  Borovoye        69.06 327 eP       P        05 23 26.5  -0.1
      comp=Z,35nm,0.9s,mb5.2
BRVK  Borovoye        69.06 327 ⇓P       P        05 23 26.8  +0.2
      SNR=13
BRVK                            ⇓P                05 23 26.8
      SNR=13
TIXI  Tiksi           69.60   1 eP       P        05 23 27.4  -2.2
TIXI                             pmax    pmax
      comp=Z,4.0nm,0.9s,mb4.2
TIXI  Tiksi           69.60   1 eP       P        05 23 28.1  -1.5
BILL  Bilibino        71.17  15⇓eP       P        05 23 39.6  +0.4
BILL                            eS       S        05 32 43.2  -4.8
BILL                             pmax    pmax
      comp=Z,6.0nm,2.2s,mb4.0
ABKT  Ailbek          72.27 309  P       P        05 23 47.3  +0.9
      comp=Z,295nm,0.7s,mb6.2,SNR=9.0
ASUD  Al Ashush, Dub  72.60 295 ⇓P       P        05 23 49.9  +1.2
      SNR=6.5
WHFO  Wadi Hawf       73.52 288 ⇓P       P        05 23 54.1  -0.1
      SNR=9.8
AB31  Akbulak array   73.73 321  P       P        05 23 54.3  -0.5
AB31                             pmax    pmax
      comp=Z,33nm,0.9s,mb5.1
AKTK  Aktyubinsk      75.25 322  P       P        05 24 04.0  +0.4
AKTO  Aktyubinsk      75.25 322  P       P        05 24 04.0  +0.4
      comp=Z,29nm,1.0s,mb5.0,baz=106,slow=8.0,SNR=39
SVE   Sverdlovsk      75.64 329⇓eP       P        05 24 05.7   0.0
SVE                             eS       S        05 33 51.0   +12
SVE                              pmax    pmax
      comp=Z,27nm,0.9s,mb5.0
ARU   Arti            76.61 328 eP       P        05 24 10.3  -0.8
ARU                              pmax    pmax
      comp=Z,20nm,0.9s,mb4.8
ARU   Arti            76.61 328 eP       P        05 24 10.3  -0.9
      comp=Z,20nm,0.9s,mb4.8
QRN   Al-Qurain       79.55 299 eP       P        05 24 28.1   0.0
QRN                              AMb     AMB      05 24 29.7
      comp=Z,172nm,0.5s,mb6.2
KBD   Kabd            79.77 299 eP       P        05 24 29.5  +0.3
KBD                              AMb     AMB      05 24 31.1
      comp=Z,62nm,0.7s,mb5.5
RDF   Al-Radifah      79.89 299 eP       P        05 24 30.1  +0.2
RDF                              AMb     AMB      05 24 31.6
      comp=Z,101nm,0.7s,mb5.8
MIB   Mutribah        80.12 300 eP       P        05 24 31.4  +0.3
MIB                              AMb     AMB      05 24 33.2
      comp=Z,150nm,0.8s,mb5.8
NAY   Al-Naaiem       80.17 299 eP       P        05 24 31.6  +0.2
NAY                              AMb     AMB      05 24 33.5
      comp=Z,66nm,0.8s,mb5.5
VNDA  Vanda           81.64 173  P       P        05 24 37.9  -0.3
      comp=Z,16nm,0.8s,mb4.9,baz=312,slow=6.5,SNR=40
VNDA  Vanda           81.64 173  P       P        05 24 37.9  -0.3
GNI   Garni           82.88 310⇑eP       P        05 24 46.5  +1.1
GNI                              pmax    pmax
      comp=Z,24nm,1.3s
GNI   Garni           82.88 310 eP       P        05 24 45.8  +0.3
      comp=Z,13nm,0.8s,mb4.8
KDAK  Kodiak Island   83.19  32 i P      P        05 24 48.4  +1.8
KDAK  Kodiak Island   83.19  32  P       P        05 24 46.2  -0.4
      comp=Z,6.7nm,0.6s,mb4.6,baz=24,slow=15,SNR=4.1
KDAK  Kodiak Island   83.19  32  P       P        05 24 46.2  -0.4
ONI   Oni             83.98 312  P       P        05 24 51.9  +0.9
PRGR  Permogore       84.21 332 eP       P        05 24 48.6  -3.2
PRGR                             pmax    pmax
      comp=Z,19nm,0.9s,mb4.9
KIV   Kislovodsk      84.60 314 eP       P        05 24 57.7  +3.6
KIV                              pmax    pmax
      comp=Z,8.0nm,0.6s,mb4.8
VRHR  Novokhopersk    85.62 321 eP       P        05 24 58.8  -0.2
VRHR                            e*SP     pP       05 25 11.6   -13
VRHR                             pmax    pmax
      comp=Z,20nm,0.7s,mb5.2
VRHR                             pmax    pmax
      comp=N,10.0nm,0.5s
VRHR                             pmax    pmax
      comp=E,8.0nm,0.4s
SOC   Sochi           86.74 313 eP       P        05 25 04.7   0.0
SOC                             e*PP     pP       05 25 13.0   -18
SOC                             ePPP              05 30 21.1
SOC                             eS       S        05 35 27.0  -7.3
SOC                             eSS      SS       05 41 16.7  -1.3
SOC                              pmax    pmax
      comp=Z,14nm,0.6s,mb5.1
VORD  Divnogorie      87.09 321 eP       P        05 25 05.5  -0.7
VORD                             pmax    pmax
      comp=Z,5.0nm,0.5s,mb4.7
VORD                             pmax    pmax
      comp=N,5.0nm,0.6s
VORD                             pmax    pmax
      comp=E,10.0nm,0.6s
KLMR  Klimovskoe      87.11 331 eP       P        05 25 04.0  -2.1
KLMR                             pmax    pmax
      comp=Z,24nm,1.1s,mb5.0
VSR   Storozhevoye    87.17 321 eP       P        05 25 05.6  -1.0
VSR                             e*PP     pP       05 25 13.1   -19
VSR                              pmax    pmax
      comp=N,2.0nm,0.5s
VSR                              pmax    pmax
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	comp=Z,3.0nm,0.5s,mb4.5						
VSR				pmax	pmax		
	comp=E,3.0nm,0.4s						
MALT	Malatya	87.73	308	eP	P	05 25 10.0	+0.4
MALT				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
MALT	Malatya	87.73	308	⇓iP	P	05 25 11.3	+1.7
MALT	Malatya	87.73	308	eP	P	05 25 10.0	+0.4
	comp=Z,7.8nm,0.9s,mb4.7						
ANN	Anapa	88.38	315	eP	P	05 25 12.2	-0.3
ANN				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.4						
OBN	Obninsk	88.70	325	⇑eP	P	05 25 13.1	-0.7
OBN				e		05 28 38.9	
OBN				eS	S	05 35 35.1	-17
OBN				pmax	pmax		
	comp=Z,48nm,1.7s,mb5.2						
JOF	Joensuu	90.90	333	ep	P	05 25 21.6	-2.3
BRTR	Keskin Array B	91.41	310	P	P	05 25 24.9	-1.9
	comp=Z,1.1nm,0.6s,mb4.2,baz=150,slow=5.3,SNR=7.5						
KEV	Kevo	91.66	340	ep	P	05 25 29.8	+2.5
ARCES	ARCESS Array B	92.22	340	P	P	05 25 28.7	-1.2
	comp=Z,2.4nm,0.7s,mb4.5,baz=350,slow=6.2,SNR=9.0						
ARCES				LR	LR	06 13 35.9	
	comp=Z,56nm,19.6s,baz=60,slow=40						
KAF	Kangasniemi	93.31	332	ep	P	05 25 32.8	-2.3
TIRR	Tirgusor	94.82	315	⇑iP	P	05 25 41.4	-1.0
MLR	Muntele Rosu	96.41	316	⇓iP	P	05 25 49.2	-0.4
BURAR	Bucovina Array	96.54	318	⇓iP	P	05 25 49.5	-0.7
BUR08	Bucovina Ar. S	96.55	318	eP	P	05 25 49.9	-0.3
UZH	Uzhgorod	98.27	320	eP	P	05 26 00.6	+2.7
YKA	Yellowknife Ar	100.96	25	P	Pdif	05 26 10.6	+0.8
	comp=Z,0.1nm,0.5s,baz=294,slow=4.8,SNR=4.0						
YKA				PKKP	PKKPbc	05 42 29.4	+5.6
	comp=Z,0.2nm,0.7s,baz=115,slow=2.8,SNR=5.4						
YKA	Yellowknife Ar	100.96	25	P	Pdif	05 26 10.6	+0.8
YKA				PKKP	PKKPbc	05 42 29.4	+5.6
NVAR	Mina Array Bea	107.82	49	PKKPbc	PKKPbc	05 42 02.1	-0.2
	comp=Z,0.2nm,0.6s,baz=138,slow=2.7,SNR=4.0						
BOZ	Bozeman (W)	109.88	40	ePdif	Pdif	05 26 44.6	-4.8
PFO	Pinyon Flat Ob	110.67	53	i PKIKP	PKiKP	05 30 53.1	-0.2
PDAR	Pinedale Array	112.45	42	PKKPbc	PKKPbc	05 41 46.5	-1.1
	comp=Z,0.4nm,0.6s,baz=115,slow=6.0,SNR=4.4						
PDAR				PKKPab	PKKPab	05 41 54.6	-1.0
	comp=Z,0.7nm,0.7s,baz=115,slow=6.9,SNR=5.6						
SCHQ	Schefferville	122.25	9	PKP	PKPdf	05 31 14.9	+0.1
	comp=Z,3.0nm,0.9s,baz=114,slow=3.2,SNR=5.9						
TXAR	Lajitas Array	122.39	53	PKP	PKPdf	05 31 16.7	+0.8
	comp=Z,0.3nm,0.5s,baz=79,slow=0.5,SNR=5.9						
TXAR				PKKPbc	PKKPbc	05 41 12.4	+0.6
	comp=Z,0.3nm,0.6s,baz=118,slow=5.6,SNR=4.2						
TXAR	Lajitas Array	122.39	53	PKP	PKPdf	05 31 16.7	+0.8
TXAR				PKKPbc	PKKPbc	05 41 12.4	+0.6
TORD	Torodi Ar. Bea	123.78	287	PKP	PKPdf	05 31 18.4	-0.5
	comp=Z,3.0nm,0.8s,baz=52,slow=2.0,SNR=19						
TORD				PP	PP	05 32 55.7	-7.2
	comp=Z,1.9nm,0.8s,baz=58,slow=6.6,SNR=4.6						
TORD				PKKPbc	PKKPbc	05 41 05.8	-0.2
	comp=Z,0.5nm,0.7s,baz=270,slow=5.2,SNR=5.5						
TORD	Torodi Ar. Bea	123.78	287	PKP	PKPdf	05 31 18.4	-0.5
TORD				PP	PP	05 32 55.7	-7.2
TORD				PKKPbc	PKKPbc	05 41 05.8	-0.2
DBIC	Dimbokro	131.26	281	PKP	PKPdf	05 31 32.8	-0.4
	comp=Z,1.0nm,0.4s,baz=10.0,slow=5.8,SNR=4.8						
CMLA	Cha da Macela	133.04	330	i PKIKP	PKPdf	05 31 41.5	+5.5
PLCA	Paso Flores	138.24	160	PKP	PKPdf	05 31 46.2	+0.7
	comp=Z,1.0nm,0.8s,baz=187,slow=4.9,SNR=3.3						
PLCA				SKPbc	SKPbc	05 35 10.9	-0.2
	comp=Z,4.8nm,0.9s,baz=204,slow=2.7,SNR=7.0						
JTS	JuntasAbangare	145.88	68	ePKIKP	PKPdf	05 31 58.8	-1.1
LCO	Las Campanas	148.21	149	ePKPdf	PKPdf	05 32 03.3	-0.1
LCO				ePKPbc	PKPbc	05 32 07.3	+0.5
CPUP	Villa Florida	155.40	170	PKPbc	PKPdf	05 32 23.6	+9.3
	comp=Z,0.8nm,0.6s,baz=278,slow=17,SNR=4.1						
CPUP				PKPab	PKPab	05 32 40.4	+0.6
	comp=Z,4.7nm,0.9s,baz=177,slow=3.4,SNR=7.2						
CPUP	Villa Florida	155.40	170	PKPbc	PKPdf	05 32 23.6	+9.3
CPUP				PKPab	PKPab	05 32 40.4	+0.6

IDC 06 05:19:03.9±3.4**, 4°.52S**×**102°.46E, h0**^{km}**, mb3.8**/6**, mb1 3.9**/6**, mb1mx3.7**/21**, mbtmp3.8**/6**, Error ellipse: s-maj=151.8km s-min=22.6km az=53.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	34.62	119	P	P	05 25 54.2	-0.8
	0.3nm,0.4s,baz=298,slow=8.6,SNR=3.0						
ASAR	Alice Springs	35.80	125	P	P	05 26 06.1	+0.9
	0.3nm,0.4s,baz=303,slow=7.7,SNR=4.3						
SONM	Songino Array	52.25	3	P	P	05 28 17.3	+0.5
	0.9nm,0.5s,baz=182,slow=9.1,SNR=6.2						
MKAR	Makanchi Array	54.12	343	P	P	05 28 30.9	+0.3
	0.5nm,0.4s,baz=154,slow=8.9,SNR=7.7						
ZALV	Zalesovo Beam	60.10	348	P	P	05 29 12.4	-0.4
	1.5nm,0.4s,baz=171,slow=7.9,SNR=5.9						
BVAR	Borovoye Array	63.39	339	P	P	05 29 35.0	0.0
	0.3nm,0.3s,baz=133,slow=6.8,SNR=2.9						
TXAR	Lajitas Array	145.06	42	PKPbc	PKPbc	05 38 42.0	-1.3
	0.2nm,0.8s,baz=293,slow=0.8,SNR=4.7						

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*ISCJB **06** 05:21:48.9±0.5, 36°.96N±0°.03×29°.32E±0°.03, h7^{km}±5^{km}, Error ellipse: s-maj=5.6km s-min=3.7km az=160.6*
*CSEM **06** 05:21:48.8±0.1, 36°.96N×29°.32E, h5^{km}, MD2.8, Error ellipse: s-maj=3.5km s-min=2.8km az=174.0*
*DDA **06** 05:21:48.4, 36°.99N×29°.34E, h21^{km}±2^{km}, Md2.8*
*ISK **06** 05:21:48.4, 36°.96N×29°.30E, h6^{km}, MD2.9*
ISC 06 05:21:49.3±0.5**, 36°.97N**±0°.03×**29°.31E**±0°.03**, h8**^{km}±5^{km}**, n40, σ0^{s}.82**/59**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GOLH	Golhisar	0.34	37	i P	Pg	05 21 55.4	-0.5
GOLH				i S	Sg	05 22 01.4	+1.0
GOLH	Golhisar	0.34	37	i P	Pg	05 21 55.4	-0.5
GOLH				i S	Sg	05 22 01.4	+1.0
FETY	Fethiye	0.38	209	i Pg	Pg	05 21 55.5	-1.1
FETY				eSg	Sg	05 22 02.1	+0.5
FETY				eSG	Sg	05 22 02.1	+0.6
FETY	Fethiye	0.38	209	PG	Pg	05 21 55.5	-1.1
ELL	Elmali	0.53	114	PG	Pg	05 21 58.6	-0.9
ELL				eSG	Sg	05 22 07.6	+1.1
ELL	Elmali	0.53	114	i Pg	Pg	05 21 58.6	-0.9
ELL				eSg	Sg	05 22 07.6	+1.2
DALT	Dalyan (Mudla)	0.57	250	ePG	Pg	05 21 59.5	-0.8
DALT				eSG	Sg	05 22 08.3	+0.5
DALT	Dalyan (Mudla)	0.57	250	ePg	Pg	05 21 59.5	-0.8
DALT				eSg	Sg	05 22 08.3	+0.5
TURN	Turunc	0.57	261	i P	Pg	05 22 04.3	+3.9
TURN				i S	Sg	05 22 17.3	+9.5
AKAS	Kas	0.77	162	i P	Pg	05 22 03.7	-0.4
AKAS				i S	Sg	05 22 21.2	+7.1
AKAS	Kas	0.77	162	i P	Pg	05 22 03.7	-0.4
DENT	Denizli	0.82	345	ePG	Pg	05 22 04.9	-0.1
DENT	Denizli	0.82	345	ePg	Pg	05 22 04.9	-0.1
YER	Yerkesik	0.84	282	ePG	Pg	05 22 05.3	-0.1
YER	Yerkesik	0.84	282	ePg	Pg	05 22 05.3	-0.1
BCK	Bucak	1.14	64	ePN	Pn	05 22 10.8	-0.7
BCK	Bucak	1.14	64	ePn	Pn	05 22 10.8	-0.7
MLSB	Milas	1.27	285	ePN	Pn	05 22 12.9	-0.4
MLSB	Milas	1.27	285	ePn	Pn	05 22 12.9	-0.4
ISP	Isparta	1.30	47	ePN	Pn	05 22 13.9	+0.2
ISP	Isparta	1.30	47	ePn	Pn	05 22 13.9	+0.1
AYDN	Tasoluk	1.33	302	i P	Pn	05 22 14.2	-0.1
AYDN				i S	Sb	05 22 32.5	+0.7
AYDN	Tasoluk	1.33	302	i P	Pn	05 22 14.2	-0.1
AYDN				i S	Sb	05 22 32.5	+0.7
DAT	Datca	1.41	261	ePN	Pn	05 22 14.9	-0.3
DAT	Datca	1.41	261	ePn	Pn	05 22 14.9	-0.4
KHAL	Karahalli	1.41	6	i P	Pn	05 22 14.9	-0.4
KHAL				i S	Sb	05 22 33.9	-0.1
KHAL	Karahalli	1.41	6	i P	Pn	05 22 14.9	-0.4
KHAL				i S	Sb	05 22 33.9	-0.1
BDRM	Kayabasi	1.50	274	i P	Pn	05 22 16.7	+0.3
BDRM				i S	Sn	05 22 37.8	+1.6
BDRM	Kayabasi	1.50	274	i P	Pn	05 22 16.7	+0.2
BDRM				i S	Sn	05 22 37.8	+1.6
BODT	Bodrum	1.60	274	ePN	Pn	05 22 18.2	+0.2
BODT	Bodrum	1.60	274	ePn	Pn	05 22 18.2	+0.3
KULA	Kula-Manisa	1.63	342	ePN	Pn	05 22 18.1	-0.2
KULA	Kula-Manisa	1.63	342	ePn	Pn	05 22 18.1	-0.2
GCAM	G?zelcaml?	1.81	295	i P	Pn	05 22 19.6	-1.2
GCAM				i S	Sn	05 22 43.5	-0.4
GCAM	G?zelcaml?	1.81	295	i P	Pn	05 22 19.6	-1.2
GCAM				i S	Sn	05 22 43.5	-0.4
SHUT	Suhut-Afyon	1.87	32	ePN	Pn	05 22 21.7	+0.2
SHUT	Suhut-Afyon	1.87	32	ePn	Pn	05 22 21.7	+0.1
HDMB	Hadim	2.54	89	ePN	Pn	05 22 31.9	+0.9
HDMB	Hadim	2.54	89	ePn	Pn	05 22 31.9	+1.0
KDHN	Kadinhani	2.71	54	i P	Pn	05 22 35.5	+2.3
KDHN				i S	Sn	05 23 04.9	-1.4

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*NEIC **06** 05:24:27.2, 16°.58N×100°.60W, h14^{km}, MD4.1(MEX), After MEX.*
MEX 06 05:24:28.0±0.7**, 16°.66N**×**100°.52W, h5**^{km}±6^{km}**, MD4.1, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.46	32	i P	Pg	05 24 36.3	-0.5
CAIG				i S	Sg	05 24 43.5	+0.7
ACX	Acapulco	0.61	70	i P	Pg	05 24 39.3	-0.5
ACX				i S	Sg	05 24 47.5	-0.3
MEIG	Mezcala	1.53	34	eP	Pn	05 24 52.4	-3.5
MEIG				i S	Sn	05 25 12.2	-4.0
PLIG	Platanillo	1.98	29	i P	Pn	05 24 59.1	-3.1
PLIG				i S	Sn	05 25 23.6	-3.8
PLIG	Platanillo	1.98	29	i P	Pn	05 24 59.1	-3.1
PLIG				i S	Sn	05 25 24.1	-3.2
PNIG	Pinotepa	2.31	96	i P	Pn	05 25 04.0	-2.7
PNIG				i S	Sn	05 25 32.7	-2.7
PNIG	Pinotepa	2.31	96	i P	Pn	05 25 00.8	-5.9
PNIG				i S	Sn	05 25 31.9	-3.6
MZVM		2.80	26	eP	Pn	05 25 10.3	-3.2
MZVM				i S	Sn	05 25 45.1	-2.5
UTMO	Huajuapan	2.84	65	eP	Pn	05 25 10.8	-3.2
UTMO				i S	Sn	05 25 45.0	-3.7
SZVM	Salazar	2.87	22	eP	Pn	05 25 11.6	-2.7
SZVM				i S	Sn	05 25 43.8	-5.4
PPM	Popocatepetl	3.00	37	eP	Pn	05 25 14.2	-2.0
PPM				i S	Sn	05 25 49.7	-2.8
PBVM	Pinon	3.09	26	eP	Pn	05 25 14.4	-3.0
PBVM				i S	Sn	05 25 52.3	-2.4
PTVM	Pico Tres Padr	3.21	24	eP	Pn	05 25 17.7	-1.4
PTVM				i S	Sn	05 25 55.3	-2.5
IIO	Organos	3.38	30	eP	Pn	05 25 18.1	-3.3
IIO				i S	Sn	05 25 60.0	-2.0
TPIG	Tehuac#an	3.48	59	i S	Sn	05 26 01.0	-3.5
VHO	Vista Hermosa	3.65	83	eP	Pn	05 25 22.3	-2.8
VHO				i S	Sn	05 26 04.8	-3.7
HUIG	Huatulco	4.33	101	eP	Pn	05 25 33.5	-0.9
HUIG				i S	Sn	05 26 22.7	-2.6
CMIG	Matias Romero	5.41	85	eP	Pn	05 25 46.9	-2.4
CMIG				i S	Sn	05 26 52.0	0.0

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*NEIC **06** 05:28:12.7, 43°.10N×10°.77E, h8^{km}, ML2.2(ROM), ML2.6(LDG), After ROM.*
*CSEM **06** 05:28:12.7±0.1, 43°.13N×10°.81E, h20^{km}, ML3.0/8, Error ellipse: s-maj=2.5km s-min=2.0km az=22.0*
*ISCJB **06** 05:28:12.6±0.4, 43°.12N±0°.02×10°.68E±0°.04, h19^{km}±5^{km}, Error ellipse: s-maj=4.6km s-min=3.2km az=151.3*
*ROM **06** 05:28:12.7±0.3, 43°.10N×10°.77E, h8^{km}±5^{km}, Md2.3/22, Ml2.2/15, Error ellipse: s-maj=4.2km s-min=2.3km az=54.0*
*GEN **06** 05:28:13.5, 43°.16N×10°.85E, h17^{km}, ML2.2*
*LDG **06** 05:28:13.4±0.5, 43°.10N×10°.71E, h2^{km}, Md2.5/1, Ml2.6/5, Error ellipse: s-maj=10.4km s-min=4.7km az=125.0*
ISC 06 05:28:12.8±0.4**, 43°.14N**±0°.02×**10°.74E**±0°.04**, h17**^{km}±3^{km}**, n79, σ0^{s}.91**/103**, 2C-6D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CASP	Castiglione de	0.36	166	⇓iPg	Pg	05 28 19.7	-0.6
CASP				Sg	Sg	05 28 24.8	-0.5
	630nm,0.3s						
CASP	Castiglione de	0.36	166	⇓iPg	Pg	05 28 19.7	-0.6
CASP				Sg	Sg	05 28 24.8	-0.5
	630nm,0.3s						
CSNT	Castellina Chi	0.52	50	⇑iPg	Pg	05 28 22.5	-0.6
CSNT				Sg	Sg	05 28 28.9	-1.2
	79nm,0.2s						
CSNT	Castellina Chi	0.52	50	⇑iPg	Pg	05 28 22.5	-0.6
CSNT				Sg	Sg	05 28 28.9	-1.2
	79nm,0.2s						
PII	Pisa	0.60	345	⇓iPg	Pg	05 28 25.0	+0.4
	176nm,0.2s						
PII	Pisa	0.60	345	⇓iPg	Pg	05 28 25.0	+0.4
	176nm,0.2s						
ARCI	Arcidosso	0.61	118	Pg	Pg	05 28 23.9	-0.9
ARCI				Sg	Sg	05 28 31.2	-1.7
	252nm,0.1s						
ARCI	Arcidosso	0.61	118	Pg	Pg	05 28 23.9	-0.9
ARCI				Sg	Sg	05 28 31.2	-1.7
	252nm,0.1s						
CRMI	Carmignano	0.67	14	Pg	Pg	05 28 26.1	+0.2
CRMI				Sg	Sg	05 28 35.3	+0.5
	50nm,0.5s						
CRMI	Carmignano	0.67	14	Pg	Pg	05 28 26.1	+0.2
CRMI				Sg	Sg	05 28 35.3	+0.5
	50nm,0.5s						
GROG	Isola di Gorgo	0.68	295	Pg	Pg	05 28 27.5	+1.3
	79nm,0.4s						
GROG	Isola di Gorgo	0.68	295	Pg	Pg	05 28 27.5	+1.3
	79nm,0.4s						
MAON	Monte Argentar	0.77	158	Pg	Pg	05 28 27.7	-0.1
MAON				Sg	Sg	05 28 37.5	-0.4
	345nm,0.2s						
MAON	Monte Argentar	0.77	158	Pg	Pg	05 28 27.7	-0.1
MAON				Sg	Sg	05 28 37.5	-0.4
	345nm,0.2s						
MAIM	Mastiano	0.79	347	⇓iPg	Pg	05 28 28.3	0.0
MAIM				Sg	Sg	05 28 38.5	-0.2
	75nm,0.6s						
MAIM	Mastiano	0.79	347	⇓iPg	Pg	05 28 28.3	0.0
MAIM				Sg	Sg	05 28 38.5	-0.2
	75nm,0.6s						
SACS	San Casciano d	0.90	109	Pg	Pg	05 28 29.8	-0.5
	51nm,0.5s						
CAFI	Castiglion Fio	0.91	78	Pg	Pg	05 28 29.5	-1.0
CAFI				Sg	Sg	05 28 43.5	+1.0
CAFI	Castiglion Fio	0.91	78	Pg	Pg	05 28 29.5	-1.0
CAFI				Sg	Sg	05 28 43.5	+1.0
VMG	Vicchio	1.00	35	Pg	Pg	05 28 33.0	+0.8
	72nm,0.7s						
VMG	Vicchio	1.00	35	Pg	Pg	05 28 33.0	+0.8
	72nm,0.7s						
SEI	Scarperia	1.01	26	Pg	Pg	05 28 34.2	+1.8
	76nm,0.4s						
SEI	Scarperia	1.01	26	Pg	Pg	05 28 34.2	+1.8
	76nm,0.4s						
VLC	Villacollemand	1.05	346	Pg	Pg	05 28 33.0	-0.1
	587nm,4.0s						
VLC	Villacollemand	1.05	346	ePg	Pg	05 28 33.0	0.0
VLC	Villacollemand	1.05	346	Pg	Pg	05 28 33.0	-0.1
	587nm,4.0s						
FNVD	Fontana Vidola	1.06	15	Pg	Pg	05 28 33.8	+0.5
	70nm,1.0s						
FNVD	Fontana Vidola	1.06	15	Pg	Pg	05 28 33.8	+0.5
	70nm,1.0s						
SARO	Sassorosso	1.07	347	S	Sb	05 28 45.6	-1.0
SARO	Sassorosso	1.07	347	P	Pb	05 28 32.8	0.0
SFI	Santa Sofia	1.11	46	Pg	Pg	05 28 33.5	-0.7
	83nm,1.5s						
BADI	Badiali	1.16	71	Pg	Pg	05 28 34.3	-0.8
	62nm,1.2s						
BADI	Badiali	1.16	71	Pg	Pg	05 28 34.3	-0.8
	62nm,1.2s						
GSCL	Gusciola	1.21	355	Pg	Pg	05 28 36.8	+0.6
	19nm,0.7s						
GSCL	Gusciola	1.21	355	Pg	Pg	05 28 36.8	+0.6
	19nm,0.7s						
BACM	Baccana	1.24	337	P	Pn	05 28 35.8	+0.5
BACM				S	Sb	05 28 50.4	-0.9
VALM	Valbona	1.26	344	S	Sb	05 28 50.2	-1.8
VALM	Valbona	1.26	344	P	Pn	05 28 35.8	+0.2
ERBM	Eremo	1.30	349	Pg	Pn	05 28 37.7	+1.6
	816nm,3.9s						
ERBM	Eremo	1.30	349	Pg	Pn	05 28 37.7	+1.6
	816nm,3.9s						
MURB	Monte Urbino	1.31	84	Pg	Pn	05 28 37.1	+0.9
	61nm,0.3s						
MURB	Monte Urbino	1.31	84	Pg	Pn	05 28 37.1	+0.9
	61nm,0.3s						
PIEI	Pieia	1.36	73	Pg	Pn	05 28 38.3	+1.3
	17nm,0.5s						
PIEI	Pieia	1.36	73	Pg	Pn	05 28 38.3	+1.3
	17nm,0.5s						
ASS	Assisi	1.40	93	Pg	Pn	05 28 38.2	+0.7
	16nm,0.6s						
ASS	Assisi	1.40	93	Pg	Pn	05 28 38.2	+0.7
	16nm,0.6s						
CODM	Codolo	1.41	333	P	Pn	05 28 37.8	+0.2
CODM				S	Sn	05 28 53.7	-2.0
PGF	Pioggiola	1.41	246	ePn	Pn	05 28 38.3	+0.6
PGF				eSn	Sn	05 28 55.9	0.0
	24nm,0.3s						
PGF	Pioggiola	1.41	246	ePn	Pn	05 28 38.3	+0.6
PGF				eSn	Sn	05 28 55.9	0.0
	12nm,0.3s						
GRAM	Graiana	1.44	340	S	Sn	05 28 55.4	-1.1
GRAM	Graiana	1.44	340	P	Pn	05 28 38.7	+0.7
SC2M	Scurtabo	1.54	326	P	Pn	05 28 39.3	-0.1
SC2M				S	Sn	05 28 56.4	-2.5
NRCA	Norcia	1.77	99	Pg	Pn	05 28 43.5	+1.0
	3.0nm,0.4s						
NRCA	Norcia	1.77	99	Pg	Pn	05 28 43.5	+1.0
	3.0nm,0.4s						
SBF	Sospel	2.51	288	ePn	Pn	05 28 52.9	+0.1
SBF				eSn	Sn	05 29 22.9	-0.1
	5.1nm,0.4s						
SBF	Sospel	2.51	288	eSn	Sn	05 29 22.9	-0.1
	2.5nm,0.4s						
SBF	Sospel	2.51	288	ePn	Pn	05 28 52.9	+0.1
FRF	La Foret Royal	3.02	279	ePn	Pn	05 28 59.6	-0.1
FRF				eSn	Sn	05 29 33.7	-1.8
	2.7nm,0.3s						
FRF	La Foret Royal	3.02	279	eSn	Sn	05 29 33.7	-1.8
	1.4nm,0.3s						
FRF	La Foret Royal	3.02	279	ePn	Pn	05 28 59.6	-0.1
LMR	La Mourre	3.10	275	ePn	Pn	05 29 00.4	-0.5
LMR				eSn	Sn	05 29 36.2	-1.3
	2.4nm,0.2s						
LMR	La Mourre	3.10	275	eSn	Sn	05 29 36.2	-1.3
	1.2nm,0.2s						
LMR	La Mourre	3.10	275	ePn	Pn	05 29 00.4	-0.5
MBDF	Montbardon	3.28	300	ePn	Pn	05 29 04.2	+0.9
MBDF				eSn	Sn	05 29 42.1	+0.2
	4.8nm,0.7s						
MBDF	Montbardon	3.28	300	ePn	Pn	05 29 04.2	+0.9
MBDF				eSn	Sn	05 29 42.1	+0.2
	2.4nm,0.7s						
LPL	La Plagne	3.73	311	ePn	Pn	05 29 10.4	+0.9
LPL	La Plagne	3.73	311	ePn	Pn	05 29 10.4	+0.9
SMRF	Simiane la Rot	3.85	284	ePn	Pn	05 29 12.7	+1.5
SMRF	Simiane la Rot	3.85	284	ePn	Pn	05 29 12.7	+1.5
ORIF	Oris-en-Rattie	3.93	299	ePn	Pn	05 29 13.1	+0.8
ORIF	Oris-en-Rattie	3.93	299	ePn	Pn	05 29 13.1	+0.8
LASF	Ste Croix	5.09	283	ePn	Pn	05 29 28.4	+0.2
LASF	Ste Croix	5.09	283	ePn	Pn	05 29 28.4	+0.2
CDF	Champ du Feu	5.80	337	ePn	Pn	05 29 38.8	+0.8
CDF	Champ du Feu	5.80	337	ePn	Pn	05 29 38.8	+0.8
MTLF	Montolieu	6.23	275	ePn	Pn	05 29 43.9	0.0
MTLF	Montolieu	6.23	275	ePn	Pn	05 29 43.9	0.0
CAF	Calviac	6.51	289	ePn	Pn	05 29 48.6	+1.0
CAF	Calviac	6.51	289	ePn	Pn	05 29 48.6	+1.0

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*NIED **06** 05:43:00, 44°.60N×149°.50E, h17^{km}, Mw4.0 Best double couple: M$_0$1.27000×10^{15} NP1:φ$_s$18.00000°, δ78.00000°, λ59.00000°. NP2:φ$_s$268.00000°, δ33.00000°, λ157.00000°.*
*BJI **06** 05:43:10.7, 44°.23N×149°.76E, h40^{km}, mB4.8/9, mb4.6/21, Ms4.3/2, Ms7 4.1/2*
*JMA **06** 05:43:12.3±0.4, 44°.59N×149°.46E, h30^{km}, M4.7*
*ISCJB **06** 05:43:14.7±0.3, 44°.27N±0°.05×149°.23E±0°.05, h48^{km}, mb4.5/53, MS3.7/2, Error ellipse: s-maj=7.7km s-min=3.5km az=147.4*
*MOS **06** 05:43:14.5±1.2, 44°.49N×149°.23E, h42^{km}, mb4.9/9, Error ellipse: s-maj=10.4km s-min=7.5km az=101.0*
*SKHL **06** 05:43:14.1±0.8, 44°.43N×149°.41E, h49^{km}±18^{km}, mb5.5/1, Ms3.8/1*
*NEIC **06** 05:43:15.7±0.9, 44°.35N×149°.33E, h44^{km}±8^{km}, mb4.7/7, Error ellipse: s-maj=9.7km s-min=6.8km az=138.0*
*IDC **06** 05:43:16.5±0.5, 44°.46N×149°.25E, h48^{km}±3^{km}, mb3.9/20, mb1 4.1/22, mb1mx4.0/26, mbtmp3.9/22, MS3.3/1, Ms1 3.3/1, ms1mx2.6/34, Error ellipse: s-maj=14.1km s-min=11.0km az=146.0*
ISC 06 05:43:16.5±0.3**, 44°.28N**±0°.04×**149°.26E**±0°.05**, h50**^{km}**, h50**^{km}±1.9^{km}**:pP-P, n142, σ1^{s}.06**/156**, mb4.5**/53**, MS3.7**/2**, 7C-9D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	1.38	314	⇓iPN	Pn	05 43 33.4	-5.9
KUR				eS	Sn	05 43 50.0	-6.4
KUR				pmax	pmax		
	comp=N,550nm,0.5s						
KUR				pmax	pmax		
	comp=E,380nm,0.5s						
KUR				pmax	pmax		
	comp=Z,2μm,0.5s						
KUR				pmax	pmax		
	comp=Z,2μm,1.6s						
KUR				smax			
	comp=N,4μm,0.5s						
KUR				smax			
	comp=E,3μm,0.5s						
KUR				smax			
	comp=N,8μm,1.2s						
KUR				smax			
	comp=E,6μm,1.2s						
KUR	Kuril'sk	1.38	314	⇓iP	Pn	05 43 33.4	-5.9
KUR				AMB	AMB	05 43 33.7	
	comp=E,550nm,0.5s						
KUR				AMB	AMB	05 43 33.7	
	comp=E,380nm,0.5s						
KUR				AMB	AMB	05 43 33.7	
	comp=E,2μm,0.5s						
KUR				AMB	AMB	05 43 35.6	
	comp=E,2μm,1.6s						
KUR				eS	Sn	05 43 50.0	-6.4
KUR				A		05 43 53.7	
	comp=E,4μm,0.5s						
KUR				A		05 43 53.7	
	comp=E,3μm,0.5s						
KUR				A		05 43 57.6	
	comp=E,8μm,1.2s						
KUR				A		05 43 57.6	
	comp=E,6μm,1.2s						
YUK	Yuzh-Kuril'sk	2.46	265	ePN	Pn	05 43 55.3	+1.2
YUK				eS	Sn	05 44 25.5	+2.6
YUK				pmax	pmax		
	comp=N,270nm,0.2s						
YUK				pmax	pmax		
	comp=Z,530nm,0.2s						
YUK				pmax	pmax		
	comp=E,170nm,0.4s						
YUK				smax			
	comp=E,350nm,0.4s						
YUK				smax			
	comp=N,2μm,0.5s						
YUK				smax			
	comp=N,5μm,1.0s						
YUK				smax			
	comp=E,3μm,1.0s						
YUK	Yuzh-Kuril'sk	2.46	265	eP	Pn	05 43 55.3	+1.2
YUK				AMB	AMB	05 43 57.4	
	comp=E,270nm,0.2s						
YUK				AMB	AMB	05 43 57.4	
	comp=E,530nm,0.2s						
YUK				AMB	AMB	05 43 57.4	
	comp=E,170nm,0.3s						
YUK				eS	Sn	05 44 25.5	+2.6
YUK				A		05 44 42.5	
	comp=E,2μm,0.5s						
YUK				A		05 44 42.5	
	comp=E,350nm,0.5s						
YUK				A		05 44 46.7	
	comp=E,5μm,1.0s						
YUK				A		05 44 46.7	
	comp=E,3μm,1.0s						
NEM2	Nemuro 2	2.70	251	P	Pn	05 43 55.9	-1.6
NEM2				eS	Sn	05 44 28.7	-0.2
JRA	Rausu	3.00	265	P	Pn	05 44 01.8	+0.3
JRA				eS	Sn	05 44 39.0	+2.8
JNK	Nakash	3.35	260	P	Pn	05 44 05.9	-0.4
JAK	Akkeshi	3.55	250	P	Pn	05 44 07.9	-1.2

JAK				eS	Sn	05 44 48.5	-1.3
JTKR	Abashiri--Toko	3.87	267	P	Pn	05 44 13.9	+0.5
JAR	Ashorobuto	4.09	258	P	Pn	05 44 16.8	+0.3
JOB	Onbets	4.17	253	P	Pn	05 44 17.2	-0.4
JMP	Maruseppu	4.25	268	P	Pn	05 44 19.6	+0.9
JCH	Churui	4.61	251	P	Pn	05 44 22.9	-0.6
JKK2	Kamakawa 2	4.71	267	P	Pn	05 44 26.2	+1.3
JFR	Furan	4.96	259	P	Pn	05 44 30.3	+1.9
ERM	Erimo	5.00	245	eP	Pn	05 44 29.8	+0.8
ERM	Erimo	5.00	245	ePn	Pn	05 44 29.7	+0.7
	comp=E,102nm,0.4s						
JNBK	Urakawa-nobuka	5.15	249	P	Pn	05 44 30.3	-0.7
JNBK				eS	Sn	05 45 28.9	-0.3
JBT2	Biratori 2	5.23	256	P	Pn	05 44 31.8	-0.3
YSS	Yuzh-Sakhalins	5.29	303⇓	ePN	Pn	05 44 32.7	-0.2
YSS				eS	Sn	05 45 31.3	-1.2
YSS				pmax	pmax		
	comp=Z,30nm,0.4s						
YSS	Yuzh-Sakhalins	5.29	303⇓	eP	Pn	05 44 32.7	-0.2
YSS				AMB	AMB	05 44 37.0	
	comp=Z,30nm,0.4s						
YSS				eS	Sn	05 45 31.3	-1.2
YSS	Yuzh-Sakhalins	5.29	303	ePn	Pn	05 44 34.3	+1.4
	comp=Z,29nm,0.3s						
JEW	Eniwo	5.85	258	P	Pn	05 44 42.0	+1.4
JNB	Noboribetsu	6.26	256	P	Pn	05 44 46.1	-0.1
JNB				eS	Sn	05 45 56.9	+0.6
JKB	Kayabe	6.48	251	eS	Sn	05 45 58.0	-3.8
JYM2	Yakumo 2	6.85	255	P	Pn	05 44 54.4	+0.2
UGL	Uglegorsk	6.89	317	eP	Pn	05 44 55.0	+0.2
UGL				AMB	AMB	05 44 57.5	
	comp=Z,30nm,0.8s						
UGL				AMS	AMS	05 47 54.0	
	comp=Z,500nm,16.0s						
UGL				AMS	AMS	05 47 54.0	
	comp=Z,500nm,16.0s						
JANG	Nango	6.94	238	P	Pn	05 44 53.0	-2.5
JANG				eS	Sn	05 46 07.3	-5.8
JTM	Tenmabayashi	6.98	243	P	Pn	05 44 54.8	-1.3
JTM				eS	Sn	05 46 10.2	-3.9
JTH	Tanohata	7.00	234	P	Pn	05 44 53.5	-2.9
JTH				eS	Sn	05 46 08.0	-6.6
JSR	Shiriuchi	7.05	250	P	Pn	05 44 55.5	-1.5
JOSM	Okushiri--Mats	7.48	256	P	Pn	05 45 02.8	-0.1
OFUJ	Ofunato	7.70	230	P	Pn	05 45 04.7	-1.2
OFUJ				eS	Sn	05 46 25.0	-6.6
SKR	Severo-Kuril's	7.91	33	ePN	Pn	05 45 05.9	-2.9
SKR				e		05 46 38.5	
TYV	Tymovskoe	7.96	328	eP	Pn	05 45 08.5	-0.9
TYV				AMB	AMB	05 45 14.5	
	comp=Z,22nm,1.0s						
TYV				AMB	AMB	05 45 14.5	
	comp=Z,7.0nm,0.5s						
TYV				AMB	AMB	05 45 14.5	
	comp=Z,22nm,0.8s						
TYV				AMB	AMB	05 45 15.0	
	comp=Z,500nm,4.0s						
TYV				AMB	AMB	05 45 15.0	
	comp=Z,500nm,5.0s						
TYV				AMB	AMB	05 45 15.0	
	comp=Z,400nm,6.0s						
JRG	Rokugo	8.08	236	P	Pn	05 45 10.2	-0.9
JRG				eS	Sn	05 46 35.2	-5.8
JIO	Ouri	8.32	228	P	Pn	05 45 11.2	-3.2
JIO				eS	Sn	05 46 37.9	-9.0
JFK	Kawauchi	9.38	225	P	Pn	05 45 25.6	-3.4
JFK				eS	Sn	05 47 04.3	-8.7
PETK	Petropavlovsk-	10.44	29	P	Pn	05 45 41.2	-2.2
	comp=Z,0.5nm,0.3s,baz=211,slow=11,SNR=11						
NKL	Nikolayevsk	10.53	331	eP	Pn	05 45 40.0	-4.5
NKL				AMB	AMB	05 45 42.2	
	comp=Z,65nm,1.5s						
NKL				AMB	AMB	05 45 42.2	
	comp=Z,20nm,1.1s						
HABR	Khabarovsk	10.67	298	ePN	Pn	05 45 43.8	-2.8
MJAR	Matsushiro Arr	11.42	231	P	Pn	05 45 55.3	-1.6
	comp=Z,0.3nm,0.3s,baz=30,slow=14,SNR=9.0						
CN2	Changchun	17.12	277	eP	Pn	05 47 12.3	+0.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CN2				pmax	pmax		
	comp=Z,200nm,7.0s						
CN2				LR	LR		
	comp=N,400nm,12.0s						
CN2				LR	LR		
	comp=E,400nm,12.0s						
CN2				LR	LR		
	comp=Z,400nm,13.0s						
ZEA	Zeya	17.20	311	eP	Pn	05 47 11.1	-1.9
ZEA				AMB	AMB	05 47 12.4	
	comp=Z,17nm,1.0s						
KSRS	Korea Array	17.49	254	P	Pn	05 47 17.1	+0.4
	comp=Z,0.2nm,0.3s,baz=60,slow=12,SNR=5.0						
KSRS				LR	LR	05 54 36.4	
	comp=Z,100nm,18.8s,baz=165,slow=39						
SEY	Seymchan	18.78	4⇑	eP	Pn	05 47 29.9	-2.2
YAK	Yakutsk	21.15	334	P	P	05 47 55.9	-1.1
BILL	Bilibino	25.44	15⇑	eP	P	05 48 39.6	+0.4
BILL				e		05 49 16.0	
BILL				eS	S	05 52 55.6	-6.6
BILL				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb3.9						
NJ2	Nanjing	26.68	253	eP	P	05 48 50.7	0.0
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
TIXI	Tiksi	29.17	347⇑	eP	P	05 49 08.6	-3.9
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
TIXI				MLR	MLR		
	comp=Z,100nm,15.0s,MS3.6						
ULN	Ulaanbaatar	29.23	292	eP	P	05 49 13.2	-0.1
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
ULN	Ulaanbaatar	29.23	292	eP	P	05 49 13.2	-0.1
	comp=Z,2.4nm,0.8s,mb4.0						
SONM	Songino Array	29.68	292	P	P	05 49 17.4	+0.2
	comp=Z,1.9nm,0.6s,mb4.0,baz=77,slow=8.2,SNR=18						
SONM				PcP	PcP	05 52 21.2	+0.9
	comp=Z,0.5nm,0.8s,baz=139,slow=3.0,SNR=3.9						
LZH	Lanzhou	35.27	273	eP	P	05 50 06.0	-0.3
LZH				pP	pP	05 50 15.0	-4.4
LZH				sP	sP	05 50 20.5	-4.9
LZH				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
LZH				pmax	pmax		
	comp=Z,120nm,4.4s						
GTA	Gaotai	36.70	280	eP	P	05 50 19.5	+1.0
GTA				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.5						
KDAK	Kodiak Island	37.77	48	iP	P	05 50 26.6	-0.7
KDAK	Kodiak Island	37.77	48	P	P	05 50 25.4	-1.8
	comp=Z,5.3nm,0.6s,mb4.5,baz=121,slow=8.7,SNR=5.3						
CD2	Chengdu	37.97	265	P	P	05 50 28.7	-0.6
CD2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
CD2				pmax	pmax		
	comp=Z,190nm,4.7s						
COLA	College	39.75	36	eP	P	05 50 42.8	-0.9
COLA				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.6						
COLA	College	39.75	36	eP	P	05 50 42.8	-0.9
	comp=Z,13nm,1.1s,mb4.6						
ZALV	Zalesovo Beam	41.90	307	P	P	05 51 01.1	-0.4
	comp=Z,0.8nm,0.5s,mb3.6,baz=83,slow=9.2,SNR=4.6						
ZALV				PcP	PcP	05 52 56.5	+0.2
	comp=Z,2.3nm,0.7s,baz=71,slow=2.9,SNR=10						
ZALV				pPcP		05 53 09.6	
	comp=Z,1.9nm,0.6s,baz=66,slow=2.5,SNR=7.2						
MKAR	Makanchi Array	45.69	298	P	P	05 51 31.5	-0.6
	comp=Z,3.1nm,0.8s,mb4.3,baz=74,slow=8.0,SNR=38						
MKAR				PcP	PcP	05 53 09.8	+0.5
	comp=Z,0.9nm,0.6s,baz=89,slow=5.0,SNR=4.5						
MKAR				pPcP		05 53 23.2	
	comp=Z,0.7nm,0.6s,baz=70,slow=4.4,SNR=3.8						
MKAR	Makanchi Array	45.69	298	P	P	05 51 31.5	-0.6
MKAR				PcP	PcP	05 53 09.8	+0.5
MKAR				pPcP		05 53 23.2	
KURK	Kurchatov	46.49	304	P	P	05 51 38.1	-0.3
	comp=Z,1.3nm,0.4s,mb4.2,baz=74,slow=8.4,SNR=3.7						
CMAR	Chiang Mai Arr	49.13	255	P	P	05 52 00.3	+1.2
	comp=Z,0.8nm,0.3s,mb4.2,baz=37,slow=7.6,SNR=5.2						
CMAR				pP	pP	05 52 12.7	-0.2
	comp=Z,1.1nm,0.4s,baz=48,slow=7.4,SNR=1.7						
TAPN	Taplejung	51.52	272	eP	P	05 52 18.2	+1.1
	comp=Z,12nm,0.8s,mb4.8						
ODAN	Odare	52.03	272	eP	P	05 52 21.9	+0.9
	comp=Z,4.4nm,0.5s,mb4.7						
JIRN	Jiri	52.42	274	eP	P	05 52 25.4	+1.5
	comp=Z,4.4nm,0.2s,mb5.0						
GUN	Gumba	52.50	274	eP	P	05 52 25.2	+0.8
	comp=Z,28nm,0.7s,mb5.3						
RAMN	Ramite	52.55	273	eP	P	05 52 25.5	+0.7
	comp=Z,19nm,0.5s,mb5.3						
KKN	Kakani	53.00	275	eP	P	05 52 29.2	+1.1
DMN	Daman	53.23	274	eP	P	05 52 30.7	+0.9
	comp=Z,10nm,0.5s,mb5.0						
GKN	Gorkha	53.33	275	eP	P	05 52 31.3	+0.7
DANN	Dangsing	53.76	276	eP	P	05 52 35.0	+1.3
	comp=Z,25nm,0.8s,mb5.2						
KOLN	Koldanda	54.21	276	eP	P	05 52 37.9	+0.9
	comp=Z,11nm,0.6s,mb5.0						
PYUN	Piuthan	54.45	276	eP	P	05 52 39.5	+0.7
	comp=Z,12nm,0.7s,mb4.9						
YKA	Yellowknife Ar	54.51	35	P	P	05 52 38.2	-0.5
	comp=Z,1.1nm,0.5s,mb4.1,baz=298,slow=6.8,SNR=29						
YKA	Yellowknife Ar	54.51	35	P	P	05 52 38.2	-0.5
KEV	Kevo	58.75	340	ep	P	05 53 03.7	-4.9
ARCES	ARCESS Array B	59.28	340	P	P	05 53 09.9	-2.4
	comp=Z,2.7nm,0.9s,mb4.3,baz=31,slow=7.4,SNR=3.3						
JOF	Joensuu	62.32	333	eP	P	05 53 29.2	-3.9
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
JOF	Joensuu	62.32	333	ep	P	05 53 29.2	-3.9
	comp=Z,1.6nm,0.5s,mb4.4						
FFC	Flin Flon	64.36	38	iP	P	05 53 47.3	+0.6
WRA	Warramunga Arr	65.35	195	P	P	05 53 53.8	+0.4
	comp=Z,0.6nm,0.5s,mb3.9,baz=14,slow=6.7,SNR=9.1						
WRA				pP	pP	05 54 08.3	+0.8
	comp=Z,1.0nm,0.8s,baz=16,slow=6.7,SNR=4.7						
FITZ	Fitzroy Crossi	65.73	205	P	P	05 53 56.3	+0.4
	comp=Z,2.3nm,0.8s,mb4.2,baz=135,slow=5.7,SNR=3.2						
NVAR	Mina Array Bea	66.00	59	P	P	05 53 57.9	+0.3
	comp=Z,1.0nm,0.7s,mb4.0,baz=290,slow=7.2,SNR=8.9						
NVAR				pP	pP	05 54 11.6	-0.2
	comp=Z,0.6nm,0.6s,baz=299,slow=7.3,SNR=3.9						
NVAR	Mina Array Bea	66.00	59	P	P	05 53 57.9	+0.3
NVAR				pP	pP	05 54 11.6	-0.2
VSR	Storozhevoye	67.31	320⇓	eP	P	05 54 05.6	-0.1
VORD	Divnogorie	67.43	320	eP	P	05 54 06.0	-0.4
VORD				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb5.1						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
PDAR	Pinedale Array	68.40	51	P	P	05 54 13.0	+0.3
	comp=E,1.4nm,0.7s,mb4.1,baz=258,slow=2.5,SNR=12						
PDAR				pP	pP	05 54 26.2	-0.7
	comp=E,2.6nm,0.8s,baz=279,slow=3.3,SNR=12						
ASAR	Alice Springs	69.06	195	P	P	05 54 18.7	+1.9
	comp=E,1.0nm,0.8s,mb3.8,baz=14,slow=7.0,SNR=7.5						
ASAR				pP	pP	05 54 33.0	+1.9
	comp=E,0.7nm,0.8s,baz=9.1,slow=4.7,SNR=3.6						
NB2	NORSAR Subarra	69.65	340	P	P	05 54 18.6	-1.5
	comp=Z,5.0nm,0.7s,mb4.5,baz=32,slow=6.5						
NOA	NORSAR Array B	69.65	340	P	P	05 54 18.7	-1.4
	comp=Z,3.5nm,0.5s,mb4.5,baz=31,slow=6.4,SNR=13						
NOA				pP	pP	05 54 33.6	-0.8
	comp=Z,0.9nm,0.7s,baz=31,slow=6.2,SNR=3.3						
ULM	Lac du Bonnet	70.15	38	P	P	05 54 22.3	-1.1
	comp=Z,1.2nm,0.5s,mb4.1,baz=217,slow=5.1,SNR=2.7						
KIV	Kislovodsk	70.53	313	eP	P	05 54 27.7	+1.9
KIV				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
KIV				MLR	MLR		
	comp=Z,56nm,19.0s,MS3.8						
GNI	Garni	72.01	309⇓	eP	P	05 54 37.1	+2.3
GNI				pmax	pmax		
	comp=Z,7.0nm,1.2s						
AKASG	Malin Array Be	72.04	325	P	P	05 54 33.8	-1.1
	comp=Z,4.2nm,0.7s,mb4.5,baz=35,slow=5.9,SNR=12						
AKASG				pP	pP	05 54 46.6	-2.5
	comp=Z,1.0nm,0.5s,baz=36,slow=6.3,SNR=3.4						
AKASG	Malin Array Be	72.04	325	P	P	05 54 33.8	-1.1
AKASG				pP	pP	05 54 46.6	-2.5
KWP	Kalwaria Pacla	75.50	327	P	P	05 54 55.2	+0.1
	comp=Z,129nm,1.8s,mb5.6						
BUR08	Bucovina Ar. S	76.08	325	eP	P	05 54 58.5	+0.1
BURAR	Bucovina Array	76.10	325⇓	iP	P	05 54 58.5	0.0
OJC	Ojcow	76.12	329	eP	P	05 54 58.7	+0.1
KOLS	Kolonicke sedl	76.23	327	eP	P	05 54 57.3	-2.0
STHS	Stebnicka Huta	76.23	328	iP	P	05 55 00.0	+0.7
STHS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
NIE	Niedzica	76.58	329	eP	P	05 55 02.1	+0.8
SCHQ	Schefferville	76.61	21	P	P	05 55 01.2	-0.1
	comp=Z,2.3nm,0.8s,mb4.2,baz=39,slow=19,SNR=4.6						
MORC	Moravsky Berou	77.30	330⇓	iP	P	05 55 05.9	+0.6
MLR	Muntele Rosu	77.47	323⇑	iP	P	05 55 06.8	+0.5
CLL	Collm	77.53	334	iP	P	05 55 06.3	-0.3
CLL				e*PP	pP	05 55 22.0	+1.0
CLL				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
CLL	Collm	77.53	334	iP	P	05 55 06.3	-0.3
	comp=Z,12nm,1.0s,mb4.8						
CLL				e(pP)	pP	05 55 22.0	+1.0
CLL				esP	sP	05 55 26.0	-0.7
CLL	Collm	77.53	334	iP	P	05 55 06.3	-0.3
	comp=Z,12nm,1.0s,mb4.8						
CLL				epP	pP	05 55 22.0	+1.0
VYHS	Vyhne	77.90	329	eP	P	05 55 09.3	+0.7
BR131	Keskin Array S	78.27	315	eP	P	05 55 11.2	+0.3
	comp=Z,1.6nm,0.7s,mb4.1						
BRTR	Keskin Array B	78.27	315	P	P	05 55 11.1	+0.3
	comp=Z,1.8nm,0.6s,mb4.2,baz=88,slow=3.0,SNR=15						
BRTR				pP	pP	05 55 25.2	-0.1
	comp=Z,1.4nm,0.6s,baz=95,slow=3.6,SNR=6.4						
GZR	Gura Zlata	78.89	325⇑	iP	P	05 55 14.2	0.0
BZS	Buzias	79.18	326⇑	iP	P	05 55 15.9	+0.1
KHC	Kasperske Hory	79.22	332	eP	P	05 55 16.0	+0.1
KHC				epP	pP	05 55 32.0	+1.6
GERES	GERESS Array B	79.42	332	P	P	05 55 17.0	0.0
	comp=Z,0.8nm,0.5s,mb3.9,baz=35,slow=4.9,SNR=6.1						
GERES				pP	pP	05 55 30.8	-0.7
	comp=Z,1.3nm,0.6s,baz=34,slow=5.3,SNR=5.2						
KBA	Koelnbreinsper	81.07	331⇑	iP	P	05 55 26.5	+0.6
	comp=Z,4.9nm,0.8s,mb4.5						
TXAR	Lajitas Array	81.09	58	P	P	05 55 26.5	+0.2
	comp=Z,2.6nm,0.6s,mb4.3,baz=299,slow=4.1,SNR=60						
TXAR				pP	pP	05 55 40.2	-0.6
	comp=Z,3.2nm,0.6s,baz=303,slow=4.3,SNR=13						
TXAR	Lajitas Array	81.09	58	P	P	05 55 26.5	+0.2
TXAR				pP	pP	05 55 40.2	-0.6
MOTA	Moosalm	81.59	333⇓	iP	P	05 55 29.1	+0.4
	comp=Z,12nm,1.1s,mb4.7						
FLN	La Foliniere	83.62	340	eP	P	05 55 38.3	-0.9
LOR	Lormes	83.87	337	eP	P	05 55 41.2	+0.7
SMF	Signal de Mont	84.44	337	eP	P	05 55 44.3	+0.9
	comp=Z,20nm,1.0s,mb4.9						
AVF	Avril sur Loir	84.45	337	eP	P	05 55 44.0	+0.6
	comp=Z,13nm,1.0s,mb4.7						
LPL	La Plagne	84.61	335	eP	P	05 55 45.0	+0.7
	comp=Z,6.9nm,0.6s,mb4.6						
LPG	La Plagne	84.62	335	eP	P	05 55 45.1	+0.8
	comp=Z,8.0nm,0.7s,mb4.6						
BGF	Bois d'Agland	84.80	337	eP	P	05 55 45.7	+0.5
MBDF	Montbardon	85.31	334	eP	P	05 55 48.4	+0.6
	comp=Z,5.1nm,0.6s,mb4.5						
ORIF	Oris-en-Rattie	85.41	335	eP	P	05 55 48.9	+0.6
	comp=Z,8.4nm,0.8s,mb4.6						
MFF	Saint Martin d	85.55	339	eP	P	05 55 49.3	+0.3
	comp=Z,13nm,0.8s,mb4.9						
MFF	Saint Martin d	85.55	339	eP	P	05 55 49.3	+0.3
MFF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.9						
MFF	Saint Martin d	85.55	339	eP	P	05 55 49.3	+0.3
	comp=Z,6.7nm,0.8s,mb4.9						
ETSF	Etsaut	89.11	338	eP	P	05 56 07.2	+1.0
	comp=Z,9.9nm,0.9s,mb4.8						
ETSF	Etsaut	89.11	338	eP	P	05 56 07.2	+1.0
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
ETSF	Etsaut	89.11	338	eP	P	05 56 07.2	+1.0
	comp=Z,4.9nm,0.9s,mb4.8						
TORD	Torodi Ar. Bea	115.68	325	PKP	PKPdf	06 01 52.8	-0.7
	comp=Z,0.3nm,0.5s,baz=4.0,slow=1.4,SNR=7.2						
TORD				pPKP	pPKPdf	06 02 06.2	-2.5
	comp=Z,0.3nm,0.5s,baz=31,slow=1.3,SNR=2.3						
VNA2	Neumayer--Watz	150.91	196	ePKPdf	PKPbc	06 03 03.8	+1.7
	baz=11,slow=2.0						
VNA3	Neumayer Olymp	151.06	194	ePKPdf	PKPbc	06 03 03.3	+0.9
CPUP	Villa Florida	152.05	59	PKPbc	PKPbc	06 03 06.0	-0.1
	comp=Z,1.0nm,0.6s,baz=286,slow=5.3,SNR=4.6						
CPUP				PKPab	PKPab	06 03 15.3	-0.4
	comp=Z,0.6nm,0.6s,baz=48,slow=6.8,SNR=4.0						
CPUP	Villa Florida	152.05	59	PKPbc	PKPbc	06 03 06.0	-0.1
CPUP				PKPab	PKPab	06 03 15.3	-0.4

GUC 06 05:49:51.3±0.5**, 23°.73S**×**67°.59W, h232**^{km}±5^{km}**, ML4.0, 1C,**
Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.65	312⇑	iP	Pn	05 50 30.7	+1.5
LVC				eS	S	05 51 01.2	+2.3
PECH	Pedro de Valdi	2.23	300	eP	Pn	05 50 36.4	+1.8
PECH				iS	S	05 51 10.6	+2.1
PECH				AML	AML	05 51 12.1	
	comp=E,535nm,0.3s						
PB04	Plate Boundary	2.28	309	eP	Pn	05 50 42.5	+7.4
PB04				iS	S	05 51 20.9	+12
PB04				AML	AML	05 51 25.5	
	comp=N,173nm,0.3s						
TOCH	Tocopilla	2.91	304	iS	S	05 51 23.4	+2.0
HMBC	Humberston	4.05	328	eP	Pn	05 50 57.7	+2.8

ISCJB ***06*** *05:57:36.9±0.6, 22°.29N±0°.03×121°.75E±0°.02, h1*^{km}*±4*^{km}*, mb3.7/9, Error ellipse: s-maj=4.5km s-min=3.1km az=175.5*

IDC ***06*** *05:57:36.6±0.9, 22°.11N×121°.56E, h0*^{km}*, mb3.7/10, mb1 4.0/11, mb1mx3.9/21, mbtmp3.8/11, ML3.6/1, MS3.1/1, Ms1 3.1/1, ms1mx2.2/30, Error ellipse: s-maj=27.7km s-min=18.4km az=70.0*

NEIC ***06*** *05:57:38.1±0.7, 22°.21N×121°.58E, h10*^{km}*, MG4.2(JMA), Error ellipse: s-maj=15.0km s-min=9.0km az=73.0*

TAP ***06*** *05:57:40.9, 22°.34N×121°.59E, h22*^{km}*, ML4.2, C*

BJI ***06*** *05:57:40.3, 22°.40N×121°.54E, h16*^{km}*, mb4.0/4, ML3.7/2*

JMA ***06*** *05:57:42.0±0.2, 22°.27N×121°.87E, h82*^{km}*, M4.2*

ISC 06 05:57:37.9±0.6**, 22°.32N**±0°.02×**121°.73E**±0°.02**, h0**^{km}±3^{km}**,**
n84, σ1^{s}.**08**/120**, mb3.7**/9**, 15C-7D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LAY	Lan-yu	0.32	211⇓	iP	Pg	05 57 47.1	+3.1
	baz=181						
TTN	Taitung	0.69	309	eP	Pg	05 57 51.8	+0.6
	baz=325						
ECL	Taimali	0.77	291⇑	iP	Pg	05 57 52.9	+0.3
	baz=293						
TAW	Tawu	0.77	273	eP	Pg	05 57 52.8	+0.2
	baz=271						
TAW				eS	Sg	05 58 01.1	-1.5
	baz=271						
TWG	Pinlang	0.79	310	ePg	Pg	05 57 53.2	+0.3
TWG				eSg	Sg	05 58 00.2	-3.0
TWG	Pinlang	0.79	310	P	Pg	05 57 53.9	+0.9
	baz=323						
TWG				eS	Sg	05 58 03.0	-0.2
	baz=323						
EAST	Anshuo	0.82	275	⇑P	Pg	05 57 53.7	+0.2
	baz=273						
EAST				eS	Sg	05 58 02.4	-1.8
	baz=273						
CHKT	Chengkung	0.85	337⇓	eP	Pg	05 57 54.6	+0.5
	baz=356						
CHKT				eS	Sg	05 58 04.6	-0.6
	baz=356						
TSEB	Hengchuen, Pin	0.87	242⇑	iP	Pg	05 57 55.7	+1.1
	baz=242						
TSEB				eS	Sg	05 58 06.2	+0.3
	baz=242						
TWK1	Hengchun	0.93	247⇑	iP	Pg	05 57 55.9	+0.1
	baz=241						
TWK1				eS	Sg	05 58 06.3	-1.5
	baz=241						
HEN	Hengchun	0.97	252⇑	iP	Pg	05 57 56.6	+0.2
	baz=243						
HEN				S	Sg	05 58 07.6	-1.4
	baz=243						
ELDTW	Lidau	1.09	323	⇑P	Pg	05 57 58.1	-0.6
	baz=334						
SSD	Sandimen	1.10	293	⇑P	Pg	05 57 58.0	-0.9
	baz=294						
TWF1	Yuli	1.10	339	⇓P	Pg	05 57 58.8	-0.2
	baz=354						
YULB	Yu-li	1.14	340	ePg	Pg	05 57 59.5	-0.3
YULB				eSg	Sg	05 58 12.8	-1.8
SGLT	Jiouru	1.21	290	eP	Pg	05 58 00.1	-1.0
	baz=295						
STYT	Tauyuan	1.23	313	⇑P	Pg	05 58 00.8	-0.7
	baz=327						
EHY	Hungye	1.24	343	eP	Pg	05 58 00.9	-0.8
	baz=355						
EHY				eS	Sg	05 58 15.9	-1.9
	baz=355						
TWP	Hsiaoliuchiu	1.27	272⇑	iP	Pg	05 58 03.9	+1.8
	baz=270						
TWP				eS	Sg	05 58 21.5	+3.0
	baz=270						
SGST	Jiashian	1.30	306	⇑P	Pg	05 58 02.9	0.0
	baz=308						
SGST				eS	Sg	05 58 19.8	0.0
	baz=308						
TWM1	Shoushan	1.31	293	eP	Pg	05 58 03.2	+0.2
	baz=286						
YUS	Yu-Shan	1.37	329	eP	Pg	05 58 03.4	-0.8
	baz=341						
WTP	Ta-pu	1.38	312	⇑P	Pn	05 58 04.2	-0.2
	baz=315						
WTP				eS	Sg	05 58 23.3	+0.9
	baz=315						
CHN1	Nanshi	1.41	308⇑	iP	Pn	05 58 04.9	+0.2
	baz=310						
CHN1				eS	Sg	05 58 23.4	+0.3
	baz=310						
TPUB	Ta-pu	1.41	314	ePn	Pn	05 58 04.3	-0.5
TPUB				eSn	Sn	05 58 23.9	-0.1
ALS	Alishan	1.46	325	⇑P	Pn	05 58 05.2	-0.3
	baz=328						
ALS				eS	Sg	05 58 23.9	-1.0
	baz=328						
CHN3	Shinhua	1.47	301	eP	Pn	05 58 06.9	+1.3
	baz=302						
CHN3				eS	Sg	05 58 26.4	+1.3
	baz=302						
CHN4	Tsaushan	1.47	315	⇓P	Pn	05 58 05.8	+0.3
	baz=317						
CHN4				eS	Sg	05 58 25.4	+0.2
	baz=317						
TWK	Hsinying	1.48	310⇑	iP	Pn	05 58 06.1	+0.3
	baz=312						
TWK				eS	Sg	05 58 25.7	+0.1
	baz=312						
ESL	Shilin	1.52	350	eP	Pn	05 58 04.8	-1.4
	baz=5.0						
TAI1	Yung-k'ang	1.56	298	eP	Pn	05 58 08.6	+1.7
	baz=299						
CHN5	Tsauling	1.60	323	P	Pn	05 58 07.8	+0.4
	baz=326						
CHN5				eS	Sn	05 58 28.9	+0.2
	baz=326						
SSLB	Suanglung	1.63	334	ePn	Pn	05 58 07.6	-0.1
SCLT	Jiali	1.65	301	eP	Pn	05 58 08.4	+0.3
	baz=302						
SCLT				eS	Sn	05 58 28.2	-1.8
	baz=302						
HWA	Hwalien	1.66	356	eP	Pn	05 58 08.3	+0.1
CHN2	Minshiung	1.67	317	eP	Pn	05 58 09.1	+0.8
	baz=319						
CHN2				eS	Sn	05 58 30.4	-0.1
	baz=319						
CHY	Chiayi	1.68	315	P	Pn	05 58 09.3	+0.8
	baz=300						
CHY				eS	Sn	05 58 30.2	-0.6
	baz=300						
CHN8	Yiju	1.73	307	eP	Pn	05 58 08.8	-0.5
	baz=308						
SMLT	Sun Moon Lake	1.74	334⇓	eP	Pn	05 58 09.5	+0.3
	baz=348						
WGK	Gukeng	1.74	322	eP	Pn	05 58 09.9	+0.7
	baz=324						
WGK				eS	Sn	05 58 33.1	+1.1
	baz=324						
TWD	Chiawan	1.76	356	eP	Pn	05 58 08.2	-1.4
	baz=10.0						

TYC	**Yuchr**	1.77	333	⇑P	Pn	05 58 10.8	+1.0
	baz=343						
WNT	**Mingjian**	1.83	328	*e*P	Pn	05 58 11.9	+1.4
	baz=314						
WNT				*e*S	Sn	05 58 34.7	+0.4
	baz=314						
NACB	**Ninganchiao**	1.85	356	*e*Pn	Pn	05 58 09.7	-1.2
WHF	**Hehuan Shan**	1.87	347	*e*P	Pn	05 58 10.5	-0.6
	baz=360						
WSF	**Szhu**	1.91	314	*e*P	Pn	05 58 11.9	+0.2
	baz=316						
TCU	**Taichung**	2.06	332	*e*P	Pn	05 58 15.8	+2.1
	baz=335						
ENA	**Nanau**	2.10	0	*e*P	Pn	05 58 13.8	-0.5
	baz=13						
WDGT	**Dungji**	2.13	297	P	Pn	05 58 13.4	-1.2
	baz=297						
NNS	**Nan Shan**	2.14	351	*e*P	Pn	05 58 14.5	-0.3
	baz=5.0						
TWQ1	**Liyutan**	2.21	337	⇓P	Pn	05 58 17.7	+2.0
	baz=339						
TWQ1				*e*S	Sn	05 58 44.8	+1.2
	baz=339						
NSY	**Sanyi**	2.27	337	*e*P	Pn	05 58 18.4	+1.8
	baz=340						
NSY				*e*S	Sn	05 58 46.8	+1.5
	baz=340						
TWC	**Suao**	2.29	3	*e*P	Pn	05 58 16.7	-0.1
	baz=6.0						
ENTT	**Nioudou**	2.32	356	*e*P	Pn	05 58 17.1	-0.1
	baz=359						
PNG	**Penghu**	2.36	302	*e*P	Pn	05 58 16.7	-1.1
	baz=303						
YHNB	**Yeheng**	2.37	352	*e*Pn	Pn	05 58 18.6	+0.8
YHNB				*e*Sn	Sn	05 58 50.8	+3.2
NSK	**Sanguang**	2.37	352	*e*P	Pn	05 58 18.8	+0.8
	baz=4.0						
NSK				*e*S	Sn	05 58 46.0	-1.9
	baz=4.0						
TWE	**Neicheng**	2.40	359	*e*P	Pn	05 58 18.6	+0.3
	baz=2.0						
NSTT	**Nanjuang**	2.40	344	*e*P	Pn	05 58 20.1	+1.7
	baz=359						
YOJ	**Yonaguni jima**	2.44	29	P	Pn	05 58 20.4	+1.5
YOJ				*e*S	Sn	05 58 49.2	-0.2
HATJ	**Hateruma jima**	2.58	47	P	Pn	05 58 21.6	+0.8
HATJ				*e*S	Sn	05 58 51.7	-1.2
TWA	**Mucha**	2.66	357	⇓*e*P	Pn	05 58 23.8	+1.9
	baz=360						
IRIF	**Iriomote-Funau**	2.73	42	P	Pn	05 58 23.9	+1.1
IRIF				*e*S	Sn	05 58 55.9	-0.6
NWF	**Wu-fen Shan**	2.74	1	*e*P	Pn	05 58 23.4	+0.3
	baz=353						
TWS1	**Kuangyinshan**	2.79	354	*e*P	Pn	05 58 24.8	+1.1
	baz=9.0						
JKRS	**Kuro-shima**	2.84	47	P	Pn	05 58 25.5	+1.1
JKRS				*e*S	Sn	05 58 58.1	-1.2
JIJ	**Ishigaki jima**	3.01	47	P	Pn	05 58 27.3	+0.5
JIJ				*e*S	Sn	05 59 01.3	-2.3
JTJ	**Tarama**	3.58	49	P	Pn	05 58 35.5	+0.9
JTJ				*e*S	Sn	05 59 16.5	-1.1
KNM	**Kinmen**	3.68	305	*e*P	Pn	05 58 35.8	-0.2
	baz=304						
QZH	**Quanzhou**	3.89	313	Pn	Pn	05 58 38.7	-0.1
QZH				Sn	Sn	05 59 12.6	-13
QZH				smax			
	comp=N,220nm,0.4s						
QZH				smax			
	comp=E,380nm,0.8s						
JMJ	**Miyako jima 2**	4.11	52	*e*S	Sn	05 59 29.6	-1.1
KSRS	**Korea Array**	16.01	18	Pn	Pn	06 01 25.9	+1.6
	comp=E,0.2nm,0.3s,baz=202,slow=13,SNR=21						
KSRS				LR	LR	06 08 17.5	
	comp=E,67nm,18.3s,baz=205,slow=40						
MJAR	**Matsushiro Arr**	20.13	42	P	P	06 02 16.1	+2.7
	comp=E,1.0nm,0.3s,baz=233,slow=9.0,SNR=7.7						
CMAR	**Chiang Mai Arr**	21.70	264	P	P	06 02 27.4	-3.0
	comp=E,0.9nm,0.3s,mb3.6,baz=69,slow=8.8,SNR=4.7						
SONM	**Songino Array**	28.28	338	P	P	06 03 33.8	+1.1
	comp=E,0.9nm,0.8s,mb3.6,baz=143,slow=8.4,SNR=6.0						
MKAR	**Makanchi Array**	40.03	317	P	P	06 05 14.2	-0.3
	comp=E,1.2nm,0.7s,mb3.6,baz=110,slow=9.6,SNR=16						
ZAA0	**Zalesovo Array**	42.08	328	*e*P	P	06 05 29.8	-1.4
ZALV	**Zalesovo Beam**	42.08	328	P	P	06 05 29.9	-1.4
	comp=E,0.8nm,0.3s,mb3.9,baz=98,slow=6.3,SNR=7.0						
WRA	**Warramunga Arr**	43.77	163	P	P	06 05 42.1	-3.2
	comp=E,0.6nm,1.0s,mb3.3,baz=343,slow=9.1,SNR=3.6						
ASAR	**Alice Springs**	47.22	165	P	P	06 06 11.1	-1.4
	comp=E,0.2nm,0.3s,mb3.7,baz=344,slow=6.9,SNR=3.6						
BRTR	**Keskin Array B**	74.69	307	P	P	06 09 18.8	-0.6
	comp=E,0.4nm,0.6s,mb3.6,baz=81,slow=8.9,SNR=3.2						
YKA	**Yellowknife Ar**	84.49	23	P	P	06 10 11.5	-0.8
	comp=E,0.4nm,0.9s,mb3.7,baz=311,slow=5.3,SNR=6.7						
YKA	**Yellowknife Ar**	84.49	23	P	P	06 10 11.5	-0.8
GERES	**GERESS Array B**	84.60	321	P	P	06 10 11.2	-1.9
	comp=E,0.8nm,0.6s,mb4.1,baz=15,slow=5.5,SNR=4.8						

CASC 06 06:00:22.6±1.3, 12°.74N×88°.87W, h38^{km}±206^{km}, MD3.9, ML2.9, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNVI	**San Vicente**	0.86	2	*e*P	Pn	06 00 38.4	+0.1
SNVI				*e*S	Sn	06 00 51.2	+1.5
VSM	**San Miguel**	0.89	40	*e*P	Pn	06 00 39.0	+0.3
LFRS	**El Faro**	0.89	348	*e*P	Pn	06 00 38.6	-0.1
BLLM	**Bellamira**	0.93	41	*e*P	Pn	06 00 39.2	+0.1
BLLM				*e*S	Sn	06 00 52.5	+1.3
SNET	**Serv Nac Est T**	1.00	339	*e*P	Pn	06 00 40.2	0.0
SNET				*e*S	Sn	06 00 53.4	+0.3
LBRS	**Las Brisas**	1.00	350	*e*P	Pn	06 00 40.3	+0.1
CNCH	**Conchagua**	1.14	62	*e*P	Pn	06 00 42.4	+0.3
CAHU	**Cacacuatique**	1.20	32	*e*P	Pn	06 00 43.9	+0.9
SBLS	**San Blas**	1.31	326	*e*P	Pn	06 00 44.7	+0.3
SNJE	**San Jose**	1.33	327	*e*P	Pn	06 00 44.9	+0.2
RTR	**El Retiro**	1.37	327	*e*P	Pn	06 00 45.8	+0.5
RBDL	**Robledal**	1.58	330	*e*P	Pn	06 00 48.9	+0.8
CRIN	**San Cristobal**	1.77	91	*e*P	Pn	06 00 51.4	+0.6
CRIN				*e*S	Sn	06 01 12.8	+0.6
TEL3	**Telica 3**	1.98	95	*e*P	Pn	06 00 53.4	-0.2
TGUH	**Tegucigalpa,Un**	2.03	50	*e*P	Pn	06 00 55.0	+0.8
MIRN	**Miramar**	2.13	98	*e*P	Pn	06 00 55.0	-0.6
CNGN	**Cerro Negro**	2.13	96	*e*P	Pn	06 00 56.1	+0.4
CNGN				*e*S	Sn	06 01 20.5	-0.4
CNGN				AML	AML	06 01 21.2	
	comp=E,90nm,0.5s						
COPN	**Copaltepe**	2.29	104	*i* P	Pn	06 00 58.1	+0.2
MOMN	**Momotombo**	2.30	98	*e*P	Pn	06 00 58.0	+0.1
CSAN		2.45	103	*e*P	Pn	06 00 59.6	-0.5
TICN	**Ticuantepe**	2.67	105	*e*P	Pn	06 01 03.6	+0.5
PRS1	**Puriscal**	5.24	121	*e*P	Pn	06 01 39.0	+0.5
LCR2	**La Lucha 2**	5.63	122	*e*P	Pn	06 01 45.3	+1.5
URSC	**Urasca**	5.77	120	*e*P	Pn	06 01 48.1	+2.3
URSC				*e*S	Sn	06 02 19.3	-31
BUS	**Buena Vista**	5.93	122	*e*P	Pn	06 01 50.2	+2.2
BAR1		6.47	122	*e*P	Pn	06 01 56.9	+1.5

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*NEIC **06** 06:04:42.2, 16°.79N×100°.69W, h5^{km}, MD3.6(MEX), After MEX.*

MEX 06 06:04:42.3±0.5, 16°.79N×100°.68W, h5^{km}±4^{km}, MD4.1, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	0.47	58	*i* P	Pg	06 04 51.0	-0.5
CAIG				*i* S	Sg	06 04 58.0	+0.4
MEIG	**Mezcala**	1.52	42	*i* P	Pn	06 05 06.5	-3.6
MEIG				*i* S	Sn	06 05 27.1	-3.1
PLIG	**Platanillo**	1.95	35	*e*P	Pn	06 05 13.2	-2.8
PLIG				*i* S	Sn	06 05 35.5	-5.4
PNIG	**Pinotepa**	2.48	99	*i* P	Pn	06 05 20.5	-2.9
PNIG				*i* S	Sn	06 05 49.7	-4.4
SZVM	**Salazar**	2.81	26	*e*P	Pn	06 05 25.9	-1.9
SZVM				*i* S	Sn	06 05 57.7	-4.4
MOIG	**Morelia**	2.91	351	*i* S	Sn	06 06 00.5	-4.1
PPM	**Popocatepetl**	2.99	41	*e*P	Pn	06 05 28.6	-1.8
PPM				*i* S	Sn	06 06 02.8	-3.9
TPIG	**Tehuac#an**	3.56	62	*e*P	Pn	06 05 34.1	-4.1
TPIG				*i* S	Sn	06 06 18.2	-2.5
VHO	**Vista Hermosa**	3.79	85	*i* P	Pn	06 05 39.5	-2.0
VHO				*i* S	Sn	06 06 22.9	-3.6
HUIG	**Huatulco**	4.51	102	*e*P	Pn	06 05 48.3	-3.0
HUIG				*i* S	Sn	06 06 39.9	-4.3
CMIG	**Matias Romero**	5.56	86	*e*P	Pn	06 06 03.0	-2.7
CMIG				*i* S	Sn	06 07 06.4	-3.7

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*ISCJB **06** 06:09:39.0±0.3, 23°.40N±0°.02×87°.05E±0°.03, h10^{km}, mb4.1/31, MS3.6/4, Error ellipse: s-maj=4.1km s-min=3.0km az=154.2*

*IDC **06** 06:09:39.5±0.7, 23°.38N×87°.05E, h0^{km}, mb4.0/16, mb1 4.1/17, mb1mx4.0/27, mbtmp4.0/17, ML4.1/1, MS3.5/3, Ms1 3.6/3, ms1mx3.0/33, Error ellipse: s-maj=28.8km s-min=13.9km az=52.0*

*NEIC **06** 06:09:40.4±0.3, 23°.43N×87°.11E, h10^{km}, mb4.3/13, Error ellipse: s-maj=9.3km s-min=5.8km az=49.0*

NEIC One person killed and at least 50 injured in the Bankura area. Many buildings damaged at Andal, Durgapur and Panagarh. Felt strongly at Asansol, Bankura, Barjora, Gangajalghati, Mejia, Puruliya, Raniganj and Siuri. Also felt at Dhanbad, Govindpur, Jharia, Nirsa and Ranchi.

*NDI **06** 06:09:41.4±2.5, 23°.40N×87°.07E, h10^{km}, ML4.3, mb4.3(NEIC)*

*DMN **06** 06:09:43.8±0.3, 23°.33N×87°.10E, h10^{km}, Ml4.9/10, Error ellipse: s-maj=5.5km s-min=4.9km az=61.0*

*BJI **06** 06:09:46.5, 23°.97N×87°.42E, h10^{km}, mB4.9/12, mb4.3/23, Ms4.2/4, Ms7 3.7/4*

ISC 06 06:09:41.2±0.2, 23°.41N±0°.02×87°.08E±0°.03, h10^{km}, n84, σ1^{s}.22/111, mb4.1/31, MS3.6/4, 1C-4D, Southern India

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOK	**Bokaro**	1.16	290	*e*PKP	Pb	06 10 03.9	+0.5
BOK				*e*S	Sb	06 10 19.7	+1.1
CAL	**Calcutta**	1.44	127	*i* P	Pn	06 10 08.2	+0.8
CAL				*e*S	Sn	06 10 28.2	+1.9
BWNR	**Bhubaneshwar**	3.32	201	*e*PKP	Pn	06 10 28.0	-5.2
BWNR				*e*S	Sn	06 11 05.0	-7.6
ODAN	**Odare**	3.45	5	*e*Pn	Pn	06 10 36.8	+1.8
ODAN				*e*Sn	Sn	06 11 15.8	-0.1
SLGI	**Shiliguri**	3.49	20	*e*x	x	06 10 46.5	
RAMN	**Ramite**	3.55	353	*e*Pn	Pn	06 10 38.8	+2.4
RAMN				*e*Sn	Sn	06 11 18.9	+0.4
AGT	**Agartala**	3.85	82	*e*PKP	Pn	06 10 49.0	+8.5
AGT				*e*S	Sn	06 11 34.0	+8.2
TAPN	**Taplejung**	3.97	8	*e*Pn	Pn	06 10 43.5	+1.4
TAPN				*e*Sn	Sn	06 11 28.8	+0.1
	527nm,0.3s						
JIRN	**Jiri**	4.31	349	*e*Pn	Pn	06 10 48.9	+2.1
JIRN				*e*Sn	Sn	06 11 36.8	-0.4
	260nm,0.2s						
PKI	**Pulchoki**	4.41	340	*e*Pn	Pn	06 10 50.6	+2.4
PKI				*e*Sn	Sn	06 11 38.6	-1.1
	500nm,0.3s						
PKIN	**Phulchoki**	4.42	340	*e*Pn	Pn	06 10 50.7	+2.3
PKIN				*e*Sn	Sn	06 11 39.0	-0.9
	384nm,0.2s						
DMN	**Daman**	4.55	337	*e*Pn	Pn	06 10 51.9	+1.8
DMN				*e*Sn	Sn	06 11 41.9	-1.1
	235nm,0.3s						
GUN	**Gumba**	4.61	347	*e*Pn	Pn	06 10 52.6	+1.6
GUN				*e*Sn	Sn	06 11 43.5	-1.1
	357nm,0.4s						
KKN	**Kakani**	4.66	340	*e*Pn	Pn	06 10 53.2	+1.6
KKN				*e*Sn	Sn	06 11 44.8	-0.9
	252nm,0.2s						
SHL	**Shillong**	4.87	63	*e*PKP	Pn	06 10 53.0	-1.5
SHL				*e*x	x	06 11 44.0	
GKN	**Gorkha**	5.08	335	*e*Pn	Pn	06 10 58.7	+1.3
GKN				*e*Sn	Sn	06 11 55.2	-0.9
	326nm,0.2s						
ALBI	**Allahabad**	5.17	293	*e*x	Pn	06 11 00.5	+1.9
KOLN	**Koldanda**	5.36	325	*e*Pn	Pn	06 11 02.8	+1.5
KOLN				*e*Sn	Sn	06 12 02.1	-1.0
	184nm,0.2s						
DANN	**Dangsing**	5.76	329	*e*Pn	Pn	06 11 08.0	+1.3
DANN				*e*Sn	Sn	06 12 11.5	-1.4
	158nm,0.2s						
PYUN	**Piuthan**	5.95	323	*e*Pn	Pn	06 11 10.6	+1.2
PYUN				*e*Sn	Sn	06 12 15.9	-1.8
IMP	**Imphal**	6.41	76	*e*PKP	Pn	06 11 16.0	+0.3
IMP				*e*x	x	06 12 54.0	
JBP	**Jabalpur**	6.53	269	⇓*i*x	Pn	06 11 21.2	+3.9
JBP				*e*x	x	06 12 38.9	
VIS	**Vishakhapatnam**	6.66	213	*e*PKP	Pn	06 11 19.0	-0.2
VIS				*e*S	Sn	06 12 29.5	-5.7
VIS				AML	AML	06 13 07.2	
	comp=N,104nm,0.4s						
VIS				AML	AML	06 13 08.4	
	comp=E,286nm,0.6s						
LSA	**Lhasa**	7.25	29	Pn	Pn	06 11 26.9	-0.3
	comp=E,25nm,0.6s						
LSA				*e*Sn	Sn	06 12 41.6	-7.9
PTH	**Pithoragarh**	8.67	316	*e*PKP	Pn	06 11 47.6	+0.9
PTH				*e*x	x	06 13 22.0	
HYB	**Hyderabad**	9.97	235	*i* P	Pn	06 12 05.0	+0.4
HYB				*e*S	Sn	06 13 59.5	+2.9
HYB	**Hyderabad**	9.97	235	*e*P	Pn	06 12 04.0	-0.6
HYB				*e*		06 13 46.0	
HYB				*e*S	Sn	06 13 56.0	-0.6
NDI	**New Delhi**	10.31	303	*e*PKP	Pn	06 12 07.5	-1.7
NDI				*e*S	Sn	06 13 56.0	-8.8
LATR	**Latur**	11.02	245	*e*PKP	Pn	06 12 18.2	-0.7
AJM	**Ajmer**	11.69	288	*e*PKP	Pn	06 12 27.2	-0.9
AJM				*e*S	Sn	06 14 28.1	-11
CHTO	**Chiang Mai**	11.97	110	*e*Pn	Pn	06 12 29.5	-2.6
	comp=E,14nm,1.0s						
CHTO				Sn	Sn	06 14 45.1	-0.7
SDNR	**Sundarnagar**	12.06	314	*e*x	Pn	06 12 34.4	+1.3
CMAR	**Chiang Mai Arr**	12.12	112	Pn	Pn	06 12 32.1	-1.9
	comp=E,0.4nm,0.3s,baz=285,slow=14,SNR=7.3						
POO	**Poona**	13.28	251	*e*PKP	Pn	06 12 49.1	-0.7
POO				*e*S	Sn	06 15 04.9	-13
POO				AML	AML	06 16 43.2	
	comp=N,73nm,0.1s						
POO				AML	AML	06 16 43.4	
	comp=E,64nm,0.9s						
THN	**Thein Dam**	13.47	314	*e*x	Pn	06 13 01.2	+8.7
THN				*e*x	x	06 15 14.8	
KMI	**Kunming**	14.38	80	P	Pn	06 13 04.1	-0.8
KMI				pP	pP	06 13 08.4	-6.4
KMI				sP	sP	06 13 10.7	-5.4
KMI				PP		06 13 16.3	
KMI				S	Sn	06 15 45.3	+0.7
KMI				sS		06 15 48.8	
KMI				SS		06 16 01.9	
KMI				pmax	pmax		
	comp=Z,7.0nm,1.2s						
KMI				pmax	pmax		
	comp=Z,91nm,3.5s						
KMI				LR	LR		
	comp=N,220nm,9.8s						
KMI				LR	LR		
	comp=E,160nm,10.9s						
KMI				LR	LR		
	comp=Z,110nm,9.8s						
LZH	**Lanzhou**	19.24	45	*e*P	Pn	06 14 07.0	+0.4
LZH				pP	pP	06 14 12.3	+3.9
LZH				sP	sP	06 14 15.0	+5.3
LZH				pmax	pmax		
	comp=Z,19nm,1.5s						
LZH				pmax	pmax		
	comp=Z,87nm,4.8s						
GTA	**Gaotai**	19.27	31	*e*P	Pn	06 14 10.3	+3.4
GTA				pP	pP	06 14 14.4	+5.7
GTA				sP	sP	06 14 17.5	+7.5
GTA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
WMQ	**Urumqi**	20.37	1	*e*P	P	06 14 18.0	+0.1
WMQ				pP		06 14 25.0	
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
WMQ				pmax	pmax		
	comp=Z,170nm,4.7s						
ENH	**Enshi**	21.11	66	P	P	06 14 23.5	-2.5
UCH	**Uchtor**	21.49	334	*e*P	P	06 14 29.9	-0.1
	comp=Z,4.9nm,0.7s,mb4.0						
TKM2	**Tokmak 2**	21.67	337	*e*P	P	06 14 30.2	-1.6
	comp=Z,12nm,1.1s,mb4.2						
AML	**Almayashu**	21.75	332	*e*P	P	06 14 33.1	+0.3
	comp=Z,11nm,0.7s,mb4.4						
AAK	**Ala-Archa**	21.84	334	*e*P	P	06 14 33.9	+0.1
	comp=Z,17nm,0.9s,mb4.5						
AAK				S	S	06 18 28.9	-6.2
XAN	**Xi'an**	21.84	56	P	P	06 14 38.0	+4.1
XAN				pP		06 14 42.7	
XAN				sP	sP	06 14 45.0	+7.0
XAN				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.0						
XAN				pmax	pmax		
	comp=Z,140nm,6.1s						
EKS2	**Erkin-Say**	22.15	333	*e*P	P	06 14 37.5	+0.4
	comp=Z,22nm,0.9s,mb4.6						
KULM	**Kulim**	22.26	142	*e*P	P	06 14 38.9	+0.4
	comp=Z,6.6nm,0.8s,mb4.1						
PSI	**Prapat**	23.47	149	P	P	06 14 51.4	+0.1
	comp=Z,1.8nm,0.4s,mb3.9,baz=306,slow=4.4,SNR=4.2						
MKAR	**Makanchi Array**	23.65	352	P	P	06 14 53.0	+0.2
	comp=Z,7.0nm,0.9s,mb4.1,baz=165,slow=10.0,SNR=24						
WHN	**Wuhan**	25.28	68	⇑P	P	06 15 13.9	+6.1
HHC	**Hu-ho-hao-te**	26.92	44	*e*P	P	06 15 21.8	-0.7
HHC				sP	sP	06 15 28.6	+1.8
HHC				PP		06 16 06.4	
HHC				*e*S	S	06 19 55.4	-4.0
HHC				sS	sS	06 20 02.4	-2.1
HHC				SS		06 21 07.9	
HHC				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.5						
HHC				pmax	pmax		
	comp=Z,120nm,4.8s						
HHC				LR	LR		
	comp=N,140nm,12.1s,MS4.0						
HHC				LR	LR		
	comp=E,170nm,10.3s,MS4.0						
HHC				LR	LR		
	comp=Z,93nm,11.9s,MS3.6						
KURK	**Kurchatov**	28.04	349	P	P	06 15 31.7	-0.7
	comp=Z,1.2nm,0.7s,mb3.6,baz=175,slow=9.4,SNR=9.7						
KURK				LR	LR	06 28 18.2	
	comp=Z,94nm,19.3s,MS3.4,baz=40,slow=40						
KURK	**Kurchatov**	28.04	349	*e*P	P	06 15 31.1	-1.4
	comp=Z,5.5nm,1.0s,mb4.1						
SONM	**Songino Array**	28.83	28	P	P	06 15 40.1	+0.6
	comp=Z,1.3nm,0.7s,mb3.8,baz=210,slow=9.9,SNR=5.8						
NJ2	**Nanjing**	29.33	66	*e*P	P	06 15 43.4	-0.7
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
BJT	**Baijiatuau**	29.59	49	P	P	06 15 43.6	-2.8
ZALV	**Zalesovo Beam**	30.55	357	P	P	06 15 54.5	-0.2
	comp=Z,1.4nm,0.8s,mb3.9,baz=175,slow=5.4,SNR=2.3						
KSM	**Kuching**	31.35	131	P	P	06 16 02.6	+0.5
BRVK	**Borovoye**	32.24	341	*e*P	P	06 16 08.4	-1.2
	comp=Z,1.0nm,0.3s,mb4.1						
AKTK	**Aktyubinsk**	35.20	327	P	P	06 16 36.0	+0.7
AKTK				LR	LR	06 32 11.1	
AKTO	**Aktyubinsk**	35.20	327	P	P	06 16 36.0	+0.7
	comp=Z,1.3nm,0.7s,mb3.9,baz=67,slow=1.9,SNR=2.1						
AKTO				LR	LR	06 32 11.1	
	comp=Z,63nm,19.1s,MS3.4,baz=270,slow=38						
GNI	**Garni**	39.27	305	P	P	06 17 08.1	-2.0
KIV	**Kislovodsk**	41.64	311	*e*P	P	06 17 27.2	-2.5
	comp=Z,6.6nm,0.4s,mb4.6						
MALT	**Malatya**	43.84	301	*e*P	P	06 17 46.0	-1.6
	comp=Z,2.1nm,0.9s,mb3.9						
BRTR	**Keskin Array B**	47.67	303	P	P	06 18 18.0	+0.2
	comp=Z,1.4nm,0.9s,mb4.0,baz=108,slow=8.0,SNR=4.9						
AKASG	**Malin Array Be**	52.00	317	P	P	06 18 50.0	-0.6
	comp=Z,2.0nm,0.6s,mb4.2,baz=74,slow=6.8,SNR=2.5						
PLOR	**Plostina**	53.18	311	⇓*i*P	P	06 19 05.7	+6.3
MLR	**Muntele Rosu**	53.65	310	⇓*i*P	P	06 19 07.4	+4.5
JOF	**Joensuu**	54.00	332	*e*p	P	06 19 08.3	+3.1
BURAR	**Bucovina Array**	54.27	313	⇓*i*P	P	06 19 12.9	+5.5
MBWA	**Marble Bar**	54.53	142	*e*P	P	06 19 09.7	+0.1
	comp=Z,0.8nm,0.4s,mb4.1						
ARCES	**ARCESS Array B**	58.43	339	P	P	06 19 34.8	-1.9
	comp=Z,3.3nm,0.9s,mb4.4,baz=104,slow=7.5,SNR=2.5						
GERES	**GERESS Array B**	61.96	314	P	P	06 20 00.8	-0.4
	comp=Z,0.4nm,0.5s,mb3.8,baz=230,slow=39,SNR=2.9						
NWAO	**Narrogin (SRO)**	62.97	152	P	P	06 20 08.2	+0.2
NB2	**NORSAR Subarra**	62.98	328	P	P	06 20 11.6	+3.7
	comp=Z,2.2nm,0.7s,mb4.4,baz=89,slow=7.4						
NOA	**NORSAR Array B**	62.98	328	P	P	06 20 07.1	-0.7
	comp=Z,1.0nm,0.8s,mb4.0,baz=251,slow=18,SNR=2.5						
NOA				LR	LR	06 49 25.4	
	comp=Z,51nm,19.0s,MS3.7,baz=165,slow=38						
WRA	**Warramunga Arr**	63.09	129	P	P	06 20 09.3	+0.2
	comp=Z,2.0nm,0.6s,mb4.4,baz=321,slow=6.6,SNR=25						
WRAB	**Tennant Creek**	63.09	129	*e*P	P	06 20 09.4	+0.2
	comp=Z,3.0nm,0.8s,mb4.5						
ASAR	**Alice Springs**	65.25	133	P	P	06 20 23.4	+0.1
	comp=Z,2.8nm,0.5s,mb4.5,baz=311,slow=6.5,SNR=40						
KEST	**Kesra**	67.14	300	P	P	06 20 35.4	0.0
	comp=Z,1.8nm,1.0s,mb4.0,baz=280,slow=12,SNR=2.8						
CTAO	**Charters Tower**	72.08	122	*e*P	P	06 21 05.2	-0.8
BOSA	**Boshof**	78.86	232	*e*P	P	06 21 43.4	-1.4
	comp=Z,2.8nm,0.8s,mb4.2						
TORD	**Torodi Ar. Bea**	80.72	280	P	P	06 21 55.6	+0.4
	comp=Z,0.7nm,0.8s,mb3.6,baz=86,slow=4.7,SNR=3.8						
YKA	**Yellowknife Ar**	92.67	10	P	P	06 22 54.9	+1.9
	comp=Z,0.1nm,0.5s,mb3.5,baz=333,slow=4.7,SNR=3.7						

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*ISCJB **06** 06:17:38.7±1.7, 35°.90N±0°.03×35°.77E±0°.08, h13^{km}±9^{km}, Error ellipse: s-maj=11.7km s-min=4.7km az=18.7*

*CSEM **06** 06:17:38.7±0.3, 35°.91N×35°.79E, h10^{km}, MD3.3, Error ellipse: s-maj=15.1km s-min=3.6km az=105.0*

*DDA **06** 06:17:39.2, 36°.01N×35°.78E, h27^{km}±1^{km}, Md3.3*

*GRAL **06** 06:17:40.2±0.5, 35°.96N×35°.85E, h106^{km}±41^{km}, MD3.5*

ISC 06 06:17:38.9±1.6, 35°.91N±0°.03×35°.8E±0°.1, h12^{km}±7^{km}, n18, σ0^{s}.45/31, 3D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLNF	**Slenfeh**	0.48	131	⇑P	Pg	06 17 48.4	+0.1
SLNF				⇑S	Sg	06 17 54.9	+0.2
BTCH	**Batrach**	0.57	77	⇑P	Pg	06 17 50.1	+0.1
BTCH				⇑S	Sg	06 17 57.5	0.0
COBT	**Iskenderun**	0.72	32	*e*P	Pg	06 17 47.5	-5.4
COBT				*e*S	Sg	06 17 58.3	-4.0
DRWC	**Darouich**	1.01	45	⇑P	Pg	06 17 57.8	-0.6
DRWC				⇑S	Sg	06 18 11.8	+0.3
KUZU	**Kuzuini**	1.36	50	*e*P	Pn	06 18 03.1	-0.6
KUZU				*e*S	Sb	06 18 21.8	+0.2
KUZU	**Kuzuini**	1.36	50	*e*P	Pn	06 18 03.1	-0.6
KUZU				*e*S	Sb	06 18 21.8	+0.2
HWQ	**Hawqa**	1.64	175	*e*P	Pn	06 18 08.3	+0.8
HWQ				*e*S	Sn	06 18 28.6	+0.1
HWQ	**Hawqa**	1.64	175	*e*P	Pn	06 18 08.3	+0.8
HWQ				*e*S	Sn	06 18 28.6	+0.2
ANDN	**Andirin**	1.73	15	*e*P	Pn	06 18 08.9	+0.2
ANDN				*e*S	Sn	06 18 31.4	+0.7
ANDN	**Andirin**	1.73	15	*e*P	Pn	06 18 08.9	+0.1
ANDN				*e*S	Sn	06 18 31.4	+0.7
FKH	**Fakeheh**	1.75	163	*e*P	Pn	06 18 09.2	+0.2
FKH	**Fakeheh**	1.75	163	*e*P	Pn	06 18 09.2	+0.2
BHL	**Bhannes**	2.00	183	*e*P	Pn	06 18 12.5	0.0
BHL				*e*S	Sn	06 18 36.8	-0.7
BHL	**Bhannes**	2.00	183	*e*P	Pn	06 18 12.5	-0.1
BHL				*e*S	Sn	06 18 36.8	-0.8
GZT	**Gaziantep**	2.04	44	*e*P	Pn	06 18 12.5	-0.5
GZT				*e*S	Sn	06 18 38.1	-0.2
JHLN	**Al Jahlan**	2.18	95	⇓P	Pn	06 18 14.6	-0.3
MALT	**Malatya**	3.20	41	⇓*i*P	Pn	06 18 29.4	+0.4
MALT	**Malatya**	3.20	41	⇓*i*P	Pn	06 18 29.4	+0.4

CASC 06 06:25:31.8±1.6, 8°.85N×82°.47W, h9^{km}±7^{km}, MD3.9, 1C, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRU2	**Volcan**	0.23	256	⇑*i*P	Pg	06 25 37.3	+0.8
BRU2				*e*S	Sg	06 25 41.4	+1.9
CNI	**Changuinola**	0.57	355	*e*P	Pg	06 25 43.5	+0.7
CNI				*e*S	Sg	06 25 50.4	+0.2
ACR	**Cerro Adams**	0.72	254	*e*P	Pg	06 25 44.4	-1.3
ACR				*e*P		06 25 44.8	
BAR1		0.92	295	*e*P	Pg	06 25 48.3	-1.3
BAR1				*e*P		06 25 48.6	
BAR1				*e*S	Sg	06 26 01.7	+0.1
BUS	**Buena Vista**	1.46	299	*e*P	Pn	06 25 58.5	+0.2
BUS				*e*P		06 25 58.6	
BUS				*e*S	Sn	06 26 18.6	+1.0
BUS				*e*S	Sn	06 26 18.9	+1.3
URSC	**Urasca**	1.62	307	*e*P	Pn	06 26 01.0	+0.3
URSC				*e*S	Sn	06 26 23.8	+2.1
LCR2	**La Lucha 2**	1.76	300	*e*P	Pn	06 26 02.9	+0.4

LCR2				*e*P		06 26 03.3	
LCR2				*e*S	Sn	06 26 26.4	+1.4
PRS1	**Puriscal**	**2.14**	**302**	*e*P	Pn	06 26 06.7	-1.1

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*ISCJB **06** 06:46:45.6±0.6, 13°.91S±0°.06×129°.80E±0°.04, h10^{km}, mb3.7/2, Error ellipse: s-maj=8.3km s-min=5.5km az=160.0*

*IDC **06** 06:46:45.8±1.2, 13°.81S×129°.70E, h0^{km}, mb3.8/3, mb1 4.0/6, mb1mx3.9/16, mbtmp3.9/6, ML4.1/3, Error ellipse: s-maj=26.8km s-min=18.3km az=72.0*

*NEIC **06** 06:46:47.0, 13°.40S×129°.64E, h7^{km}, mb4.2/1, ML4.2(AUST), After AUST.*

*AUST **06** 06:46:47.6, 13°.40S×129°.64E, h7^{km}, ML4.2*

ISC 06 06:46:47.2±0.6, 13°.87S±0°.05×129°.79E±0°.04, h10^{km}, n25, σ1^{s}.19/40, mb3.7/2, Northern Territory

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNA	**Kununurra**	**2.12**	**208**	*e*P	**Pn**	**06 47 26.7**	**+4.0**
KNA				*e*S	**Sn**	**06 47 56.1**	**+7.0**
	339nm,0.2s						
KAKA	**Kakadu**	**2.83**	**66**	*e*P	**Pn**	**06 47 32.0**	**-0.4**
KAKA				*e*S	**Sn**	**06 48 03.5**	**-3.1**
	271nm,0.3s						
KAKA	**Kakadu**	**2.83**	**66**	*e*Pn	**Pn**	**06 47 32.1**	**-0.3**
KAKA				*e*Sn	**Sn**	**06 48 07.4**	**+0.8**
FITZ	**Fitzroy Crossi**	**5.80**	**223**	*e*P	**Pn**	**06 48 15.1**	**+1.7**
FITZ				*e*S	**Sn**	**06 49 20.7**	**+0.7**
	92nm,0.3s						
FITZ	**Fitzroy Crossi**	**5.80**	**223**	Pn	**Pn**	**06 48 15.1**	**+1.7**
	7.8nm,0.3s,baz=39,slow=12,SNR=208						
FITZ				Sn	**Sn**	**06 49 18.9**	**-1.1**
	14nm,0.3s,baz=161,slow=14,SNR=8.7						
FITZ				Lg		06 49 48.9	
	16nm,0.3s,baz=277,slow=7.6,SNR=7.0						
WRAB	**Tennant Creek**	**7.45**	**145**	*e*Pn	**Pn**	**06 48 36.5**	**+0.5**
	10.0nm,0.5s						
WRAB				*e*Sn	**Sn**	**06 50 00.6**	**+0.1**
WRA	**Warramunga Arr**	**7.45**	**145**	Pn	**Pn**	**06 48 36.1**	**+0.1**
	2.7nm,0.3s,baz=320,slow=14,SNR=50						
WRA				Sn	**Sn**	**06 49 57.6**	**-3.0**
	9.5nm,0.3s,baz=19,slow=20,SNR=9.8						
WRA				Lg		06 50 42.4	
	10.0nm,0.3s,baz=317,slow=28,SNR=6.6						
WB2	**Warramunga Arr**	**7.46**	**145**	*e*Pn	**Pn**	**06 48 36.9**	**+0.8**
ASAR	**Alice Springs**	**10.50**	**159**	Pn	**Pn**	**06 49 20.6**	**+2.8**
	0.8nm,0.3s,baz=331,slow=9.3,SNR=14						
ASAR				Sn	**Sn**	**06 51 11.5**	**-4.1**
	1.6nm,0.3s,baz=316,slow=21,SNR=5.6						
ASAR				Lg		06 52 17.4	
	2.4nm,0.3s,baz=342,slow=30,SNR=12						
MBWA	**Marble Bar**	**12.02**	**231**	*e*P	**Pn**	**06 49 37.7**	**-1.0**
MBWA				*e*S	**Sn**	**06 51 44.8**	**-8.1**
MBWA	**Marble Bar**	**12.02**	**231**	*e*Pn	**Pn**	**06 49 38.4**	**-0.3**
COEN	**Coen**	**13.00**	**92**	*e*P	**Pn**	**06 49 48.2**	**-3.9**
COEN				*e*S	**Sn**	**06 52 03.7**	**-13**
COEN	**Coen**	**13.00**	**92**	*e*Pn	**Pn**	**06 49 51.3**	**-0.8**
MEEK	**Meekatharra**	**16.46**	**218**	*e*P	**Pn**	**06 50 38.1**	**-0.2**
MEEK				*e*S	**Sn**	**06 53 32.1**	**-9.0**
FORT	**Forrest**	**16.91**	**185**	*e*P	**Pn**	**06 50 44.7**	**+0.7**
FORT				*e*S	**Sn**	**06 53 45.7**	**-6.3**
	11nm,0.6s						
FORT	**Forrest**	**16.91**	**185**	P	**Pn**	**06 50 44.9**	**+0.9**
	10.0nm,0.5s						
GIRL	**Giralia**	**17.14**	**237**	*e*P	**Pn**	**06 50 48.2**	**+1.2**
GIRL				*e*S	**Sn**	**06 53 55.3**	**-2.6**
	112nm,1.0s						
KMBL	**Kambalda**	**18.87**	**201**	*e*P	**Pn**	**06 51 07.2**	**-1.0**
BBOO	**Buckleboo**	**19.71**	**164**	*e*P	**Pn**	**06 51 18.5**	**+0.2**
BBOO				*e*S	**Sn**	**06 54 42.4**	**-17**
	1.8nm,0.6s						
MORW	**Morawa**	**19.78**	**218**	*e*P	**Pn**	**06 51 19.6**	**+0.4**
MORW				*e*S	**Sn**	**06 54 47.2**	**-14**
	1.7nm,0.2s						
KLBR	**Kellerberrin**	**20.81**	**210**	*e*P	**P**	**06 51 29.0**	**+0.2**
STKA	**Stephens Creek**	**20.94**	**151**	*e*P	**P**	**06 51 32.1**	**+1.9**
STKA	**Stephens Creek**	**20.94**	**151**	P	**P**	**06 51 31.8**	**+1.6**
	1.8nm,0.3s,baz=326,slow=9.8,SNR=9.7						
MKAR	**Makanchi Array**	**73.87**	**328**	P	**P**	**06 58 22.5**	**+0.3**
	0.3nm,0.5s,mb3.5,baz=123,slow=6.8,SNR=7.0						
ZALV	**Zalesovo Beam**	**77.64**	**335**	P	**P**	**06 58 42.2**	**-1.4**
	0.9nm,0.5s,mb4.0,baz=152,slow=6.4,SNR=3.9						

MEX 06 06:56:03.1±0.4, 16°.69N×100°.54W, h10^{km}±48^{km}, MD3.6, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.44**	**36**	*i* P	Pg	06 56 11.2	-0.5
CAIG				*i* S	Sg	06 56 17.7	+0.1
ACX	**Acapulco**	**0.62**	**73**	*i* P	Pg	06 56 14.0	-1.1
ACX				*i* S	Sg	06 56 22.0	-1.2
PNIG	**Pinotepa**	**2.33**	**97**	*e*P	Pn	06 56 37.5	-3.9
PNIG				*i* S	Sn	06 57 06.5	-3.7
PPM	**Popocatepetl**	**2.98**	**37**	*i* P	Pn	06 56 50.2	-0.3
PPM				*i* S	Sn	06 57 29.0	+2.8

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*NEIC **06** 07:04:00.4, 16°.94N×100°.86W, h14^{km}, MD3.6(MEX), After MEX.*

MEX 06 07:04:00.4±0.6, 16°.94N×100°.86W, h14^{km}±52^{km}, MD3.6, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.58**	**80**	*i* P	Pg	07 04 10.2	-1.5
CAIG				*i* S	Sg	07 04 17.9	-1.5
ACX	**Acapulco**	**0.91**	**95**	*e*P	Pb	07 04 15.0	-2.9
ACX				*i* S	Sg	07 04 25.6	-4.2
PNIG	**Pinotepa**	**2.67**	**101**	*e*P	Pn	07 04 40.6	-2.5
PNIG				*i* S	Sn	07 05 12.6	-2.8
PPM	**Popocatepetl**	**3.00**	**45**	*e*P	Pn	07 04 44.5	-3.0
PPM				*i* S	Sn	07 05 22.1	-1.2
UTMO	**Huajuapan**	**3.05**	**73**	*e*P	Pn	07 04 45.4	-2.9
UTMO				*i* S	Sn	07 05 20.5	-4.1

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*CSEM **06** 07:06:23.7, 35°.26N×6°.66E, h0^{km}, ML3.5, After ALG*

CRAAG 06 07:06:23.7, 35°.26N×6°.66E, Ml3.5, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTEI	**Djebel Teioual**	**0.82**	**345**	P	Pg	07 06 41.3	+1.8
CTEI	**Djebel Teioual**	**0.82**	**345**	P	Pg	07 06 41.3	+1.8
CASM	**Ain Smara**	**1.00**	**352**	P	Pg	07 06 44.4	+1.4
CASM	**Ain Smara**	**1.00**	**352**	P	Pg	07 06 44.4	+1.4
CKFL	**Kef-Lekhel**	**1.14**	**2**	P	Pg	07 06 48.0	+2.5
CKFL	**Kef-Lekhel**	**1.14**	**2**	P	Pg	07 06 48.0	+2.5
ABSA	**Djebel Ababsia**	**1.21**	**33**	P	Pg	07 06 48.4	+1.6
ABSA	**Djebel Ababsia**	**1.21**	**33**	P	Pg	07 06 48.4	+1.6
SET	**Setif**	**1.39**	**313**	P	Pg	07 06 50.0	-0.3
SET	**Setif**	**1.39**	**313**	P	Pg	07 06 50.0	-0.3
DFRA	**Djebel Bou Aff**	**1.43**	**334**	P	Pn	07 06 51.7	+0.8
DFRA	**Djebel Bou Aff**	**1.43**	**334**	P	Pn	07 06 51.7	+0.8
CMAH	**Djebel Manchou**	**1.49**	**24**	P	Pn	07 06 52.0	+0.3
CMAH	**Djebel Manchou**	**1.49**	**24**	P	Pn	07 06 52.0	+0.3
CAEH	**’Ain El Ouahch**	**1.52**	**6**	P	Pn	07 06 54.3	+2.2
CAEH	**’Ain El Ouahch**	**1.52**	**6**	P	Pn	07 06 54.3	+2.2
AKET	**Djebel Ketaf**	**2.39**	**290**	P	Pn	07 07 09.4	+5.3
AKET	**Djebel Ketaf**	**2.39**	**290**	P	Pn	07 07 09.4	+5.3
ADJB	**Djebel Djouab**	**2.77**	**290**	P	Pn	07 07 02.0	-7.3
ADJB	**Djebel Djouab**	**2.77**	**290**	P	Pn	07 07 02.0	-7.3
EMHD	**Djebel Mahouad**	**3.16**	**288**	P	Pg	07 07 26.5	+2.3
EMHD	**Djebel Mahouad**	**3.16**	**288**	P	Pg	07 07 26.5	+2.3
EBNR	**Beni Rached**	**4.29**	**285**	P	Pn	07 07 35.5	+5.2
EBNR	**Beni Rached**	**4.29**	**285**	P	Pn	07 07 35.5	+5.2
ETRT	**Tiaret**	**4.38**	**273**	P	Pg	07 07 55.0	+7.3
ETRT	**Tiaret**	**4.38**	**273**	P	Pg	07 07 55.0	+7.3
EANR	**’Ain N’Sour**	**4.58**	**280**	P	Pg	07 07 45.0	-6.5
EANR	**’Ain N’Sour**	**4.58**	**280**	P	Pg	07 07 45.0	-6.5

IDC 06 07:16:06.4±24.0, 17°.29S×172°.92W, h0^{km}, mb4.2/4, mb1 4.4/4, mb1mx3.9/19, mbtmp4.2/4, MS4.7/2, Ms1 4.7/2, ms1mx3.4/27, Error ellipse: s-maj=459.0km s-min=157.4km az=72.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**12.76**	**200**	LR	LR	07 23 34.2	
	comp=Z,4µm,18.5s,baz=206,slow=35						
CTA	**Charters Tower**	**38.71**	**259**	P	P	07 23 32.0	-0.4
	1.7nm,0.4s,baz=83,slow=12,SNR=3.7						
STKA	**Stephens Creek**	**43.52**	**242**	P	P	07 24 12.5	+0.6
	0.8nm,0.4s,baz=80,slow=10,SNR=5.3						
WRA	**Warramunga Arr**	**49.89**	**258**	P	P	07 25 01.8	-0.2
	0.8nm,0.5s,baz=98,slow=6.5,SNR=18						
ASAR	**Alice Springs**	**49.99**	**253**	P	P	07 25 02.7	0.0
	5.9nm,0.5s,baz=90,slow=8.5,SNR=100						
USHA	**Ushuaia**	**84.11**	**146**	LR	LR	07 55 57.4	
	comp=Z,364nm,20.8s,baz=231,slow=28						

KRSC 06 07:16:25.4±0.1, 52°.88N×160°.03E, h29^{km}±19^{km}, ML3.7, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLC	**Nalytchevo**	**0.51**	**305**	*i* P	Pb	07 16 36.4	+0.5
NLC				*i* S	Sb	07 16 43.9	+0.9
PET	**Petropavlovsk**	**0.85**	**280**	*e*P	Pn	07 16 41.0	-0.3
PET				*i* S	Sb	07 16 52.0	-0.5
AVH	**Avacha**	**0.87**	**297**	*e*P	Pn	07 16 41.6	0.0
AVH				*i* S	Sb	07 16 53.7	+0.5
RUS	**Russkaya**	**1.03**	**245**	*e*P	Pn	07 16 44.0	+0.2
RUS				*i* S	Sn	07 16 57.4	+0.2
GRL	**Gorelyy**	**1.23**	**255**	*e*P	Pn	07 16 47.6	+0.9
GRL				*i* S	Sn	07 17 03.3	+1.0
GNL	**Ganaly**	**1.50**	**304**	*e*P	Pn	07 16 50.5	+0.3
GNL				*i* S	Sn	07 17 09.8	+1.0
MKZ	**Mys Kozlova**	**1.96**	**30**	*e*P	Pn	07 16 55.8	-0.8
MKZ				*i* S	Sn	07 17 17.2	-3.0
MIPR	**Malaya Ipel’ka**	**2.09**	**254**	*e*P	Pn	07 17 00.2	+1.9
TUMR	**Tumrok**	**2.41**	**2**	*e*P	Pn	07 17 03.7	+0.9
TUMR				*i* S	Sn	07 17 31.8	+0.5
KMNR	**Kamenistaya**	**2.88**	**2**	*e*P	Pn	07 17 11.1	+1.8
KPT	**Kopyto**	**3.10**	**2**	P	Pn	07 17 14.6	+2.4
ZLN	**Zelenaya**	**3.18**	**8**	*e*P	Pn	07 17 17.6	+4.3
CIRR	**Tsirk**	**3.27**	**7**	*e*P	Pn	07 17 17.0	+2.4
KBTR	**Krutoberegovo**	**3.71**	**25**	*e*P	Pn	07 17 23.1	+2.5
KBTR				*i* S	Sn	07 18 04.6	+1.3
SMKR	**Semkarok**	**3.80**	**12**	*e*P	Pn	07 17 24.3	+2.4
SRKR	**Sorokina**	**3.84**	**9**	*e*P	Pn	07 17 26.4	+4.0
SRKR				*i* S	Sn	07 18 10.3	+3.8

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*DDA **06** 07:23:51.4, 37°.10N×29°.57E, h7^{km}±3^{km}, Md2.7*

*ISCJB **06** 07:23:52.4±0.6, 36°.98N±0°.04×29°.22E±0°.04, h10^{km}, Error ellipse: s-maj=5.9km s-min=4.6km az=144.1*

*ISK **06** 07:23:52.2, 36°.91N×29°.20E, h5^{km}, MD2.8*

*CSEM **06** 07:23:53.2±0.4, 36°.91N×29°.22E, h2^{km}, MD2.8, Error ellipse: s-maj=9.7km s-min=5.6km az=20.0*

ISC 06 07:23:52.9±0.6, 36°.98N±0°.04×29°.22E±0°.04, h10^{km}, n17, σ0^{s}.95/22, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.36**	**198**	*e*PG	**Pg**	**07 23 58.7**	**-1.4**
FETY				*e*SG	**Sg**	**07 24 04.5**	**-0.4**
FETY	**Fethiye**	**0.36**	**198**	*e*Pg	**Pg**	**07 23 58.7**	**-1.4**
FETY				*e*Sg	**Sg**	**07 24 04.5**	**-0.4**
GOLH	**Golhisar**	**0.37**	**47**	*i* P	**Pg**	**07 23 59.6**	**-0.7**
GOLH				*i* S	**Sg**	**07 24 05.5**	**+0.3**
TURN	**Turunc**	**0.51**	**258**	*e*P	Px	07 24 07.0	
TURN				*e*S	Sx	07 24 18.7	
TURN	**Turunc**	**0.51**	**258**	*e*P	Px	07 24 07.0	
DALT	**Dalyan (Mudla)**	**0.51**	**246**	*e*PG	**Pg**	**07 24 01.7**	**-1.2**
DALT				*e*SG	**Sg**	**07 24 10.4**	**+0.8**
DALT	**Dalyan (Mudla)**	**0.51**	**246**	*e*Pg	**Pg**	**07 24 01.7**	**-1.2**
DALT				*e*Sg	**Sg**	**07 24 10.4**	**+0.7**
ELL	**Elmali**	**0.60**	**113**	*e*PG	**Pg**	**07 24 04.8**	**+0.3**
ELL	**Elmali**	**0.60**	**113**	*e*Pg	**Pg**	**07 24 04.8**	**+0.3**
YER	**Yerkesik**	**0.77**	**282**	*e*PG	**Pg**	**07 24 08.3**	**+0.6**
YER	**Yerkesik**	**0.77**	**282**	*e*Pg	**Pg**	**07 24 08.3**	**+0.6**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**07 24 07.4**	**-1.1**
AKAS				*e*S	**Sg**	**07 24 20.9**	**+1.9**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**07 24 07.4**	**-1.1**
AKAS				*e*S	**Sg**	**07 24 20.9**	**+1.9**
DAT	**Datca**	**1.34**	**260**	*e*PN	**Pn**	**07 24 18.9**	**+1.3**
DAT	**Datca**	**1.34**	**260**	*e*Pn	**Pn**	**07 24 18.9**	**+1.2**
BODT	**Bodrum**	**1.53**	**274**	*e*PN	**Pg**	**07 24 22.2**	**-0.1**
BODT	**Bodrum**	**1.53**	**274**	*e*Pn	**Pg**	**07 24 22.2**	**-0.1**

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*ISCJB **06** 07:25:35.6±0.5, 6°.60N±0°.07×72°.93W±0°.07, h199^{km}±5^{km}, mb3.6/6, Error ellipse: s-maj=13.6km s-min=7.2km az=137.5*

*FUNV **06** 07:25:35.6, 6°.53N×73°.09W, h201^{km}, MW3.5*

*IDC **06** 07:25:35.9±0.6, 6°.52N×72°.91W, h189^{km}±6^{km}, mb3.5/6, mb1 3.6/10, mb1mx3.3/24, mbtmp3.5/10, Error ellipse: s-maj=20.8km s-min=8.2km az=134.0*

ISC 06 07:25:36.5±0.5, 6°.59N±0°.07×72°.92W±0°.07, h193^{km}±4^{km}, n28, σ0^{s}.70/30, mb3.6/6, 2C-3D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	**Capacho**	**1.41**	**25**	⇑*i*P	**Pn**	**07 26 09.3**	**+0.5**
CAPV				*e*S	**Sn**	**07 26 33.5**	**-0.3**
ROSC	**El Rosal**	**2.22**	**219**	P	**Pn**	**07 26 17.8**	**+1.0**
	45nm,0.3s,baz=304,slow=2.4,SNR=163						
ROSC				S	**Sn**	**07 26 47.1**	**-1.1**
	105nm,0.3s,baz=92,slow=16,SNR=18						
SOCV	**Socops**	**2.65**	**50**	⇓*i*P	**Pn**	**07 26 22.4**	**+0.6**
SOCV				*e*S	**Sn**	**07 26 56.8**	**-0.2**
VIGV	**El Vigia**	**2.72**	**34**	*e*P	**Pn**	**07 26 23.0**	**+0.5**
VIGV				*e*S	**Sn**	**07 26 58.0**	**-0.4**
SDV	**Santo Domingo**	**3.22**	**45**	P	**Pn**	**07 26 29.5**	**+1.0**
	9.3nm,0.3s,baz=216,slow=7.3,SNR=137						
SDV				S	**Sn**	**07 27 08.7**	**-0.3**
	15nm,0.3s,baz=268,slow=23,SNR=4.7						
ELOV	**Elorza**	**3.44**	**83**	⇓*i*P	**Pn**	**07 26 31.9**	**+0.8**
VIRV	**Villa del Rosa**	**3.92**	**7**	⇑*i*P	**Pn**	**07 26 35.9**	**-1.2**
VIRV				*e*S	**Sn**	**07 27 20.7**	**-4.0**
QARV	**Quebrada Arrib**	**4.31**	**33**	*e*P	**Pn**	**07 26 42.1**	**+0.1**
SANV	**Sanarito**	**4.43**	**49**	*e*P	**Pn**	**07 26 43.6**	**+0.1**
CURV	**Curarigua**	**4.49**	**40**	*e*P	**Pn**	**07 26 44.3**	**+0.1**
TEPV	**Terepaima**	**4.99**	**47**	*e*P	**Pn**	**07 26 50.5**	**-0.2**
SIQV	**Siquisique**	**5.08**	**37**	*e*P	**Pn**	**07 26 51.8**	**0.0**
BAUV	**El Baul**	**5.37**	**64**	*e*P	**Pn**	**07 26 54.7**	**-0.9**
MONV	**Montecano**	**6.08**	**28**	*e*P	**Pn**	**07 27 04.8**	**+0.1**
TURV	**Turiamo**	**6.32**	**52**	*e*P	**Pn**	**07 27 07.5**	**-0.4**
CAOV	**Caicara del Or**	**6.59**	**83**	⇓*i*P	**Pn**	**07 27 10.6**	**-0.9**
PCRV	**Puerto La Cruz**	**8.94**	**66**	P	**Pn**	**07 27 43.6**	**+1.5**
	0.6nm,0.3s,baz=199,slow=7.7,SNR=4.3						
JTS	**JuntasAbangare**	**12.46**	**288**	P	**Pn**	**07 28 28.2**	**+0.7**
	0.2nm,0.3s,baz=169,slow=22,SNR=3.1						
SCHQ	**Schefferville**	**48.36**	**5**	P	**P**	**07 33 59.4**	**+0.8**
	1.6nm,0.6s,mb3.5,baz=195,slow=8.9,SNR=7.8						
FRB	**Frobisher Bay**	**57.14**	**2**	P	**P**	**07 35 01.9**	**-0.8**
	0.4nm,0.3s,mb3.5,baz=224,slow=9.4,SNR=4.5						
YKA	**Yellowknife Ar**	**63.55**	**340**	P	**P**	**07 35 46.1**	**-0.1**
	0.9nm,0.5s,mb3.6,baz=133,slow=6.5,SNR=39						
YKA				pP	pP	07 36 29.4	-1.5
	0.2nm,0.6s,baz=132,slow=6.8,SNR=4.5						
DBIC	**Dimbokro**	**67.55**	**86**	P	**P**	**07 36 12.5**	**-0.3**
	3.2nm,1.0s,mb3.9,baz=180,slow=7.1,SNR=3.2						
TORD	**Torodi Ar. Bea**	**73.59**	**78**	P	**P**	**07 36 48.2**	**-1.0**
	0.1nm,0.4s,mb2.8,baz=270,slow=6.6,SNR=4.1						
ARCES	**ARCESS Array B**	**86.82**	**20**	P	**P**	**07 37 59.0**	**+0.3**
	2.2nm,0.6s,mb4.1,baz=279,slow=3.9,SNR=13						
MKAR	**Makanchi Array**	**122.47**	**20**	PKP	PKPdf	07 44 08.8	-0.3
	1.8nm,0.8s,baz=304,slow=2.8,SNR=8.3						
SONM	**Songino Array**	**125.81**	**1**	PKP	PKPdf	07 44 16.4	+0.9
	0.2nm,0.5s,baz=298,slow=2.9,SNR=2.9						
ASAR	**Alice Springs**	**149.13**	**234**	PKPbc	PKPbc	07 45 02.3	-0.6
	0.7nm,0.6s,baz=116,slow=3.5,SNR=9.3						
WRA	**Warramunga Arr**	**150.40**	**241**	PKPbc	PKPbc	07 45 05.5	-0.5
	0.6nm,0.4s,baz=109,slow=2.6,SNR=14						
WRA				pPKPbc	pPKPbc	07 45 53.6	-2.3
	0.3nm,0.4s,baz=109,slow=2.7,SNR=2.7						

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*ISCJB **06** 07:33:09.2±2.2, 35°.91N±0°.06×35°.7E±0°.1, h7^{km}±13^{km}, Error ellipse: s-maj=17.3km s-min=7.7km az=25.9*

*DDA **06** 07:33:09.4, 35°.88N×35°.86E, h8^{km}±1^{km}, Md3.0*

ISC 06 07:33:09.4±2.1, 35°.92N±0°.05×35°.7E±0°.1, h7^{km}±12^{km}, n8, σ0^{s}.51/13, 1D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLNF	**Slenfeh**	**0.52**	**129**	⇑P	**Pg**	**07 33 19.4**	**0.0**
SLNF				⇑S	**Sg**	**07 33 26.5**	**+0.3**
BTCH	**Batrach**	**0.60**	**79**	⇓P	**Pg**	**07 33 21.1**	**+0.1**
BTCH				⇑S	**Sg**	**07 33 29.0**	**+0.1**
DRWC	**Darouich**	**1.03**	**47**	⇑P	**Pg**	**07 33 28.6**	**-0.6**
DRWC				⇑S	**Sg**	**07 33 42.5**	**-0.1**
KUZU	**Kuzuini**	**1.38**	**52**	*e*P	**Pn**	**07 33 34.5**	**-0.5**
KUZU				*e*S	**Sb**	**07 33 53.4**	**0.0**
HWQ	**Hawqa**	**1.65**	**174**	*e*P	**Pn**	**07 33 38.3**	**-0.5**
ANDN	**Andirin**	**1.73**	**16**	*e*P	**Pn**	**07 33 41.4**	**+1.5**
ANDN				*e*S	**Sn**	**07 34 02.0**	**-0.2**
FKH	**Fakeheh**	**1.77**	**162**	*e*P	**Pn**	**07 33 40.5**	**0.0**
BHL	**Bhannes**	**2.01**	**182**	*e*P	**Pn**	**07 33 51.6**	**+7.8**

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*BJI **06** 07:33:19.7, 50°.20N×29°.64W, h11^{km}, mB5.3/25, mb4.9/38, Ms5.1/22, Ms7 4.9/24*

*ISCJB **06** 07:33:20.3±0.1, 50°.10N±0°.03×28°.98W±0°.02, h10^{km}, mb4.8/244, MS4.4/55, Error ellipse: s-maj=4.3km s-min=1.4km az=8.0*

*IDC **06** 07:33:20.4±0.4, 50°.09N×29°.02W, h0^{km}, mb4.5/35, mb1 4.6/36, mb1mx4.6/39, mbtmp4.5/36, ML4.2/1, MS4.3/33, Ms1 4.3/33, ms1mx4.2/40, Error ellipse: s-maj=12.2km s-min=9.5km az=3.0*

*MOS **06** 07:33:20.4±0.9, 50°.11N×28°.91W, h10^{km}, mb5.1/101, MS4.4/17, Error ellipse: s-maj=7.1km s-min=4.0km az=165.4*

*NEIC **06** 07:33:22.4±0.1, 50°.14N×28°.91W, h10^{km}, mb4.9/163, MS4.4/9, Error ellipse: s-maj=4.9km s-min=1.9km az=189.0*

*GCMT **06** 07:33:22.5±0.2, 50°.07N×28°.88W, h12^{km}, MW5.0/83, Moment Tensor Solution. s41,c53; s83,c136; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.72±.11; $M_{\theta\theta}$-0.61±.12; $M_{\phi\phi}$4.34±.09; $M_{r\theta}$0.69±.36; $M_{\theta\phi}$-0.02±.09; $M_{\phi r}$0.16±.30; Best double couple: $M_0$4.10600×10^{16} NP1:ϕ_s348.00000°, δ45.00000°, λ-107.00000°. NP2: ϕ_s191.00000°, δ47.00000°, λ-74.00000°. Principal axes: T 4.3430, Plg1.0000°, Azm270.0000°; N -0.4680, Plg12.0000°, Azm0.0000°; P -3.8690, Plg78.0000°, Azm175.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BGS **06** 07:33:22.4±2.7, 50°.14N×28°.91W, h10^{km}, mb5.4*

*CSEM **06** 07:33:24.2±0.1, 50°.14N×28°.89W, h24^{km}, mb5.0/99, Ms4.2, Mw5.0, Error ellipse: s-maj=5.2km s-min=2.1km az=10.0*

*SZGRF **06** 07:33:25.1, 50°.03N×28°.82W, h33^{km}, mb4.9, MS4.5, Northern Mid-Atlantic Ridge*

ISC 06 07:33:22.4±0.1, 50°.11N±0°.03×28°.93W±0°.02, h10^{km}, (h17^{km}±1.6^{km}:pP-P), n1100, σ0^{s}.85/1081, mb4.8/244, MS4.4/55, 204C-131D, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMAZ	**Mazaricos**	**15.46**	**110**	P	**Pn**	**07 36 57.0**	**-3.3**
	124nm,0.9s						
EMAZ	**Mazaricos**	**15.46**	**110**	P	**Pn**	**07 36 57.0**	**-3.3**
	124nm,0.9s						
GAL1	**Galloway**	**15.47**	**63**	*e*P	**Pn**	**07 37 02.0**	**+1.7**
KPL	**Plockton**	**15.51**	**53**	*e*P	**Pn**	**07 37 02.4**	**+1.6**
KPL				AMb	AMB	07 37 06.7	
	comp=Z,127nm,1.6s						
EAB	**Aberfoyle**	**15.91**	**58**	*e*P	**Pn**	**07 37 06.2**	**+0.2**
EZAM	**Zamans**	**16.10**	**112**	P	**Pn**	**07 37 06.4**	**-2.2**
EZAM				pmax	pmax		
	comp=Z,99nm,0.8s						
EZAM	**Zamans**	**16.10**	**112**	P	**Pn**	**07 37 06.4**	**-2.2**
	comp=Z,99nm,0.8s						
SBD1	**Bryn Du**	**16.20**	**70**	*e*P	**Pn**	**07 37 09.5**	**-0.3**
HTR	**Trewern Hill**	**16.22**	**73**	*e*P	**Pn**	**07 37 10.0**	**-0.1**
EPON	**Pontenova**	**16.37**	**106**	P	**Pn**	**07 37 10.0**	**-2.2**
	comp=Z,212nm,1.1s						
ESK	**Eskdalemuir**	**16.39**	**62**	*e*P	**Pn**	**07 37 11.1**	**-1.2**
ESK				AMb	AMB	07 37 13.4	
	comp=Z,177nm,1.4s						
ESK	**Eskdalemuir**	**16.39**	**62**	*i* P	**Pn**	**07 37 12.9**	**+0.7**
ESK	**Eskdalemuir**	**16.39**	**62**	*e*Pn	**Pn**	**07 37 10.8**	**-1.4**
	comp=Z,99nm,1.2s						
ESK				*e*Sn	**Sn**	**07 40 05.5**	**-8.4**
ESK	**Eskdalemuir**	**16.39**	**62**	*e*Pn	**Pn**	**07 37 10.8**	**-1.4**
	comp=Z,99nm,1.2s						
MCH1	**Michaelchurch**	**16.39**	**73**	*e*P	**Pn**	**07 37 11.9**	**-0.3**
MCH1				AMb	AMB	07 37 17.3	
	comp=Z,178nm,1.6s						
EKA	**Eskdalemuir Ar**	**16.42**	**62**	Pn	**Pn**	**07 37 11.0**	**-1.6**
	baz=258,slow=11,SNR=32						
EKA	**Eskdalemuir Ar**	**16.42**	**62**	Pn	**Pn**	**07 37 11.0**	**-1.6**
EDI	**Edinburgh**	**16.49**	**59**	*e*P	**Pn**	**07 37 14.2**	**+0.7**
EDI				AMb	AMB	07 37 20.1	
	comp=Z,155nm,1.4s						
HGH	**Gray Hill**	**16.54**	**75**	*e*P	**Pn**	**07 37 13.5**	**-0.6**
EBL	**Broad Law**	**16.55**	**60**	*e*P	**Pn**	**07 37 13.6**	**-0.6**
ELOB	**Lobios**	**16.64**	**112**	P	**Pn**	**07 37 13.9**	**-1.6**
	comp=Z,32nm,0.7s						
ELOB	**Lobios**	**16.64**	**112**	P	**Pn**	**07 37 13.9**	**-1.6**
	comp=Z,32nm,0.7s						
PCAB	**Cabril**	**16.76**	**112**	*e*P	**Pn**	**07 37 15.4**	**-1.6**
	comp=Z,95nm,1.9s						
PTO	**Porto**	**16.77**	**115**	*e*P	**Pn**	**07 37 16.0**	**-1.2**
	comp=Z,145nm,1.7s						
PTO	**Porto**	**16.77**	**115**	*e*P	**Pn**	**07 37 16.0**	**-1.2**
	comp=Z,145nm,1.7s						
ROSF	**Rostrenen**	**16.83**	**86**	*e*P	**Pn**	**07 37 15.0**	**-2.9**
	comp=Z,149nm,1.2s						
ROSF	**Rostrenen**	**16.83**	**86**	*e*P	**Pn**	**07 37 15.0**	**-2.9**
ROSF				pmax	pmax		
	comp=Z,74nm,1.2s						
ROSF	**Rostrenen**	**16.83**	**86**	*e*P	**Pn**	**07 37 15.0**	**-2.9**
	comp=Z,74nm,1.2s						
XAL	**Allendale**	**16.90**	**63**	*e*P	**Pn**	**07 37 18.4**	**-0.4**
XSO	**Sourhope Farm**	**16.95**	**61**	*e*P	**Pn**	**07 37 18.9**	**-0.5**
QUIF	**Quistinic**	**17.02**	**87**	*e*P	**Pn**	**07 37 17.8**	**-2.5**
HPK	**Haverah Park**	**17.19**	**67**	*e*P	**Pn**	**07 37 22.3**	**0.0**
HPK				AMb	AMB	07 37 27.2	
	comp=Z,202nm,2.0s						
PVRL	**Vila Real**	**17.21**	**113**	*e*P	**Pn**	**07 37 21.6**	**-1.1**
	comp=Z,60nm,1.5s						
PVRL	**Vila Real**	**17.21**	**113**	*e*P	**Pn**	**07 37 21.6**	**-1.1**
	comp=Z,60nm,1.5s						
SGMF	**Saint Gilles**	**17.32**	**86**	*e*P	**Pn**	**07 37 21.7**	**-2.3**
	comp=Z,458nm,1.7s						
SGMF	**Saint Gilles**	**17.32**	**86**	*e*P	**Pn**	**07 37 21.7**	**-2.3**
SGMF				pmax	pmax		
	comp=Z,229nm,1.7s						
SGMF	**Saint Gilles**	**17.32**	**86**	*e*P	**Pn**	**07 37 21.7**	**-2.3**
	comp=Z,229nm,1.7s						
CWF	**Charnwood Fore**	**17.39**	**71**	*e*P	**Pn**	**07 37 24.1**	**-0.7**
CWF				AMb	AMB	07 37 24.6	
	comp=Z,45nm,1.3s						
ECAL	**Calabor**	**17.40**	**110**	P	**Pn**	**07 37 24.0**	**-1.0**
	comp=Z,72nm,1.1s						
ECAL	**Calabor**	**17.40**	**110**	P	**Pn**	**07 37 24.0**	**-1.0**
	comp=Z,72nm,1.1s						
PVIS	**Viseu**	**17.45**	**115**	*e*P	**Pn**	**07 37 24.8**	**-0.9**
	comp=Z,72nm,1.6s						
PVIS	**Viseu**	**17.45**	**115**	*e*P	**Pn**	**07 37 24.8**	**-0.9**
	comp=Z,72nm,1.6s						
PBRG	**Braganca**	**17.48**	**110**	*e*P	**Pn**	**07 37 26.7**	**+0.7**
	comp=Z,66nm,1.6s						
PBRG	**Braganca**	**17.48**	**110**	*e*P	**Pn**	**07 37 26.7**	**+0.7**
	comp=Z,66nm,1.6s						
WOL	**Wolverton**	**17.55**	**75**	*e*P	**Pn**	**07 37 27.5**	**+0.6**
WOL				AMb	AMB	07 37 36.3	
	comp=Z,323nm,1.6s						
EARI	**Arriondas**	**17.59**	**104**	P	**Pn**	**07 37 26.7**	**-0.8**
	comp=Z,60nm,0.9s						
EARI	**Arriondas**	**17.59**	**104**	P	**Pn**	**07 37 26.7**	**-0.7**
	comp=Z,60nm,0.9s						
MVO	**Moncorvo**	**17.68**	**112**	*e*P	**Pn**	**07 37 28.1**	**-0.5**
	comp=Z,86nm,2.1s						
MVO				*e*LR	LR	07 41 40.1	
	comp=Z,1µm,22.9s						
MVO	**Moncorvo**	**17.68**	**112**	*e*P	**Pn**	**07 37 28.1**	**-0.5**
	comp=Z,86nm,2.1s						
PMAFR	**Mafra**	**17.85**	**121**	*e*LR	LR	07 41 38.0	
	comp=Z,982nm,18.4s						
MTE	**Manteigas**	**17.86**	**115**	*e*P	**Pn**	**07 37 30.5**	**-0.3**
	comp=Z,64nm,1.5s						
MTE				*e*LR	LR	07 41 36.9	
	comp=Z,1µm,19.2s						
MTE	**Manteigas**	**17.86**	**115**	*e*Pn	**Pn**	**07 37 30.1**	**-0.7**
MTE	**Manteigas**	**17.86**	**115**	*e*Pn	**Pn**	**07 37 30.1**	**-0.7**
MTE	**Manteigas**	**17.86**	**115**	*e*P	**Pn**	**07 37 30.5**	**-0.3**
	comp=Z,64nm,1.5s						
GRR	**Gorron**	**18.37**	**85**	*e*P	**Pn**	**07 37 36.2**	**-0.7**
	comp=Z,184nm,1.3s						

GRR	Gorron	18.37	85	eP	Pn	07 37 36.2	-0.7
GRR				pmax	pmax		
	comp=Z,92nm,1.3s						
GRR	Gorron	18.37	85	eP	Pn	07 37 36.2	-0.7
	comp=Z,92nm,1.3s						
GRR	Gorron	18.37	85	eP	Pn	07 37 36.2	-0.7
	comp=Z,92nm,1.3s						
FLN	La Foliniere	18.51	83	eP	Pn	07 37 37.8	-0.9
	comp=Z,108nm,1.1s						
FLN				eMLR	MLR		
	comp=Z,2µm,19.8s						
FLN	La Foliniere	18.51	83	eP	Pn	07 37 37.8	-0.9
FLN				pmax	pmax		
	comp=Z,54nm,1.1s						
FLN	La Foliniere	18.51	83	eP	Pn	07 37 37.8	-0.9
	comp=Z,54nm,1.1s						
FLN	La Foliniere	18.51	83	eP	Pn	07 37 37.8	-0.9
	comp=Z,54nm,1.1s						
PMRV	Marv??o	18.59	117	eP	Pn	07 37 39.7	0.0
	comp=Z,37nm,1.4s						
PMRV				eLR	LR	07 42 01.4	
	comp=Z,1µm,20.7s						
PMRV	Marv??o	18.59	117	eP	Pn	07 37 39.7	0.0
	comp=Z,37nm,1.4s						
ELAN	Lanestosa	18.75	102	P	Pn	07 37 42.0	+0.5
	comp=Z,67nm,0.9s						
ELAN	Lanestosa	18.75	102	P	Pn	07 37 42.0	+0.4
	comp=Z,67nm,0.9s						
LDF	La Druitiere	18.79	84	eP	Pn	07 37 41.2	-0.8
	comp=Z,51nm,0.8s						
LDF	La Druitiere	18.79	84	eP	Pn	07 37 41.2	-0.8
LDF				pmax	pmax		
	comp=Z,25nm,0.8s						
LDF	La Druitiere	18.79	84	eP	Pn	07 37 41.2	-0.8
	comp=Z,25nm,0.8s						
LDF	La Druitiere	18.79	84	eP	Pn	07 37 41.2	-0.8
	comp=Z,25nm,0.8s						
EVOP	Sao Brissos	18.79	120	eP	Pn	07 37 41.2	-0.9
	comp=Z,21nm,1.0s						
EVO	Evora	18.85	120	eP	Pn	07 37 41.2	-1.7
	comp=Z,42nm,1.0s						
EVO				eMLR	MLR		
	comp=Z,1µm,20.2s						
PESTR	Estremoz	18.85	118	eP	Pn	07 37 43.0	+0.1
	comp=Z,44nm,1.4s						
PESTR				eLR	LR	07 42 09.9	
	comp=Z,1µm,22.9s						
PESTR	Estremoz	18.85	118	eP	Pn	07 37 43.0	+0.1
	comp=Z,44nm,1.4s						
PTEO	Sao Teotonio	19.17	123	eP	Pn	07 37 48.3	+1.6
	comp=Z,61nm,1.9s						
PTEO	Sao Teotonio	19.17	123	eP	Pn	07 37 48.3	+1.6
	comp=Z,61nm,1.9s						
PBEJ	Beja	19.29	121	eP	Pn	07 37 49.7	+1.6
	comp=Z,54nm,1.6s						
PBEJ	Beja	19.29	121	eP	Pn	07 37 49.7	+1.6
	comp=Z,54nm,1.6s						
MORF	Marmelete	19.38	124	eP	Pn	07 37 48.8	-0.5
	comp=Z,61nm,1.6s						
MORF				eLR	LR	07 42 19.5	
	comp=Z,544nm,23.6s						
MORF	Marmelete	19.38	124	eP	Pn	07 37 48.8	-0.5
	comp=Z,61nm,1.6s						
MFF	Saint Martin d	19.39	89	⇑iP	Pn	07 37 48.7	-0.7
	comp=Z,217nm,1.4s						
MFF	Saint Martin d	19.39	89	⇑iP	Pn	07 37 48.7	-0.7
MFF				pmax	pmax		
	comp=Z,109nm,1.4s						
MFF	Saint Martin d	19.39	89	⇑iP	Pn	07 37 48.7	-0.7
	comp=Z,109nm,1.4s						
MFF	Saint Martin d	19.39	89	⇑iP	Pn	07 37 48.7	-0.7
	comp=Z,109nm,1.4s						
PFVI	Vila Bisbo	19.42	124	eLR	LR	07 42 24.8	
	comp=Z,767nm,21.4s						
ECRI	Cripan	19.65	102	P	Pn	07 37 52.6	+0.2
ECRI				pmax	pmax		
	comp=Z,28nm,0.8s						
ECRI	Cripan	19.65	102	P	Pn	07 37 52.6	+0.2
	comp=Z,28nm,0.8s						
ECRI	Cripan	19.65	102	P	Pn	07 37 52.6	+0.2
	comp=Z,28nm,0.8s						
GUD	Guadarrama	19.73	109	P	Pn	07 37 53.2	-0.3
GUD				pmax	pmax		
	comp=Z,22nm,0.6s						
GUD	Guadarrama	19.73	109	P	Pn	07 37 53.2	-0.2
	comp=Z,22nm,0.6s						
GUD	Guadarrama	19.73	109	P	Pn	07 37 53.2	-0.3
	comp=Z,22nm,0.6s						
PBDV	Barranco-do-Ve	19.82	122	eP	Pn	07 37 57.1	+2.6
	comp=Z,88nm,1.5s						
PBDV				eLR	LR	07 42 30.1	
	comp=Z,716nm,20.7s						
PVAQ	Vaqueiros	19.82	122	eP	Pn	07 37 55.2	+0.7
	comp=Z,66nm,1.4s						
PVAQ				eLR	LR	07 42 27.0	
	comp=Z,748nm,22.1s						
PVAQ	Vaqueiros	19.82	122	eP	Pn	07 37 55.2	+0.7
	comp=Z,66nm,1.4s						
EGRO	El Granado	19.85	121	P	Pn	07 37 54.5	-0.4
	comp=Z,19nm,0.7s						
EGRO	El Granado	19.85	121	P	Pn	07 37 54.5	-0.4
	comp=Z,19nm,0.7s						
EALK	Alkurruntz	19.97	100	P	Pn	07 37 54.5	-1.7
	comp=Z,10.0nm,0.5s						
EALK	Alkurruntz	19.97	100	P	Pn	07 37 54.5	-1.7
	comp=Z,10.0nm,0.5s						
EMIN	Mina Concepcio	20.14	119	P	P	07 37 57.0	+0.6
	comp=Z,18nm,0.7s						
EMIN	Mina Concepcio	20.14	119	P	P	07 37 57.0	+0.6
	comp=Z,18nm,0.7s						
SFJD	Kangerlussuaq	20.16	335	i P	P	07 37 56.5	0.0
SFJD				pmax	pmax		
	comp=Z,27nm,0.9s						
SFJD				MLR	MLR		
	comp=Z,450nm,17.0s,MS3.9						
SFJD	Kangerlussuaq	20.16	335	i P	P	07 37 56.5	0.0
	comp=Z,27nm,0.9s						
SFJD							
	comp=Z,450nm,17.0s						
SFJD	Kangerlussuaq	20.16	335	i P	P	07 37 56.5	0.0
	comp=Z,27nm,0.9s						
SJPF	Ste Jean	20.20	100	eP	P	07 37 58.0	+0.9
	comp=Z,54nm,1.1s						
SJPF	Ste Jean	20.20	100	eP	P	07 37 58.0	+0.9
SJPF				pmax	pmax		
	comp=Z,27nm,1.1s						
SJPF	Ste Jean	20.20	100	eP	P	07 37 58.0	+0.9
	comp=Z,27nm,1.1s						
SJPF	Ste Jean	20.20	100	eP	P	07 37 58.0	+0.9
	comp=Z,27nm,1.1s						
PAB	San Pablo	20.30	112	eP	P	07 37 57.9	-0.2
PAB				pmax	pmax		
	comp=Z,153nm,1.5s						
PAB	San Pablo	20.30	112	eP	P	07 37 57.9	-0.2
	comp=Z,153nm,1.5s						
PAB	San Pablo	20.30	112	eP	P	07 37 57.9	-0.2
	comp=Z,153nm,1.5s						
ESDC	Sonseca Array	20.44	111	P	P	07 37 59.6	-0.1
	comp=Z,7.4nm,0.8s,baz=308,slow=9.6,SNR=23						
ESDC				LR	LR	07 44 28.7	
	comp=Z,1µm,19.4s,MS4.2,baz=305,slow=33						
ESDC	Sonseca Array	20.44	111	P	P	07 37 59.9	+0.1
	comp=Z,15nm,0.8s						
ESDC	Sonseca Array	20.44	111	P	P	07 37 59.9	+0.2
	comp=Z,15nm,0.8s						
ESLA	Sonseca Array	20.44	111	eP	P	07 38 00.3	+0.6
	comp=Z,63nm,1.7s						
ESLA	Sonseca Array	20.44	111	eP	P	07 38 00.3	+0.6
	comp=Z,63nm,1.7s						
LFF	La Frestale	20.62	93	eP	P	07 38 01.5	-0.1
	comp=Z,85nm,1.0s						
LFF	La Frestale	20.62	93	eP	P	07 38 01.5	-0.1
LFF				pmax	pmax		
	comp=Z,42nm,1.0s						
LFF	La Frestale	20.62	93	eP	P	07 38 01.5	-0.1
	comp=Z,42nm,1.0s						
LFF	La Frestale	20.62	93	eP	P	07 38 01.5	-0.1
	comp=Z,42nm,1.0s						
ECAB	El Cabril	20.64	117	P	P	07 38 04.2	+2.4
	comp=Z,51nm,0.8s						
ETSF	Etsaut	20.73	99	eP	P	07 38 03.6	+0.8
	comp=Z,138nm,1.3s						
ETSF	Etsaut	20.73	99	eP	P	07 38 03.6	+0.8
ETSF				pmax	pmax		
	comp=Z,69nm,1.3s						
ETSF	Etsaut	20.73	99	eP	P	07 38 03.6	+0.8
	comp=Z,69nm,1.3s						
ETSF	Etsaut	20.73	99	eP	P	07 38 03.6	+0.8
	comp=Z,69nm,1.3s						
ETOR	Torete	20.92	106	P	P	07 38 04.8	-0.1
ETOR				pmax	pmax		
	comp=Z,22nm,0.8s						
ETOR	Torete	20.92	106	P	P	07 38 04.8	-0.1
	comp=Z,22nm,0.8s						
ETOR	Torete	20.92	106	P	P	07 38 04.8	-0.1
	comp=Z,22nm,0.8s						
HYF	Humbligny	20.95	86	eP	P	07 38 05.2	0.0
HYF	Humbligny	20.95	86	eP	P	07 38 05.2	0.0
RJF	Les Rejaudoux	20.96	91	eP	P	07 38 05.4	+0.1
	comp=Z,182nm,1.3s						
RJF				eMLR	MLR		
	comp=Z,1µm,22.5s,MS4.0						
RJF	Les Rejaudoux	20.96	91	eP	P	07 38 05.4	+0.1
RJF				pmax	pmax		
	comp=Z,91nm,1.3s						
RJF				MLR	MLR		
	comp=Z,1µm,22.5s,MS4.3						
RJF	Les Rejaudoux	20.96	91	eP	P	07 38 05.4	+0.1
	comp=Z,91nm,1.3s						
RJF				LR	LR		
	comp=Z,1µm,22.5s,MS4.3						
RJF	Les Rejaudoux	20.96	91	eP	P	07 38 05.4	+0.1
	comp=Z,91nm,1.3s						
TCF	Toulx Ste Croi	21.02	88	⇑iP	P	07 38 05.9	-0.1
	comp=Z,232nm,1.1s,mb5.1						
TCF	Toulx Ste Croi	21.02	88	⇑iP	P	07 38 05.9	-0.1
TCF				pmax	pmax		
	comp=Z,116nm,1.1s,mb5.1						
TCF	Toulx Ste Croi	21.02	88	⇑iP	P	07 38 05.9	-0.1
	comp=Z,116nm,1.1s,mb5.1						
TCF	Toulx Ste Croi	21.02	88	⇑iP	P	07 38 05.9	-0.1
	comp=Z,116nm,1.1s,mb5.1						
EADA	Adamuz	21.06	115	P	P	07 38 05.8	-0.6
	comp=Z,17nm,0.9s,mb4.4						
EADA	Adamuz	21.06	115	P	P	07 38 05.8	-0.6
	comp=Z,17nm,0.9s,mb4.4						
UCC	Uccle	21.11	75	P	P	07 38 06.2	-0.6
	comp=Z,72nm,1.2s,mb4.9						
SNF	Seneffe	21.12	76	P	P	07 38 06.8	-0.2
	comp=Z,45nm,1.6s,mb4.5						
BAIF	Baives	21.17	77	⇑iP	P	07 38 07.0	-0.5
	comp=Z,172nm,1.1s,mb5.0						
BAIF	Baives	21.17	77	⇑iP	P	07 38 07.0	-0.5
BAIF				pmax	pmax		
	comp=Z,86nm,1.1s,mb5.0						
BAIF	Baives	21.17	77	⇑iP	P	07 38 07.0	-0.5
	comp=Z,86nm,1.1s,mb5.0						
BAIF	Baives	21.17	77	⇑iP	P	07 38 07.0	-0.5
	comp=Z,86nm,1.1s,mb5.0						
ESPR	Espera	21.23	120	P	P	07 38 10.1	+1.8
	comp=Z,29nm,0.7s,mb4.7						
ESPR	Espera	21.23	120	P	P	07 38 10.1	+1.8
	comp=Z,29nm,0.7s,mb4.7						
EBIE	Bielsa	21.29	99	P	P	07 38 10.2	+1.4
	comp=Z,135nm,1.3s,mb5.1						
EBIE	Bielsa	21.29	99	P	P	07 38 10.2	+1.4
	comp=Z,135nm,1.3s,mb5.1						
BGF	Bois d’Agland	21.34	87	eP	P	07 38 09.1	-0.2
	comp=Z,122nm,0.6s,mb5.1						
BGF	Bois d’Agland	21.34	87	eP	P	07 38 09.1	-0.2
BGF				pmax	pmax		
	comp=Z,61nm,0.6s,mb5.1						
BGF	Bois d’Agland	21.34	87	eP	P	07 38 09.1	-0.2
	comp=Z,61nm,0.6s,mb5.1						
BGF	Bois d’Agland	21.34	87	eP	P	07 38 09.1	-0.2
	comp=Z,61nm,0.6s,mb5.1						
ESAC	San Caprasio	21.40	102	P	P	07 38 11.6	+1.5
	comp=Z,29nm,0.6s,mb4.8						
ESAC	San Caprasio	21.40	102	P	P	07 38 11.6	+1.5
	comp=Z,29nm,0.6s,mb4.8						
DOU	Dourbes	21.41	77	P	P	07 38 09.6	-0.4
	comp=Z,57nm,1.4s,mb4.7						
CAF	Calviac	21.47	92	eP	P	07 38 10.5	-0.3
	comp=Z,82nm,1.1s,mb4.7						
CAF	Calviac	21.47	92	eP	P	07 38 10.5	-0.3
CAF				pmax	pmax		
	comp=Z,41nm,1.1s,mb4.7						
CAF	Calviac	21.47	92	eP	P	07 38 10.5	-0.3
	comp=Z,41nm,1.1s,mb4.7						
CAF	Calviac	21.47	92	eP	P	07 38 10.5	-0.3
	comp=Z,41nm,1.1s,mb4.7						
EBAN	Banos Encina	21.53	114	P	P	07 38 12.5	+1.1
EBAN				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
EBAN	Banos Encina	21.53	114	P	P	07 38 12.5	+1.1
	comp=Z,8.7nm,0.7s,mb4.3						
EBAN	Banos Encina	21.53	114	P	P	07 38 12.5	+1.1
	comp=Z,8.7nm,0.7s,mb4.3						
GIVF	Givet	21.55	77	⇑iP	P	07 38 11.0	-0.6
	comp=Z,264nm,1.3s,mb5.2						
GIVF	Givet	21.55	77	⇑iP	P	07 38 11.0	-0.6
GIVF				pmax	pmax		
	comp=Z,132nm,1.3s,mb5.2						
GIVF	Givet	21.55	77	⇑iP	P	07 38 11.0	-0.6
	comp=Z,132nm,1.3s,mb5.2						
GIVF	Givet	21.55	77	⇑iP	P	07 38 11.0	-0.6
	comp=Z,132nm,1.3s,mb5.2						
AVF	Avril sur Loir	21.58	86	⇑iP	P	07 38 11.4	-0.5
	comp=Z,121nm,0.8s,mb5.1						
AVF	Avril sur Loir	21.58	86	⇑iP	P	07 38 11.4	-0.5
AVF				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.1						
AVF	Avril sur Loir	21.58	86	⇑iP	P	07 38 11.4	-0.5
	comp=Z,60nm,0.8s,mb5.1						
AVF	Avril sur Loir	21.58	86	⇑iP	P	07 38 11.4	-0.5
	comp=Z,60nm,0.8s,mb5.1						
SSF	Saint Saulge	21.58	86	⇑iP	P	07 38 11.5	-0.4
	comp=Z,212nm,1.0s,mb5.2						
SSF	Saint Saulge	21.58	86	⇑iP	P	07 38 11.5	-0.4
SSF				pmax	pmax		
	comp=Z,106nm,1.0s,mb5.2						
SSF	Saint Saulge	21.58	86	⇑iP	P	07 38 11.5	-0.4
	comp=Z,106nm,1.0s,mb5.2						
SSF	Saint Saulge	21.58	86	⇑iP	P	07 38 11.5	-0.4
	comp=Z,106nm,1.0s,mb5.2						
AGO	Saint Agoulin	21.71	88	eP	P	07 38 13.9	+0.6
AGO	Saint Agoulin	21.71	88	eP	P	07 38 13.9	+0.6
LOR	Lormes	21.74	85	⇑iP	P	07 38 13.2	-0.4
	comp=Z,153nm,1.1s,mb5.1						
LOR				eMLR	MLR		
	comp=Z,3µm,20.0s,MS4.4						
LOR	Lormes	21.74	85	⇑iP	P	07 38 13.2	-0.4
LOR				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.0						
LOR				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.7						
LOR	Lormes	21.74	85	⇑iP	P	07 38 13.2	-0.4
	comp=Z,77nm,1.1s,mb5.0						
LOR				LR	LR		
	comp=Z,3µm,20.0s,MS4.7						
LOR	Lormes	21.74	85	⇑iP	P	07 38 13.2	-0.4
	comp=Z,77nm,1.1s,mb5.1						
PYM	Petit Puy Mans	21.75	89	eP	P	07 38 14.3	+0.6
PYM	Petit Puy Mans	21.75	89	eP	P	07 38 14.3	+0.6
BCLA	Clavier	21.78	76	P	P	07 38 13.9	-0.2
SALF	Salau	21.91	98	eP	P	07 38 19.4	+3.9
BEBN	Eben Emael	21.93	75	P	P	07 38 17.0	+1.3
SMF	Signal de Mont	21.94	86	⇑iP	P	07 38 15.5	-0.3
	comp=Z,470nm,1.5s,mb5.4						
SMF	Signal de Mont	21.94	86	⇑iP	P	07 38 15.5	-0.3
SMF				pmax	pmax		
	comp=Z,235nm,1.5s,mb5.4						
SMF	Signal de Mont	21.94	86	⇑iP	P	07 38 15.5	-0.3
	comp=Z,235nm,1.5s,mb5.4						
SMF	Signal de Mont	21.94	86	⇑iP	P	07 38 15.5	-0.3
	comp=Z,235nm,1.5s,mb5.4						
EVIA	Vianos	21.98	111	P	P	07 38 18.9	+2.6
EVIA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.2						
EVIA	Vianos	21.98	111	P	P	07 38 18.9	+2.6
	comp=Z,5.9nm,0.6s,mb4.2						
PLDF	La Plantade	22.05	88	eP	P	07 38 17.3	+0.3
PLDF	La Plantade	22.05	88	eP	P	07 38 17.3	+0.3
EMIJ	Mijas	22.06	119	P	P	07 38 20.2	+3.1
	comp=Z,20nm,0.9s,mb4.5						
HGN	Heimansgroeve	22.10	75	eP	P	07 38 15.4	-2.0
	comp=Z,59nm,1.7s,mb4.7						
HGN	Heimansgroeve	22.10	75	eS	S	07 42 32.6	+12
LBL	Lubilhac	22.11	90	eP	P	07 38 15.5	-2.1
LBL	Lubilhac	22.11	90	eP	P	07 38 15.5	-2.1
MEZF	Maizieres J’vi	22.11	81	⇑iP	P	07 38 17.0	-0.6
	comp=Z,342nm,1.1s,mb5.4						
MEZF	Maizieres J’vi	22.11	81	⇑iP	P	07 38 17.0	-0.6
	comp=Z,342nm,1.1s,mb5.7						
MEZF	Maizieres J’vi	22.11	81	⇑iP	P	07 38 17.0	-0.6
	comp=Z,171nm,1.1s,mb5.4						
EMOS	Mosqueruela	22.16	105	P	P	07 38 21.6	+3.4
	comp=Z,66nm,1.1s,mb5.0						
MEM	Membach	22.18	75	P	P	07 38 17.7	-0.6
	comp=Z,53nm,1.8s,mb4.7						
EQES	Quesada	22.19	114	P	P	07 38 22.1	+3.6
	comp=Z,23nm,1.1s,mb4.5						
MTLF	Montolieu	22.29	96	⇑iP	P	07 38 19.4	-0.1
	comp=Z,146nm,1.4s,mb4.9						
MTLF	Montolieu	22.29	96	⇑iP	P	07 38 19.4	-0.1
MTLF				pmax	pmax		
	comp=Z,73nm,1.4s,mb4.9						
MTLF	Montolieu	22.29	96	⇑iP	P	07 38 19.4	-0.1
	comp=Z,73nm,1.4s,mb4.9						
MTLF	Montolieu	22.29	96	⇑iP	P	07 38 19.4	-0.1
	comp=Z,73nm,1.4s,mb4.9						
ECHE	Chera	22.32	107	P	P	07 38 22.1	+2.2
ECHE				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.1						
ECHE	Chera	22.32	107	P	P	07 38 22.1	+2.2
	comp=Z,6.4nm,0.7s,mb4.2						
ECHE	Chera	22.32	107	P	P	07 38 22.1	+2.2
	comp=Z,6.4nm,0.7s,mb4.2						
WTSB	Winterswijk	22.41	71	eP	P	07 38 20.1	-0.6
	comp=Z,106nm,1.4s,mb5.1						
EHUE	Huescar	22.46	113	P	P	07 38 24.0	+2.6
EHUE				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.8						
EHUE	Huescar	22.46	113	P	P	07 38 24.0	+2.6
	comp=Z,2.1nm,0.5s,mb3.8						
WLF	Walferdange	22.49	78	P	P	07 38 21.6	0.0
	comp=Z,48nm,1.7s,mb4.7						
WLF	Walferdange	22.49	78	eP	P	07 38 21.9	+0.3
WLF				pmax	pmax		
	comp=Z,49nm,1.0s,mb4.9						
WLF	Walferdange	22.49	78	eP	P	07 38 22.4	+0.8
	comp=Z,141nm,1.7s,mb5.1						
WLF	Walferdange	22.49	78	eP	P	07 38 21.9	+0.3
	comp=Z,49nm,1.0s,mb4.9						
WLF	Walferdange	22.49	78	eP	P	07 38 21.9	+0.3
	comp=Z,49nm,1.0s,mb4.9						
ETOB	Tobarra	22.55	110	P	P	07 38 25.2	+2.8
	comp=Z,23nm,0.9s,mb4.6						
EGUA	Guajares	22.56	116	P	P	07 38 25.3	+2.8
EGUA				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.1						
EGUA	Guajares	22.56	116	P	P	07 38 25.3	+2.8
	comp=Z,75nm,1.0s,mb5.1						
EPOB	Poblet	22.58	101	P	P	07 38 25.2	+2.5
	comp=Z,14nm,0.7s,mb4.5						
LRDF	Laroque-de-Fa	22.69	96	eP	P	07 38 23.5	-0.3
LRDF	Laroque-de-Fa	22.69	96	eP	P	07 38 23.5	-0.3
THEF	They Montfort	22.79	81	eP	P	07 38 23.1	-1.7
THEF	They Montfort	22.79	81	eP	P	07 38 23.1	-1.7
BUG	Bochum--Univer	22.79	73	eP	P	07 38 23.9	-0.9
	comp=Z,87nm,1.1s,mb5.1						
EBER	Berja	22.91	115	P	P	07 38 26.2	+0.1
	comp=Z,30nm,1.0s,mb4.7						
EBER	Berja	22.91	115	P	P	07 38 26.2	+0.1
	comp=Z,30nm,1.0s,mb4.7						
SSB	Saint Sauveur	22.92	89	eP	P	07 38 26.3	+0.1
SSB				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.4						
SSB	Saint Sauveur	22.92	89	eP	P	07 38 26.3	+0.1
	comp=Z,16nm,1.0s,mb4.4						
SSB	Saint Sauveur	22.92	89	eP	P	07 38 26.3	+0.1
	comp=Z,16nm,1.0s,mb4.4						
IBBN	Ibbenburen	22.94	70	eP	P	07 38 27.0	+0.7
	comp=Z,98nm,1.0s,mb5.2						
SUMG	Summit	22.94	353	eP	P	07 38 26.9	+0.7
	comp=Z,37nm,1.0s,mb4.8						
SUMG	Summit	22.94	353	eP	P	07 38 26.9	+0.7
	comp=Z,37nm,1.0s,mb4.8						
JMIC	Jan Mayen	22.98	17	LR	LR	07 45 04.5	
	comp=Z,557nm,19.5s,MS4.0,baz=144,slow=31						
LASF	Ste Croix	23.00	93	⇑iP	P	07 38 26.8	-0.3
	comp=Z,118nm,1.3s,mb4.9						
LASF	Ste Croix	23.00	93	⇑iP	P	07 38 26.8	-0.3
	comp=Z,59nm,1.3s,mb4.9						
RUP	Ruppelstein	23.05	77	eP	P	07 38 28.1	+0.5
RUP	Ruppelstein	23.05	77	eP	P	07 38 28.1	+0.5
HAU	Haudompre	23.09	82	eP	P	07 38 27.0	-1.0
	comp=Z,97nm,0.9s,mb5.0						
HAU				eMLR	MLR		
	comp=Z,1µm,22.0s,MS4.1						
HAU	Haudompre	23.09	82	eP	P	07 38 27.0	-1.0
HAU				pmax	pmax		
	comp=Z,49nm,0.9s,mb4.9						
HAU				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.4						
HAU	Haudompre	23.09	82	eP	P	07 38 27.0	-1.0
	comp=Z,49nm,0.9s,mb4.9						
HAU				LR	LR		
	comp=Z,1µm,22.0s,MS4.4						
HAU	Haudompre	23.09	82	eP	P	07 38 27.0	-1.0
	comp=Z,49nm,0.9s,mb5.0						
EJON	La Jonquera	23.16	97	P	P	07 38 30.3	+1.6
	comp=Z,14nm,0.6s,mb4.6						
EJON	La Jonquera	23.16	97	P	P	07 38 30.3	+1.6
	comp=Z,14nm,0.6s,mb4.6						
VIVF	Saint-Julien-l	23.18	90	eP	P	07 38 28.0	-1.0
	comp=Z,263nm,1.7s,mb5.1						
VIVF	Saint-Julien-l	23.18	90	eP	P	07 38 28.0	-1.0
VIVF				pmax	pmax		
	comp=Z,132nm,1.7s,mb5.1						
VIVF	Saint-Julien-l	23.18	90	eP	P	07 38 28.0	-1.0
	comp=Z,132nm,1.7s,mb5.1						
VIVF	Saint-Julien-l	23.18	90	eP	P	07 38 28.0	-1.0
	comp=Z,132nm,1.7s,mb5.1						
ABH	Alteburg	23.31	76	eP	P	07 38 30.3	0.0
ABH	Alteburg	23.31	76	eP	P	07 38 30.3	0.0
SCHQ	Schefferville	23.36	296	P	P	07 38 29.1	-1.7
	comp=Z,4.7nm,0.9s,mb3.9,baz=104,slow=9.1,SNR=11						
SCHQ				LR	LR	07 45 47.1	
	comp=Z,807nm,20.7s,MS4.2,baz=126,slow=32						
SCHQ	Schefferville	23.36	296	P	P	07 38 29.1	-1.7
CABF	La Chapelle	23.40	85	eP	P	07 38 29.3	-1.9
	comp=Z,41nm,0.9s,mb4.6						
CABF	La Chapelle	23.40	85	eP	P	07 38 29.3	-1.9
CABF				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.6						
CABF	La Chapelle	23.40	85	eP	P	07 38 29.3	-1.9
	comp=Z,21nm,0.9s,mb4.6						
CABF	La Chapelle	23.40	85	eP	P	07 38 29.3	-1.9
	comp=Z,21nm,0.9s,mb4.6						
MUD	Monsted U’grnd	23.41	60	i P	P	07 38 36.8	+5.5
	comp=Z,36nm,1.0s,mb4.8						
MUD							
	comp=Z,770nm,18.0s						
HINF	Hinteralfeld	23.47	82	⇑iP	P	07 38 31.2	-0.8
	comp=Z,124nm,1.1s,mb4.9						
HINF	Hinteralfeld	23.47	82	⇑iP	P	07 38 31.2	-0.8
HINF				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.0						
HINF	Hinteralfeld	23.47	82	⇑iP	P	07 38 31.2	-0.8
	comp=Z,62nm,1.1s,mb5.0						
HINF	Hinteralfeld	23.47	82	⇑iP	P	07 38 31.2	-0.8
	comp=Z,62nm,1.1s,mb4.9						
ECH	Echery	23.54	81	eP	P	07 38 31.8	-0.9
ECH	Echery	23.54	81	eP	P	07 38 31.8	-0.9
CDF	Champ du Feu	23.55	80	eP	P	07 38 32.0	-0.8
	comp=Z,50nm,1.0s,mb4.6						
CDF	Champ du Feu	23.55	80	eP	P	07 38 32.0	-0.8
CDF				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.6						
CDF	Champ du Feu	23.55	80	eP	P	07 38 32.0	-0.8
	comp=Z,25nm,1.0s,mb4.6						
CDF	Champ du Feu	23.55	80	eP	P	07 38 32.0	-0.8
	comp=Z,25nm,1.0s,mb4.6						
LOMF	Lomont	23.61	83	eP	P	07 38 32.8	-0.6
LOMF	Lomont	23.61	83	eP	P	07 38 32.8	-0.6
MOF	Molkenrain	23.64	81	eP	P	07 38 32.8	-0.8
MOF	Molkenrain	23.64	81	eP	P	07 38 32.8	-0.8
LANF	Langenberg	23.72	78	eP	P	07 38 33.5	-0.8
LANF	Langenberg	23.72	78	eP	P	07 38 33.5	-0.8
TNS	Taunus Mts	23.79	75	eP	P	07 38 34.8	-0.2
TNS				pmax	pmax		
	comp=Z,294nm,2.4s,mb5.3						
TNS	Taunus Mts	23.79	75	eP	P	07 38 34.8	-0.2
	comp=Z,294nm,2.4s,mb5.3						
TNS	Taunus Mts	23.79	75	eP	P	07 38 34.8	-0.2
	comp=Z,294nm,2.4s,mb5.3						
KONO	Kongsberg	23.81	52	eP	P	07 38 41.9	+6.9
ORIF	Oris-en-Rattie	23.93	89	⇑iP	P	07 38 35.3	-1.0
	comp=Z,40nm,1.0s,mb4.5						
ORIF				eMLR	MLR		
	comp=Z,579nm,20.8s,MS3.7						

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ORIF  Oris-en-Rattie   23.93  89⇑iP    P      07 38 35.3 -1.0
ORIF                               pmax  pmax
      comp=Z,20nm,1.0s,mb4.5
ORIF  Oris-en-Rattie   23.93  89⇑iP    P      07 38 35.3 -1.0
      comp=Z,20nm,1.0s,mb4.5
ORIF  Oris-en-Rattie   23.93  89⇑iP    P      07 38 35.3 -1.0
      comp=Z,20nm,1.0s,mb4.5
BBS   Basel-Blauen     24.01  82  eP   P      07 38 33.7 -3.3
RSL   Roselend         24.10  87  eP   P      07 38 37.6 -0.2
RSL   Roselend         24.10  87  eP   P      07 38 37.6 -0.2
SMRF  Simiane la Rot   24.15  91  eP   P      07 38 37.5 -0.8
      comp=Z,46nm,1.1s,mb4.5
SMRF  Simiane la Rot   24.15  91  eP   P      07 38 37.5 -0.8
      comp=Z,46nm,1.1s,mb4.8
SMRF  Simiane la Rot   24.15  91  eP   P      07 38 37.5 -0.8
      comp=Z,23nm,1.1s,mb4.5
FELD  Feldberg im Sc   24.18  81  eP   P      07 38 36.8 -1.8
FELD  Feldberg im Sc   24.18  81  eP   P      07 38 36.8 -1.8
BSEG  Bad Segeberg     24.23  66  eP   P      07 38 39.3 +0.3
      comp=Z,140nm,1.5s,mb5.2
BSEG  Bad Segeberg     24.23  66  eP   P      07 38 39.3 +0.3
LPL   La Plagne        24.23  87⇑iP    P      07 38 39.1  0.0
      comp=Z,29nm,0.8s,mb4.5
LPL   La Plagne        24.23  87⇑iP    P      07 38 39.1  0.0
LPL                                pmax  pmax
      comp=Z,15nm,0.8s,mb4.5
LPL   La Plagne        24.23  87⇑iP    P      07 38 39.1  0.0
      comp=Z,15nm,0.8s,mb4.5
LPL   La Plagne        24.23  87⇑iP    P      07 38 39.1  0.0
      comp=Z,15nm,0.8s,mb4.5
BFO   Black Forest     24.24  80  i P  P      07 38 40.6 +1.5
BFO   Black Forest     24.24  80  eP   P      07 38 38.4 -0.7
      comp=Z,31nm,1.2s,mb4.6
BFO   Black Forest     24.24  80  eP   P      07 38 38.4 -0.7
      comp=Z,31nm,1.2s,mb4.6
LPG   La Plagne        24.25  87  eP   P      07 38 39.5 +0.2
      comp=Z,28nm,0.9s,mb4.4
LPG   La Plagne        24.25  87  eP   P      07 38 39.5 +0.2
LPG                                pmax  pmax
      comp=Z,14nm,0.9s,mb4.4
LPG   La Plagne        24.25  87  eP   P      07 38 39.5 +0.2
      comp=Z,14nm,0.9s,mb4.4
LPG   La Plagne        24.25  87  eP   P      07 38 39.5 +0.2
      comp=Z,14nm,0.9s,mb4.4
NRDL  Niedersach Rie   24.32  69  eP   P      07 38 39.7 -0.1
      comp=Z,47nm,1.1s,mb4.8
BNI   Bardonecchia     24.39  88  eP   P      07 38 40.8 +0.3
BNI                                pmax  pmax
      comp=Z,37nm,1.4s,mb4.6
BNI   Bardonecchia     24.39  88  eP   P      07 38 40.8 +0.2
      comp=Z,37nm,1.4s,mb4.6
BNI   Bardonecchia     24.39  88  eP   P      07 38 40.8 +0.3
      comp=Z,37nm,1.4s,mb4.6
ETOS  Mallorca         24.56 103   P   P      07 38 43.1 +1.0
      comp=Z,17nm,0.9s,mb4.6
ETOS  Mallorca         24.56 103   P   P      07 38 43.1 +1.0
      comp=Z,17nm,0.9s,mb4.6
MBDF  Montbardon       24.59  89⇑iP    P      07 38 42.4 +0.1
      comp=Z,52nm,0.9s,mb4.8
MBDF  Montbardon       24.59  89⇑iP    P      07 38 42.4 +0.1
MBDF                               pmax  pmax
      comp=Z,26nm,0.9s,mb4.8
MBDF  Montbardon       24.59  89⇑iP    P      07 38 42.4 +0.1
      comp=Z,26nm,0.9s,mb4.8
MBDF  Montbardon       24.59  89⇑iP    P      07 38 42.4 +0.1
      comp=Z,26nm,0.9s,mb4.8
CLZ   Clausthal        24.61  71  eP   P      07 38 43.3 +0.9
CLZ                                pmax  pmax
      comp=Z,133nm,1.9s,mb5.2
CLZ   Clausthal        24.61  71  eP   P      07 38 43.3 +0.9
      comp=Z,133nm,1.9s,mb5.2
CLZ   Clausthal        24.61  71  eP   P      07 38 43.3 +0.9
      comp=Z,133nm,1.9s,mb5.2
STU   Stuttgart        24.66  78  eP   P      07 38 42.7 -0.2
      comp=Z,39nm,1.0s,mb4.9
NB2   NORSAR Subarra   24.78  48   P   P      07 38 43.2 -0.7
      comp=Z,17nm,1.0s,mb4.5,baz=261,slow=10
NB2   NORSAR Subarra   24.78  48   P   P      07 38 43.2 -0.7
      comp=Z,17nm,1.0s,mb4.5,SNR=7.2
NOA   NORSAR Array B   24.78  48   P   P      07 38 44.0 +0.1
      comp=Z,6.2nm,0.8s,mb4.2,baz=262,slow=9.6,SNR=6.0
NOA                                LR    LR     07 47 49.9
      comp=Z,982nm,18.5s,MS4.3,baz=265,slow=35
NOA   NORSAR Array B   24.78  48   P   P      07 38 44.0 +0.1
MDT   Midelt           24.94 125   P   P      07 38 45.9 +0.3
      comp=Z,10nm,0.9s,mb4.3,baz=325,slow=11,SNR=18
MDT   Midelt           24.94 125   P   P      07 38 45.9 +0.3
FRF   La Foret Royal   25.03  91  eP   P      07 38 46.3 -0.1
      comp=Z,125nm,1.4s,mb5.0
FRF   La Foret Royal   25.03  91  eP   P      07 38 46.3 -0.1
FRF                                pmax  pmax
      comp=Z,63nm,1.4s,mb5.0
FRF   La Foret Royal   25.03  91  eP   P      07 38 46.3 -0.1
      comp=Z,62nm,1.4s,mb5.0
FRF   La Foret Royal   25.03  91  eP   P      07 38 46.3 -0.1
      comp=Z,62nm,1.4s,mb5.0
LMR   La Mourre        25.05  92  eP   P      07 38 46.3 -0.2
      comp=Z,82nm,1.2s,mb4.8
LMR   La Mourre        25.05  92  eP   P      07 38 46.3 -0.2
LMR                                pmax  pmax
      comp=Z,41nm,1.2s,mb4.8
LMR   La Mourre        25.05  92  eP   P      07 38 46.3 -0.2
      comp=Z,41nm,1.2s,mb4.8
LMR   La Mourre        25.05  92  eP   P      07 38 46.3 -0.2
      comp=Z,41nm,1.2s,mb4.8
FRB   Frobisher Bay    25.05 318   P   P      07 38 46.5 +0.1
      comp=Z,37nm,1.0s,mb4.9,baz=100,slow=9.9,SNR=58
FRB                                LR    LR     07 46 18.1
      comp=Z,610nm,19.1s,MS4.1,baz=238,slow=31
FRB   Frobisher Bay    25.05 318   P   P      07 38 46.5 +0.1
CALN  Calern           25.10  91  eP   P      07 38 47.3 +0.3
CALN  Calern           25.10  91  eP   P      07 38 47.3 +0.3
MVIF  Mont Vial        25.20  90  eP   P      07 38 47.8 -0.1
MVIF  Mont Vial        25.20  90  eP   P      07 38 47.8 -0.1
TOUF  Mont Tournerai   25.21  90  eP   P      07 38 47.9 -0.1
TOUF  Mont Tournerai   25.21  90  eP   P      07 38 47.9 -0.1
LUCF  Luceram          25.33  90  eP   P      07 38 47.3 -1.8
LUCF  Luceram          25.33  90  eP   P      07 38 47.3 -1.8
AUTN  L'Aution         25.33  90  eP   P      07 38 48.4 -0.7
AUTN  L'Aution         25.33  90  eP   P      07 38 48.4 -0.7
SBF   Sospel           25.40  90  eP   P      07 38 49.2 -0.5
      comp=Z,65nm,1.1s,mb4.8
SBF   Sospel           25.40  90  eP   P      07 38 49.2 -0.5
SBF                                pmax  pmax
      comp=Z,33nm,1.1s,mb4.8
SBF   Sospel           25.40  90  eP   P      07 38 49.2 -0.5
      comp=Z,33nm,1.1s,mb4.8
SBF   Sospel           25.40  90  eP   P      07 38 49.2 -0.5
      comp=Z,33nm,1.1s,mb4.8
VAI   Varese           25.40  85   P   P      07 38 50.4 +0.7
VAI                                pmax  pmax
      comp=Z,19nm,0.8s,mb4.7
VAI   Varese           25.40  85   P   P      07 38 50.4 +0.7
      comp=Z,19nm,0.8s,mb4.7
VAI   Varese           25.40  85   P   P      07 38 50.4 +0.7
      comp=Z,19nm,0.8s,mb4.7
SAOF  Saorge           25.42  90  eP   P      07 38 49.1 -0.8
SAOF  Saorge           25.42  90  eP   P      07 38 49.1 -0.8
TUE   Stuetta          25.54  83  eP   P      07 38 51.5 +0.5
      comp=Z,77nm,1.3s,mb5.1
TUE   Stuetta          25.54  83  eP   P      07 38 51.5 +0.6
      comp=Z,77nm,1.3s,mb5.1
DAVA  Damuels          25.58  81⇑iP    P      07 38 51.9 +0.6
      comp=Z,36nm,0.9s,mb4.9,SNR=6.4
MOX   Moxa             25.64  73  eP   P      07 38 53.2 +1.4
      comp=Z,48nm,1.6s,mb4.8
MOX                               e             07 38 58.8
MOX
      comp=Z,1µm,19.0s
MOX   Moxa             25.64  73  eP   P      07 38 53.2 +1.4
MOX                               e             07 38 58.8
MOX                                pmax  pmax
      comp=Z,48nm,1.6s,mb4.8
MOX                                MLR   MLR
      comp=Z,1µm,19.0s,MS4.4
MOX   Moxa             25.64  73  eP   P      07 38 52.4 +0.6
      comp=Z,85nm,2.0s,mb4.9
MOX   Moxa             25.64  73  eP   P      07 38 53.2 +1.4
GRA1  Grafenberg Arr   25.66  75  eP   P      07 38 51.9 -0.1
      comp=Z,43nm,1.2s,mb4.8
GRA1                               LR    LR
      comp=Z,2µm,21.1s,MS4.5
GRA1  Grafenberg Arr   25.66  75  eP   P      07 38 51.9 -0.1
      comp=Z,43nm,1.2s,mb4.8
GRF   Grafenberg Arr   25.66  75  eP   P      07 38 51.9 -0.1
GRF                                pmax  pmax
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      comp=Z,43nm,1.2s,mb4.8
GRF                                MLR   MLR
      comp=Z,2µm,21.1s,MS4.5
GRF   Grafenberg Arr   25.66  75  eP   P      07 38 51.9 -0.1
GRF                                pmax  pmax
      comp=Z,43nm,1.2s,mb4.8
GRF                                MLR   MLR
      comp=Z,2µm,21.1s,MS4.5
GRF   Grafenberg Arr   25.66  75  eP   P      07 38 51.9 -0.1
      comp=Z,43nm,1.2s,mb4.8
GRF                               eL            07 47 47.9
      comp=Z,1µm,21.1s
GRF   Grafenberg Arr   25.66  75  eP   P      07 38 51.9 -0.1
      comp=Z,43nm,1.2s,mb4.8
DAVOS Davos            25.69  82   P   P      07 38 53.8 +1.5
DAVOX Davos/Dischmat   25.76  82   P   P      07 38 53.8 +0.8
      comp=Z,20nm,0.8s,mb4.7,baz=292,slow=10.0,SNR=19
DAVOX                              LR    LR     07 48 49.1
      comp=Z,2µm,18.1s,MS4.6,baz=279,slow=36
DAVOX Davos/Dischmat   25.76  82   P   P      07 38 53.8 +0.8
HFS   Hagfors          25.91  51   P   P      07 38 53.5 -0.7
      comp=Z,5.4nm,0.8s,mb4.2,baz=248,slow=7.8,SNR=5.6
HFS                                LR    LR     07 48 25.6
      comp=Z,1µm,18.5s,MS4.5,baz=266,slow=35
HFS   Hagfors          25.91  51   P   P      07 38 53.5 -0.6
RETA  Reutte           26.07  80⇓iP    P      07 38 55.5 -0.2
      comp=Z,35nm,1.5s,mb4.7,SNR=8.2
WERD  Werda            26.12  73  eP   P      07 38 55.3 -0.9
      comp=Z,25nm,1.8s,mb4.4
MANZ  Manzenberg       26.12  74  eP   P      07 38 57.3 +1.1
      comp=Z,49nm,1.5s,mb4.8
WERN  Wernitzgruen     26.21  74  eP   P      07 38 56.5 -0.4
      comp=Z,13nm,1.2s,mb4.3
FETA  Feichten         26.21  81  i pP pP     07 38 57.9 -2.2
      comp=Z,32nm,1.3s,SNR=7.4
TANN  Tannenbergstha   26.22  73  eP   P      07 38 56.7 -0.4
      comp=Z,16nm,1.1s,mb4.5
ROTZ  Rotzenmuhle      26.25  75  eP   P      07 38 57.3  0.0
      comp=Z,31nm,1.3s,mb4.7
NKC   Novy Kostel      26.27  74  eP   P      07 38 59.3 +1.8
NKC                               epP  pP     07 39 05.4 +4.9
NKC   Novy Kostel      26.27  74  eP   P      07 38 59.3 +1.8
CLL   Collm            26.33  71  i P  P      07 38 57.5 -0.5
CLL                               e*PP pP     07 39 04.0 +2.9
CLL                                pmax  pmax
      comp=Z,36nm,1.3s,mb4.7
CLL                                MLR   MLR
      comp=Z,700nm,21.6s,MS4.2
CLL   Collm            26.33  71  eP   P      07 38 57.6 -0.4
      comp=Z,39nm,1.3s,mb4.8
CLL   Collm            26.33  71  i P  P      07 38 57.5 -0.5
      comp=Z,36nm,1.3s,mb4.7
CLL                               e(sP) sP    07 39 04.0 +1.7
CLL                               e             07 39 09.0
CLL                                Lm           07 48 00.0
      comp=Z,700nm,21.6s
CLL   Collm            26.33  71  i P  P      07 38 57.5 -0.5
      comp=Z,36nm,1.3s,mb4.7
CLL                               epP  pP     07 39 04.0 +2.9
CLL                                LR    LR
      comp=Z,700nm,21.6s,MS4.2
CLL   Collm            26.33  71  i P  P      07 38 57.5 -0.5
      comp=Z,36nm,1.3s,mb4.7
CLL                               epP  pP     07 39 04.0 +2.9
MOTA  Moosalm          26.34  80⇑iP    P      07 38 58.5 +0.4
      comp=Z,26nm,1.0s,mb4.7
FBE   Freiberg         26.64  72  eP   P      07 39 00.5 -0.3
      comp=Z,25nm,1.1s,mb4.7
WATA  Walderalm        26.64  80⇓iP    P      07 39 01.3 +0.4
      comp=Z,26nm,1.0s,mb4.7
WTTA  Wattenberg       26.70  80⇑iP    P      07 39 02.0 +0.5
      comp=Z,64nm,1.1s,mb5.1,SNR=14
BSD   Bornholm Skovb   26.74  62  i P  P      07 38 49.0  -13
      comp=Z,32nm,1.0s,mb4.8
BSD
      comp=Z,330nm,18.0s
WET   Wettzell         26.85  76  eP   P      07 39 02.5 -0.3
WET                                pmax  pmax
      comp=Z,16nm,1.2s,mb4.4
WET   Wettzell         26.85  76  eP   P      07 39 02.5 -0.3
      comp=Z,16nm,1.2s,mb4.4
WET   Wettzell         26.85  76  eP   P      07 39 02.5 -0.3
      comp=Z,16nm,1.2s,mb4.4
BRG   Berggiesshubel   27.01  72  eP   P      07 39 03.6 -0.6
BRG                                pmax  pmax
      comp=Z,13nm,1.3s,mb4.3
BRG   Berggiesshubel   27.01  72  eP   P      07 39 03.9 -0.3
      comp=Z,13nm,0.9s,mb4.5
BRG   Berggiesshubel   27.01  72  eP   P      07 39 03.6 -0.6
      comp=Z,22nm,1.3s,mb4.5
BRG   Berggiesshubel   27.01  72  eP   P      07 39 03.6 -0.6
      comp=Z,13nm,1.3s,mb4.3
CTI   Castel Tesino    27.18  83   P   P      07 39 05.8 +0.1
CTI                                pmax  pmax
      comp=Z,25nm,0.9s,mb4.7
CTI   Castel Tesino    27.18  83   P   P      07 39 05.8 +0.1
      comp=Z,25nm,0.9s,mb4.8
CTI   Castel Tesino    27.18  83   P   P      07 39 05.8 +0.1
      comp=Z,25nm,0.9s,mb4.8
GSCL  Gusciola         27.21  87   P   P      07 39 07.0 +1.0
GSCL  Gusciola         27.21  87   P   P      07 39 07.0 +1.0
RJOB  Jochberg         27.27  79  eP   P      07 39 06.7 +0.2
      comp=Z,24nm,1.3s,mb4.6
KHC   Kasperske Hory   27.29  75  eP   P      07 39 06.5 -0.2
KHC                               epP  pP     07 39 13.0 +3.2
KHC                                AMS   AMS    07 50 10.0
      comp=Z,1µm,15.7s
KHC   Kasperske Hory   27.29  75  eP   P      07 39 06.5 -0.2
GEC2  GERESS Array S   27.46  76  eP   P      07 39 08.0 -0.3
GEC2                               pmax  pmax
      comp=Z,62nm,2.3s,mb4.7
GEC2  GERESS Array S   27.46  76  eP   P      07 39 08.0 -0.3
      comp=Z,62nm,2.3s,mb4.7
GEC2  GERESS Array S   27.46  76  eP   P      07 39 08.0 -0.3
      comp=Z,62nm,2.3s,mb4.7
GERES GERESS Array B   27.46  76   P   P      07 39 08.3 +0.1
      comp=Z,5.6nm,1.0s,mb4.1,baz=291,slow=8.4,SNR=19
GERES                              LR    LR     07 49 43.5
      comp=Z,963nm,18.4s,MS4.4,baz=290,slow=36
GERES GERESS Array B   27.46  76   P   P      07 39 08.3  0.0
PVCC  Panska Ves       27.49  72  eP   P      07 39 09.3 +0.8
PVCC                               AMS   AMS    07 49 20.0
      comp=Z,900nm,16.7s
PVCC  Panska Ves       27.49  72  eP   P      07 39 09.3 +0.8
PRU   Pruhonice        27.63  73  eP   P      07 39 11.2 +1.5
PRU                                AMS   AMS    07 49 20.0
      comp=Z,1µm,18.2s
PRU   Pruhonice        27.63  73  eP   P      07 39 11.2 +1.5
KBA   Koelnbreinsper   27.86  80⇑iP    P      07 39 12.1 +0.3
      comp=Z,19nm,1.2s,mb4.6
MOA   Molln            28.15  78⇑ipP   pP     07 39 15.4 -2.1
      comp=Z,21nm,1.4s
MYKA  Terra Mystica    28.21  80⇑iP    P      07 39 15.3 +0.3
      comp=Z,36nm,1.2s,mb4.9
UPC   Upice            28.38  72  eP   P      07 39 16.0 -0.4
UPC                               epP  pP     07 39 23.4 +3.9
UPC   Upice            28.38  72  eP   P      07 39 16.0 -0.4
TREC  Trest            28.43  74  eP   P      07 39 17.3 +0.4
TREC                               AMS   AMS    07 50 40.0
      comp=Z,1µm,18.2s
TREC  Trest            28.43  74   P   P      07 39 17.3 +0.4
KSP   Ksiaz            28.45  71  eP   P      07 39 17.0 -0.1
KSP   Ksiaz            28.45  71  eP   P      07 39 17.0 -0.1
VOY   Vojsko           28.61  81  eP   P      07 39 18.3 -0.3
VOY   Vojsko           28.61  81  eP   P      07 39 18.3 -0.3
DPC   Dobruska-Polom   28.61  72  eP   P      07 39 17.9 -0.6
DPC                                AMS   AMS    07 50 20.0
      comp=Z,800nm,18.0s
DPC   Dobruska-Polom   28.61  72  eP   P      07 39 17.9 -0.6
OBKA  Obir             28.84  80⇓iP    P      07 39 20.0 -0.5
      comp=Z,26nm,0.9s,mb5.0
SOKA  Soboth           29.08  80⇑iP    P      07 39 22.0 -0.7
      comp=Z,22nm,0.9s,mb4.9
VRAC  Vranov           29.11  74   P   P      07 39 22.7 -0.2
      comp=Z,1.6nm,0.3s,mb4.2,baz=254,slow=9.6,SNR=3.3
VRAC                               LR    LR     07 50 34.9
      comp=Z,1µm,18.8s,MS4.6,baz=288,slow=36
VRAC  Vranov           29.11  74   P   P      07 39 22.7 -0.2
CSNA  Conrad Observa   29.13  77⇑iP    P      07 39 22.8 -0.3
      comp=Z,11nm,1.1s,mb4.5
CONA  Conrad Observa   29.13  77⇑iP    P      07 39 22.9 -0.2
      comp=Z,12nm,1.1s,mb4.5
ARSA  Arzberg          29.17  78⇑ipP   pP     07 39 24.1 -2.4
      comp=Z,15nm,1.4s
MORC  Moravsky Berou   29.54  72 ⇓P    P      07 39 26.6 -0.1
MORC  Moravsky Berou   29.54  72⇓iP    P      07 39 26.5 -0.2
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MORC  Moravsky Berou   29.54  72  eP   P      07 39 26.3 -0.4
      comp=Z,9.0nm,1.0s,mb4.5
MORC  Moravsky Berou   29.54  72  eP   P      07 39 26.3 -0.4
      comp=Z,9.0nm,1.0s,mb4.5
SOP   Sopron           29.66  77⇑eP    P      07 39 30.1 +2.3
MODS  Modra-Piesok     29.85  75  eP   P      07 39 24.7 -4.8
OKC   Ostrava-Krasne   29.89  72  eP   P      07 39 29.7 -0.2
OKC                                AMS   AMS    07 51 00.0
      comp=Z,800nm,14.1s
OKC   Ostrava-Krasne   29.89  72  eP   P      07 39 29.7 -0.2
SMOL  Smolenice        29.90  75  eP   P      07 39 32.9 +3.0
OJC   Ojcow            30.77  71  eP   P      07 39 37.4 -0.3
OJC   Ojcow            30.77  71  eP   P      07 39 37.4 -0.3
VYHS  Vyhne            30.78  74  eP   P      07 39 37.3 -0.4
VYHS  Vyhne            30.78  74  eP   P      07 39 37.3 -0.4
KEST  Kesra            31.12 103   P   P      07 39 40.8  0.0
      comp=Z,5.3nm,0.9s,mb4.4,baz=274,slow=2.1,SNR=12
KEST                               LR    LR     07 51 24.5
      comp=Z,269nm,18.9s,MS3.9,baz=222,slow=35
NIE   Niedzica         31.36  72  eP   P      07 39 43.5 +0.7
NIE   Niedzica         31.36  72  eP   P      07 39 43.5 +0.7
PKSM  Moragy           31.55  78⇑iP    P      07 39 43.9 -0.6
PKSM  Moragy           31.55  78 ⇑P    P      07 39 43.9 -0.6
PKSM  Moragy           31.55  78 ⇑P    P      07 39 43.9 -0.6
PSZ   Piszkesteto      31.65  75⇓iP    P      07 39 46.4 +1.0
PSZ   Piszkesteto      31.65  75⇓eP    P      07 39 46.3 +0.9
PSZ   Piszkesteto      31.65  75  eP   P      07 39 46.3 +0.9
      comp=Z,15nm,0.9s,mb4.8
PSZ   Piszkesteto      31.65  75  eP   P      07 39 46.3 +0.9
      comp=Z,15nm,0.9s,mb4.8
SUW   Suwalki          31.68  63  eP   P      07 39 45.3 -0.3
SUW   Suwalki          31.68  63  eP   P      07 39 45.3 -0.3
SUW   Suwalki          31.68  63  eP   P      07 39 45.3 -0.3
STHS  Stebnicka Huta   31.93  72  eP   P      07 39 48.0 +0.2
STHS  Stebnicka Huta   31.93  72  eP   P      07 39 48.0 +0.2
ARCES ARCESS Array B   32.01  33   P   P      07 39 47.4 -1.0
      comp=Z,8.0nm,0.9s,mb4.5,baz=251,slow=3.7,SNR=7.9
ARCES                              LR    LR     07 49 41.7
      comp=Z,203nm,20.5s,MS3.8,baz=242,slow=31
ARCES ARCESS Array B   32.01  33   P   P      07 39 47.4 -0.9
KAF   Kangasniemi      32.02  47  eP   P      07 39 46.8 -1.7
KAF                                pmax  pmax
      comp=Z,17nm,0.8s,mb4.9
KAF   Kangasniemi      32.02  47  ep   P      07 39 46.8 -1.7
      comp=Z,17nm,0.8s,mb4.9
KAF   Kangasniemi      32.02  47  eP   P      07 39 46.8 -1.7
      comp=Z,17nm,0.8s,mb4.9
KEV   Kevo             32.56  32  ep   P      07 39 52.7 -0.5
KEV   Kevo             32.56  32  eP   P      07 39 52.7 -0.5
SPITS Spitsbergen Ar   32.64  16   P   P      07 39 55.0 +1.2
      comp=Z,17nm,1.1s,mb4.9,baz=210,slow=11,SNR=2.8
SPITS                              LR    LR     07 49 30.2
      comp=Z,376nm,21.6s,MS4.0,baz=220,slow=30
SPITS Spitsbergen Ar   32.64  16   P   P      07 39 55.0 +1.2
VSU   Vasula           32.67  54  eP   P      07 39 54.2  0.0
VSU                                pmax  pmax
      comp=Z,25nm,1.3s,mb5.0
KOLS  Kolonicke sedl   32.73  72  eP   P      07 39 53.8 -1.1
KOLS                               pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.6
KOLS  Kolonicke sedl   32.73  72  eP   P      07 39 53.8 -1.1
      comp=Z,7.7nm,1.0s,mb4.6
KOLS  Kolonicke sedl   32.73  72  eP   P      07 39 53.8 -1.1
      comp=Z,7.7nm,1.0s,mb4.6
KWP   Kalwaria Pacla   32.74  71  eP   P      07 39 55.4 +0.5
KWP   Kalwaria Pacla   32.74  71⇓iP    P      07 39 56.2 +1.2
KWP   Kalwaria Pacla   32.74  71  eP   P      07 39 55.4 +0.4
KWP   Kalwaria Pacla   32.74  71  eP   P      07 39 55.4 +0.4
UZH   Uzhgorod         32.86  72  eP   P      07 39 54.0 -2.0
UZH                               e    pP     07 39 56.8 -2.2
UZH                               e             07 41 08.2
UZH                                MLR   MLR
      comp=N,400nm,17.0s,MS4.6
UZH                                MLR   MLR
      comp=E,1µm,17.0s,MS4.6
UZH                                MLR   MLR
      comp=Z,500nm,17.0s,MS4.3
BZS   Buzias           33.68  78⇓iP    P      07 40 02.9 -0.3
BZS   Buzias           33.68  78 ⇓P    P      07 40 02.9 -0.2
BZS   Buzias           33.68  78 ⇓P    P      07 40 02.9 -0.3
SADO  Sadowa           33.84 281   LR  LR     07 52 43.6
      comp=Z,772nm,18.5s,MS4.5,baz=266,slow=34
DRGR                   33.85  75⇓iP    P      07 40 05.0 +0.3
DRGR                   33.85  75 ⇓P    P      07 40 05.0 +0.3
DRGR                   33.85  75 ⇓P    P      07 40 05.0 +0.3
JOF   Joensuu          34.26  45  ep   P      07 40 05.8 -2.2
      comp=Z,8.5nm,0.7s,mb4.8
GZR   Gura Zlata       34.51  77⇓iP    P      07 40 10.3 -0.1
GZR   Gura Zlata       34.51  77 ⇓P    P      07 40 10.3 -0.1
GZR   Gura Zlata       34.51  77 ⇓P    P      07 40 10.3 -0.1
APA   Apatity          34.79  37⇓eP    P      07 40 13.0 +0.5
APA                                pmax  pmax
      comp=Z,54nm,1.4s,mb5.3
BUR08 Bucovina Ar. S   35.04  73  eP   P      07 40 15.9 +1.0
BUR08 Bucovina Ar. S   35.04  73  eP   P      07 40 15.9 +1.0
BURAR Bucovina Array   35.06  73⇓iP    P      07 40 15.8 +0.7
BURAR Bucovina Array   35.06  73 ⇓P    P      07 40 15.8 +0.7
BURAR Bucovina Array   35.06  73 ⇓P    P      07 40 15.8 +0.7
LVZ   Lovozero         35.25  36⇑eP    P      07 40 17.0 +0.5
LVZ                                pmax  pmax
      comp=Z,28nm,1.0s,mb5.2
VOIR                   35.91  76⇑iP    P      07 40 22.6 +0.1
VOIR                   35.91  76 ⇑P    P      07 40 22.6 +0.1
VOIR                   35.91  76 ⇑P    P      07 40 22.6 +0.1
RES   Resolute Bay     36.17 336   P   P      07 40 23.6 -0.8
      comp=Z,6.9nm,1.0s,mb4.5,baz=100,slow=8.5,SNR=25
KIEV  Kiev             36.24  66  eP   P      07 40 24.2 -1.0
KIEV                               pmax  pmax
      comp=Z,23nm,1.3s,mb5.0
KIEV  Kiev             36.24  66  eP   P      07 40 24.2 -1.0
      comp=Z,23nm,1.3s,mb4.9
KIEV  Kiev             36.24  66  eP   P      07 40 24.2 -1.0
      comp=Z,23nm,1.3s,mb4.9
AKASG Malin Array Be   36.24  66   P   P      07 40 24.2 -1.0
      comp=Z,6.4nm,0.9s,mb4.6,baz=287,slow=8.6,SNR=15
AKASG                              LR    LR     07 56 51.3
      comp=Z,834nm,18.2s,MS4.5,baz=290,slow=39
AKASG Malin Array Be   36.24  66   P   P      07 40 24.2 -1.0
MLR   Muntele Rosu     36.45  76⇑iP    P      07 40 28.0 +1.0
MLR   Muntele Rosu     36.45  76 ⇑P    P      07 40 28.0 +1.0
MLR   Muntele Rosu     36.45  76 ⇑P    P      07 40 28.0 +1.0
VRI   Vrincioaia       36.76  75⇑iP    P      07 40 29.6 -0.1
VRI   Vrincioaia       36.76  75 ⇑P    P      07 40 29.6 -0.1
VRI   Vrincioaia       36.76  75 ⇑P    P      07 40 29.6 -0.1
FCC   Fort Churchill   37.44 309  eP   P      07 40 36.0 +0.7
      comp=Z,0.5nm,1.1s,mb3.3
FCC   Fort Churchill   37.44 309  eP   P      07 40 36.0 +0.7
      comp=Z,0.5nm,1.1s,mb3.3
HARR  Harsova          38.07  76⇓iP    P      07 40 41.0 +0.2
HARR  Harsova          38.07  76 ⇓P    P      07 40 41.0 +0.2
HARR  Harsova          38.07  76 ⇓P    P      07 40 41.0 +0.2
KLMR  Klimovskoe       38.47  47  eP   P      07 40 41.9 -2.1
KLMR                              eS   S      07 46 34.5 -4.4
KLMR                               pmax  pmax
      comp=Z,56nm,1.5s,mb5.1
TIRR  Tirgusor         38.48  76  eP   P      07 40 42.9 -1.4
TIRR                               pmax  pmax
      comp=Z,17nm,1.2s,mb4.7
TIRR  Tirgusor         38.48  76⇑iP    P      07 40 42.5 -1.8
TIRR  Tirgusor         38.48  76  eP   P      07 40 42.9 -1.4
      comp=Z,17nm,1.2s,mb4.6
TIRR  Tirgusor         38.48  76  eP   P      07 40 42.9 -1.4
      comp=Z,17nm,1.2s,mb4.6
ACSO  Alum Creek Sta   38.59 276  eP   P      07 40 46.0 +0.8
      comp=Z,13nm,0.8s,mb4.7
ACSO  Alum Creek Sta   38.59 276  eP   P      07 40 46.0 +0.8
      comp=Z,13nm,0.8s,mb4.7
OBN   Obninsk          38.77  57⇓eP    P      07 40 46.3 -0.3
OBN                               e             07 42 16.3
OBN                               eS   S      07 46 41.2 -2.4
OBN                                pmax  pmax
      comp=Z,54nm,1.2s,mb5.2
OBN                                MLR   MLR
      comp=Z,500nm,20.0s,MS4.3
NHSC  New Hope         41.04 265  eP   P      07 41 05.8 +0.1
NHSC  New Hope         41.04 265  eP   P      07 41 05.8 +0.1
TZTN  Tazewell         41.07 272  eP   P      07 41 09.3 +3.3
BLO   Bloomington      41.44 277  eP   P      07 41 09.5 +0.5
BLO                                pmax  pmax
      comp=Z,24nm,1.0s,mb4.8
BLO   Bloomington      41.44 277  eP   P      07 41 09.5 +0.6
      comp=Z,24nm,1.0s,mb4.8
BLO   Bloomington      41.44 277  eP   P      07 41 09.5 +0.5
      comp=Z,24nm,1.0s,mb4.8
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ULM	Lac du Bonnet	41.54	297	P	P	07 41 09.4	-0.1
	comp=Z,2.6nm,0.5s,mb4.1,baz=122,slow=2.7,SNR=4.5						
ULM				LR	LR	07 56 02.1	
	comp=Z,304nm,20.8s,MS4.2,baz=228,slow=33						
ULM	Lac du Bonnet	41.54	297	P	P	07 41 09.4	-0.2
TKL	Tuckaleechee C	41.76	271	P	P	07 41 11.3	-0.2
	comp=Z,3.0nm,0.7s,mb4.0,baz=2.4,slow=12,SNR=2.3						
TKL				LR	LR	07 58 04.9	
	comp=Z,246nm,18.6s,MS4.1,baz=44,slow=36						
TKL	Tuckaleechee C	41.76	271	P	P	07 41 11.3	-0.2
TKL				LR	LR	07 58 04.9	
TKL	Tuckaleechee C	41.76	271	P	P	07 41 11.3	-0.2
VSR	Storozhevoye	41.76	61	eP	P	07 41 11.0	-0.4
VSR				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.6						
VSR				pmax	pmax		
	comp=N,4.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.4s						
WCI	Wyandotte Cave	41.84	276	eP	P	07 41 13.0	+0.8
WCI				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.6						
WCI	Wyandotte Cave	41.84	276	eP	P	07 41 13.0	+0.7
	comp=Z,12nm,0.8s,mb4.6						
WCI	Wyandotte Cave	41.84	276	eP	P	07 41 13.0	+0.8
	comp=Z,12nm,0.8s,mb4.6						
VORD	Divnogorie	41.95	61	eP	P	07 41 12.5	-0.4
VORD				pmax	pmax		
	comp=N,8.0nm,0.9s						
VORD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
VORD				pmax	pmax		
	comp=E,20nm,0.8s						
CPCT	Cooper Cave	42.37	272	eP	P	07 41 18.4	+1.8
CPCT	Cooper Cave	42.37	272	eP	P	07 41 18.4	+1.9
FFC	Flin Flon	42.93	305	i P	P	07 41 22.8	+1.9
FFC	Flin Flon	42.93	305	eP	P	07 41 21.1	+0.2
	comp=E,19nm,1.5s,mb4.6						
FFC	Flin Flon	42.93	305	eP	P	07 41 21.1	+0.2
	comp=E,19nm,1.5s,mb4.6						
ISP	Isparta	43.40	83	eP	P	07 41 26.1	+1.2
ISP				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
SWET	Sewanee	43.42	272	eP	P	07 41 27.2	+2.1
SWET	Sewanee	43.42	272	eP	P	07 41 27.2	+2.2
ANN	Anapa	43.86	70	eP	P	07 41 27.6	-0.9
ANN				eS	S	07 47 56.5	-2.8
ANN				pmax	pmax		
	comp=Z,90nm,6.1s						
ANN				MLR	MLR		
	comp=Z,883nm,20.0s,MS4.7						
SIUC	Southern Illin	44.01	278	eP	P	07 41 29.9	+0.1
	comp=Z,49nm,0.8s,mb5.3						
SIUC	Southern Illin	44.01	278	eP	P	07 41 29.9	+0.1
	comp=Z,49nm,0.8s,mb5.3						
WVT	Waverly	44.08	275	eP	P	07 41 30.7	+0.4
WVT				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.6						
WVT	Waverly	44.08	275	eP	P	07 41 30.6	+0.3
	comp=Z,14nm,1.1s,mb4.6						
WVT	Waverly	44.08	275	eP	P	07 41 30.6	+0.3
	comp=Z,14nm,1.1s,mb4.6						
SLM	Saint Louis	44.12	279	eP	P	07 41 31.0	+0.3
SLM				pmax	pmax		
	comp=Z,41nm,0.8s,mb5.2						
SLM	Saint Louis	44.12	279	eP	P	07 41 31.0	+0.4
	comp=Z,41nm,0.8s,mb5.2						
SLM	Saint Louis	44.12	279	eP	P	07 41 31.0	+0.3
	comp=Z,41nm,0.8s,mb5.2						
SCIA	State Center	44.13	285	eP	P	07 41 31.3	+0.6
	comp=Z,24nm,0.6s,mb5.1						
SCIA	State Center	44.13	285	eP	P	07 41 31.3	+0.6
	comp=Z,24nm,0.6s,mb5.1						
BR131	Keskin Array S	44.29	79	eP	P	07 41 32.5	+0.5
	comp=Z,9.0nm,1.0s,mb4.5						
BR131	Keskin Array S	44.29	79	eP	P	07 41 32.5	+0.5
	comp=Z,9.0nm,1.0s,mb4.5						
BRTR	Keskin Array B	44.29	79	P	P	07 41 32.9	+0.8
	comp=Z,7.2nm,0.9s,mb4.4						
BRTR				LR	LR	08 01 12.1	
	comp=Z,332nm,19.1s,MS4.3,baz=299,slow=38						
BRTR	Keskin Array B	44.29	79	P	P	07 41 32.8	+0.8
TORD	Torodi Ar. Bea	44.55	135	P	P	07 41 33.5	-0.8
	comp=Z,12nm,0.7s,mb4.8,baz=333,slow=8.1,SNR=44						
TORD				PcP	PcP	07 43 16.2	-1.1
	comp=Z,0.9nm,0.8s,baz=327,slow=3.8,SNR=2.2						
TORD				LR	LR	07 59 11.3	
	comp=Z,258nm,18.3s,MS4.2,baz=330,slow=35						
TORD	Torodi Ar. Bea	44.55	135	P	P	07 41 33.5	-0.8
TORD				PcP	PcP	07 43 16.2	-1.2
TORD				LR	LR	07 59 11.3	
FVM	French Village	44.62	279	eP	P	07 41 34.4	-0.3
FVM				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.3						
FVM	French Village	44.62	279	eP	P	07 41 34.4	-0.3
	comp=Z,39nm,0.7s,mb5.3						
FVM	French Village	44.62	279	eP	P	07 41 34.4	-0.3
	comp=Z,39nm,0.7s,mb5.3						
PLAL	Pickwick Lake	44.94	274	eP	P	07 41 38.0	+0.7
	comp=Z,6.3nm,0.9s,mb4.5						
PLAL	Pickwick Lake	44.94	274	eP	P	07 41 38.0	+0.7
	comp=Z,6.3nm,0.9s,mb4.5						
CCM	Cathedral Cave	45.10	279	eP	P	07 41 37.5	-1.0
CCM				pmax	pmax		
	comp=Z,41nm,0.7s,mb5.4						
CCM	Cathedral Cave	45.10	279	eP	P	07 41 37.5	-1.0
	comp=Z,40nm,0.7s,mb5.4						
CCM	Cathedral Cave	45.10	279	eP	P	07 41 37.5	-1.0
	comp=Z,40nm,0.7s,mb5.4						
YKA	Yellowknife Ar	45.55	320	P	P	07 41 40.6	-1.2
YKA						07 43 18.7	
YKA	Yellowknife Ar	45.55	320	P	P	07 41 40.6	-1.2
	comp=Z,1.7nm,0.8s,mb4.0,baz=62,slow=8.3,SNR=27						
YKA				PcP	PcP	07 43 18.7	-1.4
	comp=Z,1.3nm,0.7s,baz=62,slow=3.9,SNR=11						
YKA				LR	LR	07 58 07.5	
	comp=Z,257nm,21.9s,MS4.1,baz=340,slow=33						
YKA	Yellowknife Ar	45.55	320	P	P	07 41 40.6	-1.2
YKA				PcP	PcP	07 43 18.7	-1.4
YKA				LR	LR	07 58 07.5	
YKA	Yellowknife Ar	45.55	320	P	P	07 41 40.6	-1.2
YKA	Yellowknife Ar	45.55	320	PcP	PcP	07 43 18.7	-1.4
SDDR	Presa de Saban	45.76	243	eP	P	07 41 44.2	+0.3
	comp=Z,26nm,0.9s,mb5.2						
SDDR	Presa de Saban	45.76	243	eP	P	07 41 44.2	+0.3
	comp=Z,26nm,0.9s,mb5.2						
SOC	Sochi	45.90	70	eP	P	07 41 43.2	-1.5
SOC				e		07 43 33.6	
SOC				eS	S	07 48 27.3	-1.5
SOC				eSS	SS	07 51 52.8	-0.3
SOC				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
SOC				MLR	MLR		
	comp=Z,277nm,14.0s,MS4.3						
SOKR	Solikamsk	46.92	44	d iP	P	07 41 54.5	+1.9
SOKR				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
DGMT	Dagmar	47.15	299	⇓P	P	07 41 53.9	-0.6
	baz=47						
KIV	Kislovodsk	47.48	68	eP	P	07 41 56.4	-0.7
KIV				e		07 43 45.5	
KIV				eS	S	07 48 48.7	-2.8
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
KIV				MLR	MLR		
	comp=Z,281nm,16.0s,MS4.3						
TIC	Toumodi	47.73	147	eP	P	07 41 58.8	-0.5
	comp=Z,56nm,0.9s,mb5.6						
DBIC	Dimbokro	47.76	147	P	P	07 41 59.1	-0.4
	comp=Z,13nm,0.8s,mb5.0,baz=328,slow=7.5,SNR=16						
DBIC				LR	LR	07 59 22.5	
	comp=Z,331nm,21.2s,MS4.3,baz=321,slow=33						
DBIC	Dimbokro	47.76	147	P	P	07 41 59.2	-0.4
UALR	University of	47.80	276	eP	P	07 42 00.4	+0.6
	comp=Z,40nm,1.4s,mb5.3						
UALR	University of	47.80	276	eP	P	07 42 00.4	+0.6
	comp=Z,40nm,1.4s,mb5.3						
KSU1	Kansas State U	47.86	284	eP	P	07 42 00.5	+0.3
	comp=Z,37nm,0.8s,mb5.5						
KSU1	Kansas State U	47.86	284	eP	P	07 42 00.5	+0.3
	comp=Z,37nm,0.8s,mb5.5						
KIC	Kosan Boka	48.09	147	eP	P	07 42 01.6	-0.5
	comp=Z,56nm,1.0s,mb5.6						
LIC	Lamto	48.12	147	eP	P	07 42 01.5	-0.8
	comp=Z,26nm,0.9s,mb4.9						
LIC				eMLR	MLR		
	comp=Z,557nm,20.8s,MS4.2						
LIC	Lamto	48.12	147	eP	P	07 42 01.2	-1.1
	comp=Z,35nm,0.9s,mb5.4						
LIC	Lamto	48.12	147	eP	P	07 42 01.5	-0.8
	comp=Z,13nm,0.9s,mb5.0						
LIC				LR	LR		
	comp=Z,280nm,20.8s,MS4.2						
LIC	Lamto	48.12	147	eP	P	07 42 01.5	-0.8
	comp=Z,13nm,0.9s,mb4.9						
MALT	Malatya	48.14	77	⇑iP	P	07 42 03.0	+0.7
MALT	Malatya	48.14	77	eP	P	07 42 02.9	+0.6
	comp=Z,10nm,1.1s,mb4.8						
MALT	Malatya	48.14	77	eP	P	07 42 02.9	+0.6
	comp=Z,10nm,1.1s,mb4.8						
MIAR	Mount Ida	48.74	277	eP	P	07 42 07.0	0.0
MIAR				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.5						
MIAR	Mount Ida	48.74	277	eP	P	07 42 07.0	0.0
	comp=Z,62nm,1.4s,mb5.5						
MIAR	Mount Ida	48.74	277	eP	P	07 42 07.0	0.0
	comp=Z,62nm,1.4s,mb5.5						
LAO	LASA Array	49.27	298	eP	P	07 42 11.1	+0.2
	comp=Z,59nm,1.4s,mb5.4						
LAO	LASA Array	49.27	298	eP	P	07 42 11.1	+0.2
	comp=Z,59nm,1.4s,mb5.4						
ARU	Arti	49.32	47	eP	P	07 42 11.5	+0.4
ARU				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
ARU	Arti	49.32	47	eP	P	07 42 11.5	+0.4
	comp=Z,18nm,0.7s,mb5.2						
ARU	Arti	49.32	47	eP	P	07 42 11.5	+0.4
	comp=Z,18nm,0.7s,mb5.2						
PCRV	Puerto La Cruz	49.53	229	LR	LR	07 59 57.8	
	comp=Z,228nm,18.8s,MS4.2,baz=195,slow=32						
EDM	Edmonton	49.53	308	eP	P	07 42 14.2	+1.4
EDM	Edmonton	49.53	308	eP	P	07 42 14.1	+1.3
CBKS	Cedar Bluff	49.98	286	eP	P	07 42 16.2	-0.2
CBKS				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.2						
CBKS	Cedar Bluff	49.98	286	eP	P	07 42 16.2	-0.3
	comp=Z,25nm,0.9s,mb5.2						
CBKS	Cedar Bluff	49.98	286	eP	P	07 42 16.2	-0.2
	comp=Z,25nm,0.9s,mb5.2						
A18A	Metzger Ranch,	50.05	302	⇑P	P	07 42 16.2	-0.6
	baz=50						
SVE	Sverdlovsk	50.07	46	⇑eP	P	07 42 17.2	+0.3
SVE				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
B18A	Beardsley Farm	50.30	301	⇓P	P	07 42 18.5	-0.2
	baz=50						
A17A	Triple J Farms	50.50	302	⇓P	P	07 42 20.0	-0.2
	baz=50						
EGMT	Eagleton	50.50	301	⇑P	P	07 42 19.9	-0.3
	baz=50,SNR=14						
EGMT	Eagleton	50.50	301	eP	P	07 42 19.8	-0.4
	comp=Z,35nm,1.2s,mb5.2						
EGMT	Eagleton	50.50	301	eP	P	07 42 19.8	-0.4
	comp=Z,35nm,1.2s,mb5.2						
B17A	L&G Farms, Che	50.92	302	⇓P	P	07 42 22.7	-0.7
	baz=51,SNR=6.5						
GNI	Garni	50.94	71	eP	P	07 42 25.3	+1.6
GNI				pmax	pmax		
	comp=Z,24nm,1.1s						
GNI	Garni	50.94	71	eP	P	07 42 25.3	+1.6
	comp=Z,24nm,1.1s,mb5.0						
GNI	Garni	50.94	71	eP	P	07 42 25.3	+1.6
	comp=Z,24nm,1.1s,mb5.0						
A16A	West Butte Ran	50.98	303	⇓P	P	07 42 24.0	+0.1
	baz=51						
D18A	Linhart Farms,	51.00	300	⇓P	P	07 42 24.0	0.0
	baz=51						
C17A	Wharram Farm,	51.28	301	⇓P	P	07 42 26.0	-0.1
	baz=51						
B16A	M & M Farms, S	51.35	302	⇑P	P	07 42 26.1	-0.5
	baz=51						
E18A	Harlowton	51.43	299	⇑P	P	07 42 27.1	-0.1
	baz=51						
D17A	Six Diamond Ra	51.52	300	⇓P	P	07 42 27.3	-0.6
	baz=51,SNR=8.9						
A15A	Johnson Ranch,	51.58	303	⇑P	P	07 42 28.1	-0.2
	baz=51						
F18A	Big Timber	51.70	299	⇑P	P	07 42 29.1	-0.2
	baz=52						
C16A	Fuhringer Ranc	51.73	302	⇑P	P	07 42 28.9	-0.6
	baz=52,SNR=14						
B15A	Bradely Ranch,	51.88	303	⇓P	P	07 42 30.6	0.0
	baz=52,SNR=5.3						
RLMT	Red Lodge	51.91	298	⇓P	P	07 42 30.7	-0.1
	baz=52						
WMOK	Wichita Mounta	51.92	281	eP	P	07 42 29.8	-1.3
WMOK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
WMOK	Wichita Mounta	51.92	281	eP	P	07 42 29.8	-1.4
	comp=Z,12nm,0.9s,mb4.8						
WMOK	Wichita Mounta	51.92	281	eP	P	07 42 29.8	-1.3
	comp=Z,12nm,0.9s,mb4.8						
A14A	Double T Ranch	51.95	304	⇑P	P	07 42 30.7	-0.5
	baz=52,SNR=7.3						
PHWY	Pilot Hill	51.97	292	eP	P	07 42 33.0	+1.7
	comp=Z,22nm,1.1s,mb5.0						
PHWY	Pilot Hill	51.97	292	eP	P	07 42 33.0	+1.7
	comp=Z,22nm,1.1s,mb5.0						
E17A	Martinsdale	52.02	300	⇑P	P	07 42 31.4	-0.2
	baz=52						
D16A	Dana Ranch, Ca	52.07	301	⇑P	P	07 42 31.4	-0.6
	baz=52,SNR=15						
WALA	Waterton Lakes	52.17	304	eP	P	07 42 32.4	-0.3
	comp=Z,0.7nm,1.0s,mb3.5						
WALA	Waterton Lakes	52.17	304	eP	P	07 42 32.4	-0.3
	comp=Z,0.7nm,1.0s,mb3.5						
C15A	Salmond Ranch,	52.21	302	⇑P	P	07 42 32.4	-0.7
	baz=52,SNR=16						
F17A	Fitzpatrick Pl	52.23	299	⇑P	P	07 42 33.1	-0.2
	baz=52,SNR=8.5						
HRY	Holter Researc	52.41	300	eP	P	07 42 34.9	+0.3
HRY	Holter Researc	52.41	300	eP	P	07 42 34.9	+0.3
E16A	East Helena	52.43	300	⇓P	P	07 42 33.9	-0.9
	baz=52						
M22A	Cedar Creek Ra	52.58	292	⇑P	P	07 42 36.0	+0.1
	baz=52						
D15A	Lincoln	52.60	301	⇓P	P	07 42 35.7	-0.2
	baz=52,SNR=34						
G17A	Pierce Place,	52.63	299	⇑P	P	07 42 36.0	-0.2
	baz=52,SNR=5.3						
L21A	Rawlins	52.70	293	⇓P	P	07 42 36.4	-0.4
	baz=52,SNR=6.8						
K20A	Yellowstone Ra	52.85	295	⇑P	P	07 42 37.8	-0.1
	baz=53						
N22A	Wattenberg Ran	52.87	292	⇓P	P	07 42 38.2	+0.2
	baz=53,SNR=5.9						
B13A	Whitefish	52.87	304	⇑P	P	07 42 37.6	-0.3
	baz=53						
BOZ	Bozeman (W)	52.94	299	eP	P	07 42 38.6	+0.2
BOZ	Bozeman (W)	52.94	299	eP	P	07 42 38.6	+0.2
SLMT	Seeley Lake	53.01	302	eP	P	07 42 39.7	+0.7
SLMT	Seeley Lake	53.01	302	eP	P	07 42 39.7	+0.7
E15A	Deer Lodge	53.03	301	⇓P	P	07 42 39.2	0.0
	baz=53						
CHMT	Chamberlain Mo	53.08	301	eP	P	07 42 39.7	+0.2
CHMT	Chamberlain Mo	53.08	301	eP	P	07 42 39.7	+0.2
H17A	Grant Village	53.09	297	⇓P	P	07 42 40.1	+0.5
	baz=53						
D14A	Greenough	53.12	302	⇓P	P	07 42 39.4	-0.4
	baz=53						
SWMT	Swartz Lake	53.13	302	eP	P	07 42 40.9	+1.0
SWMT	Swartz Lake	53.13	302	eP	P	07 42 40.9	+1.1
YFT	Old Faithful	53.21	298	eP	P	07 42 42.6	+2.1
	comp=Z,19nm,1.0s,mb5.0						
YFT	Old Faithful	53.21	298	eP	P	07 42 42.6	+2.1
	comp=Z,19nm,1.0s,mb5.0						
L20A	Wamsutter	53.25	294	⇓P	P	07 42 40.5	-0.3
	baz=53,SNR=8.2						
G16A	Moss Hill, Enn	53.28	299	⇓P	P	07 42 41.2	+0.1
	baz=53						
H16A	Russell Place,	53.29	298	⇑P	P	07 42 41.2	+0.1
	baz=53						
F15A	Butte	53.30	300	⇓P	P	07 42 41.0	-0.1
	baz=53						
C13A	Hot Springs	53.34	303	⇑P	P	07 42 40.6	-0.8
	baz=53						
BSMT	Bassoo Peak	53.35	303	eP	P	07 42 42.3	+0.9
BSMT	Bassoo Peak	53.35	303	eP	P	07 42 42.3	+0.8
I17A	Pilgrim Ck.	53.38	297	⇑P	P	07 42 41.0	-0.7
	baz=53						
M20A	Sweetwater, Wa	53.48	293	⇓P	P	07 42 42.4	-0.1
	baz=53						
J18A	Kendall Valley	53.49	296	⇓P	P	07 42 42.1	-0.4
	baz=53,SNR=23						
PDAR	Pinedale Array	53.49	295	P	P	07 42 41.3	-1.3
	comp=Z,5.7nm,1.0s,mb4.5,baz=62,slow=7.0,SNR=25						
PDAR				LR	LR	08 04 24.5	
	comp=Z,312nm,18.8s,MS4.4,baz=77,slow=35						
PDAR	Pinedale Array	53.49	295	P	P	07 42 41.3	-1.3
BW06	Boulder Array	53.50	295	eP	P	07 42 41.5	-1.2
BW06	Boulder Array	53.50	295	eP	P	07 42 41.5	-1.1
MSO	Missoula	53.51	302	eP	P	07 42 43.3	+0.7
	comp=Z,12nm,1.5s,mb4.6						
MSO	Missoula	53.51	302	eP	P	07 42 43.3	+0.7
	comp=Z,12nm,1.5s,mb4.6						
E14A	Clinton	53.51	301	⇑P	P	07 42 41.9	-0.7
	baz=53						
A11A	Hall Mountain,	53.53	305	⇑P	P	07 42 42.0	-0.8
	baz=53						
N21A	Black Mountain	53.53	292	⇓P	P	07 42 43.1	+0.2
	baz=53,SNR=13						
MOOW	Moose Ponds	53.58	297	eP	P	07 42 43.0	-0.3
MOOW	Moose Ponds	53.58	297	eP	P	07 42 43.0	-0.2
LOHW	Long Hollow	53.58	297	eP	P	07 42 42.5	-0.7
LOHW	Long Hollow	53.58	297	eP	P	07 42 42.5	-0.7
D13A	Huson	53.63	302	⇑P	P	07 42 42.9	-0.6
	baz=53						
DLMT	Dillon	53.65	300	eP	P	07 42 45.6	+1.9
	comp=Z,13nm,1.0s,mb4.8						
DLMT	Dillon	53.65	300	eP	P	07 42 45.6	+1.9
	comp=Z,13nm,1.0s,mb4.8						
AMTX	Amarillo	53.66	283	eP	P	07 42 43.5	-0.4
	comp=Z,28nm,0.7s,mb5.3						
AMTX	Amarillo	53.66	283	eP	P	07 42 43.5	-0.4
	comp=Z,28nm,0.7s,mb5.3						
SDV	Santo Domingo	53.67	235	LR	LR	08 01 34.5	
	comp=Z,196nm,20.7s,MS4.2,baz=165,slow=32						
SDV	Santo Domingo	53.67	235	eP	P	07 42 44.8	+0.7
	comp=Z,21nm,1.3s,mb4.9						
SDV	Santo Domingo	53.67	235	eP	P	07 42 44.8	+0.6
	comp=Z,21nm,1.3s,mb4.9						
G15A	Dillon	53.71	299	⇑P	P	07 42 44.2	0.0
	baz=54,SNR=9.5						
SNOW	Snow King Moun	53.76	297	eP	P	07 42 44.0	-0.5
	comp=Z,77nm,2.0s,mb5.3						
SNOW	Snow King Moun	53.76	297	eP	P	07 42 44.0	-0.6
	comp=Z,77nm,2.0s,mb5.3						
L19A	Farson	53.79	295	⇓P	P	07 42 44.3	-0.5
	baz=54						
J17A	Brown Place, J	53.80	297	⇓P	P	07 42 44.8	-0.1
	baz=54,SNR=8.5						
C12B	Naegeli Ranch,	53.81	303	⇑P	P	07 42 44.4	-0.4
	baz=54						
K18A	Toltan Ranch,	53.86	295	⇑P	P	07 42 44.8	-0.5
	baz=54						
E13A	Victor	53.88	301	⇓P	P	07 42 44.7	-0.6
	baz=54						
N20A	Spence Gulch,	53.93	293	⇑P	P	07 42 45.9	+0.1
	baz=54,SNR=14						
DCID1	Drake Creek	53.93	297	eP	P	07 42 47.0	+1.2
	comp=Z,10.0nm,0.8s,mb4.8						
DCID1	Drake Creek	53.93	297	eP	P	07 42 47.0	+1.2
	comp=Z,10.0nm,0.8s,mb4.8						
I16A	Newdale	53.93	297	⇑P	P	07 42 45.8	0.0
	baz=54,SNR=6.0						
EGAK	Eagle	54.06	331	eP	P	07 42 45.5	-0.9
	comp=Z,10nm,1.0s,mb4.7						
EGAK	Eagle	54.06	331	eP	P	07 42 45.5	-0.9
	comp=Z,10nm,1.0s,mb4.7						
RRI2	Red Ridge	54.16	297	eP	P	07 42 49.8	+2.3
	comp=Z,16nm,1.1s,mb4.9						
RRI2	Red Ridge	54.16	297	eP	P	07 42 49.8	+2.4
	comp=Z,16nm,1.1s,mb4.9						
SDCO	Great Sand Dun	54.20	288	eP	P	07 42 48.3	+0.4
	comp=Z,9.8nm,1.3s,mb4.6						
SDCO	Great Sand Dun	54.20	288	eP	P	07 42 48.3	+0.5
	comp=Z,9.8nm,1.3s,mb4.6						
P21A	Newcastle	54.26	291	⇓P	P	07 42 48.1	-0.1
	baz=54,SNR=13						
L18A	Fontenelle, Gr	54.29	295	⇑P	P	07 42 48.0	-0.5
	baz=54						
Q22A	Crested Butte,	54.35	290	⇓P	P	07 42 48.2	-0.7
	baz=54						
O20A	White River Ci	54.35	292	⇓P	P	07 42 48.6	-0.3
	baz=54,SNR=5.5						
F13A	Darby	54.35	301	⇓P	P	07 42 48.2	-0.6
	baz=54						
J16A	Bone	54.37	297	⇓P	P	07 42 48.6	-0.4
	baz=54						
I15A	Monteview	54.42	298	⇑P	P	07 42 48.7	-0.6
	baz=54						
N19A	John Jarvie Ra	54.43	293	⇑P	P	07 42 49.1	-0.4
	baz=54,SNR=10						
L17A	Cokeville	54.67	295	⇑P	P	07 42 50.6	-0.6
	baz=54						
D11A	Klaveano Farm,	54.67	303	⇓P	P	07 42 50.6	-0.5
	baz=54						
A09A	Danville	54.68	306	⇓P	P	07 42 50.3	-0.9
	baz=54						
G13A	Cobalt	54.73	300	⇑P	P	07 42 51.3	-0.2
	baz=54,SNR=12						
J15A	Blackfoot	54.76	298	⇓P	P	07 42 51.7	-0.1
	baz=55						
Q21A	Lamborn Mesa,	54.77	290	⇓P	P	07 42 51.7	-0.3
	baz=55						
O19A	Miners Draw (B	54.77	293	⇓P	P	07 42 51.9	0.0
	baz=55,SNR=15						
B09A	Rice	54.79	305	⇓P	P	07 42 51.6	-0.4
	baz=55,SNR=11						
P20A	De Beque	54.84	291	⇑P	P	07 42 52.7	+0.2
	baz=55,SNR=6.5						
COLD	Coldfoot	54.92	336	eP	P	07 42 53.2	+0.5
	comp=Z,6.0nm,0.8s,mb4.7						
COLD	Coldfoot	54.92	336	eP	P	07 42 53.2	+0.5
	comp=Z,6.0nm,0.8s,mb4.7						
M17A	Scullys Gap (B	54.94	295	⇓P	P	07 42 52.6	-0.6
	baz=55						
I14A	Mackay	55.01	299	⇓P	P	07 42 53.2	-0.5
	baz=55						
L16A	Fish Haven	55.05	296	⇓P	P	07 42 53.6	-0.3
	baz=55,SNR=10						
A08A	Turner Farm, O	55.05	306	⇑P	P	07 42 53.2	-0.7
	baz=55						
H13A	Challis	55.07	300	⇓P	P	07 42 53.9	-0.1
	baz=55,SNR=18						
P19A	Cripple Cowboy	55.11	292	⇑P	P	07 42 54.1	-0.3
	baz=55						
Q20A	Ridgley Place,	55.13	291	⇓P	P	07 42 54.9	+0.3
	baz=55,SNR=7.7						
JCT	Junction City	55.37	278	eP	P	07 42 54.3	-2.1
JCT				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
JCT	Junction City	55.37	278	eP	P	07 42 54.2	-2.1
	comp=Z,9.1nm,0.8s,mb4.9						
JCT	Junction City	55.37	278	eP	P	07 42 54.3	-2.1
	comp=Z,9.0nm,0.8s,mb4.8						
N17A	Moffit Pass	55.38	294	⇑P	P	07 42 56.5	+0.2
	baz=55,SNR=5.4						
I13A	Wildhorse Cree	55.40	299	⇑P	P	07 42 56.5	0.0
	baz=55,SNR=11						
H12A	Diamond D Ranc	55.41	300	⇓P	P	07 42 56.4	-0.1
	baz=55						
B08A	Colville Reser	55.45	306	⇓P	P	07 42 56.1	-0.7
	baz=55						
L15A	Malad City	55.61	296	⇑P	P	07 42 57.5	-0.5
	baz=55						
S21A	Coal Bank Pass	55.65	289	⇑P	P	07 42 58.9	+0.6
	baz=56,SNR=15						
R20A	Redvale	55.67	290	⇓P	P	07 42 58.7	+0.2
	baz=56,SNR=7.0						
K14A	Jones Ranch, D	55.72	297	⇓P	P	07 42 58.5	-0.3
	baz=56,SNR=11						
J13A	Cove Ranch, Pi	55.75	299	⇓P	P	07 42 59.3	+0.3
	baz=56,SNR=11						
HLID	Hailey	55.78	299	⇑P	P	07 42 59.6	+0.4
	baz=56,SNR=11						
HLID	Hailey	55.78	299	eP	P	07 42 59.4	+0.2
	comp=Z,13nm,1.2s,mb4.8						
HLID	Hailey	55.78	299	eP	P	07 42 59.4	+0.2
	comp=Z,13nm,1.2s,mb4.8						
O17A	Robinson Place	55.79	294	⇑P	P	07 42 59.1	-0.2
	baz=56						
B07A	Winthrop	55.80	306	⇑P	P	07 42 58.8	-0.4
	baz=56						
F10A	Beach Ranch, E	55.83	303	⇓P	P	07 42 59.3	-0.1
	baz=56						
PV04	Paradox Valley	55.85	291	eP	P	07 42 60.0	+0.2
PV04	Paradox Valley	55.85	291	eP	P	07 43 00.0	+0.2
P18A	Preston Nutter	55.86	293	⇑P	P	07 42 59.9	+0.1
	baz=56						
DAU	Daniels Canyon	55.96	294	eP	P	07 43 01.7	+1.2

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DAU   Daniels Canyon    55.96 294 eP    P      07 43 01.7 +1.2
M15A  Larsen Ranch,     55.99 296 ⇑P    P      07 43 00.1 -0.6
      baz=56,SNR=5.0
COLA  College           56.02 333 eP    P      07 43 01.5 +1.0
COLA                               pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.7
COLA  College           56.02 333 eP    P      07 43 01.5 +1.0
      comp=Z,6.4nm,0.8s,mb4.7
COLA  College           56.02 333 eP    P      07 43 01.5 +1.0
      comp=Z,6.0nm,0.8s,mb4.7
R19A  Curley Farm, L    56.13 291 ⇑P    P      07 43 01.8  0.0
      baz=56,SNR=17
Q18A  Rafter H Ranch    56.13 292 ⇓P    P      07 43 01.4 -0.4
      baz=56,SNR=15
MENT  Mentasta          56.16 330 eP    P      07 43 02.8 +1.2
MENT  Mentasta          56.16 330 eP    P      07 43 02.8 +1.2
K13A  Stover Farm, H    56.18 298 ⇓P    P      07 43 02.0  0.0
      baz=56
C07A  Waterville        56.25 306 ⇓P    P      07 43 01.7 -0.8
      baz=56
SRU   San Rafael        56.36 292 ⇓P    P      07 43 02.9 -0.5
      baz=56,SNR=12
SRU   San Rafael        56.36 292 eP    P      07 43 03.1 -0.3
SRU   San Rafael        56.36 292 eP    P      07 43 03.1 -0.3
J12A  Stokes Ranch,     56.37 299 ⇑P    P      07 43 03.2 -0.2
      baz=56,SNR=15
MVCO  Mesa Verde        56.37 289 eP    P      07 43 03.6 +0.1
      comp=Z,16nm,0.9s,mb5.0
MVCO  Mesa Verde        56.37 289 eP    P      07 43 03.6 +0.1
      comp=Z,16nm,0.9s,mb5.0
S19A  Harvey Farm, M    56.41 290 ⇓P    P      07 43 03.5 -0.3
      baz=56,SNR=16
I11A  Placerville       56.43 300 ⇑P    P      07 43 03.2 -0.6
      baz=56,SNR=9.7
MPU   Maple Canyon      56.44 294 eP    P      07 43 05.5 +1.5
      comp=Z,33nm,1.7s,mb5.1
MPU   Maple Canyon      56.44 294 eP    P      07 43 05.5 +1.6
      comp=Z,33nm,1.7s,mb5.1
R18A  Canyonlands Na    56.45 291 ⇓P    P      07 43 03.9 -0.1
      baz=56,SNR=8.8
BMO   Blue Mountains    56.58 302 eP    P      07 43 04.4 -0.4
BMO   Blue Mountains    56.58 302 eP    P      07 43 04.4 -0.5
ANMO  Albuquerque       56.59 286 eP    P      07 43 05.6 +0.5
ANMO                               pmax  pmax
      comp=Z,10.0nm,1.1s
ANMO  Albuquerque       56.59 286 eP    P      07 43 05.6 +0.5
      comp=Z,10nm,1.1s,mb4.8
ANMO  Albuquerque       56.59 286 eP    P      07 43 05.6 +0.5
      comp=Z,10.0nm,1.1s,mb4.8
TMUT  Trail Mountain    56.65 293 eP    P      07 43 07.2 +1.8
TMUT  Trail Mountain    56.65 293 eP    P      07 43 07.2 +1.8
K12A  Draper Farm, C    56.65 298 ⇑P    P      07 43 04.9 -0.5
      baz=56,SNR=9.8
MFID  Camas Ranch       56.67 299 ⇓P    P      07 43 05.3 -0.2
      baz=56
PAX   Paxson            56.69 331 eP    P      07 43 06.1 +0.7
PAX                                pmax  pmax
      comp=Z,24nm,1.4s,mb5.0
PAX   Paxson            56.69 331 eP    P      07 43 06.1 +0.7
      comp=Z,24nm,1.4s,mb5.0
PAX   Paxson            56.69 331 eP    P      07 43 06.1 +0.7
      comp=Z,24nm,1.4s,mb5.0
NLU   North Lily Min    56.73 294 eP    P      07 43 05.6 -0.4
NLU   North Lily Min    56.73 294 eP    P      07 43 05.6 -0.5
F08A  Pendleton         56.77 303 ⇓P    P      07 43 05.8 -0.4
      baz=57
BRVK  Borovoye          56.78  45  P    P      07 43 06.2  0.0
      comp=Z,99nm,1.1s,mb5.8,SNR=6.5
BRVK  Borovoye          56.78  45 eP    P      07 43 06.7 +0.5
BRVK                               pmax  pmax
      comp=Z,20nm,1.0s,mb5.1
BRVK  Borovoye          56.78  45 eP    P      07 43 06.7 +0.5
      comp=Z,20nm,1.0s,mb5.1
BRVK  Borovoye          56.78  45 eP    P      07 43 06.7 +0.5
      comp=Z,20nm,1.0s,mb5.1
N14A  Grayback Hills    56.81 296 ⇑P    P      07 43 06.1 -0.5
      baz=57
Q16A  Castle Valley     56.87 293 ⇓P    P      07 43 06.7 -0.3
      baz=57
R17A  Hanksville Air    56.92 292 ⇑P    P      07 43 06.9 -0.5
      baz=57,SNR=20
T19A  Beclabito         56.94 289 ⇑P    P      07 43 07.4 -0.2
      baz=57
S18A  Hurst Farm, Bl    56.96 291 ⇓P    P      07 43 07.6 -0.1
      baz=57,SNR=12
L12A  House Creek Ra    57.03 298 ⇓P    P      07 43 08.1  0.0
      baz=57
M13A  Montello          57.05 297 ⇑P    P      07 43 08.0 -0.2
      baz=57
GDL2  Guadalupe Moun    57.11 282 eP    P      07 43 08.7 -0.1
GDL2  Guadalupe Moun    57.11 282 eP    P      07 43 08.7 -0.1
LPM   Los Pinos Moun    57.12 286 eP    P      07 43 10.8 +1.9
LPM   Los Pinos Moun    57.12 286 eP    P      07 43 10.8 +1.9
MCK   McKinley          57.18 333 eP    P      07 43 09.1 +0.2
MCK                                pmax  pmax
      comp=Z,21nm,1.0s,mb5.1
MCK   McKinley          57.18 333 eP    P      07 43 09.1 +0.3
      comp=Z,21nm,1.0s,mb5.1
MCK   McKinley          57.18 333 eP    P      07 43 09.1 +0.2
      comp=Z,21nm,1.0s,mb5.1
G08A  Pilot Rock        57.20 303 ⇓P    P      07 43 08.1 -1.1
      baz=57
T18A  Mexican Hat       57.25 290 ⇓P    P      07 43 09.5 -0.3
      baz=57
I09A  Lost Marbles R    57.38 301 ⇓P    P      07 43 10.0 -0.5
      baz=57
LENM  Lemitar           57.43 286 eP    P      07 43 10.1 -0.9
LENM  Lemitar           57.43 286 eP    P      07 43 10.1 -1.0
L11A  Cat Creek Ranc    57.43 298 ⇑P    P      07 43 10.8 -0.2
      baz=57,SNR=9.3
R16A  Teasdale          57.47 292 ⇑P    P      07 43 11.2 -0.1
      baz=57
S17A  Black Ridge (B    57.48 291 ⇓P    P      07 43 11.1 -0.3
      baz=57
TIXI  Tiksi             57.53   8 eP    P      07 43 12.2 +1.0
TIXI                               pmax  pmax
      comp=Z,13nm,1.1s,mb4.9
TIXI  Tiksi             57.53   8 eP    P      07 43 13.3 +2.1
      comp=Z,4.2nm,0.5s,mb4.7
TIXI  Tiksi             57.53   8 eP    P      07 43 12.2 +1.0
      comp=Z,13nm,1.1s,mb4.9
Q15A  Fillmore          57.53 293 ⇓P    P      07 43 11.4 -0.3
      baz=57
P14A  Drum Mountains    57.55 294 ⇓P    P      07 43 11.5 -0.3
      baz=57
G07A  Ruggs Ranch, H    57.60 303 ⇓P    P      07 43 11.7 -0.4
      baz=57
K10A  MacKenzie Ranc    57.67 299 ⇓P    P      07 43 12.1 -0.5
      baz=58
V19A  Window Rock       57.68 288 ⇓P    P      07 43 12.7 -0.1
      baz=58
U18A  Rough Rock, Ch    57.72 290 ⇑P    P      07 43 12.7 -0.4
      baz=58,SNR=6.9
MSU   Marysvale         57.73 293 eP    P      07 43 13.8 +0.7
MSU   Marysvale         57.73 293 eP    P      07 43 13.8 +0.7
W20A  Ramah             57.73 288 ⇓P    P      07 43 13.3 +0.1
      baz=58
TRF   Thorofare Moun    57.79 333 eP    P      07 43 13.3 +0.2
      comp=Z,38nm,1.4s,mb5.2
TRF   Thorofare Moun    57.79 333 eP    P      07 43 13.3 +0.1
      comp=Z,38nm,1.4s,mb5.2
I08A  Drewsey           57.88 301 ⇓P    P      07 43 13.9 -0.1
      baz=58
N12A  Clover Valley,    57.88 297 ⇑P    P      07 43 14.0 -0.1
      baz=58
L10A  Juniper Basin     57.90 299 ⇓P    P      07 43 13.9 -0.4
      baz=58
KTH   Kantishna Hill    57.90 333 eP    P      07 43 13.6 -0.3
      comp=Z,18nm,0.8s,mb5.1
KTH   Kantishna Hill    57.90 333 eP    P      07 43 13.6 -0.3
      comp=Z,18nm,0.8s,mb5.1
S16A  Weppner Ranch,    57.90 292 ⇓P    P      07 43 14.1 -0.3
      baz=58,SNR=7.9
T17A  Navajo Res., N    57.90 291 ⇑P    P      07 43 13.9 -0.4
      baz=58
M11A  Holland Ranch,    57.93 298 ⇑P    P      07 43 15.0 +0.5
      baz=58,SNR=10.0
H07A  Lands Inn, Kim    57.98 303 ⇓P    P      07 43 13.6 -1.1
      baz=58
Q14A  Sevier Lake (B    58.07 294 ⇓P    P      07 43 15.2 -0.3
      baz=58,SNR=11
U17A  Shonto            58.08 290 ⇓P    P      07 43 15.6  0.0
      baz=58
O12A  Currie            58.09 296 ⇑P    P      07 43 15.4 -0.2
      baz=58
J08A  Circle Bar Ran    58.18 301 ⇑P    P      07 43 15.8 -0.4
      baz=58
K09A  Rome              58.20 300 ⇑P    P      07 43 16.3  0.0
      baz=58,SNR=7.3
P13A  Bates Ranch, G    58.20 295 ⇓P    P      07 43 16.2 -0.2
      baz=58,SNR=7.0
V18A  Ganado            58.22 289 ⇓P    P      07 43 16.7 +0.1
      baz=58
S15A  Panguitch         58.39 292 ⇓P    P      07 43 17.8 +0.1
      baz=58,SNR=7.1
Q13A  Wheeler Ranch,    58.53 294 ⇓P    P      07 43 18.6 -0.1
      baz=58
K08A  Mann Creek Ran    58.60 300 ⇑P    P      07 43 19.0 -0.1
      baz=58,SNR=9.2
TXAR  Lajitas Array     58.60 279  P    P      07 43 18.7 -0.7
      comp=Z,2.5nm,0.8s,mb4.3,baz=56,slow=6.7,SNR=17
TXAR                               LR   LR     08 08 13.8
      comp=Z,481nm,18.9s,MS4.6,baz=185,slow=36
TXAR  Lajitas Array     58.60 279  P    P      07 43 18.7 -0.7
TXAR                               LR   LR     08 08 13.8
TXAR  Lajitas Array     58.60 279  P    P      07 43 18.7 -0.6
L09A  Wilkinson Ranc    58.61 299 ⇓P    P      07 43 19.2  0.0
      baz=58,SNR=16
U16A  Tuba City         58.66 290 ⇑P    P      07 43 19.6 -0.1
      baz=58,SNR=11
P12A  McGill            58.70 295 ⇑P    P      07 43 19.7 -0.2
      baz=58
O11A  Cowboy Ranch,     58.71 296 ⇓P    P      07 43 20.2 +0.3
      baz=58,SNR=8.3
I06A  Prineville        58.75 302 ⇑P    P      07 43 20.0 -0.1
      baz=59
S14A  Cedar City        58.81 293 ⇓P    P      07 43 20.7  0.0
      baz=59,SNR=7.7
PMR   Palmer            58.86 331 eP    P      07 43 21.5 +0.8
PMR                                pmax  pmax
      comp=Z,52nm,1.8s,mb5.3
PMR   Palmer            58.86 331 eP    P      07 43 21.5 +0.8
      comp=Z,52nm,1.8s,mb5.3
PMR   Palmer            58.86 331 eP    P      07 43 21.5 +0.8
      comp=Z,52nm,1.8s,mb5.3
L08A  Fields            58.88 300 ⇑P    P      07 43 21.3 +0.3
      baz=59,SNR=10
M09A  Marrel Ranch,     58.88 299 ⇓P    P      07 43 21.5 +0.4
      baz=59,SNR=9.5
WVOR  Wild Horse Val    58.88 300 eP    P      07 43 21.2 +0.1
WVOR                               pmax  pmax
      comp=Z,18nm,1.0s,mb5.1
WVOR  Wild Horse Val    58.88 300 eP    P      07 43 21.1 +0.1
      comp=Z,18nm,1.0s,mb5.0
WVOR  Wild Horse Val    58.88 300 eP    P      07 43 21.2 +0.1
      comp=Z,18nm,1.0s,mb5.1
Y19A  Nutrioso          58.98 287 ⇑P    P      07 43 22.6 +0.7
      baz=59,SNR=12
R13A  O’Grain Ranch,    59.01 294 ⇓P    P      07 43 21.7 -0.3
      baz=59
ROSC  El Rosal          59.01 236  P    P      07 43 23.1 +0.8
      comp=Z,5.1nm,0.5s,mb4.8,baz=263,slow=22,SNR=6.8
ROSC                               LR   LR     08 04 54.1
      comp=Z,315nm,22.0s,MS4.4,baz=20,slow=32
ROSC  El Rosal          59.01 236  P    P      07 43 23.1 +0.8
X18A  Snowflake         59.02 288 ⇓P    P      07 43 21.9 -0.2
      baz=59
K07A  Rock Creek Ran    59.05 301 ⇑P    P      07 43 21.9 -0.4
      baz=59
J06A  Christmas Vall    59.18 302 ⇓P    P      07 43 23.0 -0.1
      baz=59
T14A  Hurricane         59.23 292 ⇑P    P      07 43 23.4 -0.1
      baz=59,SNR=7.2
WUAZ  Wupatki           59.23 290 ⇓P    P      07 43 23.5 -0.1
      baz=59,SNR=8.4
WUAZ  Wupatki           59.23 290 eP    P      07 43 23.9 +0.3
      comp=Z,36nm,1.4s,mb5.2
WUAZ  Wupatki           59.23 290 eP    P      07 43 23.9 +0.3
      comp=Z,36nm,1.4s,mb5.2
MIB   Mutribah          59.26  79 eP    P      07 43 23.8 -0.1
MIB                                AMb  AMB    07 43 26.4
      comp=Z,57nm,1.0s,mb5.6
R12A  Pony Springs,     59.29 294 ⇑P    P      07 43 24.1 +0.2
      baz=59
N09A  Rock Creek Ran    59.30 298 ⇑P    P      07 43 23.9 -0.1
      baz=59,SNR=5.9
S13A  Holt Ranch, En    59.34 293 ⇑P    P      07 43 24.1 -0.3
      baz=59,SNR=14
M08A  Happy Creek Ra    59.39 299 ⇓P    P      07 43 24.7 +0.1
      baz=59
V15A  Kaibab Nationa    59.51 291 ⇑P    P      07 43 25.2 -0.4
      baz=59,SNR=6.8
120A  U Bar Ranch, L    59.54 285 ⇓P    P      07 43 25.2 -0.6
      baz=59
Q11A  Duckwater         59.55 295 ⇑P    P      07 43 25.7 -0.1
      baz=59
O09A  Fish Creek Ran    59.56 297 ⇑P    P      07 43 25.7 -0.1
      baz=59
NAY   Al-Naaiem         59.58  80 eP    P      07 43 25.4 -0.7
NAY                                AMb  AMB    07 43 27.8
      comp=Z,7.9nm,0.9s,mb4.7
W16A  Flagstaff         59.61 289 ⇑P    P      07 43 25.8 -0.4
      baz=59
UMR   Umm Al-Rimmam     59.67  79 eP    P      07 43 26.7  0.0
UMR                                AMb  AMB    07 43 29.2
      comp=Z,46nm,1.0s,mb5.5
U14A  Mt Trumbull       59.71 292 ⇑P    P      07 43 26.6 -0.4
      baz=60,SNR=8.8
T13A  Saint George      59.74 293 ⇓P    P      07 43 27.1  0.0
      baz=60
R11A  Troy Canyon, C    59.85 295 ⇓P    P      07 43 27.3 -0.5
      baz=60,SNR=5.5
M07A  Soldier Meadow    59.87 300 ⇑P    P      07 43 27.2 -0.7
      baz=60
K05A  Summer Lake       59.93 302 ⇑P    P      07 43 28.6 +0.3
      baz=60,SNR=5.1
Q10A  Clear Creek Ra    60.00 296 ⇑P    P      07 43 28.8 -0.1
      baz=60
X16A  Lo Mia Camp, P    60.01 289 ⇑P    P      07 43 29.0  0.0
      baz=60,SNR=7.9
O08A  Rochester Mine    60.03 298 ⇑P    P      07 43 29.0 -0.1
      baz=60
Z18A  Geronimo          60.05 287 ⇑P    P      07 43 29.6 +0.3
      baz=60
Y17A  Roosevelt         60.13 288 ⇓P    P      07 43 29.9 +0.1
      baz=60,SNR=7.4
MOD   Modoc             60.16 301 eP    P      07 43 29.3 -0.6
      comp=Z,16nm,1.1s,mb5.0
MOD   Modoc             60.16 301 eP    P      07 43 29.3 -0.6
      comp=Z,16nm,1.1s,mb5.0
N07B  Gerlach           60.17 299 ⇑P    P      07 43 30.0  0.0
      baz=60
U13A  Pakoon Wash       60.19 292 ⇑P    P      07 43 30.1 -0.1
      baz=60,SNR=9.9
V14A  Boquillas Ranc    60.20 291 ⇑P    P      07 43 30.4 +0.1
      baz=60
R10A  Warm Springs      60.30 295 ⇑P    P      07 43 30.8 -0.2
      baz=60
118A  Homack Ranch,     60.31 286 ⇑P    P      07 43 31.1  0.0
      baz=60
T11A  Corn Creek, Al    60.37 294 ⇑P    P      07 43 31.4 -0.1
      baz=60
Y16A  Circle Bar Ran    60.39 288 ⇑P    P      07 43 31.9 +0.3
      baz=60
TNA   Tin City          60.42 342 eP    P      07 43 32.1 +0.8
      comp=Z,11nm,0.9s,mb4.9
TNA   Tin City          60.42 342 eP    P      07 43 32.1 +0.8
      comp=Z,11nm,0.9s,mb4.9
X15A  Humboldt          60.45 289 ⇓P    P      07 43 32.4 +0.4
      baz=60,SNR=8.6
W14A  Seligman          60.47 291 ⇑P    P      07 43 32.4 +0.3
      baz=60,SNR=6.7
O07A  Toulon            60.53 298 ⇑P    P      07 43 32.5  0.0
      baz=60
V13A  Grand Canyon W    60.58 292 ⇓P    P      07 43 32.7 -0.1
      baz=60,SNR=11
N06A  Buffalo Meadow    60.67 299 ⇑P    P      07 43 33.4 -0.1
      baz=60,SNR=12
S10A  Tonopah Range,    60.72 295 ⇑P    P      07 43 33.4 -0.4
      baz=60,SNR=12
Z16A  Peralta Trail,    60.73 288 ⇑P    P      07 43 33.8 -0.1
      baz=61
319A  Douglas           60.74 285 ⇑P    P      07 43 34.0  0.0
      baz=61
R09A  Tonopah           60.78 296 ⇓P    P      07 43 33.8 -0.4
      baz=61,SNR=11
218A  Dragoon           60.81 286 ⇓P    P      07 43 34.3 -0.2
      baz=61
117A  Oracle            60.83 287 ⇑P    P      07 43 34.5 -0.1
      baz=61
SHPR  Sheep Range       60.84 293 eP    P      07 43 36.4 +1.8
SHPR  Sheep Range       60.84 293 eP    P      07 43 36.4 +1.8
X14A  Yava              60.85 290 ⇑P    P      07 43 34.8  0.0
      baz=61
Q08A  Gabbs             60.86 297 ⇑P    P      07 43 34.4 -0.4
      baz=61,SNR=9.2
Y15A  Casa Rosa Ranc    60.86 289 ⇑P    P      07 43 34.9  0.0
      baz=61
TPH   Tonopah           60.98 296 eP    P      07 43 37.1 +1.5
TPH                                pmax  pmax
      comp=Z,30nm,1.4s,mb5.2
TPH   Tonopah           60.98 296 eP    P      07 43 37.1 +1.5
      comp=Z,30nm,1.4s,mb5.2
TPH   Tonopah           60.98 296 eP    P      07 43 37.1 +1.5
      comp=Z,30nm,1.4s,mb5.2
W13A  Hualapai Mount    61.03 291 ⇑P    P      07 43 35.9  0.0
      baz=61
TUC   Tucson            61.03 287 eP    P      07 43 35.7 -0.3
TUC                                pmax  pmax
      comp=Z,14nm,1.5s,mb4.9
TUC   Tucson            61.03 287 eP    P      07 43 35.7 -0.3
      comp=Z,14nm,1.5s,mb4.9
TUC   Tucson            61.03 287 eP    P      07 43 35.7 -0.3
      comp=Z,14nm,1.5s,mb4.9
O06A  Flanigan          61.06 299 ⇑P    P      07 43 36.0 -0.1
      baz=61,SNR=8.5
NVS   Novosibirsk       61.08  38 eP    P      07 43 36.5 +0.5
NVS                                pmax  pmax
      comp=Z,16nm,1.4s,mb5.0
NVS                                pmax  pmax
      comp=N,24nm,2.2s
NVS   Novosibirsk       61.08  38 eP    P      07 43 36.5 +0.5
      comp=N,24nm,2.2s,mb4.9
PAHR  Pah Rah Range     61.12 298 eP    P      07 43 36.9 +0.4
      comp=N,20nm,1.1s,mb5.2
PAHR  Pah Rah Range     61.12 298 eP    P      07 43 36.9 +0.4
      comp=N,20nm,1.1s,mb5.2
318A  Bisbee            61.14 285 ⇑P    P      07 43 37.0 +0.2
      baz=61
V12A  Nelson            61.18 292 ⇓P    P      07 43 36.8 -0.1
      baz=61
S09A  Goldfield         61.22 295 ⇑P    P      07 43 37.0 -0.2
      baz=61
Y14A  Wickenburg        61.28 289 ⇓P    P      07 43 37.7  0.0
      baz=61
X13A  Yucca             61.34 291 ⇓P    P      07 43 38.3 +0.2
      baz=61
NVAR  Mina Array Bea    61.37 297  P    P      07 43 37.0 -1.2
      comp=N,1.2nm,0.7s,mb4.1,baz=60,slow=6.0,SNR=9.5
NVAR  Mina Array Bea    61.37 297  P    P      07 43 37.0 -1.2
217A  Green Valley      61.42 286 ⇓P    P      07 43 38.3 -0.3
      baz=61
WCN   Washoe City       61.61 298 ⇑P    P      07 43 40.0 +0.2
      baz=61
BILL  Bilibino          61.63 354⇑eP    P      07 43 40.2 +0.7
BILL                              e            07 45 57.0
BILL                              eS    S      07 51 50.5  -11
BILL                               pmax  pmax
      comp=Z,10.0nm,1.2s,mb4.8
BILL  Bilibino          61.63 354 eP    P      07 43 40.2 +0.7
      comp=Z,10.0nm,1.2s,mb4.8
115A  Sonoran Desert    61.66 288 ⇓P    P      07 43 40.5 +0.3
      baz=62
216A  Three Points,     61.66 287 ⇑P    P      07 43 40.2 -0.1
      baz=62
PDMCI Parker Dam,Lak    61.72 290 ⇓P    P      07 43 40.2 -0.5
      baz=62,SNR=7.5
LDFC  Landfair          61.77 292 eP    P      07 43 43.2 +2.2
      comp=Z,48nm,1.6s,mb5.4
LDFC  Landfair          61.77 292 eP    P      07 43 43.2 +2.2
      comp=Z,48nm,1.6s,mb5.4
GRAC  Grapevine Rang    61.80 295 ⇑P    P      07 43 41.2 +0.1
      baz=62
FURC  Furnace Creek,    61.86 294 ⇑P    P      07 43 41.2 -0.4
      baz=62
KURK  Kurchatov         62.15  43  P    P      07 43 44.8 +1.5
      comp=Z,65nm,1.0s,mb5.7,SNR=7.6
KURK  Kurchatov         62.15  43 eP    P      07 43 43.6 +0.3
KURK                               pmax  pmax
      comp=Z,9.0nm,0.8s,mb5.0
KURK  Kurchatov         62.15  43 eP    P      07 43 43.6 +0.4
      comp=Z,9.3nm,0.8s,mb5.0
KURK  Kurchatov         62.15  43 eP    P      07 43 43.6 +0.3
      comp=Z,9.0nm,0.8s,mb5.0
GMRC  Granite Mounta    62.31 292 ⇑P    P      07 43 44.2 -0.4
      baz=62,SNR=10
Y12C  Blythe            62.33 290 ⇑P    P      07 43 45.0 +0.3
      baz=62
ZALV  Zalesovo Beam     62.36  38  P    P      07 43 45.6 +1.0
      comp=Z,0.4nm,0.3s,mb4.0,baz=340,slow=8.2,SNR=3.5
ZALV                               LR   LR     08 12 25.3
      comp=Z,141nm,18.0s,MS4.2,baz=252,slow=38
IRM   Iron Mountain     62.43 291 ⇑P    P      07 43 45.5 +0.1
      baz=62
MPMC  Manual Prospec    62.51 294 ⇑P    P      07 43 45.8 -0.2
      baz=62
214A  Organ Pipe Nat    62.52 288 ⇑P    P      07 43 46.1 +0.1
      baz=62
OHCM  Honcut            62.56 299 eP    P      07 43 45.2 -1.0
OHCM  Honcut            62.56 299 eP    P      07 43 45.2 -1.0
HEC   Hector,Ludlow     62.67 292 ⇑P    P      07 43 47.2 +0.1
      baz=62
ISA   Isabella          63.37 294 eP    P      07 43 51.7 +0.1
ISA                                pmax  pmax
      comp=Z,37nm,1.5s,mb5.3
ISA   Isabella          63.37 294 ⇑P    P      07 43 51.8 +0.2
      baz=63
ISA   Isabella          63.37 294 eP    P      07 43 51.7 +0.1
      comp=Z,37nm,1.5s,mb5.3
ISA   Isabella          63.37 294 eP    P      07 43 51.7 +0.1
      comp=Z,37nm,1.5s,mb5.3
PFO   Pinyon Flat Ob    63.59 291 i P   P      07 43 53.4 +0.3
PFO   Pinyon Flat Ob    63.59 291 ⇓P    P      07 43 52.8 -0.4
      baz=63
PFO   Pinyon Flat Ob    63.59 291 eP    P      07 43 52.2 -0.9
      comp=Z,44nm,1.7s,mb5.2
PFO   Pinyon Flat Ob    63.59 291 i P   P      07 43 53.4 +0.3
VES   Vestal, Richgr    63.60 295 ⇑P    P      07 43 52.9 -0.3
      baz=63
SWSC  Sam W. Stewart    63.66 290 ⇓P    P      07 43 53.6  0.0
      baz=64
BFSC  Mount Baldy St    63.87 293 ⇓P    P      07 43 55.0  0.0
      baz=64
OTAV  Otavalo           65.09 237 eP    P      07 44 03.5 +0.4
      comp=Z,13nm,0.9s,mb5.0
OTAV  Otavalo           65.09 237 eP    P      07 44 03.5 +0.4
      comp=Z,13nm,0.9s,mb5.0
EKS2  Erkin-Say         65.66  52 eP    P      07 44 07.7 +1.1
      comp=Z,21nm,1.1s,mb5.1
EKS2  Erkin-Say         65.66  52 eP    P      07 44 07.7 +1.2
      comp=Z,21nm,1.1s,mb5.1
AML   Almayashu         66.00  53 eP    P      07 44 10.1 +1.4
      comp=Z,17nm,1.0s,mb5.0
AML   Almayashu         66.00  53 eP    P      07 44 10.1 +1.4
      comp=Z,17nm,1.0s,mb5.0
AAK   Ala-Archa         66.05  52 eP    P      07 44 09.3 +0.3
AAK                                pmax  pmax
      comp=Z,12nm,1.2s,mb4.8
AAK   Ala-Archa         66.05  52 eP    P      07 44 09.3 +0.3
      comp=Z,12nm,1.2s,mb4.8
AAK   Ala-Archa         66.05  52 eP    P      07 44 09.3 +0.3
      comp=Z,12nm,1.2s,mb4.8
TKM2  Tokmak 2          66.39  51 eP    P      07 44 12.0 +0.8
TKM2                               pmax  pmax
      comp=Z,20nm,1.3s,mb5.0
TKM2  Tokmak 2          66.39  51 eP    P      07 44 12.0 +0.8
      comp=Z,20nm,1.3s,mb5.0
TKM2  Tokmak 2          66.39  51 eP    P      07 44 12.0 +0.8
      comp=Z,20nm,1.3s,mb5.0
MK31  Makanchi Array    66.69  44 i P   P      07 44 12.6 -0.4
MK31                               pmax  pmax
      comp=Z,6.0nm,0.7s,mb4.7
MK31  Makanchi Array    66.69  44 i P   P      07 44 12.6 -0.4
      comp=Z,6.0nm,0.7s,mb4.7
MKAR  Makanchi Array    66.69  44  P    P      07 44 13.3 +0.3
MKAR  Makanchi Array    66.69  44  P    P      07 44 13.3 +0.3
      comp=Z,6.0nm,0.9s,mb4.6,baz=321,slow=5.9,SNR=25
MKAR                               LR   LR     08 12 48.2
      comp=Z,346nm,21.4s,MS4.5,baz=314,slow=36
MKAR  Makanchi Array    66.69  44  P    P      07 44 13.3 +0.3
MKAR                               LR   LR     08 12 48.2
YAK   Yakutsk           66.91  11 eP    P      07 44 12.2 -2.0
YAK                                pmax  pmax
      comp=Z,11nm,1.0s,mb4.8
YAK   Yakutsk           66.91  11 eP    P      07 44 12.2 -2.0
      comp=Z,11nm,1.0s,mb4.8
SEY   Seymchan          67.30 359⇑eP    P      07 44 18.3 +1.6
SEY   Seymchan          67.30 359 eP    P      07 44 18.3 +1.6
BOD   Bodaibo           68.20  20 eP    P      07 44 22.4  0.0
BOD   Bodaibo           68.20  20 eP    P      07 44 22.4  0.0
KBL   Kabul             69.02  61 eP    P      07 44 29.6 +1.7
KBL                                pmax  pmax
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	comp=Z,9.0nm,0.9s,mb4.7						
KBL	Kabul	69.02	61	eP	P	07 44 29.6	+1.7
	comp=Z,9.0nm,0.9s,mb4.7						
KBL	Kabul	69.02	61	eP	P	07 44 29.6	+1.7
	comp=Z,9.0nm,0.9s,mb4.7						
KSH	Kashi	69.10	53	P	P	07 44 32.0	+3.7
KSH				epP	pP	07 44 36.6	+5.0
KSH				esP	sP	07 44 39.2	+6.4
KSH				ePcP	PcP	07 44 55.1	+2.8
KSH				ePP	PP	07 47 07.3	+6.9
KSH				eScP		07 48 57.6	
KSH				ePcS		07 48 59.8	
KSH				eS	S	07 53 37.1	+3.6
KSH				esS	sS	07 53 45.2	+6.4
KSH				eScS	ScS	07 54 29.2	+0.3
KSH				eSS	SS	07 58 06.2	+7.6
KSH				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
KSH				LR	LR		
	comp=N,730nm,16.8s						
KSH				LR	LR		
	comp=E,240nm,9.6s						
KSH				LR	LR		
	comp=Z,270nm,5.9s						
WMQ	Urumqi	71.39	43	eP	P	07 44 42.5	+0.2
WMQ				pP	pP	07 44 47.0	+1.4
WMQ				sP	sP	07 44 50.0	+3.2
WMQ				PcP	PcP	07 45 03.0	+1.1
WMQ				PP	PP	07 47 23.0	+2.9
WMQ				eS	S	07 53 59.0	-1.2
WMQ				pmax	pmax		
	comp=Z,11nm,1.7s,mb4.5						
WMQ				pmax	pmax		
	comp=Z,220nm,4.8s						
WMQ				LR	LR		
	comp=N,910nm,14.2s,MS5.2						
WMQ				LR	LR		
	comp=E,740nm,18.1s,MS5.2						
WMQ				LR	LR		
	comp=Z,680nm,22.0s,MS4.9						
MBAR	Mbarara	71.51	114	eP	P	07 44 43.9	+0.5
MBAR	Mbarara	71.51	114	eP	P	07 44 43.9	+0.5
SIV	San Ignacio	71.65	213	P	P	07 44 43.6	-0.4
	comp=Z,5.4nm,1.1s,mb4.4,baz=51,slow=7.8,SNR=13						
SIV	San Ignacio	71.65	213	P	P	07 44 43.6	-0.4
ZAK	Zakamensk	71.89	30	eP	P	07 44 47.0	+1.8
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.1						
ZAK	Zakamensk	71.89	30	eP	P	07 44 47.0	+1.8
	comp=Z,3.0nm,1.2s,mb4.1						
SONM	Songino Array	75.11	29	P	P	07 45 04.9	+0.7
	comp=Z,5.4nm,1.1s,mb4.4,baz=322,slow=5.6,SNR=20						
SONM				LR	LR	08 19 19.9	
	comp=Z,180nm,19.5s,MS4.4,baz=68,slow=37						
SONM	Songino Array	75.11	29	P	P	07 45 04.9	+0.7
ULN	Ulaanbaatar	75.29	29	eP	P	07 45 06.8	+1.6
ULN				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.0						
ULN	Ulaanbaatar	75.29	29	eP	P	07 45 06.8	+1.6
	comp=Z,22nm,1.3s,mb4.9						
ULN	Ulaanbaatar	75.29	29	eP	P	07 45 06.8	+1.6
	comp=Z,23nm,1.3s,mb5.0						
PETK	Petropavlovsk-	77.01	356	P	P	07 45 15.9	+1.0
	comp=Z,2.9nm,0.8s,mb4.3,baz=51,slow=12,SNR=4.1						
KLR	Kul'dur	79.66	13	eP	P	07 45 26.0	-3.6
GTA	Gaotai	80.12	38	eP	P	07 45 34.0	+1.7
GTA				pP	pP	07 45 38.0	+2.4
GTA				sP	sP	07 45 41.4	+4.6
GTA				PP	PP	07 48 37.6	+3.9
GTA				S	S	07 55 36.4	-0.3
GTA				sS	sS	07 55 44.2	+2.0
GTA				SS	SS	08 00 49.1	+3.3
GTA				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
GTA				pmax	pmax		
	comp=Z,77nm,5.7s						
GTA				LR	LR		
	comp=N,230nm,18.9s,MS4.7						
GTA				LR	LR		
	comp=E,160nm,14.7s,MS4.7						
GTA				LR	LR		
	comp=Z,310nm,18.6s,MS4.7						
CPUP	Villa Florida	80.17	206	P	P	07 45 31.3	-1.1
	comp=Z,3.7nm,0.9s,mb4.3,baz=342,slow=5.0,SNR=9.4						
CPUP				LR	LR	08 17 07.9	
	comp=Z,94nm,21.0s,MS4.1,baz=2.1,slow=33						
CPUP	Villa Florida	80.17	206	P	P	07 45 31.3	-1.2
LVC	Limon Verde	80.60	217	P	P	07 45 34.9	0.0
	comp=Z,6.0nm,1.0s,mb4.5,baz=356,slow=3.9,SNR=4.9						
LVC	Limon Verde	80.60	217	P	P	07 45 34.9	0.0
HABR	Khabarovsk	80.84	11	eP	P	07 45 34.5	-1.5
HABR				e		07 45 40.9	
HABR				e		07 48 39.3	
HABR				ePPP		07 50 29.2	
HABR				eS	S	07 55 41.2	-2.7
HABR				eSS	SS	08 00 56.8	+1.0
HABR				MLR	MLR		
	comp=Z,178nm,20.0s,MS4.4						
HABR	Khabarovsk	80.84	11	eP	P	07 45 34.5	-1.5
PYUN	Piuthan	81.60	56	eP	P	07 45 42.3	+1.9
	comp=Z,22nm,0.7s,mb5.2						
DANN	Dangsing	81.81	55	eP	P	07 45 43.6	+2.1
	comp=Z,86nm,1.1s,mb5.6						
LSZ	Lusaka	82.13	125	eP	P	07 45 43.6	+0.5
LSZ				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
LSZ	Lusaka	82.13	125	eP	P	07 45 43.6	+0.4
	comp=Z,8.7nm,1.0s,mb4.6						
LSZ	Lusaka	82.13	125	eP	P	07 45 43.6	+0.5
	comp=Z,8.7nm,1.0s,mb4.6						
KOLN	Koldanda	82.19	56	eP	P	07 45 44.9	+1.4
	comp=Z,38nm,1.0s,mb5.3						
GKN	Gorkha	82.55	55	eP	P	07 45 47.3	+1.9
	comp=Z,36nm,0.8s,mb5.5						
BTO	Baotou	82.74	30	eP	P	07 45 47.1	+0.9
HHC	Hu-ho-hao-te	83.01	29	eP	P	07 45 49.4	+1.8
HHC				pP	pP	07 45 53.4	+2.5
HHC				sP	sP	07 45 57.0	+4.9
HHC				PP	PP	07 48 59.9	+2.4
HHC				eS	S	07 56 05.9	-0.7
HHC				SS	SS	08 01 29.9	+1.3
HHC				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
HHC				pmax	pmax		
	comp=Z,140nm,4.3s						
HHC				LR	LR		
	comp=N,230nm,14.5s,MS4.8						
HHC				LR	LR		
	comp=E,180nm,15.5s,MS4.8						
HHC				LR	LR		
	comp=Z,210nm,14.5s,MS4.7						
YSS	Yuzh-Sakhalins	83.05	6	⇑eP	P	07 45 49.0	+1.3
YSS				pmax	pmax		
	comp=Z,110nm,1.8s,mb5.6						
KKN	Kakani	83.06	54	eP	P	07 45 50.2	+2.2
	comp=Z,34nm,0.7s,mb5.5						
DMN	Daman	83.11	55	eP	P	07 45 50.6	+2.3
	comp=Z,60nm,1.0s,mb5.6						
GUN	Gumba	83.27	54	eP	P	07 45 51.6	+2.5
	comp=Z,66nm,1.0s,mb5.6						
PKI	Pulchoki	83.30	55	eP	P	07 45 51.6	+2.3
JIRN	Jiri	83.64	54	eP	P	07 45 53.1	+2.1
CN2	Changchun	83.84	18	eP	P	07 45 51.6	-0.2
CN2				ePP	PP	07 49 06.9	+2.8
CN2				eS	S	07 56 12.9	-1.9
CN2				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
RAMN	Ramite	84.42	54	eP	P	07 45 56.4	+1.4
	comp=Z,44nm,0.9s,mb5.6						
LZH	Lanzhou	84.58	37	⇑P	P	07 45 57.5	+1.8
LZH				pP	pP	07 46 02.0	+3.0
LZH				sP	sP	07 46 04.0	+3.8
LZH				ePP	PP	07 49 13.0	+2.6
LZH				SKS		07 56 17.4	
LZH				eS	S	07 56 19.4	-3.1
LZH				SS	SS	08 01 54.0	+1.9
LZH				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.4						
LZH				pmax	pmax		
	comp=Z,230nm,6.3s						
LZH				LR	LR		
	comp=E,430nm,17.8s						
LZH				LR	LR		
	comp=Z,740nm,19.6s,MS5.1						
TAPN	Taplejung	84.67	53	eP	P	07 45 58.0	+1.7
	comp=Z,57nm,1.3s,mb5.5						
ODAN	Odare	84.91	54	eP	P	07 45 58.6	+1.1
BJI	Beijing	85.13	26	P	P	07 45 58.5	+0.1
BJI				SS	SS	08 01 59.2	-0.7
BJI				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.4						
BJI				pmax	pmax		
	comp=Z,240nm,5.5s						
BJI				LR	LR		
	comp=N,170nm,12.4s,MS4.8						
BJI				LR	LR		
	comp=E,220nm,14.1s,MS4.8						
BJI				LR	LR		
	comp=Z,100nm,24.6s						
BJT	Baijiatuau	85.15	26	eP	P	07 45 58.3	-0.2
BJT				pmax	pmax		
	comp=Z,25nm,0.9s						
BJT	Baijiatuau	85.15	26	eP	P	07 45 58.3	-0.2
	comp=Z,25nm,0.9s,mb5.3						
BJT	Baijiatuau	85.15	26	eP	P	07 45 58.3	-0.2
	comp=Z,25nm,0.9s,mb5.3						
LCO	Las Campanas	87.05	216	eP	P	07 46 07.3	-0.4
	comp=Z,16nm,1.1s,mb5.2						
LCO	Las Campanas	87.05	216	eP	P	07 46 07.3	-0.4
	comp=Z,16nm,1.1s,mb5.2						
XAN	Xi'an	88.29	34	P	P	07 46 14.9	+1.0
XAN				pP	pP	07 46 20.5	+3.3
XAN				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.8						
XAN				pmax	pmax		
	comp=Z,84nm,6.9s						
CFAA	Coronel Fontan	88.50	213	P	P	07 46 13.9	-0.7
	comp=Z,0.7nm,1.0s,mb4.0,baz=5.8,slow=3.2,SNR=11						
CFAA	Coronel Fontan	88.50	213	P	P	07 46 13.9	-0.7
CD2	Chengdu	89.09	39	P	P	07 46 16.8	-0.9
CD2				pP	pP	07 46 21.4	+0.3
CD2				sP	sP	07 46 22.6	+0.3
CD2				PP	PP	07 49 48.1	+1.2
CD2				SKS		07 56 43.3	
CD2				S	S	07 57 01.4	-5.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.2						
CD2				pmax	pmax		
	comp=Z,170nm,5.7s						
CD2				LR	LR		
	comp=N,290nm,7.1s						
CD2				LR	LR		
	comp=Z,400nm,5.5s						
KSRS	Korea Array	90.45	18	P	P	07 46 23.8	-0.2
	comp=Z,3.2nm,1.0s,mb4.6,baz=343,slow=4.8,SNR=5.8						
KSRS				LR	LR	08 28 27.1	
	comp=Z,60nm,18.0s,MS4.1,baz=172,slow=36						
BOSA	Boshof	91.91	134	LR	LR	08 25 04.9	
	comp=Z,158nm,18.2s,MS4.5,baz=329,slow=34						
MJAR	Matsushiro Arr	92.98	10	P	P	07 46 35.1	-0.6
	comp=Z,0.5nm,0.3s,mb4.5,baz=255,slow=23,SNR=3.5						
MJAR	Matsushiro Arr	92.98	10	P	P	07 46 35.1	-0.6
NJ2	Nanjing	93.36	27	eP	P	07 46 39.8	+2.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.3						
KMI	Kunming	93.73	43	P	P	07 46 39.8	+0.5
KMI				pP	pP	07 46 42.9	+0.2
KMI				sP	sP	07 46 44.4	+0.5
KMI				PP	PP	07 50 28.2	+4.5
KMI				S	S	07 57 44.3	-4.3
KMI				SS	SS	08 04 05.5	+0.2
KMI				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.8						
KMI				pmax	pmax		
	comp=Z,170nm,3.8s						
KMI				LR	LR		
	comp=N,300nm,22.7s						
KMI				LR	LR		
	comp=E,180nm,28.0s						
KMI				LR	LR		
	comp=Z,240nm,25.3s,MS4.5						
GYA	Guiyang	94.20	39	P	P	07 46 41.7	+0.2
GYA				PP	PP	07 50 31.2	+3.9
GYA				SKS		07 57 16.5	
GYA				S	S	07 57 50.0	-2.7
GYA				SS	SS	08 04 12.1	+0.1
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.5						
GYA				pmax	pmax		
	comp=Z,120nm,5.3s						
GYA				LR	LR		
	comp=N,540nm,20.4s,MS5.1						
GYA				LR	LR		
	comp=E,480nm,21.2s,MS5.1						
GYA				LR	LR		
	comp=Z,460nm,20.0s,MS4.9						
PLCA	Paso Flores	97.56	211	LR	LR	08 27 05.2	
	comp=Z,138nm,20.0s,MS4.4,baz=23,slow=33						
CMAR	Chiang Mai Arr	97.73	49	P	P	07 46 59.1	+1.5
	comp=Z,1.2nm,0.3s,mb4.8,baz=312,slow=6.8,SNR=4.2						
CMAR				LR	LR	08 34 04.7	
	comp=Z,142nm,18.4s,MS4.5,baz=330,slow=37						
CMAR	Chiang Mai Arr	97.73	49	P	P	07 46 59.2	+1.6
QIZ	Qiongzhong	102.13	40	P	Pdif	07 47 15.1	-2.1
QIZ				S	Sdif	07 59 00.2	0.0
QIZ				LR	LR		
	comp=Z,180nm,9.5s						
QSPA	South Pole Qui	139.99	180	PKhKP		07 52 41.4	
	comp=Z,1.1nm,0.5s,baz=190,slow=0.8,SNR=4.0						
QSPA				PKP	PKPdf	07 52 49.9	+0.8
	comp=Z,8.2nm,1.0s,baz=238,slow=2.3,SNR=9.4						
QSPA	South Pole Qui	139.99	180	PKIKP	PKPdf	07 52 49.9	+0.8
WRAB	Tennant Creek	147.08	30	ePKP2	PKPab	07 53 06.2	-0.7
WRAB	Tennant Creek	147.08	30	ePKPbc	PKPbc	07 53 06.2	+0.8
WRA	Warramunga Arr	147.09	30	PKPbc	PKPbc	07 53 04.1	-1.3
	comp=Z,6.9nm,1.0s,baz=340,slow=3.6,SNR=16						
WRA	Warramunga Arr	147.09	30	PKPbc	PKPbc	07 53 04.1	-1.3
CTA	Charters Tower	149.80	9	PKPbc	PKPbc	07 53 12.9	+0.4
	comp=Z,2.3nm,0.7s,baz=40,slow=16,SNR=2.2						
CTA	Charters Tower	149.80	9	PKPbc	PKPbc	07 53 12.9	+0.4
ASAR	Alice Springs	150.40	33	PKPbc	PKPbc	07 53 12.7	-1.1
	comp=Z,5.6nm,0.7s,baz=349,slow=1.9,SNR=36						
ASAR	Alice Springs	150.40	33	PKPbc	PKPbc	07 53 12.7	-1.1
VNDA	Vanda	152.18	185	PKPbc	PKPbc	07 53 16.6	+0.2
	comp=Z,7.8nm,1.0s,baz=310,slow=1.4,SNR=6.6						
VNDA	Vanda	152.18	185	PKPbc	PKPbc	07 53 16.6	+0.2
STKA	Stephens Creek	160.46	25	PKPab	PKPab	07 54 02.5	-0.4
	comp=Z,2.5nm,0.8s,baz=331,slow=9.1,SNR=4.0						

CASC 06 07:45:16.7±1.4, 13°.75N×89°.97W, h111km±6km, MD3.5, 1C, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTR	El Retiro	0.35	65	eP	Pn	07 45 33.0	+0.3
RTR				eS	Sn	07 45 45.8	+1.0
SBLS	San Blas	0.35	75	eP	Pn	07 45 33.1	+0.4
SBLS				eS	Sn	07 45 46.2	+1.3
SNJE	San Jose	0.37	71	eP	Pn	07 45 33.2	+0.4
SNJE				eS	Sn	07 45 46.8	+1.8
IXG	Ixpaco	0.63	312	eP	Pn	07 45 34.7	+0.1
MTO2	Montecristo 2	0.88	42	eP	Pn	07 45 36.4	-0.4
LFRS	El Faro	0.89	98	⇑eP	Pn	07 45 37.4	+0.5
LFRS				eS	Sn	07 45 54.0	+1.9
LBRS	Las Brisas	0.90	91	eP	Pn	07 45 37.4	+0.4
NBG	Las Nubes	0.91	336	eP	Pn	07 45 37.8	+0.7
MRL	Marmol	1.34	12	eP	Pn	07 45 42.4	+0.7
MRL				eS	Sn	07 46 01.5	+0.9
TP2	Tecpan 2	1.45	315	eP	Pn	07 45 43.7	+0.8
TP2				eS	Sn	07 46 07.7	+4.8
JAT	Jato	1.71	289	eP	Pn	07 45 46.5	+0.4

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*ISCJB **06** 07:47:10.3±1.0, 35°.85N±0°.03×27°.19E±0°.06, h3km±8km, Error ellipse: s-maj=8.2km s-min=4.6km az=29.3*
*ATH **06** 07:47:10.5, 35°.90N×27°.17E, h13km, MD3.4/3*
*CSEM **06** 07:47:11.2±0.4, 35°.86N×27°.17E, h10km, MD3.4, Error ellipse: s-maj=11.2km s-min=7.1km az=125.0*
*ISK **06** 07:47:12.9, 35°.95N×27°.27E, h8km, ML2.6*
*DDA **06** 07:47:19.7, 36°.27N×28°.01E, h7km±9km, Md3.2*
ISC 06 07:47:11.5±0.7, **35°.87N**±0°.04×**27°.18E**±0°.05, **h11**km±6km, **n29, σ1s.15**/46, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.32	183	ePB	Pg	07 47 17.5	-0.4
KARP				eSB	Sg	07 47 22.9	+0.7
KARP	Karpathos	0.32	183	ePb	Pg	07 47 17.5	-0.4
KARP				eSb	Sg	07 47 22.9	+0.7
ARG	Arkhangelos	0.84	65	ePB	Pb	07 47 26.4	-1.7
ARG				eSB	Sb	07 47 38.5	-0.9
ARG	Arkhangelos	0.84	65	ePb	Pb	07 47 26.4	-1.7
ARG				eSb	Sb	07 47 38.5	-0.9
DAT	Datca	0.92	20	ePG	Pg	07 47 29.1	-0.1
DAT				eSG	Sg	07 47 41.3	+0.2
DAT	Datca	0.92	20	ePg	Pg	07 47 29.1	-0.1
DAT				eSg	Sg	07 47 41.3	+0.1
BODT	Bodrum	1.20	5	ePN	Pn	07 47 34.9	+0.7
BODT				eSN	Sn	07 47 50.0	-0.4
BODT	Bodrum	1.20	5	ePn	Pn	07 47 34.9	+0.8
BODT				eSn	Sn	07 47 50.0	-0.4
BDRM	Kayabasi	1.21	10	eP	Pn	07 47 32.7	-1.7
BDRM				eS	Sb	07 47 51.8	+1.6
BDRM	Kayabasi	1.21	10	eP	Pn	07 47 32.7	-1.7
BDRM				eS	Sb	07 47 51.8	+1.7
NPS	Neapolis	1.41	245	ePG	Pg	07 47 37.5	-1.1
NPS				eSB	Sb	07 47 55.9	0.0
NPS	Neapolis	1.41	245	ePg	Pg	07 47 37.5	-1.1
NPS				eSb	Sb	07 47 55.9	0.0
DALT	Dalyan (Mudla)	1.48	52	ePN	Pn	07 47 38.8	+0.7
DALT	Dalyan (Mudla)	1.48	52	ePn	Pn	07 47 38.8	+0.7
MLSB	Milas	1.50	18	ePN	Pn	07 47 39.8	+1.5
MLSB	Milas	1.50	18	ePn	Pn	07 47 39.8	+1.4
TURN	Turunc	1.52	48	eP	Pn	07 47 34.5	-4.2
TURN				eS	Sn	07 47 46.4	-12
YER	Yerkesik	1.55	35	ePN	Pn	07 47 40.2	+1.2
YER	Yerkesik	1.55	35	ePn	Pn	07 47 40.2	+1.3
FETY	Fethiye	1.72	63	ePN	Pn	07 47 42.4	+1.1
FETY	Fethiye	1.72	63	ePn	Pn	07 47 42.4	+1.1
AYDN	Tasoluk	1.88	17	eP	Pn	07 47 44.0	+0.5
AYDN				eS	Sn	07 48 05.0	-2.1
AYDN	Tasoluk	1.88	17	eP	Pn	07 47 44.0	+0.5
AYDN				eS	Sn	07 48 05.0	-2.1
AKAS	Kas	2.00	79	eP	Pn	07 47 45.6	+0.4
AKAS				eS	Sn	07 48 00.1	-10
AKAS	Kas	2.00	79	eP	Pn	07 47 45.6	+0.4
GOLH	Golhisar	2.35	54	eP	Pn	07 47 47.9	-2.1
GOLH				eS	Sn	07 48 09.5	-9.4
GOLH	Golhisar	2.35	54	eP	Pn	07 47 47.9	-2.2
ELL	Elmali	2.37	67	ePN	Pn	07 47 51.6	+1.3
ELL	Elmali	2.37	67	ePn	Pn	07 47 51.7	+1.4

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*ISK **06** 07:56:53.9, 36°.99N×29°.23E, h6km, MD2.9*
*ISCJB **06** 07:56:54.7±0.6, 36°.97N±0°.04×29°.21E±0°.04, h1km±8km, Error ellipse: s-maj=7.0km s-min=4.4km az=142.0*
*CSEM **06** 07:56:54.9±0.2, 36°.98N×29°.21E, h5km, MD2.9, Error ellipse: s-maj=3.7km s-min=3.4km az=161.0*
*DDA **06** 07:56:55.1, 36°.98N×29°.19E, h7km±2km, Md3.1*
ISC 06 07:56:55.3±0.5, **36°.97N**±0°.03×**29°.21E**±0°.04, **h6**km±6km, **n32, σ0s.71**/46, **1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.35	197	PG	Pg	07 57 01.8	-0.3
FETY				eSG	Sg	07 57 07.4	+0.8
FETY	Fethiye	0.35	197	i Pg	Pg	07 57 01.8	-0.3
FETY				eSg	Sg	07 57 07.4	+0.8
GOLH	Golhisar	0.39	47	⇑iP	Pg	07 57 02.6	-0.2
GOLH				i S	Sg	07 57 08.9	+1.1
GOLH	Golhisar	0.39	47	i P	Pg	07 57 02.6	-0.1
GOLH				i S	Sg	07 57 08.9	+1.1
TURN	Turunc	0.50	259	eP	Pg	07 57 09.1	+4.3
TURN				eS	Sg	07 57 22.9	+12
TURN	Turunc	0.50	259	eP	Pg	07 57 09.1	+4.3
DALT	Dalyan (Mudla)	0.50	246	ePG	Pg	07 57 04.6	-0.4
DALT				eSG	Sg	07 57 12.3	+0.8
DALT	Dalyan (Mudla)	0.50	246	ePg	Pg	07 57 04.6	-0.3
DALT				eSg	Sg	07 57 12.3	+0.8
ELL	Elmali	0.60	112	ePG	Pg	07 57 05.8	-1.1
ELL	Elmali	0.60	112	ePg	Pg	07 57 05.8	-1.1
YER	Yerkesik	0.76	283	ePG	Pg	07 57 09.3	-0.6
YER	Yerkesik	0.76	283	ePg	Pg	07 57 09.3	-0.5
DENT	Denizli	0.79	350	ePG	Pg	07 57 09.3	-1.2
DENT	Denizli	0.79	350	ePg	Pg	07 57 09.3	-1.2
AKAS	Kas	0.80	156	eP	Pg	07 57 10.9	+0.3
AKAS				eS	Sg	07 57 26.7	+5.6
AKAS	Kas	0.80	156	eP	Pg	07 57 10.9	+0.2
MLSB	Milas	1.19	286	ePN	Pn	07 57 17.3	-1.1
MLSB	Milas	1.19	286	ePn	Pn	07 57 17.3	-1.2
AYDN	Tasoluk	1.26	303	eP	Pg	07 57 19.4	-0.1
AYDN				eS	Sg	07 57 36.2	+0.3
AYDN	Tasoluk	1.26	303	eP	Pg	07 57 19.4	-0.1
AYDN				eS	Sg	07 57 36.2	+0.3
DAT	Datca	1.33	260	ePN	Pn	07 57 20.0	-0.4
DAT	Datca	1.33	260	ePn	Pn	07 57 20.0	-0.4
KHAL	Karahalli	1.41	9	eP	Pn	07 57 21.7	+0.2
KHAL				eS	Sb	07 57 41.4	+1.1
KHAL	Karahalli	1.41	9	eP	Pn	07 57 21.7	+0.2
KHAL				eS	Sb	07 57 41.4	+1.1
BDRM	Kayabasi	1.42	274	eP	Pn	07 57 21.8	+0.2
BDRM				eS	Sb	07 57 41.3	+0.9
BDRM	Kayabasi	1.42	274	eP	Pn	07 57 21.8	+0.2
BDRM				eS	Sb	07 57 41.3	+0.9
BODT	Bodrum	1.52	274	ePN	Pn	07 57 22.7	-0.4
BODT	Bodrum	1.52	274	ePn	Pn	07 57 22.7	-0.3
KULA	Kula-Manisa	1.60	344	ePN	Pn	07 57 23.4	-0.7
KULA	Kula-Manisa	1.60	344	ePn	Pn	07 57 23.4	-0.7
HDMB	Hadim	2.62	89	ePN	Pn	07 57 38.8	+0.6
HDMB	Hadim	2.62	89	ePn	Pn	07 57 38.8	+0.6

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*ISK **06** 07:59:33.1, 39°.60N×39°.85E, h5km, MD2.9*
*CSEM **06** 07:59:34.1±0.3, 39°.59N×39°.81E, h2km, MD2.9, Error ellipse: s-maj=7.9km s-min=5.1km az=150.0*
*DDA **06** 07:59:34.1, 39°.51N×39°.81E, h7km±1km, Md2.8, Ml3.0*
*ISCJB **06** 07:59:36.2±0.6, 39°.62N±0°.04×39°.77E±0°.05, h17km±10km, Error ellipse: s-maj=8.4km s-min=5.0km az=141.2*
ISC 06 07:59:35.2±0.8, **39°.60N**±0°.05×**39°.77E**±0°.05, **h9**km±8km, **n15, σ1s.40**/27, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZC	Erzincan	0.15	14	ePG	Pg	07 59 41.7	+3.1
EZC				eSG	Sg	07 59 47.9	+7.1
KOPT	Kop Dagi	0.70	53	i P	Pg	07 59 47.4	-1.3
KOPT				eS	Sg	07 59 59.0	+1.2
KOPT	Kop Dagi	0.70	53	i P	Pg	07 59 47.4	-1.3
KOPT				eS	Sg	07 59 59.0	+1.2
GUMT	Gumushane	0.89	345	ePG	Pg	07 59 51.3	-1.0
GUMT				eSG	Sg	08 00 04.1	+0.3
KEMA	Kemaliye	1.04	252	eP	Pg	07 59 54.2	-1.1
KEMA				i S	Sg	08 00 09.0	+0.2
KEMA	Kemaliye	1.04	252	eP	Pg	07 59 54.2	-1.1
KEMA				i S	Sg	08 00 09.0	+0.1
ELZG	Elazig	1.26	209	eP	Pn	07 59 56.8	-2.3
ELZG				i S	Sb	08 00 15.9	+0.4
ELZG	Elazig	1.26	209	eP	Pn	07 59 56.8	-2.2
ELZG				i S	Sb	08 00 15.9	+0.4
EZM	Erzurum	1.26	76	ePN	Pn	07 59 56.3	-2.7
ERZM	Erzurum	1.27	76	eP	Pn	07 59 58.0	-1.1
ERZM				eS	Sb	08 00 17.1	+1.5
ERZM	Erzurum	1.27	76	eP	Pn	07 59 58.0	-1.1
ERZM				eS	Sb	08 00 17.1	+1.5
ESPY	Espiye-Giresun	1.54	329	ePN	Pn	08 00 02.6	-0.2
ESPY	Espiye-Giresun	1.54	329	ePn	Pn	08 00 02.7	-0.1
AKCD	Akcadag	1.94	228	eP	Pn	08 00 10.0	+1.6
AKCD				eS	Sn	08 00 35.0	+2.1
AKCD	Akcadag	1.94	228	eP	Pn	08 00 10.0	+1.6
AKCD				eS	Sn	08 00 35.0	+2.1

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*ISCJB **06** 08:18:29.7±2.4, 25°.2S±0°.1×177°.3W±0°.2, h102km±23km, mb3.7/6, Error ellipse: s-maj=29.7km s-min=15.6km az=25.4*
*IDC **06** 08:18:30.5±4.2, 25°.23S×177°.28W, h96km±37km, mb3.5/6, mb1 3.9/8, mb1mx3.7/18, mbtmp3.7/8, Error ellipse: s-maj=28.3km s-min=20.0km az=117.0*
ISC 06 08:18:30.7±2.1, **25°.2S**±0°.1×**177°.3W**±0°.2, **h97**km±20km, **n12, σ1s.04**/11, **mb3.7**/6, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	12.34	26	P	Pn	08 21 22.1	-0.9
	6.5nm,0.3s,baz=335,slow=14,SNR=8.5						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
AFI				S	Sn	08 23 30.1	-8.6
	3.7nm,0.3s,baz=53,slow=19,SNR=5.0						
URZ	Urewera	13.89	199	P	Pn	08 21 44.3	+1.1
	1.6nm,0.3s,baz=5.0,slow=6.9,SNR=10						
ASAR	Alice Springs	44.29	261	P	P	08 26 30.9	0.0
	0.8nm,0.9s,mb3.5,baz=97,slow=9.1,SNR=5.9						
WRA	Warramunga Arr	44.81	267	P	P	08 26 34.6	-0.5
	0.6nm,0.7s,mb3.4,baz=102,slow=8.0,SNR=3.7						
QSPA	South Pole Qui	64.92	180	P	P	08 28 59.3	+0.1
	4.9nm,0.9s,mb4.3,baz=42,slow=2.9,SNR=10.0						
PETK	Petropavlovsk-	80.94	345	P	P	08 30 34.6	+0.8
	3.7nm,0.6s,mb4.4,baz=143,slow=4.8,SNR=10.0						
VNA3	Neumayer Olymp	83.46	176	*e*	P	08 30 44.9	-2.1
VNA2	Neumayer--Watz	83.90	177	*e*	P	08 30 48.5	-0.8
	baz=207,slow=5.3						
NVAR	Mina Array Bea	83.97	43	P	P	08 30 52.0	+2.0
	0.4nm,0.7s,mb3.4,baz=228,slow=8.4,SNR=4.1						
TXAR	Lajitas Array	89.01	57	P	P	08 31 15.2	+0.3
	0.1nm,0.7s,mb3.0,baz=216,slow=8.5,SNR=2.9						
AKASG	Malin Array Be	147.37	328	PKPbc	PKPbc	08 38 01.8	-1.0
	0.3nm,0.3s,baz=41,slow=3.8,SNR=3.5						
TORD	Torodi Ar. Bea	168.00	175	PKP	PKPdf	08 38 24.3	-2.1
	0.3nm,0.7s,baz=282,slow=2.7,SNR=2.7						
TORD				PKPab	PKPab	08 39 32.6	-1.4
	0.5nm,0.7s,baz=167,slow=3.2,SNR=4.9						

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*ISCJB **06** 08:23:07.3±0.9, 37°.03S±0°.08×177°.6E±0°.1, h161^{km}±6^{km}, mb3.9/3, Error ellipse: s-maj=15.1km s-min=11.6km az=145.9*

*NEIC **06** 08:23:08.8, 36°.98S×177°.55E, h147^{km}, MG4.5(WEL), After WEL.*

*IDC **06** 08:23:11.2±1.2, 37°.45S×177°.26E, h172^{km}±7^{km}, mb3.6/3, mb1 3.8/4, mb1mx3.6/16, mbtmp3.6/4, Error ellipse: s-maj=28.3km s-min=25.1km az=39.0*

ISC 06 08:23:08.3±0.9**, 37°.02S**±0°.08×**177°.6E**±0°.1**, h156**^{km}±7^{km}**, n53, σ0^{s}.47**/29**, mb3.9**/3**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	0.78	134	P	Pn	08 23 31.6	-0.3
MXZ				S	Sn	08 23 50.2	+0.3
PUZ	Puketiti	1.17	154	P	Pn	08 23 35.2	+0.2
TGRZ	Tauranga	1.28	236	P	Pn	08 23 35.9	-0.1
EDRZ	Edgecumbe	1.28	212	P	Pn	08 23 36.7	+0.7
URZ	Urewera	1.29	197	P	Pn	08 23 36.2	+0.1
	50nm,0.3s,baz=312,slow=2.4,SNR=159						
URZ				S	Sn	08 23 57.2	-0.4
	320nm,0.3s,baz=222,slow=4.6,SNR=87						
URZ	Urewera	1.29	197	P	Pn	08 23 36.2	0.0
MWZ	Matawai	1.31	182	P	Pn	08 23 36.6	+0.3
MWZ				S	Sn	08 23 57.5	-0.4
KUZ	Kuaotunu	1.53	280	P	Pn	08 23 37.5	-1.0
MKAZ	Moumakai	1.95	267	P	Pn	08 23 43.4	+0.3
KNZ	Kokohu	2.00	178	P	Pn	08 23 43.7	+0.1
OTAZ	Otara	2.14	271	P	Pn	08 23 46.0	+0.7
BKZ	Black Stump Fm	2.31	202	P	Pn	08 23 47.2	-0.1
KAAZ	Kauri Point	2.33	274	P	Pn	08 23 48.2	+0.7
WTVZ	West Tongariro	2.62	217	P	Pn	08 23 51.1	0.0
HIZ	Hauiti	2.63	235	P	Pn	08 23 52.3	+1.1
TWVZ	Taurewa	2.66	219	P	Pn	08 23 51.9	+0.3
WPVZ	Whakapapa	2.71	216	P	Pn	08 23 52.5	+0.3
TUVZ	Tukino	2.72	214	P	Pn	08 23 52.3	+0.1
MOVZ	Moawhango	2.79	211	P	Pn	08 23 52.4	-0.7
WNVZ	Wahianoa	2.79	214	P	Pn	08 23 53.0	-0.1
WCZ	Waipu Caves	2.83	291	P	Pn	08 23 52.8	-0.9
WAZ	Wanganui	3.42	216	P	Pn	08 24 00.7	-0.3
NRZ	Ngariki Road	3.70	230	P	Pn	08 24 04.3	-0.4
BFZ	Birch Farm	3.80	196	P	Px	08 24 04.1	
MRZ	Mangatainoka R	3.96	203	P	Px	08 24 05.7	
KIW	Kapiti Island	4.37	208	P	Px	08 24 10.6	
MTW	Mount Morrison	4.44	201	P	Px	08 24 11.1	
CAW	Cannon Point	4.53	205	P	Px	08 24 12.3	
PAWZ	Paruwai Farm	4.67	200	P	Px	08 24 13.9	
MSWZ	Moikau Station	4.75	202	P	Px	08 24 14.9	
MRW	Makara Radio	4.77	207	P	Px	08 24 15.3	
SNZO	South Karori	4.84	207	P	Px	08 24 16.0	
BHW	Baring Head	4.87	205	P	Px	08 24 16.4	
TCW	Tory Channel	4.92	211	P	Px	08 24 17.1	
NNZ	Nelson	5.32	217	P	Px	08 24 22.9	
QRZ	Quartz Range	5.48	225	P	Px	08 24 24.6	
BSWZ	Blackbirch Sta	5.50	210	P	Px	08 24 24.9	
THZ	Tophouse	5.97	216	P	Px	08 24 31.0	
KHZ	Kahutara	6.23	209	P	Px	08 24 33.8	
DSZ	Denniston Nort	6.51	222	P	Px	08 24 38.2	
LTZ	Lake Taylor	7.06	214	P	Px	08 24 44.4	
MQZ	McQueen's Vall	7.67	208	P	Px	08 24 51.5	
RPZ	Rata Peaks	8.34	215	P	Px	08 25 01.7	
	1.6nm,0.3s,baz=5.4,slow=4.9,SNR=8.5						
RPZ				S	Sx	08 26 28.7	
	2.3nm,0.3s,baz=338,slow=24,SNR=9.8						
RPZ	Rata Peaks	8.34	215	P	Px	08 25 01.9	
FOZ	Fox Glacier	8.90	220	P	Px	08 25 08.5	
LBZ	Lake Benmore	9.26	215	P	Px	08 25 13.7	
ODZ	Otahua Downs	9.58	211	P	Px	08 25 17.7	
JCZ	Jackson Bay	9.74	221	P	Px	08 25 19.5	
ASAR	Alice Springs	39.66	277	P	P	08 30 25.1	0.0
	1.6nm,0.5s,mb3.9,baz=122,slow=8.1,SNR=26						
ASAR				PcP	PcP	08 32 26.9	-1.8
	0.3nm,0.5s,baz=122,slow=3.8,SNR=4.1						
WRA	Warramunga Arr	41.27	282	P	P	08 30 38.2	-0.1
	1.6nm,0.6s,mb3.9,baz=123,slow=7.0,SNR=21						
FITZ	Fitzroy Crossi	49.14	278	P	P	08 31 40.2	-0.1
	2.1nm,0.6s,mb4.0,baz=133,slow=7.8,SNR=6.3						
DBIC	Dimbokro	149.71	175	PKPbc	PKPbc	08 42 40.0	0.0
	2.9nm,0.7s,baz=164,slow=2.6,SNR=4.7						
TORD	Torodi Ar. Bea	155.94	190	PKPbc	PKPdf	08 42 55.4	+11
	0.3nm,0.4s,baz=163,slow=3.6,SNR=5.7						
TORD				PKPab	PKPab	08 43 11.6	-0.3
	0.8nm,0.4s,baz=166,slow=3.3,SNR=12						

IDC 06 08:27:15.0±1.6**, 3°.00S**×**118°.69E, h0**^{km}**, mb3.6**/5**, mb1 3.7**/5**, mb1mx3.6**/18**, mbtmp3.7**/5**, Error ellipse: s-maj=151.7km s-min=20.6km az=59.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.74	139	P	P	08 32 17.7	-1.2
	0.7nm,0.7s,baz=314,slow=11,SNR=4.2						
ASAR	Alice Springs	25.27	146	P	P	08 32 44.0	+0.8
	0.8nm,0.7s,baz=340,slow=16,SNR=6.3						
SONM	Songino Array	51.75	349	P	P	08 36 26.1	+1.9
	0.3nm,0.5s,baz=164,slow=9.0,SNR=3.6						
MKAR	Makanchi Array	59.03	332	P	P	08 37 16.6	-0.2
	1.7nm,0.5s,baz=142,slow=8.0,SNR=29						
ZALV	Zalesovo Beam	63.37	338	P	P	08 37 45.1	-0.9
	1.2nm,0.7s,baz=114,slow=3.6,SNR=5.7						

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*ISK **06** 08:54:14.6, 39°.13N×37°.42E, h5^{km}, MD2.9*

*ISCJB **06** 08:54:15.8±0.8, 39°.09N±0°.05×37°.36E±0°.04, h10^{km}, Error ellipse: s-maj=7.7km s-min=4.5km az=2.7*

*CSEM **06** 08:54:15.9±0.3, 39°.10N×37°.35E, h8^{km}, MD2.9, Error ellipse: s-maj=8.7km s-min=5.2km az=178.0*

*DDA **06** 08:54:15.5, 39°.13N×37°.33E, h7^{km}±3^{km}, Md3.1*

ISC 06 08:54:16.1±1.0**, 39°.13N**±0°.07×**37°.35E**±0°.05**, h9**^{km}±13^{km}**, n16, σ0^{s}.91**/25**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SARI	SarD1z-Kayseri	0.68	229	*e*PG	Pg	08 54 35.8	+6.5
SARI				*e*SG	Sg	08 54 52.4	+14
PINB	Pinarbasi	0.87	239	*i* P	Pg	08 54 31.5	-1.3
PINB				*i* S	Sg	08 54 44.6	+0.5
PINB	Pinarbasi	0.87	239	*i* P	Pg	08 54 31.5	-1.3
PINB				*i* S	Sg	08 54 44.6	+0.5
KEMA	Kemaliye	0.90	81	*e*P	Pg	08 54 32.6	-0.7
KEMA				*e*S	Sg	08 54 46.9	+1.9
KEMA	Kemaliye	0.90	81	*e*P	Pg	08 54 32.6	-0.7
KEMA				*e*S	Sg	08 54 46.9	+1.9
AKCD	Akcadag	0.94	152	*e*P	Pg	08 54 34.1	-0.2
AKCD				*e*S	Sg	08 54 47.2	+0.7
AKCD	Akcadag	0.94	152	*e*P	Pg	08 54 34.1	-0.2
AKCD				*e*S	Sg	08 54 47.2	+0.7
MYA	Malataya	1.16	133	*e*PN	Pg	08 54 37.6	-0.8
MYA	Malataya	1.16	133	*e*Pn	Pg	08 54 37.6	-0.8
MALT	Malatya	1.17	134	*e*PN	Pg	08 54 38.4	-0.2
MALT				*e*SN	Sg	08 54 53.9	+0.1
MALT	Malatya	1.17	134	*e*Pn	Pg	08 54 38.4	-0.2
MALT				*e*Sn	Sg	08 54 53.9	+0.1
BNN	Bunyan	1.21	257	*e*PN	Pn	08 54 39.4	+0.3
BNN	Bunyan	1.21	257	*e*Pn	Pn	08 54 39.4	+0.4
YOZ	Yozgat	1.66	289	*e*PN	Pn	08 54 46.4	+1.2
YOZ	Yozgat	1.66	289	*e*Pn	Pn	08 54 46.4	+1.2
EZC	Erzincan	2.00	71	*e*PN	Pn	08 54 46.1	-4.0

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*ISCJB **06** 08:55:38.7±0.9, 15°.9S±0°.1×73°.3W±0°.1, h94^{km}±9^{km}, mb3.9/5, Error ellipse: s-maj=24.0km s-min=7.6km az=41.6*

*IDC **06** 08:55:39.5±1.0, 15°.85S×73°.20W, h76^{km}±5^{km}, mb3.7/6, mb1 3.9/10, mb1mx3.7/22, mbtmp3.9/10, Error ellipse: s-maj=33.0km s-min=12.1km az=48.0*

*NEIC **06** 08:55:41.0±1.1, 15°.56S×73°.05W, h74^{km}±13^{km}, MD3.6(GUC), Error ellipse: s-maj=17.7km s-min=9.8km az=71.0*

NEIC Felt [II] at Arequipa.

ISC 06 08:55:40.4±0.8**, 15°.9S**±0°.1×**73°.3W**±0°.1**, h88**^{km}±9^{km}**, n18, σ0^{s}.66**/21**, mb3.9**/5**, 1C, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	Arequipa	1.79	110	⇑*i*P	Pn	08 56 10.0	+0.2
ARE				*i* S	Sn	08 56 33.0	+0.8
NNA	Nana	5.19	317	P	Pn	08 56 55.1	-0.5
	20nm,0.3s,baz=138,slow=12,SNR=30						
NNA				S	Sn	08 57 54.6	+0.3
	42nm,0.3s,baz=230,slow=9.7,SNR=4.4						
NNA	Nana	5.19	317	*e*Pn	Pn	08 56 55.2	-0.5
NNA				*e*Sn	Sn	08 57 54.3	0.0
LVC	Limon Verde	7.87	149	P	Pn	08 57 31.8	-0.3
	4.8nm,0.3s,baz=358,slow=9.6,SNR=41						
LVC				S	Sn	08 58 57.8	-1.7
	6.6nm,0.3s,baz=57,slow=22,SNR=7.9						
LVC	Limon Verde	7.87	149	*e*Pn	Pn	08 57 32.5	+0.4
LVC				S	Sn	08 58 57.8	-1.7
ATAH	Atahualpa	10.14	330	P	Pn	08 58 03.2	+0.1
	0.3nm,0.3s,baz=76,slow=14,SNR=2.2						
SIV	San Ignacio	11.72	92	P	Pn	08 58 23.3	-1.3
	0.6nm,0.3s,baz=286,slow=9.5,SNR=32						
LCO	Las Campanas	13.30	170	*e*Pn	Pn	08 58 51.0	+5.4
ROSC	El Rosal	20.61	357	P	P	09 00 13.0	+0.3
	3.2nm,0.6s,baz=106,slow=20,SNR=1.8						
SDV	Santo Domingo	24.72	6	P	P	09 00 53.2	-0.5
	3.4nm,0.6s,mb3.9,baz=165,slow=2.1,SNR=5.8						
TXAR	Lajitas Array	53.68	327	P	P	09 04 53.4	+0.2
	0.6nm,0.8s,mb3.7,baz=152,slow=8.9,SNR=5.8						
TXAR				pP	pP	09 05 13.5	-1.4
	0.2nm,0.6s,baz=163,slow=9.9,SNR=2.0						
TXAR				sP	sP	09 05 20.4	-4.3
	0.3nm,0.7s,baz=139,slow=8.4,SNR=2.7						
SCHQ	Schefferville	70.62	4	P	P	09 06 46.1	+0.1
	1.5nm,0.9s,mb3.8,baz=191,slow=5.2,SNR=4.6						
TORD	Torodi Ar. Bea	79.51	73	P	P	09 07 38.5	+0.4
	1.9nm,0.7s,mb4.0,baz=253,slow=4.9,SNR=12						
TORD				sP	sP	09 08 07.6	-3.0
	1.0nm,0.7s,baz=264,slow=5.0,SNR=2.8						
TORD	Torodi Ar. Bea	79.51	73	P	P	09 07 38.5	+0.4
TORD				sP	sP	09 08 07.6	-3.0
YKA	Yellowknife Ar	84.56	342	P	P	09 08 03.5	+0.1
	1.2nm,0.8s,mb3.9,baz=135,slow=5.0,SNR=28						
YKA				pP	pP	09 08 25.4	-1.2
	0.0nm,0.5s,baz=138,slow=5.0,SNR=1.7						
YKA	Yellowknife Ar	84.56	342	P	P	09 08 03.5	+0.2
YKA				pP	pP	09 08 25.4	-1.2
SONM	Songino Array	148.12	0	PKPbc	PKPbc	09 15 17.1	+1.1
	1.1nm,0.7s,baz=324,slow=2.4,SNR=6.4						
KSRS	Korea Array	151.48	323	PKPbc	PKPbc	09 15 25.6	+1.0
	1.9nm,0.8s,baz=11,slow=2.8,SNR=3.9						

GUC 06 08:59:24.7±0.8**, 32°.66S**×**71°.70W, h26**^{km}±6^{km}**, MD3.6, ML2.8, 1C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IHA	Instituto Hidr	0.37	173	*e*P	Pb	08 59 32.8	0.0
IHA				*i* S	Sb	08 59 38.4	0.0
IHA	Instituto Hidr	0.37	173	*e*P	Pb	08 59 32.8	0.0
IHA				*i* S	Sb	08 59 38.4	0.0
CHNG	Los Chungos	0.79	12	*e*P	Pb	08 59 39.2	-0.6
CHNG				*i* S	Sb	08 59 50.4	+0.2
PEL	Peldehue	0.98	120	⇑*e*P	Pn	08 59 42.5	-0.3
PEL				*e*S	Sb	08 59 55.9	+0.4
PEL				AML	AML	08 59 57.4	
	comp=E,531nm,0.3s						
RCDM	Rinconada Maip	1.12	138	*e*P	Pn	08 59 44.4	-0.3
RCDM	Rinconada Maip	1.12	138	*e*P	Pn	08 59 44.4	-0.3
FCH	Farellones	1.36	120	⇓*e*P	Pn	08 59 46.1	-1.8
FCH				*e*S	Sn	09 00 04.0	-1.1
FCH				AML	AML	09 00 05.1	
	comp=E,134nm,0.4s						
CHCH	Chadas Angostu	1.54	146	*i* P	Pn	08 59 51.3	+0.8
CHCH	Chadas Angostu	1.54	146	*i* P	Pn	08 59 51.3	+0.8
CMCH	Combarbala	1.59	22	*e*P	Pn	08 59 51.9	+0.7
CMCH				*i* S	Sn	09 00 12.4	+1.5
CMCH				AML	AML	09 00 18.4	
	comp=N,446nm,0.6s						
CACH	El Canelo	1.72	148	⇓*i*P	Pn	08 59 54.9	+2.0
CACH	El Canelo	1.72	148	⇓*i*P	Pn	08 59 54.9	+2.0
CICH	Cipreses	1.97	148	*e*P	Pn	08 59 57.8	+1.5

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*ISK **06** 09:17:10.5, 36°.97N×29°.25E, h5^{km}, MD2.6*

*ISCJB **06** 09:17:12.0±0.6, 36°.98N±0°.04×29°.18E±0°.05, h4^{km}±11^{km}, Error ellipse: s-maj=8.0km s-min=4.9km az=40.8*

*CSEM **06** 09:17:11.7±0.3, 36°.98N×29°.22E, h2^{km}, MD2.6, Error ellipse: s-maj=8.0km s-min=7.2km az=119.0*

*DDA **06** 09:17:12.7, 37°.01N×29°.23E, h8^{km}±5^{km}, Md2.8*

ISC 06 09:17:12.3±0.6**, 36°.99N**±0°.03×**29°.17E**±0°.04**, h0**^{km}±16^{km}**, n18, σ1^{s}.27**/28**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.36	191	*e*PG	Pg	09 17 18.0	-1.2
FETY				*e*SG	Sg	09 17 23.6	-0.3
FETY	Fethiye	0.36	191	*e*Pg	Pg	09 17 18.0	-1.2
FETY				*e*Sg	Sg	09 17 23.6	-0.3
GOLH	Golhisar	0.40	52	*i* P	Pg	09 17 18.8	-1.1
GOLH				*i* S	Sg	09 17 25.8	+0.7
GOLH	Golhisar	0.40	52	*i* P	Pg	09 17 18.8	-1.1
GOLH				*i* S	Sg	09 17 25.8	+0.7
TURN	Turunc	0.47	256	*e*P	Px	09 17 27.2	
TURN				*e*S	Sx	09 17 38.7	
TURN	Turunc	0.47	256	*e*P	Px	09 17 27.2	
TURN				*e*S	Sx	09 17 38.7	
DALT	Dalyan (Mudla)	0.48	243	*e*PG	Pg	09 17 21.4	0.0
DALT				*e*SG	Sg	09 17 28.9	+1.2
DALT	Dalyan (Mudla)	0.48	243	*e*Pg	Pg	09 17 21.4	0.0
DALT				*e*Sg	Sg	09 17 28.9	+1.3
ELL	Elmali	0.64	112	*e*PG	Pg	09 17 22.0	-2.6
ELL	Elmali	0.64	112	*e*Pg	Pg	09 17 22.0	-2.6
AKAS	Kas	0.83	155	*e*P	Pg	09 17 28.1	-0.1
AKAS				*e*S	Sg	09 17 41.2	+2.2
AKAS	Kas	0.83	155	*e*P	Pg	09 17 28.1	-0.2
AKAS				*e*S	Sg	09 17 41.2	+2.1
AYDN	Tasoluk	1.23	303	*e*P	Pg	09 17 36.4	+0.7
AYDN				*e*S	Sg	09 17 49.7	-2.0
AYDN	Tasoluk	1.23	303	*e*P	Pg	09 17 36.4	+0.6
AYDN				*e*S	Sg	09 17 49.7	-1.9
DAT	Datca	1.30	259	*e*PN	Pn	09 17 37.6	0.0
DAT	Datca	1.30	259	*e*Pn	Pn	09 17 37.6	-0.1
KHAL	Karahalli	1.40	11	*e*P	Pg	09 17 41.6	+2.4
KHAL				*e*S	Sg	09 17 57.5	+0.2
KHAL	Karahalli	1.40	11	*e*P	Pg	09 17 41.6	+2.5
KHAL				*e*S	Sg	09 17 57.5	+0.2

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*CSEM **06** 09:33:55.1±0.5, 37°.35N×38°.44E, h20^{km}, MD2.7, Error ellipse: s-maj=10.0km s-min=7.3km az=151.0*

*ISCJB **06** 09:33:58.0±0.7, 37°.53N±0°.04×38°.59E±0°.05, h10^{km}, Error ellipse: s-maj=5.7km s-min=5.0km az=32.9*

*ISK **06** 09:33:58.5, 37°.60N×38°.81E, h13^{km}, MD2.7*

*DDA **06** 09:33:59.3, 37°.56N×38°.55E, h7^{km}±4^{km}, Md2.8*

ISC 06 09:33:58.2±2.1**, 37°.51N**±0°.06×**38°.61E**±0°.08**, h17**^{km}±23^{km}**, n10, σ0^{s}.49**/17**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URFA	Urfa	0.18	111	*e*PG	Pg	09 34 02.5	-0.1
URFA				*e*SG	Sg	09 34 05.5	-0.1
URFA	Urfa	0.18	111	*e*Pg	Pg	09 34 02.5	-0.1
URFA				*e*Sg	Sg	09 34 05.5	-0.1
MALT	Malatya	0.82	350	*e*PG	Pg	09 34 14.4	+0.3
MALT	Malatya	0.82	350	*e*Pg	Pg	09 34 14.4	+0.3
MYA	Malataya	0.83	350	*e*PG	Pg	09 34 14.3	-0.1
MYA				*e*SG	Sg	09 34 25.3	0.0
MYA	Malataya	0.83	350	*e*Pg	Pg	09 34 14.3	-0.1
MYA				*e*Sg	Sg	09 34 25.3	0.0
GZT	Gaziantep	0.85	260	*e*P	Pg	09 34 14.7	0.0
GZT				*i* S	Sg	09 34 26.5	+0.7
AKCD	Akcadag	0.96	326	*e*P	Pg	09 34 17.3	+0.5
AKCD				*e*S	Sg	09 34 28.8	-0.5
ELZG	Elazig	1.03	16	*i* P	Pg	09 34 18.0	-0.2
ELZG				*i* S	Sg	09 34 32.4	+0.7
SARI	SarD1z-Kayseri	1.91	308	*e*PN	Pg	09 34 33.7	-1.1

CASC 06 09:37:00.6±2.2**, 8°.42N**×**82°.85W, h11**^{km}±13^{km}**, MD3.7, 2C-2D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	Cerro Adams	0.39	306	⇑*i*P	Pg	09 37 08.5	+0.2
ACR				⇑*e*P		09 37 08.6	
ACR				*e*S	Sg	09 37 15.4	+1.9
BRU2	Volcan	0.40	23	⇓*i*P	Pg	09 37 09.2	+0.6
BRU2				*e*S	Sg	09 37 16.8	+2.8
BAR1		0.93	331	*e*P	Pg	09 37 17.2	-1.4
BAR1				*e*P		09 37 17.8	
BAR1				*e*S	Sg	09 37 30.0	-0.9
CNI	Changuinola	1.04	18	*e*P	Pb	09 37 18.7	-2.0
CNI				*e*S	Sg	09 37 33.7	-0.6
BUS	Buena Vista	1.44	322	*e*P	Pn	09 37 26.0	-0.7
BUS				*e*P		09 37 27.3	
BUS				*e*S	Sn	09 37 46.0	+0.4
BUS				*e*S	Sn	09 37 46.3	+0.8
QCR	Quepos	1.64	308	⇓*e*P	Pn	09 37 28.5	-0.9
QCR				*e*S	Sn	09 37 50.3	-0.1
URSC	Urasca	1.68	327	*e*P	Pn	09 37 29.3	-0.6
URSC				*e*S	Sn	09 37 51.8	+0.3
URSC				*e*S	Sn	09 37 52.0	+0.6
LCR2	La Lucha 2	1.74	319	*e*P	Pn	09 37 31.3	+0.6
LCR2				*e*P		09 37 31.4	
LCR2				*e*S	Sn	09 37 54.9	+2.0
LAJ	Bijagual	1.91	319	*e*P	Pn	09 37 35.1	+2.0
LAJ				*e*P		09 37 35.1	
LAJ				*e*S	Sn	09 38 05.2	+8.1
PRS1	Puriscal	2.12	317	*e*P	Pn	09 37 35.3	-0.6
PRS1				*e*P		09 37 35.8	
PRS1				*e*S	Sn	09 38 02.8	+0.4
CGA2	Cerro Gallo 2	2.25	315	*e*P	Pn	09 37 38.4	+0.6

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*ISCJB **06** 09:49:01.3±0.3, 61°.59N±0°.03×149°.86W±0°.07, h64^{km}±5^{km}, mb3.5/4, Error ellipse: s-maj=5.6km s-min=4.5km az=167.4*

*NEIC **06** 09:49:03.5, 61°.65N×149°.79W, h32^{km}, ML3.3(AEIC), ML3.6(PMR), After AEIC.*

NEIC Felt at Anchorage, Eagle River and Houston.

*IDC **06** 09:49:07.6±4.9, 60°.99N×149°.24W, h142^{km}±86^{km}, mb3.1/4, mb1 2.9/6, mb1mx2.9/24, mbtmp2.9/6, Error ellipse: s-maj=106.1km s-min=23.2km az=153.0*

ISC 06 09:49:02.6±0.3**, 61°.59N**±0°.03×**149°.86W**±0°.07**, h53**^{km}±6^{km}**, n38, σ0^{s}.74**/46**, mb3.5**/4**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMR	Palmer	0.35	89	*e*P	Pn	09 49 10.7	-1.7
FIB	Fire Island	0.45	200	P	Pn	09 49 14.1	+0.7
RC01	Rabbit Creek A	0.51	173	P	Pn	09 49 13.2	-0.9
RC01				S	Sn	09 49 23.3	+1.0
SML	Sawmill	0.76	73	P	Pn	09 49 15.8	-1.3
SKT	Skwentna	0.89	297	P	Pn	09 49 18.1	-0.7
SKT				S	Sn	09 49 30.2	-0.5
SLKM	Skilak Lake	1.10	189	P	Pn	09 49 22.4	+0.8
SEW	Seward	1.50	172	P	Pn	09 49 27.2	+0.1
SEW				S	Sn	09 49 47.2	+1.6
PPLA	Purkeypile	1.71	321	P	Pn	09 49 29.8	-0.1
PPLA				S	Sn	09 49 51.2	+0.7
TRF	Thorofare Moun	1.88	354	P	Pn	09 49 32.1	-0.1
TRF				S	Sn	09 49 55.6	+0.9
KTH	Kantishna Hill	2.03	346	P	Pn	09 49 34.5	+0.2
MCK	McKinley	2.19	11	P	Pn	09 49 36.6	+0.1
EYAK	Cordova Ski Ar	2.25	116	P	Pn	09 49 37.3	0.0
PAX	Paxson	2.48	54	P	Pn	09 49 41.1	+0.7
CHUM	Lake Minchumin	2.56	335	*e*Pn	Pn	09 49 41.3	-0.2
CHUM				*e*Sn	Sn	09 50 12.1	+0.6
BPAW	Bear Paw Mtn.	2.57	349	P	Pn	09 49 41.1	-0.6
SVW2	Sparrevohn	2.80	262	*e*P	Pn	09 49 45.3	+0.5
MENT	Mentasta	3.17	62	*e*Pn	Pn	09 49 49.7	-0.2
MENT				*e*Sn	Sn	09 50 33.9	+7.5
TT01	Tatalina	3.17	297	P	Pn	09 49 49.6	-0.2
DOT	Dot Lake	3.38	50	P	Pn	09 49 52.9	+0.1
COLA	College	3.42	15	P	Pn	09 49 52.7	-0.6
IL1	Eielson Array	3.47	22	P	Pn	09 49 53.4	-0.5
BCA3	Beaver Creek A	4.04	65	P	Pn	09 50 02.5	+0.6
KDAK	Kodiak Island	4.06	201	P	Pn	09 50 01.7	-0.4
	1.6nm,0.3s,baz=69,slow=17,SNR=21						
KDAK				S	Sn	09 50 46.6	-1.7
	5.1nm,0.3s,baz=12,slow=9.4,SNR=5.6						
KDAK	Kodiak Island	4.06	201	P	Pn	09 50 02.2	+0.1
GCSA	Galena City Sc	4.49	318	P	Pn	09 50 08.2	+0.3
IM3	Indian Mountai	4.74	340	P	Pn	09 50 11.2	0.0
EGAK	Eagle	5.07	47	P	Pn	09 50 16.2	+0.3
DAWY	Dawson	5.40	58	P	Pn	09 50 20.9	+0.6
COLD	Coldfoot	5.66	359	P	Pn	09 50 24.4	+0.4
BM3	Burnt Mountain	6.27	19	P	Pn	09 50 32.4	0.0
WHY	Whitehorse	7.31	91	P	Pn	09 50 45.3	-1.2
SDPT	Sand Point	8.37	226	P	Pn	09 51 01.3	+0.3
TNA	Tin City	8.97	304	P	Pn	09 51 08.8	-0.4
YKA	Yellowknife Ar	16.43	71	P	Pn	09 52 50.0	+0.9
	0.0nm,0.3s,baz=277,slow=10.0,SNR=5.3						
RES	Resolute Bay	23.13	34	P	P	09 54 03.7	+0.1
	0.2nm,0.4s,mb2.9,baz=246,slow=10.0,SNR=2.2						
KSRS	Korea Array	54.32	284	P	P	09 58 23.4	+0.3
	1.3nm,0.7s,mb4.0,baz=29,slow=6.7,SNR=4.2						
SONM	Songino Array	55.08	307	P	P	09 58 29.3	+0.8
	0.9nm,0.8s,mb3.8,baz=28,slow=6.5,SNR=3.3						
MKAR	Makanchi Array	64.12	323	P	P	09 59 29.0	-1.8
	0.2nm,0.5s,mb3.5,baz=31,slow=6.7,SNR=6.6						

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*IDC **06** 09:51:50.9±7.2, 24°.26S×67°.49W, h0^{km}, mb4.4/2, mb1 4.1/3, mb1mx3.8/16, mbtmp4.1/3, ML4.1/1, Error ellipse: s-maj=263.7km s-min=61.2km az=25.0*

*ISCJB **06** 09:51:57.3±1.3, 28°.4S±0°.2×67°.4W±0°.1, h129^{km}±20^{km}, mb4.1/2, Error ellipse: s-maj=29.9km s-min=16.7km az=155.9*

*NEIC **06** 09:51:58.5±1.1, 28°.35S×67°.40W, h125^{km}±15^{km}, Error ellipse: s-maj=23.0km s-min=15.6km az=165.0*

ISC 06 09:51:58.4±1.2**, 28°.4S**±0°.2×**67°.4W**±0°.1**, h123**^{km}±18^{km}**, n9, σ0^{s}.51**/9**, mb4.2**/2**, 1C, La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	Las Campanas	2.95	257	⇑*i*Pn	Pn	09 52 44.9	+0.8
LCO				*e*Sn	Sn	09 53 18.7	-0.6
LVC	Limon Verde	5.91	346	*e*Pn	Pn	09 53 23.6	0.0
CPUP	Villa Florida	9.20	79	Pn	Pn	09 54 08.0	-0.2
	0.4nm,0.3s,baz=255,slow=17,SNR=4.7						
CPUP	Villa Florida	9.20	79	Pn	Pn	09 54 08.0	-0.2
DBIC	Dimbokro	69.59	70	P	P	10 02 54.0	-0.5
	3.9nm,1.0s,mb4.2,baz=193,slow=4.7,SNR=5.3						
DBIC	Dimbokro	69.59	70	P	P	10 02 54.0	-0.5
TORD	Torodi Ar. Bea	78.52	68	P	P	10 03 46.9	+0.5
	3.5nm,0.7s,mb4.3,baz=251,slow=4.4,SNR=24						
TORD	Torodi Ar. Bea	78.52	68	P	P	10 03 46.9	+0.5
MKAR	Makanchi Array	150.04	44	PKPbc	PKPbc	10 11 34.7	+0.4
	0.6nm,1.1s,baz=318,slow=1.6,SNR=4.5						

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*ISCJB **06** 09:58:05.8±0.7, 37°.72N±0°.03×26°.86E±0°.08, h24^{km}±12^{km}, Error ellipse: s-maj=10.6km s-min=4.6km az=158.9*

*CSEM **06** 09:58:05.4±0.2, 37°.73N×26°.87E, h16^{km}±2^{km}, MD2.6, Error ellipse: s-maj=4.7km s-min=2.5km az=67.0*

*DDA **06** 09:58:05.3, 37°.74N×26°.81E, h7^{km}±4^{km}, Md2.6*

*ISK **06** 09:58:05.1, 37°.72N×26°.93E, h17^{km}, MD2.8*

ISC 06 09:58:05.5±0.8**, 37°.72N**±0°.03×**26°.85E**±0°.07**, h19**^{km}±6^{km}**, n19, σ0^{s}.55**/32**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	G?zelcaml?	0.30	94	*i* P	Pg	09 58 12.1	-0.1
GCAM				*e*S	Sg	09 58 18.1	+1.3
GCAM	G?zelcaml?	0.30	94	*i* P	Pg	09 58 12.1	-0.1
GCAM				*e*S	Sg	09 58 18.1	+1.4
URLA	Izmir	0.67	343	*e*P	Pb	09 58 17.9	-0.6
URLA				*i* S	Sb	09 58 27.6	+0.1
URLA	Izmir	0.67	343	*e*P	Pb	09 58 17.9	-0.7
URLA				*i* S	Sb	09 58 27.5	0.0
BLCB	Balcova	0.68	13	*e*PG	Pg	09 58 19.1	+0.2
BLCB				*e*SG	Sg	09 58 28.2	+0.2
BLCB	Balcova	0.68	13	*e*Pg	Pg	09 58 19.1	+0.2
BLCB				*e*Sg	Sg	09 58 28.2	+0.2
IZM	Izmir	0.75	26	*e*PG	Pg	09 58 19.6	-0.6
IZM				*e*SG	Sg	09 58 30.2	0.0
BODT	Bodrum	0.76	151	*e*PG	Pg	09 58 19.9	-0.4
BODT				*e*SG	Sg	09 58 29.9	-0.5
BODT	Bodrum	0.76	151	*e*Pg	Pg	09 58 19.9	-0.5
BODT				*e*Sg	Sg	09 58 29.9	-0.5
BDRM	Kayabasi	0.81	144	*e*P	Pb	09 58 21.3	+0.3
BDRM				*e*S	Sb	09 58 31.8	+0.3
BDRM	Kayabasi	0.81	144	*e*P	Pb	09 58 21.3	+0.3
BDRM				*e*S	Sb	09 58 31.8	+0.3
AYDN	Tasoluk	0.82	94	*i* P	Pb	09 58 21.4	+0.3
AYDN				*e*S	Sb	09 58 31.5	-0.3
AYDN	Tasoluk	0.82	94	*i* P	Pb	09 58 21.4	+0.2
AYDN				*e*S	Sb	09 58 31.5	-0.3
MLSB	Milas	0.85	120	*e*PG	Pg	09 58 21.3	-0.9
MLSB	Milas	0.85	120	*e*Pg	Pg	09 58 21.3	-0.9
APE	Apeiranthos	1.24	239	*e*PN	Pn	09 58 28.8	+1.0
APE	Apeiranthos	1.24	239	*e*Pn	Pn	09 58 28.8	+1.0
DALT	Dalyan (Mudla)	1.71	123	*e*PN	Pn	09 58 34.3	0.0
DALT	Dalyan (Mudla)	1.71	123	*e*Pn	Pn	09 58 34.3	-0.1

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*NEIC **06** 10:05:48.8, 17°.22N×94°.43W, h150km, MD3.9(MEX), After MEX.*

MEX 06 10:05:48.8±1.4**, 17°.22N×94°.43W, h150**km±12km**, MD3.9, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.46	254	*i* P	Pn	10 06 08.8	-1.1
CMIG				*i* S	Sn	10 06 23.8	-2.2
TGIG		1.32	109	*i* P	Pn	10 06 15.3	-1.2
TGIG				*i* S	Sn	10 06 35.2	-2.6
PCIG		1.90	142	*i* P	Pn	10 06 22.0	-0.8
PCIG				*i* S	Sn	10 06 47.9	-1.0
HUIG	Huatulco	2.17	228	*i* P	Pn	10 06 23.0	-2.9
HUIG				*i* S	Sn	10 06 53.0	-1.4
VHO	Vista Hermosa	2.21	267	*i* P	Pn	10 06 26.1	-0.4
VHO				*i* S	Sn	10 06 55.0	-0.3
CCIG	Comitan	2.38	113	*i* P	Pn	10 06 27.9	-0.6
CCIG				*i* S	Sn	10 06 56.1	-2.9
TPIG	Tehuac#an	3.04	294	*i* P	Pn	10 06 36.1	-0.6
TPIG				*i* S	Sn	10 07 12.1	-1.6
PNIG	Pinotepa	3.64	257	*i* P	Pn	10 06 41.7	-2.6
PNIG				*i* S	Sn	10 07 25.8	-1.7
PPM	Popocatepetl	4.40	295	*e*P	Pn	10 06 55.6	+1.4
PPM				*i* S	Sn	10 07 46.7	+1.6
CAIG	El Cayaco	5.59	269	*e*P	Pn	10 07 11.3	+1.3
CAIG				*i* S	Sn	10 08 10.7	-2.8

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*ISCJB **06** 10:14:51.2±0.7, 11°.12N±0°.05×62°.20W±0°.03, h121km±6km, Error ellipse: s-maj=8.5km s-min=5.3km az=164.5*

*FUNV **06** 10:14:51.9, 11°.22N×62°.09W, h112km, MW2.9*

*NEIC **06** 10:14:54.1, 11°.16N×62°.03W, h115km, MD3.1(TRN), After TRN.*

*TRN **06** 10:14:54.1, 11°.16N×62°.03W, h115km, MD3.1*

ISC 06 10:14:52.1±0.8**, 11°.13N**±0°.05×**62°.19W**±0°.03**, h117**km±7km**, n21, σ0ˢ.94**/33**, 3C-1D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUIV	Guiria	0.48	183	⇓*e*P	Pn	10 15 09.8	+0.3
GUIV				*e*S	Sn	10 15 21.6	-1.1
TCE	Chacachacare	0.61	134	*e*P	Pn	10 15 12.6	+2.1
TCE				*e*S	Sn	10 15 24.4	+0.1
TRN	Trinidad (W)	0.91	121	⇑*i*P	Pn	10 15 14.2	+1.2
TRN				*e*S	Sn	10 15 28.3	-0.5
ITEV	Isla Los Testi	0.95	284	⇑*e*P	Pn	10 15 13.3	0.0
ITEV				*e*S	Sn	10 15 28.5	-0.9
TPP	Pointe-a-Pierr	1.09	138	*e*P	Pn	10 15 18.1	+3.4
CRUV	Carupano	1.12	246	*e*P	Pn	10 15 15.2	+0.1
CRUV				*e*S	Sn	10 15 32.2	-0.2
GRW	Mount Saint Ca	1.15	27	*e*P	Pn	10 15 16.5	+1.1
GRW				*e*S	Sn	10 15 33.0	-0.1
GUNV	Guanoco	1.21	218	*e*P	Pn	10 15 17.1	+1.1
GUNV				*e*S	Sn	10 15 35.1	+0.9
TBH	Brigand Hill	1.28	120	*e*P	Pn	10 15 17.3	+0.5
TBH				*e*S	Sn	10 15 34.8	-0.7
TPR	Prospect	1.39	87	*e*P	Pn	10 15 18.7	+0.7
BOT	Bacolet	1.45	88	*e*P	Pn	10 15 18.9	+0.2
TOSP	Speyside	1.64	84	*e*P	Pn	10 15 20.0	-1.0
TOSP				*e*S	Sn	10 15 41.1	-1.8
SVB	Belmont	2.32	23	*e*P	Pn	10 15 36.1	+6.6
SVB				*e*S	Sn	10 15 53.5	-4.7
ORIV	Oritupano	2.37	210	*e*P	Pn	10 15 31.4	+1.3
ORIV				*e*S	Sn	10 15 59.0	-0.2
PCRV	Puerto La Cruz	2.58	249	*e*P	Pn	10 15 33.6	+0.8
PCRV				*e*S	Sn	10 16 03.6	-0.4
RIOV	Rio Grande	3.06	173	*e*P	Pn	10 15 39.0	-0.1
CUPV	Cœpira	3.69	254	⇑*e*P	Pn	10 15 47.8	+0.4
MERV	Las Mercedes	4.45	246	*e*P	Pn	10 15 56.8	-0.8
LUEV	Luepa	5.30	172	*e*P	Pn	10 16 07.6	-1.5
CAOV	Caicara del Or	5.55	228	*e*P	Pn	10 16 11.8	-0.7
BAUV	El Baul	6.15	250	*e*P	Pn	10 16 19.1	-1.5

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*ISK **06** 10:18:47.7, 37°.25N×28°.16E, h5km, MD2.6*

*ISCJB **06** 10:18:48.6±0.5, 37°.27N±0°.03×28°.17E±0°.04, h10km, Error ellipse: s-maj=5.4km s-min=3.5km az=28.8*

*CSEM **06** 10:18:49.0±0.2, 37°.26N×28°.17E, h2km, MD2.6, Error ellipse: s-maj=3.9km s-min=2.9km az=19.0*

*DDA **06** 10:18:49.1, 37°.28N×28°.15E, h7km±3km, Md2.4*

ISC 06 10:18:49.3±0.6**, 37°.28N**±0°.04×**28°.18E**±0°.04**, h2**km±17km**, n22, σ0ˢ.89**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YER	Yerkesik	0.17	150	PG	Pg	10 18 51.3	-1.2
YER				*e*SG	Sg	10 18 53.9	-0.8
YER	Yerkesik	0.17	150	*i* Pg	Pg	10 18 51.3	-1.2
YER				*e*Sg	Sg	10 18 53.9	-0.8
MLSB	Milas	0.32	273	*e*PG	Pg	10 18 55.2	-0.3
MLSB	Milas	0.32	273	*e*Pg	Pg	10 18 55.2	-0.2
AYDN	Tasoluk	0.45	328	*i* P	Pg	10 18 58.4	+0.5
AYDN				*i* S	Sg	10 19 04.1	+0.4
AYDN	Tasoluk	0.45	328	*i* P	Pg	10 18 58.4	+0.5
AYDN				*i* S	Sg	10 19 04.1	+0.4
BDRM	Kayabasi	0.62	250	*i* P	Pg	10 19 00.3	-1.0
BDRM				*i* S	Sg	10 19 10.4	+1.0
BDRM	Kayabasi	0.62	250	*i* P	Pg	10 19 00.3	-0.9
BDRM				*i* S	Sg	10 19 10.4	+1.1
DALT	Dalyan (Mudla)	0.63	144	*e*PG	Pg	10 19 00.9	-0.5
DALT				*e*SG	Sg	10 19 11.2	+1.7
DALT	Dalyan (Mudla)	0.63	144	*e*Pg	Pg	10 19 00.9	-0.4
DALT				*e*Sg	Sg	10 19 11.2	+1.7
BODT	Bodrum	0.73	253	*e*PG	Pg	10 19 02.7	-0.5
BODT				*e*SG	Sg	10 19 13.2	+0.6
BODT	Bodrum	0.73	253	*e*Pg	Pg	10 19 02.7	-0.5
BODT				*e*Sg	Sg	10 19 13.2	+0.6
DAT	Datca	0.73	221	*e*PG	Pg	10 19 02.7	-0.6
DAT	Datca	0.73	221	*e*Pg	Pg	10 19 02.7	-0.6
DENT	Denizli	0.83	55	*e*PG	Pg	10 19 05.0	-0.1
DENT	Denizli	0.83	55	*e*Pg	Pg	10 19 05.1	-0.1
FETY	Fethiye	0.97	131	*e*PG	Pg	10 19 07.8	-0.1
FETY	Fethiye	0.97	131	*e*Pg	Pg	10 19 07.8	-0.1
KHAL	Karahalli	1.51	43	*i* P	Pn	10 19 17.1	-0.2
KHAL	Karahalli	1.51	43	*i* P	Pn	10 19 17.1	-0.2
AKAS	Kas	1.55	132	*i* P	Pg	10 19 18.1	-0.9
AKAS				*i* S	Sg	10 19 41.5	+2.4
AKAS	Kas	1.55	132	*i* P	Pg	10 19 18.1	-0.9
AKAS				*i* S	Sg	10 19 41.5	+2.4

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*IDC **06** 10:19:52.4±1.4, 1°.18N×97°.11E, h0km, mb3.7/6, mb1 3.7/8, mb1mx3.6/24, mbtmp3.6/8, ML2.8/1, Error ellipse: s-maj=35.2km s-min=21.3km az=57.0*

*ISCJB **06** 10:19:55.5±1.0, 1°.2N±0°.1×97°.1E±0°.1, h33km, mb3.7/6, Error ellipse: s-maj=16.3km s-min=12.8km az=44.7*

*NEIC **06** 10:19:59.0±8.1, 1°.24N×97°.24E, h45km±61km, Error ellipse: s-maj=88.8km s-min=12.1km az=58.0*

ISC 06 10:19:57.8±1.0**, 1°.2N**±0°.1×**97°.2E**±0°.1**, h35**km**, n9, σ0ˢ.42**/10**, mb3.7**/6**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSI	Prapat	2.34	47	Pn	Pn	10 20 33.2	-0.7
	2.1nm,0.3s,baz=119,slow=21,SNR=7.6						
PSI				Sn	Sn	10 21 01.5	0.0
	1.9nm,0.3s,baz=268,slow=17,SNR=5.6						
KULM	Kulim	5.32	40	*e*Pn	Pn	10 21 15.1	+0.2
CMAR	Chiang Mai Arr	17.23	6	P	Pn	10 23 56.7	+0.9
	baz=201,slow=13,SNR=5.2						
WRA	Warramunga Arr	42.04	122	P	P	10 27 46.6	+0.2
	0.5nm,0.6s,mb3.3,baz=301,slow=9.1,SNR=5.1						
ASAR	Alice Springs	43.40	127	P	P	10 27 57.5	+0.2
	0.2nm,0.6s,mb3.0,baz=299,slow=8.0,SNR=4.1						
SONM	Songino Array	47.12	8	P	P	10 28 26.4	-0.1
	1.1nm,0.8s,mb3.9,baz=192,slow=9.2,SNR=5.3						
MKAR	Makanchi Array	47.23	346	P	P	10 28 27.5	+0.2
	0.8nm,0.5s,mb3.9,baz=138,slow=8.2,SNR=11						
ZALV	Zalesovo Beam	53.55	351	P	P	10 29 14.7	-0.3
	1.2nm,0.4s,mb4.2,baz=182,slow=6.3,SNR=8.8						
BVAR	Borovoye Array	56.24	341	P	P	10 29 33.9	-0.6
	0.5nm,0.5s,mb3.9,baz=148,slow=7.0,SNR=4.5						

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*ISCJB **06** 10:49:40.6±0.7, 36°.98N±0°.03×29°.19E±0°.03, h1km±7km, Error ellipse: s-maj=5.4km s-min=4.0km az=6.1*

*CSEM **06** 10:49:40.9±0.1, 36°.97N×29°.18E, h5km, MD3.3, Error ellipse: s-maj=2.8km s-min=2.5km az=17.0*

*DDA **06** 10:49:40.5, 36°.98N×29°.21E, h7km±5km, Md3.4*

*ISK **06** 10:49:40.4, 36°.96N×29°.19E, h6km, MD3.3*

*ATH **06** 10:49:49.4, 36°.20N×28°.92E, h5km, MD3.3/3*

ISC 06 10:49:41.2±0.5**, 36°.97N**±0°.03×**29°.17E**±0°.03**, h6**km±6km**, n60, σ0ˢ.73**/73**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	191	PG	Pg	10 49 47.0	-0.9
FETY				*e*SG	Sg	10 49 52.6	+0.2
FETY	Fethiye	0.34	191	*i* Pg	Pg	10 49 47.1	-0.8
FETY				*e*Sg	Sg	10 49 52.6	+0.2
TURN	Turunc	0.47	258	*i* P	Pg	10 49 55.4	+5.2
TURN				*i* S	Sg	10 50 06.3	+10
DALT	Dalyan (Mudla)	0.47	245	PG	Pg	10 49 50.3	-0.1
DALT				*e*SG	Sg	10 49 57.8	+1.3
DALT	Dalyan (Mudla)	0.47	245	*i* Pg	Pg	10 49 50.3	-0.1
DALT				*e*Sg	Sg	10 49 57.8	+1.3
ELL	Elmali	0.64	111	*e*PG	Pg	10 49 52.0	-1.4
ELL				*e*SG	Sg	10 50 02.1	+0.4
ELL	Elmali	0.64	111	*e*Pg	Pg	10 49 52.0	-1.4
ELL				*e*Sg	Sg	10 50 02.1	+0.4
YER	Yerkesik	0.73	283	*e*PG	Pg	10 49 55.4	+0.2
YER	Yerkesik	0.73	283	*e*Pg	Pg	10 49 55.4	+0.2
DENT	Denizli	0.79	352	*e*PG	Pg	10 49 56.2	-0.2
DENT	Denizli	0.79	352	*e*Pg	Pg	10 49 56.2	-0.2
AKAS	Kas	0.82	154	*i* P	Pg	10 49 56.1	-0.8
AKAS				*i* S	Sg	10 50 09.1	+1.5
AKAS	Kas	0.82	154	*i* P	Pg	10 49 56.1	-0.8
AKAS				*i* S	Sg	10 50 09.1	+1.6
KSL	Kastellorizon	0.89	158	*e*PB	Pb	10 50 00.0	+1.0
ARG	Arkhangelos	1.13	228	*e*PB	Pb	10 50 02.1	-1.0
ARG	Arkhangelos	1.13	228	*e*Pb	Pb	10 50 02.1	-1.0
MLSB	Milas	1.16	287	*e*PN	Pn	10 50 03.4	-0.6
MLSB	Milas	1.16	287	*e*Pn	Pn	10 50 03.4	-0.5
ANTB	Antalya	1.19	93	*e*PN	Pn	10 50 03.1	-1.3
ANTB	Antalya	1.19	93	*e*Pn	Pn	10 50 03.1	-1.3
BCK	Bucak	1.23	66	*e*PN	Pn	10 50 04.1	-0.9
BCK	Bucak	1.23	66	*e*Pn	Pn	10 50 04.1	-0.9
AYDN	Tasoluk	1.24	304	*i* P	Pg	10 50 04.3	-0.6
AYDN				*i* S	Sg	10 50 21.7	+0.7
AYDN	Tasoluk	1.24	304	*i* P	Pg	10 50 04.3	-0.7
AYDN				*i* S	Sg	10 50 21.7	+0.7
DAT	Datca	1.30	260	*e*PN	Pn	10 50 05.9	0.0
DAT	Datca	1.30	260	*e*Pn	Pn	10 50 05.9	0.0
ISP	Isparta	1.38	50	*e*PN	Pn	10 50 06.6	-0.3
ISP	Isparta	1.38	50	*e*Pn	Pn	10 50 06.6	-0.3
KHL	Karahalli	1.38	12	*e*PN	Pn	10 50 07.0	+0.1
KHL	Karahalli	1.38	12	*e*Pn	Pn	10 50 07.0	+0.1
KHAL	Karahalli	1.42	10	*i* P	Pn	10 50 07.3	-0.2
KHAL				*i* S	Sb	10 50 26.6	+0.2
KHAL	Karahalli	1.42	10	*i* P	Pn	10 50 07.3	-0.2
KHAL				*i* S	Sb	10 50 26.6	+0.2
BODT	Bodrum	1.49	274	*e*PN	Pn	10 50 08.8	+0.3
BODT	Bodrum	1.49	274	*e*Pn	Pn	10 50 08.8	+0.3
KULA	Kula-Manisa	1.59	345	*e*PN	Pn	10 50 10.3	+0.4
KULA	Kula-Manisa	1.59	345	*e*Pn	Pn	10 50 10.3	+0.4
GCAM	G?zelcaml?	1.70	296	*i* P	Pn	10 50 11.5	+0.1
GCAM	G?zelcaml?	1.70	296	*i* P	Pn	10 50 11.5	0.0
SHUT	Suhut-Afyon	1.92	34	*e*PN	Pn	10 50 14.1	-0.3
SHUT	Suhut-Afyon	1.92	34	*e*Pn	Pn	10 50 14.1	-0.3
KARP	Karpathos	2.16	229	*e*PB	Pb	10 50 19.2	-1.5
KARP	Karpathos	2.16	229	*e*Pb	Pb	10 50 19.2	-1.5
AKS	Akhisar	2.18	331	*e*PN	Pn	10 50 18.3	+0.3
AKS	Akhisar	2.18	331	*e*Pn	Pn	10 50 18.3	+0.3
BLCB	Balcova	2.20	311	*e*PN	Pn	10 50 18.3	0.0
BLCB	Balcova	2.20	311	*e*Pn	Pn	10 50 18.3	+0.1
HDMB	Hadim	2.66	89	*e*PN	Pn	10 50 25.2	+0.7
HDMB	Hadim	2.66	89	*e*Pn	Pn	10 50 25.2	+0.7
DURS	Dursunbey	2.68	348	*i* P	Pn	10 50 25.0	+0.1
DURS	Dursunbey	2.68	348	*i* P	Pn	10 50 25.0	+0.1
KONT	Konya--Tatoy	2.72	68	*e*PN	Pn	10 50 25.9	+0.5
KONT	Konya--Tatoy	2.72	68	*e*Pn	Pn	10 50 25.9	+0.5
KIZT	Kizilcal	2.87	48	*e*PN	Pn	10 50 27.9	+0.5
KIZT	Kizilcal	2.87	48	*e*Pn	Pn	10 50 28.0	+0.6
NPS	Neapolis	3.35	240	*e*PN	Pn	10 50 38.3	+4.3
NPS	Neapolis	3.35	240	*e*Pn	Pn	10 50 38.3	+4.3
SULT	Sultanhani-AKS	3.66	69	*e*PN	Pn	10 50 39.4	+1.0
SULT	Sultanhani-AKS	3.66	69	*e*Pn	Pn	10 50 39.4	+1.0
IKL	Isikli	3.71	100	*e*PN	Pn	10 50 39.5	+0.5
IKL	Isikli	3.71	100	*e*Pn	Pn	10 50 39.5	+0.5

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*ISCJB **06** 11:00:46.5±1.9, 19°.1S±0°.6×171°.9W±0°.4, h33km, mb4.8/11, Error ellipse: s-maj=91.0km s-min=24.0km az=151.5*

*NEIC **06** 11:00:50.4±2.0, 18°.70S×172°.12W, h45km, mb4.9/6, Error ellipse: s-maj=104.0km s-min=24.0km az=153.0*

*IDC **06** 11:00:54.3±24.0, 18°.41S×173°.52W, h0km, mb4.8/4, mb1 4.9/4, mb1mx4.1/18, mbtmp4.8/4, Error ellipse: s-maj=445.3km s-min=155.9km az=72.0*

ISC 06 11:00:48.8±1.9**, 19°.0S**±0°.6×**171°.9W**±0°.3**, h35**km**, n16, σ1ˢ.08**/16**, mb4.8**/11**, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	20.48	258	*e*P	P	11 05 21.1	-2.6
	5.3nm,0.9s						
EIDS	Eidsvold	34.75	253	*e*P	P	11 07 34.4	-1.6
EIDS	Eidsvold	34.75	253	*e*P	P	11 07 34.9	-1.1
	2.9nm,0.5s,mb4.5						
RMQ	Roma	36.90	251	*e*P	P	11 07 53.9	-0.5
	5.6nm,0.5s,mb4.7						
CTA	Charters Tower	39.35	261	*e*P	P	11 08 14.5	-0.6
	11nm,0.4s,mb4.9						
CTA	Charters Tower	39.35	261	P	P	11 08 14.7	-0.4
	13nm,0.5s,mb5.0,baz=91,slow=10,SNR=28						
CTAO	Charters Tower	39.35	261	*e*P	P	11 08 14.5	-0.6
	14nm,0.5s,mb4.9						
MTSU	Mount Surprise	41.41	264	*e*P	P	11 08 31.9	-0.2
	7.9nm,0.4s,mb4.7						
COEN	Coen	43.26	270	*e*P	P	11 08 48.2	+1.0
COEN	Coen	43.26	270	*e*P	P	11 08 48.1	+0.9
	20nm,0.6s,mb5.0						
STKA	Stephens Creek	43.57	244	P	P	11 08 50.9	+1.2
	1.1nm,0.4s,mb3.9,baz=94,slow=15,SNR=3.7						
ASAR	Alice Springs	50.42	255	P	P	11 09 43.8	+0.6
	13nm,0.7s,mb5.1,baz=92,slow=8.3,SNR=205						
WRAB	Tennant Creek	50.47	260	*e*P	P	11 09 43.8	+0.1
	4.4nm,0.3s,mb5.0						
WRA	Warramunga Arr	50.48	260	P	P	11 09 43.9	+0.2
	6.5nm,0.3s,mb5.2,baz=94,slow=7.5,SNR=239						
KAKA	Kakadu	53.70	268	*e*P	P	11 10 09.8	+2.1
	5.6nm,0.4s,mb4.8						
BOZ	Bozeman (W)	84.37	38	*e*P	P	11 13 16.7	-0.7
	5.7nm,0.6s,mb4.9						

MEX 06 11:05:14.8±0.6**, 16°.20N×90°.71W, h24**km±19km**, MD4.0, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CCIG	Comitan	1.37	274	*i* P	Pn	11 05 35.9	-2.6
CCIG				*i* S	Sn	11 05 52.5	-3.3
TGIG		2.38	284	*i* P	Pn	11 05 50.2	-2.1
TGIG				*i* S	Sn	11 06 17.6	-3.2
PCIG		2.46	259	*i* P	Pn	11 05 51.8	-1.6
PCIG				*i* S	Sn	11 06 18.3	-4.4
CMIG	Matias Romero	4.09	283	*i* P	Pn	11 06 13.3	-2.6
CMIG				*i* S	Sn	11 07 01.8	-1.4
VHO	Vista Hermosa	5.83	279	*e*P	Pn	11 06 39.4	-0.4
VHO				*i* S	Sn	11 07 44.3	-1.8
PNIG	Pinotepa	7.12	273	*e*P	Pn	11 07 01.1	+3.6
PNIG				*i* S	Sn	11 08 11.0	-6.7

NEIC 06 11:13:50.0, 19°.45N×155°.27W, h25km**, MD3.6**(HVO)**, After HVO., Hawaiian Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STCH	Steam Cracks	0.15	114	*e*Pb	Pb	11 13 55.1	0.0
STCH				*e*Sb	Sb	11 13 58.1	-0.4
POHA	Pohakuloa	0.39	321	*e*Pb	Pb	11 13 58.2	-0.3
POHA				*e*Sb	Sb	11 14 03.4	-0.8
HON	Honolulu	3.17	307	*e*Pn	Pn	11 14 35.6	-2.6
HON				*e*Sn	Sn	11 15 09.0	-6.2
KIP	Kipapa	3.23	308	*e*Pn	Pn	11 14 35.9	-3.3
KIP				*e*Sn	Sn	11 15 08.6	-8.4

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*DDA **06** 11:55:51.3, 38°.35N×34°.13E, h7km±2km, Md3.2*

*ISCJB **06** 11:55:53.6±0.5, 38°.39N±0°.04×34°.12E±0°.04, h10km, Error ellipse: s-maj=5.6km s-min=4.6km az=163.3*

*CSEM **06** 11:55:53.0±0.2, 38°.42N×34°.11E, h2km, MD2.7, Error ellipse: s-maj=6.1km s-min=5.1km az=159.0*

*ISK **06** 11:55:53.1, 38°.39N×34°.12E, h6km, MD2.7*

ISC 06 11:55:53.5±0.7**, 38°.42N**±0°.04×**34°.11E**±0°.04**, h3**km±8km**, n21, σ0ˢ.94**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIG	Nigde	0.49	128	*e*PG	Pg	11 56 02.5	-0.6
NIG				*e*SG	Sg	11 56 10.4	+0.9
NIG	Nigde	0.49	128	*e*Pg	Pg	11 56 02.5	-0.5
NIG				*e*Sg	Sg	11 56 10.4	+1.0
SULT	Sultanhani-AKS	0.52	246	*e*PG	Pg	11 56 02.9	-0.6
SULT				*e*SG	Sg	11 56 11.7	+1.5
SULT	Sultanhani-AKS	0.52	246	*e*Pg	Pg	11 56 02.9	-0.6
SULT				*e*Sg	Sg	11 56 11.7	+1.5
AVNT	Avonos	0.69	58	*i* P	Pg	11 56 05.7	-1.0
AVNT				*i* S	Sg	11 56 15.4	-0.2
AVNT	Avonos	0.69	58	*i* P	Pg	11 56 05.7	-1.0
AVNT				*i* S	Sg	11 56 15.4	-0.2
CDAG	Cicekdag	1.22	9	*i* P	Pg	11 56 15.4	-1.6
CDAG				*i* S	Sg	11 56 34.4	+1.5
CDAG	Cicekdag	1.22	9	*i* P	Pg	11 56 15.4	-1.6
CDAG				*i* S	Sg	11 56 34.4	+1.6
KONT	Konya--Tatoy	1.46	252	*e*PN	Pn	11 56 20.1	-0.6
KONT	Konya--Tatoy	1.46	252	*e*Pn	Pn	11 56 20.2	-0.6
YOZ	Yozgat	1.54	37	*e*PN	Pn	11 56 22.3	+0.4
YOZ	Yozgat	1.54	37	*e*Pn	Pn	11 56 22.3	+0.4
KDHN	Kadinhani	1.57	274	*i* P	Pn	11 56 21.2	-1.1
KDHN	Kadinhani	1.57	274	*i* P	Pn	11 56 21.2	-1.1
KOZT	Kozan	1.65	124	*e*PN	Pn	11 56 23.1	-0.3
ELDT	Eldivan	2.14	346	*i* P	Pn	11 56 29.9	-0.3
ELDT				*i* S	Sn	11 57 01.2	+3.9
ELDT	Eldivan	2.14	346	*i* P	Pn	11 56 29.9	-0.2
ELDT				*i* S	Sn	11 57 01.2	+4.0
CTKT	Corum	2.27	13	*i* P	Pn	11 56 32.9	+1.0
CTKT	Corum	2.27	13	*i* P	Pn	11 56 32.9	+1.0
KMRS	Kahramanmaras	2.38	112	*e*PN	Pn	11 56 34.0	+0.5
KMRS	Kahramanmaras	2.38	112	*e*Pn	Pn	11 56 34.0	+0.5

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*NIED **06** 11:57:00, 45°.50N×151°.60E, h5km, Mw4.1 Best double couple: $M_0$1.51000$\times 10^{15}$ NP1:ϕ_s62.00000°, δ80.00000°, λ-93.00000°. NP2:ϕ_s259.00000°, δ11.00000°, λ-73.00000°.*

JMA 06 11:57:35.3±0.5**, 45°.48N×151°.61E, h30**km**, M4.3, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	Nemuro 2	4.70	245	P	Pn	11 58 43.4	-0.8
NEM2				*e*S	Sn	11 59 33.7	-4.0
JRA	Rausu	4.88	254	P	Pn	11 58 48.5	+2.0
JNK	Nakash	5.28	251	P	Pn	11 58 53.0	+1.0
JAK	Akkeshi	5.55	246	P	Pn	11 58 54.9	-0.9
JTKR	Abashiri--Toko	5.69	257	P	Pn	11 58 59.9	+2.2
JAR	Ashorobuto	6.03	252	P	Pn	11 59 03.5	+1.2
JAR				*e*S	Sn	12 00 09.6	-0.7
JMP	Maruseppu	6.06	259	P	Pn	11 59 05.5	+2.7
JOB	Onbets	6.15	248	P	Pn	11 59 04.4	+0.3
JOB				*e*S	Sn	12 00 09.8	-3.6
JKK2	Kamakawa 2	6.52	259	P	Pn	11 59 11.6	+2.5
ASAJ	Asahikawa	6.56	261	P	Pn	11 59 12.1	+2.5
JCH	Churui	6.60	247	P	Pn	11 59 09.8	-0.4
JCH				*e*S	Sn	12 00 19.7	-4.6
JFR	Furan	6.87	253	P	Pn	11 59 16.0	+2.1
JEM	Erimo	7.03	243	*e*S	Sn	12 00 29.7	-5.3
JNBK	Urakawa-nobuka	7.15	247	P	Pn	11 59 17.0	-0.8
JBT2	Biratori 2	7.18	251	P	Pn	11 59 18.6	+0.4
JBT2				*e*S	Sn	12 00 35.3	-3.3
JNB	Noboribetsu	8.20	252	P	Pn	11 59 32.5	+0.4
JNB				*e*S	Sn	12 01 00.2	-3.4
JKB	Kayabe	8.46	249	P	Pn	11 59 35.2	-0.6
JYM2	Yakumo 2	8.80	252	P	Pn	11 59 40.4	+0.1
JANG	Nango	8.99	239	P	Pn	11 59 40.1	-2.9
JANG				*e*S	Sn	12 01 12.1	-11
JTM	Tenmabayashi	9.02	242	P	Pn	11 59 40.4	-3.0
JTM				*e*S	Sn	12 01 14.5	-9.4
JTH	Tanohata	9.06	236	*e*S	Sn	12 01 11.8	-13
JOSM	Okushiri--Mats	9.41	253	P	Pn	11 59 49.3	+0.6
OFUJ	Ofunato	9.75	233	P	Pn	11 59 50.5	-2.9
OFUJ				*e*S	Sn	12 01 30.2	-12
JRG	Rokugo	10.13	237	P	Pn	11 59 57.1	-1.5
JRG				*e*S	Sn	12 01 42.3	-8.9
JIO	Ouri	10.37	231	*e*S	Sn	12 01 42.7	-14

MAN 06 12:05:02, 12°.49N×123°.71E, h85km**, mb3.9, ML2.7, MS2.3, 1C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMPH	Masbate	0.15	211	⇑*i*P	Pn	12 05 05.8	-8.5
MMPH				*i* S	Sn	12 05 08.4	-15
CNP	Catarman	0.94	89	*e*P	Pn	12 05 21.5	+0.9
CNP				*e*S	Sn	12 05 36.5	+2.0
PVCP	Virac	1.18	22	*e*P	Pn	12 05 24.7	+1.2
AUQP	San Andres	1.30	310	*e*P	Pn	12 05 26.3	+1.3
RCP	Roxas	1.32	226	⇓*e*P	Pn	12 05 27.1	+1.9
RCP				*e*S	Sn	12 05 44.1	+1.3

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*TAP **06** 12:05:52.8, 24°.82N×122°.08E, h6km, ML3.6, C*

*NEIC **06** 12:05:53.7±8.1, 24°.78N×122°.10E, h4km±23km, Error ellipse: s-maj=73.2km s-min=15.5km az=71.0*

*ISCJB **06** 12:05:54.2±0.5, 24°.84N±0°.02×122°.09E±0°.03, h10km, Error ellipse: s-maj=3.8km s-min=2.7km az=175.5*

ISC 06 12:05:54.6±0.5**, 24°.83N**±0°.02×**122°.07E**±0°.03**, h10**km**, n52, σ1ˢ.12**/90**, 1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.19	336	⇓*i*P	Pg	12 05 57.6	-1.1
	baz=335						
TWB1				*e*S	Sg	12 06 01.7	+0.2
	baz=335						
TWC	Suao	0.30	223	P	Pg	12 05 59.4	-1.3
	baz=226						
TWC				*i* S	Sg	12 06 03.3	-1.4
	baz=226						
ILA	Ilan	0.30	258	P	Pg	12 06 00.1	-0.6
	baz=260						
ILA				S	Sg	12 06 05.3	+0.5
	baz=260						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
NWF	**Wu-fen Shan** baz=312	**0.36**	**312**	*i* P	**Pg**	**12 06 01.4**	**-0.3**
NWF	baz=312			S	**Sg**	**12 06 07.2**	**+0.6**
TWE	**Neicheng** baz=255	**0.39**	**254**	P	**Pg**	**12 06 01.2**	**-1.1**
TWE	baz=255			S	**Sg**	**12 06 06.7**	**-0.7**
TWA	**Mucha** baz=278	**0.47**	**289**	P	**Pg**	**12 06 03.4**	**-0.4**
TWA	baz=278			S	**Sg**	**12 06 10.3**	**+0.2**
ENTT	**Nioudou** baz=249	**0.50**	**248**	P	**Pg**	**12 06 03.6**	**-0.7**
ENTT	baz=249			S	**Sg**	**12 06 10.9**	**-0.1**
ENA	**Nanau** baz=219	**0.50**	**217**	*e*P	**Pg**	**12 06 03.7**	**-0.7**
ENA	baz=219			*e*S	**Sg**	**12 06 10.2**	**-0.8**
TAP1	**Taipei** baz=283	**0.54**	**293**	*e*P	**Pg**	**12 06 05.4**	**+0.2**
TAP1	baz=283			*e*S	**Sg**	**12 06 13.6**	**+1.2**
TATO	**Taipei**	**0.55**	**285**	*e*Pg	**Pg**	**12 06 05.0**	**-0.3**
TWY	**Chenhua** baz=316	**0.62**	**316**	*e*P	**Pg**	**12 06 06.5**	**-0.2**
TWS1	**Kuangyinshan** baz=295	**0.65**	**295**	P	**Pg**	**12 06 07.8**	**+0.5**
YHNB	**Yeheng**	**0.65**	**256**	*e*Pg	**Pg**	**12 06 06.4**	**-0.9**
YHNB				*e*Sg	**Sg**	**12 06 13.8**	**-2.1**
NSK	**Sanguang** baz=258	**0.67**	**257**	*e*P	**Pg**	**12 06 06.4**	**-1.2**
NSK	baz=258			*e*S	**Sg**	**12 06 15.0**	**-1.3**
NNS	**Nan Shan** baz=248	**0.75**	**239**	*e*P	**Pg**	**12 06 08.1**	**-0.9**
NNS	baz=248			S	**Sg**	**12 06 17.8**	**-1.0**
NACB	**Ninganchiao**	**0.79**	**214**	*e*Pg	**Pg**	**12 06 08.4**	**-1.4**
NACB				*e*Sg	**Sg**	**12 06 18.0**	**-2.0**
PCYT	**Pengchaiyu** baz=8.0	**0.80**	**360**	*e*P	**Pg**	**12 06 08.9**	**-1.1**
NCU	**National Centr** baz=280	**0.82**	**280**	*e*P	**Pg**	**12 06 10.7**	**+0.3**
TWD	**Chiawan** baz=211	**0.86**	**210**	*e*P	**Pg**	**12 06 10.2**	**-1.1**
TWD	baz=211			*e*S	**Sg**	**12 06 21.6**	**-0.9**
YOJ	**Yonaguni jima** baz=114	**0.93**	**113**	*e*P	**Pg**	**12 06 11.0**	**-1.5**
HWA	**Hwalien** baz=208	**0.95**	**207**	*e*P	**Pg**	**12 06 12.6**	**-0.3**
HWA	baz=208			*e*S	**Sg**	**12 06 25.6**	**+0.3**
NSTT	**Nanjuang** baz=259	**0.99**	**259**	*e*P	**Pg**	**12 06 13.4**	**-0.4**
NSTT	baz=259			*e*S	**Sg**	**12 06 26.7**	**0.0**
HSN	**Hsinchu** baz=286	**1.00**	**269**	*e*P	**Pg**	**12 06 12.0**	**-2.0**
WHF	**Hehuan Shan** baz=228	**1.00**	**227**	P	**Pg**	**12 06 12.9**	**-1.1**
WHF	baz=228			*e*S	**Sg**	**12 06 26.3**	**-0.7**
ESL	**Shilin** baz=211	**1.17**	**210**	*e*P	**Pb**	**12 06 15.2**	**-1.7**
ESL	baz=211			*e*S	**Sb**	**12 06 31.5**	**-0.6**
NSY	**Sanyi** baz=251	**1.26**	**251**	*e*P	**Pn**	**12 06 19.2**	**+0.9**
NSY	baz=251			*e*S	**Sb**	**12 06 36.0**	**+1.2**
TWQ1	**Liyutan** baz=249	**1.28**	**248**	*e*P	**Pn**	**12 06 18.6**	**0.0**
TWQ1	baz=249			*e*S	**Sb**	**12 06 36.5**	**+1.2**
SMLT	**Sun Moon Lake** baz=229	**1.43**	**229**	*e*P	**Pn**	**12 06 19.8**	**-0.8**
SMLT	baz=229			*e*S	**Sn**	**12 06 38.6**	**-0.8**
TYC	**Yuchr** baz=230	**1.44**	**231**	*e*P	**Pn**	**12 06 20.2**	**-0.7**
TYC	baz=230			*e*S	**Sn**	**12 06 40.1**	**+0.3**
TCU	**Taichung** baz=242	**1.44**	**242**	*e*P	**Pn**	**12 06 22.2**	**+1.4**
TCU	baz=242			*e*S	**Sn**	**12 06 42.4**	**+2.5**
SSLB	**Suanglung**	**1.46**	**225**	*e*P	**Pn**	**12 06 21.3**	**+0.3**
SSLB				*e*S	**Sn**	**12 06 40.7**	**+0.6**
EHY	**Hungye** baz=216	**1.49**	**208**	*e*P	**Pn**	**12 06 20.9**	**-0.5**
EHY	baz=216			*e*S	**Sn**	**12 06 40.0**	**-0.8**
WNT	**Mingjian** baz=220	**1.58**	**234**	*e*P	**Pn**	**12 06 24.1**	**+1.4**
WNT	baz=220			*e*S	**Sn**	**12 06 46.2**	**+2.9**
YULB	**Yu-li**	**1.60**	**207**	*e*Pn	**Pn**	**12 06 22.3**	**-0.7**
YULB				*e*Sn	**Sn**	**12 06 46.6**	**+3.0**
TWF1	**Yuli** baz=214	**1.63**	**206**	*e*P	**Pn**	**12 06 23.1**	**-0.3**
TWF1	baz=214			*e*S	**Sn**	**12 06 44.4**	**-0.1**
YUS	**Yu-Shan** baz=226	**1.68**	**218**	*e*P	**Pn**	**12 06 25.1**	**+0.9**
ALS	**Alishan** baz=210	**1.75**	**222**	*e*P	**Pn**	**12 06 26.4**	**+1.3**
CHN5	**Tsauling** baz=224	**1.77**	**226**	*e*P	**Pn**	**12 06 26.4**	**+1.1**
CHN5	baz=224			*e*S	**Sn**	**12 06 51.4**	**+3.5**
WGK	**Gukeng** baz=229	**1.79**	**231**	*e*P	**Pn**	**12 06 26.2**	**+0.6**
WGK	baz=229			*e*S	**Sn**	**12 06 51.7**	**+3.4**
ELDTW	**Lidau** baz=192	**1.90**	**211**	*e*P	**Pn**	**12 06 26.9**	**-0.2**
CHN2	**Minshiung** baz=209	**1.95**	**229**	*e*P	**Pn**	**12 06 29.1**	**+1.3**
CHN4	**Tsaushan** baz=220	**2.00**	**223**	*e*P	**Pn**	**12 06 29.1**	**+0.7**
CHN4	baz=220			*e*S	**Sn**	**12 06 56.5**	**+2.9**
TPUB	**Ta-pu**	**2.02**	**221**	Pn	**Pn**	**12 06 27.9**	**-0.8**
TPUB				*e*Sg	**Sg**	**12 06 59.1**	**-0.3**
STYT	**Tauyuan** baz=204	**2.05**	**216**	*e*P	**Pn**	**12 06 30.4**	**+1.2**
STYT	baz=204			*e*S	**Sn**	**12 06 56.3**	**+1.5**
WTP	**Ta-pu** baz=204	**2.06**	**221**	*e*P	**Pn**	**12 06 30.2**	**+0.8**
WTP	baz=204			*e*S	**Sn**	**12 06 58.1**	**+2.9**
TWK	**Hsinying** baz=220	**2.13**	**223**	*e*P	**Pn**	**12 06 30.9**	**+0.7**
TWK	baz=220			*e*S	**Sn**	**12 07 00.1**	**+3.4**
CHN1	**Nanshi** baz=217	**2.16**	**221**	*e*P	**Pn**	**12 06 32.0**	**+1.3**
CHN1	baz=217			*e*S	**Sn**	**12 07 01.7**	**+4.1**
TWG	**Pinlang** baz=202	**2.20**	**205**	*e*P	**Pn**	**12 06 30.9**	**-0.4**
TWG	baz=202			*e*S	**Sn**	**12 06 58.8**	**+0.3**
SGST	**Jiashian** baz=203	**2.21**	**218**	*e*P	**Pn**	**12 06 34.0**	**+2.6**
SGST	baz=203			*e*S	**Sn**	**12 07 02.1**	**+3.3**
ECL	**Taimali** baz=189	**2.45**	**205**	*e*P	**Pn**	**12 06 35.6**	**+0.9**
SSD	**Sandimen** baz=208	**2.46**	**213**	*e*P	**Pn**	**12 06 36.0**	**+1.2**
TWM1	**Shoushan** baz=211	**2.50**	**217**	*e*P	**Pn**	**12 06 39.6**	**+4.2**

IDC ***06*** *12:43:25.2±1.8, 1°.50N×126°.69E, h0^{km}, mb3.7/4, mb1 3.9/4, mb1mx3.6/18, mbtmp3.7/4, MS3.5/1, Ms1 3.5/1, ms1mx2.4/26, Error ellipse: s-maj=170.0km s-min=20.8km az=66.0*

ISCJB ***06*** *12:43:36.4±1.5, 1°.7N±0°.1×127°.3E±0°.1, h120^{km}±11^{km}, mb3.6/4, Error ellipse: s-maj=28.8km s-min=11.5km az=35.4*

DJA ***06*** *12:43:45, 1°.12N×126°.99E, h74^{km}, MLv4.0/6*

ISC 06 12:43:37.9±1.5**, 1°.7N**±0°.1×**127°.3E**±0°.1**, h116**^{km}±11^{km}**, n11, σ0^{s}57**/11**, mb3.6**/4**, Halmahera**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**0.90**	**177**	P	**Pn**	**12 43 58.2**	**-0.4**
TNTI				S	**Sn**	**12 44 13.7**	**-0.5**
LBMI	**Labuha**	**2.30**	**176**	P	**Pn**	**12 44 15.9**	**+0.9**
MNI	**Manado**	**2.50**	**265**	P	**Pn**	**12 44 17.4**	**-0.1**
MNI				S	**Sn**	**12 44 47.9**	**0.0**
SGSI	**Sangihe**	**2.69**	**318**	P	Px	12 44 31.8	
AAI	**Ambon**	**5.39**	**171**	P	**Pn**	**12 44 57.3**	**+1.1**
KDI	**Kendari**	**7.31**	**220**	P	**Pn**	**12 45 21.9**	**-0.2**
WRA	**Warramunga Arr** 4.0nm,0.5s,mb4.0,baz=340,slow=11,SNR=54	**22.56**	**163**	P	**P**	**12 48 27.8**	**-0.9**
ASAR	**Alice Springs** 0.5nm,0.5s,mb3.2,baz=351,slow=8.2,SNR=13	**25.99**	**166**	P	**P**	**12 48 59.7**	**-0.2**
CTA	**Charters Tower** comp=Z,80nm,18.4s,baz=52,slow=35	**28.50**	**140**	LR	LR	13 00 18.2	
MKAR	**Makanchi Array** 0.5nm,0.6s,mb3.7,baz=116,slow=8.3,SNR=9.9	**59.58**	**326**	P	**P**	**12 53 29.8**	**+0.4**
KURK	**Kurchatov** 0.4nm,0.5s,mb3.5,baz=127,slow=6.7,SNR=4.8	**63.78**	**328**	P	**P**	**12 53 57.3**	**-0.2**

NEIC ***06*** *12:48:28.9±0.5, 6°.11N×93°.95E, mb4.4/4, Error ellipse: s-maj=14.8km s-min=7.6km az=225.0*

IDC ***06*** *12:48:29.8±3.5, 6°.13N×94°.01E, h46^{km}±32^{km}, mb3.9/13, mb1 4.0/15, mb1mx3.8/28, mbtmp3.9/15, ML4.2/2, MS3.3/2, Ms1 3.3/2, ms1mx2.7/37, Error ellipse: s-maj=40.5km s-min=14.3km az=56.0*

ISCJB ***06*** *12:48:30.4±1.5, 6°.21N±0°.09×94°.2E±0°.1, h67^{km}±14^{km}, mb4.1/18, Error ellipse: s-maj=19.8km s-min=11.1km az=140.0*

ISC 06 12:48:31.2±1.6**, 6°.19N**±0°.09×**94°.1E**±0°.1**, h59**^{km}±15^{km}**, h40**^{km}±.4^{km}**:pP-P, n29, σ0^{s}75**/29**, mb4.2**/18**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
BSI	**Banda Aceh**	**1.35**	**121**	⇑*e*P	**Pn**	**12 48 53.0**	**-0.9**
BSI				*e*S	**Sn**	**12 49 10.0**	**-0.9**
PSI	**Prapat** 7.0nm,0.3s,baz=308,slow=9.9,SNR=29	**5.84**	**125**	P	**Pn**	**12 49 56.3**	**+1.0**
PSI	2.2nm,0.3s,baz=315,slow=7.1,SNR=2.0			S	**Sn**	**12 51 02.5**	**+1.4**
PSI	comp=Z,252nm,19.8s,baz=230,slow=41			LR	LR	12 52 35.5	
KULM	**Kulim** 8.6nm,0.6s	**6.55**	**97**	*e*Pn	**Pn**	**12 50 04.0**	**-1.0**
KULM				*e*Sn	**Sn**	**12 51 17.7**	**-0.6**
CMAR	**Chiang Mai Arr** 0.4nm,0.3s,baz=230,slow=14,SNR=3.0	**13.07**	**21**	P	**Pn**	**12 51 35.8**	**+1.7**
POO	**Poona**	**23.26**	**304**	*e*x	pP	12 53 40.0	-7.3
LSA	**Lhasa**	**23.55**	**354**	P	**P**	**12 53 36.9**	**+0.5**
LSA	**Lhasa** 4.5nm,0.4s,mb4.2	**23.55**	**354**	*e*P	**P**	**12 53 36.5**	**+0.1**
AML	**Almayashu** 5.1nm,0.7s,mb4.4	**40.13**	**336**	*e*P	**P**	**12 56 02.2**	**+0.9**
AML				*e*pP	pP	12 56 13.4	-3.0
MK31	**Makanchi Array**	**41.72**	**348**	*e*P	**P**	**12 56 14.2**	**-0.1**
MK31				*e*pP	pP	12 56 25.1	-4.4
MKAR	**Makanchi Array** 3.1nm,0.6s,mb4.1,baz=166,slow=8.0,SNR=40	**41.72**	**348**	P	**P**	**12 56 14.6**	**+0.3**
MKAR	comp=Z,42nm,21.4s,baz=356,slow=40			LR	LR	13 16 08.7	
SONM	**Songino Array** 0.9nm,0.7s,mb3.6,baz=191,slow=7.2,SNR=5.0	**42.80**	**12**	P	**P**	**12 56 22.9**	**-0.2**
SONM	0.6nm,0.6s,baz=216,slow=1.3,SNR=3.6			PcP	PcP	12 58 14.1	+0.7
KURK	**Kurchatov** 4.0nm,0.8s,mb4.4,baz=177,slow=6.9,SNR=31	**46.23**	**346**	P	**P**	**12 56 50.4**	**0.0**
KURK	**Kurchatov**	**46.23**	**346**	P	**P**	**12 56 50.4**	**0.0**
KURK				*e*pP	pP	12 57 01.3	-4.4
WRA	**Warramunga Arr** 2.9nm,0.7s,mb4.3,baz=303,slow=9.2,SNR=31	**47.31**	**124**	P	**P**	**12 56 59.8**	**+0.5**
ZALV	**Zalesovo Beam** 0.5nm,0.3s,mb4.0,baz=161,slow=9.4,SNR=8.5	**48.22**	**353**	P	**P**	**12 57 06.2**	**+0.4**
ASAR	**Alice Springs** 0.7nm,0.4s,mb4.1,baz=302,slow=7.9,SNR=18	**48.86**	**129**	P	**P**	**12 57 11.8**	**+0.5**
AKTK	**Aktyubinsk**	**53.42**	**332**	P	**P**	**12 57 44.6**	**-0.4**
AKTO	**Aktyubinsk** 1.5nm,0.7s,mb4.0,baz=136,slow=6.7,SNR=6.0	**53.42**	**332**	P	**P**	**12 57 44.6**	**-0.4**
BRTR	**Keskin Array B** 1.3nm,0.7s,mb4.1,baz=120,slow=7.0,SNR=7.8	**63.52**	**311**	P	**P**	**12 58 54.4**	**-1.2**
TIXI	**Tiksi** 2.0nm,0.3s,mb4.5	**68.88**	**11**	*e*P	**P**	**12 59 28.6**	**-0.7**
JOF	**Joensuu** 2.0nm,0.5s,mb4.3	**72.36**	**335**	*e*p	**P**	**12 59 49.6**	**-1.0**
KAF	**Kangasniemi** 1.5nm,0.4s,mb4.3	**74.28**	**333**	*e*p	**P**	**13 00 00.9**	**-1.0**
ARCES	**ARCESS Array B** 6.4nm,0.8s,mb4.6,baz=100,slow=6.3,SNR=16	**76.84**	**340**	P	**P**	**13 00 16.4**	**0.0**
GERES	**GERESS Array B** 2.5nm,0.7s,mb4.3,baz=84,slow=5.5,SNR=5.2	**79.07**	**318**	P	**P**	**13 00 29.8**	**+0.6**
HFS	**Hagfors** 1.3nm,0.4s,mb4.2,baz=106,slow=7.9,SNR=7.9	**79.90**	**330**	P	**P**	**13 00 33.2**	**-0.3**
EKA	**Eskdalemuir Ar** 1.2nm,0.6s,mb4.4,baz=99,slow=5.5,SNR=3.6	**89.09**	**325**	P	**P**	**13 01 20.1**	**+0.1**
TORD	**Torodi Ar. Bea** 0.5nm,0.9s,mb3.8,baz=94,slow=4.8,SNR=2.6	**90.97**	**283**	P	**P**	**13 01 30.2**	**+0.6**
PDAR	**Pinedale Array** 0.3nm,0.8s,baz=194,slow=3.1,SNR=3.6	**126.73**	**22**	PKP	PKPdf	13 07 29.0	+0.6
TXAR	**Lajitas Array** 0.2nm,0.5s,baz=284,slow=0.7,SNR=4.8	**140.75**	**25**	PKP	PKPdf	13 07 57.2	+2.2

VIE ***06*** *12:59:53.6±0.2, 46°.04N×13°.58E, h6^{km}±1^{km}, ML1.3/1, Error ellipse: s-maj=1.7km s-min=0.7km az=68.0 13 km ESE of Cividale*

CSEM 06 12:59:54.4±0.2**, 46°.03N**×**13°.64E, h2**^{km}**, ML1.3**/1**, 3C-1D, Error ellipse: s-maj=5.4km s-min=5.1km az=37.0, Austria**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SABO	**M.te Sabotino**	**0.06**	**205**	⇑*i*Pg	Pg	12 59 55.4	-0.1
SABO				*i* Sg	Sg	12 59 56.9	+0.6
SABO	**M.te Sabotino**	**0.06**	**205**	*i* Pg	Pg	12 59 55.4	-0.1
SABO				*i* Sg	Sg	12 59 56.9	+0.6
VOY	**Vojsko**	**0.18**	**90**	*e*Pg	Pg	12 59 57.3	-0.6
VOY				*e*Sg	Sg	13 00 01.3	+1.1
VOY	**Vojsko**	**0.18**	**90**	*e*Pg	Pg	12 59 57.3	-0.6
VOY				*e*Sg	Sg	13 00 01.3	+1.1
VINO	**Villanova**	**0.33**	**312**	⇑*i*Pg	Pg	13 00 00.6	-0.2
VINO				*i* Sg	Sg	13 00 06.5	+1.4
VINO	**Villanova**	**0.33**	**312**	*i* Pg	Pg	13 00 00.6	-0.2
VINO				*i* Sg	Sg	13 00 06.5	+1.4
TRI	**Trieste**	**0.34**	**164**	*e*Pg	Pg	13 00 00.7	-0.1
TRI				*e*Sg	Sg	13 00 07.0	+1.8
TRI	**Trieste**	**0.34**	**164**	*e*Pg	Pg	13 00 00.7	-0.1
TRI				*e*Sg	Sg	13 00 07.0	+1.8
OBKA	**Obir**	**0.79**	**53**	⇑*i*Pg	Pg	13 00 09.8	+0.2
OBKA	3.1nm,0.3s			⇓*i*Sg	Sg	13 00 20.9	+1.1
OBKA	**Obir**	**0.79**	**53**	Pg	Pg	13 00 09.8	+0.2
OBKA	3.1nm,0.3s			Sg	Sg	13 00 20.9	+1.0

ISCJB ***06*** *13:14:57.3±0.4, 48°.36N±0°.05×147°.91E±0°.08, h478^{km}±6^{km}, mb3.6/20, Error ellipse: s-maj=9.2km s-min=7.6km az=135.1*

JMA ***06*** *13:14:58.0±0.5, 47°.82N×148°.37E, h505^{km}, M4.0*

MOS ***06*** *13:14:58.4±0.9, 48°.47N×147°.71E, h485^{km}, mb4.0/5, Error ellipse: s-maj=16.3km s-min=9.6km az=84.7*

BJI ***06*** *13:14:58.0, 48°.50N×147°.70E, h481^{km}, mB4.7/6, mb4.6/8*

NEIC ***06*** *13:14:59.4±0.5, 48°.49N×147°.65E, h481^{km}±6^{km}, mb4.3/5, Error ellipse: s-maj=9.5km s-min=7.1km az=142.0*

IDC ***06*** *13:15:00.0±1.6, 48°.53N×147°.71E, h484^{km}±18^{km}, mb3.1/15, mb1 3.3/18, mb1mx3.2/25, mbtmp3.1/18, Error ellipse: s-maj=13.7km s-min=10.8km az=150.0*

ISC 06 13:14:58.4±0.4**, 48°.40N**±0°.05×**147°.81E**±0°.08**, h472**^{km}±6^{km}**, n82, σ1^{s}17**/91**, mb3.6**/20**, 3C-1D, Sea of Okhotsk**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**3.17**	**179**	⇑*i*PN	**P**	**13 16 05.8**	**-2.6**
KUR				*e*S	**S**	**13 17 02.5**	**-2.7**
KUR	comp=N,50nm,0.5s			pmax	pmax		
KUR	comp=Z,150nm,0.5s			pmax	pmax		
KUR	comp=N,190nm,1.0s			smax			
KUR	comp=E,90nm,1.0s			smax			
YSS	**Yuzh-Sakhalins**	**3.71**	**249**	⇑*i*PN	**P**	**13 16 14.3**	**+1.8**
YSS				*e*S	**S**	**13 17 14.0**	**+1.2**
YSS	comp=Z,30nm,0.8s			pmax	pmax		
YSS	comp=N,50µm,0.8s			smax			
YSS	**Yuzh-Sakhalins**	**3.71**	**249**	*e*P	**P**	**13 16 13.7**	**+1.3**
YUK	**Yuzh-Kuril'sk**	**4.58**	**198**	*e*PN	**P**	**13 16 20.8**	**+0.8**
YUK				*e*S	**S**	**13 17 30.0**	**+3.6**
YUK	comp=N,120nm,0.3s			pmax	pmax		
YUK	comp=Z,180nm,0.3s			pmax	pmax		
YUK	comp=N,290nm,0.5s			smax			
YUK	comp=E,110nm,0.5s			smax			
JRA	**Rausu**	**4.84**	**204**	P	**P**	**13 16 21.9**	**-0.5**
JSE	**Soyaes**	**4.98**	**228**	P	**P**	**13 16 25.1**	**+1.4**
JSE				*e*S	**S**	**13 17 33.7**	**+0.5**
JWK2	**Keihoku**	**5.10**	**235**	P	**P**	**13 16 27.1**	**+2.4**
JWK2				*e*S	**S**	**13 17 36.8**	**+1.6**
JTKR	**Abashiri--Toko**	**5.20**	**213**	P	**P**	**13 16 25.8**	**+0.1**
JTKR				*e*S	**S**	**13 17 35.9**	**-1.0**
NEM2	**Nemuro 2**	**5.24**	**197**	P	**P**	**13 16 23.5**	**-2.7**
NEM2				*e*S	**S**	**13 17 32.4**	**-5.4**
JNK	**Nakash**	**5.28**	**205**	P	**P**	**13 16 25.5**	**-1.0**
JMP	**Maruseppu**	**5.38**	**217**	P	**P**	**13 16 27.5**	**+0.1**
JMP				*e*S	**S**	**13 17 39.6**	**-0.4**
ASAJ	**Asahikawa**	**5.61**	**222**	P	**P**	**13 16 30.3**	**+0.6**
JKK2	**Kamakawa 2**	**5.74**	**220**	P	**P**	**13 16 31.6**	**+0.7**
JAK	**Akkeshi**	**5.83**	**203**	P	**P**	**13 16 29.9**	**-2.0**
JAK				*e*S	**S**	**13 17 42.5**	**-5.7**
JAR	**Ashorobuto**	**5.84**	**210**	P	**P**	**13 16 31.1**	**-0.8**
JOB	**Onbets**	**6.17**	**208**	P	**P**	**13 16 34.1**	**-1.1**
JAB	**Ashibetsu**	**6.26**	**221**	P	**P**	**13 16 36.7**	**+0.6**
JHR	**Hokuryu**	**6.30**	**224**	P	**P**	**13 16 37.3**	**+0.8**
JFR	**Furan**	**6.38**	**217**	P	**P**	**13 16 37.3**	**-0.1**
JCH	**Churui**	**6.58**	**210**	P	**P**	**13 16 37.5**	**-1.9**
JCH				*e*S	**S**	**13 17 54.9**	**-7.1**
JBT2	**Biratori 2**	**6.80**	**216**	P	**P**	**13 16 41.2**	**-0.4**
JNBK	**Urakawa-nobuka**	**7.08**	**212**	P	**P**	**13 16 42.7**	**-1.9**
JEM	**Erimo**	**7.18**	**209**	P	**P**	**13 16 44.4**	**-1.2**
ERM	**Erimo**	**7.18**	**209**	*e*PN	**P**	**13 16 45.8**	**+0.2**
ERM	**Erimo** comp=E,46nm,0.4s	**7.18**	**209**	*e*P	**P**	**13 16 45.5**	**-0.1**
JNB	**Noboribetsu**	**7.61**	**221**	P	**P**	**13 16 49.8**	**-0.2**
PETK	**Petropavlovsk-** comp=E,0.4nm,0.3s,baz=207,slow=7.1,SNR=14	**7.84**	**49**	P	**P**	**13 16 53.2**	**+1.1**
JKB	**Kayabe**	**8.09**	**219**	P	**P**	**13 16 53.7**	**-1.4**
JYM2	**Yakumo 2**	**8.19**	**223**	P	**P**	**13 16 56.1**	**0.0**
PET	**Petropavlovsk**	**8.29**	**52**	*e*PN	**P**	**13 17 00.0**	**+3.1**
HABR	**Khabarovsk**	**8.49**	**275**	*de*PN	**P**	**13 17 01.7**	**+2.5**
HABR				S	**S**	**13 18 38.5**	**0.0**
HABR	comp=Z,31nm,0.9s			pmax	pmax		
HABR	comp=E,38nm,1.6s			pmax	pmax		
HABR	comp=N,8.0nm,0.8s			pmax	pmax		
JTM	**Tenmabayashi**	**9.01**	**215**	P	**P**	**13 17 03.7**	**-1.2**
JANG	**Nango**	**9.20**	**212**	P	**P**	**13 17 06.6**	**-0.4**
JTH	**Tanohata**	**9.48**	**209**	P	**P**	**13 17 09.7**	**-0.3**
OFUJ	**Ofunato**	**10.32**	**208**	P	**P**	**13 17 20.1**	**+1.1**
JRG	**Rokugo**	**10.38**	**213**	P	**P**	**13 17 22.0**	**+2.3**
KLR	**Kul'dur**	**10.63**	**280**	*e*PN	**P**	**13 17 20.0**	**-2.1**
KLR	comp=E,40nm,1.6s			pmax	pmax		
KLR	comp=Z,50nm,1.6s			pmax	pmax		
JIO	**Ouri**	**10.99**	**208**	P	**P**	**13 17 27.5**	**+1.2**
MJAR	**Matsushiro Arr** comp=Z,0.4nm,0.3s,baz=7.6,slow=11,SNR=4.5	**13.80**	**214**	P	**P**	**13 17 57.5**	**+1.2**
YAK	**Yakutsk**	**17.04**	**330**	*e*P	**P**	**13 18 28.7**	**-1.3**
YAK				*e*		13 21 21.7	
YAK	comp=Z,7.0nm,1.0s			pmax	pmax		
YAK	**Yakutsk** comp=Z,12nm,0.6s	**17.04**	**330**	*e*P	**P**	**13 18 29.0**	**-1.0**
KSRS	**Korea Array**	**18.16**	**240**	*e*P	**P**	**13 18 43.2**	**+1.5**
KSRS	**Korea Array** comp=Z,0.2nm,0.3s,baz=48,slow=10.0,SNR=9.0	**18.16**	**240**	P	**P**	**13 18 43.0**	**+1.4**
BILL	**Bilibino**	**21.78**	**19**	⇑*e*P	**P**	**13 19 14.5**	**+0.3**
BILL				*e*S	**S**	**13 22 38.7**	**-2.8**
BILL	comp=Z,2.0nm,0.8s,mb3.7			pmax	pmax		
TIXI	**Tiksi**	**24.92**	**346**	*e*P	**P**	**13 19 42.1**	**-0.1**
TIXI	comp=Z,2.0nm,1.0s,mb3.5			pmax	pmax		
TIXI	**Tiksi** comp=Z,1.4nm,0.3s,mb3.9	**24.92**	**346**	*e*P	**P**	**13 19 41.7**	**-0.6**
SONM	**Songino Array** comp=Z,0.8nm,0.6s,mb3.3,baz=70,slow=7.9,SNR=6.7	**27.42**	**285**	P	**P**	**13 20 05.1**	**+0.5**
KDAK	**Kodiak Island**	**35.88**	**52**	P	**P**	**13 21 17.3**	**+0.3**
ZALV	**Zalesovo Beam** comp=Z,0.7nm,0.3s,baz=64,slow=3.5,SNR=5.1	**38.72**	**303**	PcP	PcP	13 23 40.2	-0.1
MK31	**Makanchi Array**	**42.99**	**294**	*e*P	**P**	**13 22 14.0**	**-0.6**
MKAR	**Makanchi Array**	**42.99**	**294**	P	**P**	**13 22 14.4**	**-0.2**
MKAR						13 23 54.4	
MKAR	**Makanchi Array** comp=Z,0.3nm,0.4s,mb3.0,baz=62,slow=6.7,SNR=5.4	**42.99**	**294**	P	**P**	**13 22 14.4**	**-0.2**
MKAR	comp=Z,0.1nm,0.3s,baz=69,slow=4.0,SNR=3.6			PcP	PcP	13 23 54.4	-0.1
MKAR	comp=Z,0.3nm,0.7s,baz=70,slow=5.6,SNR=3.5			ScP	ScP	13 26 58.0	-2.0
MKAR	**Makanchi Array**	**42.99**	**294**	P	**P**	**13 22 14.4**	**-0.2**
MKAR				PcP	PcP	13 23 54.4	-0.1
MKAR				ScP	ScP	13 26 58.0	-2.0
KURK	**Kurchatov**	**43.45**	**300**	P	**P**	**13 22 18.7**	**+0.6**
KURK						13 23 56.2	
KURK	comp=Z,1.0nm,0.6s,mb3.4			pmax	pmax		
KURK	**Kurchatov** comp=Z,0.4nm,0.4s,mb3.2,baz=69,slow=8.3,SNR=3.9	**43.45**	**300**	P	**P**	**13 22 18.7**	**+0.6**
KURK	comp=Z,0.9nm,0.6s,baz=72,slow=3.1,SNR=4.4			PcP	PcP	13 23 56.1	+0.1
KURK	**Kurchatov**	**43.45**	**300**	*e*P	**P**	**13 22 18.1**	**-0.1**
KURK				PcP	PcP	13 23 56.1	+0.1
BVAR	**Borovoye Array** comp=Z,0.5nm,0.4s,mb3.3,baz=62,slow=8.9,SNR=5.7	**47.01**	**306**	P	**P**	**13 22 46.0**	**+0.5**
BVAR	comp=Z,0.6nm,0.5s,baz=48,slow=2.2,SNR=4.3			PcP	PcP	13 24 08.5	-0.1
RES	**Resolute Bay**	**50.39**	**18**	*e*P	**P**	**13 23 09.6**	**-0.8**
RES	comp=Z,6.0nm,0.8s,mb4.0			pmax	pmax		
RES	**Resolute Bay** comp=Z,6.1nm,0.8s,mb4.0	**50.39**	**18**	*e*P	**P**	**13 23 09.6**	**-0.8**
YKA	**Yellowknife Ar** comp=Z,1.6nm,0.5s,mb3.6,baz=303,slow=7.1,SNR=38	**51.72**	**36**	P	**P**	**13 23 20.1**	**-0.1**
YKA	comp=Z,0.3nm,0.4s,baz=308,slow=3.9,SNR=10			PcP	PcP	13 24 26.0	+0.3
KEV	**Kevo**	**54.54**	**338**	*e*P	**P**	**13 23 36.1**	**-4.2**
KEV	comp=Z,16nm,1.1s,mb4.3			pmax	pmax		
KEV	**Kevo** comp=Z,16nm,1.1s,mb4.3	**54.54**	**338**	*e*p	**P**	**13 23 36.1**	**-4.2**
ARCES	**ARCESS Array B** comp=Z,4.4nm,0.9s,mb3.8,baz=35,slow=7.3,SNR=9.6	**55.06**	**339**	P	**P**	**13 23 43.7**	**-0.3**
ARCES	**ARCESS Array B**	**55.06**	**339**	P	**P**	**13 23 43.7**	**-0.3**
JOF	**Joensuu**	**58.21**	**331**	*e*P	**P**	**13 24 04.2**	**-1.6**
JOF	comp=Z,3.0nm,0.5s,mb3.9			pmax	pmax		
JOF	**Joensuu** comp=Z,2.8nm,0.5s,mb3.9	**58.21**	**331**	*e*p	**P**	**13 24 04.2**	**-1.6**
KAF	**Kangasniemi**	**60.38**	**333**	*e*p	**P**	**13 24 18.9**	**-1.5**
FFC	**Flin Flon**	**61.72**	**38**	*i* P	**P**	**13 24 29.8**	**+0.5**
NVAR	**Mina Array Bea** comp=Z,1.1nm,0.7s,mb3.6,baz=293,slow=6.0,SNR=7.5	**64.78**	**60**	P	**P**	**13 24 50.8**	**+1.5**
NB2	**NORSAR Subarra** comp=Z,1.5nm,0.4s,mb4.0,baz=28,slow=6.5	**65.44**	**338**	P	**P**	**13 24 52.6**	**-0.5**
NOA	**NORSAR Array B** comp=Z,1.9nm,0.5s,mb4.0,baz=29,slow=6.5,SNR=14	**65.44**	**338**	P	**P**	**13 24 52.8**	**-0.3**
PDAR	**Pinedale Array** comp=Z,2.7nm,0.6s,mb4.1,baz=1.9,slow=0.9,SNR=31	**66.60**	**52**	P	**P**	**13 25 01.8**	**+1.1**
AKASG	**Malin Array Be** comp=Z,1.2nm,0.4s,mb3.9,baz=34,slow=6.7,SNR=3.7	**68.12**	**323**	P	**P**	**13 25 09.1**	**-0.8**
WRA	**Warramunga Arr** comp=Z,0.7nm,0.9s,mb3.2,baz=8.0,slow=5.9,SNR=3.1	**69.09**	**194**	P	**P**	**13 25 16.7**	**+0.6**

ASAR	**Alice Springs**	**72.81**	**193**	P	**P**	**13 25 39.6**	**+1.6**
	comp=Z,0.7nm,0.6s,mb3.4,baz=7.4,slow=5.7,SNR=15						
SCHQ	**Schefferville**	**73.08**	**20**	P	**P**	**13 25 38.5**	**-0.8**
	comp=Z,1.6nm,0.8s,mb3.6,baz=31,slow=12,SNR=3.5						
SCHQ	**Schefferville**	**73.08**	**20**	P	**P**	**13 25 38.5**	**-0.8**
CLL	**Collm**	**73.40**	**332**	*e*P	**P**	**13 25 41.0**	**-0.2**
GERES	**GERESS Array B**	**75.33**	**331**	P	**P**	**13 25 51.4**	**-0.7**
	comp=Z,0.8nm,0.7s,mb3.4,baz=293,slow=1.0,SNR=4.1						
TXAR	**Lajitas Array**	**79.71**	**57**	P	**P**	**13 26 17.6**	**+1.3**
	comp=Z,0.9nm,0.5s,mb3.5,baz=287,slow=3.7,SNR=17						
TORD	**Torodi Ar. Bea**	**111.74**	**324**	PKiKP	PKiKP	13 32 37.9	-1.1
	comp=Z,0.1nm,0.3s,baz=16,slow=2.6,SNR=3.9						
CPUP	**Villa Florida**	**150.49**	**51**	PKPbc	PKPbc	13 33 55.5	-0.3
	comp=Z,0.5nm,0.4s,baz=23,slow=1.4,SNR=3.4						

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*ISK **06** 13:23:30.8, 38°.80N×39°.91E, h6^{km}, MD2.9*
*ISCJB **06** 13:23:31.7±0.6, 38°.75N±0°.02×39°.93E±0°.05, h13^{km}±6^{km}, Error ellipse: s-maj=7.0km s-min=3.9km az=167.6*
*CSEM **06** 13:23:31.3±0.2, 38°.80N×39°.90E, h5^{km}, MD3.2, Error ellipse: s-maj=4.8km s-min=3.6km az=93.0*
*DDA **06** 13:23:33.6, 38°.76N×40°.05E, h12^{km}, Md3.2*
ISC 06 13:23:32.5±0.6**, 38°.75N**±0°.03×**39°.94E**±0°.05**, h17**^{km}±5^{km}**, n26, σ0^s.97**/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.79**	**252**	*i* P	**Pg**	**13 23 46.5**	**-1.4**
ELZG				*i* S	**Sg**	**13 24 02.9**	**+4.6**
ELZG	**Elazig**	**0.79**	**252**	*i* P	**Pg**	**13 23 46.5**	**-1.4**
DIYA	**Diyarbakir**	**0.83**	**170**	*i* P	**Pg**	**13 23 48.4**	**-0.3**
DIYA				*i* S	**Sg**	**13 24 01.1**	**+1.4**
DIYA	**Diyarbakir**	**0.83**	**170**	*i* P	**Pg**	**13 23 48.4**	**-0.3**
DIYA				*i* S	**Sg**	**13 24 01.0**	**+1.3**
DIY	**Diyarbakir**	**0.88**	**165**	*e*PG	**Pg**	**13 23 49.6**	**+0.1**
DIY				*e*SG	**Sg**	**13 24 02.3**	**+1.2**
DIY	**Diyarbakir**	**0.88**	**165**	*e*Pg	**Pg**	**13 23 49.6**	**+0.1**
DIY				*e*Sg	**Sg**	**13 24 02.3**	**+1.2**
EZC	**Erzincan**	**1.01**	**355**	*e*PG	**Pg**	**13 23 51.5**	**-0.5**
EZC				*e*SG	**Sg**	**13 24 05.0**	**-0.1**
KEMA	**Kemaliye**	**1.24**	**295**	*i* P	**Pn**	**13 23 54.3**	**-0.8**
KEMA				*i* S	**Sb**	**13 24 13.7**	**+2.5**
KEMA	**Kemaliye**	**1.24**	**295**	*i* P	**Pn**	**13 23 54.3**	**-0.8**
MYA	**Malataya**	**1.26**	**251**	*e*PN	**Pn**	**13 23 55.2**	**0.0**
MYA	**Malataya**	**1.26**	**251**	*e*Pn	**Pn**	**13 23 55.2**	**-0.1**
MALT	**Malatya**	**1.26**	**250**	*e*PN	**Pn**	**13 23 55.5**	**+0.1**
MALT	**Malatya**	**1.26**	**250**	*e*Pn	**Pn**	**13 23 55.5**	**+0.2**
KOPT	**Kop Dagi**	**1.34**	**19**	*i* P	**Pn**	**13 23 55.4**	**-1.0**
KOPT				*i* S	**Sn**	**13 24 14.6**	**+0.7**
KOPT	**Kop Dagi**	**1.34**	**19**	*i* P	**Pn**	**13 23 55.4**	**-1.0**
KOPT				*i* S	**Sn**	**13 24 14.6**	**+0.7**
BEST	**Besiri**	**1.35**	**129**	*i* P	**Pn**	**13 23 55.3**	**-1.3**
BEST				*i* S	**Sn**	**13 24 13.8**	**-0.3**
MARD	**Mardin**	**1.57**	**155**	*i* P	**Pn**	**13 23 59.6**	**0.0**
MARD				*i* S	**Sn**	**13 24 18.7**	**-0.9**
EZM	**Erzurum**	**1.60**	**43**	*e*PN	**Pn**	**13 23 59.9**	**-0.1**
ERZM	**Erzurum**	**1.60**	**43**	*i* P	**Pn**	**13 23 58.5**	**-1.5**
ERZM				*i* S	**Sn**	**13 24 22.3**	**+2.0**
ERZM	**Erzurum**	**1.60**	**43**	*i* P	**Pn**	**13 23 58.5**	**-1.5**
ERZM				*i* S	**Sn**	**13 24 22.3**	**+2.0**
GUMT	**Gumushane**	**1.75**	**348**	*e*PN	**Pn**	**13 24 01.9**	**-0.1**
GUMT	**Gumushane**	**1.75**	**348**	*e*Pn	**Pn**	**13 24 02.0**	**0.0**
ESPY	**Espiye-Giresun**	**2.36**	**337**	*e*PN	**Pn**	**13 24 10.5**	**0.0**
ESPY	**Espiye-Giresun**	**2.36**	**337**	*e*Pn	**Pn**	**13 24 10.5**	**+0.1**
AGRB	**Hanur-Agry**	**2.51**	**70**	*e*PN	**Pn**	**13 24 13.6**	**+1.0**
AGRB	**Hanur-Agry**	**2.51**	**70**	*e*Pn	**Pn**	**13 24 13.6**	**+1.1**

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*IDC **06** 13:26:32.3±1.9, 4°.39S×152°.91E, h0^{km}, mb4.0/6, mb1 4.2/6, mb1mx3.8/18, mbtmp4.0/6, Error ellipse: s-maj=65.1km s-min=26.5km az=107.0*
*ISCJB **06** 13:26:34.9±2.3, 4°.5S±0°.2×153°.2E±0°.4, h33^{km}, mb3.9/7, Error ellipse: s-maj=66.0km s-min=21.6km az=14.7*
*NEIC **06** 13:26:36.5±1.4, 4°.48S×153°.18E, h35^{km}, mb4.6/1, Error ellipse: s-maj=48.1km s-min=15.9km az=108.0*
ISC 06 13:26:37.6±2.4**, 4°.5S**±0°.2×**153°.0E**±0°.5**, h35**^{km}**, n11, σ0^s.67**/9**, mb3.9**/7**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	**Tennant Creek**	**23.80**	**228**	*e*P	**P**	**13 31 47.5**	**+0.2**
	15nm,0.8s,mb4.5						
WB2	**Warramunga Arr**	**23.80**	**228**	*e*P	**P**	**13 31 47.6**	**+0.2**
WRA	**Warramunga Arr**	**23.81**	**228**	P	**P**	**13 31 47.5**	**+0.1**
	9.9nm,0.8s,mb4.3,baz=52,slow=9.5,SNR=60						
WRA				PcP	PcP	13 35 30.8	+0.4
	0.6nm,0.6s,baz=49,slow=2.3,SNR=5.4						
ASAR	**Alice Springs**	**26.52**	**222**	P	**P**	**13 32 12.7**	**+0.6**
	1.3nm,0.7s,mb3.6,baz=56,slow=8.2,SNR=18						
STKA	**Stephens Creek**	**29.29**	**200**	P	**P**	**13 32 36.2**	**-0.5**
	1.4nm,0.7s,mb3.8,baz=20,slow=10,SNR=3.6						
FITZ	**Fitzroy Crossi**	**29.99**	**241**	P	**P**	**13 32 42.0**	**-1.1**
	2.8nm,0.8s,mb4.0,baz=149,slow=21,SNR=7.1						
FITZ	**Fitzroy Crossi**	**29.99**	**241**	P	**P**	**13 32 42.8**	**-0.3**
MKAR	**Makanchi Array**	**80.22**	**319**	P	**P**	**13 38 43.5**	**-1.0**
	0.2nm,0.6s,mb3.2,baz=98,slow=7.3,SNR=3.4						
KURK	**Kurchatov**	**83.64**	**322**	P	**P**	**13 39 03.5**	**+1.1**
	0.5nm,0.5s,mb3.9,baz=108,slow=5.7,SNR=3.7						
TOA0	**Torodi Ar. Sit**	**150.40**	**289**	*e*PKPbc	PKPbc	13 46 25.6	-0.8
TORD	**Torodi Ar. Bea**	**150.40**	**289**	PKPbc	PKPbc	13 46 25.4	-1.0
	0.4nm,0.3s,baz=80,slow=1.9,SNR=12						

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*NEIC **06** 13:46:23.1, 18°.06N×102°.49W, h16^{km}, MD4.0(MEX), After MEX.*
MEX 06 13:46:23.1±0.7**, 18°.06N**×**102°.49W, h16**^{km}±33^{km}**, MD4.0, Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMIG	**Aquila**	**0.85**	**286**	*i* P	Pb	13 46 36.3	-3.1
MMIG				*i* S	Sb	13 46 46.9	-3.6
EZ5V		**1.76**	**323**	*e*P	Pn	13 46 50.4	-2.6
EZ5V				*i* S	Sn	13 47 10.7	-4.4
R15V		**1.80**	**308**	*i* P	Pn	13 46 49.4	-4.0
R15V				*i* S	Sn	13 47 10.7	-5.2
MOIG	**Morelia**	**2.03**	**37**	*i* P	Pn	13 46 53.6	-3.0
MOIG				*i* S	Sn	13 47 16.6	-5.0
CAIG	**El Cayaco**	**2.34**	**115**	*i* P	Pn	13 46 57.4	-3.6
CAIG				*i* S	Sn	13 47 24.8	-4.6
ACX	**Acapulco**	**2.73**	**115**	*e*P	Pn	13 47 03.9	-2.3
ACX				*i* S	Sn	13 47 34.4	-4.4
PLIG	**Platanillo**	**2.86**	**83**	*e*P	Pn	13 47 05.9	-2.2
PLIG				*i* S	Sn	13 47 39.4	-2.7
MZVM		**3.29**	**69**	*i* P	Pn	13 47 11.9	-2.1
MZVM				*i* S	Sn	13 47 49.8	-2.9
ANIG	**Ahuacatlan**	**3.54**	**328**	*e*P	Pn	13 47 13.0	-4.4
ANIG				*i* S	Sn	13 47 52.9	-6.2
PTVM	**Pico Tres Padr**	**3.54**	**64**	*e*P	Pn	13 47 15.1	-2.4
PTVM				*i* S	Sn	13 47 54.7	-4.4
PPM	**Popocatepetl**	**3.80**	**74**	*e*P	Pn	13 47 18.7	-2.3
PPM				*i* S	Sn	13 48 01.7	-3.6
IIO	**Organos**	**3.88**	**66**	*e*P	Pn	13 47 19.9	-2.2
IIO				*i* S	Sn	13 48 00.8	-6.5
UTMO	**Huajuapan**	**4.47**	**92**	*e*P	Pn	13 47 29.2	-1.0
UTMO				*i* S	Sn	13 48 18.9	-2.9
PNIG	**Pinotepa**	**4.49**	**111**	*e*P	Pn	13 47 28.8	-1.6
PNIG				*i* S	Sn	13 48 18.7	-3.6
CMIG	**Matias Romero**	**7.32**	**96**	*e*P	Pn	13 48 10.7	+1.4
CMIG				*i* S	Sn	13 49 38.7	+6.5

IDC 06 13:50:01.7±2.2**, 6°.13S**×**129°.95E, h0**^{km}**, mb3.2**/1**, mb1 3.4**/4**, mb1mx3.3**/17**, mbtmp3.2**/4**, ML2.9**/3**, Error ellipse: s-maj=96.8km s-min=27.9km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.62**	**199**	Pn	Pn	13 53 04.7	+2.1
	0.1nm,0.3s,baz=49,slow=11,SNR=2.4						
WRA	**Warramunga Arr**	**14.38**	**163**	Pn	Pn	13 53 25.3	-1.3
	0.1nm,0.3s,baz=342,slow=14,SNR=2.5						
WRA				Sn	Sn	13 55 59.7	-7.3
	0.1nm,0.3s,baz=331,slow=22,SNR=5.1						
ASAR	**Alice Springs**	**17.85**	**168**	P	Pn	13 54 11.0	-0.5
	0.0nm,0.3s,baz=344,slow=9.1,SNR=4.0						
MKAR	**Makanchi Array**	**67.47**	**327**	P	P	14 00 59.5	+0.1
	0.2nm,0.6s,baz=135,slow=7.5,SNR=3.0						

IDC 06 13:51:39.2±52.0**, 15°.48S**×**177°.16W, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/17**, mbtmp3.8**/3**, Error ellipse: s-maj=976.9km s-min=180.0km az=76.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**40.88**	**239**	P	P	13 59 21.5	-1.6
	0.6nm,0.4s,baz=129,slow=6.5,SNR=3.1						
WRA	**Warramunga Arr**	**46.30**	**257**	P	P	14 00 07.9	+0.9
	0.1nm,0.3s,baz=86,slow=8.1,SNR=4.8						
ASAR	**Alice Springs**	**46.64**	**252**	P	P	14 00 09.9	+0.2
	2.0nm,0.5s,baz=89,slow=7.9,SNR=47						

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*IDC **06** 14:01:16.8±1.2, 7°.94S×118°.70E, h0^{km}, mb3.4/4, mb1 3.7/6, mb1mx3.6/19, mbtmp3.5/6, ML3.6/1, Error ellipse: s-maj=85.7km s-min=13.7km az=55.0*
*ISCJB **06** 14:01:18.7±0.8, 8°.21S±0°.08×118°.2E±0°.1, h33^{km}, mb3.5/4, Error ellipse: s-maj=22.0km s-min=9.7km az=158.5*
*NEIC **06** 14:01:18.0±0.7, 8°.16S×118°.14E, h10^{km}, Error ellipse: s-maj=20.7km s-min=9.7km az=71.0*
ISC 06 14:01:20.3±3.1**, 8°.19S**±0°.09×**118°.3E**±0°.2**, h26**^{km}±23^{km}**, n15, σ1^s.06**/18**, mb3.5**/4**, 1D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	**Waingapu**	**2.46**	**127**⇓	*e*P	**Pn**	**14 01 58.6**	**-0.1**
WSI				*e*S	Sn	14 02 06.0	-22
KAPI	**Kappang**	**3.46**	**25**	*e*P	**Pn**	**14 02 12.2**	**-0.4**
FITZ	**Fitzroy Crossi**	**12.16**	**145**	Pn	**Pn**	**14 04 12.1**	**+0.1**
	0.3nm,0.3s,baz=1.3,slow=4.7,SNR=7.8						
FITZ				Sn	**Sn**	**14 06 23.6**	**-3.3**
	0.2nm,0.3s,baz=176,slow=21,SNR=6.3						
FITZ	**Fitzroy Crossi**	**12.16**	**145**	*e*P	**Pn**	**14 04 12.4**	**+0.4**
FITZ				Sn	**Sn**	**14 06 23.6**	**-3.3**
FITZ				*e*S	**Sn**	**14 06 24.0**	**-2.9**
MBWA	**Marble Bar**	**12.97**	**174**	*e*P	**Pn**	**14 04 23.1**	**+0.1**
MBWA				*e*S	**Sn**	**14 06 33.8**	**-13**
WRA	**Warramunga Arr**	**19.43**	**129**	P	**Pn**	**14 05 45.1**	**-1.0**
	0.1nm,0.3s,baz=303,slow=13,SNR=6.9						
WB2	**Warramunga Arr**	**19.44**	**129**	P	**Pn**	**14 05 48.1**	**+1.9**
ASAR	**Alice Springs**	**21.45**	**138**	P	**P**	**14 06 07.3**	**+0.5**
	0.9nm,0.6s,mb3.3,baz=315,slow=9.7,SNR=16						
ASAR				S	**S**	**14 10 04.6**	**+1.0**
	0.5nm,0.9s,baz=312,slow=21,SNR=3.0						
COEN	**Coen**	**25.06**	**105**	*e*P	**P**	**14 06 45.9**	**+3.1**
SONM	**Songino Array**	**56.77**	**350**	P	**P**	**14 11 01.2**	**-0.7**
	0.9nm,1.0s,mb3.7,baz=193,slow=5.9,SNR=3.9						
MKAR	**Makanchi Array**	**63.43**	**333**	P	**P**	**14 11 48.1**	**+0.4**
	0.1nm,0.6s,mb3.1,baz=142,slow=7.3,SNR=4.8						
MKAR	**Makanchi Array**	**63.43**	**333**	P	**P**	**14 11 48.1**	**+0.4**
ZALV	**Zalesovo Beam**	**68.04**	**339**	P	**P**	**14 12 17.0**	**-0.3**
	0.5nm,0.5s,mb3.8,baz=141,slow=4.8,SNR=3.1						
CPUP	**Villa Florida**	**145.43**	**187**	PKPbc	PKPbc	14 20 57.5	+0.7
	0.6nm,0.4s,baz=157,slow=7.7,SNR=4.0						
CPUP	**Villa Florida**	**145.43**	**187**	PKPbc	PKPbc	14 20 57.5	+0.7
CPUP				*e*PKP	PKPdf	14 20 58.0	+1.1

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*IDC **06** 14:07:17.4±1.6, 9°.00S×116°.96E, h0^{km}, mb3.7/7, mb1 3.9/8, mb1mx3.8/19, mbtmp3.8/8, ML3.1/1, MS3.7/1, Ms1 3.7/1, ms1mx2.6/28, Error ellipse: s-maj=88.7km s-min=19.4km az=58.0*
*ISCJB **06** 14:07:22.2±0.9, 8°.2S±0°.1×118°.1E±0°.2, h33^{km}, mb3.8/7, Error ellipse: s-maj=25.6km s-min=10.2km az=149.4*
*NEIC **06** 14:07:25.2±2.5, 8°.12S×118°.26E, h38^{km}±22^{km}, Error ellipse: s-maj=37.1km s-min=10.9km az=67.0*
ISC 06 14:07:24.6±0.9**, 8°.2S**±0°.1×**118°.3E**±0°.2**, h35**^{km}**, n14, σ1^s.33**/16**, mb3.8**/7**, 1D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	**Waingapu**	**2.46**	**126**⇓	*e*P	**Pn**	**14 08 03.0**	**+0.8**
WSI				*e*S	**Sn**	**14 08 11.2**	**-20**
KAPI	**Kappang**	**3.52**	**25**	*e*P	**Pn**	**14 08 15.8**	**-1.2**
FITZ	**Fitzroy Crossi**	**12.14**	**145**	Pn	**Pn**	**14 10 13.4**	**-1.8**
	0.1nm,0.3s,baz=303,slow=14,SNR=2.0						
FITZ				Sn	**Sn**	**14 12 27.6**	**-1.9**
	0.1nm,0.3s,baz=185,slow=19,SNR=4.7						
FITZ	**Fitzroy Crossi**	**12.14**	**145**	*e*P	**Pn**	**14 10 18.0**	**+2.8**
FITZ				Sn	**Sn**	**14 12 27.6**	**-1.9**
WRA	**Warramunga Arr**	**19.43**	**128**	P	**Pn**	**14 11 48.5**	**-0.9**
	1.5nm,1.0s,baz=300,slow=12,SNR=4.7						
ASAR	**Alice Springs**	**21.44**	**137**	P	**P**	**14 12 10.9**	**+1.0**
	2.3nm,0.7s,mb3.6,baz=308,slow=8.5,SNR=19						
COEN	**Coen**	**25.08**	**105**	*e*P	**P**	**14 12 47.5**	**+1.4**
CTA	**Charters Tower**	**29.52**	**116**	LR	LR	14 25 32.2	
	comp=Z,125nm,19.0s,baz=51,slow=36						
STKA	**Stephens Creek**	**31.99**	**141**	P	**P**	**14 13 49.0**	**+1.4**
	2.7nm,1.0s,mb4.0,baz=324,slow=8.5,SNR=2.8						
KSRS	**Korea Array**	**46.34**	**11**	P	**P**	**14 15 53.1**	**+5.9**
	1.3nm,0.9s,mb3.9,baz=185,slow=8.0,SNR=4.3						
SONM	**Songino Array**	**56.81**	**350**	P	**P**	**14 17 06.8**	**+1.4**
	1.3nm,0.9s,mb4.0,baz=163,slow=4.7,SNR=5.4						
MKAR	**Makanchi Array**	**63.45**	**333**	P	**P**	**14 17 50.2**	**-0.7**
	0.2nm,0.6s,mb3.4,baz=148,slow=7.6,SNR=2.8						
ZALV	**Zalesovo Beam**	**68.08**	**339**	P	**P**	**14 18 20.8**	**+0.3**
	0.6nm,0.5s,mb3.9,baz=136,slow=2.6,SNR=3.8						
BVAR	**Borovoye Array**	**73.29**	**332**	P	**P**	**14 18 50.4**	**-1.9**
	0.3nm,0.4s,mb3.6,baz=134,slow=2.0,SNR=3.7						

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*NEIC **06** 14:11:58.0±1.2, 8°.49S×117°.73E, h10^{km}, mb3.6/1, Error ellipse: s-maj=36.9km s-min=15.3km az=62.0*
*IDC **06** 14:11:57.3±2.5, 8°.30S×117°.89E, h0^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.6/19, mbtmp3.6/6, ML3.5/2, Error ellipse: s-maj=166.3km s-min=21.5km az=57.0*
*ISCJB **06** 14:11:58.3±1.0, 8°.65S±0°.08×117°.7E±0°.1, h33^{km}, mb3.6/4, Error ellipse: s-maj=20.5km s-min=10.5km az=166.3*
ISC 06 14:12:01.1±1.0**, 8°.60S**±0°.08×**117°.9E**±0°.1**, h35**^{km}**, n11, σ1^s.21**/14**, mb3.6**/4**, 1D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	**Waingapu**	**2.60**	**114**⇓	*e*P	**Pn**	**14 12 38.5**	**-2.2**
WSI				*e*S	Px	14 12 47.2	
FITZ	**Fitzroy Crossi**	**12.07**	**142**	Pn	**Pn**	**14 14 52.0**	**+1.2**
	0.2nm,0.3s,baz=296,slow=9.3,SNR=4.3						
FITZ				Sn	**Sn**	**14 17 01.1**	**-3.1**
	0.1nm,0.3s,baz=237,slow=22,SNR=2.0						
FITZ	**Fitzroy Crossi**	**12.07**	**142**	*e*P	**Pn**	**14 14 51.9**	**+1.1**
FITZ				Sn	**Sn**	**14 17 01.1**	**-3.1**
MBWA	**Marble Bar**	**12.61**	**172**	*e*P	**Pn**	**14 14 58.3**	**+0.2**
MBWA				*e*S	**Sn**	**14 17 16.7**	**-0.6**
WRA	**Warramunga Arr**	**19.50**	**127**	P	**Pn**	**14 16 27.1**	**+0.3**
	0.1nm,0.3s,baz=301,slow=11,SNR=5.4						
WRAB	**Tennant Creek**	**19.50**	**127**	*e*P	**Pn**	**14 16 28.1**	**+1.3**
	2.9nm,0.8s						
ASAR	**Alice Springs**	**21.43**	**136**	P	**P**	**14 16 49.7**	**+3.4**
	1.6nm,0.7s,mb3.5,baz=307,slow=10,SNR=8.9						
COEN	**Coen**	**25.34**	**104**	*e*P	**P**	**14 17 25.4**	**+0.3**
STKA	**Stephens Creek**	**31.95**	**140**	P	**P**	**14 18 28.8**	**+5.0**
	2.1nm,0.7s,mb4.1,baz=320,slow=11,SNR=3.2						
SONM	**Songino Array**	**57.11**	**351**	P	**P**	**14 21 43.8**	**-0.2**
	0.2nm,0.4s,mb3.5,baz=168,slow=7.4,SNR=2.8						
MKAR	**Makanchi Array**	**63.61**	**333**	P	**P**	**14 22 27.7**	**-0.7**
	0.3nm,0.8s,mb3.4,baz=150,slow=7.5,SNR=3.0						

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*CSEM **06** 14:20:18.3, 12°.52N×45°.67E, h10^{km}, ML3.5, After DHMR*
DHMR 06 14:20:18.3±1.0**, 12°.52N**×**45°.67E, h10**^{km}**, ML3.5, Western Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADEN	**Aden**	**0.72**	**291**	*i* P	Pg	14 20 32.6	+0.4
ADEN				AML	AML	14 20 48.0	
	comp=N,1µm,0.3s						
ADEN	**Aden**	**0.72**	**291**	*i* P	Pg	14 20 32.6	+0.4
BDHA	**Al Bayda'**	**1.45**	**356**	*i* P	Pn	14 20 44.7	+0.1
BDHA				*i* S	Sn	14 21 05.6	+2.0
BDHA				AML	AML	14 21 07.8	
	comp=E,1µm,0.5s						
BDHA	**Al Bayda'**	**1.45**	**356**	*i* P	Pn	14 20 44.7	+0.1
BDHA				*i* S	Sn	14 21 05.6	+2.0
	comp=E,620nm,0.5s						
TRBA	**At Turbah**	**1.68**	**295**	*i* P	Pn	14 20 48.0	+0.3
TRBA				*i* S	Sn	14 21 11.6	+2.4
UDYN	**Al 'Udayn**	**2.20**	**311**	*i* P	Pn	14 20 56.4	+1.5
UDYN				*i* S	Sn	14 21 26.0	+3.9
DHBB	**Dhamar BB**	**2.39**	**329**	*i* P	Pn	14 21 00.0	+2.5
DHBB				*i* S	Sn	14 21 32.8	+5.9

DHBB	**Dhamar BB**	**2.39**	**329**	*i* P	Pn	14 21 00.0	+2.5
DHBB				*i* S	Sn	14 21 32.8	+5.9

NEIC 06 14:36:34.4, 37°.83S×**177°.33E, h63**^{km}**, ML4.1**(WEL)**, After WEL., Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WIZ	**White Island**	**0.32**	**340**	P	Pn	14 36 44.6	-0.4
URZ	**Urewera**	**0.46**	**202**	P	Pn	14 36 45.6	-0.6
MWZ	**Matawai**	**0.53**	**163**	P	Pn	14 36 46.4	-0.5
MWZ				S	Sn	14 36 56.5	+0.5
MARZ	**Manawahe**	**0.54**	**253**	P	Pn	14 36 46.9	-0.1
EDRZ	**Edgecumbe**	**0.54**	**239**	P	Pn	14 36 47.1	+0.1
LIRZ	**Lichensteins R**	**0.77**	**257**	P	Pn	14 36 49.8	+0.2
PUZ	**Puketiti**	**0.77**	**109**	P	Pn	14 36 50.2	+0.5
MXZ	**Matakaoa Point**	**0.82**	**71**	P	Pn	14 36 50.7	+0.5
TGRZ	**Tauranga**	**0.85**	**276**	P	Pn	14 36 50.4	-0.3
KARZ	**Kaharoa**	**0.88**	**257**	P	Pn	14 36 50.9	-0.1
KARZ				S	Sn	14 37 04.5	+1.2
KNZ	**Kokohu**	**1.22**	**167**	P	Pn	14 36 55.2	-0.2
TOZ	**Tahuroa Road**	**1.45**	**273**	P	Pn	14 36 58.4	-0.1
BKZ	**Black Stump Fm**	**1.49**	**206**	P	Pn	14 36 58.8	-0.2
RITZ	**Rihia Road**	**1.63**	**225**	P	Pn	14 37 01.3	+0.4
KUZ	**Kuaotunu**	**1.68**	**310**	P	Pn	14 37 01.1	-0.4
MKAZ	**Moumakai**	**1.86**	**292**	P	Pn	14 37 03.8	-0.2
WTVZ	**West Tongariro**	**1.88**	**226**	P	Pn	14 37 04.6	+0.4
NGZ	**Ngauruhoe**	**1.91**	**225**	P	Pn	14 37 05.2	+0.5
TWVZ	**Taurewa**	**1.94**	**230**	P	Pn	14 37 05.2	+0.2
MOVZ	**Moawhango**	**2.00**	**218**	P	Pn	14 37 05.6	-0.3
HIZ	**Hauiti**	**2.07**	**250**	P	Pn	14 37 07.4	+0.6
OTAZ	**Otara**	**2.11**	**294**	P	Pn	14 37 07.9	+0.6
VRZ	**Vera Road**	**2.40**	**237**	P	Pn	14 37 12.0	+0.7
TSZ	**Takapari Road**	**2.47**	**205**	P	Pn	14 37 10.0	-2.3
WAZ	**Wanganui**	**2.66**	**223**	P	Pn	14 37 15.4	+0.6
RAEZ	**Rainy Point**	**2.72**	**237**	P	Pn	14 37 18.2	+2.5
NEZ	**North Egmont**	**2.92**	**239**	P	Pn	14 37 20.8	+2.5
PKE	**Pukeiti**	**2.96**	**242**	P	Pn	14 37 20.3	+1.4
BFZ	**Birch Farm**	**2.97**	**196**	P	Pn	14 37 16.4	-2.7
WCZ	**Waipu Caves**	**3.05**	**307**	P	Pn	14 37 20.4	+0.3
NRZ	**Ngariki Road**	**3.06**	**239**	P	Pn	14 37 14.8	-5.5
MRZ	**Mangatainoka R**	**3.14**	**205**	P	Pn	14 37 18.4	-3.0
KIW	**Kapiti Island**	**3.56**	**211**	P	Pn	14 37 24.4	-2.8
MTW	**Mount Morrison**	**3.61**	**202**	P	Pn	14 37 24.5	-3.4
CAW	**Cannon Point**	**3.71**	**207**	P	Pn	14 37 24.5	-4.7
PAWZ	**Paruwai Farm**	**3.84**	**202**	P	Pn	14 37 27.5	-3.5
MSWZ	**Moikau Station**	**3.92**	**204**	P	Pn	14 37 28.5	-3.6
SNZO	**South Karori**	**4.02**	**209**	P	Pn	14 37 29.9	-3.6
BHW	**Baring Head**	**4.05**	**207**	P	Pn	14 37 30.0	-3.8
TCW	**Tory Channel**	**4.12**	**214**	P	Pn	14 37 31.2	-3.6
NNZ	**Nelson**	**4.56**	**221**	P	Pn	14 37 37.2	-3.6
BSWZ	**Blackbirch Sta**	**4.71**	**213**	P	Pn	14 37 39.7	-3.1
THZ	**Tophouse**	**5.20**	**220**	P	Pn	14 37 45.7	-3.9
KHZ	**Kahutara**	**5.42**	**211**	P	Pn	14 37 47.6	-5.0

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*IDC **06** 15:12:03.7±0.6, 12°.11N×145°.93E, h0^{km}, mb4.2/16, mb1 4.4/16, mb1mx4.3/24, mbtmp4.2/16, MS3.7/10, Ms1 3.7/10, ms1mx3.5/31, Error ellipse: s-maj=19.9km s-min=12.1km az=76.0*
*NEIC **06** 15:12:04.5±4.3, 12°.10N×145°.92E, h6^{km}±26^{km}, mb4.8/13, Error ellipse: s-maj=10.0km s-min=5.0km az=86.0*
*ISCJB **06** 15:12:05.0±0.3, 12°.09N±0°.04×146°.00E±0°.06, h23^{km}, mb4.7/60, MS3.9/17, Error ellipse: s-maj=8.7km s-min=5.8km az=165.2*
*MOS **06** 15:12:06.6±1.0, 12°.12N×145°.98E, h33^{km}, mb4.9/16, Error ellipse: s-maj=14.7km s-min=7.2km az=110.5*
*BJI **06** 15:12:09.2, 12°.61N×145°.60E, h18^{km}, mB5.0/28, mb4.7/44, Ms4.5/26, Ms7 4.2/25*
*DJA **06** 15:12:15, 12°.33N×145°.13E, h32^{km}, mb5.3/8*
ISC 06 15:12:07.5±0.3**, 12°.12N**±0°.04×**145°.97E**±0°.06**, h25**^{km}**, h25**^{km}±1.4^{km}**:pP-P, n98, σ0^s.78**/103**, mb4.7**/60**, MS3.9**/17**, 4C, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.81**	**324**	Pn	**Pn**	**15 12 37.1**	**0.0**
	2µm,0.3s,baz=154,slow=7.8,SNR=622						
GUMO				Sn	**Sn**	**15 12 59.6**	**+0.3**
	2µm,0.3s,baz=38,slow=22,SNR=6.6						
GUMO	**Guam**	**1.81**	**324**⇑	*i*Pn	**Pn**	**15 12 36.9**	**-0.2**
GUMO				*e*Sn	**Sn**	**15 12 59.0**	**-0.3**
MSLP	**Maasin**	**20.81**	**267**	*e*P	**P**	**15 16 47.7**	**+0.5**
BUKP	**Musuan**	**21.02**	**260**	*e*P	**P**	**15 16 50.0**	**+0.5**
GUIM	**Jordan**	**22.97**	**269**	*e*P	**P**	**15 17 11.4**	**+1.0**
TGY	**Tagaytay City**	**24.46**	**277**	P	**P**	**15 17 24.0**	**-0.6**
	83nm,0.3s,mb5.6,baz=326,slow=23,SNR=8.3						
MJAR	**Matsushiro Arr**	**25.30**	**345**	P	**P**	**15 17 30.3**	**-1.8**
	4.1nm,0.8s,mb4.0,baz=177,slow=9.6,SNR=9.0						
MJAR				LR	LR	15 26 35.2	
	comp=Z,155nm,19.2s,MS3.5,baz=140,slow=34						
MAJO	**Matsushiro**	**25.30**	**345**	*e*P	**P**	**15 17 30.9**	**-1.2**
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.4						
MAJO	**Matsushiro**	**25.30**	**345**	*e*P	**P**	**15 17 30.9**	**-1.2**
	comp=Z,6.8nm,0.6s,mb4.3						
MAT	**Matsushiro**	**25.30**	**345**	P	**P**	**15 17 31.5**	**-0.6**
MAT				*e*S	**S**	**15 21 55.0**	**-1.7**
HNR	**Honiara**	**25.52**	**146**	LR	LR	15 26 34.6	
	comp=Z,201nm,19.5s,MS3.6,baz=302,slow=34						
COEN	**Coen**	**26.06**	**186**	*e*P	**P**	**15 17 39.1**	**0.0**
	comp=Z,42nm,0.6s,mb5.1						
SSLB	**Suanglung**	**26.43**	**299**	*e*P	**P**	**15 17 42.0**	**-0.5**
	comp=Z,31nm,0.5s,mb5.1						
KSRS	**Korea Array**	**29.96**	**330**	P	**P**	**15 18 12.8**	**-1.0**
	comp=Z,5.3nm,0.6s,mb4.4,baz=154,slow=8.7,SNR=24						
KSRS				LR	LR	15 29 03.8	
	comp=Z,56nm,20.8s,MS3.2,baz=135,slow=34						
NJ2	**Nanjing**	**31.86**	**313**	*e*P	**P**	**15 18 32.0**	**+1.4**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
CTA	**Charters Tower**	**32.01**	**180**	P	**P**	**15 18 31.9**	**-0.1**
	comp=Z,2.8nm,0.4s,mb4.4,baz=326,slow=3.6,SNR=2.9						
WRAB	**Tennant Creek**	**33.84**	**200**	*e*P	**P**	**15 18 47.3**	**-0.8**
WRAB				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
WRAB	**Tennant Creek**	**33.84**	**200**	*e*P	**P**	**15 18 47.3**	**-0.7**
	comp=Z,4.3nm,0.6s,mb4.6						
WRA	**Warramunga Arr**	**33.86**	**200**	P	**P**	**15 18 48.0**	**-0.2**
	comp=Z,4.1nm,0.8s,mb4.4,baz=26,slow=9.9,SNR=13						
YSS	**Yuzh-Sakhalins**	**34.82**	**356**	*e*P	**P**	**15 18 54.5**	**-1.8**
FITZ	**Fitzroy Crossi**	**36.12**	**214**	P	**P**	**15 19 06.3**	**-1.4**
CN2	**Changchun**	**36.19**	**335**	*e*P	**P**	**15 19 08.5**	**+0.4**
CN2				*e*pP	pP	15 19 18.9	+3.4
CN2				*e*S	**S**	**15 24 47.0**	**+0.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
CN2				LR	LR		
	comp=N,200nm,18.0s,MS4.1						
CN2				LR	LR		
	comp=E,200nm,18.0s,MS4.1						
CN2				LR	LR		
	comp=Z,200nm,19.0s,MS3.9						
ASAR	**Alice Springs**	**37.48**	**198**	P	**P**	**15 19 18.8**	**-0.4**
	comp=Z,0.6nm,0.8s,mb3.5,baz=23,slow=8.6,SNR=10						
BJT	**Baijiatuau**	**38.25**	**322**	*e*P	**P**	**15 19 25.1**	**-0.5**
BJT				*e*	pP	15 19 31.6	-1.5
BJT				pmax	pmax		
	comp=Z,11nm,0.6s						
BJT	**Baijiatuau**	**38.25**	**322**	*e*P	**P**	**15 19 25.1**	**-0.5**
	comp=Z,11nm,0.6s,mb4.8						
BJT				*e*	pP	15 19 31.6	-1.4
BJI	**Beijing**	**38.26**	**322**	P	**P**	**15 19 25.2**	**-0.5**
BJI				PP	PP	15 20 53.6	+0.2
BJI				S	**S**	**15 25 16.3**	**-1.9**
BJI				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.0						
BJI				pmax	pmax		
	comp=Z,56nm,3.9s						
BJI				LR	LR		
	comp=N,240nm,29.4s,MS4.0						
BJI				LR	LR		
	comp=E,220nm,25.3s,MS4.0						
BJI				LR	LR		
	comp=Z,73nm,22.2s,MS3.4						
KLR	**Kul'dur**	**38.83**	**345**	*e*P	**P**	**15 19 24.8**	**-5.5**
GYA	**Guiyang**	**39.57**	**297**	P	**P**	**15 19 37.3**	**+0.4**
GYA				pP	pP	15 19 43.2	-1.2
GYA				sP	sP	15 19 48.4	+1.0
GYA				PP	PP	15 21 12.0	+4.0
GYA				PcP	PcP	15 21 45.3	+1.2

GYA				ScP	ScP	15 25 31.0	-0.5
GYA				S	S	15 25 38.6	+0.1
GYA				sS	sS	15 25 50.8	0.0
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
GYA				pmax	pmax		
	comp=Z,90nm,4.6s						
GYA				LR	LR		
	comp=N,490nm,17.4s,MS4.5						
GYA				LR	LR		
	comp=E,440nm,16.2s,MS4.5						
GYA				LR	LR		
	comp=Z,460nm,17.0s,MS4.4						
XAN	Xi'an	40.15	309	P	P	15 19 40.9	-0.7
XAN				pP	pP	15 19 48.3	-0.8
XAN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
XAN				pmax	pmax		
	comp=Z,54nm,5.5s						
HHC	Hu-ho-hao-te	41.58	320	eP	P	15 19 54.2	+0.9
HHC				pP	pP	15 20 01.3	+0.5
HHC				sP	sP	15 20 05.7	+1.9
HHC				PP	PP	15 21 33.8	+4.2
HHC				PcS	PcS	15 25 41.3	-0.3
HHC				eS	S	15 26 08.3	+0.3
HHC				sS	sS	15 26 20.6	+0.3
HHC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
HHC				pmax	pmax		
	comp=Z,160nm,5.0s						
HHC				LR	LR		
	comp=N,190nm,15.5s,MS4.2						
HHC				LR	LR		
	comp=E,180nm,14.3s,MS4.2						
HHC				LR	LR		
	comp=Z,190nm,13.1s,MS4.2						
PETK	Petropavlovsk-	41.95	11	P	P	15 19 57.3	+1.2
PETK						15 21 48.9	
PETK	Petropavlovsk-	41.95	11	P	P	15 19 57.2	+1.2
	comp=Z,1.2nm,0.5s,mb3.8,baz=162,slow=8.7,SNR=8.7						
PETK				PcP	PcP	15 21 48.9	-2.3
	comp=Z,0.8nm,0.4s,baz=65,slow=16,SNR=8.4						
PETK				LR	LR	15 36 37.0	
	comp=Z,70nm,18.2s,MS3.6,baz=292,slow=35						
KMI	Kunming	42.78	294	P	P	15 20 03.1	-0.2
KMI				pP	pP	15 20 10.6	-0.2
KMI				sP	sP	15 20 13.1	-0.7
KMI				PP	PP	15 21 45.2	+2.4
KMI				S	S	15 26 25.4	-0.7
KMI				sS	sS	15 26 37.7	-0.8
KMI				SS	SS	15 29 30.0	-7.5
KMI				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.1						
KMI				pmax	pmax		
	comp=Z,150nm,3.7s						
KMI				LR	LR		
	comp=N,140nm,11.7s						
KMI				LR	LR		
	comp=E,87nm,17.0s						
KMI				LR	LR		
	comp=Z,110nm,21.7s						
HIA	Hailar	42.92	335	eP	P	15 20 04.3	+0.2
HIA				pmax	pmax		
	comp=Z,21nm,0.9s						
HIA	Hailar	42.92	335	eP	P	15 20 04.3	+0.2
	comp=Z,21nm,0.9s,mb4.9						
CD2	Chengdu	43.18	302	P	P	15 20 06.2	-0.3
CD2				pP	pP	15 20 13.7	-0.3
CD2				sP	sP	15 20 17.0	0.0
CD2				PP	PP	15 21 48.8	+1.8
CD2				PcP	PcP	15 21 56.2	+0.4
CD2				S	S	15 26 30.5	-1.4
CD2				sS	sS	15 26 43.4	-0.9
CD2				SS	SS	15 29 37.6	-7.6
CD2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
CD2				pmax	pmax		
	comp=Z,110nm,9.5s						
CD2				LR	LR		
	comp=N,360nm,4.9s						
CD2				LR	LR		
	comp=Z,240nm,5.5s						
STKA	Stephens Creek	43.95	185	P	P	15 20 11.9	-0.7
	comp=Z,2.3nm,0.7s,mb4.0,baz=8.6,slow=13,SNR=4.2						
STKA				LR	LR	15 38 54.8	
	comp=Z,135nm,18.8s,MS3.9,baz=21,slow=37						
LZH	Lanzhou	44.78	310	eP	P	15 20 20.0	+0.8
LZH				pP	pP	15 20 25.0	-1.8
LZH				sP	sP	15 20 27.5	-2.3
LZH				PP	PP	15 22 05.3	+1.3
LZH				eS	S	15 26 59.1	+4.1
LZH				sS	sS	15 27 09.0	+1.5
LZH				SS	SS	15 30 04.0	-12
LZH				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,100nm,7.1s						
LZH				LR	LR		
	comp=N,700nm,14.6s						
LZH				LR	LR		
	comp=Z,860nm,16.8s,MS4.8						
CMAR	Chiang Mai Arr	45.70	284	P	P	15 20 27.2	+0.4
	comp=Z,2.7nm,0.8s,mb4.2,baz=83,slow=6.2,SNR=14						
CMAR				LR	LR	15 36 55.0	
	comp=Z,41nm,21.6s,MS3.3,baz=92,slow=33						
ULN	Ulaanbaatar	48.19	325	eP	P	15 20 46.3	+0.4
ULN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
ULN	Ulaanbaatar	48.19	325	eP	P	15 20 46.3	+0.5
	comp=Z,6.1nm,0.8s,mb4.7						
SONM	Songino Array	48.54	325	P	P	15 20 49.4	+0.9
	comp=Z,2.7nm,0.6s,mb4.5,baz=134,slow=6.8,SNR=26						
SONM				LR	LR	15 41 50.9	
	comp=Z,96nm,18.6s,MS3.8,baz=154,slow=37						
GTA	Gaotai	48.95	312	eP	P	15 20 52.0	+0.2
GTA				pP	pP	15 20 58.1	-1.3
GTA				sP	sP	15 21 00.4	-2.0
GTA				S	S	15 27 55.7	+1.1
GTA				sS	sS	15 28 07.1	0.0
GTA				SS	SS	15 31 20.2	-5.3
GTA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
GTA				pmax	pmax		
	comp=Z,55nm,6.3s						
GTA				LR	LR		
	comp=N,160nm,11.1s,MS4.4						
GTA				LR	LR		
	comp=E,130nm,11.1s,MS4.4						
GTA				LR	LR		
	comp=Z,98nm,12.6s,MS4.0						
SEY	Seymchan	50.94	4	⇑eP	P	15 21 04.7	-1.8
YAK	Yakutsk	51.20	350	eP	P	15 21 08.0	-0.5
YAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
YAK	Yakutsk	51.20	350	eP	P	15 21 07.9	-0.6
	comp=Z,11nm,0.6s,mb5.0						
ZAK	Zakamensk	51.65	326	⇑eP	P	15 21 12.3	+0.2
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
BOD	Bodaibo	51.66	339	eP	P	15 21 11.8	-0.2
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.3						
TLY	Talaya	52.16	328	eP	P	15 21 16.4	+0.5
TLY				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TLY	Talaya	52.16	328	eP	P	15 21 16.4	+0.5
	comp=Z,6.4nm,0.8s,mb4.6						
LSA	Lhasa	53.62	298	P	P	15 21 28.0	+0.9
TAPN	Taplejung	56.43	295	eP	P	15 21 47.4	0.0
	comp=Z,20nm,0.7s,mb5.3						
ODAN	Odare	56.69	294	eP	P	15 21 48.9	-0.4
	comp=Z,5.9nm,0.5s,mb4.9						
RAMN	Ramite	57.40	294	eP	P	15 21 54.6	+0.3
	comp=Z,16nm,0.7s,mb5.1						
BILL	Bilibino	57.43	9	⇑eP	P	15 21 54.1	+0.4
BILL				eS	S	15 29 41.1	-7.9
BILL				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
BILL				MLR	MLR		
	comp=Z,5µm,22.0s						
JIRN	Jiri	57.80	295	eP	P	15 21 57.6	+0.5
	comp=Z,5.0nm,0.3s,mb5.0						
GUN	Gumba	58.08	295	eP	P	15 21 59.6	+0.5
	comp=Z,12nm,0.4s,mb5.2						
PKIN	Phulchoki	58.50	295	eP	P	15 22 01.2	-0.8
	comp=Z,5.8nm,0.4s,mb4.9						
KKN	Kakani	58.61	295	eP	P	15 22 03.3	+0.6
DMN	Daman	58.76	295	eP	P	15 22 03.8	0.0
	comp=Z,11nm,0.7s,mb5.0						
WMQ	Urumqi	58.92	314	eP	P	15 22 05.6	+1.0
WMQ				pP	pP	15 22 13.0	+0.6
WMQ				sP	sP	15 22 17.0	+1.6
WMQ				PcP	PcP	15 22 54.0	+0.3
WMQ				PP	PP	15 24 20.0	+5.0
WMQ				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
WMQ				pmax	pmax		
	comp=Z,200nm,4.3s						
WMQ				LR	LR		
	comp=N,210nm,28.4s,MS4.2						
WMQ				LR	LR		
	comp=E,140nm,26.5s,MS4.2						
WMQ				LR	LR		
	comp=Z,130nm,19.3s						
GKN	Gorkha	59.19	295	eP	P	15 22 06.1	-0.7
	comp=Z,7.9nm,0.5s,mb5.0						
DANN	Dangsing	59.97	296	eP	P	15 22 11.9	-0.3
	comp=Z,23nm,0.5s,mb5.5						
RPZ	Rata Peaks	60.09	159	P	P	15 22 12.6	0.0
	comp=Z,4.8nm,0.7s,mb4.6,baz=167,slow=19,SNR=4.7						
KOLN	Koldanda	60.09	295	eP	P	15 22 13.1	+0.1
	comp=Z,16nm,0.8s,mb5.1						
TIXI	Tiksi	60.40	354	eP	P	15 22 12.7	-1.6
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.3						
TIXI	Tiksi	60.40	354	eP	P	15 22 14.1	-0.2
	comp=Z,1.0nm,0.3s,mb4.3						
PYUN	Piuthan	60.64	295	eP	P	15 22 16.6	-0.2
	comp=Z,19nm,0.7s,mb5.3						
MK31	Makanchi Array	63.29	316	eP	P	15 22 34.7	+0.5
MK31				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.6						
MKAR	Makanchi Array	63.29	316	P	P	15 22 34.8	+0.6
	comp=Z,1.5nm,0.5s,mb4.4,baz=90,slow=8.2,SNR=38						
ZALV	Zalesovo Beam	63.44	325	P	P	15 22 34.7	-0.4
	comp=Z,1.2nm,0.5s,mb4.3,baz=106,slow=6.6,SNR=8.1						
ZALV				LR	LR	15 53 31.5	
	comp=Z,47nm,18.4s,MS3.7,baz=74,slow=39						
ZALV	Zalesovo Beam	63.44	325	P	P	15 22 34.7	-0.4
ZALV				LR	LR	15 53 31.5	
NVS	Novosibirsk	64.58	325	i P	P	15 22 42.8	+0.3
KDAK	Kodiak Island	64.75	31	i P	P	15 22 45.0	+1.4
KDAK	Kodiak Island	64.75	31	P	P	15 22 44.4	+0.8
	comp=Z,8.1nm,0.8s,mb4.8,baz=305,slow=21,SNR=5.5						
HYB	Hyderabad	65.13	284	i P	P	15 22 47.0	+0.2
HYB	Hyderabad	65.13	284	eP	P	15 22 47.0	+0.2
KURK	Kurchatov	66.39	320	eP	P	15 22 54.1	-0.2
KURK				e		15 23 09.3	
KURK				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
KURK	Kurchatov	66.39	320	eP	P	15 22 54.1	-0.3
	comp=Z,22nm,0.9s,mb5.2						
KURK				e		15 23 09.3	
KSH	Kashi	66.98	308	P	P	15 23 01.9	+3.5
KSH				epP	pP	15 23 09.2	+3.0
KSH				esP	sP	15 23 13.0	+3.8
KSH				ePcP	PcP	15 23 30.1	+3.4
KSH				ePP	PP	15 25 31.5	+5.5
KSH				eScP		15 27 30.3	
KSH				ePcS		15 27 33.1	
KSH				eS	S	15 31 53.1	+2.6
KSH				esS	sS	15 32 06.4	+3.0
KSH				eScS	ScS	15 32 54.2	-0.4
KSH				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
KSH				LR	LR		
	comp=N,210nm,4.6s						
KSH				LR	LR		
	comp=E,220nm,4.9s						
KSH				LR	LR		
	comp=Z,310nm,5.6s						
RC01	Rabbit Creek A	67.14	28	eP	P	15 22 58.7	-0.2
COLD	Coldfoot	68.89	22	eP	P	15 23 10.9	+1.1
	comp=Z,4.7nm,0.8s,mb4.5						
BVA0	Borovoye Array	71.74	322	i P	P	15 23 27.3	-0.2
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
BRVK	Borovoye	71.81	322	eP	P	15 23 27.5	-0.4
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
BRVK	Borovoye	71.81	322	eP	P	15 23 27.5	-0.4
	comp=Z,5.8nm,0.6s,mb4.7						
SVE	Sverdlovsk	77.41	326	eP	P	15 24 01.3	+1.0
SVE				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
YKA	Yellowknife Ar	83.66	27	P	P	15 24 33.8	0.0
	comp=Z,0.8nm,0.7s,mb4.0,baz=287,slow=5.5,SNR=11						
YKA	Yellowknife Ar	83.66	27	P	P	15 24 33.8	0.0
NVAR	Mina Array Bea	86.99	51	P	P	15 24 52.6	+1.6
	comp=Z,0.5nm,0.5s,mb4.0,baz=263,slow=6.5,SNR=3.7						
ARCES	ARCESS Array B	88.80	342	P	P	15 24 59.0	0.0
	comp=Z,3.0nm,0.9s,mb4.6,baz=48,slow=4.0,SNR=5.9						
ARCES				LR	LR	16 11 50.5	
	comp=Z,54nm,18.0s,MS4.0,baz=19,slow=40						
VSR	Storozhevoye	90.90	323	eP	P	15 25 10.6	+1.5
KIV	Kislovodsk	91.03	315	eP	P	15 25 09.0	-0.9
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.8						
NOA	NORSAR Array B	98.79	340	LR	LR	16 09 25.7	
	comp=Z,39nm,20.4s,MS3.9,baz=270,slow=35						
TORD	Torodi Ar. Bea	136.58	304	PKP	PKPdf	15 31 29.9	+1.4
	comp=Z,0.2nm,0.6s,baz=5.3,slow=3.4,SNR=2.5						
LVC	Limon Verde	145.19	112	PKPbc	PKPbc	15 31 44.3	+0.9
	comp=Z,1.7nm,0.6s,baz=340,slow=12,SNR=3.1						
LVC	Limon Verde	145.19	112	PKPbc	PKPbc	15 31 44.3	+0.9
DBIC	Dimbokro	145.50	301	PKPbc	PKPbc	15 31 44.6	-0.1
	comp=Z,4.2nm,0.8s,baz=63,slow=5.7,SNR=5.7						
CPUP	Villa Florida	153.91	126	PKPbc	PKPbc	15 32 05.2	-0.3
	comp=Z,0.2nm,0.3s,baz=150,slow=8.1,SNR=1.9						
CPUP				PKPab	PKPab	15 32 19.9	+1.2
	comp=Z,0.5nm,0.5s,baz=202,slow=5.4,SNR=2.9						

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*NEIC **06** 15:20:33.0±1.0, 24°.41S×179°.95W, h511^{km}±11^{km}, mb4.6/3, Error ellipse: s-maj=13.7km s-min=9.9km az=150.0*

*ISCJB **06** 15:20:33.3±1.5, 24°.37S±0°.07×179°.92E±0°.09, h517^{km}±17^{km}, mb3.8/16, Error ellipse: s-maj=13.4km s-min=11.6km az=176.3*

*IDC **06** 15:20:33.3±1.7, 24°.42S×179°.91E, h510^{km}±17^{km}, mb3.5/15, mb1 3.6/16, mb1mx3.6/20, mbtmp3.4/16, Error ellipse: s-maj=19.1km s-min=11.0km az=153.0*

ISC 06 15:20:33.9±1.2, **24°.46S**±0°.07×**179°.95E**±0°.09, **h515**^{km}±14^{km}, **n56**, σ**0^{s}84**/34, **mb3.8**/16, **5C-1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LASL	Noumea	12.52	278	eP	P	15 23 18.3	+0.3
DZM	Mont Dzumac	12.64	278	eP	P	15 23 19.6	+0.4
DZM	Mont Dzumac	12.64	278	eP	P	15 23 21.0	+1.8
	41nm,0.8s						
AFI	Afiamalu	13.08	38	P	P	15 23 18.0	-6.0
	1.1nm,0.3s,baz=221,slow=22,SNR=2.8						
AFI				S	S	15 25 34.4	-10
	1.6nm,0.3s,baz=90,slow=20,SNR=4.5						
AFI	Afiamalu	13.08	38	P	P	15 23 20.6	-3.4
AFI				S	S	15 25 34.4	-10
URZ	Urewera	13.97	189	P	P	15 23 31.9	-1.0
	0.5nm,0.3s,baz=70,slow=13,SNR=3.5						
URZ				S	S	15 26 00.3	-0.2
	0.5nm,0.3s,baz=120,slow=19,SNR=5.7						
RPZ	Rata Peaks	20.55	199	P	P	15 24 36.6	+0.1
	2.4nm,0.5s,baz=336,slow=21,SNR=3.0						
CTA	Charters Tower	31.43	271	P	P	15 26 13.1	+0.3
	5.5nm,0.5s,mb4.3,baz=92,slow=10,SNR=13						
CTAO	Charters Tower	31.43	271	eP	P	15 26 13.4	+0.6
STKA	Stephens Creek	34.47	249	P	P	15 26 38.3	-0.1
	1.0nm,0.6s,mb3.5,baz=100,slow=10.0,SNR=3.8						
STKA				S	S	15 31 28.6	-1.5
	2.7nm,0.9s,baz=259,slow=10,SNR=3.1						
COEN	Coen	36.16	280	eP	P	15 26 53.8	+1.1
ASAR	Alice Springs	41.90	261	P	P	15 27 39.0	-0.1
	1.2nm,0.6s,mb3.6,baz=98,slow=7.4,SNR=23						
ASAR				PcP	PcP	15 29 22.5	-0.3
	0.7nm,0.8s,baz=120,slow=5.4,SNR=4.3						
ASAR				ScP	ScP	15 32 26.1	+2.1
	1.0nm,0.9s,baz=114,slow=2.2,SNR=5.0						
ASAR				S	S	15 33 18.6	-1.2
	0.8nm,0.8s,baz=102,slow=15,SNR=4.3						
WRAB	Tennant Creek	42.32	267	eP	P	15 27 41.7	-0.7
	2.6nm,0.6s,mb3.9						
WRA	Warramunga Arr	42.32	267	P	P	15 27 41.8	-0.7
	1.0nm,0.5s,mb3.6,baz=91,slow=6.1,SNR=20						
WRA				ScP	ScP	15 32 28.4	+2.6
	3.5nm,0.9s,baz=102,slow=4.1,SNR=12						
WRA				S	S	15 33 21.3	-4.7
	2.7nm,1.1s,baz=103,slow=14,SNR=4.1						
FITZ	Fitzroy Crossi	50.74	266	P	P	15 28 46.2	0.0
	2.7nm,0.9s,mb3.6,baz=101,slow=5.2,SNR=4.2						
QSPA	South Pole Qui	65.62	180	eP	P	15 30 27.9	+1.8
	20nm,1.2s,mb4.5						
MJAR	Matsushiro Arr	72.33	326	P	P	15 31 05.3	-1.8
	1.6nm,0.7s,mb3.6,baz=164,slow=6.7,SNR=4.4						
MJAR	Matsushiro Arr	72.33	326	P	P	15 31 05.3	-1.8
KSRS	Korea Array	78.64	320	P	P	15 31 42.7	+0.5
	1.4nm,0.7s,mb3.4,baz=129,slow=5.4,SNR=7.1						
PETK	Petropavlovsk-	79.63	347	P	P	15 31 46.6	-0.5
	4.7nm,0.7s,mb3.9,baz=118,slow=6.5,SNR=14						
VNA3	Neumayer Olymp	84.32	177	ePKPdf	P	15 32 10.4	-0.5
VNA2	Neumayer--Watz	84.74	178	ePKPdf	P	15 32 13.6	+0.7
	baz=193,slow=4.3						
NVAR	Mina Array Bea	85.19	44	P	P	15 32 15.2	-0.4
	1.3nm,0.7s,mb3.6,baz=222,slow=8.2,SNR=5.9						
CMAR	Chiang Mai Arr	89.67	290	P	P	15 32 37.7	+0.5
	0.6nm,0.3s,mb3.8,baz=128,slow=2.9,SNR=11						
TXAR	Lajitas Array	90.77	58	P	P	15 32 42.9	+0.9
	3.3nm,0.7s,mb4.3,baz=213,slow=6.5,SNR=36						
ANMO	Albuquerque	91.34	52	P	P	15 32 44.6	+0.1
	0.6nm,0.3s,mb4.0,baz=266,slow=9.9,SNR=3.2						
PDAR	Pinedale Array	93.12	44	P	P	15 32 52.1	-0.3
	1.0nm,0.8s,mb3.9,baz=226,slow=2.9,SNR=8.7						
SONM	Songino Array	97.49	319	P	P	15 33 13.2	+1.1
	0.2nm,0.5s,mb3.6,baz=133,slow=4.1,SNR=3.3						
YKA	Yellowknife Ar	100.89	25	P	Pdif	15 33 27.8	+0.4
	0.1nm,0.4s,baz=242,slow=4.5,SNR=3.1						
ZALV	Zalesovo Beam	112.35	320	PKiKP	PKiKP	15 38 08.7	-1.9
	0.5nm,0.4s,baz=220,slow=1.2,SNR=3.7						
MKAR	Makanchi Array	112.49	313	PKiKP	PKiKP	15 38 09.8	-1.3
	0.3nm,0.4s,baz=97,slow=0.8,SNR=10						
MKAR	Makanchi Array	112.49	313	PKPdf	PKiKP	15 38 09.8	-1.3
AML	Almayashu	117.70	306	ePKPdf	PKPdf	15 38 21.6	+0.3
ARCES	ARCESS Array B	132.42	348	PKP	PKPdf	15 38 47.5	-1.1
	1.8nm,0.7s,baz=46,slow=5.2,SNR=12						
NB2	NORSAR Subarra	142.62	351	PKP		15 39 03.2	
	comp=Z,1.1nm,0.6s,baz=11,slow=3.0						
NOA	NORSAR Array B	142.62	351	PKhKP		15 39 02.6	
	comp=Z,3.0nm,0.9s,baz=16,slow=4.7,SNR=5.3						
NACGM	Naroch	143.69	334	e	PKPdf	15 39 05.0	-4.6
AKASG	Malin Array Be	145.41	327	PKPbc	PKPbc	15 39 12.5	-1.4
	comp=Z,4.1nm,0.5s,baz=45,slow=4.0,SNR=21						
BR131	Keskin Array S	147.87	306	ePKPbc	PKPbc	15 39 20.2	-0.7
BR131				ePKPab	PKPab	15 39 25.2	-0.2
BRTR	Keskin Array B	147.87	306	PKPbc	PKPbc	15 39 20.5	-0.5
	comp=Z,2.8nm,0.7s,baz=153,slow=4.4,SNR=18						
TLCR		148.81	319	⇑iP	PKPbc	15 39 23.0	-0.1
EKA	Eskdalemuir Ar	149.08	3	PKPbc	PKPbc	15 39 22.4	-0.9
	comp=Z,2.4nm,0.4s,baz=349,slow=3.0,SNR=14						
BUR08	Bucovina Ar. S	149.39	325	ePKPbc	PKPbc	15 39 24.7	+0.3
BURAR	Bucovina Array	149.40	325	⇓iP	PKPbc	15 39 25.6	+1.2
TIRR	Tirgusor	149.44	318	⇑iP	PKPbc	15 39 24.3	-0.3
HARR	Harsova	149.61	319	⇑iP	PKPbc	15 39 25.0	0.0
OJC	Ojcow	150.02	334	ePX	PKPbc	15 39 25.1	-0.7
STHS	Stebnicka Huta	150.03	332	ePKP	PKPbc	15 39 25.5	-0.4
CRVS	Cervenica-Dubn	150.32	331	ePKP	PKPbc	15 39 26.6	+0.1
CLL	Collm	151.37	343	⇑iPKPbc	PKPbc	15 39 28.4	-0.5
	comp=Z,13nm,0.7s						
CLL				Lm		15 56 00.0	
	comp=N,200nm,18.9s						
CLL				Lm		15 56 00.0	
	comp=E,200nm,18.9s						
CLL				Lm		15 56 00.0	
	comp=Z,300nm,18.5s						
BRG	Berggiesshubel	151.50	341	ePKP	PKPbc	15 39 28.8	-0.4
	comp=Z,8.9nm,0.5s						
GZR	Gura Zlata	152.13	324	⇑iP	PKPbc	15 39 30.1	-0.6
GERES	GERESS Array B	153.36	339	PKPbc	PKPbc	15 39 32.6	-0.7
	comp=Z,0.6nm,0.5s,baz=336,slow=2.2,SNR=4.4						
DAVOX	Davos/Dischmat	156.35	343	PKPab	PKPab	15 40 00.6	-0.3
	comp=Z,2.8nm,0.5s,baz=290,slow=2.2,SNR=4.8						
TORD	Torodi Ar. Bea	168.63	189	PKP	PKPdf	15 39 41.0	-1.1
	comp=Z,1.0nm,0.8s,baz=277,slow=0.9,SNR=5.4						
TORD				PKPab	PKPab	15 40 55.5	+0.1
	comp=Z,1.9nm,0.9s,baz=180,slow=3.5,SNR=8.8						
MDT	Midelt	170.76	25	PKP	PKPdf	15 39 42.3	-0.7
	comp=Z,1.3nm,0.9s,baz=29,slow=2.8,SNR=4.1						

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*SKO **06** 15:46:03.2, 38°.46N×19°.81E, h0^{km}, M3.0, ML4.1*

*IDC **06** 15:46:09.0±1.0, 39°.15N×19°.93E, h0^{km}, mb3.7/8, mb1 3.8/12, mb1mx3.7/27, mbtmp3.7/12, ML3.5/4, Error ellipse: s-maj=22.9km s-min=14.1km az=53.0*

*THE **06** 15:46:10.5, 39°.03N×19°.89E, h2^{km}±1^{km}, ML4.4/8, Error ellipse: s-maj=1.9km s-min=1.0km az=267.0*

*ISCJB **06** 15:46:11.4±0.5, 39°.11N±0°.02×19°.88E±0°.03, h20^{km}±5^{km}, mb3.8/8, Error ellipse: s-maj=3.8km s-min=2.6km az=137.5*

*CSEM **06** 15:46:11.2±0.1, 39°.07N×19°.87E, h10^{km}, ML4.4/8, Error ellipse: s-maj=3.6km s-min=2.1km az=51.0*

*NEIC **06** 15:46:11.2, 39°.03N×19°.99E, h16^{km}, ML3.6(PDG), ML3.6(ATH), After ATH.*

*ATH **06** 15:46:11.2, 39°.03N×19°.99E, h16^{km}, MD3.9/12, ML3.6*

*PDG **06** 15:46:11.1±0.5, 39°.10N×19°.88E, h18^{km}±1^{km}, ML3.6/10, Error ellipse: s-maj=1.2km s-min=2.2km az=0.0*

*PRU **06** 15:46:17.0, 40°.38N×21°.60E, h0^{km}*

*SOF **06** 15:46:45.6, 40°.75N×23°.72E, h10^{km}, MD3.2*

ISC 06 15:46:12.0±0.5, **39°.08N**±0°.02×**19°.92E**±0°.02, **h13**^{km}±3^{km}, **n248**, σ**1^{s}14**/316, **mb3.8**/8, **30C-23D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.55	35	P	Pg	15 46 21.5	-1.3
IGT				S	Sg	15 46 30.8	+0.7
IGT	Igoumenitsa	0.55	35	P	Pg	15 46 21.5	-1.3
IGT				S	Sg	15 46 30.8	+0.7
KEK	Kerkira	0.64	351	ePN	Pg	15 46 24.4	0.0
KEK				eSN	Sg	15 46 34.8	+2.0
KEK	Kerkira	0.64	351	P	Pg	15 46 24.8	+0.4
KEK	Kerkira	0.64	351	ePn	Pg	15 46 24.4	0.0
KEK	Kerkira	0.64	351	P	Pg	15 46 24.8	+0.4
JAN	Janina	0.92	51	ePN	Pg	15 46 28.7	-1.1
JAN				eSN	Sg	15 46 40.7	-1.1
JAN	Janina	0.92	51	P	Pg	15 46 29.0	-0.8
JAN	Janina	0.92	51	ePn	Pg	15 46 28.7	-1.1
JAN	Janina	0.92	51	P	Pg	15 46 29.0	-0.8
JAN				eSn	Sg	15 46 40.7	-1.1
VLS	Valsamata	1.05	150	P	Pg	15 46 28.6	-3.6
VLS				S	Sb	15 46 44.1	-1.5
VLS	Valsamata	1.05	150	ePN	Pg	15 46 30.5	-1.7
VLS				eSN	Sg	15 46 43.7	-2.1
VLS	Valsamata	1.05	150	P	Pg	15 46 31.0	-1.2
VLS	Valsamata	1.05	150	ePn	Pg	15 46 30.5	-1.7
VLS	Valsamata	1.05	150	P	Pg	15 46 31.0	-1.2
VLS				eSn	Sg	15 46 43.7	-2.1
VLS				S	Sb	15 46 44.1	-1.5
MEV	Metsovon	1.23	55	P	Pn	15 46 34.4	-0.5
MEV				S	Sb	15 46 53.6	+2.7
MEV	Metsovon	1.23	55	P	Pn	15 46 34.4	-0.5
MEV				S	Sb	15 46 53.6	+2.7
EVR	Evrytania	1.48	96	ePn	Pn	15 46 38.5	+0.2
EVR				P		15 46 42.8	
EVR	Evrytania	1.48	96	ePn	Pn	15 46 38.5	+0.2
RLS	Riolos of Patr	1.59	130	ePN	Pn	15 46 39.5	-0.3
RLS				eSN	Sn	15 47 01.0	+0.8
RLS	Riolos of Patr	1.59	130	P	Pn	15 46 40.5	+0.7
RLS	Riolos of Patr	1.59	130	ePn	Pn	15 46 39.5	-0.3
RLS	Riolos of Patr	1.59	130	P	Pn	15 46 40.5	+0.7
RLS				eSn	Sn	15 47 01.0	+0.8
THL	Klokotos Trika	1.69	73	P	Pn	15 46 41.7	+0.4
THL				S	Sn	15 47 04.0	+1.2
THL	Klokotos Trika	1.69	73	ePN	Pn	15 46 41.9	+0.6
THL	Klokotos Trika	1.69	73	P	Pn	15 46 41.7	+0.4
THL	Klokotos Trika	1.69	73	ePn	Pn	15 46 41.9	+0.6
THL				S	Sn	15 47 04.0	+1.2
AGG	Agios Georgios	1.88	91	P	Pn	15 46 44.8	+1.0
AGG				S	Sn	15 47 08.4	+1.1
AGG	Agios Georgios	1.88	91	ePN	Pn	15 46 44.8	+1.0
AGG				eSN	Sn	15 47 08.5	+1.2
AGG	Agios Georgios	1.88	91	ePn	Pn	15 46 44.8	+1.0
AGG				eSn	Sn	15 47 08.5	+1.2
KZN	Kozani	1.88	49	ePN	Pn	15 46 45.1	+1.3

KZN				*e*SN	Sn	15 47 09.8	+2.4
KZN	Kozani	1.88	49	P	Pn	15 46 48.1	+4.3
KZN	Kozani	1.88	49	*e*Pn	Pn	15 46 45.1	+1.3
KZN	Kozani	1.88	49	P	Pn	15 46 48.1	+4.3
KZN				*e*Sn	Sn	15 47 09.8	+2.4
FNA	Florina	2.03	33	P	Pn	15 46 46.5	+0.5
FNA				S	Sn	15 47 14.0	+2.8
FNA	Florina	2.03	33	P	Pn	15 46 46.5	+0.5
FNA				S	Sn	15 47 14.0	+2.8
BIA	Bitola	2.21	29	P	Pn	15 46 48.8	+0.4
BIA	Bitola	2.21	29	*i* Pn	Pn	15 46 49.1	+0.7
BIA				*i* Sn	Sn	15 47 23.8	+8.1
BIA	Bitola	2.21	29	*i* Pn	Pn	15 46 49.1	+0.7
GUR	Goura	2.22	120	*e*PN	Pn	15 46 49.3	+0.8
GUR	Goura	2.22	120	*e*Pn	Pn	15 46 49.3	+0.8
LIT	Litokhoron	2.23	62	P	Pn	15 46 48.8	+0.2
LIT				S	Sn	15 47 17.4	+1.3
LIT	Litokhoron	2.23	62	*e*PB	Pb	15 46 48.9	-3.2
LIT				*e*SN	Sn	15 47 17.5	+1.4
LIT	Litokhoron	2.23	62	*e*Pb	Pb	15 46 48.9	-3.2
LIT				*e*Sn	Sn	15 47 17.5	+1.4
TIR	Tirane	2.26	359	P	Pn	15 46 48.6	-0.5
TIR	Tirane	2.26	359	*e*P	Pn	15 46 48.9	-0.2
TIR	Tirane	2.26	359	*e*P	Pn	15 46 48.9	-0.2
TIR	Tirane	2.26	359	⇓*i*Pn	Pn	15 46 50.0	+0.9
LKR	Lokris	2.44	99	P	Pn	15 46 51.8	+0.2
LKR	Lokris	2.44	99	*e*PB	Pb	15 46 51.5	-4.3
LKR	Lokris	2.44	99	*e*Pb	Pb	15 46 51.5	-4.3
TIP	Timpagrande	2.46	273	*e*P	Pn	15 46 53.0	+1.2
TIP	Timpagrande	2.46	273	*e*P	Pn	15 46 53.0	+1.2
ITM	Ithomi	2.47	140	*e*PN	Pn	15 46 52.4	+0.4
ITM	Ithomi	2.47	140	P	Pn	15 46 53.2	+1.2
ITM	Ithomi	2.47	140	*e*Pn	Pn	15 46 52.4	+0.4
ITM	Ithomi	2.47	140	P	Pn	15 46 53.2	+1.2
TAR1	Taranto	2.49	306	*e*Pn	Pn	15 46 53.4	+1.2
KRUS	Krusevo	2.50	24	*i* Pn	Pn	15 46 53.0	+0.6
KRUS				*i* Sn	Sn	15 47 32.1	+9.4
KRUS	Krusevo	2.50	24	*i* Pn	Pn	15 46 52.9	+0.6
XOR	Xorichti	2.56	83	P	Pn	15 46 53.1	0.0
XOR	Xorichti	2.56	83	P	Pn	15 46 53.1	0.0
NEO	Neokhori	2.58	84	*e*PB	Pb	15 46 54.5	-3.5
NEO	Neokhori	2.58	84	*e*Pb	Pb	15 46 54.5	-3.5
PE1	Pezze di Greco	2.58	313	*e*Pn	Pn	15 46 54.2	+0.8
VLX	Vlachokerasia	2.58	131	*e*PN	Pn	15 46 53.7	+0.2
VLX	Vlachokerasia	2.58	131	*e*Pn	Pn	15 46 53.7	+0.2
LTK	Loutraki	2.61	113	P	Pn	15 46 53.7	-0.2
LTK	Loutraki	2.61	113	*e*PN	Pn	15 46 53.9	0.0
LTK	Loutraki	2.61	113	P	Pn	15 46 53.7	-0.2
LTK	Loutraki	2.61	113	*e*Pn	Pn	15 46 53.9	0.0
PYL	PYLOS	2.62	146	P	Pn	15 46 53.3	-0.7
PYL	PYLOS	2.62	146	*e*PN	Pn	15 46 53.9	-0.1
PYL	PYLOS	2.62	146	P	Pn	15 46 53.3	-0.7
PYL	PYLOS	2.62	146	*e*Pn	Pn	15 46 53.9	-0.1
GRG	Griva	2.67	45	P	Pn	15 46 54.5	-0.2
GRG	Griva	2.67	45	P	Pn	15 46 54.5	-0.2
LTRZ	Laterza	2.83	303	Pn	Pn	15 46 57.1	+0.2
LTRZ	Laterza	2.83	303	Pn	Pn	15 46 57.1	+0.2
ORI	Oriolo Calabro	2.86	291	Pn	Pn	15 46 58.9	+1.7
ORI	Oriolo Calabro	2.86	291	Pn	Pn	15 46 58.9	+1.7
HORT	Hortiatis	2.88	57	P	Pn	15 46 57.8	+0.3
HORT	Hortiatis	2.88	57	P	Pn	15 46 57.8	+0.3
ULC	Ulcinj	2.92	350	⇓*i*Pn	Pn	15 46 57.5	-0.7
ULC				*i* Sn	Sn	15 47 33.5	+0.4
ULC	Ulcinj	2.92	350	⇓*i*Pn	Pn	15 46 57.5	-0.7
ULC				*i* Sn	Sn	15 47 33.5	+0.4
PLG	Polygyros	3.01	64	P	Pn	15 46 59.0	-0.3
PLG	Polygyros	3.01	64	*e*PN	Pn	15 46 59.6	+0.3
PLG	Polygyros	3.01	64	P	Pn	15 46 59.0	-0.3
PLG	Polygyros	3.01	64	*e*Pn	Pn	15 46 59.6	+0.3
VAY	Valandovo	3.02	41	P	Pn	15 46 59.6	+0.1
VAY	Valandovo	3.02	41	P	Pn	15 46 58.1	-1.4
VAY				S	Sn	15 47 40.1	+4.6
VAY	Valandovo	3.02	41	P	Pn	15 46 59.6	+0.1
PAIG	Paliouri	3.03	73	P	Pn	15 46 59.9	+0.3
PAIG	Paliouri	3.03	73	P	Pn	15 46 59.9	+0.3
SG1	Sgolgore (BA)	3.05	306	*e*Pn	Pn	15 47 00.2	+0.3
AOS	Alonnisos	3.08	87	P	Pn	15 46 59.6	-0.7
AOS	Alonnisos	3.08	87	P	Pn	15 46 59.6	-0.7
KNT	Kendrikon	3.08	47	P	Pn	15 47 00.2	-0.2
KNT	Kendrikon	3.08	47	P	Pn	15 47 00.2	-0.2
NAIG	Nisos Aigina	3.10	114	*e*PN	Pn	15 47 01.0	+0.4
NAIG	Nisos Aigina	3.10	114	*e*Pn	Pn	15 47 01.0	+0.4
SKO	Skopje	3.11	21	P	Pn	15 47 00.7	0.0
SKO	Skopje	3.11	21	*i* Pn	Pn	15 47 00.8	+0.1
SKO				*e*Lg		15 47 50.6	
	comp=N,150nm,1.0s						
SKO	Skopje	3.11	21	*i* Pn	Pn	15 47 00.8	+0.1
SKO				*e*Lg		15 47 50.5	
	comp=N,150nm,1.0s						
SOH	Sokhos	3.16	56	P	Pn	15 47 01.6	+0.2
SOH	Sokhos	3.16	56	*e*PN	Pn	15 47 01.9	+0.5
SOH	Sokhos	3.16	56	*e*Pn	Pn	15 47 01.9	+0.5
ATH	Athens Observa	3.18	109	*e*PN	Pn	15 47 01.6	-0.1
ATH	Athens Observa	3.18	109	*e*Pn	Pn	15 47 01.6	-0.1
SOI	Samo	3.19	253	Pn	Pn	15 47 03.3	+1.4
SOI	Samo	3.19	253	Pn	Pn	15 47 03.3	+1.4
PTL	Penteli	3.26	107	*e*PN	Pn	15 47 03.1	+0.3
PTL	Penteli	3.26	107	*e*Pn	Pn	15 47 03.1	+0.3
CUC	Castrocucco	3.30	287	P	Pn	15 47 02.3	-1.1
CUC				Pn	Pg	15 47 16.3	+1.1
CUC	Castrocucco	3.30	287	P	Pn	15 47 02.3	-1.1
PTRP	Pietrapertosa	3.30	297	Pn	Pn	15 47 06.0	+2.6
PTRP	Pietrapertosa	3.30	297	Pn	Pn	15 47 06.0	+2.6
BUM	Brajici-Budva	3.31	347	⇑*i*Pn	Pn	15 47 03.1	-0.3
BUM				*e*Sn	Sn	15 47 42.3	-0.3
BUM	Brajici-Budva	3.31	347	⇑*i*Pn	Pn	15 47 03.1	-0.3
BUM				*e*Sn	Sn	15 47 42.3	-0.3
VLI	Veliai	3.36	134	*e*PN	Pn	15 47 04.5	+0.4
VLI	Veliai	3.36	134	*e*Pn	Pn	15 47 04.5	+0.4
OUR	Ouranopolis	3.37	67	P	Pn	15 47 04.5	+0.1
OUR	Ouranopolis	3.37	67	P	Pn	15 47 04.5	+0.1
PDG	Podgorica	3.38	352	⇑*i*Pn	Pn	15 47 04.1	-0.4
PDG				*e*Sn	Sn	15 47 44.5	+0.1
TTG	Podgorica	3.38	352	⇑*i*Pn	Pn	15 47 04.1	-0.4
TTG				*e*Sn	Sn	15 47 44.5	+0.1
TTG	Podgorica	3.38	352	⇑*i*Pn	Pn	15 47 04.1	-0.4
TTG				*e*Sn	Sn	15 47 44.5	+0.1
SRS	Serrai	3.47	53	P	Pn	15 47 05.3	-0.4
SRS	Serrai	3.47	53	P	Pn	15 47 05.3	-0.4
ACER	Acerenza	3.50	300	Pn	Pn	15 47 07.8	+1.7
ACER	Acerenza	3.50	300	Pn	Pn	15 47 07.8	+1.7
PVY	Plav	3.51	1	*e*Pn	Pn	15 47 06.8	+0.6
PVY				*e*Sn	Sn	15 47 47.7	+0.1
PVY	Plav	3.51	1	*e*Pn	Pn	15 47 06.8	+0.6
PVY				*e*Sn	Sn	15 47 47.7	+0.1
HCY	Herceg Novi	3.53	343	⇓*i*Pn	Pn	15 47 05.3	-1.2
HCY				*e*Sn	Sn	15 47 47.7	-0.4
HCY	Herceg Novi	3.53	343	⇓*i*Pn	Pn	15 47 05.3	-1.2
HCY				*e*Sn	Sn	15 47 47.7	-0.4
MGR	Morigerati	3.53	289	Pn	Pn	15 47 09.0	+2.4
MGR	Morigerati	3.53	289	Pn	Pn	15 47 09.0	+2.4
KKB	Krupnik	3.68	40	P	Pn	15 47 08.6	0.0
KKB				Pg		15 47 09.1	
KKB				*e*S	Sn	15 47 51.6	-0.2
KYTH	Kithira	3.73	138	*e*PN	Pn	15 47 10.0	+0.7
KYTH	Kithira	3.73	138	*e*Pn	Pn	15 47 10.0	+0.7
NVR	Nevrokopi	3.77	52	P	Pn	15 47 11.0	+1.2
NVR	Nevrokopi	3.77	52	P	Pn	15 47 11.0	+1.2
BEY	Berane	3.78	360	⇑*i*Pn	Pn	15 47 10.5	+0.5
BEY				*e*Sn	Sn	15 47 54.4	0.0
IVA	Berane	3.78	360	⇑*i*Pn	Pn	15 47 10.5	+0.5
IVA				*e*Sn	Sn	15 47 54.4	0.0
IVA	Berane	3.78	360	⇑*i*Pn	Pn	15 47 10.5	+0.5
IVA				*e*Sn	Sn	15 47 54.4	0.0
NKY	Niksic	3.79	350	⇑*i*Pn	Pn	15 47 09.1	-1.0
NKY				*i* Sn	Sn	15 47 54.3	-0.2
NKY	Niksic	3.79	350	⇑*i*Pn	Pn	15 47 09.1	-1.0
NKY				*i* Sn	Sn	15 47 54.3	-0.2
MRLC	Muro Lucano	3.79	298	Pn	Pn	15 47 12.8	+2.6
MRLC	Muro Lucano	3.79	298	Pn	Pn	15 47 12.8	+2.6
MMB	Musomiste	3.84	48	P	Pn	15 47 01.5	-9.2
MMB				S	Sn	15 47 53.9	-1.8
SGO	Sicignano	3.85	294	Pn	Pn	15 47 14.0	+3.1
SGO	Sicignano	3.85	294	Pn	Pn	15 47 14.0	+3.1
BRY	Bratogost	3.95	345	⇑*i*Pn	Pn	15 47 11.5	-0.8
BRY				*e*Sn	Sn	15 47 58.0	-0.5
BRY	Bratogost	3.95	345	⇑*i*Pn	Pn	15 47 11.5	-0.8
BRY				*e*Sn	Sn	15 47 58.0	-0.5
STON	Ston	4.14	337	*e*Pn	Pn	15 47 14.0	-0.9
STON				Sn	Sn	15 48 01.6	-1.6
STON	Ston	4.14	337	*e*Pn	Pn	15 47 14.0	-0.9
STON				Sn	Sn	15 48 01.6	-1.6
CSSN	Cassano Irpino	4.16	297	Pn	Pn	15 47 18.5	+3.3
CSSN	Cassano Irpino	4.16	297	Pn	Pn	15 47 18.5	+3.3
SJES	Sjenica	4.17	1	*e*Pn	Pn	15 47 15.6	+0.2
UPM	Unac-Piva	4.18	350	⇓*i*Pn	Pn	15 47 15.4	-0.1
UPM				*e*Sn	Sn	15 48 03.9	-0.4
UPM	Unac-Piva	4.18	350	⇓*i*Pn	Pn	15 47 15.4	-0.1
UPM				*e*Sn	Sn	15 48 03.9	-0.4
FG5	Orsara di Pugl	4.19	303	Pn	Pn	15 47 17.2	+1.7
FG5	Orsara di Pugl	4.19	303	Pn	Pn	15 47 17.2	+1.7
RGNG	Rignano Grg	4.20	309	Pn	Pn	15 47 16.8	+1.1
RGNG	Rignano Grg	4.20	309	Pn	Pn	15 47 16.8	+1.1
PLE	Pljevlja	4.26	355	⇑*i*Pn	Pn	15 47 16.7	+0.1
PLE				*e*Sn	Sn	15 48 05.5	-0.6
PLE	Pljevlja	4.26	355	⇑*i*Pn	Pn	15 47 16.7	+0.1
PLE				*e*Sn	Sn	15 48 05.5	-0.6
VTS	Vitosha	4.30	34	P	Pn	15 47 17.9	+0.8
VTS	Vitosha	4.30	34	P	Pn	15 47 18.1	+1.0
VTS	Vitosha	4.30	34	P	Pn	15 47 18.2	+1.1
VTS	Vitosha	4.30	34	P	Pn	15 47 17.9	+0.8
NISS		4.58	19	*e*Pn	Pn	15 47 20.4	-0.5
CIGN	Sant'Elia a Pi	4.61	305	Pn	Pn	15 47 23.2	+1.8
CIGN	Sant'Elia a Pi	4.61	305	Pn	Pn	15 47 23.2	+1.8
BBLS	Lazići	4.79	356	⇑*i*Pn	Pn	15 47 23.8	-0.1
GRUS	Gruza	4.84	7	⇑*i*Pn	Pn	15 47 24.0	-0.5
CHOS	Chios island	4.85	96	P	Pn	15 47 25.1	+0.5
CHOS	Chios island	4.85	96	P	Pn	15 47 25.1	+0.5
KARN	Karanos	4.87	138	P	Pn	15 47 24.4	-0.5
KARN	Karanos	4.87	138	P	Pn	15 47 24.4	-0.5
BOLS	Boljevac	4.98	17	*i* Pn	Pn	15 47 25.5	-0.9
DIVS	Divibare	5.01	1	⇑*i*Pn	Pn	15 47 26.1	-0.8
ALN	Alexandroupoli	5.04	67	P	Pn	15 47 26.9	-0.4
ALN	Alexandroupoli	5.04	67	P	Pn	15 47 26.9	-0.4
TRUS	Trudelj	5.15	4	⇑*i*Pn	Pn	15 47 27.2	-1.5
SDI	San Donato	5.35	301	Pn	Pn	15 47 35.0	+3.5
	comp=N,7.3nm,0.2s						
SDI	San Donato	5.35	301	Pn	Pn	15 47 35.0	+3.5
	comp=N,7.3nm,0.2s						
IDI	Anoyia	5.49	132	Pn	Pn	15 47 31.2	-2.2
	comp=N,0.7nm,0.3s,baz=321,slow=15,SNR=8.5						
IDI				Sn	Sn	15 48 31.1	-5.3
	comp=N,2.2nm,0.3s,baz=282,slow=21,SNR=7.7						
IDI	Anoyia	5.49	132	Pn	Pn	15 47 31.2	-2.2
NVLJ	Novalja	6.65	327	*e*Pn	Pn	15 47 48.9	-0.4
NVLJ				Sn	Sn	15 49 02.0	-2.9
NVLJ	Novalja	6.65	327	*e*Pn	Pn	15 47 48.9	-0.4
NVLJ				Sn	Sn	15 49 02.0	-2.9
BZS	Buzias	6.65	10	⇓*i*P	Pn	15 47 52.3	+3.0
GZR	Gura Zlata	6.65	18	⇓*i*P	Pn	15 47 50.2	+0.8
GZR	Gura Zlata	6.65	18	⇓P	Pn	15 47 50.2	+0.8
GZR	Gura Zlata	6.65	18	⇓P	Pn	15 47 50.2	+0.8
PKSM	Moragy	7.19	353	⇓*i*P	Pn	15 47 55.1	-1.6
PKSM	Moragy	7.19	353	⇓P	Pn	15 47 55.1	-1.7
PKSM	Moragy	7.19	353	⇓P	Pn	15 47 55.1	-1.6
VOIR		7.40	29	⇓*i*P	Pn	15 48 00.6	+1.0
VOIR		7.40	29	⇓P	Pn	15 48 00.6	+1.0
VOIR		7.40	29	⇓P	Pn	15 48 00.6	+1.0
VOY	Vojsko	8.24	329	*e*Pn	Pn	15 48 10.7	-0.5
VOY				*e*Sn	Sn	15 49 39.7	-4.5
VOY	Vojsko	8.24	329	*e*Pn	Pn	15 48 10.7	-0.5
PLOR	Plostina	8.39	34	⇓*i*P	Pn	15 48 15.1	+1.8
PLOR	Plostina	8.39	34	⇓*i*P	Pn	15 48 15.1	+1.8
SOKA	Soboth	8.39	336	⇑*i*Pn	Pn	15 48 12.5	-0.7
SOKA				⇑*i*Sn	Sn	15 49 41.9	-5.9
SOKA	Soboth	8.39	336	Pn	Pn	15 48 12.5	-0.8
OBKA	Obir	8.40	334	⇑*i*Pn	Pn	15 48 13.2	-0.2
OBKA				⇑*i*Sn	Sn	15 49 45.3	-2.8
OBKA	Obir	8.40	334	Pn	Pn	15 48 13.2	-0.2
VRI	Vrincioaia	8.44	34	⇑*i*P	Pn	15 48 16.0	+2.1
VRI	Vrincioaia	8.44	34	⇑P	Pn	15 48 16.0	+2.1
VRI	Vrincioaia	8.44	34	⇑P	Pn	15 48 16.0	+2.1
PSZ	Piszkesteto	8.83	360	⇓*i*P	Pn	15 48 19.6	+0.3
PSZ	Piszkesteto	8.83	360	⇓P	Pn	15 48 19.6	+0.4
PSZ	Piszkesteto	8.83	360	⇓P	Pn	15 48 19.6	+0.3
KBA	Koelnbreinsper	9.32	331	⇓*i*Pn	Pn	15 48 25.3	-0.8
KBA				⇑*i*Sn	Sn	15 50 07.0	-3.7
KBA	Koelnbreinsper	9.32	331	Pn	Pn	15 48 25.3	-0.7
BURAR	Bucovina Array	9.36	23	⇑*i*P	Pn	15 48 27.8	+1.3
BURAR	Bucovina Array	9.36	23	⇑P	Pn	15 48 27.8	+1.3
BUR08	Bucovina Ar. S	9.38	22	*e*P	Pn	15 48 27.6	+0.9
BUR08	Bucovina Ar. S	9.38	22	*e*P	Pn	15 48 27.6	+0.8
VYHS	Vyhne	9.44	356	*e*PN	Pn	15 48 26.5	-1.1
VYHS	Vyhne	9.44	356	*e*Pn	Pn	15 48 26.5	-1.1
MOA	Molln	9.68	337	⇑*i*Pn	Pn	15 48 30.4	-0.4
MOA				⇑*i*Sn	Sn	15 50 15.2	-4.1
MOA	Molln	9.68	337	Pn	Pn	15 48 30.4	-0.4
BRTR	Keskin Array B	10.64	82	Pn	Pn	15 48 41.9	-2.2
	comp=N,0.0nm,0.3s,baz=321,slow=11,SNR=2.8						
DAVOX	Davos/Dischmat	10.64	320	Pn	Pn	15 48 43.5	-0.6
	comp=N,0.3nm,0.3s,baz=151,slow=19,SNR=3.2						
DAVOX				Sn	Sn	15 50 42.4	-0.6
	comp=N,0.3nm,0.3s,baz=290,slow=17,SNR=3.6						
DAVOX	Davos/Dischmat	10.64	320	Pn	Pn	15 48 43.5	-0.5
DAVOX				Sn	Sn	15 50 42.4	-0.6
GERES	GERESS Array B	10.73	337	Pn	Pn	15 48 43.3	-2.0
	comp=N,0.5nm,0.3s,baz=156,slow=14,SNR=11						
GERES				Sn	Sn	15 50 40.3	-4.9
	comp=N,0.3nm,0.3s,baz=151,slow=24,SNR=3.4						
GERES	GERESS Array B	10.73	337	Pn	Pn	15 48 43.3	-2.0
KHC	Kasperske Hory	11.03	338	*e*PN	Pn	15 48 47.7	-1.6
KHC				*e*x	x	15 49 02.5	
KHC				*e*SN	Sn	15 50 38.1	-14
KHC	Kasperske Hory	11.03	338	Pn	Pn	15 48 47.7	-1.6
KHC				Sn	Sn	15 50 38.1	-14
HFS	Hagfors	21.43	351	P	P	15 50 57.9	-1.6
	comp=N,2.9nm,0.5s,mb3.9,baz=162,slow=10,SNR=9.7						
HFS	Hagfors	21.43	351	P	P	15 50 57.9	-1.7
EKA	Eskdalemuir Ar	22.42	324	P	P	15 51 10.2	0.0
	comp=N,5.8nm,0.8s,mb4.1,baz=123,slow=10,SNR=10						
EKA	Eskdalemuir Ar	22.42	324	P	P	15 51 10.1	0.0
NB2	NORSAR Subarra	22.64	349	P	P	15 51 11.5	-0.9
	comp=Z,3.0nm,0.8s,mb3.8,baz=154,slow=11						
NB2	NORSAR Subarra	22.64	349	P	P	15 51 11.5	-0.9
	comp=Z,3.0nm,0.8s,mb3.8,SNR=5.1						
NOA	NORSAR Array B	22.64	349	P	P	15 51 11.9	-0.5
	comp=Z,1.3nm,0.5s,mb3.6,baz=164,slow=10,SNR=21						
NOA	NORSAR Array B	22.64	349	P	P	15 51 11.9	-0.5
TORD	Torodi Ar. Bea	30.45	217	P	P	15 52 23.0	-1.4
	comp=Z,1.5nm,0.8s,mb3.8,baz=30,slow=8.8,SNR=11						
MKAR	Makanchi Array	45.23	59	P	P	15 54 26.6	-2.2
	comp=Z,1.0nm,0.5s,mb3.9,baz=286,slow=7.6,SNR=6.7						
ZAA0	Zalesovo Array	45.44	49	*e*P	P	15 54 28.2	-2.2
ZALV	Zalesovo Beam	45.44	49	P	P	15 54 28.3	-2.0
	comp=Z,3.2nm,0.5s,mb4.4,baz=279,slow=8.8,SNR=15						
ZALV	Zalesovo Beam	45.44	49	P	P	15 54 28.3	-2.1
CMAR	Chiang Mai Arr	70.23	82	P	P	15 57 25.7	+0.7
	comp=Z,0.4nm,0.8s,mb3.4,baz=303,slow=8.4,SNR=4.2						
CMAR	Chiang Mai Arr	70.23	82	P	P	15 57 25.7	+0.7
YKA	Yellowknife Ar	72.38	340	P	P	15 57 36.8	-0.5
	comp=Z,0.1nm,0.7s,mb2.9,baz=40,slow=5.8,SNR=3.8						
YKA	Yellowknife Ar	72.38	340	P	P	15 57 36.8	-0.5

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*IDC **06** 15:51:05.5±1.9, 12.°95N×92.°84E, h0^{km}, mb3.5/5, mb1 3.5/6, mb1mx3.4/23, mbtmp3.4/6, ML3.1/1, Error ellipse: s-maj=61.6km s-min=22.5km az=67.0*

*ISCJB **06** 15:51:09.2±1.3, 13.°1N±0.°1×93.°1E±0.°2, h33^{km}, mb3.4/5, Error ellipse: s-maj=25.7km s-min=18.3km az=173.3*

*NEIC **06** 15:51:11.3±1.2, 13.°05N×92.°99E, h35^{km}, Error ellipse: s-maj=25.3km s-min=17.7km az=82.0*

ISC 06 15:51:11.3±1.3**, 13.°1N**±0.°1×**93.°0E**±0.°2**, h35**^{km}**, n8, σ0.^{s}99**/8, **mb3.4**/5**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.85	46	Pn	Pn	15 53 02.4	-0.8
	0.1nm,0.3s,baz=238,slow=14,SNR=3.8						
CHTO	Chiang Mai	8.10	44	*e*Pn	Pn	15 53 06.8	+0.3
MKAR	Makanchi Array	34.81	347	P	P	15 57 58.5	-0.2
	0.4nm,0.7s,mb3.4,baz=160,slow=7.8,SNR=6.0						
SONM	Songino Array	36.43	15	P	P	15 58 14.3	+1.7
	0.4nm,0.7s,mb3.4,baz=215,slow=6.7,SNR=3.1						
ZALV	Zalesovo Beam	41.30	353	P	P	15 58 52.5	-0.8
	0.2nm,0.3s,mb3.2,baz=168,slow=7.6,SNR=4.3						
ZALV	Zalesovo Beam	41.30	353	P	P	15 58 52.5	-0.8
WRA	Warramunga Arr	52.26	128	P	P	16 00 20.6	+1.1
	0.4nm,0.7s,mb3.4,baz=299,slow=9.6,SNR=2.6						
ASAR	Alice Springs	54.16	132	P	P	16 00 32.2	-1.1
	0.2nm,0.4s,mb3.4,baz=311,slow=7.0,SNR=12						

IDC 06 15:54:33.3±3.5**, 13.°29N**×**88.°17W, h111**^{km}±43^{km}**, mb3.0**/3**, mb1 3.4**/4**, mb1mx3.2**/19**, mbtmp3.0**/4**, MS3.3**/1**, Ms1 3.3**/1**, ms1mx2.4**/17**, Error ellipse: s-maj=147.1km s-min=34.2km az=47.0, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTS	JuntasAbangare	4.34	133	P	Pn	15 55 37.4	+0.1
	4.8nm,0.3s,baz=321,slow=15,SNR=7.3						
JTS				S	Sn	15 56 35.8	+8.8
	1.7nm,0.3s,baz=131,slow=22,SNR=8.3						
CMIG	Matias Romero	7.50	301	LR	LR	15 59 20.8	
	comp=Z,257nm,21.8s,baz=99,slow=38						
TXAR	Lajitas Array	21.48	320	P	P	15 59 12.3	-0.7
	0.4nm,0.7s,baz=140,slow=11,SNR=4.6						
PDAR	Pinedale Array	34.70	332	P	P	16 01 14.1	+1.7
	0.3nm,0.7s,baz=138,slow=9.6,SNR=2.8						
YKA	Yellowknife Ar	52.62	345	P	P	16 03 35.2	-0.3
	0.7nm,0.6s,baz=136,slow=8.3,SNR=19						
CMAR	Chiang Mai Arr	147.68	347	PKPbc	PKPbc	16 14 04.8	-0.9
	0.3nm,0.6s,baz=11,slow=3.2,SNR=4.4						

IDC 06 15:56:12.8±1.4**, 1.°20N**×**125.°51E, h0**^{km}**, mb4.0**/4**, mb1 4.1**/5**, mb1mx3.7**/19**, mbtmp4.0**/5**, ML3.6**/1**, Error ellipse: s-maj=80.0km s-min=21.0km az=64.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.18	180	P	Pn	16 00 39.3	+0.3
	0.1nm,0.3s,baz=2.0,slow=7.9,SNR=4.5						
WRA	Warramunga Arr	22.73	158	P	P	16 01 16.8	+0.3
	1.9nm,0.3s,baz=340,slow=12,SNR=27						
ASAR	Alice Springs	26.03	162	P	P	16 01 48.2	+0.4
	0.5nm,0.3s,baz=342,slow=7.0,SNR=15						
ASAR				PcP	PcP	16 05 15.2	-0.9
	0.2nm,0.5s,baz=342,slow=2.9,SNR=4.7						
MKAR	Makanchi Array	58.95	327	P	P	16 06 15.0	+1.0
	0.9nm,0.6s,baz=123,slow=8.2,SNR=17						
KMBO	Kilima Mbogo	88.28	269	P	P	16 09 05.5	-1.5
	2.3nm,0.6s,baz=78,slow=5.0,SNR=8.0						

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*ISCJB **06** 16:07:27.3±0.7, 24.°7S±0.°1×13.°4W±0.°1, h10^{km}, mb4.0/11, Error ellipse: s-maj=21.1km s-min=13.2km az=178.4*

*IDC **06** 16:07:27.7±0.8, 24.°74S×13.°43W, h0^{km}, mb4.0/11, mb1 4.1/11, mb1mx3.9/24, mbtmp4.0/11, Error ellipse: s-maj=25.4km s-min=15.6km az=177.0*

*NEIC **06** 16:07:29.1±0.6, 24.°75S×13.°43W, h10^{km}, Error ellipse: s-maj=19.5km s-min=12.1km az=178.0*

ISC 06 16:07:29.2±0.7**, 24.°8S**±0.°1×**13.°44W**±0.°10**, h10**^{km}**, n14, σ0.^{s}90**/14**, mb4.0**/11**, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSUM	Tsumeb	29.25	85	P	P	16 13 31.6	+0.1
	0.6nm,0.4s,mb3.6,baz=265,slow=13,SNR=3.0						
SUR	Sutherland	30.93	112	P	P	16 13 46.0	-0.3
	9.5nm,1.1s,mb4.5,baz=188,slow=15,SNR=2.2						
DBIC	Dimbokro	32.33	16	P	P	16 13 58.5	-0.1
	3.0nm,0.9s,mb4.1,baz=165,slow=9.5,SNR=3.0						
BOSA	Boshof	34.69	105	P	P	16 14 19.3	+0.1
	8.6nm,1.0s,mb4.6,baz=286,slow=7.6,SNR=5.8						
BOSA	Boshof	34.69	105	P	P	16 14 19.3	+0.1
LBTB	Lobatse	35.33	99	P	P	16 14 23.8	-1.0
	6.4nm,1.0s,mb4.5,baz=286,slow=9.4,SNR=5.4						
LBTB	Lobatse	35.33	99	P	P	16 14 23.8	-1.0
CPUP	Villa Florida	39.50	258	P	P	16 15 01.1	+1.0
	0.3nm,0.3s,mb3.5,baz=112,slow=8.2,SNR=2.7						
LSZ	Lusaka	40.10	84	P	P	16 15 07.1	+1.9
	0.9nm,0.5s,mb3.8,baz=221,slow=9.3,SNR=2.6						
TORD	Torodi Ar. Bea	40.46	23	P	P	16 15 08.5	+0.4
	4.2nm,0.9s,mb4.2,baz=202,slow=9.2,SNR=16						
SIV	San Ignacio	45.31	272	P	P	16 15 48.2	+0.6
	1.4nm,0.7s,mb3.9,baz=116,slow=12,SNR=9.6						
CFAA	Coronel Fontan	48.37	249	P	P	16 16 10.0	-1.4
	0.2nm,0.6s,mb3.4,baz=11,slow=5.2,SNR=4.8						
CFAA	Coronel Fontan	48.37	249	P	P	16 16 10.0	-1.4
MDT	Midelt	57.86	9	P	P	16 17 20.0	-1.1
	0.3nm,0.5s,mb3.6,baz=180,slow=6.1,SNR=2.7						

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*SZGRF **06** 16:10:09.7, 29.°87S×13.°07W, h33^{km}, mb4.8, MS4.5, Southern Mid-Atlantic Ridge*

*ISCJB **06** 16:10:32.4±0.5, 24.°78S±0.°09×13.°30W±0.°08, h10^{km}, mb4.5/19, MS4.5/28, Error ellipse: s-maj=13.6km s-min=10.5km az=160.9*

*IDC **06** 16:10:32.7±0.6, 24.°77S×13.°28W, h0^{km}, mb4.2/16, mb1 4.2/16, mb1mx4.1/26, mbtmp4.2/16, MS4.5/27, Ms1 4.5/27, ms1mx4.4/35, Error ellipse: s-maj=19.5km s-min=14.8km az=169.0*

*NEIC **06** 16:10:34.3±0.4, 24.°76S×13.°31W, h10^{km}, mb4.8/5, Error ellipse: s-maj=13.6km s-min=9.9km az=168.0*

*GCMT **06** 16:10:34.3±0.2, 24.°76S×13.°33W, h12^{km}, MW5.1/80, Moment Tensor Solution. s35,c41; s80,c122; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.18±.13; $M_{\theta\theta}$0.36±.12; $M_{\phi\phi}$4.82±.11; $M_{r\theta}$-1.16±.48; $M_{\theta\phi}$-0.68±.12; $M_{\phi r}$2.94±.40; Best double couple: $M_0$5.95600×10^{16} NP1:ϕ_s357.00000°, δ30.00000°, λ-79.00000°. NP2: ϕ_s165.00000°, δ61.00000°, λ-96.00000°. Principal axes: T 5.7940, Plg16.0000°, Azm259.0000°; N 0.3250, Plg5.0000°, Azm168.0000°; P -6.1180, Plg73.0000°, Azm60.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 06 16:10:34.4±0.5**, 24.°78S**±0.°09×**13.°30W**±0.°08**, h10**^{km}**, n46, σ0.^{s}87**/28**, mb4.5**/19**, MS4.5**/28**, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSUM	Tsumeb	29.14	85	P	P	16 16 35.1	-0.6
	2.3nm,0.9s,mb3.9,baz=264,slow=9.8,SNR=3.6						
TSUM				LR	LR	16 25 42.7	
	comp=Z,1μm,20.3s,MS4.5,baz=334,slow=31						
SUR	Sutherland	30.80	112	P	P	16 16 51.4	+1.0
	11nm,1.0s,mb4.6,baz=130,slow=4.0,SNR=2.2						
SUR				LR	LR	16 26 13.9	
	comp=Z,1μm,19.6s,MS4.5,baz=289,slow=31						
LIC	Lamto	31.85	16	*e*P	P	16 17 03.7	+4.0
	57nm,1.6s,mb5.2						
KIC	Kosan Boka	32.06	16	*e*P	P	16 17 02.0	+0.5
	130nm,1.6s,mb5.5						
TIC	Toumodi	32.26	16	*e*P	P	16 17 03.0	-0.3
	58nm,1.2s,mb5.3						
DBIC	Dimbokro	32.33	16	P	P	16 17 02.7	-1.2
	5.5nm,0.9s,mb4.4,baz=156,slow=8.8,SNR=5.3						
DBIC				LR	LR	16 26 39.2	
	comp=Z,952nm,20.6s,MS4.5,baz=174,slow=30						
DBIC	Dimbokro	32.33	16	P	P	16 17 02.7	-1.2
DBIC				LR	LR	16 26 39.2	
BOSA	Boshof	34.56	105	P	P	16 17 21.8	-1.6
	8.3nm,1.0s,mb4.6,baz=270,slow=5.2,SNR=7.0						
BOSA				LR	LR	16 28 38.6	
	comp=Z,1μm,19.2s,MS4.6,baz=263,slow=31						
BOSA	Boshof	34.56	105	*e*P	P	16 17 22.0	-1.3
	16nm,1.2s,mb4.8						
BOSA				LR	LR	16 28 38.6	
LBTB	Lobatse	35.20	99	P	P	16 17 27.9	-1.0
	5.0nm,0.9s,mb4.5,baz=271,slow=7.1,SNR=6.0						
LBTB				LR	LR	16 29 04.1	
	comp=Z,1μm,21.4s,MS4.6,baz=266,slow=32						
BBTS	Babate	39.33	355	LR	LR	16 31 47.7	
	comp=Z,272nm,18.6s,MS4.1,baz=29,slow=32						
CPUP	Villa Florida	39.61	258	P	P	16 18 05.9	-0.3
	0.2nm,0.2s,baz=52,slow=3.2,SNR=3.6						
CPUP				LR	LR	16 31 36.8	
	comp=Z,615nm,18.7s,MS4.5,baz=85,slow=32						
LSZ	Lusaka	39.98	84	P	P	16 18 09.5	+0.1
	0.8nm,0.5s,mb3.7,baz=227,slow=9.3,SNR=4.5						
LSZ	Lusaka	39.98	84	*e*P	P	16 18 10.5	+1.0
	4.0nm,1.1s,mb4.1						
TOA0	Torodi Ar. Sit	40.44	23	*e*P	P	16 18 13.3	+0.2
TORD	Torodi Ar. Bea	40.44	23	P	P	16 18 13.3	+0.2
	14nm,0.9s,mb4.7,baz=201,slow=8.6,SNR=22						
TORD				LR	LR	16 31 45.7	
	comp=Z,968nm,18.7s,MS4.7,baz=200,slow=32						
SIV	San Ignacio	45.43	272	P	P	16 18 53.7	-0.1
	3.7nm,1.0s,mb4.2,baz=106,slow=11,SNR=9.9						
CFAA	Coronel Fontan	48.47	249	P	P	16 19 16.1	-1.2
	0.7nm,0.8s,mb3.8,baz=90,slow=5.0,SNR=9.0						
USHA	Ushuaia	50.16	218	LR	LR	16 35 58.4	

	comp=Z,490nm,20.5s,MS4.5,baz=30,slow=30						
LVC	Limon Verde	50.67	260	LR	LR	16 40 52.3	
	comp=Z,402nm,18.4s,MS4.5,baz=43,slow=36						
LCO	Las Campanas	50.94	252	P	P	16 19 35.9	-0.3
KMBO	Kilima Mbogo	54.16	72	LR	LR	16 41 17.9	
	comp=Z,995nm,21.1s,MS4.8,baz=267,slow=34						
MDT	Midelt	57.87	9	P	P	16 20 25.4	-1.0
	0.5nm,0.5s,mb3.8,baz=109,slow=3.5,SNR=2.5						
MDT				LR	LR	16 42 19.5	
	comp=Z,330nm,19.1s,MS4.5,baz=180,slow=33						
PCRV	Puerto La Cruz	60.92	298	LR	LR	16 44 23.1	
	comp=Z,338nm,19.9s,MS4.5,baz=223,slow=33						
MAW	Mawson	62.08	155	LR	LR	16 41 23.0	
	comp=Z,339nm,20.8s,MS4.5,baz=208,slow=30						
KEST	Kesra	63.88	20	P	P	16 21 07.5	+0.3
	2.2nm,0.9s,mb4.2,baz=232,slow=4.4,SNR=4.5						
KEST				LR	LR	16 47 14.4	
	comp=Z,186nm,18.8s,MS4.3,baz=185,slow=34						
ATAH	Atahualpa	64.50	274	LR	LR	16 48 54.8	
	comp=Z,837nm,21.9s,MS4.9,baz=127,slow=36						
ESDC	Sonseca Array	64.71	8	LR	LR	16 48 28.1	
	comp=Z,193nm,18.5s,MS4.3,baz=195,slow=35						
SDV	Santo Domingo	65.11	294	P	P	16 21 16.8	+1.1
	3.9nm,0.6s,mb4.6,baz=58,slow=4.0,SNR=5.1						
SDV				LR	LR	16 47 59.1	
	comp=Z,923nm,19.4s,MS5.0,baz=169,slow=34						
QSPA	South Pole Qui	65.43	180	P	P	16 21 18.3	+1.5
	2.1nm,0.9s,mb4.2,baz=220,slow=5.2,SNR=2.3						
QSPA				LR	LR	16 45 56.1	
	comp=Z,153nm,18.6s,MS4.2,baz=36,slow=32						
QSPA	South Pole Qui	65.43	180	P	P	16 21 18.5	+1.6
	12nm,1.1s,mb4.8						
QSPA				LR	LR	16 45 56.1	
ROSC	El Rosal	66.19	288	LR	LR	16 47 44.3	
	comp=Z,564nm,20.6s,MS4.8,baz=196,slow=34						
GERES	GERESS Array B	77.17	18	LR	LR	16 55 55.1	
	comp=Z,272nm,18.6s,MS4.6,baz=286,slow=35						
GRA1	Grafenberg Arr	77.28	16	eP	P	16 22 29.1	+0.4
	10.0nm,1.3s,mb4.6						
GRA1				LR	LR		
	comp=Z,200nm,21.5s,MS4.4						
GRF	Grafenberg Arr	77.28	16	eP	P	16 22 29.1	+0.4
	comp=Z,10.0nm,1.3s,mb4.6						
GRF				eL		16 54 02.6	
	comp=Z,230nm,21.5s						
GRF	Grafenberg Arr	77.28	16	eP	P	16 22 29.1	+0.4
	comp=Z,10.0nm,1.3s,mb4.6						
GRF				LR	LR		
	comp=Z,200nm,21.5s,MS4.4						
BRTR	Keskin Array B	77.68	35	P	P	16 22 32.6	+1.4
	comp=Z,2.9nm,1.1s,mb4.1,baz=182,slow=8.7,SNR=7.5						
BRTR				LR	LR	16 56 03.4	
	comp=Z,59nm,20.1s,MS3.9,baz=59,slow=35						
VNDA	Vanda	77.89	179	LR	LR	16 51 00.6	
	comp=Z,262nm,20.1s,MS4.5,baz=176,slow=31						
AKASG	Malin Array Be	84.01	26	P	P	16 23 04.7	0.0
	comp=Z,0.9nm,0.5s,mb4.2,baz=225,slow=4.5,SNR=6.0						
AKASG				LR	LR	17 01 24.1	
	comp=Z,135nm,19.7s,MS4.3,baz=275,slow=36						
RPN	Rapa Nui	84.03	243	LR	LR	16 55 19.3	
	comp=Z,230nm,22.0s,MS4.5,baz=114,slow=32						
NOA	NORSAR Array B	87.80	12	LR	LR	17 04 25.3	
	comp=Z,84nm,19.5s,MS4.2,baz=210,slow=37						
CMIG	Matias Romero	89.68	289	LR	LR	17 03 07.9	
	comp=Z,359nm,20.4s,MS4.8,baz=290,slow=35						
YKA	Yellowknife Ar	116.86	329	PKP	PKPdf	16 29 19.7	+1.2
	comp=Z,0.1nm,0.5s,baz=270,slow=9.1,SNR=3.7						
ASAR	Alice Springs	122.29	144	PKP	PKPdf	16 29 31.5	+1.2
	comp=Z,0.3nm,0.9s,baz=197,slow=3.2,SNR=4.4						
KSRS	Korea Array	144.72	60	PKP	PKPdf	16 30 09.2	-2.4
	comp=Z,1.3nm,0.9s,baz=300,slow=11,SNR=5.1						
PETK	Petropavlovsk-	150.91	11	PKPbc	PKPbc	16 30 25.1	-1.9
	comp=Z,1.6nm,0.8s,baz=255,slow=12,SNR=7.3						

ISCJB ***06*** *16:11:12.3±1.1, 4°.7S±0°.2×106°.0W±0°.2, h10km, mb4.1/9, MS3.5/6, Error ellipse: s-maj=32.5km s-min=16.8km az=150.0*

IDC ***06*** *16:11:12.3±0.9, 4°.74S×106°.03W, h0km, mb4.2/8, mb1 4.3/8, mb1mx4.2/15, mbtmp4.2/8, MS3.6/6, Ms1 3.6/6, ms1mx3.3/30, Error ellipse: s-maj=30.0km s-min=21.7km az=54.0*

NEIC ***06*** *16:11:13.7±0.7, 4°.75S×106°.03W, h10km, mb4.3/1, Error ellipse: s-maj=25.5km s-min=15.5km az=73.0*

ISC 06 16:11:14.0±1.1, **4°.7S**±0°.2×**106°.0W**±0°.2, **h10**km, **n18**, σ**0s.72**/11, **mb4.1**/9, **MS3.5**/6, **Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	24.33	27	LR	LR	16 23 28.1	
	comp=Z,70nm,19.3s,MS3.2,baz=180,slow=30						
ATAH	Atahualpa	27.58	96	P	P	16 17 02.1	+0.4
	4.4nm,0.7s,mb4.2,baz=40,slow=9.7,SNR=4.4						
ATAH				LR	LR	16 24 43.1	
	comp=Z,286nm,21.6s,MS3.8,baz=141,slow=29						
LPIG	La Paz	28.97	352	LR	LR	16 25 34.4	
	comp=Z,89nm,21.4s,MS3.3,baz=24,slow=30						
NNA	Nana	29.74	106	LR	LR	16 25 35.8	
	comp=Z,176nm,20.8s,MS3.7,baz=74,slow=29						
TXAR	Lajitas Array	33.95	4	P	P	16 17 57.9	+0.2
	0.5nm,0.7s,mb3.6,baz=191,slow=12,SNR=4.7						
TXAR				LR	LR	16 29 07.2	
	comp=Z,64nm,20.9s,MS3.3,baz=185,slow=32						
SDV	Santo Domingo	37.80	69	P	P	16 18 31.3	+0.4
	8.7nm,0.7s,mb4.6,baz=290,slow=4.2,SNR=13						
SDV	Santo Domingo	37.80	69	eP	P	16 18 31.3	+0.4
BW06	Boulder Array	47.39	356	P	P	16 19 49.2	+0.8
	2.2nm,0.7s,mb4.2						
PDAR	Pinedale Array	47.39	356	P	P	16 19 48.9	+0.4
	1.0nm,0.7s,mb3.9,baz=166,slow=7.6,SNR=9.3						
CPUP	Villa Florida	51.21	120	P	P	16 20 17.2	-0.8
	1.8nm,0.3s,mb4.5,baz=307,slow=3.9,SNR=7.0						
RAR	Rarotonga	54.58	247	LR	LR	16 36 06.1	
	comp=Z,51nm,21.6s,MS3.5,baz=290,slow=27						
ULM	Lac du Bonnet	55.47	8	P	P	16 20 47.2	-1.6
	2.0nm,0.6s,mb4.3,baz=197,slow=12,SNR=3.0						
YKA	Yellowknife Ar	67.36	356	P	P	16 22 08.7	-0.3
	0.6nm,0.8s,mb3.7,baz=164,slow=5.8,SNR=9.9						
YKA	Yellowknife Ar	67.36	356	P	P	16 22 08.7	-0.3
QSPA	South Pole Qui	85.32	180	P	P	16 23 51.2	+0.4
	2.9nm,0.9s,mb4.4,baz=188,slow=1.1,SNR=5.5						
SONM	Songino Array	128.86	332	PKP	PKPdf	16 30 23.2	+1.1
	0.5nm,0.9s,baz=37,slow=1.6,SNR=3.2						
MKAR	Makanchi Array	137.49	352	PKP	PKPdf	16 30 37.5	-0.9
	0.4nm,0.7s,baz=310,slow=1.1,SNR=3.0						
CMAR	Chiang Mai Arr	152.05	301	PKPbc	PKPbc	16 31 09.6	-1.0
	1.2nm,0.7s,baz=351,slow=0.7,SNR=8.8						
CMAR				PKPab	PKPab	16 31 20.5	+0.5
	1.6nm,0.8s,baz=21,slow=0.7,SNR=8.6						

IDC ***06*** *16:18:23.5±1.1, 51°.90N×168°.72W, h0km, mb4.0/7, mb1 4.3/7, mb1mx3.9/25, mbtmp4.0/7, Error ellipse: s-maj=38.3km s-min=20.1km az=3.0*

NEIC ***06*** *16:18:28.9, 52°.09N×168°.37W, h26km, ML3.4(AEIC), After AEIC.*

ISCJB ***06*** *16:18:29.0±1.6, 52°.1N±0°.1×168°.5W±0°.1, h52km±14km, mb4.0/6, Error ellipse: s-maj=20.7km s-min=10.2km az=161.1*

ISC 06 16:18:29.1±2.8, **52°.07N**±0°.07×**168°.5W**±0°.1, **h34**km±22km, **n19**, σ**0s.93**/21, **mb4.0**/6, **1D**, **Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	Nikolski	0.93	348	P	Pn	16 18 44.9	-0.8
NIKO				S	Sn	16 18 58.0	+0.1
OKFG	Magazine Ridge	1.40	15	P	Pn	16 18 51.9	-0.3
OKFG				S	Sn	16 19 10.1	+0.6
UNV	Unalaska Valle	2.16	34	P	Pn	16 19 02.4	-0.3
UNV				S	Sn	16 19 27.9	-0.4
AKUT	Akutan	2.66	38	P	Pn	16 19 10.4	+0.9
ATKA	Atka Island	3.49	274	P	Pn	16 19 23.6	+2.7
SDPT	Sand Point	5.80	52	P	Pn	16 19 52.9	+0.2
KDAK	Kodiak Island	10.80	52	Pn	Pn	16 20 59.4	-1.7
	0.9nm,0.3s,baz=156,slow=23,SNR=17						
KDAK	Kodiak Island	10.80	52	Pn	Pn	16 20 59.4	-1.7
PETK	Petropavlovsk-	20.44	286	P	P	16 23 02.6	-0.6
	2.1nm,0.5s,baz=84,slow=14,SNR=18						
YKA	Yellowknife Ar	30.05	49	P	P	16 24 35.5	+0.9
	0.7nm,0.6s,mb3.6,baz=273,slow=8.3,SNR=16						
YKA				PcP	PcP	16 27 35.4	-0.1
	0.1nm,0.6s,baz=291,slow=2.3,SNR=4.5						
YKA	Yellowknife Ar	30.05	49	P	P	16 24 35.5	+0.9
YKA				PcP	PcP	16 27 35.4	-0.1
PDAR	Pinedale Array	39.95	79	P	P	16 26 01.0	+1.1
	3.3nm,0.8s,mb4.1,baz=308,slow=4.3,SNR=25						
TXAR	Lajitas Array	52.24	89	P	P	16 27 37.0	+0.3
	1.6nm,0.7s,mb4.0,baz=296,slow=5.4,SNR=16						
ARCES	ARCESS Array B	58.28	354	P	P	16 28 19.9	+0.3
	3.6nm,0.9s,mb4.4,baz=34,slow=6.6,SNR=4.2						
MKAR	Makanchi Array	64.39	314	P	P	16 29 00.8	-0.5
	0.6nm,0.7s,mb3.7,baz=48,slow=5.5,SNR=7.9						
MKAR	Makanchi Array	64.39	314	P	P	16 29 00.8	-0.5
TNE	Ternate	73.72	250	⇓eP	P	16 30 09.5	+10
ASAR	Alice Springs	90.60	231	P	P	16 31 26.1	-1.5
	0.8nm,0.8s,mb4.1,baz=28,slow=4.6,SNR=7.4						
TSUM	Tsumeb	146.85	349	PKPbc	PKPbc	16 38 07.8	+0.2
	1.9nm,1.1s,baz=352,slow=7.1,SNR=5.5						

NEIC ***06*** *16:19:34.6±2.6, 1°.27N×98°.87E, h99km±17km, Error ellipse: s-maj=48.8km s-min=13.9km az=59.0*

ISCJB ***06*** *16:19:35.2±0.6, 1°.51N±0°.06×98°.87E±0°.08, h111km±8km, mb3.6/4, Error ellipse: s-maj=13.3km s-min=10.0km az=166.5*

DJA ***06*** *16:19:36, 1°.18N×98°.54E, h141km, MLv3.3/5*

IDC ***06*** *16:19:36.0±3.6, 1°.48N×99°.16E, h101km±18km, mb3.3/4, mb1 3.4/5, mb1mx3.2/22, mbtmp3.2/5, Error ellipse: s-maj=103.3km s-min=18.8km az=58.0*

ISC 06 16:19:36.3±0.6, **1°.50N**±0°.06×**98°.88E**±0°.08, **h104**km±8km, **n12**, σ**1s.16**/14, **mb3.6**/4, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	1.29	2	P	Pn	16 20 00.0	-0.4
	2.4nm,0.3s,baz=330,slow=12,SNR=8.2						
PSI				S	Sn	16 20 16.6	-2.0
	3.0nm,0.3s,baz=106,slow=19,SNR=14						
GSI	Gunungsitoli	1.31	262	P	Pn	16 20 01.0	+0.4
GSI				S	Sn	16 20 18.5	-0.5
PPI	Padang Panjang	2.47	142	P	Pn	16 20 16.1	+1.0
PDSI	Padang	2.87	146	P	Pn	16 20 21.4	+0.9
IPM	Ipoh	3.66	36	P	Pn	16 20 37.6	+6.6
KULM	Kulim	4.16	25	P	Pn	16 20 38.9	+1.1
BSI	Banda Aceh	5.34	318	P	Pn	16 20 53.6	-0.1
CMAR	Chiang Mai Arr	16.85	0	P	Pn	16 23 27.4	+1.4
	0.1nm,0.3s,baz=191,slow=11,SNR=6.9						
WRA	Warramunga Arr	40.78	123	P	P	16 27 05.8	-1.8
	0.6nm,0.4s,mb3.8,baz=302,slow=9.0,SNR=7.1						
ASAR	Alice Springs	42.25	128	P	P	16 27 17.1	-2.4
	0.1nm,0.3s,mb3.0,baz=301,slow=7.9,SNR=6.0						
MKAR	Makanchi Array	47.38	345	P	P	16 28 00.6	+0.8
	0.3nm,0.4s,mb3.3,baz=157,slow=8.6,SNR=16						
ZALV	Zalesovo Beam	53.55	350	P	P	16 28 46.5	+0.4
	0.9nm,0.3s,mb4.2,baz=161,slow=8.0,SNR=3.3						

IDC ***06*** *16:29:36.0±1.3, 1°.98N×127°.27E, h0km, mb3.8/6, mb1 4.0/6, mb1mx3.7/18, mbtmp3.9/6, Error ellipse: s-maj=97.7km s-min=17.9km az=70.0*

ISCJB ***06*** *16:29:49.2±1.1, 1°.87N±0°.10×127°.07E±0°.09, h131km±8km, mb3.7/7, Error ellipse: s-maj=19.6km s-min=10.1km az=42.3*

DJA ***06*** *16:29:49, 1°.93N×127°.08E, h114km, MLv4.4/5*

NEIC ***06*** *16:29:55.9±2.9, 1°.75N×127°.09E, h181km±28km, mb4.2/3, Error ellipse: s-maj=28.5km s-min=10.1km az=60.0*

ISC 06 16:29:50.5±1.0, **1°.84N**±0°.10×**127°.07E**±0°.09, **h125**km±8km, **n16**, σ**0s.77**/18, **mb3.7**/7, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.10	164	P	Pn	16 30 13.1	-0.9
TNTI				S	Sn	16 30 32.5	+0.7
MNI	Manado	2.26	260	P	Pn	16 30 27.3	-0.2
MNI				S	Sn	16 30 55.5	-0.3
AAI	Ambon	5.60	168	P	Pn	16 31 11.2	-0.5
	36nm,1.3s,0.9nm						
KDI	Kendari	7.27	218	P	Pn	16 31 34.5	+0.3
KAPI	Kappang	9.98	227	eP	Pn	16 32 14.5	+3.7
	7.6nm,0.4s						
KAKA	Kakadu	15.40	160	eP	Pn	16 33 23.3	+2.1
FITZ	Fitzroy Crossi	19.86	184	P	P	16 34 11.3	-0.6
	2.7nm,0.8s,baz=0.0,slow=6.1,SNR=4.4						
FITZ	Fitzroy Crossi	19.86	184	ePn	P	16 34 11.7	-0.2
WRA	Warramunga Arr	22.79	162	P	P	16 34 41.4	-1.2
	2.3nm,0.4s,mb3.9,baz=341,slow=11,SNR=31						
MBWA	Marble Bar	23.95	197	eP	P	16 34 53.8	+0.5
	2.0nm,0.5s,mb3.7						
ASAR	Alice Springs	26.21	166	P	P	16 35 13.4	-0.3
	0.6nm,0.4s,mb3.4,baz=344,slow=9.3,SNR=20						
STKA	Stephens Creek	36.25	159	P	P	16 36 41.0	-0.6
	0.7nm,0.4s,mb4.0,baz=334,slow=6.4,SNR=4.8						
SONM	Songino Array	49.19	342	P	P	16 38 26.0	+0.2
	0.1nm,0.5s,mb3.0,baz=156,slow=6.7,SNR=4.5						
MK31	Makanchi Array	59.30	326	eP	P	16 39 39.5	+0.4
MKAR	Makanchi Array	59.30	326	P	P	16 39 39.4	+0.3
	0.6nm,0.4s,mb4.0,baz=116,slow=7.5,SNR=33						
KURK	Kurchatov	63.51	328	eP	P	16 40 07.2	-0.2
	2.6nm,0.7s,mb4.2						

IDC ***06*** *16:32:01.9±1.4, 0°.76S×127°.87E, h0km, mb3.7/5, mb1 3.9/5, mb1mx3.7/17, mbtmp3.7/5, Error ellipse: s-maj=88.2km s-min=20.5km az=66.0*

ISCJB ***06*** *16:32:06.2±1.0, 0°.88S±0°.05×127°.5E±0°.1, h31km±8km, mb4.9/14, Error ellipse: s-maj=17.5km s-min=7.8km az=162.7*

DJA ***06*** *16:32:06, 0°.90S×127°.41E, h8km, MLv4.1/7*

ISC 06 16:32:06.7±1.2, **0°.87S**±0°.06×**127°.6E**±0°.1, **h23**km±8km, **n24**, σ**0s.81**/25, **mb4.9**/14, **2D**, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LBMI	Labuha	0.24	341	P	Pb	16 32 12.8	+0.1
TNTI	Ternate	1.64	353	P	Pn	16 32 35.5	+1.4
TNE	Ternate	1.66	353	⇓eP	Pn	16 32 32.0	-2.3
AAI	Ambon	2.87	168	⇓eP	Pn	16 32 52.5	+1.5
AAI				eS	Sn	16 33 25.2	+0.4
AAI	Ambon	2.87	168	P	Pn	16 32 53.2	+2.2
MNI	Manado	3.58	310	P	Pn	16 33 00.9	+0.2
KDI	Kendari	5.83	238	P	Pn	16 33 31.2	-0.5
	21nm,1.2s,0.1nm						
PCI	Palu	7.74	270	P	Pn	16 33 57.3	-0.7
WRA	Warramunga Arr	20.08	161	P	P	16 36 37.3	-1.3
	1.2nm,0.5s,baz=347,slow=12,SNR=6.3						
ASAR	Alice Springs	23.48	165	P	P	16 37 13.8	-1.2
	2.1nm,0.7s,mb3.7,baz=345,slow=10,SNR=20						
CMAR	Chiang Mai Arr	34.08	306	P	P	16 38 49.6	0.0
	0.6nm,0.8s,mb3.6,baz=133,slow=9.1,SNR=5.2						
TAPN	Taplejung	47.49	309	eP	P	16 40 40.5	+0.4
	7.9nm,0.5s,mb4.9						
ODAN	Odare	47.50	309	eP	P	16 40 40.4	+0.2
	26nm,0.9s,mb5.2						
RAMN	Ramite	48.16	308	eP	P	16 40 46.0	+0.7
	41nm,0.6s,mb5.7						
JIRN	Jiri	48.82	309	eP	P	16 40 51.1	+0.7
	7.5nm,0.3s,mb5.3						
GUN	Gumba	49.18	309	eP	P	16 40 53.6	+0.4
	41nm,0.7s,mb5.6						
PKI	Pulchoki	49.39	308	eP	P	16 40 54.6	-0.2
KKN	Kakani	49.59	308	eP	P	16 40 56.3	0.0
	24nm,0.9s,mb5.2						
DMN	Daman	49.65	308	eP	P	16 40 56.8	+0.1
	15nm,0.8s,mb5.1						
GKN	Gorkha	50.20	308	eP	P	16 41 00.8	-0.1
	20nm,0.8s,mb5.2						
KOLN	Koldanda	50.91	308	eP	P	16 41 06.7	+0.4
	44nm,0.7s,mb5.5						
DANN	Dangsing	51.04	308	eP	P	16 41 07.6	+0.3
	45nm,0.7s,mb5.5						
SONM	Songino Array	51.90	342	P	P	16 41 13.0	-0.4
	0.5nm,0.8s,mb3.5,baz=156,slow=7.7,SNR=5.1						
MKAR	Makanchi Array	61.81	326	P	P	16 42 22.9	-0.8
	2.0nm,0.5s,mb4.5,baz=114,slow=7.9,SNR=39						

ISCJB ***06*** *16:39:15.0±0.3, 13°.74N±0°.04×92°.33W±0°.03, h10km, mb4.4/19, MS4.2/10, Error ellipse: s-maj=6.4km s-min=3.5km az=21.7*

IDC ***06*** *16:39:14.9±1.1, 14°.21N×91°.69W, h0km, mb4.2/12, mb1 4.5/14, mb1mx4.3/23, mbtmp4.2/14, ML3.6/2, MS3.9/10, Ms1 3.9/10, ms1mx3.6/29, Error ellipse: s-maj=41.9km s-min=16.1km az=42.0*

NEIC ***06*** *16:39:17.1±1.1, 13°.65N×92°.60W, h36km±9km, mb4.3/9, MD4.8(MEX), Error ellipse: s-maj=15.9km s-min=8.5km az=210.0*

MEX ***06*** *16:39:17.7±0.9, 13°.65N×92°.81W, h6km±37km, MD4.8*

CASC ***06*** *16:39:22.1±2.5, 13°.67N×91°.87W, h15km±25km, MD4.3, mb4.3(NEIC)*

ISC 06 16:39:16.6±0.3, **13°.73N**±0°.04×**92°.28W**±0°.03, **h10**km, **n251**, σ**0s.74**/250, **mb4.4**/19, **MS4.2**/10, **89C-96D**, **Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	0.86	47	⇑iP	Pg	16 39 36.2	+3.0
FUG	Fuego 3	1.57	63	⇑eP	Pn	16 39 44.9	+0.4
FG6		1.59	58	eP	Pn	16 39 45.5	+0.7
TP2	Tecpan 2	1.61	49	eP	Pn	16 39 46.3	+1.1
PCG	Pacaya	1.75	68	eP	Pn	16 39 48.2	+1.1
IXG	Ixpaco	1.83	76	eP	Pn	16 39 48.3	+0.2
NBG	Las Nubes	2.06	65	eP	Pn	16 39 53.5	+2.1
PCIG		2.17	335	eP	Pn	16 39 49.0	-3.8
PCIG				iS	Sn	16 40 15.4	-4.3
CCIG	Comitan	2.54	3	eP	Pn	16 39 58.6	+0.6
CCIG				iS	Sn	16 40 30.6	+1.6
RTR	El Retiro	2.56	86	eP	Pn	16 39 56.6	-1.7
RTR				eS	Sx	16 40 24.2	
SBLS	San Blas	2.58	87	eP	Pn	16 39 58.1	-0.4
SBLS				eS	Sx	16 40 26.1	
SNJE	San Jose	2.60	87	eP	Pn	16 39 57.9	-0.9
SNJE				eS	Sx	16 40 25.9	
MRL	Marmol	2.84	62	⇑eP	Pn	16 40 03.8	+1.8
BOQS	Boqueron	2.92	89	eP	Pn	16 40 02.6	-0.5
BOQS				eS	Sx	16 40 34.8	
SCX	San Cristobal	3.01	354	iP	Pn	16 40 05.5	+1.1
SCX				iS	Sn	16 40 41.7	+1.1
LFRS	El Faro	3.13	92	eP	Pn	16 40 05.2	-0.9
LFRS				eS	Sx	16 40 39.8	
TGIG		3.14	345	eP	Pn	16 40 04.8	-1.4
TGIG				iS	Sn	16 40 41.8	-2.0
SNVI	San Vicente	3.35	92	eP	Pn	16 40 08.4	-0.6
CMIG	Matias Romero	4.18	323	eP	Pn	16 40 17.1	-3.4
CMIG				iS	Sn	16 41 02.4	-7.1
CMIG	Matias Romero	4.18	323	Pn	Pn	16 40 18.2	-2.3
	3.4nm,0.3s,baz=140,slow=10,SNR=30						
CMIG				Sn	Sn	16 41 14.6	+5.0
	19nm,0.3s,baz=72,slow=15,SNR=4.2						
CMIG				LR	LR	16 42 14.1	
	comp=Z,575nm,21.2s,baz=323,slow=43						
CMIG	Matias Romero	4.18	323	eP	Pn	16 40 17.1	-3.4
CMIG				iS	Sn	16 41 02.4	-7.1
CMIG				LR	LR	16 42 14.1	
HUIG	Huatulco	4.22	299	iP	Pn	16 40 15.3	-5.8
HUIG				iS	Sn	16 40 58.5	-12
TGUH	Tegucigalpa,Un	4.87	86	ePn	Pn	16 40 32.1	+2.1
	103nm,0.9s						
VHO	Vista Hermosa	5.43	308	iP	Pn	16 40 32.0	-5.7
VHO				iS	Sn	16 41 31.6	-8.7
PNIG	Pinotepa	6.24	296	iP	Pn	16 40 43.1	-5.7
PNIG				iS	Sn	16 41 48.3	-12
TEIG	Tepich	7.51	30	iP	Pg	16 41 48.6	+8.0
TEIG	Tepich	7.51	30	Pn	Pn	16 41 06.0	-0.3
	11nm,0.3s,baz=218,slow=8.6,SNR=20						
TEIG				Sn	Sn	16 42 31.4	-0.2
	0.4nm,0.3s,baz=230,slow=22,SNR=1.9						
TEIG	Tepich	7.51	30	ePn	Pn	16 41 06.0	-0.3
	70nm,0.6s						
JTS	JuntasAbangare	7.94	115	Pn	Pn	16 41 14.6	+2.4
	2.0nm,0.3s,baz=321,slow=18,SNR=2.8						
JTS				Lg		16 43 16.8	
	1.1nm,0.3s,baz=141,slow=21,SNR=3.6						
JTS	JuntasAbangare	7.94	115	Pn	Pn	16 41 14.6	+2.4
JTS				Lg		16 43 16.8	
CAIG	El Cayaco	8.38	294	iP	Pn	16 41 11.4	-6.9
JCT	Junction City	18.06	339	eP	Pn	16 43 28.2	+0.4
	8.1nm,0.6s						
TXAR	Lajitas Array	18.78	328	P	Pn	16 43 35.8	-0.8
	0.1nm,0.3s,baz=156,slow=11,SNR=28						
ROSC	El Rosal	19.77	115	P	Pn	16 43 49.7	+1.0
	1.2nm,0.3s,baz=108,slow=20,SNR=9.6						
LPIG	La Paz	19.91	304	LR	LR	16 52 01.6	
	comp=Z,161nm,18.2s,baz=79,slow=38						
MIAR	Mount Ida	20.76	357	eP	P	16 43 55.9	-1.8
	23nm,1.0s						
GOGA	Godfrey	21.18	21	P	P	16 44 00.1	-2.1
	12nm,0.9s,mb4.2						
WMOK	Wichita Mounta	21.73	345	eP	P	16 44 06.2	-1.9
	9.3nm,0.9s,mb4.2						
SDV	Santo Domingo	21.76	100	P	P	16 44 05.5	-3.1
	4.3nm,0.7s,mb4.0,baz=350,slow=3.8,SNR=3.3						
SDV	Santo Domingo	21.76	100	P	P	16 44 07.0	-1.6
	9.3nm,0.8s,mb4.3						
AMTX	Amarillo	22.71	340	eP	P	16 44 16.8	-1.8
	65nm,0.8s,mb5.1						
TKL	Tuckaleechee C	23.14	18	P	P	16 44 19.3	-3.8
	8.3nm,0.8s,mb4.2,baz=189,slow=11,SNR=3.8						
TKL				LR	LR	16 54 51.8	
	comp=Z,520nm,18.9s,MS4.0,baz=288,slow=42						
319A	Douglas	23.50	321	⇓P	P	16 44 27.2	+0.2
	baz=24						
219A	White Tail Can	23.93	322	⇑P	P	16 44 31.5	+0.6
	baz=24						
318A	Bisbee	23.98	320	⇑P	P	16 44 31.8	+0.4
	baz=24,SNR=8.4						
CCM	Cathedral Cave	24.25	2	eP	P	16 44 30.1	-3.7
	467nm,1.8s,mb5.6						
218A	Dragoon	24.39	321	⇓P	P	16 44 35.5	+0.4
	baz=24						
119A	Ashpeak Ranch,	24.51	324	⇓P	P	16 44 37.0	+0.8
	baz=24						
X22A	Bernardo	24.61	330	⇓P	P	16 44 37.6	+0.5
	baz=24						
ANMO	Albuquerque	24.71	331	P	P	16 44 38.4	+0.3
	2.8nm,0.8s,mb3.9,baz=142,slow=11,SNR=5.5						
ANMO	Albuquerque	24.71	331	eP	P	16 44 38.6	+0.6
	5.8nm,1.0s,mb4.1						
217A	Green Valley	24.73	320	⇓P	P	16 44 39.1	+0.9
	baz=25						
118A	Homack Ranch,	24.81	322	⇑P	P	16 44 39.5	+0.5
	baz=25						
WCI	Wyandotte Cave	24.98	11	P	P	16 44 35.4	-5.0
	30nm,0.9s,mb4.8						
117A	Oracle	25.22	321	⇑P	P	16 44 43.8	+1.1
	baz=25						
Y19A	Nutrioso	25.36	325	⇓P	P	16 44 44.6	+0.6
	baz=25						
W20A	Ramah	25.85	328	⇑P	P	16 44 49.4	+1.0
	baz=26						
T22A	Edith	26.62	333	⇓P	P	16 44 55.6	+0.2
	baz=26						
SDCO	Great Sand Dun	26.66	336	eP	P	16 44 55.5	-0.2
	9.0nm,1.3s,mb4.1						
X16A	Lo Mia Camp, P	26.93	323	⇑P	P	16 44 58.5	+0.3
	baz=27						
Z14A	Wintersburg	27.12	320	⇑P	P	16 45 00.3	+0.4
	baz=27						
113A	Mohawk Valley,	27.27	318	⇓P	P	16 45 01.3	+0.1
	baz=27						
X15A	Humboldt	27.45	322	⇓P	P	16 45 03.3	+0.4
	baz=27						
T19A	Beclabito	27.45	330	⇑P	P	16 45 03.0	+0.2
	baz=27						
W16A	Flagstaff	27.47	324	⇓P	P	16 45 03.3	+0.3
	baz=27						
MVCO	Mesa Verde	27.50	331	⇓P	P	16 45 03.5	+0.2
	baz=27						
S21A	Coal Bank Pass	27.55	333	⇓P	P	16 45 03.5	-0.2
	baz=27						
WUAZ	Wupatki	27.68	325	⇓P	P	16 45 05.1	+0.2
	baz=28						
X14A	Yava	27.83	321	⇓P	P	16 45 06.4	+0.1
	baz=28						
W15A	Williams	27.95	323	⇓P	P	16 45 07.8	+0.5
	baz=28						
U16A	Tuba City	28.01	326	⇓P	P	16 45 07.7	-0.1
	baz=28						
U17A	Shonto	28.10	327	⇑P	P	16 45 09.0	+0.4
	baz=28						
T18A	Mexican Hat	28.11	329	⇑P	P	16 45 08.6	-0.1
	baz=28						
GLA	Glamis	28.14	317	⇑P	P	16 45 09.8	+0.8
	baz=28						
S19A	Harvey Farm, M	28.24	331	⇑P	P	16 45 09.9	+0.1
	baz=28						
R20A	Redvale	28.25	333	⇑P	P	16 45 10.4	+0.5
	baz=28						
V15A	Kaibab Nationa	28.35	324	⇓P	P	16 45 11.0	+0.1
	baz=28						
Q21A	Lamborn Mesa,	28.43	334	⇓P	P	16 45 11.6	0.0
	baz=28						
W14A	Seligman	28.45	322	⇓P	P	16 45 11.8	0.0

	baz=28						
PDMCI	Parker Dam,Lak	28.49	320	⇑P	P	16 45 12.5	+0.4
	baz=28						
S18A	Hurst Farm, Bl	28.61	330	⇑P	P	16 45 13.0	-0.1
	baz=28,SNR=5.6						
R19A	Curley Farm, L	28.73	331	⇑P	P	16 45 14.2	-0.1
	baz=29						
V14A	Boquillas Ranc	28.75	323	⇓P	P	16 45 15.3	+0.8
	baz=29,SNR=5.8						
W13A	Hualapai Mount	28.86	321	⇑P	P	16 45 15.8	+0.4
	baz=29						
S17A	Black Ridge (B	28.96	329	⇑P	P	16 45 16.5	+0.2
	baz=29						
R18A	Canyonlands Na	29.11	331	⇓P	P	16 45 18.3	+0.7
	baz=29						
Q19A	Hogan Spring (	29.27	332	⇑P	P	16 45 18.6	-0.5
	baz=29						
T15A	Red Dirt Ranch	29.33	326	⇑P	P	16 45 19.9	+0.3
	baz=29						
U14A	Mt Trumbull	29.35	324	⇑P	P	16 45 20.2	+0.4
	baz=29						
V13A	Grand Canyon W	29.42	322	⇓P	P	16 45 20.9	+0.4
	baz=29						
S16A	Weppner Ranch,	29.44	328	⇓P	P	16 45 20.3	-0.3
	baz=29						
R17A	Hanksville Air	29.53	330	⇑P	P	16 45 21.0	-0.3
	baz=29						
N22A	Wattenberg Ran	29.68	338	⇑P	P	16 45 22.3	-0.4
	baz=30						
T14A	Hurricane	29.75	325	⇓P	P	16 45 23.7	+0.3
	baz=30						
GMRC	Granite Mounta	29.76	319	⇓P	P	16 45 23.7	+0.2
	baz=30						
Q18A	Rafter H Ranch	29.79	331	⇓P	P	16 45 23.5	-0.1
	baz=30						
V12A	Nelson	29.86	321	⇓P	P	16 45 24.9	+0.5
	baz=30						
SRU	San Rafael	29.98	331	⇓P	P	16 45 25.3	0.0
	baz=30						
N21A	Black Mountain	30.05	336	⇓P	P	16 45 25.9	0.0
	baz=30						
U12A	Valley of Fire	30.15	323	⇓P	P	16 45 27.4	+0.6
	baz=30						
HEC	Hector,Ludlow	30.22	318	⇓P	P	16 45 27.6	+0.1
	baz=30						
S14A	Cedar City	30.30	326	⇓P	P	16 45 29.1	+0.9
	baz=30						
P17A	Butcher Ranch,	30.37	331	⇑P	P	16 45 28.9	+0.1
	baz=30						
N20A	Spence Gulch,	30.41	336	⇓P	P	16 45 29.3	+0.2
	baz=30,SNR=10.0						
S13A	Holt Ranch, En	30.55	325	⇑P	P	16 45 30.9	+0.5
	baz=30,SNR=5.2						
M20A	Sweetwater, Wa	30.93	336	⇑P	P	16 45 33.7	0.0
	baz=31						
O17A	Robinson Place	30.94	332	⇓P	P	16 45 34.3	+0.4
	baz=31						
R13A	O'Grain Ranch,	31.04	326	⇓P	P	16 45 35.3	+0.5
	baz=31						
S12A	Delamar Landin	31.13	324	⇓P	P	16 45 36.3	+0.7
	baz=31						
Q14A	Sevier Lake (B	31.26	327	⇑P	P	16 45 36.9	+0.3
	baz=31						
R12A	Pony Springs,	31.50	325	⇑P	P	16 45 39.1	+0.3
	baz=32						
N17A	Moffit Pass	31.59	333	⇑P	P	16 45 39.5	0.0
	baz=32						
P14A	Drum Mountains	31.60	328	⇓P	P	16 45 40.0	+0.3
	baz=32						
Q13A	Wheeler Ranch,	31.63	327	⇓P	P	16 45 40.5	+0.6
	baz=32						
M18A	Lyman	31.65	334	⇓P	P	16 45 40.1	+0.1
	baz=32						
MPMC	Manual Prospec	31.72	319	⇑P	P	16 45 41.1	+0.3
	baz=32						
N16A	Rees Ranch, Co	31.82	332	⇓P	P	16 45 41.7	+0.2
	baz=32						
O15A	The Old Anders	31.83	330	⇓P	P	16 45 41.7	+0.1
	baz=32						
L19A	Farson	31.91	336	⇓P	P	16 45 42.1	-0.3
	baz=32						
M17A	Scullys Gap (B	31.94	333	⇓P	P	16 45 42.1	-0.5
	baz=32						
P13A	Bates Ranch, G	31.99	327	⇓P	P	16 45 43.5	+0.4
	baz=32						
L18A	Fontenelle, Gr	32.05	335	⇓P	P	16 45 43.2	-0.3
	baz=32						
R11A	Troy Canyon, C	32.06	324	⇑P	P	16 45 44.3	+0.5
	baz=32						
ISA	Isabella	32.12	317	⇓P	P	16 45 44.9	+0.6
	baz=32						
Q12A	Willow Creek R	32.13	326	⇑P	P	16 45 44.1	-0.2
	baz=32						
GRAC	Grapevine Rang	32.23	320	⇑P	P	16 45 46.2	+0.9
	baz=32						
K19A	Absolon Red Bu	32.33	337	⇓P	P	16 45 45.6	-0.4
	baz=32						
S10A	Tonopah Range,	32.36	323	⇑P	P	16 45 47.1	+0.8
	baz=32						
Q11A	Duckwater	32.45	325	⇓P	P	16 45 47.4	+0.4
	baz=32						
O13A	Hicks Ranch, I	32.47	328	⇑P	P	16 45 47.9	+0.6
	baz=32						
BW06	Boulder Array	32.56	336	⇓P	P	16 45 47.6	-0.4
	baz=32						
PDAR	Pinedale Array	32.56	336	P	P	16 45 46.1	-1.8
	2.2nm,1.0s,mb4.0,baz=135,slow=8.4,SNR=10.0						
PDAR				PcP	PcP	16 48 36.0	+1.5
	0.2nm,0.5s,baz=168,slow=4.6,SNR=3.0						
S09A	Goldfield	32.61	322	⇑P	P	16 45 49.1	+0.6
	baz=33						
N14A	Grayback Hills	32.62	330	⇑P	P	16 45 48.9	+0.3
	baz=32						
K18A	Toltan Ranch,	32.64	335	⇑P	P	16 45 48.8	+0.1
	baz=32,SNR=5.3						
L16A	Fish Haven	32.72	333	⇑P	P	16 45 48.8	-0.6
	baz=33,SNR=6.1						
M15A	Larsen Ranch,	32.74	331	⇓P	P	16 45 49.8	+0.2
	baz=33						
R09A	Tonopah	32.85	323	⇑P	P	16 45 50.9	+0.3
	baz=33						
Q10A	Clear Creek Ra	32.85	324	⇓P	P	16 45 51.3	+0.7
	baz=33						
O12A	Currie	32.97	327	⇑P	P	16 45 52.1	+0.5
	baz=33						
K17A	Gardner Place,	33.10	334	⇓P	P	16 45 52.2	-0.5
	baz=33						
J18A	Kendall Valley	33.11	336	⇓P	P	16 45 51.4	-1.4
	baz=33,SNR=7.2						
N13A	Wendover, West	33.12	329	⇓P	P	16 45 53.2	+0.2
	baz=33						
L15A	Malad City	33.14	332	⇑P	P	16 45 53.0	-0.1
	baz=33,SNR=5.5						
M14A	Sheep Mountain	33.19	330	⇓P	P	16 45 53.8	+0.2
	baz=33,SNR=7.0						
O11A	Cowboy Ranch,	33.35	326	⇑P	P	16 45 55.4	+0.5
	baz=33						
P10A	Eureka	33.44	325	⇓P	P	16 45 56.2	+0.4
	baz=33						
I18A	Diamond G Ranc	33.45	337	⇑P	P	16 45 55.4	-0.3
	baz=33						
K16A	Soda Springs	33.45	334	⇑P	P	16 45 55.8	0.0
	baz=33						
M13A	Montello	33.48	329	⇓P	P	16 45 56.2	+0.1
	baz=33						
J17A	Brown Place, J	33.52	335	⇑P	P	16 45 56.7	+0.3
	baz=33,SNR=13						
L14A	Malta	33.55	331	⇑P	P	16 45 56.7	0.0
	baz=34,SNR=9.5						
NVAR	Mina Array Bea	33.71	322	P	P	16 45 59.1	+0.9
	5.2nm,0.8s,mb4.5,baz=138,slow=9.2,SNR=21						
NVAR				PcP	PcP	16 48 36.6	-1.2
	0.3nm,0.3s,baz=125,slow=4.5,SNR=3.5						
K15A	Arbon	33.74	333	⇑P	P	16 45 58.1	-0.2
	baz=34						
J16A	Bone	33.82	334	⇑P	P	16 45 59.0	0.0
	baz=34						
K14A	Jones Ranch, D	33.92	332	⇓P	P	16 45 59.6	-0.3
	baz=34						
I17A	Pilgrim Ck.	33.93	336	⇓P	P	16 46 00.1	+0.1
	baz=34						
O09A	Fish Creek Ran	34.22	325	⇓P	P	16 46 03.0	+0.4
	baz=34						
I16A	Newdale	34.26	335	⇑P	P	16 46 02.4	-0.4
	baz=34						
J15A	Blackfoot	34.27	334	⇓P	P	16 46 02.9	-0.1
	baz=34						
H17A	Grant Village	34.33	336	⇑P	P	16 46 03.4	0.0
	baz=34						
M11A	Holland Ranch,	34.36	328	⇓P	P	16 46 04.2	+0.5
	baz=34						
RLMT	Red Lodge	34.46	339	⇓P	P	16 46 03.8	-0.8
	baz=34						
K12A	Draper Farm, C	34.81	330	⇓P	P	16 46 07.6	0.0
	baz=35						
M10A	I.L. Ranch, Tu	34.81	327	⇓P	P	16 46 08.0	+0.4
	baz=35						
H16A	Russell Place,	34.85	336	⇑P	P	16 46 07.9	0.0
	baz=35						
L11A	Cat Creek Ranc	34.88	329	⇑P	P	16 46 08.3	+0.1
	baz=35,SNR=5.5						
J13A	Cove Ranch, Pi	35.05	332	⇓P	P	16 46 09.4	-0.2
	baz=35						
I14A	Mackay	35.14	333	⇓P	P	16 46 10.6	+0.2
	baz=35,SNR=6.6						
WCN	Washoe City	35.14	322	⇑P	P	16 46 11.1	+0.6
	baz=35						
O07A	Toulon	35.17	323	⇑P	P	16 46 11.2	+0.4
	baz=35						
L10A	Juniper Basin	35.18	328	⇑P	P	16 46 11.1	+0.3
	baz=35						
M09A	Marrel Ranch,	35.23	326	⇑P	P	16 46 11.2	0.0
	baz=35						
HLID	Hailey	35.28	332	⇓P	P	16 46 11.6	-0.1
	baz=35,SNR=11						
H15A	Lima	35.34	335	⇑P	P	16 46 12.7	+0.5
	baz=35,SNR=8.5						
I13A	Wildhorse Cree	35.42	332	⇑P	P	16 46 13.3	+0.4
	baz=35						
K11A	Parker Ranch,	35.46	329	⇑P	P	16 46 14.0	+0.7
	baz=35						
G15A	Dillon	35.73	335	⇓P	P	16 46 15.8	+0.3
	baz=36,SNR=8.3						
O06A	Flanigan	35.73	323	⇓P	P	16 46 16.1	+0.5
	baz=36						
M08A	Happy Creek Ra	35.75	326	⇑P	P	16 46 16.1	+0.4
	baz=36						
BOZ	Bozeman (W)	35.78	337	⇓P	P	16 46 15.5	-0.4
	baz=36						
H13A	Challis	35.99	333	⇓P	P	16 46 17.9	+0.2
	baz=36,SNR=16						
N06A	Buffalo Meadow	36.11	323	⇓P	P	16 46 19.2	+0.4
	baz=36						
E17A	Martinsdale	36.18	338	⇑P	P	16 46 18.6	-0.7
	baz=36						
G14A	Jackson	36.19	334	⇑P	P	16 46 18.9	-0.5
	baz=36						
L08A	Fields	36.24	326	⇑P	P	16 46 20.2	+0.3
	baz=36						
H12A	Diamond D Ranc	36.25	332	⇓P	P	16 46 20.1	+0.1
	baz=36,SNR=16						
K09A	Rome	36.27	328	⇑P	P	16 46 20.5	+0.4
	baz=36						
I11A	Placerville	36.27	331	⇑P	P	16 46 20.2	0.0
	baz=36						
F15A	Butte	36.28	336	⇓P	P	16 46 20.0	-0.2
	baz=36,SNR=7.5						
G13A	Cobalt	36.40	333	⇓P	P	16 46 20.8	-0.4
	baz=36						
ULM	Lac du Bonnet	36.54	356	LR	LR	17 05 00.3	
	comp=Z,169nm,20.0s,MS3.8,baz=1.1,slow=43						
E16A	East Helena	36.54	337	⇓P	P	16 46 21.4	-1.0
	baz=36,SNR=5.1						
F14A	Wisdom	36.61	335	⇑P	P	16 46 22.5	-0.5
	baz=36						
L07A	Adell	36.67	325	⇑P	P	16 46 23.7	+0.2
	baz=37						
K08A	Mann Creek Ran	36.69	327	⇓P	P	16 46 24.2	+0.4
	baz=37						
D17A	Six Diamond Ra	36.71	339	⇑P	P	16 46 22.8	-1.0
	baz=36						
E15A	Deer Lodge	36.82	336	⇓P	P	16 46 24.3	-0.5
	baz=37						
H11A	Donnelly	36.90	331	⇓P	P	16 46 25.1	-0.4
	baz=37,SNR=6.3						
D16A	Dana Ranch, Ca	36.91	338	⇓P	P	16 46 25.2	-0.3
	baz=37						
F13A	Darby	36.99	334	⇓P	P	16 46 25.4	-0.9
	baz=37,SNR=7.4						
K07A	Rock Creek Ran	37.07	326	⇑P	P	16 46 27.1	+0.1
	baz=37						
J08A	Circle Bar Ran	37.12	328	⇑P	P	16 46 27.5	+0.1
	baz=37						
E14A	Clinton	37.15	336	⇓P	P	16 46 26.9	-0.7
	baz=37						
I09A	Lost Marbles R	37.19	329	⇑P	P	16 46 27.6	-0.4
	baz=37						
D15A	Lincoln	37.29	337	⇓P	P	16 46 28.1	-0.7
	baz=37						
E13A	Victor	37.46	335	⇓P	P	16 46 29.4	-0.8
	baz=37,SNR=8.1						
D14A	Greenough	37.70	336	⇑P	P	16 46 31.3	-1.0
	baz=38						
G10A	Bishop Farm, J	37.86	331	⇓P	P	16 46 33.3	-0.3
	baz=38						
J06A	Christmas Vall	37.94	326	⇑P	P	16 46 34.5	+0.1
	baz=38						
A18A	Metzger Ranch,	37.97	341	⇑P	P	16 46 33.5	-1.0
	baz=38						
H08A	Prairie City	38.05	329	⇑P	P	16 46 35.1	-0.1
	baz=38						
D13A	Huson	38.09	335	⇑P	P	16 46 34.8	-0.8
	baz=38						
G09A	Cove	38.16	331	⇓P	P	16 46 35.8	-0.3
	baz=38						
E11A	Bogner Ranch,	38.25	333	⇑P	P	16 46 35.7	-1.2
	baz=38						
B15A	Bradely Ranch,	38.37	338	⇓P	P	16 46 36.8	-1.1
	baz=38						
F10A	Beach Ranch, E	38.42	332	⇓P	P	16 46 37.6	-0.8
	baz=38,SNR=7.9						
H07A	Lands Inn, Kim	38.55	328	⇓P	P	16 46 39.1	-0.4
	baz=38						
C13A	Hot Springs	38.61	336	⇑P	P	16 46 39.1	-0.8
	baz=38						
A15A	Johnson Ranch,	38.99	339	⇑P	P	16 46 42.1	-1.0
	baz=39						
G07A	Ruggs Ranch, H	39.08	329	⇓P	P	16 46 43.8	-0.1
	baz=39						
B13A	Whitefish	39.13	336	⇑P	P	16 46 43.9	-0.3
	baz=39						
A14A	Double T Ranch	39.23	338	⇑P	P	16 46 44.2	-0.9
	baz=39,SNR=6.0						
D09A	Jones Farm, Ri	39.73	332	⇓P	P	16 46 48.7	-0.5
	baz=40						
F06A	Goldendale	39.99	329	⇓P	P	16 46 51.6	+0.2
	baz=40						
A11A	Hall Mountain,	40.35	335	⇓P	P	16 46 54.1	-0.3
	baz=40						
C08A	Higginbotham F	40.60	332	⇑P	P	16 46 56.3	-0.2
	baz=40						
E06A	Yakima	40.62	329	⇑P	P	16 46 56.6	-0.2
	baz=40						
B09A	Rice	40.68	334	⇓P	P	16 46 57.2	0.0
	baz=41						
A09A	Danville	41.29	334	⇓P	P	16 47 01.5	-0.6
	baz=41						
A08A	Turner Farm, O	41.57	333	⇑P	P	16 47 04.3	-0.2
	baz=41						
A07A	Ashnola River,	42.13	332	⇑P	P	16 47 08.4	-0.7
	baz=42						
SIV	San Ignacio	42.70	133	P	P	16 47 13.0	-1.1
	3.2nm,0.9s,mb4.0,baz=325,slow=9.9,SNR=13						
SCHQ	Schefferville	45.57	20	P	P	16 47 30.9	-5.7
	4.7nm,1.0s,mb4.4,baz=180,slow=17,SNR=5.1						
SCHQ				PcP	PcP	16 49 13.0	-2.1
	4.1nm,0.8s,baz=162,slow=3.5,SNR=5.2						
SCHQ				LR	LR	17 07 29.2	
	comp=Z,434nm,20.2s,MS4.4,baz=69,slow=38						
YKA	Yellowknife Ar	51.23	347	P	P	16 48 18.1	-2.0
	11nm,0.7s,mb4.9,baz=150,slow=7.5,SNR=176						
YKA				PcP	PcP	16 49 33.2	-2.0
	1.7nm,0.8s,baz=150,slow=3.8,SNR=11						
YKA				LR	LR	17 15 19.0	
	comp=Z,137nm,18.6s,MS4.0,baz=260,slow=42						
YKA	Yellowknife Ar	51.23	347	P	P	16 48 18.1	-2.0
YKA				PcP	PcP	16 49 33.2	-2.0
YKA				LR	LR	17 15 19.0	
RES	Resolute Bay	60.97	359	P	P	16 49 25.3	-4.3
	1.7nm,0.8s,mb4.2,baz=212,slow=6.2,SNR=12						
ESDC	Sonseca Array	80.10	52	P	P	16 51 23.6	-3.4
	0.6nm,0.3s,mb4.0,baz=305,slow=5.2,SNR=6.0						
NOA	NORSAR Array B	84.51	28	LR	LR	17 27 24.4	
	comp=Z,57nm,21.9s,MS3.9,baz=160,slow=34						
DBIC	Dimbokro	85.95	84	P	P	16 51 54.5	-3.3
	3.3nm,1.1s,mb4.5,baz=255,slow=6.5,SNR=3.7						
DBIC				LR	LR	17 28 19.3	
	comp=Z,54nm,19.6s,MS4.0,baz=217,slow=34						
ARCES	ARCESS Array B	86.48	18	P	P	16 51 55.1	-4.2
	5.6nm,1.0s,mb4.7,baz=355,slow=7.3,SNR=4.6						
ARCES				LR	LR	17 28 59.6	
	comp=Z,99nm,18.8s,MS4.2,baz=167,slow=35						
GERES	GERESS Array B	89.99	39	LR	LR	17 30 04.5	
	comp=Z,102nm,20.0s,MS4.2,baz=292,slow=34						
TORD	Torodi Ar. Bea	90.71	76	P	P	16 52 17.4	-3.1
	0.6nm,0.8s,mb4.0,baz=272,slow=5.4,SNR=3.1						
MKAR	Makanchi Array	119.56	4	PKP	PKPdf	16 58 04.5	-2.3
	0.4nm,0.8s,baz=3.0,slow=2.7,SNR=4.7						
BJI	Beijing	120.32	335	PKP	PKPdf	16 58 05.4	-3.2
BJI				PP	PP	16 59 30.1	-3.2
BJI				LR	LR		
	comp=N,200nm,27.5s,MS4.8						
BJI				LR	LR		
	comp=E,180nm,27.2s,MS4.8						
BJI				LR	LR		
	comp=Z,250nm,30.5s,MS4.7						
HHC	Hu-ho-hao-te	121.38	339	*e*PKP	PKPdf	16 58 06.7	-3.9
HHC				PP	PP	16 59 40.4	0.0
HHC				PKS		17 01 42.1	
HHC				AMB	AMB		
	comp=Z,120nm,5.1s						
HHC				LR	LR		
	comp=N,110nm,15.5s,MS4.8						
HHC				LR	LR		
	comp=E,140nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,100nm,13.1s,MS4.6						
CD2	Chengdu	133.02	341	PKP	PKPdf	16 58 29.3	-3.8
CHTO	Chiang Mai	145.83	341	*e*PKP	PKPdf	16 58 54.7	-1.9
CMAR	Chiang Mai Arr	146.16	341	PKPbc	PKPbc	16 58 56.5	-1.6
	comp=Z,9.0nm,0.8s,baz=343,slow=3.9,SNR=49						
HYB	Hyderabad	147.76	17	*i* PKP	PKPdf	16 59 01.0	+1.1
HYB	Hyderabad	147.76	17	*e*P	PKPdf	16 59 01.0	+1.1

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*ISCJB **06** 16:47:35.0±0.2, 44°.80N±0°.04×138°.56E±0°.05, h300^{km}±3^{km}, mb3.9/28, Error ellipse: s-maj=6.0km s-min=5.2km az=178.2*

*MOS **06** 16:47:34.4±1.0, 44°.86N×138°.61E, h303^{km}, mb4.0/5, Error ellipse: s-maj=14.6km s-min=10.5km az=88.4*

*BJI **06** 16:47:34.5, 44°.89N×138°.55E, h299^{km}, mB4.4/9, mb4.2/13*

*IDC **06** 16:47:34.9±2.5, 44°.86N×138°.57E, h287^{km}±26^{km}, mb3.2/11, mb1 3.4/14, mb1mx3.3/26, mbtmp3.2/14, Error ellipse: s-maj=14.7km s-min=12.4km az=97.0*

*JMA **06** 16:47:35.4±0.3, 44°.79N×138°.47E, h296^{km}±4^{km}, M3.4*

*SKHL **06** 16:47:35.2±0.5, 45°.02N×138°.38E, h301^{km}±9^{km}, mb4.2/9, msha4.4/2*

*NEIC **06** 16:47:35.5±0.6, 44°.81N×138°.51E, h294^{km}±8^{km}, mb4.0/8, Error ellipse: s-maj=9.4km s-min=8.0km az=149.0*

ISC 06 16:47:35.8±0.2**, 44°.79N**±0°.04×**138°.56E**±0°.05**, h294**^{km}±3^{km}**, n88, σ0^{s}.93**/103**, mb3.9**/28**, 4C-2D, Eastern Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEY	Ternei	1.41	281	⇓*i*P	Pn	16 48 17.8	+0.1
TEY				AMB	AMB	16 48 18.5	
	35nm,0.5s						
TEY				*i* S	S	16 48 50.2	-0.8
TEY				A		16 48 51.3	
	78nm,0.8s						
JRR	Rishiri	1.98	79	P	Pn	16 48 22.6	+0.8
JSK	Shakotan	2.00	136	P	Pn	16 48 22.2	+0.2
JSK				*e*S	S	16 48 59.0	+0.2
JYG	Yagishiri	2.08	99	P	Pn	16 48 22.9	+0.3
JWK2	Keihoku	2.42	76	P	Pn	16 48 26.8	+1.2
JHR	Hokuryu	2.50	114	P	Pn	16 48 27.0	+0.6
JOSM	Okushiri--Mats	2.79	166	P	Pn	16 48 29.3	+0.2
JOSM				*e*S	S	16 49 11.9	+0.3
JEW	Eniwo	2.86	132	P	Pn	16 48 30.2	+0.4
JEW				*e*S	S	16 49 13.8	+1.0
JSE	Soyaes	2.87	85	P	Pn	16 48 30.4	+0.7
JSE				*e*S	S	16 49 13.6	+0.9
JKK2	Kamakawa 2	3.14	106	P	Pn	16 48 33.0	+0.5
JKK2				*e*S	S	16 49 19.5	+1.7
JFR	Furan	3.34	118	P	Pn	16 48 34.5	0.0
JFR				*e*S	S	16 49 21.4	-0.1
JKB	Kayabe	3.42	147	P	Pn	16 48 35.4	-0.1
YSS	Yuzh-Sakhalins	3.64	52	*e*P	Pn	16 48 38.0	+0.4
YSS				*e*S	S	16 49 26.8	-0.3
YSS				pmax	pmax		
	comp=Z,10.0nm,0.6s						
YSS				smax			
	comp=N,50nm,0.9s						
YSS	Yuzh-Sakhalins	3.64	52	*e*P	Pn	16 48 38.0	+0.4
YSS				AMB	AMB	16 48 39.0	
	comp=N,10.0nm,0.6s						
YSS				*e*S	S	16 49 26.8	-0.3
YSS				A		16 49 27.8	
	comp=N,50nm,0.9s						
YSS	Yuzh-Sakhalins	3.64	52	*e*P	Pn	16 48 38.5	+0.8
JOT	Ohata	3.87	151	P	Pn	16 48 40.1	-0.2
JTKR	Abashiri--Toko	3.92	100	P	Pn	16 48 41.0	+0.2
JNBK	Urakawa-nobuka	3.95	128	P	Pn	16 48 41.0	-0.2
JNBK				*e*S	S	16 49 30.4	-3.0
JAR	Ashorobuto	4.04	110	P	Pn	16 48 42.2	+0.1
JAR				*e*S	S	16 49 35.1	-0.1
JCH	Churui	4.11	120	P	Pn	16 48 41.1	-1.8
JCH				*e*S	S	16 49 31.7	-4.9
HABR	Khabarovsk	4.40	328	⇑*i*P	Pn	16 48 46.2	+0.1
GRTR	Gornotajezhnoj	4.73	259	⇓*i*P	Pn	16 48 49.6	-0.3
JRA	Rausu	4.78	98	P	Pn	16 48 51.0	+0.5
JAK	Akkeshi	4.78	110	P	Pn	16 48 48.7	-1.9
JAK				*e*S	S	16 49 46.2	-4.3
UGL	Uglegorsk	4.91	28	⇑*e*P	Pn	16 48 52.0	+0.1
UGL				AMB	AMB	16 48 53.0	
	comp=N,51nm,0.8s						
NEM2	Nemuro 2	5.37	103	P	Pn	16 48 55.1	-2.3
NEM2				*e*S	S	16 49 56.4	-6.5
GRNR	Gornyy	6.15	347	⇑*i*P	Pn	16 49 01.9	-4.7
GRNR				AMB	AMB	16 49 02.5	
	comp=N,104nm,0.8s						
JMK	Ichinoseki	6.17	160	P	Pn	16 49 05.0	-2.0
JMK				*e*S	S	16 50 13.8	-6.6
MDJ	Mudanjiang	6.39	272	P	Pn	16 49 10.1	+0.5
MDJ				pmax	pmax		
	comp=Z,21nm,0.8s						
MDJ				pmax	pmax		
	comp=Z,63nm,5.3s						
MDJ	Mudanjiang	6.39	272	*e*P	Pn	16 49 09.7	+0.1
	comp=Z,11nm,0.6s						
TYV	Tymovskoe	6.67	23	*e*P	Pn	16 49 13.0	+0.2
TYV				AMB	AMB	16 49 15.0	
	comp=Z,44nm,1.0s						
MAJO	Matsushiro	8.25	182	*e*P	Pn	16 49 31.2	-1.2
MAJO				pmax	pmax		
	comp=Z,36nm,0.6s						
MAJO	Matsushiro	8.25	182	*e*P	Pn	16 49 31.2	-1.2
	comp=Z,36nm,0.6s						
MAT	Matsushiro	8.25	182	P	Pn	16 49 31.1	-1.3
MJAR	Matsushiro Arr	8.25	182	P	Pn	16 49 31.9	-0.5
	comp=Z,6.2nm,0.3s,baz=355,slow=8.7,SNR=72						
NKL	Nikolayevsk	8.48	9	⇑*i*P	Pn	16 49 30.0	-5.0
NKL				AMB	AMB	16 49 30.8	
	comp=Z,16nm,0.7s						
EKMR	Ekimchan	9.07	338	*e*P	Pn	16 49 37.5	-4.7
EKMR				AMB	AMB	16 49 55.3	
	comp=Z,4.0nm,0.6s						
OKH	Okha	9.22	16	*e*P	Pn	16 49 45.0	+0.9
OKH				AMB	AMB	16 49 46.0	
	comp=Z,80nm,1.0s						
CN2	Changchun	9.46	269	*e*P	Pn	16 49 46.3	-0.9
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KSRS	Korea Array	10.86	231	P	Pn	16 50 06.2	+1.6
	comp=Z,0.1nm,0.3s,baz=48,slow=9.2,SNR=4.7						
YASR	Yasnyy	10.97	325	*e*P	Pn	16 50 01.5	-4.1
YASR				AMB	AMB	16 50 02.2	
	comp=Z,3.0nm,0.7s						
BMKR	Bomnak	11.74	331	*e*P	Pn	16 50 10.9	-4.1
BMKR				AMB	AMB	16 50 12.6	
	comp=Z,3.0nm,0.6s						
KROS	Kirovskiy	12.21	326	*e*P	Pn	16 50 17.0	-3.8
KROS				AMB	AMB	16 50 17.9	
	comp=Z,2.0nm,0.7s						
HIA	Hailar	13.59	296	*e*P	Pn	16 50 36.9	-0.5
HIA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HIA	Hailar	13.59	296	*e*P	Pn	16 50 36.9	-0.5
	comp=Z,5.5nm,0.7s						

PETK	Petropavlovsk-	15.04	50	P	Pn	16 50 53.8	-0.9
	comp=Z,0.1nm,0.3s,baz=239,slow=8.1,SNR=5.1						
BJT	Baijiatuau	17.20	262	eP	P	16 51 15.9	-1.1
BJT				pmax	pmax		
	comp=Z,11nm,0.7s						
BJT	Baijiatuau	17.20	262	eP	P	16 51 15.8	-1.2
	comp=Z,11nm,0.7s						
YAK	Yakutsk	18.03	346	eP	P	16 51 23.3	-2.4
YAK				pmax	pmax		
	comp=Z,11nm,0.9s						
YAK	Yakutsk	18.03	346	P	P	16 51 23.6	-2.2
	comp=Z,10nm,0.6s						
ULN	Ulaanbaatar	21.89	289	eP	P	16 52 04.0	-1.1
ULN				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.6						
ULN	Ulaanbaatar	21.89	289	eP	P	16 52 04.0	-1.0
	comp=Z,0.8nm,0.3s,mb3.5						
SONM	Songino Array	22.34	289	P	P	16 52 08.1	-1.0
	comp=Z,2.1nm,0.5s,mb3.7,baz=85,slow=8.4,SNR=24						
GTA	Gaotai	29.05	273	eP	P	16 53 10.1	+0.9
GTA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.0						
ZALV	Zalesovo Beam	35.39	305	P	P	16 54 02.9	-0.9
	comp=Z,1.9nm,0.6s,mb3.8,baz=78,slow=8.2,SNR=7.8						
ZALV	Zalesovo Beam	35.39	305	P	P	16 54 02.9	-0.9
MK31	Makanchi Array	38.57	294	eP	P	16 54 30.3	-0.3
MKAR	Makanchi Array	38.57	294	P	P	16 54 30.2	-0.4
	comp=Z,1.0nm,0.4s,mb3.6,baz=82,slow=12,SNR=32						
LSA	Lhasa	40.06	264	eP	P	16 54 44.5	+1.4
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.6						
LSA	Lhasa	40.06	264	eP	P	16 54 44.5	+1.4
	comp=Z,2.0nm,0.6s,mb3.6						
CMAR	Chiang Mai Arr	42.13	244	P	P	16 55 00.5	+0.5
	comp=Z,0.4nm,0.3s,mb3.1,baz=29,slow=6.8,SNR=5.8						
TAPN	Taplejung	43.89	264	eP	P	16 55 14.6	+0.8
	comp=Z,13nm,0.3s,mb4.6						
ODAN	Odare	44.41	264	eP	P	16 55 19.0	+1.1
	comp=Z,4.2nm,0.3s,mb4.2						
JIRN	Jiri	44.78	266	eP	P	16 55 21.8	+1.0
	comp=Z,9.3nm,0.3s,mb4.5						
GUN	Gumba	44.85	266	eP	P	16 55 21.7	+0.3
	comp=Z,12nm,0.3s,mb4.6						
RAMN	Ramite	44.91	265	eP	P	16 55 22.4	+0.5
KKN	Kakani	45.35	267	eP	P	16 55 25.8	+0.5
	comp=Z,11nm,0.5s,mb4.4						
PKI	Pulchoki	45.39	266	eP	P	16 55 25.8	+0.2
	comp=Z,5.7nm,0.3s,mb4.3						
PKIN	Phulchoki	45.39	266	eP	P	16 55 25.9	+0.3
	comp=Z,2.8nm,0.2s,mb4.1						
DMN	Daman	45.58	267	eP	P	16 55 27.9	+0.8
GKN	Gorkha	45.68	267	eP	P	16 55 28.0	+0.1
	comp=Z,8.2nm,0.3s,mb4.6						
DANN	Dangsing	46.10	268	eP	P	16 55 32.1	+1.0
	comp=Z,32nm,0.5s,mb4.9						
KOLN	Koldanda	46.55	268	eP	P	16 55 35.3	+0.7
	comp=Z,7.8nm,0.3s,mb4.5						
PYUN	Piuthan	46.79	269	eP	P	16 55 37.2	+0.7
	comp=Z,10nm,0.4s,mb4.5						
RES	Resolute Bay	55.65	15	P	P	16 56 39.2	-1.9
	comp=Z,1.5nm,0.6s,mb3.6,baz=310,slow=7.2,SNR=10						
RES	Resolute Bay	55.65	15	P	P	16 56 39.2	-1.9
JOF	Joensuu	58.15	329	eP	P	16 56 58.3	-0.5
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.6						
JOF	Joensuu	58.15	329	ep	P	16 56 58.3	-0.5
	comp=Z,1.4nm,0.4s,mb3.7						
YKA	Yellowknife Ar	58.25	32	P	P	16 56 57.6	-1.9
	comp=Z,0.3nm,0.3s,mb3.1,baz=308,slow=6.7,SNR=6.8						
KAF	Kangasniemi	60.47	330	eP	P	16 57 14.1	-0.4
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.0						
KAF	Kangasniemi	60.47	330	ep	P	16 57 14.1	-0.4
	comp=Z,1.9nm,0.4s,mb4.0						
WRA	Warramunga Arr	64.53	184	P	P	16 57 41.1	-0.7
	comp=Z,0.6nm,0.5s,mb3.5,baz=1.7,slow=7.0,SNR=16						
NB2	NORSAR Subarra	66.22	335	P	P	16 57 52.5	+0.5
	comp=Z,0.9nm,0.6s,mb3.7,baz=36,slow=6.5						
NOA	NORSAR Array B	66.22	335	P	P	16 57 52.5	+0.5
	comp=Z,2.0nm,0.9s,mb3.8,baz=54,slow=7.0,SNR=4.7						
ASAR	Alice Springs	68.26	185	P	P	16 58 05.8	+0.6
	comp=Z,0.6nm,0.6s,mb3.5,baz=356,slow=5.5,SNR=21						
NVAR	Mina Array Bea	72.09	53	P	P	16 58 29.3	+1.1
	comp=Z,0.7nm,0.6s,mb3.5,baz=302,slow=5.2,SNR=3.3						
BW06	Boulder Array	73.76	45	eP	P	16 58 38.6	+0.7
	comp=Z,0.9nm,0.6s,mb3.6						
PDAR	Pinedale Array	73.76	45	P	P	16 58 38.9	+0.9
	comp=Z,1.0nm,0.7s,mb3.6,baz=342,slow=2.1,SNR=9.1						

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*IDC **06** 17:35:41.9±0.9, 28°.73S×177°.64W, h0^{km}, mb4.5/5, mb1 4.6/5, mb1mx4.2/16, mbtmp4.5/5, MS3.5/2, Ms1 3.5/2, ms1mx3.0/24, Error ellipse: s-maj=27.0km s-min=14.6km az=103.0*

*NEIC **06** 17:35:42.0±0.8, 28°.60S×177°.56W, h10^{km}, mb4.5/1, Error ellipse: s-maj=19.3km s-min=15.9km az=108.0*

ISC 06 17:35:45.4±2.9**, 29°.86S**±0°.06×**177°.5W**±0°.4**, h35^{km}, n22, σ1^{s}.07**/11**, mb4.5**/5**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	0.71	329	Pn	Pn	17 35 57.9	-0.9
	1µm,0.3s,baz=88,slow=6.8,SNR=43						
RAO				Sn	Sn	17 36 07.9	-0.6
	3µm,0.3s,baz=85,slow=23,SNR=26						
URZ	Urewera	9.49	207	Pn	Pn	17 37 56.7	-2.9
	0.3nm,0.3s,baz=44,slow=11,SNR=3.7						
URZ				Sn	Sn	17 39 44.6	-0.4
	1.1nm,0.3s,baz=218,slow=22,SNR=8.5						
RPZ	Rata Peaks	16.57	210	P	Pn	17 39 34.8	-0.1
	1.1nm,0.3s,baz=301,slow=3.4,SNR=5.4						
RAR	Rarotonga	18.15	66	LR	LR	17 43 58.8	
	comp=Z,137nm,21.7s,baz=288,slow=28						
PPT	Papeete	28.26	71	LR	LR	17 50 14.1	
	comp=Z,115nm,21.8s,baz=185,slow=31						
CTA	Charters Tower	34.15	278	P	P	17 42 28.4	+1.2
	4.0nm,0.5s,mb4.6,baz=97,slow=10.0,SNR=9.4						
STKA	Stephens Creek	35.03	256	P	P	17 42 36.9	+2.2
	6.5nm,0.8s,mb4.6,baz=87,slow=10,SNR=8.7						
ASAR	Alice Springs	43.58	266	P	P	17 43 46.9	+0.7
	1.2nm,0.5s,mb3.9,baz=106,slow=7.3,SNR=56						
WB2	Warramunga Arr	44.51	271	eP	P	17 43 53.5	-0.1
WRAB	Tennant Creek	44.51	271	eP	P	17 43 53.0	-0.7
	5.7nm,0.7s,mb4.5						
WRA	Warramunga Arr	44.52	271	P	P	17 43 54.2	+0.5
	3.9nm,0.4s,mb4.6,baz=110,slow=8.1,SNR=80						
QSPA	South Pole Qui	60.25	180	P	pP	17 45 59.4	-0.8
	5.6nm,0.6s,baz=52,slow=0.8,SNR=33						
QSPA	South Pole Qui	60.25	180	eP	pP	17 45 59.5	-0.7
JOF	Joensuu	142.07	339	epkp	PKPdf	17 55 10.9	-2.0
KAF	Kangasniemi	144.18	341	epkp	PKPdf	17 55 11.5	-5.2
NB2	NORSAR Subarra	148.28	352	PKP	PKPbc	17 55 26.6	-0.5
	comp=Z,4.0nm,0.9s,baz=23,slow=2.6						
NOA	NORSAR Array B	148.28	352	PKPbc	PKPbc	17 55 27.1	0.0
	comp=Z,2.5nm,0.7s,baz=16,slow=4.6,SNR=5.0						
HFS	Hagfors	148.80	349	PKPbc	PKPbc	17 55 28.1	-0.3
	comp=Z,7.0nm,1.1s,baz=57,slow=5.5,SNR=6.4						
AKASG	Malin Array Be	151.13	324	PKPbc	PKPbc	17 55 33.8	-0.6
	comp=Z,1.9nm,0.4s,baz=47,slow=2.9,SNR=17						
AKASG				PKPab	PKPab	17 55 39.6	-2.6
	comp=Z,0.8nm,0.4s,baz=47,slow=3.1,SNR=5.7						
MMAI	Mount Meron Ar	151.81	285	PKPbc	PKPbc	17 55 37.5	+0.9
	comp=Z,2.0nm,0.4s,baz=96,slow=5.5,SNR=7.3						
BRTR	Keskin Array B	152.72	300	PKPbc	PKPbc	17 55 36.9	-1.5
	comp=Z,0.5nm,0.5s,baz=152,slow=5.5,SNR=4.4						
TORD	Torodi Ar. Bea	163.35	177	PKPab	PKPab	17 56 42.4	+6.9
	comp=Z,0.2nm,0.5s,baz=156,slow=3.5,SNR=4.9						

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*SZGRF **06** 17:52:57.8, 36°.13N×2°.49W, h33^{km}, mb4.1, Strait of Gibraltar*

*ISCJB **06** 17:52:58.7±0.3, 37°.04N±0°.02×2°.26W±0°.01, h8^{km}±2^{km}, mb3.8/7, MS3.3/7, Error ellipse: s-maj=2.7km s-min=1.9km az=166.7*

*CSEM **06** 17:52:59.7±0.1, 36°.97N×2°.22W, h2^{km}, ML4.6/23, Mw4.3, Error ellipse: s-maj=2.8km s-min=2.1km az=152.0*

*IDC **06** 17:53:00.3±0.8, 36°.87N×2°.11W, h0^{km}, mb3.8/7, mb1 3.9/12, mb1mx3.7/32, mbtmp3.7/12, ML3.7/5, MS3.3/11, Ms1 3.4/11, ms1mx3.1/43, Error ellipse: s-maj=17.6km s-min=12.7km az=82.0*

*SFS **06** 17:53:00.0, 36°.90N×2°.17W, h11^{km}, ML4.0*

*NEIC **06** 17:53:00.2, 36°.90N×2°.17W, h11^{km}, mb4.1/2, MN4.0(MDD), After MDD.*

NEIC Felt at Almeria, Spain.

*MDD **06** 17:53:00.4±0.2, 36°.89N×2°.19W, h10^{km}, mbLg3.9/44, Error ellipse: s-maj=3.1km s-min=2.2km az=133.0, PRIMO*

MDD EMS: V INTENSIDAD MIMA.

*IGIL **06** 17:53:00.7, 36°.81N×2°.12W, h2^{km}, ML4.0*

*STR **06** 17:53:00.1±0.0, 36°.89N×2°.22W, h10^{km}, Ml4.4, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*CRAAG **06** 17:53:00.2, 36°.89N×2°.22W, Mw4.3*

*INMG **06** 17:53:01.5±1.3, 37°.00N×2°.25W, h3^{km}±2^{km}, ML4.1, Error ellipse: s-maj=3.1km s-min=2.0km az=117.0*

*LDG **06** 17:53:01.2±0.2, 36°.88N×2°.20W, h5^{km}, Ml4.4/9, Error ellipse: s-maj=4.7km s-min=1.9km az=153.0*

*CNRM **06** 17:53:07.9, 36°.81N×2°.41W, h30^{km}, MD4.3*

ISC 06 17:53:00.1±0.3**, 36°.97N**±0°.01×**2°.25W**±0°.01**, h7^{km}**±2^{km}**, n337, σ1^{s}.27**/481**, mb3.8**/7**, MS3.3**/7**, 4C-5D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENIJ	Nijar	0.03	83	⇑Pg	Pg	17 53 02.5	+0.9
	436nm,0.4s,SNR=18						
ENIJ	Nijar	0.03	83	Pg	Pg	17 53 02.5	+0.9
ENIJ	Nijar	0.03	83	Pg	Pg	17 53 02.5	+0.9
	436nm,0.4s,SNR=18						
EBER	Berja	0.52	262	⇓Pg	Pg	17 53 09.1	-1.0
	3µm,0.4s,SNR=18						
EBER				Lg		17 53 18.8	
	10µm,0.3s,SNR=5.0						
EBER	Berja	0.52	262	Pg	Pg	17 53 11.1	+1.0
EBER				Lg		17 53 18.8	
EBER	Berja	0.52	262	Pg	Pg	17 53 11.1	+1.0
EHUE	Huescar	0.89	342	⇓Pg	Pg	17 53 17.0	-0.2
	90nm,0.3s,SNR=18						
EHUE				Lg		17 53 30.3	
	359nm,0.4s,SNR=7.9						
EHUE	Huescar	0.89	342	Pg	Pg	17 53 17.0	-0.2
	90nm,0.3s,SNR=18						
EQUE	Quentar	0.98	284	⇓Pg	Pg	17 53 18.5	-0.4
	467nm,0.4s,SNR=18						
EQUE				Lg		17 53 31.4	
	1µm,0.2s,SNR=19						
EQUE	Quentar	0.98	284	Pg	Pg	17 53 18.5	-0.4
	467nm,0.4s,SNR=18						
EQES	Quesada	1.06	322	⇓Pg	Pg	17 53 19.7	-0.7
	525nm,0.5s,SNR=18						
EQES				Lg		17 53 37.7	
	4µm,0.6s,SNR=11						
EQES	Quesada	1.06	322	Pg	Pg	17 53 20.7	+0.3
EQES				Lg		17 53 35.5	
EQES	Quesada	1.06	322	Pg	Pg	17 53 20.7	+0.2
EGUA	Guajares	1.06	263	⇑Pg	Pg	17 53 20.7	+0.2
	SNR=18						
EGUA	Guajares	1.06	263	Pg	Pg	17 53 20.7	+0.2
EGUA	Guajares	1.06	263	Pg	Pg	17 53 20.7	+0.2
	SNR=18						
ECOG	Cogollos-Vega	1.10	287	⇓Pg	Pg	17 53 21.3	+0.2
	448nm,0.5s,SNR=18						
ECOG	Cogollos-Vega	1.10	287	Pg	Pg	17 53 21.4	+0.2
ECOG				Lg		17 53 33.4	
ECOG	Cogollos-Vega	1.10	287	Pg	Pg	17 53 21.3	+0.1
	448nm,0.5s,SNR=18						
ECOG				Lg		17 53 33.4	
CART	Cartagena	1.17	58	⇑Pg	Pg	17 53 19.9	-2.7
CART				Lg		17 53 34.2	
CART	Cartagena	1.17	58	eP	Pg	17 53 19.6	-3.0
CART	Cartagena	1.17	58	i P	Pg	17 53 19.9	-2.7
CART				eS	Sg	17 53 34.2	-3.6
EALB	Alboran	1.21	212	Pg	Pg	17 53 20.9	-2.3
	72nm,0.3s,SNR=28						
EALB				Lg		17 53 39.1	
	584nm,0.1s,SNR=5.0						
EALB	Alboran	1.21	212	Pg	Pg	17 53 20.9	-2.4
EALB				Lg		17 53 39.3	
EALB	Alboran	1.21	212	Pg	Pg	17 53 20.9	-2.3
	72nm,0.3s,SNR=28						
EALB				Lg		17 53 39.3	
ERON	Agron	1.25	273	⇑Pn	Pn	17 53 24.0	+0.2
	33nm,0.2s,SNR=18						
ERON	Agron	1.25	273	Pg	Pg	17 53 23.9	-0.1
ERON	Agron	1.25	273	Pg	Pg	17 53 23.9	-0.1
ELOJ	Sierra Loja	1.53	277	Pg	Pg	17 53 29.5	0.0
	54nm,0.3s,SNR=7.9						
ELOJ				Lg		17 53 53.0	
	305nm,0.3s,SNR=5.0						
ELOJ	Sierra Loja	1.53	277	Pn	Pn	17 53 28.8	+1.0
ELOJ				Lg		17 53 52.6	
ELOJ	Sierra Loja	1.53	277	Pn	Pn	17 53 28.8	+1.0
ELOJ	Sierra Loja	1.53	277	Pg	Pg	17 53 29.5	0.0
	54nm,0.3s,SNR=7.9						
ELOJ				Lg		17 53 52.6	
EVIA	Vianos	1.68	353	Pn	Pn	17 53 29.7	-0.1
	390nm,0.4s,SNR=273						
EVIA	Vianos	1.68	353	Pn	Pn	17 53 29.7	-0.1
	390nm,0.4s,SNR=273						
EBAN	Banos Encina	1.71	315	Pn	Pn	17 53 30.7	+0.5
	395nm,0.4s,SNR=283						
EBAN				Pg	Pg	17 53 32.8	0.0
	SNR=7.9						
EBAN				Lg		17 53 55.0	
	SNR=7.9						
EBAN	Banos Encina	1.71	315	Pn	Pn	17 53 31.0	+0.8
EBAN				Lg		17 53 54.8	
EBAN	Banos Encina	1.71	315	Pn	Pn	17 53 30.7	+0.5
	395nm,0.4s,SNR=283						
EBAN	Banos Encina	1.71	315	Pg	Pg	17 53 32.8	0.0
	SNR=7.9						
EBAN				Lg		17 53 54.8	
ELUQ	Luque	1.71	291	Pn	Pn	17 53 32.1	+1.8
	12nm,0.2s,SNR=7.9						
ELUQ				Lg		17 53 58.5	
	SNR=7.9						
ELUQ	Luque	1.71	291	Pn	Pn	17 53 32.0	+1.7
ELUQ				Lg		17 53 57.6	
ELUQ	Luque	1.71	291	Pn	Pn	17 53 32.0	+1.7
ELUQ				Lg		17 53 57.6	
EMLI	Melilla	1.76	199	Pg	Pg	17 53 31.3	-2.5
	102nm,0.1s,SNR=4.0						
EMAL	Malaga-Limoner	1.76	264	Pn	Pn	17 53 31.4	+0.5
EMAL				Pg	Pg	17 53 36.8	+3.0
	20nm,0.1s,SNR=7.9						
EMAL				Sn	Sn	17 53 57.2	+3.6
EMAL				Lg		17 54 04.4	
	235nm,0.7s,SNR=7.9						
EMAL	Malaga-Limoner	1.76	264	eP	Pn	17 53 31.5	+0.6
EMAL				eS	Sn	17 53 57.2	+3.7
EMEL	Melilla	1.76	199	Pg	Pg	17 53 31.3	-2.5
	102nm,0.1s,SNR=4.0						
EMEL				Lg		17 53 53.0	
	649nm,0.2s,SNR=7.9						
MELI	Melilla	1.76	199	Pg	Pg	17 53 32.4	-1.5
MELI				Lg		17 53 52.7	
MELI	Melilla	1.76	199	eP	Pn	17 53 32.3	+1.4
MELI				eS	Sn	17 53 52.7	-0.8
ETOB	Tobarra	1.76	18	Pn	Pn	17 53 30.8	-0.1
	247nm,0.4s,SNR=75						
ETOB				Pg	Pg	17 53 34.8	+0.9
	291nm,0.4s,SNR=7.9						
ETOB				Lg		17 53 56.7	
	2µm,0.6s,SNR=5.0						
ETOB	Tobarra	1.76	18	Pn	Pn	17 53 30.9	-0.1
ETOB				Lg		17 53 55.6	
ETOB	Tobarra	1.76	18	Pn	Pn	17 53 30.9	-0.1
ETOB	Tobarra	1.76	18	Pg	Pg	17 53 34.8	+0.9
	291nm,0.4s,SNR=7.9						
ETOB				Lg		17 53 55.6	
OLHC	Oulhaca	1.84	158	P	Pn	17 53 30.0	-2.0
USTO	Oran	1.84	131	P	Pn	17 53 35.0	+2.9
ODZI	Dziouia	1.87	153	P	Pn	17 53 32.0	-0.4
ZAI	Zaio	2.03	192	Pg	Pn	17 53 36.0	+1.3
ZAI				Sn	Sn	17 53 57.0	-3.3
ZAI	Zaio	2.03	192	i P	Pn	17 53 36.0	+1.3
ZAI				i S	Sn	17 53 57.0	-3.3
EMIJ	Mijas	2.07	260	Pn	Pn	17 53 33.6	-1.5
	68nm,0.3s,SNR=32						
EMIJ				Lg		17 54 08.8	
	158nm,0.3s,SNR=4.0						
EMIJ	Mijas	2.07	260	Pn	Pn	17 53 33.6	-1.5
EMIJ				Lg		17 54 02.5	
EMIJ	Mijas	2.07	260	Pn	Pn	17 53 33.6	-1.5
	68nm,0.3s,SNR=32						
EMIJ				Lg		17 54 02.5	
EADA	Adamuz	2.20	304	Pn	Pn	17 53 37.8	+0.8
	112nm,0.3s,SNR=51						
EADA				Pg	Pg	17 53 42.1	-0.2
	102nm,0.2s,SNR=7.9						
EADA				Lg		17 54 11.2	
	450nm,0.2s,SNR=5.0						
EADA	Adamuz	2.20	304	Pn	Pn	17 53 37.8	+0.8
EADA				Pg	Pg	17 53 42.0	-0.4
EADA				Lg		17 54 07.8	
EADA	Adamuz	2.20	304	Pn	Pn	17 53 37.8	+0.8
	112nm,0.3s,SNR=51						
MPAL	Palemas	2.21	219	Pg	Pn	17 53 39.0	+1.8
MPAL				Sn	Sn	17 54 01.0	-3.7
MPAL	Palemas	2.21	219	eP	Pn	17 53 39.0	+1.8
MPAL				eS	Sn	17 54 01.0	-3.7
TOU	Touzarine	2.34	212	Pg	Pn	17 53 41.0	+2.1
TOU				Sn	Sn	17 54 05.0	-2.9
TOU	Touzarine	2.34	212	eP	Pn	17 53 41.0	+2.1
TOU				eS	Sn	17 54 05.0	-2.9
ODJA	Bouhanifia	2.36	133	P	Pn	17 53 39.0	-0.1
EBEN	Beniarda	2.36	42	Pn	Pn	17 53 37.3	-1.9
	15nm,0.3s,SNR=7.9						
EBEN				Pg	Pg	17 53 44.8	-0.5
	170nm,0.5s,SNR=7.9						
EBEN				Lg		17 54 14.6	
	150nm,0.6s,SNR=4.0						
EBEN	Beniarda	2.36	42	Pn	Pn	17 53 37.1	-2.1
EBEN				Lg		17 54 18.2	
EBEN	Beniarda	2.36	42	Pn	Pn	17 53 37.3	-1.9
	15nm,0.3s,SNR=7.9						
EBEN	Beniarda	2.36	42	Pg	Pg	17 53 44.8	-0.5
	170nm,0.5s,SNR=7.9						
EBEN				Lg		17 54 18.2	
REAL	Reales	2.42	259	Pn	Pn	17 53 38.0	-2.1
REAL				Sn	Sn	17 54 14.3	+4.4
REAL	Reales	2.42	259	eP	Pn	17 53 38.0	-2.1
REAL				eS	Sn	17 54 14.3	+4.4
OKGL	Djebel Kef Gue	2.51	111	P	Pn	17 53 34.0	-7.2
EJIF	Jimena Fronter	2.64	260	Pn	Pn	17 53 43.7	+0.7
	16nm,0.4s,SNR=7.9						
EJIF				Pg	Pg	17 53 52.9	+2.3
	160nm,0.8s,SNR=7.9						
EJIF				Lg		17 54 25.4	
	171nm,0.6s,SNR=4.0						
EJIF	Jimena Fronter	2.64	260	Pn	Pn	17 53 43.7	+0.7
	16nm,0.4s,SNR=7.9						
ECEU	Ceuta	2.74	248	Pn	Pn	17 53 43.5	-0.9
	22nm,0.4s,SNR=7.4						
ECEU				Sn	Sn	17 54 15.7	-2.0
	38nm,0.5s,SNR=7.9						
ECEU	Ceuta	2.74	248	Pn	Pn	17 53 43.5	-0.9
	22nm,0.4s,SNR=7.4						
ECAB	El Cabril	2.75	295	Pn	Pn	17 53 44.7	+0.1
	127nm,0.6s,SNR=156						
ECAB				Pg	Pg	17 53 53.0	+0.1
	220nm,0.3s,SNR=7.9						
ECAB				Sn	Sn	17 54 18.5	+0.5
	264nm,0.3s,SNR=6.7						
ECAB				Lg		17 54 28.7	
	749nm,0.3s,SNR=5.0						
ECAB	El Cabril	2.75	295	Pn	Pn	17 53 44.7	+0.1
ECAB				Lg		17 54 26.5	
ECAB	El Cabril	2.75	295	Pn	Pn	17 53 44.7	+0.1
	127nm,0.6s,SNR=156						
ECAB	El Cabril	2.75	295	Pg	Pg	17 53 53.0	+0.2
	220nm,0.3s,SNR=7.9						
ECAB				Sn	Sn	17 54 18.5	+0.5
	264nm,0.3s,SNR=6.7						
ECAB				Lg		17 54 26.5	
ECHE	Chera	2.81	21	Pn	Pn	17 53 46.0	+0.7
	5.3nm,0.4s,SNR=6.3						
ECHE				Pg	Pg	17 53 53.3	-0.6
	26nm,0.3s,SNR=7.9						
ECHE				Sn	Sn	17 54 18.5	-0.9
	SNR=7.9						
ECHE				Lg		17 54 30.1	
	154nm,0.6s,SNR=4.0						
ECHE	Chera	2.81	21	Pn	Pn	17 53 46.0	+0.7
ECHE				Lg		17 54 26.6	
ECHE	Chera	2.81	21	Pn	Pn	17 53 46.0	+0.7
	5.3nm,0.4s,SNR=6.3						
ECHE	Chera	2.81	21	Pg	Pg	17 53 53.3	-0.6
	26nm,0.3s,SNR=7.9						
ECHE				Sn	Sn	17 54 18.5	-0.9
	SNR=7.9						
ECHE				Lg		17 54 26.6	
OJGS	Djebel Guires	2.83	120	P	Pn	17 53 40.0	-5.6
EANR	'Ain N'Sour	2.88	110	P	Pn	17 53 45.0	-1.4
EANR	'Ain N'Sour	2.88	110	P	Pn	17 53 45.0	-1.4
ESPR	Espera	2.89	269	Pn	Pn	17 53 47.4	+0.9
	12nm,0.3s,SNR=9.5						
ESPR				Pg	Pg	17 53 53.8	-1.7
	27nm,0.4s,SNR=7.9						
ESPR				Lg		17 54 35.3	
	186nm,0.3s,SNR=4.0						
ESPR	Espera	2.89	269	Pn	Pn	17 53 48.7	+2.2
ESPR				Lg		17 54 40.8	
ESPR	Espera	2.89	269	Pn	Pn	17 53 47.4	+0.9
	12nm,0.3s,SNR=9.5						
GIBL	Gibalbin	2.98	268	Pg	Pg	17 53 56.0	-1.3
GIBL				Lg		17 54 42.0	
ECHF	Ech Chlef	3.00	105	Pn	Pn	17 53 48.0	0.0
ESDC	Sonseca Array	3.02	334	Pn	Pn	17 53 47.9	-0.3
	5.7nm,0.2s,baz=148,slow=12,SNR=21						
ESDC				Pg	Pg	17 53 57.8	-0.1
	26nm,0.3s,baz=148,slow=16,SNR=7.6						
ESDC				Sn	Sn	17 54 26.9	+2.2
	64nm,0.5s,baz=152,slow=20,SNR=5.8						
ESDC				Lg		17 54 38.1	
	526nm,0.7s,baz=151,slow=28,SNR=18						
ESDC	Sonseca Array	3.02	334	Pn	Pn	17 53 49.1	+0.9
	13nm,0.3s,baz=149,slow=12,SNR=35						
ESDC				Pg	Pg	17 53 58.1	+0.1
	86nm,0.3s,baz=150,slow=16,SNR=141						
ESDC				Lg		17 54 38.4	
	143nm,0.3s,baz=154,slow=27,SNR=8.2						
ESDC	Sonseca Array	3.02	334	Pn	Pn	17 53 47.9	-0.3
ESDC				Pg	Pg	17 53 57.8	-0.1
ESDC				Lg		17 54 38.1	
ESDC	Sonseca Array	3.02	334	Pn	Pn	17 53 47.9	-0.3
	5.7nm,0.2s,SNR=21						
ESDC	Sonseca Array	3.02	334	Pg	Pg	17 53 57.8	-0.2
	26nm,0.3s,SNR=7.6						
ESDC				Sn	Sn	17 54 26.9	+2.3
	64nm,0.5s,baz=152,SNR=5.8						
ECHA	Ech Chlef	3.02	105	P	Pn	17 53 48.0	-0.3
ECHA	Ech Chlef	3.02	105	P	Pn	17 53 48.0	-0.3
PAB	San Pablo	3.06	328	eP	Pn	17 53 48.6	-0.1
PAB	San Pablo	3.06	328	eP	Pn	17 53 48.6	-0.2
EBNR	Beni Rached	3.11	101	P	Pn	17 53 49.3	-0.2
EBNR	Beni Rached	3.11	101	P	Pn	17 53 49.3	-0.2
CNIL	Conil	3.12	260	Pg	Pg	17 53 58.0	-1.8
CNIL				Sn	Sn	17 54 22.6	-4.4
TSY	Tnine Yamani	3.41	243	Pn	Pn	17 53 55.0	+1.5
TSY				Sn	Sn	17 54 30.0	-4.1
TSY	Tnine Yamani	3.41	243	eP	Pn	17 53 55.0	+1.5
EIBI	Ibiza	3.50	53	Pn	Pn	17 53 53.4	-1.5
	142nm,0.2s,SNR=259						
EIBI				Sn	Sn	17 54 33.7	-2.9
	65nm,0.5s,SNR=5.0						
EIBI	Ibiza	3.50	53	Pn	Pn	17 53 53.2	-1.7
EIBI				Sn	Sn	17 54 33.7	-2.9
EIBI	Ibiza	3.50	53	Pn	Pn	17 53 53.4	-1.5
	142nm,0.2s,SNR=259						
RSA	Sarsar	3.58	235	Pn	Pn	17 53 57.0	+1.1
RSA				Sn	Sn	17 54 34.0	-4.3
RSA	Sarsar	3.58	235	eP	Pn	17 53 57.0	+1.1
EMIN	Mina Concepcio	3.61	284	Pn	Pn	17 53 56.1	-0.3
	8.3nm,0.3s,SNR=43						
EMIN				Pg	Pg	17 54 11.4	+2.0
	65nm,0.5s,SNR=20						
EMIN				Sn	Sn	17 54 38.6	-0.6
	61nm,0.4s,SNR=7.9						
EMIN				Lg		17 54 57.2	
	88nm,0.3s,SNR=5.0						
EMIN	Mina Concepcio	3.61	284	Pn	Pn	17 53 56.2	-0.2
EMIN				Sn	Sn	17 54 38.6	-0.6
EMIN				Lg		17 54 54.1	
EMIN	Mina Concepcio	3.61	284	Pn	Pn	17 53 56.2	-0.2
EMOS	Mosqueruela	3.67	22	Pn	Pn	17 53 57.9	+0.8
	15nm,0.5s,SNR=14						
EMOS				Pg	Pg	17 54 10.6	+0.3
	120nm,0.5s,SNR=22						
EMOS				Lg		17 54 52.6	
	386nm,1.0s,SNR=6.1						
EMOS	Mosqueruela	3.67	22	Pn	Pn	17 53 57.9	+0.8
EMOS				Lg		17 54 52.8	
EMOS	Mosqueruela	3.67	22	Pn	Pn	17 53 57.9	+0.8
	15nm,0.5s,SNR=14						

ETOR	**Torete**	3.85	2	Pn	Pn	17 54 00.2	+0.6
	76nm,0.5s,SNR=7.9						
ETOR				Pg	Pg	17 54 13.1	-0.8
	118nm,0.4s,SNR=7.9						
ETOR				Lg		17 55 01.9	
	613nm,0.4s,SNR=7.9						
ETOR	**Torete**	3.85	2	Pn	Pn	17 54 00.2	+0.6
	76nm,0.5s,SNR=7.9						
ETOR	**Torete**	3.85	2	Pg	Pg	17 54 13.1	-0.7
	118nm,0.4s,SNR=7.9						
ETOR				Lg		17 55 02.0	
GUD	**Guadarrama**	3.96	339	Pn	Pn	17 54 01.5	+0.3
	5.9nm,0.2s,SNR=7.9						
GUD				Pg	Pg	17 54 14.6	-1.3
	31nm,0.3s,SNR=7.9						
GUD				Lg		17 55 08.6	
	347nm,0.6s,SNR=7.9						
GUD	**Guadarrama**	3.96	339	Pn	Pn	17 54 01.5	+0.3
	5.9nm,0.2s,SNR=7.9						
ERIP	**Rio Piedras**	4.02	277	Pn	Pn	17 54 02.6	+0.7
	29nm,0.5s,SNR=7.9						
ERIP				Pg	Pg	17 54 16.7	-0.3
	27nm,0.4s,SNR=7.9						
ERIP				Sn	Sn	17 54 46.9	-2.4
	188nm,0.7s,SNR=7.9						
ERIP				Lg		17 55 10.8	
	419nm,0.8s,SNR=7.9						
ERIP	**Rio Piedras**	4.02	277	Pn	Pn	17 54 02.6	+0.6
	29nm,0.5s,SNR=7.9						
EBAD	**Badajoz**	4.17	297	Pn	Pn	17 54 03.9	-0.2
	13nm,0.3s,SNR=23						
EBAD				Pg	Pg	17 54 18.7	-1.3
	40nm,0.3s,SNR=12						
EBAD				Sn	Sn	17 54 52.0	-1.0
	95nm,0.5s,SNR=4.9						
EBAD				Lg		17 55 13.3	
	199nm,0.4s,SNR=5.0						
EBAD	**Badajoz**	4.17	297	Pn	Pn	17 54 03.9	-0.2
EBAD				Lg		17 55 11.7	
EBAD	**Badajoz**	4.17	297	Pn	Pn	17 54 03.9	-0.2
	13nm,0.3s,SNR=23						
EBAD	**Badajoz**	4.17	297	Pg	Pg	17 54 18.7	-1.3
	40nm,0.3s,SNR=12						
EBAD				Sn	Sn	17 54 52.0	-1.0
	95nm,0.5s,SNR=4.9						
EBAD				Lg		17 55 11.7	
EGRO	**El Granado**	4.21	279	Pn	Pn	17 54 04.2	-0.4
	15nm,0.3s,SNR=26						
EGRO				Pg	Pg	17 54 22.7	+1.9
	70nm,0.8s,SNR=10						
EGRO				Sn	Sn	17 54 52.6	-1.5
	48nm,0.3s,SNR=7.9						
EGRO				Lg		17 55 16.0	
	27nm,0.3s,SNR=11						
EGRO	**El Granado**	4.21	279	Pn	Pn	17 54 04.2	-0.4
EGRO				Lg		17 55 15.8	
EGRO	**El Granado**	4.21	279	Pn	Pn	17 54 04.2	-0.5
	15nm,0.3s,SNR=26						
EGRO	**El Granado**	4.21	279	Pg	Pg	17 54 22.7	+1.9
	70nm,0.8s,SNR=10						
EGRO				Lg		17 55 15.8	
EMHD	**Djebel Mahouad**	4.26	99	P	Pn	17 54 08.3	+3.1
EPLA	**Plasencia**	4.31	317	Pn	Pn	17 54 06.1	+0.1
	54nm,0.6s,SNR=33						
EPLA				Pg	Pg	17 54 21.9	-0.8
	112nm,0.4s,SNR=12						
EPLA				Lg		17 55 17.0	
	117nm,0.2s,SNR=5.0						
EPLA	**Plasencia**	4.31	317	Pn	Pn	17 54 05.8	-0.2
EPLA				Lg		17 55 16.1	
EPLA	**Plasencia**	4.31	317	Pn	Pn	17 54 06.1	+0.1
	54nm,0.6s,SNR=33						
EPLA	**Plasencia**	4.31	317	Pg	Pg	17 54 21.9	-0.8
	112nm,0.4s,SNR=12						
EPLA				Lg		17 55 16.1	
PVAQ	**Vaqueiros**	4.39	277	*e*Pn	Pn	17 54 07.4	+0.4
PVAQ				*e*Sn	Sn	17 54 56.8	-1.6
PVAQ				A		17 55 31.3	
	189nm,0.7s						
PVAQ	**Vaqueiros**	4.39	277	Pn	Pn	17 54 07.4	+0.4
PVAQ				Sn	Sn	17 54 56.8	-1.6
	189nm,0.7s						
PVAQ	**Vaqueiros**	4.39	277	*e*Pn	Pn	17 54 07.4	+0.4
PVAQ				*e*Sn	Sn	17 54 56.8	-1.6
	189nm,0.7s						
ERTA	**Horta de San J**	4.46	26	Pn	Pn	17 54 08.0	0.0
	17nm,0.4s,SNR=13						
ERTA				Pg	Pg	17 54 25.2	-0.3
	30nm,0.5s,SNR=7.5						
ERTA				Sn	Sn	17 54 58.6	-1.6
	61nm,0.7s,SNR=7.9						
ERTA				Lg		17 55 23.2	
	52nm,0.5s,SNR=4.0						
ERTA	**Horta de San J**	4.46	26	Pn	Pn	17 54 08.0	0.0
ERTA				Lg		17 55 25.5	
ERTA	**Horta de San J**	4.46	26	Pn	Pn	17 54 08.0	-0.1
	17nm,0.4s,SNR=13						
ERTA	**Horta de San J**	4.46	26	Pg	Pg	17 54 25.2	-0.4
	30nm,0.5s,SNR=7.5						
ERTA				Sn	Sn	17 54 58.6	-1.6
	61nm,0.7s,SNR=7.9						
ERTA				Lg		17 55 25.5	
CZD	**Col de Zad**	4.55	211	Pn	Pn	17 54 12.0	+2.8
CZD				Sn	Sn	17 54 58.0	-4.3
CZD	**Col de Zad**	4.55	211	*e*P	Pn	17 54 12.0	+2.8
PBDV	**Barranco-do-Ve**	4.55	275	*e*Pn	Pn	17 54 10.0	+0.7
PBDV				*e*Sn	Sn	17 55 01.2	-1.2
PBDV				A		17 55 43.8	
	115nm,0.6s						
PBDV	**Barranco-do-Ve**	4.55	275	Pn	Pn	17 54 10.0	+0.7
PBDV				Sn	Sn	17 55 01.2	-1.2
	115nm,0.6s						
PBDV	**Barranco-do-Ve**	4.55	275	*e*Pn	Pn	17 54 10.0	+0.7
PBDV				*e*Sn	Sn	17 55 01.2	-1.2
	115nm,0.6s						
MDT	**Midelt**	4.57	206	Pn	Pn	17 54 10.2	+0.6
	1.2nm,0.3s,baz=16,slow=8.0,SNR=31						
MDT				Pg	Pg	17 54 21.5	-6.2
	1.3nm,0.3s,baz=39,slow=16,SNR=8.0						
MDT				Sn	Sn	17 55 00.0	-2.9
	1.6nm,0.3s,baz=85,slow=15,SNR=4.4						
MDT				Lg		17 55 22.4	
	2.0nm,0.3s,baz=95,slow=22,SNR=6.3						
MDT				LR	LR	17 55 52.7	
	comp=Z,197nm,20.0s,baz=212,slow=38						
MDT	**Midelt**	4.57	206	Pn	Pn	17 54 10.2	+0.6
PBEJ	**Beja**	4.59	285	*e*Pn	Pn	17 54 10.4	+0.6
PBEJ				*e*Sn	Sn	17 55 03.1	-0.2
PBEJ				*e*Sg	Sg	17 55 28.7	+1.2
PBEJ				A		17 55 34.0	
	132nm,0.6s						
PBEJ	**Beja**	4.59	285	Pn	Pn	17 54 10.4	+0.6
PBEJ				Sn	Sn	17 55 03.1	-0.2
PBEJ				Lg		17 55 28.7	
	66nm,0.6s						
PBEJ	**Beja**	4.59	285	*e*Pn	Pn	17 54 10.4	+0.6
PBEJ				*e*Sn	Sn	17 55 03.1	-0.2
PBEJ				*e*Sg	Sg	17 55 28.7	+1.2
	132nm,0.6s						
PESTR	**Estremoz**	4.63	296	*e*Pn	Pn	17 54 10.6	+0.2
PESTR				*e*Sn	Sn	17 55 03.7	-0.6
PESTR				*e*Sg	Sg	17 55 29.0	+0.3
PESTR				A		17 55 34.4	
	270nm,0.6s						
PESTR	**Estremoz**	4.63	296	Pn	Pn	17 54 10.6	+0.2
PESTR				Sn	Sn	17 55 03.7	-0.6
PESTR				Lg		17 55 29.0	
	135nm,0.6s						
PESTR	**Estremoz**	4.63	296	*e*Pn	Pn	17 54 10.6	+0.2
PESTR				*e*Sn	Sn	17 55 03.7	-0.6
PESTR				*e*Sg	Sg	17 55 29.0	+0.3
	270nm,0.6s						
PMRV	**Marv??o**	4.74	303	*e*Pn	Pn	17 54 12.8	+1.0
PMRV				*e*Sn	Sn	17 55 06.5	-0.5
PMRV				*e*Sg	Sg	17 55 31.6	-0.6
PMRV				A		17 55 36.0	
	352nm,0.5s						
PMRV	**Marv??o**	4.74	303	Pn	Pn	17 54 12.8	+1.0
PMRV				Sn	Sn	17 55 06.5	-0.5
PMRV				Lg		17 55 31.6	
	176nm,0.5s						
PMRV	**Marv??o**	4.74	303	*e*Pn	Pn	17 54 12.8	+1.0
PMRV				*e*Sn	Sn	17 55 06.5	-0.5
PMRV				*e*Sg	Sg	17 55 31.6	-0.6
	352nm,0.5s						
EVO	**Evora**	4.83	291	*e*Pn	Pn	17 54 14.0	+0.9
EVO				*e*Sn	Sn	17 55 08.6	-0.6
EVO				*e*Sg	Sg	17 55 37.2	+2.1
	1µm,0.8s						
ETOS	**Mallorca**	4.86	53	Pn	Pn	17 54 12.6	-1.0
	111nm,0.5s,SNR=137						
ETOS				Sn	Sn	17 55 07.8	-2.3
	27nm,0.9s,SNR=5.0						
ETOS	**Mallorca**	4.86	53	Pn	Pn	17 54 12.6	-1.0
ETOS				Sn	Sn	17 55 09.1	-0.9
ETOS	**Mallorca**	4.86	53	Pn	Pn	17 54 12.6	-1.0
	111nm,0.5s,SNR=137						
ETOS				Sn	Sn	17 55 09.1	-1.0
EVOP	**Sao Brissos**	4.91	290	*e*Pn	Pn	17 54 14.0	-0.2
EVOP				*e*Sn	Sn	17 55 08.6	-2.6
EVOP				*e*Sg	Sg	17 55 37.2	-0.5
	565nm,0.8s						
ESAC	**San Caprasio**	4.94	16	Pn	Pn	17 54 15.8	+1.1
	19nm,0.3s,SNR=6.2						
ESAC				Pg	Pg	17 54 30.6	-4.2
	191nm,0.7s,SNR=23						
ESAC				Lg		17 55 32.3	
	630nm,0.8s,SNR=7.8						
ESAC	**San Caprasio**	4.94	16	Pn	Pn	17 54 15.8	+1.1
	19nm,0.3s,SNR=6.2						
EPOB	**Poblet**	5.08	30	Pn	Pn	17 54 16.3	-0.4
	7.2nm,0.3s,SNR=25						
EPOB				Lg		17 55 37.8	
	42nm,0.8s,SNR=4.0						
EPOB	**Poblet**	5.08	30	Pn	Pn	17 54 16.9	+0.2
EPOB				Lg		17 55 55.1	
EPOB	**Poblet**	5.08	30	Pn	Pn	17 54 16.9	+0.3
MORF	**Marmelete**	5.13	276	*e*Pn	Pn	17 54 18.2	+1.0
MORF				*e*Sn	Sn	17 55 15.4	-1.2
MORF				A		17 55 55.3	
	81nm,0.7s						
MORF	**Marmelete**	5.13	276	Pn	Pn	17 54 18.2	+1.0
MORF				Sn	Sn	17 55 15.4	-1.2
	81nm,0.7s						
MORF	**Marmelete**	5.13	276	*e*Pn	Pn	17 54 18.2	+1.0
MORF				*e*Sn	Sn	17 55 15.4	-1.2
	81nm,0.7s						
PTEO	**Sao Teotonio**	5.20	278	*e*Pn	Pn	17 54 19.5	+1.3
PTEO				*e*Sn	Sn	17 55 17.1	-1.2
PTEO				*e*Sg	Sg	17 55 47.7	+0.7
PTEO				A		17 55 57.7	
	231nm,0.7s						
PTEO	**Sao Teotonio**	5.20	278	Pn	Pn	17 54 19.5	+1.3
PTEO				Sn	Sn	17 55 17.1	-1.2
PTEO				Lg		17 55 47.7	
	116nm,0.7s						
PTEO	**Sao Teotonio**	5.20	278	*e*Pn	Pn	17 54 19.5	+1.3
PTEO				*e*Sn	Sn	17 55 17.1	-1.2
PTEO				*e*Sg	Sg	17 55 47.7	+0.7
	231nm,0.7s						
ZFT	**Errachidia**	5.22	200	Pn	Pn	17 54 21.0	+2.5
ZFT				Sn	Sn	17 55 15.0	-3.9
ZFT	**Errachidia**	5.22	200	*e*P	Pn	17 54 21.0	+2.5
ZFT				*e*S	Sn	17 55 15.0	-3.9
PFVI	**Vila Bisbo**	5.26	274	*e*Pn	Pn	17 54 19.3	+0.2
PFVI				*e*Sn	Sn	17 55 19.3	-0.7
PFVI				A		17 56 23.6	
	99nm,0.6s						
PFVI	**Vila Bisbo**	5.26	274	Pn	Pn	17 54 19.3	+0.2
PFVI				Sn	Sn	17 55 19.3	-0.7
	50nm,0.6s						
PFVI	**Vila Bisbo**	5.26	274	*e*Pn	Pn	17 54 19.3	+0.2
PFVI				*e*Sn	Sn	17 55 19.3	-0.7
	99nm,0.6s						
MTE	**Manteigas**	5.38	311	*e*Pn	Pn	17 54 21.8	+1.2
MTE				*e*Sg	Sg	17 55 51.2	-1.5
MTE				A		17 56 04.5	
	524nm,0.7s						
MTE	**Manteigas**	5.38	311	*e*P	Pn	17 54 21.6	+0.9
	66nm,0.6s						
MTE	**Manteigas**	5.38	311	*e*Pn	Pn	17 54 21.8	+1.2
MTE				*e*Sg	Sg	17 55 51.2	-1.5
	524nm,0.7s						
ALMR	**Almeirim**	5.45	296	*e*P	Pn	17 54 23.2	+1.5
ALMR				*e*S	Sn	17 55 22.2	-2.3
ALMR				*e*S	Sn	17 55 22.3	-2.2
ALMR				AML	AML	17 55 24.0	
	comp=E,279nm,0.8s						
ALMR	**Almeirim**	5.45	296	*e*P	Pn	17 54 23.2	+1.6
ALMR				*e*S	Sn	17 55 22.3	-2.2
ALMR	**Almeirim**	5.45	296	*e*P	Pn	17 54 23.2	+1.6
MVO	**Moncorvo**	5.60	320	*e*Pn	Pn	17 54 24.8	+1.1
MVO				*e*Sg	Sg	17 55 57.2	-2.7
MVO				A		17 56 09.7	
	comp=E,217nm,0.6s						
MVO	**Moncorvo**	5.60	320	Pn	Pn	17 54 24.8	+1.1
MVO				Lg		17 55 57.2	
	comp=E,108nm,0.6s						
MVO	**Moncorvo**	5.60	320	*e*Pn	Pn	17 54 24.8	+1.1
ECRI	**Cripan**	5.64	358	Pn	Pn	17 54 25.7	+1.5
	comp=E,6.5nm,0.2s,SNR=7.9						
ECRI				Lg		17 55 59.1	
	comp=E,230nm,0.7s,SNR=7.9						
ECRI	**Cripan**	5.64	358	Pn	Pn	17 54 25.6	+1.4
ECRI				Lg		17 55 59.7	
ECRI	**Cripan**	5.64	358	Pn	Pn	17 54 25.6	+1.4
LIS	**Lisbon**	5.73	290	*e*P	Pn	17 54 27.0	+1.5
LIS				AML	AML	17 55 28.4	
	comp=E,79nm,0.1s						
LIS				*e*S	Sn	17 55 29.6	-1.9
LIS				*e*S	Sn	17 55 29.6	-1.9
LIS	**Lisbon**	5.73	290	*e*P	Pn	17 54 27.0	+1.5
IUNC	**Unciti**	5.81	5	Pn	Pn	17 54 29.0	+2.4
	comp=E,19nm,0.5s,SNR=14						
IUNC				Lg		17 56 08.9	
	comp=E,97nm,0.6s,SNR=7.9						
IUNC	**Unciti**	5.81	5	Pn	Pn	17 54 29.0	+2.4
	comp=E,19nm,0.5s,SNR=14						
EARA	**Aranguren**	5.82	5	Pn	Pn	17 54 31.7	+4.9
	comp=E,19nm,0.5s,SNR=5.4						
EARA				Pg	Pg	17 54 47.8	-3.8
	comp=E,90nm,0.9s,SNR=7.8						
EARA				Lg		17 56 05.0	
	comp=E,325nm,1.1s,SNR=7.9						
IPRE	**Itoiz**	5.87	6	Pn	Pn	17 54 32.9	+5.5
	comp=E,12nm,0.5s,SNR=4.0						
IPRE				Pg	Pg	17 54 52.8	+0.3
	comp=E,137nm,1.2s,SNR=6.8						
IPRE				Lg		17 56 07.0	
	comp=E,137nm,1.0s,SNR=7.9						
MAHO	**Mahon**	5.89	58	Pn	Pn	17 54 26.3	-1.4
MAHO				Sn	Sn	17 55 32.4	-3.0
MAHO	**Mahon**	5.89	58	*e*P	Pn	17 54 26.3	-1.4
IZUN	**Zunzarren**	5.92	6	Pn	Pn	17 54 30.4	+2.3
	comp=E,1.5nm,0.2s,SNR=7.9						
IZUN				Pg	Pg	17 54 53.7	+0.3
	comp=E,19nm,0.7s,SNR=7.9						
IZUN				Lg		17 56 08.3	
	comp=E,91nm,0.7s,SNR=7.9						
IZUN	**Zunzarren**	5.92	6	Pn	Pn	17 54 30.4	+2.4
	comp=E,1.5nm,0.2s,SNR=7.9						
PBRG	**Braganca**	5.95	326	*e*Pn	Pn	17 54 29.6	+1.1
PBRG				*e*Sg	Sg	17 56 10.6	-0.6
PBRG				A		17 56 15.2	
	comp=E,231nm,0.7s						
PBRG	**Braganca**	5.95	326	Pn	Pn	17 54 29.6	+1.1
PBRG				Lg		17 56 10.6	
	comp=E,116nm,0.7s						
PBRG	**Braganca**	5.95	326	*e*Pn	Pn	17 54 29.6	+1.1
PBRG				*e*Sg	Sg	17 56 10.6	-0.6
	comp=E,231nm,0.7s						
EORO	**Oroz-Betelu**	5.96	7	Pn	Pn	17 54 29.5	+0.9
	comp=E,3.1nm,0.3s,SNR=14						
EORO				Pg	Pg	17 54 52.7	-1.6
	comp=E,81nm,0.6s,SNR=18						
EORO				Lg		17 56 07.9	
	comp=E,225nm,0.9s,SNR=6.5						
EORO	**Oroz-Betelu**	5.96	7	Pn	Pn	17 54 29.5	+0.8
	comp=E,3.1nm,0.3s,SNR=14						
IUSE	**Utxeti**	6.00	5	Pn	Pn	17 54 31.7	+2.6
	comp=E,34nm,0.9s,SNR=19						
IUSE				Pg	Pg	17 54 54.2	-0.7
	comp=E,56nm,0.9s,SNR=7.6						
IUSE				Lg		17 56 08.6	
	comp=E,80nm,0.8s,SNR=7.9						
IUSE	**Utxeti**	6.00	5	Pn	Pn	17 54 31.7	+2.6
	comp=E,34nm,0.9s,SNR=19						
EBIE	**Bielsa**	6.00	17	Pn	Pn	17 54 29.9	+0.7
	comp=E,4.3nm,0.4s,SNR=12						
EBIE				Pg	Pg	17 54 55.3	+0.3
	comp=E,50nm,0.9s,SNR=10						
EBIE				Lg		17 56 08.4	
	comp=E,17nm,0.6s,SNR=5.0						
EBIE	**Bielsa**	6.00	17	Pn	Pn	17 54 30.2	+1.0
EBIE				Lg		17 56 09.8	
EBIE	**Bielsa**	6.00	17	Pn	Pn	17 54 29.9	+0.7
	comp=E,4.3nm,0.4s,SNR=12						
PVRL	**Vila Real**	6.05	317	*e*Pn	Pn	17 54 31.3	+1.5
PVRL				*e*Sn	Sn	17 55 37.3	-1.9
PVRL				*e*Sg	Sg	17 56 13.0	-1.2
PVRL				A		17 56 22.4	
	comp=E,241nm,0.8s						
PVRL	**Vila Real**	6.05	317	Pn	Pn	17 54 31.3	+1.5
PVRL				Sn	Sn	17 55 37.3	-1.9
PVRL				Lg		17 56 13.0	
	comp=E,120nm,0.8s						
PVRL	**Vila Real**	6.05	317	*e*Pn	Pn	17 54 31.3	+1.5
PVRL				*e*Sg	Sg	17 56 13.0	-1.2
	comp=E,241nm,0.8s						
ECAL	**Calabor**	6.06	326	Pn	Pn	17 54 31.0	+1.0
	comp=E,25nm,0.4s,SNR=28						
ECAL				Sn	Sn	17 55 39.7	+0.1
	comp=E,61nm,0.4s,SNR=7.9						
ECAL				Lg		17 56 12.5	
	comp=E,429nm,0.9s,SNR=5.0						
ECAL	**Calabor**	6.06	326	Pn	Pn	17 54 31.2	+1.2
ECAL				Lg		17 56 12.5	
ECAL	**Calabor**	6.06	326	Pn	Pn	17 54 31.0	+1.0
	comp=E,25nm,0.4s,SNR=28						
ECAL				Sn	Sn	17 55 39.7	+0.2
	comp=E,61nm,0.4s,SNR=7.9						
ETSF	**Etsaut**	6.06	12	*e*Pn	Pn	17 54 31.0	+0.9
ETSF				*e*Sg	Sg	17 56 12.4	-2.3
	comp=E,299nm,1.1s						
ETSF	**Etsaut**	6.06	12	Pn	Pn	17 54 31.0	+0.9
ETSF				Lg		17 56 12.4	
	comp=E,150nm,1.1s						
ETSF	**Etsaut**	6.06	12	*e*Pn	Pn	17 54 31.0	+0.9
ETSF				*e*Sg	Sg	17 56 12.4	-2.3
	comp=E,150nm,1.1s						
RESF	**Ens**	6.16	18	P	Pn	17 54 31.9	+0.5
RESF	**Ens**	6.16	18	P	Pn	17 54 31.9	+0.5
SJPF	**Ste Jean**	6.19	7	*e*Pn	Pn	17 54 32.8	+1.0
SJPF				*e*Sg	Sg	17 56 17.6	-1.1
	comp=E,351nm,1.0s						
SJPF	**Ste Jean**	6.19	7	Pn	Pn	17 54 32.8	+1.0
SJPF				Lg		17 56 17.6	
	comp=E,175nm,1.0s						
SJPF	**Ste Jean**	6.19	7	*e*Pn	Pn	17 54 32.8	+1.0
SJPF				*e*Sg	Sg	17 56 17.6	-1.1
	comp=E,175nm,1.0s						
SET	**Setif**	6.20	95	P	Pn	17 54 25.0	-7.0
ELIZ	**Elizondo**	6.21	5	Pn	Pn	17 54 33.6	+1.5
	comp=E,16nm,0.4s,SNR=8.3						
ELIZ				Pg	Pg	17 54 58.6	-0.5
	comp=E,66nm,0.7s,SNR=9.9						
ELIZ				Lg		17 56 16.0	
	comp=E,105nm,0.9s,SNR=7.9						
ELIZ	**Elizondo**	6.21	5	Pn	Pn	17 54 33.6	+1.5
	comp=E,16nm,0.4s,SNR=8.3						
REYF	**Montagne du Re**	6.26	13	P	Pn	17 54 33.7	+1.0
REYF	**Montagne du Re**	6.26	13	P	Pn	17 54 33.7	+1.0
EALK	**Alkurruntz**	6.27	5	Pn	Pn	17 54 35.0	+2.1
	comp=E,83nm,0.5s,SNR=34						
EALK				Sn	Sn	17 55 43.7	-1.0
	comp=E,214nm,0.9s,SNR=7.9						
EALK				Lg		17 56 16.8	
	comp=E,155nm,0.6s,SNR=5.0						
EALK	**Alkurruntz**	6.27	5	Pn	Pn	17 54 35.2	+2.3
EALK				Lg		17 56 16.8	
EALK	**Alkurruntz**	6.27	5	Pn	Pn	17 54 35.0	+2.1
	comp=E,83nm,0.5s,SNR=34						
EALK				Sn	Sn	17 55 43.7	-1.0
	comp=E,214nm,0.9s,SNR=7.9						
ORDF	**Ordiarp**	6.32	9	P	Pn	17 54 34.9	+1.3
ORDF	**Ordiarp**	6.32	9	P	Pn	17 54 34.9	+1.3
ELAN	**Lanestosa**	6.32	352	Pn	Pn	17 54 34.2	+0.6
	comp=E,9.5nm,0.4s,SNR=6.8						
ELAN				Pg	Pg	17 54 59.3	-1.9
	comp=E,49nm,0.6s,SNR=7.3						
ELAN				Lg		17 56 20.4	
	comp=E,211nm,0.7s,SNR=5.0						
ELAN	**Lanestosa**	6.32	352	Pn	Pn	17 54 36.7	+3.1
ELAN				Lg		17 56 18.5	
ELAN	**Lanestosa**	6.32	352	Pn	Pn	17 54 34.2	+0.6
	comp=E,9.5nm,0.4s,SNR=6.8						
OSSF	**Osses**	6.33	7	P	Pn	17 54 34.8	+1.1
OSSF	**Osses**	6.33	7	P	Pn	17 54 34.8	+1.1
LABF	**Labassere**	6.33	16	P	Pn	17 54 34.5	+0.8
LABF	**Labassere**	6.33	16	P	Pn	17 54 34.5	+0.8
MELF	**Melles**	6.33	20	P	Pn	17 54 34.8	+1.0
MELF	**Melles**	6.33	20	P	Pn	17 54 34.8	+1.0
EPF	**Esparros**	6.37	17	*e*Pn	Pn	17 54 34.5	+0.2
EPF				*e*Sn	Sn	17 55 43.5	-3.8
EPF				*e*Sg	Sg	17 56 22.0	-2.6
	comp=E,218nm,1.0s						
EPF	**Esparros**	6.37	17	Pn	Pn	17 54 34.5	+0.2
EPF				Sn	Sn	17 55 43.5	-3.8
EPF				Lg		17 56 22.0	
	comp=E,109nm,1.0s						
EPF	**Esparros**	6.37	17	*e*Pn	Pn	17 54 34.5	+0.2
EPF				*e*Sg	Sg	17 56 22.0	-2.6
	comp=E,109nm,1.0s						
PTO	**Porto**	6.46	312	*e*Pn	Pn	17 54 37.2	+1.7
PTO				*e*Sg	Sg	17 56 28.7	+1.2
PTO	**Porto**	6.46	312	*e*Pn	Pn	17 54 37.2	+1.7
PTO				*e*Sg	Sg	17 56 28.7	+1.2
PCAB	**Cabril**	6.52	318	*e*Pn	Pn	17 54 37.5	+1.2
PCAB				*e*Sn	Sn	17 55 49.3	-1.5
PCAB				*e*Sg	Sg	17 56 29.1	-0.1
PCAB				A		17 56 35.9	
	comp=E,213nm,0.7s						
PCAB	**Cabril**	6.52	318	Pn	Pn	17 54 37.5	+1.2
PCAB				Sn	Sn	17 55 49.3	-1.5
PCAB				Lg		17 56 29.1	
	comp=E,106nm,0.7s						
PCAB	**Cabril**	6.52	318	*e*Pn	Pn	17 54 37.5	+1.2
PCAB				*e*Sn	Sn	17 55 49.3	-1.5
PCAB				*e*Sg	Sg	17 56 29.1	-0.1
	comp=E,213nm,0.7s						
DFRA	**Djebel Bou Aff**	6.54	91	P	Pn	17 54 36.5	-0.1
DFRA	**Djebel Bou Aff**	6.54	91	P	Pn	17 54 36.5	-0.1
ERUA	**La Rua**	6.60	327	Pn	Pn	17 54 39.6	+2.2
	comp=E,10nm,0.5s,SNR=7.9						
ERUA				Sn	Sn	17 55 51.1	-1.8
	comp=E,6.8nm,0.4s,SNR=4.0						
ERUA				Lg		17 56 30.1	
	comp=E,251nm,0.8s,SNR=4.0						
ERUA	**La Rua**	6.60	327	Pn	Pn	17 54 39.6	+2.2
	comp=E,10nm,0.5s,SNR=7.9						
ELOB	**Lobios**	6.65	319	Pn	Pn	17 54 38.7	+0.7
	comp=E,19nm,0.6s,SNR=14						
ELOB				Sn	Sn	17 55 51.8	-2.2
	comp=E,38nm,0.4s,SNR=7.9						
ELOB				Lg		17 56 32.1	
	comp=E,174nm,0.6s,SNR=7.9						
ELOB	**Lobios**	6.65	319	Pn	Pn	17 54 38.7	+0.6
	comp=E,19nm,0.6s,SNR=14						
EARI	**Arriondas**	6.72	341	Pn	Pn	17 54 39.8	+0.8
	comp=E,13nm,0.4s,SNR=14						
EARI				Pg	Pg	17 55 09.5	+0.8
	comp=E,31nm,0.5s,SNR=5.7						
EARI				Sn	Sn	17 55 54.3	-1.4
	comp=E,133nm,1.1s,SNR=7.9						
EARI				Lg		17 56 30.4	
	comp=E,106nm,0.7s,SNR=5.9						
EARI	**Arriondas**	6.72	341	Pn	Pn	17 54 42.2	+3.1
EARI	**Arriondas**	6.72	341	Pn	Pn	17 54 39.8	+0.7
	comp=E,13nm,0.4s,SNR=14						
EZAM	**Zamans**	7.18	318	Pn	Pn	17 54 47.9	+2.6
	comp=E,24nm,0.5s,SNR=4.0						
EZAM				Sn	Sn	17 56 08.0	+0.9
	comp=E,24nm,0.4s,SNR=7.9						
EZAM				Lg		17 56 49.3	
	comp=E,220nm,0.8s,SNR=7.9						
EZAM	**Zamans**	7.18	318	Pn	Pn	17 54 47.9	+2.5
	comp=E,24nm,0.5s,SNR=4.0						
EZAM				Sn	Sn	17 56 08.0	+0.9
	comp=E,24nm,0.4s,SNR=7.9						
MTLF	**Montolieu**	7.23	27	*e*Pn	Pn	17 54 45.4	-0.6
MTLF				*e*Sg	Sg	17 56 48.9	-3.1
	comp=E,157nm,1.3s						
MTLF	**Montolieu**	7.23	27	Pn	Pn	17 54 45.4	-0.6
MTLF				Lg		17 56 48.9	
	comp=E,79nm,1.3s						
MTLF	**Montolieu**	7.23	27	*e*Pn	Pn	17 54 45.4	-0.6

MTLF				*e*Sg	Sg	17 56 48.9	-3.1
	comp=E,79nm,1.3s						
CAEH	'Ain El Ouahch	7.30	89	P	Pn	17 54 46.5	-0.5
CAEH	'Ain El Ouahch	7.30	89	P	Pn	17 54 46.5	-0.5
EPON	Pontenova	7.38	331	Pn	Pn	17 54 49.2	+1.2
	comp=E,17nm,0.6s,SNR=7.9						
EPON				Lg		17 56 55.9	
	comp=E,151nm,0.9s,SNR=7.9						
EPON	Pontenova	7.38	331	Pn	Pn	17 54 49.2	+1.1
	comp=E,17nm,0.6s,SNR=7.9						
STS	Santiago	7.64	323	Pn	Pn	17 54 54.8	+3.2
	comp=E,4.9nm,0.2s,SNR=4.0						
STS				Lg		17 57 04.6	
	comp=E,144nm,0.8s,SNR=7.9						
CMAH	Djebel Manchou	7.76	90	P	Pn	17 54 52.8	-0.6
CMAH	Djebel Manchou	7.76	90	P	Pn	17 54 52.8	-0.6
ABSA	Djebel Ababsia	7.85	92	P	Pn	17 54 54.0	-0.6
ABSA	Djebel Ababsia	7.85	92	P	Pn	17 54 54.0	-0.6
CABS	Djebel Ababsia	7.85	92	Pn	Pn	17 54 54.0	-0.6
EMAZ	Mazaricos	7.90	321	Pn	Pn	17 54 58.3	+3.1
	comp=E,5.2nm,0.3s,SNR=4.0						
EMAZ				Lg		17 57 13.1	
	comp=E,314nm,1.4s,SNR=7.9						
LFF	La Frestale	8.28	15	*e*Pn	Pn	17 55 00.8	+0.4
LFF				*e*Sg	Sn	17 57 22.1	+48
	comp=E,87nm,1.0s						
LFF	La Frestale	8.28	15	Pn	Pn	17 55 00.8	+0.4
LFF				Lg		17 57 22.1	
	comp=E,44nm,1.0s						
LFF	La Frestale	8.28	15	*e*Pn	Pn	17 55 00.8	+0.4
LASF	Ste Croix	8.48	31	Lg		17 57 28.4	
	comp=E,24nm,1.0s						
CAF	Calviac	8.59	21	*e*Pn	Pn	17 55 04.9	+0.2
CAF				*e*Sg	Sn	17 57 31.8	+50
	comp=E,81nm,1.2s						
CAF	Calviac	8.59	21	Pn	Pn	17 55 04.9	+0.2
CAF				Lg		17 57 31.8	
	comp=E,41nm,1.2s						
CAF	Calviac	8.59	21	*e*Pn	Pn	17 55 04.9	+0.2
RJF	Les Rejaudoux	8.80	18	*e*Pn	Pn	17 55 07.4	-0.2
RJF				*e*Sn	Sn	17 56 40.8	-6.1
RJF				*e*Sg	Sn	17 57 38.6	+52
	comp=E,71nm,1.2s						
RJF	Les Rejaudoux	8.80	18	Pn	Pn	17 55 07.4	-0.2
RJF				Sn	Sn	17 56 40.8	-6.1
RJF				Lg		17 57 38.6	
	comp=E,35nm,1.2s						
RJF	Les Rejaudoux	8.80	18	*e*Pn	Pn	17 55 07.4	-0.2
SMRF	Simiane la Rot	9.19	38	*e*Pn	Pn	17 55 12.2	-0.8
SMRF	Simiane la Rot	9.19	38	*e*Pn	Pn	17 55 12.2	-0.8
LMR	La Mourre	9.24	44	*e*Pn	Pn	17 55 12.7	-0.9
LMR	La Mourre	9.24	44	*e*Pn	Pn	17 55 12.7	-0.9
KEST	Kesra	9.44	94	Pn	Pn	17 55 16.7	+0.4
	comp=E,0.3nm,0.3s,baz=220,slow=3.3,SNR=8.8						
KEST				Sn	Sn	17 57 02.0	-0.6
	comp=E,0.1nm,0.3s,baz=95,slow=9.6,SNR=3.5						
FRF	La Foret Royal	9.46	43	*e*Pn	Pn	17 55 16.2	-0.5
FRF	La Foret Royal	9.46	43	*e*Pn	Pn	17 55 16.2	-0.5
MFF	Saint Martin d	9.75	9	*e*Pn	Pn	17 55 20.8	+0.1
MFF	Saint Martin d	9.75	9	*e*Pn	Pn	17 55 20.8	+0.1
PGF	Pioggiola	10.29	54	*e*Pn	Pn	17 55 28.6	+0.5
PGF	Pioggiola	10.29	54	*e*Pn	Pn	17 55 28.6	+0.5
PGF	Pioggiola	10.29	54	*e*Pn	Pn	17 55 28.6	+0.5
QUIF	Quistinic	10.96	357	*e*Pn	Pn	17 55 36.7	-0.5
QUIF	Quistinic	10.96	357	*e*Pn	Pn	17 55 36.7	-0.5
QUIF	Quistinic	10.96	357	*e*Pn	Pn	17 55 36.7	-0.5
SGMF	Saint Gilles	11.28	359	*e*Pn	Pn	17 55 40.9	-0.7
SGMF	Saint Gilles	11.28	359	*e*Pn	Pn	17 55 40.9	-0.7
SGMF	Saint Gilles	11.28	359	*e*Pn	Pn	17 55 40.9	-0.7
LDF	La Druitiere	11.72	7	*e*Pn	Pn	17 55 47.9	+0.3
LDF	La Druitiere	11.72	7	*e*Pn	Pn	17 55 47.9	+0.3
LDF	La Druitiere	11.72	7	*e*Pn	Pn	17 55 47.9	+0.3
FLN	La Foliniere	11.86	6	*e*Pn	Pn	17 55 49.6	+0.1
FLN	La Foliniere	11.86	6	*e*Pn	Pn	17 55 49.6	+0.1
FLN	La Foliniere	11.86	6	*e*Pn	Pn	17 55 49.6	+0.1
DAVOX	Davos/Dischmat	13.32	39	LR	LR	18 01 00.7	
	comp=E,134nm,18.8s,baz=262,slow=36						
GRA1	Grafenberg Arr	16.02	33	*e*P	Pn	17 56 53.1	+7.4
	comp=E,23nm,1.6s						
GRF	Grafenberg Arr	16.02	33	*e*P	Pn	17 56 53.1	+7.4
	comp=Z,23nm,1.6s						
GERES	GERESS Array B	16.62	39	Pn	Pn	17 56 53.3	0.0
	comp=Z,0.1nm,0.3s,baz=215,slow=15,SNR=3.4						
GERES				LR	LR	18 03 04.9	
	comp=Z,141nm,20.5s,baz=278,slow=36						
GERES	GERESS Array B	16.62	39	Pn	Pn	17 56 53.3	0.0
EKA	Eskdalemuir Ar	18.38	358	P	Pn	17 57 16.9	+1.7
	baz=180,slow=13,SNR=3.0						
EKA	Eskdalemuir Ar	18.38	358	P	Pn	17 57 16.9	+1.7
VRAC	Vranov	18.41	42	LR	LR	18 03 57.3	
	comp=Z,62nm,18.9s,baz=8.4,slow=36						
IDI	Anoyia	21.96	86	P	P	17 57 54.6	+0.3
	comp=Z,20nm,1.2s,mb4.4,baz=270,slow=11,SNR=3.4						
IDI	Anoyia	21.96	86	P	P	17 57 54.6	+0.3
TORD	Torodi Ar. Bea	23.98	171	P	P	17 58 16.0	+0.8
	comp=Z,4.9nm,0.9s,mb4.0,baz=350,slow=7.9,SNR=19						
TORD				LR	LR	18 07 57.2	
	comp=Z,108nm,18.6s,MS3.4,baz=315,slow=38						
HFS	Hagfors	25.34	19	P	P	17 58 29.8	+2.6
	comp=Z,2.7nm,0.8s,mb3.8,baz=228,slow=13,SNR=2.3						
HFS				LR	LR	18 07 54.4	
	comp=Z,58nm,19.1s,MS3.1,baz=234,slow=35						
HFS	Hagfors	25.34	19	P	P	17 58 29.8	+2.6
NOA	NORSAR Array B	25.56	15	LR	LR	18 10 16.4	
	comp=Z,35nm,18.9s,MS2.9,baz=165,slow=40						
DBIC	Dimbokro	30.25	185	LR	LR	18 11 25.2	
	comp=Z,79nm,19.5s,MS3.4,baz=353,slow=37						
EIL	Elat	31.78	92	LR	LR	18 16 17.9	
	comp=Z,42nm,18.9s,MS3.1,baz=100,slow=44						
ARCES	ARCESS Array B	35.92	16	LR	LR	18 14 28.1	
	comp=Z,101nm,20.5s,MS3.6,baz=238,slow=36						
SCHQ	Schefferville	46.59	314	P	P	18 01 32.2	+3.9
	comp=Z,1.4nm,0.9s,mb3.9,baz=84,slow=19,SNR=2.3						
MKAR	Makanchi Array	60.83	52	P	P	18 03 12.5	-0.3
	comp=Z,0.1nm,0.5s,mb3.2,baz=298,slow=5.6,SNR=3.5						
YKA	Yellowknife Ar	67.12	332	P	P	18 03 57.2	+3.4
	comp=Z,0.6nm,0.7s,mb3.8,baz=60,slow=6.2,SNR=5.7						
SONM	Songino Array	74.34	42	LR	LR	18 39 28.1	
	comp=Z,46nm,18.5s,MS3.8,baz=221,slow=38						
PDAR	Pinedale Array	76.72	314	P	P	18 04 54.6	+2.7
	comp=Z,0.6nm,0.9s,mb3.5,baz=60,slow=8.8,SNR=4.7						

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*ISCJB **06** 18:03:27.4±1.3, 16°.9N±0°.1×145°.7E±0°.2, h305^{km}±14^{km}, mb3.4/10, Error ellipse: s-maj=34.7km s-min=18.9km az=180.0*

*IDC **06** 18:03:27.8±1.3, 16°.95N×145°.71E, h292^{km}±13^{km}, mb3.2/9, mb1 3.4/10, mb1mx3.2/22, mbtmp3.2/10, Error ellipse: s-maj=25.6km s-min=12.7km az=90.0*

*NEIC **06** 18:03:28.1±1.1, 16°.98N×145°.65E, h298^{km}±12^{km}, mb4.2/1, Error ellipse: s-maj=23.7km s-min=13.4km az=94.0*

ISC 06 18:03:28.1±1.3, 16°.9N±0°.1×145°.7E±0°.2, h297^{km}±14^{km}, n12, σ0.^{s}76/13, mb3.4/10, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	3.42	194	P	Pn	18 04 28.3	+0.4
	41nm,0.3s,baz=325,slow=7.1,SNR=17						
GUMO				S	S	18 05 15.3	-0.5
	5.1nm,0.3s,baz=18,slow=20,SNR=3.2						
KSRS	Korea Array	25.75	326	P	P	18 08 34.0	+1.8
	0.9nm,0.7s,mb3.3,baz=150,slow=11,SNR=4.4						
PETK	Petropavlovsk-	37.31	12	P	P	18 10 12.7	+0.5
	1.0nm,0.5s,mb3.5,baz=146,slow=7.6,SNR=8.5						
WRA	Warramunga Arr	38.30	197	P	P	18 10 21.4	+0.6
	1.3nm,0.4s,mb3.7,baz=19,slow=8.4,SNR=28						
ASAR	Alice Springs	41.96	196	P	P	18 10 50.8	+0.2
	1.1nm,0.5s,mb3.3,baz=13,slow=6.5,SNR=56						
CMAR	Chiang Mai Arr	44.47	279	P	P	18 11 11.2	+0.5
	0.4nm,0.3s,mb3.1,baz=68,slow=6.7,SNR=7.2						
SONM	Songino Array	44.52	323	P	P	18 11 10.5	-0.2
	1.9nm,0.6s,mb3.5,baz=138,slow=7.3,SNR=17						
ZALV	Zalesovo Beam	59.41	323	P	P	18 12 58.5	-1.2
	0.6nm,0.3s,mb3.5,baz=120,slow=8.7,SNR=4.3						
MKAR	Makanchi Array	59.68	315	P	P	18 13 01.9	+0.1
	0.5nm,0.5s,mb3.3,baz=90,slow=7.7,SNR=9.2						
KURK	Kurchatov	62.58	319	*e*P	P	18 13 19.9	-1.1
	6.8nm,1.0s,mb4.2						
BRVK	Borovoye	67.89	321	*e*P	P	18 13 54.3	-0.6
YKA	Yellowknife Ar	79.54	28	P	P	18 15 01.7	-0.3
	0.1nm,0.4s,mb2.9,baz=289,slow=5.1,SNR=3.0						

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*ISK **06** 18:12:31.8, 37°.00N×29°.22E, h11^{km}, MD2.7*

*CSEM **06** 18:12:32.8±0.3, 36°.93N×29°.20E, h2^{km}, MD2.7, Error ellipse: s-maj=7.8km s-min=7.2km az=166.0*

*DDA **06** 18:12:32.9, 36°.94N×29°.21E, h7^{km}±6^{km}, Md3.0, Ml3.3*

*ISCJB **06** 18:12:33.2±0.5, 36°.92N±0°.03×29°.23E±0°.04, h10^{km}, Error ellipse: s-maj=5.3km s-min=4.4km az=41.3*

ISC 06 18:12:33.3±0.6, 36°.96N±0°.03×29°.18E±0°.04, h4^{km}±9^{km}, n25, σ1.^{s}20/37, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.33	194	*e*PG	Pg	18 12 39.4	-0.3
FETY				*e*SG	Sg	18 12 45.8	+1.9
FETY	Fethiye	0.33	194	*e*Pg	Pg	18 12 39.4	-0.2
GOLH	Golhisar	0.41	47	*i* P	Pg	18 12 40.3	-1.0
GOLH				*i* S	Sg	18 12 47.5	+0.8
GOLH	Golhisar	0.41	47	*i* P	Pg	18 12 40.3	-1.0
GOLH				*i* S	Sg	18 12 47.5	+0.8
TURN	Turunc	0.47	260	*e*P	Pg	18 12 47.5	+5.1
TURN				*e*S	Sg	18 12 58.0	+10
DALT	Dalyan (Mudla)	0.47	247	*e*PG	Pg	18 12 42.3	-0.2
DALT	Dalyan (Mudla)	0.47	247	*e*Pg	Pg	18 12 42.3	-0.1
ELL	Elmali	0.62	109	*e*PG	Pg	18 12 44.1	-1.1
ELL	Elmali	0.62	109	*e*Pg	Pg	18 12 44.1	-1.1
YER	Yerkesik	0.74	284	*e*PG	Pg	18 12 47.8	+0.2
YER	Yerkesik	0.74	284	*e*Pg	Pg	18 12 47.8	+0.2
AKAS	Kas	0.80	155	*i* P	Pg	18 12 48.0	-0.6
AKAS				*e*S	Sg	18 13 02.2	+3.3
AKAS	Kas	0.80	155	*i* P	Pg	18 12 48.0	-0.6
AKAS				*e*S	Sg	18 13 02.2	+3.3
DENT	Denizli	0.81	352	*e*PG	Pg	18 12 46.9	-2.0
DENT	Denizli	0.81	352	*e*Pg	Pg	18 12 46.9	-1.9
AYDN	Tasoluk	1.25	305	*i* P	Pg	18 12 57.3	-0.1
AYDN				*e*S	Sg	18 13 15.1	+1.4
AYDN	Tasoluk	1.25	305	*i* P	Pg	18 12 57.3	-0.1
AYDN				*e*S	Sg	18 13 15.1	+1.4
DAT	Datca	1.31	261	*e*PN	Pn	18 12 57.4	-1.0
DAT	Datca	1.31	261	*e*Pn	Pn	18 12 57.4	-1.0
BDRM	Kayabasi	1.40	275	*i* P	Pn	18 13 00.4	+0.8
BDRM				*i* S	Sg	18 13 17.5	-0.6
BDRM	Kayabasi	1.40	275	*i* P	Pn	18 13 00.4	+0.8
BDRM				*i* S	Sg	18 13 17.5	-0.7
KHAL	Karahalli	1.43	10	*e*P	Pn	18 13 02.3	+2.1
KHAL				*e*S	Sg	18 13 20.2	+0.7
KHAL	Karahalli	1.43	10	*e*P	Pn	18 13 02.3	+2.1
KHAL				*e*S	Sg	18 13 20.2	+0.8
BODT	Bodrum	1.50	275	*e*PN	Pn	18 12 59.2	-1.9
BODT	Bodrum	1.50	275	*e*Pn	Pn	18 12 59.2	-1.9

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*NIED **06** 18:12:00, 33°.80N×139°.40E, h17^{km}, Mw3.7 Best double couple: M$_0$3.44000×10^{14} NP1:φ$_s$13.00000°, δ90.00000°, λ-8.00000°. NP2:φ$_s$103.00000°, δ82.00000°, λ-180.00000°.*

JMA 06 18:12:58.3, 33°.83N×139°.44E, h22^{km}±1^{km}, M3.7, 1C-5D, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMY	Miyakejima3	0.25	14	⇑P	Pb	18 13 04.0	-0.3
JMY				*e*S	Sb	18 13 08.3	-0.1
JKO	Kozu shima	0.44	325	⇓P	Pb	18 13 07.0	-0.3
NJJJ	Nii jima 2	0.58	347	⇓P	Pb	18 13 09.8	-0.1
JHJ2	Mitsune	0.78	156	⇓P	Pb	18 13 13.0	-0.2
JIM2	Oshima 3	0.89	360	P	Pb	18 13 15.0	0.0
JIZS	Izushimoda	1.00	332	⇓P	Pb	18 13 16.2	-0.7
JIZS				S	Sb	18 13 30.5	+0.8
KTJJ	Kamata 2	1.14	344	⇓P	Pn	18 13 18.4	-0.5
KTJJ				S	Sb	18 13 33.9	+0.3
TK03	Tokai 3	1.27	286	P	Pn	18 13 21.1	+0.4
MAT	Matsushiro	2.89	340	P	Pn	18 13 47.9	+4.9
MAT				S	Sn	18 14 25.8	+8.8

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*IDC **06** 18:14:31.4±1.7, 6°.65S×130°.69E, h0^{km}, mb3.7/4, mb1 4.1/7, mb1mx3.9/16, mbtmp3.9/7, ML4.1/3, Error ellipse: s-maj=75.3km s-min=23.9km az=79.0*

*NEIC **06** 18:14:40.8±3.5, 6°.87S×130°.38E, h73^{km}±41^{km}, mb3.7/1, Error ellipse: s-maj=29.5km s-min=27.5km az=181.0*

*ISCJB **06** 18:14:41.1±1.4, 7°.04S±0°.06×130°.6E±0°.1, h109^{km}±19^{km}, mb3.6/4, Error ellipse: s-maj=19.6km s-min=9.9km az=8.1*

ISC 06 18:14:41.0±1.4, 7°.00S±0°.07×130°.5E±0°.1, h84^{km}±19^{km}, n17, σ1.^{s}30/23, mb3.6/4, 1D, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TLE	Tual	2.58	59	⇓*e*P	Pn	18 15 20.0	-0.7
TLE				*e*S	Sn	18 15 45.0	-6.2
KAKA	Kakadu	5.98	162	*e*P	Pn	18 16 09.6	+2.6
	27nm,0.6s						
KAKA				*e*S	Sn	18 17 14.1	-0.1
KAKA	Kakadu	5.98	162	*e*P	Pn	18 16 09.5	+2.4
	40nm,0.5s						
KAKA				*e*S	Sn	18 17 13.0	-1.1
KNA	Kununurra	8.87	191	*e*P	Pn	18 16 48.9	+2.5
	9.0nm,0.2s						
KNA				*e*S	Sn	18 18 22.7	-2.0
FITZ	Fitzroy Crossi	12.02	203	*e*P	Pn	18 17 28.7	-0.7
	14nm,0.3s						
FITZ				*e*S	Sx	18 19 31.9	
FITZ	Fitzroy Crossi	12.02	203	Pn	Pn	18 17 28.9	-0.5
	2.1nm,0.3s,baz=37,slow=10,SNR=36						
FITZ				Sn	Sn	18 19 35.9	-5.7
	1.9nm,0.3s,baz=53,slow=16,SNR=7.7						
WRAB	Tennant Creek	13.38	164	*e*P	Pn	18 17 46.3	-1.2
WRAB				*e*S	Sx	18 20 08.6	
WRA	Warramunga Arr	13.39	164	Pn	Pn	18 17 46.8	-0.8
	0.6nm,0.3s,baz=350,slow=13,SNR=26						
WRA				Sn	Sn	18 20 09.5	-5.3
	2.3nm,0.3s,baz=345,slow=20,SNR=10						
COEN	Coen	14.22	120	*e*P	Pn	18 17 59.3	+0.7
COEN				*e*S	Sx	18 20 25.2	
ASAR	Alice Springs	16.89	169	P	Pn	18 18 34.2	+2.1
	0.7nm,0.3s,baz=342,slow=8.8,SNR=68						
ASAR				S	Sx	18 21 35.8	
	0.4nm,0.3s,baz=353,slow=27,SNR=5.8						
MBWA	Marble Bar	17.53	215	*e*P	Pn	18 18 41.6	+1.5
	3.6nm,0.7s						
CMAR	Chiang Mai Arr	40.13	310	P	P	18 22 08.9	-0.1
	0.4nm,0.5s,mb3.5,baz=132,slow=6.2,SNR=5.6						
SONM	Songino Array	58.60	341	P	P	18 24 29.3	+0.1
	0.4nm,0.6s,mb3.7,baz=163,slow=5.0,SNR=5.4						
SONM	Songino Array	58.60	341	P	P	18 24 29.2	+0.1
MKAR	Makanchi Array	68.51	327	P	P	18 25 34.5	0.0
	0.9nm,0.6s,mb3.8,baz=118,slow=7.7,SNR=20						
MKAR	Makanchi Array	68.51	327	P	P	18 25 34.5	0.0
ZALV	Zalesovo Beam	71.81	334	P	P	18 25 53.2	-1.2
	0.5nm,0.5s,mb3.6,baz=109,slow=7.8,SNR=3.3						

IDC 06 18:31:21.3±2.3, 7°.05S×156°.21E, h0^{km}, mb3.7/5, mb1 3.8/5, mb1mx3.7/16, mbtmp3.7/5, Error ellipse: s-maj=79.5km s-min=28.6km az=109.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.78	237	P	P	18 36 45.3	+0.3
	0.8nm,0.6s,baz=63,slow=9.5,SNR=20						
WRA				PcP	PcP	18 40 22.1	+0.1
	0.5nm,1.0s,baz=66,slow=2.8,SNR=4.5						
ASAR	Alice Springs	27.05	230	P	P	18 37 05.3	-0.2
	0.4nm,0.5s,baz=59,slow=10.0,SNR=19						
ASAR				PcP	PcP	18 40 26.6	-0.5
	0.4nm,0.6s,baz=62,slow=2.4,SNR=4.7						
SONM	Songino Array	70.04	327	P	P	18 42 34.9	0.0
	0.2nm,0.5s,baz=144,slow=5.9,SNR=5.1						
MKAR	Makanchi Array	84.25	318	P	P	18 43 55.1	+0.2
	0.5nm,0.6s,baz=95,slow=8.2,SNR=12						
ZALV	Zalesovo Beam	84.90	326	P	P	18 43 58.1	+0.1
	0.3nm,0.5s,baz=125,slow=7.8,SNR=3.7						

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*IDC **06** 18:34:17.0±1.2, 41°.46N×13°.81E, h0^{km}, mb3.3/2, mb1 3.2/6, mb1mx3.2/24, mbtmp3.2/6, ML2.9/4, Error ellipse: s-maj=38.7km s-min=16.5km az=96.0*

*ISCJB **06** 18:34:17.4±0.3, 41°.24N±0°.02×13°.93E±0°.02, h12^{km}±2^{km}, mb3.2/2, Error ellipse: s-maj=3.5km s-min=2.8km az=34.8*

*CSEM **06** 18:34:17.6±0.1, 41°.25N×13°.93E, h8^{km}, ML3.8/6, Error ellipse: s-maj=3.4km s-min=2.3km az=34.0*

*NEIC **06** 18:34:18.0±0.4, 41°.30N×13°.96E, h10^{km}, ML3.1(ROM), Error ellipse: s-maj=6.0km s-min=4.0km az=218.0*

*ROM **06** 18:34:17.5±0.2, 41°.25N×13°.97E, h6^{km}±2^{km}, Md3.2/56, Ml3.1/46, Error ellipse: s-maj=1.9km s-min=1.7km az=78.0*

ISC 06 18:34:18.1±0.3, 41°.24N±0°.02×13°.94E±0°.02, h11^{km}±2^{km}, n146, σ1.^{s}08/170, mb3.2/2, 2C, Southern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MODR	Mondragone	0.11	205	⇑*i*Pg	Pg	18 34 20.9	+0.1
MODR				Sg	Sg	18 34 23.5	+0.7
	5μm,0.2s						
MODR	Mondragone	0.11	205	⇑*i*Pg	Pg	18 34 20.9	+0.1
VAGA	Valle Agricola	0.28	52	Pg	Pg	18 34 23.0	-0.8
VAGA				Sg	Sg	18 34 28.6	+1.0
	8μm,0.5s						
VAGA	Valle Agricola	0.28	52	Pg	Pg	18 34 23.0	-0.8
VAGA				Sg	Sg	18 34 28.6	+1.0
	8μm,0.5s						
CERA	Filignano	0.36	10	Pg	Pg	18 34 24.7	-0.5
CERA				Sg	Sg	18 34 31.8	+1.7
	7μm,0.7s						
CERA	Filignano	0.36	10	Pg	Pg	18 34 24.7	-0.5
MIDA	Miranda	0.47	31	Pg	Pg	18 34 26.2	-1.0
MIDA				Sg	Sg	18 34 35.1	+1.8
	2μm,0.6s						
MIDA	Miranda	0.47	31	Pg	Pg	18 34 26.2	-1.0
MIDA				Sg	Sg	18 34 35.1	+1.8
	2μm,0.6s						
RNI2	Rionero Sannit	0.49	19	Pg	Pg	18 34 26.8	-0.8
RNI2				Sg	Sg	18 34 35.1	+1.1
	3μm,1.0s						
RNI2	Rionero Sannit	0.49	19	Pg	Pg	18 34 26.8	-0.8
RNI2				Sg	Sg	18 34 35.1	+1.1
	3μm,1.0s						
POFI	Posta Fibreno	0.50	340	Pg	Pg	18 34 27.6	-0.3
POFI	Posta Fibreno	0.50	340	Pg	Pg	18 34 27.6	-0.3
BSSO	Busso	0.58	58	Pg	Pg	18 34 28.7	-0.6
BSSO	Busso	0.58	58	Pg	Pg	18 34 28.7	-0.6
VENT	Ventotene	0.59	221	Pg	Pg	18 34 29.4	-0.2
VENT				Sg	Sg	18 34 41.1	+3.7
	2μm,0.3s						
VENT	Ventotene	0.59	221	Pg	Pg	18 34 29.4	-0.2
SACR	S. Croce Del S	0.60	75	Pg	Pg	18 34 29.1	-0.6
SACR				Sg	Sg	18 34 39.8	+2.2
	3μm,1.4s						
SACR	S. Croce Del S	0.60	75	Pg	Pg	18 34 29.1	-0.6
GIUL	Giuliano Di Ro	0.60	302	Pg	Pg	18 34 28.8	-1.0
GIUL				Sg	Sg	18 34 41.3	+3.6
	647nm,0.9s						
GIUL	Giuliano Di Ro	0.60	302	Pg	Pg	18 34 28.8	-1.0
PSB1	Pescosannita	0.66	91	Pg	Pg	18 34 30.3	-0.5
PSB1				Sg	Sg	18 34 40.8	+1.4
	3μm,1.2s						
PSB1	Pescosannita	0.66	91	Pg	Pg	18 34 30.3	-0.5
PSB1				Sg	Sg	18 34 40.8	+1.4
	3μm,1.2s						
VVLD	Villa Vallelon	0.67	339	Pg	Pg	18 34 30.3	-0.8
VVLD				Sg	Sg	18 34 42.3	+2.4
	2μm,0.4s						
VVLD	Villa Vallelon	0.67	339	Pg	Pg	18 34 30.3	-0.8
TRIV	Trivento	0.70	41	Pg	Pg	18 34 30.9	-0.6
TRIV				Sg	Sg	18 34 38.7	-2.0
TRIV	Trivento	0.70	41	Pg	Pg	18 34 30.9	-0.6
TRIV				Sg	Sg	18 34 38.7	-2.0
INTR	Introdacqua	0.77	358	Pg	Pg	18 34 31.6	-1.3
INTR				Sg	Sg	18 34 43.5	+0.5
	2μm,0.9s						
INTR	Introdacqua	0.77	358	Pg	Pg	18 34 31.6	-1.3
INTR				Sg	Sg	18 34 43.5	+0.5
	2μm,0.9s						
MRB1	Monte Rocchett	0.79	98	Pg	Pg	18 34 33.3	0.0
	3μm,0.9s						
MRB1	Monte Rocchett	0.79	98	Pg	Pg	18 34 33.3	0.0
	3μm,0.9s						
CIGN	Sant'Elia a Pi	0.84	60	Pg	Pg	18 34 33.4	-0.8
CIGN				Sg	Sg	18 34 45.5	+0.4
	2μm,2.0s						
CIGN	Sant'Elia a Pi	0.84	60	Pg	Pg	18 34 33.4	-0.8
CIGN				Sg	Sg	18 34 45.5	+0.4
	2μm,2.0s						
FRES	Fresagrandinar	0.91	37	Pg	Pg	18 34 36.3	+0.6
FRES				Sg	Sg	18 34 51.3	+3.7
	1μm,0.7s						
FRES	Fresagrandinar	0.91	37	Pg	Pg	18 34 36.3	+0.6
MOCO	Biccari - m.te	0.93	82	Pg	Pg	18 34 36.6	+0.7
	376nm,0.7s						
CAFE	Carife	1.00	102	Pg	Pg	18 34 37.1	-0.3
	1μm,1.0s						
CAFE	Carife	1.00	102	Pg	Pg	18 34 37.1	-0.3
	1μm,1.0s						
CERT	Cerreto	1.01	315	Pg	Pg	18 34 36.4	-1.0
	383nm,0.7s						
CERT	Cerreto	1.01	315	Pg	Pg	18 34 36.4	-1.0
	383nm,0.7s						
SNAL	S. Angelo Dei	1.01	108	Pg	Pg	18 34 37.1	-0.4
	2μm,1.5s						
SNAL	S. Angelo Dei	1.01	108	Pg	Pg	18 34 37.1	-0.4
	2μm,1.5s						
CAFR	Castel Frentan	1.03	17	Pn	Pn	18 34 38.6	+0.2
	1μm,0.7s						
CAFR	Castel Frentan	1.03	17	Pn	Pn	18 34 38.6	+0.2
	1μm,0.7s						
MCRV	Calabrutti - M	1.04	116	Pg	Pg	18 34 36.7	-1.3
	674nm,0.5s						
MCRV	Calabrutti - M	1.04	116	Pg	Pg	18 34 36.7	-1.3
	674nm,0.5s						
FAGN	Fagnano	1.06	346	Pg	Pg	18 34 37.3	-1.1
	803nm,0.5s						
FAGN	Fagnano	1.06	346	Pg	Pg	18 34 37.3	-1.1
	803nm,0.5s						
SGTA	Sant Agata di	1.08	95	Pg	Pg	18 34 38.7	-0.2
	367nm,0.7s						
SGTA	Sant Agata di	1.08	95	Pg	Pg	18 34 38.7	-0.2
	367nm,0.7s						
VCEL	Villa Celiera	1.15	356	Pg	Pg	18 34 38.0	-2.2
	470nm,0.6s						
VCEL	Villa Celiera	1.15	356	Pg	Pg	18 34 38.0	-2.2
	470nm,0.6s						
MTCE	Montecelio	1.19	311	Pn	Pn	18 34 40.4	-0.2
	243nm,0.7s						
MTCE	Montecelio	1.19	311	Pn	Pn	18 34 40.4	-0.2
	243nm,0.7s						
FIAM	Fiamignano	1.20	329	Pn	Pn	18 34 40.6	-0.1
	424nm,0.7s						
FIAM	Fiamignano	1.20	329	Pn	Pn	18 34 40.6	-0.1
	424nm,0.7s						
MRLC	Muro Lucano	1.27	112	Pn	Pn	18 34 40.7	-1.0
	342nm,0.9s						
MRLC	Muro Lucano	1.27	112	Pn	Pn	18 34 40.7	-1.0
	342nm,0.9s						
CDRU	Civita di Ruta	1.28	126	Pn	Pn	18 34 40.5	-1.4
	147nm,0.6s						
CDRU	Civita di Ruta	1.28	126	Pn	Pn	18 34 40.5	-1.4
	147nm,0.6s						
VULT	Monte Vulture	1.30	102	Pn	Pn	18 34 41.7	-0.4
	423nm,0.6s						
VULT	Monte Vulture	1.30	102	Pn	Pn	18 34 41.7	-0.4
	423nm,0.6s						
CAMP	Campotosto	1.35	343	Pn	Pn	18 34 43.7	+0.9
	50nm,0.9s						
CAMP	Campotosto	1.35	343	Pn	Pn	18 34 43.7	+0.9
	50nm,0.9s						
CMPR	Campora	1.39	131	Pn	Pn	18 34 42.5	-0.8
	151nm,0.6s						
CMPR	Campora	1.39	131	Pn	Pn	18 34 42.5	-0.8
	151nm,0.6s						
TERO	Teramo	1.40	350	Pn	Pn	18 34 42.3	-1.2
	275nm,1.1s						
TERO	Teramo	1.40	350	Pn	Pn	18 34 42.3	-1.2
	275nm,1.1s						
SGRT	San Giovanni R	1.45	69	Pn	Pn	18 34 43.7	-0.5
SGRT	San Giovanni R	1.45	69	Pn	Pn	18 34 43.7	-0.5
LNSS	Leonessa	1.52	334	Pn	Pn	18 34 46.0	+0.9
	678nm,1.1s						
LNSS	Leonessa	1.52	334	Pn	Pn	18 34 46.0	+0.9
	678nm,1.1s						
MSAG	Monte S. Angel	1.55	72	Pn	Pn	18 34 45.2	-0.4
	520nm,0.7s						
MSAG	Monte S. Angel	1.55	72	Pn	Pn	18 34 45.2	-0.4
	520nm,0.7s						
PALZ	Palazzo San Ge	1.56	100	Pn	Pn	18 34 45.8	+0.1
	773nm,1.2s						
PALZ	Palazzo San Ge	1.56	100	Pn	Pn	18 34 45.8	+0.1
	773nm,1.2s						
MS1	Monte Sant'Ang	1.58	72	*e*Pn	Pn	18 34 45.8	-0.1
MS1				*e*Sn	Sn	18 35 11.1	+4.8
ACER	Acerenza	1.58	106	Pn	Pn	18 34 45.6	-0.4

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       426nm,0.7s
ACER   Acerenza          1.58 106    Pn      Pn      18 34 45.6 -0.4
       426nm,0.7s
MGR    Morigerati        1.65 131    Pn      Pn      18 34 46.7 -0.3
       179nm,0.8s
MGR    Morigerati        1.65 131    Pn      Pn      18 34 46.7 -0.3
       179nm,0.8s
MCEL   Monticello        1.69 122    Pn      Pn      18 34 48.2 +0.8
       337nm,1.0s
MCEL   Monticello        1.69 122    Pn      Pn      18 34 48.2 +0.8
       337nm,1.0s
MTSN   Montesano sull    1.69 125    Pn      Pn      18 34 47.8 +0.3
       201nm,0.6s
MTSN   Montesano sull    1.69 125    Pn      Pn      18 34 47.8 +0.3
       201nm,0.6s
MRVN   Minervino Murg    1.71  95    Pn      Pn      18 34 46.9 -0.9
       85nm,0.6s
MRVN   Minervino Murg    1.71  95    Pn      Pn      18 34 46.9 -0.9
       85nm,0.6s
PTRP   Pietrapertosa     1.76 113    Pn      Pn      18 34 49.7 +1.2
PTRP   Pietrapertosa     1.76 113    Pn      Pn      18 34 49.7 +1.2
SIRI   Monte Sirino -    1.81 125    Pn      Pn      18 34 49.3 +0.2
       106nm,0.7s
SIRI   Monte Sirino -    1.81 125    Pn      Pn      18 34 49.3 +0.2
       106nm,0.7s
CUC    Castrocucco       1.90 131   eP       Pn      18 34 50.7 +0.4
CUC    Castrocucco       1.90 131   eP       Pn      18 34 50.7 +0.4
CESI   CESI - Serrava    1.92 337    Pn      Pn      18 34 51.3 +0.6
       64nm,0.7s
CESI   CESI - Serrava    1.92 337    Pn      Pn      18 34 51.3 +0.6
       64nm,0.7s
SCHR   S. Chirico Rap    1.93 122    Pn      Pn      18 34 51.6 +0.8
       86nm,1.0s
SCHR   S. Chirico Rap    1.93 122    Pn      Pn      18 34 51.6 +0.8
       86nm,1.0s
MIGL   Miglionico        2.00 108    Pn      Pn      18 34 51.5 -0.3
MIGL   Miglionico        2.00 108    Pn      Pn      18 34 51.5 -0.3
AMUR   Altamura          2.04  99    Pn      Pn      18 34 52.0 -0.4
       126nm,0.9s
AMUR   Altamura          2.04  99    Pn      Pn      18 34 52.0 -0.4
       126nm,0.9s
SG1    Sgolgore (BA)     2.11 100   ePn      Pn      18 34 53.0 -0.3
SG1                                 eSn      Sn      18 35 23.1 +3.6
CING   Cingoli           2.20 346    Pn      Pn      18 34 59.6 +5.1
SACS   San Casciano d    2.20 317    Pn      Pn      18 34 56.5 +1.9
BAI    Bari              2.22  93   ePn      Pn      18 34 55.6 +0.8
LTRZ   Laterza           2.27 105    Pn      Pn      18 34 55.0 -0.5
       599nm,2.4s
LTRZ   Laterza           2.27 105    Pn      Pn      18 34 55.0 -0.5
       599nm,2.4s
MURB   Monte Urbino      2.27 333    Pn      Pn      18 34 58.6 +3.1
AOI    Ancona            2.32 354    Pn      Pn      18 34 56.1 -0.1
AOI    Ancona            2.32 354    Pn      Pn      18 34 56.1 -0.1
MAON   Monte Argentar    2.41 300    Pn      Pn      18 34 57.0 -0.4
       106nm,2.0s
MAON   Monte Argentar    2.41 300    Pn      Pn      18 34 57.0 -0.4
       106nm,2.0s
NOCI   Noci              2.41 100    Pn      Pn      18 34 56.9 -0.5
NOCI   Noci              2.41 100    Pn      Pn      18 34 56.9 -0.5
PIEI   Pieia             2.52 336    Pn      Pn      18 35 01.1 +2.2
       44nm,0.7s
PIEI   Pieia             2.52 336    Pn      Pn      18 35 01.1 +2.2
       44nm,0.7s
TAR1   Taranto           2.64 105   ePn      Pn      18 34 59.1 -1.4
TIP    Timpagrande       2.99 133   eP       Pn      18 35 05.7 +0.4
TIP    Timpagrande       2.99 133   eP       Pn      18 35 05.7 +0.4
VAE    Valguarnera       3.78 174    Pn      Pn      18 35 19.6 +3.4
       0.7nm,0.3s,baz=252,slow=19,SNR=2.3
VAE    Valguarnera       3.78 174    Pn      Pn      18 35 19.6 +3.4
PGF    Pioggiola         3.91 291   ePn      Pn      18 35 18.1 +0.1
PGF    Pioggiola         3.91 291   ePn      Pn      18 35 18.1 +0.1
BBLS   Lazi&#263;i       4.81  55   ePn      Pn      18 35 31.4 +1.0
DIVS   Divibare          5.30  55   ePn      Pn      18 35 37.5 +0.4
SBF    Sospel            5.47 301   ePn      Pn      18 35 39.3 -0.1
SBF    Sospel            5.47 301   ePn      Pn      18 35 39.3 -0.1
KRUS   Krusevo           5.51  86   ePn      Pn      18 35 42.2 +2.2
KRUS                                i Sn     Sn      18 36 40.9 -2.3
KRUS   Krusevo           5.51  86   ePn      Pn      18 35 42.1 +2.1
GRUS   Gruza             5.66  60   ePn      Pn      18 35 42.5 +0.5
FRF    La Foret Royal    5.87 296   ePn      Pn      18 35 43.7 -1.3
FRF    La Foret Royal    5.87 296   ePn      Pn      18 35 43.7 -1.3
LMR    La Mourre         5.89 293   ePn      Pn      18 35 44.6 -0.6
LMR    La Mourre         5.89 293   ePn      Pn      18 35 44.6 -0.6
DAVOX  Davos/Dischmat    6.26 334    Pn      Pn      18 35 47.8 -2.5
       0.2nm,0.3s,baz=342,slow=16,SNR=2.3
MBDF   Montbardon        6.30 306   ePn      Pn      18 35 50.3 -0.6
MBDF   Montbardon        6.30 306   ePn      Pn      18 35 50.3 -0.6
NISS                     6.32  67   ePn      Pn      18 35 50.6 -0.5
KEST   Kesra             6.58 215    Pn      Pn      18 35 57.4 +2.7
       0.1nm,0.3s,baz=67,slow=15,SNR=7.9
SMRF   Simiane la Rot    6.75 297   ePn      Pn      18 35 57.2 +0.2
SMRF   Simiane la Rot    6.75 297   ePn      Pn      18 35 57.2 +0.2
ZAPS   Zavoj             6.76  70   ePn      Pn      18 35 59.1 +1.9
ORIF   Oris-en-Rattie    6.95 305   eP       Pn      18 36 04.8 +5.1
GERES  GERESS Array B    7.60 359    Pn      Pn      18 36 06.6 -2.1
       0.2nm,0.3s,baz=171,slow=13,SNR=3.5
GERES  GERESS Array B    7.60 359    Pn      Pn      18 36 06.6 -2.1
TORD   Torodi Ar. Bea   29.96 204    P       P       18 40 28.1 +1.7
       0.6nm,0.8s,mb3.4,baz=13,slow=8.9,SNR=3.7
MKAR   Makanchi Array   48.06  59    P       P       18 42 57.8 +0.5
       0.1nm,0.6s,mb3.0,baz=288,slow=5.4,SNR=3.6
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SZGRF ***06*** *18:37:54.3, 14°.06N×60°.59W, h55^{km}, mb5.4, MS4.7, Windward Islands*

MOS ***06*** *18:37:55.7±1.2, 15°.15N×60°.26W, h33^{km}, mb5.3/76, MS4.7/12, Error ellipse: s-maj=11.9km s-min=3.7km az=48.1*

BJI ***06*** *18:37:56.8, 15°.00N×60°.40W, h27^{km}, mB5.4/12, Ms5.3/13, Ms7 5.0/13*

TRN ***06*** *18:37:56.1, 15°.06N×60°.38W, h20^{km}, MD4.6, M4.5(FDF)*

TRN Felt in Martinique- III and IV,St Vincent, Antigua, Dominica and St. Lucia.

LDG ***06*** *18:37:57.3, 15°.07N×60°.44W, h50^{km}*

NEIC ***06*** *18:37:57.9, 15°.00N×60°.41W, h27^{km}, mb5.2/124, MS4.7/10, MD4.6(TRN), After TRN.*

NEIC Felt [IV] on Martinique and Saint Lucia; [III] on Dominica; [II] on Antigua. Felt on Saint Vincent.

GCMT ***06*** *18:37:57.9±0.2, 15°.10N×60°.32W, h30^{km}±1^{km}, MW5.3/80, Moment Tensor Solution. s52,c77; s80,c129; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.40±.02; M$_{\theta\theta}$-0.05±.01; M$_{\phi\phi}$-0.34±.02; M$_{r\theta}$-0.77±.05; M$_{\theta\phi}$0.21±.01; M$_{\phi r}$0.45±.03; Best double couple: M$_0$0.98400×10^{17} NP1:φ$_s$174.00000°,δ17.00000°,λ138.00000°. NP2: φ$_s$304.00000°,δ79.00000°,λ77.00000°. Principal axes: T 1.0120, Plg55.0000°, Azm199.0000°; N -0.0560, Plg13.0000°, Azm307.0000°; P -0.9560, Plg32.0000°, Azm45.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB ***06*** *18:37:57.8±0.1, 15°.08N±0°.01×60°.35W±0°.01, h50^{km}, mb5.1/221, MS4.5/39 Error ellipse: s-maj=2.0km s-min=1.7km az=161.5*

IDC ***06*** *18:37:59.1±0.3, 15°.02N×60°.47W, h48^{km}±3^{km}, mb4.7/39, mb1 4.7/41, mb1mx4.7/43, mbtmp4.7/41, MS4.3/24, Ms1 4.3/24, ms1mx4.3/28, Error ellipse: s-maj=7.4km s-min=4.8km az=97.0*

ISC 06 18:37:59.9±0.1**, 15°.04N**±0°.01×**60°.37W**±0°.01**, h52**^{km}**,** **h52**^{km}±1.2^{km}**:pP-P, n863, σ0**^{s}**76**/849**, mb5.1**/221**, MS4.5**/39**,** **119C-164D, Leeward Islands**

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Code   Station Name       Δ°   AZ°     Phase ID          Time      Res
                                     Op      ISC       h  m  s     ISC
MVM    Montagne Vaucl    0.70 227   eP       Pn      18 38 11.9 -1.7
FDF    Fort de France    0.81 248⇓iP       Pn      18 38 13.3 -1.8
FDF    Fort de France    0.81 248⇓eP       Pn      18 38 13.4 -1.7
FDF                             ⇓eS       Sn      18 38 25.0 -1.3
FDF    Fort de France    0.81 248   eP       Pn      18 38 12.5 -2.6
FDF                                 eS       Sn      18 38 24.9 -1.4
BIM    Bigot             0.85 233   eP       Pn      18 38 14.1 -1.6
DLPL   La Plaine         0.90 289   i P      Pn      18 38 14.8 -1.4
DLPL                                eS       Sn      18 38 28.0 -0.2
DSTT   Stowe             0.93 283⇑iP       Pn      18 38 17.0 +0.4
DFBT   Forest Bistro     0.97 282⇓iP       Pn      18 38 17.6 +0.4
DFBT                                eS       Sn      18 38 31.4 +1.3
DFBT   Forest Bistro     0.97 282⇓iP       Pn      18 38 17.6 +0.4
DFBT                                eS       Sn      18 38 32.6 +2.6
DSHT   Scott's Head      0.98 280⇓eP       Pn      18 38 17.9 +0.5
DPMT   Pointe Michel     1.00 283⇓eP       Pn      18 38 18.1 +0.5
DPMT                                eS       Sn      18 38 31.6 +1.0
MDN    Morne-Daniel      1.02 286⇓eP       Pn      18 38 18.4 +0.5
MDN                                 eS       Sn      18 38 32.1 +0.8
MDN    Morne-Daniel      1.02 286⇓eP       Pn      18 38 18.5 +0.6
MDN                                 eS       Sn      18 38 32.1 +0.8
SLW    Petit Monier      1.15 209⇓iP       Pn      18 38 19.1 -0.6
MGG    Marie-Galante     1.26 314⇓eP       Pn      18 38 19.1 -2.1
SLB    Belfond           1.37 208⇑iP       Pn      18 38 22.4 -0.2
SLDE   Delcer            1.40 209⇓iP       Pn      18 38 22.9 -0.1
DEG    La Desirade       1.43 332⇑eP       Pn      18 38 21.0 -2.4
MCLT   Moule a Chique    1.43 203   i P      Pn      18 38 21.5 -2.0
MCLT                                eS       Sn      18 38 41.3 +0.2
MCLT   Moule a Chique    1.43 203   i P      Pn      18 38 21.5 -2.0
MCLT                                eS       Sn      18 38 40.1 -1.1
SFG    Saint Francois    1.45 327   eP       Pn      18 38 21.9 -1.8
TBG    Guadaloupe-3      1.47 304⇓eP       Pn      18 38 22.1 -1.9
DOG    Dongo Capester    1.56 310⇓eP       Pn      18 38 23.6 -1.6
PHG    Guadaloupe-2      1.56 309⇓eP       Pn      18 38 23.7 -1.5
HMG    Houelmont         1.59 306⇓eP       Pn      18 38 24.1 -1.5
BCG    Bois Riant Cap    1.59 311   eP       Pn      18 38 24.1 -1.6
SCG    Saint Claude      1.60 308⇓eP       Pn      18 38 24.3 -1.5
LZG    Guadaloupe-1      1.74 309⇓eP       Pn      18 38 26.1 -1.6
SEG    Port Louis        1.74 321   eP       Pn      18 38 26.4 -1.3
SSV    Crater Summit     1.88 205⇓iP       Pn      18 38 29.4 -0.2
BHS    Barnard House     1.88 203⇓eP       Pn      18 38 29.2 -0.4
BHS                                 eS       Sn      18 38 53.9 +1.8
SVV    Soufriere Volc    1.90 206⇓iP       Pn      18 38 30.0 +0.2
SVB    Belmont           1.95 206   eP       Pn      18 38 29.8 -0.8
SVB                                 eS       Sn      18 38 53.1 -0.8
BBGH   Gun Hill          2.04 157   eP       Pn      18 38 31.6 -0.2
FCV    Fort Charlotte    2.05 205⇓iP       Pn      18 38 31.6 -0.4
BBSP   Saint Philip      2.12 155   eP       Pn      18 38 33.6 +0.7
BBSP                                eS       Sn      18 39 00.5 +2.6
BPA    Boggy Peak        2.46 325   eP       Pn      18 38 36.9 -0.6
BPA                                 eS       Sn      18 39 06.3 +0.1
GRCU   Cariacou          2.76 203   eP       Pn      18 38 41.0 -0.6
ANWB   Willy Bob         2.95 333   ePn      Pn      18 38 42.1 -2.1
GRSS   Sisters           2.98 204⇓eP       Pn      18 38 44.3 -0.4
GRIC   Isle de Caille    2.98 203   eP       Pn      18 38 44.4 -0.3
GRIC                                eS       Sn      18 39 19.8 +0.6
NVBH   Bath Hotel, Ne    2.99 314   eP       Pn      18 38 45.4 +0.6
GRHS   Sauteurs          3.06 204   eP       Pn      18 38 45.2 -0.5
GRHS                                eS       Sn      18 39 21.7 +0.6
GRW    Mount Saint Ca    3.12 204⇑iP       Pn      18 38 46.3 -0.4
GRW                                 eS       Sn      18 39 23.1 +0.4
GRW    Mount Saint Ca    3.12 204⇑iP       Pn      18 38 46.3 -0.4
GRW                                 eS       Sn      18 39 20.6 -2.2
GRGR   Grenville         3.15 204    P       Pn      18 38 46.6 -0.4
SKI    Saint Kitts       3.22 315   i P      Pn      18 38 48.4 +0.4
SKI                                 eS       Sn      18 39 26.0 +0.8
TOSP   Speyside          3.72 182   eP       Pn      18 38 55.8 +0.9
TOSP                                eS       Sn      18 39 37.4  0.0
TPR    Prospect          3.85 186   eP       Pn      18 38 55.4 -1.2
BOT    Bacolet           3.86 185   eP       Pn      18 38 56.6 -0.2
BOT                                 eS       Sn      18 39 41.1 +0.2
BOT    Bacolet           3.86 185   eP       Pn      18 38 56.6 -0.2
BOT                                 eS       Sn      18 39 38.0 -3.0
TRN    Trinidad (W)      4.48 193   eP       Pn      18 39 04.6 -0.6
TCE    Chacachacare      4.52 198⇑iP       Pn      18 39 06.4 +0.6
TCE                                 eS       Sn      18 39 57.7 +0.6
TCE    Chacachacare      4.52 198⇑iP       Pn      18 39 06.4 +0.6
TCE                                 eS       Sn      18 39 54.4 -2.7
TBH    Brigand Hill      4.58 189⇑eP       Pn      18 39 07.6 +1.0
TBH    Brigand Hill      4.58 189⇑eP       Pn      18 39 08.2 +1.6
TPP    Pointe-a-Pierr    4.81 193   eP       Pn      18 39 10.0 +0.2
MTP    Monte Pirata      5.83 302   eP       Pn      18 39 24.1 +0.4
       258nm,0.6s
CBYP   Canovanas         6.16 302   eP       Pn      18 39 28.2 -0.1
       694nm,0.9s
SJG    San Juan          6.33 300   eP       Pn      18 39 30.1 -0.5
SJG                                  pmax    pmax
       comp=Z,428nm,0.6s
SJG    San Juan          6.33 300   eP       Pn      18 39 30.1 -0.5
       comp=Z,428nm,0.6s
PCRV   Puerto La Cruz    6.38 221    P       Pn      18 39 31.1 -0.2
       comp=Z,26nm,0.3s,baz=29,slow=3.9,SNR=61
PCRV                                 S       Sn      18 40 43.6 +0.7
       comp=Z,46nm,0.3s,baz=39,slow=14,SNR=3.2
PCRV                                 LR      LR      18 42 28.1
       comp=Z,5μm,18.3s,baz=334,slow=43
ICM    Isla Caja Muer    6.55 297   eP       Pn      18 39 32.5 -1.1
CRPR   Cabo Rojo, PR     7.11 295   eP       Pn      18 39 40.7 -0.5
       comp=Z,82nm,0.6s
AGPR   Aguadilla, PR     7.30 299   eP       Pn      18 39 43.6 -0.3
       comp=Z,464nm,1.1s
SDDR   Presa de Saban   11.15 292   eP       Pn      18 40 38.0 +1.3
       comp=Z,222nm,0.7s
SDV    Santo Domingo    11.75 240    P       Pn      18 40 44.1 -0.8
       comp=Z,8.4nm,0.3s,baz=75,slow=9.3,SNR=26
SDV                                  LR      LR      18 45 34.2
       comp=Z,3μm,21.4s,baz=85,slow=39
GRTK   Grand Turk       12.08 304   eP       Pn      18 40 46.6 -2.7
HLGC   Holguin          16.02 294   eP       Pn      18 41 40.2 -1.5
MTDJ   Mount Denham     16.75 283   eP       Pn      18 41 53.8 +2.7
ROSC   El Rosal         17.06 235    P       Pn      18 41 56.8 +1.9
       comp=Z,8.0nm,0.3s,baz=72,slow=7.9,SNR=32
ROSC                                 S       S       18 45 13.0 +1.7
       comp=Z,1.5nm,0.3s,baz=105,slow=19,SNR=2.6
ROSC                                 LR      LR      18 49 32.0
       comp=Z,924nm,18.8s,baz=20,slow=41
CCCC   Cccc             17.63 293   eP       Pn      18 41 55.6 -6.2
BBSR   BB Station       17.70 348    P       Pn      18 41 58.7 -4.0
MGV    Manicaragua      19.86 294   eP       Pn      18 42 26.6 -2.1
BCIP   Isla Barro Col   19.90 255   eP       Pn      18 42 27.6 -1.7
       comp=Z,97nm,0.8s
SOR    Soroa            22.74 293   eP       P       18 42 56.8 -0.9
OTAV   Otavalo          23.14 232   eP       P       18 43 00.6 -1.4
       comp=Z,52nm,0.6s,mb5.1
JTS    JuntasAbangare   24.43 262    P       P       18 43 13.5 -0.5
       comp=Z,5.5nm,0.6s,mb4.2,baz=190,slow=23,SNR=6.5
JTS                                  LR      LR      18 54 11.9
       comp=Z,244nm,19.3s,MS3.7,baz=317,slow=40
TGUH   Tegucigalpa,Un   26.05 271   eP       P       18 43 29.3 +0.6
TEIG   Tepich           27.07 285    P       P       18 43 37.1 -0.7
       comp=Z,3.6nm,0.4s,mb4.2,baz=330,slow=8.1,SNR=2.7
TEIG   Tepich           27.07 285    P       P       18 43 37.1 -0.7
GOGA   Godfrey          27.79 315    P       P       18 43 41.8 -2.2
GOGA                                 pmax    pmax
       comp=Z,34nm,1.3s,mb4.8
GOGA   Godfrey          27.79 315    P       P       18 43 41.8 -2.2
       comp=Z,34nm,1.3s,mb4.8
ATAH   Atahualpa        28.26 220    P       P       18 43 48.6 +0.2
       comp=Z,6.1nm,0.6s,mb4.4,baz=357,slow=2.0,SNR=6.3
ATAH                                 LR      LR      18 56 53.3
       comp=Z,2μm,20.9s,MS4.7,baz=20,slow=40
TKL    Tuckaleechee C   29.34 319    P       P       18 43 57.2 -0.6
       comp=Z,4.2nm,0.9s,mb4.2,baz=159,slow=4.0,SNR=2.8
TKL                                  LR      LR      18 54 08.0
       comp=Z,278nm,21.3s,MS3.9,baz=107,slow=33
TKL    Tuckaleechee C   29.34 319    P       P       18 43 57.2 -0.6
TKL                                  LR      LR      18 54 08.0
LRAL   Lakeview Retre   30.07 311   eP       P       18 44 05.9 +1.6
       comp=Z,22nm,1.1s,mb4.8
SIV    San Ignacio      30.84 181    P       P       18 44 11.3 +0.2
       comp=Z,20nm,0.6s,mb5.1,baz=19,slow=9.1,SNR=127
NNA    Nana             31.42 212   eP       P       18 44 14.3 -2.0
       comp=Z,14nm,0.6s,mb5.0
PLAL   Pickwick Lake    31.84 314   eP       P       18 44 18.3 -1.5
       comp=Z,20nm,0.6s,mb5.1
ACSO   Alum Creek Sta   31.93 326   eP       P       18 44 19.4 -1.2
       comp=Z,19nm,0.9s,mb4.9
WVT    Waverly          32.28 316   eP       P       18 44 30.9 +7.1
WVT                                  pmax    pmax
       comp=Z,21nm,0.8s,mb5.0
WVT    Waverly          32.28 316   eP       P       18 44 30.9 +7.1
       comp=Z,21nm,0.8s,mb5.0
CMIG   Matias Romero    33.20 278    LR      LR      18 57 47.1
       comp=Z,425nm,21.1s,MS4.1,baz=89,slow=36
SADO   Sadowa           33.63 336    P       P       18 44 34.2 -1.2
       comp=Z,8.2nm,0.9s,mb4.7,baz=130,slow=11,SNR=2.7
SADO                                 LR      LR      18 56 51.1
       comp=Z,460nm,21.6s,MS4.2,baz=147,slow=34
SADO   Sadowa           33.63 336    P       P       18 44 34.2 -1.2
SADO                                 LR      LR      18 56 51.1
SIUC   Southern Illin   34.08 317    P       P       18 44 38.9 -0.6
       comp=Z,41nm,0.8s,mb5.4
CCM    Cathedral Cave   35.62 316   eP       P       18 44 53.7 +1.0
CCM                                  pmax    pmax
       comp=Z,31nm,0.9s,mb5.2
CCM    Cathedral Cave   35.62 316   eP       P       18 44 53.7 +1.0
       comp=Z,31nm,0.9s,mb5.2
MIAR   Mount Ida        35.62 309   eP       P       18 44 51.9 -0.9
MIAR                                 pmax    pmax
       comp=Z,14nm,1.0s,mb4.8
MIAR   Mount Ida        35.62 309   eP       P       18 44 51.9 -0.9
       comp=Z,14nm,1.0s,mb4.9
HKT    Hockley          35.80 301   eP       P       18 44 53.0 -1.4
HKT                                  pmax    pmax
       comp=Z,25nm,1.3s,mb5.0
HKT    Hockley          35.80 301   eP       P       18 44 53.0 -1.4
       comp=Z,25nm,1.3s,mb5.0
LVC    Limon Verde      38.34 193    P       P       18 45 15.1 -0.8
       comp=Z,55nm,0.6s,mb5.4,baz=14,slow=6.4,SNR=72
JCT    Junction City    39.25 300   eP       P       18 45 22.3 -1.3
JCT                                  pmax    pmax
       comp=Z,38nm,0.8s,mb5.2
JCT    Junction City    39.25 300   eP       P       18 45 22.3 -1.2
       comp=Z,38nm,0.8s,mb5.2
WMOK   Wichita Mounta   39.67 307   eP       P       18 45 25.4 -1.6
WMOK                                 pmax    pmax
       comp=Z,15nm,0.7s,mb4.8
WMOK   Wichita Mounta   39.67 307   eP       P       18 45 25.4 -1.6
       comp=Z,15nm,0.7s,mb4.8
KSU1   Kansas State U   39.80 314   eP       P       18 45 26.3 -1.7
       comp=Z,28nm,0.5s,mb5.2
SCHQ   Schefferville    40.03 354    P       P       18 45 29.5 -0.1
       comp=Z,16nm,1.0s,mb4.7,baz=163,slow=7.8,SNR=14
SCHQ                                 LR      LR      18 59 52.0
       comp=Z,607nm,21.1s,MS4.4,baz=166,slow=33
CPUP   Villa Florida    41.23 176    P       P       18 45 38.6 -1.2
       comp=Z,12nm,0.6s,mb4.7,baz=344,slow=8.6,SNR=48
CPUP                                 LR      LR      19 04 47.0
       comp=Z,261nm,19.8s,MS4.1,baz=182,slow=39
CHIE   El Hierro        41.26  65    P       P       18 45 40.1 -0.1
       comp=Z,58nm,0.9s,mb5.2
EYMN   Ely              41.67 328    P       P       18 45 41.7 -1.6
CBKS   Cedar Bluff      41.88 312    P       P       18 45 47.6 +2.4
CBKS                                 pmax    pmax
       comp=Z,36nm,0.8s,mb5.0
CBKS   Cedar Bluff      41.88 312    P       P       18 45 47.5 +2.4
       comp=Z,36nm,0.8s,mb5.1
AMTX   Amarillo         41.98 306   eP       P       18 45 45.0 -1.0
       comp=Z,28nm,1.0s,mb4.8
TXAR   Lajitas Array    42.29 297    P       P       18 45 48.8 +0.2
       comp=Z,0.8nm,0.4s,mb3.7,baz=130,slow=6.3,SNR=29
TXAR                                 pP      pP      18 46 00.8 -1.5
       comp=Z,5.2nm,0.7s,baz=130,slow=7.7,SNR=12
TXAR                                 PcP     PcP     18 47 43.1 +1.4
       comp=Z,2.1nm,0.6s,baz=123,slow=5.7,SNR=3.6
TXAR   Lajitas Array    42.29 297    P       P       18 45 48.8 +0.2
TXAR                                 pP      pP      18 46 00.8 -1.5
TXAR                                 PcP     PcP     18 47 43.1 +1.4
BBTS   Babate           42.32  85    LR      LR      18 59 05.6
       comp=Z,537nm,20.9s,MS4.4,baz=92,slow=30
AGMN   Agassiz Refuge   44.17 326   eP       P       18 46 01.8 -1.7
       comp=Z,25nm,0.6s,mb5.1
LCO    Las Campanas     44.91 193   eP       P       18 46 08.7 -0.9
       comp=Z,102nm,1.1s,mb5.6
ULM    Lac du Bonnet    45.36 328    P       P       18 46 11.4 -1.5
       comp=Z,6.6nm,0.7s,mb4.6,baz=138,slow=8.4,SNR=6.1
ULM                                  pP      pP      18 46 24.5 -2.1
       comp=Z,11nm,0.5s,baz=130,slow=12,SNR=7.2
ULM    Lac du Bonnet    45.36 328    P       P       18 46 11.4 -1.5
ULM                                  pP      pP      18 46 24.5 -2.1
122A   Conniff Cattle   45.73 301 ⇓P       P       18 46 17.0 +0.8
       baz=46
SDCO   Great Sand Dun   45.77 308   eP       P       18 46 15.8 -0.6
       comp=Z,12nm,0.9s,mb4.8
ANMO   Albuquerque      45.77 304    P       P       18 46 16.8 +0.3
       comp=Z,1.5nm,0.5s,mb4.2,baz=117,slow=11,SNR=3.9
ANMO                                 pP      pP      18 46 27.7 -2.5
       comp=Z,6.1nm,0.7s,baz=131,slow=9.4,SNR=5.6
ANMO   Albuquerque      45.77 304    P       P       18 46 16.8 +0.3
ANMO                                 pP      pP      18 46 27.7 -2.5
ISCO   Idaho Springs    46.49 311   eP       P       18 46 22.0  0.0
ISCO                                 pmax    pmax
       comp=Z,7.0nm,0.8s,mb4.6
ISCO   Idaho Springs    46.49 311   eP       P       18 46 22.0 -0.1
       comp=Z,7.3nm,0.8s,mb4.7
CFAA   Coronel Fontan   46.98 189    P       P       18 46 24.8 -1.1
       comp=Z,2.6nm,0.7s,mb4.3,baz=356,slow=7.7,SNR=37
CFAA                                 pP      pP      18 46 37.9 -1.8
       comp=Z,5.6nm,1.0s,baz=360,slow=7.7,SNR=12
120A   U Bar Ranch, L   47.05 301 ⇓P       P       18 46 27.6 +1.1
       baz=47
Q22A   Crested Butte,   47.16 309 ⇓P       P       18 46 28.0 +0.7
       baz=47
319A   Douglas          47.41 299 ⇑P       P       18 46 29.8 +0.4
       baz=47,SNR=7.1
N22A   Wattenberg Ran   47.42 312 ⇓P       P       18 46 30.2 +0.9
       baz=47
S21A   Coal Bank Pass   47.49 308 ⇑P       P       18 46 30.3 +0.4
       baz=47
119A   Ashpeak Ranch,   47.65 301 ⇑P       P       18 46 31.6 +0.4
       baz=48,SNR=6.9
M22A   Cedar Creek Ra   47.72 313 ⇓P       P       18 46 32.4 +0.8
       baz=48
Y19A   Nutrioso         47.82 302 ⇓P       P       18 46 33.0 +0.5
       baz=48,SNR=7.4
318A   Bisbee           48.02 299 ⇑P       P       18 46 34.4 +0.3
       baz=48,SNR=12
218A   Dragoon          48.15 300 ⇓P       P       18 46 35.4 +0.4
       baz=48,SNR=6.9
N21A   Black Mountain   48.18 312 ⇑P       P       18 46 35.8 +0.6
       baz=48
118A   Homack Ranch,    48.18 300 ⇓P       P       18 46 36.0 +0.7
       baz=48,SNR=11
Q20A   Ridgley Place,   48.22 309 ⇑P       P       18 46 35.7 +0.2
       baz=48
T19A   Beclabito        48.24 306 ⇓P       P       18 46 35.9 +0.2
       baz=48,SNR=6.0
W18A   Petrified Fore   48.43 304 ⇓P       P       18 46 38.1 +0.9
       baz=48
P20A   De Beque         48.44 310 ⇑P       P       18 46 37.5 +0.3
       baz=48
L21A   Rawlins          48.45 313 ⇑P       P       18 46 37.9 +0.7
       baz=48
X18A   Snowflake        48.49 303 ⇓P       P       18 46 38.2 +0.5
       baz=48
S19A   Harvey Farm, M   48.55 307 ⇓P       P       18 46 37.9 -0.1
       baz=48
Z17A   San Carlos Hig   48.71 301 ⇑P       P       18 46 40.0 +0.7
       baz=49
N20A   Spence Gulch,    48.74 312 ⇓P       P       18 46 40.1 +0.6
       baz=49
217A   Green Valley     48.77 299 ⇓P       P       18 46 40.2 +0.4
       baz=49
U18A   Rough Rock, Ch   48.81 305 ⇑P       P       18 46 40.0 -0.1
       baz=49
117A   Oracle           48.81 300 ⇑P       P       18 46 40.1 -0.1
       baz=49,SNR=13
TUC    Tucson           48.81 300    P       P       18 46 40.7 +0.5
M20A   Sweetwater, Wa   48.88 312 ⇑P       P       18 46 40.4 -0.1
       baz=49
T18A   Mexican Hat      48.97 306 ⇑P       P       18 46 41.0 -0.3
       baz=49,SNR=17
DGMT   Dagmar           48.98 322 ⇑P       P       18 46 41.5 +0.3
       baz=49
DGMT   Dagmar           48.98 322   eP       P       18 46 41.0 -0.1
       comp=Z,29nm,0.7s,mb5.4
FRB    Frobisher Bay    48.98 355    P       P       18 46 40.4 -0.5
       comp=Z,28nm,0.9s,mb5.3,baz=165,slow=8.1,SNR=68
FRB                                  pP      pP      18 46 55.1 +0.3
       comp=Z,18nm,0.8s,baz=165,slow=9.1,SNR=5.4
FRB    Frobisher Bay    48.98 355    P       P       18 46 40.4 -0.5
FRB                                  pP      pP      18 46 55.1 +0.3
FCH    Farellones       49.02 191   eP       P       18 46 37.3 -4.2
Y17A   Roosevelt        49.08 302 ⇑P       P       18 46 42.5 +0.3
       baz=49,SNR=5.0
L20A   Wamsutter        49.15 313 ⇑P       P       18 46 43.0 +0.4
       baz=49
S18A   Hurst Farm, Bl   49.19 307 ⇑P       P       18 46 43.1 +0.1
       baz=49,SNR=5.3
O19A   Miners Draw (B   49.21 311 ⇑P       P       18 46 43.0  0.0
       baz=49
R18A   Canyonlands Na   49.28 308 ⇑P       P       18 46 43.4 -0.2
       baz=49,SNR=6.3
Z16A   Peralta Trail,   49.50 301 ⇓P       P       18 46 45.6 +0.2
       baz=49
Y16A   Circle Bar Ran   49.63 302 ⇑P       P       18 46 46.6 +0.2
       baz=50
Q18A   Rafter H Ranch   49.64 309 ⇑P       P       18 46 46.0 -0.3
       baz=50
T17A   Navajo Res., N   49.67 306 ⇑P       P       18 46 47.3 +0.7
       baz=50
X16A   Lo Mia Camp, P   49.69 302 ⇑P       P       18 46 47.4 +0.6
       baz=50
U16A   Tuba City        49.75 305 ⇓P       P       18 46 48.1 +0.8
       baz=50
S17A   Black Ridge (B   49.80 307 ⇑P       P       18 46 48.1 +0.5
       baz=50,SNR=9.0
WUAZ   Wupatki          49.83 304 ⇑P       P       18 46 48.0 +0.1
       baz=50,SNR=7.6
```

WUAZ	Wupatki	49.83	304	*e*P	P	18 46 48.3	+0.4
	comp=Z,29nm,0.8s,mb5.4						
P18A	Preston Nutter	49.86	309	⇑P	P	18 46 48.7	+0.7
	baz=50						
W16A	Flagstaff	49.88	303	⇓P	P	18 46 49.2	+1.0
	baz=50						
R17A	Hanksville Air	49.91	308	⇓P	P	18 46 48.3	-0.1
	baz=50,SNR=5.6						
SRU	San Rafael	49.94	309	⇓P	P	18 46 49.3	+0.7
	baz=50						
115A	Sonoran Desert	50.08	300	⇑P	P	18 46 50.8	+1.0
	baz=50						
P17A	Butcher Ranch,	50.19	309	⇑P	P	18 46 51.2	+0.7
	baz=50						
T16A	Glen Canyon Da	50.22	306	⇓P	P	18 46 51.3	+0.6
	baz=50						
BW06	Boulder Array	50.25	314	⇑P	P	18 46 50.7	-0.2
	baz=50,SNR=8.3						
PDAR	Pinedale Array	50.25	314	P	P	18 46 50.6	-0.3
	comp=Z,3.8nm,0.7s,mb4.5,baz=120,slow=8.7,SNR=17						
PDAR				pP	pP	18 47 02.9	-2.0
	comp=Z,21nm,1.0s,baz=108,slow=9.5,SNR=17						
PDAR				LR	LR	19 08 58.3	
	comp=Z,231nm,18.9s,MS4.2,baz=120,slow=37						
FCC	Fort Churchill	50.29	338	*e*P	P	18 46 49.7	-1.2
	comp=Z,0.7nm,0.9s,mb3.7						
FCC				*e*pP	pP	18 46 59.1	-5.8
Y15A	Casa Rosa Ranc	50.34	302	⇑P	P	18 46 52.1	+0.3
	baz=50						
X15A	Humboldt	50.35	302	⇑P	P	18 46 52.2	+0.3
	baz=50,SNR=5.6						
O17A	Robinson Place	50.37	310	⇑P	P	18 46 52.2	+0.3
	baz=50,SNR=9.5						
S16A	Weppner Ranch,	50.44	307	⇓P	P	18 46 53.2	+0.7
	baz=50						
R16A	Teasdale	50.47	307	⇓P	P	18 46 53.4	+0.7
	baz=50						
W15A	Williams	50.48	303	⇑P	P	18 46 53.8	+1.0
	baz=50						
V15A	Kaibab Nationa	50.52	304	⇑P	P	18 46 53.7	+0.6
	baz=50,SNR=5.8						
K18A	Toltan Ranch,	50.55	313	⇓P	P	18 46 54.0	+0.8
	baz=50						
N17A	Moffit Pass	50.64	311	⇓P	P	18 46 54.8	+1.0
	baz=50						
J18A	Kendall Valley	50.71	314	⇓P	P	18 46 54.8	+0.4
	baz=50						
MORF	Marmelete	50.74	54	*e*P	P	18 46 54.7	0.0
	comp=Z,49nm,1.6s,mb5.2						
MORF	Marmelete	50.74	54	*e*P	P	18 46 54.6	-0.1
RLMT	Red Lodge	50.82	317	⇓P	P	18 46 55.8	+0.6
	baz=51						
RLMT	Red Lodge	50.82	317	*e*P	P	18 46 55.3	+0.1
	comp=Z,37nm,1.0s,mb5.3						
X14A	Yava	50.88	302	⇓P	P	18 46 56.5	+0.7
	baz=51						
Y14A	Wickenburg	50.89	302	⇓P	P	18 46 56.6	+0.7
	baz=51						
T15A	Red Dirt Ranch	50.91	306	⇓P	P	18 46 56.4	+0.4
	baz=51,SNR=9.0						
FFC	Flin Flon	51.02	330	⇑*e*P	P	18 46 55.7	-0.8
FFC	Flin Flon	51.02	330	P	P	18 46 55.4	-1.1
S15A	Panguitch	51.02	306	⇓P	P	18 46 57.6	+0.7
	baz=51						
N16A	Rees Ranch, Co	51.06	311	⇓P	P	18 46 57.6	+0.5
	baz=51						
J17A	Brown Place, J	51.23	314	⇑P	P	18 46 59.3	+0.9
	baz=51						
LOHW	Long Hollow	51.23	314	*e*P	P	18 46 58.0	-0.3
	comp=Z,12nm,0.8s,mb4.9						
V14A	Boquillas Ranc	51.23	304	⇑P	P	18 46 59.1	+0.6
	baz=51						
PBDV	Barranco-do-Ve	51.29	54	*e*P	P	18 46 59.5	+0.7
	comp=Z,54nm,1.7s,mb5.2						
SNOW	Snow King Moun	51.30	314	P	P	18 46 58.6	-0.2
	comp=Z,12nm,0.5s,mb5.1						
I17A	Pilgrim Ck.	51.31	315	⇑P	P	18 46 59.3	+0.5
	baz=51						
AHID	Auburn Hatcher	51.33	313	*e*P	P	18 46 58.9	-0.2
	comp=Z,29nm,0.9s,mb5.2						
L16A	Fish Haven	51.36	312	⇓P	P	18 46 59.5	+0.2
	baz=51						
P15A	Leamington	51.37	309	⇑P	P	18 46 59.8	+0.4
	baz=51						
MOOW	Moose Ponds	51.37	314	*e*P	P	18 46 58.7	-0.7
	comp=Z,6.0nm,0.8s,mb4.6						
F18A	Big Timber	51.38	317	⇓P	P	18 47 00.1	+0.7
	baz=51						
EVO	Evora	51.48	53	*e*P	P	18 46 59.6	-0.7
EVO				*e*MLR	MLR		
	comp=Z,438nm,20.2s,MS4.2						
PVAQ	Vaqueiros	51.49	54	*e*P	P	18 47 00.6	+0.3
	comp=Z,31nm,1.7s,mb5.0						
PBEJ	Beja	51.49	53	*e*P	P	18 47 00.6	+0.2
	comp=Z,22nm,2.4s,mb4.7						
PBEJ	Beja	51.49	53	*e*P	P	18 47 00.5	+0.1
Y13A	Salome	51.55	301	⇑P	P	18 47 01.3	+0.4
	baz=52						
DCID1	Drake Creek	51.63	314	P	P	18 46 59.4	-1.9
	comp=Z,35nm,0.4s,mb5.6						
RRI2	Red Ridge	51.65	314	*e*P	P	18 47 00.8	-0.6
	comp=Z,17nm,0.8s,mb5.0						
X13A	Yucca	51.66	302	⇑P	P	18 47 01.9	+0.2
	baz=52						
EGRO	El Granado	51.69	54	P	P	18 47 01.6	-0.2
	comp=Z,53nm,1.1s,mb5.4						
K16A	Soda Springs	51.70	313	⇑P	P	18 47 02.2	+0.4
	baz=52						
E18A	Harlowton	51.74	318	⇓P	P	18 47 03.0	+0.9
	baz=52						
W13A	Hualapai Mount	51.78	303	⇓P	P	18 47 03.4	+0.9
	baz=52						
J16A	Bone	51.84	314	⇑P	P	18 47 03.6	+0.8
	baz=52						
EMAZ	Mazaricos	51.85	47	P	P	18 47 01.9	-1.0
	comp=Z,353nm,2.2s,mb5.9						
D18A	Linhart Farms,	51.90	319	⇑P	P	18 47 04.3	+1.1
	baz=52						
I16A	Newdale	51.92	314	⇓P	P	18 47 04.3	+0.8
	baz=52						
M15A	Larsen Ranch,	51.95	311	⇑P	P	18 47 04.0	+0.3
	baz=52						
P14A	Drum Mountains	51.97	309	⇑P	P	18 47 04.4	+0.5
	baz=52,SNR=9.0						
V13A	Grand Canyon W	51.98	304	⇓P	P	18 47 04.5	+0.5
	baz=52,SNR=7.3						
Q14A	Sevier Lake (B	52.00	308	⇓P	P	18 47 04.4	+0.2
	baz=52,SNR=8.0						
H16A	Russell Place,	52.01	315	⇓P	P	18 47 05.1	+1.0
	baz=52,SNR=5.5						
L15A	Malad City	52.04	312	⇑P	P	18 47 04.9	+0.5
	baz=52						
PVIS	Viseu	52.06	50	*e*P	P	18 47 04.1	-0.4
	comp=Z,42nm,2.0s,mb5.0						
PVIS	Viseu	52.06	50	*e*P	P	18 47 04.0	-0.5
T13A	Saint George	52.11	305	⇓P	P	18 47 05.9	+0.9
	baz=52						
PMRV	Marv??o	52.15	52	*e*P	P	18 47 04.9	-0.3
	comp=Z,23nm,1.5s,mb4.9						
S13A	Holt Ranch, En	52.17	306	⇑P	P	18 47 05.9	+0.4
	baz=52,SNR=5.8						
ELOB	Lobios	52.22	48	P	P	18 47 04.2	-1.5
	comp=Z,31nm,0.8s,mb5.3						
MTE	Manteigas	52.24	50	*e*P	P	18 47 05.7	-0.2
	comp=Z,47nm,1.8s,mb5.1						
MTE	Manteigas	52.24	50	*e*P	P	18 47 05.7	-0.2
	comp=Z,37nm,1.4s,mb5.1						
EBAD	Badajoz	52.29	52	P	P	18 47 05.9	-0.4
	comp=Z,0.4nm,0.3s,mb3.8						
SFJD	Kangerlussuaq	52.31	5	*i* P	P	18 47 04.4	-1.6
SFJD				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SFJD				MLR	MLR		
	comp=Z,390nm,21.0s,MS4.4						
SFJD	Kangerlussuaq	52.31	5	*i* P	P	18 47 04.4	-1.6
	comp=Z,9.7nm,0.9s,mb4.7						
SFJD							
	comp=Z,390nm,21.0s						
SFJD	Kangerlussuaq	52.31	5	P	P	18 47 04.4	-1.5
	comp=Z,11nm,1.0s,mb4.8,baz=176,slow=8.4,SNR=5.1						
B18A	Beardsley Farm	52.32	320	⇓P	P	18 47 06.8	+0.5
	baz=52,SNR=8.0						
PVRL	Vila Real	52.32	49	*e*P	P	18 47 06.3	-0.2
	comp=Z,36nm,2.1s,mb4.9						
PVRL	Vila Real	52.32	49	*e*P	P	18 47 06.2	-0.3
K15A	Arbon	52.32	313	⇑P	P	18 47 07.6	+1.1
	baz=52						
N14A	Grayback Hills	52.34	310	⇓P	P	18 47 07.2	+0.6
	baz=52						
R13A	O’Grain Ranch,	52.37	307	⇓P	P	18 47 07.6	+0.7
	baz=52						
EMIN	Mina Concepcio	52.37	54	P	P	18 47 07.2	+0.4
	comp=Z,1.7nm,0.7s,mb4.1						
D17A	Six Diamond Ra	52.45	319	⇑P	P	18 47 07.7	+0.4
	baz=52,SNR=7.0						
J15A	Blackfoot	52.45	314	⇑P	P	18 47 08.4	+1.0
	baz=52						
Q13A	Wheeler Ranch,	52.56	308	⇓P	P	18 47 08.9	+0.6
	baz=52,SNR=7.6						
A18A	Metzger Ranch,	52.56	321	⇑P	P	18 47 08.4	+0.3
	baz=52,SNR=8.8						
BOZ	Bozeman (W)	52.56	316	*e*P	P	18 47 07.9	-0.3
BOZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BOZ	Bozeman (W)	52.56	316	⇑P	P	18 47 08.5	+0.4
	baz=52,SNR=5.8						
BOZ	Bozeman (W)	52.56	316	*e*P	P	18 47 07.9	-0.2
	comp=Z,9.2nm,0.8s,mb4.8						
M14A	Sheep Mountain	52.61	311	⇑P	P	18 47 08.2	-0.4
	baz=52,SNR=7.2						
P13A	Bates Ranch, G	52.66	308	⇓P	P	18 47 09.5	+0.5
	baz=52,SNR=13						
C17A	Wharram Farm,	52.66	319	⇓P	P	18 47 09.2	+0.3
	baz=52,SNR=5.7						
L14A	Malta	52.66	312	⇓P	P	18 47 09.2	+0.2
	baz=52						
IRM	Iron Mountain	52.69	302	⇓P	P	18 47 09.2	-0.1
	baz=53,SNR=11						
K14A	Jones Ranch, D	52.75	312	⇑P	P	18 47 09.6	0.0
	baz=53,SNR=5.4						
MVO	Moncorvo	52.80	50	*e*P	P	18 47 11.0	+1.0
	comp=Z,38nm,1.4s,mb5.1						
MVO	Moncorvo	52.80	50	*e*P	P	18 47 10.9	+0.9
ESPR	Espera	52.86	55	P	P	18 47 11.2	+0.7
	comp=Z,17nm,0.6s,mb5.2						
E16A	East Helena	52.88	317	⇓P	P	18 47 10.6	+0.1
	baz=53,SNR=5.9						
B17A	L&G Farms, Che	52.92	320	⇑P	P	18 47 11.3	+0.6
	baz=53						
H15A	Lima	52.94	315	⇓P	P	18 47 11.5	+0.6
	baz=53						
D16A	Dana Ranch, Ca	52.96	318	⇓P	P	18 47 11.4	+0.3
	baz=53,SNR=10.0						
G15A	Dillon	52.99	316	⇑P	P	18 47 11.7	+0.3
	baz=53						
IFR	Ifrane	53.00	59	P	P	18 47 11.8	+0.2
A17A	Triple J Farms	53.09	321	⇑P	P	18 47 12.3	+0.2
	baz=53						
DLMT	Dillon	53.12	316	*e*P	P	18 47 13.2	+0.9
	comp=Z,25nm,1.2s,mb5.0						
PBRG	Braganca	53.16	49	*e*P	P	18 47 12.5	-0.2
	comp=Z,29nm,1.9s,mb4.9						
PBRG	Braganca	53.16	49	*e*P	P	18 47 12.4	-0.3
M13A	Montello	53.18	311	⇓P	P	18 47 13.1	+0.3
	baz=53						
GMRC	Granite Mounta	53.18	302	⇑P	P	18 47 13.3	+0.3
	baz=53						
T11A	Corn Creek, Al	53.18	305	⇓P	P	18 47 13.2	+0.3
	baz=53						
L13A	Double Diamond	53.19	312	⇑P	P	18 47 13.2	+0.3
	baz=53						
Q12A	Willow Creek R	53.19	308	⇓P	P	18 47 13.4	+0.5
	baz=53						
F15A	Butte	53.20	316	⇓P	P	18 47 12.5	-0.4
	baz=53						
EPLA	Plasencia	53.27	51	P	P	18 47 13.2	-0.3
EPLA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
EPLA	Plasencia	53.27	51	P	P	18 47 13.2	-0.3
	comp=Z,1.1nm,0.4s,mb4.1						
I14A	Mackay	53.30	314	⇑P	P	18 47 14.1	+0.4
	baz=53						
DVTC	Desert V Tower	53.32	300	⇑P	P	18 47 14.0	0.0
	baz=53						
P12A	McGill	53.34	308	⇓P	P	18 47 14.6	+0.6
	baz=53						
C16A	Fuhringer Ranc	53.34	319	⇓P	P	18 47 13.7	-0.2
	baz=53,SNR=9.2						
MDT	Midelt	53.35	60	P	P	18 47 14.3	0.0
	comp=Z,12nm,0.8s,mb4.9,baz=276,slow=7.5,SNR=34						
ECAB	El Cabril	53.40	54	P	P	18 47 15.0	+0.5
	comp=Z,0.7nm,0.4s,mb3.9						
K13A	Stover Farm, H	53.42	312	⇑P	P	18 47 15.0	+0.5
	baz=53						
E15A	Deer Lodge	53.47	317	⇓P	P	18 47 15.4	+0.5
	baz=53						
TUQ	Turquoise Moun	53.48	303	⇓P	P	18 47 15.3	+0.2
	baz=53,SNR=7.9						
B16A	M & M Farms, S	53.53	320	⇑P	P	18 47 15.8	+0.6
	baz=53						
D15A	Lincoln	53.59	318	⇑P	P	18 47 16.5	+0.8
	baz=53						
MONP	Monument Peak	53.60	300	⇓P	P	18 47 16.5	+0.4
	baz=54,SNR=6.9						
A16A	West Butte Ran	53.65	320	⇑P	P	18 47 16.3	+0.2
	baz=53,SNR=14						
R11A	Troy Canyon, C	53.65	307	⇓P	P	18 47 16.4	+0.1
	baz=54,SNR=5.5						
N12A	Clover Valley,	53.71	310	⇓P	P	18 47 17.1	+0.4
	baz=54						
HEC	Hector,Ludlow	53.73	302	⇑P	P	18 47 17.2	+0.2
	baz=54						
I13A	Wildhorse Cree	53.76	314	⇓P	P	18 47 17.4	+0.4
	baz=54,SNR=6.2						
Q11A	Duckwater	53.79	307	⇑P	P	18 47 17.7	+0.3
	baz=54						
BAR	Barrett	53.80	300	P	P	18 47 17.2	-0.3
	comp=Z,16nm,1.4s,mb4.8						
ELK	Elko	53.84	310	*e*P	P	18 47 17.2	-0.4
ELK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ELK	Elko	53.84	310	*e*P	P	18 47 17.2	-0.5
	comp=Z,9.7nm,0.9s,mb4.7						
C15A	Salmond Ranch,	53.88	319	⇑P	P	18 47 18.0	+0.2
	baz=54,SNR=9.3						
HLID	Hailey	53.88	313	⇓P	P	18 47 18.2	+0.3
	baz=54,SNR=6.0						
HLID	Hailey	53.88	313	*e*P	P	18 47 18.1	+0.1
	comp=Z,15nm,0.9s,mb4.9						
HLID				*e*pP	pP	18 47 28.4	-3.5
K12A	Draper Farm, C	54.01	312	⇓P	P	18 47 19.1	+0.2
	baz=54						
H13A	Challis	54.03	314	⇑P	P	18 47 19.0	0.0
	baz=54						
O11A	Cowboy Ranch,	54.03	309	⇑P	P	18 47 19.6	+0.5
	baz=54,SNR=20						
B15A	Bradely Ranch,	54.03	319	⇓P	P	18 47 18.7	-0.2
	baz=54,SNR=7.9						
E14A	Clinton	54.03	317	⇓P	P	18 47 19.2	+0.2
	baz=54						
EADA	Adamuz	54.07	54	P	P	18 47 19.6	+0.3
	comp=Z,0.5nm,0.2s,mb4.1						
R10A	Warm Springs	54.20	307	⇑P	P	18 47 21.1	+0.8
	baz=54						
D14A	Greenough	54.24	318	⇑P	P	18 47 21.2	+0.8
	baz=54						
ELOJ	Sierra Loja	54.25	55	P	P	18 47 21.5	+0.8
ELOJ				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
ELOJ	Sierra Loja	54.25	55	P	P	18 47 21.5	+0.8
	comp=Z,8.8nm,0.7s,mb4.8						
J12A	Stokes Ranch,	54.29	313	⇓P	P	18 47 21.0	+0.1
	baz=54,SNR=6.7						
A15A	Johnson Ranch,	54.36	320	⇑P	P	18 47 21.3	0.0
	baz=54,SNR=18						
Q10A	Clear Creek Ra	54.36	307	⇓P	P	18 47 21.8	+0.3
	baz=54						
S10A	Tonopah Range,	54.37	306	⇓P	P	18 47 21.6	0.0
	baz=54,SNR=8.1						
M11A	Holland Ranch,	54.39	310	⇓P	P	18 47 22.2	+0.5
	baz=54						
F13A	Darby	54.41	316	⇓P	P	18 47 22.4	+0.7
	baz=54						
PAB	San Pablo	54.48	52	P	P	18 47 24.0	+1.7
E13A	Victor	54.50	317	⇓P	P	18 47 22.2	-0.1
	baz=54,SNR=8.2						
EBAN	Banos Encina	54.69	54	P	P	18 47 23.8	-0.1
EBAN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
EBAN	Banos Encina	54.69	54	P	P	18 47 23.8	0.0
	comp=Z,6.0nm,0.6s,mb4.8						
O10A	Cortez Mining,	54.69	309	⇓P	P	18 47 24.6	+0.7
	baz=54						
ECOG	Cogollos-Vega	54.73	55	P	P	18 47 25.4	+1.2
ECOG				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
ECOG	Cogollos-Vega	54.73	55	P	P	18 47 25.4	+1.2
	comp=Z,6.1nm,0.5s,mb4.9						
BFSC	Mount Baldy St	54.76	301	⇓P	P	18 47 25.0	+0.5
	baz=55						
A14A	Double T Ranch	54.78	320	⇓P	P	18 47 24.0	-0.4
	baz=55,SNR=7.5						
R09A	Tonopah	54.79	306	⇑P	P	18 47 24.3	-0.3
	baz=55						
ESDC	Sonseca Array	54.79	52	P	P	18 47 24.6	0.0
	comp=Z,6.1nm,0.8s,mb4.7,baz=259,slow=7.7,SNR=20						
ESDC				LR	LR	19 05 18.9	
	comp=Z,294nm,21.6s,MS4.3,baz=240,slow=30						
ESDC	Sonseca Array	54.79	52	P	P	18 47 24.6	0.0
	comp=Z,4.9nm,0.7s,mb4.7						
MPMC	Manual Prospec	54.82	304	⇑P	P	18 47 24.7	-0.2
	baz=55						
S09A	Goldfield	54.83	306	⇓P	P	18 47 24.7	-0.2
	baz=55						
D13A	Huson	54.87	317	⇑P	P	18 47 24.4	-0.6
	baz=55,SNR=8.0						
TIC	Toumodi	54.88	92	*e*P	P	18 47 24.8	-0.8
	comp=Z,90nm,1.0s,mb5.8						
TPH	Tonopah	54.88	306	P	P	18 47 27.7	+2.4
TPH				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
TPH	Tonopah	54.88	306	P	P	18 47 27.7	+2.4
	comp=Z,8.1nm,0.7s,mb4.9						
LIC	Lamto	54.97	93	*e*P	P	18 47 25.5	-0.8
	comp=Z,20nm,0.7s,mb5.0						
LIC				*e*MLR	MLR		
	comp=Z,353nm,20.8s,MS4.1						
LIC	Lamto	54.97	93	*e*P	P	18 47 25.4	-0.9
	comp=Z,33nm,0.7s,mb5.5						
LIC	Lamto	54.97	93	*e*P	P	18 47 25.5	-0.8
	comp=Z,10.0nm,0.7s,mb5.0						
LIC				LR	LR		
	comp=Z,180nm,20.8s,MS4.1						
L10A	Juniper Basin	55.02	311	⇑P	P	18 47 25.9	-0.3
	baz=55,SNR=5.7						
DBIC	Dimbokro	55.03	92	P	P	18 47 26.0	-0.7
DBIC				*PP	pP	18 47 41.0	+0.2
DBIC	Dimbokro	55.03	92	P	P	18 47 25.9	-0.8
	comp=Z,18nm,0.8s,mb5.2,baz=275,slow=7.7,SNR=23						
DBIC				pP	pP	18 47 41.0	+0.1
	comp=Z,37nm,1.2s,baz=298,slow=7.3,SNR=7.0						
DBIC				LR	LR	19 09 10.5	
	comp=Z,219nm,18.1s,MS4.3,baz=262,slow=34						
I11A	Placerville	55.05	313	⇓P	P	18 47 26.4	0.0
	baz=55,SNR=5.3						
EDW2	Edwards Air Fo	55.10	302	⇓P	P	18 47 27.0	+0.1
	baz=55						
C13A	Hot Springs	55.11	318	⇓P	P	18 47 27.3	+0.5
	baz=55						
WALA	Waterton Lakes	55.12	320	*e*P	P	18 47 26.2	-0.6
	comp=Z,0.3nm,0.9s						
EQES	Quesada	55.19	54	P	P	18 47 28.4	+0.9
	comp=Z,57nm,1.0s,mb5.6						
EBER	Berja	55.21	55	P	P	18 47 28.7	+1.0
	comp=Z,46nm,0.9s,mb5.5						
KIC	Kosan Boka	55.21	93	*e*P	P	18 47 27.3	-0.8
	comp=Z,113nm,1.0s,mb5.8						
B13A	Whitefish	55.25	319	⇓P	P	18 47 27.4	-0.3
	baz=55,SNR=5.7						
BMN	Battle Mountai	55.26	309	*e*P	P	18 47 28.2	+0.2
BMN				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
BMN	Battle Mountai	55.26	309	*e*P	P	18 47 28.1	+0.2
	comp=Z,24nm,0.9s,mb5.2						
H11A	Donnelly	55.28	314	⇓P	P	18 47 27.8	-0.2
	baz=55						
CIS	Catalina Islan	55.31	300	⇑P	P	18 47 29.3	+0.8
	baz=55						
K10A	MacKenzie Ranc	55.45	312	⇑P	P	18 47 29.8	+0.4
	baz=55						
Q08A	Gabbs	55.55	307	⇓P	P	18 47 30.3	+0.2
	baz=55						
EHUE	Huescar	55.57	54	P	P	18 47 31.1	+0.9
EHUE				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
EHUE	Huescar	55.57	54	P	P	18 47 31.1	+0.9
	comp=Z,19nm,0.8s,mb5.2						
M09A	Marrel Ranch,	55.61	310	⇑P	P	18 47 30.5	0.0
	baz=55						
EVIA	Vianos	55.75	53	P	P	18 47 32.3	+0.8
EVIA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
EVIA	Vianos	55.75	53	P	P	18 47 32.3	+0.7
	comp=Z,7.0nm,0.7s,mb4.8						
ENIJ	Nijar	55.77	55	P	P	18 47 32.1	+0.4
ENIJ				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.1						
ENIJ	Nijar	55.77	55	P	P	18 47 32.1	+0.4
	comp=Z,11nm,0.5s,mb5.1						
NVAR	Mina Array Bea	55.77	306	P	P	18 47 31.9	+0.2
	comp=Z,3.4nm,0.7s,mb4.5,baz=112,slow=5.8,SNR=19						
NVAR				pP	pP	18 47 44.1	-1.7
	comp=Z,12nm,0.7s,baz=83,slow=7.6,SNR=13						
NVAR	Mina Array Bea	55.77	306	P	P	18 47 31.9	+0.2
NVAR				pP	pP	18 47 44.1	-1.7
E11A	Bogner Ranch,	55.82	316	⇑P	P	18 47 31.2	-0.7
	baz=56,SNR=11						
ELAN	Lanestosa	55.86	48	P	P	18 47 31.6	-0.6
	comp=Z,2.2nm,0.6s,mb4.4						
N08A	GE Springer Mi	56.00	309	⇑P	P	18 47 32.9	-0.4
	baz=56,SNR=7.0						
K09A	Rome	56.05	312	⇑P	P	18 47 34.1	+0.4
	baz=56						
VES	Vestal, Richgr	56.08	303	⇓P	P	18 47 33.9	0.0
	baz=56						
D11A	Klaveano Farm,	56.09	317	⇑P	P	18 47 33.6	-0.2
	baz=56,SNR=5.7						
EDM	Edmonton	56.23	325	*e*P	P	18 47 33.0	-1.7
EDM				e*PP	pP	18 47 44.5	-4.3
PLCA	Paso Flores	56.28	189	P	P	18 47 34.9	-0.2
PLCA				*PP	pP	18 47 48.4	-0.8
PLCA	Paso Flores	56.28	189	P	P	18 47 34.9	-0.2
	comp=Z,26nm,1.0s,mb5.2,baz=4.6,slow=7.9,SNR=2.9						
PLCA				pP	pP	18 47 48.4	-0.8
	comp=Z,20nm,0.8s,baz=357,slow=8.6,SNR=9.8						
PLCA				LR	LR	19 11 53.5	
	comp=Z,340nm,22.0s,MS4.4,baz=6.5,slow=36						
PLCA	Paso Flores	56.28	189	P	P	18 47 34.9	-0.2
PLCA				pP	pP	18 47 48.4	-0.8
PLCA				LR	LR	19 11 53.5	
M08A	Happy Creek Ra	56.30	310	⇑P	P	18 47 36.1	+0.6
	baz=56						
DCN	Croghan	56.34	35	*e*P	sP	18 47 52.8	-2.7
L08A	Fields	56.41	311	⇑P	P	18 47 36.7	+0.5
	baz=56						
ETOR	Torete	56.42	51	P	P	18 47 36.2	-0.1
ETOR				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.2						
ETOR	Torete	56.42	51	P	P	18 47 36.2	-0.1
	comp=Z,19nm,0.7s,mb5.2						
O07A	Toulon	56.47	308	⇑P	P	18 47 37.2	+0.6
	baz=56						
ETOB	Tobarra	56.49	53	P	P	18 47 38.0	+1.2
	comp=Z,1.7nm,0.6s,mb4.2						
A11A	Hall Mountain,	56.63	319	⇑P	P	18 47 38.1	+0.5
	baz=56						
G09A	Cove	56.63	315	⇑P	P	18 47 37.8	+0.1
	baz=56						
R06C	Coleville	56.68	306	⇓P	P	18 47 38.4	+0.3
	baz=56						
D10A	Wagner Farm, O	56.71	317	⇑P	P	18 47 38.7	+0.5
	baz=56						
J08A	Circle Bar Ran	56.72	312	⇑P	P	18 47 38.1	-0.3
	baz=56						
DLF	Lyons Farm	56.74	35	*e*P	sP	18 47 55.4	-2.9
M07A	Soldier Meadow	56.88	310	⇑P	P	18 47 39.9	+0.4
	baz=57						
H08A	Prairie City	57.09	314	⇓P	P	18 47 41.3	+0.4
	baz=57						
L07A	Adell	57.11	310	⇓P	P	18 47 41.9	+0.8
	baz=57						
QUIF	Quistinic	57.12	42	*e*P	P	18 47 40.7	-0.4
	comp=Z,104nm,1.4s,mb5.4						
QUIF	Quistinic	57.12	42	*e*P	P	18 47 40.7	-0.4
QUIF				pmax	pmax		
	comp=Z,52nm,1.4s,mb5.4						
QUIF	Quistinic	57.12	42	*e*P	P	18 47 40.7	-0.4
	comp=Z,52nm,1.4s,mb5.4						
ROSF	Rostrenen	57.16	42	*e*P	P	18 47 40.9	-0.5
	comp=Z,216nm,1.8s,mb5.6						
ROSF				*e*pP	pP	18 47 55.0	-0.5
ROSF	Rostrenen	57.16	42	*e*P	P	18 47 40.9	-0.5
ROSF				e*PP	pP	18 47 55.0	-0.5

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ROSF                            pmax   pmax
      comp=Z,108nm,1.8s,mb5.6
ROSF  Rostrenen       57.16  42 eP     P     18 47 40.9 -0.5
      comp=Z,108nm,1.8s,mb5.6
ROSF                            epP    pP    18 47 55.0 -0.5
EALK  Alkurruntz      57.24  48 P      P     18 47 42.9 +0.9
      comp=Z,7.9nm,0.8s,mb4.8
N06A  Buffalo Meadow  57.27 309 ⇑P     P     18 47 41.7 -0.6
      baz=57,SNR=6.5
A10A  Northport       57.39 319 ⇓P     P     18 47 43.0  0.0
      baz=57
SJPF  Ste Jean        57.42  48 eP     P     18 47 43.6 +0.3
      comp=Z,72nm,0.9s,mb5.4
SJPF                            epP    pP    18 47 57.3 -0.2
SJPF  Ste Jean        57.42  48 eP     P     18 47 43.6 +0.3
SJPF                            e*PP   pP    18 47 57.3 -0.2
SJPF                            pmax   pmax
      comp=Z,36nm,0.9s,mb5.4
SJPF  Ste Jean        57.42  48 eP     P     18 47 43.6 +0.3
      comp=Z,36nm,0.9s,mb5.4
SJPF                            epP    pP    18 47 57.3 -0.2
G08A  Pilot Rock      57.45 314 ⇑P     P     18 47 43.5  0.0
      baz=57
EMOS  Mosqueruela     57.55  52 P      P     18 47 45.2 +1.0
      comp=Z,0.6nm,0.5s,mb3.9
C09A  Chrisman Ranch  57.55 317 ⇑P     P     18 47 44.4 +0.2
      baz=57
I07A  Izee            57.59 313 ⇓P     P     18 47 44.7 +0.2
      baz=57
SGMF  Saint Gilles    57.60  42 eP     P     18 47 44.3 -0.2
SGMF                            epP    pP    18 47 58.0 -0.7
B09A  Rice            57.62 318 ⇓P     P     18 47 44.0 -0.6
      baz=57,SNR=6.7
ESAC  San Caprasio    57.75  50 P      P     18 47 45.4 -0.2
      comp=Z,13nm,0.5s,mb5.2
D08A  Wollman Farm,   57.80 316 ⇑P     P     18 47 45.8 -0.2
      baz=58
ETSF  Etsaut          57.87  49 eP     P     18 47 46.7 +0.2
      comp=Z,20nm,1.0s,mb4.8
ETSF  Etsaut          57.87  49 eP     P     18 47 46.7 +0.2
ETSF                            pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.8
ETSF  Etsaut          57.87  49 eP     P     18 47 46.7 +0.2
      comp=Z,10nm,1.0s,mb4.8
G07A  Ruggs Ranch, H  57.93 314 ⇑P     P     18 47 46.3 -0.6
      baz=58
A09A  Danville        58.04 319 ⇑P     P     18 47 47.0 -0.6
      baz=58,SNR=5.0
C08A  Higginbotham F  58.05 317 ⇓P     P     18 47 47.3 -0.4
      baz=58,SNR=5.9
ERTA  Horta de San J  58.23  51 P      P     18 47 49.4 +0.3
      comp=Z,51nm,1.0s,mb5.5
E07A  Sunnyside       58.32 316 ⇓P     P     18 47 50.0 +0.4
      baz=58
EBIE  Bielsa          58.34  49 P      P     18 47 50.7 +0.9
      comp=Z,32nm,0.9s,mb5.3
K05A  Summer Lake     58.36 311 ⇓P     P     18 47 50.3 +0.4
      baz=58
B08A  Colville Reser  58.37 318 ⇑P     P     18 47 50.0 +0.1
      baz=58
A08A  Turner Farm, O  58.48 319 ⇓P     P     18 47 50.6  0.0
      baz=58
EPF   Esparros        58.54  49 eP     P     18 47 51.6 +0.4
      comp=Z,60nm,1.0s,mb5.3
EPF   Esparros        58.54  49 eP     P     18 47 51.6 +0.4
EPF                             pmax   pmax
      comp=Z,30nm,1.0s,mb5.3
EPF   Esparros        58.54  49 eP     P     18 47 51.6 +0.4
      comp=Z,30nm,1.0s,mb5.3
GRR   Gorron          58.74  42 eP     P     18 47 52.1 -0.3
      comp=Z,45nm,0.9s,mb5.2
GRR                             epP    pP    18 48 05.8 -0.8
GRR   Gorron          58.74  42 eP     P     18 47 52.1 -0.3
GRR                             e*PP   pP    18 48 05.8 -0.8
GRR                             pmax   pmax
      comp=Z,22nm,0.9s,mb5.2
GRR   Gorron          58.74  42 eP     P     18 47 52.1 -0.3
      comp=Z,22nm,0.9s,mb5.2
GRR                             epP    pP    18 48 05.8 -0.8
EIBI  Ibiza           58.78  53 P      P     18 47 53.9 +1.0
      comp=Z,13nm,0.6s,mb5.1
MFF   Saint Martin d  58.83  44 eP     P     18 47 53.0 -0.1
      comp=Z,58nm,1.0s,mb5.3
MFF   Saint Martin d  58.83  44 eP     P     18 47 53.0 -0.1
MFF                             pmax   pmax
      comp=Z,29nm,1.0s,mb5.3
MFF   Saint Martin d  58.83  44 eP     P     18 47 53.0 -0.1
      comp=Z,29nm,1.0s,mb5.3
EPOB  Poblet          58.84  51 P      P     18 47 54.0 +0.7
      comp=Z,33nm,1.1s,mb5.3
B07A  Winthrop        58.91 318 ⇓P     P     18 47 53.0 -0.6
      baz=59,SNR=9.7
SUMG  Summit          58.94   8 eP     P     18 47 53.5 +0.1
      comp=Z,73nm,1.0s,mb5.7
FLN   La Foliniere    59.07  42 eP     P     18 47 54.5 -0.2
      comp=Z,71nm,1.1s,mb5.3
FLN                             epP    pP    18 48 08.2 -0.7
FLN                             eMLR   MLR
      comp=Z,364nm,20.8s,MS4.2
FLN   La Foliniere    59.07  42 eP     P     18 47 54.5 -0.2
FLN                             e*PP   pP    18 48 08.2 -0.7
FLN                             pmax   pmax
      comp=Z,36nm,1.1s,mb5.3
FLN                             MLR    MLR
      comp=Z,360nm,20.8s,MS4.5
FLN   La Foliniere    59.07  42 eP     P     18 47 54.5 -0.2
      comp=Z,36nm,1.1s,mb5.3
FLN                             epP    pP    18 48 08.2 -0.7
FLN                             LR     LR
      comp=Z,360nm,20.8s,MS4.5
E06A  Yakima          59.08 315 ⇓P     P     18 47 56.0 +1.1
      baz=59
D06A  Cle Elum        59.12 316 ⇓P     P     18 47 55.6 +0.5
      baz=59
LFF   La Frestale     59.13  46 eP     P     18 47 55.0 -0.2
      comp=Z,84nm,1.1s,mb5.4
LFF                             epP    pP    18 48 08.9 -0.6
LFF   La Frestale     59.13  46 eP     P     18 47 55.0 -0.2
LFF                             e*PP   pP    18 48 08.9 -0.6
LFF                             pmax   pmax
      comp=Z,42nm,1.1s,mb5.4
LFF   La Frestale     59.13  46 eP     P     18 47 55.0 -0.2
      comp=Z,42nm,1.1s,mb5.4
LFF                             epP    pP    18 48 08.9 -0.6
LDF   La Druitiere    59.26  42 eP     P     18 47 55.7 -0.3
      comp=Z,70nm,1.2s,mb5.3
LDF   La Druitiere    59.26  42 eP     P     18 47 55.7 -0.3
LDF                             pmax   pmax
      comp=Z,35nm,1.2s,mb5.3
LDF   La Druitiere    59.26  42 eP     P     18 47 55.7 -0.3
      comp=Z,35nm,1.2s,mb5.3
EKA   Eskdalemuir Ar  59.30  34 P      P     18 47 55.5 -0.7
      comp=Z,4.8nm,0.9s,mb4.5,baz=250,slow=7.5,SNR=10
RJF   Les Rejaudoux   59.74  46 eP     P     18 47 59.0 -0.4
      comp=Z,49nm,1.0s,mb5.2
RJF                             epP    pP    18 48 12.7 -0.9
RJF                             eMLR   MLR
      comp=Z,555nm,21.5s,MS4.4
RJF   Les Rejaudoux   59.74  46 eP     P     18 47 59.0 -0.4
RJF                             e*PP   pP    18 48 12.7 -0.9
RJF                             pmax   pmax
      comp=Z,24nm,1.0s,mb5.2
RJF                             MLR    MLR
      comp=Z,550nm,21.5s,MS4.7
RJF   Les Rejaudoux   59.74  46 eP     P     18 47 59.0 -0.4
      comp=Z,24nm,1.0s,mb5.2
RJF                             epP    pP    18 48 12.7 -0.9
RJF                             LR     LR
      comp=Z,550nm,21.5s,MS4.7
MTLF  Montolieu       59.94  48 eP     P     18 48 00.5 -0.3
      comp=Z,41nm,0.9s,mb5.1
MTLF                            epP    pP    18 48 14.3 -0.8
MTLF  Montolieu       59.94  48 eP     P     18 48 00.5 -0.3
MTLF                            e*PP   pP    18 48 14.3 -0.8
MTLF                            pmax   pmax
      comp=Z,21nm,0.9s,mb5.2
MTLF  Montolieu       59.94  48 eP     P     18 48 00.5 -0.3
      comp=Z,21nm,0.9s,mb5.2
MTLF                            epP    pP    18 48 14.3 -0.8
ETOS  Mallorca        59.99  53 P      P     18 48 01.8 +0.6
      comp=Z,12nm,0.6s,mb5.1
TORD  Torodi Ar. Bea  60.05  83 P      P     18 48 00.9 -1.1
      comp=Z,16nm,0.8s,mb5.1,baz=287,slow=5.8,SNR=92
TORD                            pP     pP    18 48 16.9 +0.6
      comp=Z,15nm,0.9s,baz=289,slow=5.9,SNR=6.6
TORD                            LR     LR    19 10 13.5
      comp=Z,438nm,20.6s,MS4.6,baz=275,slow=32
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CAF   Calviac         60.06  47 eP     P     18 48 01.3 -0.3
      comp=Z,45nm,0.8s,mb5.3
CAF   Calviac         60.06  47 eP     P     18 48 01.3 -0.3
CAF                             pmax   pmax
      comp=Z,23nm,0.8s,mb5.3
CAF   Calviac         60.06  47 eP     P     18 48 01.3 -0.3
      comp=Z,23nm,0.8s,mb5.2
TCF   Toulx Ste Croi  60.38  45 eP     P     18 48 03.4 -0.4
      comp=Z,66nm,1.2s,mb5.2
TCF                             epP    pP    18 48 17.2 -0.8
TCF   Toulx Ste Croi  60.38  45 eP     P     18 48 03.4 -0.4
TCF                             e*PP   pP    18 48 17.2 -0.8
TCF                             pmax   pmax
      comp=Z,33nm,1.2s,mb5.2
TCF   Toulx Ste Croi  60.38  45 eP     P     18 48 03.4 -0.4
      comp=Z,33nm,1.2s,mb5.2
TCF                             epP    pP    18 48 17.2 -0.8
YKA   Yellowknife Ar  60.62 334 P      P     18 48 03.6 -1.5
      comp=Z,6.6nm,0.6s,mb4.9,baz=107,slow=7.4,SNR=103
YKA                             LR     LR    19 11 43.4
      comp=Z,323nm,21.1s,MS4.4,baz=135,slow=33
HYF   Humbligny       60.83  44 eP     P     18 48 06.7 -0.1
HYF                             epP    pP    18 48 20.5 -0.6
PYM   Petit Puy Mans  60.84  46 eP     P     18 48 07.2 +0.3
BGF   Bois d'Agland   60.85  45 eP     P     18 48 06.5 -0.5
      comp=Z,19nm,0.7s,mb5.0
BGF   Bois d'Agland   60.85  45 eP     P     18 48 06.5 -0.5
BGF                             pmax   pmax
      comp=Z,9.0nm,0.7s,mb5.0
BGF   Bois d'Agland   60.85  45 eP     P     18 48 06.5 -0.5
      comp=Z,9.4nm,0.7s,mb5.0
LBL   Lubilhac        60.93  46 eP     P     18 48 07.8 +0.2
LASF  Ste Croix       61.22  48 eP     P     18 48 09.7 +0.2
      comp=Z,78nm,1.4s,mb5.3
AVF   Avril sur Loir  61.23  45 eP     P     18 48 09.0 -0.6
      comp=Z,23nm,0.9s,mb5.0
AVF                             epP    pP    18 48 22.8 -1.0
AVF   Avril sur Loir  61.23  45 eP     P     18 48 09.0 -0.6
AVF                             e*PP   pP    18 48 22.8 -1.0
AVF                             pmax   pmax
      comp=Z,12nm,0.9s,mb5.0
AVF   Avril sur Loir  61.23  45 eP     P     18 48 09.0 -0.6
      comp=Z,12nm,0.9s,mb5.0
AVF                             epP    pP    18 48 22.8 -1.0
PLDF  La Plantade     61.30  46 eP     P     18 48 09.6 -0.4
SSF   Saint Saulge    61.38  44 eP     P     18 48 09.8 -0.8
      comp=Z,40nm,1.1s,mb5.2
SSF   Saint Saulge    61.38  44 eP     P     18 48 09.8 -0.8
SSF                             pmax   pmax
      comp=Z,20nm,1.1s,mb5.2
SSF   Saint Saulge    61.38  44 eP     P     18 48 09.8 -0.8
      comp=Z,20nm,1.1s,mb5.2
SMF   Signal de Mont  61.55  45 eP     P     18 48 11.2 -0.5
      comp=Z,92nm,1.2s,mb5.5
SMF   Signal de Mont  61.55  45 eP     P     18 48 11.2 -0.5
SMF                             pmax   pmax
      comp=Z,46nm,1.2s,mb5.5
SMF   Signal de Mont  61.55  45 eP     P     18 48 11.2 -0.5
      comp=Z,46nm,1.2s,mb5.5
LOR   Lormes          61.65  44 eP     P     18 48 11.7 -0.7
      comp=Z,59nm,1.0s,mb5.4
LOR                             epP    pP    18 48 25.5 -1.2
LOR                             eMLR   MLR
      comp=Z,724nm,21.8s,MS4.5
LOR   Lormes          61.65  44 eP     P     18 48 11.7 -0.7
LOR                             e*PP   pP    18 48 25.5 -1.2
LOR                             pmax   pmax
      comp=Z,30nm,1.0s,mb5.4
LOR                             MLR    MLR
      comp=Z,720nm,21.8s,MS4.8
LOR   Lormes          61.65  44 eP     P     18 48 11.7 -0.7
      comp=Z,30nm,1.0s,mb5.4
LOR                             epP    pP    18 48 25.5 -1.2
LOR                             LR     LR
      comp=Z,720nm,21.8s,MS4.8
SET   Setif           61.81  57 P      P     18 48 15.0 +1.3
VIVF  Saint-Julien-l  61.89  47 eP     P     18 48 14.5 +0.5
      comp=Z,46nm,1.0s,mb5.3
VIVF                            epP    pP    18 48 28.3  0.0
VIVF  Saint-Julien-l  61.89  47 eP     P     18 48 14.5 +0.5
VIVF                            e*PP   pP    18 48 28.3  0.0
VIVF                            pmax   pmax
      comp=Z,23nm,1.0s,mb5.3
VIVF  Saint-Julien-l  61.89  47 eP     P     18 48 14.5 +0.5
      comp=Z,23nm,1.0s,mb5.3
VIVF                            epP    pP    18 48 28.3  0.0
DFRA  Djebel Bou Aff  62.21  56 P      P     18 48 17.0 +0.7
BAIF  Baives          62.32  41 eP     P     18 48 16.5 -0.3
TAM   Tamanrasset     62.39  72 eP     P     18 48 18.5 +0.7
TAM                             pmax   pmax
      comp=Z,18nm,0.9s,mb5.2
TAM   Tamanrasset     62.39  72 eP     P     18 48 18.5 +0.8
      comp=Z,18nm,0.9s,mb5.2
SMRF  Simiane la Rot  62.44  48 eP     P     18 48 17.7  0.0
      comp=Z,36nm,1.1s,mb5.1
SMRF  Simiane la Rot  62.44  48 eP     P     18 48 17.7  0.0
      comp=Z,36nm,1.1s,mb5.4
UCC   Uccle           62.55  40 P      P     18 48 18.0 -0.3
DOU   Dourbes         62.58  41 P      P     18 48 18.2 -0.3
      comp=Z,16nm,2.3s,mb4.7
RES   Resolute Bay    62.61 350 P      P     18 48 17.4 -1.0
      comp=Z,5.1nm,0.9s,mb4.6,baz=161,slow=8.0,SNR=20
MEZF  Maizieres J'vi  62.62  43 eP     P     18 48 18.5 -0.4
      comp=Z,83nm,0.9s,mb5.6
MEZF                            epP    pP    18 48 32.3 -0.9
MEZF  Maizieres J'vi  62.62  43 eP     P     18 48 18.5 -0.4
      comp=Z,83nm,0.9s,mb5.9
MEZF                            epP    pP    18 48 32.3 -0.9
CTEI  Djebel Teioual  62.63  57 P      P     18 48 20.0 +0.9
CASM  Ain Smara       62.70  57 P      P     18 48 20.4 +0.8
GIVF  Givet           62.72  41 eP     P     18 48 18.8 -0.7
      comp=Z,48nm,1.1s,mb5.2
GIVF  Givet           62.72  41 eP     P     18 48 18.8 -0.7
GIVF                            pmax   pmax
      comp=Z,24nm,1.1s,mb5.2
GIVF  Givet           62.72  41 eP     P     18 48 18.8 -0.7
      comp=Z,24nm,1.1s,mb5.2
ORIF  Oris-en-Rattie  62.75  47 eP     P     18 48 20.6 +0.8
      comp=Z,26nm,1.1s,mb5.0
ORIF                            eMLR   MLR
      comp=Z,575nm,23.0s,MS4.4
ORIF  Oris-en-Rattie  62.75  47 eP     P     18 48 20.6 +0.8
ORIF                            pmax   pmax
      comp=Z,13nm,1.1s,mb5.0
ORIF  Oris-en-Rattie  62.75  47 eP     P     18 48 20.6 +0.8
      comp=Z,13nm,1.1s,mb5.0
CKFL  Kef-Lekhel      62.88  57 P      P     18 48 21.5 +0.6
CAEH  'Ain El Ouahch  63.00  56 P      P     18 48 24.0 +2.4
LMR   La Mourre       63.05  49 eP     P     18 48 21.4 -0.4
CABF  La Chapelle     63.08  45 eP     P     18 48 21.5 -0.4
      comp=Z,28nm,0.9s,mb5.1
CABF                            epP    pP    18 48 35.4 -0.8
CABF  La Chapelle     63.08  45 eP     P     18 48 21.5 -0.4
CABF                            e*PP   pP    18 48 35.4 -0.8
CABF                            pmax   pmax
      comp=Z,14nm,0.9s,mb5.1
CABF  La Chapelle     63.08  45 eP     P     18 48 21.5 -0.4
      comp=Z,14nm,0.9s,mb5.1
CABF                            epP    pP    18 48 35.4 -0.8
BCLA  Clavier         63.08  41 P      P     18 48 22.2 +0.4
      comp=Z,14nm,2.1s,mb4.7
FRF   La Foret Royal  63.17  49 eP     P     18 48 22.1 -0.5
      comp=Z,40nm,1.1s,mb5.2
FRF   La Foret Royal  63.17  49 eP     P     18 48 22.1 -0.5
FRF                             pmax   pmax
      comp=Z,20nm,1.1s,mb5.2
FRF   La Foret Royal  63.17  49 eP     P     18 48 22.1 -0.5
      comp=Z,20nm,1.1s,mb5.2
THEF  They Montfort   63.20  43 eP     P     18 48 22.4 -0.3
RSL   Roselend        63.35  46 eP     P     18 48 24.3 +0.6
MBDF  Montbardon      63.36  47 eP     P     18 48 24.3 +0.5
      comp=Z,44nm,1.1s,mb5.2
MBDF                            epP    pP    18 48 38.1 -0.1
MBDF  Montbardon      63.36  47 eP     P     18 48 24.3 +0.5
MBDF                            e*PP   pP    18 48 38.1 -0.1
MBDF                            pmax   pmax
      comp=Z,22nm,1.1s,mb5.2
MBDF  Montbardon      63.36  47 eP     P     18 48 24.3 +0.5
      comp=Z,22nm,1.1s,mb5.2
MBDF                            epP    pP    18 48 38.1 -0.1
LPL   La Plagne       63.41  46 eP     P     18 48 24.7 +0.6
      comp=Z,46nm,1.0s,mb5.3
LPL   La Plagne       63.41  46 eP     P     18 48 24.7 +0.6
LPL                             pmax   pmax
      comp=Z,23nm,1.0s,mb5.3
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LPL   La Plagne       63.41  46 eP     P     18 48 24.7 +0.6
      comp=Z,23nm,1.0s,mb5.3
HAU   Haudompre       63.42  44 eP     P     18 48 23.3 -0.8
      comp=Z,54nm,1.1s,mb5.3
HAU                             eMLR   MLR
      comp=Z,516nm,21.2s,MS4.4
HAU   Haudompre       63.42  44 eP     P     18 48 23.3 -0.8
HAU                             pmax   pmax
      comp=Z,27nm,1.1s,mb5.3
HAU                             MLR    MLR
      comp=Z,520nm,21.3s,MS4.7
HAU   Haudompre       63.42  44 eP     P     18 48 23.3 -0.8
      comp=Z,27nm,1.1s,mb5.3
HAU                             LR     LR
      comp=Z,520nm,21.3s,MS4.7
LPG   La Plagne       63.42  46 eP     P     18 48 24.9 +0.7
      comp=Z,58nm,1.1s,mb5.3
LPG                             epP    pP    18 48 38.7 +0.2
LPG   La Plagne       63.42  46 eP     P     18 48 24.9 +0.7
LPG                             e*PP   pP    18 48 38.7 +0.2
LPG                             pmax   pmax
      comp=Z,29nm,1.1s,mb5.3
LPG   La Plagne       63.42  46 eP     P     18 48 24.9 +0.7
      comp=Z,29nm,1.1s,mb5.3
LPG                             epP    pP    18 48 38.7 +0.2
CMAH  Djebel Manchou  63.45  56 P      P     18 48 24.5 -0.1
ABSA  Djebel Ababsia  63.49  57 P      P     18 48 25.5 +0.6
WLF   Walferdange     63.51  42 P      P     18 48 25.1 +0.4
WLF   Walferdange     63.51  42 eP     P     18 48 24.6 -0.1
      comp=Z,36nm,1.1s,mb5.3
HGN   Heimansgroeve   63.53  41 eP     P     18 48 24.7 -0.2
      comp=Z,36nm,1.0s,mb5.4
MEM   Membach         63.55  41 P      P     18 48 24.8 -0.2
      comp=Z,15nm,1.3s,mb4.9
LOMF  Lomont          63.66  44 eP     P     18 48 25.0 -0.8
HINF  Hinteralfeld    63.73  44 eP     P     18 48 25.1 -1.1
      comp=Z,33nm,1.0s,mb5.0
HINF                            epP    pP    18 48 39.0 -1.6
HINF  Hinteralfeld    63.73  44 eP     P     18 48 25.1 -1.1
HINF                            e*PP   pP    18 48 39.0 -1.6
HINF                            pmax   pmax
      comp=Z,17nm,1.0s,mb5.0
HINF  Hinteralfeld    63.73  44 eP     P     18 48 25.1 -1.1
      comp=Z,17nm,1.0s,mb5.0
HINF                            epP    pP    18 48 39.0 -1.6
SBF   Sospel          63.77  48 eP     P     18 48 26.3 -0.2
      comp=Z,52nm,1.0s,mb5.2
SBF   Sospel          63.77  48 eP     P     18 48 26.3 -0.2
SBF                             pmax   pmax
      comp=Z,26nm,1.0s,mb5.2
SBF   Sospel          63.77  48 eP     P     18 48 26.3 -0.2
      comp=Z,26nm,1.0s,mb5.2
MOF   Molkenrain      63.92  44 eP     P     18 48 26.7 -0.8
ECH   Echery          63.98  43 eP     P     18 48 27.1 -0.8
CDF   Champ du Feu    64.08  43 eP     P     18 48 27.8 -0.7
      comp=Z,58nm,1.2s,mb5.2
CDF   Champ du Feu    64.08  43 eP     P     18 48 27.8 -0.7
CDF                             pmax   pmax
      comp=Z,29nm,1.2s,mb5.2
CDF   Champ du Feu    64.08  43 eP     P     18 48 27.8 -0.7
      comp=Z,29nm,1.2s,mb5.2
RUP   Ruppelstein     64.09  42 eP     P     18 48 28.6  0.0
BBS   Basel-Blauen    64.13  44 eP     P     18 48 28.4 -0.5
LIBD  Limburg         64.27  44 eP     P     18 48 29.1 -0.7
ABH   Alteburg        64.43  42 eP     P     18 48 30.8  0.0
BUG   Bochum--Univer  64.46  40 eP     P     18 48 30.5 -0.4
      comp=Z,31nm,1.1s,mb5.2
BUG                             epP    pP    18 48 46.5 +1.2
LANF  Langenberg      64.49  43 eP     P     18 48 31.0 -0.2
FELD  Feldberg im Sc  64.51  44 eP     P     18 48 30.8 -0.5
BFO   Black Forest    64.77  43⇑eP     P     18 48 33.0  0.0
BFO   Black Forest    64.77  43 eP     P     18 48 32.2 -0.8
      comp=Z,13nm,1.2s,mb4.8
PGF   Pioggiola       64.83  50 eP     P     18 48 33.1 -0.4
      comp=Z,40nm,0.9s,mb5.1
PGF   Pioggiola       64.83  50 eP     P     18 48 33.1 -0.4
PGF                             pmax   pmax
      comp=Z,20nm,0.9s,mb5.2
PGF   Pioggiola       64.83  50 eP     P     18 48 33.1 -0.4
      comp=Z,20nm,0.9s,mb5.1
IBBN  Ibbenburen      64.88  39 eP     P     18 48 33.4 -0.3
      comp=Z,37nm,1.0s,mb5.4
KEST  Kesra           65.01  57 P      P     18 48 35.5 +0.6
      comp=Z,24nm,0.8s,mb5.3,baz=192,slow=1.6,SNR=65
KEST                            LR     LR    19 13 18.6
      comp=Z,111nm,20.7s,MS4.0,baz=246,slow=33
TNS   Taunus Mts      65.05  41 eP     P     18 48 34.6 -0.2
TNS                             e*PP   pP    18 48 49.4 +0.2
TNS                             pmax   pmax
      comp=Z,57nm,1.0s,mb5.6
TNS   Taunus Mts      65.05  41 eP     P     18 48 34.6 -0.2
      comp=Z,57nm,1.0s,mb5.6
TNS                             epP    pP    18 48 49.4 +0.2
TUE   Stuetta         65.30  46 eP     P     18 48 36.3 -0.2
      comp=Z,30nm,1.3s,mb5.2
DAG   Danmarks Havn   65.35  10⇓iP     P     18 48 36.2 -0.1
DAG                             pmax   pmax
      comp=Z,22nm,0.8s,mb5.2
DAG   Danmarks Havn   65.35  10⇓iP     P     18 48 36.2 -0.1
      comp=Z,22nm,0.8s,mb5.2
STU   Stuttgart       65.39  43 eP     P     18 48 36.3 -0.7
      comp=Z,34nm,1.1s,mb5.3
STU                             esP    sP    18 48 56.8 -0.4
DAVOS Davos           65.64  45 P      P     18 48 40.0 +1.3
DAVOX Davos/Dischmat  65.69  45 P      P     18 48 40.0 +1.0
      comp=Z,27nm,0.9s,mb5.3,baz=286,slow=8.0
DAVOX Davos/Dischmat  65.69  45 P      P     18 48 40.0 +1.0
DAVA  Damuels         65.72  45⇓iP     P     18 48 39.4 +0.2
      comp=Z,48nm,0.9s,mb5.5,SNR=9.1
DAVA  Damuels         65.72  45 P      P     18 48 39.5 +0.3
UBBA  Unterbreizbach  66.10  41 eP     P     18 48 40.8 -0.7
      comp=Z,21nm,1.5s,mb5.0
FETA  Feichten        66.29  45 i P    P     18 48 43.0 +0.1
      comp=Z,90nm,1.1s,mb5.7,SNR=68
NRDL  Niedersach Rie  66.33  39 eP     P     18 48 43.0  0.0
      comp=Z,30nm,1.2s,mb5.2
RETA  Reutte          66.34  44⇓iP     P     18 48 43.0 -0.2
      comp=Z,25nm,0.9s,mb5.2,SNR=7.3
EFI   East Falkland   66.46 178 eP     P     18 48 47.8 +4.1
MOTA  Moosalm         66.56  45⇑iP     P     18 48 44.4 -0.2
      comp=Z,33nm,1.0s,mb5.3,SNR=16
MOTA  Moosalm         66.56  45 P      P     18 48 44.3 -0.3
BSEG  Bad Segeberg    66.62  37 eP     P     18 48 44.2 -0.6
BSEG                            pmax   pmax
      comp=Z,37nm,1.2s,mb5.3
BSEG  Bad Segeberg    66.62  37 eP     P     18 48 44.2 -0.6
      comp=Z,37nm,1.2s,mb5.3
DLBC  Dease Lake      66.67 328 eP     P     18 48 44.9 -0.2
GRA1  Grafenberg Arr  66.78  42 eP     P     18 48 45.2 -0.8
      comp=Z,31nm,1.1s,mb5.2
GRA1                            epP    pP    18 49 00.3 -0.1
GRA1                            LR     LR
      comp=Z,500nm,22.0s,MS4.7
GRF   Grafenberg Arr  66.78  42 eP     P     18 48 45.2 -0.8
GRF                             e*PP   pP    18 49 00.3 -0.1
GRF                             pmax   pmax
      comp=Z,31nm,1.1s,mb5.2
GRF                             MLR    MLR
      comp=Z,500nm,22.0s,MS4.7
GRF   Grafenberg Arr  66.78  42 eP     P     18 48 45.2 -0.8
GRF                             e*PP   pP    18 49 00.3 -0.1
GRF                             pmax   pmax
      comp=Z,31nm,1.1s,mb5.2
GRF                             MLR    MLR
      comp=Z,500nm,22.0s,MS4.7
GRF   Grafenberg Arr  66.78  42 eP     P     18 48 45.2 -0.8
      comp=Z,31nm,1.1s,mb5.2
GRF                             epP    pP    18 49 00.3 -0.1
GRF                             eL           19 11 34.4
      comp=Z,488nm,22.0s
WATA  Walderalm       66.88  45⇓iP     P     18 48 46.2 -0.4
      comp=Z,23nm,0.9s,mb5.2
WTTA  Wattenberg      66.92  45⇓iP     P     18 48 46.5 -0.3
      comp=Z,25nm,0.9s,mb5.2,SNR=7.9
WTTA  Wattenberg      66.92  45 P      P     18 48 46.7 -0.2
MOX   Moxa            67.10  41 eP     P     18 48 47.4 -0.6
MANZ  Manzenberg      67.38  42 eP     P     18 48 49.7  0.0
      comp=Z,35nm,1.1s,mb5.3
MANZ                            esP    sP    18 49 10.0  0.0
ROTZ  Rotzenmuhle     67.43  42 eP     P     18 48 49.1 -0.9
      comp=Z,22nm,1.3s,mb5.0
ROTZ                            epP    pP    18 49 04.5  0.0
ROTZ                            esP    sP    18 49 10.2 -0.1
ABTA  Abfaltersbach   67.50  45⇓iP     P     18 48 49.6 -0.9
      comp=Z,33nm,1.1s,mb5.3,SNR=20
ALE   Alert           67.52 360 P      P     18 48 49.6 -0.5
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	comp=Z,295nm,1.0s,mb6.3,SNR=11						
WERD	**Werda**	67.53	41	*e*P	P	18 48 50.2	-0.5
	comp=Z,7.0nm,0.8s,mb4.7						
WERN	**Wernitzgruen**	67.57	42	*e*P	P	18 48 50.2	-0.7
	comp=Z,17nm,1.1s,mb5.0						
NKC	**Novy Kostel**	67.61	42	*e*P	P	18 48 51.3	+0.1
NKC				*e*PCP	PcP	18 49 11.0	-7.0
NKC				AMS	AMS	19 11 40.0	
	comp=Z,500nm,20.7s						
NKC	**Novy Kostel**	67.61	42	*e*P	P	18 48 51.3	+0.1
NKC				*e*PcP	PcP	18 49 11.0	-7.0
TANN	**Tannenbergstha**	67.63	41	*e*P	P	18 48 50.9	-0.4
	comp=Z,26nm,1.3s,mb5.1						
WET	**Wettzell**	67.83	43	*e*P	P	18 48 52.0	-0.6
WET				*e**SP	sP	18 49 12.5	-0.4
WET				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
WET	**Wettzell**	67.83	43	*e*P	P	18 48 52.0	-0.6
	comp=Z,23nm,1.1s,mb5.1						
WET				*e*sP	sP	18 49 12.5	-0.4
CLL	**Collm**	68.02	40	⇓*i*P	P	18 48 53.1	-0.7
CLL				*i*		18 49 13.6	
CLL				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
CLL	**Collm**	68.02	40	*e*P	P	18 48 53.3	-0.5
	comp=Z,32nm,1.0s,mb5.3						
CLL				*e*sP	sP	18 49 14.0	0.0
CLL	**Collm**	68.02	40	⇓*i*P	P	18 48 53.1	-0.7
	comp=Z,32nm,1.0s,mb5.3						
CLL				*e*	pP	18 49 09.0	+0.8
CLL				*i*		18 49 13.6	
CLL				*e*SP		18 58 12.0	
CLL				*e*		18 59 30.0	
CLL				*e*SS	SS	19 02 12.0	+0.1
CLL				*e*(SSS)		19 06 00.0	
CLL	**Collm**	68.02	40	⇓*i*P	P	18 48 53.1	-0.7
	comp=Z,32nm,1.0s,mb5.3						
CLL				*i*		18 49 13.6	
NB2	**NORSAR Subarra**	68.05	30	P	P	18 48 54.0	+0.3
	comp=Z,2.5nm,0.7s,mb4.3,baz=259,slow=6.5						
NOA	**NORSAR Array B**	68.05	30	P	P	18 48 53.9	+0.2
NOA				*PP	pP	18 49 09.5	+1.3
NOA	**NORSAR Array B**	68.05	30	P	P	18 48 53.9	+0.1
	comp=Z,22nm,0.8s,mb5.2,baz=262,slow=6.2,SNR=53						
NOA				pP	pP	18 49 09.5	+1.3
	comp=Z,3.2nm,0.8s,baz=262,slow=6.0,SNR=2.2						
NOA				LR	LR	19 15 19.8	
	comp=Z,137nm,18.9s,MS4.2,baz=265,slow=33						
KBA	**Koelnbreinsper**	68.08	45	⇓*i*P	P	18 48 53.6	-0.6
	comp=Z,52nm,1.2s,mb5.4,SNR=16						
KBA	**Koelnbreinsper**	68.08	45	P	P	18 48 53.8	-0.4
FBE	**Freiberg**	68.22	41	*e*P	P	18 48 54.5	-0.5
	comp=Z,17nm,0.9s,mb5.1						
FBE				*e*pP	pP	18 49 09.7	+0.2
FBE				*e*sP	sP	18 49 15.3	0.0
MYKA	**Terra Mystica**	68.27	45	⇓*i*P	P	18 48 54.8	-0.6
	comp=Z,20nm,0.8s,mb5.2						
KHC	**Kasperske Hory**	68.29	43	*e*P	P	18 48 55.2	-0.3
KHC				*e*PCP	PcP	18 49 15.0	-5.9
KHC				AMS	AMS	19 11 40.0	
	comp=Z,500nm,23.5s						
GEC2	**GERESS Array S**	68.36	43	*e*P	P	18 48 55.0	-0.9
GEC2				*e**SP	sP	18 49 15.8	-0.4
GEC2				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
GEC2	**GERESS Array S**	68.36	43	*e*P	P	18 48 55.0	-0.9
	comp=Z,30nm,1.1s,mb5.2						
GEC2				*e*sP	sP	18 49 15.8	-0.4
GERES	**GERESS Array B**	68.36	43	P	P	18 48 55.4	-0.5
GERES				*PP	pP	18 49 11.5	+1.1
GERES	**GERESS Array B**	68.36	43	P	P	18 48 55.4	-0.6
	comp=Z,15nm,0.9s,mb5.0,baz=258,slow=5.1,SNR=53						
GERES				pP	pP	18 49 11.5	+1.1
	comp=Z,12nm,0.8s,baz=246,slow=5.7,SNR=5.6						
GERES				LR	LR	19 12 28.8	
	comp=Z,290nm,20.6s,MS4.5,baz=280,slow=30						
VOY	**Vojsko**	68.44	46	*e*P	P	18 48 56.3	-0.2
VOY				*e*		18 49 16.7	
JAVS	**Javornik**	68.56	46	*i* P	P	18 48 56.9	-0.3
BRG	**Berggiesshubel**	68.59	41	*i* P	P	18 48 57.0	-0.3
BRG				*i*		18 49 17.2	
BRG				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
BRG				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BRG	**Berggiesshubel**	68.59	41	*e*P	P	18 48 56.8	-0.5
	comp=Z,25nm,1.1s,mb5.1						
BRG				*e*pP	pP	18 49 11.9	+0.1
BRG				*e*sP	sP	18 49 17.2	-0.4
BRG	**Berggiesshubel**	68.59	41	*i* P	P	18 48 57.0	-0.4
	comp=Z,25nm,1.1s,mb5.1						
BRG				*i*		18 49 17.2	
	comp=Z,14nm,0.8s						
MOA	**Molln**	68.72	44	⇑*i*P	P	18 48 57.2	-1.0
	comp=Z,19nm,1.4s,mb4.8						
MOA	**Molln**	68.72	44	P	P	18 48 57.7	-0.5
CEY	**Cerknica**	68.81	46	P	P	18 48 58.9	+0.1
LJU	**Ljubljana**	68.88	46	*i* P	P	18 48 59.2	0.0
LJU				*i*		18 49 19.0	
OBKA	**Obir**	68.89	46	*i* P	P	18 48 58.9	-0.4
	comp=Z,33nm,0.9s,mb5.3,SNR=14						
OBKA	**Obir**	68.89	46	P	P	18 48 58.9	-0.4
PRU	**Pruhonice**	68.94	42	*e*P	P	18 48 59.8	+0.3
PRU				*e*PCP	PcP	18 49 20.1	-3.5
PRU				AMS	AMS	19 12 00.0	
	comp=Z,500nm,23.3s						
PVCC	**Panska Ves**	68.98	41	*e*P	P	18 48 59.9	+0.2
PVCC				*e*PCP	PcP	18 49 19.6	-4.1
PVCC				AMS	AMS	19 13 30.0	
	comp=Z,500nm,21.8s						
HFA0	**Hagfors New Ar**	69.14	31	P	P	18 49 00.0	-0.6
HFS	**Hagfors**	69.15	31	P	P	18 49 00.3	-0.3
	comp=Z,12nm,0.8s,mb4.8,baz=172,slow=3.0,SNR=16						
HFS				sP	sP	18 49 19.9	-1.0
	comp=Z,6.6nm,0.8s,baz=241,slow=4.9,SNR=3.1						
SOKA	**Soboth**	69.23	45	⇓*i*P	P	18 49 00.4	-1.0
	comp=Z,16nm,1.0s,mb4.9						
PERS	**Pernice**	69.29	45	*i* P	P	18 49 00.7	-1.0
PERS				*i*		18 49 05.0	
PERS				*i*		18 49 21.4	
BOJS	**Bojanci**	69.39	47	*i* P	P	18 49 02.2	-0.2
CRES	**Cresnjev**	69.53	46	P	P	18 49 03.1	-0.1
TREC	**Trest**	69.55	43	*e*P	P	18 49 03.3	0.0
TREC				AMS	AMS	19 11 50.0	
	comp=Z,500nm,25.7s						
ARSA	**Arzberg**	69.56	45	⇑*i*P	P	18 49 02.6	-0.8
	comp=Z,22nm,0.8s,mb5.1,SNR=12						
ARSA	**Arzberg**	69.56	45	P	P	18 49 02.8	-0.6
CSNA	**Conrad Observa**	69.79	44	⇓*i*P	P	18 49 04.1	-0.7
	comp=Z,19nm,1.3s,mb4.9						
CONA	**Conrad Observa**	69.79	44	⇓*i*P	P	18 49 04.4	-0.4
	comp=Z,19nm,1.2s,mb4.9,SNR=6.0						
UPC	**Upice**	69.90	41	*e*P	P	18 49 05.5	+0.1
UPC				*e*PCP	PcP	18 49 25.8	-1.8
KOGS	**Kog**	70.07	46	P	P	18 49 06.3	-0.3
DPC	**Dobruska-Polom**	70.10	42	*e*P	P	18 49 06.5	-0.1
DPC				*e*PCP	PcP	18 49 27.1	-1.3
DPC				AMS	AMS	19 13 30.0	
	comp=Z,500nm,20.2s						
KRUC	**Moravsky**	70.14	43	P	P	18 49 06.5	-0.4
VRAC	**Vranov**	70.27	43	⇑*i*P	P	18 49 07.4	-0.3
VRAC	**Vranov**	70.27	43	P	P	18 49 07.5	-0.2
	comp=Z,15nm,0.7s,mb5.0,baz=276,slow=5.9,SNR=13						
MODS	**Modra-Piesok**	70.73	44	*i* P	P	18 49 10.3	-0.3
MODS				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
MODS	**Modra-Piesok**	70.73	44	*i* P	P	18 49 10.2	-0.4
MODS	**Modra-Piesok**	70.73	44	*i* P	P	18 49 10.3	-0.3
	comp=Z,13nm,0.9s,mb4.9						
TIP	**Timpagrande**	70.76	53	*e*P	P	18 49 09.2	-1.7
	comp=Z,6.6nm,0.9s,mb4.6						
SMOL	**Smolenice**	70.83	43	*i* P	P	18 49 11.0	-0.2
MORC	**Moravsky Berou**	70.88	42	⇓*i*P	P	18 49 11.4	-0.1
MORC	**Moravsky Berou**	70.88	42	⇓P	P	18 49 11.4	-0.1
JAVC	**Velka Javorina**	70.98	43	P	P	18 49 12.8	+0.7
OKC	**Ostrava-Krasne**	71.28	42	*e*P	P	18 49 14.1	+0.3
OKC				*e*PCP	PcP	18 49 34.3	+0.9
OKC				AMS	AMS	19 13 40.0	
	comp=Z,400nm,20.7s						
OKC	**Ostrava-Krasne**	71.28	42	*e*P	P	18 49 14.1	+0.3
OKC				*e*PcP	PcP	18 49 34.3	+0.9
PKSM	**Moragy**	71.73	46	⇓*i*P	P	18 49 16.1	-0.6
PKSM	**Moragy**	71.73	46	⇓P	P	18 49 16.1	-0.5
VYHS	**Vyhne**	71.77	43	*i* P	P	18 49 16.2	-0.6
DAWY	**Dawson**	71.79	333	*e*P	P	18 49 16.6	0.0
BRY	**Bratogost**	71.86	49	P	P	18 49 17.0	-0.5
UPM	**Unac-Piva**	72.10	49	P	P	18 49 19.0	+0.1
NKY	**Niksic**	72.20	49	P	P	18 49 20.0	+0.5
OJC	**Ojcow**	72.33	42	*e*P	P	18 49 20.2	+0.1
TTG	**Podgorica**	72.42	50	P	P	18 49 21.0	+0.2
PSZ	**Piszkesteto**	72.50	44	⇓*i*P	P	18 49 21.1	-0.1
PSZ	**Piszkesteto**	72.50	44	⇓P	P	18 49 21.1	-0.1
EGAK	**Eagle**	72.59	334	*e*P	P	18 49 19.5	-1.9
	comp=Z,14nm,0.9s,mb4.9						
NIE	**Niedzica**	72.70	42	*e*P	P	18 49 23.3	+0.9
STHS	**Stebnicka Huta**	73.31	42	*i* P	P	18 49 26.8	+0.9
STHS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
STHS	**Stebnicka Huta**	73.31	42	*i* P	P	18 49 26.8	+0.9
	comp=Z,9.1nm,0.8s,mb4.8						
GRUS	**Gruza**	73.36	48	P	P	18 49 26.9	+0.5
CRVS	**Cervenica-Dubn**	73.48	43	*i* P	P	18 49 27.2	+0.2
IGT	**Igoumenitsa**	73.49	53	P	P	18 49 28.3	+1.1
MENT	**Mentasta**	73.71	332	*e*P	P	18 49 28.1	0.0
BZS	**Buzias**	73.85	46	⇓*i*P	P	18 49 29.2	0.0
BZS	**Buzias**	73.85	46	⇓P	P	18 49 29.2	-0.1
KRUS	**Krusevo**	73.99	51	*i* P	P	18 49 30.1	-0.1
KOLS	**Kolonicke sedl**	74.01	43	*i* P	P	18 49 30.1	0.0
KOLS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
KOLS	**Kolonicke sedl**	74.01	43	*i* P	P	18 49 30.1	0.0
	comp=Z,5.6nm,0.9s,mb4.5						
UZH	**Uzhgorod**	74.05	43	⇓*i*P	P	18 49 30.8	+0.5
SKO	**Skopje**	74.07	50	*i* P	P	18 49 31.3	+0.7
BIA	**Bitola**	74.09	51	P	P	18 49 30.6	-0.1
BIA	**Bitola**	74.09	51	*i* P	P	18 49 31.0	+0.3
MEV	**Metsovon**	74.15	52	P	P	18 49 32.4	+1.3
FNA	**Florina**	74.15	51	P	P	18 49 31.4	+0.3
SUW	**Suwalki**	74.21	38	*e*P	P	18 49 30.4	-0.8
SUW	**Suwalki**	74.21	38	*e*P	P	18 49 30.4	-0.7
KWP	**Kalwaria Pacla**	74.24	42	*e*P	P	18 49 32.7	+1.3
KWP	**Kalwaria Pacla**	74.24	42	*e*P	P	18 49 32.7	+1.3
TRPA	**Tarpa**	74.26	44	⇑*i*P	P	18 49 31.4	-0.1
BARS	**Barje**	74.26	49	P	P	18 49 32.5	+0.8
DRGR		74.50	45	⇓*i*P	P	18 49 33.0	0.0
DRGR		74.50	45	P	P	18 49 33.1	+0.1
ARCES	**ARCESS Array B**	74.59	21	P	P	18 49 32.7	-0.3
	comp=Z,37nm,0.8s,mb5.4,baz=270,slow=5.6,SNR=45						
ARCES				LR	LR	19 16 48.2	
	comp=Z,93nm,18.2s,MS4.1,baz=287,slow=31						
ARCES	**ARCESS Array B**	74.59	21	P	P	18 49 32.7	-0.3
ARCES				LR	LR	19 16 48.2	
GZR	**Gura Zlata**	74.68	46	⇓*i*P	P	18 49 34.1	0.0
GZR	**Gura Zlata**	74.68	46	P	P	18 49 34.2	+0.2
THL	**Klokotos Trika**	74.78	53	P	P	18 49 34.9	+0.1
GRG	**Griva**	74.90	51	P	P	18 49 35.9	+0.4
BMR	**Baia Mare**	74.94	44	P	P	18 49 36.1	+0.6
VAY	**Valandovo**	74.99	51	*i* P	P	18 49 35.8	-0.1
VAY	**Valandovo**	74.99	51	P	P	18 49 36.4	+0.5
LIT	**Litokhoron**	75.08	52	P	P	18 49 35.9	-0.6
LVV	**L’vov**	75.08	42	*e*P	P	18 49 29.1	-7.2
KEV	**Kevo**	75.10	21	*e*P	P	18 49 35.2	-0.8
KEV				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
KEV	**Kevo**	75.10	21	*e*p	P	18 49 35.2	-0.8
	comp=Z,13nm,0.7s,mb5.0						
FINES	**FINESS Array B**	75.23	30	*e*P	P	18 49 35.1	-1.8
FINES	**FINESS Array B**	75.23	30	P	P	18 49 35.0	-1.9
KNT	**Kendrikon**	75.25	51	P	P	18 49 37.9	+0.4
KAF	**Kangasniemi**	75.29	29	*e*P	P	18 49 35.2	-2.0
KAF				pmax	pmax		
	comp=Z,19nm,0.5s,mb5.3						
KAF	**Kangasniemi**	75.29	29	*e*p	P	18 49 35.2	-2.0
	comp=Z,19nm,0.5s,mb5.3						
KKB	**Krupnik**	75.30	50	P	P	18 49 38.8	+1.1
VTS	**Vitosha**	75.31	49	P	P	18 49 38.2	+0.5
VTS	**Vitosha**	75.31	49	P	P	18 49 38.0	+0.3
THE	**Thessaloniki**	75.37	51	P	P	18 49 38.0	-0.1
COLA	**College**	75.45	334	*e*P	P	18 49 37.0	-1.1
COLA				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.1						
COLA	**College**	75.45	334	*e*P	P	18 49 37.0	-1.1
	comp=Z,37nm,1.4s,mb5.1						
SOH	**Sokhos**	75.64	51	P	P	18 49 40.5	+0.8
LKR	**Lokris**	75.66	53	P	P	18 49 39.8	0.0
PLG	**Polygyros**	75.77	52	P	P	18 49 41.3	+0.9
MMB	**Musomiste**	75.82	50	P	P	18 49 41.4	+0.7
VSU	**Vasula**	75.82	33	*d* *i*P	P	18 49 39.7	-0.6
PGB	**Panagyurishte**	76.01	49	P	P	18 49 42.0	+0.2
BURAR	**Bucovina Array**	76.10	44	⇓*i*P	P	18 49 42.7	+0.5
BURAR	**Bucovina Array**	76.10	44	⇓P	P	18 49 42.7	+0.6
BUR02	**Bucovina Ar. S**	76.11	44	P	P	18 49 43.1	+0.9
OUR	**Ouranopolis**	76.18	52	P	P	18 49 43.4	+0.6
VOIR		76.27	46	⇓*i*P	P	18 49 43.0	-0.2
VOIR		76.27	46	P	P	18 49 43.1	-0.1
PLD	**Plovdiv**	76.47	50	P	P	18 49 44.4	0.0
RZN	**Rozhen**	76.54	50	P	P	18 49 45.5	+0.7
MNK	**Minsk**	76.87	37	*e*P	P	18 49 44.0	-2.4
MICGM	**Minsk**	76.90	37	*e*	P	18 49 44.0	-2.5
KDZ	**Kurdzhali**	77.06	50	P	P	18 49 47.5	-0.2
LIA	**Limnos Island**	77.15	52	P	P	18 49 48.8	+0.5
SZH	**Strazhica**	77.20	48	P	P	18 49 48.8	+0.3
PLOR	**Plostina**	77.32	46	⇓*i*P	P	18 49 50.0	+0.9
VRI	**Vrincioaia**	77.37	46	⇓*i*P	P	18 49 50.7	+1.3
VRI	**Vrincioaia**	77.37	46	P	P	18 49 52.5	+3.1
JOF	**Joensuu**	77.51	28	*e*P	P	18 49 47.9	-1.9
JOF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
JOF	**Joensuu**	77.51	28	*e*p	P	18 49 47.9	-1.9
	comp=Z,10nm,0.7s,mb4.9						
APA	**Apatity**	77.66	23	⇓*i*P	P	18 49 50.4	-0.2
APA				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
APA				MLR	MLR		
	comp=Z,800nm,19.0s,MS5.1						
IDI	**Anoyia**	77.67	57	P	P	18 49 52.5	+1.2
	comp=Z,68nm,0.8s,mb5.7,baz=304,slow=6.1,SNR=51						
JMB	**Yambol**	77.79	49	P	P	18 49 52.4	+0.6
APE	**Apeiranthos**	77.88	55	⇓*i*P	P	18 49 51.7	-0.7
APE	**Apeiranthos**	77.88	55	⇓P	P	18 49 51.7	-0.7
PRD	**Provadia**	78.27	48	P	P	18 49 54.7	+0.3
AKASG	**Malin Array Be**	78.27	41	P	P	18 49 53.3	-1.0
	comp=Z,13nm,0.8s,mb4.9,baz=265,slow=5.0,SNR=14						
AKASG				LR	LR	19 20 24.9	
	comp=Z,383nm,20.0s,MS4.7,baz=295,slow=32						
HARR	**Harsova**	78.40	47	P	P	18 49 54.7	-0.4
URLA	**Izmir**	78.49	53	*i* P	P	18 49 56.3	+0.5
PSN	**Preselentsi**	78.75	48	P	P	18 49 56.5	-0.6
TIRR	**Tirgusor**	78.78	47	⇑*i*P	P	18 49 56.6	-0.6
TIRR	**Tirgusor**	78.78	47	P	P	18 49 56.8	-0.4
BLCB	**Balcova**	78.83	53	P	P	18 49 57.4	-0.2
BDRM	**Kayabasi**	79.39	54	*i* P	P	18 50 00.0	-0.6
AYDN	**Tasoluk**	79.61	54	*i* P	P	18 50 02.3	+0.3
DURS	**Dursunbey**	79.70	52	*i* P	P	18 50 02.2	-0.2
ULDT	**Uludag**	80.10	51	*i* P	P	18 50 04.4	-0.1
GDZ	**Gediz**	80.57	52	*i* P	P	18 50 07.2	+0.1
GOLH	**Golhisar**	81.01	54	*i* P	P	18 50 10.1	+0.7
AKAS	**Kas**	81.25	55	*e*P	P	18 50 10.0	-0.8
HENT	**Hendek**	81.28	50	*i* P	P	18 50 10.8	+0.1
ESKT	**Eskisehir**	81.52	51	*i* P	P	18 50 11.9	-0.1
OBN	**Obninsk**	81.72	35	P	P	18 50 13.8	+1.0
	comp=Z,759nm,0.6s,SNR=6.0						
OBN	**Obninsk**	81.72	35	⇑*e*P	P	18 50 12.7	-0.1
OBN				*e*SS	SS	19 05 47.1	+7.6
OBN				pmax	pmax		
	comp=Z,209nm,1.7s,mb5.8						
OBN	**Obninsk**	81.72	35	*e*P	P	18 50 12.5	-0.3
	comp=Z,102nm,0.9s,mb5.8						
KLMR	**Klimovskoe**	81.74	29	⇓*i*P	P	18 50 12.2	-0.6
KLMR				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.5						
MOS	**Moscow**	82.15	34	*e*P	P	18 50 11.6	-3.4
MOS				*e*		18 50 18.8	
MOS				pmax	pmax		
	comp=Z,91nm,1.0s,mb5.7						
SIM	**Simferopol’**	82.65	46	*de*P	P	18 50 17.9	0.0
SIM				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
KDHN	**Kadinhani**	82.70	52	*i* P	P	18 50 18.3	0.0
BALT	**Daday**	82.95	49	*i* P	P	18 50 19.5	0.0
ELDT	**Eldivan**	83.23	50	*i* P	P	18 50 21.1	+0.1
ILGA	**Ilgaz**	83.30	49	*i* P	P	18 50 22.0	+0.6
BRTR	**Keskin Array B**	83.57	51	P	P	18 50 22.6	-0.1
	comp=Z,25nm,0.8s,mb5.4,baz=263,slow=4.4,SNR=166						
BRTR				LR	LR	19 24 14.7	
	comp=Z,85nm,18.2s,MS4.2,baz=82,slow=33						
TSUM	**Tsumeb**	83.90	112	*e*P	P	18 50 24.4	-0.4
	comp=Z,10nm,0.8s,mb5.0						
TSUM				*e*	pP	18 50 40.3	+0.6
BOYT	**Boyabat**	84.08	49	*i* P	P	18 50 25.8	+0.5
CDAG	**Cicekdag**	84.14	51	*i* P	P	18 50 25.2	-0.4
CTKT	**Corum**	84.20	50	*i* P	P	18 50 25.7	-0.2
VSR	**Storozhevoye**	84.27	39	*d* *i*P	P	18 50 25.7	-0.4
PRGR	**Permogore**	84.30	27	⇓*i*P	P	18 50 26.2	+0.2
PRGR				pmax	pmax		
	comp=Z,71nm,0.7s,mb5.9						
AVNT	**Avonos**	84.72	51	*i* P	P	18 50 28.6	-0.1
ANN	**Anapa**	84.97	45	*e*P	P	18 50 28.1	-1.6
ANN				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.6						
VRHR	**Novokhopersk**	85.79	38	*e*P	P	18 50 33.7	0.0
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.4						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.5s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.5s						
GRSN	**GIRESUNGRSN**	86.66	49	*i* P	P	18 50 38.4	+0.2
MMAI	**Mount Meron Ar**	86.67	57	P	P	18 50 39.7	+1.3
	comp=E,13nm,0.8s,mb5.2,baz=349,slow=2.6,SNR=21						
SOC	**Sochi**	86.90	46	*d* *i*P	P	18 50 39.7	+0.4
SOC				*e**PP	pP	18 50 50.1	-4.1
SOC				*e**SP	sP	18 50 55.4	-4.6
SOC				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.7						
KUZU	**Kuzuini**	86.95	53	*i* P	P	18 50 40.9	+1.2
GZT	**Gaziantep**	87.16	52	*i* P	P	18 50 41.0	+0.3
AKCD	**Akcadag**	87.17	51	*i* P	P	18 50 41.5	+0.7
EIL	**Elat**	87.19	60	P	P	18 50 42.5	+1.5
	comp=Z,13nm,0.8s,mb5.2,baz=330,slow=6.3,SNR=8.9						
KEMA	**Kemaliye**	87.31	50	*i* P	P	18 50 42.0	+0.6
MALT	**Malatya**	87.54	51	⇓*i*P	P	18 50 43.0	+0.5
MALT	**Malatya**	87.54	51	⇓P	P	18 50 43.0	+0.4
ASF	**Jabal al Asfar**	88.11	57	P	P	18 50 46.6	+1.2
	comp=Z,12nm,1.0s,mb5.1,baz=158,slow=3.7,SNR=14						
KIV	**Kislovodsk**	88.81	45	P	P	18 50 49.1	+0.7
	comp=Z,287nm,0.9s,mb6.6,SNR=12						
KIV	**Kislovodsk**	88.81	45	*d* *i*P	P	18 50 49.1	+0.7
KIV				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.8						
KIV	**Kislovodsk**	88.81	45	*e*P	P	18 50 49.5	+1.1
	comp=Z,50nm,0.9s,mb5.8						
ERZM	**Erzurum**	89.22	49	*i* P	P	18 50 52.6	+2.2
HOMI	**Horasan**	89.57	49	*i* P	P	18 50 52.3	+0.2
ONI	**Oni**	89.81	46	P	P	18 50 53.2	0.0
BILL	**Bilibino**	90.61	344	⇑*e*P	P	18 50 56.1	-0.2
BILL				*e*		18 54 30.9	
BILL				*e*S	SKSac	19 01 19.8	-3.5
BILL				*e*PS	PS	19 03 04.4	+3.2
BILL				pmax	pmax		
	comp=Z,13nm,1.7s,mb5.0						
BILL				MLR	MLR		
	comp=Z,500nm,18.0s,MS5.0						
GNI	**Garni**	91.58	48	P	P	18 51 02.8	+1.4
	comp=Z,9.3nm,0.9s,mb5.1,baz=325,slow=8.9,SNR=11						
ARU	**Arti**	92.60	29	*e*P	P	18 51 06.1	+0.3
ARU				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.2						
ARU	**Arti**	92.60	29	*e*P	P	18 51 06.0	+0.3
	comp=Z,9.5nm,1.0s,mb5.2						
TIXI	**Tiksi**	93.30	357	*e*P	P	18 51 06.5	-2.2
TIXI				*e*	pP	18 51 18.6	-5.1
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb5.0						
TIXI	**Tiksi**	93.30	357	*e*P	P	18 51 07.9	-0.8
	comp=Z,4.2nm,0.9s,mb4.9						
TIXI				*e*pP	pP	18 51 18.9	-4.8
BOSA	**Boshof**	93.33	119	P	P	18 51 10.2	+0.6
	comp=Z,3.5nm,0.7s,mb4.9,baz=204,slow=2.9,SNR=6.5						
BOSA				LR	LR	19 25 32.8	
	comp=Z,231nm,18.3s,MS4.7,baz=278,slow=31						
SVE	**Sverdlovsk**	93.34	28	⇓*e*P	P	18 51 09.7	+0.5
SVE				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.3						
SEY	**Seymchan**	98.19	346	⇑*e*P	P	18 51 31.7	+0.6
WMQ	**Urumqi**	114.56	25	*e*PKP	PKiKP	18 56 35.0	+0.5
WMQ				sPKP		18 56 49.0	
WMQ				*e*PP	PP	18 57 35.0	+4.1
WMQ				PKS		19 00 10.0	
WMQ				SKS	SKSdf	19 03 40.0	-2.5
WMQ				AMB	AMB		
	comp=Z,190nm,5.2s						
WMQ				LR	LR		
	comp=N,520nm,25.0s,MS5.3						
WMQ				LR	LR		
	comp=E,670nm,22.4s,MS5.3						
WMQ				LR	LR		
	comp=Z,650nm,21.7s,MS5.2						
HABR	**Khabarovsk**	115.30	349	*e*P	Pdif	18 52 44.5	-2.9
HABR				*i*		18 56 34.0	
HABR				*e*		18 57 34.0	
HABR				*e*PPP		18 59 59.8	
HABR				*e*PS	PS	19 07 13.2	-3.5
HABR				SS	SS	19 13 28.9	0.0
HABR				*e*SSS		19 17 45.5	
HABR				pmax	pmax		
	comp=Z,18nm,1.6s						
HABR				pmax	pmax		
	comp=Z,14nm,1.6s						
HABR				MLR	MLR		
	comp=Z,99nm,18.0s,MS4.5						
SONM	**Songino Array**	116.31	10	PKP	PKPdf	18 56 37.7	-0.1
	comp=Z,0.2nm,0.6s,baz=23,slow=4.7,SNR=2.1						
GTA	**Gaotai**	122.76	18	PKP	PKPdf	18 56 50.1	-0.3
GTA				PKS		19 00 26.4	
GTA				SKS	SKSdf	19 03 56.0	-2.3
GTA				AMB	AMB		
	comp=Z,93nm,8.7s						
GTA				LR	LR		
	comp=N,190nm,19.5s,MS4.9						
GTA				LR	LR		
	comp=E,160nm,19.8s,MS4.9						
GTA				LR	LR		
	comp=Z,290nm,20.7s,MS4.9						
PYUN	**Piuthan**	124.34	40	*e*P	PKPdf	18 56 53.1	-0.7
DANN	**Dangsing**	124.63	39	*e*P	PKPdf	18 56 54.8	+0.5
KOLN	**Koldanda**	124.95	39	*e*P	PKPdf	18 56 54.4	-0.5
BJI	**Beijing**	125.11	3	PKP	PKPdf	18 56 54.8	-0.1
BJI				AMB	AMB		
	comp=Z,160nm,5.9s						
BJI				LR	LR		
	comp=N,130nm,27.6s,MS4.8						
BJI				LR	LR		
	comp=E,210nm,25.4s,MS4.8						
BJI				LR	LR		
	comp=Z,240nm,30.7s						
GKN	**Gorkha**	125.41	38	*e*P	PKPdf	18 56 55.8	0.0
	comp=Z,11nm,0.8s						
MJAR	**Matsushiro Arr**	125.78	342	PKP	PKPdf	18 56 55.9	-0.4
	comp=Z,2.0nm,0.7s,baz=52,slow=1.4,SNR=6.6						
KKN	**Kakani**	125.95	38	*e*P	PKPdf	18 56 57.0	+0.1
DMN	**Daman**	125.98	38	*e*P	PKPdf	18 56 56.9	0.0
PKIN	**Phulchoki**	126.18	38	*e*P	PKPdf	18 56 56.4	-0.9
PKI	**Pulchoki**	126.19	38	*e*P	PKPdf	18 56 57.2	-0.1
GUN	**Gumba**	126.22	38	*e*P	PKPdf	18 56 57.5	+0.1
LZH	**Lanzhou**	127.01	16	*e*PKP	PKPdf	18 57 06.0	+7.4
LZH				sPKP		18 57 19.5	
LZH				PP	PP	18 59 04.0	+8.2
LZH				SKKS	SKKSac	19 05 51.1	+0.5
LZH				SS	SS	19 15 59.0	+0.2
LZH				AMB	AMB		
	comp=Z,220nm,5.1s						
LZH				LR	LR		
	comp=N,420nm,15.0s						
LZH				LR	LR		
	comp=Z,620nm,20.2s						
RAMN	**Ramite**	127.36	38	*e*P	PKPdf	18 56 59.5	-0.1
TAPN	**Taplejung**	127.71	36	*e*P	PKPdf	18 57 00.4	+0.2
ODAN	**Odare**	127.89	37	*e*P	PKPdf	18 56 59.8	-0.8
CD2	**Chengdu**	131.84	18	PKP	PKPdf	18 57 07.7	-0.3
CD2				sPKP		18 57 22.1	
CD2				PP	PP	18 59 29.7	+2.4
CD2				PKS		19 00 42.7	
CD2				SKS	SKSdf	19 04 13.9	-1.5
CD2				SKKS	SKKSac	19 06 16.5	-4.3
CD2				AMB	AMB		
	comp=Z,180nm,5.5s						
CD2				LR	LR		
	comp=N,330nm,10.7s						
CD2				LR	LR		

	comp=Z,270nm,10.1s,MS5.2						
NJ2	**Nanjing**	**133.17**	**1**	*e*PKP	PKPdf	18 57 10.8	+0.3
KMI	**Kunming**	**136.82**	**23**	PKP	PKPdf	18 57 16.8	-0.7
KMI				sPKP		18 57 32.3	
KMI				PP	PP	18 59 59.8	+0.7
KMI				SKKS	SKKSac	19 06 49.1	-2.0
KMI				AMB	AMB		
	comp=Z,150nm,4.4s						
KMI				LR	LR		
	comp=N,210nm,24.3s,MS4.9						
KMI				LR	LR		
	comp=E,160nm,24.3s,MS4.9						
KMI				LR	LR		
	comp=Z,350nm,25.4s,MS5.0						
GYA	**Guiyang**	**136.87**	**17**	Pdif	Pdif	18 54 20.6	-2.7
GYA				PKP	PKPdf	18 57 17.4	-0.1
GYA				sPKP		18 57 33.2	
GYA				PP	PP	19 00 01.6	+2.4
GYA				PKS		19 00 51.0	
GYA				SKS	SKSdf	19 04 21.2	-3.2
GYA				SKKS	SKKSac	19 06 47.5	-3.8
GYA				AMB	AMB		
	comp=Z,120nm,8.3s						
GYA				LR	LR		
	comp=N,190nm,22.4s,MS4.9						
GYA				LR	LR		
	comp=E,140nm,21.2s,MS4.9						
GYA				LR	LR		
	comp=Z,160nm,22.0s,MS4.7						
CMAR	**Chiang Mai Arr**	**140.97**	**32**	PKP	PKPdf	18 57 22.6	-2.6
	comp=Z,1.1nm,0.7s,baz=307,slow=2.9,SNR=8.0						
CNB	**Canberra Magne**	**146.56**	**227**	*e*PKP	PKPdf	18 57 35.1	+0.6
ARMA	**Armidale**	**146.90**	**237**	*e*PKP	PKPab	18 57 37.9	-0.7
RMQ	**Roma**	**150.55**	**243**	*e*PKP	PKPbc	18 57 46.5	-0.1
	comp=Z,25nm,0.9s						
ARPS	**Mount Arapiles**	**150.69**	**218**	*e*PKP	PKPbc	18 57 46.7	+0.1
	comp=Z,44nm,0.9s						
STKA	**Stephens Creek**	**153.88**	**226**	*e*P	PKPbc	18 57 57.3	+3.3
	comp=Z,5.9nm,1.1s						
STKA	**Stephens Creek**	**153.88**	**226**	PKP	PKPdf	18 57 43.7	-2.3
	comp=Z,2.2nm,1.0s,baz=161,slow=5.2,SNR=2.6						
STKA				PKPbc	PKPbc	18 57 54.4	+0.4
	comp=Z,7.5nm,1.1s,baz=160,slow=4.7,SNR=3.9						
STKA				PKPab	PKPab	18 58 04.5	-2.6
	comp=Z,8.3nm,1.0s,baz=344,slow=3.4,SNR=5.7						
STKA	**Stephens Creek**	**153.88**	**226**	PKP	PKPdf	18 57 43.7	-2.3
STKA				PKPbc	PKPbc	18 57 54.4	+0.4
STKA				PKPab	PKPab	18 58 04.5	-2.6
COEN	**Coen**	**157.18**	**270**	*e*PKP	PKPab	18 58 22.0	+0.2
ASAR	**Alice Springs**	**164.04**	**235**	PKIKP	PKPdf	18 57 57.1	-1.1
ASAR						18 58 12.6	
ASAR						18 58 51.6	
ASAR	**Alice Springs**	**164.04**	**235**	PKP	PKPdf	18 57 57.1	-1.1
	comp=Z,0.7nm,0.7s,baz=80,slow=1.2,SNR=15						
ASAR				pPKP	pPKPdf	18 58 12.6	-1.2
	comp=Z,1.9nm,1.0s,baz=81,slow=1.0,SNR=6.1						
ASAR				PKPab	PKPab	18 58 51.6	+0.1
	comp=Z,1.1nm,0.7s,baz=112,slow=4.1,SNR=7.5						
ASAR				pPKPab	pPKPab	18 59 04.0	-2.5
	comp=Z,1.9nm,0.7s,baz=118,slow=4.1,SNR=3.4						
WRA	**Warramunga Arr**	**165.15**	**249**	PKIKP	PKPdf	18 57 57.9	-1.3
WRA						18 58 14.0	
WRA						18 58 56.3	
WRA	**Warramunga Arr**	**165.15**	**249**	PKP	PKPdf	18 57 57.9	-1.4
	comp=Z,1.1nm,1.0s,baz=42,slow=0.2,SNR=6.4						
WRA				pPKP	pPKPdf	18 58 14.0	-0.8
	comp=Z,2.8nm,1.0s,baz=73,slow=0.6,SNR=5.3						
WRA				PKPab	PKPab	18 58 56.3	-0.2
	comp=Z,4.8nm,0.7s,baz=100,slow=4.1,SNR=22						
WRA				pPKPab	pPKPab	18 59 08.8	-2.8
	comp=Z,3.2nm,0.6s,baz=100,slow=4.2,SNR=4.9						

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*NEIC **06** 18:41:30.5, 15°.01N×60°.40W, h35km, MD3.7(TRN), After TRN.*

NEIC Felt [III] on Dominica, Martinique and Saint Lucia.

TRN 06 18:41:29.4, 15°.05N×60°.36W, h35km, MD3.7, M3.6(FDF), **7C-7D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MVM	**Montagne Vaucl**	**0.71**	**227**	*e*P	Pn	18 41 43.8	+0.8
FDF	**Fort de France**	**0.83**	**248**	⇓*e*S	Sn	18 41 56.3	+0.7
BIM	**Bigot**	**0.87**	**233**	⇓*i*P	Pn	18 41 45.9	+0.8
DLPL	**La Plaine**	**0.91**	**289**	*e*P	Pn	18 41 46.6	+1.0
DLPL				*e*S	Sn	18 41 59.3	+1.8
DSTT	**Stowe**	**0.94**	**282**	⇑*i*P	Pn	18 41 49.0	+2.9
DFBT	**Forest Bistro**	**0.98**	**282**	⇓*e*P	Pn	18 41 49.4	+2.7
DFBT				*e*S	Sn	18 42 02.1	+2.7
DSHT	**Scott's Head**	**1.00**	**280**	*e*P	Pn	18 41 49.9	+3.0
DSHT				*e*S	Sn	18 42 02.7	+2.9
DSHT	**Scott's Head**	**1.00**	**280**	*e*P	Pn	18 41 49.9	+3.0
DSHT				*e*S	Sn	18 42 03.4	+3.6
DPMT	**Pointe Michel**	**1.01**	**282**	*e*P	Pn	18 41 50.0	+2.9
DPMT				*e*S	Sn	18 42 02.4	+2.4
MDN	**Morne-Daniel**	**1.04**	**285**	*e*P	Pn	18 41 50.6	+3.1
MDN				*e*S	Sn	18 42 03.6	+2.9
SLW	**Petit Monier**	**1.16**	**209**	⇑*i*P	Pn	18 41 50.8	+1.6
MGG	**Marie-Galante**	**1.27**	**313**	⇑*i*P	Pn	18 41 51.4	+0.7
MGG				⇑*e*S	Sn	18 42 07.8	+1.3
SLDE	**Delcer**	**1.41**	**209**	⇓*i*P	Pn	18 41 54.6	+2.1
SLDE				*e*S	Sn	18 42 11.6	+1.6
DEG	**La Desirade**	**1.43**	**332**	*e*P	Pn	18 41 52.8	-0.1
MCLT	**Moule a Chique**	**1.44**	**203**	*e*P	Pn	18 41 55.3	+2.2
MCLT				*e*S	Sn	18 42 13.0	+2.2
TBG	**Guadaloupe-3**	**1.48**	**303**	⇑*i*P	Pn	18 41 54.0	+0.5
DOG	**Dongo Capester**	**1.56**	**309**	⇓*i*P	Pn	18 41 55.8	+1.1
PHG	**Guadaloupe-2**	**1.57**	**308**	⇓*i*P	Pn	18 41 56.1	+1.3
HMG	**Houelmont**	**1.59**	**306**	*e*P	Pn	18 41 56.0	+0.9
BCG	**Bois Riant Cap**	**1.60**	**311**	*e*P	Pn	18 41 56.2	+1.1
SCG	**Saint Claude**	**1.61**	**308**	*e*P	Pn	18 41 56.2	+0.9
LZG	**Guadaloupe-1**	**1.75**	**309**	*e*P	Pn	18 41 58.6	+1.3
BHS	**Barnard House**	**1.89**	**203**	*e*P	Pn	18 42 00.8	+1.5
SVV	**Soufriere Volc**	**1.91**	**206**	⇑*e*P	Pn	18 42 01.8	+2.3
SVV				*e*S	Sn	18 42 24.8	+2.5
SVB	**Belmont**	**1.96**	**206**	*e*P	Pn	18 42 01.6	+1.4
SVB				*e*S	Sn	18 42 24.9	+1.2
FCV	**Fort Charlotte**	**2.06**	**205**	⇓*i*P	Pn	18 42 03.2	+1.5
FCV				*e*S	Sn	18 42 26.9	+0.7
BPA	**Boggy Peak**	**2.46**	**324**	*e*P	Pn	18 42 09.2	+2.2
BPA				*e*S	Sn	18 42 37.3	+1.4
GRCU	**Cariacou**	**2.77**	**203**	*e*P	Pn	18 42 13.1	+1.7
GRCU				*e*S	Sn	18 42 45.4	+1.8
GRSS	**Sisters**	**2.99**	**204**	*e*P	Pn	18 42 16.8	+2.4
GRSS				*e*S	Sn	18 42 50.3	+1.3
GRSS	**Sisters**	**2.99**	**204**	*e*P	Pn	18 42 16.8	+2.4
GRSS				*e*S	Sn	18 42 49.3	+0.3
GRIC	**Isle de Caille**	**2.99**	**204**	⇑*e*P	Pn	18 42 16.3	+2.0
GRIC				*e*S	Sn	18 42 50.6	+1.6
GRHS	**Sauteurs**	**3.07**	**204**	*e*P	Pn	18 42 17.0	+1.6
GRHS				*e*S	Sn	18 42 52.4	+1.4
GRHS	**Sauteurs**	**3.07**	**204**	*e*P	Pn	18 42 19.6	+4.2
GRHS				*e*S	Sn	18 42 52.4	+1.4
GRW	**Mount Saint Ca**	**3.13**	**204**	*e*P	Pn	18 42 18.3	+2.0
GRW				*e*S	Sn	18 42 54.8	+2.2
SKI	**Saint Kitts**	**3.23**	**315**	*e*P	Pn	18 42 20.2	+2.6
SKI				*e*S	Sn	18 42 57.1	+2.2
SKI	**Saint Kitts**	**3.23**	**315**	*e*P	Pn	18 42 21.2	+3.6
SKI				*e*S	Sn	18 42 57.1	+2.2
TOSP	**Speyside**	**3.73**	**183**	*e*P	Pn	18 42 27.4	+2.9
TOSP				*e*S	Sn	18 43 09.3	+2.1
TPR	**Prospect**	**3.86**	**186**	*e*P	Pn	18 42 28.0	+1.7
TPR	**Prospect**	**3.86**	**186**	*e*P	Pn	18 42 30.4	+4.1
TRN	**Trinidad (W)**	**4.49**	**193**	*e*P	Pn	18 42 36.2	+1.3
TRN				*e*S	Sn	18 43 27.3	+1.3
TCE	**Chacachacare**	**4.53**	**198**	*e*P	Pn	18 42 38.3	+2.8
TCE				*e*S	Sn	18 43 26.8	-0.2
TBH	**Brigand Hill**	**4.59**	**189**	*e*P	Pn	18 42 38.0	+1.7

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*NEIC **06** 18:43:06.8, 14°.99N×60°.59W, h68km, After TRN.*

TRN 06 18:43:05.8, 15°.02N×60°.56W, h74km, MD3.6, M3.3(FDF), **1C, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DLPL	**La Plaine**	**0.73**	**295**	*e*P	Pn	18 43 22.2	+0.8
DLPL				*e*S	Sn	18 43 34.8	+2.0
DSTT	**Stowe**	**0.75**	**287**	*e*P	Pn	18 43 24.1	+2.6
DFBT	**Forest Bistro**	**0.80**	**286**	*e*P	Pn	18 43 25.1	+3.0
DSHT	**Scott's Head**	**0.81**	**284**	*e*P	Pn	18 43 25.0	+2.8
SLW	**Petit Monier**	**1.06**	**200**	⇑*e*P	Pn	18 43 26.7	+1.4
SLW				*e*S	Sn	18 43 41.1	+1.3
MGG	**Marie-Galante**	**1.15**	**321**	*e*P	Pn	18 43 26.7	+0.3
SLDE	**Delcer**	**1.31**	**202**	*e*P	Pn	18 43 30.6	+2.3
SLDE				*e*S	Sn	18 43 46.4	+1.1
TBG	**Guadaloupe-3**	**1.33**	**308**	*e*P	Pn	18 43 29.7	+1.0
TBG				*e*S	Sn	18 43 47.5	+1.5
MCLT	**Moule a Chique**	**1.36**	**196**	*e*P	Pn	18 43 31.2	+2.2
MCLT				*e*S	Sn	18 43 48.4	+1.9
DEG	**La Desirade**	**1.37**	**339**	*e*P	Pn	18 43 29.7	+0.4
DOG	**Dongo Capester**	**1.43**	**315**	*e*P	Pn	18 43 31.3	+1.3
PHG	**Guadaloupe-2**	**1.44**	**313**	*e*P	Pn	18 43 31.8	+1.7
HMG	**Houelmont**	**1.46**	**311**	*e*P	Pn	18 43 31.6	+1.2
SVV	**Soufriere Volc**	**1.81**	**201**	*e*P	Pn	18 43 36.3	+1.2
SVV	**Soufriere Volc**	**1.81**	**201**	*e*P	Pn	18 43 39.1	+4.1
SVB	**Belmont**	**1.87**	**201**	*e*P	Pn	18 43 38.0	+2.2
SVB				*e*S	Sn	18 44 00.6	+2.0
FCV	**Fort Charlotte**	**1.97**	**200**	*e*P	Pn	18 43 38.6	+1.5
FCV				*e*S	Sn	18 44 02.0	+1.0
BPA	**Boggy Peak**	**2.37**	**328**	*e*P	Pn	18 43 44.3	+1.8
BPA				*e*S	Sn	18 44 11.9	+1.4
BPA	**Boggy Peak**	**2.37**	**328**	*e*P	Pn	18 43 44.3	+1.8
BPA				*e*S	Sn	18 44 09.3	-1.3

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*ISCJB **06** 20:10:58.7±0.6, 39°.75N±0°.04×39°.36E±0°.05, h10km, Error ellipse: s-maj=7.0km s-min=3.9km az=37.7*

*ISK **06** 20:11:00.5, 39°.91N×39°.09E, h6km, MD2.7*

*DDA **06** 20:11:00.2, 39°.95N×38°.95E, h8km±2km, Md2.8*

*CSEM **06** 20:11:01.1±0.3, 39°.91N×39°.10E, h2km, MD2.7, Error ellipse: s-maj=8.5km s-min=4.9km az=105.0*

ISC 06 20:10:59.4±0.6, **39°.78N**±0°.04×**39°.37E**±0°.05, **h10km, n11, σ0^s.92**/22, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZC	**Erzincan**	**0.34**	**94**	PG	**Pg**	**20 11 05.9**	**-0.3**
EZC				*e*SG	**Sg**	**20 11 10.3**	**-0.5**
GUMT	**Gumushane**	**0.69**	**7**	*e*PG	**Pg**	**20 11 13.3**	**+0.6**
GUMT				*e*SG	**Sg**	**20 11 22.2**	**+0.4**
GUMT	**Gumushane**	**0.69**	**7**	*e*Pg	**Pg**	**20 11 13.3**	**+0.6**
GUMT				*e*Sg	**Sg**	**20 11 22.2**	**+0.4**
KEMA	**Kemaliye**	**0.84**	**234**	*i* P	**Pg**	**20 11 15.1**	**-0.6**
KEMA				*i* S	**Sg**	**20 11 26.0**	**-0.7**
KEMA	**Kemaliye**	**0.84**	**234**	*i* P	**Pg**	**20 11 15.1**	**-0.6**
KEMA				*i* S	**Sg**	**20 11 26.0**	**-0.7**
MACK	**Trabzon**	**1.21**	**15**	*i* P	**Pn**	**20 11 22.8**	**+0.4**
MACK				*i* S	**Sb**	**20 11 38.9**	**+0.9**
MACK	**Trabzon**	**1.21**	**15**	*i* P	**Pn**	**20 11 22.8**	**+0.5**
MACK				*i* S	**Sb**	**20 11 38.9**	**+0.9**
ESPY	**Espiye-Giresun**	**1.24**	**337**	*e*PG	**Pg**	**20 11 21.5**	**-1.7**
ESPY				*e*SG	**Sg**	**20 11 35.4**	**-4.0**
ESPY	**Espiye-Giresun**	**1.24**	**337**	*e*Pg	**Pg**	**20 11 21.5**	**-1.8**
ESPY				*e*Sg	**Sg**	**20 11 35.4**	**-4.0**
AKCD	**Akcadag**	**1.86**	**218**	*i* P	**Pg**	**20 11 35.0**	**0.0**
AKCD				*i* S	**Sg**	**20 12 00.9**	**+1.8**
AKCD	**Akcadag**	**1.86**	**218**	*i* P	**Pg**	**20 11 35.0**	**0.0**
AKCD				*i* S	**Sg**	**20 12 00.9**	**+1.8**

IDC 06 20:11:35.7±5.4, **22°.74S**×**177°.87W, h0km, mb4.0**/3, **mb1 4.1**/3, **mb1mx3.8**/16, **mbtmp4.0**/3, **Error ellipse: s-maj=196.8km s-min=55.3km az=140.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**36.97**	**247**	P	P	20 18 47.0	+0.1
	3.5nm,0.3s,baz=355,slow=18,SNR=27						
ASAR	**Alice Springs**	**44.17**	**259**	P	P	20 19 46.5	0.0
	0.5nm,0.9s,baz=86,slow=6.2,SNR=5.3						
WRA	**Warramunga Arr**	**44.45**	**264**	P	P	20 19 48.5	-0.4
	0.4nm,0.3s,baz=104,slow=8.4,SNR=69						
AKASG	**Malin Array Be**	**145.01**	**330**	PKPbc	PKPbc	20 31 13.5	-0.5
	0.5nm,0.5s,baz=45,slow=3.5,SNR=4.0						

TRN 06 20:21:33.7, 14°.89N×59°.62W, h94km, MD3.7, M2.7(FDF), **1C-2D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MVM	**Montagne Vaucl**	**1.27**	**255**	⇑*i*P	Pn	20 21 58.5	+1.6
BIM	**Bigot**	**1.45**	**255**	⇓*e*P	Pn	20 22 00.6	+1.6
BIM				⇓*e*S	Sn	20 22 12.9	-5.3
FDF	**Fort de France**	**1.48**	**264**	*e*P	Pn	20 21 59.8	+0.4
FDF				*e*S	Sn	20 22 11.2	-7.8
DLPL	**La Plaine**	**1.63**	**286**	*e*P	Pn	20 22 01.4	+0.1
DLPL				*e*S	Sn	20 22 13.1	-9.0
SLB	**Belfond**	**1.73**	**233**	*e*P	Pn	20 22 04.4	+1.8
SLB				*e*S	Sn	20 22 26.1	+1.5
MCLT	**Moule a Chique**	**1.74**	**228**	*e*P	Pn	20 22 08.6	+5.9
MCLT				*e*S	Sn	20 22 26.1	+1.5
DEG	**La Desirade**	**1.98**	**316**	*e*P	Pn	20 22 07.9	+2.1
BHS	**Barnard House**	**2.16**	**223**	*e*P	Pn	20 22 10.2	+2.1
BHS				*e*S	Sn	20 22 36.1	+1.7
TBG	**Guadaloupe-3**	**2.17**	**296**	*e*P	Pn	20 22 08.8	+0.6
SSV	**Crater Summit**	**2.18**	**225**	*e*P	Pn	20 22 08.9	+0.5
SSV				*e*S	Sn	20 22 36.6	+1.7
SVV	**Soufriere Volc**	**2.20**	**225**	*e*P	Pn	20 22 09.3	+0.6
SVV				*e*S	Sn	20 22 37.2	+1.8
SVB	**Belmont**	**2.26**	**225**	*e*P	Pn	20 22 17.1	+7.7
SVB				*e*S	Sn	20 22 37.8	+1.0
HMG	**Houelmont**	**2.28**	**299**	*e*P	Pn	20 22 11.2	+1.6
FCV	**Fort Charlotte**	**2.33**	**223**	*e*P	Pn	20 22 12.2	+1.8
FCV				*e*S	Sn	20 22 40.0	+1.4
LZG	**Guadaloupe-1**	**2.42**	**301**	*e*P	Pn	20 22 13.6	+2.1

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*NEIC **06** 20:26:38.6, 19°.70N×100°.16W, h16km, MD3.7(MEX), After MEX.*

MEX 06 20:26:38.6±1.4, **19°.70N**×**100°.16W, h16km**±30km, **MD3.7, Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MOIG	**Morelia**	**0.97**	**269**	*i* P	Pb	20 26 53.6	-3.3
MOIG				*i* S	Sb	20 27 05.3	-4.2
PLIG	**Platanillo**	**1.44**	**154**	*i* P	Pn	20 27 00.8	-3.2
PLIG				*i* S	Sn	20 27 16.4	-6.3
MEIG	**Mezcala**	**1.84**	**164**	*i* P	Pn	20 27 05.7	-3.8
MEIG				*i* S	Sn	20 27 27.8	-4.6
CAIG	**El Cayaco**	**2.64**	**182**	*i* P	Pn	20 27 19.6	-1.0
CAIG				*i* S	Sn	20 27 48.7	-3.5
SFJM	**Santa Fe**	**2.81**	**287**	*e*P	Pn	20 27 18.4	-4.5
SFJM				*i* S	Sn	20 27 52.8	-3.7
ACX	**Acapulco**	**2.83**	**175**	*i* P	Pn	20 27 18.9	-4.2
ACX				*i* S	Sn	20 27 52.9	-3.9
PNIG	**Pinotepa**	**3.82**	**149**	*e*P	Pn	20 27 36.2	-0.6
PNIG				*i* S	Sn	20 28 18.0	-3.3

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*NIED **06** 20:45:00, 28°.00N×143°.10E, h8km, Mw4.5 Best double couple: M$_0$5.31000×10^{15} NP1:φ$_s$206.00000°, δ54.00000°, λ129.00000°. NP2:φ$_s$332.00000°, δ51.00000°, λ49.00000°.*

*IDC **06** 20:45:48.2±0.7, 27°.81N×142°.74E, h0km, mb4.3/18, mb1 4.4/19, mb1mx4.4/24, mbtmp4.3/19, ML4.1/1, MS3.6/7, Ms1 3.6/7, ms1mx3.3/32, Error ellipse: s-maj=23.8km s-min=16.1km az=74.0*

*JMA **06** 20:45:48.6±0.1, 28°.03N×143°.13E, h32km±4km, M4.3*

*ISCJB **06** 20:45:50.7±1.1, 28°.14N±0°.03×142°.65E±0°.07, h18km±7km, mb4.6/55, MS3.8/11, Error ellipse: s-maj=11.1km s-min=4.6km az=1.9*

*MOS **06** 20:45:50.9±1.0, 27°.85N×142°.86E, h33km, mb4.9/18, Error ellipse: s-maj=16.2km s-min=7.0km az=117.0*

*DJA **06** 20:45:51, 28°.05N×143°.01E, h10km, mb5.0/9*

*BJI **06** 20:45:51.1, 27°.85N×142°.73E, h39km, mB4.9/14, mb4.6/34, Ms4.2/9, Ms7 3.9/9*

*NEIC **06** 20:45:53.9±0.4, 27°.85N×142°.73E, h40km, mb4.8/11, MW4.4(NIED), Error ellipse: s-maj=13.4km s-min=7.8km az=75.0*

ISC 06 20:45:52.3±1.3, **28°.03N**±0°.03×**142°.79E**±0°.08, **h24km**±9km, **h40km**±2.5km**:pP-P, n105, σ1^s.08**/116, **mb4.6**/57, **MS3.8**/11, **3C-4D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.07**	**210**	P	**Pn**	**20 46 10.4**	**-1.3**
CBIJ				*e*S	**Sb**	**20 46 26.4**	**+0.7**
JHHJ	**Haha-jima-NKT**	**1.49**	**201**	*e*S	**Sn**	**20 46 36.0**	**-0.3**
BSO4	**Boso 4**	**7.25**	**344**	*e*S	**Sn**	**20 48 57.8**	**-0.4**
JOD2	**Odawara 2**	**7.87**	**337**	P	**Pn**	**20 47 45.5**	**+0.3**
JOD2				*e*S	**Sn**	**20 49 12.4**	**-1.1**
JHU	**Hanno**	**8.35**	**340**	P	**Pn**	**20 47 51.3**	**-0.5**
JHU				*e*S	**Sn**	**20 49 22.7**	**-2.6**
JRY	**Ryogami san**	**8.62**	**339**	P	**Pn**	**20 47 55.7**	**+0.2**
JRY				*e*S	**Sn**	**20 49 32.1**	**+0.2**
JHO	**Hitachi**	**8.76**	**348**	P	**Pn**	**20 47 55.7**	**-1.7**
JHO				*e*S	**Sn**	**20 49 30.2**	**-5.2**
JAG	**Ashikaga**	**8.84**	**342**	P	**Pn**	**20 47 57.6**	**-0.8**
JAG				*e*S	**Sn**	**20 49 32.6**	**-4.6**
MJAR	**Matsushiro Arr**	**9.33**	**337**	Pn	**Pn**	**20 48 05.3**	**+0.1**
	1.8nm,0.3s,baz=148,slow=11,SNR=16						
MJAR				Sn	**Sn**	**20 49 50.6**	**+1.2**
	0.3nm,0.3s,baz=151,slow=18,SNR=4.3						
MAJO	**Matsushiro**	**9.33**	**337**	*e*P	**Pn**	**20 48 04.6**	**-0.6**
MAJO				pmax	pmax		
	comp=Z,17nm,0.8s						
MAJO	**Matsushiro**	**9.33**	**337**	*e*P	**Pn**	**20 48 04.5**	**-0.7**
	comp=Z,17nm,0.8s						
MAT	**Matsushiro**	**9.33**	**337**	P	**Pn**	**20 48 05.4**	**+0.2**
MAT				*e*S	**Sn**	**20 49 48.5**	**-0.9**
MAT	**Matsushiro**	**9.33**	**337**	P	**Pn**	**20 48 05.8**	**+0.6**
JFK	**Kawauchi**	**9.45**	**351**	P	**Pn**	**20 48 04.4**	**-2.5**
JFK				*e*S	**Sn**	**20 49 43.8**	**-8.5**
JMK	**Ichinoseki**	**10.97**	**354**	P	**Pn**	**20 48 23.6**	**-4.1**
GUMO	**Guam**	**14.50**	**172**	LR	LR	20 54 32.6	
	comp=Z,144nm,18.8s,baz=195,slow=37						
KSRS	**Korea Array**	**15.63**	**311**	Pn	**Pn**	**20 49 34.2**	**+3.3**
	comp=Z,0.2nm,0.3s,baz=117,slow=12,SNR=6.7						
KSRS				LR	LR	20 55 38.5	
	comp=Z,308nm,18.2s,baz=126,slow=38						
YSS	**Yuzh-Sakhalins**	**18.89**	**360**	*e*P	**Pn**	**20 50 12.7**	**+1.1**
YSS				pmax	pmax		
	comp=Z,20nm,1.0s						
MDJ	**Mudanjiang**	**19.63**	**331**	*e*P	**Pn**	**20 50 20.4**	**-0.1**
	comp=Z,16nm,1.0s						
SSLB	**Suanglung**	**20.08**	**263**	*e*P	**P**	**20 50 26.3**	**+2.2**
	comp=Z,58nm,1.1s						
CN2	**Changchun**	**21.03**	**323**	*e*P	**P**	**20 50 36.7**	**+2.5**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
NJ2	**Nanjing**	**21.09**	**287**	*e*P	**P**	**20 50 35.5**	**+0.5**
NJ2				pP		20 50 44.6	
NJ2				sP	sP	20 50 48.9	+4.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.2						
HABR	**Khabarovsk**	**21.28**	**346**	*de*P	**P**	**20 50 40.1**	**+3.3**
HABR				*e**SP	sP	20 50 49.8	+3.3
HABR				*e*		20 50 57.5	
HABR				S	**S**	**20 54 36.6**	**+4.7**
HABR						20 54 39.5	
HABR				*e**SS	sS	20 54 49.9	+7.4
HABR				SSS		20 55 15.2	
HABR				*e*		21 01 56.8	
HABR				pmax	pmax		
	comp=Z,40nm,1.5s,mb4.5						
HABR				pmax	pmax		
	comp=N,15nm,1.2s						
HABR				pmax	pmax		
	comp=E,20nm,0.9s						
HABR				MLR	MLR		
	comp=Z,213nm,14.0s,MS3.7						
KLR	**Kul'dur**	**22.81**	**341**	*e*P	**P**	**20 50 50.0**	**-3.2**
WHN	**Wuhan**	**24.90**	**283**	⇓P	**P**	**20 51 13.5**	**+0.1**
BJI	**Beijing**	**25.00**	**306**	P	**P**	**20 51 12.8**	**-1.4**
BJI				S	**S**	**20 55 31.9**	**-4.8**
BJI				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.1						
BJI				pmax	pmax		
	comp=Z,110nm,9.1s						
BJI				LR	LR		
	comp=N,250nm,14.8s,MS4.1						
BJI				LR	LR		
	comp=E,380nm,14.2s,MS4.1						
BJI				LR	LR		
	comp=Z,230nm,16.0s,MS3.8						
PETK	**Petropavlovsk-**	**27.38**	**20**	P	**P**	**20 51 40.3**	**+4.8**
	comp=Z,5.7nm,1.0s,mb4.0,baz=259,slow=2.9,SNR=3.4						
PETK				LR	LR	21 02 01.3	
	comp=Z,81nm,19.0s,MS3.3,baz=198,slow=35						
HIA	**Hailar**	**27.62**	**326**	*e*P	**P**	**20 51 38.7**	**+1.0**
HIA				pmax	pmax		
	comp=Z,18nm,1.0s						
HIA	**Hailar**	**27.62**	**326**	*e*P	**P**	**20 51 38.7**	**+1.0**
	comp=Z,18nm,1.0s,mb4.7						
XAN	**Xi'an**	**29.54**	**290**	P	**P**	**20 51 53.9**	**-1.1**
XAN				pP	pP	20 52 04.6	+2.4
XAN				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
XAN				pmax	pmax		
	comp=Z,86nm,4.2s						
XAN				LR	LR		
	comp=E,260nm,14.7s						
XAN				LR	LR		
	comp=Z,320nm,14.7s,MS4.1						
LZH	**Lanzhou**	**33.79**	**294**	*e*P	**P**	**20 52 32.4**	**0.0**
LZH				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
LZH				pmax	pmax		
	comp=Z,120nm,5.4s						
CD2	**Chengdu**	**33.99**	**284**	P	**P**	**20 52 33.1**	**-1.0**
CD2				pmax	pmax		
	comp=Z,230nm,5.9s						
ULN	**Ulaanbaatar**	**34.03**	**315**	*e*P	**P**	**20 52 35.0**	**+0.8**
ULN				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
ULN	**Ulaanbaatar**	**34.03**	**315**	*e*P	**P**	**20 52 35.0**	**+0.8**
	comp=Z,10nm,1.0s,mb4.7						
SONM	**Songino Array**	**34.42**	**315**	P	**P**	**20 52 38.9**	**+1.2**
SONM						20 55 13.7	
SONM	**Songino Array**	**34.42**	**315**	P	**P**	**20 52 38.9**	**+1.2**
	comp=Z,4.0nm,1.0s,mb4.3,baz=119,slow=8.7,SNR=14						
SONM				PcP	PcP	20 55 13.7	+0.8
	comp=Z,1.2nm,1.1s,baz=127,slow=4.3,SNR=3.6						
SONM				LR	LR	21 07 34.0	
	comp=Z,156nm,18.4s,MS3.8,baz=306,slow=38						
YAK	**Yakutsk**	**35.10**	**349**	*e*P	**P**	**20 52 42.2**	**-1.1**
YAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
SEY	**Seymchan**	**35.47**	**8**	⇑*e*P	**P**	**20 52 46.1**	**-0.4**
KMI	**Kunming**	**35.82**	**275**	P	**P**	**20 52 49.3**	**-0.7**
KMI				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb4.5						
BOD	**Bodaibo**	**35.95**	**334**	*e*P	**P**	**20 52 50.7**	**0.0**
GTA	**Gaotai**	**37.19**	**299**	*e*P	**P**	**20 53 00.3**	**-1.2**
GTA				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.5						
ZAK	**Zakamensk**	**37.27**	**318**	*e*P	**P**	**20 53 03.2**	**+1.1**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.2						
IRK	**Irkutsk**	**37.45**	**321**	*e*P	**P**	**20 53 04.6**	**+1.1**
IRK				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.8						
TLY	**Talaya**	**37.57**	**320**	*e*P	**P**	**20 53 05.7**	**+1.2**
TLY				*e*		20 53 16.9	
TLY				*e*S	**S**	**20 59 00.6**	**+8.3**
TLY				pmax	pmax		
	comp=Z,22nm,1.2s,mb4.8						
TLY				MLR	MLR		
	comp=Z,296nm,16.0s,MS4.2						
TLY	**Talaya**	**37.57**	**320**	*e*P	**P**	**20 53 06.0**	**+1.5**
	comp=Z,20nm,1.1s,mb4.8						
MOY	**Mondy**	**39.09**	**319**	*e*P	**P**	**20 53 18.7**	**+1.4**
CHTO	**Chiang Mai**	**41.08**	**267**	*e*P	**P**	**20 53 34.5**	**+0.2**
CHTO				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.2						
CHTO	**Chiang Mai**	**41.08**	**267**	*e*P	**P**	**20 53 34.5**	**+0.2**
	comp=Z,6.5nm,1.1s,mb4.2						
CMAR	**Chiang Mai Arr**	**41.21**	**266**	P	**P**	**20 53 35.0**	**-0.4**
CMAR						20 55 34.8	
CMAR	**Chiang Mai Arr**	**41.21**	**266**	P	**P**	**20 53 35.0**	**-0.4**
	comp=Z,1.9nm,1.0s,mb3.7,baz=52,slow=8.6,SNR=14						
CMAR				PcP	PcP	20 55 34.8	+0.5
	comp=Z,1.2nm,1.0s,baz=58,slow=1.0,SNR=5.8						
CMAR				LR	LR	21 10 25.5	
	comp=Z,31nm,21.6s,MS3.1,baz=249,slow=36						
BILL	**Bilibino**	**42.43**	**13**	⇑*e*P	**P**	**20 53 45.4**	**+0.7**
BILL				*e*S	**S**	**21 00 04.9**	**+0.2**
BILL				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.8						
TIXI	**Tiksi**	**44.34**	**354**	*e*P	**P**	**20 54 00.0**	**-0.1**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.0						
TIXI	**Tiksi**	**44.34**	**354**	*e*P	**P**	**20 54 00.1**	**0.0**

	comp=Z,1.0nm,0.4s,mb3.9						
SHL	Shillong	45.24	279	ePKP	P	20 54 08.5	+0.6
WMQ	Urumqi	46.47	305	⇓iP	P	20 54 17.9	+0.6
WMQ				pP	pP	20 54 28.0	+3.3
WMQ				sP	sP	20 54 32.0	+4.4
WMQ				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,270nm,5.3s						
WMQ				LR	LR		
	comp=N,180nm,17.8s,MS4.2						
WMQ				LR	LR		
	comp=E,190nm,18.2s,MS4.2						
WMQ				LR	LR		
	comp=Z,200nm,20.6s,MS4.0						
WRAB	Tennant Creek	48.37	191	eP	P	20 54 29.9	-2.3
WRAB				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.3						
WRAB	Tennant Creek	48.37	191	eP	P	20 54 29.9	-2.3
	comp=Z,39nm,1.3s,mb5.3						
WRA	Warramunga Arr	48.38	191	P	P	20 54 30.3	-2.0
	comp=Z,13nm,0.9s,mb5.0,baz=12,slow=8.3,SNR=48						
TAPN	Taplejung	48.41	283	eP	P	20 54 32.8	+0.1
	comp=Z,24nm,1.2s,mb5.1						
ODAN	Odare	48.81	282	eP	P	20 54 35.5	-0.2
ZAA0	Zalesovo Array	49.14	319	eP	P	20 54 38.5	+0.6
ZALV	Zalesovo Beam	49.14	319	P	P	20 54 38.6	+0.7
	comp=Z,5.1nm,0.8s,mb4.6,baz=102,slow=6.7,SNR=31						
RAMN	Ramite	49.47	283	eP	P	20 54 41.3	+0.5
JIRN	Jiri	49.64	284	eP	P	20 54 42.6	+0.5
	comp=Z,3.0nm,0.3s,mb4.8						
GUN	Gumba	49.85	284	eP	P	20 54 43.8	+0.1
	comp=Z,41nm,1.0s,mb5.4						
NVS	Novosibirsk	50.18	320	iP	P	20 54 46.3	+0.6
NVS				i		21 02 05.4	
NVS				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.8						
NVS				pmax	pmax		
	comp=N,4.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.8s						
MK31	Makanchi Array	50.30	309	eP	P	20 54 46.8	0.0
MKAR	Makanchi Array	50.30	309	P	P	20 54 46.9	+0.1
	comp=E,4.5nm,0.9s,mb4.5,baz=92,slow=8.7,SNR=34						
PKI	Pulchoki	50.34	284	eP	P	20 54 47.5	+0.1
KKN	Kakani	50.39	284	eP	P	20 54 47.6	-0.2
	comp=E,28nm,1.2s,mb5.2						
DMN	Daman	50.59	284	eP	P	20 54 48.8	-0.5
	comp=E,23nm,1.2s,mb5.0						
GKN	Gorkha	50.89	285	eP	P	20 54 51.1	-0.4
	comp=E,50nm,1.3s,mb5.3						
DANN	Dangsing	51.55	285	eP	P	20 54 57.4	+0.9
KOLN	Koldanda	51.84	285	eP	P	20 54 58.9	+0.3
	comp=E,26nm,1.1s,mb5.1						
ASAR	Alice Springs	52.10	190	P	P	20 54 58.4	-2.0
	comp=E,2.8nm,1.1s,mb4.1,baz=14,slow=8.0,SNR=9.5						
PYUN	Piuthan	52.27	285	eP	P	20 55 02.0	+0.1
	comp=E,22nm,0.8s,mb5.1						
KURK	Kurchatov	52.72	314	P	P	20 55 05.6	+0.8
	comp=E,22nm,0.9s,mb5.1,baz=92,slow=7.1,SNR=37						
AML	Almayashu	56.84	304	eP	P	20 55 31.8	-3.0
	comp=E,10nm,1.1s,mb4.8						
BVAR	Borovoye Array	57.73	317	P	P	20 55 41.3	+0.4
	comp=E,4.2nm,0.7s,mb4.6,baz=96,slow=9.1,SNR=16						
BRVK	Borovoye	57.79	317	eP	P	20 55 38.3	-3.0
BRVK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
BRVK	Borovoye	57.79	317	eP	P	20 55 38.3	-3.0
	comp=Z,12nm,1.0s,mb4.9						
STKA	Stephens Creek	59.58	181	P	P	20 55 50.9	-3.0
	comp=Z,1.7nm,0.8s,mb4.2,baz=258,slow=3.4,SNR=2.8						
SVE	Sverdlovsk	62.82	322	⇑eP	P	20 56 16.6	+0.9
SVE				eS	S	21 04 40.5	-2.8
SVE				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
ARU	Arti	64.02	322	eP	P	20 56 23.4	-0.2
ARU				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
ARU	Arti	64.02	322	eP	P	20 56 23.4	-0.2
	comp=Z,20nm,1.0s,mb5.1						
AKTK	Aktyubinsk	65.74	316	P	P	20 56 35.2	+0.3
AKTO	Aktyubinsk	65.74	316	P	P	20 56 35.2	+0.3
	comp=Z,3.4nm,0.7s,mb4.5,baz=86,slow=16,SNR=9.6						
YKA	Yellowknife Ar	71.07	29	P	P	20 57 09.3	+1.2
	comp=Z,0.6nm,0.8s,mb3.6,baz=288,slow=6.0,SNR=6.9						
KLMR	Klimovskoe	72.05	330	P	P	20 57 13.0	-1.0
KLMR				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.7						
OBN	Obninsk	76.07	325	⇓eP	P	20 57 38.2	+0.6
OBN				eS	S	21 07 23.5	+4.0
OBN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
OBN				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.2						
VSR	Storozhevoye	76.56	321	eP	P	20 57 39.6	-0.8
VSR				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
VSR				pmax	pmax		
	comp=N,2.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,2.0nm,0.3s						
VORD	Divnogorie	76.61	321	eP	P	20 57 40.7	0.0
VORD				pmax	pmax		
	comp=N,10.0nm,0.8s						
VORD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
KIV	Kislovodsk	77.80	313	eP	P	20 57 46.6	-1.0
KIV				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
GNI	Garni	78.15	309	eP	P	20 57 51.8	+2.2
GNI				pmax	pmax		
	comp=Z,6.0nm,1.3s						
GNI	Garni	78.15	309	P	P	20 57 51.0	+1.4
	comp=Z,1.3nm,0.5s,mb4.1,baz=63,slow=2.3,SNR=3.7						
NVAR	Mina Array Bea	79.53	52	P	P	20 57 58.8	+1.6
	comp=Z,0.7nm,0.3s,mb4.1,baz=280,slow=2.7,SNR=4.6						
ANN	Anapa	80.70	316	eP	P	20 58 00.1	-3.3
ANN				e*PP	pP	20 58 13.6	+2.4
ANN				pmax	pmax		
	comp=Z,55nm,1.9s,mb5.2						
AKASG	Malin Array Be	82.18	324	P	P	20 58 10.9	-0.2
	comp=Z,1.5nm,0.6s,mb4.1,baz=48,slow=5.7,SNR=8.9						
NOA	NORSAR Array B	82.95	338	P	P	20 58 16.4	+1.5
	comp=Z,2.5nm,1.1s,mb4.2,baz=48,slow=5.3,SNR=3.2						
NOA	NORSAR Array B	82.95	338	P	P	20 58 16.4	+1.5
PDAR	Pinedale Array	83.18	45	LR	LR	21 34 18.2	
	comp=Z,77nm,18.0s,MS4.1,baz=161,slow=35						
BRTR	Keskin Array B	85.76	313	P	P	20 58 30.1	+0.4
	comp=Z,1.3nm,0.7s,mb4.3,baz=160,slow=3.9,SNR=7.9						
BRTR				LR	LR	21 43 20.3	
	comp=Z,20nm,19.1s,MS3.5,baz=195,slow=40						
GERES	GERESS Array B	90.99	329	P	P	20 58 54.0	-0.3
	comp=Z,0.7nm,0.8s,mb4.0,baz=48,slow=1.5,SNR=4.5						
TXAR	Lajitas Array	94.62	53	P	P	20 59 12.2	+0.8
	comp=Z,0.8nm,1.0s,mb4.1,baz=235,slow=4.4,SNR=4.7						
TORD	Torodi Ar. Bea	124.37	312	PKP	PKPdf	21 04 49.7	-0.3
	comp=Z,0.6nm,0.8s,baz=348,slow=1.1,SNR=3.9						

HLW ***06*** *20:46:41.6, 34°.78N×25°.28E, h21^{km}, Mb4.5*
MOS ***06*** *20:46:44.2±1.1, 34°.35N×25°.34E, h33^{km}, mb4.2/11, Error ellipse: s-maj=7.2km s-min=3.8km az=108.5*
ISCJB ***06*** *20:46:45.0±0.3, 34°.37N±0°.02×25°.43E±0°.02, h45^{km}±3^{km}, mb4.0/25, MS3.2/6, Error ellipse: s-maj=3.8km s-min=2.2km az=44.0*
CSEM ***06*** *20:46:46.7±0.1, 34°.41N×25°.37E, h36^{km}, mb4.2/4, Ms3.0, Error ellipse: s-maj=3.8km s-min=2.0km az=41.0*
IDC ***06*** *20:46:46.7±0.6, 34°.48N×25°.38E, h35^{km}±3^{km}, mb3.7/18, mb1 3.9/28, mb1mx3.8/37, mbtmp3.8/28, ML3.9/8, MS3.1/8, Ms1 3.2/8, ms1mx2.9/38, Error ellipse: s-maj=11.4km s-min=9.2km az=48.0*
THE ***06*** *20:46:47.8, 34°.45N×25°.25E, h59^{km}±2^{km}, ML4.6/2, Error ellipse: s-maj=2.7km s-min=1.2km az=359.0*
NEIC ***06*** *20:46:50.0, 34°.77N×25°.25E, h68^{km}, mb4.0/15, After ATH.*
ATH ***06*** *20:46:50.0, 34°.77N×25°.25E, h68^{km}±5^{km}, ML3.6*
GII ***06*** *20:46:54.9±0.0, 34°.15N×26°.40E, h1^{km}, Mb4.3/8, Md4.2/8*
ISC 06 20:46:47.0±0.2**, 34°.40N**±0°.02×**25°.39E**±0°.02**, h41**^{km}±3^{km}**, n403, σ0^{s}99**/441**, mb4.0**/25**, MS3.2**/6**, 8C-13D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LAST	Lasithi	0.76	6	P	Pn	20 47 01.1	-0.2
LAST				S	Sn	20 47 12.7	+1.1
LAST	Lasithi	0.76	6	P	Pn	20 47 01.0	-0.3
LAST				S	Sn	20 47 09.0	-2.6
LAST	Lasithi	0.76	6	P	Pn	20 47 01.1	-0.2
LAST				S	Sn	20 47 12.7	+1.1
SIVA	Sivas	0.77	322	P	Pn	20 47 00.8	-0.7
SIVA				S	Sn	20 47 12.1	+0.1
SIVA	Sivas	0.77	322	P	Pn	20 47 00.8	-0.7
SIVA				S	Sn	20 47 08.9	-3.1
SIVA	Sivas	0.77	322	P	Pn	20 47 00.8	-0.7
SIVA				S	Sn	20 47 12.1	+0.1
NPS	Neapolis	0.88	12	eP	Pn	20 47 03.6	+0.7
NPS	Neapolis	0.88	12	eP	Pn	20 47 03.6	+0.7
IDI	Anoyia	0.97	335	Pg	Pn	20 47 04.1	-0.1
	52nm,0.3s,baz=158,slow=16,SNR=592						
IDI				Lg		20 47 17.4	
	531nm,0.3s,baz=233,slow=20,SNR=31						
IDI	Anoyia	0.97	335	Pg	Pn	20 47 04.1	-0.1
ZKR	Zakros	0.99	44	P	Pn	20 47 06.0	+1.6
ZKR				S	Sn	20 47 20.0	+2.9
ZKR	Zakros	0.99	44	P	Pn	20 47 06.0	+1.6
ZKR				S	Sn	20 47 17.3	+0.2
ZKR	Zakros	0.99	44	P	Pn	20 47 06.0	+1.6
ZKR				S	Sn	20 47 17.3	+0.2
VAM	Vamos	1.40	316	eP	Pn	20 47 11.0	+1.0
VAM	Vamos	1.40	316	eP	Pn	20 47 11.0	+1.0
KARP	Karpathos	1.85	51	eP	Pn	20 47 19.6	+3.3
KARP	Karpathos	1.85	51	P	Pn	20 47 19.8	+3.5
KARP	Karpathos	1.85	51	eP	Pn	20 47 19.6	+3.3
THR6	Thira Island,	1.95	0	P	Pn	20 47 17.6	0.0
THR6	Thira Island,	1.95	0	P	Pn	20 47 17.6	0.0
THR1	Thera Island	1.96	2	P	Pn	20 47 17.7	-0.1
THR1	Thera Island	1.96	2	P	Pn	20 47 17.7	-0.1
THR3	Thira Island,	2.00	0	P	Pn	20 47 18.3	0.0
THR3	Thira Island,	2.00	0	P	Pn	20 47 18.3	0.0
THR5	Thira Island,	2.01	359	P	Pn	20 47 17.9	-0.5
THR5	Thira Island,	2.01	359	P	Pn	20 47 17.9	-0.5
THR4	Thira Island,	2.05	0	P	Pn	20 47 19.1	+0.1
THR4	Thira Island,	2.05	0	P	Pn	20 47 19.1	+0.1
LTBQ	Tobruq	2.64	208	iP	Pn	20 47 29.4	+2.2
	SNR=90						
LTBQ				eS	Sn	20 47 59.7	+1.7
	218nm,0.7s,SNR=90						
APE	Apeiranthos	2.66	3	P	Pn	20 47 27.1	-0.3
APE	Apeiranthos	2.66	3	eP	Pn	20 47 27.2	-0.2
APE	Apeiranthos	2.66	3	eP	Pn	20 47 27.2	-0.2
KYTH	Kithira	2.68	315	eP	Pn	20 47 28.0	+0.3
KYTH	Kithira	2.68	315	eP	Pn	20 47 28.0	+0.3
ARG	Arkhangelos	2.88	50	eP	Pn	20 47 32.5	+2.1
ARG	Arkhangelos	2.88	50	P	Pn	20 47 33.3	+2.9
ARG	Arkhangelos	2.88	50	eP	Pn	20 47 32.5	+2.1
VLI	Veliai	3.05	320	eP	Pn	20 47 32.0	-0.8
VLI	Veliai	3.05	320	eP	Pn	20 47 32.0	-0.8
BDRM	Kayabasi	3.14	32	iP	Pn	20 47 35.4	+1.4
BDRM	Kayabasi	3.14	32	iP	Pn	20 47 35.4	+1.4
SMG	Samos	3.50	19	eP	Pn	20 47 39.2	+0.3
SMG	Samos	3.50	19	P	Pn	20 47 39.7	+0.8
SMG	Samos	3.50	19	eP	Pn	20 47 39.2	+0.3
DID	Didima	3.55	331	P	Pn	20 47 38.9	-0.7
DID	Didima	3.55	331	P	Pn	20 47 38.9	-0.7
TURN	Turunc	3.60	46	iP	Pn	20 47 37.6	-2.6
TURN	Turunc	3.60	46	iP	Pn	20 47 37.6	-2.6
GCAM	G?zelcaml?	3.61	24	iP	Pn	20 47 41.2	+0.7
GCAM	G?zelcaml?	3.61	24	iP	Pn	20 47 41.2	+0.7
ATH	Athens Observa	3.81	340	eP	Pn	20 47 43.5	+0.4
ATH	Athens Observa	3.81	340	eP	Pn	20 47 43.5	+0.4
AYDN	Tasoluk	3.83	31	iP	Pn	20 47 45.0	+1.6
AYDN	Tasoluk	3.83	31	iP	Pn	20 47 45.0	+1.6
VLX	Vlachokerasia	3.84	321	eP	Pn	20 47 43.8	+0.3
VLX	Vlachokerasia	3.84	321	eP	Pn	20 47 43.8	+0.3
PTL	Penteli	3.84	342	eP	Pn	20 47 43.3	-0.3
PTL	Penteli	3.84	342	eP	Pn	20 47 43.3	-0.3
KSL	Kastellorizon	3.85	62	eP	Pn	20 47 49.0	+5.3
PYL	PYLOS	3.87	311	P	Pn	20 47 42.1	-1.9
PYL	PYLOS	3.87	311	eP	Pn	20 47 44.3	+0.3
PYL	PYLOS	3.87	311	eP	Pn	20 47 44.3	+0.3
AKAS	Kas	3.90	61	iP	Pn	20 47 45.8	+1.4
AKAS	Kas	3.90	61	iP	Pn	20 47 45.8	+1.3
AKAS				iS	Sn	20 48 28.1	-0.9
ITM	Ithomi	3.95	316	eP	Pn	20 47 45.0	0.0
ITM	Ithomi	3.95	316	P	Pn	20 47 45.7	+0.7
ITM	Ithomi	3.95	316	eP	Pn	20 47 45.0	0.0
CHOS	Chios island	4.01	8	P	Pn	20 47 46.6	+0.7
CHOS				S	Sn	20 48 30.5	-1.2
CHOS	Chios island	4.01	8	eP	Pn	20 47 47.1	+1.2
CHOS	Chios island	4.01	8	P	Pn	20 47 46.6	+0.7
CHOS				S	Sn	20 48 30.5	-1.2
URLA	Izmir	4.07	14	iP	Pn	20 47 47.0	+0.2
URLA	Izmir	4.07	14	iP	Pn	20 47 47.0	+0.3
LTK	Loutraki	4.11	332	P	Pn	20 47 46.9	-0.3
LTK	Loutraki	4.11	332	eP	Pn	20 47 47.4	+0.2
LTK	Loutraki	4.11	332	eP	Pn	20 47 47.4	+0.2
BLCB	Balcova	4.19	18	P	Pn	20 47 48.7	+0.3
BLCB	Balcova	4.19	18	P	Pn	20 47 48.7	+0.3
GUR	Goura	4.30	326	eP	Pn	20 47 49.6	-0.3
GUR	Goura	4.30	326	eP	Pn	20 47 49.6	-0.3
GOLH	Golhisar	4.42	49	iP	Pn	20 47 53.5	+2.0
GOLH	Golhisar	4.42	49	iP	Pn	20 47 53.5	+2.0
GOLH				iS	Sn	20 48 41.7	+0.1
LKR	Lokris	4.65	336	P	Pn	20 47 54.0	-0.7
LKR	Lokris	4.65	336	eP	Pn	20 47 54.8	+0.1
LKR	Lokris	4.65	336	eP	Pn	20 47 54.8	+0.1
SIGR	SIGRI	4.81	4	P	Pn	20 47 56.9	0.0
SIGR	SIGRI	4.81	4	P	Pn	20 47 56.9	0.0
RLS	Riolos of Patr	4.83	320	eP	Pn	20 47 57.4	+0.2
RLS	Riolos of Patr	4.83	320	eP	Pn	20 47 57.4	+0.2
AKHS	Akhisar	4.87	23	iP	Pn	20 47 59.1	+1.3
AKHS	Akhisar	4.87	23	iP	Pn	20 47 59.1	+1.3
PRK	Paraskevi	4.88	8	P	Pn	20 47 58.5	+0.6
PRK	Paraskevi	4.88	8	P	Pn	20 47 58.5	+0.6
SWA2		5.15	179	⇑P	Pn	20 48 02.2	+0.6
KHAL	Karahalli	5.16	39	iP	Pn	20 48 02.8	+1.0
KHAL	Karahalli	5.16	39	iP	Pn	20 48 02.8	+1.1
KHAL				iS	Sn	20 49 00.5	+0.5
NEO	Neokhori	5.19	341	eP	Pn	20 48 03.2	+1.1
NEO	Neokhori	5.19	341	eP	Pn	20 48 03.2	+1.1
AGG	Agios Georgios	5.22	333	P	Pn	20 48 02.3	-0.2
AGG				S	Sn	20 48 59.7	-1.8
AGG	Agios Georgios	5.22	333	eP	Pn	20 48 03.7	+1.2
AGG	Agios Georgios	5.22	333	P	Pn	20 48 02.3	-0.2
AGG				S	Sn	20 48 59.7	-1.8
ISP	Isparta	5.38	49	eP	Pn	20 48 04.1	-0.7
ISP	Isparta	5.38	49	eP	Pn	20 48 04.1	-0.7
LJBD	Adjabya	5.59	233	iP	Pn	20 48 07.9	+0.2
	SNR=76						
DURS	Dursunbey	5.75	25	iP	Pn	20 48 10.9	+1.2
THL	Klokotos Trika	5.81	333	P	Pn	20 48 09.5	-1.2
THL	Klokotos Trika	5.81	333	P	Pn	20 48 09.5	-1.2
OUR	Ouranopolis	6.02	350	P	Pn	20 48 13.5	-0.1
OUR	Ouranopolis	6.02	350	P	Pn	20 48 13.5	-0.1
LIT	Litokhoron	6.14	339	P	Pn	20 48 14.8	-0.3
LIT	Litokhoron	6.14	339	eP	Pn	20 48 15.8	+0.7
LIT	Litokhoron	6.14	339	P	Pn	20 48 14.8	-0.3
MEV	Metsovon	6.31	329	P	Pn	20 48 17.7	+0.2
MEV	Metsovon	6.31	329	P	Pn	20 48 18.1	+0.6
MEV	Metsovon	6.31	329	P	Pn	20 48 17.7	+0.2
HORT	Hortiatis	6.44	344	P	Pn	20 48 20.4	+1.1
HORT	Hortiatis	6.44	344	P	Pn	20 48 20.4	+1.1
ULDT	Uludag	6.46	26	iP	Pn	20 48 21.1	+1.5
HNAT	Natroun	6.51	136	P	Pn	20 48 20.4	+0.1
HNAT	Natroun	6.51	136	P	Pn	20 48 20.4	+0.1
IGT	Igoumenitsa	6.52	323	P	Pn	20 48 20.3	-0.1
IGT	Igoumenitsa	6.52	323	P	Pn	20 48 20.3	-0.1
CSS	Prodhromos	6.57	83	eP	Pn	20 48 20.8	-0.3
	18nm,0.4s						
CSS				eS	Sn	20 49 22.2	-13
CSS	Prodhromos	6.57	83	eP	Pn	20 48 20.8	-0.3
	18nm,0.4s						
AWBH		6.77	153	⇑P	Pn	20 48 24.7	+0.9
AWBH		6.77	153	P	Pn	20 48 24.7	+0.8
AYT	Al ‘Ayyat	6.78	132	⇓P	Pn	20 48 24.6	+0.7
AYT	Al ‘Ayyat	6.78	132	P	Pn	20 48 24.6	+0.7
KOT	Kottamia	7.05	127	⇑P	Pn	20 48 27.5	-0.3
KOT				S	Sn	20 49 45.0	-1.7
KOT	Kottamia	7.05	127	P	Pn	20 48 27.5	-0.2
KOT				S	Sn	20 49 45.0	-1.6
FNA	Florina	7.12	335	P	Pn	20 48 29.1	+0.5
FNA	Florina	7.12	335	P	Pn	20 48 29.1	+0.5
GLL	Jalalah	7.21	130	⇓P	Pn	20 48 30.0	+0.1
GLL	Jalalah	7.21	130	P	Pn	20 48 30.0	+0.1
HHAG	Hagoal	7.22	126	⇓P	Pn	20 48 30.1	+0.1
HHAG	Hagoal	7.22	126	P	Pn	20 48 30.0	0.0
KDZ	Kurdzhali	7.23	0	P	Pn	20 48 30.4	+0.2
MMB	Musomiste	7.29	350	P	Pn	20 48 37.1	+6.2
RZN	Rozhen	7.29	356	P	Pn	20 48 31.6	+0.7
AMAG	Maghara	7.60	117	⇓P	Pn	20 48 34.3	-0.9
AMAG	Maghara	7.60	117	P	Pn	20 48 34.3	-0.9
DIM	Dimitrovgrad	7.63	1	P	Pn	20 48 36.2	+0.6
HFRF	Wahat Farafira	7.66	160	⇓P	Pn	20 48 36.4	+0.4
HFRF	Wahat Farafira	7.66	160	P	Pn	20 48 36.4	+0.4
KRUS	Krusevo	7.68	336	ePn	Pn	20 48 36.3	0.0
KRUS				eSn	Sn	20 49 56.8	-5.2
SUZ		7.78	124	⇑P	Pn	20 48 37.3	-0.5
SUZ		7.78	124	P	Pn	20 48 37.3	-0.5
RSH		7.82	114	P	Pn	20 48 37.3	-1.0
ZAF		7.95	128	⇓P	Pn	20 48 40.0	0.0
ZAF		7.95	128	P	Pn	20 48 40.0	0.0
ZNM		8.10	126	⇓P	Pn	20 48 42.0	-0.2
ZNM		8.10	126	P	Pn	20 48 42.0	-0.1
JMB	Yambol	8.10	6	P	Px	20 48 52.8	
OFRI	‘Ofer	8.21	100	Pn	Pn	20 48 43.3	-0.3
HNTI	Hanita	8.26	96	Sn	Sn	20 50 10.7	-5.6
VTS	Vitosha	8.35	349	P	Pn	20 48 54.1	+8.6
BLGI	Bet Lehem HaGe	8.35	99	Pn	Pn	20 48 47.9	+2.4
BLGI				Sn	Sn	20 50 12.0	-6.5
KZIT	Kziot	8.36	112	Pn	Pn	20 48 44.7	-1.0
KZIT				Sn	Sn	20 50 12.2	-6.6
SLTI	Sal’it	8.36	102	Pn	Pn	20 48 45.8	+0.1
SLTI				Sn	Sn	20 50 12.4	-6.4
TIP	Timpagrande	8.40	307	eP	Pn	20 48 44.3	-1.9
	7.4nm,0.5s						
TIP	Timpagrande	8.40	307	eP	Pn	20 48 44.3	-1.9
	7.3nm,0.5s						
HRSH	Kfar Ka’horesh	8.43	99	⇓P	Pn	20 48 37.3	-9.4
HRSH				S	Sn	20 50 01.8	-19
MMA0B	Mount Meron ar	8.46	97	Pn	Pn	20 48 47.0	0.0
MMA0B				Sn	Sn	20 50 14.5	-6.7
MMAI	Mount Meron Ar	8.46	97	Pn	Pn	20 48 45.7	-1.3
	5.0nm,0.3s,baz=279,slow=12,SNR=42						
MMAI				Sn	Sn	20 50 16.7	-4.5
	33nm,0.3s,baz=277,slow=14,SNR=15						
BR131	Keskin Array S	8.47	49	eP	Pn	20 48 48.0	+1.0
	3.4nm,0.7s						
BR131	Keskin Array S	8.47	49	eP	Pn	20 48 48.0	+0.9
	3.4nm,0.7s						
BRTR	Keskin Array B	8.47	49	Pn	Pn	20 48 47.9	+0.8
	0.3nm,0.3s,baz=225,slow=13,SNR=16						
BRTR				Sn	Sn	20 50 18.1	-3.2
	0.5nm,0.3s,baz=218,slow=27,SNR=6.9						
BRTR	Keskin Array B	8.47	49	P	Pn	20 48 47.9	+0.8
RTMI	Retamim	8.52	111	Pn	Pn	20 48 47.8	-0.1
RTMI				Sn	Sn	20 50 16.3	-6.4
BHL	Bhannes	8.53	90	ePn	Pn	20 48 47.5	-0.4
HNKL	Nakhl	8.54	119	⇓P	Pn	20 48 47.4	-0.8
HNKL	Nakhl	8.54	119	P	Pn	20 48 47.4	-0.8
MMLI	Mount Malkishu	8.62	100	Pn	Pn	20 48 48.3	-0.9
KSDI	Kefar Szold	8.64	95	Pn	Pn	20 48 49.0	-0.4
KSDI				Sn	Sn	20 50 19.0	-6.5
RCY	Rachaya	8.72	93	ePn	Pn	20 48 49.9	-0.7
YTIR	Yattir	8.73	108	Pn	Pn	20 48 50.5	-0.2
HAVL	Avola	8.73	290	Pn	Pn	20 48 48.9	-1.8
HAVL	Avola	8.73	290	Pn	Pn	20 48 48.9	-1.8
HMDT	Nahal Hemdat	8.75	101	Pn	Pn	20 48 50.6	-0.4
HMDT				Sn	Sn	20 50 22.3	-6.1
RMNI	Mount Ramon	8.78	113	Pn	Pn	20 48 51.6	+0.2
DSI	Dead Sea	8.86	106	Pn	Pn	20 48 52.0	-0.5
DSI				Sn	Sn	20 50 24.8	-6.2
SZH	Strazhica	8.86	3	P	Pn	20 49 00.2	+7.8
PRD	Provadia	8.92	10	P	Pn	20 49 01.1	+7.8
MZDA	Masada	8.94	107	Pn	Pn	20 48 52.8	-0.8
MZDA				Sn	Sn	20 50 26.9	-6.1
KRMI	Paran Flat	8.99	116	Pn	Pn	20 48 53.4	-0.9
KRMI				Sn	Sn	20 50 27.3	-6.9
PRNI	Paran	9.08	114	Pn	Pn	20 48 55.6	0.0
PRNI				Sn	Sn	20 50 30.0	-6.5
ZFRI	Zfri	9.12	112	Pn	Pn	20 48 55.8	-0.3
HRFI	Mount Harif	9.26	115	Pn	Pn	20 48 58.6	+0.6
HRFI				Sn	Sn	20 50 34.1	-6.8
MBRI	Mt Berech	9.30	117	Pn	Pn	20 48 58.6	+0.1
MBRI				Sn	Sn	20 50 35.6	-6.1
EIL	Elat	9.39	118	Pn	Pn	20 48 59.8	0.0
	5.7nm,0.3s,baz=312,slow=8.5,SNR=59						
EIL				Sn	Sn	20 50 37.0	-7.0
	13nm,0.3s,baz=67,slow=14,SNR=9.8						
EIL	Elat	9.39	118	Pn	Pn	20 48 59.7	-0.1
EIL				Sn	Sn	20 50 37.8	-6.2
EIL	Elat	9.39	118	Pn	Pn	20 48 59.8	0.0
VAE	Valguarnera	9.41	292	Pn	Pn	20 49 00.8	+0.8
	0.6nm,0.3s,baz=57,slow=17,SNR=3.6						
VAE				Sn	Sn	20 50 35.9	-8.6
	0.9nm,0.3s,baz=97,slow=8.1,SNR=2.0						
VAE				LR	LR	20 53 28.1	
	comp=Z,81nm,19.1s,baz=119,slow=43						
VAE	Valguarnera	9.41	292	Pn	Pn	20 49 00.8	+0.8
AQBJ	Aqaba	9.43	117	Pn	Pn	20 49 00.5	+0.2
CUC	Castrocucco	9.45	309	eP	Pn	20 48 59.8	-0.7
	16nm,0.5s						
CUC	Castrocucco	9.45	309	eP	Pn	20 48 59.8	-0.8
	16nm,0.5s						
HBST	Basata	9.48	120	⇑P	Pn	20 49 00.8	-0.2
HBST	Basata	9.48	120	P	Pn	20 49 00.9	-0.2
PSN	Preselentsi	9.52	12	P	Pn	20 49 05.7	+4.3
HQLS		9.67	119	S	Sn	20 50 44.8	-6.2
HQLS		9.67	119	P	Pn	20 49 02.9	-0.7
HQLS		9.67	119	P	Pn	20 49 02.9	-0.8
TR1		9.72	129	⇓P	Pn	20 49 03.9	-0.3
TR1		9.72	129	P	Pn	20 49 03.9	-0.4
ASF	Jabal al Asfar	9.89	100	Pn	Pn	20 49 06.0	-0.6
	0.6nm,0.3s,baz=165,slow=2.1,SNR=4.8						
ASF				Sn	Sn	20 50 52.1	-4.2
	2.2nm,0.3s,baz=286,slow=18,SNR=7.0						
AKRG	Al Kharijah	9.91	152	⇓P	Pn	20 49 08.2	+1.2
GTR	Jabal at Tayr	9.93	152	⇓P	Pn	20 49 08.2	+0.9
GTR	Jabal at Tayr	9.93	152	P	Pn	20 49 08.2	+1.0
RSHS		10.09	125	P	Pn	20 49 08.4	-0.9
RSHS		10.09	125	P	Pn	20 49 08.4	-0.9
BDAS	Al Bad‘	10.21	123	P	Pn	20 49 09.2	-1.9
BDAS	Al Bad‘	10.21	123	P	Pn	20 49 09.2	-1.8
JLOS		10.30	121	P	Pn	20 49 10.9	-1.4
JLOS		10.30	121	P	Pn	20 49 10.9	-1.4
TBKS	Tabuk	11.35	120	P	Pn	20 49 26.2	-0.5
TBKS	Tabuk	11.35	120	P	Pn	20 49 26.2	-0.5
DBAS	Duba	11.58	125	P	Pn	20 49 28.8	-1.0
DBAS	Duba	11.58	125	P	Pn	20 49 28.8	-1.0
WJHS		12.18	126	P	Pn	20 49 38.1	+0.1
WJHS		12.18	126	P	Pn	20 49 38.1	+0.2
BIDS	Bi’r al Bayda’	12.47	124	P	Pn	20 49 41.1	-0.8
BIDS	Bi’r al Bayda’	12.47	124	P	Pn	20 49 41.1	-0.9
NVLJ	Novalja	12.98	325	ePn	Pn	20 49 43.9	-4.9
NVLJ				Sn	Sn	20 51 56.8	-15
KEST	Kesra	13.21	280	LR	LR	20 55 57.7	
	comp=Z,17nm,20.5s,baz=170,slow=42						
BOJS	Bojanci	13.53	328	iPn	Pn	20 49 53.2	-3.0
BOJS				e		20 50 03.6	
BOJS				iSn	Sn	20 52 09.8	-15
VISS	Visnje	13.94	328	iPn	Pn	20 50 00.1	-1.8
VISS				i		20 50 13.3	
VISS				iSn	Sn	20 52 25.1	-10
VISS	Visnje	13.94	328	iPn	Pn	20 50 00.1	-1.7
JAVS	Javornik	14.36	326	iPn	Pn	20 50 03.8	-3.7
JAVS				i		20 50 13.5	
JAVS				iSn	Sn	20 52 32.5	-13
MOA	Molln	15.81	332	⇑iP	Pn	20 50 29.9	+3.4
	3.1nm,0.7s						
VRAC	Vranov	16.25	339	Pn	Pn	20 50 31.6	-0.5
	0.2nm,0.3s,baz=157,slow=12,SNR=3.3						
VRAC				LR	LR	20 56 33.9	
	comp=Z,59nm,19.2s,baz=342,slow=36						
VRAC	Vranov	16.25	339	Pn	Pn	20 50 31.6	-0.6
ONI	Oni	16.31	55	P	Pn	20 50 32.6	-0.3
GNI	Garni	16.43	64	Pn	Pn	20 50 35.7	+1.2
	0.4nm,0.3s,baz=232,slow=12,SNR=2.6						
GNI				LR	LR	20 58 21.0	
	comp=Z,126nm,18.9s,baz=45,slow=42						
GNI	Garni	16.43	64	P	Pn	20 50 35.7	+1.2
KIV	Kislovodsk	16.43	49	eP	Pn	20 50 37.5	+3.0
KIV				pmax	pmax		
	comp=Z,33nm,1.1s						
KIV				MLR	MLR		
	comp=Z,28nm,10.0s						
KIV	Kislovodsk	16.43	49	eP	Pn	20 50 38.1	+3.6

	comp=Z,16nm,0.8s						
KIV	Kislovodsk	16.43	49	eP	Pn	20 50 37.5	+3.0
	comp=Z,28nm,10.0s						
KIEV	Kiev	16.52	9	eP	Pn	20 50 34.3	-1.2
KIEV				pmax	pmax		
	comp=Z,23nm,0.7s						
KIEV	Kiev	16.52	9	eP	Pn	20 50 34.3	-1.2
	comp=Z,23nm,0.7s						
AKASG	Malin Array Be	16.53	9	Pn	Pn	20 50 35.9	+0.3
	comp=Z,7.4nm,0.3s,baz=196,slow=9.7,SNR=29						
AKASG	Malin Array Be	16.53	9	P	Pn	20 50 35.9	+0.3
FETA	Feichten	16.77	323⇓	iPn	Pn	20 50 36.2	-2.5
	comp=Z,4.1nm,0.9s						
GERES	GERESS Array B	16.84	332	Pn	Pn	20 50 41.3	+1.8
	comp=Z,0.3nm,0.3s,baz=146,slow=12,SNR=10						
GERES	GERESS Array B	16.84	332	P	Pn	20 50 41.3	+1.8
DAVOX	Davos/Dischmat	17.03	321	Pn	Pn	20 50 42.0	-0.1
	comp=Z,0.2nm,0.3s,baz=328,slow=19,SNR=3.5						
DAVOX	Davos/Dischmat	17.03	321	Pn	Pn	20 50 42.0	0.0
KHC	Kasperske Hory	17.12	333	ex	Pn	20 50 44.5	+1.5
KHC				ex	x	20 50 54.0	
KHC				ex	x	20 51 09.0	
KHC	Kasperske Hory	17.12	333	eP	Pn	20 50 44.5	+1.5
KHC				e		20 50 54.0	
KHC				e		20 51 09.0	
KHC	Kasperske Hory	17.12	333	eP	Pn	20 50 44.5	+1.5
DAVOS	Davos	17.12	321	P	Pn	20 50 42.0	-1.1
FRF	La Foret Royal	17.17	308	eP	Pn	20 50 43.2	-0.5
FRF	La Foret Royal	17.17	308	eP	Pn	20 50 43.2	-0.5
PRU	Pruhonice	17.49	336	eP	Pn	20 50 38.0	-10
MBDF	Montbardon	17.63	311	eP	Pn	20 50 46.7	-2.7
LPG	La Plagne	18.03	313	eP	Pn	20 50 54.0	-0.4
LPG	La Plagne	18.03	313	eP	Pn	20 50 54.0	-0.4
LPL	La Plagne	18.05	313	eP	Pn	20 50 53.8	-0.8
LPL	La Plagne	18.05	313	eP	Pn	20 50 53.8	-0.8
GRA1	Grafenberg Arr	18.50	330	eP	Pn	20 50 59.8	-0.2
	comp=Z,4.0nm,0.7s						
GRA1	Grafenberg Arr	18.50	330	eP	Pn	20 50 59.8	-0.2
	comp=Z,4.0nm,0.7s						
GRF	Grafenberg Arr	18.50	330	eP	Pn	20 50 59.8	-0.2
GRF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
GRF	Grafenberg Arr	18.50	330	eP	Pn	20 50 59.8	-0.2
GRF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
GRF	Grafenberg Arr	18.50	330	eP	Pn	20 50 59.8	-0.2
	comp=Z,4.0nm,0.7s						
GRF	Grafenberg Arr	18.50	330	eP	Pn	20 50 59.8	-0.2
	comp=Z,4.0nm,0.7s						
VIVF	Saint-Julien-l	19.01	309	eP	Pn	20 51 07.0	+0.7
VIVF	Saint-Julien-l	19.01	309	eP	Pn	20 51 07.0	+0.7
CABF	La Chapelle	19.02	316	eP	Pn	20 51 05.9	-0.4
CABF	La Chapelle	19.02	316	eP	Pn	20 51 05.9	-0.4
CLL	Collm	19.13	336	eP	sP	20 51 24.0	+2.2
CLL	Collm	19.13	336	esP	sP	20 51 24.0	+2.2
CLL	Collm	19.13	336	P	sP	20 51 24.0	+2.2
CLL				e		20 51 30.0	
MIB	Mutribah	19.15	98	eP	Pn	20 51 08.7	+0.7
MIB				AMb	AMB	20 51 10.3	
	comp=Z,23nm,0.7s						
MIB	Mutribah	19.15	98	eP	Pn	20 51 08.6	+0.6
	comp=Z,23nm,0.7s						
LASF	Ste Croix	19.22	307	eP	Pn	20 51 08.9	+0.1
LASF	Ste Croix	19.22	307	eP	Pn	20 51 08.9	+0.1
NAY	Al-Naaiem	19.26	99	eP	Pn	20 51 10.2	+0.8
NAY				AMb	AMB	20 51 12.4	
	comp=Z,12nm,0.7s						
NAY	Al-Naaiem	19.26	99	eP	Pn	20 51 10.2	+0.9
	comp=Z,12nm,0.7s						
HINF	Hinteralfeld	19.29	320	eP	Pn	20 51 08.9	-0.6
HINF	Hinteralfeld	19.29	320	eP	Pn	20 51 08.9	-0.6
VORD	Divnogorie	19.40	27	eP	Pn	20 51 09.7	-1.1
VORD				pmax	pmax		
	comp=Z,7.0nm,0.6s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.9s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
VORD	Divnogorie	19.40	27	eP	Pn	20 51 09.7	-1.1
	comp=E,10.0nm,0.9s						
CDF	Champ du Feu	19.43	322	eP	Pn	20 51 10.0	-1.2
	comp=E,14nm,0.8s						
CDF	Champ du Feu	19.43	322	eP	Pn	20 51 10.0	-1.2
CDF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
CDF	Champ du Feu	19.43	322	eP	Pn	20 51 10.0	-1.2
	comp=Z,6.9nm,0.8s						
CDF	Champ du Feu	19.43	322	eP	Pn	20 51 10.0	-1.2
	comp=Z,6.9nm,0.8s						
UMR	Umm Al-Rimmam	19.54	98	eP	Pn	20 51 13.3	+0.7
UMR				AMb	AMB	20 51 13.8	
	comp=Z,30nm,0.5s						
UMR	Umm Al-Rimmam	19.54	98	eP	Pn	20 51 13.3	+0.6
	comp=Z,31nm,0.5s						
VSR	Storozhevoye	19.55	27	eP	Pn	20 51 13.7	+1.1
VSR	Storozhevoye	19.55	27	eP	Pn	20 51 13.7	+1.1
RDF	Al-Radifah	19.63	100	eP	Pn	20 51 14.7	+1.0
RDF				AMb	AMB	20 51 18.7	
	comp=Z,11nm,0.9s						
RDF	Al-Radifah	19.63	100	eP	Pn	20 51 14.7	+1.0
	comp=Z,11nm,0.9s						
SUW	Suwalki	19.67	356	eP	Pn	20 51 11.0	-3.0
SUW	Suwalki	19.67	356	eP	Pn	20 51 11.0	-2.9
SUW	Suwalki	19.67	356	eP	Pn	20 51 11.0	-2.9
HAU	Haudompre	19.67	319	eP	Pn	20 51 11.9	-2.2
	comp=Z,8.2nm,0.6s						
HAU				eMLR	MLR		
	comp=Z,79nm,18.8s						
HAU	Haudompre	19.67	319	eP	Pn	20 51 11.9	-2.2
HAU				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HAU	Haudompre	19.67	319	eP	Pn	20 51 11.9	-2.2
	comp=Z,4.1nm,0.6s						
HAU	Haudompre	19.67	319	eP	Pn	20 51 11.9	-2.2
	comp=Z,4.1nm,0.6s						
MTLF	Montolieu	20.07	303	eP	P	20 51 18.4	+1.6
MTLF	Montolieu	20.07	303	eP	P	20 51 18.4	+1.6
SMF	Signal de Mont	20.36	313	eP	P	20 51 20.6	+0.7
SMF	Signal de Mont	20.36	313	eP	P	20 51 20.6	+0.7
VRHR	Novokhopersk	20.43	30	eP	P	20 51 20.4	-0.2
VRHR				pmax	pmax		
	comp=Z,40nm,0.5s						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.8s						
VRHR	Novokhopersk	20.43	30	eP	P	20 51 20.4	-0.2
	comp=E,10.0nm,0.9s						
LOR	Lormes	20.66	315	eP	P	20 51 24.0	+0.8
	comp=E,4.1nm,0.5s						
LOR				eMLR	MLR		
	comp=Z,80nm,18.8s,MS2.8						
LOR	Lormes	20.66	315	eP	P	20 51 24.0	+0.8
LOR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
LOR				MLR	MLR		
	comp=Z,80nm,18.8s,MS3.1						
LOR	Lormes	20.66	315	eP	P	20 51 24.0	+0.8
	comp=Z,2.0nm,0.5s						
LOR				LR	LR		
	comp=Z,80nm,18.8s,MS3.1						
LOR	Lormes	20.66	315	eP	P	20 51 24.0	+0.8
	comp=Z,2.0nm,0.5s						
MEZF	Maizieres J'vi	20.66	319	eP	P	20 51 23.8	+0.6
MEZF	Maizieres J'vi	20.66	319	eP	P	20 51 23.8	+0.6
AVF	Avril sur Loir	20.73	313	eP	P	20 51 24.7	+0.8
	comp=Z,3.4nm,0.7s						
AVF	Avril sur Loir	20.73	313	eP	P	20 51 24.7	+0.8
AVF				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AVF	Avril sur Loir	20.73	313	eP	P	20 51 24.7	+0.8
	comp=Z,1.7nm,0.7s						
AVF	Avril sur Loir	20.73	313	eP	P	20 51 24.7	+0.8
	comp=Z,1.7nm,0.7s						
CAF	Calviac	20.73	307	eP	P	20 51 23.0	-0.9
CAF	Calviac	20.73	307	eP	P	20 51 23.0	-0.9
SSF	Saint Saulge	20.77	314	eP	P	20 51 25.0	+0.7
	comp=Z,7.1nm,0.8s						
SSF	Saint Saulge	20.77	314	eP	P	20 51 25.0	+0.7
SSF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SSF	Saint Saulge	20.77	314	eP	P	20 51 25.0	+0.7
	comp=Z,3.5nm,0.8s						
SSF	Saint Saulge	20.77	314	eP	P	20 51 25.0	+0.7
	comp=Z,3.5nm,0.8s						
WLF	Walferdange	20.80	323	P	P	20 51 25.9	+1.3
	comp=Z,11nm,1.6s						
TAM	Tamanrasset	20.89	242	eP	P	20 51 30.5	+4.7
TAM				pmax	pmax		
	comp=Z,4.0nm,1.0s						
TAM	Tamanrasset	20.89	242	eP	P	20 51 30.5	+4.7
	comp=Z,3.7nm,1.0s						
BGF	Bois d'Agland	20.92	312	eP	P	20 51 26.4	+0.4
	comp=Z,10nm,0.6s						
BGF	Bois d'Agland	20.92	312	eP	P	20 51 26.4	+0.4
BGF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
BGF	Bois d'Agland	20.92	312	eP	P	20 51 26.4	+0.4
	comp=Z,5.3nm,0.6s						
BGF	Bois d'Agland	20.92	312	eP	P	20 51 26.4	+0.4
	comp=Z,5.2nm,0.6s						
TCF	Toulx Ste Croi	21.20	311	eP	P	20 51 30.7	+1.8
TCF	Toulx Ste Croi	21.20	311	eP	P	20 51 30.7	+1.8
MEM	Membach	21.49	325	P	P	20 51 32.4	+0.4
LFF	La Frestale	21.61	306	eP	P	20 51 31.8	-1.6
LFF	La Frestale	21.61	306	eP	P	20 51 31.8	-1.6
BCLA	Clavier	21.71	324	P	P	20 51 35.8	+1.4
	comp=Z,30nm,3.0s						
GIVF	Givet	21.75	322	eP	P	20 51 35.0	+0.2
GIVF	Givet	21.75	322	eP	P	20 51 35.0	+0.2
DOU	Dourbes	21.86	322	P	P	20 51 36.6	+0.7
BAIF	Baives	22.03	322	eP	P	20 51 36.5	-1.3
	comp=Z,19nm,0.8s,mb4.3						
BAIF	Baives	22.03	322	eP	P	20 51 36.5	-1.3
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
BAIF	Baives	22.03	322	eP	P	20 51 36.5	-1.3
	comp=Z,9.6nm,0.8s,mb4.3						
BAIF	Baives	22.03	322	eP	P	20 51 36.5	-1.3
	comp=Z,9.6nm,0.8s,mb4.3						
OBN	Obninsk	22.12	17⇑	eP	P	20 51 40.3	+1.6
OBN				e		20 51 56.5	
OBN				eS	S	20 55 31.3	-8.8
OBN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.0						
OBN	Obninsk	22.12	17	eP	P	20 51 40.3	+1.6
	comp=Z,5.0nm,0.8s,mb4.0						
SJPF	Ste Jean	22.43	301	eP	P	20 51 41.9	-0.2
SJPF	Ste Jean	22.43	301	eP	P	20 51 41.9	-0.2
MFF	Saint Martin d	22.81	310	eP	P	20 51 46.9	+0.8
MFF	Saint Martin d	22.81	310	eP	P	20 51 46.9	+0.8
LDF	La Druitiere	23.65	315	eP	P	20 51 53.7	-0.8
LDF	La Druitiere	23.65	315	eP	P	20 51 53.7	-0.8
FLN	La Foliniere	23.94	315	eP	P	20 51 56.1	-1.0
	comp=Z,8.1nm,0.6s,mb4.1						
FLN				eMLR	MLR		
	comp=Z,42nm,20.4s,MS2.6						
FLN	La Foliniere	23.94	315	eP	P	20 51 56.1	-1.0
FLN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
FLN				MLR	MLR		
	comp=Z,40nm,20.4s,MS2.9						
FLN	La Foliniere	23.94	315	eP	P	20 51 56.1	-1.0
	comp=Z,4.1nm,0.6s,mb4.0						
FLN				LR	LR		
	comp=Z,40nm,20.4s,MS2.9						
FLN	La Foliniere	23.94	315	eP	P	20 51 56.1	-1.0
	comp=Z,4.1nm,0.6s,mb4.1						
ESDC	Sonseca Array	23.95	291	P	P	20 51 57.6	+0.2
	comp=Z,0.4nm,0.4s,mb3.2,baz=83,slow=9.0,SNR=5.4						
ESDC	Sonseca Array	23.95	291	P	P	20 51 57.6	+0.2
GRR	Gorron	23.99	314	eP	P	20 51 56.8	-0.8
SGMF	Saint Gilles	24.97	312	eP	P	20 52 05.7	-0.8
MDT	Midelt	25.00	275	P	P	20 52 08.2	+1.3
	comp=Z,0.7nm,0.7s,mb3.3,baz=90,slow=11,SNR=2.8						
MDT	Midelt	25.00	275	P	P	20 52 08.2	+1.3
QUIF	Quistinic	25.21	311	eP	P	20 52 08.1	-0.6
ROSF	Rostrenen	25.44	312	eP	P	20 52 09.7	-1.1
HFS	Hagfors	26.85	347	P	P	20 52 22.3	-1.1
	comp=Z,1.2nm,0.6s,mb3.6,baz=159,slow=12,SNR=5.5						
HFS	Hagfors	26.85	347	P	P	20 52 22.3	-1.1
NOA	NORSAR Array B	28.18	345	LR	LR	21 04 10.0	
	comp=Z,24nm,18.4s,MS2.8,baz=260,slow=37						
AKTK	Aktyubinsk	28.63	46	P	P	20 52 39.8	+0.3
AKTK				LR	LR	21 07 51.3	
AKTK	Aktyubinsk	28.63	46	P	P	20 52 39.8	+0.3
AKTO	Aktyubinsk	28.63	46	P	P	20 52 39.8	+0.3
	comp=Z,1.1nm,0.5s,mb3.9,baz=280,slow=6.1,SNR=3.8						
AKTO				LR	LR	21 07 51.3	
	comp=Z,41nm,19.5s,MS3.0,baz=78,slow=44						
EKA	Eskdalemuir Ar	28.76	325	P	P	20 52 40.0	-0.6
	comp=Z,2.5nm,0.9s,mb3.9,baz=124,slow=9.8,SNR=4.4						
EKA				sP	sP	20 52 53.8	-3.0
	comp=Z,1.2nm,0.5s,baz=124,slow=9.8,SNR=2.8						
EKA	Eskdalemuir Ar	28.76	325	P	P	20 52 40.0	-0.6
TORD	Torodi Ar. Bea	30.15	231	P	P	20 52 54.5	+1.2
	comp=Z,4.6nm,0.7s,mb4.3,baz=37,slow=8.2,SNR=31						
ARU	Arti	31.56	36	eP	P	20 53 04.4	-0.8
ARU				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
ARU	Arti	31.56	36	eP	P	20 53 04.4	-0.8
	comp=Z,2.9nm,0.5s,mb4.4						
ARU	Arti	31.56	36	eP	P	20 53 04.4	-0.8
	comp=Z,2.9nm,0.5s,mb4.4						
ARCES	ARCESS Array B	35.18	0	P	P	20 53 34.5	-2.1
	comp=Z,1.8nm,0.8s,mb4.1,baz=185,slow=9.7,SNR=10						
ARCES				LR	LR	21 07 16.9	
	comp=Z,42nm,18.2s,MS3.2,baz=200,slow=35						
BRVK	Borovoye	36.68	45	P	P	20 53 53.4	+3.7
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
BRVK	Borovoye	36.68	45	P	P	20 53 53.4	+3.7
	comp=Z,3.6nm,0.9s,mb4.2						
BVAR	Borovoye Array	36.74	46	P	P	20 53 48.7	-1.4
	comp=Z,0.2nm,0.3s,mb3.4,baz=212,slow=5.1,SNR=3.4						
BVAR	Borovoye Array	36.74	46	P	P	20 53 48.7	-1.4
DBIC	Dimbokro	39.24	232	P	P	20 54 12.6	+0.8
	comp=Z,1.8nm,0.7s,mb3.9,baz=18,slow=9.6,SNR=3.3						
DBIC				pP	pP	20 54 21.6	-1.5
	comp=Z,1.6nm,0.6s,baz=80,slow=12,SNR=1.5						
DBIC	Dimbokro	39.24	232	P	P	20 54 12.6	+0.9
DBIC				pP	pP	20 54 21.6	-1.5
KURK	Kurchatov	41.52	50	P	P	20 54 30.2	+0.1
	comp=Z,1.9nm,0.6s,mb3.9,baz=276,slow=8.8,SNR=7.7						
KURK	Kurchatov	41.52	50	P	P	20 54 30.2	+0.1
SPITS	Spitsbergen Ar	44.05	357	P	P	20 54 49.3	-1.0
	comp=Z,5.6nm,0.9s,mb4.3,baz=302,slow=12,SNR=7.7						
SPITS	Spitsbergen Ar	44.05	357	P	P	20 54 49.3	-1.0
ZALV	Zalesovo Beam	45.40	46	P	P	20 55 01.4	+0.1
	comp=Z,2.5nm,0.4s,mb4.4,baz=262,slow=9.0,SNR=10.0						
ZALV	Zalesovo Beam	45.40	46	P	P	20 55 01.4	+0.1
ZAK	Zakamensk	57.11	48⇑	iP	P	20 56 30.6	+1.5
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
SONM	Songino Array	59.82	50	P	P	20 56 49.1	+1.0
	comp=Z,0.7nm,0.8s,mb3.7,baz=290,slow=7.8,SNR=5.0						
SONM				sP	sP	20 57 02.6	-2.2
	comp=Z,0.7nm,0.5s,baz=279,slow=6.5,SNR=5.7						
SONM	Songino Array	59.82	50	P	P	20 56 49.1	+1.0
BOSA	Boshof	62.68	180	P	P	20 57 07.6	+0.1
	comp=Z,2.1nm,0.8s,mb4.3,baz=0.0,slow=5.1,SNR=3.8						
BOSA	Boshof	62.68	180	P	P	20 57 07.6	+0.1
BOSA	Boshof	62.68	180	P	P	20 57 07.6	+0.2
SCHQ	Schefferville	63.88	320	P	P	20 57 15.2	-0.1
	comp=Z,0.6nm,0.3s,mb4.0,baz=63,slow=12,SNR=3.5						
SCHQ				sP	sP	20 57 29.4	-2.6
	comp=Z,2.5nm,0.6s,baz=83,slow=5.7,SNR=3.3						
SCHQ	Schefferville	63.88	320	P	P	20 57 15.2	-0.1
SCHQ				sP	sP	20 57 29.4	-2.6
SCHQ	Schefferville	63.88	320	P	P	20 57 15.2	0.0
CMAR	Chiang Mai Arr	66.48	83	P	P	20 57 33.8	+1.1
	comp=Z,0.6nm,0.7s,mb3.7,baz=291,slow=8.0,SNR=5.5						
CMAR				sP	sP	20 57 49.4	-0.1
	comp=Z,0.7nm,0.7s,baz=299,slow=8.4,SNR=4.6						
CMAR	Chiang Mai Arr	66.48	83	P	P	20 57 33.8	+1.2
NJ2	Nanjing	75.25	61	eP	sP	20 58 43.1	+0.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
YKA	Yellowknife Ar	78.22	342	P	P	20 58 42.2	+0.3
	comp=Z,0.2nm,0.6s,mb3.2,baz=26,slow=4.8,SNR=2.8						
YKA				pP	pP	20 58 54.5	+0.2
	comp=Z,0.5nm,0.5s,baz=30,slow=5.3,SNR=5.0						
YKA	Yellowknife Ar	78.22	342	P	P	20 58 42.2	+0.3
YKA				pP	pP	20 58 54.5	+0.2
YKA	Yellowknife Ar	78.22	342	P	P	20 58 42.2	+0.3
YKA				pP	pP	20 58 54.5	+0.2
KSRS	Korea Array	78.60	52	P	P	20 58 44.4	-0.1
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
KSRS	Korea Array	78.60	52	P	P	20 58 44.4	-0.1
	comp=Z,0.9nm,0.9s,mb3.7,baz=293,slow=4.4,SNR=4.2						
ROSC	El Rosal	95.26	279	LR	LR	21 40 15.8	
	comp=Z,62nm,18.8s,MS4.1,baz=16,slow=34						

MOS ***06*** *20:57:11.2±1.5, 51°.32N×98°.10E, h10^{km}, mb4.4/1, Error ellipse: s-maj=23.0km s-min=13.1km az=172.3*

IDC ***06*** *20:57:22.4±2.5, 51°.23N×96°.96E, h0^{km}, mb1 3.3/5, mb1mx3.1/28, mbtmp3.3/5, ML2.9/5, Error ellipse: s-maj=49.7km s-min=21.9km az=19.0*

ISC 06 20:57:12.7±0.6**, 51°.26N**±0°.09×**98°.24E**±0°.07**, h10**^{km}**, n15, σ1.^{s}01**/16**, 1C-2D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ORL	Orlik	1.61	36	ePN	Pn	20 57 40.0	-1.2
ORL				e		20 58 01.1	
ORL				pmax	pmax		
	comp=Z,79nm,0.4s						
ORL				smax			
	comp=N,656nm,0.6s						
MOY	Mondy	1.77	75⇑	iPN	Pn	20 57 44.8	+1.5
MOY				e		20 58 09.5	
MOY				pmax	pmax		
	comp=Z,101nm,0.5s						
MOY				smax			
	comp=N,541nm,0.6s						
KZLR	Kyzyl	2.41	282⇓	ePN	Pn	20 57 51.9	-0.3
KZLR				e		20 57 56.3	
KZLR				e		20 58 19.8	
KZLR				e		20 58 26.4	
HVS	Khovu-Aksy	2.86	269⇓	ePN	Pn	20 57 58.8	+0.5
HVS				e		20 58 01.1	
HVS				e		20 58 29.1	
HVS				e		20 58 38.8	
ZAK	Zakamensk	3.31	103	ePN	Pn	20 58 07.9	+3.3
ZAK				e		20 58 12.1	
ZAK				e		20 58 58.0	
ZAK				pmax	pmax		
	comp=Z,48nm,0.5s						
ZAK				smax			
	comp=N,220nm,1.4s						
TLY	Talaya	3.40	81	ePN	Pn	20 58 05.3	-0.5
TLY				e		20 58 13.4	
TLY				e		20 58 59.2	
TLY				pmax	pmax		
	comp=Z,23nm,0.5s						
TLY				smax			
	comp=N,179nm,1.3s						
IRK	Irkutsk	3.87	73	ePN	Pn	20 58 20.6	+8.3
IRK				e		20 59 11.9	
IRK				pmax	pmax		
	comp=Z,41nm,0.5s						
IRK				smax			
	comp=N,707nm,0.5s						
TRG	Tyrgan	5.23	70	ePN	Pn	20 58 31.9	+1.0
TRG				e		20 58 46.5	
TRG				e		20 59 54.6	
TRG				pmax	pmax		
	comp=Z,15nm,0.8s						
TRG				smax			
	comp=N,124nm,1.1s						
OGRR	Ongureny	6.20	64	ePN	Pg	20 59 03.6	-7.7
OGRR				e		21 00 23.5	
OGRR				pmax	pmax		
	comp=Z,13nm,1.0s						
OGRR				smax			
	comp=N,92nm,1.0s						
SONM	Songino Array	6.31	120	Pn	Pg	20 59 06.0	-7.6
	comp=N,0.8nm,0.3s,baz=300,slow=18,SNR=22						
SONM				Sn	Sg	21 00 34.3	-1.0
	comp=N,2.4nm,0.3s,baz=302,slow=28,SNR=12						
ULN	Ulaanbaatar	6.66	117	ePN	Pg	20 59 13.1	-7.1
ZALV	Zalesovo Beam	8.61	293	Pn	Pn	20 59 16.9	-0.3
	comp=N,0.2nm,0.3s,baz=104,slow=11,SNR=4.4						
ZALV				Lg		21 01 30.4	
	comp=N,0.5nm,0.3s,baz=107,slow=20,SNR=5.8						
MKAR	Makanchi Array	11.38	253	Pn	Pn	20 59 55.7	+0.5
	comp=N,0.1nm,0.3s,baz=190,slow=23,SNR=4.2						
MKAR				Lg		21 02 55.0	
	comp=N,0.0nm,0.3s,baz=66,slow=16,SNR=2.9						
KURK	Kurchatov	12.38	275	Pn	Pn	21 00 09.5	+0.7
	comp=N,0.0nm,0.3s,baz=65,slow=12,SNR=2.3						
KURK				Lg		21 03 32.1	
	comp=N,0.0nm,0.3s,baz=85,slow=33,SNR=3.0						
BVAR	Borovoye Array	17.15	287	Pn	Pn	21 01 10.7	-1.5
	comp=N,0.1nm,0.3s,baz=90,slow=10,SNR=4.4						

ISCJB ***06*** *21:17:39.9±0.3, 23°.80N±0°.02×121°.86E±0°.02, h32^{km}±2^{km}, Error ellipse: s-maj=3.4km s-min=2.2km az=136.1*

TAP ***06*** *21:17:39.3, 23°.80N×121°.89E, h33^{km}±1^{km}, ML3.2, D*

JMA ***06*** *21:17:40.7±0.4, 23°.91N×121°.89E, h87^{km}*

ISC 06 21:17:40.3±0.3**, 23°.81N**±0°.02×**121°.85E**±0°.02**, h31**^{km}±2^{km}**, n52, σ0.^{s}83**/102**, 4C-2D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HWA	Hwalien	0.28	307	P	Pb	21 17 45.8	-1.8
	baz=304						
HWA				eS	Sb	21 17 54.6	+2.1
	baz=304						
TEGC	Jichi Village	0.30	251	eP	Pb	21 17 48.6	+0.8
	baz=253						
TEGC				eS	Sb	21 17 54.0	+1.1
	baz=253						
ESF	Shoufeng Towns	0.32	282	eP	Pb	21 17 48.3	+0.2
	baz=281						
ESF				eS	Sb	21 17 54.9	+1.4
	baz=281						
TWD	Chiawan	0.36	319	P	Pb	21 17 48.8	+0.1
	baz=316						
TWD				S	Sb	21 17 55.1	+0.8
	baz=316						
ESL	Shilin	0.39	271	i P	Pb	21 17 49.0	0.0
	baz=271						
ESL				eS	Sb	21 17 55.4	+0.4
	baz=271						
EHY	Hungye	0.57	239	eP	Pb	21 17 51.1	-0.8
	baz=240						
EHY				eS	Sb	21 17 59.3	-0.5
	baz=240						
ENA	Nanau	0.63	351	i P	Pb	21 17 52.2	-0.6
	baz=348						
ENA				eS	Sb	21 18 01.4	0.0
	baz=348						
WHF	Hehuan Shan	0.64	302	P	Pb	21 17 52.2	-0.8
	baz=301						
WHF				eS	Sb	21 18 00.7	-0.9
	baz=301						
TWF1	Yuli	0.68	229⇑	iP	Pb	21 17 52.7	-1.0
	baz=230						
TWF1				S	Sb	21 18 01.9	-0.9
	baz=230						
NNS	Nan Shan	0.77	325	P	Pn	21 17 54.1	-0.9
	baz=323						
NNS				S	Sb	21 18 04.1	-1.3
	baz=323						
TWC	Suao	0.80	360	P	Pn	21 17 55.1	-0.3
	baz=357						
TWC				eS	Sb	21 18 06.1	-0.2
	baz=357						
CHKT	Chengkung	0.83	213	eP	Pn	21 17 55.7	-0.2
	baz=214						
CHKT				S	Sn	21 18 05.4	-1.8
	baz=214						
ENTT	Nioudou	0.87	343⇓	iP	Pn	21 17 55.7	-0.7
	baz=340						
ENTT				eS	Sn	21 18 07.2	-0.8
	baz=340						
SMLT	Sun Moon Lake	0.88	275	i P	Pn	21 17 55.6	-0.9
	baz=275						
SMLT				eS	Sn	21 18 07.9	-0.3
	baz=275						
YUS	Yu-Shan	0.88	249⇑	iP	Pn	21 17 56.6	0.0
	baz=249						
YUS				S	Sn	21 18 07.5	-0.9
	baz=249						
TYC	Yuchr	0.92	276	i P	Pn	21 17 56.0	-1.0
	baz=276						
TYC				eS	Sn	21 18 09.9	+0.7
	baz=276						
TWE	Neicheng	0.93	349	P	Pn	21 17 56.7	-0.5
	baz=348						
TWE				S	Sn	21 18 08.8	-0.7
	baz=348						

ILA	Ilan	0.96	354	*e*P	Pn	21 17 56.8	-0.9
	baz=352						
ILA				*e*S	Sn	21 18 09.8	-0.5
	baz=352						
NSK	Sanguang	0.98	333	⇓*i*P	Pn	21 17 57.3	-0.6
	baz=331						
NSK				S	Sn	21 18 09.1	-1.6
	baz=331						
ELDTW	Lidau	0.98	232	⇑*i*P	Pn	21 17 56.7	-1.2
	baz=232						
ELDTW				*e*S	Sn	21 18 09.0	-1.8
	baz=232						
ALS	Alishan	1.00	253	*i* P	Pn	21 17 58.3	0.0
	baz=253						
ALS				*e*S	Sn	21 18 11.1	-0.3
	baz=253						
WNT	Mingjian	1.07	274	P	Pn	21 17 59.3	+0.1
	baz=273						
WNT				*e*S	Sn	21 18 13.7	+0.6
	baz=273						
CHN5	Tsauling	1.10	259	*i* P	Pn	21 17 59.1	-0.4
	baz=259						
CHN5				S	Sn	21 18 14.3	+0.6
	baz=259						
TWQ1	Liyutan	1.12	299	*i* P	Pn	21 17 59.8	-0.1
	baz=298						
TWQ1				S	Sn	21 18 14.2	-0.1
	baz=298						
TCU	Taichung	1.13	288	P	Pn	21 18 00.2	+0.3
	baz=287						
TCU				*e*S	Sn	21 18 15.0	+0.6
	baz=287						
NSTT	Nanjuang	1.13	317	P	Pn	21 18 00.3	+0.2
	baz=315						
NSTT				S	Sn	21 18 14.6	+0.1
	baz=315						
NSY	Sanyi	1.17	302	P	Pn	21 18 00.5	0.0
	baz=300						
NSY				*e*S	Sn	21 18 15.4	0.0
	baz=300						
WGK	Gukeng	1.19	264	P	Pn	21 18 00.7	-0.1
	baz=264						
WGK				*e*S	Sn	21 18 17.4	+1.4
	baz=264						
STYT	Tauyuan	1.19	238	⇑*i*P	Pn	21 18 00.7	-0.2
	baz=238						
STYT				*e*S	Sn	21 18 15.7	-0.4
	baz=238						
TWA	Mucha	1.20	348	*e*P	Pn	21 18 01.1	+0.2
	baz=346						
TWA				S	Sn	21 18 15.8	-0.3
	baz=346						
TWG	Pinlang	1.22	216	*e*P	Pn	21 17 59.9	-1.3
	baz=217						
TWG				*e*S	Sn	21 18 14.5	-2.1
	baz=217						
CHN4	Tsaushan	1.24	249	P	Pn	21 18 02.1	+0.5
	baz=249						
CHN4				*e*S	Sn	21 18 17.7	+0.5
	baz=249						
YOJ	Yonaguni jima	1.24	58	*e*S	Sn	21 18 18.4	+1.1
NWF	Wu-fen Shan	1.26	357	*e*P	Pn	21 18 02.1	+0.3
	baz=355						
NWF				*e*S	Sn	21 18 18.3	+0.6
	baz=355						
WTP	Ta-pu	1.27	244	P	Pn	21 18 02.0	+0.1
	baz=244						
WTP				*e*S	Sn	21 18 18.6	+0.8
	baz=244						
CHN2	Minshiung	1.29	258	P	Pn	21 18 02.8	+0.6
	baz=258						
CHN2				S	Sn	21 18 19.8	+1.3
	baz=258						
TWS1	Kuangyinshan	1.35	343	*e*P	Pn	21 18 03.1	+0.1
	baz=341						
TWS1				*e*S	Sn	21 18 20.0	+0.1
	baz=341						
TWK	Hsinying	1.36	247	*e*P	Pn	21 18 03.8	+0.6
	baz=247						
TWK				*e*S	Sn	21 18 20.7	+0.5
	baz=247						
CHN1	Nanshi	1.36	243	*e*P	Pn	21 18 03.4	+0.2
	baz=243						
CHN1				S	Sn	21 18 21.1	+0.9
	baz=243						
SGST	Jiashian	1.37	239	P	Pn	21 18 03.9	+0.6
	baz=238						
SGST				*e*S	Sn	21 18 21.4	+1.0
	baz=238						
WTCT	Ta-ch’eng	1.44	273	P	Pn	21 18 04.2	-0.1
	baz=272						
WTCT				S	Sn	21 18 23.1	+0.9
	baz=272						
ECL	Taimali	1.46	215	*e*P	Pn	21 18 02.5	-2.0
	baz=215						
ECL				*e*S	Sn	21 18 20.4	-2.2
	baz=215						
WSF	Szhu	1.50	264	*e*P	Pn	21 18 05.0	-0.1
	baz=263						
WSF				*e*S	Sn	21 18 24.1	+0.4
	baz=263						
SSD	Sandimen	1.54	227	*e*P	Pn	21 18 06.1	+0.5
	baz=227						
SSD				S	Sn	21 18 25.6	+1.0
	baz=227						
CHN3	Shinhua	1.55	242	*e*P	Pn	21 18 06.3	+0.6
	baz=242						
CHN3				*e*S	Sn	21 18 26.8	+2.0
	baz=242						
CHN8	Yiju	1.57	253	P	Pn	21 18 05.8	-0.3
	baz=253						
CHN8				*e*S	Sn	21 18 25.9	+0.4
	baz=253						
SCLT	Jiali	1.65	248	*e*P	Pn	21 18 07.2	+0.1
	baz=248						
SCLT				*e*S	Sn	21 18 28.2	+0.9
	baz=248						
IRIF	Iriomote-Funau	1.79	73	P	Pn	21 18 09.7	+0.6
IRIF				*e*S	Sn	21 18 31.8	+0.9
HATJ	Hateruma jima	1.80	82	P	Pn	21 18 09.9	+0.6
HATJ				*e*S	Sn	21 18 31.7	+0.6
JKRS	Kuro-shima	2.02	77	P	Pn	21 18 13.0	+0.8
JKRS				*e*S	Sn	21 18 37.6	+1.2
JIJ	Ishigaki jima	2.17	75	P	Pn	21 18 14.4	+0.2
JIJ				S	Sn	21 18 39.6	-0.4
JTJ	Tarama	2.73	72	P	Pn	21 18 22.3	+0.3

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*ISCJB **06** 21:20:47.5±0.7, 31°.59S±0°.05×68°.05W±0°.08, h130^{km}±6^{km}, mb3.8/4, Error ellipse: s-maj=11.3km s-min=8.0km az=14.2*

*GUC **06** 21:20:49.8±0.6, 31°.69S×68°.29W, h150^{km}, ML3.8*

*NEIC **06** 21:20:49.8, 31°.69S×68°.29W, h150^{km}, mb3.6/2, After GUC.*

*IDC **06** 21:20:49.3±1.1, 31°.48S×68°.31W, h108^{km}±5^{km}, mb3.2/1, mb1 3.3/2, mb1mx3.2/15, mbtmp3.3/2, Error ellipse: s-maj=60.0km s-min=22.2km az=82.0*

ISC 06 21:20:48.5±0.7**, 31°.58S**±0°.05×**68°.03W**±0°.08**, h123**^{km}±5^{km}**, n26, σ1^{s}.22**/33**, mb3.9**/4**, 1C-2D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	0.18	261	P	Pn	21 21 04.9	-0.6
	37nm,0.3s,baz=85,slow=3.6,SNR=2893						
CFAA				S	Sn	21 21 16.8	-1.4
	40nm,0.3s,baz=294,slow=20,SNR=135						
CMCH	Combarbala	2.57	278	⇓*i*P	Pn	21 21 30.1	+0.8
CMCH				*e*S	Sn	21 22 01.0	+0.2
CMCH	Combarbala	2.57	278	⇓*i*P	Pn	21 21 30.1	+0.8
CMCH				*e*S	Sn	21 22 01.0	+0.2
CMCH				AML	AML	21 22 03.2	
	comp=E,811nm,0.8s						
FCH	Farellones	2.59	227	*e*P	Pn	21 21 30.3	+0.7
FCH				*e*S	Sn	21 22 01.5	+0.3
PEL	Peldehue	2.74	234	⇑*e*P	Pn	21 21 31.5	0.0
PEL				*i* S	Sn	21 22 03.0	-1.5
PEL				AML	AML	21 22 06.1	
	comp=E,170nm,0.2s						
LMEL	Las Melosas	2.91	218	*e*P	Pn	21 21 34.8	+1.1
CHNG	Los Chungos	2.97	263	*e*P	Pn	21 21 34.3	-0.2
CHNG				*i* S	Sn	21 22 07.9	-2.1
RCDM	Rinconada Maip	3.02	230	*e*P	Pn	21 21 36.9	+1.7
RCDM				*i* S	Sn	21 22 11.4	+0.2
RCDM	Rinconada Maip	3.02	230	*e*P	Pn	21 21 36.9	+1.7
RCDM				*i* S	Sn	21 22 11.4	+0.2
RCDM				AML	AML	21 22 14.6	
	comp=E,175nm,0.1s						
LCO	Las Campanas	3.44	317	*e*Pn	Pn	21 21 42.6	+1.8
LCO				*e*Sn	Sn	21 22 22.7	+1.6
LVC	Limon Verde	8.96	355	P	Pn	21 22 56.2	+1.1
	comp=E,0.8nm,0.3s,baz=179,slow=9.2,SNR=11						
LVC				S	Sn	21 24 30.7	-3.6
	comp=E,0.2nm,0.3s,baz=210,slow=16,SNR=2.3						
NNA	Nana	21.12	335	P	P	21 25 22.8	-0.7
OTAV	Otavalo	33.15	341	P	P	21 27 12.8	-0.4
BCIP	Isla Barro Col	42.06	342	P	P	21 28 27.3	-0.8
JTS	JuntasAbangare	44.67	336	*e*P	P	21 28 48.6	-0.6
BBGH	Gun Hill	45.20	12	P	P	21 28 52.8	-0.4
MIAR	Mount Ida	70.03	338	P	P	21 31 51.1	+4.3
ACSO	Alum Creek Sta	72.78	348	*e*P	P	21 32 02.9	-0.3
	comp=E,18nm,0.6s,mb5.1						
ANMO	Albuquerque	75.40	328	*e*P	P	21 32 19.0	+0.5
	comp=E,0.7nm,0.4s,mb3.7						
TSUM	Tsumeb	76.58	104	P	P	21 32 23.5	-2.2
SDCO	Great Sand Dun	77.33	330	*e*P	P	21 32 27.5	-1.8
	comp=E,0.3nm,0.4s,mb3.4						
TORD	Torodi Ar. Bea	80.19	68	P	P	21 32 48.5	+3.0
	comp=E,0.2nm,0.4s,mb3.3,baz=278,slow=6.9,SNR=4.9						
LBTB	Lobatse	80.20	113	P	P	21 32 47.6	+2.0
WRA	Warramunga Arr	124.46	206	PKP	PKPdf	21 39 35.2	+1.6
	comp=E,0.4nm,0.8s,baz=167,slow=1.7,SNR=6.3						
ZALV	Zalesovo Beam	150.37	33	PKPbc	PKPbc	21 40 28.1	+3.4
	comp=E,0.7nm,0.4s,baz=332,slow=2.5,SNR=4.3						
MKAR	Makanchi Array	152.63	48	PKPbc	PKPbc	21 40 33.6	+3.4
	comp=E,0.2nm,0.9s,baz=292,slow=2.3,SNR=3.6						
MKAR				PKPab	PKPab	21 40 44.6	+3.3
	comp=E,0.6nm,1.0s,baz=288,slow=1.7,SNR=3.2						

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*IDC **06** 21:44:38.8±1.0, 36°.39N×71°.16E, h0^{km}, mb3.8/7, mb1 3.9/12, mb1mx3.7/27, mbtmp3.8/12, ML3.6/5, Error ellipse: s-maj=22.2km s-min=19.5km az=69.0*

*ISCJB **06** 21:44:48.2±0.8, 36°.82N±0°.03×71°.20E±0°.07, h89^{km}±10^{km}, mb3.6/10, Error ellipse: s-maj=10.2km s-min=4.8km az=160.8*

*NEIC **06** 21:44:48.6±1.5, 36°.69N×71°.04E, h77^{km}±13^{km}, mb3.6/4, Error ellipse: s-maj=14.6km s-min=8.3km az=195.0*

*BJI **06** 21:44:52.2, 36°.65N×71°.71E, h30^{km}, mb3.7/1, ML3.8/4*

*NNC **06** 21:44:52.9±2.4, 37°.57N×70°.68E, h0^{km}, mb4.0, mpv4.1, Error ellipse: s-maj=18.7km s-min=18.1km az=105.0*

ISC 06 21:44:48.8±0.8**, 36°.79N**±0°.04×**71°.13E**±0°.07**, h80**^{km}±9^{km}**, n59, σ1^{s}.51**/70**, mb3.6**/10**, 7C-4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	3.02	168	⇑P	Pn	21 45 39.6	+5.2
CEP				S	Sn	21 46 16.0	+6.4
KSH	Kashi	4.69	53	Pn	Pn	21 45 55.8	-1.3
KSH				Sn	Sn	21 46 43.0	-7.2
KSH				smax			
	comp=N,440nm,0.6s						
KSH				smax			
	comp=E,230nm,0.7s						
SARP	Sargodha	5.02	165	P	Pn	21 46 04.5	+2.9
AML	Almayashu	5.70	20	P	Pn	21 46 12.8	+2.0
	SNR=17						
AML	Almayashu	5.70	20	*e*Pn	Pn	21 46 12.8	+2.0
AML				*e*Sn	Sn	21 47 15.6	+0.9
THN	Thein Dam	5.76	138	*e*PKP	Pn	21 46 15.4	+3.7
THN				*e*x	x	21 47 20.4	
DLH	Dalhousie	5.81	135	*e*x	x	21 46 20.0	
KZA	Kyzart	6.17	30	P	Pn	21 46 19.4	+2.2
	SNR=12						
EKS2	Erkin-Say	6.21	18	P	Pn	21 46 20.1	+2.3
	SNR=5.6						
EKS2	Erkin-Say	6.21	18	*e*Pn	Pn	21 46 19.6	+1.8
EKS2				*e*Sn	Sn	21 47 23.9	-3.5
KK31	Karatay Array	6.33	356	⇓Pn	Pn	21 46 19.9	+0.5
	comp=E,13nm,0.5s						
KK31				⇑Sn	Sn	21 47 27.5	-2.6
	comp=E,9.0nm,0.5s						
AAK	Ala-Archa	6.39	23	P	Pn	21 46 22.8	+2.5
	SNR=7.5						
AAK	Ala-Archa	6.39	23	*e*Pn	Pn	21 46 22.3	+2.0
AAK				*e*S	Sn	21 47 31.8	+0.1
CHMS	Chumysh	6.80	23	P	Pn	21 46 27.5	+1.6
	SNR=11						
USP	Ospenovka	6.97	21	P	Pn	21 46 29.6	+1.4
	SNR=12						
TKM2	Tokmak 2	7.03	28	*e*Pn	Pn	21 46 31.4	+2.5
TKM2	Tokmak 2	7.03	28	⇓Pn	Pn	21 46 30.9	+2.0
	comp=E,21nm,1.6s						
TKM2				⇓Sn	Sn	21 47 45.8	-1.4
	comp=E,5.7nm,0.6s						
TKM2				⇑Lg		21 48 22.6	
	comp=E,13nm,0.9s						
DDI	Dehra Dun	8.65	136	*e*x	x	21 47 26.9	
JOSI	Joshimath	9.37	129	*e*PKP	Pn	21 47 00.7	-0.3
JOSI				*e*S	Sn	21 48 38.6	-6.1
JOSI				AML	AML	21 48 51.5	
	comp=E,91nm,0.6s						
JOSI				AML	AML	21 48 52.1	
	comp=N,68nm,0.6s						
KHET	Khetri	9.54	154	*e*S	Sn	21 48 42.4	-6.5
KHET				AML	AML	21 48 51.3	
	comp=N,17nm,0.5s						
KHET				AML	AML	21 48 51.5	
	comp=E,19nm,0.3s						
AYAN	Aya Nagar	9.70	147	*e*S	Sn	21 48 46.1	-6.6
KUDL	Kundal	9.73	151	*e*S	Sn	21 48 46.5	-7.0
KUDL				AML	AML	21 48 53.1	
	comp=E,21nm,0.5s						
KUDL				AML	AML	21 48 55.7	
	comp=N,11nm,0.4s						
SONA	Sohna	9.88	148	*e*PKP	Pn	21 47 08.9	+1.0
SONA				*e*S	Sn	21 48 50.1	-7.0
SONA				AML	AML	21 48 58.4	
	comp=N,11nm,0.2s						
SONA				AML	AML	21 48 58.7	
	comp=E,19nm,0.4s						
AGRA	Agra	11.14	147	*e*S	Sn	21 49 19.5	-8.4
MKAR	Makanchi Array	13.00	36	Pn	Pn	21 47 50.6	+0.5
	comp=E,0.1nm,0.3s,baz=222,slow=14,SNR=17						
PYUN	Piuthan	13.23	127	*e*P	Pn	21 47 52.3	-1.0
DANN	Dangsing	13.56	125	*e*P	Pn	21 47 57.8	+0.1
KOLN	Koldanda	13.85	127	*e*P	Pn	21 48 00.9	-0.6
GKN	Gorkha	14.37	124	*e*P	Pn	21 48 07.7	-0.6
AB08	Akbulak array	14.88	330	⇑Pn	Pn	21 48 11.9	-2.8
	comp=E,0.9nm,0.4s						
AB08				⇑Sn	Sn	21 50 48.4	-10
	comp=E,1.3nm,0.6s						
KURK	Kurchatov	14.93	19	Pn	Pn	21 48 11.7	-3.6
	comp=E,0.1nm,0.3s,baz=206,slow=11,SNR=1.9						
KKN	Kakani	14.94	123	*e*P	Pn	21 48 15.7	+0.1
DMN	Daman	14.94	124	*e*P	Pn	21 48 14.4	-1.3
GUN	Gumba	15.27	121	*e*P	Pn	21 48 20.5	+0.6
	comp=E,31nm,0.9s						
JIRN	Jiri	15.64	121	*e*P	Pn	21 48 22.9	-1.7
	comp=E,6.7nm,0.3s						
VOSK	Vostochnaya	15.94	360	⇓Pn	Pn	21 48 25.3	-2.8
	comp=E,2.7nm,1.1s						
BVA0	Borovoye Array	16.25	358	Pn	Pn	21 48 30.4	-1.5
	baz=174,slow=8.5,SNR=7.4						
BVAR	Borovoye Array	16.25	358	Pn	Pn	21 48 30.6	-1.4
	comp=E,0.3nm,0.3s,baz=155,slow=11,SNR=9.6						
BRVK	Borovoye	16.28	358	*e*Pn	Pn	21 48 33.3	+0.9
	comp=E,2.0nm,0.6s						
RAMN	Ramite	16.38	122	*e*P	Pn	21 48 30.9	-2.9
	comp=E,8.1nm,0.5s						
AKTK	Aktyubinsk	16.59	329	Pn	Pn	21 48 36.5	+0.3
AKTK				Sn	Sn	21 51 26.3	-13
AKTO	Aktyubinsk	16.59	329	Pn	Pn	21 48 36.5	+0.3
	comp=E,0.5nm,0.3s,baz=158,slow=7.8,SNR=9.3						
AKTO				Sn	Sn	21 51 26.3	-13
	comp=E,0.0nm,0.3s,baz=210,slow=20,SNR=2.9						
AKTO	Aktyubinsk	16.59	329	⇑Pn	Pn	21 48 33.5	-2.6
	comp=E,0.6nm,1.1s						
AKTO				⇑Sn	Sn	21 51 31.8	-7.9
	comp=E,0.4nm,1.1s						
TAPN	Taplejung	16.89	119	*e*P	Pn	21 48 38.7	-1.4
	comp=E,6.7nm,0.5s						
LSA	Lhasa	18.16	107	*e*Pn	Pn	21 48 56.8	+1.2
	comp=E,4.0nm,0.6s						
ZAA0	Zalesovo Array	19.61	25	*e*P	Pn	21 49 09.2	-3.4
ZALV	Zalesovo Beam	19.61	25	P	Pn	21 49 10.4	-2.2
	comp=E,0.3nm,0.3s,baz=223,slow=10,SNR=14						
GNI	Garni	20.91	287	*e*P	P	21 49 23.9	-0.8
GTA	Gaotai	22.69	75	*e*P	P	21 49 46.9	+3.3
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.7						
KIV	Kislovodsk	22.75	297	*e*P	P	21 49 44.1	-0.1
	comp=Z,3.7nm,1.0s,mb3.7						
SONM	Songino Array	28.09	56	P	P	21 50 34.4	+1.6
	comp=Z,0.8nm,0.7s,mb3.3,baz=270,slow=8.8,SNR=9.0						
ULN	Ulaanbaatar	28.53	56	*e*P	P	21 50 38.2	+1.5
	comp=Z,0.7nm,0.5s,mb3.5						
ARCES	ARCESS Array B	40.92	337	P	P	21 52 25.2	+2.4
	comp=Z,3.9nm,0.9s,mb4.2,baz=114,slow=9.0,SNR=3.3						
NOA	NORSAR Array B	44.22	323	P	P	21 52 52.2	+2.6
	comp=Z,0.6nm,0.6s,mb3.5,baz=114,slow=7.8,SNR=3.1						
TORD	Torodi Ar. Bea	65.83	269	P	P	21 55 26.1	+0.1
	comp=Z,0.5nm,0.7s,mb3.5,baz=46,slow=6.2,SNR=6.2						
YKA	Yellowknife Ar	80.96	3	P	P	21 56 55.3	+1.2
	comp=Z,0.6nm,0.7s,mb3.5,baz=347,slow=5.4,SNR=14						
YKA	Yellowknife Ar	80.96	3	P	P	21 56 55.3	+1.2
WRA	Warramunga Arr	82.05	122	P	P	21 57 00.5	+0.1
	comp=Z,0.6nm,0.5s,mb3.7,baz=324,slow=5.0,SNR=10						
ASAR	Alice Springs	84.33	125	P	P	21 57 12.2	+0.1
	comp=Z,0.4nm,0.6s,mb3.5,baz=307,slow=5.3,SNR=7.6						

IDC 06 22:05:52.8±3.6**, 5°.17S**×**148°.37E, h0**^{km}**, mb3.5**/4**, mb1 3.8**/4**, mb1mx3.5**/16**, mbtmp3.6**/4**, MS3.1**/1**, Ms1 3.3**/1**, ms1mx2.5**/19**, Error ellipse: s-maj=109.8km s-min=30.2km az=107.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	20.05	222	P	P	22 10 28.4	+0.7
	0.7nm,0.3s,baz=48,slow=12,SNR=21						
ASAR	Alice Springs	23.08	216	P	P	22 11 01.2	+1.0
	1.1nm,0.5s,baz=48,slow=8.5,SNR=17						
FITZ	Fitzroy Crossi	25.66	238	P	P	22 11 22.7	-1.9
	1.9nm,0.8s,baz=54,slow=14,SNR=4.8						
CMAR	Chiang Mai Arr	54.08	297	LR	LR	22 39 08.6	
	comp=Z,20nm,20.9s,baz=60,slow=37						
MKAR	Makanchi Array	77.74	320	P	P	22 17 52.3	+0.6
	0.2nm,0.4s,baz=127,slow=4.3,SNR=7.1						
TORD	Torodi Ar. Bea	146.20	286	PKPbc	PKPbc	22 25 35.1	-1.1
	0.4nm,0.8s,baz=62,slow=2.4,SNR=4.4						

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*ISK **06** 22:13:25.9, 36°.97N×29°.22E, h10^{km}, MD2.8*

*ISCJB **06** 22:13:26.3±0.6, 36°.98N±0°.04×29°.21E±0°.04, h5^{km}±7^{km}, Error ellipse: s-maj=7.1km s-min=4.5km az=136.5*

*CSEM **06** 22:13:26.4±0.1, 36°.97N×29°.22E, h10^{km}, MD2.8, Error ellipse: s-maj=3.2km s-min=2.9km az=132.0*

*DDA **06** 22:13:26.9, 37°.06N×29°.16E, h7^{km}±6^{km}, Md2.9*

ISC 06 22:13:26.7±0.5**, 36°.98N**±0°.04×**29°.21E**±0°.05**, h10**^{km}±6^{km}**, n28, σ0^{s}.54**/42**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.35	196	*e*PG	Pg	22 13 32.9	-0.7
FETY				*e*SG	Sg	22 13 38.9	+0.5
FETY	Fethiye	0.35	196	*e*Pg	Pg	22 13 32.9	-0.8
FETY				*e*Sg	Sg	22 13 38.9	+0.5
GOLH	Golhisar	0.38	47	⇑*i*P	Pg	22 13 33.5	-0.8
GOLH				*i* S	Sg	22 13 40.0	+0.6
GOLH	Golhisar	0.38	47	*i* P	Pg	22 13 33.5	-0.8
GOLH				*i* S	Sg	22 13 40.0	+0.6
TURN	Turunc	0.50	258	*e*P	Pg	22 13 40.8	+4.4
TURN				*e*S	Sg	22 13 52.9	+10
TURN	Turunc	0.50	258	*e*P	Pg	22 13 40.8	+4.4
DALT	Dalyan (Mudla)	0.50	246	*e*PG	Pg	22 13 36.2	-0.3
DALT				*e*SG	Sg	22 13 43.7	+0.6
DALT	Dalyan (Mudla)	0.50	246	*e*Pg	Pg	22 13 36.2	-0.3
DALT				*e*Sg	Sg	22 13 43.7	+0.6
ELL	Elmali	0.61	112	*e*PG	Pg	22 13 38.0	-0.4
ELL	Elmali	0.61	112	*e*Pg	Pg	22 13 38.0	-0.4
YER	Yerkesik	0.76	282	*e*PG	Pg	22 13 41.6	+0.3
YER	Yerkesik	0.76	282	*e*Pg	Pg	22 13 41.6	+0.3
DENT	Denizli	0.79	350	*e*PG	Pg	22 13 41.6	-0.3
DENT	Denizli	0.79	350	*e*Pg	Pg	22 13 41.6	-0.4
AKAS	Kas	0.81	157	*e*P	Pg	22 13 42.8	+0.6
AKAS				*e*S	Sg	22 13 58.6	+5.9
AKAS	Kas	0.81	157	*e*P	Pg	22 13 42.8	+0.6
AYDN	Tasoluk	1.26	303	*e*P	Pn	22 13 49.7	-0.7
AYDN				*e*S	Sb	22 14 07.0	0.0
AYDN	Tasoluk	1.26	303	*e*P	Pn	22 13 49.7	-0.7
AYDN				*e*S	Sb	22 14 06.9	0.0
DAT	Datca	1.33	260	*e*PN	Pn	22 13 51.1	-0.2
DAT	Datca	1.33	260	*e*Pn	Pn	22 13 51.1	-0.3
KHAL	Karahalli	1.41	9	*e*P	Pn	22 13 52.8	+0.3
KHAL				*e*S	Sn	22 14 12.0	+0.8
KHAL	Karahalli	1.41	9	*e*P	Pn	22 13 52.8	+0.3
KHAL				*e*S	Sn	22 14 12.0	+0.8
BDRM	Kayabasi	1.42	274	*e*P	Pn	22 13 52.0	-0.5
BDRM				*e*S	Sn	22 14 11.1	-0.2
BDRM	Kayabasi	1.42	274	*e*P	Pn	22 13 52.0	-0.5
BDRM				*e*S	Sn	22 14 11.1	-0.1
BODT	Bodrum	1.52	274	*e*PN	Pn	22 13 54.7	+0.7
BODT	Bodrum	1.52	274	*e*Pn	Pn	22 13 54.7	+0.7
KULA	Kula-Manisa	1.60	344	*e*PN	Pn	22 13 54.8	-0.3
KULA	Kula-Manisa	1.60	344	*e*Pn	Pn	22 13 54.8	-0.2

DDA 06 22:56:57.2, 36°.41N×40°.89E, h7^{km}±4^{km}**, Md3.7, Ml3.6, 1C, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARD	Mardin	0.91	354	*e*P	Pg	22 57 15.1	+0.4
MARD				*e*S	Sg	22 57 28.9	+2.4
BEST	Besiri	1.51	11	⇑*i*P	Pn	22 57 25.6	+1.0
BEST				*i* S	Sn	22 57 46.5	+2.0
DIYA	Diyarbakir	1.64	338	*e*P	Pn	22 57 27.7	+1.4
DIYA				*e*S	Sn	22 57 50.4	+2.9
MSL	Mosul	1.79	90	*e*x	x	22 57 33.0	
MSL				*e*x	x	22 57 57.0	
ELZG	Elazig	2.58	325	*e*P	Pn	22 57 46.2	+6.8
ELZG				*e*S	Sn	22 58 17.9	+7.0
KUZU	Kuzuini	3.10	278	*e*P	Pn	22 57 53.7	+7.3
KUZU				*e*S	Sn	22 58 34.0	+10

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*IDC **06** 23:14:15.0±0.8, 36°.42N×71°.14E, h0^{km}, mb4.1/10, mb1 4.3/15, mb1mx4.0/29, mbtmp4.2/15, ML4.1/5, MS2.9/1, Ms1 2.9/1, ms1mx2.3/36, Error ellipse: s-maj=18.9km s-min=16.5km az=25.0*

*ISCJB **06** 23:14:25.1±0.5, 36°.87N±0°.02×71°.26E±0°.04, h84^{km}±6^{km}, mb4.1/21, Error ellipse: s-maj=6.1km s-min=3.3km az=166.3*

*MOS **06** 23:14:26.8±1.2, 36°.98N×71°.17E, h92^{km}, mb4.0/8, Error ellipse: s-maj=11.3km s-min=6.5km az=91.4*

*BJI **06** 23:14:29.0, 37°.14N×71°.42E, h95^{km}, mB4.9/8, mb4.4/17*

*NEIC **06** 23:14:30.3±1.0, 37°.04N×71°.25E, h105^{km}±8^{km}, mb4.3/14, Error ellipse: s-maj=9.1km s-min=6.1km az=194.0*

*NNC **06** 23:14:33.0±5.6, 37°.40N×70°.75E, h148^{km}±57^{km}, mb3.6, mpv4.7, Error ellipse: s-maj=44.7km s-min=27.4km az=17.0*

ISC 06 23:14:26.3±0.5**, 36°.87N**±0°.02×**71°.24E**±0°.05**, h81**^{km}±5^{km}**, n117, σ1^{s}.65**/143**, mb4.1**/21**, 11C-8D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	3.09	170	⇑P	Pn	23 15 15.9	+3.1
CEP				S	Sn	23 15 54.0	+5.3
KSH	Kashi	4.57	53	P	Pn	23 15 32.2	-0.7
KSH				S	Sn	23 16 18.9	-5.8
KSH				smax			
	comp=N,2µm,0.5s						
KSH				smax			
	comp=E,1µm,0.9s						
SBDP	Sheikh Budin	4.57	185	P	Pn	23 15 34.5	+1.5
SARP	Sargodha	5.07	166	P	Pn	23 15 40.9	+1.1
AML	Almayashu	5.59	19	P	Pn	23 15 48.9	+2.1
	SNR=78						
AML	Almayashu	5.59	19	*e*Pn	Pn	23 15 48.8	+2.0
	comp=E,82nm,0.5s						
AML				*e*Sn	Sn	23 16 49.9	+0.3
THN	Thein Dam	5.76	139	*e*PKP	Pn	23 15 50.5	+1.3
THN				*e*S	Sn	23 16 55.4	+1.6
DLH	Dalhousie	5.81	137	*e*PKP	Pn	23 15 53.0	+3.1
DLH				*e*S	Sn	23 16 57.4	+2.3
UCH	Uchtor	5.92	24	*e*Pn	Pn	23 15 54.1	+2.8
	comp=E,13nm,0.6s						
UCH				*e*Sn	Sn	23 16 57.8	+0.2
KZA	Kyzart	6.05	30	P	Pn	23 15 55.6	+2.4

	SNR=8.4						
EKS2	Erkin-Say	6.11	18	P	Pn	23 15 55.9	+2.1
	SNR=34						
EKS2	Erkin-Say	6.11	18	ePn	Pn	23 15 55.9	+2.0
	comp=E,40nm,0.6s						
EKS2				eSn	Sn	23 16 59.8	-2.4
KK31	Karatay Array	6.25	355	PN	Pn	23 15 56.0	+0.1
KK31				pmax	pmax		
	comp=Z,81nm,0.5s						
KK31	Karatay Array	6.25	355	⇓P	Pn	23 15 56.1	+0.2
	comp=Z,41nm,0.5s,baz=177,slow=13						
KK31				⇓S	Sn	23 17 02.6	-3.3
	comp=Z,71nm,0.7s,baz=183,slow=24						
AAK	Ala-Archa	6.28	22	ePN	Pn	23 15 58.8	+2.6
AAK				pmax	pmax		
	comp=Z,25nm,0.4s						
AAK	Ala-Archa	6.28	22	P	Pn	23 15 58.8	+2.6
	SNR=18						
AAK	Ala-Archa	6.28	22	ePn	Pn	23 15 58.8	+2.6
	comp=Z,25nm,0.4s						
AAK				eSn	Sn	23 17 06.9	+0.4
KBK	Karagaybulak	6.45	25	P	Pn	23 16 01.8	+3.3
	SNR=10						
ULHL	Ulahol	6.61	34	P	Pn	23 16 03.8	+3.0
	SNR=7.8						
CHMS	Chumysh	6.69	23	P	Pn	23 16 03.9	+2.0
	SNR=24						
USP	Ospenovka	6.86	20	P	Pn	23 16 05.6	+1.4
	SNR=16						
TKM2	Tokmak 2	6.91	28	ePN	Pn	23 16 07.1	+2.3
TKM2				pmax	pmax		
	comp=Z,59nm,1.0s						
TKM2	Tokmak 2	6.91	28	P	Pn	23 16 07.2	+2.4
	SNR=6.3						
TKM2	Tokmak 2	6.91	28	ePn	Pn	23 16 07.1	+2.3
	comp=Z,59nm,1.0s						
TKM2				eSn	Sn	23 17 23.3	+1.4
TKM2	Tokmak 2	6.91	28	⇓P	Pn	23 16 07.2	+2.4
	comp=Z,70nm,1.4s						
TKM2				⇓S	Sn	23 17 22.0	+0.1
	comp=Z,19nm,0.6s						
BHK	Bhakra	6.92	140	ex	x	23 16 17.0	
BHK				ex	x	23 17 19.2	
SDNR	Sundarnagar	7.15	137	ePKP	Pn	23 16 09.0	+0.8
SDNR				eS	Sn	23 17 28.0	+0.1
DDI	Dehra Dun	8.65	137	ePKP	Pn	23 16 32.1	+3.4
DDI				ex	x	23 18 08.4	
JOSI	Joshimath	9.36	130	ePKP	Pn	23 16 39.8	+1.5
JOSI				eS	Sn	23 18 19.4	-2.4
JOSI				AML	AML	23 18 27.7	
	comp=E,394nm,0.5s						
JOSI				AML	AML	23 18 28.4	
	comp=N,266nm,0.6s						
KHET	Khetri	9.58	155	ePKP	Pn	23 16 39.6	-1.6
KHET				eS	Sn	23 18 20.8	-6.4
KHET				AML	AML	23 18 24.9	
	comp=N,79nm,0.3s						
KHET				AML	AML	23 18 25.0	
	comp=E,68nm,0.4s						
NDI	New Delhi	9.58	147	ex	x	23 16 14.0	
NDI				eS	Sn	23 18 22.0	-5.3
AYAN	Aya Nagar	9.72	148	eS	Sn	23 18 24.1	-6.5
SONA	Sohna	9.90	149	ePKP	Pn	23 16 44.0	-1.7
SONA				eS	Sn	23 18 29.1	-6.0
SONA				AML	AML	23 18 34.7	
	comp=N,57nm,0.0s						
SONA				AML	AML	23 18 34.9	
	comp=E,69nm,0.6s						
AJM	Ajmer	10.75	163	ePKP	Pn	23 16 56.0	-1.3
AJM				ex	x	23 18 49.0	
AGRA	Agra	11.16	148	eS	Sn	23 18 57.5	-8.3
MK31	Makanchi Array	12.88	36	⇓P	Pn	23 17 26.4	+0.4
	comp=E,18nm,0.9s,baz=225,slow=16,SNR=42						
MKAR	Makanchi Array	12.88	36	Pn	Pn	23 17 26.6	+0.6
	comp=E,0.3nm,0.3s,baz=224,slow=17,SNR=50						
PYUN	Piuthan	13.21	128	eP	Pn	23 17 28.1	-2.4
	comp=E,26nm,0.4s						
DANN	Dangsing	13.53	125	eP	Pn	23 17 33.2	-1.6
	comp=E,22nm,0.4s						
KOLN	Koldanda	13.82	127	eP	Pn	23 17 37.0	-1.6
	comp=E,18nm,0.5s						
WMQ	Urumqi	14.33	56	eP	Pn	23 17 46.1	+1.1
WMQ				sP		23 18 17.0	
WMQ				S	Sn	23 20 22.0	-0.5
WMQ				pmax	pmax		
	comp=Z,12nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,130nm,5.2s						
GKN	Gorkha	14.34	124	eP	Pn	23 17 43.0	-2.3
KURBB	Kurchatov Arra	14.71	19	⇑P	Pn	23 17 48.0	-2.0
	comp=Z,0.8nm,0.7s						
KURK	Kurchatov	14.82	19	P	Pn	23 17 52.7	+1.4
KURK				e		23 20 31.6	
KURK				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KURK	Kurchatov	14.82	19	Pn	Pn	23 17 48.1	-3.2
	comp=Z,0.1nm,0.3s,baz=215,slow=12,SNR=8.9						
KURK	Kurchatov	14.82	19	Pn	Pn	23 17 52.7	+1.3
	comp=Z,6.6nm,1.0s						
KURK				eSn	Sn	23 20 31.6	-2.8
KURK	Kurchatov	14.82	19	⇑P	Pn	23 17 54.2	+2.9
	comp=Z,4.9nm,0.8s						
AB01	Akbulak array	14.86	330	⇑P	Pn	23 17 47.8	-4.1
	comp=Z,5.5nm,0.4s						
AB01				⇑S	Sn	23 20 22.6	-13
	comp=Z,13nm,0.9s						
AB31	Akbulak array	14.86	330	P	Pn	23 17 47.7	-4.2
AB31				pmax	pmax		
	comp=Z,6.0nm,0.3s						
KKN	Kakani	14.91	123	eP	Pn	23 17 50.6	-2.1
DMN	Daman	14.91	124	eP	Pn	23 17 51.2	-1.5
PKIN	Phulchoki	15.13	124	eP	Pn	23 17 53.9	-1.5
PKI	Pulchoki	15.14	124	eP	Pn	23 17 53.8	-1.8
GUN	Gumba	15.24	122	eP	Pn	23 17 55.5	-1.3
	comp=Z,113nm,0.9s						
JIRN	Jiri	15.61	122	eP	Pn	23 18 00.4	-1.1
	comp=Z,28nm,0.4s						
VOSK	Vostochnaya	15.86	359	⇑P	Pn	23 18 01.8	-2.6
	comp=Z,8.3nm,1.1s						
VOSK				⇑S	S	23 20 48.7	-20
	comp=Z,5.8nm,1.1s						
BVA0	Borovoye Array	16.17	358	P	Pn	23 18 06.8	-1.6
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BVA0	Borovoye Array	16.17	358	⇑P	Pn	23 18 06.6	-1.8
	comp=Z,1.5nm,1.0s,baz=276,slow=36,SNR=31						
BVA0				⇑S	S	23 21 00.3	-15
	comp=Z,1.5nm,1.3s,baz=170,slow=25,SNR=4.7						
BVAR	Borovoye Array	16.17	358	Pn	Pn	23 18 06.3	-2.0
	comp=Z,1.0nm,0.3s,baz=156,slow=10,SNR=31						
BRVK	Borovoye	16.20	358	eP	Pn	23 18 07.0	-1.8
BRVK				e		23 21 03.6	
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BRVK	Borovoye	16.20	358	ePn	Pn	23 18 07.0	-1.9
	comp=Z,5.6nm,0.6s						
BRVK				eSn	Sn	23 21 03.6	-4.2
RAMN	Ramite	16.34	123	eP	Pn	23 18 08.9	-1.9
	comp=Z,23nm,0.4s						
AKTK	Aktyubinsk	16.56	329	Pn	Pn	23 18 11.1	-2.2
AKTK				Sn	Sn	23 21 03.1	-13
AKTO	Aktyubinsk	16.56	329	Pn	Pn	23 18 11.1	-2.2
	comp=Z,1.9nm,0.3s,baz=146,slow=8.3,SNR=32						
AKTO				Sn	Sn	23 21 03.1	-13
	comp=Z,0.3nm,0.3s,baz=348,slow=20,SNR=3.2						
AKTO	Aktyubinsk	16.56	329	⇓P	Pn	23 18 11.0	-2.2
	comp=Z,2.9nm,1.0s						
AKTO				⇓S	S	23 21 02.6	-21
	comp=Z,1.2nm,0.9s						
TAPN	Taplejung	16.85	120	eP	Pn	23 18 16.0	-1.0
	comp=Z,21nm,0.5s						
ODAN	Odare	16.94	121	eP	Pn	23 18 16.2	-1.9
	comp=Z,39nm,0.7s						
LSA	Lhasa	18.10	107	P	Pn	23 18 33.0	+0.8
LSA	Lhasa	18.10	107	eP	Pn	23 18 33.8	+1.6
LSA				pmax	pmax		
	comp=Z,14nm,0.6s						
LSA	Lhasa	18.10	107	eP	Pn	23 18 33.8	+1.5
	comp=Z,14nm,0.6s						
ZAA0	Zalesovo Array	19.50	25	eP	Pn	23 18 46.7	-2.0
ZALV	Zalesovo Beam	19.50	25	P	Pn	23 18 46.6	-2.1
	comp=Z,1.4nm,0.3s,baz=222,slow=10,SNR=25						
ZALV				LR	LR	23 28 02.7	
	comp=Z,32nm,18.2s,baz=89,slow=42						
HYB	Hyderabad	20.42	160	i P	P	23 19 01.0	+4.0
HYB	Hyderabad	20.42	160	eP	P	23 19 01.0	+4.0
SHL	Shillong	20.89	117	⇓iP	P	23 19 04.0	+2.0
GNI	Garni	20.97	287	⇑eP	P	23 19 07.8	+5.1
GNI				pmax	pmax		
	comp=Z,9.0nm,1.3s						
GNI	Garni	20.97	287	P	P	23 19 01.8	-0.9
	comp=Z,1.8nm,0.5s,baz=114,slow=2.9,SNR=6.0						
GNI	Garni	20.97	287	eP	P	23 19 05.5	+2.8
	comp=Z,13nm,1.0s						
ARU	Arti	21.35	340	eP	P	23 19 05.8	-0.8
ARU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
ARU	Arti	21.35	340	eP	P	23 19 05.8	-0.8
	comp=Z,8.7nm,0.8s,mb4.1						
GTA	Gaotai	22.58	75	eP	P	23 19 23.2	+3.4
GTA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.1						
KIV	Kislovodsk	22.79	297	eP	P	23 19 21.0	-1.0
KIV				eS	S	23 23 24.8	0.0
KIV				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.7						
KIV	Kislovodsk	22.79	297	eP	P	23 19 23.7	+1.6
	comp=Z,4.4nm,0.5s,mb4.0						
MOY	Mondy	25.71	45	eP	P	23 19 53.1	+4.4
MALT	Malatya	25.97	283	eP	P	23 19 52.5	+1.3
LZH	Lanzhou	26.16	82	eP	P	23 19 57.8	+4.8
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.3						
LZH				pmax	pmax		
	comp=Z,95nm,5.0s						
ZAK	Zakamensk	26.60	49	⇑eP	P	23 19 58.4	+1.6
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.9						
SONM	Songino Array	27.97	56	P	P	23 20 10.8	+1.8
	comp=Z,2.9nm,0.7s,mb3.9,baz=268,slow=9.1,SNR=31						
ULN	Ulaanbaatar	28.41	56	eP	P	23 20 13.8	+0.9
ULN				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
ULN	Ulaanbaatar	28.41	56	eP	P	23 20 13.8	+0.9
	comp=Z,3.5nm,0.7s,mb4.0						
KMI	Kunming	29.30	105	P	P	23 20 24.9	+3.8
KMI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.9						
OBN	Obninsk	29.79	319	eP	P	23 20 24.4	-0.7
OBN				e		23 21 26.9	
OBN				eS	S	23 25 13.5	-2.0
OBN				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.4						
HHC	Hu-ho-hao-te	31.45	70	eP	P	23 20 42.7	+2.8
HHC				pP	pP	23 21 07.4	+8.6
HHC				sP	sP	23 21 20.3	+12
HHC				PP	PP	23 21 49.9	-2.3
HHC				PcP	PcP	23 23 33.4	+2.1
HHC				eS	S	23 25 38.9	-3.0
HHC				sS	sS	23 26 21.9	+7.5
HHC				PcS	PcS	23 27 17.2	+1.6
HHC				SS	SS	23 27 33.3	-26
HHC				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
HHC				pmax	pmax		
	comp=Z,66nm,9.9s						
HHC				LR	LR		
	comp=N,130nm,12.9s						
HHC				LR	LR		
	comp=E,340nm,15.9s						
HHC				LR	LR		
	comp=Z,97nm,11.9s						
ISP	Isparta	32.22	284	P	P	23 20 48.8	+2.1
KWP	Kalwaria Pacla	36.95	306	P	P	23 21 27.0	-0.3
PSZ	Piszkesteto	38.84	303	eP	P	23 21 43.5	+0.3
PSZ				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
PSZ	Piszkesteto	38.84	303	eP	P	23 21 43.5	+0.3
	comp=Z,1.8nm,0.8s,mb4.0						
ARCES	ARCESS Array B	40.88	337	P	P	23 22 00.6	+0.7
	comp=Z,3.0nm,0.8s,mb4.2,baz=98,slow=7.7,SNR=7.7						
TIP	Timpagrande	42.44	290	P	P	23 22 14.7	+1.7
HFS	Hagfors	42.90	322	P	P	23 22 17.2	+0.8
	comp=Z,2.6nm,0.5s,mb4.2,baz=88,slow=11,SNR=12						
NB2	NORSAR Subarra	44.21	323	P	P	23 22 29.3	+2.4
	comp=Z,1.6nm,0.6s,mb3.9,baz=97,slow=7.9						
NOA	NORSAR Array B	44.21	323	P	P	23 22 29.0	+2.1
	comp=Z,1.4nm,0.5s,mb3.9,baz=96,slow=7.7,SNR=6.0						
YHNB	Yeheng	44.30	91	P	P	23 22 31.0	+2.9
KSRS	Korea Array	44.58	71	P	P	23 22 30.5	+0.3
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
KSRS	Korea Array	44.58	71	P	P	23 22 30.5	+0.3
	comp=Z,0.5nm,0.5s,mb3.5,baz=270,slow=7.0,SNR=4.0						
NACB	Ninganchiao	44.71	92	P	P	23 22 32.9	+1.5
TIXI	Tiksi	45.36	22	eP	P	23 22 35.3	-0.6
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.6						
TIXI	Tiksi	45.36	22	eP	P	23 22 36.3	+0.4
	comp=Z,9.8nm,0.8s,mb4.6						
WLF	Walferdange	47.66	307	P	P	23 22 53.7	-0.5
BILL	Bilibino	58.19	26	eP	P	23 24 14.0	+2.6
BILL				e*PP	pP	23 25 02.3	+30
BILL				eS	S	23 31 59.3	-7.1
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
TORD	Torodi Ar. Bea	65.92	269	P	P	23 25 02.1	-1.8
	comp=Z,0.5nm,0.4s,mb3.7,baz=50,slow=6.0,SNR=16						
PMR	Palmer	76.56	19	P	P	23 26 08.4	+1.1
YKA	Yellowknife Ar	80.87	3	P	P	23 26 31.5	+0.5
	comp=Z,2.3nm,0.7s,mb4.1,baz=348,slow=5.4,SNR=42						
WRA	Warramunga Arr	82.02	122	P	P	23 26 36.6	-1.0
	comp=Z,1.7nm,0.5s,mb4.2,baz=324,slow=5.0,SNR=15						
ASAR	Alice Springs	84.30	125	P	P	23 26 48.5	-0.8
	comp=Z,1.9nm,0.6s,mb4.1,baz=309,slow=5.0,SNR=27						
FFC	Flin Flon	88.59	356	i P	P	23 27 11.8	+2.0
CTAO	Charters Tower	90.52	115	P	P	23 27 20.4	+1.1

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*CSEM **06** 23:21:17.8±0.9, 50°.28N×19°.16E, h2km, Error ellipse: s-maj=20.2km s-min=10.9km az=7.0*

PRU 06 23:21:19.0, 50°.24N×19°.19E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.39	93	ePg	Pg	23 21 25.2	-1.3
OJC				eSg	Sg	23 21 30.6	-0.9
OKC	Ostrava-Krasne	0.78	239	ePG	Pg	23 21 34.3	+0.3
OKC				eSG	Sg	23 21 45.5	+1.4
OKC	Ostrava-Krasne	0.78	239	Pg	Pg	23 21 34.3	+0.3
OKC				Sg	Sg	23 21 45.5	+1.4
NIE	Niedzica	1.10	138	ePg	Pg	23 21 40.4	+0.4
NIE				eSg	Sg	23 21 56.7	+2.5
MORC	Moravsky Berou	1.16	247	ePg	Pg	23 21 40.4	-0.8
MORC				eSg	Sg	23 21 56.3	+0.1
STHS	Stebnicka Huta	1.56	121	eP	Pn	23 21 48.0	0.0
STHS				e		23 22 10.2	
STHS	Stebnicka Huta	1.56	121	ePN	Pn	23 21 48.0	0.0
STHS				eSN	Sn	23 22 10.1	+1.2
STHS	Stebnicka Huta	1.56	121	ePn	Pn	23 21 48.0	0.0
STHS				eSn	Sn	23 22 10.2	+1.3
VYHS	Vyhne	1.76	188	ePN	Pn	23 21 49.4	-1.3
VYHS				eSN	Sn	23 22 13.0	-0.8
VYHS	Vyhne	1.76	188	ePn	Pn	23 21 49.4	-1.3
VYHS				eSg	Sg	23 22 13.0	-2.6
DPC	Dobruska-Polom	1.84	275	eP	Pn	23 21 51.3	-0.5
DPC				e		23 22 17.1	
DPC	Dobruska-Polom	1.84	275	ePG	Pg	23 21 51.3	-3.0
DPC				eSG	Sg	23 22 17.1	-1.1
	comp=Z,2.9nm,0.6s						
DPC	Dobruska-Polom	1.84	275	Pg	Pg	23 21 51.3	-3.0
DPC				Sg	Sg	23 22 17.1	-1.1
	comp=Z,2.9nm,0.6s						
VRAC	Vranov	1.92	242	eSg	Sg	23 22 19.0	-1.8
PRU	Pruhonice	3.00	267	eSG	Sg	23 22 55.5	+0.1
KHC	Kasperske Hory	3.81	255	eSG	Sg	23 23 21.8	+0.5

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*NEIC **06** 23:27:20.6, 14°.63N×93°.98W, h20km, MD3.9(MEX), After MEX.*

MEX 06 23:27:20.6±1.9**, 14°.63N×93°.98W, h20km**±149km**, MD3.9, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.30	34	i P	Pn	23 27 39.3	-4.2
PCIG				i S	Sn	23 27 55.2	-5.2
TGIG		2.29	21	i P	Pn	23 27 55.4	-1.9
TGIG				i S	Sn	23 28 22.4	-2.5
CCIG	Comitan	2.42	47	i P	Pn	23 27 58.0	-1.0
CCIG				i S	Sn	23 28 25.6	-2.5
SCX	San Cristobal	2.46	32	i P	Pn	23 27 57.0	-2.6
SCX				i S	Sn	23 28 31.0	+1.9
CMIG	Matias Romero	2.60	341	i P	Pn	23 27 59.4	-2.0
CMIG				i S	Sn	23 28 28.6	-3.8
VHO	Vista Hermosa	3.59	313	eP	Pn	23 28 10.8	-4.4
VHO				i S	Sn	23 28 58.5	+1.5
PNIG	Pinotepa	4.36	294	eP	Pn	23 28 24.3	-1.5

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*IDC **06** 23:37:20.5±0.8, 34°.64N×73°.25E, h0km, mb4.0/9, mb1 4.0/13, mb1mx3.8/26, mbtmp3.9/13, ML3.7/4, MS3.5/1, Ms1 3.5/1, ms1mx2.2/36, Error ellipse: s-maj=22.3km s-min=18.7km az=87.0*

*ISCJB **06** 23:37:23.5±0.3, 34°.70N±0°.02×73°.48E±0°.04, h33km, mb3.8/12, Error ellipse: s-maj=4.9km s-min=3.2km az=160.2*

*MOS **06** 23:37:24.4±1.1, 34°.70N×73°.30E, h33km, mb4.1/2, Error ellipse: s-maj=12.3km s-min=7.3km az=86.9*

*NDI **06** 23:37:27.8±13.0, 34°.76N×73°.29E, h64km, ML3.7, mb3.7(NEIC)*

*NNC **06** 23:37:27.5±7.8, 35°.12N×72°.65E, h0km, mb3.7, mpv4.1, Error ellipse: s-maj=69.0km s-min=60.8km az=161.0*

*NEIC **06** 23:37:28.5±1.0, 34°.72N×73°.29E, h64km±10km, mb3.7/2, Error ellipse: s-maj=8.8km s-min=8.0km az=185.0*

*BJI **06** 23:37:31.1, 34°.90N×74°.15E, h30km, mb3.7/3, ML3.4/4*

ISC 06 23:37:25.6±0.3**, 34°.67N**±0°.02×**73°.38E**±0°.04**, h35km, n76, σ1^{s}17**/85**, mb3.8**/12**, 5C-4D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	1.48	236	⇑P	Pn	23 37 48.9	-0.8
CEP				S	Sn	23 38 08.0	+0.2
JMU	Jammu	2.32	146	ePKP	Pn	23 38 07.5	+6.2
JMU				ex	x	23 38 37.0	
THN	Thein Dam	2.96	138	ePKP	Pn	23 38 14.0	+3.9
THN				ex	x	23 38 57.2	
DLH	Dalhousie	3.03	134	ePKP	Pn	23 38 15.0	+4.0
SBDP	Sheikh Budin	3.19	223	P	Pn	23 38 15.0	+1.8
KBL	Kabul	3.58	269	eP	Pn	23 38 20.2	+1.7
KBL				eS	Sn	23 39 06.6	+7.0
BHK	Bhakra	4.12	141	ePKP	Px	23 38 36.6	
BHK				eS	Sn	23 39 17.8	+4.7
SDNR	Sundarnagar	4.37	135	ePKP	Pn	23 38 33.0	+3.6
SDNR				ex	x	23 39 24.0	
KSH	Kashi	5.27	22	Pn	Pn	23 38 40.8	-0.9
KSH				Sn	Sn	23 39 36.3	-4.9
KSH				smax			
	comp=N,94nm,0.4s						
KSH				smax			
	comp=E,110nm,0.2s						
DDI	Dehra Dun	5.86	136	ex	x	23 39 00.8	
DDI				ex	x	23 40 33.8	
JOSI	Joshimath	6.63	126	eS	Sn	23 40 13.1	-1.8
JOSI				AML	AML	23 41 06.5	
	comp=N,189nm,0.7s						
JOSI				AML	AML	23 41 06.8	
	comp=E,160nm,0.7s						
NDI	New Delhi	6.80	150	ePKP	Pn	23 39 12.0	+9.1
NDI				eS	Sn	23 40 20.0	+0.9
KHET	Khetri	6.89	162	eS	Sn	23 40 19.6	-1.7
KUDL	Kundal	7.02	157	eS	Sn	23 40 21.8	-2.7
SONA	Sohna	7.14	153	eS	Sn	23 40 24.8	-2.5
SONA				AML	AML	23 41 13.7	
	comp=E,38nm,0.3s						
SONA				AML	AML	23 41 13.7	
	comp=N,17nm,0.3s						
AML	Almayashu	7.46	2	ePn	Pn	23 39 14.8	+3.0
	comp=N,9.0nm,0.4s						
AML				eSn	Sn	23 40 34.2	-0.9
EKS2	Erkin-Say	7.99	2	ePn	Pn	23 39 22.4	+3.3
	comp=N,6.4nm,0.6s						
EKS2				eS	Sn	23 40 48.0	-0.2
AAK	Ala-Archa	8.00	6	eP	Pn	23 39 22.7	+3.4
AAK				e		23 40 48.4	
AAK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AAK	Ala-Archa	8.00	6	ePn	Pn	23 39 22.7	+3.4
	comp=Z,4.8nm,0.6s						
AAK				eSn	Sn	23 40 48.4	-0.1
TKM2	Tokmak 2	8.42	11	eP	Pn	23 39 28.4	+3.4
TKM2	Tokmak 2	8.42	11	⇓P	Pn	23 39 25.8	+0.8
	comp=Z,12nm,1.2s						
TKM2				⇑S	Sn	23 40 58.0	-0.8
	comp=Z,9.1nm,0.7s						
KK31	Karatay Array	8.71	346	⇑P	Pn	23 39 30.0	+1.0
	comp=Z,3.1nm,0.3s,baz=168,slow=12,SNR=188						
KK31				⇑S	Sn	23 41 04.5	-1.5
	comp=Z,6.4nm,0.6s,baz=175,slow=23,SNR=7.5						
PYUN	Piuthan	10.50	126	eP	Pn	23 39 54.2	+0.6
DANN	Dangsing	10.87	123	eP	Pn	23 39 58.8	+0.2
	comp=Z,36nm,0.3s						
KOLN	Koldanda	11.12	125	eP	Pn	23 40 02.7	+0.6
	comp=Z,11nm,0.3s						
GKN	Gorkha	11.69	122	eP	Pn	23 40 09.6	-0.3
	comp=Z,30nm,0.4s						
DMN	Daman	12.26	122	eP	Pn	23 40 18.0	+0.4
	comp=Z,12nm,0.3s						
KKN	Kakani	12.27	121	eP	Pn	23 40 17.3	-0.5
PKIN	Phulchoki	12.48	121	eP	Pn	23 40 20.6	-0.1
PKI	Pulchoki	12.49	121	eP	Pn	23 40 21.1	+0.2
	comp=Z,12nm,0.2s						
GUN	Gumba	12.63	119	eP	Pn	23 40 21.8	-0.9
	comp=Z,21nm,0.3s						
JIRN	Jiri	13.00	119	eP	Pn	23 40 27.6	-0.2
	comp=Z,27nm,0.3s						
RAMN	Ramite	13.71	121	eP	Pn	23 40 36.5	-1.0
	comp=Z,24nm,0.5s						
MK31	Makanchi Array	13.86	26	eP	Pn	23 40 41.0	+1.6
MK31	Makanchi Array	13.86	26	P	Pn	23 40 39.6	+0.3
	comp=Z,0.6nm,0.6s,baz=210,slow=14,SNR=13						
MKAR	Makanchi Array	13.86	26	Pn	Pn	23 40 39.2	-0.2
	comp=Z,0.1nm,0.3s,baz=212,slow=11,SNR=8.1						
TAPN	Taplejung	14.28	117	eP	Pn	23 40 44.2	-1.1
	comp=Z,18nm,0.3s						
LSA	Lhasa	15.84	103	eP	Pn	23 41 09.5	+3.7
KURK	Kurchatov	16.49	12	Pn	Pn	23 41 10.4	-3.6
	comp=Z,0.0nm,0.3s,baz=198,slow=12,SNR=4.3						
KURK	Kurchatov	16.49	12	ePn	Pn	23 41 13.9	-0.1
AB07	Akbulak array	17.61	330	⇓P	Pn	23 41 26.5	-1.6
	comp=Z,1.8nm,0.6s						
AB07				⇓S	S	23 44 31.9	-18
	comp=Z,3.6nm,1.2s						
VOSK	Vostochnaya	18.13	355	⇑P	Pn	23 41 35.6	+1.2
	comp=Z,1.5nm,0.7s						
BVA0	Borovoye Array	18.48	354	P	Pn	23 41 38.1	-0.5
	comp=Z,0.5nm,0.8s,baz=237,slow=40,SNR=24						
BVAR	Borovoye Array	18.48	354	P	Pn	23 41 39.0	+0.4
	comp=Z,0.7nm,0.3s,baz=156,slow=9.5,SNR=22						
BRVK	Borovoye	18.52	354	eP	Pn	23 41 39.3	+0.2
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BRVK	Borovoye	18.52	354	eP	Pn	23 41 39.3	+0.2
	comp=Z,1.7nm,0.5s						
AKTK	Aktyubinsk	19.34	329	P	Pn	23 41 47.5	-1.4
AKTO	Aktyubinsk	19.34	329	P	Pn	23 41 47.5	-1.5
	comp=Z,0.6nm,0.3s,baz=128,slow=11,SNR=12						
AKTO	Aktyubinsk	19.34	329	⇓P	Pn	23 41 47.3	-1.7
	comp=Z,0.6nm,0.6s						
ZAA0	Zalesovo Array	20.89	19	eP	P	23 42 04.6	+0.1
ZALV	Zalesovo Beam	20.89	19	P	P	23 42 03.9	-0.7
	comp=Z,6.8nm,0.4s,baz=212,slow=11,SNR=46						
NVS	Novosibirsk	21.31	16	eP	P	23 42 08.7	-0.4
GTA	Gaotai	21.59	70	eP	P	23 42 14.5	+2.2
GTA				pP		23 42 18.7	
GTA				sP	sP	23 42 22.4	-3.6
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
GNI	Garni	23.34	292	P	P	23 42 30.1	-0.7
ARU	Arti	24.01	340	eP	P	23 42 36.8	0.0
ARU				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
ARU	Arti	24.01	340	eP	P	23 42 36.8	0.0
	comp=Z,3.0nm,0.6s,mb3.9						
KIV	Kislovodsk	25.37	301	P	P	23 42 49.1	-0.2
KIV	Kislovodsk	25.37	301	P	P	23 42 49.1	-0.2
ZAK	Zakamensk	26.82	45	eP	P	23 43 05.0	+2.6
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.3						
TLY	Talaya	27.59	43	P	P	23 43 08.7	-0.5
CHTO	Chiang Mai	27.65	118	P	P	23 43 11.3	+1.2
SONM	Songino Array	27.86	52	P	P	23 43 13.3	+1.6

	comp=Z,0.5nm,0.8s,mb3.2,baz=256,slow=9.0,SNR=4.8						
SONM				LR	LR	23 55 53.7	
	comp=Z,92nm,18.9s,baz=127,slow=40						
CMAR	**Chiang Mai Arr**	**27.88**	**119**	P	**P**	**23 43 17.6**	**+5.4**
	comp=Z,0.9nm,0.3s,mb3.9,baz=306,slow=9.6,SNR=12						
PALK	**Pallekele**	**28.09**	**164**	P	**P**	**23 43 15.0**	**+1.0**
MALT	**Malatya**	**28.23**	**288**	P	**P**	**23 43 12.2**	**-2.9**
ENH	**Enshi**	**30.67**	**88**	*e*P	**P**	**23 43 35.4**	**-1.4**
ARCES	**ARCESS Array B**	**43.57**	**338**	P	**P**	**23 45 25.6**	**-0.1**
	comp=Z,2.9nm,0.8s,mb4.0,baz=112,slow=7.4,SNR=10						
YAK	**Yakutsk**	**44.36**	**34**	P	**P**	**23 45 32.3**	**+0.2**
NOA	**NORSAR Array B**	**47.00**	**324**	P	**P**	**23 45 53.1**	**+0.2**
	comp=Z,0.8nm,0.6s,mb3.8,baz=99,slow=7.8,SNR=2.7						
TORD	**Torodi Ar. Bea**	**67.65**	**271**	P	**P**	**23 48 18.6**	**-0.7**
	comp=Z,1.2nm,0.5s,mb4.2,baz=47,slow=5.7,SNR=55						
BOSA	**Boshof**	**77.64**	**222**	P	**P**	**23 49 18.8**	**+0.4**
	comp=Z,1.2nm,0.5s,mb4.1,baz=16,slow=9.5,SNR=4.3						
WRA	**Warramunga Arr**	**79.37**	**123**	P	**P**	**23 49 28.9**	**+0.9**
	comp=Z,0.3nm,0.3s,mb3.7,baz=323,slow=5.0,SNR=3.8						
ASAR	**Alice Springs**	**81.61**	**126**	P	**P**	**23 49 41.2**	**+1.2**
	comp=Z,0.8nm,0.8s,mb3.7,baz=312,slow=5.2,SNR=6.8						
YKA	**Yellowknife Ar**	**82.97**	**4**	P	**P**	**23 49 46.8**	**+0.2**
YKA	**Yellowknife Ar**	**82.97**	**4**	P	**P**	**23 49 46.9**	**+0.3**
YKA	**Yellowknife Ar**	**82.97**	**4**	P	**P**	**23 49 46.8**	**+0.3**
	comp=Z,0.3nm,0.5s,mb3.6,baz=347,slow=5.2,SNR=11						

IDC 06 23:55:35.5±1.6**, 7°.68S×127°.27E, h0^{km}, mb3.4**/2**, mb1 3.9**/4**, mb1mx3.6**/16**, mbtmp3.7**/4**, Error ellipse: s-maj=254.9km s-min=29.5km az=64.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**13.98**	**151**	Pn	Pn	23 58 53.6	-1.4
	0.7nm,0.3s,baz=328,slow=12,SNR=11						
WRA				Sn	Sn	00 01 25.3	-5.8
	0.4nm,0.3s,baz=326,slow=24,SNR=3.9						
ASAR	**Alice Springs**	**17.12**	**159**	P	Pn	23 59 37.5	+1.2
	0.2nm,0.3s,baz=338,slow=12,SNR=18						
MKAR	**Makanchi Array**	**67.34**	**328**	P	P	00 06 32.3	0.0
	0.1nm,0.4s,baz=121,slow=7.1,SNR=9.0						
ZALV	**Zalesovo Beam**	**71.02**	**335**	P	P	00 06 55.2	+0.2
	0.4nm,0.6s,baz=144,slow=5.4,SNR=3.1						

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*ISCJB **06** 23:57:36.6±0.9, 38°.34N±0°.03×25°.94E±0°.05, h9^{km}±5^{km}, Error ellipse: s-maj=7.1km s-min=5.1km az=0.6*
*CSEM **06** 23:57:36.2±0.3, 38°.33N×25°.92E, h2^{km}, ML2.6/2, Error ellipse: s-maj=6.9km s-min=4.9km az=86.0*
*DDA **06** 23:57:36.7, 38°.37N×26°.00E, h7^{km}±6^{km}, Md2.8*
*THE **06** 23:57:37.0, 38°.36N×25°.98E, h13^{km}, ML2.6/2, Error ellipse: s-maj=0.9km s-min=0.5km az=85.0*
ISC 06 23:57:36.5±0.8**, 38°.34N**±0°.03×**25°.93E**±0°.05**, h12^{km}**±4^{km}**, n18, σ0^{s}.76**/36**, 1D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHOS	**Chios island**	**0.11**	**66**	P	**Pg**	**23 57 39.6**	**+0.2**
CHOS				S	**Sg**	**23 57 41.5**	**0.0**
CHOS	**Chios island**	**0.11**	**66**	P	**Pg**	**23 57 39.6**	**+0.2**
CHOS				S	**Sg**	**23 57 41.5**	**0.0**
URLA	**Izmir**	**0.53**	**88**	⇓*i*P	**Pg**	**23 57 46.9**	**+0.1**
URLA				*i* S	**Sg**	**23 57 53.6**	**-0.1**
URLA	**Izmir**	**0.53**	**88**	*i* P	**Pg**	**23 57 46.9**	**+0.1**
URLA				*i* S	**Sg**	**23 57 53.6**	**-0.1**
SIGR	**SIGRI**	**0.87**	**356**	P	**Pg**	**23 57 53.0**	**-0.3**
SIGR				S	**Sg**	**23 58 05.6**	**+0.9**
SIGR	**SIGRI**	**0.87**	**356**	P	**Pg**	**23 57 53.0**	**-0.3**
SIGR				S	**Sg**	**23 58 05.6**	**+0.9**
BLCB	**Balcova**	**0.88**	**87**	P	**Pg**	**23 57 53.0**	**-0.4**
BLCB				S	**Sg**	**23 58 04.8**	**-0.1**
BLCB	**Balcova**	**0.88**	**87**	P	**Pg**	**23 57 53.0**	**-0.4**
BLCB				S	**Sg**	**23 58 04.8**	**-0.1**
PRK	**Paraskevi**	**0.94**	**16**	P	**Pg**	**23 57 54.3**	**-0.4**
PRK				S	**Sg**	**23 58 07.4**	**+0.4**
PRK	**Paraskevi**	**0.94**	**16**	P	**Pg**	**23 57 54.3**	**-0.4**
PRK				S	**Sg**	**23 58 07.4**	**+0.4**
AYVA	**Ayvalik**	**1.13**	**31**	*e*P	**Pb**	**23 57 57.3**	**-0.7**
AYVA				*e*S	**Sb**	**23 58 11.6**	**-1.1**
AYVA	**Ayvalik**	**1.13**	**31**	*e*P	**Pb**	**23 57 57.3**	**-0.7**
AYVA				*e*S	**Sb**	**23 58 11.6**	**-1.2**
GCAM	**G?zelcaml?**	**1.21**	**121**	*e*P	**Pn**	**23 57 57.9**	**-1.4**
GCAM				*e*S	**Sb**	**23 58 15.5**	**+0.5**
GCAM	**G?zelcaml?**	**1.21**	**121**	*e*P	**Pn**	**23 57 57.9**	**-1.4**
GCAM				*e*S	**Sb**	**23 58 15.5**	**+0.5**
APE	**Apeiranthos**	**1.31**	**194**	P	**Pn**	**23 58 00.4**	**-0.2**
APE				S	**Sb**	**23 58 18.1**	**+0.3**
APE	**Apeiranthos**	**1.31**	**194**	P	**Pn**	**23 58 00.4**	**-0.2**
APE				S	**Sb**	**23 58 18.1**	**+0.3**
AKHS	**Akhisar**	**1.57**	**69**	*e*P	**Pn**	**23 58 07.1**	**+2.9**
AKHS				*e*S	**Sn**	**23 58 25.3**	**+0.8**
AKHS	**Akhisar**	**1.57**	**69**	*e*P	**Pn**	**23 58 07.1**	**+2.9**
AKHS				*e*S	**Sn**	**23 58 25.3**	**+0.8**

IDC 07 00:05:58.5±2.5**, 11°.22S×161°.84E, h0^{km}, mb3.9**/5**, mb1 4.0**/6**, mb1mx3.9**/19**, mbtmp3.9**/6**, MS3.9**/4**, Ms1 3.9**/4**, ms1mx3.2**/24**, Error ellipse: s-maj=50.5km s-min=31.6km az=95.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**2.57**	**313**	Pn	Pn	00 06 41.3	-0.1
	48nm,0.3s,baz=164,slow=9.9,SNR=6.7						
HNR				Sn	Sn	00 07 15.0	+1.6
	85nm,0.3s,baz=233,slow=24,SNR=3.8						
STKA	**Stephens Creek**	**27.78**	**219**	LR	LR	00 21 39.9	
	comp=Z,156nm,19.6s,baz=295,slow=34						
WRA	**Warramunga Arr**	**27.84**	**248**	P	P	00 11 50.4	+0.4
	1.4nm,0.7s,baz=76,slow=9.8,SNR=5.7						
ASAR	**Alice Springs**	**29.32**	**241**	P	P	00 12 01.9	-1.1
	0.9nm,0.7s,baz=74,slow=9.8,SNR=3.7						
FITZ	**Fitzroy Crossi**	**35.64**	**255**	P	P	00 12 59.4	+0.9
	3.0nm,1.0s,baz=95,slow=11,SNR=2.7						
FITZ				LR	LR	00 26 03.5	
	comp=Z,84nm,19.6s,baz=218,slow=34						
SONM	**Songino Array**	**76.58**	**325**	P	P	00 17 51.7	+0.9
	1.5nm,0.9s,baz=129,slow=3.9,SNR=4.1						
SONM				LR	LR	00 49 56.6	
	comp=Z,57nm,19.6s,baz=52,slow=34						
MAW	**Mawson**	**83.11**	**202**	LR	LR	00 54 22.3	
	comp=Z,293nm,20.1s,baz=246,slow=35						
MKAR	**Makanchi Array**	**91.04**	**317**	P	P	00 19 04.3	-0.6
	0.2nm,0.4s,baz=105,slow=5.2,SNR=8.0						

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*UPP **07** 00:20:49.5, 67°.86N×20°.18E, h0^{km}, ML1.7, Mining explosion.*
*CSEM **07** 00:20:49.5±0.9, 67°.88N×20°.30E, h2^{km}, ML1.2, Error ellipse: s-maj=19.6km s-min=10.5km az=69.0, Mining explosion.*
HEL 07 00:20:51.0±0.3**, 67°.91N×20°.49E, h0^{km}, ML1.1, ML1.7**(UPP)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.07**	**304**	*i* P	Pg	00 20 52.0	-0.4
KUA				*i* S	Sg	00 20 53.7	+0.4
LANU	**Lannavaara**	**0.58**	**76**	*e*P	Pg	00 21 02.9	+0.8
LANU				*e*S	Sg	00 21 09.1	-0.5
LANU	**Lannavaara**	**0.58**	**76**	Pg	Pg	00 21 02.9	+0.8
LANU				Sg	Sg	00 21 09.1	-0.5
MASU	**Masugnsbyn**	**0.74**	**128**	*i* P	Pg	00 21 04.5	-0.5
MASU	**Masugnsbyn**	**0.74**	**128**	P	Pg	00 21 04.5	-0.6
KIF	**Kilpisjarvi**	**1.10**	**6**	*e*PB	Pb	00 21 12.4	-0.5
KIF				*e*S	Sg	00 21 24.1	-2.2
KIF				MSG		00 21 24.1	
	comp=Z,1.7nm,0.2s						
KIF				*e*RG		00 21 32.6	
KIF	**Kilpisjarvi**	**1.10**	**6**	Pg	Pg	00 21 12.4	+0.3
KIF				Sg	Sg	00 21 24.1	-2.2
HEF	**Hetta**	**1.28**	**66**	MSG		00 21 35.0	
	comp=Z,1.2nm,0.1s						
HEF				*e*SN	Sn	00 21 35.0	+1.0
HEF	**Hetta**	**1.28**	**66**	Sg	Sg	00 21 35.0	+2.8
SGF	**Sodankyl**	**2.35**	**99**	*e*SG	Sg	00 22 03.0	-3.5
SGF				MSG		00 22 03.0	
	comp=Z,0.7nm,0.2s						
ARA0	**ARCESS Array S**	**2.45**	**46**	*e*P	Pn	00 21 31.2	-0.9
	baz=222						
ARA0				MSG		00 22 04.4	
	comp=Z,0.9nm,0.2s						
ARA0				*e*SB	Sb	00 22 04.4	-2.1
ARA0	**ARCESS Array S**	**2.45**	**46**	Pn	Pn	00 21 31.2	-0.9
RNF	**Rovaniemi**	**2.51**	**119**	*e*P	Pn	00 21 31.6	-1.4
	baz=301						
RNF				*e*SB	Sb	00 22 05.5	-2.8
RNF				MSG		00 22 05.5	
	comp=Z,0.9nm,0.2s						
RNF	**Rovaniemi**	**2.51**	**119**	Pn	Pn	00 21 31.6	-1.4

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*NEIC **07** 00:22:30.7, 35°.84N×27°.00E, h21^{km}, MD3.3(ATH), After ATH.*
*ATH **07** 00:22:30.7, 35°.84N×27°.00E, h21^{km}±5^{km}, MD3.3/4*
*THE **07** 00:22:32.9, 35°.85N×27°.05E, h15^{km}±4^{km}, Error ellipse: s-maj=5.8km s-min=1.0km az=104.0*
*ISCJB **07** 00:22:32.4±0.5, 35°.82N±0°.03×27°.00E±0°.03, h20^{km}±6^{km}, Error ellipse: s-maj=5.5km s-min=3.5km az=144.7*
*CSEM **07** 00:22:32.6±0.2, 35°.82N×27°.00E, h19^{km}, MD3.3, Error ellipse: s-maj=5.8km s-min=3.7km az=149.0*
*DDA **07** 00:22:33.9, 35°.87N×27°.35E, h14^{km}±2^{km}, Md3.3*
*ISK **07** 00:22:35.5, 35°.89N×27°.19E, h31^{km}, MD2.9*
ISC 07 00:22:32.1±0.5**, 35°.83N**±0°.03×**27°.00E**±0°.03**, h13^{km}**±4^{km}**, n48, σ0^{s}.87**/78**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	**Karpathos**	**0.31**	**154**	*e*PB	**Pg**	**00 22 38.0**	**-0.5**
KARP				*e*SB	**Sg**	**00 22 42.9**	**+0.1**
KARP	**Karpathos**	**0.31**	**154**	*e*Pb	**Pg**	**00 22 38.0**	**-0.5**
KARP				*e*Sb	**Sg**	**00 22 42.9**	**+0.1**
ZKR	**Zakros**	**0.95**	**222**	P	**Pg**	**00 22 49.9**	**-0.7**
ZKR				S	**Sg**	**00 23 05.3**	**+2.3**
ZKR	**Zakros**	**0.95**	**222**	P	**Pg**	**00 22 49.9**	**-0.7**
ZKR				S	**Sg**	**00 23 05.3**	**+2.3**
ARG	**Arkhangelos**	**0.99**	**67**	*e*PN	**Pg**	**00 22 49.9**	**-1.4**
ARG				*e*SN	**Sg**	**00 23 03.2**	**-1.1**
ARG	**Arkhangelos**	**0.99**	**67**	*e*Pn	**Pg**	**00 22 49.9**	**-1.4**
ARG				*e*Sn	**Sg**	**00 23 03.2**	**-1.1**
DAT	**Datca**	**1.01**	**28**	*e*PG	**Pg**	**00 22 51.6**	**-0.1**
DAT				*e*SG	**Sg**	**00 23 04.1**	**-0.8**
DAT	**Datca**	**1.01**	**28**	*e*Pg	**Pg**	**00 22 51.6**	**-0.1**
DAT				*e*Sg	**Sg**	**00 23 04.1**	**-0.8**
BODT	**Bodrum**	**1.25**	**12**	*e*PN	**Pn**	**00 22 56.2**	**+0.8**
BODT				*e*SN	**Sn**	**00 23 11.8**	**-0.4**
BODT	**Bodrum**	**1.25**	**12**	*e*Pn	**Pn**	**00 22 56.2**	**+0.8**
BODT				*e*Sn	**Sn**	**00 23 11.8**	**-0.4**
NPS	**Neapolis**	**1.26**	**244**	*e*PN	**Pn**	**00 22 54.8**	**-0.7**
NPS				*e*SN	**Sn**	**00 23 11.5**	**-0.8**
NPS	**Neapolis**	**1.26**	**244**	*e*Pn	**Pn**	**00 22 54.8**	**-0.7**
NPS				*e*Sn	**Sn**	**00 23 11.5**	**-0.8**
BDRM	**Kayabasi**	**1.28**	**16**	*i* P	**Pn**	**00 22 56.2**	**+0.4**
BDRM				*i* S	**Sb**	**00 23 14.9**	**+2.3**
BDRM	**Kayabasi**	**1.28**	**16**	*i* P	**Pn**	**00 22 56.2**	**+0.4**
BDRM				*i* S	**Sb**	**00 23 14.9**	**+2.3**
THR1	**Thera Island**	**1.35**	**294**	P	**Pn**	**00 22 56.5**	**-0.3**
THR1				S	**Sn**	**00 23 14.3**	**-0.3**
THR1	**Thera Island**	**1.35**	**294**	P	**Pn**	**00 22 56.5**	**-0.3**
THR1				S	**Sn**	**00 23 14.3**	**-0.3**
LAST	**Lasithi**	**1.41**	**242**	P	**Pn**	**00 22 57.1**	**-0.3**
LAST				S	**Sn**	**00 23 15.9**	**+0.1**
LAST	**Lasithi**	**1.41**	**242**	P	**Pn**	**00 22 57.1**	**-0.3**
LAST				S	**Sn**	**00 23 15.9**	**+0.1**
THR3	**Thira Island,**	**1.41**	**295**	P	**Pn**	**00 22 57.3**	**-0.3**
THR3	**Thira Island,**	**1.41**	**295**	P	**Pn**	**00 22 57.3**	**-0.3**
THR4	**Thira Island,**	**1.44**	**296**	P	**Pn**	**00 22 57.6**	**-0.3**
THR4	**Thira Island,**	**1.44**	**296**	P	**Pn**	**00 22 57.6**	**-0.3**
MLSB	**Milas**	**1.59**	**23**	*e*PN	**Pn**	**00 23 01.4**	**+1.4**
MLSB	**Milas**	**1.59**	**23**	*e*Pn	**Pn**	**00 23 01.4**	**+1.4**
DALT	**Dalyan (Mudla)**	**1.62**	**54**	*e*PN	**Pn**	**00 23 00.7**	**+0.2**
DALT	**Dalyan (Mudla)**	**1.62**	**54**	*e*Pn	**Pn**	**00 23 00.7**	**+0.2**
TURN	**Turunc**	**1.66**	**51**	*i* P	**Pn**	**00 22 56.7**	**-4.3**
TURN				*i* S	**Sn**	**00 23 12.7**	**-10**
TURN	**Turunc**	**1.66**	**51**	*i* P	**Pn**	**00 22 56.7**	**-4.3**
YER	**Yerkesik**	**1.67**	**38**	*e*PN	**Pn**	**00 23 01.4**	**+0.3**
YER	**Yerkesik**	**1.67**	**38**	*e*Pn	**Pn**	**00 23 01.4**	**+0.4**
APE	**Apeiranthos**	**1.71**	**317**	P	**Pn**	**00 23 00.8**	**-0.8**
APE				S	**Sn**	**00 23 22.8**	**-0.6**
APE	**Apeiranthos**	**1.71**	**317**	*e*PN	**Pn**	**00 23 01.0**	**-0.6**
APE	**Apeiranthos**	**1.71**	**317**	P	**Pn**	**00 23 00.8**	**-0.8**
APE	**Apeiranthos**	**1.71**	**317**	*e*Pn	**Pn**	**00 23 01.0**	**-0.6**
APE				S	**Sn**	**00 23 22.8**	**-0.6**
FETY	**Fethiye**	**1.87**	**64**	*e*PN	**Pn**	**00 23 03.7**	**-0.2**
FETY	**Fethiye**	**1.87**	**64**	*e*Pn	**Pn**	**00 23 03.7**	**-0.1**
GCAM	**G?zelcaml?**	**1.88**	**6**	*i* P	**Pg**	**00 23 07.8**	**-0.3**
GCAM				*i* S	**Sg**	**00 23 34.2**	**+1.7**
GCAM	**G?zelcaml?**	**1.88**	**6**	*i* P	**Pg**	**00 23 07.8**	**-0.3**
SMG	**Samos**	**1.88**	**356**	*e*PN	**Pn**	**00 23 04.0**	**0.0**
SMG	**Samos**	**1.88**	**356**	*e*Pn	**Pn**	**00 23 04.0**	**0.0**
SIVA	**Sivas**	**1.96**	**246**	P	**Pn**	**00 23 05.8**	**+0.7**
SIVA				S	**Sn**	**00 23 29.9**	**+0.4**
SIVA	**Sivas**	**1.96**	**246**	P	**Pn**	**00 23 05.8**	**+0.7**
SIVA				S	**Sn**	**00 23 29.9**	**+0.4**
AKAS	**Kas**	**2.15**	**78**	*i* P	**Pn**	**00 23 08.6**	**+0.9**
AKAS				*i* S	**Sn**	**00 23 34.4**	**+0.1**
AKAS	**Kas**	**2.15**	**78**	*i* P	**Pn**	**00 23 08.6**	**+0.9**
AKAS				*i* S	**Sn**	**00 23 34.4**	**+0.1**
GOLH	**Golhisar**	**2.50**	**55**	*i* P	**Pn**	**00 23 14.3**	**+1.8**
GOLH				*i* S	**Sn**	**00 23 42.0**	**-0.8**
GOLH	**Golhisar**	**2.50**	**55**	*i* P	**Pn**	**00 23 14.3**	**+1.8**
GOLH				*i* S	**Sn**	**00 23 42.0**	**-0.8**
CHOS	**Chios island**	**2.66**	**344**	P	**Pn**	**00 23 13.9**	**-0.8**
CHOS				S	**Sn**	**00 23 45.9**	**-0.9**
CHOS	**Chios island**	**2.66**	**344**	P	**Pn**	**00 23 13.9**	**-0.8**
CHOS				S	**Sn**	**00 23 45.9**	**-0.9**

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*ISCJB **07** 00:23:48.8±0.6, 35°.84N±0°.03×26°.97E±0°.03, h3^{km}±5^{km}, Error ellipse: s-maj=5.5km s-min=3.4km az=143.3*
*NEIC **07** 00:23:48.5, 35°.82N×27°.02E, h23^{km}, MD3.2(ISK), MD3.3(ATH), After ATH.*
*ATH **07** 00:23:48.5, 35°.82N×27°.02E, h23^{km}±8^{km}, MD3.3/4*
*CSEM **07** 00:23:49.1±0.2, 35°.83N×26°.95E, h5^{km}, MD3.3, Error ellipse: s-maj=6.3km s-min=4.3km az=148.0*
*THE **07** 00:23:51.2, 35°.86N×27°.02E, h16^{km}±8^{km}, Error ellipse: s-maj=10.2km s-min=1.4km az=96.0*
*DDA **07** 00:23:51.7, 35°.87N×27°.36E, h16^{km}±2^{km}, Md3.4*
*ISK **07** 00:23:52.7, 35°.86N×27°.14E, h32^{km}, MD3.2*
ISC 07 00:23:49.3±0.6**, 35°.83N**±0°.03×**26°.97E**±0°.03**, h7^{km}**±5^{km}**, n48, σ0^{s}.94**/73**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	**Karpathos**	**0.33**	**151**	*e*PB	**Pg**	**00 23 55.6**	**-0.1**
KARP				*e*SB	**Sg**	**00 24 00.0**	**0.0**
KARP	**Karpathos**	**0.33**	**151**	*e*Pb	**Pg**	**00 23 55.6**	**-0.1**
KARP				*e*Sb	**Sg**	**00 24 00.0**	**0.0**
ZKR	**Zakros**	**0.94**	**221**	P	**Pg**	**00 24 07.7**	**+0.3**
ZKR				S	**Sg**	**00 24 23.0**	**+3.3**
ZKR	**Zakros**	**0.94**	**221**	P	**Pg**	**00 24 07.7**	**+0.3**
ZKR				S	**Sg**	**00 24 23.0**	**+3.3**
ARG	**Arkhangelos**	**1.01**	**68**	*e*PN	**Pg**	**00 24 07.7**	**-1.1**
ARG				*e*SN	**Sg**	**00 24 21.0**	**-1.0**
ARG	**Arkhangelos**	**1.01**	**68**	*e*Pn	**Pg**	**00 24 07.7**	**-1.1**
ARG				*e*Sn	**Sg**	**00 24 21.0**	**-1.0**
DAT	**Datca**	**1.02**	**29**	*e*PG	**Pg**	**00 24 09.4**	**+0.4**
DAT				*e*SG	**Sg**	**00 24 22.6**	**+0.4**
DAT	**Datca**	**1.02**	**29**	*e*Pg	**Pg**	**00 24 09.4**	**+0.5**
DAT				*e*Sg	**Sg**	**00 24 22.6**	**+0.4**
NPS	**Neapolis**	**1.24**	**243**	*e*PN	**Pn**	**00 24 12.8**	**-0.3**
NPS				*e*SN	**Sn**	**00 24 29.9**	**-0.2**
NPS	**Neapolis**	**1.24**	**243**	*e*Pn	**Pn**	**00 24 12.8**	**-0.3**
NPS				*e*Sn	**Sn**	**00 24 29.9**	**-0.2**
BODT	**Bodrum**	**1.26**	**13**	*e*PN	**Pn**	**00 24 14.1**	**+0.8**
BODT	**Bodrum**	**1.26**	**13**	*e*Pn	**Pn**	**00 24 14.1**	**+0.8**
BDRM	**Kayabasi**	**1.29**	**17**	*i* P	**Pn**	**00 24 13.4**	**-0.3**
BDRM				*i* S	**Sb**	**00 24 31.9**	**+1.2**
BDRM	**Kayabasi**	**1.29**	**17**	*i* P	**Pn**	**00 24 13.4**	**-0.3**
BDRM				*i* S	**Sb**	**00 24 31.9**	**+1.3**
THR1	**Thera Island**	**1.33**	**294**	P	**Pn**	**00 24 14.1**	**-0.2**
THR1				S	**Sb**	**00 24 31.5**	**-0.4**
THR1	**Thera Island**	**1.33**	**294**	P	**Pn**	**00 24 14.1**	**-0.2**
THR1				S	**Sb**	**00 24 31.5**	**-0.4**
LAST	**Lasithi**	**1.39**	**242**	P	**Pn**	**00 24 14.9**	**-0.2**
LAST				S	**Sb**	**00 24 33.6**	**+0.1**
LAST	**Lasithi**	**1.39**	**242**	P	**Pn**	**00 24 14.9**	**-0.2**
LAST				S	**Sb**	**00 24 33.6**	**+0.1**
THR3	**Thira Island,**	**1.39**	**295**	P	**Pn**	**00 24 15.0**	**-0.1**
THR3	**Thira Island,**	**1.39**	**295**	P	**Pn**	**00 24 15.0**	**-0.1**
THR4	**Thira Island,**	**1.42**	**297**	P	**Pn**	**00 24 15.3**	**-0.2**
THR4	**Thira Island,**	**1.42**	**297**	P	**Pn**	**00 24 15.3**	**-0.2**
MLSB	**Milas**	**1.60**	**24**	*e*PN	**Pn**	**00 24 18.4**	**+0.4**
MLSB	**Milas**	**1.60**	**24**	*e*Pn	**Pn**	**00 24 18.4**	**+0.4**
DALT	**Dalyan (Mudla)**	**1.64**	**55**	*e*PN	**Pn**	**00 24 17.9**	**-0.6**
DALT	**Dalyan (Mudla)**	**1.64**	**55**	*e*Pn	**Pn**	**00 24 17.9**	**-0.7**
YER	**Yerkesik**	**1.68**	**39**	*e*PN	**Pn**	**00 24 18.9**	**-0.2**
YER	**Yerkesik**	**1.68**	**39**	*e*Pn	**Pn**	**00 24 18.9**	**-0.2**
TURN	**Turunc**	**1.68**	**51**	*i* P	**Pn**	**00 24 14.2**	**-4.9**
TURN				*i* S	**Sn**	**00 24 31.8**	**-9.0**
APE	**Apeiranthos**	**1.69**	**317**	P	**Pn**	**00 24 18.7**	**-0.6**
APE				S	**Sn**	**00 24 40.3**	**-0.9**
APE	**Apeiranthos**	**1.69**	**317**	*e*PB	**Pb**	**00 24 18.9**	**-1.9**
APE	**Apeiranthos**	**1.69**	**317**	*e*Pb	**Pb**	**00 24 18.9**	**-1.9**
APE				S	**Sn**	**00 24 40.3**	**-0.9**
SMG	**Samos**	**1.87**	**357**	*e*PN	**Pn**	**00 24 21.4**	**-0.4**
SMG	**Samos**	**1.87**	**357**	*e*Pn	**Pn**	**00 24 21.4**	**-0.4**
FETY	**Fethiye**	**1.89**	**64**	*e*PN	**Pn**	**00 24 21.6**	**-0.4**
FETY	**Fethiye**	**1.89**	**64**	*e*Pn	**Pn**	**00 24 21.6**	**-0.4**
SIVA	**Sivas**	**1.94**	**246**	P	**Pn**	**00 24 23.7**	**+1.0**
SIVA	**Sivas**	**1.94**	**246**	P	**Pn**	**00 24 23.7**	**+1.0**
AYDN	**Tasoluk**	**1.96**	**22**	*i* P	**Pn**	**00 24 25.9**	**+2.9**
AYDN				*i* S	**Sn**	**00 24 50.7**	**+2.8**
AYDN	**Tasoluk**	**1.96**	**22**	*i* P	**Pn**	**00 24 25.9**	**+2.9**
AYDN				*i* S	**Sn**	**00 24 50.7**	**+2.8**
AKAS	**Kas**	**2.17**	**79**	*i* P	**Pn**	**00 24 26.2**	**+0.3**
AKAS				*i* S	**Sn**	**00 24 51.3**	**-1.8**
AKAS	**Kas**	**2.17**	**79**	*i* P	**Pn**	**00 24 26.2**	**+0.3**
AKAS				*i* S	**Sn**	**00 24 51.3**	**-1.8**
GOLH	**Golhisar**	**2.52**	**55**	*i* P	**Pn**	**00 24 31.8**	**+1.2**
GOLH				*i* S	**Sn**	**00 25 05.0**	**+3.6**
GOLH	**Golhisar**	**2.52**	**55**	*i* P	**Pn**	**00 24 31.8**	**+1.2**
GOLH				*i* S	**Sn**	**00 25 05.0**	**+3.5**
ELL	**Elmali**	**2.55**	**68**	*e*PN	**Pn**	**00 24 31.7**	**+0.7**
ELL	**Elmali**	**2.55**	**68**	*e*Pn	**Pn**	**00 24 31.7**	**+0.7**
CHOS	**Chios island**	**2.65**	**344**	P	**Pn**	**00 24 31.9**	**-0.6**
CHOS	**Chios island**	**2.65**	**344**	P	**Pn**	**00 24 31.9**	**-0.6**

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*NIED **07** 00:25:00, 29°.30N×130°.50E, h32^{km}, Mw3.8 Best double couple: M$_0$5.60000×10^{14} NP1:φ$_s$64.00000°, δ56.00000°, λ109.00000°. NP2:φ$_s$212.00000°, δ38.00000°, λ64.00000°.*
*IDC **07** 00:25:12.1±3.8, 27°.80N×130°.62E, h0^{km}, mb3.5/5, mb1 3.5/6, mb1mx3.4/23, mbtmp3.4/6, ML2.9/1, Error ellipse: s-maj=87.3km s-min=42.2km az=7.0*
*JMA **07** 00:25:25.6±0.2, 29°.34N×130°.50E, h35^{km}±5^{km}, M3.5*
*ISCJB **07** 00:25:26.2±1.0, 29°.34N±0°.05×130°.5E±0°.1, h45^{km}±9^{km}, mb3.3/5, Error ellipse: s-maj=17.3km s-min=6.4km az=19.4*
ISC 07 00:25:26.9±1.0**, 29°.34N**±0°.05×**130°.5E**±0°.1**, h35^{km}**±11^{km}**, n13, σ0^{s}.90**/17**, mb3.3**/5**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JNN	**Nakanoshima**	**0.72**	**315**	P	**Pn**	**00 25 39.5**	**-1.0**
JNN				S	**Sn**	**00 25 50.1**	**-0.2**
JKC	**Kuchinoerabu**	**1.14**	**348**	P	**Pn**	**00 25 45.7**	**-0.7**
JKC				S	**Sn**	**00 26 00.4**	**-0.4**
JAM	**Amami Oshima**	**1.19**	**219**	P	**Pn**	**00 25 46.7**	**-0.3**
JAM				*e*S	**Sn**	**00 26 02.5**	**+0.6**
JTN	**Tanegashima 3**	**1.39**	**19**	P	**Pn**	**00 25 49.1**	**-0.6**
JTSR	**Tashiro 2**	**1.86**	**12**	P	**Pn**	**00 25 57.4**	**+1.1**
JTSR				*e*S	**Sn**	**00 26 19.5**	**+0.9**
JTK	**Tokunoshima**	**2.04**	**221**	P	**Pn**	**00 25 58.8**	**+0.1**
JSU	**Suzuyama**	**2.16**	**360**	P	**Pn**	**00 26 00.4**	**0.0**
JSU				*e*S	**Sn**	**00 26 26.2**	**+0.3**
KSRS	**Korea Array**	**8.37**	**346**	Pn	Px	00 27 36.1	
	0.1nm,0.3s,baz=162,slow=14,SNR=3.8						
SONM	**Songino Array**	**26.19**	**321**	P	**P**	**00 30 59.3**	**+1.3**
	0.8nm,0.7s,mb3.4,baz=139,slow=10,SNR=7.7						
MKAR	**Makanchi Array**	**41.04**	**309**	P	**P**	**00 33 05.8**	**-0.9**
	0.2nm,0.4s,mb3.1,baz=87,slow=10.0,SNR=9.6						
ZALV	**Zalesovo Beam**	**41.06**	**320**	P	**P**	**00 33 09.0**	**+2.2**
	0.3nm,0.3s,mb3.4,baz=100,slow=7.9,SNR=2.7						
RES	**Resolute Bay**	**72.13**	**11**	P	**P**	**00 36 45.6**	**-1.6**
	0.9nm,1.0s,mb3.7,baz=305,slow=2.5,SNR=5.0						
YKA	**Yellowknife Ar**	**74.88**	**26**	P	**P**	**00 37 03.1**	**-0.5**
	0.1nm,0.4s,mb3.1,baz=309,slow=5.3,SNR=2.6						

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*ISCJB **07** 01:32:00.9±0.7, 38°.83N±0°.04×141°.75E±0°.09, h77^{km}±4^{km}, mb3.3/3, Error ellipse: s-maj=12.7km s-min=5.2km az=21.8*
*NEIC **07** 01:32:02.1±1.4, 38°.81N×141°.92E, h85^{km}±13^{km}, MG3.1(JMA), Error ellipse: s-maj=30.4km s-min=13.8km az=116.0*
*JMA **07** 01:32:02.6, 38°.84N×141°.61E, h73^{km}±1^{km}, M3.1*
JMA Felt I J1.
*IDC **07** 01:32:08.7±15.0, 38°.60N×141°.27E, h127^{km}±101^{km}, mb3.0/3, mb1 3.1/5, mb1mx2.9/24, mbtmp2.9/5, ML3.0/2, Error ellipse: s-maj=193.5km s-min=30.1km az=62.0*
ISC 07 01:32:01.9±0.7**, 38°.83N**±0°.04×**141°.75E**±0°.09**, h72^{km}**±5^{km}**, n18, σ0^{s}.78**/29**, mb3.3**/3**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OFUJ	**Ofunato**	**0.26**	**347**	P	**Pn**	**01 32 13.8**	**+0.8**
OFUJ				S	**Sn**	**01 32 21.8**	**+0.7**
JMK	**Ichinoseki**	**0.43**	**287**	P	**Pn**	**01 32 14.1**	**-0.1**
JMK				S	**Sn**	**01 32 22.8**	**-0.4**
JIO	**Ouri**	**0.48**	**220**	P	**Pn**	**01 32 15.0**	**+0.3**
JIO				S	**Sn**	**01 32 24.0**	**-0.1**
JOM	**Ohasama**	**0.74**	**332**	P	**Pn**	**01 32 17.6**	**+0.3**
JOM				S	**Sn**	**01 32 28.6**	**-0.1**
JOU	**Okura**	**0.96**	**242**	P	**Pn**	**01 32 19.9**	**-0.1**
JOU				S	**Sn**	**01 32 32.9**	**-0.6**
JYK	**Kaneyama**	**1.09**	**275**	P	**Pn**	**01 32 21.1**	**-0.4**
JYK				S	**Sn**	**01 32 35.4**	**-0.8**
JMM	**Marumori**	**1.22**	**218**	P	**Pn**	**01 32 22.9**	**-0.3**
JMM				S	**Sn**	**01 32 37.8**	**-1.3**
JYS	**Shirataka**	**1.45**	**246**	P	**Pn**	**01 32 26.3**	**+0.1**
JYS				S	**Sn**	**01 32 44.3**	**-0.2**
JANG	**Nango**	**1.56**	**354**	P	**Pn**	**01 32 28.0**	**+0.3**
JANG				S	**Sn**	**01 32 47.3**	**+0.2**
JFK	**Kawauchi**	**1.61**	**205**	P	**Pn**	**01 32 28.7**	**+0.3**
JFK				S	**Sn**	**01 32 48.0**	**-0.4**
ERM	**Erimo**	**3.36**	**18**	*e*Pn	**Pn**	**01 32 52.0**	**0.0**
ERM				*e*Sn	**Sn**	**01 33 29.1**	**-1.7**
MJAR	**Matsushiro Arr**	**3.61**	**232**	P	**Pn**	**01 32 57.2**	**+1.7**
	1.5nm,0.3s,baz=40,slow=11,SNR=11						
MAT	**Matsushiro**	**3.62**	**232**	P	**Pn**	**01 32 57.1**	**+1.6**
KSRS	**Korea Array**	**10.97**	**267**	P	**Pn**	**01 34 37.8**	**+1.8**
	0.1nm,0.3s,baz=73,slow=14,SNR=2.7						
MKAR	**Makanchi Array**	**43.41**	**301**	P	**P**	**01 39 56.9**	**-0.4**
	0.5nm,0.9s,mb3.2,baz=76,slow=8.7,SNR=3.7						
MKAR	**Makanchi Array**	**43.41**	**301**	P	**P**	**01 39 56.9**	**-0.4**
KURK	**Kurchatov**	**45.05**	**307**	P	**P**	**01 40 10.6**	**+0.2**
	0.2nm,0.4s,mb3.2,baz=81,slow=8.2,SNR=3.0						
WRA	**Warramunga Arr**	**58.87**	**188**	P	**P**	**01 41 52.1**	**-1.1**
	0.2nm,0.5s,mb3.5,baz=5.7,slow=7.2,SNR=2.5						

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*SZGRF **07** 01:35:38.8, 22°.40S×177°.75W, h33^{km}, South of Fiji Islands*
*BJI **07** 01:36:40.4, 20°.22S×178°.86W, h515^{km}, mB4.8/19, mb4.7/32*
*ISCJB **07** 01:36:45.0±1.2, 20°.77S±0°.07×178°.97W±0°.04, h583^{km}±15^{km}, mb4.5/72, Error ellipse: s-maj=10.8km s-min=5.6km az=162.1*
*BGS **07** 01:36:44.8±4.1, 20°.71S×178°.95W, h573^{km}, mb4.7(NEIC)*
*NEIC **07** 01:36:44.9±1.0, 20°.71S×178°.95W, h573^{km}±11^{km}, mb4.7/38, Error ellipse: s-maj=12.3km s-min=6.8km az=146.0*
*MOS **07** 01:36:47.9±2.4, 19°.22S×179°.39W, h550^{km}, mb4.6/17, Error ellipse: s-maj=13.9km s-min=9.9km az=53.4*
*IDC **07** 01:36:47.3±1.2, 20°.77S×178°.94W, h603^{km}±13^{km}, mb4.0/18, mb1 4.2/20, mb1mx4.2/22, mbtmp4.0/20, Error ellipse: s-maj=11.7km s-min=8.7km az=137.0*
ISC 07 01:36:47.5±1.2**, 20°.78S**±0°.07×**178°.96W**±0°.04**, h599^{km}**±14^{km}**, h499^{km}**±5.0^{km}**:pP-P, n741, σ0^{s}.53**/489**, mb4.5**/72**, 212C-177D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**9.68**	**46**	P	**P**	**01 38 57.6**	**-5.5**
AFI				*e*S	**S**	**01 40 42.7**	**-12**
AFI				pmax	pmax		

	comp=Z,74nm,0.5s						
AFI	Afiamalu	9.68	46	P	P	01 39 01.1	-2.1
	comp=Z,23nm,0.3s,baz=192,slow=9.3,SNR=9.2						
AFI				S	S	01 40 45.0	-9.4
	comp=Z,9.1nm,0.3s,baz=180,slow=20,SNR=6.9						
AFI	Afiamalu	9.68	46	Pn	P	01 38 57.6	-5.5
	comp=Z,74nm,0.5s						
AFI				*e*S	S	01 40 42.7	-12
DZM	Mont Dzumac	13.65	262	*e*P	P	01 39 43.7	+0.8
URZ	Urewera	17.75	190	P	P	01 40 18.5	-2.2
	comp=Z,7.6nm,0.3s,baz=49,slow=9.0,SNR=10.0						
URZ				S	S	01 43 05.8	-8.0
	comp=Z,3.1nm,0.3s,baz=64,slow=23,SNR=5.5						
SNZO	South Karori	21.16	193	*e*P	P	01 40 49.5	-2.0
	comp=Z,39nm,1.3s,mb4.9						
RPZ	Rata Peaks	24.35	198	P	P	01 41 17.6	-2.1
	comp=Z,6.4nm,0.5s,mb4.5,baz=46,slow=8.5,SNR=4.3						
EIDS	Eidsvold	27.91	255	*e*P	P	01 41 52.1	+0.8
	comp=Z,4.6nm,0.6s,mb4.3						
CTA	Charters Tower	32.57	265	*e*P	P	01 42 32.3	+1.1
	comp=Z,9.6nm,0.3s,mb4.9						
CTAO	Charters Tower	32.57	265	*e*P	P	01 42 31.5	+0.3
CTAO				pmax	pmax		
	comp=Z,77nm,1.9s,mb5.0						
CTAO	Charters Tower	32.57	265	*e*P	P	01 42 31.5	+0.3
	comp=Z,77nm,1.9s,mb5.0						
CMSA	Cobar Meteorol	33.35	244	*e*P	P	01 42 38.3	+0.6
MTSU	Mount Surprise	34.68	268	*e*P	P	01 42 49.9	+1.0
	comp=Z,9.6nm,0.4s,mb4.8						
COEN	Coen	36.70	274	*e*P	P	01 43 06.8	+1.2
STKA	Stephens Creek	36.86	244	*e*P	P	01 43 07.6	+0.9
	comp=Z,6.9nm,1.4s,mb4.0						
STKA	Stephens Creek	36.86	244	P	P	01 43 07.7	+1.0
	comp=Z,3.0nm,0.3s,mb4.3,baz=80,slow=7.4,SNR=12						
STKA				PcP	PcP	01 45 11.7	-0.1
	comp=Z,2.2nm,0.6s,baz=25,slow=4.9,SNR=4.0						
BBOO	Buckleboo	41.62	244	*e*P	P	01 43 45.0	+0.2
	comp=Z,7.7nm,0.3s,mb4.7						
ASAR	Alice Springs	43.58	257	P	P	01 44 00.7	+0.5
ASAR						01 45 33.3	
ASAR				S	S	01 49 45.9	-1.4
ASAR	Alice Springs	43.58	257	P	P	01 44 00.7	+0.5
	comp=Z,15nm,0.6s,mb4.7,baz=86,slow=8.6,SNR=108						
ASAR				PcP	PcP	01 45 33.3	-0.8
	comp=Z,5.0nm,0.6s,baz=100,slow=4.1,SNR=12						
ASAR				ScP	ScP	01 48 28.7	-0.6
	comp=Z,1.5nm,0.7s,baz=98,slow=4.4,SNR=5.6						
ASAR				S	S	01 49 45.9	-1.4
	comp=Z,3.8nm,0.6s,baz=94,slow=16,SNR=20						
WRAB	Tennant Creek	43.66	263	*e*P	P	01 44 00.6	-0.3
WRAB				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.7						
WRAB	Tennant Creek	43.66	263	*e*P	P	01 44 00.6	-0.3
	comp=Z,22nm,0.9s,mb4.7						
WRA	Warramunga Arr	43.67	263	P	P	01 44 00.7	-0.2
WRA						01 45 33.0	
WRA				S	S	01 49 47.5	-1.2
WRA	Warramunga Arr	43.67	263	P	P	01 44 00.7	-0.2
	comp=Z,16nm,1.0s,mb4.5,baz=98,slow=8.3,SNR=60						
WRA				PcP	PcP	01 45 33.0	-1.5
	comp=Z,2.0nm,0.7s,baz=97,slow=3.6,SNR=5.3						
WRA				ScP	ScP	01 48 30.3	+0.6
	comp=Z,1.5nm,0.9s,baz=99,slow=3.3,SNR=4.6						
WRA				S	S	01 49 47.5	-1.1
	comp=Z,2.5nm,0.9s,baz=96,slow=12,SNR=7.5						
KAKA	Kakadu	47.08	272	*e*P	P	01 44 26.9	0.0
	comp=Z,14nm,0.8s,mb4.5						
KAKA	Kakadu	47.08	272	*e*P	P	01 44 26.6	-0.3
	comp=Z,19nm,0.5s,mb4.9						
FORT	Forrest	48.36	247	*e*P	P	01 44 36.0	-0.2
	comp=Z,14nm,0.6s,mb4.7						
KNA	Kununurra	49.72	267	*e*P	P	01 44 46.7	+0.3
	comp=Z,7.5nm,0.5s,mb4.4						
FITZ	Fitzroy Crossi	52.10	263	*e*P	P	01 45 03.3	-0.3
	comp=Z,6.5nm,0.3s,mb4.4						
MBWA	Marble Bar	56.91	258	*e*P	P	01 45 36.7	-0.5
MBWA	Marble Bar	56.91	258	*e*P	P	01 45 36.7	-0.5
	comp=Z,10nm,0.4s,mb4.4						
VNDA	Vanda	57.56	185	P	P	01 45 41.4	+0.8
	comp=Z,8.8nm,1.0s,mb3.8,baz=20,slow=7.0,SNR=15						
MUN	Mundaring	58.39	245	*e*P	P	01 45 47.4	+0.4
MORW	Morawa	58.89	248	*e*P	P	01 45 50.0	-0.4
RPN	Rapa Nui	63.24	111	*i* P	P	01 46 19.2	+0.4
KKM	Kota Kinabalu	68.96	285	*e*P	P	01 46 55.3	+0.9
	comp=Z,4.8nm,0.5s,mb4.2						
QSPA	South Pole Qui	69.29	180	P	P	01 46 55.5	+0.3
	comp=Z,14nm,0.5s,mb4.6,baz=34,slow=1.2,SNR=44						
QSPA	South Pole Qui	69.29	180	P	P	01 46 55.5	+0.3
MJAR	Matsushiro Arr	69.90	324	P	P	01 46 59.0	-0.5
	comp=Z,6.0nm,0.5s,mb4.2,baz=155,slow=6.1,SNR=12						
MAT	Matsushiro	69.90	324	P	P	01 46 58.7	-0.8
KSM	Kuching	72.56	278	*e*P	P	01 47 16.0	+0.5
	comp=Z,8.8nm,0.6s,mb4.5						
YSS	Yuzh-Sakhalins	75.74	334	*e*P	P	01 47 30.3	-2.3
YSS				pmax	pmax		
	comp=Z,35nm,1.5s,mb4.6						
YSS	Yuzh-Sakhalins	75.74	334	*e*P	P	01 47 30.3	-2.3
	comp=Z,35nm,1.5s,mb4.6						
PEA0B	Petropavlovsk-	76.31	346	*e*P	P	01 47 34.8	-0.8
PETK	Petropavlovsk-	76.31	346	P	P	01 47 34.4	-1.2
	comp=Z,16nm,0.7s,mb4.6,baz=147,slow=4.6,SNR=38						
KSRS	Korea Array	76.50	319	P	P	01 47 37.0	0.0
	comp=Z,2.3nm,0.6s,mb3.8,baz=125,slow=6.0,SNR=9.7						
HOPS	Hopland	79.17	41	*e*P	P	01 47 50.9	-0.4
	comp=Z,22nm,0.8s,mb4.5						
NJ2	Nanjing	79.36	310	*e*P	P	01 47 51.4	-1.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.4						
ARVC	Arvin	79.63	46	⇑P	P	01 47 53.7	-0.1
	baz=80						
MWC	Mount Wilson	79.65	47	*e*P	P	01 47 53.9	-0.1
MWC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.1						
MWC	Mount Wilson	79.65	47	*e*P	P	01 47 53.9	0.0
	comp=Z,7.5nm,0.8s,mb4.1						
VES	Vestal, Richgr	79.86	46	⇑P	P	01 47 55.2	+0.1
	baz=80						
MURC	Murrieta	79.90	48	⇑P	P	01 47 55.1	-0.2
	baz=80						
BFSC	Mount Baldy St	79.94	48	⇓P	P	01 47 55.4	-0.1
	baz=80						
EDW2	Edwards Air Fo	80.06	47	⇓P	P	01 47 56.0	-0.1
	baz=80,SNR=9.3						
MONP	Monument Peak	80.07	49	⇑P	P	01 47 56.3	+0.2
	baz=80,SNR=11						
ISA	Isabella	80.17	46	⇓P	P	01 47 57.0	+0.4
	baz=80						
ISA	Isabella	80.17	46	*e*P	P	01 47 56.9	+0.2
DVTC	Desert V Tower	80.17	50	⇑P	P	01 47 57.0	+0.3
	baz=80,SNR=5.4						
MDJ	Mudanjiang	80.23	325	P	P	01 47 57.4	+0.7
MDJ				pP	pP	01 49 43.3	-19
MDJ				PP	PP	01 51 06.0	-5.0
MDJ				S	S	01 57 19.9	+6.4
MDJ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,92nm,4.4s						
CMB	Columbia Colle	80.28	43	*e*P	P	01 47 56.9	-0.2
CMB				pmax	pmax		
	comp=Z,34nm,1.3s,mb4.5						
CMB	Columbia Colle	80.28	43	*e*P	P	01 47 56.9	-0.2
	comp=Z,34nm,1.3s,mb4.5						
OHCM	Honcut	80.36	42	*e*P	P	01 47 57.7	+0.2
PFO	Pinyon Flat Ob	80.43	49	⇑*e*P	P	01 47 58.7	+0.7
PFO	Pinyon Flat Ob	80.43	49	⇓P	P	01 47 58.3	+0.3
	baz=80						
SWSC	Sam W. Stewart	80.54	50	⇑P	P	01 47 58.5	-0.1
	baz=80,SNR=5.8						
CWC	Cottonwood Cre	80.87	46	⇑P	P	01 48 00.5	+0.2
	baz=81						
BELC	Belle Mtn.	80.96	49	⇑P	P	01 48 00.9	+0.1
	baz=81,SNR=9.0						
MLAC	Mammoth Lakes	81.04	44	⇑P	P	01 48 01.6	+0.5
	baz=81						
MPMC	Manual Prospec	81.06	46	⇓P	P	01 48 01.2	0.0
	baz=81,SNR=15						
MTUM	Tungsten Hills	81.06	45	*e*P	P	01 48 01.6	+0.4
YBH	Yreka Blue Hor	81.07	39	*e*P	P	01 48 02.0	+0.9
YBH				pmax	pmax		
	comp=Z,31nm,0.9s						
YBH	Yreka Blue Hor	81.07	39	P	P	01 48 01.9	+0.7
	comp=Z,26nm,0.8s,mb4.7,baz=207,slow=4.5,SNR=43						
YBH	Yreka Blue Hor	81.07	39	*e*P	P	01 48 02.0	+0.9
	comp=Z,30nm,0.9s,mb4.7						
TIN	Tinemaha	81.12	45	⇑P	P	01 48 01.7	+0.2
	baz=81,SNR=6.1						
R06C	Coleville	81.16	43	⇓P	P	01 48 02.1	+0.4
	baz=81						
BC3	Big Chuckw Mtn	81.16	49	⇓P	P	01 48 02.0	+0.2
	baz=81,SNR=8.4						
HEC	Hector,Ludlow	81.18	48	⇓P	P	01 48 01.9	+0.1
	baz=81,SNR=8.4						
112A	Yuma	81.20	50	⇓P	P	01 48 02.3	+0.2
	baz=81						
GLA	Glamis	81.29	50	*e*P	P	01 48 02.5	0.0
GLA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.4						
GLA	Glamis	81.29	50	⇑P	P	01 48 02.8	+0.4
	baz=81,SNR=12						
GLA	Glamis	81.29	50	*e*P	P	01 48 02.5	0.0
	comp=Z,14nm,0.8s,mb4.4						
KDAK	Kodiak Island	81.30	14	⇑*e*P	P	01 48 01.2	-0.7
KDAK	Kodiak Island	81.30	14	P	P	01 48 01.1	-0.7
	comp=Z,9.1nm,0.5s,mb4.5,baz=207,slow=4.5,SNR=8.0						
LBCM	Butte Creek Ri	81.34	40	P	P	01 48 02.8	+0.3
BEKR	Beckwourth	81.37	42	⇑P	P	01 48 02.6	-0.1
	baz=81						
WCN	Washoe City	81.42	42	⇓P	P	01 48 03.3	+0.4
	baz=81						
HUMO	Hull Mountain	81.46	38	*e*P	P	01 48 03.5	+0.4
	comp=Z,30nm,1.1s,mb4.6						
P06A	Stead Airport,	81.55	42	⇓P	P	01 48 04.0	+0.4
	baz=82						
GMRC	Granite Mounta	81.61	48	⇓P	P	01 48 03.9	-0.1
	baz=82,SNR=10						
IRM	Iron Mountain	81.64	49	⇑P	P	01 48 04.5	+0.2
	baz=82,SNR=8.7						
GRAC	Grapevine Rang	81.66	45	⇑P	P	01 48 04.3	+0.1
	baz=82,SNR=9.8						
FURC	Furnace Creek,	81.71	46	⇓P	P	01 48 04.6	+0.1
	baz=82						
TUQ	Turquoise Moun	81.78	47	⇓P	P	01 48 04.8	-0.2
	baz=82,SNR=18						
SHOC	Shoshone	81.79	47	⇑P	P	01 48 04.5	-0.4
	baz=82,SNR=5.4						
NVAR	Mina Array Bea	81.84	44	P	P	01 48 05.3	+0.2
	comp=Z,14nm,0.6s,mb4.6,baz=224,slow=7.6,SNR=95						
NVAR				PP	PP	01 51 21.4	-2.8
	comp=Z,0.3nm,0.8s,baz=220,slow=7.1,SNR=3.7						
NVAR	Mina Array Bea	81.84	44	P	P	01 48 05.3	+0.2
NVAR				PP	PP	01 51 21.4	-2.8
Y12C	Blythe	81.87	49	⇓P	P	01 48 05.4	0.0
	baz=82,SNR=6.9						
O06A	Flanigan	81.87	42	⇑P	P	01 48 05.4	+0.1
	baz=82,SNR=23						
WHN	Wuhan	81.88	307	⇑P	P	01 48 06.6	+1.1
WHN				pmax	pmax		
	comp=Z,29nm,1.0s,mb4.8						
PAHR	Pah Rah Range	81.89	42	*e*P	P	01 48 05.5	+0.2
113A	Mohawk Valley,	81.91	51	⇓P	P	01 48 05.7	+0.1
	baz=82,SNR=5.2						
R08A	Mina	81.93	44	⇑P	P	01 48 06.1	+0.5
	baz=82						
CN2	Changchun	81.97	323	⇓*i*P	P	01 48 06.0	+0.3
CN2				*e*pP	pP	01 49 57.8	-14
CN2				*e*S	S	01 57 35.0	+3.9
CN2				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.5						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
U10A	Ash Meadows, A	82.04	46	⇓P	P	01 48 06.2	+0.1
	baz=82,SNR=7.6						
S09A	Goldfield	82.15	45	⇑P	P	01 48 06.2	-0.6
	baz=82,SNR=8.4						
LDFC	Landfair	82.16	48	*e*P	P	01 48 07.3	+0.4
	comp=Z,42nm,0.8s,mb5.0						
N06A	Buffalo Meadow	82.21	41	⇑P	P	01 48 06.8	-0.2
	baz=82,SNR=16						
Q08A	Gabbs	82.33	44	⇓P	P	01 48 07.5	-0.1
	baz=82,SNR=18						
NEE2	Needles Airpor	82.33	48	⇓P	P	01 48 08.3	+0.6
	baz=82						
V11A	Goodsprings	82.34	47	⇑P	P	01 48 07.5	-0.2
	baz=82,SNR=7.6						
TPH	Tonopah	82.35	45	*e*P	P	01 48 07.9	+0.2
TPH				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.5						
TPH	Tonopah	82.35	45	*e*P	P	01 48 07.8	+0.1
	comp=Z,12nm,0.8s,mb4.5						
Y13A	Salome	82.40	50	⇓P	P	01 48 08.4	+0.3
	baz=82,SNR=15						
PDMCI	Parker Dam,Lak	82.43	49	⇑P	P	01 48 08.3	+0.1
	baz=82,SNR=6.5						
W12A	Cal Nev Ari	82.44	48	⇓P	P	01 48 08.7	+0.4
	baz=82						
O07A	Toulon	82.47	42	⇑P	P	01 48 08.1	-0.2
	baz=82,SNR=20						
R09A	Tonopah	82.54	44	⇑P	P	01 48 08.8	+0.1
	baz=82,SNR=5.3						
MOD	Modoc	82.61	40	*e*P	P	01 48 09.2	+0.3
V12A	Nelson	82.68	48	⇑P	P	01 48 09.2	-0.2
	baz=83,SNR=9.7						
S10A	Tonopah Range,	82.68	45	⇑P	P	01 48 09.3	-0.1
	baz=83,SNR=46						
U11A	Corn Creek	82.68	47	⇑P	P	01 48 09.6	+0.2
	baz=83						
P08A	Dixie Valley	82.70	43	⇑P	P	01 48 10.0	+0.6
	baz=83						
K05A	Summer Lake	82.74	39	⇓P	P	01 48 10.3	+0.7
	baz=83,SNR=15						
N07B	Gerlach	82.76	42	⇑P	P	01 48 09.5	-0.2
	baz=83,SNR=8.9						
Q09A	Carvers	82.80	44	⇑P	P	01 48 09.9	0.0
	baz=83						
X13A	Yucca	82.80	49	⇑P	P	01 48 10.1	+0.1
	baz=83,SNR=18						
Z14A	Wintersburg	82.80	50	⇓P	P	01 48 10.3	+0.2
	baz=83,SNR=8.0						
SHPR	Sheep Range	82.88	47	*e*P	P	01 48 10.7	+0.3
115A	Sonoran Desert	82.99	51	⇓P	P	01 48 11.2	+0.2
	baz=83,SNR=6.1						
M07A	Soldier Meadow	82.99	41	⇑P	P	01 48 11.2	+0.4
	baz=83,SNR=9.5						
O08A	Rochester Mine	82.99	42	⇓P	P	01 48 10.9	+0.1
	baz=83,SNR=20						
W13A	Hualapai Mount	83.02	49	⇑P	P	01 48 11.2	0.0
	baz=83,SNR=16						
Y14A	Wickenburg	83.05	50	⇓P	P	01 48 11.4	0.0
	baz=83,SNR=9.6						
R10A	Warm Springs	83.07	45	⇑P	P	01 48 11.2	-0.1
	baz=83,SNR=16						
H04A	Detroit Lake	83.19	37	⇑P	P	01 48 11.1	-0.6
	baz=83,SNR=5.9						
216A	Three Points,	83.21	52	⇓P	P	01 48 12.6	+0.4
	baz=83,SNR=6.9						
T11A	Corn Creek, Al	83.23	46	⇓P	P	01 48 12.1	0.0
	baz=83,SNR=25						
L07A	Adell	83.25	40	⇓P	P	01 48 12.4	+0.2
	baz=83,SNR=13						
U12A	Valley of Fire	83.26	47	⇑P	P	01 48 12.3	0.0
	baz=83,SNR=12						
N08A	GE Springer Mi	83.28	42	⇓P	P	01 48 12.2	-0.1
	baz=83,SNR=6.5						
T12A	Moapa	83.30	47	⇓P	P	01 48 12.6	+0.1
	baz=83						
Q10A	Clear Creek Ra	83.30	44	⇑P	P	01 48 12.9	+0.5
	baz=83,SNR=10						
116A	Eloy	83.30	52	⇓P	P	01 48 12.9	+0.3
	baz=83,SNR=10						
Z15A	Gila River Ind	83.33	51	⇓P	P	01 48 12.5	-0.2
	baz=83						
V13A	Grand Canyon W	83.34	48	⇑P	P	01 48 12.6	-0.1
	baz=83,SNR=14						
G04A	Mulino	83.34	36	⇑P	P	01 48 12.9	+0.4
	baz=83						
X14A	Yava	83.40	49	⇓P	P	01 48 13.2	+0.1
	baz=83,SNR=22						
J06A	Christmas Vall	83.49	39	⇑P	P	01 48 13.0	-0.3
	baz=84,SNR=12						
M08A	Happy Creek Ra	83.51	41	⇑P	P	01 48 13.2	-0.2
	baz=84,SNR=6.1						
O09A	Fish Creek Ran	83.54	43	⇑P	P	01 48 13.8	+0.2
	baz=84						
Y15A	Casa Rosa Ranc	83.54	50	⇑P	P	01 48 13.8	0.0
	baz=84,SNR=16						
217A	Green Valley	83.58	53	⇑P	P	01 48 14.4	+0.4
	baz=84,SNR=14						
R11A	Troy Canyon, C	83.58	45	⇑P	P	01 48 14.1	+0.2
	baz=84						
E03A	Lebam	83.59	35	⇓P	P	01 48 13.5	-0.1
	baz=84						
W14A	Seligman	83.64	49	⇓P	P	01 48 14.6	+0.4
	baz=84,SNR=14						
U13A	Pakoon Wash	83.65	47	⇓P	P	01 48 14.4	+0.1
	baz=84,SNR=20						
BMN	Battle Mountai	83.66	43	*e*P	P	01 48 14.6	+0.4
S12A	Delamar Landin	83.67	46	⇓P	P	01 48 14.6	+0.2
	baz=84,SNR=18						
P10A	Eureka	83.70	44	⇑P	P	01 48 14.3	-0.1
	baz=84						
K07A	Rock Creek Ran	83.70	40	⇑P	P	01 48 14.5	+0.2
	baz=84,SNR=11						
N09A	Rock Creek Ran	83.71	42	⇓P	P	01 48 14.6	+0.2
	baz=84						
SVW2	Sparrevohn	83.74	11	*e*P	P	01 48 12.2	-1.8
Q11A	Duckwater	83.80	45	⇑P	P	01 48 14.9	0.0
	baz=84,SNR=10						
F04A	Amboy	83.83	36	⇓P	P	01 48 14.6	-0.2
	baz=84						
D03A	Wishkah Elem.	83.84	34	⇑P	P	01 48 15.1	+0.2
	baz=84						
V14A	Boquillas Ranc	83.84	48	⇑P	P	01 48 15.6	+0.4
	baz=84,SNR=14						
TUC	Tucson	83.86	52	*e*P	P	01 48 15.9	+0.5
TUC				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.5						
TUC	Tucson	83.86	52	*e*P	P	01 48 15.9	+0.6
	comp=Z,14nm,1.0s,mb4.5						
I06A	Prineville	83.87	38	⇓P	P	01 48 15.6	+0.5
	baz=84,SNR=18						
X15A	Humboldt	83.88	50	⇓P	P	01 48 15.9	+0.5
	baz=84,SNR=15						
Z16A	Peralta Trail,	83.89	51	⇑P	P	01 48 16.0	+0.5
	baz=84						
WVOR	Wild Horse Val	83.92	40	*e*P	P	01 48 15.4	0.0
WVOR				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.6						
WVOR	Wild Horse Val	83.92	40	*e*P	P	01 48 15.4	0.0
	comp=Z,28nm,1.3s,mb4.6						
L08A	Fields	83.96	41	⇑P	P	01 48 15.7	+0.1
	baz=84,SNR=13						
NLWA	Neilton Lookou	83.97	34	⇑P	P	01 48 15.4	-0.1
	baz=84						
T13A	Saint George	84.00	47	⇓P	P	01 48 15.9	0.0
	baz=84,SNR=5.0						
117A	Oracle	84.02	52	⇓P	P	01 48 16.5	+0.4
	baz=84,SNR=9.0						
318A	Bisbee	84.03	53	⇑P	P	01 48 16.7	+0.5
	baz=84,SNR=17						
O10A	Cortez Mining,	84.04	43	⇑P	P	01 48 16.6	+0.5
	baz=84						
J07A	Hines	84.06	39	⇓P	P	01 48 16.2	+0.2
	baz=84,SNR=5.6						
M09A	Marrel Ranch,	84.07	42	⇓P	P	01 48 16.2	0.0
	baz=84,SNR=6.3						
E04A	Onalaska	84.08	35	⇓P	P	01 48 16.4	+0.4
	baz=84						
Y16A	Circle Bar Ran	84.12	51	⇑P	P	01 48 17.0	+0.4
	baz=84,SNR=17						
P11A	Circle Ranch,	84.12	44	⇑P	P	01 48 16.6	+0.2
	baz=84						
K08A	Mann Creek Ran	84.18	40	⇓P	P	01 48 17.0	+0.3
	baz=84,SNR=13						
U14A	Mt Trumbull	84.19	48	⇑P	P	01 48 17.1	+0.2
	baz=84,SNR=22						
W15A	Williams	84.20	49	⇑P	P	01 48 17.6	+0.6
	baz=84						
R12A	Pony Springs,	84.22	45	⇓P	P	01 48 17.3	+0.3
	baz=84						
218A	Dragoon	84.25	53	⇓P	P	01 48 17.7	+0.5
	baz=84,SNR=5.1						
N10A	Dunphy	84.27	43	⇑P	P	01 48 17.2	0.0
	baz=84						
L09A	Wilkinson Ranc	84.28	41	⇓P	P	01 48 17.6	+0.5
	baz=84,SNR=5.2						
S13A	Holt Ranch, En	84.33	46	⇑P	P	01 48 17.7	+0.2
	baz=84						
I07A	Izee	84.36	39	⇑P	P	01 48 17.8	+0.2
	baz=84,SNR=12						
G06A	Carlson Farm,	84.40	37	⇑P	P	01 48 18.0	+0.3
	baz=84						
X16A	Lo Mia Camp, P	84.41	50	⇓P	P	01 48 18.4	+0.3
	baz=84,SNR=17						
Q12A	Willow Creek R	84.45	45	⇑P	P	01 48 18.1	0.0
	baz=84,SNR=7.7						
Y17A	Roosevelt	84.49	51	⇑P	P	01 48 18.4	0.0
	baz=84,SNR=5.3						
O11A	Cowboy Ranch,	84.50	43	⇓P	P	01 48 18.2	-0.1
	baz=84						
319A	Douglas	84.53	54	⇑P	P	01 48 19.4	+0.7
	baz=84,SNR=12						
J08A	Circle Bar Ran	84.55	40	⇑P	P	01 48 18.2	-0.2
	baz=84,SNR=9.5						
Z17A	San Carlos Hig	84.57	52	⇓P	P	01 48 19.4	+0.6
	baz=84						
R13A	O’Grain Ranch,	84.57	46	⇑P	P	01 48 19.1	+0.4
	baz=85						
B04A	Port Angeles	84.58	34	⇓P	P	01 48 18.4	-0.1
	baz=85						
T14A	Hurricane	84.59	47	⇑P	P	01 48 18.8	-0.1
	baz=85						
V15A	Kaibab Nationa	84.59	49	⇓P	P	01 48 19.2	+0.3
	baz=85,SNR=10						
118A	Homack Ranch,	84.62	52	⇑P	P	01 48 19.8	+0.7
	baz=85,SNR=11						
K09A	Rome	84.62	40	⇑P	P	01 48 18.9	0.0
	baz=85,SNR=16						
H07A	Lands Inn, Kim	84.63	38	⇑P	P	01 48 19.0	+0.2
	baz=85						
P12A	McGill	84.63	44	⇑P	P	01 48 19.1	+0.1
	baz=85,SNR=7.2						
F06A	Goldendale	84.63	37	⇑P	P	01 48 18.7	-0.1
	baz=85,SNR=5.4						
W16A	Flagstaff	84.68	50	⇓P	P	01 48 19.9	+0.6
	baz=85,SNR=7.4						
M10A	I.L. Ranch, Tu	84.70	42	⇑P	P	01 48 19.6	+0.3
	baz=85,SNR=7.5						
Z18A	Geronimo	84.78	52	⇓P	P	01 48 20.3	+0.4
	baz=85						
I08A	Drewsey	84.81	39	⇓P	P	01 48 20.0	+0.2
	baz=85,SNR=13						
N11A	Elko Archery C	84.82	43	⇓P	P	01 48 19.8	0.0
	baz=85						
219A	White Tail Can	84.84	53	⇓P	P	01 48 20.3	+0.1
	baz=85,SNR=13						
S14A	Cedar City	84.89	47	⇓P	P	01 48 20.2	-0.1
	baz=85						
Q13A	Wheeler Ranch,	84.94	45	⇑P	P	01 48 20.1	-0.4
	baz=85,SNR=6.6						
G07A	Ruggs Ranch, H	84.96	38	⇓P	P	01 48 20.2	-0.2
	baz=85,SNR=6.5						
J09A	Fry Pan Ranch,	84.97	40	⇑P	P	01 48 20.6	+0.1
	baz=85						
E06A	Yakima	84.99	36	⇑P	P	01 48 20.7	+0.2
	baz=85						
WUAZ	Wupatki	85.00	49	⇓P	P	01 48 20.5	-0.3
	baz=85,SNR=5.5						
WUAZ	Wupatki	85.00	49	*e*P	P	01 48 20.7	-0.2
	comp=Z,12nm,1.0s,mb4.5						
L10A	Juniper Basin	85.05	42	⇑P	P	01 48 20.9	0.0
	baz=85,SNR=13						
T15A	Red Dirt Ranch	85.05	47	⇑P	P	01 48 21.2	+0.1
	baz=85,SNR=13						
H08A	Prairie City	85.10	39	⇑P	P	01 48 20.8	-0.3
	baz=85,SNR=5.7						
M11A	Holland Ranch,	85.12	42	⇓P	P	01 48 21.8	+0.5
	baz=85						
O12A	Currie	85.16	44	⇑P	P	01 48 21.3	-0.2
	baz=85						
119A	Ashpeak Ranch,	85.17	52	⇓P	P	01 48 22.3	+0.5
	baz=85,SNR=5.6						
F07A	Phinny Hill Vi	85.19	37	⇓P	P	01 48 21.4	-0.1
	baz=85						
K10A	MacKenzie Ranc	85.19	41	⇑P	P	01 48 21.6	0.0
	baz=85,SNR=10						
P13A	Bates Ranch, G	85.20	45	⇓P	P	01 48 21.6	-0.2
	baz=85,SNR=8.7						
R14A	James Farms, M	85.27	46	⇑P	P	01 48 22.3	+0.2
	baz=85						
N12A	Clover Valley,	85.28	43	⇑P	P	01 48 22.0	-0.1
	baz=85,SNR=6.4						
C05A	Tolt Reservoir	85.31	35	⇓P	P	01 48 21.6	-0.4
	baz=85,SNR=6.1						
G08A	Pilot Rock	85.38	38	⇓P	P	01 48 22.6	+0.1
	baz=85,SNR=19						
S15A	Panguitch	85.40	47	⇑P	P	01 48 23.3	+0.6
	baz=85						
A04A	Legoe Bay, Lum	85.41	34	⇓P	P	01 48 22.9	+0.4
	baz=85						
B05A	Bryant	85.44	34	⇑P	P	01 48 22.4	-0.3
	baz=85						
Q14A	Sevier Lake (B	85.45	45	⇑P	P	01 48 23.0	+0.1

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      baz=85,SNR=13
Z19A  T-Link Ranch,     85.45  52 ⇑P    P      01 48 23.4 +0.4
      baz=85
BJI   Beijing           85.46 316  P    P      01 48 23.0 +0.1
BJI                                pmax pmax
      comp=Z,18nm,0.6s,mb4.9
BJI                                pmax pmax
      comp=Z,160nm,4.5s
D06A  Cle Elum          85.46  36 ⇑P    P      01 48 22.9 +0.1
      baz=86
U16A  Tuba City         85.48  49 ⇑P    P      01 48 23.4 +0.2
      baz=86,SNR=12
PMR   Palmer            85.50  14 eP    P      01 48 21.5 -1.1
L11A  Cat Creek Ranc    85.54  42 ⇑P    P      01 48 23.4 +0.1
      baz=86,SNR=12
X18A  Snowflake         85.54  51 ⇑P    P      01 48 23.7 +0.2
      baz=86,SNR=7.2
120A  U Bar Ranch, L    85.57  53 ⇑P    P      01 48 24.1 +0.5
      baz=86
O13A  Hicks Ranch, I    85.58  44 ⇓P    P      01 48 23.6 +0.1
      baz=86
J10A  Berg Farm, Mel    85.61  40 ⇑P    P      01 48 23.8 +0.2
      baz=86
E07A  Sunnyside         85.62  36 ⇓P    P      01 48 23.5 -0.1
      baz=86,SNR=9.0
T16A  Glen Canyon Da    85.64  48 ⇓P    P      01 48 24.1 +0.2
      baz=86,SNR=7.4
K11A  Parker Ranch,     85.70  41 ⇓P    P      01 48 23.9 -0.1
      baz=86,SNR=7.0
HAWA  Hanford           85.70  37 eP    P      01 48 24.1 +0.2
Y19A  Nutrioso          85.77  51 ⇓P    P      01 48 24.9 +0.4
      baz=86,SNR=13
H09A  Durkee            85.78  39 ⇑P    P      01 48 24.1 -0.2
      baz=86,SNR=14
F08A  Pendleton         85.78  37 ⇑P    P      01 48 24.4 +0.1
      baz=86
N13A  Wendover, West    85.82  43 ⇓P    P      01 48 24.7  0.0
      baz=86
P14A  Drum Mountains    85.90  45 ⇑P    P      01 48 25.1 +0.1
      baz=86
B06A  Marblemount       85.92  34 ⇑P    P      01 48 24.6 -0.3
      baz=86
D07A  Quincy            85.94  36 ⇑P    P      01 48 24.7 -0.4
      baz=86,SNR=6.1
S16A  Weppner Ranch,    85.94  47 ⇑P    P      01 48 25.4 +0.1
      baz=86
MSU   Marysvale         85.94  46 eP    P      01 48 26.2 +0.9
I10A  Payette           85.96  40 ⇓P    P      01 48 25.6 +0.4
      baz=86
W18A  Petrified Fore    85.98  50 ⇓P    P      01 48 25.8 +0.2
      baz=86
ETW   Entiat            85.98  35  P    P      01 48 25.3 +0.1
GYA   Guiyang           86.00 300  P    P      01 48 27.3 +1.4
GYA                                pP   pP     01 50 18.9  -15
GYA                                sP   sP     01 51 08.5  -26
GYA                                PP   PP     01 51 57.4 -0.3
GYA                                SKS         01 58 03.0
GYA                                S    S      01 58 17.7 +6.7
GYA                                pmax pmax
      comp=Z,10.0nm,1.0s,mb4.4
GYA                                pmax pmax
      comp=Z,70nm,5.2s
E08A  Dider Farm, El    86.03  37 ⇑P    P      01 48 25.5 +0.1
      baz=86
U17A  Shonto            86.04  49 ⇓P    P      01 48 25.8  0.0
      baz=86,SNR=5.7
Q15A  Fillmore          86.06  46 ⇓P    P      01 48 25.9 +0.1
      baz=86
G09A  Cove              86.06  38 ⇓P    P      01 48 25.5 -0.1
      baz=86,SNR=6.8
BMO   Blue Mountains    86.09  39 eP    P      01 48 25.4 -0.4
BMO                                pmax pmax
      comp=Z,6.0nm,0.8s,mb4.3
BMO   Blue Mountains    86.09  39 eP    P      01 48 25.4 -0.4
      comp=Z,5.8nm,0.8s,mb4.3
M13A  Montello          86.11  43 ⇑P    P      01 48 26.3 +0.3
      baz=86
V18A  Ganado            86.12  50 ⇓P    P      01 48 26.4 +0.2
      baz=86
T17A  Navajo Res., N    86.13  48 ⇑P    P      01 48 26.4 +0.2
      baz=86,SNR=14
MFID  Camas Ranch       86.18  41 ⇓P    P      01 48 26.1 -0.2
      baz=86,SNR=15
C07A  Waterville        86.18  35 ⇑P    P      01 48 25.5 -0.6
      baz=86,SNR=9.2
WTV   Waterville        86.25  35  P    P      01 48 26.2 -0.2
H10A  Noah's Angus R    86.27  39 ⇑P    P      01 48 26.2 -0.5
      baz=86,SNR=21
A06A  Chilliwack        86.28  34 ⇓P    P      01 48 26.2 -0.4
      baz=86,SNR=6.3
R16A  Teasdale          86.30  47 ⇑P    P      01 48 27.3 +0.3
      baz=86
K12A  Draper Farm, C    86.33  42 ⇓P    P      01 48 27.0  0.0
      baz=86,SNR=9.3
I11A  Placerville       86.37  40 ⇓P    P      01 48 27.0 -0.2
      baz=86,SNR=7.5
DUG   Dugway            86.38  45 ⇑P    P      01 48 27.5 +0.2
      baz=86
D08A  Wollman Farm,     86.44  36 ⇑P    P      01 48 27.4  0.0
      baz=86,SNR=12
SEY   Seymchan          86.44 347⇑eP    P      01 48 26.5 -0.5
S17A  Black Ridge (B    86.45  48 ⇑P    P      01 48 27.3 -0.4
      baz=86,SNR=8.7
G10A  Bishop Farm, J    86.45  39 ⇓P    P      01 48 27.4 -0.1
      baz=86,SNR=21
N14A  Grayback Hills    86.47  44 ⇑P    P      01 48 27.7 -0.1
      baz=86
U18A  Rough Rock, Ch    86.51  49 ⇓P    P      01 48 28.0  0.0
      baz=86,SNR=7.9
J12A  Stokes Ranch,     86.53  41 ⇓P    P      01 48 28.3 +0.3
      baz=86,SNR=15
E09A  Wood Farm, Sta    86.56  37 ⇑P    P      01 48 27.6 -0.3
      baz=86,SNR=10
B07A  Winthrop          86.61  35 ⇓P    P      01 48 27.7 -0.4
      baz=87,SNR=9.5
L13A  Double Diamond    86.64  43 ⇑P    P      01 48 28.6 +0.1
      baz=87
M14A  Sheep Mountain    86.71  43 ⇓P    P      01 48 28.5 -0.4
      baz=87,SNR=11
OD2   Odessa Site #2    86.75  36  P    P      01 48 28.8  0.0
F10A  Beach Ranch, E    86.77  38 ⇓P    P      01 48 28.6 -0.4
      baz=87,SNR=33
H11A  Donnelly          86.77  40 ⇓P    P      01 48 29.2 +0.1
      baz=87,SNR=41
D09A  Jones Farm, Ri    86.78  37 ⇑P    P      01 48 28.9 -0.1
      baz=87,SNR=13
C08A  Higginbotham F    86.79  36 ⇑P    P      01 48 28.5 -0.5
      baz=87,SNR=10.0
Q16A  Castle Valley     86.83  46 ⇑P    P      01 48 30.1 +0.7
      baz=87
K13A  Stover Farm, H    86.84  42 ⇓P    P      01 48 29.8 +0.3
      baz=87
T18A  Mexican Hat       86.85  48 ⇑P    P      01 48 29.9 +0.3
      baz=87,SNR=30
122A  Conniff Cattle    86.86  53 ⇑P    P      01 48 30.2 +0.4
      baz=87
W20A  Ramah             86.87  51 ⇑P    P      01 48 29.9 +0.2
      baz=87,SNR=11
KTH   Kantishna Hill    86.87  12 eP    P      01 48 27.2 -1.9
      comp=Z,16nm,0.9s,mb4.8
R17A  Hanksville Air    86.90  47 ⇑P    P      01 48 29.3 -0.4
      baz=87,SNR=7.5
CHUM  Lake Minchumin    86.91  11 eP    P      01 48 27.5 -1.7
      comp=Z,31nm,1.3s,mb4.9
TRF   Thorofare Moun    86.91  12 eP    P      01 48 27.8 -1.4
      comp=Z,37nm,0.8s,mb5.2
B08A  Colville Reser    86.97  35 ⇓P    P      01 48 29.5 -0.4
      baz=87,SNR=18
TMUT  Trail Mountain    86.99  46 eP    P      01 48 31.3 +1.1
S18A  Hurst Farm, Bl    87.03  48 ⇑P    P      01 48 30.4 -0.1
      baz=87
L14A  Malta             87.05  43 ⇓P    P      01 48 31.2 +0.7
      baz=87,SNR=5.5
HLID  Hailey            87.12  41 ⇓P    P      01 48 31.1 +0.4
      baz=87,SNR=28
HLID  Hailey            87.12  41 eP    P      01 48 31.1 +0.4
      comp=Z,16nm,1.0s,mb4.7
E10A  Myers Farm, Un    87.13  38 ⇓P    P      01 48 31.1 +0.4
      baz=87,SNR=5.9
J13A  Cove Ranch, Pi    87.18  41 ⇓P    P      01 48 31.6 +0.6
      baz=87,SNR=28
HVU   Hansel Valley     87.22  43 eP    P      01 48 31.2  0.0
C09A  Chrisman Ranch    87.22  36 ⇑P    P      01 48 30.8 -0.3
      baz=87,SNR=11
M15A  Larsen Ranch,     87.27  44 ⇑P    P      01 48 31.6 +0.1
      baz=87
T19A  Beclabito         87.30  49 ⇓P    P      01 48 32.1 +0.4
      baz=87,SNR=5.3
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D10A  Wagner Farm, O    87.35  37 ⇑P    P      01 48 31.0 -0.7
      baz=87,SNR=19
A08A  Turner Farm, O    87.36  35 ⇑P    P      01 48 31.6 -0.1
      baz=87,SNR=17
K14A  Jones Ranch, D    87.36  42 ⇑P    P      01 48 31.6 -0.3
      baz=87,SNR=6.6
SRU   San Rafael        87.36  46 ⇓P    P      01 48 31.7 -0.2
      baz=87,SNR=14
SRU   San Rafael        87.36  46 eP    P      01 48 32.0 +0.1
H12A  Diamond D Ranc    87.38  40 ⇓P    P      01 48 31.8 -0.1
      baz=87,SNR=35
P17A  Butcher Ranch,    87.39  46 ⇑P    P      01 48 32.3 +0.2
      baz=87
MCK   McKinley          87.44  13 eP    P      01 48 30.2 -1.5
R18A  Canyonlands Na    87.44  47 ⇓P    P      01 48 32.1 -0.2
      baz=87,SNR=13
JLU   Jordanelle        87.48  45 eP    P      01 48 32.8 +0.3
W21A  San Fidel         87.49  51 ⇓P    P      01 48 32.4 -0.2
      baz=88
I13A  Wildhorse Cree    87.49  41 ⇓P    P      01 48 32.2 -0.2
      baz=88,SNR=10
DAU   Daniels Canyon    87.52  45 eP    P      01 48 33.2 +0.6
PAX   Paxson            87.54  15 eP    P      01 48 31.3 -0.9
PAX                                pmax pmax
      comp=Z,4.0nm,0.7s,mb4.3
PAX   Paxson            87.54  15 eP    P      01 48 31.3 -0.9
      comp=Z,3.7nm,0.7s,mb4.2
E11A  Bogner Ranch,     87.57  38 ⇑P    P      01 48 31.7 -1.0
      baz=88,SNR=11
L15A  Malad City        87.58  43 ⇑P    P      01 48 32.5 -0.4
      baz=88,SNR=9.7
XAN   Xi'an             87.58 308  P    P      01 48 33.5 +0.4
XAN                                pmax pmax
      comp=Z,15nm,1.4s,mb4.5
XAN                                pmax pmax
      comp=Z,120nm,5.5s
Q18A  Rafter H Ranch    87.62  47 ⇑P    P      01 48 32.6 -0.6
      baz=88,SNR=12
N16A  Rees Ranch, Co    87.63  45 ⇓P    P      01 48 33.1 -0.1
      baz=88
B09A  Rice              87.65  36 ⇑P    P      01 48 32.5 -0.5
      baz=88,SNR=12
S19A  Harvey Farm, M    87.66  48 ⇓P    P      01 48 33.0 -0.3
      baz=88,SNR=5.0
A09A  Danville          87.73  35 ⇓P    P      01 48 32.9 -0.6
      baz=88,SNR=12
O17A  Robinson Place    87.75  45 ⇑P    P      01 48 34.1 +0.4
      baz=88,SNR=17
H13A  Challis           87.75  40 ⇓P    P      01 48 33.9 +0.3
      baz=88,SNR=15
C10A  Spilker Farm,     87.77  36 ⇓P    P      01 48 33.5 -0.1
      baz=88
P18A  Preston Nutter    87.80  46 ⇓P    P      01 48 34.0  0.0
      baz=88
R19A  Curley Farm, L    87.83  48 ⇑P    P      01 48 33.7 -0.5
      baz=88,SNR=7.1
K15A  Arbon             87.84  43 ⇑P    P      01 48 33.9 -0.2
      baz=88,SNR=9.0
LPM   Los Pinos Moun    87.86  52 eP    P      01 48 34.8 +0.3
D11A  Klaveano Farm,    87.88  37 ⇑P    P      01 48 33.3 -0.8
      baz=88,SNR=10
I14A  Mackay            87.91  41 ⇑P    P      01 48 34.9 +0.5
      baz=88,SNR=23
HYT   Haines Junctio    87.92  19 eP    P      01 48 34.3 +0.3
VNA3  Neumayer Olymp    87.93 177 eP    P      01 48 32.8 -1.3
VNA3                              e     pP     01 50 44.7 +1.8
MENT  Mentasta          87.94  15 eP    P      01 48 32.5 -1.5
TXAR  Lajitas Array     87.96  58  P    P      01 48 34.9 -0.1
      comp=Z,9.6nm,0.8s,mb4.6,baz=220,slow=5.9,SNR=96
TXAR  Lajitas Array     87.96  58  P    P      01 48 34.9 -0.1
G13A  Cobalt            88.05  40 ⇓P    P      01 48 34.7 -0.2
      baz=88,SNR=20
N17A  Moffit Pass       88.06  45 ⇑P    P      01 48 35.0 -0.1
      baz=88
NEW   Newport           88.12  36 eP    P      01 48 34.7 -0.6
NEW                                pmax pmax
      comp=Z,5.0nm,0.8s
NEW   Newport           88.12  36 eP    P      01 48 34.7 -0.6
      comp=Z,5.1nm,0.8s,mb4.3
Q19A  Hogan Spring (    88.15  47 ⇑P    P      01 48 35.1 -0.5
      baz=88,SNR=8.6
L16A  Fish Haven        88.20  44 ⇓P    P      01 48 35.6 -0.1
      baz=88,SNR=20
J15A  Blackfoot         88.27  42 ⇑P    P      01 48 36.6 +0.6
      baz=88,SNR=27
ANMO  Albuquerque       88.28  52 eP    P      01 48 36.0 -0.3
ANMO                               pmax pmax
      comp=Z,15nm,1.3s
ANMO  Albuquerque       88.28  52 eP    P      01 48 36.0 -0.4
      comp=Z,15nm,1.3s,mb4.5
A10A  Northport         88.29  35 ⇓P    P      01 48 35.5 -0.6
      baz=88,SNR=5.3
VNA2  Neumayer--Watz    88.36 177 eP    P      01 48 35.4 -0.7
      baz=11,slow=1.6
VNA2                              e     pP     01 50 47.0 +2.0
F13A  Darby             88.36  39 ⇑P    P      01 48 35.7 -0.8
      baz=88,SNR=13
R20A  Redvale           88.39  48 ⇑P    P      01 48 36.8  0.0
      baz=88
M17A  Scullys Gap (B    88.43  44 ⇑P    P      01 48 36.5 -0.4
      baz=88
K16A  Soda Springs      88.51  43 ⇓P    P      01 48 37.5 +0.3
      baz=88,SNR=16
I15A  Monteview         88.54  41 ⇓P    P      01 48 37.7 +0.4
      baz=88
S21A  Coal Bank Pass    88.56  49 ⇓P    P      01 48 37.3 -0.2
      baz=88,SNR=8.0
G14A  Jackson           88.59  40 ⇑P    P      01 48 37.6 +0.1
      baz=89
L17A  Cokeville         88.61  44 ⇓P    P      01 48 37.3 -0.4
      baz=89
GDL2  Guadalupe Moun    88.64  55 eP    P      01 48 38.3 +0.2
P19A  Cripple Cowboy    88.66  47 ⇓P    P      01 48 37.8 -0.2
      baz=89,SNR=6.7
COLA  College           88.67  13 eP    P      01 48 36.0 -1.4
COLA                               pmax pmax
      comp=Z,38nm,1.0s,mb5.2
COLA  College           88.67  13 eP    P      01 48 36.0 -1.5
      comp=Z,38nm,1.0s,mb5.2
KMI   Kunming           88.67 297 ⇓P    P      01 48 39.9 +1.5
KMI                                pP   pP     01 50 29.9  -18
KMI                                sP   sP     01 51 19.8  -28
KMI                                S    S      01 58 41.7 +5.9
KMI                                pmax pmax
      comp=Z,14nm,1.0s,mb4.8
KMI                                pmax pmax
      comp=Z,130nm,6.6s
J16A  Bone              88.72  42 ⇑P    P      01 48 38.6 +0.4
      baz=89,SNR=19
C12B  Naegeli Ranch,    88.74  37 ⇓P    P      01 48 37.8 -0.4
      baz=89,SNR=7.3
H15A  Lima              88.76  41 ⇓P    P      01 48 38.6 +0.3
      baz=89,SNR=11
E13A  Victor            88.79  39 ⇓P    P      01 48 37.9 -0.6
      baz=89
M18A  Lyman             88.80  45 ⇑P    P      01 48 38.7 +0.1
      baz=89,SNR=19
Q20A  Ridgley Place,    88.81  47 ⇑P    P      01 48 38.5 -0.2
      baz=89,SNR=8.2
O19A  Miners Draw (B    88.88  46 ⇑P    P      01 48 39.1 +0.1
      baz=89,SNR=9.1
K17A  Gardner Place,    88.90  43 ⇓P    P      01 48 39.1 +0.1
      baz=89,SNR=13
HHC   Hu-ho-hao-te      88.90 315 eP    P      01 48 39.5 +0.4
HHC                                pP   pP     01 50 32.5  -16
HHC                                sP   sP     01 51 23.1  -25
HHC                                PP   PP     01 52 18.9 -1.4
HHC                                SKS         01 58 18.6
HHC                               eS    S      01 58 41.1 +3.9
HHC                                SS   SS     02 04 49.7 +0.5
HHC                                pmax pmax
      comp=Z,11nm,1.1s,mb4.6
HHC                                pmax pmax
      comp=Z,120nm,5.6s
A11A  Hall Mountain,    88.93  36 ⇑P    P      01 48 38.9 -0.1
      baz=89,SNR=12
RRI2  Red Ridge         88.94  42 eP    P      01 48 39.6 +0.4
F14A  Wisdom            88.94  40 ⇓P    P      01 48 39.0 -0.2
      baz=89
D13A  Huson             88.98  38 ⇑P    P      01 48 39.2 -0.1
      baz=89
P20A  De Beque          89.00  47 ⇓P    P      01 48 39.6  0.0
      baz=89,SNR=9.6
L18A  Fontenelle, Gr    89.06  44 ⇑P    P      01 48 39.8  0.0
      baz=89
I16A  Newdale           89.10  42 ⇑P    P      01 48 40.5 +0.5
      baz=89,SNR=15
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N19A  John Jarvie Ra    89.13  45 ⇑P    P      01 48 39.5 -0.6
      baz=89,SNR=7.1
G15A  Dillon            89.14  40 ⇓P    P      01 48 40.2 +0.1
      baz=89,SNR=13
E14A  Clinton           89.19  39 ⇓P    P      01 48 39.6 -0.7
      baz=89,SNR=5.8
BSMT  Bassoo Peak       89.20  37 eP    P      01 48 39.9 -0.3
C13A  Hot Springs       89.23  38 ⇑P    P      01 48 39.9 -0.5
      baz=89
REDW  Red Top Meadow    89.24  43 eP    P      01 48 40.8 +0.2
Q21A  Lamborn Mesa,     89.25  48 ⇑P    P      01 48 40.8  0.0
      baz=89
J17A  Brown Place, J    89.33  43 ⇑P    P      01 48 41.2 +0.2
      baz=89,SNR=25
SNOW  Snow King Moun    89.36  43 eP    P      01 48 41.5 +0.4
      comp=Z,21nm,1.0s,mb4.9
CMAR  Chiang Mai Arr    89.36 290  P    P      01 48 42.3 +0.7
      comp=Z,7.7nm,0.9s,mb4.5,baz=119,slow=3.0,SNR=29
O20A  White River Ci    89.40  46 ⇑P    P      01 48 41.0 -0.4
      baz=89,SNR=8.2
K18A  Toltan Ranch,     89.41  44 ⇓P    P      01 48 41.4 +0.1
      baz=89,SNR=15
M19A  Rock Springs      89.44  45 ⇑P    P      01 48 41.0 -0.5
      baz=89,SNR=9.1
F15A  Butte             89.48  40 ⇓P    P      01 48 41.4 -0.3
      baz=90,SNR=7.0
CHTO  Chiang Mai        89.49 290 eP    P      01 48 43.5 +1.2
CHTO                               pmax pmax
      comp=Z,5.0nm,0.6s,mb4.5
CHTO  Chiang Mai        89.49 290 eP    P      01 48 43.5 +1.2
      comp=Z,4.5nm,0.6s,mb4.5
LOHW  Long Hollow       89.53  42 eP    P      01 48 41.8 -0.1
      comp=Z,4.4nm,0.6s,mb4.5
D14A  Greenough         89.53  38 ⇓P    P      01 48 40.9 -1.0
      baz=90,SNR=5.3
G16A  Moss Hill, Enn    89.59  41 ⇓P    P      01 48 41.9 -0.3
      baz=90,SNR=6.6
L19A  Farson            89.59  44 ⇓P    P      01 48 42.1 -0.2
      baz=90,SNR=19
QLMT  Earthquake Lak    89.62  41 eP    P      01 48 43.4 +1.1
P21A  Newcastle         89.66  47 ⇑P    P      01 48 43.0 +0.4
      baz=90
B13A  Whitefish         89.66  37 ⇓P    P      01 48 41.9 -0.5
      baz=90
H16A  Russell Place,    89.66  41 ⇓P    P      01 48 42.9 +0.4
      baz=90,SNR=8.1
I17A  Pilgrim Ck.       89.69  42 ⇑P    P      01 48 42.9 +0.3
      baz=90,SNR=9.1
E15A  Deer Lodge        89.69  39 ⇓P    P      01 48 42.5 -0.1
      baz=90
J18A  Kendall Valley    89.70  43 ⇑P    P      01 48 42.9 +0.2
      baz=90,SNR=57
N20A  Spence Gulch,     89.71  46 ⇓P    P      01 48 42.8  0.0
      baz=90,SNR=12
Q22A  Crested Butte,    89.73  48 ⇑P    P      01 48 43.1 +0.1
      baz=90
PLCA  Paso Flores       89.74 134  P    P      01 48 43.0 -0.1
      comp=Z,1.8nm,0.7s,mb4.0,baz=248,slow=10,SNR=2.9
PLCA  Paso Flores       89.74 134  P    P      01 48 43.0 -0.1
BW06  Boulder Array     89.78  44 ⇓P    P      01 48 42.7 -0.4
      baz=90
PDAR  Pinedale Array    89.78  44  P    P      01 48 42.0 -1.0
      comp=Z,7.9nm,0.6s,mb4.7,baz=211,slow=3.5,SNR=80
YFT   Old Faithful      89.79  42 eP    P      01 48 45.1 +2.0
BOZ   Bozeman (W)       89.91  40 ⇑P    P      01 48 43.6  0.0
      baz=90
H17A  Grant Village     89.93  42 ⇓P    P      01 48 44.6 +0.9
      baz=90,SNR=5.8
O21A  Pagoda            89.96  47 ⇑P    P      01 48 44.0  0.0
      baz=90
DAWY  Dawson            89.97  16 eP    P      01 48 43.1 -0.3
M20A  Sweetwater, Wa    90.07  45 ⇑P    P      01 48 44.4  0.0
      baz=90,SNR=8.3
D15A  Lincoln           90.08  39 ⇓P    P      01 48 43.9 -0.5
      baz=90,SNR=5.0
EGAK  Eagle             90.10  15 eP    P      01 48 43.0 -1.1
      comp=Z,26nm,1.1s,mb5.0
N21A  Black Mountain    90.18  46 ⇑P    P      01 48 45.2 +0.2
      baz=90,SNR=14
CD2   Chengdu           90.18 303  P    P      01 48 48.0 +2.8
CD2                                pmax pmax
      comp=Z,10.0nm,0.6s,mb4.8
CD2                                pmax pmax
      comp=Z,150nm,6.6s
L20A  Wamsutter         90.21  45 ⇓P    P      01 48 45.4 +0.3
      baz=90,SNR=15
SDCO  Great Sand Dun    90.22  49 eP    P      01 48 44.6 -0.6
      comp=Z,6.7nm,1.2s,mb4.3
K19A  Absolon Red Bu    90.27  44 ⇑P    P      01 48 44.5 -0.8
      baz=90,SNR=7.8
G17A  Pierce Place,     90.28  41 ⇓P    P      01 48 45.7 +0.4
      baz=90
COLD  Coldfoot          90.31  11 eP    P      01 48 44.8 -0.1
      comp=Z,18nm,1.2s,mb4.8
WALA  Waterton Lakes    90.34  37 eP    P      01 48 45.0 -0.5
C15A  Salmond Ranch,    90.41  38 ⇓P    P      01 48 45.6 -0.2
      baz=90
K20A  Yellowstone Ra    90.52  44 ⇓P    P      01 48 46.2 -0.3
      baz=90,SNR=6.0
A14A  Double T Ranch    90.57  37 ⇑P    P      01 48 46.1 -0.4
      baz=90
F17A  Fitzpatrick Pl    90.62  40 ⇓P    P      01 48 47.1 +0.2
      baz=91,SNR=5.5
D16A  Dana Ranch, Ca    90.65  39 ⇑P    P      01 48 47.0  0.0
      baz=91,SNR=5.9
B15A  Bradely Ranch,    90.71  38 ⇑P    P      01 48 46.7 -0.5
      baz=91
L21A  Rawlins           90.83  45 ⇓P    P      01 48 47.8 -0.2
      baz=91
N22A  Wattenberg Ran    90.92  46 ⇓P    P      01 48 48.7 +0.3
      baz=91
C16A  Fuhringer Ranc    90.92  38 ⇓P    P      01 48 47.9 -0.4
      baz=91
A15A  Johnson Ranch,    90.96  37 ⇑P    P      01 48 47.6 -0.8
      baz=91
G18A  Lazy EL Ranch,    91.01  41 ⇑P    P      01 48 48.7  0.0
      baz=91
M22A  Cedar Creek Ra    91.09  46 ⇓P    P      01 48 49.5 +0.3
      baz=91
RLMT  Red Lodge         91.10  42 ⇓P    P      01 48 49.2 +0.1
      baz=91
F18A  Big Timber        91.20  41 ⇑P    P      01 48 49.7 +0.2
      baz=91
D17A  Six Diamond Ra    91.22  39 ⇑P    P      01 48 49.5 -0.1
      baz=91
E18A  Harlowton         91.40  40 ⇑P    P      01 48 50.3 -0.2
      baz=91
C17A  Wharram Farm,     91.42  39 ⇓P    P      01 48 50.4 -0.1
      baz=91
A16A  West Butte Ran    91.59  37 ⇑P    P      01 48 51.0 -0.3
      baz=92
B17A  L&G Farms, Che    91.72  38 ⇑P    P      01 48 51.5 -0.4
      baz=92
D18A  Linhart Farms,    91.77  40 ⇓P    P      01 48 52.3 +0.1
      baz=92
YAK   Yakutsk           92.03 338 eP    P      01 48 50.7 -2.3
YAK                                pmax pmax
      comp=Z,16nm,0.9s,mb5.0
YAK                                pmax pmax
      comp=E,5.0nm,1.4s
YAK   Yakutsk           92.03 338  P    P      01 48 51.4 -1.6
      comp=E,19nm,0.5s,mb5.4
A17A  Triple J Farms    92.10  38 ⇑P    P      01 48 53.2 -0.4
      baz=92
LZH   Lanzhou           92.22 308 eP    P      01 48 55.6 +1.1
LZH                                pP   pP     01 50 47.5  -17
LZH                                sP   sP     01 51 39.5  -24
LZH                                pmax pmax
      comp=Z,19nm,1.0s,mb5.1
LZH                                pmax pmax
      comp=Z,84nm,4.5s
B18A  Beardsley Farm    92.36  39 ⇑P    P      01 48 54.4 -0.4
      baz=92
A18A  Metzger Ranch,    92.58  38 ⇑P    P      01 48 55.0 -0.8
      baz=92
RSSD  Black Hills       93.98  44 eP    P      01 49 01.0 -1.3
RSSD                               pmax pmax
      comp=Z,3.0nm,0.6s,mb4.6
RSSD  Black Hills       93.98  44 eP    P      01 49 01.0 -1.3
      comp=Z,2.7nm,0.6s,mb4.5
SONM  Songino Array     95.37 319  P    P      01 49 08.0 -0.5
      comp=Z,0.4nm,0.6s,mb3.8,baz=113,slow=3.4,SNR=6.2
DGMT  Dagmar            95.71  40 ⇓P    P      01 49 10.2 +0.2
      baz=96
GTA   Gaotai            96.45 310 eP    P      01 49 14.3 +0.7
GTA                                pP   pP     01 51 09.7  -14
GTA                                sP   sP     01 51 58.8  -24
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GTA				pmax	pmax		
	comp=Z,5.0nm,1.9s,mb4.4						
YKA	Yellowknife Ar	97.14	25	P	P	01 49 14.7	-1.4
	comp=Z,1.1nm,0.7s,mb4.2,baz=243,slow=4.5,SNR=25						
YKA				PP	PP	01 53 18.4	-4.6
	comp=Z,0.9nm,1.1s,baz=241,slow=7.5,SNR=4.8						
YKA				PKiKP	PKiKP	01 53 45.9	-1.7
	comp=Z,0.2nm,0.5s,baz=232,slow=1.6,SNR=4.2						
YKA	Yellowknife Ar	97.14	25	P	P	01 49 14.7	-1.4
YKA				PP	PP	01 53 18.4	-4.6
TIXI	Tiksi	98.78	345	eP	Pdif	01 49 23.4	-0.5
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb4.0						
ZALV	Zalesovo Beam	110.14	321	PKiKP	PKiKP	01 54 09.7	-2.0
	comp=Z,2.9nm,0.6s,baz=113,slow=0.6,SNR=18						
MKAR	Makanchi Array	110.73	313	PKiKP	PKiKP	01 54 11.3	-1.8
	comp=Z,1.2nm,0.4s,baz=90,slow=0.9,SNR=68						
MKAR	Makanchi Array	110.73	313	PKPdf	PKiKP	01 54 11.3	-1.8
KURK	Kurchatov	113.58	317	PKiKP	PKiKP	01 54 16.7	-1.7
	comp=Z,2.1nm,0.5s,baz=101,slow=1.8,SNR=16						
BVAR	Borovoye Array	118.71	320	PKP	PKPdf	01 54 26.6	-1.5
	comp=Z,8.7nm,0.4s,baz=114,slow=1.8,SNR=114						
BRVK	Borovoye	118.77	320	ePKIKP	PKPdf	01 54 27.0	-1.3
SCHQ	Schefferville	119.44	38	PKP	PKPdf	01 54 27.5	-2.0
	comp=Z,1.2nm,0.7s,baz=239,slow=5.9,SNR=5.7						
SFJD	Kangerlussuaq	123.53	22	i P	PKPdf	01 54 34.9	-2.1
	comp=Z,4.0nm,0.8s						
AKTK	Aktyubinsk	126.67	318	PKP	PKPdf	01 54 42.2	-1.3
AKTO	Aktyubinsk	126.67	318	PKP	PKPdf	01 54 42.2	-1.3
	comp=Z,3.8nm,0.6s,baz=77,slow=3.9,SNR=16						
SCO	Scoresbysund	128.44	10	i P	PKPdf	01 54 44.9	-1.4
	comp=Z,4.1nm,0.9s						
ARCES	ARCESS Array B	129.02	349	PKP	PKPdf	01 54 46.1	-1.3
	comp=Z,6.9nm,0.5s,baz=35,slow=3.3,SNR=46						
KLMR	Klimovskoe	131.77	336	ePKIKP	PKPdf	01 54 51.8	-1.1
KLMR				e		01 57 18.1	
KLMR				pmax	pmax		
	comp=Z,24nm,1.5s						
OBN	Obninsk	136.56	331	⇓iPKIKP	PKPdf	01 55 01.0	-1.0
OBN				pmax	pmax		
	comp=Z,17nm,1.3s						
VSR	Storozhevoye	137.49	325	ePKIKP	PKPdf	01 55 04.1	+0.3
VSR				pmax	pmax		
	comp=N,2.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,2.0nm,0.4s						
VORD	Divnogorie	137.55	325	ePKIKP	PKPdf	01 55 04.3	+0.4
VORD				pmax	pmax		
	comp=Z,7.0nm,0.6s						
VORD				pmax	pmax		
	comp=N,9.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,20nm,0.8s						
NB2	NORSAR Subarra	139.14	352	PKP		01 54 57.0	
	comp=Z,1.7nm,0.5s,baz=16,slow=3.2						
NOA	NORSAR Array B	139.14	352	PKHKP		01 54 57.2	
NOA						01 55 06.2	
NOA	NORSAR Array B	139.14	352	PKhKP		01 54 57.2	
	comp=Z,2.2nm,0.6s,baz=15,slow=4.6,SNR=9.6						
NOA				PKP	PKPdf	01 55 06.2	-0.4
	comp=Z,2.1nm,0.5s,baz=15,slow=3.8,SNR=6.2						
NOA				SKPbc	SKPbc	01 57 44.2	-1.9
	comp=Z,2.6nm,0.7s,baz=15,slow=4.4,SNR=4.5						
BEST	Besiri	141.34	305	i P	PKPdf	01 55 06.4	-4.9
GRSN	GIRESUNGRSN	142.62	311	i P	PKPdf	01 55 09.6	-3.9
MVH1	Achvaich	142.70	5	eP	PKPdf	01 55 09.3	-3.7
SUW	Suwalki	142.77	338	ePKP	PKPdf	01 55 10.0	-3.3
SUW	Suwalki	142.77	338	ePKP	PKPdf	01 55 10.0	-3.2
AKASG	Malin Array Be	142.81	330	PKhKP		01 55 09.7	
	comp=Z,30nm,0.4s,baz=43,slow=4.2,SNR=224						
AKASG				SKPbc	SKPbc	01 57 55.1	-0.6
	comp=Z,0.5nm,0.4s,baz=46,slow=2.6,SNR=7.1						
KIEV	Kiev	142.82	330	ePKHKP		01 55 09.7	
ELZG	Elazig	142.90	307	i P	PKPdf	01 55 12.8	-1.2
KAC	Achnashellach	143.03	6	eP	PKPdf	01 55 10.6	-3.0
KEMA	Kemaliye	143.03	308	i P	PKPdf	01 55 12.3	-1.9
MCD	Coleburn Disti	143.10	4	eP	PKPdf	01 55 09.9	-3.8
KPL	Plockton	143.15	6	eP	PKPdf	01 55 10.7	-3.1
MDO	Dochfour	143.17	5	eP	PKPdf	01 55 10.6	-3.3
MALT	Malatya	143.38	307	⇓iP	PKPdf	01 55 13.9	-0.9
MALT	Malatya	143.38	307	ePKPdf	PKPdf	01 55 14.0	-0.8
SIM	Simferopol’	143.62	319	d iPKHKP	PKPdf	01 55 13.8	-1.2
SIM				pmax	pmax		
	comp=Z,69nm,0.9s						
AKCD	Akcadag	143.76	307	i P	PKPdf	01 55 14.8	-0.7
MUD	Monsted U’grnd	143.86	352	i P	PKPdf	01 55 13.5	-1.6
	comp=Z,25nm,0.9s						
BSD	Bornholm Skovb	144.15	346	i P	PKPdf	01 55 14.2	-1.4
	comp=Z,37nm,0.9s						
GZT	Gaziantep	144.32	306	i P	PKPdf	01 55 16.1	-0.4
EAB	Aberfoyle	144.41	5	eP	PKPdf	01 55 14.6	-1.4
EBH	Black Hill	144.42	4	eP	PKPdf	01 55 14.9	-1.1
PINB	Pinarbasi	144.76	308	i P	PKPdf	01 55 17.8	+0.6
BOYT	Boyabat	144.76	313	i P	PKPdf	01 55 17.9	+0.7
PGBU	Glenifferbraes	144.77	5	eP	PKPdf	01 55 16.0	-0.7
ESY	Stoneypath	144.80	4	eP	PKPdf	01 55 15.9	-0.8
EAU	Auchinoon	144.82	4	eP	PKPdf	01 55 15.6	-1.1
KUZU	Kuzuini	144.86	305	i P	PKPdf	01 55 18.0	+0.6
EBL	Broad Law	144.92	4	eP	PKPdf	01 55 16.5	-0.4
WAR	Warsaw	144.97	339	ePKP	PKPdf	01 55 18.2	+1.0
WAR	Warsaw	144.97	339	ePKP	PKPdf	01 55 18.2	+1.1
CTKT	Corum	145.18	312	i P	PKPdf	01 55 17.6	-0.2
GKP	Gorka Klasztor	145.25	343	ePKP	PKPdf	01 55 18.1	+0.6
GKP	Gorka Klasztor	145.25	343	ePKP	PKPdf	01 55 18.1	+0.5
ESK	Eskdalemuir	145.36	4	eP	PKPdf	01 55 17.2	-0.5
BEL	Belsk	145.39	338	ePKP	PKPdf	01 55 18.9	+1.1
GAL1	Galloway	145.69	6	eP	PKPdf	01 55 18.8	+0.5
ILGA	Ilgaz	145.73	314	i P	PKPdf	01 55 20.5	+1.7
BALT	Daday	145.74	314	i P	PKPdf	01 55 20.1	+1.4
LVV	L’vov	145.75	333	i PKHKP	PKPbc	01 55 19.1	-1.2
AVNT	Avonos	145.85	309	i P	PKPdf	01 55 20.0	+1.0
CDAG	Cicekdag	145.88	311	i P	PKPdf	01 55 20.0	+0.9
BSEG	Bad Segeberg	146.14	350	ePKIKP	PKPdf	01 55 20.1	+1.0
BSEG	Bad Segeberg	146.14	350	ePKPbc	PKPbc	01 55 20.1	-1.2
BSEG	Bad Segeberg	146.14	350	ePKPbc	PKPbc	01 55 20.1	-1.2
ELDT	Eldivan	146.17	313	i P	PKPbc	01 55 21.6	-0.2
BRTR	Keskin Array B	146.35	311	PKPbc	PKPbc	01 55 21.4	-0.9
	comp=Z,9.8nm,0.6s,baz=149,slow=4.3,SNR=58						
DMUB	Kingscourt	146.38	8	eP	PKPdf	01 55 19.0	-0.4
WIM	Isle of Man	146.40	6	eP	PKPdf	01 55 20.8	+1.4
KWP	Kalwaria Pacla	146.45	334	ePKP	PKPdf	01 55 21.8	+2.1
KWP				e		01 55 24.9	
KWP	Kalwaria Pacla	146.45	334	⇑iP	PKPdf	01 55 21.5	+1.8
TLCR		146.60	323	⇑iP	PKPdf	01 55 22.1	+2.0
TLCR		146.60	323	⇑P	PKPdf	01 55 22.1	+2.0
HPK	Haverah Park	146.81	3	eP	PKPdf	01 55 21.9	+1.8
BUR02	Bucovina Ar. S	146.84	330	P	PKPbc	01 55 24.0	+0.6
RUE	Ruedersdorf	146.85	346	ePKPbc	PKPbc	01 55 22.5	-0.7
BURAR	Bucovina Array	146.85	330	⇓iP	PKPbc	01 55 23.2	-0.2
BURAR	Bucovina Array	146.85	330	⇓P	PKPbc	01 55 23.2	-0.2
DCN	Croghan	146.87	9	eP	PKPdf	01 55 20.6	+0.3
DLF	Lyons Farm	147.02	8	eP	PKPdf	01 55 20.9	+0.4
OJC	Ojcow	147.08	338	ePKP	PKPbc	01 55 23.1	-0.8
MMAI	Mount Meron Ar	147.16	299	PKPbc	PKPbc	01 55 24.8	+0.1
	comp=Z,18nm,0.5s,baz=72,slow=6.1,SNR=126						
KOLS	Kolonicke sedl	147.17	334	i PKP	PKPbc	01 55 23.5	-0.7
WME	Myndd Eilian	147.18	6	eP	PKPdf	01 55 22.7	+2.0
STHS	Stebnicka Huta	147.20	335	i PKP	PKPbc	01 55 23.8	-0.4
LHO	Holmfirth	147.21	3	eP	PKPdf	01 55 22.6	+1.8
TIRR	Tirgusor	147.27	322	⇓iP	PKPdf	01 55 23.1	+1.9
TIRR	Tirgusor	147.27	322	P	PKPbc	01 55 24.0	-0.6
VRI	Vrincioaia	147.30	326	⇓iP	PKPdf	01 55 23.2	+2.0
VRI	Vrincioaia	147.30	326	P	PKPbc	01 55 24.0	-0.6
PLOR	Plostina	147.35	326	⇑iP	PKPbc	01 55 23.8	-0.9
UZH	Uzhgorod	147.40	333	⇑iPKIKP	PKPbc	01 55 24.4	-0.4
UZH				e		01 55 32.4	
HARR	Harsova	147.40	323	⇓iP	PKPbc	01 55 24.5	-0.4
HARR	Harsova	147.40	323	P	PKPbc	01 55 24.4	-0.5
CRVS	Cervenica-Dubn	147.52	335	i PKP	PKPbc	01 55 24.9	-0.2
NIE	Niedzica	147.55	336	ePKP	PKPbc	01 55 25.2	0.0
NRDL	Niedersach Rie	147.57	350	ePKPbc	PKPbc	01 55 24.1	-1.0
BMR	Baia Mare	147.60	331	PKIKP	PKPbc	01 55 25.3	0.0
KSP	Ksiaz	147.68	342	ePKP	PKPbc	01 55 25.4	-0.1
KSP				e		01 55 30.8	
KSP	Ksiaz	147.68	342	ePKPdf	PKPbc	01 55 24.9	-0.5
KSP				ePKPab	PKPab	01 55 29.7	-0.2
HENT	Hendek	147.72	315	i P	PKPbc	01 55 24.8	-1.1
SBD1	Bryn Du	147.76	5	eP	PKPbc	01 55 24.2	-1.3
PSN	Preselentsi	147.87	322	P	PKPbc	01 55 25.9	-0.2
KDHN	Kadinhani	147.93	310	i P	PKPbc	01 55 25.5	-1.0
OKC	Ostrava-Krasne	147.97	339	⇑iPKP	PKPbc	01 55 25.7	-0.5
OKC				ePKPAB	PKPab	01 55 31.3	+0.1
CWF	Charnwood Fore	148.04	3	eP	PKPdf	01 55 22.2	0.0
UPC	Upice	148.06	342	⇑iPKP	PKPbc	01 55 26.0	-0.4
UPC				ePKPAB	PKPab	01 55 31.6	+0.1
IBBN	Ibbenburen	148.10	352	ePKPbc	PKPbc	01 55 25.6	-0.8
DPC	Dobruska-Polom	148.11	341	⇑iPKP	PKPbc	01 55 26.3	-0.2
DPC				ePKPAB	PKPab	01 55 31.4	-0.3
CLL	Collm	148.12	346	ePKPbc	PKPbc	01 55 25.8	-0.7
CLL				ePKPab	PKPab	01 55 31.0	-0.7
CLL	Collm	148.12	346	⇓iPKPbc	PKPbc	01 55 25.9	-0.6
	comp=Z,41nm,1.1s						
CLL				⇑iPKPab	PKPab	01 55 31.0	-0.7
	comp=Z,18nm,0.7s						
EIL	Elat	148.16	293	PKPbc	PKPbc	01 55 26.9	-0.4
	comp=Z,9.5nm,0.7s,baz=26,slow=3.1,SNR=13						
EIL				PKPab	PKPab	01 55 33.5	+0.8
	comp=Z,2.3nm,0.5s,baz=63,slow=4.5,SNR=5.0						
MORC	Moravsky Berou	148.23	340	⇑iP	PKPbc	01 55 25.5	-1.3
MORC	Moravsky Berou	148.23	340	ePKPbc	PKPbc	01 55 26.5	-0.3
BRG	Berggiesshubel	148.29	344	ePKPbc	PKPbc	01 55 26.2	-0.8
BRG				ePKPab	PKPab	01 55 31.9	-0.5
BRG	Berggiesshubel	148.29	344	ePKP	PKPdf	01 55 22.1	-0.5
	comp=Z,8.0nm,1.2s						
BRG				i		01 55 26.2	
	comp=Z,39nm,1.4s						
BRG				i		01 55 32.1	
	comp=Z,9.4nm,0.7s						
ESKT	Eskisehir	148.38	313	i P	PKPbc	01 55 26.4	-1.1
FBE	Freiberg	148.39	345	ePKPbc	PKPbc	01 55 26.7	-0.5
FBE				ePKPab	PKPab	01 55 32.6	-0.2
PVCC	Panska Ves	148.44	343	⇑iPKP	PKPbc	01 55 27.0	-0.3
VOIR		148.46	327	⇑iP	PKPbc	01 55 26.7	-0.9
VOIR		148.46	327	P	PKPbc	01 55 27.1	-0.5
WTSB	Winterswijk	148.55	353	ePKP	PKPbc	01 55 26.5	-1.1
	comp=Z,57nm,0.8s						
HTR	Trewern Hill	148.58	5	eP	PKPbc	01 55 25.8	-1.8
PRD	Provadia	148.61	321	P	PKPbc	01 55 27.9	-0.1
DRGR		148.62	331	⇑iP	PKPbc	01 55 27.2	-0.7
DRGR		148.62	331	P	PKPbc	01 55 27.4	-0.5
MCH1	Michaelchurch	148.68	5	eP	PKPbc	01 55 26.4	-1.4
VYHS	Vyhne	148.87	337	i PKP	PKPbc	01 55 28.1	-0.3
PSZ	Piszkesteto	148.94	335	⇑iP	PKPbc	01 55 27.7	-0.9
PSZ	Piszkesteto	148.94	335	⇓ePKP	PKPbc	01 55 27.9	-0.7
PSZ	Piszkesteto	148.94	335	ePKPbc	PKPbc	01 55 28.3	-0.3
VRAC	Vranov	148.94	340	⇓iP	PKPbc	01 55 28.2	-0.4
VRAC	Vranov	148.94	340	PKPbc	PKPbc	01 55 28.1	-0.5
	comp=Z,14nm,1.1s,baz=9.4,slow=2.6,SNR=10						
VRAC				PKPab	PKPab	01 55 35.4	+0.2
	comp=Z,13nm,0.9s,baz=36,slow=2.2,SNR=8.4						
VRAC	Vranov	148.94	340	P	PKPbc	01 55 28.3	-0.3
PRU	Pruhonice	148.94	343	ePKPDF	PKPdf	01 55 22.9	-0.9
PRU				⇑iPKP	PKPbc	01 55 27.9	-0.7
PRU				ePKPAB	PKPab	01 55 34.6	-0.5
BUG	Bochum--Univer	149.01	352	ePKPbc	PKPbc	01 55 27.7	-1.0
MOX	Moxa	149.04	347	eP	PKPbc	01 55 28.1	-0.7
	comp=Z,55nm,1.6s						
MOX	Moxa	149.04	347	ePKPbc	PKPbc	01 55 28.0	-0.8
TANN	Tannenbergstha	149.07	346	ePKPbc	PKPbc	01 55 28.0	-0.9
TANN				ePKPab	PKPab	01 55 35.3	-0.4
WERD	Werda	149.08	346	ePKPbc	PKPbc	01 55 28.3	-0.6
WERD				ePKPab	PKPab	01 55 35.4	-0.3
GUNZ	Gunzen	149.15	346	ePKPbc	PKPbc	01 55 28.7	-0.4
GUNZ				ePKPab	PKPab	01 55 35.8	-0.2
UBBA	Unterbreizbach	149.20	349	ePKPbc	PKPbc	01 55 28.2	-1.0
WERN	Wernitzgruen	149.21	346	ePKPbc	PKPbc	01 55 28.8	-0.4
WERN				ePKPab	PKPab	01 55 35.9	-0.3
NKC	Novy Kostel	149.25	346	⇑iPKP	PKPbc	01 55 28.8	-0.5
NKC				ePKPAB	PKPab	01 55 36.1	-0.3
TREC	Trest	149.29	341	i PKHKP	PKPbc	01 55 28.9	-0.6
TREC	Trest	149.29	341	⇑iPKP	PKPbc	01 55 28.9	-0.6
SMOL	Smolenice	149.35	338	i PKP	PKPbc	01 55 29.3	-0.3
SZH	Strazhica	149.41	323	P	PKPbc	01 55 29.2	-0.7
GDZ	Gediz	149.52	313	i P	PKPbc	01 55 28.1	-2.3
MODS	Modra-Piesok	149.52	338	i PKP	PKPbc	01 55 29.4	-0.6
JMB	Yambol	149.53	321	P	PKPbc	01 55 30.1	-0.1
MANZ	Manzenberg	149.56	346	ePKPbc	PKPbc	01 55 29.3	-0.7
GZR	Gura Zlata	149.62	329	⇓iP	PKPbc	01 55 29.4	-1.0
GZR	Gura Zlata	149.62	329	P	PKPbc	01 55 29.7	-0.7
BUD	Budapest	149.63	336	⇓ePKP	PKPbc	01 55 29.5	-0.8
ROTZ	Rotzenmuhle	149.74	346	ePKPbc	PKPbc	01 55 29.9	-0.6
ROTZ				ePKPab	PKPab	01 55 37.8	-0.7
BEBN	Eben Emael	149.82	354	PKPab	PKPab	01 55 37.9	-0.8
HGN	Heimansgroeve	149.82	354	ePKP	PKPbc	01 55 29.7	-0.9
	comp=Z,26nm,1.2s						
KHAL	Karahalli	149.85	312	i P	PKPbc	01 55 30.4	-0.7
CRAR	CRAIOVA	149.87	326	PKHKP	PKPbc	01 55 31.1	+0.1
UCC	Uccle	149.92	356	PKPbc	PKPbc	01 55 30.5	-0.4
MEM	Membach	149.97	354	PKPbc	PKPbc	01 55 30.2	-0.8
MEM				PKPab	PKPab	01 55 36.1	-3.3
KHC	Kasperske Hory	149.98	343	ePKPDF	PKPdf	01 55 24.6	-0.8
KHC				⇑iPKP	PKPbc	01 55 30.7	-0.4
KHC				ePKPAB	PKPab	01 55 39.5	0.0
KHC	Kasperske Hory	149.98	343	ePKP	PKPdf	01 55 24.6	-0.8
KHC				ePKPbc	PKPbc	01 55 30.7	-0.4
KHC				e		01 55 39.5	
BZS	Buzias	150.00	330	⇓iP	PKPbc	01 55 30.4	-0.8
BZS	Buzias	150.00	330	P	PKPbc	01 55 30.5	-0.7
GRA1	Grafenberg Arr	150.03	347	ePKPbc	PKPbc	01 55 30.5	-0.7
GRA1				ePKPab	PKPab	01 55 39.5	-0.2
GRF	Grafenberg Arr	150.03	347	ePKHKP	PKPbc	01 55 30.5	-0.7
GRF				e		01 55 39.5	
GRF	Grafenberg Arr	150.03	347	ePKHKP	PKPbc	01 55 30.5	-0.7
GRF				e		01 55 39.5	
GRF	Grafenberg Arr	150.03	347	ePKPbc	PKPbc	01 55 30.5	-0.7
GRF				ePKPab	PKPab	01 55 39.5	-0.2
GRF	Grafenberg Arr	150.03	347	ePKP	PKPbc	01 55 30.5	-0.7
GRF				ePKP	PKPab	01 55 39.5	-0.2
TNS	Taunus Mts	150.03	350	ePKHKP	PKPbc	01 55 30.5	-0.7
TNS				e		01 55 39.0	
TNS	Taunus Mts	150.03	350	ePKPbc	PKPbc	01 55 30.5	-0.7
TNS				ePKPab	PKPab	01 55 39.0	-0.7
TNS	Taunus Mts	150.03	350	ePKPbc	PKPbc	01 55 30.5	-0.7
TNS				ePKPab	PKPab	01 55 39.0	-0.7
WET	Wettzell	150.15	344	ePKHKP	PKPbc	01 55 30.7	-0.8
WET				e		01 55 40.3	
WET	Wettzell	150.15	344	ePKPbc	PKPbc	01 55 30.7	-0.8
WET				ePKPab	PKPab	01 55 40.3	+0.1
WET	Wettzell	150.15	344	ePKPbc	PKPbc	01 55 30.7	-0.8
WET				ePKPab	PKPab	01 55 40.3	+0.1
GEC2	GERESS Array S	150.21	343	ePKHKP	PKPbc	01 55 30.8	-0.8
GEC2				e		01 55 40.0	
GEC2	GERESS Array S	150.21	343	ePKPbc	PKPbc	01 55 30.8	-0.8
GEC2				ePKPab	PKPab	01 55 40.0	-0.5
GEC2	GERESS Array S	150.21	343	ePKPbc	PKPbc	01 55 30.8	-0.8
GEC2				ePKPab	PKPab	01 55 40.0	-0.5
GERES	GERESS Array B	150.21	343	PKPbc	PKPbc	01 55 30.9	-0.7
	comp=Z,7.3nm,0.6s,baz=24,slow=2.5,SNR=61						
GERES				PKPab	PKPab	01 55 40.0	-0.4
	comp=Z,1.1nm,0.4s,baz=29,slow=6.1,SNR=6.0						
GERES	GERESS Array B	150.21	343	PKPbc	PKPbc	01 55 30.9	-0.7
GERES				PKPab	PKPab	01 55 40.0	-0.4
SNF	Seneffe	150.22	356	PKPbc	PKPbc	01 55 30.5	-1.1
BCLA	Clavier	150.23	355	PKPab	PKPab	01 55 39.5	-0.9
SOP	Sopron	150.36	339	⇓ePKP	PKPbc	01 55 31.5	-0.5
CONA	Conrad Observa	150.38	340	⇑iPKPbc	PKPbc	01 55 31.6	-0.4
	comp=Z,16nm,0.6s,SNR=17						
CSNA	Conrad Observa	150.38	340	⇑iPKPbc	PKPbc	01 55 31.6	-0.4
	comp=Z,16nm,0.6s						
GIVF	Givet	150.58	355	ePKP1	PKPbc	01 55 31.7	-0.7
	comp=Z,38nm,0.6s						
DOU	Dourbes	150.61	355	PKPbc	PKPbc	01 55 31.7	-0.8
BAIF	Baives	150.67	356	ePKP1	PKPbc	01 55 31.9	-0.7
	comp=Z,34nm,0.9s						
AKAS	Kas	150.69	308	i P	PKPbc	01 55 31.2	-2.0
KDZ	Kurdzhali	150.72	321	P	PKPbc	01 55 32.0	-1.0
PKSM	Moragy	150.82	334	⇓iP	PKPbc	01 55 32.0	-1.1
PKSM	Moragy	150.82	334	P	PKPbc	01 55 32.1	-1.0
PGB	Panagyurishte	150.87	323	P	PKPbc	01 55 32.6	-0.7
WLF	Walferdange	150.89	353	PKPbc	PKPbc	01 55 32.6	-0.5
WLF				PKPab	PKPab	01 55 42.7	-0.6
WLF	Walferdange	150.89	353	ePKHKP	PKPbc	01 55 33.0	-0.1
WLF	Walferdange	150.89	353	ePKPbc	PKPbc	01 55 32.7	-0.4
WLF				ePKPab	PKPab	01 55 42.7	-0.6
WLF	Walferdange	150.89	353	ePKPbc	PKPbc	01 55 33.0	-0.2
MOA	Molln	150.95	341	⇑iPKPbc	PKPbc	01 55 32.3	-1.0
	comp=Z,5.9nm,0.5s,SNR=11						
RZN	Rozhen	151.11	321	P	PKPbc	01 55 33.0	-0.9
STU	Stuttgart	151.31	349	ePKPbc	PKPbc	01 55 33.4	-0.7
STU				ePKPab	PKPab	01 55 44.2	-0.9
VTS	Vitosha	151.37	324	P	PKPbc	01 55 33.6	-0.9
FUR	Furstenfeldbru	151.45	346	ePKHKP	PKPbc	01 55 33.2	-1.3
FUR				e		01 55 45.6	
FUR	Furstenfeldbru	151.45	346	ePKPbc	PKPbc	01 55 33.2	-1.3
FUR				ePKPab	PKPab	01 55 45.6	-0.1
FUR	Furstenfeldbru	151.45	346	ePKPbc	PKPbc	01 55 33.2	-1.3
FUR				ePKPab	PKPab	01 55 45.6	-0.1
RJOB	Jochberg	151.47	343	ePKPbc	PKPbc	01 55 33.3	-1.2
RJOB				ePKPab	PKPab	01 55 45.9	+0.1
KOGS	Kog	151.53	338	i PKPbc	PKPbc	01 55 33.4	-1.3
KOGS				i PKPab	PKPab	01 55 45.6	-0.5
MMB	Musomiste	151.74	322	P	PKPbc	01 55 34.1	-1.2
SOKA	Soboth	151.75	339	⇓iPKPbc	PKPbc	01 55 33.8	-1.4
	comp=Z,4.9nm,0.5s						
BFO	Black Forest	151.89	350	ePKIKP	PKPbc	01 55 34.4	-1.0
BFO				e		01 55 46.8	
BFO	Black Forest	151.89	350	ePKPbc	PKPbc	01 55 34.4	-1.0
BFO				ePKPab	PKPab	01 55 46.8	-0.7
BFO	Black Forest	151.89	350	ePKPbc	PKPbc	01 55 34.4	-1.0
BFO				ePKPab	PKPab	01 55 46.8	-0.7
KBA	Koelnbreinsper	151.92	342	⇑iPKPbc	PKPbc	01 55 33.9	-1.6
	comp=Z,6.5nm,0.6s,SNR=7.5						
CDF	Champ du Feu	151.97	351	ePKP1	PKPbc	01 55 34.8	-0.8
	comp=Z,16nm,0.6s						
FLN	La Foliniere	152.05	2	ePKP1	PKPbc	01 55 34.5	-1.3
	comp=Z,19nm,0.5s						
MEZF	Maizieres J’vi	152.15	354	ePKP1	PKPbc	01 55 35.3	-0.7
	comp=Z,11nm,0.5s						
WATA	Walderalm	152.16	345	⇑iPKPbc	PKPbc	01 55 34.9	-1.1
	comp=Z,7.3nm,0.4s,SNR=8.3						
WATA				⇓iPKPab	PKPab	01 55 48.5	-0.2
	comp=Z,7.7nm,0.8s						
WTTA	Wattenberg	152.21	344	⇓iPKPbc	PKPbc	01 55 35.3	-0.9
	comp=Z,13nm,0.4s						
WTTA				⇑iPKPab	PKPab	01 55 49.2	+0.3
	comp=Z,14nm,0.5s						
RETA	Reutte	152.21	346	⇓iPKPbc	PKPbc	01 55 35.1	-1.0
	comp=Z,4.6nm,0.6s,SNR=5.8						
RETA				⇑iPKPab	PKPab	01 55 48.8	-0.2
	comp=Z,9.7nm,0.6s						
LDF	La Druitiere	152.23	2	ePKP1	PKPbc	01 55 34.8	-1.4
	comp=Z,8.9nm,0.5s						
MOTA	Moosalm	152.26	345	⇓iPKPdf	PKPdf	01 55 27.4	-1.5
	comp=Z,9.3nm,1.6s						
MOTA				⇓iPKPbc	PKPbc	01 55 35.1	-1.2
	comp=Z,11nm,0.9s						
MOTA				⇑iPKPab	PKPab	01 55 49.0	-0.2
	comp=Z,8.8nm,0.6s						
ROSF	Rostrenen	152.28	6	ePKP1	PKPbc	01 55 34.7	-1.6
LEGS	Legarje	152.29	338	i PKPbc	PKPbc	01 55 35.2	-1.1
LEGS				i PKPab	PKPab	01 55 48.5	-0.8
PDKS	Podkum	152.30	339	i PKPbc	PKPbc	01 55 35.2	-1.2
GRR	Gorron	152.41	3	ePKP1	PKPbc	01 55 35.4	-1.2
	comp=Z,15nm,0.6s						
SGMF	Saint Gilles	152.43	5	ePKP1	PKPbc	01 55 35.1	-1.5
ABTA	Abfaltersbach	152.45	343	⇑iPKPdf	PKPdf	01 55 27.6	-1.7
	comp=Z,5.5nm,1.2s						
ABTA				⇑iPKPbc	PKPbc	01 55 35.3	-1.5
	comp=Z,13nm,0.6s						
LJU	Ljubljana	152.48	339	i PKPbc	PKPbc	01 55 35.8	-1.0
HAU	Haudompre	152.50	352	ePKP1	PKPbc	01 55 35.7	-1.1
	comp=Z,11nm,0.6s						
VAY	Valandovo	152.57	323	ePKP	PKPbc	01 55 35.1	-2.1
HINF	Hinteralfeld	152.62	351	ePKP1	PKPbc	01 55 35.8	-1.2
	comp=Z,9.4nm,0.7s						
FETA	Feichten	152.66	345	⇑iPKPdf	PKPdf	01 55 28.7	-0.8
	comp=Z,6.6nm,1.0s						
FETA				⇑iPKPbc	PKPbc	01 55 36.5	-0.6
	comp=Z,9.9nm,1.0s						
VOY	Vojsko	152.69	340	ePKPbc	PKPbc	01 55 35.6	-1.7
BOJS	Bojanci	152.70	338	i PKPbc	PKPbc	01 55 36.6	-0.7
SKO	Skopje	152.75	325	ePKP	PKPbc	01 55 37.1	-0.4
CEY	Cerknica	152.78	339	i PKPbc	PKPbc	01 55 36.4	-1.1
CEY				i PKPab	PKPab	01 55 50.6	-0.8
BIA	Bitola	153.47	324	ePKP	PKPbc	01 55 37.8	-1.4
LOR	Lormes	153.47	356	ePKP1	PKPbc	01 55 37.9	-1.0
	comp=Z,7.4nm,0.5s						
SSF	Saint Saulge	153.70	356	ePKP1	PKPbc	01 55 38.4	-1.0
	comp=Z,6.3nm,0.7s						
CABF	La Chapelle	153.90	352	ePKP1	PKPbc	01 55 39.4	-0.4
	comp=Z,6.1nm,0.7s						
AVF	Avril sur Loir	153.98	356	ePKP1	PKPbc	01 55 39.6	-0.4
SMF	Signal de Mont	154.09	356	ePKP1	PKPbc	01 55 40.1	-0.1
MFF	Saint Martin d	154.22	2	ePKP1	PKPbc	01 55 39.3	-1.2
	comp=Z,13nm,0.7s						
BGF	Bois d’Agland	154.24	357	ePKP1	PKPbc	01 55 40.7	+0.2
TCF	Toulx Ste Croi	154.53	358	ePKP1		01 55 39.9	
	comp=Z,5.9nm,0.8s						
IDI	Anoyia	154.55	310	PKPbc	PKPdf	01 55 41.2	+8.7
	comp=Z,3.2nm,0.5s,baz=14,slow=17,SNR=8.3						
PBRG	Braganca	158.03	16	ePKPab	PKPab	01 56 13.9	-0.3
PVRL	Vila Real	158.25	18	ePKPab	PKPab	01 56 15.2	0.0
MVO	Moncorvo	158.55	17	ePKPab	PKPab	01 56 16.3	-0.2
PMRV	Marv??o	160.05	19	ePKPab	PKPab	01 56 22.3	-0.8
PESTR	Estremoz	160.50	21	ePKPab	PKPab	01 56 24.1	-0.9
EVO	Evora	160.66	22	ePKPab	PKPab	01 56 24.7	-1.1
ESDC	Sonseca Array	160.68	12	PKPab	PKPab	01 56 24.7	-1.1
	comp=Z,2.8nm,0.7s,baz=342,slow=4.0,SNR=14						
PBEJ	Beja	161.16	22	ePKPab	PKPab	01 56 27.1	-0.9
PTEO	Sao Teotonio	161.26	25	ePKPab	PKPab	01 56 20.5	-8.0
PVAQ	Vaqueiros	161.77	23	ePKPab	PKPab	01 56 30.0	-0.7
KEST	Kesra	163.41	336	PKPab	PKPab	01 56 38.0	+0.1
	comp=Z,2.2nm,0.9s,baz=340,slow=5.3,SNR=6.9						
DBIC	Dimbokro	164.86	157	PKP	PKPdf	01 55 42.8	-1.8
	comp=Z,4.2nm,0.8s,baz=117,slow=2.3,SNR=7.2						
DBIC				PKPab	PKPab	01 56 43.6	-1.2
	comp=Z,2.7nm,1.0s,baz=180,slow=5.8,SNR=3.6						
TORD	Torodi Ar. Bea	172.39	185	PKP	PKPdf	01 55 47.1	-2.2
	comp=Z,1.4nm,0.7s,baz=358,slow=0.9,SNR=12						
TORD				PKPab	PKPab	01 57 17.1	-1.0
	comp=Z,0.3nm,0.6s,baz=173,slow=5.3,SNR=6.3						

ISK ***07*** *01:45:24.4, 39.°91N×41.°80E, h5^{km}, MD3.0*

DDA ***07*** *01:45:24.5, 39.°79N×41.°81E, h7^{km}±4^{km}, Md3.4*

ISCJB ***07*** *01:45:26.0±0.6, 39.°88N±0.°05×41.°81E±0.°03, h8^{km}±5^{km}, Error ellipse: s-maj=7.8km s-min=4.0km az=7.2*

CSEM ***07*** *01:45:25.3±0.2, 39.°92N×41.°85E, h2^{km}, MD3.4, Error ellipse: s-maj=10.8km s-min=4.2km az=15.0*

ISC 07 01:45:26.5±0.5, **39.°90N**±0.°05×**41.°81E**±0.°03, **h11**^{km}±5^{km}, **n23, σ1.^{s}19**/35, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOMI	Horasan	0.16	26	i P	Pg	01 45 29.7	-0.5
HOMI				i S	Sg	01 45 34.6	+1.9
ERZM	Erzurum	0.34	271	i P	Pg	01 45 31.5	-1.8
ERZM				i S	Sg	01 45 38.4	+0.5
ERZM	Erzurum	0.34	271	i P	Pg	01 45 31.5	-1.8
ERZM				i S	Sg	01 45 38.4	+0.4
EZM	Erzurum	0.34	271	PG	Pg	01 45 31.6	-1.8
EZM				eSG	Sg	01 45 38.6	+0.6
AGRB	Hanur-Agry	0.97	109	ePG	Pg	01 45 44.1	-1.0
AGRB				eSG	Sg	01 45 59.0	+1.3
AGRB	Hanur-Agry	0.97	109	ePg	Pg	01 45 44.1	-1.0
AGRB				eSg	Sg	01 45 59.0	+1.3
KOPT	Kop Dagi	1.02	277	i P	Pg	01 45 43.3	-2.8
KOPT				i S	Sg	01 46 00.7	+1.3
KARS	Kars	1.21	54	ePN	Pn	01 45 48.4	-1.0
KARS	Kars	1.21	54	ePn	Pn	01 45 48.4	-1.0
PZAR	Pazar-Rize	1.46	332	ePN	Pn	01 45 52.7	-0.1
PZAR	Pazar-Rize	1.46	332	ePn	Pn	01 45 52.7	-0.1
DYDN	Diyadin	1.49	103	i P	Pn	01 45 52.1	-1.1
DYDN				i S	Sn	01 46 12.9	+0.2
DYDN	Diyadin	1.49	103	i P	Pn	01 45 52.2	-1.0
DYDN				i S	Sn	01 46 12.9	+0.2
EZC	Erzincan	1.54	265	ePN	Pn	01 45 58.9	+4.9
CLDR	Caldiran	1.79	114	ePN	Pn	01 45 58.2	+0.8
CLDR	Caldiran	1.79	114	ePn	Pn	01 45 58.2	+0.8
TVAN	Van	1.85	137	i P	Pn	01 45 58.6	+0.5
TVAN				i S	Sn	01 46 20.4	-1.1
TVAN	Van	1.85	137	i P	Pn	01 45 58.6	+0.5
TVAN				i S	Sn	01 46 20.4	-1.0
GUMT	Gumushane	1.87	288	ePN	Pn	01 45 59.2	+0.8
GUMT	Gumushane	1.87	288	ePn	Pn	01 45 59.2	+0.7
BEST	Besiri	2.05	192	eP	Pn	01 46 00.5	-0.4
BEST				i S	Sn	01 46 28.8	+2.3
ESPY	Espiye-Giresun	2.56	294	ePN	Pn	01 46 08.6	+0.6
ESPY	Espiye-Giresun	2.56	294	ePn	Pn	01 46 08.6	+0.6

NEIC ***07*** *02:12:09.4, 15.°50N×60.°86W, h134^{km}, MD3.6(TRN), After TRN.*

TRN 07 02:12:10.4, 15.°38N×61.°13W, h146^{km}, MD3.6, M3.5(FDF),

4C-3D,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DLPL	**La Plaine**	0.12	248	eP	Pn	02 12 31.7	+1.8
DLPL				eS	Sn	02 12 46.1	+1.3
MGG	**Marie-Galante**	0.57	342	⇑iP	Pn	02 12 32.8	+1.2
FDF	**Fort de France**	0.64	181	⇓iP	Pn	02 12 33.3	+1.3
FDF				⇓eS	Sn	02 12 49.6	+1.1
FDF	**Fort de France**	0.64	181	ePg	Pn	02 12 33.3	+1.2
FDF				eSg	Sn	02 12 49.6	+1.0
TBG	**Guadaloupe-3**	0.68	314	eP	Pn	02 12 33.3	+1.0
DOG	**Dongo Capester**	0.80	325	eP	Pn	02 12 34.3	+1.1
PHG	**Guadaloupe-2**	0.80	322	eP	Pn	02 12 34.4	+1.3
HMG	**Houelmont**	0.81	318	eP	Pn	02 12 34.4	+1.2
SCG	**Saint Claude**	0.84	321	eP	Pn	02 12 34.8	+1.4
MVM	**Montagne Vaucl**	0.85	164	eP	Pn	02 12 34.8	+1.3
BIM	**Bigot**	0.86	176	⇓iP	Pn	02 12 34.8	+1.2
DEG	**La Desirade**	0.94	4	⇑iP	Pn	02 12 35.4	+1.2
DEG				⇑eS	Sn	02 12 53.3	+0.9
LZG	**Guadaloupe-1**	0.98	321	eP	Pn	02 12 35.8	+1.2
SEG	**Port Louis**	1.08	341	eP	Pn	02 12 36.8	+1.3
SLW	**Petit Monier**	1.36	172	eP	Pn	02 12 38.9	+0.7
SLW	**Petit Monier**	1.36	172	eP	Pn	02 12 38.9	+0.7
SLW				eS	Sn	02 12 59.4	-0.1
SLW				eS	Sn	02 13 00.1	+0.6
SLW	**Petit Monier**	1.36	172	eP	Pn	02 12 38.9	+0.7
SLW				eS	Sn	02 13 00.1	+0.6
SLB	**Belfond**	1.54	177	eP	Pn	02 12 40.8	+0.7
SLB				eS	Sn	02 13 04.7	+1.8
MCLT	**Moule a Chique**	1.67	174	eP	Pn	02 12 43.3	+1.8
MCLT				eS	Sn	02 13 05.2	-0.1
BPA	**Boggy Peak**	1.80	337	eP	Pn	02 12 43.3	+0.4
BPA				eS	Sn	02 13 06.2	-1.8
BPA	**Boggy Peak**	1.80	337	eP	Pn	02 12 43.3	+0.4
BPA				eS	Sn	02 13 06.7	-1.2
SSV	**Crater Summit**	2.04	182	eP	Pn	02 12 46.2	+0.5
SVV	**Soufriere Volc**	2.05	182	⇑eP	Pn	02 12 46.8	+1.0
SVV				eS	Sn	02 13 13.4	+0.3
BHS	**Barnard House**	2.07	180	eP	Pn	02 12 47.4	+1.3
BHS				eS	Sn	02 13 14.3	+0.8
BHS	**Barnard House**	2.07	180	eP	Pn	02 12 47.4	+1.3
BHS				eS	Sn	02 13 16.5	+3.0
SVB	**Belmont**	2.10	183	eP	Pn	02 12 47.3	+0.9
SVB				eS	Sn	02 13 14.8	+0.7
SVB	**Belmont**	2.10	183	eP	Pn	02 12 47.3	+0.9
SVB				eS	Sn	02 13 16.4	+2.3
FCV	**Fort Charlotte**	2.21	183	eP	Pn	02 12 48.2	+0.5
FCV				eS	Sn	02 13 18.0	+1.5
FCV	**Fort Charlotte**	2.21	183	eP	Pn	02 12 48.2	+0.5
FCV				eS	Sn	02 13 19.1	+2.6
SKI	**Saint Kitts**	2.48	322	eP	Pn	02 12 52.1	+1.0
SKI				eS	Sn	02 13 22.9	+0.5
GRGR	**Grenville**	3.26	189	ePn	Pn	02 13 01.6	+0.6
TOSP	**Speyside**	4.09	172	eP	Pn	02 13 13.7	+1.9
TOSP				eS	Sn	02 13 54.4	-5.1

IDC 07 02:21:13.0±2.2,6.°88S×129.°02E,h0km,mb3.1/1, mb1 3.4/3,mb1mx3.3/16,mbtmp3.2/3,ML3.1/1,Error ellipse: s-maj=150.0km s-min=32.4km az=67.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	13.98	159	Pn	Pn	02 24 32.1	-0.3
	0.1nm,0.3s,baz=338,slow=13,SNR=3.7						
WRA				Sn	Sn	02 26 55.8	-13
	0.2nm,0.3s,baz=336,slow=24,SNR=3.6						
ASAR	**Alice Springs**	17.34	165	P	Pn	02 25 16.9	+0.4
	0.1nm,0.3s,baz=340,slow=9.9,SNR=9.3						
MKAR	**Makanchi Array**	67.59	327	P	P	02 32 11.6	+0.1
	0.1nm,0.5s,baz=128,slow=7.4,SNR=5.0						

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*IDC **07** 02:30:20.1±8.7,33.°57N×136.°21E,h390km±23km,mb2.9/4, mb1 3.0/6,mb1mx2.8/26,mbtmp2.9/6,Error ellipse: s-maj=176.5km s-min=23.2km az=175.0*

*ISCJB **07** 02:30:22.0±0.9,34.°0N±0.°2×136.°22E±0.°09,h399km±6km, mb3.2/4,Error ellipse: s-maj=25.8km s-min=8.6km az=160.2*

*NEIC **07** 02:30:22.6,33.°99N×136.°15E,h396km,MG3.2(JMA), After JMA.*

*JMA **07** 02:30:22.5±0.2,33.°99N×136.°15E,h396km±2km,M3.2*

ISC 07 02:30:22.7±0.9,**34.°0N**±0.°2×**136.°24E**±0.°09,**h394**km±6km, **n25,**σ**0.s57**/30,**mb3.2**/4,**Near south coast of western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKN2	**Miekihoku**	0.29	5	P	Pn	02 31 11.9	+0.5
JKN2				S	S	02 31 50.2	-0.6
JWY	**Kouya**	0.60	297	P	Pn	02 31 12.4	+0.5
JWZ	**Kozaga**	0.61	227	P	Pn	02 31 12.1	+0.1
JWZ				S	S	02 31 51.5	-0.3
JAI	**Aioi**	1.50	265	P	Pn	02 31 15.2	0.0
JWT	**Wachi**	1.50	333	P	Pn	02 31 14.9	-0.2
HMMJ	**Hamamatsu 2**	1.52	53	P	Pn	02 31 16.0	+0.8
JAO	**Obara**	1.56	32	P	Pn	02 31 16.1	+0.7
JNY	**Yasuok**	1.94	43	P	Pn	02 31 18.2	+0.7
JMN	**Monobe**	1.98	264	P	Pn	02 31 17.9	0.0
JHS	**Saijyo**	2.79	293	P	Pn	02 31 23.3	-0.3
JRY	**Ryogami san**	3.00	46	P	Pn	02 31 26.6	+1.3
MJAR	**Matsushiro Arr**	3.05	31	P	Pn	02 31 25.9	+0.3
	1.8nm,0.3s,baz=210,slow=8.9,SNR=9.1						
JTO	**Tosashimizu**	3.08	250	P	Pn	02 31 25.8	-0.2
JHU	**Hanno**	3.14	52	P	Pn	02 31 27.1	+0.7
JHU				S	S	02 32 18.0	-0.1
BSO4	**Boso 4**	3.54	72	P	Pn	02 31 30.0	0.0
JAG	**Ashikaga**	3.61	46	P	Pn	02 31 30.0	-0.6
BSO3	**Boso 3**	3.63	75	P	Pn	02 31 30.0	-0.8
BSO3				eS	S	02 32 25.2	-0.8
JFK	**Kawauchi**	5.08	47	P	Pn	02 31 44.1	-1.0
JFK				S	S	02 32 47.8	-4.4
KSRS	**Korea Array**	7.62	300	P	Pn	02 32 12.6	-0.4
	0.9nm,0.3s,baz=116,slow=11,SNR=22						
SONM	**Songino Array**	26.29	311	P	P	02 35 24.2	+0.2
	0.7nm,0.6s,mb3.3,baz=114,slow=7.3,SNR=7.7						
MKAR	**Makanchi Array**	42.27	304	P	P	02 37 38.4	-0.7
	0.5nm,0.4s,mb3.2,baz=86,slow=8.8,SNR=21						
MKAR	**Makanchi Array**	42.27	304	P	P	02 37 38.4	-0.7
RES	**Resolute Bay**	66.59	13	P	P	02 40 31.2	-0.2
	0.5nm,0.5s,mb3.4,baz=318,slow=3.9,SNR=6.3						
YKA	**Yellowknife Ar**	68.55	28	P	P	02 40 44.2	+0.5
	0.1nm,0.3s,mb2.9,baz=299,slow=5.9,SNR=3.4						
YKA	**Yellowknife Ar**	68.55	28	P	P	02 40 44.2	+0.5

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*IDC **07** 02:57:36.0±1.1,4.°94S×133.°58E,h0km,mb4.0/5, mb1 4.3/9,mb1mx4.2/17,mbtmp4.2/9,ML4.3/4,MS3.7/3, Ms1 3.6/3,ms1mx3.1/20,Error ellipse: s-maj=64.7km s-min=18.4km az=72.0*

*ISCJB **07** 02:57:38.4±1.5,5.°06S±0.°06×134.°0E±0.°1,h43km±15km, mb4.1/7,MS3.7/2,Error ellipse: s-maj=19.8km s-min=7.8km az=163.2*

*NEIC **07** 02:57:40.0±0.7,4.°99S×133.°94E,h35km,mb4.4/1,Error ellipse: s-maj=19.1km s-min=10.1km az=77.0*

*DJA **07** 02:57:42,4.°91S×133.°60E,h10km,mb4.9/5*

ISC 07 02:57:40.5±1.4,**5.°11S**±0.°06×**133.°9E**±0.°1,**h40**km±15km, **n27,**σ**1.s01**/26,**mb4.1**/7,**MS3.7**/2,**1D,Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLE	**Tual**	1.27	246	⇓eP	Pn	02 58 02.0	+0.2
AAI	**Ambon**	5.86	284	P	Px	02 59 12.2	
KAKA	**Kakadu**	7.69	191	ePn	Pn	02 59 33.3	+3.3
	92nm,0.4s						
KAKA	**Kakadu**	7.69	191	P	Pn	02 59 34.0	+4.0
	114nm,0.6s,935nm0.5nm						
LBMI	**Labuha**	7.78	305	P	Pn	02 59 30.6	-0.7
	113nm,1.2s,0.5nm						
COEN	**Coen**	12.68	135	ePn	Pn	03 00 37.6	-0.8
	58nm,0.5s						
COEN	**Coen**	12.68	135	P	Px	03 00 45.3	
	65nm,1.2s						
WRAB	**Tennant Creek**	14.74	178	ePn	Pn	03 01 06.4	+0.1
	17nm,0.6s						
WRAB				eSn	Sn	03 03 47.2	-1.4
WRAB	**Tennant Creek**	14.74	178	P	Px	03 01 15.8	
	41nm,1.6s						
WRA	**Warramunga Arr**	14.75	178	Pn	Pn	03 01 06.5	0.0
	0.9nm,0.3s,baz=351,slow=13,SNR=14						
WRA				Sn	Sn	03 03 48.0	-0.7
	1.2nm,0.3s,baz=357,slow=24,SNR=5.4						
WB2	**Warramunga Arr**	14.75	178	ePn	Pn	03 01 07.1	+0.6
WB2				eSn	Sn	03 03 47.9	-0.8
FITZ	**Fitzroy Crossi**	15.23	211	eP	Pn	03 01 12.6	-0.2
	22nm,0.6s						
FITZ	**Fitzroy Crossi**	15.23	211	Pn	Pn	03 01 11.7	-1.1
	2.7nm,0.3s,baz=40,slow=11,SNR=43						
FITZ				Sn	Sx	03 03 55.4	
	1.8nm,0.3s,baz=198,slow=16,SNR=7.2						
FITZ				LR	LR	03 08 04.1	
	comp=Z,176nm,19.4s,baz=34,slow=41						
FITZ	**Fitzroy Crossi**	15.23	211	eP	Pn	03 01 14.3	+1.5
FITZ				LR	LR	03 08 04.1	
FITZ	**Fitzroy Crossi**	15.23	211	P	Pn	03 01 14.8	+2.0
ASAR	**Alice Springs**	18.45	180	P	Pn	03 01 54.7	+1.5
	1.6nm,0.3s,baz=6.1,slow=11,SNR=80						
ASAR				S	S	03 05 17.4	-4.0
	0.4nm,0.3s,baz=3.9,slow=28,SNR=5.4						
CTA	**Charters Tower**	19.13	142	eP	Pn	03 02 04.2	+2.7
	11nm,0.9s						
CTA	**Charters Tower**	19.13	142	P	Pn	03 02 03.5	+2.0
	0.3nm,0.3s,baz=320,slow=12,SNR=7.0						
CTAO	**Charters Tower**	19.13	142	P	Px	03 02 14.8	
MBWA	**Marble Bar**	21.06	219	eP	P	03 02 22.5	+1.2
	16nm,1.0s,mb4.3						
FORT	**Forrest**	26.12	191	eP	P	03 03 15.8	+5.0
	22nm,0.6s,mb4.9						
STKA	**Stephens Creek**	27.59	166	P	P	03 03 28.9	+4.9
	2.3nm,0.7s,mb3.9,baz=339,slow=14,SNR=3.4						
STKA				LR	LR	03 15 48.9	
	comp=Z,166nm,21.4s,MS3.6,baz=196,slow=39						
NWAO	**Narrogin (SRO)**	31.74	207	LR	LR	03 18 05.7	
	comp=Z,187nm,21.3s,MS3.7,baz=20,slow=39						
SONM	**Songino Array**	58.00	338	P	P	03 07 28.8	-0.4
	0.3nm,0.8s,mb3.4,baz=144,slow=5.2,SNR=3.0						
MKAR	**Makanchi Array**	68.86	325	P	P	03 08 40.8	-0.2
	2.2nm,0.7s,mb4.2,baz=120,slow=8.2,SNR=14						
ZALV	**Zalesovo Beam**	71.68	332	P	P	03 08 57.3	-0.8
	0.4nm,0.4s,mb3.7,baz=125,slow=7.2,SNR=2.8						
KURK	**Kurchatov**	73.00	327	P	P	03 09 05.6	-0.4
	1.9nm,0.8s,mb4.1,baz=120,slow=5.5,SNR=5.0						

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*ISK **07** 02:58:38.4,37.°02N×29.°15E,h6km,MD2.7*

*ISCJB **07** 02:58:40.5±0.5,36.°93N±0.°03×29.°21E±0.°03,h10km,Error ellipse: s-maj=4.7km s-min=3.8km az=154.8*

*CSEM **07** 02:58:40.0±0.2,36.°96N×29.°18E,h5km,MD2.7,Error ellipse: s-maj=5.8km s-min=4.9km az=159.0*

*DDA **07** 02:58:40.1,36.°96N×29.°22E,h7km±5km,Md2.8*

ISC 07 02:58:40.5±0.5,**36.°96N**±0.°03×**29.°18E**±0.°04,**h6**km±8km, **n20,**σ**1.s12**/37,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	0.33	194	ePG	Pg	02 58 46.2	-0.7
FETY				eSG	Sg	02 58 52.2	+0.9
FETY	**Fethiye**	0.33	194	ePg	Pg	02 58 46.2	-0.7
FETY				eSg	Sg	02 58 52.2	+1.0
GOLH	**Golhisar**	0.41	47	i P	Pg	02 58 47.1	-1.5
GOLH				i S	Sg	02 58 54.3	+0.4
GOLH	**Golhisar**	0.41	47	i P	Pg	02 58 47.1	-1.4
GOLH				i S	Sg	02 58 54.3	+0.4
TURN	**Turunc**	0.47	260	i P	Pg	02 58 54.7	+5.1
TURN				i S	Sg	02 59 04.7	+9.0
DALT	**Dalyan (Mudla)**	0.47	247	ePG	Pg	02 58 48.5	-1.2
DALT				eSG	Sg	02 58 55.8	-0.1
DALT	**Dalyan (Mudla)**	0.47	247	ePg	Pg	02 58 48.5	-1.2
DALT				eSg	Sg	02 58 55.8	-0.1
ELL	**Elmali**	0.62	109	ePG	Pg	02 58 52.0	-0.4
ELL				eSG	Sg	02 59 01.7	+1.2
ELL	**Elmali**	0.62	109	ePg	Pg	02 58 52.0	-0.4
ELL				eSg	Sg	02 59 01.7	+1.3
YER	**Yerkesik**	0.74	284	ePG	Pg	02 58 51.7	-3.0
AKAS	**Kas**	0.80	155	eP	Pg	02 58 56.2	+0.4
AKAS				i S	Sg	02 59 10.2	+4.1
AKAS	**Kas**	0.80	155	eP	Pg	02 58 56.2	+0.4
AKAS				i S	Sg	02 59 10.2	+4.1
AYDN	**Tasoluk**	1.25	305	i P	Pg	02 59 04.6	0.0
AYDN				i S	Sg	02 59 22.9	+2.1
AYDN	**Tasoluk**	1.25	305	i P	Pg	02 59 04.6	0.0
AYDN				i S	Sg	02 59 23.0	+2.1
DAT	**Datca**	1.31	261	ePN	Pn	02 59 03.7	-1.6
DAT	**Datca**	1.31	261	ePn	Pn	02 59 03.7	-1.6
BDRM	**Kayabasi**	1.40	275	i P	Pn	02 59 06.3	-0.2
BDRM				i S	Sb	02 59 26.7	+1.7
BDRM	**Kayabasi**	1.40	275	i P	Pn	02 59 06.3	-0.2
BDRM				i S	Sb	02 59 26.7	+1.7
KHAL	**Karahalli**	1.43	10	eP	Pn	02 59 06.6	-0.4
KHAL				i S	Sb	02 59 26.6	+0.5
KHAL	**Karahalli**	1.43	10	eP	Pn	02 59 06.6	-0.4
KHAL				i S	Sb	02 59 26.6	+0.5

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*ISCJB **07** 03:04:21.7±1.4,42.°20N±0.°07×76.°49E±0.°07,h9km±6km, Error ellipse: s-maj=12.1km s-min=6.8km az=150.9*

*NNC **07** 03:04:22.5±2.9,42.°27N×76.°42E,h0km,mb3.0,mpv2.9, Error ellipse: s-maj=19.4km s-min=8.3km az=172.0*

*KNET **07** 03:04:22.9±0.4,42.°25N×76.°32E,h15km±1km,ml2.4,Error ellipse: s-maj=3.1km s-min=2.4km az=88.0*

ISC 07 03:04:21.8±1.4,**42.°22N**±0.°06×**76.°49E**±0.°07,**h7**km±5km, **n14,**σ**0.s94**/24,**13C-11D,Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULHL	**Ulahol**	0.18	279	P	Pg	03 04 26.0	+0.5
	182nm,0.1s,SNR=2292						
ULHL				⇑S	Sg	03 04 29.2	+1.2
	1µm,0.1s						
KZA	**Kyzart**	0.93	262	⇓P	Pg	03 04 38.8	-0.8
	15nm,0.2s,SNR=76						
KZA				⇓S	Sg	03 04 51.5	-0.2
	47nm,0.2s						
TKM2	**Tokmak 2**	0.96	317	P	Pg	03 04 39.2	-1.0
	32nm,0.1s,SNR=277						
TKM2				⇑S	Sg	03 04 52.7	-0.1
	104nm,0.1s						
TKM2	**Tokmak 2**	0.96	317	⇓P	Pg	03 04 39.3	-1.0
	10.0nm,0.3s						
TKM2				⇑S	Sg	03 04 52.5	-0.3
	25nm,0.3s						
KNDC	**Almaty**	1.06	19	⇓P	Pg	03 04 41.7	-0.4
	21nm,0.3s						
KNDC				⇑S	Sg	03 04 56.5	+0.6
	102nm,0.2s						
KBK	**Karagaybulak**	1.22	292	⇓P	Pb	03 04 43.8	-1.4
	18nm,0.1s,SNR=9.4						
KBK				⇓S	Sg	03 05 00.9	-0.1
	85nm,0.2s						
UCH	**Uchtor**	1.47	271	⇑P	Pn	03 04 47.9	-0.7
	8.1nm,0.3s,SNR=6.5						
UCH				⇑S	Sn	03 05 07.7	-0.4
	69nm,0.5s						
CHMS	**Chumysh**	1.50	302	⇑P	Pn	03 04 48.3	-0.8
	10nm,0.1s,SNR=5.2						
CHMS				⇓S	Sn	03 05 08.5	-0.5
	47nm,0.2s						
AAK	**Ala-Archa**	1.53	286	⇑P	Pn	03 04 49.1	-0.5
	8.3nm,0.2s,SNR=5.2						
AAK				⇓S	Sn	03 05 09.4	-0.3
	32nm,0.2s						
USP	**Ospenovka**	1.80	306	⇓P	Pn	03 04 53.6	+0.3
	20nm,0.3s,SNR=73						
USP				⇓S	Sn	03 05 17.7	+1.3
	76nm,0.3s						
EKS2	**Erkin-Say**	2.05	283	⇓P	Pn	03 04 58.9	+2.1
	4.6nm,0.1s,SNR=20						
AML	**Almayashu**	2.08	269	⇑P	Pn	03 04 59.3	+2.2
	5.7nm,0.1s,SNR=31						
KK31	**Karatay Array**	4.49	283	⇑Pg	Pg	03 05 42.9	-4.9
	0.6nm,0.3s,baz=105,slow=16,SNR=23						
KK31				⇑Lg		03 06 38.9	
	8.0nm,0.8s,baz=102,slow=27,SNR=9.3						
MK31	**Makanchi Array**	6.18	40	⇑Pn	Pn	03 06 00.3	+6.9
	0.1nm,0.3s,baz=218,slow=15,SNR=4.8						
MK31				⇑Lg		03 07 33.5	
	0.5nm,0.7s,baz=214,slow=29,SNR=4.9						

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*ISCJB **07** 03:13:13.7±1.0,24.°8N±0.°1×141.°9E±0.°4,h221km±18km, mb3.7/6,Error ellipse: s-maj=66.8km s-min=14.3km az=166.4*

*IDC **07** 03:13:13.8±9.3,24.°54N×141.°38E,h183km±88km,mb3.6/4, mb1 3.7/5,mb1mx3.4/19,mbtmp3.5/5,Error ellipse: s-maj=40.5km s-min=14.0km az=81.0*

*JMA **07** 03:13:15.7±0.2,24.°89N×140.°55E,h129km,M4.8*

ISC 07 03:13:14.9±0.9,**24.°9N**±0.°1×**142.°1E**±0.°4,**h220**km±14km, **n16,**σ**0.s74**/19,**mb3.7**/6,**Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	**Haha-jima-NKT**	1.78	3	P	Pn	03 13 53.3	+0.5
JHHJ				eS	S	03 14 22.1	-0.6
CBIJ	**Chichi jima**	2.24	2	P	Pn	03 13 58.4	+1.0
CBIJ				eS	S	03 14 30.7	-0.1
BSO1	**Boso 1**	9.82	355	P	Pn	03 15 32.2	+0.7
BSO3	**Boso 3**	10.02	353	P	Pn	03 15 33.9	-0.1
JOD2	**Odawara 2**	10.70	347	P	Pn	03 15 42.9	+0.2
JRY	**Ryogami san**	11.47	347	P	Pn	03 15 51.8	-0.6
JAG	**Ashikaga**	11.76	350	P	Pn	03 15 54.1	-2.0
JAG				eS	S	03 17 59.3	-8.1
JHO	**Hitachi**	11.80	354	P	Pn	03 15 56.8	+0.2
JHO				eS	S	03 17 58.3	-10
KSRS	**Korea Array**	17.43	319	P	P	03 17 03.0	-0.2
	0.1nm,0.3s,baz=140,slow=10,SNR=4.8						
SONM	**Songino Array**	36.30	318	P	P	03 19 57.7	+0.4
	0.2nm,0.4s,mb3.0,baz=126,slow=7.3,SNR=2.8						
WRA	**Warramunga Arr**	45.15	190	P	P	03 21 08.9	-0.8
	18nm,0.4s,mb4.8,baz=7.9,slow=8.6,SNR=181						
ASAR	**Alice Springs**	48.87	190	P	P	03 21 37.8	-0.6
	1.7nm,0.6s,mb3.6,baz=3.0,slow=5.0,SNR=23						
MKAR	**Makanchi Array**	51.85	311	P	P	03 22 01.4	+0.9
	1.3nm,0.5s,mb3.6,baz=88,slow=9.0,SNR=32						
STKA	**Stephens Creek**	56.40	180	P	P	03 22 34.2	+0.8
	2.0nm,0.4s,mb4.0,baz=0.8,slow=7.4,SNR=6.3						
YKA	**Yellowknife Ar**	74.16	28	P	P	03 24 33.3	+6.4
	0.6nm,0.5s,mb3.5,baz=293,slow=5.6,SNR=11						
TORD	**Torodi Ar. Bea**	125.97	310	PKP	PKPdf	03 31 53.8	+2.4
	0.4nm,0.9s,baz=53,slow=1.5,SNR=3.7						

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*NEIC **07** 03:42:51.0,15.°12N×61.°03W,h2km,MD3.4(TRN),After TRN.*

TRN 07 03:42:50.9,15.°13N×60.°52W,h14km,MD3.5,M2.4(FDF), **2C-2D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MVM	**Montagne Vaucl**	0.68	212	⇑iP	Pg	03 43 07.3	+3.2
MVM				⇑eS	Sg	03 43 17.4	+4.3
FDF	**Fort de France**	0.72	237	eP	Pg	03 43 08.7	+3.7
FDF				eS	Sg	03 43 20.3	+5.7
DLPL	**La Plaine**	0.73	286	eP	Pg	03 43 01.9	-3.2
DLPL				eS	Sg	03 43 22.8	+8.1
BIM	**Bigot**	0.81	221	⇓eP	Pg	03 43 09.4	+2.8
BIM				⇓eS	Sg	03 43 21.7	+4.4
SLB	**Belfond**	1.39	201	eP	Pn	03 43 18.2	+2.3
SLB				eS	Sn	03 43 35.2	+1.2
SLB	**Belfond**	1.39	201	eP	Pn	03 43 17.0	+1.2
SLB				eS	Sn	03 43 34.1	+0.1
MCLT	**Moule a Chique**	1.47	196	eP	Pn	03 43 19.7	+2.7
MCLT				eS	Sn	03 43 39.9	+3.9
BHS	**Barnard House**	1.92	198	eP	Pn	03 43 25.3	+2.2
BHS	**Barnard House**	1.92	198	eP	Pn	03 43 27.6	+4.4
BHS				eS	Sn	03 43 54.8	+7.8
SVV	**Soufriere Volc**	1.92	201	eP	Pn	03 43 26.3	+3.1
SVV				eS	Sn	03 43 49.2	+2.0
SVV	**Soufriere Volc**	1.92	201	eP	Pn	03 43 26.3	+3.1
SVV				eS	Sn	03 43 54.0	+6.8
SVB	**Belmont**	1.98	201	eP	Pn	03 43 27.1	+3.1
SVB				eS	Sn	03 43 50.5	+2.0
SVB	**Belmont**	1.98	201	eP	Pn	03 43 27.1	+3.1
SVB				eS	Sn	03 43 48.8	+0.3

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*CSEM **07** 03:44:43.6±0.2,38.°68N×43.°23E,h2km,MD3.0,Error ellipse: s-maj=7.4km s-min=4.2km az=83.0*

*ISK **07** 03:44:43.4,38.°68N×43.°25E,h4km,MD3.0*

*DDA **07** 03:44:43.5,38.°71N×43.°32E,h7km±7km,Md3.1*

*ISCJB **07** 03:44:44.8±0.4,38.°71N±0.°02×43.°38E±0.°04,h10km,Error ellipse: s-maj=4.6km s-min=3.2km az=179.3*

ISC 07 03:44:45.0±0.5,**38.°70N**±0.°02×**43.°42E**±0.°05,**h6**km±5km, **n27,**σ**0.s95**/42,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VANB	**Van**	0.10	193	PG	Pg	03 44 46.9	-0.3
VANB				eSG	Sg	03 44 50.0	+1.3
VANB	**Van**	0.10	193	i Pg	Pg	03 44 46.9	-0.3
VANB				eSg	Sg	03 44 50.0	+1.2
TVAN	**Van**	0.17	184	i P	Pg	03 44 46.8	-1.6
TVAN				i S	Sg	03 44 51.6	+1.0
TVAN	**Van**	0.17	184	i P	Pg	03 44 46.8	-1.6
TVAN				i S	Sg	03 44 51.7	+1.0
VANT	**Van**	0.25	185	PG	Pg	03 44 48.8	-1.2
VANT				eSG	Sg	03 44 53.8	+0.5
VANT	**Van**	0.25	185	i Pg	Pg	03 44 48.8	-1.1
VANT				eSg	Sg	03 44 53.8	+0.5
CLDR	**Caldiran**	0.59	41	PG	Pg	03 44 56.9	+0.6
CLDR				eSG	Sg	03 45 07.7	+3.7
CLDR	**Caldiran**	0.59	41	i Pg	Pg	03 44 56.9	+0.5
CLDR				eSg	Sg	03 45 07.7	+3.7
DYDN	**Diyadin**	0.87	14	i P	Pg	03 45 01.6	-0.1
DYDN				i S	Sg	03 45 12.2	-0.9
DYDN	**Diyadin**	0.87	14	i P	Pg	03 45 01.6	-0.1
DYDN				i S	Sg	03 45 12.2	-0.8
AGRB	**Hanur-Agry**	0.94	339	ePG	Pg	03 45 02.0	-1.0
AGRB	**Hanur-Agry**	0.94	339	ePg	Pg	03 45 02.0	-1.0
HAKT	**HAKKARI**	1.16	169	i P	Px	03 45 20.9	
HAKT				i S	Sx	03 45 39.3	
HAKT	**HAKKARI**	1.16	169	i P	Px	03 45 20.9	
HAKT				i S	Sx	03 45 39.3	
CUKT	**Cukurca**	1.46	174	ePN	Pn	03 45 10.6	-1.2
CUKT	**Cukurca**	1.46	174	ePn	Pn	03 45 10.6	-1.2
GNI	**Garni**	1.77	35	ePN	Pn	03 45 17.6	+1.4
GNI	**Garni**	1.77	35	ePn	Pn	03 45 17.6	+1.4
HOMI	**Horasan**	1.79	319	i P	Pn	03 45 17.1	+0.8
HOMI				i S	Sg	03 45 47.9	+5.5
BEST	**Besiri**	1.87	245	i P	Pn	03 45 16.4	-1.1
BEST				i S	Sn	03 45 42.8	+1.4
KARS	**Kars**	1.93	353	ePN	Pn	03 45 18.6	+0.3
ERZM	**Erzurum**	2.00	308	eP	Pn	03 45 20.1	+0.9
ERZM				eS	Sg	03 45 48.6	-0.6
ERZM	**Erzurum**	2.00	308	eP	Pn	03 45 20.1	+0.8
ERZM				eS	Sg	03 45 48.6	-0.6
EZM	**Erzurum**	2.00	308	ePN	Pn	03 45 18.1	-1.2
MARD	**Mardin**	2.50	237	eP	Pn	03 45 25.9	-0.3
MARD				i S	Sb	03 46 00.8	-0.5
KOPT	**Kop Dagi**	2.62	301	eP	Pb	03 45 32.7	+0.4
KOPT				eS	Sg	03 46 10.1	+0.9
KOPT	**Kop Dagi**	2.62	301	eP	Pb	03 45 32.7	+0.4
KOPT				eS	Sg	03 46 10.1	+0.9

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*ISCJB **07** 03:56:48.7±2.1,7.°90S±0.°08×127.°7E±0.°1,h130km±22km, mb3.8/5,Error ellipse: s-maj=19.2km s-min=11.1km az=150.5*

*NEIC **07** 03:56:50.5±2.3,7.°94S×127.°73E,h133km±27km,mb4.4/1, Error ellipse: s-maj=20.9km s-min=16.0km az=202.0*

*IDC **07** 03:56:52.5±7.5,8.°08S×127.°54E,h150km±84km,mb3.5/4, mb1 3.3/7,mb1mx3.2/18,mbtmp3.2/7,Error ellipse: s-maj=53.1km s-min=30.9km az=35.0*

ISC 07 03:56:49.9±2.1,**7.°93S**±0.°09×**127.°8E**±0.°1,**h125**km±23km, **n12,**σ**0.s73**/17,**mb3.9**/5,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	6.62	136	ePn	Pn	03 58 25.1	+0.4
FITZ	**Fitzroy Crossi**	10.32	191	P	Pn	03 59 14.7	0.0
	0.4nm,0.3s,baz=24,slow=9.9,SNR=11						
FITZ				S	Sn	04 01 08.3	-0.2
	1.0nm,0.3s,baz=156,slow=20,SNR=7.3						
WRAB	**Tennant Creek**	13.53	153	ePn	Pn	03 59 57.4	+0.5
	0.9nm,0.6s						
WRAB				eSn	Sn	04 02 25.3	-1.0
WRA	**Warramunga Arr**	13.54	153	P	Pn	03 59 56.9	0.0
	0.3nm,0.3s,baz=323,slow=14,SNR=5.1						
WRA				S	Sn	04 02 26.1	-0.2
	0.6nm,0.3s,baz=322,slow=25,SNR=8.5						
WB2	**Warramunga Arr**	13.54	153	ePn	Pn	03 59 58.1	+1.1
WB2				eSn	Sn	04 02 24.8	-1.6
ASAR	**Alice Springs**	16.72	160	P	Pn	04 00 37.6	+0.8
	0.0nm,0.3s,baz=330,slow=10,SNR=3.9						

ASAR				S	S	04 03 44.5	+1.2
	0.3nm,0.3s,baz=329,slow=22,SNR=7.8						
PSI	Prapat	30.68	289	P	P	04 02 52.5	-0.6
	1.8nm,0.5s,mb4.0,baz=113,slow=15,SNR=3.6						
SONM	Songino Array	58.65	343	P	P	04 06 34.5	+0.6
	0.2nm,0.3s,mb3.7,baz=157,slow=7.7,SNR=6.8						
SONM	Songino Array	58.65	343	P	P	04 06 34.5	+0.6
MKAR	Makanchi Array	67.81	328	P	P	04 07 34.4	0.0
	0.7nm,0.7s,mb3.6,baz=130,slow=7.8,SNR=6.8						
ZALV	Zalesovo Beam	71.45	335	P	P	04 07 56.2	-0.3
	0.7nm,0.5s,mb3.7,baz=141,slow=5.5,SNR=3.2						
COLD	Coldfoot	94.18	23	eP	P	04 09 53.3	-0.9
	0.6nm,0.3s,mb4.4						

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*ISCJB **07** 03:58:29.8±0.4, 38°.66N±0°.03×43°.20E±0°.03, h10^{km}, Error ellipse: s-maj=4.1km s-min=3.3km az=140.7*

*ISK **07** 03:58:29.5, 38°.69N×43°.25E, h4^{km}, MD3.0*

*CSEM **07** 03:58:30.2±0.3, 38°.68N×43°.27E, h2^{km}, MD3.0, Error ellipse: s-maj=9.1km s-min=5.3km az=80.0*

*DDA **07** 03:58:30.3, 38°.67N×43°.31E, h6^{km}±4^{km}, Md3.0*

ISC 07 03:58:30.4±0.5**, 38°.66N**±0°.03×**43°.20E**±0°.04**, h4**^{km}±7^{km}**, n26, σ1^{s}.03**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VANB	Van	0.16	112	PG	Pg	03 58 33.1	-0.5
VANB				eSG	Sg	03 58 36.5	+0.8
VANB	Van	0.16	112	i Pg	Pg	03 58 33.1	-0.5
VANB				eSg	Sg	03 58 36.5	+0.8
TVAN	Van	0.21	128	i P	Pg	03 58 33.1	-1.3
TVAN				i S	Sg	03 58 37.5	+0.4
TVAN	Van	0.21	128	i P	Pg	03 58 33.1	-1.3
TVAN				i S	Sg	03 58 37.5	+0.3
VANT	Van	0.26	145	PG	Pg	03 58 34.9	-0.5
VANT				eSG	Sg	03 58 40.1	+1.3
CLDR	Caldiran	0.74	49	PG	Pg	03 58 42.8	-1.8
CLDR				eSG	Sg	03 58 53.9	-0.3
CLDR	Caldiran	0.74	49	i Pg	Pg	03 58 42.8	-1.8
CLDR				eSg	Sg	03 58 53.9	-0.4
AGRB	Hanur-Agry	0.93	350	PG	Pg	03 58 47.9	-0.4
AGRB				eSG	Sg	03 59 00.8	+0.4
AGRB	Hanur-Agry	0.93	350	i Pg	Pg	03 58 47.9	-0.3
AGRB				eSg	Sg	03 59 00.8	+0.5
DYDN	Diyadin	0.96	23	i P	Pg	03 58 48.0	-0.8
DYDN				i S	Sg	03 59 03.2	+1.8
DYDN	Diyadin	0.96	23	i P	Pg	03 58 48.0	-0.9
DYDN				i S	Sg	03 59 03.2	+1.8
HAKT	HAKKARI	1.17	160	i P	Px	03 59 06.8	
HAKT				i S	Sx	03 59 26.7	
CUKT	Cukurca	1.44	167	ePN	Pn	03 58 57.2	0.0
CUKT	Cukurca	1.44	167	ePn	Pn	03 58 57.2	0.0
BEST	Besiri	1.70	244	i P	Pg	03 59 03.3	+0.3
BEST				i S	Sg	03 59 29.3	+4.3
HOMI	Horasan	1.71	325	i P	Pg	03 59 03.1	-0.1
HOMI				i S	Sg	03 59 31.7	+6.3
ERZM	Erzurum	1.89	312	i P	Pg	03 59 06.5	-0.1
ERZM				i S	Sg	03 59 35.0	+3.8
ERZM	Erzurum	1.89	312	i P	Pg	03 59 06.5	-0.1
EZM	Erzurum	1.89	312	ePN	Pn	03 59 04.4	+1.0
GNI	Garni	1.91	38	ePN	Pn	03 59 03.9	+0.2
GNI	Garni	1.91	38	ePn	Pn	03 59 03.9	+0.2
KARS	Kars	1.96	358	ePN	Pn	03 59 04.1	-0.1
KOPT	Kop Dagi	2.50	304	i P	Pg	03 59 18.7	+0.5
KOPT				i S	Sg	03 59 46.8	-3.8
DIYA	Diyarbakir	2.53	254	eP	Pn	03 59 15.7	+3.6
DIYA				eS	Sn	03 59 40.5	-2.8
DIYA	Diyarbakir	2.53	254	eP	Pn	03 59 15.7	+3.6
DIYA				eS	Sn	03 59 40.5	-2.9
KEMA	Kemaliye	3.72	281	i P	Pg	03 59 40.4	-1.2

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*SZGRF **07** 04:17:33.9, 20°.60S×176°.71W, h33^{km}, Fiji Islands region*

*ISCJB **07** 04:18:45.2±2.2, 17°.9S±0°.2×178°.6W±0°.1, h624^{km}±29^{km}, mb4.4/18, Error ellipse: s-maj=25.2km s-min=13.8km az=152.6*

*IDC **07** 04:18:45.7±2.5, 17°.94S×178°.55W, h615^{km}±30^{km}, mb3.8/9, mb1 4.1/9, mb1mx3.8/17, mbtmp3.8/9, Error ellipse: s-maj=22.7km s-min=10.7km az=153.0*

*NEIC **07** 04:18:46.6±2.1, 17°.98S×178°.58W, h626^{km}±23^{km}, mb4.3/6, Error ellipse: s-maj=14.5km s-min=12.0km az=122.0*

ISC 07 04:18:46.0±2.3**, 17°.9S**±0°.2×**178°.6W**±0°.1**, h616**^{km}±28^{km}**, n100, σ0^{s}.55**/29**, mb4.4**/18**, 12C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EIDS	Eidsvold	29.12	250	eP	P	04 23 59.0	-0.5
	8.2nm,0.8s,mb4.4						
ARMA	Armidale	29.81	240	eP	P	04 24 06.0	+0.7
CTA	Charters Tower	33.29	261	eP	P	04 24 34.9	-0.1
	7.7nm,0.6s,mb4.5						
CTAO	Charters Tower	33.29	261	eP	P	04 24 34.9	0.0
	11nm,0.6s,mb4.7						
CNB	Canberra Magne	33.31	232	eP	P	04 24 35.5	+0.6
COEN	Coen	36.95	270	eP	P	04 25 06.3	+1.1
	223nm,0.8s,mb5.8						
TOO	Toolangi	37.06	231	eP	P	04 25 06.2	+0.4
STKA	Stephens Creek	38.50	241	eP	P	04 25 18.2	+0.7
	9.0nm,0.9s,mb4.3						
STKA	Stephens Creek	38.50	241	P	P	04 25 17.6	+0.1
	12nm,0.8s,mb4.5,baz=90,slow=8.4,SNR=16						
STKA	Stephens Creek	38.50	241	eP	P	04 25 17.9	+0.4
	3.0nm,1.0s,mb3.8						
WB2	Warramunga Arr	44.47	260	eP	P	04 26 04.1	-0.5
WRAB	Tennant Creek	44.47	260	eP	P	04 26 04.1	-0.4
	7.7nm,0.5s,mb4.5						
WRA	Warramunga Arr	44.48	260	P	P	04 26 04.0	-0.7
	8.1nm,0.5s,mb4.5,baz=95,slow=7.1,SNR=174						
WRA				S	S	04 31 57.8	+1.1
	0.7nm,0.7s,baz=96,slow=12,SNR=3.8						
ASAR	Alice Springs	44.64	254	P	P	04 26 05.9	+0.1
	42nm,0.6s,mb5.2,baz=87,slow=8.6,SNR=422						
ASAR				S	S	04 31 59.1	+0.2
	1.4nm,0.9s,baz=90,slow=14,SNR=9.2						
KAKA	Kakadu	47.43	269	eP	P	04 26 27.0	+0.1
	12nm,0.4s,mb4.8						
FORT	Forrest	49.87	245	eP	P	04 26 44.1	-0.6
	17nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	52.88	261	eP	P	04 27 06.8	+0.3
	16nm,3.3s						
MBWA	Marble Bar	57.93	256	eP	P	04 27 40.9	-0.5
	4.0nm,0.6s,mb3.7						
KLBR	Kellerberrin	58.70	244	eP	P	04 27 45.5	-0.8
	39nm,1.5s,mb4.3						
CASY	Casey	66.08	205	eP	P	04 28 32.9	-0.3
	6.5nm,0.7s,mb4.2						
QSPA	South Pole Qui	72.16	180	P	P	04 29 09.0	-0.2
	baz=45,slow=2.8						
PETK	Petropavlovsk-	73.62	345	P	P	04 29 17.8	0.0
	3.9nm,0.6s,mb4.1,baz=107,slow=7.4,SNR=8.8						
NVAR	Mina Array Bea	79.52	44	P	P	04 29 50.8	+0.5
	3.9nm,0.7s,mb3.8,baz=225,slow=8.8,SNR=25						
TXAR	Lajitas Array	86.12	58	P	P	04 30 24.4	+1.0
	5.7nm,0.8s,mb4.3,baz=218,slow=6.0,SNR=67						
PDAR	Pinedale Array	87.45	43	P	P	04 30 29.3	0.0
	3.0nm,0.6s,mb4.2,baz=222,slow=3.3,SNR=32						
CMAR	Chiang Mai Arr	88.73	290	P	P	04 30 35.5	-0.4
	0.8nm,0.3s,mb4.0,baz=98,slow=3.7,SNR=4.4						
YKA	Yellowknife Ar	94.38	25	P	P	04 31 00.0	-0.7
	0.6nm,0.5s,mb4.0,baz=241,slow=4.5,SNR=14						
MKAR	Makanchi Array	109.01	314	PKiKP	PKiKP	04 36 05.9	-0.8
	0.4nm,0.5s,baz=212,slow=1.5,SNR=8.3						
ARCES	ARCESS Array B	126.27	350	PKP	PKPdf	04 36 38.7	-0.5
	3.8nm,0.8s,baz=343,slow=1.9,SNR=5.8						
BRTR	Keskin Array B	144.66	315	PKP	PKPdf	04 37 14.4	+0.5
	1.9nm,0.7s,baz=158,slow=4.8,SNR=12						
STHS	Stebnicka Huta	144.72	337	ePKP	PKPdf	04 37 15.4	+1.7
KOLS	Kolonicke sedl	144.73	336	ePKP	PKPdf	04 37 15.2	+1.5
CLZ	Clausthal	145.40	350	ePKPbc	PKPbc	04 37 16.7	+0.5
CLZ	Clausthal	145.40	350	ePKPbc	PKPbc	04 37 16.7	+0.5
OKC	Ostrava-Krasne	145.41	341	ePKP	PKPdf	04 37 15.4	+0.5
CLL	Collm	145.41	347	ePKPbc	PKPbc	04 37 16.4	+0.1
CLL	Collm	145.41	347	⇑iPKPbc	PKPbc	04 37 16.5	+0.2
	comp=Z,13nm,0.8s						
UPC	Upice	145.43	344	ePKP	PKPbc	04 37 17.0	+0.7
DPC	Dobruska-Polom	145.49	343	ePKP	PKPbc	04 37 17.5	+1.0
BRG	Berggiesshubel	145.61	346	ePKPbc	PKPbc	04 37 17.3	+0.5
BRG	Berggiesshubel	145.61	346	eP	PKPdf	04 37 17.2	+2.1
	comp=Z,6.5nm,0.7s						
MORC	Moravsky Berou	145.65	341	⇑iP	PKPbc	04 37 17.4	+0.4
FBE	Freiberg	145.70	347	ePKPbc	PKPbc	04 37 17.7	+0.6
NEUB	Neuenburg	145.76	348	ePKPbc	PKPbc	04 37 17.6	+0.4
PVCC	Panska Ves	145.78	345	ePKP	PKPbc	04 37 18.1	+0.8
PRU	Pruhonice	146.29	345	ePKP	PKPbc	04 37 19.3	+0.5
VYHS	Vyhne	146.35	339	ePKP	PKPbc	04 37 19.4	+0.4
TANN	Tannenbergstha	146.37	347	ePKPbc	PKPbc	04 37 19.0	0.0
WERD	Werda	146.37	347	ePKPbc	PKPbc	04 37 19.5	+0.5
GUNZ	Gunzen	146.45	347	ePKPbc	PKPbc	04 37 19.7	+0.5
WERN	Wernitzgruen	146.51	347	ePKPbc	PKPbc	04 37 19.7	+0.4
NKC	Novy Kostel	146.55	347	ePKP	PKPbc	04 37 20.0	+0.6
MANZ	Manzenberg	146.85	347	ePKPbc	PKPbc	04 37 20.9	+0.6
ROTZ	Rotzenmuhle	147.04	347	ePKPbc	PKPbc	04 37 21.5	+0.7
TNS	Taunus Mts	147.26	352	ePKPbc	PKPbc	04 37 21.6	+0.3
TNS	Taunus Mts	147.26	352	ePKPbc	PKPbc	04 37 21.6	+0.3
GRA1	Grafenberg Arr	147.31	348	ePKPbc	PKPbc	04 37 22.1	+0.6
GRF	Grafenberg Arr	147.31	348	ePKPbc	PKPbc	04 37 22.1	+0.6
KHC	Kasperske Hory	147.32	345	ePKP	PKPbc	04 37 21.7	+0.2
GEC2	GERESS Array S	147.56	345	ePKPbc	PKPbc	04 37 22.4	+0.3
GEC2	GERESS Array S	147.56	345	ePKPbc	PKPbc	04 37 22.4	+0.3
GERES	GERESS Array B	147.56	345	PKPbc	PKPbc	04 37 22.1	0.0
	comp=Z,4.3nm,0.7s,baz=23,slow=3.0,SNR=30						
GIVF	Givet	147.75	356	ePKP1	PKPbc	04 37 22.9	+0.3
	comp=Z,11nm,0.5s						
CONA	Conrad Observa	147.80	342	⇑iPKiKP	PKiKP	04 37 23.2	-0.9
	comp=Z,8.0nm,1.1s						
CSNA	Conrad Observa	147.80	342	⇓iPKiKP	PKiKP	04 37 23.0	-1.1
	comp=Z,8.3nm,1.1s						
BAIF	Baives	147.83	357	⇑iPKP1	PKPbc	04 37 23.2	+0.4
	comp=Z,9.2nm,0.6s						
BFO	Black Forest	149.12	351	ePKPbc	PKPbc	04 37 25.6	-0.4
BFO	Black Forest	149.12	351	ePKPbc	PKPbc	04 37 25.6	-0.4
FLN	La Foliniere	149.17	2	⇑iPKP1	PKPbc	04 37 26.0	-0.1
SOKA	Soboth	149.17	342	⇑iPKPbc	PKPbc	04 37 25.9	-0.2
	comp=Z,6.3nm,1.1s						
CDF	Champ du Feu	149.19	352	ePKP1	PKPbc	04 37 26.5	+0.3
KBA	Koelnbreinsper	149.28	344	⇑iPKPbc	PKPbc	04 37 26.1	-0.3
	comp=Z,3.5nm,0.6s						
MEZF	Maizieres J'vi	149.33	355	ePKP1	PKPbc	04 37 26.4	-0.1
LDF	La Druitiere	149.35	2	ePKP1	PKPbc	04 37 26.3	-0.3
	comp=Z,5.3nm,0.6s						
ROSF	Rostrenen	149.40	6	ePKP1	PKPbc	04 37 27.1	+0.4
GRR	Gorron	149.53	3	⇑iPKP1	PKPbc	04 37 27.0	0.0
	comp=Z,12nm,0.6s						
SGMF	Saint Gilles	149.54	5	ePKP1	PKPbc	04 37 26.8	-0.2
HAU	Haudompre	149.70	353	⇑iPKP1	PKPbc	04 37 27.5	+0.1
	comp=Z,8.4nm,0.7s						
VNDS	Vrh nad Dolski	149.79	341	i PKPbc	PKPbc	04 37 27.5	-0.1
ABTA	Abfaltersbach	149.80	345	⇓iPKPbc	PKPbc	04 37 27.2	-0.5
	comp=Z,7.5nm,0.7s						
LJU	Ljubljana	149.90	342	ePKPbc	PKPbc	04 37 28.0	+0.1
FETA	Feichten	149.96	347	⇑iPKiKP	PKiKP	04 37 28.4	-0.2
	comp=Z,6.6nm,1.0s						
BOJS	Bojanci	150.15	340	i PKPbc	PKPbc	04 37 28.9	+0.4
JAVS	Javornik	150.17	342	ePKPbc	PKPbc	04 37 28.2	-0.3
LOR	Lormes	150.64	357	⇑iPKP1	PKPbc	04 37 29.8	+0.2
	comp=Z,8.6nm,0.6s						
SSF	Saint Saulge	150.86	357	⇑iPKP1	PKPbc	04 37 30.4	+0.3
	comp=Z,10.0nm,0.6s						
CABF	La Chapelle	151.10	353	ePKP1	PKPbc	04 37 30.7	0.0
AVF	Avril sur Loir	151.14	357	ePKP1	PKPbc	04 37 30.6	-0.1
SMF	Signal de Mont	151.26	357	ePKP1	PKPbc	04 37 31.1	+0.1
MFF	Saint Martin d	151.34	2	ePKP1	PKPbc	04 37 31.1	-0.1
	comp=Z,22nm,1.0s						
BGF	Bois d'Agland	151.39	358	ePKP1	PKPbc	04 37 31.5	+0.2
	comp=Z,6.8nm,0.7s						
TCF	Toulx Ste Croi	151.68	359	ePKP1	PKPbc	04 37 32.0	0.0
	comp=Z,7.8nm,0.8s						
LPL	La Plagne	152.10	352	ePKP1	PKPbc	04 37 34.0	+1.1
LPG	La Plagne	152.12	352	ePKP1	PKPbc	04 37 34.1	+1.1
RJF	Les Rejaudoux	152.67	360	ePKP1	PKPbc	04 37 33.0	-1.2
ORIF	Oris-en-Rattie	152.80	353	ePKP1	PKPbc	04 37 33.6	-0.9
MBDF	Montbardon	152.87	352	ePKP1	PKPbc	04 37 34.0	-0.6
	comp=Z,9.5nm,0.8s						
CAF	Calviac	153.04	359	ePKP1	PKPbc	04 37 33.4	-1.6
TORD	Torodi Ar. Bea	175.28	183	PKP	PKPdf	04 37 45.4	-1.8
	comp=Z,0.6nm,1.0s,baz=205,slow=6.6,SNR=3.6						
TORD				PKPab	PKPab	04 39 26.9	-1.0
	comp=Z,0.4nm,0.9s,baz=187,slow=2.7,SNR=4.3						
TORD	Torodi Ar. Bea	175.28	183	PKPab	PKPab	04 39 26.9	-1.0

IDC 07 04:25:02.2±31.0**, 30°.51S**×**179°.11W, h436**^{km}±287^{km}**, mb3.4**/4**, mb1 3.5**/4**, mb1mx3.3**/15**, mbtmp3.4**/4**, Error ellipse: s-maj=233.8km s-min=36.6km az=49.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	33.52	257	P	P	04 31 03.3	-0.5
	0.8nm,0.4s,baz=84,slow=12,SNR=4.6						
ASAR	Alice Springs	42.15	268	P	P	04 32 14.6	-0.2
	2.2nm,0.4s,baz=106,slow=7.5,SNR=18						
WRA	Warramunga Arr	43.15	273	P	P	04 32 23.1	+0.4
	2.3nm,0.4s,baz=112,slow=7.8,SNR=14						
QSPA	South Pole Qui	59.60	180	P	P	04 34 22.5	+0.6
	1.8nm,0.7s,baz=15,slow=12,SNR=8.2						
TORD	Torodi Ar. Bea	162.71	183	PKPab	PKPab	04 45 04.0	-0.9
	0.3nm,0.5s,baz=175,slow=3.6,SNR=6.8						

CASC 07 04:27:26.3±1.7**, 13°.55N**×**90°.52W, h50**^{km}±34^{km}**, MD3.5, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTR	El Retiro	0.92	68	eP	Pn	04 27 43.4	+0.5
RTR				eS	Sn	04 27 56.3	+1.3
SBLS	San Blas	0.92	72	eP	Pn	04 27 42.9	0.0
SBLS				eS	Sn	04 27 55.3	+0.3
FUG	Fuego 3	0.94	341	eP	Pn	04 27 43.3	0.0
FUG				eS	Sn	04 27 57.1	+1.5
SNJE	San Jose	0.94	71	eP	Pn	04 27 43.6	+0.3
SNJE				eS	Sn	04 27 56.4	+0.7
RBDL	Robledal	0.98	55	eP	Pn	04 27 44.5	+0.8
RBDL				eS	Sn	04 27 58.6	+2.0
TP2	Tecpan 2	1.31	338	eP	Pn	04 27 49.5	+1.2
TP2				eS	Sn	04 28 06.4	+1.6
JAT	Jato	1.32	305	eP	Pn	04 27 48.5	+0.1
LFRS	El Faro	1.42	87	eP	Pn	04 27 50.5	+0.8
LFRS				eS	Sn	04 28 08.1	+0.8
LBRS	Las Brisas	1.45	83	eP	Pn	04 27 51.1	+1.0
LBRS				eS	Sn	04 28 08.5	+0.5

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*DDA **07** 04:35:49.7, 39°.56N×25°.96E, h28^{km}±1^{km}, Md3.0*

*ISCJB **07** 04:35:50.5±0.4, 39°.57N±0°.02×25°.95E±0°.04, h8^{km}±3^{km}, Error ellipse: s-maj=4.7km s-min=3.0km az=171.5*

*CSEM **07** 04:35:50.3±0.2, 39°.56N×25°.92E, h5^{km}, ML3.2/4, Error ellipse: s-maj=4.9km s-min=3.2km az=79.0*

*ISK **07** 04:35:50.0, 39°.58N×25°.94E, h5^{km}, MD3.0*

*THE **07** 04:35:51.0, 39°.54N×25°.96E, h13^{km}±1^{km}, ML3.2/4, Error ellipse: s-maj=1.4km s-min=0.4km az=219.0*

ISC 07 04:35:50.9±0.4**, 39°.56N**±0°.02×**25°.95E**±0°.04**, h10**^{km}±3^{km}**, n58, σ0^{s}.90**/84**, 2C-4D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	Bozcaada	0.29	16	i P	Pg	04 35 56.3	-0.5
BOZC				i S	Sg	04 36 00.7	0.0
SIGR	SIGRI	0.36	191	P	Pg	04 35 57.7	-0.2
SIGR				S	Sg	04 36 03.3	+0.7
SIGR	SIGRI	0.36	191	P	Pg	04 35 57.7	-0.2
SIGR				S	Sg	04 36 03.3	+0.7
EZN	Ezine	0.40	48	PG	Pg	04 35 58.0	-0.7
EZN				eSG	Sg	04 36 04.1	+0.2
EZN	Ezine	0.40	48	i Pg	Pg	04 35 58.0	-0.6
EZN				eSg	Sg	04 36 04.1	+0.2
PRK	Paraskevi	0.40	141	P	Pg	04 35 58.4	-0.4
PRK				S	Sg	04 36 04.2	+0.1
PRK	Paraskevi	0.40	141	P	Pg	04 35 58.4	-0.4
PRK				S	Sg	04 36 04.2	+0.1
AYVA	Ayvalik	0.63	113	i P	Pg	04 36 02.8	-0.3
AYVA				eS	Sg	04 36 11.9	+0.6
AYVA	Ayvalik	0.63	113	i P	Pg	04 36 02.8	-0.3
AYVA				eS	Sg	04 36 11.9	+0.6
GADA	Gvkgeada	0.63	357	PG	Pg	04 36 01.8	-1.3
GADA				eSG	Sg	04 36 11.5	+0.1
GADA	Gvkgeada	0.63	357	i Pg	Pg	04 36 01.8	-1.3
GADA				eSg	Sg	04 36 11.5	+0.1
LIA	Limnos Island	0.68	300	P	Pg	04 36 04.2	+0.2
LIA				S	Sg	04 36 14.7	+1.9
LIA	Limnos Island	0.68	300	P	Pg	04 36 04.2	+0.2
LPK	Lapseki	1.02	37	PG	Pg	04 36 09.7	-0.9
LPK				eSG	Sg	04 36 24.5	+0.6
LPK	Lapseki	1.02	37	i Pg	Pg	04 36 09.7	-0.9
LPK				eSg	Sg	04 36 24.5	+0.6
CHOS	Chios island	1.18	176	P	Pb	04 36 11.5	-1.8
CHOS	Chios island	1.18	176	P	Pb	04 36 11.5	-1.8
ENEZ	Enez	1.19	8	ePN	Pn	04 36 12.9	-0.7
ENEZ				eSN	Sn	04 36 29.6	-0.1
ENEZ	Enez	1.19	8	ePn	Pn	04 36 12.9	-0.6
ENEZ				eSn	Sn	04 36 29.6	-0.1
URLA	Izmir	1.30	157	eP	Pn	04 36 13.8	-1.3
URLA				i S	Sb	04 36 31.4	-0.8
URLA	Izmir	1.30	157	eP	Pn	04 36 13.8	-1.3
URLA				i S	Sb	04 36 31.4	-0.8
ALN	Alexandroupoli	1.34	3	P	Pn	04 36 14.8	-0.8
ALN				S	Sb	04 36 33.0	-0.2
ALN	Alexandroupoli	1.34	3	P	Pn	04 36 14.8	-0.8
ALN				S	Sb	04 36 33.0	-0.2
BLCB	Balcova	1.45	144	ePN	Pn	04 36 18.1	+0.9
BLCB				eSN	Sn	04 36 37.5	+1.2
BLCB	Balcova	1.45	144	ePn	Pn	04 36 18.1	+0.9
BLCB				eSn	Sn	04 36 37.5	+1.2
SART	Tekirdag	1.47	40	i P	Pn	04 36 16.5	-1.0
SART				eS	Sn	04 36 36.8	0.0
SART	Tekirdag	1.47	40	i P	Pn	04 36 16.5	-1.0
SART				eS	Sn	04 36 36.8	0.0
BALB	Balikesir	1.50	86	ePN	Pn	04 36 18.2	+0.4
BALB	Balikesir	1.50	86	ePn	Pn	04 36 18.2	+0.4
IZM	Izmir	1.55	138	ePN	Pn	04 36 19.8	+1.2
IZM	Izmir	1.55	138	ePn	Pn	04 36 19.8	+1.3
MRMT	Marmara Adasi	1.64	50	ePN	Pn	04 36 20.3	+0.5
MRMT	Marmara Adasi	1.64	50	ePn	Pn	04 36 20.3	+0.5
EDC	Edincik	1.67	61	ePN	Pn	04 36 20.2	0.0
EDC	Edincik	1.67	61	ePn	Pn	04 36 20.2	0.0
OUR	Ouranopolis	1.69	298	P	Pn	04 36 19.7	-0.9
OUR	Ouranopolis	1.69	298	P	Pn	04 36 19.7	-0.9
BNT	Bandirma	1.71	62	ePN	Pn	04 36 21.1	+0.3
TKR	Tekirdag	1.88	40	ePN	Pn	04 36 23.9	+0.9
TKR	Tekirdag	1.88	40	ePn	Pn	04 36 23.9	+0.9
DURS	Dursunbey	1.96	88	eP	Pn	04 36 23.4	-0.7
DURS				eS	Sn	04 36 47.1	-1.6
DURS	Dursunbey	1.96	88	eP	Pn	04 36 23.5	-0.6
DURS				eS	Sn	04 36 47.1	-1.6
KCT	Karacabey	1.98	68	ePN	Pn	04 36 24.4	-0.1
KCT	Karacabey	1.98	68	ePn	Pn	04 36 24.4	-0.1
EDRB	Edirne	2.36	15	ePN	Pn	04 36 31.3	+1.5
EDRB	Edirne	2.36	15	ePn	Pn	04 36 31.3	+1.6
ARMT	Armutlu	2.45	65	ePN	Pn	04 36 32.6	+1.7
ARMT	Armutlu	2.45	65	ePn	Pn	04 36 32.6	+1.6
CTKS	Kestanelik-??a	2.57	49	ePN	Pn	04 36 33.2	+0.6
CTKS	Kestanelik-??a	2.57	49	ePn	Pn	04 36 33.2	+0.6
YLV	Yalova	2.82	68	ePN	Pn	04 36 37.2	+1.3
YLV	Yalova	2.82	68	ePn	Pn	04 36 37.3	+1.4
HARR	Harsova	5.33	15	⇑iP	Pn	04 37 16.9	+6.4
VOIR		5.91	354	⇓iP	Pn	04 37 19.6	+1.2
VOIR		5.91	354	⇓iP	Pn	04 37 19.6	+1.2
GZR	Gura Zlata	6.28	339	⇓iP	Pn	04 37 21.8	-1.7
GZR	Gura Zlata	6.28	339	⇓iP	Pn	04 37 21.8	-1.7
BZS	Buzias	6.84	334	⇑iP	Pn	04 37 22.5	-8.7

IDC 07 04:38:05.8±7.5**, 16°.76N**×**120°.71E, h0**^{km}**, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.4**/21**, mbtmp3.5**/3**, Error ellipse: s-maj=373.1km s-min=30.8km az=91.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	21.57	16	P	P	04 42 56.7	-0.2
	0.8nm,0.6s,baz=207,slow=11,SNR=3.4						
WRA	Warramunga Arr	38.86	159	P	P	04 45 32.6	-0.3
	0.5nm,0.6s,baz=340,slow=9.2,SNR=3.1						
ASAR	Alice Springs	42.20	162	P	P	04 46 00.7	+0.2
	0.4nm,0.6s,baz=343,slow=7.1,SNR=5.7						

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*ISCJB **07** 04:38:25.5±0.6, 41°.29N±0°.05×79°.56E±0°.05, h10^{km}, mb3.7/8, Error ellipse: s-maj=7.7km s-min=4.7km az=145.0*

*IDC **07** 04:38:25.2±0.9, 41°.32N×79°.28E, h0^{km}, mb3.7/9, mb1 3.8/14, mb1mx3.7/29, mbtmp3.7/14, ML3.4/4, Error ellipse: s-maj=19.4km s-min=14.6km az=114.0*

*BJI **07** 04:38:26.0, 41°.53N×79°.32E, h14^{km}, mb4.2/1, ML3.5/7*

*NNC **07** 04:38:28.2±2.9, 41°.60N×79°.34E, h0^{km}, mb3.9, mpv3.6, Error ellipse: s-maj=26.3km s-min=10.9km az=158.0*

*NEIC **07** 04:38:33.0±0.9, 41°.56N×79°.34E, h51^{km}±8^{km}, Error ellipse: s-maj=12.4km s-min=5.9km az=159.0*

ISC 07 04:38:27.8±0.7**, 41°.37N**±0°.05×**79°.50E**±0°.06**, h10**^{km}**, n45, σ1^{s}.28**/55**, mb3.7**/8**, 10C-8D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULHL	Ulahol	2.59	291	P	Pn	04 39 09.4	-0.3
	SNR=170						
KNDC	Almaty	2.63	315	⇓Pn	Pn	04 39 10.2	-0.1
KNDC				⇑Pg	Pg	04 39 13.6	-4.6
KNDC				⇑Lg		04 39 44.0	
KZA	Kyzart	3.26	284	P	Pn	04 39 19.4	+0.5
	SNR=12						
KSH	Kashi	3.26	237	Pg	Pg	04 39 27.5	-2.8
KSH				Sg	Sg	04 40 13.5	+0.9
KSH				smax			
	comp=N,160nm,0.8s						
KSH				smax			
	comp=E,130nm,0.6s						
TKM2	Tokmak 2	3.29	299	P	Pn	04 39 19.4	+0.1
	SNR=131						
TKM2	Tokmak 2	3.29	299	ePn	Pn	04 39 19.4	0.0
TKM2				Sn	Sn	04 39 59.2	+0.8
TKM2	Tokmak 2	3.29	299	⇑Pn	Pn	04 39 19.1	-0.3
	comp=E,3.1nm,0.4s						
TKM2				⇑Pg	Pg	04 39 21.1	-10
	comp=E,35nm,0.3s						
TKM2				⇓Lg		04 40 02.1	
	comp=E,188nm,0.7s						
KBK	Karagaybulak	3.62	292	P	Pn	04 39 25.4	+1.5
	SNR=11						
UCH	Uchtor	3.82	285	P	Pn	04 39 31.8	+5.1
	SNR=5.7						
UCH	Uchtor	3.82	285	ePn	Pn	04 39 27.5	+0.8
UCH				eSn	Sn	04 40 15.7	+4.1
AAK	Ala-Archa	3.94	290	P	Pn	04 39 30.9	+2.7
	SNR=23						
AAK	Ala-Archa	3.94	290	ePn	Pn	04 39 28.6	+0.4
USP	Ospenovka	4.16	299	P	Pn	04 39 32.2	+0.9
	SNR=8.5						
AML	Almayashu	4.41	282	P	Pn	04 39 42.4	+7.7
	SNR=9.3						
AML	Almayashu	4.41	282	ePn	Pn	04 39 35.4	+0.7
EKS2	Erkin-Say	4.45	289	P	Pb	04 39 45.9	-0.1
	SNR=12						
EKS2	Erkin-Say	4.45	289	ePn	Pn	04 39 36.4	+1.1
MK31	Makanchi Array	5.78	19	ePn	Pn	04 39 54.8	+1.2
MK31	Makanchi Array	5.78	19	⇑Pn	Pn	04 39 55.0	+1.4
	comp=E,1.0nm,0.3s,baz=202,slow=13,SNR=168						
MK31				⇑Sn	Sn	04 41 04.4	+4.4
	comp=E,28nm,1.1s,baz=205,slow=22,SNR=6.2						
MK31				⇓Lg		04 41 24.1	
	comp=E,6.9nm,0.5s						
MKAR	Makanchi Array	5.78	19	Pn	Pn	04 39 54.9	+1.3
	comp=E,1.1nm,0.3s,baz=209,slow=16,SNR=38						
MKAR				Sn	Sn	04 41 01.7	+1.8
	comp=E,2.2nm,0.3s,baz=202,slow=25,SNR=7.0						
MKAR				Lg		04 41 29.1	
	comp=E,2.0nm,0.3s,baz=205,slow=28,SNR=3.8						
MKAR	Makanchi Array	5.78	19	Pn	Pn	04 39 54.9	+1.3
MKAR				Sn	Sn	04 41 01.7	+1.8
WMQ	Urumqi	6.53	65	ePn	Pn	04 40 11.0	+7.2
WMQ				Sn	Sn	04 41 24.5	+6.2
WMQ				smax			
	comp=N,27nm,0.9s						
WMQ				smax			
	comp=E,31nm,0.8s						
KK31	Karatay Array	6.89	288	⇓Pg	Pb	04 40 28.9	+1.4
	comp=E,4.5nm,0.7s						
KK31				⇑Lg		04 41 54.9	
	comp=E,31nm,0.9s						
KURBB	Kurchatov Arra	9.28	356	⇑Lg		04 43 17.4	
	comp=E,8.9nm,0.7s						
KURK	Kurchatov	9.37	357	Pn	Pn	04 40 41.6	-1.1
	comp=E,0.1nm,0.3s,baz=184,slow=12,SNR=2.0						
KURK				Lg		04 43 17.9	
	comp=E,0.5nm,0.3s,baz=170,slow=28,SNR=8.8						
KURK	Kurchatov	9.37	357	⇓Lg		04 43 16.6	
	comp=E,35nm,0.9s						

VOSK	**Vostochnaya**	**12.74**	**336**	⇑Pn	**Pn**	**04 41 27.8**	**-1.1**
	comp=E,5.6nm,1.5s						
VOSK				⇓Sn	**Sn**	**04 43 55.0**	**+4.2**
	comp=E,0.4nm,0.5s						
VOSK				⇑Lg		04 45 02.1	
	comp=E,29nm,1.9s						
ZALV	**Zalesovo Beam**	**13.08**	**14**	Pn	**Pn**	**04 41 32.9**	**-0.6**
	comp=E,0.2nm,0.3s,baz=195,slow=10,SNR=3.0						
ZALV				Sn	**Sn**	**04 43 54.0**	**-5.0**
	comp=E,0.2nm,0.3s,baz=198,slow=16,SNR=3.9						
ZALV				Lg		04 45 25.3	
	comp=E,0.1nm,0.3s,baz=209,slow=20,SNR=3.0						
ZALV	**Zalesovo Beam**	**13.08**	**14**	Pn	**Pn**	**04 41 32.9**	**-0.6**
ZALV				Sn	**Sn**	**04 43 54.0**	**-5.0**
BVA0	**Borovoye Array**	**13.19**	**335**	⇓Pn	**Pn**	**04 41 32.0**	**-2.9**
	comp=E,1.2nm,1.4s,baz=148,slow=12,SNR=7.7						
BVA0				⇓Lg		04 45 15.7	
	comp=E,2.7nm,1.3s,baz=150,slow=32,SNR=5.9						
BVAR	**Borovoye Array**	**13.19**	**335**	Pn	**Pn**	**04 41 31.7**	**-3.2**
	comp=E,0.2nm,0.3s,baz=144,slow=10,SNR=3.1						
BVAR				Lg		04 45 19.2	
	comp=E,0.2nm,0.3s,baz=152,slow=28,SNR=4.6						
AKTK	**Aktyubinsk**	**17.43**	**309**	P	**Pn**	**04 42 30.1**	**-0.7**
AKTO	**Aktyubinsk**	**17.43**	**309**	P	**Pn**	**04 42 30.1**	**-0.7**
	comp=E,0.1nm,0.3s,baz=98,slow=15,SNR=2.3						
SONM	**Songino Array**	**20.15**	**62**	P	**P**	**04 43 04.1**	**+2.0**
	comp=E,1.2nm,0.5s,baz=264,slow=11,SNR=17						
BRTR	**Keskin Array B**	**34.58**	**283**	P	**P**	**04 45 15.7**	**-0.9**
	comp=E,1.1nm,0.7s,mb3.9,baz=110,slow=7.6,SNR=6.9						
BRTR	**Keskin Array B**	**34.58**	**283**	P	**P**	**04 45 15.7**	**-0.9**
ARCES	**ARCESS Array B**	**39.47**	**333**	P	**P**	**04 45 56.4**	**-1.4**
	comp=E,2.2nm,0.7s,mb4.0,baz=92,slow=8.6,SNR=5.6						
NOA	**NORSAR Array B**	**44.71**	**320**	P	**P**	**04 46 39.0**	**-1.6**
	comp=E,1.5nm,0.8s,mb3.9,baz=84,slow=8.2,SNR=3.2						
NOA	**NORSAR Array B**	**44.71**	**320**	P	**P**	**04 46 39.0**	**-1.6**
GERES	**GERESS Array B**	**45.72**	**303**	P	**P**	**04 46 47.6**	**-1.2**
	comp=E,0.4nm,0.5s,mb3.6,baz=66,slow=7.6,SNR=4.0						
TORD	**Torodi Ar. Bea**	**72.32**	**272**	P	**P**	**04 49 50.4**	**-3.5**
	comp=E,1.0nm,0.6s,mb3.9,baz=46,slow=5.3,SNR=24						
YKA	**Yellowknife Ar**	**75.87**	**7**	P	**P**	**04 50 12.0**	**-1.8**
	comp=E,0.4nm,0.6s,mb3.5,baz=344,slow=5.7,SNR=7.8						
WRA	**Warramunga Arr**	**79.37**	**129**	P	**P**	**04 50 34.2**	**+0.2**
	comp=E,0.2nm,0.7s,mb3.2,baz=329,slow=5.1,SNR=2.5						
ASAR	**Alice Springs**	**82.02**	**131**	P	**P**	**04 50 48.8**	**+0.7**
	comp=E,0.2nm,0.5s,mb3.3,baz=330,slow=5.4,SNR=2.5						
ASAR	**Alice Springs**	**82.02**	**131**	P	**P**	**04 50 48.8**	**+0.7**

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*PRE **07** 04:42:48.5±1.0, 26°.10S×27°.73E, h2km, ML2.3*

*ISCJB **07** 04:42:49.5±0.8, 26°.12S±0°.05×27°.80E±0°.05, h10km, mb3.5/2, Error ellipse: s-maj=7.9km s-min=4.9km az=135.8*

*IDC **07** 04:42:52.4±2.4, 26°.18S×27°.42E, h0km, mb3.6/2, mb1 3.4/3, mb1mx3.3/21, mbtmp3.5/3, ML2.8/1, Error ellipse: s-maj=71.2km s-min=16.3km az=120.0*

ISC 07 04:42:50.3±0.8**, 26°.14S**±0°.05×**27°.81E**±0°.05**, h10km, n8, σ1ˢ.32**/15**, mb3.5**/2**, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERPM	**east rand prop**	**0.44**	**118**	eP	**Pg**	**04 42 57.6**	**-1.3**
ERPM				eS	**Sg**	**04 43 04.2**	**-0.6**
ERPM				AML	AML	04 43 09.3	
	comp=Z,219nm,0.6s						
SLR	**Silverton**	**0.59**	**47**	eP	**Pg**	**04 42 59.6**	**-2.0**
SLR				eS	**Sg**	**04 43 09.1**	**-0.2**
SLR				AML	AML	04 43 20.6	
	comp=Z,76nm,0.6s						
PRYS	**Parys**	**0.88**	**207**	eP	**Pg**	**04 43 06.1**	**-1.1**
PRYS				eS	**Sg**	**04 43 18.4**	**-0.4**
PRYS				AML	AML	04 43 23.3	
	comp=Z,82nm,0.7s						
SEK	**Senekal**	**2.18**	**184**	eP	**Pn**	**04 43 26.8**	**+0.2**
SEK				eS	**Sn**	**04 43 54.5**	**+0.8**
SEK				AML	AML	04 43 56.0	
	comp=Z,21nm,0.2s						
BOSA	**Boshof**	**3.35**	**222**	Pn	**Pn**	**04 43 42.7**	**0.0**
	comp=Z,0.9nm,0.3s,baz=44,slow=14,SNR=20						
BOSA				Pg	**Pg**	**04 43 50.6**	**-3.9**
	comp=Z,1.7nm,0.3s,baz=43,slow=17,SNR=22						
BOSA				Sn	**Sn**	**04 44 18.3**	**-4.2**
	comp=Z,0.4nm,0.3s,baz=157,slow=22,SNR=3.7						
BOSA				Lg		04 44 29.5	
	comp=Z,1.8nm,0.3s,baz=146,slow=22,SNR=9.4						
POGA	**Pongola**	**3.62**	**111**	eP	**Pn**	**04 43 48.4**	**+2.0**
POGA				eS	**Sn**	**04 44 32.3**	**+3.1**
POGA				AML	AML	04 44 50.6	
	comp=Z,9.7nm,0.5s						
KMBO	**Kilima Mbogo**	**26.48**	**22**	P	**P**	**04 48 33.1**	**+5.4**
	comp=Z,1.3nm,0.5s,mb3.7,baz=216,slow=9.8,SNR=5.9						
TORD	**Torodi Ar. Bea**	**46.59**	**324**	P	**P**	**04 51 20.7**	**+2.1**
	comp=Z,0.2nm,0.6s,mb3.2,baz=133,slow=7.0,SNR=5.5						

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*MOS **07** 04:45:33.6±0.8, 15°.28S×168°.14E, h33km, mb5.1/10, Error ellipse: s-maj=17.2km s-min=14.1km az=167.3*

*LDG **07** 04:45:34.2±0.3, 14°.60S×167°.80E, h10km, Mb5.1/2, Ms4.2/5, Error ellipse: s-maj=38.6km s-min=6.6km az=93.0*

*IDC **07** 04:45:36.8±4.6, 15°.46S×168°.28E, h55km±39km, mb4.2/16, mb1 4.4/17, mb1mx4.3/20, mbtmp4.2/17, ML4.9/1, MS3.9/7, Ms1 3.9/7, ms1mx3.4/29, Error ellipse: s-maj=23.4km s-min=19.0km az=106.0*

*NEIC **07** 04:45:37.8±1.3, 15°.57S×168°.28E, h61km±11km, mb4.8/13, Error ellipse: s-maj=9.6km s-min=8.3km az=157.0*

*ISCJB **07** 04:45:37.3±2.1, 15°.43S±0°.05×168°.12E±0°.05, h64km±18km, mb4.6/41, Error ellipse: s-maj=9.4km s-min=7.9km az=32.7*

*BJI **07** 04:45:40.7, 14°.96S×168°.45E, h88km, mB5.0/17, mb4.7/34, Ms5.3/9, Ms7 4.9/10*

ISC 07 04:45:40.2±1.5**, 15°.44S**±0°.05×**168°.16E**±0°.05**, h76km**±13km**, h98km**±.9km**:pP-P, n273, σ0ˢ.56**/216**, mb4.5**/41**, 75C-78D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**6.79**	**194**	eP	**Pn**	**04 47 12.6**	**-4.6**
DZM				eS	**Sn**	**04 48 33.7**	**+0.6**
DZM	**Mont Dzumac**	**6.79**	**194**	ePn	**Pn**	**04 47 12.2**	**-5.0**
	118nm,0.6s						
HNR	**Honiara**	**10.00**	**306**	P	**Pn**	**04 48 00.0**	**-1.0**
	11nm,0.3s,baz=188,slow=18,SNR=3.0						
HNR				S	**Sn**	**04 49 51.6**	**+0.1**
	8.5nm,0.3s,baz=21,slow=17,SNR=3.0						
HNR	**Honiara**	**10.00**	**306**	Pn	**Pn**	**04 48 02.3**	**+1.3**
HNR				Sn	**Sn**	**04 49 48.7**	**-2.9**
EIDS	**Eidsvold**	**18.79**	**236**	eP	**Pn**	**04 49 56.2**	**+1.4**
	7.3nm,0.7s						
CTA	**Charters Tower**	**21.36**	**254**	eP	**P**	**04 50 29.8**	**+8.4**
	12nm,1.5s,mb4.0						
CTA	**Charters Tower**	**21.36**	**254**	P	**P**	**04 50 21.9**	**+0.5**
	1.4nm,0.4s,mb3.6,baz=82,slow=13,SNR=2.2						
CTA				LR	LR	04 57 12.5	
	comp=Z,402nm,20.2s,baz=58,slow=32						
URZ	**Urewera**	**24.07**	**163**	P	**P**	**04 50 45.9**	**-2.4**
	6.7nm,0.8s,mb4.0,baz=352,slow=18,SNR=2.9						
STKA	**Stephens Creek**	**29.20**	**231**	eP	**P**	**04 51 34.6**	**0.0**
	8.0nm,0.9s,mb4.3						
STKA	**Stephens Creek**	**29.20**	**231**	P	**P**	**04 51 34.7**	**+0.1**
	5.4nm,0.9s,mb4.2,baz=79,slow=7.1,SNR=5.6						
STKA				LR	LR	05 04 03.0	
	comp=Z,161nm,18.3s,baz=205,slow=38						
STKA	**Stephens Creek**	**29.20**	**231**	P	**P**	**04 51 34.7**	**+0.1**
STKA				LR	LR	05 04 03.0	
TOO	**Toolangi**	**29.81**	**218**	eP	sP	04 52 01.2	-5.6
WRAB	**Tennant Creek**	**32.48**	**257**	eP	**P**	**04 52 03.3**	**-0.4**
WRAB				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
WRAB	**Tennant Creek**	**32.48**	**257**	eP	**P**	**04 52 03.2**	**-0.4**
	comp=Z,8.0nm,0.8s,mb4.5						
WRA	**Warramunga Arr**	**32.50**	**257**	P	**P**	**04 52 02.5**	**-1.3**
	comp=Z,4.0nm,0.8s,mb4.2,baz=86,slow=8.7,SNR=16						
WRA				LR	LR	05 04 37.3	
	comp=Z,258nm,18.2s,baz=80,slow=35						
ASAR	**Alice Springs**	**33.23**	**250**	P	**P**	**04 52 09.9**	**-0.3**
	comp=Z,5.7nm,0.9s,mb4.4,baz=81,slow=9.1,SNR=29						
FORT	**Forrest**	**39.68**	**240**	eP	**P**	**04 53 03.9**	**-1.1**
	comp=Z,16nm,0.7s,mb5.0						
PPT	**Papeete**	**40.52**	**99**	eLR	LR	05 04 35.4	
	comp=Z,242nm,27.2s						
FITZ	**Fitzroy Crossi**	**40.73**	**260**	eP	**P**	**04 53 13.4**	**-0.4**
	comp=Z,21nm,0.6s,mb5.2						
FITZ	**Fitzroy Crossi**	**40.73**	**260**	eP	**P**	**04 53 13.6**	**-0.2**
	comp=Z,11nm,0.6s,mb4.9						
MBWA	**Marble Bar**	**46.19**	**255**	eP	**P**	**04 53 58.8**	**+1.0**
	comp=Z,6.6nm,1.0s,mb4.3						
KLBR	**Kellerberrin**	**48.51**	**241**	eP	**P**	**04 54 22.1**	**+6.5**
NWAO	**Narrogin (SRO)**	**49.13**	**240**	P	**P**	**04 54 20.2**	**-0.1**
	comp=Z,514nm,1.1s						
RKT	**Rikitea**	**53.95**	**108**	eLR	LR	05 10 47.4	
	comp=Z,183nm,30.2s						
MJAR	**Matsushiro Arr**	**58.93**	**332**	P	**P**	**04 55 30.0**	**-1.4**
	comp=Z,4.4nm,0.7s,mb4.6,baz=166,slow=8.0,SNR=8.8						
MAT	**Matsushiro**	**58.93**	**332**	P	**P**	**04 55 30.5**	**-1.0**
KSRS	**Korea Array**	**64.81**	**325**	P	**P**	**04 56 10.9**	**0.0**
	comp=Z,2.9nm,1.1s,mb4.0,baz=8.0,slow=28,SNR=4.9						
PETK	**Petropavlovsk-**	**68.86**	**353**	P	**P**	**04 56 35.3**	**-1.0**
	comp=Z,7.9nm,1.0s,mb4.5,baz=149,slow=11,SNR=3.9						
MDJ	**Mudanjiang**	**69.31**	**332**	P	**P**	**04 56 39.5**	**+0.2**
MDJ				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,96nm,4.8s						
MDJ	**Mudanjiang**	**69.31**	**332**	eP	**P**	**04 56 39.6**	**+0.4**
	comp=Z,14nm,0.9s,mb4.8						
CN2	**Changchun**	**70.69**	**329**	⇑iP	**P**	**04 56 47.9**	**+0.1**
CN2				epP	pP	04 57 14.0	+6.1
CN2				eS	S	05 05 54.4	-1.7
CN2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
KLR	**Kul'dur**	**72.00**	**336**	eP	**P**	**04 56 51.7**	**-3.8**
KLR				pmax	pmax		
	comp=Z,42nm,1.8s,mb5.0						
GYA	**Guiyang**	**72.82**	**304**	P	**P**	**04 57 02.6**	**+1.7**
GYA				PcP	PcP	04 57 20.3	+2.5
GYA				pP	pP	04 57 27.5	+6.3
GYA				sP	sP	04 57 38.4	+8.9
GYA				PP	PP	04 59 49.0	+4.9
GYA				S	S	05 06 22.1	+0.8
GYA				SKS		05 06 55.7	
GYA				sS	sS	05 07 01.0	+5.3
GYA				SS	SS	05 11 04.2	+1.1
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
GYA				pmax	pmax		
	comp=Z,80nm,5.2s						
GYA				LR	LR		
	comp=N,390nm,19.4s						
GYA				LR	LR		
	comp=E,240nm,18.2s						
GYA				LR	LR		
	comp=Z,360nm,19.0s						
BJI	**Beijing**	**73.35**	**321**	P	**P**	**04 57 03.5**	**-0.3**
BJI				pP	pP	04 57 28.2	+4.2
BJI				sP	sP	04 57 38.2	+5.8
BJI				PP	PP	04 59 49.3	+0.9
BJI				sS	sS	05 07 08.3	+7.1
BJI				SS	SS	05 11 13.0	+2.3
BJI				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.5						
KMI	**Kunming**	**75.41**	**302**	P	**P**	**04 57 17.5**	**+1.5**
KMI				PcP	PcP	04 57 31.3	+2.4
KMI				pP	pP	04 57 42.2	+5.8
KMI				S	S	05 06 49.2	-1.1
KMI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.6						
KMI				pmax	pmax		
	comp=Z,85nm,3.4s						
CMAR	**Chiang Mai Arr**	**76.02**	**294**	P	**P**	**04 57 19.6**	**-0.1**
	comp=Z,1.0nm,0.3s,mb4.0,baz=116,slow=3.6,SNR=6.8						
CMAR				LR	LR	05 32 16.0	
	comp=Z,26nm,20.5s,baz=60,slow=37						
CHTO	**Chiang Mai**	**76.15**	**294**	eP	**P**	**04 57 21.2**	**+0.8**
CHTO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
CHTO	**Chiang Mai**	**76.15**	**294**	eP	**P**	**04 57 21.2**	**+0.8**
	comp=Z,2.5nm,0.8s,mb4.0						
HHC	**Hu-ho-hao-te**	**76.68**	**319**	⇑P	**P**	**04 57 23.9**	**+1.0**
HHC				pP	pP	04 57 49.4	+6.1
HHC				sP	sP	04 57 59.5	+7.9
HHC				PP	PP	05 00 19.2	+2.7
HHC				eS	S	05 07 01.1	-2.5
HHC				SKS		05 07 20.9	
HHC				sS	sS	05 07 45.0	+6.7
HHC				SS	SS	05 12 01.9	+0.7
HHC				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
HHC				pmax	pmax		
	comp=Z,140nm,5.1s						
HHC				LR	LR		
	comp=N,110nm,13.1s						
HHC				LR	LR		
	comp=E,94nm,13.1s						
HHC				LR	LR		
	comp=Z,110nm,15.5s						
CD2	**Chengdu**	**77.12**	**307**	P	**P**	**04 57 26.4**	**+0.8**
CD2				pP	pP	04 57 51.5	+5.5
CD2				sP	sP	04 58 01.8	+7.5
CD2				PP	PP	05 00 22.8	+2.4
CD2				S	S	05 07 05.9	-3.0
CD2				SKS		05 07 24.5	
CD2				sS	sS	05 07 50.0	+6.4
CD2				SS	SS	05 12 08.3	+0.1
CD2				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.4						
CD2				pmax	pmax		
	comp=Z,140nm,7.5s						
CD2				LR	LR		
	comp=N,230nm,5.1s						
CD2				LR	LR		
	comp=Z,240nm,5.1s						
HIA	**Hailar**	**77.33**	**330**	eP	**P**	**04 57 26.7**	**+0.4**
LZH	**Lanzhou**	**79.43**	**312**	eP	**P**	**04 57 40.2**	**+1.9**
LZH				PcP	PcP	04 57 48.6	+2.5
LZH				pP	pP	04 58 04.9	+6.2
LZH				sP	sP	04 58 15.7	+8.6
LZH				PP	PP	05 00 40.3	+0.7
LZH				eS	S	05 07 31.1	-2.3
LZH				ScS	ScS	05 07 51.8	-3.3
LZH				sS	sS	05 08 16.3	+8.0
LZH				SS	SS	05 12 40.1	-2.7
LZH				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.0						
LZH				pmax	pmax		
	comp=Z,170nm,5.8s						
YAK	**Yakutsk**	**82.96**	**343**	eP	**P**	**04 57 54.6**	**-1.7**
YAK				pmax	pmax		
	comp=N,3.0nm,0.7s						
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
ULN	**Ulaanbaatar**	**83.21**	**324**	eP	**P**	**04 57 58.5**	**+0.5**
ULN				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**83.21**	**324**	eP	**P**	**04 57 58.5**	**+0.5**
	comp=Z,16nm,1.0s,mb4.8						
BILL	**Bilibino**	**83.26**	**359**	eP	**P**	**04 57 56.3**	**-1.5**
BILL				i		04 58 02.5	
BILL				pmax	pmax		
	comp=Z,14nm,1.6s,mb4.5						
BILL	**Bilibino**	**83.26**	**359**	P	**P**	**04 57 56.9**	**-0.9**
	comp=Z,2.8nm,0.5s,mb4.3						
SONM	**Songino Array**	**83.57**	**323**	P	**P**	**04 58 00.2**	**+0.3**
	comp=Z,5.5nm,1.0s,mb4.3,baz=139,slow=4.2,SNR=32						
GTA	**Gaotai**	**83.78**	**314**	eP	**P**	**04 58 02.2**	**+1.1**
GTA				pP	pP	04 58 27.5	+5.8
GTA				sP	sP	04 58 38.7	+8.7
GTA				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.6						
SHL	**Shillong**	**84.66**	**298**	ePKP	**P**	**04 58 07.0**	**+1.1**
OHCM	**Honcut**	**85.16**	**47**	eP	**P**	**04 58 08.2**	**+0.2**
BOD	**Bodaibo**	**85.48**	**334**	eP	**P**	**04 58 08.1**	**-1.1**
BOD				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.3						
ISA	**Isabella**	**85.92**	**51**	⇓P	**P**	**04 58 12.2**	**+0.3**
	baz=86						
ISA	**Isabella**	**85.92**	**51**	eP	**P**	**04 58 12.5**	**+0.6**
EDW2	**Edwards Air Fo**	**85.99**	**52**	⇑P	**P**	**04 58 12.2**	**-0.1**
	baz=86						
BFSC	**Mount Baldy St**	**86.01**	**53**	⇓P	**P**	**04 58 12.0**	**-0.4**
	baz=86						
BEKR	**Beckwourth**	**86.17**	**47**	⇑P	**P**	**04 58 13.0**	**-0.1**
	baz=86						
R06C	**Coleville**	**86.29**	**49**	⇑P	**P**	**04 58 13.7**	**0.0**
	baz=86						
WAKR	**Walker**	**86.29**	**49**	eP	**P**	**04 58 14.2**	**+0.5**
WCN	**Washoe City**	**86.37**	**48**	⇓P	**P**	**04 58 14.1**	**0.0**
	baz=86						
MTUM	**Tungsten Hills**	**86.49**	**50**	eP	**P**	**04 58 15.2**	**+0.5**
MONP	**Monument Peak**	**86.49**	**55**	⇓P	**P**	**04 58 14.8**	**0.0**
	baz=87						
ZAK	**Zakamensk**	**86.62**	**325**	⇑iP	**P**	**04 58 14.8**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
O06A	**Flanigan**	**86.66**	**47**	⇑P	**P**	**04 58 15.6**	**+0.2**
	baz=87						
PFO	**Pinyon Flat Ob**	**86.72**	**54**	⇑P	**P**	**04 58 15.7**	**-0.2**
	baz=87						
PAHR	**Pah Rah Range**	**86.80**	**47**	eP	**P**	**04 58 16.3**	**+0.2**
	comp=Z,13nm,1.3s,mb4.7						
MPMC	**Manual Prospec**	**86.80**	**51**	⇑P	**P**	**04 58 16.5**	**+0.2**
	baz=87						
DAC	**Darwin (Calif)**	**86.81**	**51**	eP	**P**	**04 58 16.1**	**-0.2**
DAC				pmax	pmax		
	comp=Z,22nm,1.8s,mb4.8						
DAC	**Darwin (Calif)**	**86.81**	**51**	eP	**P**	**04 58 16.1**	**-0.2**
	comp=Z,22nm,1.8s,mb4.8						
DAC				epP	pP	04 59 16.3	+39
N06A	**Buffalo Meadow**	**86.89**	**46**	⇓P	**P**	**04 58 17.1**	**+0.5**
	baz=87						
NVAR	**Mina Array Bea**	**87.08**	**49**	P	**P**	**04 58 16.9**	**-0.7**
	comp=Z,3.2nm,0.9s,mb4.3,baz=229,slow=8.3,SNR=16						
NVAR	**Mina Array Bea**	**87.08**	**49**	P	**P**	**04 58 16.9**	**-0.7**
GRAC	**Grapevine Rang**	**87.24**	**51**	⇓P	**P**	**04 58 18.6**	**+0.3**
	baz=87						
O07A	**Toulon**	**87.33**	**47**	⇑P	**P**	**04 58 19.2**	**+0.5**
	baz=87						
FURC	**Furnace Creek,**	**87.43**	**51**	⇓P	**P**	**04 58 19.4**	**+0.1**
	baz=88						
N07B	**Gerlach**	**87.50**	**47**	⇓P	**P**	**04 58 20.3**	**+0.8**
	baz=88						
Q08A	**Gabbs**	**87.51**	**49**	⇑P	**P**	**04 58 19.5**	**-0.2**
	baz=88						
M07A	**Soldier Meadow**	**87.60**	**46**	⇓P	**P**	**04 58 20.0**	**0.0**
	baz=88						
S09A	**Goldfield**	**87.61**	**50**	⇓P	**P**	**04 58 19.8**	**-0.4**
	baz=88						
SHOC	**Shoshone**	**87.66**	**52**	⇑P	**P**	**04 58 20.3**	**-0.2**
	baz=88						
GMRC	**Granite Mounta**	**87.74**	**53**	⇓P	**P**	**04 58 20.6**	**-0.2**
	baz=88						
TUQ	**Turquoise Moun**	**87.77**	**52**	⇓P	**P**	**04 58 20.9**	**-0.1**
	baz=88						
O08A	**Rochester Mine**	**87.89**	**47**	⇑P	**P**	**04 58 21.6**	**+0.2**
	baz=88						
IRM	**Iron Mountain**	**87.92**	**54**	⇓P	**P**	**04 58 21.7**	**0.0**
	baz=88						
K07A	**Rock Creek Ran**	**88.05**	**45**	⇓P	**P**	**04 58 22.4**	**+0.3**
	baz=88						
N08A	**GE Springer Mi**	**88.09**	**47**	⇓P	**P**	**04 58 22.5**	**+0.1**
	baz=88						
S10A	**Tonopah Range,**	**88.15**	**50**	⇓P	**P**	**04 58 22.4**	**-0.2**
	baz=88,SNR=6.8						
V11A	**Goodsprings**	**88.29**	**52**	⇓P	**P**	**04 58 23.2**	**-0.2**
	baz=88						
B05A	**Bryant**	**88.50**	**39**	⇑P	**P**	**04 58 25.0**	**+1.0**
	baz=89						
R10A	**Warm Springs**	**88.50**	**50**	⇓P	**P**	**04 58 24.4**	**+0.1**
	baz=89						
O09A	**Fish Creek Ran**	**88.53**	**48**	⇓P	**P**	**04 58 24.5**	**+0.1**
	baz=89						
N09A	**Rock Creek Ran**	**88.55**	**47**	⇓P	**P**	**04 58 24.3**	**-0.1**
	baz=89						
Q10A	**Clear Creek Ra**	**88.61**	**49**	⇓P	**P**	**04 58 25.0**	**+0.1**
	baz=89						
V12A	**Nelson**	**88.69**	**52**	⇓P	**P**	**04 58 25.1**	**-0.2**
	baz=89						
PDMCI	**Parker Dam,Lak**	**88.76**	**54**	⇑P	**P**	**04 58 25.8**	**+0.1**
	baz=89						
G07A	**Ruggs Ranch, H**	**88.78**	**42**	⇑P	**P**	**04 58 25.4**	**-0.1**
	baz=89						
J08A	**Circle Bar Ran**	**88.83**	**44**	⇑P	**P**	**04 58 26.2**	**+0.4**
	baz=89						
P10A	**Eureka**	**88.85**	**48**	⇓P	**P**	**04 58 26.4**	**+0.4**
	baz=89						
RPW	**Rockport**	**88.92**	**39**	eP	**P**	**04 58 25.6**	**-0.5**
RPW				epP	pP	04 59 19.8	+33
T11A	**Corn Creek, Al**	**88.93**	**51**	⇑P	**P**	**04 58 26.3**	**0.0**
	baz=89,SNR=6.2						
I08A	**Drewsey**	**88.98**	**44**	⇓P	**P**	**04 58 26.5**	**+0.1**
	baz=89						
R11A	**Troy Canyon, C**	**89.04**	**50**	⇑P	**P**	**04 58 26.9**	**0.0**
	baz=89						
K09A	**Rome**	**89.09**	**45**	⇓P	**P**	**04 58 27.2**	**+0.1**
	baz=89,SNR=5.5						
X13A	**Yucca**	**89.10**	**54**	⇑P	**P**	**04 58 27.2**	**0.0**
	baz=89						
H08A	**Prairie City**	**89.15**	**43**	⇓P	**P**	**04 58 27.7**	**+0.5**
	baz=89						
Q11A	**Duckwater**	**89.17**	**49**	⇓P	**P**	**04 58 27.7**	**+0.3**
	baz=89,SNR=10						
E07A	**Sunnyside**	**89.18**	**41**	⇓P	**P**	**04 58 27.6**	**+0.3**
	baz=89						
W13A	**Hualapai Mount**	**89.22**	**53**	⇓P	**P**	**04 58 27.9**	**+0.1**
	baz=89						
G08A	**Pilot Rock**	**89.25**	**42**	⇑P	**P**	**04 58 27.8**	**+0.1**
	baz=89,SNR=5.7						
J09A	**Fry Pan Ranch,**	**89.31**	**45**	⇓P	**P**	**04 58 28.7**	**+0.7**
	baz=89,SNR=5.2						
S12A	**Delamar Landin**	**89.33**	**51**	⇑P	**P**	**04 58 28.9**	**+0.6**
	baz=89						
P11A	**Circle Ranch,**	**89.34**	**49**	⇓P	**P**	**04 58 28.7**	**+0.4**
	baz=89						
V13A	**Grand Canyon W**	**89.40**	**53**	⇑P	**P**	**04 58 29.1**	**+0.5**
	baz=90						
M10A	**I.L. Ranch, Tu**	**89.48**	**47**	⇑P	**P**	**04 58 29.1**	**+0.2**
	baz=90,SNR=6.9						
C07A	**Waterville**	**89.50**	**40**	⇓P	**P**	**04 58 28.6**	**-0.2**
	baz=90						
U13A	**Pakoon Wash**	**89.60**	**52**	⇓P	**P**	**04 58 29.7**	**+0.2**
	baz=90						
O11A	**Cowboy Ranch,**	**89.61**	**48**	⇓P	**P**	**04 58 29.7**	**+0.2**
	baz=90,SNR=7.5						
E08A	**Dider Farm, El**	**89.66**	**41**	⇓P	**P**	**04 58 29.8**	**+0.3**
	baz=90						
K10A	**MacKenzie Ranc**	**89.71**	**45**	⇑P	**P**	**04 58 30.3**	**+0.4**
	baz=90						
L10A	**Juniper Basin**	**89.73**	**46**	⇑P	**P**	**04 58 30.1**	**+0.1**
	baz=90,SNR=5.4						
R12A	**Pony Springs,**	**89.76**	**50**	⇓P	**P**	**04 58 30.5**	**+0.2**
	baz=90,SNR=7.9						
B07A	**Winthrop**	**89.78**	**39**	⇓P	**P**	**04 58 30.5**	**+0.5**
	baz=90						
X14A	**Yava**	**89.79**	**54**	⇑P	**P**	**04 58 30.6**	**+0.1**
	baz=90						
Q12A	**Willow Creek R**	**89.84**	**49**	⇑P	**P**	**04 58 30.7**	**+0.1**
	baz=90,SNR=5.3						
T13A	**Saint George**	**89.84**	**52**	⇓P	**P**	**04 58 30.7**	**+0.1**
	baz=90,SNR=6.8						
H09A	**Durkee**	**89.87**	**43**	⇓P	**P**	**04 58 30.9**	**+0.3**
	baz=90						
W14A	**Seligman**	**89.88**	**53**	⇑P	**P**	**04 58 30.9**	**0.0**
	baz=90						
P12A	**McGill**	**89.93**	**49**	⇑P	**P**	**04 58 31.3**	**+0.3**
	baz=90						
D08A	**Wollman Farm,**	**89.97**	**41**	⇓P	**P**	**04 58 31.6**	**+0.7**
	baz=90						
M11A	**Holland Ranch,**	**89.97**	**47**	⇓P	**P**	**04 58 31.6**	**+0.5**
	baz=90,SNR=7.4						
V14A	**Boquillas Ranc**	**90.00**	**53**	⇑P	**P**	**04 58 31.6**	**+0.1**
	baz=90						
G09A	**Cove**	**90.02**	**43**	⇑P	**P**	**04 58 31.7**	**+0.5**
	baz=90						
Y15A	**Casa Rosa Ranc**	**90.06**	**55**	⇓P	**P**	**04 58 31.6**	**-0.2**
	baz=90,SNR=5.4						
S13A	**Holt Ranch, En**	**90.06**	**51**	⇓P	**P**	**04 58 31.5**	**-0.2**
	baz=90,SNR=7.4						
ELK	**Elko**	**90.13**	**48**	eP	**P**	**04 58 32.2**	**+0.3**
ELK				pmax	pmax		
	comp=Z,9.0nm,1.3s						
ELK	**Elko**	**90.13**	**48**	eP	**P**	**04 58 32.2**	**+0.3**
	comp=Z,9.4nm,1.3s,mb4.8						
C08A	**Higginbotham F**	**90.17**	**40**	⇓P	**P**	**04 58 31.6**	**-0.3**
	baz=90						
BMO	**Blue Mountains**	**90.17**	**43**	eP	**P**	**04 58 31.8**	**-0.2**
R13A	**O'Grain Ranch,**	**90.18**	**50**	⇑P	**P**	**04 58 32.1**	**-0.2**
	baz=90						
U14A	**Mt Trumbull**	**90.20**	**52**	⇑P	**P**	**04 58 32.0**	**-0.4**
	baz=90,SNR=6.1						
B08A	**Colville Reser**	**90.22**	**40**	⇓P	**P**	**04 58 31.9**	**-0.2**
	baz=90						
E09A	**Wood Farm, Sta**	**90.25**	**42**	⇓P	**P**	**04 58 32.3**	**0.0**
	baz=90						
L11A	**Cat Creek Ranc**	**90.26**	**46**	⇑P	**P**	**04 58 32.5**	**0.0**
	baz=90,SNR=6.9						
K11A	**Parker Ranch,**	**90.28**	**46**	⇑P	**P**	**04 58 32.4**	**-0.1**
	baz=90						
N12A	**Clover Valley,**	**90.31**	**48**	⇓P	**P**	**04 58 32.8**	**0.0**

	baz=90,SNR=6.0						
X15A	**Humboldt**	**90.31**	**54**	⇑P	**P**	**04 58 32.9**	**-0.1**
	baz=90,SNR=5.6						
D09A	**Jones Farm, Ri**	**90.35**	**41**	⇓P	**P**	**04 58 32.7**	**-0.1**
	baz=90						
Q13A	**Wheeler Ranch,**	**90.40**	**50**	⇑P	**P**	**04 58 33.1**	**-0.1**
	baz=90,SNR=5.6						
H10A	**Noah's Angus R**	**90.45**	**44**	⇓P	**P**	**04 58 33.1**	**-0.2**
	baz=90,SNR=7.0						
G10A	**Bishop Farm, J**	**90.46**	**43**	⇑P	**P**	**04 58 33.0**	**-0.3**
	baz=90,SNR=10						
T14A	**Hurricane**	**90.48**	**52**	⇓P	**P**	**04 58 33.7**	**0.0**
	baz=90						
P13A	**Bates Ranch, G**	**90.57**	**49**	⇓P	**P**	**04 58 34.0**	**0.0**
	baz=91,SNR=13						
F10A	**Beach Ranch, E**	**90.64**	**42**	⇑P	**P**	**04 58 34.0**	**-0.2**
	baz=91						
MFID	**Camas Ranch**	**90.65**	**45**	⇓P	**P**	**04 58 33.9**	**-0.4**
	baz=91						
Y16A	**Circle Bar Ran**	**90.72**	**55**	⇑P	**P**	**04 58 34.4**	**-0.5**
	baz=91						
I11A	**Placerville**	**90.74**	**45**	⇓P	**P**	**04 58 34.3**	**-0.4**
	baz=91						
L12A	**House Creek Ra**	**90.77**	**46**	⇓P	**P**	**04 58 34.6**	**-0.3**
	baz=91,SNR=7.9						
V15A	**Kaibab Nationa**	**90.78**	**53**	⇓P	**P**	**04 58 34.4**	**-0.6**
	baz=91						
N13A	**Wendover, West**	**90.90**	**48**	⇑P	**P**	**04 58 35.4**	**-0.1**
	baz=91						
117A	**Oracle**	**90.91**	**57**	⇑P	**P**	**04 58 35.1**	**-0.6**
	baz=91						
X16A	**Lo Mia Camp, P**	**90.91**	**55**	⇑P	**P**	**04 58 35.9**	**+0.2**
	baz=91						
A09A	**Danville**	**90.91**	**39**	⇓P	**P**	**04 58 35.7**	**+0.3**
	baz=91						
Q14A	**Sevier Lake (B**	**90.96**	**50**	⇓P	**P**	**04 58 35.7**	**-0.2**
	baz=91,SNR=7.0						
H11A	**Donnelly**	**90.98**	**44**	⇓P	**P**	**04 58 35.3**	**-0.5**
	baz=91,SNR=6.6						
T15A	**Red Dirt Ranch**	**91.00**	**52**	⇓P	**P**	**04 58 35.8**	**-0.2**
	baz=91						
D10A	**Wagner Farm, O**	**91.01**	**41**	⇑P	**P**	**04 58 35.6**	**-0.3**
	baz=91						
K12A	**Draper Farm, C**	**91.01**	**46**	⇓P	**P**	**04 58 35.8**	**-0.2**
	baz=91						
W16A	**Flagstaff**	**91.05**	**54**	⇓P	**P**	**04 58 36.0**	**-0.3**
	baz=91						
J12A	**Stokes Ranch,**	**91.09**	**45**	⇓P	**P**	**04 58 36.1**	**-0.3**
	baz=91						
M13A	**Montello**	**91.10**	**47**	⇑P	**P**	**04 58 36.2**	**-0.2**
	baz=91,SNR=9.6						
Y17A	**Roosevelt**	**91.16**	**55**	⇓P	**P**	**04 58 36.7**	**-0.2**
	baz=91						
P14A	**Drum Mountains**	**91.31**	**49**	⇑P	**P**	**04 58 37.3**	**-0.1**
	baz=91						
L13A	**Double Diamond**	**91.50**	**47**	⇑P	**P**	**04 58 38.3**	**+0.1**
	baz=92						
A10A	**Northport**	**91.54**	**39**	⇑P	**P**	**04 58 38.6**	**+0.3**
	baz=92						
118A	**Homack Ranch,**	**91.55**	**57**	⇓P	**P**	**04 58 38.8**	**+0.1**
	baz=92						
NEW	**Newport**	**91.55**	**40**	*e*P	**P**	**04 58 37.7**	**-0.6**
NEW				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NEW	**Newport**	**91.55**	**40**	*e*P	**P**	**04 58 37.7**	**-0.6**
	comp=Z,3.1nm,0.9s,mb4.5						
D11A	**Klaveano Farm,**	**91.60**	**41**	⇑P	**P**	**04 58 38.3**	**-0.3**
	baz=92						
N14A	**Grayback Hills**	**91.63**	**48**	⇑P	**P**	**04 58 38.4**	**-0.5**
	baz=92						
U16A	**Tuba City**	**91.68**	**53**	⇓P	**P**	**04 58 38.6**	**-0.7**
	baz=92						
H12A	**Diamond D Ranc**	**91.70**	**44**	⇑P	**P**	**04 58 39.0**	**-0.1**
	baz=92						
M14A	**Sheep Mountain**	**91.73**	**47**	⇓P	**P**	**04 58 39.3**	**0.0**
	baz=92						
319A	**Douglas**	**91.73**	**58**	⇑P	**P**	**04 58 39.7**	**+0.1**
	baz=92						
J13A	**Cove Ranch, Pi**	**91.78**	**45**	⇑P	**P**	**04 58 39.5**	**0.0**
	baz=92						
S16A	**Weppner Ranch,**	**91.81**	**51**	⇓P	**P**	**04 58 39.6**	**-0.2**
	baz=92						
L14A	**Malta**	**91.98**	**47**	⇓P	**P**	**04 58 40.9**	**+0.4**
	baz=92						
I13A	**Wildhorse Cree**	**91.99**	**45**	⇑P	**P**	**04 58 40.8**	**+0.4**
	baz=92						
H13A	**Challis**	**92.11**	**44**	⇑P	**P**	**04 58 41.5**	**+0.5**
	baz=92						
K14A	**Jones Ranch, D**	**92.19**	**46**	⇑P	**P**	**04 58 41.8**	**+0.4**
	baz=92						
T17A	**Navajo Res., N**	**92.19**	**52**	⇓P	**P**	**04 58 41.6**	**0.0**
	baz=92						
A11A	**Hall Mountain,**	**92.27**	**40**	⇓P	**P**	**04 58 41.6**	**0.0**
	baz=92						
I14A	**Mackay**	**92.44**	**45**	⇓P	**P**	**04 58 42.8**	**+0.2**
	baz=92						
F13A	**Darby**	**92.47**	**43**	⇓P	**P**	**04 58 42.8**	**+0.1**
	baz=92						
Y19A	**Nutrioso**	**92.50**	**56**	⇑P	**P**	**04 58 43.1**	**0.0**
	baz=93						
L15A	**Malad City**	**92.57**	**47**	⇑P	**P**	**04 58 43.2**	**0.0**
	baz=93						
N16A	**Rees Ranch, Co**	**92.90**	**48**	⇓P	**P**	**04 58 44.7**	**0.0**
	baz=93						
T18A	**Mexican Hat**	**92.94**	**52**	⇓P	**P**	**04 58 45.4**	**+0.3**
	baz=93						
C13A	**Hot Springs**	**92.94**	**41**	⇓P	**P**	**04 58 45.5**	**+0.7**
	baz=93						
O17A	**Robinson Place**	**93.20**	**49**	⇓P	**P**	**04 58 46.6**	**+0.4**
	baz=93						
H15A	**Lima**	**93.22**	**45**	⇓P	**P**	**04 58 46.4**	**+0.3**
	baz=93						
L16A	**Fish Haven**	**93.25**	**47**	⇑P	**P**	**04 58 46.4**	**+0.1**
	baz=93						
R18A	**Canyonlands Na**	**93.29**	**51**	⇑P	**P**	**04 58 46.2**	**-0.4**
	baz=93						
G15A	**Dillon**	**93.49**	**44**	⇑P	**P**	**04 58 47.6**	**+0.2**
	baz=94						
J16A	**Bone**	**93.51**	**46**	⇑P	**P**	**04 58 47.8**	**+0.3**
	baz=94						
VNA3	**Neumayer Olymp**	**93.52**	**181**	*e*P	**P**	**04 58 46.0**	**-1.1**
M17A	**Scullys Gap (B**	**93.63**	**48**	⇑P	**P**	**04 58 48.6**	**+0.5**
	baz=94						
F15A	**Butte**	**93.70**	**44**	⇓P	**P**	**04 58 48.5**	**+0.2**
	baz=94						
VNA2	**Neumayer--Watz**	**93.80**	**181**	*e*P	**P**	**04 58 47.6**	**-0.8**
	baz=74,slow=2.7						
WMQ	**Urumqi**	**93.83**	**314**	*e*P	**P**	**04 58 48.0**	**-1.0**
WMQ				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,180nm,5.4s						
PDAR	**Pinedale Array**	**94.80**	**47**	P	**P**	**04 58 53.4**	**0.0**
	comp=Z,0.4nm,0.8s,mb3.9,baz=235,slow=3.2,SNR=3.2						
PDAR				LR	LR	05 37 54.9	
	comp=Z,50nm,19.6s,baz=89,slow=33						
ANMO	**Albuquerque**	**95.00**	**55**	LR	LR	05 33 32.7	
	comp=Z,46nm,20.3s,baz=20,slow=30						
TXAR	**Lajitas Array**	**95.86**	**61**	P	**P**	**04 58 57.5**	**-1.2**
	comp=Z,0.4nm,0.8s,mb3.9,baz=234,slow=4.3,SNR=3.4						
TXAR				LR	LR	05 38 33.5	
	comp=Z,73nm,18.4s,baz=355,slow=33						
YKA	**Yellowknife Ar**	**97.78**	**27**	P	**P**	**04 59 04.6**	**-1.8**
	comp=Z,1.4nm,0.8s,mb4.5,baz=254,slow=4.7,SNR=14						
YKA	**Yellowknife Ar**	**97.78**	**27**	P	**P**	**04 59 04.6**	**-1.8**
MKAR	**Makanchi Array**	**98.31**	**316**	P	**P**	**04 59 09.0**	**-0.2**
	comp=Z,3.1nm,0.7s,mb4.9,baz=94,slow=6.4,SNR=33						
MKAR	**Makanchi Array**	**98.31**	**316**	P	**P**	**04 59 09.0**	**-0.2**
ZALV	**Zalesovo Beam**	**98.47**	**324**	P	**P**	**04 59 08.4**	**-1.4**
	comp=Z,2.6nm,0.9s,mb4.8,baz=140,slow=5.0,SNR=9.0						
ARCES	**ARCESS Array B**	**121.15**	**346**	PKP	PKPdf	05 04 22.4	-1.1
	comp=Z,6.3nm,0.9s,baz=30,slow=3.4,SNR=4.7						
BRTR	**Keskin Array B**	**133.62**	**311**	PKP	PKPdf	05 04 47.9	-0.3
	comp=Z,0.8nm,0.8s,baz=163,slow=4.8,SNR=3.8						
GERES	**GERESS Array B**	**140.66**	**333**	PKP	PKPdf	05 04 59.9	-1.0
	comp=Z,0.7nm,0.8s,baz=26,slow=4.7,SNR=3.5						
MOTA	**Moosalm**	**142.93**	**334**	⇑*i*PKPdf	PKPdf	05 05 01.5	-3.5
	comp=Z,8.3nm,0.9s						
FETA	**Feichten**	**143.34**	**334**	⇑*i*PKPdf	PKPdf	05 05 02.9	-2.8
	comp=Z,12nm,1.0s						
CDF	**Champ du Feu**	**143.55**	**338**	*e*PKP1	PKPdf	05 05 02.9	-3.2
	comp=Z,20nm,1.2s						
THEF	**They Montfort**	**144.15**	**340**	PKP	PKPdf	05 05 08.3	+1.2
HINF	**Hinteralfeld**	**144.21**	**338**	*e*PKP1	PKPdf	05 05 04.9	-2.3
	comp=Z,7.8nm,0.7s						
HAU	**Haudompre**	**144.22**	**339**	*e*PKP1	PKPdf	05 05 05.3	-2.0
	comp=Z,34nm,1.0s						
HAU				*e*MLR	MLR		
	comp=Z,118nm,20.2s						
MEZF	**Maizieres J'vi**	**144.22**	**341**	*e*PKP1	PKPdf	05 05 05.6	-1.6
	comp=Z,22nm,0.9s						
TUE	**Stuetta**	**144.36**	**335**	*e*PKPdf	PKPdf	05 05 07.1	-0.5
LOMF	**Lomont**	**144.61**	**338**	PKP	PKPdf	05 05 08.1	+0.2
FLN	**La Foliniere**	**145.48**	**347**	⇑*i*PKP1	PKPbc	05 05 09.2	-0.4
	comp=Z,67nm,0.8s						
FLN				*e*MLR	MLR		
	comp=Z,60nm,17.0s						
CABF	**La Chapelle**	**145.51**	**338**	⇑*i*PKP1	PKPbc	05 05 10.4	+0.7
	comp=Z,118nm,1.1s						
OG01	**Vacheresse**	**145.52**	**337**	PKP	PKPdf	05 05 10.8	+1.2
TIP	**Timpagrande**	**145.54**	**319**	*e*PKPbc	PKPbc	05 05 10.9	+0.8
LDF	**La Druitiere**	**145.56**	**346**	*e*PKP1	PKPbc	05 05 09.4	-0.4
	comp=Z,33nm,0.7s						
LOR	**Lormes**	**145.69**	**341**	⇑*i*PKP1	PKPbc	05 05 10.4	+0.1
	comp=Z,63nm,1.0s						
LOR				*e*MLR	MLR		
	comp=Z,68nm,19.2s						
GRR	**Gorron**	**145.92**	**347**	*e*PKP1	PKPbc	05 05 10.9	0.0
	comp=Z,168nm,1.2s						
SSF	**Saint Saulge**	**145.98**	**341**	⇑*i*PKP1	PKPbc	05 05 11.5	+0.3
	comp=Z,79nm,1.1s						
HYF	**Humbligny**	**146.06**	**342**	*e*PKP1	PKPbc	05 05 12.0	+0.6
LPL	**La Plagne**	**146.19**	**336**	⇑*i*PKP1	PKPbc	05 05 12.6	+0.8
	comp=Z,36nm,1.0s						
LPG	**La Plagne**	**146.19**	**336**	⇑*i*PKP1	PKPbc	05 05 12.7	+0.9
	comp=Z,46nm,1.0s						
SMF	**Signal de Mont**	**146.25**	**340**	*e*PKP1	PKPbc	05 05 12.0	0.0
	comp=Z,56nm,1.3s						
AVF	**Avril sur Loir**	**146.27**	**341**	*e*PKP1	PKPbc	05 05 11.9	-0.1
	comp=Z,22nm,0.9s						
SGMF	**Saint Gilles**	**146.39**	**349**	*e*PKP1	PKPbc	05 05 12.3	0.0
	comp=Z,74nm,1.1s						
ROSF	**Rostrenen**	**146.44**	**350**	*e*PKP1	PKPbc	05 05 12.4	-0.1
	comp=Z,131nm,1.5s						
BNI	**Bardonecchia**	**146.59**	**336**	*e*PKP2	PKPab	05 05 14.3	+0.1
BGF	**Bois d'Agland**	**146.64**	**341**	⇑*i*PKP1	PKPbc	05 05 13.1	0.0
	comp=Z,26nm,0.7s						
MBDF	**Montbardon**	**146.83**	**335**	*e*PKP1	PKPbc	05 05 13.6	-0.1
	comp=Z,29nm,1.0s						
PLDF	**La Plantade**	**146.91**	**340**	PKP	PKPab	05 05 15.4	0.0
AGO	**Saint Agoulin**	**147.00**	**341**	PKP	PKPab	05 05 15.4	-0.3
ORIF	**Oris-en-Rattie**	**147.02**	**337**	*e*PKP1	PKPbc	05 05 14.6	+0.4
	comp=Z,34nm,0.8s						
ORIF				*e*MLR	MLR		
	comp=Z,59nm,19.0s						
TCF	**Toulx Ste Croi**	**147.07**	**342**	⇑*i*PKP1	PKPbc	05 05 14.5	+0.2
	comp=Z,58nm,1.2s						
SAOF	**Saorge**	**147.11**	**334**	PKP	PKPbc	05 05 14.3	-0.2
SSB	**Saint Sauveur**	**147.20**	**338**	*e*PKP2	PKPab	05 05 14.7	-1.9
SBF	**Sospel**	**147.26**	**334**	*e*PKP1	PKPbc	05 05 14.6	-0.4
	comp=Z,182nm,1.4s						
PYM	**Petit Puy Mans**	**147.31**	**341**	PKP	PKPab	05 05 16.3	-0.6
MVIF	**Mont Vial**	**147.35**	**334**	PKP	PKPab	05 05 16.4	-0.8
MFF	**Saint Martin d**	**147.43**	**345**	*e*PKP1	PKPbc	05 05 15.3	0.0
	comp=Z,70nm,1.0s						
VIVF	**Saint-Julien-l**	**147.52**	**338**	*e*PKP1	PKPbc	05 05 15.9	+0.3
	comp=Z,18nm,1.0s						
PGF	**Pioggiola**	**147.59**	**331**	*e*PKP1	PKPbc	05 05 15.7	-0.2
	comp=Z,75nm,1.2s						
LBL	**Lubilhac**	**147.69**	**340**	PKP	PKPab	05 05 17.9	-0.6
FRF	**La Foret Royal**	**147.84**	**334**	*e*PKP1	PKPbc	05 05 16.4	-0.1
LMR	**La Mourre**	**148.08**	**334**	*e*PKP1	PKPbc	05 05 17.1	-0.1
	comp=Z,71nm,1.3s						
RJF	**Les Rejaudoux**	**148.17**	**342**	⇑*i*PKP1	PKPbc	05 05 17.7	+0.3
	comp=Z,68nm,1.2s						
RJF				*e*MLR	MLR		
	comp=Z,84nm,20.8s						
CAF	**Calviac**	**148.34**	**341**	*e*PKP1	PKPbc	05 05 18.1	+0.3
	comp=Z,50nm,1.3s						
LASF	**Ste Croix**	**148.49**	**338**	*e*PKP1	PKPbc	05 05 18.7	+0.5
	comp=Z,54nm,1.2s						
LFF	**La Frestale**	**148.73**	**343**	*e*PKP1	PKPbc	05 05 18.9	+0.1
	comp=Z,73nm,1.1s						
MTLF	**Montolieu**	**149.71**	**339**	*e*PKP1	PKPbc	05 05 21.6	+0.3
	comp=Z,30nm,1.1s						
EPF	**Esparros**	**150.59**	**342**	*e*PKP1	PKPbc	05 05 23.5	+0.1
	comp=Z,29nm,1.2s						
SJPF	**Ste Jean**	**150.96**	**344**	*e*PKP1	PKPbc	05 05 24.6	+0.3
ETSF	**Etsaut**	**150.97**	**343**	*e*PKP1	PKPbc	05 05 25.0	+0.6
	comp=Z,35nm,1.1s						
KEST	**Kesra**	**152.30**	**321**	PKPbc	PKPbc	05 05 28.0	+0.3
	comp=Z,2.4nm,0.8s,baz=291,slow=3.5,SNR=3.7						
ESDC	**Sonseca Array**	**154.89**	**346**	PKPab	PKPab	05 05 48.2	-0.2
	comp=Z,0.8nm,0.7s,baz=28,slow=5.8,SNR=3.7						
TORD	**Torodi Ar. Bea**	**166.68**	**262**	PKP	PKPdf	05 05 36.2	-1.5
	comp=Z,0.8nm,0.9s,baz=72,slow=0.5,SNR=4.4						
TORD				PKPab	PKPab	05 06 39.9	-0.9
	comp=Z,0.5nm,0.8s,baz=94,slow=3.7,SNR=2.9						

RSPR **07** *04:57:54.9, 19°.19N×64°.62W, h8^{km}±14^{km}, MD3.4/5, MD3.4/5*

NEIC **07** *04:57:54.9, 19°.19N×64°.62W, h8^{km}, MD3.5(RSPR), After RSPR.*

TRN 07 04:57:53.3, 19°.08N×64°.80W, h12^{km}, 6C, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STVI	**Saint Thomas**	**0.74**	**192**	⇑*e*P	Pg	04 58 10.8	+3.2
STVI				*e*S	Sg	04 58 22.5	+5.2
STVI	**Saint Thomas**	**0.74**	**192**	⇑*e*P	Pg	04 58 10.8	+3.2
STVI				*e*S	Sg	04 58 22.5	+5.2
MTP	**Monte Pirata**	**1.21**	**216**	⇑*e*P	Pn	04 58 17.8	+1.8
MTP				*e*S	Sb	04 58 35.9	+4.1
CBYP	**Canovanas**	**1.28**	**232**	⇑*e*P	Pn	04 58 18.5	+1.5
CBYP				*e*S	Sb	04 58 37.8	+3.9
HUMP	**Col San Antoni**	**1.36**	**227**	⇑*e*P	Pn	04 58 20.2	+2.0
HUMP				*e*S	Sn	04 58 39.3	+3.1
CPD	**Cerro la Pandu**	**1.48**	**226**	⇑*e*P	Pn	04 58 21.4	+1.6
CPD				*e*S	Sn	04 58 42.7	+3.7

DDA **07** *04:59:02.6, 39°.54N×25°.96E, h7^{km}±5^{km}, Md3.1*

CSEM **07** *04:59:03.9±0.2, 39°.54N×25°.92E, h4^{km}, ML3.8/3, Error ellipse: s-maj=4.3km s-min=2.8km az=68.0*

NEIC **07** *04:59:03.0, 39°.56N×25°.99E, h5^{km}, MD3.3(ISK), MD3.5(ATH), After ISK.*

ATH **07** *04:59:03.7, 39°.57N×26°.01E, h25^{km}±1^{km}, MD3.5/3*

ISK **07** *04:59:03.9, 39°.56N×25°.99E, h5^{km}, MD3.3*

ISCJB **07** *04:59:03.4±0.5, 39°.56N±0°.02×25°.89E±0°.03, h7^{km}±3^{km}, Error ellipse: s-maj=4.0km s-min=2.6km az=163.0*

THE **07** *04:59:04.9, 39°.54N×25°.96E, h12^{km}±1^{km}, ML3.8/3, Error ellipse: s-maj=1.4km s-min=0.4km az=199.0*

ISC 07 04:59:04.4±0.4, 39°.55N±0°.02×25°.93E±0°.03, h7^{km}±3^{km}, n121, σ0^{s}.99/153, 9C-12D, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	**Bozcaada**	**0.30**	**18**	*i* P	**Pg**	**04 59 10.1**	**-0.2**
BOZC				*i* S	**Sg**	**04 59 14.5**	**+0.1**
SIGR	**SIGRI**	**0.34**	**190**	P	**Pg**	**04 59 11.5**	**+0.4**
SIGR				S	**Sg**	**04 59 17.3**	**+1.7**
SIGR	**SIGRI**	**0.34**	**190**	P	**Pg**	**04 59 11.5**	**+0.4**
SIGR				S	**Sg**	**04 59 17.3**	**+1.7**
PRK	**Paraskevi**	**0.40**	**139**	P	**Pg**	**04 59 12.3**	**+0.1**
PRK				S	**Sg**	**04 59 18.2**	**+0.7**
PRK	**Paraskevi**	**0.40**	**139**	*e*PB	**Pg**	**04 59 12.3**	**+0.1**
PRK				*e*SB	**Sg**	**04 59 18.2**	**+0.7**
PRK	**Paraskevi**	**0.40**	**139**	*e*Pb	**Pg**	**04 59 12.3**	**+0.1**
PRK				*e*Sb	**Sg**	**04 59 18.2**	**+0.7**
EZN	**Ezine**	**0.41**	**48**	PG	**Pg**	**04 59 11.8**	**-0.5**
EZN				*e*SG	**Sg**	**04 59 17.2**	**-0.5**
EZN	**Ezine**	**0.41**	**48**	*i* Pg	**Pg**	**04 59 11.8**	**-0.5**
EZN				*e*Sg	**Sg**	**04 59 17.2**	**-0.5**
AYVA	**Ayvalik**	**0.64**	**112**	*i* P	**Pg**	**04 59 16.6**	**0.0**
AYVA				*e*S	**Sg**	**04 59 25.1**	**+0.2**
AYVA	**Ayvalik**	**0.64**	**112**	*i* P	**Pg**	**04 59 16.6**	**0.0**
AYVA				*e*S	**Sg**	**04 59 25.0**	**+0.1**
GADA	**Gvkgeada**	**0.64**	**358**	PG	**Pg**	**04 59 16.6**	**-0.1**
GADA				*e*SG	**Sg**	**04 59 25.5**	**+0.4**
GADA	**Gvkgeada**	**0.64**	**358**	*i* Pg	**Pg**	**04 59 16.6**	**-0.1**
GADA				*e*Sg	**Sg**	**04 59 25.5**	**+0.5**
LIA	**Limnos Island**	**0.67**	**301**	*e*PN	**Pn**	**04 59 18.0**	**-2.3**
LIA				*e*SN	**Sg**	**04 59 27.9**	**+1.8**
LIA	**Limnos Island**	**0.67**	**301**	*e*Pn	**Pn**	**04 59 18.0**	**-2.3**
LPK	**Lapseki**	**1.04**	**38**	*e*PG	**Pg**	**04 59 23.2**	**-1.1**
LPK				*e*SG	**Sg**	**04 59 37.4**	**-0.4**
LPK	**Lapseki**	**1.04**	**38**	*e*Pg	**Pg**	**04 59 23.2**	**-1.1**
LPK				*e*Sg	**Sg**	**04 59 37.4**	**-0.4**
CHOS	**Chios island**	**1.17**	**175**	P	**Pg**	**04 59 25.7**	**-1.0**
CHOS	**Chios island**	**1.17**	**175**	*e*PN	**Pn**	**04 59 25.6**	**-1.4**
CHOS				*e*SN	**Sn**	**04 59 43.5**	**+0.4**
CHOS	**Chios island**	**1.17**	**175**	*e*Pn	**Pn**	**04 59 25.6**	**-1.4**
CHOS				*e*Sn	**Sn**	**04 59 43.5**	**+0.4**
ENEZ	**Enez**	**1.20**	**8**	*e*PN	**Pn**	**04 59 26.6**	**-0.9**
ENEZ				*e*SN	**Sn**	**04 59 43.8**	**-0.1**
ENEZ	**Enez**	**1.20**	**8**	*e*Pn	**Pn**	**04 59 26.6**	**-0.8**
ENEZ				*e*Sn	**Sn**	**04 59 43.8**	**-0.1**
URLA	**Izmir**	**1.30**	**156**	*i* P	**Pn**	**04 59 27.2**	**-1.6**
URLA				*i* S	**Sb**	**04 59 44.4**	**-1.4**
URLA	**Izmir**	**1.30**	**156**	*i* P	**Pn**	**04 59 27.2**	**-1.6**
URLA				*i* S	**Sb**	**04 59 44.4**	**-1.4**
ALN	**Alexandroupoli**	**1.35**	**4**	P	**Pn**	**04 59 28.5**	**-1.0**
ALN				S	**Sb**	**04 59 46.9**	**-0.4**
ALN	**Alexandroupoli**	**1.35**	**4**	*e*PN	**Pn**	**04 59 28.6**	**-0.9**
ALN	**Alexandroupoli**	**1.35**	**4**	*e*Pn	**Pn**	**04 59 28.6**	**-0.9**
ALN				S	**Sb**	**04 59 46.9**	**-0.4**
BLCB	**Balcova**	**1.45**	**143**	*e*PN	**Pn**	**04 59 31.1**	**+0.2**
BLCB				*e*SN	**Sn**	**04 59 51.0**	**+0.9**
BLCB	**Balcova**	**1.45**	**143**	*e*Pn	**Pn**	**04 59 31.1**	**+0.2**
BLCB				*e*Sn	**Sn**	**04 59 51.0**	**+0.9**
SART	**Tekirdag**	**1.48**	**40**	*i* P	**Pn**	**04 59 30.4**	**-1.0**
SART				*e*S	**Sn**	**04 59 51.1**	**0.0**
SART	**Tekirdag**	**1.48**	**40**	*i* P	**Pn**	**04 59 30.4**	**-1.0**
SART				*e*S	**Sn**	**04 59 51.1**	**+0.1**
BALB	**Balikesir**	**1.51**	**86**	*e*PN	**Pn**	**04 59 31.6**	**-0.1**
BALB				*e*SN	**Sn**	**04 59 51.8**	**+0.2**
BALB	**Balikesir**	**1.51**	**86**	*e*Pn	**Pn**	**04 59 31.6**	**-0.1**
BALB				*e*Sn	**Sn**	**04 59 51.8**	**+0.2**
IZM	**Izmir**	**1.55**	**138**	*e*PN	**Pn**	**04 59 31.5**	**-0.8**
IZM	**Izmir**	**1.55**	**138**	*e*Pn	**Pn**	**04 59 31.5**	**-0.8**
AKS	**Akhisar**	**1.61**	**114**	*e*PN	**Pn**	**04 59 32.1**	**-1.0**
AKS	**Akhisar**	**1.61**	**114**	*e*Pn	**Pn**	**04 59 32.1**	**-1.0**
AKHS	**Akhisar**	**1.61**	**114**	*i* P	**Pn**	**04 59 31.9**	**-1.2**
AKHS				*e*S	**Sn**	**04 59 55.7**	**+1.7**
AKHS	**Akhisar**	**1.61**	**114**	*i* P	**Pn**	**04 59 31.9**	**-1.2**
AKHS				*e*S	**Sn**	**04 59 55.7**	**+1.7**
RDO	**Rodhopi**	**1.62**	**349**	*e*PN	**Pn**	**04 59 32.5**	**-0.8**
RDO	**Rodhopi**	**1.62**	**349**	*e*Pn	**Pn**	**04 59 32.5**	**-0.8**
MRMT	**Marmara Adasi**	**1.65**	**50**	*e*PN	**Pn**	**04 59 33.6**	**-0.1**
MRMT	**Marmara Adasi**	**1.65**	**50**	*e*Pn	**Pn**	**04 59 33.6**	**-0.1**
EDC	**Edincik**	**1.68**	**61**	*e*PN	**Pn**	**04 59 34.1**	**0.0**
EDC	**Edincik**	**1.68**	**61**	*e*Pn	**Pn**	**04 59 34.2**	**+0.1**
OUR	**Ouranopolis**	**1.69**	**298**	P	**Pn**	**04 59 33.6**	**-0.6**
OUR	**Ouranopolis**	**1.69**	**298**	P	**Pn**	**04 59 33.6**	**-0.6**
BNT	**Bandirma**	**1.73**	**62**	*e*PN	**Pn**	**04 59 34.2**	**-0.6**
TKR	**Tekirdag**	**1.89**	**40**	*e*PN	**Pn**	**04 59 37.1**	**+0.2**
TKR	**Tekirdag**	**1.89**	**40**	*e*Pn	**Pn**	**04 59 37.1**	**+0.1**
DURS	**Dursunbey**	**1.96**	**88**	*e*P	**Pn**	**04 59 36.7**	**-1.3**
DURS	**Dursunbey**	**1.96**	**88**	*e*P	**Pn**	**04 59 36.7**	**-1.3**
SMG	**Samos**	**1.97**	**159**	*e*PB	**Pb**	**04 59 37.1**	**-3.4**
SMG	**Samos**	**1.97**	**159**	*e*Pb	**Pb**	**04 59 37.1**	**-3.4**
KCT	**Karacabey**	**2.00**	**68**	*e*PN	**Pn**	**04 59 37.8**	**-0.6**
KCT	**Karacabey**	**2.00**	**68**	*e*Pn	**Pn**	**04 59 37.8**	**-0.6**
DST	**Dursunbey**	**2.08**	**88**	*e*PN	**Pn**	**04 59 39.6**	**0.0**
CRLT	**Corlu**	**2.09**	**41**	*e*PN	**Pn**	**04 59 40.5**	**+0.8**
CRLT	**Corlu**	**2.09**	**41**	*e*Pn	**Pn**	**04 59 40.6**	**+0.8**
KDZ	**Kurdzhali**	**2.13**	**350**	*i* P	**Pn**	**04 59 39.0**	**-1.3**
RZN	**Rozhen**	**2.33**	**337**	*i* P	**Pn**	**04 59 42.8**	**-0.2**
KULA	**Kula-Manisa**	**2.36**	**115**	*e*PN	**Pn**	**04 59 43.8**	**+0.3**
KULA	**Kula-Manisa**	**2.36**	**115**	*e*Pn	**Pn**	**04 59 43.8**	**+0.3**
EDRB	**Edirne**	**2.38**	**15**	*e*PN	**Pn**	**04 59 45.1**	**+1.5**
EDRB	**Edirne**	**2.38**	**15**	*e*Pn	**Pn**	**04 59 45.1**	**+1.5**
SLVT	**Silivri**	**2.42**	**45**	*e*PN	**Pn**	**04 59 45.0**	**+0.8**
SLVT	**Silivri**	**2.42**	**45**	*e*Pn	**Pn**	**04 59 45.1**	**+0.9**
ARMT	**Armutlu**	**2.47**	**65**	*e*PN	**Pn**	**04 59 45.9**	**+1.0**
ARMT	**Armutlu**	**2.47**	**65**	*e*Pn	**Pn**	**04 59 45.9**	**+1.0**
CTT	**Catalca**	**2.49**	**49**	*e*PN	**Pn**	**04 59 45.6**	**+0.4**
CTT	**Catalca**	**2.49**	**49**	*e*Pn	**Pn**	**04 59 45.6**	**+0.4**
DIM	**Dimitrovgrad**	**2.52**	**353**	*i* P	**Pn**	**04 59 45.1**	**-0.5**
CTKS	**Kestanelik-??a**	**2.59**	**49**	*e*PN	**Pn**	**04 59 47.6**	**+1.0**
CTKS	**Kestanelik-??a**	**2.59**	**49**	*e*Pn	**Pn**	**04 59 47.6**	**+1.0**
CTYL	**Yal??k??y-??at**	**2.63**	**42**	*e*PN	**Pn**	**04 59 47.9**	**+0.7**
CTYL	**Yal??k??y-??at**	**2.63**	**42**	*e*Pn	**Pn**	**04 59 47.9**	**+0.7**
MMB	**Musomiste**	**2.64**	**321**	*i* P	**Pn**	**04 59 46.8**	**-0.5**
BODT	**Bodrum**	**2.71**	**156**	*e*PN	**Pn**	**04 59 49.1**	**+0.8**
BODT	**Bodrum**	**2.71**	**156**	*e*Pn	**Pn**	**04 59 49.1**	**+0.8**
BGKT	**Bogazkoy**	**2.71**	**52**	*e*PN	**Pn**	**04 59 48.8**	**+0.5**
BGKT	**Bogazkoy**	**2.71**	**52**	*e*Pn	**Pn**	**04 59 48.8**	**+0.5**
YLV	**Yalova**	**2.83**	**68**	*e*PN	**Pn**	**04 59 51.1**	**+1.2**
YLV	**Yalova**	**2.83**	**68**	*e*Pn	**Pn**	**04 59 51.1**	**+1.2**
ISK	**Istanbul-Kandi**	**2.83**	**57**	*e*PN	**Pn**	**04 59 51.0**	**+1.1**
ISK	**Istanbul-Kandi**	**2.83**	**57**	*e*Pn	**Pn**	**04 59 51.0**	**+1.1**
KLYT	**Kilyos**	**2.92**	**53**	*e*PN	**Pn**	**04 59 51.5**	**+0.4**
KLYT	**Kilyos**	**2.92**	**53**	*e*Pn	**Pn**	**04 59 51.5**	**+0.4**
ADVT	**Abdulvahap**	**3.05**	**72**	*e*PN	**Pn**	**04 59 53.5**	**+0.5**
ADVT	**Abdulvahap**	**3.05**	**72**	*e*Pn	**Pn**	**04 59 53.5**	**+0.5**
CAVI	**Cavuskoy**	**3.08**	**77**	*e*PN	**Pn**	**04 59 54.7**	**+1.4**
CAVI	**Cavuskoy**	**3.08**	**77**	*e*Pn	**Pn**	**04 59 54.7**	**+1.4**
KKB	**Krupnik**	**3.17**	**318**	*i* P	**Pg**	**05 00 03.1**	**-2.0**
SILT	**Sile**	**3.25**	**59**	*e*PN	**Pn**	**04 59 56.6**	**+0.9**
SILT	**Sile**	**3.25**	**59**	*e*Pn	**Pn**	**04 59 56.6**	**+0.9**
ALT	**Altintas**	**3.28**	**97**	*e*PN	**Pn**	**04 59 56.2**	**+0.1**
ALT	**Altintas**	**3.28**	**97**	*e*Pn	**Pn**	**04 59 56.2**	**+0.1**
VTS	**Vitosha**	**3.67**	**327**	*i* P	**Pn**	**05 00 04.9**	**+3.5**
BARS	**Barje**	**4.50**	**318**	⇓*e*Pn	**Pn**	**05 00 15.7**	**+2.8**
KIZT	**Kizilcal**	**4.67**	**96**	*e*PN	**Pn**	**05 00 15.9**	**+0.7**
KIZT	**Kizilcal**	**4.67**	**96**	*e*Pn	**Pn**	**05 00 15.9**	**+0.7**
NISS		**4.88**	**323**	⇓*i*Pn	**Pn**	**05 00 18.6**	**+0.6**
BOLS	**Boljevac**	**5.21**	**326**	⇓*i*Pn	**Pn**	**05 00 22.7**	**+0.1**
TIRR	**Tirgusor**	**5.24**	**20**	⇓*i*P	**Pn**	**05 00 22.1**	**-0.9**
TIRR	**Tirgusor**	**5.24**	**20**	⇓P	**Pn**	**05 00 22.1**	**-0.9**
TIRR	**Tirgusor**	**5.24**	**20**	⇓P	**Pn**	**05 00 22.1**	**-0.9**
VOIR		**5.92**	**354**	⇑*i*P	**Pn**	**05 00 32.9**	**+0.6**
VOIR		**5.92**	**354**	⇑P	**Pn**	**05 00 32.9**	**+0.6**
VOIR		**5.92**	**354**	⇑P	**Pn**	**05 00 32.9**	**+0.6**
BR131	**Keskin Array S**	**5.95**	**86**	*e*Pn	**Pn**	**05 00 31.6**	**-1.2**
	1.0nm,0.3s						
BR131				*e*Sn	**Sn**	**05 01 38.6**	**-2.5**
BR131	**Keskin Array S**	**5.95**	**86**	*e*Pn	**Pn**	**05 00 31.6**	**-1.2**
	1.0nm,0.3s						
GZR	**Gura Zlata**	**6.29**	**339**	⇑*i*P	**Pn**	**05 00 36.8**	**-0.6**
GZR	**Gura Zlata**	**6.29**	**339**	⇑P	**Pn**	**05 00 36.9**	**-0.5**
GZR	**Gura Zlata**	**6.29**	**339**	⇑P	**Pn**	**05 00 36.8**	**-0.6**
PLOR	**Plostina**	**6.32**	**5**	⇓*i*P	**Pn**	**05 00 39.3**	**+1.5**
PLOR	**Plostina**	**6.32**	**5**	⇓*i*P	**Pn**	**05 00 39.3**	**+1.5**
VRI	**Vrincioaia**	**6.34**	**5**	⇑*i*P	**Pn**	**05 00 40.1**	**+2.0**
VRI	**Vrincioaia**	**6.34**	**5**	⇑P	**Pn**	**05 00 40.1**	**+2.0**
VRI	**Vrincioaia**	**6.34**	**5**	⇑P	**Pn**	**05 00 40.1**	**+2.0**
BZS	**Buzias**	**6.85**	**334**	⇓*i*P	**Pn**	**05 00 44.7**	**-0.4**
BZS	**Buzias**	**6.85**	**334**	⇓P	**Pn**	**05 00 44.6**	**-0.4**
BZS	**Buzias**	**6.85**	**334**	⇓P	**Pn**	**05 00 44.7**	**-0.4**
BURAR	**Bucovina Array**	**8.08**	**357**	⇓*i*P	**Pn**	**05 01 05.6**	**+3.7**

ISCJB **07** *05:06:54.7±0.7, 52°.89S±0°.10×27°.5E±0°.3, h10^{km}, mb4.2/11, MS3.7/8, Error ellipse: s-maj=25.2km s-min=13.8km az=171.6*

IDC **07** *05:06:54.6±0.7, 52°.88S×27°.62E, h0^{km}, mb4.2/10, mb1 4.3/10, mb1mx4.1/18, mbtmp4.2/10, MS3.8/8, Ms1 3.7/8, ms1mx3.5/22, Error ellipse: s-maj=28.9km s-min=17.8km az=80.0*

NEIC **07** *05:06:56.2±0.4, 52°.90S×27°.61E, h10^{km}, mb4.1/1, Error ellipse: s-maj=17.2km s-min=9.3km az=82.0*

ISC 07 05:06:56.5±0.7, 52°.89S±0°.10×27°.6E±0°.3, h10^{km}, n20, σ0^{s}.48/11, mb4.2/11, MS3.7/8, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUR	**Sutherland**	**21.08**	**344**	P	**P**	**05 11 41.8**	**+1.0**
	6.8nm,0.8s,mb4.0,baz=150,slow=14,SNR=3.5						
SUR				LR	LR	05 17 44.0	
	comp=Z,309nm,20.5s,MS3.7,baz=48,slow=31						
MAW	**Mawson**	**22.42**	**145**	LR	LR	05 18 59.2	
	comp=Z,146nm,21.0s,MS3.4,baz=189,slow=32						
BOSA	**Boshof**	**24.32**	**355**	P	**P**	**05 12 13.9**	**-0.1**
	3.0nm,0.9s,mb3.7,baz=173,slow=8.1,SNR=3.1						
BOSA				LR	LR	05 19 19.8	
	comp=Z,193nm,19.5s,MS3.6,baz=166,slow=31						
LBTB	**Lobatse**	**27.88**	**356**	LR	LR	05 21 58.9	
	comp=Z,151nm,18.8s,MS3.6,baz=160,slow=32						
TSUM	**Tsumeb**	**34.52**	**343**	*e*P	**P**	**05 13 45.3**	**+0.5**
	1.8nm,0.6s,mb4.2						
QSPA	**South Pole Qui**	**37.33**	**180**	P	**P**	**05 14 08.7**	**+0.5**
	7.2nm,1.0s,mb4.4,baz=252,slow=2.4,SNR=20						
LSZ	**Lusaka**	**37.53**	**1**	P	**P**	**05 14 10.0**	**-0.5**
	2.9nm,0.2s,mb4.6,baz=167,slow=8.8,SNR=6.4						
VNDA	**Vanda**	**46.80**	**168**	LR	LR	05 34 54.8	
	comp=Z,169nm,18.1s,MS4.0,baz=247,slow=36						
PLCA	**Paso Flores**	**63.15**	**237**	P	**P**	**05 17 24.4**	**+0.2**
	3.8nm,0.9s,mb4.5,baz=88,slow=3.3,SNR=3.2						

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
DBIC	Dimbokro	65.42	324	P	P	05 17 38.6	-0.6
	5.1nm,0.9s,mb4.6,baz=187,slow=8.0,SNR=6.0						
DBIC				LR	LR	05 39 15.8	
	comp=Z,53nm,19.1s,MS3.8,baz=105,slow=30						
CPUP	Villa Florida	66.50	257	P	P	05 17 45.8	-0.4
	2.7nm,0.9s,mb4.3,baz=156,slow=9.4,SNR=5.1						
TORD	Torodi Ar. Bea	69.45	333	P	P	05 18 04.2	-0.4
	4.8nm,1.1s,mb4.3,baz=172,slow=5.9,SNR=17						
ASAR	Alice Springs	80.69	117	P	P	05 19 09.6	-0.1
	0.9nm,0.8s,mb3.8,baz=208,slow=5.5,SNR=7.4						
EIL	Elat	82.46	6	LR	LR	05 56 12.9	
	comp=Z,55nm,18.1s,MS4.0,baz=9.5,slow=36						
WRA	Warramunga Arr	83.93	115	P	P	05 19 26.6	0.0
	0.5nm,0.8s,mb3.7,baz=211,slow=3.8,SNR=3.8						
GNI	Garni	93.84	13	LR	LR	06 00 37.6	
	comp=Z,28nm,20.4s,MS3.7,baz=261,slow=34						
RES	Resolute Bay	148.59	335	PKPbc	PKPbc	05 26 41.6	-0.2
	1.4nm,0.9s,baz=176,slow=4.9,SNR=5.9						
PDAR	Pinedale Array	149.94	268	PKPbc	PKPbc	05 26 45.5	-0.6
	0.2nm,0.4s,baz=123,slow=4.4,SNR=2.5						
NVAR	Mina Array Bea	152.45	252	PKPbc	PKPbc	05 26 51.6	-0.5
	0.3nm,0.6s,baz=111,slow=2.0,SNR=2.8						
NVAR				PKPab	PKPab	05 27 02.8	+0.3
	1.9nm,1.1s,baz=155,slow=2.4,SNR=4.8						
YKA	Yellowknife Ar	157.97	311	PKPab	PKPab	05 27 25.1	-0.2
	0.9nm,0.9s,baz=81,slow=4.8,SNR=9.7						

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*ISCJB **07** 05:45:27.4±0.6, 12.°1S±0.°1×65.°70E±0.°08, h10^{km}, mb4.1/21, MS4.0/16, Error ellipse: s-maj=17.0km s-min=10.5km az=164.2*

*IDC **07** 05:45:27.7±0.7, 12.°05S×65.°71E, h0^{km}, mb4.1/18, mb1 4.2/19, mb1mx4.1/26, mbtmp4.1/19, MS4.0/16, Ms1 3.9/16, ms1mx3.8/29, Error ellipse: s-maj=22.3km s-min=15.0km az=172.0*

*NEIC **07** 05:45:29.5±0.5, 12.°05S×65.°71E, h10^{km}, mb5.0/1, Error ellipse: s-maj=15.1km s-min=10.0km az=168.0*

*BJI **07** 05:45:30.7, 12.°44S×66.°64E, h13^{km}, mB5.0/2, mb4.5/5*

ISC 07 05:45:29.3±0.6**, 12.°1S**±0.°1×**65.°71E**±0.°08**, h10**^{km}**, n41,** σ**1.^{s}09**/28**, mb4.1**/21**, MS4.0**/16**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
MSEY	Mahe Island	12.54	305	ePn	Pn	05 48 28.1	+0.2
OPO	Ambohidratompo	18.97	248	P	Pn	05 49 52.7	+1.1
	1.0nm,0.3s,baz=74,slow=9.0,SNR=9.3						
KMBO	Kilima Mbogo	30.26	289	P	P	05 51 40.9	+0.1
	4.9nm,1.0s,mb4.2,baz=81,slow=6.1,SNR=6.1						
KMBO				LR	LR	06 01 36.7	
	comp=Z,392nm,21.1s,MS4.0,baz=94,slow=32						
KMBO	Kilima Mbogo	30.26	289	P	P	05 51 40.9	+0.1
KMBO				LR	LR	06 01 36.7	
PSI	Prapat	36.19	68	LR	LR	06 05 09.3	
	comp=Z,251nm,18.4s,MS4.0,baz=76,slow=33						
LSZ	Lusaka	36.56	261	P	P	05 52 35.8	+0.1
	12nm,0.9s,mb4.7,baz=86,slow=8.6,SNR=13						
LSZ				LR	LR	06 05 29.2	
	comp=Z,335nm,20.5s,MS4.1,baz=144,slow=33						
LBTB	Lobatse	39.97	245	P	P	05 53 04.2	-0.1
	3.2nm,0.9s,mb4.0,baz=56,slow=11,SNR=2.9						
LBTB				LR	LR	06 07 45.7	
	comp=Z,198nm,18.7s,MS4.0,baz=92,slow=33						
BOSA	Boshof	41.08	240	LR	LR	06 08 01.7	
	comp=Z,104nm,20.0s,MS3.7,baz=338,slow=33						
CMAR	Chiang Mai Arr	44.70	48	P	P	05 53 42.9	0.0
	0.6nm,0.3s,mb3.9,baz=242,slow=9.2,SNR=4.7						
SHL	Shillong	45.32	34	ePKP	P	05 53 50.0	+2.3
LSA	Lhasa	48.28	30	eP	P	05 54 15.9	+5.0
	19nm,1.4s,mb4.9						
GNI	Garni	55.53	341	P	P	05 55 08.0	+3.2
	1.8nm,0.5s,mb4.3,baz=165,slow=12,SNR=3.9						
BRTR	Keskin Array B	59.58	332	P	P	05 55 34.2	+0.9
	0.2nm,0.3s,mb3.6,baz=168,slow=7.4,SNR=2.9						
GTA	Gaotai	60.31	30	eP	P	05 55 41.2	+2.9
GTA				pP	pP	05 55 46.4	+4.9
GTA				sP	sP	05 55 49.9	+7.2
GTA				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.3						
MKAR	Makanchi Array	60.51	13	P	P	05 55 38.0	-1.4
	comp=Z,2.0nm,1.1s,mb4.1,baz=207,slow=9.1,SNR=5.3						
MKAR				LR	LR	06 20 46.4	
	comp=Z,49nm,19.1s,MS3.7,baz=82,slow=35						
KURK	Kurchatov	63.59	9	P	P	05 55 58.6	-1.5
	comp=Z,1.5nm,1.0s,mb4.0,baz=212,slow=7.1,SNR=4.3						
BVAR	Borovoye Array	65.01	3	LR	LR	06 21 22.0	
	comp=Z,94nm,21.1s,MS4.0,baz=122,slow=33						
ASAR	Alice Springs	65.39	111	P	P	05 56 12.6	0.0
	comp=Z,2.1nm,0.8s,mb4.2,baz=274,slow=6.3,SNR=14						
WRA	Warramunga Arr	66.05	107	P	P	05 56 17.1	+0.2
	comp=Z,2.8nm,0.7s,mb4.4,baz=272,slow=5.7,SNR=23						
WRA				LR	LR	06 23 55.1	
	comp=Z,110nm,18.8s,MS4.1,baz=250,slow=35						
ZAA0	Zalesovo Array	67.80	12	eP	P	05 56 27.3	+0.1
ZALV	Zalesovo Beam	67.80	12	P	P	05 56 25.8	-1.4
	comp=Z,1.4nm,0.7s,mb4.1,baz=220,slow=6.7,SNR=5.7						
ZALV				LR	LR	06 24 02.1	
	comp=Z,42nm,19.9s,MS3.7,baz=134,slow=34						
ZALV	Zalesovo Beam	67.80	12	P	P	05 56 25.8	-1.4
ZALV				LR	LR	06 24 02.1	
TORD	Torodi Ar. Bea	68.27	290	P	P	05 56 29.7	-1.3
	comp=Z,0.2nm,0.5s,mb3.4,baz=115,slow=5.4,SNR=3.1						
TORD				LR	LR	06 23 21.2	
	comp=Z,111nm,20.2s,MS4.1,baz=245,slow=33						
SONM	Songino Array	69.79	28	P	P	05 56 40.6	+0.8
	comp=Z,1.6nm,0.7s,mb4.1,baz=212,slow=6.0,SNR=12						
SONM				LR	LR	06 26 10.0	
	comp=Z,126nm,20.7s,MS4.2,baz=132,slow=35						
AKASG	Malin Array Be	70.19	336	P	P	05 56 42.7	+0.5
	comp=Z,0.6nm,0.6s,mb3.7,baz=148,slow=5.2,SNR=4.0						
STKA	Stephens Creek	71.78	120	LR	LR	06 24 08.3	
	comp=Z,130nm,18.3s,MS4.2,baz=23,slow=32						
DBIC	Dimbokro	72.59	281	P	P	05 56 56.5	-1.0
	comp=Z,4.9nm,1.1s,mb4.4,baz=123,slow=7.3,SNR=2.7						
DBIC				LR	LR	06 26 23.5	
	comp=Z,104nm,19.7s,MS4.1,baz=24,slow=34						
GERES	GERESS Array B	76.06	328	P	P	05 57 16.0	-0.9
	comp=Z,0.4nm,0.6s,mb3.5,baz=159,slow=4.1,SNR=3.6						
KSRS	Korea Array	76.33	46	P	P	05 57 17.2	-1.5
	comp=Z,1.3nm,0.9s,mb3.9,baz=262,slow=8.7,SNR=4.6						
KSRS				LR	LR	06 29 27.6	
	comp=Z,43nm,18.5s,MS3.8,baz=299,slow=35						
VNDA	Vanda	79.57	167	LR	LR	06 26 36.3	
	comp=Z,143nm,18.3s,MS4.3,baz=79,slow=31						
ESDC	Sonseca Array	82.56	313	P	P	05 57 52.5	-0.1
	comp=Z,0.4nm,0.4s,mb3.8,baz=126,slow=5.1,SNR=3.4						
ARCES	ARCESS Array B	86.14	347	P	P	05 58 11.0	+0.9
	comp=Z,2.1nm,0.7s,mb4.5,baz=131,slow=5.0,SNR=4.7						
ARCES				LR	LR	06 35 22.1	
	comp=Z,48nm,18.6s,MS3.9,baz=322,slow=35						
ARCES	ARCESS Array B	86.14	347	P	P	05 58 11.0	+0.8
ARCES				LR	LR	06 35 22.1	
YKA	Yellowknife Ar	129.71	0	PKP	PKPdf	06 04 39.7	+1.3
	comp=Z,0.4nm,0.7s,baz=336,slow=2.1,SNR=6.6						
YKA				PP	PP	06 06 59.2	+11
	comp=Z,0.1nm,0.6s,baz=2.7,slow=6.5,SNR=4.0						
YKA	Yellowknife Ar	129.71	0	PKP	PKPdf	06 04 39.7	+1.3
YKA				PP	PP	06 06 59.2	+11
LAO	LASA Array	144.88	350	ePKPdf	PKPdf	06 05 08.8	+2.0
RSSD	Black Hills	146.92	346	ePKPdf	PKPdf	06 05 14.1	+3.7
PDAR	Pinedale Array	149.20	353	PKPbc	PKPbc	06 05 18.5	+0.1
	comp=Z,0.8nm,0.7s,baz=108,slow=1.4,SNR=8.1						
NVAR	Mina Array Bea	153.56	7	PKPbc	PKPbc	06 05 29.7	+1.0
	comp=Z,1.0nm,0.7s,baz=293,slow=2.7,SNR=8.7						
NVAR	Mina Array Bea	153.56	7	PKPbc	PKPbc	06 05 29.7	+1.0
TXAR	Lajitas Array	160.23	332	PKPab	PKPab	06 06 08.2	-1.7
	comp=Z,0.7nm,1.0s,baz=29,slow=2.1,SNR=3.3						

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*JMA **07** 06:02:54.1±0.5, 46.°88N×141.°74E, h14^{km}, M3.4*

*SKHL **07** 06:02:55.0±0.6, 46.°68N×141.°81E, h10^{km}, mb3.9/2*

SKHL Felt (III) at Nevel'sk.

*ISCJB **07** 06:02:56.7±0.8, 46.°73N±0.°04×141.°94E±0.°10, h10^{km}, Error ellipse: s-maj=9.7km s-min=4.7km az=13.8*

ISC 07 06:02:58.0±0.8**, 46.°67N**±0.°04×**142.°0E**±0.°1**, h10**^{km}**, n6,** σ**0.^{s}92**/8**, 1C, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
YSS	Yuzh-Sakhalins	0.58	60	⇑ePg	Pg	06 03 08.1	-1.1
YSS				eSg	Sg	06 03 17.6	+0.9
YSS				A		06 03 21.0	
	520nm,0.3s						
YSS				A		06 03 21.0	
	350nm,0.3s						
YSS				AMS	AMS	06 03 29.0	
	500nm,6.0s						
JWK2	Keihoku	1.36	184	P	Pn	06 03 21.7	-1.2
JWK2				eS	Sb	06 03 41.0	+0.2
JRR	Rishiri	1.61	198	eS	Sn	06 03 48.3	+1.1
UGL	Uglegorsk	2.41	1	ePg	Pg	06 03 43.0	-1.2
UGL				AMB	AMB	06 03 45.0	
	37nm,0.7s						
UGL				eSg	Sg	06 04 16.0	+0.6
UGL				A		06 04 17.0	
	93nm,0.7s						
TYV	Tymovskoe	4.22	5	ePg	Pg	06 04 19.5	+0.7
TYV				AMB	AMB	06 04 21.0	
	7.0nm,0.3s						
EKMR	Ekimchan	8.68	321	eSg	Sx	06 07 40.2	
EKMR				A		06 07 49.0	
	3.0nm,0.5s						

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*NEIC **07** 06:16:09.4±5.4, 18.°41S×175.°22W, h184^{km}±50^{km}, mb4.5/4, Error ellipse: s-maj=22.4km s-min=14.6km az=173.0*

*ISCJB **07** 06:16:11.0±2.9, 18.°5S±0.°1×175.°3W±0.°1, h212^{km}±29^{km}, mb4.3/18, Error ellipse: s-maj=27.4km s-min=14.3km az=138.5*

*IDC **07** 06:16:14.5±2.4, 18.°56S×175.°22W, h232^{km}±24^{km}, mb3.8/11, mb1 4.0/11, mb1mx3.9/18, mbtmp3.8/11, Error ellipse: s-maj=24.8km s-min=11.9km az=133.0*

ISC 07 06:16:13.8±2.6**, 18.°5S**±0.°1×**175.°3W**±0.°1**, h225**^{km}±26^{km}**, n40,** σ**0.^{s}74**/28**, mb4.3**/18**, 5C-4D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
URZ	Urewera	20.77	197	P	P	06 20 36.7	-0.9
	6.9nm,0.4s,baz=4.7,slow=5.9,SNR=16						
RPZ	Rata Peaks	27.64	202	P	P	06 21 41.1	+0.5
	4.0nm,0.4s,mb4.4,baz=145,slow=17,SNR=2.2						
ARMA	Armidale	32.27	242	eP	P	06 22 17.4	-4.2
CTA	Charters Tower	36.31	261	eP	P	06 22 56.4	+0.1
	8.6nm,0.7s,mb4.4						
CTAO	Charters Tower	36.31	261	eP	P	06 22 56.0	-0.4
	8.9nm,0.6s,mb4.5						
STKA	Stephens Creek	40.99	243	eP	P	06 23 36.1	+1.1
	8.2nm,1.8s,mb3.9						
STKA	Stephens Creek	40.99	243	P	P	06 23 35.4	+0.3
	4.1nm,0.5s,mb4.2,baz=80,slow=10,SNR=18						
WRAB	Tennant Creek	47.47	260	eP	P	06 24 26.2	-0.3
	6.3nm,0.6s,mb4.1						
WRA	Warramunga Arr	47.48	260	P	P	06 24 26.2	-0.3
	10.0nm,0.6s,mb4.3,baz=96,slow=5.7,SNR=144						
WRA				S	S	06 31 02.4	-1.5
	1.5nm,1.1s,baz=93,slow=14,SNR=4.5						
ASAR	Alice Springs	47.52	255	P	P	06 24 27.2	+0.4
	83nm,0.7s,mb5.2,baz=89,slow=8.6,SNR=678						
ASAR				S	S	06 31 05.2	+0.7
	1.4nm,0.7s,baz=92,slow=14,SNR=11						
KAKA	Kakadu	50.57	269	eP	P	06 24 50.0	0.0
	61nm,0.6s,mb5.2						
FORT	Forrest	52.47	245	eP	P	06 25 03.4	-0.5
	28nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	55.89	260	eP	P	06 25 29.1	+0.4
	9.0nm,0.4s,mb4.7						
MBWA	Marble Bar	60.84	256	eP	P	06 26 02.7	-0.2
	6.4nm,0.8s,mb4.3						
KLBR	Kellerberrin	61.25	244	eP	P	06 26 05.3	-0.2
	8.7nm,0.5s,mb4.6						
MUN	Mundaring	62.52	243	eP	P	06 26 14.3	+0.3
MJAR	Matsushiro Arr	70.21	322	P	P	06 27 01.9	-0.5
	6.0nm,0.8s,mb4.2,baz=154,slow=6.0,SNR=8.5						
MJAR	Matsushiro Arr	70.21	322	P	P	06 27 01.9	-0.5
PETK	Petropavlovsk-	75.07	344	P	P	06 27 29.4	-1.2
	3.5nm,0.6s,mb4.2,baz=90,slow=11,SNR=4.8						
KSRS	Korea Array	77.17	317	P	P	06 27 43.8	+0.9
	4.0nm,1.0s,mb4.0,baz=136,slow=6.8,SNR=8.7						
NVAR	Mina Array Bea	77.81	42	P	P	06 27 47.0	+0.7
	0.7nm,0.8s,mb3.3,baz=218,slow=8.7,SNR=3.6						
NVAR	Mina Array Bea	77.81	42	P	P	06 27 47.0	+0.7
TXAR	Lajitas Array	83.81	56	P	P	06 28 18.4	+0.2
	0.4nm,0.7s,mb3.2,baz=216,slow=9.2,SNR=5.5						
CMAR	Chiang Mai Arr	91.92	289	P	P	06 28 59.0	+1.8
	1.1nm,0.4s,mb4.2,baz=101,slow=2.8,SNR=11						
YKA	Yellowknife Ar	93.65	24	P	P	06 29 03.0	-1.2
	0.4nm,1.0s,mb3.4,baz=245,slow=4.3,SNR=5.6						
YKA	Yellowknife Ar	93.65	24	P	P	06 29 03.0	-1.2
BVAR	Borovoye Array	119.21	321	PKP	PKPdf	06 34 35.0	-0.8
	0.7nm,0.5s,baz=69,slow=4.9,SNR=3.7						
MALT	Malatya	144.69	311	⇑iP	PKPdf	06 35 24.8	+0.9
KWP	Kalwaria Pacla	145.77	339	⇓iP	PKPdf	06 35 26.3	+0.9
BUR08	Bucovina Ar. S	146.49	335	ePKPbc	PKPab	06 35 29.9	0.0
BURAR	Bucovina Array	146.50	335	⇓iP	PKPab	06 35 29.7	-0.2
TLCR		146.71	328	⇑iP	PKPbc	06 35 28.6	-0.6
VRI	Vrincioaia	147.21	331	⇓iP	PKPab	06 35 31.8	-1.0
PLOR	Plostina	147.25	331	⇑iP	PKPab	06 35 32.6	-0.4
BR131	Keskin Array S	147.31	316	ePKPbc	PKPbc	06 35 30.8	-0.2
BRTR	Keskin Array B	147.32	316	PKPbc	PKPbc	06 35 31.1	+0.1
TIRR	Tirgusor	147.43	328	⇑iP	PKPbc	06 35 31.0	-0.2
HARR	Harsova	147.50	328	⇓iP	PKPbc	06 35 31.6	+0.3
DRGR		148.16	336	⇑iP	PKPbc	06 35 33.2	+0.2
GERES	GERESS Array B	148.89	349	PKPbc	PKPbc	06 35 34.7	-0.1
	1.0nm,0.6s,baz=0.0,slow=1.3,SNR=7.6						

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*RSPR **07** 06:28:28.2, 19.°16N×64.°65W, h7^{km}±16^{km}, MD3.7/10, MD3.7/10*

*NEIC **07** 06:28:28.2, 19.°16N×64.°65W, h7^{km}, MD3.7(RSPR), After RSPR.*

ISC 07 06:28:27.6±2.2**, 19.°09N**±0.°09×**64.°7W**±0.°2**, h17**^{km}±34^{km}**, n72,** σ**0.^{s}73**/106**, 51C-11D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
MTP	Monte Pirata	1.28	220	⇓eP	Pn	06 28 50.5	-0.2
MTP	Monte Pirata	1.28	220	⇑eP	Pn	06 28 50.6	-0.1
MTP	Monte Pirata	1.28	220	eS	Sb	06 29 07.6	+0.2
MTP	Monte Pirata	1.28	220	⇓eP	Pn	06 28 50.5	-0.2
MTP	Monte Pirata	1.28	220	⇑eP	Pn	06 28 50.6	-0.1
MTP				eS	Sb	06 29 07.6	+0.2
MTP	Monte Pirata	1.28	220	⇓eP	Pn	06 28 50.5	-0.2
MTP				⇑eP		06 28 50.6	
MTP				eS	Sb	06 29 07.6	+0.2
CBYP	Canovanas	1.37	234	⇑eP	Pn	06 28 51.0	-0.9
CBYP	Canovanas	1.37	234	⇑eP	Pn	06 28 51.1	-0.8
CBYP	Canovanas	1.37	234	⇑eP	Pn	06 28 51.1	-0.8
CBYP	Canovanas	1.37	234	⇑eP	Pn	06 28 51.4	-0.5
CBYP	Canovanas	1.37	234	⇑eP	Pn	06 28 51.1	-0.8
HUMP	Col San Antoni	1.45	230	⇓eP	Pn	06 28 52.4	-0.5
HUMP	Col San Antoni	1.45	230	eS	Sn	06 29 12.2	+0.6
HUMP	Col San Antoni	1.45	230	⇑eP	Pn	06 28 52.7	-0.3
HUMP	Col San Antoni	1.45	230	eS	Sn	06 29 12.0	+0.5
HUMP	Col San Antoni	1.45	230	⇑eP	Pn	06 28 52.7	-0.3
HUMP				eS	Sn	06 29 12.0	+0.5
HUMP				eS	Sn	06 29 12.2	+0.6
HUMP	Col San Antoni	1.45	230	⇑eP	Pn	06 28 52.7	-0.3
HUMP				eS	Sn	06 29 12.0	+0.5
HUMP				eS	Sn	06 29 12.2	+0.6
CPD	Cerro la Pandu	1.56	228	⇓eP	Pn	06 28 54.4	-0.1
CPD	Cerro la Pandu	1.56	228	⇑eP	Pn	06 28 54.5	-0.1
CPD	Cerro la Pandu	1.56	228	eS	Sn	06 29 15.1	+0.7
CPD	Cerro la Pandu	1.56	228	⇑eP	Pn	06 28 54.5	-0.1
CPD				eS	Sn	06 29 15.0	+0.6
CPD				eS	Sn	06 29 15.8	+1.4
CPD	Cerro la Pandu	1.56	228	⇓eP	Pn	06 28 54.4	-0.1
CPD				eS	Sn	06 29 15.0	+0.6
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.7	-0.6
SJG	San Juan	1.69	235	eS	Sn	06 29 16.6	-0.9
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.8	-0.5
SJG				eS	Sn	06 29 17.6	0.0
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.7	-0.6
SJG	San Juan	1.69	235	eS	Sn	06 29 17.9	+0.3
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.7	-0.6
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.7	-0.6
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.8	-0.5
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 56.3	0.0
SJG				eS	Sn	06 29 16.6	-0.9
SJG				eS	Sn	06 29 17.6	0.0
SJG				eS	Sn	06 29 17.9	+0.3
SJG				eS	Sn	06 29 18.2	+0.6
SJG	San Juan	1.69	235	⇑eP	Pn	06 28 55.7	-0.6
SJG				eS	Sn	06 29 16.6	-0.9
SJG				eS	Sn	06 29 17.9	+0.3
CELP	Cerrillos	2.06	241	⇑iP	Pn	06 29 01.1	-0.2
CELP	Cerrillos	2.06	241	⇑eP	Pn	06 29 01.1	-0.2
CELP				eS	Sn	06 29 26.5	-0.1
CELP	Cerrillos	2.06	241	⇑iP	Pn	06 29 01.1	-0.2
CELP	Cerrillos	2.06	241	⇑eP	Pn	06 29 01.1	-0.2
CELP				eS	Sn	06 29 26.5	-0.1
CELP	Cerrillos	2.06	241	⇑iP	Pn	06 29 01.1	-0.2
CELP				eS	Sn	06 29 26.5	-0.1
AOPR	Arecibo Observ	2.09	250	⇓eP	Pn	06 29 01.0	-0.8
AOPR	Arecibo Observ	2.09	250	⇑eP	Pn	06 29 01.2	-0.6
AOPR	Arecibo Observ	2.09	250	eS	Sn	06 29 28.4	+1.0
AOPR	Arecibo Observ	2.09	250	⇓eP	Pn	06 29 01.0	-0.8
AOPR	Arecibo Observ	2.09	250	⇑eP	Pn	06 29 01.2	-0.6
AOPR				eS	Sn	06 29 25.7	-1.7
AOPR				eS	Sn	06 29 28.4	+1.0
AOPR	Arecibo Observ	2.09	250	⇑eP	Pn	06 29 01.2	-0.6
AOPR				eS	Sn	06 29 25.7	-1.7
AOPR				eS	Sn	06 29 28.4	+1.0
OBIP	Obispado Ponce	2.10	240	⇓eP	Pn	06 29 01.5	-0.4
OBIP	Obispado Ponce	2.10	240	eS	Sn	06 29 26.7	-0.8
OBIP	Obispado Ponce	2.10	240	⇑eP	Pn	06 29 01.7	-0.2
OBIP	Obispado Ponce	2.10	240	eS	Sn	06 29 27.2	-0.3
OBIP	Obispado Ponce	2.10	240	⇑eP	Pn	06 29 01.7	-0.2
OBIP				eS	Sn	06 29 26.7	-0.8
OBIP				eS	Sn	06 29 27.2	-0.3
ICM	Isla Caja Muer	2.11	236	⇑eP	Pn	06 29 02.4	+0.4
ICM	Isla Caja Muer	2.11	236	eS	Sn	06 29 27.4	-0.4
ICM	Isla Caja Muer	2.11	236	⇑eP	Pn	06 29 02.7	+0.7
ICM	Isla Caja Muer	2.11	236	⇑eP	Pn	06 29 02.4	+0.4
ICM	Isla Caja Muer	2.11	236	⇑eP	Pn	06 29 02.7	+0.7
ICM				eS	Sn	06 29 27.4	-0.4
ICM	Isla Caja Muer	2.11	236	⇑eP	Pn	06 29 02.4	+0.4
ICM				⇑eP		06 29 02.7	
ICM				eS	Sn	06 29 27.4	-0.4
GBPR	Guanica, Bosqu	2.35	242	⇑eP	Pn	06 29 06.0	+0.6
GBPR	Guanica, Bosqu	2.35	242	⇑eP	Pn	06 29 06.6	+1.2
GBPR	Guanica, Bosqu	2.35	242	⇑eP	Pn	06 29 06.1	+0.7
GBPR	Guanica, Bosqu	2.35	242	⇑eP	Pn	06 29 06.6	+1.2
AGPR	Aguadilla, PR	2.38	255	eS	Sn	06 29 34.4	0.0
AGPR	Aguadilla, PR	2.38	255	⇑eP	Pn	06 29 05.2	-0.5
AGPR	Aguadilla, PR	2.38	255	⇑eP	Pn	06 29 05.2	-0.5
AGPR	Aguadilla, PR	2.38	255	⇑eP	Pn	06 29 05.2	-0.5
AGPR				eS	Sn	06 29 32.3	-2.2
AGPR				eS	Sn	06 29 34.4	0.0
AGPR	Aguadilla, PR	2.38	255	⇑eP	Pn	06 29 05.2	-0.5
AGPR				eS	Sn	06 29 32.3	-2.2
AGPR				eS	Sn	06 29 34.4	0.0
LSP	Las Mesas	2.45	249	⇑eP	Pn	06 29 06.5	-0.2
LSP	Las Mesas	2.45	249	⇑eP	Pn	06 29 06.8	+0.2
LSP	Las Mesas	2.45	249	⇑eP	Pn	06 29 06.8	+0.2
LSP	Las Mesas	2.45	249	⇑eP	Pn	06 29 06.8	+0.2
CRPR	Cabo Rojo, PR	2.54	245	⇑eP	Pn	06 29 08.3	+0.4
CRPR	Cabo Rojo, PR	2.54	245	⇓eP	Pn	06 29 08.2	+0.2
CRPR	Cabo Rojo, PR	2.54	245	⇑eP	Pn	06 29 08.3	+0.4
CRPR				eS	Sn	06 29 39.1	+0.7
CRPR	Cabo Rojo, PR	2.54	245	⇓eP	Pn	06 29 08.2	+0.2
CRPR				⇑eP		06 29 08.3	
CRPR				eS	Sn	06 29 39.1	+0.7
SDDR	Presa de Saban	6.24	270	ePn	Pn	06 30 01.6	+2.7
	15nm,0.5s						
SDDR				eSn	Sn	06 31 09.8	0.0

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*ISCJB **07** 06:37:42.7±0.8, 32.°57N±0.°09×93.°0E±0.°1, h10^{km}, mb3.8/4, Error ellipse: s-maj=15.9km s-min=9.7km az=37.7*

*IDC **07** 06:37:42.9±1.1, 32.°55N×93.°02E, h0^{km}, mb3.9/5, mb1 4.0/6, mb1mx3.7/23, mbtmp3.8/6, ML2.6/1, MS3.5/1, Ms1 3.5/1, ms1mx2.3/39, Error ellipse: s-maj=58.5km s-min=24.0km az=55.0*

ISC 07 06:37:44.6±0.8**, 32.°66N**±0.°08×**93.°0E**±0.°1**, h10**^{km}**, n16,** σ**0.^{s}84**/16**, mb3.8**/4**, Xizang**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
LSA	Lhasa	3.35	209	Pg	Pn	06 38 39.4	+2.3
LSA				Sg	Sn	06 39 24.7	+7.7
LSA				smax			
	comp=N,30nm,0.9s						
LSA				smax			
	comp=E,50nm,0.9s						
TAPN	Taplejung	7.01	222	eP	Pn	06 39 26.4	-0.9
	comp=E,8.6nm,0.5s						
GUN	Gumba	7.77	234	eP	Pn	06 39 38.4	+0.6
	comp=E,7.8nm,0.3s						
KKN	Kakani	8.26	236	eP	Pn	06 39 45.3	+0.8
	comp=E,6.9nm,0.4s						
PKI	Pulchoki	8.31	234	eP	Pn	06 39 45.3	+0.1
	comp=E,21nm,0.4s						
DMN	Daman	8.49	236	eP	Pn	06 39 47.5	-0.2
GTA	Gaotai	8.70	37	eP	Pn	06 39 56.4	+5.9
GTA				pP		06 40 00.4	
GTA				sP		06 40 03.9	
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
DANN	Dangsing	9.06	244	eP	Pn	06 39 54.9	-0.6
	comp=Z,6.6nm,0.4s						
PYUN	Piuthan	9.77	245	eP	Pn	06 40 03.8	-1.5
	comp=Z,12nm,0.7s						
MKAR	Makanchi Array	16.32	333	Pn	Pn	06 41 34.2	+0.4
	comp=Z,0.0nm,0.3s,baz=146,slow=13,SNR=2.6						
KURK	Kurchatov	20.93	334	P	P	06 42 27.2	-0.1
	comp=Z,4.1nm,0.2s,baz=134,slow=12,SNR=3.3						
GUMO	Guam	50.80	99	LR	LR	07 09 31.6	
	comp=Z,54nm,21.4s,baz=49,slow=38						
WRA	Warramunga Arr	65.56	137	P	P	06 48 27.7	-0.8
	comp=Z,1.1nm,1.1s,mb3.8,baz=322,slow=8.1,SNR=2.6						
ASAR	Alice Springs	68.27	140	P	P	06 48 45.5	-0.3
	comp=Z,0.5nm,0.6s,mb3.8,baz=328,slow=5.7,SNR=5.5						
YKA	Yellowknife Ar	82.61	13	P	P	06 50 08.2	+0.6
	comp=Z,0.2nm,0.9s,mb3.1,baz=326,slow=5.0,SNR=5.2						
TORD	Torodi Ar. Bea	84.12	282	P	P	06 50 16.3	0.0
	comp=Z,2.1nm,0.7s,mb4.4,baz=46,slow=4.9,SNR=16						

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*CSEM **07** 06:53:33.4±0.5, 37.°31N×27.°89E, h28^{km}±2^{km}, MD2.6, Error ellipse: s-maj=10.1km s-min=3.2km az=1.0, After ISK*

*ISK **07** 06:53:34.0, 37.°25N×27.°90E, h22^{km}, MD2.6*

*ISCJB **07** 06:53:35.6±0.8, 37.°18N±0.°05×27.°89E±0.°05, h11^{km}±7^{km}, Error ellipse: s-maj=8.4km s-min=6.4km az=177.1*

ISC 07 06:53:36.0±1.2**, 37.°17N**±0.°05×**27.°89E**±0.°05**, h10**^{km}±17^{km}**, n12,** σ**0.^{s}70**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
MLSB	Milas	0.15	325	ePG	Pg	06 53 38.5	-1.0
MLSB				eSG	Sg	06 53 41.8	+0.1
MLSB	Milas	0.15	325	ePg	Pg	06 53 38.5	-0.9
MLSB				eSg	Sg	06 53 41.8	0.0
YER	Yerkesik	0.32	96	ePG	Pg	06 53 41.9	-0.5
YER				eSG	Sg	06 53 47.1	+0.4
YER	Yerkesik	0.32	96	ePg	Pg	06 53 41.9	-0.5
YER				eSg	Sg	06 53 47.1	+0.4
BDRM	Kayabasi	0.37	254	i P	Pg	06 53 42.3	-1.0
BDRM	Kayabasi	0.37	254	i P	Pg	06 53 42.3	-1.0
BDRM				i S	Sg	06 53 49.4	+1.2
BODT	Bodrum	0.47	257	ePG	Pg	06 53 44.6	-0.6
BODT	Bodrum	0.47	257	ePg	Pg	06 53 44.7	-0.5
AYDN	Tasoluk	0.49	359	i P	Pg	06 53 45.6	0.0
AYDN	Tasoluk	0.49	359	i P	Pg	06 53 45.6	0.0
AYDN				i S	Sg	06 53 52.8	+0.8
DAT	Datca	0.51	209	ePG	Pg	06 53 46.4	+0.6
DAT	Datca	0.51	209	ePg	Pg	06 53 46.4	+0.5

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*ISCJB **07** 07:00:01.9±1.0, 30.°5N±0.°1×99.°67E±0.°07, h10^{km}, mb3.7/8, Error ellipse: s-maj=20.1km s-min=8.2km az=5.5*

*IDC **07** 07:00:02.2±1.2, 30.°58N×99.°77E, h0^{km}, mb3.7/8, mb1 3.8/9, mb1mx3.7/24, mbtmp3.7/9, Error ellipse: s-maj=39.2km s-min=22.4km az=50.0*

*BJI **07** 07:00:05.2, 30.°68N×99.°64E, h13^{km}, ML3.0/9*

ISC 07 07:00:03.7±1.0**, 30.°5N**±0.°1×**99.°60E**±0.°07**, h10**^{km}**, n10,** σ**0.^{s}81**/12**, mb3.7**/8**, Sichuan**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
CD2	Chengdu	3.60	83	Pg	Pg	07 01 07.1	-5.6
CD2				Sn	Sn	07 01 54.2	+12
CD2				Sg	Sg	07 02 00.2	+0.8
CD2				smax			
	comp=N,20nm,0.8s						
CD2				smax			
	comp=E,20nm,1.0s						
SONM	Songino Array	18.07	15	P	Pn	07 04 14.3	-0.4
	baz=204,slow=11,SNR=2.6						
MKAR	Makanchi Array	21.06	325	P	P	07 04 49.2	+1.3

	comp=E,2.9nm,0.6s,mb3.8,baz=133,slow=11,SNR=20						
KSRS	Korea Array	24.43	66	P	P	07 05 20.9	-1.5
	comp=E,1.3nm,1.0s,mb3.3,baz=252,slow=11,SNR=3.7						
KURK	Kurchatov	25.54	328	P	P	07 05 33.0	+0.6
	comp=E,2.2nm,0.8s,mb3.8,baz=137,slow=10,SNR=5.6						
ZALV	Zalesovo Beam	25.74	340	P	P	07 05 34.0	-0.2
	comp=E,1.1nm,0.8s,mb3.4,baz=146,slow=14,SNR=3.6						
ARCES	ARCESS Array B	56.21	336	P	P	07 09 43.3	-0.2
	comp=E,7.8nm,1.1s,mb4.7,baz=89,slow=7.3,SNR=6.0						
WRA	Warramunga Arr	60.27	142	P	P	07 10 12.8	+0.3
	comp=E,1.1nm,0.9s,mb3.9,baz=319,slow=8.9,SNR=5.7						
YKA	Yellowknife Ar	83.33	15	P	P	07 12 29.4	-1.1
	comp=E,0.1nm,0.7s,mb3.0,baz=331,slow=5.1,SNR=3.9						
TORD	Torodi Ar. Bea	90.08	285	P	P	07 13 04.7	+0.3
	comp=E,0.3nm,0.8s,mb3.7,baz=43,slow=6.5,SNR=2.6						

IDC 07 07:30:20.9±3.9, 15°.00S×168°.40E, h0^{km}, mb3.7/3, mb1 4.1/3, mb1mx3.7/17, mbtmp3.7/3, Error ellipse: s-maj=385.1km s-min=33.3km az=154.0, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	32.82	256	P	P	07 36 56.3	-0.1
	0.5nm,0.7s,baz=84,slow=7.6,SNR=6.6						
ASAR	Alice Springs	33.60	250	P	P	07 37 03.2	+0.1
	1.3nm,0.8s,baz=78,slow=9.0,SNR=12						
NVAR	Mina Array Bea	86.62	49	P	P	07 43 06.8	+0.3
	0.7nm,0.8s,baz=243,slow=8.0,SNR=4.1						

*ISCJB **07** 07:31:35.9±0.8, 39°.33N±0°.04×33°.19E±0°.04, h4^{km}±7^{km}, Error ellipse: s-maj=6.7km s-min=5.2km az=25.4*

*ISK **07** 07:31:35.7, 39°.34N×33°.21E, h10^{km}, MD2.7*

*DDA **07** 07:31:35.8, 39°.35N×33°.23E, h7^{km}±2^{km}, Md3.0*

*CSEM **07** 07:31:36.0±0.1, 39°.34N×33°.20E, h8^{km}, MD2.7, Error ellipse: s-maj=3.3km s-min=2.9km az=179.0*

ISC 07 07:31:36.1±0.8, 39°.32N±0°.05×33°.19E±0°.04, h6^{km}±9^{km}, n21, σ0^{s}.47/32, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALAT	Bala	0.24	347	*i* P	Pg	07 31 40.5	-0.3
BALAT				*i* S	Sg	07 31 44.1	0.0
KAMT	Kaman	0.41	83	*e*PG	Pg	07 31 43.9	0.0
KAMT				*e*SG	Sg	07 31 49.9	+0.6
KAMT	Kaman	0.41	83	*e*Pg	Pg	07 31 43.9	0.0
KAMT				*e*Sg	Sg	07 31 49.9	+0.6
LOD	Lodumlu	0.66	330	*e*PG	Pg	07 31 48.2	-0.5
LOD				*e*SG	Sg	07 31 58.1	+0.9
LOD	Lodumlu	0.66	330	*e*Pg	Pg	07 31 48.3	-0.4
LOD				*e*Sg	Sg	07 31 58.1	+0.8
CDAG	Cicekdag	0.96	71	*i* P	Pg	07 31 53.6	-0.9
CDAG				*i* S	Sg	07 32 06.8	-0.2
CDAG	Cicekdag	0.96	71	*i* P	Pg	07 31 53.6	-0.9
CDAG				*i* S	Sg	07 32 06.8	-0.2
SULT	Sultanhani-AKS	1.15	167	*e*PN	Pn	07 31 58.5	-0.3
SULT	Sultanhani-AKS	1.15	167	*e*Pn	Pn	07 31 58.5	-0.2
KDHN	Kadinhani	1.16	227	*i* P	Pg	07 31 58.6	+0.3
KDHN	Kadinhani	1.16	227	*i* P	Pg	07 31 58.6	+0.3
ELDT	Eldivan	1.18	9	*i* P	Pg	07 31 58.2	-0.6
ELDT				*i* S	Sg	07 32 14.6	+0.5
ELDT	Eldivan	1.18	9	*i* P	Pg	07 31 58.2	-0.6
ELDT				*i* S	Sg	07 32 14.6	+0.5
SVRH	Sivrihisar-ESK	1.30	276	*e*PN	Pn	07 32 00.4	-0.4
SVRH	Sivrihisar-ESK	1.30	276	*e*Pn	Pn	07 32 00.4	-0.4
AVNT	Avonos	1.40	112	*i* P	Pn	07 32 02.6	+0.4
AVNT				*i* S	Sb	07 32 21.3	+0.4
AVNT	Avonos	1.40	112	*i* P	Pn	07 32 02.7	+0.5
AVNT				*i* S	Sb	07 32 21.3	+0.4
KONT	Konya--Tatoy	1.52	206	*e*PN	Pn	07 32 04.1	+0.3
KONT	Konya--Tatoy	1.52	206	*e*Pn	Pn	07 32 04.1	+0.3
YOZ	Yozgat	1.68	78	*e*PN	Pn	07 32 05.7	-0.3
YOZ	Yozgat	1.68	78	*e*Pn	Pn	07 32 05.7	-0.3

*BJI **07** 07:50:50.7, 0°.84N×122°.97E, h39^{km}, mB5.5/48, mb4.9/56, Ms5.4/64, Ms7 5.3/53*

*MOS **07** 07:50:53.4±1.1, 1°.29N×122°.62E, h33^{km}, mb5.5/38, MS5.1/35, Error ellipse: s-maj=11.7km s-min=6.3km az=118.2*

*ISCJB **07** 07:50:53.7±0.2, 1°.31N±0°.02×122°.76E±0°.02, h33^{km}, mb5.1/116, MS5.3/214, Error ellipse: s-maj=3.5km s-min=2.9km az=5.5*

*NEIC **07** 07:50:55.2±0.2, 1°.23N×122°.65E, mb5.3/41, MS5.3/163, Error ellipse: s-maj=7.1km s-min=4.7km az=69.0*

NEIC Felt [II] at Gorontalo.

*GCMT **07** 07:50:55.2±0.1, 1°.55N×122°.57E, h31^{km}, MW5.8/109, Moment Tensor Solution. s95,c189; s109,c310; Duration: 1^{s}9 Moment tensor: Scale 10^{17}Nm; M_{rr}3.81±.06; $M_{\theta\theta}$-4.29±.04; $M_{\phi\phi}$0.47±.05; $M_{r\theta}$-4.40±.09; $M_{\theta\phi}$0.37±.04; $M_{\phi r}$0.05±.09; Best double couple: $M_0$5.99100×10^{17} NP1:ϕ_s98.00000°, δ21.00000°, λ96.00000°. NP2:ϕ_s271.00000°, δ69.00000°, λ88.00000°. Principal axes: T 5.7420, Plg66.0000°, Azm177.0000°; N 0.4900, Plg2.0000°, Azm272.0000°; P -6.2390, Plg24.0000°, Azm3.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IDC **07** 07:50:55.2±0.5, 1°.20N×122°.63E, h35^{km}±3^{km}, mb4.5/24, mb1 4.6/26, mb1mx4.6/28, mbtmp4.6/26, ML5.7/2, MS5.2/29, Ms1 5.2/29, ms1mx5.1/37 Error ellipse: s-maj=15.2km s-min=9.5km az=70.0*

*DJA **07** 07:50:58, 1°.44N×122°.76E, h53^{km}, mb5.5/44*

ISC 07 07:50:55.5±0.2, 1°.28N±0°.02×122°.78E±0°.02, h35^{km}, h35^{km}±.9^{km}:pP-P, n477, σ1^{s}.24/351, mb5.1/116, MS5.3/214, 17C-19D, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	2.07	86	⇓*e*P	Pn	07 51 27.0	-0.8
MNI	Manado	2.07	86	P	Pn	07 51 28.3	+0.6
MNI				S	Sn	07 51 53.0	+0.7
SGSI	Sangihe	3.64	49	P	Pn	07 51 48.3	-1.1
PCI	Palu	3.66	234	⇑*i*P	Pn	07 51 43.0	-6.6
PCI				*e*S	Sn	07 52 43.0	+11
PCI	Palu	3.66	234	P	Pn	07 51 48.1	-1.5
TNTI	Ternate	4.62	96	P	Pn	07 52 08.3	+5.5
TNE	Ternate	4.62	96	⇓*e*P	Px	07 52 14.0	
LBMI	Labuha	5.09	112	P	Pn	07 52 12.1	+2.7
	1μm,0.9s,12nm						
GSPH	General Santos	5.24	24	*i* P	Pn	07 52 11.0	-0.4
ZMPH	Zamboanga City	5.68	353	⇓*i*P	Pn	07 52 21.0	+3.6
ZMPH				*i* S	Sn	07 53 05.8	-16
TSM	Tawau	5.74	302	P	Pn	07 52 15.9	-2.3
MYLDM	Lahad Datu	5.76	312	P	Pn	07 52 18.2	-0.4
MYLDM	Lahad Datu	5.76	312	P	Pn	07 52 18.0	-0.6
	1μm,1.1s,6.4nm						
SMKI	Samarinda	5.83	253	P	Pn	07 52 20.5	+1.0
	1μm,1.1s,13nm						
CTBH	Cotabato--PC H	6.08	14	⇑*e*P	Pn	07 52 21.0	-1.9
CTBH				*i* S	Sn	07 53 26.2	-5.1
KCP	Kidapawan	6.14	22	⇓*e*P	Pn	07 52 23.4	-0.3
DAV	Davao City (W)	6.39	26	Pn	Pn	07 52 29.1	+1.9
	112nm,0.3s,baz=315,slow=1.3,SNR=18						
DAV				LR	LR	07 55 13.7	
	comp=Z,27μm,19.0s,baz=146,slow=40						
DAV	Davao City (W)	6.39	26	⇓*e*P	Pn	07 52 27.7	+0.5
DAV	Davao City (W)	6.39	26	*e*Pn	Pn	07 52 29.6	+2.4
DAV	Davao City (W)	6.39	26	⇓P	Pn	07 52 29.8	+2.5
	SNR=17						
DAV				⇓P		07 52 29.8	
	SNR=17						
DAV	Davao City (W)	6.39	26	P	Pn	07 52 29.5	+2.3
	2μm,0.7s,7.4nm						
IPIL	Ipil	6.46	358	*e*P	Pn	07 52 27.3	-0.9
PAGZ	Pagadian	6.55	5	*e*P	Pn	07 52 27.8	-1.6
BUKP	Musuan	6.94	19	*e*P	Pn	07 52 34.0	-0.7
KAPI	Kappang	6.95	206	Pn	Pn	07 52 36.2	+1.3
	4μm,0.5s,SNR=24						
SDKM	Sandakan	7.05	308	P	Pn	07 52 35.5	-0.9
MKS	Makassar	7.25	207	⇑*e*P	Pn	07 52 40.6	+1.5
MKS				*e*S	Sn	07 54 04.4	+4.1
AAI	Ambon	7.33	132	P	Pn	07 52 48.1	+8.0
	703nm,0.8s,2.7nm						
MSAI	Masohi	7.68	127	P	Pn	07 52 51.5	+6.6
	233nm,0.9s,1.2nm						
KKM	Kota Kinabalu	8.08	306	P	Pn	07 52 50.0	-0.4
KKM	Kota Kinabalu	8.08	306	*e*Pn	Pn	07 52 49.1	-1.2
	320nm,0.8s						
KKM	Kota Kinabalu	8.08	306	P	Pn	07 52 49.4	-1.0
	414nm,0.8s,1.4nm						
KDM	Kudat	8.15	314	P	Pn	07 52 50.3	-1.1
BBKI	Banjar Baru	9.23	239	P	Pn	07 53 06.6	+0.4
	502nm,0.9s						
GUIM	Jordan	9.28	359	*e*P	Pn	07 53 06.3	-0.6
RCP	Roxas	10.21	360	⇑*e*P	Pn	07 53 21.1	+1.5
ENPP	El Nido	10.40	341	*e*P	Pn	07 53 20.3	-2.0
SBUM	Sibu	10.61	276	P	Pn	07 53 26.1	+0.9
SBUM	Sibu	10.61	276	P	Pn	07 53 25.2	0.0
	113nm,1.1s,2μm						
KHKI	Kahang-Kahang	11.96	217	P	Pn	07 53 45.8	+2.3
	154nm,1.0s						
DNP	Denpasar	12.44	217	P	Pn	07 53 54.2	+4.0
	850nm,1.4s						
KSM	Kuching	12.47	271	P	Pn	07 53 51.5	+0.9
KSM	Kuching	12.47	271	*e*Pn	Pn	07 53 50.6	+0.1
	122nm,1.1s						
KSM				*e*Sn	Sn	07 55 59.3	-9.0
KSM	Kuching	12.47	271	P	Pn	07 53 52.6	+2.0
	82nm,2.2s,2μm						
NBBI	Negara	12.57	220	P	Pn	07 53 55.4	+3.4
	612nm,1.6s						
IGBI	Denpasar	12.59	217	P	Pn	07 53 56.5	+4.3
	328nm,1.4s,5μm						
BAKI	Biak	13.55	100	P	Px	07 54 22.8	
KRKI	Karangkates	13.93	227	P	Pn	07 54 12.2	+1.7
	291nm,1.2s						
SJI	Sawahan	14.17	231	P	Pn	07 54 17.7	+3.9
	102nm,1.2s						
KAKA	Kakadu	16.89	146	⇑*i*P	Pn	07 54 49.0	-0.3
	99nm,0.6s						
KAKA				*e*S	Sn	07 57 45.3	-11
KAKA	Kakadu	16.89	146	*e*Pn	Pn	07 54 48.7	-0.6
	230nm,0.6s						
KAKA	Kakadu	16.89	146	P	Pn	07 54 49.2	-0.1
	212nm,0.7s,2μm						
LEM	Lembang	17.14	242	P	Pn	07 54 56.8	+4.3
	282nm,1.0s,7μm						
CBJI	Citeko	17.64	244	P	Pn	07 55 01.6	+2.9
	770nm,1.1s						
PMBI	Palembang	18.48	257	P	Pn	07 55 11.0	+2.0
	722nm,1.1s						
MYKOM	Kota Tinggi	18.93	272	P	Pn	07 55 13.6	-0.8
MYKOM	Kota Tinggi	18.93	272	P	Pn	07 55 13.6	-0.8
	73nm,1.0s,3μm						
KGM	Kluang	19.46	272	P	Pn	07 55 20.5	-0.4
FITZ	Fitzroy Crossi	19.47	172	⇑*i*P	Pn	07 55 18.9	-1.9
	106nm,0.4s						
FITZ				*e*S	Sn	07 58 58.6	+0.2
FITZ	Fitzroy Crossi	19.47	172	P	Pn	07 55 18.9	-1.9
	18nm,0.3s,baz=6.9,slow=7.7,SNR=136						
FITZ				S	Sn	07 58 51.9	-6.5
	0.3nm,0.3s,baz=149,slow=12,SNR=2.2						
FITZ				LR	LR	08 03 47.4	
	comp=Z,6μm,19.1s,baz=92,slow=40						
FITZ	Fitzroy Crossi	19.47	172	*e*P	Pn	07 55 18.9	-1.9
	54nm,0.4s						
FITZ				*e*S	Sn	07 58 54.9	-3.4
FITZ	Fitzroy Crossi	19.47	172	P	Pn	07 55 18.8	-2.0
	209nm,1.3s,6μm						
KTGM	Kuala Trenggan	20.01	282	P	P	07 55 25.8	+0.4
RGRI	Rengat	20.51	266	P	P	07 55 31.9	+1.1
	368nm,1.3s						
XMIS	Christmas Isla	20.66	235	*e*P	P	07 55 30.7	-1.8
	132nm,0.9s						
XMIS	Christmas Isla	20.66	235	P	P	07 55 35.3	+2.8
	290nm,1.1s						
KSI	Kapahiang	20.76	256	P	P	07 55 33.8	+0.2
	902nm,0.8s						
FRIM	Kepong	21.22	276	P	P	07 55 39.0	+0.4
TWG	Pinlang	21.47	356	*e*P	P	07 55 42.8	+1.7
	78nm,0.6s,mb5.2						
QIZ	Qiongzhong	21.72	325	P	P	07 55 43.4	-0.4
QIZ				pP		07 55 51.0	
QIZ				sP	sP	07 55 55.4	-2.1
QIZ				S	S	07 59 42.2	-0.1
QIZ				sS	sS	07 59 56.5	-0.7
QIZ				pmax	pmax		
	comp=Z,51nm,1.9s,mb4.6						
QIZ				pmax	pmax		
	comp=Z,550nm,7.4s						
QIZ				LR	LR		
	comp=N,4μm,17.7s,MS5.0						
QIZ				LR	LR		
	comp=E,3μm,17.3s,MS5.0						
QIZ				LR	LR		
	comp=Z,6μm,17.3s,MS5.0						
QIZ	Qiongzhong	21.72	325	PFAKE		07 56 00.0	+16
QIZ				LR	LR		
	comp=Z,5μm,21.0s,MS4.9						
IPM	Ipoh	21.95	279	P	P	07 55 46.8	+0.4
IPM	Ipoh	21.95	279	P	P	07 55 45.8	-0.6
	comp=Z,232nm,1.5s,comp=Z,2μm,mb5.4						
TPUB	Ta-pu	21.98	355	*e*P	P	07 55 47.0	+0.4
	comp=Z,244nm,0.9s,mb5.6						
YULB	Yu-li	22.02	356	*e*P	P	07 55 44.7	-2.3
	comp=Z,69nm,0.8s,mb5.1						
PDSI	Padang	22.42	265	P	P	07 55 50.2	-1.2
	comp=Z,254nm,0.8s,comp=Z,5μm,mb5.7						
SSLB	Suanglung	22.44	356	*e*P	P	07 55 51.5	0.0
	comp=Z,63nm,0.7s,mb5.2						
KULM	Kulim	22.44	281	P	P	07 55 52.0	+0.4
KULM	Kulim	22.44	281	*e*P	P	07 55 50.1	-1.5
	comp=Z,195nm,1.3s,mb5.4						
KULM				*e*S	S	07 59 56.2	-0.3
KULM				LR	LR		
	comp=Z,10μm,19.0s,MS5.3						
PPI	Padang Panjang	22.45	266	P	P	07 55 51.3	-0.3
	comp=Z,177nm,1.5s,comp=Z,4μm,mb5.3						
MBWA	Marble Bar	22.50	187	*e*P	P	07 55 49.8	-2.3
	comp=Z,413nm,1.8s,mb5.6						
MBWA				LR	LR		
	comp=Z,8μm,20.0s,MS5.1						
MBWA	Marble Bar	22.50	187	⇓P	P	07 55 50.1	-2.0
	SNR=12						
MBWA				⇓P		07 55 50.1	
	SNR=12						
MBWA	Marble Bar	22.50	187	P	P	07 55 49.8	-2.3
	comp=Z,122nm,1.6s,mb5.1						
HKC	Hong Kong Obse	22.51	339	P	P	07 55 52.0	-0.2
HKC				S	S	07 59 58.0	+0.5
NACB	Ninganchiao	22.78	357	P	P	07 55 55.8	+0.7
	comp=Z,12nm,0.6s,mb4.5						
SNG	Songkhla	22.85	285	P	P	07 55 57.0	+1.1
YHNB	Yeheng	23.29	357	*e*P	P	07 55 58.7	-1.6
	comp=Z,58nm,0.7s,mb5.1						
YHNB				LR	LR		
	comp=Z,9μm,20.0s,MS5.2						
GZH	Guangzhou	23.53	338	P	P	07 55 54.4	-8.4
GZH				S	S	07 59 58.9	-15
GZH				LR	LR		
	comp=N,7μm,15.9s,MS5.3						
GZH				LR	LR		
	comp=E,4μm,14.1s,MS5.3						
GZH				LR	LR		
	comp=Z,15μm,17.1s,MS5.5						
TATO	Taipei	23.59	357	PFAKE		07 56 10.0	+6.8
TATO				LR	LR		
	comp=Z,8μm,21.0s,MS5.2						
QZH	Quanzhou	23.87	351	⇓*i*P	P	07 56 07.5	+1.7
QZH				S	S	08 00 21.5	+1.9
QZH				pmax	pmax		
	comp=Z,3μm,5.0s						
QZH				LR	LR		
	comp=N,9μm,14.7s,MS5.5						
QZH				LR	LR		
	comp=E,5μm,15.3s,MS5.5						
QZH				LR	LR		
	comp=Z,10μm,21.3s						
PSI	Prapat	23.89	274	P	P	07 56 04.1	-2.1
PSI				S	S	08 00 19.3	-1.0
PSI	Prapat	23.89	274	P	P	07 56 04.0	-2.1
	comp=Z,101nm,1.0s,mb5.2,baz=94,slow=5.3,SNR=63						
PSI				S	S	08 00 19.3	-1.0
	comp=Z,6.2nm,0.9s,baz=198,slow=16,SNR=2.1						
PSI				LR	LR	08 06 11.2	
	comp=Z,14μm,21.6s,MS5.4,baz=105,slow=39						
PSI	Prapat	23.89	274	P	P	07 56 04.0	-2.1
PSI				S	S	08 00 19.3	-1.0
PSI				LR	LR	08 06 11.2	
WRAB	Tennant Creek	23.95	152	P	P	07 56 05.0	-1.6
	comp=Z,947nm,0.7s,mb6.3						
WRAB	Tennant Creek	23.95	152	*e*P	P	07 56 05.7	-0.9
WRAB				pmax	pmax		
	comp=Z,81nm,0.6s,mb5.3						
WRAB				MLR	MLR		
	comp=Z,6μm,19.0s,MS5.1						
WRAB	Tennant Creek	23.95	152	*e*P	P	07 56 05.7	-0.9
	comp=Z,81nm,0.6s,mb5.3						
WRAB				LR	LR		
	comp=Z,6μm,19.0s,MS5.1						
WRAB	Tennant Creek	23.95	152	P	P	07 56 05.8	-0.8
	comp=Z,150nm,1.2s,comp=Z,3μm,mb5.3						
WRA	Warramunga Arr	23.95	152	P	P	07 56 05.6	-1.0
WRA				S	S	08 00 25.3	+4.2
WRA	Warramunga Arr	23.95	152	P	P	07 56 05.6	-1.0
	comp=Z,73nm,0.6s,mb5.3,baz=335,slow=9.7,SNR=407						
WRA				S	S	08 00 25.3	+4.3
	comp=Z,6.5nm,1.2s,baz=319,slow=19,SNR=2.8						
WRA				LR	LR	08 06 28.3	
	comp=Z,5μm,19.7s,MS5.0,baz=325,slow=39						
TSI	Tuntungan	24.29	276	⇓*e*P	P	07 56 06.0	-3.9
GUMO	Guam	25.05	60	*e*P	P	07 56 17.6	+0.9
GUMO				pmax	pmax		
	comp=Z,231nm,1.3s,mb5.5						
GUMO				MLR	MLR		
	comp=Z,3μm,19.0s,MS4.8						
GUMO	Guam	25.05	60	LR	LR	08 04 51.1	
	comp=Z,3μm,21.3s,MS4.7,baz=3.8,slow=33						
GUMO	Guam	25.05	60	*e*P	P	07 56 17.6	+0.8
	comp=Z,231nm,1.3s,mb5.5						
GUMO				LR	LR		
	comp=Z,3μm,19.0s,MS4.8						
GSI	Gunungsitoli	25.20	270	P	P	07 56 16.3	-1.8
	comp=Z,272nm,0.9s,mb5.8						
COEN	Coen	25.25	128	*e*P	P	07 56 18.8	+0.2
	comp=Z,182nm,0.6s,mb5.8						
COEN				*e*S	S	08 00 43.3	+1.1
COEN	Coen	25.25	128	P	P	07 56 18.3	-0.3
	comp=Z,139nm,0.7s,mb5.6						
NNT	Nongplab	25.45	297	P	P	07 56 22.0	+1.6
JOW	Kunigami	25.95	11	P	P	07 56 24.9	+0.1
	comp=Z,29nm,0.7s,mb5.0,baz=184,slow=9.1,SNR=3.9						
JOW				LR	LR	08 07 25.5	
	comp=Z,5μm,18.9s,MS5.1,baz=307,slow=38						
NST	Nakhon Sawan	26.52	304	P	P	07 56 29.1	-0.9
ASAR	Alice Springs	27.06	157	P	P	07 56 34.3	-0.5
	comp=Z,11nm,0.6s,mb4.6,baz=341,slow=7.3,SNR=96						
ASAR				PcP	PcP	07 59 55.1	-0.4
	comp=Z,3.4nm,0.5s,baz=346,slow=2.1,SNR=4.3						
BDT	Bhumibol Dam	28.25	306	P	P	07 56 46.0	+0.4
CMAR	Chiang Mai Arr	28.95	308	P	P	07 56 50.5	-1.3
CMAR						07 59 59.9	
CMAR	Chiang Mai Arr	28.95	308	P	P	07 56 50.5	-1.3
	comp=Z,1.4nm,0.3s,mb4.1,baz=127,slow=8.2,SNR=3.2						
CMAR				PcP	PcP	07 59 59.9	-0.4
	comp=Z,1.5nm,0.4s,baz=184,slow=1.4,SNR=4.4						
CMAR				LR	LR	08 10 13.7	
	comp=Z,6μm,18.1s,MS5.2,baz=280,slow=40						
COCO	West Island	29.03	242	P		07 57 00.0	+7.4
COCO				MLR	MLR		
	comp=Z,6μm,19.0s,MS5.3						
COCO	West Island	29.03	242	PFAKE		07 57 00.0	+7.4
COCO				LR	LR		
	comp=Z,6μm,19.0s,MS5.3						
CHRT	Chiangrai	29.11	311	P	P	07 56 56.0	+2.8
	comp=Z,158nm,0.6s,mb5.9						
CHG	Chiang Mai	29.15	308	⇑P	P	07 57 01.4	+7.9
	comp=Z,10nm,0.8s,mb4.6						
CHTO	Chiang Mai	29.15	308	*e*P	P	07 56 50.7	-2.8
CHTO				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.0						
CHTO				MLR	MLR		
	comp=Z,5μm,20.0s,MS5.1						
CHTO	Chiang Mai	29.15	308	*e*P	P	07 56 50.7	-2.8
	comp=Z,43nm,1.3s,mb5.0						
CHTO				LR	LR		
	comp=Z,5μm,20.0s,MS5.1						
CHTO	Chiang Mai	29.15	308	P	P	07 56 54.3	+0.8
	comp=Z,30nm,1.3s,comp=Z,799nm,mb4.9						
GYA	Guiyang	29.44	330	⇑*i*P	P	07 56 57.6	+1.6
GYA				pP	pP	07 57 06.9	+0.8
GYA				sP	sP	07 57 11.6	+1.3
GYA				PP	PP	07 57 53.2	-10
GYA				PcP	PcP	08 00 02.7	+1.3
GYA				S	S	08 01 48.5	+0.5
GYA				sS	sS	08 02 06.3	+1.7
GYA				SS	SS	08 03 22.8	-31
GYA				ScP	ScP	08 03 40.1	-0.7
GYA				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.4						
GYA				pmax	pmax		
	comp=Z,180nm,4.7s						
GYA				LR	LR		
	comp=N,1μm,17.4s,MS4.8						
GYA				LR	LR		
	comp=E,1μm,18.2s,MS4.8						
GYA				LR	LR		
	comp=Z,2μm,17.0s,MS4.7						
SSE	Sheshan	29.69	357	P	P	07 57 01.8	+3.6
SSE				sP	sP	07 57 14.0	+1.5
SSE				S	S	08 01 55.9	+4.1
SSE				sS	sS	08 02 09.8	+1.4
SSE				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
SSE				pmax	pmax		
	comp=Z,310nm,6.6s						
SSE				LR	LR		
	comp=N,2μm,11.7s,MS5.3						
SSE				LR	LR		
	comp=E,3μm,11.7s,MS5.3						
SSE				LR	LR		
	comp=Z,4μm,13.4s,MS5.3						
WHN	Wuhan	30.18	345	⇓P	P	07 57 04.5	+2.0
WHN				sP	sP	07 57 16.5	-0.3
WHN				S	S	08 02 02.9	+3.4
WHN				pmax	pmax		
	comp=Z,1μm,5.4s						
WHN				LR	LR		
	comp=N,14μm,15.3s,MS5.8						
WHN				LR	LR		
	comp=E,5μm,15.5s,MS5.8						
WHN				LR	LR		
	comp=Z,23μm,18.6s,MS5.8						
KMI	Kunming	30.59	322	P	P	07 57 09.1	+2.8
KMI				pP	pP	07 57 18.1	+1.8
KMI				sP	sP	07 57 22.9	+2.3
KMI				PP	PP	07 58 08.4	-7.4
KMI				PcP	PcP	08 00 06.0	+1.6
KMI				S	S	08 02 08.2	+2.1
KMI				sS	sS	08 02 23.1	+0.3
KMI				SS	SS	08 03 50.6	-27
KMI				ScS	ScS	08 07 39.5	-1.5
KMI				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.7						
KMI				pmax	pmax		
	comp=Z,210nm,4.0s						
KMI				LR	LR		
	comp=N,2μm,17.5s,MS5.2						
KMI				LR	LR		
	comp=E,3μm,16.6s,MS5.2						
KMI				LR	LR		
	comp=Z,4μm,14.5s,MS5.2						
NJ2	Nanjing	30.83	353	*e*P	P	07 57 10.8	+2.6
NJ2				pP	pP	07 57 19.1	+0.8
NJ2				sP	sP	07 57 23.0	+0.5
NJ2				PP	PP	07 58 12.1	-6.2
NJ2				S	S	08 02 09.0	-0.6
NJ2				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
NJ2				pmax	pmax		
	comp=Z,230nm,5.7s						
NJ2				LR	LR		
	comp=N,2μm,19.9s,MS5.1						
NJ2				LR	LR		
	comp=E,3μm,18.0s,MS5.1						
NJ2				LR	LR		
	comp=Z,3μm,18.0s,MS5.1						
CTA	Charters Tower	31.32	134	*e*P	P	07 57 14.3	+1.6
	comp=Z,13nm,1.1s,mb4.7						
CTA				*e*S	S	08 02 36.0	+18
CTAO	Charters Tower	31.32	134	*e*P	P	07 57 13.3	+0.6
CTAO				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.2						
CTAO				MLR	MLR		
	comp=Z,3μm,21.0s,MS4.9						
CTAO	Charters Tower	31.32	134	*e*P	P	07 57 13.3	+0.6
	comp=Z,54nm,1.4s,mb5.2						
CTAO				LR	LR		

	comp=Z,3µm,21.0s,MS4.9						
CTAO	**Charters Tower**	**31.32**	**134**	P	**P**	**07 57 16.3**	**+3.6**
	comp=Z,37nm,1.6s,mb5.0						
FORT	**Forrest**	**32.28**	**171**	*e*P	**P**	**07 57 19.2**	**-1.8**
	comp=Z,58nm,0.6s,mb5.6						
FORT	**Forrest**	**32.28**	**171**	*e*P	**P**	**07 57 19.3**	**-1.7**
	comp=Z,93nm,0.9s,mb5.6						
KLBR	**Kellerberrin**	**33.04**	**188**	*e*P	**P**	**07 57 25.1**	**-2.6**
	comp=Z,39nm,0.8s,mb5.4						
MUN	**Mundaring**	**33.66**	**190**	*e*P	**P**	**07 57 32.5**	**-0.6**
NWAO	**Narrogin (SRO)**	**34.43**	**188**	P	**P**	**07 57 38.1**	**-1.6**
NWAO				pmax	pmax		
	comp=Z,14nm,0.7s						
NWAO	**Narrogin (SRO)**	**34.43**	**188**	P	**P**	**07 57 38.1**	**-1.6**
	comp=Z,14nm,0.7s,mb5.0,baz=18,slow=10,SNR=5.9						
NWAO	**Narrogin (SRO)**	**34.43**	**188**	*e*P	**P**	**07 57 37.9**	**-1.8**
	comp=Z,35nm,0.8s,mb5.3						
NWAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
CD2	**Chengdu**	**34.54**	**330**	P	**P**	**07 57 40.4**	**-0.3**
CD2				pP	pP	07 57 49.6	-1.3
CD2				sP	sP	07 57 55.6	+0.5
CD2				PP	PP	07 58 56.7	-2.8
CD2				PcP	PcP	08 00 16.0	+0.8
CD2				S	**S**	**08 03 07.0**	**-0.4**
CD2				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
CD2				pmax	pmax		
	comp=Z,720nm,8.3s						
CD2				LR	LR		
	comp=N,3µm,15.0s						
CD2				LR	LR		
	comp=Z,4µm,18.6s,MS5.2						
XAN	**Xi’an**	**35.07**	**340**	P	**P**	**07 57 47.2**	**+1.9**
XAN				pP	pP	07 57 56.8	+1.4
XAN				sP	sP	07 58 00.6	+0.9
XAN				PP	PP	07 59 06.0	+0.7
XAN				PcP	PcP	08 00 17.9	+1.2
XAN				S	**S**	**08 03 16.9**	**+1.4**
XAN				SS	SS	08 05 34.8	-14
XAN				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
XAN				pmax	pmax		
	comp=Z,290nm,8.5s						
XAN				LR	LR		
	comp=N,3µm,17.8s,MS5.3						
XAN				LR	LR		
	comp=E,4µm,16.9s,MS5.3						
XAN				LR	LR		
	comp=Z,10µm,17.2s,MS5.6						
TIA	**Tai’an**	**35.15**	**352**	*e*P	**P**	**07 57 46.0**	**+0.1**
TIA				*e*S	**S**	**08 03 18.0**	**+1.4**
TIA				LR	LR		
	comp=N,1µm,15.0s						
JHJ	**Hachijo jima 2**	**35.47**	**25**	LR	LR	08 11 37.1	
	comp=N,2µm,18.6s,MS5.0,baz=276,slow=35						
INCN	**Inchon**	**36.20**	**5**	PFAKE		07 58 10.0	+15
INCN				LR	LR		
	comp=Z,4µm,20.0s,MS5.1						
KSRS	**Korea Array**	**36.30**	**7**	P	**P**	**07 57 56.4**	**+0.6**
KSRS				*PP	pP	07 58 07.9	+1.9
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KSRS				MLR	MLR		
	comp=Z,3µm,18.7s,MS5.1						
KSRS	**Korea Array**	**36.30**	**7**	P	**P**	**07 57 56.4**	**+0.6**
	comp=Z,2.3nm,0.6s,mb4.3,baz=180,slow=12,SNR=7.8						
KSRS				pP	pP	07 58 07.8	+1.9
	comp=Z,13nm,0.9s,baz=181,slow=11,SNR=8.5						
KSRS				LR	LR	08 15 17.2	
	comp=Z,3µm,18.7s,MS5.1,baz=183,slow=40						
IMP	**Imphal**	**36.36**	**312**	*e*x	x	07 58 59.0	
DL2	**Dalian**	**37.46**	**359**	P	**P**	**07 58 08.0**	**+2.4**
DL2				S	**S**	**08 03 52.5**	**+0.6**
DL2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.1						
DL2				pmax	pmax		
	comp=Z,220nm,5.0s						
DL2				LR	LR		
	comp=N,1µm,18.6s,MS4.8						
DL2				LR	LR		
	comp=E,820nm,18.3s,MS4.8						
STKA	**Stephens Creek**	**37.49**	**153**	⇑*i*P	**P**	**07 58 06.0**	**0.0**
	comp=E,66nm,1.0s,mb5.4						
STKA				*e*S	**S**	**08 03 51.9**	**-0.7**
STKA	**Stephens Creek**	**37.49**	**153**	P	**P**	**07 58 06.0**	**0.0**
	comp=E,85nm,1.0s,mb5.5,baz=325,slow=8.2,SNR=105						
STKA				LR	LR	08 15 03.0	
	comp=E,2µm,20.2s,MS4.9,baz=215,slow=39						
MAJO	**Matsushiro**	**37.88**	**20**	P	**P**	**07 58 08.0**	**-1.2**
MAJO				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.0						
MAJO				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.2						
MAJO	**Matsushiro**	**37.88**	**20**	P	**P**	**07 58 08.0**	**-1.2**
	comp=Z,39nm,1.1s,mb5.0						
MAJO				LR	LR		
	comp=Z,4µm,21.0s,MS5.2						
MAT	**Matsushiro**	**37.88**	**20**	P	**P**	**07 58 08.1**	**-1.1**
MAT				S	**S**	**08 03 54.0**	**-4.4**
MJAR	**Matsushiro Arr**	**37.88**	**20**	P	**P**	**07 58 08.2**	**-1.0**
	comp=Z,7.9nm,0.9s,mb4.5,baz=191,slow=8.8,SNR=9.7						
MJAR				LR	LR	08 11 49.2	
	comp=Z,3µm,20.7s,MS5.1,baz=215,slow=33						
AGT	**Agartala**	**37.91**	**309**	*e*PKP	**P**	**07 58 09.0**	**-0.6**
AGT				*e*x	x	07 59 02.0	
EIDS	**Eidsvold**	**38.11**	**136**	*e*P	**P**	**07 58 10.4**	**-1.0**
	comp=Z,68nm,1.6s,mb5.1						
SHL	**Shillong**	**38.33**	**312**	*e*PKP	**P**	**07 58 13.0**	**-0.2**
SHL				*e*x	x	08 04 08.0	
HNR	**Honiara**	**38.52**	**107**	P		07 58 30.0	+15
HNR				MLR	MLR		
	comp=Z,2µm,21.0s,MS4.9						
HNR	**Honiara**	**38.52**	**107**	PFAKE		07 58 30.0	+15
HNR				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
LZH	**Lanzhou**	**38.83**	**335**	*e*P	**P**	**07 58 19.0**	**+1.8**
LZH				pP	pP	07 58 29.1	+1.7
LZH				sP	sP	07 58 33.5	+1.9
LZH				PP	PP	07 59 53.0	+6.4
LZH				PcP	PcP	08 00 28.5	+0.5
LZH				*e*S	**S**	**08 04 13.2**	**+0.5**
LZH				SS	SS	08 07 00.0	-4.8
LZH				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.1						
LZH				pmax	pmax		
	comp=Z,150nm,4.0s						
LZH				LR	LR		
	comp=N,3µm,14.2s						
LZH				LR	LR		
	comp=Z,4µm,17.5s,MS5.3						
BJT	**Baijiatuau**	**39.02**	**352**	PFAKE		07 58 30.0	+11
BJT				LR	LR		
	comp=Z,4µm,19.0s,MS5.2						
BJI	**Beijing**	**39.04**	**352**	P	**P**	**07 58 18.4**	**-0.5**
BJI				pP	pP	07 58 29.5	+0.4
BJI				sP	sP	07 58 33.5	+0.2
BJI				PP	PP	07 59 53.3	+4.4
BJI				S	**S**	**08 04 11.9**	**-3.9**
BJI				ScP	ScP	08 04 15.1	+0.6
BJI				sS	sS	08 04 35.5	+2.9
BJI				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.0						
BJI				pmax	pmax		
	comp=Z,430nm,5.8s						
BJI				LR	LR		
	comp=N,3µm,16.4s,MS5.2						
BJI				LR	LR		
	comp=E,1µm,16.4s,MS5.2						
BJI				LR	LR		
	comp=Z,2µm,18.9s,MS5.1						
CAL	**Calcutta**	**39.58**	**305**	*e*PKP	**P**	**07 58 27.2**	**+3.5**
CAL				*e*S	**S**	**08 04 26.7**	**+2.2**
SNY	**Shenyang**	**40.37**	**1**	⇑P	**P**	**07 58 29.9**	**0.0**
SNY				pmax	pmax		
	comp=Z,25nm,1.4s,mb4.8						
SNY				pmax	pmax		
	comp=Z,340nm,3.5s						
SNY				LR	LR		
	comp=N,4µm,17.8s,MS5.3						
SNY				LR	LR		
	comp=E,2µm,19.4s,MS5.3						
SNY				LR	LR		
	comp=Z,4µm,20.1s,MS5.3						
HHC	**Hu-ho-hao-te**	**40.67**	**347**	*e*P	**P**	**07 58 36.1**	**+3.6**
HHC				pP	pP	07 58 46.7	+4.0
HHC				sP	sP	07 58 50.4	+3.5
HHC				PP	PP	08 00 13.6	+6.9
HHC				S	**S**	**08 04 45.0**	**+4.8**
HHC				sS	sS	08 05 01.7	+4.6
HHC				SS	SS	08 07 39.9	-1.7
HHC				ScS	ScS	08 08 36.8	+1.5
HHC				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.6						
HHC				pmax	pmax		
	comp=Z,470nm,6.1s						
HHC				LR	LR		
	comp=N,4µm,17.7s,MS5.4						
HHC				LR	LR		
	comp=E,3µm,16.7s,MS5.4						
HHC				LR	LR		
	comp=Z,4µm,18.0s,MS5.3						
BTO	**Baotou**	**40.81**	**345**	*e*P	**P**	**07 58 33.3**	**-0.3**
LSA	**Lhasa**	**41.27**	**316**	P	**P**	**07 58 39.2**	**+1.6**
LSA	**Lhasa**	**41.27**	**316**	PFAKE		07 58 50.0	+12
LSA				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
ARMA	**Armidale**	**41.82**	**141**	*e*P	**P**	**07 58 43.8**	**+1.7**
ARMA				*e*S	SS	08 08 12.3	+7.6
ARMA	**Armidale**	**41.82**	**141**	*e*P	**P**	**07 58 43.3**	**+1.3**
	comp=Z,18nm,0.8s,mb4.8						
VIS	**Vishakhapatnam**	**42.05**	**295**	*e*PKP	**P**	**07 58 44.6**	**+0.5**
BOK	**Bokaro**	**42.15**	**305**	*e*PKP	**P**	**07 58 45.4**	**+0.5**
PALK	**Pallekele**	**42.35**	**279**	*e*P	**P**	**07 58 45.9**	**-0.8**
PALK				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.2						
PALK	**Pallekele**	**42.35**	**279**	*e*P	**P**	**07 58 45.9**	**-0.8**
	comp=Z,67nm,1.2s,mb5.2						
PALK	**Pallekele**	**42.35**	**279**	P	**P**	**07 58 45.9**	**-0.8**
	comp=Z,27nm,2.2s,comp=Z,681nm,mb4.5						
CN2	**Changchun**	**42.40**	**3**	*e*P	**P**	**07 58 43.8**	**-2.8**
CN2				*e*pP	pP	07 58 56.6	-0.3
CN2				*e*PP	PP	08 00 25.9	+0.6
CN2				*e*S	**S**	**08 05 04.1**	**-1.6**
CN2				*e*SS	SS	08 08 08.6	-7.1
CN2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.3						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,2µm,17.0s,MS5.1						
CN2				LR	LR		
	comp=E,700nm,17.0s,MS5.1						
CN2				LR	LR		
	comp=Z,3µm,22.0s,MS5.1						
ODAN	**Odare**	**42.43**	**310**	*e*P	**P**	**07 58 48.0**	**+0.9**
	comp=Z,153nm,1.0s,mb5.6						
TAPN	**Taplejung**	**42.44**	**311**	*e*P	**P**	**07 58 47.6**	**+0.4**
RAMN	**Ramite**	**43.08**	**310**	*e*P	**P**	**07 58 53.4**	**+1.0**
	comp=Z,280nm,1.1s,mb5.9						
GTA	**Gaotai**	**43.35**	**334**	P	**P**	**07 58 55.3**	**+1.0**
GTA				pP	pP	07 59 04.4	-0.2
GTA				sP	sP	07 59 08.7	-0.1
GTA				PP	PP	08 00 39.4	+3.8
GTA				ScP	ScP	08 04 32.2	+0.6
GTA				S	**S**	**08 05 21.9**	**+2.1**
GTA				sS	sS	08 05 37.5	+0.7
GTA				SS	SS	08 08 29.4	-5.0
GTA				ScS	ScS	08 08 48.8	-3.0
GTA				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.7						
GTA				pmax	pmax		
	comp=Z,290nm,5.7s						
GTA				LR	LR		
	comp=N,2µm,18.9s,MS5.3						
GTA				LR	LR		
	comp=E,3µm,16.5s,MS5.3						
GTA				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
MDJ	**Mudanjiang**	**43.57**	**7**	P	**P**	**07 58 55.8**	**-0.2**
MDJ				pP	pP	07 59 04.4	-2.0
MDJ				sP	sP	07 59 08.0	-2.5
MDJ				PcP	PcP	08 00 42.9	-0.4
MDJ				PcS	PcS	08 04 35.2	-0.7
MDJ				S	**S**	**08 05 16.2**	**-6.7**
MDJ				pmax	pmax		
	comp=Z,17nm,1.6s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,180nm,6.2s						
MDJ				LR	LR		
	comp=N,2µm,29.1s						
MDJ				LR	LR		
	comp=Z,3µm,30.6s,MS5.0						
MDJ	**Mudanjiang**	**43.57**	**7**	PFAKE		07 59 10.0	+14
MDJ				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
JIRN	**Jiri**	**43.75**	**310**	*e*P	**P**	**07 58 59.4**	**+1.6**
	comp=Z,140nm,1.0s,mb5.7						
CAN	**Canberra**	**43.89**	**149**	*e*P	**P**	**07 59 00.1**	**+1.3**
CAN				pmax	pmax		
	comp=Z,58nm,0.6s,mb5.5						
CAN				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.3						
CAN	**Canberra**	**43.89**	**149**	*e*P	**P**	**07 59 00.1**	**+1.3**
	comp=Z,58nm,0.6s,mb5.5						
CAN				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
TOO	**Toolangi**	**44.01**	**154**	*e*P	**P**	**07 59 00.9**	**+1.2**
TOO				*e*S	**S**	**08 05 46.8**	**+17**
CNB	**Canberra Magne**	**44.08**	**148**	*e*P	**P**	**07 59 02.8**	**+2.5**
CNB				*e*S	**S**	**08 05 45.3**	**+15**
GUN	**Gumba**	**44.12**	**310**	*e*P	**P**	**07 59 01.7**	**+1.0**
PKI	**Pulchoki**	**44.31**	**310**	*e*P	**P**	**07 59 03.0**	**+0.7**
ERM	**Erimo**	**44.50**	**22**	PFAKE		07 59 20.0	+16
ERM				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
KKN	**Kakani**	**44.52**	**310**	*e*P	**P**	**07 59 04.6**	**+0.7**
DMN	**Daman**	**44.56**	**309**	*e*P	**P**	**07 59 05.1**	**+0.8**
	comp=Z,128nm,0.9s,mb5.8						
GKN	**Gorkha**	**45.12**	**310**	*e*P	**P**	**07 59 09.6**	**+0.9**
KOLN	**Koldanda**	**45.81**	**309**	*e*P	**P**	**07 59 14.4**	**+0.2**
	comp=Z,200nm,0.9s,mb6.0						
DANN	**Dangsing**	**45.96**	**309**	*e*P	**P**	**07 59 15.3**	**-0.1**
ASAJ	**Asahikawa**	**46.14**	**20**	LR	LR	08 16 36.7	
	comp=Z,3µm,22.0s,MS5.2,baz=57,slow=33						
HYB	**Hyderabad**	**46.32**	**293**	*i* P	**P**	**07 59 19.0**	**+0.6**
HYB				*e*S	**S**	**08 06 03.0**	**-0.5**
HYB	**Hyderabad**	**46.32**	**293**	*e*P	**P**	**07 59 17.0**	**-1.4**
HYB				*e*S	**S**	**08 06 04.0**	**+0.5**
PYUN	**Piuthan**	**46.44**	**309**	*e*P	**P**	**07 59 19.1**	**-0.1**
	comp=Z,61nm,0.6s,mb5.7						
HIA	**Hailar**	**47.87**	**357**	PFAKE		07 59 40.0	+10
HIA				LR	LR		
	comp=Z,4µm,19.0s,MS5.4						
ULN	**Ulaanbaatar**	**48.36**	**346**	*e*P	**P**	**07 59 34.0**	**+0.3**
ULN				pmax	pmax		
	comp=Z,84nm,1.5s,mb5.5						
ULN				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.4						
ULN	**Ulaanbaatar**	**48.36**	**346**	*e*P	**P**	**07 59 34.0**	**+0.3**
	comp=Z,84nm,1.5s,mb5.5						
ULN				LR	LR		
	comp=Z,4µm,19.0s,MS5.4						
ULN	**Ulaanbaatar**	**48.36**	**346**	⇓P	**P**	**07 59 34.2**	**+0.5**
	SNR=17						
ULN				⇓P		07 59 34.2	
	SNR=17						
ULN	**Ulaanbaatar**	**48.36**	**346**	P	**P**	**07 59 33.8**	**+0.1**
	comp=Z,37nm,1.4s,mb5.2						
KLR	**Kul’dur**	**48.38**	**8**	*e*P	**P**	**07 59 29.0**	**-4.9**
KLR				*e*		08 06 32.5	
KLR				MLR	MLR		
	comp=E,900nm,17.0s						
KLR				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.1						
SONM	**Songino Array**	**48.49**	**345**	P	**P**	**07 59 35.1**	**+0.3**
SONM				*PP	pP	07 59 45.3	+0.1
SONM	**Songino Array**	**48.49**	**345**	P	**P**	**07 59 35.1**	**+0.4**
	comp=Z,19nm,1.1s,mb5.0,baz=163,slow=9.0,SNR=52						
SONM				pP	pP	07 59 45.3	+0.1
	comp=Z,16nm,0.7s,baz=165,slow=8.4,SNR=12						
SONM				LR	LR	08 21 21.2	
	comp=Z,6µm,19.9s,MS5.5,baz=165,slow=38						
YSS	**Yuzh-Sakhalins**	**48.71**	**18**	⇑*e*P	**P**	**07 59 38.2**	**+1.8**
YSS				*e*	pP	07 59 49.3	+2.4
YSS	**Yuzh-Sakhalins**	**48.71**	**18**	P	**P**	**07 59 38.8**	**+2.3**
	comp=Z,52nm,1.1s,mb5.5						
YSS				LR	LR		
	comp=Z,623nm,20.0s,MS4.6						
BHPL	**Bhopal**	**49.08**	**300**	*e*PKP	**P**	**07 59 39.2**	**-0.5**
LGTI	**Lohaghat**	**49.20**	**309**	*e*PKP	**P**	**07 59 39.1**	**-1.4**
LGTI				*e*x	x	08 01 10.9	
TAU	**Tasmania Unive**	**49.23**	**156**	PFAKE		07 59 50.0	+10
TAU				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
TARA	**Tarawa**	**50.13**	**89**	PFAKE		08 00 00.0	+12
TARA				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
KAD	**Karad**	**50.34**	**291**	*e*PKP	**P**	**07 59 47.9**	**-1.5**
KAD				AMb	AMB	08 00 08.9	
	comp=Z,58nm,1.2s,mb5.5						
POO	**Poona**	**50.93**	**293**	*e*PKP	**P**	**07 59 52.9**	**-0.9**
DGAR	**Diego Garcia**	**50.94**	**259**	PFAKE		08 00 00.0	+6.0
DGAR				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
NDI	**New Delhi**	**51.27**	**306**	*e*PKP	**P**	**07 59 55.0**	**-1.2**
ZAK	**Zakamensk**	**51.65**	**344**	*e*P	**P**	**07 59 58.8**	**+0.1**
ZAK				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.7						
WMQ	**Urumqi**	**52.59**	**328**	P	**P**	**08 00 07.2**	**+1.4**
WMQ				pP	pP	08 00 17.0	+0.7
WMQ				sP	sP	08 00 21.0	+0.6
WMQ				PcP	PcP	08 01 17.0	+1.3
WMQ				PP	PP	08 02 08.0	+2.9
WMQ				PcS	PcS	08 05 14.0	0.0
WMQ				S	**S**	**08 07 32.0**	**+1.5**
WMQ				sS	sS	08 07 47.0	-0.9
WMQ				ScS	ScS	08 09 51.0	-2.0
WMQ				pmax	pmax		
	comp=Z,27nm,1.8s,mb4.9						
WMQ				pmax	pmax		
	comp=Z,920nm,5.8s						
WMQ				LR	LR		
	comp=N,2µm,15.2s,MS5.3						
WMQ				LR	LR		
	comp=E,2µm,18.6s,MS5.3						
WMQ				LR	LR		
	comp=Z,2µm,23.8s						
SDNR	**Sundarnagar**	**52.64**	**310**	*e*PKP	**P**	**08 00 07.5**	**+1.1**
TLY	**Talaya**	**52.74**	**345**	P	**P**	**08 00 08.1**	**+1.4**
	comp=Z,224nm,1.0s,mb6.0,SNR=6.0						
TLY	**Talaya**	**52.74**	**345**	*e*P	**P**	**08 00 07.9**	**+1.2**
TLY				*e*S	**S**	**08 07 34.1**	**+1.8**
TLY				*e*PS		08 07 39.3	
TLY				*e*		08 07 47.3	
TLY				*e*SS	SS	08 11 04.3	-7.0
TLY				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.3						
TLY				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.3						
TLY	**Talaya**	**52.74**	**345**	*e*P	**P**	**08 00 05.5**	**-1.2**
	comp=Z,34nm,0.9s,mb5.3						
TLY				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
TLY	**Talaya**	**52.74**	**345**	⇓P	**P**	**08 00 05.2**	**-1.5**
	SNR=24						
TLY				⇓P		08 00 05.2	
	SNR=24						
IRK	**Irkutsk**	**53.09**	**346**	*e*P	**P**	**08 00 13.3**	**+4.0**
IRK				pmax	pmax		
	comp=Z,64nm,1.3s,mb5.4						
THN	**Thein Dam**	**54.00**	**310**	*e*PKP	**P**	**08 00 14.2**	**-2.2**
SKR	**Severo-Kuril’s**	**56.74**	**25**	P	sP	08 00 50.0	-0.4
SKR				*e*S	**S**	**08 08 29.0**	**+2.9**
SKR				*e*		08 10 20.0	
SKR				pmax	pmax		
	comp=Z,1µm,10.0s						
SKR				smax			
	comp=N,2µm,18.0s						
SKR				smax			
	comp=E,2µm,18.0s						
SKR				MLR	MLR		
	comp=E,1µm,18.0s						
SKR				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.3						
BOD	**Bodaibo**	**56.80**	**354**	*e*P	**P**	**08 00 35.5**	**-0.5**
BOD				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.5						
FUNA	**Funafuti**	**57.07**	**101**	PFAKE		08 00 50.0	+11
FUNA				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
MK31	**Makanchi Array**	**57.41**	**328**	*e*P	**P**	**08 00 40.3**	**-0.3**
MK31				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.5						
MKAR	**Makanchi Array**	**57.41**	**328**	P	**P**	**08 00 40.8**	**+0.2**
MKAR				*PP	pP	08 00 51.8	+0.6
MKAR				S	**S**	**08 08 35.9**	**+0.8**
MKAR	**Makanchi Array**	**57.41**	**328**	P	**P**	**08 00 40.8**	**+0.2**
	comp=Z,19nm,1.0s,mb5.1,baz=129,slow=7.7,SNR=41						
MKAR				pP	pP	08 00 51.8	+0.6
	comp=Z,17nm,0.6s,baz=124,slow=9.2,SNR=16						
MKAR				S	**S**	**08 08 35.9**	**+0.7**
	comp=Z,0.4nm,0.9s,baz=101,slow=7.5,SNR=2.4						
MKAR				LR	LR	08 26 29.7	
	comp=Z,2µm,20.1s,MS5.3,baz=122,slow=37						
TKM2	**Tokmak 2**	**59.05**	**321**	*e*P	**P**	**08 00 52.9**	**+0.8**
TKM2				pmax	pmax		
	comp=Z,107nm,2.2s,mb5.5						
TKM2				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
TKM2	**Tokmak 2**	**59.05**	**321**	*e*P	**P**	**08 00 52.9**	**+0.7**
	comp=Z,106nm,2.2s,mb5.5						
TKM2				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
PETK	**Petropavlovsk-**	**59.21**	**24**	P	**P**	**08 00 54.8**	**+1.8**
	comp=Z,12nm,1.0s,mb4.9,baz=200,slow=2.7,SNR=7.2						
PETK				LR	LR	08 27 17.1	
	comp=Z,1µm,19.9s,MS5.0,baz=224,slow=37						
UCH	**Uchtor**	**59.39**	**320**	*e*P	**P**	**08 00 57.0**	**+2.5**
	comp=Z,16nm,0.9s,mb5.1						
UCH				*e*pP	pP	08 01 07.1	+2.0
UCH				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
PET	**Petropavlovsk**	**59.53**	**24**	*e*P	**P**	**08 00 56.7**	**+1.5**
PET				*e*S	**S**	**08 09 03.1**	**+0.6**
PET				pmax	pmax		
	comp=Z,200nm,13.8s						
PET				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
PET				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.2						
PET				MLR	MLR		
	comp=Z,1µm,13.0s						
PET	**Petropavlovsk**	**59.53**	**24**	PFAKE		08 01 10.0	+15
PET				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
AAK	**Ala-Archa**	**59.60**	**320**	*e*P	**P**	**08 00 56.2**	**+0.2**
AAK				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
AAK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
AAK	**Ala-Archa**	**59.60**	**320**	*e*P	**P**	**08 00 56.2**	**+0.3**
	comp=Z,24nm,0.9s,mb5.2						
AAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
AAK	**Ala-Archa**	**59.60**	**320**	P	**P**	**08 00 56.9**	**+0.9**
	comp=Z,7.4nm,1.5s,comp=Z,203nm,mb4.5						
FRU	**Bishkek**	**59.63**	**321**	*e*P	**P**	**08 01 02.0**	**+5.9**
FRU				*e*		08 01 43.0	
FRU				*e*S	**S**	**08 09 08.0**	**+3.9**
FRU				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.1						
AML	**Almayashu**	**59.87**	**319**	*e*P	**P**	**08 00 58.4**	**+0.6**
	comp=Z,68nm,1.2s,mb5.5						
AML				*e*pP	pP	08 01 08.5	0.0
AML				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
EKS2	**Erkin-Say**	**60.08**	**320**	*e*P	**P**	**08 00 59.9**	**+0.7**
	comp=Z,41nm,1.2s,mb5.3						
EKS2				*e*pP	pP	08 01 08.8	-1.1
EKS2				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
YAK	**Yakutsk**	**60.82**	**4**	*e*P	pP	08 01 14.9	+0.3
YAK				*e**PP	sP	08 01 23.6	+4.9
YAK				*e*S	**S**	**08 09 17.5**	**-1.2**
YAK				*e*		08 10 47.8	
YAK				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=N,16nm,1.2s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.3s						
YAK				smax			
	comp=N,1µm,10.7s						
YAK				smax			
	comp=E,185nm,5.0s						

YAK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
YAK				MLR	MLR		
	comp=N,1µm,18.0s,MS5.1						
YAK				MLR	MLR		
	comp=E,377nm,17.0s,MS5.1						
YAK	**Yakutsk**	**60.82**	**4**	PFAKE		08 01 20.0	+16
YAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
ZALV	**Zalesovo Beam**	**61.06**	**335**	P	**P**	**08 01 05.3**	**-0.4**
ZALV				*PP	pP	08 01 15.6	-0.8
ZALV	**Zalesovo Beam**	**61.06**	**335**	P	**P**	**08 01 05.3**	**-0.3**
	comp=Z,3.2nm,0.6s,mb4.6,baz=94,slow=8.0,SNR=12						
ZALV				pP	pP	08 01 15.6	-0.8
	comp=Z,6.3nm,0.6s,baz=137,slow=6.0,SNR=8.5						
ZALV				LR	LR	08 30 43.5	
	comp=Z,1µm,18.1s,MS5.1,baz=129,slow=39						
ZALV	**Zalesovo Beam**	**61.06**	**335**	P	**P**	**08 01 05.3**	**-0.3**
ZALV				pP	pP	08 01 15.6	-0.8
ZALV				LR	LR	08 30 43.5	
KURK	**Kurchatov**	**61.76**	**330**	P	**P**	**08 01 10.1**	**-0.4**
	comp=Z,406nm,0.7s,SNR=10						
KURK	**Kurchatov**	**61.76**	**330**	P	**P**	**08 01 10.4**	**-0.1**
KURK				*PP	pP	08 01 21.4	+0.2
KURK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.7						
KURK				MLR	MLR		
	comp=Z,2µm,18.5s,MS5.2						
KURK	**Kurchatov**	**61.76**	**330**	P	**P**	**08 01 10.4**	**-0.1**
	comp=Z,4.4nm,0.6s,mb4.8,baz=132,slow=7.5,SNR=22						
KURK				pP	pP	08 01 21.4	+0.2
	comp=Z,29nm,0.9s,baz=135,slow=6.2,SNR=26						
KURK				LR	LR	08 30 27.6	
	comp=Z,2µm,18.5s,MS5.2,baz=135,slow=38						
KURK	**Kurchatov**	**61.76**	**330**	*e*P	**P**	**08 01 10.2**	**-0.2**
KURK				*e*pP	pP	08 01 21.5	+0.3
KURK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
RPZ	**Rata Peaks**	**62.15**	**142**	LR	LR	08 30 12.1	
	comp=Z,3µm,18.8s,MS5.5,baz=298,slow=38						
NVS	**Novosibirsk**	**62.35**	**335**	*e*P	**P**	**08 01 13.8**	**-0.5**
NVS				*e*S	**S**	**08 09 36.4**	**-1.9**
NVS				pmax	pmax		
	comp=N,24nm,1.2s						
NVS				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.4						
NVS				pmax	pmax		
	comp=E,32nm,1.4s						
KK31	**Karatay Array**	**62.40**	**319**	*i* P	**P**	**08 01 15.8**	**+0.9**
KK31				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.0						
SNZO	**South Karori**	**63.27**	**138**	PFAKE		08 01 30.0	+9.3
SNZO				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
RAO	**Raoul Island**	**64.20**	**123**	LR	LR	08 26 33.8	
	comp=Z,1µm,18.8s,MS5.1,baz=313,slow=33						
SEY	**Seymchan**	**65.33**	**14**	⇑*i*P	**P**	**08 01 37.3**	**+3.5**
VOSK	**Vostochnaya**	**66.81**	**329**	P	**P**	**08 01 41.4**	**-2.1**
VOSK				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
BVA0	**Borovoye Array**	**67.28**	**329**	P	**P**	**08 01 54.3**	**+7.8**
BVA0				pmax	pmax		
	comp=Z,100nm,3.0s						
BVAR	**Borovoye Array**	**67.28**	**329**	P	**P**	**08 01 45.9**	**-0.6**
BVAR				*PP	pP	08 01 57.5	+0.2
BVAR	**Borovoye Array**	**67.28**	**329**	P	**P**	**08 01 45.9**	**-0.6**
	comp=Z,4.4nm,0.8s,mb4.5,baz=140,slow=9.5,SNR=10						
BVAR				pP	pP	08 01 57.5	+0.3
	comp=Z,9.0nm,0.8s,baz=139,slow=9.6,SNR=16						
BVAR				LR	LR	08 34 52.2	
	comp=Z,1µm,18.1s,MS5.2,baz=6.8,slow=39						
BRVK	**Borovoye**	**67.35**	**329**	*e*P	**P**	**08 01 46.8**	**-0.1**
BRVK				*e**PP	pP	08 01 58.2	+0.5
BRVK				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
BRVK	**Borovoye**	**67.35**	**329**	P	**P**	**08 01 50.5**	**+3.6**
BRVK				pmax	pmax		
	comp=Z,500nm,4.0s						
BRVK	**Borovoye**	**67.35**	**329**	*e*P	**P**	**08 01 46.8**	**-0.2**
	comp=Z,41nm,1.2s,mb5.3						
BRVK				*e*pP	pP	08 01 58.2	+0.4
BRVK				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
MSEY	**Mahe Island**	**67.49**	**264**	PFAKE		08 02 00.0	+11
MSEY				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
CASY	**Casey**	**67.98**	**185**	PFAKE		08 02 00.0	+9.4
CASY				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
DRV	**Dumont d'Urvil**	**68.90**	**173**	P	**P**	**08 01 52.0**	**-4.4**
DRV				S	SKSac	08 11 53.0	0.0
DRV				R		08 24 00.0	
RER	**Riviere de l'E**	**69.14**	**247**	PFAKE		08 02 10.0	+11
RER				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
TIXI	**Tiksi**	**70.37**	**2**	⇑*e*P	**P**	**08 02 04.3**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
TIXI	**Tiksi**	**70.37**	**2**	*e*P	**P**	**08 02 04.1**	**-1.3**
TIXI				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
AB31	**Akbulak array**	**71.59**	**322**	P	**P**	**08 02 12.2**	**-1.0**
AB31				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.2						
BILL	**Bilibino**	**72.94**	**16**	PFAKE		08 02 30.0	+9.1
BILL				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
AKTK	**Aktyubinsk**	**73.16**	**323**	P	**P**	**08 02 22.7**	**+0.2**
AKTO	**Aktyubinsk**	**73.16**	**323**	P	**P**	**08 02 22.7**	**+0.2**
	comp=Z,2.7nm,0.6s,mb4.4,baz=65,slow=5.1,SNR=9.3						
SVE	**Sverdlovsk**	**74.01**	**330**	⇑*e*P	**P**	**08 02 26.8**	**-0.6**
SVE				*e*PPP		08 06 58.0	
SVE				*e*S	S	08 11 51.6	-5.8
SVE				*e*SSS		08 19 48.3	
SVE				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.4						
SVE				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
ARU	**Arti**	**74.92**	**329**	*e*P	**P**	**08 02 32.0**	**-0.7**
ARU				*e**PP	pP	08 02 42.7	-1.0
ARU	**Arti**	**74.92**	**329**	*e*P	**P**	**08 02 32.0**	**-0.8**
	comp=Z,36nm,1.0s,mb5.3						
ARU				*e*pP	pP	08 02 42.7	-1.0
ARU				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
QRN	**Al-Qurain**	**76.12**	**299**	*e*P	**P**	**08 02 38.8**	**-1.4**
MIB	**Mutribah**	**76.73**	**300**	*e*P	**P**	**08 02 42.5**	**-1.2**
MIB				AMb	AMB	08 02 58.9	
	comp=Z,32nm,0.7s,mb5.3						
NAY	**Al-Naaiem**	**76.76**	**300**	*e*P	**P**	**08 02 42.5**	**-1.3**
NAY				AMb	AMB	08 03 04.5	
	comp=Z,18nm,1.3s,mb4.9						
ABPO	**Ambohimpanom**	**76.77**	**250**	PFAKE		08 02 50.0	+5.9
ABPO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SOKR	**Solikamsk**	**76.92**	**331**	*e*P	**P**	**08 02 52.5**	**+8.4**
SOKR				S	S	08 12 29.2	-0.3
SOKR				SS	SS	08 17 27.2	+0.7
SOKR				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
SOKR				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.3						
GAMB	**Gambell**	**78.23**	**24**	P	**P**	**08 02 51.0**	**-0.3**
	comp=Z,5µm,1.2s						
MAK	**Makhachkala**	**78.36**	**314**	*e*P	**P**	**08 02 50.2**	**-2.3**
MAK				*i*	pP	08 02 58.9	-4.6
MAK				*e*PPP		08 07 34.0	
MAK				*i* S	S	08 12 45.6	-0.2
MAK				*i*		08 13 06.5	
MAK				*e*SS	SS	08 17 51.9	+2.9
MAK				pmax	pmax		
	comp=Z,428nm,1.5s,mb6.2						
GNI	**Garni**	**80.03**	**310**	*e*P	**P**	**08 03 03.2**	**+1.5**
GNI				pmax	pmax		
	comp=Z,14nm,1.0s						
GNI				MLR	MLR		
	comp=Z,622nm,21.0s						
GNI	**Garni**	**80.03**	**310**	P	**P**	**08 03 01.7**	**+0.1**
	comp=Z,2.1nm,0.4s,mb4.4,baz=186,slow=19,SNR=2.9						
GNI	**Garni**	**80.03**	**310**	*e*P	**P**	**08 03 03.2**	**+1.5**
	comp=Z,14nm,1.0s,mb4.9						
GNI				LR	LR		
	comp=Z,622nm,21.0s,MS4.9						
MAW	**Mawson**	**80.12**	**200**	LR	LR	08 33 30.2	
	comp=Z,2µm,19.5s,MS5.5,baz=59,slow=32						
VNDA	**Vanda**	**81.54**	**172**	P	**P**	**08 03 08.8**	**-0.2**
	comp=Z,12nm,0.4s,mb5.2,baz=314,slow=7.3,SNR=57						
VNDA				LR	LR	08 37 10.0	
	comp=Z,2µm,21.3s,MS5.5,baz=331,slow=34						
VNDA	**Vanda**	**81.54**	**172**	P	**P**	**08 03 08.8**	**-0.2**
VNDA				LR	LR	08 37 10.0	
KIV	**Kislovodsk**	**81.97**	**314**	*e*P	**P**	**08 03 10.6**	**-1.3**
KIV				*e*S	S	08 13 23.6	-0.1
KIV				*e*SSS		08 22 09.5	
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
KIV				MLR	MLR		
	comp=Z,706nm,18.0s,MS5.1						
KIV	**Kislovodsk**	**81.97**	**314**	*e*P	**P**	**08 03 11.3**	**-0.6**
	comp=Z,5.7nm,0.4s,mb4.8						
KIV				LR	LR		
	comp=Z,603nm,19.0s,MS5.0						
SBA	**Scott Base**	**82.49**	**171**	*e*P	**P**	**08 03 14.9**	**+0.9**
SBA				pmax	pmax		
	comp=Z,81nm,1.1s,mb5.6						
SBA				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.5						
SBA	**Scott Base**	**82.49**	**171**	*e*P	**P**	**08 03 14.9**	**+0.9**
	comp=Z,82nm,1.1s,mb5.6						
SBA				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
PRGR	**Permogore**	**82.78**	**332**	*e*P	**P**	**08 03 11.9**	**-3.8**
PRGR				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.4						
VRHR	**Novokhopersk**	**83.44**	**321**	*e*P	**P**	**08 03 18.5**	**-0.9**
VRHR				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.0						
VRHR				pmax	pmax		
	comp=N,20nm,0.5s						
VRHR				pmax	pmax		
	comp=E,20nm,0.4s						
VRHR				MLR	MLR		
	comp=E,560nm,16.0s,MS5.2						
VRHR				MLR	MLR		
	comp=Z,570nm,16.0s,MS5.0						
VRHR				MLR	MLR		
	comp=N,570nm,17.0s,MS5.2						
SOC	**Sochi**	**84.08**	**314**	*e*P	**P**	**08 03 20.0**	**-2.9**
SOC				*e**PP	pP	08 03 27.2	-6.7
SOC				*e*		08 06 44.3	
SOC				*e*S	S	08 13 39.5	-5.6
SOC				*e*SS	SS	08 19 08.7	-5.6
SOC				*e*SSS		08 22 41.4	
SOC				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.9						
SOC				MLR	MLR		
	comp=Z,637nm,22.0s,MS5.0						
MALT	**Malatya**	**84.77**	**308**	*e*P	**P**	**08 03 25.3**	**-1.2**
MALT				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.8						
MALT				MLR	MLR		
	comp=Z,695nm,20.0s,MS5.0						
MALT	**Malatya**	**84.77**	**308**	⇑*i*P	sP	08 03 43.4	+1.8
MALT	**Malatya**	**84.77**	**308**	*e*P	**P**	**08 03 25.3**	**-1.2**
	comp=Z,8.2nm,1.1s,mb4.8						
MALT				LR	LR		
	comp=Z,695nm,20.0s,MS5.0						
MALT	**Malatya**	**84.77**	**308**	P	**P**	**08 03 27.2**	**+0.7**
	comp=Z,9.8nm,1.8s,comp=Z,524nm,mb4.7						
VORD	**Divnogorie**	**84.89**	**321**	*e*P	**P**	**08 03 26.5**	**-0.3**
VORD				*e**SP	sP	08 03 39.8	-2.1
VORD				*e*S	S	08 13 44.5	-8.4
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,20nm,0.7s						
VORD				smax			
	comp=E,720nm,11.6s						
VORD				smax			
	comp=Z,210nm,10.9s						
VORD				smax			
	comp=N,280nm,9.9s						
VORD				MLR	MLR		
	comp=Z,890nm,20.0s,MS5.2						
VORD				MLR	MLR		
	comp=N,1µm,23.0s,MS5.3						
VORD				MLR	MLR		
	comp=E,1µm,20.0s,MS5.3						
VSR	**Storozhevoye**	**84.99**	**321**	*e*P	**P**	**08 03 27.0**	**-0.3**
VSR				*e*S	S	08 13 47.2	-6.7
VSR				pmax	pmax		
	comp=N,7.0nm,1.2s						
VSR				pmax	pmax		
	comp=E,10.0nm,1.2s						
VSR				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.7						
VSR				smax			
	comp=E,450nm,12.0s						
VSR				smax			
	comp=Z,80nm,13.9s						
VSR				smax			
	comp=N,170nm,10.5s						
VSR				MLR	MLR		
	comp=Z,280nm,20.0s,MS4.7						
VSR				MLR	MLR		
	comp=N,440nm,22.0s,MS5.0						
VSR				MLR	MLR		
	comp=E,620nm,21.0s,MS5.0						
KMBO	**Kilima Mbogo**	**85.55**	**269**	P	**P**	**08 03 30.7**	**-0.2**
	comp=E,4.6nm,0.9s,mb4.7,baz=58,slow=11,SNR=7.2						
KMBO				LR	LR	08 37 52.7	
	comp=E,1µm,22.0s,MS5.2,baz=88,slow=33						
KMBO	**Kilima Mbogo**	**85.55**	**269**	P	**P**	**08 03 30.7**	**-0.2**
KMBO				LR	LR	08 37 52.6	
KLMR	**Klimovskoe**	**85.59**	**331**	*e*P	**P**	**08 03 28.5**	**-1.6**
KLMR				*e*S	SKSac	08 13 48.5	-4.1
KLMR				pmax	pmax		
	comp=Z,72nm,1.4s,mb5.7						
OHAK	**Old Harbor**	**85.64**	**33**	*e*P	**P**	**08 03 31.3**	**+1.0**
OHAK				*e*pP	pP	08 03 42.7	+1.3
ANN	**Anapa**	**85.79**	**315**	*e*P	**P**	**08 03 30.0**	**-1.4**
ANN				*e*S	S	08 13 52.6	-9.4
ANN				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.8						
ASF	**Jabal al Asfar**	**85.83**	**302**	P	**P**	**08 03 31.6**	**-0.3**
	comp=Z,9.7nm,1.0s,mb5.0,baz=167,slow=0.5,SNR=10						
KDAK	**Kodiak Island**	**86.05**	**32**	LR	LR	08 43 35.1	
	comp=Z,807nm,19.7s,MS5.1,baz=249,slow=37						
KDAK	**Kodiak Island**	**86.05**	**32**	PFAKE		08 03 40.0	+7.6
KDAK				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
MOS	**Moscow**	**86.21**	**326**	*e*P	**P**	**08 03 32.1**	**-1.1**
OBN	**Obninsk**	**86.78**	**325**	⇑*i*P	**P**	**08 03 35.3**	**-0.7**
OBN				*i* S	S	08 14 02.9	-8.3
OBN				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.4						
OBN	**Obninsk**	**86.78**	**325**	PFAKE		08 03 50.0	+14
OBN				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
MMAI	**Mount Meron Ar**	**87.10**	**303**	P	**P**	**08 03 37.7**	**-0.4**
	comp=Z,9.7nm,0.8s,mb5.1,baz=284,slow=6.8,SNR=4.5						
COLD	**Coldfoot**	**87.67**	**23**	*e*P	**P**	**08 03 41.2**	**+1.1**
	comp=Z,9.7nm,0.9s,mb5.0						
MCK	**McKinley**	**88.10**	**26**	*e*P	**P**	**08 03 43.0**	**+0.8**
MCK				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.4						
MCK	**McKinley**	**88.10**	**26**	*e*P	**P**	**08 03 43.0**	**+0.8**
	comp=Z,26nm,1.1s,mb5.4						
LVZ	**Lovozero**	**88.11**	**338**	PFAKE		08 03 50.0	+7.8
LVZ				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
SIM	**Simferopol'**	**88.15**	**315**	*e*P	**P**	**08 03 43.6**	**+0.7**
SIM				*e*S	S	08 14 24.0	-0.8
SIM				pmax	pmax		
	comp=Z,100nm,11.5s						
BRTR	**Keskin Array B**	**88.52**	**310**	P	**P**	**08 03 43.8**	**-0.9**
	comp=Z,1.4nm,0.8s,mb4.4						
BRTR				LR	LR	08 51 36.5	
	comp=Z,571nm,20.7s,MS5.0,baz=315,slow=41						
COLA	**College**	**88.58**	**25**	PFAKE		08 04 00.0	+16
COLA				LR	LR		
	comp=Z,850nm,22.0s,MS5.1						
APA	**Apatity**	**88.58**	**337**	⇓*e*P	**P**	**08 03 51.8**	**+7.4**
APA				*e*	pP	08 04 00.0	+4.5
APA				*e*		08 14 09.0	
APA				*e*S	S	08 14 30.0	+2.0
APA				*e*SS	SS	08 20 18.0	-1.0
APA				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.2						
SYO	**Syowa Base**	**88.74**	**201**	⇓*i*P	**P**	**08 03 43.8**	**-1.3**
CSS	**Prodhromos**	**88.82**	**305**	PFAKE		08 04 00.0	+14
CSS				LR	LR		
	comp=Z,782nm,19.0s,MS5.2						
KEV	**Kevo**	**90.81**	**340**	PFAKE		08 04 10.0	+15
KEV				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
ISP	**Isparta**	**91.02**	**308**	PFAKE		08 04 10.0	+14
ISP				LR	LR		
	comp=Z,636nm,21.0s,MS5.0						
QSPA	**South Pole Qui**	**91.21**	**180**	*e*P	**P**	**08 03 56.0**	**-0.5**
	comp=Z,44nm,1.3s,mb5.6						
QSPA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
AKASG	**Malin Array Be**	**91.27**	**321**	P	**P**	**08 03 55.7**	**-1.7**
AKASG				*PP	pP	08 04 06.5	-2.0
AKASG	**Malin Array Be**	**91.27**	**321**	P	**P**	**08 03 55.7**	**-1.7**
	comp=Z,0.3nm,0.3s,mb4.2,baz=74,slow=5.1,SNR=6.2						
AKASG				pP	pP	08 04 06.5	-2.0
	comp=Z,1.3nm,0.4s,baz=76,slow=4.1,SNR=3.0						
AKASG				LR	LR	08 52 10.7	
	comp=Z,739nm,18.6s,MS5.2,baz=115,slow=40						
AKASG	**Malin Array Be**	**91.27**	**321**	P	**P**	**08 03 55.7**	**-1.7**
AKASG				pP	pP	08 04 06.5	-2.0
AKASG				LR	LR	08 52 10.7	
KIEV	**Kiev**	**91.28**	**321**	PFAKE		08 04 10.0	+13
KIEV				LR	LR		
	comp=Z,955nm,21.0s,MS5.2						
ARCES	**ARCESS Array B**	**91.36**	**340**	P	**P**	**08 03 55.3**	**-2.0**
ARCES				*PP	pP	08 04 06.5	-2.0
ARCES	**ARCESS Array B**	**91.36**	**340**	P	**P**	**08 03 55.3**	**-2.1**
	comp=Z,5.9nm,0.9s,mb4.9,baz=62,slow=4.5,SNR=4.8						
ARCES				pP	pP	08 04 06.5	-2.0
	comp=Z,9.9nm,0.9s,baz=60,slow=4.8,SNR=4.4						
ARCES				LR	LR	08 49 15.6	
	comp=Z,2µm,18.3s,MS5.6,baz=88,slow=38						
ARCES	**ARCESS Array B**	**91.36**	**340**	P	**P**	**08 03 55.3**	**-2.1**
ARCES				pP	pP	08 04 06.5	-2.0
ARCES				LR	LR	08 49 15.6	
EGAK	**Eagle**	**91.44**	**25**	PFAKE		08 04 10.0	+12
EGAK				LR	LR		
	comp=Z,956nm,20.0s,MS5.2						
KIS	**Kishinev**	**91.78**	**317**	*e*P	**P**	**08 04 06.0**	**+6.2**
KIS				*e*		08 16 08.0	
KIS				MLR	MLR		
	comp=Z,600nm,20.0s,MS5.0						
KIS				MLR	MLR		
	comp=Z,900nm,20.0s						
KBS	**Kingsbay**	**92.69**	**350**	PFAKE		08 04 10.0	+6.6
KBS				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
BURAR	**Bucovina Array**	**94.16**	**318**	⇑*i*P	**P**	**08 04 10.7**	**-0.1**
BUR08	**Bucovina Ar. S**	**94.17**	**318**	*e*P	**P**	**08 04 10.2**	**-0.6**
LVV	**L'vov**	**94.68**	**320**	*e*P	**P**	**08 04 16.9**	**+3.8**
LSZ	**Lusaka**	**94.76**	**255**	*e*P	**P**	**08 04 13.2**	**-1.0**
LSZ				*e**PP	pP	08 04 26.1	+0.8
LSZ				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.2						
LSZ				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
LSZ	**Lusaka**	**94.76**	**255**	*e*P	**P**	**08 04 13.2**	**-1.0**
	comp=Z,10nm,1.0s,mb5.2						
LSZ				*e*pP	pP	08 04 26.1	+0.7
LSZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
KWP	**Kalwaria Pacla**	**95.55**	**320**	PFAKE		08 04 30.0	+13
KWP				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
UZH	**Uzhgorod**	**95.97**	**319**	*e*	**P**	**08 04 18.8**	**-0.2**
UZH				*i*	pP	08 04 27.8	-2.4
UZH				*e*		08 10 11.0	
UZH				*e*		08 14 47.0	
BOSA	**Boshof**	**97.22**	**241**	P	**P**	**08 04 23.6**	**-1.6**
	comp=Z,1.5nm,0.7s,mb4.5,baz=135,slow=1.4,SNR=3.1						
PSZ	**Piszkesteto**	**97.67**	**319**	PFAKE		08 04 40.0	+13
PSZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
DLBC	**Dease Lake**	**97.85**	**30**	LR	LR	08 43 39.0	
	comp=Z,618nm,21.8s,MS5.1,baz=320,slow=32						
HFS	**Hagfors**	**98.30**	**331**	pP	pP	08 04 38.0	-2.5
	comp=Z,5.6nm,0.9s,baz=116,slow=6.8,SNR=3.6						
TIR	**Tirane**	**98.83**	**312**	PFAKE		08 04 40.0	+7.9
TIR				LR	LR		
	comp=Z,967nm,19.0s,MS5.3						
NB2	**NORSAR Subarra**	**99.17**	**333**	P	**P**	**08 04 42.4**	**+9.3**
	comp=Z,6.3nm,1.1s,mb5.1,baz=73,slow=4.6						
NOA	**NORSAR Array B**	**99.17**	**333**	pP	pP	08 04 42.6	-1.7
	comp=Z,4.2nm,1.0s,baz=69,slow=4.6,SNR=6.1						
NOA				LR	LR	08 54 58.3	
	comp=Z,2µm,18.2s,MS5.8,baz=55,slow=39						
KONO	**Kongsberg**	**100.41**	**332**	PFAKE		08 04 50.0	+11
KONO				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
SUR	**Sutherland**	**100.79**	**237**	PFAKE		08 04 50.0	+10
SUR				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
BRG	**Berggiesshubel**	**100.79**	**322**	P	Pdif	08 04 48.0	+7.5
BRG						08 08 52.0	
BRG						08 15 17.0	
BRG				S	Sdif	08 16 20.0	+4.3
BRG				SS	SS	08 23 20.0	+6.6
BRG				MLR	MLR		
	comp=N,259nm,16.5s,MS5.1						
BRG				MLR	MLR		
	comp=E,433nm,18.1s,MS5.1						
BRG				MLR	MLR		
	comp=Z,739nm,18.3s,MS5.2						
BRG	**Berggiesshubel**	**100.79**	**322**	PDIF	Pdif	08 04 48.0	+7.5
BRG				PP	PP	08 08 52.0	+3.7
BRG				SKS		08 15 17.0	
BRG				SDIF	Sdif	08 16 20.0	+4.3
BRG				PS	PS	08 17 36.0	-14
BRG				SS	SS	08 23 20.0	+6.6
BRG							
	comp=N,433nm,16.5s						
BRG							
	comp=E,723nm,18.1s						
BRG							
	comp=Z,1µm,18.3s						
CLL	**Collm**	**101.24**	**323**	*e*sPdif		08 04 58.0	
CLL				*e*PP	PP	08 08 47.0	-4.6
CLL				*e*SKSac	SKSac	08 15 17.0	-2.3
CLL				*e*Sdif	Sdif	08 16 20.0	+0.6
CLL				*e*SP	SP	08 17 48.0	-2.2
CLL				*e*PPS		08 18 42.0	
CLL				*e*SS	SS	08 23 26.0	+6.4
CLL				*e*SSS		08 27 05.0	
CLL				*e*SSSS		08 31 18.0	
CLL				Lm		08 57 00.0	
	comp=N,800nm,18.0s						
CLL				Lm		08 57 00.0	
	comp=E,1µm,18.6s						
CLL				LmV		08 58 00.0	
	comp=Z,2µm,18.3s						
GERES	**GERESS Array B**	**101.49**	**320**	pP		08 04 56.5	
	comp=Z,0.3nm,0.2s,baz=62,slow=3.2,SNR=2.1						
GERES				PP	PP	08 08 59.3	+5.7
	comp=Z,0.4nm,0.2s,baz=45,slow=0.4,SNR=3.1						
TIP	**Timpagrande**	**101.56**	**310**	PFAKE		08 05 00.0	+16
TIP				LR	LR		
	comp=Z,497nm,20.0s,MS5.0						
CUC	**Castrocucco**	**102.11**	**311**	PFAKE		08 05 00.0	+14
CUC				LR	LR		
	comp=Z,849nm,21.0s,MS5.2						
YKA	**Yellowknife Ar**	**103.33**	**24**	P	Pdif	08 04 53.3	+1.5
YKA				*i*		08 09 10.8	
YKA	**Yellowknife Ar**	**103.33**	**24**	Pdiff	Pdif	08 04 53.3	+1.6
	comp=Z,0.1nm,0.3s,baz=302,slow=4.2,SNR=5.2						
YKA				PKiKP	PKiKP	08 09 10.8	+0.2
	comp=Z,0.2nm,0.6s,baz=313,slow=1.0,SNR=3.1						
YKA				PKKPbc	PKKPbc	08 20 41.6	-6.9
	comp=Z,0.2nm,0.8s,baz=118,slow=3.1,SNR=5.1						
WDD	**Wield Dalam**	**103.97**	**307**	PFAKE		08 05 10.0	+15
WDD				LR	LR		
	comp=Z,400nm,21.0s,MS4.9						
NLWA	**Neilton Lookou**	**104.65**	**40**	PFAKE		08 05 10.0	+12
NLWA				LR	LR		
	comp=Z,935nm,22.0s,MS5.3						
TSUM	**Tsumeb**	**104.77**	**251**	PFAKE		08 05 10.0	+12
TSUM				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
VLC	**Villacollemand**	**104.99**	**316**	PFAKE		08 05 10.0	+11
VLC				LR	LR		

	comp=Z,867nm,20.0s,MS5.3						
TUE	**Stuetta**	**104.99**	**319**	PFAKE		08 05 10.0	+11
TUE				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
BFO	**Black Forest**	**105.04**	**321**	PFAKE		08 09 30.0	+16
BFO				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
ECH	**Echery**	**105.82**	**321**	PFAKE		08 09 30.0	+14
ECH				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
WLF	**Walferdange**	**105.92**	**323**	PFAKE		08 09 30.0	+14
WLF				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
VSL	**Villasalto**	**107.05**	**312**	PFAKE		08 09 30.0	+12
VSL				LR	LR		
	comp=Z,559nm,20.0s,MS5.1						
BNI	**Bardonecchia**	**107.22**	**318**	PFAKE		08 09 30.0	+12
BNI				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
HAWA	**Hanford**	**107.79**	**40**	PFAKE		08 09 30.0	+11
HAWA				LR	LR		
	comp=Z,923nm,19.0s,MS5.4						
ESK	**Eskdalemuir**	**108.51**	**331**	PFAKE		08 09 30.0	+10
ESK				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
SSB	**Saint Sauveur**	**108.55**	**319**	PFAKE		08 09 30.0	+9.2
SSB				LR	LR		
	comp=Z,521nm,19.0s,MS5.1						
NEW	**Newport**	**108.57**	**38**	PFAKE		08 09 30.0	+9.3
NEW				LR	LR		
	comp=Z,928nm,19.0s,MS5.4						
BMO	**Blue Mountains**	**109.82**	**41**	PFAKE		08 09 30.0	+6.8
BMO				LR	LR		
	comp=Z,804nm,22.0s,MS5.2						
WVOR	**Wild Horse Val**	**109.83**	**44**	PFAKE		08 09 40.0	+17
WVOR				LR	LR		
	comp=Z,551nm,20.0s,MS5.1						
MSO	**Missoula**	**111.13**	**38**	PFAKE		08 09 40.0	+14
MSO				LR	LR		
	comp=Z,401nm,20.0s,MS5.0						
NVAR	**Mina Array Bea**	**111.47**	**48**	PKiKP	PKiKP	08 09 27.3	+0.8
	comp=Z,0.4nm,0.6s,baz=270,slow=3.5,SNR=4.9						
NVAR	**Mina Array Bea**	**111.47**	**48**	PKPdf	PKiKP	08 09 27.3	+0.8
BMN	**Battle Mountai**	**111.54**	**45**	PFAKE		08 09 40.0	+13
BMN				LR	LR		
	comp=Z,897nm,22.0s,MS5.3						
SFJD	**Kangerlussuaq**	**111.71**	**357**	PFAKE		08 09 40.0	+14
SFJD				LR	LR		
	comp=Z,450nm,20.0s,MS5.0						
HLID	**Hailey**	**112.24**	**41**	PFAKE		08 09 40.0	+12
HLID				LR	LR		
	comp=Z,562nm,20.0s,MS5.2						
TPH	**Tonopah**	**112.39**	**48**	PFAKE		08 09 40.0	+12
TPH				LR	LR		
	comp=Z,622nm,20.0s,MS5.2						
DAC	**Darwin (Calif)**	**112.72**	**50**	PFAKE		08 09 40.0	+11
DAC				LR	LR		
	comp=Z,734nm,20.0s,MS5.3						
ELK	**Elko**	**112.82**	**44**	PFAKE		08 09 40.0	+11
ELK				LR	LR		
	comp=Z,756nm,21.0s,MS5.3						
EGMT	**Eagleton**	**113.07**	**35**	PFAKE		08 09 40.0	+11
EGMT				LR	LR		
	comp=Z,491nm,20.0s,MS5.1						
BOZ	**Bozeman (W)**	**113.10**	**38**	PFAKE		08 09 40.0	+11
BOZ				LR	LR		
	comp=Z,517nm,20.0s,MS5.1						
FFC	**Flin Flon**	**113.19**	**26**	PFAKE		08 09 40.0	+11
FFC				LR	LR		
	comp=Z,706nm,21.0s,MS5.2						
TAM	**Tamanrasset**	**114.45**	**296**	PFAKE		08 09 40.0	+7.4
TAM				LR	LR		
	comp=Z,671nm,20.0s,MS5.2						
PFO	**Pinyon Flat Ob**	**114.49**	**52**	PFAKE		08 09 40.0	+7.6
PFO				LR	LR		
	comp=Z,788nm,20.0s,MS5.3						
DUG	**Dugway**	**114.74**	**44**	PFAKE		08 09 40.0	+7.3
DUG				LR	LR		
	comp=Z,496nm,20.0s,MS5.1						
AHID	**Auburn Hatcher**	**114.77**	**41**	PFAKE		08 09 40.0	+7.3
AHID				LR	LR		
	comp=Z,596nm,22.0s,MS5.2						
RLMT	**Red Lodge**	**114.81**	**38**	PFAKE		08 09 40.0	+7.3
RLMT				LR	LR		
	comp=Z,521nm,20.0s,MS5.1						
BW06	**Boulder Array**	**115.77**	**40**	PFAKE		08 09 50.0	+15
BW06				LR	LR		
	comp=Z,745nm,20.0s,MS5.3						
PDAR	**Pinedale Array**	**115.77**	**40**	PKP	PKPdf	08 09 35.6	+1.0
	comp=Z,0.5nm,0.8s,baz=241,slow=1.5,SNR=3.8						
PDAR				PKKPbc	PKKPbc	08 20 05.2	-2.7
	comp=Z,1.1nm,0.7s,baz=103,slow=3.2,SNR=6.2						
LAO	**LASA Array**	**115.81**	**35**	PFAKE		08 09 50.0	+15
LAO				LR	LR		
	comp=Z,617nm,19.0s,MS5.2						
MVU	**Marysvale**	**115.86**	**46**	PFAKE		08 09 50.0	+15
MVU				LR	LR		
	comp=Z,961nm,21.0s,MS5.4						
DGMT	**Dagmar**	**115.94**	**33**	PFAKE		08 09 50.0	+15
DGMT				LR	LR		
	comp=Z,515nm,21.0s,MS5.1						
PMSA	**Palmer Station**	**116.45**	**177**	PFAKE		08 09 50.0	+15
PMSA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
PAB	**San Pablo**	**116.90**	**316**	PFAKE		08 09 50.0	+13
PAB				LR	LR		
	comp=Z,654nm,20.0s,MS5.2						
WUAZ	**Wupatki**	**117.70**	**48**	*e*PKPdf	PKPdf	08 09 37.4	-1.1
WUAZ				LR	LR		
	comp=Z,629nm,22.0s,MS5.2						
RSSD	**Black Hills**	**118.51**	**37**	PFAKE		08 09 50.0	+10
RSSD				LR	LR		
	comp=Z,636nm,19.0s,MS5.3						
MTE	**Manteigas**	**118.66**	**318**	PFAKE		08 09 50.0	+10
MTE				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ULM	**Lac du Bonnet**	**118.96**	**27**	PKP	PKPdf	08 09 39.1	-1.4
	comp=Z,2.1nm,0.7s,baz=0.0,slow=3.0,SNR=2.2						
MVCO	**Mesa Verde**	**119.07**	**45**	PFAKE		08 09 50.0	+8.9
MVCO				LR	LR		
	comp=Z,796nm,22.0s,MS5.3						
TUC	**Tucson**	**119.41**	**51**	PFAKE		08 09 50.0	+8.1
TUC				LR	LR		
	comp=Z,369nm,20.0s,MS5.0						
SFS	**San Fernando**	**119.59**	**314**	PFAKE		08 09 50.0	+7.8
SFS				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
ISCO	**Idaho Springs**	**119.82**	**42**	PFAKE		08 09 50.0	+7.5
ISCO				LR	LR		
	comp=Z,692nm,19.0s,MS5.3						
TORD	**Torodi Ar. Bea**	**119.85**	**286**	PKP	PKPdf	08 09 41.4	-1.9
	comp=Z,1.4nm,0.5s,baz=47,slow=2.0,SNR=12						
TORD				pPKP	pPKPdf	08 09 52.1	-2.5
	comp=Z,3.4nm,0.7s,baz=63,slow=2.1,SNR=12						
TORD				PP	PP	08 11 04.3	-2.8
	comp=Z,1.4nm,0.8s,baz=60,slow=4.5,SNR=2.2						
TORD				PKKPab	PKKPab	08 19 55.5	+0.9
	comp=Z,1.3nm,0.7s,baz=253,slow=4.3,SNR=8.1						
TORD	**Torodi Ar. Bea**	**119.85**	**286**	PKP	PKPdf	08 09 41.4	-1.9
TORD				pPKP	pPKPdf	08 09 52.1	-2.5
TORD				PP	PP	08 11 04.3	-2.8
TORD				PKKPab	PKKPab	08 19 55.5	+0.9
MDT	**Midelt**	**119.95**	**309**	PKP	PKPdf	08 09 42.6	-0.3
	comp=Z,0.9nm,0.7s,baz=64,slow=2.5,SNR=4.2						
AGMN	**Agassiz Refuge**	**120.33**	**29**	PFAKE		08 09 50.0	+6.8
AGMN				LR	LR		
	comp=Z,687nm,19.0s,MS5.3						
SDCO	**Great Sand Dun**	**120.92**	**44**	PFAKE		08 10 00.0	+15
SDCO				LR	LR		
	comp=Z,649nm,22.0s,MS5.2						
RTC	**Rabat Centre**	**121.17**	**312**	PFAKE		08 10 00.0	+15
RTC				LR	LR		
	comp=Z,636nm,19.0s,MS5.3						
OGNE	**Ogallala**	**121.52**	**39**	PFAKE		08 10 00.0	+14
OGNE				LR	LR		
	comp=Z,500nm,19.0s,MS5.2						
ANMO	**Albuquerque**	**121.57**	**47**	PFAKE		08 10 00.0	+14
ANMO				LR	LR		
	comp=Z,506nm,21.0s,MS5.1						
EYMN	**Ely**	**122.61**	**27**	PFAKE		08 10 00.0	+12
EYMN				LR	LR		
	comp=Z,638nm,21.0s,MS5.2						
SCHQ	**Schefferville**	**123.52**	**7**	PKP	PKPdf	08 09 47.6	-1.5
	comp=Z,2.4nm,0.7s,baz=31,slow=14,SNR=4.8						
SCHQ				pPKP	pPKPdf	08 10 02.0	+1.4
	comp=Z,3.6nm,0.7s,baz=133,slow=2.0,SNR=4.5						
CBKS	**Cedar Bluff**	**124.18**	**40**	PFAKE		08 10 00.0	+9.1
CBKS				LR	LR		
	comp=Z,797nm,22.0s,MS5.3						
AMTX	**Amarillo**	**125.03**	**45**	PFAKE		08 10 00.0	+7.4
AMTX				LR	LR		
	comp=Z,896nm,22.0s,MS5.4						
KSU1	**Kansas State U**	**125.96**	**38**	PFAKE		08 10 10.0	+16
KSU1				LR	LR		
	comp=Z,514nm,20.0s,MS5.2						
SCIA	**State Center**	**126.09**	**33**	PFAKE		08 10 10.0	+16
SCIA				LR	LR		
	comp=Z,557nm,20.0s,MS5.2						
TXAR	**Lajitas Array**	**126.21**	**52**	PKP	PKPdf	08 09 55.3	+0.3
	comp=Z,0.7nm,0.6s,baz=322,slow=1.4,SNR=11						
JFWS	**Jewell Farm**	**126.92**	**30**	PFAKE		08 10 10.0	+14
JFWS				LR	LR		
	comp=Z,536nm,20.0s,MS5.2						
KIC	**Kosan Boka**	**127.06**	**279**	*e*PKIKP	PKPdf	08 09 57.8	+0.7
	comp=Z,70nm,1.0s						
WMOK	**Wichita Mounta**	**127.12**	**43**	PFAKE		08 10 10.0	+13
WMOK				LR	LR		
	comp=Z,857nm,22.0s,MS5.4						
DBIC	**Dimbokro**	**127.14**	**279**	PKP	PKPdf	08 09 57.1	-0.2
	comp=Z,11nm,0.9s,baz=68,slow=2.1,SNR=8.0						
SHEL	**Horse Pasture**	**127.23**	**251**	PFAKE		08 10 10.0	+13
SHEL				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
TIC	**Toumodi**	**127.31**	**279**	*e*PKIKP	PKPdf	08 09 58.1	+0.5
	comp=Z,65nm,0.9s						
LIC	**Lamto**	**127.36**	**279**	*e*PKIKP	PKPdf	08 09 57.8	+0.1
	comp=Z,62nm,1.1s						
GLMI	**Grayling**	**128.03**	**25**	PFAKE		08 10 10.0	+12
GLMI				LR	LR		
	comp=Z,629nm,20.0s,MS5.3						
JCT	**Junction City**	**128.63**	**48**	*e*PKIKP	PKPdf	08 10 00.0	+0.3
JCT				MLR	MLR		
	comp=Z,385nm,20.0s,MS5.1						
EFI	**East Falkland**	**129.78**	**179**	PFAKE		08 10 10.0	+8.8
EFI				LR	LR		
	comp=Z,862nm,20.0s,MS5.4						
CCM	**Cathedral Cave**	**129.83**	**35**	PFAKE		08 10 10.0	+8.3
CCM				LR	LR		
	comp=Z,518nm,20.0s,MS5.2						
AAM	**Ann Arbor**	**130.48**	**26**	PFAKE		08 10 10.0	+7.2
AAM				LR	LR		
	comp=Z,563nm,21.0s,MS5.2						
MIAR	**Mount Ida**	**130.70**	**40**	PFAKE		08 10 20.0	+17
MIAR				LR	LR		
	comp=Z,617nm,20.0s,MS5.3						
KVTX	**Kingsville**	**131.53**	**51**	PFAKE		08 10 20.0	+15
KVTX				LR	LR		
	comp=Z,471nm,19.0s,MS5.2						
NATX	**Nacogdoches**	**131.65**	**44**	PFAKE		08 10 20.0	+15
NATX				LR	LR		
	comp=Z,717nm,20.0s,MS5.4						
HKT	**Hockley**	**131.83**	**47**	PFAKE		08 10 20.0	+14
HKT				LR	LR		
	comp=Z,586nm,20.0s,MS5.3						
ERPA	**Erie**	**132.15**	**23**	PFAKE		08 10 20.0	+14
ERPA				LR	LR		
	comp=Z,616nm,19.0s,MS5.3						
WCI	**Wyandotte Cave**	**132.41**	**31**	PFAKE		08 10 20.0	+13
WCI				LR	LR		
	comp=Z,638nm,21.0s,MS5.3						
ACSO	**Alum Creek Sta**	**132.46**	**27**	PFAKE		08 10 20.0	+13
ACSO				LR	LR		
	comp=Z,653nm,20.0s,MS5.3						
WVT	**Waverly**	**133.12**	**34**	PFAKE		08 10 20.0	+12
WVT				LR	LR		
	comp=Z,589nm,20.0s,MS5.3						
BINY	**Binghamton**	**133.51**	**19**	PFAKE		08 10 20.0	+11
BINY				LR	LR		
	comp=Z,712nm,20.0s,MS5.4						
PLAL	**Pickwick Lake**	**133.79**	**36**	PFAKE		08 10 20.0	+11
PLAL				LR	LR		
	comp=Z,560nm,21.0s,MS5.3						
VBMS	**Vicksburg**	**134.15**	**40**	PFAKE		08 10 20.0	+10
VBMS				LR	LR		
	comp=Z,597nm,19.0s,MS5.3						
SSPA	**Standing Stone**	**134.22**	**22**	PFAKE		08 10 20.0	+10
SSPA				LR	LR		
	comp=Z,729nm,20.0s,MS5.4						
MCWV	**Mont Chateau**	**134.29**	**25**	PFAKE		08 10 20.0	+10
MCWV				LR	LR		
	comp=Z,943nm,20.0s,MS5.5						
LRAL	**Lakeview Retre**	**135.80**	**37**	PFAKE		08 10 20.0	+6.9
LRAL				LR	LR		
	comp=Z,774nm,22.0s,MS5.4						
BLA	**Blacksburg**	**136.07**	**27**	PFAKE		08 10 30.0	+16
BLA				LR	LR		
	comp=Z,693nm,20.0s,MS5.4						
CBN	**Corbin**	**136.53**	**23**	PFAKE		08 10 30.0	+16
CBN				LR	LR		
	comp=Z,688nm,20.0s,MS5.4						
GOGA	**Godfrey**	**137.55**	**33**	PFAKE		08 10 30.0	+14
GOGA				LR	LR		
	comp=Z,849nm,22.0s,MS5.4						
CNNC	**Cliffs of the**	**138.84**	**26**	PFAKE		08 10 30.0	+11
CNNC				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
PLCA	**Paso Flores**	**138.92**	**165**	PKP	PKPdf	08 10 19.7	+1.0
	comp=Z,4.0nm,1.0s,baz=184,slow=16,SNR=3.6						
PLCA	**Paso Flores**	**138.92**	**165**	PKP	PKPdf	08 10 19.7	+1.0
NHSC	**New Hope**	**139.52**	**30**	PFAKE		08 10 30.0	+10
NHSC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
DWPF	**Disney**	**142.66**	**37**	PFAKE		08 10 40.0	+14
DWPF				LR	LR		
	comp=Z,875nm,21.0s,MS5.5						
TEIG	**Tepich**	**142.81**	**53**	PFAKE		08 10 40.0	+14
TEIG				LR	LR		
	comp=Z,479nm,21.0s,MS5.2						
BBSR	**BB Station**	**145.79**	**11**	PFAKE		08 10 40.0	+8.9
BBSR				LR	LR		
	comp=Z,678nm,20.0s,MS5.4						
LPA	**La Plata**	**146.54**	**179**	*de*PKP	PKPdf	08 10 29.0	-3.3
LPA				PKIKP	PKPab	08 10 37.0	+2.3
TGUH	**Tegucigalpa,Un**	**146.56**	**62**	*e*PKPbc	PKPbc	08 10 36.6	+2.3
TGUH				LR	LR		
	comp=Z,479nm,21.0s,MS5.2						
PAYG	**Puerto Ayora**	**146.94**	**89**	PFAKE		08 10 40.0	+6.4
PAYG				LR	LR		
	comp=Z,427nm,19.0s,MS5.2						
LCO	**Las Campanas**	**149.58**	**156**	*e*PKPbc	PKPbc	08 10 42.4	+0.4
LCO				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
JTS	**JuntasAbangare**	**150.10**	**67**	*e*PKIKP	PKPbc	08 10 44.8	+1.1
JTS				MLR	MLR		
	comp=Z,511nm,21.0s						
GTBY	**Guantanamo Bay**	**152.58**	**39**	PFAKE		08 10 50.0	+7.7
GTBY				LR	LR		
	comp=Z,612nm,19.0s,MS5.4						
CPUP	**Villa Florida**	**155.10**	**180**	PKP	PKPdf	08 10 48.0	+2.3
	comp=Z,1.1nm,0.7s,baz=56,slow=7.4,SNR=3.5						
CPUP				PKPab	PKPab	08 11 09.1	-0.9
	comp=Z,2.7nm,0.5s,baz=181,slow=3.5,SNR=9.4						
CPUP	**Villa Florida**	**155.10**	**180**	PKP	PKPdf	08 10 48.0	+2.3
CPUP				PKPab	PKPab	08 11 09.1	-0.9
BCIP	**Isla Barro Col**	**155.19**	**65**	PFAKE		08 11 00.0	+14
BCIP				LR	LR		
	comp=Z,682nm,22.0s,MS5.4						
SDDR	**Presa de Saban**	**155.57**	**34**	PFAKE		08 11 00.0	+13
SDDR				LR	LR		
	comp=Z,751nm,22.0s,MS5.5						
LVC	**Limon Verde**	**155.95**	**153**	PFAKE		08 11 00.0	+13
LVC				LR	LR		
	comp=Z,611nm,21.0s,MS5.4						
NNA	**Nana**	**157.82**	**119**	PFAKE		08 11 00.0	+10
NNA				LR	LR		
	comp=Z,543nm,20.0s,MS5.4						
RCBR	**Riachuelo**	**158.25**	**257**	PFAKE		08 11 00.0	+10
RCBR				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
OTAV	**Otavalo**	**158.72**	**86**	*e*PKPdf	PKPdf	08 10 50.2	-0.5
OTAV				LR	LR		
	comp=Z,594nm,20.0s,MS5.4						
SJG	**San Juan**	**158.82**	**24**	PFAKE		08 11 00.0	+9.3
SJG				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
SDV	**Santo Domingo**	**163.25**	**53**	PFAKE		08 11 10.0	+14
SDV				LR	LR		
	comp=Z,330nm,20.0s						
FDF	**Fort de France**	**163.62**	**14**	PFAKE		08 11 10.0	+14
FDF				LR	LR		
	comp=Z,678nm,20.0s						

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*IDC **07** 07:57:52.4±1.4, 1°.32N×122°.78E, h0^{km}, mb3.8/3, mb1 4.0/4, mb1mx3.7/20, mbtmp3.8/4, ML4.0/1, Error ellipse: s-maj=130.8km s-min=22.5km az=69.0*

ISC 07 07:58:12.4±5.0, **1°.0N**±0°.2×**122°.5E**±0°.7, **h190**^{km}±57^{km}, **n5,** σ**1^{s}.21**/5, **mb3.7**/3, **1D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	**Manado**	**2.44**	**78**⇓	*e*P	**Pn**	**07 58 55.0**	**+0.1**
FITZ	**Fitzroy Crossi**	**19.19**	**171**	P	**P**	**08 02 21.5**	**-0.3**
	0.3nm,0.3s,baz=12,slow=8.8,SNR=7.4						
WRA	**Warramunga Arr**	**23.81**	**151**	P	**P**	**08 03 08.4**	**+0.3**
	2.8nm,0.7s,mb3.9,baz=331,slow=9.9,SNR=5.9						
SONM	**Songino Array**	**48.73**	**346**	P	**P**	**08 06 36.9**	**-0.8**
	1.3nm,0.9s,mb3.5,baz=163,slow=7.9,SNR=4.4						
MKAR	**Makanchi Array**	**57.52**	**328**	P	**P**	**08 07 42.6**	**+0.8**
	0.5nm,0.7s,mb3.5,baz=136,slow=8.7,SNR=3.5						

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*ISCJB **07** 08:03:05.6±1.6, 15°.8N±0°.1×92°.91W±0°.07, h153^{km}±11^{km}, Error ellipse: s-maj=18.5km s-min=10.8km az=177.2*

*NEIC **07** 08:03:06.4, 15°.83N×92°.85W, h163^{km}, MD3.8(MEX), After MEX.*

*MEX **07** 08:03:06.5±0.7, 15°.83N×92°.83W, h163^{km}±7^{km}, MD3.8*

ISC 07 08:03:06.0±1.6, **15°.8N**±0°.1×**92°.88W**±0°.07, **h155**^{km}±11^{km}, **n9,** σ**0^{s}.65**/18, **Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		**0.35**	**249**	*i* P	**Pn**	**08 03 27.2**	**0.0**
PCIG				*i* S	**Sn**	**08 03 44.2**	**+0.9**
CCIG	**Comitan**	**0.84**	**58**	*i* P	**Pn**	**08 03 29.7**	**-0.3**
CCIG				*i* S	**Sn**	**08 03 47.1**	**-1.1**
SCX	**San Cristobal**	**0.93**	**15**	*i* P	**Pn**	**08 03 31.5**	**+0.9**
SCX				*i* S	**Sn**	**08 03 50.0**	**+0.4**
TGIG		**0.97**	**346**	*i* P	**Pn**	**08 03 31.2**	**+0.2**
TGIG				*i* S	**Sn**	**08 03 49.5**	**-0.7**
CMIG	**Matias Romero**	**2.30**	**303**	*i* P	**Pn**	**08 03 45.0**	**+0.2**
CMIG				*i* S	**Sn**	**08 04 15.2**	**+0.3**
HUIG	**Huatulco**	**3.11**	**269**	*e*P	**Pn**	**08 03 55.5**	**+0.6**
HUIG				*i* S	**Sn**	**08 04 32.0**	**-0.8**
HUIG	**Huatulco**	**3.11**	**269**	*e*P	**Pn**	**08 03 55.5**	**+0.6**
HUIG				*i* S	**Sn**	**08 04 29.9**	**-2.8**
VHO	**Vista Hermosa**	**3.90**	**289**	*i* P	**Pn**	**08 04 05.0**	**0.0**
VHO				*i* S	**Sn**	**08 04 51.1**	**+0.2**
PNIG	**Pinotepa**	**5.08**	**277**	*e*P	**Pn**	**08 04 20.1**	**-0.4**
PNIG				*i* S	**Sn**	**08 05 18.5**	**-0.1**

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*KRSC **07** 08:16:29.1±1.0, 49°.32N×158°.51E, h20^{km}±20^{km}, ML4.2*

*MOS **07** 08:16:29.9±1.2, 49°.29N×157°.70E, h38^{km}, mb4.1/8, Error ellipse: s-maj=18.2km s-min=7.2km az=82.6*

*ISCJB **07** 08:16:30.8±0.5, 49°.31N±0°.04×157°.74E±0°.09, h44^{km}, mb3.8/14, Error ellipse: s-maj=8.8km s-min=5.1km az=14.7*

*NEIC **07** 08:16:32.7±0.4, 49°.30N×157°.62E, mb4.3/1, Error ellipse: s-maj=11.4km s-min=7.9km az=108.0*

*IDC **07** 08:16:32.7±0.8, 49°.25N×157°.58E, h43^{km}±6^{km}, mb3.5/12, mb1 3.7/14, mb1mx3.7/25, mbtmp3.5/14, ML3.2/2, Error ellipse: s-maj=18.8km s-min=13.9km az=152.0*

ISC 07 08:16:33.0±0.5, **49°.32N**±0°.04×**157°.62E**±0°.09, **h46**^{km}, **h46**^{km}±1.2^{km}**:pP-P, n55,** σ**1^{s}.01**/64, **mb3.8**/14, **4C, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.67**	**325**⇑	*i*PN	**Pn**	**08 16 58.0**	**-1.8**
SKR				*e*S	**Sn**	**08 17 20.2**	**+0.2**
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,310nm,0.5s						
SKR				smax			
	comp=E,3µm,0.3s						
SKR				smax			
	comp=N,1µm,0.5s						
SKR				smax			
	comp=N,2µm,2.0s						
SKR				smax			
	comp=E,4µm,1.0s						
MIPR	**Malaya Ipel'ka**	**3.01**	**350**	*e*P	**Pn**	**08 17 18.2**	**+0.1**
MIPR				*i* S	**Sn**	**08 17 53.2**	**+0.4**
RUS	**Russkaya**	**3.17**	**10**	*e*P	**Pn**	**08 17 18.7**	**-1.5**
RUS				*i* S	**Sn**	**08 17 55.5**	**-1.2**
GRL	**Gorelyy**	**3.25**	**5**	P	**Pn**	**08 17 20.3**	**-1.0**
PET	**Petropavlovsk**	**3.76**	**10**	*e*PN	**Pn**	**08 17 27.3**	**-1.1**
PET				pmax	pmax		
	comp=Z,40nm,0.5s						
PET				MLR	MLR		
	comp=Z,800nm,15.0s						
PET	**Petropavlovsk**	**3.76**	**10**	*e*P	**Pn**	**08 17 27.5**	**-0.9**
PET				*i* S	**Sn**	**08 18 09.3**	**-2.1**
PET	**Petropavlovsk**	**3.76**	**10**	*e*Pn	**Pn**	**08 17 27.6**	**-0.8**
PET				*e*Sn	**Sn**	**08 18 11.4**	**0.0**
PEA0B	**Petropavlovsk-**	**3.79**	**1**	*e*Pn	**Pn**	**08 17 28.9**	**+0.1**
PEA0B				*e*Sn	**Sn**	**08 18 13.0**	**+0.9**
PETK	**Petropavlovsk-**	**3.79**	**1**	PN	**Pn**	**08 17 28.7**	**-0.1**
PETK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PETK	**Petropavlovsk-**	**3.79**	**1**	P	**Pn**	**08 17 28.6**	**-0.2**
	comp=Z,1.5nm,0.3s,baz=152,slow=14,SNR=18						
NLC	**Nalytchevo**	**4.00**	**15**	*e*P	**Pn**	**08 17 29.3**	**-2.4**
NLC				*i* S	**Sn**	**08 18 12.9**	**-4.4**
AVH	**Avacha**	**4.01**	**10**	*e*P	**Pn**	**08 17 31.6**	**-0.2**
GNL	**Ganaly**	**4.38**	**3**	*e*P	**Pn**	**08 17 37.2**	**+0.3**
MKZ	**Mys Kozlova**	**5.82**	**24**	*e*P	**Pn**	**08 17 54.1**	**-2.6**
MKZ				*i* S	**Sn**	**08 18 56.3**	**-5.8**
TUMR	**Tumrok**	**6.17**	**14**	*e*P	**Pn**	**08 18 01.8**	**+0.4**
KPT	**Kopyto**	**6.84**	**12**	*e*P	**Pn**	**08 18 10.4**	**-0.2**
KIRR	**Kirishev**	**6.84**	**13**	*e*P	**Pn**	**08 18 11.3**	**+0.6**
BZMR	**Bezymyannaya**	**6.85**	**14**	*e*P	**Pn**	**08 18 11.8**	**+1.1**
KOZ	**Kozyrevsk**	**6.88**	**11**	*e*P	**Pn**	**08 18 13.0**	**+1.8**
KOZR	**Kozyr**	**6.89**	**11**	PN	**Pn**	**08 18 13.0**	**+1.6**
ZLN	**Zelenaya**	**6.98**	**15**	*e*P	**Pn**	**08 18 13.2**	**+0.7**
CIRR	**Tsirk**	**7.06**	**14**	*e*P	**Pn**	**08 18 14.7**	**+1.0**
SRDR	**Sredinnyy**	**7.12**	**9**	*e*P	**Pn**	**08 18 15.3**	**+0.9**
KRSR	**Krestovskiy**	**7.13**	**13**	*e*P	**Pn**	**08 18 15.4**	**+0.8**
BDR	**Baidarnaya**	**7.57**	**15**	*e*P	**Pn**	**08 18 20.8**	**+0.2**
KBTR	**Krutoberegovo**	**7.58**	**23**	*e*P	**Pn**	**08 18 18.9**	**-1.9**
KBTR				*i* S	**Sn**	**08 19 40.8**	**-4.4**
SMKR	**Semkarok**	**7.63**	**16**	*e*P	**Pn**	**08 18 20.8**	**-0.7**
SRKR	**Sorokina**	**7.65**	**15**	*e*P	**Pn**	**08 18 21.6**	**-0.1**
ASAJ	**Asahikawa**	**11.55**	**249**	P	**Pn**	**08 19 13.2**	**-1.8**
	comp=Z,0.3nm,0.3s,baz=142,slow=18,SNR=3.4						
ERM	**Erimo**	**12.47**	**240**⇑	*i*PN	**Pn**	**08 19 28.9**	**+1.3**
ERM	**Erimo**	**12.47**	**240**	Pn	**Pn**	**08 19 23.6**	**-4.0**
BILL	**Bilibino**	**19.27**	**10**⇑	*i*P	**Pn**	**08 20 54.4**	**-0.3**
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KSRS	**Korea Array**	**24.46**	**252**	P	**P**	**08 21 47.6**	**+0.2**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.3						
KSRS	**Korea Array**	**24.46**	**252**	P	**P**	**08 21 47.6**	**+0.2**
	comp=Z,1.3nm,0.8s,mb3.4,baz=49,slow=9.9,SNR=3.8						
TIXI	**Tiksi**	**25.98**	**340**⇑	*i*P	**P**	**08 22 02.7**	**+1.9**
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb3.8						
SONM	**Songino Array**	**33.39**	**287**	P	**P**	**08 23 07.6**	**+0.8**
	comp=Z,0.2nm,0.4s,mb3.4,baz=72,slow=9.3,SNR=2.7						
YKA	**Yellowknife Ar**	**47.03**	**39**	P	**P**	**08 25 00.0**	**+0.7**
	comp=Z,0.6nm,0.8s,mb3.6,baz=297,slow=7.3,SNR=9.1						
YKA				pP	pP	08 25 12.5	+0.6
	comp=Z,0.3nm,0.9s,baz=293,slow=7.4,SNR=3.1						
YKA				PcP	PcP	08 26 31.1	+0.3
	comp=Z,0.3nm,0.7s,baz=292,slow=4.8,SNR=4.3						
YKA	**Yellowknife Ar**	**47.03**	**39**	P	**P**	**08 25 00.1**	**+0.7**
YKA				pP	pP	08 25 12.6	+0.6
YKA				PcP	PcP	08 26 31.1	+0.3
MKAR	**Makanchi Array**	**48.45**	**297**	P	**P**	**08 25 10.9**	**+0.4**
MKAR				*PP	pP	08 25 22.5	-0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**48.45**	**297**	P	**P**	**08 25 10.9**	**+0.4**
	comp=Z,0.5nm,0.6s,mb3.7,baz=63,slow=7.7,SNR=8.6						
MKAR				pP	pP	08 25 22.4	-0.7
	comp=Z,0.6nm,0.7s,baz=60,slow=7.4,SNR=4.9						
KURK	**Kurchatov**	**48.46**	**304**	P	**P**	**08 25 11.3**	**+0.7**
KURK				*PP	pP	08 25 23.6	+0.4
KURK				pmax	pmax		

	comp=Z,1.0nm,0.4s,mb4.2						
KURK	**Kurchatov**	**48.46**	**304**	P	**P**	**08 25 11.2**	**+0.7**
	comp=Z,0.8nm,0.4s,mb4.1,baz=64,slow=8.1,SNR=7.1						
KURK				pP	pP	08 25 23.6	+0.4
	comp=Z,1.0nm,0.6s,baz=64,slow=8.2,SNR=5.1						
NVAR	**Mina Array Bea**	**58.59**	**66**	P	**P**	**08 26 25.6**	**+0.6**
	comp=Z,0.4nm,0.8s,mb3.5,baz=282,slow=4.5,SNR=3.2						
PDAR	**Pinedale Array**	**60.80**	**57**	P	**P**	**08 26 40.9**	**+0.8**
	comp=Z,0.3nm,0.8s,mb3.5,baz=289,slow=2.8,SNR=2.5						
NOA	**NORSAR Array B**	**66.71**	**343**	*e*P	**P**	**08 27 19.3**	**+0.6**
NOA	**NORSAR Array B**	**66.71**	**343**	P	**P**	**08 27 18.4**	**-0.3**
	comp=Z,1.7nm,0.8s,mb4.1,baz=23,slow=6.1,SNR=4.6						
AKASG	**Malin Array Be**	**71.02**	**328**	P	**P**	**08 27 45.3**	**-0.3**
	comp=Z,0.4nm,0.3s,mb3.8,baz=34,slow=7.3,SNR=3.6						
WRAB	**Tennant Creek**	**71.99**	**203**	*e*P	**P**	**08 27 50.8**	**-0.9**
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
WRAB	**Tennant Creek**	**71.99**	**203**	*e*P	**P**	**08 27 50.8**	**-0.9**
	comp=Z,2.9nm,0.8s,mb4.3						
WRA	**Warramunga Arr**	**72.00**	**203**	P	**P**	**08 27 51.0**	**-0.7**
WRA				*PP	pP	08 28 03.8	-1.2
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	**Warramunga Arr**	**72.00**	**203**	P	**P**	**08 27 51.0**	**-0.7**
	comp=Z,2.4nm,0.8s,mb4.2,baz=22,slow=6.5,SNR=6.8						
WRA				pP	pP	08 28 03.8	-1.2
	comp=Z,1.8nm,0.8s,baz=21,slow=6.4,SNR=5.8						
TXAR	**Lajitas Array**	**73.62**	**64**	P	**P**	**08 28 01.7**	**+0.2**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	**Lajitas Array**	**73.62**	**64**	P	**P**	**08 28 01.6**	**+0.2**
	comp=Z,0.5nm,0.8s,mb3.5,baz=283,slow=4.0,SNR=7.5						
ASAR	**Alice Springs**	**75.67**	**202**	P	**P**	**08 28 13.1**	**-0.1**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	**75.67**	**202**	P	**P**	**08 28 13.1**	**-0.1**
	comp=Z,1.0nm,0.8s,mb3.8,baz=19,slow=5.8,SNR=6.8						

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*IDC **07** 08:17:47.0±3.2, 35°.14S×178°.92E, h170^{km}±26^{km}, mb4.4/9, mb1 4.4/11, mb1mx4.3/18, mbtmp4.3/11, Error ellipse: s-maj=28.4km s-min=15.7km az=50.0*

*ISCJB **07** 08:17:49.6±1.2, 35°.48S±0°.10×178°.7E±0°.1, h195^{km}±8^{km}, mb4.4/14, Error ellipse: s-maj=19.8km s-min=12.2km az=140.8*

*NEIC **07** 08:17:49.6, 35°.60S×178°.83E, h220^{km}, mb4.6/1, After WEL.*

*DJA **07** 08:18:18, 36°.63S×175°.95E, h360^{km}, mb4.9/8*

ISC 07 08:17:50.2±1.2, **35°.46S**±0°.10×**178°.7E**±0°.1, **h188**^{km}±8^{km}, **n73,** σ**0^{s}96**/38, **mb4.6**/14, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.12**	**188**	P	**Pn**	**08 18 29.8**	**+0.7**
MXZ				S	**Sn**	**08 18 59.0**	**-0.5**
PUZ	**Puketiti**	**2.63**	**188**	P	**Pn**	**08 18 35.0**	**+0.2**
KUZ	**Kuaotunu**	**2.73**	**241**	P	**Pn**	**08 18 37.7**	**+1.7**
MWZ	**Matawai**	**3.02**	**198**	P	**Pn**	**08 18 39.8**	**+0.4**
MWZ				S	**Sn**	**08 19 18.5**	**+0.6**
URZ	**Urewera**	**3.07**	**204**	P	**Pn**	**08 18 39.9**	**-0.1**
	20nm,0.3s,baz=344,slow=1.7,SNR=104						
URZ				S	**Sn**	**08 19 18.9**	**-0.1**
	71nm,0.3s,baz=32,slow=24,SNR=14						
URZ	**Urewera**	**3.07**	**204**	P	**Pn**	**08 18 39.8**	**-0.2**
WCZ	**Waipu Caves**	**3.57**	**261**	P	**Pn**	**08 18 47.4**	**+1.2**
KNZ	**Kokohu**	**3.65**	**193**	P	**Pn**	**08 18 46.2**	**-0.9**
BKZ	**Black Stump Fm**	**4.10**	**205**	P	**Pn**	**08 18 51.6**	**-1.1**
OUZ	**Omahuta**	**4.17**	**272**	P	**Pn**	**08 18 54.6**	**+0.8**
NGZ	**Ngauruhoe**	**4.46**	**213**	P	**Pn**	**08 18 57.1**	**-0.2**
TUVZ	**Tukino**	**4.51**	**212**	P	**Pn**	**08 18 57.0**	**-1.0**
WNVZ	**Wahianoa**	**4.58**	**212**	P	**Pn**	**08 18 58.0**	**-0.9**
MOVZ	**Moawhango**	**4.59**	**210**	P	**Pn**	**08 18 57.1**	**-1.8**
BFZ	**Birch Farm**	**5.56**	**200**	P	Px	08 19 08.6	
MRZ	**Mangatainoka R**	**5.75**	**204**	P	Px	08 19 10.8	
KIW	**Kapiti Island**	**6.16**	**208**	P	Px	08 19 16.1	
MTW	**Mount Morrison**	**6.22**	**203**	P	Px	08 19 16.3	
CAW	**Cannon Point**	**6.32**	**206**	P	Px	08 19 17.8	
PAWZ	**Paruwai Farm**	**6.45**	**202**	P	Px	08 19 18.7	
MSWZ	**Moikau Station**	**6.53**	**203**	P	Px	08 19 20.5	
MRW	**Makara Radio**	**6.56**	**207**	P	Px	08 19 20.8	
SNZO	**South Karori**	**6.63**	**207**	P	Px	08 19 21.0	
BHW	**Baring Head**	**6.66**	**206**	P	Px	08 19 21.9	
TCW	**Tory Channel**	**6.71**	**210**	P	Px	08 19 22.4	
NNZ	**Nelson**	**7.11**	**214**	P	Px	08 19 27.0	
QRZ	**Quartz Range**	**7.23**	**220**	P	Px	08 19 29.7	
BSWZ	**Blackbirch Sta**	**7.30**	**210**	P	Px	08 19 30.3	
THZ	**Tophouse**	**7.76**	**214**	P	Px	08 19 36.5	
KHZ	**Kahutara**	**8.03**	**208**	P	Px	08 19 39.4	
DSZ	**Denniston Nort**	**8.28**	**219**	P	Px	08 19 43.6	
LTZ	**Lake Taylor**	**8.85**	**212**	P	Px	08 19 50.1	
MQZ	**McQueen's Vall**	**9.46**	**208**	P	Px	08 19 56.7	
RPZ	**Rata Peaks**	**10.13**	**213**	P	**Pn**	**08 20 11.7**	**+0.5**
	1.1nm,0.3s,baz=82,slow=7.1,SNR=4.5						
RPZ				S	Sx	08 21 54.3	
	3.9nm,0.3s,baz=84,slow=20,SNR=11						
ODZ	**Otahua Downs**	**11.37**	**210**	P	Px	08 20 23.2	
CNB	**Canberra Magne**	**23.88**	**262**	*e*P	Px	08 22 56.1	
TOO	**Toolangi**	**26.70**	**256**	*e*P	**P**	**08 23 16.7**	**+4.8**
STKA	**Stephens Creek**	**30.97**	**266**	*e*P	**P**	**08 23 54.5**	**+4.7**
	5.2nm,0.9s,mb4.3						
STKA	**Stephens Creek**	**30.97**	**266**	P	**P**	**08 23 50.8**	**+1.0**
	4.7nm,0.5s,mb4.5,baz=91,slow=7.1,SNR=8.0						
CTA	**Charters Tower**	**32.35**	**290**	*e*P	**P**	**08 24 02.7**	**+0.7**
	15nm,0.9s,mb4.7						
CTA	**Charters Tower**	**32.35**	**290**	P	**P**	**08 24 02.5**	**+0.5**
	20nm,0.9s,mb4.9,baz=113,slow=10,SNR=18						
ASAR	**Alice Springs**	**40.38**	**274**	P	**P**	**08 25 09.3**	**-0.6**
	10nm,0.9s,mb4.5,baz=114,slow=7.5,SNR=47						
WRAB	**Tennant Creek**	**41.84**	**280**	*e*P	**P**	**08 25 20.9**	**-1.0**
	13nm,0.6s,mb4.7						
WRA	**Warramunga Arr**	**41.84**	**280**	P	**P**	**08 25 21.0**	**-0.9**
	10nm,0.5s,mb4.7,baz=121,slow=7.6,SNR=88						
FORT	**Forrest**	**42.29**	**261**	*e*P	**P**	**08 25 26.5**	**+1.1**
	40nm,0.7s,mb5.2						
FITZ	**Fitzroy Crossi**	**49.83**	**276**	*e*P	**P**	**08 26 23.6**	**-0.7**
	6.3nm,0.6s,mb4.4						
KLBR	**Kellerberrin**	**50.25**	**256**	*e*P	**P**	**08 26 27.6**	**+0.3**
	18nm,0.7s,mb4.8						
MUN	**Mundaring**	**51.33**	**255**	*e*P	**P**	**08 26 35.9**	**+0.5**
QSPA	**South Pole Qui**	**54.66**	**180**	P	**P**	**08 27 01.8**	**+2.7**
	10nm,0.8s,mb4.6,baz=20,slow=2.4,SNR=20						
VNA3	**Neumayer Olymp**	**73.43**	**177**	*e*	**P**	**08 29 02.1**	**+0.8**
VNA2	**Neumayer--Watz**	**73.83**	**178**	*e*	**P**	**08 29 05.1**	**+1.5**
	baz=178,slow=4.2						
PSI	**Prapat**	**83.29**	**278**	P	**P**	**08 29 54.6**	**-1.7**
	9.7nm,0.9s,mb4.5,baz=201,slow=8.6,SNR=3.9						
KSRS	**Korea Array**	**86.49**	**322**	P	**P**	**08 30 11.4**	**-0.1**
	6.8nm,0.7s,mb4.5,baz=140,slow=5.9,SNR=30						
PETK	**Petropavlovsk-**	**90.07**	**348**	P	**P**	**08 30 26.7**	**-1.4**
	7.8nm,0.7s,mb4.8,baz=113,slow=6.5,SNR=16						
CMAR	**Chiang Mai Arr**	**92.51**	**291**	P	**P**	**08 30 39.6**	**-0.6**
	2.1nm,0.7s,mb4.4,baz=142,slow=3.4,SNR=11						
NVAR	**Mina Array Bea**	**93.81**	**45**	P	**P**	**08 30 46.3**	**+0.6**
	0.9nm,0.8s,mb4.0,baz=230,slow=8.3,SNR=6.1						
YKA	**Yellowknife Ar**	**111.20**	**27**	PKiKP	PKiKP	08 35 58.8	-1.7
	0.1nm,0.6s,baz=259,slow=2.1,SNR=4.0						
YKA				PKKPbc	PKKPbc	08 46 56.1	-2.4
	0.4nm,0.7s,baz=43,slow=3.6,SNR=10						
MKAR	**Makanchi Array**	**118.83**	**309**	PKP	PKPdf	08 36 13.1	-2.6
	1.3nm,0.9s,baz=90,slow=2.4,SNR=5.5						
KURK	**Kurchatov**	**122.45**	**312**	PKP	PKPdf	08 36 19.6	-2.9
	1.5nm,0.7s,baz=116,slow=1.9,SNR=6.2						
RES	**Resolute Bay**	**122.90**	**18**	PKP	PKPdf	08 36 20.7	-2.0
	1.8nm,0.8s,baz=281,slow=2.7,SNR=12						
BVAR	**Borovoye Array**	**127.96**	**313**	PKP	PKPdf	08 36 30.7	-2.3
	0.8nm,0.5s,baz=104,slow=3.1,SNR=5.0						
ARCES	**ARCESS Array B**	**142.83**	**345**	PKP	PKPdf	08 36 55.8	-4.3
	4.2nm,0.9s,baz=350,slow=4.9,SNR=6.2						
JOF	**Joensuu**	**145.91**	**334**	*e*pkp	PKPdf	08 37 03.4	-2.2
KAF	**Kangasniemi**	**148.19**	**336**	*e*pkp	PKPdf	08 37 09.8	+0.4
LIC	**Lamto**	**150.71**	**172**	*e*PKP1	PKPbc	08 37 20.2	-0.5
	40nm,0.7s						
KIC	**Kosan Boka**	**150.87**	**173**	*e*PKP1	PKPbc	08 37 20.6	-0.4
	50nm,0.8s						
TIC	**Toumodi**	**151.12**	**172**	*e*PKP1	PKPbc	08 37 21.2	-0.4
	17nm,0.4s						
DBIC	**Dimbokro**	**151.16**	**173**	PKPbc	PKPbc	08 37 21.5	-0.2
	10nm,0.6s,baz=167,slow=4.1,SNR=26						
BRTR	**Keskin Array B**	**152.09**	**289**	PKPbc	PKPbc	08 37 21.0	-2.0
BRTR				PKPab	PKPab	08 37 31.4	-2.1
NOA	**NORSAR Array B**	**153.17**	**346**	PKPab	PKPab	08 37 34.5	-2.7
	1.0nm,0.7s,baz=24,slow=3.4,SNR=3.5						
AKASG	**Malin Array Be**	**153.24**	**314**	PKPbc	PKPbc	08 37 22.8	-2.4
	1.1nm,0.5s,baz=51,slow=3.2,SNR=6.2						
AKASG				PKPab	PKPab	08 37 36.0	-1.8
	3.1nm,0.6s,baz=52,slow=4.4,SNR=14						
TORD	**Torodi Ar. Bea**	**157.62**	**188**	PKP	PKPdf	08 37 23.9	-0.7
	1.3nm,0.9s,baz=36,slow=0.1,SNR=7.0						
TORD				PKPab	PKPab	08 37 56.5	-0.9
	4.2nm,0.8s,baz=170,slow=2.9,SNR=16						
GERES	**GERESS Array B**	**162.64**	**325**	PKPab	PKPab	08 38 16.8	-1.8
	2.0nm,0.7s,baz=35,slow=4.9,SNR=9.6						

GII 07 08:18:47.6±0.0, **32°.45N**×**35°.79E**, **h1**^{km}, **Md2.0**/3, **Mining explosion., Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HMDT	**Nahal Hemdat**	**0.30**	**229**	Pg	Pg	08 18 55.0	+1.7
HMDT				Sg	Sg	08 19 01.0	+3.8
MMLI	**Mount Malkishu**	**0.32**	**268**	Pg	Pg	08 18 55.9	+2.3
MMLI				Sg	Sg	08 19 01.7	+4.0
SLTI	**Sal'it**	**0.67**	**252**	Sg	Sg	08 19 12.8	+3.7
KSDI	**Kefar Szold**	**0.75**	**351**	Pg	Pg	08 19 03.3	+1.3
KSDI				Sg	Sg	08 19 16.2	+4.5

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*HLW **07** 08:19:40.7, 31°.99N×35°.16E, h20^{km}, Mb2.9*

*GII **07** 08:19:40.6±0.0, 31°.77N×35°.06E, h1^{km}, Md2.3/6, Mining explosion.*

*ISCJB **07** 08:19:41.2±0.5, 31°.79N±0°.02×34°.91E±0°.05, h0^{km}, Error ellipse: s-maj=6.6km s-min=2.9km az=13.8*

ISC 07 08:19:41.7±0.5, **31°.79N**±0°.02×**34°.90E**±0°.05, **h0**^{km}, **n17,** σ**0^{s}86**/29, **1C-1D, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YTIR	**Yattir**	**0.46**	**157**	Pg	**Pg**	**08 19 50.5**	**-0.1**
YTIR				Sg	**Sg**	**08 19 57.3**	**+0.7**
DSI	**Dead Sea**	**0.46**	**118**	Pg	**Pg**	**08 19 49.3**	**-1.3**
SLTI	**Sal'it**	**0.47**	**15**	Pg	**Pg**	**08 19 51.4**	**+0.7**
SLTI				Sg	**Sg**	**08 20 00.3**	**+3.6**
MZDA	**Masada**	**0.62**	**140**	Pg	**Pg**	**08 19 52.6**	**-1.0**
MZDA				Sg	**Sg**	**08 20 00.9**	**-0.7**
HMDT	**Nahal Hemdat**	**0.70**	**49**	Pg	**Pg**	**08 19 54.7**	**-0.5**
HMDT				Sg	**Sg**	**08 20 05.1**	**+0.7**
MMLI	**Mount Malkishu**	**0.78**	**34**	Pg	**Pg**	**08 19 56.7**	**-0.1**
MMLI				Sg	**Sg**	**08 20 07.8**	**+0.9**
HRSH	**Kfar Ka'horesh**	**0.96**	**19**	P	**Pg**	**08 20 06.6**	**+6.4**
HRSH				S	**Sg**	**08 20 25.5**	**+13**
ZFRI	**Zfri**	**1.25**	**169**	Pg	**Pg**	**08 20 04.7**	**-1.1**
ZFRI				Sg	**Sg**	**08 20 22.9**	**+0.9**
MMC4	**Mount Meron ar**	**1.29**	**20**	Pg	**Pg**	**08 20 06.0**	**-0.5**
MMA0	**Mount Meron ar**	**1.29**	**19**	Pg	**Pg**	**08 20 06.1**	**-0.5**
PRNI	**Paran**	**1.44**	**176**	Pn	**Pn**	**08 20 07.8**	**-1.2**
PRNI				Sn	**Sn**	**08 20 28.9**	**+0.4**
KRMI	**Paran Flat**	**1.67**	**185**	Pn	**Pn**	**08 20 12.5**	**+0.2**
KRMI				Sn	**Sn**	**08 20 35.9**	**+1.5**
HRFI	**Mount Harif**	**1.75**	**176**	Pn	**Pn**	**08 20 13.2**	**-0.1**
HRFI				Sn	**Sn**	**08 20 37.9**	**+1.6**
AMAG	**Maghara**	**1.85**	**232**	P	**Pn**	**08 20 14.5**	**-0.1**
MBRI	**Mt Berech**	**1.99**	**180**	Pn	**Pn**	**08 20 15.9**	**-0.7**
MBRI				Sn	**Sn**	**08 20 43.4**	**+1.2**
HNKL	**Nakhl**	**2.02**	**203**	⇑P	**Pn**	**08 20 16.0**	**-1.0**
HNKL				S	**Sn**	**08 20 42.5**	**-0.4**
SUZ		**2.63**	**223**	⇓P	**Pn**	**08 20 25.3**	**-0.2**

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*CSEM **07** 08:27:51.8±0.7, 38°.57N×43°.52E, h10^{km}, MD2.8, Error ellipse: s-maj=20.6km s-min=8.1km az=124.0*

*ISK **07** 08:27:51.4, 38°.61N×43°.48E, h16^{km}, MD2.8*

*DDA **07** 08:27:52.8, 38°.62N×43°.26E, h7^{km}±6^{km}, Md3.0*

*ISCJB **07** 08:27:53.0±1.1, 38°.63N±0°.06×43°.54E±0°.10, h5^{km}±9^{km}, Error ellipse: s-maj=14.7km s-min=5.8km az=32.6*

ISC 07 08:27:53.5±1.1, **38°.63N**±0°.05×**43°.53E**±0°.10, **h5**^{km}±8^{km}, **n13,** σ**1^{s}25**/20, **1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VANB	**Van**	**0.11**	**254**	PG	**Pg**	**08 27 54.9**	**-0.9**
VANB				*e*SG	**Sg**	**08 27 56.9**	**-0.4**
VANB	**Van**	**0.11**	**254**	*i* Pg	**Pg**	**08 27 54.9**	**-0.9**
VANB				*e*Sg	**Sg**	**08 27 56.9**	**-0.4**
TVAN	**Van**	**0.14**	**224**	⇓*i*P	**Pg**	**08 27 54.8**	**-1.4**
TVAN				*i* S	**Sg**	**08 27 59.8**	**+1.7**
TVAN	**Van**	**0.14**	**224**	*i* P	**Pg**	**08 27 54.8**	**-1.4**
TVAN				*i* S	**Sg**	**08 27 59.8**	**+1.8**
VANT	**Van**	**0.21**	**211**	PG	**Pg**	**08 27 56.7**	**-0.9**
VANT				*e*SG	**Sg**	**08 28 02.2**	**+1.8**
CLDR	**Caldiran**	**0.60**	**30**	*e*PG	**Pg**	**08 28 04.3**	**-0.7**
CLDR	**Caldiran**	**0.60**	**30**	*e*Pg	**Pg**	**08 28 04.3**	**-0.8**
DYDN	**Diyadin**	**0.93**	**8**	*e*P	**Pg**	**08 28 12.2**	**+0.9**
DYDN				*e*S	**Sg**	**08 28 25.4**	**+2.1**
DYDN	**Diyadin**	**0.93**	**8**	*e*P	**Pg**	**08 28 12.1**	**+0.8**
DYDN				*e*S	**Sg**	**08 28 25.4**	**+2.1**
AGRB	**Hanur-Agry**	**1.03**	**337**	*e*PG	**Pg**	**08 28 11.7**	**-1.7**
AGRB	**Hanur-Agry**	**1.03**	**337**	*e*Pg	**Pg**	**08 28 11.7**	**-1.7**
HAKT	**HAKKARI**	**1.08**	**172**	*e*P	Px	08 28 29.7	
HAKT				*e*S	Sx	08 28 45.8	
HOMI	**Horasan**	**1.89**	**319**	*e*P	**Pn**	**08 28 25.8**	**-0.8**
HOMI				*e*S	**Sn**	**08 28 51.5**	**+0.7**

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*SKHL **07** 08:43:12.3±0.1, 44°.40N×148°.54E, h38^{km}±4^{km}, mb5.1/2*

*MOS **07** 08:43:13.6±1.3, 44°.60N×148°.30E, h55^{km}, mb4.1/8, Error ellipse: s-maj=14.1km s-min=12.9km az=70.2*

*ISCJB **07** 08:43:14.0±0.9, 44°.51N±0°.05×148°.25E±0°.09, h57^{km}±7^{km}, mb3.8/15, Error ellipse: s-maj=12.2km s-min=6.2km az=31.5*

*JMA **07** 08:43:15.2±0.5, 44°.04N×147°.95E, h0^{km}, M4.6*

*IDC **07** 08:43:18.2±3.7, 44°.55N×148°.13E, h79^{km}±34^{km}, mb3.4/14, mb1 3.6/16, mb1mx3.5/25, mbtmp3.4/16, MS3.1/1, Ms1 3.1/1, ms1mx2.5/26, Error ellipse: s-maj=21.6km s-min=17.6km az=134.0*

*NEIC **07** 08:43:18.1±1.5, 44°.53N×148°.13E, h80^{km}±13^{km}, MG4.6(JMA), Error ellipse: s-maj=14.2km s-min=11.5km az=110.0*

ISC 07 08:43:15.4±1.0, **44°.52N**±0°.05×**148°.24E**±0°.10, **h52**^{km}±8^{km}, **n52,** σ**1^{s}21**/60, **mb3.8**/15, **1C-4D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**0.76**	**340**	⇓*i*PN	**Pn**	**08 43 27.6**	**-2.4**
KUR				*i* S	**Sn**	**08 43 39.0**	**-1.7**
KUR				pmax	pmax		
	comp=Z,2µm,1.6s						
KUR				pmax	pmax		
	comp=N,560nm,0.5s						
KUR				pmax	pmax		
	comp=E,380nm,0.5s						
KUR				pmax	pmax		
	comp=Z,670nm,0.5s						
KUR				smax			
	comp=N,5µm,2.0s						
KUR				smax			
	comp=E,10µm,2.0s						
KUR				smax			
	comp=N,2µm,0.5s						
KUR				smax			
	comp=E,4µm,0.5s						
KUR	**Kuril'sk**	**0.76**	**340**	⇓*i*P	**Pn**	**08 43 27.6**	**-2.4**
KUR				AMB	AMB	08 43 28.0	
	comp=E,22µm,1.6s						
KUR				AMB	AMB	08 43 29.2	
	comp=E,590nm,0.4s						
KUR				AMB	AMB	08 43 29.2	
	comp=E,390nm,0.4s						
KUR				AMB	AMB	08 43 29.2	
	comp=E,670nm,0.4s						
KUR				*i* S	**Sn**	**08 43 39.0**	**-1.7**
KUR				A		08 43 40.0	
	comp=E,5µm,2.0s						
KUR				A		08 43 40.0	
	comp=E,10µm,2.0s						
KUR				A		08 43 40.5	
	comp=E,2µm,0.5s						
KUR				A		08 43 40.5	
	comp=E,4µm,0.5s						
YUK	**Yuzh-Kuril'sk**	**1.78**	**255**	⇓*i*PN	**Pn**	**08 43 42.9**	**-0.8**
YUK				*i* S	**Sn**	**08 44 05.9**	**+0.8**
YUK				pmax	pmax		
	comp=Z,1µm,0.3s						
YUK				pmax	pmax		
	comp=N,540nm,0.3s						
YUK				pmax	pmax		
	comp=E,560nm,0.3s						
YUK				pmax	pmax		
	comp=Z,2µm,0.4s						
YUK				smax			
	comp=N,4µm,0.8s						
YUK				smax			
	comp=E,2µm,0.8s						
YUK				smax			
	comp=N,2µm,0.4s						
YUK				smax			
	comp=E,1µm,0.5s						
YUK	**Yuzh-Kuril'sk**	**1.78**	**255**	⇓*i*P	**Pn**	**08 43 42.9**	**-0.8**
YUK				AMB	AMB	08 43 44.5	
	comp=E,540nm,0.2s						
YUK				AMB	AMB	08 43 44.5	
	comp=E,560nm,0.2s						
YUK				AMB	AMB	08 43 44.5	
	comp=E,1µm,0.3s						
YUK				AMB	AMB	08 43 44.8	
	comp=E,2µm,0.4s						
YUK				*i* S	**Sn**	**08 44 05.9**	**+0.8**
YUK				A		08 44 14.1	
	comp=E,4µm,0.8s						
YUK				A		08 44 14.1	
	comp=E,2µm,0.8s						
YUK				A		08 44 14.5	
	comp=E,1µm,0.5s						
YUK				A		08 44 14.5	
	comp=E,2µm,0.4s						
NEM2	**Nemuro 2**	**2.14**	**238**	P	**Pn**	**08 43 47.0**	**-1.7**
NEM2				*e*S	**Sn**	**08 44 10.4**	**-3.7**
JRA	**Rausu**	**2.32**	**257**	P	**Pn**	**08 43 51.6**	**+0.5**
JNK	**Nakash**	**2.71**	**251**	P	**Pn**	**08 43 56.5**	**+0.1**
JNK				*e*S	**Sn**	**08 44 26.4**	**-1.5**
JAK	**Akkeshi**	**2.99**	**241**	P	**Pn**	**08 43 59.0**	**-1.2**
JTKR	**Abashiri--Toko**	**3.16**	**262**	P	**Pn**	**08 44 03.2**	**+0.6**
JAR	**Ashorobuto**	**3.46**	**251**	P	**Pn**	**08 44 07.4**	**+0.7**
JMP	**Maruseppu**	**3.54**	**263**	P	**Pn**	**08 44 08.9**	**+1.0**
JOB	**Onbets**	**3.58**	**245**	P	**Pn**	**08 44 08.2**	**-0.2**
JOB				*e*S	**Sn**	**08 44 47.4**	**-2.0**
JKK2	**Kamakawa 2**	**4.00**	**263**	P	**Pn**	**08 44 15.8**	**+1.6**
JCH	**Churui**	**4.03**	**243**	P	**Pn**	**08 44 13.8**	**-0.7**
JSE	**Soyaes**	**4.06**	**278**	P	**Pn**	**08 44 16.2**	**+1.3**
ASAJ	**Asahikawa**	**4.07**	**266**	P	**Pn**	**08 44 16.8**	**+1.6**
	comp=E,3.6nm,0.3s,baz=46,slow=20,SNR=21						
ASAJ				LR	LR	08 45 41.0	
	comp=E,246nm,20.2s,baz=347,slow=36						
ERM	**Erimo**	**4.48**	**238**	*e*Pn	**Pn**	**08 44 22.4**	**+1.7**
ERM				*e*Sn	**Sn**	**08 45 12.9**	**+1.4**
YSS	**Yuzh-Sakhalins**	**4.55**	**304**	⇑*i*P	**Pn**	**08 44 23.0**	**+1.4**
YSS				*e*S	**Sn**	**08 45 13.0**	**-0.1**
YSS				A		08 45 17.3	
	comp=E,20nm,0.6s						
YSS				A		08 45 17.3	
	comp=E,30nm,0.8s						
YSS	**Yuzh-Sakhalins**	**4.55**	**304**	*e*Pn	**Pn**	**08 44 23.5**	**+1.9**
JWK2	**Keihoku**	**4.58**	**282**	P	**Pn**	**08 44 24.8**	**+2.8**
JNBK	**Urakawa-nobuka**	**4.58**	**243**	P	**Pn**	**08 44 21.1**	**-1.0**
JKB	**Kayabe**	**5.89**	**246**	P	**Pn**	**08 44 40.2**	**+0.2**
JKB				*e*S	**Sn**	**08 45 43.8**	**-2.3**
TYV	**Tymovskoe**	**7.38**	**331**	*e*P	**Pn**	**08 45 03.5**	**+3.1**
KSRS	**Korea Array**	**16.86**	**252**	P	**Pn**	**08 47 09.9**	**+2.2**
	comp=E,0.1nm,0.3s,baz=63,slow=11,SNR=3.8						
BJI	**Beijing**	**24.06**	**271**	P	**P**	**08 48 25.2**	**-0.4**
BJI				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
SONM	**Songino Array**	**28.91**	**292**	P	**P**	**08 49 07.6**	**-1.6**
	comp=Z,0.2nm,0.4s,mb3.2,baz=101,slow=13,SNR=5.0						
ZALV	**Zalesovo Beam**	**41.17**	**307**	PcP	PcP	08 52 52.3	-0.3
	comp=Z,1.2nm,0.4s,baz=106,slow=4.7,SNR=3.9						
MKAR	**Makanchi Array**	**44.93**	**297**	P	**P**	**08 51 24.4**	**-0.4**
MKAR						08 53 05.0	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**44.93**	**297**	P	**P**	**08 51 24.4**	**-0.5**
	comp=Z,0.9nm,0.7s,mb3.7,baz=75,slow=8.6,SNR=12						
MKAR				PcP	PcP	08 53 05.0	-0.4
	comp=Z,0.3nm,0.3s,baz=67,slow=3.7,SNR=7.2						
KURK	**Kurchatov**	**45.76**	**304**	P	**P**	**08 51 32.2**	**+0.9**
KURK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
KURK	**Kurchatov**	**45.76**	**304**	P	**P**	**08 51 32.2**	**+0.9**
	comp=Z,0.8nm,0.6s,mb3.8,baz=72,slow=8.9,SNR=2.2						
RES	**Resolute Bay**	**54.00**	**17**	P	**P**	**08 52 33.4**	**-0.2**
RES				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
RES	**Resolute Bay**	**54.00**	**17**	P	**P**	**08 52 33.4**	**-0.2**
	comp=Z,0.6nm,0.7s,mb3.7,baz=294,slow=8.4,SNR=5.5						
YKA	**Yellowknife Ar**	**54.73**	**34**	P	**P**	**08 52 39.5**	**+0.6**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**54.73**	**34**	P	**P**	**08 52 39.5**	**+0.6**
	comp=Z,0.9nm,0.8s,mb3.9,baz=298,slow=6.9,SNR=16						
YKA	**Yellowknife Ar**	**54.73**	**34**	P	**P**	**08 52 39.5**	**+0.6**
ARCES	**ARCESS Array B**	**58.80**	**340**	P	**P**	**08 53 07.2**	**-0.5**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	**ARCESS Array B**	**58.80**	**340**	P	**P**	**08 53 07.2**	**-0.5**
	comp=Z,3.1nm,0.9s,mb4.3,baz=41,slow=7.2,SNR=4.1						
FCC	**Fort Churchill**	**64.96**	**31**	*e*P	**P**	**08 53 49.5**	**+0.2**
WRA	**Warramunga Arr**	**65.39**	**194**	P	**P**	**08 53 51.9**	**-0.5**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	**Warramunga Arr**	**65.39**	**194**	P	**P**	**08 53 51.9**	**-0.5**
	comp=Z,0.6nm,0.8s,mb3.7,baz=15,slow=6.7,SNR=4.5						
WRA	**Warramunga Arr**	**65.39**	**194**	P	**P**	**08 53 51.9**	**-0.5**
NVAR	**Mina Array Bea**	**66.50**	**59**	P	**P**	**08 54 00.2**	**+0.6**
	comp=Z,0.5nm,0.7s,mb3.6,baz=304,slow=8.2,SNR=3.4						
FRB	**Frobisher Bay**	**68.22**	**17**	P	**P**	**08 54 08.7**	**-1.2**
FRB				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FRB	**Frobisher Bay**	**68.22**	**17**	P	**P**	**08 54 08.7**	**-1.3**
	comp=Z,1.0nm,0.4s,mb4.2,baz=250,slow=9.4,SNR=6.4						
PDAR	**Pinedale Array**	**68.81**	**51**	P	**P**	**08 54 13.4**	**-0.6**
	comp=Z,0.3nm,0.7s,mb3.3,baz=90,slow=3.0,SNR=3.9						
ASAR	**Alice Springs**	**69.11**	**194**	P	**P**	**08 54 16.1**	**+0.2**
	comp=Z,0.2nm,0.5s,mb3.3,baz=15,slow=6.7,SNR=5.7						
NOA	**NORSAR Array B**	**69.17**	**339**	P	**P**	**08 54 15.0**	**-0.9**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	**69.17**	**339**	P	**P**	**08 54 15.0**	**-0.9**
	comp=Z,1.2nm,0.8s,mb3.9,baz=32,slow=7.3,SNR=3.8						
AKASG	**Malin Array Be**	**71.42**	**324**	P	**P**	**08 54 29.8**	**0.0**
	comp=Z,0.4nm,0.4s,mb3.7,baz=41,slow=5.6,SNR=3.9						
TXAR	**Lajitas Array**	**81.57**	**57**	P	**P**	**08 55 28.4**	**+0.8**
	comp=Z,0.3nm,0.5s,mb3.5,baz=294,slow=4.6,SNR=11						
TORD	**Torodi Ar. Bea**	**115.06**	**324**	PKP	PKiKP	09 01 49.4	-1.6
	comp=Z,0.3nm,0.9s,baz=351,slow=1.8,SNR=2.4						

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*IDC **07** 09:16:42.9±0.9, 39°.00S×175°.04E, h129^{km}±13^{km}, mb3.6/3, mb1 3.8/4, mb1mx3.6/15, mbtmp3.7/4, MS3.7/2, Ms1 3.7/2, ms1mx3.2/20, Error ellipse: s-maj=22.5km s-min=11.7km az=133.0*

*ISCJB **07** 09:16:44.2±0.5, 38°.98S±0°.05×175°.26E±0°.07, h166^{km}±5^{km}, mb3.8/3, Error ellipse: s-maj=10.5km s-min=6.9km az=36.0*

*NEIC **07** 09:16:45.0, 38°.90S×175°.25E, h163^{km}, MG4.6(WEL), After WEL.*

NEIC Felt at Palmerston North.

ISC 07 09:16:44.8±0.6, **38°.99S**±0°.05×**175°.28E**±0°.07, **h165**^{km}±5^{km}, **n71,** σ**0^{s}66**/54, **mb3.8**/3, **North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWVZ	**Taurewa**	**0.15**	**125**	P	**Pn**	**09 17 06.9**	**+0.2**
TWVZ				S	**Sn**	**09 17 22.9**	**-0.6**
WTVZ	**West Tongariro**	**0.27**	**118**	P	**Pn**	**09 17 07.2**	**+0.3**
WPVZ	**Whakapapa**	**0.30**	**137**	P	**Pn**	**09 17 07.5**	**+0.5**
NGZ	**Ngauruhoe**	**0.31**	**127**	P	**Pn**	**09 17 07.3**	**+0.3**
KATZ	**Kakaramea**	**0.32**	**88**	P	**Pn**	**09 17 07.2**	**+0.1**
KATZ				S	**Sn**	**09 17 24.2**	**+0.1**
DRZ	**Dome Shelter**	**0.36**	**143**	P	**Pn**	**09 17 09.2**	**+2.0**
RATZ	**Rangitukua**	**0.40**	**73**	P	**Pn**	**09 17 07.4**	**+0.1**
TUVZ	**Tukino**	**0.41**	**134**	P	**Pn**	**09 17 08.1**	**+0.8**
WNVZ	**Wahianoa**	**0.42**	**144**	P	**Pn**	**09 17 08.1**	**+0.7**
VRZ	**Vera Road**	**0.43**	**251**	P	**Pn**	**09 17 06.9**	**-0.5**
WATZ	**Wairara**	**0.45**	**52**	P	**Pn**	**09 17 07.8**	**+0.3**
RITZ	**Rihia Road**	**0.45**	**89**	P	**Pn**	**09 17 07.9**	**+0.4**
MOVZ	**Moawhango**	**0.56**	**139**	P	**Pn**	**09 17 08.3**	**+0.3**
HIZ	**Hauiti**	**0.58**	**325**	P	**Pn**	**09 17 07.6**	**-0.5**
WHTZ	**Whakaora**	**0.62**	**59**	P	**Pn**	**09 17 08.6**	**+0.3**
HATZ	**Hinemaiaia**	**0.64**	**82**	P	**Pn**	**09 17 08.4**	**0.0**

RAEZ	Rainy Point	0.75	246	P	Pn	09 17 09.1	0.0
WAZ	Wanganui	0.80	196	P	Pn	09 17 10.1	+0.7
BKZ	Black Stump Fm	0.96	101	P	Pn	09 17 10.6	0.0
NEZ	North Egmont	0.96	252	P	Pn	09 17 10.9	+0.3
DFE	Dawson Falls	0.97	249	P	Pn	09 17 11.0	+0.3
PKE	Pukeiti	1.03	258	P	Pn	09 17 11.0	-0.1
NWEZ	Newall Road	1.14	255	P	Pn	09 17 11.9	-0.1
TSZ	Takapari Road	1.20	154	P	Pn	09 17 13.7	+1.2
TGRZ	Tauranga	1.47	32	P	Pn	09 17 14.9	-0.3
URZ	Urewera	1.61	64	P	Pn	09 17 15.8	-0.7
	50nm,0.3s,baz=257,slow=7.8,SNR=451						
URZ				S	Sn	09 17 38.0	-2.9
	104nm,0.3s,baz=128,slow=20,SNR=40						
URZ	Urewera	1.61	64	P	Pn	09 17 15.5	-1.0
MRZ	Mangatainoka R	1.69	172	P	Pn	09 17 17.4	+0.1
BFZ	Birch Farm	1.85	157	P	Pn	09 17 19.6	+0.6
KNZ	Kokohu	1.87	92	P	Pn	09 17 19.6	+0.4
MWZ	Matawai	1.88	70	P	Pn	09 17 19.0	-0.4
KIW	Kapiti Island	1.90	189	P	Pn	09 17 19.6	+0.1
CAW	Cannon Point	2.13	184	P	Pn	09 17 22.2	+0.1
MTW	Mount Morrison	2.18	176	P	Pn	09 17 22.6	-0.1
MRW	Makara Radio	2.28	191	P	Pn	09 17 23.8	-0.2
WEL	Wellington	2.33	190	P	Pn	09 17 24.2	-0.3
TCW	Tory Channel	2.35	199	P	Pn	09 17 24.4	-0.4
SNZO	South Karori	2.36	191	P	Pn	09 17 24.5	-0.4
PAWZ	Paruwai Farm	2.40	177	P	Pn	09 17 25.1	-0.2
MSWZ	Moikau Station	2.43	181	P	Pn	09 17 25.5	-0.1
BHW	Baring Head	2.44	187	P	Pn	09 17 25.4	-0.4
PUZ	Puketiti	2.51	70	P	Pn	09 17 26.2	-0.4
NNZ	Nelson	2.66	213	P	Pn	09 17 27.2	-1.3
MXZ	Matakaoa Point	2.77	60	P	Pn	09 17 29.5	-0.4
QRZ	Quartz Range	2.80	228	P	Pn	09 17 28.4	-1.8
CMWZ	Cape Campbell	2.88	196	P	Pn	09 17 31.1	0.0
BSWZ	Blackbirch Sta	2.93	201	P	Pn	09 17 31.0	-0.7
THZ	Tophouse	3.31	212	P	Px	09 17 34.8	
DSZ	Denniston Nort	3.83	223	P	Px	09 17 40.5	
LTZ	Lake Taylor	4.43	210	P	Px	09 17 48.0	
CRLZ	Canterbury Las	5.00	203	P	Px	09 17 55.0	
MQZ	McQueen’s Vall	5.11	202	P	Px	09 17 56.4	
WVZ	Waitaha Valley	5.34	219	P	Px	09 17 58.9	
RPZ	Rata Peaks	5.70	213	P	Px	09 18 04.3	
	5.7nm,0.3s,baz=15,slow=1.6,SNR=44						
RPZ				S	Sx	09 19 05.2	
	25nm,0.3s,baz=14,slow=6.8,SNR=25						
RPZ				LR	LR	09 20 34.1	
	comp=Z,148nm,19.3s,baz=26,slow=41						
RPZ	Rata Peaks	5.70	213	P	Px	09 18 03.6	
FOZ	Fox Glacier	6.22	221	P	Px	09 18 09.1	
LBZ	Lake Benmore	6.61	214	P	Px	09 18 16.9	
ODZ	Otahua Downs	6.97	208	P	Px	09 18 20.7	
JCZ	Jackson Bay	7.05	222	P	Px	09 18 20.5	
WKZ	Wanaka	7.47	217	P	Px	09 18 25.5	
EAZ	Earnscleugh	7.66	213	P	Px	09 18 29.8	
TUZ	Tuapeka	8.12	209	P	Px	09 18 36.0	
WHZ	Wether Hill Ro	8.77	216	P	Px	09 18 43.0	
ASAR	Alice Springs	38.16	281	P	P	09 23 48.7	+0.6
	0.7nm,0.3s,mb3.8,baz=115,slow=6.6,SNR=9.9						
WRA	Warramunga Arr	39.98	286	P	P	09 24 03.8	+0.5
	0.3nm,0.3s,mb3.4,baz=124,slow=8.2,SNR=15						
QSPA	South Pole Qui	51.14	180	P	P	09 25 33.8	+3.7
	2.4nm,0.5s,mb4.1,baz=85,slow=11,SNR=9.0						
QSPA	South Pole Qui	51.14	180	P	P	09 25 33.8	+3.7
GUMO	Guam	59.52	325	LR	LR	09 47 14.1	
	comp=Z,379nm,20.9s,baz=323,slow=31						
ARCES	ARCESS Array B	145.43	342	PKPbc	PKPbc	09 36 01.3	-0.8
	2.8nm,0.9s,baz=51,slow=9.6,SNR=4.3						
TORD	Torodi Ar. Bea	153.64	194	PKPab	PKPab	09 36 37.4	0.0
	0.3nm,0.4s,baz=166,slow=3.7,SNR=8.3						
TORD	Torodi Ar. Bea	153.64	194	PKPab	PKPab	09 36 37.4	0.0

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*DJA **07** 09:25:25, 22°.47S×179°.25W, h401km, mb5.4/22*

*MOS **07** 09:25:28.9±0.8, 22°.35S×179°.35W, h449km, mb5.3/20, Error ellipse: s-maj=10.1km s-min=9.0km az=73.2*

*BJI **07** 09:25:29.2, 22°.27S×178°.95W, h462km, mB4.9/22, mb4.8/43*

*GCMT **07** 09:25:30.5±0.3, 22°.65S×178°.96W, h494km±1km, MW5.6/77, Moment Tensor Solution. s77,c136; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}1.71±.06; $M_{\theta\theta}$-0.91±.10; $M_{\phi\phi}$-0.79±.10; $M_{r\theta}$0.20±.11; $M_{\theta\phi}$-1.55±.09; $M_{\phi r}$-1.99±.10; Best double couple: $M_0$2.92500×10^{17} NP1:ϕ_s75.00000°, δ37.00000°, λ144.00000°. NP2:ϕ_s195.00000°, δ69.00000°, λ58.00000°. Principal axes: T 3.0440, Plg55.0000°, Azm65.0000°; N -0.2340, Plg29.0000°, Azm207.0000°; P -2.8060, Plg18.0000°, Azm308.0000°; nsta1 refers to body waves, cutoff=40s.*

*NEIC **07** 09:25:30.5±0.5, 22°.54S×179°.24W, h465km±5km, mb5.2/63 Error ellipse: s-maj=6.0km s-min=3.9km az=156.0*

*BGS **07** 09:25:30.4±4.3, 22°.54S×179°.24W, h465km, mb5.2(NEIC)*

*SZGRF **07** 09:25:31.7, 22°.95S×179°.14W, h488km, South of Fiji Islands*

*IDC **07** 09:25:31.8±0.5, 22°.63S×179°.27W, h479km±4km, mb4.5/25, mb1 4.6/27, mb1mx4.6/28, mbtmp4.5/27, Error ellipse: s-maj=10.2km s-min=8.0km az=153.0*

*ISCJB **07** 09:25:31.2±0.1, 22°.58S±0°.05×179°.28W±0°.03, h483km, mb5.0/101, Error ellipse: s-maj=6.4km s-min=3.2km az=160.4*

ISC 07 09:25:32.4±0.1, **22°.61S**±0°.04×**179°.23W**±0°.03, **h485km, h485**km±2.1km**:pP-P, n889, σ0^{s}60**/598, **mb5.0**/100, **217C-207D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	6.72	170	P	P	09 27 14.0	-1.1
	290nm,0.3s,baz=76,slow=14,SNR=9.9						
RAO				S	S	09 28 28.0	-11
	697nm,0.3s,baz=272,slow=18,SNR=7.0						
AFI	Afiamalu	11.17	41	eP	P	09 27 55.9	-6.4
AFI				e		09 29 53.8	
AFI				pmax	pmax		
	comp=Z,488nm,0.9s						
AFI	Afiamalu	11.17	41	ePn	P	09 27 55.9	-6.4
	comp=Z,488nm,0.9s						
AFI				eSn	S	09 29 53.8	-12
DZM	Mont Dzumac	13.27	270	ePn	P	09 28 25.5	+1.0
DZM				eSn	S	09 30 49.4	+2.9
NOUC	Port Laguerre	13.40	269	eP	P	09 28 26.2	+0.3
FUNA	Funafuti	14.08	354	ePn	P	09 28 29.7	-3.6
	comp=Z,610nm,1.5s						
URZ	Urewera	15.92	191	P	P	09 28 50.3	-1.9
	comp=Z,17nm,0.3s,baz=2.6,slow=3.2,SNR=89						
URZ				S	S	09 31 37.6	+0.4
	comp=Z,3.6nm,0.3s,baz=167,slow=23,SNR=6.0						
RAR	Rarotonga	18.11	89	eP	P	09 29 14.7	+0.1
SNZO	South Karori	19.34	194	eP	P	09 29 26.1	+0.6
	comp=Z,53nm,0.8s						
RPZ	Rata Peaks	22.54	199	P	P	09 29 54.2	-0.3
	comp=Z,34nm,0.4s,mb5.1,baz=320,slow=2.3,SNR=38						
ARMA	Armidale	27.16	247	eP	P	09 30 36.5	+0.7
ARMA				e		09 37 17.6	
ARMA	Armidale	27.16	247	eP	P	09 30 36.9	+1.1
	comp=Z,46nm,0.9s,mb4.9						
EIDS	Eidsvold	27.24	258	eP	P	09 30 36.9	+0.3
	comp=Z,59nm,0.9s,mb5.0						
PAE	Paea	28.24	85	eP	P	09 30 43.2	-2.2
	comp=Z,741nm,1.2s,mb6.0						
PPT	Papeete	28.27	85	eP	P	09 30 45.1	-0.6
	comp=Z,89nm,1.2s,mb5.1						
PPT				eLR	LR	09 37 08.5	
	comp=Z,1μm,25.8s						
PPT	Papeete	28.27	85	P	P	09 30 45.5	-0.2
	comp=Z,67nm,1.0s,mb5.0,baz=227,slow=3.3,SNR=5.8						
PMOR	Pomariorio Ree	30.57	81	eP	P	09 31 04.9	-0.8
	comp=Z,205nm,1.1s,mb5.5						
VAH	Vaihoa	30.74	82	eP	P	09 31 05.9	-1.2
	comp=Z,147nm,1.0s,mb5.3						
CTA	Charters Tower	32.20	268	eP	P	09 31 19.3	-0.4
	comp=Z,135nm,0.6s,mb5.5						
CTA				eS	S	09 35 58.9	+1.0
CTA				eSCP	ScP	09 36 55.6	+4.0
CTA	Charters Tower	32.20	268	P	P	09 31 19.8	+0.1
	comp=Z,199nm,0.8s,mb5.6,baz=95,slow=11,SNR=166						
CTA				ScP	ScP	09 36 54.3	+2.7
	comp=Z,20nm,1.1s,baz=128,slow=2.2,SNR=5.6						
CTA	Charters Tower	32.20	268	P	P	09 31 19.8	+0.1
CTA				ScP	ScP	09 36 54.3	+2.7
CTAO	Charters Tower	32.20	268	eP	P	09 31 19.1	-0.6
CTAO				pmax	pmax		
	comp=Z,200nm,0.8s,mb5.6						
CTAO	Charters Tower	32.20	268	eP	P	09 31 19.1	-0.6
	comp=Z,200nm,0.8s,mb5.6						
XMAS	Kiritimati	32.44	44	eP	P	09 31 20.4	-1.3
	comp=Z,227nm,0.9s,mb5.6						
QLP	Quilpie	33.38	256	eP	P	09 31 29.0	-0.7
MTSU	Mount Surprise	34.41	271	⇑iP	P	09 31 38.4	0.0
	comp=Z,272nm,0.9s,mb5.7						
STKA	Stephens Creek	35.87	247	eP	P	09 31 50.2	-0.3
	comp=Z,22nm,0.6s,mb4.8						
STKA	Stephens Creek	35.87	247	P	P	09 31 50.6	+0.1
	comp=Z,35nm,0.7s,mb4.9,baz=92,slow=10.0,SNR=53						
STKA				ScP	ScP	09 37 07.2	+2.7
	comp=Z,10nm,0.9s,baz=358,slow=4.2,SNR=5.6						
STKA	Stephens Creek	35.87	247	eP	P	09 31 50.1	-0.4
	comp=Z,8.5nm,0.8s,mb4.2						
STKA				ScP	ScP	09 37 07.2	+2.7
COEN	Coen	36.63	277	eP	P	09 31 54.3	-2.7
	comp=Z,673nm,1.0s,mb6.0						
BBOO	Buckleboo	40.61	246	eP	P	09 32 28.4	-0.8
	comp=Z,13nm,0.4s,mb4.7						
ASAR	Alice Springs	42.96	259	P	P	09 32 47.0	-0.9
ASAR				*PP	pP	09 34 17.8	0.0
ASAR				S	S	09 38 35.9	-1.5
ASAR	Alice Springs	42.96	259	P	P	09 32 47.0	-1.0
	comp=Z,110nm,0.8s,mb5.3,baz=92,slow=8.0,SNR=410						
ASAR				pP	pP	09 34 17.8	0.0
	comp=Z,5.0nm,0.7s,baz=88,slow=8.1,SNR=2.1						
ASAR				ScP	ScP	09 37 36.0	+3.6
	comp=Z,7.3nm,1.0s,baz=113,slow=4.0,SNR=6.6						
ASAR				S	S	09 38 35.9	-1.5
	comp=Z,2.6nm,0.7s,baz=92,slow=16,SNR=6.1						
ASAR				PKiKP	PKiKP	09 41 27.4	-2.4
	comp=Z,0.3nm,0.5s,baz=98,slow=1.0,SNR=4.6						
ASAR	Alice Springs	42.96	259	P	P	09 32 47.0	-1.0
ASAR				pP	pP	09 34 17.8	0.0
ASAR				ScP	ScP	09 37 36.0	+3.6
ASAR				S	S	09 38 35.9	-1.5
WRAB	Tennant Creek	43.21	265	P	P	09 32 48.0	-1.9
	comp=Z,818nm,0.9s,mb6.2,SNR=94						
WRAB	Tennant Creek	43.21	265	eP	P	09 32 48.3	-1.6
WRAB				pmax	pmax		
	comp=Z,85nm,0.8s,mb5.2						
WRAB	Tennant Creek	43.21	265	eP	P	09 32 48.3	-1.6
	comp=Z,86nm,0.8s,mb5.2						
WRAB				eScP	ScP	09 37 37.2	+3.8
WRA	Warramunga Arr	43.22	265	P	P	09 32 48.4	-1.6
WRA				*PP	pP	09 34 18.3	-1.7
WRA				S	S	09 38 38.8	-2.4
WRA	Warramunga Arr	43.22	265	P	P	09 32 48.4	-1.6
	comp=Z,34nm,0.3s,mb5.3,baz=96,slow=8.2,SNR=494						
WRA				pP	pP	09 34 18.3	-1.7
	comp=Z,5.9nm,0.7s,baz=97,slow=7.8,SNR=3.1						
WRA				ScP	ScP	09 37 36.9	+3.5
	comp=Z,21nm,1.0s,baz=100,slow=4.1,SNR=17						
WRA				S	S	09 38 38.8	-2.4
	comp=Z,4.2nm,0.9s,baz=99,slow=14,SNR=7.6						
KAKA	Kakadu	46.91	274	eP	P	09 33 16.8	-1.8
	comp=Z,71nm,0.4s,mb5.5						
KAKA	Kakadu	46.91	274	eP	P	09 33 17.4	-1.1
	comp=Z,218nm,0.5s,mb5.8						
FORT	Forrest	47.43	248	eP	P	09 33 21.3	-1.0
	comp=Z,111nm,0.6s,mb5.5						
FORT	Forrest	47.43	248	eP	P	09 33 21.3	-0.9
	comp=Z,148nm,0.7s,mb5.5						
FORT				eScP	ScP	09 37 54.3	+3.4
POHA	Pohakuloa	48.05	31	eP	P	09 33 27.0	+0.1
HON	Honolulu	48.32	27	eP	P	09 33 29.0	+0.1
KIP	Kipapa	48.40	27	eP	P	09 33 29.0	-0.6
KNA	Kununurra	49.39	268	eP	P	09 33 36.1	-1.0
	comp=Z,108nm,0.4s,mb5.5						
GUMO	Guam	50.31	312	P	P	09 33 43.9	+0.1
	comp=Z,161nm,0.8s,mb5.4,baz=184,slow=7.9,SNR=7.0						
GUMO	Guam	50.31	312	P	P	09 33 43.9	+0.1
GUMO				eP		09 33 44.0	
FITZ	Fitzroy Crossi	51.65	264	eP	P	09 33 53.2	-0.4
	comp=Z,58nm,0.6s,mb5.1						
FITZ				epP	pP	09 35 28.6	+0.6
FITZ				eSCP	ScP	09 38 13.4	+4.2
FITZ				eS	S	09 40 29.3	-8.8
FITZ	Fitzroy Crossi	51.65	264	eP	P	09 33 53.6	0.0
	comp=Z,107nm,1.2s,mb5.0						
FITZ				eScP	ScP	09 38 08.5	-0.7
VNDA	Vanda	55.72	185	P	P	09 34 24.1	+2.5
	comp=Z,4.3nm,0.7s,mb3.9,baz=31,slow=6.7,SNR=7.2						
KLBR	Kellerberrin	56.15	246	eP	P	09 34 24.5	-0.8
	comp=Z,44nm,0.7s,mb4.9						
KLBR				epP	pP	09 36 01.8	-0.1
MEEK	Meekatharra	56.17	252	eP	P	09 34 24.4	-1.2
	comp=Z,19nm,0.6s,mb4.6						
MBWA	Marble Bar	56.30	259	eP	P	09 34 25.6	-1.0
	comp=Z,78nm,0.7s,mb5.2						
NWAO	Narrogin (SRO)	56.42	245	P	P	09 34 26.6	-0.5
	comp=Z,18nm,0.6s,mb4.6,baz=97,slow=4.4,SNR=21						
NWAO	Narrogin (SRO)	56.42	245	P	P	09 34 26.6	-0.5
NWAO				eP		09 34 27.1	
MUN	Mundaring	57.40	246	eP	P	09 34 33.5	-0.5
MUN				epP	pP	09 36 11.5	+0.4
MYLDM	Lahad Datu	66.80	286	P	P	09 35 36.7	+1.2
TSM	Tawau	66.96	285	P	P	09 35 37.6	+1.1
QSPA	South Pole Qui	67.47	180	P	P	09 35 40.1	+1.6
	comp=Z,11nm,0.9s,mb4.5,baz=24,slow=2.4,SNR=12						
QSPA	South Pole Qui	67.47	180	eP	P	09 35 40.1	+1.6
	comp=Z,51nm,1.5s,mb4.9						
QSPA				epP	pP	09 37 25.6	+5.8
SDKM	Sandakan	68.16	286	P	P	09 35 45.1	+1.2
KDM	Kudat	69.06	287	P	P	09 35 51.0	+1.6
KKM	Kota Kinabalu	69.21	286	P	P	09 35 51.4	+1.2
KKM	Kota Kinabalu	69.21	286	eP	P	09 35 50.8	+0.5
	comp=Z,30nm,0.8s,mb4.9						
JOW	Kunigami	70.66	311	P	P	09 35 59.5	+0.8
	comp=Z,51nm,0.8s,mb5.1,baz=154,slow=8.3,SNR=5.6						
MJAR	Matsushiro Arr	71.24	325	P	P	09 36 01.0	-0.8
	comp=Z,20nm,0.8s,mb4.7,baz=162,slow=5.7,SNR=43						
MAJO	Matsushiro	71.24	325	eP	P	09 36 01.5	-0.3
MAJO				pmax	pmax		
	comp=Z,30nm,0.8s,mb4.9						
MAJO	Matsushiro	71.24	325	eP	P	09 36 01.5	-0.3
	comp=Z,30nm,0.8s,mb4.9						
MAT	Matsushiro	71.24	325	P	P	09 36 01.0	-0.8
MAT				S	S	09 44 33.0	-6.9
SBUM	Sibu	71.25	281	P	P	09 36 03.0	+0.6
KSM	Kuching	72.59	279	P	P	09 36 10.4	+0.2
KSM	Kuching	72.59	279	eP	P	09 36 09.8	-0.5
	comp=Z,54nm,0.8s,mb5.1						
TWG	Pinlang	73.57	304	eP	P	09 36 13.9	-1.8
	comp=Z,44nm,0.6s,mb5.2						
NACB	Ninganchiao	73.93	305	eP	P	09 36 16.9	-0.7
	comp=Z,84nm,0.9s,mb5.3						
TPUB	Ta-pu	74.17	304	eP	P	09 36 18.2	-0.9
	comp=Z,157nm,0.8s,mb5.6						
SSLB	Suanglung	74.20	305	eP	P	09 36 17.7	-1.4
	comp=Z,73nm,0.8s,mb5.3						
YHNB	Yeheng	74.37	306	eP	P	09 36 19.5	-0.7
	comp=Z,74nm,1.1s,mb5.1						
TATO	Taipei	74.46	306	eP	P	09 36 20.7	+0.1
ASAJ	Asahikawa	75.04	333	P	P	09 36 24.4	+0.9
	comp=Z,35nm,0.8s,mb4.9,baz=216,slow=7.2,SNR=26						
QZH	Quanzhou	76.63	304	⇓iP	P	09 36 34.0	+1.3
QZH				S	S	09 45 42.2	+2.7
QZH				pmax	pmax		
	comp=Z,100nm,0.8s,mb5.4						
YSS	Yuzh-Sakhalins	77.27	334	⇑eP	P	09 36 36.2	+0.5
YSS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.1						
YSS	Yuzh-Sakhalins	77.27	334	eP	P	09 36 37.0	+1.2
	comp=Z,58nm,1.1s,mb5.0						
KSRS	Korea Array	77.72	320	P	P	09 36 39.5	+1.1
	comp=Z,7.2nm,0.8s,mb4.1,baz=137,slow=5.9,SNR=22						
PET	Petropavlovsk	77.73	347	eP	P	09 36 37.8	-0.3
PET				eS	S	09 45 49.8	-0.1
PET				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.6						
PET				pmax	pmax		
	comp=Z,100nm,14.5s						
PET				MLR	MLR		
	comp=Z,100nm,17.0s						
PET	Petropavlovsk	77.73	347	eP	P	09 36 37.3	-0.7
	comp=Z,65nm,1.2s,mb4.9						
PEA0B	Petropavlovsk-	78.01	346	eP	P	09 36 39.9	+0.3
PETK	Petropavlovsk-	78.01	346	P	P	09 36 39.9	+0.2
	comp=Z,77nm,0.9s,mb5.1,baz=123,slow=7.2,SNR=53						
INCN	Inchon	78.52	319	eP	P	09 36 44.2	+1.5
MYKOM	Kota Tinggi	78.63	277	P	P	09 36 44.7	+0.8
KGM	Kluang	79.20	277	P	P	09 36 47.5	+0.5
SNCC	San Nicolas Is	79.51	47	⇓P	P	09 36 48.2	+0.1
	baz=80						
BSC	Santa Cruz Isl	79.87	47	⇓P	P	09 36 50.5	+0.5
	baz=80						
SCI	San Clemente I	80.02	48	⇑P	P	09 36 51.2	+0.3
	baz=80						
SBC	Santa Barbara	80.08	46	⇑P	P	09 36 51.4	+0.3
	baz=80						
BLG	Laguna Peak	80.32	47	⇓P	P	09 36 52.1	-0.2
	baz=80						
NJ2	Nanjing	80.35	311	eP	P	09 36 50.2	-2.4
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
CIS	Catalina Islan	80.37	48	⇓P	P	09 36 52.5	-0.1
	baz=81						
SMMC	Simmler	80.40	45	⇑P	P	09 36 53.2	+0.4
	baz=81						
CHGN	Chignik	80.55	12	eP	P	09 36 51.2	-1.7
FMP	Fort Macarthur	80.62	48	⇓P	P	09 36 54.0	+0.1
	baz=81						
OSI	Osito Adit	80.84	47	⇓P	P	09 36 55.1	0.0
	baz=81						
DECC	Green Verdugo	80.90	47	⇓P	P	09 36 55.0	-0.4
	baz=81						
PASC	Pasadena Art C	80.95	47	eP	P	09 36 55.4	-0.2
109C	Camp Elliot, M	80.97	49	⇓P	P	09 36 55.5	-0.3
	baz=81						
MWC	Mount Wilson	81.07	47	eP	P	09 36 56.4	+0.2
ARVC	Arvin	81.07	46	⇑P	P	09 36 56.1	-0.1
	baz=81,SNR=8.3						
BAR	Barrett	81.16	49	eP	P	09 36 56.9	+0.2
FRIM	Kepong	81.24	277	P	P	09 36 58.9	+1.2
MURC	Murrieta	81.30	48	⇓P	P	09 36 57.1	-0.3
	baz=82,SNR=16						
VES	Vestal, Richgr	81.32	45	⇓P	P	09 36 57.0	-0.5
	baz=82,SNR=21						
BFSC	Mount Baldy St	81.35	47	⇓P	P	09 36 57.4	-0.3
	baz=82,SNR=12						
MONP	Monument Peak	81.45	49	⇓P	P	09 36 58.4	+0.2
	baz=82,SNR=32						
RCTC	Rector, Farmer	81.49	45	⇑P	P	09 36 57.8	-0.6
	baz=82						
EDW2	Edwards Air Fo	81.49	47	⇓P	P	09 36 58.1	-0.3
	baz=82,SNR=23						
KHMM	Horse Mountain	81.50	39	eP	P	09 37 00.5	+2.2
DVTC	Desert V Tower	81.54	50	⇓P	P	09 36 58.9	+0.1
	baz=82,SNR=15						
MDJ	Mudanjiang	81.59	326	P	P	09 36 59.8	+1.1
MDJ				S	S	09 46 33.0	+2.9
MDJ				pmax	pmax		
	comp=Z,27nm,1.3s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,120nm,5.8s						
MDJ	Mudanjiang	81.59	326	eP	P	09 36 59.2	+0.6
	comp=Z,40nm,1.3s,mb4.8						
ISA	Isabella	81.62	46	eP	P	09 36 58.8	-0.2
ISA				pmax	pmax		
	comp=Z,130nm,1.4s,mb5.3						
ISA	Isabella	81.62	46	⇓P	P	09 36 58.9	-0.1
	baz=82,SNR=37						
ISA	Isabella	81.62	46	eP	P	09 36 58.8	-0.3
	comp=Z,130nm,1.4s,mb5.3						
HABR	Khabarovsk	81.72	331	ceP	P	09 36 56.7	-2.5
HABR				ePPP		09 42 03.9	
HABR				eS	S	09 46 29.4	-1.8
HABR				eSS	SS	09 51 57.8	-5.4
HABR				eSSS		09 55 32.0	
HABR				MLR	MLR		
	comp=Z,68nm,19.0s						
PFO	Pinyon Flat Ob	81.82	49	P	P	09 37 00.8	+0.7
	comp=Z,127nm,0.9s,mb5.5,SNR=6.2						
PFO	Pinyon Flat Ob	81.82	49	iP	P	09 37 01.4	+1.3
PFO	Pinyon Flat Ob	81.82	49	⇓P	P	09 37 00.3	+0.1
	baz=82,SNR=9.0						
PFO	Pinyon Flat Ob	81.82	49	eP	P	09 37 01.0	+0.8
	comp=Z,62nm,1.5s,mb4.9						
BBRC	Big Bear Sol-O	81.87	48	⇓P	P	09 37 00.3	0.0
	baz=82,SNR=6.2						
OHCM	Honcut	81.88	41	eP	P	09 36 59.9	-0.4
SWSC	Sam W. Stewart	81.91	49	⇑P	P	09 37 00.6	0.0
	baz=82,SNR=24						
RRX	Edison Barstow	82.16	47	⇓P	P	09 37 01.5	-0.3
	baz=82						
IPM	Ipoh	82.28	278	P	P	09 37 03.9	+1.0
CWC	Cottonwood Cre	82.33	45	⇑P	P	09 37 02.7	+0.1
	baz=82,SNR=12						
BELC	Belle Mtn.	82.36	48	⇓P	P	09 37 02.9	+0.1
	baz=83,SNR=27						
OHAK	Old Harbor	82.45	14	eP	P	09 37 02.8	0.0
MPMC	Manual Prospec	82.50	46	⇓P	P	09 37 03.5	0.0
	baz=83,SNR=28						
MLAC	Mammoth Lakes	82.53	44	⇓P	P	09 37 03.9	+0.3
	baz=83						
MTUM	Tungsten Hills	82.54	44	eP	P	09 37 04.0	+0.3
BC3	Big Chuckw Mtn	82.54	49	⇓P	P	09 37 04.1	+0.3
	baz=83,SNR=25						
112A	Yuma	82.55	50	⇑P	P	09 37 04.2	+0.4
	baz=83,SNR=17						
TIN	Tinemaha	82.58	45	⇓P	P	09 37 03.8	-0.2
	baz=83,SNR=9.2						
HEC	Hector,Ludlow	82.59	48	⇑P	P	09 37 03.8	-0.2
	baz=83,SNR=34						
GLA	Glamis	82.66	50	⇓P	P	09 37 04.7	+0.3
	baz=83,SNR=18						
GLA	Glamis	82.66	50	eP	P	09 37 05.4	+1.0
WAKR	Walker	82.66	43	eP	P	09 37 04.5	+0.2
R06C	Coleville	82.66	43	⇑P	P	09 37 04.4	+0.1
	baz=83,SNR=37						
WHN	Wuhan	82.78	307	⇑P	P	09 37 01.8	-3.3
WHN				S	S	09 46 36.7	-6.0
LBCM	Butte Creek Ri	82.89	40	P	P	09 37 05.3	-0.1
BEKR	Beckwourth	82.90	42	⇓P	P	09 37 05.2	-0.2
	baz=83,SNR=36						
WCN	Washoe City	82.93	42	⇓P	P	09 37 05.7	+0.1
	baz=83,SNR=34						
KULM	Kulim	82.94	279	P	P	09 37 07.0	+0.7
KULM	Kulim	82.94	279	eP	P	09 37 06.7	+0.4
	comp=Z,24nm,0.8s,mb4.8						
GMRC	Granite Mounta	83.02	48	⇓P	P	09 37 06.3	+0.2
	baz=83						
IRM	Iron Mountain	83.03	49	⇓P	P	09 37 06.7	+0.5
	baz=83,SNR=43						
P06A	Stead Airport,	83.07	42	⇑P	P	09 37 06.4	+0.1
	baz=83,SNR=8.6						
GRAC	Grapevine Rang	83.11	45	⇑P	P	09 37 06.7	+0.1
	baz=83,SNR=21						
KDAK	Kodiak Island	83.12	14	P	P	09 37 05.2	-0.9
	comp=Z,18nm,0.7s,mb4.7,baz=263,slow=2.9,SNR=5.3						
KDAK	Kodiak Island	83.12	14	P	P	09 37 05.2	-0.9
FURC	Furnace Creek,	83.15	46	⇑P	P	09 37 06.3	-0.5
	baz=83,SNR=15						
TUQ	Turquoise Moun	83.20	47	⇑P	P	09 37 06.9	-0.2
	baz=83,SNR=13						
SHOC	Shoshone	83.22	47	⇑P	P	09 37 06.9	-0.3
	baz=83,SNR=15						
Y12C	Blythe	83.25	49	⇑P	P	09 37 07.5	+0.1
	baz=83,SNR=31						
113A	Mohawk Valley,	83.26	51	⇓P	P	09 37 07.4	0.0
	baz=84,SNR=18						
CN2	Changchun	83.27	323	⇑iP	P	09 37 07.3	+0.1
CN2				eS	S	09 46 48.4	+1.4
CN2				eSS	SS	09 52 31.7	+5.4
CN2				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
Q07A	Schurz	83.31	43	⇑P	P	09 37 07.6	0.0
	baz=84,SNR=7.1						
NVAR	Mina Array Bea	83.33	44	P	P	09 37 07.6	-0.1
	comp=Z,18nm,0.8s,mb4.7,baz=222,slow=8.3,SNR=84						
NVAR				pP	pP	09 38 54.9	+0.4
	comp=Z,5.1nm,1.0s,baz=229,slow=8.2,SNR=3.0						
NVAR	Mina Array Bea	83.33	44	P	P	09 37 07.6	-0.1
NVAR				pP	pP	09 38 54.9	+0.4
O06A	Flanigan	83.40	42	⇑P	P	09 37 07.9	-0.1
	baz=84						
PAHR	Pah Rah Range	83.40	42	eP	P	09 37 08.3	+0.4
R08A	Mina	83.41	44	⇓P	P	09 37 08.0	0.0
	baz=84,SNR=9.0						
U10A	Ash Meadows, A	83.48	46	⇓P	P	09 37 08.6	+0.2
	baz=84,SNR=20						
214A	Organ Pipe Nat	83.52	52	⇓P	P	09 37 09.0	+0.3
	baz=84,SNR=22						
LDFC	Landfair	83.56	48	eP	P	09 37 09.5	+0.7
P07A	Fallon	83.61	43	⇓P	P	09 37 09.0	0.0
	baz=84						
S09A	Goldfield	83.62	45	⇓P	P	09 37 08.6	-0.5
	baz=84,SNR=23						

NEE2	Needles Airpor	83.73	48	⇓P	P	09 37 09.8	+0.1
	baz=84						
N06A	Buffalo Meadow	83.75	41	⇓P	P	09 37 09.5	-0.1
	baz=84,SNR=22						
V11A	Goodsprings	83.76	47	⇑P	P	09 37 09.9	0.0
	baz=84,SNR=16						
KLR	Kul’dur	83.76	330	*e*P	P	09 37 06.7	-2.8
KLR				pmax	pmax		
	comp=E,28nm,1.6s						
KLR				pmax	pmax		
	comp=Z,85nm,1.6s,mb5.0						
Y13A	Salome	83.77	50	⇓P	P	09 37 10.1	+0.2
	baz=84,SNR=15						
PDMCI	Parker Dam,Lak	83.81	49	⇓P	P	09 37 09.9	-0.2
	baz=84,SNR=20						
Q08A	Gabbs	83.82	44	⇑P	P	09 37 09.7	-0.4
	baz=84,SNR=29						
TPH	Tonopah	83.82	45	*e*P	P	09 37 10.3	+0.2
TPH				*e*pP	pP	09 38 58.5	+1.4
W12A	Cal Nev Ari	83.85	48	⇓P	P	09 37 10.5	+0.2
	baz=84,SNR=12						
O07A	Toulon	83.98	42	⇑P	P	09 37 10.7	-0.1
	baz=84,SNR=27						
R09A	Tonopah	84.02	44	⇑P	P	09 37 10.8	-0.2
	baz=84,SNR=37						
V12A	Nelson	84.09	48	⇓P	P	09 37 11.5	-0.1
	baz=84,SNR=21						
U11A	Corn Creek	84.11	47	⇓P	P	09 37 11.5	-0.1
	baz=84,SNR=7.3						
S10A	Tonopah Range,	84.15	45	⇓P	P	09 37 11.5	-0.2
	baz=84,SNR=45						
Z14A	Wintersburg	84.15	50	⇑P	P	09 37 12.2	+0.4
	baz=84,SNR=18						
X13A	Yucca	84.18	49	⇓P	P	09 37 12.0	0.0
	baz=84,SNR=31						
P08A	Dixie Valley	84.21	43	⇓P	P	09 37 12.1	+0.1
	baz=84						
Q09A	Carvers	84.28	44	⇑P	P	09 37 12.1	-0.3
	baz=84,SNR=5.3						
N07B	Gerlach	84.29	42	⇑P	P	09 37 12.0	-0.4
	baz=84,SNR=8.4						
SHPR	Sheep Range	84.31	47	*e*P	P	09 37 12.7	+0.1
K05A	Summer Lake	84.31	39	⇓P	P	09 37 12.6	+0.2
	baz=84,SNR=6.0						
115A	Sonoran Desert	84.32	51	⇑P	P	09 37 12.9	+0.2
	baz=84,SNR=12						
W13A	Hualapai Mount	84.42	48	⇓P	P	09 37 13.2	+0.1
	baz=85,SNR=18						
Y14A	Wickenburg	84.42	50	⇑P	P	09 37 13.0	-0.1
	baz=85,SNR=23						
SYO	Syowa Base	84.43	193	⇓*e*P	P	09 37 11.8	-0.8
O08A	Rochester Mine	84.51	42	⇓P	P	09 37 13.4	-0.1
	baz=85,SNR=9.9						
216A	Three Points,	84.52	52	⇑P	P	09 37 14.2	+0.5
	baz=85,SNR=14						
M07A	Soldier Meadow	84.53	41	⇓P	P	09 37 13.5	0.0
	baz=85,SNR=17						
R10A	Warm Springs	84.54	45	⇑P	P	09 37 13.7	+0.1
	baz=85,SNR=36						
116A	Eloy	84.63	52	⇓P	P	09 37 14.5	+0.2
	baz=85,SNR=27						
T11A	Corn Creek, Al	84.67	46	⇑P	P	09 37 14.3	0.0
	baz=85,SNR=40						
Z15A	Gila River Ind	84.68	51	⇓P	P	09 37 14.4	-0.1
	baz=85,SNR=7.4						
U12A	Valley of Fire	84.69	47	⇑P	P	09 37 14.5	+0.1
	baz=85,SNR=12						
P09A	Austin	84.72	43	⇓P	P	09 37 14.2	-0.3
	baz=85,SNR=6.5						
T12A	Moapa	84.73	47	⇓P	P	09 37 14.4	-0.2
	baz=85						
V13A	Grand Canyon W	84.75	48	⇓P	P	09 37 14.8	0.0
	baz=85,SNR=40						
X14A	Yava	84.78	49	⇓P	P	09 37 15.1	+0.2
	baz=85,SNR=26						
Q10A	Clear Creek Ra	84.78	44	⇓P	P	09 37 14.5	-0.3
	baz=85,SNR=18						
H04A	Detroit Lake	84.79	37	⇓P	P	09 37 14.7	0.0
	baz=85						
L07A	Adell	84.80	40	⇓P	P	09 37 15.1	+0.3
	baz=85,SNR=11						
N08A	GE Springer Mi	84.81	42	⇑P	P	09 37 14.7	-0.2
	baz=85,SNR=23						
217A	Green Valley	84.88	53	⇓P	P	09 37 16.1	+0.6
	baz=85,SNR=46						
Y15A	Casa Rosa Ranc	84.90	50	⇑P	P	09 37 15.7	+0.1
	baz=85,SNR=29						
G04A	Mulino	84.96	36	⇓P	P	09 37 15.7	+0.1
	baz=85						
W14A	Seligman	85.03	49	⇓P	P	09 37 16.6	+0.4
	baz=85,SNR=35						
O09A	Fish Creek Ran	85.04	43	⇑P	P	09 37 15.9	-0.1
	baz=85,SNR=16						
R11A	Troy Canyon, C	85.04	45	⇓P	P	09 37 15.8	-0.3
	baz=85,SNR=10						
M08A	Happy Creek Ra	85.05	41	⇓P	P	09 37 16.2	+0.1
	baz=85,SNR=11						
J06A	Christmas Vall	85.06	39	⇓P	P	09 37 15.8	-0.3
	baz=85,SNR=9.7						
U13A	Pakoon Wash	85.07	47	⇑P	P	09 37 16.4	+0.2
	baz=85,SNR=41						
S12A	Delamar Landin	85.12	46	⇑P	P	09 37 16.9	+0.4
	baz=85,SNR=33						
TUC	Tucson	85.17	52	*e*P	P	09 37 17.3	+0.4
TUC				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.0						
TUC	Tucson	85.17	52	*e*P	P	09 37 17.3	+0.4
	comp=Z,40nm,1.0s,mb5.0						
TUC				*e*pP	pP	09 39 06.2	+1.8
BMN	Battle Mountai	85.17	43	*e*P	P	09 37 16.6	-0.1
BMN				pmax	pmax		
	comp=Z,85nm,1.5s,mb5.2						
BMN	Battle Mountai	85.17	43	*e*P	P	09 37 16.6	-0.1
	comp=Z,85nm,1.5s,mb5.2						
BMN				*e*pP	pP	09 39 04.8	+0.6
P10A	Eureka	85.19	44	⇑P	P	09 37 16.7	-0.1
	baz=85,SNR=5.5						
N09A	Rock Creek Ran	85.22	42	⇓P	P	09 37 16.9	-0.1
	baz=85,SNR=6.3						
E03A	Lebam	85.23	35	⇑P	P	09 37 17.2	+0.4
	baz=86						
Z16A	Peralta Trail,	85.23	51	⇑P	P	09 37 17.3	+0.2
	baz=85,SNR=17						
V14A	Boquillas Ranc	85.24	48	⇓P	P	09 37 17.4	+0.3
	baz=85,SNR=41						
X15A	Humboldt	85.24	50	⇑P	P	09 37 17.4	+0.2
	baz=85,SNR=29						
K07A	Rock Creek Ran	85.26	40	⇑P	P	09 37 17.3	+0.3
	baz=86,SNR=16						
Q11A	Duckwater	85.27	45	⇓P	P	09 37 17.1	-0.2
	baz=86,SNR=17						
318A	Bisbee	85.32	53	⇓P	P	09 37 18.5	+0.8
	baz=86,SNR=36						
117A	Oracle	85.34	52	⇓P	P	09 37 18.3	+0.6
	baz=86,SNR=32						
T13A	Saint George	85.43	47	⇓P	P	09 37 18.2	+0.1
	baz=86,SNR=17						
F04A	Amboy	85.45	36	⇑P	P	09 37 18.1	+0.2
	baz=86						
I06A	Prineville	85.45	38	⇑P	P	09 37 18.6	+0.6
	baz=86,SNR=11						
Y16A	Circle Bar Ran	85.47	51	⇑P	P	09 37 18.8	+0.5
	baz=86,SNR=29						
WVOR	Wild Horse Val	85.47	40	*e*P	P	09 37 18.9	+0.8
WVOR				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.0						
WVOR	Wild Horse Val	85.47	40	*e*P	P	09 37 18.9	+0.8
	comp=Z,55nm,1.4s,mb5.0						
WVOR				*e*pP	pP	09 39 06.2	+0.5
L08A	Fields	85.50	41	⇑P	P	09 37 18.5	+0.2
	baz=86						
218A	Dragoon	85.54	53	⇑P	P	09 37 19.4	+0.7
	baz=86,SNR=22						
O10A	Cortez Mining,	85.55	43	⇑P	P	09 37 18.4	-0.1
	baz=86,SNR=6.3						
SVW2	Sparrevohn	85.57	11	*e*P	P	09 37 17.3	-0.8
SVW2				*e*P		09 37 17.7	
W15A	Williams	85.58	49	⇑P	P	09 37 19.1	+0.3
	baz=86,SNR=6.2						
M09A	Marrel Ranch,	85.60	42	⇑P	P	09 37 18.8	0.0
	baz=86,SNR=6.9						
U14A	Mt Trumbull	85.60	48	⇓P	P	09 37 19.3	+0.4
	baz=86,SNR=62						
P11A	Circle Ranch,	85.60	44	⇓P	P	09 37 18.7	-0.1
	baz=86						
G05A	Wamic	85.62	37	⇑P	P	09 37 19.1	+0.4
	baz=86						
J07A	Hines	85.63	39	⇑P	P	09 37 18.9	+0.1
	baz=86,SNR=6.7						
R12A	Pony Springs,	85.67	45	⇑P	P	09 37 19.2	0.0
	baz=86,SNR=18						
K08A	Mann Creek Ran	85.73	40	⇓P	P	09 37 19.4	0.0
	baz=86,SNR=11						
S13A	Holt Ranch, En	85.76	46	⇓P	P	09 37 19.7	+0.1
	baz=86,SNR=18						
X16A	Lo Mia Camp, P	85.77	50	⇓P	P	09 37 20.0	+0.3
	baz=86,SNR=34						
N10A	Dunphy	85.78	43	⇑P	P	09 37 19.5	-0.1
	baz=86,SNR=5.7						
L09A	Wilkinson Ranc	85.81	41	⇑P	P	09 37 19.6	-0.1
	baz=86,SNR=7.8						
319A	Douglas	85.81	54	⇑P	P	09 37 20.7	+0.7
	baz=86,SNR=44						
Y17A	Roosevelt	85.83	51	⇓P	P	09 37 20.3	+0.2
	baz=86,SNR=14						
Z17A	San Carlos Hig	85.90	52	⇑P	P	09 37 20.7	+0.4
	baz=86,SNR=6.4						
Q12A	Willow Creek R	85.92	45	⇑P	P	09 37 20.2	-0.1
	baz=86,SNR=10						
118A	Homack Ranch,	85.93	52	⇑P	P	09 37 21.2	+0.6
	baz=86,SNR=36						
I07A	Izee	85.94	39	⇓P	P	09 37 20.6	+0.3
	baz=86,SNR=9.4						
V15A	Kaibab Nationa	85.98	49	⇑P	P	09 37 21.2	+0.5
	baz=86,SNR=30						
O11A	Cowboy Ranch,	85.99	43	⇑P	P	09 37 20.5	-0.1
	baz=86,SNR=18						
D04A	Dobbs Creek Ra	85.99	35	⇑P	P	09 37 21.4	+0.9
	baz=86						
G06A	Carlson Farm,	86.00	37	⇓P	P	09 37 20.5	0.0
	baz=86,SNR=6.3						
T14A	Hurricane	86.01	47	⇓P	P	09 37 20.8	0.0
	baz=86,SNR=23						
R13A	O’Grain Ranch,	86.02	46	⇓P	P	09 37 21.1	+0.3
	baz=86,SNR=9.2						
W16A	Flagstaff	86.05	50	⇑P	P	09 37 21.4	+0.3
	baz=86,SNR=15						
P12A	McGill	86.11	44	⇓P	P	09 37 21.2	0.0
	baz=86,SNR=11						
Z18A	Geronimo	86.11	52	⇓P	P	09 37 21.6	+0.2
	baz=86						
J08A	Circle Bar Ran	86.11	40	⇑P	P	09 37 21.4	+0.2
	baz=86,SNR=9.1						
VNA3	Neumayer Olymp	86.12	177	*e*P	P	09 37 20.4	-0.4
VNA3				*e*	pP	09 39 09.0	+0.5
K09A	Rome	86.17	40	⇓P	P	09 37 21.4	0.0
	baz=86,SNR=20						
H07A	Lands Inn, Kim	86.21	38	⇑P	P	09 37 21.7	+0.1
	baz=86						
M10A	I.L. Ranch, Tu	86.22	42	⇑P	P	09 37 21.8	+0.1
	baz=86,SNR=12						
B04A	Port Angeles	86.23	34	⇓P	P	09 37 22.1	+0.5
	baz=86						
F06A	Goldendale	86.24	37	⇑P	P	09 37 21.8	+0.1
	baz=86						
GAMB	Gambell	86.30	3	*e*P	P	09 37 21.7	+0.2
	comp=Z,23nm,0.9s,mb4.8						
GAMB				*e*pP	pP	09 39 11.0	+1.7
N11A	Elko Archery C	86.32	43	⇑P	P	09 37 22.1	-0.1
	baz=86						
S14A	Cedar City	86.32	47	⇑P	P	09 37 22.5	+0.2
	baz=86,SNR=14						
I08A	Drewsey	86.38	39	⇑P	P	09 37 22.6	+0.2
	baz=87,SNR=24						
WUAZ	Wupatki	86.38	49	*e*P	P	09 37 22.9	+0.3
Q13A	Wheeler Ranch,	86.40	45	⇓P	P	09 37 22.4	-0.2
	baz=87,SNR=19						
T15A	Red Dirt Ranch	86.46	48	⇑P	P	09 37 23.1	+0.1
	baz=87,SNR=31						
119A	Ashpeak Ranch,	86.48	52	⇑P	P	09 37 23.8	+0.6
	baz=87,SNR=20						
J09A	Fry Pan Ranch,	86.53	40	⇑P	P	09 37 23.4	+0.2
	baz=87						
VNA2	Neumayer--Watz	86.55	177	*e*P	P	09 37 23.0	+0.1
VNA2				*e*	pP	09 39 11.9	+1.2
G07A	Ruggs Ranch, H	86.56	38	⇑P	P	09 37 23.5	+0.3
	baz=87						
L10A	Juniper Basin	86.58	42	⇓P	P	09 37 23.4	0.0
	baz=87,SNR=19						
BJT	Baijiatuau	86.58	316	*e*P	P	09 37 23.8	+0.3
BJT				pmax	pmax		
	comp=Z,23nm,0.8s						
BJT	Baijiatuau	86.58	316	*e*P	P	09 37 23.8	+0.4
	comp=Z,23nm,0.8s,mb5.0						
BJI	Beijing	86.59	316	P	P	09 37 23.9	+0.4
BJI				pP	pP	09 39 07.4	-4.0
BJI				sP	sP	09 39 55.0	-6.0
BJI				S	S	09 47 22.6	+3.4
BJI				sS	sS	09 50 27.1	-4.3
BJI				SS	SS	09 53 18.1	+3.4
BJI				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.9						
ELK	Elko	86.59	43	*e*P	P	09 37 23.6	+0.1
ELK				pmax	pmax		
	comp=Z,17nm,1.2s						
ELK	Elko	86.59	43	*e*P	P	09 37 23.6	+0.1
	comp=Z,17nm,1.2s,mb4.7						
ELK				*e*pP	pP	09 39 11.8	+0.4
E06A	Yakima	86.61	36	⇑P	P	09 37 23.5	+0.1
	baz=87						
W17A	Winslow	86.62	50	⇑P	P	09 37 23.9	+0.1
	baz=87						
M11A	Holland Ranch,	86.63	42	⇓P	P	09 37 23.9	+0.2
	baz=87,SNR=12						
O12A	Currie	86.65	44	⇑P	P	09 37 23.6	-0.2
	baz=87,SNR=8.2						
P13A	Bates Ranch, G	86.67	45	⇑P	P	09 37 23.6	-0.3
	baz=87,SNR=21						
H08A	Prairie City	86.68	39	⇑P	P	09 37 23.8	0.0
	baz=87,SNR=8.1						
GYA	Guiyang	86.70	300	⇓*i*P	P	09 37 25.4	+1.0
GYA				pP	pP	09 39 09.2	-3.1
GYA				sP	sP	09 39 55.7	-6.2
GYA				PP	PP	09 40 58.3	+2.7
GYA				SKS		09 47 06.1	
GYA				S	S	09 47 21.8	+1.0
GYA				sS	sS	09 50 27.4	-5.7
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,130nm,5.7s						
K10A	MacKenzie Ranc	86.73	41	⇑P	P	09 37 24.1	0.0
	baz=87,SNR=7.8						
RC01	Rabbit Creek A	86.74	14	*e*P	P	09 37 23.0	-0.7
	comp=Z,141nm,1.2s,mb5.6						
Z19A	T-Link Ranch,	86.77	52	⇑P	P	09 37 24.8	+0.3
	baz=87,SNR=5.4						
N12A	Clover Valley,	86.78	43	⇓P	P	09 37 24.2	-0.2
	baz=87,SNR=8.9						
F07A	Phinny Hill Vi	86.79	37	⇓P	P	09 37 24.6	+0.2
	baz=87,SNR=6.2						
S15A	Panguitch	86.82	47	⇓P	P	09 37 25.4	+0.8
	baz=87,SNR=21						
120A	U Bar Ranch, L	86.87	53	⇓P	P	09 37 25.7	+0.7
	baz=87						
U16A	Tuba City	86.87	49	⇓P	P	09 37 25.2	+0.3
	baz=87,SNR=26						
X18A	Snowflake	86.89	51	⇑P	P	09 37 25.3	+0.2
	baz=87,SNR=22						
I09A	Lost Marbles R	86.90	39	⇑P	P	09 37 24.8	-0.1
	baz=87,SNR=11						
Q14A	Sevier Lake (B	86.91	45	⇑P	P	09 37 25.2	+0.2
	baz=87,SNR=28						
C05A	Tolt Reservoir	86.95	35	⇓P	P	09 37 24.8	-0.2
	baz=87,SNR=8.2						
G08A	Pilot Rock	86.97	38	⇓P	P	09 37 25.0	-0.2
	baz=87,SNR=21						
T16A	Glen Canyon Da	87.05	48	⇑P	P	09 37 25.8	+0.1
	baz=87,SNR=10						
O13A	Hicks Ranch, I	87.06	44	⇓P	P	09 37 25.9	+0.2
	baz=87,SNR=6.0						
A04A	Legoe Bay, Lum	87.06	34	⇓P	P	09 37 26.1	+0.6
	baz=87						
L11A	Cat Creek Ranc	87.07	42	⇓P	P	09 37 25.9	+0.3
	baz=87,SNR=15						
D06A	Cle Elum	87.09	36	⇑P	P	09 37 25.7	+0.1
	baz=87,SNR=10						
B05A	Bryant	87.09	34	⇓P	P	09 37 25.7	0.0
	baz=87,SNR=7.4						
Y19A	Nutrioso	87.11	51	⇓P	P	09 37 26.8	+0.7
	baz=87,SNR=28						
J10A	Berg Farm, Mel	87.17	40	⇑P	P	09 37 25.9	-0.3
	baz=87,SNR=7.9						
E07A	Sunnyside	87.24	36	⇑P	P	09 37 26.5	+0.1
	baz=88,SNR=17						
K11A	Parker Ranch,	87.24	41	⇑P	P	09 37 26.5	+0.1
	baz=88,SNR=12						
N13A	Wendover, West	87.31	44	⇓P	P	09 37 26.7	-0.2
	baz=88,SNR=13						
HAWA	Hanford	87.31	37	*e*P	P	09 37 27.2	+0.5
PMR	Palmer	87.32	14	*e*P	P	09 37 25.7	-0.7
PMR				pmax	pmax		
	comp=Z,127nm,1.3s,mb5.5						
PMR	Palmer	87.32	14	*e*P	P	09 37 25.7	-0.7
	comp=Z,127nm,1.3s,mb5.5						
W18A	Petrified Fore	87.33	50	⇓P	P	09 37 27.2	0.0
	baz=88						
H09A	Durkee	87.35	39	⇑P	P	09 37 26.9	0.0
	baz=88,SNR=29						
P14A	Drum Mountains	87.36	45	⇓P	P	09 37 27.1	0.0
	baz=88,SNR=9.8						
S16A	Weppner Ranch,	87.36	47	⇑P	P	09 37 27.0	-0.2
	baz=88,SNR=11						
H2OWA	Water	87.38	37	P	P	09 37 27.4	+0.3
F08A	Pendleton	87.38	38	⇑P	P	09 37 27.1	+0.1
	baz=88						
U17A	Shonto	87.43	49	⇑P	P	09 37 28.0	+0.4
	baz=88,SNR=16						
KBR	Kanchanaburi	87.44	286	P	Px	09 37 39.0	
	comp=Z,2µm,0.8s						
V18A	Ganado	87.49	50	⇑P	P	09 37 28.0	+0.2
	baz=88,SNR=16						
Q15A	Fillmore	87.50	46	⇓P	P	09 37 27.9	0.0
	baz=88,SNR=13						
L12A	House Creek Ra	87.51	42	⇓P	P	09 37 27.9	+0.1
	baz=88,SNR=18						
I10A	Payette	87.52	40	⇓P	P	09 37 28.2	+0.4
	baz=88,SNR=8.5						
T17A	Navajo Res., N	87.53	48	⇑P	P	09 37 28.3	+0.3
	baz=88,SNR=33						
D07A	Quincy	87.56	36	⇑P	P	09 37 27.9	0.0
	baz=88,SNR=9.1						
A05A	Maple Falls	87.56	34	⇓P	P	09 37 28.1	+0.3
	baz=88						
B06A	Marblemount	87.57	34	⇑P	P	09 37 27.8	-0.1
	baz=88						
W19A	Sanders	87.58	50	⇑P	P	09 37 28.4	+0.1
	baz=88,SNR=12						
M13A	Montello	87.61	43	⇓P	P	09 37 28.3	0.0
	baz=88						
E08A	Dider Farm, El	87.63	37	⇑P	P	09 37 28.3	0.0
	baz=88,SNR=12						
G09A	Cove	87.64	38	⇓P	P	09 37 28.2	-0.1
	baz=88,SNR=29						
BMO	Blue Mountains	87.67	39	*e*P	P	09 37 28.5	+0.1
MFID	Camas Ranch	87.72	41	⇑P	P	09 37 28.6	-0.2
	baz=88,SNR=29						
R16A	Teasdale	87.73	47	⇓P	P	09 37 29.3	+0.4
	baz=88,SNR=14						
C07A	Waterville	87.81	35	⇑P	P	09 37 28.5	-0.5
	baz=88,SNR=13						
H10A	Noah’s Angus R	87.84	39	⇓P	P	09 37 28.8	-0.5
	baz=88						
DUG	Dugway	87.85	45	*e*P	P	09 37 29.8	+0.4
DUG				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.6						
DUG	Dugway	87.85	45	*e*P	P	09 37 29.8	+0.3
	comp=Z,16nm,1.4s,mb4.6						
K12A	Draper Farm, C	87.85	42	⇓P	P	09 37 29.2	-0.2
	baz=88,SNR=20						
S17A	Black Ridge (B	87.86	48	⇓P	P	09 37 29.0	-0.6
	baz=88,SNR=25						
PPLA	Purkeypile	87.86	12	*e*P	P	09 37 27.9	-1.0
	comp=Z,17nm,0.9s,mb4.8						
P15A	Leamington	87.87	45	⇓P	P	09 37 29.5	0.0
	baz=88,SNR=9.7						
U18A	Rough Rock, Ch	87.89	49	⇓P	P	09 37 29.6	-0.1
	baz=88,SNR=16						
I11A	Placerville	87.92	40	⇑P	P	09 37 29.6	-0.1
	baz=88,SNR=37						
A06A	Chilliwack	87.93	34	⇓P	P	09 37 29.6	0.0
	baz=88						
N14A	Grayback Hills	87.96	44	⇑P	P	09 37 29.7	-0.3
	baz=88,SNR=6.1						
G10A	Bishop Farm, J	88.03	39	⇓P	P	09 37 29.9	-0.2
	baz=88,SNR=22						
D08A	Wollman Farm,	88.05	36	⇑P	P	09 37 30.2	0.0
	baz=88,SNR=14						
J12A	Stokes Ranch,	88.07	41	⇓P	P	09 37 30.6	+0.2
	baz=88,SNR=49						
O15A	The Old Anders	88.12	45	⇓P	P	09 37 30.9	+0.2
	baz=88,SNR=7.0						
V19A	Window Rock	88.12	50	⇓P	P	09 37 31.0	+0.2
	baz=88						
L13A	Double Diamond	88.15	43	⇑P	P	09 37 30.7	0.0
	baz=88,SNR=14						
122A	Conniff Cattle	88.15	53	⇑P	P	09 37 31.4	+0.4
	baz=88						
E09A	Wood Farm, Sta	88.16	37	⇓P	P	09 37 30.4	-0.3
	baz=88,SNR=9.5						
SEY	Seymchan	88.16	347	⇑*e*P	P	09 37 29.7	-0.6
M14A	Sheep Mountain	88.21	43	⇓P	P	09 37 30.8	-0.2
	baz=88,SNR=28						
NLU	North Lily Min	88.21	45	*e*P	P	09 37 32.1	+1.0
W20A	Ramah	88.22	51	⇑P	P	09 37 31.7	+0.4
	baz=88,SNR=31						
T18A	Mexican Hat	88.25	48	⇓P	P	09 37 31.4	0.0
	baz=88,SNR=48						
B07A	Winthrop	88.25	35	⇓P	P	09 37 30.9	-0.2
	baz=88,SNR=18						
Q16A	Castle Valley	88.27	46	⇑P	P	09 37 31.7	+0.3
	baz=88,SNR=16						
P16A	Fountain Green	88.30	46	⇑P	P	09 37 32.0	+0.4
	baz=88,SNR=6.2						
TNA	Tin City	88.31	5	*e*P	P	09 37 30.8	-0.2
	comp=Z,66nm,1.4s,mb5.2						
TNA				*e*pP	pP	09 39 23.5	+4.1
TNA				*e*PP	PP	09 41 05.5	-2.0
R17A	Hanksville Air	88.32	47	⇑P	P	09 37 31.4	-0.3
	baz=88,SNR=32						
H11A	Donnelly	88.34	40	⇓P	P	09 37 31.3	-0.2
	baz=89,SNR=49						
F10A	Beach Ranch, E	88.36	38	⇑P	P	09 37 31.0	-0.7
	baz=89,SNR=26						
OD2	Odessa Site #2	88.36	36	P	P	09 37 31.8	+0.1
K13A	Stover Farm, H	88.36	42	⇓P	P	09 37 31.8	+0.1
	baz=89,SNR=38						
D09A	Jones Farm, Ri	88.39	37	⇓P	P	09 37 31.6	-0.1
	baz=89,SNR=15						
N15A	Stansbury Isla	88.41	44	⇓P	P	09 37 32.0	-0.1
	baz=89						
C08A	Higginbotham F	88.42	36	⇓P	P	09 37 31.8	-0.1
	baz=89						
TMUT	Trail Mountain	88.44	46	*e*P	P	09 37 27.2	-4.9
S18A	Hurst Farm, Bl	88.44	48	⇓P	P	09 37 32.1	-0.2
	baz=89,SNR=7.7						
XAN	Xi’an	88.50	308	P	P	09 37 33.3	+0.7
XAN				pP	pP	09 39 15.3	-5.8
XAN				sP	sP	09 40 05.2	-5.3
XAN				PP	PP	09 41 10.2	+0.5
XAN				SKS		09 47 13.9	
XAN				S	S	09 47 39.6	+2.3
XAN				SS	SS	09 53 43.1	+0.5
XAN				pmax	pmax		
	comp=Z,26nm,1.4s,mb4.9						
XAN				pmax	pmax		
	comp=Z,110nm,12.5s						
MPU	Maple Canyon	88.53	45	*e*P	P	09 37 33.2	+0.6
NOQ	North Oquirrh	88.54	45	*e*P	P	09 37 33.8	+1.2
L14A	Malta	88.56	43	⇓P	P	09 37 32.5	-0.2
	baz=89,SNR=14						
B08A	Colville Reser	88.60	35	⇓P	P	09 37 32.2	-0.5
	baz=89,SNR=14						
PLCA	Paso Flores	88.65	134	P	P	09 37 34.4	+1.1
	comp=Z,10nm,1.1s,mb4.6,baz=234,slow=6.2,SNR=4.7						
PLCA	Paso Flores	88.65	134	P	P	09 37 34.4	+1.1
HLID	Hailey	88.66	41	*e*P	P	09 37 33.3	+0.1
	comp=Z,53nm,1.3s,mb5.2						
SPUT	South Promonto	88.67	44	*e*P	P	09 37 34.6	+1.3
T19A	Beclabito	88.68	49	⇑P	P	09 37 33.1	-0.3
	baz=89,SNR=11						
KTH	Kantishna Hill	88.71	12	*e*P	P	09 37 31.3	-1.6
	comp=Z,56nm,0.8s,mb5.5						
J13A	Cove Ranch, Pi	88.72	41	⇑P	P	09 37 33.5	+0.1
	baz=89,SNR=51						
E10A	Myers Farm, Un	88.72	38	⇑P	P	09 37 32.8	-0.5
	baz=89,SNR=9.3						
CHUM	Lake Minchumin	88.74	12	*e*P	P	09 37 31.7	-1.3
	comp=Z,34nm,0.8s,mb5.2						
TRF	Thorofare Moun	88.74	13	*e*P	P	09 37 32.0	-1.0
	comp=Z,104nm,0.8s,mb5.7						
M15A	Larsen Ranch,	88.76	44	⇑P	P	09 37 33.5	-0.2

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       baz=89,SNR=15
SRU    San Rafael          88.80  46 ⇓P       P         09 37 33.5 -0.4
       baz=89,SNR=25
W21A   San Fidel           88.83  51 ⇓P       P         09 37 34.1  0.0
       baz=89
P17A   Butcher Ranch,      88.84  46 ⇓P       P         09 37 34.1  0.0
       baz=89,SNR=18
C09A   Chrisman Ranch      88.84  36 ⇑P       P         09 37 33.6 -0.3
       baz=89,SNR=8.4
Y22D   IRIS PASSCAL I      88.86  52 ⇓P       P         09 37 34.3 +0.1
       baz=89
R18A   Canyonlands Na      88.86  47 ⇓P       P         09 37 33.9 -0.3
       baz=89,SNR=40
LENM   Lemitar             88.86  52 eP       P         09 37 34.6 +0.3
K14A   Jones Ranch, D      88.87  42 ⇑P       P         09 37 34.1  0.0
       baz=89,SNR=28
H12A   Diamond D Ranc      88.94  40 ⇓P       P         09 37 34.3 -0.1
       baz=89
JLU    Jordanelle          88.95  45 eP       P         09 37 34.6 +0.1
D10A   Wagner Farm, O      88.96  37 ⇓P       P         09 37 34.2 -0.2
       baz=89,SNR=18
A08A   Turner Farm, O      88.99  35 ⇑P       P         09 37 34.5  0.0
       baz=89,SNR=24
X22A   Bernardo            89.00  52 ⇓P       P         09 37 35.5 +0.6
       baz=89,SNR=5.9
I13A   Wildhorse Cree      89.03  41 ⇑P       P         09 37 35.0 +0.1
       baz=89,SNR=16
Q18A   Rafter H Ranch      89.06  47 ⇑P       P         09 37 34.6 -0.4
       baz=89,SNR=35
S19A   Harvey Farm, M      89.06  48 ⇓P       P         09 37 35.0 -0.1
       baz=89,SNR=11
L15A   Malad City          89.08  43 ⇑P       P         09 37 34.8 -0.4
       baz=89,SNR=35
N16A   Rees Ranch, Co      89.11  45 ⇓P       P         09 37 35.6 +0.3
       baz=89,SNR=29
TXAR   Lajitas Array       89.15  58  P       P         09 37 36.0 +0.3
       comp=Z,27nm,0.9s,mb5.1,baz=214,slow=4.6,SNR=172
TXAR                                  PKKPbc  PKKPbc    09 55 10.8 +0.3
       comp=Z,0.3nm,0.9s,baz=90,slow=5.0,SNR=3.7
TXAR   Lajitas Array       89.15  58  P       P         09 37 36.0 +0.3
TXAR                                  PKKPbc  PKKPbc    09 55 10.8 +0.3
E11A   Bogner Ranch,       89.16  38 ⇑P       P         09 37 34.2 -1.2
       baz=89
LPM    Los Pinos Moun      89.18  52 eP       P         09 37 36.0 +0.2
BPAW   Bear Paw Mtn.       89.19  12 eP       P         09 37 33.8 -1.3
       comp=Z,22nm,1.2s,mb4.9
O17A   Robinson Place      89.21  45 ⇑P       P         09 37 36.0 +0.3
       baz=89,SNR=52
MVCO   Mesa Verde          89.24  49 eP       P         09 37 36.4 +0.4
R19A   Curley Farm, L      89.24  48 ⇑P       P         09 37 35.5 -0.4
       baz=89,SNR=15
P18A   Preston Nutter      89.25  46 ⇓P       P         09 37 35.9  0.0
       baz=89,SNR=11
MCK    McKinley            89.27  13 eP       P         09 37 34.4 -1.0
MCK                                   pmax    pmax
       comp=Z,68nm,1.1s,mb5.4
MCK    McKinley            89.27  13 eP       P         09 37 34.4 -1.0
       comp=Z,68nm,1.1s,mb5.4
MCK                                  epP      pP        09 39 25.0 +0.9
B09A   Rice                89.28  36 ⇑P       P         09 37 35.7 -0.2
       baz=90,SNR=15
KMI    Kunming             89.29 298  P       P         09 37 37.3 +0.8
KMI                                   pP      pP        09 39 22.1 -3.0
KMI                                   sP      sP        09 40 08.3 -6.2
KMI                                   PP      PP        09 41 18.4 +2.3
KMI                                   SKS               09 47 21.1
KMI                                   S       S         09 47 45.7 +0.8
KMI                                   sS      sS        09 50 50.6 -8.0
KMI                                   SS      SS        09 53 54.7 +0.5
KMI                                   pmax    pmax
       comp=Z,19nm,1.8s,mb4.6
KMI                                   pmax    pmax
       comp=Z,120nm,6.7s
H13A   Challis             89.30  40 ⇓P       P         09 37 36.2 +0.2
       baz=90,SNR=29
SKAG   Skagway             89.34  21 eP       P         09 37 37.6 +1.7
K15A   Arbon               89.35  43 ⇓P       P         09 37 36.1 -0.2
       baz=90,SNR=22
W22A   Albuquerque         89.37  51 ⇑P       P         09 37 37.2 +0.5
       baz=90,SNR=5.2
A09A   Danville            89.37  35 ⇓P       P         09 37 36.4 +0.1
       baz=90,SNR=13
C10A   Spilker Farm,       89.38  36 ⇓P       P         09 37 36.1 -0.3
       baz=90
I14A   Mackay              89.44  41 ⇑P       P         09 37 37.1 +0.3
       baz=90,SNR=34
N17A   Moffit Pass         89.53  45 ⇑P       P         09 37 37.2  0.0
       baz=90,SNR=16
PV04   Paradox Valley      89.54  48 eP       P         09 37 37.4 +0.1
Q19A   Hogan Spring (      89.57  47 ⇓P       P         09 37 37.0 -0.4
       baz=90,SNR=20
CHRT   Chiangrai           89.59 292  P       P         09 37 39.0 +1.0
       comp=Z,237nm,0.8s,mb6.1
ANMO   Albuquerque         89.61  52  P       P         09 37 38.0 +0.2
       comp=Z,18nm,0.9s,mb4.9,baz=225,slow=4.9,SNR=49
ANMO                                  pP      pP        09 39 26.1 -0.3
       comp=Z,3.9nm,1.0s,baz=194,slow=4.2,SNR=4.9
ANMO   Albuquerque         89.61  52 eP       P         09 37 38.0 +0.3
ANMO                                 epP      pP        09 39 28.4 +2.0
G13A   Cobalt              89.61  40 ⇑P       P         09 37 37.3 -0.1
       baz=90,SNR=20
L16A   Fish Haven          89.69  44 ⇑P       P         09 37 37.7 -0.3
       baz=90,SNR=42
HYT    Haines Junctio      89.73  19 eP       P         09 37 38.4 +0.7
NEW    Newport             89.74  36 eP       P         09 37 38.1 +0.1
HIA    Hailar              89.74 325 eP       P         09 37 38.8 +0.8
HIA                                   pmax    pmax
       comp=Z,10.0nm,1.0s
HIA    Hailar              89.74 325 eP       P         09 37 38.8 +0.8
       comp=Z,10nm,1.0s,mb4.6
CMAR   Chiang Mai Arr      89.75 290  P       P         09 37 40.0 +1.3
       comp=Z,17nm,0.8s,mb4.9,baz=134,slow=3.2,SNR=76
MENT   Mentasta            89.76  15 eP       P         09 37 38.2 +0.5
J15A   Blackfoot           89.79  42 ⇓P       P         09 37 38.8 +0.4
       baz=90,SNR=50
R20A   Redvale             89.80  48 ⇑P       P         09 37 38.2 -0.3
       baz=90,SNR=6.6
CHG    Chiang Mai          89.89 290 ⇑P       P         09 37 40.5 +1.1
       comp=Z,46nm,0.9s,mb5.3
CHTO   Chiang Mai          89.89 290 eP       P         09 37 40.6 +1.2
CHTO                                  pmax    pmax
       comp=Z,35nm,0.9s,mb5.2
CHTO   Chiang Mai          89.89 290 eP       P         09 37 40.5 +1.2
       comp=Z,35nm,0.9s,mb5.2
CHTO                                 epP      pP        09 39 32.9 +4.8
GDL2   Guadalupe Moun      89.89  55 eP       P         09 37 39.5 +0.4
M17A   Scullys Gap (B      89.91  44 ⇓P       P         09 37 38.5 -0.5
       baz=90,SNR=12
A10A   Northport           89.92  35 ⇑P       P         09 37 38.6 -0.2
       baz=90,SNR=5.9
F13A   Darby               89.93  39 ⇑P       P         09 37 38.4 -0.6
       baz=90,SNR=25
HHC    Hu-ho-hao-te        90.01 315 eP       P         09 37 39.6 +0.2
HHC                                   pP      pP        09 39 21.1 -7.1
HHC                                   sP      sP        09 40 05.7  -12
HHC                                   SKS               09 47 25.2
HHC                                   S       S         09 47 56.0 +5.3
HHC                                   SS      SS        09 54 07.9 +4.0
HHC                                   pmax    pmax
       comp=Z,28nm,1.1s,mb5.0
HHC                                   pmax    pmax
       comp=Z,140nm,4.2s
K16A   Soda Springs        90.02  43 ⇑P       P         09 37 39.9 +0.5
       baz=90,SNR=27
I15A   Monteview           90.07  42 ⇓P       P         09 37 40.1 +0.4
       baz=90,SNR=16
L17A   Cokeville           90.09  44 ⇓P       P         09 37 39.0 -0.8
       baz=90,SNR=14
P19A   Cripple Cowboy      90.09  47 ⇑P       P         09 37 39.6 -0.3
       baz=90,SNR=14
Q20A   Ridgley Place,      90.23  47 ⇑P       P         09 37 39.9 -0.7
       baz=90,SNR=5.3
J16A   Bone                90.23  42 ⇓P       P         09 37 40.6 +0.2
       baz=90,SNR=43
M18A   Lyman               90.27  45 ⇑P       P         09 37 40.4 -0.3
       baz=90,SNR=25
AHID   Auburn Hatcher      90.29  43 epP      P         09 37 41.2 +0.5
H15A   Lima                90.30  41 ⇓P       P         09 37 40.9 +0.2
       baz=90,SNR=18
O19A   Miners Draw (B      90.33  46 ⇑P       P         09 37 40.5 -0.5
       baz=90,SNR=24
C12B   Naegeli Ranch,      90.34  37 ⇑P       P         09 37 40.3 -0.5
       baz=91,SNR=17
E13A   Victor              90.37  39 ⇑P       P         09 37 40.2 -0.8
       baz=91
K17A   Gardner Place,      90.40  43 ⇑P       P         09 37 41.2  0.0
       baz=91,SNR=37
DLBC   Dease Lake          90.43  23 eP       P         09 37 41.9 +1.0
P20A   De Beque            90.43  47 ⇓P       P         09 37 41.3 -0.1
       baz=91
RRI2   Red Ridge           90.45  43 eP       P         09 37 41.8 +0.3
COLA   College             90.50  13 eP       P         09 37 39.9 -1.2
COLA                                  pmax    pmax
       comp=Z,65nm,1.2s,mb5.4
COLA   College             90.50  13 eP       P         09 37 39.9 -1.2
       comp=Z,65nm,1.2s,mb5.4
COLA                                 epP      pP        09 39 29.9  0.0
F14A   Wisdom              90.51  40 ⇑P       P         09 37 41.2 -0.4
       baz=91
L18A   Fontenelle, Gr      90.54  44 ⇓P       P         09 37 41.6 -0.3
       baz=91,SNR=5.8
A11A   Hall Mountain,      90.55  36 ⇓P       P         09 37 41.8  0.0
       baz=91,SNR=7.6
D13A   Huson               90.57  38 ⇑P       P         09 37 41.5 -0.4
       baz=91
N19A   John Jarvie Ra      90.59  45 ⇑P       P         09 37 41.2 -0.9
       baz=91,SNR=13
I16A   Newdale             90.62  42 ⇑P       P         09 37 42.4 +0.2
       baz=91,SNR=20
Q21A   Lamborn Mesa,       90.66  48 ⇓P       P         09 37 42.4 -0.1
       baz=91
DCID1  Drake Creek         90.66  42 eP       P         09 37 43.6 +1.2
G15A   Dillon              90.69  41 ⇓P       P         09 37 42.5  0.0
       baz=91,SNR=19
E14A   Clinton             90.76  39 ⇑P       P         09 37 42.4 -0.4
       baz=91
BSMT   Bassoo Peak         90.80  37 eP       P         09 37 43.0  0.0
C13A   Hot Springs         90.83  38 ⇓P       P         09 37 42.7 -0.4
       baz=91
O20A   White River Ci      90.84  46 ⇓P       P         09 37 43.0 -0.3
       baz=91,SNR=13
J17A   Brown Place, J      90.84  43 ⇑P       P         09 37 43.3 +0.1
       baz=91,SNR=40
SNOW   Snow King Moun      90.86  43 eP       P         09 37 43.8 +0.4
K18A   Toltan Ranch,       90.90  44 ⇑P       P         09 37 43.5  0.0
       baz=91,SNR=58
M19A   Rock Springs        90.90  45 ⇑P       P         09 37 42.8 -0.7
       baz=91,SNR=9.7
CD2    Chengdu             90.96 303  P       P         09 37 45.3 +1.2
CD2                                   pP      pP        09 39 30.3 -2.6
CD2                                   sP      sP        09 40 16.4 -5.8
CD2                                   PP      PP        09 41 32.3 +3.2
CD2                                   SKS               09 47 32.5
CD2                                   S       S         09 48 03.0 +3.3
CD2                                   sS      sS        09 51 07.0 -7.3
CD2                                   SS      SS        09 54 22.6 +4.7
CD2                                   pmax    pmax
       comp=Z,20nm,1.6s,mb4.8
CD2                                   pmax    pmax
       comp=Z,170nm,4.4s
BILL   Bilibino            91.01 355 eP       P         09 37 42.7 -0.7
BILL                                 i SS     SS        09 54 23.0 +6.0
BILL                                  pmax    pmax
       comp=Z,41nm,0.8s,mb5.4
BILL   Bilibino            91.01 355 eP       P         09 37 42.9 -0.5
       comp=Z,40nm,0.9s,mb5.3
MOOW   Moose Ponds         91.02  42 eP       P         09 37 44.1 +0.1
LOHW   Long Hollow         91.04  43 eP       P         09 37 44.5 +0.3
F15A   Butte               91.04  40 ⇑P       P         09 37 44.0 -0.1
       baz=91
L19A   Farson              91.07  44 ⇓P       P         09 37 44.1 -0.2
       baz=91,SNR=36
P21A   Newcastle           91.08  47 ⇓P       P         09 37 44.2 -0.2
       baz=91,SNR=5.5
D14A   Greenough           91.11  39 ⇑P       P         09 37 43.6 -0.8
       baz=91
G16A   Moss Hill, Enn      91.13  41 ⇓P       P         09 37 44.5 -0.1
       baz=91,SNR=9.8
Q22A   Crested Butte,      91.13  48 ⇑P       P         09 37 44.4 -0.3
       baz=91,SNR=19
QLMT   Earthquake Lak      91.15  41 eP       P         09 37 45.6 +1.0
N20A   Spence Gulch,       91.16  46 ⇑P       P         09 37 44.7 -0.1
       baz=91,SNR=24
H16A   Russell Place,      91.20  41 ⇓P       P         09 37 45.4 +0.5
       baz=91,SNR=13
J18A   Kendall Valley      91.20  43 ⇓P       P         09 37 44.8 -0.1
       baz=91,SNR=81
I17A   Pilgrim Ck.         91.21  42 ⇓P       P         09 37 45.2 +0.3
       baz=91,SNR=17
E15A   Deer Lodge          91.26  39 ⇓P       P         09 37 45.2 +0.1
       baz=92
B13A   Whitefish           91.27  37 ⇑P       P         09 37 44.8 -0.2
       baz=92
PDAR   Pinedale Array      91.27  44  P       P         09 37 44.4 -0.9
       comp=Z,14nm,0.8s,mb4.9,baz=202,slow=2.9,SNR=86
PDAR                                  PP      PP        09 41 23.9 -7.3
       comp=Z,1.2nm,1.0s,baz=226,slow=7.5,SNR=3.3
O21A   Pagoda              91.39  47 ⇑P       P         09 37 45.7 -0.2
       baz=92
CMIG   Matias Romero       91.41  72  P       P         09 37 46.7 +0.2
       comp=Z,7.2nm,0.9s,mb4.6,baz=258,slow=4.9,SNR=7.6
H17A   Grant Village       91.45  42 ⇑P       P         09 37 47.2 +1.2
       baz=92,SNR=6.9
M20A   Sweetwater, Wa      91.53  45 ⇓P       P         09 37 46.4  0.0
       baz=92,SNR=16
YNR    Norris Junctio      91.55  42 eP       P         09 37 48.7 +2.2
SDCO   Great Sand Dun      91.59  50 eP       P         09 37 47.0 +0.2
       comp=Z,18nm,1.0s,mb5.0
SDCO                                 epP      pP        09 39 35.7  0.0
N21A   Black Mountain      91.62  46 ⇑P       P         09 37 46.8 -0.1
       baz=92,SNR=20
D15A   Lincoln             91.66  39 ⇑P       P         09 37 46.7 -0.2
       baz=92,SNR=7.6
L20A   Wamsutter           91.68  45 ⇑P       P         09 37 47.2  0.0
       baz=92,SNR=30
K19A   Absolon Red Bu      91.75  44 ⇑P       P         09 37 46.6 -0.8
       baz=92,SNR=15
DAWY   Dawson              91.79  16 eP       P         09 37 47.0 -0.2
G17A   Pierce Place,       91.82  41 ⇑P       P         09 37 47.5 -0.2
       baz=92
E16A   East Helena         91.89  40 ⇑P       P         09 37 47.8 -0.2
       baz=92
HRY    Holter Researc      91.89  39 eP       P         09 37 48.5 +0.6
EGAK   Eagle               91.93  15 eP       P         09 37 47.2 -0.5
       comp=Z,21nm,0.8s,mb5.1
EGAK                                 epP      pP        09 39 36.9 +0.3
WALA   Waterton Lakes      91.95  37 eP       P         09 37 48.0 -0.2
C15A   Salmond Ranch,      92.00  38 ⇓P       P         09 37 48.1 -0.3
       baz=92
K20A   Yellowstone Ra      92.00  44 ⇓P       P         09 37 47.7 -0.9
       baz=92,SNR=12
COLD   Coldfoot            92.15  11 eP       P         09 37 49.3 +0.6
       comp=Z,18nm,1.2s,mb4.9
F17A   Fitzpatrick Pl      92.17  41 ⇑P       P         09 37 49.5 +0.2
       baz=92,SNR=6.6
A14A   Double T Ranch      92.17  37 ⇑P       P         09 37 49.0 -0.3
       baz=92
D16A   Dana Ranch, Ca      92.22  39 ⇓P       P         09 37 49.1 -0.4
       baz=92,SNR=7.8
L21A   Rawlins             92.30  45 ⇓P       P         09 37 49.3 -0.7
       baz=92,SNR=7.8
B15A   Bradely Ranch,      92.31  38 ⇓P       P         09 37 49.1 -0.7
       baz=92
N22A   Wattenberg Ran      92.35  47 ⇑P       P         09 37 50.1 -0.2
       baz=92,SNR=8.4
ISCO   Idaho Springs       92.46  48 eP       P         09 37 51.5 +0.7
ISCO                                  pmax    pmax
       comp=Z,5.0nm,0.8s,mb4.5
ISCO   Idaho Springs       92.46  48 eP       P         09 37 51.5 +0.7
       comp=Z,5.0nm,0.8s,mb4.5
ISCO                                 epP      pP        09 39 44.1 +4.4
G18A   Lazy EL Ranch,      92.54  41 ⇑P       P         09 37 50.9 -0.1
       baz=93
M22A   Cedar Creek Ra      92.54  46 ⇑P       P         09 37 50.6 -0.5
       baz=93,SNR=10
A15A   Johnson Ranch,      92.56  37 ⇑P       P         09 37 50.4 -0.6
       baz=93
JCT    Junction City       92.67  58 eP       P         09 37 51.9 -0.1
JCT                                   pmax    pmax
       comp=Z,16nm,0.8s,mb5.1
JCT    Junction City       92.67  58 eP       P         09 37 51.9 -0.1
       comp=Z,16nm,0.8s,mb5.1
F18A   Big Timber          92.74  41 ⇓P       P         09 37 51.9  0.0
       baz=93,SNR=5.9
D17A   Six Diamond Ra      92.79  39 ⇑P       P         09 37 51.7 -0.4
       baz=93,SNR=13
B16A   M & M Farms, S      92.84  38 ⇑P       P         09 37 50.8 -1.5
       baz=93,SNR=7.3
E18A   Harlowton           92.95  40 ⇓P       P         09 37 52.7 -0.2
       baz=93,SNR=5.7
C17A   Wharram Farm,       92.99  39 ⇓P       P         09 37 52.3 -0.7
       baz=93,SNR=18
LZH    Lanzhou             93.14 308 eP       P         09 37 55.2 +1.2
LZH                                   PP      PP        09 41 48.0 +2.1
LZH                                   SKS               09 47 39.6
LZH                                   S       S         09 48 26.4 +7.8
LZH                                   pmax    pmax
       comp=Z,19nm,1.0s,mb5.1
LZH                                   pmax    pmax
       comp=Z,120nm,5.1s
A16A   West Butte Ran      93.19  38 ⇓P       P         09 37 53.2 -0.7
       baz=93,SNR=26
PHWY   Pilot Hill          93.25  46 eP       P         09 37 54.2 -0.2
B17A   L&G Farms, Che      93.30  38 ⇓P       P         09 37 53.6 -0.8
       baz=94,SNR=6.4
YAK    Yakutsk             93.63 338 eP       P         09 37 55.0 -0.6
YAK                                  eS       SKSac     09 47 40.3 -2.2
YAK                                  e                  09 48 20.8
YAK                                   pmax    pmax
       comp=Z,45nm,0.9s,mb5.5
YAK                                   pmax    pmax
       comp=E,7.0nm,1.2s
YAK                                   pmax    pmax
       comp=N,5.0nm,1.3s
YAK                                   smax
       comp=N,161nm,2.1s
YAK                                   smax
       comp=E,80nm,1.8s
YAK    Yakutsk             93.63 338 eP       P         09 37 55.6  0.0
       comp=E,38nm,0.8s,mb5.5
A17A   Triple J Farms      93.69  38 ⇑P       P         09 37 55.7 -0.5
       baz=94,SNR=13
EGMT   Eagleton            93.77  39 eP       P         09 37 56.9 +0.3
       comp=E,8.2nm,1.0s,mb4.7
B18A   Beardsley Farm      93.94  39 ⇑P       P         09 37 56.9 -0.5
       baz=94,SNR=9.3
A18A   Metzger Ranch,      94.17  38 ⇑P       P         09 37 57.8 -0.5
       baz=94,SNR=9.4
LCO    Las Campanas        94.18 124 eP       P         09 37 59.9 +0.9
EDM    Edmonton            94.49  33 eP       P         09 37 59.7  0.0
CFAA   Coronel Fontan      94.77 127  P       P         09 38 00.9 -0.8
       comp=E,0.9nm,0.8s,mb3.9,baz=250,slow=4.1,SNR=13
LAO    LASA Array          95.24  41 eP       P         09 38 03.8 +0.5
       comp=E,29nm,1.2s,mb5.2
LAO                                  epP      pP        09 39 52.9 +0.5
RSSD   Black Hills         95.46  44 eP       P         09 38 04.4 +0.1
RSSD                                  pmax    pmax
       comp=Z,4.0nm,0.8s,mb4.5
RSSD   Black Hills         95.46  44 eP       P         09 38 04.4 +0.1
       comp=Z,3.6nm,0.8s,mb4.5
SONM   Songino Array       96.59 319  P       P         09 38 09.7 +0.4
SONM                                  *PP     pP        09 39 56.8 -1.8
SONM                                                    09 42 06.7
SONM   Songino Array       96.59 319  P       P         09 38 09.7 +0.3
       comp=Z,0.3nm,0.4s,mb3.9,baz=123,slow=5.5,SNR=6.8
SONM                                  pP      pP        09 39 56.8 -1.8
       comp=Z,1.1nm,1.1s,baz=107,slow=4.8,SNR=3.0
SONM                                  PP      PP        09 42 06.7 -5.3
       comp=Z,2.9nm,1.1s,baz=121,slow=7.2,SNR=5.6
SONM                                  S       SKSac     09 48 00.4 +1.7
       comp=Z,0.2nm,0.3s,baz=134,slow=4.3,SNR=6.0
SONM                                  PKKP    PKKPbc    09 54 50.8 -1.3
       comp=Z,1.3nm,1.1s,baz=282,slow=3.4,SNR=5.4
SONM   Songino Array       96.59 319  P       P         09 38 09.7 +0.3
SONM                                  pP      pP        09 39 56.8 -1.8
SONM                                  PP      PP        09 42 06.7 -5.3
SONM                                  PKKP    PKKPbc    09 54 50.8 -1.3
DGMT   Dagmar              97.26  40 eP       P         09 38 12.9 +0.6
       comp=Z,19nm,1.2s,mb5.2
DGMT                                 epP      pP        09 40 01.3 -0.3
GTA    Gaotai              97.42 310 eP       P         09 38 14.4 +1.1
GTA                                   pP      pP        09 40 03.2 +0.6
GTA                                   pmax    pmax
       comp=Z,6.0nm,1.5s,mb4.6
YKA    Yellowknife Ar      98.89  25  P       Pdif      09 38 18.5 -1.3
       comp=Z,1.9nm,0.9s,baz=244,slow=4.2,SNR=23
YKA                                   PP      PP        09 42 24.3 -4.8
       comp=Z,3.4nm,1.1s,baz=244,slow=7.7,SNR=8.0
YKA                                   PKiKP   PKiKP     09 42 45.3 -1.6
       comp=Z,0.7nm,0.9s,baz=261,slow=1.7,SNR=6.7
YKA    Yellowknife Ar      98.89  25  P       Pdif      09 38 18.5 -1.3
YKA                                   PP      PP        09 42 24.3 -4.8
ZAK    Zakamensk           99.52 321 eP       Pdif      09 38 22.7 +0.1
TIXI   Tiksi              100.48 345⇑iP       Pdif      09 38 25.3 -1.6
ULM    Lac du Bonnet      102.97  41  PP      PP        09 42 55.2 -4.5
       comp=Z,2.7nm,0.8s,baz=268,slow=8.4,SNR=5.8
WMQ    Urumqi             107.43 311 ePKP     PKiKP     09 43 04.0 +0.8
ZALV   Zalesovo Beam      111.40 321  PKiKP   PKiKP     09 43 09.0 -1.3
       comp=Z,1.4nm,0.4s,baz=137,slow=1.0,SNR=10
ZALV                                  SKP               09 46 00.3
       comp=Z,1.3nm,0.7s,baz=85,slow=1.8,SNR=4.9
ZALV   Zalesovo Beam      111.40 321  PKPdf   PKiKP     09 43 09.0 -1.3
ZALV                                  SKP               09 46 00.3
MK31   Makanchi Array     111.80 313 i PKIKP  PKiKP     09 43 10.1 -1.2
MK31                                  pmax    pmax
       comp=Z,2.0nm,0.5s
MKAR   Makanchi Array     111.80 313  P       Pdif      09 39 19.6 +2.4
MKAR                                                    09 43 10.0
MKAR                                                    09 54 04.1
MKAR   Makanchi Array     111.80 313  Pdiff   Pdif      09 39 19.6 +2.4
       comp=Z,0.2nm,0.5s,baz=81,slow=3.8,SNR=4.2
MKAR                                  PKiKP   PKiKP     09 43 10.0 -1.3
       comp=Z,2.2nm,0.5s,baz=199,slow=1.0,SNR=62
MKAR                                  SKP               09 46 01.6
       comp=Z,3.7nm,1.0s,baz=66,slow=2.9,SNR=7.4
MKAR                                  PKKPbc  PKKPbc    09 54 04.1 -2.6
       comp=Z,2.2nm,1.1s,baz=272,slow=4.7,SNR=6.3
MKAR                                  PKKPab  PKKPab    09 54 15.4 +0.1
       comp=Z,1.2nm,0.9s,baz=289,slow=3.7,SNR=6.5
NVS    Novosibirsk        112.45 322 ePKIKP   PKiKP     09 43 11.1 -1.2
KSH    Kashi              115.14 304 ePKP     PKPdf     09 43 18.8 +0.8
KSH                                  ePKS               09 46 54.1
KSH                                  eSKS     SKSdf     09 49 46.2 +2.5
UCH    Uchtor             116.62 307 ePKPdf   PKPdf     09 43 21.4 +0.7
AML    Almayashu          117.21 307 ePKPdf   PKPdf     09 43 22.3 +0.5
FRB    Frobisher Bay      119.17  28  PKP     PKPdf     09 43 23.8 -1.2
       comp=Z,4.8nm,0.8s,baz=328,slow=2.2,SNR=14
FRB                                   PP      PP        09 44 48.9 -5.1
       comp=Z,4.9nm,1.1s,baz=269,slow=6.7,SNR=3.1
VOSK   Vostochnaya        119.58 319  PKIKP   PKPdf     09 43 24.7 -1.4
VOSK                                  pmax    pmax
       comp=Z,7.0nm,0.8s
KK31   Karatay Array      119.64 308 i PKIKP  PKPdf     09 43 25.5 -1.0
KK31                                  pmax    pmax
       comp=Z,3.0nm,0.6s
KBL    Kabul              119.87 298 ePKIKP   PKPdf     09 43 27.7 +0.4
BVA0   Borovoye Array     119.93 319 i PKIKP  PKPdf     09 43 25.7 -1.1
BVA0                                  pmax    pmax
       comp=Z,1.0nm,0.5s
BVAR   Borovoye Array     119.93 319  PKP     PKPdf     09 43 25.9 -0.9
       baz=118,slow=1.7
BRVK   Borovoye           119.99 319 ePKIKP   PKPdf     09 43 26.4 -0.5
SCHQ   Schefferville      121.03  39  PKP     PKPdf     09 43 26.9 -1.9
       comp=Z,3.7nm,0.8s,baz=19,slow=3.6,SNR=5.5
SCHQ   Schefferville      121.03  39  PKP     PKPdf     09 43 26.9 -1.9
SFJD   Kangerlussuaq      125.31  22 i PKIKP  PKPdf     09 43 35.3 -1.4
SFJD                                  pmax    pmax
       comp=Z,7.0nm,0.8s
SFJD   Kangerlussuaq      125.31  22 i P      PKPdf     09 43 35.3 -1.4
       comp=Z,7.3nm,0.8s
SFJD   Kangerlussuaq      125.31  22  PKP     PKPdf     09 43 35.4 -1.2
       comp=Z,3.1nm,0.4s,baz=144,slow=2.0,SNR=5.1
SUMG   Summit             125.46  14 ePKPdf   PKPdf     09 43 37.4 +0.5
ARU    Arti               126.25 324 ePKIKP   PKPdf     09 43 39.1 +0.3
ARU    Arti               126.25 324 ePKPdf   PKPdf     09 43 39.1 +0.3
AB31   Akbulak array      126.80 315  PKIKP   PKPdf     09 43 39.0 -1.1
AB31                                  pmax    pmax
       comp=Z,12nm,1.2s
AKTK   Aktyubinsk         127.84 317  PKP     PKPdf     09 43 42.0 -0.1
AKTK                                  pPKP    pPKPdf    09 45 38.1 +0.6
AKTO   Aktyubinsk         127.84 317  PKP     PKPdf     09 43 42.0 -0.1
       comp=Z,4.0nm,0.6s,baz=94,slow=3.9,SNR=16
AKTO                                  pPKP    pPKPdf    09 45 38.1 +0.6
       comp=Z,3.0nm,0.8s,baz=90,slow=1.0,SNR=5.2
SCO    Scoresbysund       130.27  10 i PKIKP  PKPdf     09 43 45.0 -1.1
SCO                                   pmax    pmax
       comp=Z,4.0nm,0.8s
SCO    Scoresbysund       130.27  10 i P      PKPdf     09 43 45.0 -1.1
       comp=Z,4.2nm,0.8s
ARCES  ARCESS Array B     130.76 349  PKHKP             09 43 35.2
ARCES                                                   09 43 46.0
ARCES  ARCESS Array B     130.76 349  PKhKP             09 43 35.2
       comp=Z,2.2nm,0.8s,baz=107,slow=0.9,SNR=8.3
ARCES                                 PKP     PKPdf     09 43 46.0 -1.0
       comp=Z,9.9nm,0.7s,baz=12,slow=1.1,SNR=30
ARCES                                 SKPbc   SKPbc     09 46 26.4 +1.0
       comp=Z,30nm,1.0s,baz=0.0,slow=2.9,SNR=18
ARCES  ARCESS Array B     130.76 349  PKP               09 43 35.2
ARCES                                 PKP     PKPdf     09 43 46.0 -1.0
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ARCES				SKPbc	SKPbc	09 46 26.4	+1.0
KLMR	**Klimovskoe**	**133.32**	**335**	*e*PKIKP	PKPdf	09 43 52.1	0.0
KLMR				pmax	pmax		
	comp=Z,31nm,1.6s						
LSZ	**Lusaka**	**133.76**	**218**	*e*PKIKP	PKPdf	09 43 55.2	+0.9
MOS	**Moscow**	**137.17**	**330**	*e*PKIKP	PKPdf	09 43 58.4	-1.0
MOS				*e*		09 46 46.2	
MOS				pmax	pmax		
	comp=Z,44nm,0.8s						
KMBO	**Kilima Mbogo**	**137.34**	**241**	PKP	PKPdf	09 44 02.0	+0.9
	comp=Z,2.1nm,0.8s,baz=54,slow=8.1,SNR=4.6						
KMBO				SKPbc	SKPbc	09 46 51.2	+2.7
	comp=Z,9.4nm,1.1s,baz=46,slow=2.8,SNR=9.0						
OBN	**Obninsk**	**138.02**	**330**	⇓*i*PKIKP	PKPdf	09 44 00.1	-0.9
OBN				*i*		09 46 51.1	
OBN				*e*SS	SS	10 04 30.0	+2.7
OBN				pmax	pmax		
	comp=Z,38nm,1.7s						
VSR	**Storozhevoye**	**138.82**	**324**	*e*PKIKP	PKPdf	09 44 02.3	-0.2
VSR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
VSR				pmax	pmax		
	comp=N,3.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,6.0nm,0.5s						
GNI	**Garni**	**139.04**	**306**	⇑*i*PKIKP	PKPdf	09 44 04.2	+0.9
GNI				pmax	pmax		
	comp=Z,23nm,1.7s						
GNI	**Garni**	**139.04**	**306**	*e*PKPdf	PKPdf	09 44 04.3	+1.0
KIV	**Kislovodsk**	**139.55**	**312**	*e*PKIKP	PKPdf	09 44 05.1	+1.0
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s						
NB2	**NORSAR Subarra**	**140.91**	**352**	PKP		09 43 59.5	
	comp=Z,3.3nm,0.6s,baz=16,slow=3.2						
NOA	**NORSAR Array B**	**140.91**	**352**	PKhKP		09 43 59.6	
	comp=Z,5.7nm,0.8s,baz=6.9,slow=2.2,SNR=13						
NOA				SKPbc	SKPbc	09 46 58.6	+2.0
	comp=Z,11nm,0.9s,baz=14,slow=4.3,SNR=12						
NOA				SKPab		09 47 12.9	
	comp=Z,4.7nm,1.0s,baz=14,slow=3.1,SNR=4.2						
SOC	**Sochi**	**141.70**	**313**	*e*PKIKP	PKPdf	09 44 07.3	-0.7
SOC				*e*		09 47 14.2	
SOC				*e*SSS		10 10 38.0	
SOC				pmax	pmax		
	comp=Z,13nm,0.9s						
ANN	**Anapa**	**142.76**	**315**	*i* PKHKP		09 44 06.1	
ANN				pmax	pmax		
	comp=Z,103nm,1.3s						
ORE	**Reay**	**143.94**	**4**	*e*P	PKPdf	09 44 09.7	-1.8
MALT	**Malatya**	**144.24**	**305**	⇑*i*P	PKPdf	09 44 12.8	+0.2
MALT	**Malatya**	**144.24**	**305**	⇑P	PKPdf	09 44 12.8	+0.2
AKASG	**Malin Array Be**	**144.25**	**329**	PKP	PKPdf	09 44 10.5	-1.7
	comp=Z,15nm,0.4s,baz=40,slow=3.7,SNR=119						
AKASG				pPKP	pPKPdf	09 46 06.4	-1.6
	comp=Z,7.8nm,0.8s,baz=40,slow=4.2,SNR=4.8						
AKASG				SKPbc	SKPbc	09 47 05.6	+0.5
	comp=Z,18nm,0.8s,baz=44,slow=2.7,SNR=14						
AKASG	**Malin Array Be**	**144.25**	**329**	PKP	PKPdf	09 44 10.5	-1.7
AKASG				pPKP	pPKPdf	09 46 06.4	-1.6
AKASG				SKPbc	SKPbc	09 47 05.6	+0.5
KIEV	**Kiev**	**144.26**	**329**	*e*PKIKP	PKPdf	09 44 10.6	-1.7
SUW	**Suwalki**	**144.36**	**337**	*e*PKP	PKPdf	09 44 11.4	-0.9
SUW	**Suwalki**	**144.36**	**337**	*e*PKPbc	PKPdf	09 44 12.8	+0.5
MVH1	**Achvaich**	**144.54**	**5**	*e*P	PKPdf	09 44 11.7	-0.8
SIM	**Simferopol’**	**144.81**	**317**	*e*PKIKP	PKPdf	09 44 14.9	+1.5
SIM				pmax	pmax		
	comp=Z,79nm,0.8s						
KAC	**Achnashellach**	**144.87**	**6**	*e*P	PKPdf	09 44 12.7	-0.4
KPL	**Plockton**	**144.99**	**6**	*e*P	PKPdf	09 44 12.8	-0.5
MDO	**Dochfour**	**145.00**	**5**	*e*P	PKPdf	09 44 13.1	-0.2
MUD	**Monsted U’grnd**	**145.63**	**352**	*i* PKIKP	PKPdf	09 44 15.2	+0.8
MUD				pmax	pmax		
	comp=Z,54nm,1.0s						
MUD	**Monsted U’grnd**	**145.63**	**352**	*i* P	PKPdf	09 44 15.2	+0.8
	comp=Z,54nm,1.0s						
BSD	**Bornholm Skovb**	**145.86**	**346**	*i* PKIKP	PKPdf	09 44 15.9	+1.1
BSD				pmax	pmax		
	comp=Z,73nm,0.9s						
BSD	**Bornholm Skovb**	**145.86**	**346**	*i* P	PKPdf	09 44 15.9	+1.1
	comp=Z,73nm,0.9s						
EAB	**Aberfoyle**	**146.25**	**5**	*e*P	PKPdf	09 44 16.8	+1.3
EBH	**Black Hill**	**146.25**	**4**	*e*P	PKPdf	09 44 17.1	+1.6
WAR	**Warsaw**	**146.56**	**337**	*e*PKP	PKPbc	09 44 19.7	+1.2
WAR	**Warsaw**	**146.56**	**337**	*e*PKP	PKPbc	09 44 19.7	+1.2
EDI	**Edinburgh**	**146.60**	**4**	*e*P	PKPdf	09 44 17.5	+1.4
PGBU	**Glenifferbraes**	**146.61**	**5**	*e*P	PKPdf	09 44 17.6	+1.6
ESY	**Stoneypath**	**146.64**	**3**	*e*P	PKPdf	09 44 18.0	+1.8
EAU	**Auchinoon**	**146.66**	**4**	*e*P	PKPdf	09 44 18.3	+2.2
EBL	**Broad Law**	**146.75**	**4**	*e*P	PKPdf	09 44 18.5	+2.2
KIS	**Kishinev**	**146.81**	**324**	*e*PKP	PKPdf	09 44 19.0	+2.3
KIS				*e*pPKP	pPKPdf	09 46 15.0	+2.5
GKP	**Gorka Klasztor**	**146.91**	**342**	*e*PKP	PKPbc	09 44 20.4	+0.9
GKP				*e*		09 44 22.8	
GKP	**Gorka Klasztor**	**146.91**	**342**	*e*PKP	PKPbc	09 44 20.4	+1.0
GKP				*e*		09 44 22.8	
ESK	**Eskdalemuir**	**147.20**	**4**	*e*P	PKPbc	09 44 19.4	-0.7
ESK	**Eskdalemuir**	**147.20**	**4**	*i* PKP2	PKPbc	09 44 20.3	+0.2
LVV	**L’vov**	**147.25**	**332**	*e*PKP2	PKPbc	09 44 20.1	-0.4
BRTR	**Keskin Array B**	**147.34**	**309**	PKHKP	PKPdf	09 44 17.2	-0.6
BRTR						09 44 20.3	
BRTR	**Keskin Array B**	**147.34**	**309**	PKP	PKPdf	09 44 17.2	-0.6
	comp=Z,12nm,0.7s						
BRTR				PKPbc	PKPbc	09 44 20.3	-0.7
BRTR				pPKPbc	pPKPbc	09 46 13.0	-2.1
GAL1	**Galloway**	**147.52**	**6**	*e*P	PKPdf	09 44 19.6	+1.9
GAL1				*e*P		09 44 19.6	
GAL1	**Galloway**	**147.52**	**6**	P	PKPdf	09 44 19.6	+2.0
GCD	**Castle Douglas**	**147.59**	**5**	*e*P	PKPbc	09 44 20.2	-0.9
TLCR		**147.88**	**321**	⇑*i*P	PKPbc	09 44 21.5	-0.8
TLCR		**147.88**	**321**	⇑P	PKPbc	09 44 21.5	-0.8
BSEG	**Bad Segeberg**	**147.89**	**349**	*e*PKP2	PKPab	09 44 26.7	+0.5
BSEG	**Bad Segeberg**	**147.89**	**349**	*e*PKPbc	PKPbc	09 44 22.2	+0.2
BSEG				*e*PKPab	PKPab	09 44 26.7	+0.5
KWP	**Kalwaria Pacla**	**147.96**	**333**	*e*PKP	PKPbc	09 44 22.2	-0.1
KWP				*e*		09 44 27.5	
KWP	**Kalwaria Pacla**	**147.96**	**333**	⇑*i*P	PKPbc	09 44 22.2	-0.1
KWP	**Kalwaria Pacla**	**147.96**	**333**	*e*PKP	PKPbc	09 44 22.2	-0.1
KWP				*e*		09 44 27.5	
GMM	**Mts of Mourne**	**148.01**	**7**	*e*P	PKPbc	09 44 21.5	-0.8
DMUB	**Kingscourt**	**148.22**	**9**	*e*P	PKPdf	09 44 15.2	-3.6
DMUB	**Kingscourt**	**148.22**	**9**	⇑*i*P	PKPbc	09 44 22.4	-0.4
WIM	**Isle of Man**	**148.24**	**6**	*e*P	PKPbc	09 44 22.8	0.0
BUR08	**Bucovina Ar. S**	**148.26**	**328**	*e*PKPdf	PKPdf	09 44 20.1	+1.1
BUR08				*e*PKPbc	PKPbc	09 44 24.8	+1.7
BUR08				*e*PKPab	PKPab	09 44 29.2	+1.2
BUR02	**Bucovina Ar. S**	**148.27**	**328**	P	PKPbc	09 44 24.3	+1.2
BURAR	**Bucovina Array**	**148.28**	**328**	⇓*i*P	PKPbc	09 44 24.8	+1.6
BURAR	**Bucovina Array**	**148.28**	**328**	⇓P	PKPbc	09 44 24.8	+1.6
TIRR	**Tirgusor**	**148.54**	**320**	PKP2	PKPbc	09 44 24.6	+0.7
TIRR	**Tirgusor**	**148.54**	**320**	⇓*i*P	PKPbc	09 44 24.2	+0.3
TIRR	**Tirgusor**	**148.54**	**320**	*e*PKPdf	PKPdf	09 44 19.1	-0.5
TIRR				*e*PKPbc	PKPbc	09 44 24.3	+0.3
TIRR				*e*PKPab	PKPab	09 44 29.5	+0.3
RUE	**Ruedersdorf**	**148.54**	**345**	*e*PKPbc	PKPbc	09 44 24.1	+0.4
RUE				*e*PKPab	PKPab	09 44 29.5	+0.6
RUE	**Ruedersdorf**	**148.54**	**345**	*e*PKPdf	PKPdf	09 44 18.3	-1.1
RUE				*e*PKPbc	PKPbc	09 44 23.7	0.0
RUE				*e*PKPab	PKPab	09 44 29.6	+0.6
VRI	**Vrincioaia**	**148.64**	**324**	⇓*i*P	PKPbc	09 44 24.4	+0.3
VRI	**Vrincioaia**	**148.64**	**324**	P	PKPbc	09 44 24.6	+0.5
OJC	**Ojcow**	**148.66**	**336**	*e*PKP	PKPbc	09 44 23.7	-0.3
KOLS	**Kolonicke sedl**	**148.68**	**332**	*e*PKP	PKPdf	09 44 19.9	+0.2
KOLS				*e*		09 44 25.1	
KOLS				*e*		09 44 32.3	
KOLS				*e*		09 46 22.9	
HARR	**Harsova**	**148.68**	**321**	⇓*i*P	PKPbc	09 44 24.5	+0.2
HARR	**Harsova**	**148.68**	**321**	P	PKPbc	09 44 25.2	+1.0
PLOR	**Plostina**	**148.70**	**324**	⇑*i*P	PKPbc	09 44 24.6	+0.3
DCN	**Croghan**	**148.70**	**9**	*e*P	PKPdf	09 44 15.9	-3.7
DCN	**Croghan**	**148.70**	**9**	⇑*i*P	PKPbc	09 44 23.6	-0.4
STHS	**Stebnicka Huta**	**148.74**	**334**	*e*PKHKP	PKPdf	09 44 20.6	+0.8
STHS				*e*		09 44 30.9	
STHS	**Stebnicka Huta**	**148.74**	**334**	*e*PKP	PKPdf	09 44 20.6	+0.8
STHS				*e*		09 44 24.6	
STHS				*e*		09 44 30.9	
STHS				*e*		09 46 22.6	
STHS	**Stebnicka Huta**	**148.74**	**334**	*e*PKP	PKPdf	09 44 20.6	+0.8
STHS				*e*	PKPbc	09 44 24.6	+0.4
STHS				*e*PKPdf	PKPdf	09 44 25.9	+6.1
STHS				*e*		09 44 30.9	
STHS				*e*		09 46 22.6	
DLF	**Lyons Farm**	**148.86**	**8**	*e*P	PKPdf	09 44 16.4	-3.4
DLF	**Lyons Farm**	**148.86**	**8**	⇑*i*P	PKPbc	09 44 23.7	-0.7
UZH	**Uzhgorod**	**148.90**	**332**	*e*PKHKP	PKPbc	09 44 23.2	-1.5
UZH				*e*		09 44 31.6	
WME	**Myndd Eilian**	**149.01**	**6**	*e*P	PKPbc	09 44 24.2	-0.6
LHO	**Holmfirth**	**149.04**	**3**	*e*P	PKPbc	09 44 24.0	-0.8
CRVS	**Cervenica-Dubn**	**149.05**	**333**	*e*PKHKP	PKPdf	09 44 20.4	+0.1
CRVS				*e*		09 44 30.8	
CRVS	**Cervenica-Dubn**	**149.05**	**333**	*e*PKP	PKPdf	09 44 20.4	+0.1
CRVS				*e*		09 44 25.8	
CRVS				*e*		09 44 30.8	
CRVS				*e*		09 46 23.0	
CRVS	**Cervenica-Dubn**	**149.05**	**333**	*e*PKP	PKPdf	09 44 20.4	+0.1
CRVS				*e*PKPdf	PKPbc	09 44 25.1	+0.1
CRVS				*e*		09 44 25.8	
CRVS				*e*		09 44 30.8	
CRVS				*e*		09 46 23.0	
CSS	**Prodhromos**	**149.06**	**301**	*e*PKPdf	PKPdf	09 44 20.4	-0.4
CSS				*e*PKPbc	PKPbc	09 44 26.0	+0.5
CSS				*e*PKPab	PKPab	09 44 30.9	-0.8
NIE	**Niedzica**	**149.11**	**335**	*e*PKP	PKPbc	09 44 26.3	+1.2
YRC	**Rhoscolyn**	**149.13**	**6**	*e*P	PKPbc	09 44 24.2	-0.9
TRPA	**Tarpa**	**149.17**	**331**	⇑*i*P	PKPbc	09 44 25.2	-0.1
WPM1	**Penmaenmawr**	**149.19**	**5**	*e*P	PKPbc	09 44 25.0	-0.2
NRDL	**Niedersach Rie**	**149.31**	**349**	*e*PKPbc	PKPbc	09 44 25.6	+0.1
KSP	**Ksiaz**	**149.32**	**341**	*e*PKP	PKPbc	09 44 25.8	+0.2
KSP				*e*		09 44 33.4	
KSP	**Ksiaz**	**149.32**	**341**	*e*PKP2	PKPab	09 44 32.2	0.0
KSP	**Ksiaz**	**149.32**	**341**	*e*PKPbc	PKPbc	09 44 25.5	-0.1
KSP				*i* PKPdf	PKPbc	09 44 26.4	+0.8
KSP				*e*PKPab	PKPab	09 44 32.2	0.0
KSP				*e*pPKP	pPKPdf	09 46 19.5	+2.9
OKC	**Ostrava-Krasne**	**149.57**	**338**	*e*PKHKP	PKPbc	09 44 26.7	+0.4
OKC				*e*		09 44 33.7	
OKC	**Ostrava-Krasne**	**149.57**	**338**	⇑*e*PKP	PKPbc	09 44 26.7	+0.4
OKC				*e*PKPAB	PKPab	09 44 33.7	+0.4
OKC				*e*pPKP	pPKPdf	09 46 23.0	+6.0
SBD1	**Bryn Du**	**149.59**	**5**	*e*P	PKPbc	09 44 25.2	-1.0
UPC	**Upice**	**149.70**	**341**	*e*PKHKP	PKPbc	09 44 26.5	0.0
UPC				*e*		09 44 33.9	
UPC	**Upice**	**149.70**	**341**	⇑*e*PKP	PKPbc	09 44 26.5	0.0
UPC				*e*PKPAB	PKPab	09 44 33.9	+0.1
UPC				*e*pPKP	pPKPdf	09 46 21.2	+4.0
DPC	**Dobruska-Polom**	**149.74**	**340**	*e*PKPDF	PKPdf	09 44 21.4	+0.1
DPC				⇑*e*PKP	PKPbc	09 44 26.8	+0.2
DPC				*e*PKPAB	PKPab	09 44 34.9	+0.9
DPC				*e*pPKP	pPKPdf	09 46 22.6	+5.3
KECS	**Kecovo**	**149.78**	**334**	*e*PKP	PKPbc	09 44 27.2	+0.4
KECS				*e*		09 46 23.8	
CLL	**Collm**	**149.81**	**345**	*e*PKIKP	PKPdf	09 44 21.0	-0.4
CLL				*i*		09 44 34.3	
CLL				pmax	pmax		
	comp=Z,23nm,1.5s						
CLL	**Collm**	**149.81**	**345**	*e*PKPdf	PKPdf	09 44 21.0	-0.4
CLL				*e*PKPbc	PKPbc	09 44 26.4	-0.4
CLL				*e*PKPab	PKPab	09 44 34.5	+0.3
CLL				*e*		09 45 52.8	
CLL				*e*pPKPbc	pPKPbc	09 46 21.8	+0.3
CLL	**Collm**	**149.81**	**345**	*e*PKPdf	PKPdf	09 44 21.0	-0.4
	comp=Z,23nm,1.5s						
CLL				*i* PKPbc	PKPbc	09 44 26.9	+0.1
	comp=Z,164nm,1.1s						
CLL				*i* PKPab	PKPab	09 44 34.3	+0.1
	comp=Z,64nm,1.0s						
CLL				*e*		09 44 42.0	
CLL				*e*		09 45 53.0	
CLL				*e*pPKPab	pPKPab	09 46 22.0	-2.9
CLL				*e*		09 46 26.0	
CLL				*i*		09 46 31.6	
VOIR		**149.82**	**325**	⇑*i*P	PKPbc	09 44 26.9	-0.1
VOIR		**149.82**	**325**	P	PKPbc	09 44 27.1	+0.1
MORC	**Moravsky Berou**	**149.84**	**338**	⇓*i*P	PKPdf	09 44 21.7	+0.2
MORC	**Moravsky Berou**	**149.84**	**338**	⇓P	PKPdf	09 44 21.7	+0.2
PRD	**Provadia**	**149.85**	**319**	*e*P	PKPbc	09 44 27.1	0.0
IBBN	**Ibbenburen**	**149.86**	**351**	*e*PKPdf	PKPdf	09 44 21.5	0.0
IBBN				*e*PKPbc	PKPbc	09 44 27.0	+0.1
IBBN				*e*PKPab	PKPab	09 44 34.8	+0.4
CWF	**Charnwood Fore**	**149.88**	**3**	*e*P	PKPbc	09 44 25.9	-0.9
CLZ	**Clausthal**	**149.88**	**348**	*e*PKPbc	PKPbc	09 44 27.3	+0.4
CLZ				*e*		09 45 54.3	
CLZ				*e*pPKPbc	pPKPbc	09 46 22.2	+0.6
BRG	**Berggiesshubel**	**149.97**	**343**	*i* PKIKP	PKPdf	09 44 21.3	-0.4
BRG				*i*		09 44 35.0	
BRG				pmax	pmax		
	comp=Z,10.0nm,1.2s						
BRG	**Berggiesshubel**	**149.97**	**343**	*e*PKPdf	PKPdf	09 44 21.3	-0.4
BRG				*e*PKPbc	PKPbc	09 44 26.9	-0.3
BRG				*e*		09 45 53.5	
BRG				*e*pPKPbc	pPKPbc	09 46 22.5	+0.6
BRG	**Berggiesshubel**	**149.97**	**343**	*i* PKP	PKPdf	09 44 21.3	-0.3
	comp=Z,16nm,1.2s						
BRG				*i*		09 44 27.6	
	comp=Z,143nm,1.2s						
BRG				*i*		09 44 35.0	
	comp=Z,47nm,0.9s						
BRG				*i* pPKP	pPKPdf	09 46 22.5	+4.9
	comp=Z,72nm,1.8s						
BRG				*e*sPKP		09 47 03.9	
	comp=Z,17nm,1.6s						
BRG				*e*		09 47 56.5	
	comp=Z,4.2nm,0.9s						
DRGR		**150.07**	**329**	⇓*i*P	PKPbc	09 44 27.9	+0.4
DRGR		**150.07**	**329**	P	PKPbc	09 44 27.9	+0.4
FBE	**Freiberg**	**150.08**	**344**	*e*PKPdf	PKPdf	09 44 22.0	+0.2
FBE				*e*PKPbc	PKPbc	09 44 27.9	+0.5
FBE				*e*PKPab	PKPab	09 44 36.2	+0.9
PVCC	**Panska Ves**	**150.11**	**342**	⇑*e*PKP	PKPbc	09 44 27.6	+0.1
PVCC				*e*pPKP	pPKPdf	09 46 23.5	+5.6
ISP	**Isparta**	**150.31**	**308**	⇓*i*P	PKPbc	09 44 27.9	-0.5
ISP	**Isparta**	**150.31**	**308**	⇓P	PKPbc	09 44 27.9	-0.5
WTSB	**Winterswijk**	**150.32**	**352**	*e*PKP	PKPbc	09 44 27.3	-0.6
	comp=Z,207nm,1.4s						
HTR	**Trewern Hill**	**150.41**	**5**	*e*P	PKPbc	09 44 26.1	-2.0
VYHS	**Vyhne**	**150.43**	**335**	*e*PKIKP	PKPdf	09 44 22.1	-0.4
VYHS				*e*		09 44 36.7	
VYHS	**Vyhne**	**150.43**	**335**	*e*PKP	PKPdf	09 44 22.1	-0.4
VYHS				*e*		09 44 28.6	
VYHS				*e*		09 44 36.7	
VYHS				*e*		09 46 25.0	
PSZ	**Piszkesteto**	**150.47**	**333**	⇓*i*P	PKPbc	09 44 28.6	+0.2
PSZ	**Piszkesteto**	**150.47**	**333**	⇓*e*PKP	PKPbc	09 44 28.8	+0.4
PSZ	**Piszkesteto**	**150.47**	**333**	P	PKPbc	09 44 28.7	+0.3
MCH1	**Michaelchurch**	**150.51**	**5**	*e*P	PKPbc	09 44 27.4	-1.0
VRAC	**Vranov**	**150.56**	**339**	⇑*i*P	PKPbc	09 44 29.1	+0.5
VRAC	**Vranov**	**150.56**	**339**	P	PKPbc	09 44 29.4	+0.8
PRU	**Pruhonice**	**150.60**	**342**	*e*PKIKP	PKPdf	09 44 22.5	-0.2
PRU				*e*		09 44 37.7	
PRU	**Pruhonice**	**150.60**	**342**	*e*PKPDF	PKPdf	09 44 22.5	-0.2
PRU				⇑*e*PKP	PKPbc	09 44 29.1	+0.4
PRU				*e*PKPAB	PKPab	09 44 37.7	+0.1
PRU				*e*pPKP	pPKPab	09 46 24.6	-3.5
MOX	**Moxa**	**150.76**	**346**	⇓*i*P	PKPbc	09 44 29.1	+0.1
	comp=Z,124nm,1.8s						
MOX				*e*		09 44 37.7	
MOX				*e*		09 46 24.4	
MOX	**Moxa**	**150.76**	**346**	*i* PKIKP	PKPbc	09 44 29.1	+0.1
MOX				*e*		09 44 37.7	
MOX				pmax	pmax		
	comp=Z,124nm,1.8s						
MOX	**Moxa**	**150.76**	**346**	*e*PKPdf	PKPdf	09 44 22.6	-0.3
MOX				*e*PKPbc	PKPbc	09 44 29.0	0.0
MOX				*e*PKPab	PKPab	09 44 38.7	+0.5
MOX				*e*		09 45 55.7	
MOX				*e*pPKPbc	pPKPbc	09 46 24.2	+0.4
JMB	**Yambol**	**150.76**	**319**	*e*P	PKPbc	09 44 29.8	+0.5
TANN	**Tannenbergstha**	**150.77**	**345**	*e*PKPdf	PKPdf	09 44 22.5	-0.4
TANN				*e*PKPbc	PKPbc	09 44 29.3	+0.3
TANN				*e*PKPab	PKPab	09 44 38.7	+0.5
TANN				*e*		09 45 55.5	
TANN				*e*pPKPbc	pPKPbc	09 46 24.3	+0.4
BUG	**Bochum--Univer**	**150.78**	**352**	*e*PKPdf	PKPdf	09 44 23.0	+0.1
BUG				*e*PKPbc	PKPbc	09 44 28.5	-0.5
BUG				*e*pPKPbc	pPKPbc	09 46 23.9	0.0
WERD	**Werda**	**150.78**	**345**	*e*PKPdf	PKPdf	09 44 22.7	-0.2
WERD				*e*PKPbc	PKPbc	09 44 28.7	-0.3
WERD				*e*PKPab	PKPab	09 44 39.1	+0.8
WERD				*e*		09 45 55.7	
WERD				*e*pPKPbc	pPKPbc	09 46 24.4	+0.5
GUNZ	**Gunzen**	**150.85**	**345**	*e*PKPdf	PKPdf	09 44 23.2	+0.2
GUNZ				*e*PKPbc	PKPbc	09 44 29.6	+0.4
GUNZ				*e*PKPab	PKPab	09 44 39.3	+0.7
GUNZ				*e*pPKPbc	pPKPbc	09 46 24.9	+0.8
HGH	**Gray Hill**	**150.89**	**5**	*e*P	PKPbc	09 44 28.6	-0.6
WERN	**Wernitzgruen**	**150.91**	**345**	*e*PKPbc	PKPbc	09 44 29.8	+0.4
WERN				*e*PKPab	PKPab	09 44 39.7	+0.9
WERN				*e*		09 45 56.2	
TREC	**Trest**	**150.93**	**340**	*e*PKIKP	PKPbc	09 44 29.7	+0.3
TREC	**Trest**	**150.93**	**340**	⇑*e*PKP	PKPbc	09 44 29.7	+0.3
UBBA	**Unterbreizbach**	**150.93**	**348**	*e*PKPdf	PKPdf	09 44 22.6	-0.6
UBBA				*e*PKPbc	PKPbc	09 44 29.0	-0.4
UBBA				*e*		09 45 55.3	
NKC	**Novy Kostel**	**150.94**	**344**	*e*PKIKP	PKPdf	09 44 23.0	-0.2
NKC				*e*		09 44 39.3	
NKC	**Novy Kostel**	**150.94**	**344**	*e*PKPDF	PKPdf	09 44 23.0	-0.2
NKC				⇑*e*PKP	PKPbc	09 44 30.0	+0.6
NKC				*e*PKPAB	PKPab	09 44 39.3	+0.3
NKC				*e*pPKP	pPKPab	09 46 25.4	-4.1
GZR	**Gura Zlata**	**151.03**	**327**	⇑*i*P	PKPbc	09 44 29.5	-0.3
GZR	**Gura Zlata**	**151.03**	**327**	P	PKPbc	09 44 29.9	+0.1
MODS	**Modra-Piesok**	**151.11**	**337**	*e*PKP	PKPbc	09 44 30.8	+0.9
MODS				*e*		09 44 41.1	
MODS				*e*		09 46 26.7	
BUD	**Budapest**	**151.17**	**334**	⇓*e*PKP	PKPbc	09 44 30.4	+0.4
MANZ	**Manzenberg**	**151.25**	**345**	*e*PKPdf	PKPdf	09 44 23.7	0.0
MANZ				*e*PKPbc	PKPbc	09 44 30.5	+0.4
MANZ				*e*pPKPbc	pPKPbc	09 46 25.6	+0.5
ZST	**Bratislava**	**151.33**	**337**	*e*PKP	PKPbc	09 44 31.0	+0.6
ZST				*e*		09 44 42.4	
ROTZ	**Rotzenmuhle**	**151.43**	**344**	*e*PKPdf	PKPdf	09 44 23.8	-0.1
ROTZ				*e*PKPbc	PKPbc	09 44 30.7	+0.1
ROTZ				*e*PKPab	PKPab	09 44 41.9	+0.9
ROTZ				*e*pPKPbc	pPKPbc	09 46 25.9	+0.4
BZS	**Buzias**	**151.44**	**328**	⇓*i*P	PKPbc	09 44 30.6	-0.1
BZS	**Buzias**	**151.44**	**328**	P	PKPbc	09 44 30.2	-0.5
BEBN	**Eben Emael**	**151.60**	**353**	PKPab	PKPab	09 44 41.9	+0.2
HGN	**Heimansgroeve**	**151.61**	**353**	*e*PKP	PKPbc	09 44 30.6	-0.3
	comp=Z,50nm,1.2s						
KHC	**Kasperske Hory**	**151.65**	**342**	*e*PKIKP	PKPdf	09 44 23.9	-0.4
KHC				*e*		09 44 41.8	
KHC	**Kasperske Hory**	**151.65**	**342**	*e*PKPDF	PKPdf	09 44 23.9	-0.4
KHC				⇑*e*PKP	PKPbc	09 44 31.3	+0.2
KHC				*e*PKPAB	PKPab	09 44 41.8	-0.2
KHC				*e*x	x	09 44 55.5	
KHC				*e*pPKP	pPKPab	09 46 25.8	-6.6
KHC	**Kasperske Hory**	**151.65**	**342**	*e*PKPdf	PKPdf	09 44 24.6	+0.4
KHC				*e*PKPbc	PKPbc	09 44 31.6	+0.5
KHC				*e*PKPab	PKPab	09 44 42.2	+0.2
UCC	**Uccle**	**151.72**	**355**	PKPbc	PKPbc	09 44 31.4	+0.3
GRA1	**Grafenberg Arr**	**151.74**	**346**	*e*PKPbc	PKPbc	09 44 31.5	+0.3
GRA1				*e*PKPab	PKPab	09 44 43.3	+1.0
GRA1				*e*pPKPbc	pPKPbc	09 46 26.4	+0.2
GRF	**Grafenberg Arr**	**151.74**	**346**	*e*PKPbc	PKPbc	09 44 31.5	+0.3
GRF				*e*PKPab	PKPab	09 44 43.3	+1.0
GRF				*e*pPKPbc	pPKPbc	09 46 26.4	+0.2
MEM	**Membach**	**151.75**	**353**	PKPbc	PKPbc	09 44 31.5	+0.2
MEM				APKPbc		09 46 26.1	
TNS	**Taunus Mts**	**151.78**	**350**	*e*PKPdf	PKPdf	09 44 24.5	0.0
TNS				*e*PKPbc	PKPbc	09 44 31.2	-0.1
TNS				*e*PKPab	PKPab	09 44 42.9	+0.4
WET	**Wettzell**	**151.83**	**343**	*e*PKPdf	PKPdf	09 44 24.2	-0.4
WET				*e*PKPbc	PKPbc	09 44 31.1	-0.4
WET				*e*PKPab	PKPab	09 44 43.4	+0.7
GEC2	**GERESS Array S**	**151.87**	**342**	*e*PKPdf	PKPdf	09 44 24.4	-0.2
GEC2				*e*PKPbc	PKPbc	09 44 31.5	-0.1
GEC2				*e*PKPab	PKPab	09 44 43.8	+0.9
GEC2				*e*pPKPbc	pPKPbc	09 46 26.9	+0.3
GEC2	**GERESS Array S**	**151.87**	**342**	*e*PKPdf	PKPdf	09 44 24.4	-0.2
GEC2				*e*PKPdf	PKPdf	09 44 24.6	0.0
GEC2				*e*PKPbc	PKPbc	09 44 31.5	-0.1
GEC2				*e*PKPbc	PKPbc	09 44 31.9	+0.4
GEC2				*e*PKPab	PKPab	09 44 43.8	+0.9
GEC2				*e*PKPab	PKPab	09 44 44.0	+1.1
GEC2				*e*pPKPbc	pPKPbc	09 46 26.9	+0.3
GERES	**GERESS Array B**	**151.87**	**342**	PKIKP	PKPdf	09 44 24.4	-0.2
GERES						09 44 43.4	
GERES	**GERESS Array B**	**151.87**	**342**	PKP	PKPdf	09 44 24.4	-0.2
	comp=Z,0.9nm,0.5s,baz=50,slow=2.1,SNR=10						
GERES				PKPbc	PKPbc	09 44 31.8	+0.2
	comp=Z,7.1nm,0.6s,baz=48,slow=2.0,SNR=33						
GERES				PKPab	PKPab	09 44 43.4	+0.4
	comp=Z,2.6nm,0.7s,baz=58,slow=3.3,SNR=3.6						
GERES				pPKPbc	pPKPbc	09 46 26.6	+0.1
	comp=Z,5.6nm,0.9s,baz=48,slow=2.0,SNR=4.5						
SOP	**Sopron**	**151.96**	**337**	⇓*e*PKP	PKPbc	09 44 32.1	+0.3
CONA	**Conrad Observa**	**151.99**	**338**	⇑*i*PKPdf	PKPdf	09 44 25.1	+0.2
	comp=Z,10nm,1.4s						
CONA				⇑*i*PKiKP	PKiKP	09 44 32.3	+0.2
	comp=Z,44nm,1.5s						
CONA				⇓*i*PKPab	PKPab	09 44 45.1	+1.6
	comp=Z,40nm,1.0s						
CSNA	**Conrad Observa**	**151.99**	**338**	⇑*i*PKPdf	PKPdf	09 44 25.3	+0.5
	comp=Z,10nm,1.5s						
CSNA				⇑*i*PKiKP	PKiKP	09 44 32.3	+0.2
	comp=Z,44nm,1.5s						
CSNA				⇓*i*PKPab	PKPab	09 44 45.1	+1.6
	comp=Z,39nm,1.0s						
BCLA	**Clavier**	**152.01**	**354**	PKP	PKPdf	09 44 25.5	+0.7
BCLA				PKPbc	PKPbc	09 44 31.2	-0.6
BCLA				PKPab	PKPab	09 44 42.2	-1.3
SNF	**Seneffe**	**152.01**	**355**	PKPbc	PKPbc	09 44 31.9	+0.1
SNF				PKPab	PKPab	09 44 42.9	-0.6
PLD	**Plovdiv**	**152.11**	**320**	*e*P	PKPab	09 44 45.0	+0.8
PKSM	**Moragy**	**152.34**	**333**	⇓*i*P	PKPdf	09 44 24.8	-0.6
PKSM	**Moragy**	**152.34**	**333**	⇓P	PKPdf	09 44 24.8	-0.7
GIVF	**Givet**	**152.37**	**354**	*e*PKIKP	PKPdf	09 44 25.5	+0.2
DOU	**Dourbes**	**152.40**	**355**	PKPbc	PKPbc	09 44 32.9	+0.2
BAIF	**Baives**	**152.47**	**355**	*e*PKIKP	PKPdf	09 44 25.7	+0.2
MOA	**Molln**	**152.59**	**340**	⇑*i*PKPdf	PKPdf	09 44 25.5	-0.2
	comp=Z,14nm,1.7s						
MOA				⇑*i*PKPbc	PKPbc	09 44 32.8	-0.4
	comp=Z,15nm,1.2s						
MOA				⇑*i*PKPab	PKPab	09 44 47.5	+1.5
	comp=Z,38nm,1.3s						
WLF	**Walferdange**	**152.66**	**352**	PKPbc	PKPbc	09 44 33.9	+0.7
WLF				PKPab	PKPab	09 44 46.5	+0.2
WLF	**Walferdange**	**152.66**	**352**	*e*PKPdf	PKPdf	09 44 27.0	+1.2
WLF				*e*PKPbc	PKPbc	09 44 34.0	+0.7
WLF				*e*PKPab	PKPab	09 44 46.6	+0.4
WLF	**Walferdange**	**152.66**	**352**	*e*PKPdf	PKPdf	09 44 26.9	+1.1
WLF				*e*PKPbc	PKPbc	09 44 34.1	+0.8
WLF				*e*PKPab	PKPab	09 44 46.8	+0.5
VTS	**Vitosha**	**152.68**	**322**	*e*P	PKPab	09 44 48.0	+1.4
MMB	**Musomiste**	**153.00**	**320**	*e*P	PKPab	09 44 49.0	+1.0
STU	**Stuttgart**	**153.04**	**348**	*e*PKPdf	PKPdf	09 44 26.2	-0.1
STU				*e*PKPbc	PKPbc	09 44 34.5	+0.4
STU				*e*PKPab	PKPab	09 44 48.3	+0.4
RJOB	**Jochberg**	**153.13**	**342**	*e*PKPab	PKPab	09 44 49.4	+1.1
FUR	**Furstenfeldbru**	**153.15**	**344**	*e*PKPab	PKPab	09 44 48.8	+0.4
SOKA	**Soboth**	**153.36**	**338**	⇑*i*PKPdf	PKPdf	09 44 25.1	-1.8
	comp=Z,9.3nm,1.3s						
SOKA				⇓*i*PKPbc	PKPbc	09 44 34.7	-0.2
	comp=Z,22nm,1.4s						
SOKA				⇓*i*PKPab	PKPab	09 44 50.0	+0.7
	comp=Z,25nm,1.0s						
PERS	**Pernice**	**153.36**	**338**	*e*PKPdf	PKPdf	09 44 25.8	-1.1
PERS				*i* PKPbc	PKPbc	09 44 34.3	-0.6
PERS				*i* PKPab	PKPab	09 44 49.6	+0.2
KBA	**Koelnbreinsper**	**153.56**	**340**	⇑*i*PKPdf	PKPdf	09 44 25.9	-1.3
	comp=Z,12nm,1.2s						
KBA				⇓*i*PKPbc	PKPbc	09 44 34.9	-0.4
	comp=Z,7.9nm,1.0s						
KBA				⇑*i*PKPab	PKPab	09 44 51.0	+0.9
	comp=Z,18nm,0.7s						
BFO	**Black Forest**	**153.63**	**349**	*e*PKP2	PKPab	09 44 50.1	-0.3
BFO	**Black Forest**	**153.63**	**349**	*e*PKPbc	PKPbc	09 44 35.2	-0.2
BFO				*e*PKPab	PKPab	09 44 50.1	-0.3
VAY	**Valandovo**	**153.85**	**321**	*i* PKP	PKPab	09 44 52.2	+0.5
FLN	**La Foliniere**	**153.88**	**2**	*e*PKIKP	PKPdf	09 44 27.1	-0.4
WTTA	**Wattenberg**	**153.89**	**343**	⇑*i*PKPdf	PKPdf	09 44 27.7	+0.1
	comp=Z,18nm,1.2s						
WTTA				⇓*i*PKiKP	PKiKP	09 44 36.3	+0.3
	comp=Z,9.2nm,0.6s						
WTTA				⇑*i*PKPab	PKPab	09 44 52.4	+0.8
	comp=Z,45nm,0.9s						
CRES	**Cresnjev**	**153.93**	**336**	*i* PKPbc	PKPbc	09 44 35.9	-0.3
LDF	**La Druitiere**	**154.06**	**1**	*e*PKIKP	PKPdf	09 44 27.3	-0.5
SKO	**Skopje**	**154.08**	**323**	*i* PKP	PKPbc	09 44 36.9	+0.3
SKO				*i* PKP	PKPab	09 44 52.4	-0.1
LJU	**Ljubljana**	**154.08**	**338**	*e*PKIKP	PKPdf	09 44 27.3	-0.6
LJU				*e*		09 44 52.5	
LJU	**Ljubljana**	**154.08**	**338**	*e*PKPdf	PKPdf	09 44 27.3	-0.6
LJU				*i* PKPbc	PKPbc	09 44 36.3	-0.2
LJU				*e*PKPab	PKPab	09 44 52.5	+0.1
LJU				*e*		09 46 30.7	

ABTA	**Abfaltersbach**	**154.11**	**341**	⇓*i*PKPdf	PKPdf	09 44 26.9	-1.0
	comp=Z,18nm,1.2s						
ABTA				⇑*i*PKPab	PKPab	09 44 53.0	+0.5
	comp=Z,31nm,0.9s						
GRR	**Gorron**	**154.24**	**2**	*e*PKIKP	PKPdf	09 44 27.8	-0.2
HAU	**Haudompre**	**154.26**	**351**	*e*PKIKP	PKPdf	09 44 27.9	-0.2
SGMF	**Saint Gilles**	**154.27**	**5**	*e*PKIKP	PKPdf	09 44 27.7	-0.4
BOJS	**Bojanci**	**154.28**	**336**	*i* PKPdf	PKPdf	09 44 27.7	-0.5
FETA	**Feichten**	**154.35**	**344**	⇑*i*PKPdf	PKPdf	09 44 26.8	-1.5
	comp=Z,22nm,1.1s						
FETA				⇓*i*PKPab	PKPab	09 44 55.3	+1.7
	comp=Z,20nm,1.2s						
HINF	**Hinteralfeld**	**154.38**	**350**	*e*PKIKP	PKPdf	09 44 28.1	-0.1
KRUS	**Krusevo**	**154.58**	**322**	*e*PKP	PKPab	09 44 54.9	+0.2
DAVOS	**Davos**	**154.75**	**345**	PKIKP	PKPdf	09 44 28.6	-0.2
DAVOS						09 44 56.0	
BIA	**Bitola**	**154.77**	**321**	*i* PKP	PKPab	09 44 55.8	+0.2
DAVOX	**Davos/Dischmat**	**154.78**	**345**	PKP	PKPdf	09 44 28.6	-0.2
	comp=Z,11nm,1.0s,baz=20,slow=2.3,SNR=7.9						
DAVOX				PKPab	PKPab	09 44 56.0	+0.6
	comp=Z,25nm,0.8s,baz=3.0,slow=6.0,SNR=14						
TUE	**Stuetta**	**155.19**	**346**	*e*PKPdf	PKPdf	09 44 29.4	0.0
TUE				*e*pPKPdf	pPKPbc	09 46 35.3	+1.3
LOR	**Lormes**	**155.27**	**355**	*e*PKIKP	PKPdf	09 44 29.4	-0.1
	comp=Z,22nm,0.9s						
SSF	**Saint Saulge**	**155.50**	**355**	*e*PKIKP	PKPdf	09 44 29.8	0.0
	comp=Z,34nm,1.1s						
CABF	**La Chapelle**	**155.67**	**351**	*e*PKIKP	PKPdf	09 44 30.4	+0.4
	comp=Z,65nm,1.4s						
AVF	**Avril sur Loir**	**155.78**	**356**	*e*PKIKP	PKPdf	09 44 29.9	-0.3
SMF	**Signal de Mont**	**155.89**	**355**	*e*PKIKP	PKPdf	09 44 29.9	-0.4
	comp=Z,29nm,1.1s						
BGF	**Bois d'Agland**	**156.04**	**356**	*e*PKIKP	PKPdf	09 44 30.5	0.0
	comp=Z,19nm,0.8s						
MFF	**Saint Martin d**	**156.05**	**2**	*e*PKIKP	PKPdf	09 44 30.3	-0.2
	comp=Z,30nm,0.9s						
TCF	**Toulx Ste Croi**	**156.34**	**358**	*e*PKIKP	PKPdf	09 44 30.7	-0.2
	comp=Z,36nm,1.2s						
RJF	**Les Rejaudoux**	**157.35**	**359**	*e*PKIKP	PKPdf	09 44 32.2	0.0
MBDF	**Montbardon**	**157.39**	**349**	*e*PKIKP	PKPdf	09 44 32.3	0.0
	comp=Z,17nm,1.1s						
VIVF	**Saint-Julien-l**	**157.57**	**353**	*e*PKIKP	PKPdf	09 44 32.7	+0.2
	comp=Z,10nm,0.8s						
CAF	**Calviac**	**157.71**	**358**	*e*PKIKP	PKPdf	09 44 32.8	+0.1
	comp=Z,23nm,1.2s						
LASF	**Ste Croix**	**158.43**	**354**	*e*PKIKP	PKPdf	09 44 33.9	+0.3
	comp=Z,21nm,1.0s						
MTLF	**Montolieu**	**159.28**	**357**	*e*PKIKP	PKPdf	09 44 34.6	0.0
	comp=Z,32nm,1.4s						
EPF	**Esparros**	**159.63**	**1**	*e*PKIKP	PKPdf	09 44 35.2	+0.2
ETSF	**Etsaut**	**159.73**	**3**	*e*PKIKP	PKPdf	09 44 35.5	+0.4
PBRG	**Braganca**	**159.85**	**16**	*e*PKPab	PKPab	09 45 18.0	+0.5
MVO	**Moncorvo**	**160.36**	**18**	*e*PKPdf	PKPdf	09 44 36.5	+0.6
MVO	**Moncorvo**	**160.36**	**18**	*e*PKPab	PKPab	09 45 20.1	+0.3
PVIS	**Viseu**	**160.52**	**20**	*e*PKPab	PKPab	09 45 21.1	+0.6
MTE	**Manteigas**	**160.91**	**20**	*e*PKPab	PKPab	09 45 22.5	+0.3
PMRV	**Marv??o**	**161.85**	**21**	*e*PKPdf	PKPdf	09 44 38.7	+1.2
PMRV	**Marv??o**	**161.85**	**21**	*e*PKPab	PKPab	09 45 25.9	-0.4
PESTR	**Estremoz**	**162.28**	**22**	*e*PKPdf	PKPdf	09 44 36.5	-1.4
PESTR	**Estremoz**	**162.28**	**22**	*e*PKPab	PKPab	09 45 27.8	-0.5
EVO	**Evora**	**162.43**	**23**	*e*PKIKP	PKPdf	09 44 38.3	+0.2
	comp=Z,72nm,1.4s						
ESDC	**Sonseca Array**	**162.51**	**12**	PKPab	PKPab	09 45 29.2	0.0
	comp=Z,15nm,1.1s,baz=344,slow=4.3,SNR=20						
ESDC				PP	PP	09 49 19.2	+4.9
	comp=Z,0.2nm,0.3s,baz=332,slow=5.1,SNR=5.3						
LIC	**Lamto**	**162.78**	**160**	⇑*i*PKIKP	PKPdf	09 44 38.2	-1.0
	comp=Z,96nm,1.3s						
LIC	**Lamto**	**162.78**	**160**	*e*PKIKP	PKPdf	09 44 38.1	-1.1
	comp=Z,94nm,1.3s						
PBEJ	**Beja**	**162.93**	**24**	*e*PKPdf	PKPdf	09 44 40.0	+1.4
PBEJ	**Beja**	**162.93**	**24**	*e*PKPab	PKPab	09 45 31.7	+0.5
KIC	**Kosan Boka**	**163.00**	**161**	*e*PKIKP	PKPdf	09 44 38.5	-0.9
	comp=Z,138nm,1.3s						
PTEO	**Sao Teotonio**	**163.01**	**27**	*e*PKPdf	PKPdf	09 44 36.8	-1.9
TIC	**Toumodi**	**163.18**	**160**	*e*PKIKP	PKPdf	09 44 38.7	-0.9
	comp=Z,82nm,0.9s						
DBIC	**Dimbokro**	**163.25**	**160**	PKP	PKPdf	09 44 38.9	-0.8
	comp=Z,10nm,1.0s,baz=194,slow=1.8,SNR=6.3						
PBDV	**Barranco-do-Ve**	**163.59**	**25**	*e*PKPdf	PKPdf	09 44 38.4	-0.8
KEST	**Kesra**	**164.94**	**332**	PKPab	PKPab	09 45 41.0	+0.9
	comp=Z,6.7nm,0.8s,baz=198,slow=3.4,SNR=7.8						
TOA0	**Torodi Ar. Sit**	**170.55**	**186**	*e*PKPdf	PKPdf	09 44 44.2	-0.7
TOA0				*e*PKPab	PKPab	09 46 05.5	+0.3
TORD	**Torodi Ar. Bea**	**170.55**	**186**	PKP	PKPdf	09 44 43.0	-1.9
	comp=Z,8.3nm,0.9s,baz=305,slow=0.6,SNR=37						
TORD				PKPab	PKPab	09 46 05.2	-0.1
	comp=Z,2.9nm,0.9s,baz=167,slow=4.4,SNR=8.6						
TORD				pPKPab	pPKPab	09 47 55.8	+1.1
	comp=Z,5.5nm,1.0s,baz=176,slow=2.8,SNR=9.8						
TORD				PP	PP	09 49 58.4	+3.5
	comp=Z,1.0nm,1.0s,baz=206,slow=4.3,SNR=3.7						
TORD	**Torodi Ar. Bea**	**170.55**	**186**	PKP	PKPdf	09 44 43.0	-1.9
TORD				PKPab	PKPab	09 46 05.2	0.0
TORD				pPKPab	pPKPab	09 47 55.8	+1.1
TORD				PP	PP	09 49 58.4	+3.5
TAM	**Tamanrasset**	**175.60**	**273**	*e*PKIKP	PKPdf	09 44 47.6	+0.9

IDC ***07*** *09:51:36.9±0.5, 64°.86N×86°.96W, h0^{km}, mb3.9/16,*
mb1 4.1/21, mb1mx4.0/31, mbtmp4.0/21, ML3.4/5, MS3.7/2,
Ms1 3.7/2, ms1mx3.0/51, Error ellipse: s-maj=12.0km
s-min=9.6km az=179.0

NEIC ***07*** *09:51:37.6, 64°.80N×87°.00W, h18^{km}, mb4.2/5,*
MN4.4(OTT), After OTT.

OTT ***07*** *09:51:37.1±0.1, 64°.80N×87°.01W, h14^{km}, MN4.4/14,*
Wager Bay region, Nu 197km south from Repulse Bay, Nu
Boothia Ungava Seismic Zone.

ISC 07 09:51:36.4±0.3**, 64°.57N**±0°.03×**87°.10W**±0°.06**, h10^{km}, n57,**
σ**1^{s}36**/87**, mb3.9**/18**, Northwest Territories**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NUNN	**Nunuq Camp, NU**	**1.82**	**293**	PN	**Pn**	**09 52 08.1**	**+0.4**
NUNN				SN	**Sn**	**09 52 29.4**	**-1.3**
NUNN				LG		09 52 33.0	
NUNN				Trac		09 52 35.9	
	comp=Z,2μm,0.1s						
SEDN	**First Sedna Si**	**2.25**	**236**	PN	**Pn**	**09 52 17.1**	**+3.5**
SEDN				SN	**Sn**	**09 52 44.7**	**+3.4**
SEDN				LG		09 52 54.4	
SEDN				Trac		09 52 58.9	
	comp=Z,984nm,0.2s						
YBKN	**Baker Lake, Hu**	**3.87**	**270**	PN	**Pn**	**09 52 36.3**	**+0.5**
YBKN				SN	**Sn**	**09 53 19.9**	**-1.4**
YBKN				LG		09 53 39.7	
YBKN				Trac		09 53 40.0	
	comp=Z,993nm,0.4s						
IVKQ	**Ivujivik**	**4.65**	**113**	PN	**Pn**	**09 52 47.3**	**+0.8**
IVKQ				SN	**Sn**	**09 53 38.8**	**-1.6**
IVKQ				LG		09 54 03.5	
IVKQ				Trac		09 54 05.2	
	comp=Z,656nm,0.5s						
ARVN	**Arviat, NU**	**4.73**	**226**	PN	**Pn**	**09 52 49.8**	**+2.2**
ARVN				SN	**Sn**	**09 53 43.8**	**+1.3**
ARVN				LG		09 54 11.3	
ARVN				Trac		09 54 13.4	
	comp=Z,196nm,0.2s						
ILON	**Igloolik, Nuna**	**5.25**	**21**	PN	**Pn**	**09 52 51.0**	**-3.8**
ILON				SN	**Sn**	**09 53 45.6**	**-10**
ILON				LG		09 54 11.6	
ILON				Trac		09 54 12.4	
	comp=Z,1μm,0.4s						
AKVQ	**Akulivik**	**5.57**	**129**	PN	**Pn**	**09 53 00.5**	**+1.3**
AKVQ				SN	**Sn**	**09 54 02.1**	**-1.0**
AKVQ				LG		09 54 39.3	
AKVQ				Trac		09 54 45.1	
	comp=Z,221nm,0.4s						
FCC	**Fort Churchill**	**6.70**	**213**	PN	**Pn**	**09 53 17.4**	**+2.6**
FCC				SN	**Sn**	**09 54 30.8**	**-0.3**
FCC				LG		09 55 12.9	
FCC				Trac		09 55 16.8	
	comp=Z,185nm,0.5s						
INUQ	**Inukjuak**	**7.48**	**141**	PN	**Pn**	**09 53 26.8**	**+1.3**
INUQ				SN	**Sn**	**09 54 48.5**	**-1.7**
INUQ				LG		09 55 36.8	
INUQ				Trac		09 55 43.4	
	comp=Z,126nm,0.5s						
FRB	**Frobisher Bay**	**8.14**	**87**	PN	**Pn**	**09 53 33.8**	**-0.6**
FRB				SN	**Sn**	**09 54 59.0**	**-7.4**
FRB				LG		09 55 48.9	
FRB				Trac		09 55 56.9	
	comp=Z,231nm,0.5s						
FRB	**Frobisher Bay**	**8.14**	**87**	Pn	**Pn**	**09 53 33.7**	**-0.7**
	1.9nm,0.3s,baz=286,slow=13,SNR=25						
FRB				Sn	**Sn**	**09 54 57.0**	**-9.4**
	25nm,0.3s,baz=209,slow=16,SNR=9.7						
FRB				Lg		09 55 45.0	
	44nm,0.3s,baz=18,slow=22,SNR=20						
FRB				LR	LR	09 56 52.3	
	comp=Z,154nm,20.6s,baz=252,slow=39						
FRB	**Frobisher Bay**	**8.14**	**87**	Pn	**Pn**	**09 53 33.7**	**-0.7**
FRB				Sn	**Sn**	**09 54 57.0**	**-9.4**
FRB				Lg		09 55 45.0	
FRB				LR	LR	09 56 52.3	
SNQN	**Sanikiluaq**	**8.93**	**151**	PN	**Pn**	**09 53 47.1**	**+1.8**
SNQN				SN	**Sn**	**09 55 23.6**	**-2.1**
SNQN				Trac		09 56 42.1	
	comp=Z,116nm,0.7s						
SILO	**Sutton Inlier**	**10.18**	**173**	PN	**Pn**	**09 54 03.8**	**+1.4**
SILO				SN	**Sn**	**09 55 53.6**	**-2.8**
SILO				LG		09 57 04.7	
SILO				Trac		09 57 16.0	
	comp=Z,103nm,0.8s						
COWN	**Contwyoto Lake**	**10.23**	**285**	PN	**Pn**	**09 54 01.1**	**-1.9**
COWN				SN	**Sn**	**09 55 49.7**	**-7.9**
COWN				Trac		09 56 50.2	
	comp=Z,47nm,0.5s						
COWN				LG		09 56 59.4	
RES	**Resolute Bay**	**10.51**	**349**	PN	**Pn**	**09 54 02.7**	**-4.1**
RES				SN	**Sn**	**09 55 50.5**	**-14**
RES				Trac		09 56 55.8	
	comp=Z,232nm,1.1s						
RES				LG		09 56 58.9	
RES	**Resolute Bay**	**10.51**	**349**	Pn	**Pn**	**09 54 02.5**	**-4.3**
	1.4nm,0.3s,baz=173,slow=12,SNR=61						
RES				Sn	**Sn**	**09 55 48.6**	**-16**
	5.3nm,0.3s,baz=136,slow=20,SNR=7.8						
RES				Lg		09 56 49.8	
	8.8nm,0.3s,baz=72,slow=20,SNR=12						
KUQ	**Kuujjuuaa**	**11.03**	**117**	PN	**Pn**	**09 54 14.2**	**+0.2**
KUQ				SN	**Sn**	**09 56 10.8**	**-6.5**
KUQ				Trac		09 57 27.4	
	comp=Z,259nm,0.5s						
VIMO	**Victor Mine**	**11.91**	**170**	PN	**Pn**	**09 54 26.6**	**+0.6**
VIMO				SN	**Sn**	**09 56 33.8**	**-5.0**
VIMO				Trac		09 57 19.6	
	comp=Z,4.0nm,0.2s						
FFC	**Flin Flon**	**12.37**	**224**	PN	**Pn**	**09 54 33.6**	**+1.3**
FFC				SN	**Sn**	**09 56 46.9**	**-3.1**
FFC				LG		09 58 00.7	
FFC				Trac		09 58 21.4	
	comp=Z,112nm,0.4s						
FFC	**Flin Flon**	**12.37**	**224**	*e*Pn	**Pn**	**09 54 34.4**	**+2.1**
	7.0nm,0.8s						
FFC				*e*Sn	**Sn**	**09 56 42.6**	**-7.4**
YKW3	**Yellowknife Ar**	**12.38**	**273**	PN	**Pn**	**09 54 30.0**	**-2.4**
YKW3				PN	**Pn**	**09 54 31.1**	**-1.3**
YKW3				SN	**Sn**	**09 56 39.7**	**-10**
YKW3				SN	**Sn**	**09 56 39.9**	**-10**
YKW3				LG		09 58 01.9	
YKW3				Trac		09 58 06.3	
	comp=Z,129nm,0.6s						
YKW3				Trac		09 58 06.3	
	comp=Z,142nm,0.6s						
YKA	**Yellowknife Ar**	**12.40**	**273**	Pn	**Pn**	**09 54 30.2**	**-2.5**
	1.0nm,0.3s,baz=68,slow=12,SNR=53						
YKA				Sn	**Sn**	**09 56 39.3**	**-11**
	4.2nm,0.3s,baz=68,slow=21,SNR=8.5						
YKA				Lg		09 57 56.0	
	3.6nm,0.3s,baz=68,slow=29,SNR=7.2						
YKA	**Yellowknife Ar**	**12.40**	**273**	Pn	**Pn**	**09 54 30.2**	**-2.5**
YKA				Sn	**Sn**	**09 56 39.3**	**-11**
YKA				Lg		09 57 56.0	
CTLN	**Castor Lake**	**12.41**	**282**	PN	**Pn**	**09 54 31.3**	**-1.6**
CTLN				Trac		09 56 44.3	
	comp=Z,11nm,0.1s						
LG4Q	**La Grande 4**	**12.81**	**143**	PN	**Pn**	**09 54 38.4**	**+0.1**
LG4Q				SN	**Sn**	**09 56 56.1**	**-4.6**
LG4Q				LG		09 58 15.7	
LG4Q				Trac		09 58 26.0	
	comp=Z,58nm,0.5s						
SCHQ	**Schefferville**	**14.06**	**124**	Pn	**Pn**	**09 54 53.1**	**-2.2**
	0.8nm,0.3s,baz=327,slow=12,SNR=15						
SCHQ				Sn	**Sn**	**09 57 21.4**	**-10**
	1.9nm,0.3s,baz=177,slow=18,SNR=3.4						
SCHQ				Lg		09 58 52.6	
	4.3nm,0.3s,baz=60,slow=20,SNR=3.9						
SFJD	**Kangerlussuaq**	**15.02**	**64**	Sn	**Sn**	**09 57 41.5**	**-13**
	1.3nm,0.3s,baz=162,slow=20,SNR=3.8						
ULM	**Lac du Bonnet**	**15.09**	**202**	Pn	**Pn**	**09 55 10.5**	**+1.2**
	0.6nm,0.3s,baz=3.6,slow=11,SNR=4.8						
ULM				Sn	**Sn**	**09 57 46.5**	**-10**
	1.3nm,0.3s,baz=266,slow=22,SNR=3.5						
ULM				Lg		09 59 30.6	
	1.4nm,0.3s,baz=124,slow=8.4,SNR=7.0						
ULM	**Lac du Bonnet**	**15.09**	**202**	Pn	**Pn**	**09 55 10.5**	**+1.2**
ULM				Sn	**Sn**	**09 57 46.5**	**-10**
ULM				Lg		09 59 30.6	
AGMN	**Agassiz Refuge**	**16.98**	**200**	*e*P	**Pn**	**09 55 34.5**	**+0.7**
	41nm,0.8s						
AGMN				*e*Sn	**Sn**	**09 58 32.7**	**-10**
AGMN				*e*PcP	PcP	10 00 28.5	+9.3
DGMT	**Dagmar**	**18.58**	**218**	*e*P	**Pn**	**09 55 58.8**	**+5.3**
	11nm,0.8s						
DGMT				*e*S	**Sn**	**09 59 11.8**	**-9.0**
SADO	**Sadowa**	**20.33**	**164**	Lg		10 02 10.5	
	27nm,1.1s,baz=269,slow=22,SNR=3.1						
EGMT	**Eagleton**	**20.61**	**227**	*e*P	**P**	**09 56 23.2**	**+7.8**
	5.6nm,0.6s						
DLBC	**Dease Lake**	**21.03**	**273**	P	**P**	**09 56 22.5**	**+2.6**
	2.1nm,0.8s,mb3.5,baz=90,slow=2.0,SNR=2.6						
DLBC				S	**S**	**10 00 06.4**	**-7.2**
	2.5nm,0.7s,baz=208,slow=12,SNR=3.2						
DLBC				Lg		10 02 36.1	
	26nm,1.1s,baz=165,slow=21,SNR=4.2						
RSSD	**Black Hills**	**22.59**	**213**	*e*P	**P**	**09 56 43.4**	**+6.7**
	3.7nm,0.8s,mb3.9						
PDAR	**Pinedale Array**	**25.30**	**221**	P	**P**	**09 57 07.7**	**+5.0**
	3.2nm,0.8s,mb3.9,baz=34,slow=6.3,SNR=14						
BPAW	**Bear Paw Mtn.**	**26.65**	**298**	*e*P	**P**	**09 57 19.5**	**+4.8**
	6.5nm,0.8s,mb4.2						
TXAR	**Lajitas Array**	**36.77**	**205**	P	**P**	**09 58 48.5**	**+4.6**
	0.6nm,0.9s,mb3.4,baz=356,slow=6.3,SNR=3.8						
TXAR				PcP	PcP	10 01 07.7	+1.9
	0.6nm,1.0s,baz=350,slow=5.1,SNR=3.4						
TXAR	**Lajitas Array**	**36.77**	**205**	P	**P**	**09 58 48.5**	**+4.6**
TXAR				PcP	PcP	10 01 07.7	+1.9
ARCES	**ARCESS Array B**	**38.19**	**32**	P	**P**	**09 58 55.2**	**-0.2**
	1.2nm,0.5s,mb3.9,baz=324,slow=6.8,SNR=7.7						
ARCES	**ARCESS Array B**	**38.19**	**32**	P	**P**	**09 58 55.2**	**-0.2**
NOA	**NORSAR Array B**	**40.75**	**48**	P	**P**	**09 59 17.0**	**+0.1**
	1.0nm,0.6s,mb3.6,baz=313,slow=8.0,SNR=3.3						
NOA	**NORSAR Array B**	**40.75**	**48**	P	**P**	**09 59 17.0**	**+0.1**
GERES	**GERESS Array B**	**51.41**	**56**	P	**P**	**10 00 41.3**	**+0.3**
	0.2nm,0.3s,mb3.5,baz=318,slow=7.2,SNR=3.6						
ESDC	**Sonseca Array**	**52.17**	**76**	P	**P**	**10 00 48.0**	**+1.4**
	0.4nm,0.3s,mb3.8,baz=318,slow=7.5,SNR=4.5						
AKASG	**Malin Array Be**	**54.95**	**44**	P	**P**	**10 01 06.5**	**-0.5**
	0.2nm,0.3s,mb3.6,baz=329,slow=7.5,SNR=3.5						
BVAR	**Borovoye Array**	**61.46**	**15**	P	**P**	**10 01 53.2**	**+0.8**
	2.6nm,0.7s,mb4.5,baz=347,slow=5.1,SNR=14						
ZALV	**Zalesovo Beam**	**61.66**	**5**	P	**P**	**10 01 53.3**	**-0.4**
	1.9nm,0.5s,mb4.5,baz=358,slow=7.4,SNR=8.5						
AKTO	**Aktyubinsk**	**62.17**	**24**	P	**P**	**10 01 58.1**	**+0.9**
	2.4nm,0.8s,mb4.4,baz=15,slow=3.7,SNR=9.1						
KURK	**Kurchatov**	**64.52**	**10**	P	**P**	**10 02 13.2**	**+0.4**
	1.7nm,0.7s,mb4.2,baz=354,slow=5.7,SNR=8.9						
BRTR	**Keskin Array B**	**66.18**	**46**	P	**P**	**10 02 24.2**	**+0.5**
	0.5nm,0.5s,mb3.8						
SONM	**Songino Array**	**67.44**	**350**	P	**P**	**10 02 32.7**	**+1.0**
	0.2nm,0.7s,mb3.3,baz=1.2,slow=6.2,SNR=4.0						
MKAR	**Makanchi Array**	**68.67**	**8**	P	**P**	**10 02 39.6**	**+0.2**
	1.3nm,0.5s,mb4.2,baz=8.2,slow=4.9,SNR=31						
TORD	**Torodi Ar. Bea**	**77.72**	**85**	P	**P**	**10 03 34.2**	**+1.0**
	0.4nm,0.5s,mb3.6,baz=310,slow=6.3,SNR=8.8						
GUMO	**Guam**	**92.76**	**310**	LR	LR	10 50 03.2	
	comp=Z,144nm,18.6s,baz=91,slow=38						
WRA	**Warramunga Arr**	**127.62**	**308**	PKP	PKPdf	10 10 41.9	+0.5
	0.2nm,0.3s,baz=4.9,slow=2.3,SNR=5.2						

MAN 07 10:13:31, 15°.04N×121°.42E, h33^{km}, mb3.5, ML2.2, MS1.7,
1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
POLP	**Polilio Island**	**0.59**	**122**	*e*P	Pb	10 13 44.0	+0.9
POLP				*e*S	Sb	10 13 53.2	+2.0
PCPH	**Palayan**	**0.61**	**329**	⇓*i*P	Pn	10 13 44.2	+0.8
PCPH				*i* S	Sb	10 13 53.6	+1.9
BALP	**Baler**	**0.71**	**12**	*e*P	Pn	10 13 46.7	+1.9
BALP				*e*S	Sn	10 13 55.7	+1.1

NEIC 07 10:17:27.6, 39°.03S×174°.96E, h226^{km}, MG4.4(WEL),
After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VRZ	**Vera Road**	**0.18**	**239**	P	Pn	10 17 56.4	-0.5
VRZ				S	S	10 18 18.6	-1.3
TWVZ	**Taurewa**	**0.37**	**97**	P	Pn	10 17 57.2	-0.1
TWVZ				S	S	10 18 19.3	-1.2
WPVZ	**Whakapapa**	**0.49**	**111**	P	Pn	10 17 57.7	+0.1
WPVZ				S	S	10 18 19.9	-1.2
WTVZ	**West Tongariro**	**0.50**	**100**	P	Pn	10 17 57.8	+0.2
RAEZ	**Rainy Point**	**0.51**	**239**	P	Pn	10 17 57.5	-0.2
NGZ	**Ngauruhoe**	**0.52**	**107**	P	Pn	10 17 57.9	+0.2
HIZ	**Hauiti**	**0.52**	**351**	P	Pn	10 17 57.2	-0.6
KATZ	**Kakaramea**	**0.57**	**85**	P	Pn	10 17 57.8	-0.1
WNVZ	**Wahianoa**	**0.58**	**121**	P	Pn	10 17 58.3	+0.4
TUVZ	**Tukino**	**0.59**	**114**	P	Pn	10 17 58.2	+0.2
WATZ	**Wairara**	**0.68**	**62**	P	Pn	10 17 58.2	-0.2
NEZ	**North Egmont**	**0.71**	**250**	P	Pn	10 17 58.8	+0.3
MOVZ	**Moawhango**	**0.72**	**122**	P	Pn	10 17 58.3	-0.2
WAZ	**Wanganui**	**0.73**	**178**	P	Pn	10 17 58.9	+0.4
DFE	**Dawson Falls**	**0.73**	**246**	P	Pn	10 17 59.0	+0.5
PKE	**Pukeiti**	**0.78**	**257**	P	Pn	10 17 58.8	0.0
NWEZ	**Newall Road**	**0.89**	**254**	P	Pn	10 17 59.5	+0.2
BKZ	**Black Stump Fm**	**1.20**	**97**	P	Pn	10 18 00.9	-0.4
TSZ	**Takapari Road**	**1.29**	**143**	P	Pn	10 18 02.3	+0.4
MRZ	**Mangatainoka R**	**1.70**	**164**	P	Pn	10 18 04.9	-0.3
KIW	**Kapiti Island**	**1.83**	**181**	P	Pn	10 18 06.1	-0.3
URZ	**Urewera**	**1.85**	**66**	P	Pn	10 18 05.0	-1.7
BFZ	**Birch Farm**	**1.92**	**149**	P	Pn	10 18 07.0	-0.3
CAW	**Cannon Point**	**2.08**	**178**	P	Pn	10 18 08.3	-0.5
KNZ	**Kokohu**	**2.11**	**91**	P	Pn	10 18 08.6	-0.6
MWZ	**Matawai**	**2.13**	**72**	P	Pn	10 18 08.0	-1.3
MTW	**Mount Morrison**	**2.17**	**169**	P	Pn	10 18 08.9	-0.7
MRW	**Makara Radio**	**2.21**	**185**	P	Pn	10 18 09.5	-0.5
TCW	**Tory Channel**	**2.24**	**193**	P	Pn	10 18 10.0	-0.4
WEL	**Wellington**	**2.26**	**184**	P	Pn	10 18 09.9	-0.7
SNZO	**South Karori**	**2.29**	**185**	P	Pn	10 18 10.1	-0.7
BHW	**Baring Head**	**2.38**	**182**	P	Pn	10 18 10.9	-0.9
PAWZ	**Paruwai Farm**	**2.38**	**172**	P	Pn	10 18 11.1	-0.7
MSWZ	**Moikau Station**	**2.39**	**175**	P	Pn	10 18 11.2	-0.7
NNZ	**Nelson**	**2.50**	**208**	P	Pn	10 18 12.1	-1.0
QRZ	**Quartz Range**	**2.59**	**225**	P	Pn	10 18 12.3	-1.7
PUZ	**Puketiti**	**2.76**	**71**	P	Pn	10 18 14.3	-1.6
CMWZ	**Cape Campbell**	**2.77**	**192**	P	Pn	10 18 15.8	-0.2
BSWZ	**Blackbirch Sta**	**2.81**	**197**	P	Pn	10 18 15.8	-0.6
MXZ	**Matakaoa Point**	**3.01**	**62**	P	Pn	10 18 17.7	-1.1
THZ	**Tophouse**	**3.15**	**209**	P	Pn	10 18 18.9	-1.3
KHZ	**Kahutara**	**3.55**	**197**	P	Pn	10 18 23.7	-1.2
DSZ	**Denniston Nort**	**3.63**	**221**	P	Pn	10 18 23.8	-2.0
LTZ	**Lake Taylor**	**4.27**	**208**	P	Pn	10 18 31.7	-1.8
CRLZ	**Canterbury Las**	**4.87**	**200**	P	Pn	10 18 38.3	-2.6
MQZ	**McQueen's Vall**	**4.99**	**200**	P	Pn	10 18 39.5	-2.8
WVZ	**Waitaha Valley**	**5.15**	**217**	P	Pn	10 18 41.3	-3.1
RPZ	**Rata Peaks**	**5.53**	**211**	P	Pn	10 18 46.4	-2.7
FOZ	**Fox Glacier**	**6.02**	**220**	P	Pn	10 18 50.9	-4.5
LBZ	**Lake Benmore**	**6.43**	**212**	P	Pn	10 18 57.7	-3.0
ODZ	**Otahua Downs**	**6.81**	**207**	P	Pn	10 19 03.2	-2.3
JCZ	**Jackson Bay**	**6.86**	**221**	P	Pn	10 19 02.3	-3.8
WKZ	**Wanaka**	**7.29**	**215**	P	Pn	10 19 07.5	-4.1
EAZ	**Earnscleugh**	**7.49**	**212**	P	Pn	10 19 11.0	-3.1
TUZ	**Tuapeka**	**7.96**	**208**	P	Pn	10 19 18.1	-2.1
MLZ	**Mavora Lakes**	**8.07**	**216**	P	Pn	10 19 19.5	-2.1
WHZ	**Wether Hill Ro**	**8.60**	**215**	P	Pn	10 19 24.0	-4.3
DCZ	**Deep Cove**	**8.66**	**219**	P	Pn	10 19 25.3	-3.8

IDC ***07*** *10:23:10.1±1.5, 14°.61N×93°.85W, h0^{km}, mb3.9/7,*
mb1 4.1/11, mb1mx4.0/22, mbtmp3.9/11, ML4.0/4, MS2.9/1,
Ms1 2.9/1, ms1mx2.5/27, Error ellipse: s-maj=48.0km
s-min=19.4km az=47.0

ISCJB ***07*** *10:23:12.7±1.5, 14°.76N±0°.06×94°.07W±0°.03, h22^{km}±11^{km},*
mb3.9/8, Error ellipse: s-maj=9.5km s-min=5.2km
az=178.2

NEIC ***07*** *10:23:14.9, 14°.66N×94°.05W, h16^{km}, mb3.9/2,*
MD4.5(MEX), After MEX.

MEX ***07*** *10:23:14.9±1.1, 14°.66N×94°.05W, h16^{km}±61^{km}, MD4.5*

ISC 07 10:23:12.4±1.3**, 14°.78N**±0°.05×**94°.01W**±0°.04**, h7^{km}**±8^{km}**,**
n32, σ**1^{s}32**/46**, mb3.9**/8**, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.19**	**40**	*i* P	**Pg**	**10 23 33.7**	**-1.6**
PCIG				*i* S	**Sg**	**10 23 49.8**	**-0.9**
TGIG		**2.16**	**23**	*i* P	**Pn**	**10 23 49.6**	**+0.8**
TGIG				*i* S	**Sn**	**10 24 16.4**	**+0.5**
HUIG	**Huatulco**	**2.25**	**296**	*i* P	**Pn**	**10 23 49.3**	**-0.7**
HUIG				*i* S	**Sn**	**10 24 14.4**	**-3.7**
CCIG	**Comitan**	**2.34**	**50**	*i* P	**Pn**	**10 23 52.2**	**+0.9**
CCIG				*i* S	**Sn**	**10 24 19.8**	**-0.5**
SCX	**San Cristobal**	**2.35**	**34**	*i* P	**Pn**	**10 23 52.5**	**+1.1**
SCX				*i* S	**Sn**	**10 24 21.6**	**+1.0**
CMIG	**Matias Romero**	**2.44**	**340**	*e*P	**Pn**	**10 23 53.1**	**+0.4**
CMIG				*i* S	**Sn**	**10 24 22.4**	**-0.4**
CMIG	**Matias Romero**	**2.44**	**340**	Pn	**Pn**	**10 23 53.0**	**+0.3**
	38nm,0.3s,baz=156,slow=10,SNR=689						
CMIG				Sn	**Sn**	**10 24 23.1**	**+0.2**
	38nm,0.3s,baz=135,slow=12,SNR=6.3						
CMIG				LR	LR	10 25 07.3	
	comp=Z,217nm,18.4s,baz=162,slow=44						
CMIG	**Matias Romero**	**2.44**	**340**	*e*P	**Pn**	**10 23 53.1**	**+0.4**
CMIG				*i* S	**Sn**	**10 24 22.4**	**-0.4**
CMIG				Sn	**Sn**	**10 24 23.1**	**+0.2**
VHO	**Vista Hermosa**	**3.47**	**311**	*i* P	**Pn**	**10 24 07.3**	**+0.5**
VHO				*i* S	**Sn**	**10 24 46.7**	**-1.5**
PNIG	**Pinotepa**	**4.28**	**292**	*i* P	**Pn**	**10 24 18.2**	**+0.3**
PNIG				*i* S	**Sn**	**10 25 04.7**	**-3.5**
UTMO	**Huajuapan**	**4.74**	**310**	*i* P	**Pn**	**10 24 25.1**	**+0.8**
UTMO				*i* S	**Sn**	**10 25 17.7**	**-1.8**
TPIG	**Tehuac#an**	**4.84**	**319**	*i* S	**Sn**	**10 25 20.6**	**-1.4**
LVIG	**Laguna Verde**	**5.42**	**335**	*i* P	**Pn**	**10 24 33.1**	**-0.6**
PPM	**Popocatepetl**	**6.14**	**315**	*i* P	**Pn**	**10 24 44.9**	**+1.4**
CAIG	**El Cayaco**	**6.43**	**291**	*i* P	**Pn**	**10 24 49.5**	**+2.0**
TGUH	**Tegucigalpa,Un**	**6.57**	**95**	*e*Pn	**Pn**	**10 24 51.0**	**+1.5**
TEIG	**Tepich**	**7.69**	**44**	Pn	**Pn**	**10 25 04.6**	**-0.3**
	11nm,0.3s,baz=240,slow=1.3,SNR=65						
TEIG				Sn	**Sn**	**10 26 27.9**	**-4.5**
	2.4nm,0.3s,baz=38,slow=19,SNR=2.3						
TEIG	**Tepich**	**7.69**	**44**	*i* P	**Pn**	**10 25 04.7**	**-0.2**
TEIG				Sn	**Sn**	**10 26 27.9**	**-4.5**
JTS	**JuntasAbangare**	**9.90**	**116**	Pn	**Pn**	**10 25 32.2**	**-3.1**
	0.2nm,0.3s,baz=308,slow=19,SNR=2.1						
JTS				Lg		10 28 00.7	
	0.2nm,0.3s,baz=197,slow=18,SNR=3.6						
JTS	**JuntasAbangare**	**9.90**	**116**	Pn	**Pn**	**10 25 33.1**	**-2.1**
JTS				Lg		10 28 00.7	
JCT	**Junction City**	**16.50**	**342**	*e*P	**Pn**	**10 27 09.6**	**+5.2**
	7.3nm,0.8s						
JCT				*e*S	**Sn**	**10 30 22.6**	**+15**
TXAR	**Lajitas Array**	**17.01**	**330**	P	**Pn**	**10 27 14.0**	**+3.2**
	0.1nm,0.3s,baz=144,slow=13,SNR=13						
MIAR	**Mount Ida**	**19.68**	**1**	*e*P	**Pn**	**10 27 47.1**	**+3.6**
	7.5nm,0.9s						
ANMO	**Albuquerque**	**23.00**	**333**	P	**P**	**10 28 18.7**	**+0.9**
	0.8nm,0.7s,mb3.3,baz=90,slow=6.1,SNR=2.7						
PDAR	**Pinedale Array**	**30.93**	**337**	P	**P**	**10 29 31.4**	**+1.5**
	0.5nm,0.8s,mb3.4,baz=108,slow=9.5,SNR=3.8						
NVAR	**Mina Array Bea**	**31.85**	**322**	P	**P**	**10 29 40.6**	**+2.5**
	1.6nm,0.8s,mb3.9,baz=142,slow=9.1,SNR=12						
ULM	**Lac du Bonnet**	**35.40**	**358**	P	**P**	**10 30 06.3**	**-2.4**
	1.1nm,0.5s,mb4.1,baz=173,slow=10.0,SNR=3.1						
SIV	**San Ignacio**	**44.65**	**132**	P	**P**	**10 31 22.8**	**-3.2**
	0.6nm,0.8s,mb3.5,baz=315,slow=12,SNR=3.6						
YKA	**Yellowknife Ar**	**49.83**	**348**	P	**P**	**10 32 05.3**	**-0.5**
	1.9nm,0.6s,mb4.3,baz=154,slow=7.1,SNR=56						
NOA	**NORSAR Array B**	**84.38**	**28**	P	**P**	**10 35 44.8**	**-0.5**
	1.3nm,0.7s,mb4.2,baz=292,slow=5.0,SNR=4.0						
ARCES	**ARCESS Array B**	**86.00**	**18**	P	**P**	**10 35 52.5**	**-0.7**
	1.6nm,0.8s,mb4.3,baz=278,slow=3.6,SNR=5.6						
CMAR	**Chiang Mai Arr**	**144.59**	**338**	PKP	PKPdf	10 42 48.0	-2.7
	0.5nm,0.5s,baz=347,slow=4.5,SNR=4.3						

NEIC ***07*** *10:31:36.7±0.6, 22°.86S×175°.73W, h10^{km}, mb4.7/8, Error*

ellipse: s-maj=24.4km s-min=13.0km az=130.0

*IDC **07** 10:31:36.1±1.2, 22°.75S×175°.87W, h0km, mb3.9/5, mb1 4.2/7, mb1mx4.0/18, mbtmp4.0/7, MS3.8/5, Ms1 3.8/5, ms1mx3.4/23, Error ellipse: s-maj=57.6km s-min=21.6km az=145.0*

*ISCJB **07** 10:31:37.6±0.6, 22°.8S±0°.1×175°.7W±0°.1, h33km, mb4.5/14, MS3.7/5, Error ellipse: s-maj=20.4km s-min=11.2km az=36.5*

ISC 07 10:31:37.9±4.4**, 22°.78S**±0°.10×**175°.7W**±0°.1**, h21**km±32km**, n24,** σ1s.**28**/19**, mb4.5**/14**, MS3.7**/5**, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.57	23	Pn	Pn	10 33 54.1	-0.5
	1.3nm,0.3s,baz=220,slow=7.9,SNR=4.8						
AFI				Sn	Sn	10 35 36.5	-5.1
	1.7nm,0.3s,baz=72,slow=20,SNR=3.2						
AFI	Afiamalu	9.57	23	ePn	Pn	10 33 55.8	+1.2
AFI				eSn	Sn	10 35 39.5	-2.1
URZ	Urewera	16.62	200	Pn	Pn	10 35 29.3	-0.4
	0.9nm,0.3s,baz=28,slow=9.4,SNR=6.3						
PAE	Paea	25.01	83	eT		11 02 38.9	
	76nm,0.3s						
PPT	Papeete	25.04	83	eLR	LR	10 42 53.8	
	292nm,26.8s						
PPT				eT		11 02 41.4	
	5.0nm,0.3s						
PPT	Papeete	25.04	83	LR	LR	10 43 52.1	
	comp=Z,199nm,18.7s,MS3.6,baz=136,slow=29						
HNR	Honiara	26.85	296	LR	LR	10 46 14.8	
	comp=Z,133nm,20.9s,MS3.5,baz=200,slow=33						
EIDS	Eidsvold	30.41	258	eP	P	10 37 48.4	-0.5
	6.1nm,1.0s,mb4.3						
CTAO	Charters Tower	35.46	267	eP	P	10 38 34.7	+1.5
	6.0nm,0.8s,mb4.6						
STKA	Stephens Creek	38.81	247	P	P	10 39 01.6	+0.2
	1.4nm,0.7s,mb3.8,baz=86,slow=17,SNR=2.8						
STKA				LR	LR	10 52 15.7	
	comp=Z,161nm,20.4s,MS3.8,baz=180,slow=32						
ASAR	Alice Springs	46.13	259	P	P	10 40 01.1	0.0
	0.7nm,0.5s,mb3.9,baz=105,slow=7.7,SNR=13						
ASAR				PcP	PcP	10 41 38.1	+1.0
	0.6nm,0.6s,baz=117,slow=3.7,SNR=6.5						
WRAB	Tennant Creek	46.45	264	eP	P	10 40 03.1	-0.5
	2.6nm,0.6s,mb4.3						
WRA	Warramunga Arr	46.45	264	P	P	10 40 03.3	-0.4
	1.8nm,0.5s,mb4.3,baz=96,slow=8.5,SNR=39						
WRA				LR	LR	10 57 44.4	
	comp=Z,134nm,19.1s,MS3.9,baz=115,slow=34						
SBA	Scott Base	55.76	184	eP	P	10 41 13.5	+0.7
	126nm,1.4s,mb5.8						
QSPA	South Pole Qui	67.30	180	eP	P	10 42 28.4	-2.2
	20nm,1.9s,mb4.8						
ISA	Isabella	79.43	44	eP	P	10 43 46.8	+4.1
	8.6nm,1.4s,mb4.5						
KSRS	Korea Array	80.01	318	LR	LR	11 13 28.1	
	comp=Z,42nm,21.4s,MS3.8,baz=120,slow=31						
NVAR	Mina Array Bea	81.23	42	P	P	10 43 55.1	+2.7
	0.5nm,0.7s,mb3.6,baz=225,slow=7.1,SNR=4.5						
TXAR	Lajitas Array	86.50	56	P	P	10 44 21.4	+1.9
	0.4nm,0.8s,mb3.7,baz=223,slow=6.8,SNR=4.6						
NEW	Newport	87.98	35	eP	P	10 44 24.3	-1.9
	20nm,1.9s,mb5.0						
MCK	McKinley	88.74	12	eP	P	10 44 30.5	+1.1
	3.0nm,0.8s,mb4.7						
COLA	College	89.98	12	eP	P	10 44 34.0	-1.2
	21nm,1.8s,mb5.2						
AKASG	Malin Array Be	146.04	331	PKPbc	PKPbc	10 51 17.0	+1.0
	0.3nm,0.3s,baz=46,slow=4.2,SNR=4.9						
BRTR	Keskin Array B	149.96	311	PKPbc	PKPbc	10 51 28.9	+2.0

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*ISK **07** 10:46:05.8, 38°.64N×43°.29E, h9km, ML3.1*

*ISCJB **07** 10:46:06.4±0.5, 38°.67N±0°.03×43°.41E±0°.08, h8km±6km, Error ellipse: s-maj=10.8km s-min=4.9km az=10.7*

*CSEM **07** 10:46:06.0±0.3, 38°.64N×43°.35E, h8km, ML3.1, Error ellipse: s-maj=10.9km s-min=6.0km az=93.0*

*DDA **07** 10:46:06.0, 38°.69N×43°.22E, h7km±5km, Md3.3*

ISC 07 10:46:06.9±0.5**, 38°.65N**±0°.03×**43°.43E**±0°.08**, h10**km±5km**, n23,** σ1s.**01**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VANB	Van	0.07	212	PG	Pg	10 46 08.9	-0.1
VANB	Van	0.07	212	i Pg	Pg	10 46 08.9	-0.1
TVAN	Van	0.12	190	i P	Pg	10 46 08.6	-1.1
TVAN				i S	Sg	10 46 15.0	+3.2
TVAN	Van	0.12	190	i P	Pg	10 46 08.6	-1.2
TVAN				i S	Sg	10 46 15.0	+3.2
VANT	Van	0.21	190	PG	Pg	10 46 10.7	-0.6
VANT				eSG	Sg	10 46 14.9	+0.8
CLDR	Caldiran	0.62	37	ePG	Pg	10 46 19.3	+0.5
CLDR	Caldiran	0.62	37	ePg	Pg	10 46 19.3	+0.4
DYDN	Diyadin	0.91	12	i P	Pg	10 46 23.3	-1.1
DYDN				i S	Sg	10 46 37.5	+1.1
DYDN	Diyadin	0.91	12	i P	Pg	10 46 23.3	-1.1
DYDN				i S	Sg	10 46 37.5	+1.2
AGRB	Hanur-Agry	0.98	340	ePG	Pg	10 46 25.0	-0.8
AGRB	Hanur-Agry	0.98	340	ePg	Pg	10 46 25.0	-0.8
HKR	Hakkari	1.10	167	ePN	Pn	10 46 27.3	-1.0
HKR	Hakkari	1.10	167	ePn	Pn	10 46 27.3	-1.0
HAKT	HAKKARI	1.11	169	i P	Px	10 46 42.7	
HAKT				i S	Sx	10 47 00.5	
CUKT	Cukurca	1.41	174	ePN	Pn	10 46 32.2	-0.3
CUKT	Cukurca	1.41	174	ePn	Pn	10 46 32.2	-0.3
GNI	Garni	1.81	34	ePN	Pn	10 46 39.7	+1.7
GNI	Garni	1.81	34	ePn	Pn	10 46 39.7	+1.7
HOMI	Horasan	1.83	320	i P	Pn	10 46 38.0	-0.4
HOMI				i S	Sn	10 47 05.9	+4.4
BEST	Besiri	1.86	247	i P	Pn	10 46 38.5	-0.3
BEST				i S	Sn	10 47 04.0	+1.6
ERZM	Erzurum	2.04	309	i P	Pn	10 46 41.7	+0.5
ERZM				i S	Sn	10 47 06.6	0.0
ERZM	Erzurum	2.04	309	i P	Pn	10 46 41.7	+0.5
ERZM				i S	Sn	10 47 06.6	0.0
EZM	Erzurum	2.04	309	ePN	Pn	10 46 39.9	-1.3

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*ISCJB **07** 10:51:14.8±0.7, 39°.24N±0°.03×20°.62E±0°.06, h10km, Error ellipse: s-maj=6.9km s-min=4.6km az=168.8*

*THE **07** 10:51:14.9, 39°.24N×20°.66E, h0km±2km, ML3.8/1, Error ellipse: s-maj=2.8km s-min=0.7km az=39.0*

*CSEM **07** 10:51:15.1±0.4, 39°.23N×20°.66E, h2km, ML3.8/1, Error ellipse: s-maj=10.2km s-min=8.2km az=69.0*

ISC 07 10:51:15.5±0.7**, 39°.25N**±0°.03×**20°.64E**±0°.06**, h10**km**, n16,** σ1s.**31**/25**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.36	320	P	Pg	10 51 22.0	-0.7
IGT				S	Sg	10 51 28.4	+0.9
IGT	Igoumenitsa	0.36	320	P	Pg	10 51 22.0	-0.7
IGT				S	Sg	10 51 28.4	+0.9
MEV	Metsovon	0.70	41	P	Pg	10 51 28.6	-0.4
MEV	Metsovon	0.70	41	P	Pg	10 51 28.6	-0.4
VLS	Valsamata	1.08	182	P	Pg	10 51 34.7	-1.4
VLS				S	Sg	10 51 51.1	+1.0
VLS	Valsamata	1.08	182	P	Pg	10 51 34.7	-1.4
VLS				S	Sg	10 51 51.1	+1.0
THL	Klokotos Trika	1.11	73	P	Pg	10 51 35.4	-1.4
THL	Klokotos Trika	1.11	73	P	Pg	10 51 35.4	-1.4
AGG	Agios Georgios	1.34	99	P	Pn	10 51 39.7	-0.5
AGG				S	Sb	10 51 59.0	+1.2
AGG	Agios Georgios	1.34	99	P	Pn	10 51 39.7	-0.5
AGG				S	Sb	10 51 59.0	+1.2
BIA	Bitola	1.84	16	ePn	Pg	10 51 49.9	-0.9
BIA				i Sn	Sg	10 52 17.3	+2.6
BIA	Bitola	1.84	16	ePn	Pg	10 51 49.8	-1.0
KRUS	Krusevo	2.16	12	i Pn	Pn	10 51 52.4	+0.8
KRUS				i Sn	Sg	10 52 23.3	-1.7
KRUS	Krusevo	2.16	12	i Pn	Pn	10 51 52.3	+0.8
KRUS				i Sn	Sg	10 52 23.2	-1.8
VAY	Valandovo	2.54	35	ePn	Pn	10 51 59.7	+3.0
VAY	Valandovo	2.54	35	ePn	Pn	10 51 59.7	+3.0

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*ISCJB **07** 10:51:22.8±1.7, 38°.09N±0°.04×22°.81E±0°.04, h15km±14km, Error ellipse: s-maj=6.5km s-min=5.2km az=22.9*

*CSEM **07** 10:51:22.2±0.3, 38°.08N×22°.76E, h2km, ML3.5, Error ellipse: s-maj=8.0km s-min=6.4km az=23.0*

*NEIC **07** 10:51:22.6, 38°.07N×22°.80E, h16km, ML3.5(ATH), After ATH.*

*ATH **07** 10:51:22.6, 38°.07N×22°.80E, h16km±2km, ML3.5*

ISC 07 10:51:22.8±0.6**, 38°.05N**±0°.04×**22°.80E**±0°.05**, h14**km±5km**, n37,** σ1s.**05**/44**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LTK	Loutraki	0.14	103	ePB	Pg	10 51 26.3	-0.1
LTK				eSB	Sg	10 51 29.1	+0.2
LTK	Loutraki	0.14	103	ePb	Pg	10 51 26.3	-0.1
LTK				eSb	Sg	10 51 29.1	+0.2
GUR	Goura	0.38	252	ePB	Pg	10 51 30.4	-0.1
GUR	Goura	0.38	252	ePb	Pg	10 51 30.4	-0.1
LKR	Lokris	0.62	15	ePB	Pb	10 51 34.0	-1.4
LKR				eSN	Sg	10 51 43.4	+0.3
LKR	Lokris	0.62	15	ePb	Pb	10 51 34.0	-1.4
ATH	Athens Observa	0.73	96	ePN	Pn	10 51 36.4	-2.3
VLX	Vlachokerasia	0.76	206	ePN	Pn	10 51 37.6	-1.5
VLX	Vlachokerasia	0.76	206	ePn	Pn	10 51 37.6	-1.5
EFP	Efpalio	0.80	298	ePN	Pn	10 51 37.9	-1.7
EFP	Efpalio	0.80	298	ePn	Pn	10 51 37.9	-1.7
PTL	Penteli	0.84	90	ePN	Pn	10 51 39.7	-0.6
PTL	Penteli	0.84	90	ePn	Pn	10 51 39.7	-0.6
AGG	Agios Georgios	1.03	339	ePB	Pb	10 51 41.2	-1.3
AGG				eSN	Sn	10 51 56.5	-0.7
AGG	Agios Georgios	1.03	339	ePb	Pb	10 51 41.2	-1.3
AGG				eSn	Sn	10 51 56.5	-0.7
RLS	Riolos of Patr	1.05	271	ePB	Pb	10 51 41.8	-1.0
RLS				eSN	Sn	10 51 57.3	-0.3
RLS	Riolos of Patr	1.05	271	ePb	Pb	10 51 41.8	-1.0
RLS				eSn	Sn	10 51 57.3	-0.3
ITM	Ithomi	1.11	219	ePN	Pn	10 51 44.2	+0.2
ITM	Ithomi	1.11	219	ePn	Pn	10 51 44.2	+0.2
EVR	Evrytania	1.16	318	ePN	Pn	10 51 45.5	+0.9
EVR	Evrytania	1.16	318	ePn	Pn	10 51 45.5	+0.9
THL	Klokotos Trika	1.63	338	ePN	Pn	10 51 52.2	+1.1
THL	Klokotos Trika	1.63	338	ePn	Pn	10 51 52.2	+1.1
VLS	Valsamata	1.75	275	ePN	Pn	10 51 54.0	+1.3
VLS	Valsamata	1.75	275	ePn	Pn	10 51 54.0	+1.3
APE	Apeiranthos	2.38	114	P	Pn	10 52 02.8	+1.3
APE	Apeiranthos	2.38	114	P	Pn	10 52 02.8	+1.3
MMB	Musomiste	3.60	11	i P	Pn	10 52 18.3	+0.1
LAST	Lasithi	3.60	142	P	Pn	10 52 21.5	+3.3
LAST	Lasithi	3.60	142	P	Pn	10 52 21.5	+3.3
KKB	Krupnik	3.81	3	eP	Pn	10 52 21.7	+0.6
VTS	Vitosha	4.54	4	eP	Pn	10 52 31.8	+0.7
TIP	Timpagrande	4.86	285	ePn	Pn	10 52 35.7	+0.2
TIP	Timpagrande	4.86	285	ePn	Pn	10 52 35.7	+0.2
SG1	Sgolgore (BA)	5.49	302	ePn	Pn	10 52 45.8	+1.6
CUC	Castrocucco	5.77	292	ePn	Pn	10 52 48.5	+0.5
	16nm,0.6s						
CUC	Castrocucco	5.77	292	ePn	Pn	10 52 48.5	+0.5
	16nm,0.6s						

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*ISCJB **07** 10:51:42.6±0.6, 15°.91N±0°.04×89°.56W±0°.04, h33km, Error ellipse: s-maj=6.5km s-min=4.0km az=41.2*

*CASC **07** 10:51:42.8±2.5, 15°.64N×89°.50W, h0km±12km, MD3.8*

*MEX **07** 10:51:43.0±1.1, 15°.77N×89°.46W, h20km±200km, MD4.4*

ISC 07 10:51:44.2±0.6**, 15°.86N**±0°.04×**89°.53W**±0°.04**, h35**km**, n23,** σ1s.**09**/36**, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRL	Marmol	0.81	191	eP	Pn	10 51 54.2	-4.8
NBG	Las Nubes	1.49	212	eP	Pn	10 52 08.2	-0.4
PCG	Pacaya	1.79	216	eP	Pn	10 52 07.5	-5.1
TP2	Tecpan 2	1.80	234	eP	Pn	10 52 14.8	+2.1
TP2				eS	Sn	10 52 41.0	+6.8
FG6		1.84	226	eP	Pn	10 52 14.1	+0.8
FUG	Fuego 3	1.89	222	eP	Pn	10 52 13.7	-0.3
FUG				eS	Sn	10 52 43.4	+6.7
RTR	El Retiro	1.96	183	eP	Pn	10 52 14.4	-0.5
SNJE	San Jose	1.98	182	eP	Pn	10 52 14.4	-0.8
SBLS	San Blas	2.01	183	eP	Pn	10 52 15.0	-0.6
LFRS	El Faro	2.27	169	eP	Pn	10 52 18.4	-0.7
LFRS				eS	Sn	10 52 46.2	+0.3
CCIG	Comitan	2.54	280	i P	Pn	10 52 22.5	-0.5
CCIG				i S	Sn	10 52 51.9	-0.9
JAT	Jato	2.55	233	eP	Pn	10 52 24.9	+1.8
BLLM	Bellamira	2.71	152	eP	Pn	10 52 25.0	-0.3
CNCH	Conchagua	3.05	147	eP	Pn	10 52 30.7	+0.8
SCX	San Cristobal	3.11	287	eP	Pn	10 52 30.1	-0.6
SCX				i S	Sn	10 53 07.9	+1.2
PCIG		3.56	268	i P	Pn	10 52 36.1	-0.8
PCIG				i S	Sn	10 53 16.7	-1.1
TGIG		3.57	285	eP	Pn	10 52 36.5	-0.6
TGIG				i S	Sn	10 53 16.4	-1.7
TEIG	Tepich	4.50	15	i P	Pn	10 52 47.5	-2.4
TEIG				i S	Sn	10 53 42.2	+1.1
CMIG	Matias Romero	5.28	284	i P	Pn	10 53 00.4	-0.2
CMIG				i S	Sn	10 53 58.7	-1.7
HUIG	Huatulco	6.34	270	i P	Pn	10 53 15.8	+0.6
HUIG				i S	Sn	10 54 20.9	-5.4
VHO	Vista Hermosa	7.02	281	eP	Pn	10 53 26.5	+2.0
VHO				i S	Sn	10 54 43.5	+0.4
UTMO	Huajuapan	8.16	285	eP	Pn	10 53 41.5	+1.3
UTMO				i S	Sn	10 55 13.2	+1.8
PNIG	Pinotepa	8.28	275	eP	Pn	10 53 51.5	+10
PNIG				i S	Sn	10 55 14.3	+0.1

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*ISCJB **07** 10:56:18.7±1.2, 8°.11S±0°.08×74°.46W±0°.08, h152km±14km, mb3.6/8, Error ellipse: s-maj=17.1km s-min=8.3km az=135.9*

*IDC **07** 10:56:19.0±2.3, 8°.01S×74°.37W, h136km±24km, mb3.6/7, mb1 3.9/11, mb1mx3.8/22, mbtmp3.7/11, Error ellipse: s-maj=30.3km s-min=11.8km az=48.0*

*NEIC **07** 10:56:20.6±1.3, 8°.06S×74°.40W, h150km±14km, Error ellipse: s-maj=15.2km s-min=9.8km az=55.0*

ISC 07 10:56:20.0±1.2**, 8°.12S**±0°.08×**74°.5W**±0°.1**, h145**km±15km**, n17,** σ0s.**93**/19**, mb3.6**/8**, Peru-Brazil border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	4.04	286	P	Pn	10 57 21.1	+0.4
	20nm,0.3s,baz=94,slow=7.0,SNR=64						
ATAH				S	Sn	10 58 07.5	-0.2
	15nm,0.3s,baz=297,slow=20,SNR=19						
NNA	Nana	4.50	211	P	Pn	10 57 28.3	+1.6
	7.9nm,0.3s,baz=20,slow=9.3,SNR=14						
NNA				S	Sn	10 58 16.3	-2.3
	23nm,0.3s,baz=357,slow=15,SNR=5.6						
NNA	Nana	4.50	211	ePn	Pn	10 57 28.3	+1.6
NNA				eSn	Sn	10 58 16.8	-1.8
SIV	San Ignacio	15.26	122	P	Pn	10 59 48.4	+0.5
	1.5nm,0.3s,baz=309,slow=12,SNR=26						
SIV				S	S	11 02 30.8	-12
	0.3nm,0.3s,baz=221,slow=19,SNR=4.2						
SDV	Santo Domingo	17.32	13	P	Pn	11 00 12.4	-0.6
	1.2nm,0.3s,baz=192,slow=10,SNR=4.3						
CFAA	Coronel Fontan	24.08	167	P	P	11 01 23.1	+1.1
	0.1nm,0.4s,mb2.7,baz=348,slow=9.3,SNR=3.0						
CPUP	Villa Florida	24.36	140	P	P	11 01 24.0	-0.6
	2.6nm,0.6s,mb3.9,baz=303,slow=9.2,SNR=9.8						
CPUP	Villa Florida	24.36	140	P	P	11 01 24.0	-0.6
CMIG	Matias Romero	32.16	321	P	P	11 02 34.1	0.0
	2.0nm,0.7s,mb4.0,baz=120,slow=16,SNR=3.4						
TXAR	Lajitas Array	46.65	324	P	P	11 04 34.8	+0.8
	0.9nm,0.7s,mb3.5,baz=147,slow=8.4,SNR=10						
PDAR	Pinedale Array	59.88	331	P	P	11 06 10.1	-0.3
	0.6nm,0.6s,mb3.6,baz=116,slow=6.8,SNR=4.5						
NVAR	Mina Array Bea	61.69	322	P	P	11 06 23.7	+0.9
	0.7nm,0.6s,mb3.7,baz=126,slow=6.9,SNR=6.3						
DBIC	Dimbokro	70.95	80	P	P	11 07 21.2	-1.1
	4.0nm,0.4s,mb4.5,baz=246,slow=2.1,SNR=14						
YKA	Yellowknife Ar	76.86	342	P	P	11 07 54.7	-0.9
	0.4nm,0.5s,mb3.4,baz=142,slow=6.0,SNR=17						
YKA	Yellowknife Ar	76.86	342	P	P	11 07 54.7	-0.9
ASAR	Alice Springs	137.97	221	PKP	PKPdf	11 15 29.3	+1.0
	0.3nm,0.6s,baz=114,slow=1.7,SNR=3.6						
WRA	Warramunga Arr	140.23	225	PKhKP		11 15 26.0	
	0.5nm,0.9s,baz=125,slow=2.9,SNR=5.0						
WRA				PKP	PKPdf	11 15 34.0	+1.5
	0.3nm,0.5s,baz=122,slow=2.0,SNR=6.3						

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*DDA **07** 11:12:25.6, 38°.78N×43°.40E, h7km±3km, Md2.8*

*ISK **07** 11:12:26.8, 38°.48N×43°.58E, h2km, MD2.5*

*ISCJB **07** 11:12:27.7±1.0, 38°.69N±0°.06×43°.29E±0°.06, h10km, Error ellipse: s-maj=8.6km s-min=6.0km az=22.5*

*CSEM **07** 11:12:28.6±0.4, 38°.65N×43°.29E, h2km, MD2.8, Error ellipse: s-maj=10.2km s-min=9.2km az=132.0*

ISC 07 11:12:28.7±0.8**, 38°.66N**±0°.05×**43°.30E**±0°.06**, h10**km**, n13,** σ0s.**90**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VANB	Van	0.09	133	PG	Pg	11 12 31.3	+0.1
VANB	Van	0.09	133	i Pg	Pg	11 12 31.3	+0.1
TVAN	Van	0.15	148	i P	Pg	11 12 31.3	-0.9
TVAN				i S	Sg	11 12 34.7	+0.3
TVAN	Van	0.15	148	i P	Pg	11 12 31.3	-0.8
TVAN				i S	Sg	11 12 34.7	+0.3
VANT	Van	0.22	162	ePG	Pg	11 12 33.1	-0.3
VANT				eSG	Sg	11 12 37.1	+0.7
CLDR	Caldiran	0.68	45	ePG	Pg	11 12 41.3	-0.6
CLDR	Caldiran	0.68	45	ePg	Pg	11 12 41.3	-0.6
TATV	Tatvan	0.82	260	eP	Pg	11 12 43.6	-1.0
TATV				i S	Sg	11 12 55.6	+0.3
TATV	Tatvan	0.82	260	eP	Pg	11 12 43.6	-1.0
TATV				i S	Sg	11 12 55.6	+0.2
AGRB	Hanur-Agry	0.95	345	ePN	Pn	11 12 50.9	+2.8
AGRB	Hanur-Agry	0.95	345	ePn	Pn	11 12 50.9	+2.8
HAKT	HAKKARI	1.15	164	i P	Px	11 13 05.7	
HAKT				i S	Sx	11 13 24.8	
HAKT	HAKKARI	1.15	164	i P	Px	11 13 05.7	
HAKT				i S	Sx	11 13 24.8	

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*ISCJB **07** 11:25:08.3±0.9, 39°.20N±0°.02×20°.54E±0°.04, h2km±6km, Error ellipse: s-maj=5.8km s-min=4.1km az=171.6*

*SKO **07** 11:25:08.8, 39°.13N×20°.57E, h2km, M2.0, ML2.7*

*CSEM **07** 11:25:08.4±0.3, 39°.18N×20°.55E, h2km, ML3.4/4, Error ellipse: s-maj=7.5km s-min=4.7km az=85.0*

*NEIC **07** 11:25:09.3, 39°.20N×20°.64E, h20km, MD3.5(ATH), After ATH.*

*THE **07** 11:25:09.7, 39°.24N×20°.58E, h5km±1km, ML3.4/4, Error ellipse: s-maj=1.6km s-min=0.7km az=266.0*

*ATH **07** 11:25:09.3, 39°.20N×20°.64E, h20km±3km, MD3.5/4*

ISC 07 11:25:09.0±0.7**, 39°.17N**±0°.03×**20°.57E**±0°.04**, h4**km±5km**, n41,** σ1s.**02**/61**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.40	334	P	Pg	11 25 16.4	-0.3
IGT				S	Sg	11 25 21.5	-0.5
IGT	Igoumenitsa	0.40	334	P	Pg	11 25 16.4	-0.3
IGT				S	Sg	11 25 21.5	-0.5
JAN	Janina	0.53	24	ePB	Pg	11 25 18.2	-1.0
JAN				eSB	Sg	11 25 26.1	0.0
JAN	Janina	0.53	24	ePb	Pg	11 25 18.2	-1.0
JAN				eSb	Sg	11 25 26.1	0.0
MEV	Metsovon	0.80	40	P	Pg	11 25 23.3	-1.0
MEV	Metsovon	0.80	40	P	Pg	11 25 23.3	-1.0
KEK	Kerkira	0.80	313	ePN	Pn	11 25 24.5	-2.6
KEK				eSN	Sg	11 25 37.6	+2.8
KEK	Kerkira	0.80	313	ePn	Pn	11 25 24.5	-2.6
VLS	Valsamata	0.99	179	P	Pg	11 25 29.1	+1.1
VLS				S	Sg	11 25 45.3	+4.5
VLS	Valsamata	0.99	179	ePN	Pn	11 25 28.6	-1.1
VLS				eSN	Sn	11 25 44.6	+0.5
VLS	Valsamata	0.99	179	ePn	Pn	11 25 28.6	-1.1
VLS	Valsamata	0.99	179	P	Pg	11 25 29.1	+1.1
VLS				eSn	Sn	11 25 44.6	+0.5
EVR	Evrytania	1.00	104	ePN	Pn	11 25 27.2	-2.6
EVR	Evrytania	1.00	104	ePn	Pn	11 25 27.2	-2.6
THL	Klokotos Trika	1.19	70	P	Pg	11 25 30.9	-0.9
THL				S	Sg	11 25 48.5	+1.3
THL	Klokotos Trika	1.19	70	ePN	Pg	11 25 30.9	-0.9
THL	Klokotos Trika	1.19	70	ePn	Pg	11 25 30.9	-0.9
THL				S	Sg	11 25 48.5	+1.3
EFP	Efpalio	1.28	125	ePN	Pn	11 25 33.4	-0.3
EFP	Efpalio	1.28	125	ePn	Pn	11 25 33.4	-0.3
RLS	Riolos of Patr	1.32	147	ePN	Pn	11 25 33.6	-0.5
RLS	Riolos of Patr	1.32	147	ePn	Pn	11 25 33.6	-0.5
AGG	Agios Georgios	1.38	96	P	Pn	11 25 34.8	-0.2
AGG				S	Sg	11 25 54.1	+0.8
AGG	Agios Georgios	1.38	96	ePN	Pn	11 25 34.7	-0.3
AGG	Agios Georgios	1.38	96	ePn	Pn	11 25 34.7	-0.3
AGG				S	Sg	11 25 54.1	+0.8
KZN	Kozani	1.47	39	ePN	Pn	11 25 37.0	+0.8
KZN	Kozani	1.47	39	ePn	Pn	11 25 37.0	+0.8
LIT	Litokhoron	1.75	57	P	Pn	11 25 39.9	-0.2
LIT				S	Sn	11 26 02.1	-0.8
LIT	Litokhoron	1.75	57	ePN	Pn	11 25 40.0	-0.1
LIT	Litokhoron	1.75	57	ePn	Pn	11 25 40.0	-0.1
LIT				S	Sn	11 26 02.1	-0.8
BIA	Bitola	1.94	17	i Pn	Pn	11 25 44.0	+1.4
BIA				i Sn	Sn	11 26 08.9	+1.4
BIA	Bitola	1.94	17	i Pn	Pn	11 25 44.0	+1.3
BIA				i Sn	Sn	11 26 08.8	+1.3
LKR	Lokris	1.97	105	ePN	Pn	11 25 43.9	+0.8
LKR	Lokris	1.97	105	ePn	Pn	11 25 43.9	+0.8
KRUS	Krusevo	2.26	13	i Pn	Pn	11 25 46.8	-0.3
KRUS				i Sn	Sn	11 26 16.3	+0.9
KRUS				eLg		11 26 19.4	
	comp=N,14nm,0.5s						
KRUS				eLg		11 26 20.5	
	comp=E,37nm,0.9s						
KRUS	Krusevo	2.26	13	i Pn	Pn	11 25 46.8	-0.3
KRUS				i Sn	Sn	11 26 16.2	+0.8
KRUS				eLg		11 26 19.4	
	comp=E,14nm,0.5s						
ITM	Ithomi	2.26	151	ePN	Pn	11 25 48.0	+0.9
ITM	Ithomi	2.26	151	ePn	Pn	11 25 48.0	+0.9
PYL	PYLOS	2.45	157	ePN	Pn	11 25 49.8	0.0
PYL	PYLOS	2.45	157	ePn	Pn	11 25 49.8	0.0
VAY	Valandovo	2.64	35	i Pn	Pn	11 25 52.1	-0.2
VAY				i Sn	Sn	11 26 24.5	-0.3
VAY				eLg		11 26 26.4	
	comp=N,16nm,0.7s						
VAY				eLg		11 26 33.3	
	comp=E,20nm,0.7s						
VAY	Valandovo	2.64	35	i Pn	Pn	11 25 52.1	-0.2
VAY				i Sn	Sn	11 26 24.4	-0.4
VAY				eLg		11 26 33.2	
	comp=E,20nm,0.7s						

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*ISCJB **07** 11:39:50.6±0.7, 16°.92N±0°.07×93°.85W±0°.04, h166km±6km, mb3.3/2, Error ellipse: s-maj=11.1km s-min=6.1km az=9.8*

*IDC **07** 11:39:50.6±3.2, 16°.97N×93°.72W, h158km±14km, mb3.1/2, mb1 3.4/4, mb1mx3.2/19, mbtmp3.1/4, Error ellipse: s-maj=73.7km s-min=24.5km az=176.0*

*NEIC **07** 11:39:52.6, 16°.93N×93°.85W, h169km, MD4.0(MEX), After MEX.*

*MEX **07** 11:39:52.6±0.5, 16°.93N×93°.85W, h169km±6km, MD4.0*

ISC 07 11:39:51.7±0.7**, 16°.92N**±0°.07×**93°.85W**±0°.04**, h162**km±6km**, n16,** σ1s.**08**/27**, mb3.3**/2**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGIG		0.71	102	i P	Pn	11 40 15.8	+0.3
TGIG				i S	Sn	11 40 33.9	+0.3
CMIG	Matias Romero	1.00	280	i P	Pn	11 40 17.6	0.0
CMIG				i S	Sn	11 40 37.5	+0.2
CMIG	Matias Romero	1.00	280	P	Pn	11 40 17.5	-0.1
	68nm,0.3s,baz=93,slow=5.8,SNR=1026						
CMIG				S	Sn	11 40 37.5	+0.2
	55nm,0.3s,baz=270,slow=21,SNR=41						
TUIG	Tuzandepetl	1.23	334	i P	Pn	11 40 19.9	+0.4
TUIG				i S	Sn	11 40 39.5	-1.6
TUIG	Tuzandepetl	1.23	334	i P	Pn	11 40 19.9	+0.4
TUIG				i S	Sn	11 40 38.8	-2.2
PCIG		1.35	153	i P	Pn	11 40 21.0	+0.3
PCIG				i S	Sn	11 40 43.4	+0.4
CCIG	Comitan	1.76	111	i P	Pn	11 40 24.6	-0.2
CCIG				i S	Sn	11 40 51.2	+0.9
HUIG	Huatulco	2.45	242	i P	Pn	11 40 31.2	-1.6
HUIG				i S	Sn	11 41 03.5	-1.1
VHO	Vista Hermosa	2.76	274	i P	Pn	11 40 37.4	+0.8
VHO				i S	Sn	11 41 12.2	+0.9
PNIG	Pinotepa	4.13	263	i P	Pn	11 40 53.6	-0.4
PNIG				i S	Sn	11 41 41.6	-0.9
PPM	Popocatepetl	5.02	296	eP	Pn	11 41 07.8	+2.3
PPM				i S	Sn	11 42 03.7	+0.4
TEIG	Tepich	6.22	57	P	Pn	11 41 19.1	-2.3
	7.6nm,0.3s,baz=187,slow=0.9,SNR=56						
TXAR	Lajitas Array	15.29	326	P	Pn	11 43 20.6	+1.5
	0.0nm,0.3s,baz=145,slow=13,SNR=4.6						

NVAR	Mina Array Bea	30.30	320	P	P	11 45 48.6	+1.0
	0.5nm,0.7s,mb3.4,baz=133,slow=8.8,SNR=3.7						
YKA	Yellowknife Ar	47.79	347	P	P	11 48 10.5	-1.8
	0.3nm,0.5s,mb3.2,baz=152,slow=7.3,SNR=9.0						
YKA	Yellowknife Ar	47.79	347	P	P	11 48 10.5	-1.8

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*NEIC **07** 12:14:55.3, 17°.90N×99°.06W, h65^{km}, MD3.7(MEX), After MEX.*

MEX 07 12:14:55.3±0.9, 17°.90N×99°.06W, h65^{km}±13^{km}, MD3.7, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	Mezcala	0.53	273	*i* P	Pn	12 15 06.6	-1.4
MEIG				*i* S	Sn	12 15 15.9	-1.3
PLIG	Platanillo	0.64	319	*i* P	Pn	12 15 08.1	-1.1
PLIG				*i* S	Sn	12 15 17.9	-1.6
YAIG	Yautepec	0.95	360	*i* P	Pn	12 15 11.8	-1.2
YAIG				*i* S	Sn	12 15 23.6	-2.5
UTMO	Huajuapan	1.20	93	*i* P	Pn	12 15 15.5	-0.6
UTMO				*i* S	Sn	12 15 29.7	-2.0
PPM	Popocatepetl	1.23	20	*e*P	Pn	12 15 16.0	-0.5
PPM				*i* S	Sn	12 15 31.4	-1.0
MZVM		1.29	353	*i* P	Pn	12 15 15.9	-1.5
MZVM				*i* S	Sn	12 15 31.9	-1.9
ACX	Acapulco	1.31	218	*i* P	Pn	12 15 15.6	-2.0
ACX				*i* S	Sn	12 15 34.4	0.0
CAIG	El Cayaco	1.43	234	*i* P	Pn	12 15 17.3	-1.9
CAIG				*i* S	Sn	12 15 35.5	-1.6
IIO	Organos	1.71	11	*e*P	Pn	12 15 22.2	-0.8
IIO				*i* S	Sn	12 15 39.1	-4.8
PNIG	Pinotepa	1.75	149	*i* P	Pn	12 15 23.5	0.0
PNIG				*i* S	Sn	12 15 47.5	+2.7
VHO	Vista Hermosa	2.37	110	*e*P	Pn	12 15 32.0	+0.1
VHO				*i* S	Sn	12 15 58.9	-1.0
HUIG	Huatulco	3.54	126	*e*P	Pn	12 15 47.0	-0.8
HUIG				*i* S	Sn	12 16 25.1	-3.4

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*IDC **07** 12:26:33.8±8.0, 8°.11S×118°.22E, h250^{km}±88^{km}, mb3.4/5, mb1 3.5/7, mb1mx3.3/20, mbtmp3.4/7, MS3.3/1, Ms1 3.3/1, ms1mx2.5/33, Error ellipse: s-maj=43.6km s-min=23.2km az=82.0*

*ISCJB **07** 12:26:34.8±4.5, 8°.1S±0°.2×118°.2E±0°.3, h278^{km}±49^{km}, mb3.6/5, Error ellipse: s-maj=44.9km s-min=24.0km az=150.4*

*NEIC **07** 12:26:36.4±3.3, 8°.11S×118°.30E, h279^{km}±37^{km}, mb4.0/1, Error ellipse: s-maj=28.8km s-min=16.7km az=65.0*

ISC 07 12:26:36.4±4.7, 8°.1S±0°.2×118°.3E±0°.3, h278^{km}±53^{km}, n10, σ0^{s}.33/11, mb3.6/5, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.23	145	P	Pn	12 29 22.3	+0.1
	0.9nm,0.3s,baz=341,slow=12,SNR=5.6						
FITZ				S	S	12 31 33.6	-4.7
	0.3nm,0.3s,baz=190,slow=19,SNR=4.7						
WRA	Warramunga Arr	19.48	129	P	P	12 30 43.2	0.0
	0.8nm,0.3s,baz=301,slow=12,SNR=36						
WRAB	Tennant Creek	19.48	129	*e*P	P	12 30 43.2	-0.1
	3.3nm,0.5s						
WB2	Warramunga Arr	19.49	129	*e*P	P	12 30 43.0	-0.4
ASAR	Alice Springs	21.51	138	P	P	12 31 04.2	+0.4
	1.8nm,0.3s,mb3.8,baz=312,slow=9.1,SNR=82						
NWAO	Narrogin (SRO)	24.71	182	P	P	12 31 32.6	0.0
	5.0nm,0.7s,mb4.1,baz=345,slow=12,SNR=4.0						
NWAO				LR	LR	12 40 14.4	
	comp=Z,74nm,21.1s,baz=51,slow=33						
SONM	Songino Array	56.69	350	P	P	12 35 51.7	+0.6
	0.5nm,0.4s,mb3.3,baz=169,slow=8.6,SNR=13						
MKAR	Makanchi Array	63.36	333	P	P	12 36 36.1	-0.2
	0.5nm,0.5s,mb3.4,baz=154,slow=6.7,SNR=15						
ZALV	Zalesovo Beam	67.97	339	P	P	12 37 05.0	-0.4
	0.4nm,0.3s,mb3.6,baz=134,slow=4.2,SNR=2.7						
ZALV	Zalesovo Beam	67.97	339	P	P	12 37 05.0	-0.4

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*IDC **07** 12:44:06.0±0.9, 16°.14S×172°.72W, h0^{km}, mb4.3/7, mb1 4.6/7, mb1mx4.3/19, mbtmp4.3/7, MS4.3/17, Ms1 4.3/17, ms1mx4.2/21, Error ellipse: s-maj=46.7km s-min=20.7km az=138.0*

*NEIC **07** 12:44:07.5±0.8, 15°.85S×172°.76W, h10^{km}, Error ellipse: s-maj=42.9km s-min=15.3km az=129.0*

*GCMT **07** 12:44:08.0±0.3, 15°.98S×171°.95W, h12^{km}, MW5.0/67, Moment Tensor Solution. s26,c28; s67,c97; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.59±.09; $M_{\theta\theta}$-0.24±.09; $M_{\phi\phi}$-2.35±.09; $M_{r\theta}$-0.87±.38; $M_{\theta\phi}$-1.01±.08; $M_{\phi r}$1.75±.32; Best double couple: $M_0$3.29400×10^{16} NP1:ϕ_s222.00000°,δ36.00000°,λ128.00000°. NP2: ϕ_s358.00000°,δ63.00000°,λ66.00000°. Principal axes: T 3.4970, Plg64.0000°, Azm227.0000°; N -0.4070, Plg21.0000°, Azm10.0000°; P -3.0920, Plg14.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ISCJB **07** 12:44:08.2±0.8, 15°.8S±0°.1×172°.8W±0°.2, h33^{km}, mb4.5/9, MS4.3/16 Error ellipse: s-maj=34.4km s-min=6.8km az=35.0*

*SZGRF **07** 12:44:09.2, 16°.70S×172°.66W, h33^{km}, Samoa Islands region*

*MOS **07** 12:44:13.3±2.2, 15°.03S×173°.27W, h33^{km}, mb5.0/2, Error ellipse: s-maj=27.8km s-min=16.4km az=140.2*

ISC 07 12:44:10.6±0.9, 15°.8S±0°.1×172°.8W±0°.2, h35^{km}, n52, σ1^{s}.51/16, mb4.5/9, MS4.3/16, 3C, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.13	27	P	Pn	12 44 39.7	-3.9
AFI				S	Sn	12 45 07.5	-1.3
AFI	Afiamalu	2.13	27	Pn	Pn	12 44 39.7	-4.0
	20nm,0.3s,baz=167,slow=0.9,SNR=50						
AFI				Sn	Sn	12 45 07.5	-1.3
	191nm,0.3s,baz=7.2,slow=22,SNR=12						
RAR	Rarotonga	13.45	115	LR	LR	12 51 29.9	
	comp=Z,1µm,18.0s,baz=295,slow=34						
PPT	Papeete	22.29	98	LR	LR	12 56 12.8	
	comp=Z,614nm,19.5s,MS4.0,baz=75,slow=33						
URZ	Urewera	24.07	200	P	P	12 49 20.8	-1.8
	5.4nm,0.4s,mb4.3,baz=49,slow=11,SNR=9.5						
URZ				LR	LR	12 57 30.3	
	comp=Z,407nm,18.4s,MS3.9,baz=11,slow=34						
HNR	Honiara	27.34	280	LR	LR	12 59 20.5	
	comp=Z,1µm,20.5s,MS4.5,baz=99,slow=33						
STKA	Stephens Creek	44.35	240	P	P	12 52 17.2	-0.4
	4.1nm,0.7s,mb4.3,baz=84,slow=10,SNR=6.1						
STKA				LR	LR	13 09 42.7	
	comp=Z,461nm,18.9s,MS4.4,baz=291,slow=35						
WRA	Warramunga Arr	50.34	257	P	P	12 53 04.1	-0.2
WRA	Warramunga Arr	50.34	257	P	P	12 53 04.2	-0.2
	1.3nm,0.7s,mb4.1,baz=93,slow=7.3,SNR=8.8						
WRA				LR	LR	13 14 09.0	
	comp=Z,609nm,18.3s,MS4.7,baz=80,slow=36						
ASAR	Alice Springs	50.55	252	P	P	12 53 05.3	-0.7
	11nm,0.7s,mb4.9,baz=88,slow=8.6,SNR=88						
MJAR	Matsushiro Arr	69.64	320	LR	LR	13 20 00.9	
	comp=Z,162nm,21.4s,MS4.2,baz=110,slow=31						
PETK	Petropavlovsk-	73.21	342	LR	LR	13 26 22.7	
	comp=Z,83nm,19.2s,MS4.0,baz=327,slow=34						
YSS	Yuzh-Sakhalins	74.14	330	P	P	12 55 51.2	+7.9
KSRS	Korea Array	76.87	315	LR	LR	13 25 13.1	
	comp=Z,67nm,18.8s,MS4.0,baz=273,slow=32						
TXAR	Lajitas Array	80.34	56	P	P	12 56 19.7	+1.2
	3.1nm,1.2s,mb4.1,baz=218,slow=7.8,SNR=9.6						
TXAR				LR	LR	13 25 58.7	
	comp=Z,149nm,19.1s,MS4.3,baz=155,slow=31						
PDAR	Pinedale Array	82.17	42	LR	LR	13 30 47.2	
	comp=Z,229nm,18.3s,MS4.6,baz=44,slow=34						
SEY	Seymchan	83.07	345	⇑*i*P	P	12 56 31.8	-0.3
BILL	Bilibino	85.00	352	⇑*i*P	P	12 56 44.0	+2.2
BILL				*i*	pP	12 56 54.2	+1.3
BILL				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.9						
MAW	Mawson	87.59	198	LR	LR	13 35 14.0	
	comp=Z,257nm,21.4s,MS4.6,baz=293,slow=35						
PLCA	Paso Flores	88.79	132	LR	LR	13 29 30.8	
	comp=Z,248nm,18.9s,MS4.7,baz=85,slow=31						
YKA	Yellowknife Ar	90.24	23	P	P	12 57 08.8	+1.7
	comp=Z,3.1nm,1.2s,mb4.5,baz=236,slow=4.6,SNR=9.5						
CMAR	Chiang Mai Arr	93.31	288	P	P	12 57 25.1	+2.7
	comp=Z,0.5nm,0.3s,mb4.4,baz=96,slow=2.2,SNR=5.0						
CMAR				LR	LR	13 35 06.9	
	comp=Z,69nm,20.5s,MS4.1,baz=282,slow=33						
ULM	Lac du Bonnet	93.88	39	LR	LR	13 37 35.0	
	comp=Z,212nm,18.0s,MS4.7,baz=241,slow=34						
SONM	Songino Array	95.55	318	LR	LR	13 33 19.2	
	comp=Z,116nm,21.6s,MS4.3,baz=111,slow=31						
TIXI	Tiksi	95.56	344	⇑*i*P	P	12 57 28.5	-3.0
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.7						
ROSC	El Rosal	99.42	88	LR	LR	13 37 49.8	
	comp=Z,91nm,18.6s,MS4.3,baz=39,slow=32						
STHS	Stebnicka Huta	144.59	344	*e*PKP	PKPdf	13 03 46.1	+2.7
STHS				*e*		13 03 55.3	
KOLS	Kolonicke sedl	144.75	343	*e*PKP	PKPdf	13 03 46.0	+2.4
CRVS	Cervenica-Dubn	145.00	344	*e*PKP	PKPdf	13 03 42.7	-1.4
CRVS				*e*		13 03 55.6	
UZH	Uzhgorod	145.02	342	*e*PKIKP	PKPdf	13 03 45.0	+0.9
UZH				*i*		13 03 55.6	
MOX	Moxa	145.08	355	*e*PKPbc	PKPbc	13 03 45.0	+1.4
WERD	Werda	145.21	354	*e*PKPbc	PKPbc	13 03 45.6	+1.5
TANN	Tannenbergstha	145.23	354	*e*PKPbc	PKPbc	13 03 46.1	+2.0
GUNZ	Gunzen	145.29	354	*e*PKPbc	PKPbc	13 03 45.4	+1.1
WERN	Wernitzgruen	145.37	354	*e*PKPbc	PKPbc	13 03 46.1	+1.6
TNS	Taunus Mts	145.67	359	*e*PKPbc	PKPbc	13 03 47.4	+1.9
MANZ	Manzenberg	145.69	354	*e*PKPbc	PKPbc	13 03 47.4	+1.8
VRAC	Vranov	145.73	349	PKPbc	PKPab	13 03 47.8	+1.7
	comp=Z,1.7nm,0.3s,baz=61,slow=11,SNR=5.7						
KMBO	Kilima Mbogo	145.89	243	PKPbc	PKPbc	13 03 48.6	+1.3
	comp=Z,1.2nm,0.5s,baz=31,slow=10,SNR=5.3						
ROTZ	Rotzenmuhle	145.90	354	*e*PKPbc	PKPab	13 03 48.8	+2.1
VYHS	Vyhne	146.04	346	*e*PKP	PKPdf	13 03 47.7	+1.8
GRA1	Grafenberg Arr	146.06	355	*e*PKPbc	PKPab	13 03 49.4	+2.1
GRF	Grafenberg Arr	146.06	355	*e*PKPbc	PKPab	13 03 49.4	+2.1
KHC	Kasperske Hory	146.37	352	*e*PKP	PKPdf	13 03 38.5	-7.9
KHC				*e*x	x	13 03 51.0	
WET	Wettzell	146.44	353	*e*PKPbc	PKPbc	13 03 49.6	+1.7
MODS	Modra-Piesok	146.50	348	*e*PKP	PKPab	13 03 50.2	+1.2
MODS				*e*		13 04 01.4	
GEC2	GERESS Array S	146.64	352	*e*PKPbc	PKPbc	13 03 49.7	+1.2
GERES	GERESS Array B	146.64	352	PKPbc	PKPbc	13 03 49.8	+1.4
	comp=Z,0.4nm,0.3s,baz=52,slow=2.2,SNR=6.9						
BRTR	Keskin Array B	146.86	321	PKPbc	PKPab	13 03 51.8	+1.1
	comp=Z,2.2nm,0.8s,baz=168,slow=1.4,SNR=8.5						
BFO	Black Forest	147.56	359	*e*PKPbc	PKPbc	13 03 52.0	+0.9
DAVOS	Davos	148.99	357	PKP2	PKPab	13 03 57.1	-1.9
DAVOX	Davos/Dischmat	149.05	356	PKPbc	PKPab	13 03 57.1	-2.1
	comp=Z,1.5nm,0.6s,baz=359,slow=17,SNR=3.4						

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*ISCJB **07** 12:53:09.5±0.2, 38°.20N±0°.01×117°.85W±0°.02, h10^{km}, Error ellipse: s-maj=2.3km s-min=1.8km az=155.8*

*NEIC **07** 12:53:09.7, 38°.22N×117°.86W, h11^{km}, ML4.0(REN), After REN.*

ISC 07 12:53:09.6±0.3, 38°.21N±0°.01×117°.87W±0°.02, h4^{km}±3^{km}, n96, σ1^{s}.00/145, 53C-58D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
R08A	Mina	0.23	306	⇓P	Pg	12 53 14.1	+0.1
	baz=0.2,SNR=1000						
R08A				⇓S	Sg	12 53 17.5	+0.4
	baz=0.2						
TPH	Tonopah	0.53	105	*e*Pg	Pg	12 53 20.0	+0.4
TPH				*e*S	Sg	12 53 27.7	+1.2
R09A	Tonopah	0.63	87	⇑P	Pg	12 53 21.5	-0.1
	baz=0.6						
R09A				⇑S	Sg	12 53 30.1	+0.4
	baz=0.6						
Q08A	Gabbs	0.65	355	⇑P	Pg	12 53 21.7	-0.3
	baz=0.6,SNR=688						
Q08A				⇑S	Sg	12 53 30.4	0.0
	baz=0.6						
S09A	Goldfield	0.70	134	⇑P	Pg	12 53 23.1	0.0
	baz=0.7,SNR=1000						
S09A				⇑S	Sg	12 53 33.2	+1.0
	baz=0.7						
Q09A	Carvers	0.82	41	P	Pg	12 53 25.1	-0.2
	baz=0.8,SNR=551						
Q09A				⇑S	Sg	12 53 36.7	+0.7
	baz=0.8						
MLAC	Mammoth Lakes	0.96	233	⇓P	Pg	12 53 28.3	+0.3
	baz=1.0,SNR=24						
MLAC				⇑S	Sg	12 53 42.0	+1.5
	baz=1.0						
Q07A	Schurz	1.03	315	⇓P	Pg	12 53 29.4	0.0
	baz=1.0,SNR=54						
S10A	Tonopah Range,	1.04	106	⇓P	Pg	12 53 29.3	-0.2
	baz=1.0,SNR=1000						
S10A				⇑S	Sg	12 53 43.6	+0.5
	baz=1.0						
TIN	Tinemaha	1.19	194	⇑P	Pg	12 53 32.5	+0.1
	baz=1.2,SNR=62						
TIN				⇑S	Sg	12 53 49.3	+1.4
	baz=1.2						
R10A	Warm Springs	1.23	86	⇑P	Pg	12 53 32.7	-0.5
	baz=1.2,SNR=1000						
R10A				⇑S	Sg	12 53 49.8	+0.6
	baz=1.2						
GRAC	Grapevine Rang	1.27	162	P	Pg	12 53 33.8	-0.1
	baz=1.3,SNR=1000						
GRAC				⇓S	Sg	12 53 51.7	+1.2
	baz=1.3						
R06C	Coleville	1.28	284	⇓P	Pg	12 53 33.5	-0.6
	baz=1.3,SNR=239						
R06C				⇑S	Sg	12 53 50.8	0.0
	baz=1.3						
Q10A	Clear Creek Ra	1.30	62	⇓P	Pg	12 53 33.8	-0.7
	baz=1.3,SNR=827						
Q10A				⇓S	Sg	12 53 52.1	+0.7
	baz=1.3						
P09A	Austin	1.45	23	⇑P	Pn	12 53 36.2	-0.4
	baz=1.4,SNR=324						
P09A				⇓S	Sb	12 53 55.7	-0.3
	baz=1.4						
P08A	Dixie Valley	1.49	354	⇓P	Pn	12 53 36.7	-0.4
	baz=1.5,SNR=136						
P08A				⇓Sb	Sb	12 53 58.1	+1.0
	baz=1.5						
P07A	Fallon	1.55	329	⇑P	Pn	12 53 37.3	-0.6
	baz=1.5,SNR=83						
P07A				⇓Sb	Sb	12 54 00.2	+1.4
	baz=1.5						
CWC	Cottonwood Cre	1.78	186	⇑Sb	Sb	12 54 06.7	+1.3
	baz=1.8						
P10A	Eureka	1.78	37	⇓P	Pn	12 53 40.7	-0.4
	baz=1.8						
P10A				⇓Sb	Sb	12 54 06.1	+0.6
	baz=1.8						
R11A	Troy Canyon, C	1.80	85	P	Pn	12 53 40.1	-1.3
	baz=1.8,SNR=403						
R11A				⇑Sb	Sb	12 54 06.5	+0.5
	baz=1.8						
WCN	Washoe City	1.83	307	⇑P	Pn	12 53 41.1	-0.8
	baz=1.8,SNR=812						
WCN				⇑Sb	Sb	12 54 08.1	+1.1
	baz=1.8						
Q11A	Duckwater	1.85	69	⇑P	Pn	12 53 41.1	-0.9
	baz=1.8,SNR=214						
Q11A				⇑Sb	Sb	12 54 08.2	+0.9
	baz=1.8						
FURC	Furnace Creek,	1.92	155	⇓P	Pn	12 53 42.9	-0.1
	baz=1.9,SNR=266						
FURC				⇓Sb	Sb	12 54 11.5	+2.1
	baz=1.9						
O09A	Fish Creek Ran	2.02	15	⇓P	Pn	12 53 43.9	-0.6
	baz=2.0,SNR=28						
O09A				⇑Sb	Sb	12 54 13.5	+1.1
	baz=2.0						
O08A	Rochester Mine	2.09	354	⇑P	Pn	12 53 44.7	-0.7
	baz=2.1,SNR=54						
O08A				⇑Sb	Sb	12 54 15.3	+1.0
	baz=2.1						
O07A	Toulon	2.10	338	P	Pn	12 53 45.0	-0.6
	baz=2.1,SNR=510						
O07A				⇑Sb	Sb	12 54 15.7	+1.1
	baz=2.1						
P11A	Circle Ranch,	2.12	50	⇓P	Pn	12 53 45.5	-0.4
	baz=2.1,SNR=33						
U10A	Ash Meadows, A	2.17	145	⇓P	Pn	12 53 46.4	-0.1
	baz=2.2,SNR=63						
MPMC	Manual Prospec	2.17	172	P	Pn	12 53 46.4	-0.1
	baz=2.2,SNR=284						
RCTC	Rector, Farmer	2.19	210	⇓Sb	Sb	12 54 19.3	+2.0
	baz=2.2						
BMN	Battle Mountai	2.27	13	*e*Pn	Pn	12 53 47.0	-0.9
BMN				*e*Sn	Sn	12 54 14.4	-1.9
T11A	Corn Creek, Al	2.31	114	⇓P	Pn	12 53 47.5	-0.9
	baz=2.3,SNR=64						
T11A				⇑Sb	Sb	12 54 22.8	+2.1
	baz=2.3						
O10A	Cortez Mining,	2.33	27	⇓P	Pn	12 53 48.1	-0.6
	baz=2.3,SNR=25						
O10A				⇑Sb	Sb	12 54 22.7	+1.4
	baz=2.3						
S12A	Delamar Landin	2.46	103	⇓P	Pn	12 53 49.9	-0.6
	baz=2.5,SNR=25						
S12A				⇑Sb	Sb	12 54 27.3	+2.2
	baz=2.5						
O06A	Flanigan	2.47	323	⇓Sb	Sb	12 54 27.5	+2.0
	baz=2.5						
Q12A	Willow Creek R	2.52	70	⇓P	Pn	12 53 50.5	-0.8
	baz=2.5,SNR=22						
Q12A				⇓Sb	Sb	12 54 28.6	+2.0
	baz=2.5						
BEKR	Beckwourth	2.55	311	⇓P	Pn	12 53 51.3	-0.4
	baz=2.5,SNR=40						
VES	Vestal, Richgr	2.56	203	⇓Sb	Sb	12 54 30.2	+2.3
	baz=2.6						
R12A	Pony Springs,	2.57	86	⇑P	Pn	12 53 50.9	-1.1
	baz=2.6,SNR=10						
R12A				⇓Sb	Sb	12 54 29.5	+1.4
	baz=2.6						
O11A	Cowboy Ranch,	2.57	41	P	Pn	12 53 51.5	-0.6
	baz=2.6,SNR=70						
N08A	GE Springer Mi	2.57	355	⇑P	Pn	12 53 51.6	-0.5
	baz=2.6,SNR=18						
N08A				⇓Sb	Sb	12 54 29.9	+1.6
	baz=2.6						
ISA	Isabella	2.59	191	⇓P	Pn	12 53 52.2	-0.1
	baz=2.6						
ISA				⇓Sb	Sb	12 54 31.3	+2.5
	baz=2.6						
ISA	Isabella	2.59	191	*e*Pn	Pn	12 53 52.5	+0.2
ISA				*e*Sg	Sg	12 54 30.2	-2.6
P12A	McGill	2.63	61	⇑P	Pn	12 53 52.4	-0.4
	baz=2.6,SNR=11						
P12A				⇑Sb	Sb	12 54 31.4	+1.5
	baz=2.6						
SHOC	Shoshone	2.63	151	⇑P	Pn	12 53 52.3	-0.6
	baz=2.6,SNR=6.6						
N09A	Rock Creek Ran	2.65	6	⇑P	Pn	12 53 52.5	-0.6
	baz=2.6,SNR=13						
N09A				⇓Sb	Sb	12 54 32.4	+2.0
	baz=2.6						
U11A	Corn Creek	2.67	131	⇓P	Pn	12 53 52.9	-0.4
	baz=2.7						
N07B	Gerlach	2.70	342	⇑P	Pn	12 53 53.4	-0.4
	baz=2.7,SNR=6.7						
N07B				⇓Sb	Sb	12 54 33.9	+1.9
	baz=2.7						
N10A	Dunphy	2.71	22	⇑P	Pn	12 53 53.2	-0.8
	baz=2.7						
N10A				⇓S	Sn	12 54 27.1	-0.1
	baz=2.7						
T12A	Moapa	2.91	120	⇑P	Pn	12 53 56.3	-0.5
	baz=2.9						
N06A	Buffalo Meadow	2.96	330	⇓P	Pn	12 53 57.4	+0.1
	baz=3.0,SNR=10.0						
N06A				⇓Sb	Sb	12 54 41.4	+2.2
	baz=3.0						
V11A	Goodsprings	3.07	140	⇓P	Pn	12 53 58.4	-0.4
	baz=3.1						
R13A	O'Grain Ranch,	3.07	89	⇓P	Pn	12 53 58.4	-0.5
	baz=3.1,SNR=26						
N11A	Elko Archery C	3.08	32	⇓P	Pn	12 53 58.4	-0.5
	baz=3.1						
Q13A	Wheeler Ranch,	3.10	75	⇓P	Pn	12 53 58.5	-0.8
	baz=3.1,SNR=10.0						
Q13A				⇑Sb	Sb	12 54 46.1	+2.5
	baz=3.1						
O12A	Currie	3.17	49	⇑P	Pn	12 53 59.6	-0.7
	baz=3.2						
ARVC	Arvin	3.18	194	⇓Sb	Sb	12 54 49.2	+3.5
	baz=3.2						
TUQ	Turquoise Moun	3.18	150	⇓P	Pn	12 54 00.1	-0.3
	baz=3.2,SNR=20						
U12A	Valley of Fire	3.19	123	⇑P	Pn	12 54 00.0	-0.5
	baz=3.2						
S13A	Holt Ranch, En	3.23	100	⇓P	Pn	12 54 00.2	-0.9
	baz=3.2,SNR=10						
ELK	Elko	3.24	38	*e*Pn	Pn	12 54 00.5	-0.8
ELK				*e*Sg	Sg	12 54 50.1	-3.6
P13A	Bates Ranch, G	3.25	66	⇓P	Pn	12 54 00.6	-0.8
	baz=3.2,SNR=12						
M08A	Happy Creek Ra	3.25	353	⇑P	Pn	12 54 01.3	-0.1
	baz=3.3,SNR=12						
T13A	Saint George	3.36	110	⇑P	Pn	12 54 02.2	-0.6
	baz=3.4,SNR=16						
N12A	Clover Valley,	3.42	39	⇓P	Pn	12 54 02.9	-0.8
	baz=3.4,SNR=10						
M10A	I.L. Ranch, Tu	3.46	17	⇑P	Pn	12 54 03.7	-0.6
	baz=3.5						
V12A	Nelson	3.46	135	⇓P	Pn	12 54 04.4	+0.1
	baz=3.5						
O13A	Hicks Ranch, I	3.58	56	⇓P	Pn	12 54 05.2	-0.6
	baz=3.6						
M11A	Holland Ranch,	3.59	26	⇓P	Pn	12 54 05.1	-0.9
	baz=3.6						
U13A	Pakoon Wash	3.59	119	⇓P	Pn	12 54 05.5	-0.5
	baz=3.6,SNR=24						
HEC	Hector,Ludlow	3.60	159	⇑P	Pn	12 54 05.7	-0.4
	baz=3.6,SNR=5.8						
OSI	Osito Adit	3.66	191	Pn	Pn	12 54 06.0	-0.9
OSI				*e*Sg	Sg	12 55 04.3	-2.7
LDFC	Landfair	3.83	144	*e*Pn	Pn	12 54 08.7	-0.7
V13A	Grand Canyon W	3.90	126	⇑P	Pn	12 54 09.9	-0.3
	baz=3.9						
T14A	Hurricane	3.97	105	⇑P	Pn	12 54 11.0	-0.2
	baz=4.0						
MWC	Mount Wilson	3.98	182	*e*Pn	Pn	12 54 10.3	-1.1
MWC				*e*Sg	Sg	12 55 16.4	-1.1
L10A	Juniper Basin	4.00	15	⇑P	Pn	12 54 11.6	-0.1
	baz=4.0						
PASC	Pasadena Art C	4.04	184	Pn	Pn	12 54 11.2	-1.1
U14A	Mt Trumbull	4.14	114	⇑P	Pn	12 54 13.6	0.0
	baz=4.1						
M13A	Montello	4.24	41	⇑P	Pn	12 54 14.8	-0.2
	baz=4.2						
WVOR	Wild Horse Val	4.26	352	Pn	Pn	12 54 15.1	-0.1
WVOR				*e*Sg	Sg	12 55 23.7	-2.6
L11A	Cat Creek Ranc	4.27	22	⇓P	Pn	12 54 15.0	-0.3
	baz=4.3						
DUG	Dugway	4.40	62	*e*Pn	Pn	12 54 17.0	-0.1
DUG				*e*Sg	Sg	12 55 26.8	-4.0
BELC	Belle Mtn.	4.47	160	⇑P	Pn	12 54 18.1	0.0
	baz=4.5						
N14A	Grayback Hills	4.47	52	⇑P	Pn	12 54 17.9	-0.3
	baz=4.5,SNR=8.9						
T15A	Red Dirt Ranch	4.51	104	⇓P	Pn	12 54 18.6	-0.1
	baz=4.5						
V14A	Boquillas Ranc	4.60	123	⇓P	Pn	12 54 20.2	+0.3
	baz=4.6						
IRM	Iron Mountain	4.60	151	⇓P	Pn	12 54 20.2	+0.2
	baz=4.6						
PFO	Pinyon Flat Ob	4.74	166	⇓P	Pn	12 54 21.8	0.0
	baz=4.7,SNR=6.4						
PFO	Pinyon Flat Ob	4.74	166	*e*Pn	Pn	12 54 21.7	0.0
PFO				*e*Sg	Sg	12 55 41.1	-0.5
M14A	Sheep Mountain	4.78	45	⇑P	Pn	12 54 22.1	-0.4
	baz=4.8						
WUAZ	Wupatki	5.86	115	Pn	Pn	12 54 39.1	+1.9
WUAZ				*e*Sg	Sg	12 56 13.1	-4.7
HLID	Hailey	5.95	25	Pn	Pn	12 54 37.6	-0.8
HLID				*e*Pb	Pb	12 54 50.5	-3.3
HLID				*e*Pg	Pg	12 54 57.7	-5.8
HLID				*e*Sg	Sg	12 56 14.6	-5.9
113A	Mohawk Valley,	6.38	147	⇓P	Pn	12 54 44.3	-0.1
	baz=6.4,SNR=6.6						
BMO	Blue Mountains	6.65	3	Pn	Pn	12 54 48.1	+0.1
	3.0nm,0.6s						
ANMO	Albuquerque	9.73	106	Pn	Pn	12 55 27.9	-2.4
ANMO				*e*Lg		12 58 12.8	

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*CSEM **07** 13:01:17.9±1.2, 51°.43N×16°.12E, h2^{km}, ML3.0/4, Error ellipse: s-maj=18.5km s-min=7.8km az=15.0*

*PRU **07** 13:01:18.8, 51°.40N×16°.21E, h0^{km}*

*WAR **07** 13:01:19.0, 51°.45N×16°.18E, ML2.3, Mining Induced*

ISC 07 13:01:17.7±1.4, 51°.43N±0°.06×16°.21E±0°.06, h0^{km}, n18, σ0^{s}.96/34, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.59	175	*e*Pg	Pg	13 01 30.2	+1.3

KSP				eSg	Sg	13 01 37.9	+1.5
KSP	Ksiaz	0.59	175	ePg	Pg	13 01 30.2	+1.3
KSP				eSg	Sg	13 01 37.9	+1.5
UPC	Upice	0.93	188	ePG	Pg	13 01 36.4	+1.0
UPC	Upice	0.93	188	Pg	Pg	13 01 36.4	+1.0
DPC	Dobruska-Polom	1.08	176	ePG	Pg	13 01 39.0	+0.7
DPC				eSG	Sg	13 01 52.7	+0.4
	comp=Z,12nm,0.4s						
DPC	Dobruska-Polom	1.08	176	Pg	Pg	13 01 39.0	+0.7
DPC				Sg	Sg	13 01 52.7	+0.4
	comp=Z,12nm,0.4s						
PVCC	Panska Ves	1.37	230	ePG	Pg	13 01 43.9	0.0
PVCC				eSG	Sg	13 02 02.2	+0.5
	comp=Z,35nm,0.3s						
PVCC	Panska Ves	1.37	230	Pg	Pg	13 01 43.9	0.0
PVCC				Sg	Sg	13 02 02.2	+0.5
	comp=Z,35nm,0.3s						
BRG	Berggiesshubel	1.53	250	PG	Pg	13 01 46.7	-0.3
BRG				SG	Sg	13 02 07.5	+0.7
	comp=Z,24nm,0.5s						
PRU	Pruhonice	1.79	217	ePG	Pg	13 01 51.3	-0.6
PRU				eSG	Sg	13 02 15.1	0.0
	comp=Z,14nm,0.3s						
PRU	Pruhonice	1.79	217	Pg	Pg	13 01 51.3	-0.6
PRU				Sg	Sg	13 02 15.1	0.0
	comp=Z,14nm,0.3s						
MORC	Moravsky Berou	1.86	152	ePg	Pg	13 01 50.9	-2.3
MORC				eSg	Sg	13 02 16.6	-0.6
CLL	Collm	2.02	268	e(Pg)	Pg	13 01 57.0	+0.8
CLL				eSg	Sg	13 02 22.0	-0.3
NKC	Novy Kostel	2.67	245	eSG	Sg	13 02 42.5	-0.8
	comp=Z,15nm,0.4s						
NKC	Novy Kostel	2.67	245	Sg	Sg	13 02 42.5	-0.8
	comp=Z,15nm,0.4s						
KHC	Kasperske Hory	2.85	217	ePG	Pg	13 02 10.5	-1.8
KHC				eSN	Sn	13 02 39.0	-0.3
KHC				eSG	Sg	13 02 47.5	-1.7
KHC	Kasperske Hory	2.85	217	Pg	Pg	13 02 10.5	-1.8
KHC				Sn	Sn	13 02 39.0	-0.3
KHC				Sg	Sg	13 02 47.5	-1.7
MOX	Moxa	3.00	257	(PG)	Pg	13 02 15.6	+0.4
MOX				eSG	Sg	13 02 55.0	+0.9

*CSEM **07** 13:19:33.7±0.2, 39°.38N×33°.10E, h2^{km}, MD3.2, Error ellipse: s-maj=5.2km s-min=3.7km az=147.0*
*DDA **07** 13:19:33.5, 39°.37N×33°.12E, h5^{km}±2^{km}, Md3.2*
*ISK **07** 13:19:33.7, 39°.37N×33°.08E, h8^{km}, MD3.0*
*ISCJB **07** 13:19:34.6±0.4, 39°.37N±0°.03×33°.08E±0°.04, h10^{km}, Error ellipse: s-maj=4.6km s-min=3.2km az=137.3*
ISC 07 13:19:34.1±0.6**, 39°.35N**±0°.03×**33°.10E**±0°.03**, h1**^{km}±5^{km}**, n35, σ1^{s}.13**/52**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALAT	Bala	0.21	5	i P	Pg	13 19 37.5	-0.6
BALAT				i S	Sg	13 19 40.6	-0.2
CDAG	Cicekdag	1.02	74	i P	Pg	13 19 52.3	-1.4
CDAG				i S	Sg	13 20 06.4	-0.5
CDAG	Cicekdag	1.02	74	i P	Pg	13 19 52.3	-1.4
CDAG				i S	Sg	13 20 06.4	-0.6
KIZT	Kizilcal	1.06	244	PG	Pg	13 19 54.5	+0.2
KIZT				eSG	Sg	13 20 09.6	+1.6
KIZT	Kizilcal	1.06	244	i Pg	Pg	13 19 54.5	+0.1
KIZT				eSg	Sg	13 20 09.6	+1.5
KDHN	Kadinhani	1.13	223	i P	Pg	13 19 55.5	-0.2
KDHN				i S	Sg	13 20 12.5	+2.2
KDHN	Kadinhani	1.13	223	i P	Pg	13 19 55.5	-0.2
KDHN				i S	Sg	13 20 12.5	+2.2
ELDT	Eldivan	1.17	12	i P	Pg	13 19 55.3	-1.2
ELDT				i S	Sg	13 20 12.8	+1.2
ELDT	Eldivan	1.17	12	i P	Pg	13 19 55.3	-1.2
SULT	Sultanhani-AKS	1.20	164	ePN	Pn	13 19 57.2	-0.7
SULT	Sultanhani-AKS	1.20	164	ePn	Pn	13 19 57.2	-0.7
SVRH	Sivrihisar-ESK	1.22	275	ePN	Pn	13 19 56.5	-1.8
SVRH				eSN	Sn	13 20 14.5	-1.0
SVRH	Sivrihisar-ESK	1.22	275	ePn	Pn	13 19 56.5	-1.8
SVRH				eSn	Sn	13 20 14.5	-1.0
CANT	Cankiri	1.32	18	ePN	Pn	13 19 58.8	-0.8
AVNT	Avonos	1.48	112	i P	Pn	13 20 01.8	-0.1
AVNT				i S	Sg	13 20 22.6	+0.9
AVNT	Avonos	1.48	112	i P	Pn	13 20 01.8	-0.1
AVNT				i S	Sg	13 20 22.6	+0.9
KONT	Konya--Tatoy	1.52	203	ePN	Pn	13 20 02.9	+0.6
KONT				eSN	Sn	13 20 22.3	-0.4
KONT	Konya--Tatoy	1.52	203	ePn	Pn	13 20 02.9	+0.6
KONT				eSn	Sn	13 20 22.3	-0.4
YOZ	Yozgat	1.74	80	ePN	Pn	13 20 05.8	+0.3
YOZ	Yozgat	1.74	80	ePn	Pn	13 20 05.8	+0.3
ESKT	Eskisehir	1.75	276	ePN	Pn	13 20 04.8	-0.7
ESKT	Eskisehir	1.75	276	ePn	Pn	13 20 04.8	-0.7
ILGA	Ilgaz	1.77	15	i P	Pn	13 20 06.8	+1.0
ILGA				i S	Sn	13 20 31.1	+2.3
ILGA	Ilgaz	1.77	15	i P	Pn	13 20 06.8	+1.0
CTKT	Corum	1.82	45	i P	Pn	13 20 06.6	+0.1
CTKT				i S	Sn	13 20 33.0	+2.8
CTKT	Corum	1.82	45	i P	Pn	13 20 06.6	+0.1
MDU	Mudurnu	1.83	308	ePN	Pn	13 20 05.8	-0.9
MDU	Mudurnu	1.83	308	ePn	Pn	13 20 05.8	-0.8
TOS	Tosya	1.83	23	ePN	Pn	13 20 06.2	-0.4
TOS	Tosya	1.83	23	ePn	Pn	13 20 06.2	-0.4
SAFT	Safranbolu	1.91	351	ePN	Pn	13 20 06.8	-1.1
SAFT	Safranbolu	1.91	351	ePn	Pn	13 20 06.8	-1.0
BALT	Daday	2.19	6	i P	Pn	13 20 13.8	+2.2
BALT				i S	Sn	13 20 43.6	+4.2
SARI	SarD1z-Kayseri	2.88	102	ePN	Pn	13 20 20.0	-1.1
SARI	SarD1z-Kayseri	2.88	102	ePn	Pn	13 20 20.0	-1.1

PGC 07 13:25:48.4±3.9**, 51°.50N**×**131°.39W, h10**^{km}**, ML2.8**/8**, Mw3.5, 6D, 197km Sse of Sandspit, Bc Queen Charlotte Islands Region, Queen Charlotte Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNB	Barry Inlet	1.10	349	⇑Pn	Pn	13 26 07.8	-2.1
BNB				⇑Sn	Sn	13 26 21.2	-4.0
MOBC	Moresby Island	1.69	348	⇑Pn	Pn	13 26 16.6	-1.4
MOBC				⇓Sn	Sn	13 26 35.9	-3.7
DIB	Dawson Inlet,	1.83	339	⇑Pn	Pn	13 26 17.4	-2.5
DIB				⇑Sn	Sn	13 26 38.7	-4.5
VIB	Van Inlet	1.90	339	⇑Pn	Pn	13 26 19.6	-1.1
VIB				⇓Sn	Sn	13 26 40.6	-4.1
BBB	Bella Bella	2.15	70	⇓Pn	Pn	13 26 22.7	-1.5
BBB				⇑Sn	Sn	13 26 46.1	-4.8
HOLB	Holberg	2.23	111	⇓Pn	Pn	13 26 22.7	-2.6
MAYB	Maynard	2.88	111	⇓Pn	Pn	13 26 32.8	-1.5
WOSB	Woss	3.34	112	⇓Pn	Pn	13 26 39.0	-1.5

*CSEM **07** 13:31:53.3, 12°.34N×45°.80E, h4^{km}, ML3.5, After DHMR*
DHMR 07 13:31:53.3±1.4**, 12°.34N**×**45°.80E, h5**^{km}±95^{km}**, ML3.5, 1C-2D, Western Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADEN	Aden	0.91	299	i P	Pg	13 32 10.0	-0.8
ADEN				i S	Sg	13 32 22.9	+0.2
ADEN				AML	AML	13 32 29.1	
	comp=N,1μm,0.3s						
BDHA	Al Bayda’	1.65	352	⇓i P	Pn	13 32 23.1	+0.2
BDHA				i S	Sn	13 32 47.3	+2.8
BDHA				AML	AML	13 32 48.8	
	comp=E,780nm,0.5s						
BDHA	Al Bayda’	1.65	352	⇓i P	Pn	13 32 23.1	+0.2
BDHA				i S	Sn	13 32 47.3	+2.8
	comp=E,390nm,0.5s						
TRBA	At Turbah	1.87	299	⇑i P	Pn	13 32 27.4	+1.3
TRBA				i S	Sn	13 32 53.0	+2.9
TRBA				AML	AML	13 32 54.0	
	comp=N,394nm,0.5s						
UDYN	Al ‘Udayn	2.41	312	i P	Pn	13 32 35.5	+2.0
UDYN				i S	Sn	13 33 08.5	+5.0
DHBB	Dhamar BB	2.61	328	i P	Pn	13 32 38.9	+2.6
DHBB				i S	Sn	13 33 14.2	+5.8

JMA 07 14:08:20.2, 33°.83N×**139°.42E, h24**^{km}±1^{km}**, M3.3, 1C-5D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMY	Miyakejima3	0.25	18	⇑P	Pb	14 08 26.4	-0.1
JMY				S	Sb	14 08 30.7	0.0
JKO	Kozu shima	0.43	327	⇓P	Pb	14 08 29.0	-0.2
JKO				S	Sb	14 08 34.9	-0.3
NJJJ	Nii jima 2	0.58	349	⇓P	Pb	14 08 31.9	+0.1
NJJJ				eS	Sb	14 08 40.0	+0.4
JHJ2	Mitsune	0.79	155	⇓P	Pb	14 08 35.1	-0.1
JIM2	Oshima 3	0.89	1	⇓P	Pb	14 08 36.8	-0.1
JIZS	Izushimoda	0.99	333	⇓P	Pn	14 08 38.0	-0.6
KTJJ	Kamata 2	1.13	345	P	Pn	14 08 39.3	-1.2
KTJJ				S	Sn	14 08 55.5	+0.2
TK03	Tokai 3	1.25	286	P	Pn	14 08 42.5	+0.3
TK03				S	Sn	14 08 59.6	+1.3

*NIED **07** 14:08:00, 33°.80N×139°.40E, h32^{km}, Mw3.7 Best double couple: $M_0$4.29000×10^{14} NP1:ϕ_s195.00000°, δ90.00000°, λ9.00000°. NP2:ϕ_s105.00000°, δ81.00000°, λ180.00000°.*
JMA 07 14:08:26.1, 33°.81N×**139°.36E, h18**^{km}±1^{km}**, M3.6, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMY	Miyakejima3	0.29	26	eS	Sg	14 08 37.3	+0.5
JKO	Kozu shima	0.42	334	eS	Sg	14 08 40.8	+0.3
NJJJ	Nii jima 2	0.59	354	P	Pg	14 08 37.7	-0.2
NJJJ				S	Sg	14 08 45.9	0.0
JHJ2	Mitsune	0.79	151	P	Pb	14 08 40.8	-0.6
JIZS	Izushimoda	0.99	336	P	Pb	14 08 44.7	0.0
JIZS				eS	Sb	14 08 57.9	+0.5
MAT	Matsushiro	2.88	341	P	Pn	14 09 09.6	-1.5
MAT				S	Sn	14 09 47.6	+2.2

*IDC **07** 14:09:20.1±2.0, 4°.70N×126°.44E, h0^{km}, mb3.4/3, mb1 3.7/3, mb1mx3.4/19, mbtmp3.4/3, Error ellipse: s-maj=184.1km s-min=25.3km az=66.0*
ISC 07 14:09:32.6±1.7**, 4°.3N**±0°.2×**125°.9E**±0°.3**, h95**^{km}±24^{km}**, n6, σ0^{s}.86**/7**, mb3.2**/3**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	General Santos	1.97	333	i P	Pn	14 10 04.0	-0.7
MATI	Mati	2.64	9	eP	Pn	14 10 13.6	+0.1
MATI				eS	Sn	14 10 37.3	-7.6
PAGZ	Pagadian	4.28	325	eP	Pn	14 10 36.2	+0.7
PAGZ				eS	Px	14 10 40.3	
WRA	Warramunga Arr	25.51	161	P	P	14 14 53.2	+0.8
	1.2nm,0.6s,mb3.5,baz=343,slow=10,SNR=5.2						
ASAR	Alice Springs	28.90	165	P	P	14 15 21.9	-0.8
	0.2nm,0.6s,mb3.0,baz=340,slow=7.8,SNR=3.2						
MKAR	Makanchi Array	56.58	325	P	P	14 19 05.2	-0.1
	0.1nm,0.4s,mb3.2,baz=123,slow=7.6,SNR=7.1						
MKAR				PcP	PcP	14 20 00.5	-0.4
	0.2nm,0.4s,baz=113,slow=4.7,SNR=5.6						

*ISCJB **07** 14:25:25.0±0.8, 38°.77N±0°.05×34°.34E±0°.06, h12^{km}±9^{km}, Error ellipse: s-maj=10.7km s-min=4.9km az=145.3*
*CSEM **07** 14:25:24.7±0.3, 38°.78N×34°.35E, h15^{km}, MD2.9, Error ellipse: s-maj=7.1km s-min=5.7km az=136.0*
*ISK **07** 14:25:24.4, 38°.76N×34°.33E, h22^{km}, MD2.8*
*DDA **07** 14:25:24.2, 38°.79N×34°.29E, h7^{km}±1^{km}, Md2.9*
ISC 07 14:25:25.2±0.6**, 38°.80N**±0°.04×**34°.34E**±0°.05**, h13**^{km}±6^{km}**, n17, σ1^{s}.01**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AVNT	Avonos	0.40	92	i P	Pg	14 25 33.2	-0.1
AVNT				i S	Sg	14 25 39.8	+1.1
AVNT	Avonos	0.40	92	i P	Pg	14 25 33.2	0.0
AVNT				i S	Sg	14 25 39.8	+1.2
NIG	Nigde	0.72	163	PG	Pg	14 25 37.9	-1.2
NIG				eSG	Sg	14 25 49.0	+0.4
NIG	Nigde	0.72	163	i Pg	Pg	14 25 37.9	-1.2
NIG				eSg	Sg	14 25 49.0	+0.4
CDAG	Cicekdag	0.82	2	eP	Pg	14 25 40.4	-0.8
CDAG				i S	Sg	14 25 52.3	+0.3
CDAG	Cicekdag	0.82	2	eP	Pg	14 25 40.4	-0.8
CDAG				i S	Sg	14 25 52.3	+0.3
SULT	Sultanhani-AKS	0.88	228	ePG	Pg	14 25 41.5	-0.7
SULT				eSG	Sg	14 25 54.5	+0.8
SULT	Sultanhani-AKS	0.88	228	ePg	Pg	14 25 41.5	-0.7
SULT				eSg	Sg	14 25 54.5	+0.7
YOZ	Yozgat	1.13	42	ePN	Pn	14 25 46.3	-0.4
YOZ				eSN	Sn	14 26 01.7	-0.4
YOZ	Yozgat	1.13	42	ePn	Pn	14 25 46.3	-0.4
YOZ				eSn	Sn	14 26 01.7	-0.4
KDHN	Kadinhani	1.76	262	eP	Pn	14 25 56.6	+1.2
KDHN				eS	Sn	14 26 18.8	+1.2
KDHN	Kadinhani	1.76	262	eP	Pn	14 25 56.6	+1.2
KDHN				eS	Sn	14 26 18.8	+1.1
KONT	Konya--Tatoy	1.77	242	ePN	Pn	14 25 53.5	-2.0
KONT	Konya--Tatoy	1.77	242	ePn	Pn	14 25 53.5	-2.0
CTKT	Corum	1.86	11	eP	Pn	14 26 00.1	+3.4
CTKT				eS	Sn	14 26 24.1	+4.1
SVRH	Sivrihisar-ESK	2.29	287	ePN	Pn	14 26 02.0	-0.5
SVRH	Sivrihisar-ESK	2.29	287	ePn	Pn	14 26 02.1	-0.5

*CSEM **07** 14:26:11.8, 40°.97N×27°.48E, h6^{km}, MD2.0, After ISK*
ISK 07 14:26:11.8, 40°.97N×**27°.48E, h6**^{km}**, MD2.0, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TKR	Tekirdag	0.05	68	PG	Pg	14 26 13.5	+0.3
TKR	Tekirdag	0.05	68	i Pg	Pg	14 26 13.5	+0.3
CRLT	Corlu	0.25	51	ePG	Pg	14 26 17.6	+0.8
CRLT				eSG	Sg	14 26 21.3	+1.3
CRLT	Corlu	0.25	51	ePg	Pg	14 26 17.6	+0.9
CRLT				eSg	Sg	14 26 21.3	+1.2
SLVT	Silivri	0.61	65	ePG	Pg	14 26 24.5	+0.9
SLVT				eSG	Sg	14 26 33.1	+1.6
SLVT	Silivri	0.61	65	ePg	Pg	14 26 24.5	+0.9
SLVT				eSg	Sg	14 26 33.1	+1.6
EDC	Edincik	0.69	155	ePG	Pg	14 26 25.4	+0.3
EDC	Edincik	0.69	155	ePg	Pg	14 26 25.4	+0.4
BNT	Bandirma	0.70	151	ePG	Pg	14 26 25.9	+0.6
CTT	Catalca	0.74	76	ePG	Pg	14 26 26.5	+0.5
CTT	Catalca	0.74	76	ePg	Pg	14 26 26.5	+0.5
CTYL	Yal??k??y-??at	0.79	50	ePG	Pg	14 26 27.6	+0.6
CTYL	Yal??k??y-??at	0.79	50	ePg	Pg	14 26 27.6	+0.6
CTKS	Kestanelik-??a	0.82	71	ePG	Pg	14 26 27.8	+0.2
CTKS	Kestanelik-??a	0.82	71	ePg	Pg	14 26 27.8	+0.2
KCT	Karacabey	0.97	136	ePG	Pg	14 26 31.1	+0.6
KCT	Karacabey	0.97	136	ePg	Pg	14 26 31.1	+0.6
BGKT	Bogazkoy	1.00	78	ePG	Pg	14 26 31.5	+0.5
BGKT	Bogazkoy	1.00	78	ePg	Pg	14 26 31.5	+0.5
ENEZ	Enez	1.03	257	ePG	Pg	14 26 31.9	+0.3
ENEZ	Enez	1.03	257	ePg	Pg	14 26 31.9	+0.3
EDRB	Edirne	1.03	328	ePG	Pg	14 26 32.0	+0.3
EDRB	Edirne	1.03	328	ePg	Pg	14 26 32.0	+0.4
ISK	Istanbul-Kandi	1.20	85	ePN	Pn	14 26 34.8	-0.3
ISK	Istanbul-Kandi	1.20	85	ePn	Pn	14 26 34.8	-0.3
KLYT	Kilyos	1.22	76	ePN	Pn	14 26 34.9	-0.4
KLYT	Kilyos	1.22	76	ePn	Pn	14 26 34.9	-0.4

*TRN **07** 14:28:54.4, 18°.68N×64°.63W, h93^{km}*
*NEIC **07** 14:28:55.9, 18°.72N×64°.62W, h93^{km}, MD3.5(RSPR), After RSPR.*
RSPR 07 14:28:55.9, 18°.72N×**64°.62W, h93**^{km}±4^{km}**, MD3.5**/3**, MD3.5**/3**, 4C-2D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TBVI	Tortola	0.30	180	⇓eP	Pn	14 29 09.1	-0.6
TBVI				eS	Sn	14 29 19.4	-0.5
STVI	Saint Thomas	0.49	221	⇑eP	Pn	14 29 10.6	-0.3
STVI				eS	Sn	14 29 22.1	+0.1
STVI	Saint Thomas	0.49	221	⇑eP	Pn	14 29 10.6	-0.3
STVI				eS	Sn	14 29 22.7	+0.7
MTP	Monte Pirata	1.08	235	⇓eP	Pn	14 29 17.0	+0.2
MTP				eS	Sn	14 29 31.8	-0.6
CBYP	Canovanas	1.26	249	⇑eP	Pn	14 29 18.2	-0.6
CBYP				eS	Sn	14 29 35.9	-0.1
HUMP	Col San Antoni	1.30	244	⇑eP	Pn	14 29 18.4	-0.9

*ISCJB **07** 14:40:20.0±0.2, 35°.37N±0°.02×27°.60E±0°.02, h10^{km}, mb3.7/6, Error ellipse: s-maj=2.5km s-min=1.9km az=23.3*
*ISK **07** 14:40:21.9, 35°.50N×27°.36E, h17^{km}, ML3.8*
*DDA **07** 14:40:22.4, 35°.65N×27°.67E, h11^{km}±1^{km}, Md3.6*
*MOS **07** 14:40:22.2±2.0, 35°.37N×27°.66E, h33^{km}, mb4.1/4, Error ellipse: s-maj=12.8km s-min=9.3km az=81.9*
*ATH **07** 14:40:22.6, 35°.50N×27°.47E, h28^{km}±1^{km}, MD4.0/9*
*HLW **07** 14:40:24.6, 35°.44N×27°.71E, h33^{km}, Mb3.9*
*CSEM **07** 14:40:24.2±0.1, 35°.43N×27°.51E, h30^{km}, ML3.5, Error ellipse: s-maj=3.3km s-min=3.2km az=34.0*
*THE **07** 14:40:24.4, 35°.58N×27°.43E, h10^{km}±4^{km}, Error ellipse: s-maj=4.9km s-min=1.5km az=135.0*
*IDC **07** 14:40:24.2±1.1, 35°.27N×27°.56E, h54^{km}±16^{km}, mb3.6/6, mb1 3.6/11, mb1mx3.5/25, mbtmp3.5/11, ML3.6/5, MS3.3/2, Ms1 3.3/2, ms1mx2.4/32, Error ellipse: s-maj=21.0km s-min=8.1km az=5.0*
*NEIC **07** 14:40:26.0, 35°.66N×27°.27E, h10^{km}, ML3.5(ATH), After ATH.*
*GII **07** 14:40:27.1±0.7, 34°.96N×27°.88E, h10^{km}, Mb4.1/4, Md3.7/10*
ISC 07 14:40:21.7±0.2**, 35°.42N**±0°.02×**27°.55E**±0°.02**, h10**^{km}**, n206, σ1^{s}.34**/257**, mb3.7**/6**, 3C-5D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.34	292	ePB	Pg	14 40 30.1	+1.6
KARP				eSB	Sg	14 40 34.5	+1.4
KARP	Karpathos	0.34	292	P	Pg	14 40 29.8	+1.3
KARP	Karpathos	0.34	292	ePb	Pg	14 40 30.1	+1.6
KARP				eSb	Sg	14 40 34.5	+1.4
ARG	Arkhangelos	0.92	30	ePN	Pg	14 40 41.7	+2.2
ARG	Arkhangelos	0.92	30	P	Pg	14 40 42.1	+2.6
ARG	Arkhangelos	0.92	30	ePn	Pg	14 40 41.7	+2.2
ARG	Arkhangelos	0.92	30	P	Pg	14 40 42.1	+2.6
ZKR	Zakros	1.13	255	P	Pb	14 40 42.3	-1.0
ZKR				S	Sg	14 40 59.9	+1.7
ZKR	Zakros	1.13	255	⇓i PN	Pg	14 40 43.2	-0.2
ZKR				eSN	Sg	14 40 59.3	+1.1
ZKR	Zakros	1.13	255	P	Pb	14 40 42.3	-1.0
ZKR	Zakros	1.13	255	⇓i Pn	Pg	14 40 43.2	-0.2
ZKR				eSn	Sg	14 40 59.3	+1.1
ZKR				S	Sg	14 40 59.9	+1.7
NISR	Nisiros	1.24	344	ePN	Pn	14 40 43.9	-1.2
NISR				eSN	Sn	14 41 00.2	-1.6
NISR	Nisiros	1.24	344	ePn	Pn	14 40 43.9	-1.2
NISR				eSn	Sn	14 41 00.2	-1.6
NPS	Neapolis	1.59	265	ePN	Pn	14 40 50.5	+0.6
NPS				eSN	Sn	14 41 09.4	-1.1
NPS	Neapolis	1.59	265	P	Pn	14 40 50.7	+0.8
NPS	Neapolis	1.59	265	ePn	Pn	14 40 50.5	+0.6
NPS	Neapolis	1.59	265	P	Pn	14 40 50.7	+0.8
NPS				eSn	Sn	14 41 09.4	-1.1
DALT	Dalyan (Mudla)	1.61	33	ePN	Pn	14 40 51.3	+1.1
DALT				eSN	Sn	14 41 11.7	+0.7
BDRM	Kayabasi	1.65	357	i P	Pn	14 40 49.7	-1.0
BDRM				i S	Sn	14 41 08.7	-3.2
BODT	Bodrum	1.65	353	ePN	Pn	14 40 49.8	-0.9
BODT				eSN	Sn	14 41 09.9	-2.1
TURN	Turunc	1.68	30	i P	Pn	14 40 48.9	-2.3
TURN				eS	Sn	14 41 10.4	-2.4
LAST	Lasithi	1.71	262	P	Pn	14 40 52.3	+0.7
LAST				S	Sn	14 41 13.1	-0.4
LAST	Lasithi	1.71	262	ePN	Pn	14 40 52.4	+0.8
LAST	Lasithi	1.71	262	ePn	Pn	14 40 52.4	+0.8
LAST				S	Sn	14 41 13.1	-0.4
FETY	Fethiye	1.74	45	ePN	Pn	14 40 53.0	+1.1
KSL	Kastellorizon	1.81	66	ePB	Pb	14 40 54.0	-0.8
YER	Yerkesik	1.81	19	ePN	Pn	14 40 53.4	+0.5
YER	Yerkesik	1.81	19	ePn	Pn	14 40 53.4	+0.5
AKAS	Kas	1.86	63	i P	Pn	14 40 54.2	+0.6
AKAS				eS	Sn	14 41 20.1	+3.0
AKAS	Kas	1.86	63	i P	Pn	14 40 54.2	+0.6
AKAS				eS	Sn	14 41 20.1	+3.0
MLSB	Milas	1.88	5	ePN	Pn	14 40 53.6	-0.3
MLSB	Milas	1.88	5	ePn	Pn	14 40 53.6	-0.3
THR1	Thera Island	1.95	300	P	Pn	14 40 53.9	-0.9
THR1				S	Sn	14 41 17.2	-2.1
THR6	Thira Island,	1.98	299	P	Pn	14 40 54.1	-1.2
THR3	Thira Island,	2.01	300	P	Pn	14 40 54.4	-1.2
THR4	Thira Island,	2.03	301	P	Pn	14 40 54.7	-1.3
IDI	Anoyia	2.18	267	ePN	Pn	14 40 58.5	+0.5
IDI	Anoyia	2.18	267	P	Pn	14 40 58.1	+0.2
	20nm,0.3s,baz=76,slow=12,SNR=80						
IDI				S	Sn	14 41 24.7	-0.3
	59nm,0.3s,baz=2.7,slow=20,SNR=12						
IDI	Anoyia	2.18	267	P	Pn	14 40 59.7	+1.7
IDI	Anoyia	2.18	267	ePn	Pn	14 40 58.5	+0.5
IDI	Anoyia	2.18	267	P	Pn	14 40 59.7	+1.7
AYDN	Tasoluk	2.25	7	i P	Pn	14 40 59.1	+0.1
AYDN				eS	Sn	14 41 24.9	-2.0
AYDN	Tasoluk	2.25	7	i P	Pn	14 40 59.1	+0.1
AYDN				eS	Sn	14 41 24.9	-2.0
SIVA	Sivas	2.28	261	P	Pn	14 41 01.1	+1.8
SIVA				S	Sn	14 41 26.7	-0.8
SIVA	Sivas	2.28	261	P	Pn	14 41 01.1	+1.8
SIVA				S	Sn	14 41 26.7	-0.8
GCAM	G?zelcaml?	2.29	354	i P	Pn	14 40 59.6	+0.1
GCAM				eS	Sn	14 41 21.3	-6.5
GCAM	G?zelcaml?	2.29	354	i P	Pn	14 40 59.6	+0.1
APE	Apeiranthos	2.32	316	ePN	Pn	14 40 58.0	-1.9
APE	Apeiranthos	2.32	316	P	Pn	14 40 58.3	-1.6
APE				S	Sn	14 41 23.1	-5.4
APE	Apeiranthos	2.32	316	P	Pn	14 40 58.7	-1.2
APE	Apeiranthos	2.32	316	ePn	Pn	14 40 58.0	-1.9
APE				S	Sn	14 41 23.1	-5.4
SMG	Samos	2.36	346	ePN	Pn	14 40 59.6	-0.8
SMG	Samos	2.36	346	P	Pn	14 40 59.8	-0.6
SMG	Samos	2.36	346	ePn	Pn	14 40 59.6	-0.8
GOLH	Golhisar	2.44	41	i P	Pn	14 41 04.3	+2.8
GOLH				eS	Sg	14 41 43.3	+3.4
GOLH	Golhisar	2.44	41	i P	Pn	14 41 04.3	+2.8
DENT	Denizli	2.62	27	ePN	Pn	14 41 04.3	+0.3
DENT	Denizli	2.62	27	ePn	Pn	14 41 04.3	+0.3
VAM	Vamos	2.74	271	ePN	Pn	14 41 06.5	+0.9
VAM	Vamos	2.74	271	ePn	Pn	14 41 06.5	+0.9
ANTB	Antalya	2.91	59	ePN	Pn	14 41 11.1	+3.0
ANTB	Antalya	2.91	59	ePn	Pn	14 41 11.1	+3.0
IZM	Izmir	2.98	356	ePN	Pn	14 41 09.0	0.0
IZM	Izmir	2.98	356	ePn	Pn	14 41 09.0	0.0
BLCB	Balcova	2.99	352	ePN	Pn	14 41 08.5	-0.6
BLCB	Balcova	2.99	352	P	Pn	14 41 08.2	-0.9
BLCB	Balcova	2.99	352	ePn	Pn	14 41 08.5	-0.6
URLA	Izmir	3.04	346	i P	Pn	14 41 09.1	-0.6
URLA	Izmir	3.04	346	i P	Pn	14 41 09.1	-0.6
CHOS	Chios island	3.20	338	P	Pn	14 41 11.0	-1.0
CHOS				S	Sn	14 41 46.5	-3.6
CHOS	Chios island	3.20	338	ePN	Pn	14 41 11.3	-0.7
CHOS	Chios island	3.20	338	ePn	Pn	14 41 11.3	-0.7
CHOS				S	Sn	14 41 46.5	-3.6
KULA	Kula-Manisa	3.22	16	ePN	Pn	14 41 12.7	+0.4
KULA	Kula-Manisa	3.22	16	ePn	Pn	14 41 12.7	+0.5
KHL	Karahalli	3.30	28	ePN	Pn	14 41 14.5	+1.1
KHL	Karahalli	3.30	28	ePn	Pn	14 41 14.5	+1.1
KHAL	Karahalli	3.33	27	i P	Pn	14 41 14.6	+0.8
KHAL	Karahalli	3.33	27	i P	Pn	14 41 14.6	+0.8
ISP	Isparta	3.39	44	ePN	Pn	14 41 17.0	+2.3
ISP	Isparta	3.39	44	⇓i P	Pn	14 41 15.9	+1.2
ISP	Isparta	3.39	44	P	Pn	14 41 15.2	+0.5
ISP				S	Sn	14 41 56.1	+1.1
ISP	Isparta	3.39	44	P	Pn	14 41 15.2	+0.5
ISP	Isparta	3.39	44	ePn	Pn	14 41 17.0	+2.3
ISP				S	Sn	14 41 56.1	+1.1
AKHS	Akhisar	3.46	3	eP	Pn	14 41 15.3	-0.3
AKHS	Akhisar	3.46	3	eP	Pn	14 41 15.3	-0.3
AKS	Akhisar	3.46	3	ePN	Pn	14 41 15.3	-0.3
AKS	Akhisar	3.46	3	ePn	Pn	14 41 15.3	-0.3
KYTH	Kithira	3.77	285	ePN	Pn	14 41 20.0	+0.2
KYTH	Kithira	3.77	285	ePn	Pn	14 41 20.0	+0.2
SHUT	Suhut-Afyon	3.94	37	ePN	Pn	14 41 23.6	+1.4
SHUT	Suhut-Afyon	3.94	37	ePn	Pn	14 41 23.6	+1.4
PRK	Paraskevi	3.96	345	ePN	Pn	14 41 23.2	+0.8
PRK	Paraskevi	3.96	345	ePn	Pn	14 41 23.2	+0.8
VLI	Veliai	3.96	290	ePN	Pn	14 41 22.5	+0.1
VLI	Veliai	3.96	290	ePn	Pn	14 41 22.5	+0.1
GDZ	Gediz	3.98	22	i P	Pn	14 41 23.6	+0.9
GDZ	Gediz	3.98	22	i P	Pn	14 41 23.6	+0.9
DURS	Dursunbey	4.24	10	i P	Pn	14 41 26.4	+0.1
DURS	Dursunbey	4.24	10	i P	Pn	14 41 26.4	+0.1
BALY	Balya	4.32	1	i P	Pn	14 41 27.6	+0.2

BALY	Balya	4.32	1	iP	Pn	14 41 27.5	+0.2
LEF	Lefka	4.38	92	ePN	Pn	14 41 32.0	+3.7
LEF	Lefka	4.38	92	ePn	Pn	14 41 32.0	+3.8
VLX	Vlachokerasia	4.60	297	ePN	Pn	14 41 33.4	+2.1
VLX	Vlachokerasia	4.60	297	ePn	Pn	14 41 33.4	+2.1
KONT	Konya--Tatoy	4.62	55	ePN	Pn	14 41 33.9	+2.4
KONT	Konya--Tatoy	4.62	55	ePn	Pn	14 41 33.9	+2.4
CSS	Prodhromos	4.75	94	P	Pn	14 41 35.2	+1.8
CSS	Prodhromos	4.75	94	Pn	Pn	14 41 35.5	+2.1
CSS				Sn	Sn	14 42 28.3	-0.3
CSS	Prodhromos	4.75	94	P	Pn	14 41 35.2	+1.8
LIA	Limnos Island	4.85	338	P	Pn	14 41 36.3	+1.6
LIA	Limnos Island	4.85	338	P	Pn	14 41 36.3	+1.6
ESKT	Eskisehir	4.86	32	ePN	Pn	14 41 37.0	+2.1
ESKT	Eskisehir	4.86	32	ePn	Pn	14 41 37.0	+2.1
ITM	Ithomi	4.87	293	ePN	Pn	14 41 35.5	+0.5
ITM	Ithomi	4.87	293	ePn	Pn	14 41 35.5	+0.5
KIZT	Kizilcal	4.89	44	ePN	Pn	14 41 36.9	+1.7
KIZT	Kizilcal	4.89	44	ePn	Pn	14 41 36.9	+1.7
PYL	PYLOS	4.93	289	P	Pn	14 41 35.2	-0.5
PYL				S	Sn	14 42 31.3	-1.5
PYL	PYLOS	4.93	289	ePN	Pn	14 41 36.9	+1.2
PYL	PYLOS	4.93	289	P	Pn	14 41 35.2	-0.5
PYL	PYLOS	4.93	289	ePn	Pn	14 41 36.9	+1.2
PYL				S	Sn	14 42 31.3	-1.5
GADA	Gvkgeada	4.94	345	ePN	Pn	14 41 35.9	0.0
GADA	Gvkgeada	4.94	345	ePn	Pn	14 41 35.9	0.0
SVRH	Sivrihisar-ESK	5.12	37	ePN	Pn	14 41 40.2	+1.8
SVRH	Sivrihisar-ESK	5.12	37	ePn	Pn	14 41 40.2	+1.9
EREN	Erenkoy	5.40	87	ePN	Pn	14 41 46.6	+4.3
ENEZ	Enez	5.42	349	ePN	Pn	14 41 43.4	+0.8
ENEZ	Enez	5.42	349	ePn	Pn	14 41 43.4	+0.9
AGG	Agios Georgios	5.50	312	P	Pn	14 41 43.6	-0.1
AGG	Agios Georgios	5.50	312	P	Pn	14 41 43.6	-0.1
ALN	Alexandroupoli	5.60	348	P	Pn	14 41 44.8	-0.1
ALN	Alexandroupoli	5.60	348	P	Pn	14 41 44.8	-0.1
HNAT	Natroun	6.32	155	P	Pn	14 41 55.5	+0.6
BRTR	Keskin Array B	6.47	47	P	Pn	14 41 58.4	+1.4
	0.3nm,0.3s,baz=231,slow=15,SNR=8.8						
BRTR				S	Sn	14 43 12.8	+2.1
	0.2nm,0.3s,baz=218,slow=25,SNR=2.7						
BRTR	Keskin Array B	6.47	47	P	Pn	14 41 58.3	+1.4
BRTR				S	Sn	14 43 12.9	+2.1
BR131	Keskin Array S	6.47	47	ePn	Pn	14 41 59.3	+2.4
	1.8nm,0.4s						
BR131	Keskin Array S	6.47	47	ePn	Pn	14 41 59.3	+2.4
	1.8nm,0.4s						
KOT	Kottamia	6.55	145	P	Pn	14 41 58.8	+0.6
KOT	Kottamia	6.55	145	P	Pn	14 41 58.8	+0.7
HHAG	Hagoal	6.66	144	⇓eP	Pn	14 41 59.9	+0.3
HHAG	Hagoal	6.66	144	P	Pn	14 41 59.9	+0.3
HSAF	As Saff	6.70	149	P	Pn	14 42 00.5	+0.4
HSAF	As Saff	6.70	149	P	Pn	14 42 00.5	+0.4
AMAG	Maghara	6.72	133	⇑P	Pn	14 42 00.4	-0.1
AMAG	Maghara	6.72	133	P	Pn	14 42 00.4	-0.1
HNTI	Hanita	6.73	108	Sn	Sn	14 43 15.5	-1.7
GLL	Jalalah	6.80	148	P	Pn	14 42 02.0	+0.5
GLL				S	Sn	14 43 13.4	-5.6
GLL	Jalalah	6.80	148	P	Pn	14 42 02.0	+0.5
RSH		6.82	129	P	Pn	14 42 01.5	-0.3
MMC7	Mount Meron ar	6.92	108	Pn	Pn	14 42 04.1	+0.9
MMC7				Sn	Sn	14 43 20.2	-1.8
MMA0B	Mount Meron ar	6.93	108	Pn	Pn	14 42 04.1	+0.8
MMA0B				Sn	Sn	14 43 20.2	-2.0
MMAI	Mount Meron Ar	6.93	108	P	Pn	14 42 02.5	-0.9
	3.7nm,0.3s,baz=305,slow=13,SNR=8.9						
MMAI				S	Sn	14 43 20.3	-1.9
	9.2nm,0.3s,baz=313,slow=27,SNR=9.1						
HRSH	Kfar Ka'horesh	6.96	111	P	Pn	14 42 01.4	-2.3
SLTI	Sal'it	6.99	115	Sn	Sn	14 43 20.3	-3.4
KSDI	Kefar Szold	7.07	106	Pn	Pn	14 42 05.3	+0.1
KSDI				Sn	Sn	14 43 23.4	-2.1
SUZ		7.12	140	⇑P	Pn	14 42 07.2	+1.2
SUZ		7.12	140	P	Pn	14 42 07.2	+1.2
MMLI	Mount Malkishu	7.18	112	Pn	Pn	14 42 07.0	+0.2
MMLI				Sn	Sn	14 43 25.4	-3.0
KSHT	Keshet	7.26	107	Pn	Pn	14 42 09.2	+1.4
KZIT	Kziot	7.29	126	Pn	Pn	14 42 08.4	+0.1
KZIT				Sn	Sn	14 43 26.5	-4.6
HMDT	Nahal Hemdat	7.35	113	Pn	Pn	14 42 09.2	+0.2
HMDT				Sn	Sn	14 43 29.4	-3.1
ZAF		7.44	144	P	Pn	14 42 10.7	+0.5
ZAF		7.44	144	P	Pn	14 42 10.7	+0.5
YTIR	Yattir	7.51	120	Pn	Pn	14 42 11.6	+0.4
ZNM		7.52	142	P	Pn	14 42 12.0	+0.6
ZNM		7.52	142	P	Pn	14 42 12.0	+0.6
DSI	Dead Sea	7.58	118	Pn	Pn	14 42 12.4	+0.2
DSI				Sn	Sn	14 43 34.9	-3.3
HNKL	Nakhl	7.70	133	P	Pn	14 42 14.0	+0.1
HNKL				S	Sn	14 43 33.8	-7.3
HNKL	Nakhl	7.70	133	P	Pn	14 42 14.0	+0.1
MZDA	Masada	7.71	120	Pn	Pn	14 42 14.6	+0.6
MZDA				Sn	Sn	14 43 37.2	-4.2
ZFRI	Zfri	8.03	125	Sn	Sn	14 43 44.9	-4.5
PRNI	Paran	8.05	127	Pn	Pn	14 42 18.4	-0.2
PRNI				Sn	Sn	14 43 44.9	-4.8
HFRF	Wahat Farafira	8.27	175	⇓P	Pn	14 42 22.8	+1.1
HFRF	Wahat Farafira	8.27	175	P	Pn	14 42 22.8	+1.1
HRFI	Mount Harif	8.28	128	Pn	Pn	14 42 22.4	+0.6
HRFI				Sn	Sn	14 43 50.5	-4.9
MBRI	Mt Berech	8.37	130	Pn	Pn	14 42 22.5	-0.5
MBRI				Sn	Sn	14 43 53.6	-3.9
EIL	Elat	8.48	130	P	Pn	14 42 22.9	-1.6
	1.1nm,0.3s,baz=32,slow=10,SNR=10.0						
EIL				S	Sn	14 43 55.8	-4.4
	3.4nm,0.3s,baz=29,slow=20,SNR=8.8						
EIL	Elat	8.48	130	Sn	Sn	14 43 55.6	-4.6
EIL	Elat	8.48	130	P	Pn	14 42 22.9	-1.6
HBST	Basata	8.67	134	P	Pn	14 42 27.3	+0.2
HBST	Basata	8.67	134	P	Pn	14 42 27.3	+0.2
HKAT	Jabal Katrina	8.78	140	P	Pn	14 42 29.1	+0.4
HKAT	Jabal Katrina	8.78	140	P	Pn	14 42 29.1	+0.4
HDK1	Dakhla	9.97	170	P	Pn	14 42 46.8	+1.8
HDK1	Dakhla	9.97	170	P	Pn	14 42 46.8	+1.8
KIV	Kislovodsk	14.42	49	eP	Pn	14 43 42.7	-3.1
KIV				pmax	pmax		
	comp=Z,3.0nm,0.7s						
GERES	GERESS Array B	16.86	327	P	Pn	14 44 19.7	+2.1
	comp=Z,0.1nm,0.3s,baz=152,slow=11,SNR=3.8						
GERES	GERESS Array B	16.86	327	P	Pn	14 44 19.7	+2.1
GERES	GERESS Array B	16.86	327	P	Pn	14 44 19.7	+2.1
KHC	Kasperske Hory	17.13	327	eP	Pn	14 44 23.0	+2.0
KHC	Kasperske Hory	17.13	327	eP	Pn	14 44 23.0	+2.0
DAVOX	Davos/Dischmat	17.45	316	LR	LR	14 51 20.8	
	comp=Z,90nm,19.1s,baz=81,slow=37						
OBN	Obninsk	20.66	15	⇑eP	P	14 44 58.6	-2.8
OBN				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HFS	Hagfors	26.31	344	P	P	14 45 55.5	-1.7
HFS				pmax	pmax		
	comp=Z,1.0nm,0.6s						
HFS	Hagfors	26.31	344	P	P	14 45 55.5	-1.7
	comp=Z,1.4nm,0.6s,mb3.6,baz=160,slow=11,SNR=4.1						
HFS	Hagfors	26.31	344	P	P	14 45 55.5	-1.7
	comp=Z,1.0nm,0.6s,mb3.5						
AKTK	Aktyubinsk	26.65	46	P	P	14 45 57.9	-2.5
AKTO	Aktyubinsk	26.65	46	P	P	14 45 57.9	-2.5
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.6						
AKTO	Aktyubinsk	26.65	46	P	P	14 45 57.9	-2.5
	comp=Z,1.0nm,0.5s,mb3.6,baz=248,slow=5.4,SNR=3.0						
ARCES	ARCESS Array B	34.19	359	P	P	14 47 03.9	-2.9
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ARCES				MLR	MLR		
	comp=Z,42nm,18.9s						
ARCES	ARCESS Array B	34.19	359	P	P	14 47 03.9	-2.9
	comp=Z,3.9nm,0.9s,mb4.3,baz=177,slow=8.7,SNR=5.5						
ARCES				LR	LR	15 00 08.9	
	comp=Z,42nm,18.9s,baz=264,slow=34						
MKAR	Makanchi Array	42.00	57	P	P	14 48 11.7	-1.2
	comp=Z,0.4nm,0.6s,mb3.2,baz=272,slow=7.7,SNR=7.0						
SCHQ	Schefferville	64.25	320	P	P	14 50 53.9	-2.8
	comp=Z,2.5nm,0.8s,mb4.3,baz=48,slow=12,SNR=3.7						
YKA	Yellowknife Ar	77.79	343	P	P	14 52 16.5	-2.2
	comp=Z,0.1nm,0.5s,mb3.0,baz=28,slow=5.0,SNR=2.7						
YKA	Yellowknife Ar	77.79	343	P	P	14 52 16.5	-2.2

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*NEIC **07** 14:49:51.3, 19°.27N×68°.91W, h126^{km}, MD4.3(RSPR), After RSPR.*

RSPR 07 14:49:51.3, 19°.27N×68°.91W, h126^{km}±11^{km}, 1C-1D, North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSP	Las Mesas	2.04	122	eS	Sn	14 50 52.3	+0.5
CRPR	Cabo Rojo, PR	2.11	126	⇑eP	Pn	14 50 25.8	-0.8
CRPR				eS	Sn	14 50 53.8	+0.3
LRS	Lares	2.18	116	eS	Sn	14 50 54.5	-0.4
AOPR	Arecibo Observ	2.23	114	eS	Sn	14 50 56.8	+0.7
AOPR	Arecibo Observ	2.23	114	ePn	Pn	14 50 26.0	-2.0
AOPR				eSn	Sn	14 50 54.6	-1.5
SDDR	Presa de Saban	2.27	263	ePn	Pn	14 50 24.4	-4.0
SDDR				eSn	Sn	14 50 54.7	-2.3
CELP	Cerrillos	2.50	118	eS	Sn	14 51 02.5	+0.3
SJG	San Juan	2.85	113	Pn	Pn	14 50 34.3	-1.6
SJG				Sn	Sn	14 51 07.3	-2.9
MTP	Monte Pirata	3.38	110	⇓eP	Pn	14 50 43.7	+0.8
MTP				eS	Sn	14 51 23.4	+0.7

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*NEIC **07** 15:02:06.0, 19°.05N×67°.07W, h15^{km}, MD3.6(RSPR), After RSPR.*

RSPR 07 15:02:06.8, 19°.05N×67°.07W, h15^{km}±3^{km}, MD3.6/10, MD3.6/10, 10C-5D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	0.58	184	⇓eP	Pg	15 02 17.4	-0.7
AGPR				eS	Sg	15 02 25.5	-0.4
AGP	Aguadilla	0.64	186	ePn	Pn	15 02 17.6	-3.8
AGP				eSg	Sg	15 02 25.0	-2.9
AOPR	Arecibo Observ	0.76	157	⇓eP	Pg	15 02 19.4	-2.2
AOPR				eS	Sg	15 02 29.5	-2.1
LRS	Lares	0.78	164	⇑eP	Pg	15 02 19.8	-2.3
MPR	Mayaguez	0.84	184	ePn	Pn	15 02 20.4	-3.6
MPR				eSg	Sg	15 02 31.7	-2.3
LSP	Las Mesas	0.87	181	⇑eP	Pb	15 02 21.7	-1.8
LSP				eS	Sg	15 02 32.8	-2.2
CRPR	Cabo Rojo, PR	1.04	182	⇓eP	Pb	15 02 24.5	-2.0
CRPR				eS	Sb	15 02 36.8	-3.2
CELP	Cerrillos	1.08	154	⇓eP	Pb	15 02 24.4	-2.8
CELP				eS	Sb	15 02 38.6	-2.4
GBPR	Guanica, Bosqu	1.08	170	⇑eP	Pb	15 02 25.2	-2.0
GBPR	Guanica, Bosqu	1.08	170	eS	Sb	15 02 38.5	-2.7
OBIP	Obispado Ponce	1.09	156	⇓eP	Pb	15 02 24.7	-2.8
OBIP				eS	Sb	15 02 38.4	-3.1
ICM	Isla Caja Muer	1.26	155	⇑eP	Pn	15 02 27.8	-2.2
ICM				eS	Sb	15 02 43.5	-2.9
SJG	San Juan	1.28	137	⇑eP	Pn	15 02 27.0	-3.1
SJG				eS	Sb	15 02 43.6	-3.2
SJG	San Juan	1.28	137	⇑eP	Pn	15 02 27.2	-2.9
SJG				eS	Sb	15 02 42.6	-4.2
CBYP	Canovanas	1.39	124	⇑eP	Pn	15 02 28.7	-2.9
CBYP				eS	Sn	15 02 45.8	-4.0
HUMP	Col San Antoni	1.47	128	⇑eP	Pn	15 02 30.1	-2.7
HUMP				eS	Sn	15 02 48.4	-3.4
CPD	Cerro la Pandu	1.49	132	⇑eP	Pn	15 02 30.3	-2.7
CPD				eS	Sn	15 02 48.9	-3.4
MTP	Monte Pirata	1.73	123	⇑eP	Pn	15 02 33.4	-2.8
MTP				eS	Sn	15 02 54.1	-4.0
SDDR	Presa de Saban	3.99	270	ePn	Pn	15 03 12.8	+5.4
SDDR				eSn	Sn	15 03 51.4	-2.5

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*IDC **07** 15:22:44.5±1.7, 47°.63N×156°.38E, h0^{km}, mb3.4/3, mb1 3.7/4, mb1mx3.3/23, mbtmp3.4/4, ML3.0/1, Error ellipse: s-maj=44.4km s-min=29.5km az=145.0*

*ISCJB **07** 15:22:47.5±4.9, 47°.9N±0°.1×156°.3E±0°.3, h29^{km}±37^{km}, mb3.5/3, Error ellipse: s-maj=32.3km s-min=17.8km az=7.6*

*MOS **07** 15:22:49.8±1.2, 47°.99N×156°.23E, h49^{km}, mb3.9/1, Error ellipse: s-maj=62.3km s-min=19.8km az=84.5*

ISC 07 15:22:50.1±5.0**, 47°.9N**±0°.1×**156°.3E**±0°.3**, h33**^{km}±38^{km}**, n7, σ0^{s}.65**/9**, mb3.5**/3**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.78	357	ePN	Pn	15 23 32.7	+0.4
SKR				eS	Sn	15 24 04.5	-0.2
SKR				pmax	pmax		
	comp=Z,30nm,0.6s						
SKR				smax			
	comp=N,100nm,0.4s						
SKR				smax			
	comp=E,240nm,0.2s						
SKR				smax			
	comp=Z,70nm,0.2s						
PETK	Petropavlovsk-	5.28	9	Pn	Pn	15 24 07.2	+0.5
	comp=Z,0.4nm,0.3s,baz=185,slow=12,SNR=9.3						
PETK				Sn	Sn	15 25 15.9	+10
	comp=Z,0.3nm,0.3s,baz=254,slow=36,SNR=2.5						
PET	Petropavlovsk	5.34	15	ePN	Pn	15 24 06.5	-0.9
PET				pmax	pmax		
	comp=Z,7.0nm,0.5s						
MKAR	Makanchi Array	48.34	298	P	P	15 31 29.1	+0.9
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.1s						
MKAR	Makanchi Array	48.34	298	P	P	15 31 29.1	+0.9
	comp=Z,0.3nm,0.7s,mb3.4,baz=67,slow=9.5,SNR=6.2						
CMAR	Chiang Mai Arr	54.75	258	P	P	15 32 15.6	-0.9
	comp=Z,0.3nm,0.8s,mb3.4,baz=27,slow=6.5,SNR=4.4						
TXAR	Lajitas Array	75.03	63	P	P	15 34 28.6	+0.3
	comp=Z,0.4nm,0.6s,mb3.5,baz=308,slow=4.2,SNR=4.8						

IDC 07 16:03:26.8±5.9**, 21°.60N×143°.62E, h220**^{km}±57^{km}**, mb2.8**/6**, mb1 3.0**/7**, mb1mx2.9**/23**, mbtmp2.8**/7**, Error ellipse: s-maj=41.4km s-min=15.6km az=84.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	15.61	344	P	Pn	16 06 54.5	-1.0
	0.5nm,0.3s,baz=161,slow=10,SNR=5.2						
KSRS	Korea Array	20.84	323	P	P	16 07 51.9	+0.3
	0.8nm,0.7s,baz=148,slow=9.3,SNR=5.1						
SONM	Songino Array	39.67	320	P	P	16 10 37.4	0.0
	0.1nm,0.4s,baz=113,slow=6.0,SNR=2.9						
WRA	Warramunga Arr	42.28	193	P	P	16 10 59.2	+0.3
	0.3nm,0.4s,baz=12,slow=8.8,SNR=5.6						
ASAR	Alice Springs	45.98	192	P	P	16 11 27.9	-0.3
	0.2nm,0.3s,baz=9.1,slow=6.5,SNR=8.8						
MKAR	Makanchi Array	55.06	313	P	P	16 12 36.1	+0.3
	0.1nm,0.5s,baz=80,slow=5.5,SNR=4.8						
MKAR				PcP	PcP	16 13 34.0	-0.4
	0.2nm,0.5s,baz=85,slow=3.1,SNR=6.1						
YKA	Yellowknife Ar	76.35	28	P	P	16 14 51.5	+0.2
	0.3nm,0.4s,baz=292,slow=5.9,SNR=6.0						

DJA 07 16:29:26, 1°.08S×101°.53E, h27^{km}, MLv3.5/5, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDSI	Padang	1.08	279	P	Pn	16 29 45.0	-0.4
PDSI				S	Sn	16 30 01.4	+1.9
RGRI	Rengat	1.08	48	P	Pn	16 29 47.1	+1.7
PPI	Padang Panjang	1.29	299	P	Pn	16 29 47.4	-0.9
JMBI	JAMBI	2.18	105	P	Pn	16 30 00.6	+0.1
KSI	Kapahiang	2.77	157	P	Pn	16 30 10.5	+1.9

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*ISCJB **07** 16:35:49.1±0.6, 13°.47N±0°.10×89°.72W±0°.06, h90^{km}±5^{km}, mb3.6/4, Error ellipse: s-maj=17.6km s-min=5.1km az=27.2*

*CASC **07** 16:35:50.9±1.4, 13°.43N×89°.78W, h54^{km}±14^{km}, MD3.9, ML2.6*

*IDC **07** 16:35:52.3±2.0, 13°.58N×89°.75W, h111^{km}±19^{km}, mb3.1/5, mb1 3.4/7, mb1mx3.3/19, mbtmp3.1/7, MS2.8/2, Ms1 2.8/2, ms1mx2.4/16, Error ellipse: s-maj=38.0km s-min=15.3km az=42.0*

*NEIC **07** 16:35:52.0±1.3, 13°.58N×89°.66W, h110^{km}±12^{km}, MD4.5(SNET), Error ellipse: s-maj=25.8km s-min=12.1km az=221.0*

NEIC Felt [III] at Sonsonate.

ISC 07 16:35:50.0±0.6**, 13°.45N**±0°.09×**89°.72W**±0°.06**, h81**^{km}±6^{km}**, n34, σ1^{s}.06**/40**, mb3.6**/4**, 1C-4D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	San Blas	0.40	14	eP	Pn	16 36 01.8	-1.3
SNJE	San Jose	0.44	15	eP	Pn	16 36 02.1	-1.2
RTR	El Retiro	0.46	10	⇓iP	Pn	16 36 02.5	-1.0
SNET	Serv Nac Est T	0.54	63	eP	Pn	16 36 03.5	-0.6
SNET				eS	Sn	16 36 13.9	-0.8
SNET				AML	AML	16 36 15.7	
	comp=Z,181nm,0.2s						
RBDL	Robledal	0.67	3	⇓iP	Pn	16 36 04.3	-1.1
LFRS	El Faro	0.67	74	eP	Pn	16 36 05.2	-0.2
LBRS	Las Brisas	0.72	66	⇓iP	Pn	16 36 05.7	-0.3
SNVI	San Vicente	0.88	79	eP	Pn	16 36 07.8	+0.2
MTO2	Montecristo 2	1.01	20	⇓iP	Pn	16 36 09.0	-0.3
IXG	Ixpaco	1.01	316	⇑eP	Pn	16 36 08.4	-0.9
IXG				eS	Sn	16 36 19.8	-3.9
PCG	Pacaya	1.28	318	eP	Pn	16 36 13.5	+1.0
NBG	Las Nubes	1.29	332	eP	Pn	16 36 13.3	+0.6
BLLM	Bellamira	1.45	90	eP	Pn	16 36 15.7	+1.1
FUG	Fuego 3	1.47	313	eP	Pn	16 36 15.0	0.0
FUG				eS	Sn	16 36 33.8	-0.1
CAHU	Cacacuatique	1.51	77	eP	Pn	16 36 16.0	+0.6
FG6		1.58	315	eP	Pn	16 36 17.0	+0.6
FG6				eS	Sn	16 36 36.2	-0.1
MRL	Marmol	1.61	1	eP	Pn	16 36 18.3	+1.5
TP2	Tecpan 2	1.83	317	eP	Pn	16 36 20.7	+1.0
CNCH	Conchagua	1.85	95	eP	Pn	16 36 20.7	+0.8
CNCH				eS	Sn	16 36 46.5	+3.9
JAT	Jato	2.05	295	eP	Pn	16 36 23.1	+0.5
TGUH	Tegucigalpa,Un	2.46	75	ePn	Pn	16 36 28.3	+0.3
COPN	Copaltepe	3.30	112	eP	Pn	16 36 40.5	+1.1
JTS	JuntasAbangare	5.62	123	P	Pn	16 37 14.3	+3.2
	comp=Z,2.5nm,0.3s,baz=320,slow=18,SNR=6.2						
JTS				S	Sn	16 38 13.1	-1.3
	comp=Z,1.9nm,0.3s,baz=253,slow=17,SNR=2.4						
JTS	JuntasAbangare	5.62	123	P	Pn	16 37 14.3	+3.2
JTS				S	Sn	16 38 13.1	-1.3
CMIG	Matias Romero	6.16	307	P	Pn	16 37 19.7	+1.3
	comp=Z,0.3nm,0.3s,baz=122,slow=13,SNR=2.6						
CMIG				S	Sn	16 38 27.2	-0.2
	comp=Z,0.7nm,0.3s,baz=62,slow=17,SNR=4.2						
TEIG	Tepich	6.88	11	P	Pn	16 37 30.1	+1.9
	comp=Z,7.1nm,0.3s,baz=7.6,slow=23,SNR=45						
TEIG				LR	LR	16 40 26.4	
	comp=Z,78nm,21.7s,baz=301,slow=41						
TXAR	Lajitas Array	20.43	323	P	P	16 40 21.0	+0.3
	comp=Z,0.4nm,0.5s,baz=147,slow=10,SNR=5.9						
TXAR	Lajitas Array	20.43	323	P	P	16 40 21.0	+0.3
TKL	Tuckaleechee C	22.76	13	LR	LR	16 51 57.5	
	comp=Z,30nm,20.1s,baz=21,slow=43						
NVAR	Mina Array Bea	35.51	320	P	P	16 42 37.1	-1.9
	comp=Z,0.3nm,0.7s,mb3.3,baz=121,slow=12,SNR=4.2						
CPUP	Villa Florida	50.55	141	P	P	16 44 40.4	0.0
	comp=Z,0.8nm,0.3s,mb4.2,baz=326,slow=3.6,SNR=5.5						
YKA	Yellowknife Ar	52.09	346	P	P	16 44 47.9	-3.5
	comp=Z,0.1nm,0.6s,mb3.0,baz=146,slow=7.9,SNR=3.8						
NOA	NORSAR Array B	83.57	29	P	P	16 48 06.5	-2.5
	comp=Z,1.5nm,0.9s,mb3.8,baz=304,slow=4.7,SNR=3.3						
CMAR	Chiang Mai Arr	147.17	345	PKPbc	PKPbc	16 55 24.2	-0.5
	comp=Z,0.4nm,0.6s,baz=338,slow=3.6,SNR=4.6						

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*BUC **07** 16:45:30.2±1.5, 45°.82N×20°.65E, h15^{km}±12^{km}, MD3.6/3, Error ellipse: s-maj=15.4km s-min=3.4km az=16.0*

*CSEM **07** 16:45:31.5±0.1, 45°.83N×20°.63E, h20^{km}, MD3.6/3, Error ellipse: s-maj=3.0km s-min=2.3km az=57.0*

*ISCJB **07** 16:45:31.1±0.5, 45°.92N±0°.02×20°.61E±0°.03, h23^{km}±5^{km}, Error ellipse: s-maj=3.6km s-min=2.7km az=28.9*

*NEIC **07** 16:45:31.4, 45°.89N×20°.69E, h19^{km}, ML3.6(BUC), After BUC.*

*BEO **07** 16:45:31.5±0.5, 45°.85N×20°.75E, h19^{km}±3^{km}, ML3.1/11*

*PRU **07** 16:45:32.6, 45°.99N×20°.55E, h0^{km}*

ISC 07 16:45:31.4±0.3**, 45°.84N**±0°.01×**20°.63E**±0°.02**, h19**^{km}±2^{km}**, n103, σ1^{s}.18**/185**, 27C-21D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIM	Timisoara	0.43	103	⇑iP	Pg	16 45 39.4	-0.8
TIM				iS	Sg	16 45 46.0	-0.1
TIM	Timisoara	0.43	103	P	Pg	16 45 39.4	-0.8
TIM	Timisoara	0.43	103	Pg	Pg	16 45 39.4	-0.8
TIM				iS	Sg	16 45 46.0	-0.1
BZS	Buzias	0.73	107	ePg	Pg	16 45 44.6	-1.1
BZS				eSg	Sg	16 45 53.8	-1.6
BZS	Buzias	0.73	107	⇑iP	Pb	16 45 44.4	-1.0
BZS				iS	Sb	16 45 54.7	-0.2
BZS	Buzias	0.73	107	P	Pb	16 45 44.4	-0.9
BZS	Buzias	0.73	107	ePg	Pg	16 45 44.6	-1.1
BZS				eSg	Sg	16 45 53.8	-1.6
BZS				iS	Sb	16 45 54.7	-0.2
FGSL	Fruska Gora	0.89	221	ePg	Pg	16 45 49.0	+0.2
FGSL				eSg	Sg	16 46 01.6	+1.1
FRGS	Fruska Gora	0.89	221	ePg	Pg	16 45 49.0	+0.3
FRGS				eSg	Sg	16 46 01.6	+1.1
BEO	Beograd	1.03	186	ePg	Pg	16 45 51.0	-0.5
BEO				eSg	Sg	16 46 06.4	+1.4
BEO	Beograd	1.03	186	ePg	Pg	16 45 51.0	-0.5
BEO				eSg	Sg	16 46 06.4	+1.4
PKSM	Moragy	1.43	286	ePn	Pn	16 45 56.6	+0.3
PKSM	Moragy	1.43	286	⇑iP	Pn	16 45 56.5	+0.2
PKSM				iS	Sn	16 46 15.9	+1.3
PKSM	Moragy	1.43	286	P	Pn	16 45 56.4	+0.1
PKSM	Moragy	1.43	286	⇓ePn	Pn	16 45 56.6	+0.3
PKSM	Moragy	1.43	286	ePg	Pg	16 46 02.4	+3.3
PKSM				iS	Sn	16 46 15.9	+1.3
GZR	Gura Zlata	1.57	106	⇑iP	Pn	16 45 58.0	-0.2
GZR				iS	Sn	16 46 19.1	+1.1
GZR	Gura Zlata	1.57	106	⇓P	Pn	16 45 58.0	-0.2
GZR				S	Sn	16 46 18.7	+0.7
GZR	Gura Zlata	1.57	106	⇓Pn	Pn	16 45 58.0	-0.2
GZR				⇓Sn	Sn	16 46 18.7	+0.7
TRUS	Trudelj	1.62	186	⇑iPn	Pn	16 46 01.5	+2.6
TRUS				iSg	Sg	16 46 22.2	-1.5
TRUS	Trudelj	1.62	186	⇑iPn	Pn	16 46 01.5	+2.6
TRUS				iSg	Sg	16 46 22.2	-1.5
SVIS	Svilajnac	1.62	165	ePn	Pn	16 46 00.1	+1.2
SVIS				eSg	Sg	16 46 22.4	-1.4
DRGR		1.73	56	⇑iP	Pn	16 45 59.8	-0.6
DRGR				iS	Sn	16 46 23.5	+1.6
DRGR		1.73	56	⇓P	Pn	16 45 59.8	-0.6
DRGR				S	Sn	16 46 21.4	-0.5
DRGR		1.73	56	⇓Pn	Pn	16 45 59.8	-0.6
DRGR				⇓Sn	Sn	16 46 21.4	-0.5
DRGR				iS	Sn	16 46 23.5	+1.6
DJES	Djerdap	1.78	131	eSg	Sg	16 46 25.9	-2.8
DIVS	Divibare	1.80	195	⇑iPn	Pn	16 46 01.4	+0.1
DIVS				eSg	Sg	16 46 29.9	+0.6
DIVS	Divibare	1.80	195	⇑iPn	Pn	16 46 01.4	+0.1
DIVS				eSg	Sg	16 46 29.9	+0.6
PKS9	Tamasi	1.80	296	⇓Pn	Pn	16 46 01.3	0.0
PKS9	Tamasi	1.80	296	Pg	Pg	16 46 06.3	+0.4
PKS9				eSn	Sn	16 46 23.2	-0.3
	24nm,0.5s						
GRUS	Gruza	1.95	178	ePn	Pn	16 46 03.3	-0.1
GRUS				eSg	Sg	16 46 35.4	+1.2
BUD	Budapest	1.98	327	⇓ePn	Pn	16 45 56.8	-7.1
BUD				eSn	Sn	16 46 27.8	-0.3
PSZ	Piszkesteto	2.14	347	⇑iP	Pn	16 46 06.5	+0.5
PSZ	Piszkesteto	2.14	347	⇑ePn	Pn	16 46 05.8	-0.2
PSZ				eSB	Sb	16 46 40.0	+4.3
PSZ	Piszkesteto	2.14	347	ePn	Pn	16 46 04.7	-1.4
PSZ				ePg	Pg	16 46 13.2	+0.6
PSZ	Piszkesteto	2.14	347	⇑ePn	Pn	16 46 05.8	-0.2
PSZ	Piszkesteto	2.14	347	⇑iP	Pn	16 46 06.5	+0.5
PSZ	Piszkesteto	2.14	347	ePg	Pg	16 46 13.2	+0.7
BBLS	Lazići	2.15	204	⇑ePn	Pn	16 46 07.2	+1.0
BBLS				eSg	Sg	16 46 40.5	-0.2
BBLS	Lazići	2.15	204	⇑ePn	Pn	16 46 07.2	+1.0
BBLS				eSg	Sg	16 46 40.5	-0.2
BOLS	Boljevac	2.22	154	ePn	Pn	16 46 06.8	-0.3
BOLS				eSg	Sg	16 46 40.0	-2.7
BOLS	Boljevac	2.22	154	ePn	Pn	16 46 06.8	-0.3
BOLS				eSg	Sg	16 46 40.0	-2.7
NISS		2.61	158	ePn	Pn	16 46 11.5	-0.9
NISS				eSg	Sg	16 46 53.9	-1.3
NISS		2.61	158	ePn	Pn	16 46 11.5	-0.9
NISS				eSg	Sg	16 46 53.9	-1.3
TRPA	Tarpa	2.64	29	⇓ePn	Pn	16 46 11.9	-1.0
BLY	Banja Luka	2.66	247	eSg	Sg	16 46 58.5	+1.5
BLY	Banja Luka	2.66	247	eSg	Sg	16 46 58.5	+1.5
BMR	Baia Mare	2.69	46	⇑iP	Pn	16 46 14.1	+0.5

BMR				iS	Sn	16 46 46.9	+1.2
BMR	**Baia Mare**	2.69	46	⇑iP	Pn	16 46 14.1	+0.5
BMR				iS	Sn	16 46 46.9	+1.2
VYHS	**Vyhne**	2.93	336	ePN	Pn	16 46 17.2	+0.4
VYHS				eSN	Sn	16 46 49.3	-2.1
VYHS				eSG	Sg	16 47 04.7	-0.7
VYHS	**Vyhne**	2.93	336	ePn	Pn	16 46 17.2	+0.4
VYHS				eSn	Sn	16 46 49.3	-2.1
VYHS				eSg	Sg	16 47 04.7	-0.7
ZAPS	**Zavoj**	2.94	150	ePn	Pn	16 46 17.5	+0.6
ZAPS				eSg	Sg	16 47 04.0	-1.7
CRVS	**Cervenica-Dubn**	3.12	10	ePN	Pn	16 46 19.6	+0.1
CRVS				ePG	Pg	16 46 33.2	+2.0
CRVS				eSG	Sg	16 47 09.4	-2.2
CRVS	**Cervenica-Dubn**	3.12	10	ePn	Pn	16 46 19.6	+0.1
VOIR		3.13	96	⇑iP	Pn	16 46 19.7	+0.1
VOIR				iS	Sn	16 46 57.6	+1.3
VOIR		3.13	96	⇓P	Pn	16 46 19.7	+0.1
VOIR		3.13	96	⇓Pn	Pn	16 46 19.7	+0.1
VOIR				iS	Sn	16 46 57.6	+1.3
BARS	**Barje**	3.14	164	ePn	Pn	16 46 20.0	+0.3
BARS				eSg	Sg	16 47 10.4	-1.8
BARS	**Barje**	3.14	164	ePn	Pn	16 46 20.0	+0.3
BARS				eSg	Sg	16 47 10.4	-1.8
KOLS	**Kolonicke sedl**	3.29	19	ePN	Pn	16 46 22.1	+0.2
KOLS				ePG	Pg	16 46 37.3	+2.8
KOLS				eSG	Sg	16 47 16.8	-0.4
KOLS	**Kolonicke sedl**	3.29	19	ePg	Pg	16 46 22.0	-12
KOLS				eSg	Sg	16 47 16.8	-0.4
KOLS	**Kolonicke sedl**	3.29	19	ePn	Pn	16 46 22.1	+0.2
SOP	**Sopron**	3.35	305	⇓ePn	Pn	16 46 25.0	+2.3
SOP				eSn	Sn	16 46 58.6	-3.3
SOP	**Sopron**	3.35	305	⇓ePn	Pn	16 46 25.0	+2.3
SOP				eSn	Sn	16 46 58.6	-3.3
ZST	**Bratislava**	3.38	316	ePN	Pn	16 46 24.5	+1.5
ZST				ePG	Pg	16 46 34.5	-1.5
ZST				eSN	Sn	16 47 01.5	-0.9
ZST	**Bratislava**	3.38	316	ePn	Pn	16 46 24.5	+1.5
MODS	**Modra-Piesok**	3.42	319	ePN	Pn	16 46 24.6	+1.0
MODS				eSN	Sn	16 47 01.6	-1.9
MODS	**Modra-Piesok**	3.42	319	ePn	Pn	16 46 24.6	+1.0
MODS				eSn	Sn	16 47 01.6	-1.9
SMOL	**Smolenice**	3.46	322	eSN	Sn	16 47 03.0	-1.4
SMOL	**Smolenice**	3.46	322	eSn	Sn	16 47 03.0	-1.4
STHS	**Stebnicka Huta**	3.61	6	ePn	Pn	16 46 27.5	+1.3
STHS				ePg	Pn	16 46 28.1	+1.9
STHS				ePg	Pg	16 46 42.9	+2.4
STHS				eSg	Sg	16 47 27.9	+0.7
STHS	**Stebnicka Huta**	3.61	6	ePn	Pn	16 46 27.5	+1.3
BURAR	**Bucovina Array**	3.62	59	⇑iP	Pn	16 46 25.7	-0.7
BURAR	**Bucovina Array**	3.62	59	⇑iP	Pn	16 46 25.7	-0.7
BUR08	**Bucovina Ar. S**	3.63	58	ePn	Pn	16 46 27.9	+1.4
BUR08				ePb	Pb	16 46 36.2	+1.4
BUR08				ePg	Pg	16 46 41.0	+0.1
BUR08				eSg	Sg	16 47 21.6	-6.2
BUR08	**Bucovina Ar. S**	3.63	58	ePn	Pn	16 46 27.9	+1.5
VTS	**Vitosha**	3.74	149	ePn	Pn	16 46 27.6	-0.4
VTS	**Vitosha**	3.74	149	ePn	Pn	16 46 27.6	-0.4
ARSA	**Arzberg**	3.80	294	⇓iPn	Pn	16 46 29.6	+0.9
ARSA				⇑iSn	Sn	16 47 12.2	-0.6
ARSA	**Arzberg**	3.80	294	Pn	Pn	16 46 29.6	+0.8
ARSA				Sn	Sn	16 47 12.2	-0.6
CONA	**Conrad Observa**	3.88	304	⇓iPn	Pn	16 46 29.8	-0.1
CONA				⇓iSn	Sn	16 47 13.8	-1.1
CONA	**Conrad Observa**	3.88	304	Pn	Pn	16 46 29.7	-0.2
CONA				Sn	Sn	16 47 13.8	-1.1
CSNA	**Conrad Observa**	3.88	304	⇑iPn	Pn	16 46 29.9	-0.1
CSNA				⇑iSn	Sn	16 47 13.5	-1.4
CSNA	**Conrad Observa**	3.88	304	Pn	Pn	16 46 29.8	-0.1
CSNA				Sn	Sn	16 47 13.5	-1.5
SOKA	**Soboth**	3.97	284	⇑iPn	Pn	16 46 31.5	+0.4
SOKA				⇓iSn	Sn	16 47 16.8	-0.3
SOKA	**Soboth**	3.97	284	Pn	Pn	16 46 31.5	+0.3
SOKA				Sn	Sn	16 47 16.8	-0.4
VRI	**Vrincioaia**	4.26	87	⇓iP	Pn	16 46 36.6	+1.4
VRI	**Vrincioaia**	4.26	87	⇓iP	Pn	16 46 36.6	+1.4
VRAC	**Vranov**	4.42	323	⇑P	Pn	16 46 38.0	+0.8
VRAC				S	Sn	16 47 28.3	+0.1
VRAC	**Vranov**	4.42	323	ePn	Pn	16 46 37.8	+0.5
VRAC				⇑Sn	Sn	16 47 28.3	+0.2
OJC	**Ojcow**	4.42	353	ePn	Pn	16 46 38.7	+1.4
OJC	**Ojcow**	4.42	353	ePn	Pn	16 46 38.7	+1.4
MORC	**Moravsky Berou**	4.46	333	ePn	Pn	16 46 34.4	-3.5
MORC				eSn	Sn	16 47 25.1	-4.0
MORC	**Moravsky Berou**	4.46	333	ePn	Pn	16 46 38.1	+0.3
MORC				eSn	Sn	16 47 26.8	-2.3
MORC				iS	Sn	16 47 28.4	-0.7
MOA	**Molln**	4.81	297	⇑iPn	Pn	16 46 42.6	-0.1
MOA				⇓iSn	Sn	16 47 36.5	-1.2
MOA	**Molln**	4.81	297	Pn	Pn	16 46 42.5	-0.1
MOA				Sn	Sn	16 47 36.5	-1.2
DPC	**Dobruska-Polom**	5.36	329	ePN	Pn	16 46 51.2	+1.0
DPC				eSN	Sn	16 47 48.2	-3.1
DPC	**Dobruska-Polom**	5.36	329	ePn	Pn	16 46 51.2	+1.0
DPC				eSn	Sn	16 47 48.2	-3.1
TIRR	**Tirgusor**	5.68	101	Pn	Pn	16 46 56.5	+1.9
TIRR	**Tirgusor**	5.68	101	Pn	Pn	16 46 56.5	+1.9
KHC	**Kasperske Hory**	5.80	307	ePN	Pn	16 46 55.8	-0.5
KHC				ex	x	16 47 02.5	
KHC				ex	x	16 47 46.0	
KHC				eSN	Sn	16 48 00.0	-2.3
KHC	**Kasperske Hory**	5.80	307	ePn	Pn	16 46 55.8	-0.5
KHC				eSn	Sn	16 48 00.0	-2.3
PRU	**Pruhonice**	5.83	318	eSN	Sn	16 47 58.6	-4.3

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*IDC **07** 17:00:11.4±7.8, 7°.25S×129°.53E, h75km±75km, mb3.4/2, mb1 3.8/5, mb1mx3.4/17, mbtmp3.6/5, ML4.0/3, Error ellipse: s-maj=85.1km s-min=29.5km az=54.0*

*ISCJB **07** 17:00:18.0±2.9, 7°.7S±0°.1×129°.0E±0°.2, h154km±33km, mb3.5/3, Error ellipse: s-maj=27.9km s-min=19.8km az=26.4*

*NEIC **07** 17:00:18.4±2.5, 7°.53S×128°.95E, h136km±26km, mb4.5/2, Error ellipse: s-maj=33.6km s-min=20.0km az=58.0*

ISC 07 17:00:18.6±2.9**, 7°.7S**±0°.1×**128°.9E**±0°.1**, h137**km±32km**, n8, σ1ˢ.35**/9**, mb3.5**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	6.09	146	eP	Pn	17 01 47.2	+0.8
	61nm,0.5s						
KAKA				eS	Sx	17 02 51.2	
FITZ	**Fitzroy Crossi**	10.84	197	P	Pn	17 02 51.9	+1.9
	1.0nm,0.3s,baz=27,slow=13,SNR=34						
FITZ				S	Sn	17 04 48.9	-0.8
	1.5nm,0.3s,baz=321,slow=22,SNR=7.7						
WRAB	**Tennant Creek**	13.28	157	eP	Pn	17 03 19.5	-2.3
WRAB				eS	Sx	17 05 40.2	
WRA	**Warramunga Arr**	13.28	157	P	Pn	17 03 20.5	-1.3
	0.7nm,0.3s,baz=345,slow=13,SNR=16						
WRA				S	Sx	17 05 43.1	
	2.5nm,0.3s,baz=336,slow=22,SNR=15						
ASAR	**Alice Springs**	16.61	164	P	Pn	17 04 04.1	+0.7
	0.4nm,0.3s,baz=338,slow=9.8,SNR=32						
ASAR				S	Sx	17 07 04.4	
	0.5nm,0.3s,baz=354,slow=27,SNR=7.2						
STKA	**Stephens Creek**	26.82	156	P	P	17 05 47.8	+1.7
	1.1nm,0.5s,mb3.7,baz=320,slow=13,SNR=5.5						
LSA	**Lhasa**	51.95	317	eP	P	17 09 14.2	+0.5
	1.2nm,0.7s,mb3.6						
MKAR	**Makanchi Array**	68.20	327	P	P	17 11 02.8	-1.4
	0.3nm,0.5s,mb3.3,baz=123,slow=7.3,SNR=3.9						

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*IDC **07** 17:04:03.6±9.4, 58°.72S×26°.25W, h129km±87km, mb3.7/4, mb1 3.8/4, mb1mx3.6/15, mbtmp3.7/4, Error ellipse: s-maj=31.1km s-min=27.2km az=51.0*

*ISCJB **07** 17:04:06.2±4.1, 58°.7S±0°.2×26°.3W±0°.4, h171km±39km, mb3.8/4, Error ellipse: s-maj=36.1km s-min=29.1km az=41.0*

ISC 07 17:04:07.0±4.2**, 58°.7S**±0°.2×**26°.3W**±0°.4**, h165**km±41km**, n9, σ0ˢ.41**/8**, mb3.8**/4**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	14.16	155	eP	Pn	17 07 20.2	+0.3
VNA3	**Neumayer Olymp**	14.33	158	eP	Pn	17 07 21.6	-0.4
VNA3				eS	Sn	17 09 42.6	-18
VNA2	**Neumayer--Watz**	14.56	155	eP	Pn	17 07 24.8	0.0
	baz=312,slow=14						
QSPA	**South Pole Qui**	31.55	180	P	P	17 10 13.4	+0.4
	1.6nm,0.5s,mb4.0,baz=291,slow=0.5,SNR=31						
CFAA	**Coronel Fontan**	39.11	295	P	P	17 11 18.0	0.0
	0.4nm,0.5s,mb3.3,baz=160,slow=6.9,SNR=4.9						
BOSA	**Boshof**	46.21	72	P	P	17 12 15.3	+0.1
	5.2nm,1.1s,mb4.1,baz=213,slow=11,SNR=4.9						
ASAR	**Alice Springs**	96.31	162	P	P	17 17 16.2	-0.4
	0.5nm,0.6s,mb4.0,baz=188,slow=4.4,SNR=9.6						
YKA	**Yellowknife Ar**	138.45	316	PKP	PKPdf	17 23 12.6	+1.5
	0.6nm,0.6s,baz=126,slow=2.2,SNR=11						
SONM	**Songino Array**	150.29	90	PKPbc	PKPbc	17 23 38.7	+1.3
	0.6nm,0.6s,baz=238,slow=2.1,SNR=5.4						

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*IDC **07** 17:11:55.8±1.1, 21°.85N×144°.43E, h0km, mb3.7/7, mb1 3.9/7, mb1mx3.6/24, mbtmp3.7/7, Error ellipse: s-maj=48.1km s-min=19.8km az=84.0*

*ISCJB **07** 17:11:59.0±1.0, 21°.8N±0°.1×144°.4E±0°.3, h33km, mb3.8/8, Error ellipse: s-maj=44.3km s-min=16.1km az=173.0*

*NEIC **07** 17:12:01.1±0.7, 21°.82N×144°.42E, h35km, mb4.4/1, Error ellipse: s-maj=32.4km s-min=11.9km az=83.0*

ISC 07 17:12:01.2±1.0**, 21°.8N**±0°.1×**144°.4E**±0°.3**, h35**km**, n10, σ0ˢ.32**/10**, mb3.8**/8**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	**Tennant Creek**	42.65	194	eP	P	17 19 54.4	0.0
	3.3nm,0.4s,mb4.4						
WRA	**Warramunga Arr**	42.66	194	P	P	17 19 55.0	+0.5
	1.6nm,0.3s,mb4.2,baz=15,slow=8.7,SNR=15						
ASAR	**Alice Springs**	46.36	193	P	P	17 20 23.8	-0.2
	0.4nm,0.4s,mb3.7,baz=12,slow=6.8,SNR=24						
STKA	**Stephens Creek**	53.46	183	P	P	17 21 17.5	-0.3
	1.0nm,0.7s,mb3.8,baz=337,slow=7.7,SNR=3.4						
STKA	**Stephens Creek**	53.46	183	P	P	17 21 17.5	-0.3
MKAR	**Makanchi Array**	55.47	312	P	P	17 21 32.9	+0.5
	0.2nm,0.8s,mb3.2,baz=77,slow=8.9,SNR=4.6						
KURK	**Kurchatov**	58.18	317	P	P	17 21 51.1	-0.4
	0.8nm,0.5s,mb4.0,baz=90,slow=8.6,SNR=5.4						
BVAR	**Borovoye Array**	63.33	319	P	P	17 22 26.4	-0.2
	0.3nm,0.3s,mb3.9,baz=92,slow=8.1,SNR=5.1						
YKA	**Yellowknife Ar**	75.81	28	P	P	17 23 43.4	+0.1
	0.1nm,0.4s,mb3.1,baz=290,slow=5.8,SNR=5.6						
YKA	**Yellowknife Ar**	75.81	28	P	P	17 23 43.4	+0.1

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*ISK **07** 17:14:07.9, 39°.46N×33°.12E, h5km, MD2.9*

*ISCJB **07** 17:14:08.5±0.6, 39°.38N±0°.03×33°.11E±0°.04, h3km±10km, Error ellipse: s-maj=6.0km s-min=4.9km az=142.3*

*CSEM **07** 17:14:08.9±0.2, 39°.37N×33°.08E, h2km, MD2.9, Error ellipse: s-maj=5.7km s-min=5.0km az=156.0*

*DDA **07** 17:14:08.3, 39°.35N×33°.18E, h5km±5km, Md3.1*

ISC 07 17:14:09.2±0.5**, 39°.39N**±0°.04×**33°.11E**±0°.04**, h9**km±7km**, n23, σ0ˢ.94**/36**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALAT	**Bala**	0.17	3	iP	Pg	17 14 12.6	-0.1
BALAT				iS	Sg	17 14 15.6	+0.4
KAMT	**Kaman**	0.47	93	ePG	Pg	17 14 18.1	-0.2
KAMT				eSG	Sg	17 14 25.8	+1.3
KAMT	**Kaman**	0.47	93	ePg	Pg	17 14 18.1	-0.2
KAMT				eSg	Sg	17 14 25.8	+1.3
LOD	**Lodumlu**	0.56	332	ePG	Pg	17 14 18.6	-1.5
LOD				eSG	Sg	17 14 27.6	+0.1
LOD	**Lodumlu**	0.56	332	ePg	Pg	17 14 18.6	-1.5
LOD				eSg	Sg	17 14 27.6	+0.1
CDAG	**Cicekdag**	1.01	76	iP	Pg	17 14 28.1	-0.4
CDAG				iS	Sg	17 14 40.5	-1.1
CDAG	**Cicekdag**	1.01	76	iP	Pg	17 14 28.1	-0.4
CDAG				iS	Sg	17 14 40.5	-1.1
KIZT	**Kizilcal**	1.08	242	ePN	Pg	17 14 30.3	+0.3
KIZT	**Kizilcal**	1.08	242	ePn	Pg	17 14 30.3	+0.3
ELDT	**Eldivan**	1.12	13	iP	Pg	17 14 31.6	+0.8
ELDT				iS	Sg	17 14 46.4	+1.0
ELDT	**Eldivan**	1.12	13	iP	Pg	17 14 31.6	+0.8
ELDT				iS	Sg	17 14 46.4	+1.0
KDHN	**Kadinhani**	1.16	222	iP	Pg	17 14 30.9	-0.7
KDHN				iS	Sg	17 14 47.0	+0.4
KDHN	**Kadinhani**	1.16	222	iP	Pg	17 14 30.9	-0.6
KDHN				iS	Sg	17 14 47.0	+0.4
AVNT	**Avonos**	1.49	114	iP	Pn	17 14 37.7	+1.5
AVNT				iS	Sn	17 14 54.6	-1.1
AVNT	**Avonos**	1.49	114	iP	Pn	17 14 37.7	+1.5
AVNT				iS	Sn	17 14 54.6	-1.2
YOZ	**Yozgat**	1.73	81	ePN	Pn	17 14 40.3	+0.9
YOZ	**Yozgat**	1.73	81	ePn	Pn	17 14 40.3	+0.9
CTKT	**Corum**	1.78	46	iP	Pg	17 14 42.5	-0.9
CTKT	**Corum**	1.78	46	iP	Pg	17 14 42.5	-0.9
BALT	**Daday**	2.15	6	iP	Pg	17 14 47.0	-3.5
BALT	**Daday**	2.15	6	iP	Pg	17 14 47.0	-3.4
BOYT	**Boyabat**	2.45	34	iP	Pg	17 14 50.8	-5.3
BOYT	**Boyabat**	2.45	34	iP	Pg	17 14 50.8	-5.3

IDC 07 17:22:32.4±6.1**, 7°.30S**×**129°.52E, h222**km±62km**, mb3.0**/1**, mb1 2.9**/4**, mb1mx2.8**/17**, mbtmp2.8**/4**, Error ellipse: s-maj=77.1km s-min=28.9km az=66.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	11.38	199	P	Pn	17 25 08.4	-0.5
	0.1nm,0.3s,baz=21,slow=12,SNR=8.1						
FITZ				S	S	17 27 09.3	-6.8
	0.5nm,0.3s,baz=265,slow=19,SNR=6.6						
WRA	**Warramunga Arr**	13.41	160	P	Pn	17 25 33.6	-0.7
	0.2nm,0.3s,baz=343,slow=13,SNR=11						
WRA				S	S	17 27 57.1	-6.4
	0.4nm,0.3s,baz=332,slow=24,SNR=6.8						
ASAR	**Alice Springs**	16.81	166	P	P	17 26 15.7	+1.9
	0.1nm,0.3s,baz=348,slow=10,SNR=10						
ASAR				S	S	17 29 17.1	-0.7
	0.0nm,0.3s,baz=346,slow=26,SNR=3.3						
MKAR	**Makanchi Array**	68.22	327	P	P	17 33 09.0	+0.1
	0.3nm,0.5s,baz=123,slow=8.0,SNR=10						

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*IDC **07** 17:24:17.9±1.1, 27°.90N×143°.03E, h0km, mb3.7/10, mb1 3.8/12, mb1mx3.7/24, mbtmp3.7/12, ML3.6/2, Error ellipse: s-maj=28.6km s-min=14.9km az=96.0*

*ISCJB **07** 17:24:21.1±0.8, 28°.07N±0°.04×143°.0E±0°.1, h33km, mb3.8/11, Error ellipse: s-maj=16.8km s-min=4.9km az=5.3*

*JMA **07** 17:24:21.0, 28°.15N×142°.48E, h9km±1km, M4.4*

*BJI **07** 17:24:21.4, 27°.90N×143°.00E, h30km, mB4.8/4, mb4.0/3*

*NEIC **07** 17:24:22.5±0.9, 27°.94N×143°.02E, h30km, mb4.3/2, Error ellipse: s-maj=33.6km s-min=12.0km az=76.0*

ISC 07 17:24:23.2±0.8**, 28°.00N**±0°.04×**143°.0E**±0°.1**, h35**km**, n28, σ1ˢ.16**/35**, mb3.8**/11**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	1.14	218	P	Pn	17 24 41.3	-1.5
CBIJ				eS	Sn	17 24 55.7	-1.5
CBIJ	**Chichi jima**	1.14	218	Pn	Pn	17 24 41.1	-1.6
	46nm,0.3s,baz=103,slow=22,SNR=11						
CBIJ				Sn	Sn	17 24 55.7	-1.5
	111nm,0.3s,baz=276,slow=22,SNR=13						
JHHJ	**Haha-jima-NKT**	1.54	208	eS	Sn	17 25 08.7	+1.7
JYN	**Shimob**	8.37	334	P	Pn	17 26 22.7	+0.7
JHU	**Hanno**	8.43	339	P	Pn	17 26 22.3	-0.5
JHU				S	Sn	17 27 54.7	-2.0
JYT	**Yasato**	8.53	345	P	Pn	17 26 23.6	-0.6
JRY	**Ryogami san**	8.70	338	P	Pn	17 26 26.4	-0.2
JHO	**Hitachi**	8.82	347	P	Pn	17 26 26.5	-1.7
JHO				S	Sn	17 28 02.3	-4.0
JAG	**Ashikaga**	8.91	341	P	Pn	17 26 28.2	-1.2
JAG				S	Sn	17 28 03.7	-4.8
MJAR	**Matsushiro Arr**	9.42	336	Pn	Pn	17 26 36.1	-0.3
	1.8nm,0.3s,baz=285,slow=18,SNR=15						
MJAR				Sn	Sn	17 28 23.4	+2.4
	0.2nm,0.3s,baz=157,slow=31,SNR=2.8						
MJAR	**Matsushiro Arr**	9.42	336	Pn	Pn	17 26 36.1	-0.3
MJAR				Sn	Sn	17 28 23.4	+2.4
MAJO	**Matsushiro**	9.42	336	eP	Pn	17 26 36.5	+0.1
	7.8nm,0.6s						
MAT	**Matsushiro**	9.42	336	P	Pn	17 26 36.4	0.0
MAT	**Matsushiro**	9.42	336	P	Pn	17 26 36.5	+0.1
KSRS	**Korea Array**	15.77	310	Pn	Pn	17 28 02.6	0.0
	0.1nm,0.3s,baz=109,slow=12,SNR=2.8						
SONM	**Songino Array**	34.56	315	P	P	17 31 08.7	+0.3
	0.6nm,0.8s,mb3.6,baz=112,slow=7.2,SNR=5.8						
WRA	**Warramunga Arr**	48.39	191	P	P	17 33 01.1	-0.7
	1.1nm,0.5s,mb4.1,baz=12,slow=8.3,SNR=8.3						
ZALV	**Zalesovo Beam**	49.27	318	P	P	17 33 09.5	+1.2
	0.5nm,0.5s,mb3.8,baz=100,slow=6.5,SNR=4.6						
MKAR	**Makanchi Array**	50.45	309	P	P	17 33 17.7	+0.3
	0.3nm,0.5s,mb3.6,baz=84,slow=11,SNR=7.0						
MKAR	**Makanchi Array**	50.45	309	P	P	17 33 17.7	+0.3
ASAR	**Alice Springs**	52.11	191	P	P	17 33 28.7	-1.3
	0.4nm,0.8s,mb3.4,baz=10.0,slow=8.3,SNR=6.0						
KURK	**Kurchatov**	52.86	314	P	P	17 33 36.3	+1.0
	3.5nm,0.8s,mb4.3,baz=90,slow=7.8,SNR=11						
KURK	**Kurchatov**	52.86	314	eP	P	17 33 35.9	+0.6
	3.3nm,0.7s,mb4.4						
BVAR	**Borovoye Array**	57.85	317	P	P	17 34 12.8	+1.5
	1.0nm,0.5s,mb4.1,baz=90,slow=6.6,SNR=8.2						
BRVK	**Borovoye**	57.92	317	eP	P	17 34 14.4	+2.7
	1.8nm,0.6s,mb4.3						
YKA	**Yellowknife Ar**	71.01	29	P	P	17 35 37.5	+0.4
	0.2nm,0.6s,mb3.2,baz=297,slow=6.9,SNR=4.8						
AKASG	**Malin Array Be**	82.30	324	P	P	17 36 41.1	0.0
	0.5nm,0.4s,mb3.8,baz=54,slow=5.0,SNR=4.0						
BRTR	**Keskin Array B**	85.90	313	P	P	17 37 00.8	+1.2
	0.2nm,0.5s,mb3.6,baz=57,slow=5.3,SNR=2.3						

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*ISK **07** 17:24:28.3, 37°.82N×26°.84E, h24km, MD2.7*

*ISCJB **07** 17:24:29.1±0.9, 37°.80N±0°.04×26°.94E±0°.08, h10km±7km, Error ellipse: s-maj=11.7km s-min=4.9km az=150.0*

*CSEM **07** 17:24:29.5±0.2, 37°.81N×26°.96E, h5km, MD2.9, Error ellipse: s-maj=6.4km s-min=2.6km az=67.0*

*DDA **07** 17:24:29.0, 37°.80N×26°.96E, h7km±3km, Md2.9*

ISC 07 17:24:29.5±1.0**, 37°.80N**±0°.04×**26°.95E**±0°.08**, h14**km±19km**, n16, σ0ˢ.46**/26**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	0.25	113	iP	Pg	17 24 34.3	-0.4
GCAM				iS	Sg	17 24 38.2	-0.1
GCAM	**G?zelcaml?**	0.25	113	iP	Pg	17 24 34.3	-0.4
GCAM				iS	Sg	17 24 38.2	-0.1
BLCB	**Balcova**	0.59	7	ePG	Pg	17 24 40.5	-0.5
BLCB				eSG	Sg	17 24 49.8	+0.9
BLCB	**Balcova**	0.59	7	ePg	Pg	17 24 40.6	-0.4
BLCB				eSg	Sg	17 24 49.8	+0.9
URLA	**Izmir**	0.63	334	iP	Pg	17 24 41.4	-0.3
URLA				iS	Sg	17 24 50.2	+0.2
URLA	**Izmir**	0.63	334	iP	Pg	17 24 41.4	-0.3
URLA				iS	Sg	17 24 50.2	+0.2
IZM	**Izmir**	0.65	22	ePG	Pg	17 24 41.7	-0.4
IZM	**Izmir**	0.65	22	ePg	Pg	17 24 41.7	-0.4
AYDN	**Tasoluk**	0.75	100	iP	Pg	17 24 43.4	-0.6
AYDN				iS	Sg	17 24 54.1	+0.2
AYDN	**Tasoluk**	0.75	100	iP	Pg	17 24 43.4	-0.6
AYDN				iS	Sg	17 24 54.1	+0.2
BODT	**Bodrum**	0.79	159	ePG	Pg	17 24 45.1	+0.4
BODT	**Bodrum**	0.79	159	ePg	Pg	17 24 45.1	+0.3
MLSB	**Milas**	0.83	127	ePG	Pg	17 24 46.2	+0.7
MLSB	**Milas**	0.83	127	ePg	Pg	17 24 46.2	+0.7
BDRM	**Kayabasi**	0.83	152	iP	Pg	17 24 45.3	-0.2
BDRM				iS	Sg	17 24 56.7	+0.2
BDRM	**Kayabasi**	0.83	152	iP	Pg	17 24 45.3	-0.3
BDRM				iS	Sg	17 24 56.7	+0.3

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*ISCJB **07** 17:46:30.7±0.6, 14°.44N±0°.07×92°.04W±0°.04, h86km±13km, Error ellipse: s-maj=12.6km s-min=4.2km az=29.5*

*CASC **07** 17:46:31.6±1.5, 14°.43N×91°.99W, h73km±13km, MD3.6*

*NEIC **07** 17:46:32.6, 14°.46N×92°.02W, h93km, MD4.0(MEX), After MEX.*

*MEX **07** 17:46:32.4±0.8, 14°.45N×92°.00W, h92km±25km, MD4.0*

ISC 07 17:46:32.0±0.6**, 14°.47N**±0°.07×**92°.01W**±0°.04**, h79**km±15km**, n19, σ0ˢ.81**/34**, 1C-1D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	0.39	112	⇓iP	Pn	17 46 44.1	-0.7
TP2	**Tecpan 2**	1.01	72	eP	Pn	17 46 51.3	+0.2
TP2				eS	Sn	17 47 06.4	+1.0
FG6		1.10	85	eP	Pn	17 46 51.8	-0.4
FG6				eS	Sn	17 47 07.8	+0.5
FUG	**Fuego 3**	1.14	91	⇑eP	Pn	17 46 51.9	-0.8
FUG				eS	Sn	17 47 07.2	-1.0
PCG	**Pacaya**	1.36	93	eP	Pn	17 46 55.4	-0.1
PCG				eS	Sn	17 47 13.1	-0.2
IXG	**Ixpaco**	1.54	101	eP	Pn	17 46 57.6	-0.2
IXG				eS	Sn	17 47 17.4	+0.1
NBG	**Las Nubes**	1.62	85	eP	Pn	17 46 59.2	+0.3
PCIG		1.70	317	iP	Pn	17 46 59.3	-0.6
PCIG				iS	Sn	17 47 21.2	+0.2
CCIG	**Comitan**	1.81	356	iP	Pn	17 47 02.3	+0.9
CCIG				iS	Sn	17 47 23.2	-0.5
RBDL	**Robledal**	2.28	99	eP	Pn	17 47 07.5	-0.2
RBDL				eS	Sn	17 47 36.9	+1.9
MRL	**Marmol**	2.33	75	eP	Pn	17 47 08.0	-0.2
SCX	**San Cristobal**	2.34	345	iP	Pn	17 47 07.5	-0.9
SCX				iS	Sn	17 47 37.0	+0.8
SBLS	**San Blas**	2.40	105	eP	Pn	17 47 08.2	-1.0
SBLS				eS	Sn	17 47 39.1	+1.3
LFRS	**El Faro**	2.98	106	eP	Pn	17 47 16.2	-0.9
LFRS				eS	Sn	17 47 51.4	-0.5
CMIG	**Matias Romero**	3.80	314	iP	Pn	17 47 28.2	-0.1
CMIG				iS	Sn	17 48 11.4	-0.4
HUIG	**Huatulco**	4.16	289	eP	Pn	17 47 34.4	+1.2
HUIG				iS	Sn	17 48 21.8	+1.2
VHO	**Vista Hermosa**	5.23	300	iS	Sn	17 48 46.5	-0.3
PNIG	**Pinotepa**	6.20	289	eP	Pn	17 48 02.7	+1.7
PNIG				iS	Sn	17 49 10.4	0.0
UTMO	**Huajuapan**	6.49	302	eP	Pn	17 48 04.9	0.0
UTMO				iS	Sn	17 49 15.9	-1.7

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*IDC **07** 17:54:15.1±1.3, 5°.44N×124°.75E, h0km, mb3.7/4, mb1 3.8/4, mb1mx3.4/20, mbtmp3.7/4, Error ellipse: s-maj=44.3km s-min=18.9km az=88.0*

*ISCJB **07** 17:54:17.7±1.8, 5°.35N±0°.05×125°.14E±0°.09, h19km±15km, mb3.4/4, Error ellipse: s-maj=14.5km s-min=8.2km az=174.0*

*MAN **07** 17:54:19, 5°.47N×125°.17E, h18km, mb4.8, ML3.7, MS3.7*

ISC 07 17:54:18.9±2.5**, 5°.42N**±0°.05×**125°.16E**±0°.09**, h17**km±17km**, n13, σ1ˢ.01**/19**, mb3.4**/4**, 3C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	**General Santos**	0.70	343	⇑iP	Pb	17 54 32.0	-0.6
GSPH				iS	Sb	17 54 37.0	-5.0
KCP	**Kidapawan**	1.58	357	⇓eP	Pn	17 54 46.0	-0.2
KCP				iS	Sn	17 55 04.8	-1.6
DAV	**Davao City (W)**	1.70	14	Pn	Pn	17 54 48.7	+1.0
	144nm,0.3s,baz=212,slow=1.5,SNR=3.6						
DAV				Sn	Sn	17 55 10.4	+1.3
	82nm,0.3s,baz=287,slow=20,SNR=9.5						
MATI	**Mati**	1.87	36	eP	Pn	17 54 49.1	-1.0
CTBH	**Cotabato--PC H**	2.01	333	eP	Pn	17 54 51.4	-0.7
CTBH				iS	Sn	17 55 17.0	+0.2
BUKP	**Musuan**	2.45	358	eP	Pn	17 54 58.9	+0.8
BUKP				eS	Sn	17 55 31.7	+4.0
PAGZ	**Pagadian**	2.99	324	eP	Pn	17 55 06.2	+0.6
PAGZ				eS	Sn	17 55 18.0	-23
ZMPH	**Zamboanga City**	3.44	297	⇑iP	Pn	17 55 11.8	+0.1
ZMPH				iS	Sn	17 55 45.8	-6.3
IPIL	**Ipil**	3.49	313	⇑eP	Pn	17 55 13.4	+1.0
WRA	**Warramunga Arr**	26.77	161	P	P	17 59 56.9	-1.1
	0.5nm,0.5s,mb3.3,baz=340,slow=10.0,SNR=4.7						
ASAR	**Alice Springs**	30.14	164	P	P	18 00 28.3	+0.3
	0.3nm,0.5s,mb3.3,baz=340,slow=6.6,SNR=7.8						
STKA	**Stephens Creek**	40.26	158	P	P	18 01 56.1	+1.1
	0.6nm,0.4s,mb3.7,baz=332,slow=17,SNR=2.8						
MKAR	**Makanchi Array**	55.29	325	P	P	18 03 48.3	-3.1
	0.1nm,0.4s,mb3.2,baz=134,slow=6.9,SNR=5.7						

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*IDC **07** 18:01:42.0±1.9, 34°.29N×74°.10E, h0km, mb3.5/3, mb1 3.5/7, mb1mx3.3/26, mbtmp3.4/7, ML3.3/4, Error ellipse: s-maj=62.8km s-min=23.6km az=73.0*

*ISCJB **07** 18:01:43.6±0.7, 34°.29N±0°.05×74°.1E±0°.1, h33km, mb3.4/3, Error ellipse: s-maj=16.6km s-min=4.6km az=162.3*

*NEIC **07** 18:01:50.0±2.2, 34°.51N×74°.22E, h59km±24km, mb3.2/1, Error ellipse: s-maj=22.0km s-min=14.1km az=119.0*

*NDI **07** 18:01:50.6±2.2, 34°.39N×74°.10E, h59km, ML3.1,* *mb3.2(NEIC)*

ISC 07 18:01:45.8±0.7, 34°.32N±0°.05×74°.0E±0°.1, h35^{km}, n19, σ0^{s}.96/20, mb3.4/3, Southwestern Kashmir

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	**Thein Dam**	**2.35**	**143**	*e*PKP	**Pn**	**18 02 27.2**	**+5.3**
THN				*e*x	x	18 03 01.3	
KBL	**Kabul**	**4.12**	**275**	*e*P	**Pn**	**18 02 52.8**	**+6.5**
KSH	**Kashi**	**5.42**	**16**	Pn	**Pn**	**18 03 03.1**	**-1.0**
KSH				Sn	**Sn**	**18 03 57.9**	**-7.3**
KSH				smax			
	comp=N,11nm,0.4s						
KSH				smax			
	comp=E,14nm,0.3s						
JOSI	**Joshimath**	**5.99**	**127**	*e*PKP	**Pn**	**18 03 16.5**	**+4.6**
JOSI				*e*S	**Sn**	**18 04 18.4**	**-1.0**
JOSI				AML	AML	18 04 55.1	
	comp=E,18nm,1.1s						
JOSI				AML	AML	18 04 57.7	
	comp=N,31nm,0.5s						
KALG	**Kalgarh**	**6.26**	**139**	*e*x	x	18 04 41.2	
AYAN	**Aya Nagar**	**6.39**	**155**	*e*S	**Sn**	**18 04 29.1**	**-0.1**
KHET	**Khetri**	**6.41**	**166**	*e*S	**Sn**	**18 04 28.5**	**-1.1**
KUDL	**Kundal**	**6.50**	**160**	*e*S	**Sn**	**18 04 31.8**	**-0.2**
SONA	**Sohna**	**6.59**	**156**	*e*S	**Sn**	**18 04 35.2**	**+1.2**
MKAR	**Makanchi Array**	**13.95**	**24**	Pn	**Pn**	**18 05 02.2**	**+1.5**
	comp=N,0.0nm,0.3s,baz=209,slow=15,SNR=2.4						
KURK	**Kurchatov**	**16.73**	**10**	Pn	**Pn**	**18 05 35.9**	**-1.3**
	comp=N,0.0nm,0.3s,baz=200,slow=10,SNR=4.4						
KURK	**Kurchatov**	**16.73**	**10**	Pn	**Pn**	**18 05 35.9**	**-1.3**
BVAR	**Borovoye Array**	**18.88**	**353**	P	**Pn**	**18 06 04.1**	**+0.4**
	comp=N,0.3nm,0.3s,baz=152,slow=8.4,SNR=9.0						
BRVK	**Borovoye**	**18.93**	**353**	*e*P	**Pn**	**18 06 04.7**	**+0.5**
	comp=N,1.1nm,0.6s						
AKTK	**Aktyubinsk**	**19.91**	**329**	P	**Pn**	**18 06 15.5**	**-0.5**
AKTO	**Aktyubinsk**	**19.91**	**329**	P	**Pn**	**18 06 15.5**	**-0.5**
	comp=N,0.2nm,0.3s,baz=140,slow=10,SNR=3.6						
ZALV	**Zalesovo Beam**	**21.05**	**18**	P	**P**	**18 06 26.3**	**-0.2**
	comp=N,0.6nm,0.4s,mb3.2,baz=203,slow=9.1,SNR=4.4						
WRA	**Warramunga Arr**	**78.73**	**124**	P	**P**	**18 13 45.4**	**+0.6**
	comp=N,0.3nm,0.6s,mb3.4,baz=327,slow=5.2,SNR=3.0						
ASAR	**Alice Springs**	**80.97**	**127**	P	**P**	**18 13 59.0**	**+2.2**
	comp=N,0.4nm,0.8s,mb3.4,baz=303,slow=4.8,SNR=6.6						

MAN 07 18:20:20, 12°.28N×124°.93E, h30^{km}, mb4.3, ML3.1, MS2.9, 1D, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNP	**Catarman**	**0.35**	**311**	*e*P	Pb	18 20 30.1	+2.0
CNP				*e*S	Sb	18 20 37.0	+3.3
BESP	**Borongan**	**0.84**	**144**	*e*P	Pn	18 20 36.2	+0.4
PLP	**Palo**	**1.11**	**178**	*e*P	Pn	18 20 39.9	+0.3
PLP				*e*S	Sn	18 20 54.4	+0.5
OCLP	**Ormoc**	**1.27**	**195**	*e*P	Pn	18 20 43.3	+1.7
PVCP	**Virac**	**1.51**	**330**	*e*P	Pn	18 20 46.6	+1.5
MSLP	**Maasin**	**2.14**	**182**	*e*P	Pn	18 20 55.5	+1.8
RCP	**Roxas**	**2.26**	**252**	⇓*e*P	Pn	18 20 56.9	+1.6

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*NEIC **07** 18:44:35.1±2.8, 8°.23S×118°.26E, h38^{km}±27^{km}, mb3.6/1, Error ellipse: s-maj=36.4km s-min=18.4km az=49.0*

*IDC **07** 18:44:39.7±3.4, 7°.95S×118°.92E, h74^{km}±33^{km}, mb3.2/4, mb1 3.5/6, mb1mx3.3/19, mbtmp3.3/6, MS3.0/1, Ms1 3.0/1, ms1mx2.6/22, Error ellipse: s-maj=71.1km s-min=13.9km az=51.0*

ISC 07 18:44:37.1±1.7, 8°.3S±0°.2×118°.5E±0°.2, h61^{km}±17^{km}, n10, σ1^{s}.25/11, mb3.5/4, 1D, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	**Waingapu**	**2.26**	**127**	⇓*e*P	**Pn**	**18 45 11.3**	**-0.8**
WSI				*e*S	Sn	18 45 16.0	-23
FITZ	**Fitzroy Crossi**	**11.97**	**145**	P	**Pn**	**18 47 27.6**	**+2.6**
	0.4nm,0.3s,baz=329,slow=9.6,SNR=7.7						
FITZ				S	**Sn**	**18 49 36.6**	**-0.5**
	0.1nm,0.3s,baz=98,slow=17,SNR=2.4						
FITZ				LR	LR	18 52 58.2	
	comp=Z,66nm,18.4s,baz=49,slow=42						
MBWA	**Marble Bar**	**12.84**	**175**	*e*P	**Pn**	**18 47 35.5**	**-1.3**
WRA	**Warramunga Arr**	**19.23**	**129**	P	**Pn**	**18 48 58.0**	**0.0**
	0.2nm,0.3s,baz=304,slow=13,SNR=13						
WRA				S	**S**	**18 52 30.0**	**-1.2**
	0.1nm,0.3s,baz=303,slow=25,SNR=4.6						
WRAB	**Tennant Creek**	**19.23**	**129**	*e*P	**Pn**	**18 48 57.7**	**-0.3**
	2.7nm,0.8s						
ASAR	**Alice Springs**	**21.26**	**138**	P	**P**	**18 49 20.4**	**+2.0**
	0.9nm,0.5s,mb3.4,baz=310,slow=9.3,SNR=24						
STKA	**Stephens Creek**	**31.82**	**141**	P	**P**	**18 50 58.0**	**+1.8**
	1.3nm,0.8s,mb3.8,baz=341,slow=10,SNR=3.7						
SONM	**Songino Array**	**56.91**	**350**	P	**P**	**18 54 15.9**	**+0.1**
	0.5nm,0.8s,mb3.6,baz=180,slow=6.8,SNR=4.0						
MKAR	**Makanchi Array**	**63.60**	**333**	P	**P**	**18 55 00.3**	**-1.2**
	0.2nm,0.6s,mb3.3,baz=134,slow=6.2,SNR=3.8						
CPUP	**Villa Florida**	**145.33**	**187**	PKPbc	PKPbc	19 04 10.9	+2.2
	0.6nm,0.5s,baz=106,slow=3.7,SNR=4.1						

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*IDC **07** 18:52:53.0±5.3, 62°.56S×152°.72E, h0^{km}, mb3.7/3, mb1 4.0/4, mb1mx3.9/12, mbtmp3.8/4, ML4.0/1, MS3.2/1, Ms1 3.3/1, ms1mx2.8/14, Error ellipse: s-maj=381.7km s-min=24.5km az=77.0*

NEIC 07 18:52:56.9±0.9, 63°.09S×148°.79E, h10^{km}, mb4.1/1, Error ellipse: s-maj=87.5km s-min=13.9km az=78.0, Balleny Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	**15.07**	**169**	Pn	Pn	18 56 28.7	-0.8
	0.5nm,0.3s,baz=337,slow=13,SNR=11						
VNDA				Sn	Sn	18 59 02.2	-14
	0.0nm,0.3s,baz=4.9,slow=23,SNR=1.7						
VNDA				LR	LR	19 01 30.5	
	comp=Z,92nm,18.5s,baz=328,slow=34						
QSPA	**South Pole Qui**	**26.99**	**180**	P	P	18 58 41.9	+3.7
	1.8nm,0.9s,baz=287,slow=5.1,SNR=3.4						
QSPA	**South Pole Qui**	**26.99**	**180**	P	P	18 58 38.8	+0.6
	4.8nm,1.0s						
ASAR	**Alice Springs**	**40.66**	**339**	P	P	19 00 36.8	-0.3
	0.5nm,0.6s,baz=161,slow=8.8,SNR=10.0						
WRA	**Warramunga Arr**	**44.24**	**340**	P	P	19 01 05.4	-0.8
	0.5nm,0.6s,baz=167,slow=7.0,SNR=7.8						
YKA	**Yellowknife Ar**	**144.39**	**52**	PKP	PKPdf	19 12 32.3	+0.8
	0.8nm,0.6s,baz=236,slow=3.2,SNR=10						
YKA	**Yellowknife Ar**	**144.39**	**52**	PKP	PKPdf	19 12 32.3	+0.8
GERES	**GERESS Array B**	**151.81**	**261**	PKPbc	PKPbc	19 12 51.8	+1.3
	0.6nm,0.6s,baz=193,slow=3.8,SNR=4.9						

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*IDC **07** 18:55:25.0±1.9, 27°.88N×53°.67E, h0^{km}, mb3.9/14, mb1 4.0/14, mb1mx3.9/28, mbtmp4.0/14, MS2.9/3, Ms1 2.9/3, ms1mx2.5/36, Error ellipse: s-maj=42.3km s-min=17.8km az=166.0*

*THR **07** 18:55:26.6±0.4, 27°.70N×53°.49E, h43^{km}±2^{km}, ML3.7*

*TEH **07** 18:55:27.2, 27°.69N×53°.73E, h15^{km}*

*ISCJB **07** 18:55:28.6±0.4, 27°.83N±0°.03×53°.61E±0°.03, h42^{km}±6^{km}, mb3.9/16, Error ellipse: s-maj=5.8km s-min=4.7km az=34.3*

*KISR **07** 18:55:28.5±0.5, 27°.92N×53°.26E, h8^{km}±999^{km}, ML3.1*

*NEIC **07** 18:55:29.8±1.4, 27°.80N×53°.66E, h35^{km}, mb3.9/2, ML3.7(THR), Error ellipse: s-maj=30.0km s-min=10.1km az=172.0*

*CSEM **07** 18:55:30.3±0.1, 27°.85N×53°.69E, h40^{km}, ML3.7, Error ellipse: s-maj=4.0km s-min=3.3km az=47.0*

ISC 07 18:55:30.4±0.4, 27°.82N±0°.03×53°.65E±0°.03, h41^{km}±6^{km}, n89, σ0^{s}.88/97, mb3.9/16, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	**Ghir-Karzin**	**0.75**	**309**	*e*Pg	**Pn**	**18 55 41.6**	**-3.0**
GHIR	**Ghir-Karzin**	**0.75**	**309**	*e*Pg	**Pn**	**18 55 41.3**	**-3.3**
IMOK	**Mouk**	**1.48**	**326**	*e*	Px	18 56 28.6	
	comp=Z,10µm,0.5s						
ISRV	**Sarvestan**	**1.63**	**343**	*e*Pn	**Pn**	**18 55 57.4**	**+0.8**
ISRV				*e*		18 56 30.2	
	comp=Z,11µm,0.4s						
ISRV	**Sarvestan**	**1.63**	**343**	*e*Pn	**Pn**	**18 55 57.4**	**+0.8**
IPAR	**Pars**	**2.08**	**345**	*e*Pn	**Pn**	**18 56 03.5**	**+0.6**
IPAR				*e*		18 56 47.0	
	comp=Z,3µm,0.4s						
IPAR	**Pars**	**2.08**	**345**	*e*Pn	**Pn**	**18 56 03.5**	**+0.6**
BNDS	**Bandar-Abbas**	**2.27**	**100**	*e*Pn	**Pn**	**18 56 05.0**	**-0.5**
BNDS				*e*Sg	**Sn**	**18 56 40.6**	**+8.3**
BNDS				AML	AML	18 56 57.1	
	comp=N,344nm,0.5s						
BNDS	**Bandar-Abbas**	**2.27**	**100**	*e*Pn	**Pn**	**18 56 04.7**	**-0.8**
BNDS				*e*Sg	**Sn**	**18 56 40.6**	**+8.3**
IBND	**Bandar-abas**	**2.59**	**98**	*e*Pn	**Pn**	**18 56 06.7**	**-3.1**
BANOM	**Banah**	**3.03**	**128**	Pn	**Pn**	**18 56 14.8**	**-1.0**
	SNR=16						
BANOM				Sn	**Sn**	**18 56 47.5**	**-3.3**
NAZ	**Nazwa, Dubai**	**3.35**	**147**	Pn	**Pn**	**18 56 21.3**	**+1.1**
	SNR=8.3						
NAZ				Sn	**Sn**	**18 56 57.8**	**-0.9**
KRBR	**Kerman**	**3.48**	**51**	*e*Pn	**Pn**	**18 56 22.4**	**+0.5**
KRBR				AML	AML	18 57 22.0	
	comp=N,179nm,0.5s						
KRBR				AML	AML	18 57 22.9	
	comp=E,162nm,0.6s						
KRBR	**Kerman**	**3.48**	**51**	*e*Pn	**Pn**	**18 56 22.5**	**+0.5**
ASUD	**Al Ashush, Dub**	**3.52**	**154**	Pn	**Pn**	**18 56 23.9**	**+1.3**
	SNR=36						
IMEH	**Mehriz**	**3.66**	**13**	*e*Pn	**Pn**	**18 56 24.9**	**+0.4**
IMEH				*e*		18 57 30.6	
	comp=Z,726nm,0.3s						
IMEH	**Mehriz**	**3.66**	**13**	*e*Pn	**Pn**	**18 56 24.9**	**+0.4**
HATD	**Hatta, Dubai**	**3.72**	**143**	Pn	**Pn**	**18 56 25.7**	**+0.3**
	SNR=11						
ISAD	**Sadrabad**	**4.08**	**0**	*e*Pn	**Pn**	**18 56 31.2**	**+0.9**
ISAD				*e*		18 57 40.0	
	comp=Z,944nm,0.3s						
ISAD	**Sadrabad**	**4.08**	**0**	*e*Pn	**Pn**	**18 56 31.2**	**+0.9**
IBAF	**Bafgh**	**4.11**	**23**	*e*Pn	**Pn**	**18 56 30.1**	**-0.6**
IBAF				*e*		18 57 47.4	
	comp=Z,935nm,0.6s						
IBAF	**Bafgh**	**4.11**	**23**	*e*Pn	**Pn**	**18 56 30.1**	**-0.6**
ICHK	**Chekchek**	**4.46**	**8**	*e*Pn	**Pn**	**18 56 35.8**	**+0.3**
ICHK				*e*		18 56 55.5	
	comp=Z,751nm,0.3s						
ICHK				*e*Sn	**Sn**	**18 57 26.2**	**+0.1**
ICHK	**Chekchek**	**4.46**	**8**	*e*Pn	**Pn**	**18 56 35.8**	**+0.3**
ICHK				*e*Sn	**Sn**	**18 57 26.2**	**+0.1**
BTHS		**4.53**	**215**	P	**Pn**	**18 56 37.2**	**+0.8**
BTHS		**4.53**	**215**	P	**Pn**	**18 56 37.2**	**+0.7**
NASN	**Na’in**	**5.02**	**352**	*e*Pn	**Pn**	**18 56 42.9**	**-0.2**
NASN				AML	AML	18 57 42.3	
	comp=N,26nm,0.6s						
NASN				AML	AML	18 57 42.8	
	comp=E,33nm,0.6s						
NASN	**Na’in**	**5.02**	**352**	*e*Pn	**Pn**	**18 56 42.9**	**-0.3**
IZEF	**Zefreh**	**5.19**	**348**	*e*	Px	18 57 08.5	
	comp=Z,192nm,0.3s						
IPIR	**Pirpir**	**5.41**	**334**	*e*Pn	**Pn**	**18 56 49.1**	**+0.6**
IPIR				*e*		18 57 52.6	
	comp=Z,385nm,0.3s						
IPIR	**Pirpir**	**5.41**	**334**	*e*Pn	**Pn**	**18 56 49.1**	**+0.6**
RDF	**Al-Radifah**	**5.49**	**283**	*e*P	**Pn**	**18 56 49.5**	**-0.1**
RDF				*e*S	**Sn**	**18 57 50.9**	**-0.7**
RDF				AML	AML	18 57 54.2	
	comp=Z,9.9nm,0.4s						
RDF	**Al-Radifah**	**5.49**	**283**	*e*P	**Pn**	**18 56 49.5**	**-0.2**
RDF				*e*S	**Sn**	**18 57 50.8**	**-0.7**
IKLH	**Kolahrood**	**5.77**	**342**	*e*Pn	**Pn**	**18 56 53.0**	**-0.5**
IKLH				*e*		18 57 59.4	
	comp=Z,214nm,0.5s						
IKLH	**Kolahrood**	**5.77**	**342**	*e*Pn	**Pn**	**18 56 53.0**	**-0.5**
NAY	**Al-Naaiem**	**5.82**	**286**	*e*P	**Pn**	**18 56 54.7**	**+0.5**
NAY				*e*S	**Sn**	**18 57 58.9**	**-0.7**
NAY				AML	AML	18 58 03.7	
	comp=Z,6.6nm,0.9s						
NAY	**Al-Naaiem**	**5.82**	**286**	*e*P	**Pn**	**18 56 54.7**	**+0.6**
NAY				*e*S	**Sn**	**18 57 58.9**	**-0.7**
	comp=Z,15nm,0.6s						
MIB	**Mutribah**	**5.88**	**291**	*e*P	**Pn**	**18 56 55.4**	**+0.4**
MIB				*e*S	**Sn**	**18 58 00.5**	**-0.7**
MIB				AML	AML	18 58 03.6	
	comp=Z,14nm,0.6s						
MIB	**Mutribah**	**5.88**	**291**	*e*P	**Pn**	**18 56 55.4**	**+0.4**
MIB				*e*S	**Sn**	**18 58 00.5**	**-0.7**
ASAO	**Ashtian**	**7.39**	**336**	*e*Pn	**Pn**	**18 57 14.8**	**-0.9**
ASAO	**Ashtian**	**7.39**	**336**	*e*Pn	**Pn**	**18 57 14.8**	**-1.0**
DAMV	**Damavand**	**7.92**	**350**	*e*Pn	**Pn**	**18 57 22.5**	**-0.5**
DAMV	**Damavand**	**7.92**	**350**	*e*Pn	**Pn**	**18 57 22.6**	**-0.4**
LYLS		**8.18**	**227**	P	**Pn**	**18 57 26.9**	**+0.3**
GNI	**Garni**	**14.34**	**331**	Pn	**Pn**	**18 58 57.6**	**+6.9**
	comp=Z,1.2nm,0.3s,baz=127,slow=0.9,SNR=12						
GNI				LR	LR	19 04 50.3	
	comp=Z,33nm,20.7s,baz=157,slow=40						
GNI	**Garni**	**14.34**	**331**	Pn	**Pn**	**18 58 57.6**	**+6.9**
GNI				LR	LR	19 04 50.3	
KBL	**Kabul**	**14.77**	**59**	*e*P	**Pn**	**18 58 58.4**	**+1.8**
MALT	**Malatya**	**16.48**	**313**	*e*P	**Pn**	**18 59 21.6**	**+3.0**
	comp=Z,3.4nm,0.8s						
MALT	**Malatya**	**16.48**	**313**	*e*P	**Pn**	**18 59 21.6**	**+3.0**
	comp=Z,3.3nm,0.8s						
EIL	**Elat**	**16.51**	**281**	LR	LR	19 05 41.9	
	comp=Z,33nm,19.3s,baz=274,slow=37						
BRTR	**Keskin Array B**	**20.39**	**311**	P	**P**	**19 00 03.6**	**-0.1**
	comp=Z,0.6nm,0.8s,baz=313,slow=46,SNR=3.5						
BRTR	**Keskin Array B**	**20.39**	**311**	P	**P**	**19 00 03.6**	**-0.1**
AML	**Almayashu**	**21.69**	**44**	*e*P	**P**	**19 00 17.2**	**-0.4**
	comp=Z,16nm,1.3s,mb4.3						
AML	**Almayashu**	**21.69**	**44**	*e*P	**P**	**19 00 17.2**	**-0.5**
	comp=Z,16nm,1.3s,mb4.3						
EKS2	**Erkin-Say**	**22.05**	**43**	*e*P	**P**	**19 00 24.1**	**+2.7**
AKTK	**Aktyubinsk**	**22.83**	**7**	P	**P**	**19 00 29.4**	**-0.3**
AKTK	**Aktyubinsk**	**22.83**	**7**	P	**P**	**19 00 29.4**	**-0.3**
AKTO	**Aktyubinsk**	**22.83**	**7**	P	**P**	**19 00 29.4**	**-0.3**
	comp=Z,1.5nm,0.6s,mb3.6,baz=193,slow=11,SNR=8.2						
IDI	**Anoyia**	**25.55**	**294**	P	**P**	**19 00 56.3**	**+0.8**
	comp=Z,15nm,1.0s,mb4.5,baz=327,slow=7.2,SNR=3.7						
IDI	**Anoyia**	**25.55**	**294**	P	**P**	**19 00 56.2**	**+0.8**
BRVK	**Borovoye**	**28.07**	**22**	*e*P	**P**	**19 01 17.7**	**-0.1**
BRVK	**Borovoye**	**28.07**	**22**	*e*P	**P**	**19 01 17.7**	**-0.1**
BVAR	**Borovoye Array**	**28.08**	**22**	P	**P**	**19 01 18.0**	**+0.1**
	comp=Z,1.1nm,0.4s,mb3.8,baz=206,slow=8.1,SNR=13						
BVAR	**Borovoye Array**	**28.08**	**22**	P	**P**	**19 01 18.0**	**+0.1**
MKAR	**Makanchi Array**	**29.38**	**42**	P	**P**	**19 01 29.2**	**-0.3**
	comp=Z,8.0nm,0.5s,mb4.7,baz=228,slow=9.3,SNR=12						
MKAR	**Makanchi Array**	**29.38**	**42**	P	**P**	**19 01 29.2**	**-0.4**
MKAR	**Makanchi Array**	**29.38**	**42**	P	**P**	**19 01 29.2**	**-0.3**
AKASG	**Malin Array Be**	**29.41**	**328**	P	**P**	**19 01 29.1**	**-0.7**
	comp=Z,0.8nm,0.5s,mb3.7,baz=142,slow=8.1,SNR=4.3						
AKASG	**Malin Array Be**	**29.41**	**328**	P	**P**	**19 01 29.1**	**-0.7**
KURK	**Kurchatov**	**29.68**	**33**	P	**P**	**19 01 30.9**	**-1.2**
	comp=Z,1.1nm,1.0s,mb3.5,baz=233,slow=8.8,SNR=5.8						
KURK	**Kurchatov**	**29.68**	**33**	P	**P**	**19 01 30.9**	**-1.2**
KURK	**Kurchatov**	**29.68**	**33**	P	**P**	**19 01 30.9**	**-1.3**
ZALV	**Zalesovo Beam**	**34.67**	**33**	P	**P**	**19 02 15.1**	**-0.7**
	comp=Z,1.5nm,0.6s,mb4.1,baz=244,slow=9.7,SNR=7.9						
GERES	**GERESS Array B**	**37.15**	**315**	P	**P**	**19 02 37.5**	**+0.3**
	comp=Z,0.2nm,0.3s,mb3.4,baz=110,slow=5.6,SNR=2.6						
GERES	**GERESS Array B**	**37.15**	**315**	P	**P**	**19 02 37.5**	**+0.4**
KEST	**Kesra**	**38.22**	**293**	LR	LR	19 22 39.7	
	comp=Z,25nm,18.7s,baz=167,slow=43						
DAVOX	**Davos/Dischmat**	**39.03**	**311**	P	**P**	**19 02 53.4**	**+0.3**
	comp=Z,1.7nm,0.5s,mb4.0,baz=68,slow=3.0,SNR=3.1						
DAVOX	**Davos/Dischmat**	**39.03**	**311**	P	**P**	**19 02 53.4**	**+0.4**
HFS	**Hagfors**	**42.12**	**331**	P	**P**	**19 03 18.1**	**-0.2**
	comp=Z,1.1nm,0.4s,mb3.9,baz=116,slow=10,SNR=14						
HFS	**Hagfors**	**42.12**	**331**	P	**P**	**19 03 18.1**	**-0.2**
NOA	**NORSAR Array B**	**43.64**	**332**	P	**P**	**19 03 29.9**	**-0.7**
	comp=Z,1.0nm,0.8s,mb3.6,baz=276,slow=9.1,SNR=4.3						
NOA	**NORSAR Array B**	**43.64**	**332**	P	**P**	**19 03 29.9**	**-0.7**
ARCES	**ARCESS Array B**	**44.83**	**346**	P	**P**	**19 03 39.3**	**-0.7**
	comp=Z,4.3nm,0.9s,mb4.3,baz=358,slow=26,SNR=4.3						
ARCES	**ARCESS Array B**	**44.83**	**346**	P	**P**	**19 03 39.3**	**-0.7**
SONM	**Songino Array**	**45.23**	**49**	P	**P**	**19 03 43.7**	**+0.2**
	comp=Z,1.0nm,0.9s,mb3.6,baz=269,slow=6.9,SNR=7.2						
SONM	**Songino Array**	**45.23**	**49**	P	**P**	**19 03 43.7**	**+0.2**
TORD	**Torodi Ar. Bea**	**50.46**	**264**	P	**P**	**19 04 24.8**	**+0.4**
	comp=Z,1.1nm,0.9s,mb3.9,baz=61,slow=7.6,SNR=6.3						
YKA	**Yellowknife Ar**	**89.51**	**355**	P	**P**	**19 08 23.5**	**+0.6**
	comp=Z,0.7nm,0.7s,mb4.1,baz=7.0,slow=5.2,SNR=11						
YKA	**Yellowknife Ar**	**89.51**	**355**	P	**P**	**19 08 23.5**	**+0.5**

IDC 07 19:00:38.2±2.2, 6°.88S×129°.42E, h0^{km}, mb3.6/1, mb1 3.6/3, mb1mx3.4/16, mbtmp3.5/3, ML3.5/2, MS3.6/1, Ms1 3.5/1, ms1mx2.6/20, Error ellipse: s-maj=146.8km s-min=31.1km az=68.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**13.84**	**160**	Pn	Pn	19 03 56.4	+0.6
	0.3nm,0.3s,baz=343,slow=13,SNR=12						
WRA				Sn	Sn	19 06 16.1	-14
	0.5nm,0.3s,baz=328,slow=21,SNR=8.8						
ASAR	**Alice Springs**	**17.24**	**166**	P	Pn	19 04 40.1	-0.4
	0.2nm,0.3s,baz=341,slow=9.4,SNR=25						
ASAR				S	Sn	19 07 42.1	-11
	0.2nm,0.3s,baz=354,slow=24,SNR=6.8						
STKA	**Stephens Creek**	**27.35**	**157**	LR	LR	19 17 45.1	
	comp=Z,123nm,18.3s,baz=203,slow=38						
MKAR	**Makanchi Array**	**67.81**	**327**	P	P	19 11 38.1	+0.1
	0.3nm,0.5s,baz=119,slow=6.5,SNR=8.5						

DJA 07 19:03:51, 5°.71S×107°.20E, h2^{km}, MLv3.7/4, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBJI	**Citeko**	**0.79**	**206**	P	Pg	19 04 06.7	+0.6
CBJI				S	Sg	19 04 19.5	+3.2
DBJI	**Dramaga**	**0.95**	**208**	P	Pg	19 04 06.8	-2.5
DBJI				S	Sg	19 04 20.6	-1.0
SBJI	**Serang**	**1.14**	**249**	P	Pg	19 04 12.8	-0.1
SBJI				S	Sg	19 04 30.3	+2.6
LEM	**Lembang**	**1.18**	**160**	P	Pg	19 04 12.7	-1.0
LEM				S	Sg	19 04 31.9	+2.8

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*CSEM **07** 19:24:48.0, 35°.72N×21°.97E, h15^{km}, MD3.6, After ATH*

*NEIC **07** 19:24:48.0, 35°.72N×21°.97E, h15^{km}, MD3.6(ATH), After ATH.*

ATH 07 19:24:48.0, 35°.72N×21°.97E, h15^{km}±2^{km}, MD3.6/4, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	**Kithira**	**1.03**	**57**	*e*PB	Pb	19 25 07.0	-0.5
KYTH				*e*SN	Sn	19 25 22.2	+0.2
KYTH	**Kithira**	**1.03**	**57**	*e*Pb	Pb	19 25 07.0	-0.5
KYTH				*e*Sn	Sn	19 25 22.2	+0.2
PYL	**PYLOS**	**1.19**	**351**	*e*PN	Pn	19 25 11.0	+0.9
PYL	**PYLOS**	**1.19**	**351**	*e*Pn	Pn	19 25 11.0	+0.9
VLI	**Veliai**	**1.27**	**38**	*e*PN	Pn	19 25 11.5	+0.4
VLI	**Veliai**	**1.27**	**38**	*e*Pn	Pn	19 25 11.5	+0.4
ITM	**Ithomi**	**1.46**	**359**	*e*PN	Pn	19 25 15.5	+1.7
ITM				*e*SN	Sn	19 25 34.9	+2.3
ITM	**Ithomi**	**1.46**	**359**	*e*Pn	Pn	19 25 15.5	+1.7
ITM				*e*Sn	Sn	19 25 34.9	+2.3
VLX	**Vlachokerasia**	**1.68**	**11**	*e*PN	Pn	19 25 18.8	+2.0
VLX				*e*SN	Sn	19 25 41.1	+3.0
VLX	**Vlachokerasia**	**1.68**	**11**	*e*Pn	Pn	19 25 18.8	+2.0
VLX				*e*Sn	Sn	19 25 41.1	+3.0
VAM	**Vamos**	**1.84**	**99**	*e*PN	Pn	19 25 21.5	+2.4
VAM	**Vamos**	**1.84**	**99**	*e*Pn	Pn	19 25 21.5	+2.4
GUR	**Goura**	**2.23**	**8**	*e*PN	Pn	19 25 27.8	+3.4
GUR	**Goura**	**2.23**	**8**	*e*Pn	Pn	19 25 27.8	+3.4
RLS	**Riolos of Patr**	**2.37**	**350**	*e*PN	Pn	19 25 29.2	+2.9
RLS	**Riolos of Patr**	**2.37**	**350**	*e*Pn	Pn	19 25 29.2	+2.9
LTK	**Loutraki**	**2.43**	**19**	*e*PB	Pb	19 25 29.4	-2.1
LTK	**Loutraki**	**2.43**	**19**	*e*Pb	Pb	19 25 29.4	-2.1
EFP	**Efpalio**	**2.70**	**359**	*e*PB	Pb	19 25 34.4	-1.6
EFP	**Efpalio**	**2.70**	**359**	*e*Pb	Pb	19 25 34.4	-1.6
NPS	**Neapolis**	**3.01**	**98**	*e*PN	Pn	19 25 37.3	+2.2
NPS	**Neapolis**	**3.01**	**98**	*e*Pn	Pn	19 25 37.3	+2.2
APE	**Apeiranthos**	**3.17**	**64**	*e*PN	Pn	19 25 40.1	+2.8
APE	**Apeiranthos**	**3.17**	**64**	*e*Pn	Pn	19 25 40.1	+2.8
EVR	**Evrytania**	**3.19**	**358**	*e*PN	Pn	19 25 40.0	+2.4
EVR	**Evrytania**	**3.19**	**358**	*e*Pn	Pn	19 25 40.0	+2.4
AGG	**Agios Georgios**	**3.31**	**5**	*e*PN	Pn	19 25 41.5	+2.3
AGG	**Agios Georgios**	**3.31**	**5**	*e*Pn	Pn	19 25 41.5	+2.3

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*NNC **07** 19:42:22.4±4.2, 43°.66N×84°.33E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=46.3km s-min=25.7km az=111.0*

BJI 07 19:42:26.0, 43°.72N×84°.13E, h8^{km}, ML2.8/8, 2C-4D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	**Urumqi**	**2.58**	**87**	*e*Pn	Pn	19 43 10.3	+2.2
WMQ				Sn	Sn	19 43 42.9	+3.2
WMQ				smax			
	comp=N,82nm,0.4s						
WMQ				smax			
	comp=E,79nm,0.3s						
MK31	**Makanchi Array**	**3.34**	**338**	⇑Pn	Pn	19 43 19.7	+1.2
	comp=E,0.5nm,0.3s,baz=153,slow=14,SNR=123						
MK31				⇓Pg	Pg	19 43 27.3	-2.6
	comp=E,2.0nm,0.3s,baz=169,slow=16,SNR=20						
MK31				⇑Lg		19 44 09.6	
	comp=E,5.2nm,0.3s,baz=161,slow=28,SNR=11						
TKM2	**Tokmak 2**	**6.28**	**266**	⇓Pn	Pn	19 43 58.3	-0.5
	comp=E,15nm,1.9s						
TKM2				⇓Lg		19 45 47.9	
	comp=E,8.7nm,1.1s						
KURK	**Kurchatov**	**7.94**	**334**	⇓Lg		19 46 34.2	
	comp=E,9.0nm,1.0s						

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*ISCJB **07** 19:44:46.5±0.6, 35°.86S±0°.09×103°.7W±0°.2, h10^{km}, mb4.6/21, MS4.2/12, Error ellipse: s-maj=18.3km s-min=11.4km az=161.1*

*IDC **07** 19:44:46.5±0.6, 35°.82S×103°.78W, h0^{km}, mb4.5/12, mb1 4.7/12, mb1mx4.6/19, mbtmp4.5/12, MS4.3/12, Ms1 4.3/12, ms1mx4.1/22, Error ellipse: s-maj=20.6km s-min=18.2km az=30.0*

*NEIC **07** 19:44:48.0±0.5, 35°.86S×103°.79W, h10^{km}, mb4.8/9, Error ellipse: s-maj=15.8km s-min=12.2km az=47.0*

*GCMT **07** 19:44:48.0±0.3, 35°.86S×103°.74W, h20^{km}±1^{km}, MW5.0/69, Moment Tensor Solution. s39,c44; s69,c102; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.73±.18; $M_{\theta\theta}$-0.36±.16; $M_{\phi\phi}$1.09±.15; $M_{r\theta}$-0.24±.30; $M_{\theta\phi}$-4.19±.14; $M_{\phi r}$-0.66±.29; Best double couple: $M_0$4.32100×10^{16} NP1:ϕ_s95.00000°,δ80.00000°,λ-175.00000°. NP2: ϕ_s4.00000°,δ85.00000°,λ-10.00000°. Principal axes: T 4.6400, Plg4.0000°, Azm50.0000°; N -0.6430, Plg79.0000°, Azm160.0000°; P -4.0030, Plg11.0000°, Azm319.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **07** 19:44:50.9, 35°.90S×103°.80W, h10^{km}*

ISC 07 19:44:48.5±0.6, 35°.82S±0°.08×103°.6W±0°.2, h10^{km}, n53, σ0^{s}.91/27, mb4.6/21, MS4.2/12, Southeast of Easter Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPN	**Rapa Nui**	**9.94**	**329**	LR	LR	19 49 54.6	
	comp=Z,3µm,18.5s,baz=157,slow=31						
PLCA	**Paso Flores**	**26.33**	**111**	P	**P**	**19 50 26.5**	**+2.0**
	18nm,1.1s,mb4.5,baz=265,slow=9.8,SNR=8.5						
PLCA				LR	LR	19 58 07.9	
	comp=Z,279nm,20.1s,MS3.8,baz=108,slow=30						
CFAA	**Coronel Fontan**	**29.63**	**92**	P	**P**	**19 50 54.5**	**+0.4**
	1.1nm,1.0s,mb3.6,baz=242,slow=8.5,SNR=8.8						
CFAA				LR	LR	20 01 18.9	
	comp=Z,14nm,18.2s,MS2.6,baz=258,slow=33						
CFAA	**Coronel Fontan**	**29.63**	**92**	P	**P**	**19 50 54.5**	**+0.4**
CFAA				LR	LR	20 01 18.9	
USHA	**Ushuaia**	**30.74**	**139**	LR	LR	20 00 17.2	
	comp=Z,1µm,19.9s,MS4.6,baz=223,slow=30						
ATAH	**Atahualpa**	**36.83**	**45**	P	**P**	**19 51 55.8**	**-1.1**
	12nm,1.1s,mb4.7,baz=274,slow=2.7,SNR=7.6						
PMSA	**Palmer Station**	**37.36**	**153**	LR	LR	20 03 11.8	
	comp=Z,687nm,19.4s,MS4.5,baz=314,slow=30						
CPUP	**Villa Florida**	**40.45**	**90**	P	**P**	**19 52 27.2**	**-0.1**
	1.5nm,0.6s,mb3.9,baz=243,slow=8.5,SNR=5.8						
CPUP				LR	LR	20 05 51.2	
	comp=Z,204nm,19.6s,MS4.0,baz=232,slow=31						
CPUP	**Villa Florida**	**40.45**	**90**	P	**P**	**19 52 27.2**	**-0.1**
CPUP				LR	LR	20 05 51.2	
SIV	**San Ignacio**	**42.66**	**74**	P	**P**	**19 52 45.5**	**0.0**
	8.3nm,0.8s,mb4.5,baz=240,slow=7.6,SNR=39						
OTAV	**Otavalo**	**42.85**	**39**	*e*P	**P**	**19 52 47.0**	**0.0**
	22nm,1.3s,mb4.7						
ROSC	**El Rosal**	**48.90**	**40**	P	**P**	**19 53 35.5**	**+0.7**
	16nm,0.7s,mb5.2,baz=272,slow=22,SNR=14						
ROSC				LR	LR	20 10 22.5	
	comp=Z,466nm,20.6s,MS4.5,baz=27,slow=31						
RAR	**Rarotonga**	**50.80**	**271**	LR	LR	20 08 47.7	
	comp=Z,250nm,19.4s,MS4.2,baz=112,slow=28						
SDV	**Santo Domingo**	**54.25**	**42**	*e*P	**P**	**19 54 12.1**	**-2.7**
	10nm,0.8s,mb4.8						
QSPA	**South Pole Qui**	**54.39**	**180**	P	**P**	**19 54 15.1**	**+0.1**

	3.9nm,0.8s,mb4.4,baz=131,slow=4.1,SNR=8.2						
VNDA	Vanda	56.31	195	LR	LR	20 13 20.6	
	comp=Z,218nm,19.0s,MS4.3,baz=141,slow=30						
VNA3	Neumayer Olymp	57.78	158	*e*	P	19 54 38.4	-1.0
VNA1	Neumayer--Stat	58.40	157	*e*	P	19 54 43.6	-0.1
VNA2	Neumayer--Watz	58.59	157	*e*	P	19 54 44.5	-0.5
	baz=253,slow=5.2						
AFI	Afiamalu	64.35	271	LR	LR	20 14 59.2	
	comp=Z,126nm,21.2s,MS4.1,baz=110,slow=28						
TXAR	Lajitas Array	64.80	360	P	P	19 55 27.2	-0.1
	3.4nm,0.7s,mb4.5,baz=181,slow=6.1,SNR=32						
TXAR				LR	LR	20 18 20.4	
	comp=Z,100nm,19.5s,MS4.0,baz=180,slow=31						
JCT	Junction City	66.04	4	*e*P	P	19 55 35.0	-0.3
	12nm,0.8s,mb5.0						
AMTX	Amarillo	70.36	2	*e*P	P	19 56 01.3	-1.0
	25nm,1.3s,mb5.0						
NVAR	Mina Array Bea	75.12	348	P	P	19 56 31.6	+1.2
	5.1nm,0.9s,mb4.5,baz=186,slow=7.8,SNR=18						
PDAR	Pinedale Array	78.40	356	P	P	19 56 48.4	-0.5
	8.4nm,0.8s,mb4.7,baz=159,slow=6.8,SNR=50						
RSSD	Black Hills	79.56	360	*e*P	P	19 56 55.4	+0.2
	9.3nm,1.3s,mb4.5						
HLID	Hailey	79.61	352	*e*P	P	19 56 56.2	+0.6
	13nm,0.8s,mb4.9						
RLMT	Red Lodge	80.73	356	*e*P	P	19 57 02.8	+1.3
	6.4nm,1.0s,mb4.5						
BOZ	Bozeman (W)	81.41	354	*e*P	P	19 57 05.6	+0.5
	3.4nm,0.9s,mb4.3						
LAO	LASA Array	82.16	358	*e*P	P	19 57 10.5	+1.4
	12nm,0.9s,mb4.8						
ULM	Lac du Bonnet	85.97	5	P	P	19 57 27.6	-0.8
	3.1nm,0.8s,mb4.6,baz=212,slow=4.1,SNR=5.7						
STKA	Stephens Creek	89.06	231	LR	LR	20 29 54.9	
	comp=Z,346nm,19.7s,MS4.8,baz=299,slow=30						
YKA	Yellowknife Ar	98.37	355	P	P	19 58 24.8	-0.9
	0.8nm,0.8s,mb4.3,baz=164,slow=4.8,SNR=13						
YKA	Yellowknife Ar	98.37	355	P	P	19 58 24.8	-1.0
BOSA	Boshof	99.84	136	LR	LR	20 36 03.4	
	comp=Z,208nm,21.6s,MS4.6,baz=144,slow=31						
GERES	GERESS Array B	133.14	54	PKP	PKPdf	20 04 04.3	+0.3
	0.7nm,0.8s,baz=132,slow=2.0,SNR=5.1						
HIA	Hailar	145.82	307	*e*P	PKPdf	20 04 24.9	-2.0
BALT	Daday	146.22	67	*i* P	PKPdf	20 04 24.8	-3.1
BRTR	Keskin Array B	146.22	70	PKPbc	PKPbc	20 04 29.9	+0.8
	4.1nm,1.2s,baz=205,slow=5.5,SNR=8.4						
CDAG	Cicekdag	146.77	71	*i* P	PKPab	20 04 31.0	-0.9
CTKT	Corum	147.20	69	*i* P	PKPab	20 04 32.7	-0.9
BOYT	Boyabat	147.35	67	*i* P	PKPbc	20 04 30.9	-1.3
BJI	Beijing	148.51	290	PKPbc	PKPbc	20 04 33.2	-2.1
GZT	Gaziantep	148.94	75	*i* P	PKPdf	20 04 30.9	-1.6
AKCD	Akcadag	149.36	74	*i* P	PKPbc	20 04 38.4	+0.9
MALT	Malatya	149.75	74	*e*PKPbc	PKPbc	20 04 38.8	+0.3
ERZM	Erzurum	152.17	71	*i* P	PKPdf	20 04 35.5	-2.0
CMAR	Chiang Mai Arr	153.60	235	PKP	PKPdf	20 04 39.9	-0.3
	0.2nm,0.3s,baz=104,slow=4.6,SNR=3.3						
CMAR				PKPbc	PKPbc	20 04 48.4	+0.5
	0.2nm,0.3s,baz=51,slow=1.2,SNR=4.5						
CMAR				PKPab	PKPab	20 04 57.8	-2.7
	1.3nm,0.8s,baz=164,slow=2.8,SNR=6.6						
ULN	Ulaanbaatar	154.35	307	*e*PKPbc	PKPbc	20 04 48.2	-0.4
SONM	Songino Array	154.78	308	PKPbc	PKPbc	20 04 47.2	-2.3
	1.8nm,0.9s,baz=97,slow=2.2,SNR=10						
SONM				PKPab	PKPab	20 05 03.5	-1.2
	2.7nm,0.9s,baz=71,slow=3.3,SNR=7.5						
ZALV	Zalesovo Beam	160.94	345	PKP	PKPdf	20 04 46.8	-1.4
	0.3nm,0.4s,baz=248,slow=6.2,SNR=4.2						
ZALV				PKPab	PKPab	20 05 31.2	+0.2
	1.5nm,0.8s,baz=5.7,slow=6.0,SNR=4.1						
ZALV	Zalesovo Beam	160.94	345	PKP	PKPdf	20 04 46.8	-1.4
ZALV				PKPab	PKPab	20 05 31.2	+0.2
MKAR	Makanchi Array	168.17	340	PKP	PKPdf	20 04 53.3	-1.6
	0.5nm,1.0s,baz=212,slow=6.6,SNR=3.1						
MKAR				PKPab	PKPab	20 06 03.4	+0.4
	0.5nm,0.8s,baz=5.7,slow=4.9,SNR=4.3						

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*KRSC **07** 20:00:56.9±0.6, 55°.87N×164°.58E, h35^{km}±35^{km}, ML4.3*
*ISCJB **07** 20:00:57.6±0.4, 55°.81N±0°.04×164°.68E±0°.04, h41^{km}, mb3.8/14, Error ellipse: s-maj=5.7km s-min=3.4km az=171.2*
*NEIC **07** 20:00:57.8±2.6, 55°.90N×164°.69E, h27^{km}±20^{km}, mb4.3/2, Error ellipse: s-maj=13.1km s-min=5.6km az=160.0*
*MOS **07** 20:00:57.4±1.0, 55°.86N×164°.65E, h40^{km}, mb4.1/7, Error ellipse: s-maj=15.9km s-min=9.6km az=50.5*
*IDC **07** 20:00:59.7±0.6, 55°.90N×164°.68E, h42^{km}±6^{km}, mb3.5/12, mb1 3.8/15, mb1mx3.6/27, mbtmp3.6/15, ML3.5/3, MS3.3/2, Ms1 3.5/2, ms1mx2.8/37, Error ellipse: s-maj=23.8km s-min=9.7km az=156.0*
ISC 07 20:00:59.4±0.4**, 55°.87N**±0°.04×**164°.65E**±0°.04**, h43**^{km}**, h43**^{km}±1.1^{km}**:pP-P, n57, σ0^{s}.98**/78**, mb3.8**/14**,**
Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	Krutoberegovo	1.08	289	*e*P	Pn	20 01 14.5	-3.5
KBTR				*i* S	Sn	20 01 26.4	-5.4
SMKR	Semkarok	1.91	293	*e*P	Pn	20 01 27.9	-1.6
SMKR				*i* S	Sn	20 01 50.8	-1.5
BDR	Baidarnaya	2.04	292	*e*P	Pn	20 01 30.4	-0.9
SRKR	Sorokina	2.10	294	*e*P	Pn	20 01 30.8	-1.1
MKZ	Mys Kozlova	2.12	233	*e*P	Pn	20 01 30.9	-1.4
MKZ				*i* S	Sn	20 01 55.7	-1.8
ZLN	Zelenaya	2.17	276	*e*P	Pn	20 01 33.1	+0.2
ZLN				*i* S	Sn	20 01 59.5	+1.0
CIRR	Tsirk	2.20	278	*e*P	Pn	20 01 33.2	-0.2
CIRR				*i* S	Sn	20 01 59.2	-0.2
KLY	Klyuchi	2.28	283	*e*P	Pn	20 01 32.2	-2.3
KLY				*i* S	Sn	20 01 57.8	-3.5
KRSR	Krestovskiy	2.32	280	*e*P	Pn	20 01 34.3	-0.7
KRSR				*i* S	Sn	20 02 02.3	+0.1
BZMR	Bezymyannaya	2.34	273	*e*P	Pn	20 01 35.4	+0.1
BZMR				*i* S	Sn	20 02 03.4	+0.6
KIRR	Kirishev	2.42	274	*e*P	Pn	20 01 36.7	+0.2
KIRR				*i* S	Sn	20 02 05.2	+0.4
KMNR	Kamenistaya	2.49	269	*e*P	Pn	20 01 37.6	+0.2
KMNR				*i* S	Sn	20 02 06.9	+0.4
KPT	Kopyto	2.49	274	*e*P	Pn	20 01 37.4	0.0
KPT				*i* S	Sn	20 02 06.7	+0.2
TUMR	Tumrok	2.62	259	*e*P	Pn	20 01 40.1	+0.9
TUMR				*i* S	Sn	20 02 11.6	+1.9
KOZR	Kozyr	2.68	276	PN	Pn	20 01 40.4	+0.5
KOZR				S	Sn	20 02 11.4	+0.3
KOZ	Kozyrevsk	2.69	276	*e*P	Pn	20 01 40.4	+0.3
KOZ				*i* S	Sn	20 02 11.4	0.0
SRDR	Sredinnyy	2.80	281	*e*P	Pn	20 01 41.8	+0.2
NLC	Nalytchevo	4.10	231	*e*P	Pn	20 01 59.3	-0.2
NLC				*i* S	Sn	20 02 44.3	-1.8
AVH	Avacha	4.31	235	*e*P	Pn	20 02 03.3	+0.9
AVH				*i* S	Sn	20 02 51.8	+0.4
GNL	Ganaly	4.45	244	*e*P	Pn	20 02 05.3	+1.1
PET	Petropavlovsk	4.51	233	*e*PN	Pn	20 02 05.2	+0.1
PET	Petropavlovsk	4.51	233	*e*P	Pn	20 02 05.4	+0.3
PET				*i* S	Sn	20 02 54.5	-1.7
PET	Petropavlovsk	4.51	233	*e*P	Pn	20 02 04.7	-0.4
PETK	Petropavlovsk-	4.90	239	PN	Pn	20 02 10.8	+0.3
PETK				S	Sn	20 03 07.8	+2.0
PETK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PETK				smax			
	comp=N,2.0nm,0.3s						
PETK	Petropavlovsk-	4.90	239	P	Pn	20 02 10.8	+0.4
	comp=N,2.1nm,0.3s,baz=70,slow=17,SNR=52						
PETK				S	Sn	20 03 07.8	+1.9
	comp=N,1.9nm,0.3s,baz=316,slow=19,SNR=5.7						
PETK				LR	LR	20 04 26.1	
	comp=N,113nm,19.3s,baz=248,slow=42						
PETK	Petropavlovsk-	4.90	239	P	Pn	20 02 10.8	+0.4
PETK				S	Sn	20 03 07.8	+1.9
PETK				LR	LR	20 04 26.1	
RUS	Russkaya	4.98	229	*e*P	Pn	20 02 11.2	-0.3
RUS				*i* S	Sn	20 03 05.4	-2.4
FX1	Attu Island--F	5.81	117	PN	Pn	20 02 21.3	-1.6
FX1				pmax	pmax		
	comp=Z,2.0nm,0.3s						
FX1	Attu Island--F	5.81	117	P	Pn	20 02 21.2	-1.6
	comp=Z,2.2nm,0.3s,baz=357,slow=15,SNR=19						
MIPR	Malaya Ipel'ka	5.87	236	*e*P	Pn	20 02 25.4	+1.6
SKR	Severo-Kuril's	7.28	228	*e*PN	Pn	20 02 44.0	+0.9
ASAJ	Asahikawa	18.32	239	P	Pn	20 05 10.3	+0.3
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	18.32	239	P	Pn	20 05 10.2	+0.2
	comp=Z,0.6nm,0.3s,baz=5.7,slow=4.8,SNR=6.4						
KDAK	Kodiak Island	23.20	67	P	P	20 06 01.8	-0.4
KDAK				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.4						
KDAK	Kodiak Island	23.20	67	P	P	20 06 01.8	-0.4
	comp=Z,16nm,1.1s,mb4.4,baz=139,slow=18,SNR=4.9						
BPAW	Bear Paw Mtn.	23.22	51	*e*P	P	20 06 02.1	-0.2
	comp=Z,22nm,1.5s,mb4.4						
MCK	McKinley	24.13	52	*e*P	P	20 06 10.8	0.0
COLA	College	24.57	49	*e*P	P	20 06 14.7	-0.1
COLA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
COLA	College	24.57	49	*e*P	P	20 06 14.7	0.0
	comp=Z,5.2nm,0.8s,mb4.1						
MJAR	Matsushiro Arr	26.34	234	P	P	20 06 31.1	0.0
	comp=Z,0.4nm,0.4s,mb3.3,baz=133,slow=48,SNR=3.8						
ULN	Ulaanbaatar	35.50	282	*e*P	P	20 07 52.5	+0.9
SONM	Songino Array	35.88	282	P	P	20 07 55.5	+0.6
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	35.88	282	P	P	20 07 55.5	+0.6
	comp=Z,1.2nm,0.7s,mb3.9,baz=67,slow=7.8,SNR=8.5						
YKA	Yellowknife Ar	39.32	46	P	P	20 08 23.8	0.0
YKA				*PP	pP	20 08 35.2	-0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	39.32	46	P	P	20 08 23.8	0.0
	comp=Z,0.4nm,0.4s,mb3.5,baz=298,slow=8.4,SNR=6.9						
YKA				pP	pP	20 08 35.2	-0.3
	comp=Z,0.7nm,0.6s,baz=300,slow=8.1,SNR=6.8						
MKAR	Makanchi Array	49.33	296	P	P	20 09 43.1	-0.8
	comp=Z,0.4nm,0.4s,mb3.8,baz=56,slow=6.1,SNR=13						
NVAR	Mina Array Bea	52.38	75	P	P	20 10 07.3	+0.4
	comp=Z,0.4nm,0.4s,mb3.7,baz=311,slow=7.0,SNR=2.4						
PDAR	Pinedale Array	53.90	65	P	P	20 10 19.0	+0.9
	comp=Z,0.6nm,0.6s,mb3.7,baz=344,slow=2.2,SNR=4.8						
PDAR				pP	pP	20 10 30.4	+0.3
	comp=Z,0.7nm,0.8s,baz=300,slow=2.9,SNR=4.2						
CMAR	Chiang Mai Arr	61.31	260	P	P	20 11 12.1	+1.7
CMAR				*PP	pP	20 11 24.2	+1.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CMAR				MLR	MLR		
	comp=Z,64nm,19.3s						
CMAR	Chiang Mai Arr	61.31	260	P	P	20 11 12.1	+1.7
	comp=Z,1.1nm,0.8s,mb4.1,baz=20,slow=6.6,SNR=10						
CMAR				pP	pP	20 11 24.1	+1.4
	comp=Z,0.8nm,0.7s,baz=24,slow=6.3,SNR=5.2						
CMAR				LR	LR	20 37 15.5	
	comp=Z,64nm,19.3s,baz=37,slow=36						
TXAR	Lajitas Array	67.17	71	P	P	20 11 49.6	+0.9
TXAR				*PP	pP	20 12 01.1	-0.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	67.17	71	P	P	20 11 49.6	+0.9
	comp=Z,0.6nm,0.5s,mb3.9,baz=300,slow=4.9,SNR=9.6						
TXAR				pP	pP	20 12 01.1	-0.1
	comp=Z,0.6nm,0.6s,baz=303,slow=4.9,SNR=6.2						
AKASG	Malin Array Be	67.54	331	P	P	20 11 50.0	-0.7
	comp=Z,0.3nm,0.4s,mb3.7,baz=7.0,slow=16,SNR=3.1						
WRA	Warramunga Arr	79.76	209	P	P	20 13 03.6	+1.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	79.76	209	P	P	20 13 03.6	+1.0
	comp=Z,0.9nm,0.9s,mb3.7,baz=26,slow=6.0,SNR=3.7						
ASAR	Alice Springs	83.42	208	P	P	20 13 21.9	0.0
ASAR				*PP	pP	20 13 34.8	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	Alice Springs	83.42	208	P	P	20 13 21.9	+0.1
	comp=Z,0.7nm,1.0s,mb3.6,baz=8.5,slow=7.5,SNR=3.5						
ASAR				pP	pP	20 13 34.8	+0.1
	comp=Z,0.8nm,0.8s,baz=13,slow=4.9,SNR=4.7						

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*IDC **07** 20:15:23.2±0.6, 27°.81N×53°.73E, h0^{km}, mb4.2/24, mb1 4.3/25, mb1mx4.2/31, mbtmp4.2/25, ML3.7/1, MS3.4/7, Ms1 3.5/7, ms1mx3.1/32, Error ellipse: s-maj=16.8km s-min=12.9km az=3.0*
*ISCJB **07** 20:15:23.6±0.2, 27°.84N±0°.03×53°.66E±0°.02, h10^{km}, mb4.4/86, MS3.6/6, Error ellipse: s-maj=4.0km s-min=2.8km az=27.1*
*CSEM **07** 20:15:25.3±0.1, 27°.85N×53°.70E, h10^{km}, mb4.5/69, Ms4.1, Error ellipse: s-maj=5.1km s-min=3.8km az=28.0*
*BJI **07** 20:15:25.3, 27°.80N×53°.70E, h29^{km}, mB5.0/5, mb4.4/16*
*MOS **07** 20:15:26.4±1.0, 27°.83N×53°.70E, h33^{km}, mb4.7/55, Error ellipse: s-maj=7.3km s-min=4.3km az=116.6*
*TEH **07** 20:15:26.6, 27°.81N×53°.71E, h5^{km}*
*THR **07** 20:15:26.2±0.5, 27°.76N×53°.56E, h44^{km}±3^{km}, ML4.3*
*NEIC **07** 20:15:27.3, 27°.84N×53°.74E, h9^{km}, mb4.5/35, ML4.3(THR), MN4.2(TEH), After TEH.*
*SZGRF **07** 20:15:34.6, 29°.11N×53°.97E, h33^{km}, mb4.7, Southern Iran*
ISC 07 20:15:25.3±0.2**, 27°.82N**±0°.03×**53°.67E**±0°.02**, h10**^{km}**,**
(h20^{km}±4.3^{km}**:pP-P), n407, σ1^{s}.14**/415**, mb4.4**/86**, MS3.6**/6**,**
14C-7D, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHIR	Ghir-Karzin	0.76	308	*e*Pg	Pg	20 15 41.1	+1.0
GHIR	Ghir-Karzin	0.76	308	*e*Pg	Pg	20 15 41.0	+0.9
IMOK	Mouk	1.48	326	Pn	Pn	20 15 54.4	+2.3
IMOK				Sn	Sn	20 16 15.3	+3.7
IMOK	Mouk	1.48	326	*e*Pn	Pn	20 15 54.4	+2.3
IMOK				*e*Sn	Sn	20 16 15.3	+3.7
IMOK				*e*		20 16 34.2	
	comp=Z,27µm,0.4s						
IMOK	Mouk	1.48	326	*e*Pn	Pn	20 15 54.4	+2.3
ISRV	Sarvestan	1.63	343	Pn	Pn	20 15 56.4	+2.3
ISRV				Sg	Sg	20 16 18.1	+0.2
ISRV	Sarvestan	1.63	343	*e*Pn	Pn	20 15 56.4	+2.3
ISRV				*e*Sg	Sg	20 16 18.2	+0.3
ISRV				*e*		20 16 32.5	
	comp=Z,44µm,0.4s						
ISRV	Sarvestan	1.63	343	*e*Pn	Pn	20 15 56.4	+2.3
ISRV				Sg	Sg	20 16 18.1	+0.2
IPAR	Pars	2.09	345	Pn	Pn	20 16 02.4	+2.0
IPAR	Pars	2.09	345	*e*Pn	Pn	20 16 02.4	+2.0
IPAR				*e*		20 16 44.7	
	comp=Z,13µm,0.4s						
IPAR	Pars	2.09	345	*e*Pn	Pn	20 16 02.4	+2.0
BNDS	Bandar-Abbas	2.26	100	*e*Pn	Pn	20 16 03.8	+1.1
BNDS				*e*Sg	Sg	20 16 38.8	+0.9
BNDS				AML	AML	20 16 51.0	
	comp=N,3µm,0.6s						
BNDS	Bandar-Abbas	2.26	100	*e*Pn	Pn	20 16 03.6	+0.9
BNDS				*e*Sg	Sg	20 16 38.8	+0.9
IBND	Bandar-abas	2.57	98	*e*Pn	Pn	20 16 07.9	+0.9
BANOM	Banah	3.01	128	⇑P	Pn	20 16 13.3	+0.2
	SNR=60						
BANOM				⇑P		20 16 13.3	
	SNR=60						
BANOM	Banah	3.01	128	P	Pn	20 16 13.1	0.0
	SNR=60						
NAZ	Nazwa, Dubai	3.34	147	P	Pn	20 16 19.7	+2.1
	SNR=26						
KRBR	Kerman	3.46	51	*e*Pn	Pn	20 16 20.8	+1.5
KRBR				AML	AML	20 17 20.4	
	comp=N,1µm,0.8s						
KRBR				AML	AML	20 17 21.6	
	comp=E,841nm,0.6s						
KRBR	Kerman	3.46	51	*e*Pn	Pn	20 16 20.8	+1.5
ASUD	Al Ashush, Dub	3.51	155	⇓P	Pn	20 16 22.9	+2.9
	SNR=78						
ASUD				⇓P		20 16 22.9	
	SNR=78						
ASUD	Al Ashush, Dub	3.51	155	P	Pn	20 16 22.7	+2.7
	SNR=78						
IMEH	Mehriz	3.65	13	Pn	Pn	20 16 24.0	+2.1
IMEH	Mehriz	3.65	13	*e*Pn	Pn	20 16 24.0	+2.1
IMEH				*e*		20 17 09.9	
	comp=Z,3µm,0.3s						
IMEH	Mehriz	3.65	13	*e*Pn	Pn	20 16 24.0	+2.1
HATD	Hatta, Dubai	3.71	143	P	Pn	20 16 23.9	+1.2
	SNR=27						
ISAD	Sadrabad	4.08	0	Pn	Pn	20 16 30.3	+2.5
ISAD	Sadrabad	4.08	0	*e*Pn	Pn	20 16 30.3	+2.5
ISAD				*e*		20 17 19.6	
	comp=Z,3µm,0.2s						
ISAD	Sadrabad	4.08	0	*e*Pn	Pn	20 16 30.3	+2.5
IBAF	Bafgh	4.10	23	Pn	Pn	20 16 29.1	+1.0
IBAF				Sn	Sn	20 17 14.7	-1.5
IBAF	Bafgh	4.10	23	*e*Pn	Pn	20 16 29.2	+1.1
IBAF				*e*Sn	Sn	20 17 16.1	-0.1
IBAF	Bafgh	4.10	23	*e*Pn	Pn	20 16 29.2	+1.1
IBAF				*e*Sn	Sn	20 17 16.1	-0.1
ICHK	Chekchek	4.46	8	Pn	Pn	20 16 34.5	+1.5
ICHK	Chekchek	4.46	8	*e*Pn	Pn	20 16 34.5	+1.5
ICHK				*e*		20 16 54.0	
	comp=Z,2µm,0.3s						
ICHK	Chekchek	4.46	8	*e*Pn	Pn	20 16 34.5	+1.5
BTHS		4.54	215	P	Pn	20 16 36.0	+1.9
BTHS		4.54	215	P	Pn	20 16 36.0	+1.9
IGAR	Gharneh	4.78	343	*e*Pn	Pn	20 16 39.1	+1.7
NASN	Na'in	5.02	352	*e*Pn	Pn	20 16 41.9	+1.2
NASN				AML	AML	20 17 41.1	
	comp=N,94nm,0.6s						
NASN				AML	AML	20 17 41.6	
	comp=E,113nm,0.6s						
NASN	Na'in	5.02	352	*e*Pn	Pn	20 16 41.9	+1.2
ARQ	Araqi	5.15	149	⇓P	Pn	20 16 43.8	+1.2
	SNR=8.8						
ARQ				⇓P		20 16 43.8	
	SNR=8.8						
ARQ	Araqi	5.15	149	P	Pn	20 16 43.8	+1.3
	SNR=8.8						
IZEF	Zefreh	5.19	347	Pn	Pn	20 16 43.7	+0.6
IZEF	Zefreh	5.19	347	*e*Pn	Pn	20 16 43.8	+0.7
IZEF				*e*		20 17 19.4	
	comp=Z,2µm,0.5s						
IZEF	Zefreh	5.19	347	*e*Pn	Pn	20 16 43.8	+0.7
IPIR	Pirpir	5.41	334	Pn	Pn	20 16 47.7	+1.6
IPIR	Pirpir	5.41	334	*e*Pn	Pn	20 16 47.8	+1.7
IPIR				*e*		20 17 51.9	
	comp=Z,2µm,0.4s						
IPIR	Pirpir	5.41	334	*e*Pn	Pn	20 16 47.8	+1.7
KBD	Kabd	5.43	286	*e*P	Pn	20 16 47.7	+1.3
KBD	Kabd	5.43	286	*e*P	Pn	20 16 47.7	+1.3
RDF	Al-Radifah	5.51	283	*e*P	Pn	20 16 48.5	+1.1
RDF				AML	AML	20 17 52.5	
	comp=Z,19nm,0.6s						
RDF	Al-Radifah	5.51	283	*e*P	Pn	20 16 48.5	+1.1
UMR	Umm Al-Rimmam	5.51	290	*e*P	Pn	20 16 48.9	+1.4
UMR	Umm Al-Rimmam	5.51	290	*e*P	Pn	20 16 48.9	+1.5
IKLH	Kolahrood	5.77	342	Pn	Pn	20 16 52.3	+1.3
IKLH	Kolahrood	5.77	342	*e*Pn	Pn	20 16 52.4	+1.4
IKLH				*e*		20 19 04.0	
	comp=Z,2µm,0.7s						
IKLH	Kolahrood	5.77	342	*e*Pn	Pn	20 16 52.4	+1.4
NAY	Al-Naaiem	5.83	286	*e*P	Pn	20 16 53.3	+1.4
NAY				AML	AML	20 17 59.9	
	comp=Z,20nm,0.4s						
NAY	Al-Naaiem	5.83	286	*e*P	Pn	20 16 53.3	+1.4
MIB	Mutribah	5.90	291	*e*P	Pn	20 16 53.6	+0.9
MIB				AML	AML	20 18 11.6	
	comp=Z,61nm,0.6s						
MIB	Mutribah	5.90	291	*e*P	Pn	20 16 53.7	+0.9
BSY	Bisya	5.98	147	⇑P	Pn	20 16 55.3	+1.4
	SNR=7.0						
BSY				⇑P		20 16 55.3	
	SNR=7.0						
BSYO	Bisya	6.01	147	P	Pn	20 16 55.3	+1.0
	SNR=7.0						
SMDO	Samad	6.17	139	⇑P	Pn	20 16 57.7	+1.1
	SNR=9.4						
SMDO				⇑P		20 16 57.7	
	SNR=9.4						
SMDO	Samad	6.17	139	P	Pn	20 16 57.7	+1.1
	SNR=9.4						
IDAH	Dahanechah	7.26	46	*e*Pn	Pn	20 17 12.6	+1.1
IDAH				*e*		20 19 37.7	
	comp=Z,656nm,0.6s						
IDAH	Dahanechah	7.26	46	*e*Pn	Pn	20 17 12.6	+1.1
ASAO	Ashtian	7.40	336	*e*Pn	Pn	20 17 14.0	+0.6
ASAO	Ashtian	7.40	336	*e*Pn	Pn	20 17 14.0	+0.6
IDMV	Damavand	7.86	350	Pn	Pn	20 17 20.2	+0.5
IDMV	Damavand	7.86	350	*e*Pn	Pn	20 17 20.3	+0.6
IDMV	Damavand	7.86	350	*e*Pn	Pn	20 17 20.3	+0.6
DAMV	Damavand	7.92	350	*e*Pn	Pn	20 17 21.3	+0.8
DAMV	Damavand	7.92	350	*e*Pn	Pn	20 17 21.3	+0.8
ASYS		8.28	270	P	Pn	20 17 25.5	0.0
CHTH	Charan	8.35	346	*e*Pn	Pn	20 17 27.1	+0.6
CHTH	Charan	8.35	346	*e*Pn	Pn	20 17 27.1	+0.7
BHD	Baghdad	9.68	306	*e*x	x	20 17 44.0	
BHD				*e*x	x	20 19 34.0	
BHD	Baghdad	9.68	306	*e*Pn	Pn	20 17 44.0	-0.6
BHD				*e*Sn	Sn	20 19 34.0	+0.6
MSL	Mosul	12.38	316	*e*x	x	20 18 22.0	
MSL				*e*x	x	20 20 39.0	
HAKT	HAKKARI	12.83	322	*i* P	Px	20 18 42.8	
GNI	Garni	14.35	331	⇑*e*P	Pn	20 18 48.7	+0.3
GNI				pmax	pmax		
	comp=Z,41nm,1.3s						
GNI	Garni	14.35	331	Pn	Pn	20 18 55.0	+6.5
	comp=Z,1.6nm,0.3s,baz=126,slow=0.2,SNR=33						
GNI				LR	LR	20 24 49.7	
	comp=Z,321nm,19.1s,baz=141,slow=39						
GNI	Garni	14.35	331	P	Pn	20 18 57.4	+9.0
	SNR=13						
KBL	Kabul	14.76	59	*e*P	Pn	20 18 56.5	+2.4
KBL				pmax	pmax		
	comp=Z,21nm,1.1s						
KBL	Kabul	14.76	59	*e*P	Pn	20 18 56.5	+2.4
	comp=Z,21nm,1.1s						
ASF	Jabal al Asfar	15.17	291	Pn	Pn	20 19 05.8	+6.2
	comp=Z,0.2nm,0.3s,baz=13,slow=7.6,SNR=3.2						
ASF				LR	LR	20 26 16.8	
	comp=Z,70nm,20.5s,baz=205,slow=43						
HOMI	Horasan	15.60	324	*i* P	Pn	20 19 04.7	-0.6
MTA	Mtatsminda	15.63	335	P	Pn	20 19 08.5	+2.8
GOR	Gori	16.15	334	P	Pn	20 19 14.9	+2.6
MALT	Malatya	16.50	313	*e*P	Pn	20 19 19.5	+2.7
MALT				pmax	pmax		
	comp=Z,19nm,1.1s						
MALT	Malatya	16.50	313	*e*P	Pn	20 19 19.5	+2.7
	comp=Z,19nm,1.1s						
MALT	Malatya	16.50	313	*e*P	Pn	20 19 19.5	+2.7
	comp=Z,19nm,1.1s						
EIL	Elat	16.52	281	LR	LR	20 26 49.5	
	comp=Z,50nm,18.8s,baz=91,slow=41						
MMAI	Mount Meron Ar	16.58	293	Pn	Pn	20 19 18.9	+0.9
	comp=Z,0.2nm,0.3s,baz=282,slow=25,SNR=4.1						
ONI	Oni	16.91	333	P	Pn	20 19 22.1	+0.1
KEMA	Kemaliye	17.02	316	*i* P	Pn	20 19 17.6	-5.8
KIV	Kislovodsk	18.37	334	*e*P	Pn	20 19 41.3	+1.2
KIV				pmax	pmax		
	comp=Z,25nm,1.2s						
KIV				MLR	MLR		
	comp=Z,56nm,13.0s						
KIV	Kislovodsk	18.37	334	*e*P	Pn	20 19 41.0	+0.9
	comp=Z,49nm,1.4s						
KIV	Kislovodsk	18.37	334	*e*P	Pn	20 19 41.0	+0.9
	comp=Z,49nm,1.4s						
AVNT	Avonos	19.12	310	*i* P	Pn	20 19 44.3	-4.9
SOC	Sochi	19.34	328	*e*P	Pn	20 19 52.5	+0.6
SOC				pmax	pmax		
	comp=Z,11nm,1.2s						
SOC				MLR	MLR		
	comp=Z,234nm,16.0s						
SOC	Sochi	19.34	328	*e*P	Pn	20 19 52.5	+0.6
	comp=Z,234nm,16.0s						
CDAG	Cicekdag	19.86	311	*i* P	Pn	20 19 57.7	-0.4
CDAG	Cicekdag	19.86	311	*i* P	Pn	20 19 57.7	-0.4
CTKT	Corum	20.12	314	*i* P	P	20 19 59.0	-0.4
CTKT	Corum	20.12	314	*i* P	P	20 19 59.0	-0.3
BRTR	Keskin Array B	20.40	311	P	P	20 20 02.8	+0.4
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BRTR	Keskin Array B	20.40	311	P	P	20 20 02.8	+0.4
	comp=Z,3.9nm,1.1s,baz=137,slow=15,SNR=5.0						
BRTR	Keskin Array B	20.40	311	P	P	20 20 02.8	+0.4
	comp=Z,4.0nm,1.1s						
BOYT	Boyabat	20.50	316	*i* P	P	20 19 56.1	-7.4
KDHN	Kadinhani	20.92	306	*i* P	P	20 20 05.4	-2.6
AML	Almayashu	21.68	44	P	P	20 20 15.6	-0.5
	SNR=17						
AML	Almayashu	21.68	44	*e*P	P	20 20 15.5	-0.6
	comp=Z,41nm,0.9s,mb4.9						
AML	Almayashu	21.68	44	*e*P	P	20 20 15.5	-0.6
	comp=Z,41nm,0.9s,mb4.9						
KSH	Kashi	21.86	52	*e*P	P	20 20 11.0	-7.2
KSH				*e*pP		20 20 22.2	
KSH				*e*sP	sP	20 20 28.1	+5.8
KSH				*e*PP		20 20 36.2	
KSH				*e*S	S	20 23 59.9	-20
KSH				*e*PcP	PcP	20 24 14.2	-3.4

KSH				esS	sS	20 24 18.0	-6.3
KSH				eSS		20 24 37.1	
KSH				eScP	ScP	20 27 45.1	-10
KSH				ePcS	PcS	20 27 49.7	-6.3
KSH				eScS	ScS	20 31 28.6	-11
KSH				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.2						
KSH				pmax	pmax		
	comp=Z,70nm,3.0s						
KSH				LR	LR		
	comp=N,530nm,6.3s						
KSH				LR	LR		
	comp=E,360nm,5.5s						
KSH				LR	LR		
	comp=Z,500nm,4.8s						
AB31	Akbulak array	21.94	11	P	P	20 20 17.5	-1.4
AB31				pmax	pmax		
	comp=Z,58nm,1.3s,mb4.8						
AB31	Akbulak array	21.94	11	P	P	20 20 17.5	-1.4
	comp=Z,58nm,1.3s,mb4.8						
EKS2	Erkin-Say	22.03	43	eP	P	20 20 20.6	+0.7
	comp=Z,17nm,1.1s,mb4.4						
EKS2	Erkin-Say	22.03	43	eP	P	20 20 20.6	+0.6
	comp=Z,17nm,1.1s,mb4.4						
UCH	Uchtor	22.23	44	P	P	20 20 23.7	+1.6
	SNR=12						
UCH	Uchtor	22.23	44	eP	P	20 20 21.5	-0.6
	comp=Z,18nm,1.0s,mb4.5						
UCH	Uchtor	22.23	44	eP	P	20 20 21.5	-0.6
	comp=Z,18nm,1.0s,mb4.5						
AAK	Ala-Archa	22.45	43	⇑eP	P	20 20 24.1	-0.3
AAK				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.3						
AAK	Ala-Archa	22.45	43	eP	P	20 20 24.0	-0.4
	comp=Z,49nm,1.4s,mb4.7						
AAK	Ala-Archa	22.45	43	eP	P	20 20 24.0	-0.4
	comp=Z,49nm,1.4s,mb4.7						
KZA	Kyzart	22.61	45	P	P	20 20 29.3	+3.2
	SNR=11						
KBK	Karagaybulak	22.74	44	P	P	20 20 30.3	+2.8
	SNR=14						
CHMS	Chumysh	22.81	43	P	P	20 20 29.3	+1.1
	SNR=9.4						
USP	Ospenovka	22.82	42	P	P	20 20 29.0	+0.7
	SNR=14						
AKTK	Aktyubinsk	22.83	7	P	P	20 20 28.3	0.0
AKTK				LR	LR	20 31 30.9	
AKTK	Aktyubinsk	22.83	7	P	P	20 20 28.3	0.0
	comp=Z,117nm,20.4s						
AKTO	Aktyubinsk	22.83	7	P	P	20 20 28.3	0.0
AKTO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
AKTO				MLR	MLR		
	comp=Z,117nm,20.4s,MS3.3						
AKTO	Aktyubinsk	22.83	7	P	P	20 20 28.3	0.0
	comp=Z,9.7nm,0.9s,mb4.2,baz=205,slow=11,SNR=22						
AKTO				LR	LR	20 31 30.9	
	comp=Z,117nm,20.4s,MS3.3,baz=187,slow=42						
SIM	Simferopol’	23.14	323	P	P	20 20 32.5	+0.8
SIM				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.4						
SIM	Simferopol’	23.14	323	P	P	20 20 32.5	+0.8
	comp=Z,19nm,1.1s,mb4.4						
TKM2	Tokmak 2	23.28	44	eP	P	20 20 33.2	0.0
TKM2				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.3						
TKM2	Tokmak 2	23.28	44	eP	P	20 20 33.1	-0.1
	comp=Z,12nm,1.1s,mb4.3						
TKM2	Tokmak 2	23.28	44	eP	P	20 20 33.2	0.0
	comp=Z,13nm,1.1s,mb4.3						
VRHR	Novokhopersk	24.97	342	eP	P	20 20 49.9	+1.0
VRHR				pmax	pmax		
	comp=Z,20nm,0.4s,mb5.0						
VRHR				pmax	pmax		
	comp=N,50nm,0.6s						
VRHR				pmax	pmax		
	comp=E,20nm,0.4s						
VRHR	Novokhopersk	24.97	342	eP	P	20 20 49.9	+1.0
	comp=E,50nm,0.6s,mb5.2						
VORD	Divnogorie	25.56	339	eP	P	20 20 53.6	-0.6
VORD				e*PP	pP	20 21 00.0	+2.7
VORD				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.6						
VORD				pmax	pmax		
	comp=N,40nm,0.9s						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VORD	Divnogorie	25.56	339	eP	P	20 20 53.6	-0.6
	comp=E,40nm,0.9s,mb5.0						
IDI	Anoyia	25.57	294	P	P	20 20 55.0	+0.5
	comp=E,9.2nm,0.7s,mb4.4,baz=99,slow=11,SNR=9.0						
IDI	Anoyia	25.57	294	P	P	20 20 55.0	+0.5
VSR	Storozhevoye	25.81	339	eP	P	20 20 56.4	-0.1
VSR				e*SP	sP	20 21 08.1	+7.3
VSR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
VSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.6s						
VSR	Storozhevoye	25.81	339	eP	P	20 20 56.4	-0.1
	comp=E,10.0nm,0.8s,mb4.4						
BRVK	Borovoye	28.06	22	eP	P	20 21 16.0	-0.8
BRVK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.4						
BRVK	Borovoye	28.06	22	eP	P	20 21 16.0	-0.8
	comp=Z,11nm,1.1s,mb4.4						
BRVK	Borovoye	28.06	22	eP	P	20 21 16.0	-0.8
	comp=Z,11nm,1.1s,mb4.4						
BVA2	Borovoye Array	28.07	22	P	P	20 21 15.9	-0.9
BVA2				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.6						
BVA2	Borovoye Array	28.07	22	P	P	20 21 15.9	-0.9
	comp=Z,1.0nm,0.6s,mb3.6						
BVAR	Borovoye Array	28.07	22	P	P	20 21 16.5	-0.3
BVAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BVAR	Borovoye Array	28.07	22	P	P	20 21 16.5	-0.3
	comp=Z,2.9nm,0.5s,mb4.1,baz=212,slow=8.2,SNR=34						
BVAR	Borovoye Array	28.07	22	P	P	20 21 16.5	-0.3
	comp=Z,3.0nm,0.5s,mb4.2						
MK31	Makanchi Array	29.37	42	eP	P	20 21 27.8	-0.6
MK31	Makanchi Array	29.37	42	eP	P	20 21 27.8	-0.6
MKAR	Makanchi Array	29.37	42	P	P	20 21 27.8	-0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	29.37	42	P	P	20 21 27.8	-0.6
	comp=Z,1.3nm,0.6s,mb3.8,baz=230,slow=9.9,SNR=28						
MKAR	Makanchi Array	29.37	42	P	P	20 21 27.8	-0.6
	comp=Z,1.0nm,0.6s,mb3.7						
SVE	Sverdlovsk	29.41	8	⇑eP	P	20 21 28.2	-0.5
SVE				eS	S	20 26 15.6	-6.8
SVE				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.6						
SVE	Sverdlovsk	29.41	8	eP	P	20 21 28.2	-0.5
	comp=Z,17nm,1.4s,mb4.6						
AKASG	Malin Array Be	29.42	328	P	P	20 21 27.3	-1.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	29.42	328	P	P	20 21 27.3	-1.6
	comp=Z,1.2nm,0.6s,mb3.8,baz=131,slow=8.1,SNR=7.6						
AKASG	Malin Array Be	29.42	328	P	P	20 21 27.2	-1.7
KURK	Kurchatov	29.67	33	P	P	20 21 29.5	-1.6
KURK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
KURK				MLR	MLR		
	comp=Z,262nm,18.0s,MS3.9						
KURK	Kurchatov	29.67	33	P	P	20 21 29.4	-1.6
	comp=Z,3.5nm,0.8s,mb4.1,baz=232,slow=8.6,SNR=23						
KURK				LR	LR	20 34 59.8	
	comp=Z,262nm,18.0s,MS3.9,baz=235,slow=40						
KURK	Kurchatov	29.67	33	P	P	20 21 29.5	-1.6
	comp=Z,262nm,18.0s						
BUR08	Bucovina Ar. S	29.72	319	eP	P	20 21 31.8	+0.3
BUR08	Bucovina Ar. S	29.72	319	eP	P	20 21 31.8	+0.3
OBN	Obninsk	29.96	340	⇓iP	P	20 21 33.5	-0.1
OBN				e		20 21 44.0	
OBN				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS3.6						
OBN	Obninsk	29.96	340	i P	P	20 21 33.5	-0.1
	comp=Z,28nm,1.2s,mb4.9						
MOS	Moscow	30.20	342	eP	P	20 21 34.9	-0.8
MOS				e		20 22 36.2	
MOS	Moscow	30.20	342	eP	P	20 21 34.9	-0.8
KOLS	Kolonicke sedl	32.06	320	eP	P	20 21 53.1	+1.0
KOLS				pmax	pmax		
	comp=Z,49nm,2.1s,mb5.0						
KOLS	Kolonicke sedl	32.06	320	eP	P	20 21 53.1	+1.0
	comp=Z,49nm,2.1s,mb5.0						
KOLS	Kolonicke sedl	32.06	320	eP	P	20 21 53.1	+1.0
	comp=Z,49nm,2.1s,mb5.0						
CRVS	Cervenica-Dubn	32.51	319	eP	P	20 21 56.5	+0.4
CRVS				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
CRVS	Cervenica-Dubn	32.51	319	eP	P	20 21 56.5	+0.4
	comp=Z,9.1nm,1.1s,mb4.6						
CRVS				e	pP	20 21 58.9	-0.3
CRVS	Cervenica-Dubn	32.51	319	eP	P	20 21 56.5	+0.4
	comp=Z,9.1nm,1.1s,mb4.6						
PALK	Pallekele	32.74	124	i P	P	20 21 52.7	-5.8
VYHS	Vyhne	33.88	317	eP	P	20 22 09.6	+1.5
VYHS				epP	pP	20 22 10.8	-0.4
VYHS	Vyhne	33.88	317	eP	P	20 22 09.6	+1.5
OJC	Ojcow	34.09	320	eP	P	20 22 09.9	0.0
OJC	Ojcow	34.09	320	eP	P	20 22 09.9	0.0
PRGR	Permogore	34.24	353	eP	P	20 22 08.4	-2.6
PRGR				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.9						
PRGR	Permogore	34.24	353	eP	P	20 22 08.4	-2.6
	comp=Z,23nm,1.5s,mb4.9						
KLMR	Klimovskoe	34.39	348	eP	P	20 22 10.1	-2.2
KLMR				pmax	pmax		
	comp=Z,34nm,1.4s,mb5.1						
KLMR	Klimovskoe	34.39	348	eP	P	20 22 10.1	-2.2
	comp=Z,34nm,1.4s,mb5.1						
NVS	Novosibirsk	34.48	30	eP	P	20 22 11.8	-1.4
NVS				pmax	pmax		
	comp=N,9.0nm,1.4s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.4s						
NVS				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.7						
NVS	Novosibirsk	34.48	30	eP	P	20 22 11.8	-1.4
ZAA0	Zalesovo Array	34.66	33	eP	P	20 22 13.6	-1.2
ZAA0	Zalesovo Array	34.66	33	eP	P	20 22 13.6	-1.2
ZALV	Zalesovo Beam	34.66	33	P	P	20 22 13.8	-1.0
ZALV				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ZALV				MLR	MLR		
	comp=Z,61nm,20.3s,MS3.3						
ZALV	Zalesovo Beam	34.66	33	P	P	20 22 13.8	-1.0
	comp=Z,9.6nm,0.8s,mb4.8,baz=240,slow=8.4,SNR=21						
ZALV				LR	LR	20 37 20.7	
	comp=Z,61nm,20.3s,MS3.3,baz=329,slow=38						
ZALV	Zalesovo Beam	34.66	33	P	P	20 22 13.8	-1.0
ZALV				LR	LR	20 37 20.7	
MODS	Modra-Piesok	34.78	316	eP	P	20 22 16.2	+0.3
MODS				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb4.5						
MODS	Modra-Piesok	34.78	316	eP	P	20 22 16.2	+0.3
	comp=Z,9.6nm,1.6s,mb4.5						
MODS	Modra-Piesok	34.78	316	eP	P	20 22 16.2	+0.3
	comp=Z,9.6nm,1.6s,mb4.5						
ZST	Bratislava	34.82	316	eP	P	20 22 16.7	+0.5
ZST	Bratislava	34.82	316	eP	P	20 22 16.7	+0.5
DPC	Dobruska-Polom	36.15	319	eP	P	20 22 27.3	-0.3
DPC	Dobruska-Polom	36.15	319	eP	P	20 22 27.3	-0.3
KBA	Koelnbreinsper	36.83	312	⇑iP	P	20 22 33.8	+0.2
	comp=Z,7.0nm,0.9s,mb4.5						
KBA	Koelnbreinsper	36.83	312	P	P	20 22 33.8	+0.3
	comp=Z,7.0nm,0.9s,mb4.5						
GEC2	GERESS Array S	37.16	315	eP	P	20 22 36.9	+0.6
GEC2				pmax	pmax		
	comp=Z,21nm,2.1s,mb4.6						
GEC2	GERESS Array S	37.16	315	eP	P	20 22 36.9	+0.6
	comp=Z,21nm,2.1s,mb4.6						
GEC2	GERESS Array S	37.16	315	eP	P	20 22 36.9	+0.6
	comp=Z,21nm,2.1s,mb4.6						
GERES	GERESS Array B	37.16	315	P	P	20 22 35.9	-0.4
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	37.16	315	P	P	20 22 35.9	-0.4
	comp=Z,0.7nm,0.7s,mb3.6,baz=76,slow=5.6,SNR=6.1						
GERES	GERESS Array B	37.16	315	P	P	20 22 35.9	-0.4
	comp=Z,1.0nm,0.7s,mb3.8						
PVCC	Panska Ves	37.24	318	eP	P	20 22 38.6	+1.6
PVCC	Panska Ves	37.24	318	eP	P	20 22 38.6	+1.6
KHC	Kasperske Hory	37.34	316	eP	P	20 22 37.7	-0.1
KHC				ex	x	20 23 03.5	
KHC	Kasperske Hory	37.34	316	eP	P	20 22 37.7	-0.1
RJOB	Jochberg	37.38	313	eP	P	20 22 37.6	-0.6
	comp=Z,9.0nm,1.3s,mb4.4						
BRG	Berggiesshubel	37.74	319	eP	P	20 22 40.7	-0.5
BRG				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.2						
BRG				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.8						
BRG	Berggiesshubel	37.74	319	eP	P	20 22 40.7	-0.5
	comp=Z,12nm,1.5s,mb4.4						
BRG				e		20 48 18.4	
	comp=Z,3.3nm,1.1s						
BRG	Berggiesshubel	37.74	319	eP	P	20 22 40.7	-0.5
	comp=Z,2.0nm,1.1s,mb3.8						
JOF	Joensuu	38.03	344	eP	P	20 22 42.8	-0.7
JOF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
JOF	Joensuu	38.03	344	ep	P	20 22 42.8	-0.7
	comp=Z,2.2nm,0.6s,mb4.1						
JOF	Joensuu	38.03	344	eP	P	20 22 42.8	-0.7
	comp=Z,2.2nm,0.6s,mb4.1						
ROTZ	Rotzenmuhle	38.39	316	eP	P	20 22 44.9	-1.8
	comp=Z,38nm,2.1s,mb4.8						
NKC	Novy Kostel	38.40	317	eP	P	20 22 47.6	+0.8
NKC	Novy Kostel	38.40	317	eP	P	20 22 47.6	+0.8
CLL	Collm	38.46	319	eP	P	20 22 47.0	-0.2
	comp=Z,33nm,1.9s,mb4.7						
CLL	Collm	38.46	319	eP	P	20 22 47.0	-0.2
FUR	Furstenfeldbru	38.49	314	eP	P	20 22 48.0	+0.5
FUR				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.7						
FUR	Furstenfeldbru	38.49	314	eP	P	20 22 48.0	+0.5
	comp=Z,15nm,0.9s,mb4.7						
FUR	Furstenfeldbru	38.49	314	eP	P	20 22 48.0	+0.5
	comp=Z,15nm,0.9s,mb4.7						
FETA	Feichten	38.54	312	⇑iP	P	20 22 47.8	-0.2
	comp=Z,13nm,1.0s,mb4.6						
FETA	Feichten	38.54	312	P	P	20 22 47.8	-0.2
	comp=Z,13nm,1.0s,mb4.6						
KAF	Kangasniemi	38.78	340	eP	P	20 22 48.7	-1.1
KAF				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
KAF	Kangasniemi	38.78	340	ep	P	20 22 48.7	-1.1
	comp=Z,1.4nm,0.6s,mb3.9						
KAF	Kangasniemi	38.78	340	eP	P	20 22 48.7	-1.1
	comp=Z,1.4nm,0.6s,mb3.9						
GRA1	Grafenberg Arr	38.97	316	eP	P	20 22 51.3	-0.3
	comp=Z,27nm,1.5s,mb4.8						
GRA1	Grafenberg Arr	38.97	316	eP	P	20 22 51.3	-0.3
	comp=Z,27nm,1.5s,mb4.8						
GRF	Grafenberg Arr	38.97	316	eP	P	20 22 51.3	-0.3
GRF				pmax	pmax		
	comp=Z,27nm,1.5s,mb4.8						
GRF	Grafenberg Arr	38.97	316	eP	P	20 22 51.3	-0.3
GRF				pmax	pmax		
	comp=Z,27nm,1.5s,mb4.8						
GRF	Grafenberg Arr	38.97	316	eP	P	20 22 51.3	-0.3
	comp=Z,27nm,1.5s,mb4.8						
GRF	Grafenberg Arr	38.97	316	eP	P	20 22 51.3	-0.3
	comp=Z,27nm,1.5s,mb4.8						
DAVOX	Davos/Dischmat	39.05	311	P	P	20 22 52.2	0.0
	comp=Z,4.4nm,0.9s,mb4.2,baz=135,slow=3.3,SNR=3.7						
DAVOX	Davos/Dischmat	39.05	311	P	P	20 22 52.2	0.0
DAVOS	Davos	39.12	311	P	P	20 22 52.2	-0.6
DAVOS	Davos	39.12	311	P	P	20 22 52.2	-0.6
DAVA	Damuels	39.17	312	⇑iP	P	20 22 52.9	-0.4
	comp=Z,14nm,0.6s,mb4.8						
DAVA	Damuels	39.17	312	P	P	20 22 52.9	-0.3
	comp=Z,14nm,0.6s,mb4.8						
KRAR	Krasnoyarsk	39.69	34	⇑iP	P	20 22 58.1	+0.7
KRAR				pmax	pmax		
	comp=Z,30nm,1.3s,mb4.9						
KRAR	Krasnoyarsk	39.69	34	i P	P	20 22 58.1	+0.7
	comp=Z,30nm,1.3s,mb4.9						
GTA	Gaotai	39.74	61	eP	P	20 22 57.9	-0.2
GTA				pP	pP	20 23 07.5	+6.3
GTA				sP	sP	20 23 11.4	+8.9
GTA				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.2						
CLZ	Clausthal	40.18	319	eP	P	20 23 01.9	+0.3
CLZ				pmax	pmax		
	comp=Z,41nm,1.7s,mb4.9						
CLZ	Clausthal	40.18	319	eP	P	20 23 01.9	+0.3
	comp=Z,41nm,1.7s,mb4.9						
CLZ	Clausthal	40.18	319	eP	P	20 23 01.9	+0.3
	comp=Z,41nm,1.7s,mb4.9						
SBF	Sospel	40.21	306	eP	P	20 23 01.7	-0.3
	comp=Z,16nm,0.8s,mb4.5						
SBF	Sospel	40.21	306	eP	P	20 23 01.7	-0.3
SBF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
SBF	Sospel	40.21	306	eP	P	20 23 01.7	-0.3
	comp=Z,8.1nm,0.8s,mb4.5						
SBF	Sospel	40.21	306	eP	P	20 23 01.7	-0.3
	comp=Z,8.1nm,0.8s,mb4.5						
NRDL	Niedersach Rie	40.56	320	eP	P	20 23 02.1	-2.6
	comp=Z,34nm,1.3s,mb4.8						
MBDF	Montbardon	40.80	307	eP	P	20 23 05.6	-1.2
	comp=Z,7.1nm,0.7s,mb4.1						
MBDF	Montbardon	40.80	307	eP	P	20 23 05.6	-1.2
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
MBDF	Montbardon	40.80	307	eP	P	20 23 05.6	-1.2
	comp=Z,3.5nm,0.7s,mb4.1						
MBDF	Montbardon	40.80	307	eP	P	20 23 05.6	-1.2
	comp=Z,3.5nm,0.7s,mb4.1						
LPG	La Plagne	40.93	308	eP	P	20 23 07.2	-0.7
	comp=Z,11nm,0.9s,mb4.2						
LPG	La Plagne	40.93	308	eP	P	20 23 07.2	-0.7
LPG				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
LPG	La Plagne	40.93	308	eP	P	20 23 07.2	-0.7
	comp=Z,5.7nm,0.9s,mb4.2						
LPG	La Plagne	40.93	308	eP	P	20 23 07.2	-0.7
	comp=Z,5.7nm,0.9s,mb4.2						
LPL	La Plagne	40.95	308	eP	P	20 23 06.7	-1.3
	comp=Z,31nm,1.4s,mb4.5						
LPL	La Plagne	40.95	308	eP	P	20 23 06.7	-1.3
LPL				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.5						
LPL	La Plagne	40.95	308	eP	P	20 23 06.7	-1.3
	comp=Z,16nm,1.4s,mb4.5						
LPL	La Plagne	40.95	308	eP	P	20 23 06.7	-1.3
	comp=Z,16nm,1.4s,mb4.5						
BSEG	Bad Segeberg	40.96	322	eP	P	20 23 06.5	-1.5
BSEG				pmax	pmax		
	comp=Z,31nm,1.4s,mb4.8						
BSEG	Bad Segeberg	40.96	322	eP	P	20 23 06.5	-1.5
	comp=Z,31nm,1.4s,mb4.8						
BSEG	Bad Segeberg	40.96	322	eP	P	20 23 06.5	-1.5
	comp=Z,31nm,1.4s,mb4.8						
CDF	Champ du Feu	41.13	313	eP	P	20 23 09.1	-0.4
CDF	Champ du Feu	41.13	313	eP	P	20 23 09.1	-0.4
HINF	Hinteralfeld	41.28	312	eP	P	20 23 09.3	-1.5
HINF	Hinteralfeld	41.28	312	eP	P	20 23 09.3	-1.5
CABF	La Chapelle	41.57	310	eP	P	20 23 12.7	-0.4
CABF	La Chapelle	41.57	310	eP	P	20 23 12.7	-0.4
HAU	Haudompre	41.66	312	eP	P	20 23 14.0	+0.2
HAU	Haudompre	41.66	312	eP	P	20 23 14.0	+0.2
WLF	Walferdange	42.14	314	eP	P	20 23 19.0	+1.3
	comp=Z,16nm,1.3s,mb4.5						
CHTO	Chiang Mai	42.33	92	eP	P	20 23 19.1	-0.6
CHTO				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.3						
CHTO	Chiang Mai	42.33	92	eP	P	20 23 19.1	-0.6
	comp=Z,11nm,1.3s,mb4.3						
CHTO	Chiang Mai	42.33	92	eP	P	20 23 19.1	-0.6
	comp=Z,11nm,1.3s,mb4.3						
CMAR	Chiang Mai Arr	42.46	93	P	P	20 23 20.2	-0.6
CMAR						20 25 12.9	
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CMAR	Chiang Mai Arr	42.46	93	P	P	20 23 20.1	-0.6
	comp=Z,1.7nm,0.7s,mb3.8,baz=284,slow=9.5,SNR=13						
CMAR				PcP	PcP	20 25 12.9	-0.8
	comp=Z,1.0nm,1.0s,baz=280,slow=5.4,SNR=3.8						
CMAR	Chiang Mai Arr	42.46	93	P	P	20 23 20.1	-0.7
CMAR	Chiang Mai Arr	42.46	93	PcP	PcP	20 25 12.9	-0.8
MOY	Mondy	42.51	43	eP	P	20 23 21.6	+0.9
MOY	Mondy	42.51	43	eP	P	20 23 21.6	+0.9
MEZF	Maizieres J’vi	42.60	313	eP	P	20 23 20.4	-1.1
MEZF	Maizieres J’vi	42.60	313	eP	P	20 23 20.4	-1.1
LZH	Lanzhou	42.97	66	eP	P	20 23 24.8	+0.1
LZH				pP	pP	20 23 30.3	+2.5
LZH				sP	sP	20 23 33.5	+4.5
LZH				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.8						
LZH				pmax	pmax		
	comp=Z,87nm,4.5s						
GIVF	Givet	43.07	315	eP	P	20 23 25.1	-0.2
GIVF	Givet	43.07	315	eP	P	20 23 25.1	-0.2
SMF	Signal de Mont	43.11	310	eP	P	20 23 24.7	-0.9
	comp=Z,25nm,1.2s,mb4.5						
SMF	Signal de Mont	43.11	310	eP	P	20 23 24.7	-0.9
SMF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.5						
SMF	Signal de Mont	43.11	310	eP	P	20 23 24.7	-0.9
	comp=Z,12nm,1.2s,mb4.5						
SMF	Signal de Mont	43.11	310	eP	P	20 23 24.7	-0.9
	comp=Z,12nm,1.2s,mb4.5						
LOR	Lormes	43.18	311	eP	P	20 23 25.2	-1.1
	comp=Z,7.6nm,0.8s,mb4.2						
LOR	Lormes	43.18	311	eP	P	20 23 25.2	-1.1
LOR				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
LOR	Lormes	43.18	311	eP	P	20 23 25.2	-1.1
	comp=Z,3.8nm,0.8s,mb4.2						
LOR	Lormes	43.18	311	eP	P	20 23 25.2	-1.1
	comp=Z,3.8nm,0.8s,mb4.2						
SSF	Saint Saulge	43.39	310	eP	P	20 23 26.3	-1.6
	comp=Z,9.1nm,1.0s,mb4.2						
SSF	Saint Saulge	43.39	310	eP	P	20 23 26.3	-1.6
SSF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
SSF	Saint Saulge	43.39	310	eP	P	20 23 26.3	-1.6
	comp=Z,4.6nm,1.0s,mb4.2						
SSF	Saint Saulge	43.39	310	eP	P	20 23 26.3	-1.6
	comp=Z,4.6nm,1.0s,mb4.2						
BAIF	Baives	43.45	315	eP	P	20 23 28.7	+0.3
	comp=Z,21nm,1.0s,mb4.5						
BAIF	Baives	43.45	315	eP	P	20 23 28.7	+0.3
BAIF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
BAIF	Baives	43.45	315	eP	P	20 23 28.7	+0.3
	comp=Z,11nm,1.0s,mb4.5						
BAIF	Baives	43.45	315	eP	P	20 23 28.7	+0.3
	comp=Z,11nm,1.0s,mb4.5						
AVF	Avril sur Loir	43.46	310	eP	P	20 23 27.7	-0.8
	comp=Z,6.7nm,0.9s,mb4.1						
AVF	Avril sur Loir	43.46	310	eP	P	20 23 27.7	-0.8
AVF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
AVF	Avril sur Loir	43.46	310	eP	P	20 23 27.7	-0.8
	comp=Z,3.3nm,0.9s,mb4.1						
AVF	Avril sur Loir	43.46	310	eP	P	20 23 27.7	-0.8
	comp=Z,3.3nm,0.9s,mb4.1						
TAM	Tamanrasset	43.60	275	eP	P	20 23 30.8	+0.8
TAM				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.1						
TAM	Tamanrasset	43.60	275	eP	P	20 23 30.8	+0.9
	comp=Z,4.5nm,1.1s,mb4.1						
TAM	Tamanrasset	43.60	275	eP	P	20 23 30.8	+0.8
	comp=Z,4.0nm,1.1s,mb4.1						
ZAK	Zakamensk	43.61	45	eP	P	20 23 28.2	-1.4
ZAK				e		20 25 17.6	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.0						
ZAK	Zakamensk	43.61	45	eP	P	20 23 28.2	-1.4
	comp=Z,4.0nm,1.3s,mb4.0						
ZAK	Zakamensk	43.61	45	ePcP	PcP	20 25 17.6	+0.6
NB2	NORSAR Subarra	43.65	332	P	P	20 23 28.4	-1.4
	comp=Z,3.3nm,0.7s,mb4.2,baz=119,slow=7.9						
NB2	NORSAR Subarra	43.65	332	P	P	20 23 28.4	-1.4
	comp=Z,3.3nm,0.7s,mb4.2,SNR=6.4						
NOA	NORSAR Array B	43.65	332	P	P	20 23 28.3	-1.5
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA				MLR	MLR		
	comp=Z,43nm,19.1s						
NOA	NORSAR Array B	43.65	332	P	P	20 23 28.3	-1.5
	comp=Z,1.4nm,0.6s,mb3.9,baz=120,slow=8.1,SNR=6.7						
NOA				LR	LR	20 42 58.7	
	comp=Z,43nm,19.1s,MS3.4,baz=280,slow=38						
NOA	NORSAR Array B	43.65	332	P	P	20 23 28.3	-1.5
	comp=Z,43nm,19.1s						
BGF	Bois d’Agland	43.77	309	eP	P	20 23 30.0	-1.0
	comp=Z,13nm,0.9s,mb4.3						

BGF	Bois d'Agland	43.77	309	*e*P	P	20 23 30.0	-1.0
BGF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
BGF	Bois d'Agland	43.77	309	*e*P	P	20 23 30.0	-1.0
	comp=Z,6.3nm,0.9s,mb4.3						
BGF	Bois d'Agland	43.77	309	*e*P	P	20 23 30.0	-1.0
	comp=Z,6.3nm,0.9s,mb4.3						
TLY	Talaya	44.12	43	*e*P	P	20 23 31.0	-2.7
TLY				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
TLY				MLR	MLR		
	comp=Z,192nm,14.0s,MS4.2						
TLY	Talaya	44.12	43	*e*P	P	20 23 31.0	-2.7
	comp=Z,192nm,14.0s						
TCF	Toulx Ste Croi	44.18	309	*e*P	P	20 23 33.4	-0.9
	comp=Z,4.8nm,0.8s,mb4.0						
TCF	Toulx Ste Croi	44.18	309	*e*P	P	20 23 33.4	-0.9
TCF				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
TCF	Toulx Ste Croi	44.18	309	*e*P	P	20 23 33.4	-0.9
	comp=Z,2.4nm,0.8s,mb4.0						
TCF	Toulx Ste Croi	44.18	309	*e*P	P	20 23 33.4	-0.9
	comp=Z,2.4nm,0.8s,mb4.0						
RJF	Les Rejaudoux	44.57	307	*e*P	P	20 23 37.3	-0.1
	comp=Z,85nm,1.7s,mb5.0						
RJF	Les Rejaudoux	44.57	307	*e*P	P	20 23 37.3	-0.1
RJF				pmax	pmax		
	comp=Z,42nm,1.7s,mb5.0						
RJF	Les Rejaudoux	44.57	307	*e*P	P	20 23 37.3	-0.1
	comp=Z,42nm,1.7s,mb5.0						
RJF	Les Rejaudoux	44.57	307	*e*P	P	20 23 37.3	-0.1
	comp=Z,42nm,1.7s,mb5.0						
IRK	Irkutsk	44.62	43	*e*P	P	20 23 36.8	-0.9
IRK				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.6						
IRK	Irkutsk	44.62	43	*e*P	P	20 23 36.8	-0.9
	comp=Z,13nm,1.3s,mb4.6						
KEV	Kevo	44.71	347	*e*p	P	20 23 35.3	-2.9
ARCES	ARCESS Array B	44.83	346	P	P	20 23 39.0	-0.2
ARCES				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ARCES	ARCESS Array B	44.83	346	P	P	20 23 39.0	-0.2
	comp=Z,7.6nm,1.1s,mb4.5,baz=120,slow=4.9,SNR=8.2						
ARCES	ARCESS Array B	44.83	346	P	P	20 23 39.0	-0.2
	comp=Z,8.0nm,1.1s,mb4.5						
LFF	La Frestale	45.09	307	*e*P	P	20 23 40.9	-0.7
	comp=Z,10.0nm,0.7s,mb4.5						
LFF	La Frestale	45.09	307	*e*P	P	20 23 40.9	-0.7
LFF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
LFF	La Frestale	45.09	307	*e*P	P	20 23 40.9	-0.7
	comp=Z,5.0nm,0.7s,mb4.5						
LFF	La Frestale	45.09	307	*e*P	P	20 23 40.9	-0.7
	comp=Z,5.0nm,0.7s,mb4.5						
SONM	Songino Array	45.21	49	P	P	20 23 42.5	0.0
SONM				pmax	pmax		
	comp=Z,8.0nm,1.1s						
SONM	Songino Array	45.21	49	P	P	20 23 42.5	0.0
	comp=Z,7.5nm,1.1s,mb4.4,baz=261,slow=8.6,SNR=21						
SONM	Songino Array	45.21	49	P	P	20 23 42.5	0.0
	comp=Z,8.0nm,1.1s,mb4.5						
MFF	Saint Martin d	45.83	309	*e*P	P	20 23 45.8	-1.6
MFF	Saint Martin d	45.83	309	*e*P	P	20 23 45.8	-1.6
LDF	La Druitiere	46.01	312	*e*P	P	20 23 47.7	-1.1
LDF	La Druitiere	46.01	312	*e*P	P	20 23 47.7	-1.1
FLN	La Foliniere	46.27	312	*e*P	P	20 23 49.9	-1.0
FLN	La Foliniere	46.27	312	*e*P	P	20 23 49.9	-1.0
SJPF	Ste Jean	46.44	304	*e*P	P	20 23 52.2	-0.1
	comp=Z,11nm,0.8s,mb4.5						
SJPF	Ste Jean	46.44	304	*e*P	P	20 23 52.2	-0.1
SJPF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
SJPF	Ste Jean	46.44	304	*e*P	P	20 23 52.2	-0.1
	comp=Z,5.6nm,0.8s,mb4.5						
SJPF	Ste Jean	46.44	304	*e*P	P	20 23 52.2	-0.1
	comp=Z,5.6nm,0.8s,mb4.5						
GRR	Gorron	46.48	312	*e*P	P	20 23 51.6	-0.9
GRR	Gorron	46.48	312	*e*P	P	20 23 51.6	-0.9
XAN	Xi'an	47.32	68	P	P	20 23 57.7	-1.6
XAN				pP	pP	20 24 05.0	+2.5
XAN				sP	sP	20 24 08.5	+4.8
XAN				pmax	pmax		
	comp=Z,68nm,5.4s						
SGMF	Saint Gilles	47.59	311	*e*P	P	20 24 00.4	-0.8
SGMF	Saint Gilles	47.59	311	*e*P	P	20 24 00.4	-0.8
QUIF	Quistinic	47.98	311	*e*P	P	20 24 03.3	-0.9
QUIF	Quistinic	47.98	311	*e*P	P	20 24 03.3	-0.9
ROSF	Rostrenen	48.08	311	*e*P	P	20 24 11.9	+6.9
	comp=Z,26nm,1.1s,mb4.9						
ROSF	Rostrenen	48.08	311	*e*P	P	20 24 11.9	+6.9
ROSF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
ROSF	Rostrenen	48.08	311	*e*P	P	20 24 11.9	+6.9
	comp=Z,13nm,1.1s,mb4.9						
ESDC	Sonseca Array	48.62	300	P	P	20 24 09.4	+0.2
	comp=Z,0.5nm,0.6s,mb3.7,baz=70,slow=4.2,SNR=3.2						
ESDC	Sonseca Array	48.62	300	P	P	20 24 09.4	+0.1
TORD	Torodi Ar. Bea	50.48	264	P	P	20 24 23.5	-0.3
	comp=Z,2.5nm,0.8s,mb4.3,baz=66,slow=7.8,SNR=14						
BOD	Bodaibo	51.19	37	⇓*i*P	P	20 24 26.6	-1.9
BOD				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
BOD	Bodaibo	51.19	37	*i* P	P	20 24 26.6	-1.9
	comp=Z,12nm,1.2s,mb4.7						
QIZ	Qiongzhong	51.91	87	P	P	20 24 30.4	-4.1
QIZ				S	S	20 31 48.5	-9.1
BJI	Beijing	52.31	59	P	P	20 24 38.7	+1.5
BJI				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
WHN	Wuhan	52.49	71	*e*P	P	20 24 36.4	-2.3
CN2	Changchun	58.62	54	*e*P	P	20 25 19.9	-2.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
DBIC	Dimbokro	59.14	261	P	P	20 25 26.3	-0.3
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
DBIC	Dimbokro	59.14	261	P	P	20 25 26.3	-0.3
	comp=Z,2.2nm,0.7s,mb4.3,baz=50,slow=12,SNR=3.8						
DBIC	Dimbokro	59.14	261	P	P	20 25 26.3	-0.3
	comp=Z,2.0nm,0.7s,mb4.3						
KSRS	Korea Array	61.81	60	P	P	20 25 43.2	-1.3
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.4						
KSRS	Korea Array	61.81	60	P	P	20 25 43.1	-1.4
	comp=Z,1.7nm,0.7s,mb4.3,baz=275,slow=7.1,SNR=5.9						
KSRS	Korea Array	61.81	60	P	P	20 25 43.2	-1.3
	comp=Z,2.0nm,0.7s,mb4.4						
BOSA	Boshof	62.37	208	P	P	20 25 48.7	+0.5
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
BOSA	Boshof	62.37	208	P	P	20 25 48.7	+0.5
	comp=Z,3.5nm,0.8s,mb4.5,baz=22,slow=13,SNR=4.7						
BOSA	Boshof	62.37	208	P	P	20 25 48.7	+0.5
BOSA	Boshof	62.37	208	P	P	20 25 48.7	+0.5
	comp=Z,4.0nm,0.8s,mb4.6						
SEY	Seymchan	69.42	29	⇑*e*P	P	20 26 32.6	-0.7
SEY	Seymchan	69.42	29	*e*P	P	20 26 32.6	-0.7
BILL	Bilibino	72.42	21	⇓*i*P	P	20 26 50.9	-0.5
BILL				*e*		20 29 33.4	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
BILL	Bilibino	72.42	21	*i* P	P	20 26 50.9	-0.5
	comp=Z,7.0nm,1.2s,mb4.5						
SCHQ	Schefferville	83.19	330	P	P	20 27 51.1	-0.5
	comp=Z,1.9nm,0.7s,mb4.2,baz=54,slow=9.4,SNR=4.2						
FITZ	Fitzroy Crossi	83.26	114	P	P	20 27 51.6	-0.9
	comp=Z,4.0nm,0.9s,mb4.5,baz=277,slow=5.3,SNR=3.7						
YKA	Yellowknife Ar	89.51	355	P	P	20 28 22.1	-0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	89.51	355	P	P	20 28 22.1	-0.4
	comp=Z,1.2nm,0.6s,mb4.4,baz=6.9,slow=5.2,SNR=27						
YKA	Yellowknife Ar	89.51	355	P	P	20 28 22.1	-0.4
	comp=Z,1.0nm,0.6s,mb4.3						
WRA	Warramunga Arr	91.28	112	P	P	20 28 30.1	-1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	91.28	112	P	P	20 28 30.1	-1.3
	comp=Z,0.9nm,0.7s,mb4.2,baz=316,slow=4.0,SNR=12						
WRA	Warramunga Arr	91.28	112	P	P	20 28 30.1	-1.3
	comp=Z,1.0nm,0.7s,mb4.2						
ASAR	Alice Springs	92.72	115	P	P	20 28 36.6	-1.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	92.72	115	P	P	20 28 36.5	-1.5
	comp=Z,0.9nm,0.7s,mb4.3,baz=306,slow=4.5,SNR=11						
ASAR	Alice Springs	92.72	115	P	P	20 28 36.6	-1.4
	comp=Z,1.0nm,0.7s,mb4.3						

IDC ***07*** *20:20:07.2±1.4, 27°.62N×53°.80E, h0^{km}, mb3.7/11, mb1 3.8/11, mb1mx3.6/28, mbtmp3.7/11, Error ellipse: s-maj=36.9km s-min=20.7km az=159.0*

CSEM ***07*** *20:20:09.6±0.3, 27°.69N×53°.76E, h10^{km}, ML3.5, Error ellipse: s-maj=9.0km s-min=5.1km az=14.0*

NEIC ***07*** *20:20:12.5±0.8, 27°.67N×53°.79E, h35^{km}, ML3.3(THR), Error ellipse: s-maj=18.7km s-min=11.1km az=165.0*

TEH ***07*** *20:20:13.0, 27°.76N×53°.74E, h27^{km}*

ISC 07 20:20:10.3±1.2**, 27°.71N**±0°.06×**53°.76E**±0°.05**, h14**^{km}±7^{km}**,**
n48, σ0^{s}.83/53**, mb3.6**/10**, 2D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	Ghir-Karzin	0.90	310	*e*Pg	Pg	20 20 26.2	-1.5
GHIR				*e*Sg	Sg	20 20 38.9	-0.6
IMOK	Mouk	1.62	326	⇓*e*Pn	Pn	20 20 39.9	+1.4
IMOK				*e*Sg	Sg	20 21 02.7	+0.1
IMOK				*e*		20 21 11.5	
	comp=Z,11μm,0.3s						
IMOK	Mouk	1.62	326	⇓*e*Pn	Pn	20 20 39.9	+1.4
IMOK				*e*Sg	Sg	20 21 02.7	+0.1
ISRV	Sarvestan	1.76	341	*e*Pn	Pn	20 20 41.0	+0.6
ISRV	Sarvestan	1.76	341	*e*Pn	Pn	20 20 41.0	+0.6
BNDS	Bandar-Abbas	2.16	98	*e*Pn	Pn	20 20 44.9	-1.0
IPAR	Pars	2.22	344	*e*Pn	Pn	20 20 46.9	+0.3
IPAR				*e*		20 21 21.9	
	comp=Z,2μm,0.4s						
IPAR	Pars	2.22	344	*e*Pn	Pn	20 20 46.9	+0.3
IBND	Bandar-abas	2.48	95	*e*Pn	Pn	20 20 51.8	+1.6
IBND				*e*		20 22 05.5	
	comp=Z,4μm,0.4s						
IBND	Bandar-abas	2.48	95	*e*Pn	Pn	20 20 51.8	+1.6
KRBR	Kerman	3.47	49	*e*Pn	Pn	20 21 04.9	+1.0
IMEH	Mehriz	3.74	11	*e*	Pn	20 21 11.5	+3.9
	comp=Z,425nm,0.1s						
IMEH				*e*Pn	Pn	20 21 08.8	+1.2
IMEH				*e*Sn	Sn	20 21 49.2	-2.3
IBAF	Bafgh	4.17	22	*e*	Pg	20 21 30.6	+0.2
	comp=Z,747nm,0.4s						
ISAD	Sadrabad	4.19	359	*e*Pn	Pn	20 21 14.9	+1.1
ISAD				*e*		20 22 05.3	
	comp=N,772nm,0.2s						
ISAD	Sadrabad	4.19	359	*e*Pn	Pn	20 21 14.9	+1.1
ICHK	Chekchek	4.55	7	*e*Pn	Pn	20 21 19.1	+0.3
ICHK				*e*		20 21 19.5	
	comp=Z,613nm,0.1s						
ICHK	Chekchek	4.55	7	*e*Pn	Pn	20 21 19.1	+0.3
IZEF	Zefreh	5.32	347	*e*Pn	Pn	20 21 29.3	+0.1
IZEF				*e*		20 22 30.3	
	comp=Z,209nm,0.2s						
IZEF	Zefreh	5.32	347	*e*Pn	Pn	20 21 29.3	+0.1
IPIR	Pirpir	5.55	334	*e*	Sn	20 22 36.3	+0.3
	comp=Z,606nm,0.2s						
RDF	Al-Radifah	5.61	284	*e*P	Pn	20 21 33.7	+0.4
RDF				AML	AML	20 22 38.7	
	comp=Z,14nm,0.3s						
RDF	Al-Radifah	5.61	284	*e*P	Pn	20 21 33.7	+0.4
NAY	Al-Naaiem	5.94	287	*e*P	Pn	20 21 38.2	+0.4
NAY				AML	AML	20 22 47.2	
	comp=Z,6.2nm,0.7s						
NAY	Al-Naaiem	5.94	287	*e*P	Pn	20 21 38.2	+0.4
MIB	Mutribah	6.01	292	*e*P	Pn	20 21 39.1	+0.3
MIB				AML	AML	20 22 44.1	
	comp=Z,15nm,0.6s						
MIB	Mutribah	6.01	292	*e*P	Pn	20 21 39.1	+0.3
GNI	Garni	14.48	331	Pn	Pn	20 23 42.4	+7.6
	comp=Z,0.6nm,0.3s,baz=66,slow=7.1,SNR=6.3						
BRTR	Keskin Array B	20.54	311	P	P	20 24 48.9	+0.6
	comp=Z,0.5nm,0.6s,baz=45,slow=40,SNR=3.3						
BRTR	Keskin Array B	20.54	311	P	P	20 24 48.8	+0.6
AKTK	Aktyubinsk	22.93	7	P	P	20 25 13.7	0.0
AKTK	Aktyubinsk	22.93	7	P	P	20 25 13.7	0.0
AKTO	Aktyubinsk	22.93	7	P	P	20 25 13.7	0.0
	comp=Z,1.4nm,0.8s,mb3.5,baz=209,slow=14,SNR=4.3						
IDI	Anoyia	25.69	294	P	P	20 25 40.4	+0.4
	comp=Z,14nm,1.1s,mb4.4,baz=129,slow=16,SNR=3.9						
IDI	Anoyia	25.69	294	P	P	20 25 40.3	+0.4
BVAR	Borovoye Array	28.14	21	P	P	20 26 01.0	-0.8
	comp=Z,1.0nm,0.6s,mb3.6,baz=204,slow=8.2,SNR=6.5						
BVAR	Borovoye Array	28.14	21	P	P	20 26 01.0	-0.8
MKAR	Makanchi Array	29.39	42	P	P	20 26 12.0	-0.9
	comp=Z,0.3nm,0.6s,mb3.2,baz=229,slow=9.0,SNR=3.7						
KURK	Kurchatov	29.72	33	P	P	20 26 15.8	-0.1
	comp=Z,0.5nm,0.8s,mb3.3,baz=232,slow=8.6,SNR=3.6						
KURK	Kurchatov	29.72	33	P	P	20 26 15.8	-0.1
KURK	Kurchatov	29.72	33	P	P	20 26 15.8	0.0
ZALV	Zalesovo Beam	34.71	32	P	P	20 26 58.9	-0.6
	comp=Z,0.7nm,0.4s,mb3.9,baz=232,slow=7.3,SNR=4.2						
ZALV	Zalesovo Beam	34.71	32	P	P	20 26 58.9	-0.6
SONM	Songino Array	45.22	49	P	P	20 28 26.7	-0.3
	comp=Z,0.2nm,0.6s,mb3.1,baz=96,slow=22,SNR=4.3						
SONM	Songino Array	45.22	49	P	P	20 28 26.7	-0.2
TORD	Torodi Ar. Bea	50.55	264	P	P	20 29 07.3	-1.2
	comp=Z,0.6nm,0.6s,mb3.7,baz=59,slow=7.0,SNR=4.3						
YKA	Yellowknife Ar	89.63	355	P	P	20 33 06.6	-0.7
	comp=Z,0.3nm,0.7s,mb3.7,baz=10,slow=5.1,SNR=5.8						
YKA	Yellowknife Ar	89.63	355	P	P	20 33 06.6	-0.7
WRA	Warramunga Arr	91.16	112	P	P	20 33 14.7	-0.5
	comp=Z,0.3nm,0.7s,mb3.8,baz=316,slow=3.3,SNR=3.5						

NEIC ***07*** *20:21:43.8, 15°.85N×98°.98W, h14^{km}, MD3.9(MEX), After MEX.*

MEX 07 20:21:43.8±0.8**, 15°.85N×98°.98W, h14**^{km}±17^{km}**, MD3.9,**
Off coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.98	56	*i* P	Pb	20 21 60.0	-2.6
PNIG				*i* S	Sb	20 22 10.2	-5.2
ACX	Acapulco	1.35	318	*e*P	Pn	20 22 04.1	-4.2
ACX				*i* S	Sn	20 22 21.0	-5.1
CAIG	El Cayaco	1.72	314	*e*P	Pn	20 22 09.6	-3.7
CAIG				*i* S	Sn	20 22 30.1	-5.0
MEIG	Mezcala	2.15	344	*e*P	Pn	20 22 16.3	-3.0
MEIG				*i* S	Sn	20 22 42.1	-3.8
UTMO	Huajuapan	2.27	30	*i* P	Pn	20 22 18.5	-2.3
UTMO				*i* S	Sn	20 22 44.9	-3.7
VHO	Vista Hermosa	2.47	60	*i* P	Pn	20 22 21.0	-2.6
VHO				*i* S	Sn	20 22 50.2	-3.5
OXX	Oaxaca	2.49	60	*e*P	Pn	20 22 20.6	-3.3
OXX				*i* S	Sn	20 22 56.4	+2.4
PLIG	Platanillo	2.58	349	*e*P	Pn	20 22 22.9	-2.3
PLIG				*i* S	Sn	20 22 53.3	-3.0
HUIG	Huatulco	2.76	91	*e*P	Pn	20 22 24.9	-2.7
HUIG				*i* S	Sn	20 22 57.1	-3.7
TPIG	Tehuac#an	2.99	31	*e*P	Pn	20 22 28.5	-2.3
TPIG				*i* S	Sn	20 23 07.2	+0.8
PPM	Popocatepetl	3.22	6	*e*P	Pn	20 22 31.8	-2.1
PPM				*i* S	Sn	20 23 14.8	+2.7
PPM	Popocatepetl	3.22	6	*e*P	Pn	20 22 31.8	-2.1
PPM				*i* S	Sn	20 23 21.0	+8.9
MZVM		3.33	356	*i* P	Pn	20 22 33.3	-2.2
MZVM				*i* S	Sn	20 23 12.4	-2.4
IIO	Organos	3.73	4	*e*P	Pn	20 22 39.0	-1.9
IIO				*i* S	Sn	20 23 21.2	-3.5
CMIG	Matias Romero	4.12	72	*e*P	Pn	20 22 43.9	-2.4
CMIG				*i* S	Sn	20 23 30.6	-3.6

IDC ***07*** *20:25:30.5±0.8, 2°.47N×93°.16E, h0^{km}, mb4.3/17, mb1 4.4/19, mb1mx4.2/30, mbtmp4.3/19, ML4.1/2, MS3.7/1, Ms1 3.7/1, ms1mx2.4/29, Error ellipse: s-maj=28.7km s-min=14.7km az=43.0*

NEIC ***07*** *20:25:33.0±8.2, 2°.50N×93°.18E, h17^{km}±49^{km}, mb4.2/6, Error ellipse: s-maj=24.6km s-min=6.6km az=55.0*

ISCJB ***07*** *20:25:33.4±2.0, 2°.52N±0°.06×93°.27E±0°.10, h33^{km}±18^{km}, mb4.5/30, Error ellipse: s-maj=17.8km s-min=7.6km az=152.4*

BJI ***07*** *20:25:39.6, 3°.39N×92°.80E, h16^{km}, mb4.4/4*

DJA ***07*** *20:25:41, 2°.73N×93°.65E, h49^{km}, mb4.9/6*

ISC 07 20:25:36.4±1.7**, 2°.55N**±0°.06×**93°.3E**±0°.1**, h37**^{km}±16^{km}**, n66,**
σ0^{s}.82/70**, mb4.4**/30**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	3.55	34	⇓*e*P	Pn	20 26 29.0	-0.1
BSI				*e*S	Sn	20 27 09.0	-0.8
BSI	Banda Aceh	3.55	34	P	Pn	20 26 28.4	-0.7
BSI				S	Sn	20 27 07.6	-2.2
PSI	Prapat	5.65	87	Pn	Pn	20 26 58.5	+0.6
	15nm,0.3s,baz=277,slow=7.5,SNR=99						
PSI				Sn	Sn	20 27 57.6	-3.9
	baz=272,slow=15,SNR=2.3						
PSI	Prapat	5.65	87	Pn	Pn	20 26 58.5	+0.6
PSI				Sn	Sn	20 27 57.6	-3.9
PPI	Padang Panjang	7.72	113	P	Pn	20 27 26.1	-0.2
	107nm,0.7s,0.4nm						
KULM	Kulim	7.84	69	*e*P	Pn	20 27 28.2	+0.1
	46nm,0.4s						
KULM	Kulim	7.84	69	P	Pn	20 27 28.3	+0.3
	116nm,0.7s,1μm0.4nm						
PDSI	Padang	7.96	115	P	Pn	20 27 30.3	+0.6
	97nm,0.9s						
IPM	Ipoh	7.97	76	P	Pn	20 27 30.8	+1.1
IPM	Ipoh	7.97	76	P	Pn	20 27 30.5	+0.7
	68nm,0.9s,0.2nm						
FRIM	Kepong	8.37	85	P	Pn	20 27 35.0	-0.2
SNG	Songkhla	8.64	58	P	Pn	20 27 39.0	+0.1
	440nm,0.9s						
KGM	Kluang	10.05	93	P	Pn	20 27 58.5	+0.2
KTGM	Kuala Trenggan	10.21	74	P	Pn	20 28 00.5	-0.1
MYKOM	Kota Tinggi	10.59	94	P	Pn	20 28 05.8	0.0
PALK	Pallekele	13.37	291	*e*P	Pn	20 28 38.7	-5.1
	21nm,0.6s						
PALK	Pallekele	13.37	291	P	Pn	20 28 51.8	+8.0
	21nm,0.7s						
KKTK	Khon Kaen	16.61	34	P	Pn	20 29 30.2	+3.6
CM31	Chiang Mai Arr	16.75	19	*e*P	Pn	20 29 27.2	-1.2
	16nm,1.2s						
CMAR	Chiang Mai Arr	16.75	19	Pn	Pn	20 29 27.8	-0.6
	0.1nm,0.3s,baz=215,slow=13,SNR=43						
CHTO	Chiang Mai	17.09	19	*e*P	Pn	20 29 31.2	-1.4
	6.8nm,0.9s						
CHTO	Chiang Mai	17.09	19	P	Pn	20 29 31.5	-1.0
SHL	Shillong	22.92	357	*e*PKP	P	20 30 39.0	+1.7
SHL				*e*S	S	20 34 50.0	+5.2
ODAN	Odare	24.82	347	*e*P	P	20 30 55.8	+0.6
	13nm,0.8s,mb4.5						
RAMN	Ramite	25.09	346	*e*P	P	20 30 59.3	+1.6
TAPN	Taplejung	25.23	348	*e*P	P	20 30 59.2	+0.3
	12nm,0.9s,mb4.4						
DMN	Daman	26.11	343	*e*P	P	20 31 07.5	+0.6
GUN	Gumba	26.19	345	*e*P	P	20 31 07.7	+0.1
KKN	Kakani	26.24	344	*e*P	P	20 31 08.2	+0.2
	9.9nm,0.9s,mb4.3						
GKN	Gorkha	26.62	343	*e*P	P	20 31 11.9	+0.4
	26nm,0.9s,mb4.8						
KOLN	Koldanda	26.73	341	*e*P	P	20 31 12.9	+0.4
	8.5nm,0.5s,mb4.5						
LSA	Lhasa	27.08	356	P	P	20 31 17.8	+2.2
LSA	Lhasa	27.08	356	*e*P	P	20 31 17.6	+2.0
	20nm,0.6s,mb4.8						
DANN	Dangsing	27.21	341	*e*P	P	20 31 17.0	+0.1
	13nm,0.8s,mb4.5						
PYUN	Piuthan	27.24	340	*e*P	P	20 31 16.2	-0.9
MBWA	Marble Bar	35.02	134	*e*P	P	20 32 25.1	-0.6
	7.1nm,0.9s,mb4.6						
BJI	Beijing	42.70	26	P	P	20 33 31.7	+1.9
BJI				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
UCH	Uchtor	42.93	339	*e*P	P	20 33 32.4	+0.8
MKAR	Makanchi Array	45.09	349	P	P	20 33 49.1	+0.3
	comp=Z,8.0nm,0.8s,mb4.6,baz=171,slow=8.8,SNR=105						
WRA	Warramunga Arr	46.08	121	P	P	20 33 57.1	-0.1
	comp=Z,2.2nm,0.5s,mb4.3,baz=301,slow=8.8,SNR=24						
WRAB	Tennant Creek	46.09	121	*e*P	P	20 33 56.8	-0.4
SONM	Songino Array	46.51	12	P	P	20 34 01.3	+1.2
	comp=Z,1.0nm,0.6s,mb4.0,baz=194,slow=8.6,SNR=14						
ASAR	Alice Springs	47.35	126	P	P	20 34 06.6	-0.4
	comp=Z,1.0nm,0.7s,mb3.8,baz=299,slow=7.7,SNR=9.4						
KURK	Kurchatov	49.57	348	P	P	20 34 23.1	-0.5
	comp=Z,4.5nm,0.7s,mb4.6,baz=172,slow=7.3,SNR=32						
KURK	Kurchatov	49.57	348	*e*P	P	20 34 23.5	-0.1
RDF	Al-Radifah	50.76	306	*e*P	P	20 34 32.5	-0.5
RDF				AMb	AMB	20 34 33.4	
	comp=Z,33nm,0.8s,mb5.3						
NAY	Al-Naaiem	51.13	306	*e*P	P	20 34 35.1	-0.7
NAY				AMb	AMB	20 34 36.4	
	comp=Z,13nm,1.3s,mb4.7						
MIB	Mutribah	51.26	307	*e*P	P	20 34 36.8	-0.1
MIB				AMb	AMB	20 34 37.5	
	comp=Z,29nm,0.6s,mb5.4						
ZAA0	Zalesovo Array	51.70	354	*e*P	P	20 34 39.9	+0.2
ZALV	Zalesovo Beam	51.70	354	P	P	20 34 40.0	+0.3
	comp=Z,5.2nm,0.4s,mb4.8,baz=176,slow=6.9,SNR=42						
ZALV	Zalesovo Beam	51.70	354	P	P	20 34 40.0	+0.3
BVAR	Borovoye Array	53.76	343	P	P	20 34 53.8	-1.0
	comp=Z,2.2nm,0.8s,mb4.2,baz=150,slow=8.3,SNR=16						
BVAR				LR	LR	20 58 45.1	
	comp=Z,73nm,18.9s,baz=152,slow=37						
BRVK	Borovoye	53.82	343	*e*P	P	20 34 54.4	-0.9
	comp=Z,2.5nm,1.1s,mb4.1						
AKTK	Aktyubinsk	56.24	334	P	P	20 35 11.6	-1.4
AKTO	Aktyubinsk	56.24	334	P	P	20 35 11.6	-1.4
	comp=Z,1.2nm,0.6s,mb4.1,baz=109,slow=16,SNR=4.8						
STKA	Stephens Creek	57.18	131	P	P	20 35 19.7	-0.2
	comp=Z,1.2nm,0.5s,mb4.2,baz=321,slow=14,SNR=3.7						
ASF	Jabal al Asfar	60.49	306	P	P	20 35 42.5	-0.5
	comp=Z,2.5nm,0.7s,mb4.4,baz=68,slow=5.4,SNR=4.7						
MMAI	Mount Meron Ar	61.94	306	P	P	20 35 53.7	+0.9
	comp=Z,1.4nm,0.6s,mb4.3,baz=93,slow=10,SNR=3.7						
BR131	Keskin Array S	65.32	313	*e*P	P	20 36 13.8	-1.0
	comp=Z,0.8nm,0.6s,mb3.9						
BRTR	Keskin Array B	65.32	313	P	P	20 36 14.1	-0.8
	comp=Z,1.8nm,0.7s,mb4.2,baz=137,slow=7.3,SNR=13						
IDI	Anoyia	70.95	306	P	P	20 36 50.3	0.0
	comp=Z,14nm,0.8s,mb4.9,baz=237,slow=17,SNR=9.6						
ARCES	ARCESS Array B	79.96	341	P	P	20 37 40.9	-0.4
	comp=Z,1.4nm,0.8s,mb4.0,baz=109,slow=7.7,SNR=7.6						
GERES	GERESS Array B	81.22	319	P	P	20 37 48.8	+0.2
	comp=Z,1.9nm,0.5s,mb4.3,baz=108,slow=5.5,SNR=24						
KEST	Kesra	83.59	305	P	P	20 38 01.5	+0.3
	comp=Z,2.5nm,1.0s,mb4.3,baz=250,slow=7.8,SNR=5.6						
NOA	NORSAR Array B	83.93	331	P	P	20 38 01.6	-0.8
	comp=Z,2.1nm,0.8s,mb4.3,baz=98,slow=5.3,SNR=3.6						
TXAR	Lajitas Array	144.38	26	PKP	PKPdf	20 45 08.2	-1.2
	comp=Z,0.2nm,0.4s,baz=277,slow=0.3,SNR=4.8						

ISCJB ***07*** *20:29:32.2±1.5, 20°.0S±0°.2×178°.1W±0°.2, h514^{km}±22^{km}, mb3.8/9, Error ellipse: s-maj=30.6km s-min=14.6km az=140.1*

IDC ***07*** *20:29:37.2±5.2, 20°.21S×178°.02W, h571^{km}±60^{km}, mb3.2/7, mb1 3.6/8, mb1mx3.3/18, mbtmp3.3/8, Error ellipse: s-maj=37.3km s-min=23.7km az=2.0*

NEIC ***07*** *20:29:39.5±4.8, 20°.35S×178°.07W, h602^{km}±56^{km}, mb4.1/2, Error ellipse: s-maj=41.2km s-min=23.2km az=201.0*

ISC 07 20:29:32.1±1.5**, 20°.1S**±0°.2×**178°.0W**±0°.2**, h503**^{km}±22^{km}**,**
n19, σ0^{s}.71/12**, mb3.7**/9**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.54	45	S	S	20 33 14.5	0.0
	1.5nm,0.3s,baz=11,slow=20,SNR=2.2						
URZ	Urewera	18.62	192	P	P	20 33 17.2	-0.6
	2.4nm,0.3s,baz=340,slow=2.2,SNR=12						
CTAO	Charters Tower	33.53	264	*e*P	P	20 35 31.1	+1.4
	6.2nm,0.5s,mb4.3						
ASAR	Alice Springs	44.62	256	P	P	20 36 59.8	+0.5
	5.3nm,0.8s,mb4.0,baz=88,slow=7.7,SNR=44						
ASAR				PcP	PcP	20 38 30.2	-1.4
	0.9nm,0.8s,baz=107,slow=3.4,SNR=4.7						
WRAB	Tennant Creek	44.65	262	*e*P	P	20 36 58.9	-0.8
	1.7nm,0.6s,mb3.6						
WRA	Warramunga Arr	44.66	262	P	P	20 36 59.6	-0.1
	1.4nm,0.3s,mb3.8,baz=98,slow=7.3,SNR=46						
FITZ	Fitzroy Crossi	53.08	262	P	P	20 38 02.3	0.0
	3.1nm,1.0s,mb3.6,baz=84,slow=9.2,SNR=5.3						
MJAR	Matsushiro Arr	69.86	324	P	P	20 39 50.6	-1.2
	1.0nm,0.6s,mb3.6,baz=155,slow=5.9,SNR=4.6						
TXAR	Lajitas Array	86.83	57	P	P	20 41 23.9	+0.9
	0.6nm,0.7s,mb3.5,baz=209,slow=7.2,SNR=6.4						
PDAR	Pinedale Array	88.65	43	P	P	20 41 31.1	-0.2
	0.7nm,0.8s,mb3.5,baz=198,slow=2.7,SNR=2.2						
PDAR	Pinedale Array	88.65	43	P	P	20 41 31.1	-0.2
CMAR	Chiang Mai Arr	89.97	290	P	P	20 41 38.0	+0.1
	1.3nm,0.9s,mb3.8,baz=110,slow=2.6,SNR=8.6						
KURK	Kurchatov	113.68	318	PKiKP	PKiKP	20 47 10.2	-2.5
	0.3nm,0.6s,baz=106,slow=1.9,SNR=3.0						
BVAR	Borovoye Array	118.75	320	PKP	PKPdf	20 47 19.7	-2.8

	0.5nm,0.5s,baz=146,slow=3.4,SNR=5.8						
ARCES	**ARCESS Array B**	128.50	350	PKP	PKPdf	20 47 38.3	-2.4
	1.9nm,0.8s,baz=37,slow=0.6,SNR=5.8						
AKASG	**Malin Array Be**	142.64	331	PKhKP		20 48 01.3	
	1.0nm,0.4s,baz=44,slow=4.7,SNR=10						
BRTR	**Keskin Array B**	146.55	313	PKPbc	PKPbc	20 48 14.9	-2.0
	1.0nm,0.5s,baz=152,slow=4.6,SNR=6.9						
CLL	**Collm**	147.65	347	⇓*i*PKPbc	PKPbc	20 48 17.6	-1.8
	comp=Z,5.0nm,1.0s						
GERES	**GERESS Array B**	149.79	345	PKPbc	PKPbc	20 48 23.3	-1.5
	comp=Z,1.8nm,0.8s,baz=14,slow=2.8,SNR=12						

ISK **07** *20:30:06.3, 37°.26N×26°.01E, h19km, MD2.9*

DDA **07** *20:30:10.2, 36°.73N×26°.32E, h7km±2km, Md3.1*

NEIC **07** *20:30:11.5, 36°.73N×26°.40E, h40km, MD3.1(ATH), After ATH.*

ISCJB **07** *20:30:11.4±0.7, 36°.74N±0°.03×26°.37E±0°.03, h6km±5km, Error ellipse: s-maj=4.7km s-min=3.5km az=145.3*

THE **07** *20:30:11.0, 36°.79N×26°.38E, h0km±1km, ML3.3/1, Error ellipse: s-maj=2.0km s-min=1.2km az=79.0*

ATH **07** *20:30:11.5, 36°.73N×26°.40E, h40km±1km, MD3.1/3*

CSEM **07** *20:30:11.3±0.2, 36°.74N×26°.36E, h10km, MD3.1, Error ellipse: s-maj=5.3km s-min=3.7km az=146.0*

ISC 07 20:30:12.1±0.6**, 36°.76N**±0°.03×**26°.37E**±0°.03**, h14**km±5km**, n41,** σ**$1^{s}18$**/66**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NISR	**Nisiros**	0.62	103	*e*P	Pg	20 30 23.9	-0.5
NISR				*e*S	Sg	20 30 33.7	+1.1
NISR	**Nisiros**	0.62	103	*e*P	Pg	20 30 23.9	-0.5
APE	**Apeiranthos**	0.74	295	P	Pg	20 30 26.1	-0.5
APE				S	Sg	20 30 35.9	-0.5
APE	**Apeiranthos**	0.74	295	*e*P	Pg	20 30 27.1	+0.5
APE	**Apeiranthos**	0.74	295	P	Pg	20 30 26.1	-0.5
APE				S	Sg	20 30 35.9	-0.5
BODT	**Bodrum**	0.81	68	*e*PG	Pg	20 30 27.1	-0.8
BODT				*e*SG	Sg	20 30 41.3	+2.8
BODT	**Bodrum**	0.81	68	*e*Pg	Pg	20 30 27.1	-0.8
BODT				*e*Sg	Sg	20 30 41.3	+2.8
THR1	**Thera Island**	0.83	243	P	Pb	20 30 27.2	-1.1
THR1				S	Sg	20 30 40.9	+1.7
THR1	**Thera Island**	0.83	243	P	Pb	20 30 27.2	-1.1
THR1				S	Sg	20 30 40.9	+1.7
THR4	**Thira Island,**	0.84	250	P	Pb	20 30 27.6	-0.9
THR4				S	Sb	20 30 41.0	+1.4
THR4	**Thira Island,**	0.84	250	P	Pb	20 30 27.6	-0.9
THR4				S	Sb	20 30 41.0	+1.4
THR3	**Thira Island,**	0.86	246	P	Pb	20 30 28.0	-0.8
THR3				S	Sb	20 30 42.1	+2.0
THR3	**Thira Island,**	0.86	246	P	Pb	20 30 28.0	-0.8
THR3				S	Sb	20 30 42.1	+2.0
BDRM	**Kayabasi**	0.91	70	*i* P	Pb	20 30 28.9	-0.8
BDRM				*i* S	Sb	20 30 42.1	+0.4
BDRM	**Kayabasi**	0.91	70	*i* P	Pb	20 30 28.9	-0.8
BDRM				*i* S	Sb	20 30 42.1	+0.4
DAT	**Datca**	0.97	91	*e*PN	Pn	20 30 30.2	-1.1
DAT	**Datca**	0.97	91	*e*Pn	Pn	20 30 30.2	-1.1
SMG	**Samos**	1.02	21	*e*P	Pb	20 30 30.9	-0.7
SMG	**Samos**	1.02	21	*e*P	Pb	20 30 30.9	-0.7
GCAM	**G?zelcaml?**	1.17	36	*i* P	Pn	20 30 33.0	-1.0
GCAM				*i* S	Sb	20 30 49.8	+0.8
GCAM	**G?zelcaml?**	1.17	36	*i* P	Pn	20 30 33.0	-1.0
GCAM				*i* S	Sb	20 30 49.8	+0.8
KARP	**Karpathos**	1.37	152	*e*P	Pn	20 30 35.6	-1.1
KARP	**Karpathos**	1.37	152	*e*P	Pn	20 30 35.6	-1.1
AYDN	**Tasoluk**	1.50	53	*i* P	Pn	20 30 39.3	+0.7
AYDN				*i* S	Sn	20 31 02.6	+4.6
AYDN	**Tasoluk**	1.50	53	*i* P	Pn	20 30 39.3	+0.7
AYDN				*i* S	Sn	20 31 02.6	+4.6
URLA	**Izmir**	1.61	6	*i* P	Pn	20 30 41.2	+1.1
URLA				*i* S	Sn	20 31 03.9	+3.2
URLA	**Izmir**	1.61	6	*i* P	Pn	20 30 41.2	+1.1
URLA				*i* S	Sn	20 31 03.9	+3.2
NPS	**Neapolis**	1.61	203	*e*P	Pn	20 30 38.2	-2.0
NPS	**Neapolis**	1.61	203	*e*P	Pn	20 30 38.2	-2.0
ZKR	**Zakros**	1.64	184	P	Pn	20 30 40.9	+0.3
ZKR				S	Sn	20 31 03.6	+2.1
ZKR	**Zakros**	1.64	184	P	Pn	20 30 40.9	+0.3
ZKR				S	Sn	20 31 03.6	+2.1
CHOS	**Chios island**	1.65	351	P	Pn	20 30 39.4	-1.2
CHOS				S	Sn	20 31 02.1	+0.6
CHOS	**Chios island**	1.65	351	P	Pn	20 30 39.4	-1.2
CHOS				S	Sn	20 31 02.1	+0.6
BLCB	**Balcova**	1.71	18	*e*PN	Pn	20 30 31.7	-10
LAST	**Lasithi**	1.75	205	P	Pn	20 30 41.1	-0.9
LAST				S	Sn	20 31 04.7	+0.6
LAST	**Lasithi**	1.75	205	*e*P	Pn	20 30 41.0	-1.0
LAST	**Lasithi**	1.75	205	P	Pn	20 30 41.1	-0.9
LAST				S	Sn	20 31 04.7	+0.6
TURN	**Turunc**	1.79	86	*i* P	Pn	20 30 37.9	-4.7
TURN	**Turunc**	1.79	86	*i* P	Pn	20 30 37.9	-4.7
IDI	**Anoyia**	1.90	220	*e*P	Pn	20 30 42.8	-1.2
IDI	**Anoyia**	1.90	220	*e*P	Pn	20 30 42.8	-1.2

KISR **07** *20:48:38.7±0.3, 27°.91N×52°.75E, h34km, ML2.6*

ISCJB **07** *20:48:39.6±0.6, 27°.70N±0°.04×52°.93E±0°.05, h10km, Error ellipse: s-maj=6.5km s-min=5.1km az=143.3*

CSEM **07** *20:48:40.3±0.2, 27°.75N×52°.98E, h2km, ML3.1, Error ellipse: s-maj=7.6km s-min=5.2km az=38.0*

TEH **07** *20:48:43.6, 27°.71N×52°.91E, h29km*

ISC 07 20:48:41.4±0.6**, 27°.74N**±0°.04×**52°.98E**±0°.05**, h10**km**, n21,** σ**$0^{s}97$**/27**, 3C, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHIR	**Ghir-Karzin**	0.55	0	*e*Pg	Pg	20 48 50.0	-2.1
GHIR				*e*Sg	Sg	20 48 58.2	-1.1
IMOK	**Mouk**	1.33	350	*e*Sg	Sg	20 49 26.3	+2.1
IMOK				*e*Pn	Pn	20 49 06.5	+0.5
IMOK				*e*		20 49 31.7	
	comp=Z,4μm,0.2s						
ISRV	**Sarvestan**	1.64	4	*e*	Pn	20 49 15.9	+5.6
	comp=Z,2μm,0.2s						
IPAR	**Pars**	2.10	2	*e*	Sg	20 49 46.9	-2.1
	comp=Z,572nm,0.4s						
BNDS	**Bandar-Abbas**	2.85	96	*e*Pn	Pn	20 49 27.7	+0.7
BANOM	**Banah**	3.47	121	⇑P	Pn	20 49 34.3	-1.2
	SNR=20						
BANOM	**Banah**	3.47	121	P	Pn	20 49 34.3	-1.2
	SNR=20						
ASUD	**Al Ashush, Dub**	3.75	145	⇑P	Pn	20 49 39.5	+0.1
	SNR=24						
ASUD	**Al Ashush, Dub**	3.75	145	P	Pn	20 49 39.5	+0.2
	SNR=24						
IMEH	**Mehriz**	3.91	21	*e*Pn	Pn	20 49 42.3	+0.8
IMEH				*e*		20 49 45.7	
	comp=Z,352nm,0.1s						
KRBR	**Kerman**	4.00	55	*e*Pn	Pn	20 49 43.6	+0.8
ISAD	**Sadrabad**	4.21	8	*e*Pn	Pn	20 49 46.2	+0.5
ISAD				*e*		20 49 51.6	
	comp=Z,322nm,0.1s						
IBAF	**Bafgh**	4.45	30	*e*	Pn	20 49 49.5	+0.5
	comp=Z,1μm,0.1s						
ICHK	**Chekchek**	4.66	15	*e*	Pn	20 49 53.0	+1.1
	comp=Z,674nm,0.1s						
NASN	**Na'in**	5.05	358	*e*Pn	Pn	20 49 57.1	-0.1
NAY	**Al-Naaiem**	5.27	288	*e*P	Pn	20 50 00.2	-0.1
NAY				*e*S	Sn	20 51 01.3	+0.2
NAY				AML	AML	20 51 03.6	
	comp=Z,2.6nm,0.5s						
NAY	**Al-Naaiem**	5.27	288	*e*P	Pn	20 50 00.2	-0.1
NAY				*e*S	Sn	20 51 01.3	+0.2
MIB	**Mutribah**	5.37	294	*e*P	Pn	20 50 01.3	-0.2
MIB				*e*S	Sn	20 51 03.3	-0.1
MIB				AML	AML	20 51 03.4	
	comp=Z,6.2nm,0.5s						
MIB	**Mutribah**	5.37	294	*e*P	Pn	20 50 01.3	-0.3
MIB				*e*S	Sn	20 51 03.3	-0.1
IKLH	**Kolahrood**	5.70	348	*e*Pn	Pn	20 50 06.0	-0.1
BSY	**Bisya**	6.27	142	⇑P	Pn	20 50 13.1	-0.8
	SNR=9.9						

ISCJB **07** *20:58:17.7±0.1, 7°.65S±0°.02×116°.83E±0°.02, h322km, mb5.7/143, Error ellipse: s-maj=2.8km s-min=2.6km az=145.7*

GCMT **07** *20:58:18.9±0.2, 7°.58S×117°.04E, h321km±1km, MW5.7/90, Moment Tensor Solution. s90,c169; s52,c59; Duration: $1^{s}7$ Moment tensor: Scale 10^{17}Nm; M_{rr}1.27±.04; $M_{\theta\theta}$1.79±.06; $M_{\phi\phi}$-3.06±.07; $M_{r\theta}$1.96±.06; $M_{\theta\phi}$0.92±.06; $M_{\phi r}$2.17±.05; Best double couple: $M_0$4.05800×10^{17} NP1:ϕ_s132.00000°, δ42.00000°, λ19.00000°. NP2: ϕ_s28.00000°, δ78.00000°, λ130.00000°. Principal axes: T 4.1530, Plg43.0000°, Azm337.0000°; N -0.1900, Plg39.0000°, Azm198.0000°; P -3.9620, Plg22.0000°, Azm89.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.*

NEIC **07** *20:58:18.9±0.1, 7°.58S×116°.82E, mb5.8/42, MW5.6, MW5.7 Error ellipse: s-maj=5.4km s-min=3.7km az=50.0, Moment Tensor Solution. s29 Moment tensor: Scale 10^{17}Nm; M_{rr}1.15; $M_{\theta\theta}$0.90; $M_{\phi\phi}$-2.05; $M_{r\theta}$2.12; $M_{\theta\phi}$1.27; $M_{\phi r}$1.79; Best double couple: $M_0$3.50000×10^{17} NP1: ϕ_s128.00000°, δ42.00000°, λ21.00000°. NP2:ϕ_s22.00000°, δ76.00000°, λ130.00000°. Principal axes: T 3.9400, Plg44.0000°, Azm331.0000°; N -1.0600, Plg38.0000°, Azm190.0000°; P -2.8800, Plg20.0000°, Azm82.0000°;*

NEIC Felt [IV] at Denpasar and [III] at Jimbaran, Bali, Indonesia. Also felt [IV] at Jakarta, Java and at Waingapu, Sumba. Felt [III] at Mataram, Lombok and at Bima and Sumbawa, Sumbawa. Felt at Ubud, Bali; Ende, Flores; and Kuta, Lombok.

MOS **07** *20:58:19.5±1.1, 7°.46S×116°.91E, h335km, mb5.8/63, MS4.7/6 Error ellipse: s-maj=8.3km s-min=4.1km az=123.9*

DJA **07** *20:58:19, 7°.80S×116°.92E, h320km, Mw6.1/28*

IDC **07** *20:58:19.9±0.4, 7°.59S×116°.94E, h329km±3km, mb5.4/25, mb1 5.4/26, mb1mx5.4/27, mbtmp5.4/26, Error ellipse: s-maj=7.9km s-min=5.8km az=59.0*

ISC 07 20:58:19.2±0.1**, 7°.68S**±0°.02×**116°.87E**±0°.02**, h324**km**, h324**km±1.8km**:pP-P, n960,** σ**$1^{s}27$**/561**, mb5.7**/143**, 231C-190D, Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHKI	**Kahang-Kahang**	1.42	241	P	Pn	20 59 04.5	+0.3
KHKI				S	S	20 59 38.5	-1.6
DNP	**Denpasar**	1.92	239	P	Pn	20 59 08.2	+0.8
IGBI	**Denpasar**	2.04	236	P	Pn	20 59 09.1	+0.7
IGBI				S	S	20 59 44.9	-2.8
NBBI	**Negara**	2.33	253	P	Pn	20 59 11.4	+0.8
KMMI	**Kalianget**	2.94	282	P	Pn	20 59 19.0	+2.9
MKS	**Makassar**	3.56	47	⇓*e*P	Pn	20 59 22.9	+0.8
MKS				*e*S	S	21 00 13.2	+0.6
KAPI	**Kappang**	3.90	47	*e*P	Pn	20 59 24.3	-1.4
WSI	**Waingapu**	3.93	120	⇓*e*P	Pn	20 59 21.0	-4.9
WSI				*e*S	S	21 00 08.0	-11
WSI	**Waingapu**	3.93	120	P	Pn	20 59 23.2	-2.7
WSI				S	S	21 00 13.8	-5.7
TRT	**Tretes**	4.19	269	⇓*e*P	Pn	20 59 29.0	+0.3
TRT				*e*S	S	21 00 08.0	-17
KRKI	**Karangkates**	4.40	263	P	Pn	20 59 32.3	+1.3
BBKI	**Banjar Baru**	4.65	334	P	Pn	20 59 35.9	+2.1
BBKI				S	S	21 00 38.2	+4.4
PLKI	**Palangkaraya**	6.15	332	P	Pn	20 59 52.4	+1.4
	4μm,1.0s,14nm						
PLKI				S	S	21 01 08.2	+3.0
	4μm,1.0s,14nm						
UGM	**Wanagama**	6.29	267	P	Pn	20 59 53.3	+0.7
SMRI	**Semarang**	6.40	275	P	Pn	20 59 56.1	+2.2
	7μm,1.2s,23nm						
KDI	**Kendari**	6.81	57	⇓*e*P	Pn	20 59 58.8	0.0
KDI				*e*S	S	21 01 18.2	-1.4
KDI	**Kendari**	6.81	57	P	Pn	20 59 59.0	+0.2
	3μm,1.4s,9.3nm						
PCI	**Palu**	7.35	24	⇑*i*P	Pn	21 00 07.1	+1.8
PCI				*e*S	S	21 01 32.8	+1.4
PCI	**Palu**	7.35	24	P	Pn	21 00 07.1	+1.8
	1μm,1.0s,6.5nm						
LEM	**Lembang**	9.21	275	P	Pn	21 00 29.2	+1.5
	5μm,1.1s						
CBJI	**Citeko**	10.02	277	P	Pn	21 00 37.1	-0.4
	6μm,0.9s						
DBJI	**Dramaga**	10.10	276	P	Pn	21 00 39.5	+1.0
	2μm,1.6s						
TPI	**Tanjungpandan**	10.39	298	P	Pn	21 00 44.0	+1.9
	208nm,1.1s						
SBJI	**Serang**	10.77	278	P	Pn	21 00 48.2	+1.6
	2μm,1.1s						
SBUM	**Sibu**	11.08	335	P	Pn	21 00 52.8	+2.5
SBUM	**Sibu**	11.08	335	P	Pn	21 00 52.6	+2.3
	2μm,1.0s						
KSM	**Kuching**	11.20	324	P	Pn	21 00 54.4	+2.6
KSM	**Kuching**	11.20	324	*e*P	Pn	21 00 54.0	+2.2
	3μm,0.9s						
KSM	**Kuching**	11.20	324	P	Pn	21 00 54.3	+2.5
	3μm,1.1s						
XMIS	**Christmas Isla**	11.42	255	*e*P	Pn	21 00 53.0	-1.4
XMIS				*e*S	S	21 02 52.1	-10
XMIS	**Christmas Isla**	11.42	255	⇓*i*Pn	Pn	21 00 53.0	-1.4
	2μm,0.8s						
XMIS				*e*S	S	21 02 52.8	-9.2
XMIS	**Christmas Isla**	11.42	255	P	Pn	21 00 53.3	-1.1
	4μm,1.0s						
BTM	**Bintulu**	11.45	341	P	Pn	21 00 57.6	+2.8
BTM	**Bintulu**	11.45	341	P	Pn	21 00 57.6	+2.8
TSM	**Tawau**	11.94	5	P	Pn	21 01 02.7	+2.1
AAI	**Ambon**	11.95	71	P	Pn	21 01 01.5	+0.7
	4μm,1.5s						
MNI	**Manado**	12.06	42	⇓*e*P	Pn	21 01 01.6	-0.5
MNI	**Manado**	12.06	42	⇓*e*P	Pn	21 01 01.6	-0.5
MNI	**Manado**	12.06	42	P	Pn	21 01 03.0	+0.9
	1μm,1.1s						
KLI	**Kotabumi**	12.26	282	P	Pn	21 01 06.3	+1.8
LBMI	**Labuha**	12.70	57	P	Pn	21 01 10.0	+0.2
	4μm,1.2s						
MYLDM	**Lahad Datu**	12.88	7	P	Pn	21 01 16.1	+4.2
MYLDM	**Lahad Datu**	12.88	7	P	Pn	21 01 16.1	+4.2
	3μm,1.4s						
PMBI	**Palembang**	12.93	291	P	Pn	21 01 14.8	+2.2
	860nm,1.0s						
SDKM	**Sandakan**	13.24	1	P	Pn	21 01 18.3	+2.1
TNTI	**Ternate**	13.42	52	P	Pn	21 01 18.5	+0.1
	3μm,1.2s						
FITZ	**Fitzroy Crossi**	13.43	141	⇑*i*P	Pn	21 01 19.0	+0.6
	535nm,0.6s						
FITZ				*e*		21 02 27.2	
FITZ				*e*S	S	21 03 42.1	-3.8
FITZ	**Fitzroy Crossi**	13.43	141	P	Pn	21 01 19.1	+0.8
	53nm,0.3s,baz=329,slow=6.6,SNR=664						
FITZ				S	S	21 03 39.5	-6.4
	9.3nm,0.3s,baz=330,slow=5.6,SNR=2.7						
FITZ	**Fitzroy Crossi**	13.43	141	*e*P	Pn	21 01 18.7	+0.4
	354nm,0.8s						
FITZ				*e*S	S	21 03 33.6	-12
FITZ	**Fitzroy Crossi**	13.43	141	P	Pn	21 01 19.1	+0.7
	1μm,1.0s,9μm						
TNE	**Ternate**	13.43	52	⇓*e*P	Pn	21 01 15.6	-2.9
KKM	**Kota Kinabalu**	13.65	357	P	Pn	21 01 22.1	+1.0
KKM	**Kota Kinabalu**	13.65	357	*e*P	Pn	21 01 21.5	+0.4
	2μm,0.8s						
KKM	**Kota Kinabalu**	13.65	357	P	Pn	21 01 21.7	+0.6
	3μm,0.9s						
MBWA	**Marble Bar**	13.68	169	⇑*i*P	Pn	21 01 22.1	+0.7
	323nm,0.4s						
MBWA				*e*S	S	21 03 47.3	-3.7
MBWA	**Marble Bar**	13.68	169	P	Pn	21 01 22.1	+0.7
	965nm,0.9s						
SGSI	**Sangihe**	14.22	38	P	P	21 01 29.1	+2.5
	1μm,0.9s						
MNAI	**Manna**	14.22	283	P	P	21 01 29.4	+2.8
	2μm,1.1s						
KDM	**Kudat**	14.50	360	P	P	21 01 31.8	+2.2
KSI	**Kapahiang**	14.75	285	P	P	21 01 33.0	+0.5
	2μm,0.7s						
GSPH	**General Santos**	15.88	31	*e*P	P	21 01 48.0	+3.3
TLE	**Tual**	15.89	84	⇑*e*P	P	21 01 42.0	-3.0
MYKOM	**Kota Tinggi**	16.03	305	P	P	21 01 48.5	+2.0
MYKOM	**Kota Tinggi**	16.03	305	P	P	21 01 48.2	+1.7
	240nm,1.4s,3μm						
KAKA	**Kakadu**	16.12	109	*e*P	P	21 01 46.7	-0.7
KAKA				*e*		21 02 30.9	
KAKA				*e*S	S	21 04 42.0	+1.8
KAKA	**Kakadu**	16.12	109	*e*P	P	21 01 46.6	-0.8
	5μm,0.6s						
KAKA				*e*S	S	21 04 39.9	-0.3
KAKA	**Kakadu**	16.12	109	P	P	21 01 46.7	-0.7
	5μm,0.8s						
RGRI	**Rengat**	16.21	296	P	P	21 01 50.0	+1.6
	362nm,1.2s						
IPIL	**Ipil**	16.38	20	*e*P	P	21 01 52.0	+1.8
BATP	**Bataraza**	16.39	3	*e*P	P	21 01 52.0	+1.7
CTBH	**Cotabato--PC H**	16.53	27	⇑*e*P	P	21 01 53.4	+1.6
KGM	**Kluang**	16.59	305	P	P	21 01 54.9	+2.4
PAGZ	**Pagadian**	16.74	23	*e*P	P	21 01 56.5	+2.4
KCP	**Kidapawan**	16.74	30	⇓*i*P	P	21 01 56.0	+1.9
DAV	**Davao City (W)**	17.03	31	P	P	21 01 56.6	-0.7
	54nm,0.3s,baz=50,slow=3.0,SNR=18						
DAV				S	S	21 04 56.0	-2.3
	89nm,0.3s,baz=126,slow=7.2,SNR=3.3						
DAV	**Davao City (W)**	17.03	31	⇑*e*P	P	21 01 56.3	-0.9
DAV	**Davao City (W)**	17.03	31	*e*P	P	21 01 56.8	-0.5
	897nm,1.0s						
DAV				*e*S	S	21 05 00.6	+2.2
DAV	**Davao City (W)**	17.03	31	P	P	21 01 58.9	+1.6
	864nm,1.3s						
MATI	**Mati**	17.29	33	*e*P	P	21 02 00.8	+0.8
PPR	**Puerto Princes**	17.44	6	⇓*e*P	P	21 02 04.0	+2.4
BUKP	**Musuan**	17.48	28	*e*P	P	21 02 03.7	+1.6
PDSI	**Padang**	17.68	292	P	P	21 02 02.1	-2.1
	243nm,0.9s						
PPI	**Padang Panjang**	17.92	293	P	P	21 02 05.2	-1.6
	133nm,1.0s						
BIPH	**Bislig**	18.38	31	⇓*e*P	P	21 02 11.0	-0.8
BIPH				*i* S	S	21 05 07.3	-17
FRIM	**Kepong**	18.68	305	P	P	21 02 16.3	+1.4
BUTP	**Butuan**	18.70	28	*e*P	P	21 02 16.0	+0.9
KTGM	**Kuala Trenggan**	18.83	313	P	P	21 02 19.2	+2.7
CUYO	**Cuyo Island**	18.86	13	*e*P	P	21 02 18.2	+1.4
ENPP	**El Nido**	18.93	8	*e*P	P	21 02 18.6	+1.1
GUIM	**Jordan**	19.06	17	*e*P	P	21 02 19.4	+0.5
LLP	**Lapu-Lapu**	19.23	22	⇑*e*P	P	21 02 20.6	0.0
LLP				*e*S	S	21 05 39.9	-1.0
SCPH	**Surigao**	19.36	26	*e*P	P	21 02 18.4	-3.6
MSLP	**Maasin**	19.40	24	*e*P	P	21 02 21.5	-1.1
BUSP	**Coron**	19.83	10	*e*P	P	21 02 28.1	+1.0
IPM	**Ipoh**	19.89	307	P	P	21 02 29.1	+1.4
IPM	**Ipoh**	19.89	307	P	P	21 02 28.6	+0.9
	400nm,2.0s,7μm						
KALP	**Kalibo**	19.99	16	⇓*i*P	P	21 02 30.5	+1.8
RCP	**Roxas**	19.99	17	⇓*e*P	P	21 02 28.4	-0.2
OCLP	**Ormoc**	20.14	23	*e*P	P	21 02 29.6	-0.6
BAKI	**Biak**	20.23	72	P	P	21 02 29.5	-1.8
	691nm,1.1s,7μm						
COCO	**West Island**	20.23	256	*i* P	P	21 02 33.6	+2.4
COCO	**West Island**	20.23	256	P	P	21 02 33.1	+1.9
	740nm,1.3s						
PLP	**Palo**	20.39	23	⇓*e*P	P	21 02 31.4	-1.3
SJMP	**San Jose**	20.45	12	*e*P	P	21 02 34.4	+1.1
KULM	**Kulim**	20.68	308	P	P	21 02 36.3	+0.8
KULM	**Kulim**	20.68	308	*e*P	P	21 02 35.1	-0.4
	877nm,1.4s						
KULM				*e*ScP	ScP	21 09 35.2	-1.6
PSI	**Prapat**	20.71	300	P	P	21 02 35.8	0.0
PSI				S	S	21 06 04.1	-1.8
PSI				pmax	pmax		
	comp=Z,679nm,0.9s						
PSI				smax			
	comp=N,11nm,0.7s						
PSI	**Prapat**	20.71	300	P	P	21 02 35.8	0.0
	comp=N,679nm,0.9s,baz=146,slow=8.5,SNR=275						
PSI				S	S	21 06 04.0	-1.8
	comp=N,11nm,0.7s,baz=166,slow=21,SNR=3.0						
PSI				ScP	ScP	21 09 34.9	-2.0
	comp=N,25nm,1.1s,baz=212,slow=8.5,SNR=4.6						
WRA	**Warramunga Arr**	20.86	128	P	P	21 02 37.1	0.0
	comp=N,1μm,0.8s,baz=301,slow=11,SNR=1672						
WRA				S	S	21 06 05.8	-2.4
	comp=N,399nm,1.0s,baz=297,slow=18,SNR=15						
WRAB	**Tennant Creek**	20.87	127	⇓*i*P	P	21 02 37.3	+0.2
WRAB				*e*S	S	21 06 06.5	-1.8
WRAB				*e*		21 06 39.8	
WRAB				pmax	pmax		
	comp=Z,2μm,0.8s						
WRAB	**Tennant Creek**	20.87	127	⇓*i*P	P	21 02 37.3	+0.1
	comp=Z,2μm,0.8s						
WRAB				*e*S	S	21 06 06.5	-1.8
WRAB				*e*PcP	PcP	21 06 39.8	+8.4
WRAB	**Tennant Creek**	20.87	127	P	P	21 02 37.3	+0.2
	comp=Z,2μm,0.9s						
TSI	**Tuntungan**	21.37	301	⇓*e*P	P	21 02 39.0	-2.8
PGP	**Puerto Galera**	21.43	11	⇑*e*P	P	21 02 43.7	+1.4
LUBP	**Lubang**	21.54	9	*e*P	P	21 02 44.8	+1.6
AUQP	**San Andres**	21.65	15	*e*P	P	21 02 46.6	+2.3
SNG	**Songkhla**	21.92	312	P	P	21 02 46.0	-0.8
	comp=Z,1μm,1.0s,mb6.1						
TGY	**Tagaytay City**	22.01	11	P	P	21 02 48.7	+1.1
	comp=Z,4μm,0.9s,mb6.7,baz=202,slow=2.9,SNR=69						
TGY				S	S	21 06 25.3	-1.6
	comp=Z,86nm,0.6s,baz=1.4,slow=23,SNR=1.5						
TGY				ScP	ScP	21 09 38.7	-1.3
	comp=Z,115nm,0.3s,baz=38,slow=2.6,SNR=3.9						
GQP	**Guinayangan**	22.15	15	⇓*e*P	P	21 02 49.3	+0.5
PVCP	**Virac**	22.34	19	*e*P	P	21 02 51.0	+0.4
ASAR	**Alice Springs**	22.80	136	P	P	21 02 55.6	+0.9
ASAR				S	S	21 06 37.0	-2.4
ASAR				pmax	pmax		
	comp=Z,394nm,0.5s						
ASAR				smax			
	comp=N,132nm,0.8s						
ASAR	**Alice Springs**	22.80	136	P	P	21 02 55.5	+0.9
	comp=N,394nm,0.5s,mb5.9,baz=314,slow=8.7,SNR=2674						
ASAR				S	S	21 06 37.0	-2.4
	comp=N,132nm,0.8s,baz=306,slow=16,SNR=8.8						
ASAR				ScP	ScP	21 09 40.7	-1.2
	comp=N,86nm,0.8s,baz=301,slow=2.2,SNR=6.8						
POLP	**Polilio Island**	22.82	13	*e*P	P	21 02 54.9	0.0
KLBR	**Kellerberrin**	23.80	178	*e*P	P	21 03 04.4	+0.7
	comp=N,77nm,1.0s,mb4.9						
KLBR				*e*S	S	21 06 52.3	-2.8
MUN	**Mundaring**	24.18	181	*e*P	P	21 03 08.4	+1.3
MUN				*e*S	S	21 07 04.9	+3.8
NWAO	**Narrogin (SRO)**	25.12	179	P	P	21 03 17.2	+1.6
NWAO				pmax	pmax		
	comp=Z,26nm,0.4s						
NWAO	**Narrogin (SRO)**	25.12	179	P	P	21 03 17.1	+1.6
	comp=Z,26nm,0.3s,mb4.9,baz=1.2,slow=8.1,SNR=78						
NWAO	**Narrogin (SRO)**	25.12	179	*e*P	P	21 03 16.7	+1.1
	comp=Z,165nm,0.9s,mb5.3						
NWAO				*e*		21 03 54.1	
BSI	**Banda Aceh**	25.19	301	⇓*e*P	P	21 03 22.0	+5.6
BSI	**Banda Aceh**	25.19	301	P	P	21 03 14.7	-1.7
	comp=Z,107nm,1.1s,comp=Z,4μm,mb5.0						
FORT	**Forrest**	25.26	157	*e*P	P	21 03 17.5	+0.7
	comp=Z,274nm,0.6s,mb5.7						
FORT				*e*S	S	21 07 17.8	-0.2
FORT	**Forrest**	25.26	157	*e*P	P	21 03 17.3	+0.5
	comp=Z,318nm,0.6s,mb5.7						
UBT	**Ubonrachathani**	25.62	333	⇑P	P	21 03 21.0	+0.8
NNT	**Nongplab**	26.37	320	P	P	21 03 28.7	+1.8
COEN	**Coen**	26.57	106	*e*P	P	21 03 27.7	-0.9
	comp=Z,7μm,0.6s,mb7.0						
COEN	**Coen**	26.57	106	P	P	21 03 28.0	-0.7
	comp=Z,6μm,0.8s,mb6.8						
QIZ	**Qiongzhong**	27.43	345	P	P	21 03 36.9	+0.7
QIZ				pP		21 04 33.3	
QIZ				PP	PP	21 04 44.2	-1.8
QIZ				S	S	21 07 53.5	+1.1
QIZ				sS	sS	21 09 37.6	-6.4
QIZ				pmax	pmax		
	comp=Z,110nm,1.4s,mb4.9						
QIZ				pmax	pmax		
	comp=Z,880nm,6.6s						
QIZ	**Qiongzhong**	27.43	345	*e*P	P	21 03 36.5	+0.3
	comp=Z,248nm,1.5s,mb5.2						
KKTK	**Khon Kaen**	27.61	330	⇑P	P	21 03 33.9	-4.0
	comp=Z,4μm,0.7s,mb6.8						
NST	**Nakhon Sawan**	28.51	324	P	P	21 03 48.0	+2.2
	comp=Z,377nm,0.8s,mb5.7						
HKC	**Hong Kong Obse**	29.91	355	P	P	21 03 56.0	-2.0
BDT	**Bhumibol Dam**	30.41	325	⇑P	P	21 04 04.5	+2.0
	comp=Z,176nm,0.9s,mb5.3						
GZH	**Guangzhou**	30.77	354	P	P	21 04 09.8	+4.2
GZH				S	S	21 08 51.6	+7.0
GZH				pmax	pmax		
	comp=Z,530nm,1.0s,mb5.7						
CTA	**Charters Tower**	31.02	116	P	P	21 04 08.8	+1.0
CTA						21 05 27.9	
CTA				S	S	21 08 47.8	-0.8
CTA				pmax	pmax		
	comp=Z,662nm,1.0s						
CTA				pmax	pmax		

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       comp=Z,213nm,1.1s
CTA                                smax
       comp=N,13nm,0.6s
CTA    Charters Tower    31.02 116⇓iP     P        21 04 08.7 +0.9
       comp=N,479nm,0.9s,mb5.7
CTA                               e                21 05 17.4
CTA                               eS      S        21 08 48.9 +0.3
CTA                               eSCP    ScP      21 10 05.8 -1.0
CTA    Charters Tower    31.02 116  P     P        21 04 08.8 +1.0
       comp=N,662nm,1.0s,mb5.8,baz=292,slow=11,SNR=326
CTA                                PP     PP       21 05 27.9 +2.3
       comp=N,213nm,1.1s,baz=298,slow=14,SNR=5.6
CTA                                S      S        21 08 47.8 -0.8
       comp=N,13nm,0.6s,baz=294,slow=13,SNR=3.0
CTA                                ScP    ScP      21 10 06.1 -0.7
       comp=N,40nm,0.9s,baz=308,slow=7.4,SNR=3.2
CTA    Charters Tower    31.02 116  P     P        21 04 08.8 +1.0
CTA                                PP     PP       21 05 27.9 +2.3
CTA                                S      S        21 08 47.8 -0.8
CTA                                ScP    ScP      21 10 06.1 -0.7
CTAO   Charters Tower    31.02 116 eP     P        21 04 08.6 +0.8
CTAO                               pmax   pmax
       comp=Z,676nm,0.9s,mb5.9
CTAO   Charters Tower    31.02 116 eP     P        21 04 08.6 +0.8
       comp=Z,676nm,0.9s,mb5.9
CTAO   Charters Tower    31.02 116  P     P        21 04 08.4 +0.6
       comp=Z,868nm,1.1s,comp=Z,8μm,mb5.9
CMAR   Chiang Mai Arr    31.42 326  P     P        21 04 12.8 +1.5
CMAR                                               21 05 34.2
CMAR                                               21 06 57.4
CMAR                               pmax   pmax
       comp=Z,20nm,0.6s
CMAR                               pmax   pmax
       comp=Z,55nm,1.1s
CMAR   Chiang Mai Arr    31.42 326  P     P        21 04 12.8 +1.5
       comp=Z,20nm,0.6s,mb4.5,baz=145,slow=18,SNR=59
CMAR                               PP     PP       21 05 34.2 +4.0
       comp=Z,55nm,1.1s,baz=159,slow=9.9,SNR=4.5
CMAR                               PcP    PcP      21 06 57.4 +1.3
       comp=Z,34nm,0.9s,baz=176,slow=3.6,SNR=7.6
CMAR                               ScP    ScP      21 10 07.6 -0.5
       comp=Z,27nm,0.9s,baz=173,slow=3.0,SNR=15
CHG    Chiang Mai        31.71 326 ⇑P     P        21 04 15.4 +1.6
       comp=Z,231nm,1.0s,mb5.4
CHTO   Chiang Mai        31.71 326⇑iP     P        21 04 15.1 +1.3
CHTO                              e                21 06 52.9
CHTO                               pmax   pmax
       comp=Z,273nm,1.0s,mb5.4
CHTO   Chiang Mai        31.71 326⇑iP     P        21 04 15.1 +1.3
       comp=Z,273nm,1.0s,mb5.4
CHTO                              ePcP    PcP      21 06 52.9 -4.0
CHTO                              eScP    ScP      21 10 08.6 -0.4
CHTO   Chiang Mai        31.71 326  P     P        21 04 15.3 +1.5
       comp=Z,310nm,1.4s,comp=Z,4μm,mb5.4
CHRT   Chiangrai         32.13 329 ⇑P     P        21 04 19.0 +1.6
       comp=Z,3μm,0.8s,mb6.6
QZH    Quanzhou          32.47   3⇑iP     P        21 04 20.9 +0.6
QZH                                pP     pP       21 05 27.2 +4.9
QZH                                PP     PP       21 05 48.0 +6.3
QZH                                S      S        21 09 09.6 -1.2
QZH                                pmax   pmax
       comp=Z,260nm,1.0s,mb5.4
QZH                                pmax   pmax
       comp=Z,980nm,6.9s
TATO   Taipei            32.77   8 ePn    P        21 04 21.9 -1.0
       comp=Z,976nm,1.0s,mb6.0
STKA   Stephens Creek    33.31 140⇓iP     P        21 04 28.7 +1.2
       comp=Z,492nm,0.6s,mb5.9
STKA                              eS      S        21 09 23.8 +0.1
STKA                              eSCP    ScP      21 10 13.5 -0.9
STKA   Stephens Creek    33.31 140  P     P        21 04 28.8 +1.3
       comp=Z,505nm,0.6s,mb5.9,baz=312,slow=8.9,SNR=1104
STKA                               S      S        21 09 24.2 +0.5
       comp=Z,74nm,0.9s,baz=37,slow=5.2,SNR=4.2
STKA                               ScP    ScP      21 10 13.4 -1.0
       comp=Z,66nm,0.9s,baz=341,slow=4.7,SNR=3.7
GUMO   Guam              34.92  53  P     P        21 04 40.1 -1.3
       comp=Z,1μm,0.9s,mb6.1,baz=192,slow=6.7,SNR=42
GUMO                               S      S        21 09 47.0 -1.7
       comp=Z,228nm,1.0s,baz=69,slow=13,SNR=6.4
GUMO   Guam              34.92  53  P     P        21 04 40.3 -1.1
       comp=Z,1μm,1.0s,mb6.1
GYA    Guiyang           35.35 344⇑iP     P        21 04 46.2 +1.3
GYA                                pP     pP       21 05 47.6 -0.1
GYA                                PP     PP       21 06 18.0 +4.7
GYA                                sP     sP       21 06 23.7 -1.3
GYA                                PcP    PcP      21 07 08.9 +1.7
GYA                                S      S        21 09 58.7 +3.8
GYA                                ScP    ScP      21 10 22.5 +0.7
GYA                                PcS    PcS      21 10 55.1 +0.3
GYA                                sS     sS       21 11 46.8 -1.8
GYA                                pmax   pmax
       comp=Z,80nm,0.8s,mb5.0
GYA                                pmax   pmax
       comp=Z,1μm,4.9s
GYA                                LR     LR
       comp=N,5μm,17.8s
GYA                                LR     LR
       comp=E,4μm,18.0s
GYA                                LR     LR
       comp=Z,7μm,17.5s
KMI    Kunming           35.39 338 ⇑P     P        21 04 48.4 +3.2
KMI                                pP     pP       21 05 48.4 +0.4
KMI                                PP     PP       21 06 19.0 +5.3
KMI                                sP     sP       21 06 24.2 -1.1
KMI                                PcP    PcP      21 07 09.3 +2.0
KMI                                S      S        21 10 00.0 +4.5
KMI                                ScP    ScP      21 10 25.5 +3.6
KMI                                PcS    PcS      21 10 55.6 +0.6
KMI                                sS     sS       21 11 47.2 -2.0
KMI                                ScS    ScS      21 14 28.2 +0.8
KMI                                pmax   pmax
       comp=Z,790nm,1.0s,mb5.9
KMI                                pmax   pmax
       comp=Z,2μm,3.1s
KMI                                LR     LR
       comp=N,530nm,15.9s
KMI                                LR     LR
       comp=E,730nm,15.9s
KMI                                LR     LR
       comp=Z,630nm,13.3s
EIDS   Eidsvold          37.06 122 eP     P        21 04 59.7 +0.4
       comp=Z,69nm,0.4s,mb5.2
WHN    Wuhan             38.08 356⇑iP     P        21 05 08.8 +1.1
WHN                                pP     pP       21 06 17.6 +6.3
WHN                                PcP    PcP      21 07 14.8 -0.6
WHN                                ScP    ScP      21 10 30.8 -1.1
WHN                                S      S        21 10 36.3 +0.4
WHN                                pmax   pmax
       comp=Z,840nm,1.0s,mb5.9
WHN                                pmax   pmax
       comp=Z,2μm,8.6s
WHN                                LR     LR
       comp=Z,2μm,20.3s
SSE    Sheshan           38.77   6  P     P        21 05 14.4 +1.0
SSE                                sP     sP       21 06 54.4 +0.1
SSE                                S      S        21 10 49.2 +3.0
SSE                                sS     sS       21 12 43.1 +1.7
SSE                                pmax   pmax
       comp=Z,260nm,0.9s,mb5.5
SSE                                pmax   pmax
       comp=Z,670nm,4.8s
SSE                                LR     LR
       comp=N,170nm,15.4s
SSE                                LR     LR
       comp=E,420nm,15.3s
SSE                                LR     LR
       comp=Z,260nm,16.8s
PALK   Pallekele         39.00 292 i P    P        21 05 15.0 -0.6
PALK   Pallekele         39.00 292 eP     P        21 05 13.5 -2.1
       comp=Z,114nm,1.3s,mb4.9
PALK   Pallekele         39.00 292  P     P        21 05 14.3 -1.3
       comp=Z,36nm,1.3s,mb4.5
IMP    Imphal            39.25 326 ePKP   P        21 05 17.0 -0.5
IMP                               ex      x        21 06 24.0
IMP                               ex      x        21 10 35.0
TOO    Toolangi          39.48 143 eP     P        21 05 21.6 +2.4
TOO                               e       pP       21 06 25.8 +2.6
TOO                               e                21 07 00.0
TOO                               eSCP    ScP      21 10 37.2  0.0
NJ2    Nanjing           39.55   3 eP     P        21 05 21.2 +1.4
NJ2                                pP     pP       21 06 24.6 +0.7
NJ2                                sP     sP       21 07 00.6 -0.2
NJ2                                PP     PP       21 07 02.6 +3.9
NJ2                                S      S        21 10 59.5 +1.7
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NJ2                                sS     sS       21 12 54.0 +0.8
NJ2                                pmax   pmax
       comp=Z,380nm,1.0s,mb5.6
NJ2                                pmax   pmax
       comp=Z,600nm,7.3s
NJ2                                LR     LR
       comp=N,300nm,28.1s
NJ2                                LR     LR
       comp=E,670nm,28.0s
NJ2                                LR     LR
       comp=Z,1μm,20.8s
ARMA   Armidale          39.62 129 eP     P        21 05 23.2 +2.7
ARMA                              eSCP    ScP      21 10 37.5 -0.5
ARMA                              eS      SS       21 13 59.7  -10
ARMA   Armidale          39.62 129 eP     P        21 05 23.2 +2.7
       comp=Z,392nm,0.9s,mb5.6
AGT    Agartala          40.12 322 ePKP   P        21 05 22.0 -2.6
AGT                               ex      x        21 06 57.0
CAN    Canberra          40.29 138 eP     P        21 05 27.5 +1.6
CAN                                pmax   pmax
       comp=Z,388nm,0.9s,mb5.6
CAN    Canberra          40.29 138 eP     P        21 05 27.5 +1.6
       comp=Z,388nm,0.9s,mb5.6
CAN                               eScP    ScP      21 10 38.9 -1.6
CD2    Chengdu           40.37 342⇑iP     P        21 05 27.3 +0.8
CD2                                pP     pP       21 06 31.7 +0.8
CD2                                sP     sP       21 07 08.2 +0.5
CD2                                PP     PP       21 07 13.2 +5.7
CD2                                PcP    PcP      21 07 26.4 +3.7
CD2                                S      S        21 11 07.0 -2.9
CD2                                sS     sS       21 13 06.0 +0.3
CD2                                SS     SS       21 14 17.0 -7.1
CD2                                pmax   pmax
       comp=Z,2μm,0.8s,mb6.4
CD2                                pmax   pmax
       comp=Z,2μm,11.3s
CD2                                LR     LR
       comp=N,730nm,15.5s
CD2                                LR     LR
       comp=Z,800nm,15.5s
CNB    Canberra Magne    40.53 137⇓iP     P        21 05 29.4 +1.6
CNB                               eSCP    ScP      21 10 40.5 -0.9
CNB                               eS      SS       21 14 30.6 +3.7
RIV    Riverview         40.96 134⇓iP     P        21 05 33.7 +2.4
RIV                               eSCP    ScP      21 10 36.6 -6.5
SHL    Shillong          41.02 324⇑ix     P        21 05 34.0 +2.1
SHL                               ex      x        21 07 20.0
CAL    Calcutta          41.02 318 ex     P        21 05 33.6 +1.7
BWNR   Bhubaneshwar      41.30 313 ex     P        21 05 28.0 -6.3
BWNR                              ex      x        21 06 37.0
VIS    Vishakhapatnam    41.65 308 ePKP   P        21 05 36.0 -1.0
XAN    Xi’an             42.17 350  P     P        21 05 41.0 +0.1
XAN                                pP     pP       21 06 44.7 -1.2
XAN                                sP     sP       21 07 22.4 -0.2
XAN                                PP     PP       21 07 26.1 -0.4
XAN                                ScP    ScP      21 10 49.0 +1.2
XAN                                PcS    PcS      21 11 21.0 +0.1
XAN                                S      S        21 11 33.9 -2.2
XAN                                sS     sS       21 13 28.7 -4.0
XAN                                SS     SS       21 14 47.4  -11
XAN                                ScS    ScS      21 15 05.6 -1.2
XAN                                pmax   pmax
       comp=Z,260nm,1.3s,mb5.2
XAN                                pmax   pmax
       comp=Z,710nm,12.0s
HNR    Honiara           42.62  96  P     P        21 05 43.6 -1.3
HNR                                                21 07 34.9
HNR                                S      S        21 11 40.4 -2.9
HNR                                pmax   pmax
       comp=Z,668nm,0.9s,mb5.8
HNR                                smax
       comp=N,27nm,0.3s
HNR    Honiara           42.62  96  P     P        21 05 43.6 -1.4
       comp=N,668nm,0.9s,mb5.8,baz=248,slow=1.4,SNR=45
HNR                                PP     PP       21 07 34.9 +3.4
       comp=N,196nm,0.9s,baz=77,slow=4.5,SNR=4.0
HNR                                ScP    ScP      21 10 48.8 -1.4
       comp=N,185nm,0.8s,baz=217,slow=4.0,SNR=7.5
HNR                                S      S        21 11 40.4 -3.0
       comp=N,26nm,0.3s,baz=110,slow=18,SNR=8.8
BOK    Bokaro            43.52 317 ePKP   P        21 05 51.0 -0.9
BOK                               ex      x        21 06 59.7
TIA    Tai’an            43.66   0  P     P        21 05 52.6 -0.2
TIA                                pmax   pmax
       comp=Z,120nm,0.8s,mb5.1
MOO    Moorlands         43.73 147⇓iP     P        21 05 55.8 +2.5
MOO                               e       pP       21 07 04.6 +5.8
MOO                               eSCP    ScP      21 10 54.9 +0.8
DGAR   Diego Garcia      44.02 267⇑iP     P        21 05 56.1 +0.1
TAU    Tasmania Unive    44.13 148  P     P        21 05 58.8 +2.4
       comp=Z,1μm,0.9s,mb6.0,SNR=11
TAU    Tasmania Unive    44.13 148 eP     P        21 05 58.3 +1.9
TAU                                pmax   pmax
       comp=Z,210nm,1.1s,mb5.2
TAU    Tasmania Unive    44.13 148 eP     P        21 05 58.3 +1.9
       comp=Z,210nm,1.1s,mb5.2
TAU                               eScP    ScP      21 10 56.6 +0.9
LSA    Lhasa             44.64 328  P     P        21 06 02.6 +2.0
LSA                                pP     pP       21 07 11.9 +5.5
LSA                                PcP    PcP      21 07 36.0 -1.1
LSA                                PP     PP       21 07 53.3 +1.7
LSA                                ScP    ScP      21 10 54.3 -3.8
LSA                                PcS    PcS      21 11 30.8 -0.4
LSA                                S      S        21 12 11.3 -0.7
LSA                                ScS    ScS      21 15 19.9 -2.7
LSA                                pmax   pmax
       comp=Z,360nm,1.0s,mb5.5
LSA    Lhasa             44.64 328 eP     P        21 06 02.4 +1.8
LSA                                pmax   pmax
       comp=Z,568nm,1.1s,mb5.6
LSA    Lhasa             44.64 328 eP     P        21 06 02.4 +1.7
       comp=Z,568nm,1.1s,mb5.6
ODAN   Odare             44.67 321 eP     P        21 06 01.4 +0.5
       comp=Z,962nm,1.1s,mb5.8
TAPN   Taplejung         44.83 322 eP     P        21 06 03.1 +1.0
       comp=Z,2μm,1.1s,mb6.0
LZH    Lanzhou           45.22 345⇑iP     P        21 06 06.6 +1.5
LZH                                PcP    PcP      21 07 38.5 -0.5
LZH                                PP     PP       21 07 58.0 +1.2
LZH                                S      S        21 12 19.5 -0.6
LZH                                ScS    ScS      21 15 25.4 -0.7
LZH                                SS     SS       21 15 45.1 -3.4
LZH                                pmax   pmax
       comp=Z,520nm,1.3s,mb5.5
LZH                                pmax   pmax
       comp=Z,2μm,4.3s
RAMN   Ramite            45.23 321 eP     P        21 06 05.8 +0.5
       comp=Z,910nm,1.3s,mb5.8
HYB    Hyderabad         45.33 304 eP     P        21 06 05.0 -1.2
HYB                               eS      S        21 12 16.0 -6.2
HYB                                pmax   pmax
       comp=Z,357nm,1.2s,mb5.4
HYB    Hyderabad         45.33 304 i P    P        21 06 05.0 -1.2
       comp=Z,357nm,1.2s,mb5.4
HYB                               eS      S        21 12 22.0 -0.2
HYB    Hyderabad         45.33 304 eP     P        21 06 05.0 -1.2
       comp=Z,357nm,1.2s,mb5.4
HYB                               eS      S        21 12 16.0 -6.2
INCN   Inchon            45.84  11 eP     P        21 06 08.8 -1.0
       comp=Z,83nm,0.8s,mb4.9
JIRN   Jiri              45.99 321 eP     P        21 06 11.9 +0.7
KSRS   Korea Array       46.07  12  P     P        21 06 12.1 +0.5
KSRS                               S      S        21 12 30.2 -1.9
KSRS                               pmax   pmax
       comp=Z,442nm,0.9s,mb5.6
KSRS   Korea Array       46.07  12  P     P        21 06 12.1 +0.4
       comp=Z,442nm,0.9s,mb5.6,baz=191,slow=7.8,SNR=637
KSRS                               ScP    ScP      21 11 02.5 -1.4
       comp=Z,15nm,1.0s,baz=192,slow=4.0,SNR=7.2
KSRS                               S      S        21 12 30.2 -1.9
       comp=Z,1.5nm,1.0s,baz=156,slow=44,SNR=2.6
GUN    Gumba             46.36 321 eP     P        21 06 14.6 +0.6
PKI    Pulchoki          46.41 320 eP     P        21 06 14.2 -0.3
       comp=Z,872nm,1.2s,mb5.8
PKIN   Phulchoki         46.43 320 eP     P        21 06 14.3 -0.3
       comp=Z,107nm,0.5s,mb5.3
MNGI   Mangalore         46.52 296 ePKP   P        21 06 14.6 -0.9
MNGI                               AMb    AMB      21 06 16.3
       comp=Z,286nm,0.7s,mb5.6
DL2    Dalian            46.56   5  P     P        21 06 14.6 -0.7
DL2                                pP     pP       21 07 23.8 +2.1
DL2                                sP     sP       21 07 57.4 -0.6
DL2                                S      S        21 12 34.8 -4.1
DL2                                ScS    ScS      21 15 30.6 -4.1
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DL2                                pmax   pmax
       comp=Z,370nm,0.9s,mb5.6
DMN    Daman             46.63 320 eP     P        21 06 16.3 +0.1
       comp=Z,1μm,1.0s,mb6.0
KKN    Kakani            46.65 320 eP     P        21 06 16.1 -0.2
       comp=Z,1μm,1.4s,mb5.9
GKN    Gorkha            47.21 320 eP     P        21 06 20.5  0.0
       comp=Z,266nm,0.4s,mb5.9
ALBI   Allahabad         47.32 315 ePKP   P        21 06 19.5 -2.0
JBP    Jabalpur          47.34 311⇑iP     P        21 06 20.3 -1.3
JBP                               ex      x        21 07 29.9
BJT    Baijiatuau        47.46 359 eP     P        21 06 22.1 -0.2
BJT                                pmax   pmax
       comp=Z,1μm,1.0s
BJT    Baijiatuau        47.46 359 eP     P        21 06 22.1 -0.2
       comp=Z,1μm,1.0s,mb6.1
BJI    Beijing           47.48 359  P     P        21 06 22.6 +0.2
BJI                                pP     pP       21 07 27.4 -1.7
BJI                                PcP    PcP      21 07 47.4 +0.5
BJI                                sP     sP       21 08 02.4 -2.9
BJI                                PP     PP       21 08 15.5 -1.9
BJI                                ScP    ScP      21 11 09.1 -0.6
BJI                                S      S        21 12 47.5 -4.3
BJI                                sS     sS       21 14 49.6 -1.3
BJI                                ScS    ScS      21 15 39.4 -1.4
BJI                                pmax   pmax
       comp=Z,1μm,1.1s,mb6.0
BJI                                pmax   pmax
       comp=Z,3μm,3.8s
KOLN   Koldanda          47.71 319 eP     P        21 06 24.2 -0.2
       comp=Z,238nm,0.5s,mb5.7
DANN   Dangsing          48.01 320 eP     P        21 06 26.8 +0.2
       comp=Z,2μm,1.1s,mb6.2
PYUN   Piuthan           48.33 319 eP     P        21 06 28.9 -0.2
       comp=Z,543nm,1.0s,mb5.7
MAJO   Matsushiro        48.34  23 eP     P        21 06 27.7 -1.3
MAJO                               pmax   pmax
       comp=Z,420nm,0.9s,mb5.7
MAJO   Matsushiro        48.34  23 eP     P        21 06 27.7 -1.3
       comp=Z,420nm,0.9s,mb5.7
MAT    Matsushiro        48.34  23  P     P        21 06 28.0 -1.0
MAT                                S      S        21 13 02.1 -1.8
MJAR   Matsushiro Arr    48.34  23  P     P        21 06 27.8 -1.2
MJAR                                               21 07 48.8
MJAR                               S      S        21 12 58.6 -5.3
MJAR                               pmax   pmax
       comp=Z,374nm,0.9s
MJAR                               smax
       comp=N,2.0nm,1.0s
MJAR   Matsushiro Arr    48.34  23  P     P        21 06 27.8 -1.2
       comp=N,374nm,0.9s,mb5.6,baz=200,slow=7.6,SNR=496
MJAR                               PcP    PcP      21 07 48.8 -1.3
       comp=N,22nm,1.0s,baz=202,slow=6.5,SNR=2.0
MJAR                               ScP    ScP      21 11 10.6 -2.8
       comp=N,12nm,1.0s,baz=207,slow=5.7,SNR=20
MJAR                               S      S        21 12 58.6 -5.2
       comp=N,2.4nm,1.0s,baz=142,slow=6.3,SNR=2.9
MJAR   Matsushiro Arr    48.34  23  P     P        21 06 27.8 -1.2
MJAR                               PcP    PcP      21 07 48.8 -1.3
MJAR                               ScP    ScP      21 11 10.6 -2.8
MJAR                               S      S        21 12 58.6 -5.2
BTO    Baotou            48.46 353 eP     P        21 06 29.9 +0.1
BTO                                pmax   pmax
       comp=Z,130nm,1.1s,mb5.1
HHC    Hu-ho-hao-te      48.53 355⇑iP     P        21 06 30.8 +0.4
HHC                                pP     pP       21 07 37.5 +0.1
HHC                                sP     sP       21 08 11.7 -1.8
HHC                                PP     PP       21 08 28.2 +1.3
HHC                                PcS    PcS      21 11 46.2 -1.0
HHC                                S      S        21 13 06.8 +0.3
HHC                                sS     sS       21 15 06.5 +0.5
HHC                                ScS    ScS      21 15 45.7 -2.1
HHC                                SS     SS       21 16 40.3 -1.2
HHC                                pmax   pmax
       comp=Z,310nm,1.1s,mb5.5
HHC                                pmax   pmax
       comp=Z,260nm,4.1s
HHC                                LR     LR
       comp=N,410nm,16.7s
HHC                                LR     LR
       comp=E,440nm,13.1s
HHC                                LR     LR
       comp=Z,480nm,17.8s
KAD    Karad             48.95 301 ePKP   P        21 06 31.6 -2.3
BHPL   Bhopal            49.31 310 ePKP   P        21 06 34.6 -2.0
GTA    Gaotai            49.45 343⇑iP     P        21 06 38.9 +1.6
GTA                                pP     pP       21 07 46.2 +1.7
GTA                                sP     sP       21 08 20.3 -0.3
GTA                                PP     PP       21 08 37.1 +1.9
GTA                                ScP    ScP      21 11 18.2 +0.1
GTA                                PcS    PcS      21 11 49.2 -2.0
GTA                                S      S        21 13 20.3 +1.1
GTA                                sS     sS       21 15 18.3 -0.8
GTA                                ScS    ScS      21 15 52.6 -1.5
GTA                                SS     SS       21 16 55.5 -0.5
GTA                                pmax   pmax
       comp=Z,560nm,1.2s,mb5.7
GTA                                pmax   pmax
       comp=Z,2μm,9.0s
GTA                                LR     LR
       comp=N,280nm,15.3s
GTA                                LR     LR
       comp=E,380nm,15.6s
GTA                                LR     LR
       comp=Z,410nm,19.0s
SNY    Shenyang          49.65   7 ⇑P     P        21 06 38.1 -0.6
SNY                                S      S        21 13 18.3 -3.6
SNY                                pmax   pmax
       comp=Z,460nm,0.9s,mb5.7
SNY                                pmax   pmax
       comp=Z,670nm,3.5s
SNY                                LR     LR
       comp=N,300nm,18.9s
SNY                                LR     LR
       comp=E,610nm,20.4s
SNY                                LR     LR
       comp=Z,470nm,15.0s
NOUC   Port Laguerre     49.66 112 eP     P        21 06 38.4 -0.9
DZM    Mont Dzumac       49.78 112 eP     P        21 06 40.1  0.0
POO    Poona             49.79 302 ePKP   P        21 06 38.4 -1.8
LGTI   Lohaghat          51.03 318 ePKP   P        21 06 48.2 -1.1
LGTI                              ex      x        21 08 45.5
PTH    Pithoragarh       51.12 318 ePKP   P        21 06 48.8 -1.1
PTH                               ex      x        21 08 01.0
CN2    Changchun         51.83   8⇑iP     P        21 06 53.8 -1.0
CN2                               epP     pP       21 08 01.7 -1.1
CN2                                ScP    ScP      21 11 26.8 -1.4
CN2                               eS      S        21 13 42.5 -9.1
CN2                               eScS    ScS      21 16 07.8 -2.5
CN2                                pmax   pmax
       comp=Z,200nm,3.0s
CN2                                LR     LR
       comp=N,300nm,18.0s
CN2                                LR     LR
       comp=E,1μm,18.0s
CN2                                LR     LR
       comp=Z,400nm,19.0s
NDI    New Delhi         52.62 315⇑ix     P        21 06 57.5 -3.4
NDI                               ex      x        21 16 12.0
DDI    Dehra Dun         53.05 317 ePKP   P        21 07 02.3 -1.7
AJM    Ajmer             53.20 311 ePKP   P        21 07 03.1 -2.1
MDJ    Mudanjiang        53.30  11  P     P        21 07 05.6  0.0
MDJ                                S      S        21 14 08.9 -2.6
MDJ                                SS     SS       21 17 59.8 +3.1
MDJ                                pmax   pmax
       comp=Z,880nm,1.0s,mb6.0
MDJ                                pmax   pmax
       comp=Z,470nm,5.2s
MDJ                                LR     LR
       comp=N,250nm,27.5s
MDJ                                LR     LR
       comp=E,630nm,29.5s
MDJ                                LR     LR
       comp=Z,290nm,25.6s
MDJ    Mudanjiang        53.30  11 eP     P        21 07 05.5 -0.1
       comp=Z,717nm,0.9s,mb6.0
SDNR   Sundarnagar       54.51 318 ePKP   P        21 07 13.0 -1.5
SDNR                              ex      x        21 08 13.5
BHK    Bhakra            54.83 317 ex     P        21 07 11.4 -5.4
ERM    Erimo             54.99  24 eP     P        21 07 18.1 +0.4
ERM                                pmax   pmax
       comp=Z,119nm,0.9s,mb5.2
ERM    Erimo             54.99  24 eP     P        21 07 18.1 +0.4
       comp=Z,120nm,0.9s,mb5.2
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BHJ	**Bhuj**	**55.45**	**305**	*e*PKP	**P**	**21 07 19.8**	**-1.6**
DLH	**Dalhousie**	**55.83**	**318**	*e*x	x	21 07 21.0	
THN	**Thein Dam**	**55.92**	**318**	*e*PKP	**P**	**21 07 22.9**	**-1.6**
ULN	**Ulaanbaatar**	**55.98**	**352**	⇑*e*P	**P**	**21 07 24.5**	**-0.1**
ULN	**Ulaanbaatar**	**55.98**	**352**	⇑P	**P**	**21 07 25.3**	**+0.7**
	SNR=126						
ULN				⇑P		21 07 25.3	
	SNR=126						
SONM	**Songino Array**	**56.04**	**352**	P	**P**	**21 07 25.5**	**+0.5**
SONM						21 08 19.2	
SONM						21 09 34.9	
SONM				S	**S**	**21 14 47.5**	**-0.1**
SONM				pmax	pmax		
	comp=Z,375nm,0.8s						
SONM				smax			
	comp=N,2.0nm,1.0s						
SONM	**Songino Array**	**56.04**	**352**	P	**P**	**21 07 25.5**	**+0.4**
	comp=N,375nm,0.8s,mb5.8,baz=169,slow=9.1,SNR=2512						
SONM				PcP	PcP	21 08 19.2	+0.2
	comp=N,26nm,0.9s,baz=169,slow=7.3,SNR=2.1						
SONM				PP	PP	21 09 34.9	+0.7
	comp=N,12nm,0.8s,baz=170,slow=7.0,SNR=2.2						
SONM				S	**S**	**21 14 47.5**	**-0.1**
	comp=N,1.9nm,1.0s,baz=174,slow=6.9,SNR=2.7						
SONM				PKP2bc		21 37 29.1	
	comp=N,6.6nm,0.9s,baz=325,slow=4.6,SNR=26						
SONM	**Songino Array**	**56.04**	**352**	P	**P**	**21 07 25.5**	**+0.4**
SONM				PcP	PcP	21 08 19.2	+0.2
SONM				PP	PP	21 09 34.9	+0.7
SONM				S	**S**	**21 14 47.5**	**-0.1**
SONM				⇑*e*		21 37 29.1	
HIA	**Hailar**	**56.76**	**2**	*e*P	**P**	**21 07 29.7**	**-0.3**
HIA				pmax	pmax		
	comp=Z,251nm,0.9s						
HIA	**Hailar**	**56.76**	**2**	*e*P	**P**	**21 07 29.7**	**-0.3**
	comp=Z,251nm,0.9s,mb5.5						
WMQ	**Urumqi**	**57.67**	**335**	⇑*i*P	**P**	**21 07 37.1**	**+0.7**
WMQ				PcP	PcP	21 08 27.0	+1.5
WMQ				pP	pP	21 08 47.0	+1.0
WMQ				sP	sP	21 09 20.5	-1.0
WMQ				PP	PP	21 09 52.0	+3.4
WMQ				S	**S**	**21 15 09.0**	**+0.1**
WMQ				ScS	ScS	21 16 51.0	-1.4
WMQ				pmax	pmax		
	comp=Z,44nm,0.8s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,1µm,4.1s						
WMQ				LR	LR		
	comp=N,790nm,27.4s						
WMQ				LR	LR		
	comp=E,910nm,25.4s						
WMQ				LR	LR		
	comp=Z,1µm,29.8s						
KLR	**Kul’dur**	**58.15**	**11**	κ *i*P	**P**	**21 07 34.8**	**-4.8**
KLR				*e*		21 08 50.0	
KLR				*e*S	**S**	**21 15 07.0**	**-7.9**
KLR				*e*		21 16 45.5	
KLR				*e*SS	SS	21 19 12.0	-0.8
KLR				pmax	pmax		
	comp=N,64nm,1.8s						
KLR				pmax	pmax		
	comp=E,120nm,1.8s						
KLR				pmax	pmax		
	comp=Z,640nm,1.8s,mb5.7						
HABR	**Khabarovsk**	**58.16**	**14**	*c* *i*P	**P**	**21 07 40.0**	**+0.3**
HABR				*e*		21 08 25.8	
HABR				*e*		21 09 50.4	
HABR				*e*S	**S**	**21 15 14.7**	**-0.4**
HABR				*e*		21 16 54.4	
HABR				*e*SS	SS	21 19 11.3	-1.6
HABR				pmax	pmax		
	comp=Z,1µm,1.1s,mb6.1						
HABR				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.1						
HABR				pmax	pmax		
	comp=N,273nm,1.2s						
HABR				pmax	pmax		
	comp=E,291nm,0.9s						
ZAK	**Zakamensk**	**59.02**	**350**	*e*P	**P**	**21 07 45.3**	**-0.2**
ZAK				*e*		21 08 28.7	
ZAK				pmax	pmax		
	comp=Z,207nm,1.1s,mb5.5						
YSS	**Yuzh-Sakhalins**	**59.06**	**20**	α *i*P	**P**	**21 07 45.1**	**-0.8**
YSS				*e**PP	pP	21 08 55.2	-0.7
YSS				*i* S	**S**	**21 15 23.0**	**-3.7**
YSS				*e*SS	SS	21 19 19.0	-8.1
YSS				pmax	pmax		
	comp=Z,500nm,2.0s,mb5.6						
YSS				pmax	pmax		
	comp=N,400nm,1.2s						
YSS				pmax	pmax		
	comp=E,230nm,1.2s						
YSS				pmax	pmax		
	comp=Z,770nm,1.2s,mb6.0						
YSS	**Yuzh-Sakhalins**	**59.06**	**20**	⇑*e*P	**P**	**21 07 45.4**	**-0.5**
CIT	**Chita**	**59.53**	**358**	*e*P	**P**	**21 07 50.0**	**+1.0**
CIT				pmax	pmax		
	comp=Z,897nm,1.6s,mb6.0						
TLY	**Talaya**	**60.21**	**351**	P	**P**	**21 07 54.2**	**+0.6**
	comp=Z,1µm,1.1s,mb6.2,SNR=48						
TLY	**Talaya**	**60.21**	**351**	*c* *i*P	**P**	**21 07 54.0**	**+0.4**
TLY				*e*		21 09 42.3	
TLY				*e*		21 10 08.5	
TLY				*e*S	**S**	**21 15 41.0**	**-0.1**
TLY				*e*		21 15 52.5	
TLY				pmax	pmax		
	comp=Z,301nm,1.2s,mb5.6						
TLY	**Talaya**	**60.21**	**351**	⇓P	**P**	**21 07 54.3**	**+0.7**
	SNR=84						
TLY				⇓P		21 07 54.3	
	SNR=84						
KSH	**Kashi**	**60.30**	**324**	⇑*i*P	**P**	**21 07 54.2**	**-0.3**
KSH				*e*pP	pP	21 09 03.1	-1.7
KSH				sP	sP	21 09 37.1	-2.9
KSH				PP	PP	21 10 11.0	-1.0
KSH				PcS	PcS	21 12 39.0	+0.1
KSH				S	**S**	**21 15 36.2**	**-6.6**
KSH				ScS	ScS	21 17 08.0	-4.2
KSH				pmax	pmax		
	comp=Z,140nm,0.4s,mb5.7						
KSH				pmax	pmax		
	comp=Z,920nm,3.4s						
KSH				LR	LR		
	comp=N,310nm,6.5s						
KSH				LR	LR		
	comp=E,290nm,4.6s						
KSH				LR	LR		
	comp=Z,410nm,5.3s						
RER	**Riviere de l’E**	**60.37**	**250**	*e*P	**P**	**21 07 56.8**	**+1.5**
	comp=Z,332nm,0.9s,mb5.8						
RER				*e*PcP	PcP	21 08 37.7	+0.9
RER				*e*	pP	21 09 06.1	+0.5
IRK	**Irkutsk**	**60.65**	**351**	⇑*i*P	**P**	**21 07 56.3**	**-0.3**
IRK				*e*		21 10 13.6	
IRK				*e*S	**S**	**21 15 44.7**	**-2.0**
IRK				pmax	pmax		
	comp=Z,338nm,1.4s,mb5.6						
MOY	**Mondy**	**60.67**	**349**	*e*P	**P**	**21 07 57.5**	**+0.8**
MOY				pmax	pmax		
	comp=Z,348nm,2.1s,mb5.4						
SNZO	**South Karori**	**61.00**	**133**	*e*P	**P**	**21 07 59.2**	**-0.1**
	comp=Z,427nm,1.0s,mb5.8						
MSEY	**Mahe Island**	**61.06**	**269**	*i* P	**P**	**21 08 01.9**	**+1.8**
KBL	**Kabul**	**61.68**	**316**	*e*P	**P**	**21 08 02.4**	**-1.4**
KBL				pmax	pmax		
	comp=Z,314nm,1.0s,mb5.8						
KBL	**Kabul**	**61.68**	**316**	*e*P	**P**	**21 08 02.4**	**-1.4**
	comp=Z,314nm,1.0s,mb5.8						
ULHL	**Ulahol**	**61.99**	**327**	P	**P**	**21 08 06.0**	**+0.3**
	SNR=7.1						
MK31	**Makanchi Array**	**62.34**	**334**	*i* P	**P**	**21 08 06.9**	**-1.0**
MK31				pmax	pmax		
	comp=Z,251nm,0.8s,mb5.8						
MKAR	**Makanchi Array**	**62.34**	**334**	P	**P**	**21 08 07.8**	**-0.1**
	comp=Z,229nm,0.9s,mb5.7,baz=143,slow=6.1,SNR=620						
MKAR				PcP	PcP	21 08 44.2	0.0
	comp=Z,41nm,0.7s,baz=140,slow=6.5,SNR=7.1						
MKAR				PP	PP	21 10 32.5	+2.7
	comp=Z,42nm,1.1s,baz=134,slow=10,SNR=3.8						
MKAR				S	**S**	**21 16 07.6**	**-0.3**
	comp=Z,0.7nm,0.9s,baz=172,slow=25,SNR=1.6						
MKAR				PKPPKP		21 37 00.3	
	comp=Z,1.2nm,1.0s,baz=343,slow=3.8,SNR=6.6						
MKAR				PKP2bc		21 37 17.4	
	comp=Z,2.3nm,1.0s,baz=29,slow=2.8,SNR=8.4						
MKAR	**Makanchi Array**	**62.34**	**334**	P	**P**	**21 08 07.8**	**-0.1**
MKAR				PcP	PcP	21 08 44.2	0.0
MKAR				PP	PP	21 10 32.5	+2.7
MKAR				S	**S**	**21 16 07.6**	**-0.3**
MKAR				P’P’		21 37 00.3	
MKAR				⇑*e*		21 37 17.4	
KZA	**Kyzart**	**62.42**	**326**	P	**P**	**21 08 09.4**	**+0.9**
	SNR=21						
TKM2	**Tokmak 2**	**62.80**	**327**	*e*P	**P**	**21 08 10.8**	**-0.2**
TKM2				pmax	pmax		
	comp=Z,237nm,1.2s,mb5.6						
TKM2	**Tokmak 2**	**62.80**	**327**	P	**P**	**21 08 11.1**	**+0.2**
	SNR=76						
TKM2	**Tokmak 2**	**62.80**	**327**	*e*P	**P**	**21 08 10.8**	**-0.1**
	comp=Z,237nm,1.2s,mb5.6						
UCH	**Uchtor**	**62.93**	**326**	P	**P**	**21 08 12.6**	**+0.7**
	SNR=91						
UCH	**Uchtor**	**62.93**	**326**	*e*P	**P**	**21 08 12.3**	**+0.5**
	comp=Z,251nm,1.4s,mb5.5						
KBK	**Karagaybulak**	**62.97**	**326**	P	**P**	**21 08 12.7**	**+0.6**
	SNR=274						
AAK	**Ala-Archa**	**63.20**	**326**	P	**P**	**21 08 14.5**	**+0.8**
	comp=Z,2µm,0.9s,mb6.6						
AAK	**Ala-Archa**	**63.20**	**326**	P	**P**	**21 08 14.2**	**+0.5**
	SNR=12						
AAK	**Ala-Archa**	**63.20**	**326**	⇑*e*P	**P**	**21 08 13.8**	**+0.1**
AAK	**Ala-Archa**	**63.20**	**326**	⇑P	**P**	**21 08 14.2**	**+0.5**
	SNR=113						
AAK				⇑P		21 08 14.2	
	SNR=113						
FRU	**Bishkek**	**63.27**	**326**	*e*P	**P**	**21 08 14.0**	**-0.1**
FRU				pmax	pmax		
	comp=Z,150nm,2.2s,mb5.1						
CHMS	**Chumysh**	**63.31**	**327**	P	**P**	**21 08 13.9**	**-0.4**
	SNR=52						
AML	**Almayashu**	**63.32**	**325**	P	**P**	**21 08 15.1**	**+0.7**
	SNR=226						
AML	**Almayashu**	**63.32**	**325**	*e*P	**P**	**21 08 14.9**	**+0.4**
	comp=Z,537nm,1.1s,mb6.0						
EKS2	**Erkin-Say**	**63.62**	**326**	P	**P**	**21 08 16.8**	**+0.5**
	SNR=21						
EKS2	**Erkin-Say**	**63.62**	**326**	*e*P	**P**	**21 08 16.5**	**+0.2**
	comp=Z,430nm,1.0s,mb6.0						
USP	**Ospenovka**	**63.62**	**327**	P	**P**	**21 08 16.1**	**-0.3**
	SNR=166						
NRGR	**Nerungri**	**64.44**	**5**	*i* P	**P**	**21 08 21.8**	**+0.5**
NRGR				S	**S**	**21 16 24.6**	**-8.7**
NRGR				smax			
	comp=N,39nm,0.9s						
CLNS	**Chul’man**	**64.63**	**5**	*e*P	**P**	**21 08 23.0**	**+0.5**
CLNS				*e*		21 08 53.4	
CLNS				*e**PP	pP	21 09 37.4	+3.5
CLNS				*e*S	**S**	**21 16 33.4**	**-2.3**
CLNS				pmax	pmax		
	comp=Z,257nm,1.0s,mb5.8						
CLNS				pmax	pmax		
	comp=E,75nm,1.0s						
CLNS				pmax	pmax		
	comp=N,155nm,1.0s						
CLNS				smax			
	comp=E,33nm,1.5s						
CLNS				smax			
	comp=N,10.0nm,1.3s						
JMDO	**Jabal Madar**	**64.81**	**299**	⇓P	**P**	**21 08 23.5**	**-1.0**
	SNR=7.6						
SMDO	**Samad**	**65.10**	**300**	⇑P	**P**	**21 08 25.6**	**-0.7**
	SNR=12						
BIDO	**Bidbid**	**65.20**	**300**	P	**P**	**21 08 26.3**	**-0.7**
	SNR=22						
BOD	**Bodaibo**	**65.31**	**358**	⇓*i*P	**P**	**21 08 26.5**	**-0.4**
BOD				pmax	pmax		
	comp=Z,327nm,1.3s,mb5.8						
BSY	**Bisya**	**65.73**	**299**	⇓P	**P**	**21 08 29.2**	**-1.1**
	SNR=13						
HOQ	**Hoqain**	**65.92**	**300**	⇑P	**P**	**21 08 30.9**	**-0.6**
	SNR=21						
KRAR	**Krasnoyarsk**	**66.50**	**346**	*c* *i*P	**P**	**21 08 33.6**	**-0.9**
KRAR				pmax	pmax		
	comp=Z,416nm,1.3s,mb6.0						
ARQ	**Araqi**	**66.52**	**299**	P	**P**	**21 08 34.3**	**-1.0**
	SNR=12						
RBK	**Rabkut**	**66.75**	**293**	P	**P**	**21 08 36.0**	**-0.9**
	SNR=11						
KURK	**Kurchatov**	**66.90**	**335**	⇑*e*P	**P**	**21 08 36.6**	**-0.5**
KURK	**Kurchatov**	**66.90**	**335**	⇑P	**P**	**21 08 36.9**	**-0.1**
	SNR=133						
KURK				⇑P		21 08 36.9	
	SNR=133						
ZAA0	**Zalesovo Array**	**67.08**	**340**	*e*P	**P**	**21 08 37.0**	**-1.1**
ZALV	**Zalesovo Beam**	**67.08**	**340**	P	**P**	**21 08 37.1**	**-1.0**
ZALV						21 11 12.2	
ZALV				pmax	pmax		
	comp=Z,62nm,0.4s,mb5.7						
ZALV				pmax	pmax		
	comp=Z,68nm,1.1s,mb5.3						
ZALV	**Zalesovo Beam**	**67.08**	**340**	P	**P**	**21 08 37.1**	**-1.0**
	comp=Z,62nm,0.4s,mb5.7,baz=134,slow=4.3,SNR=654						
ZALV				PP	PP	21 11 12.2	+1.3
	comp=Z,68nm,1.1s,baz=144,slow=5.3,SNR=3.8						
ZALV				PKP2bc		21 37 05.0	
	comp=Z,4.4nm,0.9s,baz=289,slow=4.5,SNR=9.6						
ZALV	**Zalesovo Beam**	**67.08**	**340**	P	**P**	**21 08 37.1**	**-1.0**
ZALV				PP	PP	21 11 12.2	+1.3
ZALV				⇑*e*		21 37 05.0	
WHFO	**Wadi Hawf**	**67.27**	**293**	P	**P**	**21 08 38.6**	**-1.4**
	SNR=19						
SKR	**Severo-Kuril’s**	**67.30**	**26**	*e*P	**P**	**21 08 39.0**	**-0.6**
SKR				*e*		21 09 06.0	
SKR				*e*S	S	21 17 06.0	-2.0
SKR				pmax	pmax		
	comp=Z,360nm,1.1s,mb6.0						
SKR				smax			
	comp=N,1µm,10.0s						
SKR				smax			
	comp=E,2µm,10.0s						
SKR				MLR	MLR		
	comp=Z,1µm,14.0s						
HATD	**Hatta, Dubai**	**67.36**	**301**	⇓P	**P**	**21 08 39.3**	**-1.3**
	SNR=33						
ABTO	**Aybut**	**67.54**	**292**	⇑P	**P**	**21 08 40.6**	**-1.1**
	SNR=20						
BANOM	**Banah**	**67.61**	**302**	⇑P	**P**	**21 08 41.3**	**-0.8**
	SNR=12						
NAZ	**Nazwa, Dubai**	**67.82**	**301**	⇓P	**P**	**21 08 42.1**	**-1.3**
	SNR=14						
ASUD	**Al Ashush, Dub**	**67.98**	**300**	⇓P	**P**	**21 08 43.8**	**-0.6**
	SNR=23						
ABPO	**Ambohimpanom**	**68.33**	**253**	*e*P	**P**	**21 08 47.9**	**+1.2**
ABPO				pmax	pmax		
	comp=Z,197nm,1.3s,mb5.7						
ABPO	**Ambohimpanom**	**68.33**	**253**	*e*P	**P**	**21 08 47.9**	**+1.2**
	comp=Z,197nm,1.3s,mb5.7						
NVS	**Novosibirsk**	**68.34**	**340**	*i* P	**P**	**21 08 44.3**	**-1.6**
NVS				*e*		21 11 18.3	
NVS				pmax	pmax		
	comp=N,289nm,1.3s						
NVS				pmax	pmax		
	comp=E,194nm,1.3s						
NVS				pmax	pmax		
	comp=Z,377nm,1.3s,mb6.0						
NVS				pmax	pmax		
	comp=N,53nm,1.5s						
NVS				pmax	pmax		
	comp=E,37nm,1.5s						
NVS				pmax	pmax		
	comp=Z,36nm,1.5s,mb4.9						
PEA0B	**Petropavlovsk-**	**69.74**	**25**	*e*P	**P**	**21 08 54.8**	**+0.3**
PETK	**Petropavlovsk-**	**69.74**	**25**	P	**P**	**21 08 54.9**	**+0.4**
PETK				S	S	21 17 36.9	+0.4
PETK				pmax	pmax		
	comp=Z,130nm,0.9s,mb5.7						
PETK				smax			
	comp=N,3.0nm,0.9s						
PETK	**Petropavlovsk-**	**69.74**	**25**	P	**P**	**21 08 54.9**	**+0.4**
	comp=N,130nm,0.8s,mb5.7,baz=204,slow=2.9,SNR=102						
PETK				S	S	21 17 36.9	+0.4
	comp=N,2.7nm,0.9s,baz=190,slow=13,SNR=5.1						
PETK	**Petropavlovsk-**	**69.74**	**25**	P	**P**	**21 08 54.9**	**+0.4**
PETK				S	S	21 17 36.9	+0.4
MAW	**Mawson**	**69.76**	**199**	P	**P**	**21 08 56.3**	**+1.8**
MAW				pmax	pmax		
	comp=Z,60nm,0.9s						
MAW	**Mawson**	**69.76**	**199**	P	**P**	**21 08 56.3**	**+1.9**
	comp=Z,60nm,0.9s,mb5.3,baz=41,slow=5.6,SNR=7.2						
PET	**Petropavlovsk**	**70.08**	**25**	⇑*i*P	**P**	**21 08 56.6**	**0.0**
PET				*e**SP	sP	21 10 46.4	+2.5
PET				*i* S	S	21 17 40.8	+0.3
PET				*e*SS	SS	21 22 09.8	-8.0
PET				pmax	pmax		
	comp=Z,500nm,1.8s,mb5.9						
PET				pmax	pmax		
	comp=Z,185nm,0.9s,mb5.8						
PET				pmax	pmax		
	comp=Z,200nm,17.3s						
PET				MLR	MLR		
	comp=Z,200nm,20.0s						
PET	**Petropavlovsk**	**70.08**	**25**	⇑*e*P	**P**	**21 08 56.4**	**-0.2**
AFI	**Afiamalu**	**70.16**	**102**	*e*P	**P**	**21 08 59.2**	**+1.3**
AFI				pmax	pmax		
	comp=Z,118nm,1.1s,mb5.5						
AFI	**Afiamalu**	**70.16**	**102**	*e*P	**P**	**21 08 59.2**	**+1.3**
	comp=Z,118nm,1.1s,mb5.5						
YAK	**Yakutsk**	**70.21**	**6**	*c* *i*P	**P**	**21 08 56.3**	**-0.9**
YAK				*e*		21 09 14.4	
YAK				*e**PP	pP	21 10 12.1	+2.3
YAK				*e*S	S	21 17 36.4	-5.2
YAK				*e*		21 18 20.7	
YAK				*e*SSS		21 25 35.1	
YAK				pmax	pmax		
	comp=Z,287nm,1.0s,mb6.0						
YAK				pmax	pmax		
	comp=E,29nm,1.5s						
YAK				pmax	pmax		
	comp=N,140nm,1.3s						
YAK				smax			
	comp=E,303nm,1.9s						
YAK				smax			
	comp=N,211nm,2.2s						
YAK	**Yakutsk**	**70.21**	**6**	⇑*e*P	**P**	**21 08 56.3**	**-0.9**
MUKL	**Al Mukalla**	**70.77**	**288**	⇑*e*P	**P**	**21 09 01.6**	**0.0**
MUKL				AMb	AMB	21 09 02.1	
	comp=Z,166nm,0.7s,mb5.9						
ABKT	**Ailbek**	**71.01**	**314**	P	**P**	**21 09 02.6**	**+0.1**
	comp=Z,965nm,1.1s,mb6.4						
VOSK	**Vostochnaya**	**71.68**	**333**	P	**P**	**21 09 05.0**	**-1.2**
VOSK				pmax	pmax		
	comp=Z,378nm,1.1s,mb6.0						
BVA0	**Borovoye Array**	**72.15**	**333**	*i* P	**P**	**21 09 08.2**	**-0.7**
BVA0				pmax	pmax		
	comp=Z,116nm,1.2s,mb5.5						
BRVK	**Borovoye**	**72.22**	**333**	⇑*e*P	**P**	**21 09 08.8**	**-0.5**
BRVK	**Borovoye**	**72.22**	**333**	⇑P	**P**	**21 09 09.2**	**-0.2**
	SNR=116						
BRVK				⇑P		21 09 09.2	
	SNR=116						
VNDA	**Vanda**	**73.62**	**171**	P	**P**	**21 09 19.1**	**+2.0**
VNDA				*PP	pP	21 10 30.8	+0.3
VNDA				pmax	pmax		
	comp=Z,8.0nm,0.4s						
VNDA	**Vanda**	**73.62**	**171**	P	**P**	**21 09 19.1**	**+1.9**
	comp=Z,7.5nm,0.4s,mb4.8,baz=307,slow=5.9,SNR=31						
VNDA				pP	pP	21 10 30.8	+0.2
	comp=Z,36nm,1.2s,baz=313,slow=6.0,SNR=4.0						
VNDA	**Vanda**	**73.62**	**171**	P	**P**	**21 09 19.1**	**+1.9**
VNDA				pP	pP	21 10 30.8	+0.2
TRBA	**At Turbah**	**75.17**	**286**	⇑*e*P	**P**	**21 09 27.8**	**+0.7**
DHBB	**Dhamar BB**	**75.18**	**287**	⇑*e*P	**P**	**21 09 28.0**	**+0.8**
DHBB				AMb	AMB	21 09 29.0	
	comp=Z,354nm,1.4s,mb5.9						
AB31	**Akbulak array**	**75.28**	**325**	P	**P**	**21 09 23.8**	**-3.2**
AB31				pmax	pmax		
	comp=Z,457nm,1.0s,mb6.2						
SEY	**Seymchan**	**75.46**	**16**	⇑*e*P	**P**	**21 09 27.9**	**+0.1**
QRN	**Al-Qurain**	**75.57**	**302**	*e*P	**P**	**21 09 27.9**	**-1.3**
QRN				AMb	AMB	21 09 29.3	
	comp=Z,488nm,0.9s,mb6.2						
KBD	**Kabd**	**75.89**	**303**	*e*P	**P**	**21 09 29.7**	**-1.2**
KBD				AMb	AMB	21 09 31.1	
	comp=Z,240nm,0.9s,mb6.0						
RDF	**Al-Radifah**	**75.94**	**302**	*e*P	**P**	**21 09 30.0**	**-1.2**
RDF				AMb	AMB	21 09 31.4	
	comp=Z,568nm,0.9s,mb6.3						
UMR	**Umm Al-Rimmam**	**75.98**	**303**	*e*P	**P**	**21 09 30.1**	**-1.3**
UMR				AMb	AMB	21 09 31.6	
	comp=Z,403nm,1.1s,mb6.1						
NAY	**Al-Naaiem**	**76.29**	**303**	*e*P	**P**	**21 09 31.9**	**-1.3**
NAY				AMb	AMB	21 09 33.1	
	comp=Z,189nm,1.0s,mb5.8						
MIB	**Mutribah**	**76.37**	**303**	*e*P	**P**	**21 09 32.3**	**-1.4**
MIB				AMb	AMB	21 09 33.7	
	comp=Z,363nm,0.9s,mb6.1						
AKTO	**Aktyubinsk**	**76.95**	**326**	P	**P**	**21 09 35.8**	**-0.6**
SYO	**Syowa Base**	**78.32**	**201**	⇓*i*P	**P**	**21 09 43.8**	**+0.2**
SVE	**Sverdlovsk**	**78.93**	**332**	⇓*e*P	**P**	**21 09 46.2**	**-0.9**
SVE				*e*		21 09 54.0	
SVE				*e*PPP		21 14 40.9	
SVE				*e*S	S	21 19 17.0	-0.8
SVE				pmax	pmax		
	comp=Z,357nm,1.1s,mb6.0						
DESE	**Dese**	**79.07**	**283**	*e*P	**P**	**21 09 50.7**	**+1.9**
KMBO	**Kilima Mbogo**	**79.56**	**270**	P	**P**	**21 09 52.8**	**+1.4**
KMBO				*PP	pP	21 11 08.4	+2.4
KMBO				pmax	pmax		
	comp=Z,109nm,0.9s						
KMBO	**Kilima Mbogo**	**79.56**	**270**	P	**P**	**21 09 52.8**	**+1.3**
	comp=Z,109nm,0.9s,mb5.6,baz=68,slow=6.7,SNR=148						
KMBO				pP	pP	21 11 08.4	+2.4
	comp=Z,11nm,0.9s,baz=89,slow=9.4,SNR=1.9						
TIXI	**Tiksi**	**79.56**	**4**	⇑*e*P	**P**	**21 09 48.6**	**-1.6**
ARU	**Arti**	**79.69**	**331**	P	**P**	**21 09 50.6**	**-0.6**
	comp=Z,892nm,1.2s,mb6.4,SNR=53						
ARU	**Arti**	**79.69**	**331**	⇑*e*P	**P**	**21 09 49.4**	**-1.8**
BHD	**Baghdad**	**79.78**	**306**	*i* x	x	21 09 52.0	
BHD				*e*x	x	21 19 25.0	
MAK	**Makhachkala**	**80.43**	**316**	*e*P	**P**	**21 09 53.3**	**-2.1**
MAK				*i*		21 13 01.1	
MAK				*e*PPP		21 14 57.3	
MAK				*e*S	S	21 19 30.9	-3.1
MAK				pmax	pmax		
	comp=Z,169nm,1.1s,mb5.7						
MAK				MLR	MLR		
	comp=Z,240nm,14.0s						
GNI	**Garni**	**81.49**	**312**	⇑*e*P	**P**	**21 09 57.5**	**-3.5**
GNI				pmax	pmax		
	comp=Z,183nm,1.6s						
GNI	**Garni**	**81.49**	**312**	P	**P**	**21 10 01.6**	**+0.6**
	comp=Z,58nm,1.1s,mb5.2,baz=320,slow=0.9,SNR=48						
GNI	**Garni**	**81.49**	**312**	⇓P	**P**	**21 10 01.7**	**+0.7**
	SNR=24						
GNI				⇓P		21 10 01.7	
	SNR=24						
MSL	**Mosul**	**81.65**	**308**	*e*x	x	21 10 05.0	
MSL				*e*x	x	21 19 51.0	
MTA	**Mtatsminda**	**81.92**	**314**	P	**P**	**21 10 03.5**	**+0.3**
DYDN	**Diyadin**	**82.09**	**312**	*i* P	**P**	**21 10 04.1**	**0.0**
SOKR	**Solikamsk**	**82.10**	**334**	*c* *i*P	**P**	**21 10 02.2**	**-1.5**
SOKR				pmax	pmax		
	comp=Z,210nm,1.3s,mb5.8						
GOR	**Gori**	**82.50**	**314**	P	**P**	**21 10 09.4**	**+3.2**
BILL	**Bilibino**	**83.13**	**17**	*e*P	**P**	**21 10 07.7**	**-1.1**
BILL				*i* *PP	pP	21 11 21.3	-2.9
BILL				*i*		21 13 21.6	
BILL				*i* S	S	21 19 57.8	-2.7
BILL				pmax	pmax		
	comp=Z,68nm,1.9s,mb5.2						
ONI	**Oni**	**83.14**	**315**	P	**P**	**21 10 10.4**	**+1.0**
BEST	**Besiri**	**83.46**	**310**	*i* P	**P**	**21 10 11.3**	**+0.1**
HOMI	**Horasan**	**83.55**	**312**	*i* P	**P**	**21 10 12.3**	**+0.7**
MARD	**Mardin**	**83.69**	**309**	*i* P	**P**	**21 10 12.2**	**-0.2**
ERZM	**Erzurum**	**83.91**	**312**	*i* P	**P**	**21 10 14.3**	**+0.9**
KIV	**Kislovodsk**	**84.07**	**316**	P	**P**	**21 10 14.1**	**0.0**
	comp=Z,398nm,1.3s,mb6.1,SNR=26						
KIV	**Kislovodsk**	**84.07**	**316**	*c* *i*P	**P**	**21 10 13.8**	**-0.3**
KIV				*e*		21 13 29.0	
KIV				*e*S	S	21 20 04.6	-6.2
KIV				pmax	pmax		
	comp=Z,83nm,1.1s,mb5.5						
KIV				pmax	pmax		
	comp=Z,127nm,3.7s						
KIV	**Kislovodsk**	**84.07**	**316**	⇑*i*P	**P**	**21 10 13.7**	**-0.4**
KIV	**Kislovodsk**	**84.07**	**316**	⇓P	**P**	**21 10 14.2**	**+0.1**
	SNR=28						
KIV				⇓P		21 10 14.2	
	SNR=28						
DIYA	**Diyarbakir**	**84.35**	**309**	*i* P	**P**	**21 10 15.7**	**+0.1**
KOPT	**Kop Dagi**	**84.58**	**311**	*i* P	**P**	**21 10 18.1**	**+1.3**
MALT	**Malatya**	**85.74**	**309**	⇑*i*P	**P**	**21 10 23.3**	**+0.8**
MALT	**Malatya**	**85.74**	**309**	⇑P	**P**	**21 10 23.2**	**+0.7**
KEMA	**Kemaliye**	**85.91**	**310**	*i* P	**P**	**21 10 23.8**	**+0.4**
SOC	**Sochi**	**86.04**	**315**	*c* *i*P	**P**	**21 10 22.7**	**-1.2**

SOC				e*PP	pP	21 11 38.8	-0.9
SOC				e*SP	sP	21 12 12.6	-1.0
SOC				e		21 13 49.6	
SOC				eS	S	21 20 16.6	-13
SOC				eSS	SS	21 26 21.3	+4.4
SOC				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.7						
SOC	**Sochi**	**86.04**	**315**	iP	**P**	**21 10 23.2**	**-0.7**
AKCD	**Akcadag**	**86.12**	**309**	iP	**P**	**21 10 24.8**	**+0.5**
GZT	**Gaziantep**	**86.19**	**308**	iP	**P**	**21 10 25.2**	**+0.5**
KUZU	**Kuzuini**	**86.45**	**308**	iP	**P**	**21 10 25.9**	**-0.1**
GRSN	**GIRESUNGRSN**	**86.45**	**312**	iP	**P**	**21 10 24.7**	**-1.2**
FKH	**Fakeheh**	**86.46**	**305**	eP	**P**	**21 10 27.2**	**+1.1**
LSZ	**Lusaka**	**86.74**	**255**	eP	**P**	**21 10 28.7**	**+0.9**
LSZ				pmax	pmax		
	comp=Z,202nm,0.9s,mb6.0						
LSZ	**Lusaka**	**86.74**	**255**	eP	**P**	**21 10 28.7**	**+0.8**
	comp=Z,202nm,0.9s,mb6.0						
LSZ	**Lusaka**	**86.74**	**255**	P	**P**	**21 10 29.1**	**+1.3**
	SNR=50						
LSZ				P		21 10 29.1	
	SNR=50						
VRHR	**Novokhopersk**	**86.78**	**322c**	iP	**P**	**21 10 26.3**	**-0.9**
VRHR				e		21 20 17.5	
VRHR				eS	S	21 20 32.1	-4.7
VRHR				pmax	pmax		
	comp=Z,730nm,0.9s,mb6.5						
VRHR				pmax	pmax		
	comp=N,20nm,0.6s						
VRHR				pmax	pmax		
	comp=E,320nm,0.9s						
VRHR				smax			
	comp=N,410nm,1.7s						
VRHR				smax			
	comp=Z,140nm,2.6s						
VRHR				smax			
	comp=E,260nm,1.2s						
RCY	**Rachaya**	**86.79**	**304**	eP	**P**	**21 10 28.8**	**+1.1**
BHL	**Bhannes**	**87.01**	**305**	eP	**P**	**21 10 29.4**	**+0.7**
ANDN	**Andirin**	**87.19**	**308**	iP	**P**	**21 10 29.5**	**0.0**
PINB	**Pinarbasi**	**87.37**	**309**	iP	**P**	**21 10 29.9**	**-0.4**
NVL	**N'lazarevskaya**	**87.70**	**199**	P	**P**	**21 10 32.4**	**+1.1**
NVL				e	pP	21 11 47.2	-0.3
NVL				pmax	pmax		
	comp=Z,69nm,1.0s,mb5.4						
MAIT	**Maitri**	**87.73**	**199**	eP	**P**	**21 10 32.3**	**+0.9**
MAIT				eE	pP	21 11 46.8	-0.8
BOSA	**Boshof**	**87.78**	**242**	P	**P**	**21 10 33.1**	**+0.6**
BOSA				*PP	pP	21 11 49.7	+1.0
BOSA				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.4						
BOSA				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.3						
BOSA	**Boshof**	**87.78**	**242**	P	**P**	**21 10 33.0**	**+0.5**
	comp=Z,62nm,0.9s,mb5.4,baz=96,slow=4.8,SNR=46						
BOSA				pP	pP	21 11 49.7	+1.0
	comp=Z,37nm,0.8s,baz=106,slow=5.5,SNR=8.5						
ANN	**Anapa**	**87.93**	**316**	eP	**P**	**21 10 30.2**	**-2.6**
ANN				e*PP	pP	21 11 45.7	-3.4
ANN				e		21 20 25.8	
ANN				pmax	pmax		
	comp=Z,176nm,1.3s,mb5.7						
PRGR	**Permogore**	**87.96**	**333**	⇑iP	**P**	**21 10 30.7**	**-1.8**
PRGR				e*PP	pP	21 11 45.4	-3.4
PRGR				eS	SKSac	21 20 25.4	-3.7
PRGR				pmax	pmax		
	comp=Z,75nm,0.8s,mb5.6						
VORD	**Divnogorie**	**88.16**	**322**	eP	**P**	**21 10 32.7**	**-1.1**
VORD				e*PP	pP	21 11 49.9	-0.2
VORD				e		21 20 25.5	
VORD				eS	S	21 20 45.6	-4.2
VORD				pmax	pmax		
	comp=Z,170nm,0.8s,mb5.9						
VORD				pmax	pmax		
	comp=N,50nm,0.6s						
VORD				pmax	pmax		
	comp=E,100nm,0.6s						
VORD				smax			
	comp=E,400nm,1.9s						
VORD				smax			
	comp=Z,70nm,1.8s						
VORD				smax			
	comp=N,220nm,1.6s						
VSR	**Storozhevoye**	**88.30**	**322c**	iP	**P**	**21 10 33.1**	**-1.3**
VSR				e*PP	pP	21 11 52.4	+1.7
VSR				e		21 20 25.3	
VSR				eS	S	21 20 45.7	-5.4
VSR				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.6						
VSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VSR				pmax	pmax		
	comp=E,120nm,1.0s						
VSR				smax			
	comp=N,250nm,2.1s						
VSR				smax			
	comp=Z,90nm,3.0s						
VSR				smax			
	comp=E,220nm,2.1s						
AVNT	**Avonos**	**88.58**	**309**	iP	**P**	**21 10 35.2**	**-0.8**
CTKT	**Corum**	**88.97**	**311**	iP	**P**	**21 10 36.6**	**-1.2**
BOYT	**Boyabat**	**89.04**	**312**	iP	**P**	**21 10 37.5**	**-0.7**
CDAG	**Cicekdag**	**89.10**	**310**	iP	**P**	**21 10 37.2**	**-1.2**
BRTR	**Keskin Array B**	**89.68**	**310**	P	**P**	**21 10 40.2**	**-0.9**
BRTR				*PP	pP	21 11 58.5	+0.9
BRTR				pmax	pmax		
	comp=Z,25nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,13nm,1.0s						
BRTR	**Keskin Array B**	**89.68**	**310**	P	**P**	**21 10 40.2**	**-0.9**
	comp=Z,25nm,0.8s,mb5.2,baz=144,slow=5.3,SNR=72						
BRTR				pP	pP	21 11 58.5	+0.9
	comp=Z,13nm,1.0s,baz=139,slow=5.9,SNR=5.8						
ELDT	**Eldivan**	**89.97**	**311**	iP	**P**	**21 10 41.4**	**-1.1**
BALT	**Daday**	**90.18**	**312**	iP	**P**	**21 10 42.1**	**-1.3**
SIM	**Simferopol'**	**90.27**	**315**	iP	**P**	**21 10 42.8**	**-0.9**
SIM				i *PP	pP	21 12 01.3	+1.1
SIM				e		21 14 17.0	
SIM				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.4						
MOS	**Moscow**	**90.28**	**326**	eP	**P**	**21 10 38.2**	**-5.3**
MOS				e*PP	pP	21 11 58.3	-1.7
MOS				e		21 14 24.6	
MOS				eS	SKSac	21 20 36.5	-6.4
MOS				e		21 20 56.2	
MOS				pmax	pmax		
	comp=Z,218nm,1.4s,mb5.9						
MOS				pmax	pmax		
	comp=Z,300nm,1.4s,mb6.0						
KLMR	**Klimovskoe**	**90.54**	**331**	⇑iP	**P**	**21 10 42.9**	**-1.7**
KLMR				e		21 14 20.5	
KLMR				eS	SKSac	21 20 40.8	-3.4
KLMR				pmax	pmax		
	comp=Z,159nm,1.3s,mb5.8						
OBN	**Obninsk**	**90.73**	**326**	P	**P**	**21 10 44.9**	**-0.7**
	comp=Z,871nm,1.3s,mb6.5,SNR=13						
OBN	**Obninsk**	**90.73**	**326c**	iP	**P**	**21 10 44.5**	**-1.1**
OBN				i *PP	pP	21 11 59.1	-3.0
OBN				e		21 14 26.1	
OBN				i		21 20 43.1	
OBN				i S	S	21 21 10.6	-2.6
OBN				eSS	SS	21 27 24.1	+0.1
OBN				pmax	pmax		
	comp=Z,277nm,1.3s,mb6.0						
OBN	**Obninsk**	**90.73**	**326**	⇑eP	**P**	**21 10 44.6**	**-1.0**
PPT	**Papeete**	**91.08**	**108**	eS	S	21 21 03.1	-15
	comp=Z,342nm,24.5s						
PPT				eLR	LR	21 41 58.4	
	comp=Z,471nm,29.0s						
ESKT	**Eskisehir**	**91.77**	**309**	iP	**P**	**21 10 49.5**	**-1.4**
ISP	**Isparta**	**91.79**	**308**	⇑iP	**P**	**21 10 49.3**	**-1.6**
ULDT	**Uludag**	**93.16**	**310**	iP	**P**	**21 10 55.6**	**-1.6**
VNA2	**Neumayer--Watz**	**93.33**	**196**	eP	**P**	**21 10 59.4**	**+2.0**
	baz=99,slow=5.0						
VNA2				e	pP	21 12 13.9	-0.1
VNA2				e		21 20 58.6	
VNA1	**Neumayer--Stat**	**93.72**	**196**	eP	**P**	**21 11 01.0**	**+1.8**
VNA1				e	pP	21 12 16.4	+0.6
VNA3	**Neumayer Olymp**	**93.74**	**195**	eP	**P**	**21 11 00.7**	**+1.4**
VNA3				e	pP	21 12 14.6	-1.3
VNA3				e		21 21 00.5	
AYDN	**Tasoluk**	**93.83**	**307**	iP	**P**	**21 10 59.2**	**-1.2**
TLCR		**94.02**	**315**	⇓iP	**P**	**21 11 00.3**	**-0.7**
BDRM	**Kayabasi**	**94.11**	**307**	iP	**P**	**21 10 58.4**	**-3.2**
LVZ	**Lovozero**	**94.13**	**338**	⇑eP	**P**	**21 10 58.7**	**-2.3**
TIRR	**Tirgusor**	**94.22**	**314**	⇑iP	**P**	**21 11 00.5**	**-1.4**
TIRR	**Tirgusor**	**94.22**	**314**	P	**P**	**21 11 01.1**	**-0.8**
GCAM	**G?zelcaml?**	**94.35**	**307**	iP	**P**	**21 11 01.7**	**-1.0**
AKASG	**Malin Array Be**	**94.39**	**320**	P	**P**	**21 11 00.7**	**-1.9**
AKASG				pmax	pmax		
	comp=Z,24nm,0.9s						
AKASG	**Malin Array Be**	**94.39**	**320**	P	**P**	**21 11 00.7**	**-1.9**
	comp=Z,24nm,0.9s,mb5.2,baz=83,slow=4.5,SNR=65						
KIEV	**Kiev**	**94.40**	**320**	eP	**P**	**21 11 00.4**	**-2.2**
KIEV				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
KIEV	**Kiev**	**94.40**	**320**	eP	**P**	**21 11 00.4**	**-2.2**
	comp=Z,18nm,0.8s,mb5.2						
HARR	**Harsova**	**94.58**	**314**	⇓iP	**P**	**21 11 03.5**	**-0.1**
HARR	**Harsova**	**94.58**	**314**	P	**P**	**21 11 03.1**	**-0.5**
JOF	**Joensuu**	**94.75**	**333**	eP	**P**	**21 11 00.3**	**-3.6**
JOF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
JOF	**Joensuu**	**94.75**	**333**	ep	**P**	**21 11 00.3**	**-3.6**
	comp=Z,14nm,0.8s,mb5.0						
PUL	**Pulkovo**	**94.84**	**330**	⇑eP	**P**	**21 11 03.4**	**-1.0**
VRI	**Vrincioaia**	**95.55**	**315**	⇓iP	**P**	**21 11 07.6**	**-0.3**
VRI	**Vrincioaia**	**95.55**	**315**	P	**P**	**21 11 07.3**	**-0.7**
MICGM	**Minsk**	**95.60**	**324**	⇓eP	**P**	**21 11 05.0**	**-3.0**
MNK	**Minsk**	**95.63**	**324**	⇓eP	**P**	**21 11 05.0**	**-3.1**
MNK				pmax	pmax		
	comp=Z,340nm,1.0s,mb6.4						
TSUM	**Tsumeb**	**96.18**	**250**	eP	**P**	**21 11 12.3**	**+0.9**
	comp=Z,67nm,1.3s,mb5.6						
NACGM	**Naroch**	**96.27**	**324**	eP	**P**	**21 11 07.0**	**-4.0**
VSU	**Vasula**	**96.55**	**328c**	iP	**P**	**21 11 10.8**	**-1.4**
VSU				pmax	pmax		
	comp=Z,121nm,1.0s,mb6.0						
BUR02	**Bucovina Ar. S**	**96.72**	**317**	P	**P**	**21 11 12.5**	**-0.7**
BURAR	**Bucovina Array**	**96.72**	**317**	⇓iP	**P**	**21 11 13.1**	**-0.1**
BURAR	**Bucovina Array**	**96.72**	**317**	⇓P	**P**	**21 11 13.1**	**-0.1**
KDAK	**Kodiak Island**	**96.73**	**33**	P	**P**	**21 11 11.8**	**-1.2**
KDAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.2						
KDAK	**Kodiak Island**	**96.73**	**33**	P	**P**	**21 11 11.8**	**-1.2**
	comp=Z,17nm,0.9s,mb5.2,baz=120,slow=16,SNR=3.8						
KDAK	**Kodiak Island**	**96.73**	**33**	P	**P**	**21 11 11.8**	**-1.2**
KAF	**Kangasniemi**	**96.99**	**332**	eP	**P**	**21 11 10.5**	**-3.6**
KAF				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.4						
KAF	**Kangasniemi**	**96.99**	**332**	ep	**P**	**21 11 10.5**	**-3.6**
	comp=Z,25nm,0.8s,mb5.4						
KEV	**Kevo**	**97.10**	**339**	eP	**P**	**21 11 11.9**	**-2.5**
KEV				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
KEV	**Kevo**	**97.10**	**339**	ep	**P**	**21 11 11.9**	**-2.5**
	comp=Z,12nm,0.8s,mb5.1						
ARCES	**ARCESS Array B**	**97.62**	**339**	P	**P**	**21 11 15.5**	**-1.2**
ARCES				pmax	pmax		
	comp=Z,39nm,1.0s						
ARCES	**ARCESS Array B**	**97.62**	**339**	P	**P**	**21 11 15.5**	**-1.2**
	comp=Z,39nm,0.9s,mb5.6,baz=90,slow=4.9,SNR=34						
LVV	**L'vov**	**97.64**	**319**	eP	**P**	**21 11 15.9**	**-1.4**
BMR	**Baia Mare**	**97.89**	**317**	P	**P**	**21 11 18.0**	**-0.4**
SUW	**Suwalki**	**98.32**	**323**	eP	**P**	**21 11 18.9**	**-1.3**
SUW	**Suwalki**	**98.32**	**323**	eP	**P**	**21 11 18.9**	**-1.3**
KWP	**Kalwaria Pacla**	**98.49**	**319**	eP	**P**	**21 11 20.0**	**-1.1**
KWP	**Kalwaria Pacla**	**98.49**	**319**	⇓iP	**P**	**21 11 20.5**	**-0.6**
TRPA	**Tarpa**	**98.55**	**318**	⇓iP	**P**	**21 11 20.4**	**-1.0**
UZH	**Uzhgorod**	**98.73**	**318**	eP	Pdif	21 11 21.2	-0.9
KOLS	**Kolonicke sedl**	**98.75**	**318**	PDIF	Pdif	21 11 22.3	+0.1
KOLS				e		21 11 27.3	
KOLS	**Kolonicke sedl**	**98.75**	**318**	eP	Pdif	21 11 22.3	+0.1
KOLS				e		21 11 27.3	
BZS	**Buzias**	**99.10**	**315**	⇓P	Pdif	21 11 22.7	-1.1
BZS	**Buzias**	**99.10**	**315**	⇓iP	Pdif	21 11 22.6	-1.2
BZS	**Buzias**	**99.10**	**315**	P	Pdif	21 11 22.5	-1.3
CRVS	**Cervenica-Dubn**	**99.28**	**318**	PDIF	Pdif	21 11 24.1	-0.5
CRVS				e		21 11 28.1	
CRVS	**Cervenica-Dubn**	**99.28**	**318**	eP	Pdif	21 11 24.1	-0.5
CRVS				e		21 11 28.1	
STHS	**Stebnicka Huta**	**99.44**	**319**	PDIF	Pdif	21 11 25.3	0.0
STHS	**Stebnicka Huta**	**99.44**	**319**	eP	Pdif	21 11 25.3	0.0
NIE	**Niedzica**	**100.04**	**319**	eP	Pdif	21 11 28.0	0.0
PSZ	**Piszkesteto**	**100.32**	**317**	⇑iP	Pdif	21 11 28.1	-1.1
PSZ	**Piszkesteto**	**100.32**	**317**	⇑ePP	PP	21 15 37.4	-2.7
OJC	**Ojcow**	**100.37**	**320**	eP	Pdif	21 11 28.5	-0.9
BUD	**Budapest**	**100.91**	**317**	⇑ePP	PP	21 15 45.2	+0.7
VYHS	**Vyhne**	**101.02**	**318**	PDIF	Pdif	21 11 31.2	-1.1
VYHS				e		21 11 35.4	
VYHS	**Vyhne**	**101.02**	**318**	eP	Pdif	21 11 31.2	-1.1
VYHS				e		21 11 35.4	
OKC	**Ostrava-Krasne**	**101.45**	**319**	ePDIFF	Pdif	21 11 34.0	-0.2
OKC				ePP	PP	21 15 43.3	-5.2
OKC				eSKS		21 21 43.0	
MORC	**Moravsky Berou**	**101.84**	**319**	⇓iP	Pdif	21 11 35.8	-0.2
MORC	**Moravsky Berou**	**101.84**	**319**	⇓P	Pdif	21 11 35.8	-0.2
MODS	**Modra-Piesok**	**102.06**	**318**	PDIF	Pdif	21 11 36.1	-0.9
MODS	**Modra-Piesok**	**102.06**	**318**	eP	Pdif	21 11 36.1	-0.9
ZST	**Bratislava**	**102.19**	**318**	PDIF	Pdif	21 11 35.9	-1.6
ZST	**Bratislava**	**102.19**	**318**	eP	Pdif	21 11 35.9	-1.6
SOP	**Sopron**	**102.57**	**317**	⇑ePP	PP	21 15 55.2	-1.7
DPC	**Dobruska-Polom**	**102.60**	**320**	ePDIFF	Pdif	21 11 39.3	0.0
DPC				ePP	PP	21 15 49.9	-7.1
DPC				eSKS		21 21 46.1	
CONA	**Conrad Observa**	**103.03**	**317**	⇑iPKiKP	PKiKP	21 15 52.1	-7.4
	comp=Z,34nm,1.5s						
CSNA	**Conrad Observa**	**103.03**	**317**	⇑iPKiKP	PKiKP	21 15 52.0	-7.4
	comp=Z,32nm,1.5s						
ARSA	**Arzberg**	**103.30**	**317**	⇑iPKiKP	PKiKP	21 15 56.5	-3.4
	comp=Z,31nm,1.7s						
SOKA	**Soboth**	**103.66**	**316**	⇑iPKiKP	PKiKP	21 16 00.8	+0.2
	comp=Z,26nm,1.6s						
PVCC	**Panska Ves**	**103.70**	**320**	eSKS		21 21 50.5	
PRU	**Pruhonice**	**103.77**	**320**	ePP	PP	21 15 58.9	-6.8
PRU				eSKS		21 21 51.5	
BRG	**Berggiesshubel**	**104.07**	**320**	eP	Pdif	21 11 45.3	-0.6
BRG				i		21 16 06.9	
BRG				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BRG				pmax	pmax		
	comp=Z,6.0nm,1.2s						
BRG	**Berggiesshubel**	**104.07**	**320**	ePdiff	Pdif	21 11 45.2	-0.7
BRG				ePP	PP	21 16 06.3	-1.6
BRG	**Berggiesshubel**	**104.07**	**320**	eP	Pdif	21 11 45.3	-0.6
	comp=Z,8.2nm,1.1s						
BRG				i		21 15 01.6	
	comp=Z,13nm,1.6s						
BRG				i		21 16 06.9	
	comp=Z,9.4nm,1.2s						
MOA	**Molln**	**104.11**	**317**	⇓iPKiKP	PKiKP	21 16 02.6	+1.2
	comp=Z,40nm,1.6s						
NOA	**NORSAR Array B**	**104.25**	**331**	P	Pdif	21 11 44.8	-1.9
NOA						21 16 10.7	
NOA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
NOA				pmax	pmax		
	comp=Z,12nm,1.0s						
NOA	**NORSAR Array B**	**104.25**	**331**	Pdiff	Pdif	21 11 44.8	-1.8
	comp=Z,9.8nm,1.1s,baz=76,slow=4.4,SNR=7.2						
NOA				PKiKP	PKiKP	21 16 00.9	-0.3
	comp=Z,3.6nm,0.9s,baz=255,slow=3.2,SNR=4.5						
NOA				PP	PP	21 16 10.7	+1.9
	comp=Z,12nm,0.9s,baz=76,slow=7.5,SNR=8.9						
GEC2	**GERESS Array S**	**104.41**	**318**	ePdiff	Pdif	21 11 46.7	-0.7
GERES	**GERESS Array B**	**104.41**	**318**	Pdiff	Pdif	21 11 46.5	-0.9
	comp=Z,1.5nm,0.8s,baz=107,slow=4.6,SNR=10						
GERES				PKiKP	PKiKP	21 16 01.4	-0.6
	comp=Z,2.5nm,0.8s,baz=94,slow=1.7,SNR=6.6						
GERES				PKKPbc	PKKPbc	21 27 34.9	+0.1
	comp=Z,0.8nm,0.8s,baz=198,slow=3.8,SNR=4.2						
GERES				PKKP	PKKPbc	21 27 41.5	+6.7
	comp=Z,1.5nm,1.1s,baz=204,slow=2.6,SNR=3.6						
FBE	**Freiberg**	**104.44**	**321**	ePdiff	Pdif	21 11 46.7	-0.8
KHC	**Kasperske Hory**	**104.46**	**319**	ex	x	21 15 03.0	
KHC				ePP	PP	21 16 03.6	-7.2
KHC				eSKS		21 21 54.9	
CLL	**Collm**	**104.62**	**321**	ePdif	Pdif	21 11 47.0	-1.3
CLL				ePP	PP	21 16 07.0	-4.9
CLL				esPP		21 17 52.0	
CLL				eSKSac	SKSac	21 21 55.0	-1.2
CLL				e(sSKSac)		21 24 25.0	
CLL				eSP	SP	21 24 54.0	+1.5
CLL				ePS	PS	21 25 32.0	-1.1
CLL				esPS		21 27 10.0	
CLL				eSS	SS	21 30 36.0	-2.1
CLL				e		21 31 08.0	
CLL				esSS		21 32 24.0	
CLL				eSSS		21 34 42.0	
CLL				esSSS		21 36 30.0	
CLL	**Collm**	**104.62**	**321**	ePdif	Pdif	21 11 47.0	-1.3
CLL				eSKS		21 21 55.0	
WET	**Wettzell**	**104.92**	**319**	ePdiff	Pdif	21 11 49.0	-0.7
NKC	**Novy Kostel**	**105.08**	**320**	ePP	PP	21 16 12.4	-3.0
GUNZ	**Gunzen**	**105.14**	**320**	ePP	PP	21 16 13.3	-2.5
ROTZ	**Rotzenmuhle**	**105.29**	**319**	ePP	PP	21 16 16.8	-0.1
MOX	**Moxa**	**105.57**	**320**	e(P)	PP	21 16 19.5	+0.6
	comp=Z,27nm,1.5s						
MOX	**Moxa**	**105.57**	**320**	ePP	PP	21 16 16.9	-2.0
GRA1	**Grafenberg Arr**	**105.93**	**319**	ePdif	Pdif	21 11 53.6	-0.6
GRA1				ePP	PP	21 16 19.3	-2.3
GRF	**Grafenberg Arr**	**105.93**	**319**	ePdiff	Pdif	21 11 53.6	-0.6
GRF				ePP	PP	21 16 19.3	-2.3
WTTA	**Wattenberg**	**105.93**	**317**	⇑iPKiKP	PKiKP	21 16 04.4	-0.4
	comp=Z,12nm,0.9s						
PGF	**Pioggiola**	**108.31**	**312**	ePKIKP	PKiKP	21 16 08.9	-0.5
	comp=Z,30nm,1.0s						
KEST	**Kesra**	**108.66**	**305**	Pdiff	Pdif	21 12 06.8	+0.5
	comp=Z,2.6nm,0.9s,baz=343,slow=9.4,SNR=4.3						
CDF	**Champ du Feu**	**108.69**	**318**	ePKIKP	PKiKP	21 16 08.8	-1.1
	comp=Z,4.6nm,0.7s						
HINF	**Hinteralfeld**	**109.07**	**318**	ePKIKP	PKiKP	21 16 09.7	-1.0
SBF	**Sospel**	**109.28**	**314**	ePKIKP	PKiKP	21 16 10.6	-0.6
HAU	**Haudompre**	**109.37**	**318**	ePKIKP	PKiKP	21 16 10.4	-0.8
	comp=Z,28nm,1.1s						
HAU				eMLR	MLR		
	comp=Z,214nm,18.2s						
HAU	**Haudompre**	**109.37**	**318**	ePKPdf	PKiKP	21 16 10.4	-0.8
HAU				LR	LR		
	comp=Z,210nm,18.3s						
LPG	**La Plagne**	**109.52**	**316**	ePKIKP	PKiKP	21 16 11.5	-0.1
	comp=Z,11nm,0.9s						
LPL	**La Plagne**	**109.53**	**316**	ePKIKP	PKiKP	21 16 11.4	-0.2
	comp=Z,12nm,0.9s						
MBDF	**Montbardon**	**109.62**	**315**	ePKIKP	PKiKP	21 16 11.1	-0.7
CABF	**La Chapelle**	**109.79**	**317**	⇑iPKIKP	PKiKP	21 16 11.8	-0.2
	comp=Z,24nm,1.0s						
FRF	**La Foret Royal**	**109.89**	**313**	ePKIKP	PKiKP	21 16 11.8	-0.5
	comp=Z,13nm,0.8s						
GIVF	**Givet**	**109.94**	**321**	ePKIKP	PKiKP	21 16 11.3	-0.9
LMR	**La Mourre**	**110.02**	**313**	ePKIKP	PKiKP	21 16 12.1	-0.5
MEZF	**Maizieres J'vi**	**110.13**	**319**	ePKIKP	PKiKP	21 16 12.9	+0.3
	comp=Z,8.2nm,0.8s						
ORIF	**Oris-en-Rattie**	**110.22**	**315**	ePKIKP	PKiKP	21 16 12.4	-0.5
	comp=Z,9.2nm,0.9s						
ORIF				eMLR	MLR		
	comp=Z,299nm,19.8s						
BAIF	**Baives**	**110.34**	**321**	ePKIKP	PKiKP	21 16 12.7	-0.3
SMRF	**Simiane la Rot**	**110.59**	**314**	ePKIKP	PKiKP	21 16 13.6	-0.1
	comp=Z,11nm,0.8s						
VIVF	**Saint-Julien-l**	**111.08**	**315**	ePKIKP	PKiKP	21 16 14.0	-0.5
	comp=Z,12nm,0.9s						
LOR	**Lormes**	**111.16**	**318**	⇑iPKIKP	PKiKP	21 16 13.9	-0.7
	comp=Z,7.1nm,0.7s						
LOR				eMLR	MLR		
	comp=Z,221nm,22.5s						
LOR	**Lormes**	**111.16**	**318**	⇑iPKPdf	PKiKP	21 16 13.9	-0.7
LOR				LR	LR		
	comp=Z,220nm,22.5s						
SSF	**Saint Saulge**	**111.44**	**318**	⇑iPKIKP	PKiKP	21 16 14.7	-0.5
	comp=Z,32nm,0.9s						
AVF	**Avril sur Loir**	**111.60**	**317**	ePKIKP	PKiKP	21 16 14.6	-0.9
	comp=Z,11nm,0.8s						
LASF	**Ste Croix**	**111.79**	**314**	ePKIKP	PKiKP	21 16 15.5	-0.4
	comp=Z,48nm,1.4s						
BGF	**Bois d'Agland**	**111.99**	**317**	ePKIKP	PKiKP	21 16 16.0	-0.2
	comp=Z,53nm,1.0s						
TCF	**Toulx Ste Croi**	**112.48**	**317**	ePKIKP	PKiKP	21 16 16.8	-0.4
	comp=Z,27nm,1.1s						
CAF	**Calviac**	**112.88**	**316**	⇑iPKIKP	PKiKP	21 16 17.9	-0.1
	comp=Z,24nm,1.0s						
MTLF	**Montolieu**	**113.10**	**314**	ePKIKP	PKiKP	21 16 17.8	-0.7
RJF	**Les Rejaudoux**	**113.17**	**316**	⇑iPKIKP	PKiKP	21 16 18.4	-0.1
	comp=Z,30nm,1.0s						
RJF				eMLR	MLR		
	comp=Z,174nm,20.8s						
RJF	**Les Rejaudoux**	**113.17**	**316**	⇑iPKPdf	PKiKP	21 16 18.4	-0.1
RJF				LR	LR		
	comp=Z,170nm,20.8s						
LDF	**La Druitiere**	**113.45**	**320**	ePKIKP	PKiKP	21 16 18.2	-0.7
	comp=Z,19nm,0.9s						
FLN	**La Foliniere**	**113.63**	**320**	ePKIKP	PKiKP	21 16 18.7	-0.6
	comp=Z,34nm,1.1s						
FLN				eMLR	MLR		
	comp=Z,244nm,18.0s						
FLN	**La Foliniere**	**113.63**	**320**	ePKPdf	PKiKP	21 16 18.7	-0.6
FLN				LR	LR		
	comp=Z,240nm,18.0s						
LFF	**La Frestale**	**113.79**	**316**	ePKIKP	PKiKP	21 16 19.6	-0.1
	comp=Z,38nm,0.9s						
YKA	**Yellowknife Ar**	**113.84**	**23**	P	Pdif	21 12 30.2	+0.9
YKA				i		21 16 18.4	
YKA						21 26 56.9	
YKA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
YKA	**Yellowknife Ar**	**113.84**	**23**	Pdiff	Pdif	21 12 30.2	+0.8
	comp=Z,0.3nm,0.6s,baz=307,slow=4.6,SNR=6.9						
YKA				PKiKP	PKiKP	21 16 18.4	-0.8
	comp=Z,5.5nm,0.7s,baz=308,slow=2.0,SNR=43						
YKA				PP	PP	21 17 12.5	-5.2
	comp=Z,3.8nm,1.0s,baz=306,slow=4.9,SNR=5.9						
YKA				SKP		21 19 21.8	
	comp=Z,7.3nm,0.8s,baz=310,slow=2.0,SNR=9.4						
YKA				PKKPbc	PKKPbc	21 26 56.9	-8.4
	comp=Z,1.2nm,0.7s,baz=103,slow=3.2,SNR=12						
YKA				PKKPab	PKKPab	21 27 02.0	-8.5
	comp=Z,3.4nm,0.8s,baz=112,slow=4.0,SNR=20						
YKA	**Yellowknife Ar**	**113.84**	**23**	Pdif	Pdif	21 12 30.2	+0.8
YKA				PKPdf	PKiKP	21 16 18.4	-0.8
YKA				PP	PP	21 17 12.5	-5.2
YKA				SKP		21 19 21.8	
YKA				PKKPbc	PKKPbc	21 26 56.9	-8.4
YKA				PKKPab	PKKPab	21 27 02.0	-8.4
GRR	**Gorron**	**113.97**	**320**	ePKIKP	PKiKP	21 16 19.4	-0.6
MFF	**Saint Martin d**	**113.99**	**318**	ePKIKP	PKiKP	21 16 19.5	-0.5
	comp=Z,18nm,0.8s						
EPF	**Esparros**	**114.51**	**314**	ePKIKP	PKiKP	21 16 19.9	-1.3
SGMF	**Saint Gilles**	**115.10**	**320**	ePKIKP	PKPdf	21 16 22.0	-0.1
ETSF	**Etsaut**	**115.18**	**314**	ePKIKP	PKPdf	21 16 21.9	-0.6
	comp=Z,18nm,1.0s						
B04A	**Port Angeles**	**115.29**	**40**	⇑P	PKPdf	21 16 23.6	+1.1
	baz=115						
ROSF	**Rostrenen**	**115.53**	**320**	ePKIKP	PKPdf	21 16 22.1	-0.8
QUIF	**Quistinic**	**115.59**	**320**	ePKIKP	PKPdf	21 16 24.2	+1.1
SJPF	**Ste Jean**	**115.61**	**314**	ePKIKP	PKPdf	21 16 23.4	+0.1
B05A	**Bryant**	**116.12**	**40**	⇑P	PKPdf	21 16 24.3	+0.2
	baz=116						
C05A	**Tolt Reservoir**	**116.56**	**40**	⇑P	PKPdf	21 16 24.8	-0.2
	baz=116						
F04A	**Amboy**	**116.64**	**42**	⇓P	PKPdf	21 16 25.1	-0.1
	baz=116						
A07A	**Ashnola River,**	**116.92**	**38**	⇓P	PKPdf	21 16 25.7	+0.1
	baz=117						
B07A	**Winthrop**	**117.29**	**39**	⇑P	PKPdf	21 16 26.3	-0.1
	baz=117						
E06A	**Yakima**	**117.40**	**41**	⇑P	PKPdf	21 16 26.9	+0.3
	baz=117						
C07A	**Waterville**	**117.60**	**40**	⇓P	PKPdf	21 16 26.6	-0.3
	baz=118						
A08A	**Turner Farm, O**	**117.64**	**38**	⇓P	PKPdf	21 16 26.8	-0.2
	baz=118						
F06A	**Goldendale**	**117.78**	**42**	⇑P	PKPdf	21 16 27.2	-0.1
	baz=118						
B08A	**Colville Reser**	**117.82**	**39**	⇑P	PKPdf	21 16 27.3	-0.1
	baz=118						
G06A	**Carlson Farm,**	**118.05**	**42**	⇓P	PKPdf	21 16 28.0	+0.1
	baz=118						
A09A	**Danville**	**118.05**	**38**	⇓P	PKPdf	21 16 27.8	+0.1
	baz=118						
C08A	**Higginbotham F**	**118.21**	**39**	⇑P	PKPdf	21 16 28.0	-0.1
	baz=118						
H06A	**Lindquist Farm**	**118.41**	**43**	⇓P	PKPdf	21 16 28.9	+0.3
	baz=118						
ESDC	**Sonseca Array**	**118.45**	**311**	PKP	PKPdf	21 16 28.7	-0.2
	comp=Z,4.6nm,0.7s,baz=34,slow=2.5,SNR=22						
ESDC				PP	PP	21 17 46.8	-3.8
	comp=Z,4.9nm,1.0s,baz=67,slow=7.5,SNR=6.3						
ESDC				SKP		21 19 32.1	
	comp=Z,2.1nm,0.8s,baz=63,slow=2.7,SNR=4.4						
ESDC	**Sonseca Array**	**118.45**	**311**	PKP	PKPdf	21 16 28.7	-0.2
ESDC				PP	PP	21 17 46.8	-3.8
ESDC				SKP		21 19 32.1	
B09A	**Rice**	**118.53**	**38**	⇑P	PKPdf	21 16 28.8	0.0

	baz=118						
D08A	**Wollman Farm,**	118.55	40	⇓P	PKPdf	21 16 28.8	0.0
	baz=118						
K05A	**Summer Lake**	118.64	45	⇓P	PKPdf	21 16 29.4	+0.3
	baz=119						
A10A	**Northport**	118.67	38	⇑P	PKPdf	21 16 29.1	+0.2
	baz=119						
I06A	**Prineville**	118.75	44	⇑P	PKPdf	21 16 29.6	+0.3
	baz=119						
PAB	**San Pablo**	118.77	311	*e*PKIKP	PKPdf	21 16 29.6	+0.1
D09A	**Jones Farm, Ri**	118.94	40	⇓P	PKPdf	21 16 29.9	+0.4
	baz=119						
H07A	**Lands Inn, Kim**	118.98	43	⇓P	PKPdf	21 16 30.0	+0.3
	baz=119						
J06A	**Christmas Vall**	119.00	44	⇑P	PKPdf	21 16 30.2	+0.4
	baz=119						
G08A	**Pilot Rock**	119.15	42	⇑P	PKPdf	21 16 30.5	+0.4
	baz=119						
EDM	**Edmonton**	119.17	32	*e*PKIKP	PKPdf	21 16 29.4	-0.4
I07A	**Izee**	119.19	43	⇓P	PKPdf	21 16 30.8	+0.7
	baz=119						
NEW	**Newport**	119.22	38	*e*PKIKP	PKPdf	21 16 30.7	+0.6
A11A	**Hall Mountain,**	119.40	37	⇓P	PKPdf	21 16 30.9	+0.5
	baz=119						
J07A	**Hines**	119.55	44	⇑P	PKPdf	21 16 31.4	+0.5
	baz=120						
D10A	**Wagner Farm, O**	119.59	40	⇓P	PKPdf	21 16 31.0	+0.2
	baz=120						
H08A	**Prairie City**	119.60	43	⇓P	PKPdf	21 16 31.1	+0.2
	baz=120						
K07A	**Rock Creek Ran**	119.81	45	⇑P	PKPdf	21 16 31.6	+0.2
	baz=120						
BEKR	**Beckwourth**	119.85	48	⇓P	PKPdf	21 16 31.9	+0.3
	baz=120						
I08A	**Drewsey**	119.88	43	⇑P	PKPdf	21 16 31.9	+0.4
	baz=120						
E10A	**Myers Farm, Un**	119.92	40	⇑P	PKPdf	21 16 31.7	+0.2
	baz=120						
G09A	**Cove**	119.93	42	⇓P	PKPdf	21 16 31.7	+0.2
	baz=120						
N06A	**Buffalo Meadow**	119.98	47	⇓P	PKPdf	21 16 32.2	+0.4
	baz=120						
J08A	**Circle Bar Ran**	120.13	44	⇓P	PKPdf	21 16 32.2	+0.3
	baz=120						
O06A	**Flanigan**	120.16	48	⇓P	PKPdf	21 16 32.3	+0.2
	baz=120						
SFJD	**Kangerlussuaq**	120.16	354	*i* PKIKP	PKPdf	21 16 30.5	-0.8
SFJD				pmax	pmax		
	comp=Z,15nm,0.8s						
SFJD	**Kangerlussuaq**	120.16	354	*i* P	PKPdf	21 16 30.5	-0.8
	comp=Z,15nm,0.8s						
SFJD	**Kangerlussuaq**	120.16	354	PKP	PKPdf	21 16 30.2	-1.1
	comp=Z,16nm,0.9s,baz=316,slow=2.3,SNR=10.0						
SFJD				pP		21 17 54.0	
	comp=Z,20nm,1.0s,baz=48,slow=11,SNR=5.2						
D11A	**Klaveano Farm,**	120.19	39	⇑P	PKPdf	21 16 31.9	0.0
	baz=120						
H09A	**Durkee**	120.23	42	⇑P	PKPdf	21 16 32.3	+0.2
	baz=120						
M07A	**Soldier Meadow**	120.27	46	⇓P	PKPdf	21 16 32.6	+0.3
	baz=120						
MVO	**Moncorvo**	120.29	313	*e*PKPdf	PKPdf	21 16 32.6	+0.3
K08A	**Mann Creek Ran**	120.33	45	⇑P	PKPdf	21 16 32.9	+0.5
	baz=120						
WCN	**Washoe City**	120.45	49	⇓P	PKPdf	21 16 33.4	+0.7
	baz=120						
E11A	**Bogner Ranch,**	120.54	40	⇑P	PKPdf	21 16 33.1	+0.4
	baz=120						
N07B	**Gerlach**	120.60	47	⇑P	PKPdf	21 16 33.6	+0.7
	baz=120						
L08A	**Fields**	120.60	45	⇑P	PKPdf	21 16 33.8	+0.8
	baz=120						
J09A	**Fry Pan Ranch,**	120.63	44	⇓P	PKPdf	21 16 33.5	+0.6
	baz=120						
PVRL	**Vila Real**	120.75	314	*e*PKPdf	PKPdf	21 16 33.9	+0.7
B13A	**Whitefish**	120.79	37	⇓P	PKPdf	21 16 33.1	0.0
	baz=121						
WALA	**Waterton Lakes**	120.81	36	*e*PKPdf	PKPdf	21 16 33.0	-0.1
M08A	**Happy Creek Ra**	120.82	46	⇓P	PKPdf	21 16 33.7	+0.3
	baz=121						
PCAB	**Cabril**	120.83	314	*e*PKPdf	PKPdf	21 16 33.2	-0.2
O07A	**Toulon**	120.85	48	⇓P	PKPdf	21 16 33.9	+0.4
	baz=121						
H10A	**Noah's Angus R**	120.86	42	⇑P	PKPdf	21 16 33.4	0.0
	baz=121						
MTE	**Manteigas**	120.89	313	*e*PKPdf	PKPdf	21 16 33.2	-0.3
MTE	**Manteigas**	120.89	313	*e*PKPdf	PKPdf	21 16 33.5	-0.1
MTE				*e*SKPdf	SKPdf	21 19 37.5	-0.3
R06C	**Coleville**	120.90	50	⇓P	PKPdf	21 16 34.1	+0.5
	baz=121						
I10A	**Payette**	121.01	43	⇓P	PKPdf	21 16 34.3	+0.6
	baz=121						
C13A	**Hot Springs**	121.02	38	⇑P	PKPdf	21 16 34.1	+0.6
	baz=121						
PVIS	**Viseu**	121.05	313	*e*PKPdf	PKPdf	21 16 34.1	+0.3
PMRV	**Marv??o**	121.07	312	*e*PKPdf	PKPdf	21 16 33.5	-0.4
A14A	**Double T Ranch**	121.14	36	⇓P	PKPdf	21 16 34.2	+0.5
	baz=121						
N08A	**GE Springer Mi**	121.20	47	⇑P	PKPdf	21 16 34.9	+0.8
	baz=121						
H11A	**Donnelly**	121.31	42	⇑P	PKPdf	21 16 34.7	+0.5
	baz=121						
D13A	**Huson**	121.34	39	⇑P	PKPdf	21 16 34.0	-0.2
	baz=121						
PESTR	**Estremoz**	121.38	311	*e*PKPdf	PKPdf	21 16 34.6	+0.1
K10A	**MacKenzie Ranc**	121.43	44	⇓P	PKPdf	21 16 35.0	+0.5
	baz=121						
C14A	**Swan Lake**	121.48	38	⇓P	PKPdf	21 16 34.5	+0.1
	baz=121						
A15A	**Johnson Ranch,**	121.54	36	⇓P	PKPdf	21 16 34.5	0.0
	baz=121						
I11A	**Placerville**	121.64	43	⇓P	PKPdf	21 16 35.3	+0.5
	baz=122						
MSO	**Missoula**	121.77	39	*e*PKPdf	PKPdf	21 16 34.3	-0.8
MSO				*e*pPKPdf	pPKPdf	21 17 54.7	-1.0
MSO				*e*SKPdf	SKPdf	21 19 38.1	-1.1
E13A	**Victor**	121.78	39	⇑P	PKPdf	21 16 35.5	+0.4
	baz=122						
NVAR	**Mina Array Bea**	121.79	49	PKP	PKPdf	21 16 36.0	+0.6
	comp=Z,7.3nm,0.7s,baz=252,slow=1.9,SNR=25						
NVAR				pP		21 17 56.8	
	comp=Z,3.7nm,0.8s,baz=258,slow=2.1,SNR=3.3						
NVAR				PKKPbc	PKKPbc	21 26 37.0	+0.8
	comp=Z,7.5nm,0.9s,baz=135,slow=4.8,SNR=23						
EVO	**Evora**	121.80	311	⇑*i*PKIKP	PKPdf	21 16 35.7	+0.4
	comp=Z,118nm,1.4s						
EVO				*e*MLR	MLR		
	comp=Z,160nm,22.2s						
EVO	**Evora**	121.80	311	*e*PKPdf	PKPdf	21 16 36.0	+0.7
PBEJ	**Beja**	121.83	310	*e*PKPdf	PKPdf	21 16 35.8	+0.4
VES	**Vestal, Richgr**	121.89	52	⇑P	PKPdf	21 16 35.8	+0.2
	baz=122						
PVAQ	**Vaqueiros**	121.89	309	*e*PKPdf	PKPdf	21 16 36.4	+0.9
BSC	**Santa Cruz Isl**	121.90	55	⇓P	PKPdf	21 16 35.4	-0.2
	baz=122						
MFID	**Camas Ranch**	121.91	43	⇑P	PKPdf	21 16 35.9	+0.5
	baz=122						
D14A	**Greenough**	121.93	38	⇑P	PKPdf	21 16 35.5	+0.2
	baz=122						
Q08A	**Gabbs**	121.94	49	⇑P	PKPdf	21 16 36.2	+0.6
	baz=122						
B15A	**Bradely Ranch,**	121.95	37	⇑P	PKPdf	21 16 35.4	+0.1
	baz=122						
L10A	**Juniper Basin**	121.95	45	⇓P	PKPdf	21 16 36.0	+0.4
	baz=122						
F13A	**Darby**	121.97	40	⇓P	PKPdf	21 16 35.9	+0.5
	baz=122						
K11A	**Parker Ranch,**	122.01	44	⇓P	PKPdf	21 16 36.3	+0.7
	baz=122						
KIC	**Kosan Boka**	122.07	273	*e*PKIKP	PKPdf	21 16 35.9	-0.7
	comp=Z,242nm,1.0s						
PBDV	**Barranco-do-Ve**	122.10	309	*e*PKPdf	PKPdf	21 16 35.6	-0.4
H12A	**Diamond D Ranc**	122.13	42	⇓P	PKPdf	21 16 36.4	+0.6
	baz=122						
C15A	**Salmond Ranch,**	122.17	37	⇑P	PKPdf	21 16 36.1	+0.3
	baz=122						
DBIC	**Dimbokro**	122.21	273	PKP	PKPdf	21 16 36.4	-0.5
	comp=Z,37nm,0.8s,baz=80,slow=2.2,SNR=36						
DBIC				pPKP	pPKPdf	21 17 57.7	+0.2
	comp=Z,7.3nm,0.9s,baz=229,slow=1.7,SNR=3.2						
DBIC				PP	PP	21 18 15.7	-1.4
	comp=Z,6.4nm,0.8s,baz=102,slow=8.7,SNR=3.5						
DBIC				SKP		21 19 39.8	
	comp=Z,3.2nm,0.8s,baz=78,slow=6.2,SNR=3.4						
DBIC	**Dimbokro**	122.21	273	PKP	PKPdf	21 16 36.4	-0.5
DBIC				pPKP	pPKPdf	21 17 57.7	+0.2
DBIC				PP	PP	21 18 15.7	-1.4
DBIC				SKP		21 19 39.8	
A16A	**West Butte Ran**	122.22	36	⇑P	PKPdf	21 16 36.3	+0.5
	baz=122						
E14A	**Clinton**	122.23	39	⇓P	PKPdf	21 16 36.4	+0.5
	baz=122						
G13A	**Cobalt**	122.32	41	⇓P	PKPdf	21 16 36.6	+0.5
	baz=122						
LIC	**Lamto**	122.34	273	⇑*i*PKIKP	PKPdf	21 16 36.5	-0.6
	comp=Z,130nm,1.0s						
LIC				*e*MLR	MLR		
	comp=Z,146nm,22.8s						
LIC	**Lamto**	122.34	273	*e*PKIKP	PKPdf	21 16 36.4	-0.7
	comp=Z,168nm,1.0s						
LIC	**Lamto**	122.34	273	⇑*i*PKPdf	PKPdf	21 16 36.5	-0.6
LIC				LR	LR		
	comp=Z,70nm,22.8s						
TIC	**Toumodi**	122.37	273	*e*PKIKP	PKPdf	21 16 36.5	-0.6
	comp=Z,135nm,0.7s						
B16A	**M & M Farms, S**	122.41	36	⇓P	PKPdf	21 16 36.1	-0.1
	baz=122						
ISA	**Isabella**	122.42	53	⇑P	PKPdf	21 16 36.8	+0.2
	baz=122						
L11A	**Cat Creek Ranc**	122.42	44	⇓P	PKPdf	21 16 37.2	+0.8
	baz=122						
J12A	**Stokes Ranch,**	122.47	43	⇑P	PKPdf	21 16 37.5	+1.1
	baz=122						
H13A	**Challis**	122.52	41	⇑P	PKPdf	21 16 37.4	+0.9
	baz=122						
D15A	**Lincoln**	122.56	38	⇓P	PKPdf	21 16 37.0	+0.5
	baz=122						
F14A	**Wisdom**	122.57	40	⇑P	PKPdf	21 16 37.2	+0.6
	baz=122						
PMAFR	**Mafra**	122.61	312	*e*PKPdf	PKPdf	21 16 37.2	+0.3
PTEO	**Sao Teotonio**	122.62	310	*e*PKPdf	PKPdf	21 16 37.7	+0.8
MORF	**Marmelete**	122.63	310	*e*PKPdf	PKPdf	21 16 37.5	+0.5
C16A	**Fuhringer Ranc**	122.67	37	⇓P	PKPdf	21 16 36.9	+0.2
	baz=122						
A17A	**Triple J Farms**	122.73	35	⇓P	PKPdf	21 16 37.2	+0.4
	baz=123						
E15A	**Deer Lodge**	122.76	39	⇓P	PKPdf	21 16 37.3	+0.4
	baz=123						
S09A	**Goldfield**	122.81	50	⇓P	PKPdf	21 16 38.2	+0.9
	baz=123						
HLID	**Hailey**	122.81	42	⇑P	PKPdf	21 16 38.3	+1.2
	baz=123						
HLID	**Hailey**	122.81	42	*e*PKPdf	PKPdf	21 16 37.9	+0.8
HLID				*e*SKPdf	SKPdf	21 19 41.0	-0.4
PFVI	**Vila Bisbo**	122.82	309	*e*PKPdf	PKPdf	21 16 38.2	+0.9
K12A	**Draper Farm, C**	122.83	44	⇓P	PKPdf	21 16 38.0	+0.8
	baz=123						
I13A	**Wildhorse Cree**	122.87	42	⇑P	PKPdf	21 16 38.2	+1.0
	baz=123						
GRAC	**Grapevine Rang**	122.91	51	⇓P	PKPdf	21 16 38.6	+1.1
	baz=123						
L12A	**House Creek Ra**	122.94	44	⇓P	PKPdf	21 16 38.8	+1.4
	baz=123						
B17A	**L&G Farms, Che**	123.00	36	⇑P	PKPdf	21 16 37.5	+0.2
	baz=123						
EDW2	**Edwards Air Fo**	123.00	53	⇓P	PKPdf	21 16 38.3	+0.5
	baz=123						
SCI	**San Clemente I**	123.01	56	⇓P	PKPdf	21 16 38.8	+1.0
	baz=123						
CIS	**Catalina Islan**	123.03	55	⇑P	PKPdf	21 16 38.3	+0.5
	baz=123						
J13A	**Cove Ranch, Pi**	123.03	43	⇑P	PKPdf	21 16 38.2	+0.7
	baz=123						
MPMC	**Manual Prospec**	123.08	52	⇓P	PKPdf	21 16 38.9	+1.0
	baz=123						
Q10A	**Clear Creek Ra**	123.09	48	⇓P	PKPdf	21 16 38.8	+1.0
	baz=123						
F15A	**Butte**	123.11	39	⇓P	PKPdf	21 16 38.1	+0.5
	baz=123						
MWC	**Mount Wilson**	123.11	54	*e*PKIKP	PKPdf	21 16 38.8	+0.8
D16A	**Dana Ranch, Ca**	123.15	38	⇓P	PKPdf	21 16 38.3	+0.6
	baz=123						
O11A	**Cowboy Ranch,**	123.20	47	⇓P	PKPdf	21 16 38.7	+0.7
	baz=123						
S10A	**Tonopah Range,**	123.22	49	⇑P	PKPdf	21 16 39.0	+0.9
	baz=123						
A18A	**Metzger Ranch,**	123.23	35	⇑P	PKPdf	21 16 38.1	+0.3
	baz=123						
DLMT	**Dillon**	123.25	40	*e*PKPdf	PKPdf	21 16 38.7	+0.8
ELK	**Elko**	123.29	46	*e*PKIKP	PKPdf	21 16 38.5	+0.4
I14A	**Mackay**	123.30	42	⇓P	PKPdf	21 16 38.2	+0.2
	baz=123						
E16A	**East Helena**	123.30	38	⇓P	PKPdf	21 16 38.1	+0.1
	baz=123						
R10A	**Warm Springs**	123.33	49	⇓P	PKPdf	21 16 39.2	+0.9
	baz=123						
C17A	**Wharram Farm,**	123.34	37	⇓P	PKPdf	21 16 38.3	+0.3
	baz=123						
K13A	**Stover Farm, H**	123.39	43	⇑P	PKPdf	21 16 39.4	+1.2
	baz=123						
N12A	**Clover Valley,**	123.39	46	⇑P	PKPdf	21 16 39.1	+0.8
	baz=123						
G15A	**Dillon**	123.41	40	⇑P	PKPdf	21 16 39.2	+1.0
	baz=123						
BFSC	**Mount Baldy St**	123.43	54	⇓P	PKPdf	21 16 39.1	+0.5
	baz=123						
FURC	**Furnace Creek,**	123.45	51	⇑P	PKPdf	21 16 39.4	+0.8
	baz=123						
B18A	**Beardsley Farm**	123.54	36	⇑P	PKPdf	21 16 38.5	+0.2
	baz=123						
H15A	**Lima**	123.54	41	⇑P	PKPdf	21 16 39.8	+1.3
	baz=123						
D17A	**Six Diamond Ra**	123.61	37	⇓P	PKPdf	21 16 39.2	+0.6
	baz=124						
Q11A	**Duckwater**	123.63	48	⇓P	PKPdf	21 16 39.4	+0.6
	baz=124						
L13A	**Double Diamond**	123.70	44	⇓P	PKPdf	21 16 40.0	+1.1
	baz=124						
BOZ	**Bozeman (W)**	123.73	39	⇓P	PKPdf	21 16 39.8	+1.0
	baz=124						
BOZ	**Bozeman (W)**	123.73	39	*e*PKPdf	PKPdf	21 16 39.1	+0.3
EGMT	**Eagleton**	123.74	36	⇓P	PKPdf	21 16 39.3	+0.5
	baz=124						
EGMT	**Eagleton**	123.74	36	*e*PKPdf	PKPdf	21 16 38.7	0.0
FFC	**Flin Flon**	123.78	26	*i* PKIKP	PKPdf	21 16 38.5	-0.1
FFC	**Flin Flon**	123.78	26	*e*PKPdf	PKPdf	21 16 37.4	-1.2
FFC				*e*pPKPdf	pPKPdf	21 18 00.6	+1.3
FCC	**Fort Churchill**	123.80	19	*e*PKIKP	PKPdf	21 16 37.1	-1.4
FCC				*e*		21 17 59.4	
O12A	**Currie**	123.81	46	⇓P	PKPdf	21 16 40.0	+0.9
	baz=124						
G16A	**Moss Hill, Enn**	123.81	40	⇓P	PKPdf	21 16 39.8	+0.8
	baz=124						
GSC	**Goldstone**	123.82	52	⇓P	PKPdf	21 16 40.1	+0.8
	baz=124						
GSC	**Goldstone**	123.82	52	*e*PKPdf	PKPdf	21 16 40.0	+0.7
E17A	**Martinsdale**	123.84	38	⇓P	PKPdf	21 16 39.9	+0.9
	baz=124						
R11A	**Troy Canyon, C**	123.85	49	⇓P	PKPdf	21 16 40.1	+0.8
	baz=124						
I15A	**Monteview**	123.91	41	⇓P	PKPdf	21 16 40.1	+0.9
	baz=124						
MURC	**Murrieta**	123.96	55	⇑P	PKPdf	21 16 40.4	+0.7
	baz=124						
P12A	**McGill**	123.97	47	⇑P	PKPdf	21 16 40.4	+1.0
	baz=124						
N13A	**Wendover, West**	123.98	45	⇓P	PKPdf	21 16 40.4	+1.0
	baz=124						
D18A	**Linhart Farms,**	124.12	37	⇑P	PKPdf	21 16 40.0	+0.5
	baz=124						
J15A	**Blackfoot**	124.19	42	⇓P	PKPdf	21 16 40.9	+1.2
	baz=124						
L14A	**Malta**	124.20	44	⇑P	PKPdf	21 16 40.8	+1.0
	baz=124						
F17A	**Fitzpatrick Pl**	124.22	39	⇓P	PKPdf	21 16 40.5	+0.7
	baz=124						
HEC	**Hector,Ludlow**	124.33	53	⇓P	PKPdf	21 16 41.0	+0.7
	baz=124						
M14A	**Sheep Mountain**	124.34	44	⇑P	PKPdf	21 16 40.9	+0.7
	baz=124						
E18A	**Harlowton**	124.36	38	⇓P	PKPdf	21 16 40.6	+0.6
	baz=124						
H16A	**Russell Place,**	124.40	40	⇓P	PKPdf	21 16 41.4	+1.3
	baz=124						
K15A	**Arbon**	124.42	43	⇓P	PKPdf	21 16 41.1	+0.9
	baz=124						
G17A	**Pierce Place,**	124.44	39	⇓P	PKPdf	21 16 41.1	+0.9
	baz=124						
T11A	**Corn Creek, Al**	124.47	50	⇓P	PKPdf	21 16 41.5	+1.0
	baz=124						
TUQ	**Turquoise Moun**	124.48	52	⇑P	PKPdf	21 16 41.4	+0.9
	baz=124						
PFO	**Pinyon Flat Ob**	124.56	54	⇑P	PKPdf	21 16 41.8	+1.1
	baz=124						
PFO	**Pinyon Flat Ob**	124.56	54	*e*PKPdf	PKPdf	21 16 41.6	+0.8
U11A	**Corn Creek**	124.60	51	⇑P	PKPdf	21 16 41.9	+1.1
	baz=124						
I16A	**Newdale**	124.61	41	⇑P	PKPdf	21 16 41.8	+1.3
	baz=124						
P13A	**Bates Ranch, G**	124.62	47	⇓P	PKPdf	21 16 42.0	+1.3
	baz=124						
S12A	**Delamar Landin**	124.64	49	⇑P	PKPdf	21 16 42.0	+1.2
	baz=125						
N14A	**Grayback Hills**	124.70	45	⇓P	PKPdf	21 16 41.9	+1.1
	baz=125						
V11A	**Goodsprings**	124.74	51	⇑P	PKPdf	21 16 42.3	+1.2
	baz=125						
MONP	**Monument Peak**	124.77	55	⇓P	PKPdf	21 16 42.3	+1.1
	baz=125						
L15A	**Malad City**	124.80	43	⇑P	PKPdf	21 16 41.7	+0.7
	baz=125						
F18A	**Big Timber**	124.80	38	⇑P	PKPdf	21 16 41.7	+0.8
	baz=125						
BELC	**Belle Mtn.**	124.82	54	⇓P	PKPdf	21 16 42.3	+1.1
	baz=125						
GMRC	**Granite Mounta**	124.87	53	⇑P	PKPdf	21 16 42.4	+1.1
	baz=125						
H17A	**Grant Village**	124.97	40	⇓P	PKPdf	21 16 42.6	+1.4
	baz=125						
M15A	**Larsen Ranch,**	124.97	44	⇑P	PKPdf	21 16 42.1	+0.7
	baz=125						
K16A	**Soda Springs**	124.99	42	⇓P	PKPdf	21 16 42.2	+0.9
	baz=125						
DVTC	**Desert V Tower**	125.09	55	⇓P	PKPdf	21 16 43.0	+1.2
	baz=125						
N15A	**Stansbury Isla**	125.15	45	⇑P	PKPdf	21 16 42.8	+1.1
	baz=125						
I17A	**Pilgrim Ck.**	125.18	41	⇓P	PKPdf	21 16 42.9	+1.3
	baz=125						
DUG	**Dugway**	125.21	46	⇑P	PKPdf	21 16 43.0	+1.2
	baz=125						
DUG	**Dugway**	125.21	46	*e*PKPdf	PKPdf	21 16 42.1	+0.3
LDFC	**Landfair**	125.22	52	*e*PKPdf	PKPdf	21 16 43.3	+1.3
V12A	**Nelson**	125.23	51	⇑P	PKPdf	21 16 43.2	+1.2
	baz=125						
U12A	**Valley of Fire**	125.25	51	⇓P	PKPdf	21 16 43.1	+1.1
	baz=125						
REDW	**Red Top Meadow**	125.25	41	*e*PKPdf	PKPdf	21 16 42.6	+0.8
REDW				*e*pPKPdf	pPKPdf	21 18 03.9	+1.4
P14A	**Drum Mountains**	125.26	46	⇑P	PKPdf	21 16 43.0	+1.1
	baz=125						
SWSC	**Sam W. Stewart**	125.26	55	⇑P	PKPdf	21 16 42.8	+0.7
	baz=125						
LOHW	**Long Hollow**	125.30	41	*e*PKPdf	PKPdf	21 16 42.5	+0.6
LOHW				*e*pPKPdf	pPKPdf	21 18 04.4	+1.9
BC3	**Big Chuckw Mtn**	125.35	54	⇑P	PKPdf	21 16 43.7	+1.4
	baz=125						
S13A	**Holt Ranch, En**	125.39	49	⇑P	PKPdf	21 16 43.9	+1.6
	baz=125						
O15A	**The Old Anders**	125.42	45	⇑P	PKPdf	21 16 43.8	+1.6
	baz=125						
L16A	**Fish Haven**	125.44	43	⇓P	PKPdf	21 16 43.2	+1.0
	baz=125						
IRM	**Iron Mountain**	125.45	53	⇑P	PKPdf	21 16 43.7	+1.2
	baz=125						
RLMT	**Red Lodge**	125.45	39	⇓P	PKPdf	21 16 43.4	+1.3
	baz=125						
RLMT	**Red Lodge**	125.45	39	*e*PKPdf	PKPdf	21 16 42.8	+0.7
T13A	**Saint George**	125.54	50	⇑P	PKPdf	21 16 43.8	+1.2
	baz=126						
I18A	**Diamond G Ranc**	125.77	41	⇑P	PKPdf	21 16 43.4	+0.6
	baz=126						
L17A	**Cokeville**	125.78	43	P	PKPdf	21 16 43.5	+0.6
	baz=126						
P15A	**Leamington**	125.83	46	⇑P	PKPdf	21 16 43.8	+0.8
	baz=126						
V13A	**Grand Canyon W**	125.86	51	⇑P	PKPdf	21 16 44.2	+1.0
	baz=126						
J18A	**Kendall Valley**	125.86	41	⇓P	PKPdf	21 16 43.8	+0.9
	baz=126						
N16A	**Rees Ranch, Co**	125.90	44	⇑P	PKPdf	21 16 44.1	+0.9
	baz=126						
GLA	**Glamis**	126.02	55	⇑P	PKPdf	21 16 44.4	+0.8
	baz=126						
K18A	**Toltan Ranch,**	126.11	42	⇑P	PKPdf	21 16 44.6	+1.1
	baz=126						
T14A	**Hurricane**	126.14	49	⇓P	PKPdf	21 16 44.8	+1.1
	baz=126						
W13A	**Hualapai Mount**	126.17	52	⇑P	PKPdf	21 16 44.6	+0.8
	baz=126						
PDMCI	**Parker Dam,Lak**	126.21	53	⇓P	PKPdf	21 16 44.7	+0.8
	baz=126						
U14A	**Mt Trumbull**	126.29	50	⇑P	PKPdf	21 16 45.1	+1.1
	baz=126						
N17A	**Moffit Pass**	126.30	44	⇓P	PKPdf	21 16 44.9	+1.1
	baz=126						
BW06	**Boulder Array**	126.36	41	⇑P	PKPdf	21 16 44.1	+0.1
	baz=126						
PDAR	**Pinedale Array**	126.36	41	PKP	PKPdf	21 16 44.2	+0.2
	comp=Z,7.3nm,1.1s,baz=219,slow=1.9,SNR=26						
PDAR				pPKP	pPKPdf	21 18 07.1	+2.5
	comp=Z,5.1nm,1.1s,baz=248,slow=1.6,SNR=4.2						
PDAR				PKKPab		21 26 17.4	
	comp=Z,2.2nm,0.8s,baz=126,slow=6.8,SNR=10						
X13A	**Yucca**	126.37	52	⇓P	PKPdf	21 16 45.0	+0.8
	baz=126						
L18A	**Fontenelle, Gr**	126.42	43	⇓P	PKPdf	21 16 45.2	+1.1
	baz=126						
LAO	**LASA Array**	126.48	36	*e*PKPdf	PKPdf	21 16 44.6	+0.6
LAO				*e*pPKPdf	pPKPdf	21 18 04.0	-0.8
Y13A	**Salome**	126.60	53	⇓P	PKPdf	21 16 46.0	+1.3
	baz=126						
V14A	**Boquillas Ranc**	126.61	51	⇑P	PKPdf	21 16 45.7	+1.1
	baz=126						
M18A	**Lyman**	126.62	43	⇓P	PKPdf	21 16 45.4	+0.9
	baz=126						
O17A	**Robinson Place**	126.67	45	⇓P	PKPdf	21 16 46.2	+1.5
	baz=127						
W14A	**Seligman**	126.76	51	⇓P	PKPdf	21 16 46.6	+1.7
	baz=127						
L19A	**Farson**	126.80	42	⇑P	PKPdf	21 16 46.0	+1.2
	baz=127						
K19A	**Absolon Red Bu**	126.80	41	⇓P	PKPdf	21 16 45.5	+0.7
	baz=127						
Q16A	**Castle Valley**	126.87	46	⇓P	PKPdf	21 16 45.7	+0.6
	baz=127						
R16A	**Teasdale**	126.89	47	⇓P	PKPdf	21 16 46.2	+1.1
	baz=127						
113A	**Mohawk Valley,**	126.95	55	⇑P	PKPdf	21 16 45.9	+0.5
	baz=127						
P17A	**Butcher Ranch,**	126.96	46	⇓P	PKPdf	21 16 46.3	+1.1
	baz=127						
S16A	**Weppner Ranch,**	127.02	48	⇑P	PKPdf	21 16 46.3	+1.0
	baz=127						
X14A	**Yava**	127.14	52	⇑P	PKPdf	21 16 46.6	+0.9
	baz=127						
M19A	**Rock Springs**	127.20	43	⇓P	PKPdf	21 16 46.6	+1.1
	baz=127						
Y14A	**Wickenburg**	127.22	53	⇓P	PKPdf	21 16 46.9	+1.0
	baz=127						
P18A	**Preston Nutter**	127.25	45	⇓P	PKPdf	21 16 46.8	+1.0
	baz=127						
V15A	**Kaibab Nationa**	127.26	50	⇑P	PKPdf	21 16 47.3	+1.4
	baz=127						
SRU	**San Rafael**	127.26	46	⇓P	PKPdf	21 16 47.0	+1.2
	baz=127						
T16A	**Glen Canyon Da**	127.35	49	⇑P	PKPdf	21 16 47.4	+1.3
	baz=127						
R17A	**Hanksville Air**	127.40	47	⇑P	PKPdf	21 16 47.4	+1.4
	baz=127						
W15A	**Williams**	127.40	51	⇑P	PKPdf	21 16 47.2	+1.0
	baz=127						
Z14A	**Wintersburg**	127.44	54	⇑P	PKPdf	21 16 47.3	+1.0
	baz=127						
N19A	**John Jarvie Ra**	127.45	43	⇓P	PKPdf	21 16 46.8	+0.7
	baz=127						
Q18A	**Rafter H Ranch**	127.54	46	⇓P	PKPdf	21 16 47.3	+1.0
	baz=127						
S17A	**Black Ridge (B**	127.63	48	⇑P	PKPdf	21 16 47.4	+0.8
	baz=128						
X15A	**Humboldt**	127.65	52	⇑P	PKPdf	21 16 47.6	+0.9
	baz=128						
Y15A	**Casa Rosa Ranc**	127.75	53	⇓P	PKPdf	21 16 47.6	+0.8
	baz=128						
O19A	**Miners Draw (B**	127.75	44	⇑P	PKPdf	21 16 47.4	+0.8
	baz=128						
M20A	**Sweetwater, Wa**	127.86	42	⇑P	PKPdf	21 16 47.5	+0.7
	baz=128						
T17A	**Navajo Res., N**	127.87	49	⇑P	PKPdf	21 16 47.8	+0.8
	baz=128						
U16A	**Tuba City**	127.94	50	⇓P	PKPdf	21 16 48.2	+1.1
	baz=128						

214A	**Organ Pipe Nat**	**127.96**	**55**	⇑P	PKPdf	21 16 47.8	+0.5
	baz=128						
WUAZ	**Wupatki**	**127.97**	**51**	⇓P	PKPdf	21 16 48.2	+0.9
	baz=128						
WUAZ	**Wupatki**	**127.97**	**51**	*e*PKPdf	PKPdf	21 16 47.5	+0.3
WUAZ				*e*SKP		21 19 34.4	
W16A	**Flagstaff**	**128.00**	**51**	⇑P	PKPdf	21 16 48.1	+0.8
	baz=128						
R18A	**Canyonlands Na**	**128.00**	**47**	⇑P	PKPdf	21 16 48.3	+1.1
	baz=128						
N20A	**Spence Gulch,**	**128.10**	**43**	⇓P	PKPdf	21 16 48.3	+1.0
	baz=128						
U17A	**Shonto**	**128.12**	**49**	⇑P	PKPdf	21 16 48.4	+0.9
	baz=128						
P19A	**Cripple Cowboy**	**128.13**	**45**	⇑P	PKPdf	21 16 48.9	+1.5
	baz=128						
L21A	**Rawlins**	**128.17**	**41**	⇓P	PKPdf	21 16 48.1	+0.7
	baz=128						
S18A	**Hurst Farm, Bl**	**128.20**	**47**	⇑P	PKPdf	21 16 48.5	+0.8
	baz=128						
115A	**Sonoran Desert**	**128.21**	**54**	⇓P	PKPdf	21 16 48.8	+1.0
	baz=128						
Q19A	**Hogan Spring (**	**128.22**	**46**	⇑P	PKPdf	21 16 48.3	+0.7
	baz=128						
X16A	**Lo Mia Camp, P**	**128.29**	**52**	⇑P	PKPdf	21 16 48.8	+0.9
	baz=128						
O20A	**White River Ci**	**128.43**	**44**	⇑P	PKPdf	21 16 49.3	+1.4
	baz=128						
Y16A	**Circle Bar Ran**	**128.44**	**53**	⇑P	PKPdf	21 16 48.7	+0.5
	baz=128						
R19A	**Curley Farm, L**	**128.50**	**46**	⇓P	PKPdf	21 16 49.4	+1.2
	baz=128						
T18A	**Mexican Hat**	**128.51**	**48**	⇑P	PKPdf	21 16 49.3	+1.1
	baz=128						
P20A	**De Beque**	**128.60**	**45**	⇑P	PKPdf	21 16 49.3	+1.0
	baz=128						
N21A	**Black Mountain**	**128.64**	**43**	⇓P	PKPdf	21 16 49.5	+1.1
	baz=128						
116A	**Eloy**	**128.68**	**54**	⇑P	PKPdf	21 16 49.8	+1.1
	baz=129						
U18A	**Rough Rock, Ch**	**128.78**	**49**	⇓P	PKPdf	21 16 49.9	+1.2
	baz=129						
S19A	**Harvey Farm, M**	**128.81**	**47**	⇓P	PKPdf	21 16 49.7	+0.9
	baz=129						
Q20A	**Ridgley Place,**	**128.91**	**45**	⇑P	PKPdf	21 16 50.3	+1.3
	baz=129						
M22A	**Cedar Creek Ra**	**128.95**	**42**	⇓P	PKPdf	21 16 49.9	+1.0
	baz=129						
V18A	**Ganado**	**129.00**	**50**	⇑P	PKPdf	21 16 50.3	+1.1
	baz=129						
Y17A	**Roosevelt**	**129.00**	**53**	⇑P	PKPdf	21 16 50.5	+1.2
	baz=129						
R20A	**Redvale**	**129.17**	**46**	⇑P	PKPdf	21 16 50.8	+1.3
	baz=129						
RSSD	**Black Hills**	**129.17**	**37**	*e*PKIKP	PKPdf	21 16 48.9	-0.4
RSSD				*e*		21 18 07.2	
P21A	**Newcastle**	**129.25**	**44**	⇑P	PKPdf	21 16 50.9	+1.3
	baz=129						
T19A	**Beclabito**	**129.25**	**48**	⇓P	PKPdf	21 16 51.1	+1.4
	baz=129						
N22A	**Wattenberg Ran**	**129.33**	**42**	⇓P	PKPdf	21 16 51.2	+1.5
	baz=129						
W18A	**Petrified Fore**	**129.37**	**50**	⇓P	PKPdf	21 16 51.5	+1.6
	baz=129						
X18A	**Snowflake**	**129.41**	**51**	⇓P	PKPdf	21 16 50.9	+0.9
	baz=129						
117A	**Oracle**	**129.45**	**54**	⇓P	PKPdf	21 16 50.5	+0.3
	baz=129						
MVCO	**Mesa Verde**	**129.49**	**47**	⇓P	PKPdf	21 16 50.4	+0.3
	baz=129						
MVCO	**Mesa Verde**	**129.49**	**47**	*e*PKPdf	PKPdf	21 16 50.5	+0.4
TUC	**Tucson**	**129.50**	**54**	*e*PKIKP	PKPdf	21 16 50.8	+0.6
ULM	**Lac du Bonnet**	**129.57**	**27**	PKP	PKPdf	21 16 48.6	-1.2
	comp=Z,5.8nm,0.9s,baz=342,slow=1.6,SNR=6.4						
ULM				pPKP	pPKPdf	21 18 12.6	+2.1
	comp=Z,5.6nm,0.9s,baz=349,slow=2.9,SNR=3.3						
ULM				SKPbc		21 19 38.9	
	comp=Z,49nm,1.1s,baz=331,slow=4.3,SNR=15						
217A	**Green Valley**	**129.63**	**55**	⇓P	PKPdf	21 16 51.2	+0.7
	baz=130						
V19A	**Window Rock**	**129.67**	**49**	⇓P	PKPdf	21 16 51.0	+0.5
	baz=130						
Q22A	**Crested Butte,**	**129.92**	**45**	⇑P	PKPdf	21 16 52.0	+1.2
	baz=130						
118A	**Homack Ranch,**	**130.04**	**53**	⇑P	PKPdf	21 16 52.3	+1.1
	baz=130						
W20A	**Ramah**	**130.30**	**50**	⇑P	PKPdf	21 16 52.7	+1.0
	baz=130						
R22A	**Saguache, Gunn**	**130.31**	**45**	⇓P	PKPdf	21 16 52.5	+0.9
	baz=130						
ISCO	**Idaho Springs**	**130.38**	**43**	*e*PKPdf	PKPdf	21 16 52.7	+1.0
ISCO				*e*SKP		21 19 43.2	
318A	**Bisbee**	**130.41**	**55**	⇑P	PKPdf	21 16 52.7	+0.7
	baz=130						
119A	**Ashpeak Ranch,**	**130.53**	**53**	⇓P	PKPdf	21 16 53.3	+1.1
	baz=130						
T22A	**Edith**	**130.73**	**47**	⇑P	PKPdf	21 16 53.8	+1.4
	baz=131						
219A	**White Tail Can**	**130.82**	**54**	⇓P	PKPdf	21 16 54.1	+1.3
	baz=131						
W21A	**San Fidel**	**130.95**	**50**	⇑P	PKPdf	21 16 54.0	+1.1
	baz=131						
AGMN	**Agassiz Refuge**	**130.97**	**29**	*e*SKPdf	SKPbc	21 19 43.5	-2.7
319A	**Douglas**	**131.00**	**55**	⇑P	PKPdf	21 16 54.8	+1.6
	baz=131						
120A	**U Bar Ranch, L**	**131.13**	**53**	⇓P	PKPdf	21 16 54.4	+1.0
	baz=131						
PLCA	**Paso Flores**	**131.35**	**172**	PKP	PKPdf	21 16 54.8	+1.2
	comp=Z,4.2nm,0.7s,baz=197,slow=5.1,SNR=3.2						
PLCA				pPKP	pPKPdf	21 18 14.8	+0.5
	comp=Z,8.8nm,1.0s,baz=304,slow=3.4,SNR=4.1						
PLCA				SKPab		21 19 49.0	
	comp=Z,57nm,0.8s,baz=194,slow=3.3,SNR=31						
PLCA	**Paso Flores**	**131.35**	**172**	PKP	PKPdf	21 16 54.8	+1.2
PLCA				pPKP	pPKPdf	21 18 14.8	+0.5
PLCA				SKPab		21 19 49.0	
SDCO	**Great Sand Dun**	**131.41**	**45**	*e*PKPdf	PKPdf	21 16 54.1	+0.4
ANMO	**Albuquerque**	**131.91**	**49**	PKP	PKPdf	21 16 55.6	+0.9
	comp=Z,7.5nm,0.9s,baz=213,slow=2.5,SNR=10						
ANMO				pPKP	pPKPdf	21 18 16.7	+1.3
	comp=Z,3.0nm,0.7s,baz=219,slow=3.1,SNR=2.3						
ANMO				SKPbc	SKPbc	21 19 49.7	-0.3
	comp=Z,48nm,0.9s,baz=282,slow=3.6,SNR=41						
ANMO	**Albuquerque**	**131.91**	**49**	PKP	PKPdf	21 16 55.6	+0.9
ANMO				pPKP	pPKPdf	21 18 16.7	+1.3
ANMO				SKPbc	SKPbc	21 19 49.7	-0.3
LPIG	**La Paz**	**132.04**	**64**	SKPbc	SKPbc	21 19 48.5	-2.2
	comp=Z,94nm,0.9s,baz=185,slow=3.9,SNR=8.6						
SCHQ	**Schefferville**	**132.88**	**3**	PKP	PKPdf	21 16 56.2	+0.3
	comp=Z,13nm,0.8s,baz=48,slow=3.6,SNR=15						
SCHQ				PP	PP	21 19 22.4	-2.2
	comp=Z,14nm,1.1s,baz=2.7,slow=6.8,SNR=3.7						
SCHQ				SKPbc	SKPbc	21 19 51.8	-0.9
	comp=Z,74nm,1.0s,baz=14,slow=4.7,SNR=15						
COWI	**Conover**	**135.66**	**26**	*e*PKPdf	PKPdf	21 17 02.0	+0.6
TXAR	**Lajitas Array**	**136.26**	**55**	PKhKP		21 16 52.5	
	comp=Z,1.8nm,0.8s,baz=272,slow=2.1,SNR=12						
TXAR				PKP	PKPdf	21 17 04.8	+1.7
	comp=Z,5.3nm,0.8s,baz=230,slow=1.9,SNR=14						
TXAR				SKPbc	SKPbc	21 20 03.1	-1.2
	comp=Z,19nm,0.9s,baz=263,slow=2.1,SNR=20						
TXAR	**Lajitas Array**	**136.26**	**55**	PKP	PKPdf	21 17 04.8	+1.7
TXAR				SKPbc	SKPbc	21 20 03.1	-1.2
KSU1	**Kansas State U**	**136.61**	**39**	*e*PKPdf	PKPdf	21 17 02.8	-0.6
KSU1				*e*SKP		21 20 02.9	
JFWS	**Jewell Farm**	**137.58**	**30**	*e*PKPdf	PKPdf	21 17 03.3	-1.8
JFWS				*e*SKP		21 20 05.9	
WMOK	**Wichita Mounta**	**137.61**	**45**	*e*PKPpre		21 16 57.3	
WMOK				*e*SKPdf	SKPdf	21 20 06.3	-2.8
JCT	**Junction City**	**138.88**	**52**	*e*PKHKP		21 17 00.2	
JCT				*e*		21 20 10.3	
HDIL	**Hopedale**	**139.80**	**31**	*e*PKPpre		21 17 02.7	
HDIL				*e*SKP		21 20 11.7	
CCM	**Cathedral Cave**	**140.50**	**36**	*e*PKHKP		21 17 01.6	
CCM				*e*		21 20 13.8	
MIAR	**Mount Ida**	**141.29**	**42**	*e*PKHKP		21 17 06.1	
MIAR				*e*		21 20 15.8	
OLIL	**Olney**	**141.76**	**32**	*e*PKPpre		21 17 07.3	
UALR	**University of**	**141.96**	**41**	*e*PKPpre		21 17 09.0	
UALR				*e*SKP		21 20 20.3	
HKT	**Hockley**	**142.17**	**50**	*e*PKIKP	PKPdf	21 17 10.5	-3.3
CAIG	**El Cayaco**	**142.62**	**72**	*i* P	PKPdf	21 17 12.6	-2.3
LCO	**Las Campanas**	**142.80**	**169**	*e*PKPpre		21 17 12.7	
LCO				*e*SKP		21 20 18.5	
ACSO	**Alum Creek Sta**	**143.05**	**26**	*e*PKPpre		21 17 11.1	
WCI	**Wyandotte Cave**	**143.08**	**31**	*e*PKIKP	PKPdf	21 17 11.5	-3.7
PPM	**Popocatepetl**	**143.74**	**68**	*e*PKIKP	PKPdf	21 17 18.3	+1.5
BINY	**Binghamton**	**143.79**	**16**	*e*PKPpre		21 17 13.9	
BINY				*e*SKP		21 20 22.3	
WVT	**Waverly**	**143.80**	**35**	*e*PKPpre		21 17 13.9	
WVT				*e*SKP		21 20 21.2	
SSPA	**Standing Stone**	**144.64**	**20**	*e*PKPdf	PKPdf	21 17 17.0	-0.8
SSPA				*e*pPKPdf	pPKPdf	21 18 39.1	+0.5
SSPA				*e*SKP		21 20 24.2	
VBMS	**Vicksburg**	**144.73**	**42**	*e*PKPdf	PKPdf	21 17 18.3	+0.1
VBMS				*e*pPKPdf	pPKPdf	21 18 38.5	-0.5
PNIG	**Pinotepa**	**144.75**	**72**	*e*P	PKPdf	21 17 20.4	+1.7
MCWV	**Mont Chateau**	**144.81**	**23**	*e*PKPdf	PKPdf	21 17 17.5	-0.6
MCWV				*e*pPKPdf	pPKPdf	21 18 39.8	+0.9
CPUP	**Villa Florida**	**145.73**	**189**	PKPbc	PKPbc	21 17 21.0	-0.2
	comp=Z,218nm,0.9s,baz=149,slow=1.9,SNR=216						
CPUP				pPKPbc		21 18 39.6	
	comp=Z,51nm,0.7s,baz=145,slow=3.2,SNR=7.5						
CPUP				SKPbc	SKPbc	21 20 28.2	-0.7
	comp=Z,10nm,0.8s,baz=101,slow=2.2,SNR=3.1						
TZTN	**Tazewell**	**145.77**	**30**	*e*PKPdf	PKPdf	21 17 20.4	+0.6
TZTN				*e*pPKPdf	pPKPdf	21 18 41.5	+0.8
VHO	**Vista Hermosa**	**145.93**	**71**	*i* P	PKPdf	21 17 20.4	-0.3
OXX	**Oaxaca**	**145.94**	**71**	*i* P	PKPab	21 17 23.5	+0.4
TKL	**Tuckaleechee C**	**146.34**	**31**	PKPbc	PKPbc	21 17 21.2	-1.4
	comp=Z,71nm,0.9s,baz=248,slow=0.6,SNR=24						
TKL				pPKPbc	pPKPbc	21 18 43.6	+1.4
	comp=Z,33nm,0.8s,baz=119,slow=1.7,SNR=3.0						
TKL				SKPbc	SKPbc	21 20 28.6	-1.3
	comp=Z,62nm,1.0s,baz=90,slow=1.8,SNR=5.3						
LRAL	**Lakeview Retre**	**146.45**	**38**	*e*PKPdf	PKPdf	21 17 20.9	-0.3
LRAL				*e*pPKPdf	pPKPdf	21 18 43.1	+1.1
LRAL				*e*SKP		21 20 28.7	
BLA	**Blacksburg**	**146.67**	**26**	*e*PKIKP	PKPdf	21 17 21.3	-0.1
HUIG	**Huatulco**	**146.77**	**73**	*e*P	PKPdf	21 17 17.4	-4.7
CBN	**Corbin**	**147.00**	**21**	*e*PKPbc	PKPbc	21 17 23.7	-0.7
CMIG	**Matias Romero**	**147.66**	**70**	PKP	PKPdf	21 17 23.6	+0.1
	comp=Z,29nm,0.9s,baz=309,slow=1.9,SNR=25						
CMIG				PKPbc	PKPbc	21 17 26.6	-0.2
	comp=Z,51nm,0.9s,baz=292,slow=2.7,SNR=32						
CMIG				pPKPbc	pPKPbc	21 18 47.7	+1.2
	comp=Z,26nm,0.9s,baz=303,slow=3.2,SNR=4.2						
CMIG	**Matias Romero**	**147.66**	**70**	PKP	PKPdf	21 17 23.6	+0.1
CMIG				PKPbc	PKPbc	21 17 26.6	-0.2
CMIG				pPKPbc	pPKPbc	21 18 47.7	+1.2
BRAL	**Brewton**	**147.77**	**41**	*e*PKPdf	PKPdf	21 17 24.5	+1.1
GOGA	**Godfrey**	**148.23**	**34**	*e*PKIKP	PKPdf	21 17 25.0	+0.9
GOGA				*e*		21 18 46.8	
LVC	**Limon Verde**	**149.37**	**169**	*e*PKPdf	PKPdf	21 17 28.0	+1.8
LVC				*e*PKPbc	PKPbc	21 17 33.0	+2.1
LVC				*e*pPKPdf	pPKPdf	21 18 49.3	+2.2
RCBR	**Riachuelo**	**149.70**	**244**	*e*PKPdf	PKPdf	21 17 26.8	-0.2
RCBR				*e*PKPbc	PKPbc	21 17 32.8	+0.8
RCBR				*e*PKPab	PKPab	21 17 38.7	+0.3
NHSC	**New Hope**	**150.17**	**30**	*e*PKPbc	PKPbc	21 17 32.1	-0.4
CCIG	**Comitan**	**150.40**	**71**	*i* P	PKPdf	21 17 30.0	+2.1
PAYG	**Puerto Ayora**	**151.68**	**106**	*e*PKPdf	PKPdf	21 17 31.9	+1.8
PAYG				*e*PKPbc	PKPbc	21 17 38.9	+2.2
TEIG	**Tepich**	**152.65**	**60**	PKP	PKPdf	21 17 31.2	0.0
	comp=Z,3.3nm,0.4s,baz=351,slow=14,SNR=2.2						
TEIG				PKPbc	PKPbc	21 17 38.2	-0.4
	comp=Z,25nm,1.0s,baz=295,slow=5.7,SNR=7.7						
TEIG				PKPab	PKPab	21 17 49.8	-0.8
	comp=Z,18nm,0.8s,baz=314,slow=11,SNR=5.0						
TEIG	**Tepich**	**152.65**	**60**	PKP	PKPdf	21 17 31.2	0.0
TEIG				*e*PKPbc	PKPbc	21 17 38.1	-0.5
TEIG				PKPbc	PKPbc	21 17 38.2	-0.4
TEIG				PKPab	PKPab	21 17 49.8	-0.8
ARE	**Arequipa**	**154.63**	**161**	*e*PKIKP	PKPdf	21 17 36.0	+1.9
JTS	**JuntasAbangare**	**158.29**	**82**	PKIKP	PKPdf	21 17 38.2	-0.7
JTS						21 18 15.7	
JTS				pmax	pmax		
	comp=Z,11nm,0.8s						
JTS	**JuntasAbangare**	**158.29**	**82**	PKP	PKPdf	21 17 38.2	-0.7
	comp=Z,11nm,0.8s,baz=113,slow=23,SNR=8.1						
JTS				PKPab	PKPab	21 18 15.7	+0.6
	comp=Z,2.4nm,0.3s,baz=341,slow=19,SNR=3.8						
OTAV	**Otavalo**	**163.03**	**115**	*e*PKPdf	PKPdf	21 17 45.0	+0.9
ROSC	**El Rosal**	**168.52**	**103**	PKP	PKPdf	21 17 48.0	-0.5
	comp=Z,4.2nm,0.4s,baz=99,slow=16,SNR=6.9						
ROSC				pPKP	pPKPdf	21 19 09.9	0.0
	comp=Z,4.7nm,0.4s,baz=91,slow=21,SNR=2.0						
SDV	**Santo Domingo**	**172.48**	**80**	PKP	PKPdf	21 17 49.1	-1.5
	comp=Z,15nm,1.0s,baz=306,slow=2.4,SNR=12						
SDV				pPKP	pPKPdf	21 19 10.6	-1.4
	comp=Z,12nm,1.2s,baz=10.0,slow=1.8,SNR=4.2						

DDA ***07*** *21:26:00.3, 39°.32N×40°.86E, h4^{km}±4^{km}, Md3.5, Ml3.7*
ISK ***07*** *21:26:00.4, 39°.36N×40°.83E, h5^{km}, MD3.4*
CSEM ***07*** *21:26:01.9±0.2, 39°.37N×40°.79E, h2^{km}, MD3.4, Error ellipse: s-maj=7.6km s-min=4.8km az=129.0*
ISCJB ***07*** *21:26:02.0±0.4, 39°.38N±0°.03×40°.80E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=2.8km az=37.1*
ISC 07 21:26:02.6±0.3**, 39°.37N**±0°.03×**40°.82E**±0°.04**, h10^{km}, n39, σ0^{s}97**/52**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	**Erzurum**	**0.68**	**38**	PG	**Pg**	**21 26 14.7**	**-1.0**
EZM				*e*SG	**Sg**	**21 26 25.3**	**+0.5**
ERZM	**Erzurum**	**0.69**	**38**	*i* P	**Pg**	**21 26 14.1**	**-1.7**
ERZM				*i* S	**Sg**	**21 26 24.7**	**0.0**
ERZM	**Erzurum**	**0.69**	**38**	*i* P	**Pg**	**21 26 14.1**	**-1.7**
ERZM				*i* S	**Sg**	**21 26 24.7**	**-0.1**
KOPT	**Kop Dagi**	**0.69**	**339**	*i* P	**Pg**	**21 26 15.1**	**-0.9**
KOPT	**Kop Dagi**	**0.69**	**339**	*i* P	**Pg**	**21 26 15.1**	**-0.9**
EZC	**Erzincan**	**0.86**	**296**	PN	**Pg**	**21 26 23.7**	**+4.5**
EZC				*e*SN	**Sg**	**21 26 42.4**	**+12**
HOMI	**Horasan**	**1.08**	**51**	*i* P	**Pg**	**21 26 21.3**	**-2.0**
HOMI				*i* S	**Sg**	**21 26 39.0**	**+1.6**
GUMT	**Gumushane**	**1.50**	**317**	*e*PN	**Pn**	**21 26 29.9**	**+0.4**
BEST	**Besiri**	**1.52**	**166**	*i* P	**Pn**	**21 26 29.0**	**-0.7**
BEST				*i* S	**Sn**	**21 26 48.3**	**-1.2**
DIY	**Diyarbakir**	**1.54**	**198**	*e*PN	**Pn**	**21 26 30.1**	**+0.1**
DIY				*e*SN	**Sn**	**21 26 51.5**	**+1.4**
DIY	**Diyarbakir**	**1.54**	**198**	*e*Pn	**Pn**	**21 26 30.1**	**0.0**
DIY				*e*Sn	**Sn**	**21 26 51.5**	**+1.4**
DIYA	**Diyarbakir**	**1.54**	**201**	*i* P	**Pn**	**21 26 29.6**	**-0.4**
DIYA				*i* S	**Sn**	**21 26 49.4**	**-0.7**
DIYA	**Diyarbakir**	**1.54**	**201**	*i* P	**Pn**	**21 26 29.6**	**-0.5**
DIYA				*i* S	**Sn**	**21 26 49.4**	**-0.7**
ELZG	**Elazig**	**1.67**	**239**	*i* P	**Pn**	**21 26 32.1**	**+0.2**
ELZG				*i* S	**Sg**	**21 26 57.2**	**+0.9**
ELZG	**Elazig**	**1.67**	**239**	*i* P	**Pn**	**21 26 32.1**	**+0.2**
ELZG				*i* S	**Sg**	**21 26 57.2**	**+0.9**
AGRB	**Hanur-Agry**	**1.70**	**82**	*e*PN	**Pn**	**21 26 32.2**	**0.0**
AGRB	**Hanur-Agry**	**1.70**	**82**	*e*Pn	**Pn**	**21 26 32.2**	**0.0**
MACK	**Trabzon**	**1.77**	**333**	*i* P	**Pn**	**21 26 33.3**	**+0.1**
MACK	**Trabzon**	**1.77**	**333**	*i* P	**Pn**	**21 26 33.3**	**+0.1**
KEMA	**Kemaliye**	**1.80**	**268**	*i* P	**Pn**	**21 26 33.5**	**-0.2**
KEMA				*i* S	**Sg**	**21 26 59.9**	**-0.7**
KEMA	**Kemaliye**	**1.80**	**268**	*i* P	**Pn**	**21 26 33.5**	**-0.2**
KEMA				*i* S	**Sg**	**21 26 59.9**	**-0.7**
PZAR	**Pazar-Rize**	**1.81**	**2**	*e*PN	**Pn**	**21 26 34.6**	**+0.9**
PZAR	**Pazar-Rize**	**1.81**	**2**	*e*Pn	**Pn**	**21 26 34.6**	**+0.8**
MARD	**Mardin**	**2.05**	**181**	*i* P	**Pn**	**21 26 37.1**	**+0.1**
MARD				*i* S	**Sn**	**21 27 03.0**	**+0.3**
MALT	**Malatya**	**2.14**	**241**	*e*PN	**Pn**	**21 26 39.5**	**+1.1**
MALT	**Malatya**	**2.14**	**241**	*e*Pn	**Pn**	**21 26 39.5**	**+1.2**
KARS	**Kars**	**2.15**	**54**	*e*PN	**Pn**	**21 26 38.8**	**+0.4**
KARS	**Kars**	**2.15**	**54**	*e*Pn	**Pn**	**21 26 38.8**	**+0.4**
ESPY	**Espiye-Giresun**	**2.23**	**315**	*e*PN	**Pn**	**21 26 40.1**	**+0.6**
ESPY	**Espiye-Giresun**	**2.23**	**315**	*e*Pn	**Pn**	**21 26 40.1**	**+0.6**
DYDN	**Diyadin**	**2.23**	**85**	*i* P	**Pn**	**21 26 41.6**	**+2.0**
DYDN	**Diyadin**	**2.23**	**85**	*i* P	**Pn**	**21 26 41.6**	**+2.0**
URFA	**Urfa**	**2.48**	**220**	*e*PN	**Pn**	**21 26 43.7**	**+0.7**
URFA	**Urfa**	**2.48**	**220**	*e*Pn	**Pn**	**21 26 43.7**	**+0.7**
AKCD	**Akcadag**	**2.50**	**246**	*i* P	**Pn**	**21 26 42.6**	**-0.7**
AKCD	**Akcadag**	**2.50**	**246**	*i* P	**Pn**	**21 26 42.6**	**-0.7**
HAKT	**HAKKARI**	**2.90**	**128**	*i* P	Px	21 27 07.6	
HAKT	**HAKKARI**	**2.90**	**128**	*i* P	Px	21 27 07.6	
GZT	**Gaziantep**	**3.25**	**233**	*i* P	**Pg**	**21 27 01.6**	**-3.3**

DJA ***07*** *21:30:02, 23°.68S×179°.94W, h516^{km}, mb5.3/23*
MOS ***07*** *21:30:03.5±1.0, 23°.36S×179°.92E, h514^{km}, mb5.1/17, Error ellipse: s-maj=11.3km s-min=9.2km az=60.3*
BJI ***07*** *21:30:03.4, 23°.50S×179°.90E, h519^{km}, mB5.0/23, mb4.7/29*
SZGRF ***07*** *21:30:03.5, 24°.20S×179°.53E, h531^{km}, South of Fiji Islands*
ISCJB ***07*** *21:30:04.7±0.7, 23°.59S±0°.05×179°.92E±0°.04, h534^{km}±8^{km}, mb4.9/69, Error ellipse: s-maj=8.0km s-min=4.6km az=160.6*
GCMT ***07*** *21:30:05.9±0.7, 23°.55S×179°.82E, h556^{km}±3^{km}, MW5.4/42, Moment Tensor Solution. s42,c62; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}0.57±.06; $M_{\theta\theta}$0.34±.09; $M_{\phi\phi}$-0.90±.07; $M_{r\theta}$0.72±.08; $M_{\theta\phi}$-0.54±.09; $M_{\phi r}$-0.76±.07; Best double couple: $M_0$1.39600×10^{17} NP1:ϕ_s53.00000°,δ43.00000°,λ155.00000°. NP2: ϕ_s162.00000°,δ73.00000°,λ50.00000°. Principal axes: T 1.5310, Plg46.0000°, Azm31.0000°; N -0.2690, Plg38.0000°, Azm175.0000°; P -1.2620, Plg19.0000°, Azm280.0000°; nsta1 refers to body waves, cutoff=40s.*
IDC ***07*** *21:30:05.9±0.5, 23°.47S×179°.94E, h538^{km}±4^{km}, mb4.4/20, mb1 4.5/21, mb1mx4.5/23, mbtmp4.4/21 Error ellipse: s-maj=10.1km s-min=8.8km az=149.0*
NEIC ***07*** *21:30:05.9±0.7, 23°.53S×179°.92E, h539^{km}±7^{km}, mb5.1/41, Error ellipse: s-maj=8.0km s-min=5.0km az=148.0*
ISC 07 21:30:05.2±0.6**, 23°.54S**±0°.05×**179°.95E**±0°.04**, h527**^{km}±7^{km}**, h519**^{km}±3.2^{km}**:pP-P, n677, σ0^{s}56**/479**, mb4.9**/69**, 183C-165D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**6.00**	**162**	P	**P**	**21 31 42.6**	**0.0**
	544nm,0.3s,baz=279,slow=0.6,SNR=16						
RAO				S	**S**	**21 33 00.5**	**-1.9**
	205nm,0.3s,baz=92,slow=22,SNR=5.1						
AFI	**Afiamalu**	**12.37**	**41**	*e*P	**P**	**21 32 43.3**	**-4.4**
AFI				*e*S	**S**	**21 34 52.6**	**-8.9**
AFI				pmax	pmax		
	comp=Z,249nm,0.9s						
AFI	**Afiamalu**	**12.37**	**41**	P	**P**	**21 32 43.4**	**-4.2**
	comp=Z,11nm,0.3s,baz=260,slow=1.2,SNR=13						
AFI				S	**S**	**21 34 53.0**	**-8.5**
	comp=Z,50nm,0.3s,baz=297,slow=23,SNR=11						
AFI	**Afiamalu**	**12.37**	**41**	*e*P	**P**	**21 32 43.3**	**-4.3**
	comp=Z,249nm,0.9s						
AFI				*e*S	**S**	**21 34 52.6**	**-8.8**
DZM	**Mont Dzumac**	**12.54**	**274**	*e*P	**P**	**21 32 51.3**	**+1.9**
NOUC	**Port Laguerre**	**12.67**	**274**	*e*P	**P**	**21 32 52.6**	**+1.9**
URZ	**Urewera**	**14.88**	**189**	P	**P**	**21 33 09.9**	**-3.5**
	comp=Z,21nm,0.3s,baz=74,slow=1.8,SNR=45						
URZ				S	**S**	**21 35 42.1**	**-6.5**
	comp=Z,1.7nm,0.3s,baz=345,slow=23,SNR=9.4						
FUNA	**Funafuti**	**14.94**	**357**	*e*P	**P**	**21 33 13.3**	**-1.2**
	comp=Z,324nm,1.0s						
SNZO	**South Karori**	**18.26**	**193**	*e*P	**P**	**21 33 44.4**	**-2.0**
	comp=Z,50nm,0.7s						
RPZ	**Rata Peaks**	**21.42**	**198**	P	**P**	**21 34 16.4**	**+1.3**
	comp=Z,48nm,0.6s,mb5.3,baz=340,slow=3.5,SNR=11						
HNR	**Honiara**	**23.72**	**303**	*e*P	**P**	**21 34 35.7**	**-0.3**
HNR				pmax	pmax		
	comp=Z,274nm,1.0s,mb5.8						
HNR	**Honiara**	**23.72**	**303**	P	**P**	**21 34 35.8**	**-0.2**
	comp=Z,134nm,0.9s,mb5.6,baz=198,slow=4.0,SNR=9.0						
HNR	**Honiara**	**23.72**	**303**	*e*P	**P**	**21 34 35.7**	**-0.3**
	comp=Z,274nm,1.0s,mb5.8						
ARMA	**Armidale**	**26.11**	**249**	*e*P	**P**	**21 34 58.2**	**+1.2**
ARMA	**Armidale**	**26.11**	**249**	*e*P	**P**	**21 34 58.9**	**+1.9**
	comp=Z,82nm,1.0s,mb5.3						
EIDS	**Eidsvold**	**26.32**	**260**	*e*P	**P**	**21 34 59.6**	**+0.7**
	comp=Z,178nm,1.3s,mb5.5						
CNB	**Canberra Magne**	**29.00**	**239**	*e*P	**P**	**21 35 24.1**	**+1.9**
CTA	**Charters Tower**	**31.43**	**270**	*e*P	**P**	**21 35 44.1**	**+0.7**
	comp=Z,171nm,0.4s,mb5.9						
CTA				*e*S	**S**	**21 40 15.1**	**+1.0**
CTA	**Charters Tower**	**31.43**	**270**	P	**P**	**21 35 44.4**	**+1.0**
	comp=Z,214nm,0.5s,mb5.9,baz=96,slow=10,SNR=236						
CTA	**Charters Tower**	**31.43**	**270**	P	**P**	**21 35 44.4**	**+1.0**
CTAO	**Charters Tower**	**31.43**	**270**	*e*P	**P**	**21 35 43.2**	**-0.2**
CTAO				*e**PP		21 37 09.8	
CTAO				pmax	pmax		
	comp=Z,268nm,0.6s,mb6.0						
CTAO	**Charters Tower**	**31.43**	**270**	*e*P	**P**	**21 35 43.2**	**-0.2**
	comp=Z,268nm,0.6s,mb6.0						
CTAO				*e*pP		21 37 09.8	
TOO	**Toolangi**	**32.61**	**237**	*e*P	**P**	**21 35 53.9**	**+0.7**
TAU	**Tasmania Unive**	**33.15**	**226**	*e*P	**P**	**21 35 58.7**	**+1.0**
TAU				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.6						
TAU	**Tasmania Unive**	**33.15**	**226**	*e*P	**P**	**21 35 58.7**	**+1.0**
	comp=Z,10nm,0.5s,mb4.6						
XMAS	**Kiritimati**	**33.62**	**44**	*e*P	**P**	**21 36 01.9**	**-0.2**
	comp=Z,142nm,1.0s,mb5.5						
STKA	**Stephens Creek**	**34.82**	**248**	*e*P	**P**	**21 36 11.7**	**-0.2**
	comp=Z,29nm,0.5s,mb5.1						
STKA				*e*S	**S**	**21 41 04.2**	**-1.0**
STKA	**Stephens Creek**	**34.82**	**248**	P	**P**	**21 36 12.4**	**+0.5**
	comp=Z,42nm,0.5s,mb5.2,baz=90,slow=8.9,SNR=102						
STKA				ScP	ScP	21 41 25.4	-0.3
	comp=Z,9.3nm,1.1s,baz=298,slow=8.5,SNR=3.8						
COEN	**Coen**	**36.01**	**279**	*e*P	**P**	**21 36 23.5**	**+1.4**
	comp=Z,656nm,1.1s						
ASAR	**Alice Springs**	**42.05**	**260**	P	**P**	**21 37 10.5**	**-0.2**
	comp=Z,113nm,0.8s,mb5.5,baz=94,slow=8.1,SNR=500						
ASAR				ScP	ScP	21 41 54.0	+0.1
	comp=Z,17nm,0.9s,baz=112,slow=4.0,SNR=21						
ASAR				S	**S**	**21 42 50.2**	**-1.7**
	comp=Z,2.3nm,0.9s,baz=97,slow=14,SNR=4.3						
WRAB	**Tennant Creek**	**42.38**	**266**	P	**P**	**21 37 12.0**	**-1.4**
	comp=Z,1µm,0.6s,SNR=41						
WRAB	**Tennant Creek**	**42.38**	**266**	*e*P	**P**	**21 37 12.7**	**-0.7**
WRAB				*e*S	**S**	**21 42 55.1**	**-1.6**
WRAB				pmax	pmax		
	comp=Z,149nm,0.8s,mb5.6						
WRAB	**Tennant Creek**	**42.38**	**266**	*e*P	**P**	**21 37 12.7**	**-0.7**
	comp=Z,149nm,0.8s,mb5.6						
WRAB				*e*ScP	ScP	21 41 57.2	+2.0
WRAB				*e*S	**S**	**21 42 55.1**	**-1.6**
WRA	**Warramunga Arr**	**42.39**	**266**	P	**P**	**21 37 12.6**	**-0.9**
	comp=Z,130nm,0.7s,mb5.6,baz=103,slow=8.1,SNR=483						
WRA				ScP	ScP	21 41 54.9	-0.3
	comp=Z,16nm,1.0s,baz=100,slow=4.2,SNR=14						
WRA				S	**S**	**21 42 53.8**	**-3.0**
	comp=Z,14nm,1.1s,baz=98,slow=14,SNR=13						
KAKA	**Kakadu**	**46.23**	**275**	*e*P	**P**	**21 37 42.2**	**-1.0**
	comp=Z,76nm,0.7s,mb5.3						
KAKA	**Kakadu**	**46.23**	**275**	*e*P	**P**	**21 37 42.7**	**-0.5**
	comp=Z,217nm,0.6s,mb5.9						
KAKA				*e*		21 38 21.9	
KAKA				*e*ScP	ScP	21 42 12.2	+1.0
FORT	**Forrest**	**46.40**	**249**	*e*P	**P**	**21 37 43.3**	**-0.9**
	comp=Z,228nm,0.6s,mb5.9						
FORT	**Forrest**	**46.40**	**249**	*e*P	**P**	**21 37 43.2**	**-1.1**
HON	**Honolulu**	**49.49**	**27**	*e*P	**P**	**21 38 05.8**	**-1.6**
FITZ	**Fitzroy Crossi**	**50.81**	**265**	*e*P	**P**	**21 38 17.5**	**+0.3**
	comp=Z,114nm,0.8s,mb5.2						
FITZ				*e*S	**S**	**21 44 53.6**	**-0.5**
FITZ	**Fitzroy Crossi**	**50.81**	**265**	P	**P**	**21 38 17.6**	**+0.4**
	comp=Z,86nm,0.9s,mb5.0,baz=99,slow=5.0,SNR=53						
FITZ	**Fitzroy Crossi**	**50.81**	**265**	*e*P	**P**	**21 38 17.6**	**+0.3**
	comp=Z,137nm,1.1s,mb5.2						
FITZ				*e*S	**S**	**21 45 04.8**	**+11**
VNDA	**Vanda**	**54.73**	**185**	P	**P**	**21 38 45.1**	**+0.8**
	comp=Z,3.6nm,0.8s,baz=7.8,slow=9.1,SNR=7.5						
KLBR	**Kellerberrin**	**55.09**	**247**	*e*P	**P**	**21 38 47.0**	**-0.6**
	comp=Z,95nm,0.8s,mb5.1						
NWAO	**Narrogin (SRO)**	**55.34**	**245**	P	**P**	**21 38 49.3**	**0.0**
	comp=Z,13nm,0.6s,mb4.3,baz=118,slow=8.5,SNR=14						
NWAO	**Narrogin (SRO)**	**55.34**	**245**	*e*P	**P**	**21 38 48.9**	**-0.4**
	comp=Z,3.5nm,0.4s,mb3.9						
MBWA	**Marble Bar**	**55.39**	**260**	*e*P	**P**	**21 38 49.3**	**-0.5**
	comp=Z,106nm,1.0s,mb5.0						
MBWA				*e*PcP	PcP	21 39 47.1	+4.6
MUN	**Mundaring**	**56.34**	**246**	*e*P	**P**	**21 38 55.8**	**-0.4**
CASY	**Casey**	**60.42**	**206**	*e*P	**P**	**21 39 22.9**	**-0.2**
	comp=Z,6.4nm,0.5s,mb4.2						
QSPA	**South Pole Qui**	**66.54**	**180**	P	**P**	**21 40 03.3**	**+1.1**
	comp=Z,32nm,0.8s,mb4.9,baz=24,slow=1.4,SNR=55						
QSPA				pP	pP	21 41 52.9	+3.0
	comp=Z,24nm,1.0s,baz=26,slow=4.3,SNR=11						
MJAR	**Matsushiro Arr**	**71.57**	**326**	P	**P**	**21 40 32.4**	**-0.6**
	comp=Z,7.9nm,0.8s,mb4.2,baz=164,slow=5.8,SNR=18						
MAT	**Matsushiro**	**71.58**	**326**	P	**P**	**21 40 32.4**	**-0.6**
KSM	**Kuching**	**72.00**	**280**	*e*P	**P**	**21 40 36.2**	**+0.1**
	comp=Z,60nm,1.1s,mb4.9						
YSS	**Yuzh-Sakhalins**	**77.79**	**335**	*e*P	**P**	**21 41 08.0**	**+0.3**
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.6						
YSS	**Yuzh-Sakhalins**	**77.79**	**335**	*e*P	**P**	**21 41 08.5**	**+0.8**
	comp=Z,25nm,0.8s,mb4.6						
KSRS	**Korea Array**	**77.94**	**320**	P	**P**	**21 41 09.1**	**+0.4**

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         comp=Z,4.1nm,0.7s,mb3.9,baz=127,slow=5.6,SNR=18
PET      Petropavlovsk     78.46 347 eP     P       21 41 10.6 -0.5
PET                                   pmax  pmax
         comp=Z,30nm,0.6s,mb4.8
PETK     Petropavlovsk-    78.74 347  P     P       21 41 12.2 -0.4
         comp=Z,27nm,0.7s,mb4.7,baz=121,slow=6.4,SNR=37
NJ2      Nanjing           80.39 311 eP     P       21 41 20.4 -1.4
NJ2                                   pmax  pmax
         comp=Z,20nm,0.5s,mb4.7
BSC      Santa Cruz Isl    81.06  47 ⇓P     P       21 41 25.6 +0.4
         baz=81
BLG      Laguna Peak       81.51  47 ⇑P     P       21 41 27.2 -0.3
         baz=82
CIS      Catalina Islan    81.55  48 ⇓P     P       21 41 27.8  0.0
         baz=82
SMMC     Simmler           81.59  46 ⇓P     P       21 41 28.6 +0.7
         baz=82
CHGN     Chignik           81.61  12 eP     P       21 41 27.1 -0.5
MDJ      Mudanjiang        81.94 326  P     P       21 41 30.0 +0.5
MDJ                                   PcP   PcP     21 41 33.6 +0.1
MDJ                                   pP    pP      21 43 19.1 -4.3
MDJ                                   sP    sP      21 44 11.4 -5.8
MDJ                                   S     S       21 51 04.6 +4.9
MDJ                                   SS    SS      21 56 32.5 -1.9
MDJ                                   pmax  pmax
         comp=Z,17nm,0.8s,mb4.5
MDJ                                   pmax  pmax
         comp=Z,120nm,5.4s
OSI      Osito Adit        82.03  47 ⇓P     P       21 41 30.8 +0.6
         baz=82
OSI      Osito Adit        82.03  47 eP     P       21 41 31.4 +1.2
109C     Camp Elliot, M    82.15  49 ⇑P     P       21 41 31.0 +0.2
         baz=82
HABR     Khabarovsk        82.17 332ceP     P       21 41 29.0 -1.6
HABR                                 eS     S       21 50 56.4 -5.4
HABR                                  SS    SS      21 56 31.3 -6.3
HABR                                  MLR   MLR
         comp=Z,80nm,21.0s
MWC      Mount Wilson      82.25  48 eP     P       21 41 31.6 +0.2
ARVC     Arvin             82.26  46 ⇑P     P       21 41 31.7 +0.4
         baz=82
BAR      Barrett           82.33  50 eP     P       21 41 32.2 +0.4
MURC     Murrieta          82.48  49 ⇑P     P       21 41 32.5  0.0
         baz=83,SNR=7.3
VES      Vestal, Richgr    82.50  46 ⇑P     P       21 41 32.5 -0.1
         baz=83
BFSC     Mount Baldy St    82.53  48 ⇓P     P       21 41 32.6 -0.2
         baz=83,SNR=7.8
MONP     Monument Peak     82.62  49 ⇓P     P       21 41 33.5 +0.2
         baz=83,SNR=23
EDW2     Edwards Air Fo    82.67  47 ⇑P     P       21 41 33.4 -0.1
         baz=83,SNR=18
KHMM     Horse Mountain    82.70  40 eP     P       21 41 35.0 +1.5
DVTC     Desert V Tower    82.72  50 ⇓P     P       21 41 33.8 +0.1
         baz=83,SNR=17
WHN      Wuhan             82.74 308 ⇑P     P       21 41 34.1 +0.2
ISA      Isabella          82.80  46 ⇑P     P       21 41 34.1  0.0
         baz=83,SNR=39
ISA      Isabella          82.80  46 eP     P       21 41 34.0 -0.1
PSI      Prapat            82.89 276  P     P       21 41 34.1 -1.0
         comp=Z,18nm,1.1s,mb4.5,baz=138,slow=2.8,SNR=9.9
PFO      Pinyon Flat Ob    83.00  49  P     P       21 41 35.1 -0.1
         comp=Z,102nm,1.5s,mb5.1,SNR=6.8
PFO      Pinyon Flat Ob    83.00  49 i P    P       21 41 35.7 +0.5
PFO      Pinyon Flat Ob    83.00  49 ⇓P     P       21 41 35.0 -0.1
         baz=83,SNR=9.6
PFO      Pinyon Flat Ob    83.00  49 eP     P       21 41 35.4 +0.2
         comp=Z,38nm,1.4s,mb4.7
OHCM     Honcut            83.08  42 eP     P       21 41 35.7 +0.3
SWSC     Sam W. Stewart    83.09  50 ⇑P     P       21 41 35.4 -0.2
         baz=83,SNR=14
SYO      Syowa Base        83.35 193⇓eP     P       21 41 34.8 -1.6
BELC     Belle Mtn.        83.53  49 ⇑P     P       21 41 37.8  0.0
         baz=84,SNR=28
CN2      Changchun         83.57 324 eP     P       21 41 37.8 +0.1
CN2                                  eSKS           21 51 05.1
CN2                                  eS     S       21 51 18.4 +2.5
CN2                                   pmax  pmax
         comp=Z,20nm,1.2s,mb4.5
CN2                                   pmax  pmax
         comp=Z,200nm,3.0s
MPMC     Manual Prospec    83.69  46 ⇑P     P       21 41 38.7 +0.2
         baz=84,SNR=30
GSC      Goldstone         83.71  47 eP     P       21 41 38.6 -0.1
GSC                                   pmax  pmax
         comp=Z,44nm,1.0s,mb4.9
GSC      Goldstone         83.71  47 ⇑P     P       21 41 38.6 -0.1
         baz=84,SNR=11
GSC      Goldstone         83.71  47 eP     P       21 41 38.6 -0.1
         comp=Z,44nm,1.0s,mb4.9
MLAC     Mammoth Lakes     83.72  44 ⇑P     P       21 41 38.8 +0.2
         baz=84
BC3      Big Chuckw Mtn    83.72  49 ⇑P     P       21 41 39.0 +0.2
         baz=84,SNR=23
112A     Yuma              83.72  51 ⇓P     P       21 41 39.2 +0.4
         baz=84
MTUM     Tungsten Hills    83.73  45 eP     P       21 41 39.3 +0.6
HEC      Hector,Ludlow     83.77  48 ⇑P     P       21 41 38.8 -0.1
         baz=84,SNR=20
TIN      Tinemaha          83.77  45 ⇓P     P       21 41 39.0 +0.1
         baz=84
LAMM     Antelope Mount    83.81  39  P     P       21 41 39.8 +0.8
GLA      Glamis            83.83  50 ⇑P     P       21 41 39.7 +0.4
         baz=84,SNR=22
GLA      Glamis            83.83  50 eP     P       21 41 40.4 +1.1
WAKR     Walker            83.85  43 eP     P       21 41 39.7 +0.4
R06C     Coleville         83.85  43 ⇑P     P       21 41 39.5 +0.3
         baz=84,SNR=30
BEKR     Beckwourth        84.09  42 ⇓P     P       21 41 40.6 +0.2
         baz=84,SNR=8.4
WCN      Washoe City       84.12  43 ⇑P     P       21 41 40.8 +0.2
         baz=84,SNR=13
GMRC     Granite Mounta    84.20  48 ⇓P     P       21 41 41.0 -0.1
         baz=84,SNR=23
KDAK     Kodiak Island     84.21  14 i P    P       21 41 40.1 -0.4
IRM      Iron Mountain     84.21  49 ⇓P     P       21 41 41.3 +0.2
         baz=84,SNR=48
GRAC     Grapevine Rang    84.30  46 ⇑P     P       21 41 41.6 +0.1
         baz=84,SNR=23
FURC     Furnace Creek,    84.34  46 ⇓P     P       21 41 41.7  0.0
         baz=84
TUQ      Turquoise Moun    84.38  48 ⇑P     P       21 41 41.7 -0.2
         baz=84,SNR=23
SHOC     Shoshone          84.40  47 ⇓P     P       21 41 42.1 +0.1
         baz=85
113A     Mohawk Valley,    84.43  51 ⇑P     P       21 41 42.2 -0.1
         baz=85,SNR=22
NVAR     Mina Array Bea    84.52  44  P     P       21 41 42.8 +0.2
         comp=Z,20nm,1.0s,mb4.6,baz=222,slow=7.6,SNR=54
NVAR                                  pP    pP      21 43 38.9 +1.5
         comp=Z,0.6nm,0.8s,baz=221,slow=9.5,SNR=1.8
NVAR                                  PP    PP      21 45 06.3 -1.7
         comp=Z,2.0nm,1.0s,baz=233,slow=9.9,SNR=4.1
O06A     Flanigan          84.59  42 ⇑P     P       21 41 42.7 -0.2
         baz=85,SNR=6.8
214A     Organ Pipe Nat    84.68  52 ⇓P     P       21 41 43.6 +0.1
         baz=85,SNR=13
LDFC     Landfair          84.74  48 eP     P       21 41 44.4 +0.7
S09A     Goldfield         84.81  45 ⇑P     P       21 41 43.5 -0.5
         baz=85,SNR=8.6
NEE2     Needles Airpor    84.91  49 ⇑P     P       21 41 44.5 -0.1
         baz=85
N06A     Buffalo Meadow    84.94  41 ⇑P     P       21 41 44.4 -0.1
         baz=85,SNR=13
V11A     Goodsprings       84.94  47 ⇑P     P       21 41 44.5 -0.2
         baz=85
Y13A     Salome            84.94  50 ⇓P     P       21 41 45.0 +0.2
         baz=85,SNR=20
PDMCI    Parker Dam,Lak    84.99  49 ⇑P     P       21 41 44.9  0.0
         baz=85,SNR=18
Q08A     Gabbs             85.01  44 ⇑P     P       21 41 44.6 -0.4
         baz=85,SNR=6.9
TPH      Tonopah           85.01  45 eP     P       21 41 45.4 +0.4
W12A     Cal Nev Ari       85.03  48 ⇑P     P       21 41 45.1  0.0
         baz=85
O07A     Toulon            85.18  42 ⇑P     P       21 41 45.5 -0.3
         baz=85,SNR=12
R09A     Tonopah           85.20  45 ⇑P     P       21 41 45.7 -0.2
         baz=85,SNR=15
VNA3     Neumayer Olymp    85.24 177 eP     P       21 41 43.9 -1.7
V12A     Nelson            85.27  48 ⇓P     P       21 41 46.2 -0.1
         baz=85,SNR=12
U11A     Corn Creek        85.30  47 ⇑P     P       21 41 46.1 -0.3
         baz=86
Z14A     Wintersburg       85.33  51 ⇑P     P       21 41 46.8 +0.1
         baz=86,SNR=9.2
S10A     Tonopah Range,    85.33  45 ⇓P     P       21 41 46.3 -0.3
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         baz=86,SNR=29
X13A     Yucca             85.36  49 ⇓P     P       21 41 46.8  0.0
         baz=86,SNR=30
115A     Sonoran Desert    85.49  52 ⇓P     P       21 41 47.5  0.0
         baz=86,SNR=7.3
SHPR     Sheep Range       85.49  47 eP     P       21 41 47.8 +0.5
K05A     Summer Lake       85.51  39 ⇓P     P       21 41 47.7 +0.4
         baz=86,SNR=7.1
Y14A     Wickenburg        85.59  50 ⇑P     P       21 41 47.6 -0.3
         baz=86,SNR=8.8
W13A     Hualapai Mount    85.59  49 ⇑P     P       21 41 48.1 +0.3
         baz=86,SNR=25
VNA2     Neumayer--Watz    85.66 178 eP     P       21 41 46.5 -1.1
         baz=200,slow=4.4
216A     Three Points,     85.69  52 ⇓P     P       21 41 49.0 +0.6
         baz=86,SNR=17
O08A     Rochester Mine    85.70  43 ⇓P     P       21 41 48.3 +0.1
         baz=86,SNR=7.8
M07A     Soldier Meadow    85.72  41 ⇑P     P       21 41 48.7 +0.3
         baz=86,SNR=8.4
R10A     Warm Springs      85.73  45 ⇑P     P       21 41 48.4 -0.1
         baz=86,SNR=11
116A     Eloy              85.80  52 ⇓P     P       21 41 49.0 +0.1
         baz=86,SNR=9.8
T11A     Corn Creek, Al    85.86  46 ⇓P     P       21 41 49.2 +0.1
         baz=86,SNR=32
U12A     Valley of Fire    85.87  47 ⇓P     P       21 41 49.3 +0.2
         baz=86,SNR=13
V13A     Grand Canyon W    85.93  48 ⇓P     P       21 41 49.6 +0.2
         baz=86,SNR=32
X14A     Yava              85.95  50 ⇑P     P       21 41 49.9 +0.4
         baz=86,SNR=19
Q10A     Clear Creek Ra    85.97  45 ⇓P     P       21 41 49.8 +0.2
         baz=86
H04A     Detroit Lake      85.99  37 ⇓P     P       21 41 49.8 +0.3
         baz=86
L07A     Adell             86.00  41 ⇓P     P       21 41 49.9 +0.3
         baz=86
N08A     GE Springer Mi    86.00  42 ⇑P     P       21 41 49.7  0.0
         baz=86,SNR=9.1
217A     Green Valley      86.04  53 ⇑P     P       21 41 50.8 +0.7
         baz=86,SNR=29
Y15A     Casa Rosa Ranc    86.07  50 ⇓P     P       21 41 50.5 +0.3
         baz=86
W14A     Seligman          86.21  49 ⇓P     P       21 41 51.3 +0.5
         baz=86,SNR=27
R11A     Troy Canyon, C    86.23  45 ⇑P     P       21 41 50.4 -0.5
         baz=86,SNR=12
O09A     Fish Creek Ran    86.23  43 ⇑P     P       21 41 50.6 -0.2
         baz=86,SNR=5.4
M08A     Happy Creek Ra    86.24  42 ⇓P     P       21 41 50.9 +0.1
         baz=86,SNR=8.8
U13A     Pakoon Wash       86.25  48 ⇑P     P       21 41 51.0  0.0
         baz=86,SNR=32
J06A     Christmas Vall    86.26  39 ⇓P     P       21 41 50.7 -0.2
         baz=86,SNR=11
S12A     Delamar Landin    86.31  46 ⇓P     P       21 41 51.5 +0.3
         baz=86,SNR=15
TUC      Tucson            86.33  53 eP     P       21 41 50.9 -0.6
TUC                                   pmax  pmax
         comp=Z,47nm,1.0s,mb5.1
TUC      Tucson            86.33  53 eP     P       21 41 50.9 -0.6
         comp=Z,47nm,1.0s,mb5.1
BMN      Battle Mountai    86.36  43 eP     P       21 41 52.0 +0.6
P10A     Eureka            86.38  44 ⇑P     P       21 41 51.6 +0.1
         baz=86
V14A     Boquillas Ranc    86.42  49 ⇓P     P       21 41 52.1 +0.3
         baz=87,SNR=28
X15A     Humboldt          86.42  50 ⇓P     P       21 41 52.0 +0.2
         baz=87,SNR=11
K07A     Rock Creek Ran    86.45  40 ⇓P     P       21 41 52.0 +0.3
         baz=87,SNR=17
Q11A     Duckwater         86.46  45 ⇓P     P       21 41 51.4 -0.5
         baz=87,SNR=8.8
318A     Bisbee            86.48  54 ⇓P     P       21 41 52.9 +0.7
         baz=87,SNR=33
117A     Oracle            86.50  52 ⇑P     P       21 41 52.7 +0.5
         baz=87,SNR=21
GYA      Guiyang           86.52 301⇓iP     P       21 41 54.2 +1.7
GYA                                   pP    pP      21 43 48.5 +0.5
GYA                                   sP    sP      21 44 39.0 -2.4
GYA                                   PP    PP      21 45 27.4 +3.2
GYA                                   S     S       21 51 45.3 +0.2
GYA                                   sS    sS      21 55 07.0 -3.8
GYA                                   pmax  pmax
         comp=Z,20nm,1.0s,mb4.7
GYA                                   pmax  pmax
         comp=Z,130nm,5.2s
RSO      Redoubt South     86.60  13 eP     P       21 41 51.2 -0.8
T13A     Saint George      86.61  47 ⇑P     P       21 41 52.9 +0.3
         baz=87,SNR=8.7
SVW2     Sparrevohn        86.63  12 eP     P       21 41 50.6 -1.5
Y16A     Circle Bar Ran    86.64  51 ⇑P     P       21 41 53.1 +0.3
         baz=87,SNR=25
F04A     Amboy             86.64  36 ⇓P     P       21 41 52.9 +0.3
         baz=87
I06A     Prineville        86.65  39 ⇑P     P       21 41 53.2 +0.6
         baz=87,SNR=9.6
WVOR     Wild Horse Val    86.67  41 eP     P       21 41 52.2 -0.6
WVOR                                 e*SP   sP      21 44 37.7 -4.0
WVOR                                  pmax  pmax
         comp=Z,43nm,1.1s,mb5.0
WVOR     Wild Horse Val    86.67  41 eP     P       21 41 52.2 -0.5
         comp=Z,43nm,1.1s,mb5.0
WVOR                                 epP    pP      21 43 36.1  -12
WVOR                                 esP    sP      21 44 37.6 -4.0
L08A     Fields            86.70  41 ⇓P     P       21 41 53.1 +0.1
         baz=87,SNR=12
218A     Dragoon           86.70  53 ⇑P     P       21 41 53.8 +0.5
         baz=87,SNR=34
BJT      Baijiatuau        86.73 316 eP     P       21 41 53.5 +0.4
BJT                                   pmax  pmax
         comp=Z,11nm,0.6s
BJT      Baijiatuau        86.73 316 eP     P       21 41 53.5 +0.3
         comp=Z,11nm,0.6s,mb4.7
BJI      Beijing           86.74 316  P     P       21 41 53.2  0.0
BJI                                   pP    pP      21 43 46.9 -1.8
BJI                                   sP    sP      21 44 39.0 -3.1
BJI                                   PP    PP      21 45 26.2 +0.6
BJI                                   S     S       21 51 49.8 +3.3
BJI                                   pmax  pmax
         comp=Z,17nm,0.6s,mb4.8
BJI                                   pmax  pmax
         comp=Z,270nm,12.2s
U14A     Mt Trumbull       86.78  48 ⇓P     P       21 41 53.9 +0.5
         baz=87,SNR=39
M09A     Marrel Ranch,     86.79  42 ⇑P     P       21 41 53.6 +0.2
         baz=87,SNR=6.9
J07A     Hines             86.82  40 ⇓P     P       21 41 53.9 +0.4
         baz=87
R12A     Pony Springs,     86.86  46 ⇑P     P       21 41 53.7 -0.1
         baz=87,SNR=9.4
K08A     Mann Creek Ran    86.93  40 ⇑P     P       21 41 54.3 +0.2
         baz=87,SNR=20
X16A     Lo Mia Camp, P    86.94  50 ⇓P     P       21 41 54.8 +0.6
         baz=87,SNR=21
S13A     Holt Ranch, En    86.95  47 ⇑P     P       21 41 54.5 +0.2
         baz=87,SNR=18
319A     Douglas           86.97  54 ⇑P     P       21 41 55.2 +0.7
         baz=87,SNR=14
N10A     Dunphy            86.97  43 ⇑P     P       21 41 54.3 +0.1
         baz=87
Y17A     Roosevelt         87.00  51 ⇓P     P       21 41 54.7 +0.2
         baz=87,SNR=8.8
L09A     Wilkinson Ranc    87.01  41 ⇑P     P       21 41 54.6 +0.2
         baz=87,SNR=5.8
TDL      Tradedollar La    87.02  36  P     P       21 41 55.3 +1.0
H06A     Lindquist Farm    87.06  38 ⇓P     P       21 41 54.5 -0.1
         baz=87,SNR=15
118A     Homack Ranch,     87.09  53 ⇑P     P       21 41 55.7 +0.7
         baz=87,SNR=31
Q12A     Willow Creek R    87.11  45 ⇑P     P       21 41 54.9  0.0
         baz=87,SNR=12
I07A     Izee              87.14  39 ⇑P     P       21 41 55.3 +0.4
         baz=87,SNR=19
V15A     Kaibab Nationa    87.16  49 ⇑P     P       21 41 55.7 +0.5
         baz=87,SNR=23
O11A     Cowboy Ranch,     87.18  44 ⇓P     P       21 41 55.3  0.0
         baz=87,SNR=14
G06A     Carlson Farm,     87.19  38 ⇓P     P       21 41 55.5 +0.3
         baz=87,SNR=7.6
T14A     Hurricane         87.19  47 ⇓P     P       21 41 55.2 -0.2
         baz=87
R13A     O'Grain Ranch,    87.20  46 ⇑P     P       21 41 55.7 +0.3
         baz=87,SNR=7.9
W16A     Flagstaff         87.23  50 ⇑P     P       21 41 56.0 +0.3
         baz=87,SNR=8.5
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P12A     McGill            87.29  45 ⇓P     P       21 41 55.9 +0.1
         baz=88,SNR=11
219A     White Tail Can    87.30  53 ⇑P     P       21 41 56.5 +0.5
         baz=87,SNR=27
J08A     Circle Bar Ran    87.31  40 ⇓P     P       21 41 55.9 +0.2
         baz=88,SNR=15
K09A     Rome              87.37  41 ⇓P     P       21 41 56.2 +0.1
         baz=88,SNR=16
H07A     Lands Inn, Kim    87.41  38 ⇑P     P       21 41 56.5 +0.3
         baz=88,SNR=15
M10A     I.L. Ranch, Tu    87.41  42 ⇑P     P       21 41 56.6 +0.3
         baz=88,SNR=23
F06A     Goldendale        87.44  37 ⇓P     P       21 41 56.5 +0.2
         baz=88
LON      Longmire          87.48  36 eP     P       21 41 56.5  0.0
LON                                   pmax  pmax
         comp=Z,15nm,1.0s,mb4.6
LON      Longmire          87.48  36 eP     P       21 41 56.5  0.0
         comp=Z,15nm,1.0s,mb4.6
WUAZ     Wupatki           87.56  50 ⇓P     P       21 41 57.3 +0.2
         baz=88,SNR=14
WUAZ     Wupatki           87.56  50 eP     P       21 41 57.8 +0.7
         comp=Z,45nm,1.3s,mb5.0
I08A     Drewsey           87.58  39 ⇓P     P       21 41 57.1 +0.1
         baz=88,SNR=16
Q13A     Wheeler Ranch,    87.59  45 ⇑P     P       21 41 57.3 +0.1
         baz=88
119A     Ashpeak Ranch,    87.64  53 ⇓P     P       21 41 58.2 +0.6
         baz=88,SNR=15
T15A     Red Dirt Ranch    87.64  48 ⇓P     P       21 41 57.7 +0.1
         baz=88,SNR=20
J09A     Fry Pan Ranch,    87.72  40 ⇓P     P       21 41 57.7  0.0
         baz=88,SNR=28
G07A     Ruggs Ranch, H    87.75  38 ⇓P     P       21 41 57.9 +0.1
         baz=88,SNR=10
L10A     Juniper Basin     87.77  42 ⇓P     P       21 41 58.0  0.0
         baz=88,SNR=34
ELK      Elko              87.79  43 eP     P       21 41 58.2 +0.1
ELK                                   pmax  pmax
         comp=Z,44nm,1.5s
ELK      Elko              87.79  43 eP     P       21 41 58.2 +0.1
         comp=Z,44nm,1.5s,mb5.0
E06A     Yakima            87.81  36 ⇑P     P       21 41 58.4 +0.4
         baz=88,SNR=8.4
M11A     Holland Ranch,    87.82  43 ⇑P     P       21 41 58.5 +0.3
         baz=88,SNR=10
RC01     Rabbit Creek A    87.82  14 eP     P       21 41 56.8 -0.9
         comp=Z,109nm,1.2s,mb5.5
O12A     Currie            87.84  44 ⇓P     P       21 41 58.1 -0.2
         baz=88,SNR=7.4
P13A     Bates Ranch, G    87.86  45 ⇓P     P       21 41 58.4  0.0
         baz=88,SNR=23
H08A     Prairie City      87.88  39 ⇓P     P       21 41 58.5 +0.1
         baz=88
K10A     MacKenzie Ranc    87.93  41 ⇓P     P       21 41 58.9 +0.2
         baz=88,SNR=11
Z19A     T-Link Ranch,     87.93  52 ⇓P     P       21 41 59.6 +0.6
         baz=88,SNR=5.7
N12A     Clover Valley,    87.97  43 ⇑P     P       21 41 58.6 -0.3
         baz=88,SNR=11
S15A     Panguitch         88.00  47 ⇑P     P       21 42 00.2 +1.0
         baz=88
120A     U Bar Ranch, L    88.03  53 ⇓P     P       21 41 59.7 +0.3
         baz=88
U16A     Tuba City         88.05  49 ⇑P     P       21 41 59.5 +0.1
         baz=88,SNR=16
X18A     Snowflake         88.06  51 ⇑P     P       21 41 59.6 +0.1
         baz=88,SNR=10
Q14A     Sevier Lake (B    88.09  46 ⇓P     P       21 41 59.7 +0.1
         baz=88,SNR=38
I09A     Lost Marbles R    88.10  40 ⇓P     P       21 41 59.3 -0.1
         baz=88,SNR=9.4
C05A     Tolt Reservoir    88.14  35 ⇓P     P       21 41 59.4 -0.1
         baz=88,SNR=14
G08A     Pilot Rock        88.17  38 ⇑P     P       21 41 60.0 +0.2
         baz=88,SNR=27
T16A     Glen Canyon Da    88.22  48 ⇓P     P       21 42 00.5 +0.3
         baz=88,SNR=11
O13A     Hicks Ranch, I    88.25  45 ⇓P     P       21 42 00.9 +0.6
         baz=88
A04A     Legoe Bay, Lum    88.25  34 ⇓P     P       21 42 00.4 +0.4
         baz=88
L11A     Cat Creek Ranc    88.26  42 ⇑P     P       21 42 00.4 +0.2
         baz=88,SNR=35
Y19A     Nutrioso          88.27  52 ⇓P     P       21 42 01.1 +0.5
         baz=88,SNR=7.9
D06A     Cle Elum          88.28  36 ⇑P     P       21 42 00.2  0.0
         baz=88,SNR=9.4
B05A     Bryant            88.28  35 ⇓P     P       21 42 00.1 -0.1
         baz=88,SNR=5.4
J10A     Berg Farm, Mel    88.36  41 ⇑P     P       21 42 00.6 -0.1
         baz=88
PMR      Palmer            88.41  14 eP     P       21 41 59.5 -0.9
PMR                                   pmax  pmax
         comp=Z,58nm,0.9s,mb5.3
PMR      Palmer            88.41  14 eP     P       21 41 59.5 -0.9
         comp=Z,58nm,0.9s,mb5.3
K11A     Parker Ranch,     88.43  41 ⇑P     P       21 42 01.2 +0.2
         baz=89,SNR=5.4
E07A     Sunnyside         88.43  37 ⇑P     P       21 42 01.2 +0.3
         baz=89,SNR=10
XAN      Xi'an             88.48 308  P     P       21 42 01.7 +0.2
XAN                                   pP    pP      21 43 54.9 -2.7
XAN                                   sP    sP      21 44 45.7 -5.1
XAN                                   PP    PP      21 45 40.3 +0.8
XAN                                   SKS           21 51 41.3
XAN                                   S     S       21 52 06.7 +3.7
XAN                                   sS    sS      21 55 23.4 -6.6
XAN                                   SS    SS      21 58 11.2 +1.4
XAN                                   pmax  pmax
         comp=Z,10.0nm,0.6s,mb4.7
XAN                                   pmax  pmax
         comp=Z,55nm,7.2s
N13A     Wendover, West    88.50  44 ⇓P     P       21 42 01.4  0.0
         baz=89,SNR=6.7
W18A     Petrified Fore    88.51  51 ⇓P     P       21 42 01.6  0.0
         baz=89
HAWA     Hanford           88.51  37 eP     P       21 42 02.1 +0.8
H09A     Durkee            88.55  39 ⇑P     P       21 42 01.6 +0.1
         baz=89,SNR=18
S16A     Weppner Ranch,    88.55  48 ⇑P     P       21 42 01.6 -0.1
         baz=89,SNR=8.5
PLCA     Paso Flores       88.55 134  P     P       21 42 02.4 +0.5
         comp=Z,4.4nm,0.9s,mb4.3,baz=184,slow=4.8,SNR=3.4
PLCA                                  pP    pP      21 43 59.5 +1.7
         comp=Z,3.9nm,0.9s,baz=305,slow=4.7,SNR=3.4
P14A     Drum Mountains    88.55  45 ⇓P     P       21 42 01.6 -0.1
         baz=89,SNR=7.6
MSU      Marysvale         88.57  47 eP     P       21 42 02.7 +0.9
F08A     Pendleton         88.57  38 ⇓P     P       21 42 01.3 -0.3
         baz=89
U17A     Shonto            88.61  49 ⇑P     P       21 42 02.2 +0.1
         baz=89,SNR=6.1
V18A     Ganado            88.67  50 ⇑P     P       21 42 02.5 +0.2
         baz=89
Q15A     Fillmore          88.69  46 ⇓P     P       21 42 02.5 +0.2
         baz=89,SNR=9.9
RPW      Rockport          88.70  35 eP     P       21 42 02.1  0.0
L12A     House Creek Ra    88.70  42 ⇑P     P       21 42 02.8 +0.5
         baz=89
T17A     Navajo Res., N    88.71  48 ⇓P     P       21 42 02.8 +0.3
         baz=89,SNR=7.8
I10A     Payette           88.72  40 ⇓P     P       21 42 02.6 +0.3
         baz=89,SNR=6.0
M13A     Montello          88.80  43 ⇓P     P       21 42 02.9 +0.1
         baz=89,SNR=17
ETW      Entiat            88.81  36 eP     P       21 42 03.2 +0.6
E08A     Dider Farm, El    88.83  37 ⇓P     P       21 42 02.7 -0.1
         baz=89,SNR=5.8
G09A     Cove              88.83  39 ⇓P     P       21 42 02.7 -0.1
         baz=89,SNR=16
SEY      Seymchan          88.91 348⇑eP     P       21 42 02.0 -0.7
R16A     Teasdale          88.92  47 ⇑P     P       21 42 03.5 +0.1
         baz=89,SNR=10.0
MFID     Camas Ranch       88.92  41 ⇑P     P       21 42 03.1 -0.2
         baz=89,SNR=31
C07A     Waterville        89.00  36 ⇓P     P       21 42 03.1 -0.4
         baz=89,SNR=6.3
DUG      Dugway            89.04  45 eP     P       21 42 04.0 +0.1
DUG                                   pmax  pmax
         comp=Z,29nm,1.4s,mb4.9
DUG      Dugway            89.04  45 ⇑P     P       21 42 03.6 -0.4
         baz=89
DUG      Dugway            89.04  45 eP     P       21 42 04.0 +0.1
         comp=Z,29nm,1.4s,mb4.9
S17A     Black Ridge (B    89.04  48 ⇓P     P       21 42 03.6 -0.4
         baz=89,SNR=17
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K12A  Draper Farm, C    89.04  42 ⇓P      P        21 42 03.7 -0.2
      baz=89,SNR=22
KMI   Kunming           89.05 298  P      P        21 42 05.5 +1.1
KMI                                pP     pP       21 44 00.3 -0.3
KMI                                S      S        21 52 08.3 -0.3
KMI                                pmax   pmax
      comp=Z,3.0nm,1.1s,mb4.0
P15A  Leamington        89.06  46 ⇑P      P        21 42 04.0  0.0
      baz=89,SNR=9.7
U18A  Rough Rock, Ch    89.07  49 ⇓P      P        21 42 04.1  0.0
      baz=89,SNR=12
NLW   Nelson Butte      89.09  35  P      P        21 42 04.1 +0.2
I11A  Placerville       89.12  41 ⇓P      P        21 42 04.1 -0.1
      baz=89
A06A  Chilliwack        89.12  34 ⇑P      P        21 42 04.6 +0.5
      baz=89
N14A  Grayback Hills    89.15  44 ⇑P      P        21 42 04.6 +0.1
      baz=89
G10A  Bishop Farm, J    89.22  39 ⇓P      P        21 42 04.2 -0.4
      baz=89,SNR=16
D08A  Wollman Farm,     89.24  37 ⇑P      P        21 42 04.7  0.0
      baz=89,SNR=12
J12A  Stokes Ranch,     89.27  41 ⇑P      P        21 42 05.1 +0.2
      baz=89,SNR=28
V19A  Window Rock       89.29  50 ⇓P      P        21 42 05.4 +0.1
      baz=89
TNA   Tin City          89.30   5 eP      P        21 42 04.2 -0.3
      comp=Z,45nm,1.2s,mb5.2
O15A  The Old Anders    89.31  45 ⇓P      P        21 42 05.5 +0.4
      baz=90
L13A  Double Diamond    89.34  43 ⇑P      P        21 42 05.7 +0.4
      baz=90
CMAR  Chiang Mai Arr    89.36 290  P      P        21 42 07.0 +1.1
      comp=Z,4.9nm,0.9s,mb4.3,baz=137,slow=3.3,SNR=28
CMAR                               pP     pP       21 44 03.6 +1.4
      comp=Z,2.6nm,0.9s,baz=146,slow=4.8,SNR=3.7
CMAR                               PP     PP       21 45 45.7 -1.0
      comp=Z,2.8nm,1.1s,baz=128,slow=4.9,SNR=6.4
W20A  Ramah             89.39  51 ⇓P      P        21 42 05.9 +0.2
      baz=90,SNR=20
NLU   North Lily Min    89.39  45 eP      P        21 42 06.4 +0.9
M14A  Sheep Mountain    89.40  44 ⇓P      P        21 42 05.3 -0.3
      baz=90,SNR=37
T18A  Mexican Hat       89.42  49 ⇓P      P        21 42 05.9 +0.1
      baz=90,SNR=49
B07A  Winthrop          89.44  35 ⇓P      P        21 42 05.6 +0.1
      baz=90,SNR=14
Q16A  Castle Valley     89.45  47 ⇑P      P        21 42 06.4 +0.5
      baz=90,SNR=15
R17A  Hanksville Air    89.50  47 ⇓P      P        21 42 05.7 -0.4
      baz=90,SNR=21
CHTO  Chiang Mai        89.51 291 eP      P        21 42 07.2 +0.6
CHTO                               pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.5
CHTO  Chiang Mai        89.51 291 eP      P        21 42 07.2 +0.6
      comp=Z,8.5nm,0.9s,mb4.6
H11A  Donnelly          89.53  40 ⇓P      P        21 42 05.8 -0.3
      baz=90,SNR=33
F10A  Beach Ranch, E    89.55  38 ⇑P      P        21 42 05.7 -0.5
      baz=90,SNR=5.3
K13A  Stover Farm, H    89.56  42 ⇓P      P        21 42 06.2 -0.1
      baz=90,SNR=21
OD2   Odessa Site #2    89.56  37 eP      P        21 42 05.8 -0.3
D09A  Jones Farm, Ri    89.58  37 ⇑P      P        21 42 06.2 -0.1
      baz=90,SNR=7.2
N15A  Stansbury Isla    89.60  44 ⇑P      P        21 42 06.5  0.0
      baz=90
C08A  Higginbotham F    89.61  36 ⇓P      P        21 42 06.1 -0.3
      baz=90
S18A  Hurst Farm, Bl    89.62  48 ⇑P      P        21 42 06.3 -0.3
      baz=90,SNR=7.2
A07A  Ashnola River,    89.66  35 ⇓P      P        21 42 06.9 +0.4
      baz=90
MPU   Maple Canyon      89.71  46 eP      P        21 42 07.8 +0.8
L14A  Malta             89.75  43 ⇑P      P        21 42 07.2  0.0
      baz=90,SNR=6.4
KTH   Kantishna Hill    89.77  13 eP      P        21 42 05.1 -1.7
      comp=Z,25nm,0.9s,mb5.0
B08A  Colville Reser    89.80  36 ⇓P      P        21 42 06.4 -0.8
      baz=90,SNR=5.4
TRF   Thorofare Moun    89.81  13 eP      P        21 42 05.9 -1.1
      comp=Z,36nm,0.9s,mb5.2
HLID  Hailey            89.85  41 ⇓P      P        21 42 07.8 +0.1
      baz=90,SNR=17
HLID  Hailey            89.85  41 eP      P        21 42 07.7 +0.1
      comp=Z,34nm,1.1s,mb5.1
HLID                              ePP     PP       21 45 46.1 -4.0
T19A  Beclabito         89.86  49 ⇓P      P        21 42 07.3 -0.5
      baz=90,SNR=8.0
HVU   Hansel Valley     89.91  44 eP      P        21 42 07.9  0.0
J13A  Cove Ranch, Pi    89.91  42 ⇑P      P        21 42 07.9  0.0
      baz=90,SNR=22
E10A  Myers Farm, Un    89.92  38 ⇓P      P        21 42 08.1 +0.2
      baz=90
M15A  Larsen Ranch,     89.95  44 ⇑P      P        21 42 07.8 -0.3
      baz=90,SNR=16
SRU   San Rafael        89.98  47 ⇑P      P        21 42 08.5 +0.2
      baz=90
SRU   San Rafael        89.98  47 eP      P        21 42 08.6 +0.2
W21A  San Fidel         90.00  51 ⇓P      P        21 42 08.6 +0.1
      baz=90
LENM  Lemitar           90.02  52 eP      P        21 42 08.6  0.0
P17A  Butcher Ranch,    90.02  46 ⇓P      P        21 42 08.5  0.0
      baz=90,SNR=9.4
C09A  Chrisman Ranch    90.04  36 ⇓P      P        21 42 08.3 -0.1
      baz=90
R18A  Canyonlands Na    90.04  48 ⇓P      P        21 42 08.2 -0.4
      baz=90,SNR=28
HHC   Hu-ho-hao-te      90.13 315 eP      P        21 42 09.8 +0.8
HHC                                pP     pP       21 44 03.6 -1.8
HHC                                sP     sP       21 44 54.3 -4.2
HHC                                PP     PP       21 45 54.6 +2.3
HHC                                SKS             21 51 51.6
HHC                                S      S        21 52 23.7 +6.1
HHC                                sS     sS       21 55 39.9 -5.7
HHC                                SS     SS       21 58 36.8 +3.6
HHC                                pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.5
HHC                                pmax   pmax
      comp=Z,93nm,4.8s
H12A  Diamond D Ranc    90.13  40 ⇑P      P        21 42 08.8 -0.1
      baz=90
JLU   Jordanelle        90.14  45 eP      P        21 42 09.6 +0.6
D10A  Wagner Farm, O    90.15  37 ⇑P      P        21 42 08.5 -0.4
      baz=90
X22A  Bernardo          90.16  52 ⇓P      P        21 42 09.6 +0.3
      baz=90,SNR=5.8
A08A  Turner Farm, O    90.19  35 ⇓P      P        21 42 08.7 -0.3
      baz=90,SNR=9.1
I13A  Wildhorse Cree    90.23  41 ⇓P      P        21 42 09.3  0.0
      baz=90,SNR=9.1
S19A  Harvey Farm, M    90.24  49 ⇑P      P        21 42 09.2 -0.4
      baz=90,SNR=7.4
Q18A  Rafter H Ranch    90.24  47 ⇑P      P        21 42 09.3 -0.3
      baz=90,SNR=20
L15A  Malad City        90.27  44 ⇑P      P        21 42 09.4 -0.2
      baz=90,SNR=25
TXAR  Lajitas Array     90.28  58  P      P        21 42 10.2 +0.3
TXAR                               *PP    pP       21 44 08.6 +2.2
TXAR  Lajitas Array     90.28  58  P      P        21 42 10.2 +0.3
      comp=Z,14nm,0.8s,mb4.9,baz=214,slow=6.3,SNR=118
TXAR                               pP     pP       21 44 08.6 +2.2
      comp=Z,1.6nm,1.0s,baz=216,slow=5.6,SNR=2.6
TXAR                               PKKPbc PKKPbc   21 59 35.6 -0.6
      comp=Z,0.5nm,0.6s,baz=98,slow=6.4,SNR=3.6
N16A  Rees Ranch, Co    90.30  45 ⇑P      P        21 42 09.7  0.0
      baz=90,SNR=5.9
MCK   McKinley          90.34  13 eP      P        21 42 08.2 -1.2
MCK                                pmax   pmax
      comp=Z,25nm,1.2s,mb4.9
MCK   McKinley          90.34  13 eP      P        21 42 08.2 -1.2
      comp=Z,25nm,1.2s,mb4.9
LPM   Los Pinos Moun    90.34  52 eP      P        21 42 10.6 +0.5
E11A  Bogner Ranch,     90.35  38 ⇑P      P        21 42 09.2 -0.6
      baz=90
O17A  Robinson Place    90.39  46 ⇑P      P        21 42 10.4 +0.2
      baz=90,SNR=77
R19A  Curley Farm, L    90.42  48 ⇑P      P        21 42 09.9 -0.5
      baz=91,SNR=6.6
P18A  Preston Nutter    90.43  46 ⇑P      P        21 42 10.4  0.0
      baz=91,SNR=8.3
B09A  Rice              90.47  36 ⇑P      P        21 42 10.4 +0.1
      baz=91,SNR=6.8
H13A  Challis           90.50  41 ⇓P      P        21 42 10.4 -0.2
      baz=91,SNR=12
K15A  Arbon             90.54  43 ⇓P      P        21 42 10.8 -0.1
      baz=91
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A09A  Danville          90.56  35 ⇓P      P        21 42 10.5 -0.3
      baz=91,SNR=5.1
I14A  Mackay            90.64  42 ⇑P      P        21 42 11.5 +0.2
      baz=91,SNR=12
N17A  Moffit Pass       90.72  45 ⇓P      P        21 42 11.6  0.0
      baz=91
PV04  Paradox Valley    90.72  48 eP      P        21 42 12.0 +0.3
Q19A  Hogan Spring (    90.75  47 ⇓P      P        21 42 11.6 -0.3
      baz=91,SNR=10
ANMO  Albuquerque       90.77  52 eP      P        21 42 11.9 -0.2
ANMO                               pmax   pmax
      comp=Z,24nm,1.2s
ANMO  Albuquerque       90.77  52 eP      P        21 42 11.9 -0.2
      comp=Z,24nm,1.2s,mb5.0
G13A  Cobalt            90.80  40 ⇑P      P        21 42 11.7 -0.3
      baz=91,SNR=12
CD2   Chengdu           90.84 303  P      P        21 42 13.9 +1.4
CD2                                pP     pP       21 44 07.2 -1.8
CD2                                sP     sP       21 44 57.6 -4.5
CD2                                PP     PP       21 46 00.9 +2.8
CD2                                SKS             21 51 56.0
CD2                                S      S        21 52 22.1 -2.3
CD2                                sS     sS       21 55 47.0 -5.8
CD2                                SS     SS       21 58 47.9 +4.2
CD2                                pmax   pmax
      comp=Z,10.0nm,0.7s,mb4.8
CD2                                pmax   pmax
      comp=Z,250nm,5.9s
MENT  Mentasta          90.86  16 eP      P        21 42 11.8  0.0
L16A  Fish Haven        90.88  44 ⇑P      P        21 42 12.0 -0.4
      baz=91,SNR=29
R20A  Redvale           90.98  48 ⇓P      P        21 42 12.4 -0.5
      baz=91
J15A  Blackfoot         90.98  42 ⇑P      P        21 42 13.3 +0.4
      baz=91
M17A  Scullys Gap (B    91.10  45 ⇓P      P        21 42 13.1 -0.3
      baz=91,SNR=11
A10A  Northport         91.11  36 ⇓P      P        21 42 13.2 -0.1
      baz=91
F13A  Darby             91.12  40 ⇓P      P        21 42 12.8 -0.6
      baz=91,SNR=8.7
K16A  Soda Springs      91.21  43 ⇑P      P        21 42 14.3 +0.4
      baz=91
I15A  Monteview         91.27  42 ⇑P      P        21 42 14.6 +0.5
      baz=91
P19A  Cripple Cowboy    91.28  47 ⇑P      P        21 42 14.1 -0.2
      baz=91
L17A  Cokeville         91.28  44 ⇓P      P        21 42 13.6 -0.7
      baz=91,SNR=5.6
G14A  Jackson           91.34  40 ⇑P      P        21 42 14.5  0.0
      baz=92
Q20A  Ridgley Place,    91.41  48 ⇑P      P        21 42 14.5 -0.4
      baz=92,SNR=7.8
J16A  Bone              91.42  43 ⇑P      P        21 42 15.1 +0.2
      baz=92
T22A  Edith             91.43  50 ⇑P      P        21 42 15.0 -0.1
      baz=92
M18A  Lyman             91.46  45 ⇑P      P        21 42 15.0 -0.1
      baz=92,SNR=11
AHID  Auburn Hatcher    91.48  43 eP      P        21 42 15.6 +0.4
      comp=Z,23nm,0.9s,mb5.1
H15A  Lima              91.50  41 ⇓P      P        21 42 15.3 +0.1
      baz=92,SNR=7.0
O19A  Miners Draw (B    91.51  46 ⇑P      P        21 42 14.9 -0.4
      baz=92,SNR=11
COLA  College           91.57  13 eP      P        21 42 13.7 -1.3
COLA                               pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.8
COLA  College           91.57  13 eP      P        21 42 13.7 -1.3
      comp=Z,8.8nm,0.8s,mb4.8
COLA                              epP     pP       21 44 18.1 +6.4
K17A  Gardner Place,    91.59  44 ⇑P      P        21 42 15.5 -0.2
      baz=92,SNR=8.2
P20A  De Beque          91.61  47 ⇓P      P        21 42 15.5 -0.3
      baz=92
L18A  Fontenelle, Gr    91.73  45 ⇓P      P        21 42 16.2 -0.1
      baz=92
A11A  Hall Mountain,    91.75  36 ⇑P      P        21 42 16.4 +0.2
      baz=92
D13A  Huson             91.77  38 ⇓P      P        21 42 16.4 +0.1
      baz=92
N19A  John Jarvie Ra    91.77  46 ⇓P      P        21 42 16.3 -0.3
      baz=92
I16A  Newdale           91.81  42 ⇓P      P        21 42 16.8 +0.2
      baz=92,SNR=8.4
BILL  Bilibino          91.86 355 eP      P        21 42 15.5 -0.8
BILL                              e*PP    pP       21 44 12.8 -0.1
BILL                               pmax   pmax
      comp=Z,37nm,1.3s,mb5.2
BILL  Bilibino          91.86 355 eP      P        21 42 16.3  0.0
      comp=Z,24nm,1.0s,mb5.2
G15A  Dillon            91.88  41 ⇑P      P        21 42 16.8 -0.1
      baz=92,SNR=6.2
E14A  Clinton           91.95  39 ⇓P      P        21 42 16.9 -0.4
      baz=92
C13A  Hot Springs       92.02  38 ⇓P      P        21 42 17.0 -0.6
      baz=92
O20A  White River Ci    92.02  47 ⇑P      P        21 42 17.2 -0.5
      baz=92
J17A  Brown Place, J    92.03  43 ⇑P      P        21 42 17.6 -0.1
      baz=92
K18A  Toltan Ranch,     92.09  44 ⇑P      P        21 42 17.9  0.0
      baz=92,SNR=17
M19A  Rock Springs      92.09  45 ⇓P      P        21 42 17.6 -0.4
      baz=92
R22A  Saguache, Gunn    92.11  49 ⇓P      P        21 42 18.2  0.0
      baz=92
LOHW  Long Hollow       92.23  43 eP      P        21 42 19.0 +0.4
F15A  Butte             92.23  40 ⇓P      P        21 42 18.1 -0.5
      baz=92
L19A  Farson            92.26  45 ⇓P      P        21 42 18.6 -0.1
      baz=92
P21A  Newcastle         92.26  48 ⇑P      P        21 42 18.9 +0.1
      baz=92
D14A  Greenough         92.30  39 ⇑P      P        21 42 18.1 -0.7
      baz=92
Q22A  Crested Butte,    92.31  48 ⇓P      P        21 42 19.0 -0.1
      baz=92
N20A  Spence Gulch,     92.35  46 ⇓P      P        21 42 19.0 -0.2
      baz=92
H16A  Russell Place,    92.39  42 ⇑P      P        21 42 19.7 +0.4
      baz=93,SNR=7.9
J18A  Kendall Valley    92.39  43 ⇑P      P        21 42 19.2 -0.2
      baz=92
I17A  Pilgrim Ck.       92.40  43 ⇓P      P        21 42 19.6 +0.2
      baz=93
E15A  Deer Lodge        92.46  40 ⇓P      P        21 42 19.2 -0.3
      baz=93
BW06  Boulder Array     92.46  44 ⇓P      P        21 42 19.2 -0.5
      baz=93
PDAR  Pinedale Array    92.46  44  P      P        21 42 19.2 -0.5
      comp=Z,8.3nm,0.8s,mb4.8,baz=213,slow=3.5,SNR=50
PDAR                               PP     PP       21 46 07.7 -2.7
      comp=Z,3.5nm,1.1s,baz=235,slow=5.2,SNR=10
B13A  Whitefish         92.46  37 ⇑P      P        21 42 18.9 -0.6
      baz=93
H17A  Grant Village     92.64  42 ⇓P      P        21 42 22.1 +1.7
      baz=93
BOZ   Bozeman (W)       92.65  41 ⇓P      P        21 42 20.4  0.0
      baz=93
M20A  Sweetwater, Wa    92.72  46 ⇓P      P        21 42 20.8 -0.1
      baz=93
SDCO  Great Sand Dun    92.76  50 eP      P        21 42 21.4 +0.2
      comp=Z,14nm,1.0s,mb4.9
I18A  Diamond G Ranc    92.77  43 ⇑P      P        21 42 21.7 +0.6
      baz=93
N21A  Black Mountain    92.81  47 ⇑P      P        21 42 21.2 -0.1
      baz=93
D15A  Lincoln           92.85  39 ⇑P      P        21 42 21.1 -0.2
      baz=93
L20A  Wamsutter         92.87  45 ⇑P      P        21 42 21.4 -0.1
      baz=93
DAWY  Dawson            92.89  17 eP      P        21 42 20.6 -0.5
K19A  Absolon Red Bu    92.94  44 ⇑P      P        21 42 21.2 -0.7
      baz=93
EGAK  Eagle             93.02  16 eP      P        21 42 20.9 -0.8
      comp=Z,17nm,0.8s,mb5.1
LZH   Lanzhou           93.12 308 eP      P        21 42 24.0 +1.1
LZH                                pP     pP       21 44 18.2 -1.3
LZH                                sP     sP       21 45 07.8 -4.7
LZH                                pmax   pmax
      comp=Z,13nm,1.0s,mb4.9
LZH                                pmax   pmax
      comp=Z,68nm,5.0s
C15A  Salmond Ranch,    93.19  39 ⇑P      P        21 42 22.5 -0.4
      baz=93
F17A  Fitzpatrick Pl    93.36  41 ⇑P      P        21 42 23.2 -0.6
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      baz=94
A14A  Double T Ranch    93.37  37 ⇓P      P        21 42 23.1 -0.6
      baz=94
L21A  Rawlins           93.48  46 ⇑P      P        21 42 23.1 -1.2
      baz=94
B15A  Bradely Ranch,    93.50  38 ⇓P      P        21 42 23.5 -0.8
      baz=94
N22A  Wattenberg Ran    93.54  47 ⇑P      P        21 42 24.4 -0.3
      baz=94
C16A  Fuhringer Ranc    93.70  39 ⇑P      P        21 42 24.6 -0.6
      baz=94
M22A  Cedar Creek Ra    93.73  46 ⇑P      P        21 42 25.2 -0.3
      baz=94
G18A  Lazy EL Ranch,    93.73  42 ⇓P      P        21 42 25.7 +0.3
      baz=94
A15A  Johnson Ranch,    93.76  38 ⇓P      P        21 42 24.8 -0.7
      baz=94
RLMT  Red Lodge         93.82  42 ⇓P      P        21 42 26.1 +0.3
      baz=94
RLMT  Red Lodge         93.82  42 eP      P        21 42 25.1 -0.7
      comp=Z,5.0nm,0.9s,mb4.6
F18A  Big Timber        93.93  41 ⇓P      P        21 42 26.5 +0.2
      baz=94
B16A  M & M Farms, S    94.04  38 ⇓P      P        21 42 25.8 -0.9
      baz=94
C17A  Wharram Farm,     94.18  39 ⇑P      P        21 42 26.8 -0.6
      baz=94
YAK   Yakutsk           94.22 339 eP      P        21 42 25.6 -1.6
YAK                                pmax   pmax
      comp=Z,13nm,1.3s,mb4.9
YAK   Yakutsk           94.22 339 eP      P        21 42 26.5 -0.7
A16A  West Butte Ran    94.38  38 ⇑P      P        21 42 27.6 -0.6
      baz=94
A17A  Triple J Farms    94.89  38 ⇓P      P        21 42 29.9 -0.7
      baz=95
B18A  Beardsley Farm    95.14  39 ⇓P      P        21 42 31.1 -0.6
      baz=95
A18A  Metzger Ranch,    95.36  39 ⇑P      P        21 42 32.1 -0.6
      baz=96
ULN   Ulaanbaatar       96.42 320 eP      P        21 42 37.3 -0.2
ULN                                pmax   pmax
      comp=Z,1.0nm,0.6s,mb4.2
ULN   Ulaanbaatar       96.42 320 eP      P        21 42 37.3 -0.3
      comp=Z,0.9nm,0.6s,mb4.2
RSSD  Black Hills       96.64  45 eP      P        21 42 37.8 -0.8
RSSD                               pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.7
RSSD  Black Hills       96.64  45 eP      P        21 42 37.8 -0.8
      comp=Z,4.5nm,0.9s,mb4.7
SONM  Songino Array     96.80 319  P      P        21 42 38.6 -0.6
SONM                               *PP    pP       21 44 36.5 +0.3
SONM                                               21 46 43.9
SONM  Songino Array     96.80 319  P      P        21 42 38.6 -0.6
      comp=Z,0.5nm,0.5s,mb4.0,baz=137,slow=5.1,SNR=8.6
SONM                               pP     pP       21 44 36.5 +0.3
      comp=Z,0.9nm,1.1s,baz=132,slow=2.1,SNR=3.0
SONM                               PP     PP       21 46 43.9 +0.4
      comp=Z,1.3nm,1.0s,baz=94,slow=4.5,SNR=3.1
SONM                               PKKPbc PKKPbc   21 59 18.1 -1.9
      comp=Z,0.8nm,0.9s,baz=266,slow=3.6,SNR=6.6
YKA   Yellowknife Ar   100.06  25  P      Pdif     21 42 51.6 -2.3
      comp=Z,0.9nm,0.8s,baz=241,slow=4.7,SNR=10
YKA                                PP     PP       21 47 02.2 -5.4
      comp=Z,1.8nm,0.9s,baz=244,slow=7.2,SNR=12
YKA   Yellowknife Ar   100.06  25  P      Pdif     21 42 51.6 -2.3
YKA                                PP     PP       21 47 02.2 -5.4
TIXI  Tiksi            101.19 345⇑iP      Pdif     21 42 57.7 -1.2
ULM   Lac du Bonnet    104.16  41  PP     PP       21 47 35.4 -2.8
      comp=Z,2.9nm,0.9s,baz=273,slow=11,SNR=3.6
WMQ   Urumqi           107.47 311 eP      PKiKP    21 47 37.0 +5.1
ZALV  Zalesovo Beam    111.64 321  PKiKP  PKiKP    21 47 37.2 -2.2
      comp=Z,2.2nm,0.7s,baz=136,slow=1.6,SNR=12
MKAR  Makanchi Array   111.88 313  Pdiff  Pdif     21 43 48.0 +1.6
      comp=Z,0.2nm,0.5s,baz=87,slow=5.4,SNR=4.6
MKAR                               PKiKP  PKiKP    21 47 38.2 -1.9
      comp=Z,2.5nm,0.6s,baz=224,slow=2.2,SNR=32
MKAR                               PKKPbc PKKPbc   21 58 32.7 -2.3
      comp=Z,0.8nm,0.9s,baz=300,slow=2.4,SNR=5.7
MKAR  Makanchi Array   111.88 313  Pdif   Pdif     21 43 48.0 +1.6
MKAR                               PKPdf  PKiKP    21 47 38.2 -1.9
MKAR                               PKKPbc PKKPbc   21 58 32.7 -2.3
KURK  Kurchatov        114.91 317 ePKIKP  PKPdf    21 47 44.0 -1.8
KURK  Kurchatov        114.91 317  PKKPbc PKKPbc   21 58 22.7 -2.3
      comp=Z,0.5nm,0.9s,baz=276,slow=4.8,SNR=3.5
KSH   Kashi            115.03 304 ePKP    PKPdf    21 47 46.3 -0.1
KSH                               ePKS             21 51 21.9
KSH                               eSKS    SKSdf    21 54 07.2 -1.2
KSH                                AMB    AMB
      comp=Z,390nm,5.2s
UCH   Uchtor           116.57 307 ePKPdf  PKPdf    21 47 48.9 -0.4
AML   Almayashu        117.16 307 ePKPdf  PKPdf    21 47 49.4 -1.0
BRVK  Borovoye         120.20 319 ePKIKP  PKPdf    21 47 53.5 -2.4
SCHQ  Schefferville    122.22  39  PKP    PKPdf    21 47 57.3 -2.4
      comp=Z,6.0nm,0.9s,baz=342,slow=2.3,SNR=6.4
BOSA  Boshof           122.71 207  PKP    PKPdf    21 48 00.2 -1.4
      comp=Z,4.3nm,0.7s,baz=126,slow=4.5,SNR=7.0
SPITS Spitsbergen Ar   124.76 356  PKP    PKPdf    21 48 02.3 -1.7
      comp=Z,21nm,0.8s,baz=64,slow=4.5,SNR=12
SVE   Sverdlovsk       125.36 324 ePKIKP  PKPdf    21 48 04.5 -1.2
SVE                                pmax   pmax
      comp=Z,12nm,0.9s
SFJD  Kangerlussuaq    126.46  22 ePKIKP  PKPdf    21 48 03.7 -3.8
SFJD                               pmax   pmax
      comp=Z,5.0nm,0.9s
SFJD  Kangerlussuaq    126.46  22 i P     PKPdf    21 48 03.7 -3.8
      comp=Z,5.1nm,0.9s
PRGR  Permogore        130.93 333 ePKIKP  PKPdf    21 48 14.2 -1.9
PRGR                              e                21 50 48.7
PRGR                               pmax   pmax
      comp=Z,6.0nm,0.7s
KEV   Kevo             131.05 348 epkp    PKPdf    21 48 13.2 -2.9
SCO   Scoresbysund     131.31  10 i P     PKPdf    21 48 15.2 -1.4
SCO   Scoresbysund     131.31  10 eP      PKPdf    21 48 15.2 -1.4
ARCES ARCESS Array B   131.52 348  PKIKP  PKPdf    21 48 15.0 -2.0
ARCES                                              21 50 52.1
ARCES ARCESS Array B   131.52 348  PKhKP           21 48 02.9
      comp=Z,3.0nm,0.9s,baz=35,slow=3.3,SNR=3.0
ARCES                              PKP    PKPdf    21 48 14.9 -2.1
      comp=Z,8.1nm,0.7s,baz=337,slow=0.8,SNR=14
ARCES                              SKPbc  SKPbc    21 50 52.0 -1.2
      comp=Z,8.2nm,0.9s,baz=62,slow=3.1,SNR=6.8
KLMR  Klimovskoe       133.84 334 ePKIKP  PKPdf    21 48 21.2 -0.4
KLMR                              e                21 50 58.0
KLMR                               pmax   pmax
      comp=Z,23nm,1.9s
JOF   Joensuu          135.38 340 epkp             21 48 12.5
KMBO  Kilima Mbogo     136.23 241  SKPbc  SKPbc    21 51 10.6 +0.3
      comp=Z,3.7nm,0.9s,baz=357,slow=4.0,SNR=4.3
KAF   Kangasniemi      137.49 342 epkp             21 48 16.4
OBN   Obninsk          138.44 329⇓iPKIKP  PKPdf    21 48 31.7 +1.4
OBN                               e                21 51 24.3
OBN                                pmax   pmax
      comp=Z,34nm,1.7s
GNI   Garni            138.96 305⇑iPKIKP  PKPdf    21 48 32.1 +0.3
GNI                                pmax   pmax
      comp=Z,5.0nm,0.8s
VSR   Storozhevoye     139.11 323⇑iPKIKP  PKPdf    21 48 31.3 -0.4
NB2   NORSAR Subarra   141.72 351  PKP             21 48 30.7
      comp=Z,4.0nm,0.6s,baz=16,slow=3.2
NOA   NORSAR Array B   141.72 351  PKhKP           21 48 30.3
      comp=Z,12nm,0.8s,baz=16,slow=4.7,SNR=36
NOA                                SKPbc  SKPbc    21 51 22.3 -1.4
      comp=Z,5.6nm,0.9s,baz=13,slow=4.2,SNR=7.0
NACGM Naroch           142.86 334 e                21 48 31.0
ANN   Anapa            142.88 314 i PKHKP          21 48 34.9
ANN                                pmax   pmax
      comp=Z,34nm,0.7s
GRSN  GIRESUNGRSN      143.59 308 i P     PKPdf    21 48 36.4 -3.5
KEMA  Kemaliye         143.86 305 i P     PKPdf    21 48 39.1 -1.4
MALT  Malatya          144.13 303⇓iP      PKPdf    21 48 40.8 -0.2
AKCD  Akcadag          144.52 303 i P     PKPdf    21 48 41.8 +0.1
AKASG Malin Array Be   144.64 327  PKP    PKPdf    21 48 39.9 -1.6
      comp=Z,21nm,0.6s,baz=44,slow=4.0,SNR=134
AKASG                              pPKP   pPKPdf   21 50 48.0 +2.3
      comp=Z,0.5nm,0.3s,baz=44,slow=3.5,SNR=3.0
AKASG                              SKPbc  SKPbc    21 51 29.9 -1.1
      comp=Z,7.8nm,1.0s,baz=46,slow=2.6,SNR=8.1
AKASG Malin Array Be   144.64 327  PKP    PKPdf    21 48 39.9 -1.6
AKASG                              pPKP   pPKPdf   21 50 48.0 +2.3
AKASG                              SKPbc  SKPbc    21 51 29.9 -1.1
SUW   Suwalki          144.92 336 ePKP    PKPdf    21 48 41.2 -0.6
SUW   Suwalki          144.92 336 ePKP    PKPdf    21 48 41.2 -0.6
SIM   Simferopol’      144.97 316 ePKIKP  PKPdf    21 48 42.0 -0.2
SIM                                pmax   pmax
      comp=Z,28nm,1.0s
GZT   Gaziantep        145.01 302 i P     PKPdf    21 48 41.0 -1.6
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BOYT	**Boyabat**	145.84	310	*i* P	PKPdf	21 48 43.1	-0.7
CTKT	**Corum**	146.19	309	*i* P	PKPdf	21 48 43.4	-1.1
MUD	**Monsted U'grnd**	146.43	351	*i* PKIKP	PKPdf	21 48 45.4	+1.1
MUD				pmax	pmax		
	comp=Z,28nm,1.0s						
MUD	**Monsted U'grnd**	146.43	351	*i* P	PKPdf	21 48 45.4	+1.1
	comp=Z,28nm,1.0s						
BSD	**Bornholm Skovb**	146.56	344	*i* PKIKP	PKPdf	21 48 45.6	+1.0
BSD				pmax	pmax		
	comp=Z,28nm,1.0s						
BSD	**Bornholm Skovb**	146.56	344	*i* P	PKPdf	21 48 45.6	+1.0
	comp=Z,28nm,1.0s						
COP	**Copenhagen**	146.59	347	*i* PKP2	PKPbc	21 48 46.4	-0.8
COP				pmax	pmax		
	comp=Z,20nm,0.8s						
COP	**Copenhagen**	146.59	347	*i* P	PKPbc	21 48 46.4	-0.8
	comp=Z,20nm,0.8s						
ILGA	**Ilgaz**	146.81	310	*i* P	PKPbc	21 48 47.7	-0.6
BALT	**Daday**	146.86	311	*i* P	PKPdf	21 48 47.1	+1.5
ELDT	**Eldivan**	147.21	309	*i* P	PKPbc	21 48 48.2	-1.1
BRTR	**Keskin Array B**	147.32	308	PKHKP	PKPdf	21 48 44.8	-1.6
BRTR						21 48 48.0	
BRTR						21 48 53.0	
BRTR	**Keskin Array B**	147.32	308	PKP	PKPdf	21 48 44.8	-1.6
	comp=Z,4.9nm,0.6s,baz=158,slow=1.6						
BRTR				PKPbc	PKPbc	21 48 48.0	-1.6
	comp=Z,5.2nm,0.6s,baz=154,slow=5.2,SNR=26						
BRTR				PKPab	PKPab	21 48 53.0	-0.3
	baz=96,slow=3.3						
BRTR				pPKPbc	pPKPbc	21 50 53.4	+1.4
	comp=Z,2.2nm,0.9s,baz=106,slow=2.7,SNR=4.7						
GKP	**Gorka Klasztor**	147.55	341	*e*PKP	PKPbc	21 48 49.0	-0.8
GKP	**Gorka Klasztor**	147.55	341	*e*PKP	PKPbc	21 48 49.0	-0.8
LVV	**L'vov**	147.70	330	*e*PKP2	PKPbc	21 48 49.9	-0.4
EKA	**Eskdalemuir Ar**	148.16	3	PKPbc	PKPbc	21 48 49.5	-1.7
	comp=Z,18nm,0.9s,baz=301,slow=1.1,SNR=24						
ESK	**Eskdalemuir**	148.17	3	*i* PKP2	PKPbc	21 48 51.4	+0.1
KWP	**Kalwaria Pacla**	148.43	331	*e*PKP	PKPbc	21 48 51.5	-0.6
KWP	**Kalwaria Pacla**	148.43	331	⇓*i*P	PKPbc	21 48 51.6	-0.5
KWP	**Kalwaria Pacla**	148.43	331	*e*PKP	PKPbc	21 48 51.5	-0.6
BURAR	**Bucovina Array**	148.65	326	⇓*i*P	PKPbc	21 48 53.7	+1.0
BSEG	**Bad Segeberg**	148.66	348	*e*PKPbc	PKPbc	21 48 51.6	-0.9
TIRR	**Tirgusor**	148.75	319	⇑*i*P	PKPbc	21 48 52.2	-0.9
TIRR	**Tirgusor**	148.75	319	⇑P	PKPbc	21 48 52.2	-0.9
KDHN	**Kadinhani**	148.84	306	*i* P	PKPbc	21 48 51.6	-1.9
CSS	**Prodhromos**	148.87	299	*e*PKPbc	PKPbc	21 48 52.9	-0.8
HARR	**Harsova**	148.92	320	PKHKP	PKPbc	21 48 53.4	-0.1
KOLS	**Kolonicke sedl**	149.14	331	*e*PKP	PKPdf	21 48 49.2	+0.2
KOLS				*e*		21 48 53.5	
KOLS				*e*		21 48 54.3	
KOLS				*e*		21 49 01.8	
KOLS				*e*		21 51 03.6	
KOLS	**Kolonicke sedl**	149.14	331	*e*PKP	PKPdf	21 48 49.2	+0.2
KOLS				*e*		21 48 53.5	
OJC	**Ojcow**	149.19	335	*e*PKP	PKPbc	21 48 52.3	-1.7
STHS	**Stebnicka Huta**	149.22	332	*e*PKHKP	PKPdf	21 48 49.9	+0.8
STHS				*e*		21 49 00.7	
STHS	**Stebnicka Huta**	149.22	332	*e*PKP	PKPdf	21 48 49.9	+0.8
STHS				*e*		21 48 53.7	
STHS				*e*		21 48 55.0	
STHS				*e*		21 49 00.6	
STHS				*e*		21 51 04.4	
STHS	**Stebnicka Huta**	149.22	332	*e*PKP	PKPdf	21 48 49.9	+0.8
STHS				*e*		21 48 53.7	
RUE	**Ruedersdorf**	149.23	343	*e*PKPbc	PKPbc	21 48 53.1	-0.9
RUE	**Ruedersdorf**	149.23	343	*e*PKPbc	PKPbc	21 48 53.0	-0.9
DMUB	**Kingscourt**	149.24	8	*e*P	PKPdf	21 48 48.4	-0.6
DMUB	**Kingscourt**	149.24	8	⇑*i*P	PKPbc	21 48 53.0	-1.0
UZH	**Uzhgorod**	149.35	330	⇑*i*PKHKP	PKPbc	21 48 54.2	-0.2
UZH				*e*		21 49 00.0	
ESKT	**Eskisehir**	149.41	309	*i* P	PKPbc	21 48 52.8	-2.0
BMR	**Baia Mare**	149.46	328	PKHKP	PKPbc	21 48 54.3	-0.4
CRVS	**Cervenica-Dubn**	149.52	332	*e*PKP	PKPdf	21 48 49.7	+0.1
CRVS				*e*		21 48 54.2	
CRVS				*e*		21 48 54.9	
CRVS				*e*		21 51 04.6	
CRVS	**Cervenica-Dubn**	149.52	332	*e*PKP	PKPdf	21 48 49.7	+0.1
CRVS				*e*		21 48 54.2	
NIE	**Niedzica**	149.61	333	*e*PKP	PKPbc	21 48 54.8	-0.2
DCN	**Croghan**	149.74	9	*e*P	PKPdf	21 48 49.3	-0.5
DCN	**Croghan**	149.74	9	⇑*i*P	PKPbc	21 48 54.1	-1.1
DLF	**Lyons Farm**	149.88	8	*e*P	PKPdf	21 48 49.5	-0.5
DLF	**Lyons Farm**	149.88	8	*e*P	PKPbc	21 48 54.3	-1.2
KSP	**Ksiaz**	149.93	339	*e*PKP	PKPbc	21 48 55.3	-0.4
KSP	**Ksiaz**	149.93	339	*e*PKP2	PKPab	21 49 03.4	-0.2
NRDL	**Niedersach Rie**	150.06	348	*e*PKPbc	PKPbc	21 48 54.8	-1.1
NRDL				*e*pPKPab	pPKPab	21 51 05.1	+2.4
OKC	**Ostrava-Krasne**	150.13	336	*e*PKHKP	PKPbc	21 48 55.4	-0.8
OKC				*e*		21 49 05.0	
OKC	**Ostrava-Krasne**	150.13	336	⇑*e*PKP	PKPbc	21 48 55.4	-0.8
OKC				*e*PKPAB	PKPab	21 49 05.0	+0.5
OKC				*e*pPKP	pPKPdf	21 51 02.7	+7.7
VOIR		150.13	323	PKHKP	PKPbc	21 48 55.4	-0.9
DPC	**Dobruska-Polom**	150.35	339	*e*PKPDF	PKPdf	21 48 50.5	-0.3
DPC				⇑*e*PKP	PKPbc	21 48 56.2	-0.5
DPC				*e*PKPAB	PKPab	21 49 06.3	+0.9
DPC				*e*pPKP	pPKPab	21 51 05.9	+2.0
ULDT	**Uludag**	150.37	311	*i* P	PKPbc	21 48 55.5	-1.6
MORC	**Moravsky Berou**	150.40	337	⇑*i*P	PKPbc	21 48 56.3	-0.5
CLL	**Collm**	150.50	343	⇑*i*PKIKP	PKPbc	21 48 56.0	-1.0
CLL				*i*		21 49 05.6	
CLL				pmax	pmax		
	comp=Z,71nm,0.9s						
CLL	**Collm**	150.50	343	*e*PKPbc	PKPbc	21 48 56.0	-1.0
CLL				*e*pPKPab	pPKPab	21 51 06.1	+1.6
CLL	**Collm**	150.50	343	⇑*i*PKPbc	PKPbc	21 48 56.0	-1.0
	comp=Z,71nm,0.9s						
CLL				⇓*i*PKPab	PKPab	21 49 05.6	-0.3
	comp=Z,22nm,0.8s						
CLL				*e*		21 49 17.0	
CLL				*i* pPKPab	pPKPab	21 51 06.0	+1.5
CLZ	**Clausthal**	150.63	347	*e*PKPbc	PKPbc	21 48 56.6	-0.7
CLZ				*e*pPKPab	pPKPab	21 51 06.8	+1.8
BRG	**Berggiesshubel**	150.63	342	*e*PKPbc	PKPbc	21 48 56.6	-0.7
BRG				*e*pPKPab	pPKPab	21 51 06.6	+1.6
BRG	**Berggiesshubel**	150.63	342	*e*PKP	PKPdf	21 48 50.0	-1.3
	comp=Z,3.3nm,0.8s						
BRG				*i*		21 48 56.4	
	comp=Z,48nm,0.9s						
BRG				*i*		21 49 06.3	
	comp=Z,14nm,0.8s						
BRG				*e*PKPPKP		21 51 05.9	
	comp=Z,20nm,1.2s						
BRG	**Berggiesshubel**	150.63	342	*e*PKP	PKPdf	21 48 50.0	-1.3
BRG				*i*		21 48 56.4	
BRG				*i*		21 49 06.3	
BRG				*e*P'P'		21 51 05.9	
IBBN	**Ibbenburen**	150.66	350	*e*PKPbc	PKPbc	21 48 56.8	-0.5
IBBN				*e*PKPab	PKPab	21 49 06.1	-0.5
FBE	**Freiberg**	150.75	343	*e*PKPbc	PKPbc	21 48 56.9	-0.7
FBE				*e*pPKPab	pPKPab	21 51 07.1	+1.6
PVCC	**Panska Ves**	150.75	341	*e*PKPDF	PKPdf	21 48 51.6	+0.1
PVCC				⇑*e*PKP	PKPbc	21 48 56.9	-0.7
PVCC				*e*PKPAB	PKPab	21 49 07.8	+0.8
PVCC				*e*pPKP	pPKPab	21 51 07.1	+1.6
KHAL	**Karahalli**	150.82	307	*i* P	PKPbc	21 48 55.7	-2.5
VYHS	**Vyhne**	150.94	334	*e*PKIKP	PKPbc	21 48 57.3	-0.8
VYHS				*e*		21 49 08.2	
VYHS				*e*		21 51 01.3	
VYHS	**Vyhne**	150.94	334	*e*PKP	PKPbc	21 48 57.3	-0.8
VYHS				*e*		21 48 58.2	
VYHS				*e*		21 49 08.1	
VYHS				*e*		21 51 01.3	
PSZ	**Piszkesteto**	150.95	332	⇓*i*P	PKPbc	21 48 57.7	-0.4
WTSB	**Winterswijk**	151.13	351	*e*PKP	PKPbc	21 48 57.3	-1.2
	comp=Z,66nm,0.6s						
PRU	**Pruhonice**	151.23	340	*e*PKPDF	PKPdf	21 48 52.1	-0.1
PRU				⇑*e*PKP	PKPbc	21 48 58.5	-0.2
PRU				*e*PKPAB	PKPab	21 49 09.8	+0.7
PRU				*e*pPKP	pPKPab	21 51 08.1	+0.6
GZR	**Gura Zlata**	151.38	325	PKIKP	PKPbc	21 48 58.1	-1.1
GZR	**Gura Zlata**	151.38	325	⇓*i*P	PKPbc	21 48 58.0	-1.2
TANN	**Tannenbergstha**	151.45	343	*e*PKPbc	PKPbc	21 48 57.7	-1.5
TANN				*e*pPKPab	pPKPab	21 51 08.6	+0.2
MOX	**Moxa**	151.46	344	*e*PKPbc	PKPbc	21 48 58.2	-1.0
MOX				*e*PKPab	PKPab	21 49 08.9	-1.1
MOX				*e*pPKPab	pPKPab	21 51 08.5	+0.1
WERD	**Werda**	151.46	343	*e*PKPbc	PKPbc	21 48 58.3	-0.9
WERD				*e*PKPab	PKPab	21 49 09.3	-0.7
WERD				*e*pPKPab	pPKPab	21 51 09.0	+0.6
AKAS	**Kas**	151.47	303	*i* P	PKPbc	21 48 57.7	-2.1
SMOL	**Smolenice**	151.48	335	*e*PKP	PKPdf	21 48 54.0	+1.4
SMOL				*e*		21 48 59.4	
SMOL				*e*		21 49 10.4	
TREC	**Trest**	151.53	338	*e*PKIKP	PKPbc	21 48 58.9	-0.5
TREC				*e*		21 49 10.3	
TREC	**Trest**	151.53	338	⇑*e*PKP	PKPbc	21 48 58.9	-0.5
TREC				*e*PKPAB	PKPab	21 49 10.3	-0.1
TREC				*e*pPKP	pPKPab	21 51 07.7	-1.0
GUNZ	**Gunzen**	151.53	343	*e*PKPbc	PKPbc	21 48 59.1	-0.3
GUNZ				*e*PKPab	PKPab	21 49 10.5	+0.2
GUNZ				*e*pPKPab	pPKPab	21 51 09.0	+0.3
WERN	**Wernitzgruen**	151.59	343	*e*PKPbc	PKPbc	21 48 58.7	-0.8
WERN				*e*PKPab	PKPab	21 49 10.9	+0.3
WERN				*e*pPKPab	pPKPab	21 51 09.1	+0.2
NKC	**Novy Kostel**	151.62	343	*e*PKIKP	PKPbc	21 48 59.1	-0.5
NKC				*e*		21 49 10.2	
NKC	**Novy Kostel**	151.62	343	⇑*e*PKP	PKPbc	21 48 59.1	-0.5
NKC				*e*PKPAB	PKPab	21 49 10.2	-0.5
NKC				*e*pPKP	pPKPab	21 51 08.8	-0.3
MODS	**Modra-Piesok**	151.66	335	*e*PKP	PKPbc	21 48 59.5	-0.2
MODS				*e*		21 49 11.8	
BZS	**Buzias**	151.82	327	⇓*i*P	PKPbc	21 48 59.0	-1.2
ZST	**Bratislava**	151.87	335	*e*PKP	PKPbc	21 48 59.6	-0.6
ZST				*e*		21 49 12.1	
MANZ	**Manzenberg**	151.94	343	*e*PKPbc	PKPbc	21 48 58.8	-1.5
MANZ				*e*pPKPab	pPKPab	21 51 09.6	-0.8
ROTZ	**Rotzenmuhle**	152.11	343	*e*PKPbc	PKPbc	21 49 00.2	-0.5
ROTZ				*e*PKPab	PKPab	21 49 13.1	+0.3
KHC	**Kasperske Hory**	152.29	341	*e*PKIKP	PKPdf	21 48 53.8	0.0
KHC				*e*		21 49 14.1	
KHC	**Kasperske Hory**	152.29	341	*e*PKPDF	PKPdf	21 48 53.8	0.0
KHC				⇑*e*PKP	PKPbc	21 49 00.2	-0.9
KHC				*e*PKPAB	PKPab	21 49 14.1	+0.5
KHC				*e*pPKP	pPKPab	21 51 10.5	-1.3
HGN	**Heimansgroeve**	152.43	352	*e*PKP	PKPab	21 49 13.6	-0.5
BEBN	**Eben Emael**	152.43	352	PKPab	PKPab	21 49 13.6	-0.5
GRF	**Grafenberg Arr**	152.44	344	*e*PKPab	PKPab	21 49 13.7	-0.5
WET	**Wettzell**	152.48	341	*e*PKPbc	PKPbc	21 49 00.2	-1.3
GEC2	**GERESS Array S**	152.50	340	*e*PKPbc	PKPbc	21 49 00.9	-0.7
GEC2				*e*PKPab	PKPab	21 49 13.8	-0.7
GERES	**GERESS Array B**	152.50	340	PKIKP	PKPdf	21 48 53.2	-0.9
GERES						21 49 00.6	
GERES						21 49 13.3	
GERES	**GERESS Array B**	152.50	340	PKP	PKPdf	21 48 53.2	-0.9
	comp=Z,0.7nm,0.7s,baz=132,slow=2.0,SNR=7.2						
GERES				PKPbc	PKPbc	21 49 00.6	-1.0
	comp=Z,4.6nm,0.8s,baz=45,slow=2.1,SNR=27						
GERES				PKPab	PKPab	21 49 13.3	-1.2
	comp=Z,1.8nm,0.6s,baz=36,slow=4.6,SNR=7.0						
GERES				pPKPbc	pPKPbc	21 51 06.9	+1.9
	comp=Z,2.2nm,0.8s,baz=76,slow=1.7,SNR=2.9						
TNS	**Taunus Mts**	152.55	348	*e*PKP2	PKPab	21 49 13.9	-0.7
TNS	**Taunus Mts**	152.55	348	*e*PKPbc	PKPbc	21 49 01.1	-0.5
TNS				*e*PKPab	PKPab	21 49 13.9	-0.7
CONA	**Conrad Observa**	152.56	336	⇑*i*PKPdf	PKPdf	21 48 52.7	-1.5
	comp=Z,3.5nm,1.1s						
CONA				⇑*i*PKPbc	PKPbc	21 49 00.8	-0.9
	comp=Z,12nm,1.0s						
CONA				⇑*i*PKPab	PKPab	21 49 15.0	+0.3
	comp=Z,22nm,0.7s						
CSNA	**Conrad Observa**	152.56	336	⇑*i*PKPdf	PKPdf	21 48 52.6	-1.7
	comp=Z,3.4nm,1.3s						
CSNA				⇑*i*PKPbc	PKPbc	21 49 00.8	-0.9
	comp=Z,11nm,0.9s						
CSNA				⇑*i*PKPab	PKPab	21 49 15.0	+0.2
	comp=Z,20nm,0.7s						
MEM	**Membach**	152.57	352	PKPbc	PKPbc	21 49 01.1	-0.5
MEM				PKPab	PKPab	21 49 14.3	-0.4
UCC	**Uccle**	152.57	354	PKPbc	PKPbc	21 49 01.6	0.0
UCC				PKPab	PKPab	21 49 14.3	-0.4
PKSM	**Moragy**	152.80	331	⇑*i*P	PKPbc	21 49 01.1	-1.2
BCLA	**Clavier**	152.84	352	PKPbc	PKPbc	21 49 04.7	+2.4
BCLA				PKPab	PKPab	21 49 14.8	-1.1
SNF	**Seneffe**	152.87	354	PKPbc	PKPbc	21 49 03.9	+1.6
SNF				PKPab	PKPab	21 49 15.2	-0.8
MOA	**Molln**	153.19	338	⇑*i*PKPdf	PKPdf	21 48 54.4	-0.8
	comp=Z,5.7nm,1.4s						
MOA				⇑*i*PKPab	PKPab	21 49 18.3	+0.9
	comp=Z,14nm,1.2s						
DOU	**Dourbes**	153.24	353	PKPbc	PKPbc	21 49 02.7	-0.5
DOU				PKPab	PKPab	21 49 16.6	-1.0
BAIF	**Baives**	153.32	354	*e*PKIKP	PKPdf	21 48 54.8	-0.5
WLF	**Walferdange**	153.47	351	PKPbc	PKPbc	21 49 03.7	+0.1
WLF				PKPab	PKPab	21 49 18.5	-0.1
RJOB	**Jochberg**	153.76	340	*e*PKPab	PKPab	21 49 19.9	0.0
STU	**Stuttgart**	153.77	346	*e*PKPab	PKPab	21 49 19.4	-0.5
FUR	**Furstenfeldbru**	153.82	343	*e*PKPab	PKPab	21 49 19.7	-0.4
GCIS	**Gornji Cirnik**	154.36	334	*e*PKPbc	PKPab	21 49 22.6	+0.1
LEGS	**Legarje**	154.41	335	*i* PKPbc	PKPab	21 49 22.1	-0.6
PDKS	**Podkum**	154.44	335	*i* PKPbc	PKPab	21 49 22.2	-0.7
WTTA	**Wattenberg**	154.54	341	⇑*i*PKPdf	PKPdf	21 48 56.7	-0.4
	comp=Z,8.0nm,1.2s						
WTTA				⇓*i*PKiKP	PKiKP	21 49 05.6	-0.3
	comp=Z,14nm,1.2s						
WTTA				⇑*i*PKPab	PKPab	21 49 23.1	-0.1
	comp=Z,18nm,0.6s						
ECH	**Echery**	154.71	349	*e*PKP2	PKPab	21 49 23.2	-0.7
MEZF	**Maizieres J'vi**	154.76	352	*e*PKIKP	PKPdf	21 48 56.9	-0.4
FLN	**La Foliniere**	154.82	1	*e*PKIKP	PKPdf	21 48 56.3	-1.1
LDF	**La Druitiere**	154.99	0	*e*PKIKP	PKPdf	21 48 56.5	-1.1
FETA	**Feichten**	155.02	342	⇑*i*PKPdf	PKPdf	21 48 56.2	-1.5
	comp=Z,8.6nm,0.9s						
FETA				⇑*i*PKPab	PKPab	21 49 26.1	+0.8
	comp=Z,11nm,1.1s						
HINF	**Hinteralfeld**	155.15	349	*e*PKIKP	PKPdf	21 48 57.1	-0.8
LOR	**Lormes**	156.11	353	*e*PKIKP	PKPdf	21 48 58.4	-0.7
	comp=Z,12nm,0.9s						
HYF	**Humbligny**	156.22	355	*e*PKIKP	PKPdf	21 48 58.1	-1.2
SSF	**Saint Saulge**	156.35	354	*e*PKIKP	PKPdf	21 48 58.7	-0.8
CABF	**La Chapelle**	156.45	349	*e*PKIKP	PKPdf	21 48 59.2	-0.4
	comp=Z,57nm,1.3s						
AVF	**Avril sur Loir**	156.64	354	*e*PKIKP	PKPdf	21 48 58.7	-1.1
SMF	**Signal de Mont**	156.73	353	*e*PKIKP	PKPdf	21 48 59.0	-1.0
BGF	**Bois d'Agland**	156.91	355	*e*PKIKP	PKPdf	21 48 58.2	-2.0
	comp=Z,6.1nm,0.6s						
MFF	**Saint Martin d**	156.99	0	*e*PKIKP	PKPdf	21 48 59.3	-1.0
TCF	**Toulx Ste Croi**	157.23	356	*e*PKIKP	PKPdf	21 48 59.8	-0.8
ORIF	**Oris-en-Rattie**	158.13	349	*e*PKIKP	PKPdf	21 49 01.1	-0.6
LFF	**La Frestale**	158.64	358	*e*PKIKP	PKPdf	21 49 02.0	-0.3
EPF	**Esparros**	160.56	359	*e*PKIKP	PKPdf	21 49 04.0	-0.6
	comp=Z,11nm,1.1s						
ETSF	**Etsaut**	160.69	1	*e*PKIKP	PKPdf	21 49 04.4	-0.3
PCAB	**Cabril**	160.69	18	*e*PKPab	PKPab	21 49 50.4	+0.3
PBRG	**Braganca**	160.94	15	*e*PKPab	PKPab	21 49 50.6	-0.6
PVRL	**Vila Real**	161.18	18	*e*PKPab	PKPab	21 49 51.8	-0.5
MVO	**Moncorvo**	161.47	17	*e*PKPdf	PKPdf	21 49 05.2	-0.4
MVO	**Moncorvo**	161.47	17	*e*PKPab	PKPab	21 49 53.5	0.0
PVIS	**Viseu**	161.64	19	*e*PKPab	PKPab	21 49 53.8	-0.5
MTE	**Manteigas**	162.04	19	*e*PKPdf	PKPdf	21 49 06.1	-0.1
LIC	**Lamto**	162.13	164	⇓*i*PKIKP	PKPdf	21 49 05.8	-1.3
	comp=Z,42nm,1.2s						
LIC	**Lamto**	162.13	164	*e*PKIKP	PKPdf	21 49 05.9	-1.2
	comp=Z,51nm,1.4s						
KIC	**Kosan Boka**	162.34	164	*e*PKIKP	PKPdf	21 49 05.5	-1.8
	comp=Z,216nm,1.6s						
TIC	**Toumodi**	162.54	163	*e*PKIKP	PKPdf	21 49 05.6	-1.9
	comp=Z,44nm,1.0s						
DBIC	**Dimbokro**	162.60	164	PKP	PKPdf	21 49 05.8	-1.8
	comp=Z,4.6nm,0.7s,baz=145,slow=2.0,SNR=7.3						
DBIC				PKPab	PKPab	21 49 58.5	-0.7
	comp=Z,5.3nm,0.9s,baz=156,slow=6.1,SNR=4.4						
DBIC	**Dimbokro**	162.60	164	PKP	PKPdf	21 49 05.8	-1.8
DBIC				PKPab	PKPab	21 49 58.5	-0.7
PMAFR	**Mafra**	162.74	25	*e*PKPab	PKPab	21 49 58.8	-0.4
PMRV	**Marv??o**	162.98	20	*e*PKPab	PKPab	21 49 59.0	-1.2
PESTR	**Estremoz**	163.42	21	*e*PKPab	PKPab	21 50 01.3	-0.9
ESDC	**Sonseca Array**	163.57	11	PKPab	PKPab	21 50 02.1	-0.7
	comp=Z,7.8nm,0.9s,baz=345,slow=4.2,SNR=27						
EVO	**Evora**	163.58	23	*e*PKIKP	PKPdf	21 49 06.9	-0.8
	comp=Z,26nm,1.0s						
EVO	**Evora**	163.58	23	*e*PKPdf	PKPdf	21 49 07.8	+0.1
EVO	**Evora**	163.58	23	*e*PKPab	PKPab	21 50 01.4	-1.5
PBEJ	**Beja**	164.08	23	*e*PKPdf	PKPdf	21 49 08.5	+0.3
PBEJ	**Beja**	164.08	23	*e*PKPab	PKPab	21 50 04.2	-0.9
KEST	**Kesra**	165.37	328	PKPab	PKPab	21 50 10.6	-0.3
	comp=Z,1.8nm,0.7s,baz=350,slow=16,SNR=5.5						
TORD	**Torodi Ar. Bea**	169.53	189	PKP	PKPdf	21 49 10.7	-2.1
	comp=Z,5.8nm,1.1s,baz=341,slow=1.5						
TORD				PKPab	PKPab	21 50 28.2	-1.5
	baz=167,slow=4.0						
TORD	**Torodi Ar. Bea**	169.53	189	PKP	PKPdf	21 49 10.7	-2.1
TORD				PKPab	PKPab	21 50 28.2	-1.5

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*IDC **07** 21:46:41.0±1.2, 0°.14S×123°.79E, h0^{km}, mb3.3/4, mb1 3.6/4, mb1mx3.4/18, mbtmp3.4/4, Error ellipse: s-maj=188.8km s-min=20.9km az=66.0*

*ISCJB **07** 21:46:51.2±5.5, 0°.1S±0°.2×123°.9E±0°.2, h106^{km}±55^{km}, mb3.3/5, Error ellipse: s-maj=44.0km s-min=22.0km az=155.9*

*NEIC **07** 21:46:54.1±4.3, 0°.25S×123°.82E, h118^{km}±43^{km}, mb3.4/1, Error ellipse: s-maj=50.1km s-min=14.6km az=63.0*

ISC 07 21:46:52.0±4.8, **0°.2S**±0°.2×**124°.0E**±0°.2, **h97^{km}**±48^{km}, **n6**, σ**0^{s}78**/7, **mb3.3**/5, **Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	**Kappang**	6.43	221	*e*Pn	**Pn**	**21 48 23.8**	**-0.5**
KAPI				*e*Sn	**Sn**	**21 49 36.8**	**+0.6**
MBWA	**Marble Bar**	21.29	191	*e*P	**P**	**21 51 29.9**	**-1.0**
	0.9nm,0.5s,mb3.4						
WRA	**Warramunga Arr**	22.11	153	P	**P**	**21 51 40.4**	**+0.7**
	1.0nm,0.7s,mb3.2,baz=331,slow=12,SNR=10						
ASAR	**Alice Springs**	25.27	158	P	**P**	**21 52 09.3**	**0.0**
	0.8nm,0.6s,mb3.3,baz=340,slow=13,SNR=9.9						
SONM	**Songino Array**	50.20	345	P	**P**	**21 55 38.0**	**+0.1**
	0.2nm,0.6s,mb3.2,baz=161,slow=11,SNR=3.1						
MKAR	**Makanchi Array**	59.28	328	P	**P**	**21 56 43.7**	**+0.2**
	0.2nm,0.4s,mb3.5,baz=123,slow=8.4,SNR=6.7						

KRSC 07 21:56:53.3±0.4, **52°.72N**×**160°.48E**, **h17^{km}**±17^{km}, **ML3.6**, **Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLC	**Nalytchevo**	0.82	304	*e*P	Pb	21 57 09.3	+0.2
NLC				*i* S	Sb	21 57 20.3	+0.4
PET	**Petropavlovsk**	1.15	286	*e*P	Pn	21 57 14.6	+0.1
PET				*i* S	Sb	21 57 29.1	-0.2
AVH	**Avacha**	1.19	298	*e*P	Pn	21 57 15.9	+0.8
AVH				*i* S	Sb	21 57 32.4	+2.1
RUS	**Russkaya**	1.23	257	*e*P	Pn	21 57 16.2	+0.5
RUS				*i* S	Sb	21 57 32.3	+0.6
GNL	**Ganaly**	1.81	304	*e*P	Pn	21 57 25.2	+1.5
GNL				*i* S	Sn	21 57 48.5	+2.3
MKZ	**Mys Kozlova**	1.98	22	*e*P	Pn	21 57 25.5	-0.5
MKZ				*i* S	Sn	21 57 48.6	-1.9
MIPR	**Malaya Ipel'ka**	2.32	260	P	Pn	21 57 32.9	+2.3
TUMR	**Tumrok**	2.58	356	*e*P	Pn	21 57 36.0	+1.8
TUMR				*i* S	Sn	21 58 08.1	+3.1
KMNR	**Kamenistaya**	3.05	357	*e*P	Pn	21 57 43.4	+2.8
KMNR				*i* S	Sn	21 58 20.9	+4.3
KBTR	**Krutoberegovo**	3.75	20	*e*P	Pn	21 57 52.8	+2.5
SMKR	**Semkarok**	3.91	8	P	Pn	21 57 55.5	+3.0

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*ISCJB **07** 21:59:38.2±0.4, 51°.54N±0°.02×7°.00E±0°.03, h0^{km}, Error ellipse: s-maj=3.2km s-min=2.9km az=154.4*

*BUG **07** 21:59:39.6, 51°.62N×7°.00E, h1^{km}, ML1.8*

*CSEM **07** 21:59:39.2±0.2, 51°.58N×6°.98E, h2^{km}, ML2.6/5, Error ellipse: s-maj=4.4km s-min=3.9km az=94.0*

*BNS **07** 21:59:39.0±0.6, 51°.69N×6°.96E, h1^{km}, ML2.0*

*BGR **07** 21:59:40.9±0.7, 51°.57N×7°.08E, h1^{km}, ML2.4/4, Error ellipse: s-maj=7.8km s-min=4.4km az=132.0*

*NEIC **07** 21:59:41.5, 51°.52N×6°.96E, h1^{km}, ML2.6(LDG), After LDG.*

*LDG **07** 21:59:41.5±0.3, 51°.52N×6°.96E, h1^{km}, Md2.9/1, Ml2.6/8, Error ellipse: s-maj=5.3km s-min=3.5km az=26.0*

ISC 07 21:59:39.5±0.3, **51°.56N**±0°.02×**6°.93E**±0°.03, **h0^{km}**, **n85**, σ**1^{s}13**/118, **Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BZER	**Hlnxe**	0.07	331	Pg	**Pg**	**21 59 41.5**	**+0.6**
BZER				Sg	**Sg**	**21 59 43.6**	**+1.8**
BZER	**Hlnxe**	0.07	331	Pg	**Pg**	**21 59 41.5**	**+0.6**
BZER				Sg	**Sg**	**21 59 43.6**	**+1.8**
LAUG	**Laupendahl**	0.21	177	*e*Pg	**Pg**	**21 59 45.2**	**+1.8**
LAUG	**Laupendahl**	0.21	177	Pg	**Pg**	**21 59 45.2**	**+1.8**
BUG	**Bochum--Univer**	0.24	118	*e*Pg	**Pg**	**21 59 45.2**	**+1.1**
BUG				Sg	**Sg**	**21 59 49.3**	**+2.0**
WTSB	**Winterswijk**	0.42	349	*e*Pg	**Pg**	**21 59 46.5**	**-0.9**
WTSB				*e*Sg	**Sg**	**21 59 51.7**	**-1.2**
WTSB	**Winterswijk**	0.42	349	*e*Pg	**Pg**	**21 59 46.5**	**-1.0**
WTSB				*e*Sg	**Sg**	**21 59 51.7**	**-1.2**
HOBG	**Hohbusch**	0.63	156	*e*Pg	**Pg**	**21 59 53.0**	**+1.5**
HOBG	**Hohbusch**	0.63	156	Pg	**Pg**	**21 59 53.0**	**+1.5**
IBBN	**Ibbenburen**	0.91	34	*e*Pg	**Pg**	**21 59 57.1**	**+0.2**
	SNR=5.5						
IBBN	**Ibbenburen**	0.91	34	Pg	**Pg**	**21 59 57.1**	**+0.2**
	SNR=5.5						
STB	**Steinbach**	0.97	183	*e*Pg	**Pg**	**21 59 59.8**	**+1.9**
STB				*e*Sg	**Sg**	**22 00 15.1**	**+4.6**
	38nm,0.3s						
STB	**Steinbach**	0.97	183	Pg	**Pg**	**21 59 59.8**	**+1.9**
KLL	**Kalltalsperre**	0.99	203	*e*Pg	**Pg**	**21 59 59.7**	**+1.3**
KLL	**Kalltalsperre**	0.99	203	Pg	**Pg**	**21 59 59.7**	**+1.3**
DREG	**Dreilaegerbach**	1.00	206	*e*Pg	**Pg**	**22 00 00.1**	**+1.6**
DREG	**Dreilaegerbach**	1.00	206	Pg	**Pg**	**22 00 00.1**	**+1.6**
HGN	**Heimansgroeve**	1.01	219	*e*Pg	**Pg**	**22 00 00.3**	**+1.5**
HGN				*e*Sg	**Sg**	**22 00 16.7**	**+4.8**
HGN	**Heimansgroeve**	1.01	219	*e*Pg	**Pg**	**22 00 00.3**	**+1.5**
HGN				*e*Sg	**Sg**	**22 00 16.7**	**+4.8**
BEBN	**Eben Emael**	1.09	226	P	**Pg**	**22 00 01.8**	**+1.4**
BEBN	**Eben Emael**	1.09	226	P	**Pg**	**22 00 01.8**	**+1.4**
MEM	**Membach**	1.11	212	P	**Pg**	**22 00 02.0**	**+1.2**
MEM	**Membach**	1.11	212	P	**Pg**	**22 00 01.9**	**+1.1**
KOE	**Koeppel**	1.24	155	*e*Pg	**Pg**	**22 00 03.6**	**+0.3**
KOE	**Koeppel**	1.24	155	Pg	**Pg**	**22 00 03.6**	**+0.4**
HILG	**Hillesheim**	1.28	187	*e*Pg	**Pg**	**22 00 04.3**	**+0.5**
HILG	**Hillesheim**	1.28	187	Pg	**Pg**	**22 00 04.3**	**+0.4**
BGG	**Burgeitz**	1.38	169	*e*Pg	**Pg**	**22 00 06.0**	**+0.1**
BGG	**Burgeitz**	1.38	169	Pg	**Pg**	**22 00 06.0**	**+0.2**
BCLA	**Clavier**	1.53	223	P	**Pn**	**22 00 07.9**	**-0.1**
BCLA	**Clavier**	1.53	223	P	**Pn**	**22 00 07.9**	**-0.1**
TNS	**Taunus Mts**	1.65	144	*e*Pg	**Pg**	**22 00 10.7**	**-0.4**
	SNR=2.7						
TNS				*e*Sg	**Sg**	**22 00 32.7**	**+0.3**
	SNR=4.0						
TNS	**Taunus Mts**	1.65	144	Pg	**Pg**	**22 00 10.7**	**-0.3**
	SNR=2.7						
TNS				Sg	**Sg**	**22 00 32.7**	**+0.4**
	SNR=4.0						
GTTG	**Gvttingen**	1.90	89	*e*Sg	**Sg**	**22 00 38.7**	**-1.7**
	SNR=2.8						
GTTG	**Gvttingen**	1.90	89	Sg	**Sg**	**22 00 38.7**	**-1.7**
	SNR=2.8						
WLF	**Walferdange**	1.96	195	P	**Pn**	**22 00 12.6**	**-1.3**
WLF	**Walferdange**	1.96	195	P	**Pn**	**22 00 12.5**	**-1.4**
WLF				Sg	**Sg**	**22 00 43.7**	**+1.4**
	SNR=2.4						
SNF	**Seneffe**	1.97	239	P	**Pn**	**22 00 14.4**	**+0.4**
SNF	**Seneffe**	1.97	239	P	**Pn**	**22 00 14.4**	**+0.3**
GIVF	**Givet**	1.97	223	*e*Pn	**Pn**	**22 00 14.2**	**+0.1**
GIVF				*e*Sn	**Sn**	**22 00 37.8**	**-1.7**
GIVF				*e*Sg	**Sg**	**22 00 43.3**	**+0.5**
	11nm,0.3s						
GIVF	**Givet**	1.97	223	*e*Pn	**Pn**	**22 00 14.2**	**+0.1**
GIVF				*e*Sn	**Sn**	**22 00 37.8**	**-1.7**
GIVF				*e*Sg	**Sg**	**22 00 43.3**	**+0.5**
	5.7nm,0.3s						
DOU	**Dourbes**	2.08	226	P	**Pn**	**22 00 15.9**	**+0.4**
DOU	**Dourbes**	2.08	226	P	**Pn**	**22 00 15.9**	**+0.4**
CLZ	**Clausthal**	2.16	81	*e*Sg	**Sg**	**22 00 46.0**	**-2.9**
	SNR=2.6						
CLZ	**Clausthal**	2.16	81	Sg	**Sg**	**22 00 46.0**	**-2.9**
	SNR=2.6						
BAIF	**Baives**	2.29	230	*e*Pg	**Pg**	**22 00 24.4**	**+1.2**
BAIF				*e*Sn	**Sn**	**22 00 45.0**	**-2.2**
BAIF				*e*Sg	**Sg**	**22 00 53.2**	**+0.4**
	6.3nm,0.3s						
BAIF	**Baives**	2.29	230	*e*Pn	**Pn**	**22 00 18.0**	**-0.4**
BAIF				*e*Pg	**Pg**	**22 00 24.4**	**+1.2**
BAIF				*e*Sn	**Sn**	**22 00 45.0**	**-2.2**
BAIF				*e*Sg	**Sg**	**22 00 53.2**	**+0.4**
BAIF	**Baives**	2.29	230	*e*Pn	**Pn**	**22 00 18.0**	**-0.4**
BAIF	**Baives**	2.29	230	*e*Pg	**Pg**	**22 00 24.4**	**+1.2**
BAIF				*e*Sn	**Sn**	**22 00 45.0**	**-2.2**
BAIF				*e*Sg	**Sg**	**22 00 53.2**	**+0.4**
	3.2nm,0.3s						
RFYF	**Reffroy**	3.08	198	*e*Pn	**Pn**	**22 00 28.9**	**-0.4**
RFYF	**Reffroy**	3.08	198	*e*Pn	**Pn**	**22 00 28.9**	**-0.4**
MOX	**Moxa**	3.09	105	*e*Sg	**Sg**	**22 01 15.3**	**-3.5**

	SNR=1.4						
MOX	Moxa	3.09	105	Sg	Sg	22 01 15.3	-3.5
	SNR=1.4						
CDF	Champ du Feu	3.16	176	*e*Pn	Pn	22 00 30.2	-0.1
CDF				*e*Sg	Sg	22 01 19.9	-0.9
	4.9nm,0.5s						
CDF	Champ du Feu	3.16	176	*e*Pn	Pn	22 00 30.2	-0.1
CDF				*e*Sg	Sg	22 01 19.9	-0.9
	2.5nm,0.5s						
MEZF	Maizieres J'vi	3.29	202	*e*Pn	Pn	22 00 32.8	+0.6
	baz=31						
MEZF	Maizieres J'vi	3.29	202	*e*Pn	Pn	22 00 32.8	+0.6
BFO	Black Forest	3.35	164	*e*Pn	Pn	22 00 33.1	+0.1
	SNR=3.4						
BFO	Black Forest	3.35	164	Pn	Pn	22 00 33.1	0.0
	SNR=3.4						
SFTF	Sexfontaines	3.57	201	*e*Pg	Pg	22 00 46.3	-1.6
SFTF				*e*Sg	Sg	22 01 32.8	-1.3
	2.9nm,0.3s						
SFTF	Sexfontaines	3.57	201	*e*Pn	Pn	22 00 36.4	+0.4
SFTF				*e*Pg	Pg	22 00 46.3	-1.6
SFTF				*e*Sg	Sg	22 01 32.8	-1.3
SFTF	Sexfontaines	3.57	201	*e*Pn	Pn	22 00 36.4	+0.4
SFTF	Sexfontaines	3.57	201	*e*Pg	Pg	22 00 46.3	-1.6
SFTF				*e*Sg	Sg	22 01 32.8	-1.3
	1.5nm,0.3s						
HAU	Haudompre	3.58	186	*e*Pn	Pn	22 00 36.5	+0.4
HAU				*e*Sg	Sg	22 01 33.2	-1.0
	5.0nm,0.5s						
HAU	Haudompre	3.58	186	*e*Pn	Pn	22 00 36.5	+0.4
HAU				*e*Sg	Sg	22 01 33.2	-1.0
	2.5nm,0.5s						
HINF	Hinteralfeld	3.74	181	*e*Sg	Sg	22 01 38.1	-1.6
	2.2nm,0.3s						
HINF	Hinteralfeld	3.74	181	*e*Sg	Sg	22 01 38.1	-1.6
	1.1nm,0.3s						
CLL	Collm	3.81	91	*e*Sg	Sg	22 01 42.0	+0.2
BRG	Berggiesshubel	4.46	96	SG	Sg	22 02 04.6	+1.8
	4.5nm,1.4s						
LOR	Lormes	4.74	206	*e*Pn	Pn	22 00 51.6	-0.5
	baz=36						
LOR				*e*Sg	Sg	22 02 09.2	-2.3
	1.2nm,0.2s						
LOR	Lormes	4.74	206	*e*Pn	Pn	22 00 51.6	-0.5
LOR				*e*Sg	Sg	22 02 09.2	-2.3
	0.6nm,0.2s						
CABF	La Chapelle	4.98	187	*e*Pn	Pn	22 00 55.1	-0.3
CABF	La Chapelle	4.98	187	*e*Pn	Pn	22 00 55.1	-0.3
SSF	Saint Saulge	5.02	208	*e*Pn	Pn	22 00 55.3	-0.7
SSF	Saint Saulge	5.02	208	*e*Pn	Pn	22 00 55.3	-0.7
AVF	Avril sur Loir	5.31	208	*e*Pn	Pn	22 00 59.0	-1.0
AVF	Avril sur Loir	5.31	208	*e*Pn	Pn	22 00 59.0	-1.0
SMF	Signal de Mont	5.32	204	*e*Pn	Pn	22 00 59.6	-0.4
SMF	Signal de Mont	5.32	204	*e*Pn	Pn	22 00 59.6	-0.4
FLN	La Foliniere	5.52	242	*e*Pn	Pn	22 01 02.2	-0.6
	baz=59						
FLN	La Foliniere	5.52	242	*e*Pn	Pn	22 01 02.2	-0.6
BGF	Bois d'Agland	5.68	210	*e*Pn	Pn	22 01 04.1	-0.9
BGF	Bois d'Agland	5.68	210	*e*Pn	Pn	22 01 04.1	-0.9
GRR	Gorron	5.94	241	*e*Pn	Pn	22 01 08.0	-0.6
GRR				*e*Sn	Sn	22 02 13.0	-4.2
GRR	Gorron	5.94	241	*e*Pn	Pn	22 01 08.0	-0.6

*ISCJB **07** 22:03:31.2±1.0, 8°.52S±0°.06×74°.38W±0°.09, h163^{km}±12^{km}, mb3.9/11, Error ellipse: s-maj=15.8km s-min=8.1km az=155.3*

*IDC **07** 22:03:31.9±0.6, 8°.56S×74°.33W, h155^{km}±6^{km}, mb3.9/9, mb1 4.1/14, mb1mx3.9/23, mbtmp3.9/14, Error ellipse: s-maj=12.2km s-min=9.7km az=64.0*

*NEIC **07** 22:03:32.8±1.0, 8°.52S×74°.28W, h162^{km}±10^{km}, mb3.8/3, Error ellipse: s-maj=15.1km s-min=7.8km az=70.0*

ISC 07 22:03:31.8±1.0**, 8°.52S**±0°.06×**74°.34W**±0°.09**, h151**^{km}±12^{km}**, n35, σ0^{s}.99**/27**, mb3.9**/11**, Peru-Brazil border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	Nana	4.24	215	P	Pn	22 04 35.7	+0.4
	4.3nm,0.3s,baz=27,slow=9.0,SNR=5.1						
NNA				S	Sn	22 05 24.3	-0.4
	52nm,0.3s,baz=228,slow=16,SNR=16						
NNA	Nana	4.24	215	P	Pn	22 04 35.7	+0.4
NNA				S	Sn	22 05 24.3	-0.4
ATAH	Atahualpa	4.29	290	P	Pn	22 04 35.3	-0.7
	94nm,0.3s,baz=96,slow=3.7,SNR=247						
ATAH				S	Sn	22 05 24.8	-1.1
	50nm,0.3s,baz=359,slow=11,SNR=7.1						
OTAV	Otavalo	9.61	335	*e*Pn	Pn	22 05 48.5	+1.7
	24nm,1.3s						
SIV	San Ignacio	14.93	121	P	Pn	22 06 54.8	-0.7
	4.2nm,0.3s,baz=297,slow=11,SNR=46						
SIV				S	Sn	22 09 51.2	+10
	0.6nm,0.3s,baz=34,slow=15,SNR=2.5						
LVC	Limon Verde	14.96	160	P	Pn	22 06 56.9	+1.2
	1.3nm,0.3s,baz=332,slow=7.1,SNR=21						
LVC	Limon Verde	14.96	160	P	Pn	22 06 56.9	+1.2
LVC				*e*P		22 06 57.8	
SDV	Santo Domingo	17.67	12	P	Pn	22 07 29.2	+0.4
	1.1nm,0.3s,baz=338,slow=7.0,SNR=6.2						
LCO	Las Campanas	20.67	171	*e*P	P	22 08 01.4	+1.4
	1.8nm,0.6s						
CFAA	Coronel Fontan	23.67	167	P	P	22 08 31.0	+1.4
	0.1nm,0.3s,mb2.8,baz=351,slow=10,SNR=4.1						
CPUP	Villa Florida	23.97	140	P	P	22 08 31.3	-1.1
	2.5nm,0.5s,mb4.0,baz=307,slow=9.4,SNR=13						
CPUP	Villa Florida	23.97	140	P	P	22 08 31.3	-1.2
PLCA	Paso Flores	32.26	175	pP	pP	22 10 17.1	-1.0
	2.1nm,0.8s,baz=25,slow=3.9,SNR=1.9						
TXAR	Lajitas Array	47.06	324	P	P	22 11 49.1	+0.7
	2.0nm,0.6s,mb3.9,baz=150,slow=8.8,SNR=20						
TXAR				pP	pP	22 12 24.1	+1.7
	0.4nm,0.5s,baz=146,slow=8.2,SNR=3.3						
TXAR				PcP	PcP	22 13 18.8	+0.7
	0.2nm,0.5s,baz=153,slow=8.4,SNR=3.8						
TXAR	Lajitas Array	47.06	324	P	P	22 11 49.1	+0.7
TXAR				pP	pP	22 12 24.1	+1.7
TXAR				PcP	PcP	22 13 18.8	+0.7
PMSA	Palmer Station	56.63	175	P	P	22 12 57.4	-1.4
	12nm,0.6s,mb4.9,baz=230,slow=11,SNR=5.8						
PDAR	Pinedale Array	60.30	331	P	P	22 13 24.6	+0.1
	1.2nm,0.6s,mb3.9,baz=129,slow=6.8,SNR=12						
PDAR				PcP	PcP	22 14 08.1	-0.1
	0.4nm,0.5s,baz=108,slow=6.0,SNR=4.5						
NVAR	Mina Array Bea	62.09	322	P	P	22 13 38.2	+1.6
	1.3nm,0.7s,mb3.9,baz=130,slow=7.6,SNR=6.3						
NVAR	Mina Array Bea	62.09	322	P	P	22 13 38.2	+1.6
SCHQ	Schefferville	63.42	5	P	P	22 13 44.8	-0.4
	4.3nm,0.8s,mb4.4,baz=66,slow=1.7,SNR=8.4						
FCC	Fort Churchill	68.92	349	*e*P	P	22 14 19.8	-0.3
	0.2nm,0.3s,mb3.3						
DBIC	Dimbokro	70.89	80	P	P	22 14 32.1	-0.9
	2.9nm,0.3s,mb4.5,baz=236,slow=7.7,SNR=17						
YKA	Yellowknife Ar	77.28	342	P	P	22 15 08.6	-0.5
	1.2nm,0.5s,mb3.8,baz=139,slow=6.1,SNR=30						
YKA				pP	pP	22 15 46.8	+0.4
	0.4nm,0.6s,baz=142,slow=5.9,SNR=2.3						
TORD	Torodi Ar. Bea	78.50	75	P	P	22 15 15.7	-1.3
	0.7nm,0.3s,mb3.7,baz=274,slow=4.3,SNR=48						
ZALV	Zalesovo Beam	131.69	16	PKP	PKPdf	22 22 26.7	0.0
	0.7nm,0.4s,baz=293,slow=2.0,SNR=6.5						
ZALV				pPKP	pPKPdf	22 23 07.6	+0.9
	0.6nm,0.4s,baz=281,slow=2.3,SNR=3.8						
ZALV	Zalesovo Beam	131.69	16	PKP	PKPdf	22 22 26.7	0.0
ZALV				pPKP	pPKPdf	22 23 07.6	+0.9
KURK	Kurchatov	132.34	23	PKP	PKPdf	22 22 28.7	+0.7
	0.6nm,0.8s,baz=316,slow=2.7,SNR=4.1						
MKAR	Makanchi Array	136.94	24	PKP	PKPdf	22 22 36.8	0.0
	0.4nm,0.7s,baz=317,slow=1.3,SNR=5.6						
MKAR				pPKP	pPKPdf	22 23 17.6	+0.8
	0.5nm,0.8s,baz=5.7,slow=2.4,SNR=5.2						
ASAR	Alice Springs	137.75	220	PKP	PKPdf	22 22 38.8	-0.2
	0.3nm,0.5s,baz=114,slow=2.7,SNR=3.9						
ASAR				pPKP	pPKPdf	22 23 20.2	+1.2
	0.6nm,0.7s,baz=136,slow=2.6,SNR=3.9						
MJAR	Matsushiro Arr	139.35	318	PKP	PKPdf	22 22 40.9	-0.6
	2.1nm,0.9s,baz=281,slow=22,SNR=4.3						
WRA	Warramunga Arr	140.04	225	PKP	PKPdf	22 22 43.7	+0.4
	0.9nm,0.6s,baz=126,slow=2.0,SNR=6.4						
WRA				pPKP	pPKPdf	22 23 22.8	-0.5
	0.9nm,0.7s,baz=134,slow=1.4,SNR=4.1						
SONM	Songino Array	140.81	359	PKP	PKPdf	22 22 41.6	-2.3
	0.2nm,0.6s,baz=328,slow=1.4,SNR=3.5						
SONM	Songino Array	140.81	359	PKP	PKPdf	22 22 41.6	-2.3
KSRS	Korea Array	144.84	328	PKP	PKPdf	22 22 50.6	-0.6
	2.5nm,0.7s,baz=46,slow=3.8,SNR=9.9						
DL2	Dalian	146.51	337	P	PKPdf	22 22 46.8	-7.3
DL2				S		22 27 42.4	
DL2				pmax	pmax		
	comp=Z,20nm,0.9s						
DL2				pmax	pmax		
	comp=Z,150nm,5.5s						
DL2				smax			
	comp=N,420nm,20.4s						
DL2				SMZ			
	comp=N,460nm,28.0s						

*IDC **07** 22:23:55.9±2.4, 5°.97S×130°.49E, h0^{km}, mb3.4/1, mb1 3.9/3, mb1mx3.5/15, mbtmp3.7/3, ML3.9/2, Error ellipse: s-maj=137.8km s-min=31.3km az=71.0*

*NEIC **07** 22:23:58.0±1.3, 6°.08S×130°.17E, h10^{km}, Error ellipse: s-maj=37.7km s-min=15.0km az=72.0*

*ISCJB **07** 22:23:59.4±1.6, 6°.2S±0°.2×130°.1E±0°.3, h33^{km}, Error ellipse: s-maj=45.3km s-min=18.0km az=161.9*

ISC 07 22:24:01.6±1.6**, 6°.2S**±0°.2×**130°.2E**±0°.3**, h35**^{km}**, n5, σ0^{s}.42**/6**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	12.67	200	*e*Pn	Pn	22 26 59.5	+0.1
FITZ				Sn	Sx	22 29 06.5	
WRAB	Tennant Creek	14.29	164	*e*Pn	Pn	22 27 22.0	+0.4
WRAB				*e*Sn	Sn	22 29 51.9	-7.1
WRA	Warramunga Arr	14.30	164	Pn	Pn	22 27 21.7	0.0
	0.6nm,0.3s,baz=349,slow=13,SNR=10						
WRA				Sn	Sx	22 29 49.2	
	0.4nm,0.3s,baz=333,slow=25,SNR=4.4						
ASAR	Alice Springs	17.79	169	P	Pn	22 28 06.0	-0.5
	0.3nm,0.3s,baz=343,slow=9.2,SNR=19						
MKAR	Makanchi Array	67.60	327	P	P	22 34 54.8	0.0
	0.2nm,0.4s,baz=115,slow=7.9,SNR=5.8						

*ISCJB **07** 22:45:54.7±2.2, 6°.29S±0°.05×129°.73E±0°.08, h15^{km}±17^{km}, mb4.2/16, MS3.9/6, Error ellipse: s-maj=14.6km s-min=6.0km az=154.2*

*IDC **07** 22:45:54.6±0.7, 6°.48S×129°.27E, h0^{km}, mb4.1/10, mb1 4.3/12, mb1mx4.2/19, mbtmp4.2/12, ML4.3/2, MS3.9/6, Ms1 3.9/6, ms1mx3.4/28, Error ellipse: s-maj=40.5km s-min=12.2km az=69.0*

*NEIC **07** 22:45:56.1±0.5, 6°.28S×129°.73E, h10^{km}, mb4.5/4, Error ellipse: s-maj=14.2km s-min=7.7km az=59.0*

*DJA **07** 22:45:58, 6°.05S×129°.90E, h35^{km}, mb4.9/7*

*BJI **07** 22:45:59.0, 6°.59S×129°.22E, h15^{km}, mB4.8/4, mb4.3/11*

ISC 07 22:45:59.7±0.9**, 6°.40S**±0°.05×**129°.75E**±0°.08**, h36**^{km}±11^{km}**, h18**^{km}±8.0^{km}**:pP-P, n44, σ1^{s}.33**/48**, mb4.2**/16**, MS3.9**/6**, 1C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	Ambon	3.10	330	P	Pn	22 46 41.2	-5.0
LBMI	Labuha	6.14	338	P	Pn	22 47 25.9	-2.1
	118nm,0.8s,2µm0.5nm						
LBMI				S	Sn	22 48 31.9	-5.2
	118nm,0.8s,2µm0.5nm						
KAKA	Kakadu	6.81	157	*e*P	Pn	22 47 38.6	+1.4
	39nm,0.4s						
KAKA				*e*S	Sn	22 48 59.7	+6.1
KAKA	Kakadu	6.81	157	*e*Pn	Pn	22 47 38.8	+1.6
	145nm,0.5s						
KAKA				*e*Sn	Sn	22 48 59.8	+6.1
KAKA	Kakadu	6.81	157	P	Pn	22 47 39.3	+2.1
	116nm,0.5s,3µm21nm						
KDI	Kendari	7.50	288	⇑*e*P	Pn	22 47 45.5	-1.2
KDI				*e*S	Sx	22 48 36.5	
KDI	Kendari	7.50	288	P	Pn	22 47 46.7	0.0
	28nm,1.4s,695nm0.1nm						
KAPI	Kappang	10.04	277	*e*Pn	Pn	22 48 22.4	+0.8
	33nm,0.6s						
PCI	Palu	11.29	298	P	Pn	22 48 41.0	+2.3
	90nm,1.0s						
FITZ	Fitzroy Crossi	12.31	199	*e*P	Pn	22 48 52.7	+0.1
	18nm,0.6s						
FITZ				*e*S	Sn	22 51 05.1	-3.4
FITZ	Fitzroy Crossi	12.31	199	Pn	Pn	22 48 52.9	+0.3
	1.5nm,0.3s,baz=36,slow=14,SNR=16						
FITZ				Sn	Sn	22 51 08.4	-0.1
	1.3nm,0.3s,baz=121,slow=13,SNR=4.4						
FITZ	Fitzroy Crossi	12.31	199	P	Pn	22 48 54.7	+2.1
	38nm,0.7s						
FITZ				S	Sx	22 48 55.3	
	38nm,0.7s						
WRAB	Tennant Creek	14.18	162	*e*Pn	Pn	22 49 16.9	-1.2
	20nm,0.8s						
WRAB				*e*Sn	Sn	22 51 52.8	-1.5
WRAB	Tennant Creek	14.18	162	P	Pn	22 49 18.8	+0.7
	33nm,1.8s						
WRA	Warramunga Arr	14.19	162	Pn	Pn	22 49 16.8	-1.4
	1.4nm,0.3s,baz=336,slow=13,SNR=21						
WRA				Sn	Sn	22 51 53.7	-0.7
	1.9nm,0.3s,baz=352,slow=23,SNR=7.4						
COEN	Coen	15.19	121	*e*Pn	Pn	22 49 31.7	-0.1
	116nm,0.7s						
COEN				*e*Sn	Sn	22 52 13.1	-6.0
COEN	Coen	15.19	121	P	Pn	22 49 31.8	0.0
MBWA	Marble Bar	17.59	212	*e*Pn	Pn	22 50 02.1	-0.1
	2.6nm,0.4s						
ASAR	Alice Springs	17.63	167	P	Pn	22 50 03.0	+0.4
	1.0nm,0.3s,baz=4.8,slow=12,SNR=28						
ASAR				S	S	22 53 18.6	-6.1
	0.5nm,0.3s,baz=339,slow=14,SNR=5.4						
CTA	Charters Tower	21.02	132	*e*P	P	22 50 43.7	+3.2
	26nm,1.1s,mb4.5						
CTA				*e*S	S	22 54 43.9	+11
CTA	Charters Tower	21.02	132	P	P	22 50 43.3	+2.8
	18nm,1.0s,mb4.3,baz=302,slow=11,SNR=7.8						
CTAO	Charters Tower	21.02	132	*e*Pn	P	22 50 43.9	+3.4
	47nm,1.1s,mb4.7						
FORT	Forrest	24.31	184	*e*P	P	22 51 14.5	+0.5
	19nm,0.7s,mb4.6						
STKA	Stephens Creek	27.66	158	*e*P	P	22 51 46.6	+2.3
	4.3nm,0.5s,mb4.3						
STKA	Stephens Creek	27.66	158	P	P	22 51 46.6	+2.3
	7.0nm,0.9s,mb4.3,baz=335,slow=10.0,SNR=14						
STKA				LR	LR	23 02 55.4	
	comp=Z,332nm,21.8s,MS3.9,baz=229,slow=37						
NWAO	Narrogin (SRO)	28.85	202	LR	LR	23 03 06.0	
	comp=Z,200nm,21.8s,MS3.7,baz=147,slow=36						
HNR	Honiara	30.05	98	LR	LR	23 03 09.0	
	comp=Z,194nm,21.5s,MS3.7,baz=142,slow=34						
CMAR	Chiang Mai Arr	39.15	310	P	P	22 53 23.7	-0.6
	0.6nm,0.3s,mb3.8,baz=132,slow=6.8,SNR=3.6						
KMI	Kunming	40.89	321	P	P	22 53 41.7	+3.1
KMI				pmax	pmax		
	comp=Z,4.0nm,1.9s,mb3.7						
MJAR	Matsushiro Arr	43.44	10	P	P	22 54 02.1	+2.9
	comp=Z,3.1nm,0.9s,mb4.0,baz=189,slow=9.1,SNR=7.4						
KSRS	Korea Array	43.65	358	LR	LR	23 09 41.2	
	comp=Z,116nm,20.8s,MS3.8,baz=182,slow=33						
XAN	Xi'an	44.79	335	P	P	22 54 15.8	+5.7
XAN				pP	pP	22 54 25.8	+5.2
XAN				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.2						
XAN				pmax	pmax		
	comp=Z,42nm,4.0s						
LZH	Lanzhou	48.76	332	*e*P	P	22 54 42.5	+1.4
LZH				pP	pP	22 54 48.0	-3.7
LZH				sP	sP	22 54 52.5	-3.5
LZH				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.1						
LZH				pmax	pmax		
	comp=Z,85nm,4.0s						
LSA	Lhasa	51.59	316	*e*P	P	22 55 02.2	-0.5
	comp=Z,2.6nm,0.6s,mb4.3						
RPZ	Rata Peaks	51.86	143	LR	LR	23 18 11.3	
	comp=Z,178nm,19.5s,MS4.1,baz=107,slow=37						
GTA	Gaotai	53.33	331	*e*P	P	22 55 20.8	+5.4
GTA				pP	pP	22 55 25.1	-1.0
GTA				sP	sP	22 55 28.0	-2.3
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
SONM	Songino Array	57.79	342	P	P	22 55 45.7	-1.6
	comp=Z,0.3nm,0.5s,mb3.6,baz=158,slow=7.6,SNR=6.0						
PETK	Petropavlovsk-	63.83	18	P	P	22 56 29.1	+0.8
	comp=Z,2.2nm,0.9s,mb4.2,baz=272,slow=38,SNR=2.1						
MKAR	Makanchi Array	67.58	327	P	P	22 56 51.5	-1.2
	comp=Z,1.9nm,0.8s,mb4.2,baz=129,slow=7.7,SNR=20						
ZALV	Zalesovo Beam	70.93	334	P	P	22 57 12.5	-0.7
	comp=Z,0.7nm,0.5s,mb3.9,baz=109,slow=6.1,SNR=4.6						
KURK	Kurchatov	71.87	329	P	P	22 57 17.9	-1.1
	comp=Z,2.7nm,0.8s,mb4.2,baz=128,slow=5.0,SNR=15						
VNDA	Vanda	73.07	173	LR	LR	23 24 37.1	
	comp=Z,103nm,22.0s,MS4.1,baz=310,slow=32						
BVAR	Borovoye Array	77.42	328	P	P	22 57 50.6	-0.5
	comp=Z,0.5nm,0.5s,mb3.7,baz=137,slow=9.3,SNR=5.3						
CPUP	Villa Florida	146.75	168	PKPbc	PKPbc	23 05 39.9	+1.2
	comp=Z,0.3nm,0.3s,baz=83,slow=7.9,SNR=3.0						

*IDC **07** 22:57:18.8±0.6, 64°.91N×86°.99W, h0^{km}, mb3.9/13, mb1 4.2/16, mb1mx4.1/26, mbtmp4.0/16, ML3.5/3, Error ellipse: s-maj=13.2km s-min=11.1km az=160.0*

*NEIC **07** 22:57:19.0, 64°.82N×87°.02W, h18^{km}, mb4.4/13, MN4.6(OTT), After OTT.*

OTT 07 22:57:18.7±0.2**, 64°.83N**×**87°.04W, h11**^{km}**, MN4.6**/12**, 2C-2D, Wager Bay region, Nu 194km south from Repulse Bay, Nu Boothia Ungava Seismic Zone., Northwest Territories**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NUNN	Nunuq Camp, NU	1.76	285	⇓PN	Pn	22 57 49.9	+0.9
NUNN				PG	Pg	22 57 51.8	-0.6
NUNN				SN	Sn	22 58 10.7	-0.6
NUNN				SG	Sg	22 58 13.8	-1.3
NUNN				Trac		22 58 15.2	
	comp=Z,6µm,0.1s						
NUNN	Nunuq Camp, NU	1.76	285	⇓Pn	Pn	22 57 49.9	+0.9
NUNN				Pg	Pg	22 57 51.8	-0.6
NUNN				Sn	Sn	22 58 10.7	-0.6
NUNN				Sg	Sg	22 58 13.8	-1.3
QILN	Qililugaq Expl	1.86	8	⇑PN	Pn	22 57 51.3	+0.9
QILN				PG	Pg	22 57 53.9	-0.3
QILN				SN	Sn	22 58 12.8	-1.0
QILN				SG	Sg	22 58 17.2	-1.1
QILN				Trac		22 58 18.6	
	comp=Z,3µm,0.3s						
QILN	Qililugaq Expl	1.86	8	⇑Pn	Pn	22 57 51.3	+0.9
QILN				Pg	Pg	22 57 53.9	-0.3
QILN				Sn	Sn	22 58 12.8	-1.0
QILN				Sg	Sg	22 58 17.2	-1.1
BULN	Bullion Camp,	2.98	305	PN	Pn	22 58 06.7	+0.9
BULN				SN	Sn	22 58 40.4	-1.0
BULN				LG		22 58 49.4	
BULN				Trac		22 58 55.8	
	comp=Z,794nm,0.2s						
BULN	Bullion Camp,	2.98	305	Pn	Pn	22 58 06.7	+0.9
BULN				Sn	Sn	22 58 40.4	-1.0
BULN				Lg		22 58 49.4	
YBKN	Baker Lake, Hu	3.90	267	PN	Pn	22 58 18.8	+0.4
YBKN				SN	Sn	22 58 56.0	-8.1
YBKN				SG	Sg	22 59 17.9	-5.8
YBKN				Trac		22 59 25.1	
	comp=Z,950nm,0.2s						
LAIN	Lailor River,	4.52	16	Pn	Pn	22 58 26.6	-0.3
IVKQ	Ivujivik	4.73	117	PN	Pn	22 58 29.2	-0.7
IVKQ				SN	Sn	22 59 20.4	-4.3
IVKQ				LG		22 59 45.5	
IVKQ				Trac		22 59 47.3	
	comp=Z,809nm,0.6s						
ARVN	Arviat, NU	4.93	224	PN	Pn	22 58 31.4	-1.1
ARVN				SN	Sn	22 59 25.4	-4.1
ARVN				LG		22 59 48.6	
ARVN				Trac		22 59 55.4	
	comp=Z,807nm,0.5s						
ARVN	Arviat, NU	4.93	224	Pn	Pn	22 58 31.4	-1.1
ARVN				Sn	Sn	22 59 25.4	-4.1
ARVN				Lg		22 59 48.6	
ILON	Igloolik, Nuna	5.00	22	PN	Pn	22 58 32.6	-0.9
ILON				PG	Pg	22 58 36.5	-18
ILON				SN	Sn	22 59 26.6	-4.5
ILON				LG		22 59 50.7	
ILON				Trac		22 59 55.5	
	comp=Z,1µm,0.5s						
ILON	Igloolik, Nuna	5.00	22	Pn	Pn	22 58 32.6	-0.9
ILON				Sn	Sn	22 59 26.6	-4.5
ILON				Lg		22 59 50.7	
GIFN	Gifford Fjord,	5.59	19	Pn	Pn	22 58 40.6	-1.0
GIFN				Sn	Sn	22 59 42.0	-3.8
GIFN				Lg		23 00 10.1	
AKVQ	Akulivik	5.72	131	PN	Pn	22 58 43.1	-0.2
AKVQ				SN	Sn	22 59 42.5	-6.3
AKVQ				LG		23 00 14.8	
AKVQ				Trac		23 00 17.1	
	comp=Z,501nm,0.6s						
FCC	Fort Churchill	6.94	212	PN	Pn	22 59 00.3	+0.2
FCC				SN	Sn	23 00 12.8	-6.0
FCC				LG		23 00 50.0	
FCC				Trac		23 00 58.4	
	comp=Z,275nm,0.3s						
FCC	Fort Churchill	6.94	212	Pn	Pn	22 59 00.3	+0.2
FCC				Sn	Sn	23 00 12.8	-6.0
FCC				Lg		23 00 50.0	
INUQ	Inukjuak	7.67	142	PN	Pn	22 59 08.9	-1.2
INUQ				SN	Sn	23 00 30.3	-6.6
INUQ				LG		23 01 11.2	
INUQ				Trac		23 01 20.2	
	comp=Z,133nm,0.3s						
FRB	Frobisher Bay	8.11	89	PN	Pn	22 59 15.4	-0.7
FRB				SN	Sn	23 00 39.6	-8.1
FRB				LG		23 01 25.5	
FRB				Trac		23 01 37.3	
	comp=Z,265nm,0.6s						
SNQN	Sanikiluaq	9.14	152	PN	Pn	22 59 29.7	-0.6
SNQN				SN	Sn	23 01 05.0	-8.1
SNQN				LG		23 01 57.5	
SNQN				Trac		23 02 06.2	
	comp=Z,145nm,0.7s						
JERN	Jeri Cho Mine,	10.22	288	PN	Pn	22 59 42.6	-2.5
JERN				SN	Sn	23 01 28.9	-11
JERN				LG		23 02 29.6	
JERN				Trac		23 02 47.2	
	comp=Z,264nm,0.6s						
RES	Resolute Bay	10.26	348	PN	Pn	22 59 44.2	-1.4
RES				SN	Sn	23 01 32.2	-8.2
RES				LG		23 02 30.3	
RES				Trac		23 02 40.9	
	comp=Z,279nm,1.2s						
SILO	Sutton Inlier	10.43	173	PN	Pn	22 59 45.5	-2.5
SILO				SN	Sn	23 01 35.1	-10
SILO				LG		23 02 41.2	
SILO				Trac		23 02 57.6	
	comp=Z,161nm,0.8s						
KUQ	Kuujjuuaa	11.13	119	PN	Pn	22 59 54.9	-2.6
KUQ				SN	Sn	23 01 51.5	-10
KUQ				LG		23 02 59.8	
KUQ				Trac		23 03 09.4	
	comp=Z,343nm,0.6s						
KASO	Kasabonika Lak	11.36	185	PN	Pn	22 59 58.4	-2.2
KASO				SN	Sn	23 01 56.8	-11
KASO				LG		23 03 08.2	
KASO				Trac		23 03 20.0	
	comp=Z,59nm,0.4s						
VIMO	Victor Mine	12.16	170	PN	Pn	23 00 08.1	-3.5
VIMO				SN	Sn	23 02 14.4	-13
VIMO				LG		23 03 33.0	
VIMO				Trac		23 03 42.9	
	comp=Z,82nm,0.5s						
MUMO	Musselwhite Mi	12.37	190	LG		23 03 39.0	
MUMO				Trac		23 03 51.1	
	comp=Z,24nm,0.2s						
CTLN	Castor Lake	12.38	281	PN	Pn	23 00 10.4	-4.2
CTLN				SN	Sn	23 02 19.4	-13
CTLN				LG		23 03 34.7	
CTLN				Trac		23 03 46.6	
	comp=Z,261nm,0.7s						
YKW3	Yellowknife Ar	12.39	272	PN	Pn	23 00 10.6	-4.1
YKW3				SN	Sn	23 02 18.8	-14
YKW3				LG		23 03 36.3	
YKW3				Trac		23 03 47.8	
	comp=Z,175nm,0.6s						
YKW3				Trac		23 03 47.9	
	comp=Z,194nm,0.7s						
YKA	Yellowknife Ar	12.41	272	Pn	Pn	23 00 11.3	-3.7
	2.8nm,0.3s,baz=71,slow=13,SNR=78						
YKA				Sn	Sn	23 02 19.5	-14
	4.3nm,0.3s,baz=60,slow=21,SNR=8.7						
YKA				Lg		23 03 40.2	
	7.1nm,0.3s,baz=68,slow=29,SNR=8.1						
YKA	Yellowknife Ar	12.41	272	Pn	Pn	23 00 11.3	-3.7
YKA				Sn	Sn	23 02 19.5	-14

FFC	**Flin Flon**	**12.57**	**223**	PN	Pn	23 00 14.4	-2.8
FFC				SN	Sn	23 02 26.0	-11
FFC				LG		23 03 41.3	
FFC				Trac		23 03 56.1	
	comp=Z,125nm,0.5s						
FFC				Trac		23 04 02.5	
	comp=Z,427nm,0.6s						
FFC	**Flin Flon**	**12.57**	**223**	*e*Pn	Pn	23 00 14.3	-3.0
	5.7nm,0.9s						
FFC				*e*Sn	Sn	23 02 27.0	-10
WEMQ	**Wemindji, Queb**	**12.68**	**154**	PN	Pn	23 00 14.7	-4.0
WEMQ				SN	Sn	23 02 27.4	-12
WEMQ				LG		23 03 52.9	
LG4Q	**La Grande 4**	**13.00**	**144**	PN	Pn	23 00 19.2	-3.8
LG4Q				SN	Sn	23 02 32.6	-15
LG4Q				LG		23 03 56.0	
LG4Q				Trac		23 04 15.6	
	comp=Z,88nm,0.5s						
SCHQ	**Schefferville**	**14.19**	**125**	PN	Pn	23 00 34.6	-4.6
SCHQ				SN	Sn	23 02 58.8	-18
SCHQ				LG		23 04 29.7	
SCHQ				Trac		23 04 42.0	
	comp=Z,180nm,0.9s						
SCHQ	**Schefferville**	**14.19**	**125**	Pn	Pn	23 00 35.1	-4.1
	1.6nm,0.3s,baz=336,slow=10,SNR=29						
SCHQ				Sn	Sn	23 03 07.1	-9.3
	2.5nm,0.3s,baz=220,slow=17,SNR=7.8						
SCHQ				Lg		23 04 37.1	
	8.1nm,0.3s,baz=251,slow=9.2,SNR=13						
SCHQ	**Schefferville**	**14.19**	**125**	Pn	Pn	23 00 35.1	-4.1
SCHQ				Sn	Sn	23 03 07.1	-9.3
NANO	**Nakina Ontario**	**14.51**	**180**	PN	Pn	23 00 39.5	-4.2
NANO				SN	Sn	23 03 12.1	-12
NANO				LG		23 04 44.4	
NANO				Trac		23 05 05.5	
	comp=Z,145nm,1.1s						
SFJD	**Kangerlussuaq**	**14.88**	**65**	Pn	Pn	23 00 44.1	-4.5
	0.5nm,0.3s,baz=287,slow=21,SNR=2.5						
SFJD				Sn	Sn	23 03 18.8	-14
	0.6nm,0.3s,baz=17,slow=19,SNR=2.4						
SOLO	**Sioux Lookout**	**15.08**	**193**	PN	Pn	23 00 50.3	-1.1
SOLO				SN	Sn	23 03 21.9	-16
SOLO				LG		23 05 01.0	
SOLO				Trac		23 05 31.3	
	comp=Z,58nm,0.6s						
GTO	**Geraldton**	**15.12**	**180**	PN	Pn	23 00 27.1	-25
GTO				SN	Sn	23 03 21.5	-18
GTO				LG		23 05 01.9	
GTO				Trac		23 05 23.3	
	comp=Z,37nm,0.4s						
ULM	**Lac du Bonnet**	**15.34**	**202**	PN	Pn	23 00 50.2	-4.6
ULM				SN	Sn	23 03 30.2	-14
ULM				LG		23 05 09.4	
ULM				Trac		23 05 32.3	
	comp=Z,186nm,1.3s						
ULM	**Lac du Bonnet**	**15.34**	**202**	Pn	Pn	23 00 52.1	-2.6
	0.6nm,0.3s,baz=18,slow=13,SNR=3.9						
ULM				Sn	Sn	23 03 31.4	-13
	2.5nm,0.3s,baz=114,slow=19,SNR=4.9						
ULM				Lg		23 05 12.1	
	1.8nm,0.3s,baz=111,slow=13,SNR=5.4						
ULM	**Lac du Bonnet**	**15.34**	**202**	Pn	Pn	23 00 52.1	-2.6
ULM				Sn	Sn	23 03 31.4	-13
MATQ	**Matagami**	**15.91**	**157**	SN	Sn	23 03 39.7	-19
MATQ				LG		23 05 22.9	
MATQ				Trac		23 05 51.3	
	comp=Z,44nm,0.6s						
TBO	**Thunder Bay**	**16.27**	**186**	PN	Pn	23 01 02.7	-4.2
TBO				SN	Sn	23 03 48.1	-19
TBO				LG		23 05 39.8	
TBO				Trac		23 05 51.5	
	comp=Z,115nm,1.0s						
CHGQ	**Chibougamau**	**16.38**	**150**	LG		23 05 33.3	
CHGQ				Trac		23 05 58.9	
	comp=Z,48nm,0.5s						
MNQ	**Manicouagan**	**17.23**	**138**	SN	Sn	23 04 09.9	-20
MNQ				LG		23 06 02.1	
FNBB	**Fort Nelson**	**17.78**	**267**	SN	Sn	23 04 27.9	-16
FNBB				LG		23 06 27.1	
FNBB				Trac		23 06 52.5	
	comp=Z,186nm,1.0s						
BELQ	**Belleterre**	**18.05**	**161**	PN	Pn	23 01 23.1	-6.0
BELQ				SN	Sn	23 04 30.1	-20
SMQ	**Clarke City**	**18.12**	**134**	PN	Pn	23 01 23.4	-6.6
SMQ				SN	Sn	23 04 33.5	-18
SMQ				LG		23 06 24.9	
SUMG	**Summit**	**18.71**	**45**	*e*P	Pn	23 01 38.8	+1.8
	17nm,0.9s						
COWI	**Conover**	**18.80**	**185**	*e*P	Pn	23 01 35.1	-3.2
	9.3nm,0.8s						
DRLN	**Deer Lake**	**22.07**	**121**	PN	P	23 02 11.9	-1.3
DRLN				SN	S	23 06 10.3	-6.0
RSSD	**Black Hills**	**22.82**	**213**	*e*P	P	23 02 25.9	+4.7
	5.1nm,0.6s						
PDAR	**Pinedale Array**	**25.51**	**221**	P	P	23 02 48.6	+1.9
	3.4nm,0.5s,baz=41,slow=6.7,SNR=29						
PFO	**Pinyon Flat Ob**	**36.01**	**224**	P	P	23 04 23.3	+3.9
	1.5nm,0.3s,baz=63,slow=4.5,SNR=6.5						
TXAR	**Lajitas Array**	**37.02**	**205**	P	P	23 04 31.8	+3.7
	0.2nm,0.5s,baz=27,slow=3.6,SNR=4.9						
ARCES	**ARCESS Array B**	**37.96**	**32**	P	P	23 04 36.8	+1.2
	3.5nm,0.8s,baz=314,slow=6.9,SNR=7.6						
NB2	**NORSAR Subarra**	**40.56**	**48**	P	P	23 04 58.4	+1.0
	comp=Z,1.6nm,0.6s,baz=308,slow=6.9						
NOA	**NORSAR Array B**	**40.56**	**48**	P	P	23 04 58.5	+1.1
	comp=Z,1.8nm,0.8s,baz=318,slow=7.2,SNR=3.6						
NOA	**NORSAR Array B**	**40.56**	**48**	P	P	23 04 58.5	+1.1
SGMF	**Saint Gilles**	**45.58**	**69**	*e*P	P	23 05 39.9	+1.7
FLN	**La Foliniere**	**46.00**	**67**	*e*P	P	23 05 43.1	+1.7
LDF	**La Druitiere**	**46.27**	**67**	*e*P	P	23 05 45.3	+1.7
	comp=Z,46nm,1.3s						
LDF	**La Druitiere**	**46.27**	**67**	*e*P	P	23 05 45.3	+1.7
	comp=Z,23nm,1.3s						
BAIF	**Baives**	**46.76**	**62**	*e*P	P	23 05 49.3	+1.9
	comp=Z,6.4nm,0.7s						
BAIF	**Baives**	**46.76**	**62**	*e*P	P	23 05 49.3	+1.9
	comp=Z,3.2nm,0.7s						
GIVF	**Givet**	**46.95**	**62**	*e*P	P	23 05 50.6	+1.7
MEZF	**Maizieres J'vi**	**48.35**	**63**	*e*P	P	23 06 02.1	+2.3
	comp=Z,14nm,0.8s						
MEZF	**Maizieres J'vi**	**48.35**	**63**	*e*P	P	23 06 02.1	+2.3
	comp=Z,14nm,0.8s						
LOR	**Lormes**	**48.91**	**65**	*e*P	P	23 06 06.1	+2.0
SSF	**Saint Saulge**	**48.94**	**65**	*e*P	P	23 06 06.2	+1.9
	comp=Z,9.4nm,0.5s						
SSF	**Saint Saulge**	**48.94**	**65**	*e*P	P	23 06 06.2	+1.9
	comp=Z,4.7nm,0.5s						
TCF	**Toulx Ste Croi**	**49.07**	**67**	*e*P	P	23 06 07.4	+2.1
	comp=Z,25nm,1.1s						
TCF	**Toulx Ste Croi**	**49.07**	**67**	*e*P	P	23 06 07.4	+2.1
	comp=Z,12nm,1.1s						
BGF	**Bois d'Agland**	**49.10**	**66**	*e*P	P	23 06 07.3	+1.8
	comp=Z,5.0nm,0.5s						
BGF	**Bois d'Agland**	**49.10**	**66**	*e*P	P	23 06 07.3	+1.8
	comp=Z,2.5nm,0.5s						
AVF	**Avril sur Loir**	**49.10**	**65**	*e*P	P	23 06 07.2	+1.6
	comp=Z,3.5nm,0.4s						
CDF	**Champ du Feu**	**49.26**	**61**	*e*P	P	23 06 08.9	+2.1
	comp=Z,5.7nm,0.7s						
CDF	**Champ du Feu**	**49.26**	**61**	*e*P	P	23 06 08.9	+2.1
	comp=Z,2.8nm,0.7s						
SMF	**Signal de Mont**	**49.41**	**65**	*e*P	P	23 06 09.6	+1.7
HINF	**Hinteralfeld**	**49.60**	**62**	*e*P	P	23 06 11.3	+2.0
CABF	**La Chapelle**	**50.31**	**63**	*e*P	P	23 06 17.2	+2.5
GERES	**GERESS Array B**	**51.25**	**56**	P	P	23 06 23.2	+1.4
	comp=Z,0.7nm,0.8s,baz=352,slow=5.4,SNR=4.1						
EVO	**Evora**	**51.35**	**80**	*e*P	P	23 06 22.5	-0.2
	comp=Z,16nm,1.0s						
LPL	**La Plagne**	**51.47**	**64**	*e*P	P	23 06 26.5	+3.0
	comp=Z,4.0nm,0.6s						
LPL	**La Plagne**	**51.47**	**64**	*e*P	P	23 06 26.5	+3.0
	comp=Z,2.0nm,0.6s						
LPG	**La Plagne**	**51.49**	**64**	*e*P	P	23 06 26.8	+3.1
	comp=Z,3.8nm,0.6s						
LPG	**La Plagne**	**51.49**	**64**	*e*P	P	23 06 26.8	+3.1
	comp=Z,1.9nm,0.6s						
MTLF	**Montolieu**	**51.52**	**69**	*e*P	P	23 06 26.2	+2.3
ESDC	**Sonseca Array**	**52.08**	**76**	P	P	23 06 30.2	+2.0
	comp=Z,1.4nm,0.7s,baz=324,slow=7.4,SNR=9.3						
FRF	**La Foret Royal**	**53.08**	**65**	*e*P	P	23 06 37.5	+2.0
	comp=Z,8.2nm,0.9s						
FRF	**La Foret Royal**	**53.08**	**65**	*e*P	P	23 06 37.5	+2.0
	comp=Z,4.1nm,0.9s						
AKASG	**Malin Array Be**	**54.74**	**44**	P	P	23 06 48.2	+0.7
	comp=Z,0.7nm,0.5s,baz=328,slow=7.8,SNR=4.2						
ZALV	**Zalesovo Beam**	**61.39**	**5**	P	P	23 07 35.1	+1.1
	comp=Z,1.5nm,0.4s,baz=6.1,slow=6.7,SNR=8.6						
BRTR	**Keskin Array B**	**65.98**	**47**	P	P	23 08 06.7	+2.2
	comp=Z,0.9nm,0.8s,baz=295,slow=4.6,SNR=4.1						
SONM	**Songino Array**	**67.19**	**350**	P	P	23 08 14.1	+2.0
	comp=Z,0.2nm,0.5s,baz=9.1,slow=4.3,SNR=5.0						
MKAR	**Makanchi Array**	**68.41**	**8**	P	P	23 08 21.6	+1.8
	comp=Z,1.2nm,0.5s,baz=4.1,slow=4.9,SNR=42						
TORD	**Torodi Ar. Bea**	**77.67**	**85**	P	P	23 09 15.4	+0.4
	comp=Z,0.5nm,0.5s,baz=313,slow=5.6,SNR=23						

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*IDC **07** 23:01:43.5±8.0, 5°.57S×154°.29E, h132^{km}±65^{km}, mb4.0/9, mb1 4.2/10, mb1mx4.1/17, mbtmp4.0/10, MS3.4/2, Ms1 3.4/2, ms1mx2.8/24, Error ellipse: s-maj=49.3km s-min=16.8km az=83.0*

*ISCJB **07** 23:01:44.6±3.5, 5°.57S±0°.10×154°.3E±0°.1, h156^{km}±32^{km}, mb4.5/26, Error ellipse: s-maj=20.4km s-min=13.2km az=142.6*

*BJI **07** 23:01:46.6, 5°.09S×154°.51E, h168^{km}, mB4.9/6, mb4.7/20*

*NEIC **07** 23:01:49.3±2.9, 5°.66S×154°.16E, h184^{km}±27^{km}, mb4.5/10, Error ellipse: s-maj=17.6km s-min=12.2km az=59.0*

ISC 07 23:01:46.1±3.2, **5°.58S**±0°.10×**154°.3E**±0°.1, **h151**^{km}±30^{km}, **n53**, σ**0^{s}.81**/46, **mb4.5**/26, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	**Coen**	**13.72**	**232**	Pn	**Pn**	**23 04 55.5**	**+1.0**
	17nm,0.6s						
CTA	**Charters Tower**	**16.38**	**208**	*e*P	**Pn**	**23 05 27.8**	**+0.3**
	11nm,0.8s						
CTA	**Charters Tower**	**16.38**	**208**	P	**Pn**	**23 05 27.1**	**-0.4**
	0.5nm,0.3s,baz=21,slow=12,SNR=13						
CTA				LR	LR	23 09 39.4	
	comp=Z,88nm,21.1s,baz=57,slow=29						
CTAO	**Charters Tower**	**16.38**	**208**	*e*Pn	**Pn**	**23 05 27.7**	**+0.2**
	35nm,1.3s						
EIDS	**Eidsvold**	**19.91**	**188**	*e*P	**P**	**23 06 06.4**	**+0.4**
EIDS	**Eidsvold**	**19.91**	**188**	*e*P	**P**	**23 06 06.3**	**+0.3**
	1.6nm,0.3s						
NOUC	**Port Laguerre**	**20.14**	**146**	*e*P	**P**	**23 06 08.1**	**-0.4**
DZM	**Mont Dzumac**	**20.19**	**145**	*e*P	**P**	**23 06 08.4**	**-0.7**
DZM	**Mont Dzumac**	**20.19**	**145**	*e*P	**P**	**23 06 09.5**	**+0.4**
	25nm,0.6s						
KAKA	**Kakadu**	**22.66**	**250**	*e*P	**P**	**23 06 32.6**	**-2.2**
	15nm,0.6s,mb4.6						
KAKA	**Kakadu**	**22.66**	**250**	*e*P	**P**	**23 06 33.0**	**-1.8**
	41nm,0.6s,mb5.0						
WRA	**Warramunga Arr**	**24.06**	**232**	P	**P**	**23 06 47.1**	**-0.5**
	12nm,0.4s,mb4.8,baz=56,slow=10,SNR=16						
WRA				PcP	PcP	23 10 25.6	+0.3
	1.1nm,0.6s,baz=58,slow=2.8,SNR=4.3						
ARMA	**Armidale**	**24.83**	**185**	*e*P	**P**	**23 06 55.0**	**+0.6**
	1.1nm,0.5s,mb3.6						
ASAR	**Alice Springs**	**26.59**	**225**	P	**P**	**23 07 09.4**	**-1.0**
	2.0nm,0.6s,mb3.9,baz=60,slow=8.6,SNR=19						
ASAR				pP	pP	23 07 30.9	-11
	4.6nm,0.7s,baz=53,slow=10,SNR=14						
ASAR				PcP	PcP	23 10 31.4	+0.4
	1.1nm,0.6s,baz=70,slow=2.5,SNR=5.1						
CMSA	**Cobar Meteorol**	**27.04**	**196**	*e*P	**P**	**23 07 15.7**	**+1.4**
STKA	**Stephens Creek**	**28.72**	**203**	*e*P	**P**	**23 07 28.5**	**-0.7**
	3.7nm,1.4s,mb3.9						
STKA	**Stephens Creek**	**28.72**	**203**	P	**P**	**23 07 27.9**	**-1.4**
	2.3nm,0.6s,mb4.1,baz=32,slow=13,SNR=7.2						
FITZ	**Fitzroy Crossi**	**30.58**	**244**	*e*P	**P**	**23 07 44.6**	**-1.3**
	14nm,0.6s,mb4.9						
AFI	**Afiamalu**	**34.45**	**106**	LR	LR	23 21 15.1	
	comp=Z,96nm,18.5s,baz=154,slow=34						
KSRS	**Korea Array**	**49.35**	**332**	P	**P**	**23 10 19.4**	**-0.8**
	2.9nm,0.7s,mb4.0,baz=147,slow=7.2,SNR=10						
CN2	**Changchun**	**55.61**	**335**	*e*P	**P**	**23 11 05.1**	**-1.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
KMI	**Kunming**	**58.62**	**304**	P	**P**	**23 11 28.9**	**+1.3**
KMI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
KMI				pmax	pmax		
	comp=Z,72nm,3.1s						
CMAR	**Chiang Mai Arr**	**59.52**	**295**	P	**P**	**23 11 34.8**	**+0.8**
	comp=Z,2.1nm,0.6s,mb4.1,baz=108,slow=5.1,SNR=14						
CD2	**Chengdu**	**60.34**	**310**	P	**P**	**23 11 39.4**	**+0.1**
CD2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.1						
HIA	**Hailar**	**62.34**	**335**	*e*P	**P**	**23 11 51.6**	**-0.7**
	comp=Z,7.9nm,1.0s,mb4.5						
LZH	**Lanzhou**	**62.80**	**315**	*e*P	**P**	**23 11 55.0**	**-0.7**
LZH				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.7						
LZH				pmax	pmax		
	comp=Z,85nm,5.0s						
ULN	**Ulaanbaatar**	**67.42**	**328**	*e*P	**P**	**23 12 26.1**	**+0.8**
	comp=Z,4.2nm,1.0s,mb4.2						
SONM	**Songino Array**	**67.76**	**327**	P	**P**	**23 12 27.7**	**+0.4**
	comp=Z,2.9nm,0.4s,mb4.3,baz=144,slow=5.5,SNR=50						
SHL	**Shillong**	**67.95**	**300**	*e*PKP	**P**	**23 12 31.0**	**+1.9**
LSA	**Lhasa**	**69.87**	**304**	P	**P**	**23 12 42.0**	**+1.1**
LSA	**Lhasa**	**69.87**	**304**	*e*P	**P**	**23 12 42.0**	**+1.1**
	comp=Z,5.5nm,0.6s,mb4.5						
VNDA	**Vanda**	**72.00**	**178**	P	**P**	**23 12 53.5**	**+0.6**
	comp=Z,2.4nm,0.6s,mb4.1,baz=332,slow=9.4,SNR=5.8						
TAPN	**Taplejung**	**72.05**	**301**	*e*P	**P**	**23 12 54.6**	**+0.5**
	comp=Z,24nm,0.5s,mb5.2						
ODAN	**Odare**	**72.19**	**300**	*e*P	**P**	**23 12 55.3**	**+0.4**
	comp=Z,57nm,0.6s,mb5.5						
RAMN	**Ramite**	**72.89**	**300**	*e*P	**P**	**23 12 59.4**	**+0.3**
	comp=Z,12nm,0.6s,mb4.8						
JIRN	**Jiri**	**73.43**	**301**	*e*P	**P**	**23 13 02.2**	**0.0**
GUN	**Gumba**	**73.76**	**301**	*e*P	**P**	**23 13 04.7**	**+0.6**
BILL	**Bilibino**	**73.94**	**5**	*e*P	**P**	**23 13 04.4**	**+0.1**
	comp=Z,3.6nm,0.6s,mb4.3						
PKI	**Pulchoki**	**74.07**	**301**	*e*P	**P**	**23 13 06.2**	**+0.2**
KKN	**Kakani**	**74.24**	**301**	*e*P	**P**	**23 13 06.7**	**-0.2**
DMN	**Daman**	**74.34**	**301**	*e*P	**P**	**23 13 07.9**	**+0.4**
GKN	**Gorkha**	**74.85**	**301**	*e*P	**P**	**23 13 10.1**	**-0.3**
KOLN	**Koldanda**	**75.68**	**300**	*e*P	**P**	**23 13 14.9**	**-0.3**
	comp=Z,35nm,0.8s,mb5.0						
DANN	**Dangsing**	**75.68**	**301**	*e*P	**P**	**23 13 14.9**	**-0.3**
	comp=Z,29nm,0.6s,mb5.1						
PYUN	**Piuthan**	**76.28**	**301**	*e*P	**P**	**23 13 18.3**	**-0.3**
	comp=Z,37nm,0.7s,mb5.1						
MKAR	**Makanchi Array**	**81.86**	**319**	P	**P**	**23 13 48.2**	**-0.3**
	comp=Z,2.0nm,0.7s,mb3.9,baz=96,slow=8.1,SNR=33						
ZALV	**Zalesovo Beam**	**82.60**	**326**	P	**P**	**23 13 50.8**	**-1.4**
	comp=Z,2.2nm,0.4s,mb4.2,baz=115,slow=5.5,SNR=16						
TORD	**Torodi Ar. Bea**	**151.92**	**287**	PKPbc	PKPbc	23 21 22.7	-1.6
	comp=Z,0.5nm,0.4s,baz=68,slow=1.9,SNR=20						
TORD				PKPab	PKPab	23 21 32.6	-1.4
	comp=Z,2.1nm,0.6s,baz=77,slow=3.9,SNR=12						
TORD	**Torodi Ar. Bea**	**151.92**	**287**	PKPbc	PKPbc	23 21 22.7	-1.6
TORD				PKPab	PKPab	23 21 32.6	-1.4
KIC	**Kosan Boka**	**159.09**	**273**	*e*PKP1	PKPab	23 22 04.3	-0.6
	comp=Z,35nm,1.0s						
DBIC	**Dimbokro**	**159.20**	**274**	PKPab	PKPab	23 22 04.3	-1.0
	comp=Z,4.4nm,0.8s,baz=74,slow=7.1,SNR=6.7						
TIC	**Toumodi**	**159.36**	**274**	*e*PKP1	PKPab	23 22 05.3	-0.7
	comp=Z,16nm,0.5s						
LIC	**Lamto**	**159.38**	**273**	*e*PKP1	PKPab	23 22 05.3	-0.8
	comp=Z,14nm,0.9s						

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*IDC **07** 23:16:39.4±0.5, 17°.58N×145°.01E, h0^{km}, mb4.7/19, mb1 4.8/22, mb1mx4.8/26, mbtmp4.7/22, ML4.3/3, MS4.4/22, Ms1 4.4/22, ms1mx4.3/26, Error ellipse: s-maj=16.9km s-min=12.7km az=86.0*

*BJI **07** 23:16:40.3, 17°.71N×144°.87E, h10^{km}, mB5.3/30, mb5.0/51, Ms4.7/52, Ms7 4.6/49*

*ISCJB **07** 23:16:41.1±0.2, 17°.56N±0°.04×144°.84E±0°.02, h17^{km}, mb5.1/90, MS4.5/45, Error ellipse: s-maj=5.5km s-min=3.1km az=4.0*

*NEIC **07** 23:16:41.0±0.2, 17°.56N×144°.92E, h10^{km}, mb5.1/14, Error ellipse: s-maj=5.5km s-min=5.2km az=157.0*

*GCMT **07** 23:16:41.0±0.1, 17°.45N×144°.80E, h12^{km}, MW5.3/103, Moment Tensor Solution. s64,c99; s103,c210; Duration: 1^{s}.1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.04±.01; M$_{\theta\theta}$0.02±.01; M$_{\phi\phi}$1.02±.01; M$_{r\theta}$0.06±.04; M$_{\theta\phi}$0.13±.01; M$_{\phi r}$0.16±.04; Best double couple: M$_0$1.05200×10^{17} NP1:φ$_s$5.00000°, δ41.00000°, λ-93.00000°. NP2:φ$_s$189.00000°, δ50.00000°, λ-87.00000°. Principal axes: T 1.0500, Plg4.0000°, Azm278.0000°; N 0.0050, Plg2.0000°, Azm8.0000°; P -1.0540, Plg85.0000°, Azm122.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*DJA **07** 23:16:43, 17°.56N×145°.01E, h15^{km}, mb5.0/11*

*MOS **07** 23:16:43.0±0.9, 17°.60N×144°.86E, h33^{km}, mb5.4/25, MS4.5/11, Error ellipse: s-maj=10.4km s-min=6.0km az=108.7*

ISC 07 23:16:41.3±1.1, **17°.58N**±0°.04×**144°.90E**±0°.02, **h9**^{km}±7^{km}, **h19**^{km}±2.3^{km}**:pP-P**, **n493**, σ**0^{s}.69**/481, **mb5.1**/90, **MS4.5**/45, **137C-143D**, **Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**3.97**	**180**	Pn	**Pn**	**23 17 42.5**	**+0.2**
	11nm,0.3s,baz=250,slow=5.8,SNR=6.1						
GUMO				Sn	**Sn**	**23 18 43.8**	**+15**
	4.9nm,0.3s,baz=27,slow=22,SNR=2.7						
GUMO				LR	LR	23 19 02.0	
	comp=Z,4µm,20.3s,baz=61,slow=36						
GUMO	**Guam**	**3.97**	**180**	*e*Pn	**Pn**	**23 17 42.2**	**-0.1**
CBIJ	**Chichi jima**	**9.79**	**346**	LR	LR	23 21 40.0	
	comp=Z,826nm,20.7s,baz=139,slow=31						
JOW	**Kunigami**	**17.92**	**304**	P	**Pn**	**23 20 52.6**	**+1.8**
	1.4nm,0.3s,baz=97,slow=13,SNR=2.9						
JOW				LR	LR	23 26 16.1	
	comp=Z,5µm,21.6s,baz=323,slow=32						
MJAR	**Matsushiro Arr**	**19.79**	**344**	P	**Pn**	**23 21 12.1**	**-1.3**
	2.0nm,0.3s,baz=160,slow=8.9,SNR=78						
MJAR				LR	LR	23 28 01.4	
	comp=Z,2µm,20.0s,baz=190,slow=34						
MAJO	**Matsushiro**	**19.79**	**344**	*e*P	**Pn**	**23 21 12.0**	**-1.4**
MAJO				pmax	pmax		
	comp=Z,172nm,0.9s						
MAJO	**Matsushiro**	**19.79**	**344**	*e*P	**Pn**	**23 21 12.0**	**-1.4**
	comp=Z,172nm,0.9s						
MAT	**Matsushiro**	**19.79**	**344**	P	**Pn**	**23 21 12.4**	**-1.0**
MAT				S	**Sn**	**23 24 55.0**	**-0.9**
DAV	**Davao City (W)**	**21.55**	**243**	LR	LR	23 28 11.9	
	comp=Z,2µm,20.6s,MS4.5,baz=75,slow=32						
TGY	**Tagaytay City**	**23.30**	**265**	P	**P**	**23 21 50.6**	**+0.8**
	comp=Z,117nm,0.4s,mb5.7,baz=136,slow=13,SNR=4.9						
KSRS	**Korea Array**	**24.79**	**326**	P	**P**	**23 22 03.5**	**0.0**
	comp=Z,13nm,0.8s,mb4.5,baz=144,slow=8.3,SNR=21						
KSRS				PcP	PcP	23 25 40.4	+0.4
	comp=Z,3.7nm,1.1s,baz=104,slow=2.6,SNR=4.5						
KSRS				LR	LR	23 30 55.1	
	comp=Z,616nm,18.1s,MS4.2,baz=334,slow=34						
SSE	**Sheshan**	**25.38**	**306**	P	**P**	**23 22 09.5**	**+0.6**
SSE				sP	sP	23 22 13.8	+0.9
SSE				S	**S**	**23 26 33.3**	**-2.3**
SSE				sS	sS	23 26 38.7	-1.6
SSE				pmax	pmax		
	comp=Z,37nm,1.3s,mb4.8						
SSE				pmax	pmax		
	comp=Z,430nm,5.8s						
SSE				LR	LR		
	comp=N,880nm,17.4s,MS4.6						
SSE				LR	LR		
	comp=E,1µm,17.4s,MS4.6						
SSE				LR	LR		
	comp=Z,2µm,17.3s,MS4.7						
QZH	**Quanzhou**	**25.55**	**291**	*e*P	**P**	**23 22 09.6**	**-1.0**
QZH				S	**S**	**23 26 35.2**	**-3.3**
QZH				LR	LR		
	comp=Z,3µm,25.4s,MS4.7						
ASAJ	**Asahikawa**	**26.52**	**356**	P	**P**	**23 22 19.6**	**+0.5**
	comp=Z,9.2nm,0.3s,mb4.8,baz=230,slow=16,SNR=11						
NJ2	**Nanjing**	**27.59**	**306**	*e*P	**P**	**23 22 28.9**	**0.0**
NJ2				pP	pP	23 22 38.4	+6.7
NJ2				sP	sP	23 22 41.3	+8.4
NJ2				PP		23 23 19.3	
NJ2				S	**S**	**23 27 05.0**	**-5.5**
NJ2				sS	sS	23 27 22.5	+7.3
NJ2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.0						
NJ2				pmax	pmax		
	comp=Z,240nm,5.4s						
NJ2				LR	LR		
	comp=N,470nm,22.0s						
NJ2				LR	LR		
	comp=E,2µm,29.2s						
NJ2				LR	LR		
	comp=Z,2µm,31.2s						
YSS	**Yuzh-Sakhalins**	**29.34**	**357**	⇑*i*P	**P**	**23 22 45.5**	**+1.2**
YSS				*e*		23 23 41.3	
YSS				*e*S	**S**	**23 27 37.0**	**-0.7**
YSS				*e*SS	SS	23 29 08.0	-34
YSS				*e*SSS		23 29 33.0	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.0						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.2						
YSS				MLR	MLR		
	comp=N,600nm,15.0s						
YSS	**Yuzh-Sakhalins**	**29.34**	**357**	*e*P	**P**	**23 22 44.2**	**-0.1**
	comp=N,14nm,0.6s,mb4.9						
MDJ	**Mudanjiang**	**29.86**	**338**	P	**P**	**23 22 49.2**	**+0.3**
MDJ				S	**S**	**23 27 46.7**	**+0.8**
MDJ				sS	sS	23 27 52.5	+1.9
MDJ				ScP	ScP	23 29 32.1	-2.3
MDJ				pmax	pmax		
	comp=Z,19nm,1.8s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,250nm,4.1s						
MDJ				LR	LR		
	comp=N,820nm,25.2s,MS4.3						
MDJ				LR	LR		
	comp=E,460nm,26.4s,MS4.3						
MDJ				LR	LR		
	comp=Z,1µm,30.4s,MS4.4						
GZH	**Guangzhou**	**30.05**	**286**	P	**P**	**23 22 47.2**	**-3.7**
GZH				S	**S**	**23 27 42.9**	**-6.5**
GZH				LR	LR		
	comp=N,820nm,24.4s,MS4.6						
GZH				LR	LR		
	comp=E,1µm,19.4s,MS4.6						
GZH				LR	LR		
	comp=Z,2µm,28.5s						
WHN	**Wuhan**	**30.62**	**301**	⇓P	**P**	**23 22 55.5**	**-0.4**
WHN				pP	pP	23 23 04.1	+5.4
WHN				S	**S**	**23 27 51.4**	**-6.8**
WHN				LR	LR		
	comp=Z,3µm,21.3s,MS4.9						
CN2	**Changchun**	**30.87**	**332**	*e*P	**P**	**23 22 59.6**	**+1.7**
CN2				*e*sP	sP	23 23 07.1	+5.2
CN2				*e*PcP	PcP	23 25 54.1	-0.5
CN2				*e*S	**S**	**23 28 02.4**	**+0.6**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
CN2				LR	LR		
	comp=N,800nm,18.0s,MS4.6						
CN2				LR	LR		
	comp=E,900nm,18.0s,MS4.6						
CN2				LR	LR		
	comp=Z,700nm,19.0s,MS4.3						
QIZ	**Qiongzhong**	**33.28**	**278**	P	**P**	**23 23 18.6**	**-0.7**
QIZ				PP	PP	23 24 30.5	-4.1
QIZ				S	**S**	**23 28 38.8**	**-1.1**
QIZ				sS	sS	23 28 44.7	0.0
QIZ				LR	LR		
	comp=E,750nm,21.4s						
QIZ				LR	LR		
	comp=Z,1µm,30.3s						
KLR	**Kul'dur**	**33.32**	**344**	*e*P	**P**	**23 23 15.0**	**-4.3**
KLR				pmax	pmax		
	comp=Z,70nm,1.8s,mb5.3						
KLR				MLR	MLR		
	comp=E,500nm,13.0s						
KLR				MLR	MLR		
	comp=Z,800nm,13.0s,MS4.6						
BJI	**Beijing**	**33.43**	**318**	P	**P**	**23 23 20.6**	**+0.2**
BJI				pP	pP	23 23 28.6	+5.4
BJI				S	**S**	**23 28 43.1**	**+1.3**
BJI				pmax	pmax		
	comp=Z,58nm,1.7s,mb5.2						
BJI				pmax	pmax		
	comp=Z,500nm,3.0s						
BJI				LR	LR		
	comp=N,640nm,22.3s,MS4.5						
BJI				LR	LR		
	comp=E,860nm,19.7s,MS4.5						
BJI				LR	LR		
	comp=Z,990nm,23.0s,MS4.5						
SBUM	**Sibu**	**35.42**	**249**	P	**P**	**23 23 36.8**	**-1.2**
XAN	**Xi'an**	**36.07**	**304**	P	**P**	**23 23 43.3**	**0.0**

Code	Station	Dist	Azi	Phase	ISC phase	Time	Res
XAN				pP	pP	23 23 47.9	+1.7
XAN				sP	sP	23 23 50.3	+3.0
XAN				PP	PP	23 25 04.2	-1.1
XAN				S	**S**	**23 29 19.7**	**-3.0**
XAN				ScP	ScP	23 29 55.6	-0.5
XAN				PcS	PcS	23 29 57.2	+0.2
XAN				SS	SS	23 31 40.6	-19
XAN				ScS	ScS	23 33 58.2	-3.5
XAN				pmax	pmax		
	comp=Z,15nm,1.8s,mb4.6						
XAN				pmax	pmax		
	comp=Z,130nm,7.2s						
XAN				LR	LR		
	comp=N,370nm,18.9s,MS4.5						
XAN				LR	LR		
	comp=E,860nm,22.3s,MS4.5						
XAN				LR	LR		
	comp=Z,2µm,21.3s,MS4.8						
GYA	**Guiyang**	**36.42**	**291**	⇑*i*P	**P**	**23 23 46.5**	**+0.1**
GYA				PP	PP	23 25 10.7	+1.5
GYA				PcP	PcP	23 26 11.6	+0.9
GYA				S	**S**	**23 29 32.9**	**+4.7**
GYA				ScP	ScP	23 29 56.7	-0.8
GYA				SS	SS	23 31 52.3	-15
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,130nm,4.8s						
GYA				LR	LR		
	comp=N,590nm,17.4s,MS4.5						
GYA				LR	LR		
	comp=E,480nm,17.9s,MS4.5						
GYA				LR	LR		
	comp=Z,560nm,17.4s,MS4.4						
PETK	**Petropavlovsk-**	**36.84**	**13**	P	**P**	**23 23 49.3**	**-0.3**
	comp=Z,5.4nm,1.1s,mb4.3,baz=188,slow=9.5,SNR=3.9						
PETK				LR	LR	23 36 57.5	
	comp=Z,272nm,21.9s,MS4.0,baz=203,slow=33						
PETK	**Petropavlovsk-**	**36.84**	**13**	P	**P**	**23 23 49.3**	**-0.3**
PETK				LR	LR	23 36 57.5	
HHC	**Hu-ho-hao-te**	**36.85**	**316**	*e*P	**P**	**23 23 50.3**	**+0.4**
HHC				pP	pP	23 23 54.6	+1.8
HHC				sP	sP	23 23 57.5	+3.6
HHC				PP	PP	23 25 16.1	+2.3
HHC				S	**S**	**23 29 34.6**	**+0.1**
HHC				PcS	PcS	23 29 59.7	+0.1
HHC				SS	SS	23 32 00.3	-15
HHC				ScS	ScS	23 34 04.5	-1.3
HHC				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.6						
HHC				pmax	pmax		
	comp=Z,240nm,4.5s						
HHC				LR	LR		
	comp=N,470nm,15.1s,MS4.6						
HHC				LR	LR		
	comp=E,620nm,15.9s,MS4.6						
HHC				LR	LR		
	comp=Z,710nm,19.2s,MS4.5						
PET	**Petropavlovsk**	**36.97**	**14**	*e*P	**P**	**23 23 40.9**	**-10**
PET				*e*S	**S**	**23 29 25.9**	**-10**
PET				pmax	pmax		
	comp=Z,200nm,10.8s						
PET				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.0						
HIA	**Hailar**	**37.59**	**333**	*i* P	**P**	**23 23 56.3**	**+0.3**
HIA	**Hailar**	**37.59**	**333**	*i* P	**P**	**23 23 56.3**	**+0.3**
BTO	**Baotou**	**37.77**	**315**	*e*P	**P**	**23 23 57.6**	**-0.1**
WRA	**Warramunga Arr**	**38.70**	**196**	P	**P**	**23 24 04.7**	**-1.0**
WRA						23 26 18.2	
WRA	**Warramunga Arr**	**38.70**	**196**	P	**P**	**23 24 04.7**	**-1.0**
	comp=Z,20nm,0.9s,mb4.8,baz=16,slow=9.2,SNR=38						
WRA				PcP	PcP	23 26 18.2	+0.6
	comp=Z,6.0nm,0.9s,baz=9.0,slow=3.5,SNR=10						
WRA				LR	LR	23 39 51.5	
	comp=Z,500nm,18.9s,MS4.4,baz=0.0,slow=36						
CD2	**Chengdu**	**39.57**	**297**	P	**P**	**23 24 12.8**	**-0.1**
CD2				pP	pP	23 24 17.0	+1.2
CD2				sP	sP	23 24 20.9	+3.9
CD2				PP	PP	23 25 49.2	+5.5
CD2				PcP	PcP	23 26 20.7	+0.4
CD2				S	**S**	**23 30 14.6**	**-1.2**
CD2				sS	sS	23 30 23.5	+2.9
CD2				SS	SS	23 33 00.1	-10
CD2				pmax	pmax		
	comp=Z,40nm,1.5s,mb4.9						
CD2				pmax	pmax		
	comp=Z,200nm,6.4s						
CD2				LR	LR		
	comp=N,880nm,16.4s						
CD2				LR	LR		
	comp=Z,1µm,23.8s						
KMI	**Kunming**	**39.85**	**288**	⇑P	**P**	**23 24 17.0**	**+1.7**
KMI				pP	pP	23 24 20.2	+2.0
KMI				sP	sP	23 24 21.7	+2.3
KMI				PP	PP	23 25 51.6	+4.7
KMI				PcP	PcP	23 26 23.2	+1.9
KMI				ScP	ScP	23 30 10.5	-0.1
KMI				PcS	PcS	23 30 11.9	+0.3
KMI				S	**S**	**23 30 20.4**	**+0.2**
KMI				sS	sS	23 30 25.4	+0.5
KMI				SS	SS	23 33 09.4	-7.0
KMI				ScS	ScS	23 34 22.3	-1.3
KMI				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.5						
KMI				pmax	pmax		
	comp=Z,280nm,3.8s						
KMI				LR	LR		
	comp=N,550nm,17.8s,MS4.5						
KMI				LR	LR		
	comp=E,510nm,21.5s,MS4.5						
KMI				LR	LR		
	comp=Z,1µm,19.3s,MS4.7						
FITZ	**Fitzroy Crossi**	**40.20**	**209**	*e*P	**P**	**23 24 17.7**	**-0.5**
	comp=Z,22nm,1.1s,mb4.8						
LZH	**Lanzhou**	**40.65**	**305**	*e*P	**P**	**23 24 22.9**	**+1.1**
LZH				pP	pP	23 24 26.0	+1.3
LZH				sP	sP	23 24 29.5	+3.6
LZH				PP	PP	23 25 59.2	+3.7
LZH				PcP	PcP	23 26 24.6	+0.9
LZH				*e*S	**S**	**23 30 33.6**	**+1.7**
LZH				sS	sS	23 30 44.0	+7.3
LZH				SS	SS	23 33 26.0	-6.1
LZH				pmax	pmax		
	comp=Z,120nm,1.4s,mb5.3						
LZH				pmax	pmax		
	comp=Z,340nm,4.7s						
LZH				LR	LR		
	comp=E,960nm,14.4s						
LZH				LR	LR		
	comp=Z,2µm,16.8s,MS4.9						
ASAR	**Alice Springs**	**42.38**	**195**	P	**P**	**23 24 35.1**	**-0.9**
	comp=Z,3.7nm,0.6s,mb4.2,baz=20,slow=9.9,SNR=33						
ASAR				PcP	PcP	23 26 29.5	+0.1
	comp=Z,4.3nm,0.8s,baz=18,slow=3.4,SNR=12						
NST	**Nakhon Sawan**	**42.86**	**274**	P	**P**	**23 24 41.0**	**+0.8**
ULN	**Ulaanbaatar**	**43.18**	**323**	*e*P	**P**	**23 24 43.4**	**+1.0**
ULN				pmax	pmax		
	comp=Z,26nm,1.1s,mb4.9						
ULN	**Ulaanbaatar**	**43.18**	**323**	*e*P	**P**	**23 24 43.4**	**+1.0**
	comp=Z,26nm,1.1s,mb4.9						
ULN	**Ulaanbaatar**	**43.18**	**323**	⇑P	**P**	**23 24 43.3**	**+0.9**
	SNR=15						
ULN				⇑P		23 24 43.3	
	SNR=15						
MYKOM	**Kota Tinggi**	**43.25**	**253**	P	**P**	**23 24 44.9**	**+1.5**
SONM	**Songino Array**	**43.55**	**322**	P	**P**	**23 24 46.1**	**+0.8**
SONM						23 26 33.1	
SONM	**Songino Array**	**43.55**	**322**	P	**P**	**23 24 46.1**	**+0.8**
	comp=Z,7.2nm,0.9s,mb4.4,baz=132,slow=8.2,SNR=50						
SONM				PcP	PcP	23 26 33.1	+0.1
	comp=Z,14nm,1.1s,baz=134,slow=2.9,SNR=12						
SONM				LR	LR	23 42 04.2	
	comp=Z,239nm,21.9s,MS4.1,baz=303,slow=35						
CHG	**Chiang Mai**	**43.58**	**279**	⇓P	**P**	**23 24 45.9**	**-0.1**
	comp=Z,15nm,1.1s,mb4.6						
CHTO	**Chiang Mai**	**43.58**	**279**	*e*P	**P**	**23 24 46.4**	**+0.4**
CHTO				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.8						
CHTO	**Chiang Mai**	**43.58**	**279**	*e*P	**P**	**23 24 46.4**	**+0.4**
	comp=Z,28nm,1.3s,mb4.8						
CMAR	**Chiang Mai Arr**	**43.62**	**279**	P	**P**	**23 24 47.2**	**+1.0**
	comp=Z,32nm,1.0s,mb5.0,baz=70,slow=6.8,SNR=61						
CMAR				LR	LR	23 44 29.8	
	comp=Z,425nm,18.4s,MS4.4,baz=83,slow=38						
CMAR	**Chiang Mai Arr**	**43.62**	**279**	P	**P**	**23 24 47.2**	**+1.0**
CMAR				LR	LR	23 44 29.8	
GTA	**Gaotai**	**44.63**	**309**	*e*P	**P**	**23 24 54.8**	**+0.6**
GTA				pP	pP	23 24 59.6	+2.5
GTA				sP	sP	23 25 02.2	+4.0
GTA				PcP	PcP	23 26 37.9	+1.0
GTA				S	**S**	**23 31 29.9**	**-0.6**
GTA				sS	sS	23 31 37.6	+2.3
GTA				SS	SS	23 34 41.3	-9.1
GTA				pmax	pmax		
	comp=Z,25nm,1.8s,mb4.7						
GTA				pmax	pmax		
	comp=Z,290nm,6.0s						
GTA				LR	LR		
	comp=N,610nm,20.5s,MS4.7						
GTA				LR	LR		
	comp=E,830nm,20.5s,MS4.7						
GTA				LR	LR		
	comp=Z,1µm,19.6s,MS4.8						
FRIM	**Kepong**	**44.74**	**256**	P	**P**	**23 24 56.4**	**+1.0**
IPM	**Ipoh**	**44.86**	**258**	P	**P**	**23 24 57.1**	**+0.8**
KULM	**Kulim**	**44.93**	**260**	P	**P**	**23 24 57.8**	**+0.9**
SEY	**Seymchan**	**45.60**	**5**	⇑*e*P	**P**	**23 25 01.6**	**+0.1**
YAK	**Yakutsk**	**45.68**	**350**	*e*P	**P**	**23 24 59.6**	**-2.5**
YAK				*e*		23 31 37.1	
YAK				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
YAK				pmax	pmax		
	comp=N,9.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.5s						
YAK				MLR	MLR		
	comp=Z,549nm,19.0s,MS4.5						
YAK				MLR	MLR		
	comp=N,361nm,16.0s,MS4.5						
YAK				MLR	MLR		
	comp=E,120nm,13.0s,MS4.5						
YAK	**Yakutsk**	**45.68**	**350**	⇑*e*P	**P**	**23 25 00.0**	**-2.1**
MBWA	**Marble Bar**	**45.73**	**214**	*e*P	**P**	**23 25 01.4**	**-1.6**
MBWA	**Marble Bar**	**45.73**	**214**	*e*P	**P**	**23 25 02.5**	**-0.5**
	comp=E,19nm,1.0s,mb5.0						
BOD	**Bodaibo**	**46.24**	**338**	*e*P	**P**	**23 25 05.3**	**-1.3**
BOD				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
ZAK	**Zakamensk**	**46.59**	**324**	⇑*i*P	**P**	**23 25 09.9**	**+0.4**
ZAK				*e*		23 26 44.1	
ZAK				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.1						
IRK	**Irkutsk**	**47.01**	**327**	*e*P	**P**	**23 25 12.9**	**+0.2**
IRK				*e*		23 25 20.3	
IRK				pmax	pmax		
	comp=Z,112nm,2.3s,mb5.4						
TLY	**Talaya**	**47.05**	**326**	P	**P**	**23 25 14.7**	**+1.7**
	comp=Z,139nm,1.3s,mb5.7,SNR=7.5						
TLY	**Talaya**	**47.05**	**326**	*e*P	**P**	**23 25 13.9**	**+0.9**
TLY				*e*		23 25 21.2	
TLY				*e*		23 27 01.4	
TLY				*e*S	**S**	**23 32 09.1**	**+4.3**
TLY				*e*		23 36 28.1	
TLY				pmax	pmax		
	comp=Z,50nm,1.7s,mb5.2						
TLY				MLR	MLR		
	comp=Z,235nm,17.0s,MS4.2						
TLY	**Talaya**	**47.05**	**326**	*i* P	**P**	**23 25 13.9**	**+0.9**
TLY	**Talaya**	**47.05**	**326**	⇑P	**P**	**23 25 13.9**	**+0.9**
	SNR=15						
TLY				⇑P		23 25 13.9	
	SNR=15						
MOY	**Mondy**	**48.48**	**325**	*e*P	**P**	**23 25 24.7**	**+0.6**
MOY				pmax	pmax		
	comp=Z,123nm,2.8s,mb5.4						
STKA	**Stephens Creek**	**49.28**	**184**	*e*P	**P**	**23 25 29.4**	**-1.0**
	comp=Z,10nm,1.7s,mb4.6						
STKA	**Stephens Creek**	**49.28**	**184**	P	**P**	**23 25 29.9**	**-0.5**
	comp=Z,2.1nm,0.5s,mb4.4,baz=335,slow=7.9,SNR=4.0						
SHL	**Shillong**	**49.67**	**289**	*e*PKP	**P**	**23 25 35.0**	**+1.3**
SHL				*e*S	**S**	**23 32 43.5**	**+0.8**
LSA	**Lhasa**	**50.30**	**294**	P	**P**	**23 25 40.4**	**+2.0**
LSA				pP	pP	23 25 45.8	+4.4
LSA				sP	sP	23 25 48.8	+6.3
LSA				PcP	PcP	23 26 55.5	-1.8
LSA				PP	PP	23 27 36.7	+2.9
LSA				ScP	ScP	23 30 50.9	-2.6
LSA				PcS	PcS	23 30 52.8	-1.7
LSA				S	**S**	**23 32 52.5**	**+1.1**
LSA				ScS	ScS	23 35 29.4	-0.9
LSA				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
LSA				LR	LR		
	comp=N,320nm,20.3s,MS4.6						
LSA				LR	LR		
	comp=E,500nm,20.3s,MS4.6						
LSA				LR	LR		
	comp=Z,590nm,21.1s,MS4.6						
AGT	**Agartala**	**50.33**	**287**	*e*PKP	**P**	**23 25 35.0**	**-3.7**
AGT				*e*S	x	23 26 12.0	
FORT	**Forrest**	**50.74**	**199**	*e*P	**P**	**23 25 41.0**	**-0.5**
	comp=Z,40nm,0.9s,mb5.3						
BBOO	**Buckleboo**	**50.81**	**190**	*e*P	**P**	**23 25 41.5**	**-0.6**
	comp=Z,20nm,0.7s,mb5.2						
BILL	**Bilibino**	**52.24**	**10**	*e*P	**P**	**23 25 51.8**	**-0.6**
BILL				*e*S	**S**	**23 33 18.6**	**+1.5**
BILL				pmax	pmax		
	comp=Z,87nm,2.5s,mb5.2						
BILL				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.2						
BILL	**Bilibino**	**52.24**	**10**	*e*P	**P**	**23 25 52.2**	**-0.2**
	comp=Z,40nm,1.3s,mb5.2						
HVS	**Khovu-Aksy**	**52.43**	**322**	*i* P	**P**	**23 25 54.3**	**+0.3**
TAPN	**Taplejung**	**53.35**	**291**	*e*P	**P**	**23 26 01.1**	**-0.1**
	comp=Z,208nm,1.3s,mb5.9						
ODAN	**Odare**	**53.65**	**291**	*e*P	**P**	**23 26 03.2**	**-0.3**
	comp=Z,192nm,1.3s,mb5.9						
RAMN	**Ramite**	**54.35**	**291**	*e*P	**P**	**23 26 08.6**	**0.0**
	comp=Z,23nm,0.8s,mb5.2						
WMQ	**Urumqi**	**54.47**	**312**	⇓*i*P	**P**	**23 26 10.3**	**+1.2**
WMQ				pP	pP	23 26 15.0	+2.9
WMQ				sP	sP	23 26 17.5	+4.2
WMQ				PcP	PcP	23 27 13.0	+0.4
WMQ				PP	PP	23 28 14.0	+2.7
WMQ				S	**S**	**23 33 48.0**	**-0.1**
WMQ				sS	sS	23 33 56.0	+3.0
WMQ				ScS	ScS	23 35 56.0	-2.8
WMQ				pmax	pmax		
	comp=Z,62nm,1.0s,mb5.5						
WMQ				pmax	pmax		
	comp=Z,300nm,5.2s						
WMQ				LR	LR		
	comp=N,990nm,18.9s,MS5.1						
WMQ				LR	LR		
	comp=E,1µm,17.8s,MS5.1						
WMQ				LR	LR		
	comp=Z,1µm,25.7s						
TIXI	**Tiksi**	**54.89**	**354**	⇑*e*P	**P**	**23 26 09.9**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,17nm,2.4s,mb4.7						
TIXI	**Tiksi**	**54.89**	**354**	*e*P	**P**	**23 26 10.8**	**-1.0**
GUN	**Gumba**	**54.95**	**292**	*e*P	**P**	**23 26 13.2**	**+0.3**
	comp=Z,67nm,1.0s,mb5.6						
PKI	**Pulchoki**	**55.38**	**292**	*e*P	**P**	**23 26 15.7**	**-0.3**
KKN	**Kakani**	**55.48**	**292**	*e*P	**P**	**23 26 16.5**	**-0.3**
	comp=Z,38nm,0.9s,mb5.4						
DMN	**Daman**	**55.65**	**292**	*e*P	**P**	**23 26 17.4**	**-0.5**
	comp=Z,109nm,1.5s,mb5.7						
GKN	**Gorkha**	**56.04**	**292**	*e*P	**P**	**23 26 20.4**	**-0.4**
	comp=Z,78nm,1.1s,mb5.7						
DANN	**Dangsing**	**56.79**	**293**	*e*P	**P**	**23 26 26.4**	**+0.3**
	comp=Z,114nm,0.7s,mb6.0						
KOLN	**Koldanda**	**56.97**	**292**	*e*P	**P**	**23 26 27.3**	**-0.1**
	comp=Z,46nm,1.0s,mb5.5						
PYUN	**Piuthan**	**57.49**	**292**	*e*P	**P**	**23 26 30.7**	**-0.3**
	comp=Z,63nm,1.2s,mb5.5						
ZALV	**Zalesovo Beam**	**58.44**	**323**	P	**P**	**23 26 37.2**	**-0.1**
ZALV						23 27 27.4	
ZALV	**Zalesovo Beam**	**58.44**	**323**	P	**P**	**23 26 37.2**	**-0.1**
	comp=Z,10nm,0.9s,mb4.8,baz=100,slow=7.7,SNR=44						
ZALV				PcP	PcP	23 27 27.4	-0.5
	comp=Z,7.7nm,0.8s,baz=124,slow=5.9,SNR=5.1						
ZALV				LR	LR	23 51 29.9	
	comp=Z,143nm,18.5s,MS4.1,baz=271,slow=36						
MK31	**Makanchi Array**	**58.69**	**314**	⇑*e*P	**P**	**23 26 39.8**	**+0.7**
MKAR	**Makanchi Array**	**58.69**	**314**	P	**P**	**23 26 39.9**	**+0.8**
MKAR						23 27 28.3	
MKAR	**Makanchi Array**	**58.69**	**314**	P	**P**	**23 26 39.9**	**+0.7**
	comp=Z,5.0nm,0.8s,mb4.6,baz=94,slow=7.8,SNR=87						
MKAR				PcP	PcP	23 27 28.3	-0.7
	comp=Z,5.9nm,0.7s,baz=83,slow=3.8,SNR=8.9						
MKAR				LR	LR	23 53 43.5	
	comp=Z,290nm,19.1s,MS4.4,baz=97,slow=38						
NVS	**Novosibirsk**	**59.55**	**324**	⇓*i*P	**P**	**23 26 45.0**	**+0.1**
NVS				pmax	pmax		
	comp=N,20nm,1.7s						
NVS				pmax	pmax		
	comp=E,62nm,1.7s						
NVS				pmax	pmax		
	comp=Z,76nm,1.7s,mb5.5						
KDAK	**Kodiak Island**	**60.70**	**33**	P	**P**	**23 26 51.5**	**-1.3**
	comp=Z,10.0nm,0.9s,mb5.0,baz=132,slow=23,SNR=2.6						
RSO	**Redoubt South**	**61.31**	**30**	*e*P	**P**	**23 26 57.7**	**+0.9**
KURK	**Kurchatov**	**61.59**	**319**	⇑*e*P	**P**	**23 26 58.9**	**-0.1**
KURK	**Kurchatov**	**61.59**	**319**	⇑P	**P**	**23 26 59.1**	**+0.2**
	SNR=18						
KURK				⇑P		23 26 59.1	
	SNR=18						
KSH	**Kashi**	**62.90**	**306**	⇓*i*P	**P**	**23 27 11.1**	**+3.2**
KSH				*e*pP	pP	23 27 15.4	+4.5
KSH				*e*sP	sP	23 27 18.2	+6.1
KSH				*e*PcP	PcP	23 27 48.2	+2.1
KSH				*e*PP	PP	23 29 31.1	+4.9
KSH				*e*ScP	ScP	23 31 48.5	-0.2
KSH				PcS	PcS	23 31 50.8	+1.3
KSH				*e*S	**S**	**23 35 40.0**	**+2.1**
KSH				*e*sS	sS	23 35 48.2	+5.3
KSH				*e*ScS	ScS	23 36 59.7	-1.4
KSH				*e*SS	SS	23 39 47.1	+4.1
KSH				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
KSH				pmax	pmax		
	comp=Z,330nm,2.7s,mb6.0						
KSH				LR	LR		
	comp=N,250nm,7.6s						
KSH				LR	LR		
	comp=E,310nm,7.4s						
KSH				LR	LR		
	comp=Z,530nm,5.2s						
HYB	**Hyderabad**	**62.95**	**281**	*i* P	**P**	**23 27 09.5**	**+0.8**
HYB	**Hyderabad**	**62.95**	**281**	*e*P	**P**	**23 27 08.5**	**-0.2**
TKM2	**Tokmak 2**	**63.17**	**310**	P	**P**	**23 27 11.3**	**+1.6**
	SNR=14						
PMR	**Palmer**	**63.29**	**29**	*e*P	**P**	**23 27 09.5**	**-0.7**
KZA	**Kyzart**	**63.42**	**309**	P	**P**	**23 27 13.4**	**+2.1**
	SNR=12						
KBK	**Karagaybulak**	**63.64**	**309**	P	**P**	**23 27 13.9**	**+1.1**
	SNR=14						
CHMS	**Chumysh**	**63.79**	**310**	P	**P**	**23 27 14.8**	**+1.0**
	SNR=9.8						
FRU	**Bishkek**	**63.89**	**310**	*e*P	**P**	**23 27 09.5**	**-4.9**
FRU				*e*		23 27 46.0	
UCH	**Uchtor**	**63.97**	**309**	P	**P**	**23 27 16.9**	**+1.9**
	SNR=28						
USP	**Ospenovka**	**63.97**	**310**	P	**P**	**23 27 15.4**	**+0.4**
	SNR=9.9						
AAK	**Ala-Archa**	**63.98**	**309**	P	**P**	**23 27 15.8**	**+0.8**
	comp=Z,72nm,1.0s,mb5.7,SNR=6.9						
AAK	**Ala-Archa**	**63.98**	**309**	⇑*e*P	**P**	**23 27 15.5**	**+0.5**
AML	**Almayashu**	**64.58**	**309**	P	**P**	**23 27 20.3**	**+1.3**
	SNR=19						
COLA	**College**	**64.60**	**26**	*e*P	**P**	**23 27 18.6**	**-0.1**
COLA				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
COLA	**College**	**64.60**	**26**	*e*P	**P**	**23 27 18.6**	**-0.1**
	comp=Z,13nm,0.8s,mb5.0						
BVA0	**Borovoye Array**	**66.85**	**321**	*i* P	**P**	**23 27 33.3**	**-0.1**
BRVK	**Borovoye**	**66.91**	**321**	⇑*e*P	**P**	**23 27 34.3**	**+0.5**
BRVK	**Borovoye**	**66.91**	**321**	⇓P	**P**	**23 27 34.5**	**+0.7**
	SNR=26						
BRVK				⇓P		23 27 34.5	
	SNR=26						
EGAK	**Eagle**	**67.40**	**26**	*e*P	**P**	**23 27 36.9**	**+0.2**
DAWY	**Dawson**	**68.09**	**27**	*e*P	**P**	**23 27 41.2**	**+0.1**
HYT	**Haines Junctio**	**68.77**	**31**	*e*P	**P**	**23 27 46.2**	**+0.8**
SVE	**Sverdlovsk**	**72.35**	**325**	⇑*e*P	**P**	**23 28 07.8**	**+0.5**
SVE				pmax	pmax		
	comp=Z,107nm,1.6s,mb5.5						
PPT	**Papeete**	**73.33**	**115**	*e*S	SKSac	23 38 15.4	-5.2
	comp=Z,1µm,31.8s						
PPT				*e*LR	LR	23 49 59.6	
	comp=Z,1µm,22.5s,baz=296						
PPT	**Papeete**	**73.33**	**115**	LR	LR	23 53 08.6	
	comp=Z,723nm,20.7s,MS4.9,baz=281,slow=30						
ARU	**Arti**	**73.53**	**325**	P	**P**	**23 28 14.2**	**-0.1**
	comp=Z,320nm,1.4s,mb6.1,SNR=19						
ARU	**Arti**	**73.53**	**325**	⇑*e*P	**P**	**23 28 14.3**	**0.0**
AB31	**Akbulak array**	**73.63**	**317**	P	**P**	**23 28 14.1**	**-1.0**
AB31				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
SOKR	**Solikamsk**	**74.07**	**328***c*	*i*P	**P**	**23 28 18.1**	**+0.7**
SOKR				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,250nm,17.0s,MS4.6						
ABKT	**Ailbek**	**76.93**	**306**	P	**P**	**23 28 34.2**	**-0.1**
	comp=Z,119nm,1.0s,mb5.8,SNR=13						
A05A	**Maple Falls**	**78.88**	**42**	⇓P	**P**	**23 28 45.1**	**+0.2**
	baz=79						
PRGR	**Permogore**	**79.02**	**331**	⇓*i*P	**P**	**23 28 45.2**	**-0.2**
PRGR				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.5						
B05A	**Bryant**	**79.05**	**43**	⇓P	**P**	**23 28 45.6**	**-0.3**
	baz=79						
JCW	**Jim Creek**	**79.18**	**43**	*e*P	**P**	**23 28 47.3**	**+0.8**
A06A	**Chilliwack**	**79.24**	**42**	⇑P	**P**	**23 28 46.5**	**-0.4**
	baz=79						
ALE	**Alert**	**79.27**	**4**	P	**P**	**23 28 46.9**	**+0.4**
	comp=Z,63nm,0.9s,mb5.5,SNR=7.4						
YKA	**Yellowknife Ar**	**79.33**	**28**	P	**P**	**23 28 45.9**	**-1.2**
	comp=Z,5.5nm,0.9s,mb4.5,baz=290,slow=5.7,SNR=48						
YKA				LR	LR	00 02 41.2	
	comp=Z,340nm,18.4s,MS4.7,baz=50,slow=35						
B06A	**Marblemount**	**79.38**	**42**	⇓P	**P**	**23 28 48.2**	**+0.5**
	baz=79						
F04A	**Amboy**	**79.41**	**45**	⇓P	**P**	**23 28 47.7**	**-0.2**
	baz=79						
C05A	**Tolt Reservoir**	**79.46**	**43**	⇓P	**P**	**23 28 48.0**	**-0.1**
	baz=79						
G04A	**Mulino**	**79.55**	**46**	⇓P	**P**	**23 28 48.7**	**+0.1**
	baz=79						
H04A	**Detroit Lake**	**79.88**	**46**	⇓P	**P**	**23 28 50.8**	**+0.3**
	baz=80						
D06A	**Cle Elum**	**80.14**	**44**	⇑P	**P**	**23 28 52.0**	**+0.2**
	baz=80						
E06A	**Yakima**	**80.22**	**44**	⇑P	**P**	**23 28 52.3**	**+0.1**
	baz=80						
YBH	**Yreka Blue Hor**	**80.25**	**49**	P	**P**	**23 28 53.0**	**+0.4**
	comp=Z,11nm,1.0s,mb4.7,baz=328,slow=2.7,SNR=10						
B07A	**Winthrop**	**80.28**	**42**	⇑P	**P**	**23 28 52.4**	**-0.1**
	baz=80						
A08A	**Turner Farm, O**	**80.68**	**42**	⇓P	**P**	**23 28 54.6**	**-0.1**
	baz=80						
G06A	**Carlson Farm,**	**80.80**	**46**	⇑P	**P**	**23 28 55.6**	**+0.3**
	baz=81						
B08A	**Colville Reser**	**80.81**	**42**	⇓P	**P**	**23 28 55.0**	**-0.4**
	baz=81,SNR=7.6						
E07A	**Sunnyside**	**80.96**	**44**	⇓P	**P**	**23 28 56.6**	**+0.3**
	baz=81						
HOQ	**Hoqain**	**81.01**	**292**	⇑P	**P**	**23 28 57.1**	**+0.2**
	SNR=6.7						
F07A	**Phinny Hill Vi**	**81.10**	**45**	⇓P	**P**	**23 28 56.9**	**0.0**
	baz=81						
A09A	**Danville**	**81.11**	**41**	⇑P	**P**	**23 28 57.1**	**+0.1**
	baz=81						
H06A	**Lindquist Farm**	**81.14**	**46**	⇑P	**P**	**23 28 57.0**	**-0.2**
	baz=81						
C08A	**Higginbotham F**	**81.15**	**43**	⇓P	**P**	**23 28 57.0**	**-0.2**
	baz=81,SNR=7.0						
BANOM	**Banah**	**81.28**	**294**	⇑P	**P**	**23 28 59.3**	**+0.9**
	SNR=9.9						
K05A	**Summer Lake**	**81.29**	**48**	⇓P	**P**	**23 28 58.5**	**+0.4**
	baz=81						
D08A	**Wollman Farm,**	**81.44**	**43**	⇓P	**P**	**23 28 58.7**	**-0.1**
	baz=81						
I06A	**Prineville**	**81.44**	**47**	⇓P	**P**	**23 28 59.3**	**+0.4**
	baz=81						
G07A	**Ruggs Ranch, H**	**81.44**	**45**	⇑P	**P**	**23 28 59.0**	**+0.1**
	baz=81						
E08A	**Dider Farm, El**	**81.51**	**44**	⇓P	**P**	**23 28 59.5**	**+0.3**
	baz=81						
B09A	**Rice**	**81.55**	**42**	⇓P	**P**	**23 28 59.0**	**-0.3**
	baz=81						
C09A	**Chrisman Ranch**	**81.65**	**43**	⇓P	**P**	**23 28 59.7**	**-0.1**
	baz=82						
J06A	**Christmas Vall**	**81.67**	**47**	⇓P	**P**	**23 29 00.4**	**+0.4**
	baz=82						

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H07A  Lands Inn, Kim     81.70  46 ⇑P    P      23 29 00.5 +0.3
      baz=82
HATD  Hatta, Dubai       81.72 293 ⇓P    P      23 29 01.0 +0.3
      SNR=6.2
A10A  Northport          81.76  41 ⇓P    P      23 29 00.4  0.0
      baz=82
OHCM  Honcut             81.79  51 eP    P      23 29 00.8  0.0
D09A  Jones Farm, Ri     81.84  43 ⇓P    P      23 29 00.9  0.0
      baz=82
I07A  Izee               81.89  46 ⇓P    P      23 29 01.3  0.0
      baz=82
F08A  Pendleton          81.89  45 ⇓P    P      23 29 01.5 +0.3
      baz=82
G08A  Pilot Rock         81.92  45 ⇓P    P      23 29 01.3  0.0
      baz=82
KLMR  Klimovskoe         82.07 332⇓iP    P      23 29 01.1 -0.7
KLMR                                pmax  pmax
      comp=Z,141nm,1.8s,mb5.6
E09A  Wood Farm, Sta     82.11  44 ⇓P    P      23 29 02.5 +0.2
      baz=82
J07A  Hines              82.23  47 ⇓P    P      23 29 03.5 +0.4
      baz=82
NEW   Newport            82.25  42 eP    P      23 29 02.9 -0.1
H08A  Prairie City       82.34  46 ⇑P    P      23 29 03.4 -0.1
      baz=82
K07A  Rock Creek Ran     82.47  48 ⇑P    P      23 29 04.1 -0.1
      baz=82
BEKR  Beckwourth         82.47  51 ⇓P    P      23 29 04.4 +0.1
      baz=82,SNR=21
D10A  Wagner Farm, O     82.52  43 ⇑P    P      23 29 03.8 -0.6
      baz=82
A11A  Hall Mountain,     82.52  41 ⇑P    P      23 29 04.6 +0.2
      baz=82
I08A  Drewsey            82.59  46 ⇑P    P      23 29 05.1 +0.3
      baz=82
L07A  Adell              82.60  48 ⇑P    P      23 29 05.2 +0.3
      baz=82
N06A  Buffalo Meadow     82.61  50 ⇑P    P      23 29 05.2 +0.1
      baz=82,SNR=7.2
G09A  Cove               82.72  45 ⇑P    P      23 29 05.7 +0.2
      baz=83
KEV   Kevo               82.75 342 epkp  P      23 29 04.1 -1.1
O06A  Flanigan           82.78  50 ⇓P    P      23 29 06.4 +0.4
      baz=83,SNR=9.7
J08A  Circle Bar Ran     82.81  47 ⇓P    P      23 29 06.1 +0.1
      baz=83
M07A  Soldier Meadow     82.90  49 ⇓P    P      23 29 06.4 -0.2
      baz=83,SNR=8.0
EDM   Edmonton           82.93  36 eP    P      23 29 06.4 -0.1
WVOR  Wild Horse Val     82.97  48 eP    P      23 29 06.6 -0.3
WVOR                                pmax  pmax
      comp=Z,17nm,1.1s,mb5.0
WVOR  Wild Horse Val     82.97  48 eP    P      23 29 06.6 -0.3
      comp=Z,17nm,1.1s,mb5.0
H09A  Durkee             82.98  45 ⇑P    P      23 29 06.9  0.0
      baz=83
K08A  Mann Creek Ran     82.99  48 ⇑P    P      23 29 07.0  0.0
      baz=83
WCN   Washoe City        83.08  51 ⇑P    P      23 29 08.3 +0.7
      baz=83
D11A  Klaveano Farm,     83.13  43 ⇑P    P      23 29 07.6  0.0
      baz=83
I09A  Lost Marbles R     83.14  46 ⇓P    P      23 29 07.2 -0.5
      baz=83
G10A  Bishop Farm, J     83.16  45 ⇓P    P      23 29 07.2 -0.6
      baz=83,SNR=6.0
BMO   Blue Mountains     83.17  45 eP    P      23 29 07.6 -0.3
N07B  Gerlach            83.23  49 ⇓P    P      23 29 08.0 -0.3
      baz=83
PAHR  Pah Rah Range      83.24  51 eP    P      23 29 08.6 +0.2
L08A  Fields             83.25  48 ⇓P    P      23 29 08.1 -0.3
      baz=83,SNR=5.4
ARCES ARCESS Array B     83.32 342  P    P      23 29 07.6 -0.6
      comp=Z,7.0nm,0.7s,mb4.8,baz=74,slow=8.9,SNR=13
ARCES                               LR    LR    00 10 09.9
      comp=Z,408nm,18.8s,MS4.8,baz=304,slow=38
ARCES ARCESS Array B     83.32 342  P    P      23 29 07.6 -0.6
J09A  Fry Pan Ranch,     83.32  47 ⇑P    P      23 29 08.8 +0.2
      baz=83
E11A  Bogner Ranch,      83.43  44 ⇑P    P      23 29 09.1 -0.1
      baz=83
M08A  Happy Creek Ra     83.45  49 ⇑P    P      23 29 09.8 +0.4
      baz=83
MAK   Makhachkala        83.47 313 eP    P      23 29 07.9 -1.6
MAK                                i            23 32 20.1
MAK                                 S     S     23 39 27.8 -3.4
MAK                                 pmax  pmax
      comp=Z,235nm,1.5s,mb6.0
MAK                                 MLR   MLR
      comp=Z,325nm,15.0s,MS4.8
O07A  Toulon             83.48  50 ⇑P    P      23 29 09.8 +0.3
      baz=83
K09A  Rome               83.54  47 ⇓P    P      23 29 10.5 +0.7
      baz=83
R06C  Coleville          83.54  52 ⇓P    P      23 29 10.2 +0.3
      baz=83
WAKR  Walker             83.56  52 eP    P      23 29 10.4 +0.4
L09A  Wilkinson Ranc     83.79  48 ⇑P    P      23 29 11.4 +0.2
      baz=84
N08A  GE Springer Mi     83.83  49 ⇑P    P      23 29 11.1 -0.3
      baz=84,SNR=6.0
BSMT  Bassoo Peak        83.87  42 eP    P      23 29 11.9 +0.5
B13A  Whitefish          83.89  41 ⇓P    P      23 29 11.5 -0.1
      baz=84
H11A  Donnelly           84.09  45 ⇑P    P      23 29 11.8 -0.8
      baz=84,SNR=6.0
K10A  MacKenzie Ranc     84.11  47 ⇑P    P      23 29 12.4 -0.3
      baz=84,SNR=5.8
N09A  Rock Creek Ran     84.25  49 ⇑P    P      23 29 12.4 -1.1
      baz=84
D13A  Huson              84.33  42 ⇑P    P      23 29 13.2 -0.5
      baz=84
A14A  Double T Ranch     84.34  40 ⇓P    P      23 29 13.6 -0.2
      baz=84,SNR=6.7
YBMT  Yellow Bay         84.35  42 eP    P      23 29 13.8 -0.1
NVAR  Mina Array Bea     84.43  52  P    P      23 29 14.1 -0.4
      comp=Z,12nm,0.9s,mb5.0,baz=268,slow=5.7,SNR=39
NVAR  Mina Array Bea     84.43  52  P    P      23 29 14.1 -0.4
VRHR  Novokhopersk       84.55 322 eP    P      23 29 14.0 -0.8
VRHR                                pmax  pmax
      comp=E,20nm,0.8s
VRHR                                pmax  pmax
      comp=Z,10.0nm,0.8s,mb5.0
VRHR                                pmax  pmax
      comp=N,9.0nm,0.6s
MTUM  Tungsten Hills     84.56  53 eP    P      23 29 15.2 +0.1
L10A  Juniper Basin      84.61  48 ⇓P    P      23 29 15.3  0.0
      baz=84,SNR=6.5
VES   Vestal, Richgr     84.62  54 ⇓P    P      23 29 15.6 +0.1
      baz=84
MFID  Camas Ranch        84.63  46 ⇑P    P      23 29 14.9 -0.5
      baz=84,SNR=9.0
K11A  Parker Ranch,      84.70  47 ⇓P    P      23 29 15.3 -0.5
      baz=85
O09A  Fish Creek Ran     84.71  50 ⇓P    P      23 29 16.0 +0.2
      baz=85
JOF   Joensuu            84.71 335 epkp  P      23 29 12.4 -2.9
M10A  I.L. Ranch, Tu     84.74  48 ⇓P    P      23 29 15.7 -0.3
      baz=85
A15A  Johnson Ranch,     84.77  40 ⇑P    P      23 29 15.1 -0.8
      baz=85,SNR=6.6
F13A  Darby              84.85  44 ⇑P    P      23 29 15.4 -1.0
      baz=85,SNR=7.8
H12A  Diamond D Ranc     84.92  45 ⇑P    P      23 29 16.4 -0.4
      baz=85
D14A  Greenough          84.94  42 ⇓P    P      23 29 16.3 -0.5
      baz=85
MOS   Moscow             84.98 327 eP    P      23 29 15.4 -1.5
MOS                                i            23 34 24.1
MOS                                 pmax  pmax
      comp=Z,800nm,3.1s
MOS                                 pmax  pmax
      comp=Z,141nm,1.9s,mb5.8
SNCC  San Nicolas Is     85.06  57 ⇓P    P      23 29 17.9 +0.2
      baz=85
L11A  Cat Creek Ranc     85.09  47 ⇑P    P      23 29 17.3 -0.4
      baz=85,SNR=5.8
B15A  Bradely Ranch,     85.11  41 ⇓P    P      23 29 16.7 -1.0
      baz=85,SNR=6.4
ISA   Isabella           85.15  54 ⇑P    P      23 29 18.2 +0.1
      baz=85
G13A  Cobalt             85.15  44 ⇓P    P      23 29 17.4 -0.6
      baz=85,SNR=15
J12A  Stokes Ranch,      85.19  46 ⇓P    P      23 29 18.1 -0.1
      baz=85
CWC   Cottonwood Cre     85.21  53 ⇓P    P      23 29 17.8 -0.7
      baz=85
M11A  Holland Ranch,     85.31  48 ⇑P    P      23 29 19.0 +0.2
      baz=85
H13A  Challis            85.32  45 ⇑P    P      23 29 18.2 -0.6
      baz=85,SNR=5.4
DAG   Danmarks Havn      85.33 356⇓iP    P      23 29 17.2 -1.1
DAG                                 pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.8
DAG   Danmarks Havn      85.33 356⇓iP    P      23 29 17.2 -1.1
      comp=Z,6.7nm,0.9s,mb4.8
TPH   Tonopah            85.34  52 eP    P      23 29 19.5 +0.4
R09A  Tonopah            85.41  51 ⇑P    P      23 29 19.3  0.0
      baz=85
S09A  Goldfield          85.45  52 ⇑P    P      23 29 19.5 -0.1
      baz=85
A16A  West Butte Ran     85.48  40 ⇓P    P      23 29 19.0 -0.5
      baz=85
K12A  Draper Farm, C     85.53  47 ⇑P    P      23 29 19.4 -0.5
      baz=85,SNR=6.1
HLID  Hailey             85.55  46 ⇓P    P      23 29 19.7 -0.3
      baz=85,SNR=7.1
HLID  Hailey             85.55  46 eP    P      23 29 19.9 -0.1
GRAC  Grapevine Rang     85.58  53 ⇑P    P      23 29 20.0 -0.3
      baz=86
B16A  M & M Farms, S     85.60  41 ⇓P    P      23 29 19.7 -0.5
      baz=86
L12A  House Creek Ra     85.61  47 ⇓P    P      23 29 20.0 -0.3
      baz=86,SNR=6.2
Q10A  Clear Creek Ra     85.72  51 ⇓P    P      23 29 21.3 +0.4
      baz=86
E15A  Deer Lodge         85.73  43 ⇑P    P      23 29 19.9 -0.9
      baz=86,SNR=11
EDW2  Edwards Air Fo     85.77  55 ⇑P    P      23 29 21.8 +0.5
      baz=86
J13A  Cove Ranch, Pi     85.77  46 ⇓P    P      23 29 21.1  0.0
      baz=86
MTA   Mtatsminda         85.78 312  P    P      23 29 21.0 -0.1
MPMC  Manual Prospec     85.78  54 ⇓P    P      23 29 21.3  0.0
      baz=86
OBN   Obninsk            85.79 327⇓iP    P      23 29 19.4 -1.5
OBN                                i            23 29 35.4
OBN                                eS    S      23 39 50.4 -3.5
OBN                                eSS   SS     23 45 31.3 +1.4
OBN                                 pmax  pmax
      comp=Z,69nm,1.4s,mb5.7
OBN                                 MLR   MLR
      comp=Z,300nm,17.0s,MS4.8
OBN   Obninsk            85.79 327⇑eP    P      23 29 19.5 -1.4
OBN                                 LR    LR
      comp=Z,300nm,17.0s,MS4.8
C16A  Fuhringer Ranc     85.80  41 ⇑P    P      23 29 20.6 -0.6
      baz=86
O11A  Cowboy Ranch,      85.83  49 ⇓P    P      23 29 21.3 -0.2
      baz=86
S10A  Tonopah Range,     85.86  52 ⇑P    P      23 29 21.5 -0.1
      baz=86,SNR=9.8
FMP   Fort Macarthur     85.89  56 ⇓P    P      23 29 22.0 +0.1
      baz=86
ELK   Elko               85.93  49 eP    P      23 29 22.0 +0.1
ELK                                 pmax  pmax
      comp=Z,18nm,1.1s
ELK   Elko               85.93  49 eP    P      23 29 21.9  0.0
      comp=Z,18nm,1.1s,mb5.2
VSR   Storozhevoye       85.94 323 eP    P      23 29 20.4 -1.4
VSR                                 pmax  pmax
      comp=Z,10.0nm,1.0s,mb5.0
VSR                                 pmax  pmax
      comp=N,8.0nm,1.1s
VSR                                 pmax  pmax
      comp=E,6.0nm,0.6s
R10A  Warm Springs       85.96  51 ⇑P    P      23 29 22.7 +0.6
      baz=86
A17A  Triple J Farms     86.03  40 ⇑P    P      23 29 21.7 -0.5
      baz=86
N12A  Clover Valley,     86.03  48 ⇓P    P      23 29 22.8 +0.4
      baz=86
F15A  Butte              86.04  43 ⇓P    P      23 29 21.7 -0.6
      baz=86,SNR=8.6
I14A  Mackay             86.08  45 ⇓P    P      23 29 22.7 +0.1
      baz=86
K13A  Stover Farm, H     86.09  47 ⇓P    P      23 29 23.1 +0.4
      baz=86
DLMT  Dillon             86.14  44 eP    P      23 29 21.7 -1.1
GOR   Gori               86.16 313  P    P      23 29 22.2 -0.8
B17A  L&G Farms, Che     86.21  40 ⇓P    P      23 29 22.7 -0.5
      baz=86,SNR=8.8
D16A  Dana Ranch, Ca     86.21  42 ⇓P    P      23 29 23.4 +0.2
      baz=86
BFSC  Mount Baldy St     86.23  55 ⇑P    P      23 29 23.4 -0.2
      baz=86
Q11A  Duckwater          86.26  51 ⇓P    P      23 29 23.5 -0.1
      baz=86,SNR=5.7
G15A  Dillon             86.28  44 ⇓P    P      23 29 23.5 -0.1
      baz=86
E16A  East Helena        86.31  42 ⇑P    P      23 29 23.5 -0.2
      baz=86
GNI   Garni              86.34 311 eP    P      23 29 23.9 -0.1
GNI                                 pmax  pmax
      comp=Z,16nm,1.1s
GNI   Garni              86.34 311 eP    P      23 29 23.9 -0.1
      comp=Z,16nm,1.1s,mb5.2
H15A  Lima               86.38  44 ⇓P    P      23 29 24.1  0.0
      baz=86
ONI   Oni                86.41 314  P    P      23 29 24.0 -0.2
O12A  Currie             86.44  49 ⇓P    P      23 29 24.3 -0.2
      baz=86,SNR=7.9
KIV   Kislovodsk         86.45 315  P    P      23 29 24.7 +0.3
      comp=Z,104nm,0.9s,mb6.1,SNR=5.6
KIV   Kislovodsk         86.45 315 eP    P      23 29 23.5 -0.9
KIV                                e            23 39 46.7
KIV                                eSS   SS     23 45 40.3 +0.1
KIV                                 pmax  pmax
      comp=Z,17nm,0.9s,mb5.3
KIV                                 MLR   MLR
      comp=Z,263nm,19.0s,MS4.7
KIV   Kislovodsk         86.45 315⇑eP    P      23 29 23.6 -0.8
KIV   Kislovodsk         86.45 315 ⇓P    P      23 29 24.3 -0.2
      SNR=5.9
KIV                                ⇓P           23 29 24.3
      SNR=5.9
R11A  Troy Canyon, C     86.47  51 ⇑P    P      23 29 24.5 -0.2
      baz=86,SNR=15
M13A  Montello           86.48  48 ⇓P    P      23 29 24.3 -0.3
      baz=86
GSC   Goldstone          86.55  54 ⇑P    P      23 29 25.2 +0.1
      baz=86
GSC   Goldstone          86.55  54 eP    P      23 29 25.2 +0.1
A18A  Metzger Ranch,     86.56  40 ⇑P    P      23 29 24.1 -0.7
      baz=86,SNR=6.9
P12A  McGill             86.59  50 ⇓P    P      23 29 25.3 +0.1
      baz=86
N13A  Wendover, West     86.63  48 ⇑P    P      23 29 25.6 +0.2
      baz=86
BOZ   Bozeman (W)        86.67  43 ⇑P    P      23 29 25.0 -0.5
      baz=86
BOZ   Bozeman (W)        86.67  43 eP    P      23 29 25.1 -0.4
G16A  Moss Hill, Enn     86.71  44 ⇓P    P      23 29 25.8 +0.1
      baz=87
D17A  Six Diamond Ra     86.71  41 ⇓P    P      23 29 25.2 -0.4
      baz=87,SNR=5.8
SHOC  Shoshone           86.76  53 ⇑P    P      23 29 26.5 +0.4
      baz=87
MURC  Murrieta           86.80  56 ⇑P    P      23 29 26.2 -0.2
      baz=87
Q12A  Willow Creek R     86.80  50 ⇓P    P      23 29 26.5 +0.2
      baz=87
B18A  Beardsley Farm     86.80  40 ⇑P    P      23 29 25.7 -0.3
      baz=87
E17A  Martinsdale        86.87  42 ⇑P    P      23 29 26.5 +0.1
      baz=87
M14A  Sheep Mountain     87.01  47 ⇓P    P      23 29 26.8 -0.4
      baz=87,SNR=7.3
HEC   Hector,Ludlow      87.08  54 ⇑P    P      23 29 28.0 +0.3
      baz=87
KAF   Kangasniemi        87.11 336 epkp  P      23 29 22.9 -4.4
T11A  Corn Creek, Al     87.12  52 ⇓P    P      23 29 27.9  0.0
      baz=87,SNR=7.8
TUQ   Turquoise Moun     87.19  54 ⇓P    P      23 29 28.4 +0.2
      baz=87
R12A  Pony Springs,      87.21  51 ⇓P    P      23 29 28.4 +0.2
      baz=87
P13A  Bates Ranch, G     87.25  50 ⇓P    P      23 29 28.3 -0.2
      baz=87,SNR=10
H16A  Russell Place,     87.27  44 ⇓P    P      23 29 28.6 +0.1
      baz=87
S12A  Delamar Landin     87.27  51 ⇓P    P      23 29 28.9 +0.3
      baz=87
HVU   Hansel Valley      87.31  47 eP    P      23 29 29.4 +0.7
N14A  Grayback Hills     87.35  48 ⇓P    P      23 29 28.9  0.0
      baz=87
PFO   Pinyon Flat Ob     87.38  56⇑eP    P      23 29 29.5 +0.3
PFO   Pinyon Flat Ob     87.38  56 ⇑P    P      23 29 29.5 +0.3
      baz=87
SHPR  Sheep Range        87.41  53 eP    P      23 29 29.6 +0.3
Q13A  Wheeler Ranch,     87.42  50 ⇑P    P      23 29 30.0 +0.7
      baz=87
I16A  Newdale            87.42  45 ⇑P    P      23 29 29.9 +0.7
      baz=87
E18A  Harlowton          87.43  42 ⇓P    P      23 29 29.2 +0.1
      baz=87
L15A  Malad City         87.50  47 ⇓P    P      23 29 29.9 +0.3
      baz=87
BELC  Belle Mtn.         87.61  55 ⇑P    P      23 29 30.0 -0.3
      baz=88
GMRC  Granite Mounta     87.61  54 ⇓P    P      23 29 30.6 +0.3
      baz=88
MONP  Monument Peak      87.64  56 ⇓P    P      23 29 30.6 +0.1
      baz=88
M15A  Larsen Ranch,      87.65  47 ⇑P    P      23 29 30.6 +0.3
      baz=88
R13A  O’Grain Ranch,     87.73  51 ⇑P    P      23 29 31.4 +0.7
      baz=88
MIB   Mutribah           87.74 300 eP    P      23 29 28.8 -2.2
MIB                                 AMb   AMB   23 29 34.2
      comp=Z,56nm,1.0s,mb5.7
RDF   Al-Radifah         87.85 300 eP    P      23 29 29.1 -2.4
RDF                                 AMb   AMB   23 29 34.2
      comp=Z,52nm,1.3s,mb5.6
DUG   Dugway             87.85  49 eP    P      23 29 31.1 -0.2
DUG                                 pmax  pmax
      comp=Z,25nm,1.4s,mb5.2
DUG   Dugway             87.85  49 ⇓P    P      23 29 31.1 -0.2
      baz=88,SNR=8.3
DUG   Dugway             87.85  49 eP    P      23 29 31.1 -0.3
      comp=Z,26nm,1.4s,mb5.3
P14A  Drum Mountains     87.89  49 ⇑P    P      23 29 31.2 -0.3
      baz=88,SNR=6.4
U12A  Valley of Fire     87.91  52 ⇑P    P      23 29 32.0 +0.3
      baz=88
V12A  Nelson             87.92  53 ⇑P    P      23 29 31.8 +0.1
      baz=88,SNR=9.1
LDFC  Landfair           87.94  54 eP    P      23 29 32.1 +0.3
Q14A  Sevier Lake (B     87.95  50 ⇓P    P      23 29 31.7 -0.1
      baz=88,SNR=12
HAKT  HAKKARI            87.99 309 i P   Px     23 29 48.3
NAY   Al-Naaiem          88.00 300 eP    P      23 29 29.5 -2.8
NAY                                 AMb   AMB   23 29 35.4
      comp=Z,34nm,1.2s,mb5.4
S13A  Holt Ranch, En     88.02  51 ⇓P    P      23 29 32.3 +0.1
      baz=88,SNR=6.3
O15A  The Old Anders     88.07  48 ⇓P    P      23 29 32.3 -0.1
      baz=88
BC3   Big Chuckw Mtn     88.15  55 ⇓P    P      23 29 32.9 +0.1
      baz=88,SNR=5.2
L16A  Fish Haven         88.16  46 ⇓P    P      23 29 32.8  0.0
      baz=88
T13A  Saint George       88.18  52 ⇓P    P      23 29 33.4 +0.5
      baz=88
IRM   Iron Mountain      88.22  55 ⇓P    P      23 29 33.0 -0.2
      baz=88,SNR=5.1
U13A  Pakoon Wash        88.35  52 ⇑P    P      23 29 33.7 -0.1
      baz=88,SNR=8.5
FFC   Flin Flon          88.44  32⇑eP    P      23 29 33.7 -0.1
P15A  Leamington         88.46  49 ⇑P    P      23 29 34.2 -0.1
      baz=88
NLU   North Lily Min     88.47  49 eP    P      23 29 34.4 +0.2
V13A  Grand Canyon W     88.53  53 ⇓P    P      23 29 34.6  0.0
      baz=88,SNR=7.2
SOC   Sochi              88.58 315 eP    P      23 29 32.9 -1.8
SOC                                e*PP  pP     23 29 43.8 +6.0
SOC                                e*SP  sP     23 29 46.9 +8.0
SOC                                e            23 33 04.0
SOC                                eS    S      23 39 58.8  -22
SOC                                e*SS  sS     23 40 16.2  -10
SOC                                eSSS         23 49 43.6
SOC                                 pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.9
SOC                                 MLR   MLR
      comp=Z,247nm,21.0s,MS4.6
Q15A  Fillmore           88.60  49 ⇓P    P      23 29 35.2 +0.3
      baz=88
J18A  Kendall Valley     88.66  45 ⇑P    P      23 29 35.4 +0.3
      baz=88
JLU   Jordanelle         88.67  48 eP    P      23 29 36.0 +0.9
MPU   Maple Canyon       88.76  48 eP    P      23 29 36.3 +0.7
GLA   Glamis             88.85  56 ⇑P    P      23 29 36.8 +0.6
      baz=89
GLA   Glamis             88.85  56 eP    P      23 29 36.5 +0.3
K18A  Toltan Ranch,      88.87  45 ⇓P    P      23 29 36.1  0.0
      baz=89
W13A  Hualapai Mount     88.87  54 ⇑P    P      23 29 36.1 -0.1
      baz=89,SNR=6.4
M17A  Scullys Gap (B     88.89  47 ⇑P    P      23 29 35.9 -0.3
      baz=89
MSU   Marysvale          88.92  50 eP    P      23 29 37.1 +0.7
VSU   Vasula             88.92 332⇑iP    P      23 29 34.3 -1.7
U14A  Mt Trumbull        88.94  52 ⇑P    P      23 29 36.6  0.0
      baz=89,SNR=6.1
PDMCI Parker Dam,Lak     88.96  54 ⇓P    P      23 29 37.1 +0.5
      baz=89
X13A  Yucca              89.09  54 ⇓P    P      23 29 37.5 +0.2
      baz=89,SNR=8.5
BW06  Boulder Array      89.15  45 ⇑P    P      23 29 37.4  0.0
      baz=89
PDAR  Pinedale Array     89.15  45  P    P      23 29 36.0 -1.3
      comp=Z,1.0nm,0.9s,mb4.1,baz=117,slow=0.3,SNR=5.4
PDAR                                LR    LR    00 05 32.3
      comp=Z,139nm,18.2s,MS4.4,baz=310,slow=33
V14A  Boquillas Ranc     89.28  53 ⇓P    P      23 29 38.6 +0.5
      baz=89,SNR=7.8
O17A  Robinson Place     89.33  48 ⇑P    P      23 29 38.5 +0.2
      baz=89
Y13A  Salome             89.37  55 ⇑P    P      23 29 39.2 +0.6
      baz=89
W14A  Seligman           89.45  53 ⇑P    P      23 29 39.3 +0.4
      baz=89,SNR=7.6
Q16A  Castle Valley      89.50  49 ⇓P    P      23 29 39.7 +0.6
      baz=89
R16A  Teasdale           89.52  50 ⇓P    P      23 29 39.7 +0.5
      baz=89
ANN   Anapa              89.60 317 eP    P      23 29 37.5 -1.9
ANN                                 pmax  pmax
      comp=Z,75nm,1.7s,mb5.7
ANN                                 MLR   MLR
      comp=N,496nm,20.0s
ANN                                 MLR   MLR
      comp=Z,523nm,20.0s,MS5.0
P17A  Butcher Ranch,     89.60  49 ⇑P    P      23 29 39.7 +0.1
      baz=90
S16A  Weppner Ranch,     89.64  50 ⇑P    P      23 29 39.8  0.0
      baz=90
113A  Mohawk Valley,     89.79  56 ⇑P    P      23 29 41.0 +0.5
      baz=90
X14A  Yava               89.86  54 ⇑P    P      23 29 41.4 +0.5
      baz=90,SNR=5.7
P18A  Preston Nutter     89.90  48 ⇑P    P      23 29 41.0  0.0
      baz=90
SRU   San Rafael         89.90  49 ⇑P    P      23 29 41.1 +0.2
      baz=90
SRU   San Rafael         89.90  49 eP    P      23 29 40.8 -0.1
V15A  Kaibab Nationa     89.92  52 ⇓P    P      23 29 41.2  0.0
      baz=90,SNR=6.3
Y14A  Wickenburg         89.96  54 ⇓P    P      23 29 41.9 +0.5
      baz=90
T16A  Glen Canyon Da     89.98  51 ⇓P    P      23 29 41.5 +0.1
      baz=90
R17A  Hanksville Air     90.03  50 ⇓P    P      23 29 41.4 -0.2
      baz=90
W15A  Williams           90.08  53 ⇓P    P      23 29 43.1 +1.2
      baz=90
Q18A  Rafter H Ranch     90.18  49 ⇑P    P      23 29 42.4 +0.2
      baz=90
S17A  Black Ridge (B     90.26  50 ⇓P    P      23 29 42.7  0.0
      baz=90
X15A  Humboldt           90.36  54 ⇑P    P      23 29 43.9 +0.6
      baz=90
Y15A  Casa Rosa Ranc     90.48  54 ⇑P    P      23 29 43.9 +0.1
      baz=90,SNR=7.6
T17A  Navajo Res., N     90.50  51 ⇓P    P      23 29 44.5 +0.7
      baz=90
MICGM Minsk              90.51 329⇑eP    P      23 29 42.0 -1.5
MNK   Minsk              90.53 329⇑eP    P      23 29 42.0 -1.6
U16A  Tuba City          90.58  52 ⇑P    P      23 29 44.2  0.0
      baz=90
M20A  Sweetwater, Wa     90.59  46 ⇓P    P      23 29 44.4 +0.2
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	baz=90						
R18A	**Canyonlands Na**	**90.63**	**49**	⇓P	**P**	**23 29 43.6**	**-0.8**
	baz=90						
WUAZ	**Wupatki**	**90.63**	**52**	⇓P	**P**	**23 29 44.4**	**-0.1**
	baz=90,SNR=6.4						
WUAZ	**Wupatki**	**90.63**	**52**	*e*P	**P**	**23 29 45.0**	**+0.5**
	comp=Z,19nm,1.3s,mb5.3						
W16A	**Flagstaff**	**90.67**	**53**	⇑P	**P**	**23 29 45.1**	**+0.4**
	baz=90						
U17A	**Shonto**	**90.76**	**51**	⇓P	**P**	**23 29 45.7**	**+0.7**
	baz=91						
P19A	**Cripple Cowboy**	**90.79**	**48**	⇓P	**P**	**23 29 45.1**	**0.0**
	baz=91						
N20A	**Spence Gulch,**	**90.81**	**47**	⇓P	**P**	**23 29 45.2**	**0.0**
	baz=91						
S18A	**Hurst Farm, Bl**	**90.83**	**50**	⇑P	**P**	**23 29 45.1**	**-0.3**
	baz=91						
214A	**Organ Pipe Nat**	**90.83**	**56**	⇓P	**P**	**23 29 46.1**	**+0.6**
	baz=91						
NACGM	**Naroch**	**90.83**	**329**	*e*	**P**	**23 29 40.0**	**-5.0**
Q19A	**Hogan Spring (**	**90.86**	**49**	⇓P	**P**	**23 29 45.6**	**+0.1**
	baz=91						
115A	**Sonoran Desert**	**91.02**	**55**	⇑P	**P**	**23 29 47.4**	**+1.0**
	baz=91						
R19A	**Curley Farm, L**	**91.13**	**49**	⇓P	**P**	**23 29 46.5**	**-0.2**
	baz=91						
T18A	**Mexican Hat**	**91.13**	**50**	⇓P	**P**	**23 29 46.8**	**0.0**
	baz=91						
KEMA	**Kemaliye**	**91.14**	**312**	*i* P	**P**	**23 29 46.5**	**-0.2**
Y16A	**Circle Bar Ran**	**91.17**	**54**	⇓P	**P**	**23 29 46.8**	**-0.2**
	baz=91,SNR=6.6						
N21A	**Black Mountain**	**91.36**	**46**	⇑P	**P**	**23 29 47.6**	**-0.1**
	baz=91						
S19A	**Harvey Farm, M**	**91.43**	**50**	⇑P	**P**	**23 29 48.2**	**+0.1**
	baz=91						
Q20A	**Ridgley Place,**	**91.55**	**48**	⇑P	**P**	**23 29 48.8**	**+0.1**
	baz=91						
SIM	**Simferopol’**	**91.66**	**318**	*e*P	**P**	**23 29 55.4**	**+6.4**
M22A	**Cedar Creek Ra**	**91.72**	**46**	⇑P	**P**	**23 29 49.7**	**+0.3**
	baz=92						
Y17A	**Roosevelt**	**91.72**	**54**	⇑P	**P**	**23 29 50.0**	**+0.4**
	baz=92						
AKASG	**Malin Array Be**	**91.78**	**325**	P	**P**	**23 29 47.4**	**-2.0**
	comp=Z,3.8nm,0.9s,mb4.8,baz=46,slow=5.1,SNR=19						
AKASG				LR	LR	00 14 21.2	
	comp=Z,259nm,18.1s,MS4.7,baz=60,slow=38						
AKASG	**Malin Array Be**	**91.78**	**325**	P	**P**	**23 29 47.4**	**-2.1**
R20A	**Redvale**	**91.80**	**49**	⇓P	**P**	**23 29 49.6**	**-0.2**
	baz=92						
T19A	**Beclabito**	**91.88**	**50**	⇓P	**P**	**23 29 50.5**	**+0.2**
	baz=92						
216A	**Three Points,**	**91.88**	**56**	⇓P	**P**	**23 29 50.9**	**+0.6**
	baz=92						
N22A	**Wattenberg Ran**	**92.07**	**46**	⇑P	**P**	**23 29 51.2**	**+0.1**
	baz=92						
X18A	**Snowflake**	**92.09**	**53**	⇓P	**P**	**23 29 51.8**	**+0.5**
	baz=92						
MVCO	**Mesa Verde**	**92.11**	**50**	⇑P	**P**	**23 29 51.5**	**+0.2**
	baz=92						
MVCO	**Mesa Verde**	**92.11**	**50**	*e*P	**P**	**23 29 52.0**	**+0.7**
Q21A	**Lamborn Mesa,**	**92.11**	**48**	⇑P	**P**	**23 29 51.6**	**+0.3**
	baz=92						
117A	**Oracle**	**92.23**	**55**	⇑P	**P**	**23 29 52.4**	**+0.5**
	baz=92						
217A	**Green Valley**	**92.47**	**56**	⇓P	**P**	**23 29 53.8**	**+0.7**
	baz=92						
Q22A	**Crested Butte,**	**92.57**	**48**	⇑P	**P**	**23 29 53.6**	**+0.2**
	baz=92						
118A	**Homack Ranch,**	**92.81**	**55**	⇑P	**P**	**23 29 55.3**	**+0.7**
	baz=93						
Y19A	**Nutrioso**	**92.84**	**53**	⇑P	**P**	**23 29 55.4**	**+0.7**
	baz=93						
W20A	**Ramah**	**92.95**	**52**	⇑P	**P**	**23 29 55.7**	**+0.5**
	baz=93						
218A	**Dragoon**	**93.00**	**55**	⇓P	**P**	**23 29 56.1**	**+0.6**
	baz=93						
SUW	**Suwalki**	**93.07**	**330**	*e*P	**P**	**23 29 53.8**	**-1.6**
SUW	**Suwalki**	**93.07**	**330**	*e*P	**P**	**23 29 53.8**	**-1.6**
318A	**Bisbee**	**93.25**	**56**	⇓P	**P**	**23 29 57.7**	**+1.0**
	baz=93						
119A	**Ashpeak Ranch,**	**93.27**	**54**	⇓P	**P**	**23 29 57.3**	**+0.5**
	baz=93						
NOA	**NORSAR Array B**	**93.35**	**339**	P	**P**	**23 29 55.0**	**-1.5**
	comp=Z,2.1nm,0.9s,mb4.6,baz=58,slow=4.5,SNR=3.3						
NOA				LR	LR	00 12 45.1	
	comp=Z,235nm,22.0s,MS4.6,baz=65,slow=36						
T22A	**Edith**	**93.36**	**50**	⇓P	**P**	**23 29 57.1**	**0.0**
	baz=93						
120A	**U Bar Ranch, L**	**93.88**	**54**	⇑P	**P**	**23 29 59.8**	**+0.3**
	baz=94						
ULM	**Lac du Bonnet**	**93.95**	**34**	LR	LR	00 08 30.6	
	comp=Z,186nm,21.5s,MS4.5,baz=208,slow=33						
BRTR	**Keskin Array B**	**94.34**	**314**	P	**P**	**23 30 00.6**	**-0.9**
BRTR						23 33 51.1	
BRTR	**Keskin Array B**	**94.34**	**314**	P	**P**	**23 30 00.6**	**-1.0**
	comp=Z,6.8nm,0.8s,mb5.1,baz=95,slow=3.1,SNR=38						
BRTR				PP	PP	23 33 51.1	+2.9
	comp=Z,1.4nm,1.0s,baz=201,slow=2.8,SNR=4.6						
BRTR				LR	LR	00 17 31.6	
	comp=Z,118nm,19.6s,MS4.4,baz=244,slow=39						
VNDA	**Vanda**	**95.42**	**176**	LR	LR	00 11 29.7	
	comp=Z,155nm,21.8s,MS4.4,baz=341,slow=34						
DPC	**Dobruska-Polom**	**98.66**	**330**	*e*PP	PP	23 34 21.9	+0.9
TXAR	**Lajitas Array**	**99.09**	**55**	LR	LR	00 10 44.1	
	comp=Z,218nm,19.1s,MS4.7,baz=70,slow=33						
PVCC	**Panska Ves**	**99.37**	**330**	*e*PP	PP	23 34 29.1	+2.6
BRG	**Berggiesshubel**	**99.43**	**331**	*e*P	**P**	**23 30 23.9**	**-0.4**
BRG				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb5.0						
BRG	**Berggiesshubel**	**99.43**	**331**	*e*P	PP	23 34 26.9	0.0
	comp=Z,63nm,2.0s						
BRG	**Berggiesshubel**	**99.43**	**331**	*e*(P)	**P**	**23 30 23.9**	**-0.4**
	comp=Z,13nm,1.6s,mb5.2						
CLL	**Collm**	**99.56**	**332**	*e*P	PP	23 34 28.8	+0.9
	comp=Z,120nm,2.7s						
CLL	**Collm**	**99.56**	**332**	*e*Pdif	**P**	**23 30 24.0**	**-0.9**
CLL				LmH		23 17 00.0	
	comp=N,200nm,20.2s						
CLL				LmH		23 17 00.0	
	comp=E,200nm,20.7s						
CLL				LmV		23 18 00.0	
	comp=Z,200nm,19.9s						
CLL				*i* PP	PP	23 34 28.3	+0.4
CLL				*e*SS	SS	23 48 48.0	+0.9
CLL	**Collm**	**99.56**	**332**	*e*Pdif	**P**	**23 30 24.0**	**-0.9**
CLL				*i* PP	PP	23 34 28.3	+0.4
FBE	**Freiberg**	**99.67**	**331**	*e*P	PP	23 34 29.7	+1.0
	comp=Z,153nm,2.6s						
PRU	**Pruhonice**	**99.75**	**330**	*e*PP	PP	23 34 27.6	-1.8
TREC	**Trest**	**99.76**	**329**	*e*PP	PP	23 34 31.2	+1.7
CLZ	**Clausthal**	**100.34**	**333**	*e*P	PP	23 34 34.1	+0.4
	comp=Z,70nm,2.3s						
TANN	**Tannenbergstha**	**100.43**	**331**	*e*P	PP	23 34 35.3	+0.8
	comp=Z,127nm,2.7s						
WERD	**Werda**	**100.48**	**331**	*e*P	PP	23 34 33.9	-0.9
	comp=Z,41nm,1.9s						
GUNZ	**Gunzen**	**100.53**	**331**	*e*P	PP	23 34 35.1	-0.1
	comp=Z,122nm,2.4s						
WERN	**Wernitzgruen**	**100.56**	**331**	*e*P	PP	23 34 35.7	+0.3
	comp=Z,162nm,2.8s						
NKC	**Novy Kostel**	**100.56**	**331**	*e*PP	PP	23 34 34.7	-0.8
MOX	**Moxa**	**100.65**	**332**	*e*P	PP	23 34 37.0	+0.9
	comp=Z,50nm,2.2s						
MOX	**Moxa**	**100.65**	**332**	*e*P	PP	23 34 36.8	+0.7
	comp=Z,87nm,2.4s						
KHC	**Kasperske Hory**	**100.80**	**330**	*e*PP	PP	23 34 37.0	-0.3
GERES	**GERESS Array B**	**100.93**	**330**	P	Pdif	23 30 29.8	-1.1
	comp=Z,1.0nm,0.9s,baz=36,slow=7.1,SNR=6.2						
GERES				PP	PP	23 34 45.7	+7.4
	comp=Z,1.1nm,1.1s,baz=70,slow=4.4,SNR=3.4						
ROTZ	**Rotzenmuhle**	**101.00**	**331**	*e*P	PP	23 34 39.3	+0.5
	comp=Z,122nm,2.7s						
GRF	**Grafenberg Arr**	**101.51**	**331**	*e*P	PP	23 34 42.5	-0.1
	comp=Z,78nm,1.9s						
BUG	**Bochum--Univer**	**101.94**	**334**	*e*P	PP	23 34 46.0	+0.2
BFO	**Black Forest**	**103.81**	**332**	*e*P	PP	23 34 59.1	-0.8
	comp=Z,38nm,2.0s						
ESDC	**Sonseca Array**	**116.05**	**334**	PP	PP	23 36 25.7	-2.7
	comp=Z,1.4nm,0.9s,baz=37,slow=7.5,SNR=4.2						
TORD	**Torodi Ar. Bea**	**132.55**	**308**	PKP	PKPdf	23 35 56.0	-1.2
	comp=Z,4.1nm,0.9s,baz=54,slow=0.7,SNR=18						
DBIC	**Dimbokro**	**141.62**	**306**	PKhKP		23 36 07.8	
	comp=Z,3.2nm,0.7s,baz=37,slow=6.7,SNR=5.5						
KIC	**Kosan Boka**	**141.72**	**306**	*e*PKP1	PKPdf	23 36 08.3	-5.9
	comp=Z,101nm,1.2s						
TIC	**Toumodi**	**141.76**	**306**	*e*PKP1	PKPdf	23 36 07.6	-6.7
	comp=Z,57nm,1.2s						
LIC	**Lamto**	**142.03**	**306**	*e*PKP1	PKPdf	23 36 08.1	-6.7
	comp=Z,66nm,1.5s						
LVC	**Limon Verde**	**147.90**	**105**	PKPbc	PKPbc	23 36 28.4	+0.8
	comp=Z,2.9nm,0.6s,baz=299,slow=4.8,SNR=6.9						
SIV	**San Ignacio**	**155.09**	**90**	PKPab	PKPab	23 36 58.1	-2.1
	comp=Z,1.3nm,0.9s,baz=238,slow=4.6,SNR=3.7						
CPUP	**Villa Florida**	**157.65**	**117**	PKPab	PKPab	23 37 10.9	-0.1
	comp=Z,0.2nm,0.3s,baz=210,slow=7.3,SNR=3.0						

MAN 07 23:46:31, 9°.21N×125°.74E, h6^{km}, mb4.2, ML3.1, MS2.8, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	**Butuan**	**0.27**	**207**	*e*P	Pg	23 46 37.4	+1.2
BUTP				*e*S	Sg	23 46 43.7	+4.0
SCPH	**Surigao**	**0.62**	**337**	*e*P	Pg	23 46 43.7	+0.7
SCPH				*i* S	Sg	23 46 53.4	+2.2
BUKP	**Musuan**	**1.48**	**207**	*e*P	Pn	23 46 58.0	-0.2
BUKP				*e*S	Sn	23 47 18.8	+0.9

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*MAN **08** 00:03:40, 4°.68N×124°.45E, h15^{km}, mb5.5, ML4.5, MS4.8*

*ISCJB **08** 00:03:41.2±0.6, 4°.49N±0°.04×124°.45E±0°.06, h38^{km}±9^{km}, mb4.1/11, Error ellipse: s-maj=11.1km s-min=5.6km az=163.1*

*NEIC **08** 00:03:43.0±0.4, 4°.46N×124°.55E, h35^{km}, mb4.5/4, Error ellipse: s-maj=12.8km s-min=7.3km az=69.0*

*DJA **08** 00:03:43, 4°.40N×124°.48E, h30^{km}, mb5.0/5*

*IDC **08** 00:03:44.8±3.1, 4°.46N×124°.58E, h54^{km}±34^{km}, mb3.9/8, mb1 4.1/9, mb1mx3.8/23, mbtmp4.0/9, ML4.5/1, Error ellipse: s-maj=33.2km s-min=11.7km az=77.0*

ISC 08 00:03:42.2±2.2, **4°.52N**±0°.04×**124°.54E**±0°.06, **h30**^{km}±19^{km}, **n29, σ1^{s}.08**/33, **mb4.1**/11, **1C-1D, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGSI	**Sangihe**	**1.29**	**130**	P	**Pn**	**00 04 04.1**	**0.0**
SGSI				S	**Sn**	**00 04 20.4**	**0.0**
GSPH	**General Santos**	**1.61**	**15**	*i* P	**Pn**	**00 04 08.0**	**-0.6**
CTBH	**Cotabato--PC H**	**2.70**	**354**	⇑*e*P	**Pn**	**00 04 22.3**	**-1.3**
CTBH				*i* S	Sx	00 04 52.1	
DAV	**Davao City (W)**	**2.74**	**22**	P	**Pn**	**00 04 25.8**	**+1.6**
	68nm,0.3s,baz=16,slow=3.4,SNR=9.1						
DAV				S	**Sn**	**00 05 00.1**	**+3.9**
	44nm,0.3s,baz=119,slow=23,SNR=9.3						
MNI	**Manado**	**3.07**	**174**	⇓*e*P	**Pn**	**00 04 28.0**	**-0.7**
MNI				*e*S	**Sn**	**00 05 03.0**	**-1.4**
MNI	**Manado**	**3.07**	**174**	P	**Pn**	**00 04 28.7**	**0.0**
MNI				S	**Sn**	**00 05 04.0**	**-0.4**
BUKP	**Musuan**	**3.38**	**9**	*e*P	**Pn**	**00 04 32.8**	**-0.2**
BUKP				*e*S	x	00 04 56.8	
PAGZ	**Pagadian**	**3.50**	**341**	*e*P	**Pn**	**00 04 32.4**	**-2.2**
PAGZ				*e*S	x	00 04 49.7	
LBMI	**Labuha**	**5.91**	**150**	P	**Pn**	**00 05 10.3**	**+2.5**
	117nm,0.4s,0.6nm						
MYLDM	**Lahad Datu**	**6.05**	**276**	P	**Pn**	**00 05 10.3**	**+0.6**
	52nm,0.8s,0.3nm						
KKM	**Kota Kinabalu**	**8.43**	**281**	*e*Pn	**Pn**	**00 05 42.1**	**-0.2**
	11nm,0.5s						
KKM	**Kota Kinabalu**	**8.43**	**281**	P	**Pn**	**00 05 42.8**	**+0.5**
	22nm,1.2s						
AAI	**Ambon**	**8.93**	**156**	P	**Pn**	**00 05 50.5**	**+1.2**
	88nm,0.5s						
KAKA	**Kakadu**	**18.83**	**155**	*e*P	**Pn**	**00 07 58.5**	**-1.9**
FITZ	**Fitzroy Crossi**	**22.50**	**177**	*e*P	**P**	**00 08 41.2**	**+1.8**
	31nm,0.6s,mb4.9						
FITZ	**Fitzroy Crossi**	**22.50**	**177**	P	**P**	**00 08 37.8**	**-1.6**
	18nm,0.7s,mb4.6,baz=5.5,slow=6.7,SNR=43						
FITZ	**Fitzroy Crossi**	**22.50**	**177**	*e*P	**P**	**00 08 38.8**	**-0.6**
	12nm,0.6s,mb4.5						
PSI	**Prapat**	**25.62**	**267**	P	**P**	**00 09 11.4**	**+2.1**
	6.5nm,0.9s,mb4.2,baz=89,slow=8.5,SNR=5.1						
MBWA	**Marble Bar**	**25.95**	**190**	*e*P	**P**	**00 09 12.1**	**-0.1**
	1.4nm,0.6s,mb3.7						
WRAB	**Tennant Creek**	**26.14**	**159**	*e*P	**P**	**00 09 13.7**	**-0.2**
	7.4nm,0.4s,mb4.6						
WRA	**Warramunga Arr**	**26.15**	**159**	P	**P**	**00 09 13.2**	**-0.8**
	8.4nm,0.5s,mb4.5,baz=336,slow=10,SNR=55						
ASAR	**Alice Springs**	**29.46**	**162**	P	**P**	**00 09 43.5**	**-0.1**
	1.3nm,0.5s,mb4.0,baz=343,slow=7.6,SNR=18						
STKA	**Stephens Creek**	**39.67**	**157**	*e*P	**P**	**00 11 12.2**	**+0.6**
	2.1nm,0.4s,mb4.2						
STKA	**Stephens Creek**	**39.67**	**157**	P	**P**	**00 11 12.1**	**+0.5**
	2.8nm,0.5s,mb4.3,baz=321,slow=8.9,SNR=8.8						
SONM	**Songino Array**	**45.88**	**343**	P	**P**	**00 12 01.4**	**-0.4**
	0.1nm,0.4s,mb3.1,baz=157,slow=5.5,SNR=2.6						
MKAR	**Makanchi Array**	**55.67**	**326**	P	**P**	**00 13 16.3**	**+0.7**
	0.3nm,0.5s,mb3.6,baz=118,slow=7.1,SNR=7.9						
KURK	**Kurchatov**	**59.91**	**328**	P	**P**	**00 13 44.6**	**-0.8**
	1.8nm,0.8s,mb4.1,baz=126,slow=6.2,SNR=7.1						
KURK	**Kurchatov**	**59.91**	**328**	P	**P**	**00 13 44.6**	**-0.8**
KURK				*e*P		00 13 45.9	
BVAR	**Borovoye Array**	**65.48**	**327**	P	**P**	**00 14 22.9**	**+0.5**
	1.7nm,0.8s,mb4.1,baz=126,slow=7.5,SNR=9.3						

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*NEIC **08** 00:58:42.2, 14°.80N×93°.44W, h18^{km}, MD3.8(MEX), After MEX.*

MEX 08 00:58:42.2±0.9, **14°.80N**×**93°.44W, h18**^{km}±69^{km}, **MD3.8, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		**0.92**	**13**	*i* P	Pb	00 58 56.4	-3.2
PCIG				*i* S	Sb	00 59 07.8	-3.7
CCIG	**Comitan**	**1.93**	**40**	*i* P	Pn	00 59 11.2	-2.9
CCIG				*i* S	Sn	00 59 34.4	-3.6
CMIG	**Matias Romero**	**2.67**	**329**	*i* P	Pn	00 59 21.7	-2.5
CMIG				*i* S	Sn	00 59 53.0	-3.1
HUIG	**Huatulco**	**2.75**	**291**	*i* P	Pn	00 59 23.9	-1.4
HUIG				*i* S	Sn	00 59 52.9	-5.2
VHO	**Vista Hermosa**	**3.89**	**306**	*e*P	Pn	00 59 38.8	-2.3
VHO				*i* S	Sn	01 00 23.8	-2.4
UTMO	**Huajuapan**	**5.16**	**306**	*e*P	Pn	01 00 04.9	+6.4
UTMO				*i* S	Sn	01 01 00.4	+2.8
TEIG	**Tepich**	**7.30**	**42**	*e*P	Pn	01 00 26.8	-1.2
TEIG				*i* S	Sn	01 01 48.1	-2.3

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*NEIC **08** 01:01:13.9, 17°.53N×102°.05W, h16^{km}, MD3.8(MEX), After MEX.*

MEX 08 01:01:14.0±0.7, **17°.52N**×**102°.04W, h16**^{km}±10^{km}, **MD3.8, Near coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMIG	**Aquila**	**1.47**	**302**	*i* P	Pn	01 01 36.6	-3.2
MMIG				*i* S	Sn	01 01 52.9	-5.7
CAIG	**El Cayaco**	**1.75**	**105**	*i* P	Pn	01 01 39.6	-4.1
CAIG				*i* S	Sn	01 02 01.2	-4.5
ACX	**Acapulco**	**2.13**	**107**	*e*P	Pn	01 01 46.4	-2.4
ACX				*i* S	Sn	01 02 10.1	-4.8
MZVM		**3.14**	**58**	*e*P	Pn	01 02 00.3	-2.6
MZVM				*i* S	Sn	01 02 36.5	-3.6
PPM	**Popocatepetl**	**3.59**	**64**	*e*P	Pn	01 02 06.6	-2.4
PPM				*i* S	Sn	01 02 53.1	+2.1
IIO	**Organos**	**3.76**	**56**	*e*P	Pn	01 02 08.6	-2.7
IIO				*i* S	Sn	01 02 52.4	-2.9
PNIG	**Pinotepa**	**3.90**	**106**	*i* S	Sn	01 02 56.2	-2.7
UTMO	**Huajuapan**	**4.05**	**85**	*e*P	Pn	01 02 12.6	-2.7
UTMO				*i* S	Sn	01 02 58.6	-3.8

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*NEIC **08** 01:38:50.9±0.5, 1°.10N×122°.60E, h35^{km}, mb4.4/5, Error ellipse: s-maj=20.7km s-min=7.1km az=62.0*

*IDC **08** 01:38:51.9±0.8, 1°.20N×122°.75E, h46^{km}±8^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.8/21, mbtmp3.8/8, ML4.3/1, MS3.0/1, Ms1 3.0/1, ms1mx2.2/27, Error ellipse: s-maj=45.3km s-min=14.1km az=64.0*

*DJA **08** 01:38:51, 1°.48N×122°.82E, h100^{km}, MLv4.5/5*

ISC 08 01:38:46.7±4.9, **1°.14N**±0°.08×**122°.67E**±0°.10, **h6**^{km}±33^{km}, **h40**^{km}±5.0^{km}**:pP-P, n30, σ0^{s}.50**/24, **mb4.2**/12, **1C-2D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	**Manado**	**2.19**	**82**	⇓*e*P	**Pn**	**01 39 23.0**	**-0.7**
MNI				*e*S	Sx	01 39 48.0	
MNI	**Manado**	**2.19**	**82**	P	**Pn**	**01 39 24.2**	**+0.5**
MNI				S	Sx	01 39 46.7	
PCI	**Palu**	**3.49**	**234**	⇓*e*P	Px	01 39 46.5	
PCI	**Palu**	**3.49**	**234**	P	Px	01 39 46.7	
KDI	**Kendari**	**5.07**	**181**	⇑*e*P	Px	01 40 07.9	
KDI				*e*S	Sx	01 41 09.6	
KDI	**Kendari**	**5.07**	**181**	P	**Pn**	**01 40 08.1**	**+4.8**
	100nm,0.7s,1µm0.4nm						
LBMI	**Labuha**	**5.14**	**110**	P	Px	01 40 11.7	
	0.5nm81nm,1.0s						
MYLDM	**Lahad Datu**	**5.78**	**314**	P	**Pn**	**01 40 13.3**	**+0.2**
KAPI	**Kappang**	**6.78**	**205**	*e*Pn	**Pn**	**01 40 32.1**	**+5.3**
	39nm,0.6s						
KKM	**Kota Kinabalu**	**8.08**	**307**	*e*Pn	**Pn**	**01 40 44.7**	**+0.1**
FITZ	**Fitzroy Crossi**	**19.34**	**171**	*e*P	**Pn**	**01 43 14.2**	**+0.1**
	11nm,0.6s						
FITZ	**Fitzroy Crossi**	**19.34**	**171**	P	**Pn**	**01 43 13.9**	**-0.1**
	0.7nm,0.3s,baz=12,slow=8.2,SNR=13						
MBWA	**Marble Bar**	**22.35**	**187**	*e*P	**P**	**01 43 45.0**	**-0.5**
MBWA	**Marble Bar**	**22.35**	**187**	*e*P	**P**	**01 43 44.4**	**-1.1**
	7.5nm,0.9s,mb4.1						
PSI	**Prapat**	**23.79**	**274**	P	**P**	**01 44 00.6**	**+0.1**
	2.1nm,0.4s,mb3.9,baz=136,slow=6.0,SNR=4.1						
WRAB	**Tennant Creek**	**23.87**	**152**	*e*P	**P**	**01 44 01.1**	**-0.1**
	13nm,0.8s,mb4.4						
WRA	**Warramunga Arr**	**23.87**	**152**	P	**P**	**01 44 01.2**	**-0.1**
	10nm,0.7s,mb4.3,baz=334,slow=9.7,SNR=41						
ASAR	**Alice Springs**	**26.97**	**157**	P	**P**	**01 44 29.6**	**+0.3**
	2.1nm,0.7s,mb3.8,baz=345,slow=15,SNR=12						
FORT	**Forrest**	**32.16**	**171**	*e*P	**P**	**01 45 19.7**	**+4.4**
	16nm,0.7s,mb5.0						
KSRS	**Korea Array**	**36.46**	**7**	LR	LR	02 02 25.8	
	comp=Z,25nm,21.4s,baz=215,slow=39						
STKA	**Stephens Creek**	**37.42**	**153**	*e*P	**P**	**01 46 01.6**	**+0.9**
	6.8nm,0.8s,mb4.5						
STKA	**Stephens Creek**	**37.42**	**153**	P	**P**	**01 46 01.1**	**+0.4**
	8.8nm,0.8s,mb4.7,baz=327,slow=7.8,SNR=12						
ULN	**Ulaanbaatar**	**48.47**	**346**	*e*P	**P**	**01 47 29.8**	**-0.3**
	1.5nm,0.6s,mb4.2						
SONM	**Songino Array**	**48.60**	**345**	P	**P**	**01 47 30.5**	**-0.6**
	0.5nm,0.7s,mb3.7,baz=170,slow=7.4,SNR=5.0						
SONM				pP	pP	01 47 42.4	+9.4
	1.2nm,0.7s,baz=166,slow=8.0,SNR=8.8						
SONM				PcP	PcP	01 48 55.3	-1.4
	0.4nm,0.8s,baz=157,slow=2.1,SNR=2.7						
SONM				pPcP		01 49 07.0	
	0.9nm,0.8s,baz=173,slow=4.1,SNR=5.1						
MK31	**Makanchi Array**	**57.48**	**328**	*e*P	**P**	**01 48 36.1**	**-0.5**
MKAR	**Makanchi Array**	**57.48**	**328**	P	**P**	**01 48 37.2**	**+0.6**
	0.9nm,0.8s,mb3.9,baz=126,slow=6.2,SNR=6.9						
MKAR				pP	pP	01 48 48.5	+10
	1.7nm,0.8s,baz=131,slow=7.6,SNR=9.5						
AAK	**Ala-Archa**	**59.64**	**320**	*e*P	**P**	**01 48 51.9**	**+0.1**
	3.7nm,1.1s,mb4.3						
ZALV	**Zalesovo Beam**	**61.14**	**336**	pP	pP	01 49 12.4	+8.6
	0.5nm,0.5s,baz=126,slow=7.7,SNR=2.7						
KURK	**Kurchatov**	**61.83**	**330**	P	**P**	**01 49 05.8**	**-0.7**
	0.6nm,0.7s,mb3.8,baz=129,slow=6.2,SNR=4.2						
KURK				pP	pP	01 49 20.4	+12
	1.7nm,0.7s,baz=135,slow=6.1,SNR=9.1						
KURK	**Kurchatov**	**61.83**	**330**	*e*P	**P**	**01 49 07.8**	**+1.3**
	3.3nm,0.7s,mb4.6						
KURK				*e*pP	pP	01 49 16.5	+8.0

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*ISCJB **08** 01:48:48.4±1.4, 51°.1N±0°.2×178°.90E±0°.09, h47^{km}±9^{km}, mb3.8/11, Error ellipse: s-maj=31.9km s-min=9.4km az=4.6*

*NEIC **08** 01:48:48.5, 51°.22N×178°.77E, h7^{km}, ML3.5(AEIC), After AEIC.*

*IDC **08** 01:48:49.8±3.4, 51°.11N×178°.84E, h43^{km}±29^{km}, mb3.5/11, mb1 3.8/14, mb1mx3.6/30, mbtmp3.6/14, ML3.9/3, MS3.7/1, Ms1 3.8/1, ms1mx2.9/26, Error ellipse: s-maj=32.3km s-min=16.9km az=178.0*

ISC 08 01:48:49.8±1.5, **51°.1N**±0°.2×**178°.94E**±0°.09, **h41**^{km}±10^{km}, **n19, σ0^{s}.93**/22, **mb3.8**/11, **Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMKA	**Amchitka**	**0.33**	**43**	*e*P	**Pn**	**01 48 56.9**	**-1.6**
SMY	**Shemya**	**3.39**	**300**	*e*P	**Pn**	**01 49 40.7**	**+0.5**
FX1	**Attu Island--F**	**3.97**	**298**	P	**Pn**	**01 49 47.1**	**-1.0**
	47nm,0.3s,baz=168,slow=5.6,SNR=50						
FX1				S	**Sn**	**01 50 38.3**	**+4.9**
	38nm,0.3s,baz=91,slow=24,SNR=14						
FX1	**Attu Island--F**	**3.97**	**298**	P	**Pn**	**01 49 47.6**	**-0.5**
FX1				S	**Sn**	**01 50 35.4**	**+2.0**
ATKA	**Atka Island**	**4.40**	**73**	P	**Pn**	**01 49 56.6**	**+2.6**
ATKA				S	**Sn**	**01 50 51.3**	**+7.4**
PETK	**Petropavlovsk-**	**13.20**	**287**	P	**Pn**	**01 51 54.9**	**+0.6**
	0.1nm,0.3s,baz=100,slow=12,SNR=4.2						
KDAK	**Kodiak Island**	**17.74**	**57**	P	**Pn**	**01 52 52.4**	**-1.0**
	0.7nm,0.3s,baz=36,slow=14,SNR=4.6						
YKA	**Yellowknife Ar**	**36.42**	**46**	P	**P**	**01 55 50.2**	**+0.3**
	0.5nm,0.5s,mb3.7,baz=284,slow=7.9,SNR=12						
SONM	**Songino Array**	**45.48**	**296**	P	**P**	**01 57 04.3**	**-0.3**
	0.3nm,0.4s,mb3.4,baz=65,slow=6.9,SNR=5.3						
PDAR	**Pinedale Array**	**47.73**	**71**	P	**P**	**01 57 23.6**	**+1.3**
	0.4nm,0.5s,mb3.7,baz=352,slow=2.9,SNR=4.9						
ARCES	**ARCESS Array B**	**58.08**	**349**	P	**P**	**01 58 38.5**	**+0.4**
	3.8nm,0.9s,mb4.4,baz=8.6,slow=6.7,SNR=2.8						
ARCES				LR	LR	02 25 32.0	
	comp=Z,70nm,19.6s,baz=58,slow=38						
KURK	**Kurchatov**	**58.15**	**313**	P	**P**	**01 58 39.3**	**+0.4**
	1.0nm,0.5s,mb4.1,baz=41,slow=6.8,SNR=6.0						
MKAR	**Makanchi Array**	**59.06**	**307**	P	**P**	**01 58 44.3**	**-1.0**
	0.3nm,0.4s,mb3.6,baz=52,slow=6.3,SNR=16						
TXAR	**Lajitas Array**	**60.09**	**79**	P	**P**	**01 58 53.1**	**+0.4**
	0.1nm,0.4s,mb3.2,baz=316,slow=5.0,SNR=3.1						
BVAR	**Borovoye Array**	**60.14**	**319**	P	**P**	**01 58 52.4**	**-0.2**
	1.3nm,0.6s,mb4.2,baz=53,slow=6.9,SNR=7.4						
AKTK	**Aktyubinsk**	**67.05**	**323**	P	**P**	**01 59 38.2**	**0.0**
AKTO	**Aktyubinsk**	**67.05**	**323**	P	**P**	**01 59 38.2**	**0.0**
	1.2nm,0.5s,mb4.2,baz=65,slow=5.1,SNR=6.5						
AKASG	**Malin Array Be**	**75.32**	**341**	P	**P**	**02 00 27.3**	**-1.0**
	0.5nm,0.4s,mb3.8,baz=17,slow=5.3,SNR=3.9						
WRA	**Warramunga Arr**	**80.87**	**222**	P	**P**	**02 00 58.5**	**-0.7**
	0.6nm,1.1s,mb3.4,baz=32,slow=5.7,SNR=2.6						

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*ISK **08** 02:05:55.8, 36°.97N×29°.22E, h8^{km}, MD3.0*

*DDA **08** 02:05:55.9, 37°.00N×29°.23E, h7^{km}±3^{km}, Md2.9*

*ISCJB **08** 02:05:56.1±0.6, 36°.97N±0°.03×29°.23E±0°.04, h6^{km}±6^{km}, Error ellipse: s-maj=5.3km s-min=4.9km az=165.7*

*CSEM **08** 02:05:56.2±0.1, 36°.97N×29°.24E, h10^{km}, MD3.0, Error ellipse: s-maj=2.8km s-min=2.6km az=39.0*

ISC 08 02:05:56.6±0.5, **36°.97N**±0°.03×**29°.22E**±0°.04, **h10**^{km}±5^{km}, **n30, σ0^{s}.59**/44, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	**Fethiye**	**0.35**	**198**	*e*PG	**Pg**	**02 06 02.8**	**-0.7**
FETY				*e*SG	**Sg**	**02 06 08.4**	**+0.3**
FETY	**Fethiye**	**0.35**	**198**	*e*Pg	**Pg**	**02 06 02.8**	**-0.7**
FETY				*e*Sg	**Sg**	**02 06 08.5**	**+0.3**
TURN	**Turunc**	**0.51**	**259**	*i* P	**Pg**	**02 06 10.5**	**+4.1**
TURN	**Turunc**	**0.51**	**259**	*i* P	**Pg**	**02 06 10.5**	**+4.1**
DALT	**Dalyan (Mudla)**	**0.51**	**247**	*e*PG	**Pg**	**02 06 05.9**	**-0.6**
DALT				*e*SG	**Sg**	**02 06 13.9**	**+0.7**
DALT	**Dalyan (Mudla)**	**0.51**	**247**	*e*Pg	**Pg**	**02 06 05.9**	**-0.6**
DALT				*e*Sg	**Sg**	**02 06 13.9**	**+0.7**
ELL	**Elmali**	**0.59**	**111**	*e*PG	**Pg**	**02 06 07.7**	**-0.4**
ELL				*e*SG	**Sg**	**02 06 16.7**	**+0.8**
ELL	**Elmali**	**0.59**	**111**	*e*Pg	**Pg**	**02 06 07.7**	**-0.4**
ELL				*e*Sg	**Sg**	**02 06 16.7**	**+0.8**
YER	**Yerkesik**	**0.77**	**283**	*e*PG	**Pg**	**02 06 11.5**	**+0.1**
YER	**Yerkesik**	**0.77**	**283**	*e*Pg	**Pg**	**02 06 11.5**	**+0.1**
AKAS	**Kas**	**0.80**	**157**	*i* P	**Pg**	**02 06 11.7**	**-0.2**
AKAS	**Kas**	**0.80**	**157**	*i* P	**Pg**	**02 06 11.7**	**-0.2**
DENT	**Denizli**	**0.80**	**349**	*e*PG	**Pg**	**02 06 10.9**	**-1.1**
DENT				*e*SG	**Sg**	**02 06 23.4**	**+0.9**
DENT	**Denizli**	**0.80**	**349**	*e*Pg	**Pg**	**02 06 10.9**	**-1.1**
DENT				*e*Sg	**Sg**	**02 06 23.4**	**+0.9**
BCK	**Bucak**	**1.20**	**65**	*e*PN	**Pn**	**02 06 18.8**	**-0.5**
BCK	**Bucak**	**1.20**	**65**	*e*Pn	**Pn**	**02 06 18.8**	**-0.5**
MLSB	**Milas**	**1.20**	**286**	*e*PN	**Pn**	**02 06 19.2**	**-0.1**
MLSB	**Milas**	**1.20**	**286**	*e*Pn	**Pn**	**02 06 19.2**	**-0.2**
AYDN	**Tasoluk**	**1.27**	**303**	*i* P	**Pn**	**02 06 20.4**	**0.0**
AYDN				*i* S	**Sb**	**02 06 36.3**	**-0.7**
AYDN	**Tasoluk**	**1.27**	**303**	*i* P	**Pn**	**02 06 20.4**	**0.0**
AYDN				*i* S	**Sb**	**02 06 36.3**	**-0.7**
DAT	**Datca**	**1.34**	**260**	*e*PN	**Pn**	**02 06 21.7**	**+0.4**
DAT	**Datca**	**1.34**	**260**	*e*Pn	**Pn**	**02 06 21.7**	**+0.4**
KHAL	**Karahalli**	**1.42**	**9**	*i* P	**Pn**	**02 06 21.8**	**-0.6**
KHAL				*i* S	**Sn**	**02 06 41.9**	**+0.9**

KHAL	**Karahalli**	**1.42**	**9**	*i* P	**Pn**	**02 06 21.8**	**-0.5**
KHAL				*i* S	**Sn**	**02 06 41.9**	**+0.9**
BDRM	**Kayabasi**	**1.43**	**274**	*i* P	**Pn**	**02 06 22.7**	**+0.3**
BDRM				*i* S	**Sn**	**02 06 41.3**	**+0.1**
BDRM	**Kayabasi**	**1.43**	**274**	*i* P	**Pn**	**02 06 22.7**	**+0.2**
BDRM				*i* S	**Sn**	**02 06 41.3**	**+0.1**
BODT	**Bodrum**	**1.53**	**274**	*e*PN	**Pn**	**02 06 24.3**	**+0.4**
BODT	**Bodrum**	**1.53**	**274**	*e*Pn	**Pn**	**02 06 24.3**	**+0.4**
KULA	**Kula-Manisa**	**1.61**	**344**	*e*PN	**Pn**	**02 06 24.8**	**-0.1**
KULA	**Kula-Manisa**	**1.61**	**344**	*e*Pn	**Pn**	**02 06 24.8**	**-0.2**

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*ISK **08** 02:07:33.8, 37°.00N×29°.21E, h6^{km}, MD2.9*
*ISCJB **08** 02:07:34.9±0.5, 36°.96N±0°.03×29°.22E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=4.0km az=11.2*
*CSEM **08** 02:07:34.6±0.2, 36°.98N×29°.22E, h8^{km}, MD2.9, Error ellipse: s-maj=4.8km s-min=4.2km az=24.0*
*DDA **08** 02:07:34.8, 37°.00N×29°.19E, h7^{km}±3^{km}, Md2.9*
ISC 08 02:07:34.9±0.6, **36°.99N**±0°.04×**29°.21E**±0°.04, **h7**^{km}±7^{km}, **n28**, σ**0.^{s}81**/40, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.37**	**196**	*e*PG	**Pg**	**02 07 41.3**	**-0.7**
FETY				*e*SG	**Sg**	**02 07 47.1**	**+0.3**
FETY	**Fethiye**	**0.37**	**196**	*e*Pg	**Pg**	**02 07 41.3**	**-0.7**
FETY				*e*Sg	**Sg**	**02 07 47.1**	**+0.3**
TURN	**Turunc**	**0.50**	**257**	*i* P	**Pg**	**02 07 48.7**	**+4.1**
TURN	**Turunc**	**0.50**	**257**	*i* P	**Pg**	**02 07 48.7**	**+4.1**
DALT	**Dalyan (Mudla)**	**0.51**	**245**	*e*PG	**Pg**	**02 07 44.0**	**-0.7**
DALT				*e*SG	**Sg**	**02 07 52.4**	**+1.0**
DALT	**Dalyan (Mudla)**	**0.51**	**245**	*e*Pg	**Pg**	**02 07 44.1**	**-0.6**
DALT				*e*Sg	**Sg**	**02 07 52.4**	**+1.0**
ELL	**Elmali**	**0.61**	**113**	*e*PG	**Pg**	**02 07 46.1**	**-0.5**
ELL				*e*SG	**Sg**	**02 07 55.6**	**+1.0**
ELL	**Elmali**	**0.61**	**113**	*e*Pg	**Pg**	**02 07 46.1**	**-0.5**
ELL				*e*Sg	**Sg**	**02 07 55.6**	**+1.1**
YER	**Yerkesik**	**0.76**	**281**	*e*PG	**Pg**	**02 07 49.2**	**-0.3**
YER	**Yerkesik**	**0.76**	**281**	*e*Pg	**Pg**	**02 07 49.2**	**-0.2**
DENT	**Denizli**	**0.78**	**350**	*e*PG	**Pg**	**02 07 48.6**	**-1.3**
DENT	**Denizli**	**0.78**	**350**	*e*Pg	**Pg**	**02 07 48.6**	**-1.3**
AKAS	**Kas**	**0.82**	**157**	*i* P	**Pg**	**02 07 50.9**	**+0.3**
AKAS	**Kas**	**0.82**	**157**	*i* P	**Pg**	**02 07 50.9**	**+0.3**
MLSB	**Milas**	**1.19**	**285**	*e*PN	**Pn**	**02 07 56.4**	**-1.5**
MLSB	**Milas**	**1.19**	**285**	*e*Pn	**Pn**	**02 07 56.4**	**-1.5**
BCK	**Bucak**	**1.20**	**66**	*e*PN	**Pn**	**02 07 57.2**	**-0.9**
BCK	**Bucak**	**1.20**	**66**	*e*Pn	**Pn**	**02 07 57.2**	**-0.9**
AYDN	**Tasoluk**	**1.26**	**303**	*i* P	**Pg**	**02 07 59.4**	**+0.4**
AYDN				*i* S	**Sg**	**02 08 15.4**	**+0.1**
AYDN	**Tasoluk**	**1.26**	**303**	*i* P	**Pg**	**02 07 59.4**	**+0.4**
AYDN				*i* S	**Sg**	**02 08 15.4**	**+0.1**
DAT	**Datca**	**1.33**	**259**	*e*PN	**Pn**	**02 07 59.6**	**-0.4**
DAT	**Datca**	**1.33**	**259**	*e*Pn	**Pn**	**02 07 59.6**	**-0.4**
KHAL	**Karahalli**	**1.40**	**9**	*i* P	**Pn**	**02 08 01.0**	**+0.1**
KHAL				*i* S	**Sb**	**02 08 21.1**	**+1.7**
KHAL	**Karahalli**	**1.40**	**9**	*i* P	**Pn**	**02 08 01.0**	**+0.1**
KHAL				*i* S	**Sb**	**02 08 21.1**	**+1.7**
BDRM	**Kayabasi**	**1.42**	**274**	*i* P	**Pn**	**02 08 01.7**	**+0.7**
BDRM				*i* S	**Sb**	**02 08 20.5**	**+0.6**
BDRM	**Kayabasi**	**1.42**	**274**	*i* P	**Pn**	**02 08 01.7**	**+0.6**
BDRM				*i* S	**Sb**	**02 08 20.5**	**+0.6**
BODT	**Bodrum**	**1.52**	**273**	*e*PN	**Pn**	**02 08 02.4**	**-0.2**
BODT	**Bodrum**	**1.52**	**273**	*e*Pn	**Pn**	**02 08 02.4**	**-0.2**

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*NEIC **08** 02:27:57.7, 33°.89S×72°.33W, h36^{km}, ML2.9(GUC), After GUC.*
GUC 08 02:27:57.7±0.5, **33°.89S**×**72°.33W**, **h36**^{km}±3^{km}, **MD3.9, ML2.9, 1D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHCH	**Chadas Angostu**	**1.40**	**92**	⇓*i*P	Pn	02 28 22.1	+1.5
ANTU	**Antumapu**	**1.45**	**78**	*e*P	Pn	02 28 22.7	+1.3
ANTU				S	Sn	02 28 40.1	+0.9
ANTU	**Antumapu**	**1.45**	**78**	*e*P	Pn	02 28 22.7	+1.3
ANTU				*i* S	Sn	02 28 40.1	+0.9
ANTU				AML	AML	02 28 43.8	
	comp=E,274nm,0.7s						
PEL	**Peldehue**	**1.56**	**62**	*i* P	Pn	02 28 25.7	+2.7
PEL				*i* S	Sn	02 28 44.9	+2.9
CICH	**Cipreses**	**1.64**	**106**	*e*P	Pn	02 28 25.8	+1.7
SJCH	**San Jose de Ma**	**1.67**	**82**	*e*P	Pn	02 28 26.0	+1.6
LMEL	**Las Melosas**	**1.77**	**89**	*e*P	Pn	02 28 27.4	+1.5
LMEL				*i* S	Sn	02 28 50.2	+3.1
LMEL	**Las Melosas**	**1.77**	**89**	*e*P	Pn	02 28 27.4	+1.5
LMEL				*i* S	Sn	02 28 50.2	+3.1
LMEL				AML	AML	02 28 54.4	
	comp=N,250nm,0.5s						

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*ISK **08** 02:32:09.8, 39°.61N×25°.96E, h11^{km}, MD2.9*
*ISCJB **08** 02:32:10.4±1.1, 39°.61N±0°.06×25°.96E±0°.07, h14^{km}±6^{km}, Error ellipse: s-maj=9.9km s-min=9.1km az=43.4*
*CSEM **08** 02:32:10.3±0.2, 39°.60N×25°.95E, h12^{km}, MD2.9, Error ellipse: s-maj=5.2km s-min=2.9km az=75.0*
*DDA **08** 02:32:10.6, 39°.59N×26°.09E, h7^{km}±3^{km}, Md2.9*
ISC 08 02:32:10.6±1.1, **39°.60N**±0°.05×**25°.97E**±0°.07, **h13**^{km}±6^{km}, **n28**, σ**0.^{s}42**/39, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	**Bozcaada**	**0.25**	**15**	*i* P	**Pg**	**02 32 16.1**	**+0.1**
BOZC				*i* S	**Sg**	**02 32 20.0**	**+0.4**
EZN	**Ezine**	**0.36**	**50**	*e*PG	**Pg**	**02 32 17.7**	**-0.1**
EZN				*e*SG	**Sg**	**02 32 23.1**	**+0.4**
EZN	**Ezine**	**0.36**	**50**	*e*Pg	**Pg**	**02 32 17.7**	**-0.1**
EZN				*e*Sg	**Sg**	**02 32 23.1**	**+0.4**
GADA	**Gvkgeada**	**0.60**	**355**	*e*PG	**Pg**	**02 32 21.7**	**-0.5**
GADA				*e*SG	**Sg**	**02 32 30.1**	**0.0**
GADA	**Gvkgeada**	**0.60**	**355**	*e*Pg	**Pg**	**02 32 21.7**	**-0.5**
GADA				*e*Sg	**Sg**	**02 32 30.1**	**0.0**
AYVA	**Ayvalik**	**0.63**	**117**	*i* P	**Pg**	**02 32 22.4**	**-0.5**
AYVA	**Ayvalik**	**0.63**	**117**	*i* P	**Pg**	**02 32 22.4**	**-0.4**
LPK	**Lapseki**	**0.99**	**38**	*e*PG	**Pg**	**02 32 29.0**	**-0.7**
LPK				*e*SG	**Sg**	**02 32 42.7**	**+0.2**
LPK	**Lapseki**	**0.99**	**38**	*e*Pg	**Pg**	**02 32 29.0**	**-0.6**
LPK				*e*Sg	**Sg**	**02 32 42.7**	**+0.2**
ENEZ	**Enez**	**1.15**	**7**	*e*PN	**Pn**	**02 32 31.6**	**-0.7**
ENEZ	**Enez**	**1.15**	**7**	*e*Pn	**Pn**	**02 32 31.6**	**-0.7**
BALY	**Balya**	**1.28**	**83**	*i* P	**Pn**	**02 32 34.2**	**0.0**
BALY				*i* S	**Sb**	**02 32 50.2**	**-0.7**
BALY	**Balya**	**1.28**	**83**	*i* P	**Pn**	**02 32 34.2**	**0.0**
BALY				*i* S	**Sb**	**02 32 50.2**	**-0.8**
BLCB	**Balcova**	**1.47**	**145**	*e*PN	**Pn**	**02 32 37.0**	**+0.2**
BLCB	**Balcova**	**1.47**	**145**	*e*Pn	**Pn**	**02 32 37.0**	**+0.2**
IZM	**Izmir**	**1.57**	**139**	*e*PN	**Pn**	**02 32 38.6**	**+0.5**
IZM	**Izmir**	**1.57**	**139**	*e*Pn	**Pn**	**02 32 38.6**	**+0.5**
MRMT	**Marmara Adasi**	**1.60**	**51**	*e*PN	**Pn**	**02 32 38.8**	**+0.2**
MRMT	**Marmara Adasi**	**1.60**	**51**	*e*Pn	**Pn**	**02 32 38.8**	**+0.2**
EDC	**Edincik**	**1.64**	**62**	*e*PN	**Pn**	**02 32 39.4**	**+0.3**
EDC	**Edincik**	**1.64**	**62**	*e*Pn	**Pn**	**02 32 39.4**	**+0.3**
BNT	**Bandirma**	**1.68**	**63**	*e*PN	**Pn**	**02 32 39.9**	**+0.3**
DURS	**Dursunbey**	**1.94**	**89**	*i* P	**Pn**	**02 32 42.8**	**-0.4**
DURS				*i* S	**Sn**	**02 33 07.3**	**-0.1**
DURS	**Dursunbey**	**1.94**	**89**	*i* P	**Pn**	**02 32 42.8**	**-0.4**
DURS				*i* S	**Sn**	**02 33 07.3**	**-0.1**
KCT	**Karacabey**	**1.96**	**69**	*e*PN	**Pn**	**02 32 43.6**	**+0.2**
KCT	**Karacabey**	**1.96**	**69**	*e*Pn	**Pn**	**02 32 43.6**	**+0.2**
ARMT	**Armutlu**	**2.42**	**66**	*e*PN	**Pn**	**02 32 50.6**	**+0.7**
ARMT	**Armutlu**	**2.42**	**66**	*e*Pn	**Pn**	**02 32 50.6**	**+0.7**

IDC 08 02:40:11.0±1.2, **2°.46N**×**123°.96E**, **h0**^{km}, **mb3.5**/5, **mb1 3.7**/5, **mb1mx3.5**/19, **mbtmp3.5**/5, **MS3.3**/1, **Ms1 3.3**/1, **ms1mx2.4**/25, **Error ellipse: s-maj=186.8km s-min=20.2km az=66.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**24.49**	**156**	P	P	02 45 31.1	-1.0
	0.8nm,0.5s,baz=335,slow=9.1,SNR=8.8						
PSI	**Prapat**	**25.01**	**271**	LR	LR	02 57 02.3	
	comp=Z,69nm,18.2s,baz=25,slow=40						
ASAR	**Alice Springs**	**27.72**	**160**	P	P	02 46 02.6	+1.3
	0.2nm,0.4s,baz=338,slow=9.5,SNR=3.4						
STKA	**Stephens Creek**	**38.04**	**155**	P	P	02 47 31.1	-0.1
	1.9nm,0.9s,baz=329,slow=12,SNR=2.7						
SONM	**Songino Array**	**47.68**	**344**	P	P	02 48 49.6	+0.5
	0.3nm,0.6s,baz=158,slow=8.3,SNR=2.6						
MKAR	**Makanchi Array**	**57.06**	**327**	P	P	02 49 58.8	-0.1
	0.1nm,0.4s,baz=122,slow=7.3,SNR=8.4						

CASC 08 02:46:40.7±1.8, **8°.95N**×**82°.86W**, **h10**^{km}±9^{km}, **MD3.8, 1C-4D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTCR	**Cotoan**	**0.11**	**118**	⇓*i*P	Pg	02 46 44.8	+1.5
ACR	**Cerro Adams**	**0.42**	**227**	⇓*i*P	Pg	02 46 48.9	-0.2
ACR				*e*S	Sg	02 46 57.0	+2.3
BAR1		**0.54**	**303**	⇓*i*P	Pg	02 46 50.9	-0.2
CNI	**Changuinola**	**0.57**	**36**	⇓*i*P	Pg	02 46 52.5	+0.6
BUS	**Buena Vista**	**1.08**	**304**	*e*P	Pg	02 47 00.1	-1.3
BUS				*e*S	Sg	02 47 16.7	+1.3
URSC	**Urasca**	**1.27**	**314**	*e*P	Pn	02 47 03.7	-0.8
URSC				*e*S	Sb	02 47 20.2	-0.9
LCR2	**La Lucha 2**	**1.38**	**305**	*e*P	Pn	02 47 05.3	-0.8
LCR2				*e*S	Sb	02 47 23.5	-0.9
LAJ	**Bijagual**	**1.54**	**306**	⇑*e*P	Pn	02 47 12.5	+4.2
LAJ				*e*S	Sn	02 47 37.7	+9.2
PRS1	**Puriscal**	**1.77**	**306**	*e*P	Pn	02 47 10.7	-0.7
PRS1				*e*S	Sn	02 47 33.4	-0.6
CGA2	**Cerro Gallo 2**	**1.91**	**304**	*e*P	Pn	02 47 14.5	+1.1
CGA2				*e*S	Sn	02 47 38.3	+0.8
FORC	**Fortuna**	**2.34**	**310**	*e*P	Pn	02 47 20.3	+1.0

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*ISCJB **08** 02:51:25.6±0.7, 50°.30N±0°.04×18°.79E±0°.04, h0^{km}, Error ellipse: s-maj=6.4km s-min=3.3km az=6.2*
*CSEM **08** 02:51:25.8±0.3, 50°.33N×18°.80E, h2^{km}, ML2.6/4, Error ellipse: s-maj=7.9km s-min=3.7km az=178.0*
*IPEC **08** 02:51:26.5±0.2, 50°.30N×18°.84E, h2^{km}±1^{km}, ML1.6/3, Error ellipse: s-maj=2.2km s-min=0.8km az=167.0*
*WAR **08** 02:51:26.9, 50°.26N×18°.86E, ML2.1, Mining Induced*
*PRU **08** 02:51:26.7, 50°.33N×18°.78E, h0^{km}*
ISC 08 02:51:26.6±0.7, **50°.29N**±0°.04×**18°.79E**±0°.03, **h0**^{km}, **n18**, σ**0.^{s}86**/30, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	**Ostrava-Krasne**	**0.61**	**223**	*e*PG	**Pg**	**02 51 37.7**	**-0.6**
OKC				*e*SG	**Sg**	**02 51 45.2**	**-1.0**
	comp=Z,6.9nm,0.6s						
OKC	**Ostrava-Krasne**	**0.61**	**223**	Pg	**Pg**	**02 51 37.7**	**-0.6**
OKC				*e*Sg	**Sg**	**02 51 46.7**	**+0.5**
OJC	**Ojcow**	**0.65**	**96**	*e*Pg	**Pg**	**02 51 38.5**	**-0.5**
OJC				*e*Sg	**Sg**	**02 51 46.9**	**-0.5**
OJC	**Ojcow**	**0.65**	**96**	*e*Pg	**Pg**	**02 51 38.3**	**-0.7**
OJC				*e*Sg	**Sg**	**02 51 46.2**	**-1.2**
MORC	**Moravsky Berou**	**0.95**	**238**	*e*Pg	**Pg**	**02 51 45.5**	**+0.7**
MORC				*e*Sg	**Sg**	**02 51 57.5**	**+0.3**
	comp=Z,10nm,0.3s						
NIE	**Niedzica**	**1.31**	**131**	*e*Pg	**Pg**	**02 51 51.0**	**-0.7**
NIE				*e*Sg	**Sg**	**02 52 09.3**	**+0.5**
DPC	**Dobruska-Polom**	**1.58**	**273**	*e*PG	**Pg**	**02 51 56.2**	**-0.7**
DPC				*e*SG	**Sg**	**02 52 17.1**	**-0.3**
	comp=Z,7.1nm,0.5s						
DPC	**Dobruska-Polom**	**1.58**	**273**	Pg	**Pg**	**02 51 56.2**	**-0.7**
DPC				Sg	**Sg**	**02 52 17.1**	**-0.3**
	comp=Z,7.1nm,0.5s						
KSP	**Ksiaz**	**1.69**	**290**	*e*Pg	**Pg**	**02 51 59.9**	**+1.0**
KSP				*e*Sg	**Sg**	**02 52 22.0**	**+1.3**
VRAC	**Vranov**	**1.73**	**236**	*e*Pn	**Pn**	**02 51 58.2**	**+0.4**
VRAC				*e*Sg	**Sg**	**02 52 21.4**	**-0.7**
	comp=Z,4.3nm,0.3s						
VYHS	**Vyhne**	**1.80**	**179**	*e*PN	**Pg**	**02 52 00.7**	**-0.3**
VYHS				*e*SN	**Sn**	**02 52 23.2**	**+1.0**
VYHS	**Vyhne**	**1.80**	**179**	*e*Pg	**Pg**	**02 52 00.7**	**-0.3**
VYHS				*e*Sn	**Sn**	**02 52 23.2**	**+1.0**
STHS	**Stebnicka Huta**	**1.81**	**118**	*e*PN	**Pn**	**02 51 59.9**	**+0.9**
KRUC	**Moravsky**	**1.98**	**233**	*e*Sn	**Sn**	**02 52 28.2**	**+1.4**
	comp=Z,2.9nm,0.2s						
PRU	**Pruhonice**	**2.75**	**265**	*e*SG	**Sg**	**02 52 53.2**	**-1.7**
PRU	**Pruhonice**	**2.75**	**265**	Sg	**Sg**	**02 52 53.2**	**-1.7**
KHC	**Kasperske Hory**	**3.58**	**253**	*e*SG	**Sg**	**02 53 20.4**	**-1.0**
KHC	**Kasperske Hory**	**3.58**	**253**	Sg	**Sg**	**02 53 20.4**	**-1.0**

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*ISK **08** 03:20:17.9, 36°.97N×29°.23E, h6^{km}, MD3.1*
*ISCJB **08** 03:20:18.3±0.5, 36°.98N±0°.03×29°.23E±0°.03, h5^{km}±6^{km}, Error ellipse: s-maj=5.1km s-min=4.3km az=17.1*
*CSEM **08** 03:20:18.7±0.1, 36°.97N×29°.22E, h10^{km}, MD3.1, Error ellipse: s-maj=3.4km s-min=3.0km az=6.0*
*DDA **08** 03:20:19.0, 37°.01N×29°.14E, h7^{km}±5^{km}, Md3.1*
ISC 08 03:20:18.9±0.5, **36°.97N**±0°.03×**29°.23E**±0°.03, **h10**^{km}±5^{km}, **n38**, σ**0.^{s}67**/54, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.36**	**199**	PG	**Pg**	**03 20 25.3**	**-0.7**
FETY				SG	**Sg**	**03 20 30.8**	**+0.1**
FETY	**Fethiye**	**0.36**	**199**	*i* Pg	**Pg**	**03 20 25.3**	**-0.7**
FETY				*i* Sg	**Sg**	**03 20 30.8**	**+0.1**
TURN	**Turunc**	**0.51**	**259**	*i* P	**Pg**	**03 20 32.8**	**+3.9**
TURN	**Turunc**	**0.51**	**259**	*i* P	**Pg**	**03 20 32.8**	**+4.0**
DALT	**Dalyan (Mudla)**	**0.51**	**247**	PG	**Pg**	**03 20 28.1**	**-0.8**
DALT				SG	**Sg**	**03 20 36.2**	**+0.5**
DALT	**Dalyan (Mudla)**	**0.51**	**247**	*i* Pg	**Pg**	**03 20 28.1**	**-0.8**
DALT				*i* Sg	**Sg**	**03 20 36.2**	**+0.5**
ELL	**Elmali**	**0.59**	**112**	*e*PG	**Pg**	**03 20 29.8**	**-0.7**
ELL				*e*SG	**Sg**	**03 20 38.4**	**+0.2**
ELL	**Elmali**	**0.59**	**112**	*e*Pg	**Pg**	**03 20 29.8**	**-0.6**
ELL				*e*Sg	**Sg**	**03 20 38.4**	**+0.2**
YER	**Yerkesik**	**0.77**	**282**	*e*PG	**Pg**	**03 20 33.6**	**-0.2**
YER				*e*SG	**Sg**	**03 20 44.9**	**+1.0**
YER	**Yerkesik**	**0.77**	**282**	*e*Pg	**Pg**	**03 20 33.6**	**-0.2**
YER				*e*Sg	**Sg**	**03 20 44.9**	**+1.0**
DENT	**Denizli**	**0.79**	**349**	*e*PG	**Pg**	**03 20 33.0**	**-1.3**
DENT				*e*SG	**Sg**	**03 20 45.1**	**+0.5**
DENT	**Denizli**	**0.79**	**349**	*e*Pg	**Pg**	**03 20 33.0**	**-1.2**
DENT				*e*Sg	**Sg**	**03 20 45.1**	**+0.5**
AKAS	**Kas**	**0.80**	**157**	*i* P	**Pg**	**03 20 35.0**	**+0.7**
AKAS				*i* S	**Sg**	**03 20 48.8**	**+4.1**
AKAS	**Kas**	**0.80**	**157**	*i* P	**Pg**	**03 20 35.0**	**+0.7**
AKAS				*i* S	**Sg**	**03 20 48.8**	**+4.1**
BCK	**Bucak**	**1.19**	**66**	*e*PN	**Pn**	**03 20 40.9**	**-0.6**
BCK	**Bucak**	**1.19**	**66**	*e*Pn	**Pn**	**03 20 40.9**	**-0.7**
MLSB	**Milas**	**1.20**	**286**	*e*PN	**Pn**	**03 20 41.4**	**-0.3**
MLSB	**Milas**	**1.20**	**286**	*e*Pn	**Pn**	**03 20 41.4**	**-0.3**
AYDN	**Tasoluk**	**1.27**	**303**	*i* P	**Pn**	**03 20 42.7**	**0.0**
AYDN				*i* S	**Sb**	**03 20 58.8**	**-0.5**
AYDN	**Tasoluk**	**1.27**	**303**	*i* P	**Pn**	**03 20 42.7**	**0.0**
AYDN				*i* S	**Sb**	**03 20 58.8**	**-0.5**
ISP	**Isparta**	**1.34**	**49**	*e*PN	**Pn**	**03 20 43.3**	**-0.4**
ISP	**Isparta**	**1.34**	**49**	*e*Pn	**Pn**	**03 20 43.3**	**-0.3**
DAT	**Datca**	**1.34**	**260**	*e*PN	**Pn**	**03 20 43.7**	**+0.1**
DAT	**Datca**	**1.34**	**260**	*e*Pn	**Pn**	**03 20 43.7**	**+0.1**
KHAL	**Karahalli**	**1.41**	**9**	*i* P	**Pn**	**03 20 44.8**	**+0.2**
KHAL				*i* S	**Sn**	**03 21 03.3**	**+0.1**
KHAL	**Karahalli**	**1.41**	**9**	*i* P	**Pn**	**03 20 44.8**	**+0.2**
KHAL				*i* S	**Sn**	**03 21 03.3**	**+0.1**
BDRM	**Kayabasi**	**1.43**	**274**	*i* P	**Pn**	**03 20 43.4**	**-1.4**
BDRM	**Kayabasi**	**1.43**	**274**	*i* P	**Pn**	**03 20 43.4**	**-1.4**
BODT	**Bodrum**	**1.54**	**274**	*e*PN	**Pn**	**03 20 46.7**	**+0.4**
BODT	**Bodrum**	**1.54**	**274**	*e*Pn	**Pn**	**03 20 46.7**	**+0.4**
KULA	**Kula-Manisa**	**1.60**	**344**	*e*PN	**Pn**	**03 20 47.6**	**+0.4**
KULA	**Kula-Manisa**	**1.60**	**344**	*e*Pn	**Pn**	**03 20 47.6**	**+0.4**
SHUT	**Suhut-Afyon**	**1.90**	**33**	*e*PN	**Pn**	**03 20 52.0**	**+0.7**
SHUT	**Suhut-Afyon**	**1.90**	**33**	*e*Pn	**Pn**	**03 20 52.0**	**+0.8**
IZM	**Izmir**	**2.11**	**313**	*e*PN	**Pn**	**03 20 54.8**	**+0.6**
IZM	**Izmir**	**2.11**	**313**	*e*Pn	**Pn**	**03 20 54.8**	**+0.6**
HDMB	**Hadim**	**2.61**	**89**	*e*PN	**Pn**	**03 21 01.8**	**+0.8**
HDMB	**Hadim**	**2.61**	**89**	*e*Pn	**Pn**	**03 21 01.8**	**+0.7**

CASC 08 03:31:28.9±3.7, **11°.89N**×**84°.77W**, **h21**^{km}±14^{km}, **MD3.7, ML3.8, 1C-1D, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOAB	**BOACO BROADBAN**	**1.03**	**302**	*e*P	Pb	03 31 55.9	+7.8
PTEN	**Parque Tenorio**	**1.19**	**190**	*i* P	Pn	03 31 53.0	+2.6
SSN	**San Juan del S**	**1.21**	**241**	*e*P	Pn	03 31 49.8	-0.9
SSN				*e*S	Sb	03 32 07.1	+0.7
MESS	**Mesas**	**1.22**	**200**	*i* P	Pn	03 31 51.6	+0.9
GBS2	**Las Lilas**	**1.24**	**212**	*i* P	Pn	03 31 50.5	-0.6
GBS2				*i* S	Sn	03 32 08.8	+1.6
GUAB	**Guayabo de Bag**	**1.26**	**201**	*i* P	Pn	03 31 51.9	+0.5
GPS3	**Bodega del ICE**	**1.27**	**207**	*i* P	Pn	03 31 50.9	-0.6
GPS3				*i* S	Sn	03 32 10.1	+2.1
LIM1	**Limonal**	**1.28**	**202**	*i* P	Pn	03 31 51.5	-0.1
LIM1				*i* S	Sn	03 32 10.4	+2.3
GBS3	**Finca Las Imˆ¡**	**1.29**	**211**	*i* P	Pn	03 31 50.6	-1.2
FORC	**Fortuna**	**1.42**	**176**	⇓*i*P	Pn	03 31 55.9	+2.4
FORC				*e*S	Sn	03 32 18.0	+6.3
TICN	**Ticuantepe**	**1.43**	**276**	*e*P	Pn	03 31 54.7	+1.0
NY14	**Universidad de**	**1.44**	**211**	*i* P	Pn	03 31 51.4	-2.5
CHPA	**Chiripa**	**1.45**	**185**	*i* P	Pn	03 31 54.6	+0.7
JTS	**JuntasAbangare**	**1.60**	**186**	*e*P	Pn	03 31 54.9	-1.1
JTS				*e*S	Sn	03 32 15.3	-0.8
CSAN		**1.64**	**280**	*e*P	Pn	03 31 56.5	0.0
CSAN				*e*S	Sn	03 32 19.5	+2.5
CSAN				AML	AML	03 32 21.7	
	comp=Z,1µm,0.2s						
COPN	**Copaltepe**	**1.80**	**279**	*e*P	Pn	03 31 57.3	-1.5
CGA2	**Cerro Gallo 2**	**1.89**	**171**	*e*P	Pn	03 32 00.3	+0.4
CGA2				*e*S	Sn	03 32 25.2	+2.0
VCR	**Vista de Mar**	**1.95**	**206**	*e*P	Pn	03 31 54.6	-6.2
VCR				*e*S	Sn	03 32 10.7	-14
PRS1	**Puriscal**	**1.95**	**166**	*e*P	Pn	03 32 02.0	+1.2
JCR	**Jicaral**	**2.06**	**189**	*e*P	Pn	03 31 58.0	-4.3
LAJ	**Bijagual**	**2.12**	**162**	*e*P	Pn	03 32 02.1	-1.0
LAJ				*e*S	Sn	03 32 29.5	+0.7
URSC	**Urasca**	**2.27**	**154**	*e*P	Pn	03 32 07.5	+2.3
URSC				*e*S	Sn	03 32 39.6	+7.1
LCR2	**La Lucha 2**	**2.27**	**160**	⇑*e*P	Pn	03 32 05.9	+0.7
LCR2				*e*S	Sn	03 32 35.6	+3.0
QCR	**Quepos**	**2.52**	**166**	*e*P	Pn	03 32 07.4	-1.3
BUS	**Buena Vista**	**2.53**	**157**	*e*P	Pn	03 32 10.2	+1.4
BUS				*e*S	Sn	03 32 42.9	+3.9
BAR1		**3.00**	**151**	*e*P	Pn	03 32 16.3	+1.0

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*ISCJB **08** 03:37:29.4±1.4, 35°.46N±0°.05×141°.2E±0°.1, h32^{km}±7^{km}, mb3.6/5, Error ellipse: s-maj=15.0km s-min=7.8km az=177.6*
*JMA **08** 03:37:30.8±0.1, 35°.49N×141°.11E, h34^{km}±1^{km}, M3.1*
*NEIC **08** 03:37:32.7±4.8, 35°.40N×141°.06E, h44^{km}±31^{km}, MG3.1(JMA), Error ellipse: s-maj=72.0km s-min=20.0km az=69.0*
*IDC **08** 03:37:35.9±5.3, 35°.34N×140°.76E, h66^{km}±36^{km}, mb3.4/5, mb1 3.5/7, mb1mx3.3/24, mbtmp3.4/7, ML3.2/2, MS3.1/1, Ms1 3.1/1, ms1mx2.5/21, Error ellipse: s-maj=71.5km s-min=14.9km az=78.0*
ISC 08 03:37:30.1±1.4, **35°.44N**±0°.04×**141°.2E**±0°.1, **h23**^{km}±7^{km}, **n18**, σ**0.^{s}66**/21, **mb3.6**/5, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOJ	**Chosi**	**0.38**	**313**	P	**Pb**	**03 37 38.3**	**0.0**
CHOJ				*e*S	**Sb**	**03 37 43.5**	**-0.3**
KTR	**Katsuura**	**0.78**	**248**	P	**Pb**	**03 37 44.5**	**-0.5**
BSO1	**Boso 1**	**0.81**	**193**	P	**Pb**	**03 37 45.7**	**+0.2**
JCN	**Nagara**	**0.81**	**269**	P	**Pb**	**03 37 45.3**	**-0.3**
BSO4	**Boso 4**	**0.83**	**238**	P	**Pb**	**03 37 45.8**	**-0.1**
BSO3	**Boso 3**	**0.85**	**222**	P	**Pb**	**03 37 46.0**	**-0.2**
BSO3				*e*S	**Sb**	**03 37 57.5**	**+0.3**
JYT	**Yasato**	**1.13**	**314**	P	**Pn**	**03 37 50.1**	**-0.4**
JHJ	**Hachijo jima 2**	**2.60**	**207**	P	**Pn**	**03 38 13.3**	**+2.7**
	20nm,0.3s,baz=105,slow=20,SNR=4.1						
JHJ				S	**Sn**	**03 38 40.5**	**-1.0**
	45nm,0.3s,baz=108,slow=20,SNR=5.4						
MJAR	**Matsushiro Arr**	**2.66**	**295**	P	**Pn**	**03 38 11.9**	**+0.4**
	4.7nm,0.3s,baz=105,slow=6.6,SNR=37						
MAJO	**Matsushiro**	**2.66**	**295**	*e*Pn	**Pn**	**03 38 12.0**	**+0.5**
MAT	**Matsushiro**	**2.66**	**295**	P	**Pn**	**03 38 12.2**	**+0.7**
MAT				*e*S	**Sn**	**03 38 43.3**	**+0.3**
KSRS	**Korea Array**	**10.88**	**285**	LR	LR	03 44 14.9	
	comp=Z,100nm,19.3s,baz=244,slow=38						
SONM	**Songino Array**	**28.56**	**306**	P	**P**	**03 43 24.7**	**+0.7**
	0.3nm,0.6s,mb3.2,baz=91,slow=8.3,SNR=3.6						
ZALV	**Zalesovo Beam**	**42.87**	**314**	P	**P**	**03 45 25.8**	**-0.5**
	0.7nm,0.5s,mb3.7,baz=98,slow=7.6,SNR=3.8						
MK31	**Makanchi Array**	**44.83**	**303**	*e*P	**P**	**03 45 42.1**	**-0.1**
MKAR	**Makanchi Array**	**44.83**	**303**	P	**P**	**03 45 41.0**	**-1.1**
	0.5nm,0.7s,mb3.5,baz=93,slow=9.3,SNR=7.8						
WRA	**Warramunga Arr**	**55.46**	**188**	P	**P**	**03 47 02.6**	**-0.3**
	0.4nm,0.4s,mb3.9,baz=2.5,slow=7.8,SNR=8.2						
NOA	**NORSAR Array B**	**75.58**	**337**	P	**P**	**03 49 12.6**	**+0.1**
	1.1nm,0.9s,mb3.8,baz=2.8,slow=2.8,SNR=3.2						

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*MOS **08** 03:42:10.9±1.0, 7°.38S×107°.20E, h33^{km}, mb4.9/11, Error ellipse: s-maj=22.1km s-min=10.2km az=123.6*
*NEIC **08** 03:42:12.2±0.3, 7°.66S×107°.00E, h35^{km}, mb4.5/9, Error ellipse: s-maj=14.4km s-min=7.8km az=50.0*
*IDC **08** 03:42:12.5±4.0, 7°.50S×107°.11E, h33^{km}±29^{km}, mb4.2/13, mb1 4.3/13, mb1mx4.2/20, mbtmp4.2/13, MS3.5/6, Ms1 3.6/6, ms1mx3.2/30, Error ellipse: s-maj=32.8km s-min=13.8km az=50.0*
*ISCJB **08** 03:42:13.3±0.8, 7°.82S±0°.05×106°.89E±0°.06, h66^{km}±6^{km}, mb4.4/29, Error ellipse: s-maj=11.6km s-min=6.1km az=138.9*
*DJA **08** 03:42:13, 7°.84S×106°.97E, h68^{km}, MLv4.9/7*
ISC 08 03:42:14.5±0.8, **7°.82S**±0°.05×**106°.89E**±0°.06, **h60**^{km}±6^{km}, **n73**, σ**1.^{s}28**/68, **mb4.5**/29, **1D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEM	**Lembang**	**1.22**	**36**	P	**Pn**	**03 42 36.2**	**+0.7**
LEM				S	**Sn**	**03 42 53.0**	**+1.8**
DBJI	**Dramaga**	**1.27**	**354**	P	**Pn**	**03 42 38.3**	**+2.2**
DBJI				S	**Sn**	**03 42 54.1**	**+1.9**
CBJI	**Citeko**	**1.39**	**358**	P	**Pn**	**03 42 36.0**	**-1.8**
CBJI				S	**Sn**	**03 42 53.0**	**-2.2**
SBJI	**Serang**	**1.85**	**336**	P	**Pn**	**03 42 47.0**	**+3.0**
CLJI	**Cilicap**	**2.11**	**87**	P	**Pn**	**03 42 46.5**	**-0.9**
CLJI				S	**Sn**	**03 43 10.2**	**-2.3**
XMIS	**Christmas Isla**	**2.91**	**205**	*e*Pn	**Pn**	**03 42 56.6**	**-1.8**
XMIS				*e*Sn	**Sn**	**03 43 26.9**	**-5.4**
XMIS	**Christmas Isla**	**2.91**	**205**	P	**Pn**	**03 42 56.9**	**-1.5**
UGM	**Wanagama**	**3.60**	**92**	P	**Pn**	**03 43 07.8**	**0.0**
SMRI	**Semarang**	**3.60**	**78**	P	**Pn**	**03 43 02.5**	**-5.4**
SJI	**Sawahan**	**4.83**	**89**	P	**Pn**	**03 43 24.3**	**-0.4**
TRT	**Tretes**	**5.69**	**89**	⇓*e*P	**Pn**	**03 43 39.0**	**+2.5**
MBWA	**Marble Bar**	**18.16**	**138**	*e*P	**Pn**	**03 46 21.2**	**-1.3**
	5.9nm,0.5s						
FITZ	**Fitzroy Crossi**	**20.91**	**121**	*e*P	**P**	**03 46 52.9**	**+0.7**
	36nm,0.9s						
FITZ	**Fitzroy Crossi**	**20.91**	**121**	P	**P**	**03 46 52.5**	**+0.4**
	20nm,0.8s,baz=285,slow=5.0,SNR=17						
FITZ				S	**S**	**03 50 29.6**	**-13**
	2.0nm,0.6s,baz=215,slow=19,SNR=2.1						
FITZ				LR	LR	03 55 11.5	
	comp=Z,64nm,18.8s,baz=323,slow=37						
KAKA	**Kakadu**	**25.59**	**103**	*e*P	**P**	**03 47 37.2**	**-1.1**
	7.2nm,0.5s,mb4.5						
NWAO	**Narrogin (SRO)**	**26.76**	**160**	LR	LR	03 58 27.5	
	comp=Z,150nm,19.8s,baz=331,slow=36						
CMAR	**Chiang Mai Arr**	**27.26**	**343**	P	**P**	**03 47 50.2**	**-3.1**
	2.4nm,0.5s,mb4.0,baz=175,slow=9.4,SNR=9.9						
CMAR				LR	LR	03 59 40.9	
	comp=Z,76nm,19.1s,baz=129,slow=39						
WRA	**Warramunga Arr**	**29.19**	**117**	P	**P**	**03 48 10.6**	**+0.1**
WRA						03 51 17.9	
WRA	**Warramunga Arr**	**29.19**	**117**	P	**P**	**03 48 10.6**	**+0.1**
	5.7nm,0.8s,mb4.3,baz=291,slow=10,SNR=18						
WRA				PcP	PcP	03 51 17.9	+1.1
	0.9nm,0.5s,baz=302,slow=2.0,SNR=5.9						
WRA				LR	LR	03 59 14.6	
	comp=Z,47nm,18.7s,baz=140,slow=35						
WRAB	**Tennant Creek**	**29.19**	**117**	*e*P	**P**	**03 48 10.0**	**-0.5**
WRAB				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
WRAB	**Tennant Creek**	**29.19**	**117**	*e*P	**P**	**03 48 10.0**	**-0.5**
	comp=Z,8.1nm,0.9s,mb4.5						
ASAR	**Alice Springs**	**30.31**	**124**	P	**P**	**03 48 20.3**	**0.0**
	comp=Z,3.4nm,0.8s,mb4.1,baz=305,slow=8.6,SNR=23						
ASAR				PcP	PcP	03 51 21.5	+1.9
	comp=Z,1.1nm,0.7s,baz=316,slow=2.6,SNR=5.4						
COEN	**Coen**	**36.12**	**103**	*e*P	**P**	**03 49 10.7**	**-0.4**
COEN	**Coen**	**36.12**	**103**	*e*P	**P**	**03 49 10.2**	**-0.9**
	comp=Z,81nm,0.8s,mb5.7						
CTA	**Charters Tower**	**39.99**	**112**	*e*P	**P**	**03 49 44.8**	**+1.2**
	comp=Z,7.5nm,0.8s,mb4.5						
CTAO	**Charters Tower**	**39.99**	**112**	*e*P	**P**	**03 49 44.5**	**+0.9**
CTAO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
CTAO	**Charters Tower**	**39.99**	**112**	*e*P	**P**	**03 49 44.5**	**+0.9**

	comp=Z,10.0nm,0.8s,mb4.6						
QLP	Quilpie	40.04	122	eP	P	03 49 45.7	+1.7
STKA	Stephens Creek	40.18	131	eP	P	03 49 46.3	+1.3
	comp=Z,32nm,0.9s,mb5.0						
STKA	Stephens Creek	40.18	131	P	P	03 49 45.9	+0.9
	comp=Z,28nm,0.7s,mb5.1,baz=304,slow=8.0,SNR=53						
STKA				LR	LR	04 05 60.0	
	comp=Z,162nm,18.6s,baz=252,slow=36						
STKA	Stephens Creek	40.18	131	P	P	03 49 45.9	+0.9
STKA				LR	LR	04 05 60.0	
CMSA	Cobar Meteorol	43.14	129	eP	P	03 50 11.4	+2.1
YNG	Young	46.36	131	eP	P	03 50 36.9	+2.0
	comp=Z,10nm,1.0s,mb4.7						
KSRS	Korea Array	49.15	22	P	P	03 50 55.0	-1.3
	comp=Z,1.0nm,0.7s,mb4.0,baz=217,slow=8.0,SNR=4.0						
SONM	Songino Array	55.41	360	P	P	03 51 42.6	0.0
SONM						03 52 43.0	
SONM	Songino Array	55.41	360	P	P	03 51 42.6	+0.1
	comp=Z,0.5nm,0.5s,mb3.8,baz=182,slow=9.2,SNR=7.9						
SONM				PcP	PcP	03 52 43.0	+0.8
	comp=Z,1.4nm,0.5s,baz=180,slow=4.0,SNR=13						
SONM				ScP	ScP	03 56 36.9	+0.9
	comp=Z,0.7nm,0.7s,baz=159,slow=2.0,SNR=5.7						
TKM2	Tokmak 2	57.98	333	eP	P	03 52 00.0	-0.9
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
TKM2	Tokmak 2	57.98	333	eP	P	03 51 60.0	-0.9
	comp=Z,2.7nm,0.5s,mb4.5						
EKS2	Erkin-Say	58.61	332	eP	P	03 52 04.9	-0.3
	comp=Z,2.5nm,0.6s,mb4.4						
MK31	Makanchi Array	58.62	340	eP	P	03 52 04.0	-1.2
MKAR	Makanchi Array	58.62	340	P	P	03 52 04.2	-1.1
	comp=Z,2.8nm,0.7s,mb4.4,baz=149,slow=7.3,SNR=25						
MKAR				LR	LR	04 19 53.2	
	comp=Z,60nm,20.7s,baz=1.7,slow=39						
KURK	Kurchatov	63.23	340	eP	P	03 52 35.6	-0.9
KURK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
KURK	Kurchatov	63.23	340	eP	P	03 52 35.6	-0.9
	comp=Z,6.2nm,0.8s,mb4.8						
ZALV	Zalesovo Beam	64.30	346	P	P	03 52 41.8	-1.6
	comp=Z,0.5nm,0.3s,mb4.0,baz=90,slow=5.0,SNR=4.4						
BVA0	Borovoye Array	68.08	337	i P	P	03 53 07.7	0.0
BRVK	Borovoye	68.14	337	eP	P	03 53 08.3	+0.2
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
BRVK	Borovoye	68.14	337	eP	P	03 53 08.3	+0.3
	comp=Z,4.5nm,0.6s,mb4.7						
KMBO	Kilima Mbogo	69.68	272	P	P	03 53 21.6	+3.1
	comp=Z,1.5nm,0.7s,mb4.0,baz=61,slow=12,SNR=4.7						
AB31	Akbulak array	70.06	329	P	P	03 53 20.9	+0.9
AB31				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
ARU	Arti	75.31	335	eP	P	03 53 51.6	+0.6
ARU				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ARU	Arti	75.31	335	eP	P	03 53 51.6	+0.6
	comp=Z,4.1nm,0.8s,mb4.4						
LSZ	Lusaka	77.13	256	eP	P	03 54 06.1	+3.8
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
LSZ	Lusaka	77.13	256	eP	P	03 54 06.1	+3.8
	comp=Z,2.7nm,0.7s,mb4.3						
KIV	Kislovodsk	77.42	318	P	P	03 54 11.0	+7.7
KIV				e		03 54 15.9	
SEY	Seymchan	78.61	19	eP	P	03 54 09.2	-0.2
TIXI	Tiksi	80.63	7	eP	P	03 54 19.9	-0.3
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
VRHR	Novokhopersk	81.00	325	eP	P	03 54 21.2	-1.4
VRHR				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
VRHR				pmax	pmax		
	comp=N,30nm,0.8s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.8s						
BRTR	Keskin Array B	82.29	312	P	P	03 54 31.1	+1.4
	comp=E,2.2nm,0.7s,mb4.2,baz=143,slow=6.5,SNR=14						
VORD	Divnogorie	82.30	324	eP	P	03 54 30.2	+0.7
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
VORD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
VORD				pmax	pmax		
	comp=N,7.0nm,0.6s						
VSR	Storozhevoye	82.47	324	eP	P	03 54 31.3	+0.9
VSR				pmax	pmax		
	comp=N,2.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,4.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
PRGR	Permogore	83.76	335	eP	P	03 54 36.2	-0.6
PRGR				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.2						
AKASG	Malin Array Be	88.27	322	P	P	03 54 59.9	+0.6
	comp=Z,1.1nm,0.5s,mb4.3,baz=80,slow=5.7,SNR=5.7						
ARCES	ARCESS Array B	94.27	340	P	P	03 55 26.6	-0.1
	comp=Z,2.4nm,0.8s,mb4.7,baz=90,slow=3.6,SNR=6.9						
YKA	Yellowknife Ar	117.67	20	PKP	PKPdf	04 00 54.0	+0.6
	comp=Z,0.6nm,0.6s,baz=332,slow=2.0,SNR=16						
YKA	Yellowknife Ar	117.67	20	PKP	PKPdf	04 00 54.0	+0.6
PDAR	Pinedale Array	132.72	37	PKP	PKPdf	04 01 23.9	+1.0
	comp=Z,0.4nm,0.6s,baz=231,slow=0.3,SNR=4.2						
SCHQ	Schefferville	132.85	355	PKP	PKPdf	04 01 25.5	+2.8
	comp=Z,0.6nm,0.5s,baz=55,slow=9.3,SNR=3.6						
ULM	Lac du Bonnet	133.65	20	PKP	PKPdf	04 01 26.4	+2.0
	comp=Z,0.9nm,0.4s,baz=359,slow=2.6,SNR=3.3						
TXAR	Lajitas Array	144.18	49	PKP	PKPdf	04 01 43.9	-0.4
	comp=Z,0.9nm,0.5s,baz=244,slow=1.4,SNR=19						
CCM	Cathedral Cave	145.72	26	ePKIKP	PKPdf	04 01 47.0	+0.4
JCT	Junction City	146.35	44	ePKP2	PKPab	04 01 50.6	+0.5
WCI	Wyandotte Cave	147.47	20	ePKP2	PKPab	04 01 52.8	-1.4
WVT	Waverly	148.78	23	ePKP2	PKPbc	04 01 56.2	+0.5

IDC 08 04:20:38.0±2.0, 2°.67N×128°.62E, h0^{km}, mb3.8/4, mb1 3.9/4, mb1mx3.6/18, mbtmp3.8/4, Error ellipse: s-maj=147.4km s-min=23.0km az=67.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.16	166	P	P	04 25 46.5	+0.2
	1.9nm,0.5s,baz=346,slow=10,SNR=18						
ASAR	Alice Springs	26.68	169	P	P	04 26 18.6	-0.3
	0.4nm,0.5s,baz=354,slow=7.7,SNR=10						
STKA	Stephens Creek	36.50	161	P	P	04 27 45.0	-0.2
	2.2nm,0.7s,baz=332,slow=9.7,SNR=4.3						
MKAR	Makanchi Array	59.50	325	P	P	04 30 43.4	+0.3
	0.2nm,0.4s,baz=117,slow=7.9,SNR=8.7						

CASC 08 05:00:25.0±2.5, 8°.48N×82°.81W, h19^{km}±11^{km}, MD3.8, 4C-2D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	Cerro Adams	0.40	296	⇑eP	Pg	05 00 33.2	-0.1
BAR1		0.91	327	⇓eP	Pb	05 00 41.0	-1.2
BAR1				eS	Sb	05 00 53.3	-0.7
CNI	Changuinola	0.98	17	⇓iP	Pb	05 00 43.0	-0.4
CNI				eS	Sb	05 00 56.4	+0.5
BUS	Buena Vista	1.43	319	⇑eP	Pn	05 00 49.0	-0.9
BUS				eS	Sn	05 01 07.5	-0.7
QCR	Quepos	1.64	305	⇑eP	Pn	05 00 53.6	+0.7
URSC	Urasca	1.66	325	⇑eP	Pn	05 00 52.9	-0.2
URSC				eS	Sn	05 01 13.3	-0.6
LCR2	La Lucha 2	1.73	317	eP	Pn	05 00 53.0	-1.0
LCR2				eS	Sn	05 01 20.2	+4.6
LAJ	Bijagual	1.89	317	eP	Pn	05 01 00.2	+3.8
LAJ				eS	Sn	05 01 28.2	+8.5
PRS1	Puriscal	2.11	315	eP	Pn	05 00 57.7	-1.6
PRS1				eS	Sn	05 01 28.3	+3.2
CGA2	Cerro Gallo 2	2.24	313	eP	Pn	05 01 03.6	+2.5

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*IDC **08** 05:10:46.4±1.0, 46°.67N×155°.40E, h0^{km}, mb3.6/7, mb1 3.8/8, mb1mx3.6/24, mbtmp3.5/8, ML2.9/1, Error ellipse: s-maj=34.2km s-min=21.2km az=163.0*

*MOS **08** 05:10:49.7±1.8, 46°.84N×155°.45E, h38^{km}, mb4.0/3, Error ellipse: s-maj=45.0km s-min=20.1km az=84.0*

*ISCJB **08** 05:10:50.2±0.9, 46°.9N±0°.1×155°.4E±0°.2, h33^{km}, mb3.6/7, Error ellipse: s-maj=21.5km s-min=14.4km az=42.4*

ISC 08 05:10:52.2±0.9, 46°.9N±0°.1×155°.3E±0°.2, h35^{km}, n12, σ1^{s}.14/12, mb3.6/7, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.85	7	ePN	Pn	05 11 48.5	-0.4
PETK	Petropavlovsk-	6.43	13	Pn	Pn	05 12 23.5	-0.8
	0.2nm,0.3s,baz=157,slow=12,SNR=2.6						
KSRS	Korea Array	22.29	255	P	P	05 15 47.1	+0.8
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.4						
KSRS	Korea Array	22.29	255	P	P	05 15 47.1	+0.8
	comp=Z,0.9nm,0.7s,mb3.3,baz=56,slow=12,SNR=5.2						
MKAR	Makanchi Array	48.23	298	P	P	05 19 28.3	-0.9
	comp=Z,0.3nm,0.5s,mb3.6,baz=66,slow=8.1,SNR=8.1						
BVAR	Borovoye Array	51.95	310	P	P	05 19 58.8	+1.5
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	51.95	310	P	P	05 19 58.8	+1.4
	comp=Z,0.7nm,0.3s,mb4.0,baz=54,slow=8.7,SNR=4.6						
NVAR	Mina Array Bea	61.02	64	P	P	05 21 02.5	+0.4
	comp=Z,0.7nm,0.7s,mb3.9,baz=255,slow=4.5,SNR=3.5						
PDAR	Pinedale Array	63.44	55	P	P	05 21 19.9	+1.7
	comp=Z,0.2nm,0.6s,mb3.4,baz=289,slow=5.6,SNR=2.6						
ASAR	Alice Springs	72.83	201	P	P	05 22 14.9	-2.2
	comp=Z,0.2nm,0.5s,mb3.3,baz=19,slow=5.9,SNR=3.5						
TXAR	Lajitas Array	76.10	62	P	P	05 22 36.0	-0.3
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	76.10	62	P	P	05 22 36.0	-0.3
	comp=Z,0.9nm,0.5s,mb3.9,baz=302,slow=4.9,SNR=18						

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*NIED **08** 05:13:00, 47°.00N×153°.20E, h5^{km}, Mw4.3 Best double couple: $M_0$3.67000×10^{15} NP1:ϕ_s127.00000°, δ89.00000°, λ-70.00000°. NP2:ϕ_s220.00000°, δ20.00000°, λ-177.00000°.*

*IDC **08** 05:13:42.9±0.8, 46°.87N×152°.97E, h0^{km}, mb3.8/12, mb1 4.1/13, mb1mx4.0/23, mbtmp3.9/13, ML4.2/1, MS3.3/4, Ms1 3.3/4, ms1mx2.9/25, Error ellipse: s-maj=29.1km s-min=14.9km az=160.0*

*ISCJB **08** 05:13:45.8±0.9, 46°.75N±0°.08×153°.0E±0°.1, h34^{km}±9^{km}, mb3.8/11, MS3.4/3, Error ellipse: s-maj=17.1km s-min=5.0km az=138.5*

*SKHL **08** 05:13:46.9±1.7, 46°.62N×153°.34E, h67^{km}±34^{km}, mb5.0/6, msh5.9/1*

*MOS **08** 05:13:48.3±0.9, 46°.85N×153°.13E, h58^{km}, mb4.1/8, Error ellipse: s-maj=20.5km s-min=12.1km az=52.2*

ISC 08 05:13:48.3±0.8, 46°.76N±0°.08×153°.0E±0°.1, h38^{km}±8^{km}, n51, σ1^{s}.37/59, mb3.8/11, MS3.4/3, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.90	249	eP	Pn	05 14 44.5	-1.1
KUR				AMB	AMB	05 14 45.0	
	150nm,0.5s						
KUR				eS	Sn	05 15 29.0	-1.0
KUR				A		05 15 46.8	
	690nm,0.7s						
KUR				A		05 15 46.8	
	770nm,0.7s						
SKR	Severo-Kuril's	4.44	26	ePN	Pn	05 14 53.0	0.0
SKR				eS	Sn	05 15 42.4	-0.9
SKR				pmax	pmax		
	comp=Z,260nm,0.5s						
SKR				pmax	pmax		
	comp=N,110nm,0.4s						
SKR				pmax	pmax		
	comp=E,50nm,0.4s						
SKR				smax			
	comp=E,160nm,0.6s						
SKR				smax			
	comp=N,230nm,0.5s						
SKR				smax			
	comp=Z,110nm,0.5s						
SKR	Severo-Kuril's	4.44	26	eP	Pn	05 14 53.0	0.0
SKR				AMB	AMB	05 14 55.0	
	comp=Z,260nm,0.5s						
SKR				AMB	AMB	05 14 55.0	
	comp=Z,110nm,0.4s						
SKR				AMB	AMB	05 14 55.0	
	comp=Z,50nm,0.4s						
SKR				eS	Sn	05 15 42.4	-0.9
SKR				A		05 16 02.5	
	comp=Z,230nm,0.5s						
SKR				A		05 16 02.5	
	comp=Z,110nm,0.5s						
SKR				A		05 16 02.5	
	comp=Z,160nm,0.6s						
YUK	Yuzh-Kuril'sk	5.72	244	eP	Pn	05 15 14.0	+3.3
YUK				AMB	AMB	05 15 14.4	
	comp=Z,150nm,0.5s						
YUK				AMB	AMB	05 15 14.4	
	comp=Z,250nm,0.5s						
YUK				eS	Sn	05 16 18.1	+3.0
YUK				A		05 16 37.6	
	comp=Z,810nm,0.7s						
YUK				A		05 16 37.6	
	comp=Z,670nm,0.8s						
YUK				A		05 16 49.0	
	comp=Z,4µm,2.5s						
YUK				A		05 16 49.0	
	comp=Z,2µm,1.4s						
NEM2	Nemuro 2	6.16	239	P	Pn	05 15 16.8	+0.1
NEM2				eS	Sn	05 16 24.2	-1.7
JNK	Nakash	6.66	245	P	Pn	05 15 25.7	+2.1
JTKR	Abashiri--Toko	6.99	250	P	Pn	05 15 31.2	+3.1
JAK	Akkeshi	7.00	241	P	Pn	05 15 28.1	-0.1
JAK				eS	Sn	05 16 44.6	-1.9
YSS	Yuzh-Sakhalins	7.04	275	eP	Pn	05 15 33.0	+4.3
YSS				AMB	AMB	05 15 36.0	
	comp=Z,30nm,1.0s						
PETK	Petropavlovsk-	7.04	24	Pn	Pn	05 15 29.2	+0.5
	comp=Z,1.8nm,0.3s,baz=187,slow=13,SNR=16						
PETK				LR	LR	05 18 13.9	
	comp=Z,125nm,20.6s,baz=196,slow=39						
JAR	Ashorobuto	7.40	245	P	Pn	05 15 35.7	+1.9
JOB	Onbets	7.57	243	P	Pn	05 15 37.2	+1.1
JOB				eS	Sn	05 16 59.4	-1.2
UGL	Uglegorsk	7.71	292	eP	Pn	05 15 42.0	+4.0
UGL				AMB	AMB	05 15 44.5	
	comp=Z,40nm,0.6s						
ASAJ	Asahikawa	7.79	254	PN	Pn	05 15 43.2	+4.2
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	Asahikawa	7.79	254	Pn	Pn	05 15 43.1	+4.2
	comp=Z,3.9nm,0.3s,baz=86,slow=14,SNR=20						
JKK2	Kamakawa 2	7.79	252	P	Pn	05 15 42.5	+3.5
JCH	Churui	8.02	242	P	Pn	05 15 42.7	+0.4
JCH				eS	Sn	05 17 10.1	-1.6
JBT2	Biratori 2	8.55	246	P	Pn	05 15 51.4	+1.9
JNBK	Urakawa-nobuka	8.59	242	P	Pn	05 15 50.3	+0.3
JKB	Kayabe	9.86	245	P	Pn	05 16 07.6	+0.1
JSH	Shimam	10.10	251	P	Pn	05 16 13.1	+2.3
NKL	Nikolayevsk	10.20	313	eP	Pn	05 16 12.0	+0.1
NKL				AMB	AMB	05 16 12.8	
	comp=Z,20nm,1.0s						
JTM	Tenmabayashi	10.49	240	P	Pn	05 16 15.0	-1.1
JTM				eS	Sn	05 18 06.0	-6.2
JANG	Nango	10.49	237	P	Pn	05 16 13.8	-2.3
JANG				eS	Sn	05 18 04.2	-8.1
JRG	Rokugo	11.65	235	P	Pn	05 16 29.2	-2.8
FX1	Attu Island--F	14.36	57	P	Pn	05 17 07.0	-1.8
FX1				pmax	pmax		
	comp=Z,3.0nm,0.3s						
FX1	Attu Island--F	14.36	57	Pn	Pn	05 17 07.0	-1.8
	comp=Z,3.4nm,0.3s,baz=339,slow=21,SNR=7.3						
MJAR	Matsushiro Arr	15.03	233	P	Pn	05 17 14.4	-3.4
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	15.03	233	Pn	Pn	05 17 14.4	-3.4
	comp=Z,0.5nm,0.3s,baz=41,slow=14,SNR=4.0						
KSRS	Korea Array	20.73	252	P	P	05 18 26.7	+1.3
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KSRS	Korea Array	20.73	252	P	P	05 18 26.7	+1.2
	comp=Z,2.8nm,0.7s,baz=53,slow=9.7,SNR=6.7						
SONM	Songino Array	31.27	289	P	P	05 20 05.1	+0.9
	comp=Z,0.2nm,0.7s,mb3.0,baz=60,slow=8.5,SNR=2.5						
SONM				LR	LR	05 34 00.7	
	comp=Z,83nm,19.4s,MS3.4,baz=70,slow=39						
GUMO	Guam	33.76	194	LR	LR	05 31 01.4	
	comp=Z,87nm,19.9s,MS3.5,baz=6.4,slow=31						
ZALV	Zalesovo Beam	42.55	306	LR	LR	05 40 09.3	
	comp=Z,36nm,19.6s,MS3.3,baz=50,slow=37						
MKAR	Makanchi Array	46.88	297	P	P	05 22 12.8	-1.7
	comp=Z,0.3nm,0.6s,mb3.4,baz=71,slow=6.5,SNR=5.4						
YKA	Yellowknife Ar	50.96	37	P	P	05 22 45.5	-0.1
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	Yellowknife Ar	50.96	37	P	P	05 22 45.5	0.0
	comp=Z,1.5nm,0.8s,mb4.0,baz=296,slow=7.1,SNR=20						
CMAR	Chiang Mai Arr	52.30	256	P	P	05 22 56.9	+0.8
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	52.30	256	P	P	05 22 56.9	+0.7
	comp=Z,0.7nm,0.3s,mb4.1,baz=35,slow=7.8,SNR=7.9						
NVAR	Mina Array Bea	62.49	62	P	P	05 24 08.2	+0.4
	comp=Z,0.3nm,0.6s,mb3.6,baz=280,slow=8.6,SNR=3.7						
PDAR	Pinedale Array	64.80	54	P	P	05 24 23.1	+0.3
	comp=Z,1.4nm,0.8s,mb4.0,baz=292,slow=1.9,SNR=12						
NOA	NORSAR Array B	68.20	341	P	P	05 24 44.2	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	68.20	341	P	P	05 24 44.1	-0.1
	comp=Z,0.7nm,0.6s,mb3.9,baz=28,slow=6.4,SNR=5.6						
AKASG	Malin Array Be	71.50	326	P	P	05 25 02.6	-2.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	71.50	326	P	P	05 25 02.5	-2.2
	comp=Z,0.5nm,0.3s,mb3.9,baz=33,slow=6.5,SNR=4.3						
ASAR	Alice Springs	72.19	198	P	P	05 25 09.6	+0.6
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	72.19	198	P	P	05 25 09.6	+0.6
	comp=Z,0.9nm,0.8s,mb3.8,baz=13,slow=5.7,SNR=7.4						
TXAR	Lajitas Array	77.55	60	P	P	05 25 40.4	+0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TXAR	Lajitas Array	77.55	60	P	P	05 25 40.4	+0.1
	comp=Z,0.8nm,0.4s,mb4.0,baz=304,slow=4.8,SNR=30						
BRTR	Keskin Array B	78.34	317	P	P	05 25 44.9	+0.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	78.34	317	P	P	05 25 44.9	+0.4
	comp=Z,0.8nm,0.8s,mb3.7,baz=58,slow=3.2,SNR=4.3						

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*IDC **08** 05:15:03.8±0.9, 48°.06N×154°.43E, h0^{km}, mb4.2/13, mb1 4.4/15, mb1mx4.1/26, mbtmp4.2/15, ML4.2/2, Error ellipse: s-maj=22.6km s-min=17.7km az=151.0*

*ISCJB **08** 05:15:09.1±2.2, 48°.19N±0°.10×154°.8E±0°.2, h61^{km}±21^{km}, mb4.2/21, Error ellipse: s-maj=20.8km s-min=15.7km az=22.6*

*MOS **08** 05:15:09.3±0.9, 48°.18N×154°.77E, h65^{km}, mb4.4/15, Error ellipse: s-maj=17.1km s-min=10.9km az=97.3*

*NEIC **08** 05:15:10.4±2.0, 48°.14N×154°.71E, h56^{km}±21^{km}, mb4.8/1, Error ellipse: s-maj=21.2km s-min=15.9km az=69.0*

ISC 08 05:15:10.7±1.7, 48°.16N±0°.10×154°.7E±0°.2, h57^{km}±18^{km}, n44, σ0^{s}.79/45, mb4.2/21, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	Petropavlovsk-	5.31	20	PN	Pn	05 16 27.9	+0.7
PETK				pmax	pmax		
	comp=Z,3.0nm,0.3s						
PETK	Petropavlovsk-	5.31	20	Pn	Pn	05 16 27.9	+0.7
	comp=Z,3.1nm,0.3s,baz=173,slow=12,SNR=6.4						
PET	Petropavlovsk	5.48	26	ePn	Pn	05 16 29.8	+0.2
PET				eSn	Sn	05 17 31.2	0.0
FX1	Attu Island--F	12.65	61	PN	Pn	05 18 06.7	-0.8
FX1				pmax	pmax		
	comp=Z,8.0nm,0.3s						
FX1	Attu Island--F	12.65	61	Pn	Pn	05 18 06.7	-0.9
	comp=Z,7.7nm,0.3s,baz=330,slow=4.3,SNR=8.1						
KSRS	Korea Array	22.27	251	P	P	05 20 03.5	+0.8
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.4						
KSRS	Korea Array	22.27	251	P	P	05 20 03.5	+0.8
	comp=Z,1.4nm,0.7s,mb3.5,baz=46,slow=9.7,SNR=5.1						
SONM	Songino Array	31.91	288	P	P	05 21 30.0	-0.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	31.91	288	P	P	05 21 30.0	-0.4
	comp=Z,0.5nm,0.5s,mb3.6,baz=68,slow=8.2,SNR=7.9						
ZAK	Zakamensk	33.09	294	eP	P	05 21 36.8	-3.9
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
ZALV	Zalesovo Beam	42.68	305	P	P	05 23 00.8	-0.6
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
ZALV	Zalesovo Beam	42.68	305	P	P	05 23 00.8	-0.6
	comp=Z,1.7nm,0.4s,mb4.1,baz=61,slow=7.0,SNR=10						
MK31	Makanchi Array	47.27	297	i P	P	05 23 37.2	-0.7
MK31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
MKAR	Makanchi Array	47.27	297	P	P	05 23 37.5	-0.4
MKAR						05 25 12.7	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MKAR	Makanchi Array	47.27	297	P	P	05 23 37.5	-0.4
	comp=Z,1.7nm,0.5s,mb4.2,baz=68,slow=7.9,SNR=21						
MKAR				PcP	PcP	05 25 12.7	+4.5
	comp=Z,0.4nm,0.5s,baz=69,slow=3.2,SNR=4.2						
KURK	Kurchatov	47.50	303	P	P	05 23 40.3	+0.7
KURK				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
KURK	Kurchatov	47.50	303	P	P	05 23 40.2	+0.6
	comp=Z,13nm,0.6s,mb5.0,baz=67,slow=8.5,SNR=47						
KURK	Kurchatov	47.50	303	eP	P	05 23 38.9	-0.7
	comp=Z,6.6nm,0.6s,mb4.7						
VOSK	Vostochnaya	50.66	309	P	P	05 24 03.2	-0.5
VOSK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
BVA0	Borovoye Array	50.81	309	i P	P	05 24 04.5	-0.4
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
BVAR	Borovoye Array	50.81	309	P	P	05 24 04.7	-0.2
BVAR				pmax	pmax		
	comp=Z,8.0nm,0.4s						
BVAR	Borovoye Array	50.81	309	P	P	05 24 04.7	-0.1
	comp=Z,8.0nm,0.4s,mb5.0,baz=57,slow=7.7,SNR=52						
CMAR	Chiang Mai Arr	53.76	257	P	P	05 24 28.1	+1.0
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR	Chiang Mai Arr	53.76	257	P	P	05 24 28.1	+0.9
	comp=Z,1.0nm,0.4s,mb4.1,baz=45,slow=7.2,SNR=5.3						
ARCES	ARCESS Array B	56.88	341	P	P	05 24 49.1	+0.2
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ARCES	ARCESS Array B	56.88	341	P	P	05 24 49.1	+0.2
	comp=Z,3.8nm,1.0s,mb4.4,baz=34,slow=7.7,SNR=5.7						
AB31	Akbulak array	58.36	310	P	P	05 24 59.4	-0.2
AB31				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
AKTK	Aktyubinsk	58.60	312	P	P	05 25 00.9	-0.3
AKTO	Aktyubinsk	58.60	312	P	P	05 25 01.0	-0.2
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	Aktyubinsk	58.60	312	P	P	05 25 00.9	-0.3
	comp=Z,1.3nm,0.5s,mb4.3,baz=64,slow=4.7,SNR=5.6						
JOF	Joensuu	60.55	334	eP	P	05 25 12.2	-2.3
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
JOF	Joensuu	60.55	334	ep	P	05 25 12.2	-2.3
	comp=Z,2.4nm,0.5s,mb4.6						
NB2	NORSAR Subarra	67.24	342	P	P	05 25 58.8	+0.4
	comp=Z,2.0nm,0.7s,mb4.3,baz=26,slow=6.5						
NOA	NORSAR Array B	67.24	342	P	P	05 25 59.2	+0.8
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	NORSAR Array B	67.24	342	P	P	05 25 59.2	+0.8
	comp=Z,2.0nm,0.6s,mb4.3,baz=26,slow=6.3,SNR=8.7						
WRA	Warramunga Arr	70.20	200	P	P	05 26 16.5	-0.8
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	70.20	200	P	P	05 26 16.5	-0.8
	comp=Z,1.5nm,0.8s,mb4.0,baz=16,slow=6.3,SNR=4.6						
ASAR	Alice Springs	73.89	200	P	P	05 26 39.6	+0.3
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	73.89	200	P	P	05 26 39.5	+0.3
	comp=Z,0.7nm,0.6s,mb3.8,baz=13,slow=5.5,SNR=4.1						
CLL	Collm	75.62	336	i P	P	05 26 50.3	+1.2
	comp=Z,4.0nm,0.7s,mb4.5						
GERES	GERESS Array B	77.66	335	P	P	05 27 01.6	+1.0
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	77.66	335	P	P	05 27 01.6	+1.0
	comp=Z,0.5nm,0.6s,mb3.6,baz=37,slow=5.5,SNR=6.2						

BRTR	Keskin Array B	78.10	318	P	P	05 27 04.7	+1.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	Keskin Array B	78.10	318	P	P	05 27 04.7	+1.5
	comp=Z,0.7nm,0.4s,mb3.9,baz=14,slow=0.5,SNR=5.6						

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*NEIC **08** 06:31:16.6, 46°.43N×13°.01E, h8^{km}, ML2.5(ROM), After ROM.*

*VIE **08** 06:31:16.5±0.2, 46°.42N×13°.00E, h13^{km}±5^{km}, mb1.9/10, ML2.4/12, Error ellipse: s-maj=1.2km s-min=0.6km az=26.0   2 km NW of Tolmezzo*

*ROM **08** 06:31:16.6±0.1, 46°.43N×13°.01E, h8^{km}±1^{km}, Md2.2/3, Ml2.5/1, Error ellipse: s-maj=1.4km s-min=0.7km az=50.0*

*CSEM **08** 06:31:16.9±0.1, 46°.42N×13°.02E, h12^{km}, ML2.6/14, Error ellipse: s-maj=1.8km s-min=1.3km az=26.0*

*ISCJB **08** 06:31:16.7±0.2, 46°.43N±0°.01×13°.00E±0°.02, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.4km az=26.0*

*PRU **08** 06:31:17.2, 46°.39N×13°.00E, h0^{km}*

ISC 08 06:31:17.3±0.3**, 46°.42N**±0°.01×**13°.01E**±0°.02**, h13**^{km}±3^{km}**, n98, σ0^{s}77**/186**, 18C-22D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUSE	Fusea	0.01	199	⇑iPg	Pg	06 31 19.2	-0.2
FUSE				i Sg	Sg	06 31 20.7	-0.2
FUSE	Fusea	0.01	199	i Pg	Pg	06 31 19.2	-0.2
FUSE				i Sg	Sg	06 31 20.7	-0.2
BOO	Bordano	0.12	147	⇓iPg	Pg	06 31 20.2	-0.2
BOO				i Sg	Sg	06 31 22.5	-0.2
BOO	Bordano	0.12	147	i Pg	Pg	06 31 20.2	-0.2
BOO				i Sg	Sg	06 31 22.5	-0.2
ZOU	Zoufplan	0.14	351	⇓iPg	Pg	06 31 20.9	+0.2
ZOU				i Sg	Sg	06 31 23.5	+0.4
ZOU	Zoufplan	0.14	351	i Pg	Pg	06 31 20.9	+0.2
ZOU				i Sg	Sg	06 31 23.5	+0.4
PLRO	Paularo	0.16	38	⇑iPg	Pg	06 31 21.1	+0.1
PLRO				i Sg	Sg	06 31 24.0	+0.3
PLRO	Paularo	0.16	38	i Pg	Pg	06 31 21.1	0.0
PLRO				i Sg	Sg	06 31 24.0	+0.3
MPRI	Monte Prat	0.18	184	⇓iPg	Pg	06 31 20.9	-0.4
MPRI				i Sg	Sg	06 31 24.1	-0.1
MPRI	Monte Prat	0.18	184	i Pg	Pg	06 31 20.9	-0.4
MPRI				i Sg	Sg	06 31 24.1	0.0
GMNA	Gemona	0.22	132	⇓iPg	Pg	06 31 20.9	-1.1
GMNA				Sg	Sg	06 31 23.8	-1.3
	576nm,0.5s						
GMNA	Gemona	0.22	132	⇓iPg	Pg	06 31 20.9	-1.1
GMNA				Sg	Sg	06 31 23.8	-1.3
	576nm,0.5s						
BUA	Buia	0.22	158	⇓iPg	Pg	06 31 21.5	-0.5
BUA				i Sg	Sg	06 31 25.3	+0.1
BUA	Buia	0.22	158	i Pg	Pg	06 31 21.5	-0.5
BUA				i Sg	Sg	06 31 25.3	+0.1
FVI	Forni Avoltri	0.23	318	⇓iPg	Pg	06 31 22.3	0.0
FVI				Sg	Sg	06 31 26.1	+0.5
	647nm,0.1s						
FVI	Forni Avoltri	0.23	318	⇓iPg	Pg	06 31 22.3	0.0
FVI				Sg	Sg	06 31 26.1	+0.5
	647nm,0.1s						
PTCC	Patocco-Chiusa	0.24	94	⇑iPg	Pg	06 31 22.2	-0.2
PTCC				Sg	Sg	06 31 26.2	+0.4
PTCC	Patocco-Chiusa	0.24	94	⇑iPg	Pg	06 31 22.2	-0.2
PTCC				Sg	Sg	06 31 26.2	+0.4
BAD	Bernadia	0.25	138	⇓ePg	Pg	06 31 21.9	-0.6
BAD				eSg	Sg	06 31 26.2	+0.2
BAD	Bernadia	0.25	138	ePg	Pg	06 31 21.9	-0.6
BAD				eSg	Sg	06 31 26.2	+0.2
VINO	Villanova	0.25	131	⇓ePg	Pg	06 31 22.0	-0.6
VINO				eSg	Sg	06 31 26.2	0.0
VINO	Villanova	0.25	131	ePg	Pg	06 31 22.0	-0.6
VINO				eSg	Sg	06 31 26.2	+0.1
CSMI	Casera Mimoias	0.26	290	⇓ePg	Pg	06 31 22.7	0.0
CSMI				eSg	Sg	06 31 26.8	+0.5
CSMI	Casera Mimoias	0.26	290	ePg	Pg	06 31 22.7	0.0
CSMI				eSg	Sg	06 31 26.8	+0.4
LSR	Lussari	0.37	81	⇑iPg	Pg	06 31 24.3	-0.3
LSR				i Sg	Sg	06 31 29.9	+0.4
LSR	Lussari	0.37	81	i Pg	Pg	06 31 24.3	-0.3
LSR				i Sg	Sg	06 31 29.9	+0.4
ACOM	Acomizza, Ital	0.37	70	ePg	Pg	06 31 24.7	-0.1
ACOM				eSg	Sg	06 31 30.7	+0.9
ACOM	Acomizza, Ital	0.37	70	ePg	Pg	06 31 24.7	0.0
ACOM				eSg	Sg	06 31 30.7	+0.9
MLNI	Malnisio	0.39	225	ePg	Pg	06 31 24.8	-0.2
MLNI				eSg	Sg	06 31 31.3	+1.1
MLNI	Malnisio	0.39	225	ePg	Pg	06 31 24.8	-0.2
MLNI				eSg	Sg	06 31 31.3	+1.1
COLI	Coloredo	0.39	138	⇓iPg	Pg	06 31 24.5	-0.5
COLI				i Sg	Sg	06 31 30.7	+0.5
COLI	Coloredo	0.39	138	i Pg	Pg	06 31 24.5	-0.5
COLI				i Sg	Sg	06 31 30.7	+0.5
ROBS	Robic	0.39	117	i Pg	Pg	06 31 24.2	-0.8
ROBS				i Sg	Sg	06 31 29.9	-0.5
ROBS							
	comp=Z,6.0nm,0.0s						
ROBS	Robic	0.39	117	i Pg	Pg	06 31 24.2	-0.8
ROBS				i Sg	Sg	06 31 29.9	-0.5
ROBS	Robic	0.39	117	i Pg	Pg	06 31 24.2	-0.9
ROBS				i Sg	Sg	06 31 29.9	-0.4
	comp=Z,6.0nm,0.0s						
CIMO	Cimolais	0.41	254	⇑iPg	Pg	06 31 24.8	-0.6
CIMO				i Sg	Sg	06 31 30.8	0.0
CIMO	Cimolais	0.41	254	i Pg	Pg	06 31 24.8	-0.6
CIMO				i Sg	Sg	06 31 30.8	0.0
ABTA	Abfaltersbach	0.47	314	⇑iPg	Pg	06 31 26.4	-0.1
ABTA				⇑iSg	Sg	06 31 33.0	+0.2
	comp=Z,16nm,0.1s						
ABTA	Abfaltersbach	0.47	314	Pg	Pg	06 31 26.4	-0.2
ABTA				Sg	Sg	06 31 33.0	+0.2
	comp=Z,16nm,0.1s						
MYKA	Terra Mystica	0.49	64	⇑iPg	Pg	06 31 26.5	-0.4
MYKA				⇓iSg	Sg	06 31 33.3	0.0
	comp=Z,17nm,0.2s						
MYKA	Terra Mystica	0.49	64	Pg	Pg	06 31 26.5	-0.3
MYKA				Sg	Sg	06 31 33.3	0.0
	comp=Z,17nm,0.2s						
CSO	Casso	0.49	253	ePg	Pg	06 31 26.4	-0.6
CSO				eSg	Sg	06 31 33.9	+0.3
CSO	Casso	0.49	253	ePg	Pg	06 31 26.4	-0.6
CSO				eSg	Sg	06 31 33.9	+0.3
CADS	Cadrg	0.54	111	i Pg	Pg	06 31 26.9	-1.0
CADS				i Sg	Sg	06 31 35.6	+0.5
CADS							
	comp=Z,11nm,0.1s						
CADS	Cadrg	0.54	111	i Pg	Pg	06 31 26.9	-1.0
CADS				i Sg	Sg	06 31 35.6	+0.5
CADS	Cadrg	0.54	111	i Pg	Pg	06 31 27.0	-0.9
CADS				i Sg	Sg	06 31 35.6	+0.5
	comp=Z,11nm,0.1s						
CAE	Caneva	0.57	224	⇑iPg	Pg	06 31 29.2	+0.8
CAE				i Sg	Sg	06 31 37.1	+1.1
CAE	Caneva	0.57	224	i Pg	Pg	06 31 29.2	+0.7
CAE				i Sg	Sg	06 31 37.2	+1.2
SABO	M.te Sabotino	0.60	137	ePg	Pg	06 31 28.5	-0.6
SABO				eSg	Sg	06 31 38.8	+1.8
SABO	M.te Sabotino	0.60	137	ePg	Pg	06 31 28.5	-0.6
SABO				eSg	Sg	06 31 38.8	+1.8
SEST	Monte Rota	0.64	301	⇓iPg	Pg	06 31 29.6	0.0
SEST				Sg	Sg	06 31 38.4	+0.4
SEST	Monte Rota	0.64	301	⇓iPg	Pg	06 31 29.6	0.0
SEST				Sg	Sg	06 31 38.4	+0.4
GORS	Gorjuse	0.69	98	i Pg	Pg	06 31 30.1	-0.7
GORS				i Sg	Sg	06 31 41.2	+1.4
GORS							
	comp=Z,13nm,0.1s						
GORS	Gorjuse	0.69	98	i Pg	Pg	06 31 30.1	-0.7
GORS				i Sg	Sg	06 31 41.2	+1.4
GORS	Gorjuse	0.69	98	i Pg	Pg	06 31 30.0	-0.7
GORS				i Sg	Sg	06 31 41.2	+1.3
	comp=Z,13nm,0.1s						
KBA	Koelnbreinsper	0.70	19	⇑ePg	Pg	06 31 30.9	+0.1
	SNR=8.3						
KBA				⇑iSg	Sg	06 31 40.1	+0.1
	comp=Z,24nm,0.1s						
KBA	Koelnbreinsper	0.70	19	Pg	Pg	06 31 30.9	+0.1
	SNR=8.3						
KBA				Sg	Sg	06 31 40.1	+0.1
	comp=Z,24nm,0.1s						
VOJS	Vojsko	0.72	122	i Pg	Pg	06 31 30.1	-1.2
VOJS				i Sg	Sg	06 31 41.4	+0.6
VOJS	Vojsko	0.72	122	i Pg	Pg	06 31 30.1	-1.2
VOJS				i Sg	Sg	06 31 41.4	+0.6
VOY	Vojsko	0.73	122	ePg	Pg	06 31 31.2	-0.2
VOY				eSg	Sg	06 31 41.2	+0.2
VOY	Vojsko	0.73	122	ePg	Pg	06 31 31.2	-0.2
VOY				eSg	Sg	06 31 41.2	+0.2
TRI	Trieste	0.89	143	ePg	Pg	06 31 34.9	+0.5
TRI	Trieste	0.89	143	ePg	Pg	06 31 34.9	+0.5
JAVS	Javornik	0.91	125	i Pg	Pg	06 31 33.5	-1.3
JAVS				i Sg	Sg	06 31 47.4	+0.8
JAVS							
	comp=Z,8.0nm,0.1s						
JAVS	Javornik	0.91	125	i Pg	Pg	06 31 33.5	-1.3
JAVS				i Sg	Sg	06 31 47.4	+0.8
JAVS	Javornik	0.91	125	i Pg	Pg	06 31 33.5	-1.3
JAVS				i Sg	Sg	06 31 47.4	+0.8
	comp=Z,8.0nm,0.1s						
CGRP	Cima Grappa	1.00	238	⇓iPg	Pg	06 31 37.9	+1.4
CGRP				i Sg	Sg	06 31 50.3	+0.8
CGRP	Cima Grappa	1.00	238	i Pg	Pg	06 31 37.9	+1.4
CGRP				i Sg	Sg	06 31 50.3	+0.8
MOZS	Mozjanca	1.00	97	i Pg	Pg	06 31 38.0	+1.4
MOZS				i Sg	Sg	06 31 52.5	+2.7
OBKA	Obir	1.07	85	⇓iPg	Pg	06 31 37.4	-0.5
OBKA				⇑iSg	Sg	06 31 52.4	+0.6
	comp=Z,11nm,0.3s						
OBKA	Obir	1.07	85	Pg	Pg	06 31 37.4	-0.5
OBKA				Sg	Sg	06 31 52.4	+0.6
	comp=Z,11nm,0.3s						
SCE	Schlegeis	1.08	305	⇓iPg	Pg	06 31 37.7	-0.4
SCE				i Sg	Sg	06 31 51.9	-0.4
SCE	Schlegeis	1.08	305	⇓iPg	Pg	06 31 37.7	-0.4
SCE				i Sg	Sg	06 31 51.9	-0.4
SKDS	Skadanscina	1.12	141	i Pg	Pg	06 31 38.8	-0.1
SKDS				i Sg	Sg	06 31 55.3	+1.8
SKDS							
	comp=Z,28nm,0.2s						
CEY	Cerknica	1.20	124	i Pg	Pg	06 31 40.4	0.0
CEY				i Sg	Sg	06 31 57.0	+0.9
CEY							
	comp=Z,25nm,0.2s						
CEY	Cerknica	1.20	124	i Pg	Pg	06 31 40.4	0.0
CEY				i Sg	Sg	06 31 57.0	+0.9
CEY	Cerknica	1.20	124	i Pg	Pg	06 31 40.4	0.0
CEY				i Sg	Sg	06 31 57.0	+1.0
	comp=Z,25nm,0.2s						
VNDS	Vrh nad Dolski	1.22	105	i Pg	Pg	06 31 40.1	-0.7
VNDS				i Sg	Sg	06 31 57.3	+0.7
BGLD	Berchtesgaden	1.23	0	⇑iPg	Pg	06 31 40.7	-0.3
BGLD				i Sg	Sg	06 31 58.1	+1.1
BGLD	Berchtesgaden	1.23	0	⇑iPg	Pg	06 31 40.7	-0.3
BGLD				i Sg	Sg	06 31 58.1	+1.1
WTTA	Wattenberg	1.26	312	⇑iPg	Pg	06 31 41.1	-0.4
WTTA				⇓iSg	Sg	06 31 57.8	-0.1
	comp=Z,12nm,0.3s						
WTTA	Wattenberg	1.26	312	Pg	Pg	06 31 41.1	-0.4
WTTA				Sg	Sg	06 31 57.8	-0.1
	comp=Z,12nm,0.3s						
TEOL	Teolo	1.41	222	ePg	Pg	06 31 43.2	-1.2
TEOL				eSg	Sg	06 32 02.2	-0.6
TEOL	Teolo	1.41	222	ePg	Pg	06 31 43.2	-1.2
TEOL				eSg	Sg	06 32 02.2	-0.6
VISS	Visnje	1.42	115	i Pg	Pg	06 31 43.9	-0.6
VISS	Visnje	1.42	115	i Pg	Pg	06 31 43.9	-0.6
PDKS	Podkum	1.43	104	i Pg	Pg	06 31 43.9	-0.9
PDKS	Podkum	1.43	104	i Pg	Pg	06 31 43.9	-0.8
PERS	Pernice	1.47	81	i Pg	Pg	06 31 44.2	-1.4
PERS	Pernice	1.47	81	i Pg	Pg	06 31 44.2	-1.4
MOTA	Moosalm	1.60	306	⇑iPg	Pg	06 31 47.4	-0.6
MOTA				⇓iSg	Sg	06 32 09.8	+1.1
	comp=Z,7.4nm,0.4s						
MOTA	Moosalm	1.60	306	Pg	Pg	06 31 47.4	-0.5
MOTA				Sg	Sg	06 32 09.8	+1.1
	comp=Z,7.4nm,0.4s						
FETA	Feichten	1.68	292	⇓iPg	Pg	06 31 48.8	-0.6
FETA				⇑iSg	Sg	06 32 11.5	+0.3
	comp=Z,2.0nm,0.2s						
FETA	Feichten	1.68	292	Pg	Pg	06 31 48.8	-0.7
FETA				Sg	Sg	06 32 11.5	+0.3
	comp=Z,2.0nm,0.2s						
BOJS	Bojanci	1.82	120	i Pg	Pg	06 31 50.0	-2.1
BOJS	Bojanci	1.82	120	i Pg	Pg	06 31 50.0	-2.1
KHC	Kasperske Hory	2.74	8	ePN	Pn	06 32 02.5	+1.6
KHC				ePG	Pg	06 32 08.0	-1.7
KHC				eSG	Sg	06 32 45.0	-0.2
KHC	Kasperske Hory	2.74	8	Pn	Pn	06 32 02.5	+1.6

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*IDC **08** 06:34:18.7±0.7, 11°.97S×65°.66E, h0^{km}, mb4.1/14, mb1 4.3/15, mb1mx4.1/25, mbtmp4.1/15, ML4.4/1, MS4.3/10, Ms1 4.4/10, ms1mx4.1/39, Error ellipse: s-maj=23.4km s-min=17.3km az=1.0*

*ISCJB **08** 06:34:19.7±0.6, 12°.1S±0°.1×65°.69E±0°.07, h14^{km}, mb4.3/32, MS4.5/14, Error ellipse: s-maj=15.7km s-min=8.7km az=160.0*

*MOS **08** 06:34:19.0±0.9, 12°.09S×65°.75E, h10^{km}, mb4.8/11, Error ellipse: s-maj=13.5km s-min=11.5km az=103.9*

*NEIC **08** 06:34:21.1±0.6, 12°.02S×65°.74E, h10^{km}, mb4.5/9, Error ellipse: s-maj=18.0km s-min=11.8km az=161.0*

*GCMT **08** 06:34:21.1±0.2, 12°.03S×65°.62E, h15^{km}±1^{km}, MW5.2/85, Moment Tensor Solution. s44,c61; s85,c146; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.05±.02; M$_{\theta\theta}$-0.68±.02; M$_{\phi\phi}$0.73±.02; M$_{r\theta}$0.01±.03; M$_{\theta\phi}$0.25±.02; M$_{\phi r}$0.28±.05; Best double couple: M$_0$0.78900×10^{17} NP1:φ$_s$56.00000°, δ76.00000°, λ10.00000°. NP2: φ$_s$324.00000°, δ80.00000°, λ166.00000°. Principal axes: T 0.8570, Plg17.0000°, Azm279.0000°; N -0.1380, Plg73.0000°, Azm110.0000°; P -0.7200, Plg3.0000°, Azm10.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 08 06:34:20.3±2.8**, 12°.1S**±0°.1×**65°.72E**±0°.08**, h6**^{km}±17^{km}**, h15**^{km}±3.3^{km}**:pP-P, n70, σ1^{s}14**/56**, mb4.3**/32**, MS4.5**/14**, 3C, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSEY	Mahe Island	12.55	305	eP	Pn	06 37 19.9	+0.3
OPO	Ambohidratompo	18.97	248	P	Pn	06 38 43.8	+0.6
	1.2nm,0.3s,baz=69,slow=14,SNR=7.7						
ABPO	Ambohimpanom	19.07	247	eP	Pn	06 38 46.2	+1.8
ABPO				pmax	pmax		
	comp=Z,11nm,0.8s						
ABPO	Ambohimpanom	19.07	247	eP	Pn	06 38 46.2	+1.8
	comp=Z,10nm,0.8s						
KMBO	Kilima Mbogo	30.27	289	P	P	06 40 31.7	-0.9
	comp=Z,1.3nm,0.5s,mb3.9,baz=61,slow=11,SNR=3.0						
KMBO				LR	LR	06 50 28.0	
	comp=Z,1μm,20.7s,MS4.6,baz=96,slow=32						
LSZ	Lusaka	36.56	261	eP	P	06 41 26.5	-0.9
LSZ				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.0						
LSZ	Lusaka	36.56	261	P	P	06 41 26.2	-1.1
	comp=Z,24nm,1.2s,mb4.9,baz=89,slow=8.0,SNR=9.5						
LSZ	Lusaka	36.56	261	eP	P	06 41 26.5	-0.9
	comp=Z,28nm,1.2s,mb5.0						
BOSA	Boshof	41.08	240	LR	LR	06 56 02.7	
	comp=Z,507nm,19.8s,MS4.4,baz=76,slow=32						
CMAR	Chiang Mai Arr	44.71	48	P	P	06 42 32.9	-1.7
	comp=Z,0.9nm,0.3s,mb4.1,baz=245,slow=9.9,SNR=3.9						
CMAR				LR	LR	06 58 24.6	
	comp=Z,105nm,19.9s,MS3.8,baz=215,slow=32						
CMAR	Chiang Mai Arr	44.71	48	P	P	06 42 32.9	-1.7
CMAR				LR	LR	06 58 24.6	
SHL	Shillong	45.33	34	ePKP	P	06 42 39.5	0.0
LSA	Lhasa	48.29	30	eP	P	06 43 03.5	+0.9
LSA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
LSA	Lhasa	48.29	30	eP	P	06 43 03.5	+0.9
	comp=Z,3.1nm,0.7s,mb4.5						
KMI	Kunming	51.72	44	P	P	06 43 33.3	+4.5
KMI				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.3						
AAK	Ala-Archa	55.10	8	⇑eP	P	06 43 54.7	+1.5
AAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
AAK	Ala-Archa	55.10	8	eP	P	06 43 54.5	+1.3
	comp=Z,4.7nm,1.1s,mb4.4						
GYA	Guiyang	55.28	46	P	P	06 43 58.7	+3.8
GYA				PP	PP	06 46 02.6	+3.9
GYA				ScP	ScP	06 48 57.3	+2.0
GYA				S	S	06 51 40.9	+1.4
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,70nm,4.9s						
GYA				LR	LR		
	comp=N,320nm,22.1s,MS4.5						
GYA				LR	LR		
	comp=E,280nm,20.0s,MS4.5						
GYA				LR	LR		
	comp=Z,360nm,21.0s,MS4.4						
MAW	Mawson	55.44	181	LR	LR	07 03 48.7	
	comp=Z,190nm,18.5s,MS4.2,baz=36,slow=32						
GNI	Garni	55.55	341	⇑eP	P	06 43 56.8	+0.2
GNI				pmax	pmax		
	comp=Z,20nm,1.7s						
CD2	Chengdu	56.28	40	P	P	06 44 04.2	+2.2
CD2				pP	pP	06 44 08.8	+5.0
CD2				sP	sP	06 44 10.2	+5.8
CD2				PcP	PcP	06 45 01.0	+1.5
CD2				PP	PP	06 46 11.3	+3.8
CD2				S	S	06 51 52.7	+0.1
CD2				sS	sS	06 52 00.4	+4.8
CD2				SS	SS	06 55 40.3	+0.6
CD2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
CD2				pmax	pmax		
	comp=Z,280nm,5.5s						
CD2				LR	LR		
	comp=N,370nm,10.7s						
CD2				LR	LR		
	comp=Z,270nm,13.7s,MS4.5						
WMQ	Urumqi	59.19	18	eP	P	06 44 23.0	+0.8
WMQ				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
BRTR	Keskin Array B	59.60	332	LR	LR	07 07 09.5	
	comp=Z,187nm,20.2s,MS4.2,baz=137,slow=33						
LZH	Lanzhou	59.97	35	eP	P	06 44 30.3	+2.6
LZH				pP	pP	06 44 32.0	+2.5
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,65nm,5.0s						
GTA	Gaotai	60.32	30	eP	P	06 44 29.8	-0.3
GTA				pP	pP	06 44 34.1	+2.2
GTA				sP	sP	06 44 37.7	+5.2
GTA				PP	PP	06 46 45.0	+1.8
GTA				S	S	06 52 45.2	+0.2
GTA				SS	SS	06 56 37.9	-5.0
GTA				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
GTA				pmax	pmax		
	comp=Z,170nm,5.9s						
GTA				LR	LR		
	comp=N,210nm,15.5s,MS4.7						
GTA				LR	LR		
	comp=E,370nm,17.2s,MS4.7						
GTA				LR	LR		
	comp=Z,470nm,18.7s,MS4.7						
MKAR	Makanchi Array	60.52	13	P	P	06 44 30.0	-1.3
	comp=Z,0.7nm,0.7s,mb3.9,baz=199,slow=7.9,SNR=6.9						
XAN	Xi'an	61.61	40	P	P	06 44 37.9	-1.1
XAN				pP	pP	06 44 46.4	+5.6
XAN				sP	sP	06 44 50.6	+9.2
XAN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
XAN				pmax	pmax		
	comp=Z,67nm,6.2s						
KURK	Kurchatov	63.60	9	eP	P	06 44 51.8	-0.1
KURK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
KURK	Kurchatov	63.60	9	P	P	06 44 49.5	-2.3
	comp=Z,2.8nm,1.0s,mb4.3,baz=210,slow=7.1,SNR=6.5						
KURK				LR	LR	07 10 21.3	
	comp=Z,264nm,21.0s,MS4.4,baz=160,slow=34						
KURK	Kurchatov	63.60	9	eP	P	06 44 51.8	-0.1
	comp=Z,3.9nm,1.0s,mb4.4						
BVAR	Borovoye Array	65.03	3	P	P	06 45 00.9	-0.3
	comp=Z,1.5nm,0.9s,mb4.0,baz=165,slow=6.0,SNR=4.9						
ASAR	Alice Springs	65.38	111	P	P	06 45 04.2	-0.1
	comp=Z,1.7nm,0.7s,mb4.2,baz=276,slow=6.0,SNR=14						
WRA	Warramunga Arr	66.03	107	P	P	06 45 08.4	-0.1
	comp=Z,2.0nm,0.8s,mb4.2,baz=272,slow=5.7,SNR=13						
HHC	Hu-ho-hao-te	67.63	36	eP	P	06 45 20.1	+1.9
HHC				pP	pP	06 45 24.2	+4.2
HHC				PP	PP	06 47 50.9	+3.4
HHC				S	S	06 54 16.7	+0.9
HHC				sS	sS	06 54 24.1	+5.3
HHC				SS	SS	06 58 38.9	+1.8
HHC				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
HHC				pmax	pmax		
	comp=Z,170nm,5.8s						
HHC				LR	LR		
	comp=N,480nm,17.8s,MS4.9						
HHC				LR	LR		
	comp=E,340nm,16.7s,MS4.9						
HHC				LR	LR		
	comp=Z,630nm,17.8s,MS4.9						
ZALV	Zalesovo Beam	67.81	12	P	P	06 45 18.3	-0.7
	comp=Z,1.4nm,0.7s,mb4.1,baz=214,slow=7.2,SNR=6.2						
TORD	Torodi Ar. Bea	68.28	290	LR	LR	07 12 57.8	
	comp=Z,390nm,21.2s,MS4.6,baz=90,slow=34						
NVS	Novosibirsk	68.35	11	eP	P	06 45 22.8	+0.4
SONM	Songino Array	69.81	28	P	P	06 45 30.3	-1.2
	comp=Z,2.1nm,1.0s,mb4.0,baz=215,slow=6.2,SNR=13						
ULN	Ulaanbaatar	70.13	28	eP	P	06 45 33.5	-0.1
ULN				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.3						
ULN	Ulaanbaatar	70.13	28	eP	P	06 45 33.5	-0.1
	comp=Z,6.2nm,1.4s,mb4.3						
AKASG	Malin Array Be	70.20	336	P	P	06 45 30.6	-3.4
	comp=Z,0.2nm,0.3s,mb3.5,baz=155,slow=5.7,SNR=6.4						
ZAK	Zakamensk	70.39	24	eP	P	06 45 43.9	+8.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
TLY	Talaya	71.54	24	eP	Px	06 45 52.4	
TLY				e		06 48 28.7	
TLY				ePS		06 55 36.7	
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KOLS	Kolonicke sedl	71.87	332	eP	P	06 45 44.1	0.0
KOLS				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.5						
KOLS	Kolonicke sedl	71.87	332	eP	P	06 45 44.1	0.0
	comp=Z,7.5nm,1.4s,mb4.4						
KOLS				e		06 45 54.5	
CRVS	Cervenica-Dubn	72.23	331	eP	P	06 45 47.1	+0.8
DBIC	Dimbokro	72.60	281	LR	LR	07 14 53.3	
	comp=Z,448nm,21.7s,MS4.7,baz=107,slow=34						
STHS	Stebnicka Huta	72.69	331	eP	P	06 45 49.4	+0.4
STHS				e		06 46 06.7	
STHS				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb4.1						
STHS	Stebnicka Huta	72.69	331	eP	P	06 45 49.4	+0.4
STHS				ePCP	PcP	06 46 06.6	+0.2
STHS	Stebnicka Huta	72.69	331	eP	P	06 45 49.4	+0.4
	comp=Z,4.1nm,1.6s,mb4.1						
STHS				ePcP	PcP	06 46 06.7	+0.3
VYHS	Vyhne	73.23	330	eP	P	06 45 51.4	-0.8
VYHS				ePCP	PcP	06 46 07.8	-0.9
KLMR	Klimovskoe	75.68	347	P	P	06 46 07.7	+1.5
KLMR				pmax	pmax		
	comp=Z,23nm,1.8s,mb4.8						
GERES	GERESS Array B	76.07	328	P	P	06 46 05.5	-3.2
	comp=Z,0.3nm,0.5s,mb3.5,baz=134,slow=3.9,SNR=6.9						
KSRS	Korea Array	76.33	46	P	P	06 46 08.6	-1.9
	comp=Z,2.8nm,1.1s,mb4.1,baz=249,slow=5.2,SNR=4.2						
BRG	Berggiesshubel	77.19	329	eP	P	06 46 15.4	+0.4
BRG				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
BRG	Berggiesshubel	77.19	329	eP	P	06 46 15.4	+0.4
	comp=Z,6.0nm,1.1s,mb4.4						
CLL	Collm	77.93	329	eP	PcP	06 46 29.0	+0.1
CLL				eS	S	06 56 12.0	-0.8
CLL	Collm	77.93	329	eS	S	06 56 12.0	-0.8
CLL				eSSSS		07 06 42.0	
BFO	Black Forest	78.69	325	i P	P	06 46 23.4	0.0
VNDA	Vanda	79.56	167	LR	LR	07 17 13.4	
	comp=Z,325nm,18.6s,MS4.7,baz=17,slow=32						
ESDC	Sonseca Array	82.58	313	P	P	06 46 43.0	-1.5
	comp=Z,0.4nm,0.3s,mb3.9,baz=106,slow=4.7,SNR=6.6						
NOA	NORSAR Array B	84.62	337	LR	LR	07 24 49.2	
	comp=Z,94nm,18.5s,MS4.2,baz=170,slow=36						
TIXI	Tiksi	93.34	16	⇑eP	P	06 47 34.9	-0.9

TIXI				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.8						
YKA	**Yellowknife Ar**	**129.73**	**0**	PKP	PKPdf	06 53 29.3	-0.9
	comp=Z,0.3nm,0.6s,baz=345,slow=2.1,SNR=4.1						
RSSD	**Black Hills**	**146.94**	**346**	*e*PKP2	PKPbc	06 54 03.8	-0.2
LRAL	**Lakeview Retre**	**147.51**	**314**	*e*PKPdf	PKPbc	06 54 05.0	-1.0
REDW	**Red Top Meadow**	**148.75**	**355**	*e*PKPbc	PKPbc	06 54 08.4	-0.6
PDAR	**Pinedale Array**	**149.22**	**353**	PKPbc	PKPbc	06 54 08.7	-1.5
	comp=Z,2.0nm,0.8s,baz=111,slow=3.3,SNR=12						
NVAR	**Mina Array Bea**	**153.58**	**7**	PKPbc	PKPbc	06 54 20.0	-0.4
	comp=Z,0.7nm,0.6s,baz=81,slow=5.8,SNR=1.8						
TXAR	**Lajitas Array**	**160.25**	**332**	PKPab	PKPab	06 55 00.5	-1.2
	comp=Z,0.8nm,0.9s,baz=53,slow=3.6,SNR=6.2						

IDC 08 06:35:50.8±2.5**, 16°.21S×173°.97W, h73**^{km}±26^{km}**, mb3.9**/6**, mb1 4.1**/7**, mb1mx3.8**/19**, mbtmp3.9**/7**, Error ellipse: s-maj=48.0km s-min=16.6km az=141.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.12**	**43**	P	Pn	06 36 38.9	+1.3
	12nm,0.3s,baz=208,slow=20,SNR=13						
AFI				S	Sn	06 37 14.1	+0.4
	102nm,0.3s,baz=40,slow=22,SNR=20						
RPZ	**Rata Peaks**	**30.23**	**202**	P	P	06 41 54.9	+0.4
	9.7nm,0.8s,baz=0.0,slow=8.1,SNR=4.5						
STKA	**Stephens Creek**	**43.16**	**241**	P	P	06 43 43.1	-1.3
	1.4nm,0.6s,baz=96,slow=14,SNR=4.0						
WRA	**Warramunga Arr**	**49.13**	**257**	P	P	06 44 31.5	0.0
	1.0nm,0.5s,baz=96,slow=7.1,SNR=30						
ASAR	**Alice Springs**	**49.34**	**253**	P	P	06 44 33.3	+0.2
	4.7nm,0.6s,baz=88,slow=8.7,SNR=51						
TXAR	**Lajitas Array**	**81.51**	**56**	P	P	06 48 00.2	-0.4
	0.6nm,1.0s,baz=213,slow=8.1,SNR=4.5						
PDAR	**Pinedale Array**	**83.23**	**42**	P	P	06 48 10.2	+1.0
	0.8nm,0.8s,baz=226,slow=4.0,SNR=7.6						

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*IDC **08** 07:05:35.2±0.4, 9°.47N×138°.12E, h0^{km}, mb4.9/23, mb1 5.0/25, mb1mx4.9/29, mbtmp4.9/25, ML4.9/2, MS5.1/26, Ms1 5.1/26, ms1mx5.0/34, Error ellipse: s-maj=17.8km s-min=10.3km az=84.0*

*ISCJB **08** 07:05:38.9±0.2, 9°.51N±0°.03×138°.23E±0°.03, h36^{km}, mb5.3/145, MS5.2/191, Error ellipse: s-maj=4.1km s-min=3.9km az=13.2*

*BJI **08** 07:05:38.6, 9°.68N×138°.41E, h33^{km}, mB5.6/45, mb5.1/61, Ms5.3/65, Ms7 5.2/56*

*MOS **08** 07:05:38.4±1.0, 9°.50N×138°.16E, h33^{km}, mb5.4/39, MS5.2/22, Error ellipse: s-maj=10.1km s-min=6.0km az=105.9*

*NEIC **08** 07:05:40.7±0.2, 9°.47N×138°.21E, h35^{km}, mb5.4/65, MS5.3/147, Error ellipse: s-maj=5.3km s-min=4.5km az=80.0*

NEIC Felt on Yap.

*GCMT **08** 07:05:40.7±0.1, 9°.51N×138°.12E, h41^{km}±1^{km}, MW5.4/99, Moment Tensor Solution. s70,c112; s99,c196; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.01±.03; M$_{\theta\theta}$-0.42±.02; M$_{\phi\phi}$0.42±.03; M$_{r\theta}$1.34±.05; M$_{\theta\phi}$-0.68±.02; M$_{\phi r}$1.01±.04; Best double couple: M$_0$1.74200×10^{17} NP1:ϕ_s293.00000°, δ14.00000°, λ157.00000°. NP2:ϕ_s46.00000°, δ85.00000°, λ77.00000°. Principal axes: T 1.3660, Plg49.0000°, Azm302.0000°; N 0.7530, Plg13.0000°, Azm47.0000°; P -2.1190, Plg38.0000°, Azm147.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*DJA **08** 07:05:56, 8°.86N×138°.73E, h194^{km}, mb5.2/9*

ISC 08 07:05:41.0±0.2**, 9°.51N**±0°.03×**138°.24E**±0°.03**, h38**^{km}**, h38**^{km}±1.6^{km}**:pP-P, n411,** σ**1^{s}11**/316**, mb5.3**/145**, MS5.2**/191**, 17C-23D, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**7.66**	**57**	Pn	**Pn**	**07 07 30.8**	**+0.7**
	50nm,0.3s,baz=190,slow=10,SNR=17						
GUMO				Sn	**Sn**	**07 08 52.6**	**-3.1**
	65nm,0.3s,baz=28,slow=21,SNR=4.8						
GUMO				LR	LR	07 10 18.1	
	comp=Z,5µm,19.4s,baz=238,slow=36						
GUMO	**Guam**	**7.66**	**57**	*e*Pn	**Pn**	**07 07 30.9**	**+0.7**
GUMO				*e*Sn	**Sn**	**07 08 55.0**	**-0.7**
DAV	**Davao City (W)**	**12.76**	**260**	Pn	**Pn**	**07 08 41.7**	**+1.7**
	98nm,0.3s,baz=258,slow=14,SNR=7.6						
DAV				LR	LR	07 14 00.4	
	comp=Z,5µm,18.6s,baz=259,slow=40						
DAV	**Davao City (W)**	**12.76**	**260**	P	**Pn**	**07 08 43.7**	**+3.7**
	SNR=8.7						
DAV				P		07 08 43.7	
	SNR=8.7						
PVCP	**Virac**	**14.38**	**288**	*e*P	**Pn**	**07 09 09.2**	**+7.0**
PAGZ	**Pagadian**	**14.78**	**265**	*e*P	**Pn**	**07 09 09.0**	**+1.5**
OTRP	**Odiongan**	**16.17**	**282**	*e*P	**Pn**	**07 09 27.9**	**+2.2**
AAI	**Ambon**	**16.49**	**218**	⇑*e*P	**Pn**	**07 09 34.8**	**+5.2**
TGY	**Tagaytay City**	**17.54**	**287**	P	**Pn**	**07 09 45.0**	**+2.2**
	45nm,0.3s,baz=173,slow=6.7,SNR=3.1						
CBIJ	**Chichi jima**	**17.89**	**12**	P	**Pn**	**07 09 48.1**	**+1.1**
	10nm,0.3s,baz=102,slow=14,SNR=5.2						
CBIJ				LR	LR	07 15 27.1	
	comp=Z,3µm,18.6s,baz=178,slow=33						
PPR	**Puerto Princes**	**19.23**	**272**	⇓*e*P	**Pn**	**07 10 03.0**	**-0.4**
JOW	**Kunigami**	**19.64**	**333**	P	**Pn**	**07 10 08.6**	**+0.5**
	2.1nm,0.3s,baz=144,slow=14,SNR=12						
JOW				LR	LR	07 15 46.0	
	comp=Z,12µm,21.8s,baz=154,slow=31						
MYLDM	**Lahad Datu**	**20.04**	**259**	P	**P**	**07 10 14.2**	**+3.3**
KDI	**Kendari**	**20.52**	**230**	⇓*e*P	**P**	**07 10 16.2**	**0.0**
KDI				*e*S	**S**	**07 14 03.9**	**0.0**
TSM	**Tawau**	**20.86**	**257**	P	**P**	**07 10 21.8**	**+1.9**
PCI	**Palu**	**21.04**	**242**	⇑*e*P	**P**	**07 10 27.0**	**+5.2**
TWG	**Pinlang**	**21.11**	**311**	*e*P	**P**	**07 10 22.6**	**+0.1**
	285nm,1.3s,mb5.4						
SDKM	**Sandakan**	**21.20**	**261**	P	**P**	**07 10 24.9**	**+1.3**
YULB	**Yu-li**	**21.29**	**312**	*e*P	**P**	**07 10 25.1**	**+0.7**
	125nm,0.9s,mb5.2						
KDM	**Kudat**	**21.34**	**265**	P	**P**	**07 10 30.5**	**+5.5**
NACB	**Ninganchiao**	**21.56**	**315**	*e*P	**P**	**07 10 28.2**	**+0.8**
	158nm,1.2s,mb5.3						
TPUB	**Ta-pu**	**21.72**	**311**	*e*P	**P**	**07 10 29.0**	**-0.1**
	628nm,1.4s,mb5.8						
SSLB	**Suanglung**	**21.78**	**313**	*e*P	**P**	**07 10 32.5**	**+2.8**
	96nm,0.8s,mb5.3						
YHNB	**Yeheng**	**22.03**	**315**	*e*P	**P**	**07 10 33.2**	**+0.8**
	247nm,1.1s,mb5.5						
KKM	**Kota Kinabalu**	**22.09**	**263**	P	**P**	**07 10 33.1**	**+0.1**
KKM	**Kota Kinabalu**	**22.09**	**263**	*e*P	**P**	**07 10 33.4**	**+0.3**
	210nm,1.0s,mb5.5						
KKM				LR	LR		
	comp=Z,6µm,22.0s,MS5.0						
TATO	**Taipei**	**22.15**	**316**	PFAKE		07 10 50.0	+16
TATO				LR	LR		
	comp=Z,11µm,20.0s,MS5.3						
KAKA	**Kakadu**	**22.81**	**195**	*e*P	**P**	**07 10 38.3**	**-2.4**
	comp=Z,32nm,0.7s,mb4.9						
KAKA	**Kakadu**	**22.81**	**195**	*e*P	**P**	**07 10 38.6**	**-2.0**
	comp=Z,112nm,0.8s,mb5.3						
KAPI	**Kappang**	**23.40**	**233**	P	**P**	**07 10 46.8**	**-0.1**
	comp=Z,505nm,0.8s,mb6.0,SNR=5.8						
KAPI	**Kappang**	**23.40**	**233**	PFAKE		07 11 00.0	+13
KAPI				LR	LR		
	comp=Z,1µm,19.0s,MS4.3						
JHJ	**Hachijo jima 2**	**23.54**	**3**	LR	LR	07 17 44.8	
	comp=Z,7µm,21.1s,MS5.1,baz=218,slow=31						
MKS	**Makassar**	**23.74**	**233**	⇓*e*P	**P**	**07 10 51.9**	**+1.9**
COEN	**Coen**	**23.82**	**168**	*e*P	**P**	**07 10 48.6**	**-2.0**
	comp=Z,541nm,1.0s,mb5.9						
QZH	**Quanzhou**	**24.19**	**312**	⇑*i*P	**P**	**07 10 54.4**	**+0.4**
QZH				S	**S**	**07 15 11.8**	**+1.9**
QZH				pmax	pmax		
	comp=Z,200nm,1.2s,mb5.4						
QZH				pmax	pmax		
	comp=Z,2µm,4.1s						
QZH				LR	LR		
	comp=N,4µm,11.4s						
QZH				LR	LR		
	comp=E,9µm,21.5s						
QZH				LR	LR		
	comp=Z,6µm,20.8s						
BTM	**Bintulu**	**25.76**	**258**	P	**P**	**07 11 10.3**	**+1.9**
HKC	**Hong Kong Obse**	**26.36**	**302**	P	**P**	**07 11 16.0**	**+2.3**
SSE	**Sheshan**	**26.70**	**326**	P	**P**	**07 11 16.4**	**-0.4**
SSE				sP	sP	07 11 32.6	+0.5
SSE				S	**S**	**07 15 48.2**	**-1.6**
SSE				sS	sS	07 16 06.9	-0.6
SSE				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.8						
SSE				pmax	pmax		
	comp=Z,490nm,7.2s						
SSE				LR	LR		
	comp=N,3µm,16.2s,MS5.1						
SSE				LR	LR		
	comp=E,3µm,16.2s,MS5.1						
SSE				LR	LR		
	comp=Z,6µm,16.1s,MS5.2						
SBUM	**Sibu**	**26.79**	**256**	P	**P**	**07 11 19.2**	**+1.5**
MJAR	**Matsushiro Arr**	**26.91**	**360**	P	**P**	**07 11 15.6**	**-3.0**
	comp=Z,2.2nm,0.5s,baz=175,slow=9.3,SNR=6.0						
MJAR				LR	LR	07 20 20.3	
	comp=Z,3µm,18.9s,MS4.9,baz=175,slow=33						
MAJO	**Matsushiro**	**26.91**	**360**	*e*P	**P**	**07 11 17.2**	**-1.4**
MAJO				pmax	pmax		
	comp=Z,39nm,1.1s,mb4.8						
MAJO				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.0						
MAJO	**Matsushiro**	**26.91**	**360**	*e*P	**P**	**07 11 17.2**	**-1.4**
	comp=Z,39nm,1.1s,mb4.8						
MAJO				LR	LR		
	comp=Z,4µm,19.0s,MS5.0						
MAT	**Matsushiro**	**26.91**	**360**	P	**P**	**07 11 16.2**	**-2.4**
MAT				S	**S**	**07 15 51.0**	**-1.9**
GZH	**Guangzhou**	**27.38**	**303**	P	**P**	**07 11 22.9**	**-0.1**
GZH				S	**S**	**07 16 00.4**	**-0.2**
GZH				LR	LR		
	comp=N,2µm,18.2s,MS5.0						
GZH				LR	LR		
	comp=E,3µm,18.3s,MS5.0						
GZH				LR	LR		
	comp=Z,6µm,17.9s,MS5.2						
HNR	**Honiara**	**28.65**	**130**	LR	LR	07 21 30.4	
	comp=Z,3µm,21.7s,MS4.9,baz=297,slow=33						
HNR	**Honiara**	**28.65**	**130**	PFAKE		07 11 50.0	+16
HNR				LR	LR		
	comp=Z,5µm,20.0s,MS5.1						
NJ2	**Nanjing**	**28.74**	**324**	*e*P	**P**	**07 11 35.2**	**+0.3**
NJ2				pP	pP	07 11 45.2	-0.5
NJ2				sP	sP	07 11 48.0	-2.3
NJ2				PP	PP	07 12 27.0	-13
NJ2				S	**S**	**07 16 23.5**	**+1.7**
NJ2				sS	sS	07 16 40.0	+0.4
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
NJ2				pmax	pmax		
	comp=Z,420nm,4.5s						
NJ2				LR	LR		
	comp=N,2µm,21.2s,MS5.1						
NJ2				LR	LR		
	comp=E,4µm,19.9s,MS5.1						
NJ2				LR	LR		
	comp=Z,4µm,19.9s,MS5.0						
KSM	**Kuching**	**28.90**	**256**	P	**P**	**07 11 36.6**	**0.0**
KSM	**Kuching**	**28.90**	**256**	*e*P	**P**	**07 11 36.4**	**-0.2**
	comp=Z,36nm,0.8s,mb5.2						
KSM				LR	LR		
	comp=Z,2µm,22.0s,MS4.6						
QIZ	**Qiongzhong**	**29.06**	**292**	P	**P**	**07 11 38.2**	**+0.2**
QIZ				sP	sP	07 11 51.2	-2.1
QIZ				S	**S**	**07 16 28.0**	**+0.9**
QIZ				sS	sS	07 16 43.5	-1.5
QIZ				pmax	pmax		
	comp=Z,36nm,1.4s,mb4.9						
QIZ				pmax	pmax		
	comp=Z,430nm,4.8s						
QIZ				LR	LR		
	comp=E,2µm,16.5s						
QIZ				LR	LR		
	comp=Z,3µm,17.1s,MS4.9						
QIZ	**Qiongzhong**	**29.06**	**292**	*e*P	**P**	**07 11 38.4**	**+0.4**
	comp=Z,30nm,1.0s,mb5.0						
QIZ				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
KSRS	**Korea Array**	**29.34**	**343**	P	**P**	**07 11 39.6**	**-0.6**
	comp=Z,9.2nm,0.9s,mb4.5,baz=163,slow=9.3,SNR=23						
KSRS				PcP	PcP	07 14 47.4	+1.3
	comp=Z,1.8nm,1.0s,baz=126,slow=1.7,SNR=4.3						
KSRS				LR	LR	07 23 11.8	
	comp=Z,4µm,18.2s,MS5.0,baz=167,slow=36						
WRAB	**Tennant Creek**	**29.50**	**187**	P	**P**	**07 11 41.0**	**-0.8**
	comp=Z,199nm,1.1s,mb5.8,SNR=5.5						
WRAB	**Tennant Creek**	**29.50**	**187**	*e*P	**P**	**07 11 41.4**	**-0.4**
WRAB				pmax	pmax		
	comp=Z,33nm,2.3s,mb4.7						
WRAB				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.0						
WRAB	**Tennant Creek**	**29.50**	**187**	*e*P	**P**	**07 11 41.4**	**-0.4**
	comp=Z,34nm,2.3s,mb4.7						
WRAB				LR	LR		
	comp=Z,4µm,21.0s,MS5.0						
WRA	**Warramunga Arr**	**29.51**	**187**	P	**P**	**07 11 40.3**	**-1.6**
WRA						07 14 47.1	
WRA	**Warramunga Arr**	**29.51**	**187**	P	**P**	**07 11 40.3**	**-1.6**
	comp=Z,14nm,1.0s,mb4.7,baz=6.2,slow=9.5,SNR=34						
WRA				PcP	PcP	07 14 47.1	+0.3
	comp=Z,6.4nm,0.9s,baz=350,slow=2.8,SNR=4.7						
WRA				LR	LR	07 23 35.2	
	comp=Z,3µm,20.6s,MS5.0,baz=10.0,slow=37						
INCN	**Inchon**	**29.76**	**341**	*e*P	**P**	**07 11 43.4**	**-0.5**
	comp=Z,93nm,1.5s,mb5.3						
INCN				LR	LR		
	comp=Z,4µm,20.0s,MS5.0						
FITZ	**Fitzroy Crossi**	**30.12**	**204**	*e*P	**P**	**07 11 45.2**	**-2.1**
	comp=Z,19nm,0.7s,mb4.9						
FITZ				*e*S	**S**	**07 16 36.8**	**-6.9**
FITZ	**Fitzroy Crossi**	**30.12**	**204**	P	**P**	**07 11 45.2**	**-2.1**
	comp=Z,5.8nm,0.6s,mb4.5,baz=63,slow=12,SNR=16						
FITZ	**Fitzroy Crossi**	**30.12**	**204**	*e*P	**P**	**07 11 44.9**	**-2.4**
	comp=Z,12nm,0.8s,mb4.7						
CTA	**Charters Tower**	**30.45**	**165**	⇓*i*P	**P**	**07 11 50.7**	**+0.5**
	comp=Z,14nm,0.7s,mb4.8						
CTA	**Charters Tower**	**30.45**	**165**	P	**P**	**07 11 50.2**	**+0.1**
	comp=Z,20nm,0.8s,mb4.9,baz=338,slow=10.0,SNR=24						
CTA				LR	LR	07 23 50.3	
	comp=Z,3µm,18.8s,MS5.0,baz=338,slow=36						
CTAO	**Charters Tower**	**30.45**	**165**	*e*P	**P**	**07 11 50.8**	**+0.6**
CTAO				*e*	pP	07 12 02.9	+2.0
CTAO				pmax	pmax		
	comp=Z,25nm,0.9s,mb4.9						
CTAO				MLR	MLR		
	comp=Z,3µm,19.0s,MS4.9						
CTAO	**Charters Tower**	**30.45**	**165**	*e*P	**P**	**07 11 50.8**	**+0.6**
	comp=Z,25nm,0.9s,mb5.0						
CTAO				*e*	pP	07 12 02.9	+2.0
CTAO				LR	LR		
	comp=Z,3µm,19.0s,MS4.9						
WHN	**Wuhan**	**30.56**	**317**	⇓P	**P**	**07 11 52.1**	**+1.0**
WHN				S	**S**	**07 16 57.0**	**+6.6**
WHN				LR	LR		
	comp=N,6µm,18.4s,MS5.5						
WHN				LR	LR		
	comp=E,6µm,14.6s,MS5.5						
WHN				LR	LR		
	comp=Z,13µm,20.4s						
TIA	**Tai'an**	**32.78**	**327**	*e*P	**P**	**07 12 06.0**	**-4.6**
TIA				*e*S	**S**	**07 17 31.0**	**+6.0**
TIA				LR	LR		
	comp=N,2µm,17.0s						
DL2	**Dalian**	**32.84**	**336**	P	**P**	**07 12 11.5**	**+0.4**
DL2				*e*S	**S**	**07 17 28.3**	**+2.4**
DL2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
DL2				pmax	pmax		
	comp=Z,270nm,5.2s						
DL2				LR	LR		
	comp=N,1µm,17.1s,MS4.8						
DL2				LR	LR		
	comp=E,1µm,16.8s,MS4.8						
DL2				LR	LR		
	comp=Z,2µm,17.8s,MS4.9						
ASAR	**Alice Springs**	**33.24**	**187**	P	**P**	**07 12 14.2**	**-0.4**
	comp=Z,12nm,0.6s,mb5.0,baz=21,slow=10,SNR=120						
ASAR				PcP	PcP	07 14 58.3	+1.6
	comp=Z,3.7nm,0.6s,baz=2.0,slow=2.7,SNR=4.5						
GYA	**Guiyang**	**34.30**	**304**	⇑*i*P	**P**	**07 12 24.5**	**+0.6**
GYA				pP	pP	07 12 37.4	+2.7
GYA				sP	sP	07 12 40.5	+1.1
GYA				PP	PP	07 13 41.2	-0.9
GYA				PcP	PcP	07 15 01.0	+1.3
GYA				S	**S**	**07 17 50.8**	**+2.0**
GYA				sS	sS	07 18 06.8	+0.1
GYA				ScP	ScP	07 18 41.3	-0.7
GYA				PcS	PcS	07 18 48.6	+2.4
GYA				SS	SS	07 20 00.8	-18
GYA				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
GYA				pmax	pmax		
	comp=Z,300nm,6.8s						
GYA				LR	LR		
	comp=N,1µm,17.6s,MS5.0						
GYA				LR	LR		
	comp=E,2µm,17.9s,MS5.0						
GYA				LR	LR		
	comp=Z,3µm,17.4s,MS5.0						
ASAJ	**Asahikawa**	**34.69**	**6**	P	**P**	**07 12 27.1**	**+0.1**
	comp=Z,3.0nm,0.3s,mb4.8,baz=249,slow=13,SNR=4.7						
SNY	**Shenyang**	**34.69**	**341**	⇑P	**P**	**07 12 26.4**	**-0.7**
SNY				pP	pP	07 12 41.4	+3.5
SNY				S	**S**	**07 17 42.6**	**-12**
SNY				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.3						
SNY				pmax	pmax		
	comp=Z,500nm,9.2s						
SNY				LR	LR		
	comp=N,2µm,17.7s,MS5.1						
SNY				LR	LR		
	comp=E,2µm,17.7s,MS5.1						
SNY				LR	LR		
	comp=Z,3µm,16.8s,MS5.2						
KTGM	**Kuala Trenggan**	**35.04**	**266**	P	**P**	**07 12 30.8**	**+0.2**
TARA	**Tarawa**	**35.44**	**101**	PFAKE		07 12 50.0	+16
TARA				LR	LR		
	comp=Z,7µm,19.0s,MS5.5						
MBWA	**Marble Bar**	**35.48**	**211**	PFAKE		07 12 50.0	+16
MBWA				LR	LR		
	comp=Z,981nm,20.0s,MS4.6						
MDJ	**Mudanjiang**	**35.77**	**349**	P	**P**	**07 12 35.6**	**-0.8**
MDJ				pP	pP	07 12 44.0	-3.2
MDJ				sP	sP	07 12 48.2	-3.6
MDJ				PP	PP	07 13 57.0	-1.1
MDJ				PcP	PcP	07 15 04.6	+1.0
MDJ				S	**S**	**07 18 15.5**	**+4.5**
MDJ				sS	sS	07 18 24.9	-4.0
MDJ				ScP	ScP	07 18 47.3	+0.4
MDJ				PcS	PcS	07 18 51.1	+0.3
MDJ				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,300nm,6.5s						
MDJ				LR	LR		
	comp=N,3µm,17.6s,MS5.2						
MDJ				LR	LR		
	comp=E,1µm,17.6s,MS5.2						
MDJ				LR	LR		
	comp=Z,4µm,18.6s,MS5.2						
MDJ	**Mudanjiang**	**35.77**	**349**	*e*P	**P**	**07 12 36.2**	**-0.1**
	comp=Z,12nm,0.9s,mb4.8						
MDJ				*e*	pP	07 12 46.2	-1.0
MDJ				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
CN2	**Changchun**	**35.93**	**344**	⇓P	**P**	**07 12 37.1**	**-0.7**
CN2				*e*sP	sP	07 12 50.9	-2.3
CN2				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,3µm,20.0s,MS5.1						
CN2				LR	LR		
	comp=E,2µm,20.0s,MS5.1						
CN2				LR	LR		
	comp=Z,4µm,18.0s,MS5.2						
BJT	**Baijiatuau**	**36.18**	**331**	*e*P	**P**	**07 12 40.1**	**+0.1**
BJT				pmax	pmax		
	comp=Z,185nm,1.2s						
BJT				MLR	MLR		
	comp=Z,3µm,20.0s						
BJT	**Baijiatuau**	**36.18**	**331**	*e*P	**P**	**07 12 40.1**	**+0.1**
	comp=Z,185nm,1.2s,mb5.9						
BJT				LR	LR		
	comp=Z,3µm,20.0s,MS5.1						
BJI	**Beijing**	**36.20**	**331**	P	**P**	**07 12 39.3**	**-0.8**
BJI				pP	pP	07 12 50.5	-0.4
BJI				sP	sP	07 12 54.4	-1.1
BJI				PP	PP	07 14 05.0	+2.1
BJI				S	**S**	**07 18 14.5**	**-3.1**
BJI				pmax	pmax		
	comp=Z,120nm,1.2s,mb5.7						
BJI				pmax	pmax		
	comp=Z,770nm,5.8s						
BJI				LR	LR		
	comp=N,3µm,19.4s,MS5.1						
BJI				LR	LR		
	comp=E,810nm,19.4s,MS5.1						
BJI				LR	LR		
	comp=Z,4µm,24.8s						
XAN	**Xi'an**	**36.33**	**317**	P	**P**	**07 12 41.0**	**-0.3**
XAN				pP	pP	07 12 50.6	-1.5
XAN				sP	sP	07 12 54.2	-2.5
XAN				PP	PP	07 14 01.9	-2.5
XAN				PcP	PcP	07 15 06.9	+1.4
XAN				S	**S**	**07 18 18.0**	**-1.8**
XAN				ScP	ScP	07 18 49.3	+0.1
XAN				PcS	PcS	07 18 52.8	-0.5
XAN				SS	SS	07 20 45.4	-14
XAN				ScS	ScS	07 22 52.4	-2.9
XAN				pmax	pmax		
	comp=Z,20nm,2.0s,mb4.7						
XAN				pmax	pmax		
	comp=Z,770nm,12.8s						
XAN				LR	LR		
	comp=N,2µm,20.0s,MS5.2						
XAN				LR	LR		
	comp=E,3µm,20.3s,MS5.2						
XAN				LR	LR		
	comp=Z,6µm,20.0s,MS5.4						
EIDS	**Eidsvold**	**36.85**	**160**	*e*P	**P**	**07 12 46.4**	**+0.6**
	comp=Z,18nm,0.9s,mb4.9						
FRIM	**Kepong**	**36.89**	**263**	P	**P**	**07 12 45.9**	**-0.4**
KMI	**Kunming**	**37.13**	**299**	⇑P	**P**	**07 12 49.4**	**+1.2**
KMI				pP	pP	07 13 00.2	+1.1
KMI				sP	sP	07 13 04.0	+0.3
KMI				PP	PP	07 14 17.9	+4.5
KMI				PcP	PcP	07 15 09.6	+1.5
KMI				S	**S**	**07 18 30.7**	**-1.5**
KMI				sS	sS	07 18 50.3	+0.1
KMI				SS	SS	07 21 03.5	-12
KMI				ScS	ScS	07 22 56.0	-4.1
KMI				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.4						
KMI				pmax	pmax		
	comp=Z,490nm,5.0s						
KMI				LR	LR		
	comp=N,3µm,17.6s,MS5.3						
KMI				LR	LR		
	comp=E,4µm,18.8s,MS5.3						
KMI				LR	LR		
	comp=Z,6µm,20.0s,MS5.4						
IPM	**Ipoh**	**37.25**	**265**	P	**P**	**07 12 48.8**	**-0.6**
KULM	**Kulim**	**37.49**	**266**	P	**P**	**07 12 51.7**	**+0.3**
KULM	**Kulim**	**37.49**	**266**	*e*P	**P**	**07 12 50.4**	**-1.1**
	comp=Z,135nm,1.5s,mb5.5						
YSS	**Yuzh-Sakhalins**	**37.52**	**5**	⇓*e*P	**P**	**07 12 51.0**	**-0.2**
YSS				*e*S	**S**	**07 18 34.0**	**-3.5**
YSS				*e*SSS		07 21 41.0	
YSS				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.5						
YSS				pmax	pmax		
	comp=Z,500nm,5.0s						
YSS				MLR	MLR		
	comp=N,2µm,18.0s,MS4.9						
YSS				MLR	MLR		
	comp=E,600nm,18.0s,MS4.9						
YSS				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.8						
YSS	**Yuzh-Sakhalins**	**37.52**	**5**	*e*P	**P**	**07 12 51.4**	**+0.3**
	comp=Z,88nm,1.1s,mb5.4						
YSS				LR	LR		
	comp=Z,515nm,19.0s,MS4.3						
CD2	**Chengdu**	**38.48**	**309**	P	**P**	**07 12 59.4**	**-0.2**
CD2				pP	pP	07 13 09.0	-1.5
CD2				sP	sP	07 13 13.8	-1.3
CD2				PP	PP	07 14 31.7	+3.5
CD2				PcP	PcP	07 15 12.5	+0.3
CD2				S	**S**	**07 18 52.6**	**-0.1**
CD2				sS	sS	07 19 08.4	-2.3
CD2				SS	SS	07 21 33.7	-9.4

CD2				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.2						
CD2				pmax	pmax		
	comp=Z,570nm,5.7s						
CD2				LR	LR		
	comp=N,4µm,20.2s,MS5.4						
CD2				LR	LR		
	comp=E,5µm,21.4s,MS5.4						
BDT	**Bhumibol Dam**	**38.88**	**286**	P	**P**	**07 13 04.0**	**+0.9**
HABR	**Khabarovsk**	**38.93**	**357**	*ce*P	**P**	**07 13 02.1**	**-1.0**
HABR				*e**PP	pP	07 13 10.5	-3.5
HABR				*e**SP	sP	07 13 14.9	-3.7
HABR				*e*		07 14 30.6	
HABR				*e*S	**S**	**07 18 58.6**	**-0.2**
HABR				*e**SS	sS	07 19 14.5	-2.4
HABR				SSS		07 22 09.8	
HABR						07 23 08.3	
HABR				pmax	pmax		
	comp=Z,116nm,1.5s,mb5.4						
HABR				pmax	pmax		
	comp=N,35nm,1.5s						
HABR				pmax	pmax		
	comp=E,24nm,0.7s						
HABR				MLR	MLR		
	comp=Z,2µm,17.0s,MS4.9						
CMAR	**Chiang Mai Arr**	**39.08**	**288**	P	**P**	**07 13 05.2**	**+0.4**
	comp=Z,24nm,0.6s,mb5.1,baz=99,slow=7.1,SNR=94						
CMAR				LR	LR	07 29 21.3	
	comp=Z,2µm,18.8s,MS5.0,baz=94,slow=37						
CHG	**Chiang Mai**	**39.13**	**288**	⇑P	**P**	**07 13 04.6**	**-0.6**
	comp=Z,33nm,1.3s,mb4.9						
CHTO	**Chiang Mai**	**39.13**	**288**	*e*P	**P**	**07 13 05.3**	**+0.1**
CHTO				*e*		07 13 19.5	
CHTO				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.0						
CHTO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.0						
CHTO	**Chiang Mai**	**39.13**	**288**	*e*P	**P**	**07 13 05.3**	**+0.2**
	comp=Z,41nm,1.2s,mb5.0						
CHTO				*e*		07 13 19.5	
CHTO				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
CHTO	**Chiang Mai**	**39.13**	**288**	⇓P	**P**	**07 13 05.3**	**+0.1**
	SNR=18						
CHTO				⇓P		07 13 05.3	
	SNR=18						
HHC	**Hu-ho-hao-te**	**39.14**	**327**	*e*P	**P**	**07 13 04.9**	**-0.1**
HHC				pP	pP	07 13 14.9	-1.0
HHC				sP	sP	07 13 18.8	-1.7
HHC				PP	PP	07 14 39.8	+4.6
HHC				PcP	PcP	07 15 14.6	+0.6
HHC				*e*S	**S**	**07 19 01.8**	**-0.5**
HHC				SS	SS	07 21 48.2	-7.8
HHC				ScS	ScS	07 23 09.6	-1.5
HHC				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.7						
HHC				pmax	pmax		
	comp=Z,530nm,5.0s						
HHC				LR	LR		
	comp=N,3µm,18.3s,MS5.3						
HHC				LR	LR		
	comp=E,3µm,18.5s,MS5.3						
HHC				LR	LR		
	comp=Z,5µm,18.9s,MS5.3						
PSI	**Prapat**	**39.62**	**263**	P	**P**	**07 13 08.0**	**-1.4**
	comp=Z,14nm,0.5s,mb5.0,baz=121,slow=2.2,SNR=15						
BTO	**Baotou**	**39.81**	**326**	*e*P	**P**	**07 13 10.1**	**-0.4**
BTO				pmax	pmax		
	comp=Z,14nm,1.6s,mb4.4						
KLR	**Kul'dur**	**39.97**	**353**	⇓*i*P	**P**	**07 13 07.4**	**-4.3**
KLR				*e*S	**S**	**07 19 10.5**	**-3.9**
KLR				pmax	pmax		
	comp=E,76nm,1.4s						
KLR				pmax	pmax		
	comp=Z,300nm,1.4s,mb5.8						
KLR				MLR	MLR		
	comp=E,700nm,14.0s						
KLR				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.1						
LZH	**Lanzhou**	**40.93**	**316**	*e*P	**P**	**07 13 20.0**	**+0.1**
LZH				pP	pP	07 13 30.4	-0.4
LZH				sP	sP	07 13 33.1	-2.3
LZH				PP	PP	07 14 56.4	+1.7
LZH				*e*S	**S**	**07 19 34.1**	**+5.0**
LZH				sS	sS	07 19 50.3	+3.0
LZH				SS	SS	07 22 27.5	-4.3
LZH				pmax	pmax		
	comp=Z,38nm,1.2s,mb4.9						
LZH				pmax	pmax		
	comp=Z,190nm,6.1s						
LZH				LR	LR		
	comp=E,2µm,16.1s						
LZH				LR	LR		
	comp=Z,4µm,17.8s,MS5.3						
FORT	**Forrest**	**41.23**	**193**	*e*P	**P**	**07 13 21.2**	**-1.1**
	comp=Z,77nm,0.7s,mb5.4						
FORT	**Forrest**	**41.23**	**193**	*e*P	**P**	**07 13 22.9**	**+0.6**
	comp=Z,88nm,0.8s,mb5.4						
STKA	**Stephens Creek**	**41.27**	**176**	*e*P	**P**	**07 13 22.0**	**-0.7**
	comp=Z,30nm,0.6s,mb5.1						
STKA	**Stephens Creek**	**41.27**	**176**	P	**P**	**07 13 22.0**	**-0.6**
	comp=Z,35nm,0.6s,mb5.1,baz=343,slow=8.3,SNR=66						
STKA				LR	LR	07 31 05.7	
	comp=Z,7µm,20.1s,MS5.5,baz=5.4,slow=37						
STKA	**Stephens Creek**	**41.27**	**176**	P	**P**	**07 13 22.0**	**-0.6**
STKA				LR	LR	07 31 05.7	
ARMA	**Armidale**	**41.73**	**163**	*e*P	**P**	**07 13 27.2**	**+0.8**
ARMA	**Armidale**	**41.73**	**163**	*e*P	**P**	**07 13 27.3**	**+0.9**
	comp=Z,49nm,1.0s,mb5.1						
DZM	**Mont Dzumac**	**41.83**	**139**	*e*P	**P**	**07 13 29.3**	**+1.8**
	comp=Z,78nm,1.0s,mb5.3						
HIA	**Hailar**	**42.54**	**342**	*e*P	**P**	**07 13 33.2**	**+0.4**
HIA				*e*	pP	07 13 43.5	-0.3
HIA				pmax	pmax		
	comp=Z,66nm,1.3s						
HIA				MLR	MLR		
	comp=Z,4µm,20.0s						
HIA	**Hailar**	**42.54**	**342**	*e*P	**P**	**07 13 33.1**	**+0.3**
	comp=Z,66nm,1.3s,mb5.2						
HIA				*e*	pP	07 13 43.5	-0.4
HIA				LR	LR		
	comp=Z,4µm,20.0s,MS5.3						
FUNA	**Funafuti**	**44.55**	**112**	PFAKE		07 14 00.0	+10
FUNA				LR	LR		
	comp=Z,7µm,21.0s,MS5.6						
IMP	**Imphal**	**44.76**	**296**	*e*PKP	**P**	**07 13 49.0**	**-2.1**
IMP				*e*x	x	07 15 41.0	
KLBR	**Kellerberrin**	**45.33**	**205**	*e*P	**P**	**07 13 54.0**	**-1.4**
	comp=Z,14nm,0.8s,mb4.8						
GTA	**Gaotai**	**45.38**	**317**	*e*P	**P**	**07 13 55.7**	**-0.1**
GTA				pP	pP	07 14 05.3	-1.5
GTA				sP	sP	07 14 09.1	-2.3
GTA				S	**S**	**07 20 34.1**	**-0.1**
GTA				sS	sS	07 20 50.2	-2.4
GTA				SS	SS	07 23 49.1	-9.2
GTA				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.5						
GTA				pmax	pmax		
	comp=Z,360nm,6.8s						
GTA				LR	LR		
	comp=N,1µm,20.5s,MS5.2						
GTA				LR	LR		
	comp=E,2µm,20.2s,MS5.2						
GTA				LR	LR		
	comp=Z,3µm,19.6s,MS5.2						
CAN	**Canberra**	**45.73**	**168**	*e*P	**P**	**07 13 59.4**	**+0.9**
CAN				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.3						
CAN				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.4						
CAN	**Canberra**	**45.73**	**168**	*e*P	**P**	**07 13 59.4**	**+0.9**
	comp=Z,42nm,1.1s,mb5.3						
CAN				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
CNB	**Canberra Magne**	**45.80**	**167**	*e*P	**P**	**07 14 00.6**	**+1.5**
PETK	**Petropavlovsk-**	**46.24**	**16**	P	**P**	**07 14 02.9**	**+0.6**
	comp=Z,17nm,1.0s,mb4.9,baz=159,slow=4.6,SNR=13						
PETK				LR	LR	07 33 48.8	
	comp=Z,526nm,19.0s,MS4.5,baz=207,slow=37						
MUN	**Mundaring**	**46.32**	**206**	*e*P	**P**	**07 14 01.3**	**-1.9**
ULN	**Ulaanbaatar**	**46.41**	**331**	*e*P	**P**	**07 14 03.9**	**+0.2**
ULN				*e*	pP	07 14 15.2	+0.4
ULN				pmax	pmax		
	comp=Z,86nm,1.4s,mb5.5						
ULN				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.0						
ULN	**Ulaanbaatar**	**46.41**	**331**	*e*P	**P**	**07 14 03.9**	**+0.2**
	comp=Z,86nm,1.4s,mb5.5						
ULN				*e*	pP	07 14 15.2	+0.3
ULN				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
ULN	**Ulaanbaatar**	**46.41**	**331**	⇓P	**P**	**07 14 04.9**	**+1.2**
	SNR=22						
ULN				⇓P		07 14 04.9	
	SNR=22						
PET	**Petropavlovsk**	**46.43**	**17**	*e*P	**P**	**07 14 04.5**	**+0.6**
PET				*e*S	**S**	**07 20 50.6**	**+1.6**
PET				*e*SS	SS	07 24 09.7	-5.4
PET				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
PET				pmax	pmax		
	comp=Z,300nm,13.8s						
PET				MLR	MLR		
	comp=Z,600nm,21.0s,MS4.5						
PET				MLR	MLR		
	comp=Z,1µm,17.0s						
PET	**Petropavlovsk**	**46.43**	**17**	*e*P	**P**	**07 14 04.7**	**+0.8**
	comp=Z,105nm,1.3s,mb5.6						
PET				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
SONM	**Songino Array**	**46.70**	**331**	P	**P**	**07 14 06.9**	**+0.9**
	comp=Z,26nm,1.1s,mb5.1,baz=140,slow=6.6,SNR=88						
SONM				LR	LR	07 32 43.0	
	comp=Z,3µm,21.2s,MS5.2,baz=135,slow=35						
NWAO	**Narrogin (SRO)**	**46.70**	**204**	P	**P**	**07 14 05.8**	**-0.4**
	comp=Z,12nm,0.6s,mb5.0,baz=52,slow=7.1,SNR=14						
NWAO				LR	LR	07 34 24.6	
	comp=Z,1µm,19.9s,MS4.9,baz=27,slow=37						
NWAO	**Narrogin (SRO)**	**46.70**	**204**	P	**P**	**07 14 05.8**	**-0.4**
NWAO				LR	LR	07 34 24.6	
SHL	**Shillong**	**46.74**	**296**	*e*PKP	**P**	**07 14 06.5**	**-0.2**
SHL				*e*x	x	07 19 39.5	
CIT	**Chita**	**46.93**	**339**	*e*P	**P**	**07 14 08.6**	**+0.8**
CIT				*e*		07 14 15.7	
AGT	**Agartala**	**47.00**	**294**	*e*PKP	**P**	**07 14 08.0**	**-0.8**
AGT				*e*x	x	07 14 39.0	
TOO	**Toolangi**	**47.32**	**172**	*e*P	**P**	**07 14 11.8**	**+0.9**
LSA	**Lhasa**	**48.30**	**301**	P	**P**	**07 14 20.6**	**+1.8**
LSA				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.1						
LSA				LR	LR		
	comp=N,680nm,19.7s,MS5.1						
LSA				LR	LR		
	comp=E,2µm,19.7s,MS5.1						
LSA				LR	LR		
	comp=Z,3µm,21.6s,MS5.2						
LSA	**Lhasa**	**48.30**	**301**	*e*P	**P**	**07 14 19.8**	**+1.0**
LSA				pmax	pmax		
	comp=Z,59nm,1.2s,mb5.5						
LSA				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.3						
LSA	**Lhasa**	**48.30**	**301**	*e*P	**P**	**07 14 19.8**	**+1.0**
	comp=Z,59nm,1.2s,mb5.5						
LSA				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
CLNS	**Chul'man**	**48.35**	**350**	*e*P	**P**	**07 14 17.4**	**-1.3**
CLNS				*e**PP	pP	07 14 25.4	-4.4
CLNS				*e*		07 15 43.7	
CLNS				*e*		07 16 09.2	
CLNS				*e*S	**S**	**07 21 13.5**	**-2.6**
CLNS				pmax	pmax		
	comp=N,11nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.1						
CLNS				pmax	pmax		
	comp=E,6.0nm,0.8s						
CLNS				pmax	pmax		
	comp=N,11nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=E,5.0nm,1.1s						
CLNS				smax			
	comp=N,588nm,14.9s						
CLNS				smax			
	comp=E,380nm,15.9s						
CLNS				MLR	MLR		
	comp=E,607nm,15.0s						
CAL	**Calcutta**	**49.47**	**291**	*e*x	**P**	**07 14 21.4**	**-6.5**
CAL				*e*S	**S**	**07 21 34.4**	**+1.5**
ZAK	**Zakamensk**	**49.94**	**331**	⇑*e*P	**P**	**07 14 30.9**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.4						
TLY	**Talaya**	**50.66**	**333**	P	**P**	**07 14 37.4**	**+1.0**
	comp=Z,118nm,1.1s,mb5.7,SNR=7.8						
TLY	**Talaya**	**50.66**	**333**	*e*P	**P**	**07 14 36.4**	**0.0**
TLY				*e*PPP		07 17 26.9	
TLY				*e*S	**S**	**07 21 57.6**	**+9.0**
TLY				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.2						
TLY	**Talaya**	**50.66**	**333**	*e*P	**P**	**07 14 37.5**	**+1.1**
	comp=Z,33nm,1.1s,mb5.2						
TLY				*e*	pP	07 14 47.6	0.0
TLY				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
TLY	**Talaya**	**50.66**	**333**	⇓P	**P**	**07 14 37.6**	**+1.2**
	SNR=16						
TLY				⇓P		07 14 37.6	
	SNR=16						
TAPN	**Taplejung**	**50.75**	**298**	*e*P	**P**	**07 14 37.3**	**-0.2**
	comp=Z,122nm,0.7s,mb5.9						
IRK	**Irkutsk**	**50.77**	**334**	*e*P	**P**	**07 14 37.6**	**+0.4**
IRK				*e*		07 14 43.2	
IRK				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.4						
ODAN	**Odare**	**50.94**	**297**	*e*P	**P**	**07 14 38.7**	**-0.3**
	comp=Z,138nm,0.7s,mb6.0						
RAMN	**Ramite**	**51.65**	**297**	*e*P	**P**	**07 14 44.5**	**+0.2**
	comp=Z,99nm,0.7s,mb5.8						
BOD	**Bodaibo**	**51.69**	**344**	*e*P	**P**	**07 14 43.8**	**-0.2**
BOD				pmax	pmax		
	comp=Z,23nm,1.7s,mb4.8						
BOK	**Bokaro**	**51.85**	**293**	*e*PKP	**P**	**07 14 45.6**	**-0.2**
BOK				AMb	AMB	07 14 49.1	
	comp=Z,105nm,1.4s,mb5.6						
MOY	**Mondy**	**51.87**	**331**	*e*P	**P**	**07 14 46.3**	**+0.8**
MOY				pmax	pmax		
	comp=Z,129nm,2.7s,mb5.4						
JIRN	**Jiri**	**52.13**	**298**	*e*P	**P**	**07 14 47.9**	**+0.1**
	comp=Z,192nm,0.6s,mb6.2						
GUN	**Gumba**	**52.44**	**298**	*e*P	**P**	**07 14 50.2**	**0.0**
	comp=Z,523nm,0.8s,mb6.5						
PKI	**Pulchoki**	**52.80**	**297**	*e*P	**P**	**07 14 52.3**	**-0.5**
	comp=Z,208nm,1.0s,mb6.0						
YAK	**Yakutsk**	**52.80**	**355**	*e*P	**P**	**07 14 51.1**	**-1.1**
YAK				*e*		07 16 07.1	
YAK				*e*S	**S**	**07 22 13.8**	**-4.0**
YAK				*e*SS	SS	07 25 55.5	-1.3
YAK				*e*SSS		07 27 35.1	
YAK				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.2						
YAK				pmax	pmax		
	comp=N,27nm,1.4s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.4s						
YAK				smax			
	comp=N,137nm,3.2s						
YAK				smax			
	comp=E,407nm,4.5s						
YAK	**Yakutsk**	**52.80**	**355**	*e*P	**P**	**07 14 52.0**	**-0.2**
	comp=E,110nm,1.1s,mb5.7						
YAK				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
KKN	**Kakani**	**52.95**	**298**	*e*P	**P**	**07 14 53.4**	**-0.5**
	comp=Z,187nm,0.8s,mb6.1						
DMN	**Daman**	**53.07**	**297**	*e*P	**P**	**07 14 54.4**	**-0.4**
	comp=Z,229nm,0.8s,mb6.2						
GKN	**Gorkha**	**53.54**	**298**	*e*P	**P**	**07 14 57.7**	**-0.6**
	comp=Z,378nm,1.2s,mb6.2						
VIS	**Vishakhapatnam**	**53.83**	**285**	*e*PKP	**P**	**07 14 59.0**	**-1.6**
VIS				AMb	AMB	07 15 04.0	
	comp=Z,76nm,1.0s,mb5.6						
SEY	**Seymchan**	**54.30**	**8**	⇑*e*P	**P**	**07 15 03.2**	**0.0**
DANN	**Dangsing**	**54.36**	**298**	*e*P	**P**	**07 15 03.8**	**-0.5**
	comp=Z,183nm,0.9s,mb6.0						
KOLN	**Koldanda**	**54.41**	**297**	*e*P	**P**	**07 15 04.3**	**-0.4**
	comp=Z,123nm,0.7s,mb5.9						
AFI	**Afiamalu**	**54.78**	**114**	PFAKE		07 15 20.0	+13
AFI				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
PYUN	**Piuthan**	**54.99**	**298**	*e*P	**P**	**07 15 08.7**	**-0.2**
	comp=Z,236nm,0.8s,mb6.3						
WMQ	**Urumqi**	**55.46**	**317**	P	**P**	**07 15 12.6**	**+0.7**
WMQ				pP	pP	07 15 22.0	-1.2
WMQ				sP	sP	07 15 27.0	-0.7
WMQ				PcP	PcP	07 16 13.0	+1.2
WMQ				PP	PP	07 17 18.0	+1.9
WMQ				S	**S**	**07 22 53.0**	**-1.3**
WMQ				sS	sS	07 23 11.0	-2.0
WMQ				ScS	ScS	07 24 56.0	-2.2
WMQ				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
WMQ				pmax	pmax		
	comp=Z,410nm,7.6s						
WMQ				LR	LR		
	comp=N,2µm,18.2s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,21.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,1µm,21.6s,MS4.9						
MDRS	**Chennai**	**56.88**	**279**	*e*PKP	**P**	**07 15 23.7**	**+1.2**
MDRS				*e*x	x	07 18 15.2	
PALK	**Pallekele**	**56.91**	**273**	*i* P	**P**	**07 15 23.3**	**+0.5**
PALK	**Pallekele**	**56.91**	**273**	*e*P	**P**	**07 15 22.1**	**-0.7**
	comp=Z,29nm,1.1s,mb5.2						
HYB	**Hyderabad**	**58.39**	**285**	*i* P	**P**	**07 15 34.5**	**+1.4**
HYB	**Hyderabad**	**58.39**	**285**	*e*P	**P**	**07 15 33.0**	**-0.1**
BHPL	**Bhopal**	**59.55**	**291**	*e*PKP	**P**	**07 15 39.8**	**-1.3**
BHPL				AMb	AMB	07 15 43.2	
	comp=Z,54nm,0.9s,mb5.6						
DDI	**Dehra Dun**	**59.57**	**300**	*e*PKP	**P**	**07 15 41.1**	**0.0**
DDI				*e*PKP		07 15 42.0	
MKAR	**Makanchi Array**	**60.08**	**319**	P	**P**	**07 15 44.2**	**-0.2**
	comp=Z,5.3nm,0.8s,mb4.6,baz=107,slow=7.8,SNR=24						
MKAR				LR	LR	07 42 31.3	
	comp=Z,2µm,18.2s,MS5.3,baz=93,slow=37						
NDI	**New Delhi**	**60.11**	**298**	*e*PKP	**P**	**07 15 42.0**	**-2.9**
SNZO	**South Karori**	**60.68**	**149**	PFAKE		07 16 00.0	+12
SNZO				LR	LR		
	comp=Z,3µm,21.0s,MS5.4						
RPZ	**Rata Peaks**	**60.78**	**153**	P	**P**	**07 15 48.9**	**-0.1**
	comp=Z,46nm,0.8s,mb5.7,baz=44,slow=2.5,SNR=9.8						
BHK	**Bhakra**	**61.09**	**301**	*e*PKP	**P**	**07 15 49.3**	**-2.2**
ZALV	**Zalesovo Beam**	**61.33**	**327**	LR	LR	07 42 24.6	
	comp=Z,2µm,20.7s,MS5.2,baz=114,slow=36						
BILL	**Bilibino**	**61.34**	**12**	PFAKE		07 16 10.0	+17
BILL				LR	LR		
	comp=Z,666nm,19.0s,MS4.8						
THN	**Thein Dam**	**61.80**	**302**	*e*PKP	**P**	**07 15 54.5**	**-1.8**
MNGI	**Mangalore**	**62.17**	**280**	*e*PKP	**P**	**07 15 58.3**	**-0.8**
AJM	**Ajmer**	**62.23**	**295**	*e*PKP	**P**	**07 15 59.0**	**-0.3**
TIXI	**Tiksi**	**62.36**	**357**	⇓*e*P	**P**	**07 15 58.4**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
TIXI	**Tiksi**	**62.36**	**357**	*e*P	**P**	**07 15 57.1**	**-2.2**
	comp=Z,45nm,1.4s,mb5.4						
TIXI				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
KAD	**Karad**	**62.56**	**285**	*e*PKP	**P**	**07 15 59.9**	**-1.7**
KAD				AMb	AMB	07 16 03.5	
	comp=Z,52nm,0.8s,mb5.7						
KSH	**Kashi**	**62.67**	**310**	P	**P**	**07 16 04.4**	**+2.4**
KSH				*e*pP	pP	07 16 14.4	+0.9
KSH				*e*sP	sP	07 16 18.5	+0.6
KSH				*e*PcP	PcP	07 16 43.3	+2.7
KSH				*e*PP	PP	07 18 23.5	+3.4
KSH				*e*ScP	ScP	07 20 41.3	+1.4
KSH				*e*PcS	PcS	07 20 45.1	+1.2
KSH				S	**S**	**07 24 27.3**	**-0.6**
KSH				*e*sS	sS	07 24 44.0	-2.9
KSH				*e*ScS	ScS	07 25 50.1	-1.6
KSH				*e*SS	SS	07 28 32.6	-0.2
KSH				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.0						
KSH				pmax	pmax		
	comp=Z,370nm,3.0s						
KSH				LR	LR		
	comp=N,3µm,17.0s,MS5.6						
KSH				LR	LR		
	comp=E,3µm,17.4s,MS5.6						
KSH				LR	LR		
	comp=Z,3µm,16.8s,MS5.5						
POO	**Poona**	**62.84**	**286**	*e*PKP	**P**	**07 16 04.4**	**+0.9**
POO				AMb	AMB	07 16 05.3	
	comp=Z,67nm,1.2s,mb5.7						
TKM2	**Tokmak 2**	**63.62**	**313**	*e*P	**P**	**07 16 08.8**	**+0.6**
TKM2				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
TKM2				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
TKM2	**Tokmak 2**	**63.62**	**313**	*e*P	**P**	**07 16 08.8**	**+0.6**
	comp=Z,16nm,1.2s,mb4.9						
TKM2				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
KURK	**Kurchatov**	**63.65**	**322**	P	**P**	**07 16 08.1**	**-0.2**
	comp=Z,244nm,0.7s,mb6.3,SNR=7.2						
KURK	**Kurchatov**	**63.65**	**322**	*e*P	**P**	**07 16 07.7**	**-0.6**
KURK				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.4						
KURK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
KURK	**Kurchatov**	**63.65**	**322**	P	**P**	**07 16 07.4**	**-0.9**
	comp=Z,9.9nm,0.9s,mb4.8,baz=112,slow=6.1,SNR=25						
KURK	**Kurchatov**	**63.65**	**322**	*e*P	**P**	**07 16 07.7**	**-0.6**
	comp=Z,39nm,0.9s,mb5.4						
KURK				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
KURK	**Kurchatov**	**63.65**	**322**	⇑P	**P**	**07 16 08.1**	**-0.1**
	SNR=18						
KURK				⇑P		07 16 08.1	
	SNR=18						
UCH	**Uchtor**	**64.27**	**312**	*e*P	**P**	**07 16 13.8**	**+1.3**
	comp=Z,69nm,1.3s,mb5.5						
UCH				*e*	pP	07 16 26.0	+2.1
UCH				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
FRU	**Bishkek**	**64.31**	**313**	*e*P	**P**	**07 16 12.6**	**-0.1**
FRU				*i*		07 16 20.0	
FRU				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.2						
XMAS	**Kiritimati**	**64.34**	**92**	PFAKE		07 16 30.0	+17
XMAS				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
AAK	**Ala-Archa**	**64.36**	**313**	*e*P	**P**	**07 16 13.8**	**+0.7**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
AAK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
AAK	**Ala-Archa**	**64.36**	**313**	*e*P	**P**	**07 16 13.8**	**+0.7**
	comp=Z,4.9nm,0.7s,mb4.7						
AAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
AML	**Almayashu**	**64.85**	**312**	*e*P	**P**	**07 16 17.4**	**+1.1**
	comp=Z,40nm,1.2s,mb5.3						
AML				*e*	pP	07 16 29.6	+1.8
AML				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
EKS2	**Erkin-Say**	**64.88**	**313**	*e*P	**P**	**07 16 15.8**	**-0.7**
	comp=Z,21nm,1.4s,mb5.0						
EKS2				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
TNA	**Tin City**	**66.96**	**21**	*e*P	**P**	**07 16 29.6**	**+0.2**
	comp=Z,81nm,1.1s,mb5.7						
TNA				*e*		07 16 36.8	
CHGN	**Chignik**	**67.49**	**33**	*e*P	**P**	**07 16 32.7**	**-0.3**
BVAR	**Borovoye Array**	**69.18**	**323**	P	**P**	**07 16 43.8**	**+0.2**
	comp=Z,8.0nm,0.8s,mb4.7,baz=107,slow=8.2,SNR=40						
BRVK	**Borovoye**	**69.25**	**323**	P	**P**	**07 16 44.8**	**+0.8**
	comp=Z,176nm,0.6s,mb6.2,SNR=7.8						
BRVK	**Borovoye**	**69.25**	**323**	*e*P	**P**	**07 16 43.2**	**-0.8**
BRVK				*e*	pP	07 16 55.1	-0.5
BRVK				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
BRVK				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.3						
BRVK	**Borovoye**	**69.25**	**323**	*e*P	**P**	**07 16 43.2**	**-0.8**
	comp=Z,21nm,0.7s,mb5.2						
BRVK				*e*	pP	07 16 55.1	-0.5
BRVK				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
BRVK	**Borovoye**	**69.25**	**323**	⇓P	**P**	**07 16 44.8**	**+0.7**
	SNR=11						
BRVK				⇓P		07 16 44.8	
	SNR=11						
SVW2	**Sparrevohn**	**70.31**	**28**	*e*P	**P**	**07 16 51.3**	**+0.9**

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OHAK Old Harbor        70.45  32 eP      P       07 16 52.8 +1.5
OHAK                             e               07 16 59.1
KDAK Kodiak Island     70.95  32 eP      P       07 16 55.2 +0.8
KDAK                             e               07 17 01.7
KDAK                              pmax   pmax
     comp=Z,165nm,1.3s,mb5.8
KDAK Kodiak Island     70.95  32  P      P       07 16 54.5 +0.1
     comp=Z,107nm,1.2s,mb5.7,baz=312,slow=5.8,SNR=4.6
KDAK Kodiak Island     70.95  32 eP      P       07 16 55.2 +0.9
     comp=Z,165nm,1.3s,mb5.8
KDAK                             e               07 17 01.7
RSO  Redoubt South     71.48  29 eP      P       07 16 57.5  0.0
RSO                              e               07 17 04.7
PPLA Purkeypile        72.33  27 eP      P       07 17 03.1 +0.5
     comp=Z,94nm,1.2s,mb5.6
PPLA                             e               07 17 10.2
CHUM Lake Minchumin    72.52  26 eP      P       07 17 04.7 +1.0
     comp=Z,146nm,1.4s,mb5.7
CHUM                             e               07 17 11.6
SEW  Seward            73.02  30 eP      P       07 17 06.7  0.0
     comp=Z,119nm,1.1s,mb5.7
SEW                              e               07 17 14.1
KTH  Kantishna Hill    73.04  26 eP      P       07 17 06.9 +0.2
     comp=Z,183nm,1.2s,mb5.9
KTH                              e               07 17 13.9
RC01 Rabbit Creek A    73.06  29 eP      P       07 17 06.7 -0.2
     comp=Z,98nm,1.1s,mb5.7
RC01                             e               07 17 13.9
BPAW Bear Paw Mtn.     73.14  26 eP      P       07 17 07.8 +0.5
     comp=Z,166nm,1.1s,mb5.9
BPAW                             e               07 17 15.0
TRF  Thorofare Moun    73.30  26 eP      P       07 17 08.4 +0.1
     comp=Z,115nm,1.0s,mb5.8
TRF                              e               07 17 15.2
PMR  Palmer            73.45  28 eP      P       07 17 08.8 -0.4
PMR                               pmax   pmax
     comp=Z,22nm,1.0s,mb5.0
PMR  Palmer            73.45  28 eP      P       07 17 08.8 -0.4
     comp=Z,22nm,1.0s,mb5.0
MCK  McKinley          73.95  26 eP      P       07 17 12.3 +0.2
     comp=Z,378nm,1.2s,mb6.2
MCK                              e               07 17 19.0
COLD Coldfoot          74.18  23 eP      P       07 17 14.5 +1.1
     comp=Z,79nm,1.0s,mb5.6
COLD                             e               07 17 20.9
COLA College           74.63  25 eP      P       07 17 15.4 -0.6
COLA                             e               07 17 22.5
COLA                              pmax   pmax
     comp=Z,34nm,1.1s,mb5.2
COLA                              MLR    MLR
     comp=Z,930nm,20.0s,MS5.1
COLA College           74.63  25 eP      P       07 17 15.4 -0.6
     comp=Z,34nm,1.1s,mb5.2
COLA                             e               07 17 22.5
COLA                              LR     LR
     comp=Z,930nm,20.0s,MS5.1
SVE  Sverdlovsk        75.32 326 eP      P       07 17 20.2  0.0
SVE                              e       pP      07 17 30.0 -1.9
SVE                              eS      S       07 27 00.8 +4.0
SVE                               pmax   pmax
     comp=Z,43nm,1.6s,mb5.1
SVE                               MLR    MLR
     comp=Z,4µm,20.0s,MS5.7
PAX  Paxson            75.36  27 eP      P       07 17 20.7 +0.4
PAX                              e               07 17 28.0
PAX                               pmax   pmax
     comp=Z,86nm,1.0s,mb5.6
PAX  Paxson            75.36  27 eP      P       07 17 20.7 +0.4
     comp=Z,86nm,1.0s,mb5.6
PAX                              e               07 17 28.0
PPT  Papeete           76.19 111 eP      P       07 17 34.2 +8.3
PPT                              eS      S       07 27 05.8 -2.0
     comp=Z,445nm,24.8s
PPT                              eLQ             07 37 23.2
     comp=Z,1µm,26.5s
PPT                              eLR     LR      07 40 41.0
     comp=Z,2µm,25.8s
PPT  Papeete           76.19 111  LR     LR      07 42 38.7
     comp=Z,1µm,21.1s,MS5.1,baz=274,slow=29
ARU  Arti              76.43 326 eP      P       07 17 26.0 -0.5
ARU                              e               07 17 33.3
ARU                               pmax   pmax
     comp=Z,15nm,1.0s,mb4.9
ARU                               MLR    MLR
     comp=Z,3µm,22.0s,MS5.6
ARU  Arti              76.43 326 eP      P       07 17 26.0 -0.5
     comp=Z,14nm,1.0s,mb4.9
ARU                              e               07 17 33.3
ARU                               LR     LR
     comp=Z,3µm,22.0s,MS5.6
AKTK Aktyubinsk        76.51 320  P      P       07 17 26.1 -1.0
AKTK                              LR     LR      07 52 08.4
AKTO Aktyubinsk        76.51 320  P      P       07 17 26.1 -1.0
     comp=Z,2.6nm,0.9s,mb4.2,baz=96,slow=8.8,SNR=6.7
AKTO                              LR     LR      07 52 08.4
     comp=Z,3µm,20.2s,MS5.5,baz=95,slow=36
EGAK Eagle             77.45  26  PFAKE          07 17 40.0 +7.9
EGAK                              LR     LR
     comp=Z,749nm,21.0s,MS5.0
SOKR Solikamsk         77.53 329⇓iP      P       07 17 34.3 +1.6
SOKR                              pmax   pmax
     comp=Z,30nm,1.3s,mb5.1
SOKR                              MLR    MLR
     comp=Z,4µm,20.0s,MS5.7
HOQ  Hoqain            78.00 292 ⇓P      P       07 17 36.3 +0.3
     SNR=12
DAWY Dawson            78.17  26 eP      P       07 17 37.1 +1.0
DAWY                             e               07 17 44.0
CASY Casey             78.27 191  PFAKE          07 17 50.0  +14
CASY                              LR     LR
     comp=Z,721nm,21.0s,MS5.0
BANOM Banah            78.70 295 ⇓P      P       07 17 41.0 +1.2
     SNR=5.6
ARQ  Araqi             78.74 292 ⇓P      P       07 17 40.1  0.0
     SNR=20
HATD Hatta, Dubai      78.95 294 ⇓P      P       07 17 41.3 +0.1
     SNR=9.8
HYT  Haines Junctio    78.97  30 eP      P       07 17 42.2 +1.6
DLBC Dease Lake        82.89  32 eP      P       07 18 02.6 +1.1
DLBC                             e               07 18 10.1
PRGR Permogore         82.95 331 eP      P       07 17 59.4 -2.4
PRGR                              pmax   pmax
     comp=Z,85nm,1.3s,mb5.6
MAK  Makhachkala       84.14 312 eP      P       07 18 05.3 -3.0
MAK                              e               07 21 22.0
MAK                              i S     S       07 28 26.6 -3.9
MAK                               pmax   pmax
     comp=Z,308nm,1.6s,mb6.2
MAK                               MLR    MLR
     comp=Z,1µm,18.0s,MS5.3
QRN  Al-Qurain         85.78 298 eP      P       07 18 15.2 -1.6
QRN                               AMb    AMB     07 18 25.9
     comp=Z,171nm,1.4s,mb6.1
KLMR Klimovskoe        85.99 331 eP      P       07 18 14.7 -2.5
KLMR                             eS      SKSac   07 28 38.1 -1.9
KLMR                              pmax   pmax
     comp=Z,26nm,1.2s,mb5.3
MIB  Mutribah          86.12 299 eP      P       07 18 16.1 -2.4
MIB                               AMb    AMB     07 18 27.6
     comp=Z,109nm,1.6s,mb5.8
NAY  Al-Naaiem         86.29 299 eP      P       07 18 17.4 -1.9
NAY                               AMb    AMB     07 18 28.3
     comp=Z,82nm,1.7s,mb5.7
MTA  Mtatsminda        86.31 311  P      P       07 18 17.2 -2.0
LVZ  Lovozero          86.32 338  PFAKE          07 18 30.0  +11
LVZ                               LR     LR
     comp=Z,2µm,21.0s,MS5.4
GNI  Garni             86.60 310 eP      P       07 18 21.5 +0.8
GNI                               pmax   pmax
     comp=Z,110nm,1.4s
GNI                               MLR    MLR
     comp=Z,706nm,21.0s
GNI  Garni             86.60 310 eP      P       07 18 21.5 +0.8
     comp=Z,110nm,1.4s,mb5.9
GNI                               LR     LR
     comp=Z,706nm,21.0s,MS5.0
GNI  Garni             86.60 310 ⇑P      P       07 18 20.2 -0.4
     SNR=17
GNI                              ⇑P              07 18 20.2
     SNR=17
GOR  Gori              86.77 312  P      P       07 18 18.1 -3.3
VRHR Novokhopersk      86.81 321 eP      P       07 18 23.3 +1.9
VRHR                              pmax   pmax
     comp=Z,10.0nm,0.5s,mb5.3
VRHR                              pmax   pmax
     comp=N,20nm,0.4s
VRHR                              pmax   pmax
     comp=E,10.0nm,0.7s
APA  Apatity           86.87 338⇑eP      P       07 18 26.0 +4.6
APA                               MLR    MLR
     comp=Z,2µm,20.0s,MS5.6
ONI  Oni               87.15 313  P      P       07 18 23.9 +0.6
KBS  Kingsbay          87.25 351  PFAKE          07 18 30.0 +6.9
KBS                               LR     LR
     comp=Z,1µm,19.0s,MS5.3
KIV  Kislovodsk        87.45 314  P      P       07 18 25.0 +0.3
KIV                              e               07 18 30.5
KIV                              e       pP      07 18 39.1 +2.5
KIV                                              07 21 50.0
KIV                                              07 28 52.0
KIV                              ePS             07 30 12.7
KIV                               SS     SS      07 34 53.0 +4.8
KIV                               pmax   pmax
     comp=Z,20nm,2.5s,mb4.9
KIV                               MLR    MLR
     comp=Z,1µm,20.0s,MS5.3
KIV  Kislovodsk        87.45 314⇑eP      P       07 18 24.9 +0.2
KIV                               LR     LR
     comp=Z,1µm,21.0s,MS5.3
VNDA Vanda             87.91 175  P      P       07 18 26.3 +0.2
     comp=Z,7.3nm,0.7s,mb5.0,baz=313,slow=8.4,SNR=11
VNDA                              LR     LR      07 57 35.5
     comp=Z,1µm,18.4s,MS5.4,baz=353,slow=36
MOS  Moscow            88.13 326 eP      P       07 18 25.4 -2.3
MOS                              i               07 18 32.9
MOS                               MLR    MLR
     comp=Z,3µm,23.0s,MS5.6
VORD Divnogorie        88.27 321 eP      P       07 18 27.6 -0.9
VORD                              pmax   pmax
     comp=Z,5.0nm,0.5s,mb5.0
VORD                              pmax   pmax
     comp=N,10.0nm,0.6s
VORD                              pmax   pmax
     comp=E,20nm,0.6s
VSR  Storozhevoye      88.30 322 eP      P       07 18 27.3 -1.3
VSR                               pmax   pmax
     comp=N,4.0nm,0.4s
VSR                               pmax   pmax
     comp=Z,3.0nm,0.4s,mb4.9
VSR                               pmax   pmax
     comp=E,5.0nm,0.5s
KEV  Kevo              88.31 341 eP      P       07 18 27.5 -0.8
KEV                               LR     LR
     comp=Z,2µm,21.0s,MS5.5
SBA  Scott Base        88.67 174  PFAKE          07 18 40.0  +10
SBA                               LR     LR
     comp=Z,1µm,22.0s,MS5.3
OBN  Obninsk           88.87 326⇑eP      P       07 18 30.5 -0.7
OBN                              e               07 18 37.5
OBN                                              07 22 01.0
OBN                              e               07 28 53.5
OBN                              ePS             07 30 12.7
OBN                               SS     SS      07 35 05.0 -3.3
OBN                               pmax   pmax
     comp=Z,46nm,1.5s,mb5.6
OBN                               MLR    MLR
     comp=Z,2µm,18.0s,MS5.5
OBN  Obninsk           88.87 326⇓eP      P       07 18 29.9 -1.3
OBN                               LR     LR
     comp=Z,2µm,19.0s,MS5.5
ARCES ARCESS Array B   88.88 341  P      P       07 18 29.4 -1.5
     comp=Z,5.8nm,0.8s,mb4.9,baz=62,slow=3.8,SNR=8.3
ARCES                             LR     LR      08 02 17.4
     comp=Z,2µm,19.6s,MS5.5,baz=59,slow=38
JOF  Joensuu           89.17 334 eP      P       07 18 29.2 -3.2
JOF                               pmax   pmax
     comp=Z,4.0nm,0.8s,mb4.8
JOF  Joensuu           89.17 334 ep      P       07 18 29.2 -3.2
     comp=Z,4.3nm,0.8s,mb4.8
YKA  Yellowknife Ar    89.42  26  P      P       07 18 33.5 -0.1
     comp=Z,1.7nm,0.7s,mb4.5,baz=293,slow=5.1,SNR=28
YKA                               PKKPbc PKKPbc  07 36 09.2 -1.9
     comp=Z,0.2nm,0.6s,baz=114,slow=2.8,SNR=5.5
YKA                               LR     LR      07 56 19.7
     comp=Z,578nm,20.6s,MS5.0,baz=225,slow=34
YKA  Yellowknife Ar    89.42  26  P      P       07 18 33.5 -0.1
YKA                               PKKPbc PKKPbc  07 36 09.2 -1.9
YKA                               LR     LR      07 56 19.7
KHMM Horse Mountain    89.86  49 eP      P       07 18 39.4 +3.2
ANN  Anapa             90.94 316 eP      P       07 18 37.5 -3.6
ANN                               pmax   pmax
     comp=Z,90nm,1.7s,mb5.8
HAWA Hanford           91.50  43  PFAKE          07 19 00.0  +16
HAWA                              LR     LR
     comp=Z,956nm,21.0s,MS5.2
KAF  Kangasniemi       91.63 334 eP      P       07 18 39.4 -4.5
KAF                               pmax   pmax
     comp=Z,2.0nm,0.5s,mb4.7
KAF  Kangasniemi       91.63 334 ep      P       07 18 39.4 -4.5
     comp=Z,2.4nm,0.5s,mb4.8
MALT Malatya           91.77 309 eP      P       07 18 44.6 -0.5
MALT                             e               07 18 52.1
MALT                              pmax   pmax
     comp=Z,12nm,1.3s,mb5.1
MALT                              MLR    MLR
     comp=Z,810nm,20.0s,MS5.2
MALT Malatya           91.77 309 eP      P       07 18 44.6 -0.5
     comp=Z,12nm,1.3s,mb5.1
MALT                             e               07 18 52.1
MALT                              LR     LR
     comp=Z,810nm,20.0s,MS5.2
OHCM Honcut            91.89  50 eP      P       07 18 46.2 +0.6
NEW  Newport           92.55  40 eP      P       07 18 48.3 -0.2
NEW                              e               07 18 55.6
NEW                               pmax   pmax
     comp=Z,17nm,1.1s
NEW                               MLR    MLR
     comp=Z,592nm,20.0s
NEW  Newport           92.55  40 eP      P       07 18 48.3 -0.2
     comp=Z,17nm,1.1s,mb5.4
NEW                              e               07 18 55.6
NEW                               LR     LR
     comp=Z,592nm,20.0s,MS5.0
WVOR Wild Horse Val    93.19  46  PFAKE          07 19 00.0 +8.5
WVOR                              LR     LR
     comp=Z,634nm,19.0s,MS5.1
MAW  Mawson            93.21 202  LR     LR      07 58 00.4
     comp=Z,678nm,20.2s,MS5.1,baz=78,slow=34
EDM  Edmonton          93.23  35 eP      P       07 18 52.2 +0.7
EDM                              e               07 18 58.8
PAHR Pah Rah Range     93.37  49 eP      P       07 18 54.3 +1.9
BMO  Blue Mountains    93.43  44  PFAKE          07 19 00.0 +7.4
BMO                               LR     LR
     comp=Z,682nm,22.0s,MS5.1
ABPO Ambohimpanom      93.99 251  PFAKE          07 19 10.0  +14
ABPO                              LR     LR
     comp=Z,368nm,21.0s,MS4.8
BSMT Bassoo Peak       94.17  40 eP      P       07 18 56.7 +0.7
     comp=Z,15nm,0.9s,mb5.4
BSMT                             e               07 19 03.6
AKASG Malin Array Be   94.46 323  P      P       07 18 54.5 -2.6
     comp=Z,0.3nm,0.3s,mb4.1,baz=58,slow=4.9,SNR=4.2
AKASG                             LR     LR      08 03 29.4
     comp=Z,2µm,21.2s,MS5.5,baz=55,slow=37
KIEV Kiev              94.47 323  PFAKE          07 19 10.0  +13
KIEV                              LR     LR
     comp=Z,2µm,21.0s,MS5.5
NVAR Mina Array Bea    94.52  50  P      P       07 18 58.5 +0.7
     comp=Z,1.6nm,0.6s,mb4.7,baz=263,slow=6.0,SNR=11
NVAR Mina Array Bea    94.52  50  P      P       07 18 58.5 +0.7
BMN  Battle Mountai    94.77  48  PFAKE          07 19 10.0  +11
BMN                               LR     LR
     comp=Z,789nm,20.0s,MS5.2
BRTR Keskin Array B    95.01 311  P      P       07 18 58.3 -1.7
     comp=Z,0.7nm,0.6s,mb4.2
BRTR                              LR     LR      08 05 17.6
     comp=Z,400nm,21.8s,MS4.8,baz=234,slow=38
MSO  Missoula          95.05  41  PFAKE          07 19 10.0  +10
MSO                               LR     LR
     comp=Z,419nm,22.0s,MS4.9
TPH  Tonopah           95.43  50  PFAKE          07 19 10.0 +8.0
TPH                               LR     LR
     comp=Z,742nm,20.0s,MS5.2
DAC  Darwin (Calif)    95.65  52  PFAKE          07 19 10.0 +7.0
DAC                               LR     LR
     comp=Z,923nm,20.0s,MS5.2
HLID Hailey            95.81  44 eP      P       07 19 04.0 +0.5
     comp=Z,15nm,1.3s,mb5.3
HLID                             e               07 19 11.6
HLID                              LR     LR
     comp=Z,749nm,20.0s,MS5.2
ELK  Elko              96.11  47 eP      P       07 19 06.6 +1.6
ELK                               pmax   pmax
     comp=Z,14nm,1.6s
ELK                               MLR    MLR
     comp=Z,732nm,20.0s
ELK  Elko              96.11  47 eP      P       07 19 06.6 +1.7
     comp=Z,14nm,1.6s,mb5.2
ELK                               LR     LR
     comp=Z,732nm,20.0s,MS5.2
DLMT Dillon            96.43  42 eP      P       07 19 07.0 +0.7
     comp=Z,8.9nm,1.0s,mb5.2
DLMT                             e               07 19 13.9
CSS  Prodhromos        96.59 307  PFAKE          07 19 20.0  +13
CSS                               LR     LR
     comp=Z,827nm,21.0s,MS5.2
BOZ  Bozeman (W)       96.97  42  PFAKE          07 19 20.0  +11
BOZ                               LR     LR
     comp=Z,798nm,20.0s,MS5.2
EGMT Eagleton          97.27  39  PFAKE          07 19 20.0  +10
EGMT                              LR     LR
     comp=Z,620nm,19.0s,MS5.1
PFO  Pinyon Flat Ob    97.29  54  PFAKE          07 19 20.0  +10
PFO                               LR     LR
     comp=Z,659nm,20.0s,MS5.1
ISP  Isparta           97.91 310  PFAKE          07 19 20.0 +6.8
ISP                               LR     LR
     comp=Z,610nm,22.0s,MS5.0
DUG  Dugway            98.04  47 eP      P       07 19 14.3 +0.6
DUG                              e               07 19 22.1
DUG                               pmax   pmax
     comp=Z,10.0nm,1.3s,mb5.2
DUG                               MLR    MLR
     comp=Z,740nm,19.0s,MS5.2
DUG  Dugway            98.04  47 eP      P       07 19 14.3 +0.6
     comp=Z,9.9nm,1.3s,mb5.2
DUG                              e               07 19 22.1
DUG                               LR     LR
     comp=Z,740nm,19.0s,MS5.2
AHID Auburn Hatcher    98.36  44  PFAKE          07 19 30.0  +15
AHID                              LR     LR
     comp=Z,690nm,19.0s,MS5.2
NOA  NORSAR Array B    98.38 337  LR     LR      08 10 24.8
     comp=Z,1µm,18.0s,MS5.5,baz=55,slow=40
FFC  Flin Flon         98.66  31 i P     P       07 19 17.3 +1.2
FFC  Flin Flon         98.66  31  PFAKE          07 19 30.0  +14
FFC                               LR     LR
     comp=Z,1µm,19.0s,MS5.3
RLMT Red Lodge         98.70  41  PFAKE          07 19 30.0  +13
RLMT                              LR     LR
     comp=Z,717nm,19.0s,MS5.2
KWP  Kalwaria Pacla    98.73 324  PFAKE          07 19 30.0  +13
KWP                               LR     LR
     comp=Z,2µm,19.0s,MS5.7
MVU  Marysvale         99.05  48  PFAKE          07 19 30.0  +12
MVU                               LR     LR
     comp=Z,588nm,19.0s,MS5.1
QSPA South Pole Qui    99.37 180  PFAKE          07 19 30.0  +11
QSPA                              LR     LR
     comp=Z,3µm,22.0s,MS5.8
BW06 Boulder Array     99.41  44  PFAKE          07 19 30.0  +10
BW06                              LR     LR
     comp=Z,944nm,19.0s,MS5.3
PDAR Pinedale Array    99.41  44  P      P       07 19 26.6 +6.9
     comp=Z,0.9nm,0.8s,mb4.4,baz=336,slow=2.0,SNR=7.0
KONO Kongsberg         99.87 336  PFAKE          07 19 30.0 +8.5
KONO                              LR     LR
     comp=Z,3µm,21.0s,MS5.7
LAO  LASA Array       100.01  39  PFAKE          07 19 30.0 +7.9
LAO                               LR     LR
     comp=Z,815nm,21.0s,MS5.2
DGMT Dagmar           100.45  37  PFAKE          07 19 40.0  +16
DGMT                              LR     LR
     comp=Z,759nm,20.0s,MS5.2
WUAZ Wupatki          100.69  51  PFAKE          07 19 40.0  +15
WUAZ                              LR     LR
     comp=Z,582nm,20.0s,MS5.1
PSZ  Piszkesteto      101.16 323  PFAKE          07 19 40.0  +13
PSZ                               LR     LR
     comp=Z,2µm,22.0s,MS5.5
TUC  Tucson           102.23  54  PFAKE          07 19 40.0 +8.0
TUC                               LR     LR
     comp=Z,609nm,19.0s,MS5.1
MVCO Mesa Verde       102.26  49  PFAKE          07 19 40.0 +7.9
MVCO                              LR     LR
     comp=Z,601nm,19.0s,MS5.1
CLL  Collm            103.27 328 eSKSac  SKSac   07 30 24.0  +10
CLL                              ePS     PS      07 33 06.0 +4.5
CLL                              ePPS            07 34 06.0
CLL                              eSS     SS      07 38 48.0  +16
CLL                               Lm             08 10 00.0
     comp=N,2µm,19.0s
CLL                               Lm             08 10 00.0
     comp=E,2µm,18.8s
CLL                               Lm             08 10 00.0
     comp=Z,3µm,19.0s
ISCO Idaho Springs    103.32  45  PFAKE          07 19 50.0  +13
ISCO                              LR     LR
     comp=Z,735nm,22.0s,MS5.2
TIR  Tirane           104.18 317  PFAKE          07 19 50.0 +9.3
TIR                               LR     LR
     comp=Z,2µm,20.0s,MS5.5
SDCO Great Sand Dun   104.24  47  PFAKE          07 19 50.0 +9.1
SDCO                              LR     LR
     comp=Z,724nm,20.0s,MS5.2
ANMO Albuquerque      104.64  50  PFAKE          07 20 00.0  +17
ANMO                              LR     LR
     comp=Z,396nm,21.0s,MS4.9
OGNE Ogallala         105.28  43  PFAKE          07 24 10.0  +10
OGNE                              LR     LR
     comp=Z,359nm,20.0s,MS4.9
AGMN Agassiz Refuge   105.32  34  PFAKE          07 24 10.0  +10
AGMN                              LR     LR
     comp=Z,1µm,20.0s,MS5.4
TIP  Timpagrande      107.29 316  PFAKE          07 24 20.0  +16
TIP                               LR     LR
     comp=Z,1µm,20.0s,MS5.5
BFO  Black Forest     107.47 328  PFAKE          07 24 20.0  +16
BFO                               LR     LR
     comp=Z,2µm,21.0s,MS5.6
CUC  Castrocucco      107.53 317  PFAKE          07 24 20.0  +16
CUC                               LR     LR
     comp=Z,1µm,21.0s,MS5.4
WLF  Walferdange      107.75 330  PFAKE          07 24 20.0  +16
WLF                               LR     LR
     comp=Z,3µm,20.0s,MS5.9
CBKS Cedar Bluff      107.83  44  PFAKE          07 24 20.0  +15
CBKS                              LR     LR
     comp=Z,606nm,19.0s,MS5.2
ESK  Eskdalemuir      107.84 338  PFAKE          07 24 20.0  +16
ESK                               LR     LR
     comp=Z,2µm,21.0s,MS5.6
EYMN Ely              107.89  33  PFAKE          07 24 20.0  +15
EYMN                              LR     LR
     comp=Z,941nm,20.0s,MS5.3
TUE  Stuetta          108.03 326  PFAKE          07 24 20.0  +15
TUE                               LR     LR
     comp=Z,2µm,22.0s,MS5.7
ECH  Echery           108.15 328  PFAKE          07 24 20.0  +15
ECH                               LR     LR
     comp=Z,2µm,19.0s,MS5.8
AMTX Amarillo         108.25  49  PFAKE          07 24 20.0  +14
AMTX                              LR     LR
     comp=Z,482nm,19.0s,MS5.1
VLC  Villacollemand   108.77 323  PFAKE          07 24 20.0  +14
VLC                               LR     LR
     comp=Z,2µm,19.0s,MS5.7
KSU1 Kansas State U   109.81  43  PFAKE          07 24 20.0  +12
KSU1                              LR     LR
     comp=Z,586nm,20.0s,MS5.2
COWI Conover          110.30  33  PFAKE          07 24 20.0  +11
COWI                              LR     LR
     comp=Z,987nm,20.0s,MS5.4
BNI  Bardonecchia     110.37 326  PFAKE          07 24 20.0  +11
BNI                               LR     LR
     comp=Z,2µm,21.0s,MS5.6
WMOK Wichita Mounta   110.44  47  PFAKE          07 24 20.0  +10
WMOK                              LR     LR
     comp=Z,707nm,22.0s,MS5.2
SSB  Saint Sauveur    111.41 327  PFAKE          07 24 20.0 +8.7
SSB                               LR     LR
     comp=Z,1µm,21.0s,MS5.5
JCT  Junction City    111.59  52  PFAKE          07 24 20.0 +7.9
JCT                               LR     LR
     comp=Z,610nm,19.0s,MS5.2
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JFWS	**Jewell Farm**	**111.66**	**36**	PFAKE		07 24 20.0	+8.2
JFWS				LR	LR		
	comp=Z,896nm,20.0s,MS5.3						
LSZ	**Lusaka**	**111.67**	**257**	PFAKE		07 24 20.0	+7.5
LSZ				LR	LR		
	comp=Z,427nm,20.0s,MS5.0						
VSL	**Villasalto**	**112.02**	**319**	PFAKE		07 24 20.0	+7.4
VSL				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
GLMI	**Grayling**	**113.54**	**32**	PFAKE		07 24 30.0	+15
GLMI				LR	LR		
	comp=Z,762nm,19.0s,MS5.3						
MIAR	**Mount Ida**	**114.26**	**45**	PFAKE		07 24 30.0	+13
MIAR				LR	LR		
	comp=Z,894nm,19.0s,MS5.4						
KVTX	**Kingsville**	**114.37**	**54**	PFAKE		07 24 30.0	+13
KVTX				LR	LR		
	comp=Z,740nm,19.0s,MS5.3						
HKT	**Hockley**	**114.89**	**51**	PFAKE		07 24 30.0	+12
HKT				LR	LR		
	comp=Z,725nm,19.0s,MS5.3						
NATX	**Nacogdoches**	**114.90**	**49**	PFAKE		07 24 30.0	+12
NATX				LR	LR		
	comp=Z,617nm,21.0s,MS5.2						
AAM	**Ann Arbor**	**115.77**	**33**	PFAKE		07 24 30.0	+10
AAM				LR	LR		
	comp=Z,896nm,20.0s,MS5.4						
WVT	**Waverly**	**117.24**	**41**	PFAKE		07 24 30.0	+7.3
WVT				LR	LR		
	comp=Z,674nm,20.0s,MS5.3						
ACSO	**Alum Creek Sta**	**117.55**	**35**	PFAKE		07 24 40.0	+17
ACSO				LR	LR		
	comp=Z,653nm,20.0s,MS5.2						
VBMS	**Vicksburg**	**117.66**	**46**	PFAKE		07 24 40.0	+16
VBMS				LR	LR		
	comp=Z,486nm,22.0s,MS5.1						
PLAL	**Pickwick Lake**	**117.77**	**42**	PFAKE		07 24 40.0	+16
PLAL				LR	LR		
	comp=Z,848nm,19.0s,MS5.4						
ERPA	**Erie**	**117.84**	**31**	PFAKE		07 24 40.0	+16
ERPA				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
LRAL	**Lakeview Retre**	**119.64**	**43**	*e*PKPdf	PKPdf	07 24 27.9	+0.4
LRAL				LR	LR		
	comp=Z,678nm,20.0s,MS5.3						
MCWV	**Mont Chateau**	**119.68**	**33**	PFAKE		07 24 40.0	+13
MCWV				LR	LR		
	comp=Z,837nm,21.0s,MS5.3						
PAB	**San Pablo**	**120.12**	**327**	PFAKE		07 24 40.0	+12
PAB				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
BRAL	**Brewton**	**120.78**	**45**	PFAKE		07 24 40.0	+10
BRAL				LR	LR		
	comp=Z,702nm,19.0s,MS5.3						
BLA	**Blacksburg**	**121.08**	**36**	PFAKE		07 24 40.0	+10
BLA				LR	LR		
	comp=Z,592nm,20.0s,MS5.2						
MTE	**Manteigas**	**121.13**	**330**	PFAKE		07 24 40.0	+10
MTE				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
GOGA	**Godfrey**	**121.74**	**41**	PFAKE		07 24 40.0	+8.5
GOGA				LR	LR		
	comp=Z,776nm,20.0s,MS5.3						
TSUM	**Tsumeb**	**121.93**	**253**	PFAKE		07 24 40.0	+7.9
TSUM				LR	LR		
	comp=Z,432nm,21.0s,MS5.1						
CBN	**Corbin**	**122.06**	**33**	PFAKE		07 24 40.0	+8.1
CBN				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PMSA	**Palmer Station**	**122.64**	**169**	PFAKE		07 24 40.0	+7.8
PMSA				LR	LR		
	comp=Z,808nm,19.0s,MS5.4						
SFS	**San Fernando**	**123.36**	**326**	PFAKE		07 24 50.0	+16
SFS				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
TAM	**Tamanrasset**	**123.66**	**305**	PFAKE		07 24 50.0	+15
TAM				LR	LR		
	comp=Z,418nm,19.0s,MS5.1						
CNNC	**Cliffs of the**	**123.92**	**36**	PFAKE		07 24 50.0	+14
CNNC				LR	LR		
	comp=Z,592nm,20.0s,MS5.2						
MDT	**Midelt**	**125.00**	**322**	PKP	PKPdf	07 24 38.1	+0.3
	comp=Z,2.0nm,1.1s,baz=326,slow=2.4,SNR=2.9						
RTC	**Rabat Centre**	**125.51**	**324**	PFAKE		07 24 50.0	+11
RTC				LR	LR		
	comp=Z,797nm,20.0s,MS5.4						
TEIG	**Tepich**	**125.53**	**57**	PFAKE		07 24 50.0	+11
TEIG				LR	LR		
	comp=Z,382nm,21.0s,MS5.0						
DWPF	**Disney**	**126.43**	**44**	PFAKE		07 24 50.0	+9.4
DWPF				LR	LR		
	comp=Z,624nm,19.0s,MS5.3						
TGUH	**Tegucigalpa,Un**	**129.14**	**63**	PFAKE		07 25 00.0	+14
TGUH				LR	LR		
	comp=Z,441nm,20.0s,MS5.2						
PAYG	**Puerto Ayora**	**130.94**	**83**	PFAKE		07 25 00.0	+10
PAYG				LR	LR		
	comp=Z,833nm,21.0s,MS5.4						
TORD	**Torodi Ar. Bea**	**131.33**	**297**	PKP	PKPdf	07 24 48.8	-1.5
	comp=Z,0.6nm,0.4s,baz=96,slow=2.2,SNR=6.5						
JTS	**JuntasAbangare**	**132.74**	**67**	PFAKE		07 25 00.0	+7.1
JTS				LR	LR		
	comp=Z,516nm,20.0s,MS5.2						
EFI	**East Falkland**	**135.88**	**165**	PFAKE		07 25 10.0	+12
EFI				LR	LR		
	comp=Z,846nm,20.0s,MS5.5						
BCIP	**Isla Barro Col**	**137.80**	**65**	PFAKE		07 25 10.0	+7.6
BCIP				LR	LR		
	comp=Z,323nm,21.0s,MS5.0						
SDDR	**Presa de Saban**	**139.39**	**46**	PFAKE		07 25 20.0	+15
SDDR				LR	LR		
	comp=Z,503nm,21.0s,MS5.2						
PLCA	**Paso Flores**	**139.78**	**145**	PKhKP		07 24 58.6	
	comp=Z,2.3nm,0.8s,baz=306,slow=3.5,SNR=3.1						
DBIC	**Dimbokro**	**139.87**	**292**	PKhKP		07 24 56.7	
	comp=Z,3.2nm,1.0s,baz=204,slow=3.5,SNR=3.2						
KIC	**Kosan Boka**	**139.88**	**292**	*e*PKIKP	PKPdf	07 25 06.6	+0.4
	comp=Z,98nm,1.2s						
TIC	**Toumodi**	**140.03**	**292**	*e*PKIKP	PKPdf	07 25 07.2	+0.7
	comp=Z,57nm,1.1s						
LIC	**Lamto**	**140.20**	**292**	*e*PKIKP	PKPdf	07 25 07.1	+0.3
	comp=Z,88nm,1.6s						
OTAV	**Otavalo**	**142.22**	**77**	*e*PKPdf	PKPdf	07 25 08.1	-2.3
OTAV				LR	LR		
	comp=Z,557nm,20.0s,MS5.3						
SJG	**San Juan**	**143.49**	**41**	PFAKE		07 25 20.0	+7.5
SJG				LR	LR		
	comp=Z,763nm,21.0s,MS5.4						
MTP	**Monte Pirata**	**143.89**	**41**	*e*PKPdf	PKPdf	07 25 12.2	-1.1
ROSC	**El Rosal**	**144.55**	**68**	PKP	PKPdf	07 25 15.1	+0.5
	comp=Z,20nm,0.8s,baz=83,slow=23,SNR=13						
NNA	**Nana**	**145.46**	**97**	*e*PKPdf	PKPdf	07 25 17.2	+1.1
NNA				LR	LR		
	comp=Z,826nm,20.0s,MS5.5						
SDV	**Santo Domingo**	**145.94**	**58**	*e*PKPdf	PKPdf	07 25 17.9	+1.0
SDV				LR	LR		
	comp=Z,142nm,19.0s,MS4.8						
ANWB	**Willy Bob**	**146.53**	**36**	PFAKE		07 25 30.0	+12
ANWB				LR	LR		
	comp=Z,586nm,19.0s,MS5.4						
LCO	**Las Campanas**	**146.65**	**130**	*e*PKPbc	PKPbc	07 25 20.4	+1.1
LCO				LR	LR		
	comp=Z,955nm,22.0s,MS5.5						
FDF	**Fort de France**	**149.19**	**39**	PFAKE		07 25 30.0	+7.8
FDF				LR	LR		
	comp=Z,556nm,20.0s,MS5.3						
LVC	**Limon Verde**	**150.91**	**120**	*e*PKPbc	PKPbc	07 25 31.5	+1.1
LVC				LR	LR		
	comp=Z,689nm,20.0s,MS5.5						
CPUP	**Villa Florida**	**157.69**	**141**	PKPab	PKPab	07 26 06.9	+0.5
	comp=Z,5.0nm,0.8s,baz=242,slow=4.7,SNR=8.8						
RCBR	**Riachuelo**	**173.14**	**302**	PFAKE		07 26 00.0	+13
RCBR				LR	LR		
	comp=Z,804nm,20.0s						

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*DDA **08** 08:01:44.8,37°.02N×29°.19E,h6km±6km,Md3.2*
*CSEM **08** 08:01:44.8±0.1,36°.96N×29°.22E,h8km,MD3.3,Error ellipse: s-maj=2.2km s-min=1.9km az=2.0*
*ISCJB **08** 08:01:44.8±0.5,36°.99N±0°.02×29°.21E±0°.03,h4km±5km, Error ellipse: s-maj=4.2km s-min=3.6km az=147.5*
*ISK **08** 08:01:44.3,36°.97N×29°.20E,h8km,MD3.3*
*NEIC **08** 08:02:00.6,36°.73N×26°.62E,h7km,MD3.3(ATH),After ATH.*
*ATH **08** 08:02:00.6,36°.73N×26°.62E,h7km±2km,MD3.3/5*
ISC 08 08:01:45.3±0.4,**36°.98N**±0°.03×**29°.21E**±0°.03,**h9**km±4km, **n48,σ0s.90**/70,**1C,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.36**	**197**	*e*PG	**Pg**	**08 01 51.1**	**-1.1**
FETY				*e*SG	**Sg**	**08 01 56.6**	**-0.4**
FETY	**Fethiye**	**0.36**	**197**	*e*Pg	**Pg**	**08 01 51.2**	**-1.1**
FETY				*e*Sg	**Sg**	**08 01 56.6**	**-0.5**
GOLH	**Golhisar**	**0.38**	**47**	*i* P	**Pg**	**08 01 52.1**	**-0.6**
GOLH				*i* S	**Sg**	**08 01 58.8**	**+1.1**
TURN	**Turunc**	**0.50**	**258**	⇑*i*P	**Pg**	**08 01 59.5**	**+4.6**
TURN				*i* S	**Sg**	**08 02 10.1**	**+8.5**
TURN	**Turunc**	**0.50**	**258**	*i* P	**Pg**	**08 01 59.5**	**+4.5**
DALT	**Dalyan (Mudla)**	**0.51**	**246**	*e*PG	**Pg**	**08 01 54.3**	**-0.8**
DALT				*e*SG	**Sg**	**08 02 01.9**	**+0.1**
DALT	**Dalyan (Mudla)**	**0.51**	**246**	*e*Pg	**Pg**	**08 01 54.3**	**-0.8**
DALT				*e*Sg	**Sg**	**08 02 01.9**	**+0.1**
ELL	**Elmali**	**0.60**	**112**	*e*PG	**Pg**	**08 01 56.1**	**-0.8**
ELL				*e*SG	**Sg**	**08 02 05.7**	**+0.9**
ELL	**Elmali**	**0.60**	**112**	*e*Pg	**Pg**	**08 01 56.1**	**-0.8**
ELL				*e*Sg	**Sg**	**08 02 05.7**	**+0.9**
YER	**Yerkesik**	**0.76**	**282**	*e*PG	**Pg**	**08 01 59.6**	**-0.3**
YER				*e*SG	**Sg**	**08 02 10.3**	**+0.5**
YER	**Yerkesik**	**0.76**	**282**	*e*Pg	**Pg**	**08 01 59.6**	**-0.3**
YER				*e*Sg	**Sg**	**08 02 10.3**	**+0.5**
DENT	**Denizli**	**0.79**	**350**	*e*PG	**Pg**	**08 01 59.9**	**-0.6**
DENT				*e*SG	**Sg**	**08 02 11.5**	**+0.8**
DENT	**Denizli**	**0.79**	**350**	*e*Pg	**Pg**	**08 01 59.9**	**-0.5**
DENT				*e*Sg	**Sg**	**08 02 11.5**	**+0.8**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**08 02 00.4**	**-0.4**
AKAS				*e*S	**Sg**	**08 02 14.1**	**+2.7**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**08 02 00.4**	**-0.4**
AKAS				*e*S	**Sg**	**08 02 14.1**	**+2.8**
ANTB	**Antalya**	**1.16**	**94**	*e*PN	**Pn**	**08 02 07.1**	**-0.5**
ANTB	**Antalya**	**1.16**	**94**	*e*Pn	**Pn**	**08 02 07.1**	**-0.5**
ARG	**Arkhangelos**	**1.16**	**229**	*e*PG	**Sn**	**08 02 25.3**	**+1.7**
ARG	**Arkhangelos**	**1.16**	**229**	*e*Pg	**Sn**	**08 02 25.3**	**+1.7**
MLSB	**Milas**	**1.19**	**286**	*e*PN	**Pn**	**08 02 07.8**	**-0.3**
MLSB	**Milas**	**1.19**	**286**	*e*Pn	**Pn**	**08 02 07.8**	**-0.3**
BCK	**Bucak**	**1.20**	**66**	*e*PN	**Pn**	**08 02 08.1**	**-0.1**
BCK	**Bucak**	**1.20**	**66**	*e*Pn	**Pn**	**08 02 08.1**	**-0.1**
AYDN	**Tasoluk**	**1.26**	**303**	*e*P	**Pn**	**08 02 08.4**	**-0.7**
AYDN				*e*S	**Sb**	**08 02 27.2**	**+1.6**
AYDN	**Tasoluk**	**1.26**	**303**	*e*P	**Pn**	**08 02 08.4**	**-0.7**
AYDN				*e*S	**Sb**	**08 02 27.2**	**+1.6**
DAT	**Datca**	**1.33**	**260**	*e*PN	**Pn**	**08 02 09.8**	**-0.2**
DAT	**Datca**	**1.33**	**260**	*e*Pn	**Pn**	**08 02 09.8**	**-0.3**
ISP	**Isparta**	**1.34**	**50**	*e*PN	**Pn**	**08 02 10.5**	**+0.3**
ISP	**Isparta**	**1.34**	**50**	*e*Pn	**Pn**	**08 02 10.5**	**+0.3**
KHL	**Karahalli**	**1.36**	**10**	*e*PN	**Pn**	**08 02 10.2**	**-0.3**
KHL	**Karahalli**	**1.36**	**10**	*e*Pn	**Pn**	**08 02 10.2**	**-0.3**
KHAL	**Karahalli**	**1.41**	**9**	*e*P	**Pn**	**08 02 11.2**	**+0.2**
KHAL				*e*S	**Sn**	**08 02 28.7**	**-1.0**
KHAL	**Karahalli**	**1.41**	**9**	*e*P	**Pn**	**08 02 11.2**	**+0.1**
KHAL				*e*S	**Sn**	**08 02 28.7**	**-1.0**
BDRM	**Kayabasi**	**1.42**	**274**	*e*P	**Pn**	**08 02 11.3**	**+0.1**
BDRM				*e*S	**Sn**	**08 02 29.7**	**-0.3**
BDRM	**Kayabasi**	**1.42**	**274**	*e*P	**Pn**	**08 02 11.3**	**+0.1**
BDRM				*e*S	**Sn**	**08 02 29.7**	**-0.3**
BODT	**Bodrum**	**1.52**	**274**	*e*PN	**Pn**	**08 02 12.8**	**+0.1**
BODT	**Bodrum**	**1.52**	**274**	*e*Pn	**Pn**	**08 02 12.8**	**+0.1**
SHUT	**Suhut-Afyon**	**1.90**	**34**	*e*PN	**Pn**	**08 02 18.0**	**+0.2**
SHUT	**Suhut-Afyon**	**1.90**	**34**	*e*Pn	**Pn**	**08 02 18.0**	**+0.2**
SMG	**Samos**	**2.03**	**292**	*e*PB	**Pn**	**08 02 19.5**	**-0.1**
SMG	**Samos**	**2.03**	**292**	*e*Pb	**Pn**	**08 02 19.5**	**-0.1**
IZM	**Izmir**	**2.10**	**313**	*e*PN	**Pn**	**08 02 20.4**	**-0.2**
KARP	**Karpathos**	**2.19**	**230**	*e*PN	**Pn**	**08 02 23.9**	**+2.1**
KARP				*e*SB	**Sn**	**08 02 42.0**	**-7.0**
KARP	**Karpathos**	**2.19**	**230**	*e*Pn	**Pn**	**08 02 23.9**	**+2.1**
KARP				*e*Sb	**Sn**	**08 02 42.0**	**-7.0**
ZKR	**Zakros**	**3.06**	**233**	*e*PB	**Pn**	**08 02 31.5**	**-2.3**
ZKR	**Zakros**	**3.06**	**233**	*e*Pb	**Pn**	**08 02 31.5**	**-2.3**
NPS	**Neapolis**	**3.38**	**241**	*e*PB	**Pn**	**08 02 31.6**	**-6.6**
NPS	**Neapolis**	**3.38**	**241**	*e*Pb	**Pn**	**08 02 31.6**	**-6.6**

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*ISCJB **08** 08:31:23.0±0.5,36°.99N±0°.03×29°.20E±0°.03,h4km±6km, Error ellipse: s-maj=4.7km s-min=4.1km az=137.5*
*CSEM **08** 08:31:22.8±0.1,36°.97N×29°.21E,h8km,MD3.1,Error ellipse: s-maj=3.2km s-min=3.0km az=15.0*
*ISK **08** 08:31:22.3,36°.98N×29°.20E,h6km,MD3.1*
*DDA **08** 08:31:23.1,37°.00N×29°.17E,h7km±4km,Md2.9*
ISC 08 08:31:23.4±0.5,**36°.98N**±0°.03×**29°.19E**±0°.03,**h9**km±5km, **n33,σ0s.83**/51,**1C,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.36**	**194**	PG	**Pg**	**08 31 29.2**	**-1.2**
FETY				*e*SG	**Sg**	**08 31 35.3**	**+0.2**
FETY	**Fethiye**	**0.36**	**194**	*i* Pg	**Pg**	**08 31 29.2**	**-1.2**
FETY				*e*Sg	**Sg**	**08 31 35.3**	**+0.1**
GOLH	**Golhisar**	**0.39**	**49**	⇑*i*P	**Pg**	**08 31 30.2**	**-0.7**
GOLH				*i* S	**Sg**	**08 31 37.5**	**+1.4**
TURN	**Turunc**	**0.49**	**257**	*e*P	**Pg**	**08 31 37.4**	**+4.6**
TURN				*e*S	**Sg**	**08 31 49.3**	**+10**
TURN	**Turunc**	**0.49**	**257**	*e*P	**Pg**	**08 31 37.4**	**+4.6**
DALT	**Dalyan (Mudla)**	**0.49**	**245**	*e*PG	**Pg**	**08 31 32.5**	**-0.5**
DALT				*e*SG	**Sg**	**08 31 40.2**	**+0.7**
DALT	**Dalyan (Mudla)**	**0.49**	**245**	*e*Pg	**Pg**	**08 31 32.5**	**-0.5**
DALT				*e*Sg	**Sg**	**08 31 40.2**	**+0.7**
ELL	**Elmali**	**0.62**	**112**	*e*PG	**Pg**	**08 31 34.3**	**-1.0**
ELL				*e*SG	**Sg**	**08 31 44.1**	**+0.7**
ELL	**Elmali**	**0.62**	**112**	*e*Pg	**Pg**	**08 31 34.3**	**-1.0**
ELL				*e*Sg	**Sg**	**08 31 44.1**	**+0.7**
YER	**Yerkesik**	**0.74**	**282**	*e*PG	**Pg**	**08 31 37.2**	**-0.5**
YER	**Yerkesik**	**0.74**	**282**	*e*Pg	**Pg**	**08 31 37.2**	**-0.5**
DENT	**Denizli**	**0.78**	**351**	*e*PG	**Pg**	**08 31 37.7**	**-0.7**
DENT				*e*SG	**Sg**	**08 31 49.0**	**+0.4**
DENT	**Denizli**	**0.78**	**351**	*e*Pg	**Pg**	**08 31 37.7**	**-0.7**
DENT				*e*Sg	**Sg**	**08 31 49.0**	**+0.4**
AKAS	**Kas**	**0.82**	**156**	*e*P	**Pg**	**08 31 38.9**	**-0.3**
AKAS				*e*S	**Sg**	**08 31 52.2**	**+2.4**
AKAS	**Kas**	**0.82**	**156**	*e*P	**Pg**	**08 31 38.8**	**-0.3**
AKAS				*e*S	**Sg**	**08 31 52.2**	**+2.4**
MLSB	**Milas**	**1.18**	**286**	*e*PN	**Pn**	**08 31 45.1**	**-0.9**
MLSB	**Milas**	**1.18**	**286**	*e*Pn	**Pn**	**08 31 45.1**	**-0.9**
BCK	**Bucak**	**1.21**	**66**	*e*PN	**Pn**	**08 31 45.1**	**-1.4**
BCK	**Bucak**	**1.21**	**66**	*e*Pn	**Pn**	**08 31 45.1**	**-1.4**
AYDN	**Tasoluk**	**1.25**	**303**	*e*P	**Pn**	**08 31 46.7**	**-0.3**
AYDN				*e*S	**Sb**	**08 32 04.5**	**+1.2**
AYDN	**Tasoluk**	**1.25**	**303**	*e*P	**Pn**	**08 31 46.7**	**-0.3**
AYDN				*e*S	**Sb**	**08 32 04.5**	**+1.2**
DAT	**Datca**	**1.32**	**259**	*e*PN	**Pn**	**08 31 48.2**	**+0.2**
DAT	**Datca**	**1.32**	**259**	*e*Pn	**Pn**	**08 31 48.2**	**+0.2**
ISP	**Isparta**	**1.35**	**50**	*e*PN	**Pn**	**08 31 48.5**	**+0.1**
ISP	**Isparta**	**1.35**	**50**	*e*Pn	**Pn**	**08 31 48.6**	**+0.1**
BDRM	**Kayabasi**	**1.40**	**274**	*e*P	**Pn**	**08 31 48.9**	**-0.2**
BDRM				*e*S	**Sn**	**08 32 08.5**	**+0.8**
BDRM	**Kayabasi**	**1.40**	**274**	*e*P	**Pn**	**08 31 48.9**	**-0.2**
BDRM				*e*S	**Sn**	**08 32 08.5**	**+0.8**
KHAL	**Karahalli**	**1.40**	**10**	*e*P	**Pn**	**08 31 49.8**	**+0.6**
KHAL				*e*S	**Sn**	**08 32 08.0**	**+0.2**
KHAL	**Karahalli**	**1.40**	**10**	*e*P	**Pn**	**08 31 49.8**	**+0.6**
KHAL				*e*S	**Sn**	**08 32 08.0**	**+0.2**
BODT	**Bodrum**	**1.51**	**274**	*e*PN	**Pn**	**08 31 50.6**	**0.0**
BODT	**Bodrum**	**1.51**	**274**	*e*Pn	**Pn**	**08 31 50.6**	**0.0**
KULA	**Kula-Manisa**	**1.59**	**345**	*e*PN	**Pn**	**08 31 51.3**	**-0.4**
KULA	**Kula-Manisa**	**1.59**	**345**	*e*Pn	**Pn**	**08 31 51.3**	**-0.4**

CASC 08 08:33:02.6±2.3,**10°.53N**×**83°.10W**,**h15**km±7km,**MD4.0, ML3.5,4C-4D,Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIO	**Limon**	**0.53**	**173**	⇑*e*P	Pg	08 33 15.4	+2.3
LIO				*e*S	Sg	08 33 22.9	+2.8
URSC	**Urasca**	**0.96**	**224**	⇓*i*P	Pb	08 33 20.5	-0.5
URSC				*e*S	Sb	08 33 32.5	-1.1
SJS	**Escuela Geolog**	**1.11**	**238**	⇑*e*P	Pb	08 33 23.6	+0.1
SJS				*e*S	Sb	08 33 37.3	-0.5
BUS	**Buena Vista**	**1.17**	**214**	*e*P	Pn	08 33 23.7	-0.7
BUS				*e*S	Sb	08 33 38.4	-1.0
LCR2	**La Lucha 2**	**1.19**	**229**	⇓*i*P	Pn	08 33 24.4	-0.2
LCR2				*e*S	Sb	08 33 39.3	-0.7
LAJ	**Bijagual**	**1.21**	**237**	*e*P	Pn	08 33 32.6	+7.7
LAJ				*e*S	Sb	08 33 54.6	+14
CNI	**Changuinola**	**1.25**	**153**	⇑*i*P	Pn	08 33 24.2	-1.3
CNI				*e*S	Sb	08 33 30.4	-11
BAR1		**1.30**	**189**	⇓*e*P	Pn	08 33 25.5	-0.7
BAR1				*e*S	Sb	08 33 42.7	-0.6
PRS1	**Puriscal**	**1.31**	**245**	*e*P	Pn	08 33 27.8	+1.5
CGA2	**Cerro Gallo 2**	**1.44**	**249**	⇑*e*P	Pn	08 33 28.7	+0.6
CGA2				*e*S	Sn	08 33 47.3	+0.6
QCR	**Quepos**	**1.52**	**224**	⇓*e*P	Pn	08 33 29.7	+0.4
QCR				*e*S	Sn	08 33 49.3	+0.5
FORC	**Fortuna**	**1.54**	**268**	*e*P	Pn	08 33 30.1	+0.5
FORC				*e*S	Sn	08 33 47.5	-1.9
CTCR	**Cotoan**	**1.66**	**168**	*e*P	Pn	08 33 30.2	-1.0
JTS	**JuntasAbangare**	**1.84**	**263**	*e*P	Pn	08 33 33.6	0.0
PTEN	**Parque Tenorio**	**1.86**	**276**	*i* P	Pn	08 33 33.6	-0.3
ACR	**Cerro Adams**	**1.87**	**182**	*e*P	Pn	08 33 33.8	-0.3
JCR	**Jicaral**	**2.09**	**251**	*e*P	Pn	08 33 38.4	+1.3
CONN	**Concepcion**	**2.68**	**293**	*e*P	Pn	08 33 45.9	+0.6
SSN	**San Juan del S**	**2.81**	**286**	*e*P	Pn	08 33 46.9	-0.1
MGAN	**Managua**	**3.48**	**298**	*e*P	Pn	08 33 55.8	-0.3
TISN	**Laguna Tiscapa**	**3.50**	**298**	*e*P	Pn	08 33 56.3	-0.2
HUEN		**3.50**	**301**	*e*P	Pn	08 33 55.9	-0.7
XAVN	**Gruta Xavier**	**3.55**	**297**	*e*P	Pn	08 33 56.9	-0.2
CSAN		**3.65**	**297**	*e*P	Pn	08 33 58.3	-0.2
MOMN	**Momotombo**	**3.85**	**299**	*e*P	Pn	08 34 01.3	-0.1
MIRN	**Miramar**	**4.01**	**299**	*e*P	Pn	08 34 03.4	-0.2

IDC 08 08:34:30.7±1.0,**0°.70N**×**127°.09E**,**h0**km,**mb3.9**/5, **mb1 4.1**/6,**mb1mx3.9**/18,**mbtmp4.0**/6,**ML4.2**/1,**MS3.6**/2, **Ms1 3.6**/2,**ms1mx2.5**/25,**2D,Error ellipse: s-maj=73.2km s-min=17.4km az=76.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNE	**Ternate**	**0.30**	**73**	⇓*e*P	Pg	08 34 36.0	-0.4
MNI	**Manado**	**2.36**	**288**	⇓*e*P	Pn	08 35 15.0	+4.2
FITZ	**Fitzroy Crossi**	**18.74**	**184**	P	Pn	08 38 51.9	+0.3
	0.6nm,0.3s,baz=16,slow=10,SNR=12						
FITZ				LR	LR	08 45 50.4	
	comp=Z,72nm,18.7s,baz=283,slow=36						
WRA	**Warramunga Arr**	**21.71**	**161**	P	P	08 39 22.2	-1.4
	3.7nm,0.6s,baz=340,slow=11,SNR=26						
ASAR	**Alice Springs**	**25.11**	**165**	P	P	08 39 58.2	+0.8
	1.7nm,0.4s,baz=343,slow=11,SNR=17						
KSRS	**Korea Array**	**36.58**	**1**	P	P	08 41 38.5	0.0
	0.4nm,0.7s,baz=234,slow=31,SNR=3.9						
SONM	**Songino Array**	**50.27**	**342**	P	P	08 43 29.4	+0.6
	0.8nm,0.7s,baz=158,slow=9.2,SNR=4.6						
MKAR	**Makanchi Array**	**60.24**	**326**	P	P	08 44 40.4	-0.4
	1.3nm,0.5s,baz=114,slow=7.6,SNR=20						
MAW	**Mawson**	**81.06**	**200**	LR	LR	09 18 41.5	
	comp=Z,83nm,18.7s,baz=113,slow=33						

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*ISK **08** 09:26:52.5,36°.98N×29°.21E,h4km,MD3.1*
*ISCJB **08** 09:26:53.3±0.6,36°.98N±0°.04×29°.21E±0°.04,h4km±7km, Error ellipse: s-maj=6.5km s-min=4.2km az=147.6*
*CSEM **08** 09:26:53.5±0.2,36°.98N×29°.22E,h8km,MD3.1,Error ellipse: s-maj=4.4km s-min=3.7km az=158.0*
*DDA **08** 09:26:53.9,37°.04N×29°.15E,h7km±5km,Md3.1*
ISC 08 09:26:53.7±0.5,**36°.98N**±0°.04×**29°.21E**±0°.04,**h8**km±6km, **n38,σ0s.77**/53,**1C,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.36**	**196**	*e*PG	**Pg**	**09 26 59.6**	**-1.1**
FETY				*e*SG	**Sg**	**09 27 05.7**	**+0.3**
FETY	**Fethiye**	**0.36**	**196**	*e*Pg	**Pg**	**09 26 59.6**	**-1.1**
FETY				*e*Sg	**Sg**	**09 27 05.7**	**+0.3**
GOLH	**Golhisar**	**0.38**	**48**	⇑*i*P	**Pg**	**09 27 00.5**	**-0.6**
GOLH				*i* S	**Sg**	**09 27 07.5**	**+1.3**
GOLH	**Golhisar**	**0.38**	**48**	*i* P	**Pg**	**09 27 00.5**	**-0.6**
GOLH				*i* S	**Sg**	**09 27 07.5**	**+1.3**
TURN	**Turunc**	**0.49**	**258**	*e*P	**Pg**	**09 27 07.8**	**+4.6**
TURN				*e*S	**Sg**	**09 27 18.9**	**+9.2**
TURN	**Turunc**	**0.49**	**258**	*e*P	**Pg**	**09 27 07.8**	**+4.6**
DALT	**Dalyan (Mudla)**	**0.50**	**245**	*e*PG	**Pg**	**09 27 02.7**	**-0.7**
DALT				*e*SG	**Sg**	**09 27 10.8**	**+0.8**
DALT	**Dalyan (Mudla)**	**0.50**	**245**	*e*Pg	**Pg**	**09 27 02.7**	**-0.7**
DALT				*e*Sg	**Sg**	**09 27 10.8**	**+0.9**
ELL	**Elmali**	**0.61**	**112**	*e*PG	**Pg**	**09 27 05.2**	**-0.2**
ELL	**Elmali**	**0.61**	**112**	*e*Pg	**Pg**	**09 27 05.2**	**-0.2**
YER	**Yerkesik**	**0.75**	**282**	*e*PG	**Pg**	**09 27 08.3**	**+0.2**
YER	**Yerkesik**	**0.75**	**282**	*e*Pg	**Pg**	**09 27 08.3**	**+0.1**
DENT	**Denizli**	**0.78**	**350**	*e*PG	**Pg**	**09 27 07.5**	**-1.3**
DENT	**Denizli**	**0.78**	**350**	*e*Pg	**Pg**	**09 27 07.5**	**-1.3**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**09 27 10.2**	**+0.9**
AKAS				*e*S	**Sg**	**09 27 24.3**	**+4.4**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**09 27 10.2**	**+0.9**
AKAS				*e*S	**Sg**	**09 27 24.3**	**+4.5**
ANTB	**Antalya**	**1.16**	**94**	*e*PN	**Pn**	**09 27 15.1**	**-1.2**
ANTB	**Antalya**	**1.16**	**94**	*e*Pn	**Pn**	**09 27 15.1**	**-1.2**
MLSB	**Milas**	**1.18**	**286**	*e*PN	**Pn**	**09 27 16.7**	**+0.2**
MLSB	**Milas**	**1.18**	**286**	*e*Pn	**Pn**	**09 27 16.7**	**+0.2**
BCK	**Bucak**	**1.20**	**66**	*e*PN	**Pn**	**09 27 15.9**	**-0.9**
BCK	**Bucak**	**1.20**	**66**	*e*Pn	**Pn**	**09 27 15.9**	**-0.9**
AYDN	**Tasoluk**	**1.26**	**303**	*e*P	**Pn**	**09 27 17.3**	**-0.3**
AYDN				*e*S	**Sb**	**09 27 33.5**	**-0.5**
AYDN	**Tasoluk**	**1.26**	**303**	*e*P	**Pn**	**09 27 17.3**	**-0.2**
AYDN				*e*S	**Sb**	**09 27 33.5**	**-0.4**
DAT	**Datca**	**1.33**	**260**	*e*PN	**Pn**	**09 27 19.1**	**+0.6**
DAT	**Datca**	**1.33**	**260**	*e*Pn	**Pn**	**09 27 19.2**	**+0.7**
ISP	**Isparta**	**1.35**	**50**	*e*PN	**Pn**	**09 27 19.4**	**+0.6**
ISP	**Isparta**	**1.35**	**50**	*e*Pn	**Pn**	**09 27 19.4**	**+0.6**
KHL	**Karahalli**	**1.36**	**11**	*e*PN	**Pn**	**09 27 18.6**	**-0.4**
KHL	**Karahalli**	**1.36**	**11**	*e*Pn	**Pn**	**09 27 18.6**	**-0.4**
KHAL	**Karahalli**	**1.41**	**9**	*e*P	**Pn**	**09 27 21.4**	**+1.9**
KHAL				*e*S	**Sb**	**09 27 38.5**	**+0.2**
KHAL	**Karahalli**	**1.41**	**9**	*e*P	**Pn**	**09 27 21.5**	**+1.9**
KHAL				*e*S	**Sb**	**09 27 38.5**	**+0.2**
BDRM	**Kayabasi**	**1.41**	**274**	*e*P	**Pn**	**09 27 20.1**	**+0.4**
BDRM				*e*S	**Sb**	**09 27 38.3**	**-0.1**
BDRM	**Kayabasi**	**1.41**	**274**	*e*P	**Pn**	**09 27 20.1**	**+0.4**
BDRM				*e*S	**Sb**	**09 27 38.3**	**-0.1**
BODT	**Bodrum**	**1.52**	**274**	*e*PN	**Pn**	**09 27 21.0**	**-0.1**
BODT	**Bodrum**	**1.52**	**274**	*e*Pn	**Pn**	**09 27 21.0**	**-0.1**
KULA	**Kula-Manisa**	**1.59**	**344**	*e*PN	**Pn**	**09 27 22.1**	**0.0**
KULA	**Kula-Manisa**	**1.59**	**344**	*e*Pn	**Pn**	**09 27 22.1**	**0.0**

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*ISCJB **08** 09:38:12.5±0.1,10°.75N±0°.02×41°.90W±0°.01,h9km, mb6.3/392,MS6.9/259,Error ellipse: s-maj=3.4km s-min=1.4km az=169.9*
*MOS **08** 09:38:12.5±1.1,10°.72N×41°.91W,h10km,mb6.6/125, MS7.0/63,Error ellipse: s-maj=9.1km s-min=3.8km az=51.1*
*IDC **08** 09:38:12.7±0.3,10°.77N×41°.91W,h0km,mb5.9/27, mb1 6.0/27,mb1mx6.0/27,mbtmp5.9/27,MS6.9/21, Ms1 6.9/21,ms1mx6.9/23,Error ellipse: s-maj=11.9km s-min=8.7km az=154.0*
*GCMT **08** 09:38:14.1±0.1,10°.85N×41°.71W,h17km,MW6.9/116, Moment Tensor Solution. s116,c274; s112,c530; Duration: 7s.2 Moment tensor: Scale 10^{19}Nm; M_{rr}0.23±.01; $M_{\theta\theta}$-0.57±.01; $M_{\phi\phi}$0.34±.01; $M_{r\theta}$0.15±.04; $M_{\theta\phi}$-3.09±.01; $M_{\phi r}$0.68±.05; Best double couple: $M_0$3.19900×10^{19} NP1:ϕ_s274.00000°,δ78.00000°, λ-180.00000°. NP2:ϕ_s184.00000°,δ90.00000°, λ-12.00000°. Principal axes: T 3.0730, Plg9.0000°, Azm230.0000°; N 0.2510, Plg78.0000°, Azm3.0000°; P -3.3240, Plg9.0000°, Azm139.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=125s.*
*NEIC **08** 09:38:14.1±0.1,10°.67N×41°.90W,h9km,mb6.4/223, ME7.2,MS6.9/191,MW6.8,MW6.9 Error ellipse: s-maj=3.8km s-min=1.6km az=168.0,Moment Tensor Solution. s131 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.06; $M_{\theta\theta}$-0.22; $M_{\phi\phi}$0.28; $M_{r\theta}$0.82; $M_{\theta\phi}$-1.72; $M_{\phi r}$0.55; Best double couple: $M_0$2.00000×10^{19} NP1:ϕ_s277.00000°, δ76.00000°,λ-159.00000°. NP2:ϕ_s181.00000°, δ69.00000°,λ-15.00000°. Principal axes: T 1.7800, Plg4.0000°, Azm47.0000°; N 0.3900, Plg64.0000°, Azm308.0000°; P -2.1600, Plg24.0000°, Azm139.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*
*IGIL **08** 09:38:15.3,10°.71N×41°.90W,h10km,mb6.2*
*BGS **08** 09:38:19.4±1.6,11°.81N×42°.38W,h10km,mb6.1,MS6.9*
*SZGRF **08** 09:38:20.6,10°.90N×41°.34W,h33km,mb6.3,MS6.9,*

Northern Mid-Atlantic Ridge

DJA ***08*** *09:38:57, 10°.88N×41°.02W, h358^{km}, mb5.8/8*

ISC 08 09:38:13.7±0.5**, 10°.73N**±0°.02×**41°.90W**±0°.01**, h4**^{km}±3^{km}**,**
h6^{km}±1.5^{km}**:pP-P, n1891,** σ**0**^{s}**.80**/1810**, mb6.3**/392**,**
MS6.9/259**, 535C-227D, Northern Mid-Atlantic Ridge**

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Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                      Op       ISC       h  m  s   ISC
BBSP  Saint Philip       17.34 280   e        Pn        09 42 17.1 +0.3
BBGH  Gun Hill           17.44 280   ePn      Pn        09 42 16.9 -1.2
      8µm,1.4s
RCBR  Riachuelo          17.50 160   ePn      Pn        09 42 18.6 -0.1
      5µm,1.6s
BOT   Bacolet            18.48 273   e        Pn        09 42 30.9  0.0
TPR   Prospect           18.54 273   e        Pn        09 42 32.2 +0.6
TBH   Brigand Hill       18.84 271   e        Pn        09 42 36.9 +1.6
SLW   Petit Monier       18.88 282   eP       Pn        09 42 35.8 +0.1
SLW   Petit Monier       18.88 282   e        Pn        09 42 36.8 +1.1
SLW   Petit Monier       18.88 282   eP       Pn        09 42 36.8 +1.1
MVM   Montagne Vaucl     18.92 284   eP       Pn        09 42 35.9 -0.3
SLDE  Delcer             18.97 281   e        Pn        09 42 37.9 +1.1
BIM   Bigot              19.08 283   eP       Pn        09 42 38.0 -0.1
TRN   Trinidad (W)       19.16 272   e        Pn        09 42 35.9 -3.3
FDF   Fort de France     19.19 284   eP       Pn        09 42 39.5  0.0
FDF   Fort de France     19.19 284    P       Pn        09 42 40.2 +0.7
TPP   Pointe-a-Pierr     19.23 271   e        Pn        09 42 40.7 +0.8
GRIC  Isle de Caille     19.35 277   e        Pn        09 42 42.2 +0.8
GRSS  Sisters            19.38 277   e        Pn        09 42 43.0 +1.3
GRHS  Sauteurs           19.40 276   e        Pn        09 42 42.3 +0.3
GRGR  Grenville          19.41 276   eP       Pn        09 42 41.2 -1.0
      3µm,1.0s
GRW   Mount Saint Ca     19.42 276   e        Pn        09 42 42.9 +0.7
DSTT  Stowe              19.43 285   e        Pn        09 42 42.6 +0.3
ALNG  Atlantic LNG       19.47 270   e        Pn        09 42 44.5 +1.6
BUAY  Buenos Aires       19.47 270   e        Pn        09 42 45.9 +3.0
DFBT  Forest Bistro      19.48 285   e        Pn        09 42 45.1 +2.2
DSHT  Scott's Head       19.49 285   e        Pn        09 42 46.8 +3.8
DPMT  Pointe Michel      19.50 285   e        Pn        09 42 45.8 +2.6
TCE   Chacachacare       19.51 272   e        Pn        09 42 43.9 +0.6
MDN   Morne-Daniel       19.53 286   e        Pn        09 42 43.4 -0.2
ANWB  Willy Bob          20.46 292   eP       P         09 42 51.9 -0.7
      866nm,0.8s
ANWB                                  LR       LR
      comp=Z,119µm,22.0s,MS6.2
PCRV  Puerto La Cruz     22.36 271    P       P         09 43 12.6 -0.4
      comp=Z,518nm,1.0s,mb5.9,baz=58,slow=4.1,SNR=51
PCRV                                  S       S         09 47 33.3  +14
      comp=Z,77nm,1.0s,baz=217,slow=23,SNR=2.0
CDVI  St. Croix          23.22 290   eP       P         09 43 22.6 +0.5
STVI  Saint Thomas       23.55 291   eP       P         09 43 25.1 -0.4
      comp=Z,4µm,2.0s,mb6.5
MTP   Monte Pirata       24.03 290   eP       P         09 43 29.1 -0.9
      comp=Z,2µm,1.2s,mb6.4
HUMP  Col San Antoni     24.32 290   eP       P         09 43 32.2 -0.4
      comp=Z,910nm,1.3s,mb6.0
CBYP  Canovanas          24.36 291   eP       P         09 43 33.1 +0.2
      comp=Z,237nm,0.9s,mb5.6
SJG   San Juan           24.59 290   eP       P         09 43 35.0  0.0
SJG                                   pmax     pmax
      comp=Z,1µm,1.3s
SJG                                   MLR      MLR
      comp=Z,348µm,19.0s
SJG   San Juan           24.59 290   eP       P         09 43 35.0 -0.1
      comp=Z,1µm,1.3s,mb6.4
SJG                                   LR       LR
      comp=Z,348µm,19.0s,MS6.9
ICM   Isla Caja Muer     24.88 289   eP       P         09 43 38.4 +0.7
CELP  Cerrillos          24.97 290   eP       P         09 43 37.9 -0.7
OBIP  Obispado Ponce     24.99 290   eP       P         09 43 37.7 -1.1
      comp=Z,2µm,1.3s,mb6.4
BBTS  Babate             25.05  78    P       P         09 43 38.9 -0.4
      comp=Z,3µm,1.2s,mb6.8,baz=272,slow=2.4,SNR=66
BBTS                                  S       S         09 48 22.0  +18
      comp=Z,51nm,0.6s,baz=83,slow=22,SNR=11
BBTS                                  LR       LR       09 50 44.5
      comp=Z,349µm,21.3s,MS6.8,baz=261,slow=30
AOPR  Arecibo Observ     25.20 290   eP       P         09 43 40.4 -0.2
      comp=Z,246nm,0.8s,mb5.8
LRS   Lares              25.27 290   eP       P         09 43 40.3 -1.0
CRPR  Cabo Rojo, PR      25.45 289   eP       P         09 43 42.3 -0.6
      comp=Z,322nm,0.9s,mb5.8
LSP   Las Mesas          25.46 290   eP       P         09 43 44.6 +1.5
MPR   Mayaguez           25.52 290   eP       P         09 43 43.1 -0.4
CHIE  El Hierro          28.14  50    P       P         09 44 05.7 -1.4
      comp=Z,779nm,1.3s,mb6.2
SDV   Santo Domingo      28.37 269    P       P         09 44 09.0 -0.2
      comp=Z,440nm,0.8s,mb6.1,baz=90,slow=3.3,SNR=138
SDV                                   S       S         09 49 18.7  +22
      comp=Z,58nm,1.1s,baz=250,slow=17,SNR=1.9
SDV   Santo Domingo      28.37 269   eP       P         09 44 09.0 -0.2
      comp=Z,2µm,1.8s,mb6.5
SDV                                   LR       LR
      comp=Z,41µm,20.0s,MS6.0
EHIG  Higuera            28.70  48    P       P         09 44 11.5 -0.6
      comp=Z,227nm,0.8s,mb6.0
EGOM  La Gomera          28.93  50    P       P         09 44 12.9 -1.3
      comp=Z,274nm,0.9s,mb6.0
CCAN  Las Canadas        29.42  50    P       P         09 44 18.3 -0.2
      comp=Z,37nm,0.8s,mb5.2
SDDR  Presa de Saban     29.53 290   eP       P         09 44 19.6 +0.1
      comp=Z,337nm,1.0s,mb6.0
SDDR                                  LR       LR
      comp=Z,93µm,20.0s,MS6.4
EBAJ  Bajamar            29.78  50    P       P         09 44 21.0 -0.6
      comp=Z,35nm,0.7s,mb5.2
GRTK  Grand Turk         30.00 295   eP       P         09 44 24.8 +1.1
      comp=Z,202nm,1.0s,mb5.8
GRTK                                  LR       LR
      comp=Z,130µm,20.0s,MS6.6
BBSR  BB Station         30.09 319   eP       P         09 44 24.8 +0.4
      comp=Z,1µm,1.8s,mb6.4
BBSR                                  LR       LR
      comp=Z,198µm,20.0s,MS6.8
EOSO  Osorio             30.14  51    P       P         09 44 25.1 +0.2
      comp=Z,275nm,1.0s,mb5.9
CALA  Caldeira           30.15  21   eP       P         09 44 25.1 +0.3
PCED  Cedros             30.19  21   eP       P         09 44 25.9 +0.8
      comp=Z,599nm,1.4s,mb6.1
PCED                                 eS       S         09 49 23.1 -1.9
PSMA  Santa Maria        30.22  27   eP       P         09 44 25.1 -0.3
      comp=Z,813nm,1.1s,mb6.4
PSMA                                 eS       S         09 49 24.9 -0.5
PID   Ribeirinha         30.23  22   eP       P         09 44 26.6 +1.1
PMAN  Manadas            30.41  22   eP       P         09 44 28.3 +1.2
      comp=Z,508nm,1.2s,mb6.1
PDA   Ponta Delgada      30.61  26   eP       P         09 44 29.5 +0.7
PDA                                  eLR      LR        09 52 00.0
PSET  Sete Cidades       30.65  26   eP       P         09 44 29.8 +0.6
      comp=Z,285nm,1.4s,mb5.9
PSET                                 eS       S         09 49 26.8 -5.4
CMLA  Cha da Macela      30.68  26   eP       P         09 44 30.1 +0.6
      comp=Z,835nm,1.2s,mb6.4
CMLA                                 eS       S         09 49 31.2 -1.5
CMLA  Cha da Macela      30.68  26   i P      P         09 44 30.5 +1.0
CMLA  Cha da Macela      30.68  26    P       P         09 44 30.3 +0.8
ADH   Angra Heroismo     30.75  23   eP       P         09 44 24.9 -5.2
      comp=Z,504nm,1.1s,mb6.3
CFTV  Fuerteventura      31.44  52    P       P         09 44 36.1 -0.3
      comp=Z,109nm,1.0s,mb5.6
PMAR  Madeira            31.75  43   eP       P         09 44 39.1 +0.1
      comp=Z,2µm,1.4s,mb6.8
PMAR                                 eT                 10 17 15.0
PMPS  Porto Santo        32.34  43   eP       P         09 44 44.6 +0.4
      comp=Z,805nm,1.8s,mb6.2
PMPS                                 eT                 10 17 27.7
MASC  Masc               32.49 291   eP       P         09 44 46.6 +1.0
SIV   San Ignacio        32.63 216    P       P         09 44 47.8 +1.0
      comp=Z,304nm,1.1s,mb6.1,baz=55,slow=9.5,SNR=184
ROSC  El Rosal           32.63 262    P       P         09 44 48.7 +1.7
      comp=Z,456nm,0.8s,mb6.5,baz=88,slow=4.7,SNR=86
ROSC                                  S       S         09 50 07.9 +4.1
      comp=Z,26nm,0.9s,baz=75,slow=20,SNR=2.2
ROSC                                  LR       LR       09 58 27.7
      comp=Z,198µm,18.3s,MS6.8,baz=260,slow=37
ROSC  El Rosal           32.63 262    P       P         09 44 48.7 +1.7
ROSC                                  S       S         09 50 07.9 +4.1
ROSC                                  LR       LR       09 58 27.7
CAM4  Nova Friburgo      32.88 181⇓iP       P         09 44 49.5 +0.6
CAM4                                 i                  09 44 53.0
CAM4                                 i                  09 44 57.9
CAM4                                 i                  09 45 00.5
CAM4                                 i                  09 45 19.2
CAM4                                 i                  09 45 35.7
CAM4                                 i                  09 45 49.7
CAM4                                 i                  09 45 53.8
CAM4                                 i                  09 46 06.4
CAM4                                 i                  09 46 17.9
GTBY  Guantanamo Bay     33.25 290   eP       P         09 44 52.4 +0.1
      comp=Z,258nm,1.0s,mb6.1
GTBY                                  LR       LR
      comp=Z,77µm,20.0s,MS6.4
GTBY  Guantanamo Bay     33.25 290   eP       P         09 44 51.8 -0.5
MOAC  Moa                33.26 291   eP       P         09 44 52.1 -0.3
MOAC                                 eS       S         09 50 13.5 +0.1
      comp=N,2µm,12.5s
MOAC                                 e
      comp=E,2µm,12.5s
RCC   Rio Carpintero     33.80 290   eP       P         09 44 56.9 -0.2
RCC                                  eS       S         09 50 30.0 +8.1
      comp=N,245µm,26.6s
RCC                                  e
      comp=E,99µm,23.9s
CMJ   Castle Mountai     34.14 286⇑iP       P         09 45 02.1 +2.1
HLGC  Holguin            34.31 291   eP       P         09 45 03.8 +2.2
GWJ   Greenwich          34.47 286⇑eP       P         09 45 03.8 +0.8
HOJ   Hope               34.48 286⇑eP       P         09 45 04.5 +1.5
STH   Stony Hill         34.55 286⇑eP       P         09 45 04.4 +0.8
PCJ   Portland Cotta     34.83 286⇓eP       P         09 45 07.2 +1.2
LMGC  Las Mercedes       35.03 290   eP       P         09 45 08.6 +0.9
LMGC                                 e
      comp=E,76µm,19.2s
MTDJ  Mount Denham       35.25 286   eP       P         09 45 11.0 +1.4
      comp=E,156nm,0.7s,mb6.0
MTDJ                                  LR       LR
      comp=Z,87µm,20.0s,MS6.5
TIC   Toumodi            36.67  93   eP       P         09 45 19.5 -2.4
      comp=Z,15µm,2.1s,mb7.5
LIC   Lamto              36.73  94⇓iP       P         09 45 20.4 -2.0
      comp=Z,4µm,1.4s,mb6.8,baz=276
LIC                                  eMLR     MLR
      comp=Z,230µm,21.8s,MS6.6
LIC   Lamto              36.73  94   eP       P         09 45 20.1 -2.3
      comp=Z,4µm,1.4s,mb7.0
LIC   Lamto              36.73  94⇓iP       P         09 45 20.4 -2.0
      comp=Z,2µm,1.4s,mb6.7
LIC                                   LR       LR
      comp=Z,115µm,21.8s,MS6.6
DBIC  Dimbokro           36.82  93    P       P         09 45 21.6 -1.6
DBIC                                  S       S         09 51 11.8 +3.4
DBIC                                  pmax     pmax
      comp=Z,580nm,0.9s
DBIC                                  smax
      comp=N,12nm,1.0s
DBIC  Dimbokro           36.82  93    P       P         09 45 21.6 -1.6
      comp=N,580nm,0.9s,mb6.4,baz=264,slow=10,SNR=157
DBIC                                  S       S         09 51 11.8 +3.3
      comp=N,12nm,1.0s,baz=344,slow=20,SNR=1.6
DBIC                                  LR       LR       09 58 33.9
      comp=N,90µm,20.4s,MS6.5,baz=260,slow=33
KIC   Kosan Boka         36.98  94   eP       P         09 45 22.4 -2.2
      comp=N,8µm,1.6s,mb7.3
BCIP  Isla Barro Col     37.38 271   eP       P         09 45 28.5 +0.5
      comp=N,4µm,1.6s,mb7.0
BCIP                                  LR       LR
      comp=Z,56µm,20.0s,MS6.4
BCIP  Isla Barro Col     37.38 271   eP       P         09 45 28.4 +0.5
BCIP                                 i        pP        09 45 29.6 +0.4
      baz=76,slow=7.4
OTAV  Otavalo            37.79 256   eP       P         09 45 32.5 +1.0
      comp=Z,3µm,1.6s,mb6.7
OTAV                                  LR       LR
      comp=Z,98µm,22.0s,MS6.6
OTAV  Otavalo            37.79 256   eP       P         09 45 32.5 +1.1
MGV   Manicaragua        38.13 292   eP       P         09 45 34.5 +0.3
RTC   Rabat Centre       39.52  49    P       P         09 45 46.8 +1.1
RTC                                   LR       LR
      comp=Z,252µm,19.0s,MS7.1
PFVI  Vila Bisbo         39.71  43   eP       P         09 45 47.1 -0.2
      comp=Z,980nm,1.5s,mb6.3
PFVI  Vila Bisbo         39.71  43   ePP      PP        09 47 15.4 -3.0
PFVI                                 eS       S         09 51 54.6 +3.0
PFVI                                 eLQ                09 54 37.6
PFVI                                 eLR      LR        09 56 05.3
      comp=Z,297µm,22.0s
CPUP  Villa Florida      39.77 202    P       P         09 45 48.4 +0.6
CPUP                                  S       S         09 51 52.9 +0.3
CPUP                                  smax
      comp=N,6.0nm,0.8s
CPUP                                  MLR      MLR
      comp=Z,238µm,18.2s
CPUP  Villa Florida      39.77 202    P       P         09 45 48.4 +0.5
      comp=Z,17nm,0.6s,mb5.0,baz=13,slow=8.0,SNR=23
CPUP                                  S       S         09 51 52.9 +0.3
      comp=Z,6.0nm,0.8s,baz=133,slow=12,SNR=1.7
CPUP                                  LR       LR       10 02 07.4
      comp=Z,238µm,18.2s,MS7.1,baz=11,slow=36
ARE   Arequipa           39.83 228⇑iP       P         09 45 47.2 -1.3
ARE                                  i                  09 46 23.0
MORF  Marmelete          39.92  43   eP       P         09 45 47.6 -1.4
      comp=Z,855nm,1.5s,mb6.3
MORF  Marmelete          39.92  43   ePP      PP        09 47 20.3 -0.4
MORF                                 eS       S         09 51 53.0 -1.8
MORF                                 eLQ                09 54 41.5
MORF                                 eLR      LR        09 56 09.2
      comp=Z,307µm,22.0s
MORF                                 eT                 10 27 22.5
MORF  Marmelete          39.92  43   eP       P         09 45 49.7 +0.7
PTEO  Sao Teotonio       40.01  43   eP       P         09 45 50.4 +0.7
      comp=Z,1µm,1.5s,mb6.3
PTEO  Sao Teotonio       40.01  43   ePP      PP        09 47 18.2 -3.4
PTEO                                 eT                 10 27 42.1
PBDV  Barranco-do-Ve     40.37  44   eP       P         09 45 52.7 -0.1
      comp=Z,835nm,1.9s,mb6.1
PBDV                                 i P                09 47 27.4
PBDV                                 eS       S         09 52 03.5 +2.0
PBDV                                 eLQ                09 55 10.8
PBDV                                 eLR      LR        09 56 34.0
      comp=Z,361µm,22.0s
PBDV                                 eT                 10 28 11.3
LIS   Lisbon             40.38  41   eP       P         09 45 53.8 +1.0
LIS                                   AMb      AMB      09 45 57.4
      comp=Z,432nm,1.5s,mb6.0
LIS                                  eS       S         09 52 03.0 +1.5
LIS                                  eS       S         09 52 03.1 +1.5
LIS   Lisbon             40.38  41   eP       P         09 45 53.8 +1.0
      comp=Z,432nm,1.5s,mb6.0
LIS                                  eS       S         09 52 03.0 +1.4
PMAFR Mafra              40.43  40   eP       P         09 45 53.3 +0.1
      comp=Z,1µm,1.6s,mb6.5
PMAFR Mafra              40.43  40   ePP      PP        09 47 28.8 +2.5
PMAFR                                eS       S         09 52 03.0 +0.7
PMAFR                                eLQ                09 55 00.9
PMAFR                                eLR      LR        09 56 22.2
      comp=Z,233µm,20.0s
PMAFR                                eT                 10 27 54.5
LIO   Limon              40.45 273   eP       P         09 45 54.9 +1.2
IFR   Ifrane             40.60  50    P       P         09 45 55.2 +0.5
PVAQ  Vaqueiros          40.60  43   eP       P         09 45 54.0 -0.7
      comp=Z,370nm,1.1s,mb5.9
PVAQ  Vaqueiros          40.60  43   ePP      PP        09 47 32.8 +4.7
PVAQ                                 eS       S         09 52 03.3 -1.6
PVAQ                                 eLQ                09 55 18.6
PVAQ                                 eLR      LR        09 56 22.9
      comp=Z,351µm,22.0s
PVAQ                                 eT                 10 27 50.6
ACR   Cerro Adams        40.71 271   eP       P         09 45 54.9 -0.9
BAR1                     40.79 272⇓eP       P         09 45 56.4 -0.1
CNNC  Cliffs of the      40.79 313   eP       P         09 45 57.3 +1.1
      comp=Z,392nm,1.2s,mb5.9
CNNC                                  LR       LR
      comp=Z,239µm,22.0s,MS7.0
MOE   Montemor           40.79  42   eT                 10 27 47.0
EGRO  El Granado         40.83  43    P       P         09 45 57.0 +0.4
      comp=Z,84nm,0.9s,mb5.4
PBEJ  Beja               40.84  43   eP       P         09 45 57.3 +0.7
      comp=Z,1µm,1.4s,mb6.3
PBEJ                                 eT                 10 27 55.0
DWPF  Disney             40.87 301   eP       P         09 45 57.8 +0.8
      comp=Z,665nm,1.3s,mb6.1
DWPF                                  LR       LR
      comp=Z,74µm,19.0s,MS6.6
YLE   Yale               40.89 324   eP       P         09 45 57.9 +0.9
EVOP  Sao Brissos        40.94  42   eP       P         09 45 57.3 -0.1
EVOP                                  AMb      AMB      09 46 03.0
      comp=Z,1µm,1.9s,mb6.3
EVOP                                 eS       S         09 52 10.8 +0.9
EVOP                                 eS       S         09 52 10.8 +0.9
EVOP  Sao Brissos        40.94  42   eP       P         09 45 58.2 +0.8
ALMR  Almeirim           41.00  41   eP       P         09 45 58.2 +0.3
SOR   Soroa              41.01 292   eP       P         09 45 58.2  0.0
SOR                                  eS       S         09 52 18.0 +6.6
      comp=N,21µm,4.8s
SOR                                  e
      comp=E,19µm,4.8s
EVO   Evora              41.02  42⇑iP       P         09 45 57.8 -0.2
      comp=E,2µm,1.5s,mb6.3
EVO                                  eMLR     MLR
      comp=Z,356µm,21.8s,MS6.9
EVO   Evora              41.02  42   eP       P         09 45 58.7 +0.7
      comp=Z,1µm,1.6s,mb6.3
EVO   Evora              41.02  42   ePP      PP        09 47 35.9 +3.3
EVO                                  eT                 10 28 06.1
EVO   Evora              41.02  42    P       P         09 45 58.1 +0.1
SFS   San Fernando       41.17  46    P       P         09 46 01.6 +2.3
SFS                                   MLR      MLR
      comp=Z,134µm,19.0s,MS6.8
URSC  Urasca             41.19 273⇑eP       P         09 46 01.5 +1.6
BUS   Buena Vista        41.20 272⇑eP       P         09 46 00.8 +0.9
PAL   Palisades          41.27 323   eP       P         09 46 00.8 +0.7
NNA   Nana               41.40 238    P       P         09 46 00.4 -1.1
NNA                                   LR       LR
      comp=Z,195µm,20.0s,MS7.0
LCR2  La Lucha 2         41.42 273⇑iP       P         09 46 02.1 +0.4
PESTR Estremoz           41.48  42   eP       P         09 46 01.9 +0.1
      comp=Z,565nm,1.6s,mb6.0
PESTR                                i P                09 47 37.9
PESTR                                eS       S         09 52 11.1 -6.8
PESTR                                eLQ                09 55 19.1
PESTR                                eLR      LR        09 57 03.2
      comp=Z,172µm,20.0s
PESTR                                eT                 10 28 13.9
EMIN  Mina Concepcio     41.50  44    P       P         09 46 02.5 +0.4
      comp=Z,141nm,0.9s,mb5.6
LAJ   Bijagual           41.53 273⇓eP       P         09 46 05.9 +3.3
NHSC  New Hope           41.58 308   eP       P         09 46 03.9 +1.1
      comp=Z,1µm,1.3s,mb6.4
NHSC                                  LR       LR
      comp=Z,179µm,22.0s,MS6.9
QCR   Quepos             41.61 272⇑eP       P         09 46 03.8 +0.5
ESPR  Espera             41.61  45    P       P         09 46 03.7 +0.8
      comp=Z,173nm,1.0s,mb5.6
EJIF  Jimena Fronter     41.68  46    P       P         09 46 04.5 +1.0
EJIF                                  pmax     pmax
      comp=Z,2µm,1.7s,mb6.5
EJIF  Jimena Fronter     41.68  46    P       P         09 46 04.5 +1.0
      comp=Z,2µm,1.7s,mb6.5
EBAD  Badajoz            41.79  42    P       P         09 46 05.1 +0.7
      comp=Z,142nm,0.9s,mb5.6
CGA2  Cerro Gallo 2      41.85 273   eP       P         09 46 05.9 +0.6
CBN   Corbin             41.89 317   eP       P         09 46 05.0 -0.2
      comp=Z,2µm,1.7s,mb6.4
CBN                                   LR       LR
      comp=Z,144µm,21.0s,MS6.8
PMRV  Marv??o            41.91  41   eP       P         09 46 04.6 -0.8
      comp=Z,2µm,1.7s,mb6.4
PMRV  Marv??o            41.91  41   ePP      PP        09 47 39.9 -2.4
PMRV                                 eS       S         09 52 20.3 -4.0
PMRV                                 eLQ                09 55 31.0
PMRV                                 eLR      LR        09 57 17.1
      comp=Z,177µm,22.0s
PMRV                                 eT                 10 28 16.5
PMRV  Marv??o            41.91  41   eP       P         09 46 04.5 -0.9
JSRW  J. Sargeant Re     41.97 316   eP       P         09 46 05.9  0.0
FORC  Fortuna            42.01 274   eP       P         09 46 06.7 +0.1
HNH   Hanover            42.09 327   eP       P         09 46 07.6 +0.8
PCBR  Castelo Branco     42.09  40   eT                 10 28 24.2
MVL   Millersville       42.19 320   eP       P         09 46 08.6 +0.9
TRY   Troy               42.21 325   eP       P         09 46 08.8 +1.0
EMIJ  Mijas              42.23  46    P       P         09 46 06.8 -1.2
      comp=Z,3µm,2.6s,mb6.5
JTS   JuntasAbangare     42.30 274    P       P         09 46 08.7 -0.3
JTS                                   LR       LR
      comp=Z,43µm,19.0s,MS6.3
JTS   JuntasAbangare     42.30 274   eP       P         09 46 07.6 -1.4
JTS                                  i        pP        09 46 09.3 -0.9
      baz=83,slow=7.9
PVIS  Viseu              42.32  39   eP       P         09 46 08.8 +0.1
      comp=Z,1µm,1.7s,mb6.2
PVIS  Viseu              42.32  39   ePP      PP        09 47 46.5 -0.2
PVIS                                 eT                 10 30 00.2
MTE   Manteigas          42.36  40   eP       P         09 46 09.6 +0.6
      comp=Z,1µm,1.7s,mb6.2
MTE   Manteigas          42.36  40   ePP      PP        09 47 44.0 -3.1
MTE                                  eS       S         09 52 30.7 -0.2
MTE                                  eLQ                09 55 51.4
MTE                                  eLR      LR        09 57 20.8
      comp=Z,248µm,20.0s
MTE                                  eT                 10 28 52.9
MTE   Manteigas          42.36  40   eP       P         09 46 09.0  0.0
      comp=Z,460nm,1.0s,mb6.1
MTE                                   LR       LR
      comp=Z,242µm,21.0s,MS7.1
LVC   Limon Verde        42.41 218    P       P         09 46 08.3 -1.3
      comp=Z,233nm,1.1s,mb5.7,baz=51,slow=8.5,SNR=80
LVC                                   S       S         09 52 25.1 -6.9
      comp=Z,3.0nm,0.7s,baz=274,slow=14,SNR=2.5
LVC   Limon Verde        42.41 218   eP       P         09 46 08.4 -1.2
      comp=Z,725nm,1.4s,mb6.1
LVC                                   LR       LR
      comp=Z,172µm,22.0s,MS6.9
JCR   Jicaral            42.50 273   eP       P         09 46 10.5  0.0
ECAB  El Cabril          42.51  44    P       P         09 46 10.9 +0.6
      comp=Z,398nm,1.2s,mb6.0
EMAL  Malaga-Limoner     42.56  46    P       P         09 46 11.7 +0.9
ACCN  Adirondack Com     42.63 325   eP       P         09 46 11.8 +0.6
EZAM  Zamans             42.69  37    P       P         09 46 10.4 -1.3
EZAM                                  pmax     pmax
      comp=Z,306nm,0.9s,mb6.0
EZAM  Zamans             42.69  37    P       P         09 46 10.4 -1.2
      comp=Z,306nm,0.9s,mb6.0
TORD  Torodi Ar. Bea     42.69  82    P       P         09 46 10.3 -1.7
      comp=Z,150nm,0.6s,mb5.9,baz=278,slow=7.5,SNR=307
TORD                                  LR       LR       10 01 51.0
      comp=Z,194µm,18.5s,MS7.0,baz=260,slow=33
TORD  Torodi Ar. Bea     42.69  82    P       P         09 46 10.3 -1.7
TORD                                  LR       LR       10 01 51.0
PVRL  Vila Real          42.76  39   eP       P         09 46 12.4 +0.2
      comp=Z,1µm,1.7s,mb6.3
PVRL                                 eT                 10 30 04.6
MDV   Middlebury         42.77 327   eP       P         09 46 12.9 +0.6
PCAB  Cabril             42.82  38   eP       P         09 46 12.6 -0.2
      comp=Z,763nm,1.9s,mb6.1
PCAB  Cabril             42.82  38   ePP      PP        09 47 50.1 -2.0
PCAB                                 eT                 10 30 24.6
BOAB  BOACO BROADBA42.87 277   eP       P         09 46 14.0 +0.4
BOAB                                 i        pP        09 46 15.0 +0.1
      baz=237,slow=3.1
BOAB                                  AMb      AMB      09 46 25.2
      comp=Z,781nm,1.6s,mb6.2
ELOB  Lobios             42.89  38    P       P         09 46 13.6 +0.2
      comp=Z,122nm,0.8s,mb5.7
ELOJ  Sierra Loja        42.94  46    P       P         09 46 14.9 +1.1
ELOJ                                  pmax     pmax
      comp=Z,320nm,1.4s,mb5.9
ELOJ  Sierra Loja        42.94  46    P       P         09 46 14.9 +1.1
      comp=Z,320nm,1.4s,mb5.9
ELUQ  Luque              43.05  45    P       P         09 46 14.5 -0.2
ELUQ                                  pmax     pmax
      comp=Z,223nm,0.8s,mb6.0
ELUQ  Luque              43.05  45    P       P         09 46 14.5 -0.2
      comp=Z,223nm,0.8s,mb5.9
EPLA  Plasencia          43.11  41    P       P         09 46 15.7 +0.6
EPLA                                  pmax     pmax
      comp=Z,332nm,0.9s,mb6.1
EPLA  Plasencia          43.11  41    P       P         09 46 15.7 +0.6
      comp=Z,332nm,0.9s,mb6.1
MVO   Moncorvo           43.12  39   eP       P         09 46 15.5 +0.3
      comp=Z,633nm,1.9s,mb6.0
MVO   Moncorvo           43.12  39   ePcP     PcP       09 48 02.6 -2.4
MVO                                  eS       S         09 52 41.2 -0.8
MVO                                  eLQ                09 55 53.3
MVO                                  eLR      LR        09 57 47.0
      comp=Z,243µm,20.0s
MVO                                  eT                 10 29 59.3
MVO   Moncorvo           43.12  39   eP       P         09 46 15.4 +0.2
ERON  Agron              43.12  46    P       P         09 46 15.8 +0.5
      comp=Z,509nm,1.5s,mb6.0
EADA  Adamuz             43.13  44    P       P         09 46 15.5 +0.1
      comp=Z,40nm,0.9s,mb5.1
EALB  Alboran            43.20  48    P       P         09 46 15.7 -0.3
      comp=Z,411nm,0.9s,mb6.2
EGUA  Guajares           43.21  47    P       P         09 46 15.1 -0.9
EGUA                                  pmax     pmax
      comp=Z,695nm,1.0s,mb6.3
EGUA  Guajares           43.21  47    P       P         09 46 15.1 -1.0
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	comp=Z,695nm,1.0s,mb6.3						
VWCC	Virginia Weste	43.22	314	*e*P	P	09 46 16.7	+0.7
STS	Santiago	43.22	36	P	P	09 46 15.6	-0.4
STS				pmax	pmax		
	comp=Z,105nm,1.0s,mb5.5						
STS	Santiago	43.22	36	P	P	09 46 15.6	-0.4
	comp=Z,105nm,1.0s,mb5.5						
BINY	Binghamton	43.24	323	*e*P	P	09 46 16.9	+0.8
	comp=Z,691nm,1.1s,mb6.3						
BINY				LR	LR		
	comp=Z,127µm,22.0s,MS6.8						
APON	Apoyo	43.29	276	*e*P	P	09 46 18.1	+1.1
MASN	Masaya	43.37	276	*e*P	P	09 46 18.0	+0.4
ECOG	Cogollos-Vega	43.41	46	P	P	09 46 18.2	+0.6
ECOG				pmax	pmax		
	comp=Z,809nm,1.5s,mb6.2						
ECOG	Cogollos-Vega	43.41	46	P	P	09 46 18.2	+0.5
	comp=Z,809nm,1.5s,mb6.2						
MGAN	Managua	43.45	276	*e*P	P	09 46 18.8	+0.5
MGAN				*i*	pP	09 46 19.6	0.0
	baz=127,slow=16						
BLA	Blacksburg	43.51	314	P	P	09 46 19.2	+0.7
BLA				pmax	pmax		
	comp=Z,740nm,1.2s,mb6.3						
BLA	Blacksburg	43.51	314	*e*P	P	09 46 18.3	-0.2
	comp=Z,739nm,1.3s,mb6.2						
BLA				LR	LR		
	comp=Z,190µm,22.0s,MS7.0						
SSPA	Standing Stone	43.52	320	*e*P	P	09 46 18.8	+0.3
	comp=Z,391nm,1.1s,mb6.0						
SSPA				*e*PcP	PcP	09 48 06.9	+0.5
SSPA				LR	LR		
	comp=Z,145µm,22.0s,MS6.8						
PBRG	Braganca	43.66	39	*e*P	P	09 46 20.1	+0.6
	comp=Z,1µm,1.5s,mb6.4						
PBRG	Braganca	43.66	39	*e*PP	PP	09 47 59.4	-1.7
PBRG				*e*T		10 30 45.4	
EBAN	Banos Encina	43.68	45	P	P	09 46 19.8	+0.1
EBAN				pmax	pmax		
	comp=Z,256nm,1.4s,mb5.8						
EBAN	Banos Encina	43.68	45	P	P	09 46 19.8	0.0
	comp=Z,256nm,1.4s,mb5.8						
EBER	Berja	43.72	47	P	P	09 46 21.1	+1.0
	comp=Z,370nm,0.8s,mb6.2						
ECAL	Calabor	43.74	38	P	P	09 46 20.7	+0.5
	comp=Z,132nm,1.0s,mb5.6						
ERUA	La Rua	43.76	38	P	P	09 46 19.0	-1.3
ERUA				pmax	pmax		
	comp=Z,3µm,3.2s						
ERUA	La Rua	43.76	38	P	P	09 46 19.0	-1.3
	comp=Z,3µm,3.2s						
LONY	Lake Ozonia	43.93	326	*e*P	P	09 46 23.0	+1.3
	comp=Z,1µm,2.2s,mb6.3						
LONY				LR	LR		
	comp=Z,75µm,20.0s,MS6.6						
PAB	San Pablo	43.97	43	P	P	09 46 22.0	-0.1
PAB				pmax	pmax		
	comp=Z,530nm,1.5s,mb6.0						
PAB	San Pablo	43.97	43	*e*P	P	09 46 21.7	-0.4
	comp=Z,527nm,1.5s,mb6.0						
PAB				LR	LR		
	comp=Z,289µm,21.0s,MS7.2						
EQES	Quesada	44.01	46	P	P	09 46 23.1	+0.7
	comp=Z,269nm,0.8s,mb6.0						
OLHC	Oulhaca	44.11	50	P	P	09 46 26.0	+2.7
GOGA	Godfrey	44.24	307	P	P	09 46 24.9	+0.5
GOGA				pmax	pmax		
	comp=Z,740nm,1.1s,mb6.3						
GOGA	Godfrey	44.24	307	*e*P	P	09 46 24.5	+0.1
	comp=Z,736nm,1.2s,mb6.3						
GOGA				*e*PcP	PcP	09 48 08.0	-1.1
GOGA				LR	LR		
	comp=Z,135µm,20.0s,MS6.9						
ENIJ	Nijar	44.25	47	P	P	09 46 25.0	+0.6
ENIJ				pmax	pmax		
	comp=Z,174nm,0.8s,mb5.8						
ENIJ	Nijar	44.25	47	P	P	09 46 25.0	+0.6
	comp=Z,174nm,0.8s,mb5.8						
ODZI	Dziouia	44.27	50	P	P	09 46 26.0	+1.5
MCWV	Mont Chateau	44.29	317	*e*P	P	09 46 25.4	+0.8
MCWV				*e*PcP	PcP	09 48 09.2	+0.2
MCWV				LR	LR		
	comp=Z,182µm,22.0s,MS7.0						
ESDC	Sonseca Array	44.29	43	P	P	09 46 24.9	+0.3
	comp=Z,67nm,0.8s,mb5.4,baz=240,slow=8.6,SNR=207						
ESDC				S	S	09 52 50.8	-8.5
	comp=Z,0.4nm,0.3s,baz=140,slow=21,SNR=2.6						
ESDC				LR	LR	10 00 52.6	
	comp=Z,253µm,20.8s,MS7.1,baz=240,slow=31						
ESDC	Sonseca Array	44.29	43	P	P	09 46 24.8	+0.1
	comp=Z,74nm,0.9s,mb5.4						
EPON	Pontenova	44.30	37	P	P	09 46 23.6	-1.1
	comp=Z,2µm,2.8s,mb6.2						
EHUE	Huescar	44.35	46	P	P	09 46 25.2	+0.1
EHUE				pmax	pmax		
	comp=Z,689nm,1.1s,mb6.3						
EHUE	Huescar	44.35	46	P	P	09 46 25.2	0.0
	comp=Z,689nm,1.1s,mb6.3						
TGUH	Tegucigalpa,Un	44.39	279	*e*P	P	09 46 26.6	+0.8
	comp=Z,920nm,1.2s,mb6.4						
TGUH				LR	LR		
	comp=Z,85µm,19.0s,MS6.7						
TGUH	Tegucigalpa,Un	44.39	279	*e*P	P	09 46 26.7	+0.9
TGUH				AMb	AMB	09 46 33.7	
	comp=Z,5µm,1.6s,mb7.0						
SHEL	Horse Pasture	44.54	126	*e*P	P	09 46 26.4	-0.5
SHEL				*e*		09 48 12.0	
SHEL				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.6						
SHEL				MLR	MLR		
	comp=Z,19µm,19.0s,MS6.0						
SHEL	Horse Pasture	44.54	126	*e*P	P	09 46 26.4	-0.6
	comp=Z,1µm,1.3s,mb6.6						
SHEL				*e*PcP	PcP	09 48 12.0	+1.7
SHEL				LR	LR		
	comp=Z,19µm,19.0s,MS6.0						
GUD	Guadarrama	44.66	42	P	P	09 46 27.4	-0.2
GUD				pmax	pmax		
	comp=Z,241nm,1.0s,mb6.0						
GUD	Guadarrama	44.66	42	P	P	09 46 27.4	-0.2
	comp=Z,241nm,1.0s,mb6.0						
EVIA	Vianos	44.79	45	P	P	09 46 29.3	+0.6
EVIA				pmax	pmax		
	comp=Z,199nm,0.8s,mb6.0						
EVIA	Vianos	44.79	45	P	P	09 46 29.3	+0.6
	comp=Z,199nm,0.8s,mb6.0						
USTO	Oran	44.95	50	P	P	09 46 33.0	+3.0
ODJA	Bouhanifia	45.09	50	P	P	09 46 35.0	+3.8
CART	Cartagena	45.38	47	*e*P	P	09 46 32.6	-0.8
	comp=Z,859nm,1.7s,mb6.3						
EARI	Arriondas	45.44	38	P	P	09 46 34.4	+0.7
	comp=Z,114nm,1.0s,mb5.7						
ETOB	Tobarra	45.46	45	P	P	09 46 34.7	+0.7
	comp=Z,348nm,0.9s,mb6.2						
TZTN	Tazewell	45.49	311	*e*P	P	09 46 34.5	+0.2
	comp=Z,602nm,1.0s,mb6.4						
ALLY	Alegheny Colle	45.50	319	*e*P	P	09 46 34.9	+0.6
TEIG	Tepich	45.55	288	*e*P	P	09 46 34.5	-0.5
	comp=Z,2µm,1.8s,mb6.7						
TEIG				LR	LR		
	comp=Z,104µm,21.0s,MS6.8						
TEIG	Tepich	45.55	288	*e*P	P	09 46 33.5	-1.5
OJBR	Djebel Berber	45.56	50	P	P	09 46 40.0	+5.1
ERPA	Erie	45.65	320	*e*P	P	09 46 35.5	+0.1
	comp=Z,952nm,1.4s,mb6.5						
ERPA				LR	LR		
	comp=Z,117µm,20.0s,MS6.8						
CPCT	Cooper Cave	45.80	310	*e*P	P	09 46 33.2	-3.5
OJGS	Djebel Guires	45.84	50	P	P	09 46 40.0	+2.9
OKGL	Djebel Kef Gue	45.96	50	P	P	09 46 40.0	+2.0
ETRT	Tiaret	46.22	51	P	P	09 46 40.8	+0.8
EANR	’Ain N’Sour	46.27	50	P	P	09 46 41.2	+0.7
ECHE	Chera	46.29	44	P	P	09 46 41.5	+1.0
ECHE				pmax	pmax		
	comp=Z,225nm,0.9s,mb6.1						
ECHE	Chera	46.29	44	P	P	09 46 41.5	+1.0
	comp=Z,225nm,0.9s,mb6.1						
BRAL	Brewton	46.38	303	*e*P	P	09 46 42.7	+1.2
	comp=Z,2µm,1.2s,mb6.8						
BRAL				LR	LR		
	comp=Z,108µm,22.0s,MS6.8						
EBEN	Beniarda	46.41	46	P	P	09 46 41.8	+0.3
	comp=Z,83nm,0.9s,mb5.7						
ELAN	Lanestosa	46.48	39	P	P	09 46 42.7	+0.7
	comp=Z,85nm,0.7s,mb5.8						
ECHA	Ech Chlef	46.55	50	P	P	09 46 42.0	-0.6
ACSO	Alum Creek Sta	46.68	316	*e*P	P	09 46 43.5	-0.1
	comp=Z,2µm,1.7s,mb6.8						
ACSO				*e*PcP	PcP	09 48 17.8	+0.5
ACSO				LR	LR		
	comp=Z,166µm,22.0s,MS7.0						
EBNR	Beni Rached	46.72	50	P	P	09 46 45.0	+1.0
TAM	Tamanrasset	46.78	69	*e*P	P	09 46 45.2	+0.6
	comp=Z,1µm,1.7s,mb6.6						
TAM				*e*PcP	PcP	09 48 17.2	-0.9
TAM				LR	LR		
	comp=Z,411µm,20.0s,MS7.4						
SWET	Sewanee	46.79	309	*e*P	P	09 46 45.1	+0.5
LRAL	Lakeview Retre	46.91	305	*e*P	P	09 46 46.0	+0.4
	comp=Z,629nm,1.2s,mb6.4						
LRAL				LR	LR		
	comp=Z,87µm,21.0s,MS6.7						
EMOS	Mosqueruela	46.98	44	P	P	09 46 45.2	-0.7
	comp=Z,110nm,0.8s,mb5.8						
ESAC	San Caprasio	47.61	42	P	P	09 46 49.7	-1.2
	comp=Z,286nm,1.0s,mb6.3						
ELIZ	Elizondo	47.63	40	P	P	09 46 51.5	+0.5
ELIZ				pmax	pmax		
	comp=Z,176nm,1.1s,mb6.0						
ELIZ	Elizondo	47.63	40	P	P	09 46 51.5	+0.5
	comp=Z,176nm,1.1s,mb6.0						
EIBI	Ibiza	47.66	46	P	P	09 46 51.0	-0.3
	comp=Z,42nm,0.7s,mb5.6						
EALK	Alkurruntz	47.68	40	P	P	09 46 48.9	-2.4
	comp=Z,114nm,1.1s,mb5.8						
EMHD	Djebel Mahouad	47.76	50	P	P	09 46 52.8	+0.7
ERTA	Horta de San J	47.79	43	P	P	09 46 51.5	-0.8
	comp=Z,437nm,1.2s,mb6.4						
SJPF	Ste Jean	47.80	40	⇑*i*P	P	09 46 53.0	+0.7
	comp=Z,2µm,1.2s,mb6.6						
SJPF	Ste Jean	47.80	40	⇑*i*P	P	09 46 53.0	+0.7
SJPF				pmax	pmax		
	comp=Z,811nm,1.2s,mb6.6						
SJPF	Ste Jean	47.80	40	⇑*i*P	P	09 46 53.0	+0.7
	comp=Z,811nm,1.2s,mb6.6						
OSSF	Osses	47.85	40	*e*P	P	09 46 52.7	0.0
LPA	La Plata	47.86	198	*de*P	P	09 46 52.0	-0.8
LPA				*e*PP	PP	09 48 44.0	-0.8
LPA				*e*S	S	09 53 49.0	-1.5
LPA				*e*pS		09 53 52.0	
LPA				*e*sS	sS	09 53 55.0	+2.4
ORDF	Ordiarp	48.03	40	*e*P	P	09 46 54.2	+0.1
AAM	Ann Arbor	48.10	318	*e*P	P	09 46 54.7	+0.1
	comp=Z,331nm,0.7s,mb6.5						
AAM				*e*PcP	PcP	09 48 23.1	+0.8
AAM				LR	LR		
	comp=Z,179µm,22.0s,MS7.0						
ETSF	Etsaut	48.12	41	⇑*i*P	P	09 46 55.7	+0.9
	comp=Z,1µm,1.1s,mb6.5						
ETSF	Etsaut	48.12	41	⇑*i*P	P	09 46 55.7	+0.9
ETSF				pmax	pmax		
	comp=Z,551nm,1.1s,mb6.5						
ETSF	Etsaut	48.12	41	⇑*i*P	P	09 46 55.7	+0.9
	comp=Z,551nm,1.1s,mb6.5						
ATE	Arette	48.12	40	*e*P	P	09 46 55.5	+0.7
WCI	Wyandotte Cave	48.16	312	*e*P	P	09 46 55.4	+0.2
WCI				pmax	pmax		
	comp=Z,219nm,0.6s,mb6.4						
WCI				MLR	MLR		
	comp=Z,172µm,22.0s,MS7.0						
WCI	Wyandotte Cave	48.16	312	*e*P	P	09 46 55.4	+0.3
	comp=Z,219nm,0.6s,mb6.4						
WCI				LR	LR		
	comp=Z,172µm,22.0s,MS7.0						
SCHQ	Schefferville	48.21	341	P	P	09 46 54.7	-0.5
	comp=Z,269nm,0.8s,mb6.3,baz=139,slow=6.3,SNR=238						
SCHQ				S	S	09 53 47.5	-7.6
	comp=Z,14nm,1.2s,baz=11,slow=15,SNR=1.7						
SCHQ				LR	LR	10 04 21.2	
	comp=Z,104µm,20.9s,MS6.8,baz=159,slow=33						
LCO	Las Campanas	48.31	214	*e*P	P	09 46 55.0	-1.3
	comp=Z,374nm,1.1s,mb6.3						
LCO				*e*PcP	PcP	09 48 25.1	+1.9
LCO				LR	LR		
	comp=Z,86µm,20.0s,MS6.7						
REYF	Montagne du Re	48.31	41	*e*P	P	09 46 57.1	+0.9
PLAL	Pickwick Lake	48.37	308	*e*P	P	09 46 56.8	0.0
	comp=Z,755nm,1.2s,mb6.6						
PLAL				LR	LR		
	comp=Z,146µm,21.0s,MS6.9						
VAL	Valentia	48.47	26	*e*P	P	09 46 57.1	-0.2
VAL	Valentia	48.47	26	⇑*i*S	S	09 53 56.4	-2.4
EBIE	Bielsa	48.47	41	P	P	09 46 56.4	-1.1
	comp=Z,72nm,0.6s,mb5.9						
EPOB	Poblet	48.47	43	P	P	09 46 55.7	-1.8
	comp=Z,132nm,0.8s,mb6.0						
WVT	Waverly	48.55	309	*e*P	P	09 46 58.1	-0.2
	comp=Z,2µm,1.4s,mb6.9						
WVT				*e*PcP	PcP	09 48 21.6	-2.5
WVT				LR	LR		
	comp=Z,140µm,22.0s,MS6.9						
LABF	Labassere	48.60	41	*e*P	P	09 46 59.6	+1.2
RESF	Ens	48.65	41	*e*P	P	09 46 59.9	+1.0
BLO	Bloomington	48.70	313	*e*P	P	09 46 58.5	-0.8
EPF	Esparros	48.76	41	⇑*i*P	P	09 47 00.7	+1.0
	comp=Z,2µm,1.4s,mb6.7						
EPF	Esparros	48.76	41	⇑*i*P	P	09 47 00.7	+1.0
EPF				pmax	pmax		
	comp=Z,991nm,1.4s,mb6.7						
EPF	Esparros	48.76	41	⇑*i*P	P	09 47 00.7	+1.0
	comp=Z,991nm,1.4s,mb6.7						
MELF	Melles	48.96	41	*e*P	P	09 47 02.1	+0.9
ETOS	Mallorca	49.00	46	P	P	09 47 00.4	-1.2
	comp=Z,101nm,0.8s,mb5.9						
EMIR	Miracle	49.02	43	P	P	09 47 00.9	-0.8
CCIG	Comitan	49.06	282	*i* P	P	09 46 59.2	-3.2
SALF	Salau	49.19	42	*e*P	P	09 47 04.2	+1.2
QUIF	Quistinic	49.27	34	⇑*i*P	P	09 47 03.3	-0.2
	comp=Z,1µm,1.5s,mb6.3						
QUIF	Quistinic	49.27	34	⇑*i*P	P	09 47 03.3	-0.2
QUIF				pmax	pmax		
	comp=Z,501nm,1.5s,mb6.3						
QUIF	Quistinic	49.27	34	⇑*i*P	P	09 47 03.3	-0.2
	comp=Z,501nm,1.5s,mb6.3						
CPZ	Penzance	49.39	30	⇑*e*P	P	09 47 02.9	-1.5
PAYG	Puerto Ayora	49.42	260	*e*P	P	09 47 04.8	-0.4
	comp=Z,646nm,1.2s,mb6.5						
PAYG				*e*PcP	PcP	09 48 24.9	-2.7
PAYG				LR	LR		
	comp=Z,37µm,20.0s,MS6.4						
PAYG	Puerto Ayora	49.42	260	*e*P	P	09 47 04.8	-0.4
ROSF	Rostrenen	49.46	33	⇑*i*P	P	09 47 05.0	0.0
	comp=Z,348nm,0.8s,mb6.2						
ROSF	Rostrenen	49.46	33	⇑*i*P	P	09 47 05.0	0.0
ROSF				pmax	pmax		
	comp=Z,174nm,0.8s,mb6.1						
ROSF	Rostrenen	49.46	33	⇑*i*P	P	09 47 05.0	0.0
	comp=Z,174nm,0.8s,mb6.1						
VBMS	Vicksburg	49.55	303	*e*P	P	09 47 06.2	+0.3
	comp=Z,2µm,1.4s,mb6.8						
VBMS				*e*PcP	PcP	09 48 28.8	+1.0
VBMS				LR	LR		
	comp=Z,107µm,20.0s,MS6.8						
VALF	Valcebollere	49.57	42	*e*P	P	09 47 06.4	+0.5
CCA1	Carnmenellis	49.59	30	⇑*e*P	P	09 47 05.5	-0.4
SET	Setif	49.63	51	P	P	09 47 08.0	+1.5
CARF	Carcanieres	49.77	42	*e*P	P	09 47 07.6	+0.2
SGMF	Saint Gilles	49.80	34	⇑*i*P	P	09 47 07.7	+0.1
	comp=Z,1µm,1.5s,mb6.5						
SGMF	Saint Gilles	49.80	34	⇑*i*P	P	09 47 07.7	+0.1
SGMF				pmax	pmax		
	comp=Z,726nm,1.5s,mb6.5						
SGMF	Saint Gilles	49.80	34	⇑*i*P	P	09 47 07.7	+0.1
	comp=Z,726nm,1.5s,mb6.5						
CSA1	St Austell	49.86	30	⇑*e*P	P	09 47 07.1	-0.8
GLMI	Grayling	49.93	321	*e*P	P	09 47 09.1	+0.5
	comp=Z,266nm,0.9s,mb6.3						
GLMI				LR	LR		
	comp=Z,132µm,22.0s,MS6.9						
LFF	La Frestale	49.94	39	⇑*i*P	P	09 47 08.8	+0.1
	comp=Z,2µm,1.5s,mb6.5						
LFF	La Frestale	49.94	39	⇑*i*P	P	09 47 08.8	+0.1
LFF				pmax	pmax		
	comp=Z,773nm,1.5s,mb6.5						
LFF	La Frestale	49.94	39	⇑*i*P	P	09 47 08.8	+0.1
	comp=Z,772nm,1.5s,mb6.5						
DFRA	Djebel Bou Aff	50.10	51	P	P	09 47 10.9	+0.8
MTLF	Montolieu	50.12	41	⇑*i*P	P	09 47 10.0	-0.1
	comp=Z,822nm,1.3s,mb6.3						
MTLF	Montolieu	50.12	41	⇑*i*P	P	09 47 10.0	-0.1
MTLF				pmax	pmax		
	comp=Z,411nm,1.3s,mb6.3						
MTLF	Montolieu	50.12	41	⇑*i*P	P	09 47 10.0	-0.1
	comp=Z,411nm,1.3s,mb6.3						
LRDF	Laroque-de-Fa	50.15	42	*e*P	P	09 47 10.2	-0.1
EJON	La Jonquera	50.17	43	P	P	09 47 09.6	-0.8
	comp=Z,3µm,2.6s,mb6.8						
MFF	Saint Martin d	50.25	37	⇑*i*P	P	09 47 11.0	0.0
	comp=Z,458nm,0.8s,mb6.3						
MFF	Saint Martin d	50.25	37	⇑*i*P	P	09 47 11.0	0.0
MFF				pmax	pmax		
	comp=Z,229nm,0.8s,mb6.3						
MFF	Saint Martin d	50.25	37	⇑*i*P	P	09 47 11.0	0.0
	comp=Z,229nm,0.8s,mb6.3						
CTEI	Djebel Teioual	50.36	52	P	P	09 47 12.8	+0.8
DYA	Yadsworthy	50.39	31	*e*P	P	09 47 10.8	-1.2
DYA				AMb	AMB	09 47 15.6	
	comp=Z,244nm,1.5s,mb6.0						
DYA				*e*S	S	09 54 21.7	-4.1
DYA				AMS	AMS	10 05 08.2	
	comp=Z,115µm,19.2s,MS6.9						
HTL	Hartland	50.46	30	⇑*e*P	P	09 47 12.6	0.0
HTL				AMb	AMB	09 47 17.0	
	comp=Z,274nm,1.8s,mb6.0						
HTL				AMS	AMS	10 04 33.9	
	comp=Z,85µm,19.0s,MS6.8						
CASM	Ain Smara	50.48	52	P	P	09 47 13.2	+0.2
JSA	Saint Aubin	50.55	33	⇑*e*P	P	09 47 13.4	+0.2
JSA				AMb	AMB	09 47 20.9	
	comp=Z,642nm,1.7s,mb6.3						
JSA				*e*S	S	09 54 23.9	-4.2
JSA				AMS	AMS	10 03 52.4	
	comp=Z,147µm,21.1s,MS7.0						
JRS	Jersey	50.59	33	⇑*e*P	P	09 47 13.4	-0.2
RJF	Les Rejaudoux	50.60	39	⇑*i*P	P	09 47 13.3	-0.4
	comp=Z,617nm,1.1s,mb6.2						
RJF				*e*MLR	MLR		
	comp=Z,440µm,21.5s,MS7.1						
RJF	Les Rejaudoux	50.60	39	⇑*i*P	P	09 47 13.3	-0.4
	comp=Z,308nm,1.1s,mb6.2						
RJF				LR	LR		
	comp=Z,440µm,21.5s,MS7.4						
JLP	Les Platons	50.62	33	⇑*e*P	P	09 47 13.9	+0.2
JQE	Queens East	50.63	33	⇑*e*P	P	09 47 13.5	-0.3
CKFL	Kef-Lekhel	50.70	51	P	P	09 47 15.0	+0.4
DCN	Croghan	50.74	26	⇑*i*P	P	09 47 14.6	0.0
CAF	Calviac	50.76	40	⇑*i*P	P	09 47 15.0	+0.1
	comp=Z,2µm,1.3s,mb6.5						
CAF	Calviac	50.76	40	⇑*i*P	P	09 47 15.0	+0.1
CAF				pmax	pmax		
	comp=Z,772nm,1.3s,mb6.5						
CAF	Calviac	50.76	40	⇑*i*P	P	09 47 15.0	+0.1
	comp=Z,772nm,1.3s,mb6.5						
GRR	Gorron	50.81	34	⇑*i*P	P	09 47 14.9	-0.3
	comp=Z,155nm,0.7s,mb5.8						
GRR	Gorron	50.81	34	⇑*i*P	P	09 47 14.9	-0.3
GRR				pmax	pmax		
	comp=Z,77nm,0.7s,mb5.7						
GRR	Gorron	50.81	34	⇑*i*P	P	09 47 14.9	-0.3
	comp=Z,77nm,0.7s,mb5.7						
CAEH	’Ain El Ouahch	50.92	51	P	P	09 47 16.2	0.0
DLF	Lyons Farm	51.03	27	⇑*i*P	P	09 47 16.8	0.0
DSB	Dublin	51.06	27	*e*P	P	09 47 17.5	+0.4
	comp=Z,78nm,0.9s,mb5.6						
SLM	Saint Louis	51.20	311	*e*P	P	09 47 18.3	0.0
SLM				pmax	pmax		
	comp=Z,2µm,1.5s,mb6.8						
SLM	Saint Louis	51.20	311	*e*P	P	09 47 18.3	0.0
	comp=Z,2µm,1.5s,mb6.8						
FLN	La Foliniere	51.23	34	⇑*i*P	P	09 47 18.0	-0.3
	comp=Z,367nm,1.2s,mb5.9,baz=231						
FLN				*e*MLR	MLR		
	comp=Z,208µm,21.0s,MS6.8						
FLN	La Foliniere	51.23	34	⇑*i*P	P	09 47 18.0	-0.3
FLN				pmax	pmax		
	comp=Z,184nm,1.2s,mb5.9						
FLN				MLR	MLR		
	comp=Z,208µm,21.0s,MS7.1						
FLN	La Foliniere	51.23	34	⇑*i*P	P	09 47 18.0	-0.3
	comp=Z,184nm,1.2s,mb5.9						
FLN				LR	LR		
	comp=Z,208µm,21.0s,MS7.1						
ABSA	Djebel Ababsia	51.25	52	P	P	09 47 18.9	+0.2
TUIG	Tuzandepetl	51.25	285	*i* P	P	09 47 16.5	-2.6
DMUB	Kingscourt	51.28	26	⇑*i*P	P	09 47 18.4	-0.3
FRNF	Fournols	51.28	39	*e*P	P	09 47 20.2	+1.4
CMAH	Djebel Manchou	51.31	51	P	P	09 47 19.1	-0.1
LDF	La Druitiere	51.33	35	⇑*i*P	P	09 47 18.7	-0.4
	comp=Z,606nm,1.4s,mb6.0						
LDF	La Druitiere	51.33	35	⇑*i*P	P	09 47 18.7	-0.4
LDF				pmax	pmax		
	comp=Z,303nm,1.4s,mb6.0						
LDF	La Druitiere	51.33	35	⇑*i*P	P	09 47 18.7	-0.4
	comp=Z,303nm,1.4s,mb6.0						
FCH	Farellones	51.48	211	⇑*e*P	P	09 47 23.0	+2.5
TCF	Toulx Ste Croi	51.50	38	⇑*i*P	P	09 47 20.5	+0.1
	comp=Z,1µm,1.4s,mb6.4						
TCF	Toulx Ste Croi	51.50	38	⇑*i*P	P	09 47 20.5	+0.1
TCF				pmax	pmax		
	comp=Z,711nm,1.4s,mb6.4						
TCF	Toulx Ste Croi	51.50	38	⇑*i*P	P	09 47 20.5	+0.1
	comp=Z,711nm,1.4s,mb6.4						
LASF	Ste Croix	51.51	41	⇑*i*P	P	09 47 21.0	+0.4
	comp=Z,962nm,1.1s,mb6.3						
PEL	Peldehue	51.53	211	*e*P	P	09 47 14.9	-5.9
LBL	Lubilhac	51.64	40	*e*P	P	09 47 22.2	+0.7
HGH	Gray Hill	51.69	30	⇑*e*P	P	09 47 21.5	-0.2
PYM	Petit Puy Mans	51.73	39	*e*P	P	09 47 23.2	+1.0
HTR	Trewern Hill	51.74	29	⇑*i*P	P	09 47 22.2	+0.1
CCM	Cathedral Cave	51.76	310	P	P	09 47 21.5	-1.0
CCM				pmax	pmax		
	comp=Z,2µm,1.5s,mb6.8						
CCM	Cathedral Cave	51.76	310	*e*P	P	09 47 21.4	-1.1
	comp=Z,2µm,1.5s,mb6.8						
CCM				LR	LR		
	comp=Z,157µm,22.0s,MS7.0						
YRE	Yr Eifl	51.77	28	⇑*e*P	P	09 47 21.3	-1.0
MCH1	Michaelchurch	51.82	30	⇑*e*P	P	09 47 21.5	-1.2
MCH1				AMb	AMB	09 47 34.1	
	comp=Z,537nm,1.8s,mb6.2						
MCH1				*e*S	S	09 54 41.5	-4.0
MCH1				AMS	AMS	10 05 26.2	
	comp=Z,95µm,19.5s,MS6.8						
LMEL	Las Melosas	51.86	210	*e*P	P	09 47 19.3	-4.0
YRC	Rhoscolyn	51.88	28	⇑*e*P	P	09 47 22.8	-0.3
GMM	Mts of Mourne	51.93	26	⇑*e*P	P	09 47 22.8	-0.7
AGO	Saint Agoulin	51.95	39	*e*P	P	09 47 23.9	+0.1
YLL	Llanberis	51.99	28	⇑*e*P	P	09 47 23.4	-0.6
BGF	Bois d’Agland	52.02	38	⇑*i*P	P	09 47 24.2	-0.1
	comp=Z,409nm,0.8s,mb6.1						
BGF	Bois d’Agland	52.02	38	⇑*i*P	P	09 47 24.2	-0.1
BGF				pmax	pmax		
	comp=Z,204nm,0.8s,mb6.1						
BGF	Bois d’Agland	52.02	38	⇑*i*P	P	09 47 24.2	-0.1
	comp=Z,204nm,0.8s,mb6.1						
COLF	Collangettes	52.05	40	*e*P	P	09 47 24.6	0.0
WME	Myndd Eilian	52.09	28	⇑*e*P	P	09 47 25.1	+0.3
SWN1	Swindon	52.11	31	⇑*e*P	P	09 47 25.2	+0.3
SWN1				AMb	AMB	09 47 27.4	
	comp=Z,956nm,1.6s,mb6.5						
SWN1				AMS	AMS	10 04 42.6	
	comp=Z,103µm,20.6s,MS6.8						
WPM1	Penmaenmawr	52.19	28	⇑*e*P	P	09 47 25.5	+0.1
PLDF	La Plantade	52.21	39	*e*P	P	09 47 26.5	+0.7
HYF	Humbligny	52.24	37	⇑*i*P	P	09 47 26.1	+0.2
GELF	Grande-Etoile	52.25	43	*e*P	P	09 47 26.6	+0.5
PRAF	Pradon	52.25	42	*e*P	P	09 47 26.7	+0.6
SBD1	Bryn Du	52.26	29	⇑*i*P	P	09 47 25.8	-0.2
WOL	Wolverton	52.29	31	⇑*e*P	P	09 47 26.3	+0.1
WOL				AMb	AMB	09 47 37.6	
	comp=Z,1µm,1.5s,mb6.6						
TREF	Trevaresse	52.32	42	*e*P	P	09 47 27.4	+0.8
VIVF	Saint-Julien-l	52.38	41	⇑*i*P	P	09 47 27.9	+0.9
	comp=Z,2µm,1.2s,mb6.5						
VIVF	Saint-Julien-l	52.38	41	⇑*i*P	P	09 47 27.9	+0.9
VIVF				pmax	pmax		
	comp=Z,759nm,1.2s,mb6.5						
VIVF	Saint-Julien-l	52.38	41	⇑*i*P	P	09 47 27.9	+0.9
	comp=Z,759nm,1.2s,mb6.5						
BERF	Bertagne	52.40	43	*e*P	P	09 47 27.9	+0.7
WIM	Isle of Man	52.42	27	⇑*e*P	P	09 47 26.1	-1.1
AVF	Avril sur Loir	52.43	38	⇑*i*P	P	09 47 27.1	-0.3
	comp=Z,860nm,1.5s,mb6.2						
AVF	Avril sur Loir	52.43	38	⇑*i*P	P	09 47 27.1	-0.3
AVF				pmax	pmax		
	comp=Z,430nm,1.5s,mb6.2						
AVF	Avril sur Loir	52.43	38	⇑*i*P	P	09 47 27.1	-0.3

	comp=Z,430nm,1.5s,mb6.2						
SSB	**Saint Sauveur**	**52.48**	**40**	*e*P	**P**	**09 47 28.1**	**+0.3**
SSB	**Saint Sauveur**	**52.48**	**40**	*e*P	**P**	**09 47 28.6**	**+0.8**
SSB				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
SSB				MLR	MLR		
	comp=Z,192µm,21.0s,MS7.1						
SSB	**Saint Sauveur**	**52.48**	**40**	*e*P	**P**	**09 47 28.6**	**+0.8**
	comp=Z,1µm,1.8s,mb6.5						
SSB				LR	LR		
	comp=Z,192µm,21.0s,MS7.1						
KEST	**Kesra**	**52.55**	**53**	P	**P**	**09 47 28.9**	**+0.4**
	comp=Z,69nm,0.7s,mb5.7,baz=168,slow=3.4,SNR=72						
KEST				LR	LR	10 08 47.8	
	comp=Z,64µm,18.9s,MS6.7,baz=215,slow=35						
SMRF	**Simiane la Rot**	**52.59**	**42⇑**	*i*P	**P**	**09 47 29.4**	**+0.8**
	comp=Z,2µm,1.9s,mb6.5						
SMRF	**Simiane la Rot**	**52.59**	**42⇑**	*i*P	**P**	**09 47 29.4**	**+0.8**
	comp=Z,2µm,1.9s,mb6.8						
MIAR	**Mount Ida**	**52.59**	**305**	*e*P	**P**	**09 47 27.8**	**-1.0**
MIAR				*e*		09 48 37.0	
MIAR				pmax	pmax		
	comp=Z,744nm,1.3s,mb6.5						
MIAR				MLR	MLR		
	comp=Z,79µm,21.0s,MS6.7						
MIAR	**Mount Ida**	**52.59**	**305**	*e*P	**P**	**09 47 27.8**	**-1.0**
	comp=Z,744nm,1.3s,mb6.5						
MIAR				*e*PcP	PcP	09 48 37.0	-2.0
MIAR				LR	LR		
	comp=Z,79µm,21.0s,MS6.7						
VILF	**Villemus**	**52.63**	**42**	*e*P	**P**	**09 47 29.7**	**+0.8**
SSF	**Saint Saulge**	**52.65**	**38⇑**	*i*P	**P**	**09 47 28.7**	**-0.3**
	comp=Z,1µm,1.8s,mb6.2						
SSF	**Saint Saulge**	**52.65**	**38⇑**	*i*P	**P**	**09 47 28.7**	**-0.3**
SSF				pmax	pmax		
	comp=Z,626nm,1.8s,mb6.2						
SSF	**Saint Saulge**	**52.65**	**38⇑**	*i*P	**P**	**09 47 28.7**	**-0.3**
	comp=Z,626nm,1.8s,mb6.2						
SMF	**Signal de Mont**	**52.66**	**38⇑**	*i*P	**P**	**09 47 28.9**	**-0.2**
	comp=Z,695nm,1.5s,mb6.1						
SMF	**Signal de Mont**	**52.66**	**38⇑**	*i*P	**P**	**09 47 28.9**	**-0.2**
SMF				pmax	pmax		
	comp=Z,348nm,1.5s,mb6.1						
SMF	**Signal de Mont**	**52.66**	**38⇑**	*i*P	**P**	**09 47 28.9**	**-0.2**
	comp=Z,348nm,1.5s,mb6.1						
OCF	**Saint Nazaire**	**52.66**	**41**	*e*P	**P**	**09 47 30.3**	**+1.2**
OG26	**St.-Nazaire-De**	**52.66**	**41**	*e*P	**P**	**09 47 30.3**	**+1.2**
SKP1	**Kophill**	**52.74**	**31⇑**	*e*P	**P**	**09 47 29.0**	**-0.5**
JFWS	**Jewell Farm**	**52.75**	**316**	P	**P**	**09 47 29.3**	**-0.5**
JFWS				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.7						
JFWS	**Jewell Farm**	**52.75**	**316**	*e*P	**P**	**09 47 29.1**	**-0.7**
	comp=Z,1µm,1.3s,mb6.7						
JFWS				*e*PcP	PcP	09 48 40.1	+0.6
JFWS				LR	LR		
	comp=Z,126µm,20.0s,MS7.0						
TAVF	**Tavernes**	**52.77**	**43**	*e*P	**P**	**09 47 30.3**	**+0.4**
STOF	**St-Etienne Org**	**52.82**	**42**	*e*P	**P**	**09 47 30.6**	**+0.3**
STNC	**Stoke**	**52.88**	**29⇑**	*e*P	**P**	**09 47 29.8**	**-0.7**
STNC				AMb	AMB	09 47 33.0	
	comp=Z,550nm,1.4s,mb6.3						
STNC				*e*S	**S**	**09 54 55.3**	**-4.7**
STNC				AMS	AMS	10 06 01.0	
	comp=Z,112µm,20.0s,MS6.9						
NATX	**Nacogdoches**	**52.88**	**302**	*e*P	**P**	**09 47 30.8**	**-0.1**
	comp=Z,971nm,1.0s,mb6.7						
NATX				LR	LR		
	comp=Z,100µm,19.0s,MS6.9						
GAL1	**Galloway**	**52.88**	**26**	*e*P	**P**	**09 47 30.3**	**-0.2**
HUIG	**Huatulco**	**52.89**	**282**	*i* P	**P**	**09 47 29.7**	**-1.5**
LMR	**La Mourre**	**52.96**	**43⇑**	*i*P	**P**	**09 47 31.3**	**0.0**
	comp=Z,1000nm,1.4s,mb6.3						
LMR	**La Mourre**	**52.96**	**43⇑**	*i*P	**P**	**09 47 31.3**	**0.0**
LMR				pmax	pmax		
	comp=Z,500nm,1.4s,mb6.2						
LMR	**La Mourre**	**52.96**	**43⇑**	*i*P	**P**	**09 47 31.3**	**0.0**
	comp=Z,500nm,1.4s,mb6.2						
LOR	**Lormes**	**52.96**	**38⇑**	*i*P	**P**	**09 47 30.9**	**-0.4**
	comp=Z,827nm,1.4s,mb6.2,baz=235						
LOR				*e*MLR	MLR		
	comp=Z,153µm,22.5s,MS6.7						
LOR	**Lormes**	**52.96**	**38⇑**	*i*P	**P**	**09 47 30.9**	**-0.4**
LOR				pmax	pmax		
	comp=Z,414nm,1.4s,mb6.2						
LOR				MLR	MLR		
	comp=Z,153µm,22.5s,MS7.0						
LOR	**Lormes**	**52.96**	**38⇑**	*i*P	**P**	**09 47 30.9**	**-0.4**
	comp=Z,414nm,1.4s,mb6.2						
LOR				LR	LR		
	comp=Z,153µm,22.5s,MS7.0						
CWF	**Charnwood Fore**	**53.09**	**30⇑**	*e*P	**P**	**09 47 31.6**	**-0.5**
CWF				AMb	AMB	09 47 34.2	
	comp=Z,440nm,1.5s,mb6.2						
CWF				AMS	AMS	10 08 48.6	
	comp=Z,64µm,18.3s,MS6.7						
FRF	**La Foret Royal**	**53.14**	**43⇑**	*i*P	**P**	**09 47 32.6**	**-0.1**
	comp=Z,1µm,1.3s,mb6.4						
FRF	**La Foret Royal**	**53.14**	**43⇑**	*i*P	**P**	**09 47 32.6**	**-0.1**
FRF				pmax	pmax		
	comp=Z,693nm,1.3s,mb6.4						
FRF	**La Foret Royal**	**53.14**	**43⇑**	*i*P	**P**	**09 47 32.6**	**-0.1**
	comp=Z,693nm,1.3s,mb6.4						
LVIG	**Laguna Verde**	**53.17**	**287**	*i* P	**P**	**09 47 29.7**	**-3.6**
ORIF	**Oris-en-Rattie**	**53.18**	**41⇑**	*i*P	**P**	**09 47 33.9**	**+0.9**
	comp=Z,582nm,1.4s,mb6.0						
ORIF				*e*MLR	MLR		
	comp=Z,309µm,22.0s,MS7.0						
ORIF	**Oris-en-Rattie**	**53.18**	**41⇑**	*i*P	**P**	**09 47 33.9**	**+0.9**
ORIF				pmax	pmax		
	comp=Z,291nm,1.4s,mb6.0						
ORIF	**Oris-en-Rattie**	**53.18**	**41⇑**	*i*P	**P**	**09 47 33.9**	**+0.9**
	comp=Z,291nm,1.4s,mb6.0						
GCD	**Castle Douglas**	**53.22**	**26⇑**	*e*P	**P**	**09 47 31.4**	**-1.6**
GRN	**Grenoble**	**53.23**	**41**	*e*P	**P**	**09 47 33.9**	**+0.6**
NICH	**Los Niches**	**53.29**	**210⇑**	*e*P	**P**	**09 47 32.5**	**-1.3**
LHO	**Holmfirth**	**53.32**	**29⇑**	*i*P	**P**	**09 47 33.5**	**-0.3**
COWI	**Conover**	**53.34**	**320**	*e*P	**P**	**09 47 33.5**	**-0.5**
	comp=Z,1µm,1.6s,mb6.5						
COWI				LR	LR		
	comp=Z,130µm,22.0s,MS6.9						
CALN	**Calern**	**53.37**	**43**	*e*P	**P**	**09 47 35.1**	**+0.7**
OG05	**Jujurieux**	**53.39**	**40**	*e*P	**P**	**09 47 34.4**	**-0.1**
OXX	**Oaxaca**	**53.45**	**283**	*i* P	**P**	**09 47 35.4**	**0.0**
GDM	**Grand'Maison**	**53.45**	**41**	*e*P	**P**	**09 47 35.5**	**+0.6**
VHO	**Vista Hermosa**	**53.46**	**283**	*i* P	**P**	**09 47 34.6**	**-0.8**
HKT	**Hockley**	**53.56**	**299**	P	**P**	**09 47 35.4**	**-0.6**
HKT				pmax	pmax		
	comp=Z,2µm,1.8s,mb6.7						
HKT	**Hockley**	**53.56**	**299**	*e*P	**P**	**09 47 35.3**	**-0.7**
	comp=Z,2µm,1.8s,mb6.7						
HKT				LR	LR		
	comp=Z,63µm,19.0s,MS6.7						
MVIF	**Mont Vial**	**53.61**	**43**	*e*P	**P**	**09 47 36.5**	**+0.4**
SURF	**Saint Ours**	**53.61**	**42**	*e*P	**P**	**09 47 35.8**	**-0.3**
PGBU	**Gleniffferbraes**	**53.61**	**25⇑**	*e*P	**P**	**09 47 35.4**	**-0.5**
PGBU				AMb	AMB	09 47 38.0	
	comp=Z,646nm,1.7s,mb6.3						
PGBU				*e*S	**S**	**09 55 04.7**	**-5.2**
PGBU				AMS	AMS	10 05 05.1	
	comp=Z,129µm,20.9s,MS7.0						
MENF	**Mencas**	**53.64**	**33**	*e*P	**P**	**09 47 35.2**	**-1.0**
VSL	**Villasalto**	**53.65**	**49**	P	**P**	**09 47 36.5**	**0.0**
VSL				LR	LR		
	comp=Z,75µm,19.0s,MS6.8						
MBDF	**Montbardon**	**53.68**	**42⇑**	*i*P	**P**	**09 47 37.4**	**+0.8**
	comp=Z,2µm,1.5s,mb6.5						
MBDF	**Montbardon**	**53.68**	**42⇑**	*i*P	**P**	**09 47 37.4**	**+0.8**
MBDF				pmax	pmax		
	comp=Z,849nm,1.5s,mb6.5						
MBDF	**Montbardon**	**53.68**	**42⇑**	*i*P	**P**	**09 47 37.4**	**+0.8**
	comp=Z,849nm,1.5s,mb6.5						
HPK	**Haverah Park**	**53.68**	**28⇑**	*e*P	**P**	**09 47 36.7**	**+0.3**
HPK				AMb	AMB	09 47 38.9	
	comp=Z,667nm,1.5s,mb6.3						
HPK				AMS	AMS	10 06 14.1	
	comp=Z,162µm,20.0s,MS7.1						
REVF	**Revere**	**53.69**	**43**	*e*P	**P**	**09 47 37.2**	**+0.5**
TOUF	**Mont Tournerai**	**53.72**	**43**	*e*P	**P**	**09 47 37.5**	**+0.6**
MON	**Monaco**	**53.72**	**43**	P	**P**	**09 47 37.0**	**0.0**
LUCF	**Luceram**	**53.73**	**43**	*e*P	**P**	**09 47 37.6**	**+0.6**
BNI	**Bardonecchia**	**53.75**	**41**	P	**P**	**09 47 38.6**	**+1.4**
BNI				MLR	MLR		
	comp=Z,369µm,21.0s,MS7.4						
SBF	**Sospel**	**53.78**	**43⇑**	*i*P	**P**	**09 47 37.6**	**+0.2**
	comp=Z,2µm,1.3s,mb6.7						
SBF	**Sospel**	**53.78**	**43⇑**	*i*P	**P**	**09 47 37.6**	**+0.2**
SBF				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.7						
SBF	**Sospel**	**53.78**	**43⇑**	*i*P	**P**	**09 47 37.6**	**+0.2**
	comp=Z,1µm,1.3s,mb6.7						
AUTN	**L'Aution**	**53.83**	**43**	*e*P	**P**	**09 47 38.5**	**+0.8**
ESK	**Eskdalemuir**	**53.83**	**26⇑**	*e*P	**P**	**09 47 36.6**	**-0.9**
ESK				AMb	AMB	09 47 39.2	
	comp=Z,264nm,1.4s,mb6.0						
ESK				*e*S	**S**	**09 55 07.7**	**-5.2**
ESK				AMS	AMS	10 04 37.1	
	comp=Z,100µm,19.6s,MS6.9						
ESK	**Eskdalemuir**	**53.83**	**26**	*i* P	**P**	**09 47 37.9**	**+0.4**
ESK	**Eskdalemuir**	**53.83**	**26**	*e*P	**P**	**09 47 37.4**	**-0.2**
ESK				LR	LR		
	comp=Z,157µm,22.0s,MS7.0						
OG22	**Abries**	**53.83**	**42**	*e*P	**P**	**09 47 38.0**	**+0.3**
STV	**Sant Anna di V**	**53.86**	**42**	P	**P**	**09 47 39.6**	**+1.7**
DOI	**San Damiano**	**53.91**	**42**	P	**P**	**09 47 39.2**	**+0.9**
SAOF	**Saorge**	**53.91**	**43**	*e*P	**P**	**09 47 38.7**	**+0.4**
EAB	**Aberfoyle**	**53.93**	**25⇑**	*e*P	**P**	**09 47 37.3**	**-0.9**
LPL	**La Plagne**	**53.98**	**41⇑**	*i*P	**P**	**09 47 39.7**	**+0.9**
	comp=Z,793nm,1.2s,mb6.2						
LPL	**La Plagne**	**53.98**	**41⇑**	*i*P	**P**	**09 47 39.7**	**+0.9**
LPL				pmax	pmax		
	comp=Z,397nm,1.2s,mb6.2						
LPL	**La Plagne**	**53.98**	**41⇑**	*i*P	**P**	**09 47 39.7**	**+0.9**
	comp=Z,396nm,1.2s,mb6.2						
XAL	**Allendale**	**53.98**	**27⇑**	*e*P	**P**	**09 47 37.2**	**-1.4**
LPG	**La Plagne**	**53.98**	**41⇑**	*i*P	**P**	**09 47 39.9**	**+1.1**
	comp=Z,950nm,1.4s,mb6.2						
LPG	**La Plagne**	**53.98**	**41⇑**	*i*P	**P**	**09 47 39.9**	**+1.1**
LPG				pmax	pmax		
	comp=Z,475nm,1.4s,mb6.2						
LPG	**La Plagne**	**53.98**	**41⇑**	*i*P	**P**	**09 47 39.9**	**+1.1**
	comp=Z,475nm,1.4s,mb6.2						
CABF	**La Chapelle**	**54.03**	**39⇑**	*i*P	**P**	**09 47 39.4**	**+0.2**
	comp=Z,445nm,1.1s,mb6.0						
CABF	**La Chapelle**	**54.03**	**39⇑**	*i*P	**P**	**09 47 39.4**	**+0.2**
CABF				pmax	pmax		
	comp=Z,222nm,1.1s,mb6.0						
CABF	**La Chapelle**	**54.03**	**39⇑**	*i*P	**P**	**09 47 39.4**	**+0.2**
	comp=Z,222nm,1.1s,mb6.0						
EAU	**Auchinoon**	**54.07**	**26⇑**	*e*P	**P**	**09 47 37.6**	**-1.7**
IMI	**Imperia**	**54.11**	**43**	P	**P**	**09 47 40.1**	**+0.3**
GIMEL	**St. Georges /**	**54.11**	**39⇑**	*e*P	**P**	**09 47 40.0**	**+0.3**
	comp=Z,2µm,4.7s						
RSP	**Reno Superiore**	**54.17**	**41**	P	**P**	**09 47 41.2**	**+1.0**
KPL	**Plockton**	**54.19**	**23**	*e*P	**P**	**09 47 38.4**	**-1.7**
KPL				AMb	AMB	09 47 41.1	
	comp=Z,321nm,1.1s,mb6.2						
KPL				AMS	AMS	10 08 11.3	
	comp=Z,74µm,17.3s,MS6.8						
EBL	**Broad Law**	**54.20**	**26⇑**	*e*P	**P**	**09 47 39.5**	**-0.7**
OSPF	**L'Ospedale**	**54.20**	**46**	*e*P	**P**	**09 47 39.4**	**-1.1**
RRH	**Rhenigidale**	**54.21**	**22⇑**	*e*P	**P**	**09 47 39.6**	**-0.6**
EDI	**Edinburgh**	**54.24**	**26⇑**	*e*P	**P**	**09 47 40.1**	**-0.4**
EDI				AMb	AMB	09 47 42.4	
	comp=Z,432nm,1.5s,mb6.2						
EDI				AMS	AMS	10 05 35.5	
	comp=Z,117µm,20.3s,MS6.9						
MEZF	**Maizieres J'vi**	**54.25**	**37⇑**	*i*P	**P**	**09 47 40.3**	**-0.4**
	comp=Z,2µm,1.4s,mb6.5,baz=255						
MEZF	**Maizieres J'vi**	**54.25**	**37⇑**	*i*P	**P**	**09 47 40.3**	**-0.4**
	comp=Z,2µm,1.4s,mb6.8						
OG01	**Vacheresse**	**54.28**	**40**	*e*P	**P**	**09 47 41.0**	**0.0**
EMV	**Vieux Emosson**	**54.31**	**40⇑**	*e*P	**P**	**09 47 41.8**	**+0.6**
	comp=Z,646nm,1.8s,mb6.2						
EBH	**Black Hill**	**54.31**	**25**	*e*P	**P**	**09 47 40.6**	**-0.4**
XSO	**Sourhope Farm**	**54.36**	**27**	*e*P	**P**	**09 47 41.6**	**+0.2**
PGF	**Pioggiola**	**54.37**	**45⇑**	*i*P	**P**	**09 47 41.4**	**-0.3**
	comp=Z,899nm,1.3s,mb6.2						
PGF	**Pioggiola**	**54.37**	**45⇑**	*i*P	**P**	**09 47 41.4**	**-0.3**
PGF				pmax	pmax		
	comp=Z,450nm,1.3s,mb6.2						
PGF	**Pioggiola**	**54.37**	**45⇑**	*i*P	**P**	**09 47 41.4**	**-0.3**
	comp=Z,450nm,1.3s,mb6.2						
SALAN	**Lac Salanfe**	**54.39**	**40⇑**	*e*P	**P**	**09 47 42.3**	**+0.5**
	comp=Z,435nm,1.8s,mb6.1						
BRANT	**Les Verrieres**	**54.41**	**39⇑**	*i*P	**P**	**09 47 42.5**	**+0.6**
	comp=Z,2µm,4.9s						
SCIA	**State Center**	**54.44**	**314**	*e*P	**P**	**09 47 41.3**	**-1.0**
	comp=Z,2µm,1.4s,mb6.9						
SCIA				LR	LR		
	comp=Z,153µm,21.0s,MS7.0						
AIGLE	**Aigle**	**54.46**	**40⇑**	*e*P	**P**	**09 47 42.6**	**+0.3**
	comp=Z,550nm,2.0s,mb6.1						
ESY	**Stoneypath**	**54.48**	**26⇑**	*e*P	**P**	**09 47 41.2**	**-1.0**
BAIF	**Baives**	**54.51**	**35⇑**	*i*P	**P**	**09 47 42.1**	**-0.5**
	comp=Z,1µm,1.5s,mb6.4						
BAIF	**Baives**	**54.51**	**35⇑**	*i*P	**P**	**09 47 42.1**	**-0.5**
BAIF				pmax	pmax		
	comp=Z,559nm,1.5s,mb6.4						
BAIF	**Baives**	**54.51**	**35⇑**	*i*P	**P**	**09 47 42.1**	**-0.5**
	comp=Z,559nm,1.5s,mb6.4						
QLNO	**Quiliano**	**54.56**	**43**	P	**P**	**09 47 43.1**	**0.0**
TORNY	**Torny/Romont**	**54.64**	**39⇑**	*e*P	**P**	**09 47 43.7**	**+0.1**
	comp=Z,2µm,3.5s						
THEF	**They Montfort**	**54.68**	**37**	*e*P	**P**	**09 47 43.2**	**-0.7**
SENIN	**Lac Senin/Sane**	**54.69**	**40⇑**	*e*P	**P**	**09 47 44.5**	**+0.6**
	comp=Z,1µm,2.2s,mb6.5						
DOU	**Dourbes**	**54.75**	**35**	P	**P**	**09 47 43.3**	**-1.1**
	comp=Z,185nm,2.0s,mb5.8						
MDO	**Dochfour**	**54.77**	**24⇑**	*e*P	**P**	**09 47 43.7**	**-0.6**
SNF	**Seneffe**	**54.78**	**34**	P	**P**	**09 47 44.1**	**-0.4**
	comp=Z,175nm,2.0s,mb5.7						
HAU	**Haudompre**	**54.80**	**38⇑**	*i*P	**P**	**09 47 44.1**	**-0.6**
	comp=Z,2µm,1.8s,mb6.5						
HAU				*e*MLR	MLR		
	comp=Z,166µm,18.8s,MS6.8						
HAU	**Haudompre**	**54.80**	**38⇑**	*i*P	**P**	**09 47 44.1**	**-0.6**
HAU				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
HAU				MLR	MLR		
	comp=Z,166µm,18.8s,MS7.1						
HAU	**Haudompre**	**54.80**	**38⇑**	*i*P	**P**	**09 47 44.1**	**-0.6**
	comp=Z,1µm,1.8s,mb6.5						
HAU				LR	LR		
	comp=Z,166µm,18.8s,MS7.1						
LOMF	**Lomont**	**54.80**	**39**	*e*P	**P**	**09 47 44.8**	**0.0**
PNIG	**Pinotepa**	**54.81**	**283**	*i* P	**P**	**09 47 44.5**	**-0.8**
ORO	**Oropa**	**54.83**	**41**	P	**P**	**09 47 45.0**	**0.0**
GIVF	**Givet**	**54.88**	**35⇑**	*i*P	**P**	**09 47 44.8**	**-0.5**
	comp=Z,2µm,1.8s,mb6.6						
GIVF	**Givet**	**54.88**	**35⇑**	*i*P	**P**	**09 47 44.8**	**-0.5**
GIVF				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
GIVF	**Givet**	**54.88**	**35⇑**	*i*P	**P**	**09 47 44.8**	**-0.5**
	comp=Z,1µm,1.8s,mb6.6						
LKBD	**Leukerbad**	**54.90**	**40⇑**	*i*P	**P**	**09 47 46.3**	**+0.8**
	comp=Z,735nm,1.6s,mb6.5						
UCC	**Uccle**	**54.97**	**34**	P	**P**	**09 47 45.4**	**-0.5**
MMK	**Mattmark**	**54.98**	**41⇑**	*e*P	**P**	**09 47 47.2**	**+1.1**
	comp=Z,1µm,2.1s,mb6.5						
HINF	**Hinteralfeld**	**55.02**	**38⇑**	*i*P	**P**	**09 47 45.9**	**-0.4**
	comp=Z,2µm,1.9s,mb6.5						
HINF	**Hinteralfeld**	**55.02**	**38⇑**	*i*P	**P**	**09 47 45.9**	**-0.4**
HINF				pmax	pmax		
	comp=Z,950nm,1.9s,mb6.5						
HINF	**Hinteralfeld**	**55.02**	**38⇑**	*i*P	**P**	**09 47 45.9**	**-0.4**
	comp=Z,950nm,1.9s,mb6.5						
KVTX	**Kingsville**	**55.03**	**296**	*e*P	**P**	**09 47 47.8**	**+1.0**
	comp=Z,4µm,1.1s,mb7.4						
KVTX				LR	LR		
	comp=Z,70µm,19.0s,MS6.8						
TRIS	**Tristan da Cun**	**55.07**	**151**	*e*P	**P**	**09 47 46.5**	**-0.2**
	comp=Z,944nm,1.3s,mb6.7						
TRIS				LR	LR		
	comp=Z,58µm,22.0s,MS6.6						
RSC	**Scourie**	**55.08**	**23⇑**	*e*P	**P**	**09 47 45.9**	**-0.7**
MOF	**Molkenrain**	**55.21**	**38**	*e*P	**P**	**09 47 47.0**	**-0.7**
PPM	**Popocatepetl**	**55.25**	**286**	*i* P	**P**	**09 47 46.9**	**-1.6**
BBS	**Basel-Blauen**	**55.27**	**39**	*e*P	**P**	**09 47 47.9**	**-0.3**
BCLA	**Clavier**	**55.30**	**35**	P	**P**	**09 47 47.6**	**-0.8**
	comp=Z,280nm,2.1s,mb5.9						
MCD	**Coleburn Disti**	**55.30**	**24⇑**	*e*P	**P**	**09 47 47.3**	**-0.9**
BALST	**Balsthal**	**55.33**	**39⇑**	*e*P	**P**	**09 47 48.6**	**0.0**
	comp=Z,1µm,1.9s,mb6.6						
IIO	**Organos**	**55.34**	**286**	*i* P	**P**	**09 47 50.1**	**+1.0**
ECH	**Echery**	**55.38**	**38**	*e*P	**P**	**09 47 48.4**	**-0.5**
ECH	**Echery**	**55.38**	**38**	P	**P**	**09 47 49.2**	**+0.3**
ECH				LR	LR		
	comp=Z,141µm,19.0s,MS7.1						
HASLI	**Hasliberg/Brie**	**55.38**	**40⇑**	*e*P	**P**	**09 47 49.4**	**+0.4**
	comp=Z,1µm,2.2s,mb6.5						
VAI	**Varese**	**55.43**	**41**	P	**P**	**09 47 48.9**	**-0.4**
WLF	**Walferdange**	**55.43**	**36**	*e*P	**P**	**09 47 48.8**	**-0.5**
	comp=Z,326nm,1.3s,mb6.2						
WLF				*e*S	**S**	**09 55 34.2**	**-0.4**
WLF	**Walferdange**	**55.43**	**36**	PFAKE		09 48 00.0	+11
WLF				LR	LR		
	comp=Z,195µm,20.0s,MS7.2						
BOB	**Bobbio (Coli)**	**55.46**	**42**	P	**P**	**09 47 50.3**	**+0.7**
CDF	**Champ du Feu**	**55.53**	**38⇑**	*i*P	**P**	**09 47 49.6**	**-0.4**
	comp=Z,1µm,1.9s,mb6.4						
CDF	**Champ du Feu**	**55.53**	**38⇑**	*i*P	**P**	**09 47 49.6**	**-0.4**
CDF				pmax	pmax		
	comp=Z,745nm,1.9s,mb6.4						
CDF	**Champ du Feu**	**55.53**	**38⇑**	*i*P	**P**	**09 47 49.6**	**-0.4**
	comp=Z,745nm,1.9s,mb6.4						
FUSIO	**Fusio**	**55.59**	**40⇑**	*e*P	**P**	**09 47 49.9**	**-0.5**
	comp=Z,2µm,1.7s,mb6.9						
EYMN	**Ely**	**55.59**	**322**	*e*P	**P**	**09 47 49.3**	**-1.2**
	comp=Z,575nm,1.8s,mb6.3						
EYMN				*e*PcP	PcP	09 48 46.3	-3.9
EYMN				LR	LR		
	comp=Z,76µm,21.0s,MS6.8						
LIBD	**Limburg**	**55.62**	**38**	*e*P	**P**	**09 47 50.2**	**-0.4**
MUGIO	**Muggio**	**55.62**	**41⇑**	*e*P	**P**	**09 47 50.8**	**+0.1**
	comp=Z,815nm,1.4s,mb6.6						
ERC	**Erice**	**55.65**	**51**	P	**P**	**09 47 52.4**	**+1.3**
YAIG	**Yautepec**	**55.66**	**286**	*i* P	**P**	**09 47 50.5**	**-1.0**
SULZ	**Cheisacher**	**55.67**	**39⇑**	*e*P	**P**	**09 47 51.0**	**0.0**
	comp=Z,750nm,1.2s,mb6.6						
PBVM	**Pinon**	**55.68**	**286**	*i* P	**P**	**09 47 52.0**	**+0.4**
BEBN	**Eben Emael**	**55.69**	**35**	P	**P**	**09 47 49.8**	**-1.4**
	comp=Z,90nm,1.9s,mb5.5						
PTVM	**Pico Tres Padr**	**55.71**	**286**	*i* P	**P**	**09 47 52.0**	**+0.2**
MLA1	**Latheron**	**55.75**	**23⇑**	*e*P	**P**	**09 47 50.6**	**-0.8**
FELD	**Feldberg im Sc**	**55.75**	**39**	*e*P	**P**	**09 47 51.1**	**-0.5**
UNM	**Universidad Na**	**55.77**	**286**	*i* P	**P**	**09 47 52.5**	**+0.3**
MUO	**Muotathal**	**55.77**	**40⇑**	*e*P	**P**	**09 47 52.1**	**+0.3**
	comp=Z,1µm,1.8s,mb6.7						
MEM	**Membach**	**55.79**	**35**	P	**P**	**09 47 51.7**	**-0.1**
	comp=Z,263nm,2.0s,mb5.9						
PII	**Pisa**	**55.82**	**44**	P	**P**	**09 47 52.0**	**-0.2**
HGN	**Heimansgroeve**	**55.82**	**35**	*e*P	**P**	**09 47 51.8**	**-0.2**
HGN	**Heimansgroeve**	**55.82**	**35**	*e*PP	PP	09 49 59.6	+3.1
HGN	**Heimansgroeve**	**55.82**	**35**	*e*S	**S**	**09 55 35.9**	**-3.9**
BORG	**Borgarnes**	**55.83**	**10**	PFAKE		09 48 00.0	+8.2
BORG				LR	LR		
	comp=Z,165µm,22.0s,MS7.1						
VLC	**Villacollemand**	**55.87**	**43**	P	**P**	**09 47 52.4**	**-0.1**
VLC				LR	LR		
	comp=Z,82µm,21.0s,MS6.8						
ZUR	**Degenried**	**55.90**	**39⇑**	*e*P	**P**	**09 47 52.9**	**+0.2**
	comp=Z,1µm,1.9s,mb6.6						
STR	**Strasbourg**	**55.90**	**38**	*e*P	**P**	**09 47 52.8**	**+0.1**
LLS	**Linth-Limmern**	**55.96**	**40⇑**	*e*P	**P**	**09 47 53.1**	**0.0**
	comp=Z,822nm,1.9s,mb6.4						
RUP	**Ruppelstein**	**55.97**	**36**	*e*P	**P**	**09 47 52.7**	**-0.5**
ERBM	**Eremo**	**55.98**	**43**	P	**P**	**09 47 54.0**	**+0.7**
BDI	**Bagni Di Lucca**	**55.98**	**44**	P	**P**	**09 47 52.9**	**-0.4**
SLE	**Schleitheim**	**56.00**	**39⇑**	*e*P	**P**	**09 47 53.4**	**0.0**
	comp=Z,1µm,4.8s						
TUE	**Stuetta**	**56.03**	**41**	P	**P**	**09 47 53.7**	**+0.1**
TUE				LR	LR		
	comp=Z,235µm,19.0s,MS7.3						
PLIG	**Platanillo**	**56.08**	**285**	*i* P	**P**	**09 47 54.4**	**-0.1**
KSU1	**Kansas State U**	**56.09**	**310**	*e*P	**P**	**09 47 52.4**	**-1.8**
	comp=Z,1µm,1.0s,mb6.9						
KSU1				LR	LR		
	comp=Z,125µm,22.0s,MS7.0						
LANF	**Langenberg**	**56.10**	**37**	*e*P	**P**	**09 47 53.4**	**-0.6**
VDL	**Val di Lei**	**56.10**	**41⇑**	*e*P	**P**	**09 47 54.6**	**+0.5**
	comp=Z,465nm,1.8s,mb6.2						
WILA	**Wila**	**56.12**	**39⇑**	*i*P	**P**	**09 47 54.0**	**-0.2**
	comp=Z,1µm,1.7s,mb6.6						
BFO	**Black Forest**	**56.14**	**38**	*i* P	**P**	**09 47 54.0**	**-0.3**
BFO	**Black Forest**	**56.14**	**38**	*e*P	**P**	**09 47 53.9**	**-0.4**
	comp=Z,669nm,1.3s,mb6.5						
BFO				*e*S	**S**	**09 55 44.0**	**-0.1**
BFO	**Black Forest**	**56.14**	**38**	*e*P	**P**	**09 47 53.9**	**-0.4**
	comp=Z,669nm,1.3s,mb6.5						
BFO				*e*S	**S**	**09 55 44.0**	**-0.1**
BFO				LR	LR		
	comp=Z,130µm,19.0s,MS7.0						
WEIN	**Weingarten**	**56.21**	**39⇑**	*e*P	**P**	**09 47 55.1**	**+0.2**
	comp=Z,1µm,1.9s,mb6.6						
CSNT	**Castellina Chi**	**56.26**	**45**	P	**P**	**09 47 56.6**	**+1.3**
SISB	**Singen-Schiene**	**56.26**	**39**	P	**P**	**09 47 55.8**	**+0.5**
PLONS	**Plons/SG**	**56.27**	**40⇑**	*i*P	**P**	**09 47 55.4**	**+0.1**
	comp=Z,1µm,1.9s,mb6.6						
SPAK	**Spaichingen-Ko**	**56.32**	**39**	*e*P	**P**	**09 47 55.7**	**0.0**
ABH	**Alteburg**	**56.34**	**36**	*e*P	**P**	**09 47 55.6**	**-0.2**
FNVD	**Fontana Vidola**	**56.38**	**44**	P	**P**	**09 47 56.3**	**+0.2**
KTD	**Kalmit**	**56.41**	**37**	*e*P	**P**	**09 47 56.0**	**-0.3**
LIENZ	**Kamor/St.Gall**	**56.44**	**40⇑**	*e*P	**P**	**09 47 56.8**	**+0.3**
	comp=Z,1µm,2.0s,mb6.6						
DAVOX	**Davos/Dischmat**	**56.48**	**40⇑**	*e*P	**P**	**09 47 57.2**	**+0.3**
	comp=Z,1µm,1.9s,mb6.7						
SEI	**Scarperia**	**56.50**	**44**	P	**P**	**09 47 57.1**	**+0.1**
SFJD	**Kangerlussuaq**	**56.51**	**356**	*i* P	**P**	**09 47 56.2**	**-0.5**
SFJD				*i* S	**S**	**09 55 45.6**	**-2.8**
SFJD				*i*		09 57 42.2	
SFJD				pmax	pmax		
	comp=Z,140nm,0.9s,mb6.0						
SFJD				MLR	MLR		
	comp=Z,32µm,18.0s,MS6.5						
SFJD	**Kangerlussuaq**	**56.51**	**356**	*i* P	**P**	**09 47 56.2**	**-0.5**
	comp=Z,142nm,0.9s,mb6.0						
SFJD				*i* S	**S**	**09 55 45.6**	**-2.8**
SFJD				*i*		09 57 42.2	
SFJD							
	comp=Z,32µm,18.0s						
GUT	**Gutenstein**	**56.51**	**39**	P	**P**	**09 47 57.3**	**+0.3**
ACX	**Acapulco**	**56.51**	**283**	*i* P	**P**	**09 47 57.8**	**+0.2**
LBG	**Lerchenberg**	**56.56**	**38**	P	**P**	**09 47 57.4**	**+0.1**
VMG	**Vicchio**	**56.59**	**44**	P	**P**	**09 47 57.0**	**-0.7**
MAGA	**Magasa**	**56.60**	**42**	P	**P**	**09 47 56.5**	**-1.2**
MABI	**Malga Bissina**	**56.62**	**41**	P	**P**	**09 47 56.9**	**-1.0**
FUORN	**Ofenpass-Fuorn**	**56.67**	**41⇑**	*e*P	**P**	**09 47 58.3**	**+0.1**
	comp=Z,1µm,2.2s,mb6.6						
DAVA	**Damuels**	**56.68**	**40**	*i* P	**P**	**09 47 58.3**	**+0.1**
	comp=Z,541nm,1.4s,mb6.4,SNR=112						
WDD	**Wield Dalam**	**56.68**	**54**	PFAKE		09 48 10.0	+12
WDD				LR	LR		
	comp=Z,180µm,19.0s,MS7.2						
BRMO	**Bormio**	**56.69**	**41**	P	**P**	**09 47 58.2**	**-0.1**
GIB	**Gibilmanna**	**56.75**	**52**	P	**P**	**09 47 59.9**	**+1.0**
SFI	**Santa Sofia**	**56.78**	**44**	P	**P**	**09 47 58.7**	**-0.3**
BUCH	**Bad Urach**	**56.81**	**38**	P	**P**	**09 47 59.3**	**+0.2**
WMOK	**Wichita Mounta**	**56.83**	**305**	P	**P**	**09 47 58.1**	**-1.5**
WMOK				pmax	pmax		
	comp=Z,320nm,0.9s,mb6.3						
WMOK	**Wichita Mounta**	**56.83**	**305**	*e*P	**P**	**09 47 57.9**	**-1.6**
	comp=Z,316nm,0.8s,mb6.4						
WMOK				LR	LR		
	comp=Z,95µm,21.0s,MS6.9						
RAFF	**Raffo Rosso**	**56.84**	**52**	P	**P**	**09 48 00.7**	**+1.1**
CAIG	**El Cayaco**	**56.84**	**283**	*i* P	**P**	**09 47 57.3**	**-2.6**
STU	**Stuttgart**	**56.84**	**38**	*e*P	**P**	**09 47 58.5**	**-0.9**
	comp=Z,336nm,1.1s,mb6.3						
STU				*e*S	**S**	**09 55 53.4**	**0.0**
WTSB	**Winterswijk**	**56.87**	**34**	*e*P	**P**	**09 47 59.4**	**-0.1**
BUG	**Bochum--Univer**	**56.88**	**34**	*e*P	**P**	**09 47 59.3**	**-0.3**
	comp=Z,442nm,1.5s,mb6.3						
BUG				*e*S	**S**	**09 55 48.7**	**-5.2**
MNS	**Montasola**	**56.90**	**46**	P	**P**	**09 47 59.7**	**-0.2**
CDCA	**Citt' di Caste**	**56.91**	**45**	P	**P**	**09 47 59.7**	**-0.2**
TOD	**Tromm**	**56.95**	**37**	*e*P	**P**	**09 47 59.5**	**-0.6**
CERT	**Cerreto**	**56.99**	**47**	P	**P**	**09 48 00.5**	**0.0**
TNS	**Taunus Mts**	**57.01**	**36**	*e*P	**P**	**09 48 00.5**	**0.0**
TNS				*e*S	**S**	**09 55 57.8**	**+2.2**
TNS				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
TNS	**Taunus Mts**	**57.01**	**36**	*e*P	**P**	**09 48 00.5**	**0.0**
	comp=Z,1µm,1.8s,mb6.6						
TNS				*e*S	**S**	**09 55 57.8**	**+2.2**
JCT	**Junction City**	**57.03**	**299**	P	**P**	**09 47 59.9**	**-1.2**
JCT				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
JCT	**Junction City**	**57.03**	**299**	*e*P	**P**	**09 47 59.8**	**-1.3**
	comp=Z,1µm,1.2s,mb6.7						
JCT				*e*PcP	PcP	09 48 57.1	+0.9
JCT				LR	LR		
	comp=Z,55µm,22.0s,MS6.6						
MURB	**Monte Urbino**	**57.05**	**45**	P	**P**	**09 48 00.5**	**-0.5**
ASS	**Assisi**	**57.08**	**45**	P	**P**	**09 48 00.9**	**-0.3**
HVZN	**Vizzini**	**57.10**	**53**	P	**P**	**09 48 02.2**	**+0.8**
FETA	**Feichten**	**57.12**	**40**	*i* P	**P**	**09 48 01.2**	**-0.1**

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          comp=Z,440nm,1.5s,mb6.3,SNR=88
PIEI  Pieia              57.14  45  P        P         09 48 01.1  -0.5
FIAM  Fiamignano         57.17  46  P        P         09 48 02.2  +0.3
APPI  Appiano            57.24  41  P        P         09 48 01.0  -1.2
PTQR  Pietraquaria       57.31  47  P        P         09 48 03.0  +0.2
RETA  Reutte             57.31  40⇑iP        P         09 48 02.6  -0.1
          comp=Z,498nm,1.3s,mb6.4,SNR=36
SIND  Sindeldorf         57.32  37  P        P         09 48 02.6  -0.2
NRCA  Norcia             57.34  46  P        P         09 48 02.8  -0.2
SNTG  Esanatoglia        57.34  45  P        P         09 48 02.8  -0.2
SSY   Sortino            57.38  53  P        P         09 48 04.6  +1.2
HAVL  Avola              57.38  53  P        P         09 48 04.1  +0.7
HDH   Heidenheim-Cha     57.38  38  P        P         09 48 03.6  +0.4
AQU   L'Aquila           57.40  46  P        P         09 48 03.5   0.0
VVLD  Villa Vallelon     57.42  47  P        P         09 48 03.3  -0.3
MOTA  Moosalm            57.47  40⇑iP        P         09 48 03.3  -0.6
          comp=Z,313nm,1.1s,mb6.2,SNR=51
SLNA  Salina             57.49  51  P        P         09 48 05.1  +0.9
SDI   San Donato         57.51  47  P        P         09 48 04.9  +0.6
AGST  Augusta-Monte      57.52  53  P        P         09 48 05.5  +1.1
CING  Cingoli            57.55  45  P        P         09 48 03.8  -0.7
IBBN  Ibbenburen         57.55  34 eP        P         09 48 04.0  -0.3
          comp=Z,586nm,1.5s,mb6.4
IBBN                               eS        S         09 55 56.6  -6.0
TERO  Teramo             57.62  46  P        P         09 48 05.4  +0.4
PLCA  Paso Flores        57.64 206  P        P         09 48 04.2  -0.9
PLCA                                S        S         09 55 58.5  -5.5
PLCA                                pmax     pmax
          comp=Z,209nm,1.2s
PLCA                                smax
          comp=N,4.0nm,1.0s
PLCA                                MLR      MLR
          comp=Z,155µm,18.9s
PLCA  Paso Flores        57.64 206  P        P         09 48 04.2  -0.8
          comp=Z,209nm,1.2s,mb6.1,baz=31,slow=8.2,SNR=52
PLCA                                S        S         09 55 58.5  -5.5
          comp=Z,3.8nm,1.0s,baz=19,slow=18,SNR=2.1
PLCA                                LR       LR        10 14 51.3
          comp=Z,155µm,18.9s,MS7.1,baz=32,slow=38
PLCA  Paso Flores        57.64 206  P        P         09 48 04.2  -0.8
PLCA                                S        S         09 55 58.5  -5.5
PLCA                                LR       LR        10 14 51.3
INTR  Introdacqua        57.66  47  P        P         09 48 05.1  -0.2
MOIG  Morelia            57.66 286 i P       P         09 48 05.2  -0.5
WAL1  Walls              57.72  22⇑eP        P         09 48 04.7  -0.7
RNI2  Rionero Sannit     57.76  47  P        P         09 48 05.3  -0.7
WATA  Walderalm          57.77  40⇑iP        P         09 48 05.3  -0.6
          comp=Z,417nm,1.3s,mb6.3,SNR=13
WTTA  Wattenberg         57.78  40⇑iP        P         09 48 05.7  -0.3
          comp=Z,672nm,1.7s,mb6.4,SNR=53
LRW   Lerwick            57.80  23⇑eP        P         09 48 04.8  -1.2
LRW                                 AMb      AMB       09 48 17.2
          comp=Z,230nm,1.4s,mb6.0
LRW                                 AMS      AMS       10 08 46.8
          comp=Z,97µm,18.6s,MS6.9
FUR   Furstenfeldbru     57.88  39 eP        P         09 48 06.4  -0.3
FUR                                eS        S         09 56 06.4  -0.7
FUR                                 pmax     pmax
          comp=Z,1µm,1.4s,mb6.7
FUR   Furstenfeldbru     57.88  39 eP        P         09 48 06.4  -0.3
          comp=Z,1µm,1.4s,mb6.7
FUR                                eS        S         09 56 06.4  -0.7
SEST  Monte Rota         57.97  41  P        P         09 48 06.8  -0.6
MTTG  Motta San Giov     58.03  52  P        P         09 48 08.0   0.0
PSB1  Pescosannita       58.11  48  P        P         09 48 08.8  +0.3
UBBA  Unterbreizbach     58.16  36 eP        P         09 48 08.4  -0.2
          comp=Z,343nm,1.8s,mb6.1
UBBA                               eS        S         09 56 10.3  -0.4
ABTA  Abfaltersbach      58.16  41 i P       P         09 48 08.4  -0.3
          comp=Z,521nm,1.2s,mb6.4,SNR=108
CSSN  Cassano Irpino     58.18  48  P        P         09 48 09.1  +0.1
MRB1  Monte Rocchett     58.21  48  P        P         09 48 09.5  +0.3
SGO   Sicignano          58.31  49  P        P         09 48 09.8  -0.1
CBKS  Cedar Bluff        58.39 309  P        P         09 48 09.9  -0.6
CBKS                                pmax     pmax
          comp=Z,3µm,1.3s,mb7.1
CBKS  Cedar Bluff        58.39 309 eP        P         09 48 09.3  -1.1
          comp=Z,3µm,1.4s,mb7.1
CBKS                                LR       LR
          comp=Z,117µm,20.0s,MS7.0
MGR   Morigerati         58.40  49  P        P         09 48 10.2  -0.3
AGMN  Agassiz Refuge     58.42 321 eP        P         09 48 08.3  -2.2
          comp=Z,957nm,1.6s,mb6.6
AGMN                               ePcP      PcP       09 48 56.6  -4.6
AGMN                                LR       LR
          comp=Z,75µm,22.0s,MS6.8
GRA1  Grafenberg Arr     58.43  38 eP        P         09 48 10.0  -0.5
          comp=Z,599nm,1.6s,mb6.4
GRA1                               eS        S         09 56 12.9  -1.3
GRA1                               eSS       SS        09 59 59.8  -6.6
GRA1                               eP'P'               10 17 56.9
GRA1                                LR       LR
          comp=Z,98µm,20.9s,MS6.9
GRF   Grafenberg Arr     58.43  38 eP        P         09 48 10.0  -0.5
GRF                                eS        S         09 56 12.9  -1.3
GRF                                eSS       SS        09 59 59.8  -6.6
GRF                                 pmax     pmax
          comp=Z,599nm,1.6s,mb6.4
GRF                                 MLR      MLR
          comp=Z,98µm,20.9s,MS6.9
GRF   Grafenberg Arr     58.43  38 eP        P         09 48 10.0  -0.5
          comp=Z,599nm,1.6s,mb6.4
GRF                                eS        S         09 56 12.9  -1.3
GRF                                eSS       SS        09 59 59.8  -6.6
GRF                                eL                  10 08 43.3
          comp=Z,98µm,20.9s
GRF                                ePKPPKPdf           10 17 56.9
GRF   Grafenberg Arr     58.43  38 eP        P         09 48 10.0  -0.5
          comp=Z,599nm,1.6s,mb6.4
GRF                                eS        S         09 56 12.9  -1.3
GRF                                eSS       SS        09 59 59.8  -6.6
GRF                                 LR       LR
          comp=Z,98µm,20.9s,MS6.9
FG5   Orsara di Pugl     58.46  48  P        P         09 48 11.7  +0.8
HLG   Helgoland          58.50  32 eP        P         09 48 10.4  -0.5
          comp=Z,654nm,1.3s,mb6.5
CUC   Castrocucco        58.56  50  P        P         09 48 11.3  -0.3
CUC                                 LR       LR
          comp=Z,127µm,21.0s,MS7.0
RJOB  Jochberg           58.68  40 eP        P         09 48 11.4  -0.9
          comp=Z,374nm,1.3s,mb6.3
RJOB                               eS        S         09 56 11.1  -6.5
GRI   Girifalco          58.76  51  P        P         09 48 12.0  -1.1
CLZ   Clausthal          58.80  35 eP        P         09 48 12.6  -0.5
CLZ                                eS        S         09 56 20.1  +1.2
CLZ                                 pmax     pmax
          comp=Z,215nm,1.4s,mb6.0
CLZ   Clausthal          58.80  35 eP        P         09 48 12.6  -0.5
          comp=Z,215nm,1.4s,mb6.0
CLZ                                eS        S         09 56 20.1  +1.2
KBA   Koelnbreinsper     58.81  41⇑iP        P         09 48 12.8  -0.4
          comp=Z,497nm,1.3s,mb6.4,SNR=43
VOY   Vojsko             58.83  42⇑eP        P         09 48 13.3  -0.1
ACER  Acerenza           58.84  49  P        P         09 48 14.0  +0.4
MYKA  Terra Mystica      58.86  42⇑iP        P         09 48 13.4  -0.2
          comp=Z,679nm,1.2s,mb6.5
JAVS  Javornik           58.90  43 i P       P         09 48 14.0  +0.1
JAVS                               eS        S         09 56 21.9  +1.4
NRDL  Niedersach Rie     58.92  34 eP        P         09 48 14.0  +0.1
          comp=Z,587nm,1.6s,mb6.4
NRDL                               eS        S         09 56 19.6  -1.0
ZAIG  Zacatecas          58.97 290 i P       P         09 48 15.6  +0.9
MOX   Moxa               59.03  37⇑iP        P         09 48 14.5  -0.2
          comp=Z,469nm,1.8s,mb6.2
MOX   Moxa               59.03  37⇑iP        P         09 48 14.5  -0.2
MOX                                 pmax     pmax
          comp=Z,469nm,1.8s,mb6.2
MOX   Moxa               59.03  37 eP        P         09 48 14.4  -0.3
          comp=Z,493nm,1.6s,mb6.3
MOX                                eS        S         09 56 23.8  +1.8
ROTZ  Rotzenmuhle        59.05  38 eP        P         09 48 14.4  -0.4
          comp=Z,460nm,1.5s,mb6.3
ROTZ                               eS        S         09 56 18.8  -3.5
MANZ  Manzenberg         59.07  38 eP        P         09 48 14.6  -0.4
          comp=Z,174nm,1.4s,mb5.9
MANZ                               eS        S         09 56 20.4  -2.1
TIP   Timpagrande        59.09  51  P        P         09 48 14.0  -1.4
TIP                                 LR       LR
          comp=Z,161µm,21.0s,MS7.1
CEY   Cerknica           59.10  43  P        P         09 48 15.5  +0.2
ULM   Lac du Bonnet      59.15 323  P        P         09 48 13.3  -2.2
          comp=Z,141nm,1.1s,mb5.9,baz=109,slow=6.9,SNR=91
ULM                                 S        S         09 56 13.8   -10
          comp=Z,2.8nm,0.6s,baz=148,slow=19,SNR=2.2
ULM                                 LR       LR        10 09 42.3
          comp=Z,102µm,21.1s,MS6.9,baz=115,slow=32
ULM                                 PKPPKP             10 17 45.0
          comp=Z,1.0nm,0.3s,baz=330,slow=7.9,SNR=3.6
AMTX  Amarillo           59.21 304 eP        P         09 48 15.7  -0.6
          comp=Z,1µm,1.3s,mb6.7
AMTX                                LR       LR
          comp=Z,82µm,21.0s,MS6.8
WET   Wettzell           59.23  39 eP        P         09 48 15.3  -0.8
WET                                eS        S         09 56 21.5  -3.1
WET                                 pmax     pmax
          comp=Z,218nm,1.4s,mb6.0
WET   Wettzell           59.23  39 eP        P         09 48 15.3  -0.8
          comp=Z,218nm,1.4s,mb6.0
WET                                eS        S         09 56 21.5  -3.1
LJU   Ljubljana          59.26  42 i P       P         09 48 16.4   0.0
LJU                                e                   09 48 19.8
LJU                                eS        S         09 56 25.6  +0.4
WERN  Wernitzgruen       59.34  37 eP        P         09 48 16.7  -0.2
          comp=Z,583nm,1.5s,mb6.4
GUNZ  Gunzen             59.34  37 eP        P         09 48 16.6  -0.3
          comp=Z,438nm,1.5s,mb6.3
WERD  Werda              59.36  37 eP        P         09 48 16.7  -0.3
          comp=Z,354nm,1.6s,mb6.1
NKC   Novy Kostel        59.37  37⇑iP        P         09 48 17.0   0.0
NKC                                ex        x         09 48 25.6
NKC                                eS        S         09 56 30.0  +3.6
NKC                                 AMS      AMS       10 10 30.0
          comp=Z,109µm,16.6s
NKC   Novy Kostel        59.37  37⇑iP        P         09 48 17.0   0.0
NKC                                e                   09 48 25.6
NKC                                eS        S         09 56 30.0  +3.6
SFJM  Santa Fe           59.40 287 i P       P         09 48 17.4  -0.4
OBKA  Obir               59.41  42 i P       P         09 48 17.3  -0.1
          comp=Z,597nm,1.2s,mb6.5,SNR=99
TANN  Tannenbergstha     59.44  37 eP        P         09 48 17.4  -0.1
          comp=Z,397nm,1.5s,mb6.2
TANN                               eS        S         09 56 31.6  +4.3
LTRZ  Laterza            59.45  49  P        P         09 48 17.0  -0.8
BOJS  Bojanci            59.58  43 i P       P         09 48 18.9  +0.2
BOJS                               eS        S         09 56 30.3  +1.0
GEC2  GERESS Array S     59.63  39 eP        P         09 48 18.0  -0.9
GEC2                               eS        S         09 56 24.9  -5.0
GEC2                                pmax     pmax
          comp=Z,270nm,1.7s,mb6.0
GEC2  GERESS Array S     59.63  39 eP        P         09 48 18.0  -0.9
          comp=Z,270nm,1.7s,mb6.0
GEC2                               eS        S         09 56 24.9  -5.0
GERES GERESS Array B     59.63  39  P        P         09 48 18.3  -0.6
GERES                               S        S         09 56 23.0  -6.9
GERES                               pmax     pmax
          comp=Z,40nm,1.0s
GERES GERESS Array B     59.63  39  P        P         09 48 18.3  -0.6
          comp=Z,40nm,0.9s,mb5.4,baz=243,slow=5.8,SNR=97
GERES                               S        S         09 56 23.0  -6.8
          comp=Z,0.3nm,0.3s,baz=284,slow=25,SNR=2.7
GERES                               LR       LR        10 13 26.4
          comp=Z,95µm,18.0s,MS7.0,baz=251,slow=36
GERES                               PKP2bc             10 17 51.9
          comp=Z,0.9nm,0.8s,baz=82,slow=2.8,SNR=4.5
GERES GERESS Array B     59.63  39  P        P         09 48 18.3  -0.6
GERES                               S        S         09 56 23.0  -6.8
GERES                               LR       LR        10 13 26.4
GERES                             ⇑e                   10 17 51.9
KHC   Kasperske Hory     59.65  39⇑iP        P         09 48 18.3  -0.7
KHC                                epP       pP        09 48 25.6  +5.2
KHC                                eS        S         09 56 28.2  -1.9
KHC                                 AMS      AMS       10 08 50.0
          comp=Z,96µm,17.9s
MOA   Molln              59.66  40⇓iP        P         09 48 18.3  -0.8
          comp=Z,361nm,1.5s,mb6.2,SNR=102
MOA   Molln              59.66  40  P        P         09 48 18.2  -0.9
BSEG  Bad Segeberg       59.66  33 eP        P         09 48 18.7  -0.3
BSEG                               eS        S         09 56 27.9  -2.2
BSEG                                pmax     pmax
          comp=Z,602nm,1.3s,mb6.5
BSEG  Bad Segeberg       59.66  33 eP        P         09 48 18.7  -0.3
          comp=Z,602nm,1.3s,mb6.5
BSEG                               eS        S         09 56 27.9  -2.2
SOKA  Soboth             59.78  42⇑iP        P         09 48 19.5  -0.5
          comp=Z,182nm,1.2s,mb6.0
CRES  Cresnjev           59.81  43  P        P         09 48 20.3  +0.1
PERS  Pernice            59.83  42 i P       P         09 48 19.7  -0.6
PERS                               eS        S         09 56 31.9  -0.5
CLL   Collm              60.09  36⇑iP        P         09 48 21.6  -0.4
CLL                                e                   09 49 09.0
CLL                                eS        S         09 56 35.0  -0.7
CLL                                 pmax     pmax
          comp=Z,864nm,2.1s,mb6.4
CLL                                 MLR      MLR
          comp=Z,180µm,20.6s,MS7.2
CLL   Collm              60.09  36 eP        P         09 48 21.7  -0.3
          comp=Z,334nm,1.5s,mb6.2
CLL                                eS        S         09 56 33.5  -2.2
CLL   Collm              60.09  36⇑iP        P         09 48 21.6  -0.4
          comp=Z,864nm,2.1s,mb6.4
CLL                                 Pmax     pP        09 48 23.0  -0.3
CLL                                ePcP      PcP       09 49 09.0  +1.2
CLL                                e(PP)               09 50 48.0
CLL                                eS        S         09 56 35.0  -0.7
          comp=N,65µm,26.7s
CLL                                eS        S         09 56 35.0  -0.7
          comp=E,87µm,27.1s
CLL                                eSS       SS        10 00 29.0  -3.5
CLL                                eSSS                10 03 22.0
CLL                                 Lm                 10 10 00.0
          comp=N,73µm,21.4s
CLL                                 Lm                 10 10 00.0
          comp=E,125µm,19.9s
CLL                                 Lm                 10 10 00.0
          comp=Z,180µm,20.6s
CLL                                 Lmax               10 12 26.0
CLL                                ePKPPKPdf           10 17 48.0
CLL   Collm              60.09  36⇑iP        P         09 48 21.6  -0.4
          comp=Z,864nm,2.1s,mb6.4
CLL                                ePcP      PcP       09 49 09.0  +1.2
CLL                                eS        S         09 56 35.0  -0.7
CLL                                eP'P'               10 17 48.0
CLL                                 LR       LR
          comp=Z,180µm,20.6s,MS7.2
FBE   Freiberg           60.16  37 eP        P         09 48 22.3  -0.2
          comp=Z,440nm,1.6s,mb6.2
MUD   Monsted U'grnd     60.23  30⇑iP        P         09 48 22.9  +0.1
MUD                                i S       S         09 56 39.7  +2.5
MUD                                 pmax     pmax
          comp=Z,120nm,1.1s,mb5.8
MUD                                 MLR      MLR
          comp=Z,150µm,21.0s,MS7.1
MUD   Monsted U'grnd     60.23  30⇑iP        P         09 48 22.9  +0.1
          comp=Z,122nm,1.1s,mb5.8
MUD                                i S       S         09 56 39.7  +2.5
MUD
          comp=Z,152µm,21.0s
MUD   Monsted U'grnd     60.23  30⇑iP        P         09 48 22.9  +0.1
          comp=Z,123nm,1.1s,mb5.8
MUD                                i S       S         09 56 39.7  +2.5
TXAR  Lajitas Array      60.26 298  P        P         09 48 22.8  -0.8
          comp=Z,46nm,0.6s,mb5.7,baz=105,slow=6.3,SNR=264
TXAR                                LR       LR        10 14 49.5
          comp=Z,24µm,18.7s,MS6.4,baz=10.0,slow=36
TXAR                                PKPPKP             10 17 31.5
          comp=Z,1.6nm,1.1s,baz=276,slow=2.4,SNR=4.5
TXAR                                P4KPbc             10 25 32.5
          comp=Z,1.0nm,0.9s,baz=115,slow=5.7,SNR=5.8
TXAR  Lajitas Array      60.26 298  P        P         09 48 22.8  -0.8
TXAR                                LR       LR        10 14 49.5
TXAR                                P'P'               10 17 31.5
ARSA  Arzberg            60.28  41⇑iP        P         09 48 22.6  -0.8
          comp=Z,383nm,1.5s,mb6.2,SNR=30
ARSA  Arzberg            60.28  41  P        P         09 48 22.6  -0.8
BLS5  Blasjo             60.48  26⇑iP        P         09 48 25.2  +0.7
BLS5                                AMb      AMB       09 48 26.4
          comp=Z,99nm,1.1s,mb5.8
BRG   Berggiesshubel     60.49  37 eP        P         09 48 24.6  -0.1
          comp=Z,277nm,1.6s,mb6.0
BRG                                eS        S         09 56 38.3  -2.5
BRG   Berggiesshubel     60.49  37 i         PcP       09 49 08.8  -0.7
          comp=Z,256nm,1.7s
BRG                                 S        S         09 56 44.0  +3.2
BRG                                 SS       SS        10 00 35.0  -3.6
BRG                                ePKPPKP             10 17 50.2
          comp=Z,170nm,2.3s
BRG
          comp=N,42µm,14.8s
BRG
          comp=E,114µm,18.6s
BRG
          comp=Z,166µm,19.3s
KOGS  Kog                60.52  42  P        P         09 48 25.0   0.0
BER   Bergen             60.53  25 eP        P         09 48 23.4  -1.5
BER                                 AMb      AMB       09 48 48.1
          comp=Z,203nm,1.8s,mb6.0
BER                                eS        S         09 56 39.9  -1.1
BER                                 AMS      AMS       10 07 34.8
          comp=Z,74µm,17.1s,MS6.9
PRU   Pruhonice          60.54  38⇑iP        P         09 48 24.8  -0.3
PRU                                ex        x         09 48 34.5
PRU                                eS        S         09 56 45.3  +3.8
PRU                                 AMS      AMS       10 09 10.0
          comp=Z,98µm,22.4s
OGNE  Ogallala           60.56 311 eP        P         09 48 24.6  -0.8
          comp=Z,4µm,1.7s,mb7.3
OGNE                                LR       LR
          comp=Z,151µm,21.0s,MS7.1
BLY   Banja Luka         60.69  45  P        P         09 48 26.0  -0.3
CSNA  Conrad Observa     60.70  41⇓iP        P         09 48 25.8  -0.5
          comp=Z,584nm,1.5s,mb6.5
CONA  Conrad Observa     60.70  41 i P       P         09 48 25.8  -0.5
          comp=Z,634nm,1.5s,mb6.5,SNR=71
PVCC  Panska Ves         60.74  38⇑iP        P         09 48 26.6  +0.1
PVCC                               eS        S         09 56 36.2  -7.8
PVCC                                AMS      AMS       10 14 00.0
          comp=Z,91µm,17.6s
ODD1  Odda               60.81  26⇑iP        P         09 48 26.0  -0.8
ODD1                                AMb      AMB       09 48 27.4
          comp=Z,289nm,1.2s,mb6.3
TREC  Trest              60.89  39⇑iP        P         09 48 27.1  -0.4
TREC                               ex        x         09 48 38.6
TREC                               eS        S         09 56 45.4  -0.6
TREC                                AMS      AMS       10 14 10.0
          comp=Z,118µm,17.4s
RUE   Ruedersdorf        60.98  35 eP        P         09 48 28.0   0.0
          comp=Z,587nm,1.2s,mb6.6
RUE   Ruedersdorf        60.98  35 eP        P         09 48 28.8  +0.8
          comp=Z,641nm,1.2s,mb6.6
SCO   Scoresbysund       61.01   8 i P       P         09 48 28.0   0.0
SCO                                eS        S         09 56 44.5  -2.4
SCO                                i                   09 58 23.4
SCO                                 pmax     pmax
          comp=Z,68nm,1.0s,mb5.7
SCO                                 MLR      MLR
          comp=Z,82µm,19.0s,MS6.9
SCO   Scoresbysund       61.01   8 i P       P         09 48 28.0   0.0
          comp=Z,68nm,1.0s,mb5.7
SCO                                eS        S         09 56 44.5  -2.4
SCO                                i                   09 58 23.4
SCO
          comp=Z,82µm,19.0s
SOP   Sopron             61.08  41⇑eP        P         09 48 28.5  -0.3
HCY   Herceg Novi        61.08  47⇑iP        P         09 48 29.1  +0.2
HCY   Herceg Novi        61.08  47  P        P         09 48 29.0  +0.1
FOO   Floro              61.11  24 e         P         09 48 33.0  +4.2
FOO                                eS        S         09 56 49.8  +1.4
BRY   Bratogost          61.21  47⇑iP        P         09 48 29.3  -0.5
BRY   Bratogost          61.21  47  P        P         09 48 30.0  +0.2
CJM   Chamela            61.30 286 i P       P         09 48 29.7  -1.1
BUM   Brajici-Budva      61.34  48⇑iP        P         09 48 31.3  +0.6
BUM   Brajici-Budva      61.34  48  P        P         09 48 31.0  +0.3
KRUC  Moravsky           61.38  40  P        P         09 48 30.2  -0.7
KEK   Kerkira            61.51  51 eP        P         09 48 31.0  -0.9
NKY   Niksic             61.52  47⇑iP        P         09 48 31.7  -0.2
NKY   Niksic             61.52  47  P        P         09 48 32.0  +0.1
COP   Copenhagen         61.52  32⇑iP        P         09 48 31.3  -0.3
COP                                i S       S         09 56 55.2  +1.4
COP                                 pmax     pmax
          comp=Z,78nm,1.0s,mb5.8
COP                                 MLR      MLR
          comp=Z,37µm,21.0s,MS6.5
COP   Copenhagen         61.52  32⇑iP        P         09 48 31.3  -0.3
          comp=Z,78nm,1.0s,mb5.8
COP                                i S       S         09 56 55.2  +1.4
COP
          comp=Z,37µm,21.0s
RGN   Rugen              61.52  33 eP        P         09 48 31.5  -0.2
          comp=Z,408nm,1.2s,mb6.4
RGN   Rugen              61.52  33 eP        P         09 48 32.2  +0.5
          comp=Z,329nm,1.0s,mb6.4
ULC   Ulcinj             61.52  48⇑iP        P         09 48 31.9  -0.1
ULC   Ulcinj             61.52  48  P        P         09 48 33.0  +1.0
UPM   Unac-Piva          61.54  47⇑iP        P         09 48 31.4  -0.6
UPM   Unac-Piva          61.54  47⇑iP        P         09 48 31.5  -0.6
ZST   Bratislava         61.57  41 eP        P         09 48 32.3  +0.1
ZST                                e                   09 48 44.4
ZST                                ePP       PP        09 50 50.1  +2.5
ZST                                eS        S         09 56 53.9  -0.9
ZST   Bratislava         61.57  41 eP        P         09 48 32.3  +0.1
          comp=Z,249nm,1.3s,mb6.2
ZST                                e                   09 48 44.4
ZST                                ePP       PP        09 50 50.1  +2.5
ZST                                eS        S         09 56 53.9  -0.9
ZST                                 LR       LR
          comp=Z,102µm,22.2s,MS6.9
VRAC  Vranov             61.58  39⇑iP        P         09 48 32.1  -0.1
VRAC  Vranov             61.58  39  P        P         09 48 32.2  +0.1
TTG   Podgorica          61.63  47⇑iP        P         09 48 32.5  -0.1
TTG   Podgorica          61.63  47  P        P         09 48 33.0  +0.4
SRN   Sarande            61.69  50 eP        P         09 48 33.8  +0.7
MODS  Modra-Piesok       61.74  41 eP        P         09 48 32.9  -0.4
MODS                               e                   09 50 49.4
MODS                               eS        S         09 56 56.7  -0.1
MODS                                pmax     pmax
          comp=Z,637nm,2.1s,mb6.4
MODS  Modra-Piesok       61.74  41 eP        P         09 48 32.9  -0.4
MODS                               e                   09 48 45.3
MODS                               ePP       PP        09 50 49.4  +0.3
MODS                               eS        S         09 56 56.7  -0.1
MODS                               eSS       SS        10 00 45.8   -13
MODS  Modra-Piesok       61.74  41 eP        P         09 48 32.9  -0.4
          comp=Z,637nm,2.1s,mb6.4
MODS                               e                   09 48 45.3
MODS                               ePP       PP        09 50 49.4  +0.3
MODS                               eS        S         09 56 56.7  -0.1
MODS                               eSS       SS        10 00 45.8   -13
MODS                                LR       LR
          comp=Z,121µm,24.4s,MS7.0
DPC   Dobruska-Polom     61.74  38⇑iP        P         09 48 33.1  -0.1
DPC                                ex        x         09 48 43.2
DPC                                eS        S         09 57 01.2  +4.5
DPC                                 AMS      AMS       10 10 10.0
          comp=Z,70µm,18.8s
TIR   Tirane             61.85  49  P        P         09 48 35.0  +0.8
TIR                                 MLR      MLR
          comp=Z,94µm,22.0s,MS6.9
VLS   Valsamata          61.87  52 eP        P         09 48 31.0  -3.3
SMOL  Smolenice          61.87  40 eP        P         09 48 35.0  +0.8
KSP   Ksiaz              61.88  38 ePc       P         09 48 34.4  +0.3
KSP                                epP       pP        09 48 38.2  +2.7
KSP                                eS        S         09 57 03.1  +4.6
KSP                                eSS       SS        10 01 04.4  +4.0
KSP                                 LMZ                10 10 20.4
          comp=Z,163µm,22.6s
KSP   Ksiaz              61.88  38⇑eP        P         09 48 33.8  -0.4
KSP                                e                   09 50 51.0
KSP                                eS        S         09 57 00.0  +1.5
KSP                                 MLR      MLR
          comp=Z,227µm,17.8s,MS7.4
KSP   Ksiaz              61.88  38⇑eP        P         09 48 33.8  -0.4
KSP                                ePP       PP        09 50 51.0  +0.8
KSP                                eS        S         09 57 00.0  +1.5
PLE   Pljevlja           61.91  47⇑iP        P         09 48 34.8  +0.3
PLE   Pljevlja           61.91  47  P        P         09 48 35.0  +0.5
KONO  Kongsberg          61.97  27  P        P         09 48 34.6   0.0
KONO                                pmax     pmax
          comp=Z,240nm,1.2s,mb6.2
KONO  Kongsberg          61.97  27⇑iP        P         09 48 36.5  +1.9
KONO                               eS        S         09 56 58.8  -0.6
KONO                                AMS      AMS       10 10 15.1
          comp=Z,92µm,19.7s,MS6.9
KONO  Kongsberg          61.97  27⇑eP        P         09 48 34.3  -0.3
KONO                                LR       LR
          comp=Z,118µm,21.0s,MS7.0
BBLS  Lazi&#263;i        62.03  46  P        P         09 48 36.2  +0.8
PKSM  Moragy             62.05  43⇑iP        P         09 48 35.3  -0.1
PKSM  Moragy             62.05  43  P        P         09 48 35.6  +0.1
JAVC  Velka Javorina     62.13  40  P        P         09 48 36.2  +0.3
PVY   Plav               62.18  47⇑iP        P         09 48 37.0  +0.7
PVY   Plav               62.18  47  P        P         09 48 39.0  +2.7
IVA   Berane             62.18  47⇑iP        P         09 48 36.8  +0.5
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IVA	Berane	62.18	47	P	P	09 48 37.0	+0.7
COYC	Coyhaique	62.28	204	⇑eP	P	09 48 33.4	-3.4
JAN	Janina	62.30	51	eP	P	09 48 38.0	+0.8
MORC	Moravsky Berou	62.31	39	⇑iP	P	09 48 37.1	0.0
MORC	Moravsky Berou	62.31	39	P	P	09 48 37.2	+0.1
KBN	Korca	62.41	50	eP	P	09 48 40.7	+2.7
MAIG	Mazatlaan	62.52	291	i P	P	09 48 39.7	+0.6
BSD	Bornholm Skovb	62.59	33	⇑iP	P	09 48 37.9	-1.0
	comp=Z,39nm,1.1s,mb5.5						
BSD				i S	S	09 57 06.9	-0.4
BSD							
	comp=Z,105µm,20.0s						
BSD	Bornholm Skovb	62.59	33	⇑iP	P	09 48 37.9	-1.0
	comp=Z,39nm,1.1s,mb5.5						
BSD				i S	S	09 57 06.9	-0.4
PYL	PYLOS	62.59	54	P	P	09 48 39.4	+0.1
MEV	Metsovon	62.61	51	P	P	09 48 41.4	+2.1
BUD	Budapest	62.63	42	⇑eP	P	09 48 39.6	+0.3
SDCO	Great Sand Dun	62.67	307	eP	P	09 48 40.2	+0.4
	comp=Z,1µm,1.4s,mb6.9						
SDCO				LR	LR		
	comp=Z,68µm,22.0s,MS6.8						
RSSD	Black Hills	62.67	314	eP	P	09 48 38.6	-1.0
RSSD				pmax	pmax		
	comp=Z,287nm,1.4s,mb6.2						
RSSD				MLR	MLR		
	comp=Z,95µm,21.0s,MS6.9						
RSSD	Black Hills	62.67	314	eP	P	09 48 38.6	-1.0
	comp=Z,287nm,1.4s,mb6.2						
RSSD				LR	LR		
	comp=Z,95µm,21.0s,MS6.9						
OKC	Ostrava-Krasne	62.70	39	⇑iP	P	09 48 39.8	+0.1
OKC				i	pP	09 48 40.8	-0.3
OKC				eS	S	09 57 14.4	+5.4
OKC				MLR	MLR		
	comp=Z,85µm,17.7s,MS7.0						
OKC	Ostrava-Krasne	62.70	39	⇑iP	P	09 48 39.8	+0.1
OKC				i pP	pP	09 48 40.8	-0.3
OKC				ex	x	09 48 50.3	
OKC				eS	S	09 57 14.4	+5.4
OKC				AMS	AMS	10 13 40.0	
	comp=Z,85µm,17.7s						
OKC	Ostrava-Krasne	62.70	39	⇑iP	P	09 48 39.8	+0.1
OKC				e		09 48 50.3	
OKC				eS	S	09 57 14.4	+5.4
VYHS	Vyhne	62.77	41	eP	P	09 48 39.6	-0.6
VYHS				ePP	PP	09 50 55.5	-2.6
VYHS				eS	S	09 57 11.3	+1.5
VYHS				eSS	SS	10 01 03.9	-11
VYHS	Vyhne	62.77	41	eP	P	09 48 39.7	-0.5
	comp=Z,270nm,1.9s,mb6.0						
VYHS				ePP	PP	09 50 55.5	-2.6
VYHS				eS	S	09 57 11.3	+1.5
VYHS				eSS	SS	10 01 03.9	-11
VYHS				LR	LR		
	comp=Z,70µm,28.1s,MS6.7						
ITM	Ithomi	62.78	54	eP	P	09 48 41.0	+0.5
RAC	Raciborz	62.80	39	eP	P	09 48 41.0	+0.6
RAC				e		09 50 57.7	
RAC				eS	S	09 57 10.0	-0.2
RAC	Raciborz	62.80	39	eP	P	09 48 41.0	+0.6
RAC				ePP	PP	09 50 57.7	-0.7
RAC				eS	S	09 57 10.0	-0.2
RAC				LR	LR		
	comp=Z,143µm,18.0s,MS7.2						
BIA	Bitola	62.88	49	P	P	09 48 40.7	-0.4
BIA	Bitola	62.88	49	i P	P	09 48 41.3	+0.2
FNA	Florina	62.88	50	P	P	09 48 41.2	+0.1
KRUS	Krusevo	62.88	49	⇑iP	P	09 48 40.6	-0.5
EVR	Evrytania	62.92	52	eP	P	09 48 42.0	+0.6
ISCO	Idaho Springs	63.05	309	eP	P	09 48 43.0	+0.8
ISCO				e		09 49 20.4	
ISCO				pmax	pmax		
	comp=Z,2µm,1.4s,mb7.0						
ISCO				MLR	MLR		
	comp=Z,111µm,20.0s,MS7.0						
ISCO	Idaho Springs	63.05	309	eP	P	09 48 43.0	+0.7
	comp=Z,2µm,1.4s,mb7.0						
ISCO				ePcP	PcP	09 49 20.4	+0.3
ISCO				LR	LR		
	comp=Z,111µm,20.0s,MS7.0						
KZN	Kozani	63.10	50	eP	P	09 48 42.5	-0.1
ANMO	Albuquerque	63.11	304	eP	P	09 48 42.8	+0.1
ANMO				pmax	pmax		
	comp=Z,1µm,1.9s						
ANMO				MLR	MLR		
	comp=Z,98µm,22.0s						
ANMO	Albuquerque	63.11	304	eP	P	09 48 42.8	0.0
	comp=Z,1µm,1.9s,mb6.7						
ANMO				LR	LR		
	comp=Z,98µm,22.0s,MS6.9						
SKO	Skopje	63.13	48	P	P	09 48 43.5	+0.8
SKO	Skopje	63.13	48	⇑iP	P	09 48 43.6	+0.9
GKP	Gorka Klasztor	63.22	35	ePc	P	09 48 43.3	+0.2
GKP				epP	pP	09 48 46.2	+1.8
GKP				eS	S	09 57 17.9	+2.7
GKP				LMZ		10 11 53.7	
	comp=Z,147µm,20.5s						
GKP	Gorka Klasztor	63.22	35	⇑eP	P	09 48 43.3	+0.2
GKP				e*PP	pP	09 48 46.2	+1.8
GKP				eS	S	09 57 17.9	+2.6
GKP	Gorka Klasztor	63.22	35	⇑eP	P	09 48 43.3	+0.2
GKP				epP	pP	09 48 46.2	+1.8
GKP				eS	S	09 57 17.9	+2.6
GKP				LR	LR		
	comp=Z,147µm,20.5s,MS7.1						
PSZ	Piszkesteto	63.30	42	⇑iP	P	09 48 43.7	-0.1
PSZ	Piszkesteto	63.30	42	⇑eP	P	09 48 43.9	+0.1
PSZ	Piszkesteto	63.30	42	P	P	09 48 43.7	0.0
PSZ				LR	LR		
	comp=Z,147µm,19.0s,MS7.2						
AGG	Agios Georgios	63.34	52	P	P	09 48 43.9	-0.3
NB2	NORSAR Subarra	63.35	26	P	P	09 48 43.8	0.0
	comp=Z,221nm,1.0s,mb6.2,baz=242,slow=6.9						
NB2	NORSAR Subarra	63.35	26	P	P	09 48 43.0	-0.8
NOA	NORSAR Array B	63.35	26	P	P	09 48 43.8	0.0
	comp=Z,130nm,0.9s,mb6.1,baz=242,slow=7.0,SNR=167						
NOA				LR	LR	10 11 12.9	
	comp=Z,84µm,21.3s,MS6.9,baz=245,slow=31						
122A	Conniff Cattle	63.37	301	⇑P	P	09 48 45.1	+0.6
	baz=64						
122A				⇓S	S	09 57 20.0	+2.2
	baz=64						
Y22D	IRIS PASSCAL I	63.41	303	⇓P	P	09 48 45.0	+0.2
	baz=64,SNR=7.9						
Y22D				⇑S	S	09 57 20.7	+2.3
	baz=64						
W22A	Albuquerque	63.46	304	⇓P	P	09 48 45.5	+0.5
	baz=64,SNR=48						
W22A				⇓S	S	09 57 21.4	+2.4
	baz=64						
X22A	Bernardo	63.52	303	⇓P	P	09 48 46.1	+0.6
	baz=64,SNR=50						
X22A				⇑S	S	09 57 21.4	+1.6
	baz=64						
LIT	Litokhoron	63.61	51	P	P	09 48 45.3	-0.7
JMIC	Jan Mayen	63.67	12	eP	P	09 48 53.9	+8.2
JMIC				eS	S	09 57 23.4	+3.0
JMIC				AMS	AMS	10 09 28.9	
	comp=Z,82µm,15.9s,MS7.0						
GRG	Griva	63.67	50	P	P	09 48 46.2	-0.2
T22A	Edith	63.69	306	⇑P	P	09 48 47.5	+1.0
	baz=64,SNR=721						
T22A				⇑S	S	09 57 22.5	+0.7
	baz=64						
TIM	Timisoara	63.70	44	P	P	09 48 47.9	+1.5
EFI	East Falkland	63.70	191	⇑iP	P	09 48 46.2	+0.1
EFI	East Falkland	63.70	191	PFAKE		09 49 00.0	+14
EFI				LR	LR		
	comp=Z,109µm,19.0s,MS7.0						
LTK	Loutraki	63.70	53	P	P	09 48 46.3	-0.3
R22A	Saguache, Gunn	63.72	307	⇓P	P	09 48 47.7	+1.0
	baz=64,SNR=124						
R22A				⇑S	S	09 57 22.6	+0.6
	baz=64						
DGMT	Dagmar	63.76	319	⇑P	P	09 48 46.4	-0.4
	baz=64,SNR=177						
DGMT				⇑S	S	09 57 22.0	-0.3
	baz=64						
DGMT	Dagmar	63.76	319	eP	P	09 48 46.3	-0.5
	comp=Z,3µm,1.6s,mb7.1						
DGMT				LR	LR		
	comp=Z,106µm,21.0s,MS7.0						
KECS	Kecovo	63.83	41	eP	P	09 48 46.6	-0.6
OJC	Ojcow	63.83	39	i P	P	09 48 47.9	+0.7
OJC				epP	pP	09 48 50.4	+1.9
OJC				ePP	PP	09 51 09.1	+1.6
OJC				eS	S	09 57 28.3	+5.2
OJC				eSS	SS	10 01 35.1	+4.1
OJC				L		10 18 27.8	
	comp=Z,77nm,17.5s						
OJC	Ojcow	63.83	39	⇑iP	P	09 48 47.9	+0.7
OJC				epP	pP	09 48 50.4	+1.9
OJC				ePP	PP	09 51 09.1	+1.6
OJC				eS	S	09 57 28.3	+5.2
OJC				eSS	SS	10 01 35.1	+4.1
N22A	Wattenberg Ran	63.84	310	⇑P	P	09 48 47.7	+0.3
	baz=64,SNR=138						
N22A				⇑S	S	09 57 26.1	+2.6
	baz=64						
DID	Didima	63.85	53	P	P	09 48 47.3	-0.3
VAY	Valandovo	63.86	49	⇑iP	P	09 48 47.3	-0.2
Q22A	Crested Butte,	63.91	308	⇓P	P	09 48 48.4	+0.4
	baz=64,SNR=111						
Q22A				⇑S	S	09 57 29.3	+4.8
	baz=64						
BZS	Buzias	63.94	44	⇑iP	P	09 48 48.7	+0.7
BZS	Buzias	63.94	44	P	P	09 48 48.4	+0.4
NIE	Niedzica	63.95	40	i P	P	09 48 49.1	+1.1
HFS	Hagfors	64.03	27	P	P	09 48 48.0	-0.3
HFS				pmax	pmax		
	comp=Z,350nm,0.8s						
HFS	Hagfors	64.03	27	P	P	09 48 48.0	-0.2
	comp=Z,350nm,0.8s,mb6.4,baz=229,slow=6.8,SNR=334						
HFS	Hagfors	64.03	27	P	P	09 48 48.0	-0.2
M22A	Cedar Creek Ra	64.03	311	⇑P	P	09 48 48.8	0.0
	baz=64,SNR=168						
M22A				⇑S	S	09 57 28.1	+2.2
	baz=64						
XOR	Xorichti	64.05	51	P	P	09 48 49.2	+0.4
XOR	Xorichti	64.05	51	P	P	09 48 47.7	-1.1
XOR	Xorichti	64.05	51	P	P	09 48 47.7	-1.1
THE	Thessaloniki	64.05	50	P	P	09 48 48.8	0.0
NEO	Neokhori	64.06	52	eP	P	09 48 48.5	-0.5
KNT	Kendrikon	64.08	49	P	P	09 48 48.9	-0.1
NAIG	Nisos Aigina	64.08	53	eP	P	09 48 49.5	+0.4
W21A	San Fidel	64.10	304	⇓P	P	09 48 49.9	+0.6
	baz=64,SNR=189						
W21A				⇑S	S	09 57 30.6	+3.7
	baz=64						
HORT	Hortiatis	64.15	50	P	P	09 48 49.6	+0.1
FFC	Flin Flon	64.22	326	i P	P	09 48 48.4	-1.2
FFC	Flin Flon	64.22	326	PFAKE		09 49 00.0	+10
FFC				LR	LR		
	comp=Z,63µm,20.0s,MS6.8						
ATH	Athens Observa	64.28	53	eP	P	09 48 51.0	+0.6
KKB	Krupnik	64.32	49	P	P	09 48 51.3	+0.7
SOH	Sokhos	64.37	50	P	P	09 48 51.1	+0.2
PLG	Polygyros	64.38	50	eP	P	09 48 51.5	+0.5
PTL	Penteli	64.41	53	eP	P	09 48 51.5	+0.3
VAM	Vamos	64.41	56	eP	P	09 48 51.5	+0.2
P21A	Newcastle	64.42	309	⇑P	P	09 48 51.6	+0.3
	baz=64,SNR=195						
P21A				⇑S	S	09 57 33.7	+3.1
	baz=64						
Q21A	Lamborn Mesa,	64.43	308	⇑P	P	09 48 52.0	+0.6
	baz=64,SNR=107						
Q21A				⇑S	S	09 57 34.2	+3.4
	baz=64						
PAIG	Paliouri	64.49	51	P	P	09 48 51.4	-0.4
O21A	Pagoda	64.52	309	⇑P	P	09 48 52.0	+0.1
	baz=65,SNR=33						
O21A				⇑S	S	09 57 34.4	+2.5
	baz=65						
VTS	Vitosha	64.53	48	P	P	09 48 52.8	+0.9
VTS	Vitosha	64.53	48	P	P	09 48 51.3	-0.6
STHS	Stebnicka Huta	64.54	40	eP	P	09 48 53.0	+1.2
STHS				pmax	pmax		
	comp=Z,182nm,1.8s,mb5.8						
STHS	Stebnicka Huta	64.54	40	eP	P	09 48 53.0	+1.2
STHS				epS		09 57 41.1	
STHS				e		10 35 13.9	
STHS	Stebnicka Huta	64.54	40	eP	P	09 48 53.0	+1.2
	comp=Z,182nm,1.8s,mb5.8						
STHS				eSS	S	09 57 41.1	+9.3
CRVS	Cervenica-Dubn	64.55	41	eP	P	09 48 52.7	+0.7
CRVS				e		09 51 12.6	
CRVS				eS	S	09 57 29.2	-2.8
CRVS				pmax	pmax		
	comp=Z,945nm,1.9s,mb6.5						
CRVS	Cervenica-Dubn	64.55	41	eP	P	09 48 52.7	+0.7
CRVS				e		09 49 06.0	
CRVS				ePP	PP	09 51 12.6	-1.2
CRVS				eS	S	09 57 29.2	-2.8
CRVS				eSS	SS	10 01 22.4	-20
CRVS	Cervenica-Dubn	64.55	41	eP	P	09 48 52.7	+0.7
	comp=Z,945nm,1.9s,mb6.5						
CRVS				e		09 49 06.0	
CRVS				ePP	PP	09 51 12.6	-1.2
CRVS				eS	S	09 57 29.2	-2.8
CRVS				eSS	SS	10 01 22.4	-20
CRVS				LR	LR		
	comp=Z,83µm,26.6s,MS6.8						
SRS	Serrai	64.59	50	P	P	09 48 52.7	+0.3
N21A	Black Mountain	64.63	310	⇑P	P	09 48 53.1	+0.5
	baz=65,SNR=233						
N21A				⇓S	S	09 57 36.7	+3.4
	baz=65						
L21A	Rawlins	64.69	311	⇓P	P	09 48 52.6	-0.4
	baz=65,SNR=364						
L21A				⇑S	S	09 57 36.3	+2.3
	baz=65						
GZR	Gura Zlata	64.70	45	⇓iP	P	09 48 53.8	+0.8
GZR	Gura Zlata	64.70	45	P	P	09 48 53.3	+0.3
LAO	LASA Array	64.71	317	eP	P	09 48 52.4	-0.6
	comp=Z,2µm,1.7s,mb6.8						
LAO				LR	LR		
	comp=Z,98µm,20.0s,MS7.0						
120A	U Bar Ranch, L	64.73	301	⇑P	P	09 48 54.3	+0.9
	baz=65						
120A				⇓S	S	09 57 39.0	+4.2
	baz=65						
MMB	Musomiste	64.76	49	P	P	09 48 54.1	+0.7
OUR	Ouranopolis	64.78	50	P	P	09 48 53.8	+0.2
W20A	Ramah	64.80	304	⇑P	P	09 48 54.2	+0.3
	baz=65,SNR=314						
W20A				⇓S	S	09 57 39.4	+3.8
	baz=65						
BEL	Belsk	64.86	38	eP	P	09 48 54.6	+0.7
BEL				eS	S	09 57 39.3	+3.5
DRGR		64.92	43	⇓iP	P	09 48 55.0	+0.6
DRGR		64.92	43	P	P	09 48 54.8	+0.3
MVCO	Mesa Verde	64.98	306	⇑P	P	09 48 55.6	+0.6
	baz=65,SNR=198						
MVCO				⇑S	S	09 57 42.8	+5.1
	baz=65						
MVCO	Mesa Verde	64.98	306	eP	P	09 48 55.3	+0.4
	comp=Z,1µm,1.4s,mb6.8						
MVCO				LR	LR		
	comp=Z,41µm,20.0s,MS6.6						
R20A	Redvale	64.98	307	⇑P	P	09 48 55.6	+0.7
	baz=65,SNR=403						
Q20A	Ridgley Place,	65.00	308	⇓P	P	09 48 55.3	+0.2
	baz=65,SNR=235						
UZH	Uzhgorod	65.03	41	eP	P	09 48 55.0	-0.1
UZH				e		09 49 03.6	
UZH				e		09 49 26.4	
UZH				e		09 51 18.0	
UZH				eS	S	09 57 36.0	-1.9
UZH				i		09 58 06.0	
KOLS	Kolonicke sedl	65.08	41	eP	P	09 48 55.9	+0.5
KOLS				e		09 51 16.6	
KOLS				eS	S	09 57 38.5	-0.1
KOLS				pmax	pmax		
	comp=Z,711nm,1.9s,mb6.4						
KOLS	Kolonicke sedl	65.08	41	eP	P	09 48 55.9	+0.5
KOLS				e		09 49 08.5	
KOLS				ePP	PP	09 51 16.6	-1.9
KOLS				eS	S	09 57 38.5	-0.1
KOLS				eSS	SS	10 02 02.1	+12
KOLS	Kolonicke sedl	65.08	41	eP	P	09 48 55.9	+0.5
	comp=Z,711nm,1.9s,mb6.4						
KOLS				e		09 49 08.5	
KOLS				ePP	PP	09 51 16.6	-1.9
KOLS				eS	S	09 57 38.5	-0.1
KOLS				eSS	SS	10 02 02.1	+12
KOLS				LR	LR		
	comp=Z,72µm,21.8s,MS6.8						
O20A	White River Ci	65.10	309	⇓P	P	09 48 55.8	+0.1
	baz=65,SNR=238						
WAR	Warsaw	65.11	37	eP	P	09 48 56.5	+0.9
WAR				epP	pP	09 48 59.9	+3.0
WAR				ePcP	PcP	09 49 22.4	-5.9
WAR				eS	S	09 57 45.4	+6.6
WAR				LMZ		10 11 36.7	
	comp=Z,109µm,23.4s						
WAR	Warsaw	65.11	37	eP	P	09 48 56.5	+1.0
WAR				e*PP	pP	09 48 59.8	+2.9
WAR				e		09 49 22.4	
WAR				eS	S	09 57 45.4	+6.6
WAR	Warsaw	65.11	37	eP	P	09 48 56.5	+1.0
WAR				ePP	pP	09 48 59.8	+2.9
WAR				ePcP	PcP	09 49 22.4	-5.9
WAR				eS	S	09 57 45.4	+6.6
WAR				LR	LR		
	comp=Z,109µm,23.4s,MS7.0						
PV01	Paradox Valley	65.12	307	eP	P	09 48 56.6	+0.7
	comp=Z,37µm,1.2s						
PV01				ePcP	PcP	09 49 33.1	+4.4
P20A	De Beque	65.14	309	⇓P	P	09 48 56.2	+0.3
	baz=65,SNR=274						
N20A	Spence Gulch,	65.20	310	⇓P	P	09 48 56.5	+0.1
	baz=65,SNR=39						
PGB	Panagyurishte	65.22	48	P	P	09 48 57.1	+0.7
319A	Douglas	65.22	300	⇓P	P	09 48 57.0	+0.3
	baz=65,SNR=226						
CRAR	CRAIOVA	65.23	46	⇓iP	P	09 48 57.0	+0.5
M20A	Sweetwater, Wa	65.23	311	⇓P	P	09 48 56.5	0.0
	baz=65,SNR=241						
219A	White Tail Can	65.23	300	⇑P	P	09 48 57.4	+0.6
	baz=65						
V19A	Window Rock	65.29	304	⇓P	P	09 48 56.8	-0.2
	baz=65,SNR=23						
Z19A	T-Link Ranch,	65.30	302	⇓P	P	09 48 57.7	+0.5
	baz=65,SNR=92						
119A	Ashpeak Ranch,	65.31	301	⇑P	P	09 48 57.6	+0.4
	baz=65,SNR=111						
Y19A	Nutrioso	65.33	302	⇑P	P	09 48 58.1	+0.8
	baz=65,SNR=228						
NSS	Namsos	65.34	23	⇑iP	P	09 48 55.8	-1.0
NSS				eS	S	09 57 43.0	+1.9
NSS				AMS	AMS	10 08 58.4	
	comp=Z,68µm,27.2s,MS6.7						
T19A	Beclabito	65.36	306	⇑P	P	09 48 57.7	+0.2
	baz=66,SNR=257						
L20A	Wamsutter	65.41	311	⇑P	P	09 48 57.5	-0.2
	baz=66,SNR=276						
THR5	Thira Island,	65.43	55	P	P	09 48 58.3	+0.4
THR6	Thira Island,	65.46	55	P	P	09 48 58.4	+0.3
THR3	Thira Island,	65.47	55	P	P	09 48 58.1	-0.1
THR4	Thira Island,	65.47	55	P	P	09 48 57.8	-0.4
RZN	Rozhen	65.50	49	P	P	09 48 58.8	+0.5
K20A	Yellowstone Ra	65.50	312	⇓P	P	09 48 57.3	-1.0
	baz=66,SNR=196						
KWP	Kalwaria Pacla	65.51	40	ePc	P	09 48 59.1	+0.9
	comp=Z,1µm,1.7s,mb6.7						
KWP				epP	pP	09 49 02.7	+3.2
KWP				ePP	PP	09 51 25.3	+3.1
KWP				eS	S	09 57 47.8	+4.0
KWP				eSS	SS	10 02 00.3	+3.0
KWP				LMZ		10 11 48.9	
	comp=Z,199µm,28.1s						
KWP	Kalwaria Pacla	65.51	40	⇓iP	P	09 48 59.4	+1.2
KWP	Kalwaria Pacla	65.51	40	⇑eP	P	09 48 59.1	+0.9
KWP				epP	pP	09 49 02.7	+3.2
KWP				ePP	PP	09 51 25.3	+3.1
KWP				eS	S	09 57 47.8	+4.0
KWP				eSS	SS	10 02 00.3	+3.0
KWP				LR	LR		
	comp=Z,150µm,22.0s,MS7.2						
THR1	Thera Island	65.51	55	P	P	09 48 58.3	-0.2
PV10	Paradox Valley	65.52	307	eP	P	09 48 58.8	+0.3
	comp=Z,8µm,1.3s,mb7.6						
PV10				ePcP	PcP	09 49 30.1	-0.2
W19A	Sanders	65.52	304	⇑P	P	09 48 58.6	+0.1
	baz=66,SNR=46						
S19A	Harvey Farm, M	65.53	307	⇓P	P	09 48 58.8	+0.2
	baz=66,SNR=197						
PLD	Plovdiv	65.55	49	P	P	09 48 59.1	+0.5
PLD	Plovdiv	65.55	49	P	P	09 48 59.0	+0.4
NPS	Neapolis	65.55	56	eP	P	09 48 58.5	-0.3
P19A	Cripple Cowboy	65.60	309	⇓P	P	09 48 58.8	-0.2
	baz=66,SNR=283						
APE	Apeiranthos	65.63	54	eP	P	09 48 59.5	+0.3
R19A	Curley Farm, L	65.68	307	⇓P	P	09 48 59.9	+0.4
	baz=66,SNR=238						
TSUM	Tsumeb	65.72	117	eP	P	09 48 59.2	-0.8
	comp=Z,496nm,1.5s,mb6.3						
TSUM				LR	LR		
	comp=Z,91µm,21.0s,MS7.0						
TSUM	Tsumeb	65.72	117	⇓iP	P	09 48 58.5	-1.5
TSUM				AMb	AMB	09 49 06.5	
	comp=Z,4µm,1.8s,mb7.1						
TSUM				i		09 57 45.1	
Q19A	Hogan Spring (	65.75	308	⇑P	P	09 49 00.1	+0.2
	baz=66,SNR=525						
O19A	Miners Draw (B	65.79	309	⇑P	P	09 48 59.8	-0.4
	baz=66,SNR=164						
W18A	Petrified Fore	65.81	304	⇓P	P	09 49 00.2	-0.2
	baz=66,SNR=205						
318A	Bisbee	65.83	300	⇓P	P	09 49 01.0	+0.4
	baz=66,SNR=287						
118A	Homack Ranch,	65.86	301	⇑P	P	09 49 01.2	+0.4
	baz=66,SNR=369						
K19A	Absolon Red Bu	65.90	312	⇓P	P	09 48 59.4	-1.4
	baz=66,SNR=28						
N19A	John Jarvie Ra	65.90	310	⇑P	P	09 49 00.1	-0.8
	baz=66,SNR=104						
218A	Dragoon	65.90	300	⇓P	P	09 49 01.3	+0.3
	baz=66,SNR=263						
MDB	Medias	65.94	44	⇓iP	P	09 49 02.2	+1.2
MDB	Medias	65.94	44	P	P	09 49 02.2	+1.2
Z18A	Geronimo	65.94	301	⇓P	P	09 49 01.7	+0.4
	baz=66,SNR=66						
X18A	Snowflake	65.94	303	⇑P	P	09 49 01.6	+0.3
	baz=66,SNR=222						
M19A	Rock Springs	65.95	311	⇑P	P	09 49 00.6	-0.6
	baz=66,SNR=62						
U18A	Rough Rock, Ch	66.00	305	⇑P	P	09 49 01.9	+0.3
	baz=66,SNR=280						
V18A	Ganado	66.00	304	⇑P	P	09 49 01.5	-0.1
	baz=66,SNR=106						
KDZ	Kurdzhali	66.02	49	P	P	09 49 01.3	-0.3
RDO	Rodhopi	66.05	50	eP	P	09 49 02.0	+0.2
T18A	Mexican Hat	66.06	306	⇑P	P	09 49 02.1	+0.1
	baz=66,SNR=392						
SIGR	SIGRI	66.08	52	P	P	09 49 02.6	+0.5
DIM	Dimitrovgrad	66.16	49	P	P	09 49 02.5	0.0
CHOS	Chios island	66.16	53	P	P	09 49 02.7	+0.1
PVL	Pavlikeni	66.16	47	P	P	09 49 01.4	-1.1
L19A	Farson	66.18	311	⇓P	P	09 49 02.1	-0.5
	baz=66,SNR=191						
R18A	Canyonlands Na	66.19	307	⇑P	P	09 49 03.0	+0.3
	baz=66,SNR=538						
S18A	Hurst Farm, Bl	66.21	306	⇑P	P	09 49 03.2	+0.3
	baz=66,SNR=121						
GADA	Gvkgeada	66.22	51	eP	P	09 49 02.8	-0.2
VOIR		66.28	45	⇓iP	P	09 49 03.7	+0.4
VOIR		66.28	45	P	P	09 49 03.5	+0.2
BOZC	Bozcaada	66.30	51	⇑iP	P	09 49 03.6	+0.2
Z17A	San Carlos Hig	66.31	302	⇓P	P	09 49 04.1	+0.4
	baz=66,SNR=199						
LVV	L'vov	66.39	40	⇓iP	P	09 49 03.8	-0.1
LVV				e		09 51 31.8	
LVV				eS	S	09 57 58.0	+3.5
LVV				eSS	SS	10 02 17.9	+7.0
LVV				MLR	MLR		
	comp=Z,56µm,18.2s,MS6.8						
LVV				MLR	MLR		
	comp=N,18µm,16.5s,MS6.9						
LVV				MLR	MLR		
	comp=E,59µm,17.7s,MS6.9						
ALN	Alexandroupoli	66.40	50	P	P	09 49 04.2	+0.1
PDAR	Pinedale Array	66.41	312	P	P	09 49 02.8	-1.3
	comp=E,127nm,1.2s,mb5.8,baz=100,slow=4.5,SNR=163						
PDAR				S	S	09 57 49.6	-5.4
	comp=E,0.5nm,1.0s,baz=314,slow=46,SNR=2.0						
PDAR				LR	LR	10 15 00.3	
	comp=E,83µm,21.3s,MS6.9,baz=118,slow=33						
PDAR				PKP2bc		10 17 37.7	
	comp=E,4.0nm,1.2s,baz=232,slow=1.7,SNR=8.5						
PDAR	Pinedale Array	66.41	312	P	P	09 49 02.8	-1.3
PDAR				S	S	09 57 49.6	-5.4

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PDAR                                 LR       LR        10 15 00.2
PDAR                                ⇑e                  10 17 37.7
PRK    Paraskevi          66.41  52 eP        P         09 49 05.0 +0.8
BW06   Boulder Array      66.41 312 ⇓P        P         09 49 03.0 -1.1
       baz=66,SNR=328
BW06   Boulder Array      66.41 312 eP        P         09 49 02.9 -1.2
       comp=E,388nm,1.4s,mb6.2
BW06                                 LR       LR
       comp=Z,172µm,22.0s,MS7.2
Q18A   Rafter H Ranch     66.44 308 ⇑P        P         09 49 04.6 +0.2
       baz=66,SNR=267
ENEZ   Enez               66.47  50 eP        P         09 49 04.8 +0.3
EZN    Ezine              66.50  51 eP        P         09 49 05.1 +0.3
117A   Oracle             66.51 301 ⇑P        P         09 49 04.9  0.0
       baz=67,SNR=119
RLMT   Red Lodge          66.53 315 ⇓P        P         09 49 04.6 -0.2
       baz=67,SNR=197
RLMT   Red Lodge          66.53 315 eP        P         09 49 04.2 -0.6
       comp=Z,54nm,0.5s,mb5.8
RLMT                                ePcP      PcP       09 49 35.2 +0.9
RLMT                                 LR       LR
       comp=Z,65µm,20.0s,MS6.8
TUC    Tucson             66.54 301 eP        P         09 49 05.0 -0.1
TUC                                 e                   09 49 33.7
TUC                                 e                   09 51 30.3
TUC                                  pmax     pmax
       comp=Z,464nm,1.4s,mb6.3
TUC                                  MLR      MLR
       comp=Z,60µm,20.0s,MS6.8
TUC    Tucson             66.54 301 eP        P         09 49 05.0 -0.2
       comp=Z,464nm,1.4s,mb6.3
TUC                                 ePcP      PcP       09 49 33.7 -1.0
TUC                                 ePP       PP        09 51 30.3 -1.3
TUC                                  LR       LR
       comp=Z,60µm,20.0s,MS6.8
217A   Green Valley       66.55 300 ⇑P        P         09 49 05.0 -0.2
       baz=67,SNR=234
P18A   Preston Nutter     66.58 309 ⇑P        P         09 49 05.5 +0.2
       baz=67,SNR=269
W17A   Winslow            66.60 304 ⇓P        P         09 49 05.7 +0.2
       baz=67,SNR=89
SZH    Strazhica          66.60  47  P        P         09 49 05.7 +0.4
M18A   Lyman              66.62 310 ⇑P        P         09 49 05.0 -0.5
       baz=67,SNR=169
Y17A   Roosevelt          66.64 302 ⇑P        P         09 49 06.2 +0.4
       baz=67,SNR=284
U17A   Shonto             66.66 305 ⇑P        P         09 49 06.1 +0.3
       baz=67,SNR=154
L18A   Fontenelle, Gr     66.66 311 ⇓P        P         09 49 05.2 -0.6
       baz=67,SNR=126
I18A   Diamond G Ranc     66.72 313 ⇑P        P         09 49 05.4 -0.7
       baz=67,SNR=164
SMG    Samos              66.72  54 eP        P         09 49 06.5 +0.3
AYVA   Ayvalik            66.74  52⇑iP        P         09 49 06.8 +0.5
SRU    San Rafael         66.74 308 ⇑P        P         09 49 06.4  0.0
       baz=67,SNR=161
K18A   Toltan Ranch,      66.75 312 ⇑P        P         09 49 05.8 -0.5
       baz=67,SNR=297
BURAR  Bucovina Array     66.75  43⇓iP        P         09 49 06.9 +0.7
BURAR  Bucovina Array     66.75  43  P        P         09 49 07.0 +0.7
BUR02  Bucovina Ar. S     66.76  43  P        P         09 49 07.4 +1.2
G18A   Lazy EL Ranch,     66.76 315 ⇑P        P         09 49 05.4 -0.9
       baz=67,SNR=82
T17A   Navajo Res., N     66.80 306 ⇓P        P         09 49 07.7 +1.0
       baz=67,SNR=373
J18A   Kendall Valley     66.80 312 ⇓P        P         09 49 05.5 -1.1
       baz=67,SNR=164
BUC1   Bucharest          66.81  46  P        P         09 49 07.8 +1.1
SUW    Suwalki            66.82  36 ePc       P         09 49 06.5  0.0
       comp=Z,1µm,1.1s,mb6.8
SUW                                 epP       pP        09 49 09.2 +1.3
SUW                                 ePcP      PcP       09 49 32.4 -2.9
SUW                                 eS        S         09 58 02.2 +2.6
SUW                                  LMZ                10 15 55.7
       comp=Z,158µm,18.9s
SUW    Suwalki            66.82  36⇑eP        P         09 49 06.5  0.0
SUW                                 epP       pP        09 49 09.2 +1.4
SUW                                 ePcP      PcP       09 49 32.4 -2.9
SUW                                 eS        S         09 58 02.2 +2.6
R17A   Hanksville Air     66.83 307 ⇑P        P         09 49 06.9  0.0
       baz=67,SNR=231
KARP   Karpathos          66.83  56 eP        P         09 49 06.0 -1.0
S17A   Black Ridge (B     66.84 306 ⇓P        P         09 49 07.8 +0.8
       baz=67,SNR=797
LPK    Lapseki            66.89  51 eP        P         09 49 07.7 +0.5
MLR    Muntele Rosu       66.92  45 ⇓P        P         09 49 08.0 +0.7
MLR    Muntele Rosu       66.92  45⇓iP        P         09 49 07.9 +0.6
MLR    Muntele Rosu       66.92  45  P        P         09 49 07.6 +0.4
P17A   Butcher Ranch,     66.94 308 ⇑P        P         09 49 07.5 -0.1
       baz=67,SNR=166
F18A   Big Timber         66.95 315 ⇓P        P         09 49 07.0 -0.6
       baz=67,SNR=130
JMB    Yambol             66.98  48  P        P         09 49 08.0 +0.2
JMB    Yambol             66.98  48  P        P         09 49 07.9 +0.1
U16A   Tuba City          67.00 305 ⇑P        P         09 49 08.6 +0.6
       baz=67,SNR=472
O17A   Robinson Place     67.00 309 ⇓P        P         09 49 08.2 +0.2
       baz=67,SNR=282
EDRB   Edirne             67.03  49 eP        P         09 49 08.5 +0.4
GCAM   G?zelcaml?         67.03  54⇑iP        P         09 49 08.3 +0.1
MOR8   Moi Rana           67.03  22⇑iP        P         09 49 08.3 +0.7
BODT   Bodrum             67.05  54 eP        P         09 49 07.2 -1.1
M17A   Scullys Gap (B     67.08 310 ⇓P        P         09 49 07.8 -0.7
       baz=67,SNR=164
216A   Three Points,      67.10 300 ⇑P        P         09 49 08.6 -0.2
       baz=67,SNR=73
IZM    Izmir              67.11  53 eP        P         09 49 09.8 +1.1
Z16A   Peralta Trail,     67.11 302 ⇑P        P         09 49 09.2 +0.4
       baz=67,SNR=159
N17A   Moffit Pass        67.15 310 ⇑P        P         09 49 08.5 -0.4
       baz=67,SNR=121
BDRM   Kayabasi           67.16  54⇑iP        P         09 49 08.2 -0.8
WUAZ   Wupatki            67.17 304 ⇓P        P         09 49 09.7 +0.6
       baz=67,SNR=173
WUAZ   Wupatki            67.17 304 eP        P         09 49 09.1  0.0
       comp=Z,2µm,1.4s,mb7.0
WUAZ                                ePP       PP        09 51 37.1 +0.1
WUAZ                                 LR       LR
       comp=Z,76µm,22.0s,MS6.9
X16A   Lo Mia Camp, P     67.17 303 ⇑P        P         09 49 09.8 +0.7
       baz=67,SNR=467
Y16A   Circle Bar Ran     67.18 302 ⇑P        P         09 49 09.6 +0.4
       baz=67,SNR=183
E18A   Harlowton          67.19 316 ⇓P        P         09 49 08.6 -0.4
       baz=67,SNR=120
D18A   Linhart Farms,     67.21 317 ⇑P        P         09 49 08.9 -0.2
       baz=67,SNR=209
Q16A   Castle Valley      67.23 308 ⇑P        P         09 49 09.4  0.0
       baz=67,SNR=39
SART   Tekirdag           67.24  50⇓iP        P         09 49 09.4  0.0
DAT    Datca              67.24  55 eP        P         09 49 09.2 -0.3
W16A   Flagstaff          67.27 304 ⇓P        P         09 49 10.6 +0.9
       baz=67,SNR=450
I17A   Pilgrim Ck.        67.29 313 ⇑P        P         09 49 09.6 -0.1
       baz=67,SNR=187
L17A   Cokeville          67.30 311 ⇓P        P         09 49 08.9 -0.9
       baz=67,SNR=126
EGMT   Eagleton           67.31 318 ⇓P        P         09 49 09.2 -0.6
       baz=67,SNR=157
EGMT   Eagleton           67.31 318 eP        P         09 49 09.1 -0.7
       comp=Z,38nm,0.6s,mb5.6
EGMT                                ePcP      PcP       09 49 38.6 +1.1
EGMT                                 LR       LR
       comp=Z,154µm,22.0s,MS7.2
J17A   Brown Place, J     67.32 313 ⇓P        P         09 49 09.5 -0.4
       baz=67,SNR=123
116A   Eloy               67.32 301 ⇑P        P         09 49 10.1  0.0
       baz=67,SNR=163
H17A   Grant Village      67.35 314 ⇓P        P         09 49 10.3 +0.3
       baz=67,SNR=24
T16A   Glen Canyon Da     67.36 306 ⇓P        P         09 49 10.9 +0.6
       baz=67,SNR=102
B18A   Beardsley Farm     67.39 318 ⇓P        P         09 49 09.6 -0.6
       baz=67,SNR=122
K17A   Gardner Place,     67.40 312 ⇓P        P         09 49 09.5 -1.0
       baz=68,SNR=92
R16A   Teasdale           67.42 307 ⇓P        P         09 49 10.8 +0.1
       baz=68,SNR=40
MLSB   Milas              67.44  54 eP        P         09 49 10.3 -0.5
PLOR   Plostina           67.46  45  P        P         09 49 10.8 +0.1
PLOR   Plostina           67.46  45⇓iP        P         09 49 10.7  0.0
S16A   Weppner Ranch,     67.47 306 ⇓P        P         09 49 11.1 +0.1
       baz=68,SNR=211
BALY   Balya              67.49  51⇑iP        P         09 49 11.2 +0.1
VRI    Vrincioaia         67.51  45⇑iP        P         09 49 10.5 -0.6
VRI    Vrincioaia         67.51  45  P        P         09 49 11.1  0.0
A18A   Metzger Ranch,     67.52 319 ⇑P        P         09 49 10.1 -0.9
       baz=68,SNR=146
AHID   Auburn Hatcher     67.54 312 eP        P         09 49 10.3 -1.0
       comp=Z,441nm,1.4s,mb6.3
AHID                                ePcP      PcP       09 49 39.1 +0.6
AHID                                 LR       LR
       comp=Z,182µm,22.0s,MS7.3
TKR    Tekirdag           67.54  50 eP        P         09 49 11.4 +0.1
AYDN   Tasoluk            67.54  54⇑iP        P         09 49 11.7 +0.3
AKS    Akhisar            67.57  52 eP        P         09 49 11.4 -0.2
AKHS   Akhisar            67.57  52⇑iP        P         09 49 12.1 +0.5
G17A   Pierce Place,      67.58 315 ⇑P        P         09 49 11.4 -0.2
       baz=68,SNR=75
N16A   Rees Ranch, Co     67.60 310 ⇓P        P         09 49 11.5 -0.2
       baz=68,SNR=192
F17A   Fitzpatrick Pl     67.61 315 ⇓P        P         09 49 11.5 -0.1
       baz=68,SNR=151
ARG    Arkhangelos        67.65  55 eP        P         09 49 12.0 -0.2
PRD    Provadia           67.66  48  P        P         09 49 11.7 -0.4
P16A   Fountain Green     67.66 308 ⇓P        P         09 49 12.2 +0.1
       baz=68,SNR=69
CRLT   Corlu              67.70  50 eP        P         09 49 12.2 -0.2
L16A   Fish Haven         67.70 311 ⇓P        P         09 49 11.9 -0.5
       baz=68,SNR=235
Z15A   Gila River Ind     67.72 302 ⇓P        P         09 49 12.8 +0.1
       baz=68,SNR=63
115A   Sonoran Desert     67.77 301 ⇑P        P         09 49 13.3 +0.4
       baz=68,SNR=140
BNT    Bandirma           67.77  51 eP        P         09 49 13.1 +0.2
D17A   Six Diamond Ra     67.80 317 ⇑P        P         09 49 12.3 -0.5
       baz=68,SNR=134
E17A   Martinsdale        67.82 316 ⇓P        P         09 49 12.5 -0.4
       baz=68,SNR=158
X15A   Humboldt           67.83 303 ⇓P        P         09 49 14.0 +0.7
       baz=68,SNR=336
YER    Yerkesik           67.83  54 eP        P         09 49 13.0 -0.3
V15A   Kaibab Nationa     67.83 304 ⇓P        P         09 49 14.2 +0.9
       baz=68,SNR=421
H16A   Russell Place,     67.86 314 ⇑P        P         09 49 13.6 +0.3
       baz=68,SNR=149
W15A   Williams           67.88 304 ⇑P        P         09 49 14.6 +1.0
       baz=68,SNR=151
Y15A   Casa Rosa Ranc     67.89 302 ⇑P        P         09 49 13.9 +0.2
       baz=68,SNR=217
K16A   Soda Springs       67.90 312 ⇑P        P         09 49 13.3 -0.3
       baz=68,SNR=112
C17A   Wharram Farm,      67.92 317 ⇑P        P         09 49 12.6 -1.0
       baz=68,SNR=128
I16A   Newdale            67.94 313 ⇑P        P         09 49 13.5 -0.3
       baz=68,SNR=66
MVU    Marysvale          68.01 307  PFAKE              09 49 30.0  +16
MVU                                  LR       LR
       comp=Z,53µm,21.0s,MS6.8
B17A   L&G Farms, Che     68.04 318 ⇑P        P         09 49 13.6 -0.8
       baz=68,SNR=183
T15A   Red Dirt Ranch     68.06 306 ⇑P        P         09 49 14.7  0.0
       baz=68,SNR=178
SLVT   Silivri            68.06  50 eP        P         09 49 13.0 -1.7
TURN   Turunc             68.07  55 eP        P         09 49 11.9 -2.9
A17A   Triple J Farms     68.08 319 ⇑P        P         09 49 13.9 -0.7
       baz=68,SNR=155
S15A   Panguitch          68.08 306 ⇑P        P         09 49 15.0 +0.2
       baz=68,SNR=111
DALT   Dalyan (Mudla)     68.09  55 eP        P         09 49 14.7 -0.2
MANT   Manisa             68.13  53⇑iP        P         09 49 14.9 -0.2
P15A   Leamington         68.14 308 ⇓P        P         09 49 14.9 -0.2
       baz=68,SNR=120
DURS   Dursunbey          68.14  52⇑iP        P         09 49 15.2 +0.1
CTYL   Yal??k??y-??at     68.14  50 eP        P         09 49 15.5 +0.4
Q15A   Fillmore           68.17 308 ⇓P        P         09 49 15.4  0.0
       baz=68,SNR=192
HARR   Harsova            68.21  46⇓iP        P         09 49 15.5  0.0
HARR   Harsova            68.21  46  P        P         09 49 15.6 +0.1
KULA   Kula-Manisa        68.21  53 eP        P         09 49 16.1 +0.4
CTT    Catalca            68.22  50 eP        P         09 49 15.2 -0.4
BOZ    Bozeman (W)        68.25 315 eP        P         09 49 15.1 -0.6
BOZ                                  pmax     pmax
       comp=Z,327nm,1.5s,mb6.1
BOZ                                  MLR      MLR
       comp=Z,46µm,21.0s,MS6.7
BOZ    Bozeman (W)        68.25 315 ⇓P        P         09 49 15.1 -0.6
       baz=68,SNR=118
BOZ    Bozeman (W)        68.25 315 eP        P         09 49 15.1 -0.6
       comp=Z,327nm,1.5s,mb6.1
BOZ                                 ePcP      PcP       09 49 52.2  +11
BOZ                                  LR       LR
       comp=Z,46µm,21.0s,MS6.7
214A   Organ Pipe Nat     68.25 300 ⇑P        P         09 49 16.3 +0.3
       baz=68,SNR=169
PSN    Preselentsi        68.28  47  P        P         09 49 15.1 -0.8
CTKS   Kestanelik-??a     68.29  50 eP        P         09 49 13.0 -3.1
G16A   Moss Hill, Enn     68.32 314 ⇑P        P         09 49 16.0 -0.2
       baz=68,SNR=184
O15A   The Old Anders     68.33 309 ⇑P        P         09 49 16.3 -0.1
       baz=68,SNR=83
D16A   Dana Ranch, Ca     68.37 316 ⇓P        P         09 49 15.8 -0.6
       baz=68,SNR=59
X14A   Yava               68.37 303 ⇓P        P         09 49 17.3 +0.7
       baz=68,SNR=280
Z14A   Wintersburg        68.38 302 ⇑P        P         09 49 17.0 +0.2
       baz=68,SNR=93
E16A   East Helena        68.39 316 ⇑P        P         09 49 16.2 -0.4
       baz=68,SNR=236
L15A   Malad City         68.41 311 ⇑P        P         09 49 16.3 -0.5
       baz=68,SNR=384
M15A   Larsen Ranch,      68.41 310 ⇑P        P         09 49 16.4 -0.4
       baz=68,SNR=305
N15A   Stansbury Isla     68.42 310 ⇑P        P         09 49 16.4 -0.4
       baz=68,SNR=32
FETY   Fethiye            68.44  55 eP        P         09 49 16.9 -0.3
Y14A   Wickenburg         68.45 302 ⇑P        P         09 49 17.4 +0.2
       baz=68,SNR=191
DENT   Denizli            68.46  54 eP        P         09 49 15.4 -1.8
BGKT   Bogazkoy           68.48  50 eP        P         09 49 17.4 +0.1
TIRR   Tirgusor           68.52  46⇑iP        P         09 49 17.4 -0.1
TIRR   Tirgusor           68.52  46  P        P         09 49 17.8 +0.3
W14A   Seligman           68.55 304 ⇓P        P         09 49 18.7 +0.9
       baz=69,SNR=435
J15A   Blackfoot          68.57 312 ⇓P        P         09 49 17.6 -0.2
       baz=69,SNR=189
K15A   Arbon              68.58 312 ⇑P        P         09 49 17.2 -0.6
       baz=69,SNR=120
V14A   Boquillas Ranc     68.58 304 ⇑P        P         09 49 19.0 +1.0
       baz=69,SNR=390
DUG    Dugway             68.59 309 ⇑P        P         09 49 17.9  0.0
       baz=69,SNR=280
DUG    Dugway             68.59 309 eP        P         09 49 17.8 -0.2
       comp=Z,1µm,1.6s,mb6.7
DUG                                  LR       LR
       comp=Z,103µm,22.0s,MS7.0
C16A   Fuhringer Ranc     68.60 317 ⇑P        P         09 49 17.2 -0.7
       baz=69,SNR=254
T14A   Hurricane          68.62 306 ⇑P        P         09 49 18.0 -0.2
       baz=69,SNR=125
R14A   James Farms, M     68.63 307 ⇓P        P         09 49 18.8 +0.6
       baz=69
B16A   M & M Farms, S     68.66 318 ⇓P        P         09 49 17.3 -1.0
       baz=69,SNR=174
A16A   West Butte Ran     68.66 318 ⇓P        P         09 49 17.7 -0.6
       baz=69,SNR=160
I15A   Monteview          68.67 313 ⇓P        P         09 49 18.5 +0.1
       baz=69,SNR=138
U14A   Mt Trumbull        68.67 305 ⇓P        P         09 49 19.5 +1.0
       baz=69,SNR=452
ISK    Istanbul-Kandi     68.69  50 eP        P         09 49 18.4 -0.2
KLYT   Kilyos             68.69  50 eP        P         09 49 18.8 +0.2
S14A   Cedar City         68.72 306 ⇑P        P         09 49 19.1 +0.3
       baz=69,SNR=150
GEMT   Gemlik             68.74  51 eP        P         09 49 19.0 +0.1
P14A   Drum Mountains     68.75 308 ⇓P        P         09 49 19.4 +0.4
       baz=69,SNR=339
G15A   Dillon             68.79 314 ⇓P        P         09 49 19.3 +0.2
       baz=69,SNR=274
KSL    Kastellorizon      68.83  55 eP        P         09 49 19.5  0.0
H15A   Lima               68.84 314 ⇑P        P         09 49 19.8 +0.3
       baz=69,SNR=45
AKAS   Kas                68.85  55⇑iP        P         09 49 19.9 +0.2
KHAL   Karahalli          68.85  53⇓iP        P         09 49 19.7 +0.1
GOLH   Golhisar           68.85  54⇑iP        P         09 49 20.6 +1.0
F15A   Butte              68.87 315 ⇓P        P         09 49 19.5 -0.1
       baz=69,SNR=184
Q14A   Sevier Lake (B     68.87 308 ⇑P        P         09 49 20.4 +0.7
       baz=69,SNR=429
KHL    Karahalli          68.88  53 eP        P         09 49 20.0 +0.2
GDZ    Gediz              68.88  52⇑iP        P         09 49 20.1 +0.3
YLV    Yalova             68.89  51 eP        P         09 49 18.7 -1.1
N14A   Grayback Hills     68.92 310 ⇓P        P         09 49 20.1 +0.1
       baz=69,SNR=315
D15A   Lincoln            69.03 316 ⇑P        P         09 49 20.2 -0.3
       baz=69,SNR=152
E15A   Deer Lodge         69.04 316 ⇓P        P         09 49 20.2 -0.4
       baz=69,SNR=175
K14A   Jones Ranch, D     69.04 311 ⇑P        P         09 49 20.1 -0.7
       baz=69,SNR=113
L14A   Malta              69.05 311 ⇓P        P         09 49 20.0 -0.8
       baz=69,SNR=238
113A   Mohawk Valley,     69.06 301 ⇓P        P         09 49 21.0 -0.1
       baz=69,SNR=156
NACGM  Naroch             69.07  35 eP        P         09 49 13.0 -7.6
M14A   Sheep Mountain     69.09 310 ⇑P        P         09 49 20.3 -0.7
       baz=69,SNR=188
KIS    Kishinev           69.09  44αiP        P         09 49 20.0 -0.9
KIS                                 i                   09 49 40.0
KIS                                 i S       S         09 58 23.0 -4.0
KIS                                 i PS                09 59 02.0
KIS                                  pmax     pmax
       comp=Z,2µm,1.4s,mb6.8
KIS                                  pmax     pmax
       comp=E,800nm,1.6s
KIS                                  pmax     pmax
       comp=E,5µm,6.0s
KIS                                  pmax     pmax
       comp=Z,10µm,6.0s
KIS                                  pmax     pmax
       comp=Z,12µm,14.0s
KIS                                  smax
       comp=N,11µm,16.0s
KIS                                  smax
       comp=E,1µm,14.0s
KIS    Kishinev           69.09  44⇑iP        P         09 49 20.0 -0.9
       comp=E,2µm,1.4s,mb6.8
KIS    Kishinev           69.09  44 i PcP     PcP       09 49 40.0 -5.0
KIS    Kishinev           69.09  44 i PP      PP        09 52 13.0  +20
       comp=E,4µm,10.0s
KIS    Kishinev           69.09  44  P        P         09 49 20.8 -0.2
ELL    Elmali             69.11  55 eP        P         09 49 22.7 +1.4
Y13A   Salome             69.13 302 ⇓P        P         09 49 21.9 +0.4
       baz=69,SNR=50
HRT    Hereke             69.13  50 eP        P         09 49 20.9 -0.5
SILT   Sile               69.14  50 eP        P         09 49 21.4  0.0
X13A   Yucca              69.14 303 ⇑P        P         09 49 22.0 +0.5
       baz=69,SNR=515
ADVT   Abdulvahap         69.16  51 eP        P         09 49 21.6 +0.1
C15A   Salmond Ranch,     69.17 317 ⇓P        P         09 49 21.0 -0.4
       baz=69,SNR=169
W13A   Hualapai Mount     69.20 303 ⇓P        P         09 49 22.7 +0.8
       baz=69,SNR=201
B15A   Bradely Ranch,     69.21 318 ⇑P        P         09 49 20.7 -1.0
       baz=69,SNR=235
CAVI   Cavuskoy           69.23  51 eP        P         09 49 21.2 -0.7
S13A   Holt Ranch, En     69.26 306 ⇓P        P         09 49 23.0 +0.7
       baz=69,SNR=194
T13A   Saint George       69.28 306 ⇓P        P         09 49 23.2 +0.8
       baz=69,SNR=400
V13A   Grand Canyon W     69.30 304 ⇓P        P         09 49 23.0 +0.5
       baz=69,SNR=207
U13A   Pakoon Wash        69.30 305 ⇓P        P         09 49 23.2 +0.7
       baz=69,SNR=207
I14A   Mackay             69.36 313 ⇑P        P         09 49 22.6 -0.1
       baz=69,SNR=128
ALT    Altintas           69.37  52 eP        P         09 49 23.4 +0.5
R13A   O’Grain Ranch,     69.37 307 ⇓P        P         09 49 23.5 +0.6
       baz=70,SNR=134
PDMCI  Parker Dam,Lak     69.40 303 ⇑P        P         09 49 23.3 +0.2
       baz=70,SNR=244
A15A   Johnson Ranch,     69.41 318 ⇑P        P         09 49 21.8 -1.1
       baz=70,SNR=147
Q13A   Wheeler Ranch,     69.45 308 ⇑P        P         09 49 23.8 +0.4
       baz=70,SNR=243
P13A   Bates Ranch, G     69.47 308 ⇑P        P         09 49 24.0 +0.5
       baz=70,SNR=378
F14A   Wisdom             69.47 315 ⇑P        P         09 49 23.6 +0.2
       baz=70,SNR=102
O13A   Hicks Ranch, I     69.48 309 ⇓P        P         09 49 23.9 +0.4
       baz=70,SNR=53
G14A   Jackson            69.48 314 ⇓P        P         09 49 23.6 +0.2
       baz=70,SNR=33
L13A   Double Diamond     69.57 311 ⇓P        P         09 49 23.7 -0.3
       baz=70,SNR=248
MNK    Minsk              69.59  36⇑iP        P         09 49 22.0 -1.9
MNK                                 eS        S         09 58 30.0 -2.6
MNK                                  pmax     pmax
       comp=Z,1µm,1.0s,mb6.9
MNK                                  pmax     pmax
       comp=E,580nm,1.2s
MNK                                  pmax     pmax
       comp=N,200nm,1.5s
MNK                                  pmax     pmax
       comp=Z,25µm,8.0s
MNK                                  smax
       comp=E,27µm,14.0s
MNK                                  smax
       comp=N,21µm,12.0s
MICGM  Minsk              69.62  36⇑iP        P         09 49 22.0 -2.0
E14A   Clinton            69.62 316 ⇓P        P         09 49 23.7 -0.5
       baz=70,SNR=55
ISP    Isparta            69.63  54 eP        P         09 49 24.2 -0.3
ISP    Isparta            69.63  54  P        P         09 49 25.2 +0.7
ISP    Isparta            69.63  54⇓iP        P         09 49 24.7 +0.2
ISP    Isparta            69.63  54  P        P         09 49 23.4 -1.1
ISP                                  LR       LR
       comp=Z,70µm,21.0s,MS6.9
BCK    Bucak              69.68  54 eP        P         09 49 25.2 +0.4
N13A   Wendover, West     69.69 310 ⇓P        P         09 49 24.7 -0.1
       baz=70,SNR=220
M13A   Montello           69.69 310 ⇑P        P         09 49 24.5 -0.3
       baz=70,SNR=412
SHUT   Suhut-Afyon        69.69  53 eP        P         09 49 25.2 +0.3
D14A   Greenough          69.70 316 ⇑P        P         09 49 24.3 -0.4
       baz=70,SNR=376
ANTB   Antalya            69.72  55 eP        P         09 49 26.0 +0.9
K13A   Stover Farm, H     69.72 312 ⇑P        P         09 49 24.5 -0.4
       baz=70,SNR=219
112A   Yuma               69.75 301 ⇓P        P         09 49 25.4  0.0
       baz=70,SNR=66
U12A   Valley of Fire     69.77 305 ⇓P        P         09 49 25.8 +0.5
       baz=70,SNR=166
NEE2   Needles Airpor     69.80 303 ⇓P        P         09 49 25.7 +0.1
       baz=70,SNR=37
KIEV   Kiev               69.82  40  P        P         09 49 24.5 -0.9
KIEV                                 pmax     pmax
       comp=Z,510nm,1.4s,mb6.3
KIEV   Kiev               69.82  40  PFAKE              09 49 40.0  +15
KIEV                                 LR       LR
       comp=Z,114µm,20.0s,MS7.1
AKASG  Malin Array Be     69.83  40  P        P         09 49 24.8 -0.6
AKASG                                S        S         09 58 24.0  -12
AKASG                                pmax     pmax
       comp=Z,269nm,1.1s
AKASG  Malin Array Be     69.83  40  P        P         09 49 24.8 -0.7
       comp=Z,269nm,1.1s,mb6.1,baz=259,slow=6.3,SNR=156
AKASG                                S        S         09 58 24.0  -12
       comp=Z,0.3nm,0.5s,baz=259,slow=1.0,SNR=2.5
AKASG                                PKP2bc             10 17 36.3
       comp=Z,0.3nm,0.2s,baz=69,slow=2.8,SNR=8.5
AKASG                                LR       LR        10 18 17.0
       comp=Z,112µm,19.2s,MS7.1,baz=265,slow=34
AKASG  Malin Array Be     69.83  40  P        P         09 49 24.8 -0.7
AKASG                                S        S         09 58 24.0  -12
AKASG                               ⇑e                  10 17 36.3
AKASG                                LR       LR        10 18 17.0
I13A   Wildhorse Cree     69.83 313 ⇓P        P         09 49 25.4 -0.2
       baz=70,SNR=173
J13A   Cove Ranch, Pi     69.84 312 ⇑P        P         09 49 25.4 -0.2
       baz=70,SNR=222
A14A   Double T Ranch     69.86 318 ⇑P        P         09 49 24.7 -1.0
       baz=70,SNR=77
R12A   Pony Springs,      69.88 307 ⇑P        P         09 49 26.5 +0.5
       baz=70,SNR=211
T12A   Moapa              69.92 305 ⇑P        P         09 49 26.5 +0.2
       baz=70,SNR=61
GLA    Glamis             69.96 301 ⇑P        P         09 49 26.8 +0.2
       baz=70,SNR=48
ESKT   Eskisehir          69.97  52 eP        P         09 49 26.8 +0.3
MSO    Missoula           69.97 316  PFAKE              09 49 40.0  +14
MSO                                  LR       LR
       comp=Z,77µm,20.0s,MS7.0
H13A   Challis            69.98 314 ⇓P        P         09 49 26.2 -0.3
       baz=70,SNR=188
V12A   Nelson             70.00 304 ⇓P        P         09 49 27.0 +0.2
       baz=70,SNR=161
W12A   Cal Nev Ari        70.01 304 ⇓P        P         09 49 27.2 +0.3
       baz=70,SNR=28
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G13A  Cobalt           70.01 314 ⇓P      P      09 49 26.6  0.0
      baz=70,SNR=322
HLID  Hailey           70.02 312 ⇓P      P      09 49 26.7 -0.1
      baz=70,SNR=268
HLID  Hailey           70.02 312  PFAKE         09 49 40.0  +13
HLID                              LR     LR
      comp=Z,178µm,22.0s,MS7.3
S12A  Delamar Landin   70.05 306 ⇑P      P      09 49 28.0 +0.9
      baz=70,SNR=179
HENT  Hendek           70.07  50 eP      P      09 49 26.7 -0.4
TRO   Tromso           70.07  19 eP      P      09 49 25.8 -0.8
TRO                               AMb    AMB    09 49 50.5
      comp=Z,240nm,0.5s,mb6.4
TRO                              eS      S      09 58 38.0 +0.3
TRO                               AMS    AMS    10 13 19.9
      comp=Z,66µm,20.4s,MS6.9
O12A  Currie           70.07 309 ⇑P      P      09 49 27.4 +0.3
      baz=70,SNR=218
Q12A  Willow Creek R   70.08 308 ⇑P      P      09 49 27.8 +0.5
      baz=70,SNR=257
E13A  Victor           70.10 316 ⇑P      P      09 49 26.9 -0.3
      baz=70,SNR=296
F13A  Darby            70.14 315 ⇑P      P      09 49 27.2 -0.2
      baz=70,SNR=221
P12A  McGill           70.16 308 ⇑P      P      09 49 28.0 +0.3
      baz=70,SNR=253
FINES FINESS Array B   70.17  28  P      P      09 49 26.0 -1.3
LDFC  Landfair         70.21 303 eP      P      09 49 29.5 +1.4
      comp=Z,1µm,1.1s,mb6.7
IRM   Iron Mountain    70.23 302 ⇓P      P      09 49 28.7 +0.5
      baz=70,SNR=452
MDU   Mudurnu          70.29  51 eP      P      09 49 28.1 -0.4
K12A  Draper Farm, C   70.32 311 ⇑P      P      09 49 28.5 -0.1
      baz=70,SNR=193
N12A  Clover Valley,   70.32 310 ⇑P      P      09 49 28.9 +0.2
      baz=70,SNR=295
T11A  Corn Creek, Al   70.33 306 ⇑P      P      09 49 29.6 +0.8
      baz=70,SNR=303
D13A  Huson            70.35 316 ⇑P      P      09 49 28.1 -0.6
      baz=70,SNR=114
L12A  House Creek Ra   70.37 311 ⇑P      P      09 49 29.1 +0.1
      baz=70,SNR=301
H12A  Diamond D Ranc   70.41 313 ⇑P      P      09 49 29.2  0.0
      baz=70
KAF   Kangasniemi      70.44  28 eP      P      09 49 26.7 -2.3
KAF                               pmax   pmax
      comp=Z,202nm,0.9s,mb6.0
KAF   Kangasniemi      70.44  28 ep      P      09 49 26.7 -2.3
      comp=Z,202nm,0.9s,mb6.0
U11A  Corn Creek       70.45 305 ⇓P      P      09 49 30.1 +0.6
      baz=70
ELK   Elko             70.47 309  P      P      09 49 29.5 -0.1
ELK                               pmax   pmax
      comp=Z,2µm,1.4s
ELK   Elko             70.47 309  PFAKE         09 49 40.0  +10
ELK                               LR     LR
      comp=Z,122µm,22.0s,MS7.1
V11A  Goodsprings      70.48 304 ⇓P      P      09 49 30.0 +0.3
      baz=71,SNR=123
B13A  Whitefish        70.48 318 ⇓P      P      09 49 29.0 -0.5
      baz=70,SNR=218
BC3   Big Chuckw Mtn   70.48 302 ⇓P      P      09 49 29.9 +0.1
      baz=71,SNR=203
C13A  Hot Springs      70.48 317 ⇑P      P      09 49 29.0 -0.5
      baz=70,SNR=212
SVRH  Sivrihisar-ESK   70.48  52 eP      P      09 49 30.1 +0.4
J12A  Stokes Ranch,    70.50 312 ⇑P      P      09 49 29.6 -0.1
      baz=71,SNR=357
KDZE  Karadeniz Ereo   70.50  50 eP      P      09 49 28.4 -1.4
R11A  Troy Canyon, C   70.65 307 ⇓P      P      09 49 31.0 +0.2
      baz=71,SNR=352
GMRC  Granite Mounta   70.66 303 ⇑P      P      09 49 31.1 +0.3
      baz=71,SNR=312
Q11A  Duckwater        70.72 307 ⇓P      P      09 49 31.1  0.0
      baz=71,SNR=192
KIZT  Kizilcal         70.74  53 eP      P      09 49 31.3  0.0
O11A  Cowboy Ranch,    70.76 309 ⇓P      P      09 49 31.8 +0.4
      baz=71,SNR=411
SWSC  Sam W. Stewart   70.77 301 ⇑P      P      09 49 31.9 +0.3
      baz=71,SNR=212
P11A  Circle Ranch,    70.82 308 ⇓P      P      09 49 32.2 +0.4
      baz=71,SNR=49
N11A  Elko Archery C   70.85 309 ⇓P      P      09 49 32.0 +0.1
      baz=71,SNR=166
TUQ   Turquoise Moun   70.88 304 ⇑P      P      09 49 32.5 +0.3
      baz=71,SNR=144
M11A  Holland Ranch,   70.92 310 ⇓P      P      09 49 32.6 +0.3
      baz=71,SNR=311
KDHN  Kadinhani        70.92  53⇑iP      P      09 49 32.7 +0.3
L11A  Cat Creek Ranc   70.92 311 ⇑P      P      09 49 32.4 +0.1
      baz=71,SNR=348
BELC  Belle Mtn.       70.94 302 ⇓P      P      09 49 33.1 +0.5
      baz=71,SNR=262
DVTC  Desert V Tower   71.03 301 ⇓P      P      09 49 33.7 +0.6
      baz=71,SNR=136
MFID  Camas Ranch      71.04 312 ⇓P      P      09 49 32.9 -0.1
      baz=71,SNR=323
PPCY  Paphos           71.06  57  P      P      09 49 31.3 -2.0
C12B  Naegeli Ranch,   71.09 317 ⇑P      P      09 49 32.6 -0.6
      baz=71,SNR=101
KONT  Konya--Tatoy     71.10  54 eP      P      09 49 33.6 +0.2
K11A  Parker Ranch,    71.16 312 ⇓P      P      09 49 33.9 +0.2
      baz=71,SNR=633
I11A  Placerville      71.16 313 ⇓P      P      09 49 33.2 -0.6
      baz=71,SNR=155
SHOC  Shoshone         71.17 304 ⇓P      P      09 49 34.2 +0.2
      baz=71,SNR=102
HDMB  Hadim            71.18  55 eP      P      09 49 34.1 +0.1
HEC   Hector,Ludlow    71.21 303 ⇓P      P      09 49 34.7 +0.5
      baz=71,SNR=205
U10A  Ash Meadows, A   71.21 305 ⇑P      P      09 49 34.8 +0.7
      baz=71,SNR=123
R10A  Warm Springs     71.21 307 ⇓P      P      09 49 34.7 +0.5
      baz=71,SNR=118
H11A  Donnelly         71.25 314 ⇑P      P      09 49 33.5 -0.7
      baz=71,SNR=224
KTK1  Kautokeino       71.26  20 eP      P      09 49 33.6 -0.2
ALFC  Alevga           71.27  56  P      P      09 49 33.3 -1.2
MONP  Monument Peak    71.30 301 ⇓P      P      09 49 35.3 +0.5
      baz=71,SNR=323
Q10A  Clear Creek Ra   71.30 307 ⇓P      P      09 49 34.8 +0.1
      baz=71,SNR=55
PFO   Pinyon Flat Ob   71.32 302 i P     P      09 49 35.4 +0.5
PFO   Pinyon Flat Ob   71.32 302 ⇑P      P      09 49 35.3 +0.4
      baz=71,SNR=192
PFO   Pinyon Flat Ob   71.32 302  PFAKE         09 49 50.0  +15
PFO                               LR     LR
      comp=Z,56µm,19.0s,MS6.8
O10A  Cortez Mining,   71.41 309 ⇑P      P      09 49 35.3  0.0
      baz=72,SNR=71
N10A  Dunphy           71.43 309 ⇓P      P      09 49 35.4  0.0
      baz=72,SNR=66
SAFT  Safranbolu       71.44  50 eP      P      09 49 34.7 -0.7
S10A  Tonopah Range,   71.44 306 ⇓P      P      09 49 36.0 +0.5
      baz=72,SNR=569
L10A  Juniper Basin    71.45 311 ⇓P      P      09 49 35.8 +0.3
      baz=72,SNR=515
LOD   Lodumlu          71.45  52 eP      P      09 49 36.4 +0.9
M10A  I.L. Ranch, Tu   71.48 310 ⇑P      P      09 49 36.0 +0.3
      baz=72,SNR=174
E11A  Bogner Ranch,    71.49 315 ⇑P      P      09 49 34.9 -0.7
      baz=72,SNR=256
SZAC  Souni-Zanaja     71.50  57  P      P      09 49 34.7 -1.3
LEF   Lefka            71.50  57 eP      P      09 49 36.0  0.0
D11A  Klaveano Farm,   71.62 316 ⇓P      P      09 49 35.5 -0.9
      baz=72,SNR=139
FURC  Furnace Creek,   71.64 305 ⇓P      P      09 49 37.3 +0.6
      baz=72,SNR=157
BBRC  Big Bear Sol-O   71.70 303 ⇓P      P      09 49 38.0 +0.9
      baz=72,SNR=141
BALAT Bala             71.72  52⇑iP      P      09 49 38.1 +0.9
J10A  Berg Farm, Mel   71.72 312 ⇑P      P      09 49 36.6 -0.6
      baz=72,SNR=32
RRX   Edison Barstow   71.76 303 ⇓P      P      09 49 38.2 +0.6
      baz=72,SNR=16
MAMC  Mammari          71.77  56  P      P      09 49 37.9 +0.3
K10A  MacKenzie Ranc   71.77 312 ⇑P      P      09 49 37.0 -0.4
      baz=72,SNR=93
I10A  Payette          71.78 313 ⇑P      P      09 49 37.1 -0.4
      baz=72,SNR=74
A11A  Hall Mountain,   71.79 318 ⇓P      P      09 49 37.2 -0.2
      baz=72,SNR=174
R09A  Tonopah          71.82 307 ⇓P      P      09 49 37.9 +0.1
      baz=72,SNR=246
PUL   Pulkovo          71.86  30⇑eP      P      09 49 37.5 -0.1
CSS   Prodhromos       71.87  57  P      P      09 49 36.9 -1.3
CSS                               LR     LR
      comp=Z,45µm,22.0s,MS6.7
109C  Camp Elliot, M   71.87 301 ⇓P      P      09 49 38.5 +0.2
      baz=72,SNR=51
P09A  Austin           71.89 308 ⇑P      P      09 49 38.6 +0.4
      baz=72,SNR=121
Q09A  Carvers          71.91 307 ⇑P      P      09 49 38.5 +0.1
      baz=72,SNR=47
S09A  Goldfield        71.94 306 ⇑P      P      09 49 38.7 +0.2
      baz=72,SNR=195
TPH   Tonopah          71.94 307  P      P      09 49 38.8 +0.3
TPH                               pmax   pmax
      comp=Z,2µm,1.4s,mb6.7
TPH   Tonopah          71.94 307 eP      P      09 49 38.6 +0.1
      comp=Z,1µm,1.4s,mb6.7
TPH                               LR     LR
      comp=Z,68µm,22.0s,MS6.9
O09A  Fish Creek Ran   71.94 309 ⇑P      P      09 49 38.9 +0.4
      baz=72,SNR=328
MURC  Murrieta         71.94 302 ⇑P      P      09 49 38.8 +0.2
      baz=72,SNR=180
BMN   Battle Mountai   71.97 309 eP      P      09 49 38.6  0.0
      comp=Z,1µm,1.6s,mb6.7
BMN                               LR     LR
      comp=Z,92µm,22.0s,MS7.0
BALT  Daday            71.97  50⇑iP      P      09 49 38.1 -0.6
ELDT  Eldivan          71.98  51⇓iP      P      09 49 38.9 +0.2
SULT  Sultanhani-AKS   72.01  53 eP      P      09 49 39.6 +0.6
LFK   Lefkose          72.03  56 eP      P      09 49 38.1 -1.0
GRAC  Grapevine Rang   72.05 305 ⇑P      P      09 49 39.5 +0.3
      baz=72,SNR=281
G10A  Bishop Farm, J   72.06 314 ⇑P      P      09 49 38.0 -1.1
      baz=72,SNR=127
E10A  Myers Farm, Un   72.12 315 ⇑P      P      09 49 38.5 -1.0
      baz=72,SNR=86
BRTR  Keskin Array B   72.12  52  P      P      09 49 39.8 +0.2
      comp=Z,94nm,0.8s,mb5.8
BRTR                              LR     LR     10 20 59.4
      comp=Z,39µm,21.6s,MS6.7,baz=88,slow=36
CANT  Cankiri          72.12  51 eP      P      09 49 40.4 +0.8
IKL   Isikli           72.15  55 eP      P      09 49 40.2 +0.4
MPMC  Manual Prospec   72.15 304 ⇑P      P      09 49 40.3 +0.4
      baz=72,SNR=166
MRKH  Merkhyat         72.16  77 i P     P      09 49 37.4 -2.8
MRKH                             i S     S      09 58 45.9  -18
M09A  Marrel Ranch,    72.16 310 ⇑P      P      09 49 40.1 +0.3
      baz=72,SNR=164
F10A  Beach Ranch, E   72.17 315 ⇑P      P      09 49 38.8 -1.0
      baz=72,SNR=29
BMO   Blue Mountains   72.17 314 eP      P      09 49 38.9 -0.9
BMO                              e              09 49 57.7
BMO                               pmax   pmax
      comp=Z,780nm,1.5s,mb6.4
BMO                               MLR    MLR
      comp=Z,84µm,22.0s,MS7.0
BMO   Blue Mountains   72.17 314 eP      P      09 49 38.9 -0.9
      comp=Z,780nm,1.5s,mb6.4
BMO                              ePcP    PcP    09 49 57.7 -0.4
BMO                               LR     LR
      comp=Z,84µm,22.0s,MS7.0
ARCES ARCESS Array B   72.19  20  P      P      09 49 38.8 -0.6
      comp=Z,62nm,0.8s,mb5.6,baz=243,slow=5.3,SNR=71
ARCES                             LR     LR     10 15 15.3
      comp=Z,83µm,20.6s,MS7.0,baz=242,slow=31
BJO   Bjornoya         72.19  14 eP      P      09 49 39.9 +0.5
BJO                              eS      S      09 59 03.0 +0.7
BJO                              eS      S      09 59 05.8 +3.5
BJO                              eSS     SS     10 03 39.3 -0.1
BJO                               AMS    AMS    10 12 18.9
      comp=Z,57µm,28.2s,MS6.7
N09A  Rock Creek Ran   72.21 309 ⇓P      P      09 49 40.3 +0.2
      baz=72,SNR=248
ILGA  Ilgaz            72.21  50 eP      P      09 49 39.4 -0.7
DAC   Darwin (Calif)   72.23 305  PFAKE         09 49 50.0  +10
DAC                               LR     LR
      comp=Z,74µm,22.0s,MS6.9
NEW   Newport          72.24 317 eP      P      09 49 38.9 -1.2
      comp=Z,1µm,1.9s,mb6.6
NEW                              ePP     PP     09 52 19.6 -0.9
NEW                               LR     LR
      comp=Z,89µm,20.0s,MS7.0
D10A  Wagner Farm, O   72.27 316 ⇓P      P      09 49 39.0 -1.3
      baz=72,SNR=99
ALE   Alert            72.29 357  P      P      09 49 38.0 -1.9
      comp=Z,1µm,1.2s,mb6.7,SNR=96
B10A  Chitwood Farm,   72.31 317 ⇑P      P      09 49 39.5 -1.1
      baz=72,SNR=13
BFSC  Mount Baldy St   72.31 303 ⇓P      P      09 49 40.7 -0.1
      baz=72,SNR=107
UPI   Upington         72.32 124 eP      P      09 49 39.1 -1.8
UPI                               AMb    AMB    09 49 48.0
      comp=Z,598nm,1.7s,mb6.2
C10A  Spilker Farm,    72.33 317 ⇑P      P      09 49 39.4 -1.3
      baz=72,SNR=24
L09A  Wilkinson Ranc   72.34 311 ⇓P      P      09 49 41.1 +0.2
      baz=72,SNR=187
K09A  Rome             72.40 311 ⇓P      P      09 49 41.5 +0.3
      baz=72,SNR=708
H09A  Durkee           72.42 313 ⇓P      P      09 49 41.0 -0.2
      baz=72,SNR=210
TOS   Tosya            72.44  50 eP      P      09 49 41.4 -0.1
J09A  Fry Pan Ranch,   72.44 312 ⇓P      P      09 49 41.1 -0.3
      baz=72,SNR=51
BZK   Bozkurt          72.44  49 eP      P      09 49 41.1 -0.4
PHNC  Paralimni        72.44  57  P      P      09 49 40.0 -1.6
      comp=Z,11nm,1.8s
I09A  Lost Marbles R   72.45 313 ⇓P      P      09 49 41.3 -0.2
      baz=72
Q08A  Gabbs            72.50 307 ⇓P      P      09 49 41.1 -0.7
      baz=73,SNR=112
G09A  Cove             72.53 314 ⇑P      P      09 49 41.4 -0.5
      baz=73,SNR=239
EREN  Erenkoy          72.55  56 eP      P      09 49 43.0 +0.8
EDW2  Edwards Air Fo   72.57 303 ⇑P      P      09 49 42.5 +0.1
      baz=73,SNR=209
A10A  Northport        72.57 318 ⇓P      P      09 49 41.4 -0.7
      baz=73,SNR=97
YKA   Yellowknife Ar   72.58 332  P      P      09 49 40.8 -1.0
      comp=Z,46nm,0.8s,mb5.4,baz=100,slow=6.2,SNR=299
YKA                               PKPPKP        10 17 14.0
      comp=Z,0.9nm,0.9s,baz=309,slow=2.9,SNR=5.8
YKA                               LR     LR     10 19 01.1
      comp=Z,5µm,20.1s,MS5.8,baz=250,slow=34
YKA   Yellowknife Ar   72.58 332  P      P      09 49 40.9 -1.0
YKA                               P'P'          10 17 14.0
YKA                               LR     LR     10 19 01.1
SIM   Simferopol'      72.61  46c iP     P      09 49 41.5 -0.9
SIM                              i S     S      09 59 09.0 +0.9
SIM                               pmax   pmax
      comp=Z,4µm,11.5s
SIM                               MLR    MLR
      comp=Z,64µm,16.0s,MS7.0
SIM   Simferopol'      72.61  46 eP      P      09 49 41.6 -0.8
P08A  Dixie Valley     72.62 308 ⇓P      P      09 49 42.1 -0.5
      baz=73,SNR=35
CWC   Cottonwood Cre   72.62 305 ⇓P      P      09 49 43.0 +0.3
      baz=73,SNR=162
R08A  Mina             72.63 307 ⇓P      P      09 49 42.6 -0.1
      baz=73,SNR=111
N08A  GE Springer Mi   72.67 309 ⇓P      P      09 49 42.8  0.0
      baz=73,SNR=592
O08A  Rochester Mine   72.68 309 ⇓P      P      09 49 42.8 -0.2
      baz=73,SNR=250
CDAG  Cicekdag         72.69  52⇑iP      P      09 49 43.3 +0.3
TIN   Tinemaha         72.73 306 ⇑P      P      09 49 43.7 +0.3
      baz=73,SNR=29
KEV   Kevo             72.76  20  P      P      09 49 42.0 -0.8
KEV                               pmax   pmax
      comp=Z,210nm,1.0s,mb6.0
KEV   Kevo             72.76  20 eP      P      09 49 40.6 -2.2
      comp=Z,122nm,0.8s,mb5.9
KEV                               LR     LR
      comp=Z,76µm,20.0s,MS7.0
NVAR  Mina Array Bea   72.79 307  P      P      09 49 43.5 -0.1
      comp=Z,53nm,0.8s,mb5.5,baz=88,slow=4.8,SNR=147
MERS  Mersin           72.82  55 eP      P      09 49 44.2 +0.4
E09A  Wood Farm, Sta   72.84 315 ⇑P      P      09 49 42.7 -1.0
      baz=73,SNR=50
CER   Ceres            72.84 130 eP      P      09 49 43.0 -0.9
L08A  Fields           72.85 311 ⇓P      P      09 49 43.8 -0.1
      baz=73,SNR=168
FMP   Fort Macarthur   72.85 302 ⇓P      P      09 49 44.2 +0.1
      baz=73,SNR=14
M08A  Happy Creek Ra   72.86 310 ⇑P      P      09 49 44.1 +0.2
      baz=73,SNR=152
DECC  Green Verdugo    72.87 303 ⇑P      P      09 49 43.9 -0.3
      baz=73,SNR=14
NIG   Nigde            72.88  53 eP      P      09 49 44.1  0.0
JOF   Joensuu          72.89  27 eP      P      09 49 41.5 -2.2
JOF                               pmax   pmax
      comp=Z,112nm,1.0s,mb5.8
JOF   Joensuu          72.89  27 ep      P      09 49 41.5 -2.2
      comp=Z,112nm,1.0s,mb5.8
B09A  Rice             72.93 317 ⇑P      P      09 49 42.9 -1.3
      baz=73,SNR=50
KBS   Kingsbay         72.93   9 eP      P      09 49 45.1 +1.4
KBS                               pmax   pmax
      comp=Z,167nm,1.0s,mb5.9
KBS                               MLR    MLR
      comp=Z,53µm,22.0s,MS6.8
KBS   Kingsbay         72.93   9 eP      P      09 49 44.5 +0.7
KBS                               AMb    AMB    09 50 00.1
      comp=Z,445nm,3.5s
KBS   Kingsbay         72.93   9 eP      P      09 49 45.1 +1.3
      comp=Z,167nm,1.0s,mb5.9
KBS                               LR     LR
      comp=Z,53µm,22.0s,MS6.8
CIS   Catalina Islan   72.95 302 ⇑P      P      09 49 45.1 +0.4
      baz=73,SNR=66
ISA   Isabella         72.95 304 ⇓P      P      09 49 45.3 +0.6
      baz=73,SNR=368
K08A  Mann Creek Ran   72.96 311 ⇑P      P      09 49 44.7 +0.1
      baz=73,SNR=214
J08A  Circle Bar Ran   72.97 312 ⇓P      P      09 49 44.6 +0.1
      baz=73,SNR=183
D09A  Jones Farm, Ri   72.97 316 ⇑P      P      09 49 43.4 -1.1
      baz=73,SNR=72
C09A  Chrisman Ranch   72.98 317 ⇓P      P      09 49 43.4 -1.2
      baz=73,SNR=26
BYBT  Boyabat          73.01  50 eP      P      09 49 44.6 -0.2
CTKT  Corum            73.02  51⇑iP      P      09 49 44.8 -0.2
I08A  Drewsey          73.05 313 ⇓P      P      09 49 45.1 +0.1
      baz=73,SNR=115
AVNT  Avonos           73.06  53⇓iP      P      09 49 44.7 -0.6
WVOR  Wild Horse Val   73.07 311  P      P      09 49 45.3 +0.1
WVOR                              MLR    MLR
      comp=Z,85µm,19.0s,MS7.0
H08A  Prairie City     73.14 313 ⇓P      P      09 49 45.5 -0.1
      baz=73,SNR=145
Q07A  Schurz           73.18 307 ⇑P      P      09 49 45.6 -0.3
      baz=73,SNR=18
OSI   Osito Adit       73.18 303 ⇓P      P      09 49 45.8 -0.2
      baz=73,SNR=35
MLAC  Mammoth Lakes    73.21 306 ⇑P      P      09 49 46.9 +0.7
      baz=73,SNR=75
O07A  Toulon           73.23 309 ⇓P      P      09 49 46.0 -0.2
      baz=73,SNR=214
P07A  Fallon           73.24 308 ⇑P      P      09 49 45.4 -0.9
      baz=73,SNR=11
A09A  Danville         73.25 318 ⇑P      P      09 49 44.9 -1.2
      baz=73,SNR=48
F08A  Pendleton        73.25 315 ⇑P      P      09 49 45.1 -1.0
      baz=73,SNR=48
ARVC  Arvin            73.25 304 ⇑P      P      09 49 47.0 +0.5
      baz=73,SNR=61
N07B  Gerlach          73.30 309 ⇑P      P      09 49 46.3 -0.3
      baz=73,SNR=229
G08A  Pilot Rock       73.36 314 ⇑P      P      09 49 45.8 -1.0
      baz=73,SNR=105
D08A  Wollman Farm,    73.39 316 ⇑P      P      09 49 46.1 -0.9
      baz=73,SNR=71
VES   Vestal, Richgr   73.45 304 ⇓P      P      09 49 47.1 -0.5
      baz=74,SNR=39
M07A  Soldier Meadow   73.46 310 ⇓P      P      09 49 47.3 -0.2
      baz=74,SNR=190
E08A  Dider Farm, El   73.47 315 ⇓P      P      09 49 46.7 -0.7
      baz=74,SNR=77
BLG   Laguna Peak      73.48 302 ⇑P      P      09 49 47.5 -0.2
      baz=74,SNR=36
C08A  Higginbotham F   73.50 317 ⇑P      P      09 49 46.3 -1.3
      baz=74
KRTS  Karatas          73.50  55 eP      P      09 49 51.1 +3.2
K07A  Rock Creek Ran   73.52 311 ⇑P      P      09 49 48.1 +0.2
      baz=74,SNR=174
RCTC  Rector, Farmer   73.56 305 ⇑P      P      09 49 47.5 -0.7
      baz=74,SNR=148
J07A  Hines            73.58 312 ⇓P      P      09 49 48.0 -0.1
      baz=74,SNR=113
SUR   Sutherland       73.58 128 eP      P      09 49 48.9 +0.5
      comp=Z,652nm,1.8s,mb6.3
SUR                               LR     LR
      comp=Z,86µm,20.0s,MS7.0
SUR   Sutherland       73.58 128 eP      P      09 49 46.2 -2.1
SUR                               AMb    AMB    09 50 08.1
      comp=Z,244nm,1.6s,mb5.9
L07A  Adell            73.59 311 ⇓P      P      09 49 48.8 +0.5
      baz=74,SNR=147
R06C  Coleville        73.69 307 ⇑P      P      09 49 49.7 +0.8
      baz=74,SNR=266
A08A  Turner Farm, O   73.70 318 ⇓P      P      09 49 47.5 -1.3
      baz=74,SNR=76
ELIM  Elim             73.71 131 eP      P      09 49 47.9 -1.2
B08A  Colville Reser   73.72 317 ⇓P      P      09 49 47.4 -1.4
      baz=74,SNR=20
I07A  Izee             73.73 313 ⇑P      P      09 49 48.8 -0.2
      baz=74,SNR=25
H07A  Lands Inn, Kim   73.78 313 ⇑P      P      09 49 49.1 -0.2
      baz=74
HAWA  Hanford          73.79 315 eP      P      09 49 48.3 -1.0
      comp=Z,929nm,1.6s,mb6.5
HAWA                             ePP     PP     09 52 32.1 -1.7
HAWA                              LR     LR
      comp=Z,84µm,22.0s,MS7.0
CEYT  Ceyhan           73.80  55 eP      P      09 49 47.9 -1.7
BHL   Bhannes          73.81  58 eP      P      09 49 50.2 +0.5
BNN   Bunyan           73.84  53 eP      P      09 49 50.2 +0.4
KOZT  Kozan            73.85  54 eP      P      09 49 48.5 -1.4
G07A  Ruggs Ranch, H   73.86 314 ⇑P      P      09 49 49.4 -0.4
      baz=74,SNR=36
SNCC  San Nicolas Is   73.89 302 ⇑P      P      09 49 50.5 +0.2
      baz=74,SNR=20
WCN   Washoe City      73.91 308 ⇓P      P      09 49 50.3 +0.1
      baz=74,SNR=85
BSC   Santa Cruz Isl   73.95 302 ⇓P      P      09 49 50.4 -0.2
      baz=74,SNR=15
O06A  Flanigan         73.96 309 ⇑P      P      09 49 50.2 -0.3
      baz=74,SNR=129
N06A  Buffalo Meadow   73.96 309 ⇑P      P      09 49 50.2 -0.3
      baz=74,SNR=123
RCY   Rachaya          73.97  58 eP      P      09 49 51.6 +0.9
KVT   Kavak            73.97  50 eP      P      09 49 50.6 +0.1
SBC   Santa Barbara    74.00 303 ⇓P      P      09 49 51.0 +0.1
      baz=74,SNR=8.1
E07A  Sunnyside        74.02 315 ⇓P      P      09 49 50.2 -0.5
      baz=74,SNR=69
P06A  Stead Airport,   74.02 308 ⇓P      P      09 49 50.8 -0.1
      baz=74,SNR=37
PKA   Prieska          74.04 125 eP      P      09 49 50.0 -1.0
PKA                               AMb    AMB    09 49 57.9
      comp=Z,177nm,1.6s,mb5.7
F07A  Phinny Hill Vi   74.05 315 ⇓P      P      09 49 50.7 -0.2
      baz=74,SNR=34
LSZ   Lusaka           74.06 109  P      P      09 49 51.3 -0.2
LSZ                               pmax   pmax
      comp=Z,600nm,1.6s,mb6.3
LSZ   Lusaka           74.06 109 eP      P      09 49 50.9 -0.6
      comp=Z,605nm,1.6s,mb6.3
LSZ                              ePP     PP     09 52 35.5 -1.4
LSZ                               LR     LR
      comp=Z,58µm,20.0s,MS6.9
LSZ   Lusaka           74.06 109⇓iP      P      09 49 50.6 -0.8
LSZ                               AMb    AMB    09 49 59.5
      comp=Z,5µm,1.6s,mb7.2
D07A  Quincy           74.11 316 ⇑P      P      09 49 50.2 -1.0
      baz=74,SNR=21
C07A  Waterville       74.18 317 ⇓P      P      09 49 50.0 -1.7
      baz=74,SNR=29
J06A  Christmas Vall   74.19 312 ⇓P      P      09 49 51.0 -0.8
      baz=74,SNR=180
SMMC  Simmler          74.21 304 ⇑P      P      09 49 52.2 +0.2
      baz=74,SNR=52
I06A  Prineville       74.23 313 ⇑P      P      09 49 51.7 -0.3
      baz=74,SNR=28
B07A  Winthrop         74.24 317 ⇑P      P      09 49 50.7 -1.3
      baz=74,SNR=53
ANDN  Andirin          74.26  54⇑iP      P      09 49 52.8 +0.5
PINB  Pinarbasi        74.28  53⇓iP      P      09 49 52.7 +0.4
TOKA  Tokat            74.31  51⇑iP      P      09 49 52.4 -0.1
H06A  Lindquist Farm   74.33 314 ⇑P      P      09 49 52.8 +0.2
      baz=74,SNR=144
TOKT  Tokat            74.36  51 eP      P      09 49 52.5 -0.3
BEKR  Beckwourth       74.37 308 ⇑P      P      09 49 52.3 -0.6
      baz=74,SNR=191
FKH   Fakeheh          74.42  57 eP      P      09 49 53.4 +0.1
A07A  Ashnola River,   74.43 318 ⇓P      P      09 49 51.9 -1.2
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	baz=74,SNR=148						
SARI	SarD1z-Kayseri	74.51	53	eP	P	09 49 53.4	-0.3
G06A	Carlson Farm,	74.54	314	⇑P	P	09 49 53.6	-0.2
	baz=75,SNR=86						
APA	Apatity	74.55	23	⇓iP	P	09 49 53.2	-0.2
APA				i S	S	09 59 30.0	+0.8
APA				e		09 59 50.0	
APA				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
APA				pmax	pmax		
	comp=Z,8µm,12.0s						
LTY	Liberty	74.59	316	P	P	09 49 52.5	-1.5
F06A	Goldendale	74.65	315	⇓P	P	09 49 54.2	-0.2
	baz=75						
OBN	Obninsk	74.68	36	P	P	09 49 54.3	-0.1
	comp=Z,2µm,1.4s,mb6.8,SNR=16						
OBN	Obninsk	74.68	36	c iP	P	09 49 54.4	0.0
OBN				i		09 50 04.7	
OBN				e		09 52 50.5	
OBN				i		09 59 33.0	
OBN				i		09 59 58.1	
OBN				i SS	SS	10 04 17.2	-0.8
OBN				pmax	pmax		
	comp=Z,778nm,1.8s,mb6.3						
KMRS	Kahramanmaras	74.70	54	eP	P	09 49 55.7	+0.9
D06A	Cle Elum	74.71	316	⇓P	P	09 49 53.3	-1.4
	baz=75,SNR=25						
K05A	Summer Lake	74.73	311	⇓P	P	09 49 55.1	+0.1
	baz=75,SNR=112						
E06A	Yakima	74.79	315	⇑P	P	09 49 54.8	-0.4
	baz=75,SNR=34						
KUZU	Kuzuini	74.87	55	⇓iP	P	09 49 56.6	+0.8
GAZ	Gaziantep	74.96	54	eP	P	09 49 57.3	+0.9
ANN	Anapa	74.97	46	eP	P	09 49 55.5	-0.8
ANN				e		09 52 41.1	
ANN				eS	S	09 59 33.7	-1.0
ANN				i		10 00 01.7	
ANN				eSS	SS	10 04 15.9	-7.0
ANN				pmax	pmax		
	comp=Z,702nm,2.0s,mb6.2						
ANN				MLR	MLR		
	comp=N,83µm,21.0s,MS7.1						
ANN				MLR	MLR		
	comp=E,65µm,21.0s,MS7.1						
ANN				MLR	MLR		
	comp=Z,81µm,21.0s,MS7.0						
ANN	Anapa	74.97	46	i P	P	09 49 55.6	-0.7
G05A	Wamic	75.03	314	⇓P	P	09 49 56.3	-0.2
	baz=75,SNR=16						
LVZ	Lovozero	75.07	22	P	P	09 49 56.9	+0.5
	comp=Z,675nm,1.0s,mb6.5,SNR=6.1						
LVZ	Lovozero	75.07	22	⇑eP	P	09 49 56.8	+0.4
LVZ				pmax	pmax		
	comp=Z,198nm,1.7s,mb5.8						
LVZ	Lovozero	75.07	22	⇑eP	P	09 49 56.9	+0.5
B06A	Marblemount	75.15	317	⇑P	P	09 49 56.1	-1.1
	baz=75,SNR=5.2						
A06A	Chilliwack	75.16	318	⇑P	P	09 49 55.9	-1.3
	baz=75,SNR=51						
GZT	Gaziantep	75.23	54	⇑iP	P	09 49 58.7	+0.8
C05A	Tolt Reservoir	75.28	317	⇑P	P	09 49 56.2	-1.8
	baz=75						
MOS	Moscow	75.31	35	α iP	P	09 49 57.7	-0.3
MOS				e		09 50 07.9	
MOS				e		09 52 42.7	
MOS				i S	S	09 59 41.0	+2.9
MOS				i		10 00 05.9	
MOS				eSS	SS	10 04 31.5	+3.9
MOS				pmax	pmax		
	comp=Z,2µm,2.1s,mb6.7						
MOS				pmax	pmax		
	comp=Z,867nm,1.6s,mb6.4						
MOS				smax			
	comp=N,20µm,14.0s						
MOS				smax			
	comp=E,28µm,14.0s						
MOS	Moscow	75.31	35	eP	P	09 49 56.3	-1.7
DARE	Darende-Malaty	75.36	52	eP	P	09 49 58.1	-0.5
RPN	Rapa Nui	75.39	238	i P	P	09 50 02.1	+3.2
AKCD	Akcadag	75.48	53	⇑iP	P	09 50 00.2	+0.9
A05A	Maple Falls	75.55	318	⇓P	P	09 49 57.5	-2.0
	baz=76,SNR=26						
B05A	Bryant	75.56	317	⇑P	P	09 49 57.9	-1.6
	baz=76,SNR=6.1						
H04A	Detroit Lake	75.65	313	⇑P	P	09 49 58.9	-1.2
	baz=76,SNR=38						
BOSA	Boshof	75.68	123	P	P	09 49 59.0	-1.6
	comp=E,96nm,1.1s,mb5.7,baz=298,slow=5.1,SNR=34						
BOSA				S	S	09 59 28.8	-14
	comp=E,2.9nm,1.0s,baz=251,slow=17,SNR=2.1						
BOSA				LR	LR	10 16 22.3	
	comp=E,149µm,21.5s,MS7.3,baz=292,slow=30						
BOSA	Boshof	75.68	123	P	P	09 49 59.0	-1.6
BOSA				S	S	09 59 28.8	-14
BOSA				LR	LR	10 16 22.3	
F04A	Amboy	75.79	315	⇑P	P	09 49 59.1	-1.9
	baz=76,SNR=12						
ATAB	Bozova	75.81	54	⇑iP	P	09 50 02.4	+1.1
G04A	Mulino	75.85	314	⇓P	P	09 49 59.9	-1.3
	baz=76,SNR=18						
MYA	Malataya	75.87	53	eP	P	09 50 02.8	+1.2
MALT	Malatya	75.88	53	eP	P	09 50 01.8	+0.1
MALT	Malatya	75.88	53	⇑iP	P	09 50 02.2	+0.6
MALT	Malatya	75.88	53	P	P	09 50 01.7	+0.1
MALT				LR	LR		
	comp=Z,58µm,20.0s,MS6.9						
KEMA	Kemaliye	75.89	52	⇓iP	P	09 50 01.9	+0.2
A04A	Legoe Bay, Lum	75.96	318	⇑P	P	09 50 00.1	-1.8
	baz=76						
E04A	Onalaska	75.99	315	⇓P	P	09 50 00.3	-1.8
	baz=76						
ESPY	Espiye-Giresun	76.00	50	eP	P	09 50 00.6	-1.7
D04A	Dobbs Creek Ra	76.04	316	⇑P	P	09 50 00.0	-2.3
	baz=76						
KSR	Koster	76.11	120	eP	P	09 50 02.2	-0.9
KSR				AMb	AMB	09 50 51.5	
	comp=Z,65nm,1.3s,mb5.4						
VSR	Storozhevoye	76.13	40	c iP	P	09 50 02.3	-0.5
VSR				e		09 52 50.5	
VSR				eS	S	09 59 45.5	-1.8
VSR				eSS	SS	10 04 44.2	+4.0
VSR				pmax	pmax		
	comp=Z,190nm,1.2s,mb5.9						
VSR				pmax	pmax		
	comp=E,250nm,1.1s						
VSR				pmax	pmax		
	comp=Z,2µm,6.5s						
VSR				pmax	pmax		
	comp=N,580nm,4.6s						
VSR				pmax	pmax		
	comp=E,1µm,5.1s						
VSR				smax			
	comp=E,11µm,12.4s						
VSR				smax			
	comp=Z,4µm,15.5s						
VSR				smax			
	comp=N,7µm,13.9s						
VOR	Voronezh	76.15	39	⇑iP	P	09 50 03.0	+0.1
VOR				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.6						
VORD	Divnogorie	76.21	40	c iP	P	09 50 02.8	-0.4
VORD				e		09 52 54.0	
VORD				eS	S	09 59 48.4	+0.2
VORD				pmax	pmax		
	comp=Z,390nm,1.4s,mb6.1						
VORD				pmax	pmax		
	comp=E,350nm,1.1s						
VORD				pmax	pmax		
	comp=Z,5µm,9.6s						
VORD				pmax	pmax		
	comp=N,210nm,8.1s						
VORD				pmax	pmax		
	comp=E,2µm,10.1s						
VORD				smax			
	comp=E,30µm,17.2s						
VORD				smax			
	comp=Z,15µm,17.5s						
VORD				smax			
	comp=N,9µm,11.4s						
URFA	Urfa	76.23	54	eP	P	09 50 04.4	+0.8
ELZG	Elazig	76.31	53	⇑iP	P	09 50 05.1	+1.1
COR	Corvallis	76.45	313	P	P	09 50 06.2	+1.5
COR				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.6						
COR	Corvallis	76.45	313	eP	P	09 50 05.6	+0.9
	comp=Z,1µm,1.6s,mb6.6						
COR				LR	LR		
	comp=Z,85µm,22.0s,MS7.0						
B04A	Port Angeles	76.50	317	⇑P	P	09 50 03.4	-1.5
	baz=76						
KLMR	Klimovskoe	76.53	30	⇑iP	P	09 50 04.7	-0.1
KLMR				e		09 52 53.4	
KLMR				eS	S	09 59 50.0	-1.3
KLMR				eSS	SS	10 04 43.7	-2.0
KLMR				pmax	pmax		
	comp=Z,1µm,1.5s,mb6.7						
E03A	Lebam	76.58	315	⇑P	P	09 50 04.1	-1.3
	baz=77						
F03A	Seaside	76.59	315	⇑P	P	09 50 04.9	-0.6
	baz=77						
GUMT	Gumushane	76.59	51	eP	P	09 50 03.8	-1.9
SOC	Sochi	76.64	48	c iP	P	09 50 06.4	+0.6
SOC				e*PP	pP	09 50 07.9	+0.7
SOC				e		09 50 15.7	
SOC				ePPP		09 54 46.0	
SOC				i S	S	09 59 53.3	+0.2
SOC				e		10 00 25.7	
SOC				eSS	SS	10 04 45.4	-2.9
SOC				eSSS		10 08 10.8	
SOC				pmax	pmax		
	comp=Z,586nm,0.8s,mb6.6						
SOC				pmax	pmax		
	comp=Z,4µm,6.4s						
SOC				MLR	MLR		
	comp=Z,22µm,18.0s,MS6.5						
D03A	Wishkah Elem.	76.70	316	⇑P	P	09 50 05.4	-0.8
	baz=77						
NLWA	Neilton Lookou	76.76	316	⇓P	P	09 50 06.5	0.0
	baz=77						
NLWA	Neilton Lookou	76.76	316	eP	P	09 50 07.0	+0.5
	comp=Z,983nm,1.7s,mb6.5						
NLWA				LR	LR		
	comp=Z,93µm,20.0s,MS7.1						
KTUT	Trabzon	76.78	50	eP	P	09 50 05.7	-1.0
MACK	Trabzon	76.79	50	⇑iP	P	09 50 06.7	-0.1
EZC	Erzincan	76.89	52	eP	P	09 50 06.5	-0.9
PMSA	Palmer Station	77.11	190	eP	P	09 50 08.4	+0.5
	comp=Z,333nm,1.3s,mb6.1						
PMSA				LR	LR		
	comp=Z,57µm,21.0s,MS6.9						
C03A	Quillayute Air	77.22	317	⇑P	P	09 50 08.5	-0.5
	baz=77						
DIYA	Diyarbakir	77.23	53	⇓iP	P	09 50 10.3	+1.0
SLR	Silverton	77.25	120	⇓iP	P	09 50 08.1	-1.5
SLR				AMb	AMB	09 50 16.8	
	comp=Z,514nm,1.6s,mb6.2						
KOPT	Kop Dagi	77.39	51	⇓iP	P	09 50 11.5	+1.4
SOE	Somerset East	77.40	127	eP	P	09 50 09.0	-1.2
ERPM	east rand prop	77.41	120	eP	P	09 50 08.6	-1.9
ERPM				AMb	AMB	09 50 17.2	
	comp=Z,355nm,1.6s,mb6.0						
SEK	Senekal	77.54	122	eP	P	09 50 10.2	-1.0
VRHR	Novokhopersk	77.68	40	eP	P	09 50 11.7	+0.2
VRHR				e		09 53 03.8	
VRHR				ePPP		09 54 50.5	
VRHR				eS	S	10 00 05.5	+1.3
VRHR				eSS	SS	10 05 08.7	+5.1
VRHR				pmax	pmax		
	comp=Z,310nm,1.0s,mb6.2						
VRHR				pmax	pmax		
	comp=N,80nm,0.7s						
VRHR				pmax	pmax		
	comp=E,260nm,0.9s						
VRHR				pmax	pmax		
	comp=Z,3µm,10.2s						
VRHR				pmax	pmax		
	comp=N,320nm,7.3s						
VRHR				pmax	pmax		
	comp=E,1µm,11.5s						
VRHR				smax			
	comp=E,21µm,13.0s						
VRHR				smax			
	comp=Z,9µm,13.2s						
VRHR				smax			
	comp=N,9µm,11.0s						
MARD	Mardin	77.80	54	⇑iP	P	09 50 13.5	+1.0
EZM	Erzurum	78.06	51	eP	P	09 50 16.3	+2.4
ERZM	Erzurum	78.07	51	⇑iP	P	09 50 15.3	+1.4
HOMI	Horasan	78.47	51	⇓iP	P	09 50 17.5	+1.3
KIV	Kislovodsk	78.77	47	P	P	09 50 18.9	+1.2
	comp=N,2µm,1.2s,mb6.8,SNR=51						
KIV	Kislovodsk	78.77	47	κ iP	P	09 50 17.8	+0.1
KIV				i		09 50 22.4	
KIV				i		09 50 25.5	
KIV				i		10 00 16.8	
KIV				ePS		10 00 56.7	
KIV				i SS	SS	10 05 17.7	-2.6
KIV				pmax	pmax		
	comp=Z,446nm,1.2s,mb6.3						
KIV				MLR	MLR		
	comp=Z,34µm,18.0s,MS6.7						
KIV	Kislovodsk	78.77	47	⇑eP	P	09 50 18.2	+0.5
KIV				LR	LR		
	comp=Z,41µm,21.0s,MS6.7						
KIV	Kislovodsk	78.77	47	P	P	09 50 18.2	+0.5
	SNR=128						
KIV				P	pP	09 50 18.2	-0.9
	SNR=128						
TATV	Tatvan	78.87	53	⇑iP	P	09 50 20.1	+1.7
KARS	Kars	79.33	51	eP	P	09 50 22.6	+1.7
AGRB	Hanur-Agry	79.34	52	eP	P	09 50 22.4	+1.5
ONI	Oni	79.43	48	P	P	09 50 21.7	+0.3
PRGR	Permogore	79.47	29	eP	P	09 50 21.8	+0.6
PRGR				pmax	pmax		
	comp=Z,646nm,1.1s,mb6.5						
KMBO	Kilima Mbogo	79.56	93	P	P	09 50 24.2	+1.6
	comp=Z,61nm,1.1s,mb5.4,baz=291,slow=4.5,SNR=33						
KMBO				LR	LR	10 21 37.3	
	comp=Z,90µm,19.5s,MS7.1,baz=274,slow=33						
MSL	Mosul	79.74	55	ex	x	09 50 28.0	
MSL				ex	x	09 50 40.0	
MSL				ex	x	09 50 46.0	
MSL				ex	x	09 53 16.0	
MSL				ex	x	10 00 21.0	
KSD	Kokstad	79.74	124	eP	P	09 50 21.6	-1.7
KSD				AMb	AMB	09 50 46.3	
	comp=Z,1µm,1.6s,mb6.5						
VANB	Van	79.74	53	eP	P	09 50 24.6	+1.4
DYDN	Diyadin	79.88	52	⇑iP	P	09 50 25.2	+1.3
GOR	Gori	79.97	49	P	P	09 50 25.5	+1.2
CUKT	Cukurca	80.05	54	eP	P	09 50 24.9	0.0
HAKT	HAKKARI	80.09	54	eP	Px	09 50 43.1	
CLDR	Caldiran	80.10	52	eP	P	09 50 26.7	+1.6
TBLG	Delisi	80.46	49	P	P	09 50 29.3	+2.3
MTA	Mtatsminda	80.50	49	P	P	09 50 28.5	+1.3
POGA	Pongola	80.59	120	eP	P	09 50 28.0	+0.1
POGA				AMb	AMB	09 50 42.9	
	comp=Z,696nm,1.5s,mb6.4						
GNI	Garni	80.63	51	eP	P	09 50 28.6	+0.6
GNI	Garni	80.63	51	⇑eP	P	09 50 28.5	+0.6
GNI				LR	LR		
	comp=Z,40µm,21.0s,MS6.7						
GNI	Garni	80.63	51	P	P	09 50 28.5	+0.6
	SNR=148						
GNI				P	pP	09 50 28.5	-0.7
	SNR=148						
BHD	Baghdad	81.12	58	i x	P	09 50 31.0	+0.3
BHD				i x	x	10 00 44.0	
WRAK	Wrangell Islan	81.40	326	PFAKE		09 50 40.0	+8.3
WRAK				LR	LR		
	comp=Z,53µm,20.0s,MS6.9						
MAK	Makhachkala	82.36	48	d iP	P	09 50 38.2	+1.2
MAK				ePPP		09 55 42.2	
MAK				i S	S	10 00 55.2	+1.4
MAK				pmax	pmax		
	comp=N,261nm,0.8s						
MAK				pmax	pmax		
	comp=E,217nm,0.8s						
MAK				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
MAK				pmax	pmax		
	comp=Z,10µm,6.9s						
MAK				smax			
	comp=N,11µm,8.9s						
MAK				smax			
	comp=E,39µm,10.5s						
MAK				MLR	MLR		
	comp=Z,69µm,17.0s,MS7.1						
MAK				MLR	MLR		
	comp=E,60µm,21.0s,MS7.2						
MAK				MLR	MLR		
	comp=N,95µm,23.0s,MS7.2						
MAK	Makhachkala	82.36	48	i P	P	09 50 36.4	-0.6
SKAG	Skagway	82.59	329	eP	P	09 50 37.9	0.0
	comp=N,686nm,1.6s,mb6.4						
TRBA	At Turbah	83.77	78	⇑eP	P	09 50 46.5	+1.6
DHBB	Dhamar BB	83.81	76	⇑eP	P	09 50 47.5	+2.4
MIB	Mutribah	84.10	61	eP	P	09 50 46.7	+0.4
MIB				AMb	AMB	09 50 52.9	
	comp=Z,1µm,1.7s,mb6.7						
NAY	Al-Naaiem	84.11	61	eP	P	09 50 46.1	-0.2
NAY				AMb	AMB	09 50 52.0	
	comp=Z,485nm,1.7s,mb6.4						
EGAK	Eagle	84.30	335	eP	P	09 50 46.4	-0.2
	comp=Z,355nm,0.7s,mb6.6						
EGAK				ePP	PP	09 54 05.7	+4.8
EGAK				LR	LR		
	comp=Z,39µm,19.0s,MS6.8						
VNA1	Neumayer--Stat	84.35	169	eP	P	09 50 48.2	+1.6
VNA1	Neumayer--Stat	84.35	169	e	PKKPbc	10 08 59.1	-3.2
RDF	Al-Radifah	84.42	62	eP	P	09 50 48.3	+0.3
RDF				AMb	AMB	09 50 54.8	
	comp=Z,818nm,1.6s,mb6.6						
UMR	Umm Al-Rimmam	84.47	61	eP	P	09 50 48.3	+0.1
UMR				AMb	AMB	09 50 55.1	
	comp=Z,1µm,1.6s,mb6.8						
KBD	Kabd	84.51	61	eP	P	09 50 49.1	+0.7
KBD				AMb	AMB	09 50 55.2	
	comp=Z,787nm,1.7s,mb6.6						
PNL	Peninsula	84.59	330	eP	P	09 50 49.3	+1.2
	comp=Z,1µm,1.7s,mb6.8						
VNA3	Neumayer Olymp	84.61	170	eP	P	09 50 48.1	+0.3
VNA3				e		09 50 52.3	
VNA3	Neumayer Olymp	84.61	170	e	PKKPbc	10 08 56.0	-5.7
VNA3	Neumayer Olymp	84.61	170	e	PKKPbc	10 08 56.0	-5.7
VNA2	Neumayer--Watz	84.74	169	eP	P	09 50 47.6	-0.9
VNA2				e		09 50 53.0	
VNA2				e		10 08 57.6	
VNA2	Neumayer--Watz	84.74	169	e	PKKPbc	10 08 58.1	-3.3
	baz=64,slow=2.5						
QRN	Al-Qurain	84.77	62	eP	P	09 50 50.1	+0.4
QRN				AMb	AMB	09 50 56.6	
	comp=Z,1µm,1.7s,mb6.7						
SOKR	Solikamsk	85.21	30	c iP	P	09 50 51.5	+0.3
SOKR				S	S	10 01 16.1	-5.8
SOKR				SSS		10 10 25.2	
SOKR				pmax	pmax		
	comp=Z,540nm,1.5s,mb6.5						
SOKR				MLR	MLR		
	comp=Z,95µm,18.0s,MS7.2						
MENT	Mentasta	85.85	333	eP	P	09 50 54.6	+0.2
ARU	Arti	86.87	33	P	P	09 51 00.0	+0.5
	comp=Z,694nm,1.3s,mb6.7,SNR=36						
ARU	Arti	86.87	33	⇑eP	P	09 50 59.3	-0.2
ARU				MLR	MLR		
	comp=Z,147µm,20.0s,MS7.4						
COLA	College	87.03	336	P	P	09 50 59.2	-0.9
COLA				pmax	pmax		
	comp=Z,350nm,1.3s,mb6.4						
COLA	College	87.03	336	eP	P	09 50 59.1	-1.0
	comp=Z,346nm,1.3s,mb6.4						
COLA				LR	LR		
	comp=Z,62µm,19.0s,MS7.0						
SVE	Sverdlovsk	87.87	32	⇓eP	P	09 51 04.7	+0.3
SVE				eS	SKSac	10 01 28.6	-4.8
SVE				pmax	pmax		
	comp=Z,288nm,2.0s,mb6.2						
SVE				pmax	pmax		
	comp=Z,3µm,15.3s						
SVE				MLR	MLR		
	comp=Z,122µm,17.0s,MS7.4						
AKTK	Aktyubinsk	88.06	39	P	P	09 51 05.6	+0.2
AKTK				S	SKSac	10 01 27.9	-6.9
AKTK				PKKPbc	PKKPbc	10 08 50.1	-1.9
AKTK				LR	LR	10 29 05.8	
AKTO	Aktyubinsk	88.06	39	P	P	09 51 05.6	+0.2
	comp=Z,73nm,0.9s,mb5.9,baz=291,slow=5.1,SNR=203						
AKTO				S	SKSac	10 01 27.9	-6.9
	comp=Z,0.4nm,0.5s,baz=77,slow=15,SNR=1.5						
AKTO				PKKPbc	PKKPbc	10 08 50.1	-1.9
	comp=Z,1.8nm,0.8s,baz=345,slow=3.0,SNR=4.6						
AKTO				LR	LR	10 29 05.8	
	comp=Z,70µm,19.0s,MS7.1,baz=125,slow=35						
TRF	Thorofare Moun	88.52	335	eP	P	09 51 07.5	+0.3
	comp=Z,481nm,1.6s,mb6.6						
TRF				ePP	PP	09 54 40.3	+5.4
BPAW	Bear Paw Mtn.	88.57	335	eP	P	09 51 06.4	-1.1
	comp=Z,247nm,1.5s,mb6.3						
BPAW				ePP	PP	09 54 36.9	+1.6
PMR	Palmer	88.67	333	eP	P	09 51 08.0	0.0
PMR				pmax	pmax		
	comp=Z,590nm,2.1s,mb6.5						
PMR	Palmer	88.67	333	eP	P	09 51 08.0	0.0
	comp=Z,590nm,2.1s,mb6.5						
MAIT	Maitri	88.94	165	eP	P	09 51 08.3	-0.7
NVL	N'lazarevskaya	88.96	164	eP	P	09 51 08.6	-0.5
NVL				S	SKSac	10 01 38.6	-0.5
NVL				e		10 03 00.2	
NVL				pmax	pmax		
	comp=Z,231nm,1.4s,mb6.3						
NVL				MLR	MLR		
	comp=N,14µm,19.0s,MS6.5						
NVL				MLR	MLR		
	comp=E,12µm,19.0s,MS6.5						
NVL				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.6						
CHUM	Lake Minchumin	89.19	335	eP	P	09 51 09.7	-0.8
	comp=Z,103nm,1.0s,mb6.1						
FIB	Fire Island	89.29	333	eP	P	09 51 11.4	+0.4
FIB				pmax	pmax		
	comp=Z,491nm,1.7s,mb6.6						
FIB	Fire Island	89.29	333	eP	P	09 51 11.4	+0.4
	comp=Z,491nm,1.7s,mb6.6						
SEW	Seward	89.34	331	eP	P	09 51 11.3	+0.1
	comp=Z,324nm,1.5s,mb6.4						
PPLA	Purkeypile	89.53	335	eP	P	09 51 11.3	-0.7
	comp=Z,502nm,1.5s,mb6.6						
AB31	Akbulak array	89.57	40	P	P	09 51 12.8	+0.3
AB31				pmax	pmax		
	comp=Z,869nm,1.8s,mb6.8						
ABKT	Ailbek	91.26	51	P	P	09 51 22.5	+1.8
	comp=Z,613nm,0.9s,mb6.9,SNR=26						
KDAK	Kodiak Island	91.71	330	i P	P	09 51 23.7	+1.4
ABTO	Aybut	91.73	72	P	P	09 51 25.0	+1.8
	SNR=22						
WHFO	Wadi Hawf	92.06	71	P	P	09 51 26.1	+1.3
	SNR=18						
ASUD	Al Ashush, Dub	92.06	65	P	P	09 51 26.8	+2.1
	SNR=23						
NAZ	Nazwa, Dubai	92.28	64	P	P	09 51 26.8	+1.2
	SNR=33						
OHAK	Old Harbor	92.28	330	eP	P	09 51 24.6	-0.4
	comp=Z,222nm,1.4s,mb6.3						
RBK	Rabkut	92.55	72	P	P	09 51 28.4	+1.3
	SNR=14						
ABPO	Ambohimpanom	92.62	109	PFAKE		09 51 40.0	+13
ABPO				LR	LR		
	comp=Z,53µm,21.0s,MS7.0						
BANOM	Banah	92.63	63	P	P	09 51 28.5	+1.2
	SNR=23						
PTCN	Pitcairn Islan	92.86	245	PFAKE		09 51 40.0	+12
PTCN				LR	LR		
	comp=Z,34µm,22.0s,MS6.8						
ARQ	Araqi	93.41	66	P	P	09 51 31.7	+0.8
	SNR=39						
HOQ	Hoqain	94.06	65	P	P	09 51 34.3	+0.4
	SNR=38						
BSY	Bisya	94.15	66	P	P	09 51 35.5	+1.2
	SNR=16						
BRVK	Borovoye	94.39	34	⇑eP	P	09 51 35.1	+0.3
BRVK				LR	LR		
	comp=Z,163µm,21.0s,MS7.5						
BRVK	Borovoye	94.39	34	P	P	09 51 35.5	+0.7
	SNR=16						
BRVK				P	pP	09 51 35.5	-0.7
	SNR=16						
BVA0	Borovoye Array	94.46	34	i P	P	09 51 35.1	0.0
BVAR	Borovoye Array	94.46	34	P	P	09 51 35.4	+0.3
BVAR				S	SKSac	10 02 07.2	-4.0
BVAR				pmax	pmax		
	comp=Z,14nm,1.0s						
BVAR	Borovoye Array	94.46	34	P	P	09 51 35.4	+0.3
	comp=Z,14nm,1.0s,mb5.4,baz=270,slow=3.0,SNR=38						
BVAR				S	SKSac	10 02 07.2	-4.0
	comp=Z,0.4nm,0.4s,baz=162,slow=42,SNR=2.1						
BVAR				PKKPbc	PKKPbc	10 08 40.0	+4.1

	comp=Z,2.6nm,0.9s,baz=89,slow=6.2,SNR=4.0						
BVAR				LR	LR	10 31 42.1	
	comp=Z,169µm,21.3s,MS7.5,baz=293,slow=34						
BIDO	**Bidbid**	**94.80**	**65**	P	**P**	**09 51 38.1**	**+0.8**
	SNR=7.5						
SMDO	**Samad**	**94.84**	**66**	P	**P**	**09 51 39.1**	**+1.6**
	SNR=23						
WBK	**Wadi Bani Khal**	**95.77**	**66**	P	**P**	**09 51 43.7**	**+1.9**
	SNR=5.2						
GAMB	**Gambell**	**96.54**	**340**	*e*P	**P**	**09 51 44.5**	**+0.1**
	comp=Z,44nm,1.3s,mb5.7						
TIXI	**Tiksi**	**97.58**	**3**	⇓*e*P	**P**	**09 51 48.2**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,72nm,2.5s,mb5.8						
TIXI	**Tiksi**	**97.58**	**3**	⇓*e*P	**P**	**09 51 48.3**	**-0.6**
TIXI				LR	LR		
	comp=Z,22µm,22.0s,MS6.6						
MSEY	**Mahe Island**	**98.09**	**93**	PFAKE		09 52 00.0	+7.6
MSEY				LR	LR		
	comp=Z,62µm,19.0s,MS7.1						
KK31	**Karatay Array**	**98.54**	**43**	*i* P	**P**	**09 51 53.4**	**-0.5**
BILL	**Bilibino**	**98.89**	**350**	⇑*i*P	**P**	**09 51 54.1**	**-0.7**
BILL				*i* S	SKSac	10 02 34.6	+0.9
BILL				*i* PS	PS	10 04 46.1	-5.1
BILL				*i* SS	SS	10 10 12.7	+1.7
BILL				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.8						
BILL				pmax	pmax		
	comp=Z,3µm,3.2s						
BILL				MLR	MLR		
	comp=Z,31µm,18.0s,MS6.8						
BILL	**Bilibino**	**98.89**	**350**	⇑*i*P	**P**	**09 51 54.2**	**-0.6**
BILL				LR	LR		
	comp=Z,40µm,20.0s,MS6.9						
TAOE	**Nuku Hiva Isla**	**99.65**	**263**	*e*LQ		10 20 31.3	
	comp=Z,392µm,31.2s						
KURK	**Kurchatov**	**100.06**	**34**	P	Pdif	09 52 00.1	-0.2
	comp=Z,8.6nm,1.1s,baz=297,slow=5.3,SNR=15						
KURK				PKKPbc	PKKPbc	10 08 25.1	+4.6
	comp=Z,2.3nm,1.0s,baz=132,slow=1.2,SNR=3.6						
KURK	**Kurchatov**	**100.06**	**34**	P	Pdif	09 52 00.1	-0.2
KURK				PKKPbc	PKKPbc	10 08 25.1	+4.6
KURK				LR	LR		
	comp=Z,152µm,21.0s,MS7.5						
KURK	**Kurchatov**	**100.06**	**34**	P	Pdif	09 52 00.2	0.0
	SNR=8.7						
KURK				P		09 52 00.2	
	SNR=8.7						
NVS	**Novosibirsk**	**100.16**	**29**	*e*P	Pdif	09 52 00.5	-0.2
NVS				*e*S	SKSac	10 02 35.2	-5.2
NVS				pmax	pmax		
	comp=Z,43nm,1.7s						
NVS				pmax	pmax		
	comp=N,15nm,1.6s						
QSPA	**South Pole Qui**	**100.73**	**180**	Pdif	Pdif	09 52 06.2	+3.0
	comp=N,147nm,1.9s						
QSPA				LR	LR		
	comp=Z,29µm,21.0s,MS6.8						
RER	**Riviere de l’E**	**100.86**	**110**	PFAKE		09 52 20.0	+16
RER				LR	LR		
	comp=Z,49µm,21.0s,MS7.0						
EKS2	**Erkin-Say**	**100.91**	**43**	PFAKE		09 52 20.0	+16
EKS2				LR	LR		
	comp=Z,56µm,20.0s,MS7.1						
AML	**Almayashu**	**101.08**	**43**	P	Pdif	09 52 09.0	+4.2
	SNR=11						
AML	**Almayashu**	**101.08**	**43**	PFAKE		09 52 20.0	+15
AML				LR	LR		
	comp=Z,78µm,19.0s,MS7.2						
FRU	**Bishkek**	**101.39**	**42**	*e*P	Pdif	09 52 07.0	+0.8
FRU				pmax	pmax		
	comp=Z,57nm,1.8s						
AAK	**Ala-Archa**	**101.40**	**42**	⇑*i*P	Pdif	09 52 07.2	+0.9
AAK				pmax	pmax		
	comp=Z,27nm,1.7s						
AAK	**Ala-Archa**	**101.40**	**42**	P	Pdif	09 52 08.1	+1.8
	SNR=8.7						
AAK	**Ala-Archa**	**101.40**	**42**	Pdif	Pdif	09 52 08.2	+2.0
	comp=Z,126nm,1.9s						
AAK				LR	LR		
	comp=Z,44µm,20.0s,MS7.0						
ZALV	**Zalesovo Beam**	**101.43**	**29**	P	Pdif	09 52 06.6	+0.2
ZALV						09 56 11.0	
ZALV				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ZALV				pmax	pmax		
	comp=Z,16nm,1.1s						
ZALV	**Zalesovo Beam**	**101.43**	**29**	P	Pdif	09 52 06.6	+0.2
	comp=Z,4.3nm,0.8s,baz=291,slow=6.2,SNR=8.4						
ZALV				PP	PP	09 56 11.0	-4.4
	comp=Z,16nm,1.1s,baz=302,slow=8.6,SNR=3.6						
ZALV				PKKPbc	PKKPbc	10 08 20.5	+3.8
	comp=Z,2.2nm,0.9s,baz=117,slow=5.2,SNR=4.6						
UCH	**Uchtor**	**101.59**	**43**	P	Pdif	09 52 10.1	+3.0
	SNR=17						
UCH	**Uchtor**	**101.59**	**43**	PFAKE		09 52 20.0	+13
UCH				LR	LR		
	comp=Z,54µm,19.0s,MS7.1						
KBK	**Karagaybulak**	**101.69**	**42**	P	Pdif	09 52 09.9	+2.3
	SNR=7.2						
TKM2	**Tokmak 2**	**102.00**	**42**	P	Pdif	09 52 10.8	+1.9
TKM2				pmax	pmax		
	comp=Z,11nm,0.7s						
TKM2				MLR	MLR		
	comp=Z,49µm,20.0s,MS7.0						
TKM2	**Tokmak 2**	**102.00**	**42**	P	Pdif	09 52 10.7	+1.8
	SNR=12						
TKM2	**Tokmak 2**	**102.00**	**42**	Pdif	Pdif	09 52 10.8	+1.9
	comp=Z,11nm,0.7s						
TKM2				LR	LR		
	comp=Z,49µm,20.0s,MS7.0						
KZA	**Kyzart**	**102.15**	**43**	P	Pdif	09 52 12.6	+3.0
	SNR=8.2						
AAA	**Alma-Ata**	**102.71**	**41**	*e*P	Pdif	09 52 17.6	+5.5
AAA				*e*S	SKSac	10 02 56.8	+3.6
AAA				pmax	pmax		
	comp=Z,2µm,9.5s						
AAA				smax			
	comp=E,8µm,15.2s						
MK31	**Makanchi Array**	**104.19**	**36**	*i* P	Pdif	09 52 18.7	0.0
MK31				pmax	pmax		
	comp=Z,8.0nm,1.0s						
MKAR	**Makanchi Array**	**104.19**	**36**	Pdiff	Pdif	09 52 19.2	+0.6
	comp=Z,6.9nm,1.0s,baz=318,slow=3.4,SNR=16						
MKAR				PKKPbc	PKKPbc	10 08 08.5	+0.1
	comp=Z,4.4nm,1.1s,baz=114,slow=4.8,SNR=5.5						
YAK	**Yakutsk**	**107.17**	**4**	PFAKE		09 56 50.0	+9.1
YAK				LR	LR		
	comp=Z,16µm,21.0s,MS6.6						
POHA	**Pohakuloa**	**107.99**	**295**	PFAKE		09 57 00.0	+16
POHA				LR	LR		
	comp=Z,13µm,19.0s,MS6.5						
BOD	**Bodaibo**	**108.90**	**13**	*e*P	Pdif	09 52 40.1	+0.5
BOD				*e*		09 57 14.0	
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s						
WMQ	**Urumqi**	**109.02**	**36**	Pdif	Pdif	09 52 41.8	+1.7
WMQ				PP	PP	09 57 18.0	+6.2
WMQ				SS	SS	10 12 34.0	+2.7
WMQ				AMB	AMB		
	comp=Z,9µm,10.0s						
WMQ				LR	LR		
	comp=N,75µm,21.0s,MS7.4						
WMQ				LR	LR		
	comp=E,77µm,18.7s,MS7.4						
WMQ				LR	LR		
	comp=Z,75µm,22.5s,MS7.2						
WMQ	**Urumqi**	**109.02**	**36**	*e*P	PKiKP	09 56 41.0	-3.9
KIP	**Kipapa**	**109.63**	**297**	PFAKE		09 57 00.0	+13
KIP				LR	LR		
	comp=Z,17µm,19.0s,MS6.7						
PPT	**Papeete**	**109.88**	**255**	*e*PP	PP	09 57 14.6	-5.0
	comp=Z,3µm,28.0s						
PPT	**Papeete**	**109.88**	**255**	*e*PS	PS	10 06 47.3	-1.3
	comp=Z,29µm,27.0s						
PPT				*e*SS	SS	10 12 42.3	-3.3
	comp=Z,29µm,29.2s						
PPT				*e*LQ		10 24 09.4	
	comp=Z,47µm,29.5s						
PPT				*e*LR	LR	10 29 13.4	
	comp=Z,101µm,33.2s,baz=87						
MOY	**Mondy**	**110.09**	**24**	*e*PKIKP	PKiKP	09 56 52.2	+5.5
POO	**Poona**	**110.29**	**66**	*e*PKP	PKiKP	09 56 47.4	-0.6
KAD	**Karad**	**110.99**	**67**	*e*PKP	PKiKP	09 56 47.7	-1.6
TLY	**Talaya**	**111.09**	**22**	PFAKE		09 57 00.0	+11
TLY				LR	LR		
	comp=Z,56µm,19.0s,MS7.2						
SBA	**Scott Base**	**111.31**	**186**	PFAKE		09 57 00.0	+12
SBA				LR	LR		
	comp=Z,27µm,19.0s,MS6.8						
ZAK	**Zakamensk**	**111.99**	**23**	*e*P	Pdif	09 53 02.2	+8.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s						
PAF	**Port-aux-Franc**	**112.45**	**139**	PFAKE		09 57 00.0	+8.9
PAF				LR	LR		
	comp=Z,19µm,20.0s,MS6.7						
MNGI	**Mangalore**	**112.94**	**71**	*e*PKP	PKiKP	09 56 49.3	-3.8
MNGI				*i* x	x	10 07 17.8	
JBP	**Jabalpur**	**113.92**	**59**	⇓*i*x	PP	09 57 38.0	-10
JBP				*i* x	x	10 07 34.9	
JBP				*e*x	x	10 40 53.9	
	comp=Z,10µm,21.8s						
PET	**Petropavlovsk**	**114.11**	**347**	*e*P	Pdif	09 53 09.0	+6.2
PET				*e*		09 57 47.4	
PET				*e*		10 03 43.2	
PET				*e*PS	PS	10 07 24.1	-1.5
PET				*e*PPS		10 08 33.4	
PET				pmax	pmax		
	comp=Z,800nm,8.2s						
PET				pmax	pmax		
	comp=Z,2µm,9.9s						
PET				pmax	pmax		
	comp=Z,34nm,1.6s						
PET				pmax	pmax		
	comp=Z,3µm,14.2s						
PET	**Petropavlovsk**	**114.11**	**347**	PFAKE		09 57 10.0	+16
PET				LR	LR		
	comp=Z,23µm,21.0s,MS6.8						
PETK	**Petropavlovsk-**	**114.25**	**347**	PKIKP	PKiKP	09 56 54.6	+0.1
PETK						09 57 47.0	
PETK				pmax	pmax		
	comp=Z,6.0nm,1.1s						
PETK				pmax	pmax		
	comp=Z,9.0nm,1.0s						
PETK	**Petropavlovsk-**	**114.25**	**347**	PKP	PKiKP	09 56 54.6	+0.1
	comp=Z,6.4nm,1.1s,baz=102,slow=6.7,SNR=3.7						
PETK				PP	PP	09 57 47.0	-1.7
	comp=Z,8.9nm,0.9s,baz=102,slow=9.7,SNR=4.4						
XMAS	**Kiritimati**	**114.64**	**277**	PFAKE		09 57 10.0	+14
XMAS				LR	LR		
	comp=Z,12µm,19.0s,MS6.5						
HYB	**Hyderabad**	**114.87**	**65**	*i* PKP	Pdif	09 53 06.0	-0.1
HYB				*e*PP	PP	09 57 56.0	+1.1
HYB				*e*SKS	SKSac	10 03 44.0	-1.9
HYB				LR	LR	10 45 00.0	
	comp=Z,93nm,28.0s						
HYB	**Hyderabad**	**114.87**	**65**	*e*P	Pdif	09 53 06.0	-0.1
HYB				*e*		09 57 56.0	
DGAR	**Diego Garcia**	**115.19**	**93**	PFAKE		09 57 10.0	+13
DGAR				LR	LR		
	comp=Z,33µm,19.0s,MS7.0						
SONM	**Songino Array**	**115.26**	**23**	PKIKP	PKiKP	09 56 55.9	-0.7
SONM						10 07 31.8	
SONM				pmax	pmax		
	comp=Z,6.0nm,1.1s						
SONM	**Songino Array**	**115.26**	**23**	PKP	PKiKP	09 56 55.9	-0.7
	comp=Z,6.4nm,1.1s,baz=261,slow=1.4,SNR=16						
SONM				PP	PP	09 57 51.0	-5.0
	comp=Z,6.0nm,1.0s,baz=303,slow=3.3,SNR=5.1						
SONM				PKKPbc	PKKPbc	10 07 31.8	-1.0
	comp=Z,2.2nm,0.9s,baz=159,slow=3.8,SNR=5.8						
ULN	**Ulaanbaatar**	**115.48**	**23**	*i* PKIKP	PKPdf	09 56 54.5	-2.6
ULN				MLR	MLR		
	comp=Z,62µm,21.0s,MS7.2						
TRD	**Trivandrum**	**116.23**	**75**	⇑*e*x	PP	09 57 57.0	-7.8
MDRS	**Chennai**	**117.91**	**69**	*e*PKP	PKPdf	09 57 02.0	-0.6
MDRS				*e*x	x	10 01 40.2	
HIA	**Hailar**	**118.12**	**14**	*e*PKIKP	PKPdf	09 57 01.5	-0.6
HIA				MLR	MLR		
	comp=Z,38µm,19.0s						
BOK	**Bokaro**	**118.52**	**55**	*e*PKP	PKPdf	09 57 02.5	-1.1
GTA	**Gaotai**	**118.73**	**33**	PKP	PKPdf	09 57 03.2	-0.4
GTA				PP	PP	09 58 22.3	+1.6
GTA				PKS		10 00 38.8	
GTA				SKKS	SKKSac	10 05 21.8	-1.2
GTA				SS	SS	10 14 42.6	+3.1
GTA				AMB	AMB		
	comp=Z,5µm,11.9s						
GTA				LR	LR		
	comp=N,25µm,24.1s,MS7.1						
GTA				LR	LR		
	comp=E,49µm,23.5s,MS7.1						
GTA				LR	LR		
	comp=Z,27µm,32.4s						
VIS	**Vishakhapatnam**	**118.97**	**63**	*e*PKP	PKPdf	09 57 02.1	-2.5
LSA	**Lhasa**	**119.51**	**47**	PKP	PKPdf	09 57 05.2	-0.2
LSA				LR	LR		
	comp=N,12µm,26.5s,MS6.8						
LSA				LR	LR		
	comp=E,26µm,28.7s,MS6.8						
LSA				LR	LR		
	comp=Z,28µm,35.3s						
LSA	**Lhasa**	**119.51**	**47**	*e*PKPdf	PKPdf	09 57 05.4	+0.1
LSA				LR	LR		
	comp=Z,27µm,19.0s,MS6.9						
RAR	**Rarotonga**	**119.68**	**252**	PFAKE		09 57 20.0	+14
RAR				LR	LR		
	comp=Z,15µm,19.0s,MS6.6						
KLR	**Kul’dur**	**120.05**	**5**	*e*PKIKP	PKPdf	09 57 00.0	-5.8
KLR				*e*		09 58 27.0	
HABR	**Khabarovsk**	**121.00**	**2**	*i* PKIKP	PKPdf	09 57 05.3	-2.4
HABR				*e*		09 58 34.3	
HABR				*e*PPP		10 01 07.7	
HABR				*e*PS	PS	10 08 26.4	-1.5
HABR				*e*SS	SS	10 15 08.2	+0.8
HABR				*e*SSS		10 19 36.5	
HABR				MLR	MLR		
	comp=Z,18µm,17.0s,MS6.8						
CASY	**Casey**	**121.44**	**167**	PFAKE		09 57 20.0	+12
CASY				LR	LR		
	comp=Z,27µm,21.0s,MS6.9						
MIDW	**Midway**	**122.09**	**313**	PFAKE		09 57 20.0	+10
MIDW				LR	LR		
	comp=Z,28µm,20.0s,MS6.9						
SHL	**Shillong**	**122.33**	**51**	*e*PKP	PKPdf	09 57 10.5	-0.4
YSS	**Yuzh-Sakhalins**	**122.43**	**356**	*i* PKIKP	PKPdf	09 57 09.7	-0.8
YSS				*e*		10 04 12.0	
YSS				*e*PS	PS	10 08 43.0	+2.3
YSS				*e*PPS		10 10 08.0	
YSS				*e*SS	SS	10 15 20.0	-5.7
YSS				pmax	pmax		
	comp=Z,40nm,1.1s						
YSS				MLR	MLR		
	comp=Z,17µm,20.0s,MS6.7						
YSS				MLR	MLR		
	comp=N,12µm,19.0s,MS6.7						
YSS				MLR	MLR		
	comp=E,12µm,18.0s,MS6.7						
YSS	**Yuzh-Sakhalins**	**122.43**	**356**	*i* PKP	PKPdf	09 57 09.8	-0.7
YSS				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
BTO	**Baotou**	**122.71**	**25**	*e*PKP	PKPdf	09 57 10.4	-0.8
AGT	**Agartala**	**122.74**	**53**	*e*PKP	PKPdf	09 57 08.0	-3.7
HHC	**Hu-ho-hao-te**	**123.13**	**24**	*e*PKP	PKPdf	09 57 12.0	0.0
HHC				PP	PP	09 58 52.0	+1.6
HHC				PKS		10 00 47.1	
HHC				SKS	SKSdf	10 04 18.8	-6.2
HHC				SKKS	SKKSac	10 05 41.4	-10
HHC				SS	SS	10 15 32.2	-3.0
HHC				AMB	AMB		
	comp=Z,4µm,15.3s						
HHC				LR	LR		
	comp=N,57µm,18.6s,MS7.3						
HHC				LR	LR		
	comp=E,36µm,16.9s,MS7.3						
HHC				LR	LR		
	comp=Z,76µm,19.5s,MS7.4						
LZH	**Lanzhou**	**123.34**	**33**	PKP	PKPdf	09 57 12.1	-0.4
LZH				PP	PP	09 58 54.2	+2.1
LZH				SKS	SKSdf	10 04 17.0	-8.6
LZH				SKKS	SKKSac	10 05 48.4	-4.7
LZH				AMB	AMB		
	comp=Z,4µm,6.1s						
LZH				LR	LR		
	comp=N,49µm,17.9s						
LZH				LR	LR		
	comp=Z,56µm,19.3s,MS7.2						
DRV	**Dumont d’Urvil**	**124.12**	**181**	SKKS	PKKPbc	10 06 55.0	-5.3
DRV				SS	SS	10 15 53.0	+5.6
MDJ	**Mudanjiang**	**124.38**	**7**	PKP	PKPdf	09 57 14.1	-0.2
MDJ				PKS		10 00 49.1	
MDJ				SKS	SKSdf	10 04 23.1	-4.1
MDJ				SS	SS	10 15 49.2	-1.3
MDJ				AMB	AMB		
	comp=Z,2µm,10.9s						
MDJ				LR	LR		
	comp=N,12µm,43.8s,MS6.8						
MDJ				LR	LR		
	comp=E,46µm,43.8s,MS6.8						
MDJ				LR	LR		
	comp=Z,26µm,23.9s						
MDJ	**Mudanjiang**	**124.38**	**7**	*e*PKPdf	PKPdf	09 57 14.4	+0.1
MDJ				LR	LR		
	comp=Z,20µm,20.0s,MS6.8						
CN2	**Changchun**	**124.53**	**11**	PKP	PKPdf	09 57 13.4	-1.2
CN2				PP	PP	09 59 01.0	+1.5
CN2				PKS		10 00 48.7	
CN2				SKKS	SKKSac	10 05 59.1	-1.2
CN2				SS	SS	10 15 50.4	-2.0
CN2				AMB	AMB		
	comp=Z,2µm,12.0s						
CN2				LR	LR		
	comp=N,19µm,19.0s,MS6.9						
CN2				LR	LR		
	comp=E,15µm,19.0s,MS6.9						
CN2				LR	LR		
	comp=Z,21µm,18.0s,MS6.8						
ASAJ	**Asahikawa**	**125.27**	**356**	PKIKP	PKPdf	09 57 16.0	0.0
ASAJ				pmax	pmax		
	comp=Z,37nm,1.1s						
ASAJ	**Asahikawa**	**125.27**	**356**	P	PKPdf	09 57 15.7	-0.3
ASAJ	**Asahikawa**	**125.27**	**356**	PKP	PKPdf	09 57 15.9	-0.1
	comp=Z,37nm,1.1s,baz=274,slow=11,SNR=9.7						
JMP	**Maruseppu**	**125.32**	**355**	P	PKPdf	09 57 16.0	-0.1
BJI	**Beijing**	**125.55**	**21**	PKP	PKPdf	09 57 15.2	-1.5
BJI				PP	PP	09 59 09.2	+2.6
BJI				SKS	SKSdf	10 04 24.5	-5.1
BJI				AMB	AMB		
	comp=Z,4µm,14.2s						
BJI				LR	LR		
	comp=N,45µm,23.8s,MS7.1						
BJI				LR	LR		
	comp=E,9µm,24.9s,MS7.1						
BJI				LR	LR		
	comp=Z,69µm,26.2s,MS7.2						
BJT	**Baijiatuau**	**125.57**	**21**	*e*PKIKP	PKPdf	09 57 16.5	-0.2
BJT				MLR	MLR		
	comp=Z,62µm,21.0s						
SNY	**Shenyang**	**126.03**	**13**	⇓PKP	PKPdf	09 57 16.3	-1.2
SNY				PP	PP	09 59 11.2	+1.6
SNY				SKS	SKSdf	10 04 22.5	-7.9
SNY				SKKS	SKKSac	10 06 09.1	-0.9
SNY				SS	SS	10 16 08.9	-2.4
SNY				AMB	AMB		
	comp=Z,2µm,12.0s						
SNY				LR	LR		
	comp=N,24µm,19.2s,MS6.9						
SNY				LR	LR		
	comp=E,15µm,22.7s,MS6.9						
SNY				LR	LR		
	comp=Z,27µm,20.0s,MS6.9						
JEW	**Eniwo**	**126.61**	**357**	P	PKPdf	09 57 17.9	-0.7
JSH	**Shimam**	**126.86**	**358**	P	PKPdf	09 57 16.0	-3.1
CD2	**Chengdu**	**127.08**	**37**	PKP	PKPdf	09 57 16.5	-3.4
CD2				PP	PP	09 59 18.7	+1.4
CD2				PKS		10 00 51.7	
CD2				SKS	SKSdf	10 04 24.0	-8.8
CD2				SKKS	SKKSac	10 06 07.5	-10
CD2				AMB	AMB		
	comp=Z,6µm,14.9s						
CD2				LR	LR		
	comp=N,52µm,20.2s						
CD2				LR	LR		
	comp=Z,74µm,20.2s,MS7.3						
JEM	**Erimo**	**127.32**	**355**	P	PKPdf	09 57 20.8	+0.8
XAN	**Xi’an**	**127.56**	**31**	PKP	PKPdf	09 57 20.3	-0.4
XAN				PP	PP	09 59 20.3	+0.1
XAN				PKS		10 00 53.7	
XAN				SKS	SKSdf	10 04 30.8	-2.7
XAN				SKKS	SKKSac	10 06 12.7	-7.3
XAN				SS	SS	10 16 29.9	-1.4
XAN				AMB	AMB		
	comp=Z,5µm,17.2s						
XAN				LR	LR		
	comp=N,22µm,23.8s,MS7.1						
XAN				LR	LR		
	comp=E,40µm,22.8s,MS7.1						
XAN				LR	LR		
	comp=Z,52µm,21.8s,MS7.2						
DL2	**Dalian**	**128.29**	**16**	PKP	PKPdf	09 57 15.2	-6.8
DL2				PP	PP	09 59 24.6	0.0
DL2				PKS		10 00 47.3	
DL2				SKS	PKKPdf	10 07 38.8	+7.3
DL2				SS	SS	10 16 43.8	+4.1
DL2				pmax	pmax		
	comp=Z,1µm,15.1s						
DL2				smax			
	comp=E,14µm,20.1s						
DL2				SMZ			
	comp=E,21µm,20.2s						
JTM	**Tenmabayashi**	**128.68**	**357**	P	PKPdf	09 57 22.9	+0.3
TIA	**Tai’an**	**129.30**	**22**	PKP	PKPdf	09 57 23.1	-0.9
TIA				PP	PP	09 59 35.5	+4.1
TIA				LR	LR		
	comp=N,11µm,17.0s						
JOM	**Ohasama**	**129.97**	**357**	P	PKPdf	09 57 24.2	-0.9
KMI	**Kunming**	**130.43**	**44**	PKP	PKPdf	09 57 26.0	-0.4
KMI				sPKP		09 57 30.7	
KMI				PP	PP	09 59 44.9	+5.4
KMI				PKS		10 00 55.7	
KMI				SKS	SKSdf	10 04 33.8	-5.4
KMI				SKKS	SKKSac	10 06 32.3	-6.0
KMI				SS	SS	10 17 06.5	-1.2
KMI				AMB	AMB		
	comp=Z,6µm,11.6s						
KMI				LR	LR		
	comp=N,38µm,20.0s,MS7.1						
KMI				LR	LR		
	comp=E,21µm,21.8s,MS7.1						
KMI				LR	LR		
	comp=Z,41µm,20.0s,MS7.1						
INCN	**Inchon**	**130.86**	**12**	*e*PKPdf	PKPdf	09 57 26.6	-0.3
INCN				LR	LR		
	comp=Z,34µm,21.0s,MS7.0						
JYA	**Atsumi**	**130.92**	**358**	P	PKPdf	09 57 26.0	-1.0
AFI	**Afiamalu**	**130.99**	**261**	PFAKE		09 57 40.0	+12
AFI				LR	LR		
	comp=Z,14µm,21.0s,MS6.6						
KSRS	**Korea Array**	**131.13**	**11**	PKP	PKPdf	09 57 25.6	-1.9
	comp=Z,4.9nm,0.9s,baz=338,slow=3.7,SNR=12						
CHG	**Chiang Mai**	**131.50**	**53**	⇓P	PKPdf	09 57 28.3	-0.3
	comp=Z,26nm,1.3s						
CHTO	**Chiang Mai**	**131.50**	**53**	*e*PKIKP	PKPdf	09 57 28.4	-0.2
CHTO				MLR	MLR		
	comp=Z,21µm,20.0s,MS6.8						
JMM	**Marumori**	**131.60**	**357**	P	PKPdf	09 57 28.3	0.0
CMAR	**Chiang Mai Arr**	**131.70**	**53**	PKIKP	PKPdf	09 57 29.3	+0.4
CMAR						09 59 50.7	
CMAR				pmax	pmax		
	comp=Z,17nm,1.0s						
CMAR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
CMAR	**Chiang Mai Arr**	**131.70**	**53**	PKP	PKPdf	09 57 29.2	+0.3
	comp=Z,17nm,1.0s,baz=292,slow=3.2,SNR=54						
CMAR				PP	PP	09 59 50.7	+2.6
	comp=Z,5.9nm,1.0s,baz=305,slow=6.9,SNR=4.6						
GYA	**Guiyang**	**132.05**	**39**	Pdif	Pdif	09 54 21.6	-0.9
GYA				PKP	PKPdf	09 57 29.0	-0.4
GYA				PKS		10 01 02.0	
GYA				SKS	SKSdf	10 04 35.4	-6.6
GYA				SKKS	SKKSac	10 06 40.0	-8.2
GYA				AMB	AMB		
	comp=Z,6µm,10.4s						
GYA				LR	LR		
	comp=N,36µm,22.2s,MS7.1						
GYA				LR	LR		
	comp=E,19µm,22.2s,MS7.1						
GYA				LR	LR		
	comp=Z,56µm,21.6s,MS7.2						
BDT	**Bhumibol Dam**	**132.41**	**55**	P	PKPdf	09 57 30.0	-0.3
MAJO	**Matsushiro**	**132.99**	**360**	*e*PKIKP	PKPdf	09 57 30.9	0.0
MAJO				MLR	MLR		
	comp=Z,18µm,21.0s,MS6.8						
MAT	**Matsushiro**	**132.99**	**360**	PKP	PKPdf	09 57 29.5	-1.4
MAT	**Matsushiro**	**132.99**	**360**	P	PKPdf	09 57 30.1	-0.8

MJAR	Matsushiro Arr	132.99	360	PKIKP	PKPdf	09 57 30.5	-0.4
MJAR						09 59 56.0	
MJAR				pmax	pmax		
	comp=Z,27nm,1.2s						
MJAR				pmax	pmax		
	comp=Z,17nm,1.3s						
MJAR	Matsushiro Arr	132.99	360	PKP	PKPdf	09 57 30.5	-0.4
	comp=Z,27nm,1.2s,baz=323,slow=2.6,SNR=19						
MJAR				PP	PP	09 59 56.0	+1.1
	comp=Z,17nm,1.3s,baz=346,slow=5.5,SNR=4.7						
MJAR	Matsushiro Arr	132.99	360	PKP	PKPdf	09 57 30.5	-0.4
MJAR				PP	PP	09 59 56.0	+1.1
WHN	Wuhan	133.05	28	PKP	PKPdf	09 57 30.8	-0.4
WHN				PP	PP	09 59 57.1	+1.3
WHN				PKS		10 01 03.1	
WHN				LR	LR		
	comp=N,108µm,18.2s						
WHN				LR	LR		
	comp=Z,134µm,21.3s,MS7.6						
JRY	Ryogami san	133.51	359	P	PKPdf	09 57 31.9	0.0
NJ2	Nanjing	133.65	23	*e*PKP	PKPdf	09 57 32.1	-0.2
NJ2				PP	PP	10 00 05.5	+6.0
NJ2				SKS	SKSdf	10 04 38.5	-6.2
JOD2	Odawara 2	134.25	359	P	PKPdf	09 57 32.3	-1.1
RAO	Raoul Island	135.06	239	PFAKE		09 57 50.0	+15
RAO				LR	LR		
	comp=Z,13µm,20.0s,MS6.7						
JIE	Ise	135.11	2	P	PKPdf	09 57 33.3	-1.7
SSE	Sheshan	135.36	21	PKP	PKPdf	09 57 35.3	-0.2
SSE				PP	PP	10 00 14.6	+4.3
SSE				SS	SS	10 18 07.2	+1.1
SSE				AMB	AMB		
	comp=Z,2µm,9.9s						
SSE				LR	LR		
	comp=N,27µm,19.2s,MS7.0						
SSE				LR	LR		
	comp=E,15µm,19.2s,MS7.0						
SSE				LR	LR		
	comp=Z,46µm,14.2s,MS7.3						
SNZO	South Karori	135.72	220	PFAKE		09 57 50.0	+14
SNZO				LR	LR		
	comp=Z,32µm,20.0s,MS7.0						
JNU	Nakatsue	135.86	9	P	PKPdf	09 57 34.4	-2.0
GZH	Guangzhou	138.57	36	PKP	PKPdf	09 57 36.4	-5.3
GZH				LR	LR		
	comp=N,16µm,20.6s,MS7.0						
GZH				LR	LR		
	comp=E,23µm,18.3s,MS7.0						
GZH				LR	LR		
	comp=Z,50µm,20.6s,MS7.2						
QIZ	Qiongzhong	139.38	43	PKP	PKPdf	09 57 38.3	-4.9
QIZ				PP	PP	10 00 34.9	-1.3
QIZ				AMB	AMB		
	comp=Z,6µm,15.0s						
QIZ				LR	LR		
	comp=E,24µm,24.3s						
QIZ				LR	LR		
	comp=Z,34µm,21.3s,MS7.1						
QIZ	Qiongzhong	139.38	43	*e*PKPdf	PKPdf	09 57 44.0	+0.8
QIZ				LR	LR		
	comp=Z,37µm,21.0s,MS7.1						
FUNA	Funafuti	139.44	269	PFAKE		09 57 50.0	+6.5
FUNA				LR	LR		
	comp=Z,13µm,19.0s,MS6.7						
KULM	Kulim	139.47	69	P	PKPdf	09 57 46.0	+2.5
KULM	Kulim	139.47	69	*e*PKPdf	PKPdf	09 57 44.0	+0.4
KULM				*e*PP	PP	10 00 39.1	+1.4
KULM				LR	LR		
	comp=Z,37µm,20.0s,MS7.1						
COCO	West Island	139.56	96	*i* PKIKP	PKPdf	09 57 49.7	+6.1
QZH	Quanzhou	139.77	28	PKP	PKPdf	09 57 41.1	-2.7
QZH				PP	PP	10 00 38.3	+0.3
QZH				PKS		10 01 18.2	
QZH				AMB	AMB		
	comp=Z,6µm,9.0s						
QZH				LR	LR		
	comp=N,50µm,16.2s,MS7.4						
QZH				LR	LR		
	comp=E,43µm,18.9s,MS7.4						
QZH				LR	LR		
	comp=Z,72µm,20.5s,MS7.4						
IPM	Ipoh	140.12	70	P	PKPdf	09 57 45.7	+0.9
TATO	Taipei	140.99	24	PFAKE		09 58 00.0	+14
TATO				LR	LR		
	comp=Z,34µm,21.0s,MS7.1						
FRIM	Kepong	141.14	71	P	PKPdf	09 57 46.2	-0.4
YHNB	Yeheng	141.22	25	PFAKE		09 58 00.0	+14
YHNB				LR	LR		
	comp=Z,35µm,22.0s,MS7.1						
JOW	Kunigami	141.47	14	PKP	PKPdf	09 57 46.0	-0.8
	comp=Z,39nm,0.9s,baz=243,slow=2.5,SNR=5.8						
SSLB	Suanglung	141.82	26	*e*PKPdf	PKPdf	09 57 44.1	-3.4
YULB	Yu-li	142.32	26	*e*PKPdf	PKPdf	09 57 48.5	+0.1
KGM	Kluang	143.15	72	P	PKPdf	09 57 48.3	-1.8
TARA	Tarawa	143.34	287	PFAKE		09 58 00.0	+9.5
TARA				LR	LR		
	comp=Z,14µm,21.0s,MS6.7						
MYKOM	Kota Tinggi	143.73	72	P	PKPdf	09 57 49.2	-2.0
MOO	Moorlands	147.42	193	*e*PKP	PKPdf	09 57 55.0	-1.7
XMIS	Christmas Isla	148.11	93	*e*PKP	PKPbc	09 58 02.1	+0.3
TPI	Tanjungpandan	148.77	77⇑	*e*P	PKPbc	09 58 05.0	+1.4
BALP	Baler	149.03	32	*e*P	PKPbc	09 58 03.8	-0.3
KSM	Kuching	149.81	68	P	PKPdf	09 58 02.4	+1.0
KSM	Kuching	149.81	68	*e*PKPbc	PKPbc	09 58 04.9	-1.3
KSM				*e*PKPab	PKPab	09 58 11.0	-0.5
KSM				LR	LR		
	comp=Z,40µm,20.0s,MS7.2						
LUBP	Lubang	149.93	36	*e*P	PKPbc	09 58 05.5	-0.9
DZM	Mont Dzumac	150.62	244	*e*PKPdf	PKPbc	09 58 04.2	-3.7
DZM				*e*PKPbc	PKPbc	09 58 07.7	-0.1
DZM				*e*PKPab	PKPab	09 58 14.0	-0.6
NOUC	Port Laguerre	150.73	244	*e*P	PKPdf	09 58 03.2	+0.6
NWAO	Narrogin (SRO)	150.73	142	*e*PKIKP	PKPbc	09 58 07.7	-0.1
NWAO				*e*		09 58 15.3	
NWAO				MLR	MLR		
	comp=Z,21µm,20.0s						
NWAO	Narrogin (SRO)	150.73	142	P	PKPbc	09 58 08.0	+0.1
	SNR=12						
NWAO				P		09 58 08.0	
	SNR=12						
MUN	Mundaring	150.74	140	*e*PKP	PKPdf	09 58 01.8	-0.5
SBUM	Sibu	151.11	65	P	PKPbc	09 58 06.5	-2.8
PPR	Puerto Princes	151.97	44⇓	*e*P	PKPbc	09 58 11.0	-0.2
KLBR	Kellerberrin	151.97	141	*e*PKP	PKPdf	09 58 03.4	-0.8
	comp=Z,148nm,0.9s						
BATP	Bataraza	152.00	47	*e*P	PKPbc	09 58 11.8	+0.6
PVCP	Virac	152.16	30	*e*P	PKPbc	09 58 11.1	-0.5
TOO	Toolangi	152.46	193	*e*PKP	PKPdf	09 58 05.4	+0.6
KKM	Kota Kinabalu	152.57	54	P	PKPdf	09 58 07.1	+1.5
KKM	Kota Kinabalu	152.57	54	*e*PKPdf	PKPdf	09 58 05.0	-0.7
KKM				*e*PKPbc	PKPbc	09 58 12.7	+0.1
KKM				*e*PKPab	PKPab	09 58 22.6	-0.4
KKM				LR	LR		
	comp=Z,35µm,20.0s,MS7.2						
CUYO	Cuyo Island	152.66	39	*e*P	PKPbc	09 58 12.8	0.0
RCP	Roxas	153.11	35⇑	*e*P	PKPbc	09 58 13.4	-0.3
CNB	Canberra Magne	153.46	201	*e*PKP	PKPdf	09 58 07.0	+0.7
CAN	Canberra	153.58	200	*e*PKIKP	PKPdf	09 58 07.4	+0.9
CAN				MLR	MLR		
	comp=Z,30µm,21.0s,MS7.1						
TRT	Tretes	154.69	85⇑	*e*P	PKPdf	09 58 07.0	-1.6
MYLDM	Lahad Datu	154.89	52	P	PKPdf	09 58 11.0	+2.0
GUMO	Guam	154.93	344	PFAKE		09 58 20.0	+11
GUMO				LR	LR		
	comp=Z,16µm,22.0s,MS6.8						
MSLP	Maasin	155.45	33	*e*P	PKPdf	09 58 10.4	+0.7
PAGZ	Pagadian	156.44	39	*e*P	PKPab	09 58 38.8	-0.4
ARMA	Armidale	156.71	211	*e*PKP	PKPdf	09 58 11.9	+1.0
FORT	Forrest	157.97	156	*e*PKP	PKPdf	09 58 06.4	-6.1
	comp=Z,41nm,0.8s						
FORT	Forrest	157.97	156	*e*PKPdf	PKPdf	09 58 12.4	-0.1
DAV	Davao City (W)	158.37	36	PFAKE		09 58 20.0	+6.6
DAV				LR	LR		
	comp=Z,36µm,20.0s,MS7.2						
HNR	Honiara	158.45	271	PFAKE		09 58 20.0	+6.5
HNR				LR	LR		
	comp=Z,17µm,22.0s,MS6.8						
STKA	Stephens Creek	158.70	188	*e*PKP	PKPdf	09 58 13.1	-0.2
	comp=Z,43nm,1.5s						
STKA	Stephens Creek	158.70	188	PKP	PKPdf	09 58 13.1	-0.2
	comp=Z,33nm,1.0s,baz=146,slow=0.9,SNR=22						
STKA	Stephens Creek	158.70	188	PKP	PKPdf	09 58 13.1	-0.2
MBWA	Marble Bar	159.54	123	*e*PKPdf	PKPdf	09 58 14.0	-0.6
MBWA				LR	LR		
	comp=Z,26µm,19.0s,MS7.1						
MBWA	Marble Bar	159.54	123	P	PKPdf	09 58 19.2	+4.6
	SNR=8.3						
MBWA				P		09 58 19.2	
	SNR=8.3						
EIDS	Eidsvold	160.93	218	*e*PKPdf	PKPdf	09 58 16.1	+0.1
KAPI	Kappang	160.97	74	*e*PKPdf	PKPdf	09 58 16.1	-0.3
KAPI				LR	LR		
	comp=Z,41µm,22.0s						
FITZ	Fitzroy Crossi	165.88	123	*e*PKP	PKPdf	09 58 20.5	-0.4
	comp=Z,43nm,1.1s						
FITZ	Fitzroy Crossi	165.88	123	*e*PKPdf	PKPdf	09 58 20.8	0.0
FITZ				*e*PKPab	PKPab	09 59 20.4	-0.1
ASAR	Alice Springs	166.52	163	PKIKP	PKPdf	09 58 20.8	-0.4
ASAR						09 59 22.3	
ASAR				pmax	pmax		
	comp=Z,19nm,1.0s						
ASAR				pmax	pmax		
	comp=Z,50nm,1.2s						
ASAR	Alice Springs	166.52	163	PKP	PKPdf	09 58 20.8	-0.5
	comp=Z,19nm,1.0s,baz=169,slow=0.8,SNR=74						
ASAR				PKPab	PKPab	09 59 22.3	-0.6
	comp=Z,50nm,1.2s,baz=188,slow=3.6,SNR=6.1						
ASAR				PP	PP	10 03 20.4	+11
	comp=Z,12nm,1.1s,baz=172,slow=4.7,SNR=5.9						
CTA	Charters Tower	167.82	219	*e*PKP	PKPdf	09 58 21.5	-0.8
	comp=Z,27nm,1.7s						
CTA	Charters Tower	167.82	219	PP	PP	10 03 22.5	+5.8
	comp=Z,7.1nm,1.0s,baz=142,slow=6.8,SNR=3.5						
CTAO	Charters Tower	167.82	219	*e*PKIKP	PKPdf	09 58 22.1	-0.2
CTAO				MLR	MLR		
	comp=Z,48µm,20.0s						
WRA	Warramunga Arr	170.15	159	PKIKP	PKPdf	09 58 21.6	-2.2
WRA						10 03 33.1	
WRA				pmax	pmax		
	comp=Z,24nm,1.1s						
WRA	Warramunga Arr	170.15	159	PKP	PKPdf	09 58 21.6	-2.2
	comp=Z,24nm,1.1s,baz=266,slow=0.7,SNR=51						
WRA				PKPab	PKPab	09 59 40.2	+1.2
	comp=Z,47nm,1.2s,baz=192,slow=3.2,SNR=8.7						
WRA				PP	PP	10 03 33.1	+5.3
	comp=Z,4.8nm,1.0s,baz=189,slow=4.1,SNR=4.8						
WRAB	Tennant Creek	170.16	159	PFAKE		09 58 30.0	+6.2
WRAB				LR	LR		
	comp=Z,57µm,21.0s						
COEN	Coen	174.09	237	*e*PKPdf	PKPdf	09 58 25.8	+0.2
KAKA	Kakadu	174.12	110	*e*PKP	PKPdf	09 58 23.5	-2.2
	comp=Z,93nm,1.4s						
KAKA	Kakadu	174.12	110	*e*PKPdf	PKPdf	09 58 23.4	-2.3

KRSC 08 10:28:12.7±1.0, 52°.84N×159°.84E, h40km±30km, ML3.6, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLC	Nalytchevo	0.45	318	*i* P	Pn	10 28 23.1	+0.4
NLC				*i* S	Sn	10 28 30.3	+0.6
PET	Petropavlovsk	0.74	285	*e*P	Pn	10 28 26.5	-0.2
PET				*i* S	Sn	10 28 36.4	-0.3
AVH	Avacha	0.79	303	*e*P	Pn	10 28 27.7	+0.4
AVH				*i* S	Sn	10 28 38.5	+0.6
RUS	Russkaya	0.91	244	*e*P	Pn	10 28 29.3	+0.4
RUS				*i* S	Sn	10 28 41.4	+0.7
GRL	Gorelyy	1.11	256	*e*P	Pn	10 28 32.7	+1.0
GRL				*i* S	Sn	10 28 47.0	+1.2
GNL	Ganaly	1.43	308	*e*P	Pn	10 28 36.3	+0.3
GNL				*i* S	Sn	10 28 54.2	+0.7
MIPR	Malaya Ipel'ka	1.96	255	*e*P	Pn	10 28 44.7	+1.3
MKZ	Mys Kozlova	2.05	32	*e*P	Pn	10 28 44.4	-0.3
MKZ				*i* S	Sn	10 29 07.7	-1.3
TUMR	Tumrok	2.46	4	*e*P	Pn	10 28 51.8	+1.6
KMNR	Kamenistaya	2.93	4	*e*P	Pn	10 28 59.2	+2.5
ZLN	Zelenaya	3.23	10	*e*P	Pn	10 29 03.4	+2.6
CIRR	Tsirk	3.33	9	*e*P	Pn	10 29 04.7	+2.6
KBTR	Krutoberegovo	3.79	26	*e*P	Pn	10 29 11.0	+2.4
SMKR	Semkarok	3.87	13	*e*P	Pn	10 29 11.4	+1.9
SRKR	Sorokina	3.90	11	*e*P	Pn	10 29 12.8	+2.8

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*IDC **08** 10:43:18.6±2.2, 23°.74S×179°.99E, h496km±22km, mb3.6/9, mb1 3.8/10, mb1mx3.6/17, mbtmp3.6/10, Error ellipse: s-maj=35.6km s-min=16.5km az=159.0*

*ISCJB **08** 10:43:20.9±2.1, 23°.9S±0°.3×179°.9E±0°.1, h532km±32km, mb3.9/11, Error ellipse: s-maj=42.5km s-min=17.5km az=171.3*

*NEIC **08** 10:43:22.9±1.6, 24°.15S×179°.96E, h555km±22km, mb4.2/3, Error ellipse: s-maj=33.7km s-min=13.4km az=174.0*

ISC 08 10:43:22.2±2.1, 24°.0S±0°.3×179°.9E±0°.1, h539km±32km, n27, σ0s.80/16, mb3.9/11, 1C, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.56	160	*e*P	P	10 44 56.6	+0.5
URZ	Urewera	14.39	189	P	P	10 46 24.2	-1.1
	1.6nm,0.3s,baz=125,slow=10,SNR=10						
CTA	Charters Tower	31.39	271	P	P	10 48 60.0	+0.7
	10nm,0.4s,mb4.7,baz=94,slow=11,SNR=38						
CTA	Charters Tower	31.39	271	P	P	10 48 60.0	+0.7
CTAO	Charters Tower	31.39	271	*e*P	P	10 49 00.0	+0.7
	10nm,0.4s,mb4.7						
ASAR	Alice Springs	41.93	261	P	P	10 50 26.3	+0.4
	2.4nm,0.8s,mb3.8,baz=90,slow=7.9,SNR=16						
ASAR				ScP	ScP	10 55 13.0	+4.9
	1.3nm,0.8s,baz=114,slow=4.3,SNR=12						
WRAB	Tennant Creek	42.30	266	*e*P	P	10 50 28.7	-0.2
	3.5nm,0.7s,mb4.0						
WRA	Warramunga Arr	42.31	266	P	P	10 50 28.6	-0.4
	2.6nm,0.7s,mb3.9,baz=93,slow=8.5,SNR=44						
WRA				ScP	ScP	10 55 14.7	+5.0
	1.7nm,1.0s,baz=102,slow=3.7,SNR=6.7						
KSRS	Korea Array	78.29	320	P	P	10 54 26.0	-0.5
	1.1nm,0.8s,mb3.2,baz=228,slow=27,SNR=4.7						
PETK	Petropavlovsk-	79.20	347	P	P	10 54 29.2	-1.8
	4.5nm,0.8s,mb3.8,baz=103,slow=7.7,SNR=6.8						
NVAR	Mina Array Bea	84.90	44	P	P	10 55 00.2	-0.1
	1.4nm,0.6s,mb3.6,baz=222,slow=7.6,SNR=8.7						
NVAR	Mina Array Bea	84.90	44	P	P	10 55 00.2	-0.1
CMAR	Chiang Mai Arr	89.49	290	P	P	10 55 23.9	+1.5
	0.7nm,0.4s,mb3.9,baz=144,slow=4.0,SNR=5.8						
HLID	Hailey	90.25	41	*e*P	P	10 55 25.6	+0.3
	1.5nm,0.7s,mb3.9						
TXAR	Lajitas Array	90.57	58	P	P	10 55 28.0	+0.8
	1.9nm,0.7s,mb4.1,baz=215,slow=6.6,SNR=28						
PDAR	Pinedale Array	92.84	44	P	P	10 55 37.0	-0.2
	1.0nm,0.7s,mb3.9,baz=211,slow=3.1,SNR=8.4						
ARCES	ARCESS Array B	131.99	348	PKP	PKPdf	11 01 33.2	-0.5
	3.2nm,0.8s,baz=352,slow=2.7,SNR=6.5						
ARCES	ARCESS Array B	131.99	348	PKP	PKPdf	11 01 33.2	-0.5
NB2	NORSAR Subarra	142.19	351	PKP		11 01 48.1	
	comp=Z,0.9nm,0.6s,baz=15,slow=2.9						
NOA	NORSAR Array B	142.19	351	PKhKP		11 01 47.6	
	comp=Z,1.5nm,0.7s,baz=16,slow=4.6,SNR=5.3						
AKASG	Malin Array Be	145.03	327	PKP	PKPdf	11 01 55.5	-2.4
	comp=Z,1.6nm,0.4s,baz=44,slow=3.6,SNR=13						
BRTR	Keskin Array B	147.59	307	PKPbc	PKPbc	11 02 05.9	-0.2
KSP	Ksiaz	150.37	339	*e*P	PKPbc	11 02 12.7	+0.2
CLL	Collm	150.95	343⇑	*i*PKPbc	PKPbc	11 02 13.5	-0.3
	comp=Z,13nm,0.9s						
BRG	Berggiesshubel	151.08	341	*i* PKP	PKPbc	11 02 14.0	-0.1
	comp=Z,7.3nm,0.5s						
CLZ	Clausthal	151.09	347	*e*PKPbc	PKPbc	11 02 14.1	0.0
GERES	GERESS Array B	152.94	340	PKPbc	PKPbc	11 02 16.9	-1.4
	comp=Z,0.6nm,0.6s,baz=350,slow=1.6,SNR=4.3						

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*ATH **08** 11:07:09.2, 38°.07N×24°.78E, h10km, MD3.2/3*

*DDA **08** 11:07:22.8, 38°.60N×26°.98E, h23km±1km, Md3.1*

*ISK **08** 11:07:22.7, 38°.64N×26°.96E, h12km, MD3.1*

*CSEM **08** 11:07:23.6±0.1, 38°.62N×26°.97E, h15km, MD3.1, Error ellipse: s-maj=2.2km s-min=1.5km az=83.0*

*ISCJB **08** 11:07:24.0±0.4, 38°.61N±0°.02×26°.96E±0°.03, h22km±4km, Error ellipse: s-maj=4.1km s-min=3.4km az=170.4*

ISC 08 11:07:23.7±0.4, 38°.61N±0°.02×26°.97E±0°.03, h14km±3km, n64, σ0s.76/91, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IZM	Izmir	0.31	133	*e*PG	Pg	11 07 29.9	-0.3
IZM				*e*SG	Sg	11 07 35.0	+0.5
IZM	Izmir	0.31	133	*e*Pg	Pg	11 07 29.9	-0.3
IZM				*e*Sg	Sg	11 07 35.0	+0.5
URLA	Izmir	0.39	229	*i* P	Pg	11 07 31.0	-0.5
URLA				*i* S	Sg	11 07 38.4	+1.7
URLA	Izmir	0.39	229	*i* P	Pg	11 07 31.0	-0.5
URLA				*i* S	Sg	11 07 38.4	+1.6
AKS	Akhisar	0.71	68	*e*PG	Pg	11 07 37.1	-0.4
AKS				*e*SG	Sg	11 07 47.4	+0.5
AKS	Akhisar	0.71	68	*e*Pg	Pg	11 07 37.1	-0.4
AKS				*e*Sg	Sg	11 07 47.4	+0.5
AKHS	Akhisar	0.71	68	*i* P	Pg	11 07 37.6	0.0
AKHS				*i* S	Sg	11 07 47.5	+0.5
AKHS	Akhisar	0.71	68	*i* P	Pg	11 07 37.6	+0.1
AKHS				*i* S	Sg	11 07 47.5	+0.6
AYVA	Ayvalik	0.73	343	*i* P	Pg	11 07 37.9	0.0
AYVA				*i* S	Sg	11 07 47.7	+0.2
AYVA	Ayvalik	0.73	343	*i* P	Pg	11 07 37.8	-0.1
AYVA				*i* S	Sg	11 07 47.7	+0.2
PRK	Paraskevi	0.83	319	*e*PB	Pg	11 07 40.3	+0.4
PRK	Paraskevi	0.83	319	*e*Pb	Pg	11 07 40.3	+0.4
SMG	Samos	0.91	187	*e*PB	Pg	11 07 40.5	-0.8
SMG	Samos	0.91	187	*e*Pb	Pg	11 07 40.5	-0.8
GCAM	G?zelcaml?	0.94	167	*i* P	Pg	11 07 41.1	-0.7
GCAM				*i* S	Sg	11 07 53.1	-0.9
GCAM	G?zelcaml?	0.94	167	*i* P	Pg	11 07 41.1	-0.7
GCAM				*i* S	Sg	11 07 53.1	-0.9
AYDN	Tasoluk	1.19	143	*i* P	Pn	11 07 45.6	-0.3
AYDN				*i* S	Sb	11 08 00.5	-0.8
AYDN	Tasoluk	1.19	143	*i* P	Pn	11 07 45.6	-0.3
AYDN				*i* S	Sb	11 08 00.5	-0.8
BALY	Balya	1.23	24	*i* P	Pn	11 07 46.4	-0.1
BALY				*i* S	Sb	11 08 04.0	+1.5
BALY	Balya	1.23	24	*i* P	Pn	11 07 46.4	-0.1
BALY				*i* S	Sb	11 08 04.0	+1.5
MANT	Manisa	1.25	95	*i* P	Pn	11 07 46.7	0.0
MANT	Manisa	1.25	95	*i* P	Pn	11 07 46.7	0.0
EZN	Ezine	1.31	338	*e*PN	Pn	11 07 47.1	-0.4
EZN				*e*SN	Sn	11 08 04.8	-0.1
EZN	Ezine	1.31	338	*e*Pn	Pn	11 07 47.1	-0.4
EZN				*e*Sn	Sn	11 08 04.8	0.0
KULA	Kula-Manisa	1.33	94	*e*PN	Pn	11 07 47.8	+0.1
KULA	Kula-Manisa	1.33	94	*e*Pn	Pn	11 07 47.8	0.0
BOZC	Bozcaada	1.42	330	*i* P	Pn	11 07 47.6	-1.5
BOZC				*i* S	Sn	11 08 08.0	+0.5
MLSB	Milas	1.46	154	*e*PN	Pn	11 07 50.0	+0.3
MLSB	Milas	1.46	154	*e*Pn	Pn	11 07 50.0	+0.4
DURS	Dursunbey	1.53	49	*i* P	Pn	11 07 50.6	0.0
DURS				*i* S	Sn	11 08 10.3	+0.1
DURS	Dursunbey	1.53	49	*i* P	Pn	11 07 50.6	0.0
DURS				*i* S	Sn	11 08 10.3	+0.1
BODT	Bodrum	1.57	170	*e*PN	Pn	11 07 51.4	+0.3
BODT	Bodrum	1.57	170	*e*Pn	Pn	11 07 51.4	+0.3
BDRM	Kayabasi	1.59	166	*i* P	Pn	11 07 51.5	+0.1
BDRM				*i* S	Sn	11 08 14.8	+3.1
BDRM	Kayabasi	1.59	166	*i* P	Pn	11 07 51.5	+0.1
DST	Dursunbey	1.63	52	*e*PN	Pn	11 07 51.7	-0.1
DST	Dursunbey	1.63	52	*e*Pn	Pn	11 07 51.7	-0.2
LPK	Lapseki	1.76	355	*e*PN	Pn	11 07 53.4	-0.4
LPK	Lapseki	1.76	355	*e*Pn	Pn	11 07 53.4	-0.4
GADA	Gvkgeada	1.78	333	*e*PN	Pn	11 07 53.9	-0.1
GADA	Gvkgeada	1.78	333	*e*Pn	Pn	11 07 53.9	-0.1
YER	Yerkesik	1.81	144	*e*PN	Pn	11 07 54.9	+0.6
YER	Yerkesik	1.81	144	*e*Pn	Pn	11 07 54.9	+0.6
EDC	Edincik	1.86	21	*e*PN	Pn	11 07 54.9	-0.2
EDC	Edincik	1.86	21	*e*Pn	Pn	11 07 54.9	-0.2
BNT	Bandirma	1.89	23	*e*PN	Pn	11 07 54.9	-0.6
BNT	Bandirma	1.89	23	*e*Pn	Pn	11 07 54.9	-0.6
DAT	Datca	1.94	165	*e*PN	Pn	11 07 57.1	+0.8
DAT	Datca	1.94	165	*e*Pn	Pn	11 07 57.1	+0.9
KCT	Karacabey	1.97	33	*e*PN	Pn	11 07 56.0	-0.6
KCT	Karacabey	1.97	33	*e*Pn	Pn	11 07 56.0	-0.6
KHAL	Karahalli	1.99	96	*i* P	Pg	11 08 00.2	-1.7
KHAL				*i* S	Sn	11 08 21.4	-0.3
GDZ	Gediz	2.02	76	*i* P	Pb	11 08 00.8	+0.7
GDZ				*i* S	Sb	11 08 27.5	+2.4
KHL	Karahalli	2.02	97	*e*PN	Pn	11 07 57.4	+0.1
KHL	Karahalli	2.02	97	*e*Pn	Pn	11 07 57.4	0.0
SART	Tekirdag	2.08	4	*i* P	Pn	11 07 51.3	-6.8
SART				*i* S	Sn	11 08 23.3	-0.5
ENEZ	Enez	2.21	344	*e*PN	Pn	11 07 59.5	-0.4
ENEZ	Enez	2.21	344	*e*Pn	Pn	11 07 59.5	-0.4
DALT	Dalyan (Mudla)	2.27	144	*e*PN	Pn	11 08 01.2	+0.6
DALT	Dalyan (Mudla)	2.27	144	*e*Pn	Pn	11 08 01.2	+0.5
ULDT	Uludag	2.27	47	*i* P	Pb	11 08 05.6	+1.2
ULDT				*e*S	Sn	11 08 27.6	-0.9
CAVI	Cavuskoy	2.73	54	*e*PN	Pn	11 08 07.3	+0.3
CAVI	Cavuskoy	2.73	54	*e*Pn	Pn	11 08 07.3	+0.2
ESKT	Eskisehir	3.15	72	*i* P	Pg	11 08 24.0	-0.1
ESKT				*e*S	Sb	11 08 56.5	-1.3

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*ISCJB **08** 11:11:45.8±0.7, 39°.74N±0°.02×23°.21E±0°.04, h11km±6km, Error ellipse: s-maj=5.7km s-min=3.4km az=8.8*

*NEIC **08** 11:11:45.8, 39°.71N×23°.18E, h24km, ML3.0(ATH), After ATH.*

*ATH **08** 11:11:45.8, 39°.71N×23°.18E, h24km±2km, MD3.3/5, ML3.0*

*CSEM **08** 11:11:46.3±0.1, 39°.73N×23°.20E, h20km, ML3.6/7, Error ellipse: s-maj=4.6km s-min=3.1km az=79.0*

*THE **08** 11:11:46.0, 39°.74N×23°.16E, h8km, ML3.6/7, Error ellipse: s-maj=1.0km s-min=0.3km az=139.0*

ISC 08 11:11:46.1±0.4, 39°.74N±0°.02×23°.19E±0°.04, h11km±4km, n55, σ0s.89/74, 2D, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XOR	Xorichti	0.37	179	P	Pg	11 11 53.0	-0.5
XOR				S	Sg	11 11 58.4	0.0
XOR	Xorichti	0.37	179	P	Pg	11 11 53.0	-0.5
XOR	Xorichti	0.37	179	P	Pg	11 11 53.0	-0.5
XOR				S	Sg	11 11 58.4	0.0
PAIG	Paliouri	0.42	64	P	Pg	11 11 54.5	+0.1
PAIG				S	Sg	11 12 01.2	+1.1
PAIG	Paliouri	0.42	64	P	Pg	11 11 54.5	+0.1
PAIG				S	Sg	11 12 01.2	+1.1
NEO	Neokhori	0.43	176	*e*PB	Pg	11 11 54.3	-0.3
NEO				*e*SB	Sg	11 12 01.3	+1.0
NEO	Neokhori	0.43	176	*e*Pb	Pg	11 11 54.3	-0.3
NEO				*e*Sb	Sg	11 12 01.3	+1.0
LIT	Litokhoron	0.65	304	P	Pg	11 11 57.6	-1.0
LIT				S	Sg	11 12 07.2	+0.1
LIT	Litokhoron	0.65	304	P	Pg	11 11 57.6	-1.0
LIT				S	Sg	11 12 07.2	+0.1
PLG	Polygyros	0.67	17	*e*PB	Pb	11 11 58.3	-1.5
PLG				*e*SN	Sg	11 12 08.9	+1.2
PLG	Polygyros	0.67	17	*e*Pb	Pb	11 11 58.3	-1.5
AOS	Alonnisos	0.78	136	P	Pg	11 12 01.1	-0.1
AOS	Alonnisos	0.78	136	P	Pg	11 12 01.1	-0.1
OUR	Ouranopolis	0.85	46	P	Pg	11 12 02.2	-0.4
OUR	Ouranopolis	0.85	46	P	Pg	11 12 02.2	-0.4
HORT	Hortiatis	0.86	356	P	Pg	11 12 02.1	-0.6
HORT	Hortiatis	0.86	356	P	Pg	11 12 02.1	-0.6
THE	Thessaloniki	0.91	349	P	Pg	11 12 03.2	-0.4
THE				S	Sg	11 12 16.2	+0.8
THE	Thessaloniki	0.91	349	P	Pg	11 12 03.2	-0.4
THE				S	Sg	11 12 16.2	+0.8
AGG	Agios Georgios	0.97	223	P	Pg	11 12 04.2	-0.7
AGG				S	Sg	11 12 18.1	+0.5
AGG	Agios Georgios	0.97	223	P	Pg	11 12 04.2	-0.7
AGG				S	Sg	11 12 18.1	+0.5
SOH	Sokhos	1.09	7	P	Pb	11 12 06.2	-0.8
SOH				S	Sb	11 12 22.3	+1.1
SOH	Sokhos	1.09	7	P	Pb	11 12 06.2	-0.8
SOH				S	Sb	11 12 22.3	+1.1
LKR	Lokris	1.10	188	P	Pb	11 12 07.0	-0.1
LKR	Lokris	1.10	188	P	Pb	11 12 07.0	-0.1
KZN	Kozani	1.23	298	*e*PN	Pn	11 12 09.2	0.0
KZN				*e*SN	Sn	11 12 27.0	+1.2
KZN	Kozani	1.23	298	*e*Pn	Pn	11 12 09.2	0.0
KZN				*e*Sn	Sn	11 12 27.0	+1.2
GRG	Griva	1.36	334	P	Pn	11 12 09.7	-1.3
GRG	Griva	1.36	334	P	Pn	11 12 09.7	-1.3
SRS	Serrai	1.41	13	P	Pn	11 12 10.9	-0.9
SRS	Serrai	1.41	13	P	Pn	11 12 10.9	-0.9
KNT	Kendrikon	1.44	351	P	Pn	11 12 11.7	-0.4
KNT				S	Sn	11 12 31.5	+0.5
KNT	Kendrikon	1.44	351	P	Pn	11 12 11.7	-0.4
KNT				S	Sn	11 12 31.5	+0.5
LIA	Limnos Island	1.55	83	*e*PN	Pn	11 12 14.2	+0.6
LIA	Limnos Island	1.55	83	*e*Pn	Pn	11 12 14.2	+0.6
VAY	Valandovo	1.65	344	*i* Pn	Pn	11 12 14.3	-0.7
VAY	Valandovo	1.65	344	*i* Pn	Pn	11 12 14.3	-0.7
NVR	Nevrokopi	1.69	18	P	Pn	11 12 18.5	+2.9
NVR	Nevrokopi	1.69	18	P	Pn	11 12 18.5	+2.9

FNA	Florina	1.73	308	P	Pn	11 12 15.9	-0.3
FNA	Florina	1.73	308	P	Pn	11 12 15.9	-0.3
ATH	Athens Observa	1.81	167	ePN	Pn	11 12 17.0	-0.3
ATH	Athens Observa	1.81	167	ePn	Pn	11 12 17.0	-0.3
KRUS	Krusevo	2.20	318	i Pn	Pn	11 12 22.6	0.0
KRUS	Krusevo	2.20	318	i Pn	Pn	11 12 22.5	-0.1
PRK	Paraskevi	2.44	101	P	Pn	11 12 24.5	-1.4
PRK	Paraskevi	2.44	101	P	Pn	11 12 24.5	-1.4
KEK	Kerkira	2.61	271	P	Pn	11 12 31.5	+3.2
KEK	Kerkira	2.61	271	P	Pn	11 12 31.5	+3.2
ITM	Ithomi	2.74	202	P	Pn	11 12 32.6	+2.6
ITM	Ithomi	2.74	202	P	Pn	11 12 32.6	+2.6
APE	Apeiranthos	3.24	145	P	Pn	11 12 36.8	-0.1
APE	Apeiranthos	3.24	145	P	Pn	11 12 36.8	-0.1
BARS	Barje	3.24	342	⇓iPn	Pn	11 12 36.8	-0.1
NISS		3.78	346	⇓iPn	Pn	11 12 44.0	-0.3

THE ***08*** *11:17:28.2, 38.°60N×27.°05E, h0^{km}±2^{km}, ML4.0/3, Error ellipse: s-maj=5.1km s-min=1.1km az=112.0*
DDA ***08*** *11:17:28.6, 38.°61N×26.°98E, h22^{km}±1^{km}, Md3.3*
ISK ***08*** *11:17:29.2, 38.°64N×26.°99E, h13^{km}, MD3.3*
CSEM ***08*** *11:17:29.4±0.1, 38.°62N×26.°98E, h10^{km}, MD3.3, Error ellipse: s-maj=2.7km s-min=2.2km az=81.0*
ISCJB ***08*** *11:17:29.1±0.4, 38.°63N±0.°02×27.°00E±0.°02, h7^{km}±3^{km}, Error ellipse: s-maj=3.0km s-min=2.7km az=151.5*
ATH ***08*** *11:17:30.4, 38.°54N×26.°75E, h4^{km}, MD3.4/3*
ISC 08 11:17:29.8±0.3**, 38.°62N**±0.°02×**26.°99E**±0.°02**, h12**^{km}±3^{km}**, n79, σ0.^{s}92**/118**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IZM	Izmir	0.30	135	PG	Pg	11 17 35.9	-0.1
IZM				eSG	Sg	11 17 41.2	+1.1
IZM	Izmir	0.30	135	i Pg	Pg	11 17 35.9	-0.1
IZM				eSg	Sg	11 17 41.2	+1.1
URLA	Izmir	0.40	231	i P	Pg	11 17 36.9	-0.8
URLA				i S	Sg	11 17 44.2	+1.2
URLA	Izmir	0.40	231	i P	Pg	11 17 36.9	-0.8
URLA				i S	Sg	11 17 44.2	+1.1
AKS	Akhisar	0.69	68	ePG	Pg	11 17 43.0	-0.2
AKS				eSG	Sg	11 17 53.3	+0.9
AKS	Akhisar	0.69	68	ePg	Pg	11 17 43.0	-0.3
AKS				eSg	Sg	11 17 53.3	+0.9
AKHS	Akhisar	0.70	68	i P	Pg	11 17 43.1	-0.1
AKHS				i S	Sg	11 17 53.5	+1.1
AKHS	Akhisar	0.70	68	i P	Pg	11 17 43.1	-0.2
AKHS				i S	Sg	11 17 53.5	+1.1
AYVA	Ayvalik	0.73	341	i P	Pg	11 17 43.8	-0.1
AYVA				i S	Sg	11 17 53.5	0.0
AYVA	Ayvalik	0.73	341	i P	Pg	11 17 43.8	-0.1
AYVA				i S	Sg	11 17 53.5	0.0
CHOS	Chios island	0.77	253	P	Pg	11 17 44.0	-0.6
CHOS				S	Sg	11 17 56.2	+1.5
CHOS	Chios island	0.77	253	P	Pg	11 17 44.0	-0.6
PRK	Paraskevi	0.84	319	P	Pg	11 17 45.4	-0.7
PRK				S	Sg	11 17 58.9	+1.8
PRK	Paraskevi	0.84	319	ePG	Pg	11 17 45.5	-0.6
PRK	Paraskevi	0.84	319	ePg	Pg	11 17 45.5	-0.6
PRK				S	Sg	11 17 58.9	+1.8
SMG	Samos	0.91	188	ePG	Pg	11 17 46.0	-1.4
SMG				eSG	Sg	11 17 58.0	-1.3
SMG	Samos	0.91	188	ePg	Pg	11 17 46.0	-1.4
SMG				eSg	Sg	11 17 58.0	-1.3
GCAM	G?zelcaml?	0.93	168	i P	Pg	11 17 46.8	-0.9
GCAM				i S	Sg	11 17 59.1	-0.9
GCAM	G?zelcaml?	0.93	168	i P	Pg	11 17 46.8	-1.0
GCAM				i S	Sg	11 17 59.1	-0.9
SIGR	SIGRI	1.07	304	P	Pb	11 17 49.3	-0.9
SIGR				S	Sb	11 18 05.3	+1.2
SIGR	SIGRI	1.07	304	P	Pb	11 17 49.3	-0.9
SIGR				S	Sb	11 18 05.3	+1.2
AYDN	Tasoluk	1.18	143	i P	Pn	11 17 51.5	-0.7
AYDN				i S	Sb	11 18 06.3	-1.1
AYDN	Tasoluk	1.18	143	i P	Pn	11 17 51.5	-0.6
BALY	Balya	1.23	23	i P	Pn	11 17 52.6	-0.1
BALY	Balya	1.23	23	i P	Pn	11 17 52.6	-0.1
EZN	Ezine	1.31	337	ePN	Pn	11 17 53.5	-0.5
EZN				eSN	Sn	11 18 11.1	-0.3
EZN	Ezine	1.31	337	ePn	Pn	11 17 53.5	-0.4
EZN				eSn	Sn	11 18 11.1	-0.3
KULA	Kula-Manisa	1.31	94	PN	Pn	11 17 53.9	0.0
KULA				eSN	Sn	11 18 11.4	+0.1
KULA	Kula-Manisa	1.31	94	i Pn	Pn	11 17 53.9	0.0
KULA				eSn	Sn	11 18 11.5	+0.1
BOZC	Bozcaada	1.42	330	i P	Pn	11 17 54.2	-1.3
BOZC				i S	Sn	11 18 13.1	-1.1
MLSB	Milas	1.46	155	ePN	Pn	11 17 56.2	+0.3
MLSB	Milas	1.46	155	ePn	Pn	11 17 56.2	+0.3
DURS	Dursunbey	1.52	49	i P	Pn	11 17 55.9	-0.8
DURS				i S	Sn	11 18 16.2	-0.2
DURS	Dursunbey	1.52	49	i P	Pn	11 17 55.9	-0.8
DURS				i S	Sn	11 18 16.2	-0.2
BODT	Bodrum	1.57	171	ePN	Pn	11 17 57.7	+0.2
BODT	Bodrum	1.57	171	ePn	Pn	11 17 57.7	+0.2
BDRM	Kayabasi	1.59	167	i P	Pn	11 17 58.7	+1.0
BDRM				i S	Sn	11 18 20.9	+2.7
BDRM	Kayabasi	1.59	167	i P	Pn	11 17 58.7	+1.0
BDRM				i S	Sn	11 18 20.9	+2.7
DST	Dursunbey	1.61	52	ePN	Pn	11 17 57.8	-0.3
DST	Dursunbey	1.61	52	ePn	Pn	11 17 57.8	-0.2
LPK	Lapseki	1.76	354	ePN	Pn	11 18 00.1	0.0
LPK	Lapseki	1.76	354	ePn	Pn	11 18 00.1	0.0
GADA	Gvkgeada	1.79	332	ePN	Pn	11 18 00.4	0.0
GADA	Gvkgeada	1.79	332	ePn	Pn	11 18 00.4	0.0
YER	Yerkesik	1.80	145	ePN	Pn	11 18 01.4	+0.9
YER	Yerkesik	1.80	145	ePn	Pn	11 18 01.4	+0.8
DENT	Denizli	1.82	117	ePN	Pn	11 18 01.4	+0.5
DENT	Denizli	1.82	117	ePn	Pn	11 18 01.4	+0.4
EDC	Edincik	1.86	21	ePN	Pn	11 18 01.8	+0.4
EDC	Edincik	1.86	21	ePn	Pn	11 18 01.8	+0.4
BNT	Bandirma	1.88	22	ePN	Pn	11 18 01.6	-0.2
LIA	Limnos Island	1.90	313	P	Pn	11 18 01.3	-0.7
LIA				S	Sn	11 18 27.9	+2.1
APE	Apeiranthos	1.93	217	ePB	Pb	11 18 03.5	-1.3
APE	Apeiranthos	1.93	217	ePb	Pb	11 18 03.5	-1.3
DAT	Datca	1.94	166	ePN	Pn	11 18 03.2	+0.6
DAT	Datca	1.94	166	ePn	Pn	11 18 03.2	+0.7
KCT	Karacabey	1.96	32	ePN	Pn	11 18 02.6	-0.2
KCT	Karacabey	1.96	32	ePn	Pn	11 18 02.6	-0.2
KHAL	Karahalli	1.98	96	i P	Pn	11 18 03.2	+0.1
KHAL				i S	Sn	11 18 31.7	+4.0
KHAL	Karahalli	1.98	96	i P	Pn	11 18 03.2	+0.1
KHAL				i S	Sn	11 18 31.7	+3.9
GDZ	Gediz	2.00	76	i P	Pn	11 18 07.1	+3.7
GDZ				i S	Sn	11 18 31.8	+3.5
GDZ	Gediz	2.00	76	i P	Pn	11 18 07.1	+3.7
GDZ				i S	Sn	11 18 31.8	+3.5
SART	Tekirdag	2.08	4	i P	Pn	11 18 03.0	-1.4
SART				i S	Sn	11 18 30.3	+0.2
SART	Tekirdag	2.08	4	i P	Pn	11 18 03.0	-1.4
SART				i S	Sn	11 18 30.3	+0.1
ULDT	Uludag	2.26	47	i P	Pn	11 18 05.5	-1.4
ULDT				i S	Sn	11 18 33.4	-1.3
ULDT	Uludag	2.26	47	i P	Pn	11 18 05.5	-1.4
ULDT				i S	Sn	11 18 33.4	-1.2
DALT	Dalyan (Mudla)	2.26	144	ePN	Pn	11 18 07.7	+0.8
DALT	Dalyan (Mudla)	2.26	144	ePn	Pn	11 18 07.7	+0.8
ALT	Altintas	2.48	79	ePN	Pn	11 18 10.4	+0.5
ALT	Altintas	2.48	79	ePn	Pn	11 18 10.4	+0.5
FETY	Fethiye	2.58	139	ePN	Pn	11 18 12.4	+1.0
FETY	Fethiye	2.58	139	ePn	Pn	11 18 12.4	+1.0
YLV	Yalova	2.68	43	ePN	Pn	11 18 13.5	+0.8
YLV	Yalova	2.68	43	ePn	Pn	11 18 13.5	+0.8
CAVI	Cavuskoy	2.72	53	ePN	Pn	11 18 13.4	+0.2
CAVI	Cavuskoy	2.72	53	ePn	Pn	11 18 13.5	+0.3
ADVT	Abdulvahap	2.79	49	ePN	Pn	11 18 14.8	+0.5
ADVT	Abdulvahap	2.79	49	ePn	Pn	11 18 14.8	+0.5
ESKT	Eskisehir	3.14	72	i P	Pg	11 18 29.9	0.0
ESKT				i S	Sb	11 19 02.8	-0.9

ISCJB ***08*** *11:38:41.5±1.3, 33.°48N±0.°04×45.°72E±0.°10, h6^{km}±7^{km}, Error ellipse: s-maj=14.1km s-min=5.6km az=14.9*
TEH ***08*** *11:38:44.6, 33.°61N×45.°66E, h10^{km}*
KISR ***08*** *11:38:45.9±0.6, 33.°19N×46.°62E, h34^{km}, ML2.5*
ISC 08 11:38:42.9±1.3**, 33.°50N**±0.°04×**45.°73E**±0.°10**, h4**^{km}±8^{km}**, n11, σ1.^{s}09**/19**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGHG	Ghaleghazi	1.08	40	eSg	Sg	11 39 18.6	+1.0
IGHG				ePg	Pg	11 39 03.0	-0.6
IGHG				e		11 39 24.3	
	comp=Z,7µm,0.2s						
IVIS	Veis	1.38	42	eSg	Sg	11 39 25.5	-1.8
IVIS				ePg	Pg	11 39 08.9	-0.5
IVIS				e		11 39 31.5	
	comp=Z,7µm,0.2s						
IKOM	Komasi	1.63	65	ePn	Pn	11 39 13.6	+1.3
IKOM				eSn	Sn	11 39 35.2	+1.6
IKOM				e		11 39 43.0	
	comp=Z,5µm,0.2s						
ILIN	Lien	1.74	35	ePn	Pn	11 39 14.4	+0.5
ILIN				e		11 39 18.0	
	comp=Z,4µm,0.2s						
ILIN				eSn	Sn	11 39 36.3	-0.2
MIB	Mutribah	3.93	159	eP	Pn	11 39 45.1	+1.1
MIB				eS	Sn	11 40 28.6	-1.9
IRAZ	Razeghan	3.95	60	ePn	Pn	11 39 45.4	+1.1
IRAZ				eSn	Sn	11 40 29.8	-1.3
IRAZ				e		11 41 03.5	
	comp=N,639nm,0.4s						
IAZR	Azarshahr	4.17	3	ePn	Pn	11 39 46.5	-0.8
NAY	Al-Naaiem	4.43	163	eP	Pn	11 39 52.1	+1.2
NAY				AML	AML	11 40 42.1	
	comp=Z,2.3nm,0.5s						
NAY				eS	Sn	11 40 42.3	-0.6
RDF	Al-Radifah	4.82	161	eP	Pn	11 39 57.3	+1.1
RDF				eS	Sn	11 40 51.2	-1.3
RDF				AML	AML	11 40 52.3	
	comp=Z,14nm,0.6s						
IVRN	Varamin	5.18	72	ePn	Pn	11 40 01.6	+0.4
IVRN				e		11 40 50.9	
	comp=Z,139nm,0.3s						
IMRD	Marand	5.20	360	ePn	Pn	11 40 00.6	-0.8

IDC 08 11:52:13.2±1.2**, 2.°46N**×**128.°02E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.4**/16**, mbtmp3.6**/4**, Error ellipse: s-maj=62.1km s-min=21.5km az=79.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.11	165	P	P	11 57 21.1	+0.2
	0.4nm,0.3s,baz=344,slow=11,SNR=14						
ASAR	Alice Springs	26.59	168	P	P	11 57 52.9	-0.4
	0.4nm,0.5s,baz=353,slow=7.7,SNR=14						
PETK	Petropavlovsk-	56.13	21	P	P	12 01 54.2	-0.2
	1.2nm,0.7s,baz=190,slow=5.0,SNR=4.3						
MKAR	Makanchi Array	59.33	325	P	P	12 02 17.5	+0.5
	0.2nm,0.4s,baz=110,slow=7.9,SNR=5.8						

CASC 08 11:53:31.6±1.5**, 13.°39N**×**90.°15W, h24**^{km}±5^{km}**, MD3.9, 2D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTR	El Retiro	0.71	44	⇓iP	Pb	11 53 45.6	+0.3
SNJE	San Jose	0.72	48	⇓iP	Pb	11 53 45.6	+0.1
LFRS	El Faro	1.09	77	eP	Pn	11 53 50.5	-0.9
PCG	Pacaya	1.09	336	eP	Pn	11 53 51.7	+0.2
PCG				eS	Sb	11 54 06.6	+0.9
LBRS	Las Brisas	1.14	72	eP	Pn	11 53 51.4	-0.6
LBRS				eS	Sn	11 54 07.1	+0.3
FUG	Fuego 3	1.25	328	eP	Pn	11 53 53.3	-0.3
SNVI	San Vicente	1.30	80	eP	Pn	11 53 53.5	-0.7
SNVI				eS	Sn	11 54 12.5	+1.7
TP2	Tecpan 2	1.62	329	eP	Pn	11 53 59.9	+1.2
TP2				eS	Sn	11 54 21.4	+2.5
JAT	Jato	1.71	303	eP	Pn	11 53 59.8	-0.1
VSM	San Miguel	1.83	89	eP	Pn	11 54 02.0	+0.5
VSM				eS	Sn	11 54 25.7	+1.7
BLLM	Bellamira	1.86	88	eP	Pn	11 54 01.9	-0.2
BLLM				eS	Sn	11 54 26.1	+1.2
CAHU	Cacacuatique	1.93	78	eP	Pn	11 54 02.0	-0.9
CNCH	Conchagua	2.26	93	eP	Pn	11 54 07.1	-0.4
CNCH				eS	Sn	11 54 37.0	+2.4
JCR	Jicaral	6.06	125	eP	Pn	11 55 00.1	+0.3
PRS1	Puriscal	6.65	120	eP	Pn	11 55 09.2	+1.4
LCR2	La Lucha 2	7.03	120	eP	Pn	11 55 14.9	+1.8
URSC	Urasca	7.17	119	eP	Pn	11 55 16.6	+1.5
BUS	Buena Vista	7.33	121	eP	Pn	11 55 19.6	+2.3
BAR1		7.87	121	eP	Pn	11 55 26.4	+1.7
ACR	Cerro Adams	8.32	124	eP	Pn	11 55 32.8	+2.0

ISK ***08*** *12:01:48.9, 36.°95N×29.°19E, h6^{km}, MD2.7*
DDA ***08*** *12:01:48.7, 36.°93N×29.°24E, h7^{km}±5^{km}, Md2.9*
ISCJB ***08*** *12:01:49.2±0.6, 36.°92N±0.°04×29.°21E±0.°04, h1^{km}±9^{km}, Error ellipse: s-maj=6.9km s-min=4.8km az=140.4*
CSEM ***08*** *12:01:49.4±0.2, 36.°93N×29.°21E, h5^{km}, MD2.7, Error ellipse: s-maj=4.0km s-min=3.7km az=146.0*
ISC 08 12:01:49.7±0.6**, 36.°93N**±0.°03×**29.°21E**±0.°04**, h7**^{km}±7^{km}**, n20, σ0.^{s}73**/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.31	199	ePG	Pg	12 01 55.5	-0.2
FETY				eSG	Sg	12 02 01.0	+1.3
FETY	Fethiye	0.31	199	ePg	Pg	12 01 55.5	-0.2
FETY				eSg	Sg	12 02 01.0	+1.3
GOLH	Golhisar	0.42	42	i P	Pg	12 01 56.5	-1.3
GOLH				i S	Sg	12 02 03.5	+0.2
GOLH	Golhisar	0.42	42	i P	Pg	12 01 56.5	-1.3
GOLH				i S	Sg	12 02 03.5	+0.2
DALT	Dalyan (Mudla)	0.48	251	ePG	Pg	12 01 58.4	-0.6
DALT				eSG	Sg	12 02 05.9	+0.5
DALT	Dalyan (Mudla)	0.48	251	ePg	Pg	12 01 58.4	-0.6
DALT				eSg	Sg	12 02 05.9	+0.6
TURN	Turunc	0.49	264	eP	Pg	12 02 03.2	+4.1
TURN				eS	Sg	12 02 14.6	+9.1
TURN	Turunc	0.49	264	eP	Pg	12 02 03.2	+4.1
ELL	Elmali	0.59	107	ePG	Pg	12 02 01.5	+0.5
ELL	Elmali	0.59	107	ePg	Pg	12 02 01.5	+0.5
AKAS	Kas	0.76	155	i P	Pg	12 02 04.4	+0.1
AKAS				eS	Sg	12 02 13.5	-0.6
AKAS	Kas	0.76	155	i P	Pg	12 02 04.4	+0.1
AKAS				eS	Sg	12 02 13.5	-0.7
YER	Yerkesik	0.77	286	ePG	Pg	12 02 04.0	-0.5
YER	Yerkesik	0.77	286	ePg	Pg	12 02 04.0	-0.5
AYDN	Tasoluk	1.29	305	eP	Pn	12 02 13.6	-0.5
AYDN				i S	Sg	12 02 31.8	+0.7
DAT	Datca	1.32	262	ePN	Pn	12 02 14.3	-0.3
DAT	Datca	1.32	262	ePn	Pn	12 02 14.3	-0.3
BDRM	Kayabasi	1.42	276	eP	Pn	12 02 09.7	-6.2
BDRM				eS	Sb	12 02 33.9	-0.9
KHAL	Karahalli	1.46	9	eP	Pn	12 02 16.8	+0.3
KHAL				eS	Sn	12 02 37.0	+1.1
KHAL	Karahalli	1.46	9	eP	Pn	12 02 16.8	+0.3
KHAL				eS	Sn	12 02 37.0	+1.2

IDC 08 12:14:17.5±1.4**, 29.°40S**×**179.°95E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.8**/13**, mbtmp3.8**/3**, Error ellipse: s-maj=174.2km s-min=19.8km az=176.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	1.87	86	Pn	Pn	12 14 51.4	+0.7
	174nm,0.3s,baz=348,slow=19,SNR=7.3						
RAO				Sn	Sn	12 15 14.5	-0.5
	180nm,0.3s,baz=84,slow=23,SNR=6.3						
STKA	Stephens Creek	32.98	256	P	P	12 20 54.8	+0.6
	1.7nm,0.8s,baz=82,slow=7.1,SNR=3.3						
ASAR	Alice Springs	41.38	267	P	P	12 22 05.2	-0.5
	0.3nm,0.4s,baz=105,slow=7.3,SNR=7.2						
WRA	Warramunga Arr	42.28	272	P	P	12 22 12.8	-0.2
	0.6nm,0.3s,baz=110,slow=8.1,SNR=11						

ISCJB ***08*** *12:16:38.0±0.7, 37.°26N±0.°05×28.°23E±0.°05, h10^{km}, Error ellipse: s-maj=8.2km s-min=3.3km az=40.8*
DDA ***08*** *12:16:38.0, 37.°22N×28.°22E, h7^{km}±2^{km}, Md2.7*
ISK ***08*** *12:16:37.1, 37.°29N×28.°22E, h2^{km}, MD2.7*
CSEM ***08*** *12:16:38.2±0.2, 37.°25N×28.°22E, h10^{km}, MD2.7, Error ellipse: s-maj=6.2km s-min=2.7km az=36.0*
ISC 08 12:16:38.4±0.9**, 37.°26N**±0.°05×**28.°23E**±0.°05**, h11**^{km}±12^{km}**, n20, σ0.^{s}74**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.14	163	ePG	Pg	12 16 41.0	-0.6
YER				eSG	Sg	12 16 43.9	+0.1
YER	Yerkesik	0.14	163	ePg	Pg	12 16 41.0	-0.5
YER				eSg	Sg	12 16 43.9	+0.1
MLSB	Milas	0.36	275	ePG	Pg	12 16 44.9	-0.7
MLSB				eSG	Sg	12 16 50.8	+0.3
MLSB	Milas	0.36	275	ePg	Pg	12 16 44.9	-0.7
MLSB				eSg	Sg	12 16 50.8	+0.3
AYDN	Tasoluk	0.48	325	i P	Pg	12 16 47.9	0.0
AYDN				eS	Sg	12 16 53.7	-0.6
AYDN	Tasoluk	0.48	325	i P	Pg	12 16 47.9	0.0
AYDN				eS	Sg	12 16 53.7	-0.6
TURN	Turunc	0.49	143	eP	Pg	12 16 46.9	-1.0
TURN				eS	Sg	12 16 54.3	-0.1
TURN	Turunc	0.49	143	eP	Pg	12 16 46.9	-1.0
TURN				eS	Sg	12 16 54.3	-0.1
DALT	Dalyan (Mudla)	0.59	147	ePG	Pg	12 16 50.0	+0.1
DALT				eSG	Sg	12 16 59.2	+1.6
DALT	Dalyan (Mudla)	0.59	147	ePg	Pg	12 16 50.0	+0.2
DALT				eSg	Sg	12 16 59.2	+1.6
BDRM	Kayabasi	0.66	253	eP	Pg	12 16 50.4	-0.8
BDRM				i S	Sg	12 16 59.8	0.0
BDRM	Kayabasi	0.66	253	eP	Pg	12 16 50.4	-0.7
BDRM				i S	Sg	12 16 59.8	0.0
DAT	Datca	0.75	225	ePG	Pg	12 16 52.6	-0.2
DAT	Datca	0.75	225	ePg	Pg	12 16 52.7	-0.1
BODT	Bodrum	0.76	255	ePG	Pg	12 16 52.7	-0.4
BODT	Bodrum	0.76	255	ePg	Pg	12 16 52.7	-0.4
GCAM	G?zelcaml?	0.91	299	eP	Pg	12 16 56.0	+0.2
GCAM				i S	Sg	12 17 09.7	+2.1
GCAM	G?zelcaml?	0.91	299	eP	Pg	12 16 56.0	+0.2
GCAM				i S	Sg	12 17 09.7	+2.1
FETY	Fethiye	0.93	132	ePG	Pg	12 16 56.4	+0.2
FETY	Fethiye	0.93	132	ePg	Pg	12 16 56.4	+0.2

IDC 08 12:50:08.5±4.3**, 3.°52S**×**100.°50E, h0**^{km}**, mb3.6**/5**, mb1 3.7**/5**, mb1mx3.5**/21**, mbtmp3.6**/5**, Error ellipse: s-maj=184.3km s-min=22.4km az=55.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	36.81	119	P	P	12 57 17.9	-0.7
	1.0nm,1.1s,baz=305,slow=9.2,SNR=4.1						
ASAR	Alice Springs	37.97	125	P	P	12 57 28.9	+0.5
	0.2nm,0.3s,baz=300,slow=7.8,SNR=13						
SONM	Songino Array	51.40	5	P	P	12 59 15.5	+0.4
	0.4nm,0.5s,baz=185,slow=9.0,SNR=5.2						
MKAR	Makanchi Array	52.61	344	P	P	12 59 24.4	+0.2
	0.1nm,0.3s,baz=142,slow=7.3,SNR=6.5						
ZALV	Zalesovo Beam	58.74	349	P	P	13 00 07.6	-0.5
	0.3nm,0.3s,baz=151,slow=3.3,SNR=2.9						
TXAR	Lajitas Array	145.58	39	PKPbc	PKPbc	13 09 48.8	-0.9
	0.3nm,0.4s,baz=301,slow=0.7,SNR=12						

BJI ***08*** *13:01:43.2, 34.°55N×77.°08E, h22^{km}, ML3.4/4*
ISCJB ***08*** *13:01:45.6±2.3, 35.°03N±0.°05×77.°4E±0.°1, h20^{km}±19^{km}, mb3.4/6, Error ellipse: s-maj=19.5km s-min=6.5km az=160.3*
NEIC ***08*** *13:01:45.3±0.9, 34.°92N×77.°19E, h10^{km}, mb3.5/2, Error ellipse: s-maj=24.0km s-min=9.9km az=68.0*
IDC ***08*** *13:01:50.3±5.3, 34.°98N×77.°29E, h43^{km}±48^{km}, mb3.1/6, mb1 3.4/10, mb1mx3.3/26, mbtmp3.2/10, ML3.4/4, Error ellipse: s-maj=44.2km s-min=22.1km az=56.0*
ISC 08 13:01:49.9±1.0**, 35.°00N**±0.°05×**77.°4E**±0.°1**, h40**^{km}±10^{km}**, n27, σ1.^{s}10**/29**, mb3.4**/6**, 1D, Eastern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	4.64	347	⇓iPn	Pn	13 03 00.3	+2.9
KSH				Sn	Sn	13 03 56.5	+6.5
KSH				smax			
	comp=N,48nm,0.6s						
KSH				smax			
	comp=E,69nm,0.8s						
KZA	Kyzart	7.25	347	ePn	Pn	13 03 32.6	-0.7
	comp=E,5.1nm,0.8s						
AAK	Ala-Archa	7.94	345	ePn	Pn	13 03 38.8	-3.9
	comp=E,3.5nm,0.7s						
PYUN	Piuthan	8.39	144	eP	Pn	13 03 51.2	+2.2
	comp=E,10nm,0.4s						
DANN	Dangsing	8.59	139	eP	Pn	13 03 53.0	+1.3
	comp=E,8.3nm,0.3s						
KOLN	Koldanda	8.97	142	eP	Pn	13 03 59.1	+2.2
GKN	Gorkha	9.34	136	eP	Pn	13 04 02.2	+0.2
KKN	Kakani	9.87	135	eP	Pn	13 04 08.6	-0.7
DMN	Daman	9.91	136	eP	Pn	13 04 10.1	+0.3
	comp=E,5.5nm,0.3s						
GUN	Gumba	10.14	132	eP	Pn	13 04 11.5	-1.5
	comp=E,4.1nm,0.3s						
JIRN	Jiri	10.51	132	eP	Pn	13 04 16.7	-1.4
	comp=E,11nm,0.4s						
RAMN	Ramite	11.28	133	eP	Pn	13 04 26.3	-2.2
TAPN	Taplejung	11.69	128	eP	Pn	13 04 29.4	-4.8
MK31	Makanchi Array	12.35	16	ePn	Pn	13 04 42.1	-1.0
MKAR	Makanchi Array	12.35	16	P	Pn	13 04 43.6	+0.5
	comp=E,0.2nm,0.3s,baz=195,slow=12,SNR=24						
MKAR				S	Sn	13 07 00.1	+0.8
	comp=E,0.1nm,0.3s,baz=208,slow=24,SNR=13						
KURK	Kurchatov	15.73	3	P	Pn	13 05 27.2	-1.2
	comp=E,0.0nm,0.3s,baz=184,slow=13,SNR=2.0						
KURK	Kurchatov	15.73	3	Pn	Pn	13 05 27.9	-0.5
	comp=E,0.5nm,0.5s						
BVAR	Borovoye Array	18.68	347	P	Pn	13 06 05.6	+0.5
	comp=E,0.3nm,0.3s,baz=158,slow=12,SNR=7.4						
ZALV	Zalesovo Beam	19.65	13	P	Pn	13 06 16.2	-0.5
	comp=E,0.1nm,0.3s,baz=201,slow=7.7,SNR=2.6						
AKTK	Aktyubinsk	20.87	324	P	P	13 06 28.2	-0.2
AKTO	Aktyubinsk	20.87	324	P	P	13 06 28.2	-0.2
	comp=E,0.7nm,0.5s,baz=144,slow=8.7,SNR=2.4						
SONM	Songino Array	25.10	50	P	P	13 07 11.7	+1.0
	comp=E,0.3nm,0.6s,mb3.0,baz=243,slow=9.4,SNR=4.0						
CMAR	Chiang Mai Arr	25.27	125	P	P	13 07 12.9	+0.3
	comp=E,1.2nm,0.9s,mb3.4,baz=315,slow=9.7,SNR=8.5						
WRA	Warramunga Arr	76.87	126	P	P	13 13 38.2	+0.2
	comp=E,0.3nm,0.5s,mb3.5,baz=308,slow=3.9,SNR=4.7						
WRAB	Tennant Creek	76.87	126	eP	P	13 13 37.1	-0.9
	comp=E,1.7nm,0.9s,mb4.0						
ASAR	Alice Springs	79.22	129	P	P	13 13 51.3	+0.3
	comp=E,0.4nm,1.0s,mb3.3,baz=334,slow=5.7,SNR=3.4						
YKA	Yellowknife Ar	82.36	6	P	P	13 14 07.1	-0.2
	comp=E,0.1nm,0.5s,mb3.0,baz=345,slow=5.0,SNR=3.4						

IDC 08 13:03:20.9±2.3**, 0.°93N**×**127.°09E, h0**^{km}**, mb3.3**/3**, mb1 3.5**/3**, mb1mx3.3**/17**, mbtmp3.3**/3**, 1D, Error ellipse: s-maj=217.1km s-min=24.2km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	2.30	283	⇓eP	Pn	13 03 56.0	-4.2
MNI				eS	Sn	13 04 21.5	-7.7
WRA	Warramunga Arr	21.93	161	P	P	13 08 16.8	+0.6
	0.2nm,0.3s,baz=344,slow=13,SNR=4.9						
ASAR	Alice Springs	25.34	165	P	P	13 08 49.4	-0.3
	0.3nm,0.7s,baz=341,slow=11,SNR=7.7						
MKAR	Makanchi Array	60.05	326	P	P	13 13 29.8	+0.1
	0.5nm,0.4s,baz=127,slow=8.0,SNR=19						

ISCJB ***08*** *13:07:48.8±0.5, 19.°86S±0.°04×68.°91W±0.°06, h104^{km}±7^{km}, mb4.0/4, Error ellipse: s-maj=10.0km s-min=6.2km az=1.1*
NEIC ***08*** *13:07:51.4±0.7, 19.°94S×68.°87W, h119^{km}±7^{km}, mb4.5/2, Error ellipse: s-maj=12.0km s-min=9.5km az=71.0*
IDC ***08*** *13:07:51.5±2.0, 19.°94S×68.°79W, h116^{km}±19^{km}, mb3.9/3, mb1 3.8/7, mb1mx3.5/21, mbtmp3.7/7, Error ellipse: s-maj=28.2km s-min=15.6km az=127.0*
GUC ***08*** *13:07:51.1±0.5, 19.°94S×69.°21W, h93^{km}±5^{km}, ML4.1*
ISC 08 13:07:49.9±0.5**, 19.°86S**±0.°04×**68.°94W**±0.°06**, h100**^{km}±6^{km}**, n23, σ1.^{s}25**/29**, mb4.0**/4**, 3D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNMC	Miæe Miæ	0.95	320	⇓iP	Pn	13 08 10.2	+0.5
MNMC				i S	Sn	13 08 25.3	+0.6
MNMC				AML	AML	13 08 26.3	
	comp=E,23µm,0.3s						
PSGC	Pisagua	1.14	283	⇓iP	Pn	13 08 10.1	-1.8

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PSGC                                   i S     Sn        13 08 24.9 -3.5
PSGC                                     AML   AML       13 08 25.9
       comp=E,5µm,0.2s
PB01   Plate Boundary       1.28 203⇓ iP     Pn        13 08 12.6 -0.9
PB01                                   i S     Sn        13 08 29.3 -2.1
PB01                                     AML   AML       13 08 31.4
       comp=N,8µm,0.3s
PB04   Plate Boundary       2.45 192  eP     Pn        13 08 30.7 +2.3
PB04                                  eS     Sn        13 09 00.8 +3.0
PB04                                     AML   AML       13 09 16.7
       comp=N,558nm,0.2s
TOCH   Tocopilla            2.52 208  eP     Pn        13 08 28.8 -0.4
TOCH                                   i S     Sn        13 08 57.3 -2.0
TOCH                                     AML   AML       13 09 04.0
       comp=E,718nm,0.2s
LVC    Limon Verde          2.74 179   P     Pn        13 08 34.3 +2.1
       comp=E,19nm,0.3s,baz=342,slow=8.7,SNR=108
LVC                                      S     Sn        13 09 06.1 +1.4
       comp=E,33nm,0.3s,baz=307,slow=15,SNR=13
LVC    Limon Verde          2.74 179  eP     Pn        13 08 32.7 +0.5
LVC                                    i S     Sn        13 09 05.2 +0.5
LVC                                      AML   AML       13 09 15.2
       comp=N,362nm,0.4s
PECH   Pedro de Valdi       2.81 194  i P    Pn        13 08 34.0 +0.9
PECH                                   i S     Sn        13 09 06.1 -0.3
PECH                                     AML   AML       13 09 13.0
       comp=E,926nm,0.4s
ARE    Arequipa             4.16 324  eP     Pn        13 08 55.0 +3.8
SIV    San Ignacio          8.42  64   P     Pn        13 09 49.7 +0.6
       comp=E,2.1nm,0.3s,baz=265,slow=10,SNR=54
SIV                                      S     Sn        13 11 21.6 -1.0
       baz=343,slow=19,SNR=2.4
LCO    Las Campanas         9.25 190  ePn    Pn        13 09 59.9 -0.5
       comp=E,23nm,0.9s
LCO                                   eSn    Sn        13 12 02.4  +20
CPUP   Villa Florida       12.48 123   P     Pn        13 10 44.0 +0.2
       comp=E,0.4nm,0.3s,baz=287,slow=14,SNR=5.0
ATAH   Atahualpa           15.73 323   P     Pn        13 11 27.5 +1.6
       comp=E,0.4nm,0.3s,baz=132,slow=15,SNR=2.5
TEIG   Tepich              44.11 333   P     P         13 15 48.6 +0.2
       comp=E,2.0nm,0.5s,mb4.1
DBIC   Dimbokro            68.31  74   P     P         13 18 39.7 -1.1
       comp=E,2.6nm,0.9s,mb4.1,baz=237,slow=9.6,SNR=3.5
DBIC   Dimbokro            68.31  74   P     P         13 18 39.7 -1.2
TORD   Torodi Ar. Bea      76.84  71   P     P         13 19 30.6 -0.8
       comp=E,0.8nm,0.4s,mb3.8,baz=254,slow=5.3,SNR=17
TORD                                   pP    pP        13 19 58.8 +1.7
       comp=E,1.1nm,0.8s,baz=252,slow=5.3,SNR=3.3
YKA    Yellowknife Ar      89.63 341   P     P         13 20 35.9  0.0
       comp=E,1.5nm,0.7s,mb4.3,baz=134,slow=4.6,SNR=38
YKA                                    pP    pP        13 21 03.4 +1.1
       comp=E,0.4nm,0.6s,baz=133,slow=4.7,SNR=4.5
YKA    Yellowknife Ar      89.63 341   P     P         13 20 35.9  0.0
YKA                                    pP    pP        13 21 03.4 +1.1
ASAR   Alice Springs      131.34 208   PKP   PKPdf     13 26 50.3 -0.9
       comp=E,0.4nm,0.9s,baz=141,slow=2.0,SNR=4.4
MKAR   Makanchi Array     144.32  35   PKP   PKPdf     13 27 12.8 -1.4
       comp=E,0.3nm,0.6s,baz=275,slow=1.9,SNR=5.4
MKAR   Makanchi Array     144.32  35   PKP   PKPdf     13 27 12.8 -1.4
SONM   Songino Array      151.84   7   PKPbc PKPbc     13 27 33.4 +0.4
       comp=E,0.7nm,0.5s,baz=300,slow=1.0,SNR=12
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*IDC **08** 13:13:18.8±3.7, 37°.22N×69°.25E, h0^{km}, mb3.8/1, mb1 3.7/6, mb1mx3.5/26, mbtmp3.6/6, ML3.3/5, Error ellipse: s-maj=48.0km s-min=28.7km az=17.0*

*NEIC **08** 13:13:36.4±6.5, 38°.62N×69°.24E, h35^{km}, Error ellipse: s-maj=80.0km s-min=17.7km az=193.0*

ISC 08 13:13:31.2±2.0**, 38°.0N**±0°.1×**69°.21E**±0°.10**, h70**^{km}±20^{km}**, n23, σ1^{s}31**/30**, Tajikistan**

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Code   Station Name         Δ°   AZ°   Phase ID            Time      Res
                                       Op    ISC         h  m  s     ISC
KKAR   Karatay Array        5.18  11  ePn    Pn        13 14 42.7 -3.4
KKAR                                   Sn    Sn        13 15 44.7 +0.3
AML    Almayashu            5.36  39   P     Pn        13 14 47.5 -1.0
       SNR=7.7
AML    Almayashu            5.36  39  ePn    Pn        13 14 45.4 -3.1
AML                                   eSn    Sn        13 15 55.4 +6.5
KSH    Kashi                5.49  72   Pn    Pn        13 14 42.6 -7.8
KSH                                    Sn    Sn        13 15 37.5  -15
KSH                                    smax
       comp=N,60nm,0.8s
KSH                                    smax
       comp=E,43nm,0.8s
EKS2   Erkin-Say            5.81  36  ePn    Pn        13 14 53.2 -1.4
       comp=E,7.5nm,1.1s
UCH    Uchtor               5.85  42   P     Pn        13 14 56.6 +1.3
       SNR=9.5
UCH    Uchtor               5.85  42  ePn    Pn        13 14 56.1 +0.8
       comp=E,2.8nm,0.6s
UCH                                    Sn    Sn        13 16 02.7 +1.8
AAK    Ala-Archa            6.13  40   P     Pn        13 15 01.1 +2.1
       SNR=12
AAK    Ala-Archa            6.13  40  ePn    Pn        13 15 00.3 +1.2
       comp=E,12nm,0.5s
KZA    Kyzart               6.16  47   P     Pn        13 15 00.0 +0.5
       SNR=12
KZA    Kyzart               6.16  47  ePn    Pn        13 14 59.6 +0.1
       comp=E,16nm,0.5s
KBK    Karagaybulak         6.38  42   P     Pn        13 15 04.3 +1.8
       SNR=11
CHMS   Chumysh              6.53  39   P     Pn        13 15 05.9 +1.4
       SNR=5.3
TKM2   Tokmak 2             6.91  43   P     Pn        13 15 10.6 +0.9
       SNR=5.4
TKM2   Tokmak 2             6.91  43  ePn    Pn        13 15 09.9 +0.2
       comp=E,9.4nm,0.6s
TKM2                                  eSn    Sn        13 16 24.5 -2.3
MKAR   Makanchi Array      13.04  44   Pn    Pn        13 16 31.9 -1.4
       comp=E,0.1nm,0.3s,baz=231,slow=13,SNR=18
KURK   Kurchatov           14.35  25   Pn    Pn        13 16 48.1 -2.5
       comp=E,0.1nm,0.3s,baz=214,slow=13,SNR=5.1
KURK   Kurchatov           14.35  25  ePn    Pn        13 16 48.0 -2.7
       comp=E,2.1nm,0.4s
AKTK   Aktyubinsk          14.76 331   Pn    Pn        13 16 55.5 -0.5
AKTK                                   Sn    Sn        13 19 38.7 +0.5
AKTO   Aktyubinsk          14.76 331   Pn    Pn        13 16 55.5 -0.5
       comp=E,0.1nm,0.3s,baz=141,slow=13,SNR=7.1
AKTO                                   Sn    Sn        13 19 38.7 +0.5
       comp=E,0.1nm,0.3s,baz=233,slow=20,SNR=2.5
BVAR   Borovoye Array      15.03   3   Pn    Pn        13 16 59.3 -0.2
       comp=E,0.0nm,0.3s,baz=167,slow=8.9,SNR=2.7
ZALV   Zalesovo Beam       19.20  29   P     Pn        13 17 50.1 -0.8
       comp=E,0.2nm,0.3s,baz=224,slow=10.0,SNR=6.1
YKA    Yellowknife Ar      79.79   2   P     P         13 25 32.6 +1.3
       comp=E,0.5nm,0.7s,baz=351,slow=5.9,SNR=4.7
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*IDC **08** 13:26:10.9±0.8, 1°.54N×127°.08E, h0^{km}, mb4.1/9, mb1 4.2/10, mb1mx4.1/19, mbtmp4.1/10, ML4.2/1, Error ellipse: s-maj=43.8km s-min=13.6km az=83.0*

*NEIC **08** 13:26:16.2±0.7, 1°.49N×127°.37E, h35^{km}, mb4.7/3, Error ellipse: s-maj=25.2km s-min=11.3km az=75.0*

*DJA **08** 13:26:17, 1°.86N×126°.75E, h34^{km}, MLv4.4/4*

*ISCJB **08** 13:26:19.3±0.8, 1°.52N±0°.07×127°.1E±0°.1, h86^{km}±7^{km}, mb4.2/12, Error ellipse: s-maj=18.2km s-min=10.7km az=170.0*

ISC 08 13:26:20.8±0.7**, 1°.48N**±0°.06×**127°.1E**±0°.1**, h81**^{km}±7^{km}**, n26, σ1^{s}07**/28**, mb4.2**/12**, 1D, Halmahera**

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Code   Station Name         Δ°   AZ°   Phase ID            Time      Res
                                       Op    ISC         h  m  s     ISC
TNE    Ternate              0.74 158⇓ eP     Pn        13 26 35.0 -2.0
TNE                                   eS     Sn        13 26 49.0 -0.1
TNTI   Ternate              0.76 159   P     Pn        13 26 38.4 +1.2
LBMI   Labuha               2.14 169   P     Pn        13 26 57.9 +3.2
LBMI                                   S     Sn        13 27 28.5 +8.0
MNI    Manado               2.25 269   P     Pn        13 26 47.3 -8.8
AAI    Ambon                5.25 168   P     Pn        13 27 41.1 +4.3
KDI    Kendari              7.01 220   P     Pn        13 28 00.4 -0.5
KKM    Kota Kinabalu       11.76 293  ePn    Pn        13 29 05.8  0.0
       48nm,1.3s
KAKA   Kakadu              15.06 160  eP     Pn        13 29 56.0 +6.7
       4.7nm,0.5s
FITZ   Fitzroy Crossi      19.51 184  eP     Pn        13 30 43.0 -0.8
       5.5nm,0.5s
FITZ   Fitzroy Crossi      19.51 184   P     Pn        13 30 41.2 -2.6
       0.5nm,0.3s,baz=17,slow=14,SNR=8.4
WRAB   Tennant Creek       22.44 162  eP     P         13 31 09.3 -3.9
       7.8nm,0.6s,mb4.2
WRA    Warramunga Arr      22.45 162   P     P         13 31 13.2 -0.1
       8.8nm,0.6s,mb4.2,baz=339,slow=11,SNR=45
NACB   Ninganchiao         23.18 347  eP     P         13 31 23.1 +2.5
       34nm,1.3s,mb4.5
MBWA   Marble Bar          23.62 197  eP     P         13 31 24.7 -0.1
ASAR   Alice Springs       25.86 166   P     P         13 31 45.3 +0.3
       2.2nm,0.3s,mb4.1,baz=346,slow=12,SNR=77
KLBR   Kellerberrin        34.06 194  eP     P         13 32 57.9 +0.4
       6.6nm,0.6s,mb4.6
MUN    Mundaring           34.84 196  eP     P         13 33 04.8 +0.6
NWAO   Narrogin (SRO)      35.47 194   P     P         13 33 09.0 -0.6
       10nm,0.9s,mb4.7,baz=45,slow=2.9,SNR=2.4
NWAO   Narrogin (SRO)      35.47 194  eP     P         13 33 09.2 -0.4
       32nm,1.3s,mb5.0
KSRS   Korea Array         35.80   1   P     P         13 33 12.6 +0.1
       0.9nm,0.9s,mb3.7,baz=178,slow=9.5,SNR=4.4
STKA   Stephens Creek      35.91 159  eP     P         13 33 14.4 +1.0
       2.2nm,0.7s,mb4.2
STKA   Stephens Creek      35.91 159   P     P         13 33 12.9 -0.5
       1.4nm,0.3s,mb4.4,baz=331,slow=8.4,SNR=17
MJAR   Matsushiro Arr      36.37  15   P     P         13 33 15.6 -1.6
       1.5nm,0.5s,mb4.2,baz=181,slow=9.2,SNR=7.2
SONM   Songino Array       49.53 342   P     P         13 35 02.4 -0.9
       0.3nm,0.4s,mb3.6,baz=154,slow=8.6,SNR=8.2
PETK   Petropavlovsk-      57.37  21   P     P         13 36 00.8 +0.2
       1.8nm,0.8s,mb4.2,baz=200,slow=6.7,SNR=5.7
MKAR   Makanchi Array      59.60 326   P     P         13 36 16.7 +0.4
       1.1nm,0.6s,mb4.1,baz=118,slow=7.6,SNR=32
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*IDC **08** 13:26:18.7±0.5, 17°.24S×172°.59W, h0^{km}, mb4.5/20, mb1 4.7/20, mb1mx4.6/23, mbtmp4.5/20, ML6.0/1, MS4.3/16, Ms1 4.3/16, ms1mx4.1/33, Error ellipse: s-maj=19.8km s-min=15.1km az=132.0*

*ISCJB **08** 13:26:22.5±0.4, 17°.20S±0°.07×172°.74W±0°.08, h33^{km}, mb4.7/35, MS4.4/14, Error ellipse: s-maj=12.5km s-min=9.1km az=31.2*

*BJI **08** 13:26:22.8, 17°.30S×172°.70W, h25^{km}, mB5.5/8, mb4.9/16, Ms7 4.7/1*

*NEIC **08** 13:26:24.9±0.6, 17°.28S×172°.71W, h45^{km}, mb4.9/8, Error ellipse: s-maj=18.0km s-min=12.7km az=122.0*

*MOS **08** 13:26:28.4±1.8, 17°.71S×173°.69W, h33^{km}, mb4.9/7, Error ellipse: s-maj=16.5km s-min=13.2km az=154.5*

ISC 08 13:26:24.1±3.0**, 17°.30S**±0°.07×**172°.69W**±0°.09**, h33**^{km}±20^{km}**, n113, σ1^{s}29**/70**, mb4.7**/35**, MS4.4**/14**, Tonga Islands region**

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Code   Station Name         Δ°   AZ°   Phase ID            Time      Res
                                       Op    ISC         h  m  s     ISC
AFI    Afiamalu             3.48  15   Pn    Pn        13 27 05.5  -10
       57nm,0.3s,baz=177,slow=19,SNR=51
AFI                                    Sn    Sn        13 27 42.2  -14
       163nm,0.3s,baz=91,slow=14,SNR=6.5
AFI                                    LR    LR        13 27 56.4
       comp=Z,1µm,21.3s,baz=236,slow=29
AFI    Afiamalu             3.48  15  ePn    Pn        13 27 05.3  -11
AFI                                   eSn    Sn        13 27 38.9  -17
RAR    Rarotonga           12.81 110   Pn    Pn        13 29 13.5  -10
       5.8nm,0.3s,baz=253,slow=8.2,SNR=8.2
RAR                                    LR    LR        13 33 44.2
       comp=Z,1µm,18.1s,baz=295,slow=35
RAO    Raoul Island        12.83 201   P     Pn        13 29 22.6 -1.5
RAO                                                    13 31 39.5
RAO                                    pmax  pmax
       comp=Z,73nm,0.3s
RAO                                    smax
       comp=N,157nm,0.3s
RAO    Raoul Island        12.83 201   Pn    Pn        13 29 22.6 -1.6
       comp=N,73nm,0.3s,baz=43,slow=18,SNR=5.2
RAO                                    Sn    Sn        13 31 39.5 -6.3
       comp=N,156nm,0.3s,baz=36,slow=23,SNR=4.3
RAO    Raoul Island        12.83 201  ePn    Pn        13 29 22.8 -1.4
       comp=N,287nm,0.3s
PAE    Paea                22.05  94  eT               13 54 07.0
       comp=N,42nm,0.3s
PPT    Papeete             22.06  94  eP     P         13 31 24.1 +7.9
PPT    Papeete             22.06  94  eP     P         13 31 24.1 +7.9
PPT                                   eLR    LR        13 35 43.7
       comp=N,2µm,27.0s,baz=263
PPT                                   eLR    LR        13 35 43.7
       comp=N,2µm,27.0s,baz=263
PPT    Papeete             22.06  94   LR    LR        13 36 41.2
       comp=N,868nm,21.2s,MS4.1,baz=79,slow=28
URZ    Urewera             22.72 201   P     P         13 31 23.2 +0.2
       comp=N,32nm,0.5s,mb5.0,baz=355,slow=6.4,SNR=22
URZ                                    S     S         13 35 28.2 -1.5
       comp=N,12nm,0.7s,baz=287,slow=19,SNR=7.1
HNR    Honiara             27.72 283   P     P         13 32 11.2 +1.6
       comp=N,26nm,0.8s,mb4.9,baz=131,slow=4.2,SNR=4.3
HNR                                    LR    LR        13 41 32.8
       comp=N,1µm,21.6s,MS4.5,baz=258,slow=33
RPZ    Rata Peaks          29.71 204   P     P         13 32 32.4 +5.4
       comp=N,32nm,1.0s,mb5.0,baz=18,slow=3.6,SNR=14
ARMA   Armidale            34.99 241  eP     P         13 33 14.2 +0.7
RKT    Rikitea             35.80 106  eT               14 11 11.1
       comp=N,1.3nm,0.3s
CNB    Canberra Magne      38.17 234  eP     P         13 33 42.1 +1.6
CTA    Charters Tower      38.92 259  eP     P         13 33 45.0 -2.0
       comp=N,5.3nm,0.9s,mb4.3
CTA    Charters Tower      38.92 259   P     P         13 33 44.6 -2.4
       comp=N,5.9nm,0.8s,mb4.4,baz=88,slow=10,SNR=6.8
CTAO   Charters Tower      38.92 259  eP     P         13 33 44.4 -2.6
CTAO                                   pmax  pmax
       comp=Z,4.0nm,0.5s,mb4.4
CTAO   Charters Tower      38.92 259  eP     P         13 33 44.4 -2.6
       comp=Z,3.8nm,0.5s,mb4.4
STKA   Stephens Creek      43.71 242  eP     P         13 34 26.8 +0.6
       comp=Z,5.4nm,0.8s,mb4.3
STKA   Stephens Creek      43.71 242   P     P         13 34 25.8 -0.5
       comp=Z,3.8nm,0.7s,mb4.2,baz=86,slow=11,SNR=6.5
STKA                                   LR    LR        13 49 20.2
       comp=Z,574nm,21.3s,MS4.5,baz=96,slow=32
WRAB   Tennant Creek       50.09 258  eP     P         13 35 13.9 -2.3
WRAB                                   pmax  pmax
       comp=Z,11nm,0.9s,mb4.9
WRAB   Tennant Creek       50.09 258  eP     P         13 35 13.9 -2.3
       comp=Z,11nm,0.9s,mb4.9
WRA    Warramunga Arr      50.10 258   P     P         13 35 14.8 -1.5
       comp=Z,6.1nm,0.7s,mb4.8,baz=96,slow=7.2,SNR=37
WRA                                    LR    LR        13 53 06.7
       comp=Z,420nm,20.8s,MS4.4,baz=120,slow=32
ASAR   Alice Springs       50.20 253   P     P         13 35 16.1 -0.9
       comp=Z,19nm,0.7s,mb5.3,baz=88,slow=9.2,SNR=142
ASAR                                   S     S         13 42 25.5 -1.6
       comp=Z,2.7nm,1.1s,baz=99,slow=14,SNR=9.5
KAKA   Kakadu              53.05 267  eP     P         13 35 37.6 -0.9
       comp=Z,8.7nm,0.8s,mb4.7
FITZ   Fitzroy Crossi      58.50 259  eP     P         13 36 17.1 -0.4
FITZ   Fitzroy Crossi      58.50 259   P     P         13 36 17.0 -0.5
       comp=Z,3.4nm,0.8s,mb4.4,baz=124,slow=7.3,SNR=3.4
FITZ                                   LR    LR        14 00 28.4
       comp=Z,243nm,18.9s,MS4.3,baz=109,slow=35
VNDA   Vanda               61.57 186   P     P         13 36 39.1 +1.5
       comp=Z,6.8nm,1.1s,mb4.7,baz=34,slow=7.3,SNR=7.5
MBWA   Marble Bar          63.50 255  eP     P         13 36 50.9 -0.5
       comp=Z,11nm,0.9s,mb4.9
NWAO   Narrogin (SRO)      64.30 241   P     P         13 36 57.4 +0.9
       comp=Z,12nm,1.1s,mb4.9,baz=79,slow=10,SNR=2.9
NWAO   Narrogin (SRO)      64.30 241   P     P         13 36 57.4 +0.9
MJAR   Matsushiro Arr      70.82 320   P     P         13 37 36.9 -0.5
       comp=Z,5.3nm,0.9s,mb4.5,baz=152,slow=5.8,SNR=8.5
MJAR   Matsushiro Arr      70.82 320   P     P         13 37 36.9 -0.5
MAT    Matsushiro          70.82 320   P     P         13 37 37.3 -0.2
JOW    Kunigami            72.15 306   LR    LR        14 05 13.9
       comp=Z,261nm,20.4s,MS4.5,baz=314,slow=32
QSPA   South Pole Qui      72.76 180  eP     P         13 37 49.2 +0.7
       comp=Z,30nm,1.2s,mb5.1
PETK   Petropavlovsk-      74.63 342   P     P         13 37 59.9 +0.2
       comp=Z,1.8nm,0.8s,mb4.1,baz=144,slow=8.2,SNR=3.1
PETK                                   LR    LR        14 06 11.1
       comp=Z,188nm,21.2s,MS4.4,baz=136,slow=32
NVAR   Mina Array Bea      75.28  41   P     P         13 38 02.5 -1.4
       comp=Z,1.1nm,0.7s,mb3.9,baz=232,slow=7.7,SNR=7.8
YSS    Yuzh-Sakhalins      75.46 330  eP     P         13 38 04.7 +0.1
YSS                                    pmax  pmax
       comp=Z,11nm,0.9s,mb4.8
YSS    Yuzh-Sakhalins      75.46 330  eP     P         13 38 04.7  0.0
       comp=Z,11nm,0.9s,mb4.8
KSRS   Korea Array         77.98 316   P     P         13 38 20.3 +1.2
KSRS                                   pmax  pmax
       comp=Z,6.0nm,1.0s,mb4.5
KSRS   Korea Array         77.98 316   P     P         13 38 20.3 +1.2
       comp=Z,5.9nm,1.0s,mb4.5,baz=126,slow=6.9,SNR=13
TXAR   Lajitas Array       81.11  56   P     P         13 38 36.9 +0.6
       comp=Z,1.0nm,1.0s,mb3.7,baz=216,slow=6.2,SNR=7.7
KLR    Kul'dur             82.47 327  eP     P         13 38 39.0 -4.0
CN2    Changchun           82.97 320  eP     P         13 38 46.5 +0.8
CN2                                    pmax  pmax
       comp=Z,10.0nm,0.6s,mb5.0
PDAR   Pinedale Array      83.22  41   P     P         13 38 45.1 -2.0
       comp=Z,0.9nm,0.8s,mb3.9,baz=209,slow=2.1,SNR=7.6
COLA   College             84.09  10  eP     P         13 38 48.8 -2.2
COLA                                   pmax  pmax
       comp=Z,16nm,1.1s,mb5.1
COLA   College             84.09  10  eP     P         13 38 48.8 -2.2
       comp=Z,16nm,1.1s,mb5.1
SEY    Seymchan            84.51 345  eP     P         13 38 53.3 +0.1
MAW    Mawson              86.22 198   P     P         13 39 02.4 +0.5
       comp=Z,6.2nm,0.6s,mb5.0,baz=135,slow=9.7,SNR=11
MAW                                    LR    LR        14 14 05.5
       comp=Z,368nm,20.3s,MS4.8,baz=23,slow=33
BILL   Bilibino            86.47 352  eP     P         13 39 00.0 -2.8
BILL                                   pmax  pmax
       comp=Z,11nm,1.2s,mb5.0
BILL   Bilibino            86.47 352  eP     P         13 39 00.0 -2.8
       comp=Z,11nm,1.2s,mb5.0
BJI    Beijing             87.26 313   P     P         13 39 05.7 -1.6
BJI                                    pmax  pmax
       comp=Z,15nm,1.7s,mb5.0
PLCA   Paso Flores         87.75 132   P     P         13 39 09.8  0.0
       comp=Z,2.0nm,0.8s,mb4.4,baz=240,slow=1.6,SNR=2.8
PLCA                                   LR    LR        14 10 15.7
       comp=Z,180nm,18.8s,MS4.5,baz=235,slow=30
PSI    Prapat              89.28 273   P     P         13 39 17.6  0.0
       comp=Z,8.2nm,1.0s,mb5.0,baz=163,slow=8.0,SNR=11
XAN    Xi'an               90.28 306   P     P         13 39 23.6 +1.8
XAN                                    pP    pP        13 39 35.8 +3.4
XAN                                    pmax  pmax
       comp=Z,8.0nm,1.8s,mb4.8
XAN                                    pmax  pmax
       comp=Z,150nm,7.6s
VNA3   Neumayer Olymp      90.92 175  eP     P         13 39 24.5 +0.4
VNA2   Neumayer--Watz      91.42 175  eP     P         13 39 26.8 +0.4
       baz=206,slow=5.1
YKA    Yellowknife Ar      91.56  23   P     P         13 39 25.6 -1.4
       comp=Z,0.5nm,0.8s,mb3.9,baz=234,slow=4.5,SNR=10
YKA                                    LR    LR        14 12 11.9
       comp=Z,212nm,19.1s,MS4.6,baz=135,slow=30
YKA    Yellowknife Ar      91.56  23   P     P         13 39 25.6 -1.4
YKA                                    LR    LR        14 12 11.9
NNA    Nana                91.97 103   LR    LR        14 13 06.9
       comp=Z,150nm,18.9s,MS4.5,baz=326,slow=31
ATAH   Atahualpa           92.02  98   LR    LR        14 11 53.0
       comp=Z,261nm,19.5s,MS4.7,baz=261,slow=30
KMI    Kunming             92.45 295   P     P         13 39 34.7 +2.6
KMI                                    pmax  pmax
       comp=Z,8.0nm,1.3s,mb4.9
CFAA   Coronel Fontan      92.83 124   LR    LR        14 11 26.7
       comp=Z,25nm,18.4s,MS3.7,baz=266,slow=29
FFC    Flin Flon           93.30  33  i P    P         13 39 36.5 +1.2
CMAR   Chiang Mai Arr      93.85 288   P     P         13 39 40.8 +2.1
       comp=Z,2.6nm,0.9s,mb4.7,baz=106,slow=2.8,SNR=21
CMAR                                   LR    LR        14 17 58.1
       comp=Z,92nm,20.4s,MS4.2,baz=100,slow=33
CHTO   Chiang Mai          93.95 288  eP     P         13 39 40.2 +1.1
CHTO                                   pmax  pmax
       comp=Z,1.0nm,0.6s,mb4.4
CHTO   Chiang Mai          93.95 288  eP     P         13 39 40.2 +1.1
       comp=Z,0.8nm,0.6s,mb4.3
LZH    Lanzhou             94.89 306  eP     P         13 39 45.5 +2.5
LZH                                    pP    pP        13 39 52.3 -1.3
LZH                                    sP    sP        13 39 56.0 -1.4
LZH                                    pmax  pmax
       comp=Z,23nm,1.1s,mb5.5
LZH                                    pmax  pmax
       comp=Z,100nm,5.0s
SONM   Songino Array       96.70 318   P     P         13 39 52.3 +1.4
       comp=Z,0.5nm,0.9s,mb4.0,baz=101,slow=5.3,SNR=3.6
MKAR   Makanchi Array     112.63 314   PKiKP PKiKP     13 44 55.9 -1.2
       comp=Z,0.2nm,0.4s,baz=112,slow=0.4,SNR=8.8
AKASG  Malin Array Be     142.34 337   PKP   PKPdf     13 45 55.0 +1.9
       comp=Z,0.4nm,0.3s,baz=37,slow=3.0,SNR=3.6
LVV    L'vov              144.86 341  ePKIKP PKiKP     13 46 04.3 +3.0
KMBO   Kilima Mbogo       145.27 241   PKPbc PKiKP     13 46 01.3 -2.0
       comp=Z,8.9nm,1.1s,baz=53,slow=7.1,SNR=6.9
OJC    Ojcow              145.65 346  ePKP   PKiKP     13 46 03.4 +0.4
CLL    Collm              145.76 354  ePKPbc PKPbc     13 46 01.0 +1.5
CLL                                   e(pPKiKP)        13 46 14.0
CLL                                   esPKiKP          13 46 20.0
STHS   Stebnicka Huta     146.03 344  ePKP   PKiKP     13 46 05.7 +1.9
BRG    Berggiesshubel     146.08 352  ePKP   PKiKP     13 46 06.5 +2.7
       comp=Z,4.8nm,0.8s
BRG                                   e                13 46 22.4
       comp=Z,10nm,1.1s
KOLS   Kolonicke sedl     146.18 342  ePKP   PKiKP     13 46 07.8 +3.7
DPC    Dobruska-Polom     146.24 350  ePKP   PKPab     13 46 02.7 +1.0
NIE    Niedzica           146.27 345  ePKP   PKiKP     13 46 06.8 +2.5
PVCC   Panska Ves         146.34 352  ePKP   PKiKP     13 46 04.7 +0.3
PVCC                                  epPKP            13 46 18.3
OKC    Ostrava-Krasne     146.38 347  ePKP   PKiKP     13 46 06.1 +1.6
CRVS   Cervenica-Dubn     146.44 343  ePKP   PKPdf     13 46 01.8 +1.5
CRVS                                  e                13 46 19.7
UZH    Uzhgorod           146.44 342  ePKP2  PKiKP     13 46 07.8 +3.2
MOX    Moxa               146.55 355  e(PKP) PKiKP     13 46 05.3 +0.5
       comp=Z,14nm,1.6s
PRU    Pruhonice          146.87 351  ePKP   PKPab     13 46 04.3 +0.1
GIVF   Givet              147.21   3  ePKIKP PKPab     13 46 06.3 +0.8
VYHS   Vyhne              147.49 346  ePKIKP PKPab     13 46 08.9 +2.2
VYHS                                  e                13 46 12.0
VYHS   Vyhne              147.49 346  ePKP   PKPab     13 46 08.9 +2.2
VYHS                                  e                13 46 12.0
VYHS                                  e                13 46 28.2
VYHS   Vyhne              147.49 346  ePKP   PKPab     13 46 08.9 +2.2
VYHS                                  e                13 46 12.0
VYHS                                  e                13 46 28.3
GRA1   Grafenberg Arr     147.53 355  ePKP   pPKPbc    13 46 16.2 +0.7
GRF    Grafenberg Arr     147.53 355  ePKP2  pPKPbc    13 46 16.2 +0.7
KHC    Kasperske Hory     147.84 352  ePKP   PKPbc     13 46 05.0 -0.6
KHC                                   epPKP  pPKPdf    13 46 20.0 +6.5
MODS   Modra-Piesok       147.95 347  ePKP   PKPab     13 46 11.1 +2.6
MODS                                  e                13 46 16.5
BRTR   Keskin Array B     148.04 320   PKPbc PKPbc     13 46 06.7 +0.3
       comp=Z,3.7nm,0.8s,baz=45,slow=0.6,SNR=11
GERES  GERESS Array B     148.10 352   PKPbc PKPbc     13 46 06.3 +0.1
       comp=Z,0.6nm,0.6s,baz=350,slow=3.0,SNR=3.0
GRR    Gorron             148.28  10  ePKIKP PKPab     13 46 08.3 -1.5
       comp=Z,41nm,1.0s
MEZF   Maizieres J'vi     148.82   3  ePKIKP PKPab     13 46 10.1 -1.9
CDF    Champ du Feu       148.97   0  ePKIKP PKPbc     13 46 10.5 +2.0
       comp=Z,33nm,1.1s
HAU    Haudompre          149.36   1  ePKIKP PKPbc     13 46 10.9 +1.4
HINF   Hinteralfeld       149.56   1  ePKIKP PKPbc     13 46 11.1 +1.1
LOR    Lormes             149.97   5  ePKIKP PKPbc     13 46 11.9 +0.9
       comp=Z,16nm,1.0s
SSF    Saint Saulge       150.15   5  ePKIKP PKPbc     13 46 12.3 +0.8
       comp=Z,20nm,0.8s
AVF    Avril sur Loir     150.41   6  ePKIKP PKPbc     13 46 12.5 +0.4
       comp=Z,18nm,1.0s
SMF    Signal de Mont     150.59   5  ePKIKP PKPbc     13 46 13.0 +0.4
LJU    Ljubljana          150.71 350  i PKPbc PKPab    13 46 25.8 +6.0
TCF    Toulx Ste Croi     150.78   7  ePKIKP PKPbc     13 46 13.5 +0.5
       comp=Z,29nm,1.2s
JAVS   Javornik           150.93 350  i PKPbc PKPab    13 46 26.3 +5.6
BOJS   Bojanci            151.10 348  i PKPdf PKPab    13 46 19.0 -2.4
BOJS                                  i PKPbc pPKPab   13 46 27.1 -5.0
TORD   Torodi Ar. Bea     173.19 127   PKPab PKPab     13 47 57.1 -1.4
       comp=Z,0.8nm,0.6s,baz=258,slow=3.7,SNR=4.5
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*ISCJB **08** 13:48:22.4±0.8, 27°.6S±0°.2×175°.5W±0°.1, h32^{km}, mb4.0/5, Error ellipse: s-maj=27.3km s-min=12.9km az=152.2*

*NEIC **08** 13:48:25.2±0.7, 27°.15S×175°.58W, h35^{km}, mb4.0/2, Error ellipse: s-maj=24.5km s-min=12.5km az=156.0*

*IDC **08** 13:48:25.5±1.0, 27°.03S×175°.74W, h32^{km}±5^{km}, mb3.9/4, mb1 4.2/5, mb1mx3.9/15, mbtmp4.0/5, ML3.4/1, Error ellipse: s-maj=42.7km s-min=20.8km az=164.0*

ISC 08 13:48:24.4±0.8**, 27°.5S**±0°.1×**175°.5W**±0°.1**, h34**^{km}**, h34**^{km}±.4^{km}**:pP-P, n14, σ0^{s}75**/10**, mb4.0**/5**, Kermadec Islands region**

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Code   Station Name         Δ°   AZ°   Phase ID            Time      Res
                                       Op    ISC         h  m  s     ISC
RAO    Raoul Island         2.74 231   Sn    Sn        13 49 46.0 +8.2
       55nm,0.3s,baz=52,slow=19,SNR=3.5
URZ    Urewera             12.36 208   Pn    Pn        13 51 23.3 +5.3
       0.2nm,0.3s,baz=29,slow=12,SNR=2.1
URZ                                    Sn    Sn        13 53 34.6 +0.1
       0.7nm,0.3s,baz=96,slow=23,SNR=10
RAR    Rarotonga           15.64  70   Pn    Pn        13 52 01.7 -0.5
       2.5nm,0.3s,baz=0.6,slow=13,SNR=3.7
CTA    Charters Tower      35.66 274   P     P         13 55 20.1 +0.6
       10nm,0.8s,mb4.8,baz=99,slow=12,SNR=12
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CTA				pP	pP	13 55 29.7	+0.3
	6.2nm,0.6s,baz=96,slow=12,SNR=3.6						
CTAO	Charters Tower	35.66	274	eP	P	13 55 20.8	+1.3
	1.9nm,0.6s,mb4.2						
CTAO				e	pP	13 55 30.5	+1.0
ASAR	Alice Springs	45.55	263	P	P	13 56 40.7	-0.4
	0.7nm,0.7s,mb3.7,baz=104,slow=7.9,SNR=12						
ASAR				pP	pP	13 56 50.2	-1.0
	0.6nm,0.5s,baz=91,slow=6.6,SNR=5.0						
WRAB	Tennant Creek	46.28	268	P	P	13 56 46.9	0.0
	0.6nm,0.4s,mb3.9						
WRA	Warramunga Arr	46.29	268	P	P	13 56 45.8	-1.1
	2.1nm,0.8s,mb4.1,baz=105,slow=7.8,SNR=8.1						
WRA				pP	pP	13 56 55.9	-1.2
	3.5nm,0.9s,baz=104,slow=8.0,SNR=8.5						
NVAR	Mina Array Bea	84.65	42	P	P	14 00 55.5	+1.1
	0.5nm,0.8s,mb3.7,baz=222,slow=9.2,SNR=4.1						
NVAR				pP	pP	14 01 05.5	+0.2
	1.7nm,0.8s,baz=222,slow=9.8,SNR=9.3						
TXAR	Lajitas Array	88.98	56	pP	pP	14 01 25.8	-0.9
	0.5nm,0.8s,baz=204,slow=9.0,SNR=4.4						
ZALV	Zalesovo Beam	117.34	319	pPKP	pPKPdf	14 07 15.7	-1.3
	0.4nm,0.6s,baz=116,slow=3.4,SNR=2.5						
MKAR	Makanchi Array	117.59	311	PKP	PKPdf	14 07 06.5	0.0
	0.4nm,0.6s,baz=76,slow=1.4,SNR=6.5						
MKAR				pPKP	pPKPdf	14 07 16.4	-1.3
	0.6nm,0.7s,baz=73,slow=0.5,SNR=6.4						
NOA	NORSAR Array B	146.19	354	pPKPbc	pPKPbc	14 08 10.5	-1.1
	1.4nm,0.8s,baz=13,slow=4.6,SNR=3.0						
TORD	Torodi Ar. Bea	165.45	169	PKPab	PKPab	14 09 27.2	+3.2
	0.8nm,0.9s,baz=174,slow=3.7,SNR=3.1						
TORD				pPKPab	pPKPab	14 09 37.2	+2.3
	2.8nm,0.9s,baz=184,slow=3.4,SNR=9.4						

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*ISCJB **08** 13:50:38.3±0.6, 19°.01S±0°.06×69°.3W±0°.1, h129km±6km, mb3.7/4, Error ellipse: s-maj=15.8km s-min=9.9km az=173.3*

*NEIC **08** 13:50:39.4±1.5, 18°.99S×69°.22W, h123km±14km, mb3.9/1, Error ellipse: s-maj=19.7km s-min=14.6km az=109.0*

*GUC **08** 13:50:40.7±1.9, 19°.17S×69°.37W, h119km±15km, ML4.2*

*IDC **08** 13:50:40.2±2.7, 19°.06S×69°.18W, h126km±27km, mb3.5/3, mb1 3.6/6, mb1mx3.5/20, mbtmp3.4/6, Error ellipse: s-maj=32.4km s-min=22.1km az=121.0*

ISC 08 13:50:39.4±0.6**, 19°.01S**±0°.06×**69°.31W**±0°.10**, h123**km±6km**, n17, σ0s.98**/21**, mb3.7**/4**, 3C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNMC	Miæe Miæ	0.29	246	⇑iP	Pn	13 50 57.7	+1.0
MNMC				i S	Sn	13 51 10.9	+1.2
MNMC				AML	AML	13 51 14.2	
	comp=E,18µm,0.2s						
PSGC	Pisagua	0.96	233	⇑iP	Pn	13 51 01.0	-0.4
PSGC				i S	Sn	13 51 16.4	-1.6
PSGC				AML	AML	13 51 17.8	
	comp=E,7µm,0.6s						
HMBC	Humberston	1.37	203	⇑iP	Pn	13 51 05.3	-0.3
HMBC				i S	Sn	13 51 24.2	-1.4
HMBC				AML	AML	13 51 26.8	
	comp=N,5µm,0.7s						
PB04	Plate Boundary	3.24	183	eP	Pn	13 51 30.4	+1.4
PB04				i S	Sn	13 52 08.4	+1.2
PB04				AML	AML	13 52 29.9	
	comp=N,405nm,0.8s						
LVC	Limon Verde	3.60	174	P	Pn	13 51 35.4	+1.7
	comp=N,2.3nm,0.3s,baz=338,slow=9.7,SNR=40						
LVC				S	Sn	13 52 15.8	0.0
	comp=N,19nm,0.3s,baz=330,slow=2.7,SNR=5.9						
LVC	Limon Verde	3.60	174	ePn	Pn	13 51 33.4	-0.4
LVC				ePn	Pn	13 51 34.0	+0.3
LVC				eSn	Sn	13 52 06.3	-9.4
LVC	Limon Verde	3.60	174	eP	Pn	13 51 34.8	+1.1
LVC				i S	Sn	13 52 14.5	-1.3
LVC				AML	AML	13 52 19.4	
	comp=E,160nm,0.3s						
SIV	San Ignacio	8.41	70	P	Pn	13 52 38.1	-0.5
	comp=E,3.3nm,0.3s,baz=269,slow=9.6,SNR=84						
CPUP	Villa Florida	13.24	126	P	Pn	13 53 41.5	-1.0
	comp=E,0.4nm,0.3s,baz=284,slow=9.9,SNR=2.9						
SDV	Santo Domingo	27.75	357	eP	P	13 56 15.6	-1.0
	comp=E,1.3nm,0.4s,mb3.8						
TXAR	Lajitas Array	58.39	325	P	P	14 00 22.6	+0.6
	comp=E,0.2nm,0.6s,mb3.3,baz=140,slow=4.7,SNR=2.8						
TORD	Torodi Ar. Bea	76.89	71	P	P	14 02 18.2	-0.3
	comp=E,0.8nm,0.5s,mb3.7,baz=256,slow=6.6,SNR=11						
YKA	Yellowknife Ar	88.73	341	P	P	14 03 19.4	+0.9
	comp=E,1.7nm,0.8s,mb4.1,baz=135,slow=4.7,SNR=26						
ASAR	Alice Springs	131.91	209	PKP	PKPdf	14 09 39.2	+0.3
	comp=E,0.3nm,0.7s,baz=141,slow=1.7,SNR=5.0						
WRA	Warramunga Arr	134.88	212	PKP	PKPdf	14 09 45.5	+0.9
	comp=E,0.3nm,0.5s,baz=135,slow=2.0,SNR=3.9						
MKAR	Makanchi Array	143.81	34	PKP	PKPdf	14 09 58.5	-1.4
	comp=E,0.3nm,0.9s,baz=332,slow=2.8,SNR=2.6						
SONM	Songino Array	151.04	6	PKPbc	PKPbc	14 10 19.0	+1.2
	comp=E,0.8nm,0.6s,baz=292,slow=0.8,SNR=9.8						

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*ISCJB **08** 14:01:13.9±0.4, 42°.29N±0°.02×25°.00E±0°.03, h10km, Error ellipse: s-maj=3.1km s-min=2.6km az=14.2*

*THE **08** 14:01:13.8, 42°.21N×25°.07E, h1km±1km, ML3.7/7, Error ellipse: s-maj=2.0km s-min=0.8km az=4.0*

*CSEM **08** 14:01:15.1±0.2, 42°.14N×24°.97E, h2km, ML3.7/7, Error ellipse: s-maj=5.3km s-min=4.0km az=88.0*

*BEO **08** 14:01:17.2±0.8, 42°.19N×24°.91E, h0km, ML2.5/3*

ISC 08 14:01:14.3±0.3**, 42°.25N**±0°.02×**25°.07E**±0°.03**, h10**km**, n61, σ1s.18**/93**, 8C-4D, Bulgaria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLD	Plovdiv	0.31	241	P	Pg	14 01 19.1	-1.4
PLD				S	Sg	14 01 22.7	-2.0
PLD	Plovdiv	0.31	241	P	Pg	14 01 19.1	-1.4
PLD				S	Sg	14 01 22.7	-2.0
JMB	Yambol	1.14	79	P	Pb	14 01 35.6	-0.5
JMB				S	Sb	14 01 51.4	+0.4
RDO	Rodhopi	1.16	162	eP	Pg	14 01 33.5	-3.1
NVR	Nevrokopi	1.28	225	eP	Pn	14 01 37.0	-1.2
VTS	Vitosha	1.42	284	P	Pn	14 01 40.1	-0.1
VTS				S	Sn	14 02 00.0	+1.1
VTS	Vitosha	1.42	284	ePg	Pg	14 01 40.6	-1.0
VTS				eSg	Sg	14 01 59.9	-0.1
VTS	Vitosha	1.42	284	ePg	Pg	14 01 40.6	-1.0
VTS				eSg	Sg	14 01 59.9	-0.1
ZIMR		1.42	9	⇑iP	Pn	14 01 43.1	+2.9
ZIMR				S	Sn	14 02 03.4	+4.5
ALN	Alexandroupoli	1.54	151	P	Pn	14 01 41.2	-0.6
ALN				S	Sn	14 02 02.2	+0.3
ALN	Alexandroupoli	1.54	151	P	Pn	14 01 41.2	-0.6
ALN				S	Sn	14 02 02.2	+0.3
SRS	Serrai	1.59	225	P	Pn	14 01 41.6	-0.9
SRS				S	Sn	14 02 04.1	+1.1
SRS	Serrai	1.59	225	P	Pn	14 01 41.6	-0.9
SOH	Sokhos	1.93	223	P	Pn	14 01 46.6	-0.5
SOH				S	Sn	14 02 11.3	-0.1
SOH	Sokhos	1.93	223	P	Pn	14 01 46.6	-0.5
SOH				S	Sn	14 02 11.3	-0.1
KNT	Kendrikon	1.96	237	P	Pn	14 01 47.2	-0.4
KNT				S	Sn	14 02 12.3	+0.1
KNT	Kendrikon	1.96	237	P	Pn	14 01 47.2	-0.4
KNT				S	Sn	14 02 12.3	+0.1
ZAPS	Zavoj	2.06	300	ePn	Pg	14 01 53.1	-0.8
ZAPS				eSg	Sg	14 02 20.6	0.0
OUR	Ouranopolis	2.09	204	P	Pn	14 01 48.6	-0.7
OUR	Ouranopolis	2.09	204	P	Pn	14 01 48.6	-0.7
VAY	Valandovo	2.09	244	P	Pn	14 01 49.3	-0.1
VAY				S	Sn	14 02 16.8	+1.4
VAY	Valandovo	2.09	244	ePn	Pg	14 01 53.0	-1.4
VAY	Valandovo	2.09	244	P	Pn	14 01 49.3	-0.1
VAY	Valandovo	2.09	244	ePn	Pg	14 01 52.9	-1.5
VAY				S	Sn	14 02 16.8	+1.4
HORT	Hortiatis	2.22	222	P	Pn	14 01 51.2	0.0
HORT				S	Sn	14 02 19.5	+0.8
HORT	Hortiatis	2.22	222	P	Pn	14 01 51.2	0.0
HORT				S	Sn	14 02 19.5	+0.8
PLG	Polygyros	2.24	214	P	Pn	14 01 51.1	-0.4
PLG				S	Sn	14 02 19.7	+0.5
PLG	Polygyros	2.24	214	eP	Pn	14 01 53.0	+1.5
PLG	Polygyros	2.24	214	P	Pn	14 01 51.1	-0.4
PLG				S	Sn	14 02 19.7	+0.5
THE	Thessaloniki	2.27	225	P	Pn	14 01 51.0	-0.8
THE				S	Sn	14 02 21.1	+1.3
THE	Thessaloniki	2.27	225	P	Pn	14 01 51.0	-0.8
THE				S	Sn	14 02 21.1	+1.3
LIA	Limnos Island	2.36	178	eP	Pn	14 01 54.5	+1.5
GRG	Griva	2.38	238	P	Pn	14 01 53.9	+0.5
GRG				S	Sn	14 02 23.6	+0.9
GRG	Griva	2.38	238	P	Pn	14 01 53.9	+0.5
GRG				S	Sn	14 02 23.6	+0.9
BARS	Barje	2.47	284	ePn	Pn	14 01 56.1	+1.5
BARS				eSg	Sg	14 02 32.5	-1.2
BARS	Barje	2.47	284	ePn	Pn	14 01 56.1	+1.5
BARS				eSg	Sg	14 02 32.5	-1.2
NISS		2.57	298	ePn	Pn	14 01 59.2	+3.2
NISS				eSg	Sg	14 02 37.2	+0.4
BOLS	Boljevac	2.77	306	ePn	Pn	14 02 03.1	+4.3
BOLS				eSg	Sg	14 02 42.8	-0.6
BOLS	Boljevac	2.77	306	ePn	Pn	14 02 03.1	+4.3
BOLS				eSg	Sg	14 02 42.8	-0.6
PRK	Paraskevi	3.14	163	eP	Pg	14 02 14.0	-0.5
VOIR		3.18	360	⇑iP	Pn	14 02 07.9	+3.5
VOIR		3.18	360	S	Sg	14 02 57.3	+0.8
VOIR		3.18	360	⇑iP	Pn	14 02 07.9	+3.5
HARR	Harsova	3.20	40	⇑iP	Pb	14 02 10.9	-0.4
HARR	Harsova	3.20	40	S	Sb	14 02 54.5	+4.2
HARR	Harsova	3.20	40	⇑iP	Pb	14 02 10.9	-0.4
TIRR	Tirgusor	3.29	47	⇓iP	Pb	14 02 12.9	+0.2
TIRR	Tirgusor	3.29	47	S	Sg	14 02 58.0	-1.8
TIRR	Tirgusor	3.29	47	⇓iP	Pb	14 02 12.9	+0.2
MLR	Muntele Rosu	3.30	11	⇑iP	Pb	14 02 11.1	-1.8
MLR	Muntele Rosu	3.30	11	S	Sg	14 03 05.4	+5.2
MLR	Muntele Rosu	3.30	11	⇑iP	Pb	14 02 11.1	-1.8
GZR	Gura Zlata	3.55	333	⇓iP	Pn	14 02 12.2	+2.8
GZR	Gura Zlata	3.55	333	S	Sg	14 03 08.4	+0.1
GZR	Gura Zlata	3.55	333	⇓iP	Pn	14 02 12.2	+2.8
GRUS	Gruza	3.58	299	ePn	Pn	14 02 11.9	+2.0
GRUS				eSg	Sg	14 03 07.6	-1.8
GRUS	Gruza	3.58	299	ePn	Pn	14 02 11.9	+2.0
GRUS				eSg	Sg	14 03 07.6	-1.8
BZS	Buzias	4.18	325	⇑iP	Pg	14 02 36.8	+2.3
BZS	Buzias	4.18	325	S	Sg	14 03 24.6	-4.1
BEO	Beograd	4.21	309	eSg	Sn	14 02 58.7	-8.9
DRGR		4.84	340	S	Sn	14 03 21.5	-1.7

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*KRSC **08** 14:09:54.6±0.4, 49°.85N×157°.86E, h5km±5km, ML4.9*

*MOS **08** 14:09:54.2±1.1, 49°.79N×156°.65E, h58km, mb4.8/30, Error ellipse: s-maj=11.8km s-min=5.5km az=83.3*

MOS Felt (II-III) at Severo-Kuril'sk.

*ISCJB **08** 14:09:55.8±0.6, 49°.83N±0°.04×156°.66E±0°.06, h70km±4km, mb4.3/60, Error ellipse: s-maj=8.4km s-min=4.6km az=143.9*

*BJI **08** 14:09:55.2, 50°.22N×156°.58E, h63km, mB4.8/15, mb4.4/21, Ms4.6/10, Ms7 4.4/10*

*NEIC **08** 14:09:57.1±0.9, 49°.93N×156°.58E, h65km±7km, mb4.6/29, Error ellipse: s-maj=8.7km s-min=5.6km az=147.0*

*IDC **08** 14:09:57.0±0.5, 49°.93N×156°.40E, h67km±4km, mb3.9/19, mb1 4.1/21, mb1mx4.1/25, mbtmp3.9/21, Error ellipse: s-maj=14.9km s-min=10.2km az=141.0*

ISC 08 14:09:58.5±0.6**, 49°.93N**±0°.05×**156°.54E**±0°.06**, h76**km±4km**, h70**km±1.4km**:pP-P, n182, σ1s.14**/189**, mb4.3**/60**, 2C-1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.81	340	ePN	Pn	14 10 13.0	-2.0
SKR				eS	Sn	14 10 26.0	-1.2
SKR				pmax	pmax		
	comp=Z,8µm,1.0s						
SKR				pmax	pmax		
	comp=N,5µm,2.0s						
SKR				pmax	pmax		
	comp=E,2µm,2.0s						
SKR				smax			
	comp=N,20µm,2.0s						
SKR				smax			
	comp=E,18µm,2.0s						
MIPR	Malaya Ipel'ka	2.36	3	eP	Pn	14 10 34.9	-0.1
MIPR				i S	Sn	14 11 05.2	+2.2
GRL	Gorelyy	2.80	20	eP	Pn	14 10 40.8	-0.2
GRL				i S	Sn	14 11 13.5	-0.2
RUS	Russkaya	2.80	26	eP	Pn	14 10 39.0	-2.0
RUS				i S	Sn	14 11 10.4	-3.3
PETK	Petropavlovsk-	3.27	12	PN	Pn	14 10 47.5	+0.1
PETK				pmax	pmax		
	comp=Z,6.0nm,0.3s						
PETK	Petropavlovsk-	3.27	12	P	Pn	14 10 47.5	+0.1
	comp=Z,6.0nm,0.3s,baz=179,slow=12,SNR=78						
PET	Petropavlovsk	3.37	22	eP	Pn	14 10 47.8	-1.0
PET				i S	Sn	14 11 26.4	-1.2
PET	Petropavlovsk	3.37	22	ePn	Pn	14 10 47.2	-1.6
PET				eSn	Sn	14 11 26.9	-0.7
AVH	Avacha	3.61	21	eP	Pn	14 10 52.2	+0.1
NLC	Nalytchevo	3.69	27	eP	Pn	14 10 50.8	-2.3
NLC				i S	Sn	14 11 30.5	-4.9
GNL	Ganaly	3.87	12	eP	Pn	14 10 56.4	+0.8
MKZ	Mys Kozlova	5.63	33	eP	Pn	14 11 16.5	-3.0
MKZ				i S	Sn	14 12 16.4	-6.2
TUMR	Tumrok	5.80	21	eP	Pn	14 11 22.2	+0.4
KMNR	Kamenistaya	6.25	20	eP	Pn	14 11 29.8	+1.8
KPT	Kopyto	6.45	19	eP	Pn	14 11 32.0	+1.3
KOZ	Kozyrevsk	6.46	17	eP	Pn	14 11 32.5	+1.6
BZMR	Bezymyannaya	6.47	20	eP	Pn	14 11 32.0	+1.0
KOZR	Kozyr	6.47	17	PN	Pn	14 11 32.5	+1.5
ZLN	Zelenaya	6.62	21	eP	Pn	14 11 34.0	+1.0
SRDR	Sredinnyy	6.68	15	eP	Pn	14 11 35.6	+1.7
KRSR	Krestovskiy	6.75	19	eP	Pn	14 11 34.8	0.0
KLY	Klyuchi	6.86	20	eP	Pn	14 11 37.4	+1.1
BDR	Baidarnaya	7.22	21	eP	Pn	14 11 41.6	+0.4
SRKR	Sorokina	7.29	21	eP	Pn	14 11 42.0	-0.1
SMKR	Semkarok	7.29	22	eP	Pn	14 11 41.7	-0.5
YSS	Yuzh-Sakhalins	9.63	257	⇑ePN	Pn	14 12 16.0	+1.8
YSS				eS	Sn	14 14 03.0	+2.4
YSS				pmax	pmax		
	comp=Z,20nm,0.7s						
YSS				smax			
	comp=N,20nm,0.7s						
YSS				smax			
	comp=E,20nm,0.7s						
YSS	Yuzh-Sakhalins	9.63	257	ePn	Pn	14 12 15.3	+1.1
FX1	Attu Island--F	10.80	68	P	Pn	14 12 25.7	-4.3
	comp=E,8.8nm,0.3s,baz=298,slow=6.1,SNR=26						
FX1				S	Sn	14 14 15.8	-13
	comp=E,26nm,0.3s,baz=94,slow=21,SNR=15						
ASAJ	Asahikawa	11.14	244	PN	Pn	14 12 34.7	-0.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	11.14	244	P	Pn	14 12 34.7	-0.1
	comp=Z,1.1nm,0.3s,baz=88,slow=18,SNR=13						
SEY	Seymchan	13.24	352	ePN	Pn	14 13 04.7	+1.7
MAJO	Matsushiro	18.84	232	eP	Pn	14 14 11.4	-2.1
MAJO				pmax	pmax		
	comp=Z,19nm,1.2s						
MAJO	Matsushiro	18.84	232	eP	Pn	14 14 11.4	-2.1
	comp=Z,19nm,1.2s						
MJAR	Matsushiro Arr	18.84	232	P	Pn	14 14 11.1	-2.3
	comp=Z,0.3nm,0.3s,baz=23,slow=11,SNR=4.6						
MDJ	Mudanjiang	18.99	264	P	Pn	14 14 13.7	-1.5
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MDJ				pmax	pmax		
	comp=Z,250nm,10.2s						
MDJ	Mudanjiang	18.99	264	eP	Pn	14 14 14.7	-0.6
	comp=Z,9.2nm,1.1s						
YAK	Yakutsk	19.13	319	eP	Pn	14 14 14.0	-2.8
YAK				eS	S	14 17 45.3	-2.4
YAK				pmax	pmax		
	comp=Z,13nm,0.8s						
YAK				smax			
	comp=N,17nm,0.9s						
YAK				smax			
	comp=E,22nm,1.0s						
YAK	Yakutsk	19.13	319	ePn	Pn	14 14 14.1	-2.7
CN2	Changchun	22.02	266	eP	P	14 14 49.1	+2.7
KSRS	Korea Array	24.00	250	P	P	14 15 04.3	-1.6
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.6						
KSRS	Korea Array	24.00	250	P	P	14 15 04.3	-1.6
	comp=Z,2.7nm,0.9s,mb3.6,baz=53,slow=9.4,SNR=6.7						
TNA	Tin City	24.12	36	eP	P	14 15 06.5	-0.3
	comp=Z,11nm,0.9s,mb4.2						
TIXI	Tiksi	25.17	340	⇑iP	P	14 15 15.1	-1.1
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.7						
TIXI	Tiksi	25.17	340	eP	P	14 15 13.9	-2.3
	comp=Z,4.3nm,0.8s,mb3.9						
BOD	Bodaibo	25.91	304	eP	P	14 15 21.3	-1.8
BOD				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb3.6						
MCK	McKinley	31.76	44	eP	P	14 16 14.3	-0.7
	comp=Z,59nm,2.1s,mb5.0						
HHC	Hu-ho-hao-te	32.43	271	eP	P	14 16 20.6	-0.5
HHC				pP	pP	14 16 38.4	-0.6
HHC				sP	sP	14 16 47.8	0.0
HHC				PP	PP	14 17 28.7	-6.8
HHC				eS	S	14 21 26.6	-3.4
HHC				sS	sS	14 21 58.3	-2.5
HHC				PcS	PcS	14 22 50.4	-1.2
HHC				SS	SS	14 23 25.8	-26
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
HHC				pmax	pmax		
	comp=Z,140nm,5.8s						
HHC				LR	LR		
	comp=N,210nm,11.9s						
HHC				LR	LR		
	comp=E,240nm,13.1s						
HHC				LR	LR		
	comp=Z,200nm,16.7s						
SONM	Songino Array	32.55	286	P	P	14 16 20.6	-1.4
	comp=Z,0.3nm,0.5s,mb3.4,baz=66,slow=7.2,SNR=4.4						
SONM				PcP	PcP	14 19 06.7	-0.1
	comp=Z,0.6nm,0.5s,baz=89,slow=2.6,SNR=6.2						
ZAK	Zakamensk	33.52	292	eP	P	14 16 30.1	-0.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.7						
EGAK	Eagle	35.09	41	eP	P	14 16 42.5	-1.4
	comp=Z,7.4nm,0.7s,mb4.6						
HYT	Haines Junctio	37.42	47	eP	P	14 17 04.8	+1.1
GUMO	Guam	37.48	199	eP	P	14 17 06.0	+1.3
	comp=Z,239nm,1.2s						
LZH	Lanzhou	40.12	270	eP	P	14 17 28.0	+1.4
LZH				pP	pP	14 17 46.5	+1.6
LZH				sP	sP	14 17 55.0	+1.4
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
LZH				pmax	pmax		
	comp=Z,68nm,5.0s						
GTA	Gaotai	40.78	277	eP	P	14 17 33.0	+0.9
GTA				pP	pP	14 17 51.1	+0.7
GTA				sP	sP	14 18 00.1	+1.0
GTA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
ZALV	Zalesovo Beam	42.67	304	P	P	14 17 44.1	-3.1
ZALV						14 19 37.8	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ZALV	Zalesovo Beam	42.67	304	P	P	14 17 44.1	-3.1
	comp=Z,0.8nm,0.5s,mb3.7,baz=55,slow=7.6,SNR=5.0						
ZALV				PcP	PcP	14 19 37.8	+0.1
	comp=Z,0.4nm,0.4s,baz=46,slow=4.3,SNR=4.7						
CD2	Chengdu	43.45	264	P	P	14 17 56.0	+2.2
CD2				pP	pP	14 18 14.5	+2.2
CD2				PP	PP	14 19 40.0	+4.0
CD2				PcP	PcP	14 19 43.8	+3.0
CD2				S	S	14 24 17.3	+0.8
CD2				sS	sS	14 24 49.2	+1.1
CD2				SS	SS	14 27 26.4	-6.6
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
CD2				pmax	pmax		
	comp=Z,180nm,4.8s						
CD2				LR	LR		
	comp=N,490nm,6.5s						
CD2				LR	LR		
	comp=Z,300nm,6.4s						
GYA	Guiyang	44.64	257	eP	P	14 18 05.2	+1.8
GYA				PP	PP	14 19 51.5	+2.7
GYA				ScP	ScP	14 23 32.4	+2.3
GYA				S	S	14 24 32.7	-1.3
GYA				sS	sS	14 25 08.5	+2.8
GYA				SS	SS	14 27 47.5	-8.8
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
GYA				pmax	pmax		
	comp=Z,60nm,4.8s						
GYA				LR	LR		
	comp=N,320nm,12.0s						
GYA				LR	LR		
	comp=E,230nm,11.9s						
GYA				LR	LR		
	comp=Z,310nm,11.5s						
WMQ	Urumqi	45.95	290	eP	P	14 18 16.0	+2.5
WMQ				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
YKA	Yellowknife Ar	47.01	39	P	P	14 18 22.0	+0.4
YKA				*PP	pP	14 18 38.7	-1.6
YKA						14 19 52.7	
YKA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
YKA	Yellowknife Ar	47.01	39	P	P	14 18 22.0	+0.4
	comp=Z,6.3nm,0.8s,mb4.4,baz=297,slow=7.8,SNR=77						
YKA				pP	pP	14 18 38.7	-1.6
	comp=Z,2.0nm,0.7s,baz=296,slow=7.3,SNR=5.5						
YKA				PcP	PcP	14 19 52.7	+0.1
	comp=Z,0.6nm,0.7s,baz=296,slow=3.6,SNR=4.3						
YKA	Yellowknife Ar	47.01	39	P	P	14 18 22.0	+0.4
YKA				pP	pP	14 18 38.7	-1.6
YKA				PcP	PcP	14 19 52.7	+0.1
RES	Resolute Bay	47.08	20	eP	P	14 18 21.5	-0.5
	comp=Z,60nm,2.8s,mb4.8						
KURK	Kurchatov	47.55	303	eP	P	14 18 25.4	-0.5
KURK				pmax	pmax		
	comp=Z,39nm,2.6s,mb4.8						
KURK	Kurchatov	47.55	303	eP	P	14 18 25.4	-0.6
	comp=Z,39nm,2.6s,mb4.8						
MKAR	Makanchi Array	47.55	296	P	P	14 18 24.9	-1.1
MKAR				*PP	pP	14 18 41.7	-3.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	47.55	296	P	P	14 18 24.9	-1.1
	comp=Z,0.6nm,0.5s,mb3.7,baz=51,slow=6.1,SNR=24						
MKAR				pP	pP	14 18 41.7	-3.1
	comp=Z,0.4nm,0.4s,baz=51,slow=6.3,SNR=4.3						
KMI	Kunming	48.07	259	P	P	14 18 31.3	+1.0
KMI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.3						
BRVK	Borovoye	50.67	309	eP	P	14 18 48.4	-1.3
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BRVK	Borovoye	50.67	309	eP	P	14 18 48.4	-1.2
	comp=Z,3.1nm,0.7s,mb4.5						
EDM	Edmonton	52.48	49	eP	P	14 19 02.2	-1.0
EDM				e*PP	pP	14 19 20.8	-1.5
CHTO	Chiang Mai	55.06	257	eP	P	14 19 23.4	+0.9
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
CHTO	Chiang Mai	55.06	257	eP	P	14 19 23.4	+0.9
	comp=Z,2.7nm,0.7s,mb4.4						
CMAR	Chiang Mai Arr	55.33	257	P	P	14 19 25.0	+0.6
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CMAR	Chiang Mai Arr	55.33	257	P	P	14 19 24.9	+0.5
	comp=Z,2.2nm,0.7s,mb4.3,baz=30,slow=7.4,SNR=18						
ARCES	ARCESS Array B	55.59	341	P	P	14 19 23.2	-2.4
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	ARCESS Array B	55.59	341	P	P	14 19 23.2	-2.4
	comp=Z,2.7nm,0.8s,mb4.3,baz=42,slow=7.3,SNR=13						
FCC	Fort Churchill	57.35	36	eP	P	14 19 38.2	0.0
	comp=Z,0.3nm,0.8s,mb3.4						
NVAR	Mina Array Bea	58.99	66	P	P	14 19 50.2	+0.2
	comp=Z,1.7nm,0.6s,mb4.3,baz=300,slow=7.4,SNR=15						
NVAR				pP	pP	14 20 08.2	-1.2
	comp=Z,2.8nm,0.7s,baz=299,slow=6.8,SNR=11						
JOF	Joensuu	59.48	334	eP	P	14 19 51.9	-1.1
JOF				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
JOF	Joensuu	59.48	334	ep	P	14 19 51.9	-1.1
	comp=Z,1.2nm,0.6s,mb4.1						
RLMT	Red Lodge	59.64	55	eP	P	14 19 55.7	+1.4
DGMT	Dagmar	59.98	49	eP	P	14 19 56.9	+0.3
PDAR	Pinedale Array	61.06	57	P	P	14 20 04.2	+0.1
	comp=Z,1.4nm,0.7s,mb4.1,baz=311,slow=2.3,SNR=11						
PDAR				pP	pP	14 20 22.1	-1.5
	comp=Z,2.4nm,1.0s,baz=318,slow=4.0,SNR=6.8						
ULM	Lac du Bonnet	62.63	44	P	P	14 20 13.8	-0.7
	comp=Z,1.4nm,0.4s,mb4.2,baz=310,slow=4.0,SNR=3.2						

ULM	Lac du Bonnet	62.63	44	P	P	14 20 13.8	-0.7
SRU	San Rafael	63.02	61	eP	P	14 20 17.4	+0.1
RSSD	Black Hills	63.05	53	eP	P	14 20 17.4	0.0
RSSD				e*PP	pP	14 20 33.9	-3.1
RSSD				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
RSSD	Black Hills	63.05	53	eP	P	14 20 17.4	-0.1
	comp=Z,4.9nm,0.9s,mb4.4						
RSSD				epP	pP	14 20 33.9	-3.1
NB2	NORSAR Subarra	65.93	342	P	P	14 20 35.4	-0.5
	comp=Z,1.9nm,0.7s,mb4.0,baz=26,slow=6.5						
NOA	NORSAR Array B	65.93	342	P	P	14 20 35.1	-0.8
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NOA	NORSAR Array B	65.93	342	P	P	14 20 35.1	-0.7
	comp=Z,2.6nm,0.7s,mb4.2,baz=23,slow=6.4,SNR=8.4						
PSI	Prapat	67.49	246	pP	pP	14 21 04.3	-1.9
	comp=Z,2.5nm,0.4s,baz=74,slow=20,SNR=2.5						
HYB	Hyderabad	69.18	272	iP	P	14 20 58.0	+1.0
HYB				ePP	PP	14 23 28.0	-2.5
HYB	Hyderabad	69.18	272	eP	P	14 20 58.0	+1.0
HYB				e		14 23 28.0	
SCHQ	Schefferville	69.48	25	P	P	14 20 58.0	-0.2
	comp=Z,4.6nm,0.8s,mb4.4,baz=337,slow=6.0,SNR=15						
SCHQ				pP	pP	14 21 15.4	-2.7
	comp=Z,2.0nm,0.6s,baz=253,slow=3.1,SNR=2.4						
AKASG	Malin Array Be	70.14	327	P	P	14 21 01.3	-1.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	70.14	327	P	P	14 21 01.3	-1.1
	comp=Z,1.2nm,0.3s,mb4.1,baz=31,slow=6.0,SNR=3.5						
WRAB	Tennant Creek	72.28	202	eP	P	14 21 14.1	-1.4
WRAB				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.6						
WRAB	Tennant Creek	72.28	202	eP	P	14 21 14.1	-1.4
	comp=Z,13nm,1.2s,mb4.6						
WRA	Warramunga Arr	72.29	202	P	P	14 21 14.5	-1.1
WRA				*PP	pP	14 21 32.4	-3.2
WRA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WRA	Warramunga Arr	72.29	202	P	P	14 21 14.5	-1.1
	comp=Z,3.6nm,0.8s,mb4.3,baz=20,slow=6.5,SNR=11						
WRA				pP	pP	14 21 32.4	-3.3
	comp=Z,3.0nm,0.8s,baz=20,slow=6.6,SNR=7.4						
FITZ	Fitzroy Crossi	73.03	211	P	P	14 21 18.6	-1.5
	comp=Z,3.6nm,0.6s,mb4.4,baz=16,slow=5.9,SNR=6.8						
STHS	Stebnicka Huta	73.87	331	eP	P	14 21 25.7	+1.0
STHS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
STHS	Stebnicka Huta	73.87	331	eP	P	14 21 25.7	+1.0
STHS	Stebnicka Huta	73.87	331	eP	P	14 21 25.7	+1.0
	comp=Z,2.7nm,0.7s,mb4.1						
TXAR	Lajitas Array	73.98	64	P	P	14 21 25.6	-0.1
TXAR				*PP	pP	14 21 43.9	-1.9
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TXAR	Lajitas Array	73.98	64	P	P	14 21 25.6	-0.1
	comp=Z,2.5nm,0.6s,mb4.2,baz=299,slow=4.5,SNR=46						
TXAR				pP	pP	14 21 43.9	-1.9
	comp=Z,2.3nm,0.7s,baz=305,slow=4.6,SNR=8.7						
CLL	Collm	74.47	337 ⇓	iP	P	14 21 28.0	-0.2
DPC	Dobruska-Polom	74.47	335	eP	P	14 21 29.3	+1.1
VYHS	Vyhne	75.42	332	eP	P	14 21 34.0	+0.3
VYHS				ePCP	PcP	14 21 44.3	-2.2
VYHS	Vyhne	75.42	332	eP	P	14 21 34.1	+0.4
VYHS				ePcP	PcP	14 21 44.3	-2.2
ASAR	Alice Springs	75.97	201	P	P	14 21 36.9	-0.1
ASAR				*PP	pP	14 21 54.9	-2.2
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ASAR	Alice Springs	75.97	201	P	P	14 21 36.9	-0.1
	comp=Z,2.4nm,0.8s,mb4.0,baz=15,slow=5.2,SNR=33						
ASAR				pP	pP	14 21 54.9	-2.3
	comp=Z,0.7nm,0.6s,baz=15,slow=5.3,SNR=2.9						
MODS	Modra-Piesok	75.99	333	eP	P	14 21 38.2	+1.3
MODS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
MODS	Modra-Piesok	75.99	333	eP	P	14 21 38.2	+1.3
	comp=Z,2.5nm,1.1s,mb3.9						
ZST	Bratislava	76.20	333	eP	P	14 21 39.9	+1.8
ZST				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.7						
ZST	Bratislava	76.20	333	eP	P	14 21 39.9	+1.8
	comp=Z,7.7nm,0.5s,mb4.7						
KHC	Kasperske Hory	76.32	336	eP	P	14 21 39.2	+0.4
GERES	GERESS Array B	76.55	336	P	P	14 21 40.1	0.0
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
GERES	GERESS Array B	76.55	336	P	P	14 21 40.1	-0.1
	comp=Z,1.9nm,0.6s,mb4.0,baz=35,slow=5.5,SNR=13						
MEM	Membach	76.73	341	P	P	14 21 41.4	+0.4
BCLA	Clavier	77.05	342	P	P	14 21 43.5	+0.6
BRTR	Keskin Array B	77.59	318	P	P	14 21 46.1	0.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	Keskin Array B	77.59	318	P	P	14 21 46.1	0.0
	comp=Z,2.0nm,0.7s,mb4.0,baz=55,slow=3.5,SNR=8.0						
BAIF	Baives	77.62	342	eP	P	14 21 46.0	-0.1
	comp=Z,4.6nm,0.4s,mb4.3						
BAIF	Baives	77.62	342	eP	P	14 21 46.0	-0.1
BAIF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
BAIF	Baives	77.62	342	eP	P	14 21 46.0	-0.1
	comp=Z,2.3nm,0.4s,mb4.3						
CDF	Champ du Feu	78.53	340	eP	P	14 21 51.2	+0.1
	comp=Z,10nm,0.8s,mb4.4						
CDF	Champ du Feu	78.53	340	eP	P	14 21 51.2	+0.1
CDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
CDF	Champ du Feu	78.53	340	eP	P	14 21 51.2	+0.1
	comp=Z,5.3nm,0.8s,mb4.4						
MIB	Mutribah	78.90	303	eP	P	14 21 52.4	-1.1
MIB				AMb	AMB	14 21 54.1	
	comp=Z,36nm,1.2s,mb5.1						
MEZF	Maizieres J'vi	78.93	341	eP	P	14 21 53.6	+0.3
HAU	Haudompre	79.12	340	eP	P	14 21 54.3	-0.1
	comp=Z,16nm,0.9s,mb4.6						
HAU	Haudompre	79.12	340	eP	P	14 21 54.3	-0.1
HAU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
HAU	Haudompre	79.12	340	eP	P	14 21 54.3	-0.1
	comp=Z,8.2nm,0.9s,mb4.6						
HINF	Hinteralfeld	79.19	340	eP	P	14 21 54.3	-0.4
NAY	Al-Naaiem	79.38	303	eP	P	14 21 55.8	-0.4
NAY				AMb	AMB	14 21 58.6	
	comp=Z,17nm,1.6s,mb4.6						
RDF	Al-Radifah	79.47	303	eP	P	14 21 55.3	-1.3
RDF				AMb	AMB	14 21 58.2	
	comp=Z,30nm,1.1s,mb5.0						
FLN	La Foliniere	79.72	345	eP	P	14 21 57.5	-0.2
	comp=Z,31nm,0.8s,mb4.9						
FLN	La Foliniere	79.72	345	eP	P	14 21 57.5	-0.2
FLN				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
FLN	La Foliniere	79.72	345	eP	P	14 21 57.5	-0.2
	comp=Z,15nm,0.8s,mb4.9						
LDF	La Druitiere	79.83	345	eP	P	14 21 58.0	-0.2
TUE	Stuetta	79.86	338	eP	P	14 21 59.2	+0.7
	comp=Z,7.0nm,0.7s,mb4.6						
GRR	Gorron	80.15	345	eP	P	14 22 00.2	+0.2
	comp=Z,18nm,0.7s,mb4.7						
GRR	Gorron	80.15	345	eP	P	14 22 00.2	+0.2
GRR				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
GRR	Gorron	80.15	345	eP	P	14 22 00.2	+0.2
	comp=Z,8.8nm,0.7s,mb4.7						
LOR	Lormes	80.35	342	eP	P	14 22 01.1	+0.1
	comp=Z,8.4nm,0.6s,mb4.5						
LOR	Lormes	80.35	342	eP	P	14 22 01.1	+0.1
LOR				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
LOR	Lormes	80.35	342	eP	P	14 22 01.1	+0.1
	comp=Z,4.2nm,0.6s,mb4.5						
SGMF	Saint Gilles	80.56	346	eP	P	14 22 02.5	+0.4
	comp=Z,16nm,0.8s,mb4.6						
SGMF	Saint Gilles	80.56	346	eP	P	14 22 02.5	+0.4
SGMF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
SGMF	Saint Gilles	80.56	346	eP	P	14 22 02.5	+0.4
	comp=Z,7.9nm,0.8s,mb4.6						
HYF	Humbligny	80.59	342	eP	P	14 22 02.9	+0.5
SSF	Saint Saulge	80.62	342	eP	P	14 22 02.6	+0.1
AVF	Avril sur Loir	80.91	342	eP	P	14 22 04.3	+0.3
	comp=Z,8.8nm,0.8s,mb4.4						
AVF	Avril sur Loir	80.91	342	eP	P	14 22 04.3	+0.3
AVF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
AVF	Avril sur Loir	80.91	342	eP	P	14 22 04.3	+0.3
	comp=Z,4.4nm,0.8s,mb4.3						
SMF	Signal de Mont	80.94	341	eP	P	14 22 04.4	+0.1
BGF	Bois d'Agland	81.23	342	eP	P	14 22 06.1	+0.3
LPL	La Plagne	81.38	339	eP	P	14 22 07.6	+1.0
	comp=Z,13nm,0.7s,mb4.6						
LPL	La Plagne	81.38	339	eP	P	14 22 07.6	+1.0
LPL				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.7						
LPL	La Plagne	81.38	339	eP	P	14 22 07.6	+1.0
	comp=Z,6.7nm,0.6s,mb4.7						
LPG	La Plagne	81.40	339	eP	P	14 22 07.8	+1.1
	comp=Z,23nm,0.8s,mb4.8						
LPG	La Plagne	81.40	339	eP	P	14 22 07.8	+1.1
LPG				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
LPG	La Plagne	81.40	339	eP	P	14 22 07.8	+1.1
	comp=Z,11nm,0.8s,mb4.8						
TCF	Toulx Ste Croi	81.62	342	eP	P	14 22 08.2	+0.4
	comp=Z,12nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	81.62	342	eP	P	14 22 08.2	+0.4
TCF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	81.62	342	eP	P	14 22 08.2	+0.4
	comp=Z,6.2nm,0.8s,mb4.5						
MBDF	Montbardon	82.12	339	eP	P	14 22 10.1	-0.4
	comp=Z,6.4nm,0.8s,mb4.2						
MBDF	Montbardon	82.12	339	eP	P	14 22 10.1	-0.4
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
MBDF	Montbardon	82.12	339	eP	P	14 22 10.1	-0.4
	comp=Z,3.2nm,0.8s,mb4.2						
PGF	Pioggiola	83.62	336	eP	P	14 22 17.6	-0.7
	comp=Z,18nm,0.8s,mb4.7						
PGF	Pioggiola	83.62	336	eP	P	14 22 17.6	-0.7
PGF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
PGF	Pioggiola	83.62	336	eP	P	14 22 17.6	-0.7
	comp=Z,9.2nm,0.8s,mb4.7						
ETSF	Etsaut	85.41	343	eP	P	14 22 28.8	+1.5
SIV	San Ignacio	134.53	55	PKP	PKPdf	14 29 06.6	-1.4
	comp=Z,0.6nm,0.6s,baz=290,slow=10,SNR=4.2						
CPUP	Villa Florida	144.91	60	PKIKP	PKPdf	14 29 25.0	-1.6
CPUP				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CPUP	Villa Florida	144.91	60	PKP	PKPdf	14 29 25.0	-1.6
	comp=Z,2.5nm,0.6s,baz=312,slow=2.6,SNR=6.9						
PLCA	Paso Flores	146.14	93	PKP2	PKPab	14 29 28.5	-1.6
PLCA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
PLCA	Paso Flores	146.14	93	PKPbc	PKPbc	14 29 28.5	-0.8
	comp=Z,3.6nm,0.8s,baz=348,slow=2.8,SNR=4.4						
PLCA	Paso Flores	146.14	93	PKPbc	PKPbc	14 29 28.5	-0.8

IDC 08 14:11:09.3±2.1**, 1°.15N×126°.54E, h0^{km}, mb3.3**/3**, mb1 3.6**/3**, mb1mx3.3**/17**, mbtmp3.4**/3**, 1D, Error ellipse: s-maj=179.4km s-min=26.6km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNE	Ternate	0.91	114 ⇓	eP	Pg	14 11 29.0	+2.3
WRA	Warramunga Arr	22.32	160	P	P	14 16 08.0	-0.6
	0.7nm,0.5s,baz=339,slow=11,SNR=5.5						
ASAR	Alice Springs	25.69	164	P	P	14 16 41.7	+0.5
	0.2nm,0.3s,baz=345,slow=11,SNR=8.9						
MKAR	Makanchi Array	59.56	326	P	P	14 21 14.7	0.0
	0.2nm,0.5s,baz=119,slow=6.9,SNR=4.7						

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*ISCJB **08** 14:16:47.4±0.5, 23°.52S±0°.04×69°.65W±0°.08, h71^{km}±6^{km}, mb3.6/5, Error ellipse: s-maj=11.7km s-min=6.1km az=12.2*

*NEIC **08** 14:16:49.0, 23°.43S×69°.80W, h68^{km}, MG4.0(GUC), After GUC.*

*GUC **08** 14:16:49.0±0.7, 23°.43S×69°.80W, h68^{km}±7^{km}, ML4.0*

*IDC **08** 14:16:49.6±2.2, 23°.55S×69°.66W, h72^{km}±18^{km}, mb3.5/5, mb1 3.8/7, mb1mx3.6/17, mbtmp3.6/7, Error ellipse: s-maj=36.9km s-min=23.1km az=89.0*

ISC 08 14:16:48.2±0.5**, 23°.53S**±0°.04×**69°.65W**±0°.06**, h63**^{km}±6^{km}**, n28, σ1^{s}.06**/38**, mb3.7**/5**, 2C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEN1	Los Morros	0.53	285 ⇓	iP	Pn	14 17 02.0	+1.3
CEN1				iS	Sn	14 17 11.7	+1.9
CEN1				AML	AML	14 17 13.1	
	comp=N,6μm,0.7s						
MECH	Mejillones	0.85	299	eP	Pn	14 17 03.8	-0.7
MECH				iS	Sn	14 17 15.5	-0.9
MECH				AML	AML	14 17 18.7	
	comp=N,5μm,0.5s						
PECH	Pedro de Valdi	0.92	358	eP	Pn	14 17 05.7	+0.3
PECH				iS	Sn	14 17 18.6	+0.5
PECH				AML	AML	14 17 19.3	
	comp=E,25μm,0.3s						
LVC	Limon Verde	1.13	37	P	Pn	14 17 10.9	+2.8
	comp=E,411nm,0.3s,baz=214,slow=8.4,SNR=2949						
LVC				S	Sn	14 17 27.3	+4.4
	comp=E,1μm,0.3s,baz=18,slow=19,SNR=118						
LVC	Limon Verde	1.13	37	ePn	Pn	14 17 10.7	+2.5
LVC				P		14 17 10.9	
LVC				eSn	Sn	14 17 26.3	+3.4
LVC				S	Sn	14 17 27.3	+4.4
LVC	Limon Verde	1.13	37 ⇑	iP	Pn	14 17 10.3	+2.1
LVC				iS	Sn	14 17 26.9	+3.9
LVC				AML	AML	14 17 28.2	
	comp=N,8μm,0.3s						
PB04	Plate Boundary	1.26	7 ⇑	iP	Pn	14 17 09.6	-0.3
PB04				iS	Sn	14 17 25.3	-0.7
PB04				AML	AML	14 17 26.3	
	comp=E,4μm,0.4s						
MACH	Maria Elena	1.33	355 ⇓	iP	Pn	14 17 11.1	+0.4
MACH				iS	Sn	14 17 28.0	+0.5
TOCH	Tocopilla	1.51	340	eP	Pn	14 17 12.7	-0.5
TOCH				iS	Sn	14 17 31.0	-1.0
TOCH				AML	AML	14 17 35.2	
	comp=E,3μm,0.3s						
PSGC	Pisagua	3.93	353	eP	Pn	14 17 43.9	-2.3
MNMC	Miæe Miæ	4.37	1	eP	Pn	14 17 51.3	-0.8
LCO	Las Campanas	5.54	190	ePn	Pn	14 18 06.7	-1.5
	comp=E,89nm,0.3s						
LCO				eSn	Sn	14 19 09.4	-1.1
CFAA	Coronel Fontan	8.14	171	P	Pn	14 18 44.0	+0.2
	comp=E,0.5nm,0.3s,baz=346,slow=15,SNR=15						
CFAA				S	Sn	14 20 19.3	+5.0
	comp=E,0.2nm,0.3s,baz=198,slow=19,SNR=3.0						
CFAA	Coronel Fontan	8.14	171	P	Pn	14 18 44.0	+0.2
CFAA				S	Sn	14 20 19.3	+4.9
SIV	San Ignacio	11.01	49	P	Pn	14 19 23.2	+0.2
	comp=E,1.9nm,0.3s,baz=280,slow=9.6,SNR=46						
SIV				S	Sn	14 21 23.3	-1.3
	comp=E,0.3nm,0.3s,baz=279,slow=19,SNR=2.9						
CPUP	Villa Florida	11.52	107	P	Px	14 19 42.6	
	comp=E,0.4nm,0.3s,baz=78,slow=18,SNR=3.1						
PDAR	Pinedale Array	75.53	331	P	P	14 28 26.3	+0.5
	comp=E,0.3nm,0.6s,mb3.4,baz=110,slow=6.8,SNR=3.6						
NVAR	Mina Array Bea	76.67	323	P	P	14 28 33.8	+1.4
	comp=E,0.3nm,0.7s,mb3.4,baz=146,slow=5.3,SNR=3.1						
TORD	Torodi Ar. Bea	78.67	70	P	P	14 28 44.5	+0.5
	comp=E,0.4nm,0.6s,mb3.5,baz=249,slow=4.2,SNR=8.6						
TORD				pP	pP	14 29 02.7	+1.3
	comp=E,2.4nm,0.9s,baz=255,slow=5.6,SNR=8.5						
TORD	Torodi Ar. Bea	78.67	70	P	P	14 28 44.5	+0.5
TORD				pP	pP	14 29 02.7	+1.3
MAW	Mawson	82.59	163	PKIKP	P	14 29 05.1	+1.0
MAW	Mawson	82.59	163	P	P	14 29 05.1	+1.0
	comp=E,2.9nm,0.9s,mb4.3,baz=225,slow=4.3,SNR=3.7						
MAW	Mawson	82.59	163	P	P	14 29 05.1	+1.0
YKA	Yellowknife Ar	92.86	341	P	P	14 29 53.2	-0.3
	comp=E,0.4nm,0.6s,mb4.0,baz=139,slow=4.4,SNR=9.3						
YKA	Yellowknife Ar	92.86	341	P	P	14 29 53.2	-0.3
ASAR	Alice Springs	127.81	208	PKP	PKPdf	14 35 47.1	-0.2
	comp=E,0.3nm,0.9s,baz=116,slow=1.6,SNR=4.9						
ZALV	Zalesovo Beam	144.06	26	PKP	PKPdf	14 36 16.0	-0.3
	comp=E,0.8nm,0.6s,baz=252,slow=3.0,SNR=4.7						
MKAR	Makanchi Array	147.66	37	PKPbc	PKPbc	14 36 25.9	+0.4
	comp=E,1.0nm,0.6s,baz=324,slow=3.0,SNR=14						
MKAR				pPKPbc	pPKPbc	14 36 45.3	+1.5
	comp=E,0.4nm,0.6s,baz=337,slow=2.8,SNR=4.2						

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*DDA **08** 14:20:00.9, 36°.99N×29°.18E, h7^{km}±5^{km}, Md3.3, Ml3.4*

*ISK **08** 14:20:00.8, 36°.97N×29°.19E, h11^{km}, MD3.0*

*ISCJB **08** 14:20:01.3±0.5, 36°.96N±0°.03×29°.19E±0°.03, h8^{km}±6^{km}, Error ellipse: s-maj=5.8km s-min=3.9km az=167.7*

*CSEM **08** 14:20:01.4±0.1, 36°.96N×29°.18E, h10^{km}, MD3.0, Error ellipse: s-maj=3.3km s-min=2.6km az=173.0*

ISC 08 14:20:01.7±0.5**, 36°.96N**±0°.04×**29°.18E**±0°.03**, h11**^{km}±5^{km}**, n30, σ0^{s}.66**/47**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.33	194	ePG	Pg	14 20 07.4	-0.9
FETY				eSG	Sg	14 20 13.3	+0.5
FETY	Fethiye	0.33	194	ePg	Pg	14 20 07.4	-0.9
FETY				eSg	Sg	14 20 13.3	+0.5
GOLH	Golhisar	0.41	48	iP	Pg	14 20 08.4	-1.4
GOLH				iS	Sg	14 20 15.3	0.0
GOLH	Golhisar	0.41	48	iP	Pg	14 20 08.4	-1.4
GOLH				iS	Sg	14 20 15.3	0.0
DALT	Dalyan (Mudla)	0.48	247	ePG	Pg	14 20 10.5	-0.5
DALT				eSG	Sg	14 20 18.4	+1.1
DALT	Dalyan (Mudla)	0.48	247	ePg	Pg	14 20 10.5	-0.5
DALT				eSg	Sg	14 20 18.4	+1.1
ELL	Elmali	0.62	110	ePG	Pg	14 20 13.4	-0.3
ELL				eSG	Sg	14 20 22.8	+0.9
ELL	Elmali	0.62	110	ePg	Pg	14 20 13.4	-0.3
ELL				eSg	Sg	14 20 22.8	+0.9
YER	Yerkesik	0.74	284	ePG	Pg	14 20 15.7	-0.3
YER				eSG	Sg	14 20 26.4	+0.8
YER	Yerkesik	0.74	284	ePg	Pg	14 20 15.7	-0.3
YER				eSg	Sg	14 20 26.5	+0.8
AKAS	Kas	0.80	155	iP	Pg	14 20 17.1	-0.1
AKAS				iS	Sg	14 20 33.0	+5.4
AKAS	Kas	0.80	155	iP	Pg	14 20 17.0	-0.1
AYDN	Tasoluk	1.25	304	iP	Pn	14 20 24.7	-0.5
AYDN				iS	Sb	14 20 42.1	+0.6
AYDN	Tasoluk	1.25	304	iP	Pn	14 20 24.7	-0.5
AYDN				iS	Sb	14 20 42.1	+0.6
DAT	Datca	1.31	260	ePN	Pn	14 20 25.6	-0.4
DAT	Datca	1.31	260	ePn	Pn	14 20 25.6	-0.3
KHL	Karahalli	1.39	11	ePN	Pn	14 20 26.4	-0.6
KHL	Karahalli	1.39	11	ePn	Pn	14 20 26.5	-0.5
BDRM	Kayabasi	1.39	275	iP	Pn	14 20 26.8	-0.3
BDRM				iS	Sn	14 20 44.6	-1.0
BDRM	Kayabasi	1.39	275	iP	Pn	14 20 26.8	-0.3
BDRM				iS	Sn	14 20 44.6	-0.9
KHAL	Karahalli	1.43	10	iP	Pn	14 20 28.2	+0.6
KHAL				iS	Sn	14 20 47.4	+1.0
KHAL	Karahalli	1.43	10	iP	Pn	14 20 28.2	+0.6
KHAL				iS	Sn	14 20 47.4	+1.0
BODT	Bodrum	1.50	274	ePN	Pn	14 20 28.7	+0.1
BODT	Bodrum	1.50	274	ePn	Pn	14 20 28.7	+0.1
KULA	Kula-Manisa	1.61	345	ePN	Pn	14 20 29.6	-0.4
KULA	Kula-Manisa	1.61	345	ePn	Pn	14 20 29.6	-0.4
HDMB	Hadim	2.65	89	ePN	Pn	14 20 44.8	+0.5
HDMB	Hadim	2.65	89	ePn	Pn	14 20 44.8	+0.5
KONT	Konya--Tatoy	2.71	68	ePN	Pn	14 20 45.8	+0.5
KONT	Konya--Tatoy	2.71	68	ePn	Pn	14 20 45.8	+0.5

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*CSEM **08** 14:42:46.9±0.6, 38°.66N×35°.73E, h2^{km}, MD3.0, Error ellipse: s-maj=16.0km s-min=8.3km az=13.0*

*DDA **08** 14:42:46.9, 38°.74N×35°.72E, h7^{km}±5^{km}, Md3.0*

*ISCJB **08** 14:42:47.0±0.8, 38°.71N±0°.05×35°.71E±0°.04, h10^{km}, Error ellipse: s-maj=7.9km s-min=4.2km az=19.2*

ISC 08 14:42:47.5±0.8**, 38°.69N**±0°.06×**35°.70E**±0°.04**, h4**^{km}±13^{km}**, n14, σ0^{s}.98**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNN	Bunyan	0.20	34	ePG	Pg	14 42 51.3	-0.1
BNN				eSG	Sg	14 42 54.5	+0.4
BNN	Bunyan	0.20	34	ePg	Pg	14 42 51.3	-0.1
BNN				eSg	Sg	14 42 54.5	+0.4
PINB	Pinarbasi	0.55	91	iP	Pg	14 42 57.1	-0.9
PINB				iS	Sg	14 43 05.5	+0.4
PINB	Pinarbasi	0.55	91	iP	Pg	14 42 57.1	-0.9
PINB				iS	Sg	14 43 05.5	+0.4
AVNT	Avonos	0.67	278	iP	Pg	14 43 00.1	-0.3
AVNT				iS	Sg	14 43 10.0	+0.9
AVNT	Avonos	0.67	278	iP	Pg	14 43 00.1	-0.3
AVNT				iS	Sg	14 43 10.0	+0.9
SARI	SarD1z-Kayseri	0.78	90	ePG	Pg	14 43 00.6	-1.9
SARI	SarD1z-Kayseri	0.78	90	ePg	Pg	14 43 00.6	-1.8
YOZ	Yozgat	1.00	343	ePG	Pg	14 43 05.5	-1.2
YOZ	Yozgat	1.00	343	ePg	Pg	14 43 05.5	-1.2
AKCD	Akcadag	1.78	102	eP	Pn	14 43 19.2	+0.1
AKCD				iS	Sg	14 43 47.2	+2.4
AKCD	Akcadag	1.78	102	eP	Pn	14 43 19.2	+0.1
CTKT	Corum	2.06	340	eP	Pb	14 43 25.4	0.0
CTKT				iS	Sg	14 43 54.3	+0.7
CTKT	Corum	2.06	340	eP	Pb	14 43 25.4	0.0

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*ISCJB **08** 14:53:03.6±0.4, 7°.75S±0°.05×115°.63E±0°.05, h237^{km}±4^{km}, mb4.5/46, Error ellipse: s-maj=9.8km s-min=5.4km az=41.4*

*BJI **08** 14:53:03.8, 7°.80S×115°.60E, h246^{km}, mB4.7/14, mb4.6/23*

*DJA **08** 14:53:04, 6°.87S×116°.14E, h56^{km}, MLv4.9/5*

*NEIC **08** 14:53:05.8±1.0, 7°.83S×115°.58E, h246^{km}±10^{km}, mb4.7/9, Error ellipse: s-maj=10.1km s-min=6.0km az=65.0*

*IDC **08** 14:53:06.8±0.8, 7°.78S×115°.60E, h252^{km}±7^{km}, mb4.1/15, mb1 4.1/17, mb1mx4.0/23, mbtmp4.0/17, Error ellipse: s-maj=13.8km s-min=7.7km az=55.0*

*MOS **08** 14:53:07.6±1.0, 7°.67S×115°.62E, h274^{km}, mb4.7/8, Error ellipse: s-maj=17.4km s-min=10.4km az=108.4*

ISC 08 14:53:04.4±0.4**, 7°.82S**±0°.05×**115°.71E**±0°.05**, h232**^{km}±4^{km}**, n96, σ1^{s}.12**/89**, mb4.5**/46**, 3C-2D, Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHKI	Kahang-Kahang	0.55	190	P	Pn	14 53 35.1	-0.3
DNP	Denpasar	0.98	210	P	Pn	14 53 37.6	+0.2
IGBI	Denpasar	1.13	209	P	Pn	14 53 37.2	-1.1
NBBI	Negara	1.20	243	P	Pn	14 53 38.4	-0.4
TRT	Tretes	3.04	272 ⇓	eP	Pn	14 53 57.0	+0.7
TRT				eS	S	14 54 45.0	+7.8
SJI	Sawahan	3.90	271	P	Pn	14 54 08.9	+2.6
WSI	Waingapu	4.90	112	P	Pn	14 54 17.0	-1.4
WSI				S	S	14 55 15.5	-1.6
KSI	Kapahiang	13.69	287	P	Pn	14 56 09.9	+0.5
KKM	Kota Kinabalu	13.79	2	ePn	Pn	14 56 12.5	+2.0
	32nm,0.8s						
MBWA	Marble Bar	13.82	164	ePn	Pn	14 56 10.4	-0.4
	16nm,0.4s						
FITZ	Fitzroy Crossi	14.07	138	eP	Pn	14 56 16.5	+2.5
	28nm,0.6s						
FITZ				eS	S	14 58 48.6	-1.5
FITZ	Fitzroy Crossi	14.07	138	P	Pn	14 56 16.4	+2.4
	2.5nm,0.3s,baz=315,slow=10,SNR=18						
FITZ				S	S	14 58 49.0	-1.0
	1.6nm,0.3s,baz=295,slow=19,SNR=6.6						
FITZ	Fitzroy Crossi	14.07	138	ePn	Pn	14 56 15.5	+1.5
	13nm,0.5s						
FITZ				eS	S	14 58 49.0	-1.1
FITZ	Fitzroy Crossi	14.07	138	P	Pn	14 56 16.6	+2.6
KAKA	Kakadu	17.16	108	eP	P	14 56 53.2	+4.1
	22nm,1.0s						
KAKA				eS	S	14 59 53.6	-2.3
PSI	Prapat	19.79	302	P	P	14 57 16.7	-0.8
	2.4nm,0.3s,baz=156,slow=8.4,SNR=16						
PSI	Prapat	19.79	302	P	P	14 57 16.7	-0.8
KULM	Kulim	19.88	310	eP	P	14 57 17.5	-0.9
WRA	Warramunga Arr	21.70	126	P	P	14 57 38.7	+1.5
WRA				S	S	15 01 20.8	-0.2
WRA	Warramunga Arr	21.70	126	P	P	14 57 38.7	+1.5
	16nm,0.4s,mb4.9,baz=301,slow=12,SNR=112						
WRA				S	S	15 01 20.8	-0.2
	3.2nm,1.0s,baz=292,slow=16,SNR=5.9						
WRA				ScP	ScP	15 04 42.3	-1.6
	1.2nm,0.6s,baz=308,slow=2.1,SNR=5.2						
ASAR	Alice Springs	23.51	134	P	P	14 57 55.8	+2.1
ASAR						15 01 33.1	
ASAR	Alice Springs	23.51	134	P	P	14 57 55.8	+2.1
	8.3nm,0.6s,mb4.6,baz=308,slow=9.3,SNR=133						
ASAR				PcP	PcP	15 01 33.1	+0.6
	1.2nm,0.6s,baz=332,slow=2.3,SNR=5.4						
ASAR				ScP	ScP	15 04 47.5	-1.1
	1.2nm,0.5s,baz=317,slow=1.7,SNR=6.5						
KLBR	Kellerberrin	23.73	176	eP	P	14 57 55.9	+0.4

	26nm,1.3s,mb4.7						
MUN	**Mundaring**	**24.04**	**179**	*e*P	**P**	**14 57 59.8**	**+1.5**
NWAO	**Narrogin (SRO)**	**25.02**	**177**	P	**P**	**14 58 08.8**	**+1.6**
	15nm,0.8s,mb4.7,baz=22,slow=10,SNR=7.6						
NWAO	**Narrogin (SRO)**	**25.02**	**177**	P	**P**	**14 58 08.8**	**+1.6**
CMAR	**Chiang Mai Arr**	**30.91**	**328**	P	**P**	**14 59 00.7**	**+1.1**
	2.5nm,0.9s,mb3.9,baz=155,slow=6.7,SNR=17						
CMAR				pP	pP	14 59 50.4	+4.1
	0.5nm,0.5s,baz=150,slow=7.2,SNR=2.5						
CMAR				PcP	PcP	15 01 50.9	+0.5
	0.6nm,0.7s,baz=172,slow=2.8,SNR=4.5						
NACB	**Ninganchiao**	**32.32**	**10**	*e*P	**P**	**14 59 13.1**	**+1.2**
	37nm,1.2s,mb4.8						
STKA	**Stephens Creek**	**33.96**	**138**	*e*P	**P**	**14 59 28.3**	**+2.3**
	4.1nm,0.6s,mb4.1						
STKA	**Stephens Creek**	**33.96**	**138**	P	**P**	**14 59 28.2**	**+2.2**
	4.7nm,0.6s,mb4.2,baz=317,slow=9.6,SNR=20						
STKA				pP	pP	15 00 18.9	+5.8
	1.6nm,0.5s,baz=295,slow=10,SNR=1.9						
STKA				PcP	PcP	15 01 59.1	+0.5
	1.6nm,0.4s,baz=297,slow=4.5,SNR=3.4						
STKA				ScP	ScP	15 05 20.1	-1.2
	1.2nm,0.5s,baz=317,slow=3.2,SNR=5.5						
KMI	**Kunming**	**35.10**	**339**	P	**P**	**14 59 38.7**	**+2.9**
KMI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
GUMO	**Guam**	**35.93**	**54**	P	**P**	**14 59 44.5**	**+1.5**
	comp=Z,37nm,0.4s,mb5.2,baz=246,slow=18,SNR=4.1						
CD2	**Chengdu**	**40.18**	**344**	P	**P**	**15 00 09.0**	**-9.2**
CD2				pmax	pmax		
	comp=Z,60nm,0.5s,mb5.3						
CD2				pmax	pmax		
	comp=Z,330nm,6.1s						
XAN	**Xi'an**	**42.13**	**352**	P	**P**	**15 00 34.3**	**+0.3**
XAN				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.5						
XAN				pmax	pmax		
	comp=Z,190nm,6.1s						
ODAN	**Odare**	**44.07**	**322**	*e*P	**P**	**15 00 49.4**	**-0.3**
	comp=Z,28nm,0.8s,mb4.7						
LSA	**Lhasa**	**44.16**	**329**	*e*P	**P**	**15 00 51.2**	**+0.9**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
LSA	**Lhasa**	**44.16**	**329**	*e*P	**P**	**15 00 51.2**	**+0.9**
	comp=Z,4.1nm,0.6s,mb3.9						
TAPN	**Taplejung**	**44.24**	**323**	*e*P	**P**	**15 00 51.2**	**+0.2**
	comp=Z,34nm,0.8s,mb4.7						
RAMN	**Ramite**	**44.62**	**322**	*e*P	**P**	**15 00 54.1**	**+0.1**
	comp=Z,20nm,0.6s,mb4.7						
LZH	**Lanzhou**	**45.08**	**346**	*e*P	**P**	**15 00 58.5**	**+1.1**
LZH				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.3						
LZH				pmax	pmax		
	comp=Z,75nm,4.0s						
JIRN	**Jiri**	**45.38**	**322**	*e*P	**P**	**15 01 00.1**	**+0.1**
	comp=Z,48nm,0.4s,mb5.1						
GUN	**Gumba**	**45.75**	**322**	*e*P	**P**	**15 01 02.9**	**0.0**
	comp=Z,36nm,0.6s,mb4.9						
PKI	**Pulchoki**	**45.80**	**321**	*e*P	**P**	**15 01 02.6**	**-0.6**
	comp=Z,19nm,0.6s,mb4.6						
DMN	**Daman**	**46.01**	**321**	*e*P	**P**	**15 01 04.4**	**-0.5**
KKN	**Kakani**	**46.03**	**321**	*e*P	**P**	**15 01 04.3**	**-0.8**
	comp=Z,14nm,0.6s,mb4.4						
KSRS	**Korea Array**	**46.47**	**13**	P	**P**	**15 01 09.8**	**+1.6**
	comp=Z,7.0nm,0.9s,mb4.0,baz=189,slow=7.9,SNR=18						
GKN	**Gorkha**	**46.59**	**321**	*e*P	**P**	**15 01 08.7**	**-0.6**
	comp=Z,28nm,0.4s,mb5.0						
KOLN	**Koldanda**	**47.08**	**320**	*e*P	**P**	**15 01 12.0**	**-1.1**
	comp=Z,27nm,0.7s,mb4.7						
DANN	**Dangsing**	**47.38**	**321**	*e*P	**P**	**15 01 14.7**	**-0.7**
	comp=Z,54nm,0.6s,mb5.1						
BJT	**Baijiatuau**	**47.60**	**0**	*e*P	**P**	**15 01 16.3**	**-0.6**
BJT				pmax	pmax		
	comp=Z,11nm,0.5s						
BJT	**Baijiatuau**	**47.60**	**0**	*e*P	**P**	**15 01 16.3**	**-0.6**
	comp=Z,11nm,0.5s,mb4.4						
BJI	**Beijing**	**47.62**	**0**	P	**P**	**15 01 17.7**	**+0.6**
BJI				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.6						
PYUN	**Piuthan**	**47.69**	**320**	*e*P	**P**	**15 01 16.9**	**-1.0**
	comp=Z,24nm,0.6s,mb4.7						
MAT	**Matsushiro**	**48.93**	**24**	P	**P**	**15 01 27.2**	**+0.1**
MJAR	**Matsushiro Arr**	**48.93**	**24**	P	**P**	**15 01 27.1**	**0.0**
	comp=Z,7.4nm,0.7s,mb4.1,baz=200,slow=8.2,SNR=19						
GTA	**Gaotai**	**49.25**	**344**	*e*P	**P**	**15 01 30.3**	**+0.8**
GTA				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.6						
CN2	**Changchun**	**52.13**	**9**	*e*P	**P**	**15 01 50.3**	**-0.6**
MDJ	**Mudanjiang**	**53.68**	**12**	P	**P**	**15 02 02.7**	**+0.5**
MDJ				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.0						
MDJ				pmax	pmax		
	comp=Z,130nm,5.3s						
MDJ	**Mudanjiang**	**53.68**	**12**	*e*P	**P**	**15 02 02.6**	**+0.5**
	comp=Z,28nm,0.8s,mb4.8						
ULN	**Ulaanbaatar**	**55.97**	**353**	*e*P	**P**	**15 02 18.7**	**+0.2**
ULN				pmax	pmax		
	comp=Z,19nm,0.7s,mb4.7						
ULN	**Ulaanbaatar**	**55.97**	**353**	*e*P	**P**	**15 02 18.7**	**+0.2**
	comp=Z,19nm,0.7s,mb4.7						
SONM	**Songino Array**	**56.02**	**352**	P	**P**	**15 02 19.4**	**+0.6**
	comp=Z,23nm,0.6s,mb4.9,baz=171,slow=8.8,SNR=220						
ZAK	**Zakamensk**	**58.96**	**351**	⇓*i*P	**P**	**15 02 39.3**	**0.0**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.0						
YSS	**Yuzh-Sakhalins**	**59.60**	**21**	⇑*e*P	**P**	**15 02 44.0**	**+0.2**
MKAR	**Makanchi Array**	**61.97**	**335**	P	**P**	**15 02 58.9**	**-0.7**
	comp=Z,2.7nm,0.4s,mb4.2,baz=150,slow=6.6,SNR=65						
MKAR	**Makanchi Array**	**61.97**	**335**	P	**P**	**15 02 58.9**	**-0.7**
AAK	**Ala-Archa**	**62.69**	**327**	⇑*e*P	**P**	**15 03 02.0**	**-2.5**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb3.8						
BOD	**Bodaibo**	**65.43**	**359**	*e*P	**P**	**15 03 22.1**	**+0.1**
BOD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
ZALV	**Zalesovo Beam**	**66.82**	**341**	P	**P**	**15 03 29.5**	**-1.5**
	comp=Z,8.6nm,0.6s,mb4.6,baz=144,slow=5.1,SNR=42						
OPO	**Ambohidratompo**	**67.23**	**253**	P	**P**	**15 03 34.4**	**+0.1**
	comp=Z,2.4nm,0.8s,mb3.9,baz=102,slow=9.3,SNR=3.2						
PETK	**Petropavlovsk-**	**70.36**	**25**	P	**P**	**15 03 53.5**	**+0.6**
	comp=Z,2.0nm,0.5s,mb4.0,baz=195,slow=2.6,SNR=21						
RDF	**Al-Radifah**	**75.04**	**303**	*e*P	**P**	**15 04 19.0**	**-1.9**
RDF				AMb	AMB	15 04 24.3	
	comp=Z,37nm,1.2s,mb4.9						
NAY	**Al-Naaiem**	**75.40**	**303**	*e*P	**P**	**15 04 20.7**	**-2.1**
NAY				AMb	AMB	15 04 22.9	
	comp=Z,14nm,1.7s,mb4.3						
MIB	**Mutribah**	**75.48**	**303**	*e*P	**P**	**15 04 21.4**	**-2.0**
MIB				AMb	AMB	15 04 22.7	
	comp=Z,14nm,0.9s,mb4.6						
SEY	**Seymchan**	**75.92**	**16**	⇑*e*P	**P**	**15 04 24.9**	**-0.2**
KMBO	**Kilima Mbogo**	**78.41**	**270**	P	**P**	**15 04 40.2**	**+0.2**
	comp=Z,1.6nm,0.6s,mb3.8,baz=58,slow=9.5,SNR=4.5						
KMBO	**Kilima Mbogo**	**78.41**	**270**	P	**P**	**15 04 40.2**	**+0.2**
TIXI	**Tiksi**	**79.78**	**4**	*e*P	**P**	**15 04 44.9**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.1						
LSZ	**Lusaka**	**85.59**	**255**	*e*P	**P**	**15 05 17.1**	**-0.2**
LSZ				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
LSZ	**Lusaka**	**85.59**	**255**	*e*P	**P**	**15 05 17.1**	**-0.2**
	comp=Z,7.3nm,0.6s,mb4.6						
BRTR	**Keskin Array B**	**88.89**	**310**	P	**P**	**15 05 31.5**	**-1.0**
	comp=Z,1.7nm,0.9s,mb3.9,baz=128,slow=5.4,SNR=8.8						
YKA	**Yellowknife Ar**	**114.43**	**23**	PKP	PKiKP	15 11 15.7	-0.5
	comp=Z,0.8nm,0.5s,baz=311,slow=2.0,SNR=17						
TORD	**Torodi Ar. Bea**	**115.04**	**281**	PKP	PKPdf	15 11 18.1	-0.7
	comp=Z,1.9nm,0.7s,baz=52,slow=1.8,SNR=11						
KIC	**Kosan Boka**	**120.92**	**273**	*e*PKIKP	PKPdf	15 11 29.7	-0.4
	comp=Z,31nm,0.9s						
DBIC	**Dimbokro**	**121.07**	**273**	PKP	PKPdf	15 11 29.6	-0.7
	comp=Z,3.8nm,0.6s,baz=46,slow=1.4,SNR=9.7						
LIC	**Lamto**	**121.19**	**273**	*e*PKIKP	PKPdf	15 11 30.1	-0.5
	comp=Z,16nm,0.5s						
TIC	**Toumodi**	**121.23**	**273**	*e*PKIKP	PKPdf	15 11 30.1	-0.6
	comp=Z,21nm,0.2s						
NVAR	**Mina Array Bea**	**122.75**	**49**	PKP	PKPdf	15 11 33.0	+0.1
	comp=Z,0.8nm,0.6s,baz=266,slow=2.4,SNR=5.7						
NVAR	**Mina Array Bea**	**122.75**	**49**	PKP	PKPdf	15 11 33.0	+0.1
PDAR	**Pinedale Array**	**127.23**	**41**	PKP	PKPdf	15 11 41.5	+0.2
	comp=Z,0.2nm,0.5s,baz=76,slow=1.0,SNR=5.2						
SCHQ	**Schefferville**	**133.08**	**2**	PKP	PKPdf	15 11 52.5	+0.4
	comp=Z,2.4nm,0.9s,baz=244,slow=8.5,SNR=4.6						
SCHQ	**Schefferville**	**133.08**	**2**	PKP	PKPdf	15 11 52.5	+0.4
TXAR	**Lajitas Array**	**137.28**	**55**	PKhKP		15 11 52.0	
	comp=Z,0.2nm,0.4s,baz=240,slow=0.3,SNR=4.2						
TXAR				PKP	PKPdf	15 12 02.3	+1.6
	comp=Z,0.3nm,0.7s,baz=333,slow=1.4,SNR=4.1						
TXAR	**Lajitas Array**	**137.28**	**55**	PKP		15 11 52.0	
TXAR				PKP	PKPdf	15 12 02.3	+1.6
CPUP	**Villa Florida**	**145.38**	**191**	PKPbc	PKPbc	15 12 16.3	+0.7
	comp=Z,1.3nm,0.4s,baz=110,slow=3.3,SNR=9.4						
CPUP				pPKPbc		15 13 17.4	
	comp=Z,1.2nm,0.7s,baz=282,slow=19,SNR=1.9						
LRAL	**Lakeview Retre**	**147.26**	**37**	*e*PKPbc	PKPbc	15 12 19.8	-1.1

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*IDC **08** 14:56:45.3±2.1, 5°.95S×151°.66E, h0km, mb3.8/7, mb1 4.1/7, mb1mx3.9/16, mbtmp3.8/7, Error ellipse: s-maj=76.3km s-min=25.0km az=118.0*

*ISCJB **08** 14:56:48.0±1.5, 6°.2S±0°.2×151°.8E±0°.3, h33km, mb3.7/8, Error ellipse: s-maj=48.8km s-min=15.7km az=22.9*

*NEIC **08** 14:56:49.2±1.2, 6°.23S×151°.94E, h35km, mb4.0/1, Error ellipse: s-maj=40.4km s-min=13.5km az=112.0*

ISC 08 14:56:49.4±1.4, **6°.2S**±0°.2×**151°.9E**±0°.3, **h35km, n10, σ0ˢ.93**/9, **mb3.7**/8, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTAO	**Charters Tower**	**14.84**	**201**	Pn	**Pn**	**15 00 15.2**	**-1.6**
	7.0nm,1.1s						
WRAB	**Tennant Creek**	**21.85**	**230**	*e*P	**P**	**15 01 39.2**	**+0.1**
	6.0nm,1.0s,mb4.0						
WRA	**Warramunga Arr**	**21.86**	**230**	P	**P**	**15 01 40.2**	**+0.9**
	1.6nm,0.5s,mb3.7,baz=54,slow=9.9,SNR=5.7						
ASAR	**Alice Springs**	**24.52**	**223**	P	**P**	**15 02 06.5**	**+0.7**
	3.5nm,0.7s,mb4.0,baz=53,slow=8.9,SNR=14						
FITZ	**Fitzroy Crossi**	**28.23**	**243**	P	**P**	**15 02 39.7**	**+0.4**
	2.1nm,0.3s,mb4.2,baz=58,slow=9.5,SNR=3.2						
SONM	**Songino Array**	**67.07**	**329**	P	**P**	**15 07 38.2**	**-1.0**
	0.3nm,0.7s,mb3.5,baz=134,slow=4.2,SNR=2.4						
MKAR	**Makanchi Array**	**80.83**	**319**	P	**P**	**15 08 59.5**	**-0.2**
	0.4nm,0.9s,mb3.4,baz=115,slow=5.4,SNR=2.9						
ZALV	**Zalesovo Beam**	**81.85**	**327**	P	**P**	**15 09 04.1**	**-0.9**
	0.2nm,0.3s,mb3.5,baz=92,slow=4.8,SNR=2.4						
YKA	**Yellowknife Ar**	**97.08**	**28**	P	**P**	**15 10 19.0**	**+1.4**
	0.2nm,0.6s,mb3.7,baz=273,slow=4.8,SNR=4.8						
TORD	**Torodi Ar. Bea**	**149.89**	**285**	PKPbc	PKPbc	15 16 36.8	-0.2
	1.5nm,0.7s,baz=56,slow=2.6,SNR=8.3						

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*NEIC **08** 15:00:28.4±2.6, 3°.15S×100°.85E, h35km, Error ellipse: s-maj=107.0km s-min=15.6km az=58.0*

IDC 08 15:00:22.0±2.9, **3°.37S**×**100°.52E, h0km, mb3.8**/6, **mb1 3.9**/6, **mb1mx3.7**/20, **mbtmp3.8**/6, **Error ellipse: s-maj=122.7km s-min=19.2km az=57.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**21.74**	**356**	P	P	15 05 13.8	-1.4
	0.5nm,0.5s,baz=185,slow=10,SNR=5.4						
WRA	**Warramunga Arr**	**36.86**	**119**	P	P	15 07 32.0	-0.5
	0.4nm,0.3s,baz=309,slow=8.8,SNR=3.4						
ASAR	**Alice Springs**	**38.04**	**125**	P	P	15 07 42.6	+0.3
	0.8nm,0.4s,baz=298,slow=7.9,SNR=17						
SONM	**Songino Array**	**51.25**	**5**	P	P	15 09 28.6	+1.1
	5.0nm,0.8s,baz=187,slow=9.2,SNR=33						
SONM				PcP	PcP	15 10 41.8	-0.9
	0.3nm,0.5s,baz=158,slow=2.3,SNR=2.8						
MKAR	**Makanchi Array**	**52.48**	**344**	P	P	15 09 37.4	+0.8
	0.9nm,0.5s,baz=152,slow=9.2,SNR=25						
ZALV	**Zalesovo Beam**	**58.60**	**349**	P	P	15 10 19.8	-0.8
	0.9nm,0.5s,baz=177,slow=5.5,SNR=8.2						
TXAR	**Lajitas Array**	**145.45**	**39**	PKPbc	PKPbc	15 20 02.3	-0.4
	1.4nm,0.7s,baz=286,slow=0.6,SNR=20						

IDC 08 15:02:36.5±3.4, **4°.37S**×**152°.92E, h0km, mb3.7**/4, **mb1 3.9**/4, **mb1mx3.6**/17, **mbtmp3.7**/4, **MS3.5**/1, **Ms1 3.5**/1, **ms1mx2.4**/30, **Error ellipse: s-maj=114.5km s-min=31.5km az=113.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**23.82**	**228**	P	P	15 07 51.3	-0.1
	2.1nm,0.7s,baz=51,slow=9.1,SNR=9.6						
ASAR	**Alice Springs**	**26.55**	**222**	P	P	15 08 16.8	+0.6
	0.3nm,0.5s,baz=59,slow=8.3,SNR=3.8						
FITZ	**Fitzroy Crossi**	**29.97**	**241**	P	P	15 08 46.7	-0.2
	3.0nm,0.7s,baz=67,slow=16,SNR=2.5						
JOW	**Kunigami**	**39.12**	**324**	LR	LR	15 24 11.8	
	comp=Z,78nm,21.4s,baz=94,slow=33						
MKAR	**Makanchi Array**	**80.08**	**319**	P	P	15 14 48.9	+0.7
	0.4nm,0.9s,baz=102,slow=6.1,SNR=2.4						
TORD	**Torodi Ar. Bea**	**150.29**	**289**	PKPbc	PKPbc	15 22 29.7	-1.1
	0.5nm,0.3s,baz=70,slow=2.2,SNR=9.4						

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*IDC **08** 15:10:15.2±1.0, 20°.21N×122°.07E, h0km, mb3.6/7, mb1 3.7/8, mb1mx3.6/21, mbtmp3.6/8, ML2.9/1, MS3.1/1, Ms1 3.1/1, ms1mx2.2/35, Error ellipse: s-maj=34.8km s-min=18.5km az=69.0*

*MAN **08** 15:10:16, 20°.53N×122°.04E, h27km, mb5.1, ML4.0, MS4.2*

MAN INTENSITY III - SABTANG BATANES.

*NEIC **08** 15:10:19.7±0.7, 20°.25N×122°.18E, h35km, mb3.6/1, Error ellipse: s-maj=24.8km s-min=14.5km az=66.0*

NEIC Felt [III PIVS] on Sabtang Island.

*ISCJB **08** 15:10:20.8±1.4, 20°.26N±0°.08×122°.2E±0°.1, h65km±16km, mb3.5/8, Error ellipse: s-maj=23.6km s-min=13.3km az=170.6*

ISC 08 15:10:22.3±1.4, **20°.24N**±0°.08×**122°.1E**±0°.1, **h61km**±15km, **n17, σ0ˢ.94**/16, **mb3.5**/8, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABRA	**Dolores**	**2.91**	**208**	*e*P	**Pn**	**15 11 05.2**	**-1.1**
PALP	**Palanan**	**3.18**	**175**	*e*P	**Pn**	**15 11 09.7**	**-0.2**
CAUP	**Cauayan**	**3.29**	**185**	*e*P	**Pn**	**15 11 12.9**	**+1.4**
BALP	**Baler**	**4.51**	**187**	*e*P	**Pn**	**15 11 28.2**	**+0.1**
JOW	**Kunigami**	**8.65**	**40**	LR	LR	15 15 48.0	
	comp=Z,116nm,18.3s,baz=18,slow=38						
KSRS	**Korea Array**	**17.88**	**15**	P	**Pn**	**15 14 26.8**	**0.0**
	0.0nm,0.3s,baz=214,slow=14,SNR=2.6						
CMAR	**Chiang Mai Arr**	**21.95**	**269**	P	**P**	**15 15 11.2**	**+0.2**
	1.4nm,0.8s,mb3.4,baz=70,slow=8.1,SNR=8.2						
SONM	**Songino Array**	**30.33**	**339**	P	**P**	**15 16 28.1**	**0.0**
	0.5nm,0.8s,mb3.3,baz=148,slow=8.5,SNR=3.5						
WRAB	**Tennant Creek**	**41.68**	**163**	P	**P**	**15 18 04.4**	**-0.8**
	0.5nm,0.4s,mb3.5						
WRA	**Warramunga Arr**	**41.69**	**163**	P	**P**	**15 18 04.8**	**-0.4**
	1.1nm,0.7s,mb3.6,baz=344,slow=9.2,SNR=4.9						
MKAR	**Makanchi Array**	**41.81**	**319**	P	**P**	**15 18 06.8**	**+0.8**
	1.0nm,0.6s,mb3.6,baz=111,slow=8.8,SNR=11						
ZALV	**Zalesovo Beam**	**44.04**	**329**	P	**P**	**15 18 22.7**	**-1.1**
	1.4nm,0.7s,mb3.8,baz=101,slow=7.7,SNR=7.3						
ASAR	**Alice Springs**	**45.13**	**165**	P	**P**	**15 18 33.5**	**+0.7**
	0.4nm,0.5s,mb3.5,baz=350,slow=7.1,SNR=15						
CHGN	**Chignik**	**67.58**	**36**	*e*P	**P**	**15 21 11.1**	**-1.2**
VYHS	**Vyhne**	**83.50**	**319**	*e*P	**P**	**15 22 50.2**	**+6.6**
VYHS	**Vyhne**	**83.50**	**319**	*e*	**P**	**15 22 50.2**	**+6.6**
YKA	**Yellowknife Ar**	**86.25**	**23**	P	**P**	**15 22 59.8**	**+2.7**
	0.2nm,0.6s,mb3.6,baz=305,slow=4.9,SNR=4.7						

MAN 08 15:11:52, 10°.27N×**124°.07E, h33km, mb4.0, ML2.7, MS2.4, 1C, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LLP	**Lapu-Lapu**	**0.11**	**297**	⇑*i*P	Pb	15 11 59.2	+1.4
LLP				*i* S	Sb	15 12 03.1	+1.3
MSLP	**Maasin**	**0.79**	**99**	*e*P	Pn	15 12 07.5	+0.7
OCLP	**Ormoc**	**0.94**	**34**	*e*P	Pn	15 12 09.4	+0.4
GUIM	**Jordan**	**1.50**	**284**	*e*P	Pn	15 12 21.5	+4.9

BJI 08 15:26:18.8, 38°.87N×**77°.87E, h21km, mb4.5**/1, **ML3.6**/8, **1C, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**1.61**	**294**	⇑*i*Pg	Pn	15 26 47.3	+1.3
KSH				Sg	Sn	15 27 09.9	+3.8
KSH				smax			
	comp=N,3μm,0.5s						
KSH				smax			
	comp=E,2μm,0.8s						

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*MOS **08** 15:26:49.3±0.8, 4°.94S×83°.57W, h33km, mb5.3/12, Error ellipse: s-maj=18.9km s-min=11.0km az=101.3*

*ISCJB **08** 15:26:50.1±0.2, 3°.71S±0°.04×81°.70W±0°.04, h28km, mb4.7/45, MS3.9/8, Error ellipse: s-maj=7.6km s-min=4.4km az=137.3*

*IDC **08** 15:26:51.3±0.5, 3°.77S×81°.84W, h27km±2km, mb4.2/15, mb1 4.4/18, mb1mx4.3/25, mbtmp4.2/18, ML4.3/3, MS3.8/8, Ms1 3.8/8, ms1mx3.5/31, Error ellipse: s-maj=21.6km s-min=10.6km az=59.0*

*NEIC **08** 15:26:52.3±0.3, 3°.78S×81°.76W, h35km, mb4.9/31, Error ellipse: s-maj=8.9km s-min=5.4km az=57.0*

ISC 08 15:26:52.5±0.2, **3°.73S**±0°.04×**81°.68W**±0°.04, **h29km, h29km**±.5km**:pP-P, n417, σ0ˢ.52**/375, **mb4.7**/45, **MS3.9**/8, **118C-112D, Near coast of northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**4.62**	**135**	Pn	**Pn**	**15 28 02.3**	**+2.0**
	3.7nm,0.3s,baz=319,slow=9.1,SNR=27						
ATAH				Sn	**Sn**	**15 28 54.8**	**+1.9**
	14nm,0.3s,baz=328,slow=21,SNR=6.8						
OTAV	**Otavalo**	**5.09**	**39**	*e*Pn	**Pn**	**15 28 06.2**	**-0.6**
	176nm,0.8s						
OTAV				*e*Sn	**Sn**	**15 29 05.0**	**+0.2**
PAYG	**Puerto Ayora**	**9.11**	**289**	*e*Pn	**Pn**	**15 28 58.3**	**-3.8**
	40nm,0.6s						
NNA	**Nana**	**9.51**	**150**	Pn	**Pn**	**15 29 06.5**	**-1.0**
	3.6nm,0.3s,baz=326,slow=12,SNR=9.5						
NNA				Sn	**Sn**	**15 30 47.6**	**-5.8**
	4.3nm,0.3s,baz=190,slow=19,SNR=6.3						
NNA	**Nana**	**9.51**	**150**	*e*Pn	**Pn**	**15 29 06.1**	**-1.3**
	15nm,0.6s						
NNA				*e*Sn	**Sn**	**15 30 45.1**	**-8.3**
JTS	**JuntasAbangare**	**14.30**	**347**	*e*P	**Pn**	**15 30 13.8**	**+0.7**
JTS				pmax	pmax		
	comp=Z,31nm,1.4s						
JTS	**JuntasAbangare**	**14.30**	**347**	LR	LR	15 33 53.7	
	comp=Z,130nm,20.2s,baz=1.1,slow=30						
JTS	**JuntasAbangare**	**14.30**	**347**	*e*Pn	**Pn**	**15 30 13.8**	**+0.7**
	comp=Z,31nm,1.4s						
SDV	**Santo Domingo**	**16.68**	**41**	Pn	**Pn**	**15 30 44.6**	**+0.4**
	comp=Z,3.7nm,0.3s,baz=252,slow=9.2,SNR=25						
SDV	**Santo Domingo**	**16.68**	**41**	*e*Pn	**Pn**	**15 30 44.5**	**+0.2**
	comp=Z,70nm,0.8s						
PCRV	**Puerto La Cruz**	**21.89**	**51**	P	**P**	**15 31 44.8**	**+1.5**
	comp=Z,47nm,0.6s,mb5.1,baz=245,slow=2.8,SNR=13						
PCRV				LR	LR	15 41 24.4	
	comp=Z,246nm,20.3s,MS3.6,baz=215,slow=40						
LVC	**Limon Verde**	**22.49**	**148**	P	**P**	**15 31 51.0**	**+1.4**
	comp=Z,16nm,1.0s,mb4.4,baz=303,slow=8.5,SNR=9.1						
LVC				LR	LR	15 41 17.8	
	comp=Z,134nm,18.4s,MS3.4,baz=335,slow=38						
LVC	**Limon Verde**	**22.49**	**148**	*e*P	**P**	**15 31 50.9**	**+1.3**
	comp=Z,63nm,1.5s,mb4.8						
SIV	**San Ignacio**	**23.65**	**122**	P	**P**	**15 32 02.6**	**+0.9**
	comp=Z,5.6nm,0.8s,mb4.0,baz=294,slow=8.9,SNR=18						
CMIG	**Matias Romero**	**24.45**	**328**	LR	LR	15 39 04.2	
	comp=Z,60nm,19.5s,MS3.1,baz=12,slow=30						
TEIG	**Tepich**	**24.67**	**345**	P	**P**	**15 32 10.4**	**-0.4**
	comp=Z,3.8nm,0.8s,mb4.0,baz=203,slow=13,SNR=2.5						
TEIG	**Tepich**	**24.67**	**345**	*e*P	**P**	**15 32 07.5**	**-3.3**
	comp=Z,2.4nm,0.5s,mb4.0						
SDDR	**Presa de Saban**	**24.78**	**24**	*e*P	**P**	**15 32 17.6**	**+5.7**
	comp=Z,25nm,1.2s,mb4.6						
CRPR	**Cabo Rojo, PR**	**25.94**	**33**	*e*P	**P**	**15 32 32.4**	**+10**
LSP	**Las Mesas**	**26.09**	**33**	*e*P	**P**	**15 32 33.6**	**+10**
MPR	**Mayaguez**	**26.09**	**33**	*e*P	**P**	**15 32 33.4**	**+10**
OBIP	**Obispado Ponce**	**26.25**	**34**	*e*P	**P**	**15 32 34.6**	**+9.4**
CELP	**Cerrillos**	**26.29**	**34**	*e*P	**P**	**15 32 35.7**	**+10**
SJG	**San Juan**	**26.56**	**35**	*e*P	**P**	**15 32 26.8**	**-1.3**
	comp=Z,87nm,0.8s,mb5.3						
CBYP	**Canovanas**	**26.85**	**35**	*e*P	**P**	**15 32 35.5**	**+4.8**
	comp=Z,38nm,0.8s,mb5.0						
CFAA	**Coronel Fontan**	**30.48**	**157**	P	**P**	**15 33 02.1**	**-0.8**
	comp=Z,0.9nm,0.9s,mb3.5,baz=339,slow=7.5,SNR=12						
CFAA				LR	LR	15 43 14.8	
	comp=Z,7.6nm,22.0s,baz=262,slow=32						
CFAA	**Coronel Fontan**	**30.48**	**157**	P	**P**	**15 33 02.1**	**-0.8**
CFAA				LR	LR	15 43 14.8	
CPUP	**Villa Florida**	**32.40**	**136**	LR	LR	15 48 21.0	
	comp=Z,217nm,20.4s,MS3.8,baz=48,slow=40						
JCT	**Junction City**	**38.17**	**334**	*e*P	**P**	**15 34 09.9**	**+0.5**
JCT				pmax	pmax		
	comp=Z,36nm,1.6s,mb4.8						
JCT	**Junction City**	**38.17**	**334**	*e*P	**P**	**15 34 09.9**	**+0.5**
	comp=Z,36nm,1.6s,mb4.9						
PLCA	**Paso Flores**	**38.18**	**166**	P	**P**	**15 34 08.3**	**-1.1**
PLCA	**Paso Flores**	**38.18**	**166**	P	**P**	**15 34 08.3**	**-1.2**
	comp=Z,12nm,0.8s,mb4.7,baz=326,slow=9.0,SNR=11						
PLCA	**Paso Flores**	**38.18**	**166**	P	**P**	**15 34 08.3**	**-1.2**
TXAR	**Lajitas Array**	**39.05**	**329**	P	**P**	**15 34 16.0**	**-0.9**
TXAR						15 36 26.4	
TXAR	**Lajitas Array**	**39.05**	**329**	P	**P**	**15 34 16.0**	**-0.9**
	comp=Z,0.5nm,0.8s,mb3.3,baz=153,slow=8.4,SNR=5.6						
TXAR				PcP	PcP	15 36 26.4	-0.3
	comp=Z,2.3nm,0.9s,baz=160,slow=6.8,SNR=14						
TXAR				pPcP		15 36 35.0	
	comp=Z,1.4nm,0.7s,baz=159,slow=6.2,SNR=8.3						
TXAR	**Lajitas Array**	**39.05**	**329**	P	**P**	**15 34 16.0**	**-0.9**
TXAR				PcP	PcP	15 36 26.4	-0.3
TXAR				pPcP		15 36 35.0	
CPCT	**Cooper Cave**	**39.06**	**356**	*e*P	**P**	**15 34 16.6**	**-0.2**
LPIG	**La Paz**	**39.26**	**316**	LR	LR	15 47 43.0	
	comp=Z,135nm,18.8s,MS3.8,baz=185,slow=32						
BLA	**Blacksburg**	**40.74**	**2**	*e*P	**P**	**15 34 39.0**	**+8.2**
BLA				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.7						
BLA	**Blacksburg**	**40.74**	**2**	*e*P	**P**	**15 34 39.0**	**+8.2**
	comp=Z,15nm,0.7s,mb4.7						
FVM	**French Village**	**42.28**	**350**	*e*P	**P**	**15 34 42.4**	**-1.0**
FVM				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
FVM	**French Village**	**42.28**	**350**	*e*P	**P**	**15 34 42.4**	**-1.1**
	comp=Z,14nm,0.9s,mb4.6						
CCM	**Cathedral Cave**	**42.51**	**349**	*e*P	**P**	**15 34 43.5**	**-1.7**
CCM				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.0						
CCM	**Cathedral Cave**	**42.51**	**349**	*e*P	**P**	**15 34 43.5**	**-1.7**
	comp=Z,24nm,0.8s,mb5.0						
AMTX	**Amarillo**	**42.76**	**336**	*e*P	**P**	**15 34 46.5**	**-0.9**
319A	**Douglas**	**43.70**	**325**	⇑P	**P**	**15 34 55.1**	**+0.1**
	baz=44,SNR=11						
ACSO	**Alum Creek Sta**	**43.76**	**359**	*e*P	**P**	**15 34 53.9**	**-1.5**
	comp=Z,191nm,2.3s,mb5.4						
219A	**White Tail Can**	**44.15**	**326**	⇑P	**P**	**15 34 58.5**	**-0.1**
	baz=44						
318A	**Bisbee**	**44.15**	**324**	⇓P	**P**	**15 34 58.8**	**+0.1**
	baz=44,SNR=15						
120A	**U Bar Ranch, L**	**44.21**	**327**	⇓P	**P**	**15 34 59.6**	**+0.4**
	baz=44						
218A	**Dragoon**	**44.58**	**325**	⇓P	**P**	**15 35 02.2**	**+0.1**
	baz=45,SNR=5.8						
119A	**Ashpeak Ranch,**	**44.75**	**326**	⇑P	**P**	**15 35 03.6**	**+0.2**
	baz=45,SNR=5.7						
KSU1	**Kansas State U**	**44.78**	**343**	*e*P	**P**	**15 35 02.6**	**-0.9**
	comp=Z,9.4nm,0.5s,mb4.9						
217A	**Green Valley**	**44.88**	**324**	⇑P	**P**	**15 35 04.3**	**-0.2**
	baz=45,SNR=7.8						
ANMO	**Albuquerque**	**44.97**	**331**	*e*P	**P**	**15 35 05.5**	**+0.4**
ANMO	**Albuquerque**	**44.97**	**331**	*e*P	**P**	**15 35 05.5**	**+0.3**
118A	**Homack Ranch,**	**45.03**	**326**	⇓P	**P**	**15 35 06.0**	**+0.4**
	baz=45,SNR=12						
Z19A	**T-Link Ranch,**	**45.12**	**327**	⇑P	**P**	**15 35 06.3**	**0.0**
	baz=45						
TUC	**Tucson**	**45.25**	**325**	*e*P	**P**	**15 35 07.2**	**-0.2**
TUC	**Tucson**	**45.25**	**325**	*e*P	**P**	**15 35 07.2**	**-0.2**
117A	**Oracle**	**45.41**	**325**	⇓P	**P**	**15 35 08.8**	**+0.1**
	baz=46,SNR=9.0						
216A	**Three Points,**	**45.42**	**324**	⇑P	**P**	**15 35 09.2**	**+0.4**
	baz=46						
Y19A	**Nutrioso**	**45.62**	**327**	⇓P	**P**	**15 35 11.2**	**+0.8**
	baz=46,SNR=5.1						
RCBR	**Riachuelo**	**45.66**	**94**	P	**P**	**15 35 09.7**	**-1.3**
	comp=Z,22nm,1.3s,mb4.9						
W21A	**San Fidel**	**45.69**	**330**	⇑P	**P**	**15 35 11.3**	**+0.5**
	baz=46						
Z17A	**San Carlos Hig**	**45.80**	**326**	⇑P	**P**	**15 35 11.6**	**-0.1**
	baz=46						
116A	**Eloy**	**45.97**	**324**	⇑P	**P**	**15 35 13.3**	**+0.2**
	baz=46,SNR=6.0						
BINY	**Binghamton**	**46.00**	**6**	*e*P	**P**	**15 35 20.7**	**+7.5**
	comp=Z,534nm,3.0s						
W20A	**Ramah**	**46.13**	**329**	⇓P	**P**	**15 35 14.8**	**+0.6**
	baz=46,SNR=7.4						
214A	**Organ Pipe Nat**	**46.20**	**322**	⇓P	**P**	**15 35 15.2**	**+0.2**
	baz=46,SNR=9.0						

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X18A  Snowflake         46.43 327 ⇓P     P      15 35 17.2 +0.5
      baz=47
W19A  Sanders           46.58 328 ⇓P     P      15 35 18.3 +0.5
      baz=47
SCIA  State Center      46.61 348 eP     P      15 35 17.7 -0.3
W18A  Petrified Fore    46.76 328 ⇑P     P      15 35 19.9 +0.6
      baz=47,SNR=8.1
Y16A  Circle Bar Ran    46.79 325 ⇑P     P      15 35 20.0 +0.5
      baz=47,SNR=7.1
SDCO  Great Sand Dun    46.81 334 eP     P      15 35 19.7 +0.1
      comp=Z,8.2nm,0.8s,mb4.7
T22A  Edith             46.85 332 ⇓P     P      15 35 20.5 +0.6
      baz=47
V19A  Window Rock       46.86 329 ⇑P     P      15 35 20.5 +0.4
      baz=47
JFWS  Jewell Farm       47.06 351 eP     P      15 35 20.1 -1.4
JFWS                               pmax  pmax
      comp=Z,8.0nm,0.5s,mb4.9
JFWS  Jewell Farm       47.06 351 eP     P      15 35 20.1 -1.4
      comp=Z,8.5nm,0.5s,mb4.9
X16A  Lo Mia Camp, P    47.16 326 ⇓P     P      15 35 22.7 +0.3
      baz=47,SNR=6.9
Y15A  Casa Rosa Ranc    47.33 325 ⇑P     P      15 35 23.7  0.0
      baz=48
113A  Mohawk Valley,    47.34 323 ⇑P     P      15 35 23.5 -0.4
      baz=48
X15A  Humboldt          47.66 325 ⇓P     P      15 35 26.5 +0.1
      baz=48,SNR=5.4
W16A  Flagstaff         47.72 327 ⇓P     P      15 35 26.8 +0.1
      baz=48
T19A  Beclabito         47.72 330 ⇑P     P      15 35 26.7  0.0
      baz=48,SNR=6.9
MVCO  Mesa Verde        47.77 331 ⇓P     P      15 35 27.3 +0.3
      baz=48
MVCO  Mesa Verde        47.77 331 eP     P      15 35 26.9 -0.2
      comp=Z,8.9nm,0.6s,mb5.0
U18A  Rough Rock, Ch    47.83 329 ⇑P     P      15 35 27.6 +0.1
      baz=48
WUAZ  Wupatki           47.94 327 ⇑P     P      15 35 28.8 +0.3
      baz=48,SNR=5.3
WUAZ  Wupatki           47.94 327 eP     P      15 35 28.8 +0.4
X14A  Yava              48.02 325 ⇑P     P      15 35 29.3 +0.2
      baz=48
Y13A  Salome            48.11 323 ⇓P     P      15 35 29.9 +0.2
      baz=48
W15A  Williams          48.18 326 ⇓P     P      15 35 30.6 +0.3
      baz=48
GLA   Glamis            48.19 322 ⇑P     P      15 35 30.4  0.0
      baz=48
U16A  Tuba City         48.28 328 ⇓P     P      15 35 31.3 +0.2
      baz=48,SNR=8.3
Q22A  Crested Butte,    48.36 334 ⇑P     P      15 35 32.1 +0.5
      baz=49
U17A  Shonto            48.38 329 ⇑P     P      15 35 32.0 +0.2
      baz=49
T18A  Mexican Hat       48.39 330 ⇑P     P      15 35 31.7 -0.2
      baz=49,SNR=14
R20A  Redvale           48.49 332 ⇓P     P      15 35 33.0 +0.4
      baz=49,SNR=7.8
S19A  Harvey Farm, M    48.50 331 ⇓P     P      15 35 32.8 +0.1
      baz=49,SNR=13
ISCO  Idaho Springs     48.58 335 eP     P      15 35 33.7 +0.4
ISCO  Idaho Springs     48.58 335 eP     P      15 35 33.7 +0.4
V15A  Kaibab Nationa    48.60 327 ⇑P     P      15 35 34.1 +0.6
      baz=49,SNR=6.2
PDMCI Parker Dam,Lak    48.63 324 ⇑P     P      15 35 34.1 +0.3
      baz=49
X13A  Yucca             48.66 324 ⇓P     P      15 35 34.1 +0.1
      baz=49
W14A  Seligman          48.67 325 ⇑P     P      15 35 34.0 -0.1
      baz=49
T17A  Navajo Res., N    48.76 329 ⇑P     P      15 35 34.9 +0.2
      baz=49,SNR=10.0
S18A  Hurst Farm, Bl    48.88 330 ⇑P     P      15 35 35.6  0.0
      baz=49,SNR=6.6
PV04  Paradox Valley    48.90 332 eP     P      15 35 35.6 -0.2
BC3   Big Chuckw Mtn    48.98 322 ⇑P     P      15 35 36.5  0.0
      baz=49,SNR=6.3
V14A  Boquillas Ranc    48.98 326 ⇑P     P      15 35 36.8 +0.3
      baz=49,SNR=8.3
W13A  Hualapai Mount    49.05 325 ⇑P     P      15 35 37.2 +0.2
      baz=49,SNR=7.7
MONP  Monument Peak     49.07 321 ⇓P     P      15 35 36.9 -0.3
      baz=49
IRM   Iron Mountain     49.14 323 ⇓P     P      15 35 37.7  0.0
      baz=49,SNR=11
P21A  Newcastle         49.14 334 ⇓P     P      15 35 38.2 +0.6
      baz=49,SNR=6.0
S17A  Black Ridge (B    49.24 329 ⇓P     P      15 35 38.2 -0.2
      baz=49
R18A  Canyonlands Na    49.37 331 ⇓P     P      15 35 39.0 -0.4
      baz=50
Q19A  Hogan Spring (    49.52 332 ⇑P     P      15 35 40.6 +0.2
      baz=50
P20A  De Beque          49.55 333 ⇓P     P      15 35 41.0 +0.3
      baz=50
BELC  Belle Mtn.        49.55 322 ⇓P     P      15 35 40.8  0.0
      baz=50
PFO   Pinyon Flat Ob    49.57 321 i P    P      15 35 41.6 +0.6
PFO   Pinyon Flat Ob    49.57 321 ⇓P     P      15 35 41.0  0.0
      baz=50
U14A  Mt Trumbull       49.59 326 ⇓P     P      15 35 41.1 -0.1
      baz=50
T15A  Red Dirt Ranch    49.60 328 ⇑P     P      15 35 41.4 +0.2
      baz=50
V13A  Grand Canyon W    49.64 325 ⇓P     P      15 35 41.6 +0.1
      baz=50
S16A  Weppner Ranch,    49.72 329 ⇑P     P      15 35 42.1  0.0
      baz=50,SNR=8.4
O21A  Pagoda            49.72 334 ⇑P     P      15 35 42.6 +0.6
      baz=50
N22A  Wattenberg Ran    49.77 335 ⇓P     P      15 35 42.8 +0.4
      baz=50
R17A  Hanksville Air    49.80 330 ⇑P     P      15 35 42.6  0.0
      baz=50
GMRC  Granite Mounta    49.87 323 ⇑P     P      15 35 43.2 -0.1
      baz=50
P19A  Cripple Cowboy    49.92 332 ⇑P     P      15 35 43.6 +0.1
      baz=50,SNR=7.2
T14A  Hurricane         50.01 327 ⇑P     P      15 35 44.8 +0.5
      baz=50
U13A  Pakoon Wash       50.03 326 ⇓P     P      15 35 44.5  0.0
      baz=50
MURC  Murrieta          50.03 321 ⇓P     P      15 35 44.4 -0.1
      baz=50
Q18A  Rafter H Ranch    50.05 331 ⇓P     P      15 35 44.2 -0.4
      baz=50,SNR=7.8
V12A  Nelson            50.05 324 ⇓P     P      15 35 44.6  0.0
      baz=50
S15A  Panguitch         50.08 328 ⇑P     P      15 35 45.4 +0.6
      baz=50
R16A  Teasdale          50.08 329 ⇑P     P      15 35 45.5 +0.7
      baz=50
N21A  Black Mountain    50.19 334 ⇑P     P      15 35 46.1 +0.5
      baz=50,SNR=7.3
SRU   San Rafael        50.24 331 eP     P      15 35 45.5 -0.5
SRU                                pmax  pmax
      comp=Z,6.0nm,0.9s,mb4.6
SRU   San Rafael        50.24 331 ⇓P     P      15 35 46.3 +0.2
      baz=50
SRU   San Rafael        50.24 331 eP     P      15 35 45.5 -0.5
      comp=Z,6.2nm,0.9s,mb4.6
HEC   Hector,Ludlow     50.31 323 ⇑P     P      15 35 46.6  0.0
      baz=50,SNR=7.0
TUQ   Turquoise Moun    50.48 323 ⇑P     P      15 35 48.3 +0.4
      baz=51
P18A  Preston Nutter    50.51 331 ⇓P     P      15 35 48.9 +0.9
      baz=51
O19A  Miners Draw (B    50.52 333 ⇓P     P      15 35 48.6 +0.5
      baz=51
N20A  Spence Gulch,     50.57 334 ⇓P     P      15 35 48.5  0.0
      baz=51,SNR=8.0
MSU   Marysvale         50.61 329 eP     P      15 35 49.4 +0.6
MSU   Marysvale         50.61 329 eP     P      15 35 49.4 +0.5
P17A  Butcher Ranch,    50.63 331 ⇑P     P      15 35 48.8 -0.1
      baz=51
BFSC  Mount Baldy St    50.73 321 ⇓P     P      15 35 49.6 -0.2
      baz=51
S13A  Holt Ranch, En    50.81 327 ⇓P     P      15 35 51.1 +0.7
      baz=51,SNR=15
SHOC  Shoshone          51.00 324 ⇑P     P      15 35 51.7 -0.1
      baz=51,SNR=6.0
N19A  John Jarvie Ra    51.02 333 ⇓P     P      15 35 51.9  0.0
      baz=51,SNR=9.2
M20A  Sweetwater, Wa    51.07 334 ⇓P     P      15 35 52.3  0.0
      baz=51
R13A  O'Grain Ranch,    51.31 327 ⇓P     P      15 35 54.5 +0.5
      baz=52,SNR=7.3
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T11A  Corn Creek, Al    51.32 326 ⇑P     P      15 35 54.3 +0.1
      baz=52,SNR=5.0
EDW2  Edwards Air Fo    51.36 321 ⇑P     P      15 35 54.1 -0.4
      baz=52,SNR=7.5
Q14A  Sevier Lake (B    51.54 329 ⇓P     P      15 35 56.0 +0.3
      baz=52,SNR=8.0
DAU   Daniels Canyon    51.61 331 eP     P      15 35 56.5 +0.2
DAU   Daniels Canyon    51.61 331 eP     P      15 35 56.5 +0.3
RSSD  Black Hills       51.69 340 eP     P      15 35 56.2 -0.6
RSSD  Black Hills       51.69 340 eP     P      15 35 56.2 -0.6
R12A  Pony Springs,     51.76 327 ⇑P     P      15 35 58.3 +0.8
      baz=52,SNR=7.6
N17A  Moffit Pass       51.82 332 ⇑P     P      15 35 58.3 +0.4
      baz=52
MPMC  Manual Prospec    51.83 323 ⇑P     P      15 35 57.7 -0.4
      baz=52
JLU   Jordanelle        51.85 331 eP     P      15 35 58.7 +0.6
      comp=Z,18nm,1.3s,mb4.8
M18A  Lyman             51.85 333 ⇑P     P      15 35 58.3 +0.2
      baz=52
P14A  Drum Mountains    51.88 329 ⇑P     P      15 35 59.0 +0.7
      baz=52,SNR=6.7
Q13A  Wheeler Ranch,    51.90 328 ⇓P     P      15 35 58.7 +0.2
      baz=52,SNR=17
N16A  Rees Ranch, Co    52.06 332 ⇓P     P      15 36 00.1 +0.4
      baz=52,SNR=5.2
L19A  Farson            52.08 334 ⇑P     P      15 35 60.0 +0.3
      baz=52
K20A  Yellowstone Ra    52.10 335 ⇓P     P      15 35 59.5 -0.3
      baz=52,SNR=5.6
M17A  Scullys Gap (B    52.16 333 ⇓P     P      15 36 00.7 +0.3
      baz=52
EYMN  Ely               52.17 352 eP     P      15 35 59.3 -1.0
ISA   Isabella          52.17 322 ⇓P     P      15 36 00.3 -0.3
      baz=52
DUG   Dugway            52.20 330 ⇑P     P      15 36 00.9 +0.2
      baz=52,SNR=5.4
L18A  Fontenelle, Gr    52.24 333 ⇑P     P      15 36 01.1 +0.2
      baz=52
P13A  Bates Ranch, G    52.27 328 ⇑P     P      15 36 01.6 +0.4
      baz=52,SNR=13
R11A  Troy Canyon, C    52.31 326 ⇓P     P      15 36 01.8 +0.3
      baz=52,SNR=5.7
Q12A  Willow Creek R    52.40 327 ⇑P     P      15 36 02.4 +0.2
      baz=53
CWC   Cottonwood Cre    52.44 323 ⇓P     P      15 36 02.4 -0.1
      baz=53
K19A  Absolon Red Bu    52.45 335 ⇑P     P      15 36 02.4 -0.1
      baz=53,SNR=6.3
S10A  Tonopah Range,    52.58 325 ⇑P     P      15 36 03.3 -0.3
      baz=53,SNR=10.0
R10A  Warm Springs      52.67 326 ⇑P     P      15 36 04.2  0.0
      baz=53
Q11A  Duckwater         52.70 327 ⇑P     P      15 36 04.6 +0.2
      baz=53,SNR=8.7
PDAR  Pinedale Array    52.70 334  P     P      15 36 03.6 -0.8
      comp=Z,3.4nm,0.8s,mb4.4,baz=131,slow=8.5,SNR=34
PDAR                               pP    pP     15 36 12.7 -0.6
      comp=Z,2.7nm,0.8s,baz=135,slow=8.6,SNR=13
PDAR                               PcP   PcP    15 37 12.7 -1.2
      comp=Z,1.4nm,1.0s,baz=164,slow=4.7,SNR=2.1
BW06  Boulder Array     52.70 334 ⇓P     P      15 36 04.1 -0.2
      baz=53,SNR=6.2
BW06  Boulder Array     52.70 334 eP     P      15 36 03.5 -0.9
O13A  Hicks Ranch, I    52.75 329 ⇑P     P      15 36 05.3 +0.5
      baz=53
P12A  McGill            52.75 328 ⇑P     P      15 36 05.0 +0.2
      baz=53,SNR=7.3
S09A  Goldfield         52.80 325 ⇓P     P      15 36 05.2  0.0
      baz=53
K18A  Toltan Ranch,     52.81 334 ⇑P     P      15 36 05.4 +0.2
      baz=53,SNR=10
SPUT  South Promonto    52.88 331 eP     P      15 36 05.6 -0.1
N14A  Grayback Hills    52.89 330 ⇓P     P      15 36 05.4 -0.4
      baz=53,SNR=6.7
L16A  Fish Haven        52.94 332 ⇓P     P      15 36 05.6 -0.6
      baz=53,SNR=6.6
M15A  Larsen Ranch,     52.99 331 ⇓P     P      15 36 06.4 -0.1
      baz=53
R09A  Tonopah           53.07 325 ⇓P     P      15 36 07.0 -0.1
      baz=53,SNR=5.7
Q10A  Clear Creek Ra    53.10 326 ⇑P     P      15 36 07.5 +0.2
      baz=53,SNR=7.9
O12A  Currie            53.24 329 ⇓P     P      15 36 08.7 +0.3
      baz=53
AGMN  Agassiz Refuge    53.27 348 eP     P      15 36 08.1 -0.4
      comp=Z,12nm,0.6s,mb5.0
L15A  Malad City        53.38 332 ⇓P     P      15 36 09.3 -0.1
      baz=54,SNR=8.0
HVU   Hansel Valley     53.39 331 eP     P      15 36 08.6 -0.9
HVU                                pmax  pmax
      comp=Z,68nm,2.3s,mb5.2
HVU   Hansel Valley     53.39 331 eP     P      15 36 08.6 -0.9
      comp=Z,68nm,2.3s,mb5.2
N13A  Wendover, West    53.40 329 ⇑P     P      15 36 09.5 -0.1
      baz=54,SNR=5.7
M14A  Sheep Mountain    53.46 331 ⇓P     P      15 36 09.8 -0.1
      baz=54,SNR=7.4
I18A  Diamond G Ranc    53.57 335 ⇑P     P      15 36 10.4 -0.3
      baz=54,SNR=5.2
O11A  Cowboy Ranch,     53.62 328 ⇑P     P      15 36 11.1 -0.1
      baz=54,SNR=5.5
K16A  Soda Springs      53.66 333 ⇑P     P      15 36 11.0 -0.4
      baz=54,SNR=5.3
J17A  Brown Place, J    53.69 334 ⇓P     P      15 36 11.6  0.0
      baz=54,SNR=6.0
R08A  Mina              53.74 325 ⇑P     P      15 36 12.3 +0.2
      baz=54
REDW  Red Top Meadow    53.75 334 eP     P      15 36 12.2 +0.2
      comp=Z,10.0nm,0.9s,mb4.8
L14A  Malta             53.81 331 ⇓P     P      15 36 12.5  0.0
      baz=54
N12A  Clover Valley,    53.83 329 ⇑P     P      15 36 12.9 +0.3
      baz=54
ELK   Elko              53.85 329 eP     P      15 36 12.8 -0.1
ELK                                pmax  pmax
      comp=Z,13nm,1.1s
ELK   Elko              53.85 329 eP     P      15 36 12.8 -0.1
      comp=Z,14nm,1.1s,mb4.8
NVAR  Mina Array Bea    53.91 325  P     P      15 36 13.7 +0.4
      comp=Z,5.0nm,0.8s,mb4.5,baz=136,slow=7.2,SNR=25
NVAR                               pP    pP     15 36 21.8 -0.5
      comp=Z,2.7nm,0.7s,baz=135,slow=7.2,SNR=8.2
NVAR                               PcP   PcP    15 37 18.0 -0.5
      comp=Z,1.7nm,0.7s,baz=141,slow=4.4,SNR=2.9
RRI2  Red Ridge         53.94 333 eP     P      15 36 13.2 -0.3
      comp=Z,18nm,0.8s,mb5.0
K15A  Arbon             53.98 332 ⇑P     P      15 36 13.8  0.0
      baz=54
Q08A  Gabbs             53.98 325 ⇓P     P      15 36 13.6 -0.3
      baz=54,SNR=5.5
I17A  Pilgrim Ck.       54.07 334 ⇓P     P      15 36 14.7 +0.3
      baz=54
K14A  Jones Ranch, D    54.17 332 ⇓P     P      15 36 15.0 -0.1
      baz=54
O10A  Cortez Mining,    54.19 327 ⇑P     P      15 36 15.6 +0.2
      baz=54
L13A  Double Diamond    54.20 331 ⇑P     P      15 36 15.6 +0.2
      baz=54
I16A  Newdale           54.43 334 ⇑P     P      15 36 17.5 +0.5
      baz=55
O09A  Fish Creek Ran    54.48 327 ⇓P     P      15 36 17.5 +0.1
      baz=55
J15A  Blackfoot         54.48 333 ⇓P     P      15 36 17.6 +0.2
      baz=55
RLMT  Red Lodge         54.51 336 eP     P      15 36 13.9 -3.6
      comp=Z,5.4nm,0.7s,mb4.7
R06C  Coleville         54.64 324 ⇑P     P      15 36 18.7  0.0
      baz=55
K13A  Stover Farm, H    54.69 331 ⇑P     P      15 36 18.8 -0.1
      baz=55
G18A  Lazy EL Ranch,    54.78 336 ⇑P     P      15 36 19.8 +0.2
      baz=55
H16A  Russell Place,    54.99 335 ⇓P     P      15 36 21.4 +0.4
      baz=55
K12A  Draper Farm, C    55.08 330 ⇑P     P      15 36 21.8 +0.1
      baz=55
O08A  Rochester Mine    55.09 326 ⇑P     P      15 36 21.5 -0.3
      baz=55,SNR=8.6
ULM   Lac du Bonnet     55.14 349  P     P      15 36 21.2 -0.8
      comp=Z,9.6nm,0.7s,mb4.9,baz=158,slow=7.1,SNR=16
ULM                                pP    pP     15 36 29.6 -1.4
      comp=Z,14nm,0.8s,baz=159,slow=8.1,SNR=9.0
L11A  Cat Creek Ranc    55.15 330 ⇑P     P      15 36 22.6 +0.3
      baz=55
QLMT  Earthquake Lak    55.17 335 eP     P      15 36 23.2 +0.8
J13A  Cove Ranch, Pi    55.30 332 ⇓P     P      15 36 23.3  0.0
      baz=56
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F18A  Big Timber        55.33 336 ⇓P     P      15 36 23.4  0.0
      baz=56,SNR=10
WCN   Washoe City       55.33 324 ⇓P     P      15 36 23.6 -0.1
      baz=56
I14A  Mackay            55.36 332 ⇑P     P      15 36 23.9 +0.2
      baz=56,SNR=7.8
O07A  Toulon            55.41 326 ⇓P     P      15 36 23.9 -0.2
      baz=56,SNR=6.4
L10A  Juniper Basin     55.45 329 ⇓P     P      15 36 24.5  0.0
      baz=56
H15A  Lima              55.53 334 ⇓P     P      15 36 25.9 +1.0
      baz=56,SNR=13
HLID  Hailey            55.53 332 ⇓P     P      15 36 25.0  0.0
      baz=56,SNR=9.5
HLID  Hailey            55.53 332 eP     P      15 36 25.1 +0.1
J12A  Stokes Ranch,     55.63 331 ⇑P     P      15 36 25.7  0.0
      baz=56
I13A  Wildhorse Cree    55.66 332 ⇓P     P      15 36 26.3 +0.4
      baz=56,SNR=16
F17A  Fitzpatrick Pl    55.71 336 ⇑P     P      15 36 26.5 +0.3
      baz=56,SNR=5.8
K11A  Parker Ranch,     55.74 330 ⇓P     P      15 36 26.4 -0.1
      baz=56
N07B  Gerlach           55.88 326 ⇑P     P      15 36 27.2 -0.4
      baz=56
BOZ   Bozeman (W)       55.91 335 eP     P      15 36 27.5 -0.1
BOZ   Bozeman (W)       55.91 335 ⇑P     P      15 36 27.5 -0.1
      baz=56,SNR=8.2
BOZ   Bozeman (W)       55.91 335 eP     P      15 36 27.4 -0.2
O06A  Flanigan          55.95 325 ⇓P     P      15 36 27.6 -0.4
      baz=56
L09A  Wilkinson Ranc    56.04 328 ⇓P     P      15 36 28.4 -0.3
      baz=56
BEKR  Beckwourth        56.05 325 ⇓P     P      15 36 28.5 -0.3
      baz=56
MFID  Camas Ranch       56.11 330 ⇓P     P      15 36 29.3 +0.2
      baz=56,SNR=11
K10A  MacKenzie Ranc    56.16 329 ⇑P     P      15 36 29.4 -0.1
      baz=56,SNR=7.5
H13A  Challis           56.22 332 ⇑P     P      15 36 30.1 +0.2
      baz=56
E17A  Martinsdale       56.24 336 ⇓P     P      15 36 29.9 -0.1
      baz=56
N06A  Buffalo Meadow    56.34 326 ⇓P     P      15 36 30.6 -0.3
      baz=56,SNR=12
M07A  Soldier Meadow    56.41 327 ⇓P     P      15 36 30.8 -0.5
      baz=57
D18A  Linhart Farms,    56.43 337 ⇑P     P      15 36 31.7 +0.3
      baz=57
F15A  Butte             56.43 335 ⇑P     P      15 36 31.0 -0.4
      baz=57,SNR=5.9
H12A  Diamond D Ranc    56.49 332 ⇓P     P      15 36 31.7 -0.1
      baz=57,SNR=6.9
L08A  Fields            56.51 328 ⇓P     P      15 36 31.8 -0.3
      baz=57,SNR=9.9
I11A  Placerville       56.54 331 ⇓P     P      15 36 32.1  0.0
      baz=57
K09A  Rome              56.55 329 ⇑P     P      15 36 32.2 -0.1
      baz=57,SNR=32
G13A  Cobalt            56.61 333 ⇑P     P      15 36 32.7 +0.1
      baz=57,SNR=7.7
E16A  East Helena       56.63 336 ⇓P     P      15 36 32.5 -0.3
      baz=57,SNR=6.5
D17A  Six Diamond Ra    56.74 337 ⇓P     P      15 36 33.5  0.0
      baz=57
HRY   Holter Researc    56.84 336 eP     P      15 36 34.3  0.0
E15A  Deer Lodge        56.95 335 ⇑P     P      15 36 34.9 -0.1
      baz=57
K08A  Mann Creek Ran    56.97 328 ⇑P     P      15 36 35.1 -0.1
      baz=57,SNR=6.3
D16A  Dana Ranch, Ca    56.98 336 ⇑P     P      15 36 34.8 -0.4
      baz=57,SNR=5.4
J09A  Fry Pan Ranch,    57.02 329 ⇑P     P      15 36 35.5 -0.1
      baz=57
I10A  Payette           57.08 330 ⇑P     P      15 36 36.3 +0.3
      baz=57
EGMT  Eagleton          57.09 338 ⇑P     P      15 36 36.0  0.0
      baz=57
EGMT  Eagleton          57.09 338 eP     P      15 36 35.6 -0.4
H11A  Donnelly          57.15 331 ⇓P     P      15 36 35.8 -0.8
      baz=57,SNR=8.0
F13A  Darby             57.19 333 ⇑P     P      15 36 36.6 -0.2
      baz=57,SNR=6.7
E14A  Clinton           57.31 334 ⇓P     P      15 36 37.2 -0.4
      baz=58,SNR=5.2
K07A  Rock Creek Ran    57.34 328 ⇓P     P      15 36 37.7 -0.2
      baz=58
D15A  Lincoln           57.39 335 ⇓P     P      15 36 38.4 +0.3
      baz=58
J08A  Circle Bar Ran    57.40 329 ⇓P     P      15 36 38.2 -0.1
      baz=58
E13A  Victor            57.63 334 ⇓P     P      15 36 40.0 +0.1
      baz=58
C16A  Fuhringer Ranc    57.68 336 ⇑P     P      15 36 40.4 +0.2
      baz=58
MSO   Missoula          57.82 334 eP     P      15 36 41.5 +0.2
I08A  Drewsey           57.84 329 ⇓P     P      15 36 41.4  0.0
      baz=58
A18A  Metzger Ranch,    57.87 338 ⇓P     P      15 36 41.4 -0.1
      baz=58
H09A  Durkee            57.92 330 ⇓P     P      15 36 41.8 -0.2
      baz=58
C15A  Salmond Ranch,    58.01 336 ⇓P     P      15 36 42.8 +0.3
      baz=58
G10A  Bishop Farm, J    58.12 331 ⇓P     P      15 36 43.0 -0.3
      baz=58,SNR=7.8
D13A  Huson             58.25 334 ⇓P     P      15 36 43.9 -0.3
      baz=58,SNR=5.7
K05A  Summer Lake       58.26 327 ⇑P     P      15 36 44.2 -0.1
      baz=58,SNR=6.6
H08A  Prairie City      58.32 330 ⇓P     P      15 36 44.8  0.0
      baz=58
B15A  Bradely Ranch,    58.42 336 ⇑P     P      15 36 45.4  0.0
      baz=59
G09A  Cove              58.42 331 ⇓P     P      15 36 45.3 -0.2
      baz=59
I07A  Izee              58.44 329 ⇓P     P      15 36 45.7 +0.1
      baz=59
E11A  Bogner Ranch,     58.47 333 ⇓P     P      15 36 45.2 -0.6
      baz=59,SNR=8.8
F10A  Beach Ranch, E    58.67 332 ⇑P     P      15 36 47.0 -0.1
      baz=59,SNR=8.1
I06A  Prineville        58.72 328 ⇑P     P      15 36 47.7 +0.2
      baz=59,SNR=5.5
C13A  Hot Springs       58.76 335 ⇑P     P      15 36 48.2 +0.5
      baz=59
E10A  Myers Farm, Un    58.99 332 ⇑P     P      15 36 49.0 -0.4
      baz=59,SNR=5.9
G08A  Pilot Rock        59.01 330 ⇓P     P      15 36 49.2 -0.3
      baz=59,SNR=9.3
A15A  Johnson Ranch,    59.02 337 ⇑P     P      15 36 49.9 +0.4
      baz=59
F08A  Pendleton         59.28 331 ⇑P     P      15 36 51.9 +0.4
      baz=60
A14A  Double T Ranch    59.29 336 ⇓P     P      15 36 51.4  0.0
      baz=60
H06A  Lindquist Farm    59.32 329 ⇑P     P      15 36 51.8 +0.1
      baz=60
E09A  Wood Farm, Sta    59.50 332 ⇑P     P      15 36 52.7 -0.1
      baz=60
WALA  Waterton Lakes    59.56 336 eP     P      15 36 53.5 +0.3
      comp=Z,0.4nm,0.9s,mb3.5
SCHQ  Schefferville     59.64  10  P     P      15 36 52.4 -1.3
      comp=Z,2.9nm,0.9s,mb4.3,baz=185,slow=3.6,SNR=4.4
SCHQ                               pP    pP     15 37 00.8 -1.9
      comp=Z,5.5nm,0.8s,baz=143,slow=6.1,SNR=6.6
SCHQ  Schefferville     59.64  10  P     P      15 36 52.4 -1.3
SCHQ                               pP    pP     15 37 00.8 -1.9
D09A  Jones Farm, Ri    59.97 332 ⇑P     P      15 36 56.4 +0.2
      baz=60
D08A  Wollman Farm,     60.26 332 ⇑P     P      15 36 58.2 +0.1
      baz=60
F06A  Goldendale        60.26 329 ⇓P     P      15 36 58.0 -0.1
      baz=60
E07A  Sunnyside         60.35 331 ⇑P     P      15 36 58.8 +0.1
      baz=60
A11A  Hall Mountain,    60.50 334 ⇑P     P      15 36 59.9 +0.2
      baz=61,SNR=6.3
FFC   Flin Flon         60.63 347 i P    P      15 37 00.3 -0.2
C08A  Higginbotham F    60.84 332 ⇑P     P      15 37 02.3 +0.2
      baz=61
A09A  Danville          61.49 333 ⇑P     P      15 37 06.5  0.0
      baz=62
A08A  Turner Farm, O    61.79 333 ⇓P     P      15 37 08.6 +0.1
      baz=62
B07A  Winthrop          61.83 332 ⇓P     P      15 37 08.8 +0.1
      baz=62
C05A  Tolt Reservoir    62.04 331 ⇑P     P      15 37 10.4 +0.2
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	baz=62						
FCC	**Fort Churchill**	63.07	353	*e*P	P	15 37 16.2	-0.6
FCC	**Fort Churchill**	63.07	353	*e*P	P	15 37 16.2	-0.7
YKA	**Yellowknife Ar**	70.62	344	P	P	15 38 03.4	-1.4
YKA				*PP	pP	15 38 11.9	-2.1
YKA	**Yellowknife Ar**	70.62	344	P	P	15 38 03.4	-1.4
	comp=Z,2.0nm,0.8s,mb4.1,baz=138,slow=5.7,SNR=36						
YKA				pP	pP	15 38 11.9	-2.1
	comp=Z,2.0nm,0.7s,baz=142,slow=6.0,SNR=13						
YKA	**Yellowknife Ar**	70.62	344	P	P	15 38 03.4	-1.4
YKA				pP	pP	15 38 11.9	-2.1
DBIC	**Dimbokro**	77.38	82	P	P	15 38 45.3	-0.1
DBIC				*PP	pP	15 38 54.3	-0.4
DBIC	**Dimbokro**	77.38	82	P	P	15 38 45.3	-0.1
	comp=Z,3.6nm,0.9s,mb4.3,baz=251,slow=9.2,SNR=4.1						
DBIC				pP	pP	15 38 54.3	-0.4
	comp=Z,3.2nm,0.8s,baz=224,slow=7.5,SNR=3.8						
EVO	**Evora**	79.63	50	*e*P	P	15 39 03.9	+6.6
	comp=Z,13nm,1.1s,mb4.5						
VNA3	**Neumayer Olymp**	80.75	162	*e*P	P	15 39 01.5	-1.2
EGAK	**Eagle**	80.86	338	*e*P	P	15 39 01.3	-2.0
	comp=Z,23nm,0.4s,mb5.5						
VNA1	**Neumayer--Stat**	81.04	161	*e*P	P	15 39 03.6	-0.7
VNA2	**Neumayer--Watz**	81.39	161	*e*P	P	15 39 04.5	-1.6
ESDC	**Sonseca Array**	82.95	49	P	P	15 39 16.1	+1.2
	comp=Z,2.1nm,0.7s,mb4.3,baz=273,slow=4.7,SNR=8.0						
ESDC				pP	pP	15 39 24.6	+0.3
	comp=Z,6.1nm,0.9s,baz=276,slow=4.6,SNR=5.4						
TORD	**Torodi Ar. Bea**	84.40	76	P	P	15 39 22.3	-0.6
	comp=Z,2.1nm,1.0s,mb4.2,baz=284,slow=4.4,SNR=7.1						
TORD				LR	LR	16 15 19.4	
	comp=Z,86nm,21.7s,MS4.1,baz=165,slow=34						
TORD	**Torodi Ar. Bea**	84.40	76	P	P	15 39 22.3	-0.6
TORD				LR	LR	16 15 19.4	
CHUM	**Lake Minchumin**	84.92	335	*e*P	P	15 39 22.3	-2.1
	comp=Z,9.2nm,0.9s,mb4.9						
SJPF	**Ste Jean**	85.57	46	*e*P	P	15 39 37.3	+9.1
SJPF	**Ste Jean**	85.57	46	*e*P	P	15 39 37.3	+9.1
ETSF	**Etsaut**	86.02	47	*e*P	P	15 39 38.3	+7.9
ETSF	**Etsaut**	86.02	47	*e*P	P	15 39 38.3	+7.9
GRR	**Gorron**	86.68	41	*e*P	P	15 39 41.9	+8.4
GRR	**Gorron**	86.68	41	*e*P	P	15 39 41.9	+8.4
MFF	**Saint Martin d**	86.88	43	*e*P	P	15 39 43.2	+8.7
MFF	**Saint Martin d**	86.88	43	*e*P	P	15 39 43.2	+8.7
FLN	**La Foliniere**	86.98	41	*e*P	P	15 39 43.6	+8.6
	comp=Z,31nm,0.9s,mb5.2						
FLN	**La Foliniere**	86.98	41	*e*P	P	15 39 43.6	+8.6
FLN				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
FLN	**La Foliniere**	86.98	41	*e*P	P	15 39 43.6	+8.6
	comp=Z,16nm,0.9s,mb5.2						
LDF	**La Druitiere**	87.19	41	*e*P	P	15 39 44.6	+8.6
	comp=Z,57nm,1.3s,mb5.4						
LDF	**La Druitiere**	87.19	41	*e*P	P	15 39 44.6	+8.6
LDF				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.3						
LDF	**La Druitiere**	87.19	41	*e*P	P	15 39 44.6	+8.6
	comp=Z,29nm,1.3s,mb5.3						
LFF	**La Frestale**	87.25	45	*e*P	P	15 39 44.7	+8.4
LFF	**La Frestale**	87.25	45	*e*P	P	15 39 44.7	+8.4
RJF	**Les Rejaudoux**	87.84	45	*e*P	P	15 39 46.4	+7.2
RJF	**Les Rejaudoux**	87.84	45	*e*P	P	15 39 46.4	+7.2
MTLF	**Montolieu**	88.10	47	*e*P	P	15 39 47.6	+7.2
MTLF	**Montolieu**	88.10	47	*e*P	P	15 39 47.6	+7.2
AVF	**Avril sur Loir**	89.29	43	*e*P	P	15 39 53.8	+7.8
AVF	**Avril sur Loir**	89.29	43	*e*P	P	15 39 53.8	+7.8
VIVF	**Saint-Julien-l**	90.01	45	*e*P	P	15 39 57.2	+7.8
	comp=Z,14nm,1.0s,mb4.9						
VIVF	**Saint-Julien-l**	90.01	45	*e*P	P	15 39 57.2	+7.8
VIVF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
VIVF	**Saint-Julien-l**	90.01	45	*e*P	P	15 39 57.2	+7.8
	comp=Z,6.8nm,1.0s,mb4.9						
ORIF	**Oris-en-Rattie**	90.88	45	*e*P	P	15 40 01.6	+8.2
	comp=Z,12nm,0.9s,mb4.9						
ORIF	**Oris-en-Rattie**	90.88	45	*e*P	P	15 40 01.6	+8.2
ORIF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.9						
ORIF	**Oris-en-Rattie**	90.88	45	*e*P	P	15 40 01.6	+8.2
	comp=Z,5.8nm,0.9s,mb4.9						
CABF	**La Chapelle**	91.14	44	*e*P	P	15 40 02.3	+7.7
CABF	**La Chapelle**	91.14	44	*e*P	P	15 40 02.3	+7.7
MBDF	**Montbardon**	91.49	45	*e*P	P	15 40 04.1	+7.8
	comp=Z,18nm,1.2s,mb5.0						
MBDF	**Montbardon**	91.49	45	*e*P	P	15 40 04.1	+7.8
MBDF				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb5.0						
MBDF	**Montbardon**	91.49	45	*e*P	P	15 40 04.1	+7.8
	comp=Z,9.2nm,1.2s,mb5.0						
TSUM	**Tsumeb**	97.51	110	LR	LR	16 21 37.4	
	comp=Z,136nm,19.4s,MS4.5,baz=325,slow=34						
AKTK	**Aktyubinsk**	122.43	29	PKP	PKPdf	15 45 43.9	-1.1
AKTO	**Aktyubinsk**	122.43	29	PKIKP	PKPdf	15 45 43.9	-1.1
AKTO	**Aktyubinsk**	122.43	29	PKP	PKPdf	15 45 43.9	-1.1
	comp=Z,0.7nm,0.4s,baz=349,slow=5.9,SNR=4.3						
BVAR	**Borovoye Array**	125.73	20	PKIKP	PKPdf	15 45 50.5	-0.7
BVAR						15 45 59.7	
BVAR	**Borovoye Array**	125.73	20	PKP	PKPdf	15 45 50.5	-0.8
	comp=Z,1.9nm,0.8s,baz=259,slow=1.5,SNR=10						
BVAR				pPKP	pPKPdf	15 45 59.7	-1.2
	comp=Z,1.9nm,0.8s,baz=270,slow=0.3,SNR=7.6						
STKA	**Stephens Creek**	125.75	226	PKP	PKPdf	15 45 49.9	-2.0
	comp=Z,4.2nm,0.8s,baz=26,slow=1.6,SNR=6.9						
STKA	**Stephens Creek**	125.75	226	PKP	PKPdf	15 45 49.9	-2.0
ZALV	**Zalesovo Beam**	128.73	10	PKIKP	PKPdf	15 45 55.6	-1.3
ZALV						15 46 04.3	
ZALV	**Zalesovo Beam**	128.73	10	PKP	PKPdf	15 45 55.6	-1.3
	comp=Z,4.7nm,0.8s,baz=294,slow=1.5,SNR=16						
ZALV				pPKP	pPKPdf	15 46 04.3	-2.3
	comp=Z,3.4nm,0.9s,baz=318,slow=2.0,SNR=5.8						
KURK	**Kurchatov**	130.32	16	PKIKP	PKPdf	15 45 59.2	-0.9
KURK						15 46 08.6	
KURK	**Kurchatov**	130.32	16	PKP	PKPdf	15 45 59.2	-0.9
	comp=Z,5.7nm,0.9s,baz=328,slow=2.5,SNR=15						
KURK				pPKP	pPKPdf	15 46 08.6	-1.2
	comp=Z,4.9nm,0.9s,baz=322,slow=2.2,SNR=9.6						
KURK	**Kurchatov**	130.32	16	PKP	PKPdf	15 45 59.2	-0.9
KURK				pPKP	pPKPdf	15 46 08.6	-1.2
CN2	**Changchun**	133.44	333	*e*PKP	PKPdf	15 46 05.0	-1.2
MKAR	**Makanchi Array**	134.90	16	PKIKP	PKPdf	15 46 07.3	-1.5
MKAR						15 46 16.2	
MKAR	**Makanchi Array**	134.90	16	PKP	PKPdf	15 46 07.3	-1.5
	comp=Z,1.0nm,0.7s,baz=306,slow=1.6,SNR=8.4						
MKAR				pPKP	pPKPdf	15 46 16.2	-2.3
	comp=Z,1.2nm,0.8s,baz=352,slow=2.7,SNR=6.6						
MKAR	**Makanchi Array**	134.90	16	PKP	PKPdf	15 46 07.3	-1.5
MKAR				pPKP	pPKPdf	15 46 16.2	-2.3
SONM	**Songino Array**	135.51	352	PKIKP	PKPdf	15 46 08.9	-1.0
SONM						15 46 17.8	
SONM	**Songino Array**	135.51	352	PKP	PKPdf	15 46 08.9	-1.0
	comp=Z,1.8nm,0.9s,baz=358,slow=1.7,SNR=9.6						
SONM				pPKP	pPKPdf	15 46 17.8	-1.9
	comp=Z,1.2nm,0.8s,baz=18,slow=1.2,SNR=5.7						
AAK	**Ala-Archa**	135.83	25	⇑*i*PKIKP	PKPdf	15 46 10.2	-0.5
AAK				pmax	pmax		
	comp=Z,3.0nm,1.7s						
ASAR	**Alice Springs**	135.92	230	PKIKP		15 46 04.2	
ASAR						15 46 09.4	
ASAR	**Alice Springs**	135.92	230	PKhKP		15 46 04.2	
	comp=Z,1.3nm,0.7s,baz=115,slow=3.7,SNR=11						
ASAR				PKP	PKPdf	15 46 09.3	-2.1
	comp=Z,4.0nm,0.9s,baz=116,slow=2.0,SNR=23						
UCH	**Uchtor**	136.17	26	*e*PKPdf	PKPdf	15 46 11.3	-0.1
KSRS	**Korea Array**	136.85	325	PKP	PKPdf	15 46 11.6	-1.2
	comp=Z,2.9nm,0.9s,baz=3.8,slow=2.1,SNR=6.1						
WRA	**Warramunga Arr**	137.51	235	PKIKP	PKPdf	15 46 12.3	-2.2
WRA	**Warramunga Arr**	137.51	235	PKP	PKPdf	15 46 12.3	-2.2
	comp=Z,6.1nm,0.8s,baz=118,slow=1.6,SNR=24						
WMQ	**Urumqi**	138.98	12	*e*PKP	PKPdf	15 46 15.0	-1.5
KSH	**Kashi**	139.01	27	*e*PKP	PKPdf	15 46 17.4	+0.7
KSH				*e*sPKP		15 46 31.1	
KSH				*e*PKS		15 49 52.1	
KSH				*e*SKS	SKSdf	15 53 24.2	-1.2
KSH				AMB	AMB		
	comp=Z,920nm,5.9s						
KSH				LR	LR		
	comp=N,120nm,4.6s						
KSH				LR	LR		
	comp=E,90nm,3.6s						
KSH				LR	LR		
	comp=Z,120nm,4.6s						
HHC	**Hu-ho-hao-te**	141.16	344	*e*PKP	PKPdf	15 46 19.3	-1.2
HHC				PP	PP	15 49 23.7	+2.6
HHC				PKS		15 49 53.7	
HHC				SKS	SKSdf	15 53 27.5	-1.3
HHC				SKKS	SKKSac	15 56 13.4	-0.4
HHC				SS	SS	16 07 49.5	+2.5
HHC				AMB	AMB		
	comp=Z,200nm,5.6s						
HHC				LR	LR		
	comp=N,430nm,14.9s						
HHC				LR	LR		
	comp=E,730nm,16.8s						
HHC				LR	LR		
	comp=Z,390nm,14.5s						
GTA	**Gaotai**	144.45	358	PKP	PKPdf	15 46 23.4	-3.0
GTA				pPKP	pPKPdf	15 46 33.8	-2.3
GTA				sPKP		15 46 37.8	
GTA				PP	PP	15 49 48.1	+7.3
GTA				PKS		15 49 57.6	
GTA				SKS	SKSdf	15 53 26.8	-7.2
GTA				SKKS	SKKSac	15 56 31.1	-1.6
GTA				SS	SS	16 08 31.7	+7.1
GTA				AMB	AMB		
	comp=Z,180nm,7.4s						
GTA				LR	LR		
	comp=N,170nm,8.9s						
GTA				LR	LR		
	comp=E,130nm,8.6s						
GTA				LR	LR		
	comp=Z,200nm,8.0s						
FITZ	**Fitzroy Crossi**	145.42	230	*e*PKPbc	PKPbc	15 46 26.9	-1.7
NJ2	**Nanjing**	145.86	328	*e*PKPbc	PKPbc	15 46 25.4	-4.2
LZH	**Lanzhou**	147.40	352	*e*PKPbc	PKPbc	15 46 33.0	-0.9
LZH				pPKP	pPKPdf	15 46 42.0	+0.8
LZH				sPKP		15 46 45.6	
MBWA	**Marble Bar**	147.56	219	*e*PKPbc	PKPbc	15 46 32.3	-2.5
XAN	**Xi’an**	148.26	343	PKPbc	PKPbc	15 46 33.9	-2.5
XAN				pPKP	pPKPdf	15 46 43.4	+0.7
XAN				sPKP		15 46 48.2	
CD2	**Chengdu**	152.48	350	PKPbc	PKPdf	15 46 37.8	-1.9
CD2				pPKP	pPKPdf	15 46 48.4	-1.0
CD2				sPKP		15 46 52.0	
CD2				PKPab	PKPab	15 46 57.0	+0.3
CD2				PKS		15 50 10.7	
CD2				PP	PP	15 50 30.7	+3.1
CD2				SKS	SKSdf	15 53 39.7	-5.5
CD2				SS	SS	16 09 54.6	-0.3
CD2				AMB	AMB		
	comp=Z,360nm,7.7s						
CD2				LR	LR		
	comp=N,680nm,14.2s						
CD2				LR	LR		
	comp=Z,720nm,8.3s						
LSA	**Lhasa**	153.29	14	*e*PKIKP	PKPdf	15 46 35.7	-5.2
LSA	**Lhasa**	153.29	14	*e*PKPdf	PKPdf	15 46 35.7	-5.2
GYA	**Guiyang**	156.02	341	*e*PKP	PKPdf	15 46 41.9	-2.9
GYA				pPKP	pPKPdf	15 46 52.8	-1.7
GYA				sPKP		15 46 58.6	
GYA				PKPab	PKPab	15 47 12.2	+0.3
GYA				PKS		15 50 15.4	
GYA				PP	PP	15 50 50.6	+2.8
GYA				SKS	SKSdf	15 53 43.7	-5.7
GYA				SKKS	SKKSac	15 57 33.9	-3.0
GYA				SS	SS	16 10 32.4	-1.4
GYA				AMB	AMB		
	comp=Z,90nm,6.0s						
GYA				LR	LR		
	comp=N,120nm,20.0s,MS4.9						
GYA				LR	LR		
	comp=E,130nm,20.9s,MS4.9						
GYA				LR	LR		
	comp=Z,110nm,21.5s,MS4.7						
KMI	**Kunming**	158.30	349	PKP	PKPdf	15 46 46.5	-1.2
CMAR	**Chiang Mai Arr**	165.35	358	PKIKP	PKPdf	15 46 53.5	-1.6
CMAR						15 47 02.7	
CMAR	**Chiang Mai Arr**	165.35	358	PKP	PKPdf	15 46 53.5	-1.6
	comp=Z,1.8nm,0.9s,baz=312,slow=1.9,SNR=13						
CMAR				pPKP	pPKPdf	15 47 02.6	-2.2
	comp=Z,1.1nm,0.9s,baz=295,slow=1.5,SNR=2.6						
CMAR				PKPab	PKPab	15 47 50.5	-2.0
	comp=Z,0.4nm,0.7s,baz=331,slow=3.7,SNR=5.1						
CMAR				pPKPab	pPKPab	15 47 59.4	-2.6
	comp=Z,1.1nm,0.9s,baz=354,slow=4.5,SNR=3.5						

FUNV 08 15:31:54.6, 10°.01N×73°.30W, h2^{km}, MW3.5, 1C, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VIRV	**Villa del Rosa**	1.01	61	⇑*e*P	Pg	15 32 13.9	-0.1
VIRV				*e*S	Sg	15 32 27.5	+0.5
VIGV	**El Vigia**	2.24	121	*e*P	Pn	15 32 32.2	-0.6
VIGV				*e*S	Sn	15 32 59.1	-1.8
CAPV	**Capacho**	2.34	155	*e*P	Pn	15 32 33.0	-1.2
CAPV				*e*S	Sn	15 33 03.3	-0.3
QARV	**Quebrada Arrib**	2.74	86	*e*P	Pn	15 32 38.9	-0.8
QARV				*e*S	Sn	15 33 11.6	-1.9
DABV	**Dabajuro**	2.77	71	*e*P	Pn	15 32 39.0	-1.1
SOCV	**Socops**	2.96	125	*e*P	Pn	15 32 41.8	-0.9
CURV	**Curarigua**	3.29	90	*e*P	Pn	15 32 46.7	-0.5
CURV				*e*S	Sn	15 33 25.0	-2.0
SIQV	**Siquisique**	3.49	79	*e*P	Pn	15 32 49.2	-0.9
SANV	**Sanarito**	3.75	97	*e*P	Pn	15 32 52.7	-0.8
SANV				*e*S	Sn	15 33 35.2	-3.1
MONV	**Montecano**	3.80	59	*e*P	Pn	15 32 52.5	-1.7
TEPV	**Terepaima**	4.05	90	*e*P	Pn	15 32 56.7	-0.9
TEPV				*e*S	Sn	15 33 42.4	-3.4
BAUV	**El Baul**	5.29	101	*e*P	Pn	15 33 13.0	-1.8
BAUV				*e*S	Sn	15 34 10.8	-5.7
TURV	**Turiamo**	5.39	85	*e*P	Pn	15 33 14.2	-2.0

MOS 08 15:38:51.0±2.0, 44°.23N×42°.16E, h27^{km}, mb3.9/1, 5C-3D, Error ellipse: s-maj=24.5km s-min=9.7km az=129.7, Western Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KIV	**Kislovodsk**	0.47	125	*ce*PG	Pb	15 38 57.6	-3.1
KIV				pmax	pmax		
	comp=Z,46nm,0.8s						
SHAR	**Shatzhatmas**	0.61	143	⇓*i*PG	Pb	15 39 01.2	-1.8
SHAR				*e*S	Sb	15 39 10.0	-1.2
DOMR	**Dombai**	1.01	203	⇓*e*PG	Pn	15 39 09.9	+0.5
DOMR				*i* S	Sn	15 39 25.2	+2.5
LSNR	**Lesken**	1.53	128	⇑*i*PG	Pn	15 39 17.5	+1.0
LSNR				*i* S	Sn	15 39 38.0	+2.5
PRTR	**Priterechnaya**	1.60	106	⇓*i*PG	Pn	15 39 18.2	+0.7
PRTR				*i* S	Sn	15 39 40.1	+2.8
DIGR	**Digorskoe uzhe**	1.68	142	⇑*i*PN	Pn	15 39 19.9	+1.3
KMSR	**Komsomolskaya**	1.76	118	*e*PN	Pn	15 39 21.6	+1.9
ARNR	**Ardon**	1.85	123	*e*PN	Pn	15 39 22.3	+1.4
TRKR	**Terskaya**	1.92	104	*e*PN	Pn	15 39 23.2	+1.3
ZEI	**Tsey**	1.93	138	⇑*i*PN	Pn	15 39 23.2	+1.2
LACR	**Lac**	2.09	131	⇑*i*PN	Pn	15 39 25.7	+1.5

*IDC **08** 15:38:51.9±1.3, 7°.00N×125°.14E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.5/20, mbtmp3.6/4, Error ellipse: s-maj=23.3km s-min=9.4km az=163.0*

*MAN **08** 15:38:52, 7°.14N×125°.30E, h22^{km}, mb4.7, ML3.6, MS3.5*

*ISCJB **08** 15:38:53.3±0.5, 7°.12N±0°.05×125°.30E±0°.04, h26^{km}±4^{km}, mb3.7/6, Error ellipse: s-maj=9.2km s-min=5.8km az=17.8*

*NEIC **08** 15:38:53.4±0.9, 7°.04N×125°.25E, h10^{km}, mb3.7/1, Error ellipse: s-maj=16.2km s-min=13.5km az=167.0*

ISC 08 15:38:53.5±0.7, 7°.16N±0°.05×125°.31E±0°.04, h17^{km}±5^{km}, n13, σ0^{s}.88/18, mb3.7/6, 2C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DMPH	**Davao City--Mi**	0.21	112	⇓*i*P	Pg	15 38 58.0	-0.5
DMPH				*i* S	Sg	15 39 06.9	+5.0
KCP	**Kidapawan**	0.27	235	⇑*i*P	Pg	15 38 59.4	-0.1
KCP				*i* S	Sg	15 39 04.6	+1.2
DAV	**Davao City (W)**	0.28	109	Pg	Pg	15 38 59.9	+0.2
	1µm,0.3s,baz=259,slow=3.2,SNR=69						
DAV				Lg		15 39 06.8	
	1µm,0.3s,baz=287,slow=19,SNR=65						
BUKP	**Musuan**	0.75	341	*e*P	Pb	15 39 07.1	-1.2
BUKP				*e*S	Sb	15 39 19.2	+1.0
MATI	**Mati**	0.96	103	*e*P	Pb	15 39 11.4	-0.4
MATI				*e*S	Sb	15 39 24.0	-0.3
CTBH	**Cotabato--PC H**	1.06	273	⇑*e*P	Pb	15 39 11.0	-2.4
CTBH				*i* S	Sb	15 39 25.8	-1.2
PAGZ	**Pagadian**	2.03	290	*e*P	Pn	15 39 27.7	+0.7
WRAB	**Tennant Creek**	28.36	162	P	P	15 44 46.8	-0.1
	1.1nm,0.8s,mb3.5						
WRA	**Warramunga Arr**	28.36	162	P	P	15 44 47.2	+0.2
	0.4nm,0.7s,mb3.2,baz=331,slow=11,SNR=3.2						
ASAR	**Alice Springs**	31.77	165	P	P	15 45 17.2	+0.1
	0.3nm,0.5s,mb3.4,baz=344,slow=6.9,SNR=19						
RAMN	**Ramite**	41.67	303	*e*P	P	15 46 41.8	+0.3
	25nm,1.0s,mb4.8						
STKA	**Stephens Creek**	41.82	159	P	P	15 46 42.9	+0.4
	3.1nm,1.1s,mb3.9,baz=347,slow=13,SNR=2.5						
MKAR	**Makanchi Array**	53.95	325	P	P	15 48 17.9	+1.5
	0.4nm,0.9s,mb3.4,baz=116,slow=6.7,SNR=3.3						

*ISCJB **08** 15:39:43.8±1.2, 37°.3S±0°.2×94°.2W±0°.2, h10^{km}, mb4.2/6, MS4.0/2, Error ellipse: s-maj=36.1km s-min=24.7km az=160.0*

*NEIC **08** 15:39:45.1±0.8, 37°.35S×94°.29W, h10^{km}, mb4.4/3, Error ellipse: s-maj=27.6km s-min=18.4km az=144.0*

*IDC **08** 15:39:45.9±2.2, 37°.20S×95°.68W, h0^{km}, mb4.0/3, mb1 4.5/3, mb1mx4.1/13, mbtmp4.0/3, MS3.9/3, Ms1 3.9/3, ms1mx3.4/23, Error ellipse: s-maj=115.8km s-min=45.3km az=104.0*

ISC 08 15:39:45.2±1.2, 37°.4S±0°.2×94°.3W±0°.2, h10^{km}, n13, σ1^{s}.11/6, mb4.2/6, MS4.0/2, West Chile Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLCA	**Paso Flores**	18.73	108	LR	LR	15 50 12.6	
	comp=Z,152nm,18.3s,baz=101,slow=32						
LCO	**Las Campanas**	21.39	74	P	P	15 44 33.8	+0.7
	2.7nm,0.3s,mb4.0						
LVC	**Limon Verde**	26.34	63	LR	LR	15 53 03.5	
	comp=Z,986nm,21.7s,MS4.3,baz=116,slow=29						
NNA	**Nana**	29.73	36	P	P	15 45 50.1	-1.6
	2.3nm,0.4s,mb4.3						
PCRV	**Puerto La Cruz**	54.87	37	LR	LR	16 10 39.8	
	comp=Z,77nm,19.2s,MS3.8,baz=255,slow=34						
TXAR	**Lajitas Array**	66.93	351	P	P	15 50 38.2	+0.5
	1.1nm,0.9s,mb3.9,baz=165,slow=10,SNR=10.0						
NVAR	**Mina Array Bea**	78.61	341	P	P	15 51 47.1	+0.3
	1.6nm,0.8s,mb4.0,baz=173,slow=7.0,SNR=8.1						
PDAR	**Pinedale Array**	80.96	349	P	P	15 51 59.9	+0.4
	1.3nm,0.8s,mb3.9,baz=161,slow=5.7,SNR=11						
STKA	**Stephens Creek**	93.58	225	P	P	15 53 01.3	-0.5
	7.5nm,1.9s,mb4.8						
CMAR	**Chiang Mai Arr**	157.87	215	PKPab	PKPab	16 00 15.2	-0.1
	0.5nm,0.8s,baz=177,slow=3.1,SNR=4.1						
SONM	**Songino Array**	161.58	311	PKPab	PKPab	16 00 28.3	-2.5
	0.4nm,0.9s,baz=90,slow=4.3,SNR=3.6						
ZALV	**Zalesovo Beam**	163.41	2	PKPab	PKPab	16 00 40.0	+1.6
	0.3nm,0.5s,baz=1.9,slow=4.3,SNR=2.5						
KURK	**Kurchatov**	165.73	19	PKPab	PKPab	16 00 51.5	+2.7
	0.4nm,0.8s,baz=338,slow=5.4,SNR=3.7						

*ISCJB **08** 15:47:22.9±1.3, 46°.7N±0°.1×153°.2E±0°.2, h43^{km}±12^{km}, mb3.9/12, Error ellipse: s-maj=24.8km s-min=9.0km az=138.2*

*NEIC **08** 15:47:24.0±0.6, 46°.66N×153°.15E, h35^{km}, mb4.2/3, Error ellipse: s-maj=17.9km s-min=9.4km az=140.0*

*MOS **08** 15:47:23.4±0.8, 46°.72N×153°.09E, h47^{km}, mb4.2/10, Error ellipse: s-maj=18.6km s-min=10.4km az=55.6*

*IDC **08** 15:47:24.8±3.1, 46°.64N×153°.23E, h45^{km}±27^{km}, mb3.5/10, mb1 3.6/12, mb1mx3.5/26, mbtmp3.5/12, ML3.4/2, Error ellipse: s-maj=29.7km s-min=19.2km az=142.0*

ISC 08 15:47:25.2±1.2, 46°.7N±0°.1×153°.2E±0°.2, h47^{km}±10^{km}, n34, σ0^{s}.68/35, mb3.9/12, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril’s**	4.46	25	*e*PN	Pn	15 48 30.7	+0.4
SKR				*e*		15 49 18.9	
YUK	**Yuzh-Kuril’sk**	5.79	246	*e*PN	Pn	15 48 48.8	+0.3
YUK				*e*S	Sn	15 49 58.4	+4.8
YUK				pmax	pmax		
	comp=Z,160nm,0.4s						
YUK				smax			
	comp=N,210nm,0.5s						
YUK				smax			
	comp=E,100nm,0.5s						
PETK	**Petropavlovsk-**	7.08	23	P	Pn	15 49 05.2	-0.9
	comp=E,0.2nm,0.3s,baz=187,slow=10,SNR=4.5						
ASAJ	**Asahikawa**	7.87	255	PN	Pn	15 49 18.0	+0.9
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	7.87	255	P	Pn	15 49 18.0	+0.9
	comp=Z,1.0nm,0.3s,baz=77,slow=17,SNR=9.9						
ERM	**Erimo**	8.55	241	*e*PN	Pn	15 49 25.9	-0.5
MAJO	**Matsushiro**	15.07	233	*e*P	Pn	15 50 54.4	-0.5
MAJO				pmax	pmax		
	comp=Z,20nm,1.3s						
MAJO	**Matsushiro**	15.07	233	*e*Pn	Pn	15 50 54.4	-0.5
	comp=Z,20nm,1.3s						
KSRS	**Korea Array**	20.82	253	*e*P	P	15 52 03.3	+0.7
KSRS	**Korea Array**	20.82	253	P	P	15 52 02.4	-0.2
	comp=Z,1.5nm,0.8s,baz=56,slow=10,SNR=5.4						
COLA	**College**	36.17	38	*e*P	P	15 54 22.4	-0.3
COLA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
COLA	**College**	36.17	38	*e*P	P	15 54 22.4	-0.3
	comp=Z,1.7nm,0.5s,mb4.2						
MKAR	**Makanchi Array**	47.02	297	P	P	15 55 51.6	0.0
MKAR						15 57 23.5	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	**Makanchi Array**	47.02	297	P	P	15 55 51.6	0.0
	comp=Z,1.4nm,0.9s,mb3.9,baz=66,slow=7.1,SNR=8.6						
MKAR				PcP	PcP	15 57 23.5	+0.4
	comp=Z,0.3nm,0.8s,baz=76,slow=6.1,SNR=2.3						
KURK	**Kurchatov**	47.45	304	P	P	15 55 54.8	-0.1
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
KURK	**Kurchatov**	47.45	304	P	P	15 55 54.8	-0.1
	comp=Z,1.5nm,0.7s,mb4.0,baz=69,slow=8.5,SNR=9.7						
BVAR	**Borovoye Array**	50.95	309	P	P	15 56 21.3	-0.3
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BVAR	**Borovoye Array**	50.95	309	P	P	15 56 21.3	-0.2
	comp=Z,0.5nm,0.3s,mb3.9,baz=54,slow=8.2,SNR=8.4						
YKA	**Yellowknife Ar**	50.96	37	P	P	15 56 21.6	+0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=294,slow=7.2,SNR=3.4						
YKA	**Yellowknife Ar**	50.96	37	P	P	15 56 21.6	+0.1
CMAR	**Chiang Mai Arr**	52.40	256	P	P	15 56 33.7	+0.9
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	**Chiang Mai Arr**	52.40	256	P	P	15 56 33.7	+0.9
	comp=Z,0.6nm,0.7s,mb3.6,baz=32,slow=7.2,SNR=6.5						
AAK	**Ala-Archa**	53.91	296	P	P	15 56 42.4	-1.3
AAK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
AAK	**Ala-Archa**	53.91	296	P	P	15 56 42.4	-1.3
	comp=Z,1.2nm,0.8s,mb3.9						
NB2	**NORSAR Subarra**	68.32	341	P	P	15 58 21.3	+0.3
	comp=Z,0.7nm,0.5s,mb4.0,baz=28,slow=6.5						
NOA	**NORSAR Array B**	68.32	341	P	P	15 58 21.4	+0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	**NORSAR Array B**	68.32	341	P	P	15 58 21.4	+0.4
	comp=Z,0.7nm,0.5s,mb4.0,baz=27,slow=6.4,SNR=5.3						
AKASG	**Malin Array Be**	71.64	326	P	P	15 58 41.5	0.0
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	**Malin Array Be**	71.64	326	P	P	15 58 41.5	0.0
	comp=Z,1.6nm,0.4s,mb4.3,baz=33,slow=6.2,SNR=10						
AKASG	**Malin Array Be**	71.64	326	P	P	15 58 41.5	0.0
ASAR	**Alice Springs**	72.14	199	P	P	15 58 43.6	-1.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	**Alice Springs**	72.14	199	P	P	15 58 43.5	-1.1
	comp=Z,0.6nm,1.0s,mb3.5,baz=14,slow=5.1,SNR=3.9						
TXAR	**Lajitas Array**	77.49	61	P	P	15 59 15.8	0.0
	comp=Z,0.1nm,0.4s,mb3.1,baz=286,slow=7.4,SNR=3.2						
JCT	**Junction City**	78.93	57	*e*P	P	15 59 25.3	+1.5
	comp=Z,18nm,0.6s,mb5.2						

*IDC **08** 15:49:05.0±0.8, 27°.85N×53°.64E, h0^{km}, mb4.0/15, mb1 4.1/15, mb1mx3.9/26, mbtmp4.0/15, Error ellipse: s-maj=21.0km s-min=19.0km az=124.0*

*THR **08** 15:49:07.5±0.3, 27°.87N×53°.69E, h18^{km}±3^{km}, ML3.8*

*CSEM **08** 15:49:08.2±0.2, 27°.88N×53°.73E, h15^{km}, mb4.1/12, Ms4.3, Error ellipse: s-maj=6.4km s-min=5.6km az=64.0*

MOS ***08*** *15:49:08.7±1.6, 27°.88N×53°.84E, h33^{km}, mb4.2/15, Error ellipse: s-maj=17.2km s-min=10.7km az=85.3*
TEH ***08*** *15:49:15.8, 28°.22N×53°.59E, h30^{km}*
NEIC ***08*** *15:49:16.3, 28°.26N×53°.60E, h32^{km}, mb4.0/3, MN3.7(TEH), After TEH.*
ISC 08 15:49:08.3±0.7**, 27°.86N**±0°.03×**53°.75E**±0°.03**, h15**^{km}±5^{km}**, n122, σ1^{s}.19**/134**, mb4.0**/18**, 4C-2D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHIR	Ghir-Karzin	0.80	303	ePg	Pg	15 49 21.9	-2.0
GHIR	Ghir-Karzin	0.80	303	ePg	Pg	15 49 21.9	-1.9
IMOK	Mouk	1.49	323	ePg	Pg	15 49 36.8	-0.3
IMOK				e		15 50 19.8	
	comp=Z,12µm,0.4s						
IMOK	Mouk	1.49	323	ePg	Pg	15 49 36.8	-0.3
ISRV	Sarvestan	1.62	340	ePg	Pg	15 49 38.2	-1.2
ISRV				e		15 50 14.2	
	comp=Z,13µm,0.4s						
ISRV	Sarvestan	1.62	340	ePg	Pg	15 49 38.2	-1.2
IPAR	Pars	2.07	343	ePn	Pn	15 49 43.9	+1.4
IPAR				e		15 50 40.3	
	comp=Z,4µm,0.4s						
IPAR	Pars	2.07	343	ePn	Pn	15 49 43.9	+1.4
BNDS	Bandar-Abbas	2.20	101	ePn	Pn	15 49 46.0	+1.7
BNDS				eSg	Sg	15 50 18.2	-0.8
BNDS				AML	AML	15 50 37.5	
	comp=N,444nm,0.5s						
BNDS	Bandar-Abbas	2.20	101	ePn	Pn	15 49 46.2	+1.9
BNDS				eSg	Sg	15 50 17.8	-1.3
IBND	Bandar-abas	2.51	99	ePn	Pg	15 49 57.3	+0.8
IBND				eSn	Sg	15 50 27.9	-1.2
IBND				e		15 50 43.4	
	comp=Z,8µm,0.2s						
BANOM	Banah	2.98	130	⇑P	Pn	15 49 55.1	0.0
	SNR=27						
BANOM				⇑P		15 49 55.1	
	SNR=27						
BANOM	Banah	2.98	130	P	Pn	15 49 54.9	-0.2
	SNR=27						
NAZ	Nazwa, Dubai	3.33	149	P	Pn	15 50 01.6	+1.7
	SNR=8.6						
KRBR	Kerman	3.38	51	ePn	Pn	15 50 02.3	+1.7
KRBR				AML	AML	15 51 02.4	
	comp=N,213nm,0.6s						
KRBR				AML	AML	15 51 03.3	
	comp=E,184nm,0.5s						
KRBR	Kerman	3.38	51	ePn	Pn	15 50 01.8	+1.2
KRBR				eSg	Sg	15 50 52.4	-4.7
IMEH	Mehriz	3.60	12	e	Pn	15 50 08.8	+5.3
	comp=Z,2µm,0.3s						
IMEH				ePn	Pn	15 50 05.4	+1.9
HATD	Hatta, Dubai	3.70	144	P	Pn	15 50 05.8	+0.9
	SNR=14						
IBAF	Bafgh	4.04	23	e	Pg	15 50 27.9	+2.1
	comp=Z,915nm,0.4s						
ISAD	Sadrabad	4.04	359	ePn	Pn	15 50 12.0	+2.4
ISAD				e		15 51 20.3	
	comp=Z,1µm,0.4s						
ISAD	Sadrabad	4.04	359	ePn	Pn	15 50 12.0	+2.4
SLWS		4.13	223	P	Pn	15 50 11.4	+0.7
SLWS		4.13	223	P	Pn	15 50 11.4	+0.6
SLWS				S	Sn	15 51 00.3	+1.5
ICHK	Chekchek	4.41	7	ePn	Pn	15 50 16.0	+1.4
ICHK				e		15 50 33.6	
	comp=Z,1µm,0.3s						
ICHK				eSn	Sn	15 50 59.6	-6.1
ICHK	Chekchek	4.41	7	ePn	Pn	15 50 16.0	+1.4
BTHS		4.61	215	P	Pn	15 50 17.6	+0.2
BTHS		4.61	215	P	Pn	15 50 17.6	+0.2
BTHS				S	Sn	15 51 11.3	+0.7
NASN	Na'in	4.99	351	ePn	Pn	15 50 23.4	+0.8
IZEF	Zefreh	5.17	347	ePn	Pn	15 50 25.2	+0.1
IZEF				e		15 50 50.9	
	comp=Z,306nm,0.3s						
IZEF				eSn	Sn	15 51 17.3	-7.1
IZEF	Zefreh	5.17	347	ePn	Pn	15 50 25.2	+0.1
IPIR	Pirpir	5.41	334	ePn	Pn	15 50 28.8	+0.4
IPIR				eSn	Sn	15 51 21.7	-8.6
IPIR				e		15 51 32.9	
	comp=Z,445nm,0.2s						
IPIR	Pirpir	5.41	334	ePn	Pn	15 50 28.8	+0.4
UMR	Umm Al-Rimmam	5.56	289	eP	Pn	15 50 31.3	+0.9
UMR				AML	AML	15 51 36.6	
	comp=Z,12nm,0.3s						
UMR	Umm Al-Rimmam	5.56	289	eP	Pn	15 50 31.3	+0.8
RDF	Al-Radifah	5.56	282	eP	Pn	15 50 31.3	+0.8
RDF				AML	AML	15 51 32.8	
	comp=Z,12nm,0.4s						
RDF	Al-Radifah	5.56	282	eP	Pn	15 50 31.3	+0.8
IKLH	Kolahrood	5.75	342	ePn	Pn	15 50 33.2	+0.1
IKLH				eSn	Sn	15 51 30.4	-8.5
IKLH				e		15 51 36.6	
	comp=Z,248nm,0.5s						
IKLH	Kolahrood	5.75	342	ePn	Pn	15 50 33.2	+0.1
NAY	Al-Naaiem	5.89	285	eP	Pn	15 50 35.9	+0.9
NAY				AML	AML	15 51 41.6	
	comp=Z,4.1nm,0.3s						
NAY	Al-Naaiem	5.89	285	eP	Pn	15 50 35.9	+0.9
MIB	Mutribah	5.95	291	eP	Pn	15 50 35.9	+0.2
MIB				AML	AML	15 51 44.2	
	comp=Z,19nm,0.7s						
MIB	Mutribah	5.95	291	eP	Pn	15 50 35.9	+0.1
SMDO	Samad	6.16	140	⇓P	Pn	15 50 40.0	+1.3
	SNR=8.3						
SMDO				⇓P		15 50 40.0	
	SNR=8.3						
SMDO	Samad	6.16	140	P	Pn	15 50 40.0	+1.3
	SNR=8.3						
ISFB	Sefidab	6.60	349	ePn	Pn	15 50 44.4	-0.4
ISFB				e		15 50 58.3	
	comp=Z,172nm,0.2s						
ISFB	Sefidab	6.60	349	ePn	Pn	15 50 44.4	-0.4
WBK	Wadi Bani Khal	7.05	137	⇑P	Pn	15 50 50.4	-0.5
	SNR=5.8						
WBK				⇑P		15 50 50.4	
	SNR=5.8						
IVRN	Varamin	7.32	347	ePn	Pn	15 50 54.4	-0.2
IVRN				e		15 50 55.4	
	comp=Z,414nm,0.2s						
IVRN	Varamin	7.32	347	ePn	Pn	15 50 54.4	-0.2
IANJ	Anjilo	7.59	1	ePn	Pn	15 50 59.0	+0.7
IANJ				e		15 51 00.0	
	comp=Z,472nm,0.2s						
IANJ	Anjilo	7.59	1	ePn	Pn	15 50 59.0	+0.7
IDMV	Damavand	7.83	350	ePn	Pn	15 51 01.3	-0.4
IDMV				e		15 51 11.5	
	comp=Z,125nm,0.2s						
IDMV	Damavand	7.83	350	ePn	Pn	15 51 01.3	-0.4
ISHM	Shahmirzad	7.93	357	ePn	Pn	15 51 03.9	+0.8
ISHM	Shahmirzad	7.93	357	e	Pn	15 51 14.1	+11
	comp=Z,402nm,0.3s						
IAFJ	Afjeh	8.16	348	e	Pn	15 51 07.5	+1.3
	comp=Z,253nm,0.1s						
IAFJ				ePn	Pn	15 51 06.2	+0.1
LYLS		8.27	227	S	Sn	15 52 37.8	-3.0
LYLS		8.27	227	P	Pn	15 51 06.6	-1.1
LYLS		8.27	227	P	Pn	15 51 06.6	-1.1
ASYS		8.35	270	P	Pn	15 51 06.9	-1.8
GNI	Garni	14.34	331	eP	Pn	15 52 39.0	+8.3
GNI				pmax	pmax		
	comp=Z,5.0nm,0.6s						
GNI	Garni	14.34	331	Pn	Pn	15 52 38.5	+7.7
	comp=Z,1.0nm,0.3s,baz=84,slow=4.0,SNR=10						
GNI	Garni	14.34	331	ePn	Pn	15 52 39.0	+8.3
	comp=Z,5.4nm,0.6s						
GNI	Garni	14.34	331	eP	Pn	15 52 39.0	+8.3
	comp=Z,5.0nm,0.6s						
KIV	Kislovodsk	18.36	334	P	Pn	15 53 24.0	+1.7
KIV				pmax	pmax		
	comp=Z,4.0nm,0.5s						
KIV	Kislovodsk	18.36	334	P	Pn	15 53 24.0	+1.7
	comp=Z,4.0nm,0.5s						
KKAR	Karatay Array	20.38	37	eP	P	15 53 42.6	-1.8
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
KKAR	Karatay Array	20.38	37	eP	P	15 53 42.6	-1.7
	comp=Z,1.6nm,0.5s						
KKAR	Karatay Array	20.38	37	eP	P	15 53 42.6	-1.8
	comp=Z,2.0nm,0.5s						
BRTR	Keskin Array B	20.43	311	P	P	15 53 49.2	+4.3
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	Keskin Array B	20.43	311	P	P	15 53 49.2	+4.3
	comp=Z,1.7nm,0.7s,baz=131,slow=12,SNR=8.0						
AML	Almayashu	21.60	44	eP	P	15 53 56.6	-1.0
	comp=Z,12nm,0.9s,mb4.3						
AML	Almayashu	21.60	44	eP	P	15 53 56.6	-1.0
	comp=Z,12nm,0.9s,mb4.3						
AKTK	Aktyubinsk	22.78	7	P	P	15 54 10.8	+0.8
AKTK	Aktyubinsk	22.78	7	P	P	15 54 10.8	+0.8
	comp=Z,3.0nm,0.6s,mb3.9						
AKTO	Aktyubinsk	22.78	7	P	P	15 54 10.8	+0.8
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
AKTO	Aktyubinsk	22.78	7	P	P	15 54 10.8	+0.8
	comp=Z,3.2nm,0.6s,mb3.9,baz=159,slow=7.5,SNR=8.4						
BVAR	Borovoye Array	28.01	22	P	P	15 54 58.2	-0.2
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BVAR	Borovoye Array	28.01	22	P	P	15 54 58.2	-0.3
	comp=Z,1.8nm,0.5s,mb3.9,baz=209,slow=7.4,SNR=18						
BVAR	Borovoye Array	28.01	22	P	P	15 54 58.2	-0.2
	comp=Z,2.0nm,0.5s,mb4.0						
MKAR	Makanchi Array	29.29	42	P	P	15 55 09.6	-0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	29.29	42	P	P	15 55 09.6	-0.4
	comp=Z,1.2nm,0.6s,mb3.8,baz=230,slow=9.0,SNR=14						
MKAR	Makanchi Array	29.29	42	P	P	15 55 09.6	-0.4
MKAR	Makanchi Array	29.29	42	P	P	15 55 09.6	-0.3
	comp=Z,1.0nm,0.6s,mb3.7						
AKASG	Malin Array Be	29.43	328	P	P	15 55 08.9	-2.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	29.43	328	P	P	15 55 08.9	-2.1
	comp=Z,1.5nm,0.7s,mb3.8,baz=126,slow=8.3,SNR=4.7						
AKASG	Malin Array Be	29.43	328	P	P	15 55 08.9	-2.2
	comp=Z,2.0nm,0.7s,mb4.0						
KURK	Kurchatov	29.60	33	P	P	15 55 11.4	-1.2
KURK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
KURK	Kurchatov	29.60	33	P	P	15 55 11.3	-1.3
	comp=Z,1.0nm,0.6s,mb3.7,baz=232,slow=8.9,SNR=8.0						
KURK	Kurchatov	29.60	33	P	P	15 55 11.4	-1.2
	comp=Z,1.0nm,0.6s,mb3.7						
ZALV	Zalesovo Beam	34.59	33	P	P	15 55 55.3	-1.1
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
ZALV	Zalesovo Beam	34.59	33	P	P	15 55 55.3	-1.1
	comp=Z,3.0nm,0.5s,mb4.5,baz=241,slow=9.4,SNR=13						
JOF	Joensuu	38.02	344	ep	P	15 56 24.4	-1.1
JOF	Joensuu	38.02	344	eP	P	15 56 24.4	-1.1
CMAR	Chiang Mai Arr	42.40	93	P	P	15 57 02.1	-0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	42.40	93	P	P	15 57 02.1	-0.3
	comp=Z,0.7nm,0.7s,mb3.4,baz=285,slow=10.0,SNR=6.5						
CMAR	Chiang Mai Arr	42.40	93	P	P	15 57 02.1	-0.3
	comp=Z,1.0nm,0.7s,mb3.5						
NB2	NORSAR Subarra	43.65	332	P	P	15 57 10.0	-1.9
	comp=Z,1.0nm,0.6s,mb3.7,baz=119,slow=7.9						
NB2	NORSAR Subarra	43.65	332	P	P	15 57 10.0	-1.9
	comp=Z,1.0nm,0.6s,mb3.7,SNR=2.4						
NOA	NORSAR Array B	43.65	332	P	P	15 57 10.2	-1.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	43.65	332	P	P	15 57 10.2	-1.8
	comp=Z,0.6nm,0.5s,mb3.6,baz=118,slow=7.7,SNR=3.7						
NOA	NORSAR Array B	43.65	332	P	P	15 57 10.1	-1.8
ARCES	ARCESS Array B	44.81	346	P	P	15 57 20.6	-0.5
	comp=Z,4.3nm,1.1s,mb4.2,baz=150,slow=9.3,SNR=7.5						
ARCES	ARCESS Array B	44.81	346	P	P	15 57 20.6	-0.5
SONM	Songino Array	45.14	49	P	P	15 57 23.9	-0.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	45.14	49	P	P	15 57 23.9	-0.2
	comp=Z,0.9nm,0.6s,mb3.8,baz=270,slow=9.2,SNR=9.5						
SONM	Songino Array	45.14	49	P	P	15 57 23.9	-0.2
	comp=Z,1.0nm,0.6s,mb3.8						
ULN	Ulaanbaatar	45.58	49	eP	P	15 57 25.6	-2.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
ULN	Ulaanbaatar	45.58	49	eP	P	15 57 25.6	-2.0
	comp=Z,2.0nm,0.8s,mb4.1						
ULN	Ulaanbaatar	45.58	49	eP	P	15 57 25.6	-2.0
	comp=Z,2.0nm,0.8s,mb4.1						
TORD	Torodi Ar. Bea	50.55	264	P	P	15 58 04.7	-1.7
	comp=Z,0.5nm,0.5s,mb3.7,baz=54,slow=8.3,SNR=4.8						
TORD	Torodi Ar. Bea	50.55	264	P	P	15 58 04.7	-1.7
BOSA	Boshof	62.44	208	P	P	15 59 30.4	-0.4
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
BOSA	Boshof	62.44	208	P	P	15 59 30.4	-0.3
	comp=Z,2.6nm,0.8s,mb4.4,baz=356,slow=9.5,SNR=4.0						
BOSA	Boshof	62.44	208	P	P	15 59 30.4	-0.3
BOSA	Boshof	62.44	208	P	P	15 59 30.4	-0.4
	comp=Z,3.0nm,0.8s,mb4.5						
YKA	Yellowknife Ar	89.48	355	P	P	16 02 03.2	-1.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	89.48	355	P	P	16 02 03.2	-1.2
	comp=Z,0.5nm,0.5s,mb4.1,baz=7.4,slow=5.2,SNR=13						
YKA	Yellowknife Ar	89.48	355	P	P	16 02 03.2	-1.2
WRA	Warramunga Arr	91.23	112	P	P	16 02 14.5	+1.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	91.23	112	P	P	16 02 14.5	+1.2
	comp=Z,0.8nm,0.7s,mb4.1,baz=320,slow=4.1,SNR=4.4						
ASAR	Alice Springs	92.68	115	P	P	16 02 17.9	-2.0
	comp=Z,0.4nm,0.6s,mb4.0,baz=305,slow=4.7,SNR=11						

ISCJB ***08*** *15:59:01.5±0.5, 27°.57S±0°.05×63°.32W±0°.07, h584^{km}±6^{km}, mb4.5/42, Error ellipse: s-maj=10.2km s-min=7.1km az=175.5*
NEIC ***08*** *15:59:02.1±0.5, 27°.56S×63°.34W, h578^{km}±5^{km}, mb4.5/20, Error ellipse: s-maj=9.4km s-min=6.9km az=72.0*
IDC ***08*** *15:59:02.3±0.5, 27°.54S×63°.34W, h577^{km}±5^{km}, mb4.0/21, mb1 4.1/25, mb1mx4.0/29, mbtmp4.0/25, Error ellipse: s-maj=11.5km s-min=8.8km az=68.0*
BJI ***08*** *15:59:06.1, 27°.60S×63°.30W, h577^{km}*
ISC 08 15:59:01.8±0.5**, 27°.53S**±0°.05×**63°.31W**±0°.07**, h571**^{km}±6^{km}**, n111, σ0^{s}.85**/74**, mb4.5**/41**, 1C-1D, Santiago del Estero Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPUP	Villa Florida	5.47	79	P	P	16 00 38.2	+1.3
	85nm,0.3s,baz=236,slow=8.8,SNR=472						
CPUP				S	S	16 02 03.2	+8.7
	baz=251,slow=18,SNR=1.0						
CPUP	Villa Florida	5.47	79	P	P	16 00 38.2	+1.3
CPUP				S	S	16 02 03.2	+8.7
CFAA	Coronel Fontan	5.91	225	P	P	16 00 41.4	+0.8
	11nm,0.3s,baz=49,slow=8.0,SNR=250						
CFAA				S	S	16 02 00.1	-1.3
	0.4nm,0.3s,baz=303,slow=19,SNR=12						
LCO	Las Campanas	6.69	256	eP	P	16 00 47.9	+0.2
	72nm,1.0s						
LCO				eS	S	16 02 14.0	-0.3
LVC	Limon Verde	7.05	313	P	P	16 00 52.6	+1.4
	99nm,0.3s,baz=137,slow=7.6,SNR=639						
LVC				S	S	16 02 19.9	-0.8
	54nm,0.3s,baz=299,slow=20,SNR=17						
LVC	Limon Verde	7.05	313	⇓iP	P	16 00 52.0	+0.8
LVC				eS	S	16 02 16.4	-4.3
SIV	San Ignacio	11.67	11	P	P	16 01 37.3	+0.2
	3.5nm,0.3s,baz=201,slow=9.1,SNR=135						
SIV				S	S	16 03 43.1	-1.7
	0.2nm,0.3s,baz=29,slow=23,SNR=4.1						
SIV				ScP	ScP	16 09 12.4	-0.4
	0.3nm,0.3s,baz=40,slow=2.9,SNR=5.3						
ARE	Arequipa	13.37	324	eP	P	16 01 56.0	+1.5
PLCA	Paso Flores	14.46	203	P	P	16 02 03.8	-1.5
	1.8nm,0.3s,baz=27,slow=9.9,SNR=32						
PLCA				ScP	ScP	16 09 16.7	-0.2
	0.4nm,0.3s,baz=311,slow=1.1,SNR=8.5						
USHA	Ushuaia	27.54	186	P	P	16 04 02.6	-0.7
	16nm,0.5s,mb4.9,baz=355,slow=7.5,SNR=15						
OTAV	Otavalo	31.20	330	eP	P	16 04 37.5	+1.9
	5.9nm,0.6s,mb4.3						
SDV	Santo Domingo	36.89	348	P	P	16 05 21.8	-1.3
	9.7nm,0.3s,mb4.8,baz=174,slow=3.4,SNR=20						
SDV	Santo Domingo	36.89	348	eP	P	16 05 20.9	-2.2
	9.6nm,0.3s,mb4.8						
PCRV	Puerto La Cruz	37.50	358	P	P	16 05 29.0	+0.9
	17nm,0.5s,mb4.8,baz=126,slow=2.1,SNR=7.2						
JTS	JuntasAbangare	43.05	328	P	P	16 06 12.6	+0.3
	5.1nm,0.5s,mb4.3,baz=61,slow=23,SNR=4.9						
VNA3	Neumayer Olymp	52.75	161	e	P	16 07 23.9	+0.2
VNA1	Neumayer--Stat	52.91	160	e	P	16 07 25.5	+0.6
TEIG	Tepich	53.27	330	eP	P	16 07 27.1	-1.0
	26nm,0.8s,mb4.6						
VNA2	Neumayer--Watz	53.29	160	e	P	16 07 27.8	+0.3
	baz=295,slow=8.1						
QSPA	South Pole Qui	62.70	180	eP	P	16 08 31.1	+0.2
	25nm,0.8s,mb4.7						
LIC	Lamto	65.50	68	eP	P	16 08 49.1	-0.7
	15nm,0.5s,mb4.5						
LIC	Lamto	65.50	68	eP	P	16 08 49.0	-0.8
	26nm,0.5s,mb5.1						
LIC	Lamto	65.50	68	eP	P	16 08 49.1	-0.7
	7.3nm,0.5s,mb4.5						
TIC	Toumodi	65.74	68	eP	P	16 08 50.3	-1.0
	17nm,0.2s,mb5.2						
KIC	Kosan Boka	65.81	68	eP	P	16 08 51.2	-0.5
	64nm,0.4s,mb5.5						
DBIC	Dimbokro	65.89	68	P	P	16 08 51.7	-0.5
	14nm,0.3s,mb5.0,baz=214,slow=6.1,SNR=67						
DBIC	Dimbokro	65.89	68	P	P	16 08 51.7	-0.5
TZTN	Tazewell	66.52	342	eP	P	16 08 54.6	-0.9
	10nm,0.9s,mb4.3						
JCT	Junction City	67.40	326	eP	P	16 09 01.2	+0.1
	7.2nm,0.4s,mb4.6						
WVT	Waverly	67.40	339	eP	P	16 09 00.1	-0.9
	11nm,0.6s,mb4.5						
MIAR	Mount Ida	68.06	333	eP	P	16 09 05.1	+0.1
	5.2nm,0.7s,mb4.2						
TXAR	Lajitas Array	68.48	323	P	P	16 09 08.2	+0.6
	1.4nm,0.4s,mb3.8,baz=152,slow=8.2,SNR=24						
SYO	Syowa Base	69.06	158	⇑iP	P	16 09 09.2	-1.4
CCM	Cathedral Cave	70.30	337	eP	P	16 09 17.6	-0.8
	6.7nm,0.6s,mb4.3						
ERPA	Erie	70.99	347	eP	P	16 09 22.5	+0.2
	27nm,0.6s,mb5.0						
SUR	Sutherland	71.22	117	P	P	16 09 24.8	+0.7
	22nm,0.6s,mb4.8,baz=244,slow=3.8,SNR=28						
SUR	Sutherland	71.22	117	P	P	16 09 24.8	+0.7
VNDA	Vanda	71.79	189	P	P	16 09 27.7	+1.1
	4.5nm,0.8s,mb3.9,baz=116,slow=5.3,SNR=4.5						
VNDA	Vanda	71.79	189	P	P	16 09 27.7	+1.1
TSUM	Tsumeb	73.55	103	P	P	16 09 38.2	+0.4
	9.7nm,0.7s,mb4.4,baz=210,slow=6.2,SNR=43						
JFWS	Jewell Farm	74.35	340	eP	P	16 09 41.7	+0.1
	29nm,0.6s,mb4.9						
TORD	Torodi Ar. Bea	74.83	66	P	P	16 09 44.4	-0.5
	15nm,0.5s,mb4.7,baz=277,slow=6.8,SNR=162						
TORD				pP	pP	16 11 45.6	+2.0
	7.4nm,1.0s,baz=248,slow=5.5,SNR=15						
BOSA	Boshof	76.20	115	P	P	16 09 52.0	-0.4
	20nm,0.5s,mb4.8,baz=255,slow=4.6,SNR=68						
MAW	Mawson	77.07	161	P	P	16 09 56.6	+0.3
	13nm,0.8s,mb4.4,baz=184,slow=4.6,SNR=7.9						
AGMN	Agassiz Refuge	80.93	339	eP	P	16 10 16.9	0.0
	8.8nm,0.8s,mb4.2						
PDAR	Pinedale Array	81.88	327	P	P	16 10 22.3	+0.4
	2.8nm,0.7s,mb3.8,baz=134,slow=7.9,SNR=22						
MDT	Midelt	81.92	47	P	P	16 10 23.4	+1.1
	2.9nm,0.6s,mb3.9,baz=256,slow=5.5,SNR=9.9						
SCHQ	Schefferville	82.08	358	P	P	16 10 23.4	+0.8
	7.0nm,0.8s,mb4.2,baz=189,slow=4.0,SNR=15						
SCHQ	Schefferville	82.08	358	P	P	16 10 23.4	+0.8
ULM	Lac du Bonnet	82.64	340	P	P	16 10 24.7	-0.9
	3.6nm,0.4s,mb4.2,baz=154,slow=4.9,SNR=7.8						
ULM	Lac du Bonnet	82.64	340	P	P	16 10 24.7	-0.9
NVAR	Mina Array Bea	83.36	320	P	P	16 10 30.8	+1.3
	1.4nm,0.8s,mb3.5,baz=144,slow=5.0,SNR=9.0						
EVO	Evora	83.61	40	eP	P	16 10 29.0	-1.7
	8.4nm,0.7s,mb4.1						
LSZ	Lusaka	84.38	104	eP	P	16 10 36.0	+0.9
	38nm,1.1s,mb4.8						
ESDC	Sonseca Array	86.72	42	P	P	16 10 46.0	+0.3
	1.1nm,0.5s,mb3.8,baz=250,slow=4.8,SNR=5.6						
ETSF	Etsaut	90.74	41	eP	P	16 11 05.2	+0.9
	3.1nm,0.6s,mb4.1						
ETSF	Etsaut	90.74	41	eP	P	16 11 05.2	+0.9
	1.5nm,0.6s,mb4.1						
SFJD	Kangerlussuaq	94.72	5	P	P	16 11 21.7	-0.2
	4.1nm,0.7s,mb4.6,baz=129,slow=14,SNR=3.1						
AVF	Avril sur Loir	95.29	39	eP	P	16 11 25.0	0.0
	4.0nm,0.7s,mb4.4						
AVF	Avril sur Loir	95.29	39	eP	P	16 11 25.0	0.0
	2.0nm,0.7s,mb4.4						
SMF	Signal de Mont	95.49	40	eP	P	16 11 26.2	+0.3
	3.0nm,0.3s,mb4.6						
SMF	Signal de Mont	95.49	40	eP	P	16 11 26.2	+0.3
	1.5nm,0.3s,mb4.6						
SSF	Saint Saulge	95.54	39	eP	P	16 11 25.9	-0.2
	3.0nm,0.5s,mb4.5						
SSF	Saint Saulge	95.54	39	eP	P	16 11 25.9	-0.2
	1.5nm,0.5s,mb4.5						
LOR	Lormes	95.85	39	eP	P	16 11 27.3	-0.2
	5.1nm,0.7s,mb4.6						
LOR	Lormes	95.85	39	eP	P	16 11 27.3	-0.2
	2.5nm,0.7s,mb4.5						
EKA	Eskdalemuir Ar	97.16	30	P	P	16 11 32.9	-0.3
	0.8nm,0.6s,mb4.1,baz=210,slow=1.1,SNR=3.3						
YKA	Yellowknife Ar	98.59	339	P	Pdif	16 11 39.7	-0.2
	0.9nm,0.6s,baz=126,slow=4.6,SNR=17						
YKA	Yellowknife Ar	98.59	339	P	Pdif	16 11 39.7	-0.2
ARCES	ARCESS Array B	115.08	23	PKP	PKPdf	16 16 37.4	-0.3
	2.0nm,0.8s,baz=245,slow=3.9,SNR=11						
ARCES				PKKPbc	PKKPbc	16 27 14.7	-2.2
	3.8nm,1.1s,baz=95,slow=3.5,SNR=5.3						
ASAR	Alice Springs	126.46	200	PKP	PKPdf	16 17 00.3	-0.7
	1.1nm,0.5s,baz=136,slow=1.6,SNR=12						
ASAR				SKPbc		16 19 21.8	
	1.4nm,1.0s,baz=153,slow=3.9,SNR=8.4						
ASAR				SKP		16 19 40.5	
	0.7nm,0.6s,baz=144,slow=2.3,SNR=6.5						
WRA	Warramunga Arr	129.81	202	PKP	PKPdf	16 17 07.0	-0.5
	0.9nm,0.4s,baz=173,slow=1.7,SNR=8.3						
WRA				SKPbc	SKPbc	16 19 34.9	-2.2
	6.3nm,0.5s,baz=159,slow=3.7,SNR=39						
FITZ	Fitzroy Crossi	133.82	192	SKPbc	SKPbc	16 19 48.7	-2.4
	4.5nm,0.7s,baz=200,slow=8.0,SNR=6.4						
BRVK	Borovoye	137.40	40	ePKPdf	PKPdf	16 17 20.8	+0.2
BVAR	Borovoye Array	137.47	40	PKhKP		16 17 13.6	
	0.5nm,0.5s,baz=277,slow=2.6,SNR=6.3						
BVAR				PKP	PKPdf	16 17 22.0	+1.3
	1.7nm,0.5s,baz=279,slow=2.1,SNR=16						
PETK	Petropavlovsk-	140.43	322	PKhKP		16 17 22.3	
	3.4nm,1.0s,baz=79,slow=8.1,SNR=4.3						
PETK				PKP	PKPdf	16 17 28.6	+2.5
	1.4nm,0.8s,baz=89,slow=2.7,SNR=6.8						
PETK				SKPbc	SKPbc	16 20 08.4	-0.6
	1.5nm,0.8s,baz=82,slow=3.5,SNR=5.7						
PETK	Petropavlovsk-	140.43	322	PKP	PKPdf	16 17 22.3	-3.8
PETK				PKP	PKPdf	16 17 28.6	+2.5
PETK				SKPbc	SKPbc	16 20 08.4	-0.6
EKS2	Erkin-Say	142.20	55	ePKPdf	PKPdf	16 17 25.8	-3.8
AML	Almayashu	142.22	56	P	PKPdf	16 17 26.8	-2.9
	SNR=9.3						
AML	Almayashu	142.22	56	ePKPdf	PKPdf	16 17 26.5	-3.1
USP	Ospenovka	142.62	54	P	PKPdf	16 17 28.1	-2.2
	SNR=6.4						
AAK	Ala-Archa	142.73	55	P	PKPdf	16 17 29.0	-1.5
	SNR=9.7						
UCH	Uchtor	142.81	56	P	PKPdf	16 17 29.4	-1.3
	SNR=26						
CHMS	Chumysh	142.85	54	P	PKPdf	16 17 29.1	-1.6
	SNR=8.0						
KBK	Karagaybulak	143.05	55	P	PKPdf	16 17 29.9	-1.2
	SNR=28						
KURK	Kurchatov	143.06	41	PKP	PKPdf	16 17 29.2	-1.7
	12nm,0.6s,baz=295,slow=3.8,SNR=100						
KURK	Kurchatov	143.06	41	PKP	PKPdf	16 17 29.2	-1.7
KZA	Kyzart	143.37	56	P	PKPdf	16 17 31.4	-0.3
	SNR=17						
TKM2	Tokmak 2	143.47	54	P	PKPdf	16 17 31.9	+0.1
	SNR=7.7						
HYB	Hyderabad	143.48	98	i PKP	PKPdf	16 17 32.0	-0.6
HYB	Hyderabad	143.48	98	eP	PKPdf	16 17 30.5	-2.1
ULHL	Ulahol	144.07	55	P	PKPdf	16 17 33.5	+0.7
	SNR=15						
KSH	Kashi	144.29	60	PKP	PKPdf	16 17 32.8	-0.6
YAK	Yakutsk	144.43	350	ePKPdf	PKPdf	16 17 29.5	-3.3
ZALV	Zalesovo Beam	144.75	33	PKP	PKPdf	16 17 34.2	+0.5
	8.0nm,0.4s,baz=309,slow=4.5,SNR=54						
ZALV				pPKP	pPKPdf	16 19 49.1	+2.3
	1.6nm,0.9s,baz=308,slow=3.6,SNR=4.0						
ZALV				SKPbc	SKPbc	16 20 19.4	0.0
	2.9nm,0.5s,baz=305,slow=2.8,SNR=7.6						
ZALV	Zalesovo Beam	144.75	33	PKP	PKPdf	16 17 34.2	+0.5
ZALV				pPKP	pPKPdf	16 19 49.1	+2.3

ZALV				SKPbc	SKPbc	16 20 19.4	0.0
MKAR	**Makanchi Array**	146.88	45	PKPbc	PKPbc	16 17 38.6	-1.8
	9.8nm,0.5s,baz=270,slow=2.1,SNR=163						
MKAR				pPKPbc	pPKPbc	16 19 52.6	+1.4
	0.7nm,0.7s,baz=311,slow=2.2,SNR=3.9						
MKAR				SKPbc	SKPbc	16 20 24.5	+0.1
	1.6nm,0.6s,baz=293,slow=2.2,SNR=5.9						
MKAR	**Makanchi Array**	146.88	45	PKPbc	PKPbc	16 17 38.6	-1.8
MKAR				pPKPbc	pPKPbc	16 19 52.6	+1.4
MKAR				SKPbc	SKPbc	16 20 24.5	+0.1
PYUN	**Piuthan**	150.24	81	eP	PKPbc	16 17 48.9	-0.4
KOLN	**Koldanda**	150.73	82	eP	PKPbc	16 17 50.1	-0.4
DANN	**Dangsing**	150.94	81	eP	PKPbc	16 17 50.3	-0.6
	35nm,0.6s						
GKN	**Gorkha**	151.67	81	eP	PKPbc	16 17 52.1	-0.5
	13nm,0.3s						
DMN	**Daman**	152.04	82	eP	PKPbc	16 17 53.1	-0.3
	25nm,0.8s						
KKN	**Kakani**	152.21	82	eP	PKPbc	16 17 53.5	-0.3
	18nm,0.6s						
GUN	**Gumba**	152.75	82	eP	PKPbc	16 17 54.9	-0.1
	5.8nm,0.2s						
JIRN	**Jiri**	153.00	83	eP	PKPbc	16 17 55.4	-0.1
	11nm,0.6s						
RAMN	**Ramite**	153.27	84	eP	PKPbc	16 17 56.1	0.0
	13nm,0.5s						
ODAN	**Odare**	153.95	85	eP	PKPbc	16 17 56.9	-0.6
	14nm,0.7s						
TAPN	**Taplejung**	154.30	84	eP	PKPbc	16 17 57.3	-1.0
	23nm,1.3s						
SONM	**Songino Array**	158.19	19	PKP	PKPdf	16 17 54.8	+1.1
	0.6nm,0.7s,baz=285,slow=1.2,SNR=6.1						
SONM				PKPab	PKPab	16 18 29.7	-1.8
	0.7nm,0.6s,baz=317,slow=3.8,SNR=7.8						
CMAR	**Chiang Mai Arr**	161.35	115	PKPab	PKPab	16 18 45.2	-1.0
	0.6nm,0.7s,baz=248,slow=5.1,SNR=5.0						

MAN 08 16:05:09, 7°.20N×125°.32E, h9^{km}, mb4.5, ML3.4, MS3.3, 1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMPH	**Davao City--Mi**	0.22	122	eP	Pg	16 05 15.5	+1.9
DMPH				iS	Sg	16 05 25.6	+9.0
KCP	**Kidapawan**	0.30	230	⇑iP	Pg	16 05 16.7	+1.8
KCP				iS	Sg	16 05 21.1	+2.1
BUKP	**Musuan**	0.72	339	eP	Pg	16 05 23.8	+0.9
BUKP				eS	Sg	16 05 32.9	+0.6
PAGZ	**Pagadian**	2.02	289	eP	Pn	16 05 44.5	+1.2
PAGZ				eS	Sn	16 06 07.5	-1.2

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*ISCJB **08** 16:10:04.4±2.4, 5°.1S±0°.1×150°.1E±0°.4, h33^{km}, mb3.9/6, Error ellipse: s-maj=63.1km s-min=18.0km az=7.0*

*NEIC **08** 16:10:06.2±1.9, 5°.16S×150°.14E, h35^{km}, mb4.4/2, Error ellipse: s-maj=50.9km s-min=14.9km az=98.0*

*IDC **08** 16:10:11.5±10.0, 5°.60S×151°.04E, h129^{km}±88^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.5/17, mbtmp3.6/6, Error ellipse: s-maj=77.7km s-min=38.0km az=101.0*

ISC 08 16:10:06.3±2.3, 5°.2S±0°.1×150°.2E±0°.4, h35^{km}, n9, σ0^{s}68/8, mb3.9/6, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	15.31	194	P	Pn	16 13 40.3	+0.4
	0.2nm,0.3s,baz=9.0,slow=16,SNR=3.0						
WRAB	**Tennant Creek**	21.28	225	eP	P	16 14 49.3	-0.5
	13nm,1.0s,mb4.2						
WRA	**Warramunga Arr**	21.29	225	P	P	16 14 50.6	+0.6
	6.0nm,0.6s,mb4.1,baz=53,slow=9.7,SNR=27						
ASAR	**Alice Springs**	24.17	219	P	P	16 15 18.2	-1.1
	4.1nm,0.7s,mb4.0,baz=55,slow=9.1,SNR=38						
FITZ	**Fitzroy Crossi**	27.21	240	P	P	16 15 48.0	+1.1
	5.8nm,0.4s,mb4.5,baz=58,slow=9.0,SNR=21						
FITZ	**Fitzroy Crossi**	27.21	240	eP	P	16 15 46.9	0.0
	13nm,1.2s,mb4.3						
SONM	**Songino Array**	65.27	329	P	P	16 20 45.0	+0.5
	0.3nm,0.5s,mb3.5,baz=140,slow=5.0,SNR=5.8						
MKAR	**Makanchi Array**	78.90	320	P	P	16 22 05.5	-0.5
	0.2nm,0.5s,mb3.3,baz=90,slow=5.0,SNR=3.6						
TORD	**Torodi Ar. Bea**	147.92	286	PKPbc	PKPbc	16 29 44.6	-4.3
	0.9nm,0.4s,baz=90,slow=2.7,SNR=12						

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*IDC **08** 16:10:47.7±2.6, 39°.29N×20°.60E, h0^{km}, mb4.0/5, mb1 3.9/7, mb1mx3.7/24, mbtmp3.8/7, ML3.4/2, Error ellipse: s-maj=54.9km s-min=20.9km az=39.0*

*TIR **08** 16:10:48.2, 39°.06N×20°.68E, h4^{km}, ML3.6*

*ISCJB **08** 16:10:50.8±0.5, 39°.17N±0°.02×20°.54E±0°.03, h15^{km}±5^{km}, mb4.0/5, Error ellipse: s-maj=4.5km s-min=3.7km az=161.9*

*ATH **08** 16:10:50.4, 39°.22N×20°.61E, h22^{km}±1^{km}, MD3.6/6*

*THE **08** 16:10:50.1, 39°.13N×20°.61E, h0^{km}±2^{km}, ML4.1/8, Error ellipse: s-maj=2.1km s-min=0.9km az=243.0*

*SOF **08** 16:10:50.5, 39°.22N×20°.80E, h2^{km}, MD2.9*

*CSEM **08** 16:10:50.6±0.2, 39°.15N×20°.57E, h10^{km}, ML4.1/8, Error ellipse: s-maj=6.2km s-min=4.4km az=67.0*

*NEIC **08** 16:10:52.0, 39°.28N×20°.51E, h10^{km}, ML3.3(ATH), After ATH.*

ISC 08 16:10:50.4±0.5, 39°.14N±0°.02×20°.60E±0°.03, h4^{km}±3^{km}, n100, σ1^{s}20/134, mb4.0/5, Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	**Igoumenitsa**	0.44	332	ePG	Pg	16 10 57.9	-1.0
IGT	**Igoumenitsa**	0.44	332	P	Pg	16 10 57.9	-1.0
IGT				S	Sg	16 11 05.1	+0.5
IGT	**Igoumenitsa**	0.44	332	ePg	Pg	16 10 57.9	-1.0
	SNR=90						
IGT				S	Sg	16 11 05.1	+0.5
JAN	**Janina**	0.55	21	eP	Pg	16 10 59.6	-1.3
JAN				eS	Sg	16 11 06.8	-1.3
JAN	**Janina**	0.55	21	P	Pg	16 10 59.8	-1.1
JAN	**Janina**	0.55	21	ePb	Pg	16 10 59.6	-1.3
JAN				eSb	Sg	16 11 06.8	-1.3
KEK	**Kerkira**	0.84	313	eP	Pg	16 11 05.9	-0.6
KEK				eS	Sg	16 11 18.0	+0.6
KEK	**Kerkira**	0.84	313	P	Pg	16 11 05.8	-0.7
KEK	**Kerkira**	0.84	313	ePn	Pg	16 11 05.9	-0.6
KEK				eSn	Sg	16 11 18.0	+0.6
SRN	**Sarande**	0.87	328	ePG	Pg	16 11 08.9	+1.8
SRN				iSG	Sg	16 11 20.5	+2.1
SRN	**Sarande**	0.87	328	ePg	Pg	16 11 08.9	+1.8
	SNR=90						
SRN				iSg	Sg	16 11 20.5	+2.1
	SNR=90						
VLS	**Valsamata**	0.96	180	P	Pg	16 11 08.3	-0.5
VLS				S	Sg	16 11 22.0	+0.7
VLS	**Valsamata**	0.96	180	ePN	Pn	16 11 10.6	-0.1
VLS				eSN	Sn	16 11 25.7	+0.9
VLS	**Valsamata**	0.96	180	P	Pg	16 11 10.8	+2.0
VLS	**Valsamata**	0.96	180	P	Pg	16 11 08.3	-0.5
VLS	**Valsamata**	0.96	180	ePn	Pn	16 11 10.6	-0.1
VLS				S	Sg	16 11 22.0	+0.7
VLS				eSn	Sn	16 11 25.7	+0.9
EVR	**Evrytania**	0.97	103	eP	Pg	16 11 09.4	+0.5
EVR	**Evrytania**	0.97	103	P	Pg	16 11 12.1	+3.2
EVR	**Evrytania**	0.97	103	ePn	Pg	16 11 09.4	+0.5
EVR	**Evrytania**	0.97	103	P	Pg	16 11 12.1	+3.2
THL	**Klokotos Trika**	1.18	69	P	Pg	16 11 11.0	-1.9
THL				S	Sg	16 11 29.0	+0.9
THL	**Klokotos Trika**	1.18	69	ePN	Pn	16 11 12.1	-1.5
THL	**Klokotos Trika**	1.18	69	P	Pg	16 11 11.0	-1.9
THL	**Klokotos Trika**	1.18	69	ePn	Pn	16 11 12.1	-1.5
THL				S	Sg	16 11 29.0	+0.9
RLS	**Riolos of Patr**	1.28	148	ePN	Pn	16 11 15.8	+0.8
RLS	**Riolos of Patr**	1.28	148	ePn	Pn	16 11 15.8	+0.8
AGG	**Agios Georgios**	1.35	95	P	Pn	16 11 14.6	-1.4
AGG				S	Sg	16 11 34.7	+0.9
AGG	**Agios Georgios**	1.35	95	P	Pn	16 11 14.6	-1.4
AGG				S	Sg	16 11 34.7	+0.9
KZN	**Kozani**	1.47	37	ePN	Pn	16 11 16.9	-0.8
KZN	**Kozani**	1.47	37	P	Pn	16 11 17.4	-0.3
KZN	**Kozani**	1.47	37	ePn	Pn	16 11 16.9	-0.8
KZN	**Kozani**	1.47	37	P	Pn	16 11 17.4	-0.3
KBN	**Korca**	1.49	6	ePN	Pn	16 11 19.8	+1.9
KBN				iSN	Sn	16 11 41.8	+4.1
KBN	**Korca**	1.49	6	ePn	Pn	16 11 19.8	+1.9
	SNR=43						
FNA	**Florina**	1.75	20	P	Pn	16 11 21.2	-0.2
FNA				S	Sn	16 11 45.7	+1.6
FNA	**Florina**	1.75	20	P	Pn	16 11 21.2	-0.2
FNA				S	Sn	16 11 45.7	+1.6
LIT	**Litokhoron**	1.75	56	P	Pn	16 11 21.2	-0.2
LIT				S	Sn	16 11 45.6	+1.5
LIT	**Litokhoron**	1.75	56	P	Pn	16 11 21.2	-0.2
LIT				S	Sn	16 11 45.6	+1.5
LKR	**Lokris**	1.94	104	P	Pn	16 11 24.0	0.0
LKR	**Lokris**	1.94	104	P	Pn	16 11 26.9	+2.9
LKR	**Lokris**	1.94	104	P	Pn	16 11 24.0	0.0
BIA	**Bitola**	1.96	16	P	Pn	16 11 24.3	0.0
BIA				S	Sn	16 11 50.8	+1.5
BIA	**Bitola**	1.96	16	ePn	Pn	16 11 26.1	+1.7
BIA	**Bitola**	1.96	16	P	Pn	16 11 24.3	0.0
BIA	**Bitola**	1.96	16	ePn	Pn	16 11 26.0	+1.7
BIA				S	Sn	16 11 50.8	+1.5
XOR	**Xorichti**	2.02	83	P	Pn	16 11 25.4	+0.1
XOR				S	Sn	16 11 51.2	+0.2
XOR	**Xorichti**	2.02	83	P	Pn	16 11 25.4	+0.1
XOR				S	Sn	16 11 51.2	+0.2
NEO	**Neokhori**	2.04	85	P	Pn	16 11 27.3	+1.8
NEO	**Neokhori**	2.04	85	P	Pn	16 11 27.3	+1.8
LTK	**Loutraki**	2.17	120	P	Pn	16 11 26.2	-1.0
LTK	**Loutraki**	2.17	120	P	Pn	16 11 26.2	-1.0
ITM	**Ithomi**	2.22	151	ePN	Pn	16 11 29.0	+1.0
ITM	**Ithomi**	2.22	151	ePn	Pn	16 11 29.0	+1.0
TIR	**Tirane**	2.27	346	P	Pn	16 11 29.1	+0.4
TIR	**Tirane**	2.27	346	P	Pn	16 11 29.1	+0.4
KRUS	**Krusevo**	2.28	12	iPn	Pn	16 11 28.4	-0.3
KRUS	**Krusevo**	2.28	12	iPn	Pn	16 11 28.4	-0.4
GRG	**Griva**	2.28	37	P	Pn	16 11 28.5	-0.3
GRG				S	Sn	16 11 58.3	+1.0
GRG	**Griva**	2.28	37	P	Pn	16 11 28.5	-0.3
GRG				S	Sn	16 11 58.3	+1.0
THE	**Thessaloniki**	2.35	50	P	Pn	16 11 30.1	+0.4
THE	**Thessaloniki**	2.35	50	P	Pn	16 11 30.1	+0.4
HORT	**Hortiatis**	2.41	52	P	Pn	16 11 30.1	-0.5
HORT	**Hortiatis**	2.41	52	P	Pn	16 11 30.1	-0.5
PLG	**Polygyros**	2.52	60	P	Pn	16 11 32.0	0.0
PLG	**Polygyros**	2.52	60	ePN	Pn	16 11 31.5	-0.5
PLG	**Polygyros**	2.52	60	P	Pn	16 11 33.5	+1.5
PLG	**Polygyros**	2.52	60	ePn	Pn	16 11 31.5	-0.5
PLG	**Polygyros**	2.52	60	P	Pn	16 11 32.0	0.0
PHP	**Peshkopia**	2.54	357	ePN	Pn	16 11 34.4	+2.0
PHP	**Peshkopia**	2.54	357	ePn	Pn	16 11 34.4	+2.0
	SNR=43						
AOS	**Alonnisos**	2.55	88	P	Pn	16 11 32.7	+0.2
AOS	**Alonnisos**	2.55	88	P	Pn	16 11 32.7	+0.2
VAY	**Valandovo**	2.65	34	P	Pn	16 11 33.4	-0.4
VAY	**Valandovo**	2.65	34	iPn	Pn	16 11 33.5	-0.3
VAY	**Valandovo**	2.65	34	P	Pn	16 11 32.3	-1.5
VAY				S	Sn	16 12 06.3	-0.1
VAY	**Valandovo**	2.65	34	iPn	Pn	16 11 33.5	-0.3
KNT	**Kendrikon**	2.68	40	P	Pn	16 11 34.0	-0.2
KNT	**Kendrikon**	2.68	40	P	Pn	16 11 34.0	-0.2
SOH	**Sokhos**	2.70	51	P	Pn	16 11 34.9	+0.3
SOH				S	Sn	16 12 08.8	+1.1
SOH	**Sokhos**	2.70	51	P	Pn	16 11 34.9	+0.3
SOH				S	Sn	16 12 08.8	+1.1
SKO	**Skopje**	2.90	12	P	Pn	16 11 38.4	+1.1
SKO				S	Sg	16 12 22.8	-0.7
TIP	**Timpagrande**	2.99	272	P	Pn	16 11 38.6	+0.1
TIP	**Timpagrande**	2.99	272	P	Pn	16 11 38.6	+0.1
SRS	**Serrai**	3.03	48	P	Pn	16 11 38.8	-0.2
SRS	**Serrai**	3.03	48	P	Pn	16 11 38.8	-0.2
MMB	**Musomiste**	3.42	43	P	Pn	16 11 44.5	+0.1
MMB				S	Sn	16 12 24.6	-0.8
BARS	**Barje**	3.78	14	ePn	Pn	16 11 49.4	0.0
GRUS	**Gruza**	4.74	1	ePn	Pn	16 12 01.5	-1.1
BOLS	**Boljevac**	4.79	12	ePn	Pn	16 12 00.7	-2.6
BBLS	**Lazići**	4.80	350	ePn	Pn	16 12 02.9	-0.6
DIVS	**Divibare**	4.97	355	ePn	Pn	16 12 04.7	-1.1
IDI	**Anoyia**	5.15	137	Pn	Pn	16 12 07.0	-1.2
	0.7nm,0.3s,baz=324,slow=14,SNR=4.3						
IDI				Sn	Sn	16 13 04.0	-4.1
	1.0nm,0.3s,baz=341,slow=18,SNR=4.3						
IDI	**Anoyia**	5.15	137	Pn	Pn	16 12 07.0	-1.2
IDI				Sn	Sn	16 13 04.0	-4.1
MLR	**Muntele Rosu**	7.48	30	Pn	Pn	16 12 43.4	+3.2
	0.8nm,0.3s,baz=184,slow=15,SNR=10						
GERES	**GERESS Array B**	10.89	335	Pn	Pn	16 13 23.1	-3.8
	0.2nm,0.3s,baz=161,slow=13,SNR=4.3						
EKA	**Eskdalemuir Ar**	22.68	323	P	P	16 15 50.0	-2.6
	2.8nm,0.9s,mb3.7,baz=110,slow=9.9,SNR=3.1						
ARCES	**ARCESS Array B**	30.57	3	P	P	16 17 01.9	-2.7
	0.9nm,0.5s,mb3.8,baz=195,slow=8.8,SNR=5.6						
BVAR	**Borovoye Array**	36.46	51	P	P	16 17 53.9	-2.3
	0.7nm,0.6s,mb3.8,baz=276,slow=9.5,SNR=2.6						
MKAR	**Makanchi Array**	44.75	59	P	P	16 19 02.0	-2.7
	1.1nm,0.4s,mb4.0,baz=281,slow=7.6,SNR=4.2						
ZALV	**Zalesovo Beam**	45.01	49	P	P	16 19 03.1	-3.6
	3.5nm,0.5s,mb4.5,baz=278,slow=8.6,SNR=7.7						

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*ISCJB **08** 16:18:49.7±0.7, 6°.31N±0°.05×127°.18E±0°.09, h157^{km}±5^{km}, mb4.5/28, Error ellipse: s-maj=16.0km s-min=6.8km az=163.6*

*BJI **08** 16:18:49.5, 6°.30N×127°.20E, h150^{km}, mB4.9/2, mb4.4/5*

*NEIC **08** 16:18:50.6±1.2, 6°.31N×127°.22E, h150^{km}±10^{km}, mb4.6/5, Error ellipse: s-maj=24.8km s-min=6.9km az=70.0*

*IDC **08** 16:18:50.8±3.4, 6°.22N×127°.04E, h148^{km}±30^{km}, mb3.9/9, mb1 4.0/9, mb1mx3.8/19, mbtmp3.9/9, Error ellipse: s-maj=43.3km s-min=10.9km az=69.0*

*MAN **08** 16:18:53, 6°.34N×126°.75E, h134^{km}, mb4.5, ML3.3, MS3.2*

ISC 08 16:18:50.6±0.7, 6°.31N±0°.05×127°.20E±0°.09, h149^{km}±5^{km}, n44, σ0^{s}93/50, mb4.5/28, 3D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	1.13	304	eP	Pn	16 19 15.9	-0.6
MATI				eS	Sn	16 19 29.4	+1.9
DAV	**Davao City (W)**	1.78	295	ePn	Pn	16 19 23.5	+0.3
DAV				eSn	Sn	16 19 49.4	+6.3
BIPH	**Bislig**	2.04	336	⇓iP	Pn	16 19 27.3	+1.0
BIPH				iS	Sn	16 19 51.5	+1.9
KCP	**Kidapawan**	2.21	289	⇓iP	Pn	16 19 29.3	+1.2
KCP				iS	Sn	16 19 57.3	+3.8
BUKP	**Musuan**	2.63	307	eP	Pn	16 19 32.2	-1.1
BUKP				eS	Sn	16 20 00.5	-3.2
BUTP	**Butuan**	3.07	330	eP	Pn	16 19 40.7	+1.8
SCPH	**Surigao**	3.84	334	eP	Pn	16 19 49.8	+0.9
SCPH				eS	Sn	16 20 33.1	+0.1
PAGZ	**Pagadian**	4.08	292	eP	Pn	16 19 50.5	-1.5
MSLP	**Maasin**	4.45	329	eP	Sn	16 20 45.6	-2.1
PVCP	**Virac**	7.84	338	eP	Pn	16 20 43.0	+1.1
KAKA	**Kakadu**	19.60	165	eP	P	16 23 08.0	+0.6
	17nm,0.5s						
KAKA	**Kakadu**	19.60	165	eP	P	16 23 07.6	+0.1
	63nm,0.6s						
KNA	**Kununurra**	21.97	176	eP	P	16 23 32.6	-0.1
	7.6nm,0.3s,mb4.6						
FITZ	**Fitzroy Crossi**	24.30	184	eP	P	16 23 54.3	-0.1
	6.8nm,1.0s,mb4.1						
FITZ	**Fitzroy Crossi**	24.30	184	P	P	16 23 53.7	-0.7
	1.3nm,0.2s,mb4.0,baz=313,slow=21,SNR=10						
WRA	**Warramunga Arr**	27.01	165	P	P	16 24 18.3	-0.6
	1.9nm,0.3s,mb4.2,baz=343,slow=11,SNR=17						
CMAR	**Chiang Mai Arr**	30.07	296	P	P	16 24 45.4	-0.6
	1.2nm,0.6s,mb3.8,baz=105,slow=7.3,SNR=12						
ASAR	**Alice Springs**	30.50	168	P	P	16 24 49.6	-0.1
	1.6nm,0.3s,mb4.2,baz=344,slow=7.0,SNR=71						
ASAR				PcP	PcP	16 27 46.1	+0.8
	0.3nm,0.6s,baz=351,slow=2.7,SNR=4.7						
ASAR				ScP	ScP	16 31 13.4	-0.6
	0.2nm,0.5s,baz=344,slow=3.1,SNR=4.3						
MEEK	**Meekatharra**	33.79	194	eP	P	16 25 17.5	-0.9
	2.8nm,0.3s,mb4.5						
LZH	**Lanzhou**	36.56	327	eP	P	16 25 43.5	+1.4
LZH				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.5						
LZH				pmax	pmax		
	comp=Z,100nm,5.0s						
FORT	**Forrest**	36.88	179	eP	P	16 25 44.8	0.0
	comp=Z,13nm,0.5s,mb4.8						
KMBL	**Kambalda**	37.80	187	eP	P	16 25 52.3	-0.3
	comp=Z,43nm,0.5s,mb5.3						
MDJ	**Mudanjiang**	38.22	3	eP	P	16 25 54.3	-1.6
	comp=Z,3.9nm,1.0s,mb4.0						
MUN	**Mundaring**	39.49	195	eP	P	16 26 06.2	-0.4
BBOO	**Buckleboo**	39.80	168	eP	P	16 26 09.6	+0.4
	comp=Z,5.9nm,0.3s,mb4.7						
NWAO	**Narrogin (SRO)**	40.15	193	P	P	16 26 11.8	-0.2
	comp=Z,4.6nm,0.7s,mb4.2,baz=29,slow=10,SNR=7.8						
STKA	**Stephens Creek**	40.38	161	eP	P	16 26 14.3	+0.3
	comp=Z,2.3nm,0.4s,mb4.2						
STKA	**Stephens Creek**	40.38	161	P	P	16 26 14.2	+0.2
	comp=Z,2.7nm,0.4s,mb4.2,baz=338,slow=9.7,SNR=17						
LSA	**Lhasa**	41.14	309	eP	P	16 26 20.9	+0.6
	comp=Z,1.6nm,0.7s,mb3.8						
GTA	**Gaotai**	41.17	327	eP	P	16 26 21.6	+1.2
GTA				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
TAPN	**Taplejung**	42.92	304	eP	P	16 26 34.3	-0.5
	comp=Z,5.3nm,0.5s,mb4.4						
ODAN	**Odare**	43.01	303	eP	P	16 26 35.2	-0.3
	comp=Z,7.8nm,0.6s,mb4.5						
RAMN	**Ramite**	43.70	303	eP	P	16 26 42.0	+0.9
	comp=Z,8.4nm,0.5s,mb4.6						
GUN	**Gumba**	44.64	304	eP	P	16 26 48.5	0.0
	comp=Z,9.1nm,0.5s,mb4.7						
SONM	**Songino Array**	45.03	340	P	P	16 26 52.5	+1.2
	comp=Z,0.2nm,0.5s,baz=157,slow=8.2,SNR=7.0						
GKN	**Gorkha**	45.70	303	eP	P	16 26 56.0	-0.9
	comp=Z,5.0nm,0.5s,mb4.4						
KOLN	**Koldanda**	46.49	303	eP	P	16 27 02.9	-0.2
	comp=Z,14nm,0.5s,mb4.9						
DANN	**Dangsing**	46.55	303	eP	P	16 27 03.3	-0.2
	comp=Z,14nm,0.5s,mb4.8						
PYUN	**Piuthan**	47.11	303	eP	P	16 27 07.8	-0.1
	comp=Z,12nm,0.4s,mb4.8						
MKAR	**Makanchi Array**	55.73	324	P	P	16 28 11.6	-0.2
	comp=Z,2.5nm,0.3s,mb4.5,baz=114,slow=7.4,SNR=135						
MKAR				PcP	PcP	16 29 10.0	+0.9
	comp=Z,0.7nm,0.7s,baz=119,slow=4.7,SNR=4.5						
ZALV	**Zalesovo Beam**	58.53	332	P	P	16 28 31.5	+0.3
	comp=Z,1.8nm,0.3s,mb4.3,baz=123,slow=6.2,SNR=9.6						
KURK	**Kurchatov**	59.84	327	⇓eP	P	16 28 40.9	+0.6
	comp=Z,10nm,0.6s,mb4.8						
BRVK	**Borovoye**	65.51	326	eP	P	16 29 18.0	+0.2
	comp=Z,9.0nm,0.8s,mb4.7						
ARCES	**ARCESS Array B**	88.20	340	P	P	16 31 24.1	-0.4
	comp=Z,3.3nm,1.0s,mb4.1,baz=76,slow=5.1,SNR=5.1						

NEIC 08 16:24:08.3, 38°.76S×178°.27E, h33^{km}, ML3.8(WEL), After WEL., Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWZ	**Matawai**	0.72	306	P	Pn	16 24 21.6	-0.5
MWZ				S	Sn	16 24 32.2	+0.2
MXZ	**Matakaoa Point**	1.20	1	P	Pn	16 24 28.5	-0.2
HIZ	**Hauiti**	2.69	274	P	Pn	16 24 49.4	+0.2
WAZ	**Wanganui**	2.74	248	P	Pn	16 24 49.9	0.0
VRZ	**Vera Road**	2.76	261	P	Pn	16 24 46.0	-4.2
MRZ	**Mangatainoka R**	2.81	227	P	Pn	16 24 48.2	-2.7
RAEZ	**Rainy Point**	3.06	259	P	Pn	16 24 54.8	+0.4
MTW	**Mount Morrison**	3.20	221	P	Pn	16 24 52.2	-4.1
NEZ	**North Egmont**	3.29	260	P	Pn	16 24 55.9	-1.6
KIW	**Kapiti Island**	3.33	230	P	Pn	16 24 54.9	-3.2
PKE	**Pukeiti**	3.37	261	P	Pn	16 24 59.6	+1.1
CAW	**Cannon Point**	3.40	225	P	Pn	16 24 55.2	-3.8
PAWZ	**Paruwai Farm**	3.41	219	P	Pn	16 24 54.8	-4.3
MSWZ	**Moikau Station**	3.52	220	P	Pn	16 24 55.9	-4.8
MRW	**Makara Radio**	3.69	227	P	Pn	16 24 59.2	-3.7
TCW	**Tory Channel**	3.93	230	P	Pn	16 25 02.1	-4.1
WCZ	**Waipu Caves**	4.21	311	P	Pn	16 25 09.9	-0.2
NNZ	**Nelson**	4.49	235	P	Pn	16 25 10.1	-3.8
QRZ	**Quartz Range**	4.88	243	P	Pn	16 25 15.5	-3.8
THZ	**Tophouse**	5.08	232	P	Pn	16 25 17.9	-4.2
LTZ	**Lake Taylor**	6.07	227	P	Pn	16 25 30.2	-5.5
MQZ	**McQueen’s Vall**	6.51	219	P	Pn	16 25 36.2	-5.5
ODZ	**Otahua Downs**	8.47	220	P	Pn	16 26 03.5	-5.1

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*NIED **08** 16:38:00, 20°.50N×122°.30E, h32^{km}, Mw4.5 Best double couple: $M_0$6.83000×10^{15} NP1:ϕ_s180.00000°, δ72.00000°, λ35.00000°. NP2:ϕ_s77.00000°, δ57.00000°, λ158.00000°.*

*NEIC **08** 16:38:55.9±0.5, 20°.27N×122°.07E, h10^{km}, mb4.5/16, Error ellipse: s-maj=10.9km s-min=7.4km az=95.0*

NEIC Felt [IV PIVS] on Sabtang Island and at Basco, Ivana and Mahatao, Batan. Felt [III PIVS] on Itbayat.

*ISCJB **08** 16:38:56.7±1.1, 20°.37N±0°.02×122°.10E±0°.05, h23^{km}±9^{km}, mb4.3/44, MS3.8/10, Error ellipse: s-maj=8.1km s-min=3.1km az=15.3*

*MAN **08** 16:38:56, 20°.31N×122°.00E, h6^{km}, mb5.6, ML4.6, MS4.9*

MAN INTENSITY IV - UYUGAN SABTANG IVANA MAHATAO BASCO BATANES; INTENSITY III - ITBAYAT BATANES.

*MOS **08** 16:38:57.4±1.2, 20°.21N×122°.13E, h33^{km}, mb4.7/17, Error ellipse: s-maj=13.3km s-min=7.4km az=114.6*

*IDC **08** 16:38:57.0±4.2, 20°.21N×122°.08E, h16^{km}±26^{km}, mb4.2/18, mb1 4.3/20, mb1mx4.2/26, mbtmp4.2/20, ML4.0/2, MS3.7/11, Ms1 3.8/11, ms1mx3.5/33, Error ellipse: s-maj=20.9km s-min=12.0km az=75.0*

*JMA **08** 16:38:58.4±0.4, 20°.54N×122°.32E, h0^{km}, M4.4*

*DJA **08** 16:38:58, 20°.30N×122°.16E, h10^{km}, mb4.9/8*

*BJI **08** 16:39:02.9, 20°.81N×121°.75E, h10^{km}, mB4.7/11, mb4.2/20, Ms4.3/8, Ms7 4.2/7*

ISC 08 16:38:58.4±1.5, 20°.37N±0°.02×122°.06E±0°.05, h20^{km}±10^{km}, n105, σ1^{s}20/114, mb4.3/44, MS3.8/10, 2C-1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	**Mt. Cagua**	2.11	180	eP	Pn	16 39 31.2	-1.5
PIP	**Pasuquin**	2.45	214	⇑iP	Pn	16 39 35.3	-2.0
PIP				eS	Sn	16 40 06.5	-0.1
TWG	**Pinlang**	2.61	340	ePn	Pn	16 39 36.1	-3.4
ABRA	**Dolores**	2.99	205	eP	Pn	16 39 43.6	-1.2
YULB	**Yu-li**	3.09	347	ePn	Pn	16 39 44.9	-1.3
TPUB	**Ta-pu**	3.21	336	eP	Pn	16 39 47.9	+0.1
PALP	**Palanan**	3.31	174	eP	Pn	16 39 49.5	+0.4
CAUP	**Cauayan**	3.41	184	eP	Pn	16 39 52.0	+1.4
SSLB	**Suanglung**	3.56	343	eP	Pn	16 39 49.4	-3.1
NACB	**Ninganchiao**	3.81	354	ePn	Pn	16 39 53.5	-2.6
NACB				eSn	Sn	16 40 37.3	-3.1
HATJ	**Hateruma jima**	4.01	23	P	Pn	16 39 59.4	+0.6
HATJ				eS	Sn	16 40 44.1	-1.1
YOJ	**Yonaguni jima**	4.17	12	P	Pn	16 40 02.4	+1.5
YOJ				eS	Sn	16 40 49.2	+0.1
IRIF	**Iriomote-Funau**	4.24	21	P	Pn	16 40 02.2	+0.3
IRIF				eS	Sn	16 40 50.7	-0.2
JKRS	**Kuro-shima**	4.25	25	P	Pn	16 40 02.6	+0.5
JKRS				eS	Sn	16 40 50.7	-0.5
YHNB	**Yeheng**	4.33	352	ePn	Pn	16 40 03.1	0.0
YHNB				eSn	Sn	16 40 53.1	+0.1
JIJ	**Ishigaki jima**	4.42	25	P	Pn	16 40 04.8	+0.4
JIJ				eS	Sn	16 40 54.0	-1.3
BOLP	**Bolinao**	4.46	208	eP	Pn	16 40 07.2	+2.3
BALP	**Baler**	4.62	186	eP	Pn	16 40 07.1	-0.1
PCPH	**Palayan**	4.87	191	⇓eP	Pn	16 40 10.4	-0.1
PCPH				eS	Sn	16 41 07.0	+0.6
JTJ	**Tarama**	4.90	29	P	Pn	16 40 12.3	+1.2
JTJ				eS	Sn	16 41 06.4	-0.9
SCZP	**Santa Cruz**	5.00	204	eP	Pn	16 40 11.9	-0.5
POLP	**Polilio Island**	5.61	181	eP	Pn	16 40 21.5	+0.7
GQP	**Guinayangan**	6.44	177	eP	Pn	16 40 32.3	+0.1
LUBP	**Lubang**	6.82	195	eP	Pn	16 40 39.2	+1.8
PVCP	**Virac**	7.03	163	eP	Pn	16 40 41.1	+0.8
SJMP	**San Jose**	7.91	187	eP	Pn	16 40 53.4	+1.0
BUSP	**Coron**	8.51	192	eP	Pn	16 40 58.4	-2.2
JOW	**Kunigami**	8.59	40	Pn	Pn	16 41 01.5	-0.2
	7.0nm,0.3s,baz=227,slow=7.2,SNR=16						
JOW				LR	LR	16 44 48.0	
	comp=Z,356nm,20.1s,baz=236,slow=40						
QIZ	**Qiongzhong**	11.59	265	ePn	Pn	16 41 39.9	-2.9
	83nm,1.6s						
DAV	**Davao City (W)**	13.65	165	LR	LR	16 47 31.2	
	comp=Z,540nm,20.8s,baz=30,slow=38						
INCN	**Inchon**	17.51	12	ePn	Pn	16 43 00.9	-0.5
	6.1nm,0.5s						
KSRS	**Korea Array**	17.77	15	P	Pn	16 43 06.0	+1.3
	0.2nm,0.3s,baz=199,slow=12,SNR=10						
KSRS				LR	LR	16 50 22.5	
	comp=Z,179nm,18.9s,baz=196,slow=38						
XAN	**Xi’an**	17.92	322	eP	Pn	16 43 12.3	+5.8
XAN				pmax	pmax		
	comp=Z,5.0nm,1.6s						
XAN				pmax	pmax		
	comp=Z,86nm,7.4s						
KMI	**Kunming**	18.43	288	P	Pn	16 43 17.3	+4.4
KMI				pmax	pmax		
	comp=Z,7.0nm,1.1s						

CD2	Chengdu	19.53	306	P	Pn	16 43 24.7	-1.4
CD2				pmax	pmax		
	comp=Z,40nm,1.0s						
CD2				pmax	pmax		
	comp=Z,420nm,5.1s						
BJT	Baijiatuau	20.23	347	*e*P	P	16 43 31.8	-0.4
BJT				pmax	pmax		
	comp=Z,21nm,0.8s						
BJT	Baijiatuau	20.23	347	*e*P	P	16 43 31.8	-0.4
	comp=Z,21nm,0.8s						
BJI	Beijing	20.25	347	P	P	16 43 32.1	-0.3
BJI				pmax	pmax		
	comp=Z,14nm,0.8s						
BJI				pmax	pmax		
	comp=Z,300nm,5.2s						
BJI				LR	LR		
	comp=N,210nm,9.3s						
BJI				LR	LR		
	comp=E,310nm,8.8s						
JHJ	Hachijo jima 2	20.25	48	LR	LR	16 50 09.3	
	comp=E,210nm,21.9s,MS3.5,baz=269,slow=33						
MAJO	Matsushiro	21.43	38	*e*P	P	16 43 45.9	+0.7
MAJO				pmax	pmax		
	comp=Z,36nm,1.5s,mb4.5						
MAJO	Matsushiro	21.43	38	*e*P	P	16 43 45.9	+0.6
	comp=Z,36nm,1.5s,mb4.5						
MJAR	Matsushiro Arr	21.43	38	P	P	16 43 49.4	+4.2
	comp=Z,1.0nm,0.7s,mb3.3,baz=189,slow=6.0,SNR=3.9						
MJAR				LR	LR	16 52 58.8	
	comp=Z,85nm,19.6s,MS3.1,baz=225,slow=39						
MJAR	Matsushiro Arr	21.43	38	P	P	16 43 49.4	+4.2
MJAR				LR	LR	16 52 58.8	
CHTO	Chiang Mai	21.83	270	*e*P	P	16 43 49.6	-0.2
CHTO				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.4						
CHTO	Chiang Mai	21.83	270	*e*P	P	16 43 49.6	-0.2
	comp=Z,16nm,1.0s,mb4.4						
CMAR	Chiang Mai Arr	21.88	269	P	P	16 43 50.7	+0.4
CMAR						16 47 49.4	
CMAR	Chiang Mai Arr	21.88	269	P	P	16 43 50.6	+0.3
	comp=Z,11nm,0.9s,mb4.3,baz=74,slow=8.2,SNR=44						
CMAR				PcP	PcP	16 47 49.4	-0.2
	comp=Z,0.4nm,0.4s,baz=48,slow=1.9,SNR=4.4						
CMAR				ScP	ScP	16 51 25.1	-0.8
	comp=Z,0.6nm,0.9s,baz=91,slow=1.6,SNR=4.2						
KSM	Kuching	22.01	213	*e*P	P	16 43 48.9	-2.8
	comp=Z,27nm,0.9s,mb4.7						
LZH	Lanzhou	22.36	318	*e*P	P	16 44 02.0	+6.7
LZH				pP		16 44 05.0	
LZH				sP	sP	16 44 08.0	+4.5
LZH				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.5						
LZH				pmax	pmax		
	comp=Z,130nm,4.5s						
MDJ	Mudanjiang	24.98	13	*e*P	P	16 44 19.5	-1.1
	comp=Z,6.7nm,1.1s,mb4.1						
GTA	Gaotai	26.93	320	*e*P	P	16 44 43.4	+5.0
GTA				pP	pP	16 44 47.9	+3.4
GTA				sP	sP	16 44 51.0	+4.0
GTA				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.6						
PSI	Prapat	28.53	235	P	P	16 44 50.9	-2.1
	comp=Z,9.6nm,0.9s,mb4.5,baz=32,slow=3.5,SNR=9.4						
PSI				LR	LR	16 56 27.8	
	comp=Z,214nm,18.5s,MS3.8,baz=225,slow=37						
LSA	Lhasa	29.43	295	*e*P	P	16 45 02.9	+2.0
LSA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
LSA	Lhasa	29.43	295	*e*P	P	16 45 02.9	+2.0
	comp=Z,3.2nm,0.7s,mb4.2						
KLR	Kul'dur	29.82	13	*e*P	P	16 45 06.2	+2.1
ULN	Ulaanbaatar	30.00	340	*e*P	P	16 45 05.1	-0.6
ULN				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.2						
ULN	Ulaanbaatar	30.00	340	*e*P	P	16 45 05.1	-0.5
	comp=Z,5.7nm,1.1s,mb4.2						
SONM	Songino Array	30.19	339	P	P	16 45 07.7	+0.4
	comp=Z,1.1nm,0.6s,mb3.8,baz=152,slow=9.3,SNR=18						
SONM				LR	LR	16 58 26.0	
	comp=Z,244nm,19.7s,MS3.9,baz=173,slow=38						
YSS	Yuzh-Sakhalins	31.43	28	*e*P	P	16 45 23.0	+4.7
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.1						
YSS	Yuzh-Sakhalins	31.43	28	*e*P	P	16 45 20.9	+2.7
	comp=Z,30nm,1.5s,mb4.9						
ZAK	Zakamensk	33.44	338	*e*P	P	16 45 34.6	-1.2
TLY	Talaya	34.41	340	*e*P	P	16 45 51.1	+6.8
TLY				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
TLY				MLR	MLR		
	comp=Z,138nm,17.0s,MS3.8						
FITZ	Fitzroy Crossi	38.39	175	P	P	16 46 15.7	-2.9
	comp=Z,3.2nm,0.9s,mb4.0,baz=357,slow=13,SNR=2.2						
MKAR	Makanchi Array	41.68	319	P	P	16 46 46.2	+0.6
	comp=Z,3.7nm,0.8s,mb4.0,baz=110,slow=8.7,SNR=28						
MKAR				LR	LR	17 06 28.1	
	comp=Z,92nm,18.6s,MS3.7,baz=131,slow=40						
MKAR	Makanchi Array	41.68	319	P	P	16 46 46.2	+0.6
MKAR				LR	LR	17 06 28.1	
KRAR	Krasnoyarsk	41.73	336	*e*P	P	16 46 47.5	+1.6
KRAR				pmax	pmax		
	comp=Z,12nm,0.5s,mb4.8						
WRAB	Tennant Creek	41.82	163	*e*P	P	16 46 42.7	-4.3
WRAB				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
WRAB	Tennant Creek	41.82	163	*e*P	P	16 46 42.7	-4.3
	comp=Z,13nm,0.8s,mb4.6						
WRA	Warramunga Arr	41.83	163	P	P	16 46 44.0	-3.0
	comp=Z,8.5nm,0.7s,mb4.5,baz=343,slow=9.0,SNR=32						
PETK	Petropavlovsk-	42.63	31	P	P	16 46 53.6	+0.3
	comp=Z,1.2nm,0.7s,mb3.7,baz=244,slow=4.0,SNR=2.3						
PETK				LR	LR	17 04 25.7	
	comp=Z,85nm,18.4s,MS3.7,baz=155,slow=36						
KSH	Kashi	43.73	306	*e*P	P	16 47 10.2	+7.8
KSH				*e*PP	PP	16 48 54.0	+10
KSH				*e*PcP	PcP	16 48 55.7	+6.5
KSH				*e*ScP	ScP	16 52 41.4	+1.5
KSH				*e*PcS	PcS	16 52 45.2	+3.3
KSH				*e*S	S	16 53 42.9	+11
KSH				*e*ScS	ScS	16 57 02.7	+1.8
KSH				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
KSH				LR	LR		
	comp=N,370nm,8.5s						
KSH				LR	LR		
	comp=E,410nm,7.4s						
KSH				LR	LR		
	comp=Z,550nm,6.2s						
ZALV	Zalesovo Beam	43.90	329	P	P	16 47 03.1	-0.4
	comp=Z,6.3nm,0.9s,mb4.4,baz=108,slow=8.2,SNR=14						
ZALV				LR	LR	17 07 01.6	
	comp=Z,80nm,21.5s,MS3.6,baz=253,slow=38						
NVS	Novosibirsk	45.17	329	*e*P	P	16 47 12.7	-1.0
ASAR	Alice Springs	45.26	165	P	P	16 47 13.2	-1.5
	comp=Z,3.3nm,0.6s,mb4.4,baz=354,slow=7.2,SNR=67						
AAK	Ala-Archa	45.52	310	*e*P	P	16 47 16.9	+0.2
AAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
KURK	Kurchatov	45.56	322	P	P	16 47 17.1	+0.3
	comp=Z,3.5nm,0.8s,mb4.3,baz=120,slow=7.3,SNR=12						
AML	Almayashu	45.98	309	*e*P	P	16 47 21.9	+1.6
	comp=Z,7.3nm,1.0s,mb4.6						
BVAR	Borovoye Array	51.16	323	P	P	16 48 00.8	+0.9
	comp=Z,1.2nm,0.6s,mb4.0,baz=107,slow=9.6,SNR=7.5						
BVAR				PcP	PcP	16 49 13.9	-1.4
	comp=Z,0.7nm,0.6s,baz=115,slow=5.4,SNR=2.4						
BRVK	Borovoye	51.23	323	*e*P	P	16 48 00.6	+0.1
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BRVK	Borovoye	51.23	323	*e*P	P	16 48 00.6	+0.1
	comp=Z,9.6nm,1.0s,mb4.7						
TIXI	Tiksi	51.45	3	*e*P	P	16 48 02.9	+1.1
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
TIXI	Tiksi	51.45	3	*e*P	P	16 48 02.9	+1.1
	comp=Z,3.5nm,0.8s,mb4.3						
NWAO	Narrogin (SRO)	53.19	185	P	P	16 48 14.3	-1.0
	comp=Z,12nm,1.1s,mb4.8,baz=31,slow=5.9,SNR=5.1						
NWAO	Narrogin (SRO)	53.19	185	P	P	16 48 14.3	-1.0
BILL	Bilibino	55.00	19	*e*P	P	16 48 28.1	0.0
BILL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
BILL	Bilibino	55.00	19	*e*P	P	16 48 28.1	0.0
	comp=Z,3.8nm,0.8s,mb4.5						
STKA	Stephens Creek	55.22	160	P	P	16 48 28.7	-1.3
	comp=Z,2.1nm,0.6s,mb4.3,baz=338,slow=7.9,SNR=5.4						
SVE	Sverdlovsk	57.61	325	*e*P	P	16 48 46.8	0.0
SVE				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
AKTK	Aktyubinsk	58.09	317	P	P	16 48 51.9	+1.5
AKTO	Aktyubinsk	58.09	317	P	P	16 48 51.9	+1.5
	comp=Z,2.0nm,0.8s,mb4.2,baz=118,slow=9.4,SNR=6.6						
GNI	Garni	67.66	306	*e*P	P	16 49 54.8	+0.5
GNI				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KIV	Kislovodsk	68.64	310	⇑*e*P	P	16 50 01.5	+1.2
KIV				*e*		16 50 10.6	
KIV						16 50 25.0	
KIV				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
VSR	Storozhevoye	70.00	318	*e*P	P	16 50 10.4	+1.8
VSR				pmax	pmax		
	comp=N,3.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
VSR				pmax	pmax		
	comp=E,6.0nm,0.4s						
OBN	Obninsk	71.00	323	P	P	16 50 17.0	+2.4
OBN				MLR	MLR		
	comp=Z,200nm,15.0s,MS4.5						
JOF	Joensuu	72.42	331	*e*p	P	16 50 22.0	-1.0
	comp=Z,1.5nm,0.6s,mb4.1						
MALT	Malatya	72.81	305	*e*P	P	16 50 26.4	+0.5
MALT				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
MALT	Malatya	72.81	305	*e*P	P	16 50 26.4	+0.6
	comp=Z,6.0nm,0.9s,mb4.5						
ARCES	ARCESS Array B	73.37	339	P	P	16 50 32.7	+4.1
	comp=Z,4.7nm,0.9s,mb4.4,baz=96,slow=6.4,SNR=4.7						
KAF	Kangasniemi	74.86	331	*e*P	P	16 50 38.2	+0.8
KAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
KAF	Kangasniemi	74.86	331	*e*p	P	16 50 38.2	+0.8
	comp=Z,2.9nm,0.8s,mb4.3						
BRTR	Keskin Array B	76.10	307	P	P	16 50 44.8	-0.2
	comp=Z,1.4nm,0.8s,mb3.9,baz=108,slow=4.0,SNR=5.8						
AKASG	Malin Array Be	76.26	319	P	P	16 50 45.0	-0.6
	comp=Z,2.6nm,0.6s,mb4.3,baz=63,slow=5.1,SNR=6.6						
NB2	NORSAR Subarra	81.97	333	P	P	16 51 18.9	+2.2
	comp=Z,2.7nm,0.9s,mb4.2,baz=66,slow=5.6						
NOA	NORSAR Array B	81.97	333	P	P	16 51 16.3	-0.3
	comp=Z,1.3nm,0.9s,mb3.9,baz=64,slow=5.2,SNR=3.3						
NOA				LR	LR	17 31 28.5	
	comp=Z,171nm,19.5s,MS4.4,baz=350,slow=38						
YKA	Yellowknife Ar	86.16	23	P	P	16 51 38.1	+0.1
	comp=Z,0.9nm,0.7s,mb4.1,baz=309,slow=4.5,SNR=14						

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*CSEM **08** 16:50:44.1±1.3, 40°.31N×42°.08E, h2^{km}, MD2.6, Error ellipse: s-maj=38.9km s-min=10.7km az=4.0*

DDA 08 16:50:48.5, 40°.05N×41°.90E, h5^{km}±1^{km}, Md2.6, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOMI	Horasan	0.01	170	*i* P	Pg	16 50 49.2	-0.2
HOMI				*i* S	Sg	16 50 50.8	+0.8
ERZM	Erzurum	0.44	250	*i* P	Pg	16 50 57.5	+0.6
ERZM				*i* S	Sg	16 51 07.3	+4.7
ERZM	Erzurum	0.44	250	*i* P	Pg	16 50 57.5	+0.6
ERZM				*i* S	Sg	16 51 07.3	+4.6
EZM	Erzurum	0.44	251	*e*PG	Pg	16 50 57.7	+0.7
AGRB	Hanur-Agry	0.96	119	*e*PN	Pn	16 51 05.4	-3.3
AGRB				*e*SN	Sn	16 51 21.8	-0.9
AGRB	Hanur-Agry	0.96	119	*e*Pn	Pn	16 51 05.4	-3.3
AGRB				*e*Sn	Sn	16 51 21.8	-0.9
KOPT	Kop Dagi	1.08	269	*i* P	Pg	16 51 09.0	-0.2
KOPT				*i* S	Sg	16 51 24.9	+1.7
KOPT	Kop Dagi	1.08	269	*i* P	Pg	16 51 09.0	-0.2
KOPT				*i* S	Sg	16 51 24.9	+1.7

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*ISCJB **08** 17:15:34.3±1.4, 17°.5S±0°.1×175°.3W±0°.1, h220^{km}±17^{km}, mb4.3/17, Error ellipse: s-maj=23.2km s-min=14.3km az=141.7*

*NEIC **08** 17:15:35.8±1.6, 17°.33S×175°.48W, h221^{km}±16^{km}, mb4.5/9, Error ellipse: s-maj=21.4km s-min=14.4km az=150.0*

*IDC **08** 17:15:37.0±2.2, 17°.57S×175°.20W, h236^{km}±23^{km}, mb4.0/6, mb1 4.3/7, mb1mx3.8/19, mbtmp4.1/7, Error ellipse: s-maj=33.7km s-min=15.3km az=135.0*

ISC 08 17:15:36.6±1.6**, 17°.6S**±0°.2×**175°.3W**±0°.1**, h226**^{km}±18^{km}**, n28, σ0^{s}68**/27**, mb4.3**/17**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	4.98	44	P	Pn	17 16 51.5	0.0
	34nm,0.3s,baz=74,slow=2.4,SNR=61						
AFI				S	S	17 17 45.0	-5.8
	264nm,0.3s,baz=113,slow=17,SNR=24						
FUNA	Funafuti	10.44	329	P	Pn	17 17 54.4	-6.8
	63nm,0.7s						
URZ	Urewera	21.67	196	P	P	17 20 09.3	-0.2
	5.0nm,0.4s,mb4.4,baz=353,slow=12,SNR=8.9						
URZ				S	S	17 23 47.9	-5.4
	5.5nm,0.7s,baz=255,slow=20,SNR=3.2						
EIDS	Eidsvold	32.15	250	*e*P	P	17 21 42.6	-0.7
	4.0nm,0.7s,mb4.1						
ARMA	Armidale	32.67	241	*e*P	P	17 21 49.2	+1.5
RMQ	Roma	34.37	249	*e*P	P	17 22 03.3	+0.8
	5.7nm,0.6s,mb4.3						
CTA	Charters Tower	36.41	260	*e*P	P	17 22 19.9	+0.1
	6.2nm,0.7s,mb4.2						
CTAO	Charters Tower	36.41	260	*e*P	P	17 22 19.7	-0.2
	6.3nm,0.6s,mb4.3						
CMSA	Cobar Meteorol	37.89	241	*e*P	P	17 22 32.5	+0.3
MTSU	Mount Surprise	38.37	263	*e*P	P	17 22 36.3	0.0
	5.8nm,0.5s,mb4.4						
QLP	Quilpie	38.41	249	*e*P	P	17 22 36.5	-0.1
STKA	Stephens Creek	41.38	242	*e*P	P	17 23 01.4	+0.5
	10nm,1.0s,mb4.2						
STKA	Stephens Creek	41.38	242	P	P	17 23 01.4	+0.5
	9.2nm,0.6s,mb4.4,baz=80,slow=7.6,SNR=32						
STKA	Stephens Creek	41.38	242	P	P	17 23 01.4	+0.5
BBOO	Buckleboo	46.15	241	*e*P	P	17 23 38.7	-0.1
	6.0nm,0.9s,mb3.9						
WRAB	Tennant Creek	47.58	259	*e*P	P	17 23 49.6	-0.4
	5.0nm,0.4s,mb4.2						
WRA	Warramunga Arr	47.59	259	P	P	17 23 49.7	-0.4
	7.7nm,0.5s,mb4.2,baz=97,slow=7.4,SNR=231						
ASAR	Alice Springs	47.72	254	P	P	17 23 51.1	0.0
	42nm,0.6s,mb5.0,baz=90,slow=8.0,SNR=1004						
KAKA	Kakadu	50.53	268	*e*P	P	17 24 11.8	-0.7
	101nm,1.2s,mb5.1						
MBWA	Marble Bar	61.01	255	*e*P	P	17 25 25.4	-1.3
	5.4nm,0.6s,mb4.3						
QSPA	South Pole Qui	72.50	180	*e*P	P	17 26 37.8	-0.3
	8.0nm,1.4s,mb4.2						
KSM	Kuching	75.56	276	P	P	17 26 57.2	+0.2
	12nm,0.8s,mb4.6						
NVAR	Mina Array Bea	77.15	43	P	P	17 27 04.4	-1.0
	1.0nm,0.8s,mb3.5,baz=219,slow=10,SNR=6.1						
PV10	Paradox Valley	83.32	46	*e*P	P	17 27 39.4	+1.1
	46nm,0.7s,mb5.3						
CMAR	Chiang Mai Arr	91.55	289	P	P	17 28 19.2	+1.0
	1.1nm,0.9s,mb3.8,baz=90,slow=3.2,SNR=6.3						
MKAR	Makanchi Array	111.00	314	PKiKP	PKiKP	17 33 40.6	-2.3
	0.1nm,0.6s,baz=122,slow=0.9,SNR=3.2						
BRTR	Keskin Array B	146.57	317	PKPbc	PKPbc	17 34 50.9	-0.7
	1.0nm,0.8s,baz=154,slow=3.2,SNR=3.8						
GERES	GERESS Array B	147.94	349	PKPbc	PKPbc	17 34 54.6	-0.4
	0.7nm,0.8s,baz=151,slow=2.2,SNR=4.8						

GUC 08 17:17:05.8±0.4**, 24°.92S**×**69°.10W, h137**^{km}±10^{km}**, MD3.1, ML3.5, 2C-4D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	Cerro Paranal	1.22	284	⇓*i*P	Pn	17 17 32.5	+1.1
CPN1				*i* S	Sn	17 17 53.1	+2.1
LVC	Limon Verde	2.31	4	⇑*i*P	Pn	17 17 45.5	+1.6
LVC				*i* S	Sn	17 18 15.4	+2.3
LVC				AML	AML	17 18 19.2	
	comp=N,122nm,0.3s						
PECH	Pedro de Valdi	2.38	347	*i* P	Pn	17 17 46.0	+1.3
PECH				*i* S	Sn	17 18 16.7	+2.0
PECH				AML	AML	17 18 23.0	
	comp=E,424nm,0.2s						
PB04	Plate Boundary	2.67	352	⇓*i*P	Pn	17 17 52.0	+3.5
PB04				⇓*i*S	Sn	17 18 26.8	+5.5
PB04				AML	AML	17 18 36.2	
	comp=N,130nm,0.3s						
PB01	Plate Boundary	3.88	355	⇓*i*P	Pn	17 18 05.3	+1.1
PB01				*i* S	Sn	17 18 51.1	+1.7
HMBC	Humberston	4.68	351	⇑*i*P	Pn	17 18 15.0	+0.2
HMBC				*i* S	Sn	17 19 08.9	+0.5

MAN 08 17:17:28, 16°.53N×120°.91E, h33^{km}, mb3.7, ML2.4, MS1.9, 1C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	Bolinao	0.96	261	*e*P	Pn	17 17 45.7	+0.5
CAUP	Cauayan	0.97	65	*e*P	Pn	17 17 45.9	+0.6
PCPH	Palayan	0.98	169	⇑*e*P	Pn	17 17 45.0	-0.5
PCPH				*e*S	Sn	17 17 58.5	+0.3
BALP	Baler	1.02	141	*e*P	Pn	17 17 45.1	-0.8
BALP				*e*S	Sn	17 17 56.7	-2.4
ABRA	Dolores	1.12	351	*e*P	Pn	17 17 48.2	+0.7
ABRA				*e*S	Sn	17 18 01.7	-0.1
SCZP	Santa Cruz	1.22	232	*e*P	Pn	17 17 49.7	+1.0
PALP	Palanan	1.55	70	*e*P	Pn	17 17 55.1	+1.9
POLP	Polilio Island	2.05	151	*e*P	Pn	17 18 03.3	+3.1

IDC 08 17:21:57.7±63.0**, 20°.35S**×**177°.17W, h0**^{km}**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.7**/16**, mbtmp3.9**/3**, Error ellipse: s-maj=1153.0km s-min=169.1km az=83.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.55	244	P	P	17 29 21.8	-0.5
	3.0nm,0.7s,baz=85,slow=8.8,SNR=5.2						
ASAR	Alice Springs	45.31	256	P	P	17 30 17.4	-0.2
	1.1nm,0.8s,baz=94,slow=7.7,SNR=8.7						
WRA	Warramunga Arr	45.39	262	P	P	17 30 18.8	+0.4
	0.5nm,0.3s,baz=95,slow=8.1,SNR=8.3						

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*SZGRF **08** 17:31:38.6, 54°.84N×165°.78W, h33^{km}, mb5.1, Fox Islands, Aleutian Islands, United States*

*MOS **08** 17:31:58.0±0.8, 55°.09N×165°.58W, h197^{km}, mb4.9/79, Error ellipse: s-maj=10.3km s-min=4.4km az=90.6*

*ISCJB **08** 17:31:59.3±0.1, 55°.15N±0°.03×165°.74W±0°.03, h205^{km}, mb4.7/189, Error ellipse: s-maj=3.7km s-min=2.0km az=14.2*

*NEIC **08** 17:31:59.6±0.2, 54°.94N×165°.40W, mb4.8/96, Error ellipse: s-maj=5.2km s-min=3.1km az=160.0*

*BJI **08** 17:31:59.8, 55°.25N×166°.16W, h208^{km}, mB5.0/28, mb4.7/47*

*IDC **08** 17:32:00.6±0.6, 55°.13N×165°.71W, h206^{km}±5^{km}, mb4.2/26, mb1 4.3/28, mb1mx4.3/32, mbtmp4.2/28, Error ellipse: s-maj=12.5km s-min=6.7km az=179.0*

*DJA **08** 17:32:29, 55°.34N×167°.41W, h449^{km}, mb4.7/8*

ISC 08 17:32:00.9±0.1**, 55°.15N**±0°.03×**165°.78W**±0°.03**, h207**^{km}**, h207**^{km}±2.0^{km}**:pP-P, n635, σ0^{s}74**/642**, mb4.7**/189**, 136C-113D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKGG	Akutan Green G	0.96	188	P	Pn	17 32 28.8	-2.4
AKGG				S	Sn	17 32 50.9	-3.7
AKLV	Akutan Long Va	0.99	186	P	Pn	17 32 28.7	-2.7
AKUT	Akutan	1.02	180	P	Pn	17 32 28.8	-2.7
AKUT				S	Sn	17 32 51.2	-3.9
UNV	Unalaska Valle	1.37	198	P	Pn	17 32 31.4	-2.8
UNV				S	Sn	17 32 56.1	-3.8
FALS	False Pass	1.39	101	P	Pn	17 32 30.7	-3.6
FALS				S	Sn	17 32 56.2	-4.0
NIKO	Nikolski	2.84	221	P	Pn	17 32 47.7	-1.3
NIKO				S	Sn	17 33 25.1	-1.4
SDPT	Sand Point	3.04	84	P	Pn	17 32 47.2	-4.1
SDPT				S	Sn	17 33 22.7	-8.1
SPIA	Saint Paul Isl	3.22	311	P	Pn	17 32 55.3	+1.9
CHGN	Chignik	4.32	71	P	Pn	17 33 04.1	-2.7
ATKA	Atka Island	5.81	243	P	Pn	17 33 25.3	-0.4
SII	Sitkinak Islan	6.68	73	P	Pn	17 33 32.7	-4.2
SII				S	Sn	17 34 45.6	-7.5
OHAK	Old Harbor	7.27	68	P	Pn	17 33 39.2	-5.3
KDAK	Kodiak Island	7.77	65	P	Pn	17 33 46.5	-4.5
	31nm,0.3s,baz=257,slow=7.4,SNR=260						
KDAK				S	Sn	17 35 07.0	-12
	28nm,0.3s,baz=277,slow=18,SNR=13						
KDAK	Kodiak Island	7.77	65	P	Pn	17 33 46.2	-4.7
SVW2	Sparrevohn	8.04	38	P	Pn	17 33 53.8	-0.6
GAMB	Gambell	9.16	343	P	Pn	17 34 11.0	+2.1
TT01	Tatalina	9.25	29	P	Pn	17 34 09.8	-0.3
AMKA	Amchitka	9.70	253	*e*P	Pn	17 34 16.5	+0.4
	112nm,0.4s						
SLKM	Skilak Lake	9.87	51	P	Pn	17 34 15.6	-2.5
FIB	Fire Island	10.20	47	*e*P	Pn	17 34 21.0	-1.3
FIB				pmax	pmax		
	comp=Z,68nm,0.4s						
FIB	Fire Island	10.20	47	*e*Pn	Pn	17 34 20.3	-2.0
	comp=Z,68nm,0.4s						
FIB				*e*Sn	Sn	17 36 04.8	-11
PMR	Palmer	10.84	47	*e*P	Pn	17 34 28.1	-2.5
PMR				pmax	pmax		
	comp=Z,6.0nm,0.3s						
PMR	Palmer	10.84	47	*e*P	Pn	17 34 28.1	-2.5
	comp=Z,5.5nm,0.3s						
KTH	Kantishna Hill	11.30	36	*e*Pn	Pn	17 34 36.6	+0.1
	comp=Z,446nm,1.1s						
TRF	Thorofare Moun	11.45	37	*e*Pn	Pn	17 34 38.6	+0.3
	comp=Z,157nm,1.5s						
BPAW	Bear Paw Mtn.	11.65	34	*e*Pn	Pn	17 34 37.4	-3.4
	comp=Z,142nm,1.1s						
FX1	Attu Island--F	12.58	268	P	Pn	17 34 54.2	+1.4
	comp=Z,20nm,0.3s,baz=11,slow=2.6,SNR=27						
FX1	Attu Island--F	12.58	268	P	Pn	17 34 54.2	+1.4
COLA	College	13.19	35	P	Pn	17 34 58.1	-2.0
COLA				pmax	pmax		
	comp=Z,39nm,1.0s						
COLA	College	13.19	35	*e*Pn	Pn	17 34 57.4	-2.7
	comp=Z,39nm,0.9s						
COLA				*e*Sn	Sn	17 37 18.0	-9.2
PNL	Peninsula	14.86	62	*e*Pn	Pn	17 35 18.4	-2.4
	comp=Z,48nm,0.6s						
PNL				*e*Sn	S	17 37 54.6	-11
EGAK	Eagle	15.54	42	*e*Pn	Pn	17 35 25.8	-3.2
	comp=Z,18nm,0.6s						
EGAK				*e*ScP	ScP	17 43 29.7	-0.8
DAWY	Dawson	15.94	45	*e*Pn	Pn	17 35 32.0	-1.8
DAWY				*e*Sn	S	17 38 42.8	+13
SKAG	Skagway	16.92	63	*e*P	P	17 35 44.7	+0.6
	comp=Z,58nm,0.8s						
BILL	Bilibino	18.30	326	P	P	17 36 03.7	+4.6
BILL				pmax	pmax		
	comp=Z,92nm,1.0s						
BILL	Bilibino	18.30	326	*e*P	P	17 36 01.3	+2.3
	comp=Z,92nm,1.0s						
DLBC	Dease Lake	19.70	66	P	P	17 36 15.6	+1.3
	comp=Z,2.1nm,0.3s,baz=260,slow=8.0,SNR=17						
DLBC				ScP	ScP	17 43 39.7	+0.3
	comp=Z,0.2nm,0.3s,baz=327,slow=5.0,SNR=6.7						
DLBC	Dease Lake	19.70	66	*e*P	P	17 36 15.0	+0.7
PET	Petropavlovsk	20.84	279	*e*P	P	17 36 27.4	+1.0
PET				pmax	pmax		
	comp=Z,113nm,1.1s						
PETK	Petropavlovsk-	21.35	280	P	P	17 36 32.4	+0.7
	comp=Z,63nm,0.8s,mb5.2,baz=78,slow=11,SNR=118						
PETK				PcP	PcP	17 40 26.7	+0.2
	comp=Z,5.5nm,0.9s,baz=65,slow=2.6,SNR=5.7						
SEY	Seymchan	22.52	307	⇓*i*P	P	17 36 43.8	+1.0
YKA	Yellowknife Ar	26.83	53	P	P	17 37 20.6	-1.1
YKA				*PP	pP	17 38 03.2	+0.1
YKA						17 40 38.0	
YKA	Yellowknife Ar	26.83	53	P	P	17 37 20.6	-1.1
	comp=Z,1.7nm,0.4s,mb4.0,baz=274,slow=8.9,SNR=30						
YKA				pP	pP	17 38 03.2	+0.1
	comp=Z,2.1nm,0.7s,baz=274,slow=8.5,SNR=2.8						
YKA				PcP	PcP	17 40 38.0	-0.3
	comp=Z,3.2nm,0.6s,baz=289,slow=2.4,SNR=12						
YKA				ScP	ScP	17 43 57.9	-0.5
	comp=Z,3.5nm,0.8s,baz=284,slow=3.2,SNR=34						
YKA	Yellowknife Ar	26.83	53	P	P	17 37 20.6	-1.1
YKA				pP	pP	17 38 03.2	+0.1
YKA				PcP	PcP	17 40 38.0	-0.3
YKA				ScP	ScP	17 43 57.9	-0.5
C07A	Waterville	29.02	86	⇑P	P	17 37 42.0	+0.8
	baz=29						
H04A	Detroit Lake	29.49	92	⇓P	P	17 37 46.6	+1.1

	baz=29						
C08A	Higginbotham F	29.55	85	⇑P	P	17 37 46.3	+0.3
	baz=29						
EDM	Edmonton	30.15	72	eP	P	17 37 51.0	-0.1
A11A	Hall Mountain,	30.46	81	⇑P	P	17 37 55.0	+1.0
	baz=30						
H06A	Lindquist Farm	30.52	91	⇓P	P	17 37 54.9	+0.3
	baz=30						
F08A	Pendleton	30.80	88	⇑P	P	17 37 57.2	+0.2
	baz=30						
D10A	Wagner Farm, O	30.95	85	⇑P	P	17 37 57.9	-0.4
	baz=31						
G08A	Pilot Rock	30.99	89	⇑P	P	17 37 59.0	+0.4
	baz=31						
E10A	Myers Farm, Un	31.36	85	⇓P	P	17 38 01.9	0.0
	baz=31						
I07A	Izee	31.39	91	⇑P	P	17 38 02.9	+0.7
	baz=31						
K05A	Summer Lake	31.43	94	⇓P	P	17 38 03.0	+0.4
	baz=31						
TIXI	Tiksi	31.52	327	eP	P	17 38 04.0	+1.1
TIXI				e		17 40 45.4	
TIXI				pmax	pmax		
	comp=Z,34nm,0.9s,mb4.9						
TIXI	Tiksi	31.52	327	eP	P	17 38 04.0	+1.0
	comp=Z,34nm,0.9s,mb4.9						
TIXI				ePcP	PcP	17 40 45.4	-4.7
TIXI				eScP	ScP	17 44 12.3	-1.0
J06A	Christmas Vall	31.53	93	⇑P	P	17 38 04.4	+1.0
	baz=31						
F10A	Beach Ranch, E	31.59	86	⇓P	P	17 38 04.1	+0.2
	baz=31						
H08A	Prairie City	31.61	90	⇓P	P	17 38 04.8	+0.7
	baz=31						
G09A	Cove	31.67	88	⇑P	P	17 38 05.1	+0.5
	baz=31						
B13A	Whitefish	31.84	81	⇑P	P	17 38 06.4	+0.3
	baz=32						
E11A	Bogner Ranch,	31.95	85	⇑P	P	17 38 07.5	+0.5
	baz=32						
I08A	Drewsey	32.03	91	⇓P	P	17 38 07.9	+0.1
	baz=32						
G10A	Bishop Farm, J	32.04	87	⇓P	P	17 38 07.8	0.0
	baz=32,SNR=7.7						
A14A	Double T Ranch	32.12	79	⇓P	P	17 38 08.2	-0.3
	baz=32,SNR=10						
C13A	Hot Springs	32.15	82	⇓P	P	17 38 09.0	+0.3
	baz=32						
K07A	Rock Creek Ran	32.40	93	⇑P	P	17 38 11.5	+0.5
	baz=32,SNR=5.6						
J08A	Circle Bar Ran	32.42	91	⇑P	P	17 38 11.3	+0.1
	baz=32						
A15A	Johnson Ranch,	32.50	78	⇓P	P	17 38 12.0	+0.2
	baz=32						
YSS	Yuzh-Sakhalins	32.70	277	⇑eP	P	17 38 13.8	+0.3
YSS				pmax	pmax		
	comp=Z,50nm,1.2s,mb4.9						
K08A	Mann Creek Ran	32.81	92	⇓P	P	17 38 14.9	+0.3
	baz=32						
J09A	Fry Pan Ranch,	32.84	91	⇓P	P	17 38 15.2	+0.4
	baz=32						
RES	Resolute Bay	32.93	28	P	P	17 38 14.7	-0.5
RES				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
RES	Resolute Bay	32.93	28	P	P	17 38 14.3	-0.9
	comp=Z,4.5nm,0.8s,mb4.1,baz=255,slow=12,SNR=26						
RES				PcP	PcP	17 40 53.5	-0.5
	comp=Z,8.7nm,0.7s,baz=288,slow=1.4,SNR=15						
RES	Resolute Bay	32.93	28	eP	P	17 38 14.3	-0.9
	comp=Z,10nm,0.6s,mb4.5						
RES				ePcP	PcP	17 40 53.1	-0.8
B15A	Bradely Ranch,	32.95	79	⇓P	P	17 38 15.9	+0.2
	baz=33						
H11A	Donnelly	33.02	87	⇓P	P	17 38 16.5	+0.2
	baz=33						
YAK	Yakutsk	33.02	309	eP	P	17 38 16.3	+0.2
YAK				e		17 39 37.8	
YAK				e		17 40 52.8	
YAK				pmax	pmax		
	comp=Z,90nm,0.8s,mb5.3						
YAK	Yakutsk	33.02	309	eP	P	17 38 16.2	+0.1
	comp=Z,90nm,0.8s,mb5.3						
YAK				ePP	PP	17 39 37.8	+2.7
YAK				ePcP	PcP	17 40 52.8	-1.7
D14A	Greenough	33.09	82	⇑P	P	17 38 16.7	-0.1
	baz=33						
A16A	West Butte Ran	33.16	78	⇓P	P	17 38 17.1	-0.3
	baz=33						
C15A	Salmond Ranch,	33.22	80	⇓P	P	17 38 18.1	+0.1
	baz=33,SNR=7.7						
L08A	Fields	33.23	93	⇑P	P	17 38 18.6	+0.4
	baz=33,SNR=5.1						
K09A	Rome	33.27	92	⇓P	P	17 38 18.4	-0.1
	baz=33						
M07A	Soldier Meadow	33.27	95	⇑P	P	17 38 19.5	+1.0
	baz=33,SNR=7.0						
N06A	Buffalo Meadow	33.31	96	⇓P	P	17 38 19.8	+0.9
	baz=33						
B16A	M & M Farms, S	33.38	79	⇑P	P	17 38 19.1	-0.3
	baz=33						
E14A	Clinton	33.47	83	⇑P	P	17 38 20.4	+0.2
	baz=33						
I11A	Placerville	33.53	88	⇓P	P	17 38 20.7	-0.1
	baz=33						
BEKR	Beckwourth	33.60	98	⇑P	P	17 38 22.5	+1.1
	baz=33						
A17A	Triple J Farms	33.66	77	⇓P	P	17 38 22.0	+0.2
	baz=33						
D15A	Lincoln	33.67	81	⇑P	P	17 38 21.9	0.0
	baz=33						
M08A	Happy Creek Ra	33.69	94	⇓P	P	17 38 23.0	+0.8
	baz=33						
C16A	Fuhringer Ranc	33.69	80	⇑P	P	17 38 21.8	-0.2
	baz=33						
O06A	Flanigan	33.70	97	⇑P	P	17 38 23.4	+1.1
	baz=33						
K10A	MacKenzie Ranc	33.71	91	⇑P	P	17 38 22.9	+0.6
	baz=33,SNR=5.9						
H12A	Diamond D Ranc	33.78	87	⇑P	P	17 38 23.1	+0.2
	baz=34						
N07B	Gerlach	33.78	95	⇑P	P	17 38 23.5	+0.5
	baz=34,SNR=7.7						
G13A	Cobalt	33.81	85	⇑P	P	17 38 23.1	0.0
	baz=34,SNR=6.2						
F14A	Wisdom	33.88	84	⇓P	P	17 38 24.2	+0.4
	baz=34						
MFID	Camas Ranch	33.91	89	⇓P	P	17 38 24.3	+0.3
	baz=34						
E15A	Deer Lodge	33.95	82	⇑P	P	17 38 24.3	0.0
	baz=34						
B17A	L&G Farms, Che	33.95	78	⇑P	P	17 38 24.5	+0.2
	baz=34						
H13A	Challis	34.11	86	⇑P	P	17 38 26.0	+0.3
	baz=34						
A18A	Metzger Ranch,	34.15	77	⇓P	P	17 38 25.5	-0.5
	baz=34,SNR=5.4						
K11A	Parker Ranch,	34.19	90	⇑P	P	17 38 26.8	+0.3
	baz=34						
D16A	Dana Ranch, Ca	34.23	81	⇓P	P	17 38 26.3	-0.4
	baz=34						
O07A	Toulon	34.25	96	⇑P	P	17 38 27.5	+0.5
	baz=34,SNR=9.3						
N08A	GE Springer Mi	34.26	95	⇑P	P	17 38 27.4	+0.3
	baz=34						
F15A	Butte	34.37	83	⇑P	P	17 38 27.4	-0.5
	baz=34						
L10A	Juniper Basin	34.38	91	⇑P	P	17 38 28.4	+0.3
	baz=34,SNR=5.7						
J12A	Stokes Ranch,	34.43	89	⇓P	P	17 38 28.8	+0.3
	baz=34						
E16A	East Helena	34.44	81	⇑P	P	17 38 28.2	-0.2
	baz=34,SNR=5.8						
ASAJ	Asahikawa	34.44	273	P	P	17 38 28.6	0.0
	comp=Z,19nm,0.8s,mb4.7,baz=53,slow=3.0,SNR=13						
O08A	Rochester Mine	34.58	95	⇑P	P	17 38 30.4	+0.6
	baz=34						
I13A	Wildhorse Cree	34.59	87	⇑P	P	17 38 29.9	+0.1
	baz=34						
HLID	Hailey	34.63	88	⇓P	P	17 38 30.4	+0.3
	baz=34						
D17A	Six Diamond Ra	34.65	80	⇑P	P	17 38 30.6	+0.3
	baz=34,SNR=7.5						
EGMT	Eagleton	34.69	78	⇑P	P	17 38 30.5	-0.1
	baz=34						
EGMT	Eagleton	34.69	78	eP	P	17 38 28.3	-2.3
EGMT				ePcP	PcP	17 40 57.4	-2.0
EGMT				eScP	ScP	17 44 24.1	-0.6
M10A	I.L. Ranch, Tu	34.69	92	⇑P	P	17 38 30.6	-0.2
	baz=34						
L11A	Cat Creek Ranc	34.73	91	⇑P	P	17 38 31.3	+0.2
	baz=34,SNR=8.4						
G15A	Dillon	34.77	84	⇓P	P	17 38 31.4	0.0
	baz=34						
J13A	Cove Ranch, Pi	34.87	88	⇑P	P	17 38 32.4	+0.2
	baz=34,SNR=5.0						
K12A	Draper Farm, C	34.92	89	⇑P	P	17 38 33.2	+0.4
	baz=35						
E17A	Martinsdale	34.94	81	⇓P	P	17 38 33.1	+0.3
	baz=35						
I14A	Mackay	34.96	86	⇓P	P	17 38 33.2	+0.2
	baz=35						
BOZ	Bozeman (W)	34.97	83	⇑P	P	17 38 33.1	0.0
	baz=35						
H15A	Lima	35.00	85	⇓P	P	17 38 33.3	-0.1
	baz=35						
R06C	Coleville	35.03	99	⇓P	P	17 38 34.8	+1.1
	baz=35						
G16A	Moss Hill, Enn	35.12	83	⇓P	P	17 38 34.6	+0.2
	baz=35						
D18A	Linhart Farms,	35.12	79	⇑P	P	17 38 34.7	+0.4
	baz=35						
L12A	House Creek Ra	35.17	90	⇓P	P	17 38 35.3	+0.5
	baz=35						
M11A	Holland Ranch,	35.18	92	⇑P	P	17 38 35.5	+0.6
	baz=35						
O09A	Fish Creek Ran	35.21	95	⇑P	P	17 38 36.0	+0.9
	baz=35						
F17A	Fitzpatrick Pl	35.37	82	⇑P	P	17 38 37.0	+0.5
	baz=35						
E18A	Harlowton	35.41	80	⇓P	P	17 38 37.5	+0.7
	baz=35,SNR=5.1						
I15A	Monteview	35.47	86	⇓P	P	17 38 37.8	+0.5
	baz=35						
FFC	Flin Flon	35.51	64	i P	P	17 38 36.8	-0.8
Q08A	Gabbs	35.66	97	⇓P	P	17 38 39.6	+0.5
	baz=35						
H16A	Russell Place,	35.75	84	⇑P	P	17 38 39.9	+0.1
	baz=35,SNR=6.4						
NVAR	Mina Array Bea	35.75	98	P	P	17 38 40.3	+0.5
	comp=Z,2.3nm,0.8s,mb3.8,baz=304,slow=8.1,SNR=12						
NVAR				pP	pP	17 39 21.8	-0.8
	comp=Z,3.3nm,0.8s,baz=296,slow=8.6,SNR=5.8						
NVAR				PcP	PcP	17 41 03.3	+0.5
	comp=Z,1.9nm,0.6s,baz=299,slow=2.7,SNR=9.3						
NVAR				ScP	ScP	17 44 29.3	+0.5
	comp=Z,1.7nm,0.7s,baz=302,slow=3.9,SNR=9.2						
NVAR	Mina Array Bea	35.75	98	P	P	17 38 40.3	+0.5
NVAR				pP	pP	17 39 21.8	-0.8
NVAR				PcP	PcP	17 41 03.3	+0.5
NVAR				ScP	ScP	17 44 29.3	+0.5
L13A	Double Diamond	35.82	89	⇓P	P	17 38 40.6	+0.2
	baz=36						
J15A	Blackfoot	35.87	86	⇓P	P	17 38 41.0	+0.3
	baz=36						
R08A	Mina	35.92	98	⇑P	P	17 38 42.3	+1.1
	baz=36						
O11A	Cowboy Ranch,	36.11	93	⇑P	P	17 38 43.2	+0.4
	baz=36						
HABR	Khabarovsk	36.20	285	d iP	P	17 38 43.3	-0.2
HABR				e*PP	pP	17 39 24.9	-1.4
HABR				e		17 40 10.2	
HABR				e		17 41 03.0	
HABR				S	S	17 44 10.0	+2.3
HABR				e*SS	sS	17 45 24.1	+0.6
HABR				pmax	pmax		
	comp=Z,53nm,1.4s,mb4.9						
HABR				pmax	pmax		
	comp=E,34nm,1.5s						
HABR				pmax	pmax		
	comp=N,18nm,1.4s						
HABR				MLR	MLR		
	comp=Z,116nm,18.0s						
K15A	Arbon	36.26	87	⇑P	P	17 38 44.3	+0.3
	baz=36						
L14A	Malta	36.26	89	⇓P	P	17 38 44.5	+0.4
	baz=36						
H17A	Grant Village	36.32	84	⇑P	P	17 38 45.2	+0.6
	baz=36						
N13A	Wendover, West	36.47	91	⇑P	P	17 38 46.0	+0.1
	baz=36						
M14A	Sheep Mountain	36.54	90	⇑P	P	17 38 46.7	+0.3
	baz=36						
O12A	Currie	36.54	92	⇑P	P	17 38 47.1	+0.6
	baz=36						
Q10A	Clear Creek Ra	36.56	96	⇓P	P	17 38 47.3	+0.6
	baz=36,SNR=5.8						
R09A	Tonopah	36.58	97	⇓P	P	17 38 47.3	+0.5
	baz=36						
RLMT	Red Lodge	36.63	82	⇑P	P	17 38 47.0	-0.1
	baz=36						
L15A	Malad City	36.77	88	⇓P	P	17 38 48.5	+0.2
	baz=36						
S09A	Goldfield	36.85	98	⇓P	P	17 38 49.1	0.0
	baz=36						
Q11A	Duckwater	36.98	95	⇑P	P	17 38 50.5	+0.3
	baz=37,SNR=7.1						
P12A	McGill	36.98	93	⇓P	P	17 38 50.5	+0.3
	baz=37						
N14A	Grayback Hills	37.05	90	⇓P	P	17 38 50.8	0.0
	baz=37						
S10A	Tonopah Range,	37.07	97	⇑P	P	17 38 51.0	0.0
	baz=37						
M15A	Larsen Ranch,	37.08	89	⇑P	P	17 38 50.9	-0.1
	baz=37						
I18A	Diamond G Ranc	37.18	84	⇓P	P	17 38 51.8	0.0
	baz=37						
L16A	Fish Haven	37.31	87	⇑P	P	17 38 52.6	-0.3
	baz=37						
Q12A	Willow Creek R	37.31	94	⇑P	P	17 38 53.2	+0.2
	baz=37						
R11A	Troy Canyon, C	37.35	95	⇓P	P	17 38 53.3	0.0
	baz=37,SNR=6.0						
P13A	Bates Ranch, G	37.50	93	⇑P	P	17 38 54.9	+0.3
	baz=37						
DGMT	Dagmar	37.53	74	⇑P	P	17 38 54.6	-0.1
	baz=37						
FCC	Fort Churchill	37.55	54	eP	P	17 38 53.4	-1.3
	comp=Z,0.2nm,0.6s						
FCC				epP	pP	17 39 35.5	-2.3
FCC				ePcP	PcP	17 41 06.0	-1.9
KLR	Kul’dur	37.60	288	eP	P	17 38 50.0	-5.3
DUG	Dugway	37.70	91	⇓P	P	17 38 56.3	+0.1
	baz=37,SNR=5.6						
K18A	Toltan Ranch,	37.71	86	⇓P	P	17 38 56.1	-0.1
	baz=37						
Q13A	Wheeler Ranch,	37.84	93	⇓P	P	17 38 57.5	+0.1
	baz=38						
MPMC	Manual Prospec	37.87	100	⇓P	P	17 38 58.4	+0.7
	baz=38						
BW06	Boulder Array	37.91	85	⇑P	P	17 38 57.7	-0.2
	baz=38						
PDAR	Pinedale Array	37.91	85	P	P	17 38 57.7	-0.2
	comp=Z,1.4nm,0.6s,mb3.6,baz=319,slow=2.9,SNR=12						
PDAR				ScP	ScP	17 44 36.4	-0.3
	comp=Z,1.2nm,0.5s,baz=226,slow=3.9,SNR=8.2						
R12A	Pony Springs,	37.93	95	⇑P	P	17 38 58.3	+0.2
	baz=38						
P14A	Drum Mountains	37.95	92	⇓P	P	17 38 58.5	+0.2
	baz=38						
M17A	Scullys Gap (B	38.10	88	⇑P	P	17 38 59.1	-0.4
	baz=38						
L18A	Fontenelle, Gr	38.17	86	⇑P	P	17 38 59.9	-0.2
	baz=38						
Q14A	Sevier Lake (B	38.24	93	⇑P	P	17 39 00.8	+0.1
	baz=38,SNR=5.1						
S12A	Delamar Landin	38.29	96	⇓P	P	17 39 01.4	+0.3
	baz=38						
T11A	Corn Creek, Al	38.33	96	⇑P	P	17 39 01.7	+0.2
	baz=38,SNR=6.6						
R13A	O’Grain Ranch,	38.39	94	⇓P	P	17 39 02.4	+0.4
	baz=38						
P15A	Leamington	38.42	91	⇑P	P	17 39 02.3	+0.1
	baz=38						
S13A	Holt Ranch, En	38.87	95	⇓P	P	17 39 06.3	+0.3
	baz=38						
T13A	Saint George	39.23	95	⇑P	P	17 39 09.2	+0.2
	baz=39						
Q16A	Castle Valley	39.50	91	⇓P	P	17 39 11.5	+0.3
	baz=39						
M20A	Sweetwater, Wa	39.51	86	⇑P	P	17 39 10.8	-0.4
	baz=39						
P18A	Preston Nutter	39.55	89	⇑P	P	17 39 11.4	-0.1
	baz=39						
V12A	Nelson	39.61	98	⇓P	P	17 39 12.3	+0.2
	baz=39						
U13A	Pakoon Wash	39.62	96	⇑P	P	17 39 12.5	+0.3
	baz=39						
S15A	Panguitch	39.66	93	⇑P	P	17 39 12.7	+0.2
	baz=39						
T14A	Hurricane	39.67	95	⇑P	P	17 39 13.0	+0.3
	baz=39						
SRU	San Rafael	39.74	90	⇓P	P	17 39 13.0	-0.1
	baz=39						
O19A	Miners Draw (B	39.75	88	⇑P	P	17 39 13.2	0.0
	baz=39						
N20A	Spence Gulch,	39.89	86	⇑P	P	17 39 14.3	-0.1
	baz=40						
Q18A	Rafter H Ranch	39.97	90	⇑P	P	17 39 14.5	-0.5
	baz=40,SNR=5.9						
V13A	Grand Canyon W	40.01	97	⇑P	P	17 39 16.1	+0.7
	baz=40						
S16A	Weppner Ranch,	40.07	93	⇑P	P	17 39 16.4	+0.6
	baz=40						
U14A	Mt Trumbull	40.07	96	⇑P	P	17 39 16.6	+0.7
	baz=40,SNR=5.5						
R17A	Hanksville Air	40.10	91	⇓P	P	17 39 16.1	-0.1
	baz=40						
T15A	Red Dirt Ranch	40.11	94	⇓P	P	17 39 16.3	+0.1
	baz=40						
RSSD	Black Hills	40.20	79	eP	P	17 39 15.2	-1.7
RSSD				e*PP	pP	17 39 58.8	-1.6
RSSD				e		17 41 15.2	
RSSD				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.0						
RSSD	Black Hills	40.20	79	eP	P	17 39 15.2	-1.6
	comp=Z,3.1nm,0.5s,mb4.0						
RSSD				epP	pP	17 39 58.8	-1.6
RSSD				ePcP	PcP	17 41 15.2	-1.3
P19A	Cripple Cowboy	40.27	88	⇓P	P	17 39 17.6	+0.1
	baz=40,SNR=10						
O20A	White River Ci	40.36	87	⇑P	P	17 39 18.1	-0.2
	baz=40,SNR=6.8						
N21A	Black Mountain	40.36	86	⇑P	P	17 39 18.1	-0.1
	baz=40						
Q19A	Hogan Spring (	40.57	89	⇑P	P	17 39 19.3	-0.6
	baz=40						
IRM	Iron Mountain	40.57	100	⇓P	P	17 39 20.6	+0.6
	baz=40						
S17A	Black Ridge (B	40.58	92	⇓P	P	17 39 20.1	0.0
	baz=40,SNR=7.0						
R18A	Canyonlands Na	40.59	91	⇑P	P	17 39 19.9	-0.3
	baz=40						
W13A	Hualapai Mount	40.61	98	⇑P	P	17 39 20.7	+0.4
	baz=40						
V14A	Boquillas Ranc	40.67	96	⇓P	P	17 39 21.0	+0.2
	baz=40						
N22A	Wattenberg Ran	40.95	85	⇓P	P	17 39 23.0	0.0
	baz=41						
W14A	Seligman	40.98	97	⇑P	P	17 39 24.0	+0.6
	baz=41						
X13A	Yucca	41.00	98	⇑P	P	17 39 23.6	0.0
	baz=41						
S18A	Hurst Farm, Bl	41.01	91	⇑P	P	17 39 23.2	-0.4
	baz=41,SNR=9.4						
R19A	Curley Farm, L	41.02	90	⇑P	P	17 39 22.6	-1.1
	baz=41						
ULM	Lac du Bonnet	41.02	67	P	P	17 39 22.6	-0.9
	comp=Z,5.4nm,0.7s,mb4.1,baz=304,slow=8.7,SNR=6.3						
ULM				PcP	PcP	17 41 17.8	-1.3
	comp=Z,2.2nm,0.5s,baz=296,slow=1.6,SNR=2.8						
ULM				ScP	ScP	17 44 47.2	-1.4
	comp=Z,6.6nm,0.7s,baz=327,slow=4.5,SNR=8.3						
T17A	Navajo Res., N	41.03	93	⇓P	P	17 39 23.7	0.0
	baz=41						
PDMCI	Parker Dam,Lak	41.04	99	⇓P	P	17 39 24.4	+0.6
	baz=41						
V15A	Kaibab Nationa	41.07	95	⇓P	P	17 39 24.6	+0.5
	baz=41,SNR=11						
Q20A	Ridgley Place,	41.12	89	⇑P	P	17 39 23.9	-0.6
	baz=41						
P21A	Newcastle	41.22	87	⇑P	P	17 39 24.9	-0.4
	baz=41						
U17A	Shonto	41.38	93	⇓P	P	17 39 26.3	-0.4
	baz=41						
T18A	Mexican Hat	41.46	92	⇓P	P	17 39 26.4	-0.8
	baz=41,SNR=13						
S19A	Harvey Farm, M	41.46	91	⇓P	P	17 39 26.8	-0.5
	baz=41						
W15A	Williams	41.47	96	⇓P	P	17 39 27.7	+0.3
	baz=41						
MDJ	Mudanjiang	41.51	283	P	P	17 39 25.5	-2.1
MDJ				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.1						
MDJ				pmax	pmax		
	comp=Z,180nm,6.8s						
Y13A	Salome	41.57	99	⇓P	P	17 39 28.5	+0.4
	baz=41						
R20A	Redvale	41.59	90	⇓P	P	17 39 27.9	-0.4
	baz=41						
X14A	Yava	41.63	97	⇑P	P	17 39 29.0	+0.4
	baz=41						
WUAZ	Wupatki	41.74	95	⇑P	P	17 39 29.7	+0.2
	baz=41						
BOD	Bodaibo	41.94	308	⇓iP	P	17 39 30.8	0.0
BOD				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.6						
MAJO	Matsushiro	41.94	268	eP	P	17 39 30.1	-1.0
MAJO				e		17 41 21.5	
MAJO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.3						
MAJO	Matsushiro	41.94	268	eP	P	17 39 30.1	-1.1
	comp=Z,11nm,0.8s,mb4.3						
MAJO				ePcP	PcP	17 41 21.5	-0.9
MAT	Matsushiro	41.94	268	P	P	17 39 30.2	-0.9
MAT				eS	S	17 45 33.4	-0.2
MJAR	Matsushiro Arr	41.94	268	P	P	17 39 30.5	-0.6
	comp=Z,2.3nm,0.6s,mb3.8,baz=40,slow=6.9,SNR=7.5						
MJAR				PcP	PcP	17 41 22.1	-0.2
	comp=Z,4.2nm,0.9s,baz=62,slow=3.1,SNR=8.6						
W16A	Flagstaff	41.95	95	⇑P	P	17 39 31.5	+0.2
	baz=42						
Q22A	Crested Butte,	41.98	88	⇓P	P	17 39 31.0	-0.4
	baz=42						
X15A	Humboldt	41.99	97	⇓P	P	17 39 32.2	+0.6
	baz=42						
T19A	Beclabito	42.16	92	⇑P	P	17 39 32.5	-0.4
	baz=42,SNR=8.5						
AGMN	Agassiz Refuge	42.17	69	eP	P	17 39 31.1	-1.7
	comp=Z,4.7nm,0.5s,mb4.2						
AGMN				epP	pP	17 40 16.4	-0.3
Y15A	Casa Rosa Ranc	42.32	97	⇓P	P	17 39 34.2	0.0
	baz=42						
X16A	Lo Mia Camp, P	42.49	96	⇓P	P	17 39 35.5	-0.1
	baz=42						
T22A	Edith	43.25	90	⇑P	P	17 39 41.6	0.0
	baz=43						
X18A	Snowflake	43.26	95	⇑P	P	17 39 41.8	0.0
	baz=43						
Y17A	Roosevelt	43.35	96	⇑P	P	17 39 42.9	+0.4
	baz=43						
214A	Organ Pipe Nat	43.52	100	⇓P	P	17 39 43.2	-0.6
	baz=43						
W20A	Ramah	43.67	93	⇓P	P	17 39 44.8	-0.2
	baz=43						
Y19A	Nutrioso	44.07	95	⇓P	P	17 39 48.5	+0.3
	baz=44						
117A	Oracle	44.24	97	⇑P	P	17 39 49.9	+0.3
	baz=44						
CN2	Changchun	44.34	285	⇑P	P	17 39 50.2	0.0
CN2				epP	pP	17 40 34.7	+0.2
CN2				esP	sP	17 40 57.6	-0.1
CN2				PcP	PcP	17 41 30.9	+0.6
CN2				eS	S	17 46 08.8	+0.6
CN2				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.6						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
Z19A	T-Link Ranch,	44.55	95	⇓P	P	17 39 51.3	-0.7
	baz=44						
118A	Homack Ranch,	44.62	97	⇓P	P	17 39 52.7	+0.1
	baz=44						
EYMN	Ely	44.71	67	eP	P	17 39 51.5	-1.6
	comp=Z,30nm,1.3s,mb4.5						
EYMN				epP	pP	17 40 35.7	-1.7
EYMN				PcP	PcP	17 41 28.7	-2.8
EYMN				eScP	ScP	17 45 02.1	-1.5
217A	Green Valley	44.78	98	⇓P	P	17 39 53.7	-0.2
	baz=44						
119A	Ashpeak Ranch,	44.91	96	⇓P	P	17 39 55.0	+0.1
	baz=45						
218A	Dragoon	45.07	97	⇑P	P	17 39 56.4	+0.3
	baz=45						
318A	Bisbee	45.50	98	⇑P	P	17 39 59.9	+0.3

	baz=45						
219A	**White Tail Can**	**45.50**	**97**	⇓P	**P**	**17 39 59.5**	**0.0**
	baz=45						
319A	**Douglas**	**45.95**	**97**	⇑P	**P**	**17 40 03.7**	**+0.6**
	baz=46						
CBKS	**Cedar Bluff**	**46.11**	**82**	P	Px	17 40 15.6	
COWI	**Conover**	**47.12**	**67**	*e*P	**P**	**17 40 10.0**	**-1.9**
	comp=Z,4.2nm,0.5s,mb4.0						
KSRS	**Korea Array**	**47.20**	**277**	P	**P**	**17 40 13.2**	**+0.5**
	comp=Z,16nm,0.7s,mb4.4,baz=46,slow=7.3,SNR=45						
KSRS				PcP	PcP	17 41 40.6	+0.1
	comp=Z,3.9nm,1.0s,baz=42,slow=3.6,SNR=7.1						
SUMG	**Summit**	**47.47**	**19**	*e*P	**P**	**17 40 15.3**	**+1.0**
	comp=Z,95nm,1.0s,mb5.1						
SFJD	**Kangerlussuaq**	**48.92**	**28**	*i* P	**P**	**17 40 25.7**	**+0.3**
SFJD				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.0						
SFJD	**Kangerlussuaq**	**48.92**	**28**	*i* P	**P**	**17 40 25.7**	**+0.3**
	comp=Z,7.5nm,1.1s,mb3.9						
IRK	**Irkutsk**	**49.76**	**306**	*e*P	**P**	**17 40 31.4**	**-0.5**
IRK				pmax	pmax		
	comp=Z,29nm,2.3s,mb4.2						
TLY	**Talaya**	**50.42**	**306**	*e*P	**P**	**17 40 37.0**	**+0.1**
TLY				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.3						
TLY	**Talaya**	**50.42**	**306**	*e*P	**P**	**17 40 37.2**	**+0.3**
	comp=Z,19nm,1.2s,mb4.3						
TLY				*e*pP	pP	17 41 27.0	+4.7
TXAR	**Lajitas Array**	**50.69**	**94**	P	**P**	**17 40 38.7**	**-0.5**
TXAR				*PP	pP	17 41 23.1	-1.6
TXAR						17 41 53.3	
TXAR	**Lajitas Array**	**50.69**	**94**	P	**P**	**17 40 38.7**	**-0.5**
	comp=Z,3.3nm,0.5s,mb4.1,baz=300,slow=5.5,SNR=41						
TXAR				pP	pP	17 41 23.1	-1.5
	comp=Z,3.6nm,0.8s,baz=305,slow=4.8,SNR=4.7						
TXAR				PcP	PcP	17 41 53.3	0.0
	comp=Z,1.4nm,0.5s,baz=195,slow=1.5,SNR=7.0						
TXAR				ScP	ScP	17 45 29.4	+0.2
	comp=Z,1.6nm,0.8s,baz=277,slow=2.0,SNR=8.7						
TXAR	**Lajitas Array**	**50.69**	**94**	P	**P**	**17 40 38.7**	**-0.5**
TXAR				pP	pP	17 41 23.1	-1.5
TXAR				PcP	PcP	17 41 53.3	0.0
TXAR				ScP	ScP	17 45 29.4	+0.2
HDIL	**Hopedale**	**50.76**	**73**	*e*P	**P**	**17 40 37.1**	**-2.5**
	comp=Z,21nm,0.6s,mb4.8						
ULN	**Ulaanbaatar**	**51.36**	**301**	*e*P	**P**	**17 40 44.1**	**+0.2**
ULN				*e*		17 41 54.8	
ULN				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.3						
ULN	**Ulaanbaatar**	**51.36**	**301**	*e*P	**P**	**17 40 44.1**	**+0.2**
	comp=Z,12nm,1.0s,mb4.3						
ULN				*e*pP	pP	17 41 33.8	+4.3
ULN				*e*PcP	PcP	17 41 54.8	-0.7
CCM	**Cathedral Cave**	**51.43**	**77**	P	**P**	**17 40 41.8**	**-2.8**
CCM				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
CCM	**Cathedral Cave**	**51.43**	**77**	*e*P	**P**	**17 40 41.5**	**-3.1**
	comp=Z,9.3nm,0.9s,mb4.2						
CCM				*e*pP	pP	17 41 40.1	+10
ZAK	**Zakamensk**	**51.47**	**305**	⇓*i*P	**P**	**17 40 45.0**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.8						
MOY	**Mondy**	**51.65**	**308**	*e*P	**P**	**17 40 47.0**	**+1.0**
SONM	**Songino Array**	**51.70**	**301**	P	**P**	**17 40 47.4**	**+0.9**
SONM						17 41 56.9	
SONM	**Songino Array**	**51.70**	**301**	P	**P**	**17 40 47.4**	**+0.9**
	comp=Z,9.0nm,1.0s,mb4.2,baz=39,slow=7.4,SNR=44						
SONM				PcP	PcP	17 41 56.9	+0.1
	comp=Z,5.4nm,0.8s,baz=48,slow=1.7,SNR=13						
SONM				ScP	ScP	17 45 33.5	+0.2
	comp=Z,0.5nm,0.8s,baz=16,slow=3.9,SNR=3.7						
SCHQ	**Schefferville**	**51.96**	**47**	P	**P**	**17 40 46.9**	**-1.4**
	comp=Z,1.8nm,0.3s,mb3.9,baz=304,slow=7.8,SNR=19						
SCO	**Scoresbysund**	**52.01**	**15**	*i* P	**P**	**17 40 48.7**	**+0.3**
SCO				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.3						
SCO	**Scoresbysund**	**52.01**	**15**	*i* P	**P**	**17 40 48.7**	**+0.3**
	comp=Z,14nm,1.0s,mb4.3						
JCT	**Junction City**	**52.05**	**90**	P	**P**	**17 40 48.2**	**-1.0**
JCT				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.3						
JCT	**Junction City**	**52.05**	**90**	*e*P	**P**	**17 40 47.8**	**-1.4**
	comp=Z,6.4nm,0.5s,mb4.3						
HHC	**Hu-ho-hao-te**	**53.90**	**291**	*e*P	**P**	**17 41 03.0**	**+0.3**
HHC				pP	pP	17 41 45.9	-2.8
HHC				sP	sP	17 42 07.1	-4.4
HHC				PP	PP	17 43 08.5	+2.7
HHC				*e*S	**S**	**17 48 21.7**	**+0.3**
HHC				sS	sS	17 49 36.2	-5.7
HHC				ScS	ScS	17 50 29.3	-0.9
HHC				SS	SS	17 52 04.3	-0.6
HHC				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
HHC				pmax	pmax		
	comp=Z,210nm,5.0s						
WVT	**Waverly**	**54.71**	**76**	*e*P	**P**	**17 41 06.5**	**-2.0**
WVT				*e**PP	pP	17 41 53.2	-1.5
WVT				*e*		17 42 07.4	
WVT				*e*		17 43 13.0	
WVT				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
WVT	**Waverly**	**54.71**	**76**	*e*P	**P**	**17 41 06.5**	**-2.0**
	comp=Z,3.9nm,0.7s,mb4.0						
WVT				*e*pP	pP	17 41 53.2	-1.5
WVT				*e*PcP	PcP	17 42 07.3	-1.1
WVT				*e*PP	PP	17 43 12.9	-0.1
WVT				*e*ScP	ScP	17 45 35.1	-12
KEV	**Kevo**	**55.06**	**355**	*e*P	**P**	**17 41 08.3**	**-2.2**
KEV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.3						
KEV	**Kevo**	**55.06**	**355**	*e*p	**P**	**17 41 08.3**	**-2.2**
	comp=Z,6.0nm,0.6s,mb4.3						
ARCES	**ARCESS Array B**	**55.35**	**355**	P	**P**	**17 41 12.3**	**-0.3**
	comp=Z,7.6nm,0.8s,mb4.3,baz=9.7,slow=7.5,SNR=30						
ARCES	**ARCESS Array B**	**55.35**	**355**	P	**P**	**17 41 12.3**	**-0.3**
LVZ	**Lovozero**	**56.33**	**351**	⇑*e*P	**P**	**17 41 19.2**	**-0.4**
LVZ				pmax	pmax		
	comp=Z,67nm,1.7s,mb4.9						
NVS	**Novosibirsk**	**56.70**	**320**	*i* P	**P**	**17 41 21.7**	**-0.7**
NVS				*i*	pP	17 42 07.5	-1.3
NVS				*i*		17 43 27.8	
NVS				pmax	pmax		
	comp=N,7.0nm,1.5s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.5s						
NVS				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.4						
ZALV	**Zalesovo Beam**	**56.79**	**318**	P	**P**	**17 41 23.2**	**+0.2**
	comp=Z,1.4nm,0.3s,mb4.1,baz=38,slow=7.5,SNR=16						
ZALV				PcP	PcP	17 42 15.8	-0.4
	comp=Z,4.8nm,0.6s,baz=46,slow=4.2,SNR=13						
SSPA	**Standing Stone**	**56.82**	**65**	*e*P	**P**	**17 41 21.8**	**-1.7**
	comp=Z,30nm,1.0s,mb4.9						
SSPA				*e*pP	pP	17 42 09.1	-0.9
XAN	**Xi’an**	**60.31**	**288**	P	**P**	**17 41 47.0**	**-0.6**
XAN				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.5						
XAN				pmax	pmax		
	comp=Z,260nm,7.0s						
SOKR	**Solikamsk**	**60.69**	**337**	⇑*i*P	**P**	**17 41 50.5**	**+0.8**
SOKR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.1						
PRGR	**Permogore**	**60.96**	**343**	⇑*i*P	**P**	**17 41 51.7**	**+0.2**
PRGR				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.0						
GTA	**Gaotai**	**61.08**	**298**	*e*P	**P**	**17 41 52.8**	**+0.1**
GTA				pP	pP	17 42 40.4	+0.5
GTA				sP	sP	17 43 01.9	-0.5
GTA				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.6						
LZH	**Lanzhou**	**61.50**	**293**	*e*P	**P**	**17 41 55.2**	**-0.4**
LZH				PcP	PcP	17 42 36.3	+0.9
LZH				pP	pP	17 42 41.2	-1.6
LZH				sP	sP	17 43 03.5	-1.8
LZH				PP	PP	17 44 12.2	-1.0
LZH				*e*S	**S**	**17 49 58.0**	**-2.2**
LZH				sS	sS	17 51 24.3	+1.6
LZH				pmax	pmax		
	comp=Z,41nm,1.4s,mb4.9						
LZH				pmax	pmax		
	comp=Z,140nm,4.2s						
JOF	**Joensuu**	**61.52**	**351**	*e*p	**P**	**17 41 53.7**	**-1.5**
	comp=Z,6.8nm,0.6s,mb4.5						
KURK	**Kurchatov**	**61.68**	**319**	*e*P	**P**	**17 41 56.7**	**+0.2**
KURK				*e*		17 44 11.4	
KURK				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.8						
KURK	**Kurchatov**	**61.68**	**319**	P	**P**	**17 41 57.5**	**+0.9**
	comp=Z,8.2nm,1.0s,mb4.3,baz=352,slow=7.3,SNR=16						
KURK				PP	PP	17 44 05.6	-8.7
	comp=Z,1.2nm,0.7s,baz=41,slow=10,SNR=4.3						
KURK	**Kurchatov**	**61.68**	**319**	*e*P	**P**	**17 41 56.7**	**+0.2**
	comp=Z,28nm,1.2s,mb4.8						
KURK				*e*PP	PP	17 44 11.4	-2.9
SVE	**Sverdlovsk**	**62.20**	**333**	⇑*e*P	**P**	**17 42 00.5**	**+0.6**
SVE				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.0						
KLMR	**Klimovskoe**	**62.62**	**346**	*e*P	**P**	**17 42 02.0**	**-0.6**
KLMR				pmax	pmax		
	comp=Z,43nm,1.4s,mb4.9						
BRVK	**Borovoye**	**62.65**	**326**	*e*P	**P**	**17 42 03.5**	**+0.6**
BRVK				*e*		17 42 38.9	
BRVK				*e**PP	pP	17 42 47.7	-2.6
BRVK				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.0						
BRVK	**Borovoye**	**62.65**	**326**	*e*P	**P**	**17 42 03.5**	**+0.6**
	comp=Z,57nm,1.5s,mb5.0						
BRVK				*e*PcP	PcP	17 42 38.9	-0.9
BRVK				*e*pP	pP	17 42 47.7	-2.6
BRVK				*e*PP	PP	17 44 15.7	-7.1
KAF	**Kangasniemi**	**62.69**	**354**	*e*P	**P**	**17 42 01.4**	**-1.7**
KAF				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.8						
KAF	**Kangasniemi**	**62.69**	**354**	*e*p	**P**	**17 42 01.4**	**-1.7**
	comp=Z,16nm,0.7s,mb4.8						
ARU	**Arti**	**63.08**	**334**	*e*P	**P**	**17 42 05.5**	**-0.2**
ARU				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.9						
ARU	**Arti**	**63.08**	**334**	*e*P	**P**	**17 42 05.5**	**-0.2**
	comp=Z,28nm,0.9s,mb4.9						
MKAR	**Makanchi Array**	**63.41**	**315**	P	**P**	**17 42 07.6**	**-0.4**
MKAR						17 42 42.2	
MKAR	**Makanchi Array**	**63.41**	**315**	P	**P**	**17 42 07.6**	**-0.4**
	comp=Z,3.3nm,0.8s,mb4.0,baz=51,slow=6.4,SNR=26						
MKAR				PcP	PcP	17 42 42.2	-0.7
	comp=Z,0.6nm,0.5s,baz=46,slow=4.8,SNR=4.1						
MKAR				PP	PP	17 44 22.9	-6.7
	comp=Z,2.6nm,0.9s,baz=50,slow=8.1,SNR=7.3						
MKAR	**Makanchi Array**	**63.41**	**315**	P	**P**	**17 42 07.6**	**-0.4**
MKAR				PcP	PcP	17 42 42.2	-0.7
MKAR				PP	PP	17 44 22.9	-6.7
WMQ	**Urumqi**	**63.46**	**309**	P	**P**	**17 42 09.2**	**+0.8**
WMQ				PcP	PcP	17 42 45.0	+1.8
WMQ				pP	pP	17 42 54.0	-2.0
WMQ				sP	sP	17 43 15.0	-3.4
WMQ				PP	PP	17 44 32.0	+1.9
WMQ				*e*S	**S**	**17 50 26.0**	**+1.6**
WMQ				ScS	ScS	17 51 40.0	-0.8
WMQ				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.2						
WMQ				pmax	pmax		
	comp=Z,270nm,5.9s						
NOA	**NORSAR Array B**	**64.13**	**2**	P	**P**	**17 42 12.4**	**-0.1**
	comp=Z,11nm,0.8s,mb4.5,baz=360,slow=6.5,SNR=21						
KONO	**Kongsberg**	**65.49**	**3**	⇑*e*P	**P**	**17 42 21.1**	**-0.2**
CD2	**Chengdu**	**65.51**	**289**	P	**P**	**17 42 21.7**	**-0.2**
CD2				PcP	PcP	17 42 51.7	-0.2
CD2				pP	pP	17 43 06.4	-3.3
CD2				PP	PP	17 44 50.5	+2.1
CD2				S	S	17 50 49.7	-0.1
CD2				sS	sS	17 52 07.4	-5.9
CD2				SS	SS	17 55 08.7	+1.9
CD2				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.3						
CD2				pmax	pmax		
	comp=Z,300nm,6.5s						
GYA	**Guiyang**	**67.37**	**284**	⇑*i*P	**P**	**17 42 34.0**	**+0.3**
GYA				pP	pP	17 43 22.4	+0.6
GYA				sP	sP	17 43 44.3	+0.2
GYA				PP	PP	17 45 07.0	+2.4
GYA				ScP		17 46 42.5	
GYA				PcS		17 47 04.0	
GYA				S	S	17 51 10.5	-1.8
GYA				sS	sS	17 52 34.2	-2.0
GYA				SS	SS	17 55 36.4	+0.6
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,70nm,6.3s						
MOS	**Moscow**	**67.83**	**346**	*e*P	**P**	**17 42 34.2**	**-1.9**
MOS				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.1						
OBN	**Obninsk**	**68.58**	**346**	κ*e*P	**P**	**17 42 40.0**	**-0.8**
OBN				*e*		17 43 04.6	
OBN				pmax	pmax		
	comp=Z,77nm,1.7s,mb5.1						
OBN	**Obninsk**	**68.58**	**346**	*e*P	**P**	**17 42 39.3**	**-1.5**
	comp=Z,68nm,1.3s,mb5.1						
AKTK	**Aktyubinsk**	**68.62**	**332**	P	**P**	**17 42 42.0**	**+0.8**
AKTO	**Aktyubinsk**	**68.62**	**332**	P	**P**	**17 42 42.0**	**+0.8**
	comp=Z,42nm,0.7s,mb5.2,baz=30,slow=7.2,SNR=28						
TKM2	**Tokmak 2**	**69.29**	**316**	P	**P**	**17 42 46.5**	**+1.1**
TKM2				pmax	pmax		
	comp=Z,29nm,1.4s,mb4.7						
TKM2	**Tokmak 2**	**69.29**	**316**	P	**P**	**17 42 46.1**	**+0.7**
	SNR=8.2						
TKM2	**Tokmak 2**	**69.29**	**316**	*e*P	**P**	**17 42 45.6**	**+0.3**
	comp=Z,29nm,1.4s,mb4.7						
TKM2				*e*PP	PP	17 45 23.5	+2.8
USP	**Ospenovka**	**69.43**	**317**	P	**P**	**17 42 47.3**	**+1.1**
	SNR=8.4						
CHMS	**Chumysh**	**69.56**	**317**	P	**P**	**17 42 47.8**	**+0.8**
	SNR=11						
FRU	**Bishkek**	**69.75**	**317**	*e*P	**P**	**17 42 49.0**	**+0.8**
FRU				pmax	pmax		
	comp=Z,76nm,1.8s,mb5.0						
KBK	**Karagaybulak**	**69.77**	**317**	P	**P**	**17 42 49.0**	**+0.7**
	SNR=13						
NACGM	**Naroch**	**69.83**	**352**	*e*	**P**	**17 42 45.0**	**-3.4**
AAK	**Ala-Archa**	**69.97**	**317**	*d* *i*P	**P**	**17 42 50.5**	**+1.0**
AAK				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.4						
AAK	**Ala-Archa**	**69.97**	**317**	P	**P**	**17 42 50.2**	**+0.7**
	SNR=16						
AAK	**Ala-Archa**	**69.97**	**317**	*e*P	**P**	**17 42 50.3**	**+0.8**
	comp=Z,37nm,1.4s,mb4.8						
AAK				*e*pP	pP	17 43 38.0	+0.1
KZA	**Kyzart**	**70.14**	**316**	P	sP	17 44 03.2	+2.0
	SNR=7.6						
EKS2	**Erkin-Say**	**70.23**	**317**	P	**P**	**17 42 52.4**	**+1.3**
	SNR=17						
EKS2	**Erkin-Say**	**70.23**	**317**	*e*P	**P**	**17 42 51.8**	**+0.7**
	comp=Z,33nm,1.3s,mb4.8						
EKS2				*e*pP	pP	17 43 42.3	+2.8
EKS2				*e*PP	PP	17 45 30.8	+2.1
UCH	**Uchtor**	**70.31**	**317**	P	**P**	**17 42 52.5**	**+1.0**
	SNR=6.4						
UCH	**Uchtor**	**70.31**	**317**	P	sP	17 44 06.9	+4.7
	SNR=10						
UCH	**Uchtor**	**70.31**	**317**	*e*P	**P**	**17 42 52.5**	**+1.0**
	comp=Z,17nm,1.5s,mb4.5						
KMI	**Kunming**	**70.59**	**286**	P	**P**	**17 42 53.2**	**-0.4**
KMI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
AML	**Almayashu**	**70.71**	**317**	P	**P**	**17 42 55.7**	**+1.7**
	SNR=18						
AML	**Almayashu**	**70.71**	**317**	P	sP	17 44 07.7	+2.9
	SNR=9.1						
AML	**Almayashu**	**70.71**	**317**	*e*P	**P**	**17 42 55.6**	**+1.6**
	comp=Z,37nm,1.3s,mb4.8						
SUW	**Suwalki**	**70.95**	**354**	*e*P	**P**	**17 42 54.6**	**-0.6**
SUW	**Suwalki**	**70.95**	**354**	*e*P	**P**	**17 42 54.6**	**-0.6**
BSEG	**Bad Segeberg**	**71.23**	**2**	*e*P	**P**	**17 42 57.2**	**+0.3**
	comp=Z,34nm,1.2s,mb4.8						
VRHR	**Novokhopersk**	**71.69**	**342**	*e*P	**P**	**17 42 59.0**	**-0.7**
VRHR				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.1						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,20nm,0.5s						
VSR	**Storozhevoye**	**71.99**	**344**	*e*P	**P**	**17 43 00.8**	**-0.7**
VSR				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.3						
VSR				pmax	pmax		
	comp=N,20nm,1.4s						
VSR				pmax	pmax		
	comp=E,9.0nm,1.1s						
KSH	**Kashi**	**72.02**	**314**	⇑*i*P	**P**	**17 43 05.8**	**+4.0**
KSH				*e*PcP	PcP	17 43 24.1	+4.9
KSH				*e*pP	pP	17 43 54.2	+3.6
KSH				*e*sP	sP	17 44 16.0	+3.3
KSH				*e*PP	PP	17 45 50.7	+6.6
KSH				*e*S	S	17 52 08.0	+2.0
KSH				*e*SKS		17 52 45.3	
KSH				*e*ScS	ScS	17 52 48.4	+0.6
KSH				*e*sS	sS	17 53 33.1	+2.1
KSH				*e*SS	SS	17 56 50.2	+4.0
KSH				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.0						
KSH				pmax	pmax		
	comp=Z,460nm,5.4s						
KSH				LR	LR		
	comp=N,250nm,6.0s						
KSH				LR	LR		
	comp=E,400nm,5.8s						
KSH				LR	LR		
	comp=Z,310nm,5.8s						
VORD	**Divnogorie**	**72.21**	**344**	*e*P	**P**	**17 43 02.1**	**-0.7**
VORD				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,0.6s						
VORD				pmax	pmax		
	comp=E,9.0nm,0.5s						
NRDL	**Niedersach Rie**	**72.67**	**3**	*e*P	**P**	**17 43 04.8**	**-0.7**
	comp=Z,20nm,1.1s,mb4.7						
RUE	**Ruedersdorf**	**72.74**	**0**	*e*P	**P**	**17 43 06.0**	**+0.1**
	comp=Z,48nm,1.4s,mb4.9						
IBBN	**Ibbenburen**	**72.78**	**4**	*e*P	**P**	**17 43 06.3**	**+0.2**
	comp=Z,23nm,0.7s,mb4.9						
LSA	**Lhasa**	**73.10**	**298**	P	**P**	**17 43 10.0**	**+1.6**
LSA	**Lhasa**	**73.10**	**298**	*e*P	**P**	**17 43 09.4**	**+1.0**
LSA				*e**PP	pP	17 44 00.9	+3.6
LSA				pmax	pmax		
	comp=Z,29nm,0.9s,mb4.9						
LSA	**Lhasa**	**73.10**	**298**	*e*P	**P**	**17 43 09.4**	**+0.9**
	comp=Z,28nm,0.9s,mb4.9						
LSA				*e*pP	pP	17 44 00.9	+3.6
CLZ	**Clausthal**	**73.33**	**2**	*e*P	**P**	**17 43 09.6**	**+0.2**
CLZ				pmax	pmax		
	comp=Z,40nm,1.2s,mb4.9						
CLZ	**Clausthal**	**73.33**	**2**	*e*P	**P**	**17 43 09.6**	**+0.2**
	comp=Z,40nm,1.2s,mb4.9						
BUG	**Bochum--Univer**	**73.62**	**5**	*e*P	**P**	**17 43 10.9**	**-0.2**
	comp=Z,26nm,1.0s,mb4.8						
AKASG	**Malin Array Be**	**73.78**	**350**	P	**P**	**17 43 11.2**	**-0.8**
	comp=Z,16nm,0.5s,mb4.9,baz=10,slow=5.6,SNR=65						
CLL	**Collm**	**73.91**	**1**	*i* P	**P**	**17 43 12.0**	**-0.7**
CLL				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.6						
CLL	**Collm**	**73.91**	**1**	*e*P	**P**	**17 43 12.3**	**-0.4**
	comp=Z,17nm,1.1s,mb4.6						
CLL	**Collm**	**73.91**	**1**	*i* P	**P**	**17 43 12.0**	**-0.7**
	comp=Z,17nm,1.1s,mb4.6						
CLL				*e*PcP	PcP	17 43 28.0	+1.0
UCC	**Uccle**	**74.10**	**6**	P	**P**	**17 43 14.4**	**+0.5**
FBE	**Freiberg**	**74.30**	**1**	*e*P	**P**	**17 43 14.7**	**-0.3**
	comp=Z,23nm,1.0s,mb4.8						
BRG	**Berggiesshubel**	**74.35**	**0**	*e*P	**P**	**17 43 15.1**	**-0.2**
BRG				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.4						
BRG	**Berggiesshubel**	**74.35**	**0**	*e*P	**P**	**17 43 15.1**	**-0.2**
	comp=Z,21nm,1.4s,mb4.6						
MEM	**Membach**	**74.39**	**5**	P	**P**	**17 43 15.5**	**0.0**
	comp=Z,9.8nm,1.1s,mb4.3						
BCLA	**Clavier**	**74.54**	**6**	P	**P**	**17 43 16.2**	**-0.2**
MOX	**Moxa**	**74.55**	**2**	*e*P	**P**	**17 43 16.6**	**+0.1**
	comp=Z,19nm,1.4s,mb4.5						
MOX	**Moxa**	**74.55**	**2**	*e*P	**P**	**17 43 16.6**	**+0.1**
MOX				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.5						
MOX	**Moxa**	**74.55**	**2**	*e*P	**P**	**17 43 16.2**	**-0.3**
	comp=Z,22nm,1.2s,mb4.7						
PVCC	**Panska Ves**	**74.69**	**360**	*e*P	**P**	**17 43 17.5**	**+0.2**
WERD	**Werda**	**74.76**	**1**	*e*P	**P**	**17 43 17.5**	**-0.2**
	comp=Z,23nm,1.7s,mb4.5						
TANN	**Tannenbergstha**	**74.80**	**1**	*e*P	**P**	**17 43 17.9**	**0.0**
	comp=Z,23nm,1.6s,mb4.6						
DOU	**Dourbes**	**74.82**	**6**	P	**P**	**17 43 18.0**	**+0.1**
GIVF	**Givet**	**74.83**	**6**	*e*P	**P**	**17 43 17.6**	**-0.4**
	comp=Z,76nm,1.2s,mb4.9						
GIVF	**Givet**	**74.83**	**6**	*e*P	**P**	**17 43 17.6**	**-0.4**
GIVF				pmax	pmax		
	comp=Z,38nm,1.3s,mb4.9						
GIVF	**Givet**	**74.83**	**6**	*e*P	**P**	**17 43 17.6**	**-0.4**
	comp=Z,38nm,1.3s,mb4.9						
BAIF	**Baives**	**74.83**	**7**	*e*P	**P**	**17 43 17.8**	**-0.2**
DPC	**Dobruska-Polom**	**74.86**	**359**	*e*P	**P**	**17 43 18.6**	**+0.4**
TNS	**Taunus Mts**	**74.89**	**4**	*e*P	**P**	**17 43 18.1**	**-0.3**
TNS				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.7						
TNS	**Taunus Mts**	**74.89**	**4**	*e*P	**P**	**17 43 18.1**	**-0.3**
	comp=Z,20nm,1.1s,mb4.7						
OJC	**Ojcow**	**74.90**	**356**	*e*P	**P**	**17 43 18.6**	**+0.2**
WERN	**Wernitzgruen**	**74.92**	**1**	*e*P	**P**	**17 43 18.6**	**0.0**
	comp=Z,19nm,1.1s,mb4.6						
NKC	**Novy Kostel**	**74.98**	**1**	*e*P	**P**	**17 43 19.0**	**+0.1**
LVV	**L’vov**	**75.08**	**353**	*e*P	**P**	**17 43 18.7**	**-0.8**
MANZ	**Manzenberg**	**75.22**	**1**	*e*P	**P**	**17 43 19.7**	**-0.6**
	comp=Z,15nm,1.5s,mb4.4						
PRU	**Pruhonice**	**75.23**	**360**	*e*P	**P**	**17 43 20.4**	**0.0**
OKC	**Ostrava-Krasne**	**75.33**	**357**	*e*P	**P**	**17 43 21.3**	**+0.4**
WLF	**Walferdange**	**75.34**	**5**	P	**P**	**17 43 21.5**	**+0.6**
WLF	**Walferdange**	**75.34**	**5**	*e*P	**P**	**17 43 21.2**	**+0.2**
	comp=Z,36nm,1.4s,mb4.8						
KWP	**Kalwaria Pacla**	**75.35**	**354**	*e*P	**P**	**17 43 21.6**	**+0.5**
KWP	**Kalwaria Pacla**	**75.35**	**354**	⇑*i*P	**P**	**17 43 21.7**	**+0.7**
KWP	**Kalwaria Pacla**	**75.35**	**354**	*e*P	**P**	**17 43 20.9**	**-0.1**
	comp=Z,82nm,1.0s,mb5.3						
MORC	**Moravsky Berou**	**75.41**	**358**	P	**P**	**17 43 21.7**	**+0.3**
MORC	**Moravsky Berou**	**75.41**	**358**	⇑*i*P	**P**	**17 43 21.5**	**+0.1**
MORC	**Moravsky Berou**	**75.41**	**358**	⇑P	**P**	**17 43 21.5**	**+0.2**
ROTZ	**Rotzenmuhle**	**75.44**	**1**	*e*P	**P**	**17 43 21.6**	**+0.1**
	comp=Z,20nm,1.3s,mb4.6						
GRA1	**Grafenberg Arr**	**75.50**	**2**	*e*P	**P**	**17 43 21.9**	**0.0**
	comp=Z,63nm,1.6s,mb5.0						
GRF	**Grafenberg Arr**	**75.50**	**2**	*e*P	**P**	**17 43 21.9**	**0.0**
GRF				pmax	pmax		
	comp=Z,63nm,1.6s,mb5.0						
GRF	**Grafenberg Arr**	**75.50**	**2**	*e*P	**P**	**17 43 21.9**	**0.0**
GRF				pmax	pmax		
	comp=Z,63nm,1.6s,mb5.0						
GRF	**Grafenberg Arr**	**75.50**	**2**	*e*P	**P**	**17 43 21.9**	**0.0**
	comp=Z,63nm,1.6s,mb5.0						
STHS	**Stebnicka Huta**	**75.64**	**355**	*e*P	**P**	**17 43 24.0**	**+1.3**
STHS				pmax	pmax		
	comp=Z,34nm,1.1s,mb4.9						
STHS	**Stebnicka Huta**	**75.64**	**355**	*e*P	**P**	**17 43 24.0**	**+1.3**
	comp=Z,34nm,1.1s,mb4.9						
NIE	**Niedzica**	**75.68**	**356**	*e*P	**P**	**17 43 23.4**	**+0.5**
FLN	**La Foliniere**	**75.73**	**10**	*e*P	**P**	**17 43 22.4**	**-0.8**
	comp=Z,48nm,1.1s,mb4.7						
FLN	**La Foliniere**	**75.73**	**10**	*e*P	**P**	**17 43 22.4**	**-0.8**
FLN				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.7						
FLN	**La Foliniere**	**75.73**	**10**	*e*P	**P**	**17 43 22.4**	**-0.8**
	comp=Z,24nm,1.1s,mb4.7						
VRAC	**Vranov**	**75.89**	**358**	⇑*i*P	**P**	**17 43 24.5**	**+0.4**
VRAC	**Vranov**	**75.89**	**358**	⇑P	**P**	**17 43 24.5**	**+0.4**
TREC	**Trest**	**75.92**	**359**	*e*P	**P**	**17 43 24.2**	**-0.1**
LDF	**La Druitiere**	**75.93**	**10**	*e*P	**P**	**17 43 23.4**	**-0.9**
	comp=Z,50nm,1.1s,mb4.8						
LDF	**La Druitiere**	**75.93**	**10**	*e*P	**P**	**17 43 23.4**	**-0.9**
LDF				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.8						
LDF	**La Druitiere**	**75.93**	**10**	*e*P	**P**	**17 43 23.4**	**-0.9**
	comp=Z,25nm,1.1s,mb4.8						
SGMF	**Saint Gilles**	**76.01**	**11**	*e*P	**P**	**17 43 24.2**	**-0.6**
	comp=Z,85nm,1.2s,mb4.9						
SGMF	**Saint Gilles**	**76.01**	**11**	*e*P	**P**	**17 43 24.2**	**-0.6**
SGMF				pmax	pmax		
	comp=Z,42nm,1.3s,mb4.9						
SGMF	**Saint Gilles**	**76.01**	**11**	*e*P	**P**	**17 43 24.2**	**-0.6**
	comp=Z,42nm,1.3s,mb4.9						
GRR	**Gorron**	**76.06**	**10**	*e*P	**P**	**17 43 24.6**	**-0.5**
	comp=Z,40nm,1.1s,mb4.7						
GRR	**Gorron**	**76.06**	**10**	*e*P	**P**	**17 43 24.6**	**-0.5**
GRR				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.7						
GRR	**Gorron**	**76.06**	**10**	*e*P	**P**	**17 43 24.6**	**-0.5**
	comp=Z,20nm,1.1s,mb4.7						
KOLS	**Kolonicke sedl**	**76.07**	**355**	*e*P	**P**	**17 43 25.7**	**+0.6**
KOLS				pmax	pmax		
	comp=Z,34nm,1.4s,mb4.8						
KOLS	**Kolonicke sedl**	**76.07**	**355**	*e*P	**P**	**17 43 25.7**	**+0.6**

```
       comp=Z,34nm,1.4s,mb4.8
WET   Wettzell          76.07    1 eP        P          17 43 25.3 +0.2
WET                                pmax      pmax
       comp=Z,15nm,1.2s,mb4.5
WET   Wettzell          76.07    1 eP        P          17 43 25.3 +0.2
       comp=Z,15nm,1.2s,mb4.5
KHC   Kasperske Hory    76.09    0 eP        P          17 43 25.5 +0.3
KHC   Kasperske Hory    76.09    0 eP        P          17 43 25.2 -0.1
       comp=Z,34nm,1.5s,mb4.8
CRVS  Cervenica-Dubn    76.14  355 eP        P          17 43 26.1 +0.6
CRVS                               pmax      pmax
       comp=Z,13nm,0.9s,mb4.6
CRVS  Cervenica-Dubn    76.14  355 eP        P          17 43 26.1 +0.6
       comp=Z,13nm,0.9s,mb4.5
QUIF  Quistinic         76.27   12 eP        P          17 43 25.9 -0.4
STU   Stuttgart         76.36    3 eP        P          17 43 26.7 -0.1
       comp=Z,27nm,1.2s,mb4.8
UZH   Uzhgorod          76.37  355 eP        P          17 43 26.4 -0.4
UZH                                e                    17 43 38.8
UZH                                e                    17 44 35.0
UZH                                eS        S          17 52 51.0 -3.1
GEC2  GERESS Array S    76.38    0 eP        P          17 43 27.0 +0.2
GEC2                               pmax      pmax
       comp=Z,46nm,2.1s,mb4.7
GEC2  GERESS Array S    76.38    0 eP        P          17 43 27.0 +0.2
       comp=Z,46nm,2.1s,mb4.7
GERES GERESS Array B    76.38    0  P        P          17 43 27.1 +0.2
       comp=Z,4.4nm,0.8s,mb4.1,baz=9.9,slow=4.8,SNR=31
MEZF  Maizieres J'vi    76.43    6 eP        P          17 43 26.9 -0.3
       comp=Z,67nm,1.4s,mb4.8
MEZF  Maizieres J'vi    76.43    6 eP        P          17 43 26.9 -0.3
       comp=Z,67nm,1.4s,mb5.1
KECS  Kecovo            76.61  356 eP        P          17 43 28.3 +0.2
CDF   Champ du Feu      76.65    5 eP        P          17 43 28.0 -0.4
       comp=Z,31nm,1.1s,mb4.5
CDF   Champ du Feu      76.65    5 eP        P          17 43 28.0 -0.4
CDF                                pmax      pmax
       comp=Z,15nm,1.1s,mb4.5
CDF   Champ du Feu      76.65    5 eP        P          17 43 28.0 -0.4
       comp=Z,15nm,1.1s,mb4.5
VYHS  Vyhne             76.66  357 eP        P          17 43 28.9 +0.5
SMOL  Smolenice         76.67  358 eP        P          17 43 29.8 +1.3
TAPN  Taplejung         76.76  299 eP        P          17 43 28.9 -0.5
       comp=Z,14nm,0.4s,mb4.9
BFO   Black Forest      76.77    4 i P       P          17 43 29.4 +0.3
BFO   Black Forest      76.77    4 eP        P          17 43 28.9 -0.2
       comp=Z,53nm,1.9s,mb4.8
MODS  Modra-Piesok      76.82  358 eP        P          17 43 30.4 +1.1
MODS                               pmax      pmax
       comp=Z,14nm,1.3s,mb4.4
MODS  Modra-Piesok      76.82  358 eP        P          17 43 30.4 +1.1
       comp=Z,14nm,1.3s,mb4.4
ZST   Bratislava        77.00  358 eP        P          17 43 31.3 +1.0
ZST                                pmax      pmax
       comp=Z,15nm,0.7s,mb4.7
ZST   Bratislava        77.00  358 eP        P          17 43 31.3 +1.0
       comp=Z,15nm,0.7s,mb4.7
HAU   Haudompre         77.00    5 eP        P          17 43 30.0 -0.4
       comp=Z,29nm,1.0s,mb4.6
HAU   Haudompre         77.00    5 eP        P          17 43 30.0 -0.4
HAU                                pmax      pmax
       comp=Z,15nm,1.0s,mb4.6
HAU   Haudompre         77.00    5 eP        P          17 43 30.0 -0.4
       comp=Z,15nm,1.0s,mb4.6
BUR02 Bucovina Ar. S    77.19  352  P        P          17 43 32.0 +0.6
BURAR Bucovina Array    77.19  352⇑iP        P          17 43 31.3 -0.1
BURAR Bucovina Array    77.19  352 ⇑P        P          17 43 31.3 -0.1
PSZ   Piszkesteto       77.19  356⇓iP        P          17 43 32.3 +0.9
PSZ   Piszkesteto       77.19  356⇓eP        P          17 43 32.3 +0.9
PSZ   Piszkesteto       77.19  356 eP        P          17 43 31.8 +0.3
       comp=Z,100nm,1.8s,mb5.1
GUN   Gumba             77.21  301 eP        P          17 43 32.1 +0.2
       comp=Z,54nm,0.6s,mb5.4
HINF  Hinteralfeld      77.22    5 eP        P          17 43 31.0 -0.6
       comp=Z,32nm,1.2s,mb4.5
HINF  Hinteralfeld      77.22    5 eP        P          17 43 31.0 -0.6
HINF                               pmax      pmax
       comp=Z,16nm,1.2s,mb4.5
HINF  Hinteralfeld      77.22    5 eP        P          17 43 31.0 -0.6
       comp=Z,16nm,1.2s,mb4.5
JIRN  Jiri              77.26  300 eP        P          17 43 32.6 +0.4
       comp=Z,76nm,0.4s,mb5.7
CONA  Conrad Observa    77.29  359⇓iP        P          17 43 32.5 +0.5
       comp=Z,20nm,1.0s,mb4.7
CSNA  Conrad Observa    77.29  359⇓iP        P          17 43 32.4 +0.5
       comp=Z,19nm,1.0s,mb4.7
ODAN  Odare             77.32  299 eP        P          17 43 31.5 -1.0
MOA   Molln             77.37  360⇑iP        P          17 43 32.6 +0.2
       comp=Z,6.7nm,1.0s,mb4.2
RJOB  Jochberg          77.48    1 eP        P          17 43 33.5 +0.5
       comp=Z,8.0nm,0.8s,mb4.4
HYF   Humbligny         77.49    8 eP        P          17 43 32.9 -0.2
SOP   Sopron            77.52  358⇑eP        P          17 43 34.3 +1.1
LOR   Lormes            77.58    7 eP        P          17 43 33.1 -0.5
       comp=Z,54nm,1.2s,mb4.8
LOR   Lormes            77.58    7 eP        P          17 43 33.1 -0.5
LOR                                pmax      pmax
       comp=Z,27nm,1.2s,mb4.8
LOR   Lormes            77.58    7 eP        P          17 43 33.1 -0.5
       comp=Z,27nm,1.2s,mb4.8
KKN   Kakani            77.61  301 eP        P          17 43 33.6 -0.5
RAMN  Ramite            77.64  299 eP        P          17 43 34.2 -0.1
       comp=Z,65nm,0.8s,mb5.3
BUD   Budapest          77.66  357⇑eP        P          17 43 35.2 +1.2
RETA  Reutte            77.69    2⇑iP        P          17 43 34.6 +0.4
       comp=Z,7.1nm,0.9s,mb4.3
PKI   Pulchoki          77.72  301 eP        P          17 43 34.5 -0.2
CHTO  Chiang Mai        77.73  285  P        P          17 43 34.2 -0.7
CHTO                               pmax      pmax
       comp=Z,6.0nm,0.9s,mb4.2
CHTO  Chiang Mai        77.73  285 eP        P          17 43 34.0 -0.8
       comp=Z,5.6nm,0.9s,mb4.2
GKN   Gorkha            77.74  302 eP        P          17 43 34.3 -0.5
       comp=Z,82nm,1.0s,mb5.3
SSF   Saint Saulge      77.76    7 eP        P          17 43 34.1 -0.5
       comp=Z,52nm,1.1s,mb4.8
SSF   Saint Saulge      77.76    7 eP        P          17 43 34.1 -0.5
SSF                                pmax      pmax
       comp=Z,26nm,1.1s,mb4.8
SSF   Saint Saulge      77.76    7 eP        P          17 43 34.1 -0.5
       comp=Z,26nm,1.1s,mb4.8
DMN   Daman             77.84  301 eP        P          17 43 35.4  0.0
       comp=Z,43nm,0.8s,mb5.1
MOTA  Moosalm           77.84    2⇑iP        P          17 43 35.5 +0.4
       comp=Z,17nm,1.1s,mb4.6
DANN  Dangsing          77.88  302 eP        P          17 43 35.5 -0.1
       comp=Z,170nm,0.7s,mb5.8
MFF   Saint Martin d    77.90   10 eP        P          17 43 35.0 -0.3
       comp=Z,62nm,1.1s,mb4.8
MFF   Saint Martin d    77.90   10 eP        P          17 43 35.0 -0.3
MFF                                pmax      pmax
       comp=Z,31nm,1.1s,mb4.8
MFF   Saint Martin d    77.90   10 eP        P          17 43 35.0 -0.3
       comp=Z,31nm,1.1s,mb4.8
WTTA  Wattenberg        77.94    2⇓iP        P          17 43 36.0 +0.4
       comp=Z,15nm,1.0s,mb4.6
ARSA  Arzberg           77.97  359⇓iP        P          17 43 36.2 +0.4
       comp=Z,18nm,1.1s,mb4.6
AVF   Avril sur Loir    78.02    8 eP        P          17 43 35.4 -0.6
       comp=Z,59nm,1.2s,mb4.8
AVF   Avril sur Loir    78.02    8 eP        P          17 43 35.4 -0.6
AVF                                pmax      pmax
       comp=Z,30nm,1.2s,mb4.8
AVF   Avril sur Loir    78.02    8 eP        P          17 43 35.4 -0.6
       comp=Z,30nm,1.2s,mb4.8
JOSI  Joshimath         78.02  307 ePKP      P          17 43 36.5 +0.2
JOSI                               AMb       AMB        17 43 41.7
       comp=Z,189nm,0.8s,mb5.8
JOSI                               i x       x          17 46 16.9
CMAR  Chiang Mai Arr    78.02  285  P        P          17 43 36.2 -0.3
       comp=Z,15nm,0.9s,mb4.6,baz=16,slow=5.5,SNR=99
CMAR                               pP        pP         17 44 28.4 +2.5
       comp=Z,0.9nm,0.5s,baz=22,slow=5.0,SNR=2.7
KBA   Koelnbreinsper    78.14    1⇓iP        P          17 43 37.5 +0.8
       comp=Z,32nm,1.0s,mb4.9
THN   Thein Dam         78.15  311 ex        pP         17 44 18.8 -7.7
THN                                ex        x          17 45 16.8
FETA  Feichten          78.16    2⇑iP        P          17 43 37.5 +0.8
       comp=Z,21nm,1.1s,mb4.7
DRGR                    78.18  354⇑iP        P          17 43 37.0 +0.1
DRGR                    78.18  354 ⇑P        P          17 43 37.0 +0.1
SMF   Signal de Mont    78.20    7 eP        P          17 43 36.4 -0.6
       comp=Z,73nm,1.2s,mb4.9
SMF   Signal de Mont    78.20    7 eP        P          17 43 36.4 -0.6
SMF                                pmax      pmax
       comp=Z,37nm,1.2s,mb4.9
SMF   Signal de Mont    78.20    7 eP        P          17 43 36.4 -0.6
       comp=Z,37nm,1.2s,mb4.9
BGF   Bois d'Agland     78.21    8 eP        P          17 43 36.5 -0.6
       comp=Z,72nm,1.3s,mb4.8
BGF   Bois d'Agland     78.21    8 eP        P          17 43 36.5 -0.6
BGF                                pmax      pmax
       comp=Z,36nm,1.3s,mb4.8
BGF   Bois d'Agland     78.21    8 eP        P          17 43 36.5 -0.6
       comp=Z,36nm,1.3s,mb4.8
KIV   Kislovodsk        78.35  339κiP        P          17 43 38.4 +0.5
KIV                                e                    17 43 46.5
KIV                                e         pP         17 44 29.4 +2.0
KIV                                                     17 46 46.0
KIV                                pmax      pmax
       comp=Z,44nm,1.0s,mb5.0
KIV   Kislovodsk        78.35  339 eP        P          17 43 38.6 +0.7
       comp=Z,40nm,0.9s,mb5.0
CABF  La Chapelle       78.38    6 eP        P          17 43 38.0  0.0
       comp=Z,78nm,1.2s,mb4.9
CABF  La Chapelle       78.38    6 eP        P          17 43 38.0  0.0
CABF                               pmax      pmax
       comp=Z,39nm,1.2s,mb4.9
CABF  La Chapelle       78.38    6 eP        P          17 43 38.0  0.0
       comp=Z,39nm,1.2s,mb4.9
TCF   Toulx Ste Croi    78.43    8 eP        P          17 43 37.6 -0.7
       comp=Z,36nm,1.2s,mb4.6
TCF   Toulx Ste Croi    78.43    8 eP        P          17 43 37.6 -0.7
TCF                                pmax      pmax
       comp=Z,18nm,1.2s,mb4.6
TCF   Toulx Ste Croi    78.43    8 eP        P          17 43 37.6 -0.7
       comp=Z,18nm,1.2s,mb4.6
KOLN  Koldanda          78.44  302 eP        P          17 43 38.0 -0.7
       comp=Z,77nm,1.0s,mb5.3
PYUN  Piuthan           78.46  303 eP        P          17 43 38.3 -0.5
       comp=Z,66nm,0.8s,mb5.3
ANN   Anapa             78.50  343 eP        P          17 43 36.0 -2.7
ANN                                pmax      pmax
       comp=Z,48nm,1.8s,mb4.8
SOKA  Soboth            78.54  359⇑iP        P          17 43 39.3 +0.4
       comp=Z,33nm,1.3s,mb4.8
OBKA  Obir              78.72  360⇓iP        P          17 43 40.0 +0.2
       comp=Z,46nm,0.9s,mb5.1
VRI   Vrincioaia        78.80  351⇓iP        P          17 43 40.3  0.0
VRI   Vrincioaia        78.80  351 ⇓P        P          17 43 40.3  0.0
MLR   Muntele Rosu      79.24  352⇓iP        P          17 43 43.5 +0.8
MLR   Muntele Rosu      79.24  352 ⇓P        P          17 43 43.5 +0.8
TLCR                    79.28  350⇑iP        P          17 43 42.7 -0.2
RJF   Les Rejaudoux     79.34    9 eP        P          17 43 42.6 -0.6
       comp=Z,24nm,1.1s,mb4.4
RJF   Les Rejaudoux     79.34    9 eP        P          17 43 42.6 -0.6
RJF                                pmax      pmax
       comp=Z,12nm,1.1s,mb4.4
RJF   Les Rejaudoux     79.34    9 eP        P          17 43 42.6 -0.6
       comp=Z,12nm,1.1s,mb4.4
VOIR                    79.37  352⇓iP        P          17 43 44.2 +0.8
VOIR                    79.37  352 ⇓P        P          17 43 44.2 +0.8
BZS   Buzias            79.41  355  P        P          17 43 43.5 -0.1
BZS   Buzias            79.41  355⇑iP        P          17 43 43.3 -0.3
BZS   Buzias            79.41  355 ⇑P        P          17 43 43.3 -0.3
LPL   La Plagne         79.51    5 eP        P          17 43 44.9 +0.8
LPG   La Plagne         79.53    5 eP        P          17 43 45.2 +1.0
       comp=Z,36nm,1.4s,mb4.5
LPG   La Plagne         79.53    5 eP        P          17 43 45.2 +1.0
LPG                                pmax      pmax
       comp=Z,18nm,1.4s,mb4.5
LPG   La Plagne         79.53    5 eP        P          17 43 45.2 +1.0
       comp=Z,18nm,1.4s,mb4.5
GZR   Gura Zlata        79.57  354⇑iP        P          17 43 44.6 +0.1
GZR   Gura Zlata        79.57  354 ⇑P        P          17 43 44.6 +0.1
LFF   La Frestale       79.63   10 eP        P          17 43 44.4 -0.4
       comp=Z,68nm,1.1s,mb4.9
LFF   La Frestale       79.63   10 eP        P          17 43 44.4 -0.4
LFF                                pmax      pmax
       comp=Z,34nm,1.1s,mb4.9
LFF   La Frestale       79.63   10 eP        P          17 43 44.4 -0.4
       comp=Z,34nm,1.1s,mb4.9
CAF   Calviac           79.77    9 eP        P          17 43 45.2 -0.3
       comp=Z,39nm,1.1s,mb4.6
CAF   Calviac           79.77    9 eP        P          17 43 45.2 -0.3
CAF                                pmax      pmax
       comp=Z,20nm,1.1s,mb4.7
CAF   Calviac           79.77    9 eP        P          17 43 45.2 -0.3
       comp=Z,20nm,1.1s,mb4.7
BNI   Bardonecchia      79.97    5 eP        P          17 43 47.9 +1.3
BNI                                pmax      pmax
       comp=Z,60nm,1.7s,mb5.0
BNI   Bardonecchia      79.97    5 eP        P          17 43 47.9 +1.3
       comp=Z,60nm,1.7s,mb5.0
TIRR  Tirgusor          80.04  350⇓iP        P          17 43 46.7 -0.3
TIRR  Tirgusor          80.04  350 ⇓P        P          17 43 46.7 -0.3
VIVF  Saint-Julien-l    80.04    7 eP        P          17 43 46.9 -0.1
       comp=Z,54nm,1.3s,mb4.7
VIVF  Saint-Julien-l    80.04    7 eP        P          17 43 46.9 -0.1
VIVF                               pmax      pmax
       comp=Z,27nm,1.3s,mb4.7
VIVF  Saint-Julien-l    80.04    7 eP        P          17 43 46.9 -0.1
       comp=Z,27nm,1.3s,mb4.7
ORIF  Oris-en-Rattie    80.06    6 eP        P          17 43 47.4 +0.3
MBDF  Montbardon        80.30    5 eP        P          17 43 49.2 +0.8
       comp=Z,35nm,0.9s,mb4.7
MBDF  Montbardon        80.30    5 eP        P          17 43 49.2 +0.8
MBDF                               pmax      pmax
       comp=Z,17nm,0.9s,mb4.7
MBDF  Montbardon        80.30    5 eP        P          17 43 49.2 +0.8
       comp=Z,17nm,0.9s,mb4.7
BOK   Bokaro            80.61  298 ePKP      P          17 43 49.8 -0.6
BOK                                AMb       AMB        17 43 51.0
       comp=Z,15nm,0.7s,mb4.7
LASF  Ste Croix         80.76    8 eP        P          17 43 50.9 +0.1
       comp=Z,37nm,1.3s,mb4.5
AYAN  Aya Nagar         80.89  307 ePKP      P          17 43 51.0 -0.8
AYAN                               AMb       AMB        17 43 51.7
       comp=Z,9.9nm,0.4s,mb4.8
SMRF  Simiane la Rot    80.97    6 eP        P          17 43 52.6 +0.6
       comp=Z,45nm,1.3s,mb4.6
SMRF  Simiane la Rot    80.97    6 eP        P          17 43 52.6 +0.6
       comp=Z,45nm,1.3s,mb4.9
SONA  Sohna             81.11  307 ePKP      P          17 43 52.0 -1.0
SONA                               AMb       AMB        17 43 53.0
       comp=Z,14nm,0.5s,mb4.9
SBF   Sospel            81.19    5 eP        P          17 43 52.9 -0.2
       comp=Z,36nm,0.8s,mb4.7
SBF   Sospel            81.19    5 eP        P          17 43 52.9 -0.2
SBF                                pmax      pmax
       comp=Z,18nm,0.8s,mb4.8
SBF   Sospel            81.19    5 eP        P          17 43 52.9 -0.2
       comp=Z,18nm,0.8s,mb4.8
SJPF  Ste Jean          81.23   11 eP        P          17 43 52.6 -0.8
MTLF  Montolieu         81.35    9 eP        P          17 43 53.8 -0.2
       comp=Z,37nm,1.1s,mb4.6
MTLF  Montolieu         81.35    9 eP        P          17 43 53.8 -0.2
MTLF                               pmax      pmax
       comp=Z,19nm,1.1s,mb4.6
MTLF  Montolieu         81.35    9 eP        P          17 43 53.8 -0.2
       comp=Z,19nm,1.1s,mb4.6
FRF   La Foret Royal    81.45    6 eP        P          17 43 54.4 -0.1
       comp=Z,32nm,1.3s,mb4.5
FRF   La Foret Royal    81.45    6 eP        P          17 43 54.4 -0.1
FRF                                pmax      pmax
       comp=Z,16nm,1.3s,mb4.5
FRF   La Foret Royal    81.45    6 eP        P          17 43 54.4 -0.1
       comp=Z,16nm,1.3s,mb4.5
KUDL  Kundal            81.47  308 ePKP      P          17 43 54.6 -0.3
KUDL                               AMb       AMB        17 43 56.5
       comp=Z,26nm,1.3s,mb4.7
EPF   Esparros          81.48   10 eP        P          17 43 53.9 -0.8
ETSF  Etsaut            81.52   11 eP        P          17 43 55.0 +0.1
       comp=Z,30nm,1.1s,mb4.5
ETSF  Etsaut            81.52   11 eP        P          17 43 55.0 +0.1
ETSF                               pmax      pmax
       comp=Z,15nm,1.1s,mb4.5
ETSF  Etsaut            81.52   11 eP        P          17 43 55.0 +0.1
       comp=Z,15nm,1.1s,mb4.5
GNI   Garni             81.56  337  P        P          17 43 57.0 +1.9
GNI                                pmax      pmax
       comp=Z,37nm,1.3s
GNI   Garni             81.56  337  P        P          17 43 57.0 +1.9
       comp=Z,9.3nm,0.8s,mb4.5,baz=333,slow=3.6,SNR=8.8
GNI   Garni             81.56  337 eP        P          17 43 56.8 +1.7
       comp=Z,38nm,1.4s,mb4.8
AGRA  Agra              81.58  306 ePKP      P          17 43 55.0 -0.5
LMR   La Mourre         81.67    6 eP        P          17 43 55.5 -0.2
       comp=Z,30nm,1.2s,mb4.5
LMR   La Mourre         81.67    6 eP        P          17 43 55.5 -0.2
LMR                                pmax      pmax
       comp=Z,15nm,1.2s,mb4.5
LMR   La Mourre         81.67    6 eP        P          17 43 55.5 -0.2
       comp=Z,15nm,1.2s,mb4.5
KHET  Khetri            81.84  308 ePKP      P          17 43 56.4 -0.4
KHET                               AMb       AMB        17 43 57.3
       comp=Z,22nm,1.0s,mb4.7
PVRL  Vila Real         82.14   17 eP        P          17 43 58.4 +0.3
       comp=Z,32nm,1.6s,mb4.7
MVO   Moncorvo          82.36   16 eP        P          17 43 58.6 -0.7
       comp=Z,25nm,1.7s,mb4.6
PGF   Pioggiola         82.57    4 eP        P          17 44 00.3 -0.1
       comp=Z,38nm,1.0s,mb4.8
PGF   Pioggiola         82.57    4 eP        P          17 44 00.3 -0.1
PGF                                pmax      pmax
       comp=Z,19nm,1.0s,mb4.8
PGF   Pioggiola         82.57    4 eP        P          17 44 00.3 -0.1
       comp=Z,19nm,1.0s,mb4.8
PVIS  Viseu             82.66   17 eP        P          17 44 01.3 +0.5
       comp=Z,33nm,1.4s,mb4.9
AJM   Ajmer             83.73  308 ePKP      P          17 44 05.9 -0.7
AJM                                AMb       AMB        17 44 06.7
       comp=Z,30nm,1.3s,mb4.9
BRTR  Keskin Array B    84.05  345  P        P          17 44 08.4 +0.5
       comp=Z,16nm,0.8s,mb4.8,baz=23,slow=2.0,SNR=72
ESDC  Sonseca Array     84.27   14  P        P          17 44 08.9 -0.1
       comp=Z,2.5nm,0.7s,mb4.0,baz=344,slow=4.9,SNR=17
ESDC                               pP        pP         17 44 59.6 +0.4
       comp=Z,0.5nm,0.5s,baz=345,slow=5.1,SNR=2.1
MTSU  Mount Surprise    84.36  227 eP        P          17 44 09.5 -0.1
       comp=Z,20nm,0.8s,mb4.9
MALT  Malatya           84.62  341  P        P          17 44 12.0 +1.2
MALT                               pmax      pmax
       comp=Z,19nm,1.2s,mb4.7
MALT  Malatya           84.62  341⇑iP        P          17 44 12.2 +1.4
MALT  Malatya           84.62  341 eP        P          17 44 12.3 +1.4
       comp=Z,19nm,1.2s,mb4.7
EVO   Evora             84.76   17 eP        P          17 44 07.5 -4.0
       comp=Z,14nm,1.9s,mb4.4
KAKA  Kakadu            85.08  240 eP        P          17 44 12.7 -0.6
       comp=Z,42nm,0.8s,mb5.2
KAKA  Kakadu            85.08  240 eP        P          17 44 12.4 -0.8
       comp=Z,150nm,0.9s,mb5.7
BHPL  Bhopal            85.23  305 ePKP      P          17 44 13.4 -0.7
BHPL                               AMb       AMB        17 44 14.1
       comp=Z,49nm,1.1s,mb5.2
CTA   Charters Tower    85.32  224 eP        P          17 44 13.9 -0.4
       comp=Z,5.5nm,0.8s,mb4.3
PTEO  Sao Teotonio      85.60   18 eP        P          17 44 10.5 -5.2
       comp=Z,51nm,1.9s,mb4.9
PBDV  Barranco-do-Ve    86.03   18 eP        P          17 44 12.2 -5.6
       comp=Z,59nm,1.7s,mb5.0
ISP   Isparta           86.33  347  P        P          17 44 19.3  0.0
ISP                                pmax      pmax
       comp=Z,4.0nm,0.4s,mb4.5
ISP   Isparta           86.33  347 eP        P          17 44 17.8 -1.5
       comp=Z,3.9nm,0.3s,mb4.6
VIS   Vishakhapatnam    86.99  297 ePKP      P          17 44 22.1 -0.7
VIS                                AMb       AMB        17 44 26.4
       comp=Z,26nm,1.2s,mb4.8
EIDS  Eidsvold          88.28  218 eP        P          17 44 28.8 +0.3
HYB   Hyderabad         89.65  301 i P       P          17 44 35.0 -0.3
HYB   Hyderabad         89.65  301 eP        P          17 44 34.0 -1.3
WRA   Warramunga Arr    90.38  234  P        P          17 44 37.5 -1.0
       comp=Z,7.0nm,1.0s,mb4.5,baz=38,slow=5.4,SNR=26
WRA                                pP        pP         17 45 28.8 -0.5
       comp=Z,2.7nm,1.0s,baz=39,slow=5.0,SNR=4.9
FITZ  Fitzroy Crossi    93.07  242 eP        P          17 44 49.9 -1.0
       comp=Z,29nm,1.1s,mb5.2
ASAR  Alice Springs     93.80  233  P        P          17 44 53.5 -0.6
       comp=Z,2.6nm,1.0s,mb4.2,baz=24,slow=5.6,SNR=22
ASAR                               pP        pP         17 45 44.5 -0.6
       comp=Z,0.6nm,0.8s,baz=21,slow=4.8,SNR=1.9
PALK  Pallekele         97.14  294 i P       P          17 45 10.9 +1.2
TORD  Torodi Ar. Bea   111.15   13  PKiKP    PKiKP      17 50 07.9 -2.0
       comp=Z,0.5nm,0.5s,baz=322,slow=2.0,SNR=5.9
DBIC  Dimbokro         116.38   21  PKP      PKPdf      17 50 17.6 -2.3
       comp=Z,0.7nm,0.4s,baz=285,slow=14,SNR=4.1
KMBO  Kilima Mbogo     122.97  332  PKP      PKPdf      17 50 31.6 -1.0
       comp=Z,2.8nm,0.8s,baz=35,slow=4.6,SNR=5.4
PLCA  Paso Flores      124.89  113  PKP      PKPdf      17 50 34.0 -1.3
       comp=Z,2.3nm,0.7s,baz=258,slow=9.3,SNR=2.8
TSUM  Tsumeb           144.02  355 ePKPdf    PKPdf      17 51 08.7 -2.8
QSPA  South Pole Qui   144.92  180 ePKPdf    PKPdf      17 51 10.6 -0.7
QSPA                               epPKPdf   pPKPdf     17 51 59.5 -5.2
QSPA                               eSKP                 17 54 29.6
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*ISK **08** 18:22:23.0, 39°.37N×33°.18E, h5km, MD3.1*
*ISCJB **08** 18:22:24.8±0.3, 39°.36N±0°.02×33°.18E±0°.03, h10km, Error ellipse: s-maj=3.2km s-min=2.9km az=24.3*
*CSEM **08** 18:22:24.0±0.1, 39°.35N×33°.19E, h2km, MD3.1, Error ellipse: s-maj=3.8km s-min=3.4km az=145.0*
*DDA **08** 18:22:24.7, 39°.35N×33°.18E, h6km, Md3.1*
ISC 08 18:22:24.2±0.5, **39°.34N**±0°.02×**33°.18E**±0°.03, **h1**km±4km, **n57, σ0s.95**/88, **1D, Turkey**

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Code  Station Name        Δ°  AZ°    Phase ID                   Time      Res
                                    Op        ISC          h  m  s    ISC
BALAT Bala              0.22  348⇓iP        Pg          18 22 28.1 -0.3
BALAT                              i S       Sg          18 22 31.6 +0.4
KAMT  Kaman             0.42   86 ePG        Pg          18 22 31.8 -0.3
KAMT  Kaman             0.42   86 ePg        Pg          18 22 31.8 -0.4
LOD   Lodumlu           0.63  330 ePG        Pg          18 22 35.7 -0.6
LOD                               eSG        Sg          18 22 45.5 +1.0
LOD   Lodumlu           0.63  330 ePg        Pg          18 22 35.7 -0.6
LOD                               eSg        Sg          18 22 45.5 +1.0
CDAG  Cicekdag          0.97   73 i P        Pg          18 22 41.4 -1.3
CDAG                              i S        Sg          18 22 55.4 +0.2
CDAG  Cicekdag          0.97   73 i P        Pg          18 22 41.4 -1.3
CDAG                              i S        Sg          18 22 55.4 +0.2
KIZT  Kizilcal          1.11  246 ePN        Pn          18 22 45.0 -1.9
KIZT                              eSN        Sn          18 23 02.2 -0.5
KIZT  Kizilcal          1.11  246 ePn        Pn          18 22 45.0 -1.9
KIZT                              eSn        Sn          18 23 02.3 -0.5
ELDT  Eldivan           1.16    9 i P        Pg          18 22 45.7 -0.7
ELDT                              i S        Sg          18 23 02.0 +0.5
ELDT  Eldivan           1.16    9 i P        Pg          18 22 45.7 -0.7
ELDT                              i S        Sg          18 23 02.0 +0.5
KDHN  Kadinhani         1.17  226 i P        Pg          18 22 45.5 -1.0
KDHN                              i S        Sg          18 23 02.2 +0.6
KDHN  Kadinhani         1.17  226 i P        Pg          18 22 45.5 -1.0
KDHN                              i S        Sg          18 23 02.2 +0.6
SULT  Sultanhani-AKS    1.17  167 ePN        Pn          18 22 47.0 -0.7
SULT                              eSN        Sn          18 23 04.7 +0.3
SULT  Sultanhani-AKS    1.17  167 ePn        Pn          18 22 47.1 -0.6
SULT                              eSn        Sn          18 23 04.7 +0.4
SVRH  Sivrihisar-ESK    1.29  275 ePN        Pn          18 22 48.9 -0.4
SVRH                              eSN        Sn          18 23 07.0 -0.1
SVRH  Sivrihisar-ESK    1.29  275 ePn        Pn          18 22 48.9 -0.4
SVRH                              eSn        Sn          18 23 07.0 -0.1
CANT  Cankiri           1.31   15 ePN        Pn          18 22 48.6 -0.9
CANT                              eSN        Sn          18 23 07.5 -0.2
AVNT  Avonos            1.42  113 i P        Pn          18 22 50.5 -0.6
AVNT                              i S        Sg          18 23 11.4 +1.5
AVNT  Avonos            1.42  113 i P        Pn          18 22 50.5 -0.7
AVNT                              i S        Sg          18 23 11.4 +1.5
SGKT  Sivrigoynuk       1.50  325 i P        Pn          18 22 50.4 -1.8
SGKT                              i S        Sb          18 23 15.5 +3.2
SGKT  Sivrigoynuk       1.50  325 i P        Pn          18 22 50.4 -1.8
SGKT                              i S        Sb          18 23 15.5 +3.1
KONT  Konya--Tatoy      1.54  205 ePN        Pn          18 22 52.7  0.0
KONT  Konya--Tatoy      1.54  205 ePn        Pn          18 22 52.7  0.0
NIG   Nigde             1.67  137 ePN        Pn          18 22 54.2 -0.3
NIG   Nigde             1.67  137 ePn        Pn          18 22 54.2 -0.3
YOZ   Yozgat            1.68   79 ePN        Pn          18 22 54.2 -0.5
YOZ                               eSN        Sn          18 23 17.6 +0.6
YOZ   Yozgat            1.68   79 ePn        Pn          18 22 54.2 -0.6
YOZ                               eSn        Sn          18 23 17.6 +0.6
ILGA  Ilgaz             1.75   13 i P        Pn          18 22 56.2 +0.4
ILGA                              i S        Sn          18 23 19.8 +1.1
ILGA  Ilgaz             1.75   13 i P        Pn          18 22 56.2 +0.5
ILGA                              i S        Sn          18 23 19.8 +1.1
CTKT  Corum             1.78   44 i P        Pn          18 22 56.1  0.0
CTKT                              i S        Sn          18 23 22.7 +3.3
CTKT  Corum             1.78   44 i P        Pn          18 22 56.1  0.0
CTKT                              i S        Sn          18 23 22.7 +3.4
TOS   Tosya             1.81   21 ePN        Pn          18 22 56.0 -0.5
TOS   Tosya             1.81   21 ePn        Pn          18 22 56.0 -0.5
ESKT  Eskisehir         1.81  276 ePN        Pn          18 22 56.9 +0.5
ESKT  Eskisehir         1.81  276 i P        Pn          18 22 56.8 +0.3
ESKT                              i S        Sn          18 23 25.9 +5.9
ESKT  Eskisehir         1.81  276 ePn        Pn          18 22 56.9 +0.4
SEYT  Eskypehyr         1.81  276 i P        Pn          18 22 56.8 +0.3
MDU   Mudurnu           1.88  307 ePN        Pn          18 22 57.4  0.0
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MDU	Mudurnu	1.88	307	*e*Pn	Pn	18 22 57.4	0.0
SAFT	Safranbolu	1.93	349	*e*PN	Pn	18 22 58.4	+0.2
SAFT	Safranbolu	1.93	349	*e*Pn	Pn	18 22 58.4	+0.3
BNN	Bunyan	2.13	102	*e*PN	Pn	18 23 01.5	+0.6
BNN	Bunyan	2.13	102	*e*Pn	Pn	18 23 01.5	+0.6
BALT	Daday	2.19	4	*i* P	Pn	18 23 04.2	+2.5
BALT				*i* S	Sn	18 23 29.2	-0.3
BALT	Daday	2.19	4	*i* P	Pn	18 23 04.2	+2.4
BALT				*i* S	Sn	18 23 29.2	-0.3
SHUT	Suhut-Afyon	2.19	250	*e*PN	Pn	18 23 02.9	+1.1
SHUT	Suhut-Afyon	2.19	250	*e*Pn	Pn	18 23 02.9	+1.1
ALT	Altintas	2.40	264	*e*PN	Pn	18 23 05.7	+1.1
ALT	Altintas	2.40	264	*e*Pn	Pn	18 23 05.7	+1.1
HDMB	Hadim	2.44	193	*e*PN	Pn	18 23 06.1	+1.0
HDMB	Hadim	2.44	193	*e*Pn	Pn	18 23 06.1	+1.0
BOYT	Boyabat	2.46	32	*i* P	Pn	18 23 04.5	-0.8
BOYT				*i* S	Sn	18 23 34.1	-2.0
BOYT	Boyabat	2.46	32	*i* P	Pn	18 23 04.6	-0.8
BOYT				*i* S	Sn	18 23 34.1	-2.0
KOZT	Kozan	2.79	131	*e*PN	Pn	18 23 11.2	+1.2
SARI	SarD1z-Kayseri	2.82	103	*e*PN	Pn	18 23 09.8	-0.6
SARI	SarD1z-Kayseri	2.82	103	*e*Pn	Pn	18 23 09.8	-0.6

GUC 08 19:24:50.1±0.6, 22°.96S×70°.17W, h40^{km}±3^{km}, MD3.6, ML3.4, 3C-3D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MECH	Mejillones	0.30	242	⇓*i*P	Pn	19 24 58.0	-0.3
MECH				*i* S	Sn	19 25 03.9	-0.2
PECH	Pedro de Valdi	0.58	51	*e*P	Pn	19 25 02.6	+0.6
PECH				*i* S	Sn	19 25 11.6	+1.3
PECH				AML	AML	19 25 12.7	
	comp=E,5µm,0.2s						
MACH	Maria Elena	0.85	26	⇑*i*P	Pn	19 25 06.2	+0.6
MACH				*i* S	Sn	19 25 18.4	+1.5
TOCH	Tocopilla	0.86	358	⇑*i*P	Pn	19 25 05.9	+0.1
TOCH				*i* S	Sn	19 25 17.9	+0.7
TOCH				AML	AML	19 25 19.2	
	comp=E,3µm,0.1s						
PB04	Plate Boundary	0.93	42	⇓*i*P	Pn	19 25 02.8	-3.9
PB04				*i* S	Sn	19 25 12.7	-6.2
PB04				AML	AML	19 25 14.9	
	comp=N,3µm,0.5s						
LVC	Limon Verde	1.21	74	⇑*i*P	Pn	19 25 12.1	+1.6
LVC				*i* S	Sn	19 25 28.4	+2.8
CPN1	Cerro Paranal	1.67	187	*e*P	Pn	19 25 15.8	-1.1
CPN1				*i* S	Sn	19 25 37.6	+0.5
CPN1				AML	AML	19 25 43.0	
	comp=E,356nm,0.3s						
PB01	Plate Boundary	2.01	18	⇓*i*P	Pn	19 25 22.6	+1.1
PB01				*i* S	Sn	19 25 47.6	+2.2
PB01				AML	AML	19 25 55.2	
	comp=E,368nm,0.2s						
HMBC	Humberston	2.68	6	*e*P	Pn	19 25 30.9	+0.2
HMBC				*i* S	Sn	19 26 03.0	+1.0
HMBC				AML	AML	19 26 18.8	
	comp=N,229nm,0.6s						
PSGC	Pisagua	3.35	1	AML	AML	19 26 42.4	
	comp=E,61nm,0.3s						

GUC 08 19:40:14.9±0.7, 24°.08S×67°.70W, h218^{km}±11^{km}, ML3.9, 3C-2D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.83	322	⇑*i*P	Pn	19 40 55.4	+2.1
LVC				*e*S	S	19 41 25.3	+2.1
LVC				AML	AML	19 41 27.3	
	comp=E,207nm,0.2s						
PECH	Pedro de Valdi	2.33	309	⇑*i*P	Pn	19 41 01.2	+2.9
PECH				*i* S	S	19 41 35.7	+3.5
PECH				AML	AML	19 41 37.7	
	comp=N,606nm,0.5s						
PB04	Plate Boundary	2.44	317	*i* P	Pn	19 41 07.0	+7.7
PB04				*i* S	S	19 41 45.9	+12
CPN1	Cerro Paranal	2.52	257	⇓*i*P	Pn	19 41 02.6	+2.4
CPN1				*i* S	S	19 41 38.7	+3.0
CPN1				AML	AML	19 41 40.6	
	comp=E,315nm,0.5s						
PB01	Plate Boundary	3.44	331	⇑*i*P	Pn	19 41 12.6	+1.9
PB01				*i* S	S	19 41 57.0	+2.4
HMBC	Humberston	4.29	331	⇓*i*P	Pn	19 41 22.2	+1.2
HMBC				*i* S	S	19 42 14.5	+1.4
PSGC	Pisagua	4.99	333	*e*P	Pn	19 41 30.3	+0.6
PSGC				*i* S	S	19 42 29.8	+0.7

NEIC ***08*** *19:59:08.8±4.3, 21°.29S×169°.95E, h37^{km}±29^{km}, mb4.5/2, Error ellipse: s-maj=61.6km s-min=29.4km az=149.0*

ISCJB ***08*** *19:59:14.8±2.3, 20°.7S±0°.3×169°.2E±0°.2, h66^{km}±20^{km}, mb4.1/9, Error ellipse: s-maj=64.2km s-min=18.9km az=150.6*

NOU ***08*** *19:59:14.4±1.8, 19°.99S×168°.81E, h10^{km}±999^{km}, MD3.0, ML3.6*

IDC ***08*** *19:59:23.9±11.0, 20°.92S×169°.21E, h139^{km}±101^{km}, mb3.8/8, mb1 4.0/8, mb1mx3.8/16, mbtmp3.7/8, MS3.2/2, Ms1 3.2/2, ms1mx2.9/25, Error ellipse: s-maj=65.0km s-min=42.9km az=164.0*

ISC 08 19:59:15.5±2.4**, 20°.7S**±0°.3×**169°.2E**±0°.2**, h57**^{km}±21^{km}**, n20, σ0^{s}81**/17**, mb4.2**/9**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	2.91	241	*e*Pn	Pn	19 59 58.4	-0.9
DZM				*e*Sn	Sn	20 00 31.9	-1.1
LASL	Noumea	2.91	238	*e*P	Pn	20 00 00.6	+1.2
LASL				*e*S	Sn	20 00 32.7	-0.3
LASL				AMP		20 00 35.8	
	comp=Z,1µm,0.5s						
NORM	Noumea	2.95	238	*e*S	Sn	20 00 34.6	+0.5
NOUC	Port Laguerre	3.04	242	*e*P	Pn	20 00 00.9	-0.2
NOUC				*e*S	Sn	20 00 36.9	+0.7
NOUC				AMP		20 00 42.9	
	comp=Z,120nm,2.5s						
HNR	Honiara	14.30	320	LR	LR	20 06 41.0	
	comp=Z,63nm,21.2s,baz=193,slow=30						
CTA	Charters Tower	21.50	268	P	P	20 04 03.3	+3.5
	comp=Z,8.1nm,0.7s,mb4.3,baz=99,slow=9.9,SNR=16						
CTA				LR	LR	20 11 42.1	
	comp=Z,95nm,18.5s,baz=324,slow=34						
CTAO	Charters Tower	21.50	268	*e*P	P	20 04 03.3	+3.5
	comp=Z,7.6nm,0.6s,mb4.3						
STKA	Stephens Creek	27.06	240	P	P	20 04 53.8	+1.1
	comp=Z,2.5nm,0.5s,mb4.0,baz=94,slow=12,SNR=4.7						
WRA	Warramunga Arr	32.65	265	P	P	20 05 41.4	-0.9
	comp=Z,1.5nm,0.4s,mb4.2,baz=94,slow=8.5,SNR=48						
ASAR	Alice Springs	32.76	258	P	P	20 05 43.0	-0.1
	comp=Z,6.2nm,0.7s,mb4.6,baz=82,slow=9.3,SNR=66						
FITZ	Fitzroy Crossi	41.07	266	P	P	20 06 53.5	-0.3
	comp=Z,3.8nm,0.7s,mb4.1,baz=154,slow=9.5,SNR=4.2						
NWAO	Narrogin (SRO)	47.52	244	*e*P	P	20 07 44.5	-0.7
	comp=Z,7.7nm,0.8s,mb4.8						
CMAR	Chiang Mai Arr	79.05	295	P	P	20 11 15.0	+1.0
	comp=Z,0.9nm,0.7s,mb3.8,baz=143,slow=4.9,SNR=7.6						
SONM	Songino Array	88.34	323	P	P	20 12 00.6	-0.2
	comp=Z,0.4nm,0.5s,mb3.9,baz=127,slow=4.8,SNR=9.4						
NVAR	Mina Array Bea	89.79	49	P	P	20 12 07.6	-0.3
	comp=Z,0.3nm,0.5s,mb3.9,baz=216,slow=7.6,SNR=2.6						
ARCES	ARCESS Array B	126.44	345	PKP	PKPdf	20 18 09.1	-2.2
	comp=Z,7.0nm,1.1s,baz=28,slow=5.5,SNR=4.1						
ARCES	ARCESS Array B	126.44	345	PKP	PKPdf	20 18 09.1	-2.2
BRG	Berggiesshubel	144.13	333	*e*P	PKPdf	20 18 41.5	-3.1
	comp=Z,3.3nm,0.7s						
CLL	Collm	144.20	334	*i* PKPdf	PKPdf	20 18 41.1	-3.6
	comp=Z,4.0nm,0.6s						
GERES	GERESS Array B	145.73	331	PKPbc	PKPbc	20 18 46.5	-1.4
	comp=Z,1.5nm,0.6s,baz=26,slow=4.5,SNR=16						

ISK ***08*** *19:59:50.7, 38°.26N×31°.98E, h6^{km}, MD2.9*

ISCJB ***08*** *19:59:51.7±0.6, 38°.26N±0°.03×32°.02E±0°.05, h12^{km}±5^{km}, Error ellipse: s-maj=7.2km s-min=5.0km az=153.8*

CSEM ***08*** *19:59:51.8±0.2, 38°.25N×31°.98E, h12^{km}, MD2.7, Error ellipse: s-maj=5.5km s-min=4.4km az=52.0*

DDA ***08*** *19:59:56.0, 38°.69N×32°.16E, h13^{km}, Md2.7*

ISC 08 19:59:51.9±0.7**, 38°.26N**±0°.03×**32°.00E**±0°.05**, h12**^{km}±5^{km}**, n26, σ0^{s}78**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDHN	Kadinhani	0.28	19	*i* P	Pg	20 00 00.0	+2.3
KDHN				*i* S	Sg	20 00 01.3	-0.3
KDHN	Kadinhani	0.28	19	*i* P	Pg	20 00 00.0	+2.3
KDHN				*i* S	Sg	20 00 01.3	-0.3
KONT	Konya--Tatoy	0.42	137	PG	Pg	19 59 59.8	-0.4
KONT				SG	Sg	20 00 06.1	+0.2
KONT	Konya--Tatoy	0.42	137	*i* Pg	Pg	19 59 59.8	-0.5
KONT				*i* Sg	Sg	20 00 06.1	+0.2
KIZT	Kizilcal	0.63	352	*e*PG	Pg	20 00 03.4	-0.8
KIZT				*e*SG	Sg	20 00 11.9	-0.6
KIZT	Kizilcal	0.63	352	*e*Pg	Pg	20 00 03.4	-0.8
KIZT				*e*Sg	Sg	20 00 11.9	-0.6
SHUT	Suhut-Afyon	1.18	285	*e*PN	Pn	20 00 13.2	-1.0
SHUT				*e*SN	Sn	20 00 29.7	-0.4
SHUT	Suhut-Afyon	1.18	285	*e*Pn	Pn	20 00 13.2	-1.0
SHUT				*e*Sn	Sn	20 00 29.7	-0.4
SULT	Sultanhani-AKS	1.20	92	*e*PN	Pn	20 00 14.4	-0.1
SULT	Sultanhani-AKS	1.20	92	*e*Pn	Pn	20 00 14.4	-0.1
ISP	Isparta	1.25	251	*e*PN	Pn	20 00 15.1	-0.1
ISP	Isparta	1.25	251	*e*Pn	Pn	20 00 15.1	0.0
SVRH	Sivrihisar-ESK	1.25	343	*e*PN	Pn	20 00 15.0	-0.2
SVRH	Sivrihisar-ESK	1.25	343	*e*Pn	Pn	20 00 15.0	-0.2
HDMB	Hadim	1.35	163	*e*PN	Pn	20 00 17.0	+0.5
HDMB	Hadim	1.35	163	*e*Pn	Pn	20 00 17.0	+0.5
BCK	Bucak	1.37	235	*e*PN	Pn	20 00 16.7	-0.1
BCK	Bucak	1.37	235	*e*Pn	Pn	20 00 16.7	-0.1
ESKT	Eskisehir	1.55	325	*e*PN	Pn	20 00 19.4	+0.1
ESKT	Eskisehir	1.55	325	*i* P	Pn	20 00 20.1	+0.7
ESKT				*i* S	Sn	20 00 40.8	+1.4
ESKT	Eskisehir	1.55	325	*e*Pn	Pn	20 00 19.4	+0.1
SEYT	Eskypehyr	1.55	325	*i* P	Pn	20 00 20.0	+0.7
SEYT				*i* S	Sn	20 00 40.8	+1.5
ALT	Altintas	1.68	299	*e*PN	Pn	20 00 21.2	+0.1
ALT	Altintas	1.68	299	*e*Pn	Pn	20 00 21.2	+0.1
CDAG	Cicekdag	2.30	53	*i* P	Pn	20 00 30.4	+0.7
CDAG				*i* S	Sn	20 00 56.8	-1.1
CDAG	Cicekdag	2.30	53	*i* P	Pn	20 00 30.4	+0.8
CDAG				*i* S	Sn	20 00 56.8	-1.1

IDC ***08*** *20:03:32.5±0.9, 3°.82N×126°.88E, h0^{km}, mb4.0/9, mb1 4.2/9, mb1mx4.0/19, mbtmp4.0/9, Error ellipse: s-maj=63.7km s-min=14.5km az=67.0*

MOS ***08*** *20:03:35.9±0.6, 3°.73N×126°.78E, h33^{km}, mb4.6/4, Error ellipse: s-maj=35.0km s-min=13.9km az=114.6*

BJI ***08*** *20:03:40.7, 3°.83N×127°.19E, h76^{km}, mB5.3/3, mb4.8/6*

ISCJB ***08*** *20:03:41.7±2.6, 3°.7N±0°.1×126°.7E±0°.2, h89^{km}±25^{km}, mb4.2/15, Error ellipse: s-maj=30.8km s-min=9.9km az=152.1*

NEIC ***08*** *20:03:42.0±2.1, 3°.68N×126°.76E, h76^{km}±19^{km}, mb4.4/5, Error ellipse: s-maj=24.9km s-min=6.2km az=59.0*

ISC 08 20:03:43.2±2.4**, 3°.6N**±0°.1×**126°.7E**±0°.2**, h86**^{km}±23^{km}**, n28, σ0^{s}52**/28**, mb4.2**/15**, 2C-1D, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	2.85	221	⇓*e*P	Pn	20 04 27.0	+0.3
MNI				*e*S	Sn	20 05 07.5	+7.3
KKM	Kota Kinabalu	10.72	283	*e*Pn	Pn	20 06 13.7	-0.2
KAKA	Kakadu	17.20	161	*e*Pn	Pn	20 07 37.4	-0.8
	44nm,0.9s						
FITZ	Fitzroy Crossi	21.62	183	P	P	20 08 26.2	-0.2
	3.3nm,0.6s,mb3.9,baz=20,slow=13,SNR=7.3						
FITZ	Fitzroy Crossi	21.62	183	*e*P	P	20 08 26.1	-0.3
	7.4nm,1.0s,mb4.0						
WRAB	Tennant Creek	24.59	162	*e*P	P	20 08 55.4	0.0
WRAB				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.3						
WRAB	Tennant Creek	24.59	162	*e*P	P	20 08 55.4	-0.1
	comp=Z,11nm,0.8s,mb4.3						
WRA	Warramunga Arr	24.60	163	P	P	20 08 55.5	0.0
	comp=Z,11nm,0.6s,mb4.5,baz=341,slow=10,SNR=66						
ASAR	Alice Springs	28.02	166	P	P	20 09 26.4	+0.2
	comp=Z,0.5nm,0.4s,mb3.4,baz=343,slow=7.7,SNR=20						
ASAR				PcP	PcP	20 12 41.3	+1.9
	comp=Z,0.4nm,0.4s,baz=350,slow=2.3,SNR=4.4						
NJ2	Nanjing	29.22	346	*e*P	P	20 09 37.4	+0.5
NJ2				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.1						
CMAR	Chiang Mai Arr	30.90	301	P	P	20 09 52.5	+0.7
	comp=Z,0.6nm,0.9s,mb3.3,baz=113,slow=6.9,SNR=3.4						
CHTO	Chiang Mai	31.05	301	P	P	20 09 52.9	-0.3
BJI	Beijing	37.48	347	P	P	20 10 48.0	-0.5
BJI				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
STKA	Stephens Creek	38.05	159	P	P	20 10 54.3	+1.0
	comp=Z,3.1nm,0.4s,mb4.5,baz=340,slow=6.6,SNR=14						
LSA	Lhasa	42.48	311	*e*P	P	20 11 30.6	+0.5
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
LSA	Lhasa	42.48	311	*e*P	P	20 11 30.6	+0.5
	comp=Z,2.1nm,0.6s,mb4.0						
SONM	Songino Array	47.38	341	P	P	20 12 09.0	+0.4
SONM	Songino Array	47.38	341	P	P	20 12 09.0	+0.4
	comp=Z,0.5nm,0.6s,mb3.4,baz=161,slow=9.1,SNR=7.3						
SONM	Songino Array	47.38	341	P	P	20 12 09.0	+0.4
MKAR	Makanchi Array	57.62	325	P	P	20 13 23.2	-1.1
	comp=Z,0.7nm,0.4s,mb4.0,baz=118,slow=7.2,SNR=40						
YAK	Yakutsk	58.31	2	P	P	20 13 28.5	-0.3
YAK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
YAK	Yakutsk	58.31	2	P	P	20 13 28.5	-0.4
	comp=Z,7.3nm,0.8s,mb4.8						
SEY	Seymchan	62.14	13	⇑*e*P	P	20 13 55.6	+0.7
BVAR	Borovoye Array	67.39	327	P	P	20 14 28.7	-0.5
	comp=Z,0.5nm,0.4s,mb3.7,baz=98,slow=3.7,SNR=8.9						
TIXI	Tiksi	67.94	1	⇑*e*P	P	20 14 32.6	+0.2
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.0						
KDAK	Kodiak Island	81.99	32	*i* P	P	20 15 59.0	+5.4
ARCES	ARCESS Array B	90.53	340	P	P	20 16 34.8	-0.5
	comp=Z,2.5nm,0.8s,mb4.4,baz=93,slow=7.3,SNR=4.9						
TORD	Torodi Ar. Bea	122.92	288	PKP	PKPdf	20 22 31.6	+1.1
	comp=Z,0.3nm,0.7s,baz=48,slow=2.1,SNR=3.2						

IDC 08 20:20:31.9±1.0**, 20°.56N**×**120°.74E, h0**^{km}**, mb3.6**/6**, mb1 3.8**/7**, mb1mx3.7**/19**, mbtmp3.6**/7**, ML3.3**/1**, Error ellipse: s-maj=35.5km s-min=19.0km az=70.0, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	17.96	19	P	Pn	20 24 44.0	+1.1
	0.1nm,0.3s,baz=202,slow=13,SNR=3.6						
CMAR	Chiang Mai Arr	20.65	268	P	P	20 25 13.4	+0.2
	0.6nm,0.8s,baz=71,slow=7.3,SNR=5.9						
SONM	Songino Array	29.58	340	P	P	20 26 38.3	-0.1
	0.3nm,0.7s,baz=157,slow=9.7,SNR=3.0						
MKAR	Makanchi Array	40.72	319	P	P	20 28 14.4	+0.1
	0.4nm,0.5s,baz=113,slow=9.0,SNR=14						
WRA	Warramunga Arr	42.40	161	P	P	20 28 27.7	-0.6
	1.9nm,0.7s,baz=343,slow=8.9,SNR=14						
ASAR	Alice Springs	45.79	163	P	P	20 28 56.1	+0.7
	1.3nm,1.0s,baz=345,slow=6.7,SNR=8.9						
YKA	Yellowknife Ar	86.46	22	P	P	20 33 15.8	-0.3
	0.6nm,0.6s,baz=315,slow=4.6,SNR=12						

IDC 08 20:38:49.2±1.9**, 1°.14N**×**126°.29E, h0**^{km}**, mb3.3**/3**, mb1 3.5**/3**, mb1mx3.3**/16**, mbtmp3.4**/3**, 1D, Error ellipse: s-maj=170.7km s-min=24.0km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.48	282	⇓*e*P	Pn	20 39 44.5	+27
MNI				*e*S	Sg	20 40 14.0	+37
WRA	Warramunga Arr	22.38	160	P	P	20 43 49.5	+0.3
	0.5nm,0.4s,baz=338,slow=10,SNR=5.9						
ASAR	Alice Springs	25.74	164	P	P	20 44 21.4	-0.2
	0.2nm,0.5s,baz=345,slow=6.7,SNR=3.7						
MKAR	Makanchi Array	59.44	326	P	P	20 48 53.9	+0.1
	0.5nm,0.5s,baz=116,slow=8.1,SNR=15						

IDC 08 20:39:34.2±3.8**, 4°.73S**×**152°.91E, h0**^{km}**, mb3.2**/2**, mb1 3.5**/2**, mb1mx3.1**/15**, mbtmp3.2**/2**, Error ellipse: s-maj=149.5km s-min=43.1km az=116.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.57	229	P	P	20 44 45.8	-1.0
	0.7nm,0.6s,baz=53,slow=9.8,SNR=8.0						
ASAR	Alice Springs	26.27	222	P	P	20 45 12.2	+0.8
	0.1nm,0.4s,baz=57,slow=8.8,SNR=4.2						
TORD	Torodi Ar. Bea	150.39	288	PKPbc	PKPbc	20 59 28.0	-0.7
	0.3nm,0.8s,baz=73,slow=2.8,SNR=4.2						
TORD				PKPab	PKPab	20 59 35.1	+0.1
	0.2nm,0.5s,baz=76,slow=4.4,SNR=3.0						

CRAAG ***08*** *20:50:11.7, 35°.78N×2°.17E, Ml3.7*

CSEM ***08*** *20:50:14.5±0.3, 35°.89N×2°.14E, h10^{km}, ML3.7, Error ellipse: s-maj=8.6km s-min=4.5km az=172.0*

NEIC ***08*** *20:50:14.9, 35°.97N×2°.22E, h0^{km}, MG3.9(MDD), After MDD.*

MDD ***08*** *20:50:15.4±0.6, 35°.92N×2°.13E, h0^{km}, mb3.9/9, Error ellipse: s-maj=9.7km s-min=4.6km az=172.0, PRIMO*

ISC 08 20:50:15.5±0.6**, 36°.05N**±0°.06×**2°.15E**±0°.04**, h7**^{km}±6^{km}**, n47, σ1^{s}18**/71**, 1D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EBNR	Beni Rached	0.55	296	P	Pg	20 50 26.0	-0.2
EBNR	Beni Rached	0.55	296	P	Pg	20 50 26.0	-0.2
ECHA	Ech Chlef	0.64	279	P	Pg	20 50 28.0	+0.2
ECHA	Ech Chlef	0.64	279	P	Pg	20 50 28.0	+0.2
ECHF	Ech Chlef	0.66	280	P	Pg	20 50 28.0	-0.2
EMHD	Djebel Mahouad	0.67	77	P	Pg	20 50 28.8	+0.3
EMHD	Djebel Mahouad	0.67	77	P	Pg	20 50 28.8	+0.3
EANR	'Ain N'Sour	0.85	264	P	Pg	20 50 31.0	-0.9
EANR	'Ain N'Sour	0.85	264	P	Pg	20 50 31.0	-0.9
ETRT	Tiaret	0.95	227	P	Pg	20 50 31.0	-2.8
ETRT	Tiaret	0.95	227	P	Pg	20 50 31.0	-2.8
ABA	Alger-Bouzarea	1.04	43	P	Pg	20 50 36.6	+1.1
ABA	Alger-Bouzarea	1.04	43	P	Pg	20 50 36.6	+1.1
ADJB	Djebel Djouab	1.05	84	P	Pg	20 50 35.4	-0.4
ADJB	Djebel Djouab	1.05	84	P	Pg	20 50 35.4	-0.4
OKGL	Djebel Kef Gue	1.22	270	P	Pb	20 50 40.0	+1.1
OKGL	Djebel Kef Gue	1.22	270	P	Pb	20 50 40.0	+1.1
OJGS	Djebel Guires	1.26	245	P	Pn	20 50 35.0	-4.5
OJGS	Djebel Guires	1.26	245	P	Pn	20 50 35.0	-4.5
AKET	Djebel Ketaf	1.41	89	P	Pn	20 50 40.9	-0.7
AKET	Djebel Ketaf	1.41	89	P	Pn	20 50 40.9	-0.7
OJBR	Djebel Berber	1.53	253	P	Pn	20 50 45.0	+1.7
ODJA	Bouhanifia	2.00	250	P	Pn	20 50 53.0	+3.2
EIBI	Ibiza	3.04	348	⇓P	Pn	20 51 04.8	+0.7
	9.0nm,0.2s,SNR=18						
EIBI				S	Sn	20 51 39.3	-1.4
	8.2nm,0.3s						
EIBI	Ibiza	3.04	348	P	Pn	20 51 04.8	+0.7
	9.0nm,0.2s,SNR=18						
EIBI				S	Sn	20 51 39.3	-1.4
	8.2nm,0.3s						
EBEN	Beniarda	3.25	325	P	Pn	20 51 06.6	-0.4
	2.9nm,0.4s,SNR=7.9						
EBEN				S	Sn	20 51 45.7	-0.3
	3.4nm,0.3s,SNR=7.9						
EBEN	Beniarda	3.25	325	P	Pn	20 51 06.6	-0.4
	2.9nm,0.4s,SNR=7.9						
EBEN				S	Sn	20 51 45.7	-0.3
	3.4nm,0.3s,SNR=7.9						
ETOS	Mallorca	3.75	8	P	Pn	20 51 14.0	+0.2
	4.1nm,0.4s,SNR=7.7						
ETOS				S	Sn	20 51 56.2	-2.0
	2.6nm,0.3s,SNR=7.9						
ETOS	Mallorca	3.75	8	P	Pn	20 51 14.0	+0.2
	4.1nm,0.4s,SNR=7.7						
ETOS				S	Sn	20 51 56.2	-2.1
	2.6nm,0.3s,SNR=7.9						
ETOB	Tobarra	3.92	312	P	Pn	20 51 17.1	+0.9
	7.1nm,0.5s,SNR=10						
ETOB				S	Sn	20 52 04.1	+1.6
	12nm,0.5s,SNR=4.6						
ETOB	Tobarra	3.92	312	P	Pn	20 51 17.1	+0.9
	7.1nm,0.5s,SNR=10						
ETOB				S	Sn	20 52 04.1	+1.7
	12nm,0.5s,SNR=4.6						
EBER	Berja	4.14	283	P	Pn	20 51 18.0	-1.3
	8.2nm,0.5s,SNR=15						
EBER				S	Sn	20 52 06.8	-1.1
	8.6nm,0.4s,SNR=7.9						
EBER	Berja	4.14	283	P	Pn	20 51 18.0	-1.2
	8.2nm,0.5s,SNR=15						
EBER				S	Sn	20 52 06.8	-1.2
	8.6nm,0.4s,SNR=7.9						
EHUE	Huescar	4.18	296	P	Pn	20 51 20.9	+1.1
	0.4nm,0.3s,SNR=7.9						
EHUE				S	Sn	20 52 11.2	+2.3
	0.7nm,0.5s,SNR=7.9						
EHUE	Huescar	4.18	296	P	Pn	20 51 20.1	+0.3
EHUE				S	Sn	20 52 03.9	-5.1
EHUE	Huescar	4.18	296	P	Pn	20 51 20.1	+0.3
EHUE				S	Sn	20 52 11.2	+2.2
	0.7nm,0.5s,SNR=7.9						
EVIA	Vianos	4.52	306	P	Pn	20 51 24.6	+0.2
	2.6nm,0.5s,SNR=7.9						
EVIA				S	Sn	20 52 17.5	+0.3
	2.2nm,0.4s,SNR=7.9						
EVIA	Vianos	4.52	306	P	Pn	20 51 24.6	+0.2
	2.6nm,0.5s,SNR=7.9						
EVIA				S	Sn	20 52 17.5	+0.4
	2.2nm,0.4s,SNR=7.9						
EQES	Quesada	4.53	294	P	Pn	20 51 25.6	+1.0
	2.8nm,0.4s,SNR=8.4						
EQES				S	Sn	20 52 15.9	-1.6
	3.5nm,0.3s,SNR=7.9						
EQES	Quesada	4.53	294	P	Pn	20 51 25.5	+0.9
	2.8nm,0.4s,SNR=8.4						
EQES				S	Sn	20 52 15.9	-1.6
	3.5nm,0.3s,SNR=7.9						
EQUE	Quentar	4.64	286	P	Pn	20 51 26.0	0.0
	3.9nm,0.4s,SNR=13						
EQUE				S	Sn	20 52 19.3	-0.9
	2.7nm,0.4s,SNR=5.7						
EQUE	Quentar	4.64	286	P	Pn	20 51 26.0	0.0
	3.9nm,0.4s,SNR=13						
EQUE				S	Sn	20 52 19.3	-0.8
	2.7nm,0.4s,SNR=5.7						
EMOS	Mosqueruela	4.78	335	P	Pn	20 51 29.6	+1.7
	3.7nm,0.2s,SNR=18						
EMOS				S	Sn	20 52 21.1	-2.4
	1.7nm,0.3s						
EMOS	Mosqueruela	4.78	335	P	Pn	20 51 29.6	+1.7
	3.7nm,0.2s,SNR=18						
EMOS				S	Sn	20 52 21.1	-2.4
	1.7nm,0.3s						
EADA	Adamuz	5.77	293	P	Pn	20 51 46.7	+5.1
EADA				S	Sn	20 52 51.1	+3.0
ESDC	Sonseca Array	6.04	309	P	Pn	20 51 45.5	+0.3
ESDC				S	Sn	20 52 54.6	0.0
ESDC	Sonseca Array	6.04	309	P	Pn	20 51 45.5	+0.3
ESDC				S	Sn	20 52 54.6	0.0

DDA ***08*** *20:57:41.6, 39°.35N×33°.17E, h11^{km}±2^{km}, Md2.8*

ISK ***08*** *20:57:41.1, 39°.38N×33°.16E, h5^{km}, MD3.2*

ISCJB ***08*** *20:57:42.0±0.5, 39°.35N±0°.02×33°.19E±0°.03, h1^{km}±4^{km}, Error ellipse: s-maj=3.7km s-min=3.2km az=152.4*

CSEM ***08*** *20:57:42.2±0.1, 39°.36N×33°.17E, h2^{km}, MD3.2, Error ellipse: s-maj=3.9km s-min=3.3km az=156.0*

ISC 08 20:57:42.7±0.5**, 39°.35N**±0°.02×**33°.18E**±0°.03**, h2**^{km}±4^{km}**, n55, σ1^{s}00**/84**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALAT	Bala	0.21	347	*i* P	Pg	20 57 46.2	-0.5
BALAT				*i* S	Sg	20 57 49.9	+0.3
KAMT	Kaman	0.41	87	*e*PG	Pg	20 57 50.4	-0.3
KAMT	Kaman	0.41	87	*e*Pg	Pg	20 57 50.4	-0.2
LOD	Lodumlu	0.63	329	*e*PG	Pg	20 57 53.6	-1.1
LOD				*e*SG	Sg	20 58 03.0	+0.1
LOD	Lodumlu	0.63	329	*e*Pg	Pg	20 57 53.6	-1.1
LOD				*e*Sg	Sg	20 58 03.0	+0.1
CDAG	Cicekdag	0.96	73	*i* P	Pg	20 57 59.6	-1.5
CDAG				*i* S	Sg	20 58 13.6	0.0
CDAG	Cicekdag	0.96	73	*i* P	Pg	20 57 59.6	-1.5
CDAG				*i* S	Sg	20 58 13.6	0.0
KIZT	Kizilcal	1.11	246	*e*PN	Pg	20 58 03.3	-0.7
KIZT				*e*SN	Sg	20 58 20.0	+1.6
KIZT	Kizilcal	1.11	246	*e*Pn	Pg	20 58 03.3	-0.7
KIZT				*e*Sn	Sg	20 58 20.0	+1.5
ELDT	Eldivan	1.16	9	*i* P	Pg	20 58 03.7	-1.1
ELDT				*i* S	Sg	20 58 19.8	0.0
ELDT	Eldivan	1.16	9	*i* P	Pg	20 58 03.7	-1.1

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ELDT				*i* S	Sg	20 58 19.8	0.0
KDHN	Kadinhani	1.17	225	*i* P	Pg	20 58 03.5	-1.7
KDHN				*i* S	Sg	20 58 20.3	0.0
KDHN	Kadinhani	1.17	225	*i* P	Pg	20 58 03.5	-1.6
KDHN				*i* S	Sg	20 58 20.3	0.0
SULT	Sultanhani-AKS	1.18	167	*e*PN	Pg	20 58 05.9	+0.6
SULT	Sultanhani-AKS	1.18	167	*e*Pn	Pg	20 58 05.9	+0.6
SVRH	Sivrihisar-ESK	1.29	275	*e*PN	Pn	20 58 06.0	-1.7
SVRH				*e*SN	Sn	20 58 25.1	-0.3
SVRH	Sivrihisar-ESK	1.29	275	*e*Pn	Pn	20 58 06.0	-1.6
SVRH				*e*Sn	Sn	20 58 25.1	-0.3
CANT	Cankiri	1.30	15	*e*PN	Pn	20 58 06.6	-1.2
CANT				*e*SN	Sn	20 58 25.0	-0.7
AVNT	Avonos	1.42	113	*i* P	Pn	20 58 08.4	-1.0
AVNT				*i* S	Sg	20 58 29.6	+1.2
AVNT	Avonos	1.42	113	*i* P	Pn	20 58 08.4	-1.1
AVNT				*i* S	Sg	20 58 29.6	+1.2
SGKT	Sivrigoynuk	1.50	325	*i* P	Pn	20 58 09.5	-1.0
SGKT				*i* S	Sg	20 58 32.7	+1.9
SGKT	Sivrigoynuk	1.50	325	*i* P	Pn	20 58 09.5	-1.0
SGKT				*i* S	Sg	20 58 32.7	+1.9
KONT	Konya--Tatoy	1.54	205	*e*PN	Pn	20 58 10.7	-0.4
KONT	Konya--Tatoy	1.54	205	*e*Pn	Pn	20 58 10.7	-0.4
YOZ	Yozgat	1.68	79	*e*PN	Pn	20 58 12.9	-0.1
YOZ				*e*SN	Sn	20 58 36.0	+0.9
YOZ	Yozgat	1.68	79	*e*Pn	Pn	20 58 12.9	-0.1
YOZ				*e*Sn	Sn	20 58 36.0	+0.9
ILGA	Ilgaz	1.75	13	*i* P	Pn	20 58 14.2	+0.3
ILGA				*i* S	Sn	20 58 38.2	+1.4
ILGA	Ilgaz	1.75	13	*i* P	Pn	20 58 14.2	+0.2
ILGA				*i* S	Sn	20 58 38.2	+1.4
CTKT	Corum	1.77	44	*i* P	Pn	20 58 14.4	+0.1
CTKT				*i* S	Sg	20 58 40.8	+1.1
CTKT	Corum	1.77	44	*i* P	Pn	20 58 14.4	+0.1
CTKT				*i* S	Sg	20 58 40.8	+1.1
ESKT	Eskisehir	1.81	276	*e*PN	Pn	20 58 14.8	0.0
ESKT	Eskisehir	1.81	276	*i* P	Pn	20 58 15.2	+0.4
ESKT				*i* S	Sg	20 58 44.4	+3.6
ESKT	Eskisehir	1.81	276	*e*Pn	Pn	20 58 14.8	0.0
SEYT	Eskypehyr	1.81	276	*i* P	Pn	20 58 15.2	+0.4
MDU	Mudurnu	1.88	307	*e*PN	Pn	20 58 15.6	-0.1
MDU	Mudurnu	1.88	307	*e*Pn	Pn	20 58 15.6	-0.1
SAFT	Safranbolu	1.93	349	*e*PN	Pn	20 58 16.6	+0.2
SAFT	Safranbolu	1.93	349	*e*Pn	Pn	20 58 16.6	+0.2
BNN	Bunyan	2.13	103	*e*PN	Pn	20 58 19.9	+0.7
BNN	Bunyan	2.13	103	*e*Pn	Pn	20 58 19.9	+0.6
BALT	Daday	2.19	4	*i* P	Pn	20 58 22.6	+2.6
BALT				*i* S	Sn	20 58 48.2	+0.6
BALT	Daday	2.19	4	*i* P	Pn	20 58 22.6	+2.6
BALT				*i* S	Sn	20 58 48.2	+0.6
SHUT	Suhut-Afyon	2.20	250	*e*PN	Pn	20 58 20.4	+0.2
SHUT	Suhut-Afyon	2.20	250	*e*Pn	Pn	20 58 20.4	+0.2
ALT	Altintas	2.40	264	*e*PN	Pn	20 58 23.5	+0.6
ALT	Altintas	2.40	264	*e*Pn	Pn	20 58 23.5	+0.5
HDMB	Hadim	2.44	193	*e*PN	Pn	20 58 24.4	+0.9
HDMB	Hadim	2.44	193	*e*Pn	Pn	20 58 24.5	+1.0
BOYT	Boyabat	2.45	32	*i* P	Pn	20 58 22.9	-0.7
BOYT				*i* S	Sn	20 58 52.7	-1.5
BOYT	Boyabat	2.45	32	*i* P	Pn	20 58 22.9	-0.7
BOYT				*i* S	Sn	20 58 52.7	-1.5
KOZT	Kozan	2.79	131	*e*PN	Pn	20 58 29.5	+1.2
KVT	Kavak	2.79	51	*e*PN	Pn	20 58 29.5	+1.1
KVT	Kavak	2.79	51	*e*Pn	Pn	20 58 29.5	+1.1
SARI	SarD1z-Kayseri	2.82	103	*e*PN	Pn	20 58 27.2	-1.5
SARI	SarD1z-Kayseri	2.82	103	*e*Pn	Pn	20 58 27.2	-1.5

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*IDC **08** 21:27:22.6±1.7, 1°.80N×126°.69E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.5/16, mbtmp3.6/4, Error ellipse: s-maj=173.7km s-min=20.3km az=67.0*

*ISCJB **08** 21:27:23.0±1.1, 1°.5N±0°.2×126°.0E±0°.1, h10^{km}, mb3.5/4, Error ellipse: s-maj=25.6km s-min=16.0km az=37.9*

ISC 08 21:27:25.2±1.1**, 1°.4N**±0°.2×**125°.8E**±0°.1**, h10^{km}, n6, σ0^{s}.69**/5**, mb3.5**/4**, 1D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
MNI	Manado	0.98	272	⇓*e*P	Pg	21 27 44.0	0.0
MNI				*e*S	x	21 27 55.0	
WRA	Warramunga Arr	22.80	159	P	P	21 32 27.6	-0.7
	0.8nm,0.5s,mb3.4,baz=340,slow=11,SNR=21						
ASAR	Alice Springs	26.13	163	P	P	21 33 00.4	+0.8
	0.7nm,0.3s,mb3.6,baz=339,slow=9.1,SNR=14						
MKAR	Makanchi Array	58.95	326	P	P	21 37 24.9	+0.1
	0.3nm,0.4s,mb3.7,baz=122,slow=7.8,SNR=10						
MKAR				PcP	PcP	21 38 14.2	+0.2
	0.6nm,0.7s,baz=118,slow=4.3,SNR=5.7						
KURK	Kurchatov	63.21	329	P	P	21 37 53.5	-0.1
	0.1nm,0.4s,mb3.3,baz=137,slow=5.9,SNR=4.3						
TORD	Torodi Ar. Bea	122.73	287	PKP	PKPdf	21 46 22.0	-0.4
	0.3nm,0.7s,baz=93,slow=0.5,SNR=4.0						

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*ISCJB **08** 21:40:17.6±0.5, 36°.95N±0°.03×29°.22E±0°.03, h10^{km}±5^{km}, Error ellipse: s-maj=6.1km s-min=4.2km az=151.9*

*CSEM **08** 21:40:17.7±0.2, 36°.96N×29°.25E, h10^{km}, MD3.0, Error ellipse: s-maj=4.1km s-min=3.3km az=156.0*

*ISK **08** 21:40:17.0, 36°.94N×29°.26E, h11^{km}, MD3.0*

*DDA **08** 21:40:18.6, 37°.04N×29°.17E, h7^{km}±5^{km}, Md2.9*

ISC 08 21:40:18.0±0.5**, 36°.95N**±0°.04×**29°.22E**±0°.04**, h13**^{km}±4^{km}**, n40, σ0^{s}.91**/53**, Turkey**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
FETY	Fethiye	0.33	200	*e*PG	Pg	21 40 24.0	-0.8
FETY				*e*SG	Sg	21 40 29.6	+0.4
FETY	Fethiye	0.33	200	*e*Pg	Pg	21 40 24.0	-0.8
FETY				*e*Sg	Sg	21 40 29.7	+0.4
GOLH	Golhisar	0.40	43	*i* P	Pg	21 40 24.7	-1.2
GOLH				*i* S	Sg	21 40 32.4	+1.1
GOLH	Golhisar	0.40	43	*i* P	Pg	21 40 24.7	-1.3
GOLH				*i* S	Sg	21 40 32.4	+1.1
DALT	Dalyan (Mudla)	0.50	249	*e*PG	Pg	21 40 27.6	-0.3
DALT				*e*SG	Sg	21 40 35.3	+0.7
DALT	Dalyan (Mudla)	0.50	249	*e*Pg	Pg	21 40 27.6	-0.3
DALT				*e*Sg	Sg	21 40 35.3	+0.7
ELL	Elmali	0.59	110	*e*PG	Pg	21 40 28.3	-1.2
ELL	Elmali	0.59	110	*e*Pg	Pg	21 40 28.3	-1.2
YER	Yerkesik	0.77	284	*e*PG	Pg	21 40 32.9	-0.1
YER	Yerkesik	0.77	284	*e*Pg	Pg	21 40 32.9	-0.1
AKAS	Kas	0.78	156	*i* P	Pg	21 40 34.6	+1.6
AKAS				*i* S	Sg	21 40 49.3	+6.1
AKAS	Kas	0.78	156	*i* P	Pg	21 40 34.7	+1.6
DENT	Denizli	0.82	349	*e*PG	Pg	21 40 33.6	-0.3
DENT	Denizli	0.82	349	*e*Pg	Pg	21 40 33.6	-0.3
ANTB	Antalya	1.15	92	*e*PN	Pn	21 40 38.8	-1.0
ANTB	Antalya	1.15	92	*e*Pn	Pn	21 40 38.8	-1.0
BCK	Bucak	1.21	64	*e*PN	Pn	21 40 40.2	-0.3
BCK	Bucak	1.21	64	*e*Pn	Pn	21 40 40.2	-0.3
MLSB	Milas	1.21	287	*e*PN	Pn	21 40 40.7	+0.1
MLSB	Milas	1.21	287	*e*Pn	Pn	21 40 40.7	+0.2
AYDN	Tasoluk	1.28	304	*i* P	Pn	21 40 42.0	+0.3
AYDN				*i* S	Sb	21 40 55.6	-2.9
AYDN	Tasoluk	1.28	304	*i* P	Pn	21 40 42.0	+0.4
AYDN				*i* S	Sb	21 40 55.6	-2.8
DAT	Datca	1.34	261	*e*PN	Pn	21 40 43.0	+0.6
DAT	Datca	1.34	261	*e*Pn	Pn	21 40 43.0	+0.7
ISP	Isparta	1.36	49	*e*PN	Pn	21 40 43.0	+0.3
ISP	Isparta	1.36	49	*e*Pn	Pn	21 40 43.0	+0.3
KHL	Karahalli	1.39	10	*e*PN	Pn	21 40 43.2	+0.1
KHL	Karahalli	1.39	10	*e*Pn	Pn	21 40 43.2	+0.1
BDRM	Kayabasi	1.43	275	*i* P	Pn	21 40 45.0	+1.4
BDRM				*i* S	Sn	21 41 00.7	-1.5
BDRM	Kayabasi	1.43	275	*i* P	Pn	21 40 45.0	+1.4
BDRM				*i* S	Sn	21 41 00.6	-1.6
KHAL	Karahalli	1.44	9	*i* P	Pn	21 40 43.9	+0.2
KHAL				*i* S	Sn	21 41 04.1	+1.7
KHAL	Karahalli	1.44	9	*i* P	Pn	21 40 43.9	+0.2
KHAL				*i* S	Sn	21 41 04.1	+1.7
BODT	Bodrum	1.53	275	*e*PN	Pn	21 40 45.3	+0.2
BODT	Bodrum	1.53	275	*e*Pn	Pn	21 40 45.3	+0.2
KULA	Kula-Manisa	1.63	344	*e*PN	Pn	21 40 46.7	+0.3
KULA	Kula-Manisa	1.63	344	*e*Pn	Pn	21 40 46.7	+0.4
SHUT	Suhut-Afyon	1.92	33	*e*PN	Pn	21 40 49.9	-0.5
SHUT	Suhut-Afyon	1.92	33	*e*Pn	Pn	21 40 49.9	-0.4
HDMB	Hadim	2.62	89	*e*PN	Pn	21 40 59.5	-0.4
HDMB	Hadim	2.62	89	*e*Pn	Pn	21 40 59.5	-0.4

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*IDC **08** 21:52:37.3±1.9, 1°.68N×126°.90E, h0^{km}, mb3.5/4, mb1 3.7/4, mb1mx3.5/16, mbtmp3.6/4, MS4.2/1, Ms1 4.2/1, ms1mx3.0/23, Error ellipse: s-maj=182.7km s-min=21.3km az=66.0*

ISC 08 21:52:41.3±5.9**, 1°.5N**±0°.2×**126°.56E**±0°.09**, h23**^{km}±46^{km}**, n7, σ0^{s}.39**/7**, mb3.5**/4**, 2D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
TNE	Ternate	1.08	132	⇓*e*P	Pn	21 53 01.0	-0.1
MNI	Manado	1.72	268	⇓*e*P	Pn	21 53 10.0	+0.2
MNI				*e*S	Sn	21 53 31.0	-0.1
WRA	Warramunga Arr	22.64	161	P	P	21 57 40.4	-0.4
	0.9nm,0.4s,mb3.5,baz=340,slow=11,SNR=28						
ASAR	Alice Springs	26.02	165	P	P	21 58 13.4	+0.5
	0.6nm,0.5s,mb3.4,baz=341,slow=11,SNR=6.8						
JHJ	Hachijo jima 2	33.81	20	LR	LR	22 10 54.4	
	comp=Z,392nm,20.9s,baz=80,slow=33						
MKAR	Makanchi Array	59.28	326	P	P	22 02 41.2	+0.1
	0.1nm,0.3s,mb3.3,baz=122,slow=7.7,SNR=9.6						
KURK	Kurchatov	63.52	328	P	P	22 03 09.6	-0.2
	0.5nm,0.6s,mb3.7,baz=127,slow=6.2,SNR=4.2						

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*NIED **08** 22:07:00, 36°.70N×141°.20E, h47^{km}, Mw4.8 Best double couple: M$_0$2.01000×10^{16} NP1:φ$_s$28.00000°, δ84.00000°, λ90.00000°. NP2:φ$_s$205.00000°, δ6.00000°, λ87.00000°.*

*DJA **08** 22:07:00, 39°.58N×147°.34E, h213^{km}, mb5.2/8*

*BJI **08** 22:07:02.2, 36°.77N×141°.19E, h29^{km}, mB5.0/37, mb4.9/57, Ms4.4/49, Ms7 4.3/47*

*MOS **08** 22:07:03.7±0.9, 36°.77N×141°.15E, h33^{km}, mb5.0/67, MS4.2/17, Error ellipse: s-maj=8.9km s-min=4.6km az=109.2*

*SZGRF **08** 22:07:03.8, 36°.24N×141°.44E, h45^{km}, mb5.0, Near east coast of eastern Honshu, Japan*

*ISCJB **08** 22:07:05.3±0.1, 36°.77N±0°.02×141°.08E±0°.02, h43^{km}, mb4.8/125, MS4.3/34, Error ellipse: s-maj=3.6km s-min=2.3km az=166.9*

*JMA **08** 22:07:05.5±0.1, 36°.74N×141°.21E, h46^{km}±1^{km}, M4.9*

JMA Felt III J1.

*GCMT **08** 22:07:06.6±0.5, 36°.74N×141°.49E, h56^{km}±2^{km}, MW4.9/58, Moment Tensor Solution. s18,c23; s58,c90; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.75±.18; M$_{\theta\theta}$-0.08±.13; M$_{\phi\phi}$-1.67±.11; M$_{r\theta}$0.54±.08; M$_{\theta\phi}$-0.70±.09; M$_{\phi r}$1.38±.08; Best double couple: M$_0$2.36300×10^{16} NP1:φ$_s$200.00000°, δ26.00000°, λ89.00000°. NP2: φ$_s$21.00000°, δ64.00000°, λ90.00000°. Principal axes: T 2.2720, Plg71.0000°, Azm292.0000°; N 0.1800, Plg0.0000°, Azm201.0000°; P -2.4550, Plg19.0000°, Azm111.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **08** 22:07:06.6±0.8, 36°.72N×141°.15E, h46^{km}±7^{km}, mb4.8/44, MS4.6/3, MW4.8(NIED) Error ellipse: s-maj=5.7km s-min=4.4km az=156.0*

NEIC Felt [II] at Tokyo. Also felt at Daigo, Inzai, Iwaki, Koriyama, Machida, Mito, Narashino and Ryugasaki. Recorded [3 JMA] in Fukushima and Ibaraki; [2 JMA] in Chiba and Tochigi; [1 JMA] in Gumma, Iwate, Kanagawa, Miyagi, Saitama, Tokyo and Yamagata.

*IDC **08** 22:07:06.4±0.4, 36°.74N×141°.20E, h46^{km}±3^{km}, mb4.4/30, mb1 4.5/33, mb1mx4.5/36, mbtmp4.4/33, MS4.1/18, Ms1 4.2/18, ms1mx3.9/36, Error ellipse: s-maj=11.7km s-min=9.5km az=111.0*

ISC 08 22:07:07.2±0.1**, 36°.79N**±0°.02×**141°.06E**±0°.02**, h45**^{km}**, h45**^{km}±1.2^{km}**:pP-P, n586, σ0^{s}.72**/607**, mb4.8**/125**, MS4.3**/34**, 130C-161D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.37	327	⇓P	Pn	22 07 16.1	-0.5
ONAJ				*e*S	Sn	22 07 23.4	+0.1
JHO	Hitachi	0.43	246	⇓P	Pn	22 07 16.7	-0.6
JHO				*e*S	Sn	22 07 24.7	+0.3
JFK	Kawauchi	0.59	346	⇓P	Pn	22 07 18.6	-0.8
JFK				*e*S	Sn	22 07 27.7	-0.3
JYT	Yasato	0.89	231	⇓P	Pn	22 07 22.6	-0.7
JYT				*e*S	Sn	22 07 35.3	+0.2
JFT	Otama	0.93	322	⇓P	Pn	22 07 24.8	+1.0
JFT				*e*S	Sn	22 07 38.4	+2.4
JMM	Marumori	1.10	349	⇓P	Pn	22 07 25.3	-0.8
JMM				*e*S	Sn	22 07 40.3	+0.2
JFY	Yanaizu	1.24	300	⇓P	Pn	22 07 29.2	+1.1
JAG	Ashikaga	1.34	255	⇓P	Pn	22 07 29.8	+0.4
JKT	Katashina	1.45	270	⇓P	Pn	22 07 32.2	+1.3
JKT				*e*S	Sn	22 07 51.7	+2.9
MJAR	Matsushiro Arr	2.30	265	P	Pn	22 07 44.8	+2.2
MJAR				S	Sn	22 08 15.3	+5.6
MJAR				pmax	pmax		
	comp=Z,108nm,0.3s						
MJAR				smax			
	comp=N,148nm,0.3s						
MJAR	Matsushiro Arr	2.30	265	P	Pn	22 07 44.8	+2.2
	comp=N,108nm,0.3s,baz=89,slow=15,SNR=448						
MJAR				S	Sn	22 08 15.2	+5.5
	comp=N,148nm,0.3s,baz=55,slow=23,SNR=13						
MAT	Matsushiro	2.30	265	P	Pn	22 07 44.5	+1.9
MAT				S	Sn	22 08 15.1	+5.4
JHJ	Hachijo jima 2	3.81	196	P	Pn	22 08 03.1	-0.2
	comp=N,313nm,0.3s,baz=238,slow=0.2,SNR=90						
JHJ				S	Sn	22 08 45.0	-1.8
	comp=N,338nm,0.3s,baz=55,slow=22,SNR=11						
ERM	Erimo	5.47	17	*e*Pn	Pn	22 08 24.4	-1.6
ERM				*e*Sn	Sn	22 09 26.8	-0.8
ASAJ	Asahikawa	7.41	9	P	Pn	22 08 50.7	-2.0
ASAJ				S	Sn	22 10 15.4	0.0
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ				smax			
	comp=N,10.0nm,0.3s						
ASAJ	Asahikawa	7.41	9	P	Pn	22 08 50.7	-2.0
	comp=N,5.7nm,0.3s,baz=216,slow=12,SNR=25						
ASAJ				S	Sn	22 10 15.4	0.0
	comp=N,9.8nm,0.3s,baz=286,slow=33,SNR=4.5						
ASAJ				LR	LR	22 12 21.3	
	comp=N,606nm,19.3s,baz=192,slow=42						
YUK	Yuzh-Kuril'sk	8.11	25	P	Pn	22 09 01.5	-0.8
YUK				*e*S	Sn	22 10 28.0	-4.6
YUK				pmax	pmax		
	comp=Z,190nm,0.5s						
YUK				smax			
	comp=E,770nm,0.5s						
YUK				smax			
	comp=N,2μm,0.6s						
YUK				smax			
	comp=N,3μm,3.0s						
YUK				smax			
	comp=E,3μm,3.0s						
CBIJ	Chichi jima	9.71	174	P	Pn	22 09 19.2	-5.1
	comp=E,43nm,0.3s,baz=302,slow=13,SNR=24						
CBIJ				S	Sn	22 11 00.2	-12
	comp=E,52nm,0.3s,baz=283,slow=22,SNR=5.8						
YSS	Yuzh-Sakhalins	10.24	7	⇑*e*P	Pn	22 09 29.0	-2.4
YSS				*e*S	Sn	22 11 23.0	-1.6
YSS				pmax	pmax		
	comp=Z,30nm,0.9s						
YSS				smax			
	comp=N,90nm,1.2s						
YSS				MLR	MLR		
	comp=N,500nm,14.0s						
YSS				MLR	MLR		
	comp=Z,500nm,14.0s						
YSS				MLR	MLR		
	comp=E,500nm,15.0s						
KSRS	Korea Array	10.51	278	P	Pn	22 09 40.5	+5.3
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,1μm,20.1s						
KSRS	Korea Array	10.51	278	P	Pn	22 09 40.5	+5.3
	comp=Z,0.7nm,0.3s,baz=90,slow=13,SNR=44						
KSRS				LR	LR	22 13 31.1	
	comp=Z,1μm,20.1s,baz=72,slow=36						
MDJ	Mudanjiang	11.69	316	P	Pn	22 09 51.6	+0.4
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.3s						
MDJ				pmax	pmax		
	comp=Z,140nm,4.9s						
MDJ				LR	LR		
	comp=N,810nm,16.2s						
MDJ				LR	LR		
	comp=E,520nm,20.6s						
MDJ				LR	LR		
	comp=Z,1μm,20.6s						
HABR	Khabarovsk	12.48	341	*ce*P	Pn	22 09 57.1	-4.9
CN2	Changchun	13.81	305	*e*P	Pn	22 10 18.8	-1.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,600nm,17.0s						
CN2				LR	LR		
	comp=E,700nm,17.0s						
CN2				LR	LR		
	comp=Z,1μm,18.0s						
KLR	Kul'dur	14.16	334	*e*P	Pn	22 10 19.2	-5.7
KLR				MLR	MLR		
	comp=E,500nm,14.0s						
KLR				MLR	MLR		
	comp=Z,1μm,14.0s						
JOW	Kunigami	14.70	231	LR	LR	22 15 56.6	
	comp=Z,273nm,20.4s,baz=302,slow=36						
DL2	Dalian	15.49	284	P	Pn	22 10 46.0	+3.5
DL2				*e*S	S	22 13 41.9	-5.1
DL2				pmax	pmax		
	comp=Z,40nm,0.9s						
DL2				pmax	pmax		
	comp=Z,210nm,5.0s						
DL2				LR	LR		
	comp=E,520nm,17.1s						
DL2				LR	LR		
	comp=Z,660nm,18.6s						
SSE	Sheshan	17.43	257	P	Pn	22 11 05.2	-1.8
SSE				sP	sP	22 11 15.2	-8.8
SSE				S	S	22 14 18.0	-8.6
SSE				sS	sS	22 14 33.8	-10
SSE				pmax	pmax		
	comp=Z,10.0nm,1.1s						
SSE				pmax	pmax		
	comp=Z,110nm,5.8s						
SSE				LR	LR		
	comp=N,250nm,14.4s						
SSE				LR	LR		
	comp=E,340nm,14.4s						
SSE				LR	LR		
	comp=Z,600nm,13.1s						
NJ2	Nanjing	18.91	262	*e*P	Pn	22 11 22.6	-2.4
NJ2				pP	pP	22 11 32.7	-2.0
NJ2				PP		22 11 39.7	
NJ2				sP	sP	22 11 41.2	+0.9
NJ2				S	S	22 14 47.0	-9.5
NJ2				sS	sS	22 15 06.0	-7.5
NJ2				pmax	pmax		
	comp=Z,20nm,1.2s						
NJ2				pmax	pmax		
	comp=Z,100nm,4.4s						
NJ2				LR	LR		
	comp=N,250nm,24.5s						
NJ2				LR	LR		
	comp=E,690nm,19.5s						
NJ2				LR	LR		
	comp=Z,680nm,19.7s						
TIA	Tai'an	19.24	275	⇓P	Pn	22 11 26.7	-2.3
TIA				pmax	pmax		
	comp=Z,60nm,1.0s						
BJI	Beijing	19.75	287	P	Pn	22 11 32.9	-2.0
BJI				pmax	pmax		
	comp=Z,39nm,0.9s						
BJI				pmax	pmax		
	comp=Z,140nm,4.0s						
BJI				LR	LR		
	comp=N,250nm,20.9s						
BJI				LR	LR		
	comp=E,390nm,20.0s						
BJI				LR	LR		
	comp=Z,330nm,25.4s						
BJT	Baijiatuau	19.75	287	*e*P	Pn	22 11 32.7	-2.3
BJT				pmax	pmax		
	comp=Z,77nm,0.7s						
BJT	Baijiatuau	19.75	287	*e*P	Pn	22 11 32.7	-2.3
	comp=Z,77nm,0.7s						
PETK	Petropavlovsk-	20.04	30	LR	LR	22 19 41.9	
	comp=Z,93nm,21.6s,MS3.1,baz=222,slow=38						
PET	Petropavlovsk	20.38	32	*e*P	P	22 11 41.2	+1.4
PET				*e*S	S	22 15 17.4	-8.1
PET				pmax	pmax		
	comp=Z,17nm,0.5s						
PET				MLR	MLR		
	comp=Z,200nm,18.0s,MS3.5						
NACB	Ninganchiao	20.91	238	*e*P	P	22 11 44.2	-1.7
	comp=Z,6.6nm,0.4s						
CLNS	Chul'man	22.79	337	*e*P	P	22 12 04.0	-1.7
CLNS				*e*		22 16 03.8	
CLNS				*e*S	S	22 16 08.0	-3.5
CLNS				pmax	pmax		
	comp=E,16nm,1.1s						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.3s						
CLNS				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.4						
CLNS				smax			
	comp=E,177nm,13.4s						
CLNS				smax			
	comp=N,141nm,15.5s						
CLNS				MLR	MLR		
	comp=E,112nm,16.0s,MS4.0						
CLNS				MLR	MLR		
	comp=Z,367nm,17.0s,MS3.9						
CLNS				MLR	MLR		
	comp=N,381nm,16.0s,MS4.0						
WHN	Wuhan	23.04	262	⇓P	P	22 12 06.6	-2.0
WHN				LR	LR		
	comp=Z,2μm,13.7s,MS4.6						
HHC	Hu-ho-hao-te	23.28	289	*e*P	P	22 12 09.4	-1.6
HHC				pP		22 12 13.8	
HHC				PP		22 12 40.1	
HHC				*e*S	S	22 16 16.3	-3.4
HHC				SS		22 17 00.6	
HHC				PcS	PcS	22 19 34.5	-1.7
HHC				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.4						
HHC				pmax	pmax		
	comp=Z,220nm,4.0s						
HHC				LR	LR		
	comp=N,300nm,12.9s						
HHC				LR	LR		
	comp=E,370nm,8.8s						
HHC				LR	LR		
	comp=Z,310nm,16.5s,MS3.8						
BTO	Baotou	24.45	289	*e*P	P	22 12 19.8	-1.9
YAK	Yakutsk	26.25	348	*c i*P	P	22 12 36.7	-1.0
YAK				*e*		22 13 26.0	
YAK				*e*S	S	22 17 10.2	+3.5
YAK				*e*SS		22 18 31.3	
YAK				pmax	pmax		
	comp=Z,117nm,0.9s,mb5.4						
YAK				pmax	pmax		
	comp=N,51nm,1.1s						
YAK				pmax	pmax		
	comp=E,23nm,1.1s						
YAK				pmax	pmax		
	comp=Z,26nm,0.9s,mb4.8						
YAK				smax			
	comp=N,251nm,2.6s						
YAK				smax			
	comp=E,211nm,3.7s						
XAN	Xi'an	26.27	274	P	P	22 12 38.1	-0.1
XAN				pP	pP	22 12 44.1	-6.0
XAN				sP	sP	22 12 47.0	-8.4
XAN				PP		22 13 20.4	
XAN				PcP	PcP	22 16 05.6	+1.9
XAN				S	S	22 17 07.7	0.0
XAN				SS		22 18 15.2	
XAN				ScP	ScP	22 19 42.0	+2.2
XAN				PcS	PcS	22 19 44.5	-0.3
XAN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.4						
XAN				pmax	pmax		
	comp=Z,150nm,8.5s						
XAN				LR	LR		
	comp=N,120nm,15.1s,MS4.0						
XAN				LR	LR		
	comp=E,320nm,17.3s,MS4.0						
XAN				LR	LR		
	comp=Z,390nm,17.5s,MS4.0						

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SEY   Seymchan          27.09  11⇑eP      P         22 12 45.0  -0.3
BOD   Bodaibo           27.59 328  eP     P         22 12 48.9  -0.9
BOD                                pmax   pmax
      comp=Z,16nm,0.9s,mb4.7
SONM  Songino Array     27.69 304  P      P         22 12 50.6  -0.2
SONM                               pmax   pmax
      comp=Z,20nm,0.8s
SONM                               MLR    MLR
      comp=Z,289nm,18.1s
SONM  Songino Array     27.69 304  P      P         22 12 50.6  -0.2
      comp=Z,20nm,0.8s,mb4.8,baz=107,slow=8.2,SNR=63
SONM                               LR     LR        22 24 20.4
      comp=Z,289nm,18.1s,MS3.9,baz=107,slow=37
LZH   Lanzhou           29.83 280  eP     P         22 13 09.5  -0.5
LZH                                pP     pP        22 13 18.0  -3.9
LZH                                sP     sP        22 13 21.1  -6.1
LZH                                PP     PP        22 14 10.5  -7.3
LZH                                PcP    PcP       22 16 14.0  +1.6
LZH                                eS     S         22 18 00.0  -3.6
LZH                                sS     sS        22 18 19.0  -4.6
LZH                                SS     SS        22 19 43.2   -28
LZH                                pmax   pmax
      comp=Z,39nm,1.2s,mb5.0
LZH                                pmax   pmax
      comp=Z,250nm,5.4s
LZH                                LR     LR
      comp=E,980nm,14.6s
LZH                                LR     LR
      comp=Z,1μm,15.3s,MS4.6
IRK   Irkutsk           30.05 313  eP     P         22 13 13.1  +1.3
IRK                                pmax   pmax
      comp=Z,11nm,1.3s,mb4.4
ZAK   Zakamensk         30.20 309⇓iP      P         22 13 12.8  -0.3
ZAK                                pmax   pmax
      comp=Z,9.0nm,1.1s,mb4.4
TLY   Talaya            30.28 311  eP     P         22 13 13.4  -0.4
TLY                                eS     S         22 18 03.5  -6.8
TLY                                pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.5
TLY                                MLR    MLR
      comp=Z,532nm,17.0s,MS4.2
TLY   Talaya            30.28 311  eP     P         22 13 14.2  +0.5
      comp=Z,9.6nm,1.0s,mb4.5
GYA   Guiyang           30.90 260⇑iP      P         22 13 18.9  -0.6
GYA                                pP     pP        22 13 23.3  -8.2
GYA                                PP     PP        22 14 20.1   -10
GYA                                S      S         22 18 21.1  +0.5
GYA                                ScP    ScP       22 19 57.3  +2.9
GYA                                SS     SS        22 20 03.3   -30
GYA                                pmax   pmax
      comp=Z,20nm,1.0s,mb4.9
GYA                                pmax   pmax
      comp=Z,160nm,8.3s
GYA                                LR     LR
      comp=N,520nm,11.0s,MS4.6
GYA                                LR     LR
      comp=E,460nm,11.2s,MS4.6
GYA                                LR     LR
      comp=Z,750nm,12.0s,MS4.6
CD2   Chengdu           31.39 270  P      P         22 13 23.3  -0.5
CD2                                pP     pP        22 13 30.8  -5.0
CD2                                sP     sP        22 13 33.7  -7.4
CD2                                PP     PP        22 14 28.6  -6.6
CD2                                PcP    PcP       22 16 18.4  +1.8
CD2                                S      S         22 18 30.4  +2.2
CD2                                sS     sS        22 18 40.1  -8.1
CD2                                SS     SS        22 20 18.0   -26
CD2                                pmax   pmax
      comp=Z,40nm,0.8s,mb5.3
CD2                                pmax   pmax
      comp=Z,190nm,5.9s
CD2                                LR     LR
      comp=N,600nm,14.9s
CD2                                LR     LR
      comp=Z,580nm,10.7s,MS4.5
MOY   Mondy             31.88 311  eP     P         22 13 28.3  +0.4
GTA   Gaotai            32.36 287  eP     P         22 13 32.1  -0.2
GTA                                pP     pP        22 13 36.3  -7.9
GTA                                sP     sP        22 13 40.0   -10
GTA                                S      S         22 18 45.9  +2.7
GTA                                SS     SS        22 20 39.3   -24
GTA                                pmax   pmax
      comp=Z,5.0nm,0.8s,mb4.4
GTA                                pmax   pmax
      comp=Z,130nm,6.8s
GTA                                LR     LR
      comp=N,280nm,13.4s,MS4.2
GTA                                LR     LR
      comp=E,270nm,16.4s,MS4.2
GTA                                LR     LR
      comp=Z,320nm,19.9s,MS4.0
KMI   Kunming           34.64 261 ⇓P      P         22 13 52.4  +0.1
KMI                                pP     pP        22 13 58.0  -6.3
KMI                                PP     PP        22 15 10.9  -0.4
KMI                                S      S         22 19 22.0  +3.2
KMI                                SS     SS        22 21 31.8   -18
KMI                                pmax   pmax
      comp=Z,24nm,1.0s,mb5.1
KMI                                pmax   pmax
      comp=Z,180nm,3.8s
KMI                                LR     LR
      comp=N,470nm,15.3s,MS4.5
KMI                                LR     LR
      comp=E,440nm,15.3s,MS4.5
KMI                                LR     LR
      comp=Z,540nm,18.6s,MS4.3
TIXI  Tiksi             35.50 353⇑eP      P         22 13 57.9  -1.2
TIXI                               pmax   pmax
      comp=Z,14nm,1.0s,mb4.8
WMQ   Urumqi            40.70 297⇑iP      P         22 14 44.4  +1.2
WMQ                                pP     pP        22 14 50.5  -4.9
WMQ                                sP     sP        22 14 54.0  -6.7
WMQ                                PP     PP        22 16 22.0  +4.6
WMQ                                S      S         22 20 54.0  +3.8
WMQ                                sS     sS        22 21 04.0  -6.5
WMQ                                SS     SS        22 23 51.0  -0.6
WMQ                                pmax   pmax
      comp=Z,11nm,0.9s,mb4.5
WMQ                                pmax   pmax
      comp=Z,320nm,5.6s
WMQ                                LR     LR
      comp=N,260nm,26.0s,MS4.3
WMQ                                LR     LR
      comp=E,530nm,24.7s,MS4.3
WMQ                                LR     LR
      comp=Z,700nm,23.8s,MS4.4
CMAR  Chiang Mai Arr    41.16 255  P      P         22 14 47.3   0.0
CMAR                               pmax   pmax
      comp=Z,6.0nm,0.9s
CMAR                               MLR    MLR
      comp=Z,304nm,18.0s
CMAR  Chiang Mai Arr    41.16 255  P      P         22 14 47.3   0.0
      comp=Z,6.0nm,0.9s,mb4.2,baz=51,slow=5.3,SNR=25
CMAR                               LR     LR        22 34 16.0
      comp=Z,304nm,18.0s,MS4.2,baz=65,slow=40
TNA   Tin City          41.21  29  eP     P         22 14 47.6  +0.5
      comp=Z,26nm,1.0s,mb4.8
ZALV  Zalesovo Beam     41.87 313  LR     LR        22 33 04.6
      comp=Z,244nm,20.0s,MS4.1,baz=304,slow=37
NVS   Novosibirsk       42.80 314⇑iP      P         22 15 00.0  -0.3
NVS                                pmax   pmax
      comp=N,7.0nm,1.4s
NVS                                pmax   pmax
      comp=E,26nm,1.4s
NVS                                pmax   pmax
      comp=Z,23nm,1.4s,mb4.7
MK31  Makanchi Array    44.01 302  i P    P         22 15 10.3  +0.2
MK31                               pmax   pmax
      comp=Z,15nm,0.7s,mb4.8
MKAR  Makanchi Array    44.01 302  P      P         22 15 10.3  +0.2
MKAR                               pmax   pmax
      comp=Z,12nm,0.9s
MKAR                               MLR    MLR
      comp=Z,276nm,21.8s
MKAR  Makanchi Array    44.01 302  P      P         22 15 10.3  +0.3
      comp=Z,12nm,0.9s,mb4.6,baz=87,slow=9.7,SNR=64
MKAR                               LR     LR        22 33 50.2
      comp=Z,276nm,21.8s,MS4.1,baz=85,slow=36
MKAR  Makanchi Array    44.01 302  P      P         22 15 10.3  +0.2
MKAR                               LR     LR        22 33 50.1
TAPN  Taplejung         45.67 274  eP     P         22 15 24.8  +1.2
      comp=Z,80nm,1.0s,mb5.6
KURK  Kurchatov         45.86 308  P      P         22 15 25.1  +0.4
KURK                               pmax   pmax
      comp=Z,56nm,0.9s,mb5.5
KURK  Kurchatov         45.86 308  P      P         22 15 25.1  +0.4
      comp=Z,56nm,0.9s,mb5.5,baz=83,slow=8.3,SNR=107
KURK  Kurchatov         45.86 308  eP     P         22 15 24.6  -0.1
      comp=Z,72nm,0.8s,mb5.7
SVW2  Sparrevohn        45.89  37  eP     P         22 15 24.3  -0.5
ODAN  Odare             46.14 274  eP     P         22 15 28.2  +0.9
      comp=Z,112nm,1.0s,mb5.7
RAMN  Ramite            46.74 274  eP     P         22 15 32.9  +0.9
      comp=Z,236nm,1.0s,mb6.1
JIRN  Jiri              46.75 275  eP     P         22 15 33.5  +1.4
      comp=Z,98nm,0.7s,mb5.8
GUN   Gumba             46.90 276  eP     P         22 15 34.4  +1.2
      comp=Z,102nm,0.8s,mb5.8
PKI   Pulchoki          47.42 276  eP     P         22 15 37.9  +0.6
      comp=Z,40nm,0.7s,mb5.4
KKN   Kakani            47.42 276  eP     P         22 15 38.2  +0.9
      comp=Z,72nm,0.6s,mb5.8
KDAK  Kodiak Island     47.47  42  i P    P         22 15 36.5  -0.8
KDAK  Kodiak Island     47.47  42  P      P         22 15 35.7  -1.5
      comp=Z,14nm,0.6s,mb5.1,baz=214,slow=5.8,SNR=9.2
KDAK  Kodiak Island     47.47  42  P      P         22 15 35.7  -1.5
DMN   Daman             47.64 276  eP     P         22 15 39.9  +0.9
      comp=Z,30nm,0.7s,mb5.5
GKN   Gorkha            47.85 276  eP     P         22 15 41.5  +0.9
      comp=Z,221nm,1.0s,mb6.1
DANN  Dangsing          48.40 277  eP     P         22 15 46.2  +1.4
      comp=Z,300nm,0.9s
KOLN  Koldanda          48.77 277  eP     P         22 15 48.6  +0.9
      comp=Z,81nm,0.9s,mb5.7
PMR   Palmer            48.99  36  eP     P         22 15 55.7  +6.8
MCK   McKinley          49.00  34  eP     P         22 15 50.3  +1.4
MCK                                pmax   pmax
      comp=Z,61nm,2.1s,mb5.3
MCK   McKinley          49.00  34  eP     P         22 15 50.3  +1.4
      comp=Z,61nm,2.1s,mb5.3
PYUN  Piuthan           49.12 277  eP     P         22 15 51.2  +0.8
      comp=Z,172nm,0.9s,mb6.1
TKM2  Tokmak 2          49.49 298  eP     P         22 15 54.5  +1.5
TKM2                               pmax   pmax
      comp=Z,17nm,0.6s,mb5.2
TKM2  Tokmak 2          49.49 298  P      P         22 15 54.6  +1.5
      SNR=21
TKM2  Tokmak 2          49.49 298  eP     P         22 15 54.5  +1.4
      comp=Z,17nm,0.6s,mb5.3
KAKA  Kakadu            49.90 191  eP     P         22 15 55.4  -0.9
      comp=Z,28nm,0.9s,mb5.3
KZA   Kyzart            49.98 298  P      P         22 15 59.1  +2.3
      SNR=11
KBK   Karagaybulak      50.03 298  P      P         22 15 58.4  +1.3
      SNR=35
CHMS  Chumysh           50.07 299  P      P         22 15 58.1  +0.7
      SNR=6.9
USP   Ospenovka         50.17 299  P      P         22 15 58.8  +0.7
      SNR=14
FRU   Bishkek           50.21 299  eP     P         22 15 59.0  +0.5
VOSK  Vostochnaya       50.23 312  P      P         22 15 58.0  -0.5
VOSK                               pmax   pmax
      comp=Z,20nm,0.9s,mb5.2
KSH   Kashi             50.24 294⇑iP      P         22 16 03.3  +4.5
KSH                                epP    pP        22 16 09.0  -2.3
KSH                                esP    sP        22 16 11.9  -4.6
KSH                                ePcP   PcP       22 17 20.2  +2.9
KSH                                ePP    PP        22 18 00.6  +6.4
KSH                                ePcS   PcS       22 21 17.1  +2.7
KSH                                eS     S         22 23 15.9  +8.0
KSH                                esS    sS        22 23 25.6  -3.1
KSH                                pmax   pmax
      comp=Z,19nm,0.8s,mb5.2
KSH                                pmax   pmax
      comp=Z,130nm,2.8s,mb5.5
KSH                                LR     LR
      comp=N,390nm,5.8s
KSH                                LR     LR
      comp=E,430nm,6.6s
KSH                                LR     LR
      comp=Z,620nm,5.3s
AAK   Ala-Archa         50.35 298  P      P         22 16 00.4  +0.8
      SNR=9.4
UCH   Uchtor            50.46 298  P      P         22 16 01.8  +1.4
      SNR=9.4
UCH   Uchtor            50.46 298  eP     P         22 16 01.6  +1.2
      comp=Z,10nm,0.9s,mb4.8
BVA0  Borovoye Array    50.53 312  i P    P         22 16 00.4  -0.3
BVA0                               pmax   pmax
      comp=Z,2.0nm,0.6s,mb4.2
BVAR  Borovoye Array    50.53 312  P      P         22 16 00.7   0.0
BVAR                               pmax   pmax
      comp=Z,10.0nm,0.9s
BVAR  Borovoye Array    50.53 312  P      P         22 16 00.7   0.0
      comp=Z,9.5nm,0.8s,mb4.8,baz=79,slow=7.7,SNR=33
BRVK  Borovoye          50.58 312  eP     P         22 16 01.3  +0.2
EKS2  Erkin-Say         50.85 299  P      P         22 16 04.1  +0.8
      SNR=10
EKS2  Erkin-Say         50.85 299  eP     P         22 16 04.0  +0.6
      comp=Z,8.1nm,0.8s,mb4.7
AML   Almayashu         51.07 298  P      P         22 16 06.7  +1.7
      SNR=34
AML   Almayashu         51.07 298  eP     P         22 16 06.6  +1.6
      comp=Z,29nm,0.7s,mb5.3
PSI   Prapat            51.42 239  P      P         22 16 08.4  +0.5
PSI                                pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
PSI   Prapat            51.42 239  P      P         22 16 08.4  +0.5
      comp=Z,4.3nm,0.8s,mb4.4,baz=72,slow=2.9,SNR=4.8
KK31  Karatay Array     53.00 300  P      P         22 16 19.2  -0.1
KK31                               pmax   pmax
      comp=Z,17nm,1.0s,mb4.9
NDI   New Delhi         53.44 281  ePKP   P         22 16 21.5  -1.2
SVE   Sverdlovsk        55.14 319⇑eP      P         22 16 34.2  -0.5
SVE                                eSS    SS        22 27 53.5  -4.5
SVE                                pmax   pmax
      comp=Z,26nm,0.9s,mb5.3
SVE                                MLR    MLR
      comp=Z,645nm,21.0s,MS4.7
ARU   Arti              56.35 319  eP     P         22 16 43.3  -0.1
ARU   Arti              56.35 319  eP     P         22 16 43.2  -0.1
FITZ  Fitzroy Crossi    56.50 198  eP     P         22 16 44.5  -0.3
      comp=Z,8.4nm,0.6s,mb5.0
WRAB  Tennant Creek     56.77 188  eP     P         22 16 45.1  -1.5
WRA   Warramunga Arr    56.78 188  P      P         22 16 45.1  -1.6
WRA                                *PP    pP        22 16 58.1  -1.3
WRA                                pmax   pmax
      comp=Z,11nm,0.7s
WRA   Warramunga Arr    56.78 188  P      P         22 16 45.1  -1.6
      comp=Z,11nm,0.7s,mb5.0,baz=5.9,slow=7.3,SNR=117
WRA                                pP     pP        22 16 58.1  -1.3
      comp=Z,7.0nm,0.6s,baz=2.8,slow=7.5,SNR=8.5
CTA   Charters Tower    56.78 174  P      P         22 16 45.0  -1.7
CTA                                pmax   pmax
      comp=Z,4.0nm,0.7s
CTA   Charters Tower    56.78 174  eP     P         22 16 45.2  -1.5
      comp=Z,3.6nm,0.8s,mb4.5
CTA   Charters Tower    56.78 174  P      P         22 16 45.0  -1.7
      comp=Z,4.1nm,0.7s,mb4.6,baz=356,slow=6.5,SNR=6.0
CTA   Charters Tower    56.78 174  P      P         22 16 45.0  -1.8
AB31  Akbulak array     57.88 310  P      P         22 16 53.8  -0.5
AB31                               pmax   pmax
      comp=Z,7.0nm,0.6s,mb4.9
HYB   Hyderabad         57.91 268  i P    P         22 16 55.0  +0.1
HYB   Hyderabad         57.91 268  eP     P         22 16 55.0  +0.1
AKTK  Aktyubinsk        58.63 312  P      P         22 16 59.0  -0.5
AKTO  Aktyubinsk        58.63 312  P      P         22 16 59.0  -0.5
AKTO                               pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.8
AKTO  Aktyubinsk        58.63 312  P      P         22 16 59.0  -0.5
      comp=Z,8.3nm,0.8s,mb4.8,baz=74,slow=11,SNR=18
ASAR  Alice Springs     60.51 188  P      P         22 17 11.3  -1.3
ASAR                               *PP    pP        22 17 24.4  -1.0
ASAR                               pmax   pmax
      comp=Z,7.0nm,0.8s
ASAR  Alice Springs     60.51 188  P      P         22 17 11.3  -1.3
      comp=Z,7.2nm,0.8s,mb4.9,baz=9.9,slow=6.1,SNR=44
ASAR                               pP     pP        22 17 24.4  -1.0
      comp=Z,4.7nm,0.7s,baz=10,slow=11,SNR=10
SPITS Spitsbergen Ar    60.71 349  LR     LR        22 41 56.8
      comp=Z,102nm,20.9s,MS4.0,baz=250,slow=34
PRGR  Permogore         60.82 327  eP     P         22 17 12.9  -1.4
PRGR                               pmax   pmax
      comp=Z,12nm,0.9s,mb5.0
RES   Resolute Bay      62.91  14  P      P         22 17 27.5  -0.7
RES                                pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.8
RES   Resolute Bay      62.91  14  P      P         22 17 27.5  -0.7
      comp=Z,6.6nm,0.8s,mb4.8,baz=310,slow=6.7,SNR=28
KLMR  Klimovskoe        63.81 328  eP     P         22 17 32.7  -1.7
KLMR                               pmax   pmax
      comp=Z,20nm,1.4s,mb5.0
ARCES ARCESS Array B    64.12 339  P      P         22 17 35.6  -0.7
ARCES                              pmax   pmax
      comp=Z,7.0nm,0.9s
ARCES                              MLR    MLR
      comp=Z,252nm,18.0s
ARCES ARCESS Array B    64.12 339  P      P         22 17 35.6  -0.7
      comp=Z,7.0nm,0.9s,mb4.7,baz=56,slow=7.4,SNR=9.2
ARCES                              LR     LR        22 51 12.5
      comp=Z,252nm,18.0s,MS4.5,baz=36,slow=41
YKA   Yellowknife Ar    64.16  30  P      P         22 17 35.8  -0.8
      comp=Z,1.8nm,0.6s,mb4.3,baz=304,slow=6.9,SNR=37
YKA                                pP     pP        22 17 48.4  -1.1
      comp=Z,2.7nm,0.8s,baz=298,slow=6.8,SNR=9.7
YKA   Yellowknife Ar    64.16  30  P      P         22 17 35.9  -0.8
YKA                                pP     pP        22 17 48.4  -1.1
JOF   Joensuu           66.04 332  eP     P         22 17 47.1  -1.7
JOF                                pmax   pmax
      comp=Z,2.0nm,0.4s,mb4.5
JOF   Joensuu           66.04 332  ep     P         22 17 47.1  -1.7
      comp=Z,2.1nm,0.4s,mb4.5
ARMA  Armidale          67.58 170  eP     P         22 17 58.3  -0.6
ARMA                               e      pP        22 18 11.6  -0.3
VRHR  Novokhopersk      67.68 318  eP     P         22 17 58.6  -0.8
VRHR                               pmax   pmax
      comp=N,10.0nm,0.8s
VRHR                               pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.9
VRHR                               pmax   pmax
      comp=E,10.0nm,0.7s
OBN   Obninsk           68.12 323⇑eP      P         22 18 01.6  -0.6
OBN                                e      pP        22 18 14.5  -0.6
OBN                                                 22 18 29.0
OBN                                pmax   pmax
      comp=Z,33nm,2.0s,mb5.0
OBN                                MLR    MLR
      comp=Z,200nm,18.0s,MS4.4
C05A  Tolt Reservoir    68.21  46 ⇓P      P         22 18 02.5  -0.3
      baz=68
FORT  Forrest           68.31 192  eP     P         22 18 02.9  -0.6
      comp=Z,28nm,0.6s,mb5.5
STKA  Stephens Creek    68.31 180  eP     P         22 18 02.6  -0.8
      comp=Z,3.3nm,0.6s,mb4.5
STKA                               e      pP        22 18 15.7  -0.7
STKA  Stephens Creek    68.31 180  P      P         22 18 02.5  -1.0
      comp=Z,4.5nm,0.6s,mb4.7,baz=344,slow=6.9,SNR=9.7
STKA                               pP     pP        22 18 14.8  -1.7
      comp=Z,7.5nm,0.7s,baz=337,slow=7.7,SNR=6.9
STKA  Stephens Creek    68.31 180  P      P         22 18 02.5  -1.0
STKA                               pP     pP        22 18 14.8  -1.7
KAF   Kangasniemi       68.39 333  eP     P         22 18 02.1  -1.6
KAF                                pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.7
KAF   Kangasniemi       68.39 333  ep     P         22 18 02.1  -1.6
      comp=Z,4.8nm,0.6s,mb4.7
F04A  Amboy             68.69  48 ⇓P      P         22 18 06.1  +0.2
      baz=68
B07A  Winthrop          68.72  45 ⇑P      P         22 18 05.9  -0.1
      baz=68
VSR   Storozhevoye      68.93 319  eP     P         22 18 06.5  -0.8
VSR                                e                22 18 28.4
VSR                                pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
VSR                                pmax   pmax
      comp=N,2.0nm,0.5s
VSR                                pmax   pmax
      comp=E,6.0nm,1.0s
A08A  Turner Farm, O    68.93  44 ⇑P      P         22 18 06.9  -0.4
      baz=69
D06A  Cle Elum          68.96  46 ⇓P      P         22 18 07.5  -0.1
      baz=69
VORD  Divnogorie        69.00 318  eP     P         22 18 07.6  -0.1
VORD                               pmax   pmax
      comp=Z,10.0nm,0.6s,mb4.9
VORD                               pmax   pmax
      comp=N,20nm,0.9s
VORD                               pmax   pmax
      comp=E,60nm,0.6s
C07A  Waterville        69.15  46 ⇓P      P         22 18 08.7  -0.1
      baz=69
B08A  Colville Reser    69.21  45 ⇑P      P         22 18 08.9  -0.2
      baz=69
A09A  Danville          69.30  44 ⇓P      P         22 18 09.6  -0.1
      baz=69
D07A  Quincy            69.47  46 ⇑P      P         22 18 10.5  -0.2
      baz=69
H04A  Detroit Lake      69.48  49 ⇑P      P         22 18 10.8   0.0
      baz=69
B09A  Rice              69.84  44 ⇓P      P         22 18 12.7  -0.3
      baz=70
A10A  Northport         69.87  43 ⇑P      P         22 18 12.9  -0.2
      baz=70
E07A  Sunnyside         69.88  47 ⇓P      P         22 18 13.2   0.0
      baz=70
C09A  Chrisman Ranch    70.11  45 ⇓P      P         22 18 14.3  -0.3
      baz=70
G06A  Carlson Farm,     70.12  48 ⇓P      P         22 18 14.9  +0.2
      baz=70
D08A  Wollman Farm,     70.15  46 ⇓P      P         22 18 14.7  -0.2
      baz=70
F07A  Phinny Hill Vi    70.19  47 ⇓P      P         22 18 15.7  +0.5
      baz=70
A11A  Hall Mountain,    70.54  43 ⇓P      P         22 18 17.5  +0.3
      baz=70
H06A  Lindquist Farm    70.57  48 ⇓P      P         22 18 17.8  +0.3
      baz=70
G07A  Ruggs Ranch, H    70.68  48 ⇑P      P         22 18 17.8  -0.3
      baz=70
KIV   Kislovodsk        70.85 311κeP      P         22 18 20.0  +0.8
KIV                                e      pP        22 18 32.0  -0.2
KIV                                                 22 18 39.0
KIV                                pmax   pmax
      comp=Z,20nm,1.1s,mb5.0
KIV                                MLR    MLR
      comp=Z,100nm,13.0s,MS4.3
KIV   Kislovodsk        70.85 311  eP     P         22 18 20.0  +0.8
      comp=Z,17nm,0.8s,mb5.0
E09A  Wood Farm, Sta    70.89  46 ⇑P      P         22 18 19.1  -0.3
      baz=71
F08A  Pendleton         70.92  47 ⇑P      P         22 18 19.4  -0.2
      baz=71
D10A  Wagner Farm, O    71.09  45 ⇓P      P         22 18 20.5  -0.1
      baz=71
G08A  Pilot Rock        71.09  47 ⇑P      P         22 18 20.7   0.0
      baz=71
K05A  Summer Lake       71.32  50 ⇑P      P         22 18 22.5  +0.4
      baz=71
I07A  Izee              71.43  49 ⇑P      P         22 18 22.9  +0.1
      baz=71
J06A  Christmas Vall    71.49  50 ⇑P      P         22 18 23.0  -0.1
      baz=71
E10A  Myers Farm, Un    71.50  45 ⇓P      P         22 18 23.0  -0.1
      baz=71
GNI   Garni             71.62 307⇓iP      P         22 18 24.4  +0.5
GNI                                pmax   pmax
      comp=Z,10.0nm,1.3s
GNI   Garni             71.62 307  P      P         22 18 24.3  +0.3
      comp=Z,1.4nm,0.5s,mb4.2,baz=18,slow=9.7,SNR=4.5
GNI   Garni             71.62 307  P      P         22 18 24.3  +0.3
D11A  Klaveano Farm,    71.63  45 ⇑P      P         22 18 23.5  -0.3
      baz=71
F10A  Beach Ranch, E    71.72  46 ⇑P      P         22 18 24.5   0.0
      baz=72
C12B  Naegeli Ranch,    71.73  44 ⇑P      P         22 18 24.8  +0.3
      baz=72
G09A  Cove              71.79  47 ⇓P      P         22 18 25.0  +0.2
      baz=72
WALA  Waterton Lakes    71.81  42  eP     P         22 18 25.1  +0.2
B13A  Whitefish         71.91  43 ⇑P      P         22 18 25.6  +0.1
      baz=72,SNR=5.5
J07A  Hines             71.94  49 ⇓P      P         22 18 26.4  +0.6
      baz=72
I08A  Drewsey           72.09  48 ⇑P      P         22 18 26.9  +0.3
      baz=72
E11A  Bogner Ranch,     72.09  45 ⇓P      P         22 18 26.2  -0.5
      baz=72
A14A  Double T Ranch    72.12  42 ⇓P      P         22 18 26.9  +0.1
      baz=72
G10A  Bishop Farm, J    72.17  47 ⇑P      P         22 18 27.0  -0.1
      baz=72
C13A  Hot Springs       72.25  43 ⇓P      P         22 18 27.6  +0.1
      baz=72
BMO   Blue Mountains    72.31  47  eP     P         22 18 27.9  -0.1
SCO   Scoresbysund      72.33 354  eP     P         22 18 27.2  -0.4
SCO                                pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.3
SCO   Scoresbysund      72.33 354  i P    P         22 18 27.2  -0.4
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```
       comp=Z,4.0nm,0.9s,mb4.3
SCO    Scoresbysund     72.33 354 eP     P       22 18 27.2 -0.4
       comp=Z,4.0nm,0.9s,mb4.3
K07A   Rock Creek Ran   72.35  50 ⇑P     P       22 18 28.5 +0.3
       baz=72
J08A   Circle Bar Ran   72.45  49 ⇑P     P       22 18 29.1 +0.3
       baz=72
D13A   Huson            72.65  44 ⇓P     P       22 18 30.0 +0.1
       baz=72
SWMT   Swartz Lake      72.66  43 eP     P       22 18 30.4 +0.3
L07A   Adell            72.67  50 ⇓P     P       22 18 30.9 +0.8
       baz=72
NACGM  Naroch           72.78 327 e      P       22 18 28.0 -2.5
K08A   Mann Creek Ran   72.80  49 ⇑P     P       22 18 31.3 +0.4
       baz=73
B15A   Bradely Ranch,   72.97  42 ⇓P     P       22 18 31.4 -0.4
       baz=73,SNR=8.9
N06A   Buffalo Meadow   73.07  52 ⇓P     P       22 18 32.8 +0.3
       baz=73
H11A   Donnelly         73.15  47 ⇓P     P       22 18 32.4 -0.6
       baz=73
D14A   Greenough        73.19  43 ⇑P     P       22 18 32.6 -0.6
       baz=73,SNR=6.4
L08A   Fields           73.19  50 ⇓P     P       22 18 33.1 -0.1
       baz=73
BEKR   Beckwourth       73.23  53 ⇓P     P       22 18 33.6  0.0
       baz=73
C15A   Salmond Ranch,   73.27  43 ⇓P     P       22 18 33.5 -0.1
       baz=73,SNR=6.6
K09A   Rome             73.28  49 ⇑P     P       22 18 33.6 -0.1
       baz=73
B16A   M & M Farms, S   73.37  42 ⇓P     P       22 18 34.4 +0.2
       baz=73
O06A   Flanigan         73.41  52 ⇓P     P       22 18 34.9 +0.4
       baz=73
ANN    Anapa            73.49 314 eP     P       22 18 32.2 -2.8
ANN                                pmax  pmax
       comp=Z,36nm,1.0s,mb5.3
E14A   Clinton          73.59  44 ⇓P     P       22 18 36.0 +0.5
       baz=73
C16A   Fuhringer Ranc   73.72  42 ⇑P     P       22 18 36.3 +0.1
       baz=74
K10A   MacKenzie Ranc   73.75  49 ⇓P     P       22 18 36.4 -0.1
       baz=74
B17A   L&G Farms, Che   73.93  41 ⇑P     P       22 18 37.7 +0.2
       baz=74
WCN    Washoe City      73.94  53 ⇑P     P       22 18 37.8 +0.1
       baz=74
PAHR   Pah Rah Range    73.94  52 eP     P       22 18 38.0 +0.2
G13A   Cobalt           73.95  45 ⇑P     P       22 18 37.2 -0.5
       baz=74
MFID   Camas Ranch      74.00  48 ⇑P     P       22 18 38.3 +0.3
       baz=74
O07A   Toulon           74.01  52 ⇑P     P       22 18 38.3 +0.3
       baz=74
F14A   Wisdom           74.01  44 ⇓P     P       22 18 38.7 +0.7
       baz=74
E15A   Deer Lodge       74.06  44 ⇑P     P       22 18 37.8 -0.4
       baz=74,SNR=7.9
FFC    Flin Flon        74.07  33 eP     P       22 18 37.6 -0.5
FFC                                pmax  pmax
       comp=Z,8.0nm,0.8s,mb4.7
FFC    Flin Flon        74.07  33 eP     P       22 18 37.6 -0.6
       comp=Z,8.0nm,0.8s,mb4.7
HFS    Hagfors          74.19 336 LR     LR      22 53 27.3
       comp=Z,315nm,19.1s,MS4.6,baz=35,slow=37
H13A   Challis          74.25  46 ⇑P     P       22 18 39.7 +0.3
       baz=74
K11A   Parker Ranch,    74.25  48 ⇑P     P       22 18 39.8 +0.3
       baz=74
D16A   Dana Ranch, Ca   74.29  43 ⇑P     P       22 18 39.7 +0.1
       baz=74
NB2    NORSAR Subarra   74.30 337 P      P       22 18 39.0 -0.4
       comp=Z,11nm,0.9s,mb4.8,baz=41,slow=5.9
NOA    NORSAR Array B   74.30 337 P      P       22 18 39.1 -0.3
NOA                               *PP    pP      22 18 52.5  0.0
NOA                               pmax   pmax
       comp=Z,9.0nm,0.8s
NOA                               MLR    MLR
       comp=Z,265nm,20.2s
NOA    NORSAR Array B   74.30 337 P      P       22 18 39.1 -0.3
       comp=Z,8.7nm,0.8s,mb4.7,baz=39,slow=5.8,SNR=21
NOA                               pP     pP      22 18 52.5 -0.1
       comp=Z,8.7nm,0.7s,baz=39,slow=5.8,SNR=7.9
NOA                               LR     LR      22 54 34.3
       comp=Z,265nm,20.2s,MS4.5,baz=35,slow=38
AKASG  Malin Array Be   74.32 322 P      P       22 18 38.8 -0.9
AKASG                             pmax   pmax
       comp=Z,4.0nm,0.4s
AKASG                             MLR    MLR
       comp=Z,261nm,20.0s
AKASG  Malin Array Be   74.32 322 P      P       22 18 38.8 -0.9
       comp=Z,4.3nm,0.4s,mb4.7,baz=46,slow=5.9,SNR=37
AKASG                             LR     LR      22 54 16.0
       comp=Z,260nm,20.0s,MS4.5,baz=325,slow=38
HRY    Holter Researc   74.33  43 eP     P       22 18 40.2 +0.4
C17A   Wharram Farm,    74.35  42 ⇑P     P       22 18 39.4 -0.6
       baz=74
FCC    Fort Churchill   74.35  26 eP     P       22 18 39.1 -0.6
O08A   Rochester Mine   74.39  51 ⇑P     P       22 18 40.7 +0.4
       baz=74
L10A   Juniper Basin    74.39  49 ⇓P     P       22 18 40.6 +0.3
       baz=74
B18A   Beardsley Farm   74.40  41 ⇓P     P       22 18 40.3 +0.1
       baz=74
N09A   Rock Creek Ran   74.46  51 ⇑P     P       22 18 40.6 -0.1
       baz=74
F15A   Butte            74.49  44 ⇓P     P       22 18 40.7 -0.1
       baz=74,SNR=29
E16A   East Helena      74.52  43 ⇓P     P       22 18 41.0 +0.1
       baz=74,SNR=9.5
LRM    Limekiln Ridge   74.52  44 eP     P       22 18 34.0 -7.0
J12A   Stokes Ranch,    74.53  47 ⇑P     P       22 18 41.7 +0.7
       baz=74
R06C   Coleville        74.58  53 ⇑P     P       22 18 41.7 +0.3
       baz=74
M10A   I.L. Ranch, Tu   74.68  50 ⇓P     P       22 18 42.3 +0.4
       baz=74
I13A   Wildhorse Cree   74.71  46 ⇑P     P       22 18 42.5 +0.4
       baz=74
DLMT   Dillon           74.72  45 eP     P       22 18 42.2 +0.1
HLID   Hailey           74.75  47 ⇑P     P       22 18 42.4  0.0
       baz=74
L11A   Cat Creek Ranc   74.78  49 ⇓P     P       22 18 42.8 +0.3
       baz=75
G15A   Dillon           74.90  45 ⇓P     P       22 18 43.0 -0.2
       baz=75,SNR=11
J13A   Cove Ranch, Pi   74.99  47 ⇓P     P       22 18 43.7  0.0
       baz=75
K12A   Draper Farm, C   75.01  48 ⇓P     P       22 18 44.3 +0.4
       baz=75
E17A   Martinsdale      75.01  43 ⇓P     P       22 18 44.2 +0.4
       baz=75
O09A   Fish Creek Ran   75.06  51 ⇓P     P       22 18 44.3 +0.1
       baz=75
BOZ    Bozeman (W)      75.09  44 eP     P       22 18 44.4 +0.2
BOZ                                pmax  pmax
       comp=Z,8.0nm,0.8s,mb4.7
BOZ    Bozeman (W)      75.09  44 ⇑P     P       22 18 44.5 +0.3
       baz=75
BOZ    Bozeman (W)      75.09  44 eP     P       22 18 44.4 +0.2
       comp=Z,7.6nm,0.8s,mb4.7
I14A   Mackay           75.09  46 ⇓P     P       22 18 44.8 +0.5
       baz=75,SNR=11
M11A   Holland Ranch,   75.19  49 ⇓P     P       22 18 45.2 +0.3
       baz=75
L12A   House Creek Ra   75.23  48 ⇑P     P       22 18 45.4 +0.3
       baz=75
G16A   Moss Hill, Enn   75.24  44 ⇑P     P       22 18 45.2  0.0
       baz=75,SNR=5.2
Q08A   Gabbs            75.35  52 ⇑P     P       22 18 46.0 +0.1
       baz=75
NVAR   Mina Array Bea   75.36  53 P      P       22 18 44.4 -1.6
       comp=Z,4.6nm,0.6s,mb4.6,baz=305,slow=5.2,SNR=28
NVAR                               pP    pP      22 18 58.6 -0.5
       comp=Z,7.4nm,0.7s,baz=285,slow=6.1,SNR=16
O10A   Cortez Mining,   75.42  51 ⇓P     P       22 18 46.9 +0.6
       baz=75
E18A   Harlowton        75.46  42 ⇓P     P       22 18 46.7 +0.3
       baz=75
F17A   Fitzpatrick Pl   75.47  43 ⇓P     P       22 18 46.6 +0.2
       baz=75
MIB    Mutribah         75.55 296 eP     P       22 18 46.5 -0.6
MIB                                AMb   AMB     22 18 47.2
       comp=Z,23nm,0.9s,mb5.1
QRN    Al-Qurain        75.72 295 eP     P       22 18 48.2  0.0
G17A   Pierce Place,    75.78  44 ⇓P     P       22 18 48.6 +0.4
       baz=76
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P10A   Eureka           75.83  51 ⇑P     P       22 18 49.0 +0.4
       baz=76
L13A   Double Diamond   75.91  48 ⇓P     P       22 18 50.0 +1.0
       baz=76
NAY    Al-Naaiem        75.92 296 eP     P       22 18 48.6 -0.8
NAY                                AMb   AMB     22 18 49.5
       comp=Z,16nm,1.0s,mb4.9
F18A   Big Timber       75.98  43 ⇑P     P       22 18 49.8 +0.4
       baz=76
J15A   Blackfoot        76.00  46 ⇓P     P       22 18 50.5 +1.0
       baz=76
O11A   Cowboy Ranch,    76.03  50 ⇓P     P       22 18 50.3 +0.5
       baz=76
K14A   Jones Ranch, D   76.08  47 ⇑P     P       22 18 50.5 +0.5
       baz=76
R09A   Tonopah          76.26  52 ⇓P     P       22 18 51.4 +0.3
       baz=76
P11A   Circle Ranch,    76.32  51 ⇓P     P       22 18 51.3 -0.1
       baz=76
Q10A   Clear Creek Ra   76.34  52 ⇑P     P       22 18 51.6  0.0
       baz=76
VES    Vestal, Richgr   76.36  55 ⇓P     P       22 18 51.4 -0.2
       baz=76
L14A   Malta            76.36  48 ⇑P     P       22 18 52.0 +0.4
       baz=76
K15A   Arbon            76.38  47 ⇓P     P       22 18 52.0 +0.3
       baz=76
S09A   Goldfield        76.47  53 ⇓P     P       22 18 52.5 +0.3
       baz=76
N13A   Wendover, West   76.49  49 ⇓P     P       22 18 52.4  0.0
       baz=76
O12A   Currie           76.51  50 ⇓P     P       22 18 52.9 +0.4
       baz=76
J16A   Bone             76.55  46 ⇓P     P       22 18 53.5 +0.9
       baz=76
M14A   Sheep Mountain   76.61  48 ⇑P     P       22 18 53.6 +0.5
       baz=76
R10A   Warm Springs     76.72  52 ⇑P     P       22 18 53.9 +0.1
       baz=76
I17A   Pilgrim Ck.      76.74  45 ⇑P     P       22 18 54.6 +0.9
       baz=76,SNR=6.0
S10A   Tonopah Range,   76.75  53 ⇓P     P       22 18 54.3 +0.4
       baz=77
GRAC   Grapevine Rang   76.80  54 ⇑P     P       22 18 54.2  0.0
       baz=77
Q11A   Duckwater        76.80  51 ⇓P     P       22 18 54.4 +0.3
       baz=77
K16A   Soda Springs     76.84  46 ⇓P     P       22 18 55.0 +0.8
       baz=77,SNR=7.9
ISA    Isabella         76.86  55 ⇓P     P       22 18 53.9 -0.6
       baz=77
L15A   Malad City       76.88  47 ⇑P     P       22 18 54.6  0.0
       baz=77
P12A   McGill           76.89  50 ⇑P     P       22 18 54.9 +0.3
       baz=77
J17A   Brown Place, J   77.01  45 ⇓P     P       22 18 55.6 +0.4
       baz=77
O13A   Hicks Ranch, I   77.06  49 ⇓P     P       22 18 56.1 +0.5
       baz=77
FRB    Frobisher Bay    77.08  13 P      P       22 18 54.6 -0.6
FRB                               pmax   pmax
       comp=Z,4.0nm,0.5s
FRB    Frobisher Bay    77.08  13 P      P       22 18 54.5 -0.7
       comp=Z,3.9nm,0.5s,mb4.6,baz=336,slow=5.5,SNR=13
N14A   Grayback Hills   77.11  49 ⇑P     P       22 18 56.0 +0.2
       baz=77
R11A   Troy Canyon, C   77.14  52 ⇓P     P       22 18 56.3 +0.3
       baz=77
M15A   Larsen Ranch,    77.17  48 ⇑P     P       22 18 56.5 +0.3
       baz=77,SNR=7.0
Q12A   Willow Creek R   77.20  51 ⇓P     P       22 18 56.8 +0.4
       baz=77
DGMT   Dagmar           77.21  38 ⇑P     P       22 18 56.1 -0.2
       baz=77
MPMC   Manual Prospec   77.28  55 ⇑P     P       22 18 56.5 -0.3
       baz=77
L16A   Fish Haven       77.43  47 ⇓P     P       22 18 57.9 +0.3
       baz=77
FURC   Furnace Creek,   77.44  54 ⇑P     P       22 18 57.9 +0.1
       baz=77
P13A   Bates Ranch, G   77.45  50 ⇓P     P       22 18 58.2 +0.4
       baz=77
N15A   Stansbury Isla   77.48  48 ⇑P     P       22 18 58.2 +0.3
       baz=77
BSD    Bornholm Skovb   77.53 332 eP     P       22 18 56.9 -1.0
BSD                                pmax  pmax
       comp=Z,13nm,0.8s,mb4.9
BSD    Bornholm Skovb   77.53 332 i P    P       22 18 56.9 -1.0
       comp=Z,13nm,0.8s,mb4.9
BSD    Bornholm Skovb   77.53 332 eP     P       22 18 56.9 -1.0
       comp=Z,13nm,0.8s,mb4.9
EDW2   Edwards Air Fo   77.64  56 ⇓P     P       22 18 58.9  0.0
       baz=77
L17A   Cokeville        77.70  46 ⇑P     P       22 18 59.2  0.0
       baz=78
DUG    Dugway           77.73  49 ⇓P     P       22 18 59.5 +0.2
       baz=78
Q13A   Wheeler Ranch,   77.75  50 ⇑P     P       22 18 59.6 +0.1
       baz=78
R12A   Pony Springs,    77.77  51 ⇑P     P       22 18 59.7 +0.1
       baz=78
K18A   Toltan Ranch,    77.85  46 ⇑P     P       22 19 00.2 +0.3
       baz=78
P14A   Drum Mountains   77.95  49 ⇓P     P       22 19 00.8 +0.3
       baz=78
T11A   Corn Creek, Al   78.03  52 ⇓P     P       22 19 01.2 +0.1
       baz=78
BW06   Boulder Array    78.04  45 ⇑P     P       22 19 01.0  0.0
       baz=78
PDAR   Pinedale Array   78.04  45 P      P       22 19 00.6 -0.4
       comp=Z,4.2nm,0.6s,mb4.6,baz=272,slow=2.0,SNR=45
PDAR                              pP     pP      22 19 13.8 -0.4
       comp=Z,2.4nm,0.7s,baz=272,slow=3.9,SNR=7.1
KWP    Kalwaria Pacla   78.16 324 eP     P       22 19 02.4 +0.9
KWP                               e      pP      22 19 15.3 +0.6
KWP    Kalwaria Pacla   78.16 324 eP     P       22 19 02.4 +0.9
KWP                               e      pP      22 19 15.3 +0.6
GSC    Goldstone        78.17  55 ⇓P     P       22 19 01.8 -0.1
       baz=78
Q14A   Sevier Lake (B   78.19  50 ⇓P     P       22 19 02.0 +0.1
       baz=78
M17A   Scullys Gap (B   78.22  47 ⇑P     P       22 19 02.2 +0.2
       baz=78
BFSC   Mount Baldy St   78.24  56 ⇑P     P       22 19 02.4 +0.1
       baz=78
R13A   O’Grain Ranch,   78.25  51 ⇑P     P       22 19 02.3  0.0
       baz=78
BURAR  Bucovina Array   78.33 322⇑iP     P       22 18 55.8 -6.7
K19A   Absolon Red Bu   78.41  45 ⇑P     P       22 19 02.5 -0.6
       baz=78
P15A   Leamington       78.44  49 ⇑P     P       22 19 03.0 -0.2
       baz=78
N17A   Moffit Pass      78.45  47 ⇓P     P       22 19 03.1 -0.2
       baz=78
L19A   Farson           78.58  46 ⇑P     P       22 19 03.9 -0.1
       baz=78
M18A   Lyman            78.60  47 ⇑P     P       22 19 04.0 -0.1
       baz=78
S13A   Holt Ranch, En   78.69  51 ⇑P     P       22 19 04.7  0.0
       baz=78
VRI    Vrincioaia       78.73 320⇓iP     P       22 19 04.4 -0.3
VRI    Vrincioaia       78.73 320 ⇓P     P       22 19 04.4 -0.4
Q15A   Fillmore         78.73  50 ⇓P     P       22 19 05.3 +0.4
       baz=78
V11A   Goodsprings      78.75  54 ⇓P     P       22 19 05.3 +0.3
       baz=78
BRTR   Keskin Array B   78.80 311 P      P       22 19 05.0 -0.2
BRTR                              pmax   pmax
       comp=Z,3.0nm,0.9s
BRTR                              MLR    MLR
       comp=Z,102nm,19.6s
BRTR   Keskin Array B   78.80 311 P      P       22 19 05.0 -0.2
       comp=Z,3.1nm,0.9s,mb4.2,baz=116,slow=4.8,SNR=14
BRTR                              LR     LR      22 58 33.6
       comp=Z,102nm,19.6s,MS4.2,baz=207,slow=39
KOLS   Kolonicke sedl   78.85 324 eP     P       22 19 05.7 +0.4
KOLS                              pmax   pmax
       comp=Z,6.0nm,1.3s,mb4.4
KOLS   Kolonicke sedl   78.85 324 eP     P       22 19 05.7 +0.4
KOLS   Kolonicke sedl   78.85 324 eP     P       22 19 05.7 +0.4
       comp=Z,6.4nm,1.3s,mb4.4
STHS   Stebnicka Huta   79.00 325 eP     P       22 19 07.4 +1.3
STHS                              pmax   pmax
       comp=Z,5.0nm,1.0s,mb4.4
STHS   Stebnicka Huta   79.00 325 eP     P       22 19 07.4 +1.3
       comp=Z,4.8nm,1.0s,mb4.4
T13A   Saint George     79.00  52 ⇓P     P       22 19 07.2 +0.8
       baz=79
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S14A   Cedar City       79.01  51 ⇑P     P       22 19 06.8 +0.4
       baz=79
OJC    Ojcow            79.08 326 eP     P       22 19 07.0 +0.4
V12A   Nelson           79.19  53 ⇓P     P       22 19 08.0 +0.5
       baz=79
L20A   Wamsutter        79.22  45 ⇑P     P       22 19 07.9 +0.4
       baz=79
GMRC   Granite Mounta   79.24  55 ⇑P     P       22 19 08.1 +0.4
       baz=79
CRVS   Cervenica-Dubn   79.26 324 eP     P       22 19 08.2 +0.6
CRVS                               pmax  pmax
       comp=Z,3.0nm,0.9s,mb4.2
CRVS   Cervenica-Dubn   79.26 324 eP     P       22 19 08.2 +0.6
       comp=Z,3.3nm,0.9s,mb4.3
TRPA   Tarpa            79.28 323⇑iP     P       22 19 08.0 +0.3
U13A   Pakoon Wash      79.34  52 ⇓P     P       22 19 08.5 +0.3
       baz=79
MLR    Muntele Rosu     79.39 320⇓iP     P       22 19 09.9 +1.6
PFO    Pinyon Flat Ob   79.42  56 eP     P       22 19 07.6 -1.1
PFO                                pmax  pmax
       comp=Z,6.0nm,1.0s,mb4.5
PFO    Pinyon Flat Ob   79.42  56 ⇓P     P       22 19 08.6 -0.1
       baz=79
PFO    Pinyon Flat Ob   79.42  56 eP     P       22 19 07.6 -1.1
       comp=Z,5.8nm,1.0s,mb4.5
NIE    Niedzica         79.42 325 eP     P       22 19 09.2 +0.8
P17A   Butcher Ranch,   79.43  48 ⇓P     P       22 19 08.8 +0.1
       baz=79,SNR=5.2
N19A   John Jarvie Ra   79.45  47 ⇑P     P       22 19 08.7 -0.1
       baz=79
BELC   Belle Mtn.       79.49  55 ⇓P     P       22 19 09.0 -0.1
       baz=79
T14A   Hurricane        79.50  51 ⇓P     P       22 19 09.2 +0.1
       baz=79
Q16A   Castle Valley    79.52  49 ⇓P     P       22 19 09.5 +0.3
       baz=79
P18A   Preston Nutter   79.63  48 ⇓P     P       22 19 10.2 +0.4
       baz=79,SNR=7.1
V13A   Grand Canyon W   79.67  53 ⇓P     P       22 19 10.2 +0.1
       baz=80,SNR=5.8
R16A   Teasdale         79.73  50 ⇓P     P       22 19 11.0 +0.6
       baz=80
SRU    San Rafael       79.79  49 ⇓P     P       22 19 10.9 +0.3
       baz=80
L21A   Rawlins          79.80  45 ⇑P     P       22 19 10.3 -0.3
       baz=80
U14A   Mt Trumbull      79.83  52 ⇓P     P       22 19 11.1 +0.1
       baz=80
BAR    Barrett          79.83  57 eP     P       22 19 10.5 -0.5
       comp=Z,5.9nm,0.8s,mb4.6
O19A   Miners Draw (B   79.87  47 ⇑P     P       22 19 11.2 +0.1
       baz=80
ULM    Lac du Bonnet    79.87  33 P      P       22 19 09.6 -1.3
       comp=Z,4.5nm,0.7s,mb4.5,baz=308,slow=7.2,SNR=8.0
MONP   Monument Peak    79.88  57 ⇑P     P       22 19 11.1 -0.1
       baz=80
VOIR                    79.89 320⇓iP     P       22 19 11.4 +0.3
VOIR                    79.89 320 ⇓P     P       22 19 11.4 +0.3
IRM    Iron Mountain    79.95  55 ⇓P     P       22 19 11.6  0.0
       baz=80
T15A   Red Dirt Ranch   79.96  51 ⇑P     P       22 19 11.6  0.0
       baz=80
S16A   Weppner Ranch,   80.01  50 ⇑P     P       22 19 12.0 +0.1
       baz=80
N20A   Spence Gulch,    80.02  46 ⇓P     P       22 19 12.0 +0.1
       baz=80,SNR=7.3
Q18A   Rafter H Ranch   80.03  48 ⇓P     P       22 19 12.2 +0.3
       baz=80
BC3    Big Chuckw Mtn   80.06  55 ⇓P     P       22 19 12.0 -0.2
       baz=80
R17A   Hanksville Air   80.11  49 ⇑P     P       22 19 12.2 -0.2
       baz=80,SNR=6.4
DRGR                    80.13 322⇓iP     P       22 19 12.5 +0.1
DRGR                    80.13 322 ⇓P     P       22 19 12.5 +0.1
BSEG   Bad Segeberg     80.15 333 eP     P       22 19 12.1 -0.2
BSEG                              e*PP   pP      22 19 25.9 +0.4
BSEG                               pmax  pmax
       comp=Z,11nm,1.0s,mb4.7
BSEG   Bad Segeberg     80.15 333 eP     P       22 19 12.1 -0.2
       comp=Z,11nm,1.0s,mb4.7
BSEG                              epP    pP      22 19 25.9 +0.4
W13A   Hualapai Mount   80.20  53 ⇓P     P       22 19 12.7 -0.2
       baz=80
RSSD   Black Hills      80.20  42 eP     P       22 19 12.5 -0.3
RSSD                               pmax  pmax
       comp=Z,4.0nm,0.5s,mb4.6
RSSD   Black Hills      80.20  42 eP     P       22 19 12.5 -0.3
       comp=Z,4.5nm,0.5s,mb4.7
DVTC   Desert V Tower   80.23  57 ⇑P     P       22 19 12.9 -0.2
       baz=80
SWSC   Sam W. Stewart   80.26  56 ⇑P     P       22 19 13.0 -0.4
       baz=80
V14A   Boquillas Ranc   80.37  53 ⇑P     P       22 19 14.0 +0.1
       baz=80,SNR=12
P19A   Cripple Cowboy   80.38  47 ⇓P     P       22 19 13.8  0.0
       baz=80,SNR=11
MORC   Moravsky Berou   80.41 327⇑iP     P       22 19 14.4 +0.6
MORC   Moravsky Berou   80.41 327 eP     P       22 19 13.9 +0.2
       comp=Z,8.4nm,1.0s,mb4.6
O20A   White River Ci   80.49  47 ⇓P     P       22 19 14.3 -0.1
       baz=80
N21A   Black Mountain   80.50  46 ⇓P     P       22 19 14.3 -0.1
       baz=80
DPC    Dobruska-Polom   80.51 328 eP     P       22 19 14.9 +0.6
PDMCI  Parker Dam,Lak   80.52  54 ⇑P     P       22 19 14.6 -0.1
       baz=80
T16A   Glen Canyon Da   80.53  51 ⇓P     P       22 19 14.6 -0.1
       baz=80
X13A   Yucca            80.54  54 ⇓P     P       22 19 14.4 -0.4
       baz=80,SNR=10
S17A   Black Ridge (B   80.55  50 ⇓P     P       22 19 14.4 -0.4
       baz=80,SNR=12
M22A   Cedar Creek Ra   80.61  45 ⇑P     P       22 19 14.7 -0.3
       baz=80
R18A   Canyonlands Na   80.63  49 ⇑P     P       22 19 14.6 -0.6
       baz=80,SNR=8.0
W14A   Seligman         80.64  53 ⇓P     P       22 19 15.5 +0.1
       baz=80,SNR=13
Q19A   Hogan Spring (   80.64  48 ⇑P     P       22 19 14.9 -0.4
       baz=80
PSZ    Piszkesteto      80.69 324⇓iP     P       22 19 15.8 +0.5
PSZ    Piszkesteto      80.69 324 ⇓P     P       22 19 15.8 +0.5
VYHS   Vyhne            80.76 325 eP     P       22 19 16.1 +0.4
VYHS                              epP    pP      22 19 29.2 +0.3
P20A   De Beque         80.81  47 ⇓P     P       22 19 16.0 -0.1
       baz=81
GLA    Glamis           80.84  56 ⇓P     P       22 19 16.4  0.0
       baz=81
V15A   Kaibab Nationa   80.84  52 ⇑P     P       22 19 17.0 +0.6
       baz=81,SNR=8.1
T17A   Navajo Res., N   80.96  50 ⇑P     P       22 19 17.0  0.0
       baz=81
S18A   Hurst Farm, Bl   81.01  49 ⇓P     P       22 19 17.1 -0.1
       baz=81,SNR=8.0
R19A   Curley Farm, L   81.07  49 ⇑P     P       22 19 18.1 +0.5
       baz=81
GZR    Gura Zlata       81.08 321⇑iP     P       22 19 18.3 +0.9
GZR    Gura Zlata       81.08 321 ⇑P     P       22 19 18.3 +0.8
N22A   Wattenberg Ran   81.08  45 ⇓P     P       22 19 18.2 +0.6
       baz=81
BRG    Berggiesshubel   81.12 329 eP     P       22 19 17.5  0.0
BRG                               i      pP      22 19 30.6 -0.2
BRG                                pmax  pmax
       comp=Z,5.0nm,1.0s,mb4.4
BRG    Berggiesshubel   81.12 329 eP     P       22 19 17.3 -0.2
       comp=Z,8.0nm,0.9s,mb4.7
BRG    Berggiesshubel   81.12 329 eP     P       22 19 17.5  0.0
       comp=Z,7.5nm,0.9s,mb4.6
BRG                               i      pP      22 19 30.6 -0.2
       comp=Z,9.4nm,1.1s
PVCC   Panska Ves       81.12 329 eP     P       22 19 17.6  0.0
CLL    Collm            81.17 330⇓iP     P       22 19 17.7 -0.1
CLL                               i      pP      22 19 30.5 -0.5
CLL                                pmax  pmax
       comp=Z,13nm,0.9s,mb4.9
CLL    Collm            81.17 330 eP     P       22 19 17.3 -0.5
       comp=Z,14nm,0.9s,mb4.9
CLL                               epP    pP      22 19 30.4 -0.6
CLL    Collm            81.17 330⇓iP     P       22 19 17.7 -0.1
       comp=Z,13nm,0.9s,mb4.9
CLL                               i pP   pP      22 19 30.5 -0.5
CLL    Collm            81.17 330⇓iP     P       22 19 17.7 -0.1
       comp=Z,13nm,0.9s,mb4.9
CLL                               i      pP      22 19 30.5 -0.5
VRAC   Vranov           81.17 327⇓iP     P       22 19 17.6 -0.3
VRAC   Vranov           81.17 327 ⇓P     P       22 19 17.6 -0.3
W15A   Williams         81.18  53 ⇓P     P       22 19 18.5 +0.3
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	baz=81						
Q20A	Ridgley Place,	81.22	48	⇑P	P	22 19 18.1	-0.2
	baz=81,SNR=5.2						
X14A	Yava	81.23	53	⇑P	P	22 19 18.7	+0.3
	baz=81,SNR=8.4						
U16A	Tuba City	81.30	51	⇓P	P	22 19 19.3	+0.5
	baz=81						
U17A	Shonto	81.30	51	⇓P	P	22 19 19.3	+0.5
	baz=81						
P21A	Newcastle	81.35	47	⇑P	P	22 19 19.3	+0.3
	baz=81						
SMOL	Smolenice	81.39	326	*e*P	P	22 19 20.3	+1.3
ASF	Jabal al Asfar	81.41	304	P	P	22 19 19.8	+0.4
ASF				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASF	Jabal al Asfar	81.41	304	P	P	22 19 19.8	+0.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=320,slow=2.2,SNR=3.6						
T18A	Mexican Hat	81.44	50	⇓P	P	22 19 19.1	-0.5
	baz=81,SNR=10.0						
Y14A	Wickenburg	81.48	54	⇓P	P	22 19 19.8	0.0
	baz=81						
S19A	Harvey Farm, M	81.50	49	⇓P	P	22 19 19.6	-0.2
	baz=81,SNR=7.6						
BZS	Buzias	81.50	322	⇓*i*P	P	22 19 19.6	-0.1
WUAZ	Wupatki	81.54	52	⇑P	P	22 19 20.2	+0.1
	baz=81						
PRU	Pruhonice	81.54	328	*e*P	P	22 19 20.0	+0.2
PRU				*e*pP	pP	22 19 32.9	-0.2
MODS	Modra-Piesok	81.56	326	*e*P	P	22 19 22.7	+2.8
MODS				*e*	pP	22 19 33.8	+0.6
MODS				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
MODS	Modra-Piesok	81.56	326	*e*P	P	22 19 22.7	+2.8
MODS				*e*pP	pP	22 19 33.8	+0.6
X15A	Humboldt	81.64	53	⇑P	P	22 19 20.9	+0.3
	baz=81,SNR=7.4						
TREC	Trest	81.66	327	*e*P	P	22 19 20.6	+0.1
TREC				*e*pP	pP	22 19 33.2	-0.5
R20A	Redvale	81.67	48	⇓P	P	22 19 20.6	-0.1
	baz=82						
113A	Mohawk Valley,	81.71	55	⇑P	P	22 19 20.7	-0.4
	baz=82						
ZST	Bratislava	81.77	326	*e*P	P	22 19 22.8	+1.8
ZST				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
CLZ	Clausthal	81.78	332	*e*P	P	22 19 20.9	-0.1
CLZ				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
CLZ	Clausthal	81.78	332	*e*P	P	22 19 20.9	-0.1
	comp=Z,8.0nm,0.9s,mb4.7						
MMAI	Mount Meron Ar	81.87	305	P	P	22 19 22.7	+0.8
	comp=Z,3.2nm,0.8s,mb4.3,baz=51,slow=6.6,SNR=8.4						
MMAI				pP	pP	22 19 35.9	+0.7
	comp=Z,2.6nm,0.7s,baz=32,slow=6.9,SNR=4.6						
U18A	Rough Rock, Ch	81.90	50	⇑P	P	22 19 22.2	+0.3
	baz=82						
Y15A	Casa Rosa Ranc	81.91	54	⇓P	P	22 19 22.1	0.0
	baz=82,SNR=6.9						
Q22A	Crested Butte,	82.10	47	⇓P	P	22 19 23.6	+0.6
	baz=82,SNR=5.7						
T19A	Beclabito	82.16	50	⇑P	P	22 19 23.5	+0.1
	baz=82						
X16A	Lo Mia Camp, P	82.19	53	⇓P	P	22 19 23.7	+0.1
	baz=82,SNR=6.7						
NKC	Novy Kostel	82.22	330	*e*P	P	22 19 23.8	+0.4
MVCO	Mesa Verde	82.23	49	⇑P	P	22 19 24.1	+0.4
	baz=82						
MOX	Moxa	82.23	330	*e*P	P	22 19 23.2	-0.2
CONA	Conrad Observa	82.53	326	⇑*i*P	P	22 19 25.7	+0.7
	comp=Z,5.3nm,0.9s,mb4.5						
CSNA	Conrad Observa	82.53	326	⇑*i*P	P	22 19 25.7	+0.7
	comp=Z,5.3nm,1.0s,mb4.5						
MANZ	Manzenberg	82.55	330	*e*P	P	22 19 24.8	-0.3
	comp=Z,5.0nm,0.8s,mb4.6						
MANZ				*e*pP	pP	22 19 38.4	0.0
KHC	Kasperske Hory	82.60	328	*e*P	P	22 19 25.4	0.0
KHC				*e*pP	pP	22 19 38.3	-0.4
R22A	Saguache, Gunn	82.61	47	⇑P	P	22 19 26.6	+1.0
	baz=82						
ROTZ	Rotzenmuhle	82.68	329	*e*P	P	22 19 26.1	+0.3
	comp=Z,7.0nm,1.0s,mb4.7						
GEC2	GERESS Array S	82.77	328	*e*P	P	22 19 25.9	-0.4
GEC2				*e**PP	pP	22 19 39.1	-0.4
GEC2				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
GEC2	GERESS Array S	82.77	328	*e*P	P	22 19 25.9	-0.4
	comp=Z,9.0nm,1.1s,mb4.7						
GEC2				*e*pP	pP	22 19 39.1	-0.4
GERES	GERESS Array B	82.77	328	P	P	22 19 26.0	-0.3
GERES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
GERES				MLR	MLR		
	comp=Z,179nm,18.2s						
GERES	GERESS Array B	82.77	328	P	P	22 19 26.0	-0.3
	comp=Z,4.6nm,0.9s,mb4.5,baz=37,slow=5.2,SNR=29						
GERES				LR	LR	23 02 02.2	
	comp=Z,179nm,18.2s,MS4.5,baz=286,slow=40						
V19A	Window Rock	82.87	50	⇓P	P	22 19 27.9	+0.9
	baz=83						
Y17A	Roosevelt	83.03	53	⇓P	P	22 19 28.1	+0.1
	baz=83						
W19A	Sanders	83.04	51	⇓P	P	22 19 28.7	+0.8
	baz=83						
X18A	Snowflake	83.07	52	⇓P	P	22 19 28.5	+0.4
	baz=83						
GRA1	Grafenberg Arr	83.14	330	*e*P	P	22 19 28.4	+0.2
	comp=Z,14nm,0.9s,mb5.0						
GRF	Grafenberg Arr	83.14	330	*e*P	P	22 19 28.4	+0.2
GRF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
GRF	Grafenberg Arr	83.14	330	*e*P	P	22 19 28.4	+0.2
GRF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
GRF	Grafenberg Arr	83.14	330	*e*P	P	22 19 28.4	+0.2
	comp=Z,14nm,0.9s,mb5.0						
W20A	Ramah	83.59	51	⇓P	P	22 19 31.0	+0.3
	baz=83						
216A	Three Points,	83.71	55	⇓P	P	22 19 31.6	+0.1
	baz=84						
117A	Oracle	83.82	54	⇓P	P	22 19 31.7	-0.2
	baz=84						
PERS	Pernice	83.83	326	*i* P	P	22 19 31.8	0.0
PERS				*i*	pP	22 19 44.6	-0.5
SOKA	Soboth	83.84	326	⇑*i*P	P	22 19 32.0	+0.1
	comp=Z,13nm,1.1s,mb5.0						
Y19A	Nutrioso	83.88	52	⇑P	P	22 19 32.8	+0.5
	baz=84						
RJOB	Jochberg	84.01	328	*e*P	P	22 19 33.2	+0.5
	comp=Z,11nm,1.0s,mb4.9						
118A	Homack Ranch,	84.27	53	⇓P	P	22 19 34.2	-0.1
	baz=84,SNR=6.8						
EIL	Elat	84.27	303	P	P	22 19 33.7	-0.7
	comp=Z,6.0nm,0.9s,mb4.7,baz=188,slow=3.0,SNR=5.6						
EIL				pP	pP	22 19 47.0	-0.6
	comp=Z,5.6nm,0.7s,baz=353,slow=5.2,SNR=4.2						
EIL	Elat	84.27	303	P	P	22 19 33.7	-0.7
EIL				pP	pP	22 19 47.0	-0.6
217A	Green Valley	84.28	54	⇑P	P	22 19 34.2	-0.1
	baz=84,SNR=6.1						
FUR	Furstenfeldbru	84.31	329	*e*P	P	22 19 34.4	+0.2
FUR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
FUR	Furstenfeldbru	84.31	329	*e*P	P	22 19 34.4	+0.2
	comp=Z,20nm,0.9s,mb5.2						
PMOR	Pomariorio Ree	84.34	113	*e*T		23 52 05.2	
	comp=Z,11nm,0.2s						
MEM	Membach	84.40	333	P	P	22 19 34.8	+0.2
VISS	Visnje	84.59	325	*e*P	P	22 19 35.2	-0.5
119A	Ashpeak Ranch,	84.62	53	⇑P	P	22 19 36.3	+0.3
	baz=84						
218A	Dragoon	84.65	54	⇓P	P	22 19 36.5	+0.3
	baz=84,SNR=5.7						
STU	Stuttgart	84.68	330	*e*P	P	22 19 35.8	-0.2
	comp=Z,15nm,0.8s,mb5.2						
PPT	Papeete	84.78	116	*e*LR	LR	22 45 31.5	
	comp=Z,444nm,29.5s,baz=320						
PPT				*e*LR	LR	22 45 31.5	
	comp=Z,444nm,29.5s,baz=320						
PPT	Papeete	84.78	116	LR	LR	22 52 52.3	
	comp=Z,206nm,18.7s,MS4.5,baz=273,slow=32						
BCLA	Clavier	84.81	333	P	P	22 19 36.3	-0.3
JAVS	Javornik	84.87	326	*i* P	P	22 19 35.7	-1.3
X22A	Bernardo	84.92	50	⇓P	P	22 19 38.0	+0.5
	baz=85						
ANMO	Albuquerque	84.96	50	P	P	22 19 38.2	+0.5
ANMO				*PP	pP	22 19 51.6	+0.5
ANMO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ANMO	Albuquerque	84.96	50	P	P	22 19 38.2	+0.5
	comp=Z,4.8nm,1.0s,mb4.6,baz=276,slow=5.3,SNR=7.0						
ANMO				pP	pP	22 19 51.6	+0.5
	comp=Z,6.9nm,1.0s,baz=313,slow=6.6,SNR=7.3						
ANMO	Albuquerque	84.96	50	P	P	22 19 38.2	+0.4
ANMO				pP	pP	22 19 51.6	+0.5
318A	Bisbee	85.03	54	⇑P	P	22 19 38.0	-0.1
	baz=85,SNR=8.1						
219A	White Tail Can	85.14	53	⇓P	P	22 19 38.4	-0.2
	baz=85,SNR=9.1						
120A	U Bar Ranch, L	85.19	53	⇑P	P	22 19 39.2	+0.3
	baz=85						
BFO	Black Forest	85.38	331	*e*P	P	22 19 39.3	-0.2
BFO				*e**PP	pP	22 19 52.0	-0.9
BFO				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
BFO	Black Forest	85.38	331	*e*P	P	22 19 39.3	-0.2
	comp=Z,14nm,0.9s,mb5.1						
BFO				*e*pP	pP	22 19 52.0	-0.9
BAIF	Baives	85.50	334	*e*P	P	22 19 39.5	-0.6
319A	Douglas	85.53	54	⇑P	P	22 19 40.5	-0.1
	baz=85						
SCHQ	Schefferville	85.65	16	P	P	22 19 40.2	-0.6
	comp=Z,2.2nm,0.8s,mb4.4,baz=56,slow=16,SNR=3.8						
SCHQ	Schefferville	85.65	16	P	P	22 19 40.2	-0.6
CDF	Champ du Feu	85.72	331	*e*P	P	22 19 40.7	-0.6
	comp=Z,20nm,0.9s,mb5.0						
CDF	Champ du Feu	85.72	331	*e*P	P	22 19 40.7	-0.6
CDF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
CDF	Champ du Feu	85.72	331	*e*P	P	22 19 40.7	-0.6
	comp=Z,9.9nm,0.9s,mb5.0						
ECH	Echery	85.93	331	*e*P	P	22 19 41.9	-0.4
ECH				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.0						
ECH	Echery	85.93	331	*e*P	P	22 19 41.9	-0.4
	comp=Z,11nm,1.1s,mb5.0						
HINF	Hinteralfeld	86.37	331	*e*P	P	22 19 43.5	-1.0
	comp=Z,5.0nm,0.7s,mb4.6						
HINF	Hinteralfeld	86.37	331	*e*P	P	22 19 43.5	-1.0
HINF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
HINF	Hinteralfeld	86.37	331	*e*P	P	22 19 43.5	-1.0
	comp=Z,2.5nm,0.7s,mb4.5						
TAOE	Nuku Hiva Isla	86.39	104	*e*LR	LR	22 47 17.4	
TAOE				*e*LR	LR	22 47 17.4	
HAU	Haudompre	86.41	331	*e*P	P	22 19 43.6	-1.1
	comp=Z,15nm,0.9s,mb4.9						
HAU				*e*MLR	MLR		
	comp=Z,150nm,21.2s,MS4.1						
HAU	Haudompre	86.41	331	*e*P	P	22 19 43.6	-1.1
HAU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
HAU				MLR	MLR		
	comp=Z,150nm,21.2s,MS4.4						
HAU	Haudompre	86.41	331	*e*P	P	22 19 43.6	-1.1
	comp=Z,7.6nm,0.9s,mb4.9						
HAU				LR	LR		
	comp=Z,150nm,21.2s,MS4.4						
MEZF	Maizieres J'vi	86.49	332	*e*P	P	22 19 43.7	-1.4
LOR	Lormes	87.97	332	*e*P	P	22 19 51.5	-0.7
LOR				*e*MLR	MLR		
	comp=Z,222nm,19.5s,MS4.3						
LOR	Lormes	87.97	332	*e*P	P	22 19 51.5	-0.7
LOR				LR	LR		
	comp=Z,220nm,19.5s,MS4.6						
FLN	La Foliniere	88.22	336	*e*P	P	22 19 52.4	-0.9
FLN				*e*MLR	MLR		
	comp=Z,312nm,18.0s,MS4.5						
FLN	La Foliniere	88.22	336	*e*P	P	22 19 52.4	-0.9
FLN				LR	LR		
	comp=Z,310nm,18.0s,MS4.8						
LDF	La Druitiere	88.24	335	*e*P	P	22 19 53.4	-0.1
	comp=Z,54nm,1.4s,mb5.3						
LDF	La Druitiere	88.24	335	*e*P	P	22 19 53.4	-0.1
LDF				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.3						
LDF	La Druitiere	88.24	335	*e*P	P	22 19 53.4	-0.1
	comp=Z,27nm,1.4s,mb5.3						
SSF	Saint Saulge	88.27	333	*e*P	P	22 19 52.9	-0.7
LPL	La Plagne	88.30	330	*e*P	P	22 19 53.3	-0.5
LPG	La Plagne	88.31	330	*e*P	P	22 19 53.5	-0.4
	comp=Z,9.2nm,0.8s,mb4.7						
LPG	La Plagne	88.31	330	*e*P	P	22 19 53.5	-0.4
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
LPG	La Plagne	88.31	330	*e*P	P	22 19 53.5	-0.4
	comp=Z,4.6nm,0.8s,mb4.8						
AVF	Avril sur Loir	88.56	332	*e*P	P	22 19 54.4	-0.6
	comp=Z,10nm,0.8s,mb4.9						
AVF	Avril sur Loir	88.56	332	*e*P	P	22 19 54.4	-0.6
AVF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.9						
AVF	Avril sur Loir	88.56	332	*e*P	P	22 19 54.4	-0.6
	comp=Z,5.1nm,0.8s,mb4.9						
GRR	Gorron	88.67	336	*e*P	P	22 19 55.0	-0.5
	comp=Z,22nm,1.1s,mb5.1						
GRR	Gorron	88.67	336	*e*P	P	22 19 55.0	-0.5
GRR				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.1						
GRR	Gorron	88.67	336	*e*P	P	22 19 55.0	-0.5
	comp=Z,11nm,1.1s,mb5.1						
ORIF	Oris-en-Rattie	89.14	330	*e*P	P	22 19 57.0	-0.8
	comp=Z,6.1nm,0.7s,mb4.7						
ORIF				*e*MLR	MLR		
	comp=Z,166nm,18.2s,MS4.2						
ORIF	Oris-en-Rattie	89.14	330	*e*P	P	22 19 57.0	-0.8
ORIF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.7						
ORIF	Oris-en-Rattie	89.14	330	*e*P	P	22 19 57.0	-0.8
	comp=Z,3.0nm,0.7s,mb4.7						
SGMF	Saint Gilles	89.33	337	*e*P	P	22 19 57.4	-1.2
QUIF	Quistinic	89.82	337	*e*P	P	22 20 00.1	-0.8
	comp=Z,20nm,1.1s,mb5.1						
QUIF	Quistinic	89.82	337	*e*P	P	22 20 00.1	-0.8
QUIF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.1						
QUIF	Quistinic	89.82	337	*e*P	P	22 20 00.1	-0.8
	comp=Z,10nm,1.0s,mb5.1						
MFF	Saint Martin d	89.97	334	*e*P	P	22 20 01.3	-0.3
	comp=Z,10nm,0.9s,mb4.8						
MFF	Saint Martin d	89.97	334	*e*P	P	22 20 01.3	-0.3
MFF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
MFF	Saint Martin d	89.97	334	*e*P	P	22 20 01.3	-0.3
	comp=Z,5.2nm,0.9s,mb4.9						
TXAR	Lajitas Array	90.50	52	P	P	22 20 03.8	-0.6
TXAR				*PP	pP	22 20 16.7	-1.1
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
TXAR	Lajitas Array	90.50	52	P	P	22 20 03.8	-0.7
	comp=Z,2.4nm,0.8s,mb4.6,baz=308,slow=3.5,SNR=16						
TXAR				pP	pP	22 20 16.7	-1.2
	comp=Z,2.6nm,0.6s,baz=305,slow=3.3,SNR=11						
TXAR	Lajitas Array	90.50	52	P	P	22 20 03.8	-0.7
TXAR				pP	pP	22 20 16.7	-1.2
CAF	Calviac	90.61	332	*e*P	P	22 20 04.7	0.0
	comp=Z,12nm,0.9s,mb4.9						
CAF	Calviac	90.61	332	*e*P	P	22 20 04.7	0.0
CAF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.9						
CAF	Calviac	90.61	332	*e*P	P	22 20 04.7	0.0
	comp=Z,6.0nm,0.9s,mb4.9						
ETSF	Etsaut	93.33	333	*e*P	P	22 20 17.3	+0.1
	comp=Z,6.9nm,0.9s,mb4.8						
ETSF	Etsaut	93.33	333	*e*P	P	22 20 17.3	+0.1
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
ETSF	Etsaut	93.33	333	*e*P	P	22 20 17.3	+0.1
	comp=Z,3.5nm,0.9s,mb4.8						
KEST	Kesra	95.04	322	LR	LR	23 09 23.4	
	comp=Z,66nm,18.3s,MS4.1,baz=219,slow=39						
ESDC	Sonseca Array	97.38	334	LR	LR	23 07 51.2	
	comp=Z,145nm,21.2s,MS4.4,baz=320,slow=37						
TORD	Torodi Ar. Bea	117.30	314	PKP	PKPdf	22 25 47.4	-0.8
	comp=Z,0.3nm,0.7s,baz=38,slow=2.6,SNR=4.4						
TORD				PP	PP	22 26 57.3	-1.3
	comp=Z,1.5nm,1.0s,baz=33,slow=6.6,SNR=5.1						

IDC 08 22:50:59.6±1.9,8°.40S×125°.14E,h0^{km},mb3.3/1, mb1 3.8/3,mb1mx3.5/16,mbtmp3.5/3,ML3.6/2,Error ellipse: s-maj=175.3km s-min=31.4km az=59.0,Timor region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.53	143	Pn	Pn	22 54 26.8	+0.3
	0.2nm,0.3s,baz=320,slow=13,SNR=3.1						
WRA				Sn	Sn	22 56 57.2	-11
	0.5nm,0.3s,baz=320,slow=24,SNR=7.7						
ASAR	Alice Springs	17.35	152	P	Pn	22 55 03.2	-0.1
	0.2nm,0.3s,baz=319,slow=12,SNR=19						
ASAR				S	Sn	22 58 03.3	-14
	0.1nm,0.3s,baz=320,slow=24,SNR=5.1						
MKAR	Makanchi Array	66.86	329	P	P	23 01 53.6	+0.1
	0.2nm,0.5s,baz=132,slow=8.1,SNR=6.7						

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*NEICᅠ**08** 22:53:08.1±3.2,0°.06N×123°.39E,h177^{km}±32^{km},mb3.7/1, Error ellipse: s-maj=61.9km s-min=10.8km az=62.0*

*ISCJB **08** 22:53:09.7±3.4,0°.1S±0°.3×123°.0E±0°.4,h210^{km}±36^{km}, mb3.4/4,Error ellipse: s-maj=75.3km s-min=13.0km az=148.4*

*IDC **08** 22:53:18.5±17.0,0°.09S×123°.33E,h294^{km}±199^{km}, mb3.1/4,mb1 3.3/4,mb1mx3.0/17,mbtmp3.1/4,Error ellipse: s-maj=86.9km s-min=23.4km az=50.0*

ISC 08 22:53:08.0±3.9,0°.0S±0°.3×123°.2E±0°.4,h173^{km}±40^{km},n8, σ1^{s}.31/8,mb3.5/4,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKM	Kota Kinabalu	9.21	311	*e*Pn	Pn	22 55 18.8	+1.6
KKM				*e*S	Sn	22 56 58.9	-1.2
FITZ	Fitzroy Crossi	18.14	173	*e*P	P	22 57 07.2	-0.1
	1.2nm,0.4s						
WRA	Warramunga Arr	22.61	152	P	P	22 57 53.6	-0.7
	1.5nm,0.5s,mb3.7,baz=330,slow=10,SNR=7.0						
WB2	Warramunga Arr	22.62	152	*e*P	P	22 57 54.5	+0.2
ASAR	Alice Springs	25.71	157	PcP	PcP	23 01 48.0	-0.1
	0.3nm,0.3s,baz=348,slow=2.2,SNR=4.2						
CMAR	Chiang Mai Arr	30.09	309	P	P	22 59 02.7	+1.3
	0.4nm,0.4s,mb3.5,baz=134,slow=7.7,SNR=3.4						
SONM	Songino Array	49.84	345	P	P	23 01 43.4	0.0
	0.7nm,0.6s,mb3.4,baz=162,slow=8.6,SNR=7.2						
MKAR	Makanchi Array	58.73	328	P	P	23 02 46.7	-0.8
	0.2nm,0.3s,mb3.5,baz=119,slow=8.7,SNR=10.0						

IDC 08 23:15:42.3±4.0,7°.16S×154°.03E,h0^{km},mb3.4/4, mb1 3.6/4,mb1mx3.5/16,mbtmp3.5/4,Error ellipse: s-maj=131.3km s-min=30.3km az=111.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	22.94	234	P	P	23 20 46.5	-1.9
	0.4nm,0.3s,baz=59,slow=9.9,SNR=2.9						
ASAR	Alice Springs	25.35	227	P	P	23 21 12.4	+1.1
	1.2nm,0.7s,baz=59,slow=8.6,SNR=16						
SONM	Songino Array	68.96	328	P	P	23 26 49.0	-0.3
	0.5nm,1.1s,baz=135,slow=5.6,SNR=3.3						
MKAR	Makanchi Array	82.90	319	P	P	23 28 10.8	+1.9
	0.2nm,0.6s,baz=99,slow=5.4,SNR=4.7						
TORD	Torodi Ar. Bea	152.14	285	PKPbc	PKPbc	23 35 39.9	-1.1
	0.5nm,0.6s,baz=96,slow=1.9,SNR=4.4						

NEIC 08 23:22:24.2,54°.47N×164°.59W,h13^{km},ML3.6(AEIC), ML4.1(PMR),After AEIC.,Unimak Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKA	Akutan	0.77	245	P	Pg	23 22 38.9	-0.2
AKA				S	Sg	23 22 49.8	+0.6
AKUT	Akutan	0.77	245	*e*P	Pg	23 22 38.6	-0.5
FALS	False Pass	0.78	60	P	Pg	23 22 38.7	-0.6
FALS				S	Sg	23 22 50.0	+0.4
AKLV	Akutan Long Va	0.86	250	P	Pg	23 22 40.2	-0.6
AKLV				S	Sg	23 22 52.7	+0.7
AKGG	Akutan Green G	0.87	252	P	Pg	23 22 40.7	-0.3
AKGG				S	Sg	23 22 53.1	+0.9
UNV	Unalaska Valle	1.29	242	P	Pn	23 22 47.1	-0.7
UNV				S	Sb	23 23 05.2	+0.5
SDPT	Sand Point	2.53	68	*e*P	Pn	23 23 05.8	+0.9

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*NEIC **08** 23:22:24.9,33°.93S×72°.07W,h46^{km},MD3.6(GUC),After GUC.*

GUC 08 23:22:24.9±0.5,33°.93S×72°.07W,h46^{km}±7^{km},MD3.6, ML3.6,6C-1D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IHA	Instituto Hidr	0.97	22	⇑*i*P	Pn	23 22 43.0	+1.0
IHA				*i* S	Sn	23 22 56.8	+2.1
TACH	Talagante	0.98	74	⇑*i*P	Pn	23 22 43.5	+1.2
TACH				*i* S	Sn	23 22 57.6	+2.6
CHCH	Chadas Angostu	1.18	91	*e*P	Pn	23 22 46.9	+1.9
CHCH				*i* S	Sn	23 23 03.3	+3.5
ANTU	Antumapu	1.25	74	*i* P	Pn	23 22 48.0	+2.1
ANTU				*i* S	Sn	23 23 05.3	+3.8
ANTU	Antumapu	1.25	74	*i* P	Pn	23 22 48.0	+2.1
ANTU				*i* S	Sn	23 23 05.3	+3.8
ANTU				AML	AML	23 23 08.4	
	comp=E,2µm,0.6s						
NICH	Los Niches	1.28	147	⇑*i*P	Pn	23 22 48.3	+2.0
NICH				*i* S	Sn	23 23 06.0	+3.7
PCH	Pirque	1.33	77	⇑*i*P	Pn	23 22 49.1	+2.1
PCH				*i* S	Sn	23 23 07.8	+4.2
CLCH	Cerro Calan	1.38	68	AML	AML	23 23 26.0	
	comp=E,1µm,0.3s						
PEL	Peldehue	1.40	56	*e*P	Pn	23 22 50.4	+2.5
PEL				*i* S	Sn	23 23 09.5	+4.3
PEL				AML	AML	23 23 16.6	
	comp=E,3µm,0.2s						
CICH	Cipreses	1.42	106	⇓*i*P	Pn	23 22 50.9	+2.6
CICH				*i* S	Sn	23 23 10.4	+4.5
TALC	Talca	1.51	166	⇑*i*P	Pn	23 22 50.9	+1.4
TALC				*i* S	Sn	23 23 11.3	+3.3
LMEL	Las Melosas	1.56	88	*e*P	Pn	23 22 53.0	+2.9
LMEL				*i* S	Sn	23 23 14.3	+5.3
LMEL	Las Melosas	1.56	88	*e*P	Pn	23 22 53.0	+2.9
LMEL				*i* S	Sn	23 23 14.3	+5.3
LMEL				AML	AML	23 23 21.3	
	comp=E,1µm,0.6s						
FCH	Farellones	1.60	69	⇑*i*P	Pn	23 22 53.1	+2.4
FCH				*i* S	Sn	23 23 15.6	+5.4
FCH				AML	AML	23 23 16.4	
	comp=N,867nm,0.2s						

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*ISK **09** 00:01:22.8,39°.34N×33°.15E,h4^{km},MD2.7*

*ISCJB **09** 00:01:23.3±0.9,39°.35N±0°.04×33°.18E±0°.04,h10^{km}±7^{km}, Error ellipse: s-maj=7.1km s-min=5.0km az=154.4*

*CSEM **09** 00:01:23.1±0.2,39°.35N×33°.17E,h10^{km},MD2.7,Error ellipse: s-maj=4.5km s-min=3.9km az=148.0*

*DDA **09** 00:01:23.0,39°.36N×33°.22E,h7^{km}±3^{km},Md2.8*

ISC 09 00:01:23.2±0.8,39°.34N±0°.04×33°.19E±0°.04,h10^{km}±7^{km}, n21,σ0^{s}.61/34,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALAT	Bala	0.22	346	*i* P	Pg	00 01 27.6	-0.3
BALAT				*i* S	Sg	00 01 31.1	+0.1
LOD	Lodumlu	0.64	329	*e*PG	Pg	00 01 35.5	-0.1
LOD				*e*SG	Sg	00 01 44.7	+0.8
LOD	Lodumlu	0.64	329	*e*Pg	Pg	00 01 35.5	-0.1
LOD				*e*Sg	Sg	00 01 44.7	+0.7
CDAG	Cicekdag	0.96	73	*i* P	Pg	00 01 40.8	-0.9
CDAG				*i* S	Sg	00 01 53.8	-0.4
CDAG	Cicekdag	0.96	73	*i* P	Pg	00 01 40.8	-0.9
CDAG				*i* S	Sg	00 01 53.8	-0.3
KIZT	Kizilcal	1.12	246	*e*PN	Pn	00 01 44.2	-0.7
KIZT				*e*SN	Sn	00 01 59.6	-0.7
KIZT	Kizilcal	1.12	246	*e*Pn	Pn	00 01 44.2	-0.7
KIZT				*e*Sn	Sn	00 01 59.6	-0.7
ELDT	Eldivan	1.16	9	*i* P	Pb	00 01 45.4	0.0
ELDT				*i* S	Sb	00 02 00.2	-0.3
ELDT	Eldivan	1.16	9	*i* P	Pb	00 01 45.4	0.0
ELDT				*i* S	Sb	00 02 00.2	-0.3
SULT	Sultanhani-AKS	1.17	167	*e*PN	Pn	00 01 45.7	+0.1
SULT	Sultanhani-AKS	1.17	167	*e*Pn	Pn	00 01 45.7	+0.1
KDHN	Kadinhani	1.17	226	*i* P	Pb	00 01 45.6	+0.1
KDHN				*i* S	Sb	00 02 00.9	+0.2
KDHN	Kadinhani	1.17	226	*i* P	Pb	00 01 45.6	+0.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDHN				*i* S	Sb	00 02 00.9	+0.2
SVRH	Sivrihisar-ESK	1.29	275	*e*PN	Pn	00 01 46.8	-0.6
SVRH	Sivrihisar-ESK	1.29	275	*e*Pn	Pn	00 01 46.8	-0.5
AVNT	Avonos	1.41	113	*i* P	Pn	00 01 49.9	+1.0
AVNT				*i* S	Sn	00 02 07.0	-0.6
AVNT	Avonos	1.41	113	*i* P	Pn	00 01 49.9	+0.9
AVNT				*i* S	Sn	00 02 07.0	-0.6
KONT	Konya--Tatoy	1.54	205	*e*PN	Pn	00 01 51.4	+0.8
KONT	Konya--Tatoy	1.54	205	*e*Pn	Pn	00 01 51.4	+0.7
YOZ	Yozgat	1.68	79	*e*PN	Pn	00 01 54.0	+1.5
YOZ	Yozgat	1.68	79	*e*Pn	Pn	00 01 54.0	+1.4

NEIC 09 00:15:06.4, 40°.07S×175°.10E, h12km, ML3.6(WEL), After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WAZ	Wanganui	0.32	345	P	Pg	00 15 13.3	+0.5
WAZ				S	Sg	00 15 20.1	+3.0
TSZ	Takapari Road	0.67	90	P	Pg	00 15 18.9	-0.4
MRZ	Mangatainoka R	0.70	148	P	Pg	00 15 17.3	-2.7
MRZ				S	Sg	00 15 26.5	-2.7
KIW	Kapiti Island	0.81	190	P	Pg	00 15 16.8	-5.2
KIW				S	Sg	00 15 25.3	-7.3
MOVZ	Moawhango	0.83	38	P	Pg	00 15 21.4	-1.0
WNVZ	Wahianoa	0.83	28	P	Pg	00 15 21.7	-0.7
TUVZ	Tukino	0.90	29	P	Pg	00 15 23.1	-0.7
RAEZ	Rainy Point	0.95	325	P	Pg	00 15 23.9	-0.7
NGZ	Ngauruhoe	0.97	24	P	Pg	00 15 24.1	-0.9
VRZ	Vera Road	0.97	344	P	Pg	00 15 24.2	-0.9
WTVZ	West Tongariro	1.02	22	P	Pb	00 15 24.9	-1.1
TWVZ	Taurewa	1.03	15	P	Pb	00 15 24.6	-1.4
CAW	Cannon Point	1.04	181	P	Pb	00 15 21.5	-4.9
DFE	Dawson Falls	1.06	314	P	Pb	00 15 25.5	-1.2
BFZ	Birch Farm	1.07	125	P	Pb	00 15 24.7	-2.2
NEZ	North Egmont	1.10	315	P	Pb	00 15 25.6	-1.8
MTW	Mount Morrison	1.14	164	P	Pb	00 15 24.3	-3.6
KATZ	Kakaramea	1.18	23	P	Pn	00 15 27.7	-1.0
MRW	Makara Radio	1.20	194	P	Pn	00 15 23.5	-5.5
PKE	Pukeiti	1.22	315	P	Pn	00 15 27.7	-1.5
NWEZ	Newall Road	1.23	309	P	Pn	00 15 27.7	-1.7
RITZ	Rihia Road	1.23	29	P	Pn	00 15 28.9	-0.5
WEL	Wellington	1.25	191	P	Pn	00 15 24.5	-5.1
SNZO	South Karori	1.28	193	P	Pn	00 15 24.8	-5.2
RATZ	Rangitukua	1.30	24	P	Pn	00 15 29.9	-0.5
TCW	Tory Channel	1.30	208	P	Pn	00 15 24.3	-6.1
PAWZ	Paruwai Farm	1.34	169	P	Pn	00 15 27.3	-3.6
BHW	Baring Head	1.35	187	P	Pn	00 15 26.5	-4.6
MSWZ	Moikau Station	1.35	175	P	Pn	00 15 26.8	-4.3
BKZ	Black Stump Fm	1.40	51	P	Pn	00 15 31.5	-0.2
HATZ	Hinemaiaia	1.40	34	P	Pn	00 15 31.2	-0.5
WATZ	Wairara	1.44	20	P	Pn	00 15 31.5	-0.8
WHTZ	Whakaora	1.55	26	P	Pn	00 15 35.5	+1.8
HIZ	Hauiti	1.56	353	P	Pn	00 15 32.4	-1.5
NNZ	Nelson	1.74	228	P	Pn	00 15 32.0	-4.4
BSWZ	Blackbirch Sta	1.89	209	P	Pn	00 15 34.6	-3.8
KNZ	Kokohu	2.25	63	P	Pn	00 15 42.0	-1.4
TOZ	Tahuroa Road	2.35	8	P	Pn	00 15 43.8	-1.0
THZ	Tophouse	2.37	224	P	Pn	00 15 41.2	-3.9
URZ	Urewera	2.39	42	P	Pn	00 15 44.2	-1.1
MWZ	Matawai	2.56	48	P	Pn	00 15 47.0	-0.6
KHZ	Kahutara	2.63	206	P	Pn	00 15 44.0	-4.6
MKAZ	Moumakai	2.95	1	P	Pn	00 15 51.5	-1.5
LTZ	Lake Taylor	3.45	217	P	Pn	00 15 54.7	-5.1

MAN 09 00:18:53, 6°.34N×126°.74E, h134km, mb4.5, ML3.3, MS3.2, Mindanao

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*IDC **09** 00:30:56.4±3.8, 8°.60S×117°.71E, h90km±33km, mb3.2/4, mb1 3.4/6, mb1mx3.3/19, mbtmp3.3/6, Error ellipse: s-maj=87.4km s-min=12.8km az=52.0*

*ISCJB **09** 00:31:00.5±1.5, 8°.6S±0°.1×117°.9E±0°.1, h150km±13km, mb3.6/5, Error ellipse: s-maj=28.2km s-min=13.1km az=139.8*

*NEIC **09** 00:31:05.4±1.8, 8°.74S×118°.00E, h179km±23km, mb4.1/2, Error ellipse: s-maj=28.4km s-min=10.4km az=214.0*

ISC 09 00:31:01.1±1.9, **8°.6S**±0°.1×**117°.9E**±0°.2, **h135**km±18km, **n14**, σ**0s62**/17, **mb3.6**/5, **1D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	2.60	114⇓	*e*P	Pn	00 31 43.0	+0.2
UGM	Wanagama	7.31	275	Pn	Pn	00 32 52.7	+7.3
FITZ	Fitzroy Crossi	12.07	142	P	Pn	00 33 46.9	-1.8
	0.1nm,0.3s,baz=94,slow=19,SNR=3.0						
FITZ				S	Sn	00 35 53.5	-8.4
	0.7nm,0.3s,baz=168,slow=21,SNR=10						
MBWA	Marble Bar	12.59	172	*e*Pn	Pn	00 33 56.2	+0.7
MBWA				*e*Sn	Sn	00 36 01.1	-13
KAKA	Kakadu	14.87	107	*e*Pn	Pn	00 34 25.3	+0.6
WRA	Warramunga Arr	19.50	127	P	P	00 35 17.4	-0.4
	0.4nm,0.3s,baz=300,slow=12,SNR=8.9						
WRA				S	S	00 38 44.6	-6.4
	0.1nm,0.3s,baz=356,slow=16,SNR=2.4						
WRAB	Tennant Creek	19.50	127	*e*P	P	00 35 18.0	+0.1
	1.0nm,0.4s						
WB2	Warramunga Arr	19.51	127	*e*P	P	00 35 17.7	-0.2
ASAR	Alice Springs	21.43	136	P	P	00 35 39.2	+0.8
	0.6nm,0.4s,mb3.2,baz=316,slow=9.8,SNR=11						
ASAR				S	S	00 39 33.7	+5.1
	0.2nm,0.6s,baz=312,slow=25,SNR=2.9						
COEN	Coen	25.36	104	*e*P	P	00 36 15.8	+0.1
	7.7nm,0.6s,mb4.4						
SONM	Songino Array	57.13	351	P	P	00 40 33.2	-0.2
	0.6nm,0.6s,mb3.6,baz=169,slow=8.3,SNR=6.0						
MKAR	Makanchi Array	63.62	333	P	P	00 41 17.3	-0.3
	0.2nm,0.5s,mb3.2,baz=151,slow=6.6,SNR=4.3						
ZALV	Zalesovo Beam	68.30	340	P	P	00 41 47.6	+0.2
	0.4nm,0.4s,mb3.5,baz=141,slow=6.6,SNR=3.2						
TORD	Torodi Ar. Bea	117.30	280	PKP	PKPdf	00 49 31.6	+0.1
	0.7nm,1.1s,baz=30,slow=2.5,SNR=7.6						

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*IDC **09** 01:05:34.8±2.7, 3°.50N×93°.46E, h0km, mb3.5/5, mb1 3.7/6, mb1mx3.5/24, mbtmp3.5/6, ML4.3/1, Error ellipse: s-maj=109.4km s-min=24.7km az=58.0*

*ISCJB **09** 01:05:41.9±5.3, 3°.7N±0°.2×93°.6E±0°.3, h67km±43km, mb3.5/5, Error ellipse: s-maj=49.3km s-min=21.9km az=150.0*

ISC 09 01:05:42.7±5.5, **3°.6N**±0°.2×**93°.6E**±0°.3, **h56**km±46km, **n7**, σ**0s46**/8, **mb3.5**/5, **1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.48	42⇓	*e*P	Pn	01 06 21.0	+0.3
BSI				*e*S	Sn	01 06 50.0	+0.1
CMAR	Chiang Mai Arr	15.62	19	Pn	Pn	01 09 18.7	-0.7
	0.4nm,0.3s,baz=231,slow=14,SNR=2.9						
MKAR	Makanchi Array	44.11	349	P	P	01 13 45.6	+0.2
	0.6nm,1.1s,mb3.2,baz=170,slow=9.5,SNR=3.9						
WRA	Warramunga Arr	46.33	122	P	P	01 14 03.5	0.0
	1.3nm,0.8s,mb3.9,baz=298,slow=9.1,SNR=2.8						
ASAR	Alice Springs	47.69	127	P	P	01 14 13.9	-0.1
	0.3nm,0.7s,mb3.5,baz=293,slow=7.9,SNR=3.3						
ZALV	Zalesovo Beam	50.68	353	P	P	01 14 36.7	+0.4
	0.4nm,0.4s,mb3.7,baz=175,slow=8.9,SNR=2.5						
BVAR	Borovoye Array	52.84	343	P	P	01 14 52.4	-0.1
	0.2nm,0.5s,mb3.3,baz=234,slow=38,SNR=2.6						

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*CSEM **09** 02:17:37.9±0.2, 36°.93N×29°.22E, h8km, MD2.9, Error ellipse: s-maj=4.6km s-min=4.2km az=152.0*

*ISK **09** 02:17:37.9, 36°.96N×29°.20E, h6km, MD2.9*

*DDA **09** 02:17:37.3, 36°.93N×29°.17E, h7km±3km, Md3.0*

*ISCJB **09** 02:17:38.2±0.5, 36°.95N±0°.04×29°.20E±0°.04, h7km±7km, Error ellipse: s-maj=6.3km s-min=4.8km az=156.0*

ISC 09 02:17:38.5±0.5, **36°.95N**±0°.04×**29°.19E**±0°.04, **h8**km±7km, **n24**, σ**0s86**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.33	196	*e*PG	Pg	02 17 44.3	-0.6
FETY				*e*SG	Sg	02 17 50.6	+1.4
FETY	Fethiye	0.33	196	*e*Pg	Pg	02 17 44.3	-0.6
FETY				*e*Sg	Sg	02 17 50.6	+1.3
GOLH	Golhisar	0.41	46	*i* P	Pg	02 17 45.8	-0.7
GOLH				*i* S	Sg	02 17 52.8	+0.9
GOLH	Golhisar	0.41	46	*i* P	Pg	02 17 45.8	-0.7
GOLH				*i* S	Sg	02 17 52.8	+0.9
TURN	Turunc	0.48	261	*i* P	Pg	02 17 45.9	-1.9
TURN				*i* S	Sg	02 18 04.2	+10
TURN	Turunc	0.48	261	*i* P	Pg	02 17 45.9	-1.9
DALT	Dalyan (Mudla)	0.48	248	*e*PG	Pg	02 17 47.6	-0.2
DALT				*e*SG	Sg	02 17 55.2	+1.0
DALT	Dalyan (Mudla)	0.48	248	*e*Pg	Pg	02 17 47.6	-0.2
DALT				*e*Sg	Sg	02 17 55.2	+1.0
ELL	Elmali	0.61	109	*e*PG	Pg	02 17 49.4	-0.8
ELL				*e*SG	Sg	02 17 59.4	+1.2
ELL	Elmali	0.61	109	*e*Pg	Pg	02 17 49.4	-0.9
YER	Yerkesik	0.75	284	*e*PG	Pg	02 17 53.0	0.0
YER	Yerkesik	0.75	284	*e*Pg	Pg	02 17 53.0	0.0
AKAS	Kas	0.79	155	*i* P	Pg	02 17 52.4	-1.3
AKAS	Kas	0.79	155	*i* P	Pg	02 17 52.4	-1.3
DENT	Denizli	0.81	351	*e*PG	Pg	02 17 54.4	+0.3
DENT	Denizli	0.81	351	*e*Pg	Pg	02 17 54.4	+0.3
MLSB	Milas	1.18	287	*e*PN	Pn	02 18 01.0	-0.3
MLSB	Milas	1.18	287	*e*Pn	Pn	02 18 01.0	-0.3
AYDN	Tasoluk	1.26	304	*i* P	Pn	02 18 02.2	-0.2
AYDN				*i* S	Sb	02 18 19.4	+0.5
AYDN	Tasoluk	1.26	304	*i* P	Pn	02 18 02.2	-0.2
AYDN				*i* S	Sb	02 18 19.4	+0.5
DAT	Datca	1.31	261	*e*PN	Pn	02 18 03.8	+0.7
DAT	Datca	1.31	261	*e*Pn	Pn	02 18 03.8	+0.7
KHL	Karahalli	1.40	11	*e*PN	Pn	02 18 04.2	0.0
KHL	Karahalli	1.40	11	*e*Pn	Pn	02 18 04.2	0.0

IDC 09 02:50:36.3±1.3, **10°.82N**×**41°.76W**, **h0**km, **mb3.8**/4, **mb1 3.9**/4, **mb1mx3.6**/21, **mbtmp3.8**/4, **Error ellipse: s-maj=35.9km s-min=29.9km az=167.0, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIV	San Ignacio	32.79	216	P	P	02 57 11.7	+0.2
	1.0nm,0.6s,baz=67,slow=14,SNR=6.6						
TORD	Torodi Ar. Bea	42.54	82	P	P	02 58 33.9	-0.2
	1.4nm,0.7s,baz=275,slow=8.5,SNR=7.1						
SCHQ	Schefferville	48.16	341	P	P	02 59 18.6	+0.5
	0.8nm,0.5s,baz=184,slow=13,SNR=3.6						
TXAR	Lajitas Array	60.33	298	P	P	03 00 47.1	-0.3
	0.5nm,0.7s,baz=121,slow=6.8,SNR=7.4						

IDC 09 02:57:58.4±1.2, **2°.19N**×**126°.37E**, **h0**km, **mb3.6**/6, **mb1 3.8**/6, **mb1mx3.6**/19, **mbtmp3.6**/6, **Error ellipse: s-maj=152.6km s-min=17.2km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.34	161	P	P	03 03 07.6	-1.0
	0.5nm,0.4s,baz=340,slow=11,SNR=3.6						
ASAR	Alice Springs	26.72	164	P	P	03 03 41.0	+1.4
	0.5nm,0.7s,baz=340,slow=12,SNR=4.2						
STKA	Stephens Creek	36.83	158	P	P	03 05 08.0	-0.4
	2.2nm,0.6s,baz=351,slow=7.4,SNR=7.0						
SONM	Songino Array	48.64	342	P	P	03 06 44.4	+0.3
	0.2nm,0.5s,baz=151,slow=9.9,SNR=2.5						
MKAR	Makanchi Array	58.62	326	P	P	03 07 57.0	-0.3
	0.3nm,0.6s,baz=118,slow=8.3,SNR=7.0						
KURK	Kurchatov	62.84	328	P	P	03 08 25.9	-0.1
	0.9nm,0.5s,baz=129,slow=6.2,SNR=7.9						

IDC 09 02:59:14.6±3.9, **2°.31S**×**99°.91E**, **h0**km, **mb3.6**/4, **mb1 3.7**/4, **mb1mx3.5**/21, **mbtmp3.6**/4, **Error ellipse: s-maj=159.0km s-min=24.4km az=57.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	37.92	120	P	P	03 06 33.6	-0.5
	0.3nm,0.4s,baz=306,slow=9.1,SNR=4.6						
ASAR	Alice Springs	39.15	126	P	P	03 06 44.4	+0.1
	0.3nm,0.6s,baz=301,slow=7.5,SNR=4.9						
SONM	Songino Array	50.26	6	P	P	03 08 12.6	+0.1
	1.0nm,0.6s,baz=188,slow=8.2,SNR=8.2						
MKAR	Makanchi Array	51.30	345	P	P	03 08 20.3	-0.1
	0.4nm,0.4s,baz=157,slow=9.2,SNR=9.6						
TXAR	Lajitas Array	145.00	38	PKPbc	PKPbc	03 18 53.8	-0.1
	0.7nm,0.7s,baz=290,slow=1.0,SNR=10.0						

IDC 09 03:05:20.9±4.3, **4°.23S**×**153°.49E**, **h0**km, **mb3.8**/4, **mb1 3.9**/4, **mb1mx3.6**/17, **mbtmp3.8**/4, **Error ellipse: s-maj=158.8km s-min=32.7km az=109.0, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.33	228	P	P	03 10 40.3	-0.2
	0.5nm,0.3s,baz=53,slow=9.9,SNR=5.3						
ASAR	Alice Springs	27.03	223	P	P	03 11 05.9	+1.0
	0.3nm,0.4s,baz=50,slow=9.3,SNR=4.5						
MKAR	Makanchi Array	80.35	319	P	P	03 17 35.0	+0.9
	0.7nm,0.9s,baz=98,slow=6.9,SNR=5.4						
BVAR	Borovoye Array	89.20	323	P	P	03 18 18.5	0.0
	1.5nm,0.7s,baz=104,slow=4.9,SNR=12						
TORD	Torodi Ar. Bea	150.77	289	PKPbc	PKPbc	03 25 14.8	-1.5
	0.4nm,0.6s,baz=91,slow=2.2,SNR=5.5						

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*DDA **09** 03:06:52.8, 36°.96N×29°.18E, h9km±3km, Md2.8*

*ISCJB **09** 03:06:53.7±0.6, 36°.96N±0°.04×29°.19E±0°.04, h7km±10km, Error ellipse: s-maj=7.3km s-min=4.9km az=163.8*

*CSEM **09** 03:06:53.5±0.2, 36°.96N×29°.20E, h12km, MD2.7, Error ellipse: s-maj=5.5km s-min=3.9km az=174.0*

*ISK **09** 03:06:53.6, 36°.93N×29°.17E, h14km, MD2.7*

ISC 09 03:06:53.9±0.6, **36°.96N**±0°.04×**29°.19E**±0°.04, **h13**km±8km, **n15**, σ**0s76**/27, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	195	*e*PG	Pg	03 07 00.0	-0.7
FETY				*e*SG	Sg	03 07 05.5	+0.2
FETY	Fethiye	0.34	195	*e*Pg	Pg	03 07 00.0	-0.7
FETY				*e*Sg	Sg	03 07 05.5	+0.2
GOLH	Golhisar	0.41	47	*i* P	Pg	03 07 00.6	-1.4
GOLH				*i* S	Sg	03 07 07.7	+0.2
GOLH	Golhisar	0.41	47	*i* P	Pg	03 07 00.6	-1.4
GOLH				*i* S	Sg	03 07 07.7	+0.2
TURN	Turunc	0.48	260	*i* S	Sg	03 07 19.0	+9.2
DALT	Dalyan (Mudla)	0.48	247	*e*PG	Pg	03 07 02.8	-0.7
DALT				*e*SG	Sg	03 07 09.9	0.0
DALT	Dalyan (Mudla)	0.48	247	*e*Pg	Pg	03 07 02.8	-0.7
DALT				*e*Sg	Sg	03 07 09.9	0.0
ELL	Elmali	0.61	110	*e*PG	Pg	03 07 05.5	-0.4
ELL				*e*SG	Sg	03 07 15.8	+1.8
ELL	Elmali	0.61	110	*e*Pg	Pg	03 07 05.5	-0.4
ELL				*e*Sg	Sg	03 07 15.8	+1.8
YER	Yerkesik	0.75	284	*e*PG	Pg	03 07 08.5	+0.1
YER				*e*SG	Sg	03 07 19.3	+1.1
YER	Yerkesik	0.75	284	*e*Pg	Pg	03 07 08.5	+0.1
YER				*e*Sg	Sg	03 07 19.3	+1.0
AYDN	Tasoluk	1.26	304	*i* P	Pn	03 07 17.0	-0.2
AYDN				*i* S	Sb	03 07 34.1	+0.5
AYDN	Tasoluk	1.26	304	*i* P	Pn	03 07 17.0	-0.2
AYDN				*i* S	Sb	03 07 34.2	+0.6
DAT	Datca	1.31	260	*e*PN	Pn	03 07 17.8	-0.2
DAT	Datca	1.31	260	*e*Pn	Pn	03 07 17.8	-0.2

IDC 09 03:14:33.0±1.7, **24°.46S**×**116°.50W**, **h0**km, **mb3.8**/3, **mb1 4.2**/3, **mb1mx3.8**/15, **mbtmp3.8**/3, **MS3.4**/5, **Ms1 3.4**/5, **ms1mx3.3**/25, **Error ellipse: s-maj=97.0km s-min=37.1km az=54.0, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPT	Papeete	31.57	276	LR	LR	03 30 05.0	
	comp=Z,42nm,20.3s,baz=35,slow=30						
PLCA	Paso Flores	41.48	124	P	P	03 22 22.0	+0.2
	1.9nm,0.8s,baz=246,slow=22,SNR=3.2						
PLCA				LR	LR	03 35 01.4	
	comp=Z,95nm,20.8s,baz=256,slow=30						
CFAA	Coronel Fontan	42.91	111	LR	LR	03 35 29.2	
	comp=Z,20nm,22.0s,baz=206,slow=29						
LVC	Limon Verde	43.50	98	LR	LR	03 35 42.3	
	comp=Z,148nm,19.0s,baz=180,slow=29						
CPUP	Villa Florida	53.07	105	LR	LR	03 40 30.0	
	comp=Z,41nm,20.8s,baz=176,slow=29						
PDAR	Pinedale Array	67.20	6	P	P	03 25 28.9	+0.1
	0.8nm,1.0s,baz=243,slow=3.7,SNR=4.1						
YKA	Yellowknife Ar	86.67	1	P	P	03 27 18.6	+0.6
	0.3nm,0.6s,baz=171,slow=4.6,SNR=8.7						
LZH	Lanzhou	143.52	298	*e*P	PKPdf	03 34 06.8	-3.1
LZH				pP		03 34 11.0	
LZH				sP		03 34 13.7	
LZH				pmax	pmax		
	comp=Z,16nm,1.4s						
LZH				pmax	pmax		
	comp=Z,85nm,5.0s						
GTA	Gaotai	146.02	305	*e*P	PKPdf	03 34 14.1	-0.1
GTA				pP		03 34 17.7	
GTA				sP		03 34 21.0	
GTA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ZALV	Zalesovo Beam	146.51	337	PKPbc	PKPbc	03 34 15.0	-0.9
	comp=Z,1.0nm,0.6s,baz=23,slow=4.7,SNR=4.2						
BRTR	Keskin Array B	150.65	52	PKPbc	PKPbc	03 34 26.5	-0.7
	comp=Z,0.6nm,0.8s,baz=291,slow=7.8,SNR=3.6						
BVAR	Borovoye Array	151.01	351	PKPbc	PKPbc	03 34 28.0	+0.4
	comp=Z,0.6nm,0.7s,baz=356,slow=4.5,SNR=4.9						
KURK	Kurchatov	151.30	340	PKPbc	PKPbc	03 34 27.4	-0.9
	comp=Z,0.5nm,0.7s,baz=17,slow=1.9,SNR=3.7						
MKAR	Makanchi Array	153.12	331	PKPbc	PKPbc	03 34 33.1	+0.5
	comp=Z,0.3nm,0.8s,baz=108,slow=0.5,SNR=2.8						

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*ISCJB **09** 03:15:43.9±0.9, 11°.45N±0°.05×61°.96W±0°.05, h107km±8km, Error ellipse: s-maj=8.9km s-min=7.8km az=149.3*

*FUNV **09** 03:15:44.5, 11°.59N×61°.82W, h69km, MW2.6*

*NEIC **09** 03:15:46.5, 11°.52N×61°.87W, h95km, MD3.2(TRN), After TRN.*

*TRN **09** 03:15:46.5, 11°.52N×61°.87W, h95km, MD3.2*

ISC 09 03:15:45.0±1.0, **11°.46N**±0°.05×**61°.97W**±0°.05, **h101**km±9km, **n14**, σ**0s96**/22, **1C, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRW	Mount Saint Ca	0.76	23	*e*P	Pn	03 16 02.8	-0.2
GRW				*e*S	Sn	03 16 15.9	-0.6
TCE	Chacachacare	0.79	165	*e*P	Pn	03 16 04.8	+1.5
TCE				*e*S	Sn	03 16 18.2	+1.2
GUIV	Guiria	0.85	197	*e*P	Pn	03 16 03.4	-0.5
GUIV				*e*S	Sn	03 16 16.4	-1.7
TRN	Trinidad (W)	0.98	146	*e*P	Pn	03 16 06.6	+1.3
TRN				*e*S	Sn	03 16 21.2	+0.7
ITEV	Isla Los Testi	1.15	265	*e*P	Pn	03 16 06.0	-1.1
TPR	Prospect	1.20	103	*e*P	Pn	03 16 08.6	+0.9
TPR				*e*S	Sn	03 16 23.6	-1.2
CRUV	Carupano	1.47	238⇑	*e*P	Pn	03 16 10.6	-0.3
CRUV				*e*S	Sn	03 16 30.6	0.0
GUNV	Guanoco	1.61	217	*e*P	Pn	03 16 13.0	+0.3
GUNV				*e*S	Sn	03 16 34.5	+0.9
PCRV	Puerto La Cruz	2.92	244	*e*P	Pn	03 16 29.8	+0.1
RIOV	Rio Grande	3.37	177	*e*P	Pn	03 16 36.4	+0.6
RIOV				*e*S	Sn	03 17 13.2	-1.9
CUPV	Cœpira	4.01	250	*e*P	Pn	03 16 45.4	+1.1
LUEV	Luepa	5.61	175	*e*P	Pn	03 17 04.5	-1.4
CAOV	Caicara del Or	5.95	227	*e*P	Pn	03 17 10.3	-0.3
BAUV	El Baul	6.48	248	*e*P	Pn	03 17 18.1	+0.2

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*NEIC **09** 03:27:56.3, 16°.91N×100°.03W, h8km, MD3.8(MEX), After MEX.*

MEX 09 03:27:56.3±0.9, **16°.91N**×**100°.03W**, **h8**km±7km, **MD3.8, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.12	113	*i* P	Pg	03 27 58.3	-0.6
ACX				*i* S	Sg	03 28 00.4	-0.3
CAIG	El Cayaco	0.27	300	*i* P	Pg	03 28 01.1	-0.5
CAIG				*i* S	Sg	03 28 05.5	+0.3
MEIG	Mezcala	1.08	21	*i* P	Pg	03 28 13.6	-3.5
MEIG				*i* S	Sg	03 28 27.2	-3.9
PLIG	Platanillo	1.56	19	*i* P	Pn	03 28 21.7	-2.6
PLIG				*i* S	Sn	03 28 39.0	-5.7
PNIG	Pinotepa	1.89	106	*e*P	Pn	03 28 25.2	-3.8
PNIG				*i* S	Sn	03 28 48.3	-4.7
UTMO	Huajuapan	2.31	66	*i* P	Pn	03 28 32.6	-2.1
UTMO				*i* S	Sn	03 29 00.1	-3.2
MZVM		2.39	18	*i* P	Pn	03 28 34.1	-1.6
MZVM				*i* S	Sn	03 29 00.5	-4.7
PPM	Popocatepetl	2.52	32	*i* P	Pn	03 28 37.7	+0.1
PPM				*i* S	Sn	03 29 05.2	-3.3
TPIG	Tehuac#an	2.95	59	*i* S	Sn	03 29 16.5	-2.6

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*ISCJB **09** 03:45:41.5±0.2, 25°.02N±0°.05×123°.23E±0°.03, h130km±3km, mb4.0/29, Error ellipse: s-maj=7.8km s-min=3.7km az=167.7*

*IDC **09** 03:45:42.9±2.7, 25°.09N×123°.21E, h128km±25km, mb3.7/18, mb1 3.9/19, mb1mx3.8/27, mbtmp3.7/19, Error ellipse: s-maj=19.1km s-min=12.2km az=60.0*

*BJI **09** 03:45:42.9, 25°.30N×123°.55E, h147km, mB4.7/3, mb4.2/6*

*NEIC **09** 03:45:42.5±0.5, 25°.06N×123°.21E, h126km±4km, mb4.2/10, Error ellipse: s-maj=7.6km s-min=6.6km az=45.0*

*MOS **09** 03:45:43.0±1.0, 25°.12N×123°.28E, h147km, mb4.0/17, Error ellipse: s-maj=21.7km s-min=10.3km az=126.3*

*JMA **09** 03:45:44.0±0.2, 24°.95N×123°.25E, h118km±3km, M4.1*

ISC 09 03:45:42.5±0.2, **25°.02N**±0°.05×**123°.23E**±0°.03, **h125**km±3km, **n85**, σ**0s98**/102, **mb4.0**/29, **Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.59	199	P	Pn	03 46 01.9	+0.3
YOJ				S	Sn	03 46 16.0	0.0
IRIF	Iriomote-Funau	0.82	146	P	Pn	03 46 03.4	0.0
IRIF				S	Sn	03 46 18.4	-0.7
JKRS	Kuro-shima	1.06	137	P	Pn	03 46 06.1	+0.6
JKRS				S	Sn	03 46 22.5	-0.5
JIJ	Ishigaki jima	1.06	128	P	Pn	03 46 05.5	-0.1
JIJ				S	Sn	03 46 21.7	-1.3
HATJ	Hateruma jima	1.10	151	P	Pn	03 46 06.4	+0.5
HATJ				S	Sn	03 46 23.0	-0.6
JTJ	Tarama	1.39	105	P	Pn	03 46 09.8	+0.7
JTJ				S	Sn	03 46 29.4	+0.2
TATO	Taipei	1.58	269	*e*Pn	Pn	03 46 12.2	+1.0
TATO				*e*Sn	Sn	03 46 33.5	+0.5
NACB	Ninganchiao	1.71	241	*e*Pn	Pn	03 46 12.4	-0.3
NACB				*e*Sn	Sn	03 46 31.2	-4.4
YHNB	Yeheng	1.72	259	*e*Pn	Pn	03 46 13.9	+1.1
YHNB				*e*Sn	Sn	03 46 36.6	+0.7
JMJ	Miyako jima 2	1.89	96	P	Pn	03 46 16.1	+1.2
JMJ				S	Sn	03 46 40.3	+0.7
JOGS	Gusukube	2.00	97	P	Pn	03 46 18.1	+1.9
JOGS				S	Sn	03 46 43.1	+1.2
YULB	Yu-li	2.39	228	*e*Pn	Pn	03 46 20.5	-0.7
YULB				*e*Sn	Sn	03 46 46.9	-3.9
SSLB	Suanglung	2.41	240	*e*Pn	Pn	03 46 21.4	+0.1
SSLB				*e*Sn	Sn	03 46 50.4	-0.8
TPUB	Ta-pu	2.92	235	*e*Pn	Pn	03 46 28.7	+0.7
TPUB				*e*Sn	Sn	03 47 00.9	-2.1
TWG	Pinlang	2.95	222	*e*Pn	Pn	03 46 27.1	-1.2
TWG				*e*Sn	Sn	03 46 57.5	-6.1
JKE	Kume jima 2	3.46	67	P	Pn	03 46 35.9	+0.8
JKE				S	Sn	03 47 16.0	+0.3
JAGN	Aguni-jima	3.94	66	P	Pn	03 46 42.1	+0.7
NAH1	Naha	4.20	73	*e*S	Sn	03 47 33.0	-0.1
JIH	Iheya	4.71	64	P	Pn	03 46 51.8	+0.1
JOW	Kunigami	4.89	67	P	Pn	03 46 53.6	-0.5
JOW				*e*S	Sn	03 47 47.0	-2.7
JOW	Kunigami	4.89	67	P	Pn	03 46 53.8	-0.3
	21nm,0.3s,baz=99,slow=27,SNR=37						
JOW				S	Sn	03 47 47.2	-2.5
	11nm,0.3s,baz=110,slow=25,SNR=3.1						
JTK	Tokunoshima	5.83	61	P	Pn	03 47 05.6	-1.0
JTK				*e*S	Sn	03 48 08.9	-3.3
JAM	Amami Oshima	6.63	58	P	Pn	03 47 15.9	-1.6
JMZ	Minamidaito 2	7.27	82	P	Pn	03 47 23.4	-2.8
JMZ				*e*S	Sn	03 48 39.5	-7.7
KSRS	Korea Array	13.03	17	P	Pn	03 48 45.8	+3.0
KSRS	Korea Array	13.03	17	P	Pn	03 48 45.8	+3.0
	0.1nm,0.3s,baz=255,slow=32,SNR=3.2						
CD2	Chengdu	18.16	293	P	P	03 49 46.2	+0.9
CD2				pmax	pmax		
	comp=Z,30nm,0.7s						

CD2				pmax	pmax		
	comp=Z,160nm,5.1s						
LZH	Lanzhou	19.97	308	*e*P	P	03 50 07.0	+2.1
LZH				pmax	pmax		
	comp=Z,18nm,1.2s						
LZH				pmax	pmax		
	comp=Z,75nm,4.4s						
CHTO	Chiang Mai	23.34	259	*e*P	P	03 50 40.2	+0.4
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
CHTO	Chiang Mai	23.34	259	*e*P	P	03 50 40.2	+0.4
	comp=Z,4.3nm,0.8s,mb3.8						
CMAR	Chiang Mai Arr	23.46	259	P	P	03 50 41.9	+1.0
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CMAR	Chiang Mai Arr	23.46	259	P	P	03 50 41.9	+1.0
	comp=Z,3.1nm,0.8s,mb3.7,baz=60,slow=8.3,SNR=15						
GTA	Gaotai	24.36	312	*e*P	P	03 50 47.2	-1.7
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.6						
SONM	Songino Array	26.38	334	P	P	03 51 07.7	+0.7
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	26.38	334	P	P	03 51 07.7	+0.7
	comp=Z,0.9nm,0.5s,mb3.4,baz=149,slow=9.5,SNR=8.1						
MK31	Makanchi Array	39.06	314	*e*P	P	03 52 56.6	-0.5
MKAR	Makanchi Array	39.06	314	P	P	03 52 56.8	-0.3
MKAR						03 55 04.1	
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MKAR	Makanchi Array	39.06	314	P	P	03 52 56.8	-0.3
	comp=Z,3.0nm,0.5s,mb4.3,baz=100,slow=9.8,SNR=102						
MKAR				PcP	PcP	03 55 04.1	-0.5
	comp=Z,0.5nm,0.6s,baz=82,slow=4.4,SNR=5.3						
ZALV	Zalesovo Beam	40.58	326	P	P	03 53 08.4	-1.2
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
ZALV	Zalesovo Beam	40.58	326	P	P	03 53 08.4	-1.2
	comp=Z,1.1nm,0.4s,mb4.0,baz=111,slow=8.1,SNR=6.2						
KURK	Kurchatov	42.67	319	P	P	03 53 26.2	-0.4
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
KURK	Kurchatov	42.67	319	P	P	03 53 26.2	-0.4
	comp=Z,1.0nm,0.5s,mb3.8,baz=111,slow=11,SNR=8.3						
KURK	Kurchatov	42.67	319	*e*P	P	03 53 25.8	-0.9
	comp=Z,1.8nm,0.4s,mb4.2						
TKM2	Tokmak 2	42.73	307	*e*P	P	03 53 28.1	+0.8
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.6						
TKM2	Tokmak 2	42.73	307	*e*P	P	03 53 28.1	+0.8
	comp=Z,8.4nm,0.7s,mb4.6						
COEN	Coen	43.35	151	*e*P	P	03 53 33.4	+0.9
	comp=Z,56nm,0.5s,mb5.5						
AAK	Ala-Archa	43.49	306	*e*P	P	03 53 33.8	+0.4
AAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
AAK	Ala-Archa	43.49	306	*e*P	P	03 53 33.8	+0.4
	comp=Z,3.0nm,0.9s,mb4.0						
EKS2	Erkin-Say	44.02	306	*e*P	P	03 53 38.1	+0.5
	comp=Z,1.9nm,0.8s,mb3.9						
WRAB	Tennant Creek	45.98	165	*e*P	P	03 53 53.2	-0.1
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
WRAB	Tennant Creek	45.98	165	*e*P	P	03 53 53.2	-0.1
	comp=Z,1.9nm,0.5s,mb4.1						
WRA	Warramunga Arr	45.98	165	P	P	03 53 53.6	+0.3
WRA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WRA	Warramunga Arr	45.98	165	P	P	03 53 53.6	+0.3
	comp=Z,4.2nm,0.7s,mb4.3,baz=348,slow=8.9,SNR=17						
BVAR	Borovoye Array	48.22	320	P	P	03 54 09.9	-0.4
BVAR						03 55 34.9	
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	48.22	320	P	P	03 54 09.9	-0.5
	comp=Z,0.6nm,0.4s,mb3.8,baz=102,slow=8.0,SNR=5.9						
BVAR				PcP	PcP	03 55 34.9	-0.6
	comp=Z,1.1nm,0.7s,baz=117,slow=5.0,SNR=6.0						
BRVK	Borovoye	48.29	320	*e*P	P	03 54 09.7	-1.2
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.3						
BRVK	Borovoye	48.29	320	*e*P	P	03 54 09.7	-1.2
	comp=Z,1.6nm,0.4s,mb4.2						
ASAR	Alice Springs	49.49	167	P	P	03 54 21.3	+1.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ASAR	Alice Springs	49.49	167	P	P	03 54 21.2	+0.9
	comp=Z,0.8nm,0.4s,mb4.0,baz=353,slow=7.0,SNR=15						
STKA	Stephens Creek	59.24	162	P	P	03 55 30.8	+0.1
	comp=Z,1.0nm,0.5s,mb4.1,baz=74,slow=2.4,SNR=3.2						
KIV	Kislovodsk	66.51	309	*e*P	P	03 56 18.9	0.0
KIV				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
KIV	Kislovodsk	66.51	309	*e*P	P	03 56 18.9	0.0
	comp=Z,4.4nm,0.5s,mb4.5						
JOF	Joensuu	68.89	331	*e*p	P	03 56 32.1	-1.4
ARCES	ARCESS Array B	69.46	338	P	P	03 56 35.2	-1.6
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ARCES	ARCESS Array B	69.46	338	P	P	03 56 35.2	-1.7
	comp=Z,6.4nm,0.9s,mb4.4,baz=18,slow=22,SNR=2.7						
MALT	Malatya	71.07	304	*e*P	P	03 56 47.8	+0.6
MALT				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
MALT	Malatya	71.07	304	*e*P	P	03 56 47.8	+0.6
	comp=Z,2.9nm,0.6s,mb4.3						
AKASG	Malin Array Be	73.48	319	P	P	03 56 59.6	-1.7
	comp=Z,0.3nm,0.4s,mb3.5,baz=59,slow=6.5,SNR=2.9						
BRTR	Keskin Array B	74.17	307	P	P	03 57 05.5	-0.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	74.17	307	P	P	03 57 05.5	-0.1
	comp=Z,1.2nm,0.7s,mb3.8,baz=89,slow=4.6,SNR=6.7						
MMAI	Mount Meron Ar	75.11	300	P	P	03 57 11.3	+0.2
	comp=Z,0.9nm,0.6s,mb3.7,baz=46,slow=10,SNR=2.8						
DLBC	Dease Lake	77.28	31	P	P	03 57 23.9	+1.0
	comp=Z,1.7nm,0.6s,mb4.0,baz=270,slow=8.1,SNR=4.6						
NOA	NORSAR Array B	78.35	333	P	P	03 57 28.6	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	78.35	333	P	P	03 57 28.6	-0.1
	comp=Z,1.3nm,0.8s,mb3.7,baz=64,slow=5.4,SNR=3.2						
YKW3	Yellowknife Ar	81.43	23	*e*P	P	03 57 44.8	-0.5
YKA	Yellowknife Ar	81.47	23	P	P	03 57 45.3	-0.2
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA	Yellowknife Ar	81.47	23	P	P	03 57 45.3	-0.2
	comp=Z,2.1nm,0.6s,mb4.1,baz=310,slow=5.1,SNR=48						
YKA	Yellowknife Ar	81.47	23	P	P	03 57 45.3	-0.2
GERES	GERESS Array B	83.37	321	P	P	03 57 55.3	-0.4
	comp=Z,0.3nm,0.5s,mb3.4,baz=32,slow=5.2,SNR=3.7						
NEW	Newport	89.25	36	*e*P	P	03 58 25.0	+0.6
NEW				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NEW	Newport	89.25	36	*e*P	P	03 58 25.0	+0.6
	comp=Z,3.1nm,0.8s,mb4.4						
NVAR	Mina Array Bea	94.55	44	P	P	03 58 50.4	+1.2
	comp=Z,0.3nm,0.5s,mb3.9,baz=292,slow=4.8,SNR=4.0						
TXAR	Lajitas Array	109.66	43	PKiKP	PKiKP	04 03 59.5	+0.4
	comp=Z,0.2nm,0.4s,baz=319,slow=0.6,SNR=5.7						
TORD	Torodi Ar. Bea	111.54	297	PKiKP	PKiKP	04 04 01.6	-1.3
	comp=Z,0.2nm,0.6s,baz=12,slow=3.0,SNR=6.0						
CMIG	Matias Romero	124.05	45	PKP	PKPdf	04 04 25.9	-0.9
	comp=Z,1.7nm,0.3s,baz=48,slow=8.6,SNR=14						

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*SZGRF **09** 03:49:43.5, 32°.58N×137°.35E, h33^{km}, mb5.0, Southeast of Honshu, Japan*

*NIED **09** 03:50:00, 32°.40N×138°.20E, h380^{km}, Mw4.5 Best double couple: M$_0$6.81000×10^{15} NP1:φ$_s$227.00000°, δ89.00000°, λ109.00000°. NP2:φ$_s$320.00000°, δ19.00000°, λ3.00000°.*

*BJI **09** 03:50:13.5, 32°.34N×138°.00E, h331^{km}, mB4.6/25, mb4.5/43*

*JMA **09** 03:50:14.9±0.4, 32°.40N×138°.22E, h372^{km}±4^{km}, M4.6*

*ISCJB **09** 03:50:15.8±0.3, 32°.35N±0°.03×138°.10E±0°.04, h355^{km}±1^{km}, mb4.5/117, Error ellipse: s-maj=5.5km s-min=4.9km az=161.7*

*MOS **09** 03:50:15.1±0.9, 32°.32N×138°.01E, h348^{km}, mb4.6/63, Error ellipse: s-maj=11.2km s-min=4.7km az=113.0*

*IDC **09** 03:50:16.0±0.5, 32°.35N×138°.07E, h342^{km}±5^{km}, mb4.0/27, mb1 4.1/31, mb1mx4.0/39, mbtmp4.0/31, Error ellipse: s-maj=11.8km s-min=7.2km az=74.0*

*NEIC **09** 03:50:16.5±0.6, 32°.33N×138°.06E, h350^{km}±5^{km}, mb4.6/55, MW4.5(NIED), Error ellipse: s-maj=7.2km s-min=5.2km az=75.0*

ISC 09 03:50:16.6±0.3**, 32°.34N**±0°.04×**138°.11E**±0°.04**, h350**^{km}±1^{km}**, h347**^{km}±5.7^{km}**:pP-P, n321,** σ**0**^{s}**88**/353**, mb4.5**/117**, 33C-14D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TK01	Tokai 1	1.49	343	P	Pn	03 51 05.1	+0.5
TK01				*e*S	S	03 51 43.9	+0.8
JHJ	Hachijo jima 2	1.61	61	P	Pn	03 51 05.7	+0.3
	156nm,0.3s,baz=101,slow=3.8,SNR=67						
JHJ				S	S	03 51 43.0	-1.5
	323nm,0.3s,baz=59,slow=23,SNR=11						
TK02	Tokai 2	1.63	350	⇑P	Pn	03 51 06.1	+0.7
TK02				*e*S	S	03 51 46.1	+1.5
JHJ2	Mitsune	1.64	61	⇓P	Pn	03 51 05.5	+0.1
JHJ2				*e*S	S	03 51 45.2	+0.5
TK03	Tokai 3	1.82	356	P	Pn	03 51 07.5	+0.9
TK03				*e*S	S	03 51 48.6	+1.8
JKO	Kozu shima	2.04	25	P	Pn	03 51 07.6	-0.4
TK04	Tokai 4	2.05	355	⇑P	Pn	03 51 09.2	+1.1
JMY	Miyakejima3	2.09	34	P	Pn	03 51 08.7	+0.3
NJJJ	Nii jima 2	2.28	25	P	Pn	03 51 10.6	+0.8
JWZ	Kozaga	2.33	301	⇑P	Pn	03 51 10.3	0.0
JWZ				*e*S	S	03 51 52.4	-1.1
JIE	Ise	2.36	331	⇑P	Pn	03 51 11.2	+0.8
JIE				S	S	03 51 53.9	+0.1
JWY	Kouya	2.82	312	⇑P	Pn	03 51 15.0	+0.8
JWY				*e*S	S	03 52 00.7	0.0
JOD2	Odawara 2	3.03	15	⇑P	Pn	03 51 16.0	-0.1
JOD2				*e*S	S	03 52 01.9	-2.1
JYN	Shimob	3.17	6	⇑P	Pn	03 51 17.9	+0.5
BSO1	Boso 1	3.33	45	P	Pn	03 51 16.9	-2.0
BSO1				S	S	03 52 04.8	-4.3
JAI	Aioi	3.39	296	⇑P	Pn	03 51 19.6	+0.1
JGM	Miyama	3.54	341	⇑P	Pn	03 51 21.6	+0.7
JWT	Wachi	3.70	323	⇑P	Pn	03 51 23.0	+0.6
JRY	Ryogami san	3.73	10	⇑P	Pn	03 51 22.8	+0.1
JRY				*e*S	S	03 52 14.8	-1.3
JMN	Monobe	3.81	292	⇑P	Pn	03 51 24.0	+0.4
MJAR	Matsushiro Arr	4.19	1	P	Pn	03 51 26.9	-0.5
MJAR				S	S	03 52 21.3	-3.4
MJAR				pmax	pmax		
	comp=Z,72nm,0.3s						
MJAR	Matsushiro Arr	4.19	1	P	Pn	03 51 26.9	-0.5
	comp=Z,72nm,0.3s,baz=173,slow=11,SNR=607						
MJAR				S	S	03 52 21.3	-3.4
	baz=166,slow=16,SNR=1.6						
MAJO	Matsushiro	4.20	1	⇑*i*P	Pn	03 51 27.1	-0.3
MAT	Matsushiro	4.20	1	P	Pn	03 51 27.4	0.0
MAT				S	S	03 52 22.8	-1.9
JAG	Ashikaga	4.23	15	⇑P	Pn	03 51 26.1	-1.7
JAG				*e*S	S	03 52 21.0	-4.3
JTO	Tosashimizu	4.51	278	P	Pn	03 51 30.9	+0.1
JHS	Saijyo	4.93	304	⇑P	Pn	03 51 35.8	+0.4
JHS				*e*S	S	03 52 39.0	-0.1
CBIJ	Chichi jima	6.32	145	P	Pn	03 51 46.8	-4.3
CBIJ				*e*S	S	03 53 00.0	-7.7
CBIJ	Chichi jima	6.32	145	P	Pn	03 51 48.0	-3.1
	comp=Z,12nm,0.3s,baz=93,slow=20,SNR=16						
CBIJ				S	S	03 52 59.5	-8.3
	comp=Z,322nm,0.3s,baz=259,slow=22,SNR=30						
KSRS	Korea Array	9.79	304	P	Pn	03 52 32.8	+0.9
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	Korea Array	9.79	304	P	Pn	03 52 32.8	+0.8
	comp=Z,1.3nm,0.3s,baz=119,slow=12,SNR=27						
ERM	Erimo	10.46	21	*e*P	Pn	03 52 39.3	-0.5
ERM				*e*S	S	03 54 34.1	-3.4
INCN	Inchon	10.72	302	*e*Pn	Pn	03 52 43.9	+0.9
	comp=Z,23nm,0.6s						
ASAJ	Asahikawa	12.27	15	P	P	03 53 00.8	-0.2
ASAJ				S	S	03 55 11.5	-5.6
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				smax			
	comp=N,1.0nm,0.3s						
ASAJ	Asahikawa	12.27	15	P	P	03 53 00.8	-0.2
	comp=N,5.2nm,0.3s,baz=217,slow=12,SNR=24						
ASAJ				S	S	03 55 11.5	-5.6
	comp=N,1.3nm,0.3s,baz=324,slow=26,SNR=3.6						
MDJ	Mudanjiang	13.94	334	P	P	03 53 20.0	+0.6
MDJ				S	S	03 55 54.6	+3.7
MDJ				PcP	PcP	03 58 19.5	+5.7
MDJ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MDJ				pmax	pmax		
	comp=Z,120nm,6.7s						
YSS	Yuzh-Sakhalins	15.03	12	*e*P	P	03 53 32.9	+1.7
YSS				*e*S	S	03 56 14.6	+2.0
YSS				pmax	pmax		
	comp=N,160nm,1.0s						
YSS				pmax	pmax		
	comp=Z,200nm,1.0s						
YSS				smax			
	comp=N,50nm,1.0s						
YSS	Yuzh-Sakhalins	15.03	12	*e*P	P	03 53 32.7	+1.6
	comp=N,127nm,0.6s						
CN2	Changchun	15.15	323	*e*P	P	03 53 32.5	-0.1
CN2				*e*S	S	03 56 11.5	-3.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
HABR	Khabarovsk	16.28	353	*e*P	P	03 53 44.1	-0.7
HABR				MLR	MLR		
	comp=Z,53nm,17.0s						
NJ2	Nanjing	16.30	274	*e*P	P	03 53 44.1	-1.2
NJ2				pmax	pmax		
	comp=Z,20nm,1.0s						
KLR	Kul'dur	17.54	346	*e*P	P	03 53 53.3	-5.0
BJT	Baijiatuau	19.27	300	*e*P	P	03 54 15.3	-1.4
BJT				pmax	pmax		
	comp=Z,20nm,0.3s						
BJT	Baijiatuau	19.27	300	*e*P	P	03 54 15.3	-1.4
	comp=Z,20nm,0.3s						
BJI	Beijing	19.27	300	P	P	03 54 14.7	-2.1
BJI				sP	sP	03 55 47.9	-5.0
BJI				S	S	03 57 31.7	-3.6
BJI				pmax	pmax		
	comp=Z,24nm,1.2s						
GUMO	Guam	19.66	160	P	P	03 54 21.5	+0.4
GUMO				pmax	pmax		
	comp=Z,10.0nm,0.3s						
GUMO	Guam	19.66	160	P	P	03 54 21.5	+0.4
	comp=Z,9.7nm,0.3s,baz=173,slow=20,SNR=5.8						
WHN	Wuhan	20.34	271	P	P	03 54 25.6	-2.0
HIA	Hailar	21.80	326	*e*P	P	03 54 40.1	-0.5
HIA				pmax	pmax		
	comp=Z,76nm,1.5s						
HIA	Hailar	21.80	326	*e*P	P	03 54 40.1	-0.5
	comp=Z,76nm,1.5s,mb4.7						
HHC	Hu-ho-hao-te	22.88	299	*e*P	P	03 54 49.8	-0.8
HHC				sP	sP	03 56 32.0	-0.3
HHC				*e*S	S	03 58 31.3	-2.3
HHC				ScP	ScP	04 01 32.9	-0.3
HHC				PcS	PcS	04 02 08.2	-0.3
HHC				ScS	ScS	04 05 17.9	-1.4
HHC				pmax	pmax		
	comp=Z,22nm,0.7s,mb4.5						
HHC				pmax	pmax		
	comp=Z,120nm,4.4s						
BTO	Baotou	23.97	298	*e*P	P	03 54 59.8	-0.6
XAN	Xi'an	24.45	282	P	P	03 55 03.7	-1.1
XAN				sP	sP	03 56 46.0	-3.2
XAN				PcP	PcP	03 58 33.9	+1.1
XAN				S	S	03 58 56.1	-2.5
XAN				ScP	ScP	04 01 37.2	-0.4
XAN				PcS	PcS	04 02 12.7	-0.4
XAN				ScS	ScS	04 05 24.7	-1.1
XAN				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.3						
XAN				pmax	pmax		
	comp=Z,160nm,7.0s						
GYA	Guiyang	27.95	266	*e*P	P	03 55 35.8	-0.2
GYA				pP		03 56 40.2	
GYA				sP	sP	03 57 20.3	-1.7
GYA				PcP	PcP	03 58 43.2	+2.0
GYA				S	S	03 59 54.9	+1.1
GYA				sS	sS	04 01 47.8	-5.6
GYA				PcS	PcS	04 02 23.6	-0.2
GYA				ScS	ScS	04 05 42.0	+0.7
GYA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.2						
ULN	Ulaanbaatar	28.13	313	⇓*i*P	P	03 55 38.2	+0.9
ULN				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.6						
ULN	Ulaanbaatar	28.13	313	⇓*i*P	P	03 55 38.2	+0.9
	comp=Z,20nm,0.5s,mb4.6						
LZH	Lanzhou	28.49	287	*e*P	P	03 55 40.1	-0.6
LZH				pP		03 56 42.1	
LZH				sP	sP	03 57 21.0	-5.8
LZH				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.1						
LZH				pmax	pmax		
	comp=Z,85nm,4.8s						
SONM	Songino Array	28.53	312	P	P	03 55 41.6	+0.8
	comp=Z,4.6nm,0.4s,mb4.1,baz=116,slow=8.1,SNR=68						
SONM				ScP	ScP	04 01 50.2	+0.6
	comp=Z,0.7nm,0.7s,baz=116,slow=3.4,SNR=3.6						
CD2	Chengdu	29.21	276	P	P	03 55 47.5	+0.4
CD2				pP		03 56 53.7	
CD2				S	S	04 00 14.3	+0.8
CD2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.2						
CD2				pmax	pmax		
	comp=Z,240nm,4.9s						
BOD	Bodaibo	30.32	334	*e*P	P	03 55 55.9	-0.5
GTA	Gaotai	31.64	294	*e*P	P	03 56 07.4	-0.8
GTA				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.0						
TLY	Talaya	31.66	318	*e*P	P	03 56 09.7	+1.5
TLY				*e*		03 57 26.5	
TLY				*e*S	S	04 01 00.5	+9.5
TLY				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.2						
TLY				MLR	MLR		
	comp=Z,89nm,18.0s						
KMI	Kunming	31.73	266	P	P	03 56 10.9	+1.8
KMI				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.6						
SEY	Seymchan	31.93	12	⇑*e*P	P	03 56 11.2	+0.8
MOY	Mondy	33.18	317	*e*P	P	03 56 22.1	+0.8
BILL	Bilibino	39.29	16	⇑*e*P	P	03 57 13.0	+0.8
BILL				*e*		03 59 13.3	
BILL				pmax	pmax		
	comp=Z,26nm,1.2s,mb4.3						
BILL	Bilibino	39.29	16	*e*P	P	03 57 14.1	+1.9
	comp=Z,29nm,1.1s,mb4.4						
TIXI	Tiksi	39.68	355	⇑*e*P	P	03 57 15.3	-0.1
TIXI				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.0						
TIXI	Tiksi	39.68	355	*e*P	P	03 57 15.3	-0.1
WMQ	Urumqi	40.73	301	P	P	03 57 24.7	+0.4
WMQ				pP	pP	03 58 34.0	+0.9
WMQ				sP	sP	03 59 11.0	-2.1
WMQ				*e*S	S	04 03 10.0	+2.1
WMQ				pmax	pmax		
	comp=Z,30nm,0.8s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,270nm,4.6s						
ZALV	Zalesovo Beam	43.24	316	P	P	03 57 43.8	-0.4
	comp=Z,5.7nm,0.4s,mb4.0,baz=93,slow=7.6,SNR=23						
ZALV				PcP	PcP	03 59 26.3	+0.1
	comp=Z,4.1nm,0.7s,baz=95,slow=3.7,SNR=6.5						
ZALV				ScP	ScP	04 02 42.7	-0.7
	comp=Z,0.7nm,0.4s,baz=123,slow=5.3,SNR=3.1						
ZALV	Zalesovo Beam	43.24	316	P	P	03 57 43.8	-0.4
ZALV				PcP	PcP	03 59 26.2	+0.1
ZALV				ScP	ScP	04 02 42.7	-0.7
NVS	Novosibirsk	44.27	317	⇑*i*P	P	03 57 51.7	-0.7
NVS				*e*PPP		03 59 28.7	
NVS				*e*S	S	04 04 10.3	+11
NVS				pmax	pmax		
	comp=N,6.0nm,1.2s						
NVS				pmax	pmax		
	comp=E,17nm,1.2s						
NVS				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.1						
NVS				smax			
	comp=N,15nm,1.8s						
NVS				smax			
	comp=E,12nm,1.8s						
MK31	Makanchi Array	44.47	306	*i* P	P	03 57 54.0	-0.1
MK31				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.2						
MKAR	Makanchi Array	44.47	306	P	P	03 57 54.0	0.0
	comp=Z,19nm,0.7s,mb4.3,baz=89,slow=9.8,SNR=176						
MKAR				PcP	PcP	03 59 30.8	+0.2
	comp=Z,1.1nm,0.3s,baz=77,slow=5.1,SNR=5.9						
MKAR				ScP	ScP	04 02 47.7	-0.9
	comp=Z,0.9nm,0.6s,baz=87,slow=4.3,SNR=6.8						
MKAR	Makanchi Array	44.47	306	P	P	03 57 54.0	0.0
MKAR				PcP	PcP	03 59 30.8	+0.2
MKAR				ScP	ScP	04 02 47.7	-0.9
RAMN	Ramite	44.74	277	*e*P	P	03 57 56.1	-0.4
	comp=Z,76nm,0.7s,mb4.9						
JIRN	Jiri	44.85	278	*e*P	P	03 57 57.6	+0.3
	comp=Z,108nm,0.7s,mb5.1						
GUN	Gumba	45.03	279	*e*P	P	03 57 58.9	+0.2
	comp=Z,82nm,0.7s,mb5.0						
KAKA	Kakadu	45.12	188	*e*P	P	03 57 58.4	-1.0
	comp=Z,9.5nm,0.6s,mb4.1						
PKI	Pulchoki	45.53	278	*e*P	P	03 58 02.2	-0.4
	comp=Z,24nm,0.7s,mb4.5						
KKN	Kakani	45.57	279	*e*P	P	03 58 02.7	-0.2
	comp=Z,67nm,0.8s,mb4.8						
DMN	Daman	45.77	279	*e*P	P	03 58 04.1	-0.4
	comp=Z,47nm,0.9s,mb4.6						
GKN	Gorkha	46.04	279	*e*P	P	03 58 06.3	-0.2
	comp=Z,51nm,0.7s,mb4.8						
COEN	Coen	46.29	173	*e*P	P	03 58 08.6	+0.2
COEN	Coen	46.29	173	*e*P	P	03 58 08.3	-0.2
	comp=Z,54nm,0.6s,mb4.8						
DANN	Dangsing	46.66	280	*e*P	P	03 58 11.7	+0.4
	comp=Z,33nm,0.3s,mb5.1						
KURK	Kurchatov	46.83	311	P	P	03 58 12.2	0.0
KURK				pmax	pmax		
	comp=Z,12nm,0.3s,mb4.6						
KURK	Kurchatov	46.83	311	P	P	03 58 12.2	-0.1
	comp=Z,12nm,0.3s,mb4.5,baz=93,slow=9.6,SNR=106						
KURK	Kurchatov	46.83	311	⇓*i*P	P	03 58 11.7	-0.5
	comp=Z,41nm,0.8s,mb4.7						
KOLN	Koldanda	46.98	279	*e*P	P	03 58 13.8	0.0
PYUN	Piuthan	47.38	280	*e*P	P	03 58 17.0	+0.2
	comp=Z,88nm,0.4s,mb5.3						
TKM2	Tokmak 2	49.59	301	*e*P	P	03 58 33.8	+0.5
TKM2				pmax	pmax		
	comp=Z,29nm,1.3s,mb4.3						
TKM2	Tokmak 2	49.59	301	P	P	03 58 33.8	+0.5
	SNR=8.8						
TKM2	Tokmak 2	49.59	301	*e*P	P	03 58 33.8	+0.5
	comp=Z,29nm,1.3s,mb4.3						
KSH	Kashi	49.95	297	⇓*i*P	P	03 58 39.5	+3.5
KSH				*e*S	S	04 05 22.3	+3.3
KSH				*e*ScS	ScS	04 07 50.0	+0.5
KSH				pmax	pmax		
	comp=Z,21nm,0.6s,mb4.5						
KSH				pmax	pmax		
	comp=Z,120nm,5.3s						
KSH				LR	LR		
	comp=N,180nm,5.1s						
KSH				LR	LR		
	comp=E,200nm,7.3s						
KSH				LR	LR		
	comp=Z,200nm,5.5s						
KZA	Kyzart	49.99	300	P	P	03 58 37.8	+1.6
	SNR=6.3						
KBK	Karagaybulak	50.10	301	P	P	03 58 37.7	+0.6
	SNR=14						
USP	Ospenovka	50.32	302	P	P	03 58 38.1	-0.7
	SNR=9.4						
AAK	Ala-Archa	50.44	301	*e*P	P	03 58 39.6	0.0
AAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.1						
AAK	Ala-Archa	50.44	301	P	P	03 58 39.8	+0.2
	SNR=8.9						
AAK	Ala-Archa	50.44	301	*e*P	P	03 58 39.6	+0.1
	comp=Z,11nm,0.9s,mb4.1						
UCH	Uchtor	50.50	300	P	P	03 58 41.2	+1.2
	SNR=12						
UCH	Uchtor	50.50	300	*e*P	P	03 58 40.7	+0.6
	comp=Z,5.9nm,0.8s,mb3.9						
UCH				*e*PcP	PcP	03 59 53.6	+1.3
EKS2	Erkin-Say	50.95	301	*e*P	P	03 58 43.3	-0.1
	comp=Z,5.0nm,0.8s,mb3.8						
EKS2				*e*PcP	PcP	03 59 54.2	+0.2

AML	Almayashu	51.12	300	P	P	03 58 45.8	+1.2
	SNR=22						
AML	Almayashu	51.12	300	eP	P	03 58 45.5	+0.9
	comp=Z,25nm,0.8s,mb4.5						
AML				ePcP	PcP	03 59 55.4	+0.7
VOSK	Vostochnaya	51.49	314	P	P	03 58 46.5	-0.6
VOSK				pmax	pmax		
	comp=Z,24nm,1.3s,mb4.3						
FITZ	Fitzroy Crossi	51.55	195	eP	P	03 58 47.1	-0.9
	comp=Z,6.7nm,0.7s,mb4.1						
FITZ	Fitzroy Crossi	51.55	195	P	P	03 58 48.0	0.0
	comp=Z,4.4nm,0.8s,mb3.8,baz=81,slow=22,SNR=3.9						
BVA0	Borovoye Array	51.82	315	i P	P	03 58 49.0	-0.6
BVAR	Borovoye Array	51.82	315	P	P	03 58 49.4	-0.2
BVAR					pP	03 59 57.4	-4.8
BVAR				pmax	pmax		
	comp=Z,9.0nm,0.5s						
BVAR	Borovoye Array	51.82	315	P	P	03 58 49.4	-0.2
	comp=Z,9.1nm,0.5s,mb4.3,baz=98,slow=7.2,SNR=66						
BVAR				PcP	PcP	03 59 57.4	+0.3
	comp=Z,2.9nm,0.5s,baz=98,slow=2.8,SNR=7.0						
BRVK	Borovoye	51.88	315	eP	P	03 58 49.9	-0.1
BRVK				e		03 59 57.5	
BRVK				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.5						
BRVK	Borovoye	51.88	315	eP	P	03 58 49.9	-0.1
	comp=Z,28nm,1.2s,mb4.5						
BRVK				ePcP	PcP	03 59 57.5	+0.2
WRAB	Tennant Creek	52.10	184	eP	P	03 58 51.6	-0.3
WRAB				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.2						
WRAB	Tennant Creek	52.10	184	eP	P	03 58 51.6	-0.4
	comp=Z,4.7nm,0.4s,mb4.2						
WRA	Warramunga Arr	52.11	184	P	P	03 58 51.6	-0.4
WRA				pmax	pmax		
	comp=Z,4.0nm,0.3s						
WRA	Warramunga Arr	52.11	184	P	P	03 58 51.6	-0.4
	comp=Z,4.4nm,0.3s,mb4.3,baz=1.2,slow=7.7,SNR=52						
KDAK	Kodiak Island	52.43	39	P	P	03 58 54.6	+0.7
KDAK				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.5						
KDAK	Kodiak Island	52.43	39	P	P	03 58 54.6	+0.7
	comp=Z,25nm,1.0s,mb4.5,baz=263,slow=9.0,SNR=2.6						
CTA	Charters Tower	52.71	170	P	P	03 58 56.7	+0.3
CTA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CTA	Charters Tower	52.71	170	eP	P	03 58 56.9	+0.5
	comp=Z,4.3nm,0.7s,mb3.9						
CTA	Charters Tower	52.71	170	P	P	03 58 56.6	+0.3
	comp=Z,6.3nm,0.8s,mb4.0,baz=352,slow=8.9,SNR=8.8						
CTAO	Charters Tower	52.71	170	eP	P	03 58 56.3	-0.1
CTAO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
CTAO	Charters Tower	52.71	170	eP	P	03 58 56.3	0.0
	comp=Z,4.6nm,0.6s,mb4.0						
KK31	Karatay Array	53.22	302	P	P	03 58 59.6	-0.3
KK31				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.3						
HYB	Hyderabad	55.39	270	i P	P	03 59 16.0	+0.2
HYB	Hyderabad	55.39	270	eP	P	03 59 15.0	-0.8
ASAR	Alice Springs	55.83	185	P	P	03 59 18.6	0.0
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ASAR	Alice Springs	55.83	185	P	P	03 59 18.6	0.0
	comp=Z,2.7nm,0.5s,mb3.8,baz=11,slow=13,SNR=46						
SVE	Sverdlovsk	56.93	320	⇑eP	P	03 59 26.3	+0.4
SVE				pmax	pmax		
	comp=Z,27nm,0.8s,mb4.6						
ARU	Arti	58.13	320	eP	P	03 59 34.0	-0.2
ARU				pmax	pmax		
	comp=Z,27nm,0.5s,mb4.8						
ARU	Arti	58.13	320	eP	P	03 59 34.0	-0.2
	comp=Z,27nm,0.5s,mb4.8						
PALK	Pallekele	58.71	258	eP	P	03 59 38.4	-0.5
PALK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.3						
PALK	Pallekele	58.71	258	eP	P	03 59 38.4	-0.5
	comp=Z,12nm,0.9s,mb4.3						
AB31	Akbulak array	58.94	312	P	P	03 59 39.6	-0.3
AB31				pmax	pmax		
	comp=Z,22nm,0.4s,mb4.9						
AKTK	Aktyubinsk	59.84	313	P	P	03 59 45.6	-0.4
AKTO	Aktyubinsk	59.84	313	P	P	03 59 45.6	-0.4
AKTO				pmax	pmax		
	comp=Z,22nm,0.7s,mb4.7						
AKTO	Aktyubinsk	59.84	313	P	P	03 59 45.6	-0.4
	comp=Z,22nm,0.7s,mb4.7,baz=83,slow=5.8,SNR=44						
PRGR	Permogore	63.24	328	eP	P	04 00 06.4	-1.9
PRGR				pmax	pmax		
	comp=Z,26nm,0.9s,mb4.8						
STKA	Stephens Creek	63.95	177	eP	P	04 00 13.6	+0.4
	comp=Z,7.7nm,0.6s,mb4.5						
STKA	Stephens Creek	63.95	177	P	P	04 00 13.8	+0.6
	comp=Z,8.7nm,0.6s,mb4.6,baz=342,slow=6.5,SNR=24						
STKA	Stephens Creek	63.95	177	P	P	04 00 13.8	+0.6
DLBC	Dease Lake	64.01	36	P	P	04 00 12.3	-1.0
	comp=Z,0.9nm,0.5s,mb3.6,baz=72,slow=20,SNR=3.6						
SPITS	Spitsbergen Ar	64.59	349	P	P	04 00 17.5	+0.7
SPITS				pmax	pmax		
	comp=Z,9.0nm,0.8s						
SPITS	Spitsbergen Ar	64.59	349	P	P	04 00 17.5	+0.8
	comp=Z,8.8nm,0.8s,mb4.5,baz=350,slow=4.7,SNR=14						
KEV	Kevo	66.86	339	eP	P	04 00 30.3	-0.9
KEV				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.6						
KEV	Kevo	66.86	339	ep	P	04 00 30.3	-0.9
	comp=Z,8.9nm,0.7s,mb4.6						
ARCES	ARCESS Array B	67.42	339	P	P	04 00 35.2	+0.5
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ARCES	ARCESS Array B	67.42	339	P	P	04 00 35.2	+0.5
	comp=Z,6.0nm,0.5s,mb4.6,baz=58,slow=6.8,SNR=87						
RES	Resolute Bay	67.80	13	eP	P	04 00 38.0	+1.0
RES				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.5						
RES	Resolute Bay	67.80	13	P	P	04 00 37.7	+0.7
	comp=Z,4.1nm,0.7s,mb4.3,baz=316,slow=7.0,SNR=18						
RES	Resolute Bay	67.80	13	eP	P	04 00 38.0	+1.0
	comp=Z,15nm,1.5s,mb4.5						
JOF	Joensuu	68.81	332	eP	P	04 00 42.3	-1.1
JOF				pmax	pmax		
	comp=Z,10.0nm,0.3s,mb5.0						
JOF	Joensuu	68.81	332	ep	P	04 00 42.3	-1.1
	comp=Z,10nm,0.3s,mb5.0						
YKA	Yellowknife Ar	69.23	28	P	P	04 00 46.8	+0.9
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	Yellowknife Ar	69.23	28	P	P	04 00 46.8	+0.9
	comp=Z,1.6nm,0.7s,mb3.9,baz=298,slow=6.3,SNR=20						
YKA	Yellowknife Ar	69.23	28	P	P	04 00 46.8	+0.9
VRHR	Novokhopersk	69.33	318	eP	P	04 00 46.1	-0.7
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.0						
VRHR				pmax	pmax		
	comp=E,7.0nm,0.4s						
OBN	Obninsk	70.22	323	⇑eP	P	04 00 51.8	-0.2
OBN				e		04 03 30.2	
OBN				eS	S	04 09 33.7	-0.7
OBN				pmax	pmax		
	comp=Z,31nm,1.4s,mb4.8						
VSR	Storozhevoye	70.66	319	eP	P	04 00 54.5	-0.3
VSR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
VSR				pmax	pmax		
	comp=N,5.0nm,0.8s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.8s						
VORD	Divnogorie	70.71	319	eP	P	04 00 55.3	+0.2
VORD				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb4.9						
VORD				pmax	pmax		
	comp=N,10.0nm,0.3s						
VORD				pmax	pmax		
	comp=E,20nm,0.4s						
KAF	Kangasniemi	71.22	333	eP	P	04 00 56.0	-1.9
KAF				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.7						
KAF	Kangasniemi	71.22	333	ep	P	04 00 56.0	-1.9
	comp=Z,7.0nm,0.5s,mb4.7						
KIV	Kislovodsk	71.91	311	⇑eP	P	04 01 02.9	+0.5
KIV				e*PP	pP	04 02 22.1	+1.6
KIV				eSS	SS	04 14 41.3	+3.2
KIV				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.1						
KIV	Kislovodsk	71.91	311	eP	P	04 01 03.1	+0.8
	comp=Z,29nm,0.8s,mb5.0						
GNI	Garni	72.31	307	P	P	04 01 06.2	+1.4
GNI				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GNI	Garni	72.31	307	P	P	04 01 06.2	+1.4
	comp=Z,3.1nm,0.5s,mb4.3,baz=303,slow=3.2,SNR=5.9						
GNI	Garni	72.31	307	eP	P	04 01 05.9	+1.1
	comp=Z,13nm,1.0s,mb4.6						
ANN	Anapa	74.80	314	eP	P	04 01 18.3	-0.7
ANN				e		04 01 29.6	
ANN				e*PP	pP	04 02 37.7	-0.2
ANN				e		04 04 12.5	
ANN				ePPP		04 06 00.4	
ANN				eS	S	04 10 27.3	+1.1
ANN				eSS	SS	04 15 25.1	+3.4
ANN				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.1						
MIB	Mutribah	75.32	296	eP	P	04 01 21.7	-0.6
MIB				AMb	AMB	04 01 22.3	
	comp=Z,42nm,0.6s,mb5.3						
RDF	Al-Radifah	75.58	295	eP	P	04 01 23.1	-0.6
RDF				AMb	AMB	04 01 23.9	
	comp=Z,41nm,0.7s,mb5.3						
NAY	Al-Naaiem	75.66	296	eP	P	04 01 23.6	-0.7
NAY				AMb	AMB	04 01 24.6	
	comp=Z,24nm,0.7s,mb5.0						
AKASG	Malin Array Be	76.31	322	P	P	04 01 27.3	-0.1
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.3s						
AKASG	Malin Array Be	76.31	322	P	P	04 01 27.3	-0.1
	comp=Z,7.6nm,0.3s,mb4.9,baz=50,slow=5.9,SNR=44						
KIEV	Kiev	76.32	322	eP	P	04 01 26.9	-0.6
KIEV				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.0						
KIEV	Kiev	76.32	322	eP	P	04 01 26.9	-0.6
	comp=Z,18nm,0.6s,mb5.0						
SIM	Simferopol’	76.73	315	eP	P	04 01 30.2	+0.3
SUW	Suwalki	77.34	327	eP	P	04 01 33.4	+0.3
SUW	Suwalki	77.34	327	eP	P	04 01 33.3	+0.3
NB2	NORSAR Subarra	77.42	336	P	P	04 01 33.0	-0.4
	comp=Z,6.6nm,0.7s,mb4.5,baz=42,slow=5.3						
NOA	NORSAR Array B	77.42	336	P	P	04 01 33.3	-0.1
NOA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
NOA	NORSAR Array B	77.42	336	P	P	04 01 33.3	-0.1
	comp=Z,9.5nm,0.8s,mb4.6,baz=44,slow=5.5,SNR=27						
MALT	Malatya	77.48	307	⇓iP	P	04 01 35.6	+1.4
MALT	Malatya	77.48	307	eP	P	04 01 35.4	+1.2
	comp=Z,8.2nm,1.0s,mb4.4						
FFC	Flin Flon	79.12	31	i P	P	04 01 43.7	+1.0
FFC	Flin Flon	79.12	31	eP	P	04 01 43.2	+0.4
	comp=Z,48nm,2.6s,mb4.8						
FCC	Fort Churchill	79.40	25	eP	P	04 01 44.3	+0.2
	comp=Z,0.1nm,0.9s						
BRTR	Keskin Array B	79.88	311	P	P	04 01 47.6	+0.5
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BRTR	Keskin Array B	79.88	311	P	P	04 01 47.5	+0.5
	comp=Z,7.2nm,0.6s,mb4.6,baz=119,slow=3.9,SNR=45						
BSD	Bornholm Skovb	80.24	331	i P	P	04 01 48.5	-0.2
BSD				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
BSD	Bornholm Skovb	80.24	331	i P	P	04 01 48.5	-0.2
	comp=Z,11nm,0.9s,mb4.6						
BURAR	Bucovina Array	80.26	321	⇓iP	P	04 01 49.6	+0.7
BURAR	Bucovina Array	80.26	321	⇓P	P	04 01 49.6	+0.7
KWP	Kalwaria Pacla	80.31	323	eP	P	04 01 50.1	+1.0
KWP	Kalwaria Pacla	80.31	323	⇑iP	P	04 01 50.1	+1.0
KWP	Kalwaria Pacla	80.31	323	eP	P	04 01 50.1	+1.0
VRI	Vrincioaia	80.49	319	⇑iP	P	04 01 51.0	+0.8
VRI	Vrincioaia	80.49	319	⇑P	P	04 01 51.0	+0.9
GKP	Gorka Klasztor	80.52	328	eP	P	04 01 50.5	+0.3
GKP	Gorka Klasztor	80.52	328	eP	P	04 01 50.5	+0.3
KOLS	Kolonicke sedl	80.97	323	eP	P	04 01 53.3	+0.7
	comp=Z,23nm,2.1s,mb4.5						
MLR	Muntele Rosu	81.16	319	P	P	04 01 54.6	+0.9
	baz=304,slow=7.3						
STHS	Stebnicka Huta	81.18	324	eP	P	04 01 54.6	+0.9
STHS	Stebnicka Huta	81.18	324	eP	P	04 01 54.7	+1.0
	comp=Z,4.6nm,1.0s,mb4.2						
OJC	Ojcow	81.37	325	eP	P	04 01 55.2	+0.5
CRVS	Cervenica-Dubn	81.40	323	eP	P	04 01 55.8	+0.9
	comp=Z,31nm,2.0s,mb4.7						
NIE	Niedzica	81.64	324	eP	P	04 01 57.1	+1.0
VOIR		81.69	319	⇓iP	P	04 01 57.7	+1.3
VOIR		81.69	319	⇓P	P	04 01 57.7	+1.2
ASF	Jabal al Asfar	81.81	303	P	P	04 01 57.7	+0.4
ASF				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASF	Jabal al Asfar	81.81	303	P	P	04 01 57.7	+0.4
	comp=Z,2.2nm,0.7s,mb4.1,baz=290,slow=0.8,SNR=6.3						
DRGR		82.11	321	⇑iP	P	04 01 58.9	+0.3
DRGR		82.11	321	⇑P	P	04 01 58.9	+0.3
MMAI	Mount Meron Ar	82.40	304	P	P	04 02 00.8	+0.4
	comp=Z,1.0nm,0.4s,mb4.0,baz=32,slow=4.9,SNR=11						
OKC	Ostrava-Krasne	82.42	326	eP	P	04 02 01.0	+0.9
RUE	Ruedersdorf	82.58	329	eP	P	04 02 01.1	+0.2
	comp=Z,21nm,1.0s,mb4.9						
RUE	Ruedersdorf	82.58	329	eP	P	04 02 01.7	+0.8
KSP	Ksiaz	82.60	327	eP	P	04 02 01.8	+0.7
KSP	Ksiaz	82.60	327	eP	P	04 02 01.4	+0.4
MORC	Moravsky Berou	82.75	326	⇑iP	P	04 02 02.5	+0.7
MORC	Moravsky Berou	82.75	326	eP	P	04 02 01.8	0.0
	comp=Z,7.6nm,0.9s,mb4.5						
PSZ	Piszkesteto	82.83	323	⇑iP	P	04 02 03.4	+1.1
PSZ	Piszkesteto	82.83	323	eP	P	04 02 02.5	+0.2
	comp=Z,7.0nm,0.9s,mb4.5						
PDAR	Pinedale Array	82.92	43	P	P	04 02 04.4	+1.6
	comp=Z,0.8nm,0.8s,mb3.6,baz=349,slow=1.5,SNR=5.0						
DPC	Dobruska-Polom	82.93	327	eP	P	04 02 03.7	+1.0
BSEG	Bad Segeberg	82.96	332	eP	P	04 02 02.8	0.0
BSEG				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
BSEG	Bad Segeberg	82.96	332	eP	P	04 02 02.8	0.0
	comp=Z,20nm,0.9s,mb5.0						
GZR	Gura Zlata	82.96	320	⇓iP	P	04 02 03.7	+0.7
VYHS	Vyhne	82.98	324	eP	P	04 02 03.7	+0.7
BZS	Buzias	83.44	321	⇑iP	P	04 02 04.7	-0.7
BZS	Buzias	83.44	321	⇑P	P	04 02 04.7	-0.8
VRAC	Vranov	83.52	326	⇑iP	P	04 02 06.6	+0.9
VRAC	Vranov	83.52	326	⇑P	P	04 02 06.6	+0.8
PVCC	Panska Ves	83.61	328	eP	P	04 02 06.7	+0.6
BRG	Berggiesshubel	83.65	328	i P	P	04 02 06.4	+0.1
BRG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
BRG	Berggiesshubel	83.65	328	eP	P	04 02 06.4	+0.1
	comp=Z,8.0nm,0.8s,mb4.6						
BRG	Berggiesshubel	83.65	328	i P	P	04 02 06.4	+0.1
	comp=Z,7.8nm,0.8s,mb4.6						
CLL	Collm	83.75	329	⇓iP	P	04 02 06.8	0.0
CLL				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.8						
CLL	Collm	83.75	329	eP	P	04 02 06.8	0.0
	comp=Z,20nm,1.3s,mb4.8						
CLL	Collm	83.75	329	⇓iP	P	04 02 06.8	0.0
	comp=Z,18nm,1.2s,mb4.8						
CLL	Collm	83.75	329	⇓iP	P	04 02 06.8	0.0
	comp=Z,18nm,1.2s,mb4.8						
MODS	Modra-Piesok	83.83	325	eP	P	04 02 08.4	+1.1
MODS				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.0						
MODS	Modra-Piesok	83.83	325	eP	P	04 02 08.4	+1.1
	comp=Z,3.3nm,1.2s,mb4.0						
FBE	Freiberg	83.87	328	eP	P	04 02 07.8	+0.3
	comp=Z,17nm,1.0s,mb4.8						
PRU	Pruhonice	84.00	327	eP	P	04 02 08.3	+0.2
ZST	Bratislava	84.04	325	eP	P	04 02 09.9	+1.6
ZST				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
ZST	Bratislava	84.04	325	eP	P	04 02 09.9	+1.6
	comp=Z,3.6nm,0.6s,mb4.4						
TREC	Trest	84.05	326	eP	P	04 02 08.6	+0.2
CLZ	Clausthal	84.49	330	eP	P	04 02 10.9	+0.4
CLZ				pmax	pmax		
	comp=Z,30nm,1.7s,mb4.8						
CLZ	Clausthal	84.49	330	eP	P	04 02 10.9	+0.4
	comp=Z,30nm,1.7s,mb4.8						
WERD	Werda	84.68	329	eP	P	04 02 11.3	-0.2
	comp=Z,7.0nm,1.1s,mb4.4						
GUNZ	Gunzen	84.73	329	eP	P	04 02 11.6	-0.1
	comp=Z,6.0nm,1.0s,mb4.4						
WERN	Wernitzgruen	84.76	328	eP	P	04 02 11.9	0.0
	comp=Z,5.0nm,0.9s,mb4.3						
KHC	Kasperske Hory	85.05	327	eP	P	04 02 13.6	+0.2
GEC2	GERESS Array S	85.20	327	eP	P	04 02 13.9	-0.2
GEC2				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.4						
GEC2	GERESS Array S	85.20	327	eP	P	04 02 13.9	-0.2
	comp=Z,7.0nm,1.1s,mb4.4						
GERES	GERESS Array B	85.20	327	P	P	04 02 14.0	-0.1
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GERES	GERESS Array B	85.20	327	P	P	04 02 14.0	-0.1
	comp=Z,2.4nm,0.7s,mb4.1,baz=46,slow=5.8,SNR=19						
GRA1	Grafenberg Arr	85.71	329	eP	P	04 02 17.1	+0.5
	comp=Z,17nm,1.2s,mb4.8						
GRF	Grafenberg Arr	85.71	329	eP	P	04 02 17.1	+0.5
GRF				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
GRF	Grafenberg Arr	85.71	329	eP	P	04 02 17.1	+0.5
GRF				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
GRF	Grafenberg Arr	85.71	329	eP	P	04 02 17.1	+0.5
	comp=Z,17nm,1.2s,mb4.8						
RJOB	Jochberg	86.42	327	eP	P	04 02 20.5	+0.5
	comp=Z,6.0nm,0.9s,mb4.4						
CDF	Champ du Feu	88.38	330	eP	P	04 02 28.4	-0.9
	comp=Z,4.2nm,0.6s,mb4.1						
CDF	Champ du Feu	88.38	330	eP	P	04 02 28.4	-0.9
CDF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
CDF	Champ du Feu	88.38	330	eP	P	04 02 28.4	-0.9
	comp=Z,2.1nm,0.6s,mb4.1						
DAVOS	Davos	88.46	327	P	P	04 02 29.8	+0.1
DAVOX	Davos/Dischmat	88.47	327	P	P	04 02 29.8	0.0
	comp=Z,6.0nm,0.6s,mb4.6,baz=28,slow=2.7,SNR=13						
HINF	Hinteralfeld	89.02	330	eP	P	04 02 30.9	-1.4
HAU	Haudompre	89.09	330	eP	P	04 02 31.4	-1.2
CABF	La Chapelle	90.29	329	eP	P	04 02 36.7	-1.5
LOR	Lormes	90.71	331	eP	P	04 02 39.1	-1.1
	comp=Z,9.4nm,1.0s,mb4.4						
LOR	Lormes	90.71	331	eP	P	04 02 39.1	-1.1
LOR				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
LOR	Lormes	90.71	331	eP	P	04 02 39.1	-1.1
	comp=Z,4.7nm,1.0s,mb4.4						
LPL	La Plagne	90.85	328	eP	P	04 02 40.1	-0.7
	comp=Z,9.4nm,0.7s,mb4.5						
LPL	La Plagne	90.85	328	eP	P	04 02 40.1	-0.7
LPL				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
LPL	La Plagne	90.85	328	eP	P	04 02 40.1	-0.7
	comp=Z,4.7nm,0.7s,mb4.5						
LPG	La Plagne	90.86	328	eP	P	04 02 40.3	-0.6
	comp=Z,6.7nm,0.5s,mb4.5						
LPG	La Plagne	90.86	328	eP	P	04 02 40.3	-0.6
LPG				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
LPG	La Plagne	90.86	328	eP	P	04 02 40.3	-0.6
	comp=Z,3.3nm,0.5s,mb4.5						
SSF	Saint Saulge	91.02	331	eP	P	04 02 40.6	-1.0
	comp=Z,5.8nm,0.8s,mb4.2						
SSF	Saint Saulge	91.02	331	eP	P	04 02 40.6	-1.0
SSF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
SSF	Saint Saulge	91.02	331	eP	P	04 02 40.6	-1.0
	comp=Z,2.9nm,0.8s,mb4.3						
FLN	La Foliniere	91.20	334	eP	P	04 02 40.8	-1.6
LDF	La Druitiere	91.21	334	eP	P	04 02 41.2	-1.2
	comp=Z,9.7nm,0.9s,mb4.5						
LDF	La Druitiere	91.21	334	eP	P	04 02 41.2	-1.2
LDF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
LDF	La Druitiere	91.21	334	eP	P	04 02 41.2	-1.2
	comp=Z,4.8nm,0.9s,mb4.4						
SMF	Signal de Mont	91.22	330	eP	P	04 02 41.4	-1.1
	comp=Z,12nm,0.9s,mb4.5						
SMF	Signal de Mont	91.22	330	eP	P	04 02 41.4	-1.1
SMF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
SMF	Signal de Mont	91.22	330	eP	P	04 02 41.4	-1.1
	comp=Z,5.8nm,0.9s,mb4.5						
AVF	Avril sur Loir	91.30	331	eP	P	04 02 41.9	-1.0
	comp=Z,7.8nm,0.7s,mb4.4						
AVF	Avril sur Loir	91.30	331	eP	P	04 02 41.9	-1.0
AVF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
AVF	Avril sur Loir	91.30	331	eP	P	04 02 41.9	-1.0
	comp=Z,3.9nm,0.7s,mb4.5						
MBDF	Montbardon	91.44	328	eP	P	04 02 42.6	-1.0
GRR	Gorron	91.65	334	eP	P	04 02 43.7	-0.8
	comp=Z,17nm,0.8s,mb4.7						
GRR	Gorron	91.65	334	eP	P	04 02 43.7	-0.8
GRR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GRR	Gorron	91.65	334	eP	P	04 02 43.7	-0.8
	comp=Z,8.4nm,0.8s,mb4.7						
ORIF	Oris-en-Rattie	91.69	328	eP	P	04 02 43.7	-1.1
TCF	Toulx Ste Croi	92.18	331	eP	P	04 02 46.2	-0.7
	comp=Z,13nm,0.9s,mb4.5						
TCF	Toulx Ste Croi	92.18	331	eP	P	04 02 46.2	-0.7
TCF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
TCF	Toulx Ste Croi	92.18	331	eP	P	04 02 46.2	-0.7
	comp=Z,6.4nm,0.9s,mb4.5						
VIVF	Saint-Julien-l	92.28	329	eP	P	04 02 46.4	-1.0
	comp=Z,8.0nm,0.8s,mb4.4						
VIVF	Saint-Julien-l	92.28	329	eP	P	04 02 46.4	-1.0
VIVF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
VIVF	Saint-Julien-l	92.28	329	eP	P	04 02 46.4	-1.0
	comp=Z,4.0nm,0.8s,mb4.4						
ROSF	Rostrenen	92.57	335	eP	P	04 02 47.3	-1.4
	comp=Z,16nm,0.9s,mb4.7						
ROSF	Rostrenen	92.57	335	eP	P	04 02 47.3	-1.4
ROSF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
ROSF	Rostrenen	92.57	335	eP	P	04 02 47.3	-1.4
	comp=Z,7.9nm,0.9s,mb4.7						
MFF	Saint Martin d	92.86	333	eP	P	04 02 49.5	-0.6
	comp=Z,6.1nm,0.6s,mb4.5						
MFF	Saint Martin d	92.86	333	eP	P	04 02 49.5	-0.6
MFF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
MFF	Saint Martin d	92.86	333	eP	P	04 02 49.5	-0.6
	comp=Z,3.0nm,0.6s,mb4.5						
RJF	Les Rejaudoux	93.26	331	eP	P	04 02 51.4	-0.5
	comp=Z,8.3nm,0.7s,mb4.5						
RJF	Les Rejaudoux	93.26	331	eP	P	04 02 51.4	-0.5
RJF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
RJF	Les Rejaudoux	93.26	331	eP	P	04 02 51.4	-0.5
	comp=Z,4.2nm,0.7s,mb4.6						
CAF	Calviac	93.34	330	eP	P	04 02 51.9	-0.4
	comp=Z,6.2nm,0.8s,mb4.4						
CAF	Calviac	93.34	330	eP	P	04 02 51.9	-0.4
CAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
CAF	Calviac	93.34	330	eP	P	04 02 51.9	-0.4
	comp=Z,3.1nm,0.8s,mb4.4						
TXAR	Lajitas Array	95.17	51	P	P	04 03 02.8	+1.8
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	95.17	51	P	P	04 03 02.8	+1.8
	comp=Z,0.5nm,0.7s,mb3.6,baz=289,slow=2.9,SNR=6.7						
TORD	Torodi Ar. Bea	118.49	310	PKP	PKPdf	04 08 23.0	-0.6
	comp=Z,0.3nm,0.5s,baz=44,slow=1.3,SNR=18						

NEIC 09 04:04:06.4, 40.51°S×173.18°E, h240km, MG3.8(WEL), After WEL., Cook Strait

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QRZ	Quartz Range	0.59	237	P	Pn	04 04 38.2	-0.1
QRZ				S	S	04 05 01.5	-1.9
NNZ	Nelson	0.72	168	P	Pn	04 04 38.9	0.0
TCW	Tory Channel	1.09	131	P	Pn	04 04 40.9	+0.1
THZ	Tophouse	1.27	189	P	Pn	04 04 42.1	+0.1
BSWZ	Blackbirch Sta	1.31	157	P	Pn	04 04 42.1	-0.2
MRW	Makara Radio	1.36	122	P	Pn	04 04 42.5	-0.1
KIW	Kapiti Island	1.36	106	P	Pn	04 04 42.7	+0.1
SNZO	South Karori	1.41	125	P	Pn	04 04 42.7	-0.2
NEZ	North Egmont	1.42	30	P	Pn	04 04 42.8	-0.4
PKE	Pukeiti	1.45	26	P	Pn	04 04 43.0	-0.4
CAW	Cannon Point	1.55	113	P	Pn	04 04 44.0	-0.1
BHW	Baring Head	1.56	126	P	Pn	04 04 43.9	-0.3
WAZ	Wanganui	1.57	62	P	Pn	04 04 44.6	+0.3
DSZ	Denniston Nort	1.61	220	P	Pn	04 04 44.3	-0.3
DSZ				S	S	04 05 12.3	-2.4

MSWZ	Moikau Station	1.81	121	P	Pn	04 04 46.0	-0.2
MSWZ				S	S	04 05 15.7	-1.9
MRZ	Mangatainoka R	1.83	96	P	Pn	04 04 46.1	-0.4
MTW	Mount Morrison	1.88	111	P	Pn	04 04 46.5	-0.3
KHZ	Kahutara	1.93	172	P	Pn	04 04 46.4	-0.8
TSZ	Takapari Road	2.17	79	P	Pn	04 04 49.4	-0.2
WNVZ	Wahianoa	2.20	58	P	Pn	04 04 49.2	-0.7
WPVZ	Whakapapa	2.24	55	P	Pn	04 04 49.4	-0.9
TWVZ	Taurewa	2.25	51	P	Pn	04 04 49.2	-1.3
MOVZ	Moawhango	2.26	62	P	Pn	04 04 49.5	-1.0
TUVZ	Tukino	2.27	58	P	Pn	04 04 49.9	-0.7
NGZ	Ngauruhoe	2.29	55	P	Pn	04 04 49.9	-0.9
WTVZ	West Tongariro	2.32	54	P	Pn	04 04 50.1	-1.0
BFZ	Birch Farm	2.34	95	P	Pn	04 04 50.9	-0.4
LTZ	Lake Taylor	2.37	196	P	Pn	04 04 50.5	-1.0
HIZ	Hauiti	2.38	34	P	Pn	04 04 50.1	-1.6
KATZ	Kakaramea	2.47	52	P	Pn	04 04 51.8	-0.8
BKZ	Black Stump Fm	2.88	63	P	Pn	04 04 55.9	-1.0
WVZ	Waitaha Valley	3.15	215	P	Pn	04 04 58.6	-1.2
MQZ	McQueen's Vall	3.22	187	P	Pn	04 04 58.4	-2.2
RPZ	Rata Peaks	3.57	206	P	Pn	04 05 03.5	-1.1
KNZ	Kokohu	3.77	68	P	Pn	04 05 06.2	-0.8
MWZ	Matawai	4.01	59	P	Pn	04 05 08.0	-1.8
FOZ	Fox Glacier	4.01	219	P	Pn	04 05 06.7	-3.0
LBZ	Lake Benmore	4.46	209	P	Pn	04 05 13.4	-1.8
JCZ	Jackson Bay	4.84	221	P	Pn	04 05 17.8	-2.0
ODZ	Otahua Downs	4.90	202	P	Pn	04 05 19.8	-0.7

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*NEIC **09** 04:23:28.6, 15°.07N×61°.30W, h148^{km}, MD4.2(TRN), After TRN.*

TRN 09 04:23:27.7, 15°.14N×61°.17W, h149^{km}**, MD4.2, M2.9**(FDF), **9C-11D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DFBT	Forest Bistro	0.20	301	⇓eP	Pn	04 23 50.6	+2.7
DFBT				eS	Sn	04 24 04.4	+1.2
DFBT	Forest Bistro	0.20	301	⇓iP	Pn	04 23 50.7	+2.8
DFBT				eS	Sn	04 24 04.4	+1.2
FDF	Fort de France	0.40	177	⇓eP	Pn	04 23 49.6	+1.0
FDF				⇓eS	Sn	04 24 04.9	+0.5
FDF	Fort de France	0.40	177	ePn	Pn	04 23 49.3	+0.7
FDF				eSn	Sn	04 24 04.3	-0.1
BIM	Bigot	0.62	171	⇑eP	Pn	04 23 50.5	+0.8
BIM				⇑eS	Sn	04 24 08.4	+2.0
MVM	Montagne Vaucl	0.64	155	⇓iP	Pn	04 23 50.5	+0.8
MGG	Marie-Galante	0.79	350	⇑iP	Pn	04 23 51.8	+1.1
MGG				⇑eS	Sn	04 24 08.6	+0.2
HMG	Houelmont	0.98	329	⇓iP	Pn	04 23 53.5	+1.3
PHG	Guadaloupe-2	0.98	333	eP	Pn	04 23 53.7	+1.5
DOG	Dongo Capester	0.99	334	eP	Pn	04 23 53.5	+1.2
SCG	Saint Claude	1.01	331	⇓iP	Pn	04 23 53.9	+1.4
SCG				⇓eS	Sn	04 24 12.7	+1.2
SFG	Saint Francois	1.11	359	eP	Pn	04 23 54.5	+1.1
SLW	Petit Monier	1.13	168	eP	Pn	04 23 54.0	+0.4
SLW	Petit Monier	1.13	168	⇑iP	Pn	04 23 55.0	+1.4
SLW				eS	Sn	04 24 14.1	+0.7
SLW	Petit Monier	1.13	168	⇑iP	Pn	04 23 55.0	+1.4
SLW				eS	Sn	04 24 14.1	+0.7
LZG	Guadaloupe-1	1.16	330	⇓iP	Pn	04 23 55.0	+1.3
DEG	La Desirade	1.18	5	eP	Pn	04 23 54.8	+0.8
SEG	Port Louis	1.30	346	⇑iP	Pn	04 23 56.4	+1.2
SLB	Belfond	1.31	174	⇓iP	Pn	04 23 56.7	+1.5
SLB				eS	Sn	04 24 18.1	+1.8
SLDE	Delcer	1.33	175	eP	Pn	04 23 57.0	+1.5
SLDE				eS	Sn	04 24 17.8	+1.1
SLDE	Delcer	1.33	175	eP	Pn	04 23 57.0	+1.5
SLDE				eS	Sn	04 24 17.8	+1.1
SSV	Crater Summit	1.80	181	eP	Pn	04 24 01.4	+0.9
SVV	Soufriere Volc	1.81	181	⇓iP	Pn	04 24 02.2	+1.6
FCV	Fort Charlotte	1.97	182	⇑iP	Pn	04 24 03.5	+1.1
FCV				eS	Sn	04 24 29.5	+0.4
FCV	Fort Charlotte	1.97	182	⇑iP	Pn	04 24 03.5	+1.1
FCV				eS	Sn	04 24 29.5	+0.4
ANWB	Willy Bob	2.59	347	ePn	Pn	04 24 09.6	-0.3
ANWB				eSn	Sn	04 24 40.4	-2.0
GRSS	Sisters	2.85	189	eP	Pn	04 24 14.1	+0.9
GRIC	Isle de Caille	2.86	188	eP	Pn	04 24 13.9	+0.6
GRHS	Sauteurs	2.93	189	eP	Pn	04 24 14.4	+0.2
GRW	Mount Saint Ca	3.00	189	eP	Pn	04 24 16.5	+1.5
GRGR	Grenville	3.02	189	ePn	Pn	04 24 15.5	+0.1
CBYP	Canovanas	5.46	305	ePn	Pn	04 24 48.5	+1.3

IDC 09 04:27:34.0±2.0**, 1°.16N×126°.05E, h0**^{km}**, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.5**/17**, mbtmp3.5**/3**, 1D, Error ellipse: s-maj=183.2km s-min=24.3km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNE	Ternate	1.37	106	⇓eP	Pg	04 27 52.0	-8.2
WRA	Warramunga Arr	22.49	159	P	P	04 32 34.6	-0.5
	1.3nm,0.5s,baz=338,slow=10,SNR=10						
ASAR	Alice Springs	25.83	163	P	P	04 33 07.6	+0.5
	0.3nm,0.2s,baz=345,slow=11,SNR=7.6						
MKAR	Makanchi Array	59.29	326	P	P	04 37 37.6	+0.1
	0.3nm,0.4s,baz=124,slow=7.5,SNR=9.4						

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*SZGRF **09** 04:32:59.7, 51°.38N×168°.71W, h33^{km}, mb4.9, Fox Islands, Aleutian Islands, United States*

*BJI **09** 04:33:03.9, 52°.90N×167°.40W, h35^{km}, mB5.2/20, mb4.8/33, Ms4.9/15, Ms7 4.6/16*

*GCMT **09** 04:33:06.9±0.5, 52°.73N×167°.32W, h37^{km}±1^{km}, MW4.9/57, Moment Tensor Solution. s27,c35; s57,c81; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.17±.20; $M_{\theta\theta}$-1.32±.13; $M_{\phi\phi}$-0.84±.13; $M_{r\theta}$1.26±.14; $M_{\theta\phi}$-1.20±.07; $M_{\phi r}$0.83±.12; Best double couple: $M_0$2.70100×10^{16} NP1:ϕ_s227.00000°,δ28.00000°,λ84.00000°. NP2: ϕ_s54.00000°,δ62.00000°,λ93.00000°. Principal axes: T 2.6360, Plg73.0000°, Azm332.0000°; N 0.1310, Plg3.0000°, Azm232.0000°; P -2.7650, Plg17.0000°, Azm142.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **09** 04:33:06.9, 52°.88N×167°.40W, h26^{km}, mb4.7/72, ML4.5(AEIC), ML4.8(PMR), After AEIC.*

*MOS **09** 04:33:06.0±0.8, 53°.07N×167°.64W, h33^{km}, mb5.0/53, Error ellipse: s-maj=10.8km s-min=4.7km az=90.4*

*ISCJB **09** 04:33:07.7±0.5, 53°.00N±0°.04×167°.53W±0°.03, h50^{km}±3^{km}, mb4.6/121, MS4.2/28, Error ellipse: s-maj=6.1km s-min=3.0km az=3.8*

*IDC **09** 04:33:08.6±3.2, 53°.06N×167°.59W, h43^{km}±29^{km}, mb4.2/31, mb1 4.4/32, mb1mx4.3/36, mbtmp4.2/32, ML4.2/1, MS4.1/22, Ms1 4.1/22, ms1mx4.0/37, Error ellipse: s-maj=18.9km s-min=11.0km az=178.0*

ISC 09 04:33:09.2±0.4**, 53°.02N**±0°.04×**167°.55W**±0°.03**, h48**^{km}±3^{km}**, h41**^{km}±2.8^{km}**:pP-P, n396,** σ**0**^{s}**.82**/399**, mb4.6**/121**, MS4.2**/28**, 55C-47D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKFG	Magazine Ridge	0.45	331	P	Pn	04 33 19.3	-0.4
OKFG				S	Sn	04 33 28.6	+1.5
NIKO	Nikolski	0.79	267	P	Pn	04 33 22.3	-1.7
NIKO				S	Sn	04 33 34.6	-0.3
UNV	Unalaska Valle	1.03	37	P	Pn	04 33 25.7	-1.6
UNV				S	Sn	04 33 39.7	-0.9
AKLV	Akutan Long Va	1.48	39	P	Pn	04 33 32.6	-0.7
AKGG	Akutan Green G	1.50	38	P	Pn	04 33 33.1	-0.5
AKUT	Akutan	1.54	43	eP	Pn	04 33 32.3	-1.8
FALS	False Pass	3.06	51	P	Pn	04 33 54.9	0.0
FALS				S	Sn	04 34 31.8	+1.6
ATKA	Atka Island	4.14	261	P	Pn	04 34 11.0	+1.3
SPIA	Saint Paul Isl	4.44	341	P	Pn	04 34 15.9	+2.1
SDPT	Sand Point	4.76	58	eP	Pn	04 34 18.0	-0.2
AMKA	Amchitka	8.25	264	eP	Pn	04 35 07.1	+1.0
KDAK	Kodiak Island	9.75	55	i P	Pn	04 35 26.2	-0.3
KDAK	Kodiak Island	9.75	55	P	Pn	04 35 24.6	-1.9
	2.4nm,0.3s,baz=262,slow=11,SNR=14						
KDAK	Kodiak Island	9.75	55	ePn	Pn	04 35 24.9	-1.6
SVW2	Sparrevohn	10.37	34	ePn	Pn	04 35 34.4	-0.6
FX1	Attu Island--F	11.64	277	P	Pn	04 35 55.1	+2.8
	7.2nm,0.3s,baz=282,slow=12,SNR=8.6						
FX1				LR	LR	04 39 08.3	
	comp=Z,236nm,21.1s,baz=250,slow=31						
SEW	Seward	12.21	47	ePn	Pn	04 35 58.9	-1.3
	37nm,0.8s						
FIB	Fire Island	12.44	42	eP	Pn	04 36 01.5	-1.8
TNA	Tin City	12.58	359	ePn	Pn	04 36 06.9	+1.8
	45nm,1.2s						
RC01	Rabbit Creek A	12.58	43	ePn	Pn	04 36 06.0	+0.8
	20nm,0.8s						
PPLA	Purkeypile	12.78	33	ePn	Pn	04 36 12.1	+4.2
	56nm,1.2s						
PMR	Palmer	13.10	42	eP	Pn	04 36 12.8	+0.6
PMR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
PMR	Palmer	13.10	42	eP	Pn	04 36 12.8	+0.6
	comp=Z,2.8nm,0.5s						
CHUM	Lake Minchumin	13.44	30	ePn	Pn	04 36 15.7	-1.2
	comp=Z,25nm,0.9s						
KTH	Kantishna Hill	13.65	33	ePn	Pn	04 36 21.2	+1.5
	comp=Z,58nm,1.2s						
TRF	Thorofare Moun	13.79	34	ePn	Pn	04 36 24.9	+3.3
	comp=Z,44nm,1.2s						
MCK	McKinley	14.44	35	eP	Pn	04 36 33.1	+2.8
COLA	College	15.53	32	eP	Pn	04 36 43.4	-1.2
COLA				pmax	pmax		
	comp=Z,11nm,0.9s						
COLA	College	15.53	32	ePn	Pn	04 36 43.4	-1.2
	comp=Z,11nm,0.9s						
COLD	Coldfoot	16.56	24	ePn	Pn	04 36 57.5	-0.1
	comp=Z,31nm,1.1s						
PNL	Peninsula	16.87	56	ePn	Pn	04 37 01.3	-0.2
	comp=Z,66nm,0.8s						
EGAK	Eagle	17.84	38	eP	Pn	04 37 13.3	-0.1
	comp=Z,11nm,0.7s						
HYT	Haines Junctio	18.02	52	ePn	Pn	04 37 18.0	+2.3
DAWY	Dawson	18.20	42	eP	Pn	04 37 17.9	0.0
SKAG	Skagway	18.89	57	eP	Pn	04 37 27.4	+1.2
	comp=Z,98nm,1.0s						
BILL	Bilibino	19.56	330	eP	Pn	04 37 31.9	-2.2
BILL				pmax	pmax		
	comp=Z,51nm,1.5s						
BILL	Bilibino	19.56	330	eP	Pn	04 37 31.9	-2.2
	comp=Z,51nm,1.5s						
CRAG	Craig	20.14	69	eP	P	04 37 39.1	+0.2
PET	Petropavlovsk	20.23	284	eP	P	04 37 38.7	-1.2
PET				eS	S	04 41 20.5	-3.5
PET				pmax	pmax		
	comp=Z,8.0nm,0.7s						
PET				MLR	MLR		
	comp=Z,500nm,21.0s,MS3.8						
PET	Petropavlovsk	20.23	284	eP	P	04 37 39.5	-0.4
	comp=Z,119nm,1.6s						
PETK	Petropavlovsk-	20.77	284	P	P	04 37 46.5	+0.8
	comp=Z,3.9nm,0.5s,baz=81,slow=13,SNR=24						
PETK				LR	LR	04 45 21.6	
	comp=Z,234nm,19.1s,MS3.6,baz=90,slow=35						
DLBC	Dease Lake	21.60	60	P	P	04 37 55.5	+1.0
	comp=Z,9.7nm,0.7s,mb4.3,baz=280,slow=9.6,SNR=16						
DLBC	Dease Lake	21.60	60	eP	P	04 37 56.1	+1.6
SEY	Seymchan	23.06	311	⇑eP	P	04 38 08.9	-1.1
YKA	Yellowknife Ar	28.97	50	P	P	04 39 03.9	+0.3
YKA						04 42 11.2	
YKA	Yellowknife Ar	28.97	50	P	P	04 39 03.9	+0.3
	comp=Z,5.8nm,0.7s,mb4.4,baz=274,slow=9.4,SNR=58						
YKA				PcP	PcP	04 42 11.2	+0.2
	comp=Z,1.9nm,0.7s,baz=279,slow=2.3,SNR=7.4						
YKA				LR	LR	04 50 07.7	
	comp=Z,155nm,20.5s,MS3.6,baz=190,slow=35						
YKA	Yellowknife Ar	28.97	50	P	P	04 39 03.9	+0.3
YKA				PcP	PcP	04 42 11.2	+0.2
YKA				LR	LR	04 50 07.7	
NEW	Newport	31.78	78	eP	P	04 39 28.7	+0.1
NEW				pmax	pmax		
	comp=Z,10.0nm,1.2s						
NEW	Newport	31.78	78	eP	P	04 39 28.7	+0.1
	comp=Z,9.6nm,1.2s,mb4.5						
EDM	Edmonton	31.87	67	eP	P	04 39 29.9	+0.6
A11A	Hall Mountain,	31.91	76	⇓P	P	04 39 29.5	-0.2
	baz=32						
K05A	Summer Lake	32.40	89	⇑P	P	04 39 34.7	+0.7
	baz=32						
J06A	Christmas Vall	32.55	88	⇓P	P	04 39 35.5	+0.1
	baz=32						
TIXI	Tiksi	32.75	328	⇑eP	P	04 39 36.0	-0.8
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
G09A	Cove	32.88	83	⇑P	P	04 39 38.2	0.0
	baz=33						
G10A	Bishop Farm, J	33.26	83	⇓P	P	04 39 41.8	+0.2
	baz=33						
WALA	Waterton Lakes	33.30	75	eP	P	04 39 43.2	+1.4
	comp=Z,0.4nm,1.2s						
K07A	Rock Creek Ran	33.42	88	⇓P	P	04 39 43.4	+0.5
	baz=33						
C13A	Hot Springs	33.56	77	⇑P	P	04 39 44.2	0.0
	baz=34						
A14A	Double T Ranch	33.62	75	⇓P	P	04 39 44.8	+0.2
	baz=34						
H10A	Noah's Angus R	33.87	84	⇑P	P	04 39 47.0	+0.2
	baz=34,SNR=11						
WVOR	Wild Horse Val	33.94	88	eP	P	04 39 49.2	+1.8
WVOR				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
WVOR	Wild Horse Val	33.94	88	eP	P	04 39 49.2	+1.8
	comp=Z,3.7nm,0.7s,mb4.4						
A15A	Johnson Ranch,	34.02	74	⇓P	P	04 39 47.3	-0.8
	baz=34						
M07A	Soldier Meadow	34.23	90	⇓P	P	04 39 50.5	+0.5
	baz=34						
H11A	Donnelly	34.24	83	⇓P	P	04 39 50.0	0.0
	baz=34						
BEKR	Beckwourth	34.43	93	⇑P	P	04 39 52.0	+0.2
	baz=34						
B15A	Bradely Ranch,	34.44	75	⇓P	P	04 39 51.7	0.0
	baz=34						
D14A	Greenough	34.49	78	⇑P	P	04 39 51.7	-0.5
	baz=34						
F13A	Darby	34.67	80	⇑P	P	04 39 54.0	+0.3
	baz=35						
M08A	Happy Creek Ra	34.67	89	⇑P	P	04 39 53.9	+0.1
	baz=35						
C15A	Salmond Ranch,	34.67	76	⇑P	P	04 39 53.6	-0.2
	baz=35,SNR=6.1						
I11A	Placerville	34.71	84	⇑P	P	04 39 54.2	+0.1
	baz=35						
H12A	Diamond D Ranc	35.02	82	⇓P	P	04 39 57.2	+0.4
	baz=35						
D15A	Lincoln	35.09	77	⇑P	P	04 39 56.6	-0.8
	baz=35						
G13A	Cobalt	35.10	81	⇑P	P	04 39 56.6	-0.8
	baz=35						
PAHR	Pah Rah Range	35.12	93	eP	P	04 39 59.5	+1.8
	comp=Z,104nm,2.7s,mb5.3						
O07A	Toulon	35.15	92	⇑P	P	04 39 58.7	+0.8
	baz=35						
C16A	Fuhringer Ranc	35.16	76	⇑P	P	04 39 57.5	-0.5
	baz=35,SNR=5.7						
A17A	Triple J Farms	35.21	73	⇑P	P	04 39 56.9	-1.5
	baz=35						
RES	Resolute Bay	35.30	26	eP	P	04 39 57.9	-1.0
E15A	Deer Lodge	35.34	78	⇓P	P	04 39 58.1	-1.4
	baz=35						
O08A	Rochester Mine	35.50	91	⇑P	P	04 40 00.3	-0.7
	baz=35						
J12A	Stokes Ranch,	35.60	84	⇑P	P	04 40 01.6	-0.1
	baz=36						
HABR	Khabarovsk	35.77	286	eP	P	04 40 10.0	+6.8
HABR				e		04 41 20.4	
HABR				e		04 42 27.7	
HABR				eS	S	04 45 35.8	-0.9
HABR				e*SS	sS	04 45 52.1	-5.9
HABR				SS	SS	04 48 00.4	-13
HABR				e		04 50 15.7	
HABR				MLR	MLR		
	comp=Z,200nm,19.0s,MS3.9						
C17A	Wharram Farm,	35.82	75	⇑P	P	04 40 01.4	-2.3
	baz=36						
L11A	Cat Creek Ranc	35.83	86	⇓P	P	04 40 00.8	-2.9
	baz=36						
HLID	Hailey	35.83	83	eP	P	04 40 04.5	+0.8
	comp=Z,1.9nm,0.8s,mb4.1						
J13A	Cove Ranch, Pi	36.07	83	⇑P	P	04 40 05.2	-0.6
	baz=36,SNR=5.6						
G15A	Dillon	36.10	80	⇑P	P	04 40 04.2	-1.9
	baz=36						
EGMT	Eagleton	36.21	74	eP	P	04 40 07.0	0.0
	comp=Z,19nm,0.9s,mb5.0						
NVAR	Mina Array Bea	36.58	93	P	P	04 40 11.4	+1.2
	comp=Z,1.5nm,0.8s,mb3.9,baz=292,slow=7.8,SNR=8.0						
NVAR				PcP	PcP	04 42 32.8	+0.2
	comp=Z,1.2nm,0.8s,baz=306,slow=2.9,SNR=4.1						
F17A	Fitzpatrick Pl	36.78	78	⇓P	P	04 40 11.1	-0.8
	baz=37						
L13A	Double Diamond	36.97	85	⇑P	P	04 40 13.3	-0.1
	baz=37						
H16A	Russell Place,	37.09	80	⇑P	P	04 40 13.6	-0.9
	baz=37						
FFC	Flin Flon	37.43	60	i P	P	04 40 18.1	+0.9
FFC	Flin Flon	37.43	60	eP	P	04 40 16.9	-0.4
	comp=Z,4.9nm,1.0s,mb4.3						
K16A	Soda Springs	37.95	82	⇓P	P	04 40 22.6	+0.9
	baz=38,SNR=5.5						
RLMT	Red Lodge	38.03	78	⇓P	P	04 40 22.9	+0.5
	baz=38,SNR=5.8						
RLMT	Red Lodge	38.03	78	eP	P	04 40 23.1	+0.7
	comp=Z,10.0nm,1.0s,mb4.5						
L16A	Fish Haven	38.52	83	⇑P	P	04 40 26.2	-0.4
	baz=38						
N15A	Stansbury Isla	38.54	86	⇓P	P	04 40 27.5	+0.7
	baz=38						
MPMC	Manual Prospec	38.62	96	⇑P	P	04 40 27.4	-0.1
	baz=39						
DUG	Dugway	38.79	87	eP	P	04 40 29.4	+0.6
DUG				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
DUG	Dugway	38.79	87	⇓P	P	04 40 28.8	-0.1
	baz=39						
DUG	Dugway	38.79	87	eP	P	04 40 29.4	+0.6
	comp=Z,7.1nm,1.1s,mb4.3						
L17A	Cokeville	38.80	83	⇓P	P	04 40 28.1	-0.8
	baz=39						
EDW2	Edwards Air Fo	39.12	97	⇓P	P	04 40 31.2	-0.5
	baz=39						
BW06	Boulder Array	39.20	81	⇓P	P	04 40 32.2	0.0
	baz=39						
BW06	Boulder Array	39.20	81	eP	P	04 40 32.5	+0.3
PDAR	Pinedale Array	39.20	81	P	P	04 40 32.4	+0.2
	comp=Z,3.1nm,0.9s,mb4.0,baz=307,slow=4.3,SNR=19						
PDAR				LR	LR	04 54 37.7	
	comp=Z,215nm,18.1s,MS4.0,baz=140,slow=33						
T11A	Corn Creek, Al	39.21	92	⇓P	P	04 40 31.9	-0.5
	baz=39						
P15A	Leamington	39.50	87	⇓P	P	04 40 35.2	+0.4
	baz=39						
K19A	Absolon Red Bu	39.59	81	⇑P	P	04 40 35.3	-0.2
	baz=40						
FCC	Fort Churchill	39.67	52	eP	P	04 40 36.2	+0.2
	comp=Z,0.6nm,0.9s						
S13A	Holt Ranch, En	39.81	91	⇑P	P	04 40 37.8	+0.4
	baz=40						
U13A	Pakoon Wash	40.51	92	⇓P	P	04 40 43.8	+0.6
	baz=40						
T14A	Hurricane	40.62	91	⇓P	P	04 40 44.8	+0.7
	baz=40						
MJAR	Matsushiro Arr	40.83	269	P	P	04 40 45.2	-0.6
	comp=Z,7.9nm,1.1s,mb4.2,baz=40,slow=6.5,SNR=13						
MJAR				LR	LR	04 55 15.3	
	comp=Z,325nm,21.8s,MS4.2,baz=60,slow=32						
MAJO	Matsushiro	40.83	269	eP	P	04 40 45.9	+0.1
MAJO				pmax	pmax		
	comp=Z,41nm,1.3s,mb4.9						
MAJO	Matsushiro	40.83	269	eP	P	04 40 45.9	+0.1
	comp=Z,41nm,1.3s,mb4.9						
MAT	Matsushiro	40.83	269	P	P	04 40 45.7	-0.1
O19A	Miners Draw (B	40.94	84	⇑P	P	04 40 46.3	-0.4
	baz=41						
L21A	Rawlins	40.98	81	⇑P	P	04 40 46.2	-0.8
	baz=41						
U14A	Mt Trumbull	40.98	92	⇑P	P	04 40 47.7	+0.7
	baz=41						
Q18A	Rafter H Ranch	41.09	86	⇓P	P	04 40 48.2	+0.3
	baz=41,SNR=5.8						
R17A	Hanksville Air	41.17	87	⇓P	P	04 40 48.9	+0.3
	baz=41						
P19A	Cripple Cowboy	41.44	85	⇑P	P	04 40 51.0	+0.2
	baz=41,SNR=6.2						
O20A	White River Ci	41.58	83	P	P	04 40 52.0	+0.1
	baz=42,SNR=6.7						
S17A	Black Ridge (B	41.62	88	⇑P	P	04 40 52.9	+0.6
	baz=42,SNR=6.2						
RSSD	Black Hills	41.67	76	eP	P	04 40 53.4	+0.7
RSSD				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
RSSD	Black Hills	41.67	76	eP	P	04 40 53.4	+0.7
	comp=Z,2.1nm,0.7s,mb3.9						
Q19A	Hogan Spring (	41.70	86	⇑P	P	04 40 52.6	-0.4
	baz=42						
P20A	De Beque	41.88	84	⇓P	P	04 40 54.5	+0.1
	baz=42						
V15A	Kaibab Nationa	41.99	91	⇓P	P	04 40 56.0	+0.7
	baz=42,SNR=5.6						
S18A	Hurst Farm, Bl	42.07	88	⇓P	P	04 40 55.4	-0.6
	baz=42						
R19A	Curley Farm, L	42.13	86	⇓P	P	04 40 55.7	-0.8
	baz=42						
Q20A	Ridgley Place,	42.28	85	⇑P	P	04 40 56.5	-1.2
	baz=42						
BOD	Bodaibo	42.45	309	eP	P	04 40 57.5	-1.3
BOD				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
T18A	Mexican Hat	42.51	88	⇓P	P	04 40 58.2	-1.3
	baz=42,SNR=7.1						
S19A	Harvey Farm, M	42.55	87	⇑P	P	04 40 59.0	-0.9
	baz=42						
WUAZ	Wupatki	42.67	91	⇑P	P	04 41 01.5	+0.6
	baz=43						
WUAZ	Wupatki	42.67	91	eP	P	04 41 01.7	+0.8
	comp=Z,8.2nm,1.0s,mb4.4						
R20A	Redvale	42.72	86	⇓P	P	04 41 00.8	-0.5
	baz=43						
Y14A	Wickenburg	42.76	94	⇑P	P	04 41 01.8	+0.2
	baz=43						
Q21A	Lamborn Mesa,	42.80	84	⇓P	P	04 41 01.7	-0.1
	baz=43						
W16A	Flagstaff	42.86	92	⇓P	P	04 41 03.3	+0.9
	baz=43						
ULM	Lac du Bonnet	42.86	64	P	P	04 41 01.9	-0.3
	comp=Z,3.1nm,0.6s,mb4.2,baz=306,slow=6.4,SNR=5.6						
ULM				LR	LR	04 59 10.8	
	comp=Z,185nm,21.3s,MS4.0,baz=259,slow=36						
T19A	Beclabito	43.22	88	⇑P	P	04 41 04.5	-0.8
	baz=43,SNR=8.0						
CN2	Changchun	43.90	286	⇑P	P	04 41 09.1	-1.6
CN2				epP	pP	04 41 21.4	-2.3
CN2				esP	sP	04 41 26.8	-2.5
CN2				eS	S	04 47 35.0	-3.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,200nm,17.0s,MS4.2						
CN2				LR	LR		
	comp=E,200nm,17.0s,MS4.2						
CN2				LR	LR		
	comp=Z,300nm,18.0s,MS4.2						
T22A	Edith	44.38	86	⇓P	P	04 41 14.3	-0.3
	baz=44						
SDCO	Great Sand Dun	44.74	84	eP	P	04 41 17.9	+0.4
	comp=Z,2.5nm,1.0s,mb4.0						
117A	Oracle	45.07	94	⇑P	P	04 41 19.9	-0.3
	baz=45						
TUC	Tucson	45.23	94	eP	P	04 41 22.2	+0.8
TUC				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.3						
TUC	Tucson	45.23	94	eP	P	04 41 22.2	+0.8
	comp=Z,7.2nm,1.5s,mb4.3						
118A	Homack Ranch,	45.49	93	⇑P	P	04 41 24.2	+0.7
	baz=45						
318A	Bisbee	46.32	94	⇓P	P	04 41 30.9	+0.8
	baz=46						
KSRS	Korea Array	46.43	277	P	P	04 41 31.2	+0.4
	comp=Z,3.9nm,1.0s,mb4.3,baz=54,slow=6.4,SNR=6.1						
KSRS				LR	LR	04 58 50.6	
	comp=Z,205nm,21.0s,MS4.1,baz=52,slow=33						
EYMN	Ely	46.54	64	eP	P	04 41 30.7	-0.8
	comp=Z,7.4nm,1.0s,mb4.6						
SPITS	Spitsbergen Ar	49.04	359	P	P	04 41 50.4	-0.1
	comp=Z,6.7nm,0.8s,mb4.7,baz=153,slow=2.2,SNR=7.6						
SPITS				LR	LR	05 02 17.2	
	comp=Z,202nm,19.7s,MS4.1,baz=160,slow=36						
WMOK	Wichita Mounta	50.78	82	eP	P	04 42 03.3	-1.0
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
WMOK	Wichita Mounta	50.78	82	eP	P	04 42 03.2	-1.1
	comp=Z,4.2nm,0.9s,mb4.4						
TLY	Talaya	50.84	307	eP	P	04 42 04.1	-0.4
TLY				eS	S	04 49 11.2	-5.6

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TLY                                pmax    pmax
      comp=Z,9.0nm,1.0s,mb4.7
ULN   Ulaanbaatar      51.55 301  eP      P        04 42 09.1 -0.8
ULN                                pmax    pmax
      comp=Z,5.0nm,1.0s,mb4.4
ULN   Ulaanbaatar      51.55 301  eP      P        04 42 09.1 -0.8
      comp=Z,4.9nm,1.0s,mb4.4
BJI   Beijing          51.64 288   P      P        04 42 08.8 -1.8
BJI                                S      S        04 49 32.8 +4.8
BJI                                SS     SS       04 53 03.0 -1.2
BJI                                pmax   pmax
      comp=Z,7.0nm,0.5s,mb4.8
BJI                                LR     LR
      comp=N,280nm,21.7s,MS4.4
BJI                                LR     LR
      comp=E,290nm,23.2s,MS4.4
BJI                                LR     LR
      comp=Z,290nm,23.2s,MS4.2
TXAR  Lajitas Array    51.64  91   P      P        04 42 10.4 -0.3
      comp=Z,4.7nm,0.8s,mb4.5,baz=297,slow=5.1,SNR=46
TXAR                               LR     LR       05 03 37.1
      comp=Z,156nm,19.4s,MS4.0,baz=355,slow=35
ZAK   Zakamensk        51.85 306  eP      P        04 42 11.7 -0.3
ZAK                               e                04 43 25.3
ZAK                                pmax   pmax
      comp=Z,2.0nm,1.0s,mb4.0
SONM  Songino Array    51.91 301   P      P        04 42 12.3 -0.2
      comp=Z,1.5nm,0.8s,mb4.0,baz=72,slow=5.1,SNR=9.5
SONM                               PcP    PcP      04 43 24.8 +0.2
      comp=Z,2.8nm,0.8s,baz=57,slow=3.3,SNR=7.2
HHC   Hu-ho-hao-te     53.72 292  eP      P        04 42 26.4 +0.4
HHC                                pP     pP       04 42 38.9 -0.4
HHC                                sP     sP       04 42 44.2 -0.6
HHC                                PP     PP       04 44 28.9 +2.0
HHC                                PcS    PcS      04 47 30.9 +0.2
HHC                               eS      S        04 49 53.6 -2.8
HHC                                sS     sS       04 50 15.0 -3.6
HHC                                ScS    ScS      04 52 08.2 -2.7
HHC                                SS     SS       04 53 33.6 -3.4
HHC                                pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
HHC                                pmax   pmax
      comp=Z,180nm,4.8s
HHC                                LR     LR
      comp=N,230nm,17.5s,MS4.5
HHC                                LR     LR
      comp=E,330nm,16.3s,MS4.5
HHC                                LR     LR
      comp=Z,380nm,12.9s,MS4.6
SCHQ  Schefferville    54.19  45   P      P        04 42 29.0 -0.3
      comp=Z,21nm,0.9s,mb5.1,baz=324,slow=7.7,SNR=28
SCHQ                               LR     LR       05 05 00.0
      comp=Z,257nm,18.3s,MS4.3,baz=314,slow=35
JMIC  Jan Mayen        55.38   8   LR     LR       05 10 39.6
      comp=Z,205nm,18.5s,MS4.2,baz=301,slow=41
NJ2   Nanjing          55.55 279  eP      P        04 42 42.8 +3.4
NJ2                                pmax   pmax
      comp=Z,10.0nm,0.5s,mb5.1
WVT   Waverly          56.28  73  eP      P        04 42 42.9 -1.6
WVT                                pmax   pmax
      comp=Z,5.0nm,1.0s,mb4.5
WVT   Waverly          56.28  73  eP      P        04 42 42.9 -1.6
      comp=Z,5.3nm,1.0s,mb4.5
KEV   Kevo             57.07 354  ep      P        04 42 48.7 -1.0
ARCES ARCESS Array B   57.38 355   P      P        04 42 51.1 -0.8
ARCES                                              04 43 45.5
ARCES ARCESS Array B   57.38 355   P      P        04 42 51.1 -0.7
      comp=Z,2.4nm,0.9s,mb4.2,baz=20,slow=7.0,SNR=6.4
ARCES                              PcP    PcP      04 43 45.5 +0.2
      comp=Z,5.0nm,0.9s,baz=20,slow=4.0,SNR=4.8
ARCES                              LR     LR       05 11 33.1
      comp=Z,186nm,18.1s,MS4.2,baz=354,slow=40
ARCES ARCESS Array B   57.38 355   P      P        04 42 51.1 -0.7
ARCES                              PcP    PcP      04 43 45.5 +0.2
ARCES                              LR     LR       05 11 33.1
ZALV  Zalesovo Beam    57.68 318   P      P        04 42 53.7 -0.5
ZALV                                               04 43 46.8
ZALV  Zalesovo Beam    57.68 318   P      P        04 42 53.7 -0.5
      comp=Z,1.3nm,0.6s,mb4.1,baz=36,slow=7.7,SNR=6.3
ZALV                               PcP    PcP      04 43 46.8 +0.1
      comp=Z,2.3nm,0.5s,baz=46,slow=4.3,SNR=9.1
ZALV                               LR     LR       05 09 05.3
      comp=Z,149nm,20.2s,MS4.1,baz=66,slow=37
ZALV  Zalesovo Beam    57.68 318   P      P        04 42 53.7 -0.5
ZALV                               PcP    PcP      04 43 46.8 +0.1
ZALV                               LR     LR       05 09 05.3
WHN   Wuhan            59.31 281   P      P        04 43 05.9  0.0
XAN   Xi'an            59.97 288   P      P        04 43 09.5 -0.8
XAN                                pP     pP       04 43 20.0 -3.8
XAN                                sP     sP       04 43 25.3 -4.0
XAN                                pmax   pmax
      comp=Z,7.0nm,1.1s,mb4.6
XAN                                pmax   pmax
      comp=Z,97nm,6.0s
GTA   Gaotai           61.16 298  eP      P        04 43 17.8 -0.6
GTA                                pmax   pmax
      comp=Z,3.0nm,1.1s,mb4.3
LZH   Lanzhou          61.37 293  eP      P        04 43 20.7 +0.9
LZH                                pP     pP       04 43 30.3 -3.1
LZH                                sP     sP       04 43 34.0 -4.8
LZH                                pmax   pmax
      comp=Z,26nm,1.2s,mb5.2
LZH                                pmax   pmax
      comp=Z,87nm,4.0s
KURK  Kurchatov        62.61 319  eP      P        04 43 27.2 -0.8
KURK                               pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.6
KURK  Kurchatov        62.61 319   P      P        04 43 28.1 +0.2
      comp=Z,1.5nm,0.7s,mb4.2,baz=48,slow=10,SNR=12
KURK                               PcP    PcP      04 44 07.1 +0.6
      comp=Z,1.9nm,0.8s,baz=32,slow=4.6,SNR=5.7
KURK                               LR     LR       05 12 18.9
      comp=Z,294nm,20.5s,MS4.4,baz=30,slow=38
KURK  Kurchatov        62.61 319  eP      P        04 43 27.2 -0.8
      comp=Z,2.7nm,0.6s,mb4.5
PRGR  Permogore        62.70 343  eP      P        04 43 28.2 -0.1
PRGR                               pmax   pmax
      comp=Z,20nm,1.2s,mb5.1
JOF   Joensuu          63.45 350  ep      P        04 43 32.5 -0.8
      comp=Z,2.0nm,0.8s,mb4.3
SVE   Sverdlovsk       63.62 333  eP      P        04 43 34.8 +0.2
BVAR  Borovoye Array   63.81 325   P      P        04 43 35.7 -0.1
BVAR                                               04 44 11.5
BVAR  Borovoye Array   63.81 325   P      P        04 43 35.7 -0.1
      comp=Z,4.7nm,0.9s,mb4.5,baz=49,slow=6.7,SNR=17
BVAR                               PcP    PcP      04 44 11.5 +0.1
      comp=Z,3.1nm,0.6s,baz=32,slow=3.2,SNR=5.7
BVAR                               LR     LR       05 14 44.2
      comp=Z,207nm,18.1s,MS4.3,baz=208,slow=39
BVAR  Borovoye Array   63.81 325   P      P        04 43 35.7 -0.1
BVAR                               PcP    PcP      04 44 11.5 +0.1
BVAR                               LR     LR       05 14 44.1
BRVK  Borovoye         63.82 325  eP      P        04 43 35.6 -0.3
BRVK                               pmax   pmax
      comp=Z,8.0nm,1.4s,mb4.6
BRVK  Borovoye         63.82 325  eP      P        04 43 35.6 -0.3
      comp=Z,7.8nm,1.4s,mb4.5
WMQ   Urumqi           63.99 309  eP      P        04 43 39.0 +1.8
WMQ                                pP     pP       04 43 51.0 +0.2
WMQ                                sP     sP       04 43 57.0 +0.7
WMQ                                PP     PP       04 46 01.0 +3.1
WMQ                               eS      S        04 52 10.0 +0.5
WMQ                                pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.8
WMQ                                pmax   pmax
      comp=Z,310nm,6.0s
WMQ                                LR     LR
      comp=N,270nm,21.8s,MS4.5
WMQ                                LR     LR
      comp=E,160nm,19.4s,MS4.5
WMQ                                LR     LR
      comp=Z,250nm,21.4s,MS4.4
MKAR  Makanchi Array   64.15 314   P      P        04 43 37.0 -1.2
      comp=Z,1.2nm,0.5s,mb4.2,baz=47,slow=6.7,SNR=23
MKAR                               LR     LR       05 12 20.8
      comp=Z,166nm,19.7s,MS4.2,baz=31,slow=37
KLMR  Klimovskoe       64.43 346   P      P        04 43 38.3 -1.5
KLMR                               pmax   pmax
      comp=Z,18nm,1.5s,mb4.9
ARU   Arti             64.53 334  eP      P        04 43 39.9 -0.6
ARU                                pmax   pmax
      comp=Z,15nm,1.4s,mb4.8
ARU   Arti             64.53 334  eP      P        04 43 39.9 -0.7
      comp=Z,15nm,1.4s,mb4.8
KAF   Kangasniemi      64.69 353  eP      P        04 43 40.3 -1.1
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KAF                                pmax   pmax
      comp=Z,3.0nm,0.5s,mb4.6
KAF   Kangasniemi      64.69 353  ep      P        04 43 40.3 -1.1
      comp=Z,3.1nm,0.5s,mb4.6
CD2   Chengdu          65.22 289   P      P        04 43 45.7 +0.3
CD2                                pP     pP       04 43 58.6 -0.4
CD2                                sP     sP       04 44 03.8 -0.7
CD2                                PcP    PcP      04 44 18.2 +0.7
CD2                                PP     PP       04 46 10.9 +2.0
CD2                                S      S        04 52 22.7 -2.3
CD2                                sS     sS       04 52 44.4 -3.3
CD2                                SS     SS       04 56 36.9 -0.7
CD2                                pmax   pmax
      comp=Z,20nm,1.2s,mb5.0
CD2                                pmax   pmax
      comp=Z,220nm,4.9s
CD2                                LR     LR
      comp=E,580nm,7.6s
CD2                                LR     LR
      comp=Z,480nm,5.9s
TAOE  Nuku Hiva Isla   65.91 150  eLR     LR       05 03 29.0
      comp=Z,1µm,23.6s
TAOE                              eLR     LR       05 03 29.0
      comp=Z,1µm,23.6s
TAOE                              eT               05 55 34.3
      comp=Z,151nm,0.2s
NOA   NORSAR Array B   66.28   1   P      P        04 43 51.2 -0.5
      comp=Z,0.8nm,0.8s,mb3.8,baz=73,slow=16,SNR=2.9
GYA   Guiyang          66.86 284⇑iP      P        04 43 56.5 +0.5
GYA                                pP     pP       04 44 09.4 -0.3
GYA                                sP     sP       04 44 14.5 -0.6
GYA                                PcP    PcP      04 44 27.5 +3.1
GYA                                PP     PP       04 46 26.0 +2.6
GYA                                ScP             04 48 25.8
GYA                                PcS             04 48 30.0
GYA                                S      S        04 52 45.5 +0.4
GYA                                sS     sS       04 53 07.0 -0.9
GYA                                SKS             04 53 48.5
GYA                                SS     SS       04 57 06.0 +2.6
GYA                                pmax   pmax
      comp=Z,20nm,1.0s,mb5.1
GYA                                pmax   pmax
      comp=Z,50nm,5.8s
HFS   Hagfors          67.19 359   P      P        04 43 56.6 -0.9
      comp=Z,1.9nm,0.4s,mb4.5,baz=42,slow=4.6,SNR=15
HNR   Honiara          68.11 215   LR     LR       05 12 21.1
      comp=Z,122nm,19.3s,MS4.1,baz=44,slow=34
PMOR  Pomariorio Ree   69.83 160  eT               06 00 27.8
      comp=Z,3.9nm,0.2s
AKTK  Aktyubinsk       69.99 331   P      P        04 44 15.1 -0.1
AKTO  Aktyubinsk       69.99 331   P      P        04 44 15.1 -0.1
      comp=Z,3.5nm,0.9s,mb4.3,baz=36,slow=6.8,SNR=6.0
TKM2  Tokmak 2         70.11 316  eP      P        04 44 16.2 +0.2
TKM2                               pmax   pmax
      comp=Z,10.0nm,1.3s,mb4.6
TKM2  Tokmak 2         70.11 316  eP      P        04 44 16.2 +0.2
      comp=Z,9.7nm,1.3s,mb4.6
KMI   Kunming          70.17 286   P      P        04 44 17.3 +0.6
KMI                                pP     pP       04 44 25.8 -4.6
KMI                                sP     sP       04 44 29.2 -6.7
KMI                                pmax   pmax
      comp=Z,15nm,1.2s,mb4.8
KMI                                LR     LR
      comp=Z,130nm,23.2s,MS4.1
OBN   Obninsk          70.40 346⇑eP      P        04 44 16.4 -1.2
OBN                               e       pP       04 44 31.4 +0.1
OBN                               eSS     SS       04 58 00.1 +3.8
OBN                                pmax   pmax
      comp=Z,36nm,2.5s,mb4.9
AAK   Ala-Archa        70.81 316  eP      P        04 44 20.0 -0.3
AAK                                pmax   pmax
      comp=Z,6.0nm,1.0s,mb4.5
AAK   Ala-Archa        70.81 316  eP      P        04 44 20.0 -0.3
      comp=Z,6.3nm,1.0s,mb4.5
EKS2  Erkin-Say        71.08 317  eP      P        04 44 21.8 -0.1
      comp=Z,7.1nm,1.2s,mb4.5
UCH   Uchtor           71.13 316  eP      P        04 44 23.1 +0.8
      comp=Z,5.5nm,1.2s,mb4.4
EKA   Eskdalemuir Ar   71.24   9   P      P        04 44 22.7  0.0
      comp=Z,5.7nm,0.9s,mb4.5,baz=333,slow=4.9,SNR=6.8
PPT   Papeete          72.00 162  eLR     LR       05 05 58.3
      comp=Z,250nm,21.8s,baz=9.2
PPT                               eLR     LR       05 05 58.3
      comp=Z,250nm,21.8s,baz=9.2
PPT   Papeete          72.00 162   LR     LR       05 10 41.8
      comp=Z,216nm,19.5s,MS4.4,baz=41,slow=31
KSH   Kashi            72.74 314   P      P        04 44 35.5 +3.6
KSH                               epP     pP       04 44 47.9 +2.1
KSH                               ePcP    PcP      04 44 53.0 +3.9
KSH                               ePP     PP       04 47 20.0 +6.4
KSH                               eS      S        04 53 56.8 +3.2
KSH                               esS     sS       04 54 19.1 +2.3
KSH                               eSKS             04 54 32.1
KSH                               eScS    ScS      04 54 36.1 +0.9
KSH                               eSS     SS       04 58 40.0 +7.0
KSH                                pmax   pmax
      comp=Z,7.0nm,0.6s,mb4.8
KSH                                LR     LR
      comp=N,110nm,4.7s
KSH                                LR     LR
      comp=E,230nm,5.0s
KSH                                LR     LR
      comp=Z,290nm,5.0s
SUW   Suwalki          72.96 353  eP      P        04 44 32.6 -0.4
VSR   Storozhevoye     73.73 343  eP      P        04 44 37.3 -0.3
VSR                                pmax   pmax
      comp=Z,3.0nm,0.4s,mb4.6
VSR                                pmax   pmax
      comp=N,2.0nm,0.6s
VSR                                pmax   pmax
      comp=E,3.0nm,0.4s
VORD  Divnogorie       73.95 343  eP      P        04 44 38.4 -0.4
VORD                               pmax   pmax
      comp=N,10.0nm,0.6s
VORD                               pmax   pmax
      comp=Z,9.0nm,0.6s,mb4.9
VORD                               pmax   pmax
      comp=E,10.0nm,0.7s
AKASG Malin Array Be   75.69 349   P      P        04 44 48.0 -0.9
      comp=E,7.9nm,0.6s,mb4.8,baz=12,slow=5.8,SNR=24
AKASG                              LR     LR       05 23 02.1
      comp=E,116nm,18.5s,MS4.2,baz=5.0,slow=40
AKASG Malin Array Be   75.69 349   P      P        04 44 48.0 -0.9
AKASG                              LR     LR       05 23 02.1
KIEV  Kiev             75.69 349  eP      P        04 44 47.6 -1.3
KIEV                               pmax   pmax
      comp=Z,17nm,1.0s,mb4.9
KIEV  Kiev             75.69 349  eP      P        04 44 47.5 -1.4
      comp=Z,17nm,1.0s,mb4.9
CHRT  Chiangrai        75.95 284 ⇓P       P        04 44 51.5 +0.6
      comp=Z,105nm,1.0s,mb5.7
CLL   Collm            76.04 360  eP      P        04 44 51.0 +0.1
BRG   Berggiesshubel   76.47 359   P      P        04 44 53.4 +0.1
BRG                                pmax   pmax
      comp=Z,4.0nm,1.1s,mb4.3
BRG   Berggiesshubel   76.47 359  e(P)    P        04 44 53.4  0.0
      comp=Z,6.7nm,1.1s,mb4.5
DPC   Dobruska-Polom   76.95 357  eP      P        04 44 56.5 +0.4
GIVF  Givet            77.05   5  eP      P        04 44 56.4 -0.2
BAIF  Baives           77.06   5  eP      P        04 44 56.6 -0.1
      comp=Z,26nm,1.1s,mb4.8
BAIF  Baives           77.06   5  eP      P        04 44 56.6 -0.1
BAIF                               pmax   pmax
      comp=Z,13nm,1.1s,mb4.8
BAIF  Baives           77.06   5  eP      P        04 44 56.6 -0.1
      comp=Z,13nm,1.1s,mb4.8
CHG   Chiang Mai       77.27 284 ⇓P       P        04 44 58.6 +0.3
      comp=Z,12nm,1.2s,mb4.7
CHTO  Chiang Mai       77.27 284  eP      P        04 44 58.2 -0.1
CHTO                               pmax   pmax
      comp=Z,16nm,1.4s,mb4.8
CHTO  Chiang Mai       77.27 284  eP      P        04 44 58.2 -0.1
      comp=Z,16nm,1.4s,mb4.8
PRU   Pruhonice        77.35 359  eP      P        04 44 58.6 +0.3
KWP   Kalwaria Pacla   77.35 353  eP      P        04 44 58.8 +0.5
KWP   Kalwaria Pacla   77.35 353⇓iP      P        04 44 58.9 +0.6
KWP   Kalwaria Pacla   77.35 353  eP      P        04 44 58.8 +0.5
OKC   Ostrava-Krasne   77.40 356  eP      P        04 44 59.0 +0.4
MORC  Moravsky Berou   77.48 357⇑iP      P        04 44 59.0 -0.1
MORC  Moravsky Berou   77.48 357  eP      P        04 44 58.7 -0.4
      comp=Z,2.3nm,0.8s,mb4.2
CMAR  Chiang Mai Arr   77.55 284   P      P        04 45 00.4 +0.5
      comp=Z,21nm,1.1s,mb5.0,baz=23,slow=5.7,SNR=56
CMAR                               LR     LR       05 20 29.7
      comp=Z,124nm,19.5s,MS4.2,baz=38,slow=37
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GRA1  Grafenberg Arr   77.66   1  eP      P        04 45 00.3 +0.3
      comp=Z,15nm,1.2s,mb4.8
GRF   Grafenberg Arr   77.66   1  eP      P        04 45 00.3 +0.3
GRF                                pmax   pmax
      comp=Z,15nm,1.2s,mb4.8
GRF   Grafenberg Arr   77.66   1  eP      P        04 45 00.3 +0.3
GRF                                pmax   pmax
      comp=Z,15nm,1.2s,mb4.8
GRF   Grafenberg Arr   77.66   1  eP      P        04 45 00.3 +0.3
      comp=Z,15nm,1.2s,mb4.8
STHS  Stebnicka Huta   77.67 354  eP      P        04 45 01.3 +1.2
STHS                               pmax   pmax
      comp=Z,13nm,1.0s,mb4.8
STHS  Stebnicka Huta   77.67 354  eP      P        04 45 01.3 +1.2
      comp=Z,13nm,1.0s,mb4.8
VRAC  Vranov           77.98 357⇑iP      P        04 45 02.3 +0.5
VRAC  Vranov           77.98 357   P      P        04 45 01.7 -0.2
      comp=Z,5.1nm,0.7s,mb4.6,baz=8.5,slow=5.5,SNR=8.7
VRAC  Vranov           77.98 357 ⇑P       P        04 45 02.2 +0.4
FLN   La Foliniere     78.00   9  eP      P        04 45 01.4 -0.5
KOLS  Kolonicke sedl   78.08 353  eP      P        04 45 03.0 +0.6
KOLS                               pmax   pmax
      comp=Z,8.0nm,1.1s,mb4.6
KOLS  Kolonicke sedl   78.08 353  eP      P        04 45 03.0 +0.6
      comp=Z,7.9nm,1.1s,mb4.6
ROSF  Rostrenen        78.14  11  eP      P        04 45 02.4 -0.3
CRVS  Cervenica-Dubn   78.16 354  eP      P        04 45 03.2 +0.3
CRVS                              e                04 49 47.8
CRVS                               pmax   pmax
      comp=Z,5.0nm,1.0s,mb4.4
CRVS  Cervenica-Dubn   78.16 354  eP      P        04 45 03.1 +0.2
CRVS                              e                04 49 47.8
CRVS                              e                04 50 02.1
CRVS  Cervenica-Dubn   78.16 354  eP      P        04 45 03.2 +0.3
      comp=Z,5.0nm,1.0s,mb4.4
CRVS                              e                04 49 47.8
CRVS                              e                04 50 02.1
LDF   La Druitiere     78.20   8  eP      P        04 45 02.6 -0.4
      comp=Z,6.5nm,0.6s,mb4.4
LDF   La Druitiere     78.20   8  eP      P        04 45 02.6 -0.4
LDF                                pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.4
LDF   La Druitiere     78.20   8  eP      P        04 45 02.6 -0.4
      comp=Z,3.3nm,0.6s,mb4.4
KHC   Kasperske Hory   78.22 359  eP      P        04 45 03.7 +0.6
SGMF  Saint Gilles     78.30  10  eP      P        04 45 03.5 -0.1
GRR   Gorron           78.33   9  eP      P        04 45 03.5 -0.3
GERES GERESS Array B   78.50 359   P      P        04 45 04.6 -0.1
      comp=Z,1.8nm,0.8s,mb4.1,baz=3.8,slow=4.0,SNR=16
QUIF  Quistinic        78.56  11  eP      P        04 45 05.1  0.0
KECS  Kecovo           78.64 355  eP      P        04 45 05.1 -0.4
MEZF  Maizieres J'vi   78.66   5  eP      P        04 45 05.8 +0.2
VYHS  Vyhne            78.71 356  eP      P        04 45 06.5 +0.6
SMOL  Smolenice        78.75 357  eP      P        04 45 07.5 +1.4
CDF   Champ du Feu     78.85   4  eP      P        04 45 06.7 +0.1
MODS  Modra-Piesok     78.90 357  eP      P        04 45 08.2 +1.3
MODS                               pmax   pmax
      comp=Z,6.0nm,1.1s,mb4.4
MODS  Modra-Piesok     78.90 357  eP      P        04 45 08.1 +1.2
MODS  Modra-Piesok     78.90 357  eP      P        04 45 08.2 +1.3
      comp=Z,6.2nm,1.1s,mb4.5
ZST   Bratislava       79.08 357  eP      P        04 45 09.0 +1.1
ZST                                pmax   pmax
      comp=Z,8.0nm,0.7s,mb4.8
ZST   Bratislava       79.08 357  eP      P        04 45 09.0 +1.1
ZST                               e                04 49 42.9
ZST   Bratislava       79.08 357  eP      P        04 45 09.0 +1.1
      comp=Z,8.4nm,0.7s,mb4.8
ZST                               e                04 49 42.9
BURAR Bucovina Array   79.15 351⇓iP      P        04 45 08.2 -0.1
BURAR Bucovina Array   79.15 351 ⇓P       P        04 45 08.2 -0.1
HAU   Haudompre        79.21   4  eP      P        04 45 08.6  0.0
      comp=Z,15nm,1.1s,mb4.5
HAU   Haudompre        79.21   4  eP      P        04 45 08.6  0.0
HAU                                pmax   pmax
      comp=Z,7.0nm,1.1s,mb4.5
HAU   Haudompre        79.21   4  eP      P        04 45 08.6  0.0
      comp=Z,7.4nm,1.1s,mb4.5
PSZ   Piszkesteto      79.24 355⇑iP      P        04 45 09.6 +0.8
PSZ   Piszkesteto      79.24 355  eP      P        04 45 09.1 +0.3
      comp=Z,13nm,1.2s,mb4.7
HINF  Hinteralfeld     79.42   4  eP      P        04 45 09.7 -0.1
HYF   Humbligny        79.74   7  eP      P        04 45 11.7 +0.2
LOR   Lormes           79.82   6  eP      P        04 45 11.8 -0.1
      comp=Z,26nm,1.2s,mb4.7
LOR   Lormes           79.82   6  eP      P        04 45 11.8 -0.1
LOR                                pmax   pmax
      comp=Z,13nm,1.2s,mb4.7
LOR   Lormes           79.82   6  eP      P        04 45 11.8 -0.1
      comp=Z,13nm,1.2s,mb4.7
KIV   Kislovodsk       79.96 338⇑eP      P        04 45 13.3 +0.5
KIV                                pmax   pmax
      comp=Z,15nm,0.8s,mb5.0
KIV   Kislovodsk       79.96 338  eP      P        04 45 12.5 -0.3
      comp=Z,22nm,1.1s,mb5.0
SSF   Saint Saulge     80.00   6  eP      P        04 45 12.9  0.0
      comp=Z,22nm,1.0s,mb4.7
SSF   Saint Saulge     80.00   6  eP      P        04 45 12.9  0.0
SSF                                pmax   pmax
      comp=Z,11nm,1.0s,mb4.7
SSF   Saint Saulge     80.00   6  eP      P        04 45 12.9  0.0
      comp=Z,11nm,1.0s,mb4.7
MFF   Saint Martin d   80.17   9  eP      P        04 45 14.0 +0.2
      comp=Z,28nm,0.9s,mb4.9
MFF   Saint Martin d   80.17   9  eP      P        04 45 14.0 +0.2
MFF                                pmax   pmax
      comp=Z,14nm,0.9s,mb4.9
MFF   Saint Martin d   80.17   9  eP      P        04 45 14.0 +0.2
      comp=Z,14nm,0.9s,mb4.9
DRGR                   80.18 353⇑iP      P        04 45 13.6 -0.3
DRGR                   80.18 353 ⇑P       P        04 45 13.7 -0.2
AVF   Avril sur Loir   80.26   6  eP      P        04 45 14.1 -0.2
      comp=Z,22nm,1.1s,mb4.7
AVF   Avril sur Loir   80.26   6  eP      P        04 45 14.1 -0.2
AVF                                pmax   pmax
      comp=Z,11nm,1.1s,mb4.7
AVF   Avril sur Loir   80.26   6  eP      P        04 45 14.1 -0.2
      comp=Z,11nm,1.1s,mb4.7
KBA   Koelnbreinsper   80.27 359⇑iP      P        04 45 15.4 +1.1
      comp=Z,22nm,0.9s,mb5.1
FETA  Feichten         80.32   1⇑iP      P        04 45 15.3 +0.7
      comp=Z,15nm,1.1s,mb4.8
SMF   Signal de Mont   80.44   6  eP      P        04 45 15.1 -0.2
      comp=Z,30nm,1.0s,mb4.9
SMF   Signal de Mont   80.44   6  eP      P        04 45 15.1 -0.2
SMF                                pmax   pmax
      comp=Z,15nm,1.0s,mb4.9
SMF   Signal de Mont   80.44   6  eP      P        04 45 15.1 -0.2
      comp=Z,15nm,1.0s,mb4.9
BGF   Bois d'Agland    80.46   7  eP      P        04 45 15.3 -0.1
      comp=Z,22nm,0.9s,mb4.8
BGF   Bois d'Agland    80.46   7  eP      P        04 45 15.3 -0.1
BGF                                pmax   pmax
      comp=Z,11nm,0.9s,mb4.8
BGF   Bois d'Agland    80.46   7  eP      P        04 45 15.3 -0.1
      comp=Z,11nm,0.9s,mb4.8
DAVOS Davos            80.49   2   P      P        04 45 16.2 +0.6
DAVOX Davos/Dischmat   80.55   2   P      P        04 45 16.1 +0.3
      comp=Z,7.3nm,0.7s,mb4.7,baz=2.6,slow=4.1,SNR=12
CABF  La Chapelle      80.59   4  eP      P        04 45 16.6 +0.5
      comp=Z,46nm,1.4s,mb4.9
CABF  La Chapelle      80.59   4  eP      P        04 45 16.6 +0.5
CABF                               pmax   pmax
      comp=Z,23nm,1.4s,mb4.9
CABF  La Chapelle      80.59   4  eP      P        04 45 16.6 +0.5
      comp=Z,23nm,1.4s,mb4.9
SOKA  Soboth           80.65 358⇓iP      P        04 45 17.3 +0.8
      comp=Z,20nm,1.2s,mb4.9
TCF   Toulx Ste Croi   80.68   7  eP      P        04 45 16.4 -0.2
      comp=Z,13nm,1.0s,mb4.5
TCF   Toulx Ste Croi   80.68   7  eP      P        04 45 16.4 -0.2
TCF                                pmax   pmax
      comp=Z,7.0nm,1.0s,mb4.5
TCF   Toulx Ste Croi   80.68   7  eP      P        04 45 16.4 -0.2
      comp=Z,6.7nm,1.0s,mb4.5
OBKA  Obir             80.83 359⇓iP      P        04 45 18.1 +0.8
      comp=Z,18nm,0.9s,mb5.0
RKT   Rikitea          80.94 150  eT               06 14 19.8
      comp=Z,0.9nm,0.2s
SOC   Sochi            80.95 340  eP      P        04 45 17.5 -0.6
SOC                               e*PP    pP       04 45 25.5 -6.6
SOC                               eS      S        04 55 21.3 -1.7
SOC                                pmax   pmax
      comp=Z,33nm,1.1s,mb5.2
MLR   Muntele Rosu     81.19 350   P      P        04 45 20.1 +0.8
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             comp=Z,2.3nm,0.7s,mb4.2,baz=306,slow=6.3,SNR=3.7
VOIR                          81.33 351 ⇓iP     P        04 45 20.2 +0.2
VOIR                          81.33 351 ⇓P      P        04 45 20.2 +0.2
BZS   Buzias                  81.42 354 ⇑iP     P        04 45 20.3 -0.3
BZS   Buzias                  81.42 354 ⇑P      P        04 45 20.3 -0.3
GZR   Gura Zlata              81.56 353 ⇓iP     P        04 45 21.4 +0.1
GZR   Gura Zlata              81.56 353 ⇓P      P        04 45 21.4 +0.1
RJF   Les Rejaudoux           81.60   8 eP      P        04 45 21.2 -0.3
             comp=Z,26nm,1.3s,mb4.7
RJF   Les Rejaudoux           81.60   8 eP      P        04 45 21.2 -0.3
RJF                                       pmax  pmax
             comp=Z,13nm,1.3s,mb4.7
RJF   Les Rejaudoux           81.60   8 eP      P        04 45 21.2 -0.3
             comp=Z,13nm,1.3s,mb4.7
LPL   La Plagne               81.72   4 eP      P        04 45 22.8 +0.7
LPG   La Plagne               81.74   4 eP      P        04 45 23.0 +0.8
LFF   La Frestale             81.90   8 eP      P        04 45 23.2 +0.1
             comp=Z,20nm,0.7s,mb4.8
LFF   La Frestale             81.90   8 eP      P        04 45 23.2 +0.1
LFF                                       pmax  pmax
             comp=Z,10.0nm,0.7s,mb4.8
LFF   La Frestale             81.90   8 eP      P        04 45 23.2 +0.1
             comp=Z,9.8nm,0.7s,mb4.8
CAF   Calviac                 82.02   7 eP      P        04 45 24.0 +0.3
             comp=Z,19nm,1.0s,mb4.7
CAF   Calviac                 82.02   7 eP      P        04 45 24.0 +0.3
CAF                                       pmax  pmax
             comp=Z,10.0nm,1.0s,mb4.7
CAF   Calviac                 82.02   7 eP      P        04 45 24.0 +0.3
             comp=Z,9.5nm,1.0s,mb4.7
BNI   Bardonecchia            82.18   4 eP      P        04 45 25.8 +1.3
BNI                                       pmax  pmax
             comp=Z,18nm,1.0s,mb5.0
BNI   Bardonecchia            82.18   4 eP      P        04 45 25.8 +1.3
             comp=Z,18nm,1.0s,mb5.0
VIVF  Saint-Julien-l          82.27   6 eP      P        04 45 25.5 +0.5
             comp=Z,24nm,1.1s,mb4.7
VIVF  Saint-Julien-l          82.27   6 eP      P        04 45 25.5 +0.5
VIVF                                      pmax  pmax
             comp=Z,12nm,1.1s,mb4.7
VIVF  Saint-Julien-l          82.27   6 eP      P        04 45 25.5 +0.5
             comp=Z,12nm,1.1s,mb4.7
ORIF  Oris-en-Rattie          82.27   5 eP      P        04 45 25.8 +0.8
             comp=Z,32nm,1.3s,mb4.8
ORIF  Oris-en-Rattie          82.27   5 eP      P        04 45 25.8 +0.8
ORIF                                      pmax  pmax
             comp=Z,16nm,1.3s,mb4.8
ORIF  Oris-en-Rattie          82.27   5 eP      P        04 45 25.8 +0.8
             comp=Z,16nm,1.3s,mb4.8
MBDF  Montbardon              82.51   4 eP      P        04 45 27.7 +1.4
             comp=Z,30nm,0.9s,mb5.0
MBDF  Montbardon              82.51   4 eP      P        04 45 27.7 +1.4
MBDF                                      pmax  pmax
             comp=Z,15nm,0.9s,mb5.0
MBDF  Montbardon              82.51   4 eP      P        04 45 27.7 +1.4
             comp=Z,15nm,0.9s,mb5.0
LASF  Ste Croix               83.00   6 eP      P        04 45 29.4 +0.6
CTAO  Charters Tower          83.06 223 eP      P        04 45 28.8 -0.5
CTAO                                      pmax  pmax
             comp=Z,8.0nm,1.3s,mb4.6
CTAO  Charters Tower          83.06 223 eP      P        04 45 28.8 -0.5
             comp=Z,7.9nm,1.3s,mb4.6
GNI   Garni                   83.08 336 eP      P        04 45 29.8 +0.5
GNI                                       pmax  pmax
             comp=Z,5.0nm,1.1s
SMRF  Simiane la Rot          83.20   5 eP      P        04 45 29.7 -0.2
             comp=Z,8.0nm,0.7s,mb4.6
SMRF  Simiane la Rot          83.20   5 eP      P        04 45 29.7 -0.2
             comp=Z,8.0nm,0.7s,mb4.9
SBF   Sospel                  83.39   4 eP      P        04 45 31.2 +0.3
             comp=Z,52nm,0.9s,mb5.2
SBF   Sospel                  83.39   4 eP      P        04 45 31.2 +0.3
SBF                                       pmax  pmax
             comp=Z,26nm,0.9s,mb5.3
SBF   Sospel                  83.39   4 eP      P        04 45 31.2 +0.3
             comp=Z,26nm,0.9s,mb5.3
SJPF  Ste Jean                83.52  10 eP      P        04 45 31.5  0.0
MTLF  Montolieu               83.61   7 eP      P        04 45 32.5 +0.5
             comp=Z,15nm,0.8s,mb4.9
MTLF  Montolieu               83.61   7 eP      P        04 45 32.5 +0.5
MTLF                                      pmax  pmax
             comp=Z,7.0nm,0.8s,mb4.8
MTLF  Montolieu               83.61   7 eP      P        04 45 32.5 +0.5
             comp=Z,7.3nm,0.8s,mb4.9
FRF   La Foret Royal          83.66   4 eP      P        04 45 32.7 +0.4
EPF   Esparros                83.76   9 eP      P        04 45 32.4 -0.3
             comp=Z,6.8nm,0.8s,mb4.5
EPF   Esparros                83.76   9 eP      P        04 45 32.4 -0.3
EPF                                       pmax  pmax
             comp=Z,3.0nm,0.8s,mb4.5
EPF   Esparros                83.76   9 eP      P        04 45 32.4 -0.3
             comp=Z,3.4nm,0.8s,mb4.5
ETSF  Etsaut                  83.80  10 eP      P        04 45 33.7 +0.7
             comp=Z,32nm,1.2s,mb5.0
ETSF  Etsaut                  83.80  10 eP      P        04 45 33.7 +0.7
ETSF                                      pmax  pmax
             comp=Z,16nm,1.2s,mb5.0
ETSF  Etsaut                  83.80  10 eP      P        04 45 33.7 +0.7
             comp=Z,16nm,1.2s,mb5.0
LMR   La Mourre               83.88   4 eP      P        04 45 33.7 +0.3
PGF   Pioggiola               84.76   3 eP      P        04 45 38.5 +0.7
             comp=Z,58nm,1.0s,mb5.3
PGF   Pioggiola               84.76   3 eP      P        04 45 38.5 +0.7
PGF                                       pmax  pmax
             comp=Z,29nm,1.0s,mb5.4
PGF   Pioggiola               84.76   3 eP      P        04 45 38.5 +0.7
             comp=Z,29nm,1.0s,mb5.4
BRTR  Keskin Array B          85.82 344 P       P        04 45 44.2 +1.0
             comp=Z,11nm,0.9s,mb5.1,baz=14,slow=1.9,SNR=36
BRTR                                      LR    LR       05 22 37.3
             comp=Z,108nm,21.9s,MS4.2,baz=346,slow=35
MALT  Malatya                 86.28 340 eP      P        04 45 46.7 +1.2
MALT                                      pmax  pmax
             comp=Z,2.0nm,0.4s,mb4.7
MALT  Malatya                 86.28 340 eP      P        04 45 46.7 +1.2
             comp=Z,1.8nm,0.4s,mb4.7
ESDC  Sonseca Array           86.59  13 P       P        04 45 46.6 -0.3
             comp=Z,1.7nm,0.7s,mb4.4,baz=344,slow=5.5,SNR=7.1
ESDC                                      LR    LR       05 28 26.2
             comp=Z,111nm,20.4s,MS4.2,baz=335,slow=38
ESDC  Sonseca Array           86.59  13 P       P        04 45 46.6 -0.3
ESDC                                      LR    LR       05 28 26.2
KULM  Kulim                   86.90 275 eP      P        04 45 49.1 +0.2
             comp=Z,24nm,1.3s,mb5.3
WRA   Warramunga Arr          88.28 233 P       P        04 45 54.0 -1.2
             comp=Z,4.0nm,1.1s,mb4.5,baz=34,slow=5.9,SNR=9.7
HYB   Hyderabad               89.81 299 i P     P        04 46 03.5 +0.9
HYB   Hyderabad               89.81 299 eP      P        04 46 02.0 -0.6
ASAR  Alice Springs           91.67 231 P       P        04 46 10.4 -0.5
             comp=Z,1.8nm,0.9s,mb4.4,baz=34,slow=3.3,SNR=9.6
TSUM  Tsumeb                 146.01 351 ePKPbc  PKPbc    04 52 43.8 +0.3
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MOS ***09*** *04:37:31.8±0.8, 10°.64N×41°.82W, h10^{km}, mb4.9/38, Error ellipse: s-maj=9.6km s-min=6.8km az=50.0*

ISCJB ***09*** *04:37:32.4±0.3, 10°.82N±0°.05×41°.88W±0°.03, h10^{km}, mb4.6/85, MS3.9/16, Error ellipse: s-maj=7.9km s-min=4.1km az=175.8*

IDC ***09*** *04:37:32.3±0.5, 10°.75N×41°.79W, h0^{km}, mb4.4/30, mb1 4.5/30, mb1mx4.5/31, mbtmp4.4/30, MS3.9/12, Ms1 3.9/12, ms1mx3.8/28, Error ellipse: s-maj=17.1km s-min=10.7km az=156.0*

NEIC ***09*** *04:37:34.2±0.2, 10°.71N×41°.82W, h10^{km}, mb4.8/52, Error ellipse: s-maj=7.3km s-min=4.6km az=172.0*

ISC 09 04:37:34.3±0.3, **10°.79N**±0°.05×**41°.88W**±0°.03, **h10^{km}, (h11^{km}**±.4^{km}**:pP-P), n360,** σ**0^s.72**/344, **mb4.6**/85, **MS3.9**/16, **97C-104D, Northern Mid-Atlantic Ridge**

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Code  Station Name             Δ°   AZ°  Phase ID               Time      Res
                                          Op      ISC          h  m  s    ISC
RCBR  Riachuelo               17.55 160 eP      Pn       04 41 40.4 +1.3
             14nm,0.8s
BBTS  Babate                  25.01  78 LR      LR       04 49 57.8
             comp=Z,341nm,18.8s,MS3.9,baz=30,slow=30
SDV   Santo Domingo           28.39 269 P       P        04 43 29.2 +0.1
             8.7nm,0.7s,mb4.5,baz=109,slow=6.8,SNR=7.8
SDV   Santo Domingo           28.39 269 eP      P        04 43 29.9 +0.7
             16nm,1.1s,mb4.6
ROSC  El Rosal                32.67 262 P       P        04 44 08.9 +1.9
             15nm,0.8s,mb5.0,baz=109,slow=21,SNR=8.5
ROSC                                      LR    LR       04 58 08.4
             comp=Z,294nm,20.2s,MS4.0,baz=26,slow=38
SIV   San Ignacio             32.69 216 P       P        04 44 08.2 +1.1
             5.5nm,0.7s,mb4.6,baz=58,slow=9.2,SNR=28
LIC   Lamto                   36.71  94 eP      P        04 44 40.0 -1.9
             67nm,1.0s,mb5.1
LIC                                      eMLR   MLR
             comp=Z,169nm,18.0s,MS3.6
LIC   Lamto                   36.71  94 eP      P        04 44 40.0 -1.9
             comp=Z,33nm,1.0s,mb5.1
LIC                                       LR    LR
             comp=Z,80nm,18.0s,MS3.5
DBIC  Dimbokro                36.80  93 P       P        04 44 41.3 -1.5
             comp=Z,30nm,0.9s,mb5.1,baz=268,slow=9.4,SNR=44
DBIC                                      LR    LR       04 57 57.5
             comp=Z,161nm,18.1s,MS3.9,baz=257,slow=33
OTAV  Otavalo                 37.83 256 eP      P        04 44 53.1 +1.6
             comp=Z,38nm,1.7s,mb4.8
CPUP  Villa Florida           39.84 202 LR      LR       05 01 35.4
             comp=Z,140nm,19.2s,MS3.8,baz=3.8,slow=36
ATAH  Atahualpa               40.42 246 P       P        04 45 15.3 +2.1
             comp=Z,11nm,0.9s,mb4.6,baz=116,slow=7.4,SNR=8.0
MDT   Midelt                  40.64  52 P       P        04 45 15.7 +0.9
             comp=Z,1.6nm,0.8s,mb3.7,baz=352,slow=7.7,SNR=4.0
MDT                                       LR    LR       04 59 38.2
             comp=Z,105nm,18.6s,MS3.7,baz=283,slow=33
EVO   Evora                   40.95  42 eP      P        04 45 20.8 +3.6
             comp=Z,19nm,1.3s,mb4.6
LVC   Limon Verde             42.47 218 P       P        04 45 28.1 -1.7
             comp=Z,2.4nm,0.6s,mb4.0,baz=35,slow=3.0,SNR=5.4
LVC   Limon Verde             42.47 218 eP      P        04 45 28.5 -1.3
             comp=Z,2.7nm,0.5s,mb4.1
TORD  Torodi Ar. Bea          42.65  82 P       P        04 45 30.1 -1.4
             comp=Z,14nm,0.6s,mb4.8,baz=279,slow=9.4,SNR=171
TORD                                      PcP   PcP      04 47 22.4 -1.2
             comp=Z,0.7nm,0.6s,baz=311,slow=3.1,SNR=3.2
TORD                                      LR    LR       05 03 37.1
             comp=Z,188nm,18.5s,MS4.0,baz=250,slow=37
PVRL  Vila Real               42.69  39 eP      P        04 45 35.7 +4.3
             comp=Z,17nm,1.4s,mb4.6
MVO   Moncorvo                43.05  39 eP      P        04 45 33.2 -1.2
GOGA  Godfrey                 44.23 307 eP      P        04 45 44.7 +0.8
GOGA                                      pmax  pmax
             comp=Z,23nm,1.4s,mb4.7
GOGA  Godfrey                 44.23 307 eP      P        04 45 44.7 +0.7
             comp=Z,22nm,1.4s,mb4.7
ESDC  Sonseca Array           44.23  43 LR      LR       05 00 16.6
             comp=Z,178nm,21.5s,MS4.0,baz=290,slow=31
TKL   Tuckaleechee C          45.29 310 P       P        04 45 53.2 +0.8
             comp=Z,2.4nm,0.6s,mb4.2,baz=142,slow=13,SNR=3.7
TZTN  Tazewell                45.47 311 eP      P        04 45 58.1 +4.3
             comp=Z,45nm,1.7s,mb5.0
TAM   Tamanrasset             46.73  69 eP      P        04 46 04.5 +0.5
TAM                                       pmax  pmax
             comp=Z,6.0nm,1.3s,mb4.4
TAM   Tamanrasset             46.73  69 eP      P        04 46 04.5 +0.5
             comp=Z,5.5nm,1.3s,mb4.3
SWET  Sewanee                 46.77 309 eP      P        04 46 05.8 +1.7
SJPF  Ste Jean                47.74  40 eP      P        04 46 12.5 +1.0
             comp=Z,22nm,1.2s,mb4.8
SJPF  Ste Jean                47.74  40 eP      P        04 46 12.5 +1.0
SJPF                                      pmax  pmax
             comp=Z,11nm,1.2s,mb4.8
SJPF  Ste Jean                47.74  40 eP      P        04 46 12.5 +1.0
             comp=Z,11nm,1.2s,mb4.8
ETSF  Etsaut                  48.06  41 eP      P        04 46 15.5 +1.5
             comp=Z,8.5nm,0.8s,mb4.5
ETSF  Etsaut                  48.06  41 eP      P        04 46 15.5 +1.5
ETSF                                      pmax  pmax
             comp=Z,4.0nm,0.8s,mb4.5
ETSF  Etsaut                  48.06  41 eP      P        04 46 15.5 +1.5
             comp=Z,4.3nm,0.8s,mb4.5
SCHQ  Schefferville           48.16 341 P       P        04 46 15.2 +0.7
             comp=Z,5.9nm,0.5s,mb4.8,baz=146,slow=6.1,SNR=13
PLAL  Pickwick Lake           48.35 308 eP      P        04 46 16.1 -0.3
WVT   Waverly                 48.53 309 eP      P        04 46 18.4 +0.6
WVT                                       pmax  pmax
             comp=Z,7.0nm,0.7s,mb4.8
WVT   Waverly                 48.53 309 eP      P        04 46 18.4 +0.7
             comp=Z,7.2nm,0.7s,mb4.8
EPF   Esparros                48.70  41 eP      P        04 46 20.3 +1.4
             comp=Z,11nm,0.7s,mb4.7
EPF   Esparros                48.70  41 eP      P        04 46 20.3 +1.4
EPF                                       pmax  pmax
             comp=Z,6.0nm,0.7s,mb4.7
EPF   Esparros                48.70  41 eP      P        04 46 20.3 +1.4
             comp=Z,5.7nm,0.7s,mb4.7
OLIL  Olney                   49.64 312 eP      P        04 46 28.0 +1.8
             comp=Z,57nm,1.6s,mb5.3
LFF   La Frestale             49.88  39 eP      P        04 46 28.2 +0.3
MTLF  Montolieu               50.06  41 eP      P        04 46 29.2 -0.1
             comp=Z,6.6nm,0.8s,mb4.4
MTLF  Montolieu               50.06  41 eP      P        04 46 29.2 -0.1
MTLF                                      pmax  pmax
             comp=Z,3.0nm,0.8s,mb4.4
MTLF  Montolieu               50.06  41 eP      P        04 46 29.2 -0.1
             comp=Z,3.3nm,0.8s,mb4.4
MFF   Saint Martin d          50.19  37 eP      P        04 46 30.5 +0.3
             comp=Z,5.3nm,0.7s,mb4.4
MFF   Saint Martin d          50.19  37 eP      P        04 46 30.5 +0.3
MFF                                       pmax  pmax
             comp=Z,3.0nm,0.7s,mb4.4
MFF   Saint Martin d          50.19  37 eP      P        04 46 30.5 +0.3
             comp=Z,2.7nm,0.7s,mb4.4
RJF   Les Rejaudoux           50.53  39 eP      P        04 46 32.9  0.0
RJF                                      eMLR   MLR
             comp=Z,234nm,18.8s,MS3.9
RJF   Les Rejaudoux           50.53  39 eP      P        04 46 32.9  0.0
RJF                                       LR    LR
             comp=Z,230nm,18.8s,MS4.2
CAF   Calviac                 50.69  40 eP      P        04 46 34.4 +0.3
             comp=Z,19nm,1.1s,mb4.7
CAF   Calviac                 50.69  40 eP      P        04 46 34.4 +0.3
CAF                                       pmax  pmax
             comp=Z,10.0nm,1.1s,mb4.7
CAF   Calviac                 50.69  40 eP      P        04 46 34.4 +0.3
             comp=Z,9.7nm,1.1s,mb4.7
FVM   French Village          51.10 310 eP      P        04 46 38.0 +0.7
FVM                                       pmax  pmax
             comp=Z,18nm,1.2s,mb4.9
FVM   French Village          51.10 310 eP      P        04 46 38.0 +0.7
             comp=Z,18nm,1.2s,mb4.9
TCF   Toulx Ste Croi          51.44  38 eP      P        04 46 40.1 +0.5
             comp=Z,30nm,1.3s,mb4.8
TCF   Toulx Ste Croi          51.44  38 eP      P        04 46 40.1 +0.5
TCF                                       pmax  pmax
             comp=Z,15nm,1.3s,mb4.8
TCF   Toulx Ste Croi          51.44  38 eP      P        04 46 40.1 +0.5
             comp=Z,15nm,1.3s,mb4.8
LASF  Ste Croix               51.45  41 eP      P        04 46 40.0 +0.2
             comp=Z,34nm,1.4s,mb4.8
UALR  University of           51.65 306 eP      P        04 46 43.0 +1.5
             comp=Z,11nm,0.9s,mb4.8
BGF   Bois d'Agland           51.95  38 eP      P        04 46 43.4 -0.1
             comp=Z,19nm,1.0s,mb4.7
BGF   Bois d'Agland           51.95  38 eP      P        04 46 43.4 -0.1
BGF                                       pmax  pmax
             comp=Z,9.0nm,1.0s,mb4.7
BGF   Bois d'Agland           51.95  38 eP      P        04 46 43.4 -0.1
             comp=Z,9.4nm,1.0s,mb4.7
VIVF  Saint-Julien-l          52.31  41 eP      P        04 46 47.7 +1.5
             comp=Z,13nm,1.1s,mb4.5
VIVF  Saint-Julien-l          52.31  41 eP      P        04 46 47.7 +1.5
VIVF                                      pmax  pmax
             comp=Z,7.0nm,1.1s,mb4.5
VIVF  Saint-Julien-l          52.31  41 eP      P        04 46 47.7 +1.5
             comp=Z,6.6nm,1.1s,mb4.5
AVF   Avril sur Loir          52.37  38 eP      P        04 46 46.6  0.0
             comp=Z,7.6nm,0.9s,mb4.3
AVF   Avril sur Loir          52.37  38 eP      P        04 46 46.6  0.0
AVF                                       pmax  pmax
             comp=Z,4.0nm,0.9s,mb4.3
AVF   Avril sur Loir          52.37  38 eP      P        04 46 46.6  0.0
             comp=Z,3.8nm,0.9s,mb4.3
KEST  Kesra                   52.50  53 LR      LR       05 05 44.1
             comp=Z,52nm,19.3s,MS3.6,baz=198,slow=32
SSF   Saint Saulge            52.59  38 eP      P        04 46 48.1 -0.1
             comp=Z,18nm,1.3s,mb4.6
SSF   Saint Saulge            52.59  38 eP      P        04 46 48.1 -0.1
SSF                                       pmax  pmax
             comp=Z,9.0nm,1.3s,mb4.5
SSF   Saint Saulge            52.59  38 eP      P        04 46 48.1 -0.1
             comp=Z,9.2nm,1.3s,mb4.5
LMR   La Mourre               52.90  43 eP      P        04 46 50.7 +0.1
             comp=Z,59nm,1.4s,mb5.0
LMR   La Mourre               52.90  43 eP      P        04 46 50.7 +0.1
LMR                                       pmax  pmax
             comp=Z,29nm,1.4s,mb5.0
LMR   La Mourre               52.90  43 eP      P        04 46 50.7 +0.1
             comp=Z,29nm,1.4s,mb5.0
LOR   Lormes                  52.90  38 eP      P        04 46 50.5  0.0
             comp=Z,8.4nm,1.0s,mb4.3
LOR                                      eMLR   MLR
             comp=Z,161nm,21.8s,MS3.7
LOR   Lormes                  52.90  38 eP      P        04 46 50.5  0.0
LOR                                       pmax  pmax
             comp=Z,4.0nm,1.0s,mb4.3
LOR                                       MLR   MLR
             comp=Z,160nm,21.8s,MS4.0
LOR   Lormes                  52.90  38 eP      P        04 46 50.5  0.0
             comp=Z,4.2nm,1.0s,mb4.3
LOR                                       LR    LR
             comp=Z,160nm,21.8s,MS4.0
FRF   La Foret Royal          53.08  43 eP      P        04 46 51.9  0.0
             comp=Z,59nm,1.3s,mb5.1
FRF   La Foret Royal          53.08  43 eP      P        04 46 51.9  0.0
FRF                                       pmax  pmax
             comp=Z,29nm,1.3s,mb5.0
FRF   La Foret Royal          53.08  43 eP      P        04 46 51.9  0.0
             comp=Z,30nm,1.3s,mb5.1
ORIF  Oris-en-Rattie          53.12  41 eP      P        04 46 53.2 +1.0
             comp=Z,20nm,1.2s,mb4.6
ORIF                                     eMLR   MLR
             comp=Z,224nm,21.5s,MS3.9
ORIF  Oris-en-Rattie          53.12  41 eP      P        04 46 53.2 +1.0
ORIF                                      pmax  pmax
             comp=Z,10.0nm,1.2s,mb4.6
ORIF  Oris-en-Rattie          53.12  41 eP      P        04 46 53.2 +1.0
             comp=Z,10nm,1.2s,mb4.6
MBDF  Montbardon              53.62  42 eP      P        04 46 56.8 +0.9
             comp=Z,37nm,1.4s,mb4.8
MBDF  Montbardon              53.62  42 eP      P        04 46 56.8 +0.9
MBDF                                      pmax  pmax
             comp=Z,19nm,1.4s,mb4.8
MBDF  Montbardon              53.62  42 eP      P        04 46 56.8 +0.9
             comp=Z,18nm,1.4s,mb4.8
EKA   Eskdalemuir Ar          53.80  26 P       P        04 46 56.7 -0.3
             comp=Z,2.9nm,1.0s,mb4.2,baz=225,slow=6.5,SNR=4.0
LPL   La Plagne               53.91  41 eP      P        04 46 59.4 +1.4
LPG   La Plagne               53.92  41 eP      P        04 46 59.7 +1.7
             comp=Z,11nm,1.0s,mb4.5
LPG   La Plagne               53.92  41 eP      P        04 46 59.7 +1.7
LPG                                       pmax  pmax
             comp=Z,5.0nm,1.0s,mb4.4
LPG   La Plagne               53.92  41 eP      P        04 46 59.7 +1.7
             comp=Z,5.3nm,1.0s,mb4.4
MEZF  Maizieres J'vi          54.19  37 eP      P        04 46 59.6 -0.4
BAIF  Baives                  54.45  35 eP      P        04 47 01.3 -0.5
             comp=Z,11nm,1.0s,mb4.5
BAIF  Baives                  54.45  35 eP      P        04 47 01.3 -0.5
BAIF                                      pmax  pmax
             comp=Z,6.0nm,1.0s,mb4.5
BAIF  Baives                  54.45  35 eP      P        04 47 01.3 -0.5
             comp=Z,5.7nm,1.0s,mb4.5
HINF  Hinteralfeld            54.96  38 eP      P        04 47 05.5 -0.1
KSU1  Kansas State U          56.06 310 eP      P        04 47 13.0 -0.7
             comp=Z,16nm,0.7s,mb5.2
DAVOS Davos                   56.39  40 P       P        04 47 15.8 -0.1
DAVOX Davos/Dischmat          56.42  40 P       P        04 47 15.8 -0.3
             comp=Z,2.9nm,0.8s,mb4.4,baz=286,slow=6.9
WMOK  Wichita Mounta          56.81 304 eP      P        04 47 18.2 -0.9
WMOK                                      pmax  pmax
             comp=Z,7.0nm,0.7s,mb4.8
WMOK  Wichita Mounta          56.81 304 eP      P        04 47 18.2 -1.0
             comp=Z,7.3nm,0.7s,mb4.8
JCT   Junction City           57.02 299 eP      P        04 47 20.3 -0.4
JCT                                       pmax  pmax
             comp=Z,10.0nm,0.9s,mb4.8
JCT   Junction City           57.02 299 eP      P        04 47 20.3 -0.4
             comp=Z,10nm,0.9s,mb4.8
PLCA  Paso Flores             57.71 206 P       P        04 47 24.8 -0.4
             comp=Z,2.9nm,0.7s,mb4.4,baz=327,slow=13,SNR=3.4
PLCA                                      LR    LR       05 13 00.7
             comp=Z,70nm,18.7s,MS3.8,baz=42,slow=37
CBKS  Cedar Bluff             58.37 309 eP      P        04 47 30.7 +0.7
CBKS                                      pmax  pmax
             comp=Z,19nm,0.8s,mb5.2
CBKS  Cedar Bluff             58.37 309 eP      P        04 47 30.7 +0.7
             comp=Z,19nm,0.8s,mb5.2
ULM   Lac du Bonnet           59.11 323 P       P        04 47 34.0 -0.9
             comp=Z,2.9nm,0.6s,mb4.5,baz=108,slow=5.6,SNR=4.4
AMTX  Amarillo                59.19 304 eP      P        04 47 35.4 -0.4
             comp=Z,7.3nm,0.6s,mb4.9
GERES GERESS Array B          59.57  39 P       P        04 47 37.6 -0.5
             comp=Z,0.3nm,0.4s,mb3.7,baz=256,slow=5.4,SNR=3.5
TXAR  Lajitas Array           60.25 298 P       P        04 47 43.5 +0.2
             comp=Z,1.4nm,0.6s,mb4.2,baz=118,slow=6.8,SNR=20
VRAC  Vranov                  61.52  39 P       P        04 47 51.2 -0.3
             comp=Z,2.1nm,0.7s,mb4.3,baz=254,slow=7.4,SNR=3.7
FCC   Fort Churchill          61.80 332 eP      P        04 47 50.9 -2.3
SDCO  Great Sand Dun          62.65 307 eP      P        04 48 00.7 +1.4
             comp=Z,9.5nm,0.7s,mb5.0
ISCO  Idaho Springs           63.03 309 eP      P        04 48 03.6 +1.8
ISCO                                      pmax  pmax
             comp=Z,18nm,1.1s,mb5.1
ISCO  Idaho Springs           63.03 309 eP      P        04 48 03.6 +1.8
             comp=Z,18nm,1.1s,mb5.1
ANMO  Albuquerque             63.10 304 eP      P        04 48 03.0 +0.7
ANMO                                      pmax  pmax
             comp=Z,3.0nm,0.9s
ANMO  Albuquerque             63.10 304 eP      P        04 48 03.0 +0.7
             comp=Z,3.1nm,0.9s,mb4.4
NOA   NORSAR Array B          63.28  26 P       P        04 48 03.0 -0.1
             comp=Z,2.1nm,0.8s,mb4.3,baz=243,slow=6.9,SNR=3.4
JMIC  Jan Mayen               63.60  12 P       P        04 48 05.8 +0.8
             comp=Z,47nm,0.4s,baz=138,slow=9.0,SNR=2.7
T22A  Edith                   63.67 306 ⇓P      P        04 48 05.9 -0.2
             baz=64,SNR=20
DGMT  Dagmar                  63.73 319 ⇑P      P        04 48 06.4 +0.2
             baz=64
HFS   Hagfors                 63.96  27 P       P        04 48 07.1 -0.4
             comp=Z,4.5nm,0.7s,mb4.6,baz=243,slow=6.5,SNR=9.7
FFC   Flin Flon               64.18 326 eP      P        04 48 09.9 +0.9
FFC                                       pmax  pmax
             comp=Z,4.0nm,0.9s,mb4.5
FFC   Flin Flon               64.18 326 eP      P        04 48 09.9 +0.9
             comp=Z,4.1nm,0.9s,mb4.5
Q21A  Lamborn Mesa,           64.41 308 ⇑P      P        04 48 11.1 +0.2
             baz=64,SNR=5.8
L21A  Rawlins                 64.67 311 ⇓P      P        04 48 12.7 +0.2
             baz=65,SNR=6.4
120A  U Bar Ranch, L          64.72 301 ⇓P      P        04 48 12.6 -0.4
             baz=65
MVCO  Mesa Verde              64.96 306 ⇓P      P        04 48 15.0 +0.4
             baz=65
MVCO                                      ⇓sP   sP       04 48 19.5 +0.5
             baz=65
R20A  Redvale                 64.96 307 ⇑P      P        04 48 14.6  0.0
             baz=65,SNR=7.1
R20A                                      ⇑P    pP       04 48 17.6 -0.2
             baz=65
R20A                                      ⇓sP   sP       04 48 19.6 +0.6
             baz=65
Q20A  Ridgley Place,          64.98 308 ⇑P      P        04 48 14.7  0.0
             baz=65
Q20A                                      ⇑P    pP       04 48 17.9 +0.1
             baz=65
Q20A                                      ⇑sP   sP       04 48 19.4 +0.3
             baz=65
O20A  White River Ci          65.08 309 ⇑P      P        04 48 15.8 +0.6
             baz=65
O20A                                      ⇑P    pP       04 48 18.6 +0.1
             baz=65,SNR=5.7
O20A                                      ⇑sP   sP       04 48 19.9 +0.2
             baz=65
P20A  De Beque                65.12 309 ⇑P      P        04 48 15.3 -0.2
             baz=65
P20A                                      ⇑P    pP       04 48 18.8 +0.1
             baz=65,SNR=5.2
P20A                                      ⇑sP   sP       04 48 20.6 +0.6
             baz=65
M20A  Sweetwater, Wa          65.21 311 ⇓sP     P        04 48 20.6 +4.5
             baz=65
319A  Douglas                 65.21 300 ⇓P      P        04 48 15.9 -0.4
             baz=65,SNR=5.4
119A  Ashpeak Ranch,          65.29 301 ⇑sP     P        04 48 21.4 +4.6
             baz=65
Y19A  Nutrioso                65.32 302 ⇓P      P        04 48 16.9  0.0
             baz=65
Y19A                                      ⇓sP   sP       04 48 21.4  0.0
             baz=65
T19A  Beclabito               65.34 306 ⇓sP     P        04 48 21.7 +4.7
             baz=65
L20A  Wamsutter               65.39 311 ⇑P      P        04 48 17.3 +0.1
             baz=65
L20A                                      ⇓P    pP       04 48 20.8 +0.3
             baz=65
L20A                                      ⇓sP   sP       04 48 21.6 -0.1
             baz=65
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S19A	Harvey Farm, M	65.52	307	⇑P	P	04 48 18.2	0.0
	baz=66						
S19A				⇓P	pP	04 48 21.2	-0.2
	baz=66,SNR=5.5						
S19A				⇑sP	sP	04 48 22.8	+0.2
	baz=66						
P19A	Cripple Cowboy	65.58	309	⇓P	P	04 48 18.7	+0.1
	baz=66,SNR=6.7						
R19A	Curley Farm, L	65.66	307	⇓P	P	04 48 19.0	-0.1
	baz=66						
R19A				⇑sP	sP	04 48 23.9	+0.3
	baz=66						
Q19A	Hogan Spring (	65.73	308	⇑sP	P	04 48 24.2	+4.7
	baz=66						
TSUM	Tsumeb	65.73	117	*e*P	P	04 48 19.9	+0.1
	comp=Z,2.9nm,0.8s,mb4.4						
O19A	Miners Draw (B	65.77	309	⇓P	P	04 48 19.8	+0.1
	baz=66						
318A	Bisbee	65.82	300	⇑P	P	04 48 19.9	-0.3
	baz=66						
318A				⇑sP	sP	04 48 25.0	+0.4
	baz=66						
118A	Homack Ranch,	65.85	301	⇑P	P	04 48 20.4	0.0
	baz=66,SNR=5.8						
118A				⇓sP	sP	04 48 24.8	0.0
	baz=66						
K19A	Absolon Red Bu	65.87	312	⇓P	P	04 48 20.3	-0.1
	baz=66						
N19A	John Jarvie Ra	65.88	310	⇑P	P	04 48 20.4	0.0
	baz=66						
218A	Dragoon	65.89	300	⇓P	P	04 48 20.6	0.0
	baz=66						
218A				⇓sP	sP	04 48 25.5	+0.4
	baz=66						
X18A	Snowflake	65.93	303	⇑P	P	04 48 21.0	+0.1
	baz=66						
X18A				⇑sP	sP	04 48 25.1	-0.2
	baz=66						
U18A	Rough Rock, Ch	65.99	305	⇓P	P	04 48 20.6	-0.6
	baz=66						
U18A				⇓sP	sP	04 48 25.8	+0.1
	baz=66						
T18A	Mexican Hat	66.05	306	⇓sP	sP	04 48 26.2	+0.1
	baz=66						
L19A	Farson	66.16	311	⇓P	P	04 48 22.8	+0.6
	baz=66						
R18A	Canyonlands Na	66.17	307	⇓P	P	04 48 22.1	-0.2
	baz=66,SNR=18						
R18A				⇑sP	sP	04 48 26.8	0.0
	baz=66						
S18A	Hurst Farm, Bl	66.19	306	⇑P	P	04 48 22.1	-0.4
	baz=66,SNR=6.1						
Z17A	San Carlos Hig	66.30	302	⇑P	P	04 48 22.6	-0.6
	baz=66						
Z17A				⇓sP	sP	04 48 27.9	+0.1
	baz=66						
BW06	Boulder Array	66.39	312	⇓P	P	04 48 24.0	+0.4
	baz=66						
BW06				⇓sP	sP	04 48 28.3	+0.2
	baz=66						
BW06	Boulder Array	66.39	312	*e*P	P	04 48 24.7	+1.1
	comp=Z,5.7nm,1.1s,mb4.5						
PDAR	Pinedale Array	66.39	312	P	P	04 48 23.7	+0.1
	comp=Z,3.7nm,1.1s,mb4.3,baz=86,slow=7.6,SNR=12						
PDAR				LR	LR	05 12 42.7	
	comp=Z,175nm,21.7s,MS4.2,baz=80,slow=32						
Q18A	Rafter H Ranch	66.42	308	⇑P	P	04 48 23.8	-0.1
	baz=66,SNR=6.2						
Q18A				⇓sP	sP	04 48 28.6	+0.3
	baz=66						
117A	Oracle	66.50	301	⇑P	P	04 48 24.5	-0.1
	baz=66						
117A				⇑sP	sP	04 48 29.0	0.0
	baz=66						
RLMT	Red Lodge	66.50	315	⇓P	P	04 48 24.0	-0.3
	baz=66						
RLMT	Red Lodge	66.50	315	*e*P	P	04 48 24.0	-0.3
TUC	Tucson	66.53	301	*e*P	P	04 48 25.4	+0.7
217A	Green Valley	66.54	300	⇑P	P	04 48 24.8	0.0
	baz=66						
217A				⇑sP	sP	04 48 29.1	-0.1
	baz=66						
P18A	Preston Nutter	66.56	309	⇑P	P	04 48 24.8	0.0
	baz=67						
P18A				⇓P	pP	04 48 27.9	-0.1
	baz=67						
P18A				⇓sP	sP	04 48 29.4	+0.2
	baz=67						
M18A	Lyman	66.60	310	⇑P	P	04 48 28.2	+3.1
	baz=67						
M18A				⇑sP	sP	04 48 29.6	0.0
	baz=67						
Y17A	Roosevelt	66.63	302	⇓P	P	04 48 24.7	-0.7
	baz=67,SNR=5.6						
Y17A				⇓P	pP	04 48 28.6	0.0
	baz=67						
Y17A				⇑sP	sP	04 48 30.1	+0.3
	baz=67						
U17A	Shonto	66.64	305	⇑sP	P	04 48 30.0	+4.6
	baz=67						
I18A	Diamond G Ranc	66.69	313	⇓sP	P	04 48 29.7	+4.2
	baz=67						
K18A	Toltan Ranch,	66.72	312	⇓P	P	04 48 25.7	-0.1
	baz=67						
K18A				⇓P	pP	04 48 28.7	-0.3
	baz=67						
K18A				⇓sP	sP	04 48 30.1	-0.1
	baz=67						
SRU	San Rafael	66.72	308	⇓sP	sP	04 48 30.5	+0.2
	baz=67						
SRU	San Rafael	66.72	308	*e*P	P	04 48 30.3	+4.4
G18A	Lazy EL Ranch,	66.73	315	⇓P	P	04 48 26.0	+0.2
	baz=67						
T17A	Navajo Res., N	66.78	306	⇑P	P	04 48 26.4	+0.1
	baz=67,SNR=5.9						
S17A	Black Ridge (B	66.82	306	⇓P	P	04 48 26.3	-0.2
	baz=67,SNR=25						
MLR	Muntele Rosu	66.86	45	P	P	04 48 24.9	-1.7
	comp=Z,9.9nm,1.1s,mb4.7,baz=337,slow=12,SNR=4.1						
F18A	Big Timber	66.93	315	⇓P	P	04 48 27.2	+0.2
	baz=67						
O17A	Robinson Place	66.98	309	⇑P	P	04 48 27.6	+0.1
	baz=67						
U16A	Tuba City	66.99	305	⇓P	P	04 48 27.6	0.0
	baz=67,SNR=6.0						
U16A				⇑sP	sP	04 48 32.4	+0.4
	baz=67						
216A	Three Points,	67.09	300	⇑P	P	04 48 27.9	-0.4
	baz=67						
Z16A	Peralta Trail,	67.10	302	⇓P	P	04 48 28.2	-0.2
	baz=67						
WUAZ	Wupatki	67.15	304	⇑P	P	04 48 28.6	-0.1
	baz=67,SNR=16						
WUAZ	Wupatki	67.15	304	*e*P	P	04 48 29.9	+1.3
	comp=Z,22nm,0.9s,mb5.2						
X16A	Lo Mia Camp, P	67.15	303	⇓P	P	04 48 28.7	0.0
	baz=67,SNR=6.3						
LOHW	Long Hollow	67.25	313	*e*P	P	04 48 32.8	+3.7
W16A	Flagstaff	67.26	304	⇑P	P	04 48 29.4	+0.1
	baz=67,SNR=16						
L17A	Cokeville	67.28	311	⇓P	P	04 48 29.2	-0.1
	baz=67						
H17A	Grant Village	67.32	314	⇓P	P	04 48 29.4	-0.2
	baz=67						
DAU	Daniels Canyon	67.40	309	*e*P	P	04 48 31.5	+1.4
JLU	Jordanelle	67.56	309	*e*P	P	04 48 35.4	+4.2
L16A	Fish Haven	67.68	311	⇑P	P	04 48 32.0	+0.1
	baz=68						
115A	Sonoran Desert	67.75	301	⇓P	P	04 48 32.5	-0.1
	baz=68						
D17A	Six Diamond Ra	67.77	317	⇑P	P	04 48 32.1	-0.2
	baz=68						
E17A	Martinsdale	67.79	316	⇑P	P	04 48 32.6	+0.1
	baz=68						
X15A	Humboldt	67.81	303	⇑P	P	04 48 32.4	-0.4
	baz=68,SNR=6.3						
V15A	Kaibab Nationa	67.81	304	⇑P	P	04 48 32.9	+0.1
	baz=68,SNR=19						
K16A	Soda Springs	67.88	312	⇑P	P	04 48 33.4	+0.3
	baz=68						
C17A	Wharram Farm,	67.89	317	⇓P	P	04 48 33.3	+0.3
	baz=68						
MSU	Marysvale	67.97	307	*e*P	P	04 48 38.6	+4.8
NLU	North Lily Min	67.99	309	*e*P	P	04 48 38.6	+4.7
T15A	Red Dirt Ranch	68.04	306	⇑P	P	04 48 34.3	+0.1
	baz=68						
A17A	Triple J Farms	68.05	318	⇓P	P	04 48 34.3	+0.2
	baz=68						
P15A	Leamington	68.12	308	⇓P	P	04 48 34.6	-0.1
	baz=68						
214A	Organ Pipe Nat	68.24	300	⇑P	P	04 48 35.4	-0.2
	baz=68						
G16A	Moss Hill, Enn	68.29	314	⇑P	P	04 48 36.0	+0.3
	baz=68						
D16A	Dana Ranch, Ca	68.34	316	⇓P	P	04 48 36.1	+0.2
	baz=68,SNR=5.6						
X14A	Yava	68.35	303	⇑P	P	04 48 36.1	-0.2
	baz=68,SNR=5.4						
E16A	East Helena	68.36	316	⇓P	P	04 48 36.4	+0.3
	baz=68,SNR=7.4						
SPUT	South Promonto	68.38	310	*e*P	P	04 48 40.7	+4.4
L15A	Malad City	68.39	311	⇑P	P	04 48 36.5	+0.2
	baz=68,SNR=24						
M15A	Larsen Ranch,	68.39	310	⇓P	P	04 48 36.4	0.0
	baz=68,SNR=7.0						
N15A	Stansbury Isla	68.40	310	⇓P	P	04 48 36.4	0.0
	baz=68						
Y14A	Wickenburg	68.43	302	⇓P	P	04 48 36.4	-0.4
	baz=68						
W14A	Seligman	68.53	304	⇓P	P	04 48 36.8	-0.6
	baz=68,SNR=5.8						
J15A	Blackfoot	68.55	312	⇓P	P	04 48 36.7	-0.6
	baz=68						
V14A	Boquillas Ranc	68.57	304	⇑P	P	04 48 36.6	-1.0
	baz=69,SNR=5.9						
DUG	Dugway	68.57	309	*e*P	P	04 48 38.7	+1.2
DUG				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
DUG	Dugway	68.57	309	⇑P	P	04 48 36.5	-1.0
	baz=69						
DUG	Dugway	68.57	309	*e*P	P	04 48 38.7	+1.2
	comp=Z,14nm,1.3s,mb4.7						
T14A	Hurricane	68.61	306	⇓P	P	04 48 37.4	-0.4
	baz=69						
U14A	Mt Trumbull	68.66	305	⇓P	P	04 48 38.1	-0.1
	baz=69,SNR=6.0						
HVU	Hansel Valley	68.66	311	*e*P	P	04 48 41.8	+3.8
P14A	Drum Mountains	68.73	308	⇓P	P	04 48 38.4	-0.1
	baz=69,SNR=6.2						
Q14A	Sevier Lake (B	68.85	308	⇑P	P	04 48 39.2	-0.1
	baz=69,SNR=16						
N14A	Grayback Hills	68.90	310	⇓P	P	04 48 39.6	+0.1
	baz=69,SNR=17						
K14A	Jones Ranch, D	69.02	311	⇓P	P	04 48 39.4	-0.8
	baz=69						
L14A	Malta	69.02	311	⇓P	P	04 48 39.6	-0.7
	baz=69,SNR=5.9						
M14A	Sheep Mountain	69.06	310	⇑P	P	04 48 40.7	+0.1
	baz=69						
X13A	Yucca	69.13	303	⇑P	P	04 48 40.7	-0.5
	baz=69,SNR=19						
C15A	Salmond Ranch,	69.14	317	⇓P	P	04 48 40.8	-0.2
	baz=69,SNR=6.1						
B15A	Bradely Ranch,	69.18	318	⇓P	P	04 48 39.7	-1.5
	baz=69						
S13A	Holt Ranch, En	69.25	306	⇓P	P	04 48 40.2	-1.5
	baz=69,SNR=6.2						
T13A	Saint George	69.26	306	⇓P	P	04 48 41.5	-0.4
	baz=69,SNR=7.7						
V13A	Grand Canyon W	69.29	304	⇑P	P	04 48 41.2	-0.8
	baz=69,SNR=6.0						
Q13A	Wheeler Ranch,	69.43	308	⇓P	P	04 48 42.4	-0.5
	baz=69,SNR=6.3						
P13A	Bates Ranch, G	69.45	308	⇓P	P	04 48 42.4	-0.6
	baz=69,SNR=8.2						
O13A	Hicks Ranch, I	69.46	309	⇓P	P	04 48 42.2	-0.9
	baz=70,SNR=5.2						
L13A	Double Diamond	69.55	311	⇑P	P	04 48 43.1	-0.5
	baz=70						
M13A	Montello	69.67	310	⇓P	P	04 48 43.5	-0.8
	baz=70,SNR=7.4						
D14A	Greenough	69.67	316	⇑P	P	04 48 43.6	-0.6
	baz=70						
AKASG	Malin Array Be	69.76	40	P	P	04 48 43.8	-0.9
	comp=Z,2.7nm,0.6s,mb4.3,baz=260,slow=5.9,SNR=12						
I13A	Wildhorse Cree	69.81	313	⇑P	P	04 48 44.5	-0.6
	baz=70,SNR=6.9						
R12A	Pony Springs,	69.86	307	⇓P	P	04 48 45.2	-0.4
	baz=70,SNR=6.2						
C14A	Swan Lake	69.91	317	⇑P	P	04 48 45.0	-0.7
	baz=70						
H13A	Challis	69.96	314	⇓P	P	04 48 45.0	-1.0
	baz=70						
G13A	Cobalt	69.99	314	⇑P	P	04 48 45.0	-1.2
	baz=70,SNR=6.0						
V12A	Nelson	69.99	304	⇓P	P	04 48 45.7	-0.7
	baz=70,SNR=5.9						
HLID	Hailey	70.00	312	⇑P	P	04 48 46.4	+0.1
	baz=70,SNR=7.4						
HLID	Hailey	70.00	312	*e*P	P	04 48 47.4	+1.1
S12A	Delamar Landin	70.03	306	⇓P	P	04 48 46.5	-0.1
	baz=70,SNR=5.8						
Q12A	Willow Creek R	70.06	308	⇑P	P	04 48 45.9	-0.9
	baz=70						
E13A	Victor	70.08	316	⇓P	P	04 48 46.5	-0.2
	baz=70						
F13A	Darby	70.12	315	⇑P	P	04 48 46.6	-0.4
	baz=70						
P12A	McGill	70.14	308	⇑P	P	04 48 46.9	-0.4
	baz=70,SNR=5.1						
IRM	Iron Mountain	70.22	302	⇓P	P	04 48 47.6	-0.2
	baz=70,SNR=7.6						
T11A	Corn Creek, Al	70.32	306	⇑P	P	04 48 47.8	-0.5
	baz=70,SNR=7.7						
D13A	Huson	70.32	316	⇓P	P	04 48 47.9	-0.3
	baz=70						
L12A	House Creek Ra	70.35	311	⇓P	P	04 48 48.7	+0.2
	baz=70						
H12A	Diamond D Ranc	70.39	313	⇑P	P	04 48 48.5	-0.1
	baz=70,SNR=5.6						
ELK	Elko	70.45	309	*e*P	P	04 48 50.2	+1.1
ELK				pmax	pmax		
	comp=Z,13nm,1.0s						
ELK	Elko	70.45	309	*e*P	P	04 48 50.2	+1.1
	comp=Z,13nm,1.0s,mb4.8						
C13A	Hot Springs	70.45	317	⇓P	P	04 48 49.1	+0.1
	baz=70						
BC3	Big Chuckw Mtn	70.47	302	⇑P	P	04 48 49.6	+0.2
	baz=70,SNR=5.6						
J12A	Stokes Ranch,	70.47	312	⇓P	P	04 48 49.6	+0.4
	baz=70,SNR=6.9						
R11A	Troy Canyon, C	70.63	307	⇓P	P	04 48 50.4	+0.1
	baz=71,SNR=5.5						
GMRC	Granite Mounta	70.64	303	⇑P	P	04 48 50.3	-0.1
	baz=71,SNR=6.6						
Q11A	Duckwater	70.70	307	⇓P	P	04 48 50.3	-0.4
	baz=71,SNR=5.2						
O11A	Cowboy Ranch,	70.74	309	⇑P	P	04 48 51.0	0.0
	baz=71,SNR=9.4						
M11A	Holland Ranch,	70.89	310	⇓P	P	04 48 51.7	-0.1
	baz=71,SNR=6.2						
L11A	Cat Creek Ranc	70.90	311	⇑P	P	04 48 51.5	-0.3
	baz=71,SNR=6.4						
MFID	Camas Ranch	71.02	312	⇓P	P	04 48 52.4	-0.1
	baz=71,SNR=8.1						
DVTC	Desert V Tower	71.02	301	⇑P	P	04 48 52.2	-0.6
	baz=71						
K11A	Parker Ranch,	71.13	312	⇓P	P	04 48 52.9	-0.4
	baz=71,SNR=9.1						
H11A	Donnelly	71.22	314	⇑P	P	04 48 53.7	0.0
	baz=71,SNR=5.5						
MONP	Monument Peak	71.29	301	⇑P	P	04 48 54.2	-0.2
	baz=71,SNR=6.2						
PFO	Pinyon Flat Ob	71.31	302	*e*P	P	04 48 59.0	+4.5
P10A	Eureka	71.35	308	⇑P	P	04 48 54.4	-0.2
	baz=71						
S10A	Tonopah Range,	71.42	306	⇓P	P	04 48 54.8	-0.2
	baz=71,SNR=20						
L10A	Juniper Basin	71.43	311	⇓P	P	04 48 55.5	+0.5
	baz=71,SNR=16						
M10A	I.L. Ranch, Tu	71.46	310	⇑P	P	04 48 55.5	+0.2
	baz=72						
E11A	Bogner Ranch,	71.46	315	⇑P	P	04 48 54.9	-0.3
	baz=72						
BAR	Barrett	71.50	301	*e*P	P	04 48 57.2	+1.5
	comp=Z,6.3nm,0.7s,mb4.7						
D11A	Klaveano Farm,	71.60	316	⇑P	P	04 48 55.5	-0.4
	baz=72						
H10A	Noah's Angus R	71.74	313	⇓P	P	04 48 56.9	+0.1
	baz=72,SNR=5.6						
K10A	MacKenzie Ranc	71.75	312	⇑P	P	04 48 57.2	+0.2
	baz=72						
I10A	Payette	71.75	313	⇓P	P	04 48 57.3	+0.3
	baz=72						
A11A	Hall Mountain,	71.76	318	⇓P	P	04 48 57.5	+0.6
	baz=72						
R09A	Tonopah	71.80	307	⇓P	P	04 48 57.2	-0.1
	baz=72,SNR=8.0						
S09A	Goldfield	71.92	306	⇑P	P	04 48 57.7	-0.4
	baz=72,SNR=6.0						
O09A	Fish Creek Ran	71.92	309	⇑P	P	04 48 57.5	-0.5
	baz=72,SNR=6.0						
TPH	Tonopah	71.92	307	*e*P	P	04 48 59.1	+1.0
TPH				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
TPH	Tonopah	71.92	307	*e*P	P	04 48 59.1	+1.0
	comp=Z,17nm,1.2s,mb4.9						
MURC	Murrieta	71.93	302	⇓P	P	04 48 57.6	-0.6
	baz=72						
G10A	Bishop Farm, J	72.04	314	⇑P	P	04 48 58.4	-0.2
	baz=72						
BRTR	Keskin Array B	72.07	52	P	P	04 48 59.0	0.0
	comp=Z,3.6nm,0.8s,mb4.4,baz=260,slow=5.9,SNR=9.8						
ARCES	ARCESS Array B	72.12	20	P	P	04 48 57.8	-0.9
	comp=Z,3.4nm,0.9s,mb4.3,baz=269,slow=4.1,SNR=2.8						
MPMC	Manual Prospec	72.13	304	⇓P	P	04 48 58.9	-0.5
	baz=72						
M09A	Marrel Ranch,	72.14	310	⇓P	P	04 48 58.6	-0.7
	baz=72						
F10A	Beach Ranch, E	72.15	315	⇑P	P	04 48 58.5	-0.7
	baz=72						
BMO	Blue Mountains	72.15	314	*e*P	P	04 49 02.8	+3.5
N09A	Rock Creek Ran	72.19	309	⇓P	P	04 48 59.2	-0.4
	baz=72,SNR=5.3						
NEW	Newport	72.21	317	*e*P	P	04 48 59.3	-0.3
NEW				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NEW	Newport	72.21	317	*e*P	P	04 48 59.3	-0.3
	comp=Z,3.5nm,0.9s,mb4.3						
BFSC	Mount Baldy St	72.30	303	⇑P	P	04 48 59.9	-0.5
	baz=72						
L09A	Wilkinson Ranc	72.32	311	⇑P	P	04 49 00.6	+0.2
	baz=72,SNR=5.8						
K09A	Rome	72.38	311	⇓P	P	04 49 01.1	+0.4
	baz=72,SNR=20						
YKA	Yellowknife Ar	72.53	332	P	P	04 49 00.4	-0.8
	comp=Z,1.2nm,0.8s,mb3.9,baz=100,slow=6.0,SNR=13						
YKA	Yellowknife Ar	72.53	332	P	P	04 49 00.4	-0.8
P08A	Dixie Valley	72.60	308	⇑P	P	04 49 02.1	0.0
	baz=73						
N08A	GE Springer Mi	72.65	309	⇓P	P	04 49 02.1	-0.3
	baz=73,SNR=7.0						
O08A	Rochester Mine	72.66	309	⇑P	P	04 49 02.2	-0.3
	baz=73						
NVAR	Mina Array Bea	72.77	307	P	P	04 49 03.5	+0.4
	comp=Z,1.3nm,0.7s,mb4.0,baz=93,slow=6.4,SNR=10						
KBS	Kingsbay	72.87	9	*e*P	P	04 48 59.4	-3.6
KBS				pmax	pmax		
	comp=Z,65nm,0.8s,mb5.6						
KBS	Kingsbay	72.87	9	*e*P	P	04 48 59.4	-3.6
	comp=Z,65nm,0.8s,mb5.6						
ISA	Isabella	72.94	304	⇑P	P	04 49 04.2	0.0
	baz=73,SNR=6.8						
ISA	Isabella	72.94	304	*e*P	P	04 49 09.4	+5.2
K08A	Mann Creek Ran	72.94	311	⇑P	P	04 49 04.1	+0.1
	baz=73,SNR=5.5						
I08A	Drewsey	73.02	313	⇑P	P	04 49 04.2	-0.4
	baz=73						
WVOR	Wild Horse Val	73.05	311	*e*P	P	04 49 05.3	+0.6
WVOR				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
WVOR	Wild Horse Val	73.05	311	*e*P	P	04 49 05.3	+0.6
	comp=Z,7.6nm,1.2s,mb4.5						
O07A	Toulon	73.21	309	⇑P	P	04 49 05.2	-0.6
	baz=73,SNR=5.4						
EIL	Elat	73.36	62	P	P	04 49 06.6	-0.2
	comp=Z,2.8nm,0.4s,mb4.5,baz=347,slow=1.8,SNR=3.8						
EIL				LR	LR	05 17 44.3	
	comp=Z,57nm,21.3s,MS3.8,baz=92,slow=33						
M07A	Soldier Meadow	73.44	310	⇓P	P	04 49 06.4	-0.6
	baz=73						
K07A	Rock Creek Ran	73.50	311	⇓P	P	04 49 07.3	-0.1
	baz=74,SNR=6.2						
MMAI	Mount Meron Ar	73.58	59	P	P	04 49 07.9	-0.2
	comp=Z,2.5nm,0.9s,mb4.1,baz=282,slow=12,SNR=3.7						
WAKR	Walker	73.66	307	*e*P	P	04 49 13.9	+5.5
R06C	Coleville	73.67	307	⇓P	P	04 49 08.8	+0.3
	baz=74,SNR=5.5						
J06A	Christmas Vall	74.17	312	⇑P	P	04 49 11.3	0.0
	baz=74						
MOD	Modoc	74.28	311	*e*P	P	04 49 13.5	+1.6
A07A	Ashnola River,	74.40	318	⇓P	P	04 49 12.2	-0.3
	baz=74						
OBN	Obninsk	74.62	36	*e*P	P	04 49 14.3	+0.7
OBN				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
BOSA	Boshof	75.69	123	P	P	04 49 17.0	-3.3
	comp=Z,3.7nm,0.9s,mb4.3,baz=320,slow=8.2,SNR=4.5						
BOSA				LR	LR	05 15 52.3	
	comp=Z,170nm,18.2s,MS4.4,baz=332,slow=30						
BOSA	Boshof	75.69	123	P	P	04 49 17.0	-3.3
BOSA				LR	LR	05 15 52.3	
MALT	Malatya	75.82	53	*e*P	P	04 49 21.2	+0.3
MALT				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
MALT	Malatya	75.82	53	*e*P	P	04 49 21.2	+0.2
	comp=Z,4.8nm,0.8s,mb4.5						
KIV	Kislovodsk	78.71	47	*e*P	P	04 49 37.3	+0.3
KIV				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
KIV	Kislovodsk	78.71	47	*e*P	P	04 49 37.3	+0.3
	comp=Z,19nm,1.2s,mb4.9						
KMBO	Kilima Mbogo	79.54	93	P	P	04 49 43.9	+1.7
	comp=Z,1.3nm,0.6s,mb4.0,baz=288,slow=6.3,SNR=4.1						
GNI	Garni	80.57	51	*e*P	P	04 49 47.4	+0.2
GNI				pmax	pmax		
	comp=Z,6.0nm,0.9s						
GNI	Garni	80.57	51	P	P	04 49 46.0	-1.2
	comp=Z,1.7nm,0.3s,mb4.4,baz=16,slow=15,SNR=3.6						
GNI	Garni	80.57	51	*e*P	P	04 49 47.4	+0.1
	comp=Z,6.1nm,0.9s,mb4.5						
VNA3	Neumayer Olymp	84.66	170	*e*P	P	04 50 07.8	0.0
VNA2	Neumayer--Watz	84.80	169	*e*P	P	04 50 07.9	-0.6
COLA	College	86.98	336	*e*P	P	04 50 20.1	+0.6
COLA				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.7						
COLA	College	86.98	336	*e*P	P	04 50 20.1	+0.5
	comp=Z,4.6nm,0.9s,mb4.7						
AKTK	Aktyubinsk	88.00	39	P	P	04 50 24.4	-0.3
AKTO	Aktyubinsk	88.00	39	P	P	04 50 24.4	-0.3
	comp=Z,1.3nm,0.6s,mb4.3,baz=292,slow=3.3,SNR=8.3						
WMQ	Urumqi	108.95	36	*e*PKP	PKiKP	04 56 00.0	-4.4
LZH	Lanzhou	123.27	33	*e*PKP	PKPdf	04 56 26.2	-5.8
LZH				sPKP		04 56 36.4	
CD2	Chengdu	127.02	37	PKP	PKPdf	04 56 40.0	+0.6
CD2				PP	PP	04 58 38.7	+2.1
CD2				PKS		05 00 15.3	
CD2				SKS	SKSdf	05 03 50.5	-1.1
CD2				SKKS	SKKSac	05 05 33.8	-1.9
CD2				SS	SS	05 15 47.8	+3.7
CD2				AMB	AMB		
	comp=Z,310nm,7.7s						
CD2				LR	LR		
	comp=N,510nm,15.5s						
CD2				LR	LR		
	comp=Z,310nm,6.5s						
KMI	Kunming	130.37	44	PKP	PKPdf	04 56 46.4	+0.5
GYA	Guiyang	131.99	39	*e*Pdif	Pdif	04 53 41.7	-0.2
GYA				PKP	PKPdf	04 56 48.0	-0.9
GYA				PP	PP	04 59 12.7	+3.6
GYA				AMB	AMB		
	comp=Z,80nm,6.9s						
NJ2	Nanjing	133.58	23	*e*PKP	PKPdf	04 56 48.1	-3.7
STKA	Stephens Creek	158.77	188	PKP	PKPdf	04 57 31.7	-1.3
	comp=Z,1.5nm,0.8s,baz=248,slow=16,SNR=2.6						
ASAR	Alice Springs	166.58	163	PKP	PKPdf	04 57 38.5	-2.3
	comp=Z,0.7nm,0.8s,baz=162,slow=1.4,SNR=5.5						
WRA	Warramunga Arr	170.19	159	PKP	PKPdf	04 57 41.4	-2.0
	comp=Z,0.2nm,0.3s,baz=272,slow=3.7,SNR=4.6						
WRA	Warramunga Arr	170.19	159	PKP	PKPdf	04 57 41.4	-2.0

NEIC ***09*** *04:44:02.6, 33.°93S×72.°13W, h22km, ML3.5(GUC), After GUC.*

GUC 09 04:44:02.6±0.8**, 33.°93S×72.°13W, h22km**±7km**, MD3.7, ML3.5, 16C-5D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IHA	Instituto Hidr	0.99	25	⇑*i*P	Pb	04 44 20.0	-1.1
IHA				*i* S	Sb	04 44 33.8	+0.1
IHA	Instituto Hidr	0.99	25	⇑*i*P	Pb	04 44 20.0	-1.1

IHA				i S	Sb	04 44 33.8	+0.1
TACH	**Talagante**	**1.03**	**75**	⇑iP	Pn	04 44 20.5	-1.2
TACH				i S	Sb	04 44 34.7	-0.2
TACH	**Talagante**	**1.03**	**75**	⇑iP	Pn	04 44 20.5	-1.2
TACH				i S	Sb	04 44 34.7	-0.2
CACH	**El Canelo**	**1.29**	**99**	⇓iP	Pn	04 44 25.3	+0.1
CACH				i S	Sn	04 44 43.5	+1.8
CACH	**El Canelo**	**1.29**	**99**	⇓iP	Pn	04 44 25.3	+0.1
CACH				i S	Sn	04 44 43.5	+1.8
ANTU	**Antumapu**	**1.30**	**74**	i P	Pn	04 44 25.1	-0.3
ANTU				i S	Sn	04 44 42.3	+0.2
ANTU	**Antumapu**	**1.30**	**74**	i P	Pn	04 44 25.1	-0.3
ANTU				i S	Sn	04 44 42.3	+0.2
ANTU				AML	AML	04 44 43.4	
	comp=N,1μm,0.3s						
NICH	**Los Niches**	**1.30**	**145**	⇑iP	Pn	04 44 25.5	+0.1
NICH				i S	Sn	04 44 42.5	+0.3
PCH	**Pirque**	**1.38**	**78**	⇑iP	Pn	04 44 26.1	-0.4
PCH				i S	Sn	04 44 45.0	+0.9
PCH	**Pirque**	**1.38**	**78**	⇑iP	Pn	04 44 26.1	-0.4
PCH				i S	Sn	04 44 45.0	+0.9
FSR	**Penalolen**	**1.41**	**72**	⇓iP	Pn	04 44 26.8	-0.1
FSR				i S	Sn	04 44 45.6	+0.8
FSR	**Penalolen**	**1.41**	**72**	⇓iP	Pn	04 44 26.8	-0.1
FSR				i S	Sn	04 44 45.6	+0.8
PEL	**Peldehue**	**1.44**	**57**	⇑iP	Pn	04 44 27.4	+0.1
PEL				i S	Sn	04 44 46.5	+0.9
PEL				AML	AML	04 44 52.8	
	comp=E,2μm,0.4s						
CICH	**Cipreses**	**1.47**	**106**	⇓iP	Pn	04 44 27.9	+0.1
CICH				i S	Sn	04 44 47.1	+0.8
SJCH	**San Jose de Ma**	**1.51**	**79**	⇑iP	Pn	04 44 28.1	-0.1
SJCH				i S	Sn	04 44 47.5	+0.3
SJCH	**San Jose de Ma**	**1.51**	**79**	⇑iP	Pn	04 44 28.1	-0.1
SJCH				i S	Sn	04 44 47.5	+0.3
SJCH				AML	AML	04 44 53.5	
	comp=N,817nm,0.5s						
LMEL	**Las Melosas**	**1.61**	**88**	⇑iP	Pn	04 44 30.1	+0.5
LMEL				i S	Sn	04 44 51.6	+2.0
LMEL	**Las Melosas**	**1.61**	**88**	⇑iP	Pn	04 44 30.1	+0.5
LMEL				i S	Sn	04 44 51.6	+2.0
LMEL				AML	AML	04 44 54.7	
	comp=N,1μm,0.2s						
FCH	**Farellones**	**1.65**	**69**	⇑iP	Pn	04 44 30.9	+0.7
FCH				i S	Sn	04 44 52.5	+1.7
FCH				AML	AML	04 44 55.5	
	comp=E,840nm,0.1s						
YECH	**El Yeso**	**1.73**	**82**	⇑iP	Pn	04 44 32.4	+1.1
YECH				i S	Sn	04 44 55.3	+2.7
YECH				AML	AML	04 45 04.4	
	comp=N,866nm,0.4s						
CCHI	**Chillan**	**2.67**	**179**	⇑iP	Pn	04 44 45.5	+1.4
CCHI				i S	Sn	04 45 17.7	+1.9
CCHI	**Chillan**	**2.67**	**179**	⇑iP	Pn	04 44 45.5	+1.4
CCHI				i S	Sn	04 45 17.7	+1.9
CCHI				AML	AML	04 45 32.6	
	comp=N,228nm,0.6s						

NEIC ***09*** *04:45:07.0,36°.96N×29°.21E,h8^{km},MD3.3(ISK), MD3.5(ATH),After ISK.*
ATH ***09*** *04:45:07.8,36°.98N×29°.27E,h12^{km},MD3.5/6*
ISK ***09*** *04:45:07.9,36°.96N×29°.21E,h8^{km},MD3.3*
DDA ***09*** *04:45:07.6,36°.98N×29°.24E,h7^{km}±3^{km},Md3.2*
CSEM ***09*** *04:45:08.2±0.1,36°.98N×29°.23E,h2^{km},MD3.3,Error ellipse: s-maj=3.8km s-min=2.9km az=158.0*
ISCJB ***09*** *04:45:08.1±0.5,37°.00N±0°.02×29°.22E±0°.02,h2^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=3.0km az=154.5*
ISC 09 04:45:08.8±0.5,**36°.99N**±0°.02×**29°.22E**±0°.02,**h5**^{km}±4^{km}, **n79,σ0^{s}.93**/108,**2C,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GOLH	**Golhisar**	**0.37**	**48**	i P	**Pg**	**04 45 15.5**	**-0.4**
GOLH				i S	**Sg**	**04 45 22.8**	**+2.0**
GOLH	**Golhisar**	**0.37**	**48**	i P	**Pg**	**04 45 15.5**	**-0.4**
GOLH				i S	**Sg**	**04 45 22.8**	**+2.1**
FETY	**Fethiye**	**0.37**	**197**	PG	**Pg**	**04 45 14.7**	**-1.3**
FETY				SG	**Sg**	**04 45 20.2**	**-0.6**
FETY	**Fethiye**	**0.37**	**197**	i Pg	**Pg**	**04 45 14.7**	**-1.3**
FETY				i Sg	**Sg**	**04 45 20.3**	**-0.5**
TURN	**Turunc**	**0.51**	**257**	i P	**Pg**	**04 45 22.6**	**+4.1**
TURN				i S	**Sg**	**04 45 35.9**	**+11**
DALT	**Dalyan (Mudla)**	**0.52**	**245**	ePG	**Pg**	**04 45 17.8**	**-0.9**
DALT				eSG	**Sg**	**04 45 25.7**	**+0.3**
DALT	**Dalyan (Mudla)**	**0.52**	**245**	ePg	**Pg**	**04 45 17.8**	**-0.9**
DALT				eSg	**Sg**	**04 45 25.7**	**+0.3**
ELL	**Elmali**	**0.61**	**114**	ePG	**Pg**	**04 45 19.8**	**-0.6**
ELL				eSG	**Sg**	**04 45 29.5**	**+1.2**
ELL	**Elmali**	**0.61**	**114**	ePg	**Pg**	**04 45 19.8**	**-0.6**
ELL				eSg	**Sg**	**04 45 29.5**	**+1.2**
YER	**Yerkesik**	**0.76**	**281**	ePG	**Pg**	**04 45 22.8**	**-0.6**
YER				eSG	**Sg**	**04 45 34.3**	**+1.0**
YER	**Yerkesik**	**0.76**	**281**	ePg	**Pg**	**04 45 22.8**	**-0.6**
YER				eSg	**Sg**	**04 45 34.3**	**+1.0**
DENT	**Denizli**	**0.77**	**349**	ePG	**Pg**	**04 45 23.7**	**0.0**
DENT	**Denizli**	**0.77**	**349**	ePg	**Pg**	**04 45 23.7**	**0.0**
KSL	**Kastellorizon**	**0.89**	**161**	ePB	**Pg**	**04 45 24.3**	**-1.6**
ANTB	**Antalya**	**1.16**	**94**	ePN	**Pn**	**04 45 31.0**	**-0.5**
ANTB	**Antalya**	**1.16**	**94**	ePn	**Pn**	**04 45 31.0**	**-0.6**
ARG	**Arkhangelos**	**1.17**	**229**	ePB	**Pb**	**04 45 30.7**	**-0.8**
ARG				eSB	**Sb**	**04 45 47.0**	**+0.1**
ARG	**Arkhangelos**	**1.17**	**229**	ePb	**Pb**	**04 45 30.7**	**-0.8**
ARG				eSb	**Sb**	**04 45 47.0**	**+0.1**
MLSB	**Milas**	**1.19**	**285**	ePN	**Pn**	**04 45 31.0**	**-1.0**
MLSB				eSN	**Sn**	**04 45 48.3**	**-0.3**
MLSB	**Milas**	**1.19**	**285**	ePn	**Pn**	**04 45 31.0**	**-1.1**
MLSB				eSn	**Sn**	**04 45 48.3**	**-0.3**
BCK	**Bucak**	**1.19**	**66**	ePN	**Pn**	**04 45 31.2**	**-0.9**
BCK	**Bucak**	**1.19**	**66**	ePn	**Pn**	**04 45 31.2**	**-0.9**
AYDN	**Tasoluk**	**1.26**	**302**	i P	**Pg**	**04 45 32.0**	**-0.9**
AYDN				i S	**Sg**	**04 45 50.9**	**+1.6**
AYDN	**Tasoluk**	**1.26**	**302**	i P	**Pg**	**04 45 32.0**	**-0.9**
AYDN				i S	**Sg**	**04 45 50.8**	**+1.6**
ISP	**Isparta**	**1.33**	**50**	ePN	**Pn**	**04 45 33.4**	**-0.7**
ISP	**Isparta**	**1.33**	**50**	⇑iP	**Pn**	**04 45 33.6**	**-0.4**
ISP	**Isparta**	**1.33**	**50**	⇑P	**Pn**	**04 45 33.6**	**-0.5**
ISP	**Isparta**	**1.33**	**50**	ePn	**Pn**	**04 45 33.4**	**-0.6**
DAT	**Datca**	**1.34**	**259**	ePN	**Pn**	**04 45 33.5**	**-0.6**
DAT	**Datca**	**1.34**	**259**	ePn	**Pn**	**04 45 33.6**	**-0.5**
KHL	**Karahalli**	**1.35**	**10**	ePN	**Pn**	**04 45 34.1**	**-0.1**
KHL	**Karahalli**	**1.35**	**10**	ePn	**Pn**	**04 45 34.1**	**-0.2**
KHAL	**Karahalli**	**1.39**	**9**	i P	**Pn**	**04 45 34.6**	**-0.2**
KHAL				i S	**Sb**	**04 45 53.5**	**+0.2**
KHAL	**Karahalli**	**1.39**	**9**	i P	**Pn**	**04 45 34.7**	**-0.1**
KHAL				i S	**Sb**	**04 45 53.5**	**+0.2**
BDRM	**Kayabasi**	**1.42**	**273**	i P	**Pn**	**04 45 35.2**	**0.0**
BDRM				i S	**Sb**	**04 45 55.1**	**+1.0**
BDRM	**Kayabasi**	**1.42**	**273**	i P	**Pn**	**04 45 35.2**	**0.0**
BDRM				i S	**Sb**	**04 45 55.1**	**+1.0**
BODT	**Bodrum**	**1.53**	**273**	ePN	**Pn**	**04 45 36.1**	**-0.6**
BODT	**Bodrum**	**1.53**	**273**	ePn	**Pn**	**04 45 36.1**	**-0.6**
MANT	**Manisa**	**1.58**	**341**	i P	**Pn**	**04 45 37.3**	**-0.2**
MANT				i S	**Sn**	**04 45 55.5**	**-2.8**
MANT	**Manisa**	**1.58**	**341**	i P	**Pn**	**04 45 37.3**	**-0.2**
MANT				i S	**Sn**	**04 45 55.5**	**-2.8**
GCAM	**G?zelcaml?**	**1.73**	**295**	i P	**Pn**	**04 45 39.8**	**+0.3**
GCAM				eS	**Sn**	**04 46 01.3**	**-0.6**
GCAM	**G?zelcaml?**	**1.73**	**295**	i P	**Pn**	**04 45 39.8**	**+0.3**
GCAM				eS	**Sn**	**04 46 01.3**	**-0.7**
SHUT	**Suhut-Afyon**	**1.88**	**34**	ePN	**Pn**	**04 45 41.9**	**+0.3**
SHUT	**Suhut-Afyon**	**1.88**	**34**	ePn	**Pn**	**04 45 41.9**	**+0.3**
SMG	**Samos**	**2.03**	**291**	ePN	**Pn**	**04 45 44.5**	**+0.9**
SMG	**Samos**	**2.03**	**291**	ePn	**Pn**	**04 45 44.5**	**+0.9**
IZM	**Izmir**	**2.09**	**313**	ePN	**Pn**	**04 45 43.7**	**-0.7**
IZM	**Izmir**	**2.09**	**313**	ePn	**Pn**	**04 45 43.7**	**-0.7**
GDZ	**Gediz**	**2.10**	**6**	i P	**Pn**	**04 45 42.8**	**-1.8**
GDZ				i S	**Sn**	**04 46 07.8**	**-3.3**
GDZ	**Gediz**	**2.10**	**6**	i P	**Pn**	**04 45 42.8**	**-1.8**
GDZ				i S	**Sn**	**04 46 07.8**	**-3.3**
ALT	**Altintas**	**2.18**	**19**	ePN	**Pn**	**04 45 45.0**	**-0.6**
ALT	**Altintas**	**2.18**	**19**	ePn	**Pn**	**04 45 45.0**	**-0.6**
AKS	**Akhisar**	**2.19**	**330**	ePN	**Pn**	**04 45 45.3**	**-0.5**
AKS	**Akhisar**	**2.19**	**330**	ePn	**Pn**	**04 45 45.3**	**-0.5**
KARP	**Karpathos**	**2.20**	**230**	ePN	**Pn**	**04 45 47.0**	**+1.1**
KARP				eSN	**Sn**	**04 46 15.2**	**+1.7**
KARP	**Karpathos**	**2.20**	**230**	ePn	**Pn**	**04 45 47.0**	**+1.1**
KARP				eSn	**Sn**	**04 46 15.2**	**+1.7**
HDMB	**Hadim**	**2.62**	**90**	ePN	**Pn**	**04 45 51.9**	**+0.2**
HDMB	**Hadim**	**2.62**	**90**	ePn	**Pn**	**04 45 51.9**	**+0.2**
DST	**Dursunbey**	**2.65**	**350**	ePN	**Pn**	**04 45 52.1**	**0.0**
DST	**Dursunbey**	**2.65**	**350**	ePn	**Pn**	**04 45 52.1**	**0.0**
KONT	**Konya--Tatoy**	**2.68**	**68**	ePN	**Pn**	**04 45 52.8**	**+0.3**
KONT	**Konya--Tatoy**	**2.68**	**68**	ePn	**Pn**	**04 45 52.8**	**+0.3**
KIZT	**Kizilcal**	**2.83**	**47**	ePN	**Pn**	**04 45 55.3**	**+0.8**
KIZT	**Kizilcal**	**2.83**	**47**	ePn	**Pn**	**04 45 55.3**	**+0.8**
SVRH	**Sivrihisar-ESK**	**3.05**	**36**	ePN	**Pn**	**04 45 58.3**	**+0.7**
SVRH	**Sivrihisar-ESK**	**3.05**	**36**	ePn	**Pn**	**04 45 58.3**	**+0.7**
ZKR	**Zakros**	**3.07**	**233**	ePN	**Pn**	**04 45 59.2**	**+1.3**
ZKR	**Zakros**	**3.07**	**233**	ePn	**Pn**	**04 45 59.2**	**+1.3**
NPS	**Neapolis**	**3.39**	**240**	eP	**Pn**	**04 46 03.3**	**+1.0**
NPS	**Neapolis**	**3.39**	**240**	ePN	**Pn**	**04 46 03.3**	**+1.0**
NPS	**Neapolis**	**3.39**	**240**	ePn	**Pn**	**04 46 03.3**	**+1.0**
YLV	**Yalova**	**3.57**	**2**	ePN	**Pn**	**04 46 06.2**	**+1.4**
YLV	**Yalova**	**3.57**	**2**	ePn	**Pn**	**04 46 06.2**	**+1.4**
SULT	**Sultanhani-AKS**	**3.62**	**69**	ePN	**Pn**	**04 46 06.2**	**+0.7**
SULT	**Sultanhani-AKS**	**3.62**	**69**	ePn	**Pn**	**04 46 06.2**	**+0.7**
EZN	**Ezine**	**3.63**	**322**	ePN	**Pn**	**04 46 06.1**	**+0.5**
EZN	**Ezine**	**3.63**	**322**	ePn	**Pn**	**04 46 06.1**	**+0.5**
IKL	**Isikli**	**3.67**	**100**	ePN	**Pn**	**04 46 07.0**	**+0.8**
IKL	**Isikli**	**3.67**	**100**	ePn	**Pn**	**04 46 07.0**	**+0.8**

SZGRF ***09*** *04:45:13.9,21°.22S×176°.12W,h33^{km},Fiji Islands region*
ISCJB ***09*** *04:46:15.8±2.5,22°.5S±0°.1×179°.9W±0°.1,h583^{km}±33^{km}, mb4.2/14,Error ellipse: s-maj=18.8km s-min=17.7km az=20.1*
IDC ***09*** *04:46:18.7±3.0,22°.50S×179°.73W,h616^{km}±33^{km},mb3.3/5, mb1 3.6/6,mb1mx3.4/17,mbtmp3.3/6,Error ellipse: s-maj=33.3km s-min=17.5km az=165.0*
NEIC ***09*** *04:46:22.3±2.7,22°.77S×179°.82W,h667^{km}±34^{km},mb4.3/7, Error ellipse: s-maj=37.7km s-min=18.8km az=187.0*
ISC 09 04:46:17.9±2.7,**22°.6S**±0°.1×**179°.8W**±0°.1,**h599**^{km}±33^{km}, **n49,σ0^{s}.70**/22,**mb4.2**/14,**4C-4D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**15.80**	**189**	P	**P**	**04 49 33.1**	**-0.1**
	2.6nm,0.3s,baz=238,slow=2.8,SNR=14						
URZ				S	**S**	**04 52 12.0**	**-0.4**
	0.6nm,0.3s,baz=192,slow=20,SNR=5.7						
CTAO	**Charters Tower**	**31.69**	**268**	eP	**P**	**04 51 54.7**	**+0.5**
	5.8nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**35.39**	**246**	eP	**P**	**04 52 26.7**	**+1.7**
	3.7nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**35.39**	**246**	P	**P**	**04 52 26.5**	**+1.5**
	5.1nm,0.6s,mb4.3,baz=81,slow=11,SNR=10						
STKA	**Stephens Creek**	**35.39**	**246**	P	**P**	**04 52 26.5**	**+1.5**
ASAR	**Alice Springs**	**42.45**	**259**	P	**P**	**04 53 22.4**	**+0.5**
	7.6nm,0.8s,mb4.3,baz=99,slow=7.7,SNR=68						
ASAR				PcP	PcP	04 54 59.7	-0.9
	1.2nm,0.7s,baz=105,slow=4.1,SNR=5.7						
ASAR				S	**S**	**04 59 03.3**	**+1.7**
	0.6nm,0.8s,baz=99,slow=16,SNR=3.8						
WRAB	**Tennant Creek**	**42.70**	**265**	eP	**P**	**04 53 22.9**	**-0.9**
	3.6nm,0.5s,mb4.2						
WRA	**Warramunga Arr**	**42.70**	**265**	P	**P**	**04 53 23.4**	**-0.4**
	1.6nm,0.3s,mb4.0,baz=96,slow=8.3,SNR=37						
KAKA	**Kakadu**	**46.41**	**274**	eP	**P**	**04 53 51.3**	**-1.0**
FORT	**Forrest**	**46.95**	**248**	eP	**P**	**04 53 56.5**	**+0.4**
	13nm,0.6s,mb4.7						
FORT	**Forrest**	**46.95**	**248**	eP	**P**	**04 53 56.3**	**+0.2**
	14nm,0.6s,mb4.7						
KNA	**Kununurra**	**48.88**	**269**	eP	**P**	**04 54 10.6**	**0.0**
	82nm,1.5s,mb4.9						
FITZ	**Fitzroy Crossi**	**51.13**	**265**	eP	**P**	**04 54 27.3**	**+0.2**
	9.3nm,1.2s,mb4.1						
MBWA	**Marble Bar**	**55.79**	**259**	eP	**P**	**04 54 59.5**	**-0.4**
	12nm,0.6s,mb4.3						
KSM	**Kuching**	**72.09**	**279**	eP	**P**	**04 56 42.8**	**-0.4**
	13nm,0.8s,mb4.5						
KULM	**Kulim**	**82.44**	**279**	eP	**P**	**04 57 38.1**	**-1.0**
	12nm,1.2s,mb4.3						
NVAR	**Mina Array Bea**	**83.71**	**44**	P	**P**	**04 57 45.2**	**+0.4**
	0.9nm,0.9s,mb3.3,baz=230,slow=12,SNR=4.3						
VNA2	**Neumayer--Watz**	**86.54**	**178**	e	**P**	**04 58 02.5**	**+4.5**
	baz=191,slow=4.8						
CHTO	**Chiang Mai**	**89.42**	**291**	eP	**P**	**04 58 11.9**	**-0.5**
	2.9nm,0.5s,mb4.4						
TXAR	**Lajitas Array**	**89.60**	**58**	P	**P**	**04 58 13.7**	**+0.7**
	0.5nm,0.8s,mb3.4,baz=224,slow=7.0,SNR=4.6						
MKAR	**Makanchi Array**	**111.44**	**313**	PKiKP	PKiKP	05 03 42.3	-2.5
	0.3nm,0.5s,baz=210,slow=0.8,SNR=9.4						
ARCES	**ARCESS Array B**	**130.70**	**349**	PKP	PKPdf	05 04 18.2	-2.7
	2.0nm,0.8s,baz=28,slow=2.3,SNR=5.9						
ONI	**Oni**	**139.04**	**309**	P	PKPdf	05 04 31.2	-6.1
NOA	**NORSAR Array B**	**140.87**	**352**	PKP	PKPdf	05 04 36.6	-3.4
	1.1nm,0.9s,baz=28,slow=1.3,SNR=3.3						
MALT	**Malatya**	**143.84**	**304**	⇓iP	PKPdf	05 04 45.6	-0.4
AKASG	**Malin Array Be**	**144.01**	**328**	PKP	PKPdf	05 04 42.1	-3.7
	2.6nm,0.5s,baz=42,slow=4.0,SNR=11						
KIEV	**Kiev**	**144.03**	**328**	ePKPdf	PKPdf	05 04 42.5	-3.4
ASF	**Jabal al Asfar**	**146.22**	**294**	PKPbc	PKPbc	05 04 51.5	-1.0
	2.3nm,0.6s,baz=315,slow=2.5,SNR=4.5						
BRTR	**Keskin Array B**	**146.96**	**309**	PKPbc	PKPbc	05 04 52.7	-1.6
	1.6nm,0.6s,baz=154,slow=4.6,SNR=8.7						
MMAI	**Mount Meron Ar**	**147.34**	**296**	PKPbc	PKPbc	05 04 55.0	-0.6
	3.5nm,0.5s,baz=77,slow=7.3,SNR=9.0						
KWP	**Kalwaria Pacla**	**147.76**	**332**	⇑iP	PKPdf	05 04 53.4	+1.2
BURAR	**Bucovina Array**	**148.03**	**327**	⇑iP	PKPdf	05 04 54.7	+2.0
EIL	**Elat**	**148.13**	**290**	PKPbc	PKPbc	05 04 57.5	-0.2
	2.7nm,0.6s,baz=0.2,slow=5.2,SNR=4.2						
VOIR		**149.55**	**324**	⇓iP	PKPbc	05 04 59.5	-1.1
CLL	**Collm**	**149.71**	**344**	ePKPbc	PKPbc	05 04 58.6	-2.1
CLL				e		05 05 01.6	
CLL	**Collm**	**149.71**	**344**	i PKPbc	PKPbc	05 04 58.6	-2.1
	comp=Z,9.0nm,0.9s						
CLL				⇓i(PKiKP)		05 05 01.6	
	comp=Z,9.0nm,0.6s						
DRGR		**149.83**	**328**	⇑iP	PKPbc	05 04 59.8	-1.4
BRG	**Berggiesshubel**	**149.85**	**343**	ePKPbc	PKPbc	05 04 59.3	-1.8
BRG				e		05 05 02.2	
BRG	**Berggiesshubel**	**149.85**	**343**	i P	PKPbc	05 04 59.6	-1.5
	comp=Z,5.8nm,0.6s						
BRG				i		05 05 02.4	
	comp=Z,8.0nm,0.9s						
BRG	**Berggiesshubel**	**149.85**	**343**	i P	PKPbc	05 04 59.6	-1.5
BRG				i		05 05 02.4	
FBE	**Freiberg**	**149.97**	**343**	ePKPbc	PKPbc	05 04 59.9	-1.4
FBE				e		05 05 02.7	
TANN	**Tannenbergstha**	**150.66**	**344**	ePKPbc	PKPbc	05 05 01.1	-1.9
TANN				e		05 05 04.2	
WERD	**Werda**	**150.67**	**344**	ePKPbc	PKPbc	05 05 01.0	-2.0
WERD				e		05 05 04.2	
GZR	**Gura Zlata**	**150.78**	**326**	⇓iP	PKPdf	05 04 56.8	-0.3
BZS	**Buzias**	**151.20**	**328**	⇑iP	PKPbc	05 05 02.7	-1.6
GRF	**Grafenberg Arr**	**151.64**	**345**	e	PKPbc	05 05 06.8	+1.6
GERES	**GERESS Array B**	**151.74**	**341**	PKPbc	PKPbc	05 05 03.6	-1.8
	comp=Z,0.7nm,0.4s,baz=2.9,slow=2.7,SNR=8.7						
TORD	**Torodi Ar. Bea**	**170.46**	**189**	PKP	PKPdf	05 05 16.7	-2.0
	comp=Z,0.6nm,0.9s,baz=328,slow=1.6,SNR=3.3						
TORD				PKPab	PKPab	05 06 40.4	+0.6
	comp=Z,0.9nm,0.8s,baz=162,slow=5.0,SNR=6.1						
TORD	**Torodi Ar. Bea**	**170.46**	**189**	PKP	PKPdf	05 05 16.7	-2.0
TORD				PKPab	PKPab	05 06 40.4	+0.6

ISCJB ***09*** *04:48:35.6±0.3,51°.52N±0°.02×16°.04E±0°.02,h0^{km},Error ellipse: s-maj=2.4km s-min=1.9km az=26.9*
IPEC ***09*** *04:48:35.2±0.2,51°.69N×16°.16E,h0^{km},ML2.7/4,Error ellipse: s-maj=1.4km s-min=1.4km az=39.0*
NEIC ***09*** *04:48:37.2±0.5,51°.58N×16°.07E,h5^{km},ML2.8(BRA), ML3.1(SZGRF),Error ellipse: s-maj=6.6km s-min=4.2km az=215.0*
CSEM ***09*** *04:48:37.0±0.1,51°.57N×16°.05E,h2^{km},ML3.5/13,Error ellipse: s-maj=2.5km s-min=1.7km az=26.0*
PRU ***09*** *04:48:38.1,51°.55N×16°.03E,h0^{km}*
WAR ***09*** *04:48:38,51°.56N×16°.02E,ML2.8,Mining Induced*
BGR ***09*** *04:48:38.9±0.5,51°.49N×16°.01E,h1^{km},ML3.1,Error ellipse: s-maj=6.7km s-min=3.3km az=15.0*
VIE ***09*** *04:48:39.3±0.5,51°.39N×15°.96E,h0^{km},mb2.7/6,ML2.9/6, Error ellipse: s-maj=3.5km s-min=2.9km az=44.0 80 km WNW of Wroclaw Suspected Mining induced.*
UPP ***09*** *04:49:26.2,55°.24N×15°.19E,h0^{km},ML1.2,Suspected Mining explosion.*
ISC 09 04:48:36.6±0.3,**51°.58N**±0°.02×**16°.05E**±0°.02,**h0**^{km},**n114, σ0^{s}.84**/192,**7C-5D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.76**	**168**	ePg	**Pg**	**04 48 51.8**	**+0.7**
KSP				eSg	**Sg**	**04 49 01.7**	**+0.7**
KSP	**Ksiaz**	**0.76**	**168**	i Pg	**Pg**	**04 48 51.8**	**+0.7**
KSP				i Sg	**Sg**	**04 49 01.6**	**+0.7**
KSP				eL		04 49 06.5	
KSP	**Ksiaz**	**0.76**	**168**	ePg	**Pg**	**04 48 51.8**	**+0.6**
KSP				eSg	**Sg**	**04 49 01.6**	**+0.6**
KSP	**Ksiaz**	**0.76**	**168**	⇓iPg	**Pg**	**04 48 51.8**	**+0.7**
KSP				i Sg	**Sg**	**04 49 01.6**	**+0.7**
KSP				e		04 49 06.5	
KSP	**Ksiaz**	**0.76**	**168**	ePg	**Pg**	**04 48 51.7**	**+0.6**
KSP				Sg	**Sg**	**04 49 01.6**	**+0.7**
DPC	**Dobruska-Polom**	**1.25**	**172**	ePg	**Pg**	**04 49 00.5**	**0.0**
DPC	**Dobruska-Polom**	**1.25**	**172**	ePG	**Pg**	**04 49 00.6**	**+0.1**
DPC				eSG	**Sg**	**04 49 16.4**	**-0.3**
	comp=Z,46nm,0.4s						
DPC	**Dobruska-Polom**	**1.25**	**172**	Pg	**Pg**	**04 49 00.6**	**+0.1**
DPC				Sg	**Sg**	**04 49 16.4**	**-0.3**
	comp=Z,46nm,0.4s						
PVCC	**Panska Ves**	**1.41**	**222**	ePG	**Pg**	**04 49 03.4**	**-0.2**
PVCC				eSG	**Sg**	**04 49 22.2**	**+0.3**
PVCC	**Panska Ves**	**1.41**	**222**	Pg	**Pg**	**04 49 03.4**	**-0.2**
PVCC				Sg	**Sg**	**04 49 22.2**	**+0.3**
BRG	**Berggiesshubel**	**1.50**	**243**	ePn	**Pn**	**04 49 05.2**	**+0.4**
BRG				eSg	**Sg**	**04 49 25.6**	**+0.7**
BRG	**Berggiesshubel**	**1.50**	**243**	PN	**Pn**	**04 49 04.1**	**-0.7**
BRG				PG	**Pg**	**04 49 05.3**	**-0.1**
BRG				SG	**Sg**	**04 49 25.3**	**+0.4**
	comp=Z,347nm,0.4s						
RUE	**Ruedersdorf**	**1.66**	**304**	ePn	**Pn**	**04 49 06.2**	**-0.8**
RUE				eSn	**Sn**	**04 49 28.3**	**-0.7**
RUE	**Ruedersdorf**	**1.66**	**304**	ePn	**Pn**	**04 49 06.2**	**-0.8**
RUE				eSn	**Sn**	**04 49 28.3**	**-0.7**
FBE	**Freiberg**	**1.82**	**250**	eSg	**Sg**	**04 49 35.0**	**0.0**
FBE	**Freiberg**	**1.82**	**250**	Sg	**Sg**	**04 49 35.0**	**0.0**
GKP	**Gorka Klasztor**	**1.84**	**23**	ePn	**Pg**	**04 49 18.7**	**+6.8**
GKP				eSn	**Sg**	**04 49 40.2**	**+4.6**
GKP	**Gorka Klasztor**	**1.84**	**23**	ePn	**Pg**	**04 49 18.7**	**+6.9**
GKP				eSn	**Sg**	**04 49 40.2**	**+4.6**
PRU	**Pruhonice**	**1.86**	**211**	ePN	**Pn**	**04 49 09.5**	**-0.2**
PRU				ePG	**Pg**	**04 49 11.4**	**-0.9**
PRU				eSG	**Sg**	**04 49 35.4**	**-1.0**
	comp=Z,59nm,0.6s						
PRU	**Pruhonice**	**1.86**	**211**	Pn	**Pn**	**04 49 09.5**	**-0.2**
CLL	**Collm**	**1.93**	**263**	ePn	**Pn**	**04 49 10.0**	**-0.6**
CLL				ePg	**Pg**	**04 49 14.0**	**+0.5**
CLL				eSg	**Sg**	**04 49 38.0**	**-0.5**
CLL	**Collm**	**1.93**	**263**	i Pn	**Pn**	**04 49 09.9**	**-0.7**
CLL				ePg	**Pg**	**04 49 14.0**	**+0.5**
CLL				i		04 49 17.0	
CLL				eSg	**Sg**	**04 49 38.0**	**-0.5**
	comp=Z,55nm,0.6s						
CLL	**Collm**	**1.93**	**263**	Pn	**Pn**	**04 49 10.0**	**-0.6**
RAC	**Raciborz**	**2.03**	**137**	ePg	**Pg**	**04 49 14.9**	**-0.5**
RAC				eSg	**Sg**	**04 49 41.7**	**0.0**
RAC	**Raciborz**	**2.03**	**137**	ePg	**Pg**	**04 49 14.9**	**-0.5**
RAC				eSg	**Sg**	**04 49 41.7**	**0.0**
MORC	**Moravsky Berou**	**2.04**	**152**	ePn	**Pn**	**04 49 11.6**	**-0.6**
MORC				ePg	**Pg**	**04 49 16.3**	**+0.5**
MORC				eSg	**Sg**	**04 49 40.9**	**-1.4**
MORC	**Moravsky Berou**	**2.04**	**152**	ePn	**Pn**	**04 49 12.0**	**-0.2**
MORC	**Moravsky Berou**	**2.04**	**152**	ePg	**Pg**	**04 49 16.3**	**+0.5**
MORC				eSg	**Sg**	**04 49 41.1**	**-1.1**
	comp=Z,30nm,0.4s						
OKC	**Ostrava-Krasne**	**2.20**	**142**	ePn	**Pn**	**04 49 13.7**	**-0.7**
OKC	**Ostrava-Krasne**	**2.20**	**142**	ePG	**Pg**	**04 49 18.4**	**-0.3**
OKC				eSG	**Sg**	**04 49 45.6**	**-1.6**
	comp=Z,70nm,0.7s						
OKC	**Ostrava-Krasne**	**2.20**	**142**	Pn	**Pn**	**04 49 13.7**	**-0.7**
OKC	**Ostrava-Krasne**	**2.20**	**142**	Pg	**Pg**	**04 49 18.4**	**-0.3**
OKC				Sg	**Sg**	**04 49 45.6**	**-1.6**
	comp=Z,70nm,0.7s						
VRAC	**Vranov**	**2.31**	**171**	ePn	**Pn**	**04 49 16.1**	**+0.3**
VRAC				eSg	**Sg**	**04 49 50.4**	**-0.2**
	comp=Z,18nm,0.3s						
TREC	**Trest**	**2.32**	**189**	ePN	**Pn**	**04 49 16.4**	**+0.4**
TREC				ePG	**Pg**	**04 49 20.1**	**-1.0**
TREC	**Trest**	**2.32**	**189**	Pn	**Pn**	**04 49 16.4**	**+0.4**
KRUC	**Moravsky**	**2.54**	**175**	ePn	**Pn**	**04 49 19.4**	**+0.4**
KRUC				eSg	**Sg**	**04 49 57.6**	**-0.4**
	comp=Z,37nm,0.6s						
TANN	**Tannenbergstha**	**2.55**	**244**	ePn	**Pn**	**04 49 19.4**	**+0.2**
TANN				eSg	**Sg**	**04 49 57.8**	**-0.8**
TANN	**Tannenbergstha**	**2.55**	**244**	Pn	**Pn**	**04 49 19.4**	**+0.2**
TANN				Sg	**Sg**	**04 49 57.8**	**-0.7**
WERD	**Werda**	**2.62**	**246**	ePn	**Pn**	**04 49 20.1**	**-0.1**
WERD	**Werda**	**2.62**	**246**	Pn	**Pn**	**04 49 20.1**	**-0.1**
NKC	**Novy Kostel**	**2.65**	**241**	ePN	**Pn**	**04 49 20.9**	**+0.3**
NKC				ePG	**Pg**	**04 49 27.2**	**-0.2**
NKC				eSG	**Sg**	**04 50 01.5**	**-0.2**
	comp=Z,94nm,0.4s						
OJC	**Ojcow**	**2.74**	**118**	ePg	**Pg**	**04 49 28.8**	**-0.3**
OJC				eSg	**Sg**	**04 50 05.2**	**+0.6**
OJC	**Ojcow**	**2.74**	**118**	ePn	**Pn**	**04 49 19.5**	**-2.3**
OJC	**Ojcow**	**2.74**	**118**	ePg	**Pg**	**04 49 28.8**	**-0.3**
OJC				eSg	**Sg**	**04 50 05.2**	**+0.6**
MGBB	**Grossbuechelbe**	**2.92**	**238**	⇑iPn	**Pn**	**04 49 24.9**	**+0.6**
MGBB	**Grossbuechelbe**	**2.92**	**238**	Pn	**Pn**	**04 49 24.9**	**+0.6**
JAVC	**Velka Javorina**	**2.92**	**158**	eSg	**Sg**	**04 50 13.1**	**+2.7**
	comp=Z,54nm,1.0s						
KHC	**Kasperske Hory**	**2.92**	**214**	ePN	**Pn**	**04 49 24.1**	**-0.2**
KHC				ePG	**Pg**	**04 49 30.4**	**-2.2**
KHC				eSN	**Sn**	**04 49 59.6**	**-0.4**
KHC				eSG	**Sg**	**04 50 10.2**	**-0.2**
	comp=Z,24nm,0.6s						
KHC	**Kasperske Hory**	**2.92**	**214**	Pn	**Pn**	**04 49 24.1**	**-0.2**
MOX	**Moxa**	**2.95**	**253**	ePN	**Pn**	**04 49 25.3**	**+0.7**
MOX				ePG	**Pg**	**04 49 33.5**	**+0.4**
MOX				eSG	**Sg**	**04 50 12.3**	**+1.0**
MOX	**Moxa**	**2.95**	**253**	ePn	**Pn**	**04 49 25.3**	**+0.6**
MOX				ePg	**Pg**	**04 49 33.5**	**+0.4**
MOX				eSg	**Sg**	**04 50 12.4**	**+1.1**
MOX	**Moxa**	**2.95**	**253**	ePn	**Pn**	**04 49 25.3**	**+0.7**
MOX				ePg	**Pg**	**04 49 33.5**	**+0.4**
MOX				eSg	**Sg**	**04 50 12.3**	**+1.0**
MOX	**Moxa**	**2.95**	**253**	Pn	**Pn**	**04 49 25.3**	**+0.7**
MANZ	**Manzenberg**	**2.97**	**239**	ePn	**Pn**	**04 49 25.5**	**+0.6**
MANZ				eSg	**Sg**	**04 50 11.8**	**-0.1**
MANZ	**Manzenberg**	**2.97**	**239**	Pn	**Pn**	**04 49 25.5**	**+0.6**
MANZ				Sg	**Sg**	**04 50 11.8**	**-0.1**
ROTZ	**Rotzenmuhle**	**3.05**	**235**	ePn	**Pn**	**04 49 26.3**	**+0.3**
ROTZ	**Rotzenmuhle**	**3.05**	**235**	Pn	**Pn**	**04 49 26.3**	**+0.3**
GEC2	**GERESS Array S**	**3.13**	**210**	ePn	**Pn**	**04 49 27.7**	**+0.6**
GEC2	**GERESS Array S**	**3.13**	**210**	ePn	**Pn**	**04 49 27.7**	**+0.6**
GEC2	**GERESS Array S**	**3.13**	**210**	Pn	**Pn**	**04 49 27.7**	**+0.6**
WET	**Wettzell**	**3.18**	**221**	ePn	**Pn**	**04 49 28.1**	**+0.4**
WET	**Wettzell**	**3.18**	**221**	ePn	**Pn**	**04 49 28.1**	**+0.3**
WET	**Wettzell**	**3.18**	**221**	Pn	**Pn**	**04 49 28.1**	**+0.3**
SMOL	**Smolenice**	**3.20**	**163**	ePN	**Pn**	**04 49 30.5**	**+2.4**
SMOL				e		04 49 40.0	
SMOL	**Smolenice**	**3.20**	**163**	ePn	**Pn**	**04 49 30.5**	**+2.4**
SMOL				e		04 49 40.0	
SMOL				eSg	**Sg**	**04 50 20.0**	**+0.6**
SMOL	**Smolenice**	**3.20**	**163**	ePn	**Pn**	**04 49 30.5**	**+2.4**
SMOL				eSg	**Sg**	**04 50 20.0**	**+0.6**
MODS	**Modra-Piesok**	**3.31**	**166**	ePN	**Pn**	**04 49 31.1**	**+1.5**
MODS				e		04 49 39.6	
MODS	**Modra-Piesok**	**3.31**	**166**	ePn	**Pn**	**04 49 31.1**	**+1.5**
MODS				e		04 49 39.6	
MODS				eSg	**Sg**	**04 50 23.4**	**+0.5**
MODS	**Modra-Piesok**	**3.31**	**166**	ePn	**Pn**	**04 49 31.1**	**+1.5**
MODS				eSg	**Sg**	**04 50 23.4**	**+0.5**
ZST	**Bratislava**	**3.46**	**168**	eSG	**Sg**	**04 50 26.4**	**-1.3**
ZST	**Bratislava**	**3.46**	**168**	eSg	**Sg**	**04 50 26.4**	**-1.3**
ZST	**Bratislava**	**3.46**	**168**	eSg	**Sg**	**04 50 26.4**	**-1.3**
NIE	**Niedzica**	**3.48**	**127**	eP	**Pg**	**04 49 42.7**	**-0.6**
NIE				eS	**Sg**	**04 50 29.5**	**+1.1**
CLZ	**Clausthal**	**3.54**	**276**	ePn	**Pn**	**04 49 33.8**	**+1.0**
CLZ	**Clausthal**	**3.54**	**276**	ePn	**Pn**	**04 49 33.8**	**+1.0**
CLZ	**Clausthal**	**3.54**	**276**	Pn	**Pn**	**04 49 33.8**	**+1.0**
VYHS	**Vyhne**	**3.58**	**149**	ePN	**Pn**	**04 49 33.3**	**0.0**
VYHS				e		04 49 46.1	
VYHS	**Vyhne**	**3.58**	**149**	ePn	**Pn**	**04 49 33.3**	**0.0**
VYHS				e		04 49 46.1	
VYHS				eSg	**Sg**	**04 50 30.2**	**-1.3**
VYHS	**Vyhne**	**3.58**	**149**	ePn	**Pn**	**04 49 33.3**	**0.0**
VYHS				eSg	**Sg**	**04 50 30.2**	**-1.3**
BSD	**Bornholm Skovb**	**3.60**	**350**	i P	**Pn**	**04 49 33.0**	**-0.6**
BSD				i S	**Sn**	**04 50 12.7**	**-4.1**
BSD	**Bornholm Skovb**	**3.60**	**350**	i P	**Pn**	**04 49 33.0**	**-0.6**
BSD				i S	**Sn**	**04 50 12.7**	**-4.1**

GRA1	Grafenberg Arr	3.61	240	*e*Pn	Pn	04 49 34.2	+0.5
GRA1				*e*Sg	Sg	04 50 31.8	-0.7
GRA1				*e*		05 05 06.8	
GRA1	Grafenberg Arr	3.61	240	Pn	Pn	04 49 34.2	+0.5
GRA1				Sg	Sg	04 50 31.8	-0.7
GRF	Grafenberg Arr	3.61	240	*e*Pn	Pn	04 49 34.2	+0.5
GRF				*e*Sg	Sg	04 50 31.8	-0.7
GRF	Grafenberg Arr	3.61	240	*e*Pn	Pn	04 49 34.2	+0.5
GRF				*e*Sg	Sg	04 50 31.8	-0.7
GRF	Grafenberg Arr	3.61	240	*e*Pn	Pn	04 49 34.2	+0.5
GRF				*e*Sg	Sg	04 50 31.8	-0.7
CONA	Conrad Observa	3.66	182	⇓*i*Pn	Pn	04 49 35.0	+0.6
CONA				⇑*i*Sg	Sg	04 50 34.3	+0.1
	comp=Z,26nm,0.4s						
CONA	Conrad Observa	3.66	182	Pn	Pn	04 49 35.0	+0.5
CONA				Sg	Sg	04 50 34.3	+0.1
	comp=Z,26nm,0.4s						
CSNA	Conrad Observa	3.66	182	⇑*i*Pn	Pn	04 49 35.0	+0.5
CSNA				⇑*i*Sg	Sg	04 50 34.3	+0.1
	comp=Z,26nm,0.4s						
CSNA	Conrad Observa	3.66	182	Pn	Pn	04 49 35.0	+0.5
CSNA				Sg	Sg	04 50 34.3	+0.1
	comp=Z,26nm,0.4s						
MOA	Molln	3.91	198	⇑*i*Pn	Pn	04 49 38.5	+0.6
MOA				⇓*i*Sg	Sg	04 50 41.1	-1.1
	comp=Z,30nm,0.5s						
MOA	Molln	3.91	198	Pn	Pn	04 49 38.5	+0.6
MOA				Sg	Sg	04 50 41.1	-1.2
	comp=Z,30nm,0.5s						
STHS	Stebnicka Huta	3.96	121	*e*PN	Pn	04 49 39.3	+0.7
STHS				*e*		04 49 53.2	
STHS	Stebnicka Huta	3.96	121	*e*Pn	Pn	04 49 39.3	+0.7
STHS				*e*		04 49 53.2	
STHS				*e*Sg	Sg	04 50 45.1	+1.2
STHS	Stebnicka Huta	3.96	121	*e*Pn	Pn	04 49 39.3	+0.7
STHS				*e*Sg	Sg	04 50 45.1	+1.2
ARSA	Arzberg	4.35	185	⇑*i*Pn	Pn	04 49 43.9	0.0
ARSA				⇓*i*Sg	Sg	04 50 56.9	+0.5
	comp=Z,17nm,0.5s						
ARSA	Arzberg	4.35	185	Pn	Pn	04 49 43.9	0.0
ARSA				Sg	Sg	04 50 56.9	+0.6
	comp=Z,17nm,0.5s						
CRVS	Cervenica-Dubn	4.39	126	*e*SG	Sg	04 50 56.9	-0.7
CRVS	Cervenica-Dubn	4.39	126	*e*Sg	Sg	04 50 56.9	-0.7
CRVS	Cervenica-Dubn	4.39	126	*e*Sg	Sg	04 50 56.9	-0.7
COP	Copenhagen	4.64	334	*i* P	Pn	04 49 48.9	+1.1
COP				*e*S	Sn	04 50 40.0	-2.3
COP	Copenhagen	4.64	334	*e*P	Pn	04 49 48.9	+1.1
COP				*e*S	Sn	04 50 40.0	-2.3
COP	Copenhagen	4.64	334	*e*P	Pn	04 49 48.9	+1.1
COP				*e*S	Sn	04 50 40.0	-2.3
KWP	Kalwaria Pacla	4.67	112	*e*Pn	Pg	04 50 03.6	-2.5
KOLS	Kolonicke sedl	4.79	121	*e*PN	Pn	04 49 50.1	+0.1
KOLS				*e*		04 50 11.6	
KOLS	Kolonicke sedl	4.79	121	*e*SG	Sg	04 51 16.1	+5.6
KOLS	Kolonicke sedl	4.79	121	*e*	Pn	04 49 50.1	+0.1
KOLS				*e*		04 50 11.7	
KOLS				*e*		04 51 16.1	
KOLS	Kolonicke sedl	4.79	121	*e*	Pn	04 49 50.1	+0.1
KBA	Koelnbreinsper	4.84	202	⇑*i*Pn	Pn	04 49 51.7	+1.0
KBA				⇓*i*Sg	Sg	04 51 13.3	+1.2
	comp=Z,14nm,0.8s						
KBA	Koelnbreinsper	4.84	202	Pn	Pn	04 49 51.7	+1.0
KBA				Sg	Sg	04 51 13.3	+1.2
	comp=Z,14nm,0.8s						
VXJU	Vaexsjoe	5.39	354	P	Pn	04 49 58.2	+0.1
OSKU	Oskarshamn	5.62	0	P	Pn	04 50 01.3	-0.1
VSTU	Vaestervik	6.09	2	P	Pn	04 50 08.8	+1.0
VIKU	Vikbolandet	6.94	3	P	Pn	04 50 19.7	+0.2

IDC 09 05:13:30.5±2.4**, 54°.16N**×**86°.34E, h0^{km}, mb1 2.6**/2**, mb1mx2.6**/26**, mbtmp2.6**/2**, ML2.5**/2**, Error ellipse: s-maj=18.7km s-min=7.0km az=73.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	Zalesovo Beam	0.92	257	Pg	Pg	05 13 47.1	-1.0
	0.8nm,0.3s,baz=76,slow=17,SNR=27						
ZALV				Lg		05 14 01.0	
	1.7nm,0.3s,baz=79,slow=31,SNR=14						
KURK	Kurchatov	5.85	237	Pn	Pn	05 15 00.7	+2.4
	0.0nm,0.3s,baz=55,slow=14,SNR=3.8						
KURK				Lg		05 16 42.8	
	0.1nm,0.3s,baz=64,slow=4.2,SNR=2.9						
MKAR	Makanchi Array	7.81	201	Pn	Pn	05 15 26.4	+1.1
	0.1nm,0.3s,baz=22,slow=15,SNR=8.1						
MKAR				Lg		05 17 40.4	
	0.0nm,0.3s,baz=22,slow=27,SNR=4.3						

IDC 09 05:55:50.0±2.8**, 13°.13N**×**88°.90W, h109^{km}**±30^{km}**, mb3.2**/4**, mb1 3.5**/6**, mb1mx3.3**/20**, mbtmp3.2**/6**, Error ellipse: s-maj=52.1km s-min=19.6km az=49.0, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTS	JuntasAbangare	4.78	126	P	Pn	05 57 00.8	+0.9
	2.4nm,0.3s,baz=309,slow=21,SNR=26						
JTS				S	Sn	05 57 54.4	+0.2
	0.7nm,0.3s,baz=158,slow=15,SNR=2.3						
TEIG	Tepich	7.08	5	P	Pn	05 57 31.1	0.0
	1.7nm,0.3s,baz=128,slow=19,SNR=12						
TXAR	Lajitas Array	21.17	322	P	P	06 00 26.4	-0.2
	0.3nm,0.4s,baz=137,slow=11,SNR=17						
PDAR	Pinedale Array	34.52	333	P	P	06 02 28.2	+0.4
	0.2nm,0.5s,baz=134,slow=10,SNR=2.8						
SCHQ	Schefferville	45.05	18	P	P	06 03 55.1	+0.3
	2.0nm,0.7s,baz=225,slow=9.7,SNR=6.4						
YKA	Yellowknife Ar	52.60	345	P	P	06 04 51.9	-0.3
	0.6nm,0.7s,baz=144,slow=7.5,SNR=11						

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*IDC **09** 06:12:01.7±2.9, 28°.18N×54°.10E, h0^{km}, mb3.2/3, mb1 3.3/3, mb1mx3.2/24, mbtmp3.3/3, Error ellipse: s-maj=79.6km s-min=32.5km az=159.0*

*CSEM **09** 06:12:06.2±0.8, 28°.59N×53°.92E, h40^{km}, ML4.0*

*TEH **09** 06:12:10.2, 28°.38N×54°.06E, h31^{km}*

ISC 09 06:12:07.5±0.9**, 28°.28N**±0°.04×**54°.00E**±0°.04**, h19^{km}**±7^{km}**, n22, σ1^{s}24**/30**, mb3.4**/2**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	Ghir-Karzin	0.89	270	*e*Pg	Pg	06 12 23.3	-1.6
ISRV	Sarvestan	1.34	325	*e*Pn	Pn	06 12 32.2	+0.9
ISRV				*e*Sg	Sg	06 12 51.1	+0.1
ISRV				*e*		06 12 55.2	
	comp=Z,4µm,0.2s						
IMOK	Mouk	1.36	304	*e*Pn	Pn	06 12 32.7	+1.2
IMOK				*e*Sg	Sg	06 12 54.2	+2.6
IMOK				*e*		06 13 07.1	
	comp=Z,7µm,0.2s						
IPAR	Pars	1.76	332	*e*Pn	Pn	06 12 38.0	+0.9
IPAR				*e*		06 13 08.3	
	comp=Z,2µm,0.4s						
BNDS	Bandar-Abbas	2.12	114	*e*Pn	Pn	06 12 41.3	-0.7
IBND	Bandar-abas	2.40	110	*e*Pn	Pn	06 12 46.8	+1.0
IBND				*e*Sg	Sg	06 13 25.0	+0.2
IMEH	Mehriz	3.14	10	*e*Pn	Pn	06 12 56.4	+0.3
IMEH				*e*		06 13 46.1	
	comp=Z,486nm,0.3s						
IBAF	Bafgh	3.57	22	*e*	Pn	06 13 02.6	+0.7
	comp=Z,450nm,0.1s						
IBAF				*e*Pn	Pn	06 13 01.4	-0.5
ISAD	Sadrabad	3.63	356	*e*Pn	Pn	06 13 03.0	+0.3
ISAD				*e*		06 14 05.0	
	comp=Z,738nm,0.4s						
ICHK	Chekchek	3.96	5	*e*Pn	Pn	06 13 07.0	-0.4
ICHK				*e*		06 14 17.7	
	comp=Z,342nm,0.2s						
SLWS		4.59	222	P	Pn	06 13 16.8	+0.8
SLWS		4.59	222	P	Pn	06 13 16.8	+0.9
SLWS				S	Sn	06 14 10.5	+1.7
BTHS		5.08	215	P	Pn	06 13 23.1	+0.4
BTHS		5.08	215	P	Pn	06 13 23.1	+0.4
BTHS				S	Sn	06 14 22.3	+1.4
IPIR	Pirpir	5.14	329	*e*Pn	Pn	06 13 24.2	+0.7
IPIR				*e*		06 14 30.4	
	comp=Z,131nm,0.3s						
IKLH	Kolahrood	5.43	338	*e*Pn	Pn	06 13 27.4	-0.1
IKLH				*e*		06 13 35.2	
	comp=Z,89nm,0.1s						
ASYS		8.58	267	P	Pn	06 14 08.2	-2.5
ASYS				S	Sn	06 15 39.8	-7.2
LYLS		8.72	226	P	Pn	06 14 12.2	-0.5
LYLS		8.72	226	P	Pn	06 14 12.2	-0.5
LYLS				S	Sn	06 15 48.9	-1.6
BRTR	Keskin Array B	20.32	309	P	P	06 16 40.9	-1.6
	comp=Z,0.3nm,0.6s,baz=125,slow=15,SNR=2.3						
MKAR	Makanchi Array	28.83	42	P	P	06 18 01.8	-2.8
	comp=Z,0.2nm,0.5s,mb3.1,baz=232,slow=9.9,SNR=5.9						
TORD	Torodi Ar. Bea	50.81	264	P	P	06 21 04.8	-2.3
	comp=Z,0.7nm,0.8s,mb3.6,baz=56,slow=7.7,SNR=4.5						

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*BJI **09** 07:12:04.8, 32°.50N×115°.30W, h12^{km}, mB5.6/19, mb5.0/15, Ms5.2/16, Ms7 4.9/18*

*NEIC **09** 07:12:05.8, 32°.46N×115°.32W, h3^{km}, mb5.1/80, ML5.5(ECX), MW5.1(PAS), After ECX.*

NEIC Two bridges slightly damaged and power outages and disruption of cellular telephone service at Mexicali. Felt [VI] at Mexicali. Also felt at Ensenada, Tecate and Tijuana. Felt [V] at Calexico and Heber; [IV] at Brawley, El Centro, Holtville, Imperial and Winterhaven; [III] at Blythe, Carlsbad, Chula Vista, El Cajon, Los Angeles, Mission Viejo, Niland, Oceanside, Pine Valley, San Diego and Westmorland; [II] at Aliso Viejo, Campo, Coronado, Del Mar, Encinitas, Imperial Beach, Indian Wells, Indio, Jamul, La Jolla, La Mesa, La Quinta, Ladera Ranch, Lakeside, Lemon Grove, Palm Desert, Palm Springs, Rancho Mirage, San Clemente, San Marcos, Santee and Spring Valley, California. Felt throughout southern California from Palm Springs to Calexico and from San Diego to Winterhaven. Felt [IV] at Yuma and [III] at Somerton and Wellton, Arizona. Also felt at Cibola, Parker, Peoria and Tempe, Arizona.

*GCMT **09** 07:12:05.8±0.2, 32°.56N×115°.37W, h12^{km}, MW5.2/101, Moment Tensor Solution. s46,c61; s101,c168; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.26±.14; M$_{\theta\theta}$-5.17±.12; M$_{\phi\phi}$7.42±.11; M$_{r\theta}$0.23±.38; M$_{\theta\phi}$0.16±.12; M$_{\phi r}$-1.72±.35; Best double couple: M$_{0}$6.45600×10^{16} NP1:φ$_{s}$226.00000°, δ79.00000°, λ3.00000°. NP2: φ$_{s}$136.00000°, δ87.00000°, λ169.00000°. Principal axes: T 7.7180, Plg10.0000°, Azm91.0000°; N -2.5330, Plg79.0000°, Azm299.0000°; P -5.1950, Plg5.0000°, Azm181.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ISCJB **09** 07:12:06.4±0.1, 32°.45N±0°.01×115°.29W±0°.01, h10^{km}, mb4.9/105, MS4.7/49 Error ellipse: s-maj=1.8km s-min=1.4km az=18.3*

*ECX **09** 07:12:06.1±0.5, 32°.47N×115°.35W, h9^{km}, MD5.2, MW5.2, Fault plane solution: NP1:φ$_{s}$205.60000°, δ75.50000°, λ-26.60000°.*

*IDC **09** 07:12:06.8±0.6, 32°.49N×115°.16W, h0^{km}, mb4.5/26, mb1 4.6/31, mb1mx4.5/35, mbtmp4.5/31, ML4.0/3, MS4.6/32, Ms1 4.6/32, ms1mx4.6/36, Error ellipse: s-maj=15.8km s-min=8.1km az=52.0*

*MOS **09** 07:12:07.4±1.3, 32°.51N×115°.26W, h10^{km}, mb5.2/47, MS4.7/9, Error ellipse: s-maj=5.7km s-min=4.0km az=81.7*

*SZGRF **09** 07:12:10.2, 32°.13N×117°.31W, h33^{km}, mb5.0, MS5.1, California-Baja California border region*

*MEX **09** 07:12:15.5±3.4, 32°.10N×114°.71W, h5^{km}, MD5.2*

ISC 09 07:12:07.9±0.1**, 32°.40N**±0°.01×**115°.31W**±0°.01**, h10^{km}, n739, σ1^{s}53**/777**, mb4.9**/105**, MS4.7**/49**, 225C-191D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.02	11	⇓*i*P	Pg	07 12 09.3	-0.4
CHIX	Chihuahua	0.11	32	⇑*e*P	Pg	07 12 09.8	-0.8
DELX	Delta	0.11	111	⇑*e*P	Pg	07 12 11.7	+1.1
DELX				*i* S	Sg	07 12 16.6	+4.0
EMX	El Mayor	0.41	172	⇓*i*P	Pg	07 12 16.7	+0.8
EMX	El Mayor	0.41	172	*i* P	Pg	07 12 16.7	+0.8
SGL	Mount Signal	0.43	306	⇑*i*P	Pg	07 12 15.1	-1.3
SNR	Schaffner Ranc	0.48	347	⇓*i*P	Pg	07 12 16.0	-1.2
COA	Coachella	0.49	19	⇓*i*P	Pg	07 12 16.2	-1.3
COA	Coachella	0.49	19	*e*P	Pg	07 12 16.2	-1.3
COK	Cook Ranch	0.57	322	*i* P	Pg	07 12 17.4	-1.6
COK	Cook Ranch	0.57	322	*e*P	Pg	07 12 17.4	-1.6
YUH	Yuha Desert	0.58	296	⇑*i*P	Pg	07 12 17.5	-1.5
YUH	Yuha Desert	0.58	296	*e*P	Pg	07 12 17.5	-1.5
BTCC	Brunts Corner	0.62	7	*e*P	Pg	07 12 18.0	-1.9
112A	Yuma	0.63	77	⇓P	Pg	07 12 18.6	-1.6
	baz=0.6,SNR=1000						
112A				⇑S	Sg	07 12 27.3	-1.1
	baz=0.6						
YMD	Yuma Desert	0.67	76	⇑*i*P	Pg	07 12 19.2	-1.5
YMD	Yuma Desert	0.67	76	*e*P	Pg	07 12 19.2	-1.6
SWSC	Sam W. Stewart	0.68	323	⇑P	Pg	07 12 18.8	-2.3
	baz=0.7						
SWSC				⇓S	Sg	07 12 27.6	-2.4
	baz=0.7						
RDX	Rancho Dawling	0.71	229	⇑*e*P	Pg	07 12 22.0	+0.4
DVTC	Desert V Tower	0.72	292	⇓P	Pg	07 12 20.1	-1.7
	baz=0.7						
DVTC				⇓S	Sg	07 12 29.8	-1.4
	baz=0.7						
DVTC	Desert V Tower	0.72	292	*e*P	Pg	07 12 20.4	-1.4
CRR	Carrizo Plain	0.74	312	⇑*i*P	Pg	07 12 20.1	-2.1
CRR	Carrizo Plain	0.74	312	*e*P	Pg	07 12 20.1	-2.1
CLIC	Calipatria	0.77	346	*e*P	Pg	07 12 20.2	-2.5
GLA	Glamis	0.77	32	⇓P	Pg	07 12 19.8	-3.0
	baz=0.7						
GLA				⇓S	Sg	07 12 29.7	-3.2
	baz=0.7						
GLA	Glamis	0.77	32	⇓*i*P	Pg	07 12 20.2	-2.6
GLA	Glamis	0.77	32	*e*P	Pg	07 12 20.0	-2.8
GLA				*e*S	Sg	07 12 29.9	-2.9
CBKC	Canebrake	0.94	303	*e*P	Pg	07 12 23.5	-2.5
ECBX	El Chinero	0.95	167	⇑*e*P	Pg	07 12 24.9	-1.2
ECBX				*e*P		07 12 24.9	
MONP	Monument Peak	1.06	298	⇑P	Pg	07 12 25.3	-3.0
	baz=1.1,SNR=1000						
MONP				⇓S	Sg	07 12 39.2	-2.9
	baz=1.1						
CBX	Cerro Bola	1.15	266	⇑*e*P	Pg	07 12 29.2	-0.8
CBX				*e*S	Sg	07 12 43.1	-1.8
BAR	Barrett	1.19	284	*e*Pg	Pg	07 12 27.6	-3.1
BAR				*e*Sg	Sg	07 12 42.2	-3.9
BC3	Big Chuckw Mtn	1.26	355	⇓P	Pn	07 12 27.5	-4.1
	baz=1.2						
BC3				⇓S	Sb	07 12 43.0	-5.0
	baz=1.2						
CCX	Cicese	1.26	246	*i* P	Pn	07 12 30.7	-0.9
ECNX	Esteban Cantu	1.32	236	⇑*e*P	Pn	07 12 31.9	-0.5
ECNX				*i* P		07 12 30.7	
SPX	San Pedro Mart	1.35	186	⇓*e*P	Pn	07 12 32.1	-0.7
SPX				*e*S	Sb	07 12 50.3	-0.4
113A	Mohawk Valley,	1.35	74	⇑P	Pn	07 12 29.4	-3.4
	baz=1.3,SNR=1000						
PBX	Punta Banda	1.37	242	⇑*e*P	Pg	07 12 32.4	-1.8
PBX				*e*S	Sg	07 12 51.3	-0.6
PFO	Pinyon Flat Ob	1.55	322	Pn	Pn	07 12 31.9	-3.6
	86µm,0.6s						
PFO	Pinyon Flat Ob	1.55	322	⇓P	Pn	07 12 31.5	-4.0
	baz=1.5						
PFO				⇑S	Sn	07 12 50.3	-5.3
	baz=1.5						
PFO	Pinyon Flat Ob	1.55	322	*e*Pn	Pn	07 12 31.4	-4.1
PFO				*e*Sg	Sn	07 12 49.5	-6.1
109C	Camp Elliot, M	1.59	288	⇓P	Pn	07 12 33.4	-2.7
	baz=1.6,SNR=751						
109C				⇓S	Sn	07 12 53.5	-3.3
	baz=1.6						
BELC	Belle Mtn.	1.70	340	⇓Pn	Pn	07 12 33.6	-4.0
	baz=1.7,SNR=28						
IRM	Iron Mountain	1.77	4	⇓Pn	Pn	07 12 34.5	-3.9
	baz=1.7						
PPXB	Puerto Peˆ–asc	1.77	126	*e*P	Pg	07 12 42.6	+0.7
Y13A	Salome	1.88	41	⇓Pn	Pn	07 12 36.2	-3.9
	baz=1.9,SNR=75						
Y13A				⇑Sb	Sb	07 13 02.5	-3.4
	baz=1.9						
MURC	Murrieta	1.99	308	⇑Pn	Pn	07 12 38.0	-3.6
	baz=2.0,SNR=100						
MURC				⇓Sb	Sb	07 13 06.2	-2.8
	baz=2.0						
PDMCI	Parker Dam,Lak	2.14	27	⇓Pn	Pn	07 12 40.1	-3.5
	baz=2.1						
PDMCI				⇑Sb	Sb	07 13 09.2	-4.1
	baz=2.1						
214A	Organ Pipe Nat	2.16	101	⇑Pn	Pn	07 12 40.7	-3.3
	baz=2.1,SNR=1000						
214A				⇑Pb	Pb	07 12 45.6	-1.5
	baz=2.1						
Z14A	Wintersburg	2.21	63	⇑Pn	Pn	07 12 41.4	-3.2
	baz=2.2,SNR=175						
Z14A				⇓Sb	Sb	07 13 12.6	-2.8
	baz=2.2						
BBRC	Big Bear Sol-O	2.30	325	⇓Pn	Pn	07 12 42.4	-3.4
	baz=2.3,SNR=15						
GMRC	Granite Mounta	2.40	353	⇑Pn	Pn	07 12 43.4	-3.8
	baz=2.4,SNR=67						
NEE2	Needles Airpor	2.44	13	⇓Pn	Pn	07 12 43.9	-3.8
	baz=2.4,SNR=33						
Y14A	Wickenburg	2.47	51	⇓Pn	Pn	07 12 45.3	-2.9
	baz=2.4						
Y14A				⇑Sn	Sn	07 13 12.6	-5.8
	baz=2.4						
X13A	Yucca	2.52	29	⇑Pn	Pn	07 12 45.6	-3.2
	baz=2.5,SNR=245						
X13A				⇓Sb	Sb	07 13 20.2	-4.0
	baz=2.5						
HEC	Hector,Ludlow	2.57	341	⇑Pn	Pn	07 12 45.9	-3.7
	baz=2.6,SNR=7.3						
115A	Sonoran Desert	2.62	82	⇓Pn	Pn	07 12 47.4	-2.8
	baz=2.6,SNR=609						
LDFC	Landfair	2.68	3	*e*Pn	Pn	07 12 48.8	-2.3
LDFC				*e*Pg	Pg	07 12 58.6	-0.7
BFSC	Mount Baldy St	2.69	314	⇑Pn	Pn	07 12 48.4	-2.8
	baz=2.7,SNR=12						
BFSC				⇑Sn	Sn	07 13 20.9	-3.0
	baz=2.7						
CIS	Catalina Islan	2.79	292	⇑Pn	Pn	07 12 49.3	-3.3
	baz=2.8,SNR=126						
CIS				⇑Sb	Sb	07 13 29.7	-2.4
	baz=2.8						
SCI	San Clemente I	2.79	283	⇑Pn	Pn	07 12 49.5	-3.1
	baz=2.8,SNR=34						
SCI				⇓Sb	Sg	07 13 31.0	-6.6
	baz=2.8						
Z15A	Gila River Ind	2.80	71	⇑Pn	Pn	07 12 49.7	-3.0
	baz=2.8,SNR=143						
FMP	Fort Macarthur	2.83	298	⇑Pn	Pn	07 12 49.7	-3.4
	baz=2.8						
FMP				⇑Sb	Sg	07 13 31.8	-7.0
	baz=2.8						
RRX	Edison Barstow	2.85	331	⇑Pn	Pn	07 12 49.4	-4.0
	baz=2.8						
X14A	Yava	2.89	44	⇑Pn	Pn	07 12 50.7	-3.3
	baz=2.9,SNR=23						
X14A				⇓Sb	Sb	07 13 32.9	-2.1
	baz=2.9						
W12A	Cal Nev Ari	2.92	7	⇓Pn	Pn	07 12 50.8	-3.6
	baz=2.9						
MWC	Mount Wilson	2.94	309	*e*Pn	Pn	07 12 55.0	+0.4
MWC				*e*Sg	Sg	07 13 35.3	-7.0
Y15A	Casa Rosa Ranc	2.94	57	⇓Pn	Pn	07 12 51.5	-3.1
	baz=2.9,SNR=197						
Y15A				⇑Sb	Sb	07 13 34.9	-1.5
	baz=2.9						
W13A	Hualapai Mount	2.95	23	⇑Pn	Pn	07 12 51.5	-3.2
	baz=2.9,SNR=120						
PASC	Pasadena Art C	2.99	307	*e*Pn	Pn	07 12 55.1	-0.2
PASC				*e*Sg	Sn	07 13 32.8	+1.6
116A	Eloy	3.05	86	⇑Pn	Pn	07 12 53.1	-3.0
	baz=3.0,SNR=87						
DECC	Green Verdugo	3.13	307	⇑Sb	Sb	07 13 40.8	-1.1
	baz=3.1						
216A	Three Points,	3.29	96	⇓Pn	Pn	07 12 56.4	-3.0
	baz=3.3,SNR=102						
X15A	Humboldt	3.31	50	⇑P	Pn	07 12 57.4	-2.3
	baz=3.3,SNR=358						
EDW2	Edwards Air Fo	3.34	319	⇑Pn	Pn	07 12 56.3	-3.8
	baz=3.3,SNR=17						
EDW2				⇑Sb	Sb	07 13 46.6	-1.3
	baz=3.3						
V12A	Nelson	3.34	6	⇑P	Pn	07 12 57.3	-2.9
	baz=3.3,SNR=167						
W14A	Seligman	3.37	33	⇓P	Pn	07 12 58.2	-2.3
	baz=3.3,SNR=105						
W14A				⇑Sn	Sn	07 13 35.5	-5.1
	baz=3.3						
W14A				⇓Sb	Sb	07 13 45.9	-2.7
	baz=3.3						
Z16A	Peralta Trail,	3.40	73	⇓Pn	Pn	07 12 57.8	-3.2
	baz=3.4,SNR=56						
V11A	Goodsprings	3.44	358	⇑P	Pn	07 12 58.3	-3.2
	baz=3.4,SNR=70						
Y16A	Circle Bar Ran	3.54	64	⇓P	Pn	07 13 00.2	-2.7
	baz=3.5,SNR=662						
BLG	Laguna Peak	3.58	300	⇑Pn	Pn	07 13 00.2	-3.3
	baz=3.6						
BLG				⇓Sn	Sn	07 13 41.4	-4.4
	baz=3.6						
SHOC	Shoshone	3.59	347	⇑P	Pn	07 13 00.4	-3.1
	baz=3.6						
OSI	Osito Adit	3.61	309	⇓Sb	Sb	07 13 53.7	-2.0
	baz=3.6						
OSI	Osito Adit	3.61	309	*e*Pn	Pn	07 13 04.4	+0.5
V13A	Grand Canyon W	3.62	17	⇑P	Pn	07 13 00.4	-3.5
	baz=3.6						
SNCC	San Nicolas Is	3.65	285	⇑Pn	Pn	07 13 01.1	-3.3
	baz=3.7						
SNCC	San Nicolas Is	3.65	285	*e*Pn	Pn	07 13 02.7	-1.7
V14A	Boquillas Ranc	3.71	29	⇓P	Pn	07 13 02.1	-3.2
	baz=3.7						
W15A	Williams	3.76	42	⇓P	Pn	07 13 04.0	-1.9
	baz=3.7						
W15A				⇑Sb	Sb	07 13 57.6	-2.3
	baz=3.7						
X16A	Lo Mia Camp, P	3.81	57	⇓P	Pn	07 13 04.5	-2.1
	baz=3.8						
TUC	Tucson	3.83	90	*e*Pn	Pn	07 13 04.0	-2.9
TUC				*e*Pg	Pg	07 13 18.4	-2.9
217A	Green Valley	3.86	98	⇑Pn	Pn	07 13 04.2	-3.2
	baz=3.8,SNR=271						
117A	Oracle	3.87	86	⇑Pn	Pn	07 13 04.4	-3.0
	baz=3.8,SNR=604						
BSC	Santa Cruz Isl	3.96	295	⇑Pn	Pn	07 13 05.3	-3.3
	baz=4.0						
Y17A	Roosevelt	3.97	70	⇓Pn	Pn	07 13 05.9	-2.9
	baz=3.9,SNR=388						
ARVC	Arvin	4.00	314	⇑Pn	Pn	07 13 05.5	-3.7
	baz=4.0,SNR=6.9						
U11A	Corn Creek	4.02	359	⇑P	Pn	07 13 07.1	-2.4
	baz=4.0,SNR=6.8						
U11A				⇓Sn	Sn	07 13 51.9	-4.7
	baz=4.0						
U12A	Valley of Fire	4.08	9	⇓P	Pn	07 13 07.3	-3.0
	baz=4.1						
MPMC	Manual Prospec	4.08	334	⇑Pn	Pn	07 13 06.3	-4.0
	baz=4.1,SNR=16						
SHPR	Sheep Range	4.10	2	*e*Pn	Pn	07 13 08.3	-2.3
U10A	Ash Meadows, A	4.10	348	⇑P	Pn	07 13 07.5	-3.2
	baz=4.1,SNR=36						
W16A	Flagstaff	4.14	48	⇓P	Pn	07 13 09.4	-1.7
	baz=4.1						
U13A	Pakoon Wash	4.16	15	⇑P	Pn	07 13 08.9	-2.5
	baz=4.1						
Z17A	San Carlos Hig	4.17	76	⇑Pn	Pn	07 13 08.9	-2.6
	baz=4.1,SNR=45						
ISA	Isabella	4.19	322	⇑Pn	Pn	07 13 08.0	-3.8
	baz=4.2						
ISA	Isabella	4.19	322	*e*Pn	Pn	07 13 08.9	-2.8
ISA				*e*Pg	Pg	07 13 28.3	+0.2
ISA				*e*Sg	Sg	07 14 16.3	-6.0
SBC	Santa Barbara	4.21	300	⇓P	Pn	07 13 11.0	-1.1
	baz=4.2						
SBC				⇓Sn	Sn	07 13 56.1	-5.3
	baz=4.2						
FURC	Furnace Creek,	4.26	343	⇓Pn	Pn	07 13 08.5	-4.3
	baz=4.2						
V15A	Kaibab Nationa	4.29	36	⇓P	Pn	07 13 11.8	-1.4
	baz=4.3						
V15A				⇑Sb	Sb	07 14 14.1	-1.2
	baz=4.3						
T12A	Moapa	4.35	6	⇓P	Pn	07 13 11.6	-2.4
	baz=4.3						
U14A	Mt Trumbull	4.38	23	⇓P	Pn	07 13 12.5	-2.0
	baz=4.4						
218A	Dragoon	4.48	94	⇑Pn	Pn	07 13 12.8	-3.0
	baz=4.5						
Z18A	Geronimo	4.50	80	⇑Pn	Pn	07 13 12.9	-3.1
	baz=4.5,SNR=109						
WUAZ	Wupatki	4.51	45	⇓P	Pn	07 13 14.2	-2.1

	baz=4.5						
WUAZ	Wupatki	4.51	45	*e*Pn	Pn	07 13 15.8	-0.5
WUAZ				*e*Pg	Pg	07 13 32.9	-1.5
WUAZ				*e*Sg	Sg	07 14 31.1	-1.7
118A	Homack Ranch,	4.52	85	⇓Pn	Pn	07 13 13.3	-3.0
	baz=4.5,SNR=282						
318A	Bisbee	4.62	100	⇑Pn	Pn	07 13 15.1	-2.6
	baz=4.6,SNR=555						
CWC	Cottonwood Cre	4.64	331	⇑P	Pn	07 13 16.2	-1.8
	baz=4.6						
VES	Vestal, Richgr	4.65	319	⇑P	Pn	07 13 16.5	-1.6
	baz=4.6						
W17A	Winslow	4.67	54	⇑P	Pn	07 13 16.7	-1.8
	baz=4.6						
T13A	Saint George	4.76	14	⇑P	Pn	07 13 17.5	-2.1
	baz=4.7						
T11A	Corn Creek, Al	4.83	1	⇓P	Pn	07 13 18.7	-2.0
	baz=4.8						
SMMC	Simmler	4.87	308	⇑Pn	Pn	07 13 17.7	-3.4
	baz=4.9						
X18A	Snowflake	4.96	63	⇑P	Pn	07 13 20.6	-1.8
	baz=4.9						
T14A	Hurricane	5.00	21	⇓P	Pn	07 13 21.2	-1.8
	baz=5.0						
HSIG		5.04	131	*i* P	Pn	07 13 21.5	-2.0
HSIG				*i* S	Sn	07 14 14.2	-7.6
RCTC	Rector, Farmer	5.08	321	⇑P	Pn	07 13 21.4	-2.6
	baz=5.1						
119A	Ashpeak Ranch,	5.08	84	⇑Pn	Pn	07 13 21.2	-3.0
	baz=5.1,SNR=42						
U16A	Tuba City	5.09	42	⇓P	Pn	07 13 23.6	-0.7
	baz=5.1						
Z19A	T-Link Ranch,	5.17	78	⇓Pn	Pn	07 13 23.1	-2.1
	baz=5.1						
T15A	Red Dirt Ranch	5.20	27	⇓P	Pn	07 13 24.4	-1.4
	baz=5.2						
S12A	Delamar Landin	5.21	4	⇓P	Pn	07 13 24.1	-1.8
	baz=5.2						
319A	Douglas	5.23	100	⇑Pn	Pn	07 13 23.7	-2.4
	baz=5.2,SNR=348						
S13A	Holt Ranch, En	5.31	13	⇑P	Pn	07 13 25.4	-1.8
	baz=5.3						
Y19A	Nutrioso	5.31	71	⇓P	Pn	07 13 25.9	-1.4
	baz=5.3						
W18A	Petrified Fore	5.38	58	⇑P	Pn	07 13 27.1	-1.0
	baz=5.3						
S09A	Goldfield	5.54	344	⇑Pn	Pn	07 13 26.6	-3.9
	baz=5.5						
T16A	Glen Canyon Da	5.55	33	⇓Pn	Pn	07 13 27.0	-3.4
	baz=5.5						
V18A	Ganado	5.55	52	⇑P	Pn	07 13 29.3	-1.2
	baz=5.5						
S10A	Tonopah Range,	5.62	350	⇓P	Pn	07 13 29.8	-1.6
	baz=5.6						
W19A	Sanders	5.63	60	⇓P	Pn	07 13 30.8	-0.8
	baz=5.6						
W19A				⇓Sb	Sb	07 14 54.3	+0.6
	baz=5.6						
S14A	Cedar City	5.63	18	⇓P	Pn	07 13 30.2	-1.5
	baz=5.6						
120A	U Bar Ranch, L	5.64	87	⇑Pn	Pn	07 13 28.9	-3.0
	baz=5.6,SNR=219						
U17A	Shonto	5.68	41	⇓P	Pn	07 13 32.2	-0.2
	baz=5.7						
S15A	Panguitch	5.80	24	⇑P	Pn	07 13 33.0	-0.8
	baz=5.8						
R13A	O’Grain Ranch,	5.88	10	⇑P	Pn	07 13 33.6	-1.3
	baz=5.9						
TPH	Tonopah	5.88	345	*e*P	Pn	07 13 34.2	-0.8
TPH				pmax	pmax		
	comp=Z,709nm,0.9s						
TPH	Tonopah	5.88	345	*e*Pn	Pn	07 13 34.2	-0.8
	comp=Z,709nm,0.9s						
TPH				*e*Pg	Pg	07 13 59.9	-0.6
T17A	Navajo Res., N	5.90	38	⇓P	Pn	07 13 35.4	0.0
	baz=5.9						
R10A	Warm Springs	5.94	352	⇑P	Pn	07 13 34.0	-1.9
	baz=5.9						
R11A	Troy Canyon, C	5.95	358	⇑P	Pn	07 13 33.7	-2.2
	baz=5.9						
R12A	Pony Springs,	5.95	5	⇓P	Pn	07 13 34.1	-1.8
	baz=5.9						
R09A	Tonopah	6.01	347	⇓P	Pn	07 13 35.5	-1.3
	baz=6.0						
U18A	Rough Rock, Ch	6.03	47	⇓P	Pn	07 13 37.4	+0.4
	baz=6.0						
S16A	Weppner Ranch,	6.12	29	⇓P	Pn	07 13 37.8	-0.6
	baz=6.1						
V19A	Window Rock	6.16	56	⇑P	Pn	07 13 37.5	-1.4
	baz=6.1						
R14A	James Farms, M	6.18	17	⇓P	Pn	07 13 38.0	-1.1
	baz=6.2						
W20A	Ramah	6.29	62	⇑P	Pn	07 13 39.6	-1.1
	baz=6.3						
R08A	Mina	6.36	340	⇑P	Pn	07 13 40.9	-0.8
	baz=6.4						
S17A	Black Ridge (B	6.40	34	⇓P	Pn	07 13 41.7	-0.6
	baz=6.4						
Q11A	Duckwater	6.44	358	⇑P	Pn	07 13 41.4	-1.4
	baz=6.4						
Q10A	Clear Creek Ra	6.48	352	⇓P	Pn	07 13 41.9	-1.3
	baz=6.5						
NVAR	Mina Array Bea	6.50	339	Pn	Pn	07 13 42.2	-1.4
	comp=Z,0.3nm,0.3s,baz=162,slow=16,SNR=13						
NVAR				Pg	Pg	07 14 08.0	-4.3
	comp=Z,3.9nm,0.3s,baz=157,slow=16,SNR=12						
NVAR				Lg		07 15 39.4	
	baz=163,slow=35,SNR=2.5						
NVAR	Mina Array Bea	6.50	339	Pn	Pn	07 13 42.2	-1.4
NVAR				Pg	Pg	07 14 08.0	-4.3
NVAR				Lg		07 15 39.4	
T18A	Mexican Hat	6.51	42	⇑P	Pn	07 13 43.2	-0.5
	baz=6.5						
CGIG		6.59	106	*i* P	Pn	07 13 44.0	-0.8
CGIG				*i* S	Sn	07 14 52.9	-7.1
Q09A	Carvers	6.60	347	⇑P	Pn	07 13 44.3	-0.7
	baz=6.6						
MSU	Marysvale	6.62	22	*e*P	Pn	07 13 45.2	0.0
MSU				pmax	pmax		
	comp=Z,407nm,0.8s						
MSU	Marysvale	6.62	22	*e*Pn	Pn	07 13 45.2	0.0
	comp=Z,408nm,0.8s						
MSU				*e*Pg	Pg	07 14 12.7	-1.9
MSU				*e*Sg	Sg	07 15 40.1	-0.1
Q13A	Wheeler Ranch,	6.63	9	⇓P	Pn	07 13 44.1	-1.3
	baz=6.6						
Q12A	Willow Creek R	6.64	3	⇓P	Pn	07 13 44.1	-1.4
	baz=6.6						
R16A	Teasdale	6.66	27	⇑P	Pn	07 13 44.8	-0.8
	baz=6.6						
SAO	San Andreas Ge	6.68	312	P	Pn	07 13 44.7	-1.3
Q14A	Sevier Lake (B	6.78	14	⇑P	Pn	07 13 46.2	-1.2
	baz=6.8						
Q08A	Gabbs	6.79	342	⇑Pn	Pn	07 13 43.9	-3.7
	baz=6.8						
T19A	Beclabito	6.81	48	⇓P	Pn	07 13 47.4	-0.4
	baz=6.8						
S18A	Hurst Farm, Bl	6.85	38	⇑P	Pn	07 13 49.0	+0.6
	baz=6.8						
W21A	San Fidel	6.93	65	⇑P	Pn	07 13 49.2	-0.3
	baz=6.9						
R06C	Coleville	6.99	332	⇑P	Pn	07 13 49.7	-0.5
	baz=7.0						
CMB	Columbia Colle	6.99	325	*e*Pn	Pn	07 13 48.3	-2.1
CMB				*e*Sg	Sb	07 15 35.0	+2.1
Q15A	Fillmore	7.01	19	⇓P	Pn	07 13 48.1	-2.4
	baz=7.0						
122A	Conniff Cattle	7.02	85	⇑Pn	Pn	07 13 48.7	-2.0
	baz=7.0						
P12A	McGill	7.07	3	⇓P	Pn	07 13 50.3	-1.1
	baz=7.1						
R17A	Hanksville Air	7.08	31	⇓P	Pn	07 13 50.6	-1.0
	baz=7.1						
P13A	Bates Ranch, G	7.12	8	⇑P	Pn	07 13 51.2	-0.9
	baz=7.1						
P11A	Circle Ranch,	7.15	357	⇓P	Pn	07 13 51.5	-1.0
	baz=7.1						
Y22D	IRIS PASSCAL I	7.22	74	⇑Pn	Pn	07 13 50.1	-3.4
	baz=7.2						
X22A	Bernardo	7.25	71	⇑P	Pn	07 13 53.6	-0.3
	baz=7.2						
P10A	Eureka	7.27	353	⇓P	Pn	07 13 53.5	-0.7
	baz=7.3						
P09A	Austin	7.29	349	⇓P	Pn	07 13 53.6	-0.9
	baz=7.3						
Q16A	Castle Valley	7.33	26	⇑P	Pn	07 13 54.7	-0.3
	baz=7.3						
S19A	Harvey Farm, M	7.35	42	⇓P	Pn	07 13 55.9	+0.6
	baz=7.3						
MVCO	Mesa Verde	7.38	48	⇑P	Pn	07 13 56.2	+0.6
	baz=7.3						
MVCO	Mesa Verde	7.38	48	*e*Pn	Pn	07 13 56.3	+0.7
MVCO				*e*Sg	Sg	07 15 58.1	-6.5
P14A	Drum Mountains	7.41	14	⇓P	Pn	07 13 54.4	-1.6
	baz=7.4						
R18A	Canyonlands Na	7.43	35	⇓P	Pn	07 13 56.5	+0.1
	baz=7.4						
LPM	Los Pinos Moun	7.51	73	*e*Pn	Pn	07 13 56.6	-0.8
W22A	Albuquerque	7.52	67	⇑P	Pn	07 13 57.6	0.0
	baz=7.5						
W22A				⇑Sn	Sn	07 15 16.3	-6.6
	baz=7.5						
P15A	Leamington	7.57	18	⇓P	Pn	07 13 58.6	+0.4
	baz=7.6						
TMUT	Trail Mountain	7.65	25	*e*Pn	Pn	07 13 59.8	+0.5
	comp=Z,499nm,1.0s						
TMUT				*e*Pg	Pg	07 14 28.6	-5.7
R19A	Curley Farm, L	7.68	38	⇓P	Pn	07 14 00.1	+0.4
	baz=7.7						
O11A	Cowboy Ranch,	7.73	358	⇓P	Pn	07 13 58.7	-1.7
	baz=7.7						
SRU	San Rafael	7.75	29	*e*P	Pn	07 14 00.6	-0.1
SRU				pmax	pmax		
	comp=Z,879nm,1.0s						
SRU	San Rafael	7.75	29	⇓P	Pn	07 14 00.1	-0.6
	baz=7.7						
SRU	San Rafael	7.75	29	*e*Pn	Pn	07 14 00.6	-0.1
	comp=Z,879nm,1.0s						
SRU				*e*Pg	Pg	07 14 32.6	-3.5
SRU				*e*Sg	Sg	07 16 10.6	-5.9
WCN	Washoe City	7.78	334	⇑Pn	Pn	07 13 57.3	-3.8
	baz=7.8						
P16A	Fountain Green	7.78	21	⇑P	Pn	07 14 00.1	-1.0
	baz=7.8						
O13A	Hicks Ranch, I	7.79	8	⇑P	Pn	07 14 00.2	-1.1
	baz=7.8						
ANMO	Albuquerque	7.80	69	Pn	Pn	07 14 01.4	-0.1
	comp=Z,1.8nm,0.3s,baz=251,slow=12,SNR=175						
ANMO				Lg		07 16 08.4	
	comp=Z,1.1nm,0.3s,baz=337,slow=23,SNR=3.3						
ANMO				LR	LR	07 17 08.6	
	comp=Z,8µm,18.3s,baz=253,slow=39						
ANMO	Albuquerque	7.80	69	*e*Pn	Pn	07 14 01.0	-0.5
ANMO				*e*Sg	Sn	07 16 18.6	+49
PV10	Paradox Valley	7.86	39	*e*Pn	Pn	07 14 02.3	+0.1
	comp=Z,16µm,0.9s						
PV10				*e*Pg	Pn	07 14 30.0	+28
O12A	Currie	7.87	3	⇑P	Pn	07 14 00.7	-1.7
	baz=7.9						
Q18A	Rafter H Ranch	7.90	31	⇓P	Pn	07 14 02.4	-0.5
	baz=7.9						
O09A	Fish Creek Ran	7.91	349	⇑P	Pn	07 14 02.5	-0.3
	baz=7.9						
O10A	Cortez Mining,	7.94	353	⇓P	Pn	07 14 03.3	0.0
	baz=7.9						
PV01	Paradox Valley	7.95	42	*e*Pn	Pn	07 14 03.9	+0.5
	comp=Z,16µm,0.8s						
PV04	Paradox Valley	7.95	39	*e*Pn	Pn	07 14 04.2	+0.8
PV04				*e*Pg	Pn	07 14 34.6	+31
PV04				*e*Sg	Sn	07 16 15.2	+42
P17A	Butcher Ranch,	7.97	26	⇓P	Pn	07 14 03.9	+0.1
	baz=8.0						
NLU	North Lily Min	7.98	18	*e*Pn	Pn	07 14 05.5	+1.6
	comp=Z,228nm,1.0s						
NLU				*e*Pg	Pn	07 14 36.0	+32
DUG	Dugway	8.04	14	⇓P	Pn	07 14 04.6	-0.1
	baz=8.0						
DUG	Dugway	8.04	14	*e*Pn	Pn	07 14 05.0	+0.3
DUG				*e*Pg	Pn	07 14 38.4	+34
DUG				*e*Sg	Sn	07 16 14.7	+39
R20A	Redvale	8.09	42	⇓P	Pn	07 14 06.2	+0.8
	baz=8.1						
MPU	Maple Canyon	8.16	20	*e*Pn	Pn	07 14 08.1	+1.8
	comp=Z,190nm,1.1s						
BMN	Battle Mountai	8.17	350	*e*Pn	Pn	07 14 02.2	-4.2
BMN				*e*Pg	Pn	07 14 45.6	+39
BMN				*e*Sg	Sn	07 16 26.7	+48
Q19A	Hogan Spring (	8.19	35	⇓P	Pn	07 14 07.1	+0.4
	baz=8.2						
O08A	Rochester Mine	8.21	345	⇑P	Pn	07 14 07.0	0.0
	baz=8.2						
O07A	Toulon	8.27	341	⇓P	Pn	07 14 08.0	+0.2
	baz=8.3						
P18A	Preston Nutter	8.30	28	⇑P	Pn	07 14 08.5	+0.2
	baz=8.3						
T22A	Edith	8.31	54	⇑P	Pn	07 14 07.4	-1.1
	baz=8.3						
ELK	Elko	8.33	0	*e*Pn	Pn	07 14 07.9	-0.8
ELK				*e*Pg	Pn	07 14 43.2	+34
ELK				*e*Sg	Sb	07 16 09.9	-1.5
N12A	Clover Valley,	8.44	1	⇓P	Pn	07 14 08.1	-2.1
	baz=8.4						
N13A	Wendover, West	8.49	6	⇑P	Pn	07 14 08.1	-2.7
	baz=8.5						
BEKR	Beckwourth	8.50	333	⇑P	Pn	07 14 11.6	+0.6
	baz=8.5						
O06A	Flanigan	8.57	336	⇑P	Pn	07 14 12.8	+0.9
	baz=8.6						
N14A	Grayback Hills	8.61	11	⇑P	Pn	07 14 11.4	-1.1
	baz=8.6						
O17A	Robinson Place	8.61	24	⇑P	Pn	07 14 13.3	+0.8
	baz=8.6						
N09A	Rock Creek Ran	8.63	349	⇓Pn	Pn	07 14 09.0	-3.7
	baz=8.6						
NOQ	North Oquirrh	8.63	16	*e*Pn	Pn	07 14 13.7	+0.9
	comp=Z,307nm,1.2s						
NOQ				*e*Pg	Pn	07 14 50.7	+38
DAU	Daniels Canyon	8.64	21	*e*P	Pn	07 14 15.1	+2.2
DAU				pmax	pmax		
	comp=Z,629nm,1.5s						
DAU	Daniels Canyon	8.64	21	*e*Pn	Pn	07 14 15.1	+2.1
	comp=Z,629nm,1.5s						
DAU				*e*Pg	Pn	07 14 48.6	+36
DAU				*e*Sg	Sn	07 16 42.7	+52
N08A	GE Springer Mi	8.67	346	⇑P	Pn	07 14 13.7	+0.3
	baz=8.7						
Q20A	Ridgley Place,	8.68	39	⇓P	Pn	07 14 11.8	-1.7
	baz=8.7						
CTU	Camp Tracy	8.76	18	*e*Pn	Pn	07 14 16.2	+1.6
	comp=Z,162nm,1.1s						
N15A	Stansbury Isla	8.77	14	⇓P	Pn	07 14 16.1	+1.5
	baz=8.8						
P19A	Cripple Cowboy	8.85	34	⇓P	Pn	07 14 15.5	-0.3
	baz=8.8						
N07B	Gerlach	8.87	342	⇑P	Pn	07 14 16.9	+0.8
	baz=8.9						
Q21A	Lamborn Mesa,	8.99	42	⇓P	Pn	07 14 19.4	+1.6
	baz=9.0						
M13A	Montello	8.99	6	⇑P	Pn	07 14 16.7	-1.1
	baz=9.0						
M11A	Holland Ranch,	9.03	358	⇑Pn	Pn	07 14 14.3	-3.9
	baz=9.0						
N16A	Rees Ranch, Co	9.03	19	⇑P	Pn	07 14 19.6	+1.3
	baz=9.0						
P20A	De Beque	9.04	36	⇓P	Pn	07 14 18.8	+0.5
	baz=9.0						
R22A	Saguache, Gunn	9.09	48	⇑P	Pn	07 14 19.8	+0.7
	baz=9.1						
N06A	Buffalo Meadow	9.10	338	⇑P	Pn	07 14 17.2	-1.9
	baz=9.1						
M10A	I.L. Ranch, Tu	9.16	354	⇓P	Pn	07 14 19.5	-0.6
	baz=9.2						
M09A	Marrel Ranch,	9.17	350	⇑P	Pn	07 14 20.3	+0.1
	baz=9.2						
SPUT	South Promonto	9.19	14	*e*Pn	Pn	07 14 22.1	+1.7
	comp=Z,119nm,1.1s						
SPUT				*e*Pg	Pn	07 15 02.0	+42
M14A	Sheep Mountain	9.22	9	⇑P	Pn	07 14 19.9	-1.0
	baz=9.2						
N17A	Moffit Pass	9.26	22	⇓P	Pn	07 14 22.4	+1.1
	baz=9.2						
O19A	Miners Draw (B	9.33	31	⇑P	Pn	07 14 22.1	-0.3
	baz=9.3						
M15A	Larsen Ranch,	9.34	13	⇓P	Pn	07 14 23.0	+0.6
	baz=9.3						
LPIG	La Paz	9.36	151	*i* P	Pn	07 14 23.3	+0.4
LPIG				*i* S	Sn	07 16 03.3	-5.0
LPIG	La Paz	9.36	151	Pn	Pn	07 14 26.0	+3.1
	comp=Z,0.9nm,0.3s,baz=314,slow=2.7,SNR=24						
LPIG				Lg		07 17 10.1	
	comp=Z,14nm,0.3s,baz=154,slow=8.6,SNR=3.2						
LPIG				LR	LR	07 17 17.4	
	comp=Z,1µm,22.0s,baz=338,slow=33						
LPIG	La Paz	9.36	151	*i* P	Pn	07 14 26.4	+3.6
LPIG				*i* S	Sn	07 16 06.5	-1.8
LPIG				Lg		07 17 10.1	
M08A	Happy Creek Ra	9.36	346	⇓P	Pn	07 14 23.8	+1.0
	baz=9.4						
Q22A	Crested Butte,	9.40	44	⇓P	Pn	07 14 24.6	+1.3
	baz=9.4						
M07A	Soldier Meadow	9.49	342	⇑P	Pn	07 14 25.3	+0.7
	baz=9.5						
P21A	Newcastle	9.54	40	⇑P	Pn	07 14 25.8	+0.5
	baz=9.5						
HVU	Hansel Valley	9.58	11	*e*P	Pn	07 14 26.5	+0.7
HVU				pmax	pmax		
	comp=Z,172nm,1.2s						
HVU	Hansel Valley	9.58	11	*e*Pn	Pn	07 14 26.5	+0.7
	comp=Z,172nm,1.2s						
HVU				*e*Pg	Pn	07 15 09.1	+43
O20A	White River Ci	9.60	34	⇓P	Pn	07 14 26.5	+0.4
	baz=9.6						
SDCO	Great Sand Dun	9.65	54	*e*Pn	Pn	07 14 27.2	+0.5
SDCO				*e*Pg	Pn	07 15 08.8	+42
SDCO				*e*Sg	Sn	07 16 59.3	+44
L10A	Juniper Basin	9.71	355	⇓P	Pn	07 14 25.4	-2.2
	baz=9.7						
L12A	House Creek Ra	9.74	1	⇓P	Pn	07 14 27.2	-0.7
	baz=9.7						
L13A	Double Diamond	9.74	6	⇓P	Pn	07 14 27.0	-0.9
	baz=9.7						
L11A	Cat Creek Ranc	9.76	358	⇑P	Pn	07 14 28.6	+0.3
	baz=9.8						
L14A	Malta	9.76	9	⇑P	Pn	07 14 27.3	-1.0
	baz=9.8						
L09A	Wilkinson Ranc	9.79	350	⇓P	Pn	07 14 29.4	+0.8
	baz=9.8						
M17A	Scullys Gap (B	9.79	21	⇓P	Pn	07 14 29.3	+0.6
	baz=9.8						
N19A	John Jarvie Ra	9.80	28	⇓P	Pn	07 14 29.2	+0.3
	baz=9.8						
L15A	Malad City	9.87	13	⇓P	Pn	07 14 30.1	+0.4
	baz=9.9						
M18A	Lyman	9.94	23	⇑P	Pn	07 14 31.3	+0.6
	baz=9.9						
HPIG		9.99	120	*i* P	Pn	07 14 30.9	-0.7
HPIG				*i* S	Sn	07 16 15.3	-8.5
WDC	Whiskeytown Da	10.03	327	P	Pn	07 14 33.1	+1.2
WDC				pmax	pmax		
	comp=Z,20nm,1.0s						
WDC	Whiskeytown Da	10.03	327	Pn	Pn	07 14 33.1	+1.2
	comp=Z,20nm,1.0s						
O21A	Pagoda	10.04	37	⇑Pn	Pn	07 14 28.1	-4.0
	baz=10.0						
L08A	Fields	10.07	347	⇑P	Pn	07 14 34.0	+1.5
	baz=10						
L16A	Fish Haven	10.09	17	⇓P	Pn	07 14 32.7	-0.1
	baz=10						
L07A	Adell	10.13	343	⇓P	Pn	07 14 35.1	+1.8
	baz=10						
N20A	Spence Gulch,	10.14	32	⇓P	Pn	07 14 33.9	+0.3
	baz=10						
K12A	Draper Farm, C	10.23	2	⇓P	Pn	07 14 34.6	-0.1
	baz=10						
K14A	Jones Ranch, D	10.27	9	⇑P	Pn	07 14 35.5	+0.2
	baz=10						
K13A	Stover Farm, H	10.28	5	⇓P	Pn	07 14 34.8	-0.6
	baz=10						
MOD	Modoc	10.29	339	*e*Pn	Pn	07 14 36.8	+1.3
L17A	Cokeville	10.31	19	⇑P	Pn	07 14 37.0	+1.3
	baz=10						
M19A	Rock Springs	10.34	27	⇑P	Pn	07 14 37.6	+1.5
	baz=10						
WVOR	Wild Horse Val	10.36	346	*e*P	Pn	07 14 39.7	+3.2
WVOR				pmax	pmax		
	comp=Z,74nm,0.9s						
WVOR	Wild Horse Val	10.36	346	*e*Pn	Pn	07 14 39.7	+3.1
	comp=Z,74nm,0.9s						
K11A	Parker Ranch,	10.37	357	⇑P	Pn	07 14 37.7	+1.0
	baz=10						
L18A	Fontenelle, Gr	10.40	22	⇑P	Pn	07 14 38.2	+1.2
	baz=10						
N21A	Black Mountain	10.43	35	⇑P	Pn	07 14 38.6	+1.1
	baz=10						
K10A	MacKenzie Ranc	10.44	354	⇓P	Pn	07 14 38.9	+1.4
	baz=10						
TXAR	Lajitas Array	10.46	104	Pn	Pn	07 14 37.8	-0.1
	comp=Z,6.4nm,0.3s,baz=285,slow=13,SNR=411						
TXAR				Lg		07 17 20.8	
	baz=304,slow=29,SNR=3.7						
TXAR				LR	LR	07 19 04.0	
	comp=Z,7µm,21.5s,baz=295,slow=40						
TXAR	Lajitas Array	10.46	104	Pn	Pn	07 14 37.8	-0.1
TXAR				Lg		07 17 20.8	
K09A	Rome	10.46	350	⇑P	Pn	07 14 39.5	+1.6
	baz=10						
K15A	Arbon	10.51	11	⇓P	Pn	07 14 39.5	+1.0
	baz=10						
K08A	Mann Creek Ran	10.62	347	⇓P	Pn	07 14 42.1	+2.0
	baz=11						
M20A	Sweetwater, Wa	10.71	30	⇓P	Pn	07 14 43.2	+1.9
	baz=11						
K07A	Rock Creek Ran	10.74	344	⇑P	Pn	07 14 43.2	+1.5
	baz=11						
ISCO	Idaho Springs	10.77	44	*e*Pn	Pn	07 14 44.4	+2.3
ISCO				*e*Pg	Pn	07 15 28.7	+47
ISCO				*e*Sg	Sn	07 17 44.8	+62
L19A	Farson	10.78	24	⇓P	Pn	07 14 42.8	+0.5
	baz=11						
K16A	Soda Springs	10.83	15	⇓P	Pn	07 14 45.0	+2.2
	baz=11						
J12A	Stokes Ranch,	10.84	1	⇑P	Pn	07 14 43.7	+0.7
	baz=11						
K17A	Gardner Place,	10.91	17	⇑P	Pn	07 14 46.1	+2.1
	baz=11						
N22A	Wattenberg Ran	11.00	38	⇑P	Pn	07 14 47.9	+2.7
	baz=11						
MFID	Camas Ranch	11.01	358	⇓P	Pn	07 14 47.7	+2.4
	baz=11						
J13A	Cove Ranch, Pi	11.02	4	⇑P	Pn	07 14 47.0	+1.4
	baz=11						
YBH	Yreka Blue Hor	11.03	330	Pn	Pn	07 14 49.4	+3.7
	comp=Z,0.2nm,0.3s,baz=145,slow=7.5,SNR=19						
YBH				Lg		07 17 55.9	
	comp=Z,0.1nm,0.3s,baz=226,slow=13,SNR=3.1						
YBH				LR	LR	07 19 20.3	
	comp=Z,2µm,18.4s,baz=324,slow=39						
YBH	Yreka Blue Hor	11.03	330	*e*Pn	Pn	07 14 48.5	+2.9
K18A	Toltan Ranch,	11.04	21	⇑P	Pn	07 14 47.4	+1.6
	baz=11						
J10A	Berg Farm, Mel	11.07	354	⇑P	Pn	07 14 48.7	+2.5
	baz=11						
L20A	Wamsutter	11.08	28	⇑P	Pn	07 14 48.6	+2.2
	baz=11						
J09A	Fry Pan Ranch,	11.10	351	⇑P	Pn	07 14 48.4	+1.7
	baz=11						
HLID	Hailey	11.17	3	⇑P	Pn	07 14 49.1	+1.5
	baz=11						
HLID	Hailey	11.17	3	*e*Pn	Pn	07 14 49.9	+2.3
	comp=Z,64nm,1.0s						
HLID				*e*Pg	Pn	07 15 36.5	+49
HLID				*e*Sg	Sn	07 17 52.6	+60
J15A	Blackfoot	11.22	11	⇑P	Pn	07 14 49.5	+1.3
	baz=11						
K05A	Summer Lake	11.22	338	⇓P	Pn	07 14 51.9	+3.6
	baz=11						
J08A	Circle Bar Ran	11.22	348	⇑P	Pn	07 14 50.8	+2.5
	baz=11						
J16A	Bone	11.24	14	⇓P	Pn	07 14 51.4	+2.8
	baz=11						
BW06	Boulder Array	11.31	22	⇑P	Pn	07 14 52.1	+2.6
	baz=11						
BW06	Boulder Array	11.31	22	*e*Pn	Pn	07 14 51.5	+2.0
	comp=Z,92nm,1.3s						
PDAR	Pinedale Array	11.31	22	Pn	Pn	07 14 51.6	+2.2
	comp=Z,0.1nm,0.3s,baz=212,slow=10,SNR=29						
PDAR				Lg		07 18 07.0	
	comp=Z,0.5nm,0.3s,baz=196,slow=16,SNR=5.0						
M22A	Cedar Creek Ra	11.37	35	⇑P	Pn	07 14 52.8	+2.5
	baz=11						
RRI2	Red Ridge	11.38	15	*e*Pn	Pn	07 14 52.9	+2.5
I12A	Atlanta	11.38	1	⇑P	Pn	07 14 53.3	+2.9
	baz=11						
J07A	Hines	11.40	345	⇓P	Pn	07 14 49.1	-1.7
	baz=11						
L21A	Rawlins	11.45	31	⇑P	Pn	07 14 51.4	0.0
	baz=11						
J06A	Christmas Vall	11.49	342	⇑P	Pn	07 14 53.7	+1.7
	baz=12						
REDW	Red Top Meadow	11.50	17	*e*Pn	Pn	07 14 54.5	+2.4
I11A	Placerville	11.51	358	⇓P	Pn	07 14 54.2	+2.0

	baz=12						
J17A	Brown Place, J	11.53	17	⇓Pn	Pn	07 14 48.9	-3.6
	baz=12						
I13A	Wildhorse Cree	11.54	4	⇑Pn	Pn	07 14 48.8	-3.8
	baz=12						
K19A	Absolon Red Bu	11.60	24	⇑Pn	Pn	07 14 50.3	-3.1
	baz=12						
I14A	Mackay	11.61	7	⇑P	Pn	07 14 54.1	+0.6
	baz=12						
AMTX	Amarillo	11.63	74	*e*Pn	Pn	07 14 53.9	0.0
K20A	Yellowstone Ra	11.64	26	⇑Pn	Pn	07 14 50.0	-4.0
	baz=12						
DCID1	Drake Creek	11.64	15	*e*Pn	Pn	07 14 56.8	+2.7
	comp=Z,194nm,1.1s						
I09A	Lost Marbles R	11.72	351	⇓P	Pn	07 14 57.4	+2.4
	baz=12						
I10A	Payette	11.73	355	⇓P	Pn	07 14 57.7	+2.5
	baz=12						
I08A	Drewsey	11.78	348	⇓P	Pn	07 14 59.3	+3.5
	baz=12						
LOHW	Long Hollow	11.79	17	*e*Pn	Pn	07 14 58.0	+1.9
I15A	Monteview	11.80	10	⇑P	Pn	07 14 59.1	+3.0
	baz=12						
I16A	Newdale	11.85	14	⇑P	Pn	07 14 59.0	+2.2
	baz=12						
HUMO	Hull Mountain	11.86	331	*e*Pn	Pn	07 15 00.8	+3.8
	comp=Z,68nm,1.4s						
BBOR	Butler Butte	11.98	333	P	Pn	07 15 02.0	+3.3
I18A	Diamond G Ranc	12.09	19	⇑Pn	Pn	07 14 56.4	-3.7
	baz=12						
I17A	Pilgrim Ck.	12.09	17	⇓P	Pn	07 15 02.1	+2.0
	baz=12						
I07A	Izee	12.12	345	⇑P	Pn	07 15 04.0	+3.4
	baz=12						
H12A	Diamond D Ranc	12.14	2	⇑P	Pn	07 15 04.1	+3.3
	baz=12						
I06A	Prineville	12.15	343	⇓P	Pn	07 15 05.0	+4.0
	baz=12						
H13A	Challis	12.18	4	⇑P	Pn	07 15 04.9	+3.5
	baz=12						
H10A	Noah’s Angus R	12.23	355	⇑Pn	Pn	07 14 59.5	-2.5
	baz=12						
H11A	Donnelly	12.30	358	⇑P	Pn	07 15 03.8	+0.7
	baz=12						
H15A	Lima	12.38	9	⇑P	Pn	07 15 07.1	+3.0
	baz=12						
H08A	Prairie City	12.39	349	⇓Pn	Pn	07 14 60.0	-4.2
	baz=12						
H09A	Durkee	12.39	352	⇑Pn	Pn	07 15 00.3	-3.9
	baz=12						
YFT	Old Faithful	12.54	15	*e*Pn	Pn	07 15 10.7	+4.5
	comp=Z,97nm,1.3s						
BMO	Blue Mountains	12.54	353	*e*Pn	Pn	07 15 10.2	+3.9
H17A	Grant Village	12.54	16	⇑Pn	Pn	07 15 02.7	-3.6
	baz=12						
MCMT	McKenzie Canyo	12.56	8	P	Pn	07 15 11.0	+4.4
H07A	Lands Inn, Kim	12.62	346	⇑Pn	Pn	07 15 03.4	-4.0
	baz=13						
H16A	Russell Place,	12.69	13	⇓Pn	Pn	07 15 04.1	-4.3
	baz=13						
H16A				⇓P		07 15 09.5	
	baz=13						
G13A	Cobalt	12.71	3	⇓P	Pn	07 15 12.4	+3.9
	baz=13						
YNR	Norris Junctio	12.82	15	*e*Pn	Pn	07 15 12.9	+2.8
	comp=Z,101nm,1.4s						
G14A	Jackson	12.91	6	⇓P	Pn	07 15 14.9	+3.5
	baz=13						
H06A	Lindquist Farm	12.93	344	⇓P	Pn	07 15 16.0	+4.4
	baz=13						
G15A	Dillon	12.94	9	⇑P	Pn	07 15 15.3	+3.5
	baz=13						
G10A	Bishop Farm, J	12.96	354	⇓P	Pn	07 15 14.2	+2.3
	baz=13						
G09A	Cove	13.01	352	⇓P	Pn	07 15 15.6	+3.0
	baz=13						
G16A	Moss Hill, Enn	13.10	11	⇑P	Pn	07 15 17.1	+3.2
	baz=13						
DLMT	Dillon	13.12	8	*e*Pn	Pn	07 15 17.8	+3.6
G08A	Pilot Rock	13.19	349	⇓P	Pn	07 15 18.3	+3.2
	baz=13						
G07A	Ruggs Ranch, H	13.29	346	⇓P	Pn	07 15 20.2	+3.6
	baz=13						
JCT	Junction City	13.38	94	*e*P	Pn	07 15 19.4	+1.6
G17A	Pierce Place,	13.38	14	⇓P	Pn	07 15 21.4	+3.6
	baz=13						
H04A	Detroit Lake	13.39	338	⇑P	Pn	07 15 21.6	+3.7
	baz=13						
F13A	Darby	13.40	3	⇓P	Pn	07 15 20.1	+2.1
	baz=13						
G06A	Carlson Farm,	13.47	344	⇓P	Pn	07 15 22.8	+3.8
	baz=14						
F14A	Wisdom	13.48	6	⇑P	Pn	07 15 21.6	+2.4
	baz=14						
BOZ	Bozeman (W)	13.54	11	⇑P	Pn	07 15 19.8	-0.1
	baz=14						
BOZ	Bozeman (W)	13.54	11	*e*Pn	Pn	07 15 22.5	+2.6
RLMT	Red Lodge	13.55	19	⇑P	Pn	07 15 20.8	+0.8
	baz=14						
RLMT	Red Lodge	13.55	19	*e*Pn	Pn	07 15 21.7	+1.6
F15A	Butte	13.60	8	⇑P	Pn	07 15 23.1	+2.3
	baz=14						
OGNE	Ogallala	13.64	48	*e*Pn	Pn	07 15 21.6	+0.3
	comp=Z,193nm,1.6s						
F10A	Beach Ranch, E	13.64	354	⇓P	Pn	07 15 22.9	+1.6
	baz=14						
F08A	Pendleton	13.65	350	⇑P	Pn	07 15 24.5	+3.1
	baz=14						
G05A	Wamic	13.65	342	⇑P	Pn	07 15 25.0	+3.6
	baz=14						
G18A	Lazy EL Ranch,	13.65	17	⇓P	Pn	07 15 23.5	+2.1
	baz=14						
LCCM	Lewis and Clar	13.68	10	P	Pn	07 15 25.3	+3.4
HOOD	Mount Hood Mea	13.81	341	*e*Pn	Pn	07 15 27.3	+3.6
F07A	Phinny Hill Vi	13.95	347	⇑P	Pn	07 15 29.0	+3.5
	baz=14						
G04A	Mulino	13.95	339	⇑P	Pn	07 15 28.9	+3.4
	baz=14						
E11A	Bogner Ranch,	13.96	357	⇓P	Pn	07 15 28.1	+2.4
	baz=14						
F17A	Fitzpatrick Pl	13.96	14	⇑P	Pn	07 15 29.1	+3.4
	baz=14						
WMOK	Wichita Mounta	13.98	76	*e*P	Pn	07 15 25.0	-1.0
WMOK				pmax	pmax		
	comp=Z,84nm,1.2s						
WMOK	Wichita Mounta	13.98	76	*e*Pn	Pn	07 15 25.0	-1.0
	comp=Z,84nm,1.2s						
F06A	Goldendale	14.01	344	⇑P	Pn	07 15 29.7	+3.4
	baz=14						
E13A	Victor	14.05	3	⇑P	Pn	07 15 29.6	+2.6
	baz=14						
E14A	Clinton	14.07	5	⇓P	Pn	07 15 29.7	+2.5
	baz=14						
E10A	Myers Farm, Un	14.14	355	⇓P	Pn	07 15 31.3	+3.2
	baz=14						
E15A	Deer Lodge	14.16	8	⇑P	Pn	07 15 30.6	+2.2
	baz=14						
F18A	Big Timber	14.16	16	⇓P	Pn	07 15 31.0	+2.5
	baz=14						
E09A	Wood Farm, Sta	14.27	352	⇑P	Pn	07 15 32.9	+3.1
	baz=14						
H2OWA	Water	14.34	348	P	Pn	07 15 33.8	+3.0
HAWA	Hanford	14.35	348	*e*Pn	Pn	07 15 33.6	+2.6
E08A	Dider Farm, El	14.37	350	⇑P	Pn	07 15 33.9	+2.6
	baz=14						
E16A	East Helena	14.39	10	⇓P	Pn	07 15 34.1	+2.5
	baz=14						
MSO	Missoula	14.45	4	*e*Pn	Pn	07 15 34.3	+1.9
E17A	Martinsdale	14.46	12	⇓P	Pn	07 15 35.2	+2.7
	baz=14						
HRY	Holter Researc	14.54	10	*e*Pn	Pn	07 15 35.0	+1.3
	comp=Z,37nm,1.1s						
E07A	Sunnyside	14.57	347	⇓P	Pn	07 15 36.4	+2.5
	baz=15						
D11A	Klaveano Farm,	14.66	357	⇑P	Pn	07 15 37.3	+2.1
	baz=15						
RSSD	Black Hills	14.66	34	*e*P	Pn	07 15 35.1	-0.1
RSSD				pmax	pmax		
	comp=Z,59nm,1.1s						
RSSD	Black Hills	14.66	34	*e*Pn	Pn	07 15 35.1	-0.2
	comp=Z,58nm,1.1s						
D13A	Huson	14.70	2	⇑P	Pn	07 15 37.4	+1.8
	baz=15						
D10A	Wagner Farm, O	14.72	355	⇓P	Pn	07 15 37.5	+1.5
	baz=15						
D14A	Greenough	14.73	5	⇑P	Pn	07 15 37.7	+1.5
	baz=15						
E18A	Harlowton	14.75	15	⇑P	Pn	07 15 38.3	+1.9
	baz=15						
D15A	Lincoln	14.78	7	⇑P	Pn	07 15 38.6	+1.7
	baz=15						
E06A	Yakima	14.79	345	⇓P	Pn	07 15 39.2	+2.3
	baz=15						
BVW	Beverly	14.82	348	P	Pn	07 15 40.1	+2.7
D09A	Jones Farm, Ri	14.83	352	⇓P	Pn	07 15 38.8	+1.3
	baz=15						
ANIG	Ahuacatlan	14.84	137	*i* P	Pn	07 15 37.7	-0.1
ANIG				*i* S	Sn	07 18 17.0	-5.2
D16A	Dana Ranch, Ca	14.90	10	⇓P	Pn	07 15 39.8	+1.3
	baz=15						
D08A	Wollman Farm,	14.90	350	⇑P	Pn	07 15 40.0	+1.5
	baz=15						
EBG	Ellensburg	15.04	346	P	Pn	07 15 42.9	+2.5
D17A	Six Diamond Ra	15.16	12	⇓P	Pn	07 15 43.6	+1.7
	baz=15						
LON	Longmire	15.18	343	*e*P	Pn	07 15 44.5	+2.3
LON				pmax	pmax		
	comp=Z,143nm,1.5s						
LON	Longmire	15.18	343	*e*P	Pn	07 15 44.5	+2.3
	comp=Z,143nm,1.5s						
OD2	Odessa Site #2	15.20	351	P	Pn	07 15 43.6	+1.1
D07A	Quincy	15.20	348	⇓P	Pn	07 15 44.5	+2.0
	baz=15						
C13A	Hot Springs	15.28	2	⇓P	Pn	07 15 45.1	+1.6
	baz=15						
C12B	Naegeli Ranch,	15.30	360	⇑P	Pn	07 15 44.4	+0.7
	baz=15						
D18A	Linhart Farms,	15.37	14	⇑P	Pn	07 15 45.7	+1.0
	baz=15						
D06A	Cle Elum	15.37	346	⇓P	Pn	07 15 46.3	+1.5
	baz=15						
C14A	Swan Lake	15.40	4	⇑P	Pn	07 15 46.4	+1.3
	baz=15						
BSMT	Bassoo Peak	15.44	1	*e*P	Pn	07 15 46.9	+1.2
	comp=Z,45nm,1.1s						
C10A	Spilker Farm,	15.48	355	⇑P	Pn	07 15 48.1	+2.0
	baz=16						
E03A	Lebam	15.49	338	⇓P	Pn	07 15 47.5	+1.2
	baz=16						
C15A	Salmond Ranch,	15.50	7	⇓P	Pn	07 15 47.6	+1.2
	baz=16						
C09A	Chrisman Ranch	15.55	353	⇑P	Pn	07 15 48.1	+1.0
	baz=16						
C17A	Wharram Farm,	15.61	11	⇑P	Pn	07 15 48.7	+0.9
	baz=16						
C16A	Fuhringer Ranc	15.62	9	⇓P	Pn	07 15 48.6	+0.5
	baz=16						
C08A	Higginbotham F	15.63	351	⇓P	Pn	07 15 49.0	+0.9
	baz=16						
C07A	Waterville	15.70	348	⇑P	Pn	07 15 50.2	+1.1
	baz=16						
D04A	Dobbs Creek Ra	15.77	341	⇓P	Pn	07 15 51.4	+1.4
	baz=16						
LNIG	Linares	15.78	114	*i* P	Pn	07 15 50.6	+0.4
LNIG				*i* S	Sn	07 18 39.2	-5.9
KVTX	Kingsville	15.84	103	*e*P	Pn	07 15 51.5	+0.5
	comp=Z,179nm,1.2s						
LAO	LASA Array	15.88	23	*e*P	Pn	07 15 50.9	-0.5
	comp=Z,218nm,1.4s						
NEW	Newport	15.91	356	*e*P	Pn	07 15 52.8	+1.0
NEW				pmax	pmax		
	comp=Z,172nm,0.9s						
NEW	Newport	15.91	356	*e*P	Pn	07 15 52.8	+1.0
	comp=Z,172nm,0.9s						
B10A	Chitwood Farm,	15.95	355	⇓P	Pn	07 15 53.5	+1.2
	baz=16						
B13A	Whitefish	15.97	2	⇑P	Pn	07 15 53.5	+0.9
	baz=16						
C05A	Tolt Reservoir	16.03	344	⇑P	Pn	07 15 54.5	+1.1
	baz=16						
B15A	Bradely Ranch,	16.04	7	⇓P	Pn	07 15 54.2	+0.8
	baz=16						
B09A	Rice	16.15	353	⇓P	Pn	07 15 55.7	+0.8
	baz=16						
EGMT	Eagleton	16.17	13	⇓P	Pn	07 15 53.7	-1.4
	baz=16						
EGMT	Eagleton	16.17	13	*e*P	Pn	07 15 56.5	+1.4
	comp=Z,105nm,1.1s						
GNW	Green Mountain	16.20	341	*e*P	Pn	07 15 59.5	+4.1
	comp=Z,150nm,1.3s						
B16A	M & M Farms, S	16.23	9	⇓P	Pn	07 15 56.0	+0.1
	baz=16						
B08A	Colville Reser	16.23	350	⇑P	Pn	07 15 55.7	-0.2
	baz=16						
B17A	L&G Farms, Che	16.24	11	⇑P	Pn	07 15 54.8	-1.2
	baz=16						
NLWA	Neilton Lookou	16.34	339	⇓P	Pn	07 15 56.1	-1.2
	baz=16						
B07A	Winthrop	16.45	349	⇓P	Pn	07 15 58.5	-0.3
	baz=16						
B18A	Beardsley Farm	16.52	13	⇑P	Pn	07 15 59.2	-0.4
	baz=16						
A12A	Yaak River Ran	16.52	359	⇑P	Pn	07 15 57.3	-2.3
	baz=16						
JCW	Jim Creek	16.56	344	*e*P	Pn	07 15 59.7	-0.4
A11A	Hall Mountain,	16.57	358	⇓P	Pn	07 15 59.2	-0.9
	baz=17						
KSU1	Kansas State U	16.58	61	*e*P	Pn	07 16 00.6	+0.2
	comp=Z,138nm,0.9s						
A14A	Double T Ranch	16.62	4	⇓P	Pn	07 16 01.7	+0.9
	baz=17						
A10A	Northport	16.66	355	⇓P	Pn	07 16 02.2	+0.9
	baz=17						
B05A	Bryant	16.66	344	⇑P	Pn	07 15 59.1	-2.3
	baz=17						
A15A	Johnson Ranch,	16.68	6	⇓P	Pn	07 16 00.8	-0.8
	baz=17						
WALA	Waterton Lakes	16.68	3	*e*P	Pn	07 16 03.1	+1.5
	comp=Z,2.6nm,1.0s						
A09A	Danville	16.75	352	⇓P	Pn	07 16 02.2	-0.2
	baz=17						
A16A	West Butte Ran	16.77	9	⇑Pn	Pn	07 15 58.8	-3.9
	baz=17						
A16A				⇓P		07 16 02.8	
	baz=17,SNR=37						
A08A	Turner Farm, O	16.81	351	⇑P	Pn	07 16 01.7	-1.5
	baz=17						
B04A	Port Angeles	16.83	341	⇑P	Pn	07 16 02.2	-1.3
	baz=17						
HKT	Hockley	16.85	93	*e*P	Pn	07 16 04.9	+1.1
HKT				pmax	pmax		
	comp=Z,301nm,1.5s						
HKT	Hockley	16.85	93	*e*P	Pn	07 16 04.9	+1.0
	comp=Z,301nm,1.5s						
A17A	Triple J Farms	16.89	11	⇑P	Pn	07 16 03.0	-1.2
	baz=17						
A18A	Metzger Ranch,	17.01	12	⇑P	Pn	07 16 03.9	-1.9
	baz=17						
A07A	Ashnola River,	17.07	349	⇓P	Pn	07 16 07.7	+1.3
	baz=17						
A06A	Chilliwack	17.32	346	⇑P	Pn	07 16 11.6	+2.0
	baz=17						
A05A	Maple Falls	17.35	345	⇑P	Pn	07 16 09.8	-0.2
	baz=17						
PGC	Sidney	17.36	342	*e*P	Pn	07 16 12.8	+2.7
	comp=Z,21nm,1.4s						
NATX	Nacogdoches	17.51	87	*e*P	Pn	07 16 12.3	+0.1
	comp=Z,222nm,1.1s						
DGMT	Dagmar	18.12	24	⇑P	Pn	07 16 19.2	-0.3
	baz=18						
DGMT	Dagmar	18.12	24	*e*P	Pn	07 16 19.1	-0.4
MIAR	Mount Ida	18.26	77	*e*P	Pn	07 16 20.9	-0.5
MIAR				pmax	pmax		
	comp=Z,114nm,1.2s						
MIAR	Mount Ida	18.26	77	*e*P	Pn	07 16 20.9	-0.5
	comp=Z,114nm,1.2s						
UALR	University of	19.28	77	*e*P	Pn	07 16 34.8	+1.1
	comp=Z,77nm,1.3s						
SZVM	Salazar	19.33	128	*e*P	Pn	07 16 33.8	-0.6
SZVM				*i* S	Sn	07 20 09.0	-2.2
SCIA	State Center	19.96	55	*e*P	Pn	07 16 40.5	-1.3
	comp=Z,55nm,0.9s						
CCM	Cathedral Cave	20.43	67	*e*P	P	07 16 44.9	-0.4
EDM	Edmonton	20.86	3	*e*P	P	07 16 48.9	-0.9
VBMS	Vicksburg	20.95	84	*e*P	P	07 16 52.4	+1.5
FVM	French Village	21.06	68	*e*P	P	07 16 51.9	-0.2
FVM				pmax	pmax		
	comp=Z,197nm,1.3s,mb5.3						
FVM	French Village	21.06	68	*e*P	P	07 16 51.9	-0.2
	comp=Z,197nm,1.3s,mb5.3						
SLM	Saint Louis	21.30	66	*e*P	P	07 16 55.0	+0.3
SLM				pmax	pmax		
	comp=Z,113nm,1.0s,mb5.2						
SLM	Saint Louis	21.30	66	*e*P	P	07 16 55.0	+0.3
	comp=Z,113nm,1.0s,mb5.2						
TPIG	Tehuac#an	21.32	126	*i* P	P	07 16 57.2	+2.2
PARMO	Parma	21.46	71	*e*P	P	07 16 56.5	+0.2
PVMO	Portageville	21.48	72	*e*P	P	07 16 54.4	-2.3
	comp=Z,258nm,1.1s,mb5.5						
AGMN	Agassiz Refuge	21.63	37	*e*P	P	07 16 57.6	-0.5
	comp=Z,159nm,1.3s,mb5.3						
BBB	Bella Bella	21.86	339	P	P	07 16 59.6	-1.0
	comp=Z,14nm,1.0s,mb4.4,baz=140,slow=16,SNR=2.4						
BBB				LR	LR	07 26 05.4	
	comp=Z,2µm,18.3s,MS4.6,baz=161,slow=38						
SIUC	Southern Illin	21.98	69	*e*P	P	07 17 01.9	0.0
	comp=Z,63nm,0.9s,mb5.0						
UTMT	University of	22.16	72	*e*P	P	07 17 04.5	+0.7
	comp=Z,168nm,1.1s,mb5.4						
JFWS	Jewell Farm	22.37	55	*e*P	P	07 17 05.7	-0.4
JFWS				pmax	pmax		
	comp=Z,47nm,1.0s,mb4.9						
JFWS	Jewell Farm	22.37	55	*e*P	P	07 17 05.7	-0.4
	comp=Z,47nm,1.0s,mb4.9						
HDIL	Hopedale	22.39	61	*e*P	P	07 17 06.3	0.0
	comp=Z,377nm,1.8s,mb5.5						
PLAL	Pickwick Lake	22.78	76	*e*P	P	07 17 10.4	-0.2
	comp=Z,108nm,1.3s,mb5.1						
ULM	Lac du Bonnet	22.93	33	P	P	07 17 10.5	-1.4
	comp=Z,12nm,1.0s,mb4.3,baz=238,slow=10,SNR=7.9						
ULM				Lg		07 24 05.6	
	comp=Z,15nm,1.3s,baz=302,slow=10,SNR=5.0						
ULM				LR	LR	07 27 32.6	
	comp=Z,344nm,21.0s,MS3.8,baz=226,slow=41						
ULM	Lac du Bonnet	22.93	33	P	P	07 17 10.5	-1.4
ULM				Lg		07 24 05.6	
OLIL	Olney	22.97	66	*e*P	P	07 17 12.2	-0.3
	comp=Z,246nm,1.4s,mb5.4						
WVT	Waverly	22.98	73	*e*P	P	07 17 12.6	-0.1
WVT				pmax	pmax		
	comp=Z,63nm,1.2s,mb4.9						
WVT	Waverly	22.98	73	*e*P	P	07 17 12.6	-0.1
	comp=Z,63nm,1.2s,mb4.9						
USIN	University of	23.22	68	*e*P	P	07 17 16.1	+0.9
	comp=Z,106nm,1.1s,mb5.2						
EYMN	Ely	23.79	42	*e*P	P	07 17 19.2	-1.5
	comp=Z,54nm,1.4s,mb4.8						
LRAL	Lakeview Retre	23.80	81	*e*P	P	07 17 21.3	+0.3
	comp=Z,78nm,1.2s,mb5.0						
CMIG	Matias Romero	23.94	125	P	P	07 17 22.9	+0.6
	comp=Z,47nm,1.0s,mb4.9,baz=309,slow=9.2,SNR=44						
CMIG				Lg		07 24 40.0	
	comp=Z,1.8nm,0.9s,baz=16,slow=6.5,SNR=2.2						
CMIG				LR	LR	07 26 42.6	
	comp=Z,2µm,21.2s,MS4.5,baz=284,slow=37						
CMIG	Matias Romero	23.94	125	P	P	07 17 22.9	+0.6
CMIG				Lg		07 24 40.0	
BRAL	Brewton	24.05	86	*e*P	P	07 17 24.4	+1.2
	comp=Z,515nm,1.2s,mb5.8						
FFC	Flin Flon	24.24	19	*e*P	P	07 17 23.6	-1.1
FFC				pmax	pmax		
	comp=Z,55nm,1.2s,mb4.9						
FFC	Flin Flon	24.24	19	*e*P	P	07 17 23.6	-1.0
	comp=Z,55nm,1.2s,mb4.9						
BLO	Bloomington	24.25	66	*e*P	P	07 17 24.9	-0.1
BLO				pmax	pmax		
	comp=Z,94nm,1.3s,mb5.1						
BLO	Bloomington	24.25	66	*e*P	P	07 17 24.9	0.0
	comp=Z,94nm,1.3s,mb5.1						
COWI	Conover	24.32	48	*e*P	P	07 17 25.2	-0.4
	comp=Z,22nm,0.7s,mb4.7						
WCI	Wyandotte Cave	24.33	68	*e*P	P	07 17 25.2	-0.5
WCI				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.7						
WCI	Wyandotte Cave	24.33	68	*e*P	P	07 17 25.2	-0.5
	comp=Z,33nm,1.0s,mb4.7						
SWET	Sewanee	24.53	75	*e*P	P	07 17 26.9	-0.7
CPCT	Cooper Cave	25.68	75	*e*P	P	07 17 37.5	-0.5
TKL	Tuckaleechee C	26.28	74	P	P	07 17 44.2	+0.7
	comp=Z,5.7nm,0.8s,mb4.2,baz=241,slow=8.7,SNR=9.3						
TKL				Lg		07 25 55.6	
	comp=Z,7.1nm,1.2s,baz=2.3,slow=15,SNR=3.2						
TKL				LR	LR	07 28 30.6	
	comp=Z,4µm,19.6s,MS5.0,baz=270,slow=38						
TKL	Tuckaleechee C	26.28	74	P	P	07 17 44.2	+0.7
TKL				Lg		07 25 55.6	
TZTN	Tazewell	26.44	72	*e*P	P	07 17 45.0	+0.1
GOGA	Godfrey	26.70	79	*e*P	P	07 17 46.8	-0.5
GOGA				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.5						
GOGA	Godfrey	26.70	79	*e*P	P	07 17 46.8	-0.5
	comp=Z,15nm,1.0s,mb4.5						
GLMI	Grayling	26.84	54	*e*P	P	07 17 47.8	-0.6
	comp=Z,35nm,0.9s,mb4.9						
AAM	Ann Arbor	26.90	59	*e*P	P	07 17 48.2	-0.8
AAM				pmax	pmax		
	comp=Z,17nm,0.3s,mb5.0						
AAM	Ann Arbor	26.90	59	*e*P	P	07 17 48.2	-0.8
	comp=Z,17nm,0.3s,mb5.0						
TEIG	Tepich	27.01	110	LR	LR	07 31 45.3	
	comp=Z,1µm,18.1s,MS4.5,baz=318,slow=44						
ACSO	Alum Creek Sta	27.09	64	*e*P	P	07 17 50.2	-0.4
	comp=Z,75nm,1.2s,mb5.1						
DLBC	Dease Lake	27.89	343	P	P	07 17 59.2	+1.6
	comp=Z,17nm,1.0s,mb4.6,baz=189,slow=7.6,SNR=12						
DLBC				LR	LR	07 29 07.1	
	comp=Z,1µm,20.9s,MS4.5,baz=164,slow=37						
DLBC	Dease Lake	27.89	343	*e*P	P	07 17 59.2	+1.6
BLA	Blacksburg	28.94	71	*e*P	P	07 18 06.9	-0.4
BLA				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.0						
BLA	Blacksburg	28.94	71	*e*P	P	07 18 06.9	-0.4
	comp=Z,38nm,1.3s,mb5.0						
MCWV	Mont Chateau	29.44	66	*e*P	P	07 18 11.2	-0.5
	comp=Z,6.5nm,0.7s,mb4.5						
NHSC	New Hope	29.48	79	*e*P	P	07 18 12.4	+0.3
	comp=Z,48nm,1.1s,mb5.1						
FCC	Fort Churchill	30.00	22	*e*P	P	07 18 16.3	-0.1
	comp=Z,1.0nm,1.2s						
YKA	Yellowknife Ar	30.12	1	P	P	07 18 17.1	-0.3
	comp=Z,5.4nm,1.0s,mb4.2,baz=181,slow=8.8,SNR=34						
YKA	Yellowknife Ar	30.12	1	P	P	07 18 17.1	-0.3
SSPA	Standing Stone	31.00	64	*e*P	P	07 18 25.0	-0.5
	comp=Z,31nm,1.4s,mb4.9						
TGUH	Tegucigalpa,Un	31.42	119	*e*P	P	07 18 31.4	+2.0
	comp=Z,127nm,1.3s,mb5.6						
DAWY	Dawson	35.06	342	*e*P	P	07 19 01.9	+1.3
JTS	JuntasAbangare	35.60	121	⇑*e*P	P	07 19 05.5	-0.3
JTS	JuntasAbangare	35.60	121	P	P	07 19 05.6	-0.2
	comp=Z,18nm,0.9s,mb5.0,baz=311,slow=5.9,SNR=7.8						
JTS	JuntasAbangare	35.60	121	*e*P	P	07 19 04.7	-1.1
	comp=Z,21nm,0.8s,mb5.1						
KDAK	Kodiak Island	35.82	326	LR	LR	07 32 21.3	
	comp=Z,784nm,20.1s,MS4.5,baz=108,slow=34						
EGAK	Eagle	36.10	342	*e*P	P	07 19 10.8	+1.2
	comp=Z,26nm,1.3s,mb5.0						
PMR	Palmer	36.45	333	*e*P	P	07 19 14.1	+1.5
PMR				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.2						
PMR	Palmer	36.45	333	*e*P	P	07 19 14.1	+1.5
	comp=Z,41nm,1.2s,mb5.2						
MCK	McKinley	37.73	336	*e*P	P	07 19 24.3	+0.9
MCK				pmax	pmax		
	comp=Z,29nm,1.2s,mb4.9						
MCK	McKinley	37.73	336	*e*P	P	07 19 24.3	+1.0
	comp=Z,29nm,1.2s,mb4.9						
COLA	College	38.13	338	*e*P	P	07 19 26.7	-0.1
COLA				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.8						
COLA	College	38.13	338	*e*P	P	07 19 26.7	0.0
	comp=Z,28nm,1.3s,mb4.8						
KTH	Kantishna Hill	38.31	335	*e*P	P	07 19 28.1	-0.2
	comp=Z,55nm,1.5s,mb5.1						
PPLA	Purkeypile	38.38	334	*e*P	P	07 19 29.5	+0.6
	comp=Z,192nm,1.8s,mb5.5						
SVW2	Sparrevohn	38.77	330	*e*P	P	07 19 33.1	+0.9
COLD	Coldfoot	40.42	340	*e*P	P	07 19 47.0	+1.1
	comp=Z,17nm,1.2s,mb4.7						
SCHQ	Schefferville	40.59	42	P	P	07 19 46.2	-1.3
	comp=Z,3.5nm,1.0s,mb3.9,baz=264,slow=10,SNR=2.9						
SCHQ				LR	LR	07 37 20.1	
	comp=Z,893nm,20.0s,MS4.6,baz=78,slow=37						
SCHQ	Schefferville	40.59	42	P	P	07 19 46.2	-1.3
RES	Resolute Bay	43.55	8	*e*P	P	07 20 10.9	-0.5
RES				pmax	pmax		
	comp=Z,24nm,1.3s,mb4.8						
RES	Resolute Bay	43.55	8	P	P	07 20 10.4	-1.0
	comp=Z,9.5nm,1.1s,mb4.5,baz=198,slow=11,SNR=17						
RES	Resolute Bay	43.55	8	*e*P	P	07 20 10.9	-0.5
	comp=Z,24nm,1.3s,mb4.8						
TNA	Tin City	45.69	332	*e*P	P	07 20 28.6	+0.1
	comp=Z,78nm,2.0s,mb5.3						

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MTP    Monte Pirata      46.81  95  eP     P       07 20 38.2 +0.3
              comp=Z,110nm,1.0s,mb5.7
ROSC   El Rosal          47.06 117   P     P       07 20 40.8 +0.8
              comp=Z,7.2nm,1.1s,mb4.5,baz=80,slow=20,SNR=9.1
ROSC                                 LR    LR      07 40 06.8
              comp=Z,687nm,21.7s,MS4.6,baz=13,slow=36
OTAV   Otavalo           47.23 125  eP     P       07 20 43.1 +1.8
              comp=Z,30nm,1.1s,mb5.1
TAOE   Nuku Hiva Isla    47.38 214  eLR    LR      07 33 03.4
SDV    Santo Domingo     47.45 109  eP     P       07 20 42.7  -0.3
              comp=Z,15nm,0.9s,mb4.9
ATAH   Atahualpa         52.64 131   P     P       07 21 25.1 +2.7
              comp=Z,26nm,1.0s,mb5.1,baz=329,slow=5.2,SNR=13
ALE    Alert             53.45   7   P     P       07 21 27.2  -0.4
              comp=Z,79nm,1.4s,mb5.5,SNR=6.4
FX1    Attu Island--F    54.09 315   LR    LR      07 41 22.8
              comp=Z,286nm,21.9s,MS4.3,baz=249,slow=32
SUMG   Summit            55.50  21  eP     P       07 21 44.0 +1.5
              comp=Z,53nm,1.4s,mb5.4
BILL   Bilibino          56.09 334⇓eP      P       07 21 47.7 +0.9
BILL                                e              07 22 44.9
BILL                                 pmax  pmax
              comp=Z,38nm,1.9s,mb5.1
BILL                                 MLR   MLR
              comp=Z,500nm,16.0s,MS4.7
BILL   Bilibino          56.09 334  eP     P       07 21 47.6 +0.8
              comp=Z,28nm,1.3s,mb5.1
RPN    Rapa Nui          59.46 174   LR    LR      07 41 55.2
              comp=Z,194nm,21.1s,MS4.2,baz=221,slow=30
PPT    Papeete           59.54 219  eLR    LR      07 37 56.0
              comp=Z,330nm,28.8s
SEY    Seymchan          62.71 329⇑eP      P       07 22 33.7 +1.1
PETK   Petropavlovsk-    63.12 318   P     P       07 22 36.2 +0.7
              comp=Z,12nm,0.9s,mb5.0,baz=70,slow=12,SNR=6.3
PETK                                 LR    LR      07 45 12.1
              comp=Z,189nm,20.5s,MS4.2,baz=263,slow=31
JMIC   Jan Mayen         64.94  20   LR    LR      07 51 58.0
              comp=Z,865nm,18.3s,MS5.0,baz=328,slow=37
TIXI   Tiksi             67.11 342⇑eP      P       07 23 00.8  -0.3
TIXI                                 pmax  pmax
              comp=Z,37nm,2.5s,mb5.0
TIXI                                 MLR   MLR
              comp=Z,200nm,15.0s,MS4.5
TIXI   Tiksi             67.11 342  eP     P       07 23 00.5  -0.6
              comp=Z,31nm,1.4s,mb5.2
RAR    Rarotonga         68.19 225   LR    LR      07 45 56.6
              comp=Z,2µm,18.6s,MS5.4,baz=95,slow=30
LVC    Limon Verde       70.41 135  eP     P       07 23 24.2 +1.9
              comp=Z,20nm,1.2s,mb4.9
AFI    Afiamalu          70.95 239   LR    LR      07 46 39.3
              comp=Z,440nm,20.3s,MS4.7,baz=85,slow=29
YAK    Yakutsk           72.45 333  eP     P       07 23 34.7 +0.6
YAK                                  pmax  pmax
              comp=Z,18nm,1.0s,mb5.0
YAK                                  MLR   MLR
              comp=Z,369nm,18.0s,MS4.7
YAK                                  MLR   MLR
              comp=N,243nm,18.0s,MS4.7
YAK                                  MLR   MLR
              comp=E,243nm,17.0s,MS4.7
YSS    Yuzh-Sakhalins    74.42 316  eP     P       07 23 45.7  -0.3
ARCES  ARCESS Array B    74.43  13   P     P       07 23 44.9  -0.8
              comp=E,9.2nm,0.9s,mb4.7,baz=320,slow=11,SNR=4.9
ARCES                                LR    LR      07 56 51.1
              comp=E,608nm,20.4s,MS4.9,baz=332,slow=36
NOA    NORSAR Array B    77.25  24   P     P       07 24 02.3 +0.4
              comp=E,2.8nm,1.0s,mb4.2,baz=319,slow=5.7,SNR=4.5
NOA                                  LR    LR      07 56 12.3
              comp=E,236nm,19.7s,MS4.5,baz=325,slow=34
LVZ    Lovozero          77.50  11⇑eP      P       07 24 02.3  -0.9
LVZ                                  pmax  pmax
              comp=Z,47nm,1.5s,mb5.2
APA    Apatity           77.59  12⇑eP      P       07 24 09.2 +5.5
APA                                  pmax  pmax
              comp=Z,16nm,1.0s,mb4.9
APA                                  MLR   MLR
              comp=Z,1µm,14.0s,MS5.3
CFAA   Coronel Fontan    77.67 140   P     P       07 24 05.5 +0.9
              comp=Z,1.6nm,0.7s,mb4.0,baz=309,slow=5.1,SNR=34
CFAA   Coronel Fontan    77.67 140   P     P       07 24 05.5 +0.9
KONO   Kongsberg         77.67  25⇑eP      P       07 24 06.6 +2.3
HABR   Khabarovsk        77.95 320  eP     P       07 24 06.4 +0.3
HABR                                e*PP   pP      07 24 11.4 +2.0
HABR                                e*SP   sP      07 24 13.4 +2.8
HABR                                e              07 24 15.9
HABR                                               07 27 01.3
HABR                                ePPP           07 28 49.9
HABR                                eS     S       07 34 00.3 +0.9
HABR                                e              07 34 25.0
HABR                                eSS    SS      07 39 02.2 +2.8
HABR                                eSSS           07 42 25.8
HABR                                 pmax  pmax
              comp=N,6.0nm,0.8s
HABR                                 pmax  pmax
              comp=Z,21nm,1.7s,mb4.8
HABR                                 pmax  pmax
              comp=E,8.0nm,0.8s
HABR                                 MLR   MLR
              comp=Z,140nm,19.0s,MS4.3
HFS    Hagfors           78.75  23   P     P       07 24 10.7 +0.4
              comp=Z,5.3nm,0.8s,mb4.5,baz=253,slow=4.5,SNR=6.0
KLR    Kul'dur           79.25 322  eP     P       07 24 10.0  -3.3
ROSF   Rostrenen         79.32  39  eP     P       07 24 15.8 +2.2
QUIF   Quistinic         79.63  39  eP     P       07 24 16.8 +1.5
              comp=Z,232nm,1.8s,mb5.5
QUIF   Quistinic         79.63  39  eP     P       07 24 16.8 +1.5
QUIF                                 pmax  pmax
              comp=Z,116nm,1.8s,mb5.5
QUIF   Quistinic         79.63  39  eP     P       07 24 16.8 +1.5
              comp=Z,116nm,1.8s,mb5.5
SGMF   Saint Gilles      79.75  39  eP     P       07 24 18.0 +2.0
              comp=Z,72nm,1.5s,mb5.1
SGMF   Saint Gilles      79.75  39  eP     P       07 24 18.0 +2.0
SGMF                                 pmax  pmax
              comp=Z,36nm,1.5s,mb5.1
SGMF   Saint Gilles      79.75  39  eP     P       07 24 18.0 +2.0
              comp=Z,36nm,1.5s,mb5.1
CPUP   Villa Florida     80.37 129   P     P       07 24 19.9 +0.4
              comp=Z,7.9nm,0.9s,mb4.6,baz=323,slow=5.9,SNR=12
CPUP                                 LR    LR      08 02 00.1
              comp=Z,184nm,19.3s,MS4.4,baz=321,slow=37
CPUP   Villa Florida     80.37 129   P     P       07 24 19.9 +0.4
FLN    La Foliniere      80.52  38  eP     P       07 24 22.1 +2.0
              comp=Z,53nm,1.3s,mb5.0
FLN                                 eMLR   MLR
              comp=Z,788nm,17.5s,MS4.8
FLN    La Foliniere      80.52  38  eP     P       07 24 22.1 +2.0
FLN                                  pmax  pmax
              comp=Z,27nm,1.3s,mb5.0
FLN    La Foliniere      80.52  38  eP     P       07 24 22.1 +2.0
              comp=Z,26nm,1.3s,mb5.0
LDF    La Druitiere      80.81  37  eP     P       07 24 23.4 +1.7
              comp=Z,76nm,1.5s,mb5.1
LDF    La Druitiere      80.81  37  eP     P       07 24 23.4 +1.7
LDF                                  pmax  pmax
              comp=Z,38nm,1.5s,mb5.1
LDF    La Druitiere      80.81  37  eP     P       07 24 23.4 +1.7
              comp=Z,38nm,1.5s,mb5.1
BOD    Bodaibo           81.07 336  eP     P       07 24 21.5  -1.4
BOD                                  pmax  pmax
              comp=Z,9.0nm,1.6s,mb4.5
BAIF   Baives            82.01  34  eP     P       07 24 29.3 +1.3
              comp=Z,18nm,1.2s,mb4.6
BAIF   Baives            82.01  34  eP     P       07 24 29.3 +1.3
BAIF                                 pmax  pmax
              comp=Z,9.0nm,1.2s,mb4.6
BAIF   Baives            82.01  34  eP     P       07 24 29.3 +1.3
              comp=Z,8.9nm,1.2s,mb4.6
MFF    Saint Martin d    82.06  39  eP     P       07 24 30.1 +1.8
              comp=Z,64nm,1.5s,mb5.0
MFF    Saint Martin d    82.06  39  eP     P       07 24 30.1 +1.8
MFF                                  pmax  pmax
              comp=Z,32nm,1.5s,mb5.0
MFF    Saint Martin d    82.06  39  eP     P       07 24 30.1 +1.8
              comp=Z,32nm,1.5s,mb5.0
GIVF   Givet             82.28  34  eP     P       07 24 31.5 +2.1
EVO    Evora             82.33  49  eP     P       07 24 30.7 +0.8
              comp=Z,16nm,1.0s,mb4.6
EVO                                 eMLR   MLR
              comp=Z,1µm,19.0s,MS4.9
MJAR   Matsushiro Arr    82.95 309   LR    LR      07 54 56.3
              comp=Z,279nm,19.5s,MS4.6,baz=75,slow=31
MDJ    Mudanjiang        83.29 319   P     P       07 24 29.1  -5.7
MDJ                                  PP    PP      07 27 43.5  -2.2
MDJ                                  SS    SS      07 40 16.5  -2.6
MDJ                                  pmax  pmax
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              comp=Z,150nm,6.5s
MDJ                                  LR    LR
              comp=N,78nm,32.6s,MS4.2
MDJ                                  LR    LR
              comp=E,180nm,34.6s,MS4.2
MDJ                                  LR    LR
              comp=Z,220nm,34.6s,MS4.3
MEZF   Maizieres J'vi    83.47  35  eP     P       07 24 37.6 +2.0
TCF    Toulx Ste Croi    83.51  38  eP     P       07 24 37.6 +1.7
LFF    La Frestale       83.60  40  eP     P       07 24 38.0 +1.6
BGF    Bois d'Agland     83.66  38  eP     P       07 24 38.2 +1.5
              comp=Z,16nm,0.8s,mb4.9
BGF    Bois d'Agland     83.66  38  eP     P       07 24 38.2 +1.5
BGF                                  pmax  pmax
              comp=Z,8.0nm,0.8s,mb4.9
BGF    Bois d'Agland     83.66  38  eP     P       07 24 38.2 +1.5
              comp=Z,8.1nm,0.8s,mb4.9
SSF    Saint Saulge      83.67  37  eP     P       07 24 37.2 +0.5
              comp=Z,92nm,1.9s,mb5.3
SSF    Saint Saulge      83.67  37  eP     P       07 24 37.2 +0.5
SSF                                  pmax  pmax
              comp=Z,46nm,1.9s,mb5.3
SSF    Saint Saulge      83.67  37  eP     P       07 24 37.2 +0.5
              comp=Z,46nm,1.9s,mb5.3
SJPF   Ste Jean          83.67  42  eP     P       07 24 38.4 +1.6
PLCA   Paso Flores       83.69 147   P     P       07 24 36.4  -0.2
              comp=Z,11nm,1.1s,mb4.9,baz=326,slow=6.6,SNR=4.7
PLCA                                 LR    LR      07 57 43.7
              comp=Z,295nm,18.2s,MS4.7,baz=329,slow=33
PLCA   Paso Flores       83.69 147   P     P       07 24 36.4  -0.2
LOR    Lormes            83.71  37  eP     P       07 24 37.8 +0.9
              comp=Z,36nm,1.3s,mb5.1
LOR                                 eMLR   MLR
              comp=Z,786nm,18.5s,MS4.8
LOR    Lormes            83.71  37  eP     P       07 24 37.8 +0.9
LOR                                  pmax  pmax
              comp=Z,18nm,1.3s,mb5.0
LOR    Lormes            83.71  37  eP     P       07 24 37.8 +0.9
              comp=Z,18nm,1.3s,mb5.0
AVF    Avril sur Loir    83.77  37  eP     P       07 24 38.5 +1.3
RJF    Les Rejaudoux     83.78  39  eP     P       07 24 39.1 +1.8
              comp=Z,106nm,1.8s,mb5.4
RJF                                 eMLR   MLR
              comp=Z,705nm,18.2s,MS4.8
RJF    Les Rejaudoux     83.78  39  eP     P       07 24 39.1 +1.8
RJF                                  pmax  pmax
              comp=Z,53nm,1.8s,mb5.4
RJF    Les Rejaudoux     83.78  39  eP     P       07 24 39.1 +1.8
              comp=Z,53nm,1.8s,mb5.4
SMF    Signal de Mont    84.11  37  eP     P       07 24 40.4 +1.4
              comp=Z,38nm,1.3s,mb5.0
SMF    Signal de Mont    84.11  37  eP     P       07 24 40.4 +1.4
SMF                                  pmax  pmax
              comp=Z,19nm,1.3s,mb5.1
SMF    Signal de Mont    84.11  37  eP     P       07 24 40.4 +1.4
              comp=Z,19nm,1.3s,mb5.1
ESDC   Sonseca Array     84.18  46   P     P       07 24 38.5  -1.0
              comp=Z,0.2nm,0.3s,mb3.7,baz=329,slow=4.8,SNR=3.3
ESDC   Sonseca Array     84.18  46   P     P       07 24 38.5  -1.0
ETSF   Etsaut            84.18  42  eP     P       07 24 40.6 +1.2
              comp=Z,44nm,1.3s,mb5.1
ETSF   Etsaut            84.18  42  eP     P       07 24 40.6 +1.2
ETSF                                 pmax  pmax
              comp=Z,22nm,1.3s,mb5.1
ETSF   Etsaut            84.18  42  eP     P       07 24 40.6 +1.2
              comp=Z,22nm,1.3s,mb5.1
CAF    Calviac           84.32  39  eP     P       07 24 41.8 +1.7
              comp=Z,44nm,1.2s,mb5.2
CAF    Calviac           84.32  39  eP     P       07 24 41.8 +1.7
CAF                                  pmax  pmax
              comp=Z,22nm,1.2s,mb5.2
CAF    Calviac           84.32  39  eP     P       07 24 41.8 +1.7
              comp=Z,22nm,1.2s,mb5.2
HAU    Haudompre         84.44  35  eP     P       07 24 41.3 +0.7
              comp=Z,46nm,1.3s,mb5.1
HAU                                 eMLR   MLR
              comp=Z,782nm,17.0s,MS4.9
HAU    Haudompre         84.44  35  eP     P       07 24 41.3 +0.7
HAU                                  pmax  pmax
              comp=Z,23nm,1.3s,mb5.2
HAU    Haudompre         84.44  35  eP     P       07 24 41.3 +0.7
              comp=Z,23nm,1.3s,mb5.2
CDF    Champ du Feu      84.60  34  eP     P       07 24 43.2 +1.8
              comp=Z,39nm,1.4s,mb5.0
CDF    Champ du Feu      84.60  34  eP     P       07 24 43.2 +1.8
CDF                                  pmax  pmax
              comp=Z,20nm,1.4s,mb5.0
CDF    Champ du Feu      84.60  34  eP     P       07 24 43.2 +1.8
              comp=Z,20nm,1.4s,mb5.0
EPF    Esparros          84.61  42  eP     P       07 24 41.8 +0.2
HINF   Hinteralfeld      84.82  35  eP     P       07 24 43.0 +0.5
KLMR   Klimovskoe        84.83  12  eP     P       07 24 42.7 +0.4
KLMR                                 pmax  pmax
              comp=Z,26nm,1.2s,mb5.2
MOX    Moxa              84.98  31  eP     P       07 24 51.5 +8.2
MOX
              comp=Z,600nm,23.0s
PRGR   Permogore         85.03   9  eP     P       07 24 43.6 +0.3
PRGR                                 pmax  pmax
              comp=Z,18nm,0.9s,mb5.2
CLL    Collm             85.08  30  e(P)   P       07 24 46.0 +2.3
              comp=Z,14nm,1.5s,mb4.9
CLL                                 e              07 24 57.0
CLL                                 eS     S       07 35 26.0  +13
CLL                                 eSSSS          07 47 18.0
CLL                                  LV            08 01 00.0
              comp=Z,400nm,18.6s
CLL                                  LmH           08 01 00.0
              comp=N,500nm,18.6s
CLL                                  LmH           08 01 00.0
              comp=E,600nm,19.2s
CLL    Collm             85.08  30  eP     P       07 24 46.0 +2.3
              comp=E,14nm,1.5s,mb4.9
CLL                                 e              07 24 57.0
CLL                                 eS     S       07 35 26.0  +13
BFO    Black Forest      85.16  34  eP     P       07 24 45.6 +1.4
BFO                                  pmax  pmax
              comp=Z,9.0nm,1.2s,mb4.8
BFO    Black Forest      85.16  34  eP     P       07 24 45.6 +1.3
              comp=Z,9.1nm,1.2s,mb4.8
CABF   La Chapelle       85.27  36  eP     P       07 24 46.7 +1.9
              comp=Z,74nm,1.6s,mb5.3
CABF   La Chapelle       85.27  36  eP     P       07 24 46.7 +1.9
CABF                                 pmax  pmax
              comp=Z,37nm,1.5s,mb5.3
CABF   La Chapelle       85.27  36  eP     P       07 24 46.7 +1.9
              comp=Z,37nm,1.5s,mb5.3
MTLF   Montolieu         85.45  40  eP     P       07 24 47.2 +1.4
GRA1   Grafenberg Arr    85.50  32  eP     P       07 24 49.2 +3.3
              comp=Z,18nm,1.6s,mb5.0
GRF    Grafenberg Arr    85.50  32  eP     P       07 24 49.2 +3.3
GRF                                  pmax  pmax
              comp=Z,18nm,1.6s,mb5.0
GRF                                  MLR   MLR
              comp=N,700nm,18.1s
GRF    Grafenberg Arr    85.50  32  eP     P       07 24 49.2 +3.3
              comp=Z,18nm,1.6s,mb5.0
GRF                                 eL             08 02 07.7
              comp=Z,677nm,18.1s
VIVF   Saint-Julien-l    85.75  38  eP     P       07 24 49.2 +2.0
BRG    Berggiesshubel    85.79  29  eP     P       07 24 48.8 +1.5
BRG                                  pmax  pmax
              comp=Z,14nm,1.8s,mb4.9
BRG    Berggiesshubel    85.79  29  e(P)   P       07 24 48.8 +1.4
              comp=Z,23nm,1.8s,mb5.1
CN2    Changchun         86.07 321  eP     P       07 24 43.6  -5.3
CN2                                 eS     S       07 35 15.1  -8.1
CN2                                  SS    SS      07 40 55.2  -5.0
CN2                                  pmax  pmax
              comp=Z,10.0nm,0.7s,mb5.2
CN2                                  pmax  pmax
              comp=Z,200nm,3.0s
CN2                                  LR    LR
              comp=N,300nm,17.0s,MS4.9
CN2                                  LR    LR
              comp=E,300nm,17.0s,MS4.9
CN2                                  LR    LR
              comp=Z,300nm,18.0s,MS4.7
ORIF   Oris-en-Rattie    86.33  38  eP     P       07 24 51.9 +1.8
ORIF                                eMLR   MLR
              comp=Z,688nm,18.8s,MS4.8
LPL    La Plagne         86.36  37  eP     P       07 24 51.9 +1.7
LPG    La Plagne         86.38  37  eP     P       07 24 51.3 +1.0
GERES  GERESS Array B    87.22  31   P     P       07 24 55.6 +1.2
              comp=Z,0.4nm,0.3s,mb4.2,baz=330,slow=5.1,SNR=5.9
GERES                                LR    LR      08 05 17.8
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              comp=Z,610nm,19.4s,MS5.0,baz=63,slow=37
KSRS   Korea Array       88.88 315   LR    LR      08 02 50.3
              comp=Z,152nm,20.1s,MS4.4,baz=49,slow=34
OBN    Obninsk           89.56  16⇑eP      P       07 25 06.2 +0.9
OBN                                  pmax  pmax
              comp=Z,9.0nm,0.6s,mb5.3
OBN                                  MLR   MLR
              comp=Z,400nm,18.0s,MS4.9
TLY    Talaya            89.56 337   P     P       07 25 07.2 +1.8
              comp=Z,43nm,1.0s,mb5.7,SNR=6.0
TLY    Talaya            89.56 337  eP     P       07 25 06.9 +1.5
TLY                                  pmax  pmax
              comp=Z,8.0nm,1.0s,mb5.0
TLY                                  MLR   MLR
              comp=Z,246nm,19.0s,MS4.7
TLY    Talaya            89.56 337  eP     P       07 25 06.5 +1.1
              comp=Z,12nm,1.3s,mb5.1
MOY    Mondy             90.43 338  eP     P       07 25 11.8 +2.3
MOY                                  pmax  pmax
              comp=Z,38nm,2.2s,mb5.3
ZAK    Zakamensk         90.79 336  i P    P       07 25 12.0 +0.8
ZAK                                  pmax  pmax
              comp=Z,5.0nm,1.5s,mb4.6
GUMO   Guam              90.91 287   LR    LR      07 56 01.0
              comp=Z,371nm,20.9s,MS4.8,baz=75,slow=29
AKASG  Malin Array Be    91.53  22   P     P       07 25 13.3  -1.3
              comp=Z,0.8nm,0.5s,mb4.3,baz=313,slow=4.0,SNR=11
AKASG                                LR    LR      08 09 28.3
              comp=Z,396nm,19.1s,MS4.9,baz=315,slow=38
AKASG  Malin Array Be    91.53  22   P     P       07 25 13.3  -1.3
NVS    Novosibirsk       91.66 349  eP     P       07 25 15.8 +0.7
SONM   Songino Array     91.81 333   P     P       07 25 17.1 +1.2
              comp=Z,0.6nm,0.6s,mb4.1,baz=56,slow=3.7,SNR=5.3
SONM                                 LR    LR      08 12 17.4
              comp=Z,391nm,18.2s,MS4.9,baz=28,slow=39
ZALV   Zalesovo Beam     92.26 348   P     P       07 25 19.1 +1.2
              comp=Z,1.9nm,0.9s,mb4.4,baz=9.2,slow=4.7,SNR=8.6
ZALV                                 LR    LR      08 10 21.3
              comp=Z,156nm,19.7s,MS4.5,baz=203,slow=38
BJI    Beijing           93.60 323   P     P       07 25 18.2  -6.2
BJI                                  S     S       07 36 20.1   -13
BJI                                  pmax  pmax
              comp=Z,320nm,4.4s
BJI                                  LR    LR
              comp=N,220nm,23.3s,MS4.8
BJI                                  LR    LR
              comp=E,290nm,19.4s,MS4.8
BJI                                  LR    LR
              comp=Z,350nm,27.4s
URZ    Urewera           94.29 227   LR    LR      08 00 06.6
              comp=Z,319nm,18.1s,MS4.8,baz=51,slow=30
BVAR   Borovoye Array    94.80 357   P     P       07 25 29.7 +0.1
              comp=Z,1.4nm,0.8s,mb4.4,baz=333,slow=2.3,SNR=7.6
HHC    Hu-ho-hao-te      95.24 326  eP     P       07 25 29.7  -2.2
HHC                                  pP    pP      07 25 34.5  -0.7
HHC                                  PP    PP      07 29 21.1 +0.1
HHC                                  SKS           07 36 02.7
HHC                                 eS     S       07 36 39.6  -7.9
HHC                                  SS    SS      07 43 07.2  -5.2
HHC                                  pmax  pmax
              comp=Z,6.0nm,0.6s,mb5.2
HHC                                  pmax  pmax
              comp=Z,140nm,4.0s
HHC                                  LR    LR
              comp=N,260nm,18.8s,MS5.0
HHC                                  LR    LR
              comp=E,380nm,16.9s,MS5.0
HHC                                  LR    LR
              comp=Z,260nm,19.0s,MS4.7
KURK   Kurchatov         96.34 351   P     P       07 25 37.6 +0.9
              comp=Z,1.8nm,1.1s,mb4.4,baz=9.7,slow=5.3,SNR=6.0
NJ2    Nanjing           97.99 316  eP     P       07 25 40.2  -4.3
NJ2                                  pmax  pmax
              comp=Z,10.0nm,0.6s,mb5.5
MKAR   Makanchi Array    99.59 348   P     P       07 25 50.7  -0.7
              comp=Z,0.1nm,0.3s,mb3.7,baz=43,slow=5.5,SNR=3.9
MKAR                                 LR    LR      08 13 12.3
              comp=Z,258nm,21.9s,MS4.7,baz=10,slow=37
MKAR   Makanchi Array    99.59 348   P     P       07 25 50.7  -0.7
WMQ    Urumqi           101.29 343  eP     Pdif    07 26 00.8 +1.8
WMQ                                  pP            07 26 06.0
WMQ                                  SKS           07 36 38.0
WMQ                                 eS     Sdif    07 37 36.0  -2.7
WMQ                                  pmax  pmax
              comp=Z,6.0nm,0.8s
WMQ                                  pmax  pmax
              comp=Z,100nm,5.4s
WMQ                                  LR    LR
              comp=N,490nm,30.0s,MS4.9
WMQ                                  LR    LR
              comp=E,420nm,33.2s,MS4.9
WMQ                                  LR    LR
              comp=Z,620nm,27.8s
KIV    Kislovodsk       101.40  16  eP     Pdif    07 25 59.5   0.0
KIV                                  pmax  pmax
              comp=Z,9.0nm,1.3s
KIV                                  MLR   MLR
              comp=Z,300nm,17.0s,MS4.9
WHN    Wuhan            101.70 318  eP     Pdif    07 25 55.5  -5.3
LZH    Lanzhou          102.64 328  eP     Pdif    07 26 01.0  -4.0
LZH                                  pmax  pmax
              comp=Z,14nm,1.2s
LZH                                  pmax  pmax
              comp=Z,57nm,4.3s
CD2    Chengdu          106.98 326   Pdif  Pdif    07 26 25.0 +0.7
CD2                                  PP    PP      07 30 53.9 +4.1
CD2                                  SS    SS      07 45 57.0 +1.3
CD2                                  AMB   AMB
              comp=Z,190nm,4.8s
CD2                                  LR    LR
              comp=N,450nm,5.4s
CD2                                  LR    LR
              comp=Z,420nm,5.8s
GYA    Guiyang          109.12 321  ePdif  Pdif    07 26 30.8  -3.0
GYA                                  PKP   PKiKP   07 30 34.2  -4.2
GYA                                  PP    PP      07 31 04.9  -0.7
GYA                                  PKS           07 34 10.2
GYA                                  S     Sdif    07 38 42.7  -1.3
GYA                                  SS    SS      07 46 21.2  -3.8
GYA                                  AMB   AMB
              comp=Z,140nm,7.6s
GYA                                  LR    LR
              comp=N,420nm,20.0s,MS5.1
GYA                                  LR    LR
              comp=E,360nm,19.2s,MS5.1
GYA                                  LR    LR
              comp=Z,450nm,20.0s,MS5.0
KMI    Kunming          112.26 323   PKP   PKiKP   07 30 42.5  -1.8
KMI                                  sPKP          07 30 46.0
KMI                                  PP    PP      07 31 29.5 +1.3
KMI                                  SS    SS      07 47 05.0  -1.9
KMI                                  AMB   AMB
              comp=Z,180nm,8.2s
KMI                                  LR    LR
              comp=Z,170nm,25.7s,MS4.5
ASAR   Alice Springs    119.22 259   PKP   PKPdf   07 30 57.0  -0.6
              comp=Z,0.4nm,0.7s,baz=49,slow=3.2,SNR=4.6
QSPA   South Pole Qui   122.23 180   PKP   PKPdf   07 31 02.4 +0.7
              comp=Z,2.3nm,0.8s,baz=180,slow=2.2,SNR=5.9
QSPA   South Pole Qui   122.23 180   PKP   PKPdf   07 31 02.4 +0.7
VNA3   Neumayer Olymp   125.33 158  ePKPdf PKPdf   07 31 07.9   0.0
VNA2   Neumayer--Watz   126.09 157  ePKPdf PKPdf   07 31 10.2 +0.9
MAW    Mawson           144.74 179   PKP   PKPdf   07 31 43.3  -0.6
              comp=Z,18nm,1.0s,baz=176,slow=4.9,SNR=8.2
BOSA   Boshof           145.94  94   PKPbc PKPbc   07 31 47.5  -0.5
              comp=Z,12nm,0.8s,baz=293,slow=3.3,SNR=12
```

ISCJB ***09*** *07:17:33.0±2.0, 10°.98S±0°.08×166°.3E±0°.1, h176^{km}±18^{km}, mb4.0/14, Error ellipse: s-maj=19.9km s-min=11.9km az=156.3*

IDC ***09*** *07:17:33.0±3.7, 10°.94S×166°.30E, h165^{km}±33^{km}, mb3.8/13, mb1 3.9/14, mb1mx3.8/23, mbtmp3.9/14, Error ellipse: s-maj=20.6km s-min=16.8km az=83.0*

ISC 09 07:17:32.8±2.0**, 10°.97S**±0°.09×**166°.3E**±0°.1**, h161**^{km}±17^{km}**, n20, σ0^{s}.80**/18**, mb4.0**/14**, Santa Cruz Islands**

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Code   Station Name       Δ°   AZ°    Phase ID            Time    Res
                                     Op    ISC         h  m  s    ISC
HNR    Honiara            6.44 283   P     Pn          07 19 05.2  -0.3
              6.5nm,0.3s,baz=207,slow=11,SNR=3.9
DZM    Mont Dzumac       11.04 179  eP     Pn          07 20 08.4 +2.0
DZM                                 eS     Sn          07 22 07.3  -1.4
CTA    Charters Tower    21.32 242   P     P           07 22 07.6 +0.4
              2.5nm,0.6s,mb3.7,baz=68,slow=12,SNR=4.3
```

URZ	Urewera	28.85	162	P	P	07 23 15.7	-0.4
	3.1nm,0.3s,mb4.5,baz=344,slow=7.3,SNR=6.1						
STKA	Stephens Creek	30.88	224	eP	P	07 23 35.3	+1.2
	3.2nm,1.8s,mb3.8						
STKA	Stephens Creek	30.88	224	P	P	07 23 35.0	+0.9
	2.3nm,0.9s,mb3.9,baz=2.1,slow=4.9,SNR=4.7						
WRA	Warramunga Arr	32.03	250	P	P	07 23 44.2	-0.1
	2.8nm,0.5s,mb4.2,baz=83,slow=9.0,SNR=14						
RPZ	Rata Peaks	32.89	174	P	P	07 23 51.8	+0.3
	12nm,0.8s,mb4.7,baz=54,slow=4.8,SNR=5.1						
ASAR	Alice Springs	33.32	243	P	P	07 23 55.0	-0.6
	1.5nm,0.8s,mb3.8,baz=68,slow=9.9,SNR=14						
ASAR				PcP	PcP	07 26 34.0	+0.1
	0.5nm,0.6s,baz=69,slow=2.7,SNR=5.3						
FITZ	Fitzroy Crossi	39.93	255	eP	P	07 24 51.7	+0.1
	7.6nm,0.7s,mb4.4						
SONM	Songino Array	78.93	324	P	P	07 29 18.2	-0.2
	0.5nm,0.5s,mb3.5,baz=114,slow=4.4,SNR=4.4						
QSPA	South Pole Qui	79.04	180	P	P	07 29 18.5	-0.1
	5.0nm,1.1s,mb4.0,baz=350,slow=2.6,SNR=9.8						
YBH	Yreka Blue Hor	83.45	45	P	P	07 29 42.9	+0.5
	1.3nm,0.6s,mb3.8,baz=250,slow=20,SNR=4.5						
NVAR	Mina Array Bea	85.55	50	P	P	07 29 53.8	+0.8
	1.6nm,0.9s,mb3.8,baz=234,slow=8.9,SNR=8.9						
ZALV	Zalesovo Beam	93.81	324	P	P	07 30 31.4	-0.1
	0.5nm,0.4s,mb4.0,baz=106,slow=5.2,SNR=2.8						
MKAR	Makanchi Array	93.84	317	P	P	07 30 31.6	-0.2
	0.9nm,0.6s,mb4.1,baz=84,slow=6.4,SNR=13						
YKA	Yellowknife Ar	94.65	27	P	P	07 30 33.5	-1.6
	0.5nm,0.6s,mb3.9,baz=258,slow=4.5,SNR=6.6						
ARCES	ARCESS Array B	116.40	346	PKP	PKPdf	07 35 56.1	-0.6
	4.5nm,0.9s,baz=51,slow=3.4,SNR=6.5						
CPUP	Villa Florida	123.67	132	PKP	PKPdf	07 36 11.6	-0.5
	0.6nm,0.7s,baz=102,slow=17,SNR=2.8						
NOA	NORSAR Array B	126.77	345	PKP	PKPdf	07 36 14.4	-2.5
	1.0nm,0.8s,baz=62,slow=5.9,SNR=3.3						

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*CSEM **09** 07:21:25.0±0.4, 44°.35N×12°.34E, h2^{km}, ML3.2/5, Error ellipse: s-maj=6.5km s-min=5.2km az=33.0*

*ISCJB **09** 07:21:26.3±0.7, 44°.26N±0°.03×12°.32E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=3.7km az=14.6*

*ROM **09** 07:21:26.1±0.3, 44°.22N×12°.29E, h2^{km}, Md2.3/13, Ml2.2/6, Error ellipse: s-maj=3.2km s-min=1.9km az=23.0*

ISC 09 07:21:26.9±0.7**, 44°.27N**±0°.03×**12°.32E**±0°.04**, h10^{km}, n31, σ0^{s}.87**/50**, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSM	Repubblica di	0.35	165	Pg	Pg	07 21 34.0	+0.2
RSM				Sg	Sg	07 21 37.8	-0.6
	87nm,1.2s						
RSM	Repubblica di	0.35	165	Pg	Pg	07 21 34.0	+0.2
RSM				Sg	Sg	07 21 37.8	-0.6
	87nm,1.2s						
SFI	Santa Sofia	0.50	224	Pg	Pg	07 21 35.7	-0.9
SFI				Sg	Sg	07 21 43.3	+0.2
	204nm,0.3s						
VMG	Vicchio	0.64	242	Pg	Pg	07 21 38.6	-0.7
VMG				Sg	Sg	07 21 48.8	+1.2
	40nm,0.2s						
VMG	Vicchio	0.64	242	Pg	Pg	07 21 38.6	-0.7
VMG				Sg	Sg	07 21 48.8	+1.2
	40nm,0.2s						
FSSB	Fossombrone	0.66	150	Pg	Pg	07 21 39.1	-0.6
FSSB				Sg	Sg	07 21 49.3	+1.0
FSSB	Fossombrone	0.66	150	Pg	Pg	07 21 39.1	-0.6
FSSB				Sg	Sg	07 21 49.3	+1.0
CRE	Caprese Michel	0.70	203	Pg	Pg	07 21 39.1	-1.3
CRE				Sg	Sg	07 21 49.7	+0.2
	45nm,0.2s						
CRE	Caprese Michel	0.70	203	Pg	Pg	07 21 39.1	-1.3
CRE				Sg	Sg	07 21 49.7	+0.2
	45nm,0.2s						
SEI	Scarperia	0.73	254	Pg	Pg	07 21 40.9	0.0
SEI				Sg	Sg	07 21 51.9	+1.5
SEI	Scarperia	0.73	254	Pg	Pg	07 21 40.9	0.0
SEI				Sg	Sg	07 21 51.9	+1.5
PIEI	Pieia	0.74	168	Pg	Pg	07 21 40.2	-1.1
PIEI				Sg	Sg	07 21 51.6	+0.6
	254nm,0.2s						
PIEI	Pieia	0.74	168	Pg	Pg	07 21 40.2	-1.1
PIEI				Sg	Sg	07 21 51.6	+0.6
BADI	Badiali	0.76	184	Pg	Pg	07 21 40.5	-1.0
BADI				Sg	Sg	07 21 52.2	+0.8
	104nm,0.3s						
BADI	Badiali	0.76	184	Pg	Pg	07 21 40.5	-1.0
BADI				Sg	Sg	07 21 52.2	+0.8
	104nm,0.3s						
CDCA	Citt' di Caste	0.81	185	Pg	Pg	07 21 43.0	+0.5
CDCA	Citt' di Caste	0.81	185	Pg	Pg	07 21 43.0	+0.5
FNVD	Fontana Vidola	0.87	264	Pg	Pg	07 21 43.6	0.0
FNVD	Fontana Vidola	0.87	264	Pg	Pg	07 21 43.6	0.0
CAFI	Castiglion Fio	0.97	196	Pg	Pg	07 21 43.9	-1.7
CAFI	Castiglion Fio	0.97	196	Pg	Pg	07 21 43.9	-1.7
MURB	Monte Urbino	1.01	172	Pg	Pg	07 21 45.3	-1.1
	148nm,0.3s						
MURB	Monte Urbino	1.01	172	Pg	Pg	07 21 45.3	-1.1
	148nm,0.3s						
CING	Cingoli	1.09	144	Pg	Pg	07 21 47.7	-0.2
CING	Cingoli	1.09	144	Pg	Pg	07 21 47.7	-0.2
SNTG	Esanatoglia	1.10	156	Pg	Pg	07 21 47.9	-0.2
SNTG				Sg	Sg	07 22 04.2	+1.7
	23nm,0.2s						
SNTG	Esanatoglia	1.10	156	Pg	Pg	07 21 47.9	-0.2
SNTG				Sg	Sg	07 22 04.2	+1.7
	23nm,0.2s						
NVLJ	Novalja	1.85	80	ePn	Pn	07 21 58.5	-0.1
NVLJ				Sn	Sn	07 22 23.2	+1.1
NVLJ	Novalja	1.85	80	ePn	Pn	07 21 58.5	-0.2
NVLJ				Sn	Sn	07 22 23.2	+1.1
MABI	Malga Bissina	2.20	325	Pg	Pn	07 22 04.0	+0.5
MABI	Malga Bissina	2.20	325	Pg	Pn	07 22 04.0	+0.5

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*ISCJB **09** 07:28:41.8±0.3, 32°.48N±0°.02×115°.31W±0°.03, h10^{km}, Error ellipse: s-maj=3.3km s-min=2.7km az=4.3*

*ECX **09** 07:28:41.4±0.3, 32°.44N×115°.33W, h12^{km}, MD3.9, ML4.1*

*NEIC **09** 07:28:41.3, 32°.44N×115°.32W, h2^{km}, ML3.9(PAS), ML4.1(ECX), After ECX.*

NEIC Felt [IV] at Imperial and [III] at El Centro, California. Also felt at Calexico, Holtville, San Diego and Santee, California. Felt [II] at Yuma, Arizona.

*IDC **09** 07:28:44.2±2.4, 32°.15N×115°.09W, h0^{km}, mb1 3.5/4, mb1mx3.4/23, mbtmp3.1/4, ML3.3/4, Error ellipse: s-maj=34.5km s-min=14.8km az=49.0*

ISC 09 07:28:42.9±0.3**, 32°.46N**±0°.02×**115°.32W**±0°.03**, h10^{km}, n40, σ1^{s}.24**/59**, 7C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.04	156	⇓eP	Pg	07 28 35.0	-10
CPBX				eS	Sg	07 28 37.4	-8.7
CPBX				⇑e		07 28 38.6	
	comp=N,242µm,0.7s						
CPBX				⇑e		07 28 47.5	
	comp=E,291µm,0.8s						
SGL	Mount Signal	0.39	300	⇑eP	Pg	07 28 50.7	+0.1
ERPC	Ernies Place	0.40	315	eP	Pg	07 28 51.3	+0.5
COA	Coachella	0.44	23	⇓eP	Pg	07 28 51.6	+0.1
WESC	Westside Schoo	0.46	311	eP	Pg	07 28 52.4	+0.6
EMX	El Mayor	0.47	171	eP	Pg	07 28 52.3	+0.2
EMX				eS	Sg	07 28 59.4	+1.1
EMX				⇓e		07 29 00.9	
	comp=N,10µm,0.5s						
EMX	El Mayor	0.47	171	eP	Pg	07 28 52.3	+0.2
EMX				eS	Sg	07 28 59.4	+1.1
COK	Cook Ranch	0.52	319	⇑eP	Pg	07 28 53.0	+0.1
COK	Cook Ranch	0.52	319	eP	Pg	07 28 53.2	+0.2
YUH	Yuha Desert	0.54	291	⇑eP	Pg	07 28 53.2	-0.2
SWSC	Sam W. Stewart	0.62	321	eP	Pg	07 28 54.4	-0.6
YMD	Yuma Desert	0.67	81	⇑eP	Pg	07 28 54.7	-1.0
DVTC	Desert V Tower	0.69	287	eP	Pg	07 28 56.0	-0.2
CLIC	Calipatria	0.70	346	eP	Pg	07 28 55.7	-0.8
GLA	Glamis	0.73	35	ePg	Pg	07 28 55.5	-1.4
GLA				eSg	Sg	07 29 04.7	-1.7
RDX	Rancho Dawling	0.74	225	eP	Pg	07 28 57.4	+0.2
RDX				eS	Sg	07 29 08.4	+1.5
RDX				⇑e		07 29 09.2	
	comp=N,5µm,0.5s						
RDX	Rancho Dawling	0.74	225	eP	Pg	07 28 57.4	+0.2
RDX				eS	Sg	07 29 08.4	+1.5
ECBX	El Chinero	1.01	167	eP	Pg	07 29 02.1	-0.2
ECBX				eS	Sg	07 29 15.6	+0.2
CBX	Cerro Bola	1.14	263	eP	Pg	07 29 04.2	-0.6
CBX				eS	Sg	07 29 20.0	+0.3
BAR	Barrett	1.16	281	ePg	Pg	07 29 03.4	-1.7
BAR				eSg	Sg	07 29 19.1	-1.1
CCX	Cicese	1.28	243	eP	Pn	07 29 06.5	-0.3
ECNX	Esteban Cantu	1.34	234	eP	Pg	07 29 07.8	-0.9
ECNX				eP		07 29 06.5	
PBX	Punta Banda	1.39	239	eP	Pn	07 29 08.0	-0.3
SPX	San Pedro Mart	1.41	185	eP	Pg	07 29 09.8	-0.2
PFO	Pinyon Flat Ob	1.49	321	ePn	Pn	07 29 06.9	-2.8
LDFC	Landfair	2.62	4	ePn	Pn	07 29 24.4	-0.9
LDFC				ePg	Pg	07 29 32.4	-0.7
LDFC				eSg	Sg	07 30 10.2	+3.2
MWC	Mount Wilson	2.89	308	ePg	Pg	07 29 35.6	-2.6
PASC	Pasadena Art C	2.94	306	ePg	Pg	07 29 36.4	-2.9
PASC				eSg	Sg	07 30 12.5	-4.9
GSC	Goldstone	3.09	337	ePn	Pn	07 29 33.5	+1.7
GSC				ePg	Pg	07 29 46.2	+4.1
GSC				eSg	Sg	07 30 25.5	+3.2
OSI	Osito Adit	3.56	308	ePg	Pg	07 29 46.7	-4.4
TUC	Tucson	3.84	91	ePn	Pn	07 29 39.4	-2.7
ISA	Isabella	4.13	322	ePn	Pn	07 29 47.8	+1.8
ISA				ePg	Pg	07 30 03.0	+1.0
ISA				eSg	Sg	07 30 56.9	+1.4
WUAZ	Wupatki	4.48	46	ePn	Pn	07 29 51.0	+0.2
WUAZ				eSg	Sg	07 31 00.2	-6.6
TPH	Tonopah	5.82	345	ePg	Pg	07 30 34.0	-0.2
	comp=N,19nm,0.7s						
NVAR	Mina Array Bea	6.43	339	Pn	Pn	07 30 26.0	+8.3
	comp=N,0.1nm,0.3s,baz=156,slow=16,SNR=4.7						
NVAR				Pg	Pg	07 30 48.1	+2.0
	comp=N,0.4nm,0.3s,baz=158,slow=18,SNR=16						
NVAR				Lg		07 32 13.2	
	baz=121,slow=21,SNR=1.9						
MVCO	Mesa Verde	7.34	48	ePn	Pn	07 30 32.7	+2.6
	comp=N,53nm,0.5s						
MVCO				eSg	Sg	07 32 39.1	+0.5
ANMO	Albuquerque	7.79	69	Pn	Pn	07 30 39.6	+3.3
	comp=N,0.1nm,0.3s,baz=238,slow=12,SNR=4.2						
ANMO				Pg	Pn	07 31 04.5	+28
	comp=N,0.3nm,0.3s,baz=231,slow=13,SNR=5.2						
ANMO				Lg		07 32 56.8	
	comp=N,0.1nm,0.3s,baz=138,slow=19,SNR=3.3						
ANMO	Albuquerque	7.79	69	ePn	Pn	07 30 38.5	+2.2
	comp=N,3.9nm,0.5s						
ANMO				ePg	Pn	07 31 05.1	+29
ANMO				eSg	Sn	07 32 55.8	+51
TXAR	Lajitas Array	10.49	104	Pn	Pn	07 31 13.6	+0.4
	comp=N,0.2nm,0.3s,baz=287,slow=13,SNR=18						
TXAR				Lg		07 34 26.1	
	comp=N,0.1nm,0.3s,baz=292,slow=32,SNR=4.5						
PDAR	Pinedale Array	11.26	22	Pn	Pn	07 31 32.2	+8.4
	comp=N,0.1nm,0.3s,baz=229,slow=17,SNR=3.4						
PDAR				Lg		07 34 47.7	
	comp=N,0.1nm,0.3s,baz=198,slow=28,SNR=3.3						

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*NEIC **09** 07:32:15.4, 32°.48N×115°.33W, h3^{km}, ML2.8(PAS), ML2.9(ECX), After ECX.*

ECX 09 07:32:15.4±0.6**, 32°.48N**×**115°.33W, h3^{km}**±2^{km}**, MD2.7, ML2.9, 1D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	161	eP	Pg	07 32 16.6	-0.2
CPBX				eS	Sg	07 32 18.1	+0.4
CPBX				e		07 32 18.3	
	comp=E,23µm,0.2s						
CPBX				⇓e		07 32 18.6	
	comp=N,20µm,0.6s						
SGL	Mount Signal	0.37	297	eP	Pg	07 32 22.1	-0.5
SGL				eS	Sg	07 32 27.6	+0.2
SNR	Schaffner Ranc	0.39	347	eP	Pg	07 32 23.2	+0.3
COA	Coachella	0.42	25	eP	Pg	07 32 23.4	-0.1
COK	Cook Ranch	0.50	318	eP	Pg	07 32 24.6	-0.3
YUH	Yuha Desert	0.53	288	eS	Sg	07 32 32.3	-0.1
GLA	Glamis	0.71	37	Pg	Pg	07 32 27.3	-1.7
GLA				eSg	Sg	07 32 36.8	-1.5
ECBX	El Chinero	1.03	167	eS	Sg	07 32 47.8	-0.8
CBX	Cerro Bola	1.14	262	eP	Pg	07 32 35.8	-1.5
CBX				eS	Sg	07 32 51.4	-0.7
BAR	Barrett	1.15	280	ePg	Pg	07 32 35.6	-1.9
BAR				eSg	Sg	07 32 50.7	-1.7
SPX	San Pedro Mart	1.44	185	ePN	Pn	07 32 41.9	-0.4
SPX				eS	Sb	07 33 00.1	-1.4
PFO	Pinyon Flat Ob	1.47	320	ePn	Pn	07 32 43.5	+0.7
PFO				eSn	Sn	07 32 57.6	-4.9

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*NEIC **09** 07:37:01.8, 32°.41N×115°.30W, h1^{km}, ML3.1(ECX), ML3.1(PAS), After ECX.*

ECX 09 07:37:07.3±0.6**, 32°.55N**×**115°.29W, h7^{km}, MD3.1, ML3.3, 5C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.13	184	⇓eP	Pg	07 37 02.2	-7.9
CPBX				eS	Sg	07 37 04.5	-7.4
SGL	Mount Signal	0.38	285	⇑iP	Pg	07 37 14.1	-0.6
COK	Cook Ranch	0.47	309	⇑iP	Pg	07 37 16.5	0.0
YUH	Yuha Desert	0.54	281	eP	Pg	07 37 16.6	-1.2
EMX	El Mayor	0.56	176	eP	Pg	07 37 15.8	-2.4
EMX				eS	Sg	07 37 23.7	-1.7
EMX				⇑e		07 37 25.2	
	comp=N,1µm,0.6s						
YMD	Yuma Desert	0.63	89	⇑iP	Pg	07 37 18.3	-1.2
GLA	Glamis	0.64	38	ePg	Pg	07 37 19.1	-0.4
GLA				eSg	Sg	07 37 28.2	+0.4
RDX	Rancho Dawling	0.83	222	eP	Pg	07 37 20.8	-2.4
RDX				eS	Sg	07 37 32.1	-1.9
RDX				⇓e		07 37 33.9	
	comp=N,623nm,0.5s						
ECBX	El Chinero	1.09	169	⇓eP	Pg	07 37 25.5	-2.8
ECBX				eS	Sg	07 37 40.2	-2.3
BAR	Barrett	1.17	277	eP	Pg	07 37 27.4	-2.4
BAR				eSg	Sg	07 37 42.3	-2.7
CBX	Cerro Bola	1.18	259	⇑eP	Pg	07 37 27.6	-2.3
ECNX	Esteban Cantu	1.42	232	eP	Pn	07 37 31.7	-1.8
ECNX				eP		07 37 30.3	
PFO	Pinyon Flat Ob	1.44	318	ePn	Pn	07 37 33.1	-0.7
PFO				eSg	Sg	07 37 48.7	-4.8
PBX	Punta Banda	1.46	237	eP	Pn	07 37 31.4	-2.6
SPX	San Pedro Mart	1.51	186	eP	Pn	07 37 31.1	-3.5
SPX				eS	Sn	07 37 51.9	-2.7
LDFC	Landfair	2.53	3	ePg	Pg	07 37 54.8	-1.0
MWC	Mount Wilson	2.85	307	ePg	Pg	07 38 00.1	-1.9
MWC				eSg	Sg	07 38 35.3	-3.6
PASC	Pasadena Art C	2.91	305	ePg	Pg	07 38 04.2	+1.1
PASC				eSg	Sg	07 38 36.6	-4.3
TUC	Tucson	3.82	92	ePg	Pg	07 38 21.1	+0.6
TUC				eSg	Sg	07 39 00.9	-9.1
ISA	Isabella	4.08	321	ePg	Pg	07 38 26.4	+1.0

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*TIF **09** 07:41:34.6, 43°.49N×44°.85E, h10^{km}*

*ISCJB **09** 07:41:36.0±0.6, 43°.50N±0°.03×45°.05E±0°.03, h3^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=3.2km az=4.7*

*CSEM **09** 07:41:36.7±0.2, 43°.47N×45°.03E, h2^{km}, mb4.1*

*MOS **09** 07:41:37.8±1.6, 43°.43N×44°.99E, h12^{km}, mb4.1/1, Error ellipse: s-maj=8.8km s-min=8.4km az=120.7*

ISC 09 07:41:37.5±0.5**, 43°.46N**±0°.03×**45°.02E**±0°.03**, h4^{km}**±4^{km}**, n42, σ1^{s}.15**/75**, 6C-9D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRKR	Terskaya	0.34	322	⇑iPG	Pg	07 41 47.4	+3.4
TRKR				i S	Sg	07 41 55.2	+6.7
SNJR	Sundja	0.41	201	⇓iPG	Pg	07 41 45.5	0.0
SNJR				i S	Sg	07 41 50.2	-0.7
SNJR	Sundja	0.41	201	i Pg	Pg	07 41 45.5	0.0
SNJR				i Sg	Sg	07 41 50.2	-0.7
VLKR	Vladikavkaz	0.48	211	⇓iPG	Pg	07 41 46.7	0.0
VLKR				i S	Sg	07 41 52.3	-0.6
VLKR	Vladikavkaz	0.48	211	i Pg	Pg	07 41 46.7	0.0
VLKR				i Sg	Sg	07 41 52.3	-0.6
KMSR	Komsomolskaya	0.54	261	⇑iPG	Pg	07 41 49.0	+1.2
KMSR				eS	Sg	07 41 56.8	+2.1
KMSR	Komsomolskaya	0.54	261	i Pg	Pg	07 41 49.0	+1.2
ARNR	Ardon	0.60	244	ePG	Pg	07 41 49.3	+0.3
ARNR				i S	Sg	07 41 57.8	+1.0
ARNR	Ardon	0.60	244	ePg	Pg	07 41 49.3	+0.3
ARNR				i Sg	Sg	07 41 57.8	+1.0
PRTR	Priterechnaya	0.61	299	⇓iPG	Pg	07 41 51.4	+2.2
PRTR				i S	Sg	07 42 02.0	+4.8
LSNR	Lesken	0.90	259	⇑iPG	Pg	07 41 55.0	+0.3
LSNR				eS	Sg	07 42 07.6	+1.3
LSNR	Lesken	0.90	259	i Pg	Pg	07 41 55.0	+0.3
LSNR				eSg	Sg	07 42 07.6	+1.3
ZEI	Tsey	1.07	230	⇓iPG	Pg	07 41 56.8	-1.2
ZEI				i S	Sg	07 42 10.5	-1.3
ZEI	Tsey	1.07	230	i Pg	Pg	07 41 56.8	-1.2
ZEI				i Sg	Sg	07 42 10.5	-1.3
DIGR	Digorskoe uzhe	1.19	243	⇓iPG	Pg	07 41 59.0	-1.3
DIGR				i S	Sg	07 42 14.8	-0.9
DIGR	Digorskoe uzhe	1.19	243	i Pg	Pg	07 41 59.0	-1.3
DIGR				i Sg	Sg	07 42 14.8	-0.9
KUBR	Kubataba	1.22	287	c iPG	Pg	07 42 00.7	-0.1
KUBR				i S	Sg	07 42 17.5	+0.9
KUBR				pmax	pmax		
	comp=Z,89nm,0.8s						
KUBR				smax			
	comp=E,92nm,0.6s						
KUBR	Kubataba	1.22	287	i Pg	Pg	07 42 00.7	-0.1
	comp=E,89nm,0.8s						
KUBR				i Sg	Sg	07 42 17.5	+0.9
DBC	Dubki	1.39	108	i PG	Pg	07 42 03.0	-1.2
DBC				i S	Sg	07 42 24.0	+1.7
DBC	Dubki	1.39	108	i Pg	Pg	07 42 03.0	-1.2
DBC				i Sg	Sg	07 42 24.0	+1.7
ONI	Oni	1.45	233	P	Pn	07 42 03.5	-0.9
ONI	Oni	1.45	233	P	Pn	07 42 03.5	-0.8
ONI				S	Sb	07 42 22.3	-1.3
UNCR	Uncukul	1.50	119	i PG	Pg	07 42 03.7	-2.5
UNCR				i S	Sg	07 42 26.2	+0.6
UNCR				pmax	pmax		
	comp=Z,77nm,0.3s						
UNCR	Uncukul	1.50	119	i Pg	Pg	07 42 03.7	-2.5
	comp=Z,77nm,0.3s						
UNCR				i Sg	Sg	07 42 26.2	+0.6
GOR	Gori	1.61	205	P	Pn	07 42 06.2	-0.5
GOR	Gori	1.61	205	P	Pn	07 42 06.2	-0.5
GOR				S	Sn	07 42 29.0	+1.1
ARKR	Arakani	1.68	120	ePN	Pn	07 42 07.0	-0.6
ARKR				eS	Sn	07 42 29.5	-0.1
ARKR	Arakani	1.68	120	ePn	Pn	07 42 07.0	-0.6
ARKR				eSg	Sn	07 42 29.5	-0.1
SHAR	Shatzhatmas	1.73	280	d iPN	Pn	07 42 07.1	-1.2
SHAR				i S	Sn	07 42 30.2	-0.6
SHAR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
SHAR				smax			
	comp=N,67nm,0.7s						
SHAR	Shatzhatmas	1.73	280	i Pn	Pn	07 42 07.1	-1.2
	comp=N,7.0nm,0.6s						
SHAR				i Sg	Sn	07 42 30.2	-0.6
	comp=N,67nm,0.7s						
TBLG	Delisi	1.74	187	ePN	Pn	07 42 08.6	+0.2
TBLG				S	Sn	07 42 32.7	+1.8
TBLG	Delisi	1.74	187	P	Pn	07 42 08.6	+0.2
TBLG	Delisi	1.74	187	P	Pn	07 42 08.6	+0.2
TBLG				S	Sn	07 42 32.7	+1.8
KIV	Kislovodsk	1.76	287	d iPN	Pn	07 42 07.9	-0.8
KIV				i		07 42 32.0	
KIV				pmax	pmax		
	comp=Z,14nm,0.7s						
KIV				smax			
	comp=E,121nm,1.1s						
KIV	Kislovodsk	1.76	287	i Pn	Pn	07 42 07.9	-0.8
	comp=E,14nm,0.7s						
KIV				i Sg	Sg	07 42 32.0	-2.1
MTA	Mtatsminda	1.77	185	P	Pn	07 42 09.0	+0.2
MTA	Mtatsminda	1.77	185	P	Pn	07 42 09.0	+0.2
MTA				S	Sn	07 42 33.6	+1.9
GNI	Garni	3.31	184	i PN	Pn	07 42 37.0	+7.0
AKTO	Aktyubinsk	11.29	47	Pn	Pn	07 44 19.7	+0.3
	comp=E,0.1nm,0.7s						
AKTO	Aktyubinsk	11.29	47	⇑Pn	Pn	07 44 19.7	+0.3
	comp=E,0.1nm,0.7s						
AKTO				⇑Sn	Sn	07 46 18.0	-7.9
	comp=E,0.2nm,0.8s						
AB09	Akbulak array	11.81	55	Pn	Pn	07 44 26.0	-0.6
	comp=E,0.3nm,0.3s,baz=244						
AB09	Akbulak array	11.81	55	⇓Pn	Pn	07 44 26.0	-0.6
	comp=E,0.3nm,0.3s,baz=244,slow=12						
AB09				⇓Sn	Sn	07 46 29.3	-9.4
	comp=E,0.9nm,0.7s,baz=252,slow=20						

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*NEIC **09** 07:43:26.2, 32°.45N×115°.31W, h3^{km}, ML3.6(PAS), ML3.8(ECX), After ECX.*

ECX 09 07:43:26.2±0.2**, 32°.45N**×**115°.32W, h13^{km}, MD3.7, ML3.8, 5C-8D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.03	164	⇓iP	Pg	07 43 29.7	+1.2
CPBX				eS	Sg	07 43 32.3	+2.1
CPBX				⇓e		07 43 33.3	
	comp=N,128µm,0.4s						
SGL	Mount Signal	0.40	300	eP	Pg	07 43 35.4	+1.2
ERPC	Ernies Place	0.41	315	eP	Pg	07 43 36.1	+1.6
SNR	Schaffner Ranc	0.42	346	⇓iP	Pg	07 43 36.3	+1.7
COA	Coachella	0.44	21	⇓iP	Pg	07 43 36.3	+1.3
EMX	El Mayor	0.47	172	⇓eP	Pg	07 43 37.1	+1.7
EMX				eS	Sg	07 43 44.9	+3.3
EMX				⇓e		07 43 46.2	
	comp=N,4µm,0.5s						
EMX				⇑e		07 43 46.4	
	comp=E,4µm,0.5s						
EMX	El Mayor	0.47	172	eP	Pg	07 43 37.1	+1.7
EMX				eS	Sg	07 43 44.9	+3.3
WESC	Westside Schoo	0.47	311	i P	Pg	07 43 36.8	+1.3
COK	Cook Ranch	0.53	319	eP	Pg	07 43 37.6	+1.1
YUH	Yuha Desert	0.55	291	eP	Pg	07 43 37.9	+0.9
YMD	Yuma Desert	0.66	81	eP	Pg	07 43 39.4	+0.3
CLIC	Calipatria	0.71	346	eP	Pg	07 43 40.4	+0.3
GLA	Glamis	0.73	34	ePg	Pg	07 43 40.2	-0.2
GLA				eSg	Sg	07 43 49.6	-0.3
RDX	Rancho Dawling	0.74	226	⇑eP	Pg	07 43 42.1	+1.5
RDX				eS	Sg	07 43 53.4	+3.0
RDX				e		07 43 54.1	
	comp=N,3µm,0.3s						
RDX	Rancho Dawling	0.74	226	eP	Pg	07 43 42.1	+1.5
RDX				eS	Sg	07 43 53.4	+3.0
ECBX	El Chinero	1.00	167	⇓eP	Pb	07 43 46.9	+1.5
ECBX				eS	Sb	07 44 00.5	+2.0
CBX	Cerro Bola	1.15	264	⇑eP	Pb	07 43 48.9	+1.0
CBX				eS	Sb	07 44 04.7	+1.9
BAR	Barrett	1.17	282	ePg	Pg	07 43 48.5	-0.2
BAR				eSg	Sg	07 44 04.2	+0.2
CCX	Cicese	1.28	243	eP	Pn	07 43 51.2	+1.4
CCX				eS	Sb	07 44 09.1	+2.5
ECNX	Esteban Cantu	1.35	234	⇓eP	Pn	07 43 52.3	+1.6
ECNX				⇑eP		07 43 51.2	
ECNX				eS	Sb	07 44 09.1	+0.7
ECNX				eS	Sb	07 44 11.1	+2.7
PBX	Punta Banda	1.39	240	⇑eP	Pn	07 43 52.7	+1.4
PBX				eS	Sn	07 44 12.4	+2.9
SPX	San Pedro Mart	1.41	185	eP	Pn	07 43 54.8	+3.3
SPX				eS	Sn	07 44 11.0	+1.1
PFO	Pinyon Flat Ob	1.50	321	ePn	Pn	07 43 55.1	+2.3
PFO				eSg	Sg	07 44 09.3	-5.2
LDFC	Landfair	2.63	4	ePn	Pn	07 44 09.0	+0.7
LDFC				ePg	Pg	07 44 16.7	+0.1
MWC	Mount Wilson	2.90	308	ePn	Pn	07 44 16.8	+4.8
MWC				eSg	Sg	07 44 50.5	-8.8
PASC	Pasadena Art C	2.95	306	ePn	Pn	07 44 19.0	+6.2
PASC				eSg	Sg	07 44 57.1	-3.9
OSI	Osito Adit	3.57	308	ePg	Pg	07 44 34.2	-0.4
TUC	Tucson	3.84	91	ePn	Pn	07 44 25.3	+0.4
TUC				ePg	Pg	07 44 39.7	0.0
TUC				eSg	Sg	07 45 28.5	-0.9
ISA	Isabella	4.14	322	Pn	Pn	07 44 31.2	+2.1
ISA				ePg	Pg	07 44 44.2	-1.3
ISA				eSg	Sg	07 45 44.6	+5.4
WUAZ	Wupatki	4.48	46	ePn	Pn	07 44 34.8	+1.0
WUAZ				ePg	Pg	07 44 52.1	+0.1
WUAZ				eSg	Sg	07 45 48.0	-2.0
MVCO	Mesa Verde	7.34	48	ePn	Pn	07 45 16.2	+3.1
	comp=N,201nm,1.1s						
MVCO				eSg	Sn	07 47 22.1	+46

*PGC **09** 07:45:36.8±3.4, 61°.66N×141°.34W, h5^{km}, ML3.7/4, 227km Wnw of Haines Jct., Yt Southern Alaska*

NEIC 09 07:45:36.0, 61°.69N×141°.31W, h1^{km}, ML3.4(AEIC), **ML3.8**(PMR)**, 5D, After AEIC., Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BCA3	**Beaver Creek A**	**1.40**	**351**	P	Pn	07 46 02.0	-0.6
MENT	**Mentasta**	**1.69**	**319**	*e*P	Pn	07 46 06.7	+0.2
HYT	**Haines Junctio**	**2.03**	**113**	⇓Pn	Pn	07 46 11.5	+0.2
HYT				⇑Sg	Sg	07 46 40.1	-1.0
PNL	**Peninsula**	**2.23**	**154**	P	Pn	07 46 14.0	0.0
PNL				S	Sn	07 46 44.2	+2.1
PAX	**Paxson**	**2.33**	**305**	P	Pn	07 46 16.3	+1.0
PAX				S	Sn	07 46 47.4	+2.8
DOT	**Dot Lake**	**2.34**	**328**	P	Pn	07 46 15.3	-0.3
DOT				S	Sn	07 46 45.2	+0.3
EYAK	**Cordova Ski Ar**	**2.44**	**244**	P	Pn	07 46 17.4	+0.6
DAWY	**Dawson**	**2.55**	**19**	⇓Pn	Pn	07 46 18.4	+0.1
DAWY				⇑Pg	Pg	07 46 23.3	-1.4
DAWY				⇑Sn	Sn	07 46 50.7	+0.8
DAWY				⇑Sg	Sg	07 46 56.4	-1.3
DAWY	**Dawson**	**2.55**	**19**	P	Pn	07 46 18.2	-0.1
DAWY				S	Sn	07 46 51.0	+1.1
EGAK	**Eagle**	**3.11**	**1**	*e*Pn	Pn	07 46 26.2	+0.3
WHY	**Whitehorse**	**3.28**	**105**	⇑Pn	Pn	07 46 27.8	-0.5
WHY				⇑Pg	Pg	07 46 35.1	-3.7
WHY				⇓Sg	Sg	07 47 17.3	-4.0
WHY	**Whitehorse**	**3.28**	**105**	P	Pn	07 46 28.5	+0.1
PLBC	**Pleasant Camp**	**3.31**	**130**	⇑Pn	Pn	07 46 29.4	+0.6
PLBC				⇓Pg	Pg	07 46 36.0	-3.3
PLBC				⇑Sg	Sg	07 47 20.3	-1.9
SKAG	**Skagway**	**3.70**	**124**	*e*P	Pn	07 46 36.4	+2.2
PMR	**Palmer**	**3.73**	**272**	*e*P	Pn	07 46 38.5	+3.9
IL1	**Eielson Array**	**3.99**	**323**	P	Pn	07 46 39.0	+0.8
MCK	**McKinley**	**4.07**	**304**	P	Pn	07 46 41.1	+1.9
RC01	**Rabbit Creek A**	**4.10**	**265**	P	Pn	07 46 40.2	+0.6
SEW	**Seward**	**4.28**	**252**	P	Pn	07 46 42.5	+0.4
COLA	**College**	**4.35**	**320**	*e*Pn	Pn	07 46 46.4	+3.3
TRF	**Thorofare Moun**	**4.51**	**297**	P	Pn	07 46 47.0	+1.7
KTH	**Kantishna Hill**	**4.82**	**297**	P	Pn	07 46 50.7	+1.3
PPLA	**Purkeypile**	**5.22**	**288**	*e*Pn	Pn	07 46 56.2	+1.2
	45nm,1.1s						
CHUM	**Lake Minchumin**	**5.51**	**298**	*e*Pn	Pn	07 47 00.2	+1.2
	16nm,0.5s						
BM3	**Burnt Mountain**	**5.93**	**348**	P	Pn	07 47 05.1	+0.4
DLBC	**Dease Lake**	**6.52**	**115**	⇓Sg	Sg	07 48 59.0	-6.1
COLD	**Coldfoot**	**6.76**	**329**	*e*Pn	Pn	07 47 16.0	-0.1
	4.0nm,0.5s						
SVW2	**Sparrevohn**	**6.88**	**271**	*e*P	Pn	07 47 18.5	+0.7
TT01	**Tatalina**	**6.97**	**287**	P	Pn	07 47 19.2	+0.3
IM3	**Indian Mountai**	**6.98**	**314**	P	Pn	07 47 19.4	+0.2
FNBB	**Fort Nelson**	**9.50**	**99**	⇑Pn	Pn	07 47 52.6	-1.1

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*IDC **09** 07:46:06.8±1.1, 10°.00S×160°.20E, h0^{km}, mb4.1/8, mb1 4.2/8, mb1mx4.1/16, mbtmp4.1/8, Error ellipse: s-maj=29.7km s-min=10.0km az=78.0*

*ISCJB **09** 07:46:11.3±2.2, 9°.8S±0°.2×159°.9E±0°.3, h34^{km}±14^{km}, mb4.0/9, Error ellipse: s-maj=58.7km s-min=17.9km az=27.3*

ISC 09 07:46:12.2±2.8**, 9°.8S**±0°.2×**160°.0E**±0°.3**, h28**^{km}±12^{km}**, n11, σ0ˢ.97**/11**, mb4.0**/9**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**0.35**	**352**	Pg	**Pb**	**07 46 20.1**	**-0.1**
	5µm,0.3s,baz=184,slow=4.7,SNR=1335						
HNR				Lg		07 46 26.2	
	8µm,0.3s,baz=102,slow=20,SNR=78						
CTA	**Charters Tower**	**16.76**	**231**	Pn	**Pn**	**07 50 07.8**	**+2.7**
	0.2nm,0.3s,baz=57,slow=16,SNR=4.5						
WRA	**Warramunga Arr**	**26.74**	**245**	P	**P**	**07 51 48.9**	**-0.8**
	1.6nm,0.8s,mb3.6,baz=71,slow=9.6,SNR=5.8						
STKA	**Stephens Creek**	**27.82**	**215**	P	**P**	**07 51 59.1**	**-0.1**
	2.6nm,0.8s,mb3.9,baz=50,slow=18,SNR=4.0						
ASAR	**Alice Springs**	**28.48**	**238**	P	**P**	**07 52 03.9**	**-1.2**
	0.4nm,0.7s,mb3.2,baz=62,slow=10,SNR=3.5						
MJAR	**Matsushiro Arr**	**50.43**	**337**	P	**P**	**07 55 06.2**	**-1.1**
	1.0nm,0.5s,mb4.1,baz=178,slow=10,SNR=5.2						
PETK	**Petropavlovsk-**	**62.67**	**358**	P	**P**	**07 56 34.9**	**+0.9**
	3.3nm,0.8s,mb4.5,baz=157,slow=6.3,SNR=4.8						
GTA	**Gaotai**	**74.16**	**316**	*e*P	**P**	**07 57 47.2**	**+0.9**
GTA				pP	pP	07 57 51.3	-4.0
GTA				sP	sP	07 57 54.8	-3.8
GTA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
SONM	**Songino Array**	**74.38**	**326**	P	**P**	**07 57 48.1**	**+0.7**
	comp=Z,1.7nm,0.8s,mb4.0,baz=125,slow=5.2,SNR=9.7						
MKAR	**Makanchi Array**	**88.77**	**318**	P	**P**	**07 59 03.0**	**-0.4**
	comp=Z,1.8nm,0.7s,mb4.5,baz=103,slow=5.7,SNR=21						
YKA	**Yellowknife Ar**	**96.47**	**28**	P	**P**	**07 59 38.3**	**-0.3**
	comp=Z,0.1nm,0.4s,mb3.6,baz=263,slow=4.9,SNR=5.1						

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*CSEM **09** 07:46:35.8±0.2, 37°.86N×15°.56E, h15^{km}, ML3.7/8, Error ellipse: s-maj=4.2km s-min=2.4km az=122.0*

*NEIC **09** 07:46:36.2, 37°.88N×15°.56E, h11^{km}, ML3.1(ROM), After ROM.*

ROM 09 07:46:36.2±0.2**, 37°.88N×15°.56E, h11**^{km}±2^{km}**, Md2.7**/24**, Ml3.1**/17**, 10C-2D, Error ellipse: s-maj=2.2km s-min=1.5km az=132.0, Sicily**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MTTG	**Motta San Giov**	**0.16**	**40**	Pg	Pg	07 46 40.6	+0.7
MTTG				Sg	Sg	07 46 43.9	+1.5
	2µm,0.5s						
MTTG	**Motta San Giov**	**0.16**	**40**	Pg	Pg	07 46 40.6	+0.7
MTTG				Sg	Sg	07 46 43.9	+1.5
	2µm,0.5s						
MMME	**Mongiuffi-Meli**	**0.25**	**284**	⇑*i*Pg	Pg	07 46 41.1	-0.2
MMME				Sg	Sg	07 46 45.1	+0.3
	5µm,0.5s						
MMME	**Mongiuffi-Meli**	**0.25**	**284**	⇑*i*Pg	Pg	07 46 41.1	-0.2
MMME				Sg	Sg	07 46 45.1	+0.3
	5µm,0.5s						
MSI	**Messina ING**	**0.33**	**359**	Pg	Pg	07 46 43.8	+1.0
	2µm,0.4s						
MSI	**Messina ING**	**0.33**	**359**	Pg	Pg	07 46 43.8	+1.0
	2µm,0.4s						
MSRU	**Castanea**	**0.39**	**354**	Pg	Pg	07 46 44.3	+0.4
MSRU				Sg	Sg	07 46 50.0	+0.9
	1µm,0.4s						
MSRU	**Castanea**	**0.39**	**354**	Pg	Pg	07 46 44.3	+0.4
MSRU				Sg	Sg	07 46 50.0	+0.9
	1µm,0.4s						
SCLL	**Scilla**	**0.40**	**18**	Pg	Pg	07 46 44.4	+0.3
	92nm,0.3s						
SCLL	**Scilla**	**0.40**	**18**	Pg	Pg	07 46 44.4	+0.3
	92nm,0.3s						
SOI	**Samo**	**0.44**	**63**	⇑*i*Pg	Pg	07 46 45.1	+0.3
SOI				Sg	Sg	07 46 51.6	+1.0
	422nm,0.4s						
SOI	**Samo**	**0.44**	**63**	⇑*i*Pg	Pg	07 46 45.1	+0.3
SOI				Sg	Sg	07 46 51.6	+1.0
	422nm,0.4s						
MILZ	**Milazzo**	**0.47**	**327**	⇑*i*Pg	Pg	07 46 45.5	0.0
MILZ				Sg	Sg	07 46 52.5	+0.8
	1µm,0.4s						
MILZ	**Milazzo**	**0.47**	**327**	⇑*i*Pg	Pg	07 46 45.5	0.0
MILZ				Sg	Sg	07 46 52.5	+0.8
	1µm,0.4s						
ESLN	**Serra La Nave**	**0.50**	**249**	Pg	Pg	07 46 46.3	+0.4
	887nm,0.6s						
ESLN	**Serra La Nave**	**0.50**	**249**	Pg	Pg	07 46 46.3	+0.4
	887nm,0.6s						
HAGA	**Augusta**	**0.67**	**209**	⇑*i*Pg	Pg	07 46 48.8	-0.4
HAGA				Sg	Sg	07 46 59.4	+1.4
HAGA	**Augusta**	**0.67**	**209**	⇑*i*Pg	Pg	07 46 48.8	-0.4
HAGA				Sg	Sg	07 46 59.4	+1.4
ECNV	**Catenanuova**	**0.73**	**248**	Pg	Pg	07 46 51.1	+0.8
ECNV	**Catenanuova**	**0.73**	**248**	Pg	Pg	07 46 51.1	+0.8
LLI	**Lipari**	**0.74**	**320**	Pg	Pg	07 46 51.5	+0.9
	3µm,0.6s						
LLI	**Lipari**	**0.74**	**320**	Pg	Pg	07 46 51.5	+0.9
	3µm,0.6s						
JOPP	**Joppolo**	**0.77**	**19**	Pg	Pg	07 46 51.3	+0.1
	226nm,0.5s						
JOPP	**Joppolo**	**0.77**	**19**	Pg	Pg	07 46 51.3	+0.1
	226nm,0.5s						
GALF	**Gagliano Caste**	**0.80**	**258**	⇑*i*Pg	Pg	07 46 52.2	+0.5
	1µm,0.5s						
GALF	**Gagliano Caste**	**0.80**	**258**	⇑*i*Pg	Pg	07 46 52.2	+0.5
	1µm,0.5s						
SSY	**Sortino**	**0.82**	**208**	Pg	Pg	07 46 50.9	-1.1
SSY				Sg	Sg	07 47 03.1	+0.4
	746nm,0.2s						
SSY	**Sortino**	**0.82**	**208**	Pg	Pg	07 46 50.9	-1.1
SSY				Sg	Sg	07 47 03.1	+0.4
	746nm,0.2s						
SLNA	**Salina**	**0.89**	**320**	Pg	Pg	07 46 53.6	+0.2
	352nm,0.4s						
SLNA	**Salina**	**0.89**	**320**	Pg	Pg	07 46 53.6	+0.2
	352nm,0.4s						
PLAC	**Placanica**	**0.90**	**50**	Pg	Pg	07 46 53.3	-0.2
	161nm,0.6s						
PLAC	**Placanica**	**0.90**	**50**	Pg	Pg	07 46 53.3	-0.2
	161nm,0.6s						
HVZN	**Vizzini**	**0.97**	**224**	Pg	Pg	07 46 53.7	-1.1
HVZN				Sg	Sg	07 47 07.3	-0.1
	1µm,0.5s						
HVZN	**Vizzini**	**0.97**	**224**	Pg	Pg	07 46 53.7	-1.1
HVZN				Sg	Sg	07 47 07.3	-0.1
	1µm,0.5s						
HAVL	**Avola**	**0.98**	**201**	⇓*i*Pg	Pg	07 46 53.6	-1.4
HAVL				Sg	Sg	07 47 07.9	+0.2
	495nm,0.4s						
HAVL	**Avola**	**0.98**	**201**	⇓*i*Pg	Pg	07 46 53.6	-1.4
HAVL				Sg	Sg	07 47 07.9	+0.2
	495nm,0.4s						
IFIL	**Filicudi I Eol**	**1.04**	**312**	Pg	Pg	07 46 55.6	-0.6
	959nm,0.4s						
IFIL	**Filicudi I Eol**	**1.04**	**312**	Pg	Pg	07 46 55.6	-0.6
	959nm,0.4s						
HMDC	**Modica**	**1.11**	**214**	Pg	Pg	07 46 55.8	-1.7
HMDC				Sg	Sg	07 47 12.5	+0.7
HMDC	**Modica**	**1.11**	**214**	Pg	Pg	07 46 55.8	-1.7
HMDC				Sg	Sg	07 47 12.5	+0.7
IACL	**Alicudi**	**1.15**	**305**	Pg	Pg	07 46 56.9	-1.5
	399nm,0.3s						
ACL	**Alicudi**	**1.15**	**305**	Pg	Pg	07 46 56.9	-1.5
	399nm,0.3s						
RAFF	**Raffo Rosso**	**1.15**	**236**	Pg	Pg	07 46 57.2	-1.2
	1µm,0.7s						
RAFF	**Raffo Rosso**	**1.15**	**236**	Pg	Pg	07 46 57.2	-1.2
	1µm,0.7s						
CSLB	**Castelbuono**	**1.19**	**273**	Pg	Pg	07 46 58.6	-0.5
	102nm,0.2s						
CSLB	**Castelbuono**	**1.19**	**273**	Pg	Pg	07 46 58.6	-0.5
	102nm,0.2s						
GIB	**Gibilmanna**	**1.22**	**276**	Pg	Pg	07 46 59.3	-0.3
GIB	**Gibilmanna**	**1.22**	**276**	Pg	Pg	07 46 59.3	-0.3
CARO	**Carolei**	**1.47**	**20**	Pg	Pg	07 47 02.8	-1.6
	223nm,0.5s						
CARO	**Carolei**	**1.47**	**20**	Pg	Pg	07 47 02.8	-1.6
	223nm,0.5s						
TAR1	**Taranto**	**2.97**	**26**	*e*Pn	Pn	07 47 23.7	+0.5

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*ISCJB **09** 08:38:49.6±0.6, 45°.52N±0°.03×26°.39E±0°.04, h141^{km}±6^{km}, Error ellipse: s-maj=5.8km s-min=4.8km az=160.7*

*NEIC **09** 08:38:49.7, 45°.52N×26°.45E, h143^{km}, MD3.9(BUC), After BUC.*

*CSEM **09** 08:38:50.1±0.3, 45°.51N×26°.40E, h142^{km}±3^{km}, MD4.6/2, Error ellipse: s-maj=4.9km s-min=4.5km az=162.0*

*BUC **09** 08:38:50.2±1.3, 45°.53N×26°.39E, h144^{km}±12^{km}, MD4.6/2, Error ellipse: s-maj=8.2km s-min=7.9km az=91.0*

ISC 09 08:38:50.3±0.6**, 45°.51N**±0°.04×**26°.40E**±0°.04**, h142**^{km}±5^{km}**, n61, σ0ˢ.86**/92**, 16C-27D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLR	**Muntele Rosu**	**0.32**	**266**	⇑*i*P	**Pn**	**08 39 10.6**	**+0.7**
MLR				*i* S	**Sn**	**08 39 25.4**	**+0.7**
MLR	**Muntele Rosu**	**0.32**	**266**	⇑P	**Pn**	**08 39 10.6**	**+0.7**
MLR				S	**Sn**	**08 39 25.4**	**+0.7**
MLR	**Muntele Rosu**	**0.32**	**266**	⇑*i*P	**Pn**	**08 39 10.6**	**+0.7**
MLR				*i* S	**Sn**	**08 39 25.4**	**+0.7**
PLOR	**Plostina**	**0.38**	**27**	⇑*i*P	**Pn**	**08 39 10.2**	**+0.1**
PLOR				*i* S	**Sn**	**08 39 25.5**	**+0.3**
PLOR	**Plostina**	**0.38**	**27**	⇑*i*P	**Pn**	**08 39 10.2**	**+0.1**
PLOR				*i* S	**Sn**	**08 39 25.5**	**+0.3**
VRI	**Vrincioaia**	**0.42**	**33**	⇑*i*P	**Pn**	**08 39 10.6**	**+0.3**
VRI				*i* S	**Sn**	**08 39 25.4**	**-0.1**
VRI	**Vrincioaia**	**0.42**	**33**	P	**Pn**	**08 39 10.6**	**+0.3**
VRI	**Vrincioaia**	**0.42**	**33**	⇑*i*P	**Pn**	**08 39 10.6**	**+0.3**
VRI				*i* S	**Sn**	**08 39 25.4**	**-0.1**
ODB	**Odobesti**	**0.53**	**60**	⇑*i*P	**Pn**	**08 39 12.0**	**+1.2**
ODB	**Odobesti**	**0.53**	**60**	P	**Pn**	**08 39 12.1**	**+1.3**
ODB	**Odobesti**	**0.53**	**60**	⇑*i*P	**Pn**	**08 39 12.0**	**+1.2**
VOIR		**0.95**	**266**	⇑*i*P	**Pn**	**08 39 14.0**	**+0.2**
VOIR				*i* S	**Sn**	**08 39 31.3**	**-0.4**
VOIR		**0.95**	**266**	⇑P	**Pn**	**08 39 14.0**	**+0.2**
VOIR				S	**Sn**	**08 39 31.3**	**-0.5**
VOIR		**0.95**	**266**	⇑*i*P	**Pn**	**08 39 14.0**	**+0.2**
VOIR				*i* S	**Sn**	**08 39 31.3**	**-0.4**
BUC1	**Bucharest**	**1.19**	**193**	⇑*i*P	**Pn**	**08 39 17.0**	**+0.9**
BUC1				*i* S	**Sn**	**08 39 36.7**	**+1.0**
BUC1	**Bucharest**	**1.19**	**193**	⇓P	**Pn**	**08 39 17.0**	**+1.0**
BUC1				S	**Sn**	**08 39 36.7**	**+1.0**
BUC1	**Bucharest**	**1.19**	**193**	⇑*i*P	**Pn**	**08 39 17.0**	**+0.9**
BUC1				*i* S	**Sn**	**08 39 36.7**	**+1.0**
HARR	**Harsova**	**1.36**	**127**	⇓*i*P	**Pn**	**08 39 18.3**	**+0.6**
HARR				*i* S	**Sn**	**08 39 38.2**	**-0.4**
HARR	**Harsova**	**1.36**	**127**	P	**Pn**	**08 39 18.5**	**+0.8**
HARR				S	**Sn**	**08 39 38.5**	**-0.2**
HARR	**Harsova**	**1.36**	**127**	⇓*i*P	**Pn**	**08 39 18.3**	**+0.6**
HARR				S	**Sn**	**08 39 38.5**	**-0.1**
CVD	**Cernavoda**	**1.67**	**135**	⇓*i*P	**Pn**	**08 39 21.6**	**+0.6**
CVD				*i* S	**Sn**	**08 39 43.9**	**-0.6**
CVD	**Cernavoda**	**1.67**	**135**	⇓P	**Pn**	**08 39 21.6**	**+0.6**
CVD				S	**Sn**	**08 39 43.9**	**-0.7**
CVD	**Cernavoda**	**1.67**	**135**	⇓*i*P	**Pn**	**08 39 21.6**	**+0.6**
CVD				*i* S	**Sn**	**08 39 43.9**	**-0.6**
TLCR		**1.73**	**100**	⇓*i*P	**Pn**	**08 39 21.9**	**+0.1**
TLCR				*i* S	**Sn**	**08 39 46.1**	**+0.2**
TLCR		**1.73**	**100**	⇓P	**Pn**	**08 39 21.9**	**+0.2**
TLCR				S	**Sn**	**08 39 46.1**	**+0.2**
TLCR		**1.73**	**100**	⇓*i*P	**Pn**	**08 39 21.9**	**+0.1**
TLCR				*i* S	**Sn**	**08 39 46.1**	**+0.2**
TIRR	**Tirgusor**	**1.77**	**126**	*e*Pn	**Pn**	**08 39 22.5**	**+0.3**
TIRR				*e*Sn	**Sn**	**08 39 45.5**	**-1.2**
TIRR	**Tirgusor**	**1.77**	**126**	*e*Pn	**Pn**	**08 39 22.5**	**+0.3**
TIRR				*e*Sn	**Sn**	**08 39 45.5**	**-1.2**
IAS	**Iasi**	**1.86**	**25**	*i* S	**Sn**	**08 39 47.1**	**-1.5**
IAS	**Iasi**	**1.86**	**25**	*i* S	**Sn**	**08 39 47.1**	**-1.5**
ZIMR		**2.00**	**202**	⇑*i*P	**Pn**	**08 39 25.5**	**+0.7**
ZIMR				*i* S	**Sn**	**08 39 51.3**	**0.0**
ZIMR		**2.00**	**202**	⇓P	**Pn**	**08 39 25.5**	**+0.7**
ZIMR				S	**Sn**	**08 39 51.3**	**-0.1**
CRAR	**CRAIOVA**	**2.19**	**238**	*i* S	**Sn**	**08 39 54.7**	**-0.9**
CRAR	**CRAIOVA**	**2.19**	**238**	*i* S	**Sn**	**08 39 54.7**	**-0.9**
KIS	**Kishinev**	**2.24**	**48**	⇓*i*P	**Pn**	**08 39 27.0**	**-0.7**
	250nm,0.6s						
KIS				*i* S	**Sn**	**08 39 55.0**	**-1.6**
	1µm,0.6s						
KIS	**Kishinev**	**2.24**	**48**	S	**Sn**	**08 39 54.6**	**-2.0**
KIS	**Kishinev**	**2.24**	**48**	⇓*i*P	**Pn**	**08 39 27.0**	**-0.7**
	250nm,0.6s						
KIS				*i* S	**Sn**	**08 39 55.0**	**-1.6**
	1µm,0.6s						
BURAR	**Bucovina Array**	**2.26**	**339**	⇓*i*P	**Pn**	**08 39 29.1**	**+1.2**
BURAR	**Bucovina Array**	**2.26**	**339**	⇓P	**Pn**	**08 39 29.1**	**+1.2**
BURAR	**Bucovina Array**	**2.26**	**339**	⇓*i*P	**Pn**	**08 39 29.1**	**+1.2**
GZR	**Gura Zlata**	**2.55**	**269**	⇓*i*P	**Pn**	**08 39 32.3**	**+0.7**
GZR	**Gura Zlata**	**2.55**	**269**	⇑P	**Pn**	**08 39 32.3**	**+0.7**
GZR				S	**Sn**	**08 40 03.8**	**+0.4**
GZR	**Gura Zlata**	**2.55**	**269**	⇓*i*P	**Pn**	**08 39 32.3**	**+0.7**
GZR				S	**Sn**	**08 40 03.8**	**+0.4**
DRGR		**2.87**	**298**	⇓*i*P	**Pn**	**08 39 35.0**	**-0.5**
DRGR		**2.87**	**298**	⇓*i*P	**Pn**	**08 39 35.0**	**-0.5**
DJES	**Djerdap**	**2.88**	**254**	*e*Sn	**Sn**	**08 40 08.6**	**-2.1**
BZS	**Buzias**	**3.36**	**273**	⇓*i*P	**Pn**	**08 39 41.8**	**-0.1**
BZS	**Buzias**	**3.36**	**273**	⇓P	**Pn**	**08 39 41.8**	**-0.1**
BZS	**Buzias**	**3.36**	**273**	⇓*i*P	**Pn**	**08 39 41.8**	**-0.1**
ZAPS	**Zavoj**	**3.51**	**232**	⇓*i*Pn	**Pn**	**08 39 44.4**	**+0.6**
ZAPS				*e*Sn	**Sn**	**08 40 22.4**	**-2.8**
BOLS	**Boljevac**	**3.59**	**244**	⇓*i*Pn	**Pn**	**08 39 43.7**	**-1.2**
NISS		**3.82**	**238**	⇓*i*Pn	**Pn**	**08 39 48.1**	**+0.2**
GRUS	**Gruza**	**4.37**	**250**	⇓*i*Pn	**Pn**	**08 39 54.0**	**-1.1**
KOLS	**Kolonicke sedl**	**4.43**	**322**	*e*P	**Pn**	**08 39 56.6**	**+0.8**
KOLS	**Kolonicke sedl**	**4.43**	**322**	*e*P	**Pn**	**08 39 56.6**	**+0.8**
DIVS	**Divibare**	**4.77**	**255**	⇓*i*Pn	**Pn**	**08 40 00.0**	**-0.5**
CRVS	**Cervenica-Dubn**	**4.78**	**317**	*e*P	**Pn**	**08 40 00.7**	**+0.2**
CRVS	**Cervenica-Dubn**	**4.78**	**317**	*e*P	**Pn**	**08 40 00.7**	**+0.2**
STHS	**Stebnicka Huta**	**5.24**	**320**	*e*P	**Pn**	**08 40 07.0**	**+0.4**
STHS	**Stebnicka Huta**	**5.24**	**320**	*e*P	**Pn**	**08 40 07.0**	**+0.4**
BBLS	**Lazići**	**5.25**	**254**	*e*Pn	**Pn**	**08 40 08.1**	**+1.3**

KRSC 09 08:43:58.4±0.1**, 53°.31N×160°.48E, h18**^{km}±17^{km}**, ML3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLC	**Nalytchevo**	**0.70**	**259**	*e*P	Pb	08 44 12.7	+0.7
NLC				*e*S	Sb	08 44 22.8	+1.6
AVH	**Avacha**	**1.05**	**268**	*e*P	Pb	08 44 18.2	+0.3
AVH				*e*S	Sb	08 44 33.0	+1.7
PET	**Petropavlovsk**	**1.14**	**256**	*e*P	Pn	08 44 19.0	-0.4
PET				*e*S	Sb	08 44 33.3	-0.6
MKZ	**Mys Kozlova**	**1.45**	**30**	*e*P	Pn	08 44 22.4	-1.3
MKZ				*e*S	Sn	08 44 38.8	-3.4
RUS	**Russkaya**	**1.48**	**234**	S	Sn	08 44 41.4	-1.5
GNL	**Ganaly**	**1.56**	**285**	*e*P	Pn	08 44 25.5	+0.3
TUMR	**Tumrok**	**1.99**	**354**	*e*P	Pn	08 44 31.1	+0.1
TUMR				*e*S	Sn	08 44 55.9	+0.5
KMNR	**Kamenistaya**	**2.46**	**357**	*e*P	Pn	08 44 38.5	+1.0
KMNR				*e*S	Sn	08 45 07.8	+0.8
MIPR	**Malaya Ipel’ka**	**2.49**	**247**	*e*P	Pn	08 44 40.2	+2.3
MIPR				*e*S	Sn	08 45 11.6	+3.9
BZMR	**Bezymyannaya**	**2.63**	**0**	*e*P	Pn	08 44 41.3	+1.4
KIRR	**Kirishev**	**2.65**	**358**	*e*P	Pn	08 44 41.5	+1.3
KIRR				*e*S	Sn	08 45 13.2	+1.4
KPT	**Kopyto**	**2.67**	**357**	*e*P	Pn	08 44 42.9	+2.5
KPT				*e*S	Sn	08 45 16.1	+3.9
ZLN	**Zelenaya**	**2.72**	**4**	*e*P	Pn	08 44 42.5	+1.4
ZLN				*e*S	Sn	08 45 15.9	+2.4
KOZ	**Kozyrevsk**	**2.78**	**353**	*e*P	Pn	08 44 43.8	+1.9
KOZ				*e*S	Sn	08 45 17.4	+2.5
CIRR	**Tsirk**	**2.82**	**3**	*e*P	Pn	08 44 43.5	+1.1
CIRR				*e*S	Sn	08 45 16.7	+0.8
KRSR	**Krestovskiy**	**2.91**	**1**	*e*P	Pn	08 44 46.3	+2.5
KLY	**Klyuchi**	**3.01**	**2**	*e*P	Pn	08 44 46.8	+1.7
KLY				*e*S	Sn	08 45 21.3	+0.6
SRDR	**Sredinnyy**	**3.05**	**352**	*e*P	Pn	08 44 45.3	-0.3
KBTR	**Krutoberegovo**	**3.21**	**24**	P	Pn	08 44 50.2	+2.4
KBTR				S	Sn	08 45 28.1	+2.6
BDR	**Baidarnaya**	**3.29**	**7**	*e*P	Pn	08 44 51.8	+2.8
BDR				*e*S	Sn	08 45 30.6	+3.0
SMKR	**Semkarok**	**3.33**	**9**	P	Pn	08 44 51.9	+2.4
SMKR				S	Sn	08 45 30.0	+1.5
SRKR	**Sorokina**	**3.38**	**6**	*e*P	Pn	08 44 52.4	+2.3
SRKR				*e*S	Sn	08 45 31.7	+2.1

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*ISCJB **09** 08:47:52.4±0.8, 43°.19N±0°.03×17°.82E±0°.05, h10^{km}, Error ellipse: s-maj=5.9km s-min=4.4km az=30.2*

*CSEM **09** 08:47:52.8±0.4, 43°.20N×17°.87E, h2^{km}, ML3.3/9, Error ellipse: s-maj=6.4km s-min=5.4km az=124.0*

*NEIC **09** 08:47:53.3, 43°.15N×17°.85E, h8^{km}, ML3.3(PDG), After PDG.*

*PDG **09** 08:47:53.3±0.1, 43°.15N×17°.85E, h8^{km}, MD3.2/1, ML3.3/9, Error ellipse: s-maj=0.5km s-min=0.9km az=0.0*

*BEO **09** 08:47:54.8±1.4, 42°.92N×18°.27E, h0^{km}, ML2.5/3*

ISC 09 08:47:51.9±0.7**, 43°.22N**±0°.03×**17°.74E**±0°.04**, h10**^{km}**, n30, σ1ˢ.19**/59**, 8C-12D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STON	**Ston**	**0.35**	**185**	*e*Pg	**Pg**	**08 47 59.5**	**+0.7**
STON				Sg	**Sg**	**08 48 05.2**	**+1.7**
STON	**Ston**	**0.35**	**185**	*e*Pg	**Pg**	**08 47 59.4**	**+0.6**
STON				Sg	**Sg**	**08 48 05.1**	**+1.6**
BRY	**Bratogost**	**0.67**	**118**	⇓*i*Pg	**Pg**	**08 48 03.8**	**-1.1**
BRY				*e*Sg	**Sg**	**08 48 13.2**	**-0.4**
BRY	**Bratogost**	**0.67**	**118**	⇓*i*Pg	**Pg**	**08 48 03.8**	**-1.1**
BRY				*e*Sg	**Sg**	**08 48 13.2**	**-0.4**
UPM	**Unac-Piva**	**0.85**	**91**	⇓*i*Pg	**Pg**	**08 48 07.4**	**-1.0**
UPM				*e*Sg	**Sg**	**08 48 19.9**	**+0.4**
UPM	**Unac-Piva**	**0.85**	**91**	⇓*i*Pg	**Pg**	**08 48 07.4**	**-1.0**
UPM				*e*Sg	**Sg**	**08 48 19.9**	**+0.4**
HCY	**Herceg Novi**	**0.95**	**144**	⇑*i*Pg	**Pg**	**08 48 08.8**	**-1.4**
HCY				*e*Sg	**Sg**	**08 48 22.7**	**+0.1**
HCY	**Herceg Novi**	**0.95**	**144**	⇑*i*Pg	**Pg**	**08 48 08.8**	**-1.4**
HCY				*e*Sg	**Sg**	**08 48 22.7**	**+0.1**
PLE	**Pljevlja**	**1.21**	**84**	⇑*i*Pg	**Pg**	**08 48 14.5**	**-0.7**
PLE				*e*Sg	**Sn**	**08 48 32.3**	**+0.9**
PLE	**Pljevlja**	**1.21**	**84**	⇑*i*Pg	**Pg**	**08 48 14.5**	**-0.7**
PLE				*e*Sg	**Sn**	**08 48 32.3**	**+0.9**
BUM	**Brajici-Budva**	**1.25**	**137**	⇓*i*Pg	**Pg**	**08 48 14.5**	**-1.5**
BUM				*e*Sg	**Sn**	**08 48 33.0**	**+0.6**
BUM	**Brajici-Budva**	**1.25**	**137**	⇓*i*Pg	**Pg**	**08 48 14.5**	**-1.5**
BUM				*e*Sg	**Sn**	**08 48 33.0**	**+0.6**
PDG	**Podgorica**	**1.37**	**125**	⇓*i*Pg	**Pg**	**08 48 16.7**	**-1.5**
PDG				*e*Sg	**Sn**	**08 48 36.7**	**+1.5**
TTG	**Podgorica**	**1.37**	**125**	⇓*i*Pg	**Pg**	**08 48 16.7**	**-1.5**
TTG				*e*Sg	**Sn**	**08 48 36.7**	**+1.5**
TTG	**Podgorica**	**1.37**	**125**	⇓*i*Pg	**Pg**	**08 48 16.7**	**-1.5**
TTG				*e*Sg	**Sn**	**08 48 36.7**	**+1.5**
BBLS	**Lazići**	**1.37**	**61**	*e*Pg	**Pn**	**08 48 17.8**	**+0.7**
BBLS				*e*Sg	**Sn**	**08 48 34.3**	**-1.0**
BBLS	**Lazići**	**1.37**	**61**	*e*Pg	**Pn**	**08 48 17.8**	**+0.7**
BBLS				*e*Sg	**Sn**	**08 48 34.3**	**-1.0**
BEY	**Berane**	**1.62**	**102**	⇓*i*Pg	**Pg**	**08 48 21.5**	**-1.5**
BEY				*e*Sg	**Sg**	**08 48 44.2**	**+0.2**
IVA	**Berane**	**1.62**	**102**	⇓*i*Pg	**Pg**	**08 48 21.5**	**-1.5**
IVA				*e*Sg	**Sg**	**08 48 44.2**	**+0.2**
IVA	**Berane**	**1.62**	**102**	⇓*i*Pg	**Pg**	**08 48 21.5**	**-1.5**
IVA				*e*Sg	**Sg**	**08 48 44.2**	**+0.2**
SJES	**Sjenica**	**1.63**	**88**	*e*Pg	**Pn**	**08 48 16.3**	**-4.4**
ULC	**Ulcinj**	**1.68**	**138**	⇑*i*Pg	**Pg**	**08 48 22.3**	**-1.8**
ULC				*e*Sg	**Sg**	**08 48 45.6**	**-0.3**
ULC	**Ulcinj**	**1.68**	**138**	⇑*i*Pg	**Pg**	**08 48 22.3**	**-1.8**
ULC				*e*Sg	**Sg**	**08 48 45.6**	**-0.3**
PVY	**Plav**	**1.76**	**110**	⇑*i*Pn	**Pn**	**08 48 23.8**	**+1.4**
PVY				*e*Sn	**Sg**	**08 48 48.1**	**-0.2**
PVY	**Plav**	**1.76**	**110**	⇑*i*Pn	**Pn**	**08 48 23.8**	**+1.4**
PVY				*e*Sn	**Sg**	**08 48 48.1**	**-0.2**
DIVS	**Divibare**	**1.85**	**61**	*e*Pg	**Pg**	**08 48 26.4**	**-1.1**
DIVS				*e*Sg	**Sn**	**08 48 49.3**	**+2.1**
DIVS	**Divibare**	**1.85**	**61**	*e*Pg	**Pg**	**08 48 26.4**	**-1.1**
DIVS				*e*Sg	**Sn**	**08 48 49.3**	**+2.1**
NVLJ	**Novalja**	**2.47**	**304**	*e*Pn	**Pn**	**08 48 37.0**	**+4.8**
NVLJ				Sn	**Sg**	**08 49 11.0**	**-0.3**
NVLJ	**Novalja**	**2.47**	**304**	*e*Pn	**Pn**	**08 48 36.9**	**+4.7**
NVLJ				Sn	**Sg**	**08 49 11.0**	**-0.3**
BARS	**Barje**	**3.02**	**96**	*e*Pg	**Pn**	**08 48 41.6**	**+1.9**
BARS				*e*Sg	**Sn**	**08 49 18.2**	**+2.4**

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*PRU **09** 08:51:01.0, 42°.53N×20°.71E, h0^{km}*

*IDC **09** 08:51:03.2±1.9, 42°.69N×21°.15E, h0^{km}, mb3.8/6, mb1 3.9/10, mb1mx3.7/26, mbtmp3.8/10, ML3.5/4, Error ellipse: s-maj=28.2km s-min=11.6km az=14.0*

*ISCJB **09** 08:51:04.2±0.2, 42°.90N±0°.01×21°.11E±0°.02, h11^{km}±1^{km}, mb3.8/5, Error ellipse: s-maj=2.2km s-min=1.6km az=143.2*

*BEO **09** 08:51:05.3±0.4, 42°.85N×21°.08E, h12^{km}±3^{km}, ML3.8/11*

*SOF **09** 08:51:05.5, 42°.85N×21°.31E, h5^{km}, MD3.3*

*SKO **09** 08:51:05.2, 42°.93N×21°.06E, h6^{km}, M3.1, ML3.6*

*NEIC **09** 08:51:05.6±0.8, 42°.79N×21°.11E, h10^{km}, ML3.4(PDG), ML3.4(BUC), Error ellipse: s-maj=12.1km s-min=5.4km az=144.0*

*CSEM **09** 08:51:05.0±0.1, 42°.88N×21°.11E, h5^{km}, mb4.0/4, ML3.8, Error ellipse: s-maj=2.4km s-min=1.9km az=53.0*

*MOS **09** 08:51:06.1±1.1, 42°.89N×21°.14E, h22^{km}, mb4.0/5, Error ellipse: s-maj=8.0km s-min=5.0km az=91.0*

*PDG **09** 08:51:06.7±0.9, 42°.81N×21°.00E, h5^{km}±2^{km}, MD3.4/7, ML3.4/10, Error ellipse: s-maj=1.9km s-min=2.4km az=0.0*

*THE **09** 08:51:09.4, 42°.70N×21°.43E, h5^{km}, ML4.0/10, Error ellipse: s-maj=1.3km s-min=0.6km az=298.0*

ISC 09 08:51:05.3±0.3**, 42°.88N**±0°.01×**21°.14E**±0°.02**, h7**^{km}±2^{km}**, n203, σ1ˢ.25**/324**, mb3.8**/5**, 56C-30D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BARS	**Barje**	**0.50**	**97**	⇑*i*Pg	**Pg**	**08 51 15.3**	**+0.3**

BARS				eSg	Sg	08 51 22.9	+1.3
BARS	Barje	0.50	97	⇑iPg	Pg	08 51 15.3	+0.3
BARS				eSg	Sg	08 51 22.9	+1.3
NISS		0.79	48	⇑iPg	Pg	08 51 21.5	+1.0
NISS				eSg	Sg	08 51 33.9	+3.2
NISS		0.79	48	⇑iPg	Pg	08 51 21.5	+1.0
PVY	Plav	0.90	252	⇑iPg	Pg	08 51 21.8	-0.8
PVY				eSg	Sg	08 51 33.4	-0.9
PVY	Plav	0.90	252	⇑iPg	Pg	08 51 21.8	-0.8
PVY				eSg	Sg	08 51 33.4	-0.9
BEY	Berane	0.91	270	⇑iPg	Pg	08 51 21.6	-1.1
BEY				eSg	Sg	08 51 33.7	-0.9
IVA	Berane	0.91	270	⇑iPg	Pg	08 51 21.6	-1.1
IVA				eSg	Sg	08 51 33.7	-0.9
IVA	Berane	0.91	270	⇑iPg	Pg	08 51 21.6	-1.1
IVA				eSg	Sg	08 51 33.7	-0.9
SJES	Sjenica	0.93	294	⇑iPg	Pg	08 51 21.5	-1.7
SJES				eSg	Sg	08 51 34.4	-0.9
SKO	Skopje	0.94	166	P	Pg	08 51 23.1	-0.1
SKO				S	Sg	08 51 34.0	-1.4
SKO	Skopje	0.94	166	i Pg	Pg	08 51 23.7	+0.5
SKO				eSg	Sg	08 51 36.6	+1.2
SKO				eLg		08 51 38.1	
	comp=E,590nm,0.4s						
SKO				eLg		08 51 40.6	
	comp=N,1µm,0.4s						
SKO	Skopje	0.94	166	P	Pg	08 51 23.1	-0.1
SKO	Skopje	0.94	166	i Pg	Pg	08 51 23.7	+0.5
SKO				S	Sg	08 51 34.0	-1.4
SKO				eSg	Sg	08 51 36.5	+1.1
SKO				eLg		08 51 38.1	
	comp=N,590nm,0.4s						
GRUS	Gruza	1.05	343	⇑iPg	Pg	08 51 24.0	-1.5
GRUS				eSg	Sg	08 51 39.1	0.0
BOLS	Boljevac	1.12	32	⇓iPg	Pg	08 51 26.1	-0.6
BOLS				eSg	Sg	08 51 42.1	+0.8
BOLS	Boljevac	1.12	32	⇓iPg	Pg	08 51 26.1	-0.6
BOLS				eSg	Sg	08 51 42.1	+0.8
ZAPS	Zavoj	1.17	70	⇑iPg	Pg	08 51 28.0	+0.4
ZAPS				eSg	Sg	08 51 43.7	+1.0
ZAPS	Zavoj	1.17	70	⇑iPg	Pg	08 51 28.0	+0.4
ZAPS				eSg	Sg	08 51 43.7	+1.0
PLE	Pljevlja	1.35	290	⇓iPg	Pg	08 51 29.4	-1.8
PLE				eSg	Sg	08 51 49.7	+1.0
PLE	Pljevlja	1.35	290	⇓iPg	Pg	08 51 29.4	-1.8
PLE				eSg	Sg	08 51 49.7	+1.0
SVIS	Svilajnac	1.39	2	ePg	Pg	08 51 30.6	-1.2
SVIS				eSg	Sg	08 51 50.0	+0.2
TRUS	Trudelj	1.44	339	ePg	Pg	08 51 30.8	-2.1
TRUS				eSg	Sg	08 51 52.1	+0.5
PDG	Podgorica	1.46	253	⇓iPg	Pg	08 51 31.7	-1.5
PDG				eSg	Sg	08 51 52.0	0.0
TTG	Podgorica	1.46	253	⇓iPg	Pg	08 51 31.7	-1.5
TTG				eSg	Sg	08 51 52.0	0.0
TTG	Podgorica	1.46	253	⇓iPg	Pg	08 51 31.7	-1.5
TTG				eSg	Sg	08 51 52.0	0.0
DIVS	Divibare	1.47	326	⇑iPg	Pg	08 51 31.5	-2.0
DIVS				eSg	Sg	08 51 53.0	+0.3
DIVS	Divibare	1.47	326	⇑iPg	Pg	08 51 31.5	-2.0
DIVS				eSg	Sg	08 51 53.0	+0.3
KRUS	Krusevo	1.51	177	⇑iPg	Pg	08 51 32.8	-1.5
KRUS				eLg		08 51 52.2	
	comp=E,189nm,0.6s						
KRUS				eLg		08 51 57.2	
	comp=N,103nm,0.3s						
KRUS	Krusevo	1.51	177	⇑iPg	Pg	08 51 32.7	-1.6
KRUS				eLg		08 51 52.1	
	comp=N,189nm,0.6s						
VTS	Vitosha	1.55	100	P	Pn	08 51 33.6	+0.3
VTS				S	Sn	08 51 52.2	-1.5
VTS	Vitosha	1.55	100	ePg	Pg	08 51 33.9	-1.2
VTS				eSg	Sg	08 51 56.5	+1.3
VTS	Vitosha	1.55	100	Pg	Pg	08 51 33.9	-1.2
VTS				Sg	Sg	08 51 56.3	+1.1
VTS	Vitosha	1.55	100	ePg	Pg	08 51 33.9	-1.2
VTS				S	Sn	08 51 52.2	-1.5
VTS				eSg	Sg	08 51 56.5	+1.3
NKY	Niksic	1.57	268	⇓iPg	Pg	08 51 33.6	-1.8
NKY				eSg	Sg	08 51 56.2	+0.4
NKY	Niksic	1.57	268	⇓iPg	Pg	08 51 33.6	-1.8
NKY				eSg	Sg	08 51 56.2	+0.4
BBLS	Lazići	1.60	309	⇓iPg	Pg	08 51 34.2	-1.8
BBLS				eSg	Sg	08 51 57.0	+0.3
BBLS	Lazići	1.60	309	⇓iPg	Pg	08 51 34.2	-1.8
BBLS				eSg	Sg	08 51 57.0	+0.3
UPM	Unac-Piva	1.66	282	⇑iPn	Pn	08 51 35.6	+0.8
UPM				eSn	Sn	08 51 59.3	+2.9
UPM	Unac-Piva	1.66	282	⇑iPn	Pn	08 51 35.6	+0.8
UPM				eSn	Sn	08 51 59.3	+2.9
ULC	Ulcinj	1.67	237	⇑iPg	Pg	08 51 36.1	-1.2
ULC				eSg	Sg	08 51 58.7	-0.3
ULC	Ulcinj	1.67	237	⇑iPg	Pg	08 51 36.1	-1.2
ULC				eSg	Sg	08 51 58.7	-0.3
BUM	Brajici-Budva	1.75	251	⇑iPn	Pn	08 51 37.0	+1.0
BUM				eSn	Sn	08 52 00.4	+1.8
BUM	Brajici-Budva	1.75	251	⇑iPn	Pn	08 51 37.0	+1.0
BUM				eSn	Sn	08 52 00.4	+1.8
KKB	Krupnik	1.76	124	Pg	Pg	08 51 39.7	+0.6
OHR	Ohrid	1.79	188	⇑iPn	Pn	08 51 36.9	+0.3
OHR				eLg		08 52 03.4	
	comp=E,765nm,0.6s						
OHR				eLg		08 52 06.3	
	comp=N,503nm,0.7s						
OHR	Ohrid	1.79	188	⇑iPn	Pn	08 51 36.8	+0.3
OHR				eLg		08 52 03.3	
	comp=N,765nm,0.6s						
TIR	Tirane	1.80	212	eP	Pn	08 51 35.7	-1.0
TIR	Tirane	1.80	212	ePn	Pn	08 51 35.7	-1.0
BIA	Bitola	1.87	176	i Pn	Pn	08 51 39.2	+1.6
BIA				i Sn	Sn	08 52 02.9	+1.5
BIA				eLg		08 52 06.9	
	comp=E,341nm,0.7s						
BIA				eLg		08 52 07.4	
	comp=N,106nm,0.3s						
BIA	Bitola	1.87	176	i Pn	Pn	08 51 39.1	+1.5
BIA				i Sn	Sn	08 52 02.9	+1.5
BIA				eLg		08 52 06.9	
	comp=N,341nm,0.7s						
VAY	Valandovo	1.89	145	P	Pn	08 51 37.6	-0.3
VAY				S	Sn	08 52 00.1	-1.9
VAY	Valandovo	1.89	145	i Pn	Pn	08 51 37.8	-0.1
VAY				eLg		08 52 06.9	
	comp=N,310nm,0.9s						
VAY				eLg		08 52 08.1	
	comp=E,201nm,0.6s						
VAY	Valandovo	1.89	145	i Pn	Pn	08 51 37.8	-0.1
VAY				S	Sn	08 52 00.1	-1.9
VAY				eLg		08 52 06.8	
	comp=E,310nm,0.9s						
BRY	Bratogost	1.91	271	⇓iPn	Pn	08 51 38.6	+0.4
BRY				eSn	Sn	08 52 05.1	+2.7
BRY	Bratogost	1.91	271	⇓iPn	Pn	08 51 38.6	+0.4
BRY				eSn	Sn	08 52 05.1	+2.7
BEO	Beograd	1.99	346	ePn	Pn	08 51 39.0	-0.3
BEO				eSg	Sg	08 52 09.6	+0.5
BEO	Beograd	1.99	346	ePn	Pn	08 51 39.0	-0.3
HCY	Herceg Novi	1.99	258	⇑iPn	Pn	08 51 40.2	+0.8
HCY				eSn	Sn	08 52 07.3	+2.7
HCY	Herceg Novi	1.99	258	⇑iPn	Pn	08 51 40.2	+0.8
HCY				eSn	Sn	08 52 07.3	+2.7
DJES	Djerdap	2.05	29	ePn	Pn	08 51 39.8	-0.3
DJES				eSn	Sn	08 52 04.5	-1.4
FNA	Florina	2.10	175	P	Pn	08 51 42.1	+1.2
FNA				S	Sn	08 52 07.4	+0.1
FNA	Florina	2.10	175	P	Pn	08 51 42.1	+1.2
FNA				S	Sn	08 52 07.4	+0.1
GRG	Griva	2.14	153	P	Pn	08 51 42.0	+0.6
GRG				S	Sn	08 52 06.5	-1.7
GRG	Griva	2.14	153	P	Pn	08 51 42.0	+0.6
GRG				S	Sn	08 52 06.5	-1.7
KNT	Kendrikon	2.16	142	P	Pn	08 51 41.8	+0.1
KNT				S	Sn	08 52 06.7	-2.0
KNT	Kendrikon	2.16	142	P	Pn	08 51 41.8	+0.1
KNT				S	Sn	08 52 06.7	-2.0
PGB	Panagyurishte	2.26	97	Pg	Pg	08 51 44.3	-4.2
MMB	Musomiste	2.32	123	Pg	Pg	08 51 49.2	-0.5
FGSL	Fruska Gora	2.47	338	ePn	Pn	08 51 45.9	0.0
FRGS	Fruska Gora	2.47	338	ePn	Pn	08 51 45.9	0.0
STON	Ston	2.53	271	ePn	Pn	08 51 48.1	+1.4
STON				Sn	Sn	08 52 20.2	+2.5
STON	Ston	2.53	271	ePn	Pn	08 51 48.0	+1.3
STON				Sn	Sn	08 52 20.2	+2.5
SRS	Serrai	2.54	133	P	Pn	08 51 46.8	-0.1
SRS				S	Sn	08 52 15.8	-2.3
SRS	Serrai	2.54	133	P	Pn	08 51 46.8	-0.1
SRS				S	Sn	08 52 15.8	-2.3
SOH	Sokhos	2.64	140	P	Pn	08 51 48.3	0.0
SOH				S	Sn	08 52 18.5	-2.1
SOH	Sokhos	2.64	140	P	Pn	08 51 48.3	0.0
SOH				S	Sn	08 52 18.5	-2.1
HORT	Hortiatis	2.71	147	P	Pn	08 51 49.8	+0.5
HORT				S	Sn	08 52 21.1	-1.2
HORT	Hortiatis	2.71	147	P	Pn	08 51 49.8	+0.5
HORT				S	Sn	08 52 21.1	-1.2
PLD	Plovdiv	2.75	105	P	Pn	08 51 55.6	+5.8
BZS	Buzias	2.76	7	⇑iP	Pn	08 51 48.8	-1.1
BZS	Buzias	2.76	7	⇑P	Pn	08 51 48.8	-1.0
BZS	Buzias	2.76	7	P	Pn	08 51 48.8	-1.1
GZR	Gura Zlata	2.77	25	⇑iP	Pn	08 51 49.7	-0.4
GZR	Gura Zlata	2.77	25	⇑P	Pn	08 51 49.7	-0.4
GZR	Gura Zlata	2.77	25	P	Pn	08 51 49.7	-0.4
RZN	Rozhen	2.91	113	Pg	Pg	08 51 59.2	-1.9
RZN				Sg	Sg	08 52 39.6	+0.8
LIT	Litokhoron	2.96	159	P	Pn	08 51 53.4	+0.8
LIT				S	Sn	08 52 27.7	-0.7
LIT	Litokhoron	2.96	159	P	Pn	08 51 53.4	+0.8
LIT				S	Sn	08 52 27.7	-0.7
PLG	Polygyros	3.04	145	P	Pn	08 51 54.0	+0.2
PLG				S	Sn	08 52 28.9	-1.6
PLG	Polygyros	3.04	145	P	Pn	08 51 54.0	+0.2
PLG				S	Sn	08 52 28.9	-1.6
OUR	Ouranopolis	3.32	139	P	Pn	08 51 57.8	+0.2
OUR	Ouranopolis	3.32	139	P	Pn	08 51 57.8	+0.2
THL	Klokotos Trika	3.38	168	P	Pn	08 51 59.5	+1.1
THL				S	Sn	08 52 38.6	-0.2
THL	Klokotos Trika	3.38	168	P	Pn	08 51 59.5	+1.1
THL				S	Sn	08 52 38.6	-0.2
IGT	Igoumenitsa	3.40	191	P	Pn	08 52 00.6	+1.9
IGT	Igoumenitsa	3.40	191	P	Pn	08 52 00.6	+1.9
KDZ	Kurdzhali	3.41	110	P	Pn	08 52 06.8	+8.0
PAIG	Paliouri	3.52	146	P	Pn	08 52 00.8	+0.5
PAIG				S	Sn	08 52 40.7	-1.5
PAIG	Paliouri	3.52	146	P	Pn	08 52 00.8	+0.5
PAIG				S	Sn	08 52 40.7	-1.5
RHK3	Tenkes	3.65	326	⇑ePn	Pn	08 52 01.6	-0.5
RHK3				eSn	Sn	08 52 45.4	0.0
VOIR		3.80	46	⇑iP	Pn	08 52 04.9	+0.7
VOIR		3.80	46	⇑P	Pn	08 52 04.9	+0.7
VOIR		3.80	46	P	Pn	08 52 04.9	+0.7
PKS2	Kecel	3.86	340	Pn	Pn	08 52 03.5	-1.5
PKS2				Sn	Sn	08 52 50.9	+0.3
	comp=E,5.3nm,0.5s						
PKS6	Bocsa	3.88	344	⇓ePn	Pn	08 52 05.1	-0.2
PKS6				Sn	Sn	08 52 49.7	-1.4
	comp=E,6.9nm,0.4s						
DRGR		4.07	15	⇑iP	Pn	08 52 07.5	-0.4
DRGR		4.07	15	⇓iP	Sg	08 53 14.8	-1.0
DRGR		4.07	15	⇑P	Pn	08 52 07.5	-0.3
DRGR		4.07	15	P	Pn	08 52 07.5	-0.4
ALN	Alexandroupoli	4.17	117	P	Pn	08 52 09.8	+0.6
ALN				S	Sn	08 52 57.2	-1.0
ALN	Alexandroupoli	4.17	117	P	Pn	08 52 09.8	+0.6
ALN				S	Sn	08 52 57.2	-1.0
PKS9	Tamasi	4.23	332	ePn	Pn	08 52 05.8	-4.3
PKS9				Sn	Sn	08 52 58.2	-1.4
	comp=E,6.3nm,0.5s						
MLR	Muntele Rosu	4.33	51	P	Pn	08 52 12.6	+1.1
MLR						08 53 05.3	
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR				smax			
	comp=N,3.0nm,0.3s						
MLR	Muntele Rosu	4.33	51	⇑iP	Pn	08 52 12.4	+0.9
MLR	Muntele Rosu	4.33	51	Pn	Pn	08 52 12.6	+1.1
	comp=N,1.3nm,0.3s,baz=146,slow=8.4,SNR=5.4						
MLR				Sn	Sn	08 53 05.3	+3.1
	comp=N,2.7nm,0.3s,baz=171,slow=16,SNR=3.7						
MLR	Muntele Rosu	4.33	51	⇑P	Pn	08 52 12.4	+0.9
MLR	Muntele Rosu	4.33	51	⇑P	Pn	08 52 12.4	+0.9
MLR				S	Sn	08 53 05.3	+3.1
	comp=N,3.0nm,0.3s						
BEHE	Becsehely	4.75	321	eSn	Sn	08 53 14.0	+1.5
BUD	Budapest	4.84	343	⇑ePn	Pn	08 52 17.8	-0.6
BUD				eSn	Sn	08 53 14.6	-0.1
BUD	Budapest	4.84	343	⇑ePn	Pn	08 52 17.8	-0.6
BUD				eSn	Sn	08 53 14.6	-0.1
PKSG		4.91	338	⇓ePn	Pn	08 52 19.4	0.0
PKSG				eSn	Sn	08 53 15.8	-0.7
VRI	Vrincioaia	5.00	51	⇓iP	Pn	08 52 22.1	+1.5
VRI	Vrincioaia	5.00	51	⇓P	Pn	08 52 22.1	+1.4
VRI	Vrincioaia	5.00	51	P	Pn	08 52 22.1	+1.5
PSZ	Piszkesteto	5.11	351	⇓iP	Pn	08 52 21.8	-0.4
PSZ	Piszkesteto	5.11	351	⇑ePn	Pn	08 52 21.9	-0.3
PSZ				eSn	Sn	08 53 20.7	-0.7
PSZ	Piszkesteto	5.11	351	⇓P	Pn	08 52 21.8	-0.5
PSZ				S	Sn	08 53 21.4	-0.1
PSZ	Piszkesteto	5.11	351	⇑ePn	Pn	08 52 21.9	-0.3
PSZ				eSn	Sn	08 53 20.7	-0.7
PSZ				S	Sn	08 53 21.4	0.0
BURAR	Bucovina Array	5.54	30	⇓iP	Pn	08 52 29.3	+1.2
BURAR	Bucovina Array	5.54	30	⇓P	Pn	08 52 29.3	+1.2
BURAR	Bucovina Array	5.54	30	⇓P	Pn	08 52 29.3	+1.2
SOKA	Soboth	5.77	313	⇓iPn	Pn	08 52 31.6	+0.4
SOKA				⇑iSn	Sn	08 53 38.4	+0.8
SOKA	Soboth	5.77	313	Pn	Pn	08 52 31.6	+0.4
SOKA				Sn	Sn	08 53 38.4	+0.8
SOP	Sopron	5.79	328	⇑ePn	Pn	08 52 30.8	-0.7
SOP				eSn	Sn	08 53 36.7	-1.3
SOP	Sopron	5.79	328	⇑ePn	Pn	08 52 30.8	-0.7
SOP				eSn	Sn	08 53 36.7	-1.3
VYHS	Vyhne	5.84	345	ePN	Pn	08 52 32.7	+0.5
VYHS				eSN	Sn	08 53 37.7	-1.6
VYHS	Vyhne	5.84	345	ePn	Pn	08 52 32.7	+0.5
VYHS				eSn	Sn	08 53 37.7	-1.6
ARSA	Arzberg	5.91	320	⇑iPn	Pn	08 52 33.3	+0.2
	SNR=8.9						
ARSA				⇓iSn	Sn	08 53 39.4	-1.6
ARSA	Arzberg	5.91	320	Pn	Pn	08 52 33.3	+0.2
	SNR=8.9						
ARSA				Sn	Sn	08 53 39.4	-1.6
OBKA	Obir	5.93	310	⇑ePn	Pn	08 52 33.8	+0.3
OBKA				⇑iSn	Sn	08 53 41.8	+0.1
OBKA	Obir	5.93	310	Pn	Pn	08 52 33.8	+0.3
OBKA				Sn	Sn	08 53 41.8	+0.2
ZST	Bratislava	6.02	333	ePN	Pn	08 52 37.2	+2.5
ZST				eSN	Sn	08 53 41.3	-2.5
CRVS	Cervenica-Dubn	6.03	2	ePN	Pn	08 52 36.3	+1.5
CRVS				ePG	Pg	08 53 04.7	+4.1
CRVS				eSG	Sg	08 54 35.0	+16
CRVS	Cervenica-Dubn	6.03	2	ePn	Pn	08 52 36.3	+1.5
VOY	Vojsko	6.07	304	ePn	Pn	08 52 36.7	+1.4
VOY				e		08 52 56.7	
KOLS	Kolonicke sedl	6.10	7	ePN	Pn	08 52 39.3	+3.5
KOLS				ePG	Pg	08 53 04.4	+2.3
KOLS				eSG	Sg	08 54 26.4	+5.2
MODS	Modra-Piesok	6.12	335	ePN	Pn	08 52 36.7	+0.6
MODS				eSN	Sn	08 53 42.9	-3.4
MODS	Modra-Piesok	6.12	335	ePn	Pn	08 52 36.7	+0.6
SMOL	Smolenice	6.20	337	ePN	Pn	08 52 38.9	+1.7
SMOL				eSN	Sn	08 53 46.5	-1.8
SMOL	Smolenice	6.20	337	ePn	Pn	08 52 38.9	+1.7
SMOL				eSn	Sn	08 53 46.5	-1.8
CONA	Conrad Observa	6.26	325	⇓ePn	Pn	08 52 38.3	+0.3
CONA				⇑iSn	Sn	08 53 48.6	-1.2
CONA	Conrad Observa	6.26	325	Pn	Pn	08 52 38.3	+0.3
CONA				Sn	Sn	08 53 48.6	-1.2
STHS	Stebnicka Huta	6.54	1	ePN	Pn	08 52 44.7	+2.9
STHS				ePG	Pg	08 53 17.6	+7.2
STHS				eSN	Sn	08 53 48.0	-8.5
MOA	Molln	6.93	318	⇑iPn	Pn	08 52 48.7	+1.5
MOA				⇑iSn	Sn	08 54 05.0	-1.2
MOA	Molln	6.93	318	Pn	Pn	08 52 48.7	+1.5
MOA				Sn	Sn	08 54 05.0	-1.3
KBA	Koelnbreinsper	6.94	310	⇑iPn	Pn	08 52 48.5	+1.2
KBA				⇓iSn	Sn	08 54 02.5	-3.9
KBA	Koelnbreinsper	6.94	310	Pn	Pn	08 52 48.5	+1.2
VRAC	Vranov	7.16	335	P	Pn	08 52 54.6	+4.3
VRAC						08 54 10.0	
VRAC				smax			
	comp=N,1.0nm,0.3s						
VRAC	Vranov	7.16	335	Pn	Pn	08 52 54.6	+4.3
	comp=N,0.3nm,0.3s,baz=174,slow=19,SNR=3.6						
VRAC				Sn	Sn	08 54 10.0	-1.9
	comp=N,1.1nm,0.3s,baz=116,slow=8.4,SNR=5.0						
VRAC	Vranov	7.16	335	Sn	Sn	08 54 10.0	-1.9
MORC	Moravsky Berou	7.33	341	⇓iP	Pn	08 52 51.5	-1.2
MORC	Moravsky Berou	7.33	341	⇓P	Pn	08 52 51.5	-1.1
MORC	Moravsky Berou	7.33	341	P	Pn	08 52 51.5	-1.2
GERES	GERESS Array B	7.90	322	P	Pn	08 53 02.7	+2.2
GERES						08 54 31.8	
GERES				smax			
	comp=N,1.0nm,0.3s						
GERES	GERESS Array B	7.90	322	Pn	Pn	08 53 02.7	+2.2
	comp=N,0.3nm,0.3s,baz=148,slow=13,SNR=20						
GERES				Sn	Sn	08 54 31.8	+1.7
	comp=N,0.8nm,0.3s,baz=132,slow=24,SNR=6.1						
GERES	GERESS Array B	7.90	322	Pn	Pn	08 53 02.7	+2.2
GERES				Sn	Sn	08 54 31.8	+1.7
WTTA	Wattenberg	8.02	306	⇑iPn	Pn	08 53 04.6	+2.4
	SNR=15						
WATA	Walderalm	8.10	307	⇑iPn	Pn	08 53 05.3	+2.2
WATA	Walderalm	8.10	307	Pn	Pn	08 53 05.3	+2.2
KHC	Kasperske Hory	8.17	323	ePN	Pn	08 53 07.3	+3.2
KHC				ex	x	08 53 15.0	
KHC				eSN	Sn	08 54 35.4	-1.2
KHC				ex	x	08 54 49.0	
KHC	Kasperske Hory	8.17	323	ePn	Pn	08 53 07.3	+3.2
KHC				eSn	Sn	08 54 35.4	-1.2
DPC	Dobruska-Polom	8.17	338	ePN	Pn	08 53 07.7	+3.5
DPC				eSN	Sn	08 54 34.8	-1.9
MOTA	Moosalm	8.38	306	⇑iPn	Pn	08 53 08.5	+1.4
	SNR=14						
MOTA	Moosalm	8.38	306	Pn	Pn	08 53 08.5	+1.4
	SNR=14						
PRU	Pruhonice	8.44	330	eSN	Sn	08 54 40.0	-3.3
FETA	Feichten	8.46	303	⇓iPn	Pn	08 53 10.7	+2.5
	SNR=8.3						
DAVOX	Davos/Dischmat	8.90	300	Pn	Pn	08 53 15.1	+0.9
	comp=N,0.8nm,0.3s,baz=113,slow=14,SNR=7.7						
DAVOX	Davos/Dischmat	8.90	300	Pn	Pn	08 53 15.1	+1.0
DAVOS	Davos	8.97	300	P	Pn	08 53 15.1	-0.1
DAVOS	Davos	8.97	300	P	Pn	08 53 15.1	-0.1
TUE	Stuetta	9.13	297	ePn	Pn	08 53 17.9	+0.5
	comp=N,5.4nm,0.6s						
TUE	Stuetta	9.13	297	ePn	Pn	08 53 17.9	+0.5
	comp=N,5.3nm,0.6s						
CLL	Collm	10.08	330	e(Pn)	Pn	08 53 33.0	+2.6
BFO	Black Forest	10.49	306	i P	Pn	08 53 40.1	+4.1
KIV	Kislovodsk	15.70	79	P	Pn	08 54 48.2	+1.5
KIV				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA	Eskdalemuir Ar	20.08	317	P	P	08 55 38.6	-0.4
EKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
EKA	Eskdalemuir Ar	20.08	317	P	P	08 55 38.5	-0.5
	comp=Z,1.2nm,0.6s,baz=118,slow=9.8,SNR=3.6						
EKA	Eskdalemuir Ar	20.08	317	P	P	08 55 38.6	-0.4
	comp=Z,1.0nm,0.6s						
ARCES	ARCESS Array B	26.82	3	P	P	08 56 44.7	-1.0
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	26.82	3	P	P	08 56 44.7	-1.0
	comp=Z,3.0nm,0.9s,mb3.8,baz=188,slow=10,SNR=3.2						
ARCES	ARCESS Array B	26.82	3	P	P	08 56 44.7	-1.0
	comp=Z,3.0nm,0.9s,mb3.8						
BVAR	Borovoye Array	33.88	55	P	P	08 57 48.9	+0.5
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	Borovoye Array	33.88	55	P	P	08 57 48.9	+0.6
	comp=Z,0.9nm,0.7s,mb3.8,baz=264,slow=10.0,SNR=4.9						
BVAR	Borovoye Array	33.88	55	P	P	08 57 48.9	+0.5
	comp=Z,1.0nm,0.7s,mb3.9						
ZALV	Zalesovo Beam	42.31	52	P	P	08 58 58.9	-0.4
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
ZALV	Zalesovo Beam	42.31	52	P	P	08 58 58.9	-0.4
	comp=Z,2.1nm,0.6s,mb3.9,baz=282,slow=9.4,SNR=6.7						
ZALV	Zalesovo Beam	42.31	52	P	P	08 58 58.9	-0.4
	comp=Z,2.0nm,0.6s,mb3.9						
MKAR	Makanchi Array	42.58	63	P	P	08 59 01.8	+0.1
	comp=Z,0.3nm,0.5s,mb3.3,baz=278,slow=7.7,SNR=4.4						
SONM	Songino Array	57.18	53	P	P	09 00 52.5	-0.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	57.18	53	P	P	09 00 52.5	-0.1
	comp=Z,0.5nm,0.6s,mb3.7,baz=316,slow=6.0,SNR=5.1						
SONM	Songino Array	57.18	53	P	P	09 00 52.5	-0.1
	comp=Z,1.0nm,0.6s,mb4.0						
PALK	Pallekele	62.96	106	i P	P	09 01 39.3	+6.6

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*ISCJB **09** 09:05:59.0±1.1, 38°.73N±0°.05×39°.45E±0°.08, h2^{km}±12^{km}, Error ellipse: s-maj=12.0km s-min=5.6km az=34.7*

*ISK **09** 09:05:59.0, 38°.70N×39°.42E, h12^{km}, MD2.9*

*CSEM **09** 09:06:01.2±0.5, 38°.74N×39°.32E, h2^{km}, MD2.8, Error ellipse: s-maj=11.1km s-min=8.4km az=105.0*

*DDA **09** 09:06:01.7, 38°.73N×39°.27E, h7^{km}±5^{km}, Md2.8*

ISC 09 09:05:59.1±1.3**, 38°.70N**±0°.06×**39°.48E**±0°.09**, h11**^{km}±10^{km}**, n17, σ0^{s}.94**/28**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.44	242	i P	Pg	09 06 08.2	+0.5
ELZG				i S	Sg	09 06 13.6	+0.1
ELZG	Elazig	0.44	242	i P	Pg	09 06 08.2	+0.5
ELZG				i S	Sg	09 06 13.6	+0.1
MYA	Malataya	0.91	246	ePG	Pg	09 06 16.1	-0.5
MYA	Malataya	0.91	246	ePg	Pg	09 06 16.1	-0.5
MALT	Malatya	0.91	245	ePG	Pg	09 06 16.2	-0.4
MALT				eSG	Sg	09 06 28.9	+0.4
MALT	Malatya	0.91	245	ePg	Pg	09 06 16.3	-0.4
MALT				eSg	Sg	09 06 28.9	+0.3
DIYA	Diyarbakir	0.93	147	i P	Pg	09 06 21.8	+4.9
DIYA	Diyarbakir	0.93	147	i P	Pg	09 06 21.8	+4.9
KEMA	Kemaliye	0.95	307	i P	Pg	09 06 16.7	-0.7
KEMA				i S	Sg	09 06 29.7	-0.2
KEMA	Kemaliye	0.95	307	i P	Pg	09 06 16.7	-0.8
KEMA				i S	Sg	09 06 29.7	-0.2
EZC	Erzincan	1.08	14	ePG	Pg	09 06 19.7	-0.1
EZC				eSG	Sg	09 06 34.4	+0.6
AKCD	Akcadag	1.29	252	i P	Pn	09 06 22.2	-0.8
AKCD				i S	Sb	09 06 40.9	+1.0
AKCD	Akcadag	1.29	252	i P	Pn	09 06 22.2	-0.8
AKCD				i S	Sb	09 06 40.8	+1.0
DARE	Darende-Malaty	1.33	281	ePN	Pg	09 06 26.9	+2.2
DARE				eSN	Sg	09 06 46.5	+4.6
DARE	Darende-Malaty	1.33	281	ePn	Pg	09 06 26.9	+2.2
DARE				eSn	Sg	09 06 46.5	+4.5
SARI	SarD1z-Kayseri	2.18	270	ePN	Pg	09 06 38.7	-2.1
SARI	SarD1z-Kayseri	2.18	270	ePn	Pg	09 06 38.7	-2.1

IDC 09 09:17:26.1±2.2**, 8°.50S**×**119°.16E, h0**^{km}**, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.6**/18**, mbtmp3.7**/4**, Error ellipse: s-maj=217.6km s-min=25.7km az=53.0, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.57	129	P	Pn	09 21 44.5	-0.4
	0.2nm,0.3s,baz=306,slow=12,SNR=8.4						
ASAR	Alice Springs	20.66	139	P	P	09 22 08.9	+1.4
	1.2nm,0.6s,baz=315,slow=8.8,SNR=14						
STKA	Stephens Creek	31.23	141	P	P	09 23 46.4	-1.1
	0.9nm,0.7s,baz=339,slow=8.6,SNR=2.9						
MKAR	Makanchi Array	64.09	333	P	P	09 28 02.0	+0.1
	0.5nm,0.7s,baz=140,slow=7.0,SNR=4.7						

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*IDC **09** 09:32:49.9±1.6, 15°.74S×71°.29W, h121^{km}±15^{km}, mb4.0/11, mb1 4.0/17, mb1mx3.9/26, mbtmp4.0/17, MS2.9/1, Ms1 2.9/1, ms1mx2.4/27, Error ellipse: s-maj=20.6km s-min=10.9km az=49.0*

*ISCJB **09** 09:32:50.2±0.5, 15°.79S±0°.06×71°.32W±0°.09, h145^{km}±6^{km}, mb4.3/15, Error ellipse: s-maj=16.1km s-min=7.3km az=154.3*

*NEIC **09** 09:32:51.2±0.5, 15°.74S×71°.27W, h134^{km}±5^{km}, mb4.8/7, Error ellipse: s-maj=10.3km s-min=5.5km az=61.0*

ISC 09 09:32:51.4±0.5**, 15°.75S**±0°.08×**71°.28W**±0°.10**, h137**^{km}±7^{km}**, n38, σ0^{s}.71**/37**, mb4.3**/15**, 1C, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	Arequipa	0.73	196	⇑iP	Pn	09 33 13.5	+0.8
ARE				i S	Sn	09 33 28.9	-0.1

NNA	Nana	6.57	304	P	Pn	09 34 25.1	-0.6
	42nm,0.3s,baz=134,slow=12,SNR=59						
NNA				S	Sn	09 35 35.2	-4.2
	37nm,0.3s,baz=221,slow=18,SNR=12						
NNA	Nana	6.57	304	P	Pn	09 34 25.1	-0.6
NNA				S	Sn	09 35 35.2	-4.2
LVC	Limon Verde	7.18	162	P	Pn	09 34 32.8	-1.0
	18nm,0.3s,baz=325,slow=8.5,SNR=187						
LVC				S	Sn	09 35 48.3	-5.8
	48nm,0.3s,baz=210,slow=20,SNR=28						
LVC				LR	LR	09 37 36.5	
	comp=Z,85nm,19.4s,baz=122,slow=40						
LVC	Limon Verde	7.18	162	P	Pn	09 34 32.8	-1.0
LVC				S	Sn	09 35 48.3	-5.8
LVC				LR	LR	09 37 36.5	
SIV	San Ignacio	9.83	93	P	Pn	09 35 09.3	-0.1
	1.7nm,0.3s,baz=287,slow=11,SNR=32						
SIV				S	Sn	09 36 44.4	-14
	2.8nm,0.3s,baz=123,slow=18,SNR=4.5						
ATAH	Atahualpa	11.14	321	P	Pn	09 35 26.3	-0.6
	0.3nm,0.3s,baz=161,slow=9.6,SNR=2.7						
ATAH				S	Sn	09 37 24.5	-5.5
	0.4nm,0.3s,baz=40,slow=17,SNR=2.2						
CFAA	Coronel Fontan	16.02	171	P	Pn	09 36 29.6	+0.6
	0.1nm,0.3s,baz=345,slow=14,SNR=12						
CFAA				S	S	09 39 19.8	-7.9
	0.1nm,0.3s,baz=168,slow=9.0,SNR=5.1						
CFAA	Coronel Fontan	16.02	171	P	Pn	09 36 29.6	+0.6
CFAA				S	S	09 39 19.8	-7.9
CPUP	Villa Florida	16.73	131	P	Pn	09 36 38.3	+0.6
	1.2nm,0.3s,baz=288,slow=12,SNR=14						
OTAV	Otavalo	17.39	335	Pn	Pn	09 36 46.5	+0.6
	30nm,0.9s						
ROSC	El Rosal	20.70	351	P	P	09 37 22.1	+1.2
	15nm,0.5s,baz=101,slow=15,SNR=8.3						
SDV	Santo Domingo	24.49	2	P	P	09 37 57.9	-0.1
	52nm,0.8s,mb5.1,baz=247,slow=6.7,SNR=38						
SDV	Santo Domingo	24.49	2	eP	P	09 37 57.9	-0.2
	36nm,0.6s,mb5.1						
MTP	Monte Pirata	34.11	10	eP	P	09 39 21.9	-1.3
	40nm,1.2s,mb5.0						
CBYP	Canovanas	34.23	9	eP	P	09 39 23.5	-0.7
	15nm,0.6s,mb4.9						
USHA	Ushuaia	39.06	177	P	P	09 40 03.6	-1.1
	5.0nm,0.8s,mb4.2,baz=310,slow=7.9,SNR=4.8						
CMIG	Matias Romero	40.09	324	P	P	09 40 13.5	-0.2
	2.0nm,0.7s,mb3.8,baz=166,slow=7.8,SNR=3.7						
MIAR	Mount Ida	54.33	337	eP	P	09 42 04.0	+0.3
	8.1nm,1.0s,mb4.4						
TXAR	Lajitas Array	54.65	325	P	P	09 42 06.8	+0.7
	1.1nm,0.7s,mb3.7,baz=151,slow=8.9,SNR=28						
ERPA	Erie	58.14	352	eP	P	09 42 31.2	+0.6
	7.9nm,0.7s,mb4.7						
PDAR	Pinedale Array	68.03	331	P	P	09 43 37.0	+1.0
	0.3nm,0.5s,mb3.3,baz=108,slow=7.4,SNR=4.9						
ULM	Lac du Bonnet	69.19	343	P	P	09 43 42.6	-0.3
	3.0nm,0.4s,mb4.4,baz=133,slow=3.2,SNR=5.0						
DBIC	Dimbokro	69.43	77	P	P	09 43 45.0	-0.3
	6.6nm,0.7s,mb4.5,baz=215,slow=8.3,SNR=11						
SCHQ	Schefferville	70.41	3	P	P	09 43 49.4	-0.9
	1.5nm,0.8s,mb3.8,baz=12,slow=9.6,SNR=4.3						
TORD	Torodi Ar. Bea	77.66	72	P	P	09 44 32.9	-0.5
	9.4nm,0.6s,mb4.6,baz=266,slow=4.6,SNR=104						
TSUM	Tsumeb	83.90	108	eP	P	09 45 07.4	+0.9
	5.7nm,0.8s,mb4.3						
YKA	Yellowknife Ar	85.05	341	P	P	09 45 11.5	+0.3
	0.8nm,0.5s,mb3.7,baz=135,slow=5.1,SNR=15						
BVAR	Borovoye Array	132.17	30	PKP	PKPdf	09 51 50.1	+1.3
	0.3nm,0.5s,baz=232,slow=43,SNR=2.6						
ASAR	Alice Springs	133.73	213	PKP	PKPdf	09 51 52.5	-0.2
	0.5nm,0.8s,baz=123,slow=1.6,SNR=7.7						
WRA	Warramunga Arr	136.50	216	PKP	PKPdf	09 51 58.3	+0.3
	1.1nm,0.6s,baz=144,slow=1.8,SNR=8.2						
KURK	Kurchatov	137.55	28	PKP	PKPdf	09 51 59.4	+0.5
	0.6nm,0.7s,baz=310,slow=2.8,SNR=4.3						
ZALV	Zalesovo Beam	137.56	21	PKP	PKPdf	09 51 60.0	+1.1
	2.6nm,0.7s,baz=273,slow=2.4,SNR=11						
ZALV	Zalesovo Beam	137.56	21	PKP	PKPdf	09 51 60.0	+1.1
MKAR	Makanchi Array	142.04	30	PKhKP		09 52 02.0	
	0.5nm,0.9s,baz=354,slow=3.8,SNR=4.8						
MJAR	Matsushiro Arr	146.61	314	PKPbc	PKPbc	09 52 17.0	-0.2
	1.5nm,0.7s,baz=100,slow=1.4,SNR=6.2						
SONM	Songino Array	147.95	3	PKP	PKPdf	09 52 18.2	+0.8
	1.6nm,0.5s,baz=123,slow=1.5,SNR=12						
SONM				PKPbc	PKPbc	09 52 21.5	+1.0
	1.6nm,0.5s,baz=322,slow=1.4,SNR=16						
KSRS	Korea Array	152.50	325	PKPbc	PKPbc	09 52 32.3	+0.5
	1.2nm,0.8s,baz=188,slow=26,SNR=4.4						

IDC 09 09:33:13.9±2.4, 54°.28N×85°.94E, h0^{km}, mb1 3.0/2, mb1mx3.0/26, mbtmp3.0/2, ML3.0/2, Error ellipse: s-maj=18.0km s-min=3.4km az=63.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	Zalesovo Beam	0.74	243	Pg	Pg	09 33 26.8	-1.3
	1.1nm,0.3s,baz=58,slow=17,SNR=12						
ZALV				Lg		09 33 39.1	
	3.8nm,0.3s,baz=63,slow=31,SNR=27						
KURK	Kurchatov	5.72	234	Pn	Pn	09 34 42.7	+2.7
	0.1nm,0.3s,baz=50,slow=13,SNR=4.7						
MKAR	Makanchi Array	7.85	199	Pn	Pn	09 35 10.2	+1.0
	0.2nm,0.3s,baz=16,slow=14,SNR=10						

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*NNC **09** 09:39:32.4±4.2, 42°.95N×85°.54E, h0^{km}, mb3.0, mpv2.5, Error ellipse: s-maj=56.3km s-min=28.9km az=61.0*

BJI 09 09:39:30.0, 42°.94N×86°.44E, h15^{km}, ML2.7/8, 2C-4D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	1.27	46	Pg	Pg	09 39 52.0	-2.5
WMQ				Sg	Sg	09 40 09.0	-2.0
WMQ				smax			
	comp=N,70nm,0.4s						
WMQ				smax			
	comp=E,75nm,0.6s						
MK31	Makanchi Array	4.85	324	Pn	Pn	09 40 42.6	+0.2
	comp=E,0.1nm,0.2s,baz=25,slow=1.5,SNR=40						
MK31				⇓Pg	Pg	09 40 52.8	-10
	comp=E,0.6nm,0.3s,baz=143,slow=14,SNR=9.8						
MK31				⇓Lg		09 41 57.7	
	comp=E,7.5nm,0.6s,baz=148,slow=28,SNR=10						
KURBB	Kurchatov Arra	9.40	328	⇓Sn	Sn	09 43 27.9	-2.2
	comp=E,0.2nm,0.7s,baz=145,slow=19						
KURBB				⇑Lg		09 44 20.9	
	comp=E,1.0nm,0.6s,baz=146,slow=33						
KURK	Kurchatov	9.44	328	⇓Sn	Sn	09 43 27.9	-3.2
	comp=E,0.5nm,0.6s						
KURK				⇑Lg		09 44 20.6	
	comp=E,3.8nm,1.0s						

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*DDA **09** 10:05:17.4, 37°.18N×28°.12E, h7^{km}±4^{km}, Md2.6*

*ISCJB **09** 10:05:18.5±0.6, 37°.24N±0°.04×28°.22E±0°.04, h11^{km}±6^{km}, Error ellipse: s-maj=7.2km s-min=4.7km az=34.1*

*CSEM **09** 10:05:18.8±0.2, 37°.25N×28°.22E, h10^{km}, MD2.7, Error ellipse: s-maj=4.3km s-min=2.7km az=33.0*

*ISK **09** 10:05:18.2, 37°.27N×28°.22E, h6^{km}, MD2.7*

ISC 09 10:05:19.0±0.7, 37°.25N±0°.04×28°.23E±0°.04, h9^{km}±9^{km}, n20, σ0^{s}.60/32, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.12	160	ePG	Pg	10 05 21.4	-0.4
YER				eSG	Sg	10 05 24.1	+0.4
YER	Yerkesik	0.12	160	ePg	Pg	10 05 21.4	-0.4
YER				eSg	Sg	10 05 24.1	+0.3
MLSB	Milas	0.36	277	ePG	Pg	10 05 25.3	-0.9
MLSB				eSG	Sg	10 05 31.2	+0.2
MLSB	Milas	0.36	277	ePg	Pg	10 05 25.3	-0.9
MLSB				eSg	Sg	10 05 31.2	+0.2
TURN	Turunc	0.48	141	i P	Pg	10 05 27.4	-1.0
TURN				i S	Sg	10 05 34.9	+0.2
TURN	Turunc	0.48	141	i P	Pg	10 05 27.4	-1.0
TURN				i S	Sg	10 05 34.9	+0.2
AYDN	Tasoluk	0.49	326	i P	Pg	10 05 28.4	-0.2
AYDN				i S	Sg	10 05 35.9	+0.7
AYDN	Tasoluk	0.49	326	i P	Pg	10 05 28.4	-0.3
AYDN				i S	Sg	10 05 35.9	+0.7
DALT	Dalyan (Mudla)	0.58	146	ePG	Pg	10 05 30.8	+0.5
DALT	Dalyan (Mudla)	0.58	146	ePg	Pg	10 05 30.8	+0.5
BDRM	Kayabasi	0.65	254	i P	Pg	10 05 27.5	-4.2
BDRM				i S	Sg	10 05 40.0	-0.2
BDRM	Kayabasi	0.65	254	i P	Pg	10 05 27.5	-4.1
BDRM				i S	Sg	10 05 40.0	-0.2
DAT	Datca	0.74	225	ePG	Pg	10 05 32.5	-0.7
DAT				eSG	Sg	10 05 44.0	+1.1
DAT	Datca	0.74	225	ePg	Pg	10 05 32.5	-0.7
DAT				eSg	Sg	10 05 44.0	+1.2
BODT	Bodrum	0.76	256	ePG	Pg	10 05 33.5	-0.1
BODT	Bodrum	0.76	256	ePg	Pg	10 05 33.5	-0.1
FETY	Fethiye	0.92	132	ePG	Pg	10 05 36.9	+0.2
FETY	Fethiye	0.92	132	ePg	Pg	10 05 36.9	+0.2
KHL	Karahalli	1.48	43	ePN	Pn	10 05 46.2	+0.3
KHL	Karahalli	1.48	43	ePn	Pn	10 05 46.2	+0.3

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*MOS **09** 10:21:00.7±1.1, 42°.58N×137°.48E, h290^{km}, mb4.1/5, Error ellipse: s-maj=20.0km s-min=16.0km az=74.1*

*BJI **09** 10:21:00.5, 42°.52N×137°.54E, h305^{km}, mB4.5/5, mb4.0/7*

*IDC **09** 10:21:01.0±1.3, 42°.67N×137°.45E, h270^{km}±13^{km}, mb3.3/9, mb1 3.4/12, mb1mx3.2/26, mbtmp3.2/12, Error ellipse: s-maj=25.4km s-min=12.6km az=168.0*

*ISCJB **09** 10:21:00.9±0.4, 42°.48N±0°.06×137°.64E±0°.08, h295^{km}±5^{km}, mb3.6/10, Error ellipse: s-maj=10.6km s-min=7.8km az=38.2*

*JMA **09** 10:21:01.4±0.2, 42°.49N×137°.67E, h299^{km}±2^{km}, M3.8*

*NEIC **09** 10:21:01.4±0.7, 42°.57N×137°.45E, h280^{km}±9^{km}, mb4.0/2, Error ellipse: s-maj=13.7km s-min=9.9km az=155.0*

ISC 09 10:21:01.7±0.5, 42°.47N±0°.06×137°.64E±0°.08, h288^{km}±5^{km}, n45, σ1^{s}.03/56, mb3.6/10, Eastern Sea of Japan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOSM	Okushiri--Mats	1.42	105	P	Pn	10 21 43.6	+0.5
JOSM				eS	S	10 22 16.9	+0.9
JSH	Shimam	1.78	84	P	Pn	10 21 46.3	+0.6
JYM2	Yakumo 2	2.06	99	P	Pn	10 21 48.9	+1.0
JSK	Shakotan	2.26	66	P	Pn	10 21 50.0	+0.4
JSK				eS	S	10 22 27.9	+0.3
JKB	Kayabe	2.59	102	P	Pn	10 21 53.1	+0.5
JOT	Ohata	2.77	112	P	Pn	10 21 54.7	+0.4
JEW	Eniwo	2.83	81	P	Pn	10 21 55.8	+0.9
JEW				eS	S	10 22 38.9	+1.6
JHR	Hokuryu	3.25	66	P	Pn	10 22 00.1	+1.0
JYG	Yagishiri	3.38	53	P	Pn	10 22 00.9	+0.5
JANG	Nango	3.59	124	P	Pn	10 22 02.3	-0.5
JFR	Furan	3.71	78	P	Pn	10 22 04.1	+0.1
JFR				eS	S	10 22 52.4	-1.4
JNBK	Urakawa-nobuka	3.79	91	P	Pn	10 22 04.8	-0.2
ASAJ	Asahikawa	3.97	64	P	Pn	10 22 07.4	+0.5
ASAJ				S	S	10 22 57.4	-1.6
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ	Asahikawa	3.97	64	P	Pn	10 22 07.3	+0.4
	comp=Z,7.1nm,0.3s,baz=256,slow=11,SNR=42						
ASAJ				S	S	10 22 57.4	-1.7
	baz=55,slow=24,SNR=4.2						
JKK2	Kamakawa 2	3.99	68	P	Pn	10 22 07.6	+0.5
JKK2				S	S	10 22 58.3	-1.1
JOM	Ohasama	4.08	136	P	Pn	10 22 08.5	+0.3
JOM				eS	S	10 22 59.7	-1.7
ERM	Erimo	4.12	95	eP	Pn	10 22 08.7	+0.1
JWK2	Keihoku	4.19	46	P	Pn	10 22 10.8	+1.5
JCH	Churui	4.23	86	P	Pn	10 22 09.0	-0.8
JCH				eS	S	10 23 01.0	-3.3
JMK	Ichinoseki	4.45	141	P	Pn	10 22 11.8	-0.6
JTKR	Abashiri--Toko	4.82	70	P	Pn	10 22 16.6	0.0
JTKR				eS	S	10 23 14.2	-2.4
YSS	Yuzh-Sakhalins	5.77	37	eP	Pn	10 22 28.5	+0.7
YSS				pmax	pmax		
	comp=Z,8.0nm,0.4s						
YSS	Yuzh-Sakhalins	5.77	37	ePn	Pn	10 22 28.5	+0.7
	comp=Z,8.0nm,0.4s						
MJAR	Matsushiro Arr	5.94	176	P	Pn	10 22 31.3	+1.2
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	5.94	176	P	Pn	10 22 31.3	+1.3
	comp=Z,0.7nm,0.3s,baz=2.4,slow=11,SNR=12						
NEM2	Nemuro 2	6.01	79	P	Pn	10 22 28.9	-1.9
NEM2				eS	S	10 23 35.8	-6.7
JRY	Ryogami san	6.52	171	P	Pn	10 22 36.7	-0.4
CN2	Changchun	9.02	283	eP	Pn	10 23 06.1	-1.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
PETK	Petropavlovsk-	17.11	45	P	P	10 24 42.1	0.0
	comp=Z,0.3nm,0.3s,baz=216,slow=5.2,SNR=5.7						
SONM	Songino Array	22.58	294	P	P	10 25 37.2	-0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM	Songino Array	22.58	294	P	P	10 25 37.2	-0.5
	comp=Z,0.6nm,0.4s,mb3.3,baz=97,slow=7.9,SNR=7.1						
ZALV	Zalesovo Beam	36.20	307	P	P	10 27 36.1	-1.1
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
ZALV	Zalesovo Beam	36.20	307	P	P	10 27 36.0	-1.1
	comp=Z,1.7nm,0.5s,mb3.9,baz=89,slow=9.0,SNR=10						
MKAR	Makanchi Array	38.94	296	P	P	10 27 58.8	-1.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	38.94	296	P	P	10 27 58.8	-1.3
	comp=Z,0.7nm,0.5s,mb3.4,baz=82,slow=12,SNR=17						
KURK	Kurchatov	40.41	303	eP	P	10 28 10.7	-1.4
KURK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
KURK	Kurchatov	40.41	303	eP	P	10 28 10.7	-1.3
	comp=Z,5.3nm,0.6s,mb4.0						
RES	Resolute Bay	58.06	14	P	P	10 30 24.4	-0.1
RES				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.5						
RES	Resolute Bay	58.06	14	P	P	10 30 24.4	0.0
	comp=Z,0.7nm,0.5s,mb3.4,baz=318,slow=6.5,SNR=4.2						
RES	Resolute Bay	58.06	14	P	P	10 30 24.4	-0.1
YKA	Yellowknife Ar	60.59	31	P	P	10 30 41.9	+0.1
	comp=Z,0.3nm,0.4s,mb3.2,baz=310,slow=6.6,SNR=4.9						
NVAR	Mina Array Bea	74.02	52	P	P	10 32 08.1	+2.1
	comp=Z,0.5nm,0.5s,mb3.4,baz=305,slow=6.1,SNR=6.5						
PDAR	Pinedale Array	75.88	44	P	P	10 32 17.8	+1.3
	comp=Z,0.9nm,0.4s,mb3.8,baz=347,slow=0.8,SNR=9.7						
ULM	Lac du Bonnet	76.50	32	P	P	10 32 20.2	+0.3
	comp=Z,1.8nm,0.4s,mb4.1,baz=326,slow=5.6,SNR=3.4						
TXAR	Lajitas Array	88.98	50	P	P	10 33 25.5	+1.4
	comp=Z,0.2nm,0.5s,mb3.2,baz=263,slow=2.7,SNR=6.9						

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*IDC **09** 10:22:50.0±2.7, 63°.12N×150°.08W, h85^{km}±29^{km}, mb3.2/6, mb1 3.5/9, mb1mx3.3/25, mbtmp3.2/9, Error ellipse: s-maj=20.1km s-min=18.3km az=178.0*

*ISCJB **09** 10:22:50.6±0.3, 63°.17N±0°.03×149°.76W±0°.07, h104^{km}±4^{km}, mb3.4/6, Error ellipse: s-maj=5.3km s-min=5.0km az=176.3*

*NEIC **09** 10:22:52.2, 63°.15N×149°.72W, h87^{km}, MG3.6(AEIC), After AEIC.*

ISC 09 10:22:51.8±0.3, 63°.17N±0°.03×149°.76W±0°.07, h97^{km}±4^{km}, n43, σ0^{s}.64/50, mb3.4/6, Central Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRF	Thorofare Moun	0.37	320	P	Pn	10 23 06.2	-0.1
TRF				S	Sn	10 23 16.9	-0.3
KTH	Kantishna Hill	0.65	307	P	Pn	10 23 08.6	+0.2
MCK	McKinley	0.68	33	P	Pn	10 23 08.5	-0.2
MCK				S	Sn	10 23 20.5	-0.8
BPAW	Bear Paw Mtn.	1.09	330	P	Pn	10 23 13.0	+0.1
BPAW				S	Sn	10 23 28.4	-0.3
PPLA	Purkeypile	1.14	257	P	Pn	10 23 14.0	+0.5
PPLA				S	Sn	10 23 29.9	+0.1
CHUM	Lake Minchumin	1.35	303	P	Pn	10 23 16.5	+0.5
CHUM				S	Sn	10 23 34.5	+0.2
SKT	Skwentna	1.45	215	P	Pn	10 23 16.6	-0.5
SKT				S	Sn	10 23 35.5	-0.8
SML	Sawmill	1.52	154	P	Pn	10 23 17.8	-0.2
SML				S	Sn	10 23 39.1	+1.3
PMR	Palmer	1.61	169	eP	Pn	10 23 19.2	+0.1
COLA	College	1.91	25	P	Pn	10 23 22.9	-0.1
PAX	Paxson	1.96	94	P	Pn	10 23 24.4	+0.7
FIB	Fire Island	2.02	186	P	Pn	10 23 25.6	+1.2
IL1	Eielson Array	2.05	37	P	Pn	10 23 24.4	-0.4
RC01	Rabbit Creek A	2.09	180	P	Pn	10 23 26.2	+0.9
DOT	Dot Lake	2.61	77	P	Pn	10 23 32.0	-0.1
SLKM	Skilak Lake	2.68	185	P	Pn	10 23 33.8	+0.7
MENT	Mentasta	2.76	92	eP	Pn	10 23 34.5	+0.4
TT01	Tatalina	2.87	268	P	Pn	10 23 35.6	+0.1
SEW	Seward	3.08	177	P	Pn	10 23 38.4	0.0
EYAK	Cordova Ski Ar	3.24	142	P	Pn	10 23 39.8	-0.7
IM3	Indian Mountai	3.31	330	P	Pn	10 23 41.9	+0.4
SVW2	Sparrevohn	3.44	235	P	Pn	10 23 43.0	-0.1
GCSA	Galena City Sc	3.52	300	P	Pn	10 23 45.1	+0.8
BCA3	Beaver Creek A	3.62	88	P	Pn	10 23 45.0	-0.6
COLD	Coldfoot	4.08	358	P	Pn	10 23 52.8	+0.9
EGAK	Eagle	4.12	63	ePn	Pn	10 23 52.1	-0.3
DAWY	Dawson	4.71	74	P	Pn	10 24 00.3	-0.1
BM3	Burnt Mountain	4.78	25	P	Pn	10 24 01.7	+0.3
KDAK	Kodiak Island	5.58	196	P	Pn	10 24 11.0	-1.2
	2.1nm,0.3s,baz=352,slow=23,SNR=20						
KDAK				S	Sn	10 25 10.8	-4.2
	11nm,0.3s,baz=272,slow=22,SNR=12						
KDAK	Kodiak Island	5.58	196	P	Pn	10 24 10.7	-1.5
PNL	Peninsula	6.08	121	P	Pn	10 24 18.1	-0.9
OHAK	Old Harbor	6.22	198	eP	Pn	10 24 20.3	-0.6
WHY	Whitehorse	7.46	103	P	Pn	10 24 36.9	-0.8
DLBC	Dease Lake	10.72	107	P	Pn	10 25 21.9	-0.1
	0.1nm,0.3s,baz=308,slow=17,SNR=3.6						
YKA	Yellowknife Ar	15.95	77	P	Pn	10 26 30.4	+0.3
	0.2nm,0.3s,baz=286,slow=13,SNR=9.3						
EDM	Edmonton	21.31	101	eP	P	10 27 31.3	+0.9
RES	Resolute Bay	21.80	36	P	P	10 27 35.9	+0.5
	0.8nm,0.6s,mb3.2,baz=253,slow=16,SNR=8.0						
PDAR	Pinedale Array	30.89	112	P	P	10 28 58.8	0.0
	0.5nm,0.6s,mb3.4,baz=320,slow=2.4,SNR=4.8						
NVAR	Mina Array Bea	31.17	128	P	P	10 29 00.8	-0.4
	0.4nm,0.6s,mb3.3,baz=316,slow=9.7,SNR=4.1						
TXAR	Lajitas Array	44.84	117	P	P	10 30 57.1	+1.2
	0.7nm,0.5s,mb3.6,baz=333,slow=6.9,SNR=13						
SONM	Songino Array	54.18	306	P	P	10 32 05.7	-0.9
	0.4nm,0.7s,mb3.6,baz=34,slow=7.2,SNR=3.7						
MKAR	Makanchi Array	62.89	323	P	P	10 33 05.7	-1.4
	0.2nm,0.5s,mb3.3,baz=47,slow=7.7,SNR=6.6						
BOSA	Boshof	145.29	8	PKPbc	PKPbc	10 42 17.3	-0.1
	1.3nm,0.4s,baz=322,slow=2.8,SNR=5.6						

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*ISCJB **09** 10:41:31.0±0.6, 41°.14N±0°.03×33°.84E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=4.0km az=20.1*

*CSEM **09** 10:41:31.0±0.2, 41°.13N×33°.83E, h15^{km}, MD2.8, Error ellipse: s-maj=6.2km s-min=4.7km az=26.0*

*DDA **09** 10:41:31.2, 41°.16N×33°.84E, h6^{km}±4^{km}, Md2.8*

ISC 09 10:41:31.3±0.6, 41°.14N±0°.04×33°.83E±0°.04, h16^{km}±5^{km}, n16, σ0^{s}.75/30, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILGA	Ilgaz	0.12	223	i P	Pg	10 41 34.5	-0.4
ILGA				i S	Sg	10 41 36.6	-0.8
ILGA	Ilgaz	0.12	223	i P	Pg	10 41 34.5	-0.4
ILGA				i S	Sg	10 41 36.6	-0.8
TOS	Tosya	0.18	126	PG	Pg	10 41 35.5	-0.2
TOS				eSG	Sg	10 41 38.2	-0.5
TOS	Tosya	0.18	126	i Pg	Pg	10 41 35.5	-0.2
TOS				eSg	Sg	10 41 38.2	-0.5
BALT	Daday	0.51	320	i P	Pg	10 41 42.8	+1.3
BALT				i S	Sg	10 41 48.1	-0.3
BALT	Daday	0.51	320	i P	Pg	10 41 42.8	+1.3
BALT				i S	Sg	10 41 48.1	-0.3
ELDT	Eldivan	0.72	205	i P	Pg	10 41 45.6	+0.3
ELDT				i S	Sg	10 41 56.5	+1.7
ELDT	Eldivan	0.72	205	i P	Pg	10 41 45.6	+0.3
ELDT				i S	Sg	10 41 56.5	+1.7
BOYT	Boyabat	0.86	71	i P	Pg	10 41 47.5	-0.4
BOYT				i S	Sg	10 41 59.9	+0.7
BOYT	Boyabat	0.86	71	i P	Pg	10 41 47.5	-0.4
BOYT				i S	Sg	10 41 59.9	+0.7
SAFT	Safranbolu	0.87	277	ePG	Pg	10 41 47.6	-0.4
SAFT	Safranbolu	0.87	277	ePg	Pg	10 41 47.7	-0.4
CTKT	Corum	0.90	125	i P	Pg	10 41 48.2	-0.4
CTKT				i S	Sg	10 42 01.3	+0.9
CTKT	Corum	0.90	125	i P	Pg	10 41 48.2	-0.4
CTKT				i S	Sg	10 42 01.3	+0.9
CDAG	Cicekdag	1.57	165	i P	Pn	10 41 57.5	-0.9
CDAG				i S	Sn	10 42 18.2	-0.3
CDAG	Cicekdag	1.57	165	i P	Pn	10 41 57.5	-1.0
CDAG				i S	Sn	10 42 18.2	-0.3

IDC 09 10:43:09.2±16.0, 27°.05S×175°.89W, h130^{km}±144^{km}, mb3.7/4, mb1 4.0/4, mb1mx3.6/15, mbtmp3.7/4, MS3.5/2, Ms1 3.5/2, ms1mx2.9/24, Error ellipse: s-maj=59.1km s-min=41.5km az=146.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	2.83	219	LR	LR	10 44 29.3	
	comp=Z,506nm,18.7s,baz=111,slow=28						
HNR	Honiara	28.78	303	LR	LR	10 58 31.5	
	comp=Z,123nm,19.3s,baz=187,slow=32						
CTA	Charters Tower	35.29	273	P	P	10 49 53.0	+1.3
	8.7nm,0.6s,baz=103,slow=9.6,SNR=18						
ASAR	Alice Springs	45.26	263	P	P	10 51 12.9	-0.9
	0.7nm,0.8s,baz=91,slow=6.7,SNR=6.8						
WRA	Warramunga Arr	45.96	268	P	P	10 51 18.1	-1.2
	1.7nm,0.8s,baz=106,slow=6.1,SNR=10						
NVAR	Mina Array Bea	84.52	42	P	P	10 55 27.6	+0.2
	1.2nm,0.8s,baz=219,slow=7.9,SNR=7.8						
MKAR	Makanchi Array	117.02	311	PKP	PKPdf	11 01 38.6	+0.3
	0.4nm,0.4s,baz=88,slow=1.4,SNR=8.7						
KURK	Kurchatov	120.04	315	PKP	PKPdf	11 01 44.8	+0.8
	0.5nm,0.6s,baz=87,slow=1.8,SNR=3.3						
TORD	Torodi Ar. Bea	165.98	170	PKPab	PKPab	11 03 59.5	-0.3
	1.3nm,0.9s,baz=180,slow=4.0,SNR=4.7						

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*ISCJB **09** 10:52:27.0±4.1, 52°.1N±0°.2×171°.2E±0°.1, h15^{km}±26^{km}, mb4.1/14, Error ellipse: s-maj=36.8km s-min=9.4km az=169.5*

*IDC **09** 10:52:27.2±1.8, 52°.14N×171°.19E, h0^{km}, mb3.9/11, mb1 4.1/12, mb1mx3.8/29, mbtmp4.0/12, ML4.4/1, Error ellipse: s-maj=49.3km s-min=10.4km az=168.0*

*NEIC **09** 10:52:28.6±1.1, 52°.15N×171°.25E, h10^{km}, mb4.4/2, Error ellipse: s-maj=33.6km s-min=6.5km az=174.0*

*MOS **09** 10:52:28.6±1.2, 51°.90N×171°.18E, h33^{km}, mb4.6/6, Error ellipse: s-maj=18.3km s-min=14.9km az=106.9*

ISC 09 10:52:28.2±4.6, 52°.3N±0°.3×171°.3E±0°.1, h4^{km}±30^{km}, n30, σ0^{s}.66/33, mb4.1/14, 1C-1D, Near Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FX1	Attu Island--F	1.33	61	P	Pn	10 52 53.3	-0.1
FX1						10 53 11.3	
FX1				pmax	pmax		
	comp=Z,220nm,0.3s						
FX1				smax			
	comp=N,527nm,0.3s						
FX1	Attu Island--F	1.33	61	Pn	Pn	10 52 53.3	-0.2
	comp=N,220nm,0.3s,baz=230,slow=3.5,SNR=305						
FX1				Sn	Sn	10 53 11.3	-0.3
	comp=N,527nm,0.3s,baz=297,slow=12,SNR=14						
PET	Petropavlovsk	7.71	281	eP	Pn	10 54 20.4	-0.6
PETK	Petropavlovsk-	8.28	281	P	Pn	10 54 29.3	+0.4
PETK						10 55 54.7	
PETK				pmax	pmax		
	comp=Z,5.0nm,0.3s						
PETK				smax			
	comp=N,1.0nm,0.3s						
PETK	Petropavlovsk-	8.28	281	Pn	Pn	10 54 29.3	+0.4
	comp=N,4.5nm,0.3s,baz=85,slow=18,SNR=57						
PETK				Sn	Sn	10 55 54.7	-8.1
	comp=N,0.9nm,0.3s,baz=103,slow=22,SNR=3.2						
PETK	Petropavlovsk-	8.28	281	Pn	Pn	10 54 29.3	+0.4
PETK				Sn	Sn	10 55 54.7	-8.1
SEY	Seymchan	14.66	324	⇓eP	Pn	10 55 59.9	+3.9
KDAK	Kodiak Island	21.28	61	P	P	10 57 14.5	-0.7
KDAK				pmax	pmax		
	comp=Z,9.0nm,0.3s,mb4.6						
KDAK	Kodiak Island	21.28	61	P	P	10 57 14.5	-0.7
	comp=Z,8.8nm,0.3s,mb4.5,baz=336,slow=2.0,SNR=11						
TIXI	Tiksi	26.89	332	eP	P	10 58 04.5	-5.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
TIXI	Tiksi	26.89	332	eP	P	10 58 04.5	-5.1
	comp=Z,5.0nm,0.8s,mb4.1						
EGAK	Eagle	27.09	44	eP	P	10 58 11.6	+0.1
	comp=Z,9.6nm,1.0s,mb4.3						
YKA	Yellowknife Ar	39.06	45	P	P	10 59 56.6	+1.1
	comp=Z,0.6nm,0.4s,mb3.7,baz=290,slow=7.9,SNR=10						
SONM	Songino Array	40.64	291	P	P	11 00 09.4	+0.5
SONM				pmax	pmax		

	comp=Z,1.0nm,0.6s						
SONM	Songino Array	40.64	291	P	P	11 00 09.4	+0.5
	comp=Z,1.0nm,0.6s,mb3.7,baz=62,slow=8.3,SNR=11						
SPITS	Spitsbergen Ar	48.94	353	P	P	11 01 15.7	+1.1
SPITS				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SPITS	Spitsbergen Ar	48.94	353	P	P	11 01 15.7	+1.0
	comp=Z,9.9nm,1.0s,mb4.8,baz=199,slow=4.1,SNR=4.0						
PDAR	Pinedale Array	51.80	67	P	P	11 01 37.3	+0.6
	comp=Z,0.2nm,0.5s,mb3.3,baz=284,slow=7.3,SNR=2.8						
KURK	Kurchatov	53.78	308	P	P	11 01 51.3	0.0
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
KURK	Kurchatov	53.78	308	P	P	11 01 51.2	-0.1
	comp=Z,1.6nm,0.7s,mb4.0,baz=53,slow=7.5,SNR=12						
KURK	Kurchatov	53.78	308	P	P	11 01 51.2	-0.1
MKAR	Makanchi Array	54.50	302	P	P	11 01 55.6	-1.0
	comp=Z,0.2nm,0.4s,mb3.5,baz=52,slow=6.6,SNR=8.3						
LVZ	Lovozero	55.88	342	⇑eP	P	11 02 04.8	-1.4
LVZ				pmax	pmax		
	comp=Z,74nm,2.5s,mb5.3						
BVAR	Borovoye Array	56.05	314	P	P	11 02 07.5	-0.1
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	56.05	314	P	P	11 02 07.5	-0.1
	comp=Z,1.3nm,0.4s,mb4.3,baz=59,slow=7.8,SNR=6.6						
SCHQ	Schefferville	62.92	33	P	P	11 02 55.0	-0.1
	comp=Z,3.2nm,1.0s,mb4.4,baz=22,slow=3.1,SNR=3.7						
AKTK	Aktyubinsk	63.18	319	P	P	11 02 57.1	+0.3
AKTO	Aktyubinsk	63.18	319	P	P	11 02 57.1	+0.3
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.1						
AKTO	Aktyubinsk	63.18	319	P	P	11 02 57.1	+0.3
	comp=Z,1.2nm,0.6s,mb4.2,baz=44,slow=8.2,SNR=6.0						
TXAR	Lajitas Array	64.51	75	P	P	11 03 05.9	0.0
	comp=Z,0.1nm,0.3s,mb3.3,baz=312,slow=5.6,SNR=3.1						

IDC 09 11:02:20.3±2.5, 54°.25N×86°.25E, h0^{km}, mb1 2.7/2, mb1mx2.6/26, mbtmp2.7/2, ML2.6/2, Error ellipse: s-maj=19.6km s-min=1.7km az=70.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	Zalesovo Beam	0.89	251	Pg	Pg	11 02 36.6	-0.8
	1.4nm,0.3s,baz=66,slow=16,SNR=18						
ZALV				Lg		11 02 50.6	
	1.8nm,0.3s,baz=74,slow=31,SNR=15						
KURK	Kurchatov	5.85	236	Pn	Pn	11 03 49.5	+1.3
	0.0nm,0.3s,baz=52,slow=13,SNR=4.7						
MKAR	Makanchi Array	7.88	200	Pn	Pn	11 04 17.7	+1.7
	0.1nm,0.3s,baz=20,slow=13,SNR=7.6						

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*GII **09** 11:08:57.9±0.0, 33°.41N×35°.41E, h1^{km}, Md2.0/4, Mining explosion.*

*ISCJB **09** 11:08:58.7±0.7, 33°.47N±0°.03×35°.40E±0°.04, h0^{km}, Error ellipse: s-maj=5.6km s-min=3.8km az=28.7*

*CSEM **09** 11:08:59.9, 33°.42N×35°.46E, h0^{km}, ML2.7, After GRAL*

*GRAL **09** 11:08:59.9±0.4, 33°.42N×35°.46E, h0^{km}±78^{km}, MD2.7*

ISC 09 11:08:59.2±0.7, 33°.47N±0°.03×35°.41E±0°.04, h0^{km}, n19, σ0^{s}.97/27, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.07	283	eP	Pg	11 09 02.1	+1.6
MATL	Matirih	0.07	283	eP	Pg	11 09 02.1	+1.6
RCY	Rachaya	0.34	88	eP	Pg	11 09 05.7	-0.1
RCY				eS	Sg	11 09 10.1	-0.2
RCY	Rachaya	0.34	88	eP	Pg	11 09 05.7	-0.1
RCY				eS	Sg	11 09 10.1	-0.1
KSDI	Kefar Szold	0.35	143	Pg	Pg	11 09 04.9	-1.0
KSDI				Sg	Sg	11 09 11.7	+1.3
HNTI	Hanita	0.44	207	Pg	Pg	11 09 07.6	0.0
HNTI				Sg	Sg	11 09 13.8	+0.6
MMC7	Mount Meron ar	0.45	182	Pg	Pg	11 09 07.1	-0.7
MMA0	Mount Meron ar	0.46	181	Pg	Pg	11 09 07.1	-0.9
MMA0				Sg	Sg	11 09 15.0	+1.1
BHL	Bhannes	0.48	25	eP	Pg	11 09 09.3	+0.9
BHL	Bhannes	0.48	25	eP	Pg	11 09 09.3	+0.9
KSHT	Keshet	0.59	145	Pg	Pg	11 09 10.3	-0.3
KSHT				Sg	Sg	11 09 20.2	+1.9
BLGI	Bet Lehem HaGe	0.76	194	Pg	Pg	11 09 12.2	-1.6
BLGI				Sg	Sg	11 09 24.9	+1.3
HWQ	Hawqa	0.92	29	eP	Pg	11 09 17.0	+0.2
HWQ	Hawqa	0.92	29	eP	Pg	11 09 17.0	+0.1
OFRI	‘Ofer	0.92	203	Pg	Pg	11 09 16.2	-0.7
MMLI	Mount Malkishu	1.03	179	Pg	Pg	11 09 17.9	-1.1
MMLI				Sg	Sg	11 09 32.1	-0.3
HMDT	Nahal Hemdat	1.22	175	Pg	Pg	11 09 21.3	-1.3
SLTI	Sal’it	1.27	194	Sg	Sg	11 09 40.5	+0.6
DSI	Dead Sea	1.90	181	Pn	Pn	11 09 31.9	-0.9

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*TRN **09** 11:25:30.6, 19°.13N×64°.80W, h15^{km}*

*NEIC **09** 11:25:32.1, 19°.20N×64°.63W, h72^{km}, MD3.7(RSPR), After RSPR.*

*RSPR **09** 11:25:32.1, 19°.20N×64°.63W, h72^{km}±4^{km}, MD3.7/10, MD3.7/10*

ISC 09 11:25:31.3±1.7, 19°.2N±0°.3×64°.6W±0°.2, h77^{km}±37^{km}, n12, σ0^{s}.29/18, 10C-2D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABV	Anegada	0.51	151	⇑eP	Pn	11 25 44.9	0.0
ABV				eS	Sn	11 25 54.8	0.0
TBVI	Tortola	0.76	182	⇓eP	Pn	11 25 47.5	+0.1
TBVI				eS	Sn	11 25 59.5	+0.3
STVI	Saint Thomas	0.89	203	⇑eP	Pn	11 25 48.6	-0.3
STVI				eS	Sn	11 26 01.8	-0.2
MTP	Monte Pirata	1.41	220	⇑eP	Pn	11 25 55.4	+0.1
MTP				eS	Sn	11 26 13.7	+0.3
CBYP	Canovanas	1.50	233	⇑eP	Pn	11 25 56.1	-0.4
HUMP	Col San Antoni	1.57	229	⇑eP	Pn	11 25 57.2	-0.3
CPD	Cerro la Pandu	1.69	228	⇓eP	Pn	11 25 58.7	-0.3
SJG	San Juan	1.82	235	⇑eP	Pn	11 26 01.1	+0.4
SJG				eS	Sn	11 26 22.5	-0.5
CELP	Cerrillos	2.18	240	⇑eP	Pn	11 26 05.4	-0.2
AOPR	Arecibo Observ	2.21	248	⇑eP	Pn	11 26 06.0	+0.1
AOPR	Arecibo Observ	2.21	248	⇑eP	Pn	11 26 06.2	+0.3
CRPR	Cabo Rojo, PR	2.66	244	⇑eP	Pn	11 26 12.3	+0.3
CRPR				eS	Sn	11 26 43.5	+0.4

DJA 09 11:43:50, 9°.58S×116°.47E, h15^{km}, MLv3.8/4, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHKI	Kahang-Kahang	1.48	325	P	Pn	11 44 15.1	-1.0
KHKI				S	Sn	11 44 34.7	-0.4
IGBI	Denpasar	1.51	300	P	Pn	11 44 15.6	-0.9
IGBI				S	Sn	11 44 34.9	-1.1
DNP	Denpasar	1.53	306	P	Pn	11 44 16.6	-0.2
DNP				S	Sn	11 44 36.3	-0.2
NBBI	Negara	2.19	303	P	Pn	11 44 25.6	-0.2
NBBI				S	Sn	11 44 54.6	+1.9

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*ISCJB **09** 12:34:38.2±0.4, 23°.35S±0°.04×69°.05W±0°.06, h85^{km}±5^{km}, mb4.2/11, Error ellipse: s-maj=9.4km s-min=5.8km az=179.8*

*NEIC **09** 12:34:38.9, 23°.20S×69°.11W, h94^{km}, MD4.4(GUC), After GUC.*

*GUC **09** 12:34:38.9±0.6, 23°.20S×69°.11W, h94^{km}±5^{km}, MD4.4, ML4.6*

*IDC **09** 12:34:41.0±0.7, 23°.07S×68°.90W, h88^{km}±4^{km}, mb3.9/8, mb1 4.0/10, mb1mx3.9/17, mbtmp3.9/10, MS3.2/2, Ms1 3.2/2, ms1mx2.7/39, Error ellipse: s-maj=20.4km s-min=13.8km az=61.0*

ISC 09 12:34:39.4±0.4, 23°.32S±0°.03×69°.06W±0°.06, h80^{km}±5^{km}, h89^{km}±1.3^{km}:pP-P, n35, σ1^{s}.05/41, mb4.2/11, 2C-4D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.71	11	P	Pn	12 34 55.9	+0.7
	1µm,0.3s,baz=175,slow=8.0,SNR=2766						
LVC				S	Sn	12 35 08.3	+1.4
	6µm,0.3s,baz=99,slow=19,SNR=202						
LVC	Limon Verde	0.71	11	⇓iP	Pn	12 34 55.9	+0.7
LVC				iS	Sn	12 35 08.4	+1.5
LVC				AML	AML	12 35 10.5	
	comp=E,44µm,0.4s						
PECH	Pedro de Valdi	0.91	321	⇓iP	Pn	12 34 57.2	-0.3
PECH				iS	Sn	12 35 11.4	+0.5
PECH				AML	AML	12 35 12.7	
	comp=E,84µm,0.2s						
CEN1	Los Morros	1.05	266	⇑iP	Pn	12 34 58.5	-0.6
CEN1				iS	Sn	12 35 15.6	+1.9
CEN1				AML	AML	12 35 19.3	
	comp=E,8µm,0.7s						
PB04	Plate Boundary	1.12	339	⇓iP	Pn	12 35 02.8	+2.9
PB04				iS	Sn	12 35 21.4	+6.2
PB04				AML	AML	12 35 23.6	
	comp=E,12µm,0.5s						
MACH	Maria Elena	1.29	330	⇑iP	Pn	12 35 01.7	-0.3
MACH				iS	Sn	12 35 18.5	-0.5
MECH	Mejillones	1.30	279	⇓iP	Pn	12 35 02.0	-0.1
MECH				eS	Sn	12 35 19.1	0.0
MECH				AML	AML	12 35 24.9	
	comp=N,22µm,0.6s						
TOCH	Tocopilla	1.61	319	iP	Pn	12 35 05.2	-0.9
TOCH				iS	Sn	12 35 25.2	-1.2
TOCH				AML	AML	12 35 30.0	
	comp=E,11µm,0.2s						
LCO	Las Campanas	5.86	194	ePn	Pn	12 36 02.8	-0.9
	comp=E,77nm,0.4s						
LCO				eSn	Sn	12 37 09.7	+0.2
ARE	Arequipa	7.19	341	eP	Pn	12 36 20.0	-1.9
ARE				eS	Sn	12 38 06.0	+24
CFAA	Coronel Fontan	8.29	175	P	Pn	12 36 35.9	-0.9
	comp=E,0.6nm,0.3s,baz=349,slow=13,SNR=26						
CFAA				S	Sn	12 38 07.7	-1.1
	comp=E,0.2nm,0.3s,baz=24,slow=20,SNR=2.3						
CFAA	Coronel Fontan	8.29	175	P	Pn	12 36 35.9	-0.9
CFAA				S	Sn	12 38 07.7	-1.1
SIV	San Ignacio	10.47	47	P	Pn	12 37 04.0	-2.7
	comp=E,3.2nm,0.3s,baz=248,slow=10,SNR=32						
SIV				S	Sn	12 38 54.0	-8.2
	baz=294,slow=19,SNR=3.0						
CPUP	Villa Florida	11.07	108	P	Pn	12 37 16.1	+1.3
	comp=E,1.0nm,0.3s,baz=256,slow=12,SNR=9.2						
PLCA	Paso Flores	17.41	184	P	Pn	12 38 36.2	-0.8
	comp=E,0.2nm,0.3s,baz=12,slow=13,SNR=4.5						
PLCA				LR	LR	12 45 33.0	
	comp=E,80nm,18.9s,baz=4.2,slow=37						
PLCA	Paso Flores	17.41	184	P	Pn	12 38 36.2	-0.8
SDV	Santo Domingo	32.04	357	LR	LR	12 56 02.2	
	comp=E,49nm,20.1s,baz=189,slow=40						
VNA3	Neumayer Olymp	58.41	161	e	P	12 44 27.6	+1.3
VNA2	Neumayer--Watz	58.99	160	e	P	12 44 31.9	+1.6
	baz=294,slow=8.7						
TXAR	Lajitas Array	62.04	326	P	P	12 44 51.0	-0.6
	comp=E,0.1nm,0.5s,mb3.1,baz=160,slow=8.4,SNR=6.2						
TXAR				pP	pP	12 45 13.5	+1.5
	comp=E,0.4nm,0.7s,baz=158,slow=7.8,SNR=5.0						
LIC	Lamto	69.03	73	eP	P	12 45 36.9	-0.1
	comp=E,31nm,1.5s,mb4.9						
TIC	Toumodi	69.23	73	eP	P	12 45 38.3	0.0
	comp=E,11nm,0.2s,mb5.3						
KIC	Kosan Boka	69.35	73	eP	P	12 45 38.4	-0.6
	comp=E,22nm,0.7s,mb5.1						
DBIC	Dimbokro	69.39	73	P	P	12 45 38.4	-0.9
	comp=E,2.0nm,0.5s,mb4.2,baz=234,slow=6.7,SNR=9.4						
PDAR	Pinedale Array	75.61	330	P	P	12 46 16.7	+1.1
	comp=E,0.4nm,0.8s,mb3.2,baz=150,slow=7.3,SNR=2.8						
PDAR				pP	pP	12 46 38.7	+2.1
	comp=E,0.3nm,0.5s,baz=108,slow=8.8,SNR=3.3						
NVAR	Mina Array Bea	76.84	322	P	P	12 46 23.5	+0.9
	comp=E,0.5nm,0.8s,mb3.3,baz=157,slow=4.9,SNR=2.7						
NVAR				pP	pP	12 46 46.5	+2.8
	comp=E,0.5nm,0.7s,baz=129,slow=7.1,SNR=3.0						
TORD	Torodi Ar. Bea	78.10	70	P	P	12 46 29.2	-0.9
	comp=E,8.4nm,0.5s,mb4.7,baz=252,slow=5.1,SNR=107						
TORD				pP	pP	12 46 53.2	+1.9
	comp=E,2.5nm,0.6s,baz=250,slow=5.2,SNR=4.8						
TORD				sP	sP	12 47 02.9	+3.0
	comp=E,4.4nm,0.5s,baz=256,slow=5.4,SNR=5.4						
MAW	Mawson	82.64	163	P	P	12 46 54.9	+1.2
	comp=E,2.5nm,0.5s,mb4.3,baz=202,slow=7.1,SNR=12						
BOSA	Boshof	82.72	118	P	P	12 46 55.4	+0.6
	comp=E,3.9nm,0.7s,mb4.3,baz=323,slow=12,SNR=7.0						
YKA	Yellowknife Ar	92.85	341	P	P	12 47 42.9	+0.2
	comp=E,0.5nm,0.5s,mb4.1,baz=141,slow=4.3,SNR=9.4						
YKA				pP	pP	12 48 06.0	+1.7
	comp=E,1.2nm,0.6s,baz=137,slow=4.5,SNR=12						
ASAR	Alice Springs	128.25	207	PKP	PKPdf	12 53 37.5	+0.3
	comp=E,1.0nm,0.8s,baz=130,slow=1.5,SNR=12						
ASAR				pPKP	pPKPdf	12 54 01.4	+1.7
	comp=E,0.5nm,0.7s,baz=108,slow=1.6,SNR=2.7						
WRA	Warramunga Arr	131.32	210	PKP	PKPdf	12 53 43.8	+0.6
	comp=E,0.5nm,0.4s,baz=156,slow=1.8,SNR=18						
ZALV	Zalesovo Beam	143.64	26	PKP	PKPdf	12 54 03.3	-1.4
	comp=E,0.9nm,0.5s,baz=296,slow=2.7,SNR=6.2						
MKAR	Makanchi Array	147.17	37	PKPbc	PKPbc	12 54 12.1	-1.2
	comp=E,2.9nm,0.8s,baz=3.8,slow=1.5,SNR=26						
MKAR				pPKPbc	pPKPbc	12 54 38.1	+2.5
	comp=E,1.3nm,0.7s,baz=312,slow=3.1,SNR=5.8						
SONM	Songino Array	155.27	7	PKPab	PKPab	12 54 49.9	+1.4
	comp=E,0.4nm,0.6s,baz=341,slow=3.8,SNR=3.7						
SONM				pPKPab	pPKPab	12 55 12.9	+2.6
	comp=E,0.5nm,0.8s,baz=328,slow=3.8,SNR=3.1						

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*ISCJB **09** 12:47:09.7±0.7, 56°.8S±0°.1×141°.4W±0°.3, h10^{km}, mb4.3/6, MS4.4/14, Error ellipse: s-maj=20.3km s-min=13.9km az=163.3*

*IDC **09** 12:47:09.8±0.9, 56°.62S×141°.54W, h0^{km}, mb4.3/6, mb1 4.4/6, mb1mx4.2/15, mbtmp4.3/6, MS4.4/14, Ms1 4.4/14, ms1mx4.2/23, Error ellipse: s-maj=43.0km s-min=24.5km az=7.0*

*NEIC **09** 12:47:11.5±0.8, 56°.67S×141°.48W, h10^{km}, mb4.6/1, Error ellipse: s-maj=37.1km s-min=22.0km az=186.0*

*GCMT **09** 12:47:11.5±0.2, 57°.03S×141°.18W, h22^{km}±1^{km}, MW5.3/81, Moment Tensor Solution. s62,c101; s81,c133; Duration: 1^{s}.1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.16±.02; M$_{\theta\theta}$0.91±.03; M$_{\phi\phi}$-0.75±.02; M$_{r\theta}$0.15±.04; M$_{\theta\phi}$0.78±.02; M$_{\phi r}$-0.04±.03; Best double couple: M$_0$1.15200×10^{17} NP1:φ$_s$23.00000°, δ82.00000°, λ-179.00000°. NP2:φ$_s$293.00000°, δ89.00000°, λ-8.00000°. Principal axes: T 1.2310, Plg5.0000°, Azm339.0000°; N -0.1580, Plg82.0000°, Azm109.0000°; P -1.0730, Plg6.0000°, Azm248.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 09 12:47:11.6±0.7, 56°.8S±0°.1×141°.4W±0°.3, h10^{km}, n27, σ1^{s}.12/11, mb4.3/6, MS4.4/14, Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	28.32	203	LR	LR	13 03 15.1	
	comp=Z,222nm,19.4s,MS3.8,baz=77,slow=34						
RPZ	Rata Peaks	32.40	273	LR	LR	13 03 15.4	
	comp=Z,1µm,21.3s,MS4.6,baz=130,slow=30						
URZ	Urewera	32.91	286	LR	LR	13 03 51.7	
	comp=Z,934nm,19.2s,MS4.5,baz=141,slow=30						
QSPA	South Pole Qui	33.41	180	P	P	12 53 50.9	+1.2
	4.3nm,0.9s,mb4.4,baz=87,slow=6.3,SNR=7.7						
QSPA				LR	LR	13 04 32.3	
	comp=Z,1µm,21.6s,MS4.6,baz=69,slow=31						
QSPA	South Pole Qui	33.41	180	eP	P	12 53 50.7	+1.1
	11nm,1.3s,mb4.6						
RPN	Rapa Nui	37.38	51	LR	LR	13 03 53.3	
	comp=Z,129nm,21.9s,MS3.7,baz=38,slow=27						
PPT	Papeete	39.59	348	eS	S	13 00 44.9	-0.8
PPT				eLR	LR	13 05 16.7	
	3µm,28.2s,baz=174						
TAOE	Nuku Hiva Isla	47.78	2	eS	S	13 02 44.7	-0.6
TAOE				eLR	LR	13 09 12.9	
	5µm,28.4s,baz=195						
VNA3	Neumayer Olymp	47.85	161	e	P	12 55 47.3	-1.5
VNA2	Neumayer--Watz	48.52	162	e	P	12 55 52.9	-1.1
	baz=212,slow=8.0						
AFI	Afiamalu	48.63	319	LR	LR	13 10 08.2	
	comp=Z,714nm,21.5s,MS4.6,baz=165,slow=28						
MAW	Mawson	54.66	191	LR	LR	13 17 14.4	
	comp=Z,360nm,21.1s,MS4.4,baz=160,slow=33						
STKA	Stephens Creek	57.05	261	P	P	12 56 58.4	+0.9
	3.9nm,1.0s,mb4.4,baz=153,slow=9.0,SNR=4.4						
LVC	Limon Verde	61.82	89	P	P	12 57 32.2	+1.6
	1.1nm,0.6s,mb4.2,baz=232,slow=9.5,SNR=4.5						
CTA	Charters Tower	63.77	273	P	P	12 57 44.9	+1.2
	7.4nm,0.9s,mb4.7,baz=131,slow=4.6,SNR=6.1						
CTA				LR	LR	13 22 20.7	
	comp=Z,154nm,18.2s,MS4.2,baz=135,slow=33						
CPUP	Villa Florida	65.21	101	LR	LR	13 21 29.3	
	comp=Z,191nm,18.8s,MS4.3,baz=205,slow=32						
ASAR	Alice Springs	67.68	261	P	P	12 58 08.0	-0.8
	1.7nm,0.9s,mb4.1,baz=137,slow=6.2,SNR=11						
WRA	Warramunga Arr	70.44	263	P	P	12 58 25.3	-0.7
	1.3nm,0.7s,mb3.9,baz=149,slow=5.2,SNR=5.0						
WRA				LR	LR	13 23 24.8	
	comp=Z,280nm,19.3s,MS4.5,baz=140,slow=31						
CMIG	Matias Romero	83.17	44	LR	LR	13 30 36.0	
	comp=Z,100nm,18.2s,MS4.2,baz=90,slow=31						
SUR	Sutherland	89.95	165	LR	LR	13 40 21.6	
	comp=Z,250nm,18.3s,MS4.7,baz=38,slow=35						
BOSA	Boshof	94.23	168	LR	LR	13 41 24.3	
	comp=Z,290nm,18.6s,MS4.8,baz=176,slow=34						
LBTB	Lobatse	97.82	168	LR	LR	13 44 42.9	
	comp=Z,247nm,19.0s,MS4.7,baz=183,slow=35						
ESDC	Sonseca Array	147.55	103	PKPbc	PKPbc	13 06 55.0	-0.1
	0.3nm,0.5s,baz=226,slow=3.9,SNR=4.5						
MKAR	Makanchi Array	151.65	268	PKPbc	PKPbc	13 07 02.9	-2.1
	1.7nm,0.8s,baz=131,slow=3.7,SNR=8.8						
MKAR				PKPab	PKPab	13 07 11.4	-2.5
	5.0nm,1.0s,baz=130,slow=7.8,SNR=15						
MKAR	Makanchi Array	151.65	268	PKPbc	PKPbc	13 07 02.9	-2.2
MKAR				PKPab	PKPab	13 07 11.4	-2.5
ZALV	Zalesovo Beam	153.96	284	PKPbc	PKPbc	13 07 09.3	-0.7
	0.3nm,0.3s,baz=174,slow=5.8,SNR=2.2						
ZALV				PKPab	PKPab	13 07 22.4	-1.1
	1.2nm,0.7s,baz=139,slow=3.4,SNR=3.8						
ZALV	Zalesovo Beam	153.96	284	PKPbc	PKPbc	13 07 09.3	-0.7
ZALV				PKPab	PKPab	13 07 22.4	-1.0

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*ISCJB **09** 12:50:32.3±0.7, 17°.08N±0°.03×100°.31W±0°.05, h16^{km}±4^{km}, mb3.8/5, Error ellipse: s-maj=7.9km s-min=5.4km az=156.0*

*MEX **09** 12:50:34.9±1.0, 17°.07N×100°.27W, h6^{km}±11^{km}, MD4.1*

*NEIC **09** 12:50:35.0, 17°.02N×100°.30W, h5^{km}, mb4.0/2, MD4.1(MEX), After MEX.*

*IDC **09** 12:50:39.0±3.7, 17°.98N×99°.72W, h0^{km}, mb3.8/5, mb1 3.9/8, mb1mx3.8/22, mbtmp3.6/8, ML3.2/2, MS3.2/4, Ms1 3.2/4, ms1mx3.0/40, Error ellipse: s-maj=72.1km s-min=27.2km az=23.0*

ISC 09 12:50:33.3±0.6, 17°.13N±0°.03×100°.26W±0°.05, h8^{km}±4^{km}, n41, σ1^{s}.08/62, mb3.8/5, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.08	186	iP	Pg	12 50 34.6	-0.8
CAIG				iS	Sg	12 50 35.7	-1.3
CAIG	El Cayaco	0.08	186	iS	Sg	12 50 35.7	-1.3
ACX	Acapulco	0.42	128	iP	Pg	12 50 42.0	+0.5
ACX				iS	Sg	12 50 48.5	+1.5
MEIG	Mezcala	1.00	37	iP	Pg	12 50 52.2	-0.4
MEIG				iS	Sg	12 51 06.0	+0.3
PLIG	Platanillo	1.45	30	iP	Pn	12 50 59.9	0.0
PLIG				iS	Sn	12 51 17.9	-1.2
PLIG	Platanillo	1.45	30	iP	Pn	12 51 00.6	+0.7
PLIG				iS	Sn	12 51 20.6	+1.5
PNIG	Pinotepa	2.17	109	iP	Pn	12 51 09.0	-0.7
PNIG				iS	Sn	12 51 33.5	-3.2
PNIG	Pinotepa	2.17	109	iP	Pn	12 51 09.5	-0.2
PNIG				iS	Sn	12 51 36.0	-0.7
CHVM	Chichinautzin	2.22	28	iP	Pn	12 51 11.7	+1.3
CHVM				iS	Sn	12 51 39.6	+1.6
MZVM		2.27	25	iP	Pn	12 51 11.1	-0.1
MZVM				iS	Sn	12 51 38.8	-0.5
SZVM	Salazar	2.34	21	iP	Pn	12 51 12.4	+0.3
SZVM				iS	Sn	12 51 40.1	-0.9
UTMO	Huajuapan	2.45	73	iP	Pn	12 51 13.6	+0.1
UTMO				iS	Sn	12 51 41.9	-1.8
PPM	Popocatepetl	2.48	39	eP	Pn	12 51 14.4	+0.4
PPM				eP		12 51 17.5	
PPM				iS	Sn	12 51 43.0	-1.4
PPM	Popocatepetl	2.48	39	eP	Pn	12 51 17.5	+3.5
PPM				iS	Sn	12 51 45.7	+1.3
PBVM	Pinon	2.56	26	iP	Pn	12 51 14.4	-0.7
PBVM				iS	Sn	12 51 44.0	-2.4
PBVM	Pinon	2.56	26	iP	Pn	12 51 16.4	+1.3
PBVM				iS	Sn	12 51 44.0	-2.4
PTVM	Pico Tres Padr	2.69	24	iP	Pn	12 51 16.6	-0.2
PTVM				iS	Sn	12 51 47.3	-2.2
PTVM	Pico Tres Padr	2.69	24	iP	Pn	12 51 22.5	+5.7
PTVM				iS	Sn	12 51 52.6	+3.1
IIO	Organos	2.85	31	iP	Pn	12 51 21.3	+2.1
IIO				iS	Sn	12 51 51.8	-1.9
IIO	Organos	2.85	31	iP	Pn	12 51 23.4	+4.3
IIO				iS	Sn	12 51 57.5	+3.8
TPIG	Tehuac#an	3.05	65	eP	Pn	12 51 21.8	0.0
TPIG				iS	Sn	12 51 59.3	+0.9
OXX	Oaxaca	3.38	90	eP	Pn	12 51 25.1	-1.3
OXX	Oaxaca	3.38	90	eP	Pn	12 51 19.5	-6.9
HUIG	Huatulco	4.21	108	iP	Pn	12 51 37.8	+0.1
HUIG				iS	Sn	12 52 25.9	-1.1
HUIG	Huatulco	4.21	108	iP	Pn	12 51 38.8	+1.1
HUIG				iS	Sn	12 52 26.9	-0.1
SFJM	Santa Fe	4.26	322	iP	Pn	12 51 42.5	+4.1
CMIG	Matias Romero	5.14	90	Pn	Pn	12 51 51.6	+1.1
	1.3nm,0.3s,baz=259,slow=12,SNR=19						
CMIG				Lg		12 53 14.2	
	18nm,0.3s,baz=327,slow=13,SNR=6.9						
CMIG				LR	LR	12 53 48.4	
	comp=Z,160nm,18.5s,baz=272,slow=40						
TEIG	Tepich	11.77	73	Pn	Pn	12 53 22.3	+0.8
	0.4nm,0.3s,baz=276,slow=10,SNR=3.8						
TXAR	Lajitas Array	12.55	346	Pn	Pn	12 53 31.9	-0.3
	0.0nm,0.3s,baz=172,slow=14,SNR=3.0						
TXAR				Lg		12 57 05.7	
	0.0nm,0.3s,baz=159,slow=23,SNR=3.6						
TXAR	Lajitas Array	12.55	346	Pn	Pn	12 53 31.9	-0.3
TXAR				Lg		12 57 05.7	
JTS	JuntasAbangare	16.34	113	LR	LR	13 00 38.2	
	comp=Z,42nm,21.0s,baz=75,slow=37						
ANMO	Albuquerque	18.60	344	P	Pn	12 54 51.4	+0.2
	0.1nm,0.3s,baz=158,slow=13,SNR=4.2						
ANMO				LR	LR	13 02 56.7	
	comp=Z,130nm,19.2s,baz=52,slow=41						
LRAL	Lakeview Retre	19.85	35	eP	Pn	12 55 05.3	-1.0
	10nm,1.0s						
PLAL	Pickwick Lake	20.85	29	eP	P	12 55 15.6	0.0
	5.8nm,0.8s						
TKL	Tuckaleechee C	23.57	35	P	P	12 55 40.5	-4.1
	8.6nm,0.9s,mb4.2,baz=194,slow=13,SNR=8.1						
TKL				LR	LR	13 06 10.8	
	comp=Z,78nm,18.4s,baz=239,slow=41						
NVAR	Mina Array Bea	26.46	327	P	P	12 56 14.5	+3.7
	3.3nm,0.9s,mb3.9,baz=157,slow=9.6,SNR=20						
NVAR	Mina Array Bea	26.46	327	P	P	12 56 14.5	+3.7
PDAR	Pinedale Array	26.76	345	P	P	12 56 14.3	+0.9
	0.7nm,0.8s,mb3.2,baz=150,slow=10,SNR=4.8						
SCHQ	Schefferville	45.54	27	P	P	12 58 52.8	-0.5
	1.4nm,0.5s,mb4.1,baz=215,slow=6.3,SNR=6.8						
YKA	Yellowknife Ar	46.42	351	P	P	12 59 00.3	+0.1
	1.0nm,1.0s,mb3.7,baz=162,slow=7.2,SNR=9.4						
YKA	Yellowknife Ar	46.42	351	P	P	12 59 00.3	+0.1

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*ISCJB **09** 12:56:46.2±0.7, 32°.65S±0°.05×178°.9W±0°.1, h33^{km}, mb4.5/8, MS4.2/5, Error ellipse: s-maj=18.7km s-min=5.4km az=17.4*

*NEIC **09** 12:56:48.1±0.9, 32°.76S×178°.81W, h35^{km}, mb4.8/2, Error ellipse: s-maj=24.0km s-min=9.1km az=105.0*

*IDC **09** 12:56:49.7±0.8, 32°.49S×178°.92W, h40^{km}±7^{km}, mb4.3/7, mb1 4.5/9, mb1mx4.2/19, mbtmp4.4/9, ML4.6/2, MS4.3/4, Ms1 4.3/4, ms1mx3.7/34, Error ellipse: s-maj=21.1km s-min=11.8km az=110.0*

ISC 09 12:56:48.0±0.6, 32°.63S±0°.05×178°.8W±0°.1, h35^{km}, n49, σ1^{s}.51/35, mb4.5/8, MS4.2/5, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	3.46	13	P	Pn	12 57 39.1	-0.3
	98nm,0.3s,baz=86,slow=22,SNR=7.2						
RAO				S	Sn	12 58 18.1	-1.1
	144nm,0.3s,baz=50,slow=21,SNR=4.7						
MXZ	Matakaoa Point	5.45	205	P	Pn	12 58 08.5	+1.7
MXZ				S	Sn	12 59 10.1	+1.9
PUZ	Puketiti	5.93	203	P	Pn	12 58 14.3	+1.0
MWZ	Matawai	6.42	207	P	Pn	12 58 20.2	+0.2
URZ	Urewera	6.52	209	P	Pn	12 58 22.5	+1.1
	8.4nm,0.3s,baz=111,slow=0.7,SNR=29						

URZ				S	Sn	12 59 35.8	+1.3
	18nm,0.3s,baz=100,slow=22,SNR=7.9						
URZ	Urewera	6.52	209	P	Pn	12 58 22.4	+1.0
WCZ	Waipu Caves	6.54	238	P	Pn	12 58 27.6	+5.8
OUZ	Omahuta	6.81	246	P	Pn	12 58 31.3	+5.9
BKZ	Black Stump Fm	7.54	209	P	Pn	12 58 34.0	-1.5
TSZ	Takapari Road	8.52	208	P	Pn	12 58 48.0	-0.9
BFZ	Birch Farm	8.95	205	P	Pn	12 58 52.3	-2.5
MRZ	Mangatainoka R	9.19	208	P	Pn	12 58 55.3	-2.7
MTW	Mount Morrison	9.64	206	P	Pn	12 59 02.3	-1.9
CAW	Cannon Point	9.77	208	P	Pn	12 59 03.1	-2.9
MRW	Makara Radio	10.02	209	P	Pn	12 59 09.2	-0.2
NNZ	Nelson	10.59	214	P	Pn	12 59 14.3	-3.0
THZ	Tophouse	11.24	214	P	Pn	12 59 23.1	-3.0
KHZ	Kahutara	11.49	210	P	Pn	12 59 25.9	-3.6
LTZ	Lake Taylor	12.34	212	P	Pn	12 59 36.5	-4.6
RPZ	Rata Peaks	13.62	213	P	Pn	12 59 54.0	-4.6
	0.9nm,0.3s,baz=37,slow=22,SNR=5.7						
RPZ				S	Sn	13 02 17.5	-11
	1.0nm,0.3s,baz=68,slow=19,SNR=6.4						
STKA	Stephens Creek	33.35	260	P	P	13 03 24.5	+1.6
	1.1nm,0.4s,mb4.2,baz=101,slow=9.6,SNR=7.0						
CTA	Charters Tower	33.54	283	P	P	13 03 25.6	+1.0
	9.5nm,0.6s,mb4.9,baz=105,slow=9.2,SNR=15						
CTAO	Charters Tower	33.54	283	P	P	13 03 25.4	+0.8
	11nm,0.7s,mb4.9						
ASAR	Alice Springs	42.34	270	P	P	13 04 39.4	+0.6
	4.5nm,0.6s,mb4.3,baz=109,slow=7.6,SNR=78						
WRAB	Tennant Creek	43.53	275	eP	P	13 04 48.6	+0.2
	11nm,0.8s,mb4.6						
WRA	Warramunga Arr	43.53	275	P	P	13 04 48.6	+0.1
	6.8nm,0.4s,mb4.7,baz=112,slow=8.1,SNR=297						
QSPA	South Pole Qui	57.48	180	P	P	13 06 36.5	+3.5
	5.9nm,0.7s,mb4.7,baz=44,slow=2.2,SNR=24						
MAW	Mawson	69.98	201	P	P	13 07 56.1	+0.6
	3.0nm,0.8s,mb4.3,baz=113,slow=7.7,SNR=3.7						
MAW				LR	LR	13 36 55.2	
	comp=Z,155nm,20.9s,MS4.2,baz=328,slow=34						
VNA3	Neumayer Olymp	76.13	176	e	P	13 08 33.4	+1.6
VNA3				e		13 08 38.6	
VNA2	Neumayer--Watz	76.55	177	e	P	13 08 34.9	+0.7
	baz=186,slow=3.4						
VNA2				e		13 08 39.9	
LPIG	La Paz	86.30	58	LR	LR	13 41 13.2	
	comp=Z,93nm,18.5s,MS4.2,baz=52,slow=31						
CFAA	Coronel Fontan	88.47	127	LR	LR	13 38 56.9	
	comp=Z,8.6nm,19.9s,MS3.2,baz=122,slow=28						
NVAR	Mina Array Bea	90.35	43	P	P	13 09 48.1	+2.8
	0.7nm,0.8s,mb4.1,baz=218,slow=7.1,SNR=5.7						
NVAR				pP	pP	13 09 59.8	+3.3
	0.9nm,0.8s,baz=218,slow=6.6,SNR=4.9						
KDAK	Kodiak Island	92.74	14	LR	LR	13 46 22.8	
	comp=Z,527nm,19.8s,MS5.0,baz=101,slow=32						
TXAR	Lajitas Array	94.18	58	LR	LR	13 43 03.1	
	comp=Z,95nm,21.2s,MS4.2,baz=0.0,slow=30						
MKAR	Makanchi Array	118.65	309	PKP	PKPdf	13 15 31.3	-0.6
	0.1nm,0.4s,baz=206,slow=0.7,SNR=6.2						
MKAR				pPKP	pPKPdf	13 15 44.0	+0.7
	0.7nm,0.9s,baz=148,slow=1.6,SNR=5.0						
RES	Resolute Bay	119.58	18	PKP	PKPdf	13 15 33.0	0.0
	1.3nm,0.9s,baz=169,slow=5.2,SNR=4.8						
ARCES	ARCESS Array B	140.61	347	PKhKP		13 16 06.7	
	2.6nm,0.7s,baz=48,slow=1.8,SNR=7.7						
ARCES				PKP	PKPdf	13 16 12.8	0.0
	2.4nm,0.6s,baz=45,slow=2.0,SNR=7.8						
JOF	Joensuu	144.21	337	epkp	PKPdf	13 16 17.3	-2.0
KAF	Kangasniemi	146.39	339	epkp	PKPdf	13 16 23.0	-0.1
NB2	NORSAR Subarra	150.84	350	PKP	PKPbc	13 16 35.5	-0.5
	comp=Z,1.3nm,0.7s,baz=15,slow=2.6						
NOA	NORSAR Array B	150.84	350	PKPbc	PKPbc	13 16 35.7	-0.2
	comp=Z,1.9nm,0.7s,baz=14,slow=4.1,SNR=8.6						
NOA				pPKPbc	pPKPbc	13 16 49.0	+1.7
	comp=Z,1.4nm,0.6s,baz=14,slow=4.1,SNR=4.2						
AKASG	Malin Array Be	152.59	319	PKPab	PKPab	13 16 50.9	-0.1
	comp=Z,0.5nm,0.4s,baz=78,slow=1.5,SNR=5.0						
BRTR	Keskin Array B	152.96	294	PKPbc	PKPbc	13 16 41.2	-0.3
	comp=Z,0.6nm,0.5s,baz=150,slow=3.2,SNR=3.4						
LIC	Lamto	153.09	166	eP	PKPbc	13 16 39.2	-3.4
	comp=Z,7.6nm,0.4s						
KIC	Kosan Boka	153.28	167	eP	PKPbc	13 16 42.9	-0.1
	comp=Z,10nm,0.5s						
TIC	Toumodi	153.51	166	eP	PKPbc	13 16 40.0	-3.5
	comp=Z,16nm,0.2s						
DBIC	Dimbokro	153.56	166	PKPbc	PKPbc	13 16 44.8	+1.1
	comp=Z,1.3nm,0.3s,baz=147,slow=4.4,SNR=3.8						
TORD	Torodi Ar. Bea	160.60	182	PKPab	PKPab	13 17 27.2	+1.1
	comp=Z,4.6nm,0.7s,baz=179,slow=3.1,SNR=24						

IDC 09 12:58:33.5±53.0**, 17°.31S**×**173°.87W, h0^{km}, mb4.2**/3**, mb1 4.3**/3**, mb1mx3.8**/17**, mbtmp4.2**/3**, MS4.5**/1**, Ms1 4.5**/1**, ms1mx3.4**/35**, Error ellipse: s-maj=1012.0km s-min=180.6km az=80.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	42.71	242	P	P	13 06 32.7	+0.2
	2.5nm,0.7s,baz=102,slow=9.3,SNR=5.2						
WRA	Warramunga Arr	48.99	258	P	P	13 07 22.1	-0.2
	1.4nm,0.6s,baz=96,slow=8.0,SNR=8.0						
ASAR	Alice Springs	49.11	253	P	P	13 07 22.9	-0.2
	1.5nm,0.4s,baz=86,slow=8.1,SNR=12						
CBIJ	Chichi jima	61.37	315	LR	LR	13 28 42.8	
	comp=Z,459nm,21.9s,baz=103,slow=30						

IDC 09 13:11:42.5±2.6**, 9°.05S**×**118°.27E, h0^{km}, mb3.5**/3**, mb1 3.6**/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, ML3.6**/1**, 1C, Error ellipse: s-maj=158.6km s-min=23.5km az=53.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	2.09	107⇑	eP	Pn	13 12 23.5	+4.7
WSI				eS	Sn	13 12 42.5	-3.0
WRA	Warramunga Arr	18.93	127	P	Pn	13 16 05.0	-0.7
	0.2nm,0.3s,baz=296,slow=12,SNR=12						
ASAR	Alice Springs	20.85	136	P	P	13 16 26.4	+0.4
	0.5nm,0.3s,baz=313,slow=8.9,SNR=7.1						
SONM	Songino Array	57.61	351	P	P	13 21 34.2	0.0
	0.4nm,0.6s,baz=163,slow=8.0,SNR=3.7						
MKAR	Makanchi Array	64.18	333	P	P	13 22 19.1	+0.2
	0.8nm,0.6s,baz=151,slow=6.6,SNR=17						

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*NEIC **09** 13:20:04.5, 17°.06N×100°.31W, h5^{km}, MD3.6(MEX), After MEX.*

MEX 09 13:20:02.9±0.6**, 16°.96N**×**100°.23W, h6^{km}**±47^{km}**, MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.10	339	i P	Pg	13 20 04.8	-0.3
CAIG				i S	Sg	13 20 05.7	-0.8
MEIG	Mezcala	1.13	31	i P	Pg	13 20 21.9	-2.7
MEIG				i S	Sg	13 20 36.1	-3.1
PLIG	Platanillo	1.59	26	i P	Pn	13 20 28.2	-3.5
PLIG				i S	Sn	13 20 47.9	-4.7
PLIG	Platanillo	1.59	26	i P	Pn	13 20 30.2	-1.5
PLIG				i S	Sn	13 20 49.8	-2.7
PNIG	Pinotepa	2.09	105	eP	Pn	13 20 34.5	-4.1
PNIG				i S	Sn	13 20 59.8	-5.2
PNIG	Pinotepa	2.09	105	i P	Pn	13 20 40.2	+1.6
PNIG				i S	Sn	13 21 06.7	+1.7
UTMO	Huajuapan	2.48	69	eP	Pn	13 20 40.0	-3.8
UTMO				i S	Sn	13 21 10.7	-3.7
PPM	Popocatepetl	2.60	36	eP	Pn	13 20 48.2	+2.7
PPM				i S	Sn	13 21 21.3	+3.8
PPM	Popocatepetl	2.60	36	i P	Pn	13 20 48.2	+2.7
PPM				i S	Sn	13 21 21.3	+3.8

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*IDC **09** 13:22:16.1±1.1, 33°.41S×179°.05W, h0^{km}, mb3.9/4, mb1 4.2/5, mb1mx4.0/18, mbtmp4.1/5, ML4.4/1, Error ellipse: s-maj=35.5km s-min=28.2km az=42.0*

*NEIC **09** 13:22:21.4±0.8, 33°.53S×179°.22W, h35^{km}, mb4.5/2, Error ellipse: s-maj=24.2km s-min=16.0km az=115.0*

*ISCJB **09** 13:22:30.0±3.5, 34°.2S±0°.2×179°.7W±0°.2, h100^{km}±28^{km}, mb4.0/5, Error ellipse: s-maj=29.8km s-min=26.7km az=164.8*

ISC 09 13:22:30.2±3.5**, 34°.1S**±0°.2×**179°.6W**±0°.2**, h91^{km}**±28^{km}**, n17, σ1^{s}.18**/14**, mb4.0**/5**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	4.93	212	Pn	Pn	13 23 40.9	-0.9
	11nm,0.3s,baz=350,slow=0.7,SNR=54						
URZ				Sn	Sn	13 24 41.9	+4.4
	12nm,0.3s,baz=243,slow=19,SNR=8.1						
SNZO	South Karori	8.49	210	Pn	Pn	13 24 31.5	+1.3
	85nm,1.2s						
SNZO				eSn	Sn	13 26 03.8	-0.5
RPZ	Rata Peaks	12.04	214	Pn	Pn	13 25 13.3	-5.2
	0.6nm,0.3s,baz=115,slow=4.2,SNR=4.6						
RPZ				Sn	Sn	13 27 24.6	-6.0
	0.8nm,0.3s,baz=344,slow=24,SNR=6.0						
ASAR	Alice Springs	41.70	272	P	P	13 30 10.7	+0.6
	2.1nm,0.9s,mb3.9,baz=106,slow=7.4,SNR=7.5						
WRA	Warramunga Arr	43.02	277	P	P	13 30 21.1	+0.2
	1.2nm,0.4s,mb4.0,baz=116,slow=7.9,SNR=9.9						
NWAO	Narrogin (SRO)	51.90	252	eP	P	13 31 28.3	-1.2
	13nm,1.2s,mb4.8						
QSPA	South Pole Qui	56.03	180	P	P	13 32 01.9	+3.1
	1.4nm,0.6s,mb4.2,baz=71,slow=1.5,SNR=13						
QSPA	South Pole Qui	56.03	180	eP	P	13 32 01.2	+2.4
	1.9nm,0.7s,mb4.2						
VNA2	Neumayer--Watz	75.13	177	e	P	13 34 09.8	+7.9
	baz=158,slow=3.0						
CFAA	Coronel Fontan	88.12	127	P	P	13 35 09.5	-1.4
	0.1nm,0.4s,mb3.2,baz=259,slow=5.2,SNR=3.7						
CFAA	Coronel Fontan	88.12	127	P	P	13 35 09.5	-1.4
MKAR	Makanchi Array	119.05	309	PKP	PKPdf	13 41 05.0	-2.9
	0.1nm,0.5s,baz=122,slow=2.2,SNR=4.5						
BVAR	Borovoye Array	128.03	314	PKP	PKPdf	13 41 22.8	-2.1
	0.2nm,0.4s,baz=112,slow=2.3,SNR=2.4						
JOF	Joensuu	145.27	336	ep	PKPbc	13 41 52.1	-4.2
	1.1nm,0.5s						
KAF	Kangasniemi	147.50	338	ep	PKPdf	13 41 58.8	-1.3
	1.2nm,0.5s						
NOA	NORSAR Array B	152.14	349	PKPbc	PKPbc	13 42 11.7	-2.5
	1.0nm,0.6s,baz=14,slow=4.1,SNR=3.8						
TORD	Torodi Ar. Bea	159.12	184	PKPab	PKPab	13 42 54.9	-0.2
	0.5nm,0.7s,baz=185,slow=3.8,SNR=3.2						

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*ISCJB **09** 13:24:33.9±1.0, 6°.7S±0°.2×150°.4E±0°.2, h33^{km}, mb3.9/6, Error ellipse: s-maj=33.6km s-min=18.4km az=34.5*

*NEIC **09** 13:24:35.5±0.8, 6°.71S×150°.49E, h35^{km}, mb4.2/2, Error ellipse: s-maj=26.6km s-min=13.8km az=124.0*

*IDC **09** 13:24:35.8±1.4, 6°.68S×150°.59E, h37^{km}±8^{km}, mb3.8/7, mb1 4.1/7, mb1mx3.8/17, mbtmp3.9/7, Error ellipse: s-maj=42.1km s-min=21.2km az=115.0*

ISC 09 13:24:35.8±1.0**, 6°.7S**±0°.2×**150°.5E**±0°.2**, h35^{km}, n11, σ0^{s}.58**/10**, mb3.9**/6**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	20.44	228	eP	P	13 29 09.1	-1.2
	9.7nm,0.9s						
WRA	Warramunga Arr	20.45	228	P	P	13 29 10.8	+0.4
	6.6nm,0.7s,baz=52,slow=11,SNR=34						
WRA				pP		13 29 22.1	
	3.7nm,0.6s,baz=52,slow=11,SNR=7.1						
ASAR	Alice Springs	23.19	222	P	P	13 29 39.9	+0.2
	2.3nm,0.7s,mb3.7,baz=55,slow=9.2,SNR=22						
ASAR				pP		13 29 51.5	
	0.8nm,0.6s,baz=56,slow=9.0,SNR=5.9						
STKA	Stephens Creek	26.37	197	P	P	13 30 09.4	+0.5
	2.4nm,0.6s,mb3.9,baz=13,slow=12,SNR=5.4						
FITZ	Fitzroy Crossi	26.72	243	P	P	13 30 13.0	+0.9
	2.4nm,0.5s,mb4.0,baz=79,slow=9.4,SNR=6.8						
FITZ	Fitzroy Crossi	26.72	243	eP	P	13 30 12.5	+0.4
	6.4nm,1.0s,mb4.1						
SONM	Songino Array	66.74	329	P	P	13 35 23.3	-0.1
	0.7nm,0.7s,mb3.8,baz=145,slow=4.5,SNR=6.0						
QSPA	South Pole Qui	83.26	180	P	P	13 36 57.6	-0.6
	2.1nm,1.0s,mb4.1,baz=301,slow=4.3,SNR=2.5						
QSPA	South Pole Qui	83.26	180	P	P	13 36 57.6	-0.6
NVAR	Mina Array Bea	95.08	52	P	P	13 37 55.7	+0.2
	0.4nm,0.8s,mb3.9,baz=249,slow=4.7,SNR=2.9						
TORD	Torodi Ar. Bea	148.61	284	PKPbc	PKPbc	13 44 20.4	+0.1
	1.2nm,0.6s,baz=40,slow=2.6,SNR=7.0						
TORD				pPKPbc	pPKPbc	13 44 30.9	-0.8
	1.0nm,0.6s,baz=52,slow=2.9,SNR=4.0						

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*IDC **09** 13:35:11.7±1.3, 1°.91S×128°.54E, h0^{km}, mb4.3/4, mb1 4.4/6, mb1mx4.0/19, mbtmp4.3/6, ML4.2/2, Error ellipse: s-maj=66.6km s-min=22.9km az=65.0*

*NEIC **09** 13:35:17.3±1.0, 2°.18S×128°.20E, h35^{km}, mb3.8/2, Error ellipse: s-maj=37.3km s-min=15.8km az=70.0*

*ISCJB **09** 13:35:19.1±1.3, 2°.05S±0°.08×128°.4E±0°.2, h80^{km}±14^{km}, mb4.0/5, Error ellipse: s-maj=27.2km s-min=11.2km az=163.8*

ISC 09 13:35:19.8±1.4**, 2°.06S**±0°.07×**128°.5E**±0°.2**, h64^{km}**±15^{km}**, n14, σ1^{s}.16**/16**, mb4.2**/5**, 1C-2D, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	Ambon	1.66	192⇓	eP	Pn	13 35 48.1	+1.4
AAI				eS	Sn	13 36 07.0	0.0
TNE	Ternate	3.06	337⇓	eP	Pn	13 36 05.5	-0.2
KDI	Kendari	6.21	252⇑	eP	Pn	13 36 48.6	-0.2
FITZ	Fitzroy Crossi	16.20	190	Pn	Pn	13 39 03.5	+0.1
	0.3nm,0.3s,baz=4.8,slow=12,SNR=4.5						
FITZ	Fitzroy Crossi	16.20	190	ePn	Pn	13 38 59.6	-3.8
	2.9nm,0.8s						
WRAB	Tennant Creek	18.65	163	ePn	Pn	13 39 31.7	-1.8
	7.6nm,0.6s						
WRA	Warramunga Arr	18.66	163	P	Pn	13 39 31.7	-1.8
	1.4nm,0.3s,baz=347,slow=13,SNR=57						
WRA				S	S	13 42 51.1	-11
	0.2nm,0.3s,baz=332,slow=20,SNR=4.6						
ASAR	Alice Springs	22.10	167	P	P	13 40 10.1	+0.3
	13nm,0.5s,mb4.6,baz=349,slow=12,SNR=223						
ASAR				S	S	13 44 08.8	-1.1
	2.2nm,0.9s,baz=347,slow=20,SNR=7.7						
CTA	Charters Tower	24.91	137	P	P	13 40 38.0	+1.1
	3.0nm,0.8s,mb3.9,baz=302,slow=13,SNR=4.6						
STKA	Stephens Creek	32.11	159	P	P	13 41 42.0	+1.0
	4.5nm,1.0s,mb4.3,baz=341,slow=6.4,SNR=4.6						
MKAR	Makanchi Array	63.33	326	P	P	13 45 41.2	-0.9
	0.2nm,0.4s,mb3.6,baz=117,slow=8.7,SNR=5.4						
MKAR	Makanchi Array	63.33	326	P	P	13 45 41.2	-0.9
QSPA	South Pole Qui	87.89	180	P	P	13 48 03.8	+2.0
	2.0nm,0.8s,mb4.4,baz=336,slow=0.7,SNR=8.8						
CPUP	Villa Florida	151.22	169	PKPbc	PKPbc	13 55 08.9	+2.2
	1.0nm,0.5s,baz=108,slow=6.4,SNR=4.1						

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*ISCJB **09** 13:37:23.8±0.6, 49°.18N±0°.06×155°.35E±0°.10, h62^{km}±6^{km}, mb3.9/16, Error ellipse: s-maj=14.4km s-min=3.4km az=43.0*

*KRSC **09** 13:37:24.5±0.1, 49°.13N×157°.10E, h5^{km}±5^{km}, ML4.8*

*MOS **09** 13:37:24.1±1.2, 49°.23N×155°.46E, h65^{km}, mb4.0/8, Error ellipse: s-maj=17.5km s-min=6.3km az=68.2*

*IDC **09** 13:37:24.8±0.6, 49°.31N×155°.23E, h47^{km}±6^{km}, mb3.6/14, mb1 3.8/16, mb1mx3.7/28, mbtmp3.6/16, MS3.8/3, Ms1 3.8/3, ms1mx3.2/44, Error ellipse: s-maj=20.1km s-min=13.1km az=134.0*

*NEIC **09** 13:37:26.2±1.1, 49°.25N×155°.38E, h66^{km}±11^{km}, mb3.9/4, Error ellipse: s-maj=19.0km s-min=8.3km az=138.0*

ISC 09 13:37:26.1±0.5**, 49°.18N**±0°.06×**155°.39E**±0°.10**, h65^{km}**±5^{km}**, h50^{km}**±1.7^{km}**:pP-P, n90, σ1^{s}.38**/104**, mb3.9**/16**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril’s	1.58	17	ePN	Pn	13 37 48.7	-3.2
SKR				eS	Sn	13 38 03.5	-7.9
SKR				pmax	pmax		
	comp=N,240nm,0.2s						
SKR				pmax	pmax		
	comp=E,140nm,0.2s						
SKR				pmax	pmax		
	comp=Z,690nm,0.2s						
SKR				smax			
	comp=N,3µm,0.2s						
SKR				smax			
	comp=E,3µm,0.2s						
SKR				smax			
	comp=Z,920nm,0.2s						
SKR				smax			
	comp=N,5µm,2.0s						
SKR				smax			
	comp=E,4µm,2.0s						
MIPR	Malaya Ipel’ka	3.22	15	eP	Pn	13 38 13.0	-1.2
MIPR				i S	Sn	13 38 49.8	-1.5
GRL	Gorelyy	3.78	26	eP	Pn	13 38 22.4	+0.6
GRL				i S	Sn	13 39 05.2	+0.2
RUS	Russkaya	3.81	30	eP	Pn	13 38 21.0	-1.2
RUS				i S	Sn	13 39 01.3	-4.5
PETK	Petropavlovsk-	4.20	19	PN	Pn	13 38 28.6	+1.1
PETK				pmax	pmax		
	comp=Z,28nm,0.3s						
PETK				MLR	MLR		
	comp=Z,209nm,20.9s						
PETK	Petropavlovsk-	4.20	19	P	Pn	13 38 28.6	+1.2
	comp=Z,28nm,0.3s,baz=177,slow=11,SNR=405						
PETK				LR	LR	13 40 17.1	
	comp=Z,209nm,20.9s,baz=125,slow=42						
PET	Petropavlovsk	4.37	27	ePN	Pn	13 38 29.5	-0.3
PET				eS	Sn	13 39 17.6	-1.7
PET				pmax	pmax		
	comp=Z,134nm,0.4s						
PET				smax			
	comp=E,702nm,0.6s						
PET				smax			
	comp=N,527nm,0.5s						
PET				MLR	MLR		
	comp=Z,200nm,19.0s						
PET	Petropavlovsk	4.37	27	eP	Pn	13 38 29.7	-0.1
PET				i S	Sn	13 39 17.6	-1.7
PET	Petropavlovsk	4.37	27	ePn	Pn	13 38 28.7	-1.1
PET				eSn	Sn	13 39 18.1	-1.1
AVH	Avacha	4.60	26	eP	Pn	13 38 33.9	+0.9
NLC	Nalytchevo	4.71	30	eP	Pn	13 38 32.3	-2.2
NLC				i S	Sn	13 39 22.0	-5.7
GNL	Ganaly	4.80	18	eP	Pn	13 38 37.1	+1.4
MKZ	Mys Kozlova	6.66	34	eP	Pn	13 38 58.9	-2.3
MKZ				i S	Sn	13 40 05.1	-10
TUMR	Tumrok	6.77	24	eP	Pn	13 39 03.8	+1.1
KMNR	Kamenistaya	7.22	22	eP	Pn	13 39 09.5	+0.7
KPT	Kopyto	7.41	22	eP	Pn	13 39 12.7	+1.3
KOZ	Kozyrevsk	7.41	20	eP	Pn	13 39 13.7	+2.3
KOZR	Kozyr	7.42	20	PN	Pn	13 39 13.7	+2.1
KIRR	Kirishev	7.42	22	eP	Pn	13 39 12.5	+0.9
BZMR	Bezymyannaya	7.45	23	eP	Pn	13 39 12.5	+0.6
ZLN	Zelenaya	7.60	24	eP	Pn	13 39 14.8	+0.8
SRDR	Sredinnyy	7.62	18	eP	Pn	13 39 15.5	+1.3
KRSR	Krestovskiy	7.72	22	eP	Pn	13 39 16.2	+0.6
KLY	Klyuchi	7.83	22	eP	Pn	13 39 17.8	+0.7
BDR	Baidarnaya	8.19	23	eP	Pn	13 39 22.1	0.0
SRKR	Sorokina	8.26	23	eP	Pn	13 39 22.7	-0.3
SMKR	Semkarok	8.27	24	eP	Pn	13 39 22.5	-0.7
KBTR	Krutoberegovo	8.36	30	eP	Pn	13 39 22.3	-2.0
KBTR				i S	Sn	13 40 49.4	-7.7
YSS	Yuzh-Sakhalins	8.75	260	ePN	Pn	13 39 32.1	+2.3
YSS				pmax	pmax		
	comp=Z,8.0nm,0.5s						
YSS	Yuzh-Sakhalins	8.75	260	ePn	Pn	13 39 32.1	+2.3
	comp=Z,8.4nm,0.5s						
YSS				eSn	Sn	13 41 07.1	+0.2
JRA	Rausu	8.80	237	P	Pn	13 39 32.3	+1.8
NEM2	Nemuro 2	8.85	233	P	Pn	13 39 29.4	-1.8
NEM2				eS	Sn	13 41 02.0	-7.4
JNK	Nakash	9.25	237	P	Pn	13 39 37.4	+0.7
JNK				eS	Sn	13 41 17.1	-2.0
JTKR	Abashiri--Toko	9.47	241	P	Pn	13 39 41.8	+2.2
JAK	Akkeshi	9.66	234	P	Pn	13 39 40.8	-1.4
JAK				eS	Sn	13 41 21.6	-7.5
JSE	Soyaes	9.70	249	P	Pn	13 39 47.3	+4.5
JMP	Maruseppu	9.76	243	P	Pn	13 39 46.9	+3.3
JWK2	Keihoku	9.96	252	P	Pn	13 39 51.6	+5.4
JAR	Ashorobuto	9.97	238	P	Pn	13 39 48.1	+1.7
JAR				eS	Sn	13 41 34.7	-1.9
ASAJ	Asahikawa	10.15	245	PN	Pn	13 39 52.0	+3.1
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	10.15	245	P	Pn	13 39 51.9	+3.0
ASAJ	Asahikawa	10.15	245	P	Pn	13 39 52.0	+3.1
	comp=Z,2.2nm,0.3s,baz=64,slow=17,SNR=21						
JOB	Onbets	10.19	236	P	Pn	13 39 49.8	+0.4
JKK2	Kamakawa 2	10.20	243	P	Pn	13 39 51.8	+2.2
JCH	Churui	10.64	236	P	Pn	13 39 54.4	-1.2
JCH				eS	Sn	13 41 45.3	-7.7
JBT2	Biratori 2	11.09	240	P	Pn	13 40 03.0	+1.3
JEM	Erimo	11.16	235	P	Pn	13 40 01.9	-0.8
ERM	Erimo	11.16	235	ePN	Pn	13 40 03.2	+0.5
ERM				pmax	pmax		
	comp=Z,12nm,0.6s						
ERM	Erimo	11.16	235	ePn	Pn	13 40 03.2	+0.5
	comp=Z,12nm,0.6s						
JNBK	Urakawa-nobuka	11.20	237	P	Pn	13 40 01.5	-1.7
FX1	Attu Island--F	11.78	65	P	Pn	13 40 09.1	-2.0
	comp=Z,4.1nm,0.3s,baz=273,slow=18,SNR=6.8						
FX1				S	Sn	13 42 09.6	-11
	comp=Z,7.9nm,0.3s,baz=338,slow=23,SNR=8.4						
JNB	Noboribetsu	12.04	242	P	Pn	13 40 14.5	-0.2
JKB	Kayabe	12.42	239	P	Pn	13 40 17.0	-2.8
JRG	Rokugo	14.38	233	P	Pn	13 40 42.6	-3.5
JIO	Ouri	14.73	229	P	Pn	13 40 45.6	-5.1
MAJO	Matsushiro	17.79	231	eP	Pn	13 41 27.4	-1.6
MAJO				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MAJO	Matsushiro	17.79	231	eP	Pn	13 41 27.4	-1.7
	comp=Z,4.3nm,0.8s						
MJAR	Matsushiro Arr	17.79	231	P	Pn	13 41 28.2	-0.9
	comp=Z,0.2nm,0.3s,baz=36,slow=10,SNR=3.8						
BILL	Bilibino	19.69	12	eP	Pn	13 41 48.3	-3.3
BILL				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BILL	Bilibino	19.69	12	eP	Pn	13 41 46.9	-4.6
	comp=Z,3.9nm,0.4s						
ZAK	Zakamensk	33.11	292	eP	pP	13 44 09.8	-1.5
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
COLA	College	33.29	41	eP	P	13 43 56.6	-0.4
COLA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
COLA	College	33.29	41	eP	P	13 43 56.5	-0.4
	comp=Z,8.8nm,0.8s,mb4.7						
MKAR	Makanchi Array	47.21	296	P	P	13 45 51.8	-0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	47.21	296	P	P	13 45 51.8	-0.4
	comp=Z,0.7nm,0.7s,mb3.7,baz=64,slow=9.4,SNR=7.7						
KURK	Kurchatov	47.32	303	P	P	13 45 52.6	-0.3
	comp=Z,0.4nm,0.3s,mb3.8,baz=61,slow=9.0,SNR=2.4						
KURK	Kurchatov	47.32	303	eP	P	13 45 51.8	-1.1
	comp=Z,0.4nm,0.6s,mb3.5						
RES	Resolute Bay	48.04	20	P	P	13 45 57.8	-0.4
RES				*PP	pP	13 46 10.7	-3.9
RES				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
RES	Resolute Bay	48.04	20	P	P	13 45 57.8	-0.4
	comp=Z,0.7nm,0.6s,mb3.9,baz=325,slow=7.3,SNR=5.1						
RES				pP	pP	13 46 10.7	-4.0
	comp=Z,0.7nm,0.7s,baz=322,slow=6.4,SNR=3.5						
YKA	Yellowknife Ar	48.06	39	P	P	13 45 58.7	+0.2
YKA				*PP	pP	13 46 12.8	-2.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	48.06	39	P	P	13 45 58.7	+0.2
	comp=Z,0.9nm,0.6s,mb4.0,baz=297,slow=7.6,SNR=10						
YKA				pP	pP	13 46 12.8	-2.1
	comp=Z,1.0nm,0.7s,baz=298,slow=7.7,SNR=6.1						
YKA	Yellowknife Ar	48.06	39	P	P	13 45 58.7	+0.2
YKA				pP	pP	13 46 12.8	-2.1
SPITS	Spitsbergen Ar	50.49	350	LR	LR	14 11 15.5	
	comp=Z,152nm,18.1s,baz=200,slow=40						
BVAR	Borovoye Array	50.52	309	P	P	13 46 17.4	0.0
	comp=Z,0.2nm,0.6s,mb3.2,baz=63,slow=9.1,SNR=2.4						
CMAR	Chiang Mai Arr	54.43	257	P	P	13 46 48.3	+1.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CMAR	Chiang Mai Arr	54.43	257	P	P	13 46 48.2	+1.6
	comp=Z,0.7nm,0.8s,mb3.6,baz=33,slow=7.2,SNR=4.9						
ARCES	ARCESS Array B	56.06	341	P	P	13 46 55.7	-2.0
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	ARCESS Array B	56.06	341	P	P	13 46 55.7	-2.0
	comp=Z,6.3nm,1.0s,mb4.6,baz=30,slow=7.3,SNR=3.4						
PDAR	Pinedale Array	62.10	56	P	P	13 47 41.8	+1.9
	comp=Z,0.8nm,0.6s,mb4.0,baz=316,slow=4.1,SNR=6.1						
SCHQ	Schefferville	70.47	24	P	P	13 48 33.0	-0.2
	comp=Z,1.0nm,0.4s,mb4.1,baz=288,slow=9.4,SNR=6.4						
SCHQ				pP	pP	13 48 46.6	-3.9
	comp=Z,1.2nm,0.4s,baz=238,slow=7.7,SNR=2.5						
WRA	Warramunga Arr	71.32	201	P	P	13 48 39.2	+0.6

WRA				*PP	pP	13 48 53.0	-3.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	71.32	201	P	P	13 48 39.2	+0.6
	comp=Z,0.6nm,0.6s,mb3.7,baz=17,slow=6.3,SNR=5.3						
WRA				pP	pP	13 48 53.0	-3.1
	comp=Z,1.5nm,0.9s,baz=17,slow=6.4,SNR=4.1						
EKA	Eskdalemuir Ar	74.32	347	P	P	13 48 54.6	-1.5
EKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
EKA	Eskdalemuir Ar	74.32	347	P	P	13 48 54.6	-1.5
	comp=Z,1.4nm,0.8s,mb3.9,baz=12,slow=6.0,SNR=4.3						
TXAR	Lajitas Array	74.99	63	P	P	13 49 01.9	+1.5
TXAR				*PP	pP	13 49 15.2	-2.8
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	74.99	63	P	P	13 49 01.9	+1.5
	comp=Z,1.1nm,0.6s,mb4.0,baz=301,slow=4.6,SNR=18						
TXAR				pP	pP	13 49 15.2	-2.8
	comp=Z,0.5nm,0.5s,baz=301,slow=4.3,SNR=4.6						
ASAR	Alice Springs	75.01	200	P	P	13 49 01.8	+1.4
	comp=Z,0.4nm,0.6s,mb3.5,baz=13,slow=5.5,SNR=8.1						
ASAR				pP	pP	13 49 15.1	-2.8
	comp=Z,0.5nm,0.6s,baz=13,slow=5.2,SNR=3.5						
VRAC	Vranov	75.68	334	LR	LR	14 26 24.8	
	comp=Z,172nm,18.6s,baz=227,slow=39						
GERES	GERESS Array B	76.92	335	P	P	13 49 10.7	-0.3
	comp=Z,0.2nm,0.3s,mb3.5,baz=38,slow=5.0,SNR=4.0						
GERES	GERESS Array B	76.92	335	P	P	13 49 10.7	-0.3

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*ISCJB **09** 13:48:36.0±0.3, 46°.56N±0°.01×7°.31E±0°.03, h11^{km}±2^{km}, Error ellipse: s-maj=3.6km s-min=2.2km az=3.9*

*CSEM **09** 13:48:36.4±0.2, 46°.55N×7°.38E, h5^{km}, ML2.4/19, Error ellipse: s-maj=4.1km s-min=2.7km az=92.0*

*LDG **09** 13:48:36.8±0.1, 46°.55N×7°.47E, h4^{km}, Md2.5/1, Ml2.4/21, Error ellipse: s-maj=1.2km s-min=0.7km az=92.0*

*ZUR **09** 13:48:36.5, 46°.57N×7°.50E, h-1^{km}±5^{km}, ML1.6/8*

*STR **09** 13:48:38.2±0.8, 46°.57N×7°.59E, h5^{km}, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 09 13:48:36.9±0.3**, 46°.55N**±0°.01×**7°.39E**±0°.03**, h15**^{km}±2^{km}**,**
n79, σ**1^{s}01**/140**, 6D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SENIN	Lac Senin/Sane	0.19	200	⇓*i*Pg	Pg	13 48 41.4	0.0
	178nm,0.5s						
SENIN				*e*Sg	Sg	13 48 46.1	+1.6
	178nm,0.5s						
SENIN	Lac Senin/Sane	0.19	200	⇓*i*Pg	Pg	13 48 41.4	0.0
	178nm,0.5s						
SENIN				*e*Sg	Sg	13 48 46.1	+1.6
	178nm,0.5s						
WIMIS	Wimmis	0.20	53	⇓*i*Pg	Pg	13 48 39.9	-1.6
	772nm,0.7s						
WIMIS	Wimmis	0.20	53	⇓*i*Pg	Pg	13 48 39.9	-1.6
	772nm,0.7s						
LKBD	Leukerbad	0.23	135	⇓*i*Pg	Pg	13 48 41.0	-0.9
	80nm,0.3s						
LKBD	Leukerbad	0.23	135	⇓*i*Pg	Pg	13 48 41.0	-0.9
	80nm,0.3s						
GRYON	Gryon	0.35	214	*e*Sg	Pg	13 48 45.2	+1.0
	40nm,0.4s						
GRYON	Gryon	0.35	214	*e*Pg	Sg	13 48 51.3	+2.3
	40nm,0.4s						
AIGLE	Aigle	0.37	236	*e*Sg	Sg	13 48 46.4	-3.0
	442nm,0.6s						
AIGLE	Aigle	0.37	236	*e*Pg	Sg	13 48 52.1	+2.7
	442nm,0.6s						
TORNY	Torny/Romont	0.38	307	*e*Sg	Pg	13 48 44.6	0.0
	196nm,0.8s						
DIX	Grande Dixence	0.47	179	*e*Pg	Pg	13 48 47.5	+1.3
	94nm,0.4s						
DIX	Grande Dixence	0.47	179	*e*Pg	Pg	13 48 47.5	+1.3
	94nm,0.4s						
SALAN	Lac Salanfe	0.50	216	*e*Pg	Sg	13 48 51.9	-1.5
	22nm,0.4s						
FUSIO	Fusio	0.88	95	*e*Pg	Pg	13 48 53.0	-1.0
	36nm,0.6s						
FUSIO	Fusio	0.88	95	*e*Pg	Pg	13 48 53.0	-1.0
	36nm,0.6s						
LOMF	Lomont	0.89	334	Pg	Pg	13 48 56.2	+2.0
LOMF				Sg	Sg	13 49 09.1	+3.1
LOMF	Lomont	0.89	334	Pg	Pg	13 48 56.2	+2.0
LOMF				Sg	Sg	13 49 09.1	+3.1
CABF	La Chapelle	0.90	275	*e*Pg	Pg	13 48 54.6	+0.2
CABF	La Chapelle	0.90	275	*e*P	Pb	13 48 56.8	+2.6
CABF				*e*Sg	Sg	13 49 07.3	+1.0
	43nm,0.8s						
CABF	La Chapelle	0.90	275	*e*Pg	Pg	13 48 54.6	+0.2
CABF	La Chapelle	0.90	275	*e*P	Pb	13 48 56.8	+2.6
CABF				*e*Sg	Sg	13 49 07.3	+1.0
	22nm,0.8s						
BBS	Basel-Blauen	0.92	5	Pg	Pg	13 48 55.9	+1.1
BBS				Sg	Sg	13 49 08.0	+1.1
LPL	La Plagne	1.13	204	*e*Pg	Pg	13 48 58.6	0.0
LPL				*e*Sg	Sg	13 49 14.0	+0.6
	10nm,0.4s						
LPL	La Plagne	1.13	204	*e*Pg	Pg	13 48 58.6	0.0
LPL				*e*Sg	Sg	13 49 14.0	+0.6
	5.1nm,0.4s						
LPG	La Plagne	1.14	203	*e*Pg	Pg	13 48 58.9	0.0
LPG				*e*Sg	Sg	13 49 14.4	+0.7
	19nm,0.4s						
LPG	La Plagne	1.14	203	*e*Pg	Pg	13 48 58.9	0.0
LPG				*e*Sg	Sg	13 49 14.4	+0.7
	9.4nm,0.4s						
MOF	Molkenrain	1.32	352	Pg	Pg	13 49 02.3	0.0
MOF				Sg	Sg	13 49 21.0	+1.5
MOF	Molkenrain	1.32	352	Pg	Pg	13 49 02.3	0.0
MOF				Sg	Sg	13 49 21.0	+1.5
HINF	Hinteralfeld	1.32	344	*e*Pn	Pn	13 49 00.3	-0.5
HINF	Hinteralfeld	1.32	344	*e*Pg	Pg	13 49 01.7	-0.7
HINF				*e*Sg	Sg	13 49 19.4	-0.2
	12nm,0.2s						
HINF	Hinteralfeld	1.32	344	*e*Pn	Pn	13 49 00.3	-0.5
HINF	Hinteralfeld	1.32	344	*e*Pg	Pg	13 49 01.7	-0.7
HINF				*e*Sg	Sg	13 49 19.4	-0.2
	6.1nm,0.2s						
FELD	Feldberg im Sc	1.40	17	Pg	Pg	13 49 03.1	-0.6
FELD				Sg	Sg	13 49 22.0	+0.1
HAU	Haudompre	1.62	334	*e*Pg	Pg	13 49 07.2	-0.9
HAU				*e*Sg	Sg	13 49 28.3	-0.9
	13nm,0.3s						
HAU	Haudompre	1.62	334	*e*Pg	Pg	13 49 07.2	-0.9
HAU				*e*Sg	Sg	13 49 28.3	-0.9
	6.7nm,0.3s						
CDF	Champ du Feu	1.87	358	*e*Pn	Pn	13 49 07.5	-0.7
CDF				*e*Sg	Sg	13 49 35.9	-1.1
	2.8nm,0.3s						
CDF	Champ du Feu	1.87	358	*e*Pn	Pn	13 49 07.5	-0.7
CDF				*e*Sg	Sg	13 49 35.9	-1.1
	1.4nm,0.3s						
MBDF	Montbardon	1.87	194	*e*Pg	Pg	13 49 12.3	-0.5
MBDF				*e*Sg	Sg	13 49 36.5	-0.5
	16nm,0.6s						
MBDF	Montbardon	1.87	194	*e*Pg	Pg	13 49 12.3	-0.5
MBDF				*e*Sg	Sg	13 49 36.5	-0.5
	8.2nm,0.6s						
ORIF	Oris-en-Rattie	1.94	214	*e*Pn	Pn	13 49 08.9	-0.3
ORIF	Oris-en-Rattie	1.94	214	*e*Pg	Pg	13 49 13.6	-0.6
ORIF				*e*Sn	Sn	13 49 33.6	+0.3
ORIF				*e*Sg	Sg	13 49 39.5	+0.2
	5.5nm,0.4s						
ORIF	Oris-en-Rattie	1.94	214	*e*Pn	Pn	13 49 08.9	-0.3
ORIF	Oris-en-Rattie	1.94	214	*e*Pg	Pg	13 49 13.6	-0.6
ORIF				*e*Sn	Sn	13 49 33.6	+0.3
ORIF				*e*Sg	Sg	13 49 39.5	+0.2
	2.8nm,0.4s						
SFTF	Sexfontaines	2.31	317	*e*Pn	Pn	13 49 14.3	+0.1
SFTF				*e*Sn	Sn	13 49 42.4	+0.1
SFTF				*e*Sg	Sg	13 49 49.9	-1.1
	8.4nm,0.5s						
SFTF	Sexfontaines	2.31	317	*e*Pn	Pn	13 49 14.3	+0.1
SFTF				*e*Sn	Sn	13 49 42.4	+0.1
SFTF				*e*Sg	Sg	13 49 49.9	-1.1
	4.2nm,0.5s						
SMF	Signal de Mont	2.45	274	*e*Pn	Pn	13 49 16.4	+0.2
SMF				*e*Sn	Sn	13 49 45.8	-0.1
SMF				*e*Sg	Sg	13 49 55.4	-0.3
	2.4nm,0.2s						
SMF	Signal de Mont	2.45	274	*e*Pn	Pn	13 49 16.4	+0.2
SMF				*e*Sn	Sn	13 49 45.8	-0.1
SMF				*e*Sg	Sg	13 49 55.4	-0.3
	1.2nm,0.2s						
MEZF	Maizieres J'vi	2.52	322	*e*Pn	Pn	13 49 17.4	+0.2
MEZF				*e*Sg	Sg	13 49 57.4	-0.4
	7.3nm,0.6s						
MEZF	Maizieres J'vi	2.52	322	*e*Pn	Pn	13 49 17.4	+0.2
MEZF				*e*Sg	Sg	13 49 57.4	-0.4
	3.7nm,0.6s						
LOR	Lormes	2.53	288	*e*Pn	Pn	13 49 17.2	-0.1
LOR	Lormes	2.53	288	*e*Pg	Pg	13 49 24.3	-1.1
LOR				*e*Sn	Sn	13 49 48.7	+0.9
LOR				*e*Sg	Sg	13 49 57.6	-0.5
	3.1nm,0.3s						
LOR	Lormes	2.53	288	*e*Pn	Pn	13 49 17.2	-0.1
LOR	Lormes	2.53	288	*e*Pg	Pg	13 49 24.3	-1.1
LOR				*e*Sn	Sn	13 49 48.7	+0.9
LOR				*e*Sg	Sg	13 49 57.6	-0.5
	1.5nm,0.3s						
VIVF	Saint-Julien-l	2.55	229	*e*Pn	Pn	13 49 17.5	-0.1
VIVF	Saint-Julien-l	2.55	229	*e*P	Pn	13 49 19.7	+2.1
VIVF				*e*Sn	Sn	13 49 47.4	-0.9
VIVF				*e*Sg	Sg	13 49 58.4	-0.3
	8.7nm,0.6s						
VIVF	Saint-Julien-l	2.55	229	*e*Pn	Pn	13 49 17.5	-0.1
VIVF	Saint-Julien-l	2.55	229	*e*P	Pn	13 49 19.7	+2.1
VIVF				*e*Sn	Sn	13 49 47.4	-0.9
VIVF				*e*Sg	Sg	13 49 58.4	-0.3
	4.3nm,0.6s						
SBF	Sospel	2.68	179	*e*Sn	Sn	13 49 51.4	-0.2
	2.7nm,0.3s						
SBF	Sospel	2.68	179	*e*Sn	Sn	13 49 51.4	-0.2
	1.4nm,0.3s						
SSF	Saint Saulge	2.72	282	*e*Pn	Pn	13 49 19.8	-0.1
SSF				*e*Sn	Sn	13 49 52.7	+0.2
SSF				*e*Sg	Sg	13 50 03.8	-0.5
	1.9nm,0.3s						
SSF	Saint Saulge	2.72	282	*e*Pn	Pn	13 49 19.8	-0.1
SSF				*e*Sn	Sn	13 49 52.7	+0.2
SSF				*e*Sg	Sg	13 50 03.8	-0.5
	0.9nm,0.3s						
AVF	Avril sur Loir	2.79	276	*e*Pn	Pn	13 49 20.9	0.0
AVF	Avril sur Loir	2.79	276	*e*P	Pn	13 49 23.9	+3.0
AVF				*e*Sn	Sn	13 49 53.9	-0.4
AVF				*e*Sg	Sg	13 50 06.1	-0.5
	1.6nm,0.3s						
AVF	Avril sur Loir	2.79	276	*e*Pn	Pn	13 49 20.9	0.0
AVF	Avril sur Loir	2.79	276	*e*P	Pn	13 49 23.9	+3.0
AVF				*e*Sn	Sn	13 49 53.9	-0.4
AVF				*e*Sg	Sg	13 50 06.1	-0.5
	0.8nm,0.3s						
SMRF	Simiane la Rot	2.87	207	*e*P	Pn	13 49 24.9	+2.9
SMRF	Simiane la Rot	2.87	207	*e*P	Pn	13 49 24.9	+2.9
FRF	La Foret Royal	3.03	190	*e*P	Pn	13 49 26.9	+2.7
FRF	La Foret Royal	3.03	190	*e*Pg	Pg	13 49 33.2	-1.8
FRF				*e*Sg	Sg	13 50 12.3	-1.9
	1.1nm,0.4s						
FRF	La Foret Royal	3.03	190	*e*P	Pn	13 49 26.9	+2.7
FRF	La Foret Royal	3.03	190	*e*Pg	Pg	13 49 33.2	-1.8
FRF				*e*Sg	Sg	13 50 12.3	-1.9
	0.6nm,0.4s						
BGF	Bois d'Agland	3.14	272	*e*Pn	Pn	13 49 25.7	0.0
BGF				*e*Sn	Sn	13 50 02.2	-0.6
	2.0nm,0.3s						
BGF	Bois d'Agland	3.14	272	*e*Pn	Pn	13 49 25.7	0.0
BGF				*e*Sn	Sn	13 50 02.2	-0.6
	1.0nm,0.3s						
LMR	La Mourre	3.27	191	*e*Pn	Pn	13 49 27.7	+0.2
LMR	La Mourre	3.27	191	*e*Pn	Pn	13 49 27.7	+0.2
LASF	Ste Croix	3.51	227	*e*Pn	Pn	13 49 31.8	+1.0
LASF				*e*Sn	Sn	13 50 11.1	-0.9
LASF				*e*Sg	Sg	13 50 28.6	-1.0
	1.4nm,0.3s						
LASF	Ste Croix	3.51	227	*e*Pn	Pn	13 49 31.8	+1.0
LASF				*e*Sn	Sn	13 50 11.1	-0.9
LASF				*e*Sg	Sg	13 50 28.6	-1.0
	0.7nm,0.3s						
KHC	Kasperske Hory	4.90	56	*e*P	Sb	13 51 06.0	+5.0
KHC				*e*x	Sg	13 51 14.5	+0.4

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*DDA **09** 13:48:35.2, 36°.93N×29°.20E, h5^{km}±1^{km}, Md2.8*

*ISK **09** 13:48:36.4, 36°.93N×29°.20E, h5^{km}, MD2.8*

*ISCJB **09** 13:48:37.4±0.6, 36°.95N±0°.04×29°.22E±0°.04, h10^{km}, Error ellipse: s-maj=5.7km s-min=4.2km az=164.9*

*CSEM **09** 13:48:37.2±0.3, 36°.98N×29°.21E, h5^{km}, MD2.8, Error ellipse: s-maj=6.3km s-min=4.7km az=174.0*

ISC 09 13:48:37.7±0.6**, 36°.97N**±0°.05×**29°.20E**±0°.04**, h9**^{km}±10^{km}**,**
n14, σ**0^{s}82**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	196	*e*PG	Pg	13 48 43.6	-0.8
FETY				*e*SG	Sg	13 48 49.3	+0.3
FETY	Fethiye	0.34	196	*e*Pg	Pg	13 48 43.6	-0.8
FETY				*e*Sg	Sg	13 48 49.3	+0.3
GOLH	Golhisar	0.39	46	*i* P	Pg	13 48 44.3	-1.2
GOLH				*i* S	Sg	13 48 51.3	+0.7
GOLH	Golhisar	0.39	46	*i* P	Pg	13 48 44.3	-1.1
GOLH				*i* S	Sg	13 48 51.3	+0.6
DALT	Dalyan (Mudla)	0.49	247	*e*PG	Pg	13 48 46.7	-0.6
DALT				*e*SG	Sg	13 48 54.3	+0.5
DALT	Dalyan (Mudla)	0.49	247	*e*Pg	Pg	13 48 46.7	-0.6
DALT				*e*Sg	Sg	13 48 54.3	+0.5
ELL	Elmali	0.60	111	*e*PG	Pg	13 48 48.9	-0.5
ELL				*e*SG	Sg	13 48 58.5	+1.2
ELL	Elmali	0.60	111	*e*Pg	Pg	13 48 48.9	-0.5
ELL				*e*Sg	Sg	13 48 58.5	+1.2
YER	Yerkesik	0.76	283	*e*PG	Pg	13 48 52.6	+0.3
YER	Yerkesik	0.76	283	*e*Pg	Pg	13 48 52.6	+0.3
AYDN	Tasoluk	1.26	304	*i* P	Pn	13 49 00.2	-1.4
AYDN				*i* S	Sb	13 49 19.1	+1.0
AYDN	Tasoluk	1.26	304	*i* P	Pn	13 49 00.2	-1.4
AYDN				*i* S	Sb	13 49 19.1	+1.0
DAT	Datca	1.32	260	*e*PN	Pn	13 49 03.0	+0.6
DAT	Datca	1.32	260	*e*Pn	Pn	13 49 03.0	+0.6

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*ISCJB **09** 13:49:48.2±0.9, 43°.03N±0°.04×75°.78E±0°.04, h14^{km}±5^{km}, Error ellipse: s-maj=6.9km s-min=5.4km az=169.4*

*NNC **09** 13:49:48.3±0.8, 43°.06N×75°.79E, h0^{km}, mb3.0, mpv2.8, Error ellipse: s-maj=24.1km s-min=3.6km az=134.0*

*KNET **09** 13:49:48.2±0.5, 42°.96N×75°.71E, h20^{km}±3^{km}, ml2.1, Error ellipse: s-maj=4.7km s-min=2.2km az=33.0*

ISC 09 13:49:48.5±0.8**, 43°.01N**±0°.04×**75°.73E**±0°.04**, h7**^{km}±6^{km}**,**
n13, σ**0^{s}78**/24**, 14C-11D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TKM2	Tokmak 2	0.13	230	⇑P	Pg	13 49 52.5	+1.2
	248nm,0.1s,SNR=2824						
TKM2				⇓S	Sg	13 49 55.4	+2.2
	4µm,0.1s						
TKM2	Tokmak 2	0.13	230	⇑P	Pg	13 49 52.3	+1.0
	31nm,0.1s						
TKM2				⇑S	Sg	13 49 55.2	+2.1
	139nm,0.3s						
KBK	Karagaybulak	0.67	239	⇑P	Pg	13 50 01.5	0.0
	28nm,0.1s,SNR=148						
KBK				⇑S	Sg	13 50 10.9	+0.7
	129nm,0.2s						
CHMS	Chumysh	0.72	270	⇓P	Pg	13 50 01.9	-0.4
	6.9nm,0.1s,SNR=33						
CHMS				⇑S	Sg	13 50 11.5	-0.2
	79nm,0.1s						
ULHL	Ulahol	0.85	153	⇓P	Pg	13 50 04.2	-0.6
	12nm,0.1s,SNR=82						
ULHL				⇓S	Sg	13 50 15.3	-0.5
	42nm,0.1s						
USP	Ospenovka	0.94	287	⇓P	Pg	13 50 05.9	-0.7
	4.9nm,0.1s,SNR=38						
USP				⇓S	Sg	13 50 18.7	-0.1
	71nm,0.2s						
AAK	Ala-Archa	0.98	248	⇑P	Pg	13 50 06.6	-0.8
	3.6nm,0.1s,SNR=5.4						
AAK				⇓S	Sg	13 50 20.0	-0.1
	12nm,0.1s						
KZA	Kyzart	0.99	201	⇑P	Pg	13 50 07.2	-0.4
	13nm,0.2s,SNR=37						
KZA				⇓S	Sg	13 50 20.5	+0.1
	23nm,0.2s						
UCH	Uchtor	1.19	230	⇑P	Pb	13 50 10.4	-0.9
	6.6nm,0.2s,SNR=25						
UCH				⇓S	Sg	13 50 25.8	-0.9
	16nm,0.2s						
EKS2	Erkin-Say	1.48	257	⇓P	Pn	13 50 15.9	+0.4
	4.4nm,0.1s,SNR=31						
EKS2				⇑S	Sn	13 50 35.5	+0.4
	11nm,0.1s						
AML	Almayashu	1.74	241	P	Pn	13 50 20.5	+1.4
	4.0nm,0.2s,SNR=12						
KK31	Karatay Array	3.83	273	⇑Pg	Pg	13 51 00.6	-1.2
	0.3nm,0.3s,baz=85,slow=14,SNR=9.5						
KK31				⇑Lg		13 51 48.3	
	3.1nm,0.5s,baz=91,slow=27,SNR=20						
MK31	Makanchi Array	6.00	49	⇓Pn	Pn	13 51 18.6	+0.9
	0.4nm,0.4s,baz=225,slow=14,SNR=17						
MK31				⇑Sn	Sn	13 52 26.7	0.0
	0.3nm,0.7s,baz=228,slow=26,SNR=3.8						
MK31				⇑Lg		13 52 56.3	
	0.4nm,0.5s,baz=263,slow=34,SNR=4.1						

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*IDC **09** 14:17:30.7±11.0, 35°.92N×70°.46E, h143^{km}±110^{km}, mb3.3/3, mb1 3.1/7, mb1mx3.0/27, mbtmp3.1/7, ML3.4/4, Error ellipse: s-maj=68.6km s-min=54.6km az=142.0*

*ISCJB **09** 14:17:38.2±1.5, 36°.56N±0°.07×70°.4E±0°.1, h186^{km}±19^{km}, mb3.6/2, Error ellipse: s-maj=19.1km s-min=6.4km az=149.7*

*NNC **09** 14:17:40.4±11.0, 37°.00N×69°.21E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=108.8km s-min=74.1km az=143.0*

*NEIC **09** 14:17:41.7±10.0, 36°.67N×70°.56E, h198^{km}±36^{km}, mb3.9/2, Error ellipse: s-maj=132.1km s-min=32.7km az=179.0*

ISC 09 14:17:38.9±1.6**, 36°.55N**±0°.08×**70°.4E**±0°.1**, h177**^{km}±20^{km}**,**
n27, σ**0^{s}96**/31**, mb3.6**/2**, 2C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	5.29	54	Pn	Pn	14 18 54.7	-1.8
KSH				Sn	Sn	14 19 51.1	-6.4
KSH				smax			
	comp=N,74nm,0.5s						
KSH				smax			
	comp=E,52nm,0.4s						
AML	Almayashu	6.12	23	*e*Pn	Pn	14 19 08.6	+1.2
	comp=E,6.0nm,0.4s						
AML				*e*S	Sn	14 20 17.7	+0.6
UCH	Uchtor	6.50	28	*e*Pn	Pn	14 19 14.3	+2.1
	comp=E,2.2nm,0.5s						
UCH				*e*S	Sn	14 20 25.8	-0.1
KK31	Karatay Array	6.54	1	⇓Pn	Pn	14 19 13.6	+0.7
	comp=E,1.3nm,0.5s,baz=184,slow=13,SNR=20						
KK31				⇑Sn	Sn	14 20 25.4	-1.6
	comp=E,2.4nm,0.4s,baz=191,slow=24,SNR=8.5						
MKAR	Makanchi Array	13.53	37	P	Pn	14 20 43.5	-0.1
	comp=E,0.0nm,0.3s,baz=219,slow=14,SNR=4.5						
PYUN	Piuthan	13.55	125	*e*P	Pn	14 20 43.2	-1.0
	comp=E,7.1nm,0.3s						
DANN	Dangsing	13.91	122	*e*P	Pn	14 20 48.1	-0.5
KOLN	Koldanda	14.18	124	*e*P	Pn	14 20 51.8	-0.1
	comp=E,3.9nm,0.3s						
GKN	Gorkha	14.73	121	*e*P	Pn	14 20 59.5	+0.7
	comp=E,13nm,0.5s						
AB09	Akbulak array	14.83	332	⇑P	Pn	14 20 58.3	-1.5
	comp=E,1.0nm,0.5s						
DMN	Daman	15.30	121	*e*P	Pn	14 21 05.4	-0.4
KKN	Kakani	15.31	121	*e*P	Pn	14 21 06.4	+0.5
	comp=E,10nm,0.3s						
KURK	Kurchatov	15.34	20	P	Pn	14 21 04.0	-2.0
	comp=E,0.0nm,0.3s,baz=208,slow=10,SNR=3.6						
PKI	Pulchoki	15.53	121	*e*P	Pn	14 21 09.3	+0.7
	comp=E,27nm,0.6s						
GUN	Gumba	15.65	119	*e*P	Pn	14 21 10.7	+0.6
	comp=E,15nm,0.5s						
JIRN	Jiri	16.02	119	*e*P	Pn	14 21 14.5	-0.1
	comp=E,33nm,0.6s						
BVAR	Borovoye Array	16.47	360	P	Pn	14 21 20.8	+1.0
	comp=E,0.2nm,0.3s,baz=164,slow=9.0,SNR=4.2						
AKTK	Aktyubinsk	16.50	331	P	Pn	14 21 20.3	+0.1
AKTO	Aktyubinsk	16.50	331	P	Pn	14 21 20.3	+0.1
	comp=E,0.3nm,0.3s,baz=151,slow=10.0,SNR=11						
AKTO	Aktyubinsk	16.50	331	⇓P	Pn	14 21 22.5	+2.4
	comp=E,0.8nm,0.9s						
RAMN	Ramite	16.75	120	*e*P	Pn	14 21 22.8	-0.5
	comp=E,17nm,0.5s						
TAPN	Taplejung	17.29	117	*e*P	Pn	14 21 30.1	+0.3
	comp=E,5.9nm,0.4s						
ODAN	Odare	17.35	119	*e*P	Pn	14 21 30.2	-0.4
	comp=E,15nm,0.7s						
ZALV	Zalesovo Beam	20.07	25	P	P	14 21 58.8	+0.5
	comp=E,1.2nm,0.4s,baz=212,slow=10,SNR=9.1						
ARCES	ARCESS Array B	40.92	338	P	P	14 25 03.2	-0.2
	comp=E,4.2nm,1.1s,mb4.0,baz=113,slow=8.0,SNR=5.6						
ARCES	ARCESS Array B	40.92	338	P	P	14 25 03.2	-0.2
TORD	Torodi Ar. Bea	65.25	268	P	P	14 27 57.5	-4.3
	comp=E,0.3nm,0.7s,mb3.2,baz=54,slow=6.4,SNR=3.4						

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*IDC **09** 14:25:12.1±0.8, 1°.08N×126°.01E, h0^{km}, mb3.9/6, mb1 4.0/7, mb1mx3.8/19, mbtmp3.9/7, ML3.9/1, Error ellipse: s-maj=56.1km s-min=16.2km az=74.0*

*ISCJB **09** 14:25:15.0±0.6, 1°.15N±0°.08×126°.24E±0°.06, h33^{km}, mb3.9/7, Error ellipse: s-maj=13.0km s-min=7.6km az=27.9*

*NEIC **09** 14:25:17.0±0.5, 1°.07N×126°.08E, h35^{km}, mb3.9/3, Error ellipse: s-maj=16.5km s-min=8.9km az=66.0*

ISC 09 14:25:16.9±0.6**, 1°.09N**±0°.09×**126°.19E**±0°.07**, h35**^{km}**, n16,**
σ**1^{s}00**/15**, mb3.9**/7**, 1C-2D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNE	Ternate	1.21	105	⇓*e*P	Pn	14 25 35.5	-1.9
MNI	Manado	1.40	284	⇓*e*P	Pn	14 25 40.0	+0.1
MNI				*e*S	Sn	14 25 57.0	-0.1
KDI	Kendari	6.16	215	⇑*e*P	Pn	14 26 48.6	+3.2
KDI				*e*S	Sn	14 27 22.6	-32
KSM	Kuching	15.89	272	Pn	Pn	14 28 56.6	-1.4
	28nm,1.2s						
FITZ	Fitzroy Crossi	19.08	182	P	Pn	14 29 37.3	-0.2
	0.3nm,0.3s,baz=29,slow=9.7,SNR=4.1						
WRAB	Tennant Creek	22.38	159	*e*P	P	14 30 12.3	+0.2
	2.7nm,0.5s,mb3.9						
WRA	Warramunga Arr	22.38	160	P	P	14 30 11.9	-0.3
	2.3nm,0.5s,mb3.9,baz=338,slow=11,SNR=35						
ASAR	Alice Springs	25.73	164	P	P	14 30 45.2	+1.1
	1.3nm,0.3s,mb3.9,baz=347,slow=12,SNR=48						
ASAR				PcP	PcP	14 34 14.4	+0.6
	0.4nm,0.5s,baz=350,slow=2.2,SNR=11						
STKA	Stephens Creek	35.89	157	P	P	14 32 14.3	+0.6
	1.1nm,0.6s,mb4.0,baz=357,slow=9.5,SNR=4.1						
STKA	Stephens Creek	35.89	157	P	P	14 32 13.5	-0.2
	0.3nm,0.8s,mb3.3						
SONM	Songino Array	49.62	343	P	P	14 34 05.4	+0.6
	0.3nm,0.5s,mb3.5,baz=144,slow=5.4,SNR=3.8						
SONM				PcP	PcP	14 35 26.4	+0.4
	0.4nm,0.7s,baz=152,slow=3.6,SNR=3.3						
SONM				ScP	ScP	14 39 23.6	+4.6
	0.7nm,1.1s,baz=155,slow=4.2,SNR=3.5						
PETK	Petropavlovsk-	58.06	22	P	P	14 35 07.7	+1.4
	3.4nm,1.0s,mb4.3,baz=209,slow=15,SNR=3.6						
MKAR	Makanchi Array	59.42	326	P	P	14 35 15.4	-0.5
	0.6nm,0.5s,mb3.9,baz=122,slow=8.5,SNR=18						
MKAR				ScP	ScP	14 40 08.5	+6.7
	0.3nm,0.8s,baz=129,slow=3.9,SNR=3.9						
MKAR	Makanchi Array	59.42	326	P	P	14 35 15.4	-0.5
MKAR				ScP	ScP	14 40 08.5	+6.7
TORD	Torodi Ar. Bea	123.19	286	PKP	PKPdf	14 44 11.0	0.0
	0.4nm,0.6s,baz=66,slow=1.9,SNR=3.6						
BLA	Blacksburg	134.60	30	PKPdf	PKPdf	14 44 32.0	-0.1

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*NEIC **09** 14:32:25.4, 32°.44N×115°.33W, h7^{km}, ML2.8(PAS), ML3.0(ECX), After ECX.*

ECX 09 14:32:25.4±0.3**, 32°.44N×115°.33W, h7**^{km}**, MD2.9, ML3.0,**
2C-2D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.03	126	*e*P	Pg	14 32 27.9	+1.2
CPBX				*e*S	Sg	14 32 29.8	+2.1
CPBX				*e*		14 32 30.5	
	comp=N,23µm,0.2s						
SGL	Mount Signal	0.40	303	*e*P	Pg	14 32 35.0	+2.0
EMX	El Mayor	0.45	170	⇑*e*P	Pg	14 32 37.2	+3.1
EMX				*e*S	Sg	14 32 45.5	+5.4
EMX				⇑*e*		14 32 46.4	
	comp=N,695nm,0.7s						
COA	Coachella	0.46	22	*e*P	Pg	14 32 36.4	+2.0
YUH	Yuha Desert	0.54	293	*e*P	Pg	14 32 37.6	+1.7

RDX	**Rancho Dawling**	**0.72**	**226**	*e*P	Pg	14 32 42.0	+2.6
RDX				*e*S	Sg	14 32 53.2	+4.5
RDX				⇓*e*		14 32 54.0	
	comp=N,479nm,0.4s						
GLA	**Glamis**	**0.75**	**35**	*e*P	Pg	14 32 40.3	+0.5
GLA				*e*S	Sg	14 32 49.4	-0.1
ECBX	**El Chinero**	**0.99**	**166**	⇓*e*P	Pg	14 32 47.0	+2.6
ECBX				*e*S	Sg	14 33 00.9	+3.7
CBX	**Cerro Bola**	**1.13**	**264**	*e*PN	Pn	14 32 48.8	+1.1
BAR	**Barrett**	**1.16**	**283**	*e*P	Pg	14 32 47.4	-0.2
BAR				*e*S	Sg	14 33 03.5	+0.8
SPX	**San Pedro Mart**	**1.39**	**185**	*e*PN	Pn	14 32 54.9	+3.7
PFO	**Pinyon Flat Ob**	**1.50**	**321**	*e*Pn	Pn	14 32 51.1	-1.7
LDFC	**Landfair**	**2.64**	**4**	*e*Pn	Pn	14 33 17.6	+9.2
LDFC				*e*Sn	Sn	14 33 49.9	+9.2

*NEIC **09** 14:35:09.5,37°.71N×15°.31W,h0^{km},MG4.5(MDD),After MDD.*
*MDD **09** 14:35:09.4±2.0,37°.62N×15°.26W,h0^{km},mb4.5/9,Error ellipse: s-maj=17.8km s-min=14.8km az=50.0,PRIMO*
*INMG **09** 14:35:13.0±1.1,37°.56N×15°.49W,h10^{km},ML2.9,Error ellipse: s-maj=9.3km s-min=6.2km az=77.0*
*CSEM **09** 14:35:14.7±0.4,37°.82N×14°.79W,h10^{km},ML3.7/12,Error ellipse: s-maj=7.6km s-min=6.4km az=59.0*
ISC 09 14:35:14.9±0.9,**37°.84N**±0°.04×**14°.79W**±0°.06,**h10^{km},n86,** σ**1^{s}.01**/157,**Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**4.80**	**97**	*e*Pn	**Pn**	**14 36 25.8**	**-1.4**
PFVI				*e*Sn	**Sn**	**14 37 21.4**	**-1.4**
PFVI				A		14 37 26.7	
	19nm,0.6s						
PFVI	**Vila Bisbo**	**4.80**	**97**	Pn	**Pn**	**14 36 25.8**	**-1.4**
PFVI				Sn	**Sn**	**14 37 21.4**	**-1.4**
	9.6nm,0.6s						
PFVI	**Vila Bisbo**	**4.80**	**97**	*e*Pn	**Pn**	**14 36 25.8**	**-1.4**
PFVI				*e*Sn	**Sn**	**14 37 21.4**	**-1.4**
	19nm,0.6s						
PTEO	**Sao Teotonio**	**4.82**	**92**	*e*Pn	**Pn**	**14 36 26.7**	**-0.8**
PTEO				*e*Sn	**Sn**	**14 37 22.3**	**-1.1**
PTEO				A		14 37 27.9	
	9.4nm,0.6s						
PTEO	**Sao Teotonio**	**4.82**	**92**	Pn	**Pn**	**14 36 26.7**	**-0.8**
PTEO				Sn	**Sn**	**14 37 22.3**	**-1.1**
	4.7nm,0.6s						
PTEO	**Sao Teotonio**	**4.82**	**92**	*e*Pn	**Pn**	**14 36 26.7**	**-0.8**
PTEO				*e*Sn	**Sn**	**14 37 22.3**	**-1.1**
	9.4nm,0.6s						
MORF	**Marmelete**	**4.91**	**94**	*e*Sn	**Sn**	**14 37 24.9**	**-0.6**
MORF	**Marmelete**	**4.91**	**94**	*e*Sn	**Sn**	**14 37 24.9**	**-0.6**
MOE	**Montemor**	**5.12**	**80**	*e*Pn	**Pn**	**14 36 32.2**	**+0.6**
MOE				*e*Sn	**Sn**	**14 37 32.5**	**+1.7**
MOE	**Montemor**	**5.12**	**80**	*e*Pn	**Pn**	**14 36 32.2**	**+0.6**
MOE				*e*Sn	**Sn**	**14 37 32.5**	**+1.7**
EVO	**Evora**	**5.39**	**81**	*e*Sn	**Sn**	**14 37 39.7**	**+2.4**
EVO				A		14 37 42.0	
	14nm,0.1s						
EVO	**Evora**	**5.39**	**81**	Sn	**Sn**	**14 37 39.7**	**+2.4**
	14nm,0.1s						
EVO	**Evora**	**5.39**	**81**	*e*Sn	**Sn**	**14 37 39.7**	**+2.4**
	14nm,0.1s						
PBEJ	**Beja**	**5.48**	**86**	*e*Sn	**Sn**	**14 37 40.1**	**+0.5**
PBEJ				A		14 37 48.0	
	5.5nm,0.2s						
PBEJ	**Beja**	**5.48**	**86**	Sn	**Sn**	**14 37 40.1**	**+0.5**
	2.8nm,0.2s						
PBEJ	**Beja**	**5.48**	**86**	*e*Sn	**Sn**	**14 37 40.1**	**+0.5**
	5.5nm,0.2s						
PBDV	**Barranco-do-Ve**	**5.48**	**94**	*e*Pn	**Pn**	**14 36 35.8**	**-0.8**
PBDV				*e*Sn	**Sn**	**14 37 40.0**	**+0.2**
PBDV				A		14 37 48.3	
	9.5nm,1.0s						
PBDV	**Barranco-do-Ve**	**5.48**	**94**	Pn	**Pn**	**14 36 35.8**	**-0.8**
PBDV				Sn	**Sn**	**14 37 40.0**	**+0.2**
	9.5nm,1.0s						
PBDV	**Barranco-do-Ve**	**5.48**	**94**	*e*Pn	**Pn**	**14 36 35.8**	**-0.8**
PBDV				*e*Sn	**Sn**	**14 37 40.0**	**+0.2**
	9.5nm,1.0s						
PVAQ	**Vaqueiros**	**5.63**	**92**	*e*Pn	**Pn**	**14 36 37.7**	**-1.0**
PVAQ				*e*Sn	**Sn**	**14 37 42.7**	**-0.7**
PVAQ				A		14 37 47.7	
	7.9nm,0.2s						
PVAQ	**Vaqueiros**	**5.63**	**92**	Pn	**Pn**	**14 36 37.7**	**-1.0**
PVAQ				Sn	**Sn**	**14 37 42.7**	**-0.7**
	7.9nm,0.2s						
PVAQ	**Vaqueiros**	**5.63**	**92**	*e*Pn	**Pn**	**14 36 37.7**	**-1.0**
PVAQ				*e*Sn	**Sn**	**14 37 42.7**	**-0.7**
	7.9nm,0.2s						
PESTR	**Estremoz**	**5.75**	**77**	*e*Pn	**Pn**	**14 36 41.1**	**+0.8**
PESTR				*e*Sn	**Sn**	**14 37 47.8**	**+1.4**
PESTR				A		14 38 04.2	
	4.4nm,0.7s						
PESTR	**Estremoz**	**5.75**	**77**	Pn	**Pn**	**14 36 41.1**	**+0.8**
PESTR				Sn	**Sn**	**14 37 47.8**	**+1.4**
	4.4nm,0.7s						
PESTR	**Estremoz**	**5.75**	**77**	*e*Pn	**Pn**	**14 36 41.1**	**+0.8**
PESTR				*e*Sn	**Sn**	**14 37 47.8**	**+1.4**
	4.4nm,0.7s						
EGRO	**El Granado**	**5.80**	**91**	Pn	**Pn**	**14 36 41.0**	**0.0**
	0.8nm,0.1s,SNR=7.9						
EGRO				Sn	**Sn**	**14 37 47.2**	**-0.4**
	2.9nm,0.1s,SNR=6.1						
EGRO	**El Granado**	**5.80**	**91**	P	**Pn**	**14 36 40.5**	**-0.6**
EGRO				S	**Sn**	**14 37 47.2**	**-0.4**
EGRO	**El Granado**	**5.80**	**91**	P	**Pn**	**14 36 41.0**	**0.0**
	0.8nm,0.1s,SNR=7.9						
EGRO				S	**Sn**	**14 37 47.2**	**-0.5**
	2.9nm,0.1s,SNR=6.1						
PMRV	**Marv??o**	**6.01**	**72**	*e*Pn	**Pn**	**14 36 44.2**	**+0.4**
PMRV				*e*Sn	**Sn**	**14 37 54.0**	**+1.4**
PMRV				A		14 37 58.2	
	6.9nm,0.3s						
PMRV	**Marv??o**	**6.01**	**72**	Pn	**Pn**	**14 36 44.2**	**+0.4**
PMRV				Sn	**Sn**	**14 37 54.0**	**+1.4**
	6.9nm,0.3s						
PMRV	**Marv??o**	**6.01**	**72**	*e*Pn	**Pn**	**14 36 44.2**	**+0.4**
PMRV				*e*Sn	**Sn**	**14 37 54.0**	**+1.4**
	6.9nm,0.3s						
PCBR	**Castelo Branco**	**6.05**	**68**	*e*Pn	**Pn**	**14 36 48.1**	**+3.7**
PCBR				*e*Sn	**Sn**	**14 37 58.6**	**+4.9**
PCBR				A		14 38 03.9	
	4.8nm,0.5s						
PCBR	**Castelo Branco**	**6.05**	**68**	Pn	**Pn**	**14 36 48.1**	**+3.7**
PCBR				Sn	**Sn**	**14 37 58.6**	**+4.9**
	2.4nm,0.5s						
PCBR	**Castelo Branco**	**6.05**	**68**	*e*Pn	**Pn**	**14 36 48.1**	**+3.7**
PCBR				*e*Sn	**Sn**	**14 37 58.6**	**+4.9**
	4.8nm,0.5s						
PVIS	**Viseu**	**6.08**	**60**	*e*Pn	**Pn**	**14 36 45.8**	**+1.1**
PVIS				*e*Sn	**Sn**	**14 37 55.6**	**+1.3**
PVIS				A		14 38 00.3	
	9.1nm,0.3s						
PVIS	**Viseu**	**6.08**	**60**	Pn	**Pn**	**14 36 45.8**	**+1.1**
PVIS				Sn	**Sn**	**14 37 55.6**	**+1.3**
	4.6nm,0.3s						
PVIS	**Viseu**	**6.08**	**60**	*e*Pn	**Pn**	**14 36 45.8**	**+1.1**
PVIS				*e*Sn	**Sn**	**14 37 55.6**	**+1.3**
	9.1nm,0.3s						
EBAD	**Badajoz**	**6.19**	**79**	Pn	**Pn**	**14 36 46.6**	**+0.4**
	1.2nm,0.1s,SNR=8.4						
EBAD				Sn	**Sn**	**14 37 57.4**	**+0.3**
	1.9nm,0.1s,SNR=4.9						
EBAD	**Badajoz**	**6.19**	**79**	P	**Pn**	**14 36 46.6**	**+0.3**
	1.2nm,0.1s,SNR=8.4						
EBAD				S	**Sn**	**14 37 57.4**	**+0.3**
	1.9nm,0.1s,SNR=4.9						
MTE	**Manteigas**	**6.19**	**63**	*e*Sn	**Sn**	**14 37 57.2**	**+0.1**
MTE				A		14 38 04.5	
	7.1nm,0.2s						
MTE	**Manteigas**	**6.19**	**63**	*e*Sn	**Sn**	**14 37 57.2**	**+0.1**
	7.1nm,0.2s						
EZAM	**Zamans**	**6.36**	**45**	Pn	**Pn**	**14 36 48.2**	**-0.5**
	1.7nm,0.1s,SNR=7.9						
EZAM				Sn	**Sn**	**14 38 01.6**	**+0.3**
	1.0nm,0.1s,SNR=7.9						
EZAM	**Zamans**	**6.36**	**45**	P	**Pn**	**14 36 48.2**	**-0.5**
	1.7nm,0.1s,SNR=7.9						
EZAM				S	**Sn**	**14 38 01.6**	**+0.3**
	1.0nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**6.43**	**88**	Pn	**Pn**	**14 36 49.5**	**-0.1**
	0.5nm,0.1s,SNR=9.8						
EMIN				Sn	**Sn**	**14 38 02.1**	**-1.0**
	0.9nm,0.1s,SNR=6.2						
EMIN	**Mina Concepcio**	**6.43**	**88**	P	**Pn**	**14 36 49.5**	**-0.1**
EMIN				S	**Sn**	**14 38 03.9**	**+0.9**
EMIN	**Mina Concepcio**	**6.43**	**88**	P	**Pn**	**14 36 49.5**	**-0.1**
	0.5nm,0.1s,SNR=9.8						
EMIN				S	**Sn**	**14 38 02.1**	**-1.0**
	0.9nm,0.1s,SNR=6.2						
PVRL	**Vila Real**	**6.46**	**56**	*e*Pn	**Pn**	**14 36 51.0**	**+1.0**
PVRL				*e*Sn	**Sn**	**14 38 04.6**	**+0.9**
PVRL				A		14 38 12.6	
	8.9nm,0.1s						
PVRL	**Vila Real**	**6.46**	**56**	Pn	**Pn**	**14 36 51.0**	**+1.0**
PVRL				Sn	**Sn**	**14 38 04.6**	**+0.9**
	4.4nm,0.1s						
PVRL	**Vila Real**	**6.46**	**56**	*e*Pn	**Pn**	**14 36 51.0**	**+1.0**
PVRL				*e*Sn	**Sn**	**14 38 04.6**	**+0.9**
	8.9nm,0.1s						
PCAB	**Cabril**	**6.49**	**51**	*e*Pn	**Pn**	**14 36 51.2**	**+0.8**
PCAB				*e*Sn	**Sn**	**14 38 07.0**	**+2.5**
PCAB	**Cabril**	**6.49**	**51**	*e*Pn	**Pn**	**14 36 51.2**	**+0.8**
PCAB				*e*Sn	**Sn**	**14 38 07.0**	**+2.5**
ELOB	**Lobios**	**6.56**	**50**	Pn	**Pn**	**14 36 51.7**	**+0.3**
	1.1nm,0.1s,SNR=27						
ELOB				Sn	**Sn**	**14 38 05.8**	**-0.4**
	1.5nm,0.1s,SNR=5.8						
ELOB	**Lobios**	**6.56**	**50**	P	**Pn**	**14 36 51.7**	**+0.3**
	1.1nm,0.1s,SNR=27						
ELOB				S	**Sn**	**14 38 05.8**	**-0.4**
	1.5nm,0.1s,SNR=5.8						
EMAZ	**Mazaricos**	**6.76**	**39**	Pn	**Pn**	**14 36 53.2**	**-1.0**
	0.7nm,0.1s,SNR=17						
EMAZ				Sn	**Sn**	**14 38 08.8**	**-2.5**
	2.2nm,0.1s,SNR=6.9						
EMAZ	**Mazaricos**	**6.76**	**39**	P	**Pn**	**14 36 53.7**	**-0.5**
EMAZ				S	**Sn**	**14 38 08.8**	**-2.5**
EMAZ	**Mazaricos**	**6.76**	**39**	P	**Pn**	**14 36 53.2**	**-1.0**
	0.7nm,0.1s,SNR=17						
EMAZ				S	**Sn**	**14 38 08.8**	**-2.5**
	2.2nm,0.1s,SNR=6.9						
MVO	**Moncorvo**	**6.86**	**59**	*e*Pn	**Pn**	**14 36 56.1**	**+0.6**
MVO				*e*Sn	**Sn**	**14 38 12.4**	**-1.2**
MVO				A		14 38 16.3	
	5.9nm,0.4s						
MVO	**Moncorvo**	**6.86**	**59**	Pn	**Pn**	**14 36 56.1**	**+0.6**
MVO				Sn	**Sn**	**14 38 12.4**	**-1.2**
	3.0nm,0.4s						
MVO	**Moncorvo**	**6.86**	**59**	*e*Pn	**Pn**	**14 36 56.1**	**+0.6**
MVO				*e*Sn	**Sn**	**14 38 12.4**	**-1.2**
	5.9nm,0.4s						
STS	**Santiago**	**6.94**	**41**	Pn	**Pn**	**14 36 55.9**	**-0.7**
	3.3nm,0.1s,SNR=7.9						
STS				Sn	**Sn**	**14 38 13.5**	**-2.0**
	3.5nm,0.1s,SNR=7.9						
STS	**Santiago**	**6.94**	**41**	P	**Pn**	**14 36 55.9**	**-0.7**
	3.3nm,0.1s,SNR=7.9						
STS				S	**Sn**	**14 38 13.5**	**-2.0**
	3.5nm,0.1s,SNR=7.9						
EPLA	**Plasencia**	**7.14**	**69**	Pn	**Pn**	**14 36 59.0**	**-0.5**
	5.6nm,0.4s,SNR=5.3						
EPLA				Sn	**Sn**	**14 38 21.6**	**+1.0**
	3.9nm,0.5s						
EPLA	**Plasencia**	**7.14**	**69**	P	**Pn**	**14 36 58.2**	**-1.2**
EPLA				S	**Sn**	**14 38 21.6**	**+1.0**
EPLA	**Plasencia**	**7.14**	**69**	P	**Pn**	**14 36 59.0**	**-0.4**
	5.6nm,0.4s,SNR=5.3						
EPLA				S	**Sn**	**14 38 21.6**	**+1.0**
	3.9nm,0.5s						
ESPR	**Espera**	**7.18**	**95**	Sn	**Sn**	**14 38 21.4**	**-0.2**
	8.1nm,0.3s,SNR=7.9						
ESPR	**Espera**	**7.18**	**95**	P	**Pn**	**14 37 01.3**	**+1.3**
ESPR				S	**Sn**	**14 38 21.4**	**-0.2**
ESPR	**Espera**	**7.18**	**95**	S	**Sn**	**14 38 21.4**	**-0.2**
	8.1nm,0.3s,SNR=7.9						
PBRG	**Braganca**	**7.35**	**55**	*e*Sn	**Sn**	**14 38 26.1**	**+0.3**
PBRG	**Braganca**	**7.35**	**55**	*e*Sn	**Sn**	**14 38 26.1**	**+0.3**
ERUA	**La Rua**	**7.42**	**50**	Pn	**Pn**	**14 37 03.7**	**+0.5**
	5.7nm,0.1s,SNR=7.9						
ERUA				Sn	**Sn**	**14 38 27.3**	**-0.1**
	1.5nm,0.2s,SNR=7.9						
ERUA	**La Rua**	**7.42**	**50**	P	**Pn**	**14 37 03.7**	**+0.5**
	5.7nm,0.1s,SNR=7.9						
ERUA				S	**Sn**	**14 38 27.3**	**-0.1**
	1.5nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**7.43**	**54**	Pn	**Pn**	**14 37 04.1**	**+0.8**
	1.3nm,0.2s,SNR=29						
ECAL				Sn	**Sn**	**14 38 26.8**	**-0.7**
	0.6nm,0.2s,SNR=4.8						
ECAL	**Calabor**	**7.43**	**54**	P	**Pn**	**14 37 04.1**	**+0.8**
	1.3nm,0.2s,SNR=29						
ECAL				S	**Sn**	**14 38 26.8**	**-0.7**
	0.6nm,0.2s,SNR=4.8						
EPON	**Pontenova**	**7.99**	**44**	Pn	**Pn**	**14 37 10.7**	**-0.4**
	1.2nm,0.1s,SNR=7.9						
EPON				Sn	**Sn**	**14 38 39.1**	**-2.3**
	1.5nm,0.2s,SNR=7.9						
EPON	**Pontenova**	**7.99**	**44**	P	**Pn**	**14 37 10.7**	**-0.3**
	1.2nm,0.1s,SNR=7.9						
EPON				S	**Sn**	**14 38 39.1**	**-2.3**
	1.5nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**8.07**	**85**	Pn	**Pn**	**14 37 11.7**	**-0.4**
	0.5nm,0.1s,SNR=7.9						
EADA				Sn	**Sn**	**14 38 42.6**	**-0.9**
	1.6nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**8.07**	**85**	P	**Pn**	**14 37 11.7**	**-0.5**
	0.5nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**14 38 42.6**	**-0.9**
	1.6nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**8.66**	**74**	Pn	**Pn**	**14 37 20.2**	**+0.1**
	0.3nm,0.2s,baz=266,slow=12,SNR=6.0						
ESDC				Sn	**Sn**	**14 38 58.5**	**+0.6**
	0.3nm,0.2s,baz=261,slow=24,SNR=3.9						
ESDC	**Sonseca Array**	**8.66**	**74**	P	**Pn**	**14 37 20.2**	**0.0**
	0.3nm,0.2s,SNR=6.0						
ESDC				S	**Sn**	**14 38 58.5**	**+0.7**
	0.3nm,0.2s,SNR=3.9						
ESLA	**Sonseca Array**	**8.66**	**74**	*e*Pn	**Pn**	**14 37 19.4**	**-0.8**
	1.6nm,1.1s						
ESLA				*e*Sn	**Sn**	**14 38 57.1**	**-0.7**
ESLA	**Sonseca Array**	**8.66**	**74**	*e*Pn	**Pn**	**14 37 19.4**	**-0.8**
	1.6nm,1.1s						
ESLA				*e*Sn	**Sn**	**14 38 57.1**	**-0.7**
EARI	**Arriondas**	**9.11**	**50**	Pn	**Pn**	**14 37 27.9**	**+1.6**
	0.7nm,0.2s,SNR=31						
EARI				Sn	**Sn**	**14 39 08.2**	**-0.6**
	0.2nm,0.3s,SNR=7.9						
EARI	**Arriondas**	**9.11**	**50**	P	**Pn**	**14 37 27.9**	**+1.6**
	0.7nm,0.2s,SNR=31						
EARI				S	**Sn**	**14 39 08.2**	**-0.6**
	0.2nm,0.3s,SNR=7.9						
ETOR	**Torete**	**10.31**	**69**	Pn	**Pn**	**14 37 43.4**	**+0.6**
	2.2nm,0.2s,SNR=7.9						
ETOR				Sn	**Sn**	**14 39 37.2**	**-1.2**
	3.2nm,0.3s,SNR=7.9						
ETOR	**Torete**	**10.31**	**69**	P	**Pn**	**14 37 43.4**	**+0.6**
	2.2nm,0.2s,SNR=7.9						
ETOR				S	**Sn**	**14 39 37.2**	**-1.1**
	3.2nm,0.3s,SNR=7.9						
LSA	**Lhasa**	**83.58**	**57**	P	**P**	**14 47 38.5**	**-5.0**

*ISCJB **09** 14:37:47.3±0.2,0°.15S±0°.02×124°.41E±0°.03,h32^{km},mb5.2/125,MS4.0/31,Error ellipse: s-maj=4.5km s-min=3.0km az=162.2*
*MOS **09** 14:37:47.7±1.3,0°.09S×124°.26E,h33^{km},mb5.5/37,Error ellipse: s-maj=11.4km s-min=5.8km az=113.3*
*NEIC **09** 14:37:49.5±0.2,0°.12S×124°.37E,h35^{km},mb5.3/34,Error ellipse: s-maj=6.7km s-min=4.3km az=75.0*
*BJI **09** 14:37:49.0,0°.10S×124°.40E,h35^{km},mB5.2/33,mb5.1/53,Ms4.7/31,Ms7 4.3/33*
*GCMT **09** 14:37:49.5±0.3,0°.30S×124°.50E,h46^{km}±1^{km},MW5.1/62,Moment Tensor Solution. s41,c59; s62,c85; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.29±.23; $M_{\theta\theta}$-2.25±.15; $M_{\phi\phi}$-2.04±.20; $M_{r\theta}$0.52±.11; $M_{\theta\phi}$-2.37±.10; $M_{\phi r}$2.42±.15; Best double couple: $M_0$5.05400×10^{16} NP1:ϕ_s241.00000°,δ34.00000°,λ116.00000°. NP2: ϕ_s31.00000°,δ59.00000°,λ73.00000°. Principal axes: T 5.1200, Plg70.0000°, Azm263.0000°; N -0.1330, Plg14.0000°, Azm39.0000°; P -4.9880, Plg13.0000°, Azm133.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **09** 14:37:50.4±1.5,0°.14S×124°.35E,h44^{km}±12^{km},mb4.8/30,mb1 4.8/31,mb1mx4.8/33,mbtmp4.7/31,ML4.3/1,MS4.0/17,Ms1 4.0/17,ms1mx3.8/28 Error ellipse: s-maj=15.0km s-min=8.9km az=71.0*
*DJA **09** 14:37:52,0°.41S×124°.56E,h10^{km},MLv5.6/10*
ISC 09 14:37:49.4±0.2,**0°.18S**±0°.02×**124°.41E**±0°.03,**h34^{km}, h34^{km}**±1.4^{km}**:pP-P,n314,** σ**1^{s}.14**/292,**mb5.2**/125,**MS4.0**/31, **22C-19D,Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	**Manado**	**1.67**	**15**	⇓*e*P	**Pn**	**14 38 20.0**	**+3.8**
TNTI	**Ternate**	**3.10**	**72**	P	**Pn**	**14 38 39.3**	**+3.3**
TNE	**Ternate**	**3.11**	**72**	⇓*e*P	**Pn**	**14 38 36.0**	**0.0**
LBMI	**Labuha**	**3.13**	**98**	P	**Pn**	**14 38 37.6**	**+1.3**
KDI	**Kendari**	**4.16**	**205**	⇑*e*P	**Pn**	**14 38 52.7**	**+2.2**
KDI				*e*S	**Sn**	**14 39 37.5**	**-0.4**
KDI	**Kendari**	**4.16**	**205**	P	**Pn**	**14 38 52.7**	**+2.2**
PCI	**Palu**	**4.63**	**261**	⇓*i*P	**Pn**	**14 39 01.2**	**+4.3**
PCI				*i* S	**Sn**	**14 39 42.0**	**-7.5**
PCI	**Palu**	**4.63**	**261**	P	**Pn**	**14 39 02.2**	**+5.3**
AAI	**Ambon**	**5.15**	**133**	⇓*e*P	**Pn**	**14 39 06.4**	**+2.4**
AAI				*e*S	**Sn**	**14 40 02.7**	**+0.4**
AAI	**Ambon**	**5.15**	**133**	P	**Pn**	**14 39 06.0**	**+2.0**
MSAI	**Masohi**	**5.51**	**125**	P	**Pn**	**14 39 12.6**	**+3.6**
	693nm,0.7s,2.8nm						
KAPI	**Kappang**	**6.69**	**224**	Pn	**Pn**	**14 39 28.0**	**+2.8**
	2µm,0.5s,SNR=32						
KAPI	**Kappang**	**6.69**	**224**	*e*Pn	**Pn**	**14 39 28.4**	**+3.1**
KAPI	**Kappang**	**6.69**	**224**	P	**Pn**	**14 39 28.8**	**+3.6**
	190nm,0.9s,2µm1.0nm						
MKS	**Makassar**	**7.03**	**224**	⇓*e*P	**Pn**	**14 39 34.7**	**+4.8**
MKS				*e*S	**Sn**	**14 40 53.0**	**+4.3**
DAV	**Davao City (W)**	**7.29**	**9**	P	**Pn**	**14 39 40.8**	**+7.2**
	26nm,0.3s,baz=230,slow=2.5,SNR=9.7						
DAV	**Davao City (W)**	**7.29**	**9**	*e*Pn	**Pn**	**14 39 40.5**	**+7.0**
	394nm,0.8s						
DAV	**Davao City (W)**	**7.29**	**9**	P	**Pn**	**14 39 41.8**	**+8.3**
	SNR=10						
DAV				P		14 39 41.8	
	SNR=10						
DAV	**Davao City (W)**	**7.29**	**9**	P	Px	14 39 44.1	
	1.3nm457nm,0.8s						
ZMPH	**Zamboanga City**	**7.46**	**342**	⇓*i*P	**Pn**	**14 39 39.4**	**+3.6**
ZMPH				*i* S	**Sn**	**14 40 48.4**	**-11**
TSM	**Tawau**	**7.90**	**304**	P	**Pn**	**14 39 45.5**	**+3.7**
MYLDM	**Lahad Datu**	**7.95**	**312**	P	**Pn**	**14 39 49.0**	**+6.5**
MYLDM	**Lahad Datu**	**7.95**	**312**	P	**Pn**	**14 39 48.7**	**+6.2**
	2µm,1.1s,4.7nm						
BUKP	**Musuan**	**8.03**	**5**	*e*P	**Pn**	**14 39 49.5**	**+5.9**
PAGZ	**Pagadian**	**8.04**	**353**	*e*P	**Pn**	**14 39 48.0**	**+4.2**
IPIL	**Ipil**	**8.12**	**347**	*e*P	**Pn**	**14 39 49.6**	**+4.7**
SDKM	**Sandakan**	**9.23**	**309**	P	**Pn**	**14 40 06.2**	**+6.0**
TLE	**Tual**	**9.93**	**123**	⇑*e*P	**Pn**	**14 40 06.5**	**-3.2**
KKM	**Kota Kinabalu**	**10.25**	**307**	P	**Pn**	**14 40 20.0**	**+5.9**
KKM	**Kota Kinabalu**	**10.25**	**307**	*e*Pn	**Pn**	**14 40 19.1**	**+5.0**
	116nm,0.6s						
KKM				*e*Sn	**Sn**	**14 42 19.1**	**+11**
PLKI	**Palangkaraya**	**10.66**	**259**	P	Px	14 40 30.6	
SBUM	**Sibu**	**12.46**	**282**	P	**Pn**	**14 40 49.7**	**+5.3**
KSM	**Kuching**	**14.19**	**277**	*e*Pn	**Pn**	**14 41 13.1**	**+5.0**
	96nm,0.9s						
TGY	**Tagaytay City**	**14.60**	**347**	P	**Pn**	**14 41 20.6**	**+7.0**
	12nm,0.3s,baz=255,slow=20,SNR=3.1						
KAKA	**Kakadu**	**14.78**	**148**	*e*P	**Pn**	**14 41 15.4**	**-0.7**
	139nm,0.6s						
KAKA	**Kakadu**	**14.78**	**148**	*e*Pn	**Pn**	**14 41 15.3**	**-0.8**
	331nm,0.6s						
KNA	**Kununurra**	**16.06**	**165**	*e*P	**Pn**	**14 41 32.8**	**0.0**
	48nm,0.5s						
TPI	**Tanjungpandan**	**16.94**	**261**	⇓*e*P	**Pn**	**14 41 48.5**	**+4.5**
FITZ	**Fitzroy Crossi**	**17.86**	**176**	*e*P	**Pn**	**14 41 56.4**	**+1.2**
	32nm,0.9s						
FITZ				*e*S	**Sn**	**14 45 13.3**	**-0.1**
FITZ	**Fitzroy Crossi**	**17.86**	**176**	P	**Pn**	**14 41 54.9**	**-0.3**
	0.8nm,0.3s,baz=10,slow=12,SNR=12						
FITZ	**Fitzroy Crossi**	**17.86**	**176**	*e*Pn	**Pn**	**14 41 56.5**	**+1.3**
	16nm,0.8s						
LEM	**Lembang**	**18.01**	**248**	⇑*e*P	**Pn**	**14 42 03.3**	**+6.2**
MYKOM	**Kota Tinggi**	**20.65**	**276**	P	**P**	**14 42 29.4**	**+3.0**
XMIS	**Christmas Isla**	**21.27**	**241**	*e*P	**P**	**14 42 33.6**	**+0.5**
MBWA	**Marble Bar**	**21.35**	**192**	*e*P	**P**	**14 42 34.2**	**+0.4**
	34nm,0.7s,mb4.8						
WRAB	**Tennant Creek**	**21.92**	**154**	P	**P**	**14 42 38.0**	**-1.9**
	525nm,0.7s,mb6.1,SNR=32						
WRAB	**Tennant Creek**	**21.92**	**154**	*e*P	**P**	**14 42 38.8**	**-1.0**
WRA	**Warramunga Arr**	**21.92**	**154**	P	**P**	**14 42 39.1**	**-0.8**
WRA				S	**S**	**14 46 36.1**	**-4.1**
WRA	**Warramunga Arr**	**21.92**	**154**	P	**P**	**14 42 39.1**	**-0.8**
	12nm,0.4s,mb4.7,baz=339,slow=11,SNR=213						
WRA				S	**S**	**14 46 36.1**	**-4.1**
	2.7nm,0.8s,baz=317,slow=22,SNR=6.2						
WRA				ScP	ScP	14 50 11.2	-2.1
	1.2nm,0.7s,baz=330,slow=2.6,SNR=5.5						
KTGM	**Kuala Trenggan**	**21.94**	**285**	P	**P**	**14 42 43.7**	**+3.5**
FRIM	**Kepong**	**23.02**	**279**	P	**P**	**14 42 54.0**	**+2.3**
COEN	**Coen**	**23.08**	**127**	*e*P	**P**	**14 42 51.9**	**-0.4**
COEN	**Coen**	**23.08**	**127**	*e*P	**P**	**14 42 52.0**	**-0.2**
	184nm,0.8s,mb5.6						
TPUB	**Ta-pu**	**23.62**	**351**	*e*P	**P**	**14 42 56.8**	**-0.7**
	123nm,0.8s,mb5.4						
IPM	**Ipoh**	**23.81**	**281**	P	**P**	**14 43 01.0**	**+1.5**
QIZ	**Qiongzhong**	**23.85**	**324**	P	**P**	**14 43 00.9**	**+1.2**
QIZ				S	**S**	**14 47 14.2**	**+0.7**
QIZ				pmax	pmax		
	comp=Z,29nm,1.1s,mb4.6						
QIZ				LR	LR		
	comp=Z,330nm,21.3s,MS3.8						
QIZ	**Qiongzhong**	**23.85**	**324**	*e*P	**P**	**14 42 59.4**	**-0.3**
SSLB	**Suanglung**	**24.05**	**352**	*e*P	**P**	**14 43 02.1**	**+0.6**
	comp=Z,19nm,0.6s,mb4.7						
KULM	**Kulim**	**24.34**	**283**	P	**P**	**14 43 05.2**	**+0.9**
KULM	**Kulim**	**24.34**	**283**	*e*P	**P**	**14 43 04.1**	**-0.2**
	comp=Z,34nm,0.9s,mb4.8						
NACB	**Ninganchiao**	**24.36**	**354**	*e*P	**P**	**14 43 03.1**	**-1.2**
	comp=Z,7.5nm,0.5s,mb4.4						
GUMO	**Guam**	**24.45**	**55**	P	**P**	**14 43 04.7**	**-0.5**
	comp=Z,42nm,0.5s,mb5.1,baz=174,slow=19,SNR=1.6						
UBT	**Ubonrachathani**	**24.54**	**309**	⇓P	**P**	**14 43 08.0**	**+2.0**
ASAR	**Alice Springs**	**25.10**	**159**	P	**P**	**14 43 11.2**	**+0.1**
ASAR				*PP	pP	14 43 23.7	+2.8
ASAR						14 46 45.6	
ASAR				S	**S**	**14 47 32.7**	**-0.9**
ASAR	**Alice Springs**	**25.10**	**159**	P	**P**	**14 43 11.2**	**+0.1**
	comp=Z,14nm,1.0s,mb4.5,baz=341,slow=7.6,SNR=117						
ASAR				pP	pP	14 43 23.7	+2.8
	comp=Z,23nm,0.6s,baz=327,slow=8.9,SNR=38						
ASAR				PcP	PcP	14 46 45.5	+0.5
	comp=Z,9.2nm,0.5s,baz=352,slow=2.1,SNR=16						
ASAR				S	**S**	**14 47 32.7**	**-0.9**
	comp=Z,3.8nm,0.9s,baz=347,slow=22,SNR=3.2						
ASAR				ScP	ScP	14 50 20.3	-1.5
	comp=Z,1.4nm,0.7s,baz=331,slow=3.2,SNR=5.2						
PSI	**Prapat**	**25.65**	**277**	P	**P**	**14 43 16.2**	**0.0**
	comp=Z,19nm,0.9s,mb4.6,baz=104,slow=5.1,SNR=18						
PSI				LR	LR	14 53 52.2	
	comp=Z,375nm,21.0s,MS3.9,baz=111,slow=38						
KKTK	**Khon Kaen**	**26.88**	**309**	⇑P	**P**	**14 43 24.0**	**-3.3**
	comp=Z,1µm,0.6s						
JOW	**Kunigami**	**27.11**	**8**	LR	LR	14 52 57.9	
	comp=Z,468nm,20.8s,MS4.0,baz=320,slow=34						
NST	**Nakhon Sawan**	**28.68**	**304**	P	**P**	**14 43 44.0**	**+0.6**
CTA	**Charters Tower**	**29.14**	**134**	P	**P**	**14 43 48.4**	**+1.0**
	comp=Z,4.1nm,0.7s,mb4.2,baz=304,slow=11,SNR=2.7						
BDT	**Bhumibol Dam**	**30.42**	**306**	P	**P**	**14 44 01.0**	**+2.2**
	comp=Z,18nm,1.0s,mb4.8						
FORT	**Forrest**	**30.63**	**174**	*e*P	**P**	**14 43 58.3**	**-2.2**
	comp=Z,39nm,0.7s,mb5.3						
FORT	**Forrest**	**30.63**	**174**	*e*P	**P**	**14 44 00.9**	**+0.4**
	comp=Z,39nm,0.7s,mb5.3						
CMAR	**Chiang Mai Arr**	**31.13**	**308**	P	**P**	**14 44 05.3**	**+0.3**
CMAR						14 47 01.1	
CMAR	**Chiang Mai Arr**	**31.13**	**308**	P	**P**	**14 44 05.2**	**+0.2**
	comp=Z,14nm,0.9s,mb4.8,baz=138,slow=7.7,SNR=85						
CMAR				PcP	PcP	14 47 01.1	+1.2
	comp=Z,14nm,0.9s,baz=172,slow=1.9,SNR=29						
CMAR				ScP	ScP	14 50 38.2	-2.3
	comp=Z,0.8nm,0.5s,baz=157,slow=3.0,SNR=5.1						
CMAR				LR	LR	14 57 07.4	
	comp=Z,337nm,21.8s,MS4.0,baz=153,slow=37						
SSE	**Sheshan**	**31.25**	**355**	P	**P**	**14 44 06.9**	**+1.0**
SSE				sP	sP	14 44 22.8	+2.8
SSE				S	**S**	**14 49 13.1**	**+2.8**
SSE				sS	sS	14 49 31.3	+4.7
SSE				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
SSE				pmax	pmax		
	comp=Z,240nm,4.6s						

SSE				LR	LR		
	comp=Z,170nm,28.0s,MS3.6						
CHRT	**Chiangrai**	**31.29**	**311**	⇑P	**P**	**14 44 08.0**	**+1.6**
	comp=Z,237nm,1.0s,mb6.0						
CHG	**Chiang Mai**	**31.32**	**308**	⇓P	**P**	**14 44 08.3**	**+1.5**
	comp=Z,59nm,1.0s,mb5.4						
CHTO	**Chiang Mai**	**31.32**	**308**	*e*P	**P**	**14 44 08.3**	**+1.5**
CHTO				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.4						
CHTO	**Chiang Mai**	**31.32**	**308**	*e*P	**P**	**14 44 08.3**	**+1.5**
	comp=Z,58nm,1.0s,mb5.4						
CHTO	**Chiang Mai**	**31.32**	**308**	⇑P	**P**	**14 44 08.3**	**+1.6**
	SNR=16						
CHTO				⇑P		14 44 08.3	
	SNR=16						
GYA	**Guiyang**	**31.52**	**328**	⇑*i*P	**P**	**14 44 10.5**	**+2.1**
GYA				pP	pP	14 44 20.2	+1.9
GYA				sP	sP	14 44 24.1	+1.7
GYA				PP	PP	14 45 14.6	-5.4
GYA				PcP	PcP	14 47 01.6	+0.7
GYA				S	**S**	**14 49 16.0**	**+1.4**
GYA				sS	sS	14 49 32.0	+1.0
GYA				ScP	ScP	14 50 40.2	-1.5
GYA				SS	SS	14 51 06.8	-24
GYA				ScS	ScS	14 54 38.3	-1.3
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
GYA				pmax	pmax		
	comp=Z,170nm,5.1s						
GYA				LR	LR		
	comp=N,970nm,11.6s,MS4.8						
GYA				LR	LR		
	comp=E,750nm,11.3s,MS4.8						
GYA				LR	LR		
	comp=Z,1μm,11.0s,MS4.8						
KLBR	**Kellerberrin**	**31.87**	**191**	*e*P	**P**	**14 44 10.9**	**-0.5**
	comp=Z,53nm,1.6s,mb5.1						
WHN	**Wuhan**	**32.01**	**343**	⇑P	**P**	**14 44 15.7**	**+3.1**
CBIJ	**Chichi jima**	**32.05**	**31**	P	**P**	**14 44 12.9**	**-0.1**
	comp=Z,72nm,0.4s,mb5.8,baz=297,slow=20,SNR=4.9						
CBIJ				LR	LR	14 55 05.8	
	comp=Z,210nm,21.4s,MS3.8,baz=143,slow=32						
NJ2	**Nanjing**	**32.48**	**351**	*e*P	**P**	**14 44 16.8**	**+0.1**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
MUN	**Mundaring**	**32.57**	**193**	*e*P	**P**	**14 44 16.4**	**-1.1**
KMI	**Kunming**	**32.74**	**322**	P	**P**	**14 44 21.9**	**+2.8**
KMI				pP	pP	14 44 31.3	+2.3
KMI				sP	sP	14 44 34.9	+1.7
KMI				PP	PP	14 45 30.8	-2.7
KMI				S	**S**	**14 49 35.1**	**+1.4**
KMI				sS	sS	14 49 51.8	+1.8
KMI				SS	SS	14 51 36.6	-19
KMI				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
KMI				pmax	pmax		
	comp=Z,100nm,3.9s						
KMI				LR	LR		
	comp=N,190nm,24.3s,MS3.8						
KMI				LR	LR		
	comp=E,140nm,24.3s,MS3.8						
KMI				LR	LR		
	comp=Z,280nm,24.3s,MS3.9						
NWAO	**Narrogin (SRO)**	**33.27**	**191**	*e*P	**P**	**14 44 23.5**	**-0.1**
NWAO				pmax	pmax		
	comp=Z,29nm,1.3s						
NWAO	**Narrogin (SRO)**	**33.27**	**191**	P	**P**	**14 44 23.4**	**-0.3**
	comp=Z,5.1nm,0.7s,mb4.5,baz=354,slow=18,SNR=6.5						
NWAO				LR	LR	14 59 23.1	
	comp=Z,141nm,18.0s,MS3.7,baz=12,slow=39						
NWAO	**Narrogin (SRO)**	**33.27**	**191**	*e*P	**P**	**14 44 23.5**	**-0.2**
	comp=Z,29nm,1.3s,mb5.0						
STKA	**Stephens Creek**	**35.47**	**154**	*e*P	**P**	**14 44 42.9**	**+0.2**
	comp=Z,8.1nm,0.5s,mb4.9						
STKA	**Stephens Creek**	**35.47**	**154**	P	**P**	**14 44 43.3**	**+0.6**
	comp=Z,3.9nm,0.4s,mb4.7,baz=337,slow=7.2,SNR=28						
STKA				PcP	PcP	14 47 12.0	+0.1
	comp=Z,4.7nm,0.6s,baz=331,slow=11,SNR=2.7						
STKA				ScP	ScP	14 50 54.2	-1.2
	comp=Z,4.0nm,0.9s,baz=3.4,slow=4.5,SNR=3.4						
STKA				LR	LR	14 59 32.7	
	comp=Z,210nm,20.6s,MS3.9,baz=125,slow=37						
STKA	**Stephens Creek**	**35.47**	**154**	P	**P**	**14 44 43.3**	**+0.6**
STKA				PcP	PcP	14 47 12.0	+0.1
STKA				ScP	ScP	14 50 54.2	-1.2
STKA				LR	LR	14 59 32.7	
EIDS	**Eidsvold**	**35.93**	**136**	*e*P	**P**	**14 44 47.1**	**+0.3**
	comp=Z,12nm,1.3s,mb4.7						
CD2	**Chengdu**	**36.61**	**329**	P	**P**	**14 44 53.7**	**+1.2**
CD2				pP	pP	14 45 03.9	+1.4
CD2				sP	sP	14 45 07.8	+1.2
CD2				PP	PP	14 46 19.7	+3.4
CD2				PcP	PcP	14 47 16.8	+1.5
CD2				S	**S**	**14 50 34.2**	**+1.0**
CD2				sS	sS	14 50 50.9	+1.2
CD2				SS	SS	14 53 03.0	-11
CD2				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.5						
CD2				pmax	pmax		
	comp=Z,220nm,5.1s						
CD2				LR	LR		
	comp=N,580nm,5.1s						
CD2				LR	LR		
	comp=Z,430nm,5.7s						
XAN	**Xi'an**	**37.01**	**338**	P	**P**	**14 44 55.6**	**-0.2**
XAN				pP	pP	14 45 03.0	-2.8
XAN				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.3						
XAN				pmax	pmax		
	comp=Z,120nm,10.3s						
KSRS	**Korea Array**	**37.58**	**5**	P	**P**	**14 45 01.0**	**+0.4**
	comp=Z,12nm,0.9s,mb4.6,baz=179,slow=9.1,SNR=19						
KSRS				PcP	PcP	14 47 18.6	+0.6
	comp=Z,5.2nm,0.9s,baz=180,slow=3.9,SNR=8.8						
KSRS				LR	LR	15 00 34.4	
	comp=Z,140nm,18.4s,MS3.8,baz=191,slow=36						
MAJO	**Matsushiro**	**38.71**	**18**	*e*P	**P**	**14 45 09.9**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.0						
MAJO	**Matsushiro**	**38.71**	**18**	*e*P	**P**	**14 45 09.9**	**-0.3**
	comp=Z,27nm,0.8s,mb5.0						
MAT	**Matsushiro**	**38.71**	**18**	P	**P**	**14 45 09.9**	**-0.3**
MJAR	**Matsushiro Arr**	**38.71**	**18**	P	**P**	**14 45 09.9**	**-0.3**
MJAR						14 47 20.4	
MJAR						14 51 05.8	
MJAR	**Matsushiro Arr**	**38.71**	**18**	P	**P**	**14 45 09.9**	**-0.3**
	comp=Z,16nm,0.7s,mb4.9,baz=195,slow=8.9,SNR=44						
MJAR				PcP	PcP	14 47 20.4	-1.3
	comp=Z,3.3nm,0.9s,baz=164,slow=5.7,SNR=4.7						
MJAR				ScP	ScP	14 51 05.8	-1.5
	comp=Z,2.4nm,0.9s,baz=195,slow=5.3,SNR=4.7						
MJAR				LR	LR	14 59 54.9	
	comp=Z,134nm,21.9s,MS3.7,baz=240,slow=34						
SHL	**Shillong**	**40.52**	**312**	*e*PKP	**P**	**14 45 25.5**	**+0.1**
SHL				*e*x	x	14 47 29.5	
BJT	**Baijiatuau**	**40.70**	**350**	*e*P	**P**	**14 45 25.6**	**-1.1**
BJT				pmax	pmax		
	comp=Z,32nm,0.6s						
BJT	**Baijiatuau**	**40.70**	**350**	*e*P	**P**	**14 45 25.6**	**-1.1**
	comp=Z,32nm,0.6s,mb5.1						
BJI	**Beijing**	**40.73**	**350**	P	**P**	**14 45 26.4**	**-0.5**
BJI				S	**S**	**14 51 41.9**	**+6.9**
BJI				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.2						
BJI				pmax	pmax		
	comp=Z,220nm,5.8s						
BJI				LR	LR		
	comp=N,250nm,28.0s,MS4.0						
BJI				LR	LR		
	comp=E,200nm,25.9s,MS4.0						
BJI				LR	LR		
	comp=Z,340nm,32.2s						
LZH	**Lanzhou**	**40.83**	**334**	*e*P	**P**	**14 45 30.2**	**+2.4**
LZH				pP	pP	14 45 38.2	+0.3
LZH				sP	sP	14 45 40.6	-1.4
LZH				PP	PP	14 47 09.4	+7.0
LZH				PcP	PcP	14 47 29.8	+1.4
LZH				*e*S	**S**	**14 51 38.5**	**+1.7**
LZH				sS	sS	14 51 53.3	-0.1
LZH				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.2						
LZH				pmax	pmax		
	comp=Z,330nm,5.2s						
LZH				LR	LR		
	comp=N,1μm,15.6s						
LZH				LR	LR		
	comp=Z,2μm,17.3s,MS4.9						
CAN	**Canberra**	**41.81**	**149**	*e*P	**P**	**14 45 38.1**	**+2.2**
CAN				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.8						
CAN	**Canberra**	**41.81**	**149**	*e*P	**P**	**14 45 38.1**	**+2.2**
	comp=Z,22nm,0.8s,mb4.8						
SNY	**Shenyang**	**41.82**	**359**	⇓P	**P**	**14 45 35.8**	**0.0**
SNY				S	**S**	**14 51 50.5**	**-0.7**
SNY				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.6						
SNY				pmax	pmax		
	comp=Z,630nm,3.8s						
SNY				LR	LR		
	comp=N,370nm,21.7s						
SNY				LR	LR		
	comp=Z,330nm,28.6s						
TOO	**Toolangi**	**41.99**	**155**	*e*P	**P**	**14 45 39.6**	**+2.3**
HHC	**Hu-ho-hao-te**	**42.47**	**346**	*e*P	**P**	**14 45 43.2**	**+2.1**
HHC				pP	pP	14 45 53.1	+1.8
HHC				sP	sP	14 45 57.2	+1.8
HHC				PP	PP	14 47 24.2	+4.1
HHC				PcS	PcS	14 51 27.2	+1.7
HHC				*e*S	**S**	**14 52 02.6**	**+1.7**
HHC				sS	sS	14 52 18.1	+0.6
HHC				SS	SS	14 55 05.8	-5.4
HHC				ScS	ScS	14 55 39.5	-0.8
HHC				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
HHC				pmax	pmax		
	comp=Z,200nm,5.0s						
HHC				LR	LR		
	comp=N,130nm,15.5s,MS4.0						
HHC				LR	LR		
	comp=E,100nm,14.3s,MS4.0						
HHC				LR	LR		
	comp=Z,240nm,15.5s,MS4.2						
LSA	**Lhasa**	**43.44**	**316**	P	**P**	**14 45 51.1**	**+1.9**
LSA	**Lhasa**	**43.44**	**316**	*e*P	**P**	**14 45 51.1**	**+1.9**
LSA				*e*		14 47 37.2	
LSA				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.2						
LSA	**Lhasa**	**43.44**	**316**	*e*P	**P**	**14 45 51.0**	**+1.8**
	comp=Z,27nm,0.6s,mb5.2						
LSA				*e*PcP	PcP	14 47 37.2	0.0
CN2	**Changchun**	**43.79**	**1**	*e*P	**P**	**14 45 51.2**	**-0.6**
CN2				*e*sP	sP	14 46 05.1	-0.9
CN2				PcP	PcP	14 47 38.6	+0.6
CN2				*e*S	**S**	**14 52 20.1**	**-0.1**
CN2				SS	SS	14 55 28.5	-8.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,200nm,16.0s,MS4.3						
CN2				LR	LR		
	comp=E,200nm,16.0s,MS4.3						
CN2				LR	LR		
	comp=Z,200nm,18.0s,MS4.1						
VIS	**Vishakhapatnam**	**44.15**	**296**	*e*PKP	**P**	**14 45 54.8**	**-0.3**
BOK	**Bokaro**	**44.32**	**305**	*e*PKP	**P**	**14 45 56.0**	**-0.4**
ODAN	**Odare**	**44.61**	**310**	*e*P	**P**	**14 45 59.3**	**+0.6**
	comp=Z,74nm,0.9s,mb5.5						
TAPN	**Taplejung**	**44.62**	**311**	*e*P	**P**	**14 45 59.3**	**+0.6**
	comp=Z,36nm,0.5s,mb5.5						
MDJ	**Mudanjiang**	**44.84**	**5**	P	**P**	**14 46 01.2**	**+1.1**
MDJ				pP	pP	14 46 10.8	+0.5
MDJ				sP	sP	14 46 14.6	+0.2
MDJ				PcP	PcP	14 47 42.0	+0.4
MDJ				PP	PP	14 47 51.6	+6.3
MDJ				ScP	ScP	14 51 31.8	+0.2
MDJ				PcS	PcS	14 51 36.5	+1.5
MDJ				S	**S**	**14 52 43.4**	**+8.1**
MDJ				ScS	ScS	14 55 56.5	+1.5
MDJ				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.3						
MDJ				pmax	pmax		
	comp=Z,100nm,5.0s						
MDJ				LR	LR		
	comp=N,87nm,28.9s,MS3.7						
MDJ				LR	LR		
	comp=E,120nm,32.0s,MS3.7						
MDJ				LR	LR		
	comp=Z,150nm,29.9s,MS3.7						
MDJ	**Mudanjiang**	**44.84**	**5**	*e*P	**P**	**14 46 00.8**	**+0.7**
	comp=Z,49nm,0.8s,mb5.4						
RAMN	**Ramite**	**45.26**	**310**	*e*P	**P**	**14 46 04.6**	**+0.8**
	comp=Z,96nm,0.5s,mb5.8						
ERM	**Erimo**	**45.28**	**20**	*i* P	**P**	**14 46 07.2**	**+3.5**
GTA	**Gaotai**	**45.37**	**333**	P	**P**	**14 46 05.0**	**+0.5**
GTA				pP	pP	14 46 14.4	-0.3
GTA				sP	sP	14 46 18.5	-0.3
GTA				PcP	PcP	14 47 44.8	+1.2
GTA				PP	PP	14 47 52.4	+1.3
GTA				S	**S**	**14 52 43.4**	**+0.1**
GTA				sS	sS	14 53 00.1	+0.1
GTA				SS	SS	14 55 56.6	-11
GTA				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.3						
GTA				pmax	pmax		
	comp=Z,220nm,7.4s						
GTA				LR	LR		
	comp=N,200nm,11.0s,MS4.3						
GTA				LR	LR		
	comp=E,140nm,15.2s,MS4.3						
GTA				LR	LR		
	comp=Z,120nm,14.9s,MS4.0						
MDRS	**Chennai**	**45.70**	**288**	*e*PKP	**P**	**14 46 07.4**	**-0.2**
MDRS				AMb	AMB	14 46 09.8	
	comp=Z,37nm,0.1s,mb6.2						
JIRN	**Jiri**	**45.94**	**310**	*e*P	**P**	**14 46 09.6**	**+0.4**
	comp=Z,39nm,0.4s,mb5.7						
GUN	**Gumba**	**46.30**	**310**	*e*P	**P**	**14 46 12.4**	**+0.4**
	comp=Z,56nm,0.5s,mb5.8						
PKI	**Pulchoki**	**46.49**	**310**	*e*P	**P**	**14 46 13.8**	**+0.3**
	comp=Z,19nm,0.5s,mb5.3						
KKN	**Kakani**	**46.70**	**310**	*e*P	**P**	**14 46 15.7**	**+0.5**
	comp=Z,30nm,0.6s,mb5.4						
DMN	**Daman**	**46.74**	**309**	*e*P	**P**	**14 46 15.8**	**+0.3**
	comp=Z,55nm,0.8s,mb5.5						
GKN	**Gorkha**	**47.30**	**310**	*e*P	**P**	**14 46 19.6**	**-0.2**
	comp=Z,58nm,0.6s,mb5.7						
KOLN	**Koldanda**	**47.99**	**309**	*e*P	**P**	**14 46 25.4**	**+0.2**
	comp=Z,142nm,0.8s,mb6.0						
DANN	**Dangsing**	**48.14**	**310**	*e*P	**P**	**14 46 26.5**	**+0.1**
	comp=Z,118nm,0.6s,mb6.1						
HYB	**Hyderabad**	**48.39**	**294**	*i* P	**P**	**14 46 26.0**	**-2.5**
HYB	**Hyderabad**	**48.39**	**294**	*e*P	**P**	**14 46 26.0**	**-2.5**
PYUN	**Piuthan**	**48.62**	**309**	*e*P	**P**	**14 46 30.3**	**+0.2**
	comp=Z,99nm,0.5s,mb6.1						
HABR	**Khabarovsk**	**49.33**	**9**	*e*P	**P**	**14 46 35.5**	**+0.4**
HABR				*e**PP	pP	14 46 44.0	-1.4
HABR				*e**SP	sP	14 46 48.3	-1.1
HABR						14 47 55.5	
HABR				*e*PPP		14 49 21.8	
HABR				MLR	MLR		
	comp=Z,50nm,15.0s,MS3.6						
HIA	**Hailar**	**49.41**	**356**	*e*P	**P**	**14 46 35.1**	**-0.7**
HIA				pmax	pmax		
	comp=Z,41nm,0.9s						
HIA	**Hailar**	**49.41**	**356**	*e*P	**P**	**14 46 35.1**	**-0.7**
	comp=Z,42nm,0.9s,mb5.5						
YSS	**Yuzh-Sakhalins**	**49.61**	**16**	*e*P	**P**	**14 46 37.8**	**+0.5**
YSS	**Yuzh-Sakhalins**	**49.61**	**16**	*e*P	**P**	**14 46 38.1**	**+0.8**
	comp=Z,15nm,0.9s,mb5.0						
KLR	**Kul'dur**	**49.62**	**6**	*e*P	**P**	**14 46 32.6**	**-4.7**
ULN	**Ulaanbaatar**	**50.17**	**345**	*e*P	**P**	**14 46 40.8**	**-0.8**
ULN				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.3						
ULN	**Ulaanbaatar**	**50.17**	**345**	*e*P	**P**	**14 46 40.8**	**-0.8**
	comp=Z,21nm,0.7s,mb5.3						
ULN	**Ulaanbaatar**	**50.17**	**345**	⇑P	**P**	**14 46 41.8**	**+0.2**
	SNR=11						
ULN				⇑P		14 46 41.8	
	SNR=11						
SONM	**Songino Array**	**50.32**	**344**	P	**P**	**14 46 42.5**	**-0.2**
SONM						14 48 00.9	
SONM	**Songino Array**	**50.32**	**344**	P	**P**	**14 46 42.5**	**-0.2**
	comp=Z,27nm,0.8s,mb5.3,baz=159,slow=7.5,SNR=91						
SONM				PcP	PcP	14 48 00.9	-0.2
	comp=Z,3.2nm,0.8s,baz=151,slow=3.3,SNR=2.4						
SONM				ScP	ScP	14 51 52.4	-2.2
	comp=Z,0.6nm,0.8s,baz=152,slow=1.7,SNR=3.5						
SONM				LR	LR	15 09 02.2	
	comp=Z,175nm,20.4s,MS4.1,baz=86,slow=37						
SONM	**Songino Array**	**50.32**	**344**	P	**P**	**14 46 42.5**	**-0.2**
SONM				PcP	PcP	14 48 00.9	-0.2
SONM				ScP	ScP	14 51 52.4	-2.2
SONM				LR	LR	15 09 02.2	
BHPL	**Bhopal**	**51.22**	**300**	*e*PKP	**P**	**14 46 49.5**	**-0.4**
BHPL				AMb	AMB	14 46 51.6	
	comp=Z,30nm,0.7s,mb5.3						
KAD	**Karad**	**52.39**	**292**	*e*PKP	**P**	**14 46 57.8**	**-0.9**
POO	**Poona**	**53.00**	**293**	*e*PKP	**P**	**14 47 02.6**	**-0.7**
POO	**Poona**	**53.00**	**293**	*e*PKP	**P**	**14 47 02.0**	**-1.2**
ZAK	**Zakamensk**	**53.50**	**343**	*e*P	**P**	**14 47 05.7**	**-0.6**
ZAK				*e*		14 48 12.9	
ZAK				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
TLY	**Talaya**	**54.56**	**344**	*e*P	**P**	**14 47 15.0**	**+0.9**
TLY				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
TLY				MLR	MLR		
	comp=Z,136nm,21.0s,MS4.0						
TLY	**Talaya**	**54.56**	**344**	*e*P	**P**	**14 47 12.5**	**-1.6**
TLY	**Talaya**	**54.56**	**344**	⇑P	**P**	**14 47 14.7**	**+0.6**
	SNR=7.3						
TLY				⇑P		14 47 14.7	
	SNR=7.3						
WMQ	**Urumqi**	**54.68**	**328**	P	**P**	**14 47 15.4**	**+0.3**
WMQ				pP	pP	14 47 25.0	-0.4
WMQ				sP	sP	14 47 29.0	-0.5
WMQ				PcP	PcP	14 48 19.0	+1.4
WMQ				PP	PP	14 49 19.0	+1.1
WMQ				S	**S**	**14 54 51.0**	**-1.9**
WMQ				sS	sS	14 55 07.0	-3.0
WMQ				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
WMQ				pmax	pmax		
	comp=Z,160nm,7.6s						
WMQ				LR	LR		
	comp=N,340nm,26.6s,MS4.5						
WMQ				LR	LR		
	comp=E,320nm,23.9s,MS4.5						
WMQ				LR	LR		
	comp=Z,340nm,23.9s,MS4.3						
MOY	**Mondy**	**55.31**	**342**	*e*P	**P**	**14 47 19.9**	**+0.4**
MOY				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.1						
CLNS	**Chul'man**	**56.84**	**0**	*e*P	**P**	**14 47 30.9**	**+0.6**
CLNS				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.4						
CLNS				pmax	pmax		
	comp=N,19nm,0.9s						
CLNS				pmax	pmax		
	comp=E,10.0nm,0.9s						
BOD	**Bodaibo**	**58.41**	**353**	*e*P	**P**	**14 47 41.0**	**-0.3**
BOD				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.5						
KSH	**Kashi**	**59.25**	**318**	P	**P**	**14 47 48.1**	**+0.6**
KSH				*e*pP	pP	14 47 58.4	+0.4
KSH				*e*sP	sP	14 48 02.3	+0.3
KSH				*e*PcP	PcP	14 48 36.3	+0.7
KSH				*e*PP	PP	14 50 00.7	+2.0
KSH				*e*ScP	ScP	14 52 33.2	-0.8
KSH				*e*PcS	PcS	14 52 37.1	-0.4
KSH				*e*S	**S**	**14 55 50.0**	**-3.4**
KSH				*e*sS	sS	14 56 07.1	-3.5
KSH				*e*ScS	ScS	14 57 31.0	-4.2
KSH				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
KSH				pmax	pmax		
	comp=Z,420nm,4.4s						
KSH				LR	LR		
	comp=N,280nm,8.0s						
KSH				LR	LR		
	comp=E,370nm,5.3s						
KSH				LR	LR		
	comp=Z,380nm,7.0s						
MK31	**Makanchi Array**	**59.51**	**328**	*e*P	**P**	**14 47 48.4**	**-0.8**
MK31				pmax	pmax		
	comp=Z,6.0nm,0.3s,mb5.1						
MKAR	**Makanchi Array**	**59.51**	**328**	P	**P**	**14 47 48.5**	**-0.7**
MKAR						14 48 35.9	
MKAR	**Makanchi Array**	**59.51**	**328**	P	**P**	**14 47 48.5**	**-0.6**
	comp=Z,10nm,0.4s,mb5.2,baz=122,slow=7.8,SNR=144						
MKAR				PcP	PcP	14 48 35.9	-0.6
	comp=Z,11nm,0.8s,baz=122,slow=4.6,SNR=7.3						
MKAR				ScP	ScP	14 52 32.2	-2.7
	comp=Z,1.8nm,1.0s,baz=140,slow=4.7,SNR=3.5						
MKAR				LR	LR	15 13 46.1	
	comp=Z,88nm,19.4s,MS3.9,baz=125,slow=36						
PETK	**Petropavlovsk-**	**59.90**	**22**	P	**P**	**14 47 52.4**	**+0.6**
	comp=Z,24nm,0.6s,mb5.4,baz=188,slow=3.4,SNR=57						
KZA	**Kyzart**	**61.00**	**320**	P	**P**	**14 48 00.4**	**+0.9**
	SNR=27						
TKM2	**Tokmak 2**	**61.20**	**321**	*e*P	**P**	**14 48 00.4**	**-0.5**
TKM2				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.5						
TKM2	**Tokmak 2**	**61.20**	**321**	P	**P**	**14 48 00.9**	**0.0**
	SNR=28						
TKM2	**Tokmak 2**	**61.20**	**321**	*e*P	**P**	**14 48 00.4**	**-0.5**
	comp=Z,44nm,1.0s,mb5.5						
KBK	**Karagaybulak**	**61.48**	**320**	P	**P**	**14 48 03.9**	**+1.1**
	SNR=18						
UCH	**Uchtor**	**61.55**	**320**	P	**P**	**14 48 03.7**	**+0.5**
	SNR=22						
UCH	**Uchtor**	**61.55**	**320**	*e*P	**P**	**14 48 03.0**	**-0.1**
	comp=Z,22nm,0.9s,mb5.3						
AAK	**Ala-Archa**	**61.76**	**320**	P	**P**	**14 48 05.3**	**+0.7**
	comp=Z,137nm,1.0s,mb6.0,SNR=20						
AAK	**Ala-Archa**	**61.76**	**320**	*e*P	**P**	**14 48 03.4**	**-1.2**
AAK				*e*		14 48 43.9	
AAK				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.3						
AAK	**Ala-Archa**	**61.76**	**320**	P	**P**	**14 48 05.1**	**+0.4**
	SNR=25						
AAK	**Ala-Archa**	**61.76**	**320**	*e*P	**P**	**14 48 03.4**	**-1.2**
	comp=Z,21nm,0.8s,mb5.3						
AAK				*e*PcP	PcP	14 48 43.9	-1.7
CHMS	**Chumysh**	**61.78**	**321**	P	**P**	**14 48 04.0**	**-0.7**
	SNR=8.9						
AML	**Almayashu**	**62.03**	**319**	P	**P**	**14 48 06.6**	**+0.1**
	SNR=26						
AML	**Almayashu**	**62.03**	**319**	*e*P	**P**	**14 48 06.3**	**-0.2**
	comp=Z,40nm,1.0s,mb5.5						
AML				*e*	pP	14 48 18.7	+1.7
USP	**Ospenovka**	**62.07**	**321**	P	**P**	**14 48 06.2**	**-0.5**
	SNR=47						
YAK	**Yakutsk**	**62.17**	**3**	*e*P	**P**	**14 48 07.0**	**0.0**
YAK				*e**PP	pP	14 48 16.7	-0.8
YAK				*e*PPP		14 51 52.4	
YAK				*e*S	**S**	**14 56 26.2**	**-3.7**
YAK				*e*		14 57 51.3	
YAK				*e*SS	SS	15 00 29.5	-3.9
YAK				*e*SSS		15 03 09.9	
YAK				pmax	pmax		
	comp=Z,85nm,0.9s,mb5.9						
YAK				pmax	pmax		
	comp=N,21nm,1.0s						
YAK				smax			
	comp=N,26nm,1.5s						
YAK				smax			
	comp=E,29nm,1.5s						
YAK	**Yakutsk**	**62.17**	**3**	*e*P	**P**	**14 48 07.0**	**0.0**
	comp=E,100nm,0.8s,mb6.0						
EKS2	**Erkin-Say**	**62.24**	**320**	P	**P**	**14 48 08.2**	**+0.4**
	SNR=23						
EKS2	**Erkin-Say**	**62.24**	**320**	*e*P	**P**	**14 48 07.1**	**-0.7**
	comp=E,33nm,1.0s,mb5.4						
ZALV	**Zalesovo Beam**	**63.06**	**335**	P	**P**	**14 48 11.3**	**-1.8**
ZALV						14 48 48.2	
ZALV	**Zalesovo Beam**	**63.06**	**335**	P	**P**	**14 48 11.3**	**-1.8**
	comp=E,7.4nm,0.3s,mb5.2,baz=136,slow=6.3,SNR=37						
ZALV				PcP	PcP	14 48 48.2	-2.4
	comp=E,4.1nm,0.6s,baz=134,slow=4.3,SNR=6.6						
ZALV				LR	LR	15 17 15.2	
	comp=E,84nm,20.9s,MS3.9,baz=244,slow=38						
ZALV	**Zalesovo Beam**	**63.06**	**335**	P	**P**	**14 48 11.3**	**-1.8**
ZALV				PcP	PcP	14 48 48.2	-2.4
ZALV				LR	LR	15 17 15.2	
KURK	**Kurchatov**	**63.84**	**329**	P	**P**	**14 48 17.3**	**-1.0**
	comp=E,356nm,0.4s,SNR=55						
KURK	**Kurchatov**	**63.84**	**329**	P	**P**	**14 48 17.1**	**-1.2**
	comp=E,19nm,0.6s,mb5.3,baz=132,slow=6.0,SNR=63						
KURK				PcP	PcP	14 48 52.8	-1.1
	comp=E,6.5nm,0.6s,baz=130,slow=4.4,SNR=5.5						
KURK	**Kurchatov**	**63.84**	**329**	*e*P	**P**	**14 48 17.0**	**-1.2**
KURK	**Kurchatov**	**63.84**	**329**	⇓P	**P**	**14 48 17.4**	**-0.9**

	SNR=12						
KURK				⇓P		14 48 17.4	
	SNR=12						
NVS	Novosibirsk	64.35	335	eP	P	14 48 19.3	-2.2
NVS				i		14 48 54.1	
NVS				eS	S	14 56 53.2	-4.1
NVS				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
NVS				pmax	pmax		
	comp=N,5.0nm,0.5s						
NVS				pmax	pmax		
	comp=E,7.0nm,0.5s						
NVS				smax			
	comp=N,7.0nm,1.6s						
NVS				smax			
	comp=E,14nm,1.6s						
KK31	Karatay Array	64.56	319	i P	P	14 48 22.4	-0.8
KK31				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
SEY	Seymchan	66.34	14	⇑eP	P	14 48 35.4	+1.1
CASY	Casey	66.70	186	eP	P	14 48 36.3	-0.2
	comp=Z,30nm,1.3s,mb5.2						
VOSK	Vostochnaya	68.90	328	P	P	14 48 49.0	-1.7
VOSK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
BVA0	Borovoye Array	69.36	329	P	P	14 48 51.9	-1.6
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
BVAR	Borovoye Array	69.36	329	P	P	14 48 52.3	-1.2
	comp=Z,14nm,0.6s,mb5.1,baz=137,slow=7.7,SNR=46						
BVAR				LR	LR	15 18 15.4	
	comp=Z,117nm,19.1s,MS4.1,baz=221,slow=35						
BRVK	Borovoye	69.43	329	P	P	14 48 52.8	-1.2
	comp=Z,173nm,0.6s,mb6.2,SNR=13						
BRVK	Borovoye	69.43	329	eP	P	14 48 52.9	-1.1
BRVK	Borovoye	69.43	329	⇓P	P	14 48 53.1	-0.8
	SNR=6.5						
BRVK				⇓P		14 48 53.1	
	SNR=6.5						
ABKT	Ailbek	71.57	310	P	P	14 49 06.4	-0.9
	comp=Z,119nm,0.8s,mb5.9,SNR=5.1						
TIXI	Tiksi	71.77	1	d iP	P	14 49 07.4	-0.4
TIXI				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
TIXI	Tiksi	71.77	1	eP	P	14 49 07.0	-0.9
AB31	Akbulak array	73.73	322	P	P	14 49 18.4	-1.5
AB31				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
BILL	Bilibino	73.90	15	i P	P	14 49 20.8	+0.3
BILL				e		14 49 36.1	
BILL				eSS	SS	15 03 30.6	-3.8
BILL				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
AKTK	Aktyubinsk	75.30	323	P	P	14 49 27.9	-1.1
AKTO	Aktyubinsk	75.30	323	P	P	14 49 27.9	-1.1
	comp=Z,22nm,0.7s,mb5.2,baz=111,slow=7.6,SNR=39						
SVE	Sverdlovsk	76.09	329	⇑eP	P	14 49 32.6	-0.8
SVE				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.5						
ARU	Arti	77.01	329	P	P	14 49 37.7	-0.9
	comp=Z,233nm,0.9s,mb6.1,SNR=16						
ARU	Arti	77.01	329	eP	P	14 49 36.9	-1.7
ARU				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
ARU	Arti	77.01	329	eP	P	14 49 36.9	-1.8
	comp=Z,33nm,0.9s,mb5.3						
ABPO	Ambohimpanom	77.83	251	eP	P	14 49 43.8	-0.2
ABPO				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
ABPO	Ambohimpanom	77.83	251	eP	P	14 49 43.8	-0.2
	comp=Z,16nm,0.8s,mb5.0						
OPO	Ambohidratompo	77.83	251	P	P	14 49 44.8	+0.8
	comp=Z,31nm,0.8s,mb5.3,baz=83,slow=2.5,SNR=30						
QRN	Al-Qurain	78.25	299	eP	P	14 49 43.8	-2.3
QRN				AMb	AMB	14 49 46.2	
	comp=Z,30nm,0.4s,mb5.6						
MIB	Mutribah	78.87	300	eP	P	14 49 46.9	-2.7
MIB				AMb	AMB	14 49 48.5	
	comp=Z,19nm,1.1s,mb5.0						
GAMB	Gambell	78.89	24	eP	P	14 49 49.9	+1.0
	comp=Z,25nm,0.9s,mb5.1						
NAY	Al-Naaiem	78.89	300	eP	P	14 49 47.1	-2.6
NAY				AMb	AMB	14 49 54.8	
	comp=Z,9.8nm,0.8s,mb4.8						
SOKR	Solikamsk	78.98	331	⇑iP	P	14 49 48.4	-1.1
SOKR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
MAW	Mawson	79.31	200	LR	LR	15 25 35.3	
	comp=Z,116nm,18.4s,MS4.2,baz=213,slow=36						
VNDA	Vanda	79.88	172	P	P	14 49 54.4	+0.3
	comp=Z,8.2nm,0.8s,mb4.7,baz=318,slow=3.0,SNR=7.8						
TNA	Tin City	81.06	23	eP	P	14 50 01.5	+0.9
	comp=Z,11nm,0.8s,mb4.8						
SDPT	Sand Point	81.71	34	eP	P	14 50 04.2	0.0
	comp=Z,222nm,0.8s,mb6.1						
GNI	Garni	82.21	310	⇑eP	P	14 50 08.2	+1.0
GNI				pmax	pmax		
	comp=Z,15nm,1.2s						
GNI	Garni	82.21	310	P	P	14 50 06.9	-0.4
	comp=Z,2.3nm,0.4s,mb4.5,baz=5.0,slow=6.2,SNR=4.3						
KIV	Kislovodsk	84.15	314	⇑eP	P	14 50 18.2	+1.0
KIV				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.9						
PRGR	Permogore	84.82	332	⇑iP	P	14 50 19.1	-1.1
PRGR				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.6						
SVW2	Sparrevohn	85.32	29	eP	P	14 50 24.3	+1.6
VRHR	Novokhopersk	85.59	321	eP	P	14 50 23.3	-1.0
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.4						
VRHR				pmax	pmax		
	comp=N,30nm,0.6s						
VRHR				pmax	pmax		
	comp=E,30nm,0.6s						
KDAK	Kodiak Island	86.41	32	i P	P	14 50 32.6	+4.5
RSO	Redoubt South	86.61	30	eP	P	14 50 30.6	+1.5
MALT	Malatya	86.95	308	⇓iP	P	14 50 31.0	-0.2
VORD	Divnogorie	87.05	321	eP	P	14 50 30.0	-1.4
VORD				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.7						
VORD				pmax	pmax		
	comp=N,80nm,0.8s						
VORD				pmax	pmax		
	comp=E,60nm,0.6s						
VSR	Storozhevoye	87.14	321	eP	P	14 50 30.4	-1.5
VSR				pmax	pmax		
	comp=N,2.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb5.0						
VSR				pmax	pmax		
	comp=E,4.0nm,0.4s						
KMBO	Kilima Mbogo	87.15	269	P	P	14 50 33.2	+0.5
	comp=E,8.6nm,0.9s,mb5.0,baz=50,slow=11,SNR=6.5						
KMBO	Kilima Mbogo	87.15	269	P	P	14 50 33.2	+0.4
KLMR	Klimovskoe	87.65	331	⇓iP	P	14 50 32.6	-1.5
KLMR				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.6						
ANN	Anapa	87.97	315	eP	P	14 50 34.2	-1.8
ANN				e*PP	pP	14 50 44.8	-2.1
ANN				e		14 54 02.5	
ANN				eS	SKSac	15 00 59.3	-2.7
ANN				eSS	SS	15 07 10.6	+5.3
ANN				eSSS		15 10 43.3	
ANN				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.6						
ASF	Jabal al Asfar	87.98	302	P	P	14 50 36.6	+0.2
	comp=Z,11nm,1.0s,mb5.0,baz=346,slow=2.5,SNR=9.2						
COLD	Coldfoot	88.37	23	eP	P	14 50 38.0	+0.6
	comp=Z,17nm,0.7s,mb5.4						
MCK	McKinley	88.67	26	eP	P	14 50 38.2	-0.7
MCK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.2						
MCK	McKinley	88.67	26	eP	P	14 50 38.2	-0.7
	comp=Z,10nm,0.9s,mb5.2						
OBN	Obninsk	88.90	325	⇑eP	P	14 50 39.1	-1.1
OBN				e		14 54 09.1	
OBN				ePS		15 02 37.3	
OBN				eSS	SS	15 07 15.4	-2.9
OBN				pmax	pmax		
	comp=Z,29nm,1.7s,mb5.3						
OBN				MLR	MLR		
	comp=Z,100nm,14.0s,MS4.4						
MMAI	Mount Meron Ar	89.26	303	P	P	14 50 42.5	+0.1
	comp=Z,3.1nm,0.5s,mb4.9,baz=88,slow=6.8,SNR=7.0						
QSPA	South Pole Qui	89.76	180	eP	P	14 50 44.7	+1.0
APA	Apatity	90.55	337	⇑eP	P	14 50 42.5	-5.1
APA				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.6						
BRTR	Keskin Array B	90.70	310	P	P	14 50 47.2	-1.8
	comp=Z,4.7nm,0.9s,mb4.8,baz=135,slow=4.1,SNR=18						
BRTR				LR	LR	15 39 02.9	
	comp=Z,37nm,18.1s,MS3.9,baz=246,slow=40						
JOF	Joensuu	91.57	333	epkp	P	14 50 48.9	-3.5
KEV	Kevo	92.73	340	epkp	P	14 50 56.4	-1.3
DAWY	Dawson	92.88	26	eP	P	14 50 59.5	+1.0
ARCES	ARCESS Array B	93.28	340	P	P	14 50 58.8	-1.5
	comp=Z,5.6nm,0.6s,mb5.2,baz=86,slow=6.2,SNR=14						
ARCES				PKiKP	PKiKP	14 55 47.5	+0.9
	comp=Z,2.8nm,0.9s,baz=170,slow=0.7,SNR=5.8						
ARCES				LR	LR	15 33 34.6	
	comp=Z,163nm,18.5s,MS4.5,baz=311,slow=36						
AKASG	Malin Array Be	93.43	321	P	P	14 50 58.9	-2.4
	comp=Z,2.3nm,0.5s,mb4.8,baz=78,slow=4.0,SNR=9.5						
AKASG				LR	LR	15 33 07.7	
	comp=Z,77nm,20.9s,MS4.1,baz=290,slow=36						
AKASG	Malin Array Be	93.43	321	P	P	14 50 58.9	-2.4
AKASG				LR	LR	15 33 07.7	
KAF	Kangasniemi	93.95	332	epkp	P	14 50 59.2	-4.3
HYT	Haines Junctio	94.11	29	eP	P	14 51 05.7	+1.5
LSZ	Lusaka	95.96	255	eP	P	14 51 12.7	-0.9
LSZ				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.5						
LSZ	Lusaka	95.96	255	eP	P	14 51 12.7	-0.9
	comp=Z,17nm,0.9s,mb5.5						
MLR	Muntele Rosu	96.07	316	⇓iP	P	14 51 12.4	-1.1
MLR	Muntele Rosu	96.07	316	P	P	14 51 12.4	-1.1
	comp=Z,6.0nm,0.9s,mb5.0,baz=286,slow=7.0,SNR=6.7						
MLR				PP	PP	14 55 07.3	+1.0
	comp=Z,4.5nm,0.8s,baz=77,slow=16,SNR=3.2						
BURAR	Bucovina Array	96.33	318	⇓iP	P	14 51 14.5	-0.2
KWP	Kalwaria Pacla	97.71	320	eP	P	14 51 20.1	-0.7
KWP				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.3						
KWP	Kalwaria Pacla	97.71	320	eP	P	14 51 20.1	-0.7
	comp=Z,9.9nm,1.0s,mb5.3						
BOSA	Boshof	97.95	241	P	P	14 51 22.2	-0.2
	comp=Z,2.0nm,0.8s,mb4.7,baz=177,slow=5.9,SNR=3.5						
BOSA				LR	LR	15 28 18.0	
	comp=Z,131nm,20.4s,MS4.4,baz=82,slow=31						
DRGR		98.14	317	⇑iP	P	14 51 21.8	-1.0
UZH	Uzhgorod	98.14	319	eP	P	14 51 21.4	-1.4
DLBC	Dease Lake	98.26	31	P	P	14 51 22.9	-0.2
	comp=Z,3.2nm,0.9s,mb4.9,baz=290,slow=5.8,SNR=3.3						
NOA	NORSAR Array B	101.21	333	P	Pdif	14 51 34.3	-2.0
	comp=Z,3.7nm,1.0s,baz=72,slow=4.4,SNR=4.9						
NOA				PP	PP	14 55 47.4	+2.3
	comp=Z,1.4nm,1.0s,baz=72,slow=7.7,SNR=3.7						
RES	Resolute Bay	102.04	10	P	Pdif	14 51 39.3	-0.7
	comp=Z,1.5nm,0.9s,baz=322,slow=8.2,SNR=7.0						
GERES	GERESS Array B	103.64	321	Pdiff	Pdif	14 51 46.0	-1.1
	comp=Z,0.2nm,0.2s,baz=72,slow=4.3,SNR=3.5						
GERES				PKiKP	PKiKP	14 56 05.6	0.0
	comp=Z,0.6nm,0.7s,baz=92,slow=2.5,SNR=3.7						
YKA	Yellowknife Ar	103.99	24	Pdiff	Pdif	14 51 49.4	+0.8
	comp=Z,0.5nm,0.8s,baz=301,slow=4.7,SNR=8.3						
YKA				PKiKP	PKiKP	14 56 05.6	-0.1
	comp=Z,0.5nm,0.4s,baz=301,slow=1.8,SNR=11						
YKA				PKKPbc	PKKPbc	15 07 37.6	-2.9
	comp=Z,0.5nm,0.7s,baz=113,slow=2.5,SNR=7.5						
YKA	Yellowknife Ar	103.99	24	Pdif	Pdif	14 51 49.4	+0.8
CDF	Champ du Feu	107.83	321	ePP	PP	14 56 35.9	+1.3
HINF	Hinteralfeld	108.30	321	ePP	PP	14 56 37.6	-0.5
MEZF	Maizieres J'vi	109.17	322	ePP	PP	14 56 47.1	+2.8
	comp=Z,72nm,1.3s						
SMF	Signal de Mont	110.64	321	ePP	PP	14 56 56.4	+1.3
	comp=Z,25nm,1.2s						
AVF	Avril sur Loir	110.90	321	ePP	PP	14 56 59.4	+2.5
	comp=Z,18nm,1.2s						
NVAR	Mina Array Bea	111.22	48	PKiKP	PKiKP	14 56 21.6	+1.6
	comp=Z,0.6nm,0.6s,baz=244,slow=1.8,SNR=6.0						
TCF	Toulx Ste Croi	111.82	321	ePP	PP	14 57 05.5	+2.0
	comp=Z,25nm,1.2s						
FFC	Flin Flon	113.74	27	i PKIKP	PKiKP	14 56 25.4	+1.1
DUG	Dugway	114.62	45	ePKIKP	PKiKP	14 56 27.6	+1.1
PDAR	Pinedale Array	115.80	41	PKP	PKPdf	14 56 28.1	-0.5
	comp=Z,1.0nm,0.5s,baz=245,slow=0.6,SNR=7.6						
PDAR				PP	PP	14 57 36.8	+4.9
	comp=Z,0.8nm,0.8s,baz=214,slow=6.3,SNR=3.5						
PDAR				PKKPab	PKKPab	15 07 05.0	-1.0
	comp=Z,2.2nm,0.8s,baz=120,slow=5.4,SNR=3.6						
WUAZ	Wupatki	117.42	49	ePKPdf	PKPdf	14 56 32.7	+0.7
RSSD	Black Hills	118.68	38	ePKIKP	PKPdf	14 56 33.9	-0.2
ESDC	Sonseca Array	118.75	316	PKP	PKPdf	14 56 34.2	-0.2
	comp=Z,0.5nm,0.6s,baz=33,slow=1.5,SNR=3.0						
ESDC				PP	PP	14 57 55.4	+2.9
	comp=Z,0.2nm,0.3s,baz=55,slow=7.6,SNR=5.2						
ESDC	Sonseca Array	118.75	316	PKP	PKPdf	14 56 34.2	-0.2
ESDC				PP	PP	14 57 55.4	+2.9
ULM	Lac du Bonnet	119.48	28	PKP	PKPdf	14 56 34.5	-0.9
	comp=Z,1.9nm,0.4s,baz=12,slow=2.0,SNR=4.9						
ANMO	Albuquerque	121.34	48	ePKIKP	PKPdf	14 56 40.7	+1.1
TORD	Torodi Ar. Bea	121.81	285	PKP	PKPdf	14 56 40.7	-0.3
	comp=Z,3.4nm,0.7s,baz=66,slow=1.6,SNR=3.9						
EVO	Evora	122.07	317	ePKIKP	PKPdf	14 56 40.2	-0.6
	comp=Z,5.4nm,0.5s						
MDT	Midelt	122.13	309	PKP	PKPdf	14 56 42.0	+0.9
	comp=Z,0.9nm,0.3s,baz=153,slow=1.5,SNR=7.8						
SCHQ	Schefferville	124.75	8	PKP	PKPdf	14 56 45.8	+0.3
	comp=Z,4.1nm,0.4s,baz=326,slow=1.5,SNR=32						
SCHQ				PP	PP	14 58 32.1	0.0
	comp=Z,2.2nm,0.8s,baz=336,slow=12,SNR=3.0						
TXAR	Lajitas Array	125.80	53	PKP	PKPdf	14 56 49.4	+1.1
	comp=Z,1.5nm,0.9s,baz=237,slow=1.6,SNR=12						
WMOK	Wichita Mounta	127.03	45	ePKIKP	PKPdf	14 56 50.6	+0.1
JCT	Junction City	128.34	50	ePKIKP	PKPdf	14 56 54.6	+1.5
KIC	Kosan Boka	128.89	278	ePKP1	PKPdf	14 56 53.9	-0.7
	comp=Z,222nm,2.2s						
DBIC	Dimbokro	128.98	278	PKP	PKPdf	14 56 54.7	0.0
	comp=Z,2.2nm,0.5s,baz=80,slow=5.4,SNR=4.6						
DBIC	Dimbokro	128.98	278	PKP	PKPdf	14 56 54.7	0.0
TIC	Toumodi	129.14	278	ePKP1	PKPdf	14 56 54.8	-0.3
	comp=Z,7.6nm,0.2s						
LIC	Lamto	129.19	278	ePKP1	PKPdf	14 56 53.7	-1.4
	comp=Z,16nm,0.7s						
MIAR	Mount Ida	130.72	42	ePKPdf	PKPdf	14 56 58.7	+1.2
MIAR				eSKPdf		15 00 17.3	
SADO	Sadowa	130.93	22	PKP	PKPdf	14 56 57.5	-0.1
	comp=Z,2.1nm,0.4s,baz=268,slow=1.0,SNR=6.4						
WVT	Waverly	133.36	36	ePKIKP	PKPdf	14 57 02.9	+0.5
PLAL	Pickwick Lake	133.98	38	ePKPdf	PKPdf	14 57 02.6	-1.0
TKL	Tuckaleechee C	136.02	34	PKP	PKPdf	14 57 07.9	+0.4
	comp=Z,6.4nm,0.6s,baz=143,slow=4.3,SNR=9.5						
PLCA	Paso Flores	137.07	163	PKP	PKPdf	14 57 10.7	+1.4
	comp=Z,5.6nm,0.9s,baz=180,slow=6.6,SNR=4.4						
CMIG	Matias Romero	137.82	64	PKP	PKPdf	14 57 11.1	-0.2
	comp=Z,2.9nm,0.7s,baz=285,slow=6.0,SNR=5.6						
CMIG	Matias Romero	137.82	64	PKP	PKPdf	14 57 11.1	-0.2
LCO	Las Campanas	147.58	155	ePKPdf	PKPbc	14 57 29.2	-1.6
CPUP	Villa Florida	153.59	176	PKPbc	PKPbc	14 57 46.0	+0.6
	comp=Z,8.7nm,0.9s,baz=129,slow=2.9,SNR=8.4						
CPUP	Villa Florida	153.59	176	PKPbc	PKPbc	14 57 46.0	+0.6
SDV	Santo Domingo	162.70	60	ePKPdf	PKPdf	14 57 48.8	-0.1

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*NEIC **09** 15:29:07.4, 32°.21N×115°.26W, h9^{km}, ML3.1(PAS), ML3.4(ECX), After ECX.*

ECX 09 15:29:07.4±0.3, 32°.21N×115°.26W, h9^{km}, MD3.1, ML3.4, 3C-5D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.21	349	⇓eP	Pg	15 29 13.7	+1.9
CPBX				eS	Sg	15 29 18.3	+3.6
CPBX				⇑e		15 29 19.7	
	comp=N,23µm,0.4s						
EMX	El Mayor	0.22	177	⇓eP	Pg	15 29 17.1	+5.3
EMX				eS	Sg	15 29 21.7	+6.9
EMX				⇓e		15 29 22.3	
	comp=N,3µm,0.5s						
SGL	Mount Signal	0.59	318	⇓iP	Pg	15 29 20.6	+1.8
YUH	Yuha Desert	0.71	308	⇑iP	Pg	15 29 22.2	+1.1
ECBX	El Chinero	0.75	167	⇓eP	Pg	15 29 26.5	+4.6
ECBX				eS	Sg	15 29 38.2	+6.4
GLA	Glamis	0.92	23	eP	Pg	15 29 27.9	+2.9
GLA				eS	Sg	15 29 38.7	+1.7
SPX	San Pedro Mart	1.17	189	ePN	Pn	15 29 32.9	+2.9
CBX	Cerro Bola	1.20	275	ePN	Pn	15 29 31.1	+0.8
BAR	Barrett	1.29	292	⇑iP	Pn	15 29 32.0	+0.4
BAR				eS	Sb	15 29 46.7	-1.7
PFO	Pinyon Flat Ob	1.72	325	ePn	Pn	15 29 37.8	+0.2
PFO				eSn	Sn	15 30 00.1	+0.4
LDFC	Landfair	2.87	2	eP	Pg	15 30 04.2	+1.9
LDFC				eS	Sg	15 30 43.8	+4.4
MWC	Mount Wilson	3.09	311	ePn	Pn	15 30 02.8	+6.4
MWC				eS	Sn	15 30 41.6	+8.2
TUC	Tucson	3.79	87	ePn	Pn	15 30 10.3	+4.3
TUC				eS	Sg	15 31 10.1	+1.0
ISA	Isabella	4.36	323	ePn	Pn	15 30 17.1	+3.3
ISA				eSn	Sn	15 31 09.4	+4.7

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*NEIC **09** 15:55:01.8±0.8, 53°.50N×165°.20W, h35^{km}, ML3.6(AEIC), ML3.7(PMR), Error ellipse: s-maj=15.4km s-min=9.2km az=178.0*

*IDC **09** 15:55:12.3±9.7, 53°.37N×165°.44W, h149^{km}±102^{km}, mb3.2/7, mb1 3.5/7, mb1mx3.2/25, mbtmp3.2/7, Error ellipse: s-maj=43.7km s-min=15.2km az=15.0*

ISC 09 15:54:59.6±1.7, 53°.48N±0°.08×165°.06W±0°.09, h16^{km}±9^{km}, n18, σ1^{s}.19/22, mb3.7/8, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKUT	Akutan	0.78	327	eP	Pg	15 55 14.9	+0.1
AKLV	Akutan Long Va	0.87	322	P	Pg	15 55 16.3	-0.1
AKGG	Akutan Green G	0.91	323	P	Pg	15 55 17.2	0.0
AKGG				S	Sg	15 55 29.9	+0.7
UNV	Unalaska Valle	0.94	294	P	Pg	15 55 17.2	-0.5
UNV				S	Sg	15 55 30.1	0.0
FALS	False Pass	1.68	34	P	Pn	15 55 27.1	-1.2
FALS				S	Sn	15 55 49.2	-0.4
OKFG	Magazine Ridge	1.71	269	P	Pn	15 55 29.3	+0.6
NIKO	Nikolski	2.34	259	ePn	Pn	15 55 35.3	-2.1
NIKO				eSn	Sn	15 56 07.3	+1.5
SDPT	Sand Point	3.27	53	eP	Pn	15 55 50.1	0.0
PMR	Palmer	11.77	40	ePn	Pn	15 57 41.6	-5.1
	15nm,0.4s						
TNA	Tin City	12.21	354	ePn	Pn	15 57 54.7	+2.2
	2.7nm,0.5s						
PETK	Petropavlovsk-	22.11	284	P	P	15 59 53.0	-0.9
	1.0nm,0.5s,mb3.5,baz=79,slow=14,SNR=6.3						
YKA	Yellowknife Ar	27.53	51	P	P	16 00 47.8	+2.8
	0.4nm,0.6s,mb3.2,baz=275,slow=9.8,SNR=7.6						
NVAR	Mina Array Bea	35.13	96	P	P	16 01 53.5	+1.4
	0.8nm,0.7s,mb3.8,baz=307,slow=8.6,SNR=7.8						
PDAR	Pinedale Array	37.65	83	P	P	16 02 14.0	+0.4
	0.2nm,0.5s,mb3.1,baz=327,slow=4.8,SNR=3.4						
TXAR	Lajitas Array	50.16	93	P	P	16 03 54.1	0.0
	0.5nm,0.5s,mb3.8,baz=303,slow=6.0,SNR=11						
SONM	Songino Array	52.94	302	P	P	16 04 12.6	-2.1
	0.4nm,0.7s,mb3.5,baz=41,slow=7.7,SNR=3.1						
ARCES	ARCESS Array B	57.05	356	P	P	16 04 41.8	-2.3
	4.2nm,1.0s,mb4.4,baz=7.4,slow=7.7,SNR=2.8						
KMI	Kunming	71.48	287	P	P	16 06 19.9	+0.6
KMI				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						

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*NEIC **09** 16:07:37.3±2.3, 19°.11N×148°.19E, h35^{km}, mb3.8/2, Error ellipse: s-maj=75.3km s-min=12.0km az=88.0*

*ISCJB **09** 16:07:41.1±4.0, 19°.00N±0°.06×147°.4E±0°.5, h57^{km}±26^{km}, mb3.6/7, Error ellipse: s-maj=71.1km s-min=10.4km az=179.6*

*IDC **09** 16:07:44.3±5.3, 18°.95N×147°.20E, h62^{km}±35^{km}, mb3.4/6, mb1 3.8/9, mb1mx3.5/24, mbtmp3.7/9, ML4.3/3, Error ellipse: s-maj=84.5km s-min=13.6km az=87.0*

ISC 09 16:07:42.1±3.5, 19°.01N±0°.06×147°.5E±0°.4, h55^{km}±22^{km}, n13, σ0^{s}.81/15, mb3.6/7, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	5.96	206	P	Pn	16 09 08.7	+0.9
	13nm,0.3s,baz=52,slow=24,SNR=9.3						
GUMO				S	Sn	16 10 12.7	-2.0
	22nm,0.3s,baz=360,slow=21,SNR=6.0						
GUMO	Guam	5.96	206	ePn	Pn	16 09 08.7	+0.9
GUMO				eSn	Sn	16 10 15.6	+0.8
CBIJ	Chichi jima	9.43	330	P	Pn	16 09 55.0	-0.3
	19nm,0.3s,baz=297,slow=21,SNR=11						
CBIJ				S	Sn	16 11 32.5	-7.3
	2.9nm,0.3s,baz=324,slow=22,SNR=3.2						
MJAR	Matsushiro Arr	19.29	337	P	Pn	16 12 03.0	-0.9
	0.2nm,0.3s,baz=172,slow=11,SNR=4.2						
MAJO	Matsushiro	19.29	337	eP	Pn	16 11 59.1	-4.8
	3.5nm,0.8s						
KSRS	Korea Array	25.12	321	P	P	16 13 03.3	+1.4
	0.7nm,0.5s,mb3.5,baz=144,slow=8.7,SNR=5.8						
WRAB	Tennant Creek	40.80	199	eP	P	16 15 17.9	-0.3
	1.6nm,0.5s,mb3.9						
WRA	Warramunga Arr	40.81	199	P	P	16 15 18.3	0.0
	3.6nm,0.7s,mb4.1,baz=22,slow=8.6,SNR=15						
FITZ	Fitzroy Crossi	42.68	212	P	P	16 15 33.4	-0.3
	1.4nm,0.4s,mb4.1,baz=23,slow=13,SNR=5.9						
SONM	Songino Array	43.99	320	P	P	16 15 44.8	+0.8
	0.3nm,0.7s,mb3.1,baz=108,slow=7.4,SNR=2.9						
ASAR	Alice Springs	44.45	198	P	P	16 15 47.9	+0.1
	0.8nm,0.6s,mb3.6,baz=21,slow=6.6,SNR=31						
MKAR	Makanchi Array	59.50	314	P	P	16 17 38.8	-0.8
	0.2nm,0.7s,mb3.2,baz=103,slow=6.2,SNR=2.9						
PLCA	Paso Flores	140.94	132	PKP	PKPdf	16 27 07.7	+1.5
	2.3nm,0.7s,baz=270,slow=6.1,SNR=2.9						

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*IDC **09** 16:10:44.4±18.0, 20°.95S×177°.72W, h471^{km}±209^{km}, mb3.1/6, mb1 3.4/6, mb1mx3.1/18, mbtmp3.1/6, Error ellipse: s-maj=99.7km s-min=62.0km az=161.0*

*ISCJB **09** 16:10:58.7±2.0, 21°.8S±0°.3×178°.0W±0°.2, h679^{km}±23^{km}, mb3.6/9, Error ellipse: s-maj=39.7km s-min=21.9km az=12.9*

*NEIC **09** 16:11:03.0±4.4, 22°.35S×178°.32W, h686^{km}±22^{km}, mb3.8/7, Error ellipse: s-maj=101.0km s-min=22.7km az=220.0*

ISC 09 16:10:59.1±2.1, 21°.8S±0°.3×178°.0W±0°.2, h664^{km}±27^{km}, n15, σ0^{s}.98/15, mb3.6/9, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	7.42	180	Pn	P	16 12 56.0	+0.6
DZM	Mont Dzumac	14.47	266	eP	P	16 13 59.3	-0.8
	9.6nm,1.1s						
CTA	Charters Tower	33.41	266	P	P	16 16 46.2	-0.4
	1.7nm,0.4s,mb3.9,baz=108,slow=12,SNR=8.6						
CTAO	Charters Tower	33.41	266	eP	P	16 16 46.0	-0.6
	1.6nm,0.4s,mb3.9						
TAU	Tasmania Unive	35.73	226	P	P	16 17 03.0	-2.3
	12nm,1.1s,mb4.3						
STKA	Stephens Creek	37.26	246	P	P	16 17 19.4	+1.4
	0.8nm,0.4s,mb3.6,baz=84,slow=12,SNR=6.4						
STKA	Stephens Creek	37.26	246	eP	P	16 17 18.5	+0.5
	0.3nm,0.5s,mb3.1						
ASAR	Alice Springs	44.26	258	P	P	16 18 14.1	+1.0
	1.6nm,0.6s,mb3.6,baz=99,slow=8.1,SNR=27						
WRAB	Tennant Creek	44.45	263	eP	P	16 18 14.3	-0.3
	1.3nm,0.7s,mb3.4						
WRA	Warramunga Arr	44.46	263	P	P	16 18 14.9	+0.3
	0.8nm,0.3s,mb3.5,baz=96,slow=7.9,SNR=12						
FITZ	Fitzroy Crossi	52.89	263	P	P	16 19 18.7	+2.2
	3.5nm,0.9s,mb3.6,baz=117,slow=9.0,SNR=4.3						
FITZ	Fitzroy Crossi	52.89	263	P	P	16 19 16.8	+0.3
	2.7nm,0.8s,mb3.5						
CASY	Casey	62.81	206	eP	P	16 20 18.0	-4.1
	6.4nm,0.8s,mb3.9						
QSPA	South Pole Qui	68.27	180	P	P	16 20 55.8	+0.1
	0.2nm,0.6s,mb2.6						
TXAR	Lajitas Array	87.73	57	P	P	16 22 39.6	-0.3
	0.4nm,1.0s,baz=206,slow=6.0,SNR=3.5						

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*NEIC **09** 16:47:00.0, 32°.48N×115°.46W, h5^{km}, ML2.8(PAS), ML2.9(ECX), After ECX.*

ECX 09 16:47:01.1±0.4, 32°.50N×115°.34W, h15^{km}, MD2.8, ML3.0, 1C-1D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGL	Mount Signal	0.36	294	⇑iP	Pg	16 47 07.6	-0.8
YUH	Yuha Desert	0.51	286	eP	Pg	16 47 10.1	-1.2
YUH				eS	Sg	16 47 17.6	-0.6
GLA	Glamis	0.70	38	eP	Pg	16 47 12.8	-2.0
GLA				eS	Sg	16 47 22.4	-1.6
RDX	Rancho Dawling	0.77	222	eP	Pg	16 47 14.4	-1.7
RDX				eS	Sg	16 47 25.3	-0.8
RDX				⇓e		16 47 26.1	
	comp=N,404nm,0.5s						
CBX	Cerro Bola	1.14	261	eP	Pg	16 47 20.9	-2.1
BAR	Barrett	1.14	279	ePn	Pg	16 47 20.5	-2.5

BAR				*e*Sn	Sg	16 47 36.0	-1.9
PFO	Pinyon Flat Ob	1.45	320	*e*Pn	Pn	16 47 23.1	-3.7
PFO				*e*Sn	Sn	16 47 42.0	-3.4
SPX	San Pedro Mart	1.46	184	*e*PN	Pn	16 47 27.1	+0.3
MWC	Mount Wilson	2.85	308	P	Pn	16 47 42.8	-3.2
MWC				*e*S	Sn	16 48 25.0	+5.0

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*NEIC **09** 17:12:43.3, 32°.45N×115°.36W, h9^{km}, ML3.2(ECX), ML3.2(PAS), After ECX.*
*ECX **09** 17:12:43.1±0.4, 32°.46N×115°.25W, h9^{km}, MD3.1, ML3.3*
*ISCJB **09** 17:12:44.1±0.4, 32°.52N±0°.02×115°.31W±0°.02, h12^{km}±3^{km}, Error ellipse: s-maj=3.4km s-min=3.0km az=160.2*
ISC 09 17:12:44.2±0.3**, 32°.52N**±0°.02×**115°.32W**±0°.02**, h16**^{km}±3^{km}**, n37, σ0^{s}.98**/56**, 13C-18D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.10	173	⇓*e*P	Pg	17 12 46.2	-1.3
CPBX				*e*S	Sg	17 12 49.0	-0.8
CPBX				⇑*e*		17 12 49.5	
	comp=N,35μm,0.4s						
SNR	Schaffner Ranc	0.36	344	*e*P	Pg	17 12 53.4	+1.7
SGL	Mount Signal	0.37	291	*e*P	Pg	17 12 52.4	+0.6
COA	Coachella	0.38	25	*e*P	Pg	17 12 53.6	+1.4
EMX	El Mayor	0.53	173	*e*P	Pg	17 12 54.3	-0.4
EMX				*e*S	Sg	17 13 01.9	+0.1
EMX				⇓*e*		17 13 03.0	
	comp=N,1μm,0.6s						
SWSC	Sam W. Stewart	0.59	317	⇓P	Pg	17 12 56.1	+0.3
	baz=0.6,SNR=32						
SWSC				⇓S	Sg	17 13 04.0	+0.4
	baz=0.6						
112A	Yuma	0.62	88	⇓P	Pg	17 12 56.2	-0.3
	baz=0.6,SNR=27						
112A				⇓S	Sg	17 13 04.7	-0.1
	baz=0.6						
GLA	Glamis	0.68	38	⇓P	Pg	17 12 57.2	-0.3
	baz=0.7,SNR=38						
GLA				⇓S	Sg	17 13 06.4	-0.1
	baz=0.7						
GLA	Glamis	0.68	38	*e*Pg	Pg	17 12 57.6	+0.1
GLA				*e*Sg	Sg	17 13 07.2	+0.7
DVTC	Desert V Tower	0.68	282	⇑P	Pg	17 12 57.5	0.0
	baz=0.7,SNR=36						
DVTC				⇓S	Sg	17 13 07.0	+0.6
	baz=0.7						
RDX	Rancho Dawling	0.79	223	⇑*e*P	Pg	17 12 59.3	-0.3
RDX				*e*S	Sg	17 13 10.2	+0.1
RDX				*e*		17 13 10.9	
	comp=N,915nm,0.4s						
MONP	Monument Peak	1.00	292	⇑P	Pb	17 13 02.7	-0.6
	baz=1.0,SNR=159						
MONP				⇓S	Sb	17 13 16.0	-0.2
	baz=1.0						
ECBX	El Chinero	1.06	168	*e*P	Pb	17 13 04.2	0.0
ECBX				*e*S	Sb	17 13 18.5	+0.5
BC3	Big Chuckw Mtn	1.14	354	⇓P	Pn	17 13 04.6	-1.0
	baz=1.1,SNR=26						
BC3				⇑S	Sb	17 13 18.9	-1.3
	baz=1.1						
BAR	Barrett	1.16	279	*e*Pn	Pn	17 13 04.9	-0.9
BAR				*e*Sn	Sn	17 13 20.8	-0.5
CBX	Cerro Bola	1.16	260	*e*P	Pn	17 13 05.9	+0.2
113A	Mohawk Valley,	1.33	79	⇓Pn	Pn	17 13 07.0	-1.2
	baz=1.4,SNR=104						
PFO	Pinyon Flat Ob	1.45	319	⇓Pn	Pn	17 13 08.7	-1.1
	baz=1.4,SNR=30						
PFO				⇑S	Sn	17 13 27.0	-1.6
	baz=1.4						
PFO	Pinyon Flat Ob	1.45	319	*e*Pn	Pn	17 13 12.4	+2.6
PFO				*e*Sn	Sn	17 13 26.6	-1.9
SPX	San Pedro Mart	1.47	185	*e*PN	Pn	17 13 12.1	+2.0
109C	Camp Elliot, M	1.55	284	⇑Pn	Pn	17 13 10.5	-0.8
	baz=1.5,SNR=23						
109C				⇑Pb	Pb	17 13 12.4	-0.2
	baz=1.5						
109C				⇓Sb	Sb	17 13 32.8	+0.7
	baz=1.5						
IRM	Iron Mountain	1.65	5	⇑Pb	Pb	17 13 13.5	-0.7
	baz=1.7						
MURC	Murrieta	1.92	305	⇓Sb	Sb	17 13 43.2	+0.7
	baz=1.9						
Z14A	Wintersburg	2.17	66	⇑Sb	Sb	17 13 50.6	+0.9
	baz=2.2						
Y14A	Wickenburg	2.40	53	⇓Sb	Sb	17 13 57.5	+1.0
	baz=2.4						
X13A	Yucca	2.42	31	⇑Pb	Pb	17 13 26.9	-0.5
	baz=2.4						
LDFC	Landfair	2.56	4	*e*Pn	Pn	17 13 28.8	+3.7
CIS	Catalina Islan	2.74	290	⇑Sb	Sb	17 14 08.4	+2.1
	baz=2.7						
X14A	Yava	2.81	45	⇓Pb	Pb	17 13 33.5	-0.7
	baz=2.8						
MWC	Mount Wilson	2.86	307	*e*Pn	Pn	17 13 34.3	+5.1
GSC	Goldstone	3.04	336	*e*Pg	Pg	17 13 43.0	+0.5
V12A	Nelson	3.23	7	⇑Pb	Pb	17 13 40.7	-0.4
	baz=3.2						
TUC	Tucson	3.84	92	*e*Pn	Pn	17 13 44.1	+1.5
TUC				*e*Pg	Pg	17 13 57.3	-0.5
Y17A	Roosevelt	3.93	71	⇓Pn	Pn	17 13 42.8	-1.2
	baz=4.0						
ISA	Isabella	4.09	321	*e*Pg	Pg	17 14 01.0	-1.6
WUAZ	Wupatki	4.44	46	*e*Pn	Pn	17 13 55.4	+4.5
WUAZ				*e*Pg	Pg	17 14 11.4	+2.2
CCUT	Cedar City	5.27	17	*e*Pn	Pn	17 14 03.3	+0.9
CCUT				*e*Pg	Pg	17 14 23.8	-1.4

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*BJI **09** 17:22:39.5, 39°.72N×77°.13E, h13^{km}, ML2.8/5*
ISC 09 17:22:40.6±2.7**, 39°.3N**±0°.2×**77°.05E**±0°.10**, h10**^{km}**, n12, σ1^{s}.25**/15**, 4C-2D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	0.87	285	⇓*i*Pg	Pg	17 22 55.4	-1.9
KSH				Sg	Sg	17 23 09.4	+0.8
KSH				smax			
	comp=N,500nm,0.4s						
KSH				smax			
	comp=E,510nm,0.6s						
KSH	Kashi	0.87	285	⇓*i*Pg	Pg	17 22 55.3	-2.0
KSH				Sg	Sg	17 23 09.6	+1.0
KSH				smax			
	comp=N,500nm,0.4s						
KSH				smax			
	comp=E,510nm,0.6s						
ULHL	Ulahol	3.01	348	P	Pn	17 23 26.8	-1.5
	SNR=15						
KZA	Kyzart	3.10	334	P	Pn	17 23 27.9	-1.6
	SNR=25						
UCH	Uchtor	3.51	327	P	Pn	17 23 35.4	+0.3
	SNR=11						
KBK	Karagaybulak	3.72	335	P	Pn	17 23 38.7	+0.6
	SNR=33						
TKM2	Tokmak 2	3.79	344	⇑Pn	Pn	17 23 34.1	-4.9
	comp=E,4.8nm,0.5s						
TKM2				⇑Lg		17 24 30.2	
	comp=E,13nm,0.6s						
AML	Almayashu	3.81	319	P	Pn	17 23 39.8	+0.4
	SNR=18						
AAK	Ala-Archa	3.86	331	P	Pn	17 23 43.3	+3.3
	SNR=14						
CHMS	Chumysh	4.09	336	P	Pn	17 23 44.5	+1.4
	SNR=6.4						
EKS2	Erkin-Say	4.18	325	P	Pn	17 23 45.4	+1.1
	SNR=6.6						
KK31	Karatay Array	6.23	310	⇑Pn	Pb	17 24 24.1	-5.0
	comp=E,0.7nm,0.3s,baz=114,slow=10,SNR=4.0						
KK31				⇑Sn	Sb	17 25 42.9	-0.7
	comp=E,2.3nm,0.6s,baz=109,slow=33,SNR=3.5						

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*NEIC **09** 17:26:25.7, 32°.46N×115°.33W, h11^{km}, ML3.1(PAS), ML3.2(ECX), After ECX.*
ECX 09 17:26:25.7±0.2**, 32°.46N×115°.34W, h11**^{km}±4^{km}**, MD3.1, ML3.2, 2C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.05	147	⇓*e*P	Pg	17 26 29.1	+1.3
CPBX				*e*S	Sg	17 26 31.6	+2.3
CPBX				⇑*e*		17 26 32.1	
	comp=N,53μm,0.4s						
SGL	Mount Signal	0.38	300	*e*P	Pg	17 26 34.8	+1.6
COA	Coachella	0.44	24	*e*P	Pg	17 26 35.9	+1.6
EMX	El Mayor	0.48	170	⇓*e*P	Pg	17 26 36.6	+1.6
EMX				*e*S	Sg	17 26 44.7	+3.4
EMX				⇑*e*		17 26 46.1	
	comp=N,1μm,0.5s						
EMX				*e*		17 26 47.5	
	comp=E,561nm,0.5s						
YUH	Yuha Desert	0.53	291	*e*P	Pg	17 26 37.3	+1.3
YMD	Yuma Desert	0.68	82	*e*P	Pg	17 26 39.4	+0.6
GLA	Glamis	0.73	36	*e*Pg	Pg	17 26 39.8	-0.1
GLA				*e*Sg	Sg	17 26 50.0	+0.6
RDX	Rancho Dawling	0.74	225	*e*P	Pg	17 26 41.8	+1.8
RDX				*e*S	Sg	17 26 53.3	+3.7
RDX				⇓*e*		17 26 53.8	
	comp=N,525nm,0.5s						
ECBX	El Chinero	1.01	166	*e*P	Pg	17 26 46.5	+1.3
ECBX				*e*S	Sg	17 27 00.8	+2.4
CBX	Cerro Bola	1.13	263	*e*P	Pb	17 26 48.4	+1.2
BAR	Barrett	1.15	281	*e*Pn	Pn	17 26 47.8	+0.1
BAR				*e*Sn	Sn	17 27 02.9	-0.5
SPX	San Pedro Mart	1.42	184	*e*P	Pn	17 26 52.2	+0.9
PFO	Pinyon Flat Ob	1.48	321	*e*Pn	Pn	17 26 50.9	-1.5
PFO				*e*Sn	Sn	17 27 09.4	-2.2
LDFC	Landfair	2.62	4	*e*Pn	Pn	17 27 12.2	+4.2
LDFC				*e*Pg	Pg	17 27 19.4	+3.5
GSC	Goldstone	3.09	337	*e*Pn	Pn	17 27 18.0	+3.6
TUC	Tucson	3.85	91	*e*Pn	Pn	17 27 30.2	+5.3
TUC				*e*Pg	Pg	17 27 41.5	+1.9
ISA	Isabella	4.12	322	*e*Pg	Pg	17 27 44.2	-0.4
WUAZ	Wupatki	4.49	46	*e*Pn	Pn	17 27 33.3	-0.3
WUAZ				*e*Sg	Sg	17 28 51.3	+1.6
CCUT	Cedar City	5.33	17	Pn	Pn	17 27 53.5	+8.2
	comp=N,3.0nm,0.8s						
CCUT				*e*Pg	Pg	17 28 08.5	+0.7

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*NEIC **09** 17:48:05.0, 32°.44N×115°.31W, h6^{km}, ML2.8(PAS), After PAS.*
ECX 09 17:48:04.0±0.3**, 32°.46N×115°.34W, h9**^{km}**, MD2.9, ML3.1, 2C-6D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.05	141	⇓*e*P	Pg	17 48 03.1	-2.7
CPBX				*e*S	Sg	17 48 05.5	-1.7
CPBX				⇑*e*		17 48 06.7	
	comp=N,41μm,0.6s						
SGL	Mount Signal	0.38	301	⇑*i*P	Pg	17 48 13.2	+1.8
COA	Coachella	0.45	25	⇓*i*P	Pg	17 48 14.4	+1.7
EMX	El Mayor	0.48	170	⇓*e*P	Pg	17 48 15.3	+2.0
EMX				*e*S	Sg	17 48 23.4	+3.9
EMX				⇓*e*		17 48 24.1	
	comp=N,564nm,0.5s						
EMX				⇓*e*		17 48 24.2	
	comp=E,616nm,0.5s						
YUH	Yuha Desert	0.53	291	*e*P	Pg	17 48 15.7	+1.5
RDX	Rancho Dawling	0.73	225	*e*P	Pg	17 48 20.1	+2.0
RDX				*e*S	Sg	17 48 31.0	+3.3
RDX				⇓*e*		17 48 31.8	
	comp=N,669nm,0.4s						
GLA	Glamis	0.73	36	*e*Pg	Pg	17 48 18.4	+0.2
GLA				*e*Sg	Sg	17 48 27.3	-0.5
ECBX	El Chinero	1.01	166	*e*P	Pg	17 48 25.1	+1.6
ECBX				*e*S	Sg	17 48 39.5	+2.9
CBX	Cerro Bola	1.13	263	*e*PN	Pn	17 48 26.8	+0.8
BAR	Barrett	1.14	282	*e*Pg	Pg	17 48 25.6	-0.4
BAR				*e*Sg	Sg	17 48 41.6	+0.8
SPX	San Pedro Mart	1.41	184	*e*PN	Pn	17 48 33.1	+3.2
PFO	Pinyon Flat Ob	1.48	321	*e*Pn	Pn	17 48 29.4	-1.4
PFO				*e*Sn	Sn	17 48 47.5	-2.7
MWC	Mount Wilson	2.88	309	Pn	Pn	17 48 54.4	+4.4
GSC	Goldstone	3.09	337	Pg	Pg	17 49 05.7	+2.5
TUC	Tucson	3.86	91	*e*Pg	Pg	17 49 17.9	-0.1
TUC				*e*Sg	Sg	17 50 02.6	-5.3

CASC 09 17:51:32.2±1.8**, 13°.69N×90°.27W, h79**^{km}±9^{km}**, MD3.8, 1C-6D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IXG	Ixpaco	0.51	339	⇑*i*P	Pn	17 51 46.4	+0.4
RTR	El Retiro	0.64	71	⇓*e*P	Pn	17 51 47.4	+0.3
SBLS	San Blas	0.64	77	⇓*i*P	Pn	17 51 47.4	+0.3
SNJE	San Jose	0.66	75	⇓*i*P	Pn	17 51 47.6	+0.2
SNJE				*e*S	Sn	17 51 59.9	+1.3
PCG	Pacaya	0.77	335	*e*P	Pn	17 51 49.1	+0.5
PCG				*e*S	Sn	17 52 03.2	+2.5
NBG	Las Nubes	0.90	355	⇓*e*P	Pn	17 51 51.0	+1.0
FUG	Fuego 3	0.94	323	⇓*e*P	Pn	17 51 50.8	+0.4
BOQS	Boqueron	0.96	87	*e*P	Pn	17 51 50.8	+0.2
BOQS				*e*S	Sn	17 52 05.2	+0.7
FG6		1.05	325	*e*P	Pn	17 51 52.2	+0.4
FG6				*e*S	Sn	17 52 05.9	-0.5
LFRS	El Faro	1.17	93	*e*P	Pn	17 51 53.2	-0.1
LFRS				*e*S	Sn	17 52 09.6	+0.5
LBRS	Las Brisas	1.19	88	*e*P	Pn	17 51 53.7	+0.2
LBRS				*e*S	Sn	17 52 10.6	+1.1
TP2	Tecpan 2	1.31	326	*e*P	Pn	17 51 56.2	+1.1
TP2				*e*S	Sn	17 52 15.1	+2.9
SNVI	San Vicente	1.39	93	*e*P	Pn	17 51 56.4	+0.4
JAT	Jato	1.47	295	*e*P	Pn	17 51 58.1	+1.0
MRL	Marmol	1.48	22	⇓*e*P	Pn	17 51 58.2	+1.1
MRL				*e*S	Sn	17 52 17.0	+1.0
BLLM	Bellamira	1.99	97	*e*P	Pn	17 52 05.0	+1.1
CNCH	Conchagua	2.40	100	*e*P	Pn	17 52 10.1	+0.7

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*BJI **09** 18:33:51.0, 0°.92S×125°.41E, h20^{km}, mB5.9/40, mb5.7/61, Ms5.5/75, Ms7 5.4/61*
*MOS **09** 18:33:58.7±1.8, 0°.26S×125°.08E, h33^{km}, mb6.1/52, MS5.3/40, Error ellipse: s-maj=13.1km s-min=5.7km az=121.8*
*ISCJB **09** 18:33:58.4±0.1, 0°.26S±0°.02×125°.13E±0°.02, h26^{km}, mb5.8/175, MS5.5/93, Error ellipse: s-maj=3.2km s-min=2.4km az=164.9*
*NEIC **09** 18:34:01.6±0.1, 0°.24S×125°.08E, h38^{km}, mb5.9/88, ME5.5, MS5.5/33, MW5.9, Error ellipse: s-maj=6.1km s-min=4.3km az=70.0, Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*
NEIC Felt [III] at Tondano and [II] at Manado, Indonesia.
*GCMT **09** 18:34:01.6±0.1, 0°.33S×125°.37E, h32^{km}, MW6.0/107, Moment Tensor Solution. s107,c235; s100,c278; Duration: 2^{s}.3 Moment tensor: Scale 10^{18}Nm; M_{rr}0.78±.01; $M_{\theta\theta}$-0.50±.01; $M_{\phi\phi}$-0.27±.01; $M_{r\theta}$0.31±.01; $M_{\theta\phi}$-0.52±.01; $M_{\phi r}$0.59±.01; Best double couple: $M_0$1.08000×10^{18} NP1:ϕ_s248.00000°, δ29.00000°, λ119.00000°. NP2:ϕ_s36.00000°, δ65.00000°, λ75.00000°. Principal axes: T 1.0430, Plg67.0000°, Azm278.0000°; N 0.0740, Plg14.0000°, Azm43.0000°; P -1.1180, Plg18.0000°, Azm137.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*IDC **09** 18:34:01.0±1.2, 0°.24S×125°.05E, h31^{km}±8^{km}, mb5.5/36, mb1 5.4/37, mb1mx5.4/38, mbtmp5.4/37, ML4.2/1, MS5.4/20, Ms1 5.4/20, ms1mx5.2/30 Error ellipse: s-maj=12.5km s-min=6.6km az=70.0*
*DJA **09** 18:34:04, 0°.28S×125°.29E, h51^{km}, Mw6.1/20*
ISC 09 18:34:00.4±0.1**, 0°.24S**±0°.02×**125°.11E**±0°.02**, h28**^{km}**, h28**^{km}±1.8^{km}**:pP-P, n870, σ1^{s}.20**/619**, mb5.8**/175**, MS5.5**/93**, 180C-108D, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	1.69	351	⇓*e*P	Pn	18 34 30.0	+1.9
MNI	Manado	1.69	351	P	Pn	18 34 31.1	+3.0
LBMI	Labuha	2.42	99	P	Pn	18 34 37.2	-1.0
TNTI	Ternate	2.47	66	P	Pn	18 34 39.6	+0.8
TNE	Ternate	2.48	66	⇓*e*P	Pn	18 34 37.0	-1.9
SGSI	Sangihe	3.92	6	P	Pn	18 35 02.2	+3.4
KDI	Kendari	4.46	214	⇑*e*P	Pn	18 35 07.6	+1.4
KDI				*e*S	Sn	18 35 56.7	-0.4
KDI	Kendari	4.46	214	P	Pn	18 35 08.6	+2.4
AAI	Ambon	4.61	138	⇓*e*P	Pn	18 35 09.5	+1.2
AAI				*e*S	Sn	18 36 01.5	+0.6
AAI	Ambon	4.61	138	P	Pn	18 35 09.4	+1.1
MSAI	Masohi	4.91	129	P	Pn	18 35 14.6	+2.2
PCI	Palu	5.32	263	⇑*i*P	Pn	18 35 22.0	+4.0
PCI	Palu	5.32	263	P	Pn	18 35 22.4	+4.4
GSPH	General Santos	6.28	359	⇑*e*P	Pn	18 35 35.0	+3.7
KAPI	Kappang	7.15	228	Pn	Pn	18 35 46.4	+3.2
	5μm,0.6s						
KAPI	Kappang	7.15	228	⇑*e*Pn	Pn	18 35 45.5	+2.3
	462nm,0.6s						
KAPI				*e*Sn	Sn	18 37 02.5	-1.2
KAPI	Kappang	7.15	228	P	Pn	18 35 46.7	+3.5
	399nm,0.7s,4μm1.8nm						
KCP	Kidapawan	7.20	360	⇓*e*P	Pn	18 35 49.8	+5.9
MATI	Mati	7.23	9	*e*P	Pn	18 35 48.2	+3.9
DAV	Davao City (W)	7.27	4	Pn	Pn	18 35 49.0	+4.1
	27nm,0.3s,baz=146,slow=2.1,SNR=27						
DAV				Sn	Sn	18 37 13.4	+6.8
	64nm,0.3s,baz=70,slow=14,SNR=1.9						
DAV				LR	LR	18 38 59.9	
	comp=Z,76μm,19.0s,baz=191,slow=41						
DAV	Davao City (W)	7.27	4	⇓*e*P	Pn	18 35 50.3	+5.4
DAV	Davao City (W)	7.27	4	*e*Pn	Pn	18 35 48.8	+3.8
	3μm,0.9s						
DAV	Davao City (W)	7.27	4	P	Pn	18 35 51.1	+6.2
CTBH	Cotabato--PC H	7.46	353	⇓*e*P	Pn	18 35 51.6	+4.1
CTBH				*i* S	Sn	18 37 17.1	+5.9
MKS	Makassar	7.50	229	⇓*e*P	Pn	18 35 51.4	+3.4
MKS				*e*S	Sn	18 37 16.3	+4.2
ZMPH	Zamboanga City	7.76	337	*i* P	Pn	18 35 54.1	+2.5
BUKP	Musuan	8.06	360	*e*P	Pn	18 36 00.4	+4.7
PAGZ	Pagadian	8.21	348	*e*P	Pn	18 36 01.8	+3.9
IPIL	Ipil	8.36	342	*e*P	Pn	18 36 04.1	+4.2
BIPH	Bislig	8.46	8	⇑*e*P	Pn	18 36 04.5	+3.3
BIPH				*i* S	Sn	18 37 40.8	+5.0
MYLDM	Lahad Datu	8.52	309	P	Pn	18 36 08.1	+6.1
MYLDM	Lahad Datu	8.52	309	P	Pn	18 36 08.0	+6.0
	3μm,1.0s,8.6nm						
TSM	Tawau	8.52	302	P	Pn	18 36 05.6	+3.6
BUTP	Butuan	9.16	3	*e*P	Pn	18 36 15.4	+4.6
SDKM	Sandakan	9.83	307	P	Pn	18 36 24.6	+4.6
SCPH	Surigao	9.96	2	*e*P	Pn	18 36 25.4	+3.7
MSLP	Maasin	10.30	359	*e*P	Pn	18 36 32.8	+6.3
LLP	Lapu-Lapu	10.55	354	⇑*e*P	Pn	18 36 35.7	+5.9
BBKI	Banjar Baru	10.75	253	P	Pn	18 36 37.7	+5.1
	987nm,1.0s						
KKM	Kota Kinabalu	10.85	305	P	Pn	18 36 40.2	+6.1
KKM	Kota Kinabalu	10.85	305	*e*Pn	Pn	18 36 36.5	+2.5
	361nm,0.8s						
KKM				*e*Sn	Sn	18 38 33.5	-1.1
KKM	Kota Kinabalu	10.85	305	P	Pn	18 36 42.3	+8.3
KDM	Kudat	10.89	311	P	Pn	18 36 41.0	+6.4
BAKI	Biak	11.04	95	P	Pn	18 36 38.2	+1.6
	667nm,1.3s,8μm						
GUIM	Jordan	11.08	347	*e*P	Pn	18 36 44.4	+7.3
OCLP	Ormoc	11.22	357	*e*P	Pn	18 36 44.5	+5.4
PLKI	Palangkaraya	11.34	260	P	Pn	18 36 45.8	+5.2
	1μm,1.0s						
BATP	Bataraza	11.56	321	*e*P	Pn	18 36 50.7	+7.0
CUYO	Cuyo Island	11.74	340	*e*P	Pn	18 36 52.6	+6.4
PPR	Puerto Princes	11.80	328	⇑*i*P	Pn	18 36 52.2	+5.2
RCP	Roxas	11.95	349	⇑*e*P	Pn	18 36 56.4	+7.4
KALP	Kalibo	12.15	347	*e*P	Px	18 37 06.5	
BTM	Bintulu	12.50	286	P	Pn	18 37 02.8	+6.3
ENPP	El Nido	12.69	334	*e*P	Pn	18 37 06.5	+7.3
BUSP	Coron	13.10	338	*e*P	Pn	18 37 11.4	+6.6
SBUM	Sibu	13.16	282	P	Pn	18 37 12.5	+6.8
SBUM	Sibu	13.16	282	P	Pn	18 37 12.2	+6.6
	538nm,0.9s,7μm						
SJMP	San Jose	13.22	343	*e*P	Pn	18 37 11.3	+4.9
AUQP	San Andres	13.69	350	*e*P	Px	18 37 24.7	
PVCP	Virac	13.78	356	*e*P	Pn	18 37 17.0	+3.0
PGP	Puerto Galera	14.26	343	⇑*i*P	Px	18 37 30.7	
GQP	Guinayangan	14.30	349	⇓*e*P	Pn	18 37 27.1	+6.0
KAKA	Kakadu	14.37	150	⇓*i*P	Pn	18 37 20.0	-2.1
	206nm,0.7s						
KAKA	Kakadu	14.37	150	*e*Pn	Pn	18 37 20.0	-2.1
	652nm,0.8s						
KAKA	Kakadu	14.37	150	P	Pn	18 37 20.9	-1.2
	511nm,0.8s,3μm						
LUBP	Lubang	14.69	341	*e*P	Pn	18 37 31.9	+5.4
TGY	Tagaytay City	14.83	344	Pn	Pn	18 37 32.4	+3.9
	28nm,0.3s,baz=38,slow=7.8,SNR=5.4						
TGY				LR	LR	18 44 56.3	
	comp=Z,46nm,18.6s,baz=140,slow=44						
TGY	Tagaytay City	14.83	344	⇓*e*P	Px	18 37 40.6	
KSM	Kuching	14.90	277	P	Pn	18 37 34.4	+5.1
KSM	Kuching	14.90	277	*e*Pn	Pn	18 37 31.4	+2.1
	385nm,0.6s						
KSM				*e*		18 37 38.1	
KSM				*e*ScP	ScP	18 46 11.7	+0.7
KSM	Kuching	14.90	277	P	Pn	18 37 35.3	+6.0
	765nm,0.6s						
POLP	Polilio Island	15.20	348	*e*P	Pn	18 37 37.5	+4.3
SJI	Sawahan	15.24	240	P	Pn	18 37 38.5	+4.6
	2μm,1.4s						
SMRI	Semarang	16.12	245	P	Pn	18 37 52.8	+7.6
PCPH	Palayan	16.19	346	⇓*e*P	Pn	18 37 50.4	+4.3
BALP	Baler	16.25	348	*e*P	Pn	18 37 50.8	+3.9
UGM	Wanagama	16.42	242	P	Pn	18 37 56.8	+7.8
SCZP	Santa Cruz	16.72	342	*e*P	Pn	18 37 56.4	+3.6
MMPI	Merauke	17.27	119	P	Pn	18 38 03.4	+3.6
BOLP	Bolinao	17.29	343	*e*P	Pn	18 38 02.9	+3.0
CAUP	Cauayan	17.38	349	*e*P	Pn	18 38 03.1	+2.1
PALP	Palanan	17.39	351	*e*P	Pn	18 38 05.3	+4.1
TPI	Tanjungpandan	17.63	262	⇓*e*P	Pn	18 38 07.5	+3.3
TPI	Tanjungpandan	17.63	262	P	Pn	18 38 08.2	+4.0
	249nm,1.4s,5μm						
FITZ	Fitzroy Crossi	17.76	178	*e*P	Pn	18 38 04.9	-0.9
	140nm,0.6s						
FITZ				*e*S	Sn	18 41 13.9	-9.1
FITZ	Fitzroy Crossi	17.76	178	P	Pn	18 38 04.6	-1.1
	0.6nm,0.3s,baz=6.6,slow=16,SNR=20						
FITZ				S	Sn	18 41 23.8	+0.8
	0.3nm,0.3s,baz=63,slow=14,SNR=3.1						
FITZ				LR	LR	18 45 04.7	
	comp=Z,6μm,20.6s,baz=4.1,slow=37						
FITZ	Fitzroy Crossi	17.76	178	⇓*e*Pn	Pn	18 38 04.2	-1.6
	110nm,0.9s						
FITZ				*e*Sn	Sn	18 41 24.8	+1.8
FITZ	Fitzroy Crossi	17.76	178	P	Pn	18 38 05.8	0.0
	304nm,1.0s,8μm						
ABRA	Dolores	18.29	347	*e*P	Pn	18 38 12.6	+0.2
SIPP	Brgy, Tapao	18.62	346	⇑*e*P	Pn	18 38 16.1	-0.2
LEM	Lembang	18.64	249	⇑*e*P	Pn	18 38 21.3	+4.7
LEM	Lembang	18.64	249	P	Pn	18 38 19.2	+2.6
	3μm,1.0s						
DBJI	Dramaga	19.36	251	P	Pn	18 38 26.6	+1.3
	2μm,1.5s						
SBJI	Serang	19.82	252	P	Pn	18 38 31.8	+1.0
	1μm,1.0s						
PMBI	Palembang	20.50	262	P	P	18 38 39.0	+2.5
	1μm,1.2s						
MYKOM	Kota Tinggi	21.35	275	P	P	18 38 47.6	+1.9
MYKOM	Kota Tinggi	21.35	275	P	P	18 38 48.3	+2.6
	369nm,1.0s,4μm,mb5.7						
MBWA	Marble Bar	21.45	194	⇑*e*P	P	18 38 45.8	-0.8
	189nm,1.0s,mb5.4						
MBWA				*e*S	S	18 42 40.9	-2.3
MBWA	Marble Bar	21.45	194	P	P	18 38 47.2	+0.6
	SNR=13						
MBWA				P		18 38 47.2	
	SNR=13						
MBWA	Marble Bar	21.45	194	P	P	18 38 48.0	+1.4
	297nm,1.1s,3μm,mb5.5						
WRAB	Tennant Creek	21.57	156	P	P	18 38 46.0	-1.9
	1μm,0.9s,mb6.3,SNR=35						
WRAB	Tennant Creek	21.57	156	⇓*e*P	P	18 38 45.5	-2.4
WRAB				*e*S	S	18 42 38.7	-6.9
WRAB				pmax	pmax		
	comp=Z,271nm,0.9s,mb5.7						
WRAB	Tennant Creek	21.57	156	⇓*e*P	P	18 38 45.5	-2.4
	comp=Z,271nm,0.9s,mb5.7						
WRAB				*e*S	S	18 42 38.6	-6.9
WRAB	Tennant Creek	21.57	156	P	P	18 38 46.4	-1.5
WRA	Warramunga Arr	21.57	156	P	P	18 38 46.1	-1.8
WRA				S	S	18 42 38.1	-7.6
WRA	Warramunga Arr	21.57	156	P	P	18 38 46.1	-1.9
	comp=Z,92nm,0.8s,mb5.2,baz=337,slow=11,SNR=88						
WRA				S	S	18 42 38.1	-7.6
	comp=Z,8.8nm,0.8s,baz=327,slow=10,SNR=3.7						
WRA				ScP	ScP	18 46 24.5	-0.7
	comp=Z,9.5nm,0.9s,baz=339,slow=3.0,SNR=6.1						
XMIS	Christmas Isla	21.86	242	⇑*i*P	P	18 38 51.6	+0.4
XMIS	Christmas Isla	21.86	242	⇑*e*P	P	18 38 50.7	-0.5
	comp=Z,2μm,0.7s,mb6.7						
XMIS	Christmas Isla	21.86	242	P	P	18 38 52.1	+0.9

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      comp=Z,5µm,0.8s,mb7.0
KGM   Kluang             21.90 276  P      P       18 38 53.6 +2.0
COEN  Coen               22.49 128⇓eP      P       18 38 54.8 -3.0
      comp=Z,5µm,1.3s,mb6.8
COEN                               eS      S       18 42 57.5 -6.1
COEN                               eScP    ScP     18 46 26.8 -0.8
COEN  Coen               22.49 128  P      P       18 38 57.8  0.0
      comp=Z,2µm,1.5s,mb6.3
KTGM  Kuala Trenggan     22.63 284  P      P       18 39 01.3 +1.9
KSI   Kapahiang          22.75 261  P      P       18 39 01.7 +1.0
      comp=Z,480nm,0.9s,comp=Z,8µm,mb5.9
TWG   Pinlang            23.25 351 eP      P       18 39 02.4 -3.4
      comp=Z,188nm,0.5s,mb5.8
TWG                                eS      S       18 43 04.7  -11
FRIM  Kepong             23.73 279  P      P       18 39 11.2 +0.7
YULB  Yu-li              23.78 351 eP      P       18 39 07.4 -3.5
      comp=Z,158nm,0.7s,mb5.5
YULB                               eS      S       18 43 11.1  -14
TPUB  Ta-pu              23.80 350 eP      P       18 39 08.9 -2.1
      comp=Z,398nm,0.3s,mb6.3
TPUB                               eS      S       18 43 20.5 -4.6
GUMO  Guam               23.91  54 eP      P       18 39 03.8 -8.4
GUMO                                                18 39 11.1
GUMO                                pmax   pmax
      comp=Z,151nm,0.7s,mb5.5
GUMO  Guam               23.91  54  P      P       18 39 11.1 -1.1
      comp=Z,169nm,0.7s,mb5.6,baz=187,slow=12,SNR=5.4
GUMO  Guam               23.91  54 eP      P       18 39 03.8 -8.4
      comp=Z,151nm,0.7s,mb5.5
GUMO                                P              18 39 11.1
SSLB  Suanglung          24.22 351 eP      P       18 39 13.1 -1.8
      comp=Z,198nm,0.7s,mb5.7
SSLB                               eS      S       18 43 23.8 -8.1
SSLB                               eScP    ScP     18 46 31.0 -1.1
QIZ   Qiongzhong         24.31 323  P      P       18 39 15.7 -0.1
QIZ                                 sP     sP      18 39 24.3 -3.0
QIZ                                 S      S       18 43 35.1 +1.6
QIZ                                 sS     sS      18 43 45.2 -1.6
QIZ                                 pmax   pmax
      comp=Z,130nm,2.4s,mb4.9
QIZ                                 pmax   pmax
      comp=Z,2µm,6.8s
QIZ                                 LR     LR
      comp=E,7µm,18.2s
QIZ                                 LR     LR
      comp=Z,10µm,18.5s,MS5.3
QIZ   Qiongzhong         24.31 323⇑iP      P       18 39 15.3 -0.5
      comp=Z,537nm,1.7s,mb5.7
NACB  Ninganchiao        24.50 352 eP      P       18 39 15.6 -1.9
      comp=Z,42nm,0.4s,mb5.3
IPM   Ipoh               24.51 281  P      P       18 39 18.4 +0.7
IPM   Ipoh               24.51 281  P      P       18 39 17.8 +0.1
PDSI  Padang             24.66 268  P      P       18 39 18.7 -0.4
PPI   Padang Panjang     24.71 269  P      P       18 39 19.5 -0.1
ASAR  Alice Springs      24.80 160  P      P       18 39 19.6 -0.6
ASAR                                               18 42 57.5
ASAR                                S      S       18 43 41.1 -0.2
ASAR  Alice Springs      24.80 160  P      P       18 39 19.6 -0.6
      comp=Z,81nm,1.0s,mb5.2,baz=341,slow=7.3,SNR=136
ASAR                                PcP    PcP     18 42 57.5 +1.0
      comp=Z,17nm,0.6s,baz=348,slow=2.1,SNR=8.9
ASAR                                S      S       18 43 41.0 -0.2
      comp=Z,23nm,1.0s,baz=351,slow=25,SNR=4.5
ASAR                                ScP    ScP     18 46 34.0 +0.3
      comp=Z,9.6nm,1.0s,baz=338,slow=3.0,SNR=6.9
ASAR                                PKiKP  PKiKP   18 50 37.0 -1.3
      comp=Z,1.5nm,0.8s,baz=8.5,slow=1.9,SNR=4.1
ASAR  Alice Springs      24.80 160  P      P       18 39 19.6 -0.6
ASAR                                PcP    PcP     18 42 57.5 +1.0
ASAR                                S      S       18 43 41.0 -0.2
ASAR                                ScP    ScP     18 46 34.0 +0.3
HKC   Hong Kong Obse     24.81 335⇑iP      P       18 39 20.0 -0.3
YHNB  Yeheng             25.02 352 eP      P       18 39 20.7 -1.5
      comp=Z,138nm,0.5s,mb5.7
YHNB                               eS      S       18 43 43.1 -1.6
KULM  Kulim              25.04 283  P      P       18 39 22.9 +0.4
KULM  Kulim              25.04 283⇑iP      P       18 39 21.8 -0.7
      comp=Z,152nm,1.1s,mb5.4
KULM  Kulim              25.04 283  P      P       18 39 22.6 +0.1
UBT   Ubonrachathani     25.12 309⇓ P      P       18 39 25.0 +1.8
TATO  Taipei             25.31 352 eP      P       18 39 24.1 -0.7
      comp=Z,267nm,1.1s,mb5.7
SNG   Songkhla           25.52 287  P      P       18 39 27.0 +0.1
      comp=Z,320nm,1.0s,mb5.8
QZH   Quanzhou           25.81 346⇑iP      P       18 39 30.5 +1.1
QZH                                 S      S       18 43 58.0 +0.7
QZH                                 sS     sS      18 44 17.2 +6.5
QZH                                 pmax   pmax
      comp=Z,170nm,0.6s,mb5.8
QZH                                 pmax   pmax
      comp=Z,5µm,4.7s
QZH                                 LR     LR
      comp=N,8µm,20.4s,MS5.5
QZH                                 LR     LR
      comp=E,11µm,20.7s,MS5.5
QZH                                 LR     LR
      comp=Z,9µm,27.9s
GZH   Guangzhou          25.85 334  P      P       18 39 33.8 +4.0
GZH                                 S      S       18 44 08.6  +11
GZH                                 LR     LR
      comp=N,5µm,14.5s,MS5.4
GZH                                 LR     LR
      comp=E,9µm,18.8s,MS5.4
GZH                                 LR     LR
      comp=Z,20µm,19.2s,MS5.7
PSI   Prapat             26.35 277  P      P       18 39 33.6 -0.8
      comp=Z,73nm,0.8s,mb5.2,baz=99,slow=5.4,SNR=77
PSI                                 ScP    ScP     18 46 37.0 -1.4
      comp=Z,9.1nm,0.8s,baz=183,slow=3.9,SNR=9.1
JOW   Kunigami           27.08   6  P      P       18 39 41.2 +0.4
      comp=Z,423nm,0.6s,mb6.2,baz=196,slow=7.4,SNR=37
JOW                                 LR     LR      18 49 38.1
      comp=Z,8µm,21.3s,MS5.3,baz=131,slow=35
JOW   Kunigami           27.08   6  P      P       18 39 41.2 +0.4
JOW                                 LR     LR      18 49 38.1
KKTK  Khon Kaen          27.47 308⇑ P      P       18 39 44.0 -0.4
      comp=Z,1µm,0.5s,mb6.8
CTA   Charters Tower     28.59 135⇑iP      P       18 39 55.3 +0.8
      comp=Z,26nm,1.1s,mb4.9
CTA                                epP     pP      18 40 01.5 -1.1
CTA                                ePCP    PcP     18 43 07.7 +2.3
CTA                                eS      S       18 44 40.6 -0.7
CTA                                eSCP    ScP     18 46 45.8 +0.8
CTA   Charters Tower     28.59 135  P      P       18 39 54.4  0.0
      comp=Z,27nm,0.9s,mb5.0,baz=319,slow=11,SNR=14
CTA                                 ScP    ScP     18 46 46.1 +1.1
      comp=Z,27nm,1.0s,baz=336,slow=3.4,SNR=6.3
CTA   Charters Tower     28.59 135  P      P       18 39 54.4  0.0
CTA                                 ScP    ScP     18 46 46.1 +1.1
CTAO  Charters Tower     28.59 135⇑eP      P       18 39 52.6 -1.9
CTAO                                pmax   pmax
      comp=Z,82nm,1.1s,mb5.4
CTAO                                MLR    MLR
      comp=Z,11µm,22.0s,MS5.4
CTAO  Charters Tower     28.59 135⇑eP      P       18 39 52.5 -1.9
      comp=Z,82nm,1.1s,mb5.4
CTAO                               eScP    ScP     18 46 46.0 +1.0
CTAO                                LR     LR
      comp=Z,11µm,22.0s,MS5.4
CTAO  Charters Tower     28.59 135  P      P       18 39 55.5 +1.0
      comp=Z,110nm,1.2s,mb5.5
BSI   Banda Aceh         30.31 281  P      P       18 40 11.9 +2.1
      comp=Z,74nm,1.6s,mb5.2
COCO  West Island        30.46 246 eP      P       18 40 10.8 -0.3
      comp=Z,749nm,1.4s,mb6.2
COCO  West Island        30.46 246  P      P       18 40 13.5 +2.4
      comp=Z,410nm,1.3s,mb6.0
FORT  Forrest            30.50 175 eP      P       18 40 10.9 -0.3
      comp=Z,199nm,0.6s,mb6.1
FORT                               eSCP    PcS     18 46 57.7 +3.9
FORT  Forrest            30.50 175 eP      P       18 40 10.4 -0.8
      comp=Z,184nm,0.6s,mb6.1
BDT   Bhumibol Dam       31.03 305⇓ P      P       18 40 12.0 -4.1
      comp=Z,64nm,1.0s,mb5.4
SSE   Sheshan            31.38 354  P      P       18 40 19.2 +0.2
SSE                                 pP     pP      18 40 25.2 -1.9
SSE                                 S      S       18 45 27.2 +2.4
SSE                                 sS     sS      18 45 37.7 -0.6
SSE                                 pmax   pmax
      comp=Z,71nm,1.0s,mb5.5
SSE                                 pmax   pmax
      comp=Z,800nm,7.2s
SSE                                 LR     LR
      comp=N,6µm,22.5s,MS5.3
SSE                                 LR     LR
      comp=E,2µm,22.5s,MS5.3
SSE                                 LR     LR
      comp=Z,9µm,22.2s,MS5.4
CMAR  Chiang Mai Arr     31.72 307  P      P       18 40 22.6 +0.5
CMAR                                               18 43 14.7
CMAR  Chiang Mai Arr     31.72 307  P      P       18 40 22.6 +0.4
      comp=Z,50nm,0.9s,mb5.3,baz=135,slow=7.5,SNR=128
CMAR                                PcP    PcP     18 43 14.7 +1.1
      comp=Z,22nm,0.8s,baz=174,slow=1.8,SNR=14
CMAR                                ScP    ScP     18 46 55.9 +0.7
      comp=Z,5.3nm,1.0s,baz=151,slow=3.0,SNR=5.6
CMAR                                PKiKP  PKiKP   18 50 42.8 +0.1
      comp=Z,1.2nm,0.9s,baz=272,slow=1.7,SNR=4.6
CMAR                                LR     LR      18 53 12.1
      comp=Z,6µm,21.8s,MS5.2,baz=310,slow=36
CMAR  Chiang Mai Arr     31.72 307  P      P       18 40 22.6 +0.4
CMAR                                PcP    PcP     18 43 14.7 +1.1
CMAR                                ScP    ScP     18 46 55.9 +0.7
CBIJ  Chichi jima        31.75  30  P      P       18 40 21.9 -0.4
      comp=Z,157nm,0.4s,mb6.2,baz=246,slow=5.6,SNR=24
CHRT  Chiangrai          31.86 310⇑ P      P       18 40 24.0 +0.6
      comp=Z,342nm,1.0s,mb6.1
CHG   Chiang Mai         31.91 308⇑ P      P       18 40 24.3 +0.5
      comp=Z,130nm,1.0s,mb5.7
CHTO  Chiang Mai         31.91 308  P      P       18 40 23.7 -0.1
CHTO                                pmax   pmax
      comp=Z,240nm,1.1s,mb5.9
CHTO  Chiang Mai         31.91 308⇑iP      P       18 40 24.0 +0.1
      comp=Z,241nm,1.1s,mb5.9
CHTO                               ePcP    PcP     18 43 15.6 +1.5
CHTO                               eScP    ScP     18 46 53.3 -2.6
CHTO  Chiang Mai         31.91 308  P      P       18 40 24.6 +0.8
      SNR=64
CHTO                                P              18 40 24.6
      SNR=64
CHTO  Chiang Mai         31.91 308  P      P       18 40 24.0 +0.2
GYA   Guiyang            31.94 328⇑iP      P       18 40 23.6 -0.4
GYA                                 pP     pP      18 40 29.4 -2.8
GYA                                 sP     sP      18 40 32.5 -3.1
GYA                                 PP     PP      18 41 29.0 -7.5
GYA                                 PcP    PcP     18 43 15.2 +1.2
GYA                                 S      S       18 45 31.4 -2.3
GYA                                 ScP    ScP     18 46 56.7 +0.9
GYA                                 ScS    ScS     18 50 51.0 -3.4
GYA                                 pmax   pmax
      comp=Z,60nm,1.0s,mb5.4
GYA                                 pmax   pmax
      comp=Z,1µm,10.2s
GYA                                 LR     LR
      comp=N,5µm,18.5s,MS5.3
GYA                                 LR     LR
      comp=E,4µm,19.4s,MS5.3
GYA                                 LR     LR
      comp=Z,7µm,18.0s,MS5.4
KLBR  Kellerberrin       31.95 192 eP      P       18 40 24.6 +0.6
      comp=Z,23nm,0.5s,mb5.3
KLBR                               ePCP    PcP     18 43 15.1 +1.2
WHN   Wuhan              32.28 342⇓ P      P       18 40 27.6 +0.7
WHN                                 S      S       18 45 53.0  +14
WHN                                 pmax   pmax
      comp=Z,2µm,3.8s
WHN                                 LR     LR
      comp=N,8µm,15.5s,MS5.6
WHN                                 LR     LR
      comp=E,3µm,11.2s,MS5.6
WHN                                 LR     LR
      comp=Z,18µm,21.8s
NJ2   Nanjing            32.65 350 eP      P       18 40 30.7 +0.6
NJ2                                 pP     pP      18 40 36.5 -1.8
NJ2                                 sP     sP      18 40 39.6 -2.1
NJ2                                 PP     PP      18 41 39.4 -4.9
NJ2                                 S      S       18 45 45.5 +0.9
NJ2                                 pmax   pmax
      comp=Z,60nm,1.0s,mb5.5
NJ2                                 pmax   pmax
      comp=Z,460nm,5.7s
NJ2                                 LR     LR
      comp=N,3µm,25.8s,MS5.2
NJ2                                 LR     LR
      comp=E,6µm,26.3s,MS5.2
NJ2                                 LR     LR
      comp=Z,6µm,26.3s,MS5.2
MUN   Mundaring          32.67 194 eP      P       18 40 30.9 +0.6
MUN                                eS      S       18 45 41.7 -3.2
KMI   Kunming            33.22 321  P      P       18 40 36.3 +1.1
KMI                                 pP     pP      18 40 42.9 -0.5
KMI                                 sP     sP      18 40 45.7 -1.1
KMI                                 PP     PP      18 41 48.4 -2.3
KMI                                 S      S       18 45 52.6 -1.1
KMI                                 SS     SS      18 47 59.8  -18
KMI                                 pmax   pmax
      comp=Z,65nm,1.6s,mb5.3
KMI                                 pmax   pmax
      comp=Z,1µm,3.7s
KMI                                 LR     LR
      comp=N,4µm,19.4s,MS5.3
KMI                                 LR     LR
      comp=E,3µm,21.0s,MS5.3
KMI                                 LR     LR
      comp=Z,7µm,24.3s,MS5.3
NWAO  Narrogin (SRO)     33.35 192  P      P       18 40 38.1 +1.9
NWAO                                pmax   pmax
      comp=Z,20nm,0.7s
NWAO  Narrogin (SRO)     33.35 192  P      P       18 40 35.8 -0.4
      comp=Z,24nm,0.6s,mb5.3,baz=17,slow=8.8,SNR=5.3
NWAO                                LR     LR      18 56 57.3
      comp=Z,3µm,18.3s,MS5.1,baz=20,slow=41
NWAO  Narrogin (SRO)     33.35 192 eP      P       18 40 37.1 +0.9
      comp=Z,20nm,0.7s,mb5.2
STKA  Stephens Creek     35.12 155 eP      P       18 40 51.2 -0.4
      comp=Z,87nm,0.9s,mb5.7
STKA                               eS      S       18 46 18.0 -4.8
STKA                               eSCP    ScP     18 47 06.6 -0.2
STKA  Stephens Creek     35.12 155  P      P       18 40 51.3 -0.3
      comp=Z,104nm,0.9s,mb5.8,baz=328,slow=8.3,SNR=105
STKA                                S      S       18 46 19.9 -2.9
      comp=Z,22nm,1.2s,baz=233,slow=22,SNR=3.6
EIDS  Eidsvold           35.41 137⇓eP      P       18 40 52.5 -1.7
      comp=Z,57nm,1.2s,mb5.4
EIDS                               eScP    ScP     18 47 08.0  0.0
HNR   Honiara            35.86 106  P      P       18 40 57.4 -0.8
HNR                                 pmax   pmax
      comp=Z,170nm,1.0s,mb5.9
HNR   Honiara            35.86 106  P      P       18 40 57.3 -0.9
      comp=Z,109nm,1.0s,mb5.8,baz=284,slow=3.1,SNR=5.0
HNR   Honiara            35.86 106 eP      P       18 40 55.8 -2.4
      comp=Z,173nm,0.9s,mb6.0
JHJ   Hachijo jima 2     35.94  21  LR     LR      18 56 51.9
      comp=Z,4µm,18.4s,MS5.2,baz=159,slow=38
CD2   Chengdu            37.02 329  P      P       18 41 07.0 -0.9
CD2                                 pP     pP      18 41 16.0 -0.1
CD2                                 sP     sP      18 41 19.0 -0.5
CD2                                 PP     PP      18 42 34.5 +1.9
CD2                                 S      S       18 46 47.7 -4.3
CD2                                 sS     sS      18 47 06.7 +1.1
CD2                                 SS     SS      18 49 26.4 -8.4
CD2                                 pmax   pmax
      comp=Z,160nm,1.3s,mb5.7
CD2                                 pmax   pmax
      comp=Z,1µm,6.3s
CD2                                 LR     LR
      comp=N,8µm,21.0s
CD2                                 LR     LR
      comp=Z,8µm,20.3s,MS5.5
CD2   Chengdu            37.02 329  P      P       18 41 10.7 +2.8
CD2                                 pP     pP      18 41 22.9 +6.8
CD2                                 sP     sP      18 41 28.3 +8.8
CD2                                 PcP    PcP     18 43 30.4 +1.8
CD2                                 S      S       18 46 53.9 +1.9
CD2                                 sS     sS      18 47 14.3 +8.7
CD2                                 SS     SS      18 49 26.3 -8.5
CD2                                 pmax   pmax
      comp=Z,180nm,1.5s,mb5.7
CD2                                 pmax   pmax
      comp=Z,1µm,5.9s
CD2                                 LR     LR
      comp=N,8µm,22.0s
CD2                                 LR     LR
      comp=Z,8µm,21.4s,MS5.5
XAN   Xi’an              37.33 338  P      P       18 41 09.1 -1.3
XAN                                 pP     pP      18 41 15.3 -3.4
XAN                                 sP     sP      18 41 18.3 -3.8
XAN                                 PP     PP      18 42 35.3 -0.6
XAN                                 PcP    PcP     18 43 29.6 +0.2
XAN                                 S      S       18 46 53.5 -3.0
XAN                                 ScP    ScP     18 47 15.1 +0.2
XAN                                 PcS    PcS     18 47 17.3 -0.5
XAN                                 ScS    ScS     18 51 22.0 -0.9
XAN                                 pmax   pmax
      comp=Z,160nm,1.3s,mb5.7
XAN                                 pmax   pmax
      comp=Z,910nm,14.5s
XAN                                 LR     LR
      comp=N,4µm,21.2s,MS5.3
XAN                                 LR     LR
      comp=E,3µm,20.4s,MS5.3
XAN                                 LR     LR
      comp=Z,10µm,18.6s,MS5.7
INCN  Inchon             37.56   2 eP      P       18 41 12.1 -0.2
      comp=Z,135nm,0.9s,mb5.7
KSRS  Korea Array        37.59   4  P      P       18 41 13.5 +0.9
      comp=Z,96nm,0.9s,mb5.5,baz=171,slow=9.0,SNR=30
KSRS                                PcP    PcP     18 43 30.8 +0.7
      comp=Z,24nm,0.7s,baz=181,slow=2.8,SNR=12
KSRS                                ScP    ScP     18 47 16.6 +0.7
      comp=Z,5.7nm,0.9s,baz=186,slow=4.3,SNR=4.9
KSRS                                LR     LR      18 55 58.8
      comp=Z,6µm,22.0s,MS5.4,baz=184,slow=35
MAJO  Matsushiro         38.56  17  P      P       18 41 20.1 -0.7
MAJO                                pmax   pmax
      comp=Z,150nm,0.7s,mb5.8
MAJO  Matsushiro         38.56  17⇑iP      P       18 41 19.7 -1.1
      comp=Z,148nm,0.6s,mb5.9
MAJO                               eS      S       18 47 09.7 -5.4
MAT   Matsushiro         38.56  17  P      P       18 41 20.0 -0.8
MAT                                 S      S       18 47 10.0 -5.2
MJAR  Matsushiro Arr     38.56  17  P      P       18 41 20.4 -0.4
MJAR                                               18 43 34.2
MJAR                                S      S       18 47 11.5 -3.6
MJAR  Matsushiro Arr     38.56  17  P      P       18 41 20.4 -0.4
      comp=Z,70nm,0.7s,mb5.5,baz=190,slow=8.4,SNR=227
MJAR                                PcP    PcP     18 43 34.2 +1.1
      comp=Z,17nm,0.8s,baz=185,slow=3.4,SNR=5.0
MJAR                                S      S       18 47 11.5 -3.7
      comp=Z,7.7nm,0.9s,baz=188,slow=14,SNR=7.5
MJAR                                ScP    ScP     18 47 21.1 +1.6
      comp=Z,18nm,1.2s,baz=212,slow=6.9,SNR=6.9
MJAR  Matsushiro Arr     38.56  17  P      P       18 41 20.4 -0.4
MJAR                                PcP    PcP     18 43 34.2 +1.1
MJAR                                S      S       18 47 11.5 -3.7
MJAR                                ScP    ScP     18 47 21.1 +1.6
DL2   Dalian             39.08 356  P      P       18 41 25.0 -0.1
DL2                                 S      S       18 47 23.4 +0.4
DL2                                 pmax   pmax
      comp=Z,100nm,1.0s,mb5.5
DL2                                 pmax   pmax
      comp=Z,600nm,8.3s
DL2                                 LR     LR
      comp=N,3µm,23.0s
IMP   Imphal             39.11 312 ePKP    P       18 41 26.0 +0.4
IMP                                ex      x       18 42 51.0
ARMA  Armidale           39.19 142⇓iP      P       18 41 26.6 +0.4
ARMA                               e               18 41 45.2
ARMA                               eS      S       18 47 24.7 -0.2
ARMA  Armidale           39.19 142 eP      P       18 41 25.8 -0.4
      comp=N,81nm,0.8s,mb5.5
ARMA                               eScP    ScP     18 47 23.8 +1.7
AGT   Agartala           40.67 309 ePKP    P       18 41 35.0 -3.6
AGT                                ex      x       18 42 07.0
BJT   Baijiatuau         40.89 349⇑iP      P       18 41 38.8 -1.3
BJT                                 pmax   pmax
      comp=Z,158nm,0.8s
BJT   Baijiatuau         40.89 349⇑iP      P       18 41 38.8 -1.4
      comp=Z,158nm,0.8s,mb5.7
BJI   Beijing            40.91 350  P      P       18 41 39.9 -0.4
BJI                                 PP     PP      18 43 15.1 +0.1
BJI                                 SS     SS      18 50 56.5 +4.0
BJI                                 pmax   pmax
      comp=Z,190nm,2.0s,mb5.4
BJI                                 pmax   pmax
      comp=Z,1µm,3.4s
BJI                                 LR     LR
      comp=N,4µm,28.7s,MS5.3
BJI                                 LR     LR
      comp=E,4µm,24.7s,MS5.3
BJI                                 LR     LR
      comp=Z,8µm,29.9s
SHL   Shillong           41.08 311⇑iP      P       18 41 43.0 +1.0
SHL                                ex      x       18 47 33.0
SHL                                ex      x       18 51 20.0
LZH   Lanzhou            41.20 334⇑iP      P       18 41 42.9 +0.2
LZH                                 pP     pP      18 41 55.8 +4.7
LZH                                 PP     PP      18 43 23.6 +5.4
LZH                                 ScP    ScP     18 47 30.4 +0.6
LZH                                 PcS    PcS     18 47 33.6 +0.9
LZH                                 S      S       18 47 52.0 -2.7
LZH                                 sS     sS      18 48 17.3 +8.9
LZH                                 SS     SS      18 51 00.4 +2.0
LZH                                 pmax   pmax
      comp=Z,280nm,1.1s,mb5.8
LZH                                 pmax   pmax
      comp=Z,770nm,5.4s
LZH                                 LR     LR
      comp=E,8µm,15.1s
LZH                                 LR     LR
      comp=Z,12µm,18.5s,MS5.8
RIV   Riverview          41.40 146 eP      P       18 41 47.5 +3.1
CAN   Canberra           41.40 150⇓eP      P       18 41 44.8 +0.3
CAN                                 pmax   pmax
      comp=Z,183nm,1.2s,mb5.6
CAN   Canberra           41.40 150⇓eP      P       18 41 44.8 +0.3
      comp=Z,183nm,1.2s,mb5.6
CNB   Canberra Magne     41.58 150 eP      P       18 41 47.7 +1.8
CNB                                eS      S       18 48 00.7 +0.3
TOO   Toolangi           41.64 155 eP      P       18 41 48.1 +1.7
TOO                                eS      S       18 47 58.8 -2.4
SNY   Shenyang           41.89 358⇑ P      P       18 41 47.8 -0.5
SNY                                 pP     pP      18 41 57.8 +1.1
SNY                                 pmax   pmax
      comp=Z,160nm,1.5s,mb5.4
SNY                                 pmax   pmax
      comp=Z,1µm,4.7s
SNY                                 LR     LR
      comp=N,3µm,19.8s,MS5.4
SNY                                 LR     LR
      comp=E,5µm,20.8s,MS5.4
SNY                                 LR     LR
      comp=Z,5µm,27.9s
CAL   Calcutta           42.36 305 ex      x       18 41 41.9
CAL                                ex      x       18 44 01.6
CAL                                 AMP            18 59 27.8
      comp=N,1µm,0.4s
HHC   Hu-ho-hao-te       42.71 345 eP      P       18 41 55.0  0.0
HHC                                 pP     pP      18 42 07.5 +4.2
HHC                                 PP     PP      18 43 37.6 +3.2
HHC                                 PcP    PcP     18 43 47.0 +0.5
HHC                                 PcS    PcS     18 47 36.9 -1.6
HHC                                eS      S       18 48 13.3 -3.5
HHC                                 sS     sS      18 48 36.3 +5.7
HHC                                 ScS    ScS     18 51 49.6 -4.8
HHC                                 pmax   pmax
      comp=Z,61nm,1.3s,mb5.2
HHC                                 pmax   pmax
      comp=Z,810nm,4.8s
HHC                                 LR     LR
      comp=N,4µm,18.6s,MS5.4
HHC                                 LR     LR
      comp=E,2µm,19.2s,MS5.4
HHC                                 LR     LR
      comp=Z,6µm,22.6s,MS5.4
BTO   Baotou             42.91 343 eP      P       18 41 54.5 -2.1
CN2   Changchun          43.84   0⇑ P      P       18 42 03.3 -0.8
CN2                                epP     pP      18 42 09.3 -3.2
CN2                                 PcP    PcP     18 43 49.5 -0.7
CN2                                eS      S       18 48 33.7 +0.3
CN2                                 pmax   pmax
      comp=Z,200nm,3.0s
CN2                                 LR     LR
      comp=N,2µm,17.0s,MS5.4
CN2                                 LR     LR
      comp=E,3µm,17.0s,MS5.4
CN2                                 LR     LR
      comp=Z,3µm,23.0s
LSA   Lhasa              43.98 316  P      P       18 42 06.2 +0.8
LSA                                 pP     pP      18 42 17.8 +4.0
LSA                                 LR     LR
      comp=N,2µm,30.5s,MS5.2
LSA                                 LR     LR
      comp=E,4µm,31.4s,MS5.2
LSA                                 LR     LR
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	comp=Z,6µm,31.4s,MS5.3						
VIS	**Vishakhapatnam**	**44.80**	**296**	*e*PKP	**P**	**18 42 11.5**	**-0.8**
VIS				AMb	AMB	18 42 16.3	
	comp=Z,106nm,1.1s,mb5.6						
MDJ	**Mudanjiang**	**44.84**	**5**	P	**P**	**18 42 12.9**	**+0.9**
MDJ				pP	pP	18 42 19.1	-1.3
MDJ				sP	sP	18 42 21.9	-1.9
MDJ				PcP	PcP	18 43 54.2	+0.6
MDJ				PP	PP	18 44 00.9	+3.7
MDJ				ScP	ScP	18 47 44.8	+0.5
MDJ				PcS	PcS	18 47 48.1	+1.1
MDJ				S	**S**	**18 48 50.5**	**+2.7**
MDJ				pmax	pmax		
	comp=Z,180nm,0.9s,mb5.9						
MDJ				pmax	pmax		
	comp=Z,1µm,8.8s						
MDJ				LR	LR		
	comp=N,3µm,24.2s						
MDJ				LR	LR		
	comp=E,560nm,32.1s						
MDJ				LR	LR		
	comp=Z,4µm,24.2s,MS5.3						
MDJ	**Mudanjiang**	**44.84**	**5**	⇑*i*P	**P**	**18 42 12.2**	**+0.2**
	comp=Z,250nm,1.1s,mb6.0						
PALK	**Pallekele**	**44.91**	**280**	⇑*e*P	**P**	**18 42 11.0**	**-2.2**
PALK				*e*		18 43 50.9	
PALK				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.0						
PALK	**Pallekele**	**44.91**	**280**	⇑*e*P	**P**	**18 42 11.0**	**-2.2**
	comp=Z,22nm,0.8s,mb5.0						
PALK				*e*PcP	PcP	18 43 50.9	-3.7
PALK	**Pallekele**	**44.91**	**280**	P	**P**	**18 42 14.8**	**+1.6**
BOK	**Bokaro**	**44.93**	**305**	*e*PKP	**P**	**18 42 13.2**	**0.0**
ERM	**Erimo**	**45.10**	**19**	P	**P**	**18 42 16.5**	**+2.3**
	comp=Z,514nm,0.9s,mb6.4,SNR=8.2						
ERM	**Erimo**	**45.10**	**19**	P	**P**	**18 42 16.0**	**+1.8**
ERM				pmax	pmax		
	comp=Z,81nm,0.9s,mb5.5						
ERM	**Erimo**	**45.10**	**19**	⇓*i*P	**P**	**18 42 15.1**	**+0.9**
	comp=Z,81nm,0.9s,mb5.5						
ODAN	**Odare**	**45.19**	**310**	*e*P	**P**	**18 42 14.7**	**-0.5**
	comp=Z,100nm,0.5s,mb5.9						
TAPN	**Taplejung**	**45.19**	**310**	*e*P	**P**	**18 42 14.9**	**-0.3**
NOUC	**Port Laguerre**	**45.62**	**121**	*e*P	**P**	**18 42 18.4**	**-0.3**
DZM	**Mont Dzumac**	**45.73**	**121**	*e*P	**P**	**18 42 19.4**	**-0.2**
GTA	**Gaotai**	**45.75**	**332**	*e*P	**P**	**18 42 18.8**	**-0.6**
GTA				pP	pP	18 42 25.0	-2.8
GTA				sP	sP	18 42 27.6	-3.5
GTA				PcP	PcP	18 43 57.9	+1.0
GTA				ScP	ScP	18 47 48.6	+0.4
GTA				PcS	PcS	18 47 50.9	-0.1
GTA				S	**S**	**18 49 01.7**	**+0.5**
GTA				ScS	ScS	18 52 11.3	-2.5
GTA				pmax	pmax		
	comp=Z,1µm,6.5s						
GTA				LR	LR		
	comp=N,4µm,23.8s,MS5.5						
GTA				LR	LR		
	comp=E,6µm,19.9s,MS5.5						
GTA				LR	LR		
	comp=Z,9µm,19.6s,MS5.7						
RAMN	**Ramite**	**45.84**	**309**	*e*P	**P**	**18 42 20.1**	**-0.3**
	comp=Z,272nm,0.5s,mb6.5						
MDRS	**Chennai**	**46.39**	**288**	*e*x	x	18 43 54.2	
MOO	**Moorlands**	**46.47**	**157**	*e*P	**P**	**18 42 27.8**	**+2.8**
MOO				*e*S	**S**	**18 49 12.9**	**+1.4**
JIRN	**Jiri**	**46.51**	**310**	*e*P	**P**	**18 42 25.3**	**-0.3**
	comp=Z,189nm,0.6s,mb6.2						
ASAJ	**Asahikawa**	**46.83**	**17**	P	**P**	**18 42 28.0**	**+0.2**
	comp=Z,109nm,0.7s,mb5.9,baz=228,slow=11,SNR=129						
ASAJ				ScP	ScP	18 47 53.4	+0.8
	comp=Z,14nm,1.1s,baz=189,slow=11,SNR=4.7						
GUN	**Gumba**	**46.88**	**310**	*e*P	**P**	**18 42 27.8**	**-0.7**
	comp=Z,348nm,0.7s,mb6.4						
PKI	**Pulchoki**	**47.07**	**309**	*e*P	**P**	**18 42 29.2**	**-0.8**
	comp=Z,529nm,1.4s,mb6.3						
KKN	**Kakani**	**47.28**	**309**	*e*P	**P**	**18 42 30.9**	**-0.7**
DMN	**Daman**	**47.32**	**309**	*e*P	**P**	**18 42 31.4**	**-0.6**
YUK	**Yuzh-Kuril’sk**	**47.81**	**20**	⇑*i*P	**P**	**18 42 35.7**	**+0.3**
YUK				*e*		18 44 18.8	
YUK				*e*S	**S**	**18 49 25.0**	**-5.5**
YUK				*e*		18 49 43.5	
YUK				*e*SS	SS	18 52 24.0	-35
YUK				pmax	pmax		
	comp=Z,270nm,0.5s,mb6.5						
YUK				pmax	pmax		
	comp=Z,2µm,2.2s,mb6.8						
YUK				pmax	pmax		
	comp=N,2µm,3.0s						
YUK				pmax	pmax		
	comp=E,800nm,1.3s						
YUK				smax			
	comp=N,2µm,3.0s						
YUK				smax			
	comp=E,2µm,3.0s						
GKN	**Gorkha**	**47.88**	**309**	*e*P	**P**	**18 42 35.3**	**-1.0**
KOLN	**Koldanda**	**48.57**	**308**	*e*P	**P**	**18 42 41.0**	**-0.7**
	comp=E,538nm,0.8s,mb6.6						
DANN	**Dangsing**	**48.72**	**309**	*e*P	**P**	**18 42 41.9**	**-0.9**
	comp=E,489nm,0.6s,mb6.7						
TRD	**Trivandrum**	**48.75**	**281**	⇑*e*PKP	**P**	**18 42 43.0**	**-0.3**
TRD				*e*x	x	18 49 27.0	
ALBI	**Allahabad**	**48.93**	**305**	*e*x	x	18 42 41.0	
HYB	**Hyderabad**	**49.06**	**293**	*e*P	**P**	**18 42 44.0**	**-1.5**
HYB				pmax	pmax		
	comp=Z,215nm,1.0s,mb6.1						
HYB	**Hyderabad**	**49.06**	**293**	*i* P	**P**	**18 42 44.0**	**-1.5**
	comp=Z,215nm,1.0s,mb6.1						
HYB				*e*S	**S**	**18 49 48.0**	**-1.0**
HYB	**Hyderabad**	**49.06**	**293**	*e*P	**P**	**18 42 44.0**	**-1.5**
	comp=Z,215nm,1.0s,mb6.1						
HYB				*e*S	S	18 50 10.0	+21
PYUN	**Piuthan**	**49.20**	**308**	*e*P	**P**	**18 42 45.7**	**-0.8**
HABR	**Khabarovsk**	**49.28**	**9**	*i* P	**P**	**18 42 47.0**	**+0.4**
HABR				*e**SP	sP	18 42 58.7	+0.3
HABR				*e*		18 44 07.3	
HABR				*e*		18 44 37.9	
HABR				*e*S	**S**	**18 49 51.8**	**+0.8**
HABR				*e**SS	sS	18 50 04.7	-0.2
HABR				*e*		18 52 33.9	
HABR				SS	SS	18 53 21.2	-1.7
HABR				SSS		18 54 41.5	
HABR				pmax	pmax		
	comp=E,79nm,1.9s						
HABR				pmax	pmax		
	comp=Z,3µm,6.8s						
HABR				pmax	pmax		
	comp=Z,282nm,1.7s,mb6.0						
HABR				pmax	pmax		
	comp=N,72nm,1.1s						
HABR				MLR	MLR		
	comp=N,941nm,18.0s,MS5.0						
HABR				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.0						
HABR				MLR	MLR		
	comp=E,943nm,17.0s,MS5.0						
YSS	**Yuzh-Sakhalins**	**49.47**	**16**	*αe*P	**P**	**18 42 47.6**	**-0.6**
YSS				*e**PP	pP	18 42 57.1	+0.5
YSS				*e**SP	sP	18 43 04.8	+4.8
YSS				*e*		18 44 10.0	
YSS				*e*		18 44 49.0	
YSS				*e*S	**S**	**18 49 50.0**	**-3.8**
YSS				*e*SS	SS	18 53 22.0	-4.1
YSS				pmax	pmax		
	comp=N,70nm,1.2s						
YSS				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.9						
YSS				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
YSS				MLR	MLR		
	comp=N,1µm,18.0s						
YSS	**Yuzh-Sakhalins**	**49.47**	**16**	⇑*i*P	**P**	**18 42 47.8**	**-0.4**
	comp=N,185nm,1.3s,mb6.0						
YSS				*e*PP	PP	18 44 45.7	+3.1
YSS				*e*ScP	ScP	18 48 03.5	-0.2
KLR	**Kul’dur**	**49.60**	**6**	*de*P	**P**	**18 42 44.7**	**-4.4**
KLR				*e*S	**S**	**18 49 45.0**	**-11**
KLR				pmax	pmax		
	comp=Z,300nm,1.6s,mb6.1						
KLR				pmax	pmax		
	comp=Z,2µm,9.0s						
JBP	**Jabalpur**	**49.63**	**301**	⇑*e*PKP	**P**	**18 42 49.1**	**-0.7**
JBP				*e*x	x	18 50 19.8	
ULN	**Ulaanbaatar**	**50.42**	**344**	⇑*i*P	**P**	**18 42 55.3**	**-0.1**
ULN	**Ulaanbaatar**	**50.42**	**344**	⇑*i*P	**P**	**18 42 54.7**	**-0.7**
	comp=Z,137nm,1.0s,mb5.9						
ULN				*e*PcP	PcP	18 44 14.4	+0.9
ULN				*e*PP	PP	18 44 52.5	+1.3
ULN				*e*ScP	ScP	18 48 04.8	-3.0
SONM	**Songino Array**	**50.57**	**344**	P	**P**	**18 42 56.2**	**-0.3**
	comp=Z,54nm,0.7s,mb5.6,baz=156,slow=8.4,SNR=106						
SONM				LR	LR	19 05 05.0	
	comp=Z,5µm,20.3s,MS5.5,baz=153,slow=37						
SONM				PKPPKP		19 13 50.4	
	comp=Z,0.5nm,0.8s,baz=329,slow=1.0,SNR=3.6						
LATR	**Latur**	**51.16**	**294**	*e*PKP	**P**	**18 43 01.0**	**-0.4**
MNGI	**Mangalore**	**51.54**	**287**	*e*PKP	**P**	**18 43 03.5**	**-0.9**
MNGI				AMb	AMB	18 43 06.2	
	comp=Z,66nm,0.4s,mb5.9						
BHPL	**Bhopal**	**51.86**	**300**	*e*PKP	**P**	**18 43 05.5**	**-1.1**
LGTI	**Lohaghat**	**51.96**	**309**	*e*PKP	**P**	**18 43 05.5**	**-1.8**
LGTI				*e*x	x	18 45 02.6	
PTH	**Pithoragarh**	**52.03**	**309**	*e*PKP	**P**	**18 43 08.0**	**+0.2**
PTH				*e*x	x	18 48 21.0	
CIT	**Chita**	**52.97**	**351**	*e*P	**P**	**18 43 14.6**	**+0.3**
CIT				*e*		18 44 20.3	
CIT				*e*		18 52 58.3	
CIT				pmax	pmax		
	comp=Z,435nm,2.0s,mb6.0						
KAD	**Karad**	**53.06**	**292**	*e*PKP	**P**	**18 43 13.7**	**-2.0**
POO	**Poona**	**53.67**	**293**	⇑*i*P	**P**	**18 43 18.0**	**-2.1**
	comp=Z,150nm,1.0s,mb5.9						
ZAK	**Zakamensk**	**53.76**	**343**	*e*P	**P**	**18 43 19.7**	**-0.5**
ZAK				*e*		18 50 50.3	
ZAK				pmax	pmax		
	comp=Z,71nm,1.3s,mb5.4						
NDI	**New Delhi**	**54.04**	**306**	*e*PKP	**P**	**18 43 21.0**	**-1.7**
NDI				*e*x	x	18 51 52.0	
TLY	**Talaya**	**54.81**	**344**	P	**P**	**18 43 28.2**	**+0.4**
	comp=Z,594nm,1.0s,mb6.6,SNR=22						
TLY	**Talaya**	**54.81**	**344**	*e*P	**P**	**18 43 27.7**	**-0.1**
TLY				*e*		18 45 30.8	
TLY				*e*PPP		18 46 39.1	
TLY				*e*S	**S**	**18 51 09.5**	**+2.5**
TLY				*e*SS	SS	18 54 50.5	-0.1
TLY				pmax	pmax		
	comp=Z,245nm,1.6s,mb6.0						
TLY				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
TLY	**Talaya**	**54.81**	**344**	⇑*i*P	**P**	**18 43 27.7**	**-0.1**
	comp=Z,219nm,1.3s,mb6.0						
TLY	**Talaya**	**54.81**	**344**	P	**P**	**18 43 29.1**	**+1.3**
	SNR=53						
TLY				P		18 43 29.1	
	SNR=53						
WMQ	**Urumqi**	**55.10**	**328**	P	**P**	**18 43 29.6**	**-0.5**
WMQ				pP	pP	18 43 40.0	+1.4
WMQ				sP	sP	18 43 44.0	+2.1
WMQ				PcP	PcP	18 44 30.0	-1.2
WMQ				PP	PP	18 45 34.0	+0.4
WMQ				ScP	ScP	18 48 25.0	-3.2
WMQ				S	**S**	**18 51 07.0**	**-4.2**
WMQ				sS	sS	18 51 26.0	+0.8
WMQ				ScS	ScS	18 53 13.0	-4.5
WMQ				pmax	pmax		
	comp=Z,160nm,1.2s,mb5.9						
WMQ				pmax	pmax		
	comp=Z,920nm,3.5s						
WMQ				LR	LR		
	comp=N,5µm,20.7s,MS5.7						
WMQ				LR	LR		
	comp=E,4µm,21.8s,MS5.7						
WMQ				LR	LR		
	comp=Z,5µm,24.0s,MS5.5						
IRK	**Irkutsk**	**55.15**	**345**	*e*P	**P**	**18 43 30.0**	**-0.2**
IRK				*e*		18 45 29.9	
IRK				*e*S	**S**	**18 51 14.7**	**+3.2**
IRK				*e*		18 53 14.4	
IRK				pmax	pmax		
	comp=Z,213nm,1.6s,mb5.9						
AJM	**Ajmer**	**55.34**	**303**	*e*PKP	**P**	**18 43 31.6**	**-0.5**
SDNR	**Sundarnagar**	**55.40**	**309**	*e*PKP	**P**	**18 43 32.6**	**+0.2**
SDNR				*e*S	**S**	**18 51 14.0**	**-1.5**
MOY	**Mondy**	**55.58**	**342**	*e*P	**P**	**18 43 33.9**	**+0.5**
MOY				pmax	pmax		
	comp=Z,313nm,1.8s,mb6.0						
BHK	**Bhakra**	**55.79**	**309**	*e*PKP	**P**	**18 43 33.0**	**-2.3**
DLH	**Dalhousie**	**56.61**	**310**	*e*PKP	**P**	**18 43 40.0**	**-1.1**
THN	**Thein Dam**	**56.76**	**310**	*e*PKP	**P**	**18 43 39.4**	**-2.7**
THN				*e*x	x	18 53 26.2	
BOD	**Bodaibo**	**58.55**	**353**	⇓*i*P	**P**	**18 43 54.4**	**+0.1**
BOD				pmax	pmax		
	comp=Z,250nm,1.3s,mb6.1						
RPZ	**Rata Peaks**	**59.53**	**143**	P	**P**	**18 44 01.1**	**-0.2**
	comp=Z,21nm,0.6s,mb5.4,baz=311,slow=2.8,SNR=3.7						
PETK	**Petropavlovsk-**	**59.69**	**22**	P	**P**	**18 44 03.0**	**+0.8**
	comp=Z,229nm,0.7s,mb6.3,baz=184,slow=3.2,SNR=207						
KSH	**Kashi**	**59.77**	**317**	P	**P**	**18 44 04.8**	**+1.7**
KSH				*e*pP	pP	18 44 10.5	-1.2
KSH				*e*sP	sP	18 44 14.0	-1.0
KSH				PP	PP	18 46 18.0	+2.8
KSH				*e*ScP	ScP	18 48 48.1	-0.9
KSH				*e*PcS	PcS	18 48 51.2	-0.6
KSH				S	**S**	**18 52 12.4**	**-0.2**
KSH				ScS	ScS	18 53 50.2	-1.6
KSH				SS	SS	18 56 10.4	+1.3
KSH				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
KSH				LR	LR		
	comp=N,5µm,21.3s						
KSH				LR	LR		
	comp=E,1µm,9.8s						
KSH				LR	LR		
	comp=Z,4µm,15.3s						
MK31	**Makanchi Array**	**59.94**	**327**	*e*P	**P**	**18 44 03.0**	**-1.1**
MK31				pmax	pmax		
	comp=Z,61nm,0.5s,mb5.9						
MKAR	**Makanchi Array**	**59.94**	**327**	P	**P**	**18 44 03.9**	**-0.2**
MKAR				S	**S**	**18 52 10.4**	**-4.1**
MKAR	**Makanchi Array**	**59.94**	**327**	P	**P**	**18 44 03.9**	**-0.2**
	comp=Z,67nm,0.4s,mb6.0,baz=125,slow=7.8,SNR=307						
MKAR				ScP	ScP	18 48 50.2	+0.7
	comp=Z,6.5nm,0.8s,baz=123,slow=4.5,SNR=3.8						
MKAR				S	**S**	**18 52 10.4**	**-4.1**
	comp=Z,0.9nm,0.7s,baz=319,slow=4.8,SNR=2.4						
MKAR				LR	LR	19 11 36.6	
	comp=Z,6µm,19.8s,MS5.7,baz=124,slow=38						
MKAR				PKP2bc		19 13 30.8	
	comp=Z,0.8nm,0.8s,baz=333,slow=1.4,SNR=5.7						
MKAR	**Makanchi Array**	**59.94**	**327**	P	**P**	**18 44 03.9**	**-0.2**
MKAR				ScP	ScP	18 48 50.2	+0.7
MKAR				S	**S**	**18 52 10.4**	**-4.1**
MKAR				LR	LR	19 11 36.6	
MKAR				⇑*e*		19 13 30.8	
PET	**Petropavlovsk**	**59.99**	**23**	⇑*i*P	**P**	**18 44 05.2**	**+0.9**
PET				*e**PP	pP	18 44 20.5	+7.6
PET				*i* S	**S**	**18 52 14.6**	**-0.3**
PET				*e*SS	SS	18 56 16.5	+4.6
PET				*e*SSS		18 58 48.0	
PET				pmax	pmax		
	comp=Z,185nm,0.8s,mb6.2						
PET				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.3						
PET	**Petropavlovsk**	**59.99**	**23**	⇑*i*P	**P**	**18 44 05.5**	**+1.2**
	comp=Z,59nm,0.6s,mb5.8						
SNZO	**South Karori**	**60.59**	**139**	*e*P	**P**	**18 44 08.7**	**0.0**
	comp=Z,87nm,1.1s,mb5.8						
URZ	**Urewera**	**60.84**	**135**	P	**P**	**18 44 09.3**	**-1.1**
	comp=Z,10nm,0.4s,mb5.3,baz=227,slow=7.1,SNR=1.7						
ULHL	**Ulahol**	**60.94**	**320**	P	**P**	**18 44 14.3**	**+3.2**
	SNR=10						
KZA	**Kyzart**	**61.50**	**320**	P	**P**	**18 44 18.8**	**+4.0**
	SNR=88						
TKM2	**Tokmak 2**	**61.70**	**321**	⇑*i*P	**P**	**18 44 15.3**	**-0.8**
TKM2				pmax	pmax		
	comp=Z,96nm,0.5s,mb6.2						
TKM2	**Tokmak 2**	**61.70**	**321**	P	**P**	**18 44 18.9**	**+2.7**
	SNR=23						
TKM2	**Tokmak 2**	**61.70**	**321**	⇑*i*P	**P**	**18 44 15.3**	**-0.9**
	comp=Z,96nm,0.5s,mb6.2						
KRAR	**Krasnoyarsk**	**61.86**	**340**	*ce*P	**P**	**18 44 16.6**	**-0.3**
KRAR				pmax	pmax		
	comp=Z,165nm,1.4s,mb6.0						
KRAR				MLR	MLR		
	comp=Z,4µm,24.0s,MS5.5						
KBK	**Karagaybulak**	**61.98**	**320**	P	**P**	**18 44 21.6**	**+3.6**
	SNR=12						
UCH	**Uchtor**	**62.05**	**319**	P	**P**	**18 44 22.2**	**+3.7**
	SNR=13						
UCH	**Uchtor**	**62.05**	**319**	⇑*e*P	**P**	**18 44 17.7**	**-0.8**
	comp=Z,120nm,0.8s,mb6.1						
UCH				*e*S	**S**	**18 52 44.7**	**+3.1**
YAK	**Yakutsk**	**62.20**	**2**	*c i*P	**P**	**18 44 19.1**	**0.0**
YAK				*e*		18 44 57.0	
YAK				*e*		18 46 35.7	
YAK				*e*PPP		18 48 02.6	
YAK				*e*S	**S**	**18 52 38.0**	**-4.8**
YAK				*e*		18 54 02.4	
YAK				*e*SS	SS	18 56 43.2	-3.1
YAK				pmax	pmax		
	comp=Z,230nm,0.9s,mb6.3						
YAK				pmax	pmax		
	comp=E,14nm,1.3s						
YAK				pmax	pmax		
	comp=N,90nm,1.2s						
YAK				pmax	pmax		
	comp=Z,57nm,1.6s,mb5.5						
YAK				pmax	pmax		
	comp=N,59nm,1.5s						
YAK				pmax	pmax		
	comp=E,48nm,1.2s						
YAK				smax			
	comp=N,669nm,1.7s						
YAK				smax			
	comp=E,476nm,2.0s						
YAK	**Yakutsk**	**62.20**	**2**	⇑*i*P	**P**	**18 44 18.4**	**-0.8**
	comp=E,361nm,0.7s,mb6.6						
YAK				*e*S	**S**	**18 52 38.1**	**-4.7**
AAK	**Ala-Archa**	**62.26**	**320**	P	**P**	**18 44 21.8**	**+1.9**
	comp=E,732nm,1.1s,mb6.7,SNR=13						
AAK	**Ala-Archa**	**62.26**	**320**	⇑*i*P	**P**	**18 44 19.2**	**-0.7**
AAK				*e*S	**S**	**18 52 41.0**	**-3.3**
AAK				pmax	pmax		
	comp=Z,90nm,0.8s,mb6.0						
AAK				MLR	MLR		
	comp=Z,6µm,22.0s,MS5.7						
AAK	**Ala-Archa**	**62.26**	**320**	P	**P**	**18 44 21.0**	**+1.1**
	SNR=50						
AAK	**Ala-Archa**	**62.26**	**320**	⇑*i*P	**P**	**18 44 19.2**	**-0.7**
	comp=Z,90nm,0.8s,mb6.0						
AAK				*e*S	**S**	**18 52 41.0**	**-3.3**
AAK				LR	LR		
	comp=Z,6µm,22.0s,MS5.7						
AAK	**Ala-Archa**	**62.26**	**320**	P	**P**	**18 44 20.8**	**+0.9**
	SNR=30						
AAK				P		18 44 20.8	
	SNR=30						
CHMS	**Chumysh**	**62.27**	**320**	P	**P**	**18 44 22.3**	**+2.3**
	SNR=36						
FRU	**Bishkek**	**62.28**	**320**	*e*P	**P**	**18 44 20.0**	**0.0**
FRU				*e*		18 52 44.0	
FRU				pmax	pmax		
	comp=Z,160nm,2.0s,mb5.8						
FRU				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
AML	**Almayashu**	**62.54**	**319**	P	**P**	**18 44 25.3**	**+3.5**
	SNR=128						
AML	**Almayashu**	**62.54**	**319**	⇑*i*P	**P**	**18 44 21.6**	**-0.2**
	comp=Z,144nm,0.8s,mb6.2						
AML				*e*S	**S**	**18 52 46.5**	**-1.3**
AML				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
USP	**Ospenovka**	**62.56**	**320**	P	**P**	**18 44 24.8**	**+2.9**
	SNR=14						
EKS2	**Erkin-Say**	**62.73**	**320**	P	**P**	**18 44 26.6**	**+3.5**
	SNR=21						
EKS2	**Erkin-Say**	**62.73**	**320**	⇑*e*P	**P**	**18 44 22.9**	**-0.3**
	comp=Z,134nm,0.8s,mb6.1						
ZALV	**Zalesovo Beam**	**63.41**	**335**	P	**P**	**18 44 26.5**	**-0.9**
ZALV				S	**S**	**18 52 55.6**	**-2.7**
ZALV	**Zalesovo Beam**	**63.41**	**335**	P	**P**	**18 44 26.5**	**-0.8**
	comp=Z,56nm,0.8s,mb5.8,baz=123,slow=5.2,SNR=80						
ZALV				S	**S**	**18 52 55.5**	**-2.7**
	comp=Z,7.2nm,1.0s,baz=145,slow=10,SNR=6.3						
ZALV				LR	LR	19 12 45.4	
	comp=Z,3µm,20.6s,MS5.5,baz=131,slow=37						
ZALV				PKP2bc		19 13 27.1	
	comp=Z,1.8nm,0.8s,baz=300,slow=3.3,SNR=5.9						
ZALV	**Zalesovo Beam**	**63.41**	**335**	P	**P**	**18 44 26.5**	**-0.8**
ZALV				S	**S**	**18 52 55.5**	**-2.7**
ZALV				LR	LR	19 12 45.4	
ZALV				⇑*e*		19 13 27.1	
KURK	**Kurchatov**	**64.25**	**329**	P	**P**	**18 44 32.0**	**-0.9**
	comp=Z,2µm,0.7s,mb7.2,SNR=49						
KURK	**Kurchatov**	**64.25**	**329**	P	**P**	**18 44 31.8**	**-1.1**
KURK				pmax	pmax		
	comp=Z,240nm,0.8s,mb6.3						
KURK	**Kurchatov**	**64.25**	**329**	P	**P**	**18 44 31.9**	**-1.0**
	comp=Z,123nm,0.7s,mb6.0,baz=133,slow=6.3,SNR=56						
KURK				S	**S**	**18 53 07.4**	**-1.4**
	comp=Z,0.8nm,0.4s,baz=101,slow=12,SNR=5.5						
KURK	**Kurchatov**	**64.25**	**329**	⇑*e*P	**P**	**18 44 30.6**	**-2.3**
	comp=Z,238nm,0.8s,mb6.3						
KURK				*e*S	**S**	**18 53 03.3**	**-5.4**
NVS	**Novosibirsk**	**64.70**	**335**	*e*P	**P**	**18 44 33.8**	**-2.0**
NVS				*i*		18 45 04.4	
NVS				*e*S	**S**	**18 53 06.8**	**-7.4**
NVS				*e*		18 54 20.8	
NVS				pmax	pmax		
	comp=Z,200nm,1.2s,mb6.0						
NVS				pmax	pmax		
	comp=N,180nm,1.5s						
NVS				pmax	pmax		
	comp=E,160nm,1.3s						
NVS				smax			
	comp=N,150nm,2.0s						
NVS				smax			
	comp=E,260nm,2.0s						
KK31	**Karatay Array**	**65.07**	**319**	*i* P	**P**	**18 44 38.3**	**-0.2**
KK31				pmax	pmax		
	comp=Z,74nm,0.6s,mb5.9						
SEY	**Seymchan**	**66.24**	**13**	⇑*e*P	**P**	**18 44 46.8**	**+1.2**
CASY	**Casey**	**66.72**	**186**	*e*P	**P**	**18 44 50.0**	**+1.4**
CASY				*e*S	S	18 53 38.8	+0.3
CASY	**Casey**	**66.72**	**186**	*e*P	**P**	**18 44 48.9**	**+0.3**
	comp=Z,28nm,0.8s,mb5.3						
CASY				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
DRV	**Dumont d’Urvil**	**67.12**	**174**	S	S	18 53 41.0	-2.4
DRV				R		19 06 00.0	
VOSK	**Vostochnaya**	**69.32**	**328**	P	**P**	**18 45 03.5**	**-1.7**
VOSK				pmax	pmax		
	comp=Z,97nm,0.9s,mb5.7						
BVA0	**Borovoye Array**	**69.78**	**328**	*i* P	**P**	**18 45 06.9**	**-1.2**
BVA0				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						
BVAR	**Borovoye Array**	**69.78**	**328**	P	**P**	**18 45 07.1**	**-1.0**
	comp=Z,82nm,0.9s,mb5.7,baz=133,slow=8.0,SNR=96						
BVAR				S	S	18 54 10.9	-4.5
	comp=Z,1.5nm,0.8s,baz=128,slow=9.5,SNR=3.6						
BRVK	**Borovoye**	**69.85**	**328**	P	**P**	**18 45 08.8**	**+0.3**
	comp=Z,843nm,1.1s,mb6.6,SNR=89						
BRVK	**Borovoye**	**69.85**	**328**	⇑*i*P	**P**	**18 45 06.7**	**-1.8**
BRVK				*e*		18 45 36.5	
BRVK				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
BRVK	**Borovoye**	**69.85**	**328**	⇑*i*P	**P**	**18 45 06.7**	**-1.8**
	comp=Z,181nm,1.0s,mb6.0						
BRVK				*e*		18 45 36.5	
BRVK				*e*PP	PP	18 47 41.2	-2.0
BRVK				*e*S	S	18 54 12.7	-3.6
BRVK	**Borovoye**	**69.85**	**328**	P	**P**	**18 45 08.4**	**-0.1**
	SNR=67						
BRVK				P		18 45 08.4	
	SNR=67						
RER	**Riviere de l’E**	**70.70**	**248**	*e*P	**P**	**18 45 16.1**	**+1.7**
	comp=Z,247nm,0.8s,mb6.2						
HATD	**Hatta, Dubai**	**71.08**	**296**	P	**P**	**18 45 18.8**	**+2.2**
	SNR=16						
BANOM	**Banah**	**71.11**	**297**	P	**P**	**18 45 17.1**	**+0.4**
	SNR=7.5						
TIXI	**Tiksi**	**71.81**	**1**	*c i*P	**P**	**18 45 19.0**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,133nm,1.1s,mb5.8						
TIXI				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
TIXI	**Tiksi**	**71.81**	**1**	⇑*i*P	**P**	**18 45 18.7**	**-1.4**
	comp=Z,168nm,0.9s,mb6.0						
TIXI				*e*S	S	18 54 38.7	+0.3
ABKT	**Ailbek**	**72.15**	**310**	P	**P**	**18 45 22.7**	**-0.1**
	comp=Z,634nm,0.8s,mb6.6,SNR=8.0						
BILL	**Bilibino**	**73.78**	**15**	*c i*P	**P**	**18 45 31.7**	**-0.1**
BILL				*e*		18 45 43.2	
BILL				*e*		18 48 14.8	
BILL				*e*S	S	18 55 03.7	+2.8

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BILL                                pmax     pmax
      comp=Z,90nm,1.7s,mb5.4
BILL                                MLR      MLR
      comp=Z,6µm,21.0s,MS5.9
BILL  Bilibino           73.78  15⇑eP       P         18 45 31.2  -0.6
      comp=Z,301nm,1.8s,mb5.9
AB31  Akbulak array      74.21 322  P       P         18 45 33.5  -1.2
AB31                                pmax     pmax
      comp=Z,60nm,0.6s,mb5.7
AKTK  Aktyubinsk         75.77 323  P       P         18 45 42.9  -0.8
AKTK                                S        S        18 55 21.7  -2.2
AKTO  Aktyubinsk         75.77 323  P       P         18 45 42.9  -0.8
      comp=Z,171nm,0.7s,mb6.1,baz=108,slow=6.2,SNR=281
AKTO                                S        S        18 55 21.7  -2.2
      comp=Z,3.3nm,0.6s,baz=214,slow=22,SNR=22
SVE   Sverdlovsk         76.50 329⇑eP       P         18 45 48.0  +0.3
SVE                                e                  18 46 03.5
SVE                                ePPP               18 50 25.8
SVE                                eS       S         18 55 29.2  -2.4
SVE                                 pmax     pmax
      comp=Z,252nm,1.1s,mb6.1
SVE                                 MLR      MLR
      comp=Z,2µm,19.0s,MS5.4
ARU   Arti               77.43 329  P       P         18 45 52.4  -0.5
      comp=Z,664nm,1.0s,mb6.5,SNR=16
ARU   Arti               77.43 329⇑iP       P         18 45 51.3  -1.6
ARU                                e                  18 48 50.2
ARU                                 pmax     pmax
      comp=Z,56nm,0.6s,mb5.7
ARU                                 MLR      MLR
      comp=Z,2µm,22.0s,MS5.4
ARU   Arti               77.43 329⇑iP       P         18 45 51.3  -1.6
      comp=Z,56nm,0.6s,mb5.7
ARU                                ePP      PP        18 48 50.2  +2.5
ARU                                 LR       LR
      comp=Z,2µm,22.0s,MS5.4
UNV   Unalaska Valle     77.59  34 eP       P         18 45 54.9  +1.1
      comp=Z,99nm,0.7s,mb5.8
AKUT  Akutan             78.09  34 eP       P         18 45 58.1  +1.5
      comp=Z,376nm,0.8s,mb6.4
ABPO  Ambohimpanom       78.47 251⇑eP       P         18 45 58.4  -1.1
      comp=Z,36nm,0.8s,mb5.4
ABPO                                LR       LR
      comp=Z,3µm,22.0s,MS5.6
GAMB  Gambell            78.66  24⇑iP       P         18 46 00.5  +0.9
      comp=Z,134nm,0.9s,mb5.9
QRN   Al-Qurain          78.89 299 eP       P         18 45 59.7  -2.0
KBD   Kabd               79.13 300 eP       P         18 46 01.1  -1.9
UMR   Umm Al-Rimmam      79.16 300 eP       P         18 46 01.1  -2.0
UMR                                 AMb      AMB      18 46 05.0
      comp=Z,124nm,0.7s,mb5.9
RDF   Al-Radifah         79.23 299 eP       P         18 46 02.1  -1.4
RDF                                 AMb      AMB      18 46 08.4
      comp=Z,116nm,0.6s,mb6.0
SOKR  Solikamsk          79.37 331c iP      P         18 46 03.3  -0.3
SOKR                                S        S        18 56 09.9  +7.5
SOKR                                pmax     pmax
      comp=Z,160nm,1.5s,mb5.7
SOKR                                MLR      MLR
      comp=Z,3µm,20.0s,MS5.6
MAW   Mawson             79.50 200 eP       P         18 46 05.4  +1.3
      comp=Z,30nm,0.9s,mb5.2
MAW                                eS       S         18 56 01.0  -2.5
MAW   Mawson             79.50 200  P       P         18 46 04.3  +0.2
      comp=Z,16nm,0.8s,mb5.0,baz=39,slow=5.7,SNR=10
MAW                                 LR       LR       19 18 33.3
      comp=Z,2µm,21.0s,MS5.3,baz=58,slow=34
MIB   Mutribah           79.51 300 eP       P         18 46 03.1  -1.9
MIB                                 AMb      AMB      18 46 06.5
      comp=Z,232nm,0.8s,mb6.2
NAY   Al-Naaiem          79.53 300 eP       P         18 46 03.5  -1.7
NAY                                 AMb      AMB      18 46 07.0
      comp=Z,88nm,1.4s,mb5.5
VNDA  Vanda              79.73 172  P       P         18 46 06.1  +0.9
      comp=Z,12nm,0.8s,mb4.9,baz=331,slow=4.5,SNR=12
VNDA                                LR       LR       19 21 26.6
      comp=Z,2µm,21.5s,MS5.5,baz=328,slow=36
TNA   Tin City           80.85  23⇑iP       P         18 46 12.0  +0.5
      comp=Z,74nm,1.1s,mb5.5
TNA                                ePP      PP        18 49 17.2  +1.3
MAK   Makhachkala        81.09 313 eP       P         18 46 13.5  +0.2
MAK                                e        pP        18 46 22.5  +0.3
MAK                                ePPP               18 51 07.1
MAK                                 S        S        18 56 21.7  +0.4
MAK                                 pmax     pmax
      comp=Z,594nm,1.6s,mb6.3
MAK                                 MLR      MLR
      comp=Z,2µm,22.0s,MS5.3
MAK   Makhachkala        81.09 313 eP       P         18 46 14.9  +1.6
SDPT  Sand Point         81.37  34 eP       P         18 46 15.6  +1.2
      comp=Z,386nm,0.6s,mb6.5
BHD   Baghdad            82.37 303 i x      x         18 46 20.0
BHD                                ex       x         18 56 31.0
CHGN  Chignik            82.71  33 eP       P         18 46 22.7  +1.3
GNI   Garni              82.78 310 eP       P         18 46 24.2  +2.0
GNI   Garni              82.78 310⇑iP       P         18 46 22.0  -0.2
GNI                                 pmax     pmax
      comp=Z,127nm,0.8s
GNI   Garni              82.78 310  P       P         18 46 23.7  +1.5
      comp=Z,14nm,0.5s,mb5.3,baz=320,slow=2.0,SNR=30
GNI   Garni              82.78 310⇑iP       P         18 46 22.0  -0.2
      comp=Z,127nm,0.8s,mb6.0
MTA   Mtatsminda         82.92 312  P       P         18 46 23.0  +0.1
TBLG  Delisi             82.97 312  P       P         18 46 24.7  +1.6
CLDR  Caldiran           83.31 309 eP       P         18 46 25.4  +0.5
HAKT  HAKKARI            83.32 308 i P      pP        18 46 42.5  +8.6
CUKT  Cukurca            83.37 307 eP       P         18 46 25.9  +0.6
DYDN  Diyadin            83.53 310 i P      P         18 46 27.2  +1.2
VANB  Van                83.67 309 eP       P         18 46 24.5  -2.3
MSL   Mosul              83.69 307 ex       x         18 46 31.0
MSL                                ex       x         18 56 48.0
MSL                                ex       x         18 57 06.0
ONI   Oni                84.01 313  P       P         18 46 29.1  +0.6
AGRB  Hanur-Agry         84.07 310 eP       P         18 46 24.5  -4.3
KARS  Kars               84.08 311 eP       P         18 46 29.5  +0.6
TATV  Tatvan             84.54 309 i P      P         18 46 32.5  +1.3
KIV   Kislovodsk         84.70 314  P       P         18 46 32.9  +1.0
      comp=Z,490nm,1.1s,mb6.5,SNR=29
KIV   Kislovodsk         84.70 314c iP      P         18 46 31.8  -0.1
KIV                                i                  18 46 48.3
KIV                                eS       S         18 56 52.7  -5.2
KIV                                eSS      SS        19 02 35.5  +5.6
KIV                                 pmax     pmax
      comp=Z,275nm,2.0s,mb6.0
KIV                                 MLR      MLR
      comp=Z,2µm,20.0s,MS5.4
KIV   Kislovodsk         84.70 314⇑iP       P         18 46 31.5  -0.4
      comp=Z,61nm,0.8s,mb5.8
KIV   Kislovodsk         84.70 314  P       P         18 46 32.3  +0.3
      SNR=47
KIV                                 P                 18 46 32.3
      SNR=47
HOMI  Horasan            84.94 310 i P      P         18 46 34.0  +0.8
SVW2  Sparrevohn         85.03  29 eP       P         18 46 34.8  +1.6
PRGR  Permogore          85.21 332⇑iP       P         18 46 33.1  -1.0
PRGR                               eS       S         18 56 55.0  -7.2
PRGR                                pmax     pmax
      comp=Z,190nm,0.7s,mb6.3
BEST  Besiri             85.27 308 i P      P         18 46 35.9  +0.9
ERZM  Erzurum            85.34 310 i P      P         18 46 37.1  +1.8
EZM   Erzurum            85.34 310 eP       P         18 46 36.1  +0.8
PPT   Papeete            85.46 107 eP       P         18 46 41.0  +4.7
      comp=Z,396nm,26.0s
PPT                                eS       S         18 56 51.5   -15
      comp=Z,2µm,25.8s
PPT                                eLR      LR        19 14 08.6
      comp=Z,3µm,26.8s
PPT   Papeete            85.46 107 eP       P         18 46 41.0  +4.7
PPT                                eS       S         18 56 51.5   -15
DESE  Dese               85.60 281 eP       P         18 46 39.8  +2.7
MARD  Mardin             85.62 307 i P      P         18 46 36.8  +0.1
OHAK  Old Harbor         85.64  33 eP       P         18 46 37.5  +1.2
      comp=Z,219nm,0.8s,mb6.4
KOPT  Kop Dagi           86.02 310 i P      P         18 46 39.4  +0.8
VRHR  Novokhopersk       86.08 321c iP      P         18 46 37.9  -0.8
VRHR                               e*PP     pP        18 46 45.7  -1.9
VRHR                               eS       S         18 57 03.7  -7.5
VRHR                                pmax     pmax
      comp=N,80nm,0.8s
VRHR                                pmax     pmax
      comp=E,50nm,0.8s
VRHR                                pmax     pmax
      comp=Z,530nm,0.8s,mb6.8
VRHR                                smax
      comp=N,870nm,3.8s
VRHR                                smax
      comp=Z,120nm,3.6s
VRHR                                smax
      comp=E,310nm,2.0s
VRHR                                MLR      MLR
      comp=Z,760nm,23.0s,MS5.0
VRHR                                MLR      MLR
      comp=N,2µm,21.0s,MS5.6
VRHR                                MLR      MLR
      comp=E,1µm,20.0s,MS5.6
KDAK  Kodiak Island      86.09  32  P       P         18 46 40.9  +2.4
      comp=E,593nm,0.7s,mb6.9,SNR=6.2
KDAK  Kodiak Island      86.09  32  P       P         18 46 40.3  +1.8
KDAK                                pmax     pmax
      comp=Z,47nm,0.7s,mb5.8
KDAK  Kodiak Island      86.09  32  P       P         18 46 39.9  +1.4
      comp=Z,74nm,0.7s,mb6.0,baz=236,slow=3.4,SNR=15
KDAK                                LR       LR       19 23 43.3
      comp=Z,2µm,20.4s,MS5.4,baz=268,slow=35
KDAK  Kodiak Island      86.09  32 eP       P         18 46 39.6  +1.1
      comp=Z,48nm,0.6s,mb5.9
DIY   Diyarbakir         86.10 308 eP       P         18 46 40.5  +1.4
DIYA  Diyarbakir         86.18 308 i P      P         18 46 39.6  +0.1
FURI  Furi               86.51 279 eP       P         18 46 43.5  +1.9
EZC   Erzincan           86.52 310 eP       P         18 46 42.7  +1.6
MACK  Trabzon            86.63 311 i P      P         18 46 41.5   0.0
KTUT  Trabzon            86.63 311 eP       P         18 46 41.7  +0.1
SOC   Sochi              86.82 313 i P      P         18 46 41.9  -0.6
GUMT  Gumushane          86.82 310 eP       P         18 46 43.8  +1.2
PPLA  Purkeypile         86.87  27 eP       P         18 46 41.9  -0.4
      comp=Z,68nm,1.2s,mb5.8
PPLA                               ePP      PP        18 50 02.1  -3.1
CHUM  Lake Minchumin     86.93  26 eP       P         18 46 42.8  +0.2
      comp=Z,28nm,0.9s,mb5.5
ELZG  Elazig             87.11 308 i P      P         18 46 45.2  +1.2
URFA  Urfa               87.19 307 eP       P         18 46 45.9  +1.5
ESPY  Espiye-Giresun     87.41 311 eP       P         18 46 44.5  -1.0
KTH   Kantishna Hill     87.51  26 eP       P         18 46 45.6  +0.2
      comp=Z,26nm,0.9s,mb5.5
KEMA  Kemaliye           87.52 309 i P      P         18 46 46.8  +0.8
MALT  Malatya            87.54 308 eP       P         18 46 48.4  +2.3
MALT  Malatya            87.54 308⇑iP       P         18 46 46.3  +0.2
MALT                               e                  18 50 08.6
MALT                                pmax     pmax
      comp=Z,252nm,1.3s,mb6.3
MALT  Malatya            87.54 308⇓iP       P         18 46 47.3  +1.2
MALT  Malatya            87.54 308⇑iP       P         18 46 46.3  +0.2
      comp=Z,252nm,1.3s,mb6.3
MALT                               ePP      PP        18 50 08.6  -2.6
MYA   Malataya           87.54 308 eP       P         18 46 47.9  +1.8
ATAB  Bozova             87.61 307 i P      P         18 46 47.3  +0.9
VSR   Storozhevoye       87.63 321c iP      P         18 46 45.2  -1.0
VSR                                i *PP    pP        18 46 54.3  -0.9
VSR                                eS       S         18 57 17.3  -9.0
VSR                                 pmax     pmax
      comp=Z,120nm,1.6s,mb5.9
VSR                                 pmax     pmax
      comp=N,10.0nm,1.4s
VSR                                 pmax     pmax
      comp=E,120nm,1.2s
VSR                                 smax
      comp=E,500nm,7.6s
VSR                                 smax
      comp=Z,190nm,5.8s
VSR                                 smax
      comp=N,480nm,4.9s
VSR                                 MLR      MLR
      comp=Z,530nm,21.0s,MS4.9
VSR                                 MLR      MLR
      comp=N,470nm,18.0s,MS5.2
VSR                                 MLR      MLR
      comp=E,880nm,22.0s,MS5.2
VOR   Voronezh           87.64 322⇑iP       P         18 46 45.0  -1.3
VOR                                 pmax     pmax
      comp=Z,800nm,1.6s,mb6.7
FIB   Fire Island        87.65  29⇑eP       P         18 46 46.8  +0.7
FIB                                 pmax     pmax
      comp=Z,75nm,0.7s,mb6.0
FIB   Fire Island        87.65  29⇑eP       P         18 46 46.8  +0.7
      comp=Z,75nm,0.7s,mb6.0
GRSN  GIRESUNGRSN        87.76 311 i P      P         18 46 46.5  -0.6
TRF   Thorofare Moun     87.79  27 eP       P         18 46 46.6  -0.1
      comp=Z,34nm,1.0s,mb5.5
RC01  Rabbit Creek A     87.85  29⇑eP       P         18 46 46.8  -0.3
      comp=Z,51nm,0.6s,mb5.9
KMBO  Kilima Mbogo       87.85 269  P       P         18 46 49.7  +1.6
      comp=Z,40nm,0.7s,mb5.7,baz=66,slow=5.8,SNR=62
KMBO                                LR       LR       19 24 49.4
      comp=Z,2µm,21.0s,MS5.5,baz=89,slow=35
KMBO  Kilima Mbogo       87.85 269  P       P         18 46 49.7  +1.6
KMBO                                LR       LR       19 24 49.4
SEW   Seward             87.92  30 eP       P         18 46 47.1  -0.3
      comp=Z,66nm,0.8s,mb5.9
AKCD  Akcadag            87.93 308 i P      P         18 46 47.6  -0.4
KLMR  Klimovskoe         88.05 331⇑iP       P         18 46 46.6  -1.4
KLMR                               eS       SKSac     18 57 10.8  -3.7
KLMR                                pmax     pmax
      comp=Z,267nm,1.3s,mb6.3
COLD  Coldfoot           88.15  23⇑iP       P         18 46 49.1  +0.7
      comp=Z,92nm,0.8s,mb6.1
PMR   Palmer             88.18  28 eP       P         18 46 48.6   0.0
PMR                                 pmax     pmax
      comp=Z,85nm,1.4s,mb5.8
PMR   Palmer             88.18  28 eP       P         18 46 48.6   0.0
      comp=Z,85nm,1.4s,mb5.8
GZT   Gaziantep          88.19 307 i P      P         18 46 49.2   0.0
MCK   McKinley           88.41  26  P       P         18 46 49.4  -0.3
MCK                                 pmax     pmax
      comp=Z,60nm,0.9s,mb5.8
MCK   McKinley           88.41  26⇑eP       P         18 46 48.0  -1.7
      comp=Z,60nm,0.9s,mb5.8
GAZ   Gaziantep          88.46 307 eP       P         18 46 50.9  +0.3
ANN   Anapa              88.51 315c iP      P         18 46 49.5  -1.1
ANN                                e*PP     pP        18 46 59.6  +0.1
ANN                                e                  18 50 18.7
ANN                                ePPP               18 52 17.6
ANN                                eS       SKSac     18 57 15.7  -2.2
ANN                                 pmax     pmax
      comp=Z,339nm,0.7s,mb6.8
ANN                                 pmax     pmax
      comp=N,101nm,0.8s
ANN                                 pmax     pmax
      comp=E,61nm,0.8s
ANN   Anapa              88.51 315 eP       P         18 46 49.2  -1.4
KUZU  Kuzuini            88.56 307 i P      P         18 46 50.9  -0.1
KMRS  Kahramanmaras      88.72 307 eP       P         18 46 52.4  +0.7
MOS   Moscow             88.77 326 eP       P         18 46 49.1  -2.4
MOS                                e                  18 50 18.8
MOS                                i S      S         18 57 29.9  -7.0
MOS                                 pmax     pmax
      comp=Z,900nm,2.5s,mb6.7
MOS                                 pmax     pmax
      comp=Z,308nm,1.5s,mb6.4
COLA  College            88.95  25  P       P         18 46 52.3  +0.1
COLA                                pmax     pmax
      comp=Z,15nm,0.8s,mb5.4
COLA  College            88.95  25 eP       P         18 46 52.0  -0.1
      comp=Z,15nm,0.8s,mb5.4
COLA                                LR       LR
      comp=Z,871nm,21.0s,MS5.2
FKH   Fakeheh            89.06 304 eP       P         18 46 54.5  +1.1
TOKA  Tokat              89.11 310 i P      P         18 46 54.0  +0.6
PINB  Pinarbasi          89.14 308 i P      P         18 46 54.2  +0.5
ANDN  Andirin            89.16 307 i P      P         18 46 53.6  -0.2
COBT  Iskenderun         89.22 306 i P      P         18 46 56.0  +1.9
OBN   Obninsk            89.35 325  P       P         18 46 53.1  -1.2
      comp=Z,1µm,0.6s,SNR=19
OBN   Obninsk            89.35 325c iP      P         18 46 53.1  -1.2
OBN                                e                  18 47 09.0
OBN                                e                  18 50 23.8
OBN                                e                  18 57 12.3
OBN                                eSS      SS        19 03 37.9  +0.6
OBN                                 pmax     pmax
      comp=Z,453nm,1.7s,mb6.5
OBN                                 MLR      MLR
      comp=Z,2µm,23.0s,MS5.5
OBN   Obninsk            89.35 325⇑iP       P         18 46 52.9  -1.4
      comp=Z,369nm,1.1s,mb6.6
HWQ   Hawqa              89.44 304 eP       P         18 46 55.5  +0.3
RCY   Rachaya            89.54 303 eP       P         18 46 56.5  +0.8
BHL   Bhannes            89.68 304 eP       P         18 46 56.7  +0.4
QSPA  South Pole Qui     89.70 180  PKKPbc  PKKPbc    19 04 30.4  -1.8
      comp=Z,3.7nm,0.6s,baz=200,slow=2.3,SNR=17
QSPA                                LR       LR       19 26 09.1
      comp=Z,1µm,20.6s,MS5.3,baz=344,slow=35
QSPA  South Pole Qui     89.70 180 eP       P         18 46 56.4  +1.0
      comp=Z,38nm,0.9s,mb5.7
MMAI  Mount Meron Ar     89.88 303  P       P         18 46 58.0  +0.7
      comp=Z,31nm,0.7s,mb5.7,baz=82,slow=7.7,SNR=39
PAX   Paxson             89.94  27  P       P         18 46 57.5  +0.6
PAX                                 pmax     pmax
      comp=Z,55nm,1.1s,mb5.8
PAX   Paxson             89.94  27⇑eP       P         18 46 56.7  -0.2
      comp=Z,54nm,1.1s,mb5.8
EIL   Elat               90.25 300  P       P         18 46 58.8  -0.3
      comp=Z,28nm,0.8s,mb5.7,baz=336,slow=1.6,SNR=32
BOYT  Boyabat            90.31 311 i P      P         18 46 58.7  -0.4
CTKT  Corum              90.40 310 i P      P         18 47 00.1  +0.6
CDAG  Cicekdag           90.72 309 i P      P         18 47 00.2  -0.8
MENT  Mentasta           90.74  27 eP       P         18 47 01.1  +0.5
APA   Apatity            90.87 337⇓iP       P         18 47 04.5  +3.4
APA                                i                  18 57 52.0
APA                                 pmax     pmax
      comp=Z,29nm,1.0s,mb5.6
SIM   Simferopol'        90.87 315ceP       P         18 47 00.7  -0.9
SIM                                eS       S         18 57 43.0   -14
SIM                                 pmax     pmax
      comp=Z,74nm,0.9s,mb6.0
SIM                                 MLR      MLR
      comp=Z,4µm,24.0s,MS5.8
ILGA  Ilgaz              91.21 311 i P      P         18 47 03.3   0.0
BRTR  Keskin Array B     91.28 310  P       P         18 47 02.4  -1.3
      comp=Z,12nm,0.7s,mb5.4,baz=132,slow=4.0,SNR=58
BRTR                                ScS      ScS      18 58 11.2  +7.4
      comp=Z,1.3nm,1.1s,baz=186,slow=9.9,SNR=3.6
BRTR                                LR       LR       19 35 19.3
      comp=Z,816nm,21.8s,MS5.1,baz=292,slow=40
BALT  Daday              91.45 311 i P      P         18 47 04.9  +0.5
CSS   Prodhromos         91.60 305⇑iP       P         18 47 04.3  -0.9
      comp=Z,133nm,0.8s,mb6.3
EGAK  Eagle              91.81  25⇑iP       P         18 47 05.3  -0.2
      comp=Z,12nm,0.8s,mb5.3
JOF   Joensuu            91.95 333 epkp     P         18 47 04.0  -2.2
KDHN  Kadinhani          92.49 308 i P      P         18 47 07.6  -1.7
DAWY  Dawson             92.63  26 eP       P         18 47 09.9  +0.6
PUL   Pulkovo            92.63 330 i P      P         18 47 10.3  +0.9
KEV   Kevo               93.03 340 epkp     P         18 47 09.7  -1.4
HENT  Hendek             93.35 311 i P      P         18 47 13.4  +0.3
ESKT  Eskisehir          93.44 309 i P      P         18 47 13.0  -0.6
ARCES ARCESS Array B     93.58 340  P       P         18 47 12.3  -1.3
      comp=Z,11nm,0.7s,mb5.4,baz=80,slow=5.4,SNR=22
ARCES                               PKiKP    PKiKP    18 52 00.5  +1.4
      comp=Z,2.0nm,0.7s,baz=78,slow=2.9,SNR=3.7
ARCES                               LR       LR       19 35 27.3
      comp=Z,2µm,21.7s,MS5.6,baz=87,slow=39
ARCES ARCESS Array B     93.58 340  P       P         18 47 12.3  -1.3
AKASG Malin Array Be     93.92 321  P       P         18 47 14.2  -1.4
AKASG                                                 18 51 04.0
AKASG Malin Array Be     93.92 321  P       P         18 47 14.2  -1.4
      comp=Z,15nm,0.7s,mb5.5,baz=76,slow=4.1,SNR=65
AKASG                               PP       PP       18 51 04.0  +2.6
      comp=Z,3.7nm,0.9s,baz=73,slow=7.9,SNR=5.1
AKASG                               LR       LR       19 31 24.6
      comp=Z,2µm,21.8s,MS5.6,baz=65,slow=37
KIEV  Kiev               93.93 321  P       P         18 47 14.4  -1.2
KIEV                                pmax     pmax
      comp=Z,80nm,1.4s,mb6.0
KIEV  Kiev               93.93 321⇑iP       P         18 47 13.7  -1.9
      comp=Z,80nm,1.4s,mb6.0
SPITS Spitsbergen Ar     94.03 349  P       P         18 47 14.8  -0.7
      comp=Z,52nm,0.8s,mb6.0,baz=356,slow=8.4,SNR=56
KAF   Kangasniemi        94.33 332 epkp     P         18 47 15.2  -2.0
MICGM Minsk              94.40 325⇑eP       P         18 47 15.0  -2.7
MNK   Minsk              94.43 325⇑eP       P         18 47 15.0  -2.8
MNK                                e                  18 57 48.0
MNK                                eS       S         18 58 20.0  -8.1
MNK                                 pmax     pmax
      comp=Z,410nm,1.4s,mb6.7
MNK                                 pmax     pmax
      comp=E,560nm,1.8s
MNK                                 MLR      MLR
      comp=Z,7µm,24.0s,MS6.0
KIS   Kishinev           94.47 317⇑iP       P         18 47 18.0  -0.2
KIS                                e                  18 51 08.0
KIS                                e                  18 57 50.0
KIS                                eS       S         18 58 25.0  -3.9
KIS                                 pmax     pmax
      comp=Z,200nm,2.0s,mb6.2
KIS                                 MLR      MLR
      comp=Z,2µm,23.0s,MS5.5
KIS                                 MLR      MLR
      comp=N,1µm,22.0s,MS5.5
KIS                                 MLR      MLR
      comp=E,2µm,22.0s,MS5.5
KIS                                 MLR      MLR
      comp=Z,2µm,24.0s
KIS   Kishinev           94.47 317⇑iP       P         18 47 18.0  -0.2
      comp=Z,200nm,2.0s,mb6.2
KIS   Kishinev           94.47 317 ePP      PP        18 51 08.0  +2.1
KIS                                eS       S         18 58 25.0  -3.9
KIS                                 LRM               19 31 12.0
      comp=Z,2µm,22.0s
KIS   Kishinev           94.47 317 eSKS               18 57 50.0
TLCR                     94.61 315⇓iP       P         18 47 18.2  -0.7
TLCR                     94.61 315 ⇓P       P         18 47 18.2  -0.7
ULDT  Uludag             94.73 310 i P      P         18 47 18.0  -1.6
TIRR  Tirgusor           94.95 314⇑iP       P         18 47 19.3  -1.2
TIRR  Tirgusor           94.95 314 eP       P         18 47 19.5  -1.0
      comp=Z,56nm,1.0s,mb6.0
NACGM Naroch             94.99 325 eP       P         18 47 18.0  -2.4
SKAG  Skagway            95.07  30 eP       P         18 47 21.4  +0.8
HARR  Harsova            95.28 315⇓iP       P         18 47 21.8  -0.1
HARR  Harsova            95.28 315  P       P         18 47 22.0  +0.1
MANT  Manisa             95.28 308 i P      P         18 47 21.6  -0.5
VRI   Vrincioaia         96.02 316⇓iP       P         18 47 25.5  +0.2
VRI   Vrincioaia         96.02 316  P       P         18 47 25.9  +0.6
PLOR  Plostina           96.07 316  P       P         18 47 25.6  +0.1
PLOR  Plostina           96.07 316⇓iP       P         18 47 25.7  +0.2
MLR   Muntele Rosu       96.60 316⇓iP       P         18 47 27.8  -0.1
MLR   Muntele Rosu       96.60 316  P       P         18 47 26.8  -1.1
      comp=Z,31nm,0.8s,mb5.8,baz=319,slow=1.9,SNR=34
MLR   Muntele Rosu       96.60 316  P       P         18 47 28.0  +0.1
LSZ   Lusaka             96.62 255⇑iP       P         18 47 28.1  -0.5
LSZ                                e                  18 51 21.9
LSZ                                 pmax     pmax
      comp=Z,31nm,0.8s,mb5.8
LSZ   Lusaka             96.62 255⇑iP       P         18 47 28.1  -0.6
      comp=Z,31nm,0.8s,mb5.8
LSZ                                ePP      PP        18 51 21.9  -1.5
LSZ                                ePKPdf   PKiKP     18 52 07.6  +1.7
BUR02 Bucovina Ar. S     96.85 318  P       P         18 47 29.3  +0.3
SUW   Suwalki            97.20 324 eP       P         18 47 29.7  -0.7
SUW                                 LMZ               19 32 00.4
      comp=Z,3µm,24.6s
VOIR                     97.23 316⇓iP       P         18 47 30.5  -0.3
VOIR                     97.23 316  P       P         18 47 30.6  -0.2
LVV   L'vov              97.33 320 i P      P         18 47 30.1  -1.0
LVV                                i                  18 58 05.1
LVV                                eS       S         18 58 46.3  -7.1
LVV                                eSS      SS        19 05 23.3  -8.4
LVV                                 MLR      MLR
      comp=N,770nm,22.0s,MS5.3
LVV                                 MLR      MLR
      comp=E,940nm,22.0s,MS5.3
LVV                                 MLR      MLR
      comp=Z,1µm,22.0s,MS5.3
DLBC  Dease Lake         97.96  31  LR      LR        19 26 18.0
      comp=Z,1µm,21.3s,MS5.3,baz=321,slow=32
BMR   Baia Mare          98.00 318  P       P         18 47 34.4  +0.2
KWP   Kalwaria Pacla     98.21 320 eP       P         18 47 34.8  -0.2
KWP                                ePP      PP        18 51 39.7  +5.1
KWP                                 LMZ               19 33 00.9
      comp=Z,2µm,25.8s
KWP   Kalwaria Pacla     98.21 320⇑iP       P         18 47 34.9  -0.2
KWP   Kalwaria Pacla     98.21 320 eP       P         18 47 34.8  -0.3
KWP                                ePP      PP        18 51 39.7  +5.1
CRAR  CRAIOVA            98.26 315  P       P         18 47 36.8  +1.4
IDI   Anoyia             98.48 306  P       P         18 47 36.6  -0.1
      comp=Z,19nm,0.7s,mb5.7,baz=41,slow=7.8,SNR=10
BOSA  Boshof             98.54 241  P       P         18 47 36.0  -1.1
BOSA                                                  18 51 36.0
BOSA  Boshof             98.54 241  P       P         18 47 36.0  -1.1
      comp=Z,5.6nm,0.9s,mb5.1,baz=139,slow=8.0,SNR=13
BOSA                                PP       PP       18 51 36.0  -1.9
      comp=Z,5.0nm,0.9s,baz=73,slow=10,SNR=4.6
BOSA                                LR       LR       19 26 40.7
      comp=Z,3µm,21.8s,MS5.7,baz=85,slow=32
TRPA  Tarpa              98.56 319⇓iP       P         18 47 36.5  -0.2
KOLS  Kolonicke sedl     98.60 319 i P      P         18 47 37.0  +0.1
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KOLS Kolonicke sedl     98.60 319   PDIF     P        18 47 37.0 +0.1
KOLS Kolonicke sedl     98.60 319  ePdif     P        18 47 37.0 +0.1
UZH  Uzhgorod           98.64 319⇑iP        P        18 47 37.0  0.0
UZH                                e                  18 47 51.0
UZH                                e                  18 58 10.0
UZH                                eS       S        18 58 57.0 -7.6
UZH                                 MLR     MLR
     comp=E,2µm,20.0s
UZH                                 MLR     MLR
     comp=Z,1µm,20.0s,MS5.5
DRGR                    98.66 317⇓iP        P        18 47 37.3 +0.1
DRGR                    98.66 317   P        P        18 47 37.0 -0.2
DEV  Deva               98.66 316⇑iP        P        18 47 38.1 +0.9
DEV  Deva               98.66 316 ⇑P        P        18 47 38.1 +0.9
GZR  Gura Zlata         98.83 316⇓iP        P        18 47 38.9 +1.0
GZR  Gura Zlata         98.83 316   P        P        18 47 38.8 +0.8
CRVS Cervenica-Dubn     99.14 319  i P       P        18 47 39.5 +0.3
CRVS Cervenica-Dubn     99.14 319   PDIF     P        18 47 39.5 +0.3
CRVS Cervenica-Dubn     99.14 319  ePdif     P        18 47 39.5 +0.3
STHS Stebnicka Huta     99.19 320  i P       P        18 47 40.8 +1.3
STHS Stebnicka Huta     99.19 320   PDIF     P        18 47 40.8 +1.3
STHS Stebnicka Huta     99.19 320  ePdif     P        18 47 40.8 +1.3
BZS  Buzias             99.59 316⇑iP        Pdif     18 47 41.1  0.0
BZS  Buzias             99.59 316   P        Pdif     18 47 41.5 +0.4
NIE  Niedzica           99.78 320  eP        Pdif     18 47 41.5 -0.5
NIE                                ePP       PP       18 51 46.0 -0.6
KECS Kecovo             99.85 319  i P       Pdif     18 47 41.8 -0.5
KECS Kecovo             99.85 319   PDIF     Pdif     18 47 41.8 -0.5
KECS Kecovo             99.85 319  ePdif     Pdif     18 47 41.8 -0.5
OJC  Ojcow              99.95 321  ePdiff    Pdif     18 47 42.6 -0.1
OJC                                ePP       PP       18 51 48.6 +0.8
OJC                                ePKiKP    PKiKP    18 52 10.9  0.0
OJC                                eSS       SS       19 06 08.1 -0.2
OJC                                 L                 19 35 43.9
     comp=Z,2.0nm,21.4s
OJC  Ojcow              99.95 321  ePdif     Pdif     18 47 42.6 -0.1
OJC                                ePP       PP       18 51 48.6 +0.8
PSZ  Piszkesteto       100.34 319   P        Pdif     18 47 45.7 +1.2
PSZ                                 pmax     pmax
     comp=Z,23nm,1.1s
PSZ  Piszkesteto       100.34 319⇓iP        Pdif     18 47 44.7 +0.2
PSZ  Piszkesteto       100.34 319⇓eP        Pdif     18 47 44.8 +0.3
PSZ  Piszkesteto       100.34 319⇑ePdif     Pdif     18 47 44.0 -0.4
     comp=Z,23nm,1.1s
HFS  Hagfors           100.74 332   P        Pdif     18 47 44.5 -1.7
     comp=Z,3.0nm,0.4s,baz=112,slow=3.5,SNR=16
GKP  Gorka Klasztor    100.81 324  eP        Pdif     18 47 47.4 +0.8
GKP                                 LMZ               19 34 14.8
     comp=Z,3µm,24.6s
GKP  Gorka Klasztor    100.81 324  eP        Pdif     18 47 47.4 +0.8
GKP                                 LR       LR
     comp=Z,3µm,24.6s,MS5.7
VYHS Vyhne             100.92 319  i P       Pdif     18 47 47.3 +0.3
VYHS Vyhne             100.92 319   PDIF     Pdif     18 47 47.3 +0.3
VYHS Vyhne             100.92 319  ePdif     Pdif     18 47 47.3 +0.3
BUD  Budapest          101.01 318⇓eP        Pdif     18 47 47.8 +0.4
OKC  Ostrava-Krasne    101.07 321  ePDIFF    Pdif     18 47 48.3 +0.6
OKC                                 AMS      AMS      19 35 30.0
     comp=Z,1µm,19.7s
MORC Moravsky Berou    101.47 321⇓iP        Pdif     18 47 49.5  0.0
MORC Moravsky Berou    101.47 321⇑ePdif     Pdif     18 47 48.8 -0.6
     comp=Z,24nm,1.3s
MORC                               ePP       PP       18 52 02.7 +3.4
NOA  NORSAR Array B    101.58 333   P        Pdif     18 47 48.3 -1.7
     comp=Z,3.8nm,0.8s,baz=70,slow=4.5,SNR=9.1
NOA                                 PP       PP       18 52 01.7 +1.9
     comp=Z,4.7nm,1.0s,baz=63,slow=7.8,SNR=3.4
BSD  Bornholm Skovb    101.64 327  i P       Pdif     18 47 50.5 +0.3
BSD                                 pmax     pmax
     comp=Z,23nm,1.0s
BSD                                 MLR      MLR
     comp=Z,3µm,21.0s,MS5.7
BSD  Bornholm Skovb    101.64 327  i P       Pdif     18 47 50.5 +0.3
     comp=Z,23nm,1.0s
BSD
     comp=Z,3µm,21.0s
MODS Modra-Piesok      101.96 320  i P       Pdif     18 47 52.3 +0.6
MODS Modra-Piesok      101.96 320   PDIF     Pdif     18 47 52.3 +0.6
MODS Modra-Piesok      101.96 320  ePdif     Pdif     18 47 52.3 +0.6
RES  Resolute Bay      101.98  10   P        Pdif     18 47 51.5 -0.2
RES                                 pmax     pmax
     comp=Z,11nm,0.9s
RES  Resolute Bay      101.98  10   P        Pdif     18 47 51.6 -0.2
     comp=Z,8.8nm,0.8s,baz=310,slow=4.6,SNR=47
RES                                 PP       PP       18 52 04.0 +1.6
     comp=Z,8.7nm,1.1s,baz=312,slow=7.2,SNR=5.0
RES  Resolute Bay      101.98  10⇑ePdif     Pdif     18 47 50.8 -1.0
     comp=Z,11nm,0.8s
RES                                ePP       PP       18 51 57.0 -5.4
KSP  Ksiaz             101.99 322  eP        Pdif     18 47 52.8 +1.0
KSP                                 LMZ               19 35 32.6
     comp=Z,3µm,23.2s
KSP  Ksiaz             101.99 322  eP        Pdif     18 47 52.0 +0.2
KSP                                ePS       PS       19 01 15.0 +6.2
KSP                                eSS       SS       19 06 42.0 +5.5
KSP                                eSSS               19 10 35.0
KSP                                 MLR      MLR
     comp=Z,4µm,23.2s,MS5.8
KSP  Ksiaz             101.99 322  ePdif     Pdif     18 47 52.0 +0.2
KSP                                ePS       PS       19 01 15.0 +6.2
KSP                                eSS       SS       19 06 42.0 +5.5
KSP                                eSSS               19 10 35.0
DPC  Dobruska-Polom    102.09 322  eP        Pdif     18 47 53.1 +0.9
DPC                                e                  18 52 07.7
DPC                                 MLR      MLR
     comp=Z,2µm,22.6s,MS5.6
DPC  Dobruska-Polom    102.09 322  ePDIFF    Pdif     18 47 53.1 +0.9
DPC                                ePP       PP       18 52 07.7 +3.7
DPC                                ex        x        19 01 33.0
DPC                                ex        x        19 07 14.4
DPC                                 AMS      AMS      19 35 50.0
     comp=Z,2µm,22.6s
VRAC Vranov            102.18 321⇓iP        Pdif     18 47 53.7 +1.1
VRAC Vranov            102.18 321   P        Pdif     18 47 53.0 +0.4
     comp=Z,7.3nm,0.9s,baz=78,slow=4.5,SNR=20
VRAC                                PP       PP       18 52 05.3 +0.6
     comp=Z,1.9nm,0.7s,baz=106,slow=4.1,SNR=4.0
VRAC Vranov            102.18 321   P        Pdif     18 47 53.6 +1.0
SOP  Sopron            102.59 319⇓eP        Pdif     18 47 54.9 +0.4
TREC Trest             102.88 321  ePDIFF    Pdif     18 47 57.1 +1.3
TREC                                AMS      AMS      19 36 20.0
     comp=Z,2µm,24.5s
RUE  Ruedersdorf       103.05 324  ePdif     Pdif     18 47 52.1 -4.4
     comp=Z,53nm,1.1s
KOGS Kog               103.09 318  ePdiff    Pdif     18 47 57.4 +0.7
KOGS                               ePP       PP       18 52 15.7 +4.0
PVCC Panska Ves        103.13 322  ePDIFF    Pdif     18 47 57.7 +0.9
PVCC                                AMS      AMS      19 36 20.0
     comp=Z,2µm,24.8s
PRU  Pruhonice         103.29 322  eP        Pdif     18 47 58.0 +0.4
PRU                                e                  18 52 17.6
PRU                                 MLR      MLR
     comp=Z,2µm,21.0s,MS5.5
PRU  Pruhonice         103.29 322  ePDIFF    Pdif     18 47 58.0 +0.4
PRU                                ePP       PP       18 52 17.6 +4.6
PRU                                ex        x        19 01 41.3
PRU                                 AMS      AMS      19 36 40.0
     comp=Z,2µm,21.0s
BRG  Berggiesshubel    103.41 323  i P       Pdif     18 47 58.2 +0.1
BRG                                e                  18 52 18.5
BRG                                 pmax     pmax
     comp=Z,24nm,1.5s
BRG                                 MLR      MLR
     comp=N,685nm,23.2s,MS5.3
BRG                                 MLR      MLR
     comp=E,958nm,27.9s,MS5.3
BRG                                 MLR      MLR
     comp=Z,1µm,21.2s
BRG  Berggiesshubel    103.41 323  ePdiff    Pdif     18 47 58.1  0.0
BRG                                ePP       PP       18 52 16.5 +2.6
BRG  Berggiesshubel    103.41 323  i PDIF    Pdif     18 47 58.2 +0.1
     comp=Z,40nm,1.5s
BRG                                ePP       PP       18 52 18.6 +4.7
     comp=Z,20nm,1.4s
BRG                                 SDIF     Sdif     18 59 51.0 +6.8
BRG
     comp=N,1µm,23.2s
BRG
     comp=E,2µm,27.9s
BRG
     comp=Z,2µm,21.2s
BRG  Berggiesshubel    103.41 323  i Pdif    Pdif     18 47 58.2 +0.1
     comp=Z,24nm,1.5s
BRG                                ePP       PP       18 52 18.6 +4.7
BRG                                 Sdif     Sdif     18 59 51.0 +6.8
BRG                                 LR       LR
     comp=Z,1µm,21.2s,MS5.5
GOLS Golise            103.62 317  ePdiff    Pdif     18 48 00.1 +1.1
GCIS Gornji Cirnik     103.65 317  ePP       PP       18 52 20.4 +4.6
YKA  Yellowknife Ar    103.76  24   Pdiff    Pdif     18 47 59.4 -0.2
     comp=Z,2.4nm,0.6s,baz=298,slow=4.6,SNR=39
YKA                                 PKiKP    PKiKP    18 52 17.0 -0.3
     comp=Z,1.5nm,0.6s,baz=303,slow=1.8,SNR=9.5
YKA                                 PKKPbc   PKKPbc   19 03 50.5 -2.7
     comp=Z,1.8nm,0.7s,baz=114,slow=2.7,SNR=18
YKA  Yellowknife Ar    103.76  24   Pdif     Pdif     18 47 59.4 -0.2
CLL  Collm             103.85 323  eP        Pdif     18 48 00.0 -0.1
CLL                                e                  18 52 18.0
CLL                                e                  18 58 39.0
CLL                                i                  18 59 26.5
CLL                                 pmax     pmax
     comp=Z,36nm,1.8s
CLL                                 MLR      MLR
     comp=Z,2µm,21.2s,MS5.6
CLL  Collm             103.85 323  ePdiff    Pdif     18 48 00.1  0.0
CLL                                ePP       PP       18 52 18.8 +1.7
CLL  Collm             103.85 323  ePdif     Pdif     18 48 00.0 -0.1
     comp=Z,36nm,1.8s
CLL                                ePP       PP       18 52 18.0 +0.9
     comp=Z,21nm,1.3s
CLL                                eSKSac    SKSac    18 58 39.0 +0.7
CLL                                i SKKSac  SKKSac   18 59 26.5 +5.7
CLL                                eSdif     Sdif     18 59 42.0 -5.9
CLL                                esPS               19 01 43.0
CLL                                ePPS               19 02 18.0
CLL                                e(PSPS)            19 07 42.0
CLL                                eSSS               19 11 09.0
CLL                                e                  19 12 18.0
CLL                                e(SSSS)            19 15 00.0
CLL                                 LmV               19 37 00.0
     comp=Z,2µm,21.2s
CLL  Collm             103.85 323  ePdif     Pdif     18 48 00.0 -0.1
     comp=Z,36nm,1.8s
CLL                                ePP       PP       18 52 18.0 +0.9
CLL                                eSKS               18 58 39.0
CLL                                i SKKS    SKKSac   18 59 26.5 +5.7
CLL                                 LR       LR
     comp=Z,2µm,21.2s,MS5.6
KHC  Kasperske Hory    104.13 321  eP        Pdif     18 48 01.6 +0.3
KHC                                e                  18 52 19.5
KHC                                 MLR      MLR
     comp=Z,3µm,21.0s,MS5.8
KHC  Kasperske Hory    104.13 321  ePDIFF    Pdif     18 48 01.6 +0.3
KHC                                epP                18 48 15.0
KHC                                ex        x        18 51 24.0
KHC                                ePP       PP       18 52 19.5 +0.2
KHC                                ex        x        19 01 44.2
KHC                                eSKKP              19 07 33.8
KHC                                 AMS      AMS      19 37 10.0
     comp=Z,3µm,21.0s
GEC2 GERESS Array S    104.14 321  ePdiff    Pdif     18 48 01.3  0.0
GERES GERESS Array B   104.14 321   Pdiff    Pdif     18 48 01.1 -0.2
     comp=Z,1.8nm,0.7s,baz=72,slow=4.3,SNR=17
GERES                               PKiKP    PKiKP    18 52 18.5  0.0
     comp=Z,2.1nm,0.7s,baz=71,slow=2.6,SNR=6.6
GERES                               PKKPbc   PKKPbc   19 03 50.9 -0.8
     comp=Z,0.2nm,0.3s,baz=208,slow=2.6,SNR=4.0
TANN Tannenbergstha    104.45 322  ePdiff    Pdif     18 48 02.0 -0.7
TANN                               ePP       PP       18 52 24.1 +2.5
NKC  Novy Kostel       104.51 322  ePDIFF    Pdif     18 48 03.6 +0.6
BSEG Bad Segeberg      104.55 326  ePdiff    Pdif     18 48 03.5 +0.3
WET  Wettzell          104.57 321  ePdiff    Pdif     18 48 03.5 +0.2
WET                                ePP       PP       18 52 26.3 +3.8
MANZ Manzenberg        104.80 322  ePdiff    Pdif     18 48 05.0 +0.7
ROTZ Rotzenmuhle       104.80 322  ePdiff    Pdif     18 48 03.9 -0.4
ROTZ                               ePP       PP       18 52 27.3 +3.1
CADS Cadrg             104.83 318  ePP       PP       18 52 24.6 +0.1
MOX  Moxa              104.89 323  ePDIFF    Pdif     18 48 04.6 -0.1
     comp=Z,37nm,1.8s
MOX                                ePP       PP       18 52 28.0 +3.2
MOX
     comp=Z,700nm,20.0s
MOX  Moxa              104.89 323  eP        Pdif     18 48 04.6 -0.1
MOX                                e                  18 52 28.0
MOX                                 pmax     pmax
     comp=Z,37nm,1.8s
MOX                                 MLR      MLR
     comp=Z,700nm,20.0s,MS5.2
MOX  Moxa              104.89 323  ePdiff    Pdif     18 48 04.7  0.0
MOX                                ePP       PP       18 52 27.3 +2.5
RJOB Jochberg          105.03 320  ePdiff    Pdif     18 48 04.6 -0.7
RJOB                               ePP       PP       18 52 30.3 +4.3
NRDL Niedersach Rie    105.17 325  ePdiff    Pdif     18 48 06.4 +0.5
NRDL                               ePP       PP       18 52 30.2 +3.4
CLZ  Clausthal         105.24 324  ePdiff    Pdif     18 48 06.8 +0.6
COR  Corvallis         105.41  44   PFAKE             18 52 30.0 +9.0
COR                                 LR       LR
     comp=Z,1µm,20.0s,MS5.4
GRA1 Grafenberg Arr    105.43 322  ePdif     Pdif     18 48 07.4 +0.3
GRA1                               ePP       PP       18 52 31.7 +2.8
GRA1                               eSKSac    SKSac    18 58 54.1 +8.5
GRA1                               ePS       PS       19 01 53.5 +8.4
GRA1                                LR       LR
     comp=Z,2µm,21.7s,MS5.6
GRF  Grafenberg Arr    105.43 322  eP        Pdif     18 48 07.4 +0.3
GRF                                e                  18 52 31.7
GRF  Grafenberg Arr    105.43 322  eP        Pdif     18 48 07.4 +0.3
GRF                                e                  18 52 31.7
GRF                                 MLR      MLR
     comp=Z,2µm,21.7s,MS5.6
GRF  Grafenberg Arr    105.43 322  ePdiff    Pdif     18 48 07.4 +0.3
GRF                                ePP       PP       18 52 31.7 +2.8
GRF                                eSKSac    SKSac    18 58 54.1 +8.5
GRF                                ePS       PS       19 01 53.5 +8.4
GRF                                eL                 19 44 35.2
     comp=Z,2µm,21.7s
YBH  Yreka Blue Hor    106.58  46   PFAKE             18 52 30.0 +6.8
YBH                                 LR       LR
     comp=Z,2µm,20.0s,MS5.6
IBBN Ibbenburen        106.58 325  ePdiff    Pdif     18 48 13.6 +1.4
TNS  Taunus Mts        106.94 323  ePdiff    Pdif     18 48 14.6 +0.8
HOPS Hopland           106.99  49   PFAKE             18 52 40.0  +16
HOPS                                LR       LR
     comp=Z,2µm,20.0s,MS5.6
DAVOX Davos/Dischmat   107.21 319   Pdiff    Pdif     18 48 15.3 +0.3
     comp=Z,5.2nm,0.7s,baz=103,slow=9.2,SNR=8.8
DAVOX                               PKiKP    PKiKP    18 52 24.9 +0.6
     comp=Z,3.4nm,0.8s,baz=149,slow=5.9,SNR=2.9
DAVOS Davos            107.25 319   P        Pdif     18 48 15.3 +0.1
BFO  Black Forest      107.68 321  ePP       PP       18 52 47.7 +2.2
BFO  Black Forest      107.68 321   PFAKE             18 52 40.0  +15
BFO                                 LR       LR
     comp=Z,1µm,21.0s,MS5.5
CDF  Champ du Feu      108.31 322  eP        Pdif     18 48 20.5 +0.6
     comp=Z,15nm,1.2s
CDF  Champ du Feu      108.31 322  eP        Pdif     18 48 20.5 +0.6
CDF                                 pmax     pmax
     comp=Z,8.0nm,1.2s
CDF  Champ du Feu      108.31 322  eP        Pdif     18 48 20.5 +0.6
     comp=Z,7.7nm,1.2s
EDM  Edmonton          108.53  33  ePKPdf    PKiKP    18 52 24.8 -1.7
HINF Hinteralfeld      108.79 321  eP        Pdif     18 48 22.1 +0.1
N06A Buffalo Meadow    108.93  47 ⇓PKiKP    PKiKP    18 52 29.2 +1.5
     baz=109
BMO  Blue Mountains    109.41  42   PFAKE             18 52 40.0  +12
BMO                                 LR       LR
     comp=Z,1µm,19.0s,MS5.6
BAIF Baives            109.52 324  eP        Pdif     18 48 25.3  0.0
     comp=Z,30nm,1.4s
LPG  La Plagne         109.69 319  eP        Pdif     18 48 26.0  0.0
     comp=Z,19nm,1.2s
LPL  La Plagne         109.70 319  eP        Pdif     18 48 26.2 +0.1
     comp=Z,35nm,1.4s
CABF La Chapelle       109.72 320  eP        Pdif     18 48 26.2  0.0
BNI  Bardonecchia      109.90 318   PFAKE             18 52 40.0  +11
BNI                                 LR       LR
     comp=Z,3µm,19.0s,MS5.8
MBDF Montbardon        109.95 318  eP        Pdif     18 48 27.4 +0.2
C13A Hot Springs       110.13  38 ⇑P        PKKPab   19 03 42.9 -0.2
     baz=110,SNR=5.6
D13A Huson             110.43  39 ⇑PKiKP    PKiKP    18 52 30.2  0.0
     baz=110
ORIF Oris-en-Rattie    110.48 319  eP        Pdif     18 48 29.3 -0.2
     comp=Z,26nm,1.3s
NVAR Mina Array Bea    110.73  49   Pdiff    Pdif     18 48 32.3 +1.6
     comp=Z,0.8nm,0.8s,baz=231,slow=3.8,SNR=4.9
NVAR                                PKiKP    PKiKP    18 52 33.0 +1.8
     comp=Z,3.1nm,0.9s,baz=244,slow=2.1,SNR=12
NVAR                                PKKPbc   PKKPbc   19 03 30.5 -0.2
     comp=Z,0.9nm,0.7s,baz=141,slow=5.1,SNR=6.2
E13A Victor            110.86  40 ⇑PKiKP    PKiKP    18 52 30.7 -0.4
     baz=111
KEST Kesra             110.86 308   PKiKP    PKiKP    18 52 32.8 +1.3
     comp=Z,4.6nm,1.2s,baz=14,slow=17,SNR=5.6
MSO  Missoula          110.86  39  ePKPdf    PKiKP    18 52 32.0 +0.9
Q08A Gabbs             110.89  48 ⇓PKiKP    PKiKP    18 52 32.7 +1.3
     baz=111
MFID Camas Ranch       110.90  43 ⇑PKiKP    PKiKP    18 52 32.9 +1.6
     baz=111
L10A Juniper Basin     110.92  45 ⇓PKiKP    PKiKP    18 52 31.0 -0.4
     baz=111
BMN  Battle Mountai    110.92  46   PFAKE             18 52 40.0 +8.6
BMN                                 LR       LR
     comp=Z,1µm,19.0s,MS5.5
EKA  Eskdalemuir Ar    110.93 331   PKIKP    PKiKP    18 52 31.8 +0.8
EKA                                                   18 53 09.6
EKA  Eskdalemuir Ar    110.93 331   PKiKP    PKiKP    18 52 31.8 +0.8
     comp=Z,1.2nm,0.6s,baz=37,slow=2.3,SNR=7.3
EKA                                 PP       PP       18 53 09.6 +0.9
     comp=Z,3.3nm,0.8s,baz=59,slow=8.9,SNR=4.2
EKA                                 PKKPbc   PKKPbc   19 03 31.0 +0.4
     comp=Z,2.2nm,1.0s,baz=262,slow=30,SNR=3.6
K11A Parker Ranch,     110.99  44 ⇑PKiKP    PKiKP    18 52 31.5  0.0
     baz=111
D14A Greenough         111.03  39 ⇓PKiKP    PKiKP    18 52 30.9 -0.5
     baz=111
B15A Bradely Ranch,    111.10  37 ⇑PKiKP    PKiKP    18 52 31.2 -0.3
     baz=111
SMF  Signal de Mont    111.14 321  eP        Pdif     18 48 32.1 -0.3
SSF  Saint Saulge      111.18 321  eP        Pdif     18 48 33.9 +1.3
I12A Atlanta           111.24  42 ⇓PKiKP    PKiKP    18 52 33.0 +1.1
     baz=111
I12A                              ⇑P                  19 03 38.6
     baz=111
VIVF Saint-Julien-l    111.30 319  eP        Pdif     18 48 33.3 +0.1
     comp=Z,18nm,1.3s
C15A Salmond Ranch,    111.30  38 ⇑PKiKP    PKiKP    18 52 32.2 +0.3
     baz=111
AVF  Avril sur Loir    111.38 321  eP        Pdif     18 48 33.4 -0.2
J12A Stokes Ranch,     111.46  43 ⇑PKiKP    PKiKP    18 52 34.2 +1.9
     baz=111
H13A Challis           111.54  41 ⇓PKiKP    PKiKP    18 52 33.6 +1.2
     baz=112
TPH  Tonopah           111.65  49   PFAKE             18 52 40.0 +7.1
TPH                                 LR       LR
     comp=Z,1µm,19.0s,MS5.5
D15A Lincoln           111.66  38 ⇓PKiKP    PKiKP    18 52 32.9 +0.3
     baz=112
S09A Goldfield         111.76  49 ⇑PKiKP    PKiKP    18 52 33.4 +0.3
     baz=112
BGF  Bois d’Agland     111.80 321  eP        Pdif     18 48 35.6 +0.2
HLID Hailey            111.81  42 ⇓PKiKP    PKiKP    18 52 34.4 +1.4
     baz=112
HLID                              ⇓P                  19 03 36.7
     baz=112
HLID Hailey            111.81  42  ePKPdf    PKiKP    18 52 34.8 +1.8
K12A Draper Farm, C    111.81  44 ⇓PKiKP    PKiKP    18 52 34.4 +1.4
     baz=112
C16A Fuhringer Ranc    111.82  37 ⇓PKiKP    PKiKP    18 52 32.8 -0.1
     baz=112
C16A                              ⇑P                  19 03 36.1
     baz=112
E15A Deer Lodge        111.84  39 ⇑PKiKP    PKiKP    18 52 34.3 +1.3
     baz=112
I13A Wildhorse Cree    111.88  42 ⇑PKiKP    PKiKP    18 52 35.2 +2.0
     baz=112
I13A                              ⇓P                  19 03 32.8
     baz=112,SNR=6.7
DAC  Darwin (Calif)    111.90  51   PFAKE             18 52 50.0  +17
DAC                                 LR       LR
     comp=Z,1µm,19.0s,MS5.5
L12A House Creek Ra    111.91  44 ⇓PKiKP    PKiKP    18 52 34.4 +1.2
     baz=112
A17A Triple J Farms    111.94  36 ⇑PKiKP    PKiKP    18 52 34.0 +1.0
     baz=112
EDW2 Edwards Air Fo    111.98  52 ⇑PKiKP    PKiKP    18 52 32.9 -0.7
     baz=112
J13A Cove Ranch, Pi    112.03  43 ⇑PKiKP    PKiKP    18 52 35.1 +1.7
     baz=112
Q10A Clear Creek Ra    112.03  48 ⇑PKiKP    PKiKP    18 52 36.0 +2.4
     baz=112
Q10A                              ⇓P                  19 03 35.2
     baz=112
MPMC Manual Prospec    112.04  51 ⇑PKiKP    PKiKP    18 52 34.0 +0.3
     baz=112
MPMC                              ⇑P                  19 03 33.7
     baz=112
F15A Butte             112.18  40 ⇓PKiKP    PKiKP    18 52 35.2 +1.6
     baz=112
D16A Dana Ranch, Ca    112.27  38 ⇑PKiKP    PKiKP    18 52 34.4 +0.6
     baz=112
I14A Mackay           112.31  42 ⇑PKiKP    PKiKP    18 52 35.5 +1.5
     baz=112
N12A Clover Valley,    112.35  45 ⇑PKiKP    PKiKP    18 52 36.0 +1.9
     baz=112
K13A Stover Farm, H    112.37  43 ⇓PKiKP    PKiKP    18 52 35.8 +1.7
     baz=112
C17A Wharram Farm,     112.49  37 ⇑PKiKP    PKiKP    18 52 33.8 -0.3
     baz=112,SNR=5.1
Q11A Duckwater         112.58  48 ⇓PKiKP    PKiKP    18 52 35.4 +0.8
     baz=112
L13A Double Diamond    112.67  44 ⇓PKiKP    PKiKP    18 52 35.7 +1.0
     baz=113
B18A Beardsley Farm    112.73  36 ⇓PKiKP    PKiKP    18 52 34.8 +0.2
     baz=113
F16A Kennard Place,    112.75  39 ⇑PKiKP    PKiKP    18 52 35.2 +0.5
     baz=113
R11A Troy Canyon, C    112.79  48 ⇑PKiKP    PKiKP    18 52 34.7 -0.4
     baz=113
BOZ  Bozeman (W)       112.81  40   PFAKE             18 52 50.0  +15
BOZ                                 LR       LR
     comp=Z,946nm,21.0s,MS5.4
G16A Moss Hill, Enn    112.87  40 ⇓PKiKP    PKiKP    18 52 35.2 +0.3
     baz=113,SNR=5.2
EGMT Eagleton          112.92  37  ePKPdf    PKiKP    18 52 36.1 +1.1
Q12A Willow Creek R    113.12  47 ⇑P        PKKPab   19 03 32.5 +2.6
     baz=113
HEC  Hector,Ludlow     113.31  52 ⇑P        PKKPab   19 03 30.1 +1.0
     baz=113
M14A Sheep Mountain    113.31  44 ⇑PKiKP    PKiKP    18 52 37.3 +1.4
     baz=113
M14A                              ⇓P                  19 03 28.6
     baz=113,SNR=5.8
F17A Fitzpatrick Pl    113.31  39 ⇓PKiKP    PKiKP    18 52 36.8 +1.0
     baz=113,SNR=6.5
K15A Arbon             113.42  43 ⇓PKiKP    PKiKP    18 52 38.0 +1.9
     baz=113
T11A Corn Creek, Al    113.42  49 ⇓PKiKP    PKiKP    18 52 37.8 +1.6
     baz=113
T11A                              ⇓P                  19 03 29.7
     baz=113,SNR=6.7
FFC  Flin Flon         113.47  28  ePKIKP    PKiKP    18 52 36.5 +0.7
R12A Pony Springs,     113.52  48 ⇑P        PKKPab   19 03 21.4 -6.7
     baz=114
V11A Goodsprings       113.70  51 ⇓P        PKKPab   19 03 28.0 +0.6
     baz=114
MONP Monument Peak     113.78  54 ⇓P        PKKPab   19 03 29.0 +2.0
     baz=114
BELC Belle Mtn.        113.81  53 ⇑P        PKKPab   19 03 29.1 +2.2
     baz=114
F18A Big Timber        113.90  39 ⇓PKiKP    PKiKP    18 52 37.5 +0.6
     baz=114,SNR=7.6
F18A                              ⇑P                  19 03 25.8
     baz=114
DUG  Dugway            114.17  45  ePKIKP    PKiKP    18 52 39.2 +1.6
DUG  Dugway            114.17  45 ⇑P        PKKPab   19 03 19.4 -5.8
     baz=114
U12A Valley of Fire    114.20  50 ⇓P        PKKPab   19 03 27.1 +2.0
     baz=114
G18A Lazy EL Ranch,    114.26  39 ⇑P        PKKPab   19 03 26.7 +2.0
     baz=114
REDW Red Top Meadow    114.27  42  ePKPdf    PKiKP    18 52 38.3 +0.6
S13A Holt Ranch, En    114.33  48 ⇑P        PKKPab   19 03 24.7 +0.2
     baz=114,SNR=5.4
AHID Auburn Hatcher    114.35  42   PFAKE             18 52 50.0  +12
AHID                                LR       LR
     comp=Z,1µm,22.0s,MS5.5
J17A Brown Place, J    114.36  41 ⇑PKiKP    PKiKP    18 52 39.0 +1.2
     baz=114,SNR=5.8
T13A Saint George      114.49  49 ⇑P        PKKPab   19 03 25.2 +1.3
     baz=114
U13A Pakoon Wash       114.64  50 ⇓P        PKKPab   19 03 23.7 +0.6
     baz=115,SNR=5.0
EPF  Esparros          114.89 318  eP        Pdif     18 48 45.8 -3.4
M17A Scullys Gap (B    115.17  43   PKiKP    PKiKP    18 52 40.5 +1.0
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	baz=115,SNR=7.4						
M17A				⇓P		19 03 21.6	
	baz=115						
MVU	**Marysvale**	**115.22**	**47**	PFAKE		18 52 50.0	+10
MVU				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
U14A	**Mt Trumbull**	**115.24**	**49**	⇑P	PKKPab	19 03 22.1	+1.6
	baz=115,SNR=7.4						
X13A	**Yucca**	**115.34**	**51**	⇓P	PKKPab	19 03 21.5	+1.4
	baz=115						
BW06	**Boulder Array**	**115.38**	**42**	⇓P	PKKPab	19 03 20.0	+0.2
	baz=115						
PDAR	**Pinedale Array**	**115.38**	**42**	PKP	PKPdf	18 52 40.4	+0.5
	comp=Z,3.5nm,1.1s,baz=204,slow=3.3,SNR=10						
PDAR				PKKPbc	PKKPbc	19 03 15.2	-0.1
	comp=Z,1.5nm,0.8s,baz=122,slow=4.9,SNR=7.6						
L18A	**Fontenelle, Gr**	**115.42**	**43**	⇑PKiKP	PKiKP	18 52 40.5	+0.5
	baz=115,SNR=6.8						
V14A	**Boquillas Ranc**	**115.56**	**50**	⇓P	PKKPab	19 03 20.9	+1.8
	baz=116,SNR=6.3						
T15A	**Red Dirt Ranch**	**115.63**	**48**	⇑P	PKKPab	19 03 18.5	-0.3
	baz=116,SNR=6.4						
O17A	**Robinson Place**	**115.64**	**45**	⇑PKiKP	PKiKP	18 52 41.7	+1.3
	baz=116,SNR=9.5						
LAO	**LASA Array**	**115.66**	**37**	*e*PKPdf	PKPdf	18 52 42.1	+1.8
W14A	**Seligman**	**115.72**	**51**	⇑P	PKKPab	19 03 19.2	+0.7
	baz=116						
K19A	**Absolon Red Bu**	**115.83**	**41**	⇓PKiKP	PKiKP	18 52 41.7	+1.0
	baz=116,SNR=8.1						
V15A	**Kaibab Nationa**	**116.21**	**50**	⇑P	PKKPab	19 03 14.3	-1.9
	baz=116,SNR=6.8						
SRU	**San Rafael**	**116.22**	**46**	⇑PKiKP	PKiKP	18 52 42.6	+1.1
	baz=116,SNR=8.5						
SRU				⇓P		19 03 12.1	
	baz=116						
R17A	**Hanksville Air**	**116.35**	**46**	⇓PKiKP	PKiKP	18 52 43.2	+1.3
	baz=116,SNR=9.5						
Q18A	**Rafter H Ranch**	**116.50**	**46**	⇑PKiKP	PKiKP	18 52 43.0	+0.9
	baz=116,SNR=6.8						
Q18A				⇓P		19 03 11.3	
	baz=116						
S17A	**Black Ridge (B**	**116.58**	**47**	⇓PKiKP	PKiKP	18 52 43.9	+1.6
	baz=116,SNR=6.5						
X15A	**Humboldt**	**116.61**	**51**	⇓P	PKKPab	19 03 11.0	-3.5
	baz=117,SNR=9.6						
O19A	**Miners Draw (B**	**116.72**	**44**	⇓PKiKP	PKiKP	18 52 43.9	+1.4
	baz=117,SNR=5.2						
T17A	**Navajo Res., N**	**116.82**	**48**	⇓PKiKP	PKiKP	18 52 45.2	+2.4
	baz=117,SNR=21						
T17A				⇑P		19 03 11.5	
	baz=117						
U16A	**Tuba City**	**116.89**	**49**	⇑PKiKP	PKiKP	18 52 44.7	+1.7
	baz=117						
U16A				⇓P		19 03 10.3	
	baz=117						
U16A				⇑P		19 03 15.4	
	baz=117						
WUAZ	**Wupatki**	**116.92**	**50**	⇑PKiKP	PKiKP	18 52 44.4	+1.4
	baz=117						
WUAZ				⇑P		19 03 11.0	
	baz=117						
WUAZ				⇓P		19 03 15.5	
	baz=117						
WUAZ	**Wupatki**	**116.92**	**50**	*e*PKPdf	PKPdf	18 52 44.1	+1.1
R18A	**Canyonlands Na**	**116.95**	**46**	⇓PKiKP	PKiKP	18 52 44.2	+1.2
	baz=117,SNR=10						
W16A	**Flagstaff**	**116.95**	**50**	⇑P	PKKPab	19 03 11.3	-1.7
	baz=117						
W16A				⇓P		19 03 15.6	
	baz=117						
N20A	**Spence Gulch,**	**117.09**	**43**	⇑PKiKP	PKiKP	18 52 44.9	+1.7
	baz=117,SNR=9.4						
N20A				⇓P		19 03 09.8	
	baz=117						
P19A	**Cripple Cowboy**	**117.10**	**45**	⇑PKiKP	PKiKP	18 52 44.5	+1.2
	baz=117,SNR=6.1						
S18A	**Hurst Farm, Bl**	**117.15**	**47**	⇓PKiKP	PKiKP	18 52 43.0	-0.4
	baz=117,SNR=14						
Q19A	**Hogan Spring (**	**117.18**	**45**	⇑PKiKP	PKiKP	18 52 45.2	+1.7
	baz=117,SNR=7.3						
Q19A				⇓P		19 03 09.9	
	baz=117						
Q19A				⇓P		19 03 14.4	
	baz=117						
TAM	**Tamanrasset**	**117.21**	**296**	*e*PKIKP	PKPdf	18 52 45.6	+1.7
X16A	**Lo Mia Camp, P**	**117.26**	**51**	⇓P	PKKPab	19 03 08.6	-3.1
	baz=117						
X16A				⇓P		19 03 13.7	
	baz=117						
O20A	**White River Ci**	**117.40**	**44**	⇓PKiKP	PKiKP	18 52 45.1	+1.2
	baz=117,SNR=17						
Y16A	**Circle Bar Ran**	**117.41**	**51**	⇑P	PKKPab	19 03 12.5	+1.5
	baz=117						
T18A	**Mexican Hat**	**117.45**	**48**	⇓PKiKP	PKiKP	18 52 45.3	+1.2
	baz=117,SNR=14						
P20A	**De Beque**	**117.57**	**45**	⇓PKiKP	PKiKP	18 52 45.9	+1.7
	baz=118,SNR=6.7						
N21A	**Black Mountain**	**117.63**	**43**	⇑PKiKP	PKiKP	18 52 45.2	+1.0
	baz=118,SNR=6.9						
U18A	**Rough Rock, Ch**	**117.73**	**48**	⇓PKiKP	PKiKP	18 52 46.0	+1.4
	baz=118,SNR=6.4						
U18A				⇓P		19 03 07.0	
	baz=118						
U18A				⇓P		19 03 10.6	
	baz=118						
Q20A	**Ridgley Place,**	**117.86**	**45**	⇓PKiKP	PKiKP	18 52 46.3	+1.5
	baz=118,SNR=9.8						
V18A	**Ganado**	**117.95**	**49**	⇑PKiKP	PKiKP	18 52 45.9	+0.8
	baz=118,SNR=7.3						
Y17A	**Roosevelt**	**117.97**	**51**	⇑P	PKKPab	19 03 10.5	+2.0
	baz=118,SNR=5.9						
R20A	**Redvale**	**118.12**	**46**	⇓PKiKP	PKiKP	18 52 47.0	+1.7
	baz=118,SNR=7.0						
RSSD	**Black Hills**	**118.29**	**38**	*e*PKIKP	PKPdf	18 52 45.3	-0.1
X18A	**Snowflake**	**118.37**	**50**	⇑P	PKKPab	19 03 10.2	+3.5
	baz=118						
Q21A	**Lamborn Mesa,**	**118.43**	**45**	⇓PKiKP	PKiKP	18 52 48.0	+2.1
	baz=118						
MVCO	**Mesa Verde**	**118.43**	**47**	⇑PKiKP	PKiKP	18 52 48.4	+2.5
	baz=118						
MVCO				⇓P		19 03 08.8	
	baz=118						
MVCO	**Mesa Verde**	**118.43**	**47**	*e*PKPdf	PKPdf	18 52 48.4	+2.4
TUC	**Tucson**	**118.49**	**53**	*e*PKIKP	PKPdf	18 52 47.7	+1.5
Y19A	**Nutrioso**	**119.11**	**51**	⇑PKiKP	PKiKP	18 52 48.7	+1.3
	baz=119,SNR=14						
Y19A				⇑P		19 03 05.9	
	baz=119						
ULM	**Lac du Bonnet**	**119.19**	**29**	PKP	PKPdf	18 52 47.2	+0.2
	comp=Z,9.0nm,0.9s,baz=291,slow=3.4,SNR=8.7						
ULM				PKKPbc	PKKPbc	19 02 59.9	-2.0
	comp=Z,2.8nm,0.5s,baz=106,slow=4.0,SNR=5.9						
ULM	**Lac du Bonnet**	**119.19**	**29**	PKP	PKPdf	18 52 47.2	+0.2
ULM				PKKPbc	PKKPbc	19 02 59.9	-2.0
W20A	**Ramah**	**119.25**	**49**	⇑PKiKP	PKiKP	18 52 48.6	+1.0
	baz=119,SNR=14						
R22A	**Saguache, Gunn**	**119.27**	**45**	⇓PKiKP	PKiKP	18 52 48.8	+1.3
	baz=119						
ESDC	**Sonseca Array**	**119.28**	**317**	PKP	PKPdf	18 52 47.4	-0.1
	comp=Z,1.8nm,0.8s,baz=20,slow=4.7,SNR=5.9						
ESDC				PP	PP	18 54 08.0	0.0
	comp=Z,2.7nm,0.8s,baz=57,slow=8.0,SNR=6.5						
PAB	**San Pablo**	**119.60**	**317**	*e*PKIKP	PKPdf	18 52 49.2	+1.1
T22A	**Edith**	**119.68**	**47**	⇓PKiKP	PKiKP	18 52 50.1	+1.7
	baz=120						
319A	**Douglas**	**120.01**	**53**	⇑PKiKP	PKiKP	18 52 50.9	+1.7
	baz=120,SNR=13						
PBRG	**Braganca**	**120.10**	**320**	*e*PKP	PKPdf	18 52 49.9	+0.9
SDCO	**Great Sand Dun**	**120.37**	**45**	*e*PKPdf	PKPdf	18 52 51.5	+1.9
MVO	**Moncorvo**	**120.61**	**319**	*e*PKP	PKPdf	18 52 51.4	+1.4
MVO				*e*LR	LR	19 38 31.4	
	comp=Z,1µm,22.9s						
X22A	**Bernardo**	**120.62**	**49**	⇑PKiKP	PKiKP	18 52 52.3	+2.0
	baz=121						
ANMO	**Albuquerque**	**120.86**	**49**	*e*PKIKP	PKPdf	18 52 51.8	+1.2
ANMO				MLR	MLR		
	comp=Z,1µm,19.0s						
PVRL	**Vila Real**	**121.00**	**320**	*e*PKP	PKPdf	18 52 51.9	+1.2
MTE	**Manteigas**	**121.34**	**319**	*e*PKP	PKPdf	18 52 53.0	+1.6
MTE				*e*LR	LR	19 39 30.7	
	comp=Z,1µm,22.0s						
MTE	**Manteigas**	**121.34**	**319**	*e*PKPdf	PKPdf	18 52 51.8	+0.4
PVIS	**Viseu**	**121.41**	**319**	*e*PKP	PKPdf	18 52 52.3	+0.8
PCBR	**Castelo Branco**	**121.58**	**318**	*e*PKP	PKPdf	18 52 55.8	+3.9
PMRV	**Marv??o**	**121.73**	**318**	*e*PKP	PKPdf	18 52 52.9	+0.7
PMRV				*e*LR	LR	19 39 49.7	
	comp=Z,928nm,19.3s						
PESTR	**Estremoz**	**122.14**	**317**	*e*PKP	PKPdf	18 52 54.3	+1.3
PESTR				A		19 53 49.5	
	comp=Z,1µm,18.0s						
TORD	**Torodi Ar. Bea**	**122.50**	**285**	PKP	PKPdf	18 52 54.0	-0.3
	comp=Z,22nm,0.7s,baz=42,slow=2.1,SNR=104						
TORD				PKKPbc	PKKPbc	19 02 50.7	+2.2
	comp=Z,4.9nm,0.8s,baz=261,slow=3.6,SNR=18						
TORD	**Torodi Ar. Bea**	**122.50**	**285**	PKP	PKPdf	18 52 54.0	-0.3
TORD				PKKPbc	PKKPbc	19 02 50.7	+2.2
EVO	**Evora**	**122.59**	**317**	*e*PKIKP	PKPdf	18 52 54.7	+0.8
	comp=Z,51nm,1.2s						
EVO	**Evora**	**122.59**	**317**	*e*PKP	PKPdf	18 52 55.7	+1.8
EVOP	**Sao Brissos**	**122.67**	**317**	*e*PP	PP	18 54 30.4	-0.7
PBEJ	**Beja**	**122.74**	**317**	*e*PKP	PKPdf	18 52 56.1	+1.9
EYMN	**Ely**	**122.87**	**29**	*e*PKPdf	PKPdf	18 52 53.6	-0.5
MORF	**Marmelete**	**123.64**	**316**	*e*PKP	PKPdf	18 52 57.6	+1.7
MORF				A		19 57 39.5	
	comp=Z,1µm,20.0s						
CBKS	**Cedar Bluff**	**123.81**	**42**	*e*PKIKP	PKPdf	18 52 56.4	+0.2
AMTX	**Amarillo**	**124.42**	**47**	*e*PKPdf	PKPdf	18 52 59.1	+1.6
AMTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
SCHQ	**Schefferville**	**124.71**	**8**	PKP	PKPdf	18 52 57.9	+0.4
	comp=Z,26nm,0.7s,baz=2.0,slow=2.5,SNR=72						
TXAR	**Lajitas Array**	**125.27**	**54**	PKP	PKPdf	18 53 00.1	+0.8
	comp=Z,8.1nm,0.8s,baz=239,slow=1.1,SNR=71						
TXAR				PKKPbc		19 02 38.6	
	comp=Z,0.6nm,0.7s,baz=120,slow=5.3,SNR=5.8						
KSU1	**Kansas State U**	**125.69**	**40**	*e*PKPdf	PKPdf	18 53 00.5	+0.7
WMOK	**Wichita Mounta**	**126.57**	**45**	*e*PKIKP	PKPdf	18 53 01.8	+0.2
JFWS	**Jewell Farm**	**127.01**	**32**	*e*PKIKP	PKPdf	18 53 02.6	+0.4
JCT	**Junction City**	**127.84**	**51**	*e*PKIKP	PKPdf	18 53 05.3	+1.1
GLMI	**Grayling**	**128.38**	**27**	PFAKE		18 53 20.0	+15
GLMI				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
HDIL	**Hopedale**	**129.15**	**34**	*e*PKPdf	PKPdf	18 53 06.5	+0.2
KIC	**Kosan Boka**	**129.59**	**278**	*e*PKP1	PKPdf	18 53 08.3	+0.4
	comp=Z,211nm,1.1s						
CCM	**Cathedral Cave**	**129.66**	**37**	*e*PKIKP	PKPdf	18 53 07.4	0.0
DBIC	**Dimbokro**	**129.68**	**278**	PKP	PKPdf	18 53 08.1	0.0
	comp=Z,13nm,0.6s,baz=74,slow=2.4,SNR=24						
DBIC				SKPbc		18 56 29.1	
	comp=Z,18nm,1.1s,baz=96,slow=2.9,SNR=5.8						
DBIC	**Dimbokro**	**129.68**	**278**	PKP	PKPdf	18 53 08.1	0.0
DBIC				SKPbc		18 56 29.1	
TIC	**Toumodi**	**129.84**	**278**	*e*PKP1	PKPdf	18 53 09.1	+0.7
	comp=Z,276nm,1.5s						
LIC	**Lamto**	**129.89**	**278**	*e*PKIKP	PKPdf	18 53 09.0	+0.5
	comp=Z,38nm,0.6s						
LIC	**Lamto**	**129.89**	**278**	*e*PKP1	PKPdf	18 53 09.0	+0.5
	comp=Z,65nm,0.6s						
MIAR	**Mount Ida**	**130.29**	**43**	*e*PKIKP	PKPdf	18 53 09.6	+0.9
MIAR				*e*		18 55 19.0	
MIAR	**Mount Ida**	**130.29**	**43**	*e*PKPdf	PKPdf	18 53 09.6	+0.9
MIAR				*e*PP	PP	18 55 19.0	-2.7
MIAR				*e*SKP		18 56 29.8	
OLIL	**Olney**	**131.07**	**35**	*e*PKPdf	PKPdf	18 53 10.5	+0.4
OLIL				*e*SKP		18 56 32.3	
HKT	**Hockley**	**131.12**	**49**	*e*PKPdf	PKPdf	18 53 11.8	+1.4
HKT				*e*SKP		18 56 33.4	
BLO	**Bloomington**	**131.64**	**33**	*e*SKP		18 53 10.9	
WCI	**Wyandotte Cave**	**132.43**	**34**	*e*PKPdf	PKPdf	18 53 12.4	-0.2
WCI				*e*SKP		18 56 35.8	
ACSO	**Alum Creek Sta**	**132.69**	**29**	*e*Pdif	Pdif	18 50 12.8	+4.5
ACSO				*e*PKPdf	PKPdf	18 53 13.5	+0.4
ACSO				*e*SKP		18 56 38.1	
WVT	**Waverly**	**132.99**	**37**	*e*PKPdf	PKPdf	18 53 14.6	+0.8
WVT				*e*SKP		18 56 38.4	
PLAL	**Pickwick Lake**	**133.59**	**38**	*e*PKPdf	PKPdf	18 53 13.8	-1.1
CMLA	**Cha da Macela**	**133.88**	**327**	*i* PKIKP	PKiKP	18 53 19.4	+2.7
BINY	**Binghamton**	**134.11**	**22**	*e*PKPdf	PKPdf	18 53 15.9	+0.3
BINY				*e*SKP		18 56 42.4	
BINY				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
MCWV	**Mont Chateau**	**134.63**	**27**	*e*PKPdf	PKPdf	18 53 17.8	+1.1
TZTN	**Tazewell**	**135.16**	**33**	*e*PKPdf	PKPdf	18 53 15.0	-2.8
LRAL	**Lakeview Retre**	**135.54**	**40**	*e*PKPpre		18 53 05.9	
LRAL				*e*PKPdf	PKPdf	18 53 19.2	+0.5
LRAL				*e*SKP		18 56 46.6	
BLA	**Blacksburg**	**136.29**	**30**	*e*PKPdf	PKPdf	18 53 20.8	+0.9
BLA				*e*SKP		18 56 49.7	
PLCA	**Paso Flores**	**136.81**	**163**	PKP	PKPdf	18 53 21.7	+0.9
	comp=Z,8.4nm,0.7s,baz=191,slow=3.0,SNR=9.2						
PLCA				SKPbc	SKPbc	18 56 52.2	+0.4
	comp=Z,8.5nm,1.0s,baz=203,slow=6.7,SNR=5.1						
PLCA	**Paso Flores**	**136.81**	**163**	PKP	PKPdf	18 53 21.7	+0.9
PLCA				SKPbc		18 56 52.2	
CMIG	**Matias Romero**	**137.21**	**65**	SKPbc		18 56 53.1	
	comp=Z,6.9nm,0.9s,baz=280,slow=2.5,SNR=5.8						
GOGA	**Godfrey**	**137.46**	**36**	*e*PKPpre		18 53 13.4	
GOGA				*e*SKP		18 56 53.2	
GOGA				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
TEIG	**Tepich**	**141.77**	**57**	PKP	PKPdf	18 53 27.8	-2.6
	comp=Z,10nm,1.0s,baz=297,slow=8.6,SNR=1.8						
DWPF	**Disney**	**142.39**	**40**	PFAKE		18 53 40.0	+8.7
DWPF				LR	LR		
	comp=Z,959nm,22.0s,MS5.5						
TGUH	**Tegucigalpa,Un**	**145.13**	**65**	*e*PKPdf	PKPdf	18 53 36.8	+0.4
CMCH	**Combarbala**	**145.22**	**155**	⇑*i*P	PKPbc	18 53 36.3	+0.5
CMCH	**Combarbala**	**145.22**	**155**	⇑*i*P	PKPbc	18 53 36.3	+0.5
BBSR	**BB Station**	**146.72**	**15**	*e*PKPbc	PKPbc	18 53 40.5	+0.2
BBSR				LR	LR		
	comp=Z,861nm,21.0s,MS5.5						
LCO	**Las Campanas**	**147.22**	**154**	*e*PKPbc	PKPbc	18 53 42.0	+0.1
JTS	**JuntasAbangare**	**148.48**	**71**	PKP	PKPbc	18 53 43.3	-2.4
	comp=Z,78nm,0.8s,baz=3.5,slow=3.8,SNR=7.6						
JTS				PKPbc	PKPab	18 53 45.9	-3.1
	comp=Z,96nm,0.9s,baz=1.9,slow=2.9,SNR=6.3						
JTS	**JuntasAbangare**	**148.48**	**71**	*e*PKPdf	PKPdf	18 53 42.8	+0.7
JTS				*e*PKPbc	PKPbc	18 53 47.0	+1.3
GTBY	**Guantanamo Bay**	**152.16**	**44**	*e*PKPbc	PKPbc	18 53 54.5	+0.2
GTBY				LR	LR		
	comp=Z,935nm,21.0s,MS5.6						
CPUP	**Villa Florida**	**153.48**	**175**	PKP	PKPdf	18 53 50.5	+1.0
	comp=Z,4.2nm,0.7s,baz=62,slow=3.4,SNR=11						
CPUP				PKPbc	PKPbc	18 53 58.9	+1.7
	comp=Z,12nm,0.6s,baz=148,slow=1.0,SNR=30						
CPUP				PKPab	PKPab	18 54 09.1	-0.1
	comp=Z,15nm,0.6s,baz=149,slow=2.1,SNR=12						
CPUP	**Villa Florida**	**153.48**	**175**	PKP	PKPdf	18 53 50.5	+1.0
CPUP				PKPbc	PKPbc	18 53 58.9	+1.7
CPUP				PKPab	PKPab	18 54 09.1	-0.1
LVC	**Limon Verde**	**153.50**	**150**	*e*PKPbc	PKPbc	18 53 58.9	+1.6
NNA	**Nana**	**155.05**	**120**	PKP	PKPdf	18 53 54.0	+2.0
	comp=Z,12nm,0.9s,baz=13,slow=0.8,SNR=3.8						
NNA	**Nana**	**155.05**	**120**	*e*PKPdf	PKPdf	18 53 53.7	+1.7
NNA				*e*PP	PP	18 57 42.0	-10
ATAH	**Atahualpa**	**155.47**	**107**	PKP	PKPdf	18 53 53.8	+1.2
	comp=Z,9.7nm,0.7s,baz=281,slow=6.9,SNR=7.6						
ATAH				PKPab	PKPab	18 54 17.4	-0.8
	comp=Z,7.4nm,0.5s,baz=96,slow=10,SNR=5.0						
OTAV	**Otavalo**	**156.44**	**90**	*e*PKPdf	PKPdf	18 53 54.6	+0.7
ROSC	**El Rosal**	**160.05**	**76**	PKP	PKPdf	18 53 59.1	+0.8
	comp=Z,8.3nm,0.4s,baz=264,slow=23,SNR=7.9						
ROSC				PKPab	PKPab	18 54 39.1	+1.1
	comp=Z,26nm,0.7s,baz=91,slow=12,SNR=6.6						
ANWB	**Willy Bob**	**161.40**	**21**	PFAKE		18 54 10.0	+10
ANWB				LR	LR		
	comp=Z,1µm,22.0s						
SDV	**Santo Domingo**	**162.12**	**61**	PKP	PKPdf	18 54 00.8	+0.3
	comp=Z,16nm,0.8s,baz=202,slow=1.6,SNR=16						
SDV				PKPab	PKPab	18 54 49.2	+2.2
	comp=Z,17nm,0.8s,baz=324,slow=4.4,SNR=6.2						
SDV	**Santo Domingo**	**162.12**	**61**	*e*PKPdf	PKPdf	18 54 00.7	+0.3
SIV	**San Ignacio**	**162.76**	**160**	PKP	PKPdf	18 54 01.0	+0.1
	comp=Z,7.0nm,0.8s,baz=173,slow=1.9						
PCRV	**Puerto La Cruz**	**166.16**	**44**	PKP	PKPdf	18 54 03.5	-0.5
	comp=Z,8.5nm,0.9s,baz=51,slow=20,SNR=3.4						
GRGR	**Grenville**	**166.41**	**29**	PFAKE		18 54 10.0	+5.8
GRGR				LR	LR		
	comp=Z,1µm,22.0s						

IDC 09 19:02:14.3±1.9**, 16°.98N**×**119°.70E, h0**^{km}**, mb3.5**/3**,**
mb1 3.7/4**, mb1mx3.4**/21**, mbtmp3.4**/4**, ML3.3**/1**, Error**
ellipse: s-maj=77.8km s-min=24.4km az=52.0, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**19.83**	**277**	P	Pn	19 06 46.5	-1.8
	0.0nm,0.3s,baz=94,slow=7.6,SNR=7.4						
WRA	**Warramunga Arr**	**39.41**	**158**	P	P	19 09 45.9	-0.1
	0.5nm,0.4s,baz=342,slow=9.1,SNR=4.6						
ASAR	**Alice Springs**	**42.71**	**161**	P	P	19 10 13.4	+0.2
	0.4nm,0.6s,baz=340,slow=7.5,SNR=5.5						
MKAR	**Makanchi Array**	**42.85**	**322**	P	P	19 10 14.2	0.0
	0.7nm,0.9s,baz=131,slow=8.7,SNR=5.8						

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*IDC **09** 19:17:00.7±0.5, 46°.90N×152°.88E, h0^{km}, mb4.1/21,*
mb1 4.3/23, mb1mx4.2/27, mbtmp4.1/23, ML3.7/1, Error
ellipse: s-maj=17.6km s-min=12.8km az=154.0
*JMA **09** 19:17:04.8±0.8, 46°.93N×153°.01E, h30^{km}, M4.9*
*ISCJB **09** 19:17:04.6±0.7, 46°.81N±0°.05×152°.91E±0°.07, h38^{km}±6^{km},*
mb4.4/64, Error ellipse: s-maj=11.0km s-min=4.8km
az=139.9
*SKHL **09** 19:17:05.2±0.1, 46°.60N×153°.20E, h75^{km}±44^{km}, mb4.9/5*
*MOS **09** 19:17:06.0±0.9, 46°.85N×152°.91E, h51^{km}, mb4.6/28, Error*
ellipse: s-maj=9.5km s-min=7.0km az=98.8
*BJI **09** 19:17:08.0, 46°.68N×152°.90E, h74^{km}, mB4.8/7, mb4.5/15,*
Ms4.5/1, Ms7 4.4/1
*NEIC **09** 19:17:09.3±0.9, 46°.87N×152°.82E, h64^{km}±7^{km}, mb4.4/30,*
Error ellipse: s-maj=9.1km s-min=5.5km az=155.0
ISC 09 19:17:07.4±0.6**, 46°.87N**±0°.05×**152°.87E**±0°.07**, h45**^{km}±4^{km}**,**
n202, σ**1**^{s}**.14**/211**, mb4.4**/64**, 5C-14D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**3.85**	**247**	*e*P	**Pn**	**19 18 02.0**	**-2.1**
KUR				AMB	AMB	19 18 07.8	
	50nm,0.5s						
KUR				AMB	AMB	19 18 07.8	
	110nm,0.5s						
KUR				AMB	AMB	19 18 07.8	
	170nm,0.5s						
KUR				*e*S	**Sn**	**19 18 44.7**	**-3.3**
KUR				A		19 19 08.0	
	880nm,0.5s						
KUR				A		19 19 08.0	
	280nm,0.5s						
KUR				A		19 19 08.0	
	2µm,1.0s						
KUR				A		19 19 08.0	
	2µm,1.0s						
SKR	**Severo-Kuril's**	**4.38**	**28**	*e*PN	**Pn**	**19 18 11.5**	**+0.2**
SKR				*e*S	**Sn**	**19 19 01.2**	**+0.2**
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=E,80nm,0.5s						
SKR				smax			
	comp=N,160nm,0.6s						
SKR				smax			
	comp=Z,80nm,0.6s						
SKR	**Severo-Kuril's**	**4.38**	**28**	*e*P	**Pn**	**19 18 11.5**	**+0.2**
SKR				AMB	AMB	19 18 17.0	
	comp=Z,80nm,0.5s						
SKR				*e*S	**Sn**	**19 19 01.2**	**+0.2**
SKR				A		19 19 11.0	
	comp=Z,160nm,0.6s						
SKR				A		19 19 11.0	
	comp=Z,80nm,0.6s						
YUK	**Yuzh-Kuril'sk**	**5.69**	**243**	*e*P	**Pn**	**19 18 31.0**	**+1.7**
YUK				AMB	AMB	19 18 32.5	
	comp=Z,230nm,0.5s						
YUK				A		19 19 54.0	
	comp=Z,2µm,1.0s						
YUK				A		19 19 54.0	
	comp=Z,2µm,0.8s						
YUK				A		19 19 59.5	
	comp=Z,1µm,0.5s						
YUK				A		19 19 59.5	
	comp=Z,690nm,0.5s						
NEM2	**Nemuro 2**	**6.14**	**238**	P	**Pn**	**19 18 33.7**	**-1.8**
NEM2				*e*S	**Sn**	**19 19 40.3**	**-4.1**
JRA	**Rausu**	**6.19**	**245**	P	**Pn**	**19 18 37.7**	**+1.5**
JNK	**Nakash**	**6.63**	**243**	P	**Pn**	**19 18 43.0**	**+0.8**
JNK				*e*S	**Sn**	**19 19 56.0**	**-0.3**
YSS	**Yuzh-Sakhalins**	**6.93**	**274**	*e*PN	**Pn**	**19 18 49.2**	**+2.9**
YSS				*e*S	**Sn**	**19 20 08.4**	**+4.6**
YSS				pmax	pmax		
	comp=E,20nm,1.0s						
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS	**Yuzh-Sakhalins**	**6.93**	**274**	*e*P	**Pn**	**19 18 49.2**	**+2.9**
YSS				AMB	AMB	19 18 52.1	
	comp=Z,20nm,1.0s						
YSS				AMB	AMB	19 18 52.1	
	comp=Z,30nm,1.0s						
YSS				*e*S	**Sn**	**19 20 08.4**	**+4.6**
YSS	**Yuzh-Sakhalins**	**6.93**	**274**	*e*Pn	**Pn**	**19 18 49.3**	**+3.0**
	comp=Z,40nm,0.9s						
YSS				*e*Sn	**Sn**	**19 20 02.5**	**-1.3**
JTKR	**Abashiri--Toko**	**6.94**	**249**	P	**Pn**	**19 18 48.2**	**+1.7**
JAK	**Akkeshi**	**6.97**	**239**	P	**Pn**	**19 18 45.4**	**-1.5**
JAK				*e*S	**Sn**	**19 19 59.1**	**-5.8**
PETK	**Petropavlovsk-**	**6.98**	**25**	Pn	**Pn**	**19 18 43.2**	**-3.6**
	baz=228,slow=15,SNR=3.3						
PET	**Petropavlovsk**	**7.20**	**29**	*e*PN	**Pn**	**19 18 58.5**	**+8.5**
PET				pmax	pmax		
	comp=Z,22nm,0.7s						
PET	**Petropavlovsk**	**7.20**	**29**	*e*Pn	**Pn**	**19 18 53.1**	**+3.2**
PET				*e*Sn	**Sn**	**19 20 06.9**	**-3.4**
JMP	**Maruseppu**	**7.28**	**250**	P	**Pn**	**19 18 53.3**	**+2.2**
JAR	**Ashorobuto**	**7.37**	**244**	P	**Pn**	**19 18 52.8**	**+0.5**
JSE	**Soyaes**	**7.43**	**259**	P	**Pn**	**19 18 55.9**	**+2.8**
JOB	**Onbets**	**7.54**	**242**	P	**Pn**	**19 18 54.6**	**-0.1**
JOB				*e*S	**Sn**	**19 20 16.2**	**-2.6**
UGL	**Uglegorsk**	**7.58**	**291**	*e*P	**Pn**	**19 19 00.5**	**+5.3**
ASAJ	**Asahikawa**	**7.73**	**253**	PN	**Pn**	**19 18 59.4**	**+2.2**
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	**Asahikawa**	**7.73**	**253**	P	**Pn**	**19 19 00.1**	**+2.9**
ASAJ	**Asahikawa**	**7.73**	**253**	Pn	**Pn**	**19 18 59.4**	**+2.2**
	comp=Z,3.7nm,0.3s,baz=86,slow=12,SNR=52						
JKK2	**Kamakawa 2**	**7.73**	**251**	P	**Pn**	**19 18 59.6**	**+2.3**
JWK2	**Keihoku**	**7.79**	**262**	P	**Pn**	**19 19 03.9**	**+5.9**
JCH	**Churui**	**7.99**	**241**	P	**Pn**	**19 18 59.7**	**-1.2**
JCH				*e*S	**Sn**	**19 20 26.0**	**-3.9**
JFR	**Furan**	**8.17**	**247**	P	**Pn**	**19 19 04.6**	**+1.3**
JAB	**Ashibetsu**	**8.24**	**250**	P	**Pn**	**19 19 06.8**	**+2.5**
ERM	**Erimo**	**8.47**	**239**	*e*P	**Pn**	**19 19 07.8**	**+0.3**
ERM	**Erimo**	**8.47**	**239**	*e*Pn	**Pn**	**19 19 07.5**	**0.0**
	comp=Z,55nm,0.5s						
JEM	**Erimo**	**8.47**	**239**	P	**Pn**	**19 19 07.6**	**+0.1**
JBT2	**Biratori 2**	**8.51**	**245**	P	**Pn**	**19 19 08.0**	**0.0**
JNBK	**Urakawa-nobuka**	**8.55**	**241**	P	**Pn**	**19 19 06.7**	**-1.9**
JEW	**Eniwo**	**9.06**	**248**	P	**Pn**	**19 19 16.5**	**+1.1**
JNB	**Noboribetsu**	**9.51**	**247**	P	**Pn**	**19 19 21.2**	**-0.4**
JNB				*e*S	**Sn**	**19 21 02.9**	**-4.2**
JKB	**Kayabe**	**9.83**	**244**	P	**Pn**	**19 19 24.7**	**-1.3**
JKB				*e*S	**Sn**	**19 21 08.6**	**-6.3**
NKL	**Nikolayevsk**	**10.05**	**313**	*e*P	**Pn**	**19 19 28.5**	**-0.4**
NKL				AMB	AMB	19 19 31.0	
	comp=Z,24nm,1.0s						
JSH	**Shimam**	**10.05**	**250**	P	**Pn**	**19 19 29.8**	**+0.7**
JYM2	**Yakumo 2**	**10.11**	**247**	P	**Pn**	**19 19 29.4**	**-0.5**
JTM	**Tenmabayashi**	**10.47**	**239**	P	**Pn**	**19 19 32.0**	**-2.8**
JANG	**Nango**	**10.48**	**236**	*e*S	**Sn**	**19 21 19.4**	**-11**
JOSM	**Okushiri--Mats**	**10.70**	**248**	P	**Pn**	**19 19 37.1**	**-0.8**
OFUJ	**Ofunato**	**11.30**	**230**	P	**Pn**	**19 19 41.9**	**-4.3**
JRG	**Rokugo**	**11.64**	**234**	P	**Pn**	**19 19 47.5**	**-3.3**
KLR	**Kul'dur**	**14.32**	**287**	*e*P	**Pn**	**19 20 29.0**	**+1.7**
MAJO	**Matsushiro**	**15.02**	**232**	*e*P	**Pn**	**19 20 33.1**	**-3.5**
MAJO				pmax	pmax		
	comp=Z,11nm,0.5s						
MAJO	**Matsushiro**	**15.02**	**232**	*e*Pn	**Pn**	**19 20 33.1**	**-3.5**
	comp=Z,11nm,0.5s						
MAT	**Matsushiro**	**15.02**	**232**	P	**Pn**	**19 20 41.7**	**+5.1**
MJAR	**Matsushiro Arr**	**15.02**	**232**	Pn	**Pn**	**19 20 33.5**	**-3.1**
	comp=Z,0.3nm,0.3s,baz=36,slow=9.8,SNR=5.6						
SEY	**Seymchan**	**16.10**	**359**	*i* P	**Pn**	**19 20 55.1**	**+4.8**
MDJ	**Mudanjiang**	**16.40**	**271**	*e*Pn	**Pn**	**19 20 53.0**	**-1.2**
	comp=Z,5.6nm,0.6s						
CN2	**Changchun**	**19.48**	**271**	*e*P	**Pn**	**19 21 30.1**	**-1.8**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
YAK	**Yakutsk**	**20.13**	**327**	*e*P	**P**	**19 21 38.0**	**+0.7**
YAK				pmax	pmax		
	comp=Z,12nm,1.0s						
YAK	**Yakutsk**	**20.13**	**327**	*e*P	**P**	**19 21 37.3**	**0.0**
	comp=Z,12nm,0.8s						
KSRS	**Korea Array**	**20.68**	**252**	P	**P**	**19 21 43.4**	**0.0**
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.6s						
KSRS	**Korea Array**	**20.68**	**252**	P	**P**	**19 21 43.4**	**0.0**

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       comp=Z,4.2nm,0.6s,baz=59,slow=9.5,SNR=22
INCN  Inchon              21.50 254  P       P         19 21 54.8 +2.5
       comp=Z,144nm,1.7s,mb5.1
HIA   Hailar              22.17 288  P       P         19 21 58.0 -1.3
HIA                                  pmax    pmax
       comp=Z,4.0nm,0.6s
HIA   Hailar              22.17 288  P       P         19 21 58.0 -1.3
       comp=Z,3.7nm,0.6s,mb4.0
BILL  Bilibino            22.31  13  eP      P         19 22 04.5 +3.8
BILL                                 pmax    pmax
       comp=Z,5.0nm,1.0s,mb3.9
BILL  Bilibino            22.31  13  eP      P         19 21 54.6 -6.0
       comp=Z,67nm,1.8s,mb4.8
BJT   Baijiatuau          27.33 269  P       P         19 22 48.5 +0.6
       comp=Z,13nm,0.8s,mb4.5
NJ2   Nanjing             29.87 253  eP      P         19 23 08.4 -2.2
NJ2                                  pmax    pmax
       comp=Z,10.0nm,0.7s,mb4.7
ULN   Ulaanbaatar         30.70 289  eP      P         19 23 17.9 +0.2
ULN                                  pmax    pmax
       comp=Z,3.0nm,0.8s,mb4.2
ULN   Ulaanbaatar         30.70 289  eP      P         19 23 17.9 +0.2
       comp=Z,3.2nm,0.8s,mb4.2
SONM  Songino Array       31.14 289  P       P         19 23 21.4 -0.1
       comp=Z,1.1nm,0.8s,mb3.7,baz=72,slow=7.3,SNR=5.5
ZAK   Zakamensk           32.48 295  eP      P         19 23 25.1 -8.2
ZAK                                  pmax    pmax
       comp=Z,2.0nm,0.9s,mb4.0
WHN   Wuhan               33.80 255  P       P         19 23 44.8 -0.3
XAN   Xi’an               35.36 265  P       P         19 23 58.4 -0.1
MCK   McKinley            35.67  40  P       P         19 24 00.3 -0.5
MCK                                  pmax    pmax
       comp=Z,7.0nm,1.1s,mb4.5
MCK   McKinley            35.67  40  P       P         19 24 00.3 -0.4
       comp=Z,6.6nm,1.1s,mb4.5
COLA  College             36.15  38  eP      P         19 24 04.2 -0.7
COLA                                 pmax    pmax
       comp=Z,6.0nm,0.9s,mb4.5
COLA  College             36.15  38  eP      P         19 24 04.2 -0.6
       comp=Z,6.2nm,0.9s,mb4.5
LZH   Lanzhou             37.72 271  eP      P         19 24 20.0 +1.4
LZH                                  pP      pP        19 24 39.5 +8.9
LZH                                  sP      sP        19 24 49.5  +14
LZH                                  pmax    pmax
       comp=Z,15nm,1.0s,mb4.7
LZH                                  pmax    pmax
       comp=Z,78nm,5.0s
GTA   Gaotai              38.79 279  eP      P         19 24 28.9 +1.4
GTA                                  pmax    pmax
       comp=Z,4.0nm,1.1s,mb4.1
ZALV  Zalesovo Beam       42.41 306  P       P         19 24 55.9 -1.3
       comp=Z,0.9nm,0.4s,mb3.8,baz=69,slow=7.1,SNR=5.1
ZALV                                 PcP     PcP       19 26 49.1 -0.4
       comp=Z,1.8nm,0.9s,baz=79,slow=3.2,SNR=5.0
MKAR  Makanchi Array      46.74 297  P       P         19 25 31.3 -0.5
MKAR                                                   19 27 04.2
MKAR  Makanchi Array      46.74 297  P       P         19 25 31.3 -0.5
       comp=Z,1.1nm,0.5s,mb4.0,baz=70,slow=7.4,SNR=18
MKAR                                 PcP     PcP       19 27 04.2 -0.4
       comp=Z,1.1nm,0.8s,baz=60,slow=2.3,SNR=5.6
MKAR  Makanchi Array      46.74 297  P       P         19 25 31.3 -0.5
MKAR                                 PcP     PcP       19 27 04.2 -0.4
KURK  Kurchatov           47.16 303  P       P         19 25 34.9 -0.1
KURK                                 pmax    pmax
       comp=Z,1.0nm,0.5s,mb4.0
KURK  Kurchatov           47.16 303  P       P         19 25 34.9 -0.2
       comp=Z,1.2nm,0.5s,mb4.0,baz=70,slow=8.6,SNR=10
KURK  Kurchatov           47.16 303  eP      P         19 25 33.6 -1.5
       comp=Z,2.5nm,0.8s,mb4.2
LSA   Lhasa               50.10 273  eP      P         19 25 59.5 +1.6
LSA                                  pmax    pmax
       comp=Z,6.0nm,0.6s,mb4.8
LSA   Lhasa               50.10 273  eP      P         19 25 59.5 +1.6
       comp=Z,6.0nm,0.6s,mb4.8
BVAR  Borovoye Array      50.66 309  P       P         19 26 00.2 -1.6
       comp=Z,0.4nm,0.3s,mb3.8,baz=52,slow=8.5,SNR=6.3
BVAR                                 PcP     PcP       19 27 17.8 -0.8
       comp=Z,1.5nm,0.7s,baz=202,slow=36,SNR=5.1
BRVK  Borovoye            50.70 309  P       P         19 25 59.2 -2.9
RES   Resolute Bay        50.78  19  eP      P         19 26 02.1 -0.3
RES                                  pmax    pmax
       comp=Z,3.0nm,1.0s,mb4.2
RES   Resolute Bay        50.78  19  eP      P         19 26 02.1 -0.3
       comp=Z,2.8nm,1.0s,mb4.2
YKA   Yellowknife Ar      50.93  37  P       P         19 26 03.3 -0.3
       comp=Z,2.2nm,0.8s,mb4.2,baz=296,slow=7.2,SNR=27
YKA                                  PcP     PcP       19 27 18.6 -0.8
       comp=Z,0.8nm,0.9s,baz=298,slow=3.8,SNR=4.2
CHTO  Chiang Mai          51.98 256  eP      P         19 26 12.7 +0.5
CHTO                                 pmax    pmax
       comp=Z,6.0nm,0.9s,mb4.5
CHTO  Chiang Mai          51.98 256  eP      P         19 26 12.7 +0.5
       comp=Z,5.9nm,0.9s,mb4.5
SHL   Shillong            52.21 268  ePKP    P         19 26 15.8 +2.0
CMAR  Chiang Mai Arr      52.24 256  P       P         19 26 15.2 +1.1
       comp=Z,2.2nm,0.7s,mb4.2,baz=36,slow=7.3,SNR=24
CMAR                                 PcP     PcP       19 27 25.9 +0.9
       comp=Z,0.6nm,0.8s,baz=16,slow=4.7,SNR=2.7
TAPN  Taplejung           53.93 273  eP      P         19 26 27.3 +0.9
       comp=Z,4.9nm,0.3s,mb4.9
GNW   Green Mountain      54.45  56  P       P         19 26 32.4 +2.5
       comp=Z,12nm,0.9s,mb4.8
ODAN  Odare               54.46 273  eP      P         19 26 31.6 +1.3
       comp=Z,14nm,0.9s,mb4.9
JIRN  Jiri                54.77 274  eP      P         19 26 33.5 +1.0
       comp=Z,18nm,0.6s,mb5.3
GUN   Gumba               54.83 275  eP      P         19 26 33.5 +0.6
       comp=Z,7.7nm,0.4s,mb5.1
RAMN  Ramite              54.94 273  eP      P         19 26 34.5 +0.7
       comp=Z,29nm,0.4s
KKN   Kakani              55.31 275  eP      P         19 26 37.6 +1.2
       comp=Z,15nm,0.6s,mb5.2
PKI   Pulchoki            55.36 275  eP      P         19 26 37.5 +0.7
       comp=Z,6.2nm,0.4s,mb5.0
DMN   Daman               55.55 275  eP      P         19 26 39.2 +1.1
       comp=Z,14nm,0.5s,mb5.2
GKN   Gorkha              55.62 276  eP      P         19 26 39.3 +0.7
       comp=Z,15nm,0.7s,mb5.1
DANN  Dangsing            55.99 277  eP      P         19 26 42.4 +1.1
       comp=Z,21nm,0.7s,mb5.3
KOLN  Koldanda            56.47 276  eP      P         19 26 45.6 +0.9
       comp=Z,24nm,1.0s,mb5.2
PYUN  Piuthan             56.68 277  eP      P         19 26 46.8 +0.6
KEV   Kevo                57.17 340  ep      P         19 26 45.6 -3.5
ARCES ARCESS Array B      57.69 341  P       P         19 26 52.4 -0.3
       comp=Z,1.8nm,0.8s,mb4.2,baz=37,slow=6.5,SNR=5.3
WALA  Waterton Lakes      58.49  50  eP      P         19 26 59.0 +0.3
       comp=Z,0.1nm,0.7s
SUMG  Summit              60.59   4  eP      P         19 27 13.1 +0.3
       comp=Z,16nm,0.9s,mb5.1
FFC   Flin Flon           60.75  40  i P     P         19 27 15.1 +1.0
JOF   Joensuu             61.15 334  ep      P         19 27 14.5 -2.2
       comp=Z,2.4nm,0.6s,mb4.5
FCC   Fort Churchill      61.25  33  eP      P         19 27 16.9 -0.5
       comp=Z,0.2nm,0.7s,mb3.4
NVAR  Mina Array Bea      62.52  62  P       P         19 27 27.1 +0.8
       comp=Z,0.7nm,0.6s,mb4.0,baz=298,slow=7.1,SNR=6.8
KAF   Kangasniemi         63.27 335  eP      P         19 27 29.3 -1.5
KAF                                  pmax    pmax
       comp=Z,2.0nm,0.5s,mb4.5
KAF   Kangasniemi         63.27 335  ep      P         19 27 29.3 -1.5
       comp=Z,2.2nm,0.5s,mb4.5
PSI   Prapat              63.98 244  P       P         19 27 37.4 +1.2
       comp=Z,1.4nm,0.4s,mb4.4,baz=26,slow=13,SNR=3.8
PDAR  Pinedale Array      64.81  54  P       P         19 27 42.2 +0.9
       comp=Z,1.7nm,0.8s,mb4.1,baz=318,slow=2.0,SNR=7.4
OBN   Obninsk             65.12 325  eP      P         19 27 42.5 -0.6
OBN                                  pmax    pmax
       comp=Z,5.0nm,0.9s,mb4.5
ULM   Lac du Bonnet       66.54  41  P       P         19 27 51.7 -0.6
       comp=Z,2.8nm,0.6s,mb4.5,baz=339,slow=7.5,SNR=4.5
ULM   Lac du Bonnet       66.54  41  P       P         19 27 51.7 -0.6
RSSD  Black Hills         66.87  50  eP      P         19 27 54.4 -0.1
RSSD                                 pmax    pmax
       comp=Z,3.0nm,0.9s,mb4.3
RSSD  Black Hills         66.87  50  eP      P         19 27 54.4 -0.2
       comp=Z,3.5nm,0.9s,mb4.4
NB2   NORSAR Subarra      68.06 341  P       P         19 28 01.2 -0.6
       comp=Z,4.3nm,0.6s,mb4.7,baz=27,slow=6.2
NOA   NORSAR Array B      68.06 341  P       P         19 28 01.5 -0.3
       comp=Z,8.7nm,0.8s,mb4.8,baz=27,slow=6.3,SNR=23
WRA   Warramunga Arr      68.57 199  P       P         19 28 04.1 -1.3
       comp=Z,0.9nm,0.9s,mb3.7,baz=19,slow=6.6,SNR=3.4
AKASG Malin Array Be      71.36 326  P       P         19 28 21.0 -1.2
       comp=Z,5.9nm,0.4s,mb4.9,baz=33,slow=6.2,SNR=23
KIEV  Kiev                71.37 326  eP      P         19 28 21.0 -1.3
KIEV                                 pmax    pmax
       comp=Z,7.0nm,0.9s,mb4.6
KIEV  Kiev                71.37 326  eP      P         19 28 21.0 -1.3
       comp=Z,6.9nm,0.9s,mb4.6
ASAR  Alice Springs       72.27 198  P       P         19 28 27.6 -0.2
       comp=Z,0.9nm,0.7s,mb3.8,baz=12,slow=4.9,SNR=10.0
SCHQ  Schefferville       73.26  23  P       P         19 28 33.1 -0.4
       comp=Z,0.7nm,0.4s,mb3.9,baz=83,slow=3.1,SNR=5.4
STHS  Stebnicka Huta      75.33 330  eP      P         19 28 46.4 +0.8
STHS                                 pmax    pmax
       comp=Z,4.0nm,0.8s,mb4.4
STHS  Stebnicka Huta      75.33 330  eP      P         19 28 46.4 +0.8
       comp=Z,3.7nm,0.8s,mb4.4
KOLS  Kolonicke sedl      75.38 329  eP      P         19 28 45.8 -0.1
KOLS                                 pmax    pmax
       comp=Z,8.0nm,1.2s,mb4.5
KOLS  Kolonicke sedl      75.38 329  eP      P         19 28 45.8 -0.1
       comp=Z,8.0nm,1.2s,mb4.5
BURAR Bucovina Array      75.40 326⇓iP      P         19 28 46.0 -0.1
BURAR Bucovina Array      75.40 326 ⇓P      P         19 28 46.0  0.0
CRVS  Cervenica-Dubn      75.69 329  eP      P         19 28 47.9 +0.2
CRVS                                 pmax    pmax
       comp=Z,3.0nm,1.0s,mb4.2
CRVS  Cervenica-Dubn      75.69 329  eP      P         19 28 47.9 +0.2
       comp=Z,3.1nm,1.0s,mb4.2
TRPA  Tarpa               75.96 328⇑iP      P         19 28 49.0 -0.2
DPC   Dobruska-Polom      76.14 333  eP      P         19 28 50.6 +0.3
MORC  Moravsky Berou      76.26 332  eP      P         19 28 50.2 -0.7
MORC                                 pmax    pmax
       comp=Z,5.0nm,1.0s,mb4.4
MORC  Moravsky Berou      76.26 332⇑iP      P         19 28 51.0 +0.1
MORC  Moravsky Berou      76.26 332  eP      P         19 28 50.2 -0.7
       comp=Z,5.2nm,1.0s,mb4.4
MORC                                ⇑P                 19 28 51.0
CLL   Collm               76.29 335⇓iP      P         19 28 50.5 -0.6
CLL                                  pmax    pmax
       comp=Z,8.0nm,0.9s,mb4.7
CLL   Collm               76.29 335⇓iP      P         19 28 50.5 -0.6
       comp=Z,8.0nm,0.9s,mb4.7
MLR   Muntele Rosu        76.87 325⇓iP      P         19 28 55.2 +0.7
MLR   Muntele Rosu        76.87 325 ⇓P      P         19 28 55.2 +0.8
VYHS  Vyhne               76.94 331  eP      P         19 28 54.9 +0.1
MALT  Malatya             76.95 313  eP      P         19 28 54.5 -0.5
MALT                                 pmax    pmax
       comp=Z,2.0nm,0.6s,mb4.2
MALT  Malatya             76.95 313 ⇓P      P         19 28 55.2 +0.2
MALT  Malatya             76.95 313⇓iP      P         19 28 55.2 +0.2
MALT  Malatya             76.95 313  eP      P         19 28 54.5 -0.5
       comp=Z,2.1nm,0.6s,mb4.2
MALT  Malatya             76.95 313 ⇓P      P         19 28 55.2 +0.2
VRAC  Vranov              76.97 332⇓iP      P         19 28 55.5 +0.6
VRAC  Vranov              76.97 332 ⇓P      P         19 28 55.5 +0.5
PRU   Pruhonice           77.01 334  eP      P         19 28 55.2 +0.1
DRGR                      77.03 327⇓iP      P         19 28 55.3  0.0
DRGR                      77.03 327 ⇓P      P         19 28 55.3  0.0
VOIR                      77.27 325⇓iP      P         19 28 57.2 +0.5
MODS  Modra-Piesok        77.56 331  eP      P         19 28 59.6 +1.3
MODS                                 pmax    pmax
       comp=Z,2.0nm,0.8s,mb4.1
MODS  Modra-Piesok        77.56 331  eP      P         19 28 59.6 +1.3
       comp=Z,1.9nm,0.8s,mb4.1
TXAR  Lajitas Array       77.58  60  P       P         19 28 58.7  0.0
       comp=Z,1.0nm,0.5s,mb4.0,baz=300,slow=4.6,SNR=22
TXAR  Lajitas Array       77.58  60  P       P         19 28 58.7  0.0
KHC   Kasperske Hory      78.06 334  eP      P         19 29 01.0  0.0
BRTR  Keskin Array B      78.19 317  P       P         19 29 02.5 +0.5
       comp=Z,2.0nm,0.8s,mb4.1,baz=70,slow=4.1,SNR=10
GERES GERESS Array B      78.28 334  P       P         19 29 02.1 -0.1
GERES                                pmax    pmax
       comp=Z,1.0nm,0.7s
GERES GERESS Array B      78.28 334  P       P         19 29 02.1 -0.2
       comp=Z,1.1nm,0.7s,mb3.9,baz=28,slow=6.0,SNR=10
GERES GERESS Array B      78.28 334  P       P         19 29 02.6 +0.4
BZS   Buzias              78.42 327⇑iP      P         19 29 03.2 +0.1
BZS   Buzias              78.42 327 ⇑P      P         19 29 03.2  0.0
BAIF  Baives              79.72 340  eP      P         19 29 09.5 -0.6
CDF   Champ du Feu        80.48 338  eP      P         19 29 13.7 -0.6
       comp=Z,6.1nm,0.9s,mb4.2
CDF   Champ du Feu        80.48 338  eP      P         19 29 13.7 -0.6
CDF                                  pmax    pmax
       comp=Z,3.0nm,0.9s,mb4.2
CDF   Champ du Feu        80.48 338  eP      P         19 29 13.7 -0.6
       comp=Z,3.0nm,0.9s,mb4.2
MEZF  Maizieres J’vi      80.97 339  eP      P         19 29 16.5 -0.3
HINF  Hinteralfeld        81.14 338  eP      P         19 29 17.3 -0.5
FLN   La Foliniere        81.97 343  eP      P         19 29 21.0 -1.1
LOR   Lormes              82.41 339  eP      P         19 29 23.8 -0.7
AVF   Avril sur Loir      82.98 339  eP      P         19 29 27.0 -0.4
SMF   Signal de Mont      82.99 339  eP      P         19 29 27.1 -0.4
LPL   La Plagne           83.30 337  eP      P         19 29 29.4 +0.3
LPG   La Plagne           83.31 337  eP      P         19 29 29.6 +0.4
       comp=Z,7.2nm,0.9s,mb4.4
LPG   La Plagne           83.31 337  eP      P         19 29 29.6 +0.4
LPG                                  pmax    pmax
       comp=Z,4.0nm,0.9s,mb4.5
LPG   La Plagne           83.31 337  eP      P         19 29 29.6 +0.4
       comp=Z,3.6nm,0.9s,mb4.4
MFF   Saint Martin d      83.95 342  eP      P         19 29 32.6 +0.1
MBDF  Montbardon          84.02 336  eP      P         19 29 31.7 -1.1
       comp=Z,8.3nm,1.0s,mb4.5
MBDF  Montbardon          84.02 336  eP      P         19 29 31.7 -1.1
MBDF                                 pmax    pmax
       comp=Z,4.0nm,1.0s,mb4.5
MBDF  Montbardon          84.02 336  eP      P         19 29 31.7 -1.1
       comp=Z,4.2nm,1.0s,mb4.5
ORIF  Oris-en-Rattie      84.08 337  eP      P         19 29 33.2 +0.1
       comp=Z,9.6nm,1.0s,mb4.6
ORIF  Oris-en-Rattie      84.08 337  eP      P         19 29 33.2 +0.1
ORIF                                 pmax    pmax
       comp=Z,5.0nm,1.0s,mb4.6
ORIF  Oris-en-Rattie      84.08 337  eP      P         19 29 33.2 +0.1
       comp=Z,4.8nm,1.0s,mb4.6
VIVF  Saint-Julien-l      84.45 338  eP      P         19 29 34.9 -0.1
       comp=Z,8.9nm,1.0s,mb4.6
VIVF  Saint-Julien-l      84.45 338  eP      P         19 29 34.9 -0.1
VIVF                                 pmax    pmax
       comp=Z,4.0nm,1.0s,mb4.5
VIVF  Saint-Julien-l      84.45 338  eP      P         19 29 34.9 -0.1
       comp=Z,4.4nm,1.0s,mb4.5
RJF   Les Rejaudoux       84.81 340  eP      P         19 29 35.9 -0.9
SMRF  Simiane la Rot      85.03 337  eP      P         19 29 37.4 -0.6
CFAA  Coronel Fontan     145.13  79  PKPbc   PKPbc     19 36 38.0 -1.3
       comp=Z,0.5nm,0.9s,baz=286,slow=7.4,SNR=5.0
CFAA  Coronel Fontan     145.13  79  PKPbc   PKPbc     19 36 38.0 -1.3
PLCA  Paso Flores        148.38  95  PKPbc   PKPbc     19 36 47.6 -0.7
       comp=Z,2.5nm,0.9s,baz=231,slow=5.4,SNR=2.9
CPUP  Villa Florida      148.55  60  PKPbc   PKPbc     19 36 48.2 -1.0
       comp=Z,0.9nm,0.5s,baz=246,slow=1.9,SNR=4.3
CPUP  Villa Florida      148.55  60  PKPbc   PKPbc     19 36 48.2 -1.0
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*IDC **09** 19:17:24.8±0.6, 16.°77N×119.°20E, h0^{km}, mb4.1/12, mb1 4.2/13, mb1mx4.0/23, mbtmp4.0/13, ML3.6/1, Error ellipse: s-maj=28.8km s-min=13.7km az=67.0*

*MAN **09** 19:17:27, 16.°69N×119.°04E, h15^{km}, mb3.8, ML2.5, MS2.1*

*ISCJB **09** 19:17:28.6±1.0, 16.°76N±0.°06×119.°08E±0.°07, h39^{km}±11^{km}, mb4.4/24, Error ellipse: s-maj=12.0km s-min=8.6km az=145.1*

*MOS **09** 19:17:35.1±0.9, 16.°70N×119.°02E, h101^{km}, mb4.5/5, Error ellipse: s-maj=27.2km s-min=11.2km az=119.5*

*NEIC **09** 19:17:36.9±1.3, 16.°70N×119.°10E, h101^{km}±13^{km}, mb4.4/5, Error ellipse: s-maj=16.9km s-min=8.2km az=55.0*

ISC 09 19:17:28.3±1.7**, 16.°78N**±0.°06×**119.°11E**±0.°05**, h21**^{km}±13^{km}**, n52, σ0^{s}90**/54**, mb4.4**/24**, 1C-1D, Luzon**

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Code  Station Name          Δ°   AZ°  Phase ID           Time      Res
                                     Op      ISC       h  m  s    ISC
BOLP  Bolinao              0.87 117  eP      Pb        19 17 43.7 -1.0
SIPP  Brgy, Tapao          1.72  48⇑eP      Pn        19 17 55.5 -1.5
SIPP                                 eS      Sn        19 18 13.3 -4.9
ABRA  Dolores              1.76  60  eP      Pn        19 17 56.8 -0.7
PCPH  Palayan              2.26 122⇓eP      Pn        19 18 04.2 -0.3
PCPH                                 eS      Sn        19 18 32.6 +1.0
BALP  Baler                2.58 113  eP      Pn        19 18 10.2 +1.4
CAUP  Cauayan              2.60  86  eP      Pn        19 18 11.1 +2.0
PALP  Palanan              3.19  84  eP      Pn        19 18 18.9 +1.8
TGY   Tagaytay City        3.19 146  Pn      Pn        19 18 24.8 +7.5
       31nm,0.3s,baz=334,slow=4.2,SNR=2.9
TGY                                  Sn      Sn        19 19 04.0 +9.3
       79nm,0.3s,baz=234,slow=11,SNR=4.0
BUSP  Coron                4.87 167  eP      Pn        19 18 40.2 -0.1
CMAR  Chiang Mai Arr      19.30 278  P       Pn        19 21 53.5 +0.4
       0.1nm,0.3s,baz=94,slow=9.5,SNR=5.1
KSRS  Korea Array         22.01  19  P       P         19 22 19.8 -1.4
       7.5nm,0.8s,mb4.2,baz=201,slow=12,SNR=14
TAPN  Taplejung           30.86 295  eP      P         19 23 43.4 +0.2
       34nm,1.7s,mb4.9
ODAN  Odare               31.03 294  eP      P         19 23 45.1 +0.4
       11nm,0.7s,mb4.8
RAMN  Ramite              31.74 294  eP      P         19 23 51.8 +0.8
       12nm,0.7s,mb4.8
JIRN  Jiri                32.25 295  eP      P         19 23 56.2 +0.8
       8.9nm,0.7s,mb4.7
GUN   Gumba               32.57 296  eP      P         19 23 59.1 +0.9
       25nm,0.9s,mb5.1
SONM  Songino Array       32.69 344  P       P         19 23 58.7 -0.3
       0.5nm,0.6s,mb3.6,baz=170,slow=12,SNR=4.3
PKI   Pulchoki            32.91 295  eP      P         19 24 01.5 +0.3
KKN   Kakani              33.06 295  eP      P         19 24 02.9 +0.3
GKN   Gorkha              33.66 295  eP      P         19 24 07.6 -0.2
       9.0nm,0.8s,mb4.8
DANN  Dangsing            34.49 296  eP      P         19 24 14.6 -0.4
       12nm,0.7s,mb4.9
KOLN  Koldanda            34.52 295  eP      P         19 24 15.5 +0.3
PYUN  Piuthan             35.11 295  eP      P         19 24 20.5 +0.2
       14nm,0.9s,mb4.9
WRAB  Tennant Creek       39.44 157  eP      P         19 24 55.5 -1.5
WRAB                                 pmax    pmax
       comp=Z,4.0nm,0.6s,mb4.3
WRAB  Tennant Creek       39.44 157  eP      P         19 24 55.5 -1.5
       comp=Z,3.6nm,0.6s,mb4.3
WRA   Warramunga Arr      39.44 157  P       P         19 24 56.2 -0.9
       comp=Z,2.9nm,0.6s,mb4.2,baz=340,slow=9.2,SNR=22
WRA                                  PcP     PcP       19 27 04.5 -0.5
       comp=Z,0.5nm,0.4s,baz=342,slow=3.2,SNR=3.4
MKAR  Makanchi Array      42.66 323  P       P         19 25 24.2 +0.9
       comp=Z,3.2nm,0.9s,mb4.0,baz=123,slow=8.8,SNR=18
MKAR  Makanchi Array      42.66 323  P       P         19 25 24.2 +0.9
ASAR  Alice Springs       42.72 160  P       P         19 25 23.8 -0.2
       comp=Z,1.9nm,0.5s,mb4.1,baz=341,slow=6.9,SNR=38
ASAR                                 PcP     PcP       19 27 15.4 -0.2
       comp=Z,0.4nm,0.5s,baz=330,slow=3.1,SNR=4.2
ZALV  Zalesovo Beam       45.63 332  P       P         19 25 47.0  0.0
       comp=Z,1.3nm,0.7s,mb4.0,baz=138,slow=9.3,SNR=8.2
UCH   Uchtor              45.67 313  eP      P         19 25 49.3 +1.8
       comp=Z,4.1nm,0.9s,mb4.4
KURK  Kurchatov           46.79 326  eP      P         19 25 56.5 +0.3
KURK                                 pmax    pmax
       comp=Z,19nm,0.8s,mb5.1
KURK  Kurchatov           46.79 326  P       P         19 25 56.6 +0.4
       comp=Z,9.0nm,0.8s,mb4.8,baz=122,slow=8.6,SNR=33
KURK  Kurchatov           46.79 326  eP      P         19 25 56.5 +0.3
       comp=Z,19nm,0.8s,mb5.1
NVS   Novosibirsk         46.92 332  eP      P         19 25 56.6 -0.5
PETK  Petropavlovsk-      47.13  31  P       P         19 26 00.1 +1.3
       comp=Z,4.0nm,1.0s,mb4.3,baz=258,slow=13,SNR=9.2
BVAR  Borovoye Array      52.38 325  P       P         19 26 39.2 +0.5
       comp=Z,0.8nm,0.7s,mb3.7,baz=126,slow=9.7,SNR=3.5
BRVK  Borovoye            52.45 325  eP      P         19 26 39.6 +0.3
BRVK                                 pmax    pmax
       comp=Z,4.0nm,0.9s,mb4.3
BRVK  Borovoye            52.45 325  eP      P         19 26 39.6 +0.3
       comp=Z,4.4nm,0.9s,mb4.4
STKA  Stephens Creek      52.97 156  P       P         19 26 43.0 -0.3
       comp=Z,2.1nm,0.5s,mb4.3,baz=346,slow=21,SNR=9.2
RDF   Al-Radifah          66.19 295  eP      P         19 28 13.7 -1.1
MIB   Mutribah            66.28 296  eP      P         19 28 14.2 -1.1
NAY   Al-Naaiem           66.42 295  eP      P         19 28 14.8 -1.4
KIV   Kislovodsk          68.85 311  P       P         19 28 31.4 +0.1
KIV   Kislovodsk          68.85 311  P       P         19 28 31.4 +0.1
KIV   Kislovodsk          68.85 311  P       P         19 28 31.4 +0.1
RES   Resolute Bay        86.24   9  eP      P         19 30 06.3 -1.5
RES                                  pmax    pmax
       comp=Z,2.0nm,1.0s,mb4.3
RES   Resolute Bay        86.24   9  eP      P         19 30 06.3 -1.6
       comp=Z,2.2nm,1.0s,mb4.3
GERES GERESS Array B      87.29 320  P       P         19 30 13.0 -0.4
       comp=Z,0.5nm,0.8s,mb3.8,baz=114,slow=9.8,SNR=3.0
YKA   Yellowknife Ar      90.52  22  P       P         19 30 27.8 -0.6
       comp=Z,0.7nm,0.7s,mb4.1,baz=315,slow=4.5,SNR=12
YKA   Yellowknife Ar      90.52  22  P       P         19 30 27.8 -0.6
SDV   Santo Domingo      152.74  21  PKPbc   PKPbc     19 37 23.5 -1.0
       comp=Z,4.6nm,0.6s,baz=312,slow=3.8,SNR=4.9
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*NEIC **09** 19:25:56.2, 15.°79N×98.°93W, h16^{km}, mb4.2/12, MD4.2(MEX), After MEX.*

*MEX **09** 19:25:56.7±1.0, 15.°81N×98.°92W, h16^{km}±18^{km}, MD4.2*

*ISCJB **09** 19:25:57.2±1.6, 16.°04N±0.°05×98.°69W±0.°04, h15^{km}±12^{km}, mb4.2/14, Error ellipse: s-maj=9.4km s-min=5.6km az=21.7*

*IDC **09** 19:25:57.8±2.3, 16.°25N×98.°64W, h0^{km}, mb4.0/5, mb1 4.1/8, mb1mx3.9/22, mbtmp3.9/8, ML3.7/2, Error ellipse: s-maj=45.5km s-min=17.1km az=15.0*

ISC 09 19:25:58.5±1.4**, 16.°08N**±0.°06×**98.°66W**±0.°04**, h11**^{km}±9^{km}**, n65, σ1^{s}16**/82**, mb4.1**/14**, 13C-13D, Near coast of Guerrero**

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Code  Station Name          Δ°   AZ°  Phase ID           Time      Res
                                     Op      ISC       h  m  s    ISC
PNIG  Pinotepa             0.59  59  i P     Pg        19 26 11.1 +1.0
PNIG                                 i S     Sg        19 26 23.1 +5.3
CAIG  El Cayaco            1.82 302  i P     Pn        19 26 23.6 -6.2
CAIG                                 i S     Sn        19 26 42.8  -10
UTMO  Huajuapan            1.92  25  i P     Pn        19 26 30.9 -0.2
UTMO                                 i S     Sn        19 26 58.4 +3.1
MEIG  Mezcala              2.05 333  i P     Pn        19 26 30.1 -2.9
MEIG                                 i S     Sn        19 26 54.8 -3.8
VHO   Vista Hermosa        2.09  62  i P     Pn        19 26 33.6 +0.1
VHO                                  i S     Sn        19 27 00.3 +0.8
PLIG  Platanillo           2.44 341  i P     Pn        19 26 36.6 -1.7
PLIG                                 i S     Sn        19 27 07.2 -0.9
HUIG  Huatulco             2.47  97  eP      Pn        19 26 37.8 -1.0
HUIG                                 i S     Sn        19 27 06.9 -2.0
TPIG  Tehuac#an            2.63  28  i P     Pn        19 26 42.3 +1.3
TPIG                                 i S     Sn        19 27 17.0 +4.1
YAIG  Yautepec             2.79 352  eP      Pn        19 26 45.5 +2.3
YAIG                                 i S     Sn        19 27 24.1 +7.2
PPM   Popocatepetl         2.97   1  i P     Pn        19 26 52.0 +6.4
CHVM  Chichinautzin        3.02 351  eP      Pn        19 26 44.5 -1.9
CHVM                                 i S     Sn        19 27 22.7 +0.1
SZVM  Salazar              3.29 348  eP      Pn        19 26 48.2 -1.9
SZVM                                 i S     Sn        19 27 28.7 -0.6
CMIG  Matias Romero        3.75  74  i P     Pn        19 26 56.1 -0.3
CMIG                                 i S     Sn        19 27 42.0 +1.4
CMIG  Matias Romero        3.75  74  Pn      Pn        19 26 55.9 -0.5
       3.9nm,0.3s,baz=260,slow=11,SNR=55
CMIG                                 Sn      Sn        19 27 39.9 -0.7
       4.9nm,0.3s,baz=203,slow=9.8,SNR=3.7
CMIG                                 Lg                19 27 55.8
       7.7nm,0.3s,baz=330,slow=10,SNR=4.3
CMIG  Matias Romero        3.75  74  Pn      Pn        19 26 55.9 -0.5
CMIG                                 i P               19 26 56.1
CMIG                                 Sn      Sn        19 27 39.9 -0.7
CMIG                                 i S     Sn        19 27 42.0 +1.4
CMIG                                 Lg                19 27 55.8
TEIG  Tepich              10.69  66  Pn      Pn        19 28 31.2 -0.5
       0.9nm,0.3s,baz=359,slow=0.7,SNR=3.6
TEIG                                 Sn      Sn        19 30 27.3 -4.1
       1.6nm,0.3s,baz=147,slow=22,SNR=6.1
TEIG  Tepich              10.69  66  Pn      Pn        19 28 31.2 -0.5
TEIG                                 Sn      Sn        19 30 27.3 -4.1
WMOK  Wichita Mounta      18.58 360  P       Pn        19 30 12.7 -3.1
       1.6nm,0.6s
AMTX  Amarillo            18.92 352  eP      Pn        19 30 14.8 -5.2
       3.7nm,0.7s
AMTX                                 e                 19 30 32.0
MIAR  Mount Ida           18.94  13  P       Pn        19 30 18.5 -1.8
       3.5nm,0.7s
ANMO  Albuquerque         20.05 341  P       P         19 30 32.2 +0.5
       0.1nm,0.3s,baz=143,slow=12,SNR=5.9
ANMO  Albuquerque         20.05 341  eP      P         19 30 31.9 +0.2
       9.1nm,1.3s
Y17A  Roosevelt           20.70 330 ⇑P      P         19 30 39.8 +1.1
       baz=14,SNR=9.2
W20A  Ramah               20.91 337 ⇓P      P         19 30 42.6 +1.5
       baz=14,SNR=9.0
X16A  Lo Mia Camp, P      21.57 330 ⇑P      P         19 30 48.9 +0.7
       baz=15,SNR=8.5
T22A  Edith               22.09 342 ⇓P      P         19 30 54.0 +0.2
       baz=15,SNR=6.9
WVT   Waverly             22.17  24  eP      P         19 30 54.2 -0.4
       11nm,0.9s,mb4.3
SDCO  Great Sand Dun      22.41 346  eP      P         19 30 55.8 -1.3
       6.4nm,1.2s,mb3.9
WUAZ  Wupatki             22.45 332 ⇑P      P         19 30 58.3 +0.8
       baz=16,SNR=7.2
WUAZ  Wupatki             22.45 332  eP      P         19 30 58.2 +0.7
```

	14nm,0.9s,mb4.4						
MVCO	Mesa Verde	22.78	339	⇓P	P	19 31 00.4	-0.6
	baz=16,SNR=9.4						
MVCO	Mesa Verde	22.78	339	*e*P	P	19 31 00.6	-0.4
	13nm,1.0s,mb4.3						
X13A	Yucca	22.92	326	⇑P	P	19 31 03.3	+0.7
	baz=16						
V15A	Kaibab Nationa	23.06	331	⇓P	P	19 31 04.5	+0.5
	baz=16						
SIUC	Southern Illin	23.10	19	P	P	19 31 03.8	-0.6
	16nm,0.7s,mb4.6						
T18A	Mexican Hat	23.21	337	⇑P	P	19 31 05.4	-0.1
	baz=16						
V14A	Boquillas Ranc	23.36	329	⇓P	P	19 31 08.0	+0.8
	baz=17						
S19A	Harvey Farm, M	23.48	339	⇑P	P	19 31 07.8	-0.6
	baz=17,SNR=5.7						
R20A	Redvale	23.63	341	⇑P	P	19 31 09.5	-0.4
	baz=17,SNR=6.9						
PV01	Paradox Valley	23.64	340	*e*P	P	19 31 10.3	+0.3
	642nm,1.2s						
T16A	Glen Canyon Da	23.73	334	⇓P	P	19 31 11.3	+0.4
	baz=17						
S18A	Hurst Farm, Bl	23.74	337	⇓P	P	19 31 10.9	0.0
	baz=17,SNR=9.2						
S17A	Black Ridge (B	24.00	336	⇓P	P	19 31 14.0	+0.8
	baz=17						
PV10	Paradox Valley	24.01	340	*e*P	P	19 31 12.8	-0.6
	69nm,0.8s,mb5.1						
T15A	Red Dirt Ranch	24.14	332	⇑P	P	19 31 14.6	0.0
	baz=18						
ISCO	Idaho Springs	24.40	347	*e*P	P	19 31 15.6	-1.2
	13nm,1.3s,mb4.2						
S16A	Weppner Ranch,	24.40	335	⇓P	P	19 31 16.6	-0.3
	baz=18						
U12A	Valley of Fire	24.70	328	⇑P	P	19 31 21.9	+2.2
	baz=18						
P19A	Cripple Cowboy	25.14	341	⇓P	P	19 31 24.3	+0.6
	baz=18,SNR=6.0						
ISA	Isabella	26.33	321	P	P	19 31 37.5	+3.0
NVAR	Mina Array Bea	28.18	326	P	P	19 31 50.9	-0.1
	1.2nm,0.8s,mb3.5,baz=138,slow=9.6,SNR=8.6						
PDAR	Pinedale Array	28.18	343	P	P	19 31 51.5	+0.4
	1.5nm,0.9s,mb3.6,baz=148,slow=7.1,SNR=10						
SDV	Santo Domingo	28.25	101	P	P	19 31 53.6	+1.6
	2.5nm,0.7s,mb3.9,baz=292,slow=18,SNR=3.2						
L15A	Malad City	28.41	338	⇑P	P	19 31 53.6	+0.6
	baz=22						
L13A	Double Diamond	29.06	336	⇑P	P	19 32 00.3	+1.4
	baz=22						
L11A	Cat Creek Ranc	29.86	334	⇓P	P	19 32 06.9	+1.0
	baz=23						
K12A	Draper Farm, C	29.90	336	⇓P	P	19 32 07.4	+1.1
	baz=23						
RLMT	Red Lodge	30.30	345	⇑P	P	19 32 11.5	+1.7
	baz=24						
RLMT	Red Lodge	30.30	345	*e*P	P	19 32 10.2	+0.5
	7.3nm,1.1s,mb4.3						
HLID	Hailey	30.50	337	*e*P	P	19 32 11.0	-0.6
	1.2nm,0.8s,mb3.7						
C17A	Wharram Farm,	33.01	345	⇑P	P	19 32 31.8	-1.8
	baz=26						
F10A	Beach Ranch, E	33.61	336	⇓P	P	19 32 36.4	-2.4
	baz=27						
SCHQ	Schefferville	45.80	25	P	P	19 34 20.1	0.0
	3.3nm,0.9s,mb4.3,baz=221,slow=7.1,SNR=6.2						
YKA	Yellowknife Ar	47.70	350	P	P	19 34 33.8	-1.1
	0.8nm,0.9s,mb3.7,baz=161,slow=7.4,SNR=7.6						
YKA	Yellowknife Ar	47.70	350	P	P	19 34 33.8	-1.1

IDC 09 19:28:45.2±38.0**,18°.58S×169°.66E,h0**^{km}**,mb4.1**/4**,mb1 4.3**/4**,mb1mx3.9**/17**,mbtmp4.1**/4**,Error ellipse: s-maj=660.6km s-min=113.8km az=78.0,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	28.54	237	P	P	19 34 43.5	+0.7
	1.6nm,0.8s,baz=67,slow=7.7,SNR=3.7						
WRA	Warramunga Arr	33.34	262	P	P	19 35 24.8	-0.4
	0.3nm,0.3s,baz=97,slow=8.4,SNR=5.7						
ASAR	Alice Springs	33.68	255	P	P	19 35 27.9	-0.2
	4.3nm,0.4s,baz=82,slow=8.8,SNR=138						
FITZ	Fitzroy Crossi	41.71	263	P	P	19 36 36.2	0.0
	3.9nm,1.0s,baz=84,slow=15,SNR=3.1						

*MEX **09** 19:29:34.9±0.6, 15°.67N×98°.90W, h5^{km}±11^{km}, MD4.3*

*ISCJB **09** 19:29:39.4±1.3, 16°.16N±0°.05×98°.68W±0°.03, h13^{km}±7^{km}, mb4.5/50, MS4.5/2, Error ellipse: s-maj=8.6km s-min=4.9km az=18.6*

*IDC **09** 19:29:41.0±1.2, 16°.52N×98°.55W, h0^{km}, mb4.1/9, mb1 4.3/13, mb1mx4.1/26, mbtmp4.1/13, ML3.6/4, MS4.2/1, Ms1 4.2/1, ms1mx3.4/37, Error ellipse: s-maj=28.2km s-min=16.4km az=41.0*

*NEIC **09** 19:29:43.1±1.6, 16°.38N×98°.53W, h20^{km}±9^{km}, mb4.5/49, MD4.2(MEX), Error ellipse: s-maj=10.6km s-min=5.9km az=218.0*

*MOS **09** 19:29:44.1±1.3, 16°.47N×98°.66W, h33^{km}, mb4.8/20, Error ellipse: s-maj=13.6km s-min=5.9km az=101.7*

ISC 09 19:29:40.9±1.3**,16°.32N**±0°.05×**98°.64W**±0°.03**,h3**^{km}±8^{km}**, n258,**σ**0**^{s}**.90**/271**,mb4.5**/50**,MS4.5**/2**,47C-66D,Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.50	81	*i* P	Pg	19 29 51.7	+1.2
PNIG				*i* S	Sg	19 30 06.2	+9.1
PNIG	Pinotepa	0.50	81	*i* P	Pg	19 29 51.7	+1.2
PNIG				*i* S	Sg	19 30 05.7	+8.7
UTMO	Huajuapan	1.70	28	*i* P	Pn	19 30 12.1	+0.6
UTMO				*i* S	Sn	19 30 41.0	+7.2
CAIG	El Cayaco	1.72	295	*i* P	Pn	19 30 04.7	-7.0
CAIG				*i* S	Sn	19 30 27.9	-6.2
MEIG	Mezcala	1.85	330	*i* P	Pn	19 30 11.1	-2.5
MEIG				*i* S	Sn	19 30 38.8	+1.4
VHO	Vista Hermosa	1.98	67	*i* P	Pn	19 30 14.3	-1.0
VHO				*i* S	Sn	19 30 43.5	+3.0
PLIG	Platanillo	2.22	338	*i* P	Pn	19 30 17.7	-0.9
PLIG				*i* S	Sn	19 30 50.0	+3.5
PLIG	Platanillo	2.22	338	*i* P	Pn	19 30 17.7	-0.9
PLIG				*i* S	Sn	19 30 51.0	+4.4
TPIG	Tehuac#an	2.42	30	*i* P	Pn	19 30 22.1	+0.7
TPIG				*e*S	Sn	19 30 58.8	+7.2
HUIG	Huatulco	2.50	102	*i* P	Pn	19 30 14.6	-7.8
HUIG				*i* S	Sn	19 30 46.9	-6.5
HUIG	Huatulco	2.50	102	*i* P	Pn	19 30 18.9	-3.5
HUIG				*i* S	Sn	19 30 48.3	-5.1
PPM	Popocatepetl	2.73	0	*i* P	Pn	19 30 27.4	+1.7
PPM				*i* S	Sn	19 31 06.5	+7.2
PPM	Popocatepetl	2.73	0	*i* P	Pg	19 30 33.2	-0.1
PPM				*i* S	Sg	19 31 18.4	+10
CHVM	Chichinautzin	2.80	350	*e*P	Pn	19 30 26.4	-0.1
CHVM				*i* S	Sn	19 31 07.0	+6.3
SZVM	Salazar	3.07	347	*e*P	Pn	19 30 30.9	+0.6
SZVM				*i* S	Sn	19 31 13.1	+5.6
CMIG	Matias Romero	3.68	77	*i* P	Pn	19 30 37.2	-1.6
CMIG				*i* S	Sn	19 31 23.9	+1.3
CMIG	Matias Romero	3.68	77	Pn	Pn	19 30 36.7	-2.1
	13nm,0.3s,baz=260,slow=12,SNR=29						
CMIG				Sn	Sn	19 31 21.9	-0.8
	23nm,0.3s,baz=1.6,slow=20,SNR=7.0						
CMIG				Lg		19 31 41.5	
	32nm,0.3s,baz=260,slow=11,SNR=3.8						
CMIG	Matias Romero	3.68	77	Pn	Pn	19 30 36.7	-2.1
CMIG				*i* P		19 30 37.2	
CMIG				Sn	Sn	19 31 21.9	-0.8
CMIG				*i* S	Sn	19 31 23.9	+1.3
CMIG				Lg		19 31 41.5	
TEIG	Tepich	10.59	67	Pn	Pn	19 32 10.1	-3.5
	1.5nm,0.3s,baz=284,slow=8.3,SNR=6.6						
TEIG				Sn	Sn	19 34 08.1	-4.6
	4.8nm,0.3s,baz=155,slow=23,SNR=9.2						
TEIG	Tepich	10.59	67	*e*Pn	Pn	19 32 09.9	-3.6
TEIG				*e*Sn	Sn	19 34 06.5	-6.2
TXAR	Lajitas Array	13.76	341	Pn	Pn	19 32 56.9	0.0
	0.0nm,0.3s,baz=163,slow=16,SNR=9.7						
TXAR				Lg		19 36 59.0	
	baz=165,slow=25,SNR=2.6						
JCT	Junction City	14.14	356	*e*P	Pn	19 32 59.7	-2.4
JCT				pmax	pmax		
	comp=Z,14nm,0.8s						
JCT	Junction City	14.14	356	*e*Pn	Pn	19 32 59.7	-2.4
	comp=Z,14nm,0.8s						
JTS	JuntasAbangare	14.60	113	*e*P	Pn	19 33 11.0	+2.5
JTS				pmax	pmax		
	comp=Z,64nm,1.3s						
JTS	JuntasAbangare	14.60	113	Pn	Pn	19 33 11.9	+3.4
	comp=Z,0.9nm,0.3s,baz=312,slow=16,SNR=4.0						
JTS	JuntasAbangare	14.60	113	*e*Pn	Pn	19 33 11.0	+2.5
	comp=Z,64nm,1.3s						
VBMS	Vicksburg	17.46	24	Pn	Pn	19 33 44.8	-0.8
319A	Douglas	17.85	329	⇑P	Pn	19 33 50.7	+0.4
	baz=18,SNR=11						
WMOK	Wichita Mounta	18.34	360	*e*P	Pn	19 33 55.7	-0.7
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WMOK	Wichita Mounta	18.34	360	*e*Pn	Pn	19 33 55.7	-0.7
	comp=Z,4.4nm,0.7s						
AMTX	Amarillo	18.69	352	*e*Pn	Pn	19 33 59.0	-1.6
	comp=Z,15nm,0.7s						
MIAR	Mount Ida	18.71	13	*e*P	Pn	19 33 58.5	-2.4
MIAR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MIAR	Mount Ida	18.71	13	*e*Pn	Pn	19 33 58.5	-2.4
	comp=Z,8.6nm,0.7s						
PAYG	Puerto Ayora	18.79	153	*e*P	Pn	19 34 02.0	0.0
	comp=Z,97nm,1.4s						
LENM	Lemitar	19.29	339	*e*P	Pn	19 34 08.2	+0.4
	comp=Z,6.2nm,0.8s						
LPM	Los Pinos Moun	19.30	340	*e*Pn	Pn	19 34 09.7	+1.6
TUC	Tucson	19.36	328	*e*P	Pn	19 34 08.0	-0.7
TUC				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TUC	Tucson	19.36	328	*e*Pn	Pn	19 34 08.0	-0.8
	comp=Z,7.3nm,0.9s						
LAZ	Ladron	19.56	339	*e*P	Pn	19 34 11.4	+0.3
	comp=Z,4.7nm,1.1s						
ANMO	Albuquerque	19.83	341	*e*P	Pn	19 34 13.6	-0.7
ANMO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ANMO	Albuquerque	19.83	341	P	Pn	19 34 13.7	-0.6
	comp=Z,0.2nm,0.3s,baz=153,slow=12,SNR=16						
ANMO	Albuquerque	19.83	341	*e*Pn	Pn	19 34 13.6	-0.7
	comp=Z,9.1nm,0.8s						
ANMO				*e*		19 34 20.0	
Y19A	Nutrioso	19.99	333	⇓P	P	19 34 15.6	+1.0
	baz=20,SNR=25						
Z17A	San Carlos Hig	20.00	330	⇓P	P	19 34 15.6	+1.0
	baz=20,SNR=8.9						
Y17A	Roosevelt	20.50	330	P	P	19 34 20.6	+0.5
	baz=20,SNR=22						
Z16A	Peralta Trail,	20.51	328	⇓P	P	19 34 20.7	+0.6
	baz=20,SNR=6.3						
W20A	Ramah	20.70	337	⇓P	P	19 34 23.0	+0.7
	baz=21,SNR=16						
X18A	Snowflake	20.78	333	⇑P	P	19 34 23.8	+0.7
	baz=21,SNR=7.7						
Y16A	Circle Bar Ran	20.96	329	⇑P	P	19 34 25.5	+0.4
	baz=21,SNR=12						
X17A	Forest Lakes	21.01	331	⇑P	P	19 34 25.9	+0.3
	baz=21						
W19A	Sanders	21.04	335	⇑P	P	19 34 25.5	-0.5
	baz=21						
Z14A	Wintersburg	21.32	325	⇑P	P	19 34 29.5	+0.4
	baz=21						
113A	Mohawk Valley,	21.35	323	⇓P	P	19 34 29.2	0.0
	baz=21,SNR=12						
X16A	Lo Mia Camp, P	21.38	330	⇑P	P	19 34 30.2	+0.6
	baz=21,SNR=21						
Y15A	Casa Rosa Ranc	21.45	327	⇑P	P	19 34 30.2	-0.2
	baz=21,SNR=14						
UTMT	University of	21.76	22	P	P	19 34 34.4	+0.8
V18A	Ganado	21.78	335	⇓P	P	19 34 34.7	+0.8
	baz=22,SNR=7.9						
Y14A	Wickenburg	21.79	326	⇓P	P	19 34 34.1	0.0
	baz=22,SNR=9.8						
X15A	Humboldt	21.82	329	⇑P	P	19 34 34.6	+0.2
	baz=22,SNR=11						
GOGA	Godfrey	21.84	36	*e*P	P	19 34 33.5	-1.1
GOGA				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.3						
GOGA	Godfrey	21.84	36	*e*P	P	19 34 33.5	-1.2
	comp=Z,9.8nm,0.7s,mb4.3						
T22A	Edith	21.88	342	⇑P	P	19 34 35.2	+0.3
	baz=22,SNR=12						
WVT	Waverly	21.95	24	*e*P	P	19 34 36.3	+0.5
WVT				pmax	pmax		
	comp=Z,15nm,0.5s,mb4.7						
WVT	Waverly	21.95	24	*e*P	P	19 34 36.3	+0.5
	comp=Z,16nm,0.5s,mb4.7						
X14A	Yava	22.14	327	⇓P	P	19 34 38.8	+1.0
	baz=22						
Y13A	Salome	22.15	325	⇓P	P	19 34 38.5	+0.6
	baz=22,SNR=8.0						
GLA	Glamis	22.17	322	*e*P	P	19 34 38.5	+0.4
GLA				pmax	pmax		
	comp=Z,46nm,1.3s,mb4.8						
GLA	Glamis	22.17	322	⇑P	P	19 34 38.3	+0.2
	baz=22						
GLA	Glamis	22.17	322	*e*P	P	19 34 38.5	+0.4
	comp=Z,46nm,1.3s,mb4.8						
SDCO	Great Sand Dun	22.19	345	*e*P	P	19 34 37.7	-0.6
	comp=Z,19nm,1.3s,mb4.4						
WUAZ	Wupatki	22.25	332	⇓P	P	19 34 39.3	+0.5
	baz=22,SNR=19						
WUAZ	Wupatki	22.25	332	*e*P	P	19 34 40.7	+1.8
	comp=Z,26nm,0.8s,mb4.7						
U18A	Rough Rock, Ch	22.37	336	⇓P	P	19 34 40.4	+0.2
	baz=22						
MVCO	Mesa Verde	22.57	339	⇑P	P	19 34 42.3	0.0
	baz=23,SNR=20						
MVCO	Mesa Verde	22.57	339	*e*P	P	19 34 42.0	-0.3
	comp=Z,33nm,0.9s,mb4.8						
CCM	Cathedral Cave	22.61	15	*e*P	P	19 34 43.5	+0.7
CCM				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.1						
CCM	Cathedral Cave	22.61	15	*e*P	P	19 34 43.5	+0.8
	comp=Z,5.8nm,0.8s,mb4.1						
GTBY	Guantanamo Bay	22.64	77	P	P	19 34 41.8	-1.4
	comp=Z,36nm,0.7s,mb4.9						
X13A	Yucca	22.73	326	⇓P	P	19 34 44.3	+0.2
	baz=23,SNR=7.9						
FVM	French Village	22.77	17	*e*P	P	19 34 45.4	+1.0
FVM				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.5						
FVM	French Village	22.77	17	*e*P	P	19 34 45.4	+1.1
	comp=Z,17nm,0.8s,mb4.5						
KSU1	Kansas State U	22.77	4	P	P	19 34 43.2	-1.2
	comp=Z,11nm,0.8s,mb4.3						
W14A	Seligman	22.82	328	⇓P	P	19 34 45.6	+0.5
	baz=23,SNR=5.2						
U17A	Shonto	22.85	334	⇑P	P	19 34 45.5	+0.2
	baz=23						
CPCT	Cooper Cave	22.85	31	*e*P	P	19 34 45.1	-0.2
V15A	Kaibab Nationa	22.86	331	⇓P	P	19 34 46.0	+0.6
	baz=23						
SIUC	Southern Illin	22.88	20	*e*P	P	19 34 47.0	+1.4
	comp=Z,26nm,0.8s,mb4.7						
R22A	Saguache, Gunn	22.97	343	⇑P	P	19 34 46.6	+0.1
	baz=23						
BC3	Big Chuckw Mtn	22.97	322	⇓P	P	19 34 46.9	+0.3
	baz=23						
T18A	Mexican Hat	23.00	337	⇓P	P	19 34 47.3	+0.4
	baz=23,SNR=11						
IRM	Iron Mountain	23.15	323	⇓P	P	19 34 48.0	-0.5
	baz=23,SNR=7.8						
W13A	Hualapai Mount	23.15	327	⇓P	P	19 34 48.5	0.0
	baz=23,SNR=6.7						
V14A	Boquillas Ranc	23.17	329	⇓P	P	19 34 47.8	-0.8
	baz=23						
T17A	Navajo Res., N	23.25	335	⇑P	P	19 34 48.6	-0.8
	baz=23,SNR=7.8						
S19A	Harvey Farm, M	23.27	339	⇑P	P	19 34 48.7	-1.0
	baz=23,SNR=16						
TKL	Tuckaleechee C	23.39	32	P	P	19 34 51.2	+0.3
	comp=Z,3.8nm,0.7s,mb4.0,baz=194,slow=14,SNR=4.1						
TKL	Tuckaleechee C	23.39	32	P	P	19 34 51.2	+0.2
R20A	Redvale	23.41	340	⇑P	P	19 34 51.0	-0.2
	baz=23,SNR=12						
PV01	Paradox Valley	23.43	340	*e*P	P	19 34 50.8	-0.5
	comp=Z,1µm,1.2s						
S18A	Hurst Farm, Bl	23.53	337	⇓P	P	19 34 52.5	+0.1
	baz=24,SNR=12						
BELC	Belle Mtn.	23.53	322	⇓P	P	19 34 52.8	+0.3
	baz=24						
PFO	Pinyon Flat Ob	23.54	320	*e*P	P	19 34 58.1	+5.5
PFO				pmax	pmax		
	comp=Z,108nm,2.6s,mb4.8						
PFO	Pinyon Flat Ob	23.54	320	*e*P	P	19 34 58.1	+5.5
	comp=Z,108nm,2.6s,mb4.8						
NHSC	New Hope	23.62	42	*e*P	P	19 34 55.3	+2.0
	comp=Z,75nm,1.3s,mb5.0						
Q21A	Lamborn Mesa,	23.76	342	⇓P	P	19 34 54.5	-0.1
	baz=24						
PV04	Paradox Valley	23.77	340	*e*P	P	19 34 55.2	+0.5
S17A	Black Ridge (B	23.80	336	⇓P	P	19 34 54.6	-0.3
	baz=24,SNR=11						
PV10	Paradox Valley	23.80	339	*e*P	P	19 34 52.3	-2.7
	comp=Z,177nm,0.9s,mb5.5						
T15A	Red Dirt Ranch	23.94	332	⇓P	P	19 34 56.7	+0.4
	baz=24,SNR=13						
R18A	Canyonlands Na	24.11	338	⇓P	P	19 34 57.7	-0.1
	baz=24,SNR=13						
V12A	Nelson	24.14	326	⇓P	P	19 34 58.8	+0.7
	baz=24						
ISCO	Idaho Springs	24.17	347	*e*P	P	19 34 58.3	-0.1
ISCO				pmax	pmax		
	comp=Z,95nm,1.9s,mb4.9						
ISCO	Idaho Springs	24.17	347	*e*P	P	19 34 58.3	0.0
	comp=Z,95nm,1.9s,mb4.9						
S16A	Weppner Ranch,	24.19	334	⇓P	P	19 34 58.0	-0.6
	baz=24						
TZTN	Tazewell	24.20	31	*e*P	P	19 34 58.2	-0.4
	comp=Z,26nm,0.9s,mb4.7						
U13A	Pakoon Wash	24.21	329	⇑P	P	19 34 58.7	0.0
	baz=24,SNR=7.2						
HEC	Hector,Ludlow	24.31	323	⇓P	P	19 35 00.5	+0.9
	baz=24						
P21A	Newcastle	24.37	343	⇑P	P	19 35 00.6	+0.5
	baz=24,SNR=8.4						
WCI	Wyandotte Cave	24.38	24	*e*P	P	19 34 59.4	-0.9
WCI				pmax	pmax		
	comp=Z,25nm,0.9s,mb4.6						
WCI	Wyandotte Cave	24.38	24	*e*P	P	19 34 59.4	-0.9
	comp=Z,25nm,0.9s,mb4.7						
SCI	San Clemente I	24.47	316	⇑P	P	19 35 01.5	+0.3
	baz=24						
U12A	Valley of Fire	24.51	328	⇓P	P	19 35 01.5	0.0
	baz=24						
V11A	Goodsprings	24.53	326	⇓P	P	19 35 01.9	+0.2
	baz=24						
CCUT	Cedar City	24.83	331	*e*P	P	19 35 05.3	+1.0
	comp=Z,8.1nm,1.3s,mb4.1						
Q18A	Rafter H Ranch	24.83	338	⇓P	P	19 35 04.4	+0.1
	baz=25						
SHPR	Sheep Range	24.89	327	*e*P	P	19 35 06.5	+1.5
GSC	Goldstone	24.92	323	*e*P	P	19 35 05.9	+0.7
GSC				pmax	pmax		
	comp=Z,60nm,2.1s,mb4.8						
GSC	Goldstone	24.92	323	⇓P	P	19 35 05.6	+0.4
	baz=25						
GSC	Goldstone	24.92	323	*e*P	P	19 35 05.9	+0.6
	comp=Z,60nm,2.1s,mb4.8						
P19A	Cripple Cowboy	24.92	341	⇑P	P	19 35 05.3	+0.1
	baz=25,SNR=13						
SRU	San Rafael	24.98	338	*e*P	P	19 35 06.0	+0.3
SRU				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.4						
SRU	San Rafael	24.98	338	⇓P	P	19 35 05.5	-0.2
	baz=25,SNR=7.6						
SRU	San Rafael	24.98	338	*e*P	P	19 35 06.0	+0.2
	comp=Z,12nm,0.9s,mb4.4						
SHOC	Shoshone	25.05	324	⇓P	P	19 35 07.2	+0.9
	baz=25						
S13A	Holt Ranch, En	25.08	331	⇓P	P	19 35 07.3	+0.6
	baz=25						
MSU	Marysvale	25.10	334	*e*P	P	19 35 09.7	+2.8
O20A	White River Ci	25.16	342	⇑P	P	19 35 08.6	+1.3
	baz=25,SNR=12						
P18A	Preston Nutter	25.34	339	⇓P	P	19 35 08.8	-0.2
	baz=25,SNR=7.8						
TMUT	Trail Mountain	25.39	337	*e*P	P	19 35 10.3	+0.8
OTAV	Otavalo	25.53	127	*e*P	P	19 35 14.3	+3.3
	comp=Z,20nm,1.6s,mb4.4						
N21A	Black Mountain	25.54	344	⇓P	P	19 35 11.1	+0.3
	baz=26,SNR=9.0						
MPMC	Manual Prospec	25.85	323	⇓P	P	19 35 13.3	-0.3
	baz=26						
O17A	Robinson Place	26.01	339	⇑P	P	19 35 15.0	-0.1
	baz=26						
R12A	Pony Springs,	26.03	330	⇓P	P	19 35 15.6	+0.3
	baz=26						
N19A	John Jarvie Ra	26.13	342	⇓P	P	19 35 16.2	0.0
	baz=26						
ISA	Isabella	26.15	321	*e*P	P	19 35 16.7	+0.3
ISA				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.4						
ISA	Isabella	26.15	321	*e*P	P	19 35 16.7	+0.3
	comp=Z,15nm,1.3s,mb4.3						
Q13A	Wheeler Ranch,	26.27	332	⇓P	P	19 35 17.8	+0.3
	baz=26,SNR=7.8						
BLA	Blacksburg	26.32	34	*e*P	P	19 35 16.8	-1.1
BLA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
BLA	Blacksburg	26.32	34	*e*P	P	19 35 16.8	-1.2
	comp=Z,9.9nm,0.8s,mb4.4						
DAU	Daniels Canyon	26.39	338	*e*P	P	19 35 18.7	+0.2
R11A	Troy Canyon, C	26.52	329	⇓P	P	19 35 20.3	+0.5
	baz=26						
P13A	Bates Ranch, G	26.68	333	⇑P	P	19 35 21.6	+0.5
	baz=27						
S10A	Tonopah Range,	26.71	327	⇑P	P	19 35 21.5	+0.1
	baz=27						
DUG	Dugway	26.79	335	*e*P	P	19 35 22.5	+0.4
DUG				pmax	pmax		
	comp=Z,53nm,2.1s,mb4.7						
DUG	Dugway	26.79	335	*e*P	P	19 35 22.5	+0.3
	comp=Z,53nm,2.1s,mb4.7						
S09A	Goldfield	26.89	326	⇓P	P	19 35 22.9	-0.2
	baz=27						
TPH	Tonopah	27.15	327	P	P	19 35 24.4	-1.0
Q10A	Clear Creek Ra	27.30	329	⇑P	P	19 35 26.8	+0.1
	baz=27						
L19A	Farson	27.30	342	⇑P	P	19 35 25.9	-0.7
	baz=27						
ACSO	Alum Creek Sta	27.44	27	*e*P	P	19 35 27.7	-0.3
	comp=Z,13nm,0.8s,mb4.5						
N14A	Grayback Hills	27.50	336	⇓P	P	19 35 28.9	+0.4
	baz=28						
M15A	Larsen Ranch,	27.75	337	⇑P	P	19 35 30.9	+0.2
	baz=28						
K19A	Absolon Red Bu	27.82	344	⇑P	P	19 35 31.6	+0.3
	baz=28						
BW06	Boulder Array	27.97	343	⇓P	P	19 35 32.6	0.0
	baz=28						
BW06	Boulder Array	27.97	343	*e*P	P	19 35 33.5	+0.8
	comp=Z,11nm,1.2s,mb4.3						
PDAR	Pinedale Array	27.97	343	P	P	19 35 32.6	0.0
	comp=Z,3.3nm,0.8s,mb4.0,baz=150,slow=9.6,SNR=22						
K18A	Toltan Ranch,	27.99	342	⇑P	P	19 35 32.9	+0.1
	baz=28						
NVAR	Mina Array Bea	27.99	326	P	P	19 35 32.6	-0.3
	comp=Z,2.1nm,0.8s,mb3.8,baz=154,slow=9.0,SNR=14						
RSSD	Black Hills	28.09	352	*e*P	P	19 35 34.0	+0.3
RSSD				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.3						
RSSD	Black Hills	28.09	352	*e*P	P	19 35 34.0	+0.2
	comp=Z,12nm,1.4s,mb4.3						
M14A	Sheep Mountain	28.12	336	⇑P	P	19 35 34.0	0.0
	baz=28,SNR=8.0						
L15A	Malad City	28.19	338	⇑P	P	19 35 34.8	+0.1
	baz=28						
ELK	Elko	28.27	333	*e*P	P	19 35 36.4	+1.0
ELK				pmax	pmax		
	comp=Z,10.0nm,1.4s						
ELK	Elko	28.27	333	*e*P	P	19 35 36.4	+1.0
	comp=Z,9.8nm,1.4s,mb4.2						
SDV	Santo Domingo	28.29	102	P	P	19 35 35.8	-0.1
	comp=Z,7.2nm,0.9s,mb4.3,baz=0.6,slow=2.8,SNR=6.9						
SDV	Santo Domingo	28.29	102	*e*P	P	19 35 35.6	-0.3
	comp=Z,6.8nm,0.8s,mb4.3						
M13A	Montello	28.32	335	⇑P	P	19 35 35.4	-0.5
	baz=28						
J18A	Kendall Valley	28.51	342	⇑P	P	19 35 37.0	-0.5
	baz=28						
R06C	Coleville	28.69	325	⇑P	P	19 35 39.7	+0.6
	baz=29						
CMB	Columbia Colle	28.88	323	P	P	19 35 38.9	-2.0
CMB				pmax	pmax		
	comp=Z,19nm,1.8s,mb4.5						
CMB	Columbia Colle	28.88	323	P	P	19 35 38.9	-1.9
	comp=Z,19nm,1.8s,mb4.5						
LOHW	Long Hollow	29.05	342	*e*P	P	19 35 42.8	+0.5
	comp=Z,8.1nm,0.9s,mb4.5						
LOHW				*e*		19 35 49.1	
MOOW	Moose Ponds	29.21	342	*e*P	P	19 35 46.9	+3.1
	comp=Z,5.3nm,1.1s,mb4.2						

L11A	Cat Creek Ranc	29.66	334	⇑P	P	19 35 47.3	-0.3
	baz=30						
K12A	Draper Farm, C	29.69	335	⇓P	P	19 35 47.8	-0.2
	baz=30,SNR=6.6						
RLMT	Red Lodge	30.08	345	⇓P	P	19 35 51.8	+0.4
	baz=30,SNR=9.2						
RLMT	Red Lodge	30.08	345	*e*P	P	19 35 52.2	+0.9
	comp=Z,9.4nm,0.9s,mb4.5						
BEKR	Beckwourth	30.13	325	⇑P	P	19 35 51.5	-0.4
	baz=30						
HLID	Hailey	30.29	337	⇓P	P	19 35 52.6	-0.7
	baz=30						
HLID	Hailey	30.29	337	*e*P	P	19 35 52.7	-0.6
	comp=Z,3.1nm,0.9s,mb4.0						
N06A	Buffalo Meadow	30.49	327	⇑P	P	19 35 55.0	-0.1
	baz=30,SNR=6.2						
CELP	Cerrillos	30.66	82	*e*P	P	19 35 59.6	+2.7
K09A	Rome	30.95	332	⇓P	P	19 35 58.5	-0.6
	baz=31,SNR=7.6						
WVOR	Wild Horse Val	31.16	331	P	P	19 36 01.2	+0.2
WVOR				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.7						
WVOR	Wild Horse Val	31.16	331	P	P	19 36 01.2	+0.2
	comp=Z,20nm,1.6s,mb4.7						
L07A	Adell	31.18	329	⇑P	P	19 36 01.3	+0.1
	baz=31						
DLMT	Dillon	31.24	341	*e*P	P	19 36 02.2	+0.5
H12A	Diamond D Ranc	31.30	337	⇓P	P	19 36 02.3	+0.1
	baz=31,SNR=6.0						
K08A	Mann Creek Ran	31.32	331	⇓P	P	19 36 02.1	-0.3
	baz=31,SNR=5.6						
G13A	Cobalt	31.54	339	⇑P	P	19 36 04.4	+0.1
	baz=32						
MOD	Modoc	31.57	328	*e*P	P	19 36 04.4	-0.2
	comp=Z,7.5nm,0.9s,mb4.5						
MOD				*e*		19 36 10.4	
LRM	Limekiln Ridge	31.61	341	*e*P	P	19 36 05.8	+1.0
K07A	Rock Creek Ran	31.64	330	⇓P	P	19 36 05.0	-0.3
	baz=32						
J08A	Circle Bar Ran	31.80	332	⇓P	P	19 36 06.1	-0.5
	baz=32						
H11A	Donnelly	31.87	336	⇓P	P	19 36 06.8	-0.4
	baz=32,SNR=6.7						
AGMN	Agassiz Refuge	31.97	4	*e*P	P	19 36 06.9	-1.1
	comp=Z,12nm,0.7s,mb4.8						
AGMN				*e*		19 36 12.7	
E16A	East Helena	32.02	343	⇓P	P	19 36 08.7	+0.2
	baz=32,SNR=10						
H10A	Noah’s Angus R	32.06	335	⇓P	P	19 36 08.3	-0.6
	baz=32						
F13A	Darby	32.19	339	⇑P	P	19 36 09.6	-0.4
	baz=32,SNR=6.5						
HRY	Holter Researc	32.23	343	*e*P	P	19 36 12.3	+2.0
D17A	Six Diamond Ra	32.33	345	⇓P	P	19 36 10.8	-0.4
	baz=32,SNR=7.1						
D16A	Dana Ranch, Ca	32.44	343	⇓P	P	19 36 12.3	+0.1
	baz=32						
K05A	Summer Lake	32.47	329	⇑P	P	19 36 12.6	+0.1
	baz=32						
BMO	Blue Mountains	32.50	335	*e*P	P	19 36 12.2	-0.6
YBH	Yreka Blue Hor	32.71	326	P	P	19 36 12.5	-2.2
	comp=Z,1.2nm,0.7s,mb3.9,baz=203,slow=4.5,SNR=3.6						
YBH				LR	LR	19 49 34.1	
	comp=Z,352nm,18.1s,MS4.1,baz=323,slow=37						
C17A	Wharram Farm,	32.79	345	⇓P	P	19 36 14.9	-0.4
	baz=33,SNR=9.9						
G10A	Bishop Farm, J	32.79	336	⇑P	P	19 36 14.9	-0.3
	baz=33						
H08A	Prairie City	32.81	333	⇓P	P	19 36 14.9	-0.5
	baz=33						
I07A	Izee	32.84	332	⇑P	P	19 36 14.9	-0.8
	baz=33						
H07A	Lands Inn, Kim	33.26	332	⇑P	P	19 36 18.8	-0.6
	baz=33						
E11A	Bogner Ranch,	33.34	338	⇓P	P	19 36 18.9	-1.1
	baz=33						
D13A	Huson	33.37	340	⇓P	P	19 36 19.4	-0.9
	baz=33,SNR=9.2						
F10A	Beach Ranch, E	33.40	336	⇑P	P	19 36 20.0	-0.6
	baz=33						
G08A	Pilot Rock	33.55	334	⇓P	P	19 36 21.2	-0.7
	baz=34						
SWMT	Swartz Lake	33.59	341	*e*P	P	19 36 22.1	-0.2
C14A	Swan Lake	33.75	342	⇑P	P	19 36 23.6	0.0
	baz=34						
G07A	Ruggs Ranch, H	33.84	333	⇓P	P	19 36 24.0	-0.4
	baz=34						
ULM	Lac du Bonnet	33.92	3	P	P	19 36 23.6	-1.4
	comp=Z,3.0nm,0.7s,mb4.3,baz=200,slow=11,SNR=3.2						
B13A	Whitefish	34.51	341	⇓P	P	19 36 30.3	+0.1
	baz=34						
WALA	Waterton Lakes	34.95	342	*e*P	P	19 36 32.9	-1.1
	comp=Z,0.2nm,1.2s						
NEW	Newport	35.29	338	P	P	19 36 39.1	+2.2
NEW				pmax	pmax		
	comp=Z,6.0nm,1.1s						
NEW	Newport	35.29	338	P	P	19 36 39.1	+2.2
	comp=Z,6.2nm,1.1s,mb4.5						
B09A	Rice	35.79	338	⇓P	P	19 36 40.9	-0.3
	baz=36						
BBGH	Gun Hill	37.89	89	*e*P	P	19 37 01.8	+2.2
	comp=Z,2µm,1.4s						
BBGH				*e*		19 37 11.9	
FFC	Flin Flon	38.42	357	*e*P	P	19 37 02.4	-1.1
FFC				*e*		19 37 08.6	
FFC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
FFC	Flin Flon	38.42	357	*e*P	P	19 37 02.4	-1.0
	comp=Z,7.3nm,0.8s,mb4.5						
FFC				*e*		19 37 08.6	
EDM	Edmonton	38.59	346	*e*P	P	19 37 03.3	-1.7
EDM				*e*		19 37 10.2	
FCC	Fort Churchill	42.51	4	P	P	19 37 35.9	-1.4
SCHQ	Schefferville	45.58	25	P	P	19 38 00.7	-1.3
	comp=Z,6.8nm,0.8s,mb4.6,baz=236,slow=5.7,SNR=12						
YKA	Yellowknife Ar	47.47	350	P	P	19 38 14.7	-2.0
	comp=Z,1.1nm,0.8s,mb3.8,baz=160,slow=7.3,SNR=12						
YKA				PcP	PcP	19 39 49.4	+2.4
	comp=Z,0.3nm,0.7s,baz=140,slow=3.7,SNR=3.5						
YKA	Yellowknife Ar	47.47	350	P	P	19 38 14.7	-2.0
YKA				PcP	PcP	19 39 49.4	+2.4
DLBC	Dease Lake	48.04	338	P	P	19 38 20.0	-1.2
LVC	Limon Verde	48.41	142	*e*P	P	19 38 24.9	+0.4
	comp=Z,11nm,1.3s,mb4.7						
CFAA	Coronel Fontan	55.87	149	P	P	19 39 21.7	+1.8
	comp=Z,0.2nm,0.4s,mb3.5,baz=263,slow=7.1,SNR=3.4						
RES	Resolute Bay	58.41	1	P	P	19 39 32.6	-4.7
RES				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
RES	Resolute Bay	58.41	1	P	P	19 39 32.6	-4.8
	comp=Z,5.3nm,1.3s,mb4.4						
MCK	McKinley	58.47	336	*e*P	P	19 39 35.9	-2.0
MCK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
MCK	McKinley	58.47	336	*e*P	P	19 39 35.9	-2.0
	comp=Z,5.2nm,0.8s,mb4.6						
COLA	College	58.65	338	*e*P	P	19 39 37.5	-1.6
BJI	Beijing	115.23	331	Pdif	Pdif	19 44 31.5	-3.6
BJI				LR	LR		
	comp=N,150nm,24.9s						
BJI				LR	LR		
	comp=E,220nm,19.3s						
BJI				LR	LR		
	comp=Z,91nm,33.1s						
HHC	Hu-ho-hao-te	116.59	335	*e*PKP	PKPdf	19 48 25.3	-1.4
HHC				sPKP		19 48 38.3	
HHC				PP	PP	19 49 35.6	+2.8
HHC				PKS		19 52 00.6	
HHC				SKS	SKSdf	19 55 32.4	-7.5
HHC				SKKS	SKKSac	19 56 25.4	-11
HHC				AMB	AMB		
	comp=Z,120nm,7.8s						
HHC				LR	LR		
	comp=N,240nm,14.3s,MS5.1						
HHC				LR	LR		
	comp=E,210nm,15.5s,MS5.1						
HHC				LR	LR		
	comp=Z,160nm,19.0s,MS4.7						
WMQ	Urumqi	119.88	355	*e*PKP	PKPdf	19 48 33.0	0.0
NJ2	Nanjing	119.97	323	*e*PKP	PKPdf	19 48 30.5	-3.0
LZH	Lanzhou	123.71	338	*e*PKP	PKPdf	19 48 37.0	-3.6
LZH				sPKP		19 48 48.4	
CD2	Chengdu	128.34	335	PKP	PKPdf	19 48 48.6	-1.0
GYA	Guiyang	130.88	330	*e*Pdif	Pdif	19 45 42.7	-2.0
GYA				PKP	PKPdf	19 48 53.4	-1.1
GYA				PP	PP	19 51 12.9	+3.7
GYA				AMB	AMB		
	comp=Z,70nm,7.9s						
CMAR	Chiang Mai Arr	141.35	333	PKP	PKPdf	19 49 12.8	-1.3
	comp=Z,0.5nm,0.8s,baz=320,slow=2.7,SNR=4.7						

IDC ***09*** *19:33:12.2±2.9, 3.°45S×100.°64E, h0^{km}, mb3.8/7, mb1 3.9/7, mb1mx3.7/21, mbtmp3.8/7, MS3.2/1, Ms1 3.2/1, ms1mx2.7/36, Error ellipse: s-maj=123.9km s-min=17.7km az=58.0*

ISCJB ***09*** *19:33:15.3±1.5, 3.°4S±0.°3×100.°8E±0.°4, h33^{km}, mb4.0/11, Error ellipse: s-maj=63.9km s-min=11.6km az=146.1*

NEIC ***09*** *19:33:17.6±1.1, 3.°35S×100.°79E, h35^{km}, mb4.3/4, Error ellipse: s-maj=44.7km s-min=8.3km az=56.0*

ISC 09 19:33:17.8±1.5**, 3.°4S**±0.°2×**100.°8E**±0.°4**, h35^{km}, n16, σ0^{s}.52**/13**, mb4.0**/11**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	6.39	343	LR	LR	19 37 22.3	
	comp=Z,197nm,20.8s,baz=345,slow=39						
CMAR	Chiang Mai Arr	21.74	355	P	P	19 38 06.3	0.0
	0.3nm,0.4s,mb3.1,baz=182,slow=8.7,SNR=5.3						
LSA	Lhasa	34.14	345	P	P	19 39 58.3	-1.2
WRA	Warramunga Arr	36.62	119	P	P	19 40 20.8	-0.3
	0.5nm,0.4s,mb3.7,baz=306,slow=9.0,SNR=7.9						
WRAB	Tennant Creek	36.63	119	P	P	19 40 20.7	-0.4
	2.5nm,0.7s,mb4.2						
ASAR	Alice Springs	37.82	125	P	P	19 40 31.5	+0.3
	1.0nm,0.5s,mb3.8,baz=300,slow=8.0,SNR=18						
STKA	Stephens Creek	47.66	131	P	P	19 41 51.1	+0.2
	1.1nm,0.6s,mb4.0,baz=134,slow=22,SNR=3.5						
SONM	Songino Array	51.20	5	P	P	19 42 18.5	+0.9
	2.5nm,0.8s,mb4.2,baz=185,slow=8.9,SNR=20						
ULN	Ulaanbaatar	51.29	5	P	P	19 42 18.6	+0.3
	1.7nm,0.9s,mb4.0						
TKM2	Tokmak 2	51.38	336	P	P	19 42 19.8	+0.8
	2.0nm,0.5s,mb4.3						
EKS2	Erkin-Say	51.92	335	P	P	19 42 23.0	0.0
	42nm,1.9s,mb5.0						
MKAR	Makanchi Array	52.53	344	P	P	19 42 27.6	0.0
	0.5nm,0.3s,mb3.9,baz=156,slow=8.8,SNR=29						
TLY	Talaya	54.87	2	P	P	19 42 44.3	-0.3
ZALV	Zalesovo Beam	58.63	349	P	P	19 43 10.9	-0.3
	0.5nm,0.3s,mb4.0,baz=176,slow=6.5,SNR=5.4						
TXAR	Lajitas Array	145.25	39	PKPbc	PKPbc	19 52 52.7	+0.5
	0.8nm,0.7s,baz=254,slow=1.0,SNR=11						
TXAR	Lajitas Array	145.25	39	PKPbc	PKPbc	19 52 52.7	+0.4

ISCJB ***09*** *19:37:30.3±1.6, 15.°87N±0.°06×98.°74W±0.°04, h12^{km}±11^{km}, mb4.1/15, Error ellipse: s-maj=10.5km s-min=5.4km az=12.9*

MEX ***09*** *19:37:31.2±1.1, 15.°79N×98.°81W, h5^{km}±18^{km}, MD4.3*

IDC ***09*** *19:37:33.9±5.2, 16.°36N×98.°53W, h0^{km}, mb3.7/4, mb1 3.9/8, mb1mx3.8/22, mbtmp3.7/8, ML3.4/3, Error ellipse: s-maj=97.6km s-min=25.1km az=12.0*

NEIC ***09*** *19:37:35.0±3.2, 16.°09N×98.°56W, h22^{km}±18^{km}, mb4.2/12, MD4.3(MEX), Error ellipse: s-maj=27.6km s-min=8.8km az=208.0*

ISC 09 19:37:32.2±1.3**, 15.°91N**±0.°06×**98.°68W**±0.°04**, h11**^{km}±7^{km}**, n40, σ1^{s}.25**/62**, mb4.1**/15**, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.72	48	*i* P	Pg	19 37 46.4	+0.2
PNIG				*i* S	Sg	19 37 57.8	+2.2
PNIG	Pinotepa	0.72	48	*i* P	Pg	19 37 46.4	+0.2
PNIG				*i* S	Sg	19 38 00.3	+4.7
CAIG	El Cayaco	1.90	307	*i* P	Pn	19 37 59.5	-5.0
CAIG				*i* S	Sn	19 38 24.1	-4.3
UTMO	Huajuapan	2.09	24	*i* P	Pn	19 38 06.4	-0.7
UTMO				*i* S	Sn	19 38 31.4	-1.7
VHO	Vista Hermosa	2.20	58	*i* P	Pn	19 38 08.6	0.0
VHO				*i* S	Sn	19 38 35.0	-0.8
VHO	Vista Hermosa	2.20	58	*i* P	Pn	19 38 08.6	0.0
VHO				*i* S	Sn	19 38 37.6	+1.8
MEIG	Mezcala	2.20	336	*i* P	Pn	19 38 05.8	-2.9
MEIG				*i* S	Sn	19 38 34.0	-1.9
HUIG	Huatulco	2.48	93	*i* P	Pn	19 38 10.9	-1.6
HUIG				*i* S	Sn	19 38 42.4	-0.4
PLIG	Platanillo	2.60	343	*i* P	Pn	19 38 12.5	-1.6
PLIG				*i* S	Sn	19 38 42.8	-2.8
PLIG	Platanillo	2.60	343	*i* P	Pn	19 38 12.5	-1.6
PLIG				*i* S	Sn	19 38 47.1	+1.5
TPIG	Tehuac#an	2.80	27	*i* P	Pn	19 38 17.5	+0.7
TPIG				*i* S	Sn	19 38 52.3	+1.6
YAIG	Yautepec	2.96	353	*i* P	Pn	19 38 19.4	+0.2
YAIG				*i* S	Sn	19 38 55.5	+0.9
PPM	Popocatepetl	3.15	1	*i* P	Pn	19 38 21.2	-0.4
PPM				*i* S	Sn	19 39 06.2	+7.1
CHVM	Chichinautzin	3.20	352	*e*P	Pn	19 38 27.0	+4.7
CHVM				*i* S	Sn	19 39 06.3	+5.9
CMIG	Matias Romero	3.83	72	*i* P	Pn	19 38 31.0	0.0
CMIG				*i* S	Sn	19 39 16.7	+0.7
CMIG	Matias Romero	3.83	72	Pn	Pn	19 38 31.4	+0.4
	3.3nm,0.3s,baz=256,slow=11,SNR=35						
CMIG				Sn	Sn	19 39 17.8	+1.8
	5.3nm,0.3s,baz=350,slow=16,SNR=4.2						
CMIG				Lg		19 39 40.5	
	6.4nm,0.3s,baz=48,slow=5.2,SNR=4.5						
CMIG	Matias Romero	3.83	72	*i* P	Pn	19 38 31.0	0.0
CMIG				Pn	Pn	19 38 31.4	+0.4
CMIG				*i* S	Sn	19 39 16.7	+0.7
CMIG				Sn	Sn	19 39 17.8	+1.8
CMIG				Lg		19 39 40.5	
TEIG	Tepich	10.79	65	Pn	Pn	19 40 05.7	-0.9
	1.0nm,0.3s,baz=222,slow=6.3,SNR=6.5						
TEIG				Sn	Sn	19 42 06.5	-0.9
	1.0nm,0.3s,baz=134,slow=22,SNR=4.2						
TEIG	Tepich	10.79	65	Pn	Pn	19 40 05.7	-0.9
TEIG				*e*Sn	Sn	19 42 04.1	-3.2
TEIG				Sn	Sn	19 42 06.5	-0.9
TXAR	Lajitas Array	14.13	342	Pn	Pn	19 40 50.5	-1.8
	0.0nm,0.3s,baz=138,slow=11,SNR=3.0						
WMOK	Wichita Mounta	18.75	360	Pn	Pn	19 41 51.3	-0.2
MIAR	Mount Ida	19.12	13	Pn	Pn	19 41 53.3	-2.7
	2.4nm,0.7s						
ANMO	Albuquerque	20.21	341	P	P	19 42 08.0	+1.0
	0.1nm,0.3s,baz=161,slow=14,SNR=4.8						
ANMO	Albuquerque	20.21	341	*e*P	P	19 42 07.7	+0.7
	4.9nm,0.8s						
GLA	Glamis	22.47	322	*e*P	P	19 42 31.5	0.0
	10.0nm,0.8s,mb4.3						
SDCO	Great Sand Dun	22.57	346	*e*P	P	19 42 31.6	-0.9
	5.1nm,1.1s,mb3.9						
WUAZ	Wupatki	22.59	332	*e*P	P	19 42 32.9	+0.3
	11nm,0.9s,mb4.3						
MVCO	Mesa Verde	22.94	340	*e*P	P	19 42 36.4	+0.1
	16nm,1.1s,mb4.4						
PV01	Paradox Valley	23.80	340	*e*P	P	19 42 46.3	+1.3
	901nm,1.3s						
PV10	Paradox Valley	24.17	340	*e*P	P	19 42 48.5	+0.1
	87nm,0.8s,mb5.2						
ISCO	Idaho Springs	24.57	347	*e*P	P	19 42 52.8	+0.8
	23nm,1.5s,mb4.5						
TZTN	Tazewell	24.57	30	*e*P	P	19 42 46.5	-5.6
	8.1nm,0.9s,mb4.2						
NVAR	Mina Array Bea	28.31	326	P	P	19 43 27.4	+1.6
	0.8nm,0.8s,mb3.4,baz=157,slow=8.6,SNR=5.8						
PDAR	Pinedale Array	28.35	343	P	P	19 43 27.1	+1.0
	1.3nm,0.9s,mb3.5,baz=133,slow=6.3,SNR=6.5						
RSSD	Black Hills	28.49	352	P	P	19 43 29.3	+2.0
	2.3nm,0.8s,mb3.9						
CMB	Columbia Colle	29.19	323	P	P	19 43 35.5	+1.9
	10nm,1.6s,mb4.3						
RLMT	Red Lodge	30.46	345	*e*P	P	19 43 45.4	+0.6
	4.4nm,1.0s,mb4.1						
HLID	Hailey	30.65	337	P	P	19 43 50.1	+3.6
	0.9nm,0.7s,mb3.7						
SCHQ	Schefferville	45.97	25	P	P	19 45 53.6	-1.5
	3.1nm,0.9s,mb4.2,baz=238,slow=11,SNR=4.9						
YKA	Yellowknife Ar	47.87	350	P	P	19 46 09.4	-0.4
	0.2nm,0.6s,mb3.3,baz=154,slow=7.6,SNR=4.8						

ISCJB ***09*** *19:43:49.9±0.3, 49.°31N±0.°02×6.°63E±0.°03, h0^{km}, Error ellipse: s-maj=3.2km s-min=2.5km az=17.5*

CSEM ***09*** *19:43:51.2±0.2, 49.°32N×6.°68E, h2^{km}, ML2.4/19, Error ellipse: s-maj=4.3km s-min=3.0km az=104.0*

LDG ***09*** *19:43:52.2±0.0, 49.°37N×6.°72E, h1^{km}, Md2.5/2, Ml2.4/20, Error ellipse: s-maj=1.1km s-min=0.8km az=111.0*

BNS ***09*** *19:43:53.2±0.4, 49.°40N×6.°71E, h1^{km}, ML1.4*

BGR ***09*** *19:43:53.1±0.4, 49.°36N×6.°80E, h1^{km}, ML2.1/2, Error ellipse: s-maj=7.8km s-min=4.4km az=35.0*

ISC 09 19:43:51.0±0.3**, 49.°32N**±0.°02×**6.°67E**±0.°03**, h0^{km}, n60, σ1^{s}.19**/110**, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLF	Walferdange	0.49	316	P	Pg	19 44 03.0	+2.6
WLF	Walferdange	0.49	316	*e*Pg	Pg	19 44 02.8	+2.5
WLF				*e*Sg	Sg	19 44 09.7	+3.1
WLF	Walferdange	0.49	316	Pg	Pg	19 44 02.8	+2.5
WLF				Sg	Sg	19 44 09.7	+3.1
HILG	Hillesheim	0.98	0	*e*Pg	Pg	19 44 10.1	+0.4
HILG	Hillesheim	0.98	0	Pg	Pg	19 44 10.1	+0.3
CDF	Champ du Feu	0.99	156	*e*Pg	Pg	19 44 11.4	+1.5
CDF	Champ du Feu	0.99	156	*e*Pn	Pn	19 44 11.8	-0.3
CDF				*e*Sg	Sg	19 44 25.1	+2.4
	14nm,0.2s						
CDF	Champ du Feu	0.99	156	*e*Pg	Pg	19 44 11.4	+1.5
CDF				*e*Sg	Sg	19 44 25.1	+2.4
	7.2nm,0.2s						
BGG	Burgeitz	0.99	26	*e*Pg	Pg	19 44 10.1	+0.1
BGG	Burgeitz	0.99	26	Pg	Pg	19 44 10.1	+0.1
RFYF	Reffroy	1.05	229	*e*Pg	Pg	19 44 12.9	+1.9
RFYF				*e*Sg	Sg	19 44 27.5	+2.9
	5.0nm,0.1s						
RFYF	Reffroy	1.05	229	*e*Pg	Pg	19 44 12.9	+1.9
RFYF				*e*Sg	Sg	19 44 27.5	+2.9
	2.5nm,0.1s						
STB	Steinbach	1.28	5	*e*Pg	Pg	19 44 15.2	-0.4
STB				*e*Sg	Sg	19 44 31.8	-0.5
	11nm,0.4s						
STB	Steinbach	1.28	5	Pg	Pg	19 44 15.2	-0.4
STB				Sg	Sg	19 44 31.8	-0.5
	11nm,0.4s						
KOE	Koeppel	1.31	31	*e*Pg	Pg	19 44 16.0	-0.1
KOE	Koeppel	1.31	31	Pg	Pg	19 44 16.0	0.0
HAU	Haudompre	1.33	189	*e*P	Pg	19 44 18.2	+1.8
HAU				*e*Sn	Sn	19 44 35.2	+0.1
	15nm,0.4s						
HAU	Haudompre	1.33	189	*e*P	Pg	19 44 18.2	+1.8
HAU				*e*Sn	Sn	19 44 35.2	+0.1
	7.4nm,0.4s						
MEZF	Maizieres J’vi	1.34	233	*e*Pn	Pn	19 44 17.2	+0.2
	baz=47						
MEZF				*e*Sn	Sn	19 44 35.5	0.0
	15nm,0.6s						
MEZF	Maizieres J’vi	1.34	233	*e*Pn	Pn	19 44 17.2	+0.2
MEZF				*e*Sn	Sn	19 44 35.5	0.0
	7.4nm,0.6s						
MEM	Membach	1.36	342	P	Pg	19 44 17.8	+0.6
MEM	Membach	1.36	342	P	Pg	19 44 17.7	+0.5
GIVF	Givet	1.44	304	*e*Pn	Pn	19 44 17.4	-0.9
GIVF				*e*Sg	Sg	19 44 37.1	0.0
	12nm,0.4s						
GIVF	Givet	1.44	304	*e*Pn	Pn	19 44 17.4	-0.9
GIVF				*e*Sg	Sg	19 44 37.1	0.0
	5.9nm,0.4s						
TNS	Taunus Mts	1.47	51	*e*Pg	Pg	19 44 18.0	-1.1
TNS				*e*Sg	Sg	19 44 36.8	-1.3
TNS	Taunus Mts	1.47	51	Pg	Pg	19 44 18.0	-1.1
TNS				Sg	Sg	19 44 36.8	-1.3
BFO	Black Forest	1.47	131	*e*Pg	Pg	19 44 20.5	+1.2
BFO				*e*Sg	Sg	19 44 38.4	0.0
BFO	Black Forest	1.47	131	Pg	Pg	19 44 20.5	+1.2
BFO				Sg	Sg	19 44 38.4	+0.1
HINF	Hinteralfeld	1.50	175	*e*P	Pn	19 44 21.3	+2.1
HINF				*e*Sg	Sg	19 44 41.6	+2.3
	26nm,0.3s						
HINF	Hinteralfeld	1.50	175	*e*P	Pn	19 44 21.3	+2.1
HINF				*e*Sg	Sg	19 44 41.6	+2.3
	13nm,0.3s						
SFTF	Sexfontaines	1.55	225	*e*Pn	Pn	19 44 20.1	+0.3
SFTF				*e*Sn	Sn	19 44 40.3	-0.3
	5.9nm,0.3s						
SFTF	Sexfontaines	1.55	225	*e*Pn	Pn	19 44 20.1	+0.3
SFTF				*e*Sn	Sn	19 44 40.3	-0.3
	3.0nm,0.3s						
DOU	Dourbes	1.56	301	P	Pn	19 44 23.2	+3.3
DOU	Dourbes	1.56	301	P	Pn	19 44 23.2	+3.3
BAIF	Baives	1.76	296	*e*Pn	Pn	19 44 22.0	-0.8
BAIF				*e*Sg	Sg	19 44 47.9	+0.2
	12nm,0.7s						
BAIF	Baives	1.76	296	*e*Pn	Pn	19 44 22.0	-0.8
BAIF				*e*Sg	Sg	19 44 47.9	+0.2
	5.9nm,0.7s						
CABF	La Chapelle	2.73	188	*e*Pn	Pn	19 44 35.5	-0.6
CABF				*e*Sn	Sn	19 45 09.0	-0.8
	5.9nm,0.6s						
CABF	La Chapelle	2.73	188	*e*Pn	Pn	19 44 35.5	-0.6
CABF				*e*Sn	Sn	19 45 09.0	-0.8
	3.0nm,0.6s						
LOR	Lormes	2.78	224	*e*Pn	Pn	19 44 37.5	+0.8
	baz=41						
LOR				*e*Sn	Sn	19 45 09.8	-1.1
	baz=46						
LOR				*e*Sg	Sg	19 45 21.3	+1.1
	2.8nm,0.4s						
LOR	Lormes	2.78	224	*e*Pn	Pn	19 44 37.5	+0.8
LOR				*e*Sn	Sn	19 45 09.8	-1.1
LOR				*e*Sg	Sg	19 45 21.3	+1.1
	1.4nm,0.4s						
SSF	Saint Saulge	3.09	224	*e*Pn	Pn	19 44 40.9	-0.1
SSF				*e*Sn	Sn	19 45 17.2	-1.5
	3.9nm,0.5s						
SSF				*e*Sg	Sg	19 45 31.4	+1.1
	18nm,1.2s						
SSF	Saint Saulge	3.09	224	*e*Pn	Pn	19 44 40.9	-0.1
SSF				*e*Sn	Sn	19 45 17.2	-1.5
	2.0nm,0.5s						
SSF				*e*Sg	Sg	19 45 31.4	+1.1
	8.9nm,1.2s						
SMF	Signal de Mont	3.28	216	*e*Pn	Pn	19 44 43.8	+0.2
SMF				*e*Sn	Sn	19 45 21.7	-1.5
	1.1nm,0.3s						
SMF	Signal de Mont	3.28	216	*e*Pn	Pn	19 44 43.8	+0.2
SMF				*e*Sn	Sn	19 45 21.7	-1.5
	0.6nm,0.3s						
AVF	Avril sur Loir	3.37	223	*e*Pn	Pn	19 44 45.0	+0.2
AVF				*e*Sn	Sn	19 45 23.5	-1.9
	1.0nm,0.3s						
AVF	Avril sur Loir	3.37	223	*e*Pn	Pn	19 44 45.0	+0.2
AVF				*e*Sn	Sn	19 45 23.5	-1.9
	0.5nm,0.3s						
HYF	Humbligny	3.38	234	*e*Pn	Pn	19 44 45.1	+0.1
HYF				*e*Sn	Sn	19 45 24.1	-1.7
HYF	Humbligny	3.38	234	*e*Pn	Pn	19 44 45.1	+0.1
HYF				*e*Sn	Sn	19 45 24.1	-1.7
BGF	Bois d’Agland	3.77	224	*e*Pn	Pn	19 44 50.2	-0.1
BGF				*e*Sn	Sn	19 45 33.4	-2.0
BGF				*e*Sg	Sg	19 45 52.5	+0.4
	7.2nm,0.5s						
BGF	Bois d’Agland	3.77	224	*e*Pn	Pn	19 44 50.2	-0.1
BGF				*e*Sn	Sn	19 45 33.4	-2.0
BGF				*e*Sg	Sg	19 45 52.5	+0.4
	3.6nm,0.5s						
LPL	La Plagne	3.80	179	*e*Pn	Pn	19 44 50.9	+0.1
LPL				*e*Sn	Sn	19 45 34.3	-1.8
	0.7nm,0.3s						
LPL	La Plagne	3.80	179	*e*Pn	Pn	19 44 50.9	+0.1
LPL				*e*Sn	Sn	19 45 34.3	-1.8
	0.3nm,0.3s						
LPG	La Plagne	3.82	179	*e*Pn	Pn	19 44 51.1	+0.1
LPG				*e*Sn	Sn	19 45 34.8	-1.8
	1.8nm,0.5s						
LPG	La Plagne	3.82	179	*e*Pn	Pn	19 44 51.1	+0.1
LPG				*e*Sn	Sn	19 45 34.8	-1.8
	0.9nm,0.5s						
TCF	Toulx Ste Croi	4.27	226	*e*Pn	Pn	19 44 56.0	-1.2
TCF	Toulx Ste Croi	4.27	226	*e*Pn	Pn	19 44 56.0	-1.2
ORIF	Oris-en-Rattie	4.43	187	*e*Pn	Pn	19 44 59.2	-0.2
ORIF				*e*Sn	Sn	19 45 49.1	-2.6
	0.6nm,0.3s						
ORIF	Oris-en-Rattie	4.43	187	*e*Pn	Pn	19 44 59.2	-0.2
ORIF				*e*Sn	Sn	19 45 49.1	-2.6
	0.3nm,0.3s						
GEC2	GERESS Array S	4.64	93	*e*Pn	Pn	19 45 02.5	+0.1
GEC2	GERESS Array S	4.64	93	Pn	Pn	19 45 02.5	+0.1

ISCJB ***09*** *19:45:42.6±2.9, 4.°0S±0.°5×100.°3E±0.°7, h33^{km}, mb3.6/7, Error ellipse: s-maj=114.8km s-min=16.1km az=146.4*

NEIC ***09*** *19:45:45.7±2.1, 3.°86S×100.°46E, h35^{km}, mb3.9/1, Error*

ellipse: s-maj=85.5km s-min=13.0km az=57.0

*IDC **09** 19:45:45.4±2.8, 3°.74S×100°.59E, h27^{km}±5^{km}, mb3.4/6, mb1 3.5/6, mb1mx3.4/21, mbtmp3.4/6, Error ellipse: s-maj=111.5km s-min=19.7km az=57.0*

ISC 09 19:45:45.6±2.7**, 3°.9S**±0°.4×**100°.4E**±0°.6**, h35^{km}, n9, σ0^{s}.56**/7**, mb3.6**/7**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	22.25	356	P	P	19 50 40.1	+0.6
	0.8nm,0.8s,mb3.2,baz=185,slow=8.6,SNR=5.9						
LSA	Lhasa	34.56	346	P	P	19 52 31.5	+0.5
	0.7nm,0.4s,mb3.9						
WRA	Warramunga Arr	36.69	119	P	P	19 52 49.3	-0.1
	0.4nm,0.6s,mb3.4,baz=278,slow=7.5,SNR=4.1						
ASAR	Alice Springs	37.81	124	P	P	19 52 59.2	+0.3
	0.2nm,0.4s,mb3.2,baz=303,slow=7.8,SNR=5.8						
SONM	Songino Array	51.77	5	P	P	19 54 48.9	-0.8
	0.3nm,0.4s,mb3.6,baz=185,slow=9.5,SNR=7.2						
SONM				pP	pP	19 54 57.4	-2.8
	1.5nm,0.9s,baz=185,slow=8.5,SNR=8.3						
MKAR	Makanchi Array	52.95	344	P	P	19 54 58.8	+0.3
	0.6nm,0.6s,mb3.7,baz=148,slow=8.1,SNR=7.3						
MKAR				pP	pP	19 55 06.5	-2.5
	0.4nm,0.6s,baz=151,slow=8.0,SNR=4.0						
ZALV	Zalesovo Beam	59.09	349	P	P	19 55 41.3	-0.9
	0.4nm,0.4s,mb3.9,baz=184,slow=5.8,SNR=3.6						
TXAR	Lajitas Array	145.90	40	PKPbc	PKPbc	20 05 23.0	+0.9
	0.4nm,0.5s,baz=328,slow=0.7,SNR=10						
TXAR				pPKPbc	pPKPbc	20 05 31.3	-2.1
	0.7nm,0.7s,baz=280,slow=0.9,SNR=5.4						
TXAR	Lajitas Array	145.90	40	PKPbc	PKPbc	20 05 23.0	+0.9
TXAR				pPKPbc	pPKPbc	20 05 31.3	-2.1

IDC 09 19:47:55.8±3.9**, 15°.63S×173°.26W, h0^{km}, mb4.0**/3**, mb1 4.1**/4**, mb1mx3.7**/19**, mbtmp4.0**/4**, Error ellipse: s-maj=195.0km s-min=21.4km az=139.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	2.23	40	Pn	Pn	19 48 34.8	+0.8
	11nm,0.3s,baz=80,slow=22,SNR=11						
AFI				Sn	Sn	19 49 01.6	-0.7
	46nm,0.3s,baz=38,slow=21,SNR=18						
STKA	Stephens Creek	44.04	240	P	P	19 56 05.4	-0.2
	1.0nm,0.4s,baz=74,slow=8.6,SNR=8.9						
WRA	Warramunga Arr	49.93	257	P	P	19 56 52.1	+0.3
	0.4nm,0.4s,baz=92,slow=7.0,SNR=9.0						
ASAR	Alice Springs	50.17	252	P	P	19 56 53.2	-0.3
	2.1nm,0.5s,baz=89,slow=8.1,SNR=51						

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*NEIC **09** 19:51:31.6, 15°.82N×98°.92W, h20^{km}, MD4.1(MEX), After MEX.*

MEX 09 19:51:32.0±0.8**, 15°.83N×98°.90W, h19^{km}**±28^{km}**, MD4.1, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.93	53	*i* P	Pb	19 51 46.5	-3.2
PNIG				*i* S	Sb	19 51 58.1	-3.5
CAIG	El Cayaco	1.79	313	*i* P	Pn	19 51 59.4	-2.4
CAIG				*i* S	Sn	19 52 18.6	-5.4
CAIG	El Cayaco	1.79	313	*i* P	Pn	19 51 59.4	-2.4
CAIG				*i* S	Sn	19 52 17.9	-6.1
MEIG	Mezcala	2.20	342	*i* P	Pn	19 52 05.2	-2.3
MEIG				*i* S	Sn	19 52 29.4	-4.8
VHO	Vista Hermosa	2.42	59	*e*P	Pn	19 52 08.7	-1.9
VHO				*i* S	Sn	19 52 36.6	-3.2
PLIG	Platanillo	2.62	347	*e*P	Pn	19 52 10.2	-3.1
PLIG				*i* S	Sn	19 52 42.0	-2.5
PLIG	Platanillo	2.62	347	*i* P	Pn	19 52 12.2	-1.1
PLIG				*i* S	Sn	19 52 42.0	-2.5
HUIG	Huatulco	2.69	91	*i* P	Pn	19 52 12.6	-1.7
HUIG				*i* S	Sn	19 52 42.9	-3.5
HUIG	Huatulco	2.69	91	*i* P	Pn	19 52 12.6	-1.7
HUIG				*i* S	Sn	19 52 41.9	-4.5
TPIG	Tehuac#an	2.97	30	*i* P	Pn	19 52 15.9	-2.2
TPIG				*i* S	Sn	19 52 50.7	-2.6
PPM	Popocatepetl	3.23	5	*i* P	Pn	19 52 18.5	-3.3
PPM				*i* S	Sn	19 52 56.8	-3.0
SZVM	Salazar	3.51	353	*e*P	Pn	19 52 29.8	+4.3
SZVM				*i* S	Sn	19 53 06.4	-0.1
CMIG	Matias Romero	4.06	71	*i* P	Pn	19 52 31.6	-1.5
CMIG				*i* S	Sn	19 53 16.5	-3.6
LVIG	Laguna Verde	4.54	31	*i* P	Pn	19 52 35.7	-4.0

NEIC 09 19:53:15.6, 37°.94S×176°.05E, h186^{km}, MG3.8(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.90	111	P	Pn	19 53 43.1	0.0
MWZ	Matawai	1.23	109	P	Pn	19 53 45.8	+0.2
BKZ	Black Stump Fm	1.27	164	P	Pn	19 53 46.0	0.0
BKZ				S	Sn	19 54 09.3	-0.4
WNVZ	Wahianoa	1.43	194	P	Pn	19 53 47.6	+0.2
MOVZ	Moawhango	1.48	189	P	Pn	19 53 47.5	-0.4
KNZ	Kokohu	1.67	131	P	Pn	19 53 49.7	+0.1
PUZ	Puketiti	1.75	95	P	Pn	19 53 50.2	-0.2
MXZ	Matakaoa Point	1.83	79	P	Pn	19 53 50.3	-0.9
TSZ	Takapari Road	2.12	182	P	Pn	19 53 53.3	-1.0
BFZ	Birch Farm	2.74	177	P	Pn	19 53 59.4	-2.0
MRZ	Mangatainoka R	2.74	188	P	Pn	19 53 59.3	-2.1
KIW	Kapiti Island	3.05	196	P	Pn	19 54 02.3	-2.7
MTW	Mount Morrison	3.24	187	P	Pn	19 54 04.3	-3.1
CAW	Cannon Point	3.25	193	P	Pn	19 54 04.8	-2.7
MRW	Makara Radio	3.45	197	P	Pn	19 54 07.1	-2.8
PAWZ	Paruwai Farm	3.47	188	P	Pn	19 54 07.1	-3.1
WEL	Wellington	3.48	196	P	Pn	19 54 07.5	-2.9
SNZO	South Karori	3.52	197	P	Pn	19 54 07.4	-3.4
MSWZ	Moikau Station	3.53	190	P	Pn	19 54 07.5	-3.4
TCW	Tory Channel	3.54	202	P	Pn	19 54 08.3	-2.8
BHW	Baring Head	3.58	194	P	Pn	19 54 08.3	-3.3
NNZ	Nelson	3.87	211	P	Pn	19 54 11.8	-3.4
QRZ	Quartz Range	3.97	222	P	Pn	19 54 12.8	-3.6
THZ	Tophouse	4.52	211	P	Pn	19 54 21.0	-2.4
KHZ	Kahutara	4.87	202	P	Pn	19 54 24.3	-3.6
DSZ	Denniston Nort	5.01	219	P	Pn	19 54 25.1	-4.6
LTZ	Lake Taylor	5.63	210	P	Pn	19 54 33.4	-4.4

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*ISCJB **09** 19:54:07.6±2.5, 1°.8N±0°.1×124°.8E±0°.3, h166^{km}±25^{km}, mb4.0/7, Error ellipse: s-maj=47.2km s-min=11.6km az=165.2*

*NEIC **09** 19:54:13.1±0.8, 1°.68N×124°.74E, h200^{km}, mb4.4/3, Error ellipse: s-maj=45.1km s-min=12.3km az=68.0*

*IDC **09** 19:54:15.5±3.7, 1°.60N×124°.74E, h218^{km}±33^{km}, mb3.3/4, mb1 3.5/5, mb1mx3.1/20, mbtmp3.3/5, Error ellipse: s-maj=80.9km s-min=13.6km az=66.0*

ISC 09 19:54:06.3±2.6**, 1°.90N**±0°.10×**125°.0E**±0°.3**, h137^{km}**±28^{km}**, n11, σ0^{s}.82**/12**, mb4.0**/7**, 1C, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KDI	Kendari	6.27	202	⇑*e*P	Pn	19 55 36.8	+0.2
KDI				*e*S	Sn	19 56 15.4	-32
FITZ	Fitzroy Crossi	19.88	178	P	P	19 58 27.8	+0.8
	0.4nm,0.3s,baz=5.2,slow=11,SNR=5.7						
SSLB	Suanglung	22.11	350	P	P	19 58 49.5	-1.2
	35nm,0.8s,mb4.8						
NACB	Ninganchiao	22.39	352	P	P	19 58 54.0	+0.4
MBWA	Marble Bar	23.48	192	P	P	19 59 02.0	-1.7
WRAB	Tennant Creek	23.57	157	*e*P	P	19 59 04.2	-0.3
	8.5nm,0.9s,mb4.3						
WRA	Warramunga Arr	23.57	157	P	P	19 59 04.4	-0.1
	3.4nm,0.5s,mb4.1,baz=334,slow=10,SNR=23						
WRA				PcP	PcP	20 02 45.0	-1.1
	0.4nm,0.5s,baz=336,slow=2.1,SNR=7.6						
WRA				S	S	20 03 02.0	-6.7
	0.9nm,0.9s,baz=336,slow=17,SNR=2.8						
ASAR	Alice Springs	26.85	162	P	P	19 59 34.3	+0.1
	0.9nm,0.6s,mb3.6,baz=341,slow=7.9,SNR=22						
ASAR				PcP	PcP	20 02 53.4	-0.1
	0.7nm,0.6s,baz=345,slow=2.4,SNR=8.6						
STKA	Stephens Creek	37.11	156	P	P	20 01 04.1	+0.5
	1.0nm,0.4s,mb3.8,baz=337,slow=11,SNR=7.8						
MKAR	Makanchi Array	58.08	327	P	P	20 03 46.6	+1.4
	0.3nm,0.5s,mb3.4,baz=123,slow=8.1,SNR=11						
KURK	Kurchatov	62.36	329	P	P	20 04 14.1	-0.2
	1.1nm,0.6s,mb3.9						

TAP 09 19:57:50.0, 21°.89N×121°.73E, h133^{km}±1^{km}**, ML3.6, D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LAY	Lan-yu	0.23	312	P	Pn	19 58 08.4	+0.2
	baz=313						
LAY				*e*S	Sn	19 58 22.5	+0.5
	baz=313						
TWK1	Hengchun	0.86	274	P	Pn	19 58 12.0	+0.1
	baz=273						
TWK1				*e*S	Sn	19 58 28.1	-0.4
	baz=273						
TAW	Tawu	0.91	301	*e*P	Pn	19 58 12.1	-0.2
	baz=301						
TAW				*e*S	Sn	19 58 28.4	-0.8
	baz=301						
ECL	Taimali	1.01	315	P	Pn	19 58 12.9	-0.3
	baz=314						
ECL				*e*S	Sn	19 58 29.7	-1.2
	baz=314						
TWG	Pinlang	1.11	327	P	Pn	19 58 14.1	-0.1
	baz=326						
TWG				S	Sn	19 58 31.7	-0.9
	baz=326						
CHKT	Chengkung	1.25	344	*e*P	Pn	19 58 16.0	+0.4
	baz=344						
CHKT				*e*S	Sn	19 58 35.3	+0.1
	baz=344						
SSD	Sandimen	1.33	310	P	Pn	19 58 16.7	+0.3
	baz=310						
SSD				*e*S	Sn	19 58 36.1	-0.4
	baz=310						
SGLT	Jiouru	1.42	306	*e*P	Pn	19 58 17.0	-0.4
	baz=306						
SGLT				*e*S	Sn	19 58 37.9	-0.4
	baz=306						
ELDTW	Lidau	1.46	333	*e*P	Pn	19 58 18.5	+0.7
	baz=333						
ELDTW				*e*S	Sn	19 58 38.3	-0.7
	baz=333						
TWF1	Yuli	1.52	345	P	Pn	19 58 18.6	+0.2
	baz=344						
TWF1				S	Sn	19 58 40.1	0.0
	baz=344						
TWM1	Shoushan	1.53	308	*e*P	Pn	19 58 18.9	+0.4
	baz=307						
TWM1				*e*S	Sn	19 58 39.8	-0.6
	baz=307						
STYT	Tauyuan	1.56	325	P	Pn	19 58 19.2	+0.3
	baz=324						
STYT				*e*S	Sn	19 58 41.0	0.0
	baz=324						
SGST	Jiashian	1.60	318	*e*P	Pn	19 58 19.8	+0.5
	baz=318						
SGST				*e*S	Sn	19 58 41.5	-0.3
	baz=318						
EHY	Hungye	1.66	347	*e*S	Sn	19 58 42.1	-0.9
	baz=346						
WTP	Ta-pu	1.70	323	P	Pn	19 58 20.9	+0.3
	baz=322						
WTP				S	Sn	19 58 43.7	-0.3
	baz=322						
CHN1	Nanshi	1.71	320	P	Pn	19 58 21.1	+0.5
	baz=319						
CHN1				S	Sn	19 58 43.9	-0.2
	baz=319						
YUS	Yu-Shan	1.75	336	*e*P	Pn	19 58 21.5	+0.3
	baz=335						
YUS				*e*S	Sn	19 58 44.5	-0.5
	baz=335						
TWK	Hsinying	1.79	320	*e*S	Sn	19 58 45.3	-0.5
	baz=320						
CHN4	Tsaushan	1.80	324	*e*P	Pn	19 58 22.0	+0.3
	baz=324						
CHN4				*e*S	Sn	19 58 45.6	-0.3
	baz=324						
TAI1	Yung-k'ang	1.81	310	*e*S	Sn	19 58 46.2	+0.1
	baz=309						
ALS	Alishan	1.83	332	P	Pn	19 58 22.6	+0.5
	baz=332						
ALS				S	Sn	19 58 46.1	-0.5
	baz=332						
SCLT	Jiali	1.92	312	*e*P	Pn	19 58 22.6	-0.4
	baz=312						
SCLT				*e*S	Sn	19 58 48.5	+0.1
	baz=312						
ESL	Shilin	1.94	352	*e*P	Pn	19 58 22.8	-0.5
	baz=352						
ESL				*e*S	Sn	19 58 48.0	-0.9
	baz=352						
CHN5	Tsauling	1.96	330	P	Pn	19 58 24.0	+0.4
	baz=330						
CHN5				S	Sn	19 58 48.9	-0.6
	baz=330						
CHN2	Minshiung	2.01	325	*e*S	Sn	19 58 50.1	-0.3
	baz=324						
CHY	Chiayi	2.01	323	*e*S	Sn	19 58 49.7	-0.7
	baz=323						
CHN8	Yiju	2.02	316	*e*S	Sn	19 58 50.4	-0.3
	baz=316						
WGK	Gukeng	2.09	329	P	Pn	19 58 25.2	+0.1
	baz=329						
WGK				S	Sn	19 58 51.8	-0.5
	baz=329						
SMLT	Sun Moon Lake	2.13	339	*e*P	Pn	19 58 26.0	+0.3
	baz=339						
SMLT				*e*S	Sn	19 58 52.7	-0.4
	baz=339						
TYC	Yuchr	2.17	338	P	Pn	19 58 26.4	+0.3
	baz=338						
TYC				*e*S	Sn	19 58 53.1	-0.7
	baz=338						
WSF	Szhu	2.23	322	*e*S	Sn	19 58 54.4	-0.9
	baz=321						
WTCT	Ta-ch'eng	2.38	326	*e*S	Sn	19 58 58.3	-0.3
	baz=325						
NNS	Nan Shan	2.56	353	*e*S	Sn	19 59 02.1	-0.6
	baz=352						
ENTT	Nioudou	2.75	357	*e*P	Pn	19 58 33.4	0.0
	baz=356						
ENTT				*e*S	Sn	19 59 05.1	-1.8
	baz=356						
NSK	Sanguang	2.80	353	*e*P	Pn	19 58 34.3	+0.2
	baz=353						
NSK				*e*S	Sn	19 59 06.9	-1.2
	baz=353						

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*ISCJB **09** 19:59:15.7±0.7, 15°.90N±0°.05×98°.82W±0°.03, h33^{km}, mb3.7/7, Error ellipse: s-maj=7.3km s-min=3.8km az=19.1*

*NEIC **09** 19:59:16.9, 15°.85N×98°.88W, h16^{km}, mb3.5/3, MD4.1(MEX), After MEX.*

*MEX **09** 19:59:16.8±1.0, 15°.85N×98°.90W, h20^{km}±37^{km}, MD4.2*

*IDC **09** 19:59:17.3±6.3, 16°.16N×98°.53W, h0^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.6/20, mbtmp3.4/6, ML3.1/2, Error ellipse: s-maj=118.8km s-min=28.6km az=11.0*

ISC 09 19:59:17.9±0.8**, 15°.92N**±0°.05×**98°.78W**±0°.03**, h35^{km}, n38, σ1^{s}.46**/59**, mb3.7**/7**, 1C, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.78	53	*i* P	Pn	19 59 30.7	-1.7
PNIG				*i* S	Sn	19 59 41.9	-1.0
CAIG	El Cayaco	1.82	308	*e*P	Pn	19 59 43.6	-3.1
CAIG				*i* S	Sn	20 00 03.5	-4.9
UTMO	Huajuapan	2.12	26	*e*P	Pn	19 59 50.3	-0.5
UTMO				*i* S	Sn	20 00 17.8	+2.0
MEIG	Mezcala	2.15	338	*e*P	Pn	19 59 50.1	-1.2
MEIG				*i* S	Sn	20 00 14.4	-2.3
VHO	Vista Hermosa	2.27	59	*i* P	Pn	19 59 53.2	+0.3
VHO				*i* S	Sn	20 00 20.9	+1.2
PLIG	Platanillo	2.55	344	*i* P	Pn	19 59 55.9	-0.9
PLIG				*i* S	Sn	20 00 24.4	-2.2
HUIG	Huatulco	2.57	93	*e*P	Pn	19 59 57.2	+0.1
HUIG				*i* S	Sn	20 00 25.9	-1.3
TPIG	Tehuac#an	2.83	28	*i* P	Pn	20 00 01.1	+0.5
TPIG				*i* S	Sn	20 00 32.8	-0.7
YAIG	Yautepec	2.94	355	*i* P	Pn	19 59 59.2	-2.9
YAIG				*i* S	Sn	20 00 34.9	-1.2
YAIG	Yautepec	2.94	355	*i* P	Pn	20 00 04.7	+2.6
YAIG				*i* S	Sn	20 00 37.1	+1.0
PPM	Popocatepetl	3.13	3	*i* P	Pn	20 00 04.1	-0.7
PPM				*i* S	Sn	20 00 43.7	+2.8
PPM	Popocatepetl	3.13	3	*i* P	Pn	20 00 11.1	+6.3
PPM				*i* S	Sn	20 00 53.8	+13
MZVM		3.28	353	⇑*i*P	Pn	20 00 07.4	+0.6
SZVM	Salazar	3.43	350	*e*P	Pn	20 00 08.1	-0.8
SZVM				*i* S	Sn	20 00 48.7	+0.3
PBVM	Pinon	3.51	355	*i* P	Pn	20 00 17.9	+7.9
IIO	Organos	3.65	1	*i* P	Pn	20 00 20.8	+8.8
PTVM	Pico Tres Padr	3.67	355	*i* P	Pn	20 00 13.9	+1.8
CMIG	Matias Romero	3.91	72	*i* P	Pn	20 00 15.5	0.0
CMIG				*i* S	Sn	20 01 00.8	+0.6
CMIG	Matias Romero	3.91	72	Pn	Pn	20 00 15.6	+0.1
	2.6nm,0.3s,baz=253,slow=12,SNR=28						
CMIG				Sn	Sn	20 00 59.9	-0.4
	10nm,0.3s,baz=112,slow=23,SNR=9.1						
CMIG				Lg		20 01 15.3	
	16nm,0.3s,baz=206,slow=5.5,SNR=13						
CMIG	Matias Romero	3.91	72	*i* P	Pn	20 00 15.5	0.0
CMIG				Pn	Pn	20 00 15.6	+0.1
CMIG				Sn	Sn	20 00 59.9	-0.4
CMIG				*i* S	Sn	20 01 00.8	+0.6
CMIG				Lg		20 01 15.3	
DEIG	Demacu	4.36	357	*i* P	Pn	20 00 21.0	-0.7
DEIG				*i* S	Sn	20 01 16.6	+5.2
MOIG	Morelia	4.39	329	*i* S	Sn	20 01 11.3	-0.6
LVIG	Laguna Verde	4.40	30	*i* P	Pn	20 00 26.7	+4.5
MMIG	Aquila	4.96	299	*i* P	Pn	20 00 28.7	-1.3
MMIG				*i* S	Sn	20 01 25.9	-0.3
PCIG		5.36	92	*e*P	Pn	20 00 34.9	-0.4
PCIG				*i* S	Sn	20 01 32.8	-3.0
TGIG		5.50	80	*i* P	Pn	20 00 44.9	+7.6
CCIG	Comitan	6.39	86	*i* P	Pn	20 00 58.5	+8.9
TXAR	Lajitas Array	14.09	342	Pn	Pn	20 02 39.7	+4.7
	0.0nm,0.3s,baz=170,slow=16,SNR=3.5						
ANMO	Albuquerque	20.16	341	*e*P	P	20 03 50.5	+1.3
	1.7nm,0.8s						
WUAZ	Wupatki	22.53	332	*e*P	P	20 04 17.1	+2.4
	6.7nm,1.1s,mb4.0						
SDCO	Great Sand Dun	22.54	346	*e*P	P	20 04 17.4	+2.7
	1.4nm,1.1s,mb3.3						
PV01	Paradox Valley	23.75	341	P	P	20 04 30.5	+3.4
PV10	Paradox Valley	24.12	340	*e*P	P	20 04 27.9	-2.6
BLA	Blacksburg	26.72	34	*e*P	P	20 04 50.1	-3.9
	36nm,1.0s,mb4.8						
NVAR	Mina Array Bea	28.24	326	P	P	20 05 12.7	+5.1
	0.3nm,0.8s,mb3.0,baz=131,slow=9.7,SNR=3.1						
PDAR	Pinedale Array	28.30	343	P	P	20 05 10.6	+2.4
	0.8nm,1.0s,mb3.3,baz=145,slow=9.0,SNR=4.4						
SCHQ	Schefferville	46.00	25	P	P	20 07 38.7	+1.1
	1.7nm,0.8s,mb4.0,baz=207,slow=11,SNR=2.6						
YKA	Yellowknife Ar	47.84	350	P	P	20 07 55.3	+3.5
	0.2nm,0.7s,mb3.3,baz=154,slow=7.6,SNR=3.6						

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*NEIC **09** 20:04:43.6, 32°.39N×115°.18W, h12^{km}, ML2.8(PAS), ML2.9(ECX), After ECX.*

ECX 09 20:04:43.6±0.3**, 32°.38N×115°.18W, h8^{km}, MD2.7, ML2.9, 1C-1D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.11	288	*e*P	Pg	20 04 47.8	+1.6
CPBX				*e*S	Sg	20 04 50.8	+2.9
CPBX				⇑*e*		20 04 51.5	
	comp=N,22µm,0.2s						
EMX	El Mayor	0.40	188	*e*P	Pg	20 04 55.1	+3.8
EMX				*e*S	Sg	20 05 02.2	+5.7
EMX				⇓*e*		20 05 02.8	
	comp=N,323nm,0.4s						
COA	Coachella	0.48	6	*e*P	Pg	20 04 54.2	+1.3
GLA	Glamis	0.73	24	*e*Pg	Pg	20 04 58.3	+0.6
GLA				*e*Sg	Sg	20 05 08.0	+0.8
RDX	Rancho Dawling	0.79	236	*e*P	Pg	20 05 00.8	+2.0
RDX				*e*S	Sg	20 05 10.8	+1.7
RDX				*e*		20 05 11.8	
	comp=N,329nm,0.4s						
ECBX	El Chinero	0.92	173	*e*P	Pg	20 05 05.0	+3.8
ECBX				*e*S	Sg	20 05 18.5	+5.5
CBX	Cerro Bola	1.26	267	*e*P	Pn	20 05 06.6	-0.8
CBX				*e*S	Sb	20 05 22.0	-1.9
SPX	San Pedro Mart	1.36	190	*e*PN	Pn	20 05 12.7	+3.9
ECNX	Esteban Cantu	1.40	239	*e*PN	Pn	20 05 10.9	+1.4
ECNX				*e*PN	Pn	20 05 08.8	-0.7
PFO	Pinyon Flat Ob	1.62	319	*e*Pn	Pn	20 05 12.5	0.0
PFO				*e*Sn	Sn	20 05 34.2	+0.6
LDFC	Landfair	2.69	1	*e*Pg	Pg	20 05 36.8	+1.6
GSC	Goldstone	3.21	336	*e*Pg	Pg	20 05 46.8	+1.7
TUC	Tucson	3.72	90	*e*Pg	Pg	20 05 56.7	+1.8
ISA	Isabella	4.26	321	*e*Pg	Pg	20 06 04.2	-1.0

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*NEIC **09** 20:09:53.6, 16°.03N×98°.28W, h15^{km}, MD3.8(MEX), After MEX.*

MEX 09 20:09:53.8±0.5**, 16°.05N×98°.30W, h20^{km}**±9^{km}**, MD3.8, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.38	26	*i* P	Pb	20 10 00.9	-1.0
PNIG				*i* S	Sb	20 10 05.9	-1.4
VHO	Vista Hermosa	1.82	56	*e*P	Pn	20 10 21.4	-2.6
VHO				*i* S	Sn	20 10 42.4	-4.0
UTMO	Huajuapan	1.84	15	*i* P	Pn	20 10 21.2	-3.0
HUIG	Huatulco	2.13	97	*i* P	Pn	20 10 24.7	-3.5
HUIG				*i* S	Sn	20 10 50.0	-4.0
HUIG	Huatulco	2.13	97	*i* P	Pn	20 10 24.7	-3.5
HUIG				*i* S	Sn	20 10 48.1	-5.9
PLIG	Platanillo	2.60	334	*i* P	Pn	20 10 33.3	-1.4
PLIG				*i* S	Sn	20 11 01.8	-3.9
PLIG	Platanillo	2.60	334	*i* P	Pn	20 10 33.3	-1.4
PLIG				*i* S	Sn	20 11 01.3	-4.5
PPM	Popocatepetl	3.02	354	*i* P	Pn	20 10 37.9	-2.6
PPM				*i* S	Sn	20 11 13.9	-2.2
CMIG	Matias Romero	3.44	72	*e*P	Pn	20 10 45.2	-1.0
CMIG				*i* S	Sn	20 11 23.4	-3.0

GUC 09 20:16:51.6±0.8**, 21°.83S×68°.51W, h105^{km}**±7^{km}**, MD3.5, ML3.3, 5C-1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	0.87	205	⇑*i*P	Pn	20 17 12.1	+1.1
LVC				*i* S	Sn	20 17 27.2	+1.6
LVC				AML	AML	20 17 29.0	
	comp=N,314nm,0.3s						
PB04	Plate Boundary	1.00	244	⇑*i*P	Pn	20 17 20.1	+7.7
PB04				*i* S	Sn	20 17 41.6	+13
PB04				AML	AML	20 17 46.2	
	comp=N,301nm,0.1s						
PB01	Plate Boundary	1.20	310	⇑*i*P	Pn	20 17 16.1	+1.5
PB01				*i* S	Sn	20 17 34.4	+2.4
PB01				AML	AML	20 17 36.7	
	comp=N,440nm,0.2s						
MACH	Maria Elena	1.21	252	*i* S	Sn	20 17 34.2	+2.0
PECH	Pedro de Valdi	1.32	234	⇑*i*P	Pn	20 17 17.2	+1.2
PECH				*i* S	Sn	20 17 36.0	+1.5
PECH				AML	AML	20 17 39.0	
	comp=E,663nm,0.3s						
TOCH	Tocopilla	1.59	260	*i* P	Pn	20 17 19.9	+0.7
TOCH				*i* S	Sn	20 17 41.0	+0.7
TOCH				AML	AML	20 17 43.3	
	comp=N,605nm,0.1s						
HMBC	Humberston	2.01	320	⇓*i*P	Pn	20 17 25.3	+0.8
HMBC				*i* S	Sn	20 17 51.0	+1.5
HMBC				AML	AML	20 17 53.8	
	comp=E,444nm,0.5s						
MNMC	Miæe Miæ	2.87	339	⇑*i*P	Pn	20 17 37.3	+1.5
MNMC				*i* S	Sn	20 18 12.1	+2.4
MNMC				AML	AML	20 18 18.9	
	comp=E,157nm,0.2s						

IDC 09 20:19:34.3±2.1**, 7°.40S×127°.24E, h0^{km}, mb3.2**/1**, mb1 3.7**/3**, mb1mx3.4**/16**, mbtmp3.5**/3**, ML3.7**/2**, Error ellipse: s-maj=263.4km s-min=31.0km az=63.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.25	152	Pn	Pn	20 22 56.1	-1.4
	0.5nm,0.3s,baz=328,slow=14,SNR=35						
WRA				Sn	Sn	20 25 21.0	-15

	0.9nm,0.3s,baz=330,slow=22,SNR=12						
ASAR	Alice Springs	17.40	159	P	Pn	20 23 39.8	+1.2
	0.2nm,0.3s,baz=339,slow=13,SNR=12						
ASAR				S	Sn	20 26 38.9	-14
	0.3nm,0.3s,baz=321,slow=18,SNR=5.4						
MKAR	Makanchi Array	67.08	328	P	P	20 30 29.6	+0.1
	0.2nm,0.6s,baz=116,slow=7.8,SNR=3.3						

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*NEIC **09** 20:38:14.9, 15°.80N×98°.88W, h16^{km}, MD4.1(MEX), After MEX.*

MEX 09 20:38:14.8±0.5**, 15°.80N×98°.88W, h16^{km}**±10^{km}**, MD4.2, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.93	51	i P	Pb	20 38 29.4	-3.3
PNIG				i S	Sb	20 38 40.6	-4.2
ACX	Acapulco	1.45	317	i P	Pn	20 38 36.5	-3.9
CAIG	El Cayaco	1.82	313	i P	Pn	20 38 42.4	-3.1
CAIG				i S	Sn	20 39 03.7	-4.4
MEIG	Mezcala	2.23	342	i P	Pn	20 38 48.2	-2.9
MEIG				i S	Sn	20 39 13.8	-4.5
VHO	Vista Hermosa	2.42	58	i P	Pn	20 38 51.8	-1.9
VHO				i S	Sn	20 39 19.2	-3.9
PLIG	Platanillo	2.64	347	i P	Pn	20 38 55.0	-1.8
PLIG				i S	Sn	20 39 25.3	-3.3
HUIG	Huatulco	2.67	90	i P	Pn	20 38 54.5	-2.7
HUIG				i S	Sn	20 39 25.1	-4.2
TPIG	Tehuac#an	2.98	29	eP	Pn	20 39 00.2	-1.2
TPIG				i S	Sn	20 39 34.0	-3.0
YAIG	Yautepec	3.05	357	eP	Pn	20 38 59.8	-2.6
YAIG				i S	Sn	20 39 34.9	-3.7
YAIG	Yautepec	3.05	357	eP	Pn	20 39 06.8	+4.4
PPM	Popocatepetl	3.26	4	eP	Pn	20 39 03.1	-2.1
PPM				i S	Sn	20 39 42.3	-1.4
PPM	Popocatepetl	3.26	4	eP	Pb	20 39 11.2	-1.1
PPM				i S	Sb	20 39 52.3	+0.6
MZVM		3.38	354	i P	Pn	20 39 04.6	-2.4
MZVM				i S	Sn	20 39 43.0	-3.9
UNM	Universidad Na	3.52	355	i S	Sn	20 39 53.6	+3.4
UNM	Universidad Na	3.52	355	i S	Sb	20 40 03.6	+4.3
SZVM	Salazar	3.53	352	eP	Pn	20 39 06.5	-2.6
SZVM				i S	Sn	20 39 47.3	-3.2
PBVM	Pinon	3.62	357	i P	Pn	20 39 08.2	-2.1
PBVM				i S	Sn	20 39 49.1	-3.7
PBVM	Pinon	3.62	357	i P	Pb	20 39 22.0	+3.4
IIO	Organos	3.77	2	i P	Pn	20 39 10.2	-2.2
IIO				i S	Sn	20 39 53.3	-3.2
IIO	Organos	3.77	2	i P	Pn	20 39 20.3	+8.0
PTVM	Pico Tres Padr	3.78	357	i P	Pn	20 39 10.4	-2.0
PTVM				i S	Sn	20 39 54.0	-2.5
PTVM	Pico Tres Padr	3.78	357	i P	Pn	20 39 19.5	+7.1
CMIG	Matias Romero	4.05	71	i P	Pn	20 39 13.6	-2.5
CMIG				i S	Sn	20 39 59.4	-3.9
MOIG	Morelia	4.44	331	i S	Sn	20 40 10.3	-2.5
MOIG	Morelia	4.44	331	i S	Sb	20 40 27.4	+1.6
DEIG	Demacu	4.48	358	i S	Sn	20 40 11.3	-2.6
LVIG	Laguna Verde	4.55	31	i P	Pn	20 39 26.0	+2.9
MMIG	Aquila	4.93	301	i P	Pn	20 39 28.5	+0.2
TGIG		5.62	79	eP	Pn	20 39 36.4	-1.3
TGIG				i S	Sn	20 40 48.5	+6.6

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*NEIC **09** 20:43:47.7, 32°.43N×115°.40W, h9^{km}, ML2.8(PAS), ML3.0(ECX), After ECX.*

ECX 09 20:43:50.2±0.8**, 32°.48N×115°.32W, h8^{km}, MD2.8, ML3.0, 2C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	166	eP	Pg	20 43 51.7	-0.4
CPBX				eS	Sg	20 43 53.8	+0.4
CPBX				⇑e		20 43 54.3	
	comp=N,20µm,0.2s						
SGL	Mount Signal	0.38	296	eP	Pg	20 43 56.7	-0.9
SNR	Schaffner Ranc	0.39	346	⇑iP	Pg	20 43 57.9	0.0
EMX	El Mayor	0.50	172	⇓eP	Pg	20 43 58.7	-1.1
EMX				eS	Sg	20 44 05.9	-0.4
EMX				⇓e		20 44 07.5	
	comp=N,630nm,0.4s						
COK	Cook Ranch	0.50	317	eP	Pg	20 43 59.0	-0.9
YUH	Yuha Desert	0.53	288	eP	Pg	20 43 59.2	-1.3
YUH				eS	Sg	20 44 06.9	-0.7
GLA	Glamis	0.71	36	ePg	Pg	20 44 01.8	-2.0
GLA				eSg	Sg	20 44 10.8	-2.2
RDX	Rancho Dawling	0.76	224	eP	Pg	20 44 03.6	-1.3
RDX				eS	Sg	20 44 14.4	-0.3
RDX				⇓e		20 44 15.2	
	comp=N,512nm,0.5s						
ECBX	El Chinero	1.03	167	eP	Pg	20 44 08.5	-1.5
ECBX				eS	Sg	20 44 22.4	-1.0
CBX	Cerro Bola	1.15	262	eP	Pg	20 44 09.8	-2.4
BAR	Barrett	1.16	280	ePg	Pg	20 44 09.0	-3.4
BAR				eSg	Sg	20 44 25.0	-2.5
SPX	San Pedro Mart	1.44	185	ePN	Pn	20 44 16.6	0.0
PFO	Pinyon Flat Ob	1.47	320	ePn	Pn	20 44 13.5	-3.5
GSC	Goldstone	3.07	337	ePg	Pg	20 44 47.8	-1.3

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*ISCJB **09** 20:47:08.3±0.2, 49°.31N±0°.01×6°.75E±0°.02, h0^{km}, Error ellipse: s-maj=1.7km s-min=1.4km az=139.9*

*CSEM **09** 20:47:09.7±0.1, 49°.34N×6°.77E, h2^{km}, ML3.5/34, Error ellipse: s-maj=1.7km s-min=1.5km az=137.0*

*LDG **09** 20:47:10.6±0.1, 49°.39N×6°.87E, h1^{km}, Md3.4/3, Ml3.5/34, Error ellipse: s-maj=0.9km s-min=0.9km az=159.0*

*NEIC **09** 20:47:10.5, 49°.37N×6°.81E, h1^{km}, ML3.2(SZGRF), ML3.2(STR), ML3.5(LDG), After STR.*

*PRU **09** 20:47:10.1, 49°.41N×6°.85E, h0^{km}*

*STR **09** 20:47:10.5±0.2, 49°.37N×6°.81E, h1^{km}, Ml3.2, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*BNS **09** 20:47:10.9±0.8, 49°.38N×6°.92E, h1^{km}, ML2.6*

*BGR **09** 20:47:10.9±0.4, 49°.35N×6°.85E, h1^{km}, ML3.1/15, Error ellipse: s-maj=5.6km s-min=4.4km az=42.0*

ISC 09 20:47:09.5±0.2**, 49°.347N**±0°.010×**6°.76E**±0°.01**, h0^{km}, n222,** σ**1^{s}14**/425**, 11C-8D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	Ruppelstein	0.41	29	Pg	Pg	20 47 17.5	+0.2
RUP				Sg	Sg	20 47 23.0	+0.4
RUP	Ruppelstein	0.41	29	Pg	Pg	20 47 17.5	+0.2
RUP				Sg	Sg	20 47 23.0	+0.4
WLF	Walferdange	0.51	309	P	Pg	20 47 21.4	+2.2
WLF	Walferdange	0.51	309	ePg	Pg	20 47 21.2	+1.9
WLF				eSg	Sg	20 47 28.8	+3.0
WLF	Walferdange	0.51	309	ePg	Pg	20 47 20.5	+1.3
WLF	Walferdange	0.51	309	ePg	Pg	20 47 20.5	+1.3
WLF	Walferdange	0.51	309	P	Pg	20 47 21.4	+2.2
WLF				Sg	Sg	20 47 28.8	+3.0
ABH	Alteburg	0.74	44	Pg	Pg	20 47 23.4	-0.4
ABH				Sg	Sg	20 47 33.5	+0.1
ABH	Alteburg	0.74	44	Pg	Pg	20 47 23.4	-0.4
ABH				Sg	Sg	20 47 33.5	+0.1
LANF	Langenberg	0.78	118	Pg	Pg	20 47 23.7	-0.8
LANF	Langenberg	0.78	118	Pg	Pg	20 47 23.7	-0.8
KTD	Kalmit	0.87	91	Pg	Pg	20 47 26.6	+0.4
KTD				Sg	Sg	20 47 38.6	+1.1
KTD	Kalmit	0.87	91	Pg	Pg	20 47 26.6	+0.4
KTD				Sg	Sg	20 47 38.6	+1.1
BGG	Burgeitz	0.94	23	ePg	Pg	20 47 27.4	-0.1
BGG	Burgeitz	0.94	23	Pg	Pg	20 47 27.5	0.0
HILG	Hillesheim	0.95	357	ePg	Pg	20 47 28.3	+0.6
HILG	Hillesheim	0.95	357	Pg	Pg	20 47 28.3	+0.6
CDF	Champ du Feu	1.00	160	ePg	Pg	20 47 29.1	+0.5
	SNR=1.0						
CDF				eSg	Sg	20 47 42.8	+1.3
	184nm,0.2s,SNR=1.0						
CDF	Champ du Feu	1.00	160	ePg	Pg	20 47 29.1	+0.5
	SNR=1.0						
CDF				eSg	Sg	20 47 42.8	+1.3
	92nm,0.2s,SNR=1.0						
STR	Strasbourg	1.01	138	Pg	Pg	20 47 30.2	+1.3
STR	Strasbourg	1.01	138	Pg	Pg	20 47 30.2	+1.3
RFYF	Reffroy	1.11	230	ePg	Pg	20 47 33.0	+2.2
	baz=48						
RFYF				eSg	Sg	20 47 48.7	+3.6
	562nm,0.3s						
RFYF	Reffroy	1.11	230	ePg	Pg	20 47 33.0	+2.2
RFYF				eSg	Sg	20 47 48.7	+3.6
	281nm,0.3s						
ECH	Echery	1.16	167	Pg	Pg	20 47 32.4	+0.6
ECH				Sg	Sg	20 47 48.9	+2.0
ECH	Echery	1.16	167	ePn	Pn	20 47 31.8	-1.2
ECH				eSn	Sn	20 47 48.8	-0.7
ECH	Echery	1.16	167	ePn	Pn	20 47 31.8	-1.2
ECH	Echery	1.16	167	Pg	Pg	20 47 32.4	+0.6
ECH				Sg	Sg	20 47 48.9	+2.0
THEF	They Montfort	1.23	205	Pg	Pg	20 47 34.1	+1.0
THEF				Sg	Sg	20 47 51.8	+2.8
THEF	They Montfort	1.23	205	Pg	Pg	20 47 34.1	+1.0
THEF				Sg	Sg	20 47 51.8	+2.8
STB	Steinbach	1.25	2	ePg	Pg	20 47 34.0	+0.5
STB				eSg	Sg	20 47 50.2	+0.6
	93nm,0.5s						
STB	Steinbach	1.25	2	Pg	Pg	20 47 34.0	+0.5
STB				Sg	Sg	20 47 50.2	+0.5
	93nm,0.5s						
KOE	Koeppel	1.25	30	ePg	Pg	20 47 32.4	-1.1
KOE	Koeppel	1.25	30	Pg	Pg	20 47 32.4	-1.1
LIBD	Limburg	1.32	155	Pg	Pg	20 47 36.0	+1.1
LIBD				Sg	Sg	20 47 53.8	+1.8
LIBD	Limburg	1.32	155	Pg	Pg	20 47 36.0	+1.1
LIBD				Sg	Sg	20 47 53.8	+1.8
KLL	Kalltalsperre	1.33	348	ePg	Pg	20 47 34.5	-0.6
KLL	Kalltalsperre	1.33	348	Pg	Pg	20 47 34.5	-0.6
MEM	Membach	1.35	339	P	Pg	20 47 35.3	-0.2
MEM	Membach	1.35	339	P	Pg	20 47 35.2	-0.3
DREG	Dreilaegerbach	1.36	346	ePg	Pg	20 47 35.3	-0.3
DREG	Dreilaegerbach	1.36	346	Pg	Pg	20 47 35.3	-0.3
TOD	Tromm	1.36	78	Pg	Pg	20 47 35.0	-0.6
TOD				Sg	Sg	20 47 53.0	-0.3
TOD	Tromm	1.36	78	Pg	Pg	20 47 35.0	-0.6
TOD				Sg	Sg	20 47 53.0	-0.3
HAU	Haudompre	1.37	192	ePn	Pn	20 47 36.0	+0.1
	SNR=1.0						
HAU				eSn	Sn	20 47 54.2	-0.5
	239nm,0.3s,SNR=1.0						
HAU	Haudompre	1.37	192	ePn	Pn	20 47 36.0	+0.1
	SNR=1.0						
HAU				eSn	Sn	20 47 54.2	-0.5
	120nm,0.3s,SNR=1.0						
TNS	Taunus Mts	1.40	51	ePn	Pn	20 47 35.3	-1.0
TNS				eSg	Sg	20 47 54.6	-0.1
TNS	Taunus Mts	1.40	51	ePn	Pn	20 47 34.8	-1.6
TNS				eSg	Sg	20 47 55.4	+0.8
TNS	Taunus Mts	1.40	51	Pn	Pn	20 47 35.3	-1.1
TNS				eSg	Sg	20 47 55.4	+0.8
MEZF	Maizieres J’vi	1.41	234	ePn	Pn	20 47 36.9	+0.5
	baz=55,SNR=1.0						
MEZF	Maizieres J’vi	1.41	234	ePg	Pg	20 47 38.5	+2.0
	baz=51						
MEZF				eSn	Sn	20 47 56.2	+0.6
	178nm,0.5s,SNR=1.0						
MEZF	Maizieres J’vi	1.41	234	ePn	Pn	20 47 36.9	+0.5
MEZF				ePg	Pg	20 47 38.5	+2.0
MEZF				eSn	Sn	20 47 56.2	+0.6
MEZF	Maizieres J’vi	1.41	234	ePn	Pn	20 47 36.9	+0.5
	SNR=1.0						
MEZF	Maizieres J’vi	1.41	234	ePg	Pg	20 47 38.5	+2.0
MEZF				eSn	Sn	20 47 56.2	+0.6
	89nm,0.5s,SNR=1.0						
BCLA	Clavier	1.43	319	P	Pn	20 47 36.8	+0.1
BCLA	Clavier	1.43	319	P	Pn	20 47 36.8	+0.1
BFO	Black Forest	1.46	134	ePn	Pn	20 47 36.6	-0.4
BFO				eSg	Sg	20 47 55.0	-1.2
BFO	Black Forest	1.46	134	ePn	Pn	20 47 36.2	-0.8
BFO				eSg	Sg	20 47 55.0	-1.2
BFO	Black Forest	1.46	134	Pn	Pn	20 47 36.6	-0.4
BFO				Sg	Sg	20 47 55.0	-1.2
GIVF	Givet	1.46	302	ePg	Pg	20 47 38.9	+1.3
	SNR=1.0						
GIVF				eSg	Sg	20 47 58.5	+1.9
	206nm,0.5s,SNR=1.0						
GIVF	Givet	1.46	302	ePn	Pn	20 47 37.2	0.0
GIVF				ePg	Pg	20 47 38.9	+1.3
GIVF				eSg	Sg	20 47 58.5	+1.9
GIVF	Givet	1.46	302	ePn	Pn	20 47 37.2	0.0
	SNR=1.0						
GIVF	Givet	1.46	302	ePg	Pg	20 47 38.9	+1.3
	SNR=1.0						
GIVF				eSg	Sg	20 47 58.5	+1.9
	103nm,0.5s,SNR=1.0						
MOF	Molkenrain	1.52	170	Pg	Pg	20 47 39.3	+0.7
MOF				Sg	Sg	20 47 59.3	+1.1
MOF	Molkenrain	1.52	170	Pg	Pg	20 47 39.3	+0.7
MOF				Sg	Sg	20 47 59.3	+1.1
HINF	Hinteralfeld	1.53	178	ePg	Pg	20 47 39.7	+0.8
HINF				eSn	Sn	20 47 57.5	-1.2
	220nm,0.4s,SNR=1.0						
HINF	Hinteralfeld	1.53	178	ePn	Pn	20 47 38.1	0.0
HINF				ePg	Pg	20 47 39.7	+0.8
HINF				eSn	Sn	20 47 57.5	-1.2
HINF	Hinteralfeld	1.53	178	ePn	Pn	20 47 38.1	0.0
	SNR=1.0						
HINF	Hinteralfeld	1.53	178	ePg	Pg	20 47 39.7	+0.8
HINF				eSn	Sn	20 47 57.5	-1.2
	110nm,0.4s,SNR=1.0						
DOU	Dourbes	1.59	299	P	Pn	20 47 39.4	+0.5
DOU	Dourbes	1.59	299	P	Pn	20 47 39.4	+0.5
BEBN	Eben Emael	1.61	335	P	Pn	20 47 40.8	+1.6
BEBN	Eben Emael	1.61	335	P	Pn	20 47 40.7	+1.5
SFTF	Sexfontaines	1.61	225	ePn	Pn	20 47 39.7	+0.5
	baz=49						
SFTF	Sexfontaines	1.61	225	ePg	Pg	20 47 42.2	+1.8
	baz=48						
SFTF				eSn	Sn	20 48 00.5	-0.1
	86nm,0.3s						
SFTF	Sexfontaines	1.61	225	ePn	Pn	20 47 39.7	+0.5
SFTF				ePg	Pg	20 47 42.2	+1.8
SFTF				eSn	Sn	20 48 00.5	-0.1
SFTF	Sexfontaines	1.61	225	ePn	Pn	20 47 39.7	+0.5
SFTF	Sexfontaines	1.61	225	ePg	Pg	20 47 42.2	+1.8
SFTF				eSn	Sn	20 48 00.5	-0.1
	43nm,0.3s						
HOBG	Hohbusch	1.68	13	ePg	Pg	20 47 40.0	-1.8
HOBG	Hohbusch	1.68	13	Pg	Pg	20 47 40.0	-1.7
FELD	Feldberg im Sc	1.69	150	Pg	Pg	20 47 41.6	-0.3
FELD	Feldberg im Sc	1.69	150	Pg	Pg	20 47 41.6	-0.3
STU	Stuttgart	1.71	109	ePn	Pn	20 47 39.9	-0.6
STU				eSg	Sg	20 48 00.6	-3.7
STU	Stuttgart	1.71	109	ePn	Pn	20 47 39.7	-0.8
STU				eSg	Sg	20 48 01.4	-2.9
STU	Stuttgart	1.71	109	Pn	Pn	20 47 39.9	-0.6
STU				Sg	Sg	20 48 00.6	-3.7
BAIF	Baives	1.80	294	ePg	Pg	20 47 45.1	+1.1
BAIF				eSg	Sg	20 48 09.2	+1.8
	94nm,0.5s,SNR=1.0						
BAIF	Baives	1.80	294	ePn	Pn	20 47 42.4	+0.6
BAIF				ePg	Pg	20 47 45.1	+1.1
BAIF				eSg	Sg	20 48 09.2	+1.8
BAIF	Baives	1.80	294	ePn	Pn	20 47 42.4	+0.6
	SNR=1.0						
BAIF	Baives	1.80	294	ePg	Pg	20 47 45.1	+1.1
BAIF				eSg	Sg	20 48 09.2	+1.8
	47nm,0.5s,SNR=1.0						
SPAK	Spaichingen-Ko	1.83	132	Pg	Pg	20 47 44.5	-0.1
SPAK				Sg	Sg	20 48 11.2	+2.8
SPAK	Spaichingen-Ko	1.83	132	Pg	Pg	20 47 44.5	-0.1
SNF	Seneffe	1.98	307	P	Pn	20 47 45.5	+1.3
SNF	Seneffe	1.98	307	P	Pn	20 47 45.5	+1.3
BUG	Bochum--Univer	2.12	9	ePn	Pn	20 47 46.7	+0.4
CABF	La Chapelle	2.77	190	ePg	Pg	20 48 03.3	+0.6
	SNR=1.0						
CABF				eSn	Sn	20 48 28.1	-1.2
CABF				eSg	Sg	20 48 39.7	+1.1
	80nm,0.5s,SNR=1.0						
CABF	La Chapelle	2.77	190	ePn	Pn	20 47 55.2	0.0
CABF				ePg	Pg	20 48 03.3	+0.6
CABF				eSn	Sn	20 48 28.1	-1.2
CABF				eSg	Sg	20 48 39.7	+1.1
CABF	La Chapelle	2.77	190	ePn	Pn	20 47 55.2	0.0
	SNR=1.0						
CABF	La Chapelle	2.77	190	ePg	Pg	20 48 03.3	+0.6
	SNR=1.0						
CABF				eSn	Sn	20 48 28.1	-1.2
CABF				eSg	Sg	20 48 39.7	+1.1
	40nm,0.5s,SNR=1.0						
LOR	Lormes	2.84	224	ePn	Pn	20 47 56.0	-0.1
	baz=48,SNR=1.0						
LOR				eSn	Sn	20 48 30.3	-0.6
	SNR=1.0						
LOR				eSg	Sg	20 48 42.6	+1.9
	54nm,0.3s						
LOR	Lormes	2.84	224	ePn	Pn	20 47 56.0	-0.1
	SNR=1.0						
LOR				eSn	Sn	20 48 30.3	-0.6
	SNR=1.0						
LOR				eSg	Sg	20 48 42.6	+1.9
	27nm,0.3s						
GRA1	Grafenberg Arr	2.93	82	Sg	Sg	20 48 44.1	+0.4
GRF	Grafenberg Arr	2.93	82	eSg	Sg	20 48 44.1	+0.4
IBBN	Ibbenburen	3.03	12	ePg	Pg	20 48 07.4	-0.2
IBBN				eSg	Sg	20 48 45.3	-1.6
IBBN	Ibbenburen	3.03	12	Pg	Pg	20 48 07.4	-0.2
IBBN				Sg	Sg	20 48 45.3	-1.6
SSF	Saint Saulge	3.15	225	ePn	Pn	20 48 00.0	-0.4
	SNR=1.0						
SSF				eSn	Sn	20 48 37.9	-0.8
SSF				eSg	Sg	20 48 52.4	+1.6
	54nm,0.4s						
SSF	Saint Saulge	3.15	225	ePn	Pn	20 48 00.0	-0.4
	SNR=1.0						
SSF				eSn	Sn	20 48 37.9	-0.8
SSF				eSg	Sg	20 48 52.4	+1.6
	27nm,0.4s						
RETA	Reutte	3.25	123	⇑iPn	Pn	20 48 03.0	+1.2
RETA				⇓iSg	Sg	20 48 53.7	-0.3
	10nm,0.4s						
RETA	Reutte	3.25	123	Pn	Pn	20 48 03.0	+1.2
RETA				Sg	Sg	20 48 53.7	-0.3
	10nm,0.4s						
SMF	Signal de Mont	3.34	217	ePn	Pn	20 48 02.3	-0.6
	SNR=1.0						
SMF				eSn	Sn	20 48 41.7	-1.5
	77nm,0.4s,SNR=1.0						
SMF				eSg	Sg	20 48 58.0	+1.3
	33nm,0.4s						
SMF	Signal de Mont	3.34	217	ePn	Pn	20 48 02.3	-0.6
	SNR=1.0						
SMF				eSn	Sn	20 48 41.7	-1.5
	38nm,0.4s,SNR=1.0						
SMF				eSg	Sg	20 48 58.0	+1.3
	17nm,0.4s						
TUE	Stuetta	3.36	148	ePn	Pn	20 48 04.8	+1.5
TUE	Stuetta	3.36	148	ePn	Pn	20 48 04.8	+1.5
MOX	Moxa	3.40	66	ePN	Pn	20 48 03.5	-0.2
MOX				eSG	Sg	20 48 57.2	-1.3
MOX	Moxa	3.40	66	ePn	Pn	20 48 03.9	+0.2
MOX				eSg	Sg	20 48 57.2	-1.3
MOX	Moxa	3.40	66	ePn	Pn	20 48 03.5	-0.2
MOX				Sg	Sg	20 48 57.2	-1.3
CLZ	Clausthal	3.40	41	ePn	Pn	20 48 02.2	-1.6
CLZ	Clausthal	3.40	41	ePn	Pn	20 48 02.4	-1.4
CLZ	Clausthal	3.40	41	ePn	Pn	20 48 02.4	-1.4
AVF	Avril sur Loir	3.43	223	ePn	Pn	20 48 03.5	-0.6
	SNR=1.0						
AVF				eSn	Sn	20 48 44.0	-1.4
	SNR=1.0						
AVF				eSg	Sg	20 49 00.8	+1.2
	37nm,0.5s,SNR=1.0						
AVF	Avril sur Loir	3.43	223	ePn	Pn	20 48 03.5	-0.6
	SNR=1.0						
AVF				eSn	Sn	20 48 44.0	-1.4
	SNR=1.0						
AVF				eSg	Sg	20 49 00.8	+1.2
	18nm,0.5s,SNR=1.0						
HYF	Humbligny	3.44	234	ePn	Pn	20 48 04.7	+0.3
HYF				ePg	Pg	20 48 16.2	+0.7
HYF				eSn	Sn	20 48 44.8	-1.1
HYF				eSg	Sg	20 49 01.4	+1.2
HYF	Humbligny	3.44	234	ePn	Pn	20 48 04.7	+0.3
MOTA	Moosalm	3.52	123	⇑iPn	Pn	20 48 06.4	+0.9
	SNR=11						
MOTA				⇑iSn	Sn	20 48 48.5	+0.6
MOTA				⇓iSg	Sg	20 49 02.4	-0.3
	11nm,0.4s						
MOTA	Moosalm	3.52	123	Pn	Pn	20 48 06.4	+0.9
	SNR=11						
MOTA				Sn	Sn	20 48 48.5	+0.7
MOTA				Sg	Sg	20 49 02.4	-0.3
	11nm,0.4s						
FETA	Feichten	3.53	130	⇓iPn	Pn	20 48 07.2	+1.6
	SNR=24						
FETA				⇑iSg	Sg	20 49 03.4	+0.4
	7.6nm,0.5s						
FETA	Feichten	3.53	130	Pn	Pn	20 48 07.2	+1.6
	SNR=24						
FETA				Sg	Sg	20 49 03.4	+0.4
	7.6nm,0.5s						
ROTZ	Rotzenmuhle	3.58	81	ePn	Pn	20 48 07.6	+1.4
ROTZ	Rotzenmuhle	3.58	81	Pn	Pn	20 48 07.6	+1.4
GUNZ	Gunzen	3.75	72	ePn	Pn	20 48 08.6	0.0
GUNZ	Gunzen	3.75	72	Pn	Pn	20 48 08.6	0.0
WERD	Werda	3.75	71	ePn	Pn	20 48 08.1	-0.5
WERD				eSg	Sg	20 49 07.9	-2.2
WERD	Werda	3.75	71	Pn	Pn	20 48 08.1	-0.5
WERD				Sg	Sg	20 49 07.9	-2.2
WATA	Walderalm	3.79	120	⇓iPn	Pn	20 48 10.4	+1.2
	SNR=5.7						
WATA				⇑iSn	Sn	20 48 55.3	+0.8
WATA				⇑iSg	Sg	20 49 17.2	+5.8
	5.9nm,0.3s						
WATA	Walderalm	3.79	120	Pn	Pn	20 48 10.4	+1.2
	SNR=5.7						
WATA				Sn	Sn	20 48 55.3	+0.8
NKC	Novy Kostel	3.79	74	ePG	Pg	20 48 16.8	-5.4
NKC				eSG	Sg	20 49 06.6	-4.8
	comp=Z,22nm,0.8s						
BGF	Bois d’Agland	3.83	225	ePn	Pn	20 48 09.5	-0.2
	SNR=1.0						
BGF				eSn	Sn	20 48 54.0	-1.4
BGF				eSg	Sg	20 49 13.8	+1.2
	comp=Z,143nm,0.4s,SNR=1.0						
BGF	Bois d’Agland	3.83	225	ePn	Pn	20 48 09.5	-0.2
	SNR=1.0						
BGF				eSn	Sn	20 48 54.0	-1.4
BGF				eSg	Sg	20 49 13.8	+1.2
	comp=Z,72nm,0.4s,SNR=1.0						
LPL	La Plagne	3.83	180	ePg	Pg	20 48 22.4	-0.6
LPL				eSn	Sn	20 48 52.7	-2.7
LPL				eSg	Sg	20 49 12.5	-0.1
	comp=Z,11nm,0.5s,SNR=1.0						
LPL	La Plagne	3.83	180	ePn	Pn	20 48 10.1	+0.4
LPL				ePg	Pg	20 48 22.4	-0.6
LPL				eSn	Sn	20 48 52.7	-2.7
LPL				eSg	Sg	20 49 12.5	-0.1
LPL	La Plagne	3.83	180	ePn	Pn	20 48 10.1	+0.4
LPL	La Plagne	3.83	180	ePg	Pg	20 48 22.4	-0.6
LPL				eSn	Sn	20 48 52.7	-2.7
LPL				eSg	Sg	20 49 12.5	-0.1
	comp=Z,5.5nm,0.5s,SNR=1.0						
TANN	Tannenbergstha	3.84	72	eSg	Sg	20 49 09.9	-3.0
TANN	Tannenbergstha	3.84	72	Sg	Sg	20 49 09.9	-3.0
LPG	La Plagne	3.85	180	ePg	Pg	20 48 22.9	-0.4
LPG				eSn	Sn	20 48 53.5	-2.4
LPG				eSg	Sg	20 49 13.0	-0.2
	comp=Z,29nm,0.8s,SNR=1.0						
LPG	La Plagne	3.85	180	ePn	Pn	20 48 10.8	+0.8
LPG				ePg	Pg	20 48 22.9	-0.4
LPG				eSn	Sn	20 48 53.5	-2.4
LPG				eSg	Sg	20 49 13.0	-0.2
LPG	La Plagne	3.85	180	ePn	Pn	20 48 10.8	+0.8
	SNR=1.0						
LPG	La Plagne	3.85	180	ePg	Pg	20 48 22.9	-0.4
LPG				eSn	Sn	20 48 53.5	-2.4
LPG				eSg	Sg	20 49 13.0	-0.2
	comp=Z,14nm,0.8s,SNR=1.0						
WTTA	Wattenberg	3.87	121	⇑iPn	Pn	20 48 11.4	+1.2
WTTA				⇑iSn	Sn	20 48 56.2	-0.1
WTTA				⇑iSg	Sg	20 49 14.9	+1.2
	comp=Z,6.3nm,0.4s						
WTTA	Wattenberg	3.87	121	Pn	Pn	20 48 11.4	+1.2
WTTA				Sn	Sn	20 48 56.2	-0.1
WTTA				Sg	Sg	20 49 14.9	+1.2
	comp=Z,6.3nm,0.4s						
PLDF	La Plantade	3.99	213	Pn	Pn	20 48 12.5	+0.7
PLDF				Sg	Sg	20 49 21.8	+4.2
PLDF	La Plantade	3.99	213	Pn	Pn	20 48 12.5	+0.7
WET	Wettzell	4.02	91	ePn	Pn	20 48 12.5	+0.2
WET	Wettzell	4.02	91	ePn	Pn	20 48 12.4	+0.1
WET	Wettzell	4.02	91	Pn	Pn	20 48 11.9	-0.3
WET				Sn	Sn	20 48 57.2	-2.8
AGO	Saint Agoulin	4.11	218	Pn	Pn	20 48 13.5	0.0
AGO	Saint Agoulin	4.11	218	Pn	Pn	20 48 13.5	0.0
BNI	Bardonecchia	4.30	181	ePn	Pn	20 48 16.6	+0.5
BNI				ePg	Pg	20 48 31.2	-0.6

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
BNI				eSn	**Sn**	**20 49 08.9**	**+2.1**
BNI				eSb	**Sb**	**20 49 21.3**	**+3.1**
BNI				eSg	**Sg**	**20 49 26.7**	**-0.8**
BNI	**Bardonecchia**	**4.30**	**181**	ePn	**Pn**	**20 48 16.6**	**+0.5**
RJOB	**Jochberg**	**4.32**	**110**	ePn	**Pn**	**20 48 17.6**	**+1.1**
RJOB	**Jochberg**	**4.32**	**110**	Pn	**Pn**	**20 48 17.6**	**+1.1**
TCF	**Toulx Ste Croi**	**4.33**	**227**	ePn	**Pn**	**20 48 16.6**	**+0.1**
	SNR=1.0						
TCF				eSg	**Sg**	**20 49 29.2**	**+0.7**
	comp=Z,46nm,0.7s						
TCF	**Toulx Ste Croi**	**4.33**	**227**	ePn	**Pn**	**20 48 16.6**	**+0.1**
	SNR=1.0						
TCF				eSg	**Sg**	**20 49 29.2**	**+0.7**
	comp=Z,23nm,0.7s						
SSB	**Saint Sauveur**	**4.34**	**201**	ePn	**Pn**	**20 48 16.1**	**-0.6**
SSB				ePg	**Pg**	**20 48 33.4**	**+0.7**
SSB				eSn	**Sn**	**20 49 07.5**	**-0.5**
SSB				eSg	**Sg**	**20 49 28.0**	**-0.8**
SSB	**Saint Sauveur**	**4.34**	**201**	ePn	**Pn**	**20 48 16.1**	**-0.6**
PYM	**Petit Puy Mans**	**4.40**	**217**	Pn	**Pn**	**20 48 17.4**	**-0.1**
PYM	**Petit Puy Mans**	**4.40**	**217**	Pn	**Pn**	**20 48 17.4**	**-0.1**
CLL	**Collm**	**4.46**	**62**	e(Pn)	**Pn**	**20 48 25.0**	**+6.7**
CLL				ePg	**Pg**	**20 48 37.0**	**+2.1**
CLL				eSg	**Sg**	**20 49 32.0**	**-0.7**
CLL	**Collm**	**4.46**	**62**	e(Pn)	**Pn**	**20 48 25.0**	**+6.7**
CLL				ePg	**Pg**	**20 48 37.0**	**+2.1**
CLL				e		20 49 28.0	
CLL				eSg	**Sg**	**20 49 32.0**	**-0.7**
	comp=Z,15nm,1.1s						
ORIF	**Oris-en-Rattie**	**4.47**	**188**	ePn	**Pn**	**20 48 18.4**	**-0.1**
ORIF				ePg	**Pg**	**20 48 33.8**	**-1.4**
ORIF				eSn	**Sn**	**20 49 08.6**	**-2.6**
ORIF	**Oris-en-Rattie**	**4.47**	**188**	ePn	**Pn**	**20 48 18.4**	**-0.1**
	SNR=1.0						
KHC	**Kasperske Hory**	**4.48**	**90**	ePN	**Pn**	**20 48 18.2**	**-0.4**
KHC				eSN	**Sn**	**20 49 07.6**	**-3.7**
KHC				eSG	**Sg**	**20 49 31.7**	**-1.6**
	comp=Z,11nm,1.3s						
KHC	**Kasperske Hory**	**4.48**	**90**	Pn	**Pn**	**20 48 18.2**	**-0.4**
KHC				Sn	**Sn**	**20 49 07.6**	**-3.7**
KHC				Sg	**Sg**	**20 49 31.7**	**-1.6**
	comp=Z,11nm,1.3s						
GEC2	**GERESS Array S**	**4.59**	**94**	ePn	**Pn**	**20 48 20.1**	**0.0**
GEC2				eSn	**Sn**	**20 49 10.2**	**-3.9**
GEC2	**GERESS Array S**	**4.59**	**94**	ePn	**Pn**	**20 48 20.3**	**+0.1**
GEC2	**GERESS Array S**	**4.59**	**94**	Pn	**Pn**	**20 48 20.1**	**-0.1**
GEC2				Sn	**Sn**	**20 49 10.2**	**-3.9**
LDF	**La Druitiere**	**4.59**	**263**	ePn	**Pn**	**20 48 20.0**	**-0.2**
LDF				eSn	**Sn**	**20 49 10.8**	**-3.4**
LDF				eSg	**Sg**	**20 49 37.3**	**+0.3**
	comp=Z,28nm,0.4s						
LDF	**La Druitiere**	**4.59**	**263**	ePn	**Pn**	**20 48 20.0**	**-0.2**
LDF				eSn	**Sn**	**20 49 10.8**	**-3.4**
LDF				eSg	**Sg**	**20 49 37.3**	**+0.3**
	comp=Z,14nm,0.4s						
ABTA	**Abfaltersbach**	**4.66**	**122**	⇓iPn	**Pn**	**20 48 22.1**	**+1.1**
ABTA				⇓iSn	**Sn**	**20 49 17.3**	**+1.6**
ABTA	**Abfaltersbach**	**4.66**	**122**	Pn	**Pn**	**20 48 22.1**	**+1.1**
ABTA				Sn	**Sn**	**20 49 17.3**	**+1.6**
VIVF	**Saint-Julien-l**	**4.71**	**198**	ePg	**Pg**	**20 48 38.9**	**-0.9**
	SNR=1.0						
VIVF				eSn	**Sn**	**20 49 14.4**	**-2.7**
	SNR=1.0						
VIVF				eSg	**Sg**	**20 49 40.1**	**-0.7**
	comp=Z,19nm,0.5s,SNR=1.0						
VIVF	**Saint-Julien-l**	**4.71**	**198**	ePn	**Pn**	**20 48 21.7**	**-0.1**
VIVF				ePg	**Pg**	**20 48 38.9**	**-0.9**
VIVF				eSn	**Sn**	**20 49 14.4**	**-2.7**
VIVF				eSg	**Sg**	**20 49 40.1**	**-0.7**
VIVF	**Saint-Julien-l**	**4.71**	**198**	ePn	**Pn**	**20 48 21.7**	**-0.1**
VIVF	**Saint-Julien-l**	**4.71**	**198**	ePg	**Pg**	**20 48 38.9**	**-0.9**
	SNR=1.0						
VIVF				eSn	**Sn**	**20 49 14.4**	**-2.7**
	SNR=1.0						
VIVF				eSg	**Sg**	**20 49 40.1**	**-0.7**
	comp=Z,9.4nm,0.5s,SNR=1.0						
LBL	**Lubilhac**	**4.76**	**211**	Pg	**Pg**	**20 48 41.3**	**+0.6**
LBL	**Lubilhac**	**4.76**	**211**	Pg	**Pg**	**20 48 41.3**	**+0.6**
FLN	**La Foliniere**	**4.79**	**266**	ePn	**Pn**	**20 48 23.4**	**+0.5**
	baz=84,SNR=1.0						
FLN	**La Foliniere**	**4.79**	**266**	ePg	**Pg**	**20 48 41.0**	**-0.4**
	baz=82,SNR=1.0						
FLN				eSn	**Sn**	**20 49 16.5**	**-2.6**
	SNR=1.0						
FLN				eSg	**Sg**	**20 49 43.7**	**+0.2**
	comp=Z,20nm,0.4s						
FLN	**La Foliniere**	**4.79**	**266**	ePn	**Pn**	**20 48 23.4**	**+0.5**
FLN				ePg	**Pg**	**20 48 41.0**	**-0.4**
FLN				eSn	**Sn**	**20 49 16.5**	**-2.6**
FLN				eSg	**Sg**	**20 49 43.7**	**+0.2**
FLN	**La Foliniere**	**4.79**	**266**	ePn	**Pn**	**20 48 23.4**	**+0.5**
	SNR=1.0						
FLN	**La Foliniere**	**4.79**	**266**	ePg	**Pg**	**20 48 41.0**	**-0.4**
	SNR=1.0						
FLN				eSn	**Sn**	**20 49 16.5**	**-2.6**
	SNR=1.0						
FLN				eSg	**Sg**	**20 49 43.7**	**+0.2**
	comp=Z,9.9nm,0.4s						
BRG	**Berggiesshubel**	**4.87**	**69**	PG	**Pg**	**20 48 38.6**	**-4.2**
BRG				SG	**Sg**	**20 49 44.0**	**-1.9**
	comp=Z,6.5nm,0.7s						
KBA	**Koelnbreinsper**	**4.96**	**115**	⇓iPn	**Pn**	**20 48 26.9**	**+1.8**
	SNR=5.5						
KBA				⇓iSn	**Sn**	**20 49 23.4**	**+0.3**
KBA	**Koelnbreinsper**	**4.96**	**115**	Pn	**Pn**	**20 48 26.9**	**+1.8**
	SNR=5.5						
KBA				Sn	**Sn**	**20 49 23.4**	**+0.3**
PRU	**Pruhonice**	**5.10**	**80**	eSG	**Sg**	**20 49 49.0**	**-4.2**
	comp=Z,15nm,1.0s						
PRU	**Pruhonice**	**5.10**	**80**	Sg	**Sg**	**20 49 49.0**	**-4.2**
	comp=Z,15nm,1.0s						
GRR	**Gorron**	**5.12**	**262**	ePn	**Pn**	**20 48 27.4**	**+0.1**
	SNR=1.0						
GRR				eSn	**Sn**	**20 49 23.1**	**-3.9**
	SNR=1.0						
GRR				eSg	**Sg**	**20 49 53.5**	**-0.3**
	comp=Z,29nm,0.7s						
GRR	**Gorron**	**5.12**	**262**	ePn	**Pn**	**20 48 27.4**	**+0.1**
	SNR=1.0						
GRR				eSn	**Sn**	**20 49 23.1**	**-3.9**
	SNR=1.0						
GRR				eSg	**Sg**	**20 49 53.5**	**-0.3**
	comp=Z,15nm,0.7s						
MOA	**Molln**	**5.20**	**104**	⇑iPn	**Pn**	**20 48 29.2**	**+0.6**
	SNR=13						
MOA				⇑iSn	**Sn**	**20 49 28.3**	**-0.9**
MOA	**Molln**	**5.20**	**104**	Pn	**Pn**	**20 48 29.2**	**+0.6**
	SNR=13						
MOA				Sn	**Sn**	**20 49 28.3**	**-0.9**
MFF	**Saint Martin d**	**5.39**	**242**	ePn	**Pn**	**20 48 31.3**	**+0.2**
MFF				eSg	**Sg**	**20 50 02.1**	**-0.4**
	comp=Z,19nm,0.6s						
MFF	**Saint Martin d**	**5.39**	**242**	ePn	**Pn**	**20 48 31.3**	**+0.2**
MFF				eSg	**Sg**	**20 50 02.1**	**-0.4**
	comp=Z,9.5nm,0.6s						
RJF	**Les Rejaudoux**	**5.39**	**223**	ePn	**Pn**	**20 48 31.0**	**-0.1**
RJF				eSg	**Sg**	**20 50 02.2**	**-0.3**
	comp=Z,20nm,0.6s,SNR=1.0						
RJF	**Les Rejaudoux**	**5.39**	**223**	ePn	**Pn**	**20 48 31.0**	**-0.1**
RJF				eSg	**Sg**	**20 50 02.2**	**-0.3**
	comp=Z,9.9nm,0.6s,SNR=1.0						
CAF	**Calviac**	**5.46**	**218**	ePn	**Pn**	**20 48 30.9**	**-1.2**
	SNR=1.0						
CAF				eSn	**Sn**	**20 49 32.2**	**-3.3**
CAF				eSg	**Sg**	**20 50 03.9**	**-0.9**
	comp=Z,17nm,0.5s						
CAF	**Calviac**	**5.46**	**218**	ePn	**Pn**	**20 48 30.9**	**-1.2**
	SNR=1.0						
CAF				eSg	**Sg**	**20 50 03.9**	**-0.9**
	comp=Z,8.4nm,0.5s						
LFF	**La Frestale**	**6.02**	**225**	ePn	**Pn**	**20 48 39.6**	**-0.2**
LFF				eSg	**Sg**	**20 50 22.0**	**-0.8**
	comp=Z,33nm,0.6s,SNR=1.0						
LFF	**La Frestale**	**6.02**	**225**	ePn	**Pn**	**20 48 39.6**	**-0.2**
LFF				eSg	**Sg**	**20 50 22.0**	**-0.8**
	comp=Z,16nm,0.6s,SNR=1.0						
SGMF	**Saint Gilles**	**6.25**	**263**	ePn	**Pn**	**20 48 42.7**	**-0.2**
	SNR=1.0						
SGMF				eSn	**Sn**	**20 49 49.6**	**-5.4**
	SNR=1.0						
SGMF				eSg	**Sg**	**20 50 28.9**	**-1.2**
	comp=Z,11nm,0.5s						
SGMF	**Saint Gilles**	**6.25**	**263**	ePn	**Pn**	**20 48 42.7**	**-0.2**
	SNR=1.0						
SGMF				eSg	**Sg**	**20 50 28.9**	**-1.2**
	comp=Z,5.6nm,0.5s						
DPC	**Dobruska-Polom**	**6.27**	**77**	eSG	**Sg**	**20 50 26.3**	**-4.5**
ROSF	**Rostrenen**	**6.70**	**265**	ePn	**Pn**	**20 48 48.6**	**-0.4**
ROSF				eSn	**Sn**	**20 50 00.2**	**-5.8**
ROSF				eSg	**Sg**	**20 50 43.2**	**-1.3**
	comp=Z,11nm,0.6s						
ROSF	**Rostrenen**	**6.70**	**265**	ePn	**Pn**	**20 48 48.6**	**-0.4**
ROSF				eSg	**Sg**	**20 50 43.2**	**-1.3**
	comp=Z,5.7nm,0.6s						
QUIF	**Quistinic**	**6.73**	**261**	ePn	**Pn**	**20 48 48.9**	**-0.6**
QUIF				eSn	**Sn**	**20 50 02.6**	**-4.2**
QUIF				eSg	**Sg**	**20 50 44.2**	**-1.4**
	comp=Z,7.9nm,0.5s						
QUIF	**Quistinic**	**6.73**	**261**	ePn	**Pn**	**20 48 48.9**	**-0.6**
QUIF				eSg	**Sg**	**20 50 44.2**	**-1.4**
	comp=Z,4.0nm,0.5s						
MTLF	**Montolieu**	**6.78**	**209**	ePg	**Pg**	**20 49 17.1**	**-2.2**
MTLF				eSn	**Sn**	**20 50 04.0**	**-4.0**
	SNR=1.0						
MTLF				eSg	**Sg**	**20 50 45.0**	**-2.1**
	comp=Z,8.0nm,0.7s						
MTLF	**Montolieu**	**6.78**	**209**	ePn	**Pn**	**20 48 49.6**	**-0.6**
MTLF				ePg	**Pg**	**20 49 17.1**	**-2.2**
MTLF				eSn	**Sn**	**20 50 04.0**	**-4.0**
MTLF				eSg	**Sg**	**20 50 45.0**	**-2.1**
MTLF	**Montolieu**	**6.78**	**209**	ePn	**Pn**	**20 48 49.6**	**-0.6**
EPF	**Esparros**	**7.72**	**218**	ePn	**Pn**	**20 49 02.1**	**-1.1**
EPF				eSn	**Sn**	**20 50 26.8**	**-4.5**
EPF				eSg	**Sg**	**20 51 15.0**	**-2.5**
	comp=Z,1.7nm,0.4s						
EPF	**Esparros**	**7.72**	**218**	ePn	**Pn**	**20 49 02.1**	**-1.1**
ETSF	**Etsaut**	**8.21**	**221**	ePn	**Pn**	**20 49 09.5**	**-0.3**
ETSF				eSg	**Sg**	**20 51 30.4**	**-2.5**
	comp=Z,18nm,1.0s						
ETSF	**Etsaut**	**8.21**	**221**	ePn	**Pn**	**20 49 09.5**	**-0.3**
SJPF	**Ste Jean**	**8.33**	**225**	ePn	**Pn**	**20 49 11.0**	**-0.5**
SJPF				eSg	**Sg**	**20 51 34.0**	**-2.9**
	comp=Z,3.6nm,0.6s						
SJPF	**Ste Jean**	**8.33**	**225**	ePn	**Pn**	**20 49 11.0**	**-0.5**

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*ISCJB **09** 20:58:30.9±0.7, 17°.5S±0°.2×179°.1W±0°.1, h550^{km}, mb3.8/9, Error ellipse: s-maj=29.7km s-min=13.0km az=160.8*

*IDC **09** 20:58:30.4±6.8, 17°.52S×178°.97W, h532^{km}±77^{km}, mb3.3/7, mb1 3.5/7, mb1mx3.3/17, mbtmp3.3/7, Error ellipse: s-maj=59.2km s-min=28.2km az=145.0*

*NEIC **09** 20:58:32.4±2.5, 17°.58S×179°.00W, h559^{km}±34^{km}, mb4.1/2, Error ellipse: s-maj=33.8km s-min=10.0km az=170.0*

ISC 09 20:58:31.9±0.7, **17°.5S**±0°.2×**179°.0W**±0°.1, **h550**^{km}, **n16,** σ**0^s.40**/12, **mb3.8**/9, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	**Rarotonga**	**18.51**	**104**	P	**P**	**21 02 14.5**	**0.0**
EIDS	**Eidsvold**	**28.86**	**249**	eP	**P**	**21 03 46.4**	**-0.1**
	3.8nm,0.7s,mb4.1						
CTA	**Charters Tower**	**32.94**	**260**	P	**P**	**21 04 21.4**	**-0.1**
	baz=103,slow=10						
CTA	**Charters Tower**	**32.94**	**260**	P	**P**	**21 04 21.4**	**-0.1**
CTAO	**Charters Tower**	**32.94**	**260**	eP	**P**	**21 04 21.8**	**+0.2**
	4.7nm,0.8s,mb4.1						
STKA	**Stephens Creek**	**38.31**	**241**	P	**P**	**21 05 06.4**	**+0.6**
	2.4nm,0.4s,mb4.0,baz=86,slow=11,SNR=9.2						
WRA	**Warramunga Arr**	**44.13**	**259**	P	**P**	**21 05 51.5**	**-0.6**
	0.6nm,0.4s,mb3.5,baz=97,slow=7.4,SNR=18						
ASAR	**Alice Springs**	**44.34**	**254**	P	**P**	**21 05 53.8**	**+0.1**
	8.9nm,0.6s,mb4.5,baz=89,slow=7.9,SNR=147						
PETK	**Petropavlovsk-**	**73.18**	**346**	P	**P**	**21 09 07.2**	**+0.6**
	3.2nm,0.9s,mb3.8,baz=136,slow=7.1,SNR=4.6						
NVAR	**Mina Array Bea**	**79.56**	**44**	P	**P**	**21 09 42.1**	**+0.1**
	1.0nm,0.7s,mb3.2,baz=222,slow=9.3,SNR=6.7						
PDAR	**Pinedale Array**	**87.48**	**44**	P	**P**	**21 10 21.4**	**+0.1**
	0.5nm,0.5s,mb3.4,baz=219,slow=3.0,SNR=4.1						
YKA	**Yellowknife Ar**	**94.24**	**25**	P	**P**	**21 10 51.2**	**-0.7**
	0.3nm,0.9s,mb3.4,baz=251,slow=3.8,SNR=4.1						
MKAR	**Makanchi Array**	**108.47**	**314**	PKiKP	PKiKP	21 15 57.5	-0.6
	0.3nm,0.9s,baz=135,slow=0.4,SNR=3.4						
BRTR	**Keskin Array B**	**144.12**	**315**	PKP	PKPdf	21 17 05.4	0.0
	0.6nm,0.6s,baz=152,slow=3.3,SNR=4.2						
CLL	**Collm**	**144.98**	**347**	i PKPbc	PKPdf	21 17 07.1	+0.6
GERES	**GERESS Array B**	**147.11**	**344**	PKPbc	PKPbc	21 17 13.5	+0.3
	0.8nm,0.5s,baz=28,slow=3.2,SNR=12						

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*ISCJB **09** 21:02:14.8±0.4, 43°.76N±0°.03×105°.25W±0°.04, h0^{km}, mb4.1/3, Error ellipse: s-maj=5.4km s-min=4.0km az=145.0*

*IDC **09** 21:02:14.1±1.8, 43°.49N×105°.33W, h0^{km}, mb3.9/3, mb1 3.8/7, mb1mx3.6/24, mbtmp3.6/7, ML3.5/3, MS3.5/1, Ms1 3.5/1, ms1mx2.7/42, Error ellipse: s-maj=46.6km s-min=7.8km az=150.0*

*NEIC **09** 21:02:16.1±0.4, 43°.74N×105°.22W, h0^{km}, ML3.2, Error ellipse: s-maj=6.1km s-min=4.9km az=143.0, Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

ISC 09 21:02:16.1±0.4, **43°.76N**±0°.03×**105°.22W**±0°.04, **h0**^{km}, **n39,** σ**0^s.92**/44, **mb4.1**/3, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	**Black Hills**	**0.92**	**67**	ePg	**Pg**	**21 02 34.4**	**+0.5**
RSSD				eSg	**Sg**	**21 02 47.1**	**+1.3**
PHWY	**Pilot Hill**	**2.47**	**184**	ePn	**Pn**	**21 02 57.5**	**-0.1**
PHWY				eSn	**Sn**	**21 03 28.8**	**+0.5**
RWWY	**Rawlins**	**2.54**	**216**	ePn	**Pn**	**21 02 58.4**	**-0.2**
RWWY				eSn	**Sn**	**21 03 29.5**	**-0.7**
LAO	**LASA Array**	**3.01**	**347**	ePn	**Pn**	**21 03 04.6**	**-0.4**
RLMT	**Red Lodge**	**3.20**	**296**	ePn	**Pn**	**21 03 07.1**	**-0.6**
BW06	**Boulder Array**	**3.32**	**254**	ePn	**Pn**	**21 03 08.4**	**-0.9**
BW06				eSn	**Sn**	**21 03 50.2**	**+0.8**
PDAR	**Pinedale Array**	**3.32**	**254**	Pn	**Pn**	**21 03 08.3**	**-1.0**
	5.1nm,0.3s,baz=72,slow=16,SNR=90						
PDAR				Lg		21 03 53.0	
	17nm,0.3s,baz=73,slow=35,SNR=6.7						
OGNE	**Ogallala**	**3.67**	**139**	ePn	**Pn**	**21 03 14.8**	**+0.7**
GCMT	**Greycliff**	**3.76**	**304**	ePn	**Pn**	**21 03 15.2**	**-0.1**
LOHW	**Long Hollow**	**3.91**	**270**	ePn	**Pn**	**21 03 18.3**	**+0.9**
ISCO	**Idaho Springs**	**3.97**	**184**	ePn	**Pn**	**21 03 18.3**	**+0.1**
MOOW	**Moose Ponds**	**4.01**	**272**	ePn	**Pn**	**21 03 18.3**	**-0.4**
YNR	**Norris Junctio**	**4.04**	**286**	ePn	**Pn**	**21 03 17.6**	**-1.6**
YFT	**Old Faithful**	**4.11**	**282**	ePn	**Pn**	**21 03 21.7**	**+1.7**
REDW	**Red Top Meadow**	**4.12**	**266**	ePn	**Pn**	**21 03 21.2**	**+1.0**
YMR	**Madison River**	**4.23**	**284**	ePn	**Pn**	**21 03 22.8**	**+1.0**
DCID1	**Drake Creek**	**4.33**	**270**	ePn	**Pn**	**21 03 24.4**	**+1.2**
AHID	**Auburn Hatcher**	**4.41**	**259**	ePn	**Pn**	**21 03 24.3**	**0.0**
RRI2	**Red Ridge**	**4.46**	**267**	ePn	**Pn**	**21 03 24.9**	**+0.1**
QLMT	**Earthquake Lak**	**4.59**	**286**	ePn	**Pn**	**21 03 28.3**	**+1.7**
DGMT	**Dagmar**	**4.76**	**8**	ePn	**Pn**	**21 03 30.3**	**+1.2**
BOZ	**Bozeman (W)**	**4.94**	**295**	ePn	**Pn**	**21 03 31.1**	**-0.4**
EGMT	**Eagleton**	**5.31**	**325**	ePn	**Pn**	**21 03 36.4**	**-0.2**
	21nm,0.7s						
DAU	**Daniels Canyon**	**5.60**	**235**	ePn	**Pn**	**21 03 40.7**	**+0.1**
	17nm,0.6s						
SPUT	**South Promonto**	**5.88**	**248**	ePn	**Pn**	**21 03 44.0**	**-0.5**
	11nm,0.6s						
HVU	**Hansel Valley**	**5.91**	**253**	ePn	**Pn**	**21 03 44.9**	**+0.1**
	8.8nm,0.6s						
SDCO	**Great Sand Dun**	**6.02**	**182**	ePn	**Pn**	**21 03 41.6**	**-4.7**
	2.6nm,0.4s						
TMUT	**Trail Mountain**	**6.33**	**227**	ePn	**Pn**	**21 03 50.2**	**-0.5**
	13nm,0.6s						
DUG	**Dugway**	**6.69**	**240**	ePn	**Pn**	**21 03 54.6**	**-0.9**
	5.2nm,0.4s						
ULM	**Lac du Bonnet**	**9.10**	**41**	Pn	**Pn**	**21 04 28.4**	**-0.1**
ULM				Sn	**Sn**	**21 06 09.6**	**-2.0**
ULM				Lg		21 07 03.2	
ULM	**Lac du Bonnet**	**9.10**	**41**	Pn	**Pn**	**21 04 28.4**	**-0.1**
	1.6nm,0.3s,baz=230,slow=11,SNR=9.8						
ULM				Sn	**Sn**	**21 06 09.6**	**-2.0**
	0.5nm,0.3s,baz=122,slow=3.6,SNR=4.1						
ULM				Lg		21 07 03.2	
	0.4nm,0.3s,baz=139,slow=21,SNR=3.7						
NVAR	**Mina Array Bea**	**11.22**	**246**	Pn	**Pn**	**21 04 58.0**	**+0.4**
	0.1nm,0.3s,baz=58,slow=12,SNR=3.6						
TKL	**Tuckaleechee C**	**18.34**	**109**	LR	LR	21 13 45.2	
	comp=Z,135nm,19.8s,baz=36,slow=38						
YKA	**Yellowknife Ar**	**19.55**	**347**	P	**Pn**	**21 06 47.7**	**+1.5**
YKA	**Yellowknife Ar**	**19.55**	**347**	P	**Pn**	**21 06 47.7**	**+1.5**
	0.1nm,0.3s,baz=157,slow=9.0,SNR=6.8						
ARCES	**ARCESS Array B**	**61.38**	**18**	P	**P**	**21 12 31.8**	**-1.5**
ARCES	**ARCESS Array B**	**61.38**	**18**	P	**P**	**21 12 31.8**	**-1.5**
	4.0nm,1.1s,mb4.5,baz=332,slow=4.7,SNR=7.3						
ZALV	**Zalesovo Beam**	**82.29**	**354**	P	**P**	**21 14 37.5**	**-1.5**
	0.7nm,0.5s,mb4.0,baz=2.8,slow=6.1,SNR=4.8						
MKAR	**Makanchi Array**	**89.58**	**355**	P	**P**	**21 15 14.2**	**-1.1**
	0.4nm,0.7s,mb3.8,baz=14,slow=4.1,SNR=6.0						

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*NEIC **09** 21:06:05.1, 15°.83N×98°.84W, h24^{km}, MD4.0(MEX), After MEX.*

MEX 09 21:06:05.1±0.6, **15°.83N**×**98°.84W**, **h24**^{km}±30^{km}, **MD4.0, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.89**	**51**	i P	Pb	21 06 19.0	-2.9
PNIG				i S	Sb	21 06 30.3	-2.9
ACX	**Acapulco**	**1.46**	**315**	i P	Pn	21 06 26.5	-3.5
CAIG	**El Cayaco**	**1.83**	**312**	i P	Pn	21 06 32.3	-2.8
CAIG				i S	Sn	21 06 54.8	-2.6
MEIG	**Mezcala**	**2.21**	**340**	i P	Pn	21 06 39.8	-0.5
MEIG				i S	Sn	21 07 03.8	-3.2
UTMO	**Huajuapan**	**2.23**	**26**	i P	Pn	21 06 38.9	-1.6
UTMO				i S	Sn	21 07 04.8	-2.5
PLIG	**Platanillo**	**2.63**	**346**	i P	Pn	21 06 45.0	-1.0
PLIG				i S	Sn	21 07 13.5	-3.6
TPIG	**Tehuac#an**	**2.94**	**29**	i P	Pn	21 06 48.3	-2.1
TPIG				i S	Sn	21 07 21.1	-3.8
MOIG	**Morelia**	**4.43**	**330**	i S	Sn	21 08 01.1	-0.6

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*MEX **09** 21:14:28.3±0.3, 15°.69N×98°.85W, h16^{km}±8^{km}, MD4.1*

*ISCJB **09** 21:14:29.1±1.4, 15°.91N±0°.05×98°.73W±0°.04, h17^{km}±10^{km}, mb4.0/12, Error ellipse: s-maj=8.8km s-min=6.1km az=28.4*

*IDC **09** 21:14:29.6±2.4, 16°.08N×98°.60W, h0^{km}, mb3.9/7, mb1 4.1/10, mb1mx4.0/24, mbtmp3.9/10, ML3.7/3, Error ellipse: s-maj=43.8km s-min=17.1km az=13.0*

*NEIC **09** 21:14:31.6, 15°.88N×98°.72W, h15^{km}, mb4.1/11, MD4.0(MEX), After MEX.*

ISC 09 21:14:30.5±1.7, **15°.95N**±0°.06×**98°.66W**±0°.04, **h14**^{km}±12^{km}, **n39,** σ**1^s.27**/59, **mb4.0**/12, **Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.68**	**49**	i P	**Pb**	**21 14 43.7**	**-0.4**
PNIG				i S	**Sb**	**21 14 56.0**	**+2.6**
PNIG	**Pinotepa**	**0.68**	**49**	i P	**Pb**	**21 14 43.7**	**-0.4**
PNIG				i S	**Sb**	**21 14 54.0**	**+0.6**
CAIG	**El Cayaco**	**1.89**	**306**	i P	**Pn**	**21 14 57.0**	**-5.4**
CAIG				i S	**Sn**	**21 15 19.7**	**-6.3**
CAIG	**El Cayaco**	**1.89**	**306**	i P	**Pn**	**21 14 57.6**	**-4.8**
CAIG				i S	**Sn**	**21 15 23.4**	**-2.7**
UTMO	**Huajuapan**	**2.04**	**24**	eP	**Pn**	**21 15 03.6**	**-0.9**
UTMO				i S	**Sn**	**21 15 30.8**	**+0.8**
VHO	**Vista Hermosa**	**2.16**	**59**	i P	**Pn**	**21 15 05.1**	**-1.1**
VHO				i S	**Sn**	**21 15 33.8**	**+0.9**
VHO	**Vista Hermosa**	**2.16**	**59**	i P	**Pn**	**21 15 06.2**	**0.0**
VHO				i S	**Sn**	**21 15 31.9**	**-0.9**
MEIG	**Mezcala**	**2.17**	**335**	eP	**Pn**	**21 15 03.3**	**-3.0**
MEIG				i S	**Sn**	**21 15 30.4**	**-2.6**
HUIG	**Huatulco**	**2.46**	**94**	eP	**Pn**	**21 15 08.9**	**-1.4**
HUIG				i S	**Sn**	**21 15 37.4**	**-2.9**
HUIG	**Huatulco**	**2.46**	**94**	i P	**Pn**	**21 15 09.8**	**-0.5**
HUIG				i S	**Sn**	**21 15 37.4**	**-2.9**
PLIG	**Platanillo**	**2.56**	**342**	i P	**Pn**	**21 15 09.6**	**-2.0**
PLIG				i S	**Sn**	**21 15 41.7**	**-0.9**
TPIG	**Tehuac#an**	**2.75**	**27**	i P	**Pn**	**21 15 14.6**	**+0.3**
TPIG				i S	**Sn**	**21 15 48.8**	**+1.4**
YAIG	**Yautepec**	**2.92**	**352**	i P	**Pn**	**21 15 15.7**	**-0.9**
YAIG				i S	**Sn**	**21 15 52.5**	**+0.9**
CHVM	**Chichinautzin**	**3.16**	**352**	eP	**Pn**	**21 15 20.1**	**+0.2**
CHVM				i S	**Sn**	**21 15 56.5**	**-0.8**
SZVM	**Salazar**	**3.43**	**349**	i P	**Pn**	**21 15 23.6**	**0.0**
SZVM				i S	**Sn**	**21 16 03.5**	**-0.5**
CMIG	**Matias Romero**	**3.80**	**72**	i P	**Pn**	**21 15 28.3**	**-0.4**
CMIG				i S	**Sn**	**21 16 10.8**	**-2.4**
CMIG	**Matias Romero**	**3.80**	**72**	Pn	**Pn**	**21 15 28.4**	**-0.3**
	8.4nm,0.3s,baz=260,slow=11,SNR=139						
CMIG				Sn	**Sn**	**21 16 13.2**	**-0.1**
	9.6nm,0.3s,baz=252,slow=22,SNR=7.7						
CMIG				Lg		21 16 28.0	
	29nm,0.3s,baz=164,slow=20,SNR=11						
CMIG	**Matias Romero**	**3.80**	**72**	i P	**Pn**	**21 15 28.3**	**-0.4**
CMIG				i S	**Sn**	**21 16 10.8**	**-2.4**
CMIG				Lg		21 16 28.0	
TEIG	**Tepich**	**10.75**	**65**	Pn	**Pn**	**21 17 01.6**	**-2.6**
	0.8nm,0.3s,baz=221,slow=20,SNR=3.4						
TEIG				Sn	**Sn**	**21 18 58.9**	**-5.5**
	2.3nm,0.3s,baz=333,slow=22,SNR=10						
TEIG	**Tepich**	**10.75**	**65**	ePn	**Pn**	**21 17 01.4**	**-2.8**
TEIG				eSn	**Sn**	**21 19 00.1**	**-4.4**
TXAR	**Lajitas Array**	**14.10**	**342**	Pn	**Pn**	**21 17 49.6**	**-0.3**
	0.1nm,0.3s,baz=160,slow=15,SNR=5.3						
TXAR				Lg		21 22 05.3	
	0.1nm,0.3s,baz=133,slow=33,SNR=4.4						
WMOK	**Wichita Mounta**	**18.71**	**360**	eP	**Pn**	**21 18 50.9**	**+1.8**
	1.5nm,0.8s						
AMTX	**Amarillo**	**19.05**	**352**	eP	**Pn**	**21 18 51.5**	**-1.7**
	10nm,0.8s						
MIAR	**Mount Ida**	**19.08**	**13**	P	**Pn**	**21 18 54.9**	**+1.4**
	6.1nm,0.8s						
TUC	**Tucson**	**19.66**	**328**	eP	**Pn**	**21 19 00.9**	**+0.4**
	6.0nm,1.1s						
ANMO	**Albuquerque**	**20.17**	**341**	P	**P**	**21 19 05.5**	**+0.8**
	2.9nm,0.8s,baz=151,slow=12,SNR=9.2						
ANMO	**Albuquerque**	**20.17**	**341**	eP	**P**	**21 19 05.3**	**+0.6**
	26nm,1.8s						
PLAL	**Pickwick Lake**	**21.20**	**25**	eP	**P**	**21 19 16.9**	**+1.1**
	12nm,1.1s,mb4.1						
WVT	**Waverly**	**22.30**	**24**	eP	**P**	**21 19 28.7**	**+1.1**
	10.0nm,0.9s,mb4.2						
WUAZ	**Wupatki**	**22.56**	**332**	eP	**P**	**21 19 31.9**	**+1.6**
	10nm,0.9s,mb4.3						
MVCO	**Mesa Verde**	**22.90**	**339**	eP	**P**	**21 19 34.5**	**+0.6**
	5.7nm,0.3s,mb4.5						
TKL	**Tuckaleechee C**	**23.71**	**31**	P	**P**	**21 19 43.8**	**+1.6**
	1.6nm,0.7s,mb3.6,baz=146,slow=4.9,SNR=3.9						
ISCO	**Idaho Springs**	**24.53**	**347**	eP	**P**	**21 19 51.3**	**+1.7**
	2.8nm,0.9s,mb3.8						
WCI	**Wyandotte Cave**	**24.73**	**24**	eP	**P**	**21 19 52.1**	**+0.6**
	9.6nm,0.8s,mb4.4						
SDV	**Santo Domingo**	**28.24**	**101**	P	**P**	**21 20 24.8**	**+1.4**
	3.4nm,0.9s,mb4.0,baz=284,slow=12,SNR=4.2						
NVAR	**Mina Array Bea**	**28.28**	**326**	P	**P**	**21 20 25.1**	**+1.5**
	1.6nm,0.9s,mb3.6,baz=154,slow=10,SNR=6.7						
PDAR	**Pinedale Array**	**28.31**	**343**	P	**P**	**21 20 24.5**	**+0.8**
	1.5nm,0.9s,mb3.6,baz=152,slow=6.7,SNR=10.0						
SCHQ	**Schefferville**	**45.92**	**25**	P	**P**	**21 22 51.8**	**-1.0**
	3.8nm,0.9s,mb4.3,baz=250,slow=6.0,SNR=6.5						
YKA	**Yellowknife Ar**	**47.83**	**350**	P	**P**	**21 23 06.8**	**-0.7**
	0.4nm,0.7s,mb3.6,baz=159,slow=7.3,SNR=6.5						

IDC 09 21:14:37.7±2.1, **6°.78S**×**129°.54E**, **h0**^{km}, **mb3.7**/1, **mb1 3.4**/3, **mb1mx3.3**/16, **mbtmp3.3**/3, **ML3.3**/1, **Error ellipse: s-maj=142.4km s-min=31.4km az=68.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**13.89**	**161**	Pn	Pn	21 17 55.9	0.0
	0.1nm,0.3s,baz=344,slow=13,SNR=8.0						
WRA				Sn	Sn	21 20 15.7	-15
	0.3nm,0.3s,baz=330,slow=23,SNR=8.1						
ASAR	**Alice Springs**	**17.30**	**166**	P	Pn	21 18 41.0	+0.1
	0.1nm,0.3s,baz=334,slow=10,SNR=4.7						
MKAR	**Makanchi Array**	**67.79**	**327**	P	P	21 25 37.5	+0.1
	0.3nm,0.4s,baz=114,slow=7.9,SNR=11						

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*IDC **09** 21:21:07.7±0.7, 33°.85S×71°.90W, h0^{km}, mb4.2/10, mb1 4.3/11, mb1mx4.2/19, mbtmp4.2/11, ML4.4/1, MS3.9/6, Ms1 3.9/6, ms1mx3.5/26, Error ellipse: s-maj=30.8km s-min=17.3km az=82.0*

*ISCJB **09** 21:21:09.8±1.4, 33°.90S±0°.03×72°.31W±0°.04, h31^{km}±10^{km}, mb4.5/12, MS4.2/3, Error ellipse: s-maj=6.3km s-min=4.6km az=24.7*

*GUC **09** 21:21:10.4±0.7, 33°.94S×72°.18W, h32^{km}±4^{km}, MD4.4, ML4.5*

*NEIC **09** 21:21:10.4, 33°.94S×72°.18W, h32^{km}, ML4.5(GUC), After GUC.*

ISC 09 21:21:09.9±1.3, **33°.91S**±0°.03×**72°.22W**±0°.05, **h16**^{km}±8^{km}, **n62,** σ**0^s.96**/86, **mb4.5**/12, **MS4.2**/3, **14C-7D, Off coast of**

central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IHA	**Instituto Hidr**	1.01	29	⇑*i*P	Pb	21 21 28.7	-0.2
IHA				*i* S	Sb	21 21 42.0	+0.1
IHA	**Instituto Hidr**	1.01	29	⇑*i*P	Pb	21 21 28.7	-0.2
IHA				*i* S	Sb	21 21 42.0	+0.1
TACH	**Talagante**	1.10	77	⇑*i*P	Pb	21 21 29.3	-1.2
TACH	**Talagante**	1.10	77	⇑*i*P	Pb	21 21 29.3	-1.2
CHCH	**Chadas Angostu**	1.30	91	⇑*i*P	Pn	21 21 32.7	-0.7
CHCH	**Chadas Angostu**	1.30	91	⇑*i*P	Pn	21 21 32.7	-0.7
CACH	**El Canelo**	1.36	99	⇓*i*P	Pn	21 21 34.1	0.0
CACH	**El Canelo**	1.36	99	⇓*i*P	Pn	21 21 34.1	0.0
NICH	**Los Niches**	1.36	143	⇓*i*P	Pn	21 21 33.6	-0.6
NICH				*i* S	Sn	21 21 50.7	-1.2
ANTU	**Antumapu**	1.37	76	*i* P	Pn	21 21 33.9	-0.4
ANTU				*i* S	Sn	21 21 51.3	-0.7
ANTU	**Antumapu**	1.37	76	*i* P	Pn	21 21 33.9	-0.4
ANTU				*i* S	Sn	21 21 51.3	-0.7
ANTU				AML	AML	21 21 53.2	
	comp=E,10µm,0.4s						
SAN	**Santiago**	1.38	71	⇑*i*P	Pn	21 21 34.3	-0.1
SAN				*i* S	Sn	21 21 51.9	-0.4
SAN	**Santiago**	1.38	71	⇑*i*P	Pn	21 21 34.3	-0.1
SAN				*i* S	Sn	21 21 51.9	-0.4
SAN				AML	AML	21 21 59.4	
	comp=N,9µm,0.7s						
ROCH	**El Roble**	1.38	48	*i* P	Pn	21 21 34.7	+0.3
ROCH				*i* S	Sn	21 21 53.0	+0.7
ROCH	**El Roble**	1.38	48	*i* P	Pn	21 21 34.7	+0.3
ROCH				*i* S	Sn	21 21 53.0	+0.7
PCH	**Pirque**	1.45	79	⇑*i*P	Pn	21 21 34.9	-0.5
PCH	**Pirque**	1.45	79	⇑*i*P	Pn	21 21 34.9	-0.5
FSR	**Penalolen**	1.48	73	⇑*i*P	Pn	21 21 36.0	+0.2
FSR				*i* S	Sn	21 21 54.8	+0.1
FSR	**Penalolen**	1.48	73	⇑*i*P	Pn	21 21 36.0	+0.2
FSR				*i* S	Sn	21 21 54.8	+0.1
PEL	**Peldehue**	1.50	60	*e*P	Pn	21 21 36.4	+0.4
PEL				*e*S	Sn	21 21 55.3	+0.1
PEL				AML	AML	21 22 04.3	
	comp=E,16µm,0.4s						
CLCH	**Cerro Calan**	1.50	70	*e*P	Pn	21 21 36.9	+0.9
CLCH				*i* S	Sn	21 21 56.5	+1.3
CLCH	**Cerro Calan**	1.50	70	*e*P	Pn	21 21 36.9	+0.9
CLCH				*i* S	Sn	21 21 56.5	+1.3
CLCH				AML	AML	21 22 05.7	
	comp=N,11µm,0.6s						
PACH	**Papudo**	1.52	26	*i* P	Pn	21 21 33.8	-2.6
PACH				*i* S	Sn	21 21 53.7	-2.1
PACH	**Papudo**	1.52	26	*i* P	Pn	21 21 33.8	-2.6
PACH				*i* S	Sn	21 21 53.7	-2.1
CICH	**Cipreses**	1.55	106	⇑*i*P	Pn	21 21 36.5	-0.3
TALC	**Talca**	1.56	162	*e*P	Pn	21 21 35.8	-1.1
TALC				*i* S	Sn	21 21 56.4	-0.4
TALC	**Talca**	1.56	162	*e*P	Pn	21 21 35.8	-1.1
TALC				*i* S	Sn	21 21 56.4	-0.4
TALC				AML	AML	21 21 57.7	
	comp=N,21µm,0.4s						
SJCH	**San Jose de Ma**	1.58	81	*e*P	Pn	21 21 37.1	0.0
SJCH				*i* S	Sn	21 21 57.2	0.0
SJCH	**San Jose de Ma**	1.58	81	*e*P	Pn	21 21 37.1	0.0
SJCH				*i* S	Sn	21 21 57.2	0.0
SJCH				AML	AML	21 22 03.0	
	comp=E,6µm,0.7s						
LMEL	**Las Melosas**	1.68	88	⇓*i*P	Pn	21 21 38.7	+0.2
LMEL				*i* S	Sn	21 22 00.5	+0.8
LMEL	**Las Melosas**	1.68	88	⇓*i*P	Pn	21 21 38.7	+0.2
LMEL				*i* S	Sn	21 22 00.5	+0.8
LMEL				AML	AML	21 22 06.6	
	comp=E,7µm,0.4s						
FCH	**Farellones**	1.71	71	⇑*i*P	Pn	21 21 40.0	+1.0
FCH				*i* S	Sn	21 22 02.2	+1.7
FCH				AML	AML	21 22 08.3	
	comp=N,6µm,0.3s						
YECH	**El Yeso**	1.80	83	*e*P	Pn	21 21 36.0	-4.2
YECH				*i* S	Sn	21 21 58.9	-3.7
YECH				AML	AML	21 22 08.4	
	comp=N,9µm,0.4s						
JACH	**Jahuel**	1.83	48	⇓*i*P	Pn	21 21 41.3	+0.6
JACH				*i* S	Sn	21 22 04.8	+1.3
JACH	**Jahuel**	1.83	48	⇓*i*P	Pn	21 21 41.3	+0.6
JACH				*i* S	Sn	21 22 04.8	+1.3
OVCH	**Ovalle**	3.41	15	AML	AML	21 23 12.6	
	comp=N,1µm,0.6s						
CFAA	**Coronel Fontan**	4.07	57	Pn	Pn	21 22 12.8	+1.4
	comp=N,0.8nm,0.3s,baz=231,slow=13,SNR=32						
CFAA				Lg		21 23 08.6	
	comp=N,2.4nm,0.3s,baz=118,slow=18,SNR=3.4						
LCO	**Las Campanas**	5.06	15	*e*Pn	Pn	21 22 25.0	0.0
	comp=N,46nm,0.6s						
LCO				*e*Sn	Sn	21 23 21.4	-1.6
PLCA	**Paso Flores**	6.94	169	Pn	Pn	21 22 51.7	+1.0
	comp=N,1.7nm,0.3s,baz=336,slow=11,SNR=24						
PLCA				Lg		21 24 40.9	
	comp=N,0.7nm,0.3s,baz=26,slow=7.3,SNR=2.9						
PLCA				LR	LR	21 25 53.7	
	comp=N,490nm,20.7s,baz=350,slow=41						
PLCA	**Paso Flores**	6.94	169	Pn	Pn	21 22 51.7	+1.0
PLCA				Lg		21 24 40.9	
PLCA				LR	LR	21 25 53.7	
LVC	**Limon Verde**	11.63	15	Pn	Pn	21 23 50.8	-4.4
	comp=N,0.2nm,0.3s,baz=191,slow=10,SNR=2.3						
LVC				Sn	Sn	21 26 28.2	+23
	comp=N,0.4nm,0.3s,baz=193,slow=9.7,SNR=6.1						
LVC				LR	LR	21 28 38.8	
	comp=N,481nm,21.0s,baz=207,slow=39						
LVC	**Limon Verde**	11.63	15	Pn	Pn	21 23 50.8	-4.4
LVC				Sn	Sn	21 26 28.2	+23
LVC				LR	LR	21 28 38.8	
CPUP	**Villa Florida**	14.93	64	Pn	Pn	21 24 41.5	+1.3
	comp=N,0.3nm,0.3s,baz=223,slow=15,SNR=3.8						
CPUP				Sn	Sn	21 27 24.9	-0.4
	comp=N,0.4nm,0.3s,baz=183,slow=9.6,SNR=2.8						
CPUP				LR	LR	21 31 04.2	
	comp=N,597nm,19.0s,baz=222,slow=41						
CPUP	**Villa Florida**	14.93	64	Pn	Pn	21 24 41.5	+1.3
CPUP				Sn	Sn	21 27 24.9	-0.4
CPUP				LR	LR	21 31 04.2	
SIV	**San Ignacio**	20.48	32	P	P	21 25 46.4	-0.6
	comp=N,5.0nm,1.0s,baz=225,slow=9.9,SNR=11						
USHA	**Ushuaia**	21.08	174	P	P	21 25 55.2	+1.9
	comp=N,5.6nm,0.9s,mb3.9,baz=8.7,slow=13,SNR=3.0						
SDV	**Santo Domingo**	42.59	2	P	P	21 29 05.5	+0.3
	comp=N,1.8nm,0.6s,mb4.0,baz=288,slow=20,SNR=2.6						
TEIG	**Tepich**	55.97	342	P	P	21 30 48.2	+0.8
	comp=N,7.0nm,0.7s,mb4.8,baz=171,slow=8.6,SNR=5.5						
QSPA	**South Pole Qui**	56.32	180	P	P	21 30 50.7	+1.4
	comp=N,5.9nm,1.0s,mb4.6,baz=149,slow=5.0,SNR=9.1						
TXAR	**Lajitas Array**	69.58	331	P	P	21 32 19.6	+1.6
	comp=N,0.3nm,0.5s,mb3.5,baz=158,slow=8.6,SNR=12						
TXAR				LR	LR	21 58 16.3	
	comp=N,87nm,21.3s,MS4.0,baz=15,slow=32						
MAW	**Mawson**	73.31	164	LR	LR	22 06 12.6	
	comp=N,196nm,18.8s,MS4.4,baz=342,slow=37						
LIC	**Lamto**	74.89	72	*e*P	P	21 32 49.3	-0.9
	comp=N,58nm,1.9s,mb5.2						
TIC	**Toumodi**	75.15	71	*e*P	P	21 32 50.1	-1.6
	comp=N,5.9nm,0.2s,mb5.1						
KIC	**Kosan Boka**	75.20	72	*e*P	P	21 32 51.2	-0.8
	comp=N,44nm,1.3s,mb5.2						
DBIC	**Dimbokro**	75.30	71	P	P	21 32 51.5	-1.0
	comp=N,3.4nm,0.8s,mb4.3,baz=230,slow=6.2,SNR=5.4						
DBIC	**Dimbokro**	75.30	71	P	P	21 32 51.5	-1.0
BOSA	**Boshof**	80.25	118	P	P	21 33 19.3	-0.6
	comp=N,4.4nm,0.9s,mb4.4,baz=168,slow=4.5,SNR=4.2						
NVAR	**Mina Array Bea**	83.72	325	P	P	21 33 38.8	+1.0
	comp=N,0.3nm,0.5s,mb3.7,baz=147,slow=5.4,SNR=5.0						
TORD	**Torodi Ar. Bea**	84.32	70	P	P	21 33 40.8	-0.6
	comp=N,6.7nm,0.9s,mb4.8,baz=278,slow=2.7,SNR=43						
TORD				LR	LR	22 13 48.0	
	comp=N,76nm,18.1s,MS4.1,baz=240,slow=38						
WRA	**Warramunga Arr**	120.76	209	PKP	PKPdf	21 40 01.1	-0.5
	comp=N,0.5nm,0.5s,baz=153,slow=1.5,SNR=3.2						
ZALV	**Zalesovo Beam**	154.23	32	PKPbc	PKPbc	21 41 08.3	-0.1
	comp=N,2.7nm,0.5s,baz=315,slow=3.0,SNR=14						
MKAR	**Makanchi Array**	156.82	49	PKP	PKPdf	21 41 03.6	-0.4
	comp=N,0.4nm,0.9s,baz=270,slow=1.4,SNR=3.0						
MKAR				PKPab	PKPab	21 41 31.7	-2.1
	comp=N,0.7nm,0.6s,baz=295,slow=3.6,SNR=6.7						

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*BJI **09** 21:32:32.1, 1°.10S×125°.57E, h35^{km}, mB5.1/19, mb4.6/25, Ms4.9/13, Ms7 4.5/14*

*IDC **09** 21:32:35.8±0.6, 0°.25S×125°.14E, h0^{km}, mb4.3/17, mb1 4.4/18, mb1mx4.4/22, mbtmp4.3/18, ML3.8/1, MS3.4/3, Ms1 3.5/3, ms1mx3.0/27, Error ellipse: s-maj=25.3km s-min=13.8km az=71.0*

*MOS **09** 21:32:38.3±1.0, 0°.25S×125°.20E, h33^{km}, mb4.9/13, Error ellipse: s-maj=20.0km s-min=8.9km az=116.9*

*NEIC **09** 21:32:40.2±0.4, 0°.24S×125°.36E, h35^{km}, mb4.6/13, Error ellipse: s-maj=11.0km s-min=6.6km az=64.0*

*ISCJB **09** 21:32:40.3±0.8, 0°.27S±0°.04×125°.32E±0°.05, h49^{km}±8^{km}, mb4.5/49, MS3.8/4, Error ellipse: s-maj=8.2km s-min=6.4km az=144.5*

*DJA **09** 21:32:44, 0°.35S×125°.55E, h17^{km}, mb4.9/5*

ISC 09 21:32:42.5±0.7, 0°.29S±0°.04×125°.32E±0°.04, h52^{km}±7^{km}, h30^{km}±2.5^{km}:pP-P, n97, σ1s25/101, mb4.5/49, MS3.8/4, 4C-3D, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	2.31	63	P	Pn	21 33 20.0	+2.0
TNE	**Ternate**	2.31	62	⇓*e*P	Pn	21 33 17.0	-1.2
AAI	**Ambon**	4.43	140	⇑*e*P	Pn	21 33 48.6	+1.4
AAI				*e*S	Sn	21 34 36.4	-1.1
AAI	**Ambon**	4.43	140	P	Pn	21 33 48.3	+1.1
KDI	**Kendari**	4.53	216	⇓*e*P	Pn	21 33 50.7	+2.1
KDI				*e*S	Sn	21 34 35.4	-4.6
KDI	**Kendari**	4.53	216	P	Pn	21 33 47.6	-1.0
PCI	**Palu**	5.51	264	*e*P	Pn	21 34 02.5	+0.4
PCI	**Palu**	5.51	264	P	Pn	21 34 05.0	+2.9
PCI				S	Sn	21 35 23.5	+19
KAPI	**Kappang**	7.27	230	*e*Pn	Pn	21 34 26.0	-0.2
DAV	**Davao City (W)**	7.32	2	LR	LR	21 37 18.8	
	comp=Z,379nm,21.1s,baz=193,slow=39						
MYLDM	**Lahad Datu**	8.71	309	P	Px	21 34 58.9	
KKM	**Kota Kinabalu**	11.05	305	*e*Pn	Pn	21 35 16.9	-1.1
KAKA	**Kakadu**	14.22	150	*e*P	Pn	21 35 58.9	-2.2
	22nm,0.7s						
KAKA	**Kakadu**	14.22	150	*e*Pn	Pn	21 35 58.7	-2.4
	68nm,0.7s						
KAKA	**Kakadu**	14.22	150	P	Pn	21 36 01.8	+0.7
	62nm,0.8s						
KSM	**Kuching**	15.11	277	*e*P	Pn	21 36 14.5	+1.7
	26nm,0.5s						
SJI	**Sawahan**	15.40	241	P	Pn	21 36 22.9	+6.4
	99nm,1.7s						
KNA	**Kununurra**	15.73	168	*e*P	Pn	21 36 20.6	-0.2
	46nm,0.9s						
FITZ	**Fitzroy Crossi**	17.70	179	*e*P	Pn	21 36 45.6	+0.2
	11nm,0.6s						
FITZ	**Fitzroy Crossi**	17.70	179	P	Pn	21 36 45.4	0.0
	0.3nm,0.3s,baz=192,slow=3.0,SNR=3.5						
FITZ				LR	LR	21 43 19.3	
	comp=Z,176nm,21.9s,baz=102,slow=36						
FITZ	**Fitzroy Crossi**	17.70	179	*e*P	Pn	21 36 44.5	-0.9
	7.5nm,1.0s						
LEM	**Lembang**	18.81	249	P	Pn	21 37 00.7	+1.8
	160nm,1.1s						
WRAB	**Tennant Creek**	21.43	156	*e*P	P	21 37 25.7	-0.6
WRAB				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.2						
WRAB	**Tennant Creek**	21.43	156	*e*P	P	21 37 25.7	-0.6
	comp=Z,8.4nm,0.6s,mb4.2						
WRAB	**Tennant Creek**	21.43	156	P	P	21 37 33.2	+6.9
	comp=Z,24nm,1.4s,mb4.3						
WRA	**Warramunga Arr**	21.43	156	P	P	21 37 25.6	-0.7
	comp=Z,6.2nm,0.9s,mb4.0,baz=339,slow=12,SNR=17						
MBWA	**Marble Bar**	21.45	194	*e*P	P	21 37 27.2	+0.8
MBWA	**Marble Bar**	21.45	194	*e*P	P	21 37 25.6	-0.9
	comp=Z,13nm,1.3s,mb4.1						
XMIS	**Christmas Isla**	22.02	242	*e*P	P	21 37 32.0	-0.7
XMIS	**Christmas Isla**	22.02	242	*e*P	P	21 37 31.2	-1.5
COEN	**Coen**	22.29	128	*e*P	P	21 37 36.2	+0.7
COEN	**Coen**	22.29	128	*e*P	P	21 37 34.0	-1.5
	comp=Z,105nm,1.1s,mb5.2						
ASAR	**Alice Springs**	24.68	161	P	P	21 37 59.3	+0.6
	comp=Z,2.7nm,0.5s,mb4.0,baz=343,slow=9.6,SNR=22						
ASAR				PcP	PcP	21 41 36.2	+1.2
	comp=Z,0.6nm,0.4s,baz=343,slow=1.9,SNR=5.8						
PDSI	**Padang**	24.86	268	P	P	21 38 01.3	+0.9
PSI	**Prapat**	26.56	277	P	P	21 38 14.0	-1.9
	comp=Z,2.9nm,0.8s,mb3.9,baz=140,slow=7.1,SNR=3.8						
CMAR	**Chiang Mai Arr**	31.92	307	P	P	21 39 02.8	-0.5
CMAR						21 41 55.0	
CMAR	**Chiang Mai Arr**	31.92	307	P	P	21 39 02.8	-0.5
	comp=Z,1.2nm,0.8s,mb3.8,baz=136,slow=8.2,SNR=11						
CMAR				PcP	PcP	21 41 55.0	+2.0
	comp=Z,0.9nm,0.7s,baz=150,slow=2.0,SNR=7.4						
CMAR				LR	LR	21 51 03.6	
	comp=Z,44nm,20.3s,MS3.1,baz=100,slow=35						
GYA	**Guiyang**	32.10	327	*e*P	P	21 38 59.7	-5.1
GYA				pP	pP	21 39 09.3	-9.0
GYA				sP	sP	21 39 13.2	-11
GYA				S	S	21 44 05.7	-8.0
GYA				sS	sS	21 44 22.2	-14
GYA				SS	SS	21 45 59.0	-34
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
GYA				pmax	pmax		
	comp=Z,60nm,5.4s						
GYA				LR	LR		
	comp=N,330nm,10.9s,MS4.4						
GYA				LR	LR		
	comp=E,260nm,11.1s,MS4.4						
GYA				LR	LR		
	comp=Z,400nm,11.5s,MS4.3						
CHTO	**Chiang Mai**	32.11	308	*e*P	P	21 39 02.4	-2.6
CHTO				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
CHTO	**Chiang Mai**	32.11	308	*e*P	P	21 39 02.4	-2.6
	comp=Z,8.4nm,1.1s,mb4.5						
WHN	**Wuhan**	32.39	342	⇑P	P	21 39 11.3	+4.0
NJ2	**Nanjing**	32.74	350	*e*P	P	21 39 10.6	+0.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
KMI	**Kunming**	33.40	321	P	P	21 39 17.3	+1.1
KMI				pP	pP	21 39 27.5	-2.2
KMI				sP	sP	21 39 31.3	-4.6
KMI				PP	PP	21 40 29.8	-2.8
KMI				S	S	21 44 35.2	+1.4
KMI				sS	sS	21 44 53.0	-3.6
KMI				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.4						
KMI				pmax	pmax		
	comp=Z,160nm,4.1s						
KMI				LR	LR		
	comp=N,170nm,20.2s,MS3.9						
KMI				LR	LR		
	comp=E,190nm,24.0s,MS3.9						
KMI				LR	LR		
	comp=Z,100nm,24.8s,MS3.4						
STKA	**Stephens Creek**	34.98	155	*e*P	P	21 39 31.3	+1.5
	comp=Z,5.0nm,1.0s,mb4.4						
STKA	**Stephens Creek**	34.98	155	P	P	21 39 31.3	+1.5
	comp=Z,2.8nm,0.4s,mb4.5,baz=320,slow=7.3,SNR=12						
CMSA	**Cobar Meteorol**	36.58	150	*e*P	P	21 39 45.3	+1.8
CD2	**Chengdu**	37.18	328	P	P	21 39 48.8	+0.2
CD2				pP	pP	21 39 58.4	-3.8
CD2				sP	sP	21 40 02.4	-6.0
CD2				PP	PP	21 41 16.7	+2.4
CD2				S	S	21 45 33.6	+1.8
CD2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
CD2				pmax	pmax		
	comp=Z,90nm,4.9s						
CD2				LR	LR		
	comp=N,490nm,6.2s						
CD2				LR	LR		
	comp=Z,260nm,7.7s						
KSRS	**Korea Array**	37.63	3	P	P	21 39 52.9	+0.5
	comp=Z,1.6nm,0.8s,mb3.8,baz=179,slow=9.3,SNR=6.3						
MJAR	**Matsushiro Arr**	38.55	17	P	P	21 39 59.9	-0.2
	comp=Z,1.7nm,0.6s,mb4.0,baz=190,slow=8.8,SNR=7.2						
MJAR	**Matsushiro Arr**	38.55	17	P	P	21 39 59.9	-0.2
ARMA	**Armidale**	39.02	143	*e*P	P	21 40 06.4	+2.2
BJI	**Beijing**	41.00	349	P	P	21 40 16.8	-3.6
BJI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.1						
BJI				pmax	pmax		
	comp=Z,150nm,4.4s						
LZH	**Lanzhou**	41.34	333	*e*P	P	21 40 24.9	+1.6
LZH				pP	pP	21 40 31.0	-6.0
LZH				sP	sP	21 40 35.0	-8.2
LZH				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.5						
LZH				pmax	pmax		
	comp=Z,54nm,4.0s						
HHC	**Hu-ho-hao-te**	42.81	345	*e*P	P	21 40 36.2	+1.0
HHC				pP	pP	21 40 45.7	-3.3
HHC				sP	sP	21 40 49.9	-5.2
HHC				PP	PP	21 42 18.2	+2.7
HHC				PcS	PcS	21 46 18.0	+0.1
HHC				*e*S	S	21 46 57.7	+1.9
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
HHC				pmax	pmax		
	comp=Z,130nm,5.2s						
HHC				LR	LR		
	comp=N,140nm,17.0s,MS4.1						
HHC				LR	LR		
	comp=E,150nm,13.9s,MS4.1						
HHC				LR	LR		
	comp=Z,100nm,15.1s,MS3.8						
CN2	**Changchun**	43.90	0	*e*P	P	21 40 43.0	-0.9
LSA	**Lhasa**	44.16	315	*e*P	P	21 40 46.2	-0.1
LSA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
LSA	**Lhasa**	44.16	315	*e*P	P	21 40 46.2	-0.1
	comp=Z,5.6nm,0.6s,mb4.5						
GTA	**Gaotai**	45.89	332	*e*P	P	21 41 00.7	+0.9
GTA				pP	pP	21 41 09.9	-3.9
GTA				sP	sP	21 41 14.0	-5.9
GTA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
ULN	**Ulaanbaatar**	50.53	344	*e*P	P	21 41 34.6	-0.8
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
ULN	**Ulaanbaatar**	50.53	344	*e*P	P	21 41 34.6	-0.8
	comp=Z,1.6nm,0.6s,mb4.1						
SONM	**Songino Array**	50.68	344	P	P	21 41 35.9	-0.7
	comp=Z,2.0nm,0.7s,mb4.1,baz=160,slow=10.0,SNR=8.9						
ZAK	**Zakamensk**	53.88	343	*e*P	P	21 42 00.3	+0.1
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
WMQ	**Urumqi**	55.26	327	*e*P	P	21 42 10.6	+0.2
WMQ				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.5						
BOD	**Bodaibo**	58.63	353	*e*P	P	21 42 34.0	0.0
BOD				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
PETK	**Petropavlovsk-**	59.66	22	P	P	21 42 42.9	+1.7
	comp=Z,4.6nm,0.7s,mb4.6,baz=186,slow=5.0,SNR=9.6						
KSH	**Kashi**	59.95	317	*e*P	P	21 42 45.3	+1.8
KSH				*e*pP	pP	21 42 55.1	-2.8
KSH				*e*sP	sP	21 42 59.6	-4.3
KSH				*e*PcP	PcP	21 43 30.0	+0.7
KSH				*e*PP	PP	21 44 59.3	+3.0
KSH				*e*ScP	ScP	21 47 27.2	+1.0
KSH				*e*PcS	PcS	21 47 31.2	-0.4
KSH				*e*S	S	21 50 53.5	+1.5
KSH				*e*sS	sS	21 51 10.3	-6.0
KSH				*e*ScS	ScS	21 52 29.1	-0.6
KSH				*e*SS	SS	21 54 51.6	+2.2
KSH				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
KSH				pmax	pmax		
	comp=Z,110nm,2.7s,mb5.4						
KSH				LR	LR		
	comp=N,170nm,5.3s						
KSH				LR	LR		
	comp=E,270nm,4.5s						
KSH				LR	LR		
	comp=Z,140nm,4.2s						
MKAR	**Makanchi Array**	60.09	327	P	P	21 42 43.5	-0.8
	comp=Z,4.1nm,0.6s,mb4.7,baz=121,slow=7.9,SNR=44						
UCH	**Uchtor**	62.23	319	*e*P	P	21 42 57.9	-0.9
YAK	**Yakutsk**	62.25	2	*e*P	P	21 42 58.0	-0.6
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
YAK	**Yakutsk**	62.25	2	*e*P	P	21 42 58.5	-0.1
	comp=Z,12nm,0.7s,mb5.1						
AML	**Almayashu**	62.72	319	*e*P	P	21 43 02.8	+0.6
	comp=Z,4.8nm,0.6s,mb4.8						
ZALV	**Zalesovo Beam**	63.55	335	P	P	21 43 06.1	-1.3
	comp=Z,1.2nm,0.6s,mb4.1,baz=125,slow=7.4,SNR=6.3						
KURK	**Kurchatov**	64.40	329	*e*P	P	21 43 11.5	-1.6
KURK				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
KURK	**Kurchatov**	64.40	329	*e*P	P	21 43 11.5	-1.5
	comp=Z,9.4nm,0.6s,mb5.0						
SEY	**Seymchan**	66.24	13	*i* P	P	21 43 26.6	+1.9
BRVK	**Borovoye**	70.01	328	*e*P	P	21 43 47.0	-1.6
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
BRVK	**Borovoye**	70.01	328	*e*P	P	21 43 47.0	-1.6
	comp=Z,8.2nm,1.0s,mb4.6						
TIXI	**Tiksi**	71.86	1	⇑*e*P	P	21 43 59.1	-0.3
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
RDF	**Al-Radifah**	79.44	299	*e*P	P	21 44 41.8	-1.8
RDF				AMb	AMB	21 44 45.5	
	comp=Z,11nm,1.6s,mb4.5						
MIB	**Mutribah**	79.72	300	*e*P	P	21 44 43.6	-1.6
MIB				AMb	AMB	21 44 45.4	
	comp=Z,9.0nm,0.7s,mb4.8						
NAY	**Al-Naaiem**	79.74	300	*e*P	P	21 44 44.0	-1.4
NAY				AMb	AMB	21 44 48.3	
	comp=Z,3.0nm,0.7s,mb4.3						
GNI	**Garni**	82.98	310	⇑*e*P	P	21 45 05.3	+3.1
GNI				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KIV	**Kislovodsk**	84.89	314	*i* P	P	21 45 14.5	+2.6
KIV				*e*		21 48 27.7	
KIV				*e*SS	SS	22 01 13.6	+3.6
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.7						
PRGR	**Permogore**	85.35	332	*e*P	P	21 45 12.2	-1.6
PRGR				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.2						
MALT	**Malatya**	87.73	308	*e*P	P	21 45 25.4	-0.6
MALT				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.7						
MALT	**Malatya**	87.73	308	*e*P	P	21 45 25.4	-0.6
	comp=Z,4.5nm,1.1s,mb4.6						
VSR	**Storozhevoye**	87.81	321	*e*P	P	21 45 25.0	-1.0
VSR				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.9						
VSR				pmax	pmax		
	comp=N,1.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,3.0nm,0.4s						
KMBO	**Kilima Mbogo**	88.06	269	P	P	21 45 28.9	+0.9
	comp=E,2.4nm,0.7s,mb4.5,baz=83,slow=6.7,SNR=3.1						
ANN	**Anapa**	88.70	315	*e*P	P	21 45 29.1	-1.3
ANN				*e**PP	pP	21 45 36.7	-8.9
ANN				*e*		21 49 01.4	
ANN				*e*S	SKSac	21 55 55.4	-0.1
ANN				*e*SS	SS	22 02 01.5	-4.2
ANN				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.7						
ASF	**Jabal al Asfar**	88.81	302	P	P	21 45 32.3	+1.1
	comp=Z,3.6nm,0.8s,mb4.7,baz=310,slow=5.0,SNR=6.3						
OBN	**Obninsk**	89.52	325	⇓*e*P	P	21 45 33.4	-0.6
OBN				*e*		21 49 05.9	
OBN				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.2						
MMAI	**Mount Meron Ar**	90.09	303	P	P	21 45 38.2	+1.0
	comp=Z,0.8nm,0.6s,mb4.2,baz=104,slow=4.6,SNR=3.6						
BRTR	**Keskin Array B**	91.48	310	P	P	21 45 42.4	-1.1
	comp=Z,1.0nm,0.7s,mb4.2,baz=128,slow=2.8,SNR=5.7						
ARCES	**ARCESS Array B**	93.71	340	P	P	21 45 52.5	-0.6
	comp=Z,2.7nm,0.9s,mb4.7,baz=80,slow=6.5,SNR=3.9						
AKASG	**Malin Array Be**	94.09	321	P	P	21 45 53.9	-1.5
	comp=Z,0.4nm,0.4s,mb4.2,baz=70,slow=5.0,SNR=4.1						
TORD	**Torodi Ar. Bea**	122.72	285	PKP	PKPdf	21 51 33.8	+0.2
	comp=Z,1.2nm,0.7s,baz=47,slow=1.8,SNR=14						
SCHQ	**Schefferville**	124.73	9	PKP	PKPdf	21 51 37.4	+1.1
	comp=Z,1.4nm,0.9s,baz=12,slow=6.4,SNR=4.4						

IDC 09 21:55:24.4±1.3, 45°.82N×154°.18E, h0^{km}, mb3.5/3, mb1 3.7/4, mb1mx3.3/23, mbtmp3.4/4, ML2.9/1, Error ellipse: s-maj=45.6km s-min=32.4km az=119.0, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	**Petropavlovsk-**	7.64	16	Pn	Pn	21 57 18.3	+1.4
	0.2nm,0.3s,baz=198,slow=12,SNR=5.1						
MKAR	**Makanchi Array**	48.03	299	P	P	22 04 04.6	-0.5
	0.3nm,0.8s,baz=77,slow=6.4,SNR=2.3						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	71.57	200	P	P	22 06 47.7	+0.5
	0.6nm,0.8s,baz=16,slow=5.1,SNR=5.4						
TXAR	Lajitas Array	77.30	61	P	P	22 07 20.6	-0.2
	0.3nm,0.6s,baz=301,slow=4.5,SNR=4.9						

GUC 09 22:07:15.5±0.4, 23.69°S×67.96°W, h178km±4km, ML3.6, 2C, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.38	321	⇑iP	Pn	22 07 47.4	+1.2
LVC				iS	Sn	22 08 11.8	+1.9
LVC				AML	AML	22 08 13.4	
	comp=N,492nm,0.4s						
PECH	Pedro de Valdi	1.91	304	⇑iP	Pn	22 07 52.8	+1.3
PECH				iS	Sn	22 08 21.3	+2.0
PECH				AML	AML	22 08 22.4	
	comp=N,586nm,0.3s						
PB04	Plate Boundary	1.99	315	eP	Pn	22 07 59.0	+6.6
PB04				iS	Sn	22 08 32.3	+11
PB04				AML	AML	22 08 35.9	
	comp=E,172nm,0.8s						
CPN1	Cerro Paranal	2.42	247	AML	AML	22 08 26.6	
	comp=N,244nm,0.2s						
TOCH	Tocopilla	2.60	307	AML	AML	22 08 38.3	
	comp=E,158nm,0.1s						
PB01	Plate Boundary	2.98	331	eP	Pn	22 08 05.6	+1.7
PB01				iS	Sn	22 08 43.3	+1.8
PB01				AML	AML	22 08 47.1	
	comp=N,155nm,0.2s						
HMBC	Humberston	3.83	332	eP	Pn	22 08 15.3	+0.8
HMBC				eS	Sn	22 09 01.5	+1.0

IDC 09 22:23:26.1±2.4, 6.94°N×126.32°E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.4/20, mbtmp3.5/3, 1D, Error ellipse: s-maj=197.9km s-min=24.8km az=66.0, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	1.22	273	⇓iP	Pg	22 24 08.4	+19
KCP				iS	Sg	22 24 28.1	+23
WRA	Warramunga Arr	27.86	164	P	P	22 29 17.8	+0.1
	0.5nm,0.3s,baz=345,slow=9.6,SNR=5.4						
ASAR	Alice Springs	31.31	167	P	P	22 29 48.2	0.0
	0.5nm,0.4s,baz=343,slow=7.4,SNR=12						
MKAR	Makanchi Array	54.71	324	P	P	22 32 57.2	0.0
	0.2nm,0.4s,baz=120,slow=7.2,SNR=13						

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*NEIC **09** 22:31:47.8, 15.84°N×98.89°W, h28km, MD4.0(MEX), After MEX.*

MEX 09 22:31:47.8±0.9, 15.84°N×98.89°W, h28km±17km, MD4.0, Off coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.92	53	iP	Pn	22 32 02.3	-2.5
PNIG				iS	Sb	22 32 13.4	-3.5
ACX	Acapulco	1.41	316	iP	Pn	22 32 09.7	-2.0
CAIG	El Cayaco	1.78	312	iP	Pn	22 32 15.4	-1.3
CAIG				iS	Sn	22 32 34.1	-4.4
MEIG	Mezcala	2.18	342	iP	Pn	22 32 20.0	-2.3
MEIG				iS	Sn	22 32 45.7	-2.8
UTMO	Huajuapan	2.23	28	eP	Pn	22 32 21.9	-1.1
UTMO				iS	Sn	22 32 46.6	-3.1
VHO	Vista Hermosa	2.41	59	iP	Pn	22 32 22.6	-2.7
VHO				iS	Sn	22 32 53.2	-0.7
PLIG	Platanillo	2.60	347	iP	Pn	22 32 24.5	-3.6
PLIG				iS	Sn	22 32 54.9	-3.8
HUIG	Huatulco	2.68	91	iP	Pn	22 32 27.2	-1.9
HUIG				iS	Sn	22 32 57.3	-3.5
TPIG	Tehuac#an	2.95	30	iP	Pn	22 32 31.3	-1.6
TPIG				iS	Sn	22 33 04.8	-2.6
PPM	Popocatepetl	3.21	5	iP	Pn	22 32 31.2	-5.3
PPM				iS	Sn	22 33 13.4	-0.5
MZVM		3.34	355	iP	Pn	22 32 44.7	+6.5
IIO	Organos	3.73	2	iP	Pn	22 32 48.1	+4.5
CMIG	Matias Romero	4.04	72	iP	Pn	22 32 46.9	-1.0
CMIG				iS	Sn	22 33 31.8	-2.5

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*ISCJB **09** 22:34:56.1±1.0, 33.29°N±0.04°×140.91°E±0.09°, h62km±11km, mb3.8/2, Error ellipse: s-maj=12.6km s-min=7.3km az=7.3*

*JMA **09** 22:34:56.3±0.1, 33.33°N×140.95°E, h43km, M3.3*

*IDC **09** 22:34:59.3±3.4, 33.23°N×140.60°E, h67km±27km, mb3.4/2, mb1 3.5/3, mb1mx3.1/22, mbtmp3.3/3, ML3.0/1, Error ellipse: s-maj=61.1km s-min=13.6km az=83.0*

ISC 09 22:34:57.0±1.2, 33.28°N±0.05°×140.93°E±0.09°, h48km±16km, n14, σ0.94s/24, mb3.8/2, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	0.94	260	P	Pn	22 35 14.0	+0.1
JHJ2				eS	Sn	22 35 26.6	+0.3
JHJ	Hachijo jima 2	0.97	261	P	Pn	22 35 14.2	-0.1
	78nm,0.3s,baz=70,slow=22,SNR=29						
JHJ				S	Sn	22 35 25.7	-1.2
	149nm,0.3s,baz=50,slow=22,SNR=17						
BSO1	Boso 1	1.37	2	P	Pn	22 35 18.8	-0.8
BSO3	Boso 3	1.55	347	P	Pn	22 35 21.6	-0.5
BSO3				eS	Sn	22 35 40.2	-0.9
JKO	Kozu shima	1.74	302	P	Pn	22 35 25.3	+0.6
JKO				eS	Sn	22 35 46.6	+0.9
BSO4	Boso 4	1.77	344	P	Pn	22 35 25.4	+0.3
BSO4				eS	Sn	22 35 46.5	+0.1
JIM2	Oshima 3	1.89	319	P	Pn	22 35 26.5	-0.3
JIZS	Izushimoda	2.22	311	P	Pn	22 35 32.0	+0.7
JIZS				eS	Sn	22 35 57.5	0.0
KTJJ	Kamata 2	2.25	317	P	Pn	22 35 31.6	-0.1
KTJJ				eS	Sn	22 35 57.0	-1.2
JOD2	Odawara 2	2.49	323	P	Pn	22 35 35.2	+0.2
JOD2				eS	Sn	22 36 02.2	-2.0
MJAR	Matsushiro Arr	3.94	326	P	Pn	22 35 56.5	+1.6
	1.0nm,0.3s,baz=160,slow=13,SNR=10						
MJAR				S	Sn	22 36 39.6	-0.2
	1.0nm,0.3s,baz=133,slow=12,SNR=6.7						
MAT	Matsushiro	3.94	326	P	Pn	22 35 57.0	+2.1
MAT				S	Sn	22 36 42.7	+2.8
WRA	Warramunga Arr	53.30	188	P	P	22 44 10.6	-0.5
	0.5nm,0.3s,mb3.9,baz=6.0,slow=7.7,SNR=3.3						
ASAR	Alice Springs	57.03	188	P	P	22 44 37.8	-0.2
	0.4nm,0.5s,mb3.7,baz=3.7,slow=6.4,SNR=4.8						

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*IDC **09** 22:57:16.6±0.8, 0.34°S×125.11°E, h0km, mb4.1/9, mb1 4.3/10, mb1mx4.1/21, mbtmp4.1/10, ML3.7/1, MS3.3/1, Ms1 3.3/1, ms1mx2.7/27, Error ellipse: s-maj=53.9km s-min=15.2km az=70.0*

*ISCJB **09** 22:57:21.5±1.0, 0.32°S±0.05°×125.25°E±0.08°, h50km±11km, mb4.1/12, Error ellipse: s-maj=13.0km s-min=8.8km az=0.6*

*NEIC **09** 22:57:21.9±0.5, 0.30°S×125.37°E, h35km, mb4.1/4, Error ellipse: s-maj=17.4km s-min=8.9km az=80.0*

ISC 09 22:57:22.7±1.0, 0.31°S±0.05°×125.28°E±0.08°, h40km±11km, n27, σ1.14s/25, mb4.1/12, 2C-2D, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.80	346	⇓eP	Pn	22 57 51.0	-0.3
TNE	Ternate	2.36	62	⇓eP	Pn	22 57 58.0	-1.0
KDI	Kendari	4.49	216	⇑eP	Px	22 58 43.4	
KDI				eS	Sn	22 59 17.1	-2.1
PCI	Palu	5.47	264	⇑eP	Pn	22 58 45.0	+3.3
KAPI	Kappang	7.23	230	ePn	Pn	22 59 07.4	+1.5
DAV	Davao City (W)	7.34	2	LR	LR	23 02 01.2	
	comp=Z,246nm,21.6s,baz=194,slow=39						
KNA	Kununurra	15.72	167	eP	Pn	23 01 01.4	0.0
	36nm,0.9s						
FITZ	Fitzroy Crossi	17.68	179	eP	Pn	23 01 26.6	+0.6
	18nm,0.9s						
FITZ	Fitzroy Crossi	17.68	179	P	Pn	23 01 25.5	-0.5
	0.2nm,0.3s,baz=37,slow=8.3,SNR=4.4						
FITZ	Fitzroy Crossi	17.68	179	eP	Pn	23 01 26.8	+0.7
	11nm,0.9s						
MBWA	Marble Bar	21.41	194	eP	P	23 02 05.5	-1.8
	8.8nm,0.8s,mb4.1						
WRAB	Tennant Creek	21.43	156	eP	P	23 02 06.9	-0.6
	22nm,1.8s,mb4.2						
WRA	Warramunga Arr	21.43	156	P	P	23 02 06.5	-1.0
	6.0nm,0.8s,mb4.0,baz=338,slow=11,SNR=11						
COEN	Coen	22.31	128	eP	P	23 02 19.6	+2.7
ASAR	Alice Springs	24.68	161	P	P	23 02 39.6	-0.3
	6.6nm,1.1s,mb4.1,baz=343,slow=11,SNR=19						
STKA	Stephens Creek	34.98	155	eP	P	23 04 11.2	0.0
	4.2nm,0.9s,mb4.4						
STKA	Stephens Creek	34.98	155	P	P	23 04 11.2	-0.1
	5.5nm,0.9s,mb4.5,baz=333,slow=9.7,SNR=7.9						
STKA	Stephens Creek	34.98	155	eP	P	23 04 11.3	+0.1
	1.4nm,1.0s,mb3.9						
CMSA	Cobar Meteorol	36.58	150	eP	P	23 04 25.8	+0.9
YNG	Young	40.14	150	eP	P	23 04 56.8	+1.9
	6.6nm,0.8s,mb4.4						
SONM	Songino Array	50.69	344	P	P	23 06 18.2	0.0
	0.8nm,0.7s,mb3.8,baz=153,slow=9.2,SNR=5.4						
PETK	Petropavlovsk-	59.70	22	P	P	23 07 23.4	+0.4
	4.4nm,0.9s,mb4.5,baz=201,slow=7.7,SNR=3.0						
MKAR	Makanchi Array	60.09	327	P	P	23 07 24.4	-1.4
	0.7nm,0.4s,mb4.0,baz=127,slow=7.6,SNR=15						
ZALV	Zalesovo Beam	63.55	335	P	P	23 07 49.1	+0.2
	0.8nm,0.7s,mb3.9,baz=119,slow=7.6,SNR=4.3						
KURK	Kurchatov	64.40	329	P	P	23 07 54.6	0.0
	0.5nm,0.3s,mb4.0,baz=132,slow=6.0,SNR=4.4						
BVAR	Borovoye Array	69.93	328	P	P	23 08 29.3	-0.4
	0.6nm,0.7s,mb3.6,baz=147,slow=8.8,SNR=5.2						
TORD	Torodi Ar. Bea	122.69	285	PKP	PKPdf	23 16 14.5	-0.7
	0.4nm,0.8s,baz=52,slow=1.8,SNR=2.4						

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*DDA **09** 23:22:25.5, 35.54°N×27.58°E, h7km, Md3.0*

*NEIC **09** 23:22:27.6, 35.33°N×27.49°E, h13km, ML3.1(ATH), After ATH.*

*ATH **09** 23:22:27.6, 35.33°N×27.49°E, h13km±1km, MD3.1/5*

*ISK **09** 23:22:28.0, 35.62°N×27.19°E, h8km, MD3.1*

*ISCJB **09** 23:22:29.4±0.9, 35.52°N±0.08°×27.40°E±0.07°, h27km±5km, Error ellipse: s-maj=15.9km s-min=5.4km az=146.6*

*CSEM **09** 23:22:30.1±0.4, 35.60°N×27.30°E, h20km, MD3.1, Error ellipse: s-maj=15.8km s-min=4.4km az=140.0*

ISC 09 23:22:29.5±1.0, 35.52°N±0.08°×27.40°E±0.07°, h23km±6km, n32, σ1.00s/45, 2D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.20	279	⇓iPB	Pb	23 22 34.6	-0.4
KARP				eSB	Sb	23 22 39.6	+0.9
KARP	Karpathos	0.20	279	⇓iPb	Pb	23 22 34.6	-0.4
KARP				eSb	Sb	23 22 39.6	+0.9
ARG	Arkhangelos	0.91	40	ePB	Pb	23 22 47.1	+0.4
ARG	Arkhangelos	0.91	40	ePb	Pb	23 22 47.1	+0.4
ZKR	Zakros	1.05	248	ePB	Pb	23 22 47.7	-1.3
ZKR	Zakros	1.05	248	ePb	Pb	23 22 47.7	-1.3
DAT	Datca	1.22	7	ePN	Pn	23 22 50.3	-0.8
DAT				eSN	Sn	23 23 06.8	-0.1
DAT	Datca	1.22	7	ePn	Pn	23 22 50.3	-0.8
DAT				eSn	Sn	23 23 06.8	-0.1
NPS	Neapolis	1.48	261	ePB	Pb	23 22 55.7	-0.7
NPS	Neapolis	1.48	261	ePb	Pb	23 22 55.7	-0.7
BODT	Bodrum	1.54	357	ePN	Pn	23 22 55.0	-0.6
BODT	Bodrum	1.54	357	ePn	Pn	23 22 55.0	-0.6
BDRM	Kayabasi	1.55	1	eP	Pn	23 22 54.4	-1.3
BDRM				eS	Sn	23 23 14.7	-0.3
BDRM	Kayabasi	1.55	1	eP	Pn	23 22 54.4	-1.2
BDRM				eS	Sn	23 23 14.7	-0.3
DALT	Dalyan (Mudla)	1.60	38	ePN	Pn	23 22 58.0	+1.6
DALT				eSN	Sn	23 23 19.5	+3.2
DALT	Dalyan (Mudla)	1.60	38	ePn	Pn	23 22 58.0	+1.6
DALT				eSn	Sn	23 23 19.5	+3.2
LAST	Lasithi	1.61	258	ePB	Pb	23 22 58.5	-0.1
LAST	Lasithi	1.61	258	ePb	Pb	23 22 58.5	-0.1
TURN	Turunc	1.67	35	eP	Pn	23 22 55.1	-2.2
TURN				iS	Sn	23 23 14.6	-3.3
TURN	Turunc	1.67	35	eP	Pn	23 22 55.1	-2.2
YER	Yerkesik	1.77	24	ePN	Pn	23 22 58.7	0.0
YER	Yerkesik	1.77	24	ePn	Pn	23 22 58.7	+0.1
MLSB	Milas	1.80	10	ePN	Pn	23 22 59.2	+0.1
MLSB	Milas	1.80	10	ePn	Pn	23 22 59.2	+0.1
IDI	Anoyia	2.06	264	ePn	Pn	23 23 03.2	+0.5
IDI				eSn	Sn	23 23 29.1	+1.4
IDI	Anoyia	2.06	264	ePn	Pn	23 23 03.2	+0.5
IDI				eSn	Sn	23 23 29.1	+1.4
AYDN	Tasoluk	2.17	10	eP	Pn	23 23 04.8	+0.5
AYDN	Tasoluk	2.17	10	eP	Pn	23 23 04.8	+0.5
GCAM	G?zelcaml?	2.18	357	eP	Pn	23 23 04.9	+0.5
GCAM	G?zelcaml?	2.18	357	eP	Pn	23 23 04.9	+0.5
GOLH	Golhisar	2.45	45	eP	Pn	23 23 08.7	+0.6
GOLH				eS	Sb	23 23 42.9	+0.4
GOLH	Golhisar	2.45	45	eP	Pn	23 23 08.7	+0.7
GOLH				eS	Sb	23 23 42.9	+0.4

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*NEIC **09** 23:27:04.8, 15.38°N×99.38°W, h5km, MD3.8(MEX), After MEX.*

MEX 09 23:27:13.6±0.7, 15.77°N×98.84°W, h9km±20km, MD3.8, Off coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.92	48	iP	Pg	23 27 29.1	-2.2
PNIG				iS	Sg	23 27 40.1	-3.2
PNIG	Pinotepa	0.92	48	iP	Pg	23 27 29.1	-2.2
PNIG				iS	Sg	23 27 47.9	+4.5
CAIG	El Cayaco	1.87	313	iP	Pn	23 27 42.1	-3.6
CAIG				iS	Sn	23 28 05.7	-3.7
CAIG	El Cayaco	1.87	313	iP	Pn	23 27 34.6	-11
MEIG	Mezcala	2.27	341	iP	Pn	23 27 48.6	-2.6
MEIG				iS	Sn	23 28 14.1	-5.2
VHO	Vista Hermosa	2.40	57	iP	Pn	23 27 49.6	-3.4
VHO				iS	Sn	23 28 18.4	-4.2
VHO	Vista Hermosa	2.40	57	iP	Pn	23 27 51.6	-1.4
VHO				iS	Sn	23 28 28.6	+6.1
HUIG	Huatulco	2.63	90	iP	Pn	23 27 52.8	-3.4
HUIG				iS	Sn	23 28 24.3	-4.0
HUIG	Huatulco	2.63	90	iP	Pn	23 27 52.8	-3.4
HUIG				iS	Sn	23 28 31.3	+3.0
PLIG	Platanillo	2.68	346	iP	Pn	23 27 53.0	-3.9
PLIG				iS	Sn	23 28 27.6	-1.9
PLIG	Platanillo	2.68	346	iP	Pn	23 27 53.0	-3.9
PLIG				iS	Sn	23 28 25.2	-4.3
CMIG	Matias Romero	4.02	70	iP	Pn	23 28 12.9	-2.4
CMIG				iS	Sn	23 29 07.5	+5.0

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*SZGRF **10** 00:08:48.8, 17.19°S×177.84°W, h33km, Fiji Islands region*

*ISCJB **10** 00:09:40.5±1.3, 17.6°S±0.1°×178.7°W±0.1°, h497km±18km, mb4.3/28, Error ellipse: s-maj=23.5km s-min=10.5km az=139.6*

*NEIC **10** 00:09:40.8±1.5, 16.96°S×179.10°W, h465km±16km, mb4.3/7, Error ellipse: s-maj=28.6km s-min=12.1km az=149.0*

*BGS **10** 00:09:40.8±2.2, 16.96°S×179.10°W, h465km, mb4.3(NEIC)*

*IDC **10** 00:09:41.8±1.8, 17.73°S×178.64°W, h507km±20km, mb3.8/16, mb1 4.0/17, mb1mx3.9/22, mbtmp3.8/17, Error ellipse: s-maj=16.6km s-min=11.5km az=134.0*

ISC 10 00:09:41.9±1.2, 17.5°S±0.1°×178.7°W±0.1°, h498km±17km, n182, σ0.90s/39, mb4.3/28, 18C-36D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.59	63	P	P	00 11 33.8	-0.4
	10nm,0.3s,baz=174,slow=13,SNR=8.1						
AFI				S	S	00 12 56.4	-10
	1.2nm,0.3s,baz=0.0,slow=20,SNR=2.5						
OUZ	Omahuta	18.92	200	eP	P	00 13 33.9	+3.1
	7.2nm,0.4s						
URZ	Urewera	20.99	189	P	P	00 13 45.4	-4.1
	4.9nm,0.3s,baz=29,slow=10,SNR=11						
RPZ	Rata Peaks	27.52	196	P	P	00 14 45.9	-1.6
	5.4nm,0.6s,mb4.2,baz=32,slow=21,SNR=6.4						
EIDS	Eidsvold	29.11	249	eP	P	00 15 01.9	+0.1
	15nm,0.8s,mb4.5						
ARMA	Armidale	29.88	239	eP	P	00 15 09.6	+1.2
ARMA	Armidale	29.88	239	eP	P	00 15 09.7	+1.3
	9.4nm,0.6s,mb4.4						
CTA	Charters Tower	33.21	260	⇓iP	P	00 15 37.2	+0.1
	9.2nm,0.8s,mb4.3						
CTAO	Charters Tower	33.21	260	eP	P	00 15 36.9	-0.2
	5.5nm,0.7s,mb4.1						
CNB	Canberra Magne	33.43	232	eP	P	00 15 39.7	+1.0
CAN	Canberra	33.70	232	eP	P	00 15 42.1	+1.1
	2.0nm,0.6s,mb3.7						
TOO	Toolangi	37.18	230	⇓iP	P	00 16 10.7	+0.7
STKA	Stephens Creek	38.55	241	⇓iP	P	00 16 22.1	+0.8
	11nm,0.6s,mb4.5						
STKA	Stephens Creek	38.55	241	P	P	00 16 22.0	+0.7
	12nm,0.4s,mb4.6,baz=86,slow=8.9,SNR=28						
WRAB	Tennant Creek	44.39	259	eP	P	00 17 07.0	-0.8
	2.7nm,0.3s,mb4.2						
WRA	Warramunga Arr	44.40	259	P	P	00 17 06.9	-1.0
	2.8nm,0.3s,mb4.2,baz=94,slow=7.9,SNR=37						
WRA				PcP	PcP	00 18 39.6	-1.6
	2.2nm,0.6s,baz=95,slow=3.3,SNR=6.8						
ASAR	Alice Springs	44.60	254	P	P	00 17 09.3	-0.1
	53nm,0.7s,mb5.1,baz=87,slow=8.1,SNR=669						
ASAR				PcP	PcP	00 18 41.0	-0.9
	3.7nm,0.5s,baz=104,slow=3.9,SNR=7.8						
ASAR				S	S	00 23 04.2	-4.6
	0.7nm,0.8s,baz=90,slow=15,SNR=4.9						
KAKA	Kakadu	47.28	269	eP	P	00 17 29.5	-0.5
	31nm,0.4s,mb5.1						
KAKA	Kakadu	47.28	269	eP	P	00 17 29.6	-0.4
	93nm,0.6s,mb5.4						
FORT	Forrest	49.90	244	⇓iP	P	00 17 48.4	-0.9
	39nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	52.79	260	eP	P	00 18 10.4	-0.1
	6.9nm,0.3s,mb4.5						
KLBR	Kellerberrin	58.73	243	eP	P	00 18 50.4	-1.2
	19nm,0.7s,mb4.5						
MJAR	Matsushiro Arr	67.40	323	P	P	00 19 47.1	-0.1
	4.2nm,0.4s,mb4.4,baz=153,slow=5.8,SNR=24						
ASAJ	Asahikawa	70.78	332	P	P	00 20 08.5	+1.0
	5.1nm,0.4s,mb4.4,baz=185,slow=3.6,SNR=12						
PETK	Petropavlovsk-	73.21	345	P	P	00 20 21.7	+0.3
	3.6nm,0.6s,mb4.1,baz=107,slow=7.5,SNR=3.2						
KSRS	Korea Array	74.19	318	P	P	00 20 28.0	+0.6
	1.7nm,0.7s,mb3.7,baz=126,slow=6.1,SNR=8.4						
NVAR	Mina Array Bea	79.35	44	P	P	00 20 56.2	+0.5
	1.5nm,0.7s,mb3.6,baz=225,slow=9.1,SNR=15						
CN2	Changchun	79.51	322	eP	P	00 20 57.0	+0.6
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
PSI	Prapat	83.54	275	P	P	00 21 16.6	-1.2
	comp=Z,8.8nm,0.7s,mb4.4,baz=58,slow=5.9,SNR=10						
XAN	Xi'an	85.77	307	P	P	00 21 28.9	+0.6
XAN				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.6						
XAN				pmax	pmax		
	comp=Z,56nm,6.6s						
TXAR	Lajitas Array	86.04	58	P	P	00 21 30.7	+1.0
	comp=Z,1.3nm,0.7s,mb3.7,baz=212,slow=6.3,SNR=22						
PDAR	Pinedale Array	87.28	44	P	P	00 21 35.2	0.0
	comp=Z,1.4nm,0.5s,mb3.9,baz=212,slow=3.2,SNR=15						
CMAR	Chiang Mai Arr	88.46	290	P	P	00 21 41.4	+0.1
	comp=Z,3.5nm,0.8s,mb4.2,baz=108,slow=2.9,SNR=20						
CHTO	Chiang Mai	88.57	290	eP	P	00 21 42.1	+0.4
	comp=Z,7.6nm,1.1s,mb4.4						
LZH	Lanzhou	90.40	308	eP	P	00 21 55.5	+5.6
LZH				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.7						
LZH				pmax	pmax		
	comp=Z,99nm,5.0s						
SONM	Songino Array	93.05	319	P	P	00 22 00.3	-1.5
	comp=Z,0.7nm,0.5s,mb4.0,baz=132,slow=5.1,SNR=6.4						
YKA	Yellowknife Ar	94.10	25	P	P	00 22 04.9	-1.3
	comp=Z,0.8nm,0.6s,mb3.9,baz=247,slow=4.7,SNR=11						
ZALV	Zalesovo Beam	107.73	322	PKiKP	PKiKP	00 27 09.7	-2.1
	comp=Z,0.9nm,0.6s,baz=150,slow=3.2,SNR=7.3						
MKAR	Makanchi Array	108.63	314	PKiKP	PKiKP	00 27 11.4	-2.4
	comp=Z,1.0nm,0.5s,baz=179,slow=0.5,SNR=33						
BVAR	Borovoye Array	116.34	321	PKP	PKPdf	00 27 26.6	-1.6
	comp=Z,1.8nm,0.3s,baz=119,slow=2.4,SNR=22						
AKTK	Aktyubinsk	124.36	320	PKP	PKPdf	00 27 42.1	-1.7
AKTO	Aktyubinsk	124.36	320	PKP	PKPdf	00 27 42.1	-1.7
	comp=Z,2.2nm,0.8s,baz=105,slow=3.4,SNR=8.0						
ARCES	ARCESS Array B	125.87	350	PKP	PKPdf	00 27 44.6	-1.5
	comp=Z,1.9nm,0.6s,baz=14,slow=2.1,SNR=10						
NOA	NORSAR Array B	135.94	353	PKP	PKPdf	00 28 04.6	-0.7
	comp=Z,0.9nm,0.7s,baz=14,slow=3.7,SNR=2.7						
AKASG	Malin Array Be	140.06	332	PKhKP		00 28 04.8	
	comp=Z,0.5nm,0.3s,baz=44,slow=4.5,SNR=5.6						
AKASG				PKP	PKPdf	00 28 14.1	+0.8
	comp=Z,2.4nm,0.5s,baz=43,slow=3.1,SNR=7.2						
AKASG	Malin Array Be	140.06	332	PKP		00 28 04.8	
AKASG				PKP	PKPdf	00 28 14.1	+0.8
MALT	Malatya	141.52	310	⇑iP	PKPdf	00 28 14.4	-1.9
MALT	Malatya	141.52	310	⇑P	PKPdf	00 28 14.4	-1.8
EKA	Eskdalemuir Ar	142.09	4	PKhKP		00 28 11.1	
	comp=Z,1.3nm,0.8s,baz=341,slow=3.1,SNR=6.3						
BSEG	Bad Segeberg	142.97	351	ePKPbc	PKPdf	00 28 14.5	-3.8
HPK	Haverah Park	143.55	3	eP	PKPdf	00 28 16.7	-2.6
KWP	Kalwaria Pacla	143.58	336	ePKP	PKPdf	00 28 17.6	-1.9
KWP	Kalwaria Pacla	143.58	336	⇑iP	PKPdf	00 28 17.6	-1.9
KWP	Kalwaria Pacla	143.58	336	ePKP	PKPdf	00 28 17.6	-1.9
WME	Myndd Eilian	143.92	6	eP	PKPdf	00 28 18.0	-2.0
YRC	Rhoscolyn	144.04	6	eP	PKPdf	00 28 18.1	-2.1
TLCR		144.07	326	⇓iP	PKPdf	00 28 19.9	-0.6
TLCR		144.07	326	⇓P	PKPdf	00 28 19.9	-0.6
WPM1	Penmaenmawr	144.09	5	eP	PKPdf	00 28 18.5	-1.8
BURAR	Bucovina Array	144.12	332	⇓iP	PKPdf	00 28 20.6	+0.1
BURAR	Bucovina Array	144.12	332	⇓P	PKPdf	00 28 20.6	+0.1
OJC	Ojcow	144.13	340	ePKP	PKPdf	00 28 19.3	-1.1
BRTR	Keskin Array B	144.28	315	PKP	PKPdf	00 28 19.9	-1.1
	comp=Z,4.4nm,0.5s,baz=108,slow=1.5,SNR=37						
STHS	Stebnicka Huta	144.30	338	ePKP	PKPdf	00 28 20.6	-0.2
KOLS	Kolonicke sedl	144.31	336	ePKP	PKPdf	00 28 20.4	-0.4
NRDL	Niedersach Rie	144.40	351	ePKPbc	PKPdf	00 28 19.7	-1.1
SBD1	Bryn Du	144.50	5	eP	PKPdf	00 28 20.0	-1.0
NIE	Niedzica	144.63	338	ePKP	PKPdf	00 28 21.5	+0.2
KSP	Ksiaz	144.64	343	ePKP	PKPdf	00 28 21.5	+0.2
KSP	Ksiaz	144.64	343	ePKP	PKPdf	00 28 21.2	-0.1
CRVS	Cervenica-Dubn	144.65	337	ePKP	PKPdf	00 28 21.5	+0.1
VRI	Vrincioaia	144.68	329	⇑iP	PKPdf	00 28 21.6	+0.1
ASF	Jabal al Asfar	144.70	301	PKP	PKPdf	00 28 21.8	-0.2
	comp=Z,9.0nm,0.9s,baz=162,slow=3.2,SNR=11						
PLOR	Plostina	144.73	329	⇓iP	PKPdf	00 28 21.9	+0.3
CWF	Charnwood Fore	144.79	3	eP	PKPdf	00 28 20.8	-0.7
BMR	Baia Mare	144.82	334	⇑iP	PKPdf	00 28 21.8	+0.1
BMR	Baia Mare	144.82	334	⇑P	PKPdf	00 28 21.8	0.0
TRPA	Tarpa	144.85	335	⇑iP	PKPdf	00 28 21.3	-0.5
HARR	Harsova	144.87	326	⇑iP	PKPdf	00 28 22.8	+0.9
IBBN	Ibbenburen	144.90	353	ePKPbc	PKPdf	00 28 21.3	-0.4
CLZ	Clausthal	144.99	350	ePKPbc	PKPbc	00 28 21.6	-0.9
OKC	Ostrava-Krasne	144.99	341	ePKP	PKPdf	00 28 22.0	+0.1
CLL	Collm	145.00	347	ePKPbc	PKPbc	00 28 21.4	-1.1
CLL	Collm	145.00	347	⇓iPKPbc	PKPbc	00 28 21.8	-0.7
	comp=Z,20nm,0.6s						
DPC	Dobruska-Polom	145.08	343	ePKP	PKPdf	00 28 22.7	+0.6
DPC				ex	x	00 28 25.7	
BRG	Berggiesshubel	145.20	346	iPKP	PKPdf	00 28 22.5	+0.2
	comp=Z,12nm,0.8s						
MORC	Moravsky Berou	145.23	341	⇑iP	PKPdf	00 28 22.8	+0.4
MORC	Moravsky Berou	145.23	341	ePKPdf	PKPdf	00 28 22.3	-0.1
HTR	Trewern Hill	145.32	5	eP	PKPdf	00 28 22.3	-0.1
MLR	Muntele Rosu	145.33	329	⇑iP	PKPdf	00 28 23.0	+0.3
MLR	Muntele Rosu	145.33	329	PKPbc	PKPbc	00 28 23.1	-0.6
	comp=Z,4.4nm,0.6s,baz=310,slow=18,SNR=31						
PVCC	Panska Ves	145.37	345	ePKP	PKPdf	00 28 22.9	+0.3
PVCC				ex	x	00 28 26.2	
MCH1	Michaelchurch	145.42	5	eP	PKPdf	00 28 22.2	-0.4
HGH	Gray Hill	145.79	5	eP	PKPdf	00 28 23.6	+0.3
VOIR		145.81	330	⇑iP	PKPab	00 28 25.8	-0.8
SKP1	Kophill	145.82	2	eP	PKPdf	00 28 23.6	+0.3
DRGR		145.84	333	⇓iP	PKPdf	00 28 24.6	+1.1
PRU	Pruhonice	145.88	345	ePKP	PKPdf	00 28 24.7	+1.3
VYHS	Vyhne	145.93	339	ePKP	PKPdf	00 28 25.1	+1.5
VYHS	Vyhne	145.93	339	eP	PKPdf	00 28 25.2	+1.6
VRAC	Vranov	145.94	342	⇑iP	PKPdf	00 28 25.2	+1.6
VRAC	Vranov	145.94	342	PKPbc	PKPbc	00 28 24.6	-0.7
	comp=Z,4.0nm,0.6s,baz=49,slow=1.4,SNR=6.2						
VRAC	Vranov	145.94	342	⇑P	PKPdf	00 28 25.2	+1.6
TANN	Tannenbergstha	145.96	347	ePKPbc	PKPbc	00 28 24.6	-0.7
SWN1	Swindon	145.98	3	eP	PKPdf	00 28 24.5	+0.9
PSZ	Piszkesteto	146.05	337	⇑iP	PKPdf	00 28 22.5	-1.3
PSZ	Piszkesteto	146.05	337	ePKPbc	PKPbc	00 28 25.4	-0.2
NKC	Novy Kostel	146.14	347	ePKP	PKPbc	00 28 25.5	-0.3
WOL	Wolverton	146.21	3	eP	PKPdf	00 28 25.1	+1.1
TREC	Trest	146.26	343	ePKP	PKPdf	00 28 25.6	+1.5
MANZ	Manzenberg	146.44	347	ePKPbc	PKPbc	00 28 26.2	-0.5
TFO1	Folkestone	146.47	0	eP	PKPdf	00 28 25.5	+1.1
MODS	Modra-Piesok	146.55	341	ePKP	PKPbc	00 28 27.5	+0.4
ROTZ	Rotzenmuhle	146.63	347	ePKPbc	PKPbc	00 28 26.7	-0.5
UCC	Uccle	146.69	356	PKPbc	PKPbc	00 28 26.4	-0.9
MEM	Membach	146.76	354	PKPbc	PKPbc	00 28 27.0	-0.5
ZST	Bratislava	146.77	341	ePKP	PKPbc	00 28 27.9	+0.3
TNS	Taunus Mts	146.86	352	ePKPbc	PKPbc	00 28 27.0	-0.8
GZR	Gura Zlata	146.90	332	⇑iP	PKPbc	00 28 27.3	-0.8
GZR	Gura Zlata	146.90	332	⇑P	PKPbc	00 28 27.3	-0.8
GRA1	Grafenberg Arr	146.90	348	ePKPbc	PKPbc	00 28 26.7	-1.3

GRF	Grafenberg Arr	146.90	348	ePKPbc	PKPbc	00 28 26.7	-1.3
KHC	Kasperske Hory	146.91	345	ePKP	PKPbc	00 28 27.6	-0.4
KHC				ex	x	00 28 30.9	
SNF	Seneffe	146.99	356	PKPbc	PKPbc	00 28 27.8	-0.4
BCLA	Clavier	147.01	355	PKPab	PKPab	00 28 30.5	-0.7
GEC2	GERESS Array S	147.15	345	ePKPbc	PKPbc	00 28 27.9	-0.7
GERES	GERESS Array B	147.15	345	PKPbc	PKPbc	00 28 28.1	-0.5
	comp=Z,7.4nm,0.6s,baz=22,slow=3.0,SNR=93						
BZS	Buzias	147.24	333	⇓iP	PKPbc	00 28 28.2	-0.8
BZS	Buzias	147.24	333	⇓P	PKPbc	00 28 28.2	-0.8
GIVF	Givet	147.36	356	⇓iPKP1	PKPbc	00 28 28.5	-0.6
	comp=Z,14nm,0.6s						
DOU	Dourbes	147.38	356	PKPbc	PKPbc	00 28 28.6	-0.6
CONA	Conrad Observa	147.39	342	i PKPbc	PKPbc	00 28 29.1	-0.2
	comp=Z,12nm,0.6s,SNR=18						
CSNA	Conrad Observa	147.39	342	⇓iPKPbc	PKPbc	00 28 29.1	-0.2
	comp=Z,11nm,0.6s						
BAIF	Baives	147.44	356	⇓iPKP1	PKPbc	00 28 28.9	-0.5
	comp=Z,15nm,0.6s						
WLF	Walferdange	147.68	354	PKPbc	PKPbc	00 28 30.0	0.0
WLF	Walferdange	147.68	354	ePKPbc	PKPbc	00 28 29.9	-0.1
WLF	Walferdange	147.68	354	ePKPbc	PKPbc	00 28 30.2	+0.2
STU	Stuttgart	148.15	350	ePKPbc	PKPbc	00 28 30.6	-0.6
STU				ePKPab	PKPab	00 28 34.8	-1.1
JSA	Saint Aubin	148.28	4	eP	PKPbc	00 28 30.4	-1.1
FUR	Furstenfeldbru	148.34	347	ePKPbc	PKPbc	00 28 31.0	-0.7
RJOB	Jochberg	148.40	345	ePKPab	PKPab	00 28 36.7	-0.2
BFO	Black Forest	148.72	351	ePKPbc	PKPbc	00 28 31.6	-1.1
BFO				ePKPab	PKPab	00 28 37.2	-1.0
CDF	Champ du Feu	148.79	352	ePKP1	PKPbc	00 28 32.2	-0.6
	comp=Z,17nm,0.6s						
FLN	La Foliniere	148.79	2	⇓iPKP1	PKPbc	00 28 31.8	-1.0
	comp=Z,26nm,0.7s						
KBA	Koelnbreinsper	148.87	344	i PKPbc	PKPbc	00 28 31.8	-1.3
	comp=Z,7.4nm,0.5s,SNR=16						
MEZF	Maizieres J'vi	148.93	355	⇓iPKP1	PKPbc	00 28 32.8	-0.4
	comp=Z,16nm,0.7s						
LDF	La Druitiere	148.97	2	⇓iPKP1	PKPbc	00 28 32.1	-1.2
	comp=Z,11nm,0.5s						
ROSF	Rostrenen	149.03	6	ePKP1	PKPbc	00 28 32.3	-1.1
	comp=Z,6.8nm,0.5s						
WATA	Walderalm	149.06	346	⇓iPKPbc	PKPbc	00 28 32.3	-1.3
	comp=Z,7.5nm,0.4s,SNR=11						
RETA	Reutte	149.10	347	⇑iPKPbc	PKPbc	00 28 32.7	-0.9
	comp=Z,4.7nm,0.4s						
WTTA	Wattenberg	149.12	346	⇓iPKPbc	PKPbc	00 28 33.1	-0.6
	comp=Z,17nm,0.5s						
GRR	Gorron	149.15	3	⇓iPKP1	PKPbc	00 28 32.9	-0.8
	comp=Z,21nm,0.7s						
MOTA	Moosalm	149.16	347	⇑iPKPbc	PKPbc	00 28 32.7	-1.0
	comp=Z,4.2nm,0.4s						
SGMF	Saint Gilles	149.18	5	⇓iPKP1	PKPbc	00 28 32.7	-1.1
	comp=Z,29nm,0.9s						
HAU	Haudompre	149.30	353	⇓iPKP1	PKPbc	00 28 33.4	-0.7
	comp=Z,11nm,0.5s						
ABTA	Abfaltersbach	149.39	345	i PKPbc	PKPbc	00 28 33.0	-1.4
	comp=Z,12nm,0.5s,SNR=15						
HINF	Hinteralfeld	149.43	353	⇓iPKP1	PKPbc	00 28 33.4	-1.0
	comp=Z,6.5nm,0.6s						
QUIF	Quistinic	149.46	6	ePKP1	PKPbc	00 28 33.5	-0.9
FETA	Feichten	149.55	347	i PKPbc	PKPbc	00 28 34.2	-0.5
	comp=Z,11nm,1.1s,SNR=7.9						
DAVOX	Davos/Dischmat	149.95	348	PKPbc	PKPbc	00 28 35.6	-0.1
	comp=Z,16nm,0.4s,baz=301,slow=5.9,SNR=64						
LOR	Lormes	150.24	356	⇓iPKP1	PKPbc	00 28 35.7	-0.6
	comp=Z,20nm,0.5s						
HYF	Humbligny	150.30	358	⇓iPKP1	PKPbc	00 28 36.2	-0.3
SSF	Saint Saulge	150.47	357	⇓iPKP1	PKPbc	00 28 36.3	-0.6
	comp=Z,19nm,0.5s						
CABF	La Chapelle	150.70	353	⇓iPKP1	PKPbc	00 28 37.3	-0.1
	comp=Z,23nm,0.8s						
AVF	Avril sur Loir	150.75	357	⇓iPKP1	PKPbc	00 28 36.4	-1.1
	comp=Z,6.3nm,0.6s						
SMF	Signal de Mont	150.87	356	ePKP1	PKPbc	00 28 36.6	-1.2
MFF	Saint Martin d	150.96	2	⇓iPKP1	PKPbc	00 28 37.1	-0.9
	comp=Z,16nm,0.7s						
BGF	Bois d'Agland	151.00	358	⇓iPKP1	PKPbc	00 28 37.4	-0.7
	comp=Z,16nm,0.5s						
TCF	Toulx Ste Croi	151.29	359	⇓iPKP1	PKPbc	00 28 37.8	-1.0
	comp=Z,7.7nm,0.7s						
LPL	La Plagne	151.70	352	ePKP1	PKPbc	00 28 39.9	+0.2
	comp=Z,14nm,1.0s						
LPG	La Plagne	151.72	352	ePKP1	PKPbc	00 28 39.9	+0.1
	comp=Z,7.7nm,0.8s						
RJF	Les Rejaudoux	152.28	360	ePKP1	PKPbc	00 28 40.0	-1.0
	comp=Z,13nm,0.9s						
ORIF	Oris-en-Rattie	152.40	353	⇓iPKP1	PKPbc	00 28 40.8	-0.5
	comp=Z,7.4nm,0.7s						
MBDF	Montbardon	152.47	351	⇓iPKP1	PKPbc	00 28 40.9	-0.5
	comp=Z,14nm,0.7s						
IDI	Anoyia	152.52	315	PKPbc	PKPbc	00 28 41.5	-0.3
	comp=Z,6.1nm,0.6s,baz=328,slow=9.5,SNR=4.6						
VIVF	Saint-Julien-l	152.58	355	ePKP1	PKPbc	00 28 41.2	-0.5
	comp=Z,8.9nm,0.9s						
LFF	La Frestale	152.65	1	⇓iPKP1	PKPbc	00 28 40.7	-1.1
CAF	Calviac	152.66	359	ePKP1	PKPbc	00 28 41.1	-0.7
	comp=Z,4.4nm,0.6s						
ETSF	Etsaut	154.64	3	ePKP1	PKPbc	00 28 47.0	+0.9
	comp=Z,1.8nm,0.5s						
ESDC	Sonseca Array	157.45	11	PKPab	PKPab	00 29 15.0	-0.6
	comp=Z,0.3nm,0.4s,baz=344,slow=4.1,SNR=3.7						
KEST	Kesra	160.48	340	PKPab	PKPab	00 29 28.6	-0.4
	comp=Z,0.7nm,0.7s,baz=13,slow=3.9,SNR=4.2						
TORD	Torodi Ar. Bea	175.65	186	PKP	PKPdf	00 28 53.1	-2.2
	comp=Z,1.3nm,0.8s,baz=20,slow=0.8,SNR=8.6						
TORD				PKPab	PKPab	00 30 34.2	-2.1
	comp=Z,0.2nm,0.7s,baz=173,slow=3.8,SNR=2.5						

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*NEIC **10** 00:18:25.6, 32.°44N×115.°36W, h10^{km}, ML3.0(PAS), ML3.1(ECX), After ECX.*

*ISCJB **10** 00:18:26.5±0.4, 32.°51N±0.°03×115.°28W±0.°03, h27^{km}±4^{km}, Error ellipse: s-maj=4.4km s-min=3.8km az=24.3*

*ECX **10** 00:18:28.1±0.7, 32.°47N×115.°34W, h10^{km}, MD3.0, ML3.1*

ISC 10 00:18:26.5±0.4, **32.°51N**±0.°03×**115.°29W**±0.°03, **h24**^{km}±4^{km}, **n28,** $\sigma 0^{s}$**81**/43, **20C-7D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNR	Schaffner Ranc	0.38	340	⇓iP	Pb	00 18 35.9	+1.2
COA	Coachella	0.38	21	i P	Pb	00 18 35.9	+1.1
SGL	Mount Signal	0.40	291	⇑iP	Pb	00 18 34.8	-0.3
COK	Cook Ranch	0.51	313	eP	Pb	00 18 37.2	+0.4
EMX	El Mayor	0.52	176	⇓eP	Pb	00 18 36.2	-0.9
EMX				eS	Sb	00 18 43.9	-0.3
EMX				⇑e		00 18 45.2	
	comp=N,1µm,0.5s						
YUH	Yuha Desert	0.56	285	eP	Pb	00 18 37.2	-0.4
112A	Yuma	0.60	87	⇓P	Pb	00 18 38.3	0.0
	baz=0.6,SNR=98						
112A				⇓S	Sb	00 18 46.3	0.0
	baz=0.6						
SWSC	Sam W. Stewart	0.61	315	⇑P	Pb	00 18 38.4	-0.1
	baz=0.6,SNR=28						
SWSC				⇑S	Sb	00 18 46.2	-0.6
	baz=0.6						
GLA	Glamis	0.67	35	⇓P	Pb	00 18 39.5	0.0
	baz=0.7,SNR=30						
GLA				⇓S	Sb	00 18 48.3	-0.1
	baz=0.7						
GLA	Glamis	0.67	35	ePg	Pb	00 18 39.8	+0.2
GLA				eSg	Sb	00 18 49.3	+1.0
DVTC	Desert V Tower	0.70	283	⇑P	Pb	00 18 39.9	-0.2
	baz=0.7,SNR=17						
DVTC				⇓S	Sb	00 18 49.2	-0.2
	baz=0.7						
RDX	Rancho Dawling	0.80	224	⇑eP	Pb	00 18 41.3	-0.5
RDX				eS	Sb	00 18 51.3	-0.9
RDX				⇑e		00 18 52.7	
	comp=N,321nm,0.4s						
MONP	Monument Peak	1.03	292	⇑P	Pn	00 18 44.8	-0.6
	baz=1.0,SNR=28						
MONP				⇑S	Sb	00 18 58.5	-0.2
	baz=1.0						
ECBX	El Chinero	1.05	169	⇑eP	Pn	00 18 46.0	+0.3
ECBX				eS	Sb	00 18 60.0	+0.6
BC3	Big Chuckw Mtn	1.15	353	⇑P	Pn	00 18 46.6	-0.6
	baz=1.2,SNR=7.5						
BC3				⇑S	Sn	00 19 01.3	-0.8
	baz=1.2						
CBX	Cerro Bola	1.18	261	eP	Pn	00 18 48.2	+0.7
BAR	Barrett	1.18	279	ePg	Pn	00 18 48.1	+0.6
BAR				eSg	Sn	00 19 04.1	+1.2
113A	Mohawk Valley,	1.31	78	⇑P	Pn	00 18 48.7	-0.6
	baz=1.4,SNR=14						
ECNX	Esteban Cantu	1.40	233	ePN	Pn	00 18 51.2	+0.7
SPX	San Pedro Mart	1.47	186	ePN	Pn	00 18 54.1	+2.7
PFO	Pinyon Flat Ob	1.47	318	⇑P	Pn	00 18 50.9	-0.7
	baz=1.5						
PFO				⇑S	Sn	00 19 09.5	-0.5
	baz=1.5						
PFO	Pinyon Flat Ob	1.47	318	ePn	Pn	00 18 54.3	+2.8
PFO				eSn	Sn	00 19 08.7	-1.3
109C	Camp Elliot, M	1.58	284	⇑Pn	Pn	00 18 52.5	-0.5
	baz=1.6,SNR=8.3						
109C				⇑Sn	Sn	00 19 12.2	-0.4
	baz=1.6						
109C				⇑Sb	Sb	00 19 15.1	+0.5
	baz=1.6						
214A	Organ Pipe Nat	2.17	104	⇑Pn	Pn	00 19 00.1	-0.9
	baz=2.2,SNR=16						
115A	Sonoran Desert	2.59	85	⇑Pn	Pn	00 19 06.2	-0.7
	baz=2.6,SNR=7.2						
MWC	Mount Wilson	2.88	307	ePn	Pn	00 19 14.1	+3.1
GSC	Goldstone	3.06	336	ePn	Pb	00 19 28.2	+7.9
TUC	Tucson	3.81	92	ePg	Pb	00 19 38.8	+5.7

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*IDC **10** 00:20:17.1±1.5, 36.°13N×27.°06E, h0^{km}, mb3.4/2, mb1 3.1/3, mb1mx3.0/21, mbtmp3.1/3, ML2.2/1, Error ellipse: s-maj=89.7km s-min=19.2km az=149.0*

*ATH **10** 00:20:19.0, 35.°95N×27.°20E, h28^{km}±4^{km}, MD3.3/4*

*NEIC **10** 00:20:19.0, 35.°95N×27.°20E, h28^{km}, ML3.3(ATH), After ATH.*

*ISK **10** 00:20:19.7, 35.°97N×27.°27E, h18^{km}, MD3.3*

*ISCJB **10** 00:20:20.2±0.6, 35.°93N±0.°04×27.°21E±0.°05, h29^{km}±6^{km}, mb3.3/2, Error ellipse: s-maj=8.3km s-min=4.2km az=44.9*

*CSEM **10** 00:20:20.2±0.2, 35.°96N×27.°19E, h20^{km}, MD3.3, Error ellipse: s-maj=7.0km s-min=4.3km az=129.0*

*DDA **10** 00:20:28.1, 36.°61N×27.°58E, h8^{km}±4^{km}, Md3.2*

ISC 10 00:20:19.8±0.5, **35.°98N**±0.°03×**27.°17E**±0.°04, **h17**^{km}±4^{km}, **n44,** $\sigma 0^{s}$**77**/66, **mb3.3**/2, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.43	181	ePB	Pg	00 20 28.4	-0.2
KARP				eSB	Sg	00 20 34.6	+0.2
KARP	Karpathos	0.43	181	ePb	Pg	00 20 28.4	-0.2
KARP				eSb	Sg	00 20 34.6	+0.2
ARG	Arkhangelos	0.81	73	ePN	Pg	00 20 34.6	-0.9
ARG				eSN	Sg	00 20 46.5	+0.3
ARG	Arkhangelos	0.81	73	ePn	Pg	00 20 34.6	-0.9
ARG				eSn	Sg	00 20 46.5	+0.3
DAT	Datca	0.81	24	ePG	Pg	00 20 35.6	-0.1
DAT				eSG	Sg	00 20 47.4	+0.9
DAT	Datca	0.81	24	ePg	Pg	00 20 35.6	-0.1
DAT				eSg	Sg	00 20 47.4	+1.0
BODT	Bodrum	1.08	6	ePN	Pg	00 20 41.0	+0.2
BODT				eSN	Sg	00 20 55.6	+0.7
BODT	Bodrum	1.08	6	ePn	Pg	00 20 41.0	+0.2
BODT				eSn	Sg	00 20 55.7	+0.7
BDRM	Kayabasi	1.10	11	eP	Pg	00 20 41.3	+0.1
BDRM				eS	Sg	00 20 54.5	-1.1
BDRM	Kayabasi	1.10	11	eP	Pg	00 20 41.3	+0.2
BDRM				eS	Sg	00 20 54.5	-1.1
MLSB	Milas	1.40	20	ePN	Pn	00 20 44.8	+0.2
MLSB	Milas	1.40	20	ePn	Pn	00 20 44.8	+0.2
DALT	Dalyan (Mudla)	1.42	56	ePN	Pn	00 20 44.5	-0.3
DALT	Dalyan (Mudla)	1.42	56	ePn	Pn	00 20 44.5	-0.4
NPS	Neapolis	1.46	241	ePN	Pn	00 20 45.5	+0.1
NPS				eSN	Sn	00 21 04.5	+0.4
NPS	Neapolis	1.46	241	ePn	Pn	00 20 45.5	+0.1
NPS				eSn	Sn	00 21 04.5	+0.4
TURN	Turunc	1.46	52	i P	Pn	00 20 41.5	-3.9
TURN				i S	Sn	00 20 57.0	-7.1
TURN	Turunc	1.46	52	i P	Pn	00 20 41.5	-3.9
YER	Yerkesik	1.46	38	ePN	Pn	00 20 45.2	-0.2
YER	Yerkesik	1.46	38	ePn	Pn	00 20 45.2	-0.2
FETY	Fethiye	1.68	67	ePN	Pn	00 20 48.0	-0.4
FETY				eSN	Sn	00 21 08.8	-0.7
FETY	Fethiye	1.68	67	ePn	Pn	00 20 48.0	-0.4
FETY				eSn	Sn	00 21 08.8	-0.7
GCAM	G?zelcaml?	1.72	2	eP	Pn	00 20 49.0	+0.1
GCAM				eS	Sg	00 21 18.6	+3.5
GCAM	G?zelcaml?	1.72	2	eP	Pn	00 20 49.0	+0.1
AYDN	Tasoluk	1.77	19	i P	Pg	00 20 53.2	-0.6
AYDN				eS	Sg	00 21 16.1	-0.7
AYDN	Tasoluk	1.77	19	i P	Pg	00 20 53.2	-0.6
AYDN				eS	Sg	00 21 16.1	-0.7
IDI	Anoyia	1.98	250	ePN	Pn	00 20 52.9	+0.3
IDI	Anoyia	1.98	250	Pn	Pn	00 20 52.2	-0.4
	4.6nm,0.3s,baz=60,slow=16,SNR=52						
IDI				Sn	Sn	00 21 16.0	-1.1
	26nm,0.3s,baz=72,slow=16,SNR=12						
IDI	Anoyia	1.98	250	ePn	Pn	00 20 52.9	+0.3
IDI				Sn	Sn	00 21 16.0	-1.0
GOLH	Golhisar	2.29	56	i P	Pn	00 20 59.1	+2.3
GOLH				eS	Sg	00 21 29.5	-4.1
GOLH	Golhisar	2.29	56	i P	Pn	00 20 59.2	+2.3
ELL	Elmali	2.34	70	ePN	Pn	00 20 57.1	-0.4
ELL	Elmali	2.34	70	ePn	Pn	00 20 57.1	-0.4
MANT	Manisa	2.74	23	eP	Pg	00 21 11.9	-0.4
BCK	Bucak	3.12	61	ePN	Pn	00 21 09.0	+0.8
BCK	Bucak	3.12	61	ePn	Pn	00 21 09.0	+0.8
ALT	Altintas	3.86	36	ePN	Pn	00 21 19.1	+0.7
ALT	Altintas	3.86	36	ePn	Pn	00 21 19.1	+0.8
CSS	Prodhromos	5.13	100	ePn	Pn	00 21 37.2	+1.3
CSS				eSn	Sn	00 22 23.6	-11
CSS	Prodhromos	5.13	100	ePn	Pn	00 21 37.2	+1.4
BRTR	Keskin Array B	6.34	52	Pn	Pn	00 21 51.3	-1.1
	0.1nm,0.3s,baz=231,slow=16,SNR=2.6						
BRTR	Keskin Array B	6.34	52	Pn	Pn	00 21 51.3	-1.1
TORD	Torodi Ar. Bea	32.28	232	P	P	00 26 47.9	+0.1
	0.3nm,0.3s,mb3.6,baz=34,slow=8.8,SNR=12						
MKAR	Makanchi Array	41.95	57	P	P	00 28 09.5	-0.1
	0.1nm,0.3s,mb2.9,baz=268,slow=9.4,SNR=4.4						

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*NEIC **10** 00:24:06.1, 32.°46N×115.°30W, h13^{km}, ML3.2(PAS), ML3.4(ECX), After ECX.*

ECX 10 00:24:08.1±0.6, **32.°48N×115.°26W, h10**^{km}**, MD3.3, ML3.4, 3C-2D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	Mount Signal	0.43	293	⇑iP	Pg	00 24 15.6	-0.9
EMX	El Mayor	0.49	178	⇓eP	Pg	00 24 17.1	-0.6
EMX				eS	Sg	00 24 23.9	-0.2
EMX				e		00 24 25.6	
	comp=N,1µm,0.2s						
COK	Cook Ranch	0.54	313	⇑iP	Pg	00 24 17.9	-0.6
YUH	Yuha Desert	0.58	287	eP	Pg	00 24 18.1	-1.4
YMD	Yuma Desert	0.61	83	eP	Pg	00 24 18.2	-1.7
GLA	Glamis	0.68	32	ePg	Pg	00 24 20.5	-0.7
GLA				eSg	Sg	00 24 30.0	0.0
RDX	Rancho Dawling	0.80	227	⇓eP	Pg	00 24 22.2	-1.3
RDX				eS	Sg	00 24 33.0	-0.9
RDX				⇑e		00 24 36.0	
	comp=N,1µm,0.6s						
ECBX	El Chinero	1.02	170	eP	Pg	00 24 26.8	-0.9
ECBX				eS	Sg	00 24 40.5	-0.6
CBX	Cerro Bola	1.20	262	eP	Pb	00 24 29.1	-1.8
BAR	Barrett	1.21	280	ePg	Pg	00 24 28.5	-2.8
BAR				eSg	Sg	00 24 43.9	-3.1
ECNX	Esteban Cantu	1.40	234	ePN	Pn	00 24 33.0	-0.7
ECNX				ePN	Pn	00 24 32.2	-1.5
SPX	San Pedro Mart	1.44	187	ePN	Pn	00 24 34.4	+0.1
PFO	Pinyon Flat Ob	1.51	319	ePn	Pn	00 24 35.2	0.0
LDFC	Landfair	2.59	3	ePn	Pn	00 24 53.2	+3.1
LDFC				eSn	Sn	00 25 24.7	+3.1
GSC	Goldstone	3.09	336	ePn	Pn	00 25 03.7	+6.8
GSC				eSg	Sg	00 25 51.6	+4.1
OSI	Osito Adit	3.59	307	ePn	Pn	00 25 03.6	-0.2
OSI				eSn	Sn	00 25 46.2	0.0
TUC	Tucson	3.79	91	ePn	Pn	00 25 06.4	-0.2
TUC				eSg	Sg	00 26 06.4	-3.4
WUAZ	Wupatki	4.42	46	ePn	Pn	00 25 15.7	+0.4
WUAZ				eSn	Sn	00 26 08.7	+1.9

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*NEIC **10** 00:32:10.0, 32.°46N×115.°26W, h7^{km}, ML3.5(PAS), ML3.6(ECX), After ECX.*

ECX 10 00:32:10.2±0.2, **32.°45N×115.°33W, h8**^{km}**, MD3.5, ML3.7, 3C-1D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.04	139	eP	Pg	00 32 13.0	+1.2
CPBX				eS	Sg	00 32 15.1	+2.2
SGL	Mount Signal	0.39	302	eP	Pg	00 32 19.6	+1.8
SNR	Schaffner Ranc	0.42	348	⇓iP	Pg	00 32 20.6	+2.2
COA	Coachella	0.45	23	eP	Pg	00 32 20.7	+1.7
EMX	El Mayor	0.46	170	eP	Pg	00 32 21.1	+1.9
EMX				eS	Sg	00 32 29.2	+4.0
EMX				⇑e		00 32 30.2	
	comp=E,3µm,0.6s						
EMX				⇑e		00 32 30.2	
	comp=N,5µm,0.5s						
YMD	Yuma Desert	0.68	81	⇑iP	Pg	00 32 23.6	+0.4
GLA	Glamis	0.74	35	ePg	Pg	00 32 24.7	+0.2
GLA				eSg	Sg	00 32 34.4	+0.3
ECBX	El Chinero	1.00	166	eP	Pg	00 32 30.9	+1.5
ECBX				eS	Sg	00 32 44.6	+2.2
CBX	Cerro Bola	1.13	264	eP	Pg	00 32 32.5	+0.6
CBX				eS	Sg	00 32 48.3	+1.6
BAR	Barrett	1.16	282	ePg	Pg	00 32 32.5	+0.1
BAR				eSg	Sg	00 32 48.6	+1.3
SPX	San Pedro Mart	1.40	185	eP	Pn	00 32 36.4	+0.4
PFO	Pinyon Flat Ob	1.50	321	ePn	Pn	00 32 36.5	-0.8
PFO				eS	Sn	00 32 60.0	+3.0
LDFC	Landfair	2.63	4	ePg	Pg	00 33 00.4	-0.2
LDFC				eSg	Sg	00 33 44.0	+9.3
MWC	Mount Wilson	2.89	309	ePg	Pg	00 33 04.9	-0.7
MWC				eSg	Sg	00 33 40.7	-2.3
GSC	Goldstone	3.10	337	ePn	Pn	00 33 01.0	+1.6
TUC	Tucson	3.85	91	ePn	Pn	00 33 09.3	-0.5
TUC				eSn	Sn	00 33 57.1	+1.9
ISA	Isabella	4.13	322	ePn	Pn	00 33 15.8	+2.2
WUAZ	Wupatki	4.49	46	ePn	Pn	00 33 20.9	+2.4
WUAZ				eSg	Sg	00 34 36.2	+1.7
MVCO	Mesa Verde	7.36	48	ePn	Pn	00 34 00.1	+2.2
	comp=N,6.0nm,0.7s						
MVCO				eSg	Sg	00 36 07.9	+1.6

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*NIED **10** 00:37:00, 34.°80N×140.°20E, h89^{km}, Mw5.0 Best double couple: M$_0$3.39000×10^{16} NP1:ϕ_s171.00000°, δ66.00000°, λ-95.00000°. NP2:ϕ_s4.00000°, δ24.00000°, λ-78.00000°.*

*BJI **10** 00:37:08.2, 34.°65N×140.°57E, h75^{km}, mB5.1/26, mb5.3/59, Ms4.3/44, Ms7 4.1/43*

*SZGRF **10** 00:37:10.5, 35.°42N×141.°47E, h33^{km}, mb5.2, Near east coast of eastern Honshu, Japan*

*ISCJB **10** 00:37:14.3±0.1, 34.°72N±0.°02×140.°17E±0.°02, h87^{km}, mb5.1/224, Error ellipse: s-maj=3.1km s-min=1.8km az=177.8*

*JMA **10** 00:37:15.6±0.2, 34.°79N×140.°24E, h95^{km}±2^{km}, M5.0 Broadband fault plane solution: P waves. NP1: ϕ_s44.00000°, δ31.00000°, λ-52.00000°. NP2:ϕ_s181.00000°, δ66.00000°, λ-110.00000°. Principal axes: T Plg19.0000°, Azm286.0000°; N Plg18.0000°, Azm189.0000°; P Plg63.0000°, Azm59.0000°;*

JMA Felt III J1.

*NEIC **10** 00:37:16.4±0.6, 34.°72N×140.°04E, h95^{km}±5^{km}, mb5.1/135, MW5.0(NIED) Error ellipse: s-maj=4.3km s-min=3.0km az=154.0*

NEIC Felt [III] at Yokohama and [II] at Sagamihara, Tokyo and Yokosuka. Also felt at Atsugi, Hayama, Kawasaki, Kunitachi, Machida, Numazu, Yachimata, Yamato and Zushi. Recorded [3 JMA] in Chiba, Shizuoka and Tokyo; [2 JMA] in Kanagawa and Yamanashi; [1 JMA] in Ibaraki, Nagano, Saitama and Tochigi.

*GCMT **10** 00:37:16.4±0.3, 34.°87N×140.°21E, h94^{km}±3^{km}, MW5.0/77, Moment Tensor Solution. s35,c37; s77,c120; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.80±.16; $M_{\theta\theta}$-1.06±.15; $M_{\phi\phi}$3.85±.16; $M_{r\theta}$-0.82±.10; $M_{\theta\phi}$0.49±.17; $M_{\phi r}$2.67±.10; Best double couple: M$_0$4.41600×10^{16} NP1:ϕ_s28.00000°, δ30.00000°, λ-54.00000°. NP2: ϕ_s168.00000°, δ66.00000°, λ-109.00000°. Principal axes: T 4.7960, Plg19.0000°, Azm272.0000°; N -0.7700, Plg17.0000°, Azm176.0000°; P -4.0360, Plg64.0000°, Azm47.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **10** 00:37:17.0±0.6, 34.°75N×140.°13E, h101^{km}±5^{km}, mb4.8/26, mb1 4.9/28, mb1mx4.9/30, mbtmp4.8/28, MS3.9/21, Ms1 3.9/21, ms1mx3.8/38 Error ellipse: s-maj=10.4km s-min=5.5km az=78.0*

*MOS **10** 00:37:17.7±0.8, 35.°10N×140.°09E, h105^{km}, mb5.1/106, Error ellipse: s-maj=7.2km s-min=4.1km az=107.4*

*BGS **10** 00:37:20.5±2.3, 34.°76N×137.°55E, h100^{km}±999^{km}, mb5.2*

*DJA **10** 00:37:26, 32.°34N×137.°79E, h10^{km}, mb5.3/8*

ISC 10 00:37:16.1±0.1, **34.°77N**±0.°02×**140.°16E**±0.°01, **h89**^{km}, **h89**^{km}±2.4^{km}**:pP-P, n981,** $\sigma 0^{s}$**89**/1006, **mb5.1**/224, **206C-192D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO4	Boso 4	0.26	33	P	Pn	00 37 29.7	+0.5
BSO3	Boso 3	0.29	84	P	Pn	00 37 29.5	+0.2
TATJ	Tateyama 2	0.34	319	⇓P	Pn	00 37 30.7	+1.1
TATJ				S	Sn	00 37 42.5	+2.9
KTR	Katsuura	0.40	18	P	Pn	00 37 30.2	+0.3
KTR				S	Sn	00 37 40.9	+0.7
JIM2	Oshima 3	0.60	265	⇓P	Pn	00 37 32.2	+0.7
JIM2				eS	Sn	00 37 44.2	+1.1
BSO1	Boso 1	0.68	100	P	Pn	00 37 31.8	-0.5
NJJJ	Nii jima 2	0.81	243	⇓P	Pn	00 37 34.9	+1.3
NJJJ				eS	Sn	00 37 49.8	+3.1
JMY	Miyakejima3	0.88	218	⇓P	Pn	00 37 35.1	+0.8
JMY				eS	Sn	00 37 50.3	+2.3
AJI	Ajiro2	0.92	288	⇓P	Pn	00 37 35.1	+0.3
TOK	Tokyo	0.97	340	⇓P	Pn	00 37 35.9	+0.5
JOD2	Odawara 2	1.01	299	⇓P	Pn	00 37 36.1	+0.3
JOD2				eS	Sn	00 37 51.3	+0.8
JKO	Kozu shima	1.03	236	⇓P	Pn	00 37 37.1	+1.1
JIZS	Izushimoda	1.06	267	⇓P	Pn	00 37 37.1	+0.8
JIZS				eS	Sn	00 37 53.4	+1.8
JYN	Shimob	1.51	299	⇑P	Pn	00 37 42.9	+1.0
JYN				eS	Sn	00 38 03.4	+2.0
JRY	Ryogami san	1.61	321	⇑P	Pn	00 37 43.5	+0.3
JRY				eS	Sn	00 38 04.7	+0.9
JSG	Sagara	1.63	267	P	Pn	00 37 45.6	+2.2
SHZ3	Shizuoka 3	1.63	281	⇑P	Pn	00 37 44.8	+1.4
JHJ	Hachijo jima 2	1.68	191	P	Pn	00 37 44.8	+0.8
	4µm,0.3s,baz=36,slow=19,SNR=522						
JHJ				S	Sn	00 38 06.7	+1.4
	9µm,0.3s,baz=306,slow=19,SNR=33						
JHJ2	Mitsune	1.68	190	⇓P	Pn	00 37 44.7	+0.6
JHJ2				eS	Sn	00 38 06.0	+0.7
JAG	Ashikaga	1.75	341	⇑P	Pn	00 37 44.5	-0.4
JAG				eS	Sn	00 38 05.6	-1.3
JHO	Hitachi	1.86	10	P	Pn	00 37 45.3	-1.2
TK04	Tokai 4	1.93	259	⇑P	Pn	00 37 49.4	+2.1
JNY	Yasuok	1.98	288	⇑P	Pn	00 37 49.9	+2.0
JNT	Takato	1.99	304	⇑P	Pn	00 37 49.6	+1.5
HMMJ	Hamamatsu 2	2.01	273	⇑P	Pn	00 37 50.1	+1.7
TK02	Tokai 2	2.15	248	P	Pn	00 37 52.2	+2.0
JNG	Nsakai	2.34	315	⇑P	Pn	00 37 53.7	+0.9
TK01	Tokai 1	2.35	246	P	Pn	00 37 54.5	+1.6
MJAR	Matsushiro Arr	2.38	319	P	Pn	00 37 53.5	+0.3
MJAR				S	Sn	00 38 23.4	+1.7
MJAR				pmax	pmax		
	comp=Z,145nm,0.3s						
MJAR				smax			
	comp=N,191nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,5µm,18.9s						
MJAR	Matsushiro Arr	2.38	319	P	Pn	00 37 53.5	+0.3
	comp=Z,145nm,0.3s,baz=145,slow=10,SNR=2149						
MJAR				S	Sn	00 38 23.4	+1.7
	comp=Z,191nm,0.3s,baz=73,slow=15,SNR=10.0						
MJAR				LR	LR	00 38 36.4	
	comp=Z,5µm,18.9s,baz=170,slow=34						
MAJO	Matsushiro	2.38	319	eP	Pn	00 37 53.9	+0.7
MAT	Matsushiro	2.38	319	P	Pn	00 37 53.7	+0.5
MAT				S	Sn	00 38 22.8	+1.1
MAT	Matsushiro	2.38	319	P	Pn	00 37 53.9	+0.7
JAO	Obara	2.44	283	⇑P	Pn	00 37 55.8	+1.8
JGF	Kuroka	2.44	291	⇑P	Pn	00 37 56.2	+2.1
JAA	Atsumi	2.49	268	⇑P	Pn	00 37 56.6	+1.9
JGN	Niukaw	2.74	303	P	Pn	00 37 59.8	+1.8
JJN	Nakama	2.84	326	P	Pn	00 37 59.7	+0.3

JIE	**Ise**	**2.88**	**263**	⇑P	**Pn**	**00 38 01.4**	**+1.5**
JTT	**Ttatey**	**2.94**	**309**	P	**Pn**	**00 38 02.4**	**+1.6**
JGM	**Miyama**	**2.97**	**289**	⇑P	**Pn**	**00 38 03.1**	**+2.0**
TSUJ	**Tsu 2**	**3.08**	**270**	⇑P	**Pn**	**00 38 04.3**	**+1.6**
JKN2	**Miekihoku**	**3.25**	**262**	⇑P	**Pn**	**00 38 06.7**	**+1.7**
JKG	**Kaga**	**3.47**	**297**	⇑P	**Pn**	**00 38 10.1**	**+2.2**
JFM	**Mihama**	**3.51**	**284**	P	**Pn**	**00 38 09.8**	**+1.4**
JHE	**Heguri**	**3.69**	**269**	⇑P	**Pn**	**00 38 12.6**	**+1.7**
JWY	**Kouya**	**3.81**	**263**	⇑P	**Pn**	**00 38 14.4**	**+1.8**
JWZ	**Kozaga**	**3.89**	**253**	⇑P	**Pn**	**00 38 15.1**	**+1.5**
JWT	**Wachi**	**3.94**	**279**	⇑P	**Pn**	**00 38 15.9**	**+1.6**
JWM	**Minabe**	**4.08**	**258**	P	**Pn**	**00 38 18.0**	**+1.8**
JKS	**Kasai**	**4.38**	**274**	P	**Pn**	**00 38 21.8**	**+1.6**
JJG	**Jouge**	**5.77**	**271**	P	**Pn**	**00 38 41.1**	**+1.9**
UWA2	**Uwa jima 2**	**6.45**	**258**	P	**Pn**	**00 38 50.3**	**+1.9**
JHIK	**Hikimi**	**6.79**	**270**	P	**Pn**	**00 38 55.5**	**+2.5**
ERM	**Erimo**	**7.60**	**17**	Pn	**Pn**	**00 39 02.6**	**-1.5**
	comp=Z,441nm,0.6s,SNR=12						
ERM	**Erimo**	**7.60**	**17**	*e*Pn	**Pn**	**00 39 03.5**	**-0.6**
ERM				*e*Sn	**Sn**	**00 40 19.9**	**-8.7**
CBIJ	**Chichi jima**	**7.84**	**167**	P	**Pn**	**00 39 04.1**	**-3.4**
	comp=Z,167nm,0.3s,baz=308,slow=12,SNR=41						
CBIJ				S	**Sn**	**00 40 24.8**	**-10**
	comp=Z,124nm,0.3s,baz=300,slow=22,SNR=7.8						
CBIJ				LR	LR	00 42 02.9	
	comp=Z,412nm,20.2s,baz=106,slow=36						
ASAJ	**Asahikawa**	**9.52**	**11**	P	**Pn**	**00 39 27.1**	**-3.1**
ASAJ				S	**Sn**	**00 41 08.4**	**-6.9**
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ				smax			
	comp=N,3.0nm,0.3s						
ASAJ	**Asahikawa**	**9.52**	**11**	P	**Pn**	**00 39 27.1**	**-3.1**
	comp=N,3.5nm,0.3s,baz=200,slow=13,SNR=17						
ASAJ				S	**Sn**	**00 41 08.3**	**-7.0**
	comp=N,3.1nm,0.3s,baz=162,slow=20,SNR=3.5						
YUK	**Yuzh-Kuril'sk**	**10.24**	**24**	P	**Pn**	**00 39 48.1**	**+8.1**
YUK				*i* S	**Sn**	**00 41 20.6**	**-12**
YUK				smax			
	comp=N,770nm,0.5s						
YUK				smax			
	comp=E,810nm,0.5s						
YUK				smax			
	comp=N,2µm,1.0s						
YUK				smax			
	comp=E,2µm,2.0s						
KSRS	**Korea Array**	**10.26**	**289**	P	**Pn**	**00 39 42.7**	**+2.4**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,324nm,19.7s						
KSRS	**Korea Array**	**10.26**	**289**	P	**Pn**	**00 39 42.7**	**+2.4**
	comp=Z,2.1nm,0.3s,baz=104,slow=14,SNR=159						
KSRS				LR	LR	00 43 34.3	
	comp=Z,324nm,19.7s,baz=122,slow=37						
KSRS				PcP	PcP	00 45 40.5	+0.1
	baz=171,slow=1.6,SNR=4.9						
INCN	**Inchon**	**11.27**	**288**	*e*Pn	**Pn**	**00 39 57.5**	**+3.4**
KUR	**Kuril'sk**	**12.00**	**27**	*e*P	**Pn**	**00 39 57.0**	**-6.8**
KUR				pmax	pmax		
	comp=Z,110nm,0.8s						
YSS	**Yuzh-Sakhalins**	**12.33**	**8**	*e*P	**Pn**	**00 40 05.0**	**-3.3**
YSS				*e*S	**Sn**	**00 42 18.0**	**-5.6**
YSS				MLR	MLR		
	comp=Z,300nm,16.0s						
YSS				MLR	MLR		
	comp=N,300nm,17.0s						
YSS				MLR	MLR		
	comp=E,700nm,18.0s						
YSS	**Yuzh-Sakhalins**	**12.33**	**8**	*e*Pn	**Pn**	**00 40 06.0**	**-2.2**
	comp=E,32nm,0.8s						
MDJ	**Mudanjiang**	**12.75**	**324**	P	**Pn**	**00 40 12.8**	**-1.1**
MDJ				S	**Sn**	**00 42 33.8**	**-0.1**
MDJ				PcP	PcP	00 45 41.8	-1.2
MDJ				pmax	pmax		
	comp=Z,23nm,0.9s						
MDJ				pmax	pmax		
	comp=Z,110nm,4.5s						
MDJ				LR	LR		
	comp=N,470nm,21.1s						
MDJ				LR	LR		
	comp=E,400nm,15.7s						
MDJ				LR	LR		
	comp=Z,540nm,25.4s						
JOW	**Kunigami**	**12.92**	**235**	P	**Pn**	**00 40 13.9**	**-2.3**
	comp=Z,4.0nm,0.3s,baz=38,slow=18,SNR=3.7						
JOW				LR	LR	00 44 46.4	
	comp=Z,299nm,19.0s,baz=102,slow=35						
HABR	**Khabarovsk**	**14.21**	**346**	*e*P	**Pn**	**00 40 28.5**	**-4.5**
HABR				*e*S	**Sn**	**00 43 05.7**	**-3.5**
HABR				MLR	MLR		
	comp=Z,312nm,15.0s						
CN2	**Changchun**	**14.51**	**313**	⇑P	**Pn**	**00 40 36.3**	**-0.7**
CN2				*e*pP		00 40 47.7	
CN2				*e*sP	sP	00 40 58.9	-10
CN2				*e*S	**Sn**	**00 43 14.5**	**-2.1**
CN2				pmax	pmax		
	comp=Z,20nm,0.9s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s						
CN2				LR	LR		
	comp=E,400nm,15.0s						
CN2				LR	LR		
	comp=Z,600nm,18.0s						
SNY	**Shenyang**	**14.79**	**303**	⇓P	**Pn**	**00 40 43.4**	**+2.8**
SNY				S	**Sn**	**00 43 25.2**	**+1.7**
SNY				pmax	pmax		
	comp=Z,53nm,0.8s						
SNY				LR	LR		
	comp=E,450nm,16.3s						
SNY				LR	LR		
	comp=Z,470nm,18.8s						
KLR	**Kul'dur**	**15.73**	**339**	*e*P	**Pn**	**00 40 44.7**	**-7.6**
KLR				MLR	MLR		
	comp=E,500nm,13.0s						
KLR				MLR	MLR		
	comp=Z,600nm,13.0s						
SSE	**Sheshan**	**16.35**	**262**	P	**Pn**	**00 40 59.1**	**-1.1**
SSE				sP	sP	00 41 26.9	-2.8
SSE				S	**S**	**00 43 59.3**	**-8.8**
SSE				pmax	pmax		
	comp=Z,68nm,0.9s						
SSE				pmax	pmax		
	comp=Z,320nm,7.7s						
SSE				LR	LR		
	comp=N,410nm,20.1s						
SSE				LR	LR		
	comp=E,530nm,20.1s						
SSE				LR	LR		
	comp=Z,610nm,15.5s						
NJ2	**Nanjing**	**17.99**	**267**	*e*P	**Pn**	**00 41 19.4**	**-0.9**
NJ2				pP	pP	00 41 30.1	-6.6
NJ2				PP		00 41 33.0	
NJ2				sP	sP	00 41 38.2	-10
NJ2				S	**S**	**00 44 36.0**	**-5.2**
NJ2				pmax	pmax		
	comp=Z,30nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,240nm,6.9s						
NJ2				LR	LR		
	comp=N,230nm,16.5s						
NJ2				LR	LR		
	comp=E,350nm,15.1s						
NJ2				LR	LR		
	comp=Z,270nm,14.2s						
TIA	**Tai'an**	**18.81**	**281**	P	**Pn**	**00 41 27.0**	**-3.1**
TIA				pmax	pmax		
	comp=Z,38nm,0.6s						
YHNB	**Yeheng**	**19.14**	**243**	*e*P	**Pn**	**00 41 31.0**	**-3.1**
	comp=Z,85nm,1.1s						
YHNB				*e*S	**S**	**00 45 05.5**	**+0.8**
NACB	**Ninganchiao**	**19.28**	**242**	*e*P	**Pn**	**00 41 33.3**	**-2.4**
	comp=Z,33nm,0.8s						
BJI	**Beijing**	**19.75**	**293**	P	**Pn**	**00 41 35.4**	**-5.6**
BJI				pP	pP	00 41 50.3	-5.7
BJI				sP	sP	00 42 00.6	-6.5
BJI				S	**S**	**00 45 11.1**	**-5.3**
BJI				sS	sS	00 45 40.3	-4.5
BJI				pmax	pmax		
	comp=Z,32nm,0.6s						
BJI				LR	LR		
	comp=N,290nm,16.6s						
BJI				LR	LR		
	comp=E,360nm,19.9s						
BJI				LR	LR		
	comp=Z,630nm,31.2s						
YULB	**Yu-li**	**19.97**	**240**	*e*P	**Pn**	**00 41 38.7**	**-5.1**
	comp=Z,48nm,0.8s						
SSLB	**Suanglung**	**19.98**	**242**	*e*P	**Pn**	**00 41 39.4**	**-4.5**
	comp=Z,81nm,1.1s						
TWG	**Pinlang**	**20.49**	**240**	*e*P	**P**	**00 41 46.3**	**-0.7**
QZH	**Quanzhou**	**21.08**	**248**	*e*P	**P**	**00 41 53.8**	**+0.5**
WHN	**Wuhan**	**22.11**	**266**	⇓P	**P**	**00 42 02.5**	**-1.7**
WHN				sP	sP	00 42 29.0	-3.9
WHN				S	**S**	**00 45 59.5**	**-3.1**
WHN				pmax	pmax		
	comp=Z,120nm,0.7s,mb5.3						
WHN				LR	LR		
	comp=Z,1µm,13.5s						
PETK	**Petropavlovsk-**	**22.15**	**29**	P	**P**	**00 42 03.8**	**-0.6**
PETK				pmax	pmax		
	comp=Z,38nm,1.0s,mb4.7						
PETK				MLR	MLR		
	comp=Z,95nm,19.5s						
PETK	**Petropavlovsk-**	**22.15**	**29**	P	**P**	**00 42 03.8**	**-0.6**
	comp=Z,38nm,1.0s,mb4.7,baz=224,slow=9.5,SNR=17						
PETK				LR	LR	00 50 49.9	
	comp=Z,95nm,19.5s,baz=219,slow=37						
PET	**Petropavlovsk**	**22.48**	**30**	*e*P	**P**	**00 42 07.6**	**-0.2**
PET				*e*S	**S**	**00 46 04.3**	**-3.7**
PET				pmax	pmax		
	comp=Z,108nm,1.3s,mb5.0						
PET				MLR	MLR		
	comp=Z,600nm,18.0s						
PET	**Petropavlovsk**	**22.48**	**30**	*e*P	**P**	**00 42 07.6**	**-0.2**
	comp=Z,195nm,1.4s,mb5.2						
HHC	**Hu-ho-hao-te**	**23.34**	**294**	*e*P	**P**	**00 42 14.3**	**-2.1**
HHC				pP		00 42 31.4	
HHC				sP	sP	00 42 40.6	-5.2
HHC				PP		00 42 47.9	
HHC				*e*S	**S**	**00 46 16.2**	**-6.1**
HHC				sS	sS	00 46 45.4	-11
HHC				PcS	PcS	00 49 39.3	-0.6
HHC				pmax	pmax		
	comp=Z,36nm,0.8s,mb4.8						
HHC				pmax	pmax		
	comp=Z,100nm,6.2s						
HHC				LR	LR		
	comp=N,290nm,13.7s						
HHC				LR	LR		
	comp=E,410nm,12.2s						
HHC				LR	LR		
	comp=Z,330nm,10.6s						
CLNS	**Chul'man**	**24.39**	**339**	*e*P	**P**	**00 42 26.2**	**+0.4**
CLNS				*e*		00 46 07.4	
CLNS				*e*S	**S**	**00 46 37.8**	**-1.1**
CLNS				*e*SS		00 47 18.2	
CLNS				pmax	pmax		
	comp=Z,39nm,1.0s,mb4.7						
CLNS				pmax	pmax		
	comp=N,25nm,1.0s						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.9s						
CLNS				smax			
	comp=E,191nm,11.7s						
CLNS				smax			
	comp=N,273nm,12.7s						
CLNS				MLR	MLR		
	comp=E,133nm,15.0s						
CLNS				MLR	MLR		
	comp=Z,134nm,16.0s						
CLNS				MLR	MLR		
	comp=N,123nm,15.0s						
BTO	**Baotou**	**24.48**	**293**	*e*P	**P**	**00 42 25.3**	**-1.5**
CIT	**Chita**	**25.69**	**320**	*e*P	**P**	**00 42 31.2**	**-6.4**
XAN	**Xi'an**	**25.74**	**277**	P	**P**	**00 42 36.3**	**-2.0**
XAN				pP	pP	00 42 52.5	-5.7
XAN				sP	sP	00 43 01.0	-7.6
XAN				PcP	PcP	00 46 07.3	+1.2
XAN				S	**S**	**00 46 54.7**	**-6.1**
XAN				ScP	ScP	00 49 39.7	+2.1
XAN				ScS	ScS	00 53 26.0	-1.0
XAN				pmax	pmax		
	comp=Z,85nm,1.2s,mb5.0						
XAN				pmax	pmax		
	comp=Z,110nm,12.3s						
XAN				LR	LR		
	comp=E,350nm,15.2s						
XAN				LR	LR		
	comp=Z,370nm,14.0s						
ULN	**Ulaanbaatar**	**27.87**	**308**	*e*P	**P**	**00 42 56.7**	**-0.5**
ULN				pmax	pmax		
	comp=Z,37nm,0.9s,mb4.9						
ULN	**Ulaanbaatar**	**27.87**	**308**	*e*P	**P**	**00 42 56.7**	**-0.5**
	comp=Z,37nm,0.9s,mb4.9						
ULN	**Ulaanbaatar**	**27.87**	**308**	P	**P**	**00 42 56.9**	**-0.4**
	SNR=23						
ULN				P		00 42 56.9	
	SNR=23						
YAK	**Yakutsk**	**28.08**	**350**	*e*P	**P**	**00 42 57.9**	**-1.0**
YAK				*e*		00 46 09.2	
YAK				*e*S	**S**	**00 47 35.5**	**-1.6**
YAK				*e*		00 53 28.0	
YAK				pmax	pmax		
	comp=Z,37nm,1.0s,mb4.9						
YAK				pmax	pmax		
	comp=N,22nm,1.4s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.2s						
YAK				smax			
	comp=N,200nm,3.5s						
YAK				smax			
	comp=E,80nm,3.0s						
YAK				MLR	MLR		
	comp=Z,197nm,16.0s						
YAK				MLR	MLR		
	comp=E,180nm,16.0s						
YAK				MLR	MLR		
	comp=N,125nm,11.0s						
YAK	**Yakutsk**	**28.08**	**350**	*e*P	**P**	**00 42 58.3**	**-0.7**
	comp=N,42nm,0.7s,mb5.1						
SONM	**Songino Array**	**28.29**	**308**	P	**P**	**00 43 00.5**	**-0.5**
SONM						00 46 11.6	
SONM				pmax	pmax		
	comp=Z,24nm,0.8s						
SONM				MLR	MLR		
	comp=Z,355nm,20.1s						
SONM	**Songino Array**	**28.29**	**308**	P	**P**	**00 43 00.5**	**-0.5**
	comp=Z,24nm,0.8s,mb4.8,baz=106,slow=9.1,SNR=124						
SONM				PcP	PcP	00 46 11.6	-0.3
	comp=Z,2.1nm,0.5s,baz=103,slow=2.4,SNR=6.9						
SONM				pPcP		00 46 37.8	
	comp=Z,1.9nm,0.5s,baz=124,slow=2.9,SNR=5.2						
SONM				ScP	ScP	00 49 43.5	-1.4
	comp=Z,1.6nm,1.0s,baz=96,slow=4.3,SNR=4.9						
SONM				LR	LR	00 54 45.8	
	comp=Z,355nm,20.1s,baz=71,slow=37						
BOD	**Bodaibo**	**28.95**	**331**	*e*P	**P**	**00 43 06.4**	**-0.4**
BOD				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.2						
SEY	**Seymchan**	**29.20**	**11**	⇑*e*P	**P**	**00 43 09.3**	**+0.4**
LZH	**Lanzhou**	**29.52**	**283**	⇑P	**P**	**00 43 10.6**	**-1.4**
LZH				pP	pP	00 43 32.3	+0.1
LZH				PP	PP	00 44 09.2	-11
LZH				*e*S	**S**	**00 47 55.5**	**-4.8**
LZH				sS	sS	00 48 33.1	-2.1
LZH				pmax	pmax		
	comp=Z,54nm,1.5s,mb5.0						
LZH				pmax	pmax		
	comp=Z,170nm,5.6s						
LZH				LR	LR		
	comp=E,410nm,12.5s						
LZH				LR	LR		
	comp=Z,920nm,16.3s						
FX1	**Attu Island--F**	**29.54**	**42**	P	**P**	**00 43 12.9**	**+0.9**
FX1				pmax	pmax		
	comp=Z,59nm,0.7s						
FX1				MLR	MLR		
	comp=Z,164nm,18.5s						
FX1	**Attu Island--F**	**29.54**	**42**	P	**P**	**00 43 12.9**	**+0.8**
	comp=Z,59nm,0.7s,mb5.3,baz=326,slow=3.6,SNR=8.8						
FX1				LR	LR	00 54 47.4	
	comp=Z,164nm,18.5s,baz=71,slow=36						
GYA	**Guiyang**	**29.89**	**263**	⇑*i*P	**P**	**00 43 13.1**	**-2.3**
GYA				pP	pP	00 43 31.1	-4.5
GYA				sP	sP	00 43 40.2	-5.7
GYA				PP	PP	00 44 13.0	-11
GYA				PcP	PcP	00 46 15.2	-1.2
GYA				S	**S**	**00 48 02.4**	**-3.9**
GYA				sS	sS	00 48 33.2	-8.0
GYA				ScP	ScP	00 49 49.2	-1.2
GYA				PcS	PcS	00 49 51.3	-8.6
GYA				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.0						
GYA				pmax	pmax		
	comp=Z,180nm,4.8s						
GYA				LR	LR		
	comp=N,740nm,10.1s						
GYA				LR	LR		
	comp=E,690nm,10.3s						
GYA				LR	LR		
	comp=Z,1µm,10.5s						
DAV	**Davao City (W)**	**30.67**	**209**	LR	LR	00 54 15.5	
	comp=Z,140nm,19.9s,baz=286,slow=33						
CD2	**Chengdu**	**30.72**	**273**	P	**P**	**00 43 20.3**	**-2.4**
CD2				pP	pP	00 43 38.4	-4.6
CD2				sP	sP	00 43 47.3	-5.9
CD2				PP	PP	00 44 23.2	-10
CD2				PcP	PcP	00 46 17.4	-1.1
CD2				S	**S**	**00 48 15.0**	**-4.2**
CD2				sS	sS	00 48 46.3	-7.9
CD2				pmax	pmax		
	comp=Z,170nm,5.7s						
CD2				LR	LR		
	comp=N,450nm,15.5s						
CD2				LR	LR		
	comp=Z,420nm,14.9s						
ZAK	**Zakamensk**	**30.94**	**312**	⇑*i*P	**P**	**00 43 23.9**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.9						
TLY	**Talaya**	**31.11**	**314**	*e*P	**P**	**00 43 21.4**	**-4.5**
TLY				*e*S	**S**	**00 48 21.1**	**-3.7**
TLY				*e*SSS		00 50 30.1	
TLY				pmax	pmax		
	comp=Z,29nm,1.1s,mb4.9						
TLY				MLR	MLR		
	comp=Z,225nm,15.0s						
TLY	**Talaya**	**31.11**	**314**	*e*P	**P**	**00 43 26.3**	**+0.4**
	comp=Z,30nm,1.1s,mb4.9						
GTA	**Gaotai**	**32.33**	**290**	P	**P**	**00 43 36.4**	**-0.3**
GTA				pP	pP	00 43 54.1	-2.9
GTA				sP	sP	00 44 02.5	-4.8
GTA				S	**S**	**00 48 41.2**	**-2.9**
GTA				sS	sS	00 49 12.7	-6.4
GTA				ScS	ScS	00 53 55.4	-2.2
GTA				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.5						
GTA				pmax	pmax		
	comp=Z,200nm,6.8s						
GTA				LR	LR		
	comp=N,280nm,16.7s						
GTA				LR	LR		
	comp=E,280nm,14.0s						
GTA				LR	LR		
	comp=Z,230nm,13.7s						
MOY	**Mondy**	**32.69**	**313**	*e*P	**P**	**00 43 39.2**	**-0.5**
MOY				pmax	pmax		
	comp=Z,32nm,2.9s,mb4.6						
KMI	**Kunming**	**33.66**	**264**	P	**P**	**00 43 46.3**	**-2.2**
KMI				pP	pP	00 44 04.5	-4.4
KMI				sP	sP	00 44 15.8	-3.3
KMI				PP	PP	00 45 01.7	-4.5
KMI				S	**S**	**00 49 02.1**	**-2.9**
KMI				sS	sS	00 49 37.8	-2.4
KMI				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.2						
KMI				pmax	pmax		
	comp=Z,140nm,5.7s						
KMI				LR	LR		
	comp=N,200nm,11.2s						
KMI				LR	LR		
	comp=E,400nm,12.5s						
KMI				LR	LR		
	comp=Z,260nm,17.7s						
BILL	**Bilibino**	**36.48**	**16**	⇑*i*P	**P**	**00 44 11.9**	**-0.3**
BILL				*e*		00 45 38.5	
BILL				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
BILL	**Bilibino**	**36.48**	**16**	⇑*e*P	**P**	**00 44 11.9**	**-0.3**
TIXI	**Tiksi**	**37.42**	**354**	⇑*e*P	**P**	**00 44 19.5**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.0						
TIXI	**Tiksi**	**37.42**	**354**	*e*P	**P**	**00 44 19.3**	**-0.8**
	comp=Z,16nm,0.8s,mb5.0						
KRAR	**Krasnoyarsk**	**38.44**	**318**	⇑*e*P	**P**	**00 44 30.2**	**+1.4**
CHTO	**Chiang Mai**	**39.78**	**257**	*e*P	**P**	**00 44 38.4**	**-2.1**
CHTO				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.9						
CHTO	**Chiang Mai**	**39.78**	**257**	*e*P	**P**	**00 44 38.4**	**-2.0**
	comp=Z,23nm,1.1s,mb4.9						
CHTO	**Chiang Mai**	**39.78**	**257**	P	**P**	**00 44 39.5**	**-1.0**
	SNR=8.0						
CHTO				P		00 44 39.5	
	SNR=8.0						
CMAR	**Chiang Mai Arr**	**39.97**	**257**	P	**P**	**00 44 40.1**	**-1.9**
	comp=Z,4.5nm,0.8s,mb4.3,baz=47,slow=6.2,SNR=25						
CMAR				PcP	PcP	00 46 45.2	-0.6
	comp=Z,1.9nm,0.7s,baz=40,slow=2.5,SNR=4.1						
CMAR				ScP	ScP	00 50 26.5	-0.3
	comp=Z,1.0nm,0.3s,baz=26,slow=4.3,SNR=4.2						
CMAR				LR	LR	01 00 39.5	
	comp=Z,82nm,21.3s,baz=65,slow=35						
WMQ	**Urumqi**	**41.00**	**299**	P	**P**	**00 44 51.9**	**+1.6**
WMQ				pP	pP	00 45 11.0	-0.2
WMQ				sP	sP	00 45 20.0	-1.3
WMQ				S	**S**	**00 50 58.0**	**+2.1**
WMQ				sS	sS	00 51 32.0	+0.2
WMQ				SS	SS	00 54 01.0	+0.1
WMQ				pmax	pmax		
	comp=Z,320nm,0.9s,mb6.2						
WMQ				pmax	pmax		
	comp=Z,860nm,4.0s						
WMQ				LR	LR		
	comp=N,360nm,17.8s						
WMQ				LR	LR		
	comp=E,200nm,20.6s						
WMQ				LR	LR		
	comp=Z,210nm,21.7s						
LSA	**Lhasa**	**41.44**	**277**	P	**P**	**00 44 54.0**	**-0.1**
LSA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.2						
SHL	**Shillong**	**42.40**	**271**	*e*PKP	**P**	**00 45 02.0**	**+0.1**
ZALV	**Zalesovo Beam**	**42.73**	**314**	P	**P**	**00 45 04.0**	**-0.2**
	comp=Z,78nm,0.8s,mb5.5,baz=99,slow=8.9,SNR=166						
ZALV				PcP	PcP	00 46 53.2	-1.0
	comp=Z,10nm,0.5s,baz=101,slow=3.7,SNR=11						
ZALV				ScP	ScP	00 50 35.6	-1.5
	comp=Z,4.7nm,0.9s,baz=94,slow=4.3,SNR=6.5						
ZALV				LR	LR	01 03 41.1	
	comp=Z,114nm,19.2s,baz=231,slow=37						
ZALV	**Zalesovo Beam**	**42.73**	**314**	P	**P**	**00 45 04.0**	**-0.2**
ZALV				PcP	PcP	00 46 53.2	-1.0
ZALV				ScP	ScP	00 50 35.6	-1.5
ZALV				LR	LR	01 03 41.1	
TNA	**Tin City**	**43.32**	**29**	*e*P	**P**	**00 45 09.8**	**+0.9**
	comp=Z,41nm,0.9s,mb5.2						
NVS	**Novosibirsk**	**43.70**	**315**	⇑*i*P	**P**	**00 45 11.6**	**-0.4**
NVS				*e*	pP	00 45 36.6	+3.5
NVS				*e*S	**S**	**00 51 29.4**	**-5.9**
NVS				*e*		00 52 15.6	
NVS				*e*		00 54 56.4	
NVS				pmax	pmax		
	comp=Z,129nm,1.3s,mb5.5						
NVS				pmax	pmax		
	comp=N,24nm,1.2s						
NVS				pmax	pmax		
	comp=E,90nm,1.2s						
NVS				smax			
	comp=N,27nm,2.0s						
NVS				smax			
	comp=E,40nm,2.0s						
MK31	**Makanchi Array**	**44.50**	**304**	*i* P	**P**	**00 45 18.4**	**-0.1**
MKAR	**Makanchi Array**	**44.50**	**304**	P	**P**	**00 45 18.3**	**-0.2**
MKAR				S	**S**	**00 51 46.5**	**-0.6**
MKAR				pmax	pmax		
	comp=Z,25nm,0.6s						
MKAR				smax			
	comp=N,2.0nm,1.0s						
MKAR				MLR	MLR		
	comp=Z,122nm,20.4s						
MKAR	**Makanchi Array**	**44.50**	**304**	P	**P**	**00 45 18.3**	**-0.2**
	comp=Z,25nm,0.6s,mb5.1,baz=89,slow=8.5,SNR=223						
MKAR				ScP	ScP	00 50 42.7	-1.8
	comp=Z,3.1nm,0.9s,baz=90,slow=4.9,SNR=4.9						

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MKAR                                  S       S       00 51 46.5  -0.6
      comp=Z,1.6nm,1.0s,baz=82,slow=15,SNR=4.1
MKAR                                  LR      LR      01 04 27.1
      comp=Z,122nm,20.4s,baz=86,slow=37
TAPN  Taplejung          45.12 276    eP      P       00 45 22.8  -0.9
      comp=Z,99nm,0.8s,mb5.6
ODAN  Odare              45.57 275    eP      P       00 45 26.2  -1.1
      comp=Z,134nm,1.0s,mb5.6
RAMN  Ramite             46.18 276    eP      P       00 45 31.1  -1.0
      comp=Z,282nm,0.8s,mb6.1
JIRN  Jiri               46.24 277    eP      P       00 45 32.3  -0.2
      comp=Z,455nm,0.6s,mb6.4
GUN   Gumba              46.40 277    eP      P       00 45 33.3  -0.5
      comp=Z,249nm,0.7s,mb6.0
KURK  Kurchatov          46.56 310    P       P       00 45 34.4  -0.3
      comp=Z,915nm,0.8s,mb6.6,SNR=82
KURK  Kurchatov          46.56 310    P       P       00 45 34.8  +0.1
KURK                                  S       S       00 52 19.1  +2.5
KURK                                  pmax    pmax
      comp=Z,25nm,0.8s,mb5.0
KURK  Kurchatov          46.56 310    P       P       00 45 34.8  +0.1
      comp=Z,25nm,0.8s,mb5.0,baz=86,slow=7.9,SNR=46
KURK                                  ScP     ScP     00 50 51.6  -1.4
      comp=Z,1.5nm,0.7s,baz=90,slow=3.7,SNR=4.2
KURK                                  S       S       00 52 19.1  +2.5
      comp=Z,0.4nm,0.3s,baz=92,slow=14,SNR=5.2
KURK  Kurchatov          46.56 310    eP      P       00 45 34.5  -0.2
      comp=Z,117nm,0.8s,mb5.7
KURK  Kurchatov          46.56 310    P       P       00 45 34.6  -0.1
      SNR=21
KURK                                  P               00 45 34.6
      SNR=21
PKI   Pulchoki           46.91 277    eP      P       00 45 36.8  -1.0
      comp=Z,167nm,0.7s,mb5.9
PKIN  Phulchoki          46.92 277    eP      P       00 45 36.9  -1.0
      comp=Z,116nm,0.6s,mb5.8
KKN   Kakani             46.93 277    eP      P       00 45 37.3  -0.7
      comp=Z,248nm,0.8s,mb6.0
DMN   Daman              47.15 277    eP      P       00 45 38.7  -0.9
      comp=Z,132nm,0.9s,mb5.7
GKN   Gorkha             47.38 278    eP      P       00 45 40.6  -0.8
      comp=Z,429nm,1.0s,mb6.1
KAKA  Kakadu             47.78 190    eP      P       00 45 43.4  -1.1
      comp=Z,41nm,1.0s,mb5.2
KAKA  Kakadu             47.78 190    eP      P       00 45 43.5  -1.0
      comp=Z,131nm,0.9s,mb5.8
HNR   Honiara            47.79 153    LR      LR      01 02 06.7
      comp=Z,127nm,21.9s,baz=339,slow=31
SVW2  Sparrevohn         47.94  36    eP      P       00 45 44.6  -0.7
DANN  Dangsing           47.96 279    eP      P       00 45 45.7  -0.2
      comp=Z,480nm,0.8s,mb6.4
BOK   Bokaro             48.08 272    ePKP    P       00 45 44.9  -2.0
BOK                                   AMb     AMB     00 45 46.2
      comp=Z,48nm,1.2s,mb5.2
KOLN  Koldanda           48.31 278    eP      P       00 45 48.1  -0.5
      comp=Z,284nm,1.2s,mb6.0
COEN  Coen               48.54 176    eP      P       00 45 50.4  +0.1
      comp=Z,308nm,1.1s,mb6.2
PYUN  Piuthan            48.68 279    eP      P       00 45 51.0  -0.5
KDAK  Kodiak Island      49.47  41    P       P       00 45 56.7  -0.3
KDAK                                  pmax    pmax
      comp=Z,44nm,0.8s,mb5.4
KDAK  Kodiak Island      49.47  41    P       P       00 45 56.7  -0.3
      comp=Z,44nm,0.8s,mb5.4,baz=272,slow=5.0,SNR=8.5
CHUM  Lake Minchumin     49.58  32    eP      P       00 45 59.1  +1.4
      comp=Z,62nm,1.2s,mb5.4
CHUM                                  epP     pP      00 46 19.8  +0.6
CHUM                                  ePcP    PcP     00 47 19.1  +1.0
PPLA  Purkeypile         49.61  34    eP      P       00 45 59.4  +1.4
      comp=Z,63nm,1.1s,mb5.5
PSI   Prapat             49.77 240    LR      LR      01 09 08.0
      comp=Z,110nm,19.7s,baz=261,slow=38
TKM2  Tokmak 2           49.84 300    P       P       00 46 00.8  +0.7
TKM2                                  pmax    pmax
      comp=Z,44nm,0.9s,mb5.4
TKM2  Tokmak 2           49.84 300    P       P       00 46 01.1  +1.0
      SNR=18
TKM2  Tokmak 2           49.84 300    eP      P       00 46 01.1  +1.0
      comp=Z,29nm,0.6s,mb5.4
KTH   Kantishna Hill     50.19  33    eP      P       00 46 03.1  +0.7
      comp=Z,76nm,1.3s,mb5.5
KZA   Kyzart             50.29 299    P       P       00 46 05.3  +1.8
      SNR=14
KBK   Karagaybulak       50.37 300    P       P       00 46 04.8  +0.8
      SNR=42
CHMS  Chumysh            50.43 300    P       P       00 46 04.8  +0.3
      SNR=16
KSH   Kashi              50.43 295    P       P       00 46 08.4  +3.8
KSH                                   epP     pP      00 46 26.1   0.0
KSH                                   esP     sP      00 46 35.1  -1.0
KSH                                   ePP     PP      00 48 06.2  +5.4
KSH                                   eScP    ScP     00 51 12.3  +2.7
KSH                                   eS      S       00 53 15.3  +3.9
KSH                                   esS     sS      00 53 48.1  -0.1
KSH                                   eSS     SS      00 56 48.1  +2.2
KSH                                   pmax    pmax
      comp=Z,15nm,0.8s,mb5.0
KSH                                   LR      LR
      comp=N,340nm,6.2s
KSH                                   LR      LR
      comp=E,450nm,6.4s
KSH                                   LR      LR
      comp=Z,500nm,4.8s
JOSI  Joshimath          50.53 283    ePKP    P       00 46 05.5   0.0
JOSI                                  AMb     AMB     00 46 11.3
      comp=Z,181nm,0.9s,mb6.1
USP   Ospenovka          50.54 300    P       P       00 46 05.7  +0.3
      SNR=14
FIB   Fire Island        50.56  36    eP      P       00 46 06.3  +1.1
FIB                                   pmax    pmax
      comp=Z,80nm,0.8s,mb5.8
FIB   Fire Island        50.56  36    eP      P       00 46 06.2  +1.0
      comp=Z,80nm,0.8s,mb5.8
COLD  Coldfoot           50.62  28    eP      P       00 46 06.0  +0.4
      comp=Z,15nm,1.2s,mb4.9
COLD                                  ePcP    PcP     00 47 22.7  +0.9
AAK   Ala-Archa          50.70 300    P       P       00 46 06.7  +0.1
      comp=Z,259nm,0.7s,mb6.4,SNR=8.1
AAK   Ala-Archa          50.70 300    eP      P       00 46 07.0  +0.4
AAK                                   pmax    pmax
      comp=Z,32nm,0.8s,mb5.4
AAK   Ala-Archa          50.70 300    P       P       00 46 06.9  +0.4
      SNR=21
AAK   Ala-Archa          50.70 300    eP      P       00 46 07.0  +0.4
      comp=Z,32nm,0.8s,mb5.4
UCH   Uchtor             50.78 299    P       P       00 46 08.5  +1.3
      SNR=19
UCH   Uchtor             50.78 299    eP      P       00 46 08.7  +1.4
      comp=Z,17nm,0.7s,mb5.2
PMR   Palmer             51.05  35    eP      P       00 46 08.9   0.0
VOSK  Vostochnaya        51.06 313    P       P       00 46 08.5  -0.6
VOSK                                  pmax    pmax
      comp=Z,124nm,1.0s,mb5.9
MCK   McKinley           51.08  33    eP      P       00 46 09.2  +0.1
EKS2  Erkin-Say          51.20 300    P       P       00 46 10.7  +0.4
      SNR=13
EKS2  Erkin-Say          51.20 300    eP      P       00 46 10.8  +0.5
      comp=Z,20nm,0.8s,mb5.2
BVA0  Borovoye Array     51.37 313    iP      P       00 46 11.5  +0.1
BVA0                                  pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.7
BVAR  Borovoye Array     51.37 313    P       P       00 46 10.9  -0.5
BVAR                                                  00 47 23.6
BVAR                                  S       S       00 53 26.6  +2.7
BVAR                                  pmax    pmax
      comp=Z,37nm,0.9s
BVAR                                  smax
      comp=N,1.0nm,0.4s
BVAR  Borovoye Array     51.37 313    P       P       00 46 10.9  -0.5
      comp=N,37nm,0.9s,mb5.4,baz=72,slow=7.6,SNR=59
BVAR                                  PcP     PcP     00 47 23.6  -1.3
      comp=N,6.9nm,0.6s,baz=113,slow=4.3,SNR=2.6
BVAR                                  ScP     ScP     00 51 12.2  -1.2
      comp=N,1.7nm,0.9s,baz=64,slow=3.4,SNR=3.6
BVAR                                  S       S       00 53 26.6  +2.7
      comp=N,0.6nm,0.4s,baz=87,slow=11,SNR=4.5
BVAR  Borovoye Array     51.37 313    P       P       00 46 10.9  -0.5
BVAR                                  PcP     PcP     00 47 23.6  -1.3
BVAR                                  ScP     ScP     00 51 12.2  -1.2
BVAR                                  S       S       00 53 26.6  +2.7
AML   Almayashu          51.40 299    P       P       00 46 13.1  +1.3
      SNR=11
AML   Almayashu          51.40 299    eP      P       00 46 13.1  +1.3
      comp=N,135nm,0.7s,mb6.1
BRVK  Borovoye           51.42 314    P       P       00 46 14.3  +2.5
      comp=N,297nm,0.8s,mb6.4,SNR=15
BRVK  Borovoye           51.42 314    eP      P       00 46 11.8   0.0
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BRVK                                  pmax    pmax
      comp=Z,57nm,1.0s,mb5.6
BRVK  Borovoye           51.42 314    eP      P       00 46 11.8  -0.1
      comp=Z,57nm,1.0s,mb5.5
COLA  College            51.53  31    eP      P       00 46 12.5   0.0
COLA                                  pmax    pmax
      comp=Z,36nm,0.8s,mb5.5
COLA  College            51.53  31    eP      P       00 46 12.5  +0.1
      comp=Z,36nm,0.8s,mb5.5
THN   Thein Dam          52.89 287    ePKP    P       00 46 21.0  -2.0
VIS   Vishakhapatnam     53.06 267    ePKP    P       00 46 22.9  -1.5
VIS                                   AMb     AMB     00 46 25.5
      comp=Z,77nm,1.2s,mb5.6
NDI   New Delhi          53.13 282    ePKP    P       00 46 23.0  -1.8
AGRA  Agra               53.13 280    ePKP    P       00 46 23.4  -1.5
AYAN  Aya Nagar          53.28 282    ePKP    P       00 46 24.6  -1.3
AYAN                                  AMb     AMB     00 46 26.1
      comp=Z,45nm,0.8s,mb5.6
KK31  Karatay Array      53.40 301    iP      P       00 46 26.6   0.0
FITZ  Fitzroy Crossi     54.36 197   ⇓iP      P       00 46 33.0  -0.7
      comp=Z,21nm,0.5s,mb5.4
FITZ  Fitzroy Crossi     54.36 197    LR      LR      01 08 12.4
      comp=Z,66nm,18.4s,baz=25,slow=34
FITZ  Fitzroy Crossi     54.36 197    eP      P       00 46 33.1  -0.7
      comp=Z,13nm,0.6s,mb5.2
EGAK  Eagle              54.40  31    eP      P       00 46 33.4  -0.1
      comp=Z,24nm,1.0s,mb5.2
KHET  Khetri             54.51 282    ePKP    P       00 46 33.9  -1.0
KHET                                  AMb     AMB     00 46 36.1
      comp=Z,70nm,0.9s,mb5.7
WRAB  Tennant Creek      54.68 187    P       P       00 46 34.6  -1.4
      comp=Z,321nm,0.7s,mb6.5,SNR=28
WRAB  Tennant Creek      54.68 187    eP      P       00 46 34.7  -1.3
WRA   Warramunga Arr     54.69 187    P       P       00 46 34.8  -1.3
WRA                                                   00 47 37.5
WRA                                   S       S       00 54 07.3  -2.3
WRA                                   pmax    pmax
      comp=Z,29nm,0.6s
WRA                                   smax
      comp=N,1.0nm,0.9s
WRA   Warramunga Arr     54.69 187    P       P       00 46 34.8  -1.2
      comp=N,29nm,0.6s,mb5.5,baz=4.6,slow=7.7,SNR=81
WRA                                   PcP     PcP     00 47 37.5  -0.3
      comp=N,14nm,0.8s,baz=3.6,slow=4.5,SNR=3.1
WRA                                   ScP     ScP     00 51 25.7  -2.5
      comp=N,6.8nm,1.1s,baz=3.5,slow=4.7,SNR=6.9
WRA                                   S       S       00 54 07.3  -2.2
      comp=N,0.9nm,0.9s,baz=3.8,slow=13,SNR=4.8
WRA                                   LR      LR      01 07 33.4
      comp=N,90nm,20.8s,baz=15,slow=33
DAWY  Dawson             55.25  32    eP      P       00 46 40.5  +0.8
BHPL  Bhopal             55.28 276    ePKP    P       00 46 39.0  -1.4
BHPL                                  AMb     AMB     00 46 40.6
      comp=Z,44nm,1.5s,mb5.3
AJM   Ajmer              56.12 281    ePKP    P       00 46 44.8  -1.7
AJM                                   AMb     AMB     00 46 47.3
      comp=Z,54nm,1.2s,mb5.5
SVE   Sverdlovsk         56.19 319   ⇓eP      P       00 46 47.1  +0.6
SVE                                   pmax    pmax
      comp=Z,23nm,0.9s,mb5.2
HYT   Haines Junctio     56.72  36    eP      P       00 46 51.8  +1.5
HYB   Hyderabad          57.14 269    iP      P       00 46 54.0  +0.2
HYB   Hyderabad          57.14 269    eP      P       00 46 52.5  -1.3
ARU   Arti               57.40 319    P       P       00 46 54.0  -1.0
      comp=Z,155nm,0.9s,mb6.0,SNR=9.5
ARU   Arti               57.40 319    eP      P       00 46 54.8  -0.2
ARU   Arti               57.40 319    eP      P       00 46 54.8  -0.2
SKAG  Skagway            58.11  37    eP      P       00 47 01.6  +1.6
ASAR  Alice Springs      58.42 187    P       P       00 47 01.5  -1.0
ASAR                                  S       S       00 54 54.1  -4.6
ASAR                                  pmax    pmax
      comp=Z,8.0nm,0.6s
ASAR                                  smax
      comp=N,4.0nm,1.0s
ASAR  Alice Springs      58.42 187    P       P       00 47 01.4  -1.0
      comp=N,7.9nm,0.6s,mb4.9,baz=0.0,slow=6.5,SNR=86
ASAR                                  ScP     ScP     00 51 43.2  -1.3
      comp=N,3.8nm,1.2s,baz=14,slow=4.0,SNR=5.1
ASAR                                  S       S       00 54 54.1  -4.6
      comp=N,4.2nm,1.0s,baz=12,slow=15,SNR=12
ASAR                                  PKP2bc          01 16 51.5
      comp=N,2.2nm,0.8s,baz=180,slow=1.7,SNR=15
ASAR  Alice Springs      58.42 187    P       P       00 47 01.4  -1.0
ASAR                                  ScP     ScP     00 51 43.2  -1.3
ASAR                                  S       S       00 54 54.1  -4.6
ASAR                                 ⇑e               01 16 51.5
AB31  Akbulak array      58.63 311    P       P       00 47 03.2  -0.6
AB31                                  pmax    pmax
      comp=Z,21nm,0.6s,mb5.3
MBWA  Marble Bar         58.91 202    eP      P       00 47 05.0  -0.9
AKTK  Aktyubinsk         59.44 313    iP      P       00 47 09.6  +0.2
AKTO  Aktyubinsk         59.44 313    P       P       00 47 09.5  +0.1
AKTO                                  pmax    pmax
      comp=Z,6.0nm,1.1s,mb4.5
POO   Poona              60.45 273    ePKP    P       00 47 15.6  -1.2
POO                                   AMb     AMB     00 47 16.7
      comp=Z,41nm,1.4s,mb5.3
EIDS  Eidsvold           60.70 169    eP      P       00 47 17.8  -0.3
KAD   Karad              60.79 271    ePKP    P       00 47 17.2  -1.9
KAD                                   AMb     AMB     00 47 20.4
      comp=Z,62nm,1.5s,mb5.4
PALK  Pallekele          60.90 258    eP      P       00 47 19.4  -0.4
PALK                                  pmax    pmax
      comp=Z,10.0nm,0.6s,mb5.0
PALK  Pallekele          60.90 258    eP      P       00 47 19.4  -0.4
      comp=Z,10.0nm,0.6s,mb5.0
DLBC  Dease Lake         61.04  37    P       P       00 47 20.1   0.0
      comp=Z,24nm,0.9s,mb5.2,baz=289,slow=7.6,SNR=21
DLBC  Dease Lake         61.04  37    eP      P       00 47 21.9  +1.8
DZM   Mont Dzumac        61.80 152    eP      P       00 47 24.4  -1.1
PRGR  Permogore          62.12 327    eP      P       00 47 25.8  -1.5
PRGR                                  pmax    pmax
      comp=Z,14nm,0.9s,mb5.0
COCO  West Island        62.20 229    iP      P       00 47 30.7  +2.3
ALE   Alert              62.43   3    P       P       00 47 29.0  -0.1
      comp=Z,126nm,0.9s,mb6.0,SNR=10
ABKT  Ailbek             64.05 299    P       P       00 47 40.3  -0.2
      comp=Z,102nm,1.0s,mb5.6,SNR=8.4
RES   Resolute Bay       65.04  14    P       P       00 47 46.1  -0.2
RES                                   pmax    pmax
      comp=Z,32nm,0.8s,mb5.2
RES   Resolute Bay       65.04  14    P       P       00 47 46.1  -0.2
      comp=Z,32nm,0.8s,mb5.2,baz=311,slow=6.7,SNR=156
KLMR  Klimovskoe         65.13 328    eP      P       00 47 46.0  -1.1
KLMR                                  pmax    pmax
      comp=Z,18nm,1.1s,mb4.8
KEV   Kevo               65.20 339    ep      P       00 47 46.4  -1.0
ARMA  Armidale           65.73 169    eP      P       00 47 51.1  -0.2
ARMA                                  e       pP      00 48 16.5  +2.7
ARCES ARCESS Array B     65.75 339    P       P       00 47 50.7  -0.3
ARCES                                 pmax    pmax
      comp=Z,3.0nm,0.6s
ARCES ARCESS Array B     65.75 339    P       P       00 47 50.7  -0.4
      comp=Z,3.0nm,0.6s,mb4.3,baz=66,slow=8.3,SNR=13
ARCES ARCESS Array B     65.75 339    P       P       00 47 50.7  -0.4
FORT  Forrest            66.19 191    eP      P       00 47 53.5  -0.7
      comp=Z,67nm,0.6s,mb5.7
FORT  Forrest            66.19 191    eP      P       00 47 53.9  -0.3
      comp=Z,66nm,0.6s,mb5.6
YKA   Yellowknife Ar     66.27  29    P       P       00 47 53.9  -0.6
      comp=Z,12nm,0.8s,mb4.8,baz=299,slow=6.4,SNR=150
YKA                                   PKPPKP          01 16 30.6
      comp=Z,0.5nm,1.0s,baz=129,slow=3.2,SNR=4.4
STKA  Stephens Creek     66.31 179   ⇓iP      P       00 47 54.2  -0.7
      comp=Z,15nm,0.7s,mb4.9
STKA                                  e       pP      00 48 18.7  +1.2
STKA  Stephens Creek     66.31 179    P       P       00 47 54.2  -0.7
      comp=Z,18nm,0.7s,mb5.0,baz=15,slow=6.6,SNR=35
JOF   Joensuu            67.48 332    eP      P       00 47 59.6  -2.5
JOF                                   pmax    pmax
      comp=Z,6.0nm,0.5s,mb4.7
JOF   Joensuu            67.48 332    ep      P       00 47 59.6  -2.5
      comp=Z,5.6nm,0.5s,mb4.7
PGC   Sidney             68.64  45    eP      P       00 48 10.4  +0.8
OOW   Octopus West       68.64  46    P       P       00 48 11.4  +1.8
B04A  Port Angeles       68.90  46   ⇓P       P       00 48 11.8  +0.6
      baz=69,SNR=12
NLWA  Neilton Lookou     69.00  46   ⇓P       P       00 48 13.1  +1.2
      baz=69,SNR=6.2
NLWA  Neilton Lookou     69.00  46    eP      P       00 48 13.6  +1.7
A04A  Legoe Bay, Lum     69.04  45   ⇓P       P       00 48 12.7  +0.6
      baz=69
D03A  Wishkah Elem.      69.19  47   ⇓P       P       00 48 13.4  +0.3
      baz=69
A05A  Maple Falls        69.26  44   ⇓P       P       00 48 13.5  +0.1
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      baz=69,SNR=7.9
KLBR  Kellerberrin       69.30 200    eP      P       00 48 12.5  -1.2
      comp=Z,32nm,1.2s,mb5.0
OBN   Obninsk            69.30 323   ⇑iP      P       00 48 13.3  -0.3
OBN                                   eS      S       00 57 15.4  +2.5
OBN                                   pmax    pmax
      comp=Z,17nm,1.2s,mb4.8
OBN                                   MLR     MLR
      comp=Z,200nm,18.0s
OBN   Obninsk            69.30 323   ⇑eP      P       00 48 12.8  -0.8
C04A  Brinnon            69.37  46   ⇓P       P       00 48 15.0  +0.9
      baz=69
A06A  Chilliwack         69.56  44   ⇓P       P       00 48 15.6  +0.3
      baz=69,SNR=10
E03A  Lebam              69.59  47   ⇑P       P       00 48 16.1  +0.6
      baz=70
B05A  Bryant             69.62  45   ⇑P       P       00 48 16.4  +0.7
      baz=70,SNR=22
B06A  Marblemount        69.85  44   ⇑P       P       00 48 17.5  +0.4
      baz=70,SNR=12
KAF   Kangasniemi        69.85 333    eP      P       00 48 14.9  -1.9
KAF                                   pmax    pmax
      comp=Z,6.0nm,0.5s,mb4.7
KAF   Kangasniemi        69.85 333    ep      P       00 48 14.9  -1.9
      comp=Z,5.7nm,0.5s,mb4.7
RPW   Rockport           69.86  45    eP      P       00 48 17.9  +0.7
VSR   Storozhevoye       69.97 319    eP      P       00 48 17.0  -0.7
VSR                                   e*SP    sP      00 48 37.6   -13
VSR                                   pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.6
VSR                                   pmax    pmax
      comp=N,4.0nm,0.8s
VSR                                   pmax    pmax
      comp=E,6.0nm,0.5s
MUN   Mundaring          70.11 202    eP      P       00 48 17.3  -1.4
C05A  Tolt Reservoir     70.14  45   ⇓P       P       00 48 19.5  +0.6
      baz=70,SNR=16
A07A  Ashnola River,     70.21  44   ⇓P       P       00 48 19.5  +0.2
      baz=70,SNR=15
CNB   Canberra Magne     70.25 172    eP      P       00 48 19.0  -0.5
LON   Longmire           70.54  46    eP      P       00 48 21.7  +0.4
F04A  Amboy              70.59  47   ⇑P       P       00 48 22.1  +0.5
      baz=70,SNR=9.8
B07A  Winthrop           70.66  44   ⇑P       P       00 48 22.4  +0.4
      baz=70,SNR=28
COR   Corvallis          70.72  49    eP      P       00 48 23.8  +1.3
COR                                   pmax    pmax
      comp=Z,58nm,0.9s,mb5.4
COR   Corvallis          70.72  49    eP      P       00 48 23.8  +1.4
      comp=Z,58nm,0.9s,mb5.4
D06A  Cle Elum           70.89  45   ⇑P       P       00 48 23.2  -0.2
      baz=71,SNR=12
A08A  Turner Farm, O     70.89  43   ⇓P       P       00 48 23.7  +0.2
      baz=71,SNR=22
KEBM  Edson Butte        70.92  51    eP      P       00 48 18.7  -5.1
ETW   Entiat             70.98  45    eP      P       00 48 24.5  +0.5
TBM   Table Mountain     71.04  45    P       P       00 48 24.9  +0.6
C07A  Waterville         71.09  45   ⇑P       P       00 48 24.8  +0.1
      baz=71,SNR=29
E06A  Yakima             71.14  46   ⇑P       P       00 48 25.0  +0.1
      baz=71,SNR=8.0
B08A  Colville Reser     71.16  44   ⇓P       P       00 48 25.1  +0.1
      baz=71,SNR=38
EBG   Ellensburg         71.19  46    P       P       00 48 26.2  +0.9
A09A  Danville           71.27  43   ⇓P       P       00 48 25.9  +0.2
      baz=71,SNR=30
HOQ   Hoqain             71.35 286    P       P       00 48 27.0  +0.4
      SNR=10
H04A  Detroit Lake       71.36  48   ⇑P       P       00 48 26.3   0.0
      baz=71,SNR=15
HOOD  Mount Hood Mea     71.36  47    eP      P       00 48 27.6  +1.2
D07A  Quincy             71.40  45   ⇑P       P       00 48 26.7  +0.1
      baz=71,SNR=14
G05A  Wamic              71.60  47   ⇑P       P       00 48 28.4  +0.6
      baz=72,SNR=7.3
KIV   Kislovodsk         71.62 311    P       P       00 48 29.6  +1.7
      comp=Z,197nm,0.8s,mb6.0,SNR=5.8
KIV   Kislovodsk         71.62 311    eP      P       00 48 28.2  +0.3
KIV                                   pmax    pmax
      comp=Z,35nm,0.9s,mb5.2
KIV   Kislovodsk         71.62 311    eP      P       00 48 28.7  +0.8
      comp=Z,58nm,1.2s,mb5.3
C08A  Higginbotham F     71.63  44    P       P       00 48 27.9   0.0
      baz=72,SNR=37
HATD  Hatta, Dubai       71.65 288    P       P       00 48 29.1  +0.7
      SNR=8.8
F06A  Goldendale         71.66  47    P       P       00 48 28.9  +0.8
      baz=72,SNR=6.1
EDM   Edmonton           71.75  37    eP      P       00 48 28.4  -0.1
E07A  Sunnyside          71.80  46    P       P       00 48 29.3  +0.4
      baz=72,SNR=21
B09A  Rice               71.80  43   ⇓P       P       00 48 29.3  +0.4
      baz=72,SNR=36
A10A  Northport          71.84  43   ⇓P       P       00 48 29.4  +0.3
      baz=72,SNR=37
ONI   Oni                71.84 309    P       P       00 48 33.5  +4.2
BSY   Bisya              71.86 285    P       P       00 48 30.3  +0.6
      SNR=7.9
G06A  Carlson Farm,      72.02  47   ⇑P       P       00 48 30.9  +0.6
      baz=72,SNR=15
OD2   Odessa Site #2     72.03  44    P       P       00 48 30.4  +0.1
RSW   Rattlesnake Hi     72.04  46    eP      P       00 48 31.0  +0.7
C09A  Chrisman Ranch     72.06  44    P       P       00 48 31.0  +0.5
      baz=72,SNR=35
HAWA  Hanford            72.07  46    eP      P       00 48 31.1  +0.5
      comp=Z,23nm,0.9s,mb5.0
D08A  Wollman Farm,      72.08  45    P       P       00 48 30.9  +0.3
      baz=72,SNR=34
ARQ   Araqi              72.10 286    P       P       00 48 32.2  +1.1
      SNR=9.2
F07A  Phinny Hill Vi     72.10  46   ⇑P       P       00 48 31.2  +0.4
      baz=72,SNR=7.1
TOO   Toolangi           72.14 176   ⇓iP      P       00 48 30.8  -0.1
TOO                                   e       pP      00 48 55.8  +2.1
GNI   Garni              72.24 307    eP      P       00 48 32.9  +1.2
GNI                                   pmax    pmax
      comp=Z,17nm,0.9s
GNI   Garni              72.24 307    LR      LR      01 21 31.9
      comp=Z,80nm,18.2s,baz=88,slow=37
GNI   Garni              72.24 307    eP      P       00 48 32.9  +1.2
      comp=Z,16nm,0.9s,mb4.9
E08A  Dider Farm, El     72.30  45   ⇓P       P       00 48 32.3  +0.4
      baz=72,SNR=15
KHMM  Horse Mountain     72.32  52    eP      P       00 48 34.1  +1.9
B10A  Chitwood Farm,     72.39  43   ⇓P       P       00 48 32.8  +0.4
      baz=72
D09A  Jones Farm, Ri     72.43  45   ⇓P       P       00 48 32.9  +0.2
      baz=72,SNR=15
H06A  Lindquist Farm     72.46  47   ⇓P       P       00 48 33.0  +0.1
      baz=72,SNR=10
NEW   Newport            72.47  43    eP      P       00 48 33.2  +0.3
NEW                                   pmax    pmax
      comp=Z,49nm,0.8s
NEW   Newport            72.47  43    eP      P       00 48 33.2  +0.4
      comp=Z,49nm,0.8s,mb5.4
A11A  Hall Mountain,     72.51  42   ⇓P       P       00 48 33.4  +0.3
      baz=72,SNR=51
YBH   Yreka Blue Hor     72.54  51    eP      P       00 48 34.3  +0.8
YBH                                   pmax    pmax
      comp=Z,25nm,1.2s
YBH   Yreka Blue Hor     72.54  51    eP      P       00 48 34.3  +0.9
      comp=Z,25nm,1.2s,mb4.9
G07A  Ruggs Ranch, H     72.58  47    P       P       00 48 34.2  +0.5
      baz=72,SNR=11
C10A  Spilker Farm,      72.60  44   ⇓P       P       00 48 34.4  +0.7
      baz=72
E09A  Wood Farm, Sta     72.82  45    P       P       00 48 35.6  +0.6
      baz=73,SNR=34
F08A  Pendleton          72.83  46   ⇓P       P       00 48 35.8  +0.7
      baz=73
A12A  Yaak River Ran     72.92  42   ⇑P       P       00 48 35.6  +0.1
      baz=73,SNR=22
SUMG  Summit             72.94 360    eP      P       00 48 35.8  +0.5
      comp=Z,37nm,0.9s,mb5.2
I06A  Prineville         72.95  48   ⇓P       P       00 48 36.4  +0.6
      baz=73,SNR=10
G08A  Pilot Rock         73.00  46   ⇑P       P       00 48 36.4  +0.3
      baz=73,SNR=13
H07A  Lands Inn, Kim     73.00  47   ⇓P       P       00 48 36.6  +0.5
      baz=73
D10A  Wagner Farm, O     73.03  44   ⇑P       P       00 48 36.1  -0.1
      baz=73,SNR=20
LNOR  Lincton Mounta     73.08  46    eP      P       00 48 37.2  +0.6
K05A  Summer Lake        73.17  50   ⇑P       P       00 48 37.8  +0.7
      baz=73,SNR=17
WDC   Whiskeytown Da     73.25  52    eP      P       00 48 38.2  +0.5
WDC                                   pmax    pmax
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       comp=Z,47nm,1.2s,mb5.2
WDC    Whiskeytown Da  73.25  52 eP     P      00 48 38.2 +0.6
       comp=Z,47nm,1.2s,mb5.2
I07A   Izee            73.31  48 ⇑P     P      00 48 38.6 +0.6
       baz=73,SNR=13
J06A   Christmas Vall  73.36  49 ⇑P     P      00 48 39.1 +0.9
       baz=73,SNR=14
E10A   Myers Farm, Un  73.44  45 ⇑P     P      00 48 38.6 -0.1
       baz=73,SNR=17
D11A   Klaveano Farm,  73.58  44  P     P      00 48 39.5 +0.1
       baz=73,SNR=43
H08A   Prairie City    73.58  47 ⇓P     P      00 48 39.9 +0.3
       baz=73,SNR=20
F10A   Beach Ranch, E  73.65  45 ⇑P     P      00 48 40.2 +0.3
       baz=74,SNR=10
G09A   Cove            73.70  46 ⇓P     P      00 48 40.7 +0.4
       baz=74,SNR=18
WALA   Waterton Lakes  73.80  41 eP     P      00 48 41.3 +0.5
       comp=Z,1.2nm,0.8s,mb3.7
J07A   Hines           73.81  48 ⇑P     P      00 48 41.9 +1.0
       baz=74,SNR=23
B13A   Whitefish       73.88  42 ⇑P     P      00 48 42.0 +0.8
       baz=74,SNR=53
I08A   Drewsey         73.97  48 ⇓P     P      00 48 42.8 +1.0
       baz=74,SNR=12
MOD    Modoc           73.98  50 eP     P      00 48 42.6 +0.6
       comp=Z,34nm,1.2s,mb5.0
E11A   Bogner Ranch,   74.03  44 ⇓P     P      00 48 42.1  0.0
       baz=74,SNR=22
G10A   Bishop Farm, J  74.09  46 ⇓P     P      00 48 43.1 +0.6
       baz=74,SNR=29
H09A   Durkee          74.11  46 ⇓P     P      00 48 43.4 +0.8
       baz=74,SNR=6.8
A14A   Double T Ranch  74.11  41 ⇑P     P      00 48 42.7 +0.2
       baz=74,SNR=28
C13A   Hot Springs     74.22  43 ⇓P     P      00 48 43.6 +0.4
       baz=74,SNR=55
BMO    Blue Mountains  74.22  46 eP     P      00 48 43.9 +0.6
       comp=Z,50nm,1.2s,mb5.1
K07A   Rock Creek Ran  74.22  49 ⇓P     P      00 48 44.1 +0.8
       baz=74,SNR=21
SCO    Scoresbysund    74.25 354 i P    P      00 48 43.5 +0.5
SCO                              i             00 48 53.4
SCO                               pmax  pmax
       comp=Z,7.0nm,0.8s,mb4.4
SCO    Scoresbysund    74.25 354 i P    P      00 48 43.5 +0.5
       comp=Z,7.2nm,0.8s,mb4.5
SCO                              i             00 48 53.4
J08A   Circle Bar Ran  74.33  48 ⇑P     P      00 48 44.6 +0.6
       baz=74,SNR=25
ANN    Anapa           74.36 314 eP     P      00 48 45.0 +0.9
ANN                              e*PP   pP     00 48 59.0 -8.0
ANN                               pmax  pmax
       comp=Z,53nm,1.1s,mb5.2
I09A   Lost Marbles R  74.44  47 ⇑P     P      00 48 45.2 +0.7
       baz=74,SNR=8.0
A15A   Johnson Ranch,  74.48  41 ⇓P     P      00 48 44.5 -0.2
       baz=74,SNR=21
L07A   Adell           74.53  49 ⇑P     P      00 48 46.0 +0.9
       baz=74,SNR=51
D13A   Huson           74.61  43  P     P      00 48 45.4 -0.1
       baz=74,SNR=28
C14A   Swan Lake       74.62  42 ⇓P     P      00 48 46.1 +0.6
       baz=74
K08A   Mann Creek Ran  74.67  49 ⇑P     P      00 48 46.2 +0.3
       baz=74,SNR=24
H10A   Noah’s Angus R  74.69  46  P     P      00 48 46.4 +0.3
       baz=74,SNR=28
WVOR   Wild Horse Val  74.74  49 eP     P      00 48 47.1 +0.8
WVOR                              pmax  pmax
       comp=Z,41nm,1.3s,mb5.0
WVOR   Wild Horse Val  74.74  49 eP     P      00 48 47.1 +0.8
       comp=Z,41nm,1.3s,mb5.0
J09A   Fry Pan Ranch,  74.78  48 ⇑P     P      00 48 46.2 -0.3
       baz=75,SNR=19
N06A   Buffalo Meadow  74.90  51 ⇑P     P      00 48 48.1 +0.8
       baz=75,SNR=41
F12A   Elk City        74.92  45 ⇓P     P      00 48 47.7 +0.4
       baz=75,SNR=73
I10A   Payette         74.94  47 ⇓P     P      00 48 48.2 +0.7
       baz=75,SNR=12
B15A   Bradely Ranch,  74.96  41 ⇓P     P      00 48 47.9 +0.5
       baz=75,SNR=69
M07A   Soldier Meadow  74.97  50 ⇑P     P      00 48 47.8 +0.1
       baz=75,SNR=28
BEKR   Beckwourth      75.04  52 ⇓P     P      00 48 48.5 +0.4
       baz=75,SNR=105
L08A   Fields          75.05  49 ⇑P     P      00 48 49.0 +0.9
       baz=75,SNR=48
MSO    Missoula        75.05  43 eP     P      00 48 48.0  0.0
       comp=Z,33nm,1.3s,mb4.9
H11A   Donnelly        75.07  46  P     P      00 48 48.3 +0.1
       baz=75,SNR=26
A16A   West Butte Ran  75.11  40  P     P      00 48 48.5 +0.2
       baz=75,SNR=24
E13A   Victor          75.14  44 ⇓P     P      00 48 48.4 -0.1
       baz=75,SNR=12
D14A   Greenough       75.15  43 ⇓P     P      00 48 48.4 -0.2
       baz=75,SNR=36
K09A   Rome            75.15  48 ⇑P     P      00 48 49.1 +0.4
       baz=75,SNR=22
O06A   Flanigan        75.22  51 ⇑P     P      00 48 48.1 -1.1
       baz=75,SNR=29
C15A   Salmond Ranch,  75.25  42 ⇑P     P      00 48 49.8 +0.6
       baz=75,SNR=76
B16A   M & M Farms, S  75.36  41  P     P      00 48 50.1 +0.4
       baz=75,SNR=28
F13A   Darby           75.43  44  P     P      00 48 49.9 -0.3
       baz=75,SNR=20
N07B   Gerlach         75.43  50 ⇓P     P      00 48 51.0 +0.6
       baz=75,SNR=11
M08A   Happy Creek Ra  75.44  50 ⇓P     P      00 48 50.9 +0.6
       baz=75,SNR=20
P06A   Stead Airport,  75.44  52 ⇑P     P      00 48 50.4  0.0
       baz=75,SNR=5.0
AKASG  Malin Array Be  75.46 322  P     P      00 48 49.6 -0.7
AKASG                             pmax  pmax
       comp=Z,14nm,0.6s
AKASG                             MLR   MLR
       comp=Z,151nm,18.2s
AKASG  Malin Array Be  75.46 322  P     P      00 48 49.6 -0.7
       comp=Z,14nm,0.6s,mb4.9,baz=49,slow=5.8,SNR=44
AKASG                             LR    LR     01 24 37.7
       comp=Z,150nm,18.2s,baz=10.0,slow=38
AKASG  Malin Array Be  75.46 322  P     P      00 48 49.6 -0.7
AKASG                             LR    LR     01 24 37.7
KIEV   Kiev            75.47 322 eP     P      00 48 49.3 -1.1
KIEV                              pmax  pmax
       comp=Z,16nm,0.7s,mb4.9
KIEV   Kiev            75.47 322 eP     P      00 48 49.3 -1.0
       comp=Z,16nm,0.7s,mb4.9
E14A   Clinton         75.55  43  P     P      00 48 50.8 -0.1
       baz=75,SNR=11
L09A   Wilkinson Ranc  75.57  49 ⇑P     P      00 48 51.1  0.0
       baz=75,SNR=9.2
A17A   Triple J Farms  75.59  40 ⇓P     P      00 48 51.0  0.0
       baz=75,SNR=30
K10A   MacKenzie Ranc  75.63  48 ⇓P     P      00 48 52.0 +0.6
       baz=76,SNR=27
UMR    Umm Al-Rimmam   75.64 296 eP     P      00 48 50.8 -0.9
UMR                               AMb   AMB    00 48 55.8
       comp=Z,31nm,1.6s,mb4.8
C16A   Fuhringer Ranc  75.70  41 ⇑P     P      00 48 51.9 +0.2
       baz=76,SNR=51
D15A   Lincoln         75.72  42 ⇑P     P      00 48 51.9  0.0
       baz=76,SNR=11
WCN    Washoe City     75.74  52 ⇑P     P      00 48 52.6 +0.5
       baz=76,SNR=24
MIB    Mutribah        75.79 296 eP     P      00 48 51.2 -1.4
MIB                               AMb   AMB    00 49 02.7
       comp=Z,39nm,0.8s,mb5.2
O07A   Toulon          75.83  51 ⇑P     P      00 48 53.0 +0.3
       baz=76,SNR=31
H12A   Diamond D Ranc  75.83  45 ⇑P     P      00 48 52.7 +0.1
       baz=76,SNR=20
NB2    NORSAR Subarra  75.87 337  P     P      00 48 51.8 -0.7
       comp=Z,20nm,0.8s,mb4.9,baz=41,slow=5.9
NOA    NORSAR Array B  75.87 337  P     P      00 48 51.9 -0.6
NOA                               pmax  pmax
       comp=Z,13nm,0.8s
NOA                               MLR   MLR
       comp=Z,118nm,21.2s
NOA    NORSAR Array B  75.87 337  P     P      00 48 51.9 -0.5
       comp=Z,13nm,0.8s,mb4.7,baz=40,slow=5.7,SNR=38
NOA                               LR    LR     01 22 20.5
       comp=Z,118nm,21.2s,baz=275,slow=36
NOA    NORSAR Array B  75.87 337  P     P      00 48 51.9 -0.5
NOA                               LR    LR     01 22 20.5
G13A   Cobalt          75.89  45 ⇑P     P      00 48 52.3 -0.5
       baz=76,SNR=22
MFID   Camas Ranch     75.90  47 ⇑P     P      00 48 53.4 +0.4
       baz=76,SNR=29
B17A   L&G Farms, Che  75.92  41  P     P      00 48 53.4 +0.4
       baz=76,SNR=58
N08A   GE Springer Mi  75.96  50 ⇓P     P      00 48 53.8 +0.4
       baz=76,SNR=38
F14A   Wisdom          75.97  44 ⇓P     P      00 48 53.7 +0.5
       baz=76,SNR=12
SAO    San Andreas Ge  76.00  55 eP     P      00 48 54.3 +0.6
SAO                               pmax  pmax
       comp=Z,25nm,0.8s,mb5.0
SAO    San Andreas Ge  76.00  55 eP     P      00 48 54.3 +0.6
       comp=Z,25nm,0.8s,mb5.0
E15A   Deer Lodge      76.02  43 ⇓P     P      00 48 53.3 -0.2
       baz=76,SNR=37
CMB    Columbia Colle  76.02  53 eP     P      00 48 54.3 +0.6
CMB                               pmax  pmax
       comp=Z,99nm,1.1s,mb5.5
CMB    Columbia Colle  76.02  53 eP     P      00 48 54.3 +0.5
       comp=Z,99nm,1.1s,mb5.5
M09A   Marrel Ranch,   76.03  49 ⇓P     P      00 48 52.9 -0.9
       baz=76,SNR=9.6
A18A   Metzger Ranch,  76.05  40 ⇓P     P      00 48 53.5 -0.2
       baz=76,SNR=24
RDF    Al-Radifah      76.10 296 eP     P      00 48 53.5 -0.8
RDF                               AMb   AMB    00 49 03.3
       comp=Z,110nm,1.0s,mb5.5
I12A   Atlanta         76.10  46 ⇓P     P      00 48 54.0 -0.1
       baz=76
K11A   Parker Ranch,   76.14  47 ⇓P     P      00 48 54.9 +0.5
       baz=76,SNR=36
NAY    Al-Naaiem       76.16 296 eP     P      00 48 53.5 -1.1
NAY                               AMb   AMB    00 49 03.4
       comp=Z,47nm,1.2s,mb5.1
FFC    Flin Flon       76.16  32  P     P      00 48 53.4 -0.8
       comp=Z,195nm,0.7s,mb5.9,SNR=15
FFC    Flin Flon       76.16  32 eP     P      00 48 53.8 -0.4
FFC                               pmax  pmax
       comp=Z,24nm,0.8s,mb5.0
FFC    Flin Flon       76.16  32 eP     P      00 48 53.8 -0.4
       comp=Z,24nm,0.8s,mb5.0
H13A   Challis         76.18  45 ⇑P     P      00 48 54.8 +0.3
       baz=76,SNR=64
O08A   Rochester Mine  76.22  50 ⇑P     P      00 48 55.1 +0.3
       baz=76,SNR=31
SUW    Suwalki         76.24 327 eP     P      00 48 54.1 -0.5
SUW    Suwalki         76.24 327 eP     P      00 48 54.1 -0.6
G14A   Jackson         76.24  44 ⇓P     P      00 48 53.9 -1.0
       baz=76
D16A   Dana Ranch, Ca  76.27  42 ⇓P     P      00 48 55.3 +0.3
       baz=76,SNR=31
L10A   Juniper Basin   76.27  48 ⇓P     P      00 48 55.7 +0.6
       baz=76,SNR=34
N09A   Rock Creek Ran  76.31  50 ⇑P     P      00 48 56.2 +0.9
       baz=76,SNR=6.4
C17A   Wharram Farm,   76.34  41 ⇓P     P      00 48 55.0 -0.3
       baz=76,SNR=29
R06C   Coleville       76.37  53 ⇑P     P      00 48 56.3 +0.6
       baz=76,SNR=42
B18A   Beardsley Farm  76.41  40 ⇓P     P      00 48 56.2 +0.5
       baz=76,SNR=52
F15A   Butte           76.44  43 ⇑P     P      00 48 56.4 +0.4
       baz=76,SNR=76
FCC    Fort Churchill  76.48  26 eP     P      00 48 55.2 -0.7
       comp=Z,2.1nm,1.3s,mb3.7
FCC                              ePcP   PcP    00 49 07.0 -0.2
E16A   East Helena     76.49  42 ⇑P     P      00 48 55.3 -1.0
       baz=76,SNR=15
M10A   I.L. Ranch, Tu  76.54  49 ⇓P     P      00 48 55.6 -1.0
       baz=76,SNR=35
P08A   Dixie Valley    76.60  51 ⇑P     P      00 48 58.0 +1.0
       baz=76,SNR=8.0
I13A   Wildhorse Cree  76.63  46 ⇓P     P      00 48 57.2 +0.1
       baz=76,SNR=34
EGMT   Eagleton        76.64  40 ⇑P     P      00 48 57.2 +0.1
       baz=76,SNR=46
EGMT   Eagleton        76.64  40 eP     P      00 48 57.4 +0.4
       comp=Z,75nm,1.0s,mb5.4
L11A   Cat Creek Ranc  76.66  48 ⇓P     P      00 48 56.1 -1.2
       baz=76,SNR=47
HLID   Hailey          76.66  46 ⇑P     P      00 48 57.1 -0.2
       baz=76,SNR=43
HLID   Hailey          76.66  46 eP     P      00 48 58.2 +1.0
       comp=Z,32nm,1.1s,mb5.0
D17A   Six Diamond Ra  76.67  41 ⇑P     P      00 48 56.5 -0.7
       baz=76,SNR=41
DLMT   Dillon          76.67  44 eP     P      00 48 58.0 +0.8
       comp=Z,84nm,1.1s,mb5.4
BMN    Battle Mountai  76.73  50 eP     P      00 48 58.9 +1.2
BMN                               pmax  pmax
       comp=Z,78nm,1.3s,mb5.3
BMN    Battle Mountai  76.73  50 eP     P      00 48 58.9 +1.2
       comp=Z,78nm,1.3s,mb5.3
G15A   Dillon          76.85  44 ⇓P     P      00 48 57.5 -0.7
       baz=77,SNR=54
J13A   Cove Ranch, Pi  76.90  46 ⇑P     P      00 48 58.1 -0.5
       baz=77,SNR=51
O09A   Fish Creek Ran  76.90  50 ⇓P     P      00 48 58.5 -0.2
       baz=77,SNR=8.5
K12A   Draper Farm, C  76.91  47 ⇑P     P      00 48 57.9 -0.8
       baz=77,SNR=34
F16A   Kennard Place,  76.97  43 ⇓P     P      00 48 59.3 +0.3
       baz=77,SNR=31
E17A   Martinsdale     76.99  42 ⇓P     P      00 48 59.8 +0.8
       baz=77,SNR=29
I14A   Mackay          77.02  45 ⇑P     P      00 49 00.1 +0.8
       baz=77,SNR=99
N10A   Dunphy          77.02  49 ⇓P     P      00 48 60.0 +0.7
       baz=77
BOZ    Bozeman (W)     77.05  43 eP     P      00 48 59.6 +0.2
BOZ                               pmax  pmax
       comp=Z,29nm,1.0s,mb5.0
BOZ    Bozeman (W)     77.05  43 ⇑P     P      00 48 59.3 -0.1
       baz=77,SNR=12
BOZ    Bozeman (W)     77.05  43 eP     P      00 48 59.6 +0.2
       comp=Z,29nm,1.0s,mb5.0
M11A   Holland Ranch,  77.06  48 ⇓P     P      00 48 60.0 +0.5
       baz=77,SNR=16
H15A   Lima            77.08  44 ⇓P     P      00 48 59.3 -0.3
       baz=77,SNR=12
L12A   House Creek Ra  77.12  48 ⇓P     P      00 48 59.3 -0.6
       baz=77,SNR=45
D18A   Linhart Farms,  77.12  41 ⇓P     P      00 49 00.4 +0.7
       baz=77,SNR=9.3
Q08A   Gabbs           77.17  52 ⇓P     P      00 49 00.4 +0.2
       baz=77
NVAR   Mina Array Bea  77.17  52  P     P      00 49 00.6 +0.4
       comp=Z,42nm,0.8s,mb5.2,baz=289,slow=5.6,SNR=240
G16A   Moss Hill, Enn  77.20  44 ⇓P     P      00 49 00.4 +0.2
       baz=77,SNR=9.6
MLAC   Mammoth Lakes   77.27  53 ⇓P     P      00 49 00.2 -0.5
       baz=77,SNR=12
MALT   Malatya         77.36 308 eP     P      00 49 02.4 +1.1
MALT                              pmax  pmax
       comp=Z,19nm,1.3s,mb4.7
MALT   Malatya         77.36 308 eP     P      00 49 02.4 +1.1
       comp=Z,19nm,1.3s,mb4.7
F17A   Fitzpatrick Pl  77.44  43 ⇓P     P      00 49 00.8 -0.8
       baz=77,SNR=19
E18A   Harlowton       77.44  42 ⇓P     P      00 49 01.9 +0.3
       baz=77,SNR=43
G17A   Pierce Place,   77.74  43 ⇑P     P      00 49 02.8 -0.5
       baz=78,SNR=18
ELK    Elko            77.79  49 eP     P      00 48 59.6 -4.0
ELK                               pmax  pmax
       comp=Z,33nm,1.0s
ELK    Elko            77.79  49 eP     P      00 48 59.5 -4.1
       comp=Z,33nm,1.0s,mb5.0
L13A   Double Diamond  77.80  47 ⇓P     P      00 49 03.0 -0.7
       baz=78,SNR=44
H16A   Russell Place,  77.83  44 ⇑P     P      00 49 03.4 -0.3
       baz=78,SNR=17
N12A   Clover Valley,  77.85  49 ⇓P     P      00 49 03.5 -0.5
       baz=78,SNR=12
O11A   Cowboy Ranch,   77.89  49 ⇑P     P      00 49 04.0 -0.2
       baz=78,SNR=7.4
J15A   Blackfoot       77.92  45 ⇓P     P      00 49 04.6 +0.3
       baz=78,SNR=31
F18A   Big Timber      77.96  42 ⇑P     P      00 49 04.2 -0.2
       baz=78,SNR=46
TIN    Tinemaha        77.99  53 ⇓P     P      00 49 04.9 +0.1
       baz=78,SNR=10
K14A   Jones Ranch, D  77.99  46 ⇓P     P      00 49 03.9 -0.8
       baz=78,SNR=40
TPH    Tonopah         78.07  52 eP     P      00 49 06.1 +0.9
TPH                               pmax  pmax
       comp=Z,77nm,1.1s,mb5.3
TPH    Tonopah         78.07  52 eP     P      00 49 06.1 +0.9
       comp=Z,77nm,1.1s,mb5.3
R09A   Tonopah         78.07  52 ⇑P     P      00 49 05.4 +0.2
       baz=78,SNR=17
M13A   Montello        78.09  48 ⇓P     P      00 49 04.9 -0.4
       baz=78,SNR=23
VES    Vestal, Richgr  78.10  55 ⇑P     P      00 49 05.1 -0.4
       baz=78,SNR=27
Q10A   Clear Creek Ra  78.17  51 ⇓P     P      00 49 06.4 +0.6
       baz=78
I16A   Newdale         78.19  45 ⇓P     P      00 49 05.2 -0.6
       baz=78,SNR=60
SFJD   Kangerlussuaq   78.22   4 i P    P      00 49 05.3 -0.2
SFJD                              pmax  pmax
       comp=Z,14nm,0.8s,mb4.7
SFJD   Kangerlussuaq   78.22   4 i P    P      00 49 05.3 -0.2
       comp=Z,14nm,0.8s,mb4.7
L14A   Malta           78.26  47 ⇓P     P      00 49 06.4 +0.2
       baz=78,SNR=10
S09A   Goldfield       78.27  52 ⇓P     P      00 49 06.5 +0.1
       baz=78,SNR=14
K15A   Arbon           78.29  46 ⇑P     P      00 49 06.5 +0.1
       baz=78,SNR=28
N13A   Wendover, West  78.37  48 ⇑P     P      00 49 07.0 +0.2
       baz=78,SNR=10
O12A   Currie          78.38  49 ⇓P     P      00 49 07.9 +1.0
       baz=78,SNR=11
H17A   Grant Village   78.40  44 ⇓P     P      00 49 07.7 +0.8
       baz=78,SNR=54
G18A   Lazy EL Ranch,  78.40  43 ⇓P     P      00 49 06.6 -0.4
       baz=78
CWC    Cottonwood Cre  78.44  54 ⇑P     P      00 49 07.5 +0.2
       baz=78,SNR=6.4
J16A   Bone            78.48  45 ⇑P     P      00 49 07.3 -0.1
       baz=78,SNR=33
M14A   Sheep Mountain  78.51  47 ⇓P     P      00 49 08.4 +0.8
       baz=78,SNR=36
DCID1  Drake Creek     78.53  45 eP     P      00 49 09.2 +1.5
       comp=Z,49nm,0.8s,mb5.4
R10A   Warm Springs    78.54  51 ⇓P     P      00 49 06.9 -0.9
       baz=78,SNR=8.8
S10A   Tonopah Range,  78.56  52 ⇓P     P      00 49 08.7 +0.8
       baz=78,SNR=13
GRAC   Grapevine Rang  78.59  53 ⇑P     P      00 49 07.3 -0.8
       baz=78,SNR=13
LVV    L’vov           78.60 324 eP     P      00 49 07.1 -0.8
LVV                              e             00 49 15.1
RRI2   Red Ridge       78.61  45 eP     P      00 49 09.5 +1.4
       comp=Z,42nm,1.0s,mb5.2
ISA    Isabella        78.61  55 eP     P      00 49 07.8 -0.5
ISA                               pmax  pmax
       comp=Z,26nm,1.0s,mb5.0
ISA    Isabella        78.61  55  P     P      00 49 07.8 -0.5
       baz=78,SNR=26
ISA    Isabella        78.61  55 eP     P      00 49 07.8 -0.4
       comp=Z,26nm,1.0s,mb5.0
Q11A   Duckwater       78.63  51 ⇓P     P      00 49 09.1 +0.7
       baz=78
ARVC   Arvin           78.68  55 ⇓P     P      00 49 08.0 -0.7
       baz=78,SNR=11
I17A   Pilgrim Ck.     78.69  44 ⇑P     P      00 49 09.4 +0.9
       baz=78,SNR=49
RLMT   Red Lodge       78.69  43  P     P      00 49 09.4 +0.9
       baz=78,SNR=27
RLMT   Red Lodge       78.69  43 eP     P      00 49 09.2 +0.7
       comp=Z,41nm,1.1s,mb5.2
MOOW   Moose Ponds     78.69  44 eP     P      00 49 09.8 +1.2
       comp=Z,22nm,0.9s,mb5.0
P12A   McGill          78.74  50 ⇓P     P      00 49 09.3 +0.4
       baz=79,SNR=11
K16A   Soda Springs    78.76  45 ⇓P     P      00 49 08.8 -0.1
       baz=79,SNR=74
BSC    Santa Cruz Isl  78.77  56 ⇓P     P      00 49 08.7 -0.5
       baz=79,SNR=6.0
BEL    Belsk           78.78 327 eP     P      00 49 09.1 +0.3
L15A   Malad City      78.79  46 ⇑P     P      00 49 08.9 -0.1
       baz=79,SNR=44
LOHW   Long Hollow     78.86  44 eP     P      00 49 10.5 +1.0
       comp=Z,30nm,1.3s,mb5.0
REDW   Red Top Meadow  78.87  45 eP     P      00 49 10.5 +1.0
       comp=Z,49nm,1.2s,mb5.2
O13A   Hicks Ranch, I  78.93  49 ⇓P     P      00 49 11.0 +1.1
       baz=79,SNR=17
BSD    Bornholm Skovb  78.95 331 i P    P      00 49 09.0 -0.7
BSD                               pmax  pmax
       comp=Z,17nm,0.9s,mb4.9
BSD    Bornholm Skovb  78.95 331 i P    P      00 49 09.0 -0.7
       comp=Z,17nm,0.9s,mb4.9
J17A   Brown Place, J  78.95  45 ⇓P     P      00 49 09.6 -0.3
       baz=79,SNR=13
R11A   Troy Canyon, C  78.97  51 ⇑P     P      00 49 10.1  0.0
       baz=79,SNR=10.0
N14A   Grayback Hills  78.99  48 ⇓P     P      00 49 09.5 -0.7
       baz=79,SNR=41
OSI    Osito Adit      79.04  56 ⇓P     P      00 49 11.1 +0.4
       baz=79
OSI    Osito Adit      79.04  56 eP     P      00 49 11.1 +0.5
       comp=Z,42nm,0.9s,mb5.3
Q12A   Willow Creek R  79.04  50 ⇓P     P      00 49 11.0 +0.5
       baz=79,SNR=6.2
MPMC   Manual Prospec  79.04  54 ⇑P     P      00 49 10.1 -0.5
       baz=79,SNR=41
M15A   Larsen Ranch,   79.07  47 ⇓P     P      00 49 11.4 +0.7
       baz=79,SNR=54
AHID   Auburn Hatcher  79.09  45 eP     P      00 49 11.5 +0.8
       comp=Z,25nm,0.8s,mb5.1
BLG    Laguna Peak     79.09  56 ⇑P     P      00 49 10.9  0.0
       baz=79,SNR=6.4
FURC   Furnace Creek,  79.22  53 ⇑P     P      00 49 11.4 -0.2
       baz=79,SNR=12
DGMT   Dagmar          79.24  38 ⇓P     P      00 49 10.2 -1.3
       baz=79,SNR=7.4
DGMT   Dagmar          79.24  38 eP     P      00 49 11.1 -0.3
       comp=Z,74nm,1.2s,mb5.4
P13A   Bates Ranch, G  79.31  49 ⇑P     P      00 49 12.2 +0.2
       baz=79,SNR=6.5
GKP    Gorka Klasztor  79.33 329 eP     P      00 49 11.9 +0.1
GKP    Gorka Klasztor  79.33 329 eP     P      00 49 11.9 +0.1
L16A   Fish Haven      79.35  46 ⇑P     P      00 49 12.4 +0.2
       baz=79,SNR=36
LAO    LASA Array      79.35  40 eP     P      00 49 12.6 +0.5
       comp=Z,61nm,1.0s,mb5.4
KWP    Kalwaria Pacla  79.37 324 eP     P      00 49 12.6 +0.5
KWP    Kalwaria Pacla  79.37 324⇑iP     P      00 49 12.6 +0.5
KWP    Kalwaria Pacla  79.37 324 eP     P      00 49 12.6 +0.5
N15A   Stansbury Isla  79.37  47 ⇓P     P      00 49 12.7 +0.4
       baz=79,SNR=66
EDW2   Edwards Air Fo  79.39  55 ⇑P     P      00 49 12.6 +0.1
       baz=79,SNR=43
J18A   Kendall Valley  79.44  44 ⇑P     P      00 49 12.5 -0.1
       baz=79,SNR=48
COP    Copenhagen      79.48 333 eP     P      00 49 12.7 +0.1
COP                               pmax  pmax
       comp=Z,18nm,0.9s,mb4.9
COP    Copenhagen      79.48 333 i P    P      00 49 12.7 +0.1
       comp=Z,18nm,0.9s,mb4.9
COP    Copenhagen      79.48 333 eP     P      00 49 12.7 +0.1
       comp=Z,18nm,0.9s,mb4.9
DECC   Green Verdugo   79.51  56 ⇓P     P      00 49 13.7 +0.5
       baz=79,SNR=5.2
BRTR   Keskin Array B  79.58 311  P     P      00 49 13.5  0.0
BRTR                                           00 52 14.5
BRTR                              pmax  pmax
       comp=Z,11nm,1.0s
BRTR                              pmax  pmax
       comp=Z,3.0nm,1.0s
BRTR   Keskin Array B  79.58 311  P     P      00 49 13.4  0.0
       comp=Z,11nm,1.0s,mb4.6,baz=111,slow=3.2,SNR=25
BRTR                              PP    PP     00 52 14.4 -0.2
       comp=Z,2.5nm,1.0s,baz=70,slow=6.3,SNR=4.3
R12A   Pony Springs,   79.60  50  P     P      00 49 14.3 +0.7
       baz=79,SNR=8.8
U10A   Ash Meadows, A  79.60  53 ⇑P     P      00 49 14.3 +0.6
       baz=80,SNR=25
DUG    Dugway          79.61  48 eP     P      00 49 14.4 +0.8
DUG                               pmax  pmax
       comp=Z,52nm,0.9s,mb5.4
DUG    Dugway          79.61  48 ⇓P     P      00 49 14.1 +0.5
       baz=80,SNR=41
DUG    Dugway          79.61  48 eP     P      00 49 14.3 +0.7
       comp=Z,52nm,0.9s,mb5.4
L17A   Cokeville       79.63  46 ⇓P     P      00 49 14.3 +0.6
       baz=80,SNR=8.8
MWC    Mount Wilson    79.71  56 eP     P      00 49 14.5 +0.2
MWC                               pmax  pmax
       comp=Z,61nm,1.3s,mb5.3
MWC    Mount Wilson    79.71  56 eP     P      00 49 14.5 +0.2
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      comp=Z,61nm,1.3s,mb5.3
O15A  The Old Anders   79.77  48 ⇑P      P       00 49 14.8 +0.3
      baz=80,SNR=7.9
K18A  Toltan Ranch,    79.78  45 ⇓P      P       00 49 14.3 -0.2
      baz=80,SNR=22
VRI   Vrincioaia       79.78 319⇑iP      P       00 49 15.6 +1.2
VRI   Vrincioaia       79.78 319 ⇑P      P       00 49 15.6 +1.1
P14A  Drum Mountains   79.82  49 ⇑P      P       00 49 15.2 +0.5
      baz=80,SNR=45
T11A  Corn Creek, Al   79.85  52 ⇓P      P       00 49 15.4 +0.5
      baz=80,SNR=23
S12A  Delamar Landin   79.87  51 ⇑P      P       00 49 15.3 +0.2
      baz=80,SNR=7.8
GSC   Goldstone        79.94  54 eP      P       00 49 15.8 +0.3
GSC                                pmax  pmax
      comp=Z,58nm,1.3s,mb5.2
GSC   Goldstone        79.94  54 ⇑P      P       00 49 15.2 -0.3
      baz=80,SNR=28
GSC   Goldstone        79.94  54 eP      P       00 49 15.8 +0.3
      comp=Z,58nm,1.3s,mb5.2
SHOC  Shoshone         79.94  53  P      P       00 49 16.0 +0.5
      baz=80,SNR=11
CIS   Catalina Islan   79.95  56 ⇓P      P       00 49 14.6 -0.9
      baz=80,SNR=5.1
BFSC  Mount Baldy St   79.98  55 ⇑P      P       00 49 15.0 -0.7
      baz=80,SNR=15
BW06  Boulder Array    79.98  45 ⇑P      P       00 49 15.2 -0.4
      baz=80,SNR=31
PDAR  Pinedale Array   79.98  45  P      P       00 49 15.7 +0.1
      comp=Z,16nm,0.7s,mb5.0,baz=268,slow=2.6,SNR=156
N16A  Rees Ranch, Co   80.03  47 ⇓P      P       00 49 16.5 +0.7
      baz=80,SNR=10
Q14A  Sevier Lake (B   80.05  49 ⇓P      P       00 49 16.7 +0.7
      baz=80,SNR=33
KOLS  Kolonicke sedl   80.05 324 eP      P       00 49 16.0 +0.2
KOLS                               pmax  pmax
      comp=Z,7.0nm,1.2s,mb4.4
KOLS  Kolonicke sedl   80.05 324 eP      P       00 49 16.0 +0.2
      comp=Z,7.2nm,1.2s,mb4.4
MUD   Monsted U’grnd   80.07 335 i P     P       00 49 15.2 -0.6
MUD                                pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.7
MUD   Monsted U’grnd   80.07 335 i P     P       00 49 15.2 -0.6
      comp=Z,10.0nm,0.9s,mb4.7
R13A  O’Grain Ranch,   80.09  50 ⇓P      P       00 49 17.0 +0.8
      baz=80,SNR=11
M17A  Scullys Gap (B   80.13  46 ⇑P      P       00 49 16.5 +0.1
      baz=80,SNR=30
STHS  Stebnicka Huta   80.22 325 eP      P       00 49 17.3 +0.6
STHS                               pmax  pmax
      comp=Z,8.0nm,1.1s,mb4.5
STHS  Stebnicka Huta   80.22 325 eP      P       00 49 17.3 +0.6
      comp=Z,7.6nm,1.1s,mb4.4
L18A  Fontenelle, Gr   80.22  45 ⇓P      P       00 49 16.6 -0.3
      baz=80,SNR=33
UZH   Uzhgorod         80.24 323⇓iP      P       00 49 17.6 +0.8
UZH                              i               00 49 48.2
P15A  Leamington       80.31  48 ⇓P      P       00 49 17.5 +0.1
      baz=80,SNR=14
OJC   Ojcow            80.34 326 eP      P       00 49 17.0 -0.4
OJC                              ePcP    PcP     00 49 23.4 -0.8
K19A  Absolon Red Bu   80.36  44 ⇓P      P       00 49 16.9 -0.7
      baz=80,SNR=23
N17A  Moffit Pass      80.36  47 ⇓P      P       00 49 17.3 -0.3
      baz=80,SNR=43
MLR   Muntele Rosu     80.45 319⇑iP      P       00 49 19.3 +1.3
MLR   Muntele Rosu     80.45 319 ⇑P      P       00 49 19.3 +1.3
TRPA  Tarpa            80.46 323⇓iP      P       00 49 18.2 +0.2
CRVS  Cervenica-Dubn   80.46 324 eP      P       00 49 18.2 +0.2
CRVS                               pmax  pmax
      comp=Z,5.0nm,0.9s,mb4.3
CRVS  Cervenica-Dubn   80.46 324 eP      P       00 49 18.2 +0.2
      comp=Z,4.6nm,0.9s,mb4.3
T12A  Moapa            80.48  52 ⇓P      P       00 49 19.0 +0.7
      baz=80
L19A  Farson           80.51  45 ⇑P      P       00 49 18.2 -0.3
      baz=80,SNR=21
M18A  Lyman            80.51  46 ⇑P      P       00 49 17.6 -0.9
      baz=80,SNR=11
S13A  Holt Ranch, En   80.52  51 ⇓P      P       00 49 18.3 -0.2
      baz=80,SNR=19
HEC   Hector,Ludlow    80.53  54 ⇑P      P       00 49 18.5 -0.2
      baz=80,SNR=34
V11A  Goodsprings      80.53  53 ⇑P      P       00 49 18.5 -0.1
      baz=80,SNR=17
Q15A  Fillmore         80.60  49 ⇑P      P       00 49 19.6 +0.6
      baz=80,SNR=13
R14A  James Farms, M   80.62  50 ⇓P      P       00 49 18.8 -0.3
      baz=80,SNR=6.9
MURC  Murrieta         80.66  56 ⇑P      P       00 49 18.7 -0.7
      baz=80,SNR=9.6
NIE   Niedzica         80.66 325 eP      P       00 49 19.5 +0.4
P16A  Fountain Green   80.67  48 ⇓P      P       00 49 18.8 -0.5
      baz=80,SNR=5.5
K20A  Yellowstone Ra   80.75  44 ⇑P      P       00 49 19.0 -0.7
      baz=81
U12A  Valley of Fire   80.76  52 ⇓P      P       00 49 20.3 +0.4
      baz=81,SNR=5.8
T13A  Saint George     80.82  51 ⇓P      P       00 49 20.6 +0.4
      baz=81,SNR=35
S14A  Cedar City       80.85  50 ⇑P      P       00 49 21.3 +0.9
      baz=81,SNR=8.5
O17A  Robinson Place   80.87  47 ⇓P      P       00 49 19.6 -0.8
      baz=81,SNR=46
V12A  Nelson           80.98  53 ⇑P      P       00 49 20.9 -0.1
      baz=81,SNR=15
M19A  Rock Springs     81.00  45 ⇓P      P       00 49 21.3 +0.2
      baz=81,SNR=8.6
GMRC  Granite Mounta   81.00  54 ⇓P      P       00 49 21.2 +0.1
      baz=81,SNR=22
109C  Camp Elliot, M   81.13  56 ⇓P      P       00 49 22.2 +0.3
      baz=81
U13A  Pakoon Wash      81.15  52 ⇓P      P       00 49 22.3 +0.3
      baz=81,SNR=35
PFO   Pinyon Flat Ob   81.16  55  P      P       00 49 22.5 +0.5
      comp=Z,221nm,1.4s,mb5.8,SNR=17
PFO   Pinyon Flat Ob   81.16  55 i P     P       00 49 22.4 +0.4
PFO   Pinyon Flat Ob   81.16  55 ⇑P      P       00 49 22.0  0.0
      baz=81,SNR=22
PFO   Pinyon Flat Ob   81.16  55 eP      P       00 49 22.1 +0.1
      comp=Z,59nm,1.2s,mb5.3
L20A  Wamsutter        81.16  45 ⇓P      P       00 49 21.6 -0.3
      baz=81,SNR=13
LDFC  Landfair         81.19  53 eP      P       00 49 22.5 +0.3
      comp=Z,107nm,1.6s,mb5.4
W12A  Cal Nev Ari      81.22  53 ⇓P      P       00 49 22.2 -0.1
      baz=81
BELC  Belle Mtn.       81.23  55  P      P       00 49 22.3 -0.1
      baz=81,SNR=26
DRGR                   81.27 322⇓iP      P       00 49 22.6 +0.2
DRGR                   81.27 322 ⇓P      P       00 49 22.6 +0.2
P17A  Butcher Ranch,   81.32  48 ⇓P      P       00 49 22.7  0.0
      baz=81,SNR=38
T14A  Hurricane        81.32  51 ⇑P      P       00 49 21.8 -1.0
      baz=81,SNR=14
OKC   Ostrava-Krasne   81.37 326 eP      P       00 49 23.0 +0.2
OKC                              epP     pP      00 49 46.1  0.0
N19A  John Jarvie Ra   81.37  46  P      P       00 49 23.2 +0.2
      baz=81,SNR=39
Q16A  Castle Valley    81.39  48 ⇑P      P       00 49 23.6 +0.4
      baz=81,SNR=38
S15A  Panguitch        81.41  50 ⇑P      P       00 49 24.0 +0.7
      baz=81,SNR=12
V13A  Grand Canyon W   81.47  52 ⇑P      P       00 49 23.8 +0.2
      baz=81,SNR=27
KSP   Ksiaz            81.48 328 eP      P       00 49 23.4  0.0
KSP   Ksiaz            81.48 328 eP      P       00 49 22.7 -0.7
P18A  Preston Nutter   81.52  47 ⇓P      P       00 49 23.4 -0.4
      baz=81,SNR=39
BAR   Barrett          81.55  56 eP      P       00 49 24.0 -0.1
      comp=Z,57nm,1.4s,mb5.2
M20A  Sweetwater, Wa   81.58  45 ⇑P      P       00 49 24.0 -0.1
      baz=81,SNR=14
R16A  Teasdale         81.59  49 ⇓P      P       00 49 23.7 -0.5
      baz=81,SNR=62
MONP  Monument Peak    81.60  56 ⇑P      P       00 49 24.5 +0.1
      baz=82,SNR=14
BSEG  Bad Segeberg     81.61 333 eP      P       00 49 23.3 -0.7
BSEG                               pmax  pmax
      comp=Z,23nm,1.1s,mb4.9
BSEG  Bad Segeberg     81.61 333 eP      P       00 49 23.3 -0.7
      comp=Z,23nm,1.1s,mb4.9
U14A  Mt Trumbull      81.65  51 ⇑P      P       00 49 25.2 +0.6
      baz=82,SNR=40
SRU   San Rafael       81.67  48  P      P       00 49 25.2 +0.6
      baz=82,SNR=73
MORC  Moravsky Berou   81.69 327⇑iP      P       00 49 24.7 +0.2
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MORC  Moravsky Berou   81.69 327 eP      P       00 49 24.3 -0.3
      comp=Z,7.7nm,1.0s,mb4.5
IRM   Iron Mountain    81.71  54 ⇑P      P       00 49 25.1 +0.1
      baz=82,SNR=22
L21A  Rawlins          81.75  44 ⇑P      P       00 49 25.0 +0.1
      baz=82,SNR=44
O19A  Miners Draw (B   81.78  46 ⇑P      P       00 49 25.3 +0.1
      baz=82,SNR=22
T15A  Red Dirt Ranch   81.80  50 ⇑P      P       00 49 25.2 -0.2
      baz=82,SNR=40
BC3   Big Chuckw Mtn   81.80  55 ⇓P      P       00 49 24.7 -0.7
      baz=82,SNR=26
DPC   Dobruska-Polom   81.83 327 eP      P       00 49 25.6 +0.4
S16A  Weppner Ranch,   81.86  50 ⇓P      P       00 49 25.9 +0.2
      baz=82,SNR=24
PSZ   Piszkesteto      81.90 324 eP      P       00 49 26.1 +0.4
PSZ                                pmax  pmax
      comp=Z,15nm,0.9s,mb4.8
PSZ   Piszkesteto      81.90 324⇑iP      P       00 49 26.3 +0.6
PSZ   Piszkesteto      81.90 324⇑eP      P       00 49 26.5 +0.8
PSZ   Piszkesteto      81.90 324 eP      P       00 49 26.1 +0.4
      comp=Z,15nm,0.9s,mb4.8
Q18A  Rafter H Ranch   81.92  48 ⇓P      P       00 49 26.2 +0.3
      baz=82,SNR=21
N20A  Spence Gulch,    81.95  45 ⇓P      P       00 49 26.2 +0.2
      baz=82,SNR=63
ULM   Lac du Bonnet    81.95  33  P      P       00 49 24.9 -1.0
      comp=Z,15nm,0.8s,mb4.9,baz=310,slow=6.5,SNR=23
ULM   Lac du Bonnet    81.95  33  P      P       00 49 24.9 -1.0
DVTC  Desert V Tower   81.95  56  P      P       00 49 26.5 +0.2
      baz=82,SNR=11
R17A  Hanksville Air   81.98  49 ⇑P      P       00 49 26.9 +0.6
      baz=82,SNR=62
W13A  Hualapai Mount   81.98  53 ⇓P      P       00 49 26.3  0.0
      baz=82,SNR=15
VYHS  Vyhne            82.00 325 eP      P       00 49 26.4 +0.2
RWWY  Rawlins          82.01  44 eP      P       00 49 26.8 +0.4
      comp=Z,57nm,1.0s,mb5.4
V14A  Boquillas Ranc   82.17  52 ⇑P      P       00 49 27.1 -0.2
      baz=82,SNR=60
GZR   Gura Zlata       82.18 321⇑iP      P       00 49 27.2  0.0
GZR   Gura Zlata       82.18 321 ⇑P      P       00 49 27.2  0.0
RSSD  Black Hills      82.20  41 eP      P       00 49 27.3  0.0
RSSD                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.7
RSSD  Black Hills      82.20  41 eP      P       00 49 27.2  0.0
      comp=Z,9.9nm,0.8s,mb4.7
P19A  Cripple Cowboy   82.28  47 ⇓P      P       00 49 28.2 +0.4
      baz=82,SNR=85
PDMCI Parker Dam,Lak   82.30  54 ⇑P      P       00 49 28.4 +0.4
      baz=82,SNR=10
X13A  Yucca            82.33  53 ⇑P      P       00 49 27.7 -0.4
      baz=82,SNR=32
T16A  Glen Canyon Da   82.37  50 ⇓P      P       00 49 28.2 -0.1
      baz=82,SNR=5.4
O20A  White River Ci   82.40  46 ⇑P      P       00 49 28.1 -0.3
      baz=82,SNR=32
S17A  Black Ridge (B   82.41  49 ⇓P      P       00 49 27.9 -0.6
      baz=82,SNR=37
N21A  Black Mountain   82.43  45 ⇓P      P       00 49 27.8 -0.8
      baz=82,SNR=34
W14A  Seligman         82.44  52 ⇑P      P       00 49 28.5 -0.3
      baz=82,SNR=38
PVCC  Panska Ves       82.46 328 eP      P       00 49 28.0 -0.5
BRG   Berggiesshubel   82.47 329 eP      P       00 49 28.0 -0.6
      comp=Z,8.0nm,0.9s,mb4.5
BRG   Berggiesshubel   82.47 329 eP      P       00 49 28.3 -0.2
      comp=Z,7.5nm,0.9s,mb4.5
BRG                              e               00 49 37.2
      comp=Z,4.8nm,0.8s
R18A  Canyonlands Na   82.51  48 ⇑P      P       00 49 28.7 -0.3
      baz=82,SNR=47
Q19A  Hogan Spring (   82.54  47 ⇓P      P       00 49 28.6 -0.6
      baz=82,SNR=36
CLL   Collm            82.54 330⇓iP      P       00 49 28.3 -0.6
CLL                                pmax  pmax
      comp=Z,15nm,0.9s,mb4.8
CLL   Collm            82.54 330 eP      P       00 49 28.0 -0.9
      comp=Z,15nm,0.9s,mb4.8
CLL   Collm            82.54 330⇓iP      P       00 49 28.3 -0.6
      comp=Z,15nm,0.9s,mb4.8
CLL                              i PcP   PcP     00 49 33.3 -0.5
CLL                              epP     pP      00 49 51.0 -1.3
CLL   Collm            82.54 330⇓iP      P       00 49 28.3 -0.6
      comp=Z,15nm,0.9s,mb4.8
CLL                              i PcP   PcP     00 49 33.3 -0.5
M22A  Cedar Creek Ra   82.55  44 ⇑P      P       00 49 28.8 -0.3
      baz=82,SNR=27
GLA   Glamis           82.58  55 eP      P       00 49 29.9 +0.4
GLA                                pmax  pmax
      comp=Z,24nm,0.7s,mb5.1
GLA   Glamis           82.58  55 ⇑P      P       00 49 29.0 -0.5
      baz=82,SNR=16
GLA   Glamis           82.58  55 eP      P       00 49 29.9 +0.3
      comp=Z,24nm,0.7s,mb5.1
BUD   Budapest         82.62 324⇑eP      P       00 49 30.1 +0.7
BZS   Buzias           82.63 322⇑iP      P       00 49 29.3 -0.2
BZS   Buzias           82.63 322 ⇑P      P       00 49 29.3 -0.2
V15A  Kaibab Nationa   82.66  51 ⇑P      P       00 49 29.3 -0.5
      baz=82,SNR=22
P20A  De Beque         82.72  47 ⇓P      P       00 49 29.3 -0.8
      baz=82,SNR=14
Y13A  Salome           82.79  54 ⇑P      P       00 49 30.7 +0.1
      baz=83,SNR=10
O21A  Pagoda           82.81  46 ⇑P      P       00 49 30.6  0.0
      baz=83,SNR=5.4
T17A  Navajo Res., N   82.81  50 ⇓P      P       00 49 29.4 -1.2
      baz=83,SNR=11
MODS  Modra-Piesok     82.82 326 eP      P       00 49 31.3 +0.9
MODS                               pmax  pmax
      comp=Z,50nm,2.6s,mb4.9
MODS  Modra-Piesok     82.82 326 eP      P       00 49 31.3 +0.9
      comp=Z,50nm,2.6s,mb4.9
PRU   Pruhonice        82.87 328 eP      P       00 49 30.2 -0.5
PRU                              epP     pP      00 49 54.6 +0.6
S18A  Hurst Farm, Bl   82.88  49 ⇑P      P       00 49 30.2 -0.8
      baz=83,SNR=44
MVH1  Achvaich         82.92 342 eP      P       00 49 29.3 -1.5
R19A  Curley Farm, L   82.95  48 ⇑P      P       00 49 31.5 +0.1
      baz=83,SNR=37
TREC  Trest            82.96 327 eP      P       00 49 30.5 -0.7
TREC                             epP     pP      00 49 54.9 +0.4
W15A  Williams         82.99  52 ⇑P      P       00 49 30.9 -0.7
      baz=83,SNR=8.1
X14A  Yava             83.02  53 ⇓P      P       00 49 31.3 -0.4
      baz=83,SNR=14
N22A  Wattenberg Ran   83.02  45 ⇓P      P       00 49 32.0 +0.3
      baz=83,SNR=16
ZST   Bratislava       83.03 326 eP      P       00 49 32.1 +0.6
ZST                                pmax  pmax
      comp=Z,3.0nm,0.7s,mb4.2
ZST   Bratislava       83.03 326 eP      P       00 49 32.1 +0.6
ZST   Bratislava       83.03 326 eP      P       00 49 32.1 +0.6
      comp=Z,3.2nm,0.7s,mb4.3
Q20A  Ridgley Place,   83.12  47 ⇑P      P       00 49 31.5 -0.7
      baz=83,SNR=64
U16A  Tuba City        83.13  51 ⇑P      P       00 49 32.0 -0.3
      baz=83,SNR=34
U17A  Shonto           83.14  50 ⇑P      P       00 49 33.0 +0.6
      baz=83,SNR=18
CLZ   Clausthal        83.20 331 eP      P       00 49 32.0 -0.3
CLZ                                pmax  pmax
      comp=Z,283nm,3.4s
CLZ   Clausthal        83.20 331 eP      P       00 49 32.0 -0.3
      comp=Z,283nm,3.4s
P21A  Newcastle        83.26  46 ⇑P      P       00 49 32.9  0.0
      baz=83,SNR=28
Y14A  Wickenburg       83.26  53 ⇑P      P       00 49 32.7 -0.3
      baz=83,SNR=12
PHWY  Pilot Hill       83.27  44 eP      P       00 49 33.3 +0.4
      comp=Z,74nm,1.5s,mb5.3
T18A  Mexican Hat      83.30  49 ⇑P      P       00 49 32.3 -0.8
      baz=83,SNR=48
WUAZ  Wupatki          83.36  51 ⇓P      P       00 49 33.5  0.0
      baz=83,SNR=21
WUAZ  Wupatki          83.36  51 eP      P       00 49 34.2 +0.7
      comp=Z,85nm,1.5s,mb5.3
S19A  Harvey Farm, M   83.38  48 ⇓P      P       00 49 32.4 -1.2
      baz=83,SNR=44
X15A  Humboldt         83.43  52 ⇓P      P       00 49 34.2 +0.3
      baz=83,SNR=41
113A  Mohawk Valley,   83.47  55 ⇑P      P       00 49 33.7 -0.4
      baz=83,SNR=10
W16A  Flagstaff        83.52  52 ⇓P      P       00 49 34.4 +0.1
      baz=83,SNR=11
R20A  Redvale          83.56  48 ⇓P      P       00 49 34.8 +0.3
      baz=83,SNR=102
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KAC   Achnashellach    83.58 342 eP      P       00 49 33.7 -0.5
NKC   Novy Kostel      83.58 329 eP      P       00 49 33.6 -0.7
MOX   Moxa             83.62 330 eP      P       00 49 33.9 -0.6
      comp=Z,14nm,1.5s,mb4.6
MOX   Moxa             83.62 330 eP      P       00 49 33.9 -0.6
MOX                                pmax  pmax
      comp=Z,14nm,1.5s,mb4.6
MOX   Moxa             83.62 330 eP      P       00 49 33.8 -0.7
      comp=Z,8.0nm,1.0s,mb4.5
Q21A  Lamborn Mesa,    83.63  47 ⇓P      P       00 49 35.6 +0.8
      baz=84,SNR=21
SOP   Sopron           83.65 326⇓eP      P       00 49 35.1 +0.4
Y15A  Casa Rosa Ranc   83.70  53 ⇓P      P       00 49 34.4 -0.8
      baz=84,SNR=39
U18A  Rough Rock, Ch   83.75  50 ⇑P      P       00 49 36.1 +0.6
      baz=84,SNR=48
CONA  Conrad Observa   83.79 326⇑iPcP    PcP     00 49 35.9 -3.5
      comp=Z,24nm,1.2s
CSNA  Conrad Observa   83.80 326⇓iPcP    PcP     00 49 35.9 -3.5
      comp=Z,22nm,1.2s
KPL   Plockton         83.82 342⇑eP      P       00 49 35.5 +0.1
KPL                                AMb   AMB     00 49 36.5
      comp=Z,86nm,1.3s,mb5.4
IBBN  Ibbenburen       83.85 333 eP      P       00 49 34.8 -0.8
MANZ  Manzenberg       83.91 329 eP      P       00 49 35.5 -0.5
KHC   Kasperske Hory   83.93 328 eP      P       00 49 35.8 -0.3
KHC                              epP     pP      00 50 02.5 +3.0
X16A  Lo Mia Camp, P   83.99  52 ⇑P      P       00 49 37.1 +0.3
      baz=84,SNR=28
Q22A  Crested Butte,   84.01  46 ⇑P      P       00 49 37.3 +0.5
      baz=84,SNR=62
T19A  Beclabito        84.02  49 ⇓P      P       00 49 37.5 +0.6
      baz=84,SNR=34
ROTZ  Rotzenmuhle      84.04 329 eP      P       00 49 36.6 -0.1
W17A  Winslow          84.06  51 ⇑P      P       00 49 37.9 +0.8
      baz=84
GEC2  GERESS Array S   84.09 328 eP      P       00 49 36.4 -0.5
GEC2                               pmax  pmax
      comp=Z,17nm,1.2s,mb4.8
GEC2  GERESS Array S   84.09 328 eP      P       00 49 36.4 -0.5
      comp=Z,17nm,1.2s,mb4.8
GERES GERESS Array B   84.09 328  P      P       00 49 36.4 -0.5
GERES                              pmax  pmax
      comp=Z,8.0nm,0.9s
GERES GERESS Array B   84.09 328  P      P       00 49 36.4 -0.5
      comp=Z,8.0nm,0.9s,mb4.6,baz=39,slow=5.0,SNR=50
MVCO  Mesa Verde       84.11  48 ⇑P      P       00 49 37.8 +0.6
      baz=84,SNR=26
MVCO  Mesa Verde       84.11  48 eP      P       00 49 37.9 +0.7
      comp=Z,46nm,1.1s,mb5.2
UBBA  Unterbreizbach   84.14 331 eP      P       00 49 36.3 -0.9
V18A  Ganado           84.16  50  P      P       00 49 38.2 +0.7
      baz=84,SNR=32
ISCO  Idaho Springs    84.16  45 eP      P       00 49 38.4 +0.9
ISCO                               pmax  pmax
      comp=Z,27nm,0.9s,mb5.1
ISCO  Idaho Springs    84.16  45 eP      P       00 49 38.4 +0.9
      comp=Z,27nm,0.9s,mb5.1
EBH   Black Hill       84.21 341⇑eP      P       00 49 37.1 -0.3
Z15A  Gila River Ind   84.22  53 ⇓P      P       00 49 38.4 +0.5
      baz=84,SNR=5.4
WET   Wettzell         84.22 328 eP      P       00 49 37.3 -0.3
WET                                pmax  pmax
      comp=Z,20nm,1.6s,mb4.7
WET   Wettzell         84.22 328 eP      P       00 49 37.3 -0.3
      comp=Z,20nm,1.6s,mb4.7
ESY   Stoneypath       84.25 340 eP      P       00 49 37.0 -0.6
Y16A  Circle Bar Ran   84.30  53 ⇑P      P       00 49 38.9 +0.5
      baz=84,SNR=18
ARSA  Arzberg          84.44 326 i PcP   PcP     00 49 39.0 -3.3
      comp=Z,16nm,1.5s,SNR=8.2
X17A  Forest Lakes     84.46  52 ⇑P      P       00 49 40.1 +1.0
      baz=84,SNR=12
EAB   Aberfoyle        84.49 341 eP      P       00 49 37.9 -0.9
EBL   Broad Law        84.50 340 eP      P       00 49 39.1 +0.2
GRA1  Grafenberg Arr   84.51 330 eP      P       00 49 38.9 -0.2
      comp=Z,39nm,1.1s,mb5.2
GRF   Grafenberg Arr   84.51 330 eP      P       00 49 38.9 -0.2
GRF                                pmax  pmax
      comp=Z,39nm,1.1s,mb5.2
GRF   Grafenberg Arr   84.51 330 eP      P       00 49 38.9 -0.2
GRF                                pmax  pmax
      comp=Z,39nm,1.1s,mb5.2
GRF   Grafenberg Arr   84.51 330 eP      P       00 49 38.9 -0.2
      comp=Z,39nm,1.1s,mb5.2
R22A  Saguache, Gunn   84.51  47 ⇑P      P       00 49 40.8 +1.5
      baz=84,SNR=42
XSO   Sourhope Farm    84.52 340⇑eP      P       00 49 38.8 -0.2
115A  Sonoran Desert   84.53  54 ⇑P      P       00 49 38.7 -0.8
      baz=84,SNR=14
EAU   Auchinoon        84.55 340 eP      P       00 49 39.1 -0.1
PPT   Papeete          84.55 116  LR     LR      01 20 23.5
      comp=Z,217nm,20.0s,baz=234,slow=31
MOA   Molln            84.58 327 i PcP   PcP     00 49 40.1 -2.7
      comp=Z,16nm,1.0s,SNR=10
214A  Organ Pipe Nat   84.60  55 ⇑P      P       00 49 39.0 -0.9
      baz=84,SNR=15
Z16A  Peralta Trail,   84.67  53 ⇓P      P       00 49 39.2 -1.0
      baz=84,SNR=6.7
V19A  Window Rock      84.72  50 ⇓P      P       00 49 41.7 +1.3
      baz=85,SNR=7.1
BUG   Bochum--Univer   84.72 333 eP      P       00 49 39.0 -1.1
Y17A  Roosevelt        84.83  52 ⇓P      P       00 49 40.5 -0.4
      baz=85,SNR=31
W19A  Sanders          84.88  50 ⇓P      P       00 49 42.1 +0.9
      baz=85,SNR=7.6
X18A  Snowflake        84.89  51 ⇓P      P       00 49 40.5 -0.7
      baz=85,SNR=11
ESK   Eskdalemuir      84.94 340 eP      P       00 49 40.2 -0.9
ESK                                AMb   AMB     00 49 41.5
      comp=Z,68nm,1.8s,mb5.3
116A  Eloy             84.97  54 ⇓P      P       00 49 42.0 +0.3
      baz=85,SNR=17
XAL   Allendale        85.05 339 eP      P       00 49 40.7 -1.0
PERS  Pernice          85.09 326 i P     P       00 49 41.7 -0.3
SOKA  Soboth           85.09 326⇓iPcP    PcP     00 49 41.6 -3.5
      comp=Z,37nm,1.2s
T22A  Edith            85.21  48 ⇓P      P       00 49 43.9 +1.1
      baz=85,SNR=38
TNS   Taunus Mts       85.23 331 eP      P       00 49 41.9 -0.7
TNS                                pmax  pmax
      comp=Z,36nm,1.3s,mb5.1
TNS   Taunus Mts       85.23 331 eP      P       00 49 41.9 -0.7
      comp=Z,36nm,1.3s,mb5.1
RJOB  Jochberg         85.32 327 eP      P       00 49 42.8 -0.3
Z17A  San Carlos Hig   85.32  52 ⇑P      P       00 49 44.1 +0.7
      baz=85,SNR=5.8
OGNE  Ogallala         85.43  42 eP      P       00 49 43.6 -0.2
      comp=Z,71nm,1.0s,mb5.5
W20A  Ramah            85.43  50 ⇑P      P       00 49 43.1 -0.8
      baz=85,SNR=12
216A  Three Points,    85.48  54 ⇑P      P       00 49 43.3 -0.9
      baz=85,SNR=8.0
216A                             ⇑P              00 49 44.9
      baz=85
SDCO  Great Sand Dun   85.58  46 eP      P       00 49 45.3 +0.7
      comp=Z,30nm,1.1s,mb5.1
117A  Oracle           85.60  53 ⇑P      P       00 49 44.4 -0.4
      baz=86,SNR=12
FUR   Furstenfeldbru   85.66 328 eP      P       00 49 44.6 -0.2
HPK   Haverah Park     85.66 338 eP      P       00 49 43.0 -1.7
HPK                                AMb   AMB     00 49 44.9
      comp=Z,77nm,2.0s,mb5.3
Y19A  Nutrioso         85.69  51 ⇓P      P       00 49 44.5 -0.8
      baz=86,SNR=9.7
TUC   Tucson           85.73  53 eP      P       00 49 45.5  0.0
TUC                                pmax  pmax
      comp=Z,7.0nm,0.8s,mb4.6
TUC   Tucson           85.73  53 eP      P       00 49 45.5  0.0
      comp=Z,7.3nm,0.8s,mb4.7
GAL1  Galloway         85.76 341⇑eP      P       00 49 44.2 -1.0
GAL1                               AMb   AMB     00 49 46.4
      comp=Z,86nm,1.7s,mb5.4
LJU   Ljubljana        85.80 325 i P     P       00 49 45.1 -0.5
BOJS  Bojanci          85.86 325 i P     P       00 49 45.4 -0.4
MEM   Membach          85.86 333  P      P       00 49 45.2 -0.5
      comp=Z,8.0nm,1.0s,mb4.6
217A  Green Valley     86.05  54 ⇑P      P       00 49 47.8 +0.7
      baz=86,SNR=16
118A  Homack Ranch,    86.06  53 ⇓P      P       00 49 46.1 -1.0
      baz=86,SNR=13
STU   Stuttgart        86.06 330 eP      P       00 49 46.4 -0.4
STU                                pmax  pmax
      comp=Z,11nm,0.9s,mb4.8
STU   Stuttgart        86.06 330 eP      P       00 49 46.0 -0.8
      comp=Z,24nm,1.0s,mb5.1
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STU	Stuttgart	86.06	330	*e*P	P	00 49 46.4	-0.4
	comp=Z,12nm,0.9s,mb4.8						
JAVS	Javornik	86.13	326	*i* P	P	00 49 46.0	-1.1
BCLA	Clavier	86.28	333	P	P	00 49 46.9	-0.9
	comp=Z,6.8nm,1.1s,mb4.5						
MOTA	Moosalm	86.36	328	⇓*i*P	P	00 49 47.0	-1.3
	comp=Z,6.4nm,1.1s,mb4.5						
WIM	Isle of Man	86.38	340	*e*P	P	00 49 46.8	-1.5
RETA	Reutte	86.40	328	*i* PcP	PcP	00 49 48.1	-2.7
	comp=Z,16nm,1.4s,SNR=6.9						
119A	Ashpeak Ranch,	86.42	52	⇑P	P	00 49 49.5	+0.6
	baz=86,SNR=5.2						
218A	Dragoon	86.43	53	⇑P	P	00 49 49.7	+0.8
	baz=86,SNR=6.0						
WLF	Walferdange	86.57	332	P	P	00 49 48.7	-0.5
	comp=Z,6.3nm,1.0s,mb4.5						
WLF	Walferdange	86.57	332	*e*P	P	00 49 48.8	-0.5
SNF	Seneffe	86.59	334	P	P	00 49 48.5	-0.9
CWF	Charnwood Fore	86.61	338	*e*P	P	00 49 48.5	-1.0
CWF				AMb	AMB	00 49 49.6	
	comp=Z,43nm,1.5s,mb5.2						
GIVF	Givet	86.72	333	*e*P	P	00 49 48.5	-1.5
BFO	Black Forest	86.77	330	*e*P	P	00 49 49.3	-1.0
BFO				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.0						
BFO	Black Forest	86.77	330	*i* P	P	00 49 50.1	-0.2
BFO	Black Forest	86.77	330	*e*P	P	00 49 49.3	-1.0
	comp=Z,27nm,1.5s,mb5.0						
X22A	Bernardo	86.77	50	⇓P	P	00 49 52.3	+1.8
	baz=87						
318A	Bisbee	86.80	54	⇑P	P	00 49 50.3	-0.5
	baz=87,SNR=10						
DOU	Dourbes	86.81	333	P	P	00 49 49.8	-0.6
ANMO	Albuquerque	86.82	49	*e*P	P	00 49 51.2	+0.4
ANMO				pmax	pmax		
	comp=Z,21nm,1.4s						
ANMO	Albuquerque	86.82	49	*e*P	P	00 49 51.2	+0.4
	comp=Z,21nm,1.4s,mb4.9						
ANMO				*e*pP	pP	00 50 13.1	-1.3
219A	White Tail Can	86.93	53	⇑P	P	00 49 50.9	-0.5
	baz=87,SNR=7.5						
DAVA	Damuels	86.94	329	⇑*i*PcP	PcP	00 49 50.9	-2.4
	comp=Z,13nm,1.1s						
BAIF	Baives	86.98	333	*e*P	P	00 49 49.9	-1.4
	comp=Z,14nm,0.9s,mb4.6						
BAIF	Baives	86.98	333	*e*P	P	00 49 49.9	-1.4
BAIF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BAIF	Baives	86.98	333	*e*P	P	00 49 49.9	-1.4
	comp=Z,6.9nm,0.9s,mb4.6						
120A	U Bar Ranch, L	86.99	52	⇓P	P	00 49 50.7	-1.0
	baz=87						
SBD1	Bryn Du	87.06	339	⇑*e*P	P	00 49 51.5	-0.1
CDF	Champ du Feu	87.13	331	*e*P	P	00 49 50.6	-1.4
	comp=Z,22nm,1.1s,mb4.7						
CDF	Champ du Feu	87.13	331	*e*P	P	00 49 50.6	-1.4
CDF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
CDF	Champ du Feu	87.13	331	*e*P	P	00 49 50.6	-1.4
	comp=Z,11nm,1.1s,mb4.7						
319A	Douglas	87.31	53	⇓P	P	00 49 52.7	-0.6
	baz=87						
SKP1	Kophill	87.33	337	*e*P	P	00 49 51.3	-1.6
YRE	Yr Eifl	87.34	339	*e*P	P	00 49 52.0	-0.9
MCH1	Michaelchurch	87.77	338	*e*P	P	00 49 53.9	-1.2
MCH1				AMb	AMB	00 49 55.4	
	comp=Z,62nm,1.3s,mb5.5						
HINF	Hinteralfeld	87.78	331	*e*P	P	00 49 53.3	-1.8
	comp=Z,6.5nm,0.8s,mb4.4						
HINF	Hinteralfeld	87.78	331	*e*P	P	00 49 53.3	-1.8
HINF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
HINF	Hinteralfeld	87.78	331	*e*P	P	00 49 53.3	-1.8
	comp=Z,3.3nm,0.8s,mb4.4						
HTR	Trewern Hill	87.79	338	⇑*e*P	P	00 49 54.8	-0.3
SCHQ	Schefferville	87.79	15	P	P	00 49 55.0	-0.1
	comp=Z,26nm,0.7s,mb5.3,baz=354,slow=5.4,SNR=68						
SCHQ	Schefferville	87.79	15	P	P	00 49 55.0	-0.1
HAU	Haudompre	87.83	331	*e*P	P	00 49 53.6	-1.8
	comp=Z,8.3nm,0.7s,mb4.6						
HAU	Haudompre	87.83	331	*e*P	P	00 49 53.6	-1.8
HAU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
HAU	Haudompre	87.83	331	*e*P	P	00 49 53.6	-1.8
	comp=Z,4.2nm,0.7s,mb4.6						
MEZF	Maizieres J'vi	87.94	332	*e*P	P	00 49 54.7	-1.2
HGH	Gray Hill	88.03	338	⇑*e*P	P	00 49 55.6	-0.6
CBKS	Cedar Bluff	88.18	43	*e*P	P	00 49 56.4	-0.8
CBKS				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.5						
CBKS	Cedar Bluff	88.18	43	*e*P	P	00 49 56.4	-0.8
	comp=Z,60nm,1.3s,mb5.5						
CABF	La Chapelle	89.06	330	*e*P	P	00 49 59.8	-1.4
LOR	Lormes	89.41	332	*e*P	P	00 50 01.2	-1.6
LPL	La Plagne	89.67	329	*e*P	P	00 50 03.1	-1.0
	comp=Z,9.2nm,0.8s,mb4.7						
LPL	La Plagne	89.67	329	*e*P	P	00 50 03.1	-1.0
LPL				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
LPL	La Plagne	89.67	329	*e*P	P	00 50 03.1	-1.0
	comp=Z,4.6nm,0.8s,mb4.7						
LPG	La Plagne	89.68	329	*e*P	P	00 50 03.2	-0.9
	comp=Z,16nm,0.8s,mb4.9						
LPG	La Plagne	89.68	329	*e*P	P	00 50 03.2	-0.9
LPG				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
LPG	La Plagne	89.68	329	*e*P	P	00 50 03.2	-0.9
	comp=Z,8.0nm,0.8s,mb4.9						
KSU1	Kansas State U	89.68	41	*e*P	P	00 50 03.5	-0.7
	comp=Z,34nm,0.7s,mb5.6						
SSF	Saint Saulge	89.71	332	*e*P	P	00 50 02.8	-1.5
	comp=Z,12nm,1.0s,mb4.7						
SSF	Saint Saulge	89.71	332	*e*P	P	00 50 02.8	-1.5
SSF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
SSF	Saint Saulge	89.71	332	*e*P	P	00 50 02.8	-1.5
	comp=Z,5.8nm,1.0s,mb4.7						
FLN	La Foliniere	89.75	335	*e*P	P	00 50 02.9	-1.5
LDF	La Druitiere	89.76	335	*e*P	P	00 50 03.0	-1.5
	comp=Z,7.4nm,0.7s,mb4.6						
LDF	La Druitiere	89.76	335	*e*P	P	00 50 03.0	-1.5
LDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
LDF	La Druitiere	89.76	335	*e*P	P	00 50 03.0	-1.5
	comp=Z,3.7nm,0.7s,mb4.6						
AMTX	Amarillo	89.78	46	*e*P	P	00 50 05.2	+0.4
	comp=Z,34nm,0.8s,mb5.5						
SMF	Signal de Mont	89.93	332	*e*P	P	00 50 03.7	-1.6
AVF	Avril sur Loir	90.00	332	*e*P	P	00 50 04.1	-1.5
	comp=Z,9.2nm,0.7s,mb4.7						
AVF	Avril sur Loir	90.00	332	*e*P	P	00 50 04.1	-1.5
AVF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
AVF	Avril sur Loir	90.00	332	*e*P	P	00 50 04.1	-1.5
	comp=Z,4.6nm,0.7s,mb4.7						
GRR	Gorron	90.19	335	*e*P	P	00 50 05.3	-1.2
	comp=Z,30nm,0.9s,mb5.2						
GRR	Gorron	90.19	335	*e*P	P	00 50 05.3	-1.2
GRR				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
GRR	Gorron	90.19	335	*e*P	P	00 50 05.3	-1.2
	comp=Z,15nm,0.9s,mb5.1						
MBDF	Montbardon	90.29	329	*e*P	P	00 50 05.2	-1.8
	comp=Z,15nm,0.8s,mb4.9						
MBDF	Montbardon	90.29	329	*e*P	P	00 50 05.2	-1.8
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
MBDF	Montbardon	90.29	329	*e*P	P	00 50 05.2	-1.8
	comp=Z,7.3nm,0.8s,mb4.9						
BGF	Bois d'Agland	90.39	332	*e*P	P	00 50 06.1	-1.3
ORIF	Oris-en-Rattie	90.51	329	*e*P	P	00 50 06.7	-1.3
	comp=Z,15nm,0.9s,mb4.8						
ORIF	Oris-en-Rattie	90.51	329	*e*P	P	00 50 06.7	-1.3
ORIF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
ORIF	Oris-en-Rattie	90.51	329	*e*P	P	00 50 06.7	-1.3
	comp=Z,7.3nm,0.9s,mb4.8						
SBF	Sospel	90.69	328	*e*P	P	00 50 07.5	-1.4
TCF	Toulx Ste Croi	90.85	332	*e*P	P	00 50 08.4	-1.2
	comp=Z,28nm,1.2s,mb4.9						
TCF	Toulx Ste Croi	90.85	332	*e*P	P	00 50 08.4	-1.2
TCF				pmax	pmax		
	comp=Z,14nm,1.2s,mb5.0						
TCF	Toulx Ste Croi	90.85	332	*e*P	P	00 50 08.4	-1.2
	comp=Z,14nm,1.2s,mb5.0						
SGMF	Saint Gilles	90.89	336	*e*P	P	00 50 08.8	-0.9
	comp=Z,89nm,1.4s,mb5.4						
SGMF	Saint Gilles	90.89	336	*e*P	P	00 50 08.8	-0.9
SGMF				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.4						
SGMF	Saint Gilles	90.89	336	*e*P	P	00 50 08.8	-0.9
	comp=Z,44nm,1.4s,mb5.4						
ROSF	Rostrenen	91.05	337	*e*P	P	00 50 09.5	-1.0
	comp=Z,57nm,1.1s,mb5.3						
ROSF	Rostrenen	91.05	337	*e*P	P	00 50 09.5	-1.0
ROSF				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.3						
ROSF	Rostrenen	91.05	337	*e*P	P	00 50 09.5	-1.0
	comp=Z,29nm,1.1s,mb5.3						
VIVF	Saint-Julien-l	91.06	330	*e*P	P	00 50 09.3	-1.3
	comp=Z,28nm,1.0s,mb5.0						
VIVF	Saint-Julien-l	91.06	330	*e*P	P	00 50 09.3	-1.3
VIVF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
VIVF	Saint-Julien-l	91.06	330	*e*P	P	00 50 09.3	-1.3
	comp=Z,14nm,1.0s,mb5.1						
FRF	La Foret Royal	91.28	328	*e*P	P	00 50 09.7	-1.9
	comp=Z,9.6nm,0.7s,mb4.7						
FRF	La Foret Royal	91.28	328	*e*P	P	00 50 09.7	-1.9
FRF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
FRF	La Foret Royal	91.28	328	*e*P	P	00 50 09.7	-1.9
	comp=Z,4.8nm,0.7s,mb4.7						
QUIF	Quistinic	91.38	336	*e*P	P	00 50 10.7	-1.3
SMRF	Simiane la Rot	91.40	329	*e*P	P	00 50 10.9	-1.3
MFF	Saint Martin d	91.47	334	*e*P	P	00 50 11.5	-0.9
	comp=Z,45nm,1.1s,mb5.2						
MFF	Saint Martin d	91.47	334	*e*P	P	00 50 11.5	-0.9
MFF				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.2						
MFF	Saint Martin d	91.47	334	*e*P	P	00 50 11.5	-0.9
	comp=Z,22nm,1.1s,mb5.2						
LMR	La Mourre	91.52	328	*e*P	P	00 50 10.9	-1.8
	comp=Z,59nm,1.2s,mb5.4						
LMR	La Mourre	91.52	328	*e*P	P	00 50 10.9	-1.8
LMR				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.4						
LMR	La Mourre	91.52	328	*e*P	P	00 50 10.9	-1.8
	comp=Z,30nm,1.2s,mb5.4						
WMOK	Wichita Mounta	91.59	45	*e*P	P	00 50 12.9	-0.3
WMOK				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.4						
WMOK	Wichita Mounta	91.59	45	*e*P	P	00 50 12.8	-0.4
	comp=Z,31nm,1.3s,mb5.4						
RJF	Les Rejaudoux	91.94	332	*e*P	P	00 50 13.7	-0.9
	comp=Z,16nm,0.9s,mb5.0						
RJF	Les Rejaudoux	91.94	332	*e*P	P	00 50 13.7	-0.9
RJF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
RJF	Les Rejaudoux	91.94	332	*e*P	P	00 50 13.7	-0.9
	comp=Z,8.1nm,0.9s,mb5.0						
CAF	Calviac	92.05	332	*e*P	P	00 50 14.5	-0.6
	comp=Z,22nm,1.0s,mb5.0						
CAF	Calviac	92.05	332	*e*P	P	00 50 14.5	-0.6
CAF				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.0						
CAF	Calviac	92.05	332	*e*P	P	00 50 14.5	-0.6
	comp=Z,11nm,1.0s,mb5.0						
TXAR	Lajitas Array	92.31	52	P	P	00 50 16.8	+0.1
	comp=Z,15nm,0.9s,mb5.2,baz=294,slow=2.7,SNR=121						
TXAR				LR	LR	01 26 41.5	
	comp=Z,110nm,20.9s,baz=5.0,slow=32						
LFF	La Frestale	92.55	332	*e*P	P	00 50 16.7	-0.7
	comp=Z,31nm,1.0s,mb5.3						
LFF	La Frestale	92.55	332	*e*P	P	00 50 16.7	-0.7
LFF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.3						
LFF	La Frestale	92.55	332	*e*P	P	00 50 16.7	-0.7
	comp=Z,15nm,1.0s,mb5.3						
CCM	Cathedral Cave	93.26	38	*e*P	P	00 50 19.8	-1.1
CCM				*e**PP	pP	00 50 43.6	-0.9
CCM				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.3						
CCM	Cathedral Cave	93.26	38	*e*P	P	00 50 19.8	-1.1
	comp=Z,23nm,1.3s,mb5.3						
CCM				*e*pP	pP	00 50 43.6	-0.9
MTLF	Montolieu	93.31	331	*e*P	P	00 50 20.0	-1.0
	comp=Z,24nm,1.2s,mb5.1						
MTLF	Montolieu	93.31	331	*e*P	P	00 50 20.0	-1.0
MTLF				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.1						
MTLF	Montolieu	93.31	331	*e*P	P	00 50 20.0	-1.0
	comp=Z,12nm,1.2s,mb5.1						
JCT	Junction City	93.97	49	*e*P	P	00 50 23.7	-0.6
JCT				*e**SP	sP	00 50 53.0	-4.4
JCT				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.5						
JCT	Junction City	93.97	49	*e*P	P	00 50 23.7	-0.6
	comp=Z,24nm,0.9s,mb5.5						
JCT				*e*sP	sP	00 50 53.0	-4.4
MIAR	Mount Ida	94.67	42	*e*P	P	00 50 27.3	-0.1
MIAR				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb5.1						
MIAR	Mount Ida	94.67	42	*e*P	P	00 50 27.2	-0.2
	comp=Z,7.0nm,0.8s,mb5.1						
SJPF	Ste Jean	94.84	333	*e*P	P	00 50 25.9	-2.1
KEST	Kesra	96.19	322	P	P	00 50 33.4	-0.9
	comp=Z,2.1nm,0.9s,mb4.5,baz=49,slow=11,SNR=3.7						
KEST				LR	LR	01 38 20.3	
	comp=Z,81nm,20.4s,baz=183,slow=38						
TORD	Torodi Ar. Bea	118.17	313	PKP	PKPdf	00 55 52.0	-1.5
	comp=Z,1.9nm,0.5s,baz=33,slow=1.4,SNR=56						
TORD				pPKP	pPKPdf	00 56 19.4	+1.3
	comp=Z,1.7nm,0.5s,baz=27,slow=0.9,SNR=5.8						
TORD				PP	PP	00 57 11.8	+2.9
	comp=Z,1.5nm,1.0s,baz=46,slow=6.6,SNR=4.6						
TORD				PKKPbc	PKKPbc	01 06 12.1	+0.9
	comp=Z,1.5nm,0.8s,baz=222,slow=2.9,SNR=8.9						
BOSA	Boshof	125.12	257	PKIKP	PKPdf	00 56 04.3	-2.0
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BOSA	Boshof	125.12	257	PKP	PKPdf	00 56 04.3	-2.0
	comp=Z,2.7nm,0.8s,baz=76,slow=4.3,SNR=4.1						
BOSA	Boshof	125.12	257	PKP	PKPdf	00 56 04.3	-2.0
DBIC	Dimbokro	127.19	314	PKIKP	PKPdf	00 56 09.9	-0.9
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
DBIC	Dimbokro	127.19	314	PKP	PKPdf	00 56 09.8	-1.0
	comp=Z,2.9nm,0.6s,baz=25,slow=3.0,SNR=8.7						
TIC	Toumodi	127.31	315	*e*PKP1	PKPdf	00 56 10.1	-0.9
	comp=Z,16nm,0.7s						
KIC	Kosan Boka	127.37	314	*e*PKP1	PKPdf	00 56 10.2	-0.9
	comp=Z,34nm,1.0s						
LIC	Lamto	127.65	314	*e*PKP1	PKPdf	00 56 10.9	-0.8
	comp=Z,23nm,1.1s						
LIC	Lamto	127.65	314	*e*PKPdf	PKPdf	00 56 08.2	-3.5
ROSC	El Rosal	128.93	47	PKP	PKPdf	00 56 13.9	-0.3
	comp=Z,7.7nm,1.0s,baz=288,slow=3.2,SNR=6.3						
VNA2	Neumayer--Watz	139.87	196	*e*PKPdf	PKPdf	00 56 23.9	-8.8
	baz=88,slow=1.9						
VNA2				*e*		00 56 35.0	
VNA2				*e*		00 56 43.5	
VNA3	Neumayer Olymp	140.12	195	*e*PKPdf	PKPdf	00 56 35.0	+1.8
VNA3				*e*		00 56 44.3	
ARE	Arequipa	146.33	65	*e*PKP2	PKPab	00 56 47.0	-1.0
PLCA	Paso Flores	155.07	113	PKIKP	PKPdf	00 57 07.9	+9.4
PLCA						00 57 24.3	
PLCA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
PLCA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PLCA	Paso Flores	155.07	113	PKPbc	PKPdf	00 57 07.9	+9.3
	comp=Z,2.0nm,0.7s,baz=302,slow=1.0,SNR=3.2						
PLCA				PKPab	PKPab	00 57 24.2	+0.7
	comp=Z,4.6nm,0.9s,baz=246,slow=10.0,SNR=3.8						
CPUP	Villa Florida	162.76	66	PKP2	PKPab	00 57 56.3	-1.0
CPUP				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CPUP	Villa Florida	162.76	66	PKPab	PKPab	00 57 56.3	-1.0
	comp=Z,3.3nm,0.8s,baz=312,slow=3.2,SNR=7.2						

ISK ***10*** *00:50:46.5, 38°.37N×39°.27E, h5^{km}, MD3.0*
DDA ***10*** *00:50:46.9, 38°.38N×39°.34E, h7^{km}±4^{km}, Md3.1*
ISCJB ***10*** *00:50:48.3±0.4, 38°.38N±0°.03×39°.30E±0°.03, h10^{km}, Error ellipse: s-maj=4.7km s-min=2.9km az=21.6*
CSEM ***10*** *00:50:48.1±0.3, 38°.38N×39°.28E, h2^{km}, MD3.1, Error ellipse: s-maj=6.4km s-min=5.0km az=21.0*
ISC 10 00:50:48.0±0.6, **38°.40N**±0°.03×**39°.32E**±0°.03, **h1**^{km}±5^{km}, **n29,** σ**1**^{s}**.14**/48, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	290	*i* P	Pg	00 50 53.2	-0.2
ELZG				*i* S	Sg	00 50 58.0	+0.9
ELZG	Elazig	0.28	290	*i* P	Pg	00 50 53.2	-0.2
ELZG				*i* S	Sg	00 50 58.0	+1.0
MALT	Malatya	0.71	263	*e*PG	Pg	00 51 00.4	-1.2
MALT				*e*SG	Sg	00 51 11.1	+0.3
MALT	Malatya	0.71	263	*e*Pg	Pg	00 51 00.4	-1.2
MALT				*e*Sg	Sg	00 51 11.1	+0.3
MYA	Malataya	0.71	264	*e*PG	Pg	00 51 00.4	-1.2
MYA	Malataya	0.71	264	*e*Pg	Pg	00 51 00.4	-1.2
DIYA	Diyarbakir	0.79	127	*i* P	Pg	00 51 03.1	-0.1
DIYA				*i* S	Sg	00 51 15.9	+2.5
DIYA	Diyarbakir	0.79	127	*i* P	Pg	00 51 03.1	-0.1
DIYA				*i* S	Sg	00 51 15.9	+2.4
DIY	Diyarbakir	0.88	125	*e*PG	Pg	00 51 04.5	-0.3
DIY				*e*SG	Sg	00 51 18.2	+2.1
DIY	Diyarbakir	0.88	125	*e*Pg	Pg	00 51 04.5	-0.3
DIY				*e*Sg	Sg	00 51 18.3	+2.1
URFA	Urfa	1.04	202	*e*PG	Pg	00 51 07.2	-0.7
URFA				*e*SG	Sg	00 51 21.5	+0.1
URFA	Urfa	1.04	202	*e*Pg	Pg	00 51 07.2	-0.7
URFA				*e*Sg	Sg	00 51 21.5	+0.1
KEMA	Kemaliye	1.08	323	*i* P	Pg	00 51 07.5	-1.3
KEMA				*i* S	Sg	00 51 23.9	+1.1
KEMA	Kemaliye	1.08	323	*i* P	Pg	00 51 07.5	-1.2
KEMA				*i* S	Sg	00 51 23.9	+1.2
AKCD	Akcadag	1.10	265	*i* P	Pg	00 51 07.4	-1.8
AKCD				*i* S	Sg	00 51 24.7	+1.2
AKCD	Akcadag	1.10	265	*i* P	Pg	00 51 07.4	-1.8
AKCD				*i* S	Sg	00 51 24.7	+1.2
ATAB	Bozova	1.23	221	*i* P	Pg	00 51 11.3	-0.4
ATAB				*i* S	Sg	00 51 28.0	+0.3
ATAB	Bozova	1.23	221	*i* P	Pg	00 51 11.3	-0.4
ATAB				*i* S	Sg	00 51 28.0	+0.3
DARE	Darende-Malaty	1.31	295	*e*PN	Pn	00 51 14.6	+1.2
DARE	Darende-Malaty	1.31	295	*e*Pn	Pn	00 51 14.6	+1.1
EZC	Erzincan	1.40	16	*e*PN	Pn	00 51 14.2	-0.5
MARD	Mardin	1.59	133	*i* P	Pn	00 51 15.7	-1.6
MARD				*i* S	Sn	00 51 37.4	-1.0
BEST	Besiri	1.62	108	*i* P	Pn	00 51 16.1	-1.6
BEST				*i* S	Sn	00 51 39.8	+0.6
GZT	Gaziantep	1.74	234	*i* P	Pn	00 51 18.7	-0.7
GZT				*i* S	Sn	00 51 44.0	+1.7
SARI	SarD1z-Kayseri	2.08	278	*e*PN	Pn	00 51 25.9	+1.9
SARI	SarD1z-Kayseri	2.08	278	*e*Pn	Pn	00 51 25.9	+1.9
KMRS	Kahramanmaras	2.11	246	*e*PN	Pn	00 51 23.6	-0.9
KMRS	Kahramanmaras	2.11	246	*e*Pn	Pn	00 51 23.6	-0.9
EZM	Erzurum	2.18	46	*e*PN	Pn	00 51 26.2	+0.6

IDC 10 00:52:40.9±2.1**, 1°.32N**×**127°.62E, h0**^{km}**, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.4**/17**, mbtmp3.5**/3**, Error ellipse: s-maj=154.9km s-min=25.8km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.13	163	P	P	00 57 39.2	+0.9
	0.7nm,0.4s,baz=343,slow=11,SNR=4.5						
ASAR	Alice Springs	25.57	167	P	P	00 58 11.3	-0.5
	1.0nm,0.7s,baz=338,slow=7.8,SNR=9.3						
MKAR	Makanchi Array	60.03	326	P	P	01 02 49.7	+0.1
	0.3nm,0.5s,baz=122,slow=8.4,SNR=6.6						

IDC ***10*** *00:54:41.0±2.0, 53°.06N×166°.92W, h0^{km}, mb3.4/4, mb1 3.8/4, mb1mx3.4/25, mbtmp3.4/4, Error ellipse: s-maj=75.8km s-min=27.9km az=6.0*
NEIC ***10*** *00:54:43.8, 52°.96N×166°.87W, h27^{km}, ML3.0(AEIC), After AEIC.*
ISC 10 00:54:41.0±2.4**, 52°.9N**±0°.1×**166°.8W**±0°.1**, h4**^{km}±15^{km}**, n12,** σ**0**^{s}**.96**/15**, mb3.4**/4**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKFG	Magazine Ridge	0.84	310	P	Pg	00 54 58.6	+1.5
OKFG				S	Sg	00 55 09.6	+1.6
UNV	Unalaska Valle	1.00	12	P	Pg	00 54 59.6	-0.5
UNV				S	Sg	00 55 12.8	-0.1
NIKO	Nikolski	1.22	276	P	Pg	00 55 03.8	-0.6
NIKO				S	Sg	00 55 19.0	-1.3
AKLV	Akutan Long Va	1.40	22	P	Pn	00 55 06.2	-1.0
AKUT	Akutan	1.42	26	P	Pn	00 55 07.0	-0.6
AKGG	Akutan Green G	1.42	21	P	Pn	00 55 07.0	-0.6
PETK	Petropavlovsk-	21.22	285	P	P	00 59 27.2	-0.3
	2.1nm,0.7s,mb3.6,baz=80,slow=15,SNR=4.5						
PETK	Petropavlovsk-	21.22	285	P	P	00 59 27.2	-0.4
YKA	Yellowknife Ar	28.74	50	P	P	01 00 39.0	-0.1
	0.2nm,0.5s,mb3.1,baz=274,slow=7.6,SNR=5.6						
YKA	Yellowknife Ar	28.74	50	P	P	01 00 39.0	-0.2
NVAR	Mina Array Bea	36.14	94	P	P	01 01 45.7	+1.6
	0.5nm,0.7s,mb3.6,baz=310,slow=6.9,SNR=4.7						
TXAR	Lajitas Array	51.21	91	P	P	01 03 46.1	+0.7
	0.3nm,0.8s,mb3.3,baz=286,slow=6.5,SNR=4.0						

NEIC ***10*** *01:08:21.9, 35°.01N×21°.74E, h12^{km}, mb3.8/2, ML3.9(ATH), After ATH.*
ATH ***10*** *01:08:21.9, 35°.01N×21°.74E, h12^{km}±5^{km}, MD3.9/16, ML3.9*
CSEM ***10*** *01:08:25.2±0.6, 35°.13N×21°.95E, h10^{km}, ML3.9, Error ellipse: s-maj=19.7km s-min=8.2km az=38.0*
ISCJB ***10*** *01:08:31.8±0.7, 35°.52N±0°.06×22°.31E±0°.05, h68^{km}±6^{km}, mb3.7/15, Error ellipse: s-maj=11.6km s-min=5.4km az=27.3*
IDC ***10*** *01:08:32.3±2.0, 35°.54N×22°.38E, h46^{km}±20^{km}, mb3.6/13, mb1 3.6/17, mb1mx3.5/30, mbtmp3.5/17, ML3.1/4, Error ellipse: s-maj=23.0km s-min=15.8km az=5.0*
ISC 10 01:08:32.7±0.8**, 35°.49N**±0°.07×**22°.30E**±0°.06**, h59**^{km}±6^{km}**, n88,** σ**1**^{s}**.19**/94**, mb3.8**/15**, 1C-2D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	1.47	342	*e*PN	Pn	01 08 56.0	-1.0
PYL				*e*SN	Sn	01 09 21.2	+6.0
PYL	PYLOS	1.47	342	*e*Pn	Pn	01 08 56.0	-1.0
PYL				*e*Sn	Sn	01 09 21.2	+6.0
VAM	Vamos	1.56	93	*e*PN	Pn	01 08 58.5	+0.3
VAM	Vamos	1.56	93	*e*Pn	Pn	01 08 58.5	+0.3
ITM	Ithomi	1.71	350	*e*PN	Pn	01 09 00.2	0.0
ITM				*e*SN	Sn	01 09 27.5	+6.5
ITM	Ithomi	1.71	350	*e*Pn	Pn	01 09 00.2	0.0
ITM				*e*Sn	Sn	01 09 27.5	+6.5
SIVA	Sivas	2.11	102	*e*PN	Pn	01 09 05.3	-0.4
SIVA	Sivas	2.11	102	*e*Pn	Pn	01 09 05.3	-0.4
IDI	Anoyia	2.13	95	P	Pn	01 09 05.5	-0.4
	14nm,0.3s,baz=274,slow=14,SNR=91						
IDI	Anoyia	2.13	95	P	Pn	01 09 05.5	-0.4
DID	Didima	2.15	20	*e*PN	Pn	01 09 08.5	+2.3
DID	Didima	2.15	20	*e*Pn	Pn	01 09 08.5	+2.3
LAST	Lasithi	2.62	96	*e*PN	Pn	01 09 12.6	-0.1
LAST	Lasithi	2.62	96	*e*Pn	Pn	01 09 12.6	-0.1
RLS	Riolos of Patr	2.65	346	*e*PN	Pn	01 09 12.5	-0.5
RLS	Riolos of Patr	2.65	346	*e*Pn	Pn	01 09 12.5	-0.5
NPS	Neapolis	2.72	94	*e*PN	Pn	01 09 14.0	0.0
NPS	Neapolis	2.72	94	*e*Pn	Pn	01 09 14.0	0.0
ATH	Athens Observa	2.73	24	*e*PN	Pn	01 09 16.0	+1.9
ATH	Athens Observa	2.73	24	*e*Pn	Pn	01 09 16.0	+1.9
PTL	Penteli	2.85	26	*e*PN	Pn	01 09 18.5	+2.8
PTL	Penteli	2.85	26	*e*Pn	Pn	01 09 18.5	+2.8
VLS	Valsamata	3.01	333	*e*PN	Pn	01 09 15.8	-2.1
VLS	Valsamata	3.01	333	*e*Pn	Pn	01 09 15.8	-2.1
LKR	Lokris	3.20	10	*e*PN	Pn	01 09 22.8	+2.2
LKR	Lokris	3.20	10	*e*Pn	Pn	01 09 22.8	+2.2
EVR	Evrytania	3.44	354	*e*PN	Pn	01 09 24.1	+0.3
EVR	Evrytania	3.44	354	*e*Pn	Pn	01 09 24.1	+0.3
KARP	Karpathos	3.97	88	*e*PN	Pn	01 09 32.3	+1.2
KARP	Karpathos	3.97	88	*e*Pn	Pn	01 09 32.3	+1.2
THL	Klokotos Trika	4.07	357	*e*PN	Pn	01 09 33.2	+0.7
THL	Klokotos Trika	4.07	357	*e*Pn	Pn	01 09 33.2	+0.7
KZN	Kozani	4.83	355	*e*PN	Pn	01 09 44.3	+1.5
KZN	Kozani	4.83	355	*e*Pn	Pn	01 09 44.3	+1.5
BIA	Bitola	5.57	352	*e*Pn	Pn	01 09 52.0	-1.0
BIA	Bitola	5.57	352	*e*Pn	Pn	01 09 51.9	-1.1
KRUS	Krusevo	5.93	352	*e*Pn	Pn	01 09 56.9	-0.9
KRUS	Krusevo	5.93	352	*e*Pn	Pn	01 09 56.9	-0.9
VAE	Valguarnera	6.65	290	P	Pn	01 10 07.5	-0.3
	0.2nm,0.3s,baz=119,slow=13,SNR=2.6						

VAE				S	Sn	01 11 25.5	+3.3
	1.2nm,0.3s,baz=142,slow=19,SNR=3.4						
VAE	Valguarnera	6.65	290	P	Pn	01 10 07.5	-0.3
BARS	Barje	7.32	357	⇓iPn	Pn	01 10 15.8	-1.2
BOLS	Boljevac	8.33	358	⇑iPn	Pn	01 10 28.8	-1.9
BBLS	Lazići	8.65	346	⇓iPn	Pn	01 10 33.9	-1.3
BRTR	Keskin Array B	9.94	61	P	Pn	01 10 52.6	-0.2
	0.1nm,0.3s,baz=268,slow=12,SNR=4.6						
BRTR	Keskin Array B	9.94	61	P	Pn	01 10 52.6	-0.2
EIL	Elat	12.15	115	P	Pn	01 11 17.7	-5.3
	0.4nm,0.3s,baz=328,slow=6.5,SNR=6.8						
EIL				S	Sn	01 13 27.9	-8.8
	0.2nm,0.3s,baz=81,slow=13,SNR=3.7						
EIL	Elat	12.15	115	P	Pn	01 11 17.7	-5.3
EIL				S	Sn	01 13 27.9	-8.8
GERES	GERESS Array B	14.77	337	P	Pn	01 11 56.0	-2.0
	0.1nm,0.3s,baz=157,slow=13,SNR=2.8						
MBDF	Montbardon	15.02	313	eP	Pn	01 12 01.9	+0.6
	12nm,1.1s						
MBDF	Montbardon	15.02	313	eP	Pn	01 12 01.9	+0.6
	6.2nm,1.1s						
HINF	Hinteralfeld	16.84	322	eP	Pn	01 12 22.0	-2.3
SMF	Signal de Mont	17.78	314	eP	Pn	01 12 34.3	-1.6
SMF	Signal de Mont	17.78	314	eP	Pn	01 12 34.3	-1.6
BAIF	Baives	19.63	323	eP	Pn	01 12 58.1	0.0
	4.0nm,0.6s						
BAIF	Baives	19.63	323	eP	Pn	01 12 58.1	0.0
	2.0nm,0.6s						
BAIF	Baives	19.63	323	eP	Pn	01 12 58.1	0.0
	2.0nm,0.6s						
SJPF	Ste Jean	19.69	300	eP	Pn	01 13 00.7	+1.9
	13nm,1.2s						
MIB	Mutribah	21.81	98	eP	P	01 13 18.8	-1.1
MIB				AMb	AMB	01 13 19.6	
	comp=Z,12nm,0.7s,mb4.4						
MIB	Mutribah	21.81	98	eP	P	01 13 18.8	-1.1
	comp=Z,12nm,0.7s,mb4.4						
NAY	Al-Naaiem	21.94	99	eP	P	01 13 20.6	-0.7
NAY	Al-Naaiem	21.94	99	eP	P	01 13 20.6	-0.7
UMR	Umm Al-Rimmam	22.21	98	eP	P	01 13 23.0	-1.2
UMR				AMb	AMB	01 13 24.1	
	comp=Z,10nm,0.8s,mb4.3						
UMR	Umm Al-Rimmam	22.21	98	eP	P	01 13 23.0	-1.2
	comp=Z,10.0nm,0.8s,mb4.3						
HFS	Hagfors	25.28	350	P	P	01 13 53.3	+0.1
	comp=Z,0.5nm,0.4s,mb3.4,baz=153,slow=10.0,SNR=6.6						
HFS	Hagfors	25.28	350	P	P	01 13 53.3	+0.1
EKA	Eskdalemuir Ar	26.45	327	P	P	01 14 05.5	+1.7
	comp=Z,1.6nm,0.9s,mb3.6,baz=124,slow=8.6,SNR=5.3						
EKA	Eskdalemuir Ar	26.45	327	P	P	01 14 05.5	+1.7
NOA	NORSAR Array B	26.53	348	P	P	01 14 04.9	+0.4
	comp=Z,0.5nm,0.7s,mb3.1,baz=160,slow=9.0,SNR=2.4						
NOA	NORSAR Array B	26.53	348	P	P	01 14 04.9	+0.4
TORD	Torodi Ar. Bea	28.99	225	P	P	01 14 28.1	+1.3
	comp=Z,0.4nm,0.6s,mb3.3,baz=35,slow=8.8,SNR=6.4						
AKTK	Aktyubinsk	29.77	49	P	P	01 14 32.8	-0.7
AKTO	Aktyubinsk	29.77	49	P	P	01 14 32.8	-0.7
	comp=Z,0.6nm,0.5s,mb3.6,baz=194,slow=3.9,SNR=3.8						
ARCES	ARCESS Array B	34.15	2	P	P	01 15 11.9	+0.3
	comp=Z,2.1nm,0.8s,mb4.1,baz=189,slow=11,SNR=5.5						
ARCES	ARCESS Array B	34.15	2	P	P	01 15 11.9	+0.3
KURK	Kurchatov	42.79	51	P	P	01 16 24.2	-0.1
	comp=Z,1.1nm,0.6s,mb3.7,baz=275,slow=8.7,SNR=4.4						
KURK	Kurchatov	42.79	51	P	P	01 16 24.2	-0.2
MKAR	Makanchi Array	45.55	56	P	P	01 16 46.4	0.0
	comp=Z,1.4nm,0.7s,mb4.0,baz=268,slow=8.0,SNR=24						
MKAR				PcP	PcP	01 18 26.5	+2.4
	comp=Z,0.4nm,0.5s,baz=274,slow=2.5,SNR=4.1						
MKAR	Makanchi Array	45.55	56	P	P	01 16 46.4	0.0
MKAR	Makanchi Array	45.55	56	PcP	PcP	01 18 26.5	+2.3
ZALV	Zalesovo Beam	46.47	46	P	P	01 16 53.6	+0.1
	comp=Z,0.7nm,0.4s,mb3.9,baz=270,slow=9.9,SNR=3.9						
SONM	Songino Array	61.08	50	P	P	01 18 40.1	-0.3
	comp=Z,0.1nm,0.4s,mb3.3,baz=270,slow=5.8,SNR=3.9						
SCHQ	Schefferville	61.41	319	P	P	01 18 43.6	+1.2
	comp=Z,3.5nm,1.1s,mb4.4,baz=54,slow=8.7,SNR=3.6						
SCHQ	Schefferville	61.41	319	P	P	01 18 43.6	+1.2
CMAR	Chiang Mai Arr	68.85	82	P	P	01 19 30.8	-0.5
	comp=Z,1.3nm,0.3s,mb4.3,baz=302,slow=8.4,SNR=3.8						
CMAR	Chiang Mai Arr	68.85	82	P	P	01 19 30.8	-0.5
CMAR	Chiang Mai Arr	68.85	82	P	P	01 19 30.8	-0.5
YKA	Yellowknife Ar	76.39	341	P	P	01 20 17.3	+2.0
	comp=Z,0.2nm,0.6s,mb3.2,baz=35,slow=4.8,SNR=4.0						
YKA	Yellowknife Ar	76.39	341	P	P	01 20 17.4	+2.1

MAN 10 01:13:14, 10°.23N×125°.88E, h1km, mb3.6, ML2.4, MS1.9, 1D, Leyte

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	Surigao	0.58	221	⇓eP	Pg	01 13 26.4	+1.2
SCPH				eS	Sg	01 13 36.4	+3.6
MSLP	Maasin	1.01	265	eP	Pg	01 13 35.0	+1.6
BUTP	Butuan	1.27	191	eP	Pg	01 13 40.9	+2.5
BESP	Borongan	1.43	343	eP	Pn	01 13 41.5	+0.3

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*IDC **10** 01:28:05.4±1.7, 51°.47N×176°.53W, h0km, mb3.3/4, mb1 3.7/4, mb1mx3.4/24, mbtmp3.3/4, MS3.8/2, Ms1 3.8/2, ms1mx3.0/26, Error ellipse: s-maj=79.7km s-min=28.3km az=2.0*

*ISCJB **10** 01:28:12.8±1.4, 51°.6N±0°.2×176°.1W±0°.1, h64km±12km, mb3.5/4, Error ellipse: s-maj=39.1km s-min=8.1km az=166.7*

*NEIC **10** 01:28:12.5, 51°.47N×176°.16W, h26km, ML4.1(AEIC), After AEIC.*

ISC 10 01:28:13.5±1.6, **51°.4N**±0°.2×**176°.1W**±0°.1, **h48**km±16km, **n13, σ1s.08**/11, **mb3.5**/4, **MS3.8**/2, **Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	Atka Island	1.40	54	P	Pn	01 28 35.4	-1.1
ATKA				S	Sn	01 28 54.4	+0.5
AMKA	Amchitka	2.91	271	P	Pn	01 28 56.3	-1.0
AMKA				S	Sn	01 29 32.1	+1.1
NIKO	Nikolski	4.70	68	P	Pn	01 29 22.9	+1.2
SPIA	Saint Paul Isl	6.71	28	P	Pn	01 29 50.0	+0.7
SDPT	Sand Point	10.11	61	eP	Pn	01 30 34.1	-1.6
	58nm,0.8s						
YKA	Yellowknife Ar	33.96	47	P	P	01 34 51.6	-0.2
	0.1nm,0.3s,mb3.2,baz=281,slow=8.8,SNR=3.1						
YKA				PcP	PcP	01 37 29.0	+0.2
	0.4nm,0.6s,baz=286,slow=3.1,SNR=8.0						
PDAR	Pinedale Array	44.65	74	P	P	01 36 21.7	+0.6
	0.6nm,0.4s,mb3.8,baz=306,slow=3.9,SNR=6.0						
TXAR	Lajitas Array	56.94	83	P	P	01 37 54.4	+0.7
	0.4nm,0.8s,mb3.5,baz=297,slow=4.0,SNR=4.2						
TXAR				LR	LR	01 59 19.8	
	comp=Z,132nm,22.0s,MS4.0,baz=150,slow=33						
KURK	Kurchatov	60.24	315	LR	LR	02 03 42.0	
	comp=Z,49nm,19.0s,MS3.7,baz=15,slow=36						
MKAR	Makanchi Array	61.36	310	P	P	01 38 20.7	-3.3
	0.2nm,0.5s,mb3.5,baz=54,slow=6.0,SNR=4.7						
TORD	Torodi Ar. Bea	115.70	2	PKP	PKPdf	01 46 48.6	-2.0
	0.5nm,1.1s,baz=357,slow=2.0,SNR=4.3						
DBIC	Dimbokro	121.67	10	PKP	PKPdf	01 47 00.8	-1.2
	2.9nm,1.2s,baz=37,slow=3.7,SNR=4.7						
BOSA	Boshof	152.19	317	PKPbc	PKPbc	01 48 02.6	-0.8
	5.8nm,1.1s,baz=27,slow=2.6,SNR=7.4						

ISC 10 01:29:10.1±1.0, **40°.0N**±0°.1×**75°.4E**±0°.2, **h10**km, **n13, σ0s.65**/16, **4C-3D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	0.62	134	⇓iPg	Pg	01 29 20.6	-1.6
KSH				Sg	Sg	01 29 31.5	+1.1
KSH				smax			
	comp=N,1μm,0.2s						
KSH				smax			
	comp=E,740nm,0.3s						
KZA	Kyzart	2.12	357	P	Pn	01 29 45.1	-0.5
	SNR=23						
UCH	Uchtor	2.37	344	P	Pn	01 29 48.8	-0.1
	SNR=34						
ULHL	Ulahol	2.38	15	P	Pn	01 29 48.8	-0.3
	SNR=30						
AML	Almayashu	2.53	330	P	Pn	01 29 51.2	0.0
	SNR=33						
KBK	Karagaybulak	2.72	353	P	Pn	01 29 54.1	+0.3
	SNR=17						
AAK	Ala-Archa	2.76	346	P	Pn	01 29 54.8	+0.4
	SNR=22						
EKS2	Erkin-Say	2.97	336	P	Pn	01 29 58.2	+1.0
	SNR=15						
TKM2	Tokmak 2	2.97	3	P	Pn	01 29 57.2	0.0
	SNR=10						
TKM2	Tokmak 2	2.97	3	⇑Pn	Pn	01 29 57.1	-0.1
	comp=E,3.8nm,0.5s						
TKM2				⇑Pg	Pg	01 30 01.3	-5.6
	comp=E,9.3nm,0.4s						
TKM2				⇓Lg		01 30 40.9	
	comp=E,66nm,0.8s						
CHMS	Chumysh	3.08	351	P	Pn	01 29 58.9	+0.2
	SNR=5.8						
USP	Ospenovka	3.38	349	P	Pn	01 30 02.6	-0.2
	SNR=19						
KK31	Karatay Array	4.83	312	⇑Pn	Pn	01 30 22.6	-0.2
	comp=E,0.7nm,0.6s,baz=0.0,slow=0.1,SNR=4.7						
KK31				⇑Pg	Pg	01 30 35.9	-6.7
	comp=E,1.1nm,0.6s,baz=131,slow=16,SNR=4.5						
KK31				⇓Lg		01 31 37.7	
	comp=E,0.8nm,0.3s,baz=132,slow=31,SNR=4.1						

IDC 10 01:39:29.9±4.7, **27°.45S**×**177°.17W, h75**km±45km, **mb3.4**/4, **mb1 3.9**/4, **mb1mx3.5**/14, **mbtmp3.4**/4, **Error ellipse: s-maj=47.1km s-min=34.8km az=147.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	1.91	200	P	Pn	01 39 59.8	-0.6
	156nm,0.3s,baz=91,slow=9.2,SNR=17						
RAO				S	Sn	01 40 24.2	+0.5
	345nm,0.3s,baz=107,slow=22,SNR=7.9						
WRA	Warramunga Arr	44.80	269	P	P	01 47 36.6	+0.2
	0.3nm,0.4s,baz=111,slow=6.5,SNR=2.4						
WRA				pP	pP	01 47 53.7	-1.2
	0.7nm,0.3s,baz=108,slow=6.1,SNR=3.3						
NVAR	Mina Array Bea	85.59	42	P	P	01 52 00.1	+0.3
	0.8nm,0.8s,baz=211,slow=9.5,SNR=4.6						
TXAR	Lajitas Array	90.18	57	P	P	01 52 22.5	+0.4
	0.3nm,0.7s,baz=225,slow=10,SNR=3.8						
PDAR	Pinedale Array	93.50	43	P	P	01 52 37.6	+0.6
	0.2nm,0.7s,baz=224,slow=5.0,SNR=2.7						
NOA	NORSAR Array B	145.94	353	PKPbc	PKPbc	01 58 59.6	-0.5
	1.2nm,0.8s,baz=13,slow=4.3,SNR=4.0						
HFS	Hagfors	146.49	350	PKPbc	PKPbc	01 59 01.4	-0.4
	1.7nm,0.6s,baz=66,slow=3.5,SNR=8.4						
AKASG	Malin Array Be	149.33	326	PKPbc	PKPbc	01 59 08.2	-1.5
	0.4nm,0.4s,baz=31,slow=1.9,SNR=2.8						
TORD	Torodi Ar. Bea	165.73	176	PKPab	PKPab	02 00 25.1	-0.7
	0.5nm,1.0s,baz=181,slow=3.4,SNR=2.9						

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*ISCJB **10** 01:52:01.6±0.4, 23°.92N±0°.02×122°.32E±0°.02, h2km±2km, mb3.7/10, Error ellipse: s-maj=3.2km s-min=2.2km az=157.5*

*TAP **10** 01:52:03.0, 24°.00N×122°.25E, h5km±1km, ML3.8, D*

*NEIC **10** 01:52:04.9±1.7, 23°.99N×122°.23E, h38km±14km, mb4.1/1, Error ellipse: s-maj=22.6km s-min=8.5km az=83.0*

*JMA **10** 01:52:04.0±0.4, 23°.98N×122°.34E, h17km, M3.5*

*IDC **10** 01:52:09.0±6.6, 24°.01N×122°.21E, h75km±63km, mb3.5/9, mb1 3.6/10, mb1mx3.5/22, mbtmp3.5/10, ML3.3/1, MS3.5/1, Ms1 3.5/1, ms1mx2.0/26, Error ellipse: s-maj=44.4km s-min=16.5km az=66.0*

ISC 10 01:52:02.4±0.4, **23°.94N**±0°.02×**122°.33E**±0°.02, **h9**km±2km, **n70, σ1s.04**/117, **mb3.7**/10, **1C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HWA	Hwalien	0.66	273	eP	Pg	01 52 16.1	+0.9
	baz=267						
HWA				eS	Sg	01 52 25.9	+2.0
	baz=267						
TWD	Chiawan	0.69	282	P	Pg	01 52 16.0	+0.4
	baz=278						
TWD				S	Sg	01 52 25.1	+0.6
	baz=278						
NACB	Ninganchiao	0.71	289	ePn	Pg	01 52 15.9	-0.1
NACB				eSn	Sg	01 52 26.2	+0.8
ENA	Nanau	0.72	312	eP	Pg	01 52 16.4	0.0
	baz=313						
TWC	Suao	0.80	327	⇑iP	Pg	01 52 17.4	-0.4
	baz=329						
TWC				eS	Sg	01 52 27.6	-0.5
	baz=329						
YOJ	Yonaguni jima	0.81	50	P	Pg	01 52 18.7	+0.7
YOJ				S	Sg	01 52 28.8	+0.2
ESL	Shilin	0.83	262	eP	Pg	01 52 17.7	-0.6
	baz=255						
ESL				eS	Sg	01 52 28.7	-0.4
	baz=255						
ILA	Ilan	0.98	327	eP	Pg	01 52 21.4	+0.2
	baz=329						
ILA				eS	Sg	01 52 34.0	+0.1
	baz=329						
ENTT	Nioudou	0.99	315	i P	Pg	01 52 21.2	-0.1
	baz=315						
ENTT				eS	Sg	01 52 34.5	+0.3
	baz=315						
TWE	Neicheng	0.99	322	eP	Pg	01 52 21.1	-0.2
	baz=324						
TWE				eS	Sg	01 52 35.1	+1.0
	baz=324						
WHF	Hehuan Shan	0.99	282	i P	Pg	01 52 20.9	-0.5
	baz=279						
WHF				S	Sg	01 52 33.8	-0.7
	baz=279						
NNS	Nan Shan	1.01	300	P	Pg	01 52 21.5	-0.2
	baz=298						
NNS				eS	Sg	01 52 34.7	-0.1
	baz=298						
EHY	Hungye	1.02	245	eP	Pg	01 52 22.1	+0.2
	baz=239						
EHY				eS	Sg	01 52 34.5	-0.8
	baz=239						
YULB	Yu-li	1.09	240	ePn	Pg	01 52 22.3	-1.1
YULB				eSn	Sg	01 52 36.6	-0.9
TWB1	Santiao Chiao	1.11	344	eP	Pg	01 52 23.3	-0.4
	baz=347						
TWB1				eS	Sg	01 52 38.9	+0.8
	baz=347						
TWF1	Yuli	1.11	239	eP	Pg	01 52 22.9	-0.9
	baz=233						
TWF1				eS	Sg	01 52 37.6	-0.6
	baz=233						
YHNB	Yeheng	1.13	310	ePn	Pn	01 52 23.1	-1.3
NSK	Sanguang	1.15	310	⇓iP	Pg	01 52 23.6	-0.8
	baz=309						
NSK				eS	Sg	01 52 40.0	+0.5
	baz=309						
NWF	Wu-fen Shan	1.23	336	P	Pn	01 52 25.2	-0.6
	baz=338						
NWF				S	Sb	01 52 41.1	-0.8
	baz=338						
TWA	Mucha	1.24	327	P	Pn	01 52 26.2	+0.3
	baz=328						
TWA				eS	Sb	01 52 41.3	-0.8
	baz=328						
SSLB	Suanglung	1.27	263	ePn	Pn	01 52 25.1	-1.2
SSLB				eSn	Sn	01 52 40.5	-2.9
TATO	Taipei	1.29	324	ePn	Pn	01 52 25.8	-0.7
SMLT	Sun Moon Lake	1.31	268	eP	Pn	01 52 26.3	-0.6
	baz=264						
SMLT				eS	Sb	01 52 42.3	-1.8
	baz=264						
TAP1	Taipei	1.32	326	eP	Pn	01 52 27.5	+0.5
	baz=327						
TAP1				eS	Sb	01 52 44.7	+0.3
	baz=327						
IRIF	Iriomote-Funau	1.34	73	P	Pn	01 52 27.9	+0.6
IRIF				eS	Sb	01 52 45.4	+0.5
YUS	Yu-Shan	1.34	251	eP	Pn	01 52 27.0	-0.3
	baz=246						
YUS				eS	Sb	01 52 43.5	-1.4
	baz=246						
TYC	Yuchr	1.35	269	P	Pn	01 52 26.6	-0.9
	baz=265						
HATJ	Hateruma jima	1.35	85	P	Pn	01 52 27.7	+0.2
HATJ				eS	Sb	01 52 45.3	-0.1
NSTT	Nanjuang	1.40	300	P	Pn	01 52 28.4	+0.3
	baz=299						
NSTT				S	Sb	01 52 46.0	-0.5
	baz=299						
ELDTW	Lidau	1.42	238	eP	Pn	01 52 27.0	-1.3
	baz=234						
TWS1	Kuangyinshan	1.42	324	P	Pn	01 52 28.4	0.0
	baz=325						
TWS1				eS	Sn	01 52 48.3	+1.0
	baz=325						
ALS	Alishan	1.46	253	eP	Pn	01 52 29.0	+0.1
	baz=249						
ALS				eS	Sn	01 52 46.8	-1.4
	baz=249						
TWQ1	Liyutan	1.48	286	P	Pn	01 52 29.7	+0.5
	baz=284						
TWQ1				S	Sn	01 52 48.8	+0.1
	baz=284						
WNT	Mingjian	1.51	268	eP	Pn	01 52 30.6	+1.0
	baz=265						
WNT				eS	Sn	01 52 49.3	-0.1
	baz=265						
NSY	Sanyi	1.51	289	eP	Pn	01 52 30.3	+0.7
	baz=287						
NSY				eS	Sn	01 52 50.1	+0.6
	baz=287						
TCU	Taichung	1.53	278	eP	Pn	01 52 30.7	+0.8
	baz=275						
TCU				eS	Sn	01 52 51.5	+1.7
	baz=275						
CHN5	Tsauling	1.55	258	P	Pn	01 52 30.5	+0.3
	baz=254						
CHN5				eS	Sn	01 52 50.3	-0.2
	baz=254						
JKRS	Kuro-shima	1.56	79	P	Pn	01 52 31.4	+1.0
JKRS				eS	Sn	01 52 52.0	+1.2
TWG	Pinlang	1.60	226	ePn	Pn	01 52 29.4	-1.5
TWG				eSn	Sn	01 52 49.8	-2.0
TWG	Pinlang	1.60	226	eP	Pn	01 52 29.9	-1.1
	baz=222						
STYT	Tauyuan	1.64	242	eP	Pn	01 52 31.3	-0.1
	baz=238						
STYT				eS	Sn	01 52 51.4	-1.2
	baz=238						
WGK	Gukeng	1.64	262	eP	Pn	01 52 32.5	+1.1
	baz=258						
WGK				eS	Sn	01 52 55.2	+2.6
	baz=258						
TPUB	Ta-pu	1.68	248	ePn	Pn	01 52 32.7	+0.6
TPUB				eSn	Sn	01 52 52.4	-1.3
CHN4	Tsaushan	1.70	250	eP	Pn	01 52 33.6	+1.4
	baz=247						
CHN4				eS	Sn	01 52 55.3	+1.3
	baz=247						
JIJ	Ishigaki jima	1.71	75	P	Pn	01 52 32.2	-0.2
JIJ				eS	Sn	01 52 54.5	+0.1
WTP	Ta-pu	1.72	247	P	Pn	01 52 33.1	+0.6
	baz=243						
WTP				S	Sn	01 52 55.0	+0.4
	baz=243						
CHN2	Minshiung	1.75	257	eP	Pn	01 52 35.3	+2.4
	baz=254						
CHN2				eS	Sn	01 52 57.0	+1.7
	baz=254						
CHY	Chiayi	1.80	256	eP	Pn	01 52 35.1	+1.4
	baz=253						
CHY				eS	Sn	01 52 57.6	+0.9
	baz=253						
CHN1	Nanshi	1.82	246	P	Pn	01 52 35.1	+1.2
	baz=242						
CHN1				S	Sn	01 52 57.8	+0.7
	baz=242						
SGST	Jiashian	1.82	242	P	Pn	01 52 35.4	+1.5
	baz=239						
SGST				S	Sn	01 52 58.1	+1.1
	baz=239						
TWK	Hsinying	1.82	249	eP	Pn	01 52 35.1	+1.2
	baz=245						
TWK				eS	Sn	01 52 58.0	+1.0
	baz=245						
SSD	Sandimen	1.96	233	eP	Pn	01 52 37.0	+1.1
	baz=229						
SSD				eS	Sn	01 53 01.8	+1.2
	baz=229						
CHN8	Yiju	2.03	254	eS	Sn	01 53 03.1	+0.7
	baz=250						
TWM1	Shoushan	2.08	238	eP	Pn	01 52 40.6	+3.2
	baz=234						
JTJ	Tarama	2.27	72	P	Pn	01 52 41.1	+0.9
QZH	Quanzhou	3.55	287	Pn	Pn	01 52 57.2	-0.5
QZH				Sn	Sn	01 53 35.6	-4.2
QZH				smax			
	comp=N,80nm,0.6s						
QZH				smax			
	comp=E,80nm,0.8s						
KSRS	Korea Array	14.30	18	P	Pn	01 55 28.9	+3.9
	comp=E,0.1nm,0.3s,baz=196,slow=12,SNR=5.9						
ULN	Ulaanbaatar	26.79	337	eP	P	01 57 40.4	-2.3
	comp=E,2.8nm,0.5s,mb4.0						
SONM	Songino Array	27.01	336	P	P	01 57 42.5	-2.1
	comp=E,4.3nm,0.7s,mb4.1,baz=148,slow=9.5,SNR=25						
SONM				LR	LR	02 09 23.7	
	comp=E,93nm,19.8s,baz=212,slow=38						
MK31	Makanchi Array	39.24	316	eP	P	01 59 29.1	-2.0
MKAR	Makanchi Array	39.24	316	P	P	01 59 29.4	-1.8
	comp=E,0.4nm,0.4s,mb3.5,baz=100,slow=9.9,SNR=18						
ZALV	Zalesovo Beam	41.02	327	P	P	01 59 42.5	-3.2
	comp=E,2.2nm,0.7s,mb3.9,baz=107,slow=7.9,SNR=9.6						
WRA	Warramunga Arr	45.16	164	P	P	02 00 18.5	-1.0
	comp=E,2.0nm,1.2s,mb3.8,baz=345,slow=8.8,SNR=3.3						
ASAR	Alice Springs	48.64	166	P	P	02 00 46.5	-0.3
	comp=E,0.4nm,0.8s,mb3.5,baz=354,slow=14,SNR=4.1						
ONI	Oni	66.28	308	P	P	02 02 46.4	-4.7
AKASG	Malin Array Be	73.75	319	P	P	02 03 33.2	-3.7
	comp=E,0.2nm,0.2s,mb3.6,baz=64,slow=6.2,SNR=2.8						
BRTR	Keskin Array B	74.16	307	P	P	02 03 38.3	-1.2
	comp=E,0.7nm,0.8s,mb3.6,baz=83,slow=5.9,SNR=4.3						
YKA	Yellowknife Ar	82.79	23	P	P	02 04 24.5	-2.2
	comp=E,0.5nm,0.8s,mb3.6,baz=309,slow=4.9,SNR=7.4						
GERES	GERESS Array B	83.69	321	P	P	02 04 30.0	-1.7
	comp=E,0.3nm,0.6s,mb3.6,baz=46,slow=7.0,SNR=1.7						
GERES	GERESS Array B	83.69	321	P	P	02 04 29.9	-1.7

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*ISK **10** 01:52:08.8, 37°.98N×34°.38E, h13km, MD2.9*

*ISCJB **10** 01:52:09.2±0.6, 37°.95N±0°.04×34°.38E±0°.04, h4km±6km, Error ellipse: s-maj=7.7km s-min=5.3km az=13.1*

*CSEM **10** 01:52:09.2±0.2, 37°.96N×34°.36E, h10km, MD2.9, Error ellipse: s-maj=5.6km s-min=4.4km az=172.0*

*DDA **10** 01:52:10.7, 38°.10N×34°.38E, h7km±6km, Md3.1*

ISC 10 01:52:09.5±0.7, **37°.95N**±0°.04×**34°.40E**±0°.04, **h3**km±6km, **n34, σ1s.34**/44, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSTP	Nigde	0.23	270	i P	Pg	01 52 14.9	+1.0
BSTP				eS	Sg	01 52 21.2	+4.3
NIG	Nigde	0.23	47	ePG	Pg	01 52 13.8	-0.2
NIG	Nigde	0.23	47	ePg	Pg	01 52 13.8	-0.2
SULT	Sultanhani-AKS	0.74	290	ePG	Pg	01 52 23.2	-0.5
SULT				eSG	Sg	01 52 34.0	+0.8
SULT	Sultanhani-AKS	0.74	290	ePg	Pg	01 52 23.2	-0.5
SULT				eSg	Sg	01 52 34.1	+0.8
AVNT	Avonos	0.90	23	i P	Pg	01 52 26.8	-0.1
AVNT	Avonos	0.90	23	i P	Pg	01 52 26.8	0.0
MERS	Mersin	1.09	175	ePN	Pg	01 52 30.3	-0.1
MERS	Mersin	1.09	175	ePn	Pg	01 52 30.3	-0.1
KOZT	Kozan	1.23	112	ePN	Pn	01 52 33.0	-0.6
KOZT	Kozan	1.23	112	ePn	Pn	01 52 33.0	-0.6
BNN	Bunyan	1.45	51	ePN	Pn	01 52 35.8	-0.9
BNN	Bunyan	1.45	51	ePn	Pn	01 52 35.8	-0.9
KAMT	Kaman	1.51	340	ePN	Pn	01 52 35.9	-1.6
KAMT				eSN	Sn	01 52 55.1	-2.6
KAMT	Kaman	1.51	340	ePn	Pn	01 52 35.9	-1.6
KAMT				eSn	Sn	01 52 55.1	-2.6
ANDN	Andirin	1.59	103	i P	Pg	01 52 42.5	+2.6
ANDN	Andirin	1.59	103	i P	Pg	01 52 42.5	+2.5
KONT	Konya--Tatoy	1.61	270	ePN	Pn	01 52 37.0	-1.8
KONT	Konya--Tatoy	1.61	270	ePn	Pn	01 52 37.0	-1.8
CDAG	Cicekdag	1.67	359	i P	Pn	01 52 38.9	-0.8
CDAG				i S	Sn	01 53 03.4	+1.8
CDAG	Cicekdag	1.67	359	i P	Pn	01 52 38.8	-0.9
CDAG				i S	Sn	01 53 03.4	+1.8
PINB	Pinarbasi	1.74	65	eP	Pn	01 52 41.4	+0.8
PINB				eS	Sn	01 53 04.6	+1.4
PINB	Pinarbasi	1.74	65	eP	Pn	01 52 41.4	+0.8
PINB				eS	Sn	01 53 04.6	+1.4
HDMB	Hadim	1.81	238	ePN	Pn	01 52 40.6	-1.1
HDMB	Hadim	1.81	238	ePn	Pn	01 52 40.6	-1.0
YOZ	Yozgat	1.83	23	ePN	Pn	01 52 40.8	-1.2
YOZ	Yozgat	1.83	23	ePn	Pn	01 52 40.8	-1.1
KDHN	Kadinhani	1.88	288	eP	Pn	01 52 45.1	+2.5

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
KDHN	Kadinhani	1.88	288	*e*P	Pn	01 52 45.1	+2.5
BALAT	Bala	1.89	328	*i* P	Pn	01 52 44.0	+1.3
BALAT				*i* S	Sn	01 53 10.0	+3.0
SARI	SarD1z-Kayseri	1.95	67	*e*PN	Pn	01 52 38.5	-5.0
KMRS	Kahramanmaras	2.04	102	*e*PN	Pn	01 52 44.5	-0.2
KMRS	Kahramanmaras	2.04	102	*e*Pn	Pn	01 52 44.5	-0.2
CTKT	Corum	2.69	6	*e*P	Pg	01 52 59.5	-1.6

ISCJB ***10*** *01:52:20.4±0.3, 32°.49N±0°.02×115°.29W±0°.02, h10^{km}, Error ellipse: s-maj=2.5km s-min=2.0km az=4.8*
NEIC ***10*** *01:52:21.0, 32°.43N×115°.33W, h1^{km}, ML3.5(PAS), ML3.7(ECX), After ECX.*
ECX ***10*** *01:52:21.1±0.3, 32°.43N×115°.25W, h9^{km}, MD3.6, ML3.7*
ISC 10 01:52:21.0±0.2**, 32°.49N**±0°.02×**115°.30W**±0°.02**, h10**^{km}**, n55,** σ1^{s}**15**/89**, 28C-28D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.08	184	⇓*e*P	Pg	01 52 24.3	+1.0
CPBX				*e*S	Sg	01 52 26.6	+1.7
SGL	Mount Signal	0.39	293	*e*P	Pg	01 52 30.1	+1.3
EMX	El Mayor	0.51	175	⇓*e*P	Pg	01 52 31.8	+0.9
EMX				*e*S	Sg	01 52 39.0	+1.4
EMX				⇑*e*		01 52 40.0	
	comp=N,6μm,0.7s						
EMX				⇓*e*		01 52 43.8	
	comp=E,3μm,0.9s						
EMX	El Mayor	0.51	175	*e*P	Pg	01 52 31.8	+0.9
EMX				*e*S	Sg	01 52 39.0	+1.4
112A	Yuma	0.61	86	⇑P	Pg	01 52 33.7	+0.9
	baz=0.6,SNR=1000						
112A				⇑S	Sg	01 52 42.6	+1.8
	baz=0.6						
SWSC	Sam W. Stewart	0.61	317	⇓P	Pg	01 52 33.8	+0.9
	baz=0.7,SNR=215						
SWSC				⇑S	Sg	01 52 42.4	+1.4
	baz=0.7						
YMD	Yuma Desert	0.64	84	*e*P	Pg	01 52 34.2	+0.8
GLA	Glamis	0.68	35	⇑P	Pg	01 52 35.0	+0.8
	baz=0.7,SNR=456						
GLA				⇑S	Sg	01 52 44.2	+1.0
	baz=0.7						
GLA	Glamis	0.68	35	*e*Pg	Pg	01 52 35.0	+0.7
GLA				*e*Sg	Sg	01 52 44.5	+1.3
DVTC	Desert V Tower	0.70	284	⇑P	Pg	01 52 35.4	+0.9
	baz=0.7,SNR=256						
DVTC				⇑S	Sg	01 52 44.7	+1.0
	baz=0.7						
MONP	Monument Peak	1.03	293	P	Pg	01 52 40.5	-0.3
	baz=1.1,SNR=245						
MONP				⇑S	Sg	01 52 54.0	-0.1
	baz=1.1						
ECBX	El Chinero	1.04	168	*e*P	Pg	01 52 41.5	+0.5
ECBX				*e*S	Sg	01 52 55.3	+0.8
BC3	Big Chuckw Mtn	1.17	354	⇑P	Pb	01 52 42.4	-0.9
	baz=1.2,SNR=174						
BC3				⇑S	Sb	01 52 57.2	-1.3
	baz=1.2						
CBX	Cerro Bola	1.17	262	*e*P	Pb	01 52 43.7	+0.4
BAR	Barrett	1.18	279	*e*Pg	Pg	01 52 42.8	-0.8
BAR				*e*Sg	Sg	01 52 59.1	+0.2
113A	Mohawk Valley,	1.32	78	⇑P	Pn	01 52 44.4	-1.1
	baz=1.3,SNR=48						
113A				⇓S	Sb	01 53 01.3	-1.6
	baz=1.3						
SPX	San Pedro Mart	1.45	186	*e*PN	Pg	01 52 49.7	+0.8
PFO	Pinyon Flat Ob	1.48	319	⇑P	Pn	01 52 46.5	-1.2
	baz=1.5,SNR=77						
PFO				⇓S	Sn	01 53 05.1	-1.9
	baz=1.5						
PFO	Pinyon Flat Ob	1.48	319	*e*Pn	Pg	01 52 49.1	-0.3
109C	Camp Elliot, M	1.57	285	⇓P	Pn	01 52 48.1	-0.9
	baz=1.6,SNR=51						
109C				⇑Sb	Sb	01 53 10.6	+0.4
	baz=1.6						
BELC	Belle Mtn.	1.61	339	⇓Pb	Pb	01 52 50.7	-0.2
	baz=1.7						
IRM	Iron Mountain	1.67	4	⇓Pb	Pb	01 52 51.7	-0.2
	baz=1.7						
IRM				⇑Sb	Sb	01 53 13.2	+0.3
	baz=1.7						
Y13A	Salome	1.80	43	⇑Pb	Pb	01 52 53.8	-0.3
	baz=1.8						
Y13A				⇓Sn	Sn	01 53 12.9	-2.2
	baz=1.8						
Y13A				⇓Sb	Sb	01 53 17.3	+0.5
	baz=1.8						
MURC	Murrieta	1.94	305	⇑Pb	Pb	01 52 56.2	-0.3
	baz=2.0						
114A	Black Gap (USA	2.05	82	⇓Pn	Pn	01 52 54.5	-1.1
	baz=2.0						
114A				⇓Pb	Pb	01 52 58.5	0.0
	baz=2.0						
114A				⇑Sn	Sn	01 53 19.1	-2.1
	baz=2.0						
Z14A	Wintersburg	2.16	66	⇓Pb	Pb	01 53 00.1	-0.1
	baz=2.2						
Z14A				⇑Sb	Sb	01 53 27.9	+0.9
	baz=2.2						
214A	Organ Pipe Nat	2.17	104	⇓Pn	Pn	01 52 55.7	-1.6
	baz=2.1						
BBRC	Big Bear Sol-O	2.23	323	⇑Pn	Pn	01 52 56.8	-1.2
	baz=2.3						
GMRC	Granite Mounta	2.30	353	⇑Pn	Pn	01 52 58.1	-0.9
	baz=2.4						
GMRC				⇓Pb	Pb	01 53 02.1	-0.6
	baz=2.4						
Y14A	Wickenburg	2.40	53	⇓Sn	Sn	01 53 28.3	-1.6
	baz=2.4						
Y14A				⇓Sb	Sb	01 53 35.3	+1.2
	baz=2.4						
X13A	Yucca	2.43	30	⇑Sb	Sb	01 53 36.1	+1.3
	baz=2.5						
LDFC	Landfair	2.58	3	*e*Pg	Pg	01 53 12.2	+1.7
LDFC				*e*Sg	Sg	01 53 47.0	+2.9
115A	Sonoran Desert	2.60	85	⇑Pn	Pn	01 53 02.4	-0.7
	baz=2.6,SNR=22						
CIS	Catalina Islan	2.77	290	⇑Pn	Pn	01 53 04.8	-0.6
	baz=2.8,SNR=6.1						
CIS				⇑Sb	Sb	01 53 46.2	+1.7
	baz=2.8						
X14A	Yava	2.81	45	⇓Sb	Sb	01 53 47.4	+1.5
	baz=2.9						
Y15A	Casa Rosa Ranc	2.88	59	⇑Pn	Pn	01 53 05.9	-1.0
	baz=2.9,SNR=11						
MWC	Mount Wilson	2.88	308	*e*Pg	Pg	01 53 15.6	-0.7
MWC				*e*Sg	Sg	01 53 52.2	-1.5
PASC	Pasadena Art C	2.94	305	*e*Pg	Pg	01 53 16.1	-1.3
PASC				*e*Sg	Sg	01 53 51.6	-3.9
W14A	Seligman	3.28	34	⇑Sb	Sb	01 54 01.3	+2.1
	baz=3.3						
Y16A	Circle Bar Ran	3.49	66	⇓Pn	Pn	01 53 14.6	-0.7
	baz=3.5						
V14A	Boquillas Ranc	3.62	30	⇓Pn	Pn	01 53 16.5	-0.7
	baz=3.7						
TUC	Tucson	3.82	92	*e*Pn	Pn	01 53 20.6	+0.6
TUC				*e*Pg	Pg	01 53 33.7	-0.5
TUC				*e*Sg	Sg	01 54 20.7	-3.1
117A	Oracle	3.85	88	⇓Pn	Pn	01 53 19.4	-0.9
	baz=3.8,SNR=15						
217A	Green Valley	3.87	99	⇓Pn	Pn	01 53 19.6	-1.0
	baz=3.8,SNR=13						
ISA	Isabella	4.12	321	*e*Pg	Pg	01 53 39.2	-0.7
ISA				*e*Sg	Sg	01 54 33.0	-0.2
WUAZ	Wupatki	4.44	46	*e*Pn	Pn	01 53 30.8	+2.4
WUAZ				*e*Pb	Pb	01 53 39.8	+0.7
WUAZ				*e*Pg	Pg	01 53 47.0	+0.9
WUAZ				*e*Sg	Sg	01 54 46.4	+2.8
118A	Homack Ranch,	4.50	87	⇓Pn	Pn	01 53 28.1	-1.2
	baz=4.5,SNR=9.4						
318A	Bisbee	4.63	102	⇓Pn	Pn	01 53 30.2	-0.9
	baz=4.6,SNR=15						
X18A	Snowflake	4.91	64	⇓Pn	Pn	01 53 33.5	-1.3
	baz=4.9						
119A	Ashpeak Ranch,	5.07	85	⇓Pn	Pn	01 53 35.8	-1.2
	baz=5.0						
319A	Douglas	5.23	101	⇑Pn	Pn	01 53 38.4	-0.9
	baz=5.2						
V18A	Ganado	5.49	53	⇓Pn	Pn	01 53 42.2	-0.6
	baz=5.5						
TPH	Tonopah	5.79	345	*e*Pg	Pg	01 54 16.0	+4.1
	comp=E,12nm,0.7s						
MVCO	Mesa Verde	7.30	48	*e*Pn	Pn	01 54 10.1	+2.3
	comp=E,26nm,1.1s						
MVCO				*e*Pg	Pg	01 54 41.9	+1.0
MVCO				*e*Sg	Sg	01 56 15.4	-0.1
ANMO	Albuquerque	7.76	69	*e*Pg	Px	01 54 38.5	
ANMO				*e*Sg	Sx	01 56 34.4	

NIED ***10*** *02:26:00, 36°.70N×141°.30E, h47^{km}, Mw3.6 Best double couple: M$_0$2.77000×10^{14} NP1:ϕ_s196.00000°, δ78.00000°, λ-79.00000°. NP2:ϕ_s335.00000°, δ16.00000°, λ-130.00000°.*
ISCJB ***10*** *02:26:31.2±1.1, 36°.72N±0°.04×141°.39E±0°.07, h32^{km}±5^{km}, mb3.6/3, Error ellipse: s-maj=9.4km s-min=5.9km az=9.3*
IDC ***10*** *02:26:33.0±4.3, 36°.70N×141°.48E, h36^{km}±36^{km}, mb3.5/3, mb1 3.7/6, mb1mx3.4/24, mbtmp3.7/6, ML3.4/3, Error ellipse: s-maj=34.2km s-min=19.1km az=87.0*
JMA ***10*** *02:26:33.5±0.1, 36°.73N×141°.19E, h46^{km}±1^{km}, M3.8*
JMA Felt I J1.
ISC 10 02:26:32.0±1.2**, 36°.74N**±0°.03×**141°.34E**±0°.07**, h24**^{km}±6^{km}**, n15,** σ**0^{s}79**/26**, mb3.6**/3**, 1C-4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.57	310	⇓P	Pb	02 26 44.1	+0.8
ONAJ				S	Sb	02 26 51.4	+0.4
JHO	Hitachi	0.63	259	⇓P	Pb	02 26 44.6	+0.2
JHO				S	Sb	02 26 52.4	-0.4
JFK	Kawauchi	0.73	329	⇓P	Pb	02 26 46.6	+0.5
JFK				S	Sb	02 26 55.7	0.0
JYT	Yasato	1.05	242	P	Pn	02 26 50.5	-0.8
JYT				S	Sb	02 27 02.7	-2.2
JFT	Otama	1.12	315	⇓P	Pn	02 26 52.8	+0.6
JFT				S	Sb	02 27 06.1	-0.7
JMM	Marumori	1.21	339	P	Pn	02 26 53.3	-0.1
JMM				S	Sn	02 27 08.1	-1.0
JFY	Yanaizu	1.47	298	P	Pn	02 26 57.7	+0.7
JFY				S	Sn	02 27 15.3	-0.2
JAG	Ashikaga	1.55	259	⇑P	Pn	02 26 57.9	-0.2
MJAR	Matsushiro Arr	2.53	267	Pn	Pn	02 27 12.3	+0.7
	7.9nm,0.3s,baz=89,slow=15,SNR=41						
MJAR				Sn	Sn	02 27 41.8	+0.2
	9.2nm,0.3s,baz=89,slow=27,SNR=11						
MAT	Matsushiro	2.53	267	P	Pn	02 27 12.7	+1.1
MAT				S	Sn	02 27 42.2	+0.6
JHJ	Hachijo jima 2	3.83	200	Pn	Pn	02 27 30.9	+1.5
	13nm,0.3s,baz=73,slow=10,SNR=9.3						
JHJ				Sn	Sn	02 28 12.9	-0.7
	13nm,0.3s,baz=253,slow=19,SNR=4.2						
ASAJ	Asahikawa	7.44	7	Pn	Pn	02 28 18.5	-0.4
	0.4nm,0.3s,baz=180,slow=20,SNR=2.3						
ASAJ				Sn	Sn	02 29 41.5	-1.0
	0.3nm,0.3s,baz=90,slow=20,SNR=2.3						
SONM	Songino Array	27.91	304	P	P	02 32 21.0	+1.0
	1.2nm,0.6s,mb3.7,baz=104,slow=9.0,SNR=12						
MKAR	Makanchi Array	44.23	302	P	P	02 34 39.4	+0.2
	0.4nm,0.6s,mb3.3,baz=90,slow=9.2,SNR=3.5						
WRA	Warramunga Arr	56.76	188	P	P	02 36 13.0	-1.0
	0.4nm,0.4s,mb3.8,baz=7.2,slow=7.5,SNR=2.6						

IDC ***10*** *02:30:55.9±0.9, 28°.02S×71°.24W, h0^{km}, mb4.1/6, mb1 4.2/8, mb1mx4.1/17, mbtmp4.0/8, ML4.1/2, MS3.5/1, Ms1 3.5/1, ms1mx2.7/21, Error ellipse: s-maj=36.2km s-min=27.2km az=23.0*
ISCJB ***10*** *02:30:58.7±3.4, 27°.85S±0°.05×71°.1W±0°.1, h23^{km}±24^{km}, mb4.1/11, Error ellipse: s-maj=19.5km s-min=8.2km az=178.1*
NEIC ***10*** *02:30:59.0±3.8, 27°.92S×71°.14W, h18^{km}±23^{km}, mb3.9/3, Error ellipse: s-maj=15.3km s-min=9.5km az=74.0*
ISC 10 02:30:58.5±4.2**, 27°.93S**±0°.05×**71°.1W**±0°.1**, h12**^{km}±25^{km}**, n29,** σ**0^{s}48**/24**, mb4.1**/11**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
LCO	Las Campanas	1.14	161	*e*Pn	Pn	02 31 21.0	+0.7
LCO				*e*Sn	Sn	02 31 35.5	-0.4
CFAA	Coronel Fontan	4.44	146	Pn	Pn	02 32 10.3	+4.6
	1.4nm,0.3s,baz=319,slow=13,SNR=74						
CFAA				Lg		02 33 09.5	
	2.8nm,0.3s,baz=71,slow=22,SNR=12						
LVC	Limon Verde	5.66	21	Pn	Pn	02 32 22.4	0.0
	3.3nm,0.3s,baz=202,slow=8.6,SNR=58						
LVC				Sn	Sn	02 33 27.5	+0.2
	7.7nm,0.3s,baz=122,slow=5.2,SNR=3.7						
LVC				Lg		02 33 53.0	
	47nm,0.3s,baz=79,slow=17,SNR=8.0						
LVC	Limon Verde	5.66	21	Pn	Pn	02 32 22.4	0.0
LVC				Sn	Sn	02 33 27.5	+0.2
LVC				Lg		02 33 53.0	
CPUP	Villa Florida	12.39	86	Pn	Pn	02 33 53.9	-0.8
	0.1nm,0.3s,baz=261,slow=19,SNR=2.7						
CPUP	Villa Florida	12.39	86	Pn	Pn	02 33 53.9	-0.9
PLCA	Paso Flores	12.78	178	LR	LR	02 39 13.3	
	comp=Z,204nm,18.5s,baz=248,slow=39						
SIV	San Ignacio	15.09	40	Pn	Pn	02 34 26.9	-4.7
	0.6nm,0.3s,baz=241,slow=11,SNR=8.9						
TXAR	Lajitas Array	64.89	329	P	P	02 41 37.5	-0.2
	0.1nm,0.5s,mb3.1,baz=152,slow=9.8,SNR=3.8						
LIC	Lamto	72.17	73	*e*P	P	02 42 23.7	+0.1
	14nm,0.9s,mb4.9						
TIC	Toumodi	72.40	72	*e*P	P	02 42 25.0	+0.1
	20nm,0.7s,mb5.1						
KIC	Kosan Boka	72.48	73	*e*P	P	02 42 25.8	+0.4
	50nm,1.0s						
DBIC	Dimbokro	72.55	72	P	P	02 42 26.2	+0.4
	5.9nm,0.6s,mb4.7,baz=212,slow=6.7,SNR=23						
SDCO	Great Sand Dun	72.84	332	*e*P	P	02 42 27.4	+0.4
	0.5nm,0.5s,mb3.7						
PDAR	Pinedale Array	78.74	332	P	P	02 43 00.6	-0.1
	0.4nm,0.8s,mb3.4,baz=99,slow=5.6,SNR=3.8						
TSUM	Tsumeb	80.15	106	*e*P	P	02 43 09.7	+0.7
	2.0nm,0.7s,mb4.2						
TORD	Torodi Ar. Bea	81.42	70	P	P	02 43 15.9	+0.2
	2.6nm,0.7s,mb4.3,baz=270,slow=4.2,SNR=25						
HLID	Hailey	81.47	330	*e*P	P	02 43 15.4	0.0
	1.1nm,0.9s,mb3.8						
BOSA	Boshof	82.22	118	P	P	02 43 19.5	-0.3
	2.8nm,0.8s,mb4.2,baz=241,slow=12,SNR=3.7						
BOSA	Boshof	82.22	118	P	P	02 43 19.5	-0.3
FCC	Fort Churchill	88.45	348	*e*P	P	02 43 49.9	-0.1
YKA	Yellowknife Ar	96.58	341	P	P	02 44 26.4	-1.1
	0.2nm,0.7s,mb3.7,baz=145,slow=4.7,SNR=4.7						
ASAR	Alice Springs	123.31	208	PKP	PKPdf	02 49 54.4	-1.6
	0.4nm,0.7s,baz=128,slow=1.7,SNR=4.2						
WRA	Warramunga Arr	126.41	210	PKP	PKPdf	02 50 00.8	-1.2
	0.9nm,0.6s,baz=136,slow=2.1,SNR=4.1						
KURK	Kurchatov	147.73	37	*e*PKPbc	PKPbc	02 50 42.8	+0.1
AAK	Ala-Archa	148.58	53	*e*PKPbc	PKPbc	02 50 45.1	-0.2
ZALV	Zalesovo Beam	148.58	28	PKP	PKPdf	02 50 41.5	+0.3
	5.1nm,0.8s,baz=318,slow=1.9,SNR=10						
ZALV				PKPbc	PKPbc	02 50 45.2	+0.4
	5.1nm,0.8s,baz=308,slow=3.4,SNR=23						
UCH	Uchtor	148.70	54	*e*PKPdf	PKPdf	02 50 41.4	-0.4
UCH				*e*PKPbc	PKPbc	02 50 46.2	+0.6
MKAR	Makanchi Array	151.91	41	PKP	PKPdf	02 50 45.0	-1.7
	0.2nm,0.9s,baz=77,slow=1.9,SNR=2.6						
MKAR				PKPbc	PKPbc	02 50 53.0	-0.1
	1.9nm,0.7s,baz=330,slow=2.0,SNR=24						

NEIC ***10*** *03:01:43.7, 32°.35N×115°.28W, h5^{km}, ML2.8(PAS), ML2.9(ECX), After ECX.*
ECX 10 03:01:43.5±0.2**, 32°.35N**×**115°.32W, h3**^{km}**, MD2.9, ML2.9, 3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	12	*e*P	Pg	03 01 46.9	+1.9
CPBX				*e*S	Sg	03 01 49.2	+3.2
CPBX				⇓*e*		03 01 57.0	
	comp=E,21μm,0.3s						
EMX	El Mayor	0.36	169	⇓*e*P	Pg	03 01 57.2	+6.8
EMX				*e*S	Sg	03 02 04.5	+9.3
EMX				⇓*e*		03 02 06.4	
	comp=E,614nm,0.6s						
EMX	El Mayor	0.36	169	*e*P	Pg	03 01 57.2	+6.8
EMX				*e*S	Sg	03 02 04.1	+8.9
SGL	Mount Signal	0.46	312	*e*P	Pg	03 01 55.1	+2.9
COA	Coachella	0.54	18	*e*P	Pg	03 01 56.3	+2.4
YUH	Yuha Desert	0.59	301	*e*P	Pg	03 01 57.6	+2.8
GLA	Glamis	0.82	31	*e*Pg	Pg	03 02 00.1	+0.9
GLA				*e*Sg	Sg	03 02 09.7	-0.1
ECBX	El Chinero	0.90	165	*e*P	Pg	03 02 07.1	+6.3
ECBX				*e*S	Sg	03 02 20.6	+8.2
CBX	Cerro Bola	1.14	269	*e*PN	Pn	03 02 08.6	+2.3
BAR	Barrett	1.19	287	*e*Pg	Pg	03 02 07.4	+1.1
BAR				*e*Sg	Sg	03 02 23.2	+1.5
SPX	San Pedro Mart	1.30	185	*e*PN	Pn	03 02 11.8	+3.3
PFO	Pinyon Flat Ob	1.58	323	*e*Pn	Pn	03 02 11.7	-0.7
PFO				*e*Pg	Pg	03 02 15.0	+1.2
PFO				*e*Sn	Sn	03 02 29.9	-3.5
LDFC	Landfair	2.73	4	*e*Pn	Pn	03 02 29.4	+1.2
LDFC				*e*Pg	Pg	03 02 39.1	+3.3
LDFC				*e*Sg	Sg	03 03 12.3	+1.1
TUC	Tucson	3.84	89	*e*Pn	Pn	03 02 43.3	-0.2
TUC				*e*Pg	Pg	03 02 57.0	-0.2
TUC				*e*Sg	Sg	03 03 46.7	-0.3

ISCJB ***10*** *03:08:13.9±0.9, 10°.20N±0°.06×79°.33W±0°.05, h41^{km}±14^{km}, mb3.4/5, Error ellipse: s-maj=11.5km s-min=6.0km az=37.0*
CASC ***10*** *03:08:14.8±2.4, 10°.09N×79°.31W, h54^{km}±50^{km}, MD4.5, ML3.4*
NEIC ***10*** *03:08:16.5±1.1, 10°.13N×79°.40W, h54^{km}±14^{km}, Error ellipse: s-maj=18.6km s-min=12.2km az=210.0*
NEIC Felt at Panama.
IDC ***10*** *03:08:16.5±0.9, 10°.21N×79°.42W, h49^{km}±7^{km}, mb3.2/5, mb1 3.6/6, mb1mx3.4/17, mbtmp3.3/6, Error ellipse: s-maj=38.2km s-min=15.9km az=49.0*
ISC 10 03:08:15.7±0.6**, 10°.10N**±0°.06×**79°.31W**±0°.04**, h45**^{km}±12^{km}**, h49**^{km}±4.7^{km}**:pP-P, n39,** σ**0^{s}82**/48**, mb3.4**/5**, 4C-3D, North of Panama**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
BCIP	Isla Barro Col	1.06	210	*e*Pn	Pn	03 08 33.5	-0.6
BCIP	Isla Barro Col	1.06	210	⇓*i*P	Pn	03 08 33.6	-0.5
BCIP				*e*S	Sn	03 08 46.2	-1.5
UPIG		1.12	192	⇓*i*P	Pn	03 08 35.2	+0.2
UPIG				*e*S	Sn	03 08 49.8	+0.6
ZANG	Zanguenga, Cho	1.26	206	⇓*i*P	Pn	03 08 36.8	-0.1
ZANG				*e*S	Sn	03 08 53.1	+0.5
CNI	Changuinola	3.23	258	⇑*i*P	Pn	03 09 03.0	-1.0
CNI				*e*S	Sn	03 09 33.5	-7.8
BRU2	Volcan	3.58	249	⇑*i*P	Pn	03 09 09.3	+0.6
BRU2				*e*S	Sn	03 09 46.0	-3.8
BAR1		4.04	258	*e*P	Pn	03 09 14.7	-0.3
BAR1				*e*S	Sn	03 09 56.2	-4.9
ACR	Cerro Adams	4.07	250	*e*P	Pn	03 09 16.1	+0.7
URSC	Urasca	4.41	267	*e*P	Pn	03 09 19.5	-0.6
BUS	Buena Vista	4.42	263	*e*P	Pn	03 09 20.2	0.0
LCR2	La Lucha 2	4.64	266	*e*P	Pn	03 09 23.3	0.0
LAJ	Bijagual	4.75	268	⇑*e*P	Pn	03 09 31.6	+6.8
QCR	Quepos	4.83	262	*e*P	Pn	03 09 26.4	+0.5
QCR				*e*S	Sn	03 10 16.9	-3.8
PRS1	Puriscal	4.93	269	*e*P	Pn	03 09 28.2	+0.9
CGA2	Cerro Gallo 2	5.08	270	*e*P	Pn	03 09 29.3	0.0
CGA2				*e*S	Sn	03 10 22.4	-4.4
FORC	Fortuna	5.29	274	*e*P	Pn	03 09 32.2	0.0
JCR	Jicaral	5.72	268	*e*P	Pn	03 09 39.5	+1.4
OCAC	Ocana	6.19	107	*e*P	Pn	03 09 44.9	+0.3
OCAC				*e*S	Sn	03 10 52.8	-1.4
BOAB	BOACO BROADBAN	6.66	291	*e*P	Pn	03 09 50.6	-0.4
BOAB				AML	AML	03 11 17.9	
	comp=N,23nm,0.5s						
WILN	Americas 2	7.06	288	*e*P	Pn	03 09 56.8	+0.3
TICN	Ticuantepe	7.06	286	*e*P	Pn	03 09 56.0	-0.6
MGAN	Managua	7.11	287	*e*P	Pn	03 09 57.6	+0.5
TISN	Laguna Tiscapa	7.13	287	*e*P	Pn	03 09 57.7	+0.2
ROSC	El Rosal	7.17	136	P	Pn	03 10 02.4	+4.3
	comp=N,1.0nm,0.3s,baz=277,slow=23,SNR=4.6						
ROSC				S	Sn	03 11 25.4	+7.2
	comp=N,1.5nm,0.3s,baz=63,slow=21,SNR=5.8						
XAVN	Gruta Xavier	7.18	287	*e*P	Pn	03 09 58.6	+0.4
RUSC	La Rusia	7.43	123	*e*S	Sn	03 11 19.5	-5.2
SDV	Santo Domingo	8.64	97	*e*Pn	Pn	03 10 18.7	+0.5
	comp=N,24nm,0.5s						
SDV				*e*Sn	Sn	03 11 53.8	-0.6
SDV	Santo Domingo	8.64	97	⇑*i*P	Pn	03 10 18.6	+0.4
SDV				*e*S	Sn	03 11 51.7	-2.7
TGUH	Tegucigalpa,Un	8.73	298	*e*Pn	Pn	03 10 19.0	-0.4
	comp=N,41nm,0.8s						
OTAV	Otavalo	9.83	175	*e*Pn	Pn	03 10 37.5	+3.0
	comp=N,16nm,0.8s						
TXAR	Lajitas Array	29.75	313	P	P	03 14 18.3	+0.3
	comp=N,0.2nm,0.6s,mb3.0,baz=130,slow=9.5,SNR=3.5						
PDAR	Pinedale Array	41.91	326	P	P	03 16 02.3	+0.6
	comp=N,0.3nm,0.6s,mb3.1,baz=134,slow=12,SNR=2.9						
PDAR				pP	pP	03 16 14.0	-0.1
	comp=N,0.1nm,0.4s,baz=145,slow=6.4,SNR=2.8						
NVAR	Mina Array Bea	44.86	316	P	P	03 16 24.6	-1.0
	comp=N,0.4nm,0.6s,mb3.4,baz=111,slow=9.2,SNR=2.8						
NVAR				pP	pP	03 16 39.7	+1.7
	comp=N,0.6nm,0.8s,baz=140,slow=3.9,SNR=2.1						
YKA	Yellowknife Ar	58.17	342	P	P	03 18 04.0	-0.7
	comp=N,0.5nm,0.4s,mb3.9,baz=133,slow=7.5,SNR=17						
YKA				pP	pP	03 18 16.3	-1.1
	comp=N,0.3nm,0.4s,baz=131,slow=7.9,SNR=3.7						
YKA	Yellowknife Ar	58.17	342	P	P	03 18 04.0	-0.7
YKA				pP	pP	03 18 16.3	-1.1
ESDC	Sonseca Array	72.36	52	P	P	03 19 37.8	+0.6
	comp=N,0.2nm,0.5s,mb3.4,baz=266,slow=7.7,SNR=4.3						
TORD	Torodi Ar. Bea	79.08	78	pP	pP	03 20 32.7	+3.4
	comp=N,0.2nm,0.7s,baz=292,slow=6.0,SNR=4.4						
ASAR	Alice Springs	145.58	243	PKPbc	PKPbc	03 27 48.4	-1.6
	comp=N,0.5nm,0.6s,baz=116,slow=3.2,SNR=5.1						
ASAR				pPKPbc	pPKPbc	03 28 04.3	+0.5
	comp=N,0.5nm,0.7s,baz=126,slow=3.2,SNR=3.1						
WRA	Warramunga Arr	146.12	249	PKPbc	PKPbc	03 27 50.7	-1.1
	comp=N,0.4nm,0.6s,baz=99,slow=4.8,SNR=2.9						

ISCJB ***10*** *03:34:01.8±1.4, 15°.95N±0°.04×98°.66W±0°.03, h10^{km}±9^{km}, mb4.4/34, MS3.9/4, Error ellipse: s-maj=7.3km s-min=4.5km az=7.0*
NEIC ***10*** *03:34:01.6, 15°.76N×98°.83W, h5^{km}, mb4.5/32, MD4.1(MEX), After MEX.*
MEX ***10*** *03:34:01.5±0.9, 15°.77N×98°.85W, h9^{km}±16^{km}, MD4.2*
IDC ***10*** *03:34:01.3±1.6, 15°.95N×98°.62W, h0^{km}, mb4.0/8, mb1 4.2/11, mb1mx4.1/24, mbtmp4.0/11, ML3.6/3, MS3.2/3, Ms1 3.2/3, ms1mx2.9/28, Error ellipse: s-maj=29.0km s-min=17.2km az=18.0*
BJI ***10*** *03:34:05.6, 15°.80N×98°.80W, h5^{km}, mB5.9/2, Ms5.1/4, Ms7 4.7/4*
ISC 10 03:34:03.4±1.2**, 15°.99N**±0°.04×**98°.62W**±0°.03**, h7**^{km}±8^{km}**, n190,** σ**0^{s}85**/205**, mb4.4**/34**, MS3.9**/4**, 51C-57D, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.62	50	*i* P	Pg	03 34 16.6	+1.2
PNIG				*i* S	Sg	03 34 28.6	+5.2
CAIG	El Cayaco	1.90	304	*i* P	Pn	03 34 29.7	-6.6
CAIG				*i* S	Sn	03 34 53.9	-6.5
CAIG	El Cayaco	1.90	304	*i* P	Pn	03 34 29.5	-6.8
CAIG				*i* S	Sn	03 34 55.4	-5.1
UTMO	Huajuapan	1.99	23	*i* P	Pn	03 34 37.5	0.0
UTMO				*i* S	Sn	03 35 03.1	+0.4
VHO	Vista Hermosa	2.10	59	*i* P	Pn	03 34 39.0	-0.2
VHO				*i* S	Sn	03 35 06.7	+1.1
VHO	Vista Hermosa	2.10	59	*i* P	Pn	03 34 39.3	+0.2
VHO				*i* S	Sn	03 35 06.7	+1.1
HUIG	Huatulco	2.43	95	*i* P	Pn	03 34 41.2	-2.4
HUIG				*i* S	Sn	03 35 13.1	-0.5
HUIG	Huatulco	2.43	95	*i* P	Pn	03 34 43.2	-0.4
HUIG				*i* S	Sn	03 35 13.1	-0.5
PLIG	Platanillo	2.53	341	*i* P	Pn	03 34 42.2	-2.8
PLIG				*i* S	Sn	03 35 14.5	-1.6
PLIG	Platanillo	2.53	341	*i* P	Pn	03 34 42.2	-2.8
PLIG				*i* S	Sn	03 35 15.5	-0.6
TPIG	Tehuac#an	2.70	26	*i* P	Pn	03 34 46.5	-0.8
TPIG				*i* S	Sn	03 35 21.0	+0.8
YAIG	Yautepec	2.88	352	*e*P	Pn	03 34 49.0	-0.9
YAIG				*i* S	Sn	03 35 23.1	-1.8
YAIG	Yautepec	2.88	352	*i* P	Pn	03 34 49.2	-0.7
YAIG				*i* S	Sn	03 35 23.1	-1.8
PPM	Popocatepetl	3.06	360	*i* P	Pn	03 34 54.5	+2.2
PPM				*i* S	Sn	03 35 36.9	+7.7
CHVM	Chichinautzin	3.12	351	*i* P	Pn	03 34 54.3	+1.2

CHVM				i S	Sn	03 35 31.0	+0.4
SZVM	Salazar	3.39	348	eP	Pn	03 34 55.5	-1.3
SZVM				i S	Sn	03 35 37.5	+0.1
CMIG	Matias Romero	3.75	73	i P	Pn	03 35 01.5	-0.2
CMIG				i S	Sn	03 35 48.1	+1.9
CMIG	Matias Romero 5.7nm,0.3s,baz=255,slow=12,SNR=102	3.75	73	Pn	Pn	03 35 01.4	-0.4
CMIG	8.9nm,0.3s,baz=265,slow=17,SNR=5.1			Sn	Sn	03 35 46.9	+0.8
CMIG	26nm,0.3s,baz=28,slow=19,SNR=10			Lg		03 36 00.2	
CMIG	Matias Romero	3.75	73	Pn	Pn	03 35 01.4	-0.4
CMIG				Sn	Sn	03 35 46.9	+0.8
CMIG				Lg		03 36 00.2	
TEIG	Tepich 1.0nm,0.3s,baz=338,slow=23,SNR=5.9	10.70	65	Pn	Pn	03 36 37.4	+0.2
TEIG	1.8nm,0.3s,baz=153,slow=23,SNR=9.3			Sn	Sn	03 38 31.9	-5.5
TEIG	comp=Z,214nm,18.5s,baz=121,slow=43			LR	LR	03 41 40.6	
TXAR	Lajitas Array 0.0nm,0.3s,baz=153,slow=11,SNR=8.7	14.07	342	Pn	Pn	03 37 22.8	-0.5
TXAR	0.0nm,0.3s,baz=164,slow=19,SNR=5.3			Lg		03 41 37.1	
JCT	Junction City	14.46	356	ePn	Pn	03 37 27.3	-1.3
GDL2	Guadalupe Moun	16.96	343	ePn	Pn	03 38 03.2	+1.9
319A	Douglas baz=18,SNR=10	18.14	329	⇓P	Pn	03 38 16.0	0.0
122A	Conniff Cattle baz=18	18.29	337	⇓P	Pn	03 38 17.4	-0.4
318A	Bisbee baz=18	18.55	328	⇓P	Pn	03 38 21.4	+0.4
120A	U Bar Ranch, L baz=18	18.82	333	⇓P	Pn	03 38 24.4	+0.2
218A	Dragoon baz=19,SNR=18	19.00	329	⇓P	Pn	03 38 26.2	-0.3
AMTX	Amarillo 12nm,0.9s	19.01	352	eP	Pn	03 38 24.4	-2.1
MIAR	Mount Ida 8.9nm,1.1s	19.02	13	eP	Pn	03 38 26.1	-0.6
217A	Green Valley baz=19	19.24	327	⇑P	Pn	03 38 29.4	+0.1
119A	Ashpeak Ranch, baz=19	19.30	332	⇓P	Pn	03 38 29.5	-0.6
118A	Homack Ranch, baz=19	19.51	330	⇑P	Pn	03 38 31.1	-1.5
TUC	Tucson 6.0nm,1.0s	19.65	328	eP	Pn	03 38 32.7	-1.6
117A	Oracle baz=20,SNR=9.8	19.83	328	⇓P	Pn	03 38 36.1	-0.4
LRAL	Lakeview Retre 13nm,1.2s	19.96	30	eP	Pn	03 38 36.4	-1.6
ANMO	Albuquerque 4.2nm,1.0s,baz=149,slow=11,SNR=12	20.14	341	P	P	03 38 38.3	0.0
ANMO	comp=Z,87nm,18.4s,MS3.1,baz=167,slow=42			LR	LR	03 48 14.0	
ANMO	Albuquerque 10nm,1.0s	20.14	341	eP	P	03 38 38.4	+0.2
Z17A	San Carlos Hig baz=20	20.29	330	⇑P	P	03 38 40.6	+0.8
Y19A	Nutrioso baz=20,SNR=16	20.29	334	⇑P	P	03 38 40.6	+0.7
214A	Organ Pipe Nat baz=20	20.47	323	⇓P	P	03 38 42.0	+0.1
W21A	San Fidel baz=20	20.69	339	⇑P	P	03 38 44.4	+0.2
115A	Sonoran Desert baz=20	20.71	326	⇑P	P	03 38 45.1	+0.7
Y17A	Roosevelt baz=20,SNR=23	20.79	330	⇓P	P	03 38 45.5	+0.2
Z16A	Peralta Trail, baz=20	20.79	328	⇑P	P	03 38 45.5	+0.1
W20A	Ramah baz=21,SNR=26	21.01	337	⇑P	P	03 38 47.8	+0.1
X18A	Snowflake baz=21,SNR=8.8	21.08	333	⇑P	P	03 38 48.6	+0.2
114A	Black Gap (USA baz=21	21.11	325	⇓P	P	03 38 48.2	-0.5
PLAL	Pickwick Lake 14nm,0.9s,mb4.3	21.14	25	eP	P	03 38 49.4	+0.3
Y16A	Circle Bar Ran baz=21,SNR=7.5	21.25	329	P	P	03 38 50.9	+0.6
X17A	Forest Lakes baz=21,SNR=8.0	21.30	331	⇑P	P	03 38 51.6	+0.8
Z14A	Wintersburg baz=21	21.60	326	⇓P	P	03 38 54.2	+0.2
113A	Mohawk Valley, baz=21,SNR=12	21.62	323	⇓P	P	03 38 54.2	0.0
X16A	Lo Mia Camp, P baz=21,SNR=28	21.67	330	⇓P	P	03 38 54.8	+0.1
Y15A	Casa Rosa Ranc baz=22,SNR=15	21.74	328	⇓P	P	03 38 55.8	+0.3
Y14A	Wickenburg baz=22,SNR=5.8	22.07	327	⇑P	P	03 38 59.0	-0.1
V18A	Ganado baz=22	22.09	335	⇓P	P	03 38 58.5	-0.7
GOGA	Godfrey 11nm,1.0s,mb4.2	22.09	36	eP	P	03 38 57.8	-1.5
X15A	Humboldt baz=22,SNR=12	22.11	329	⇓P	P	03 38 59.5	0.0
T22A	Edith baz=22,SNR=15	22.19	342	⇑P	P	03 38 59.9	-0.4
WVT	Waverly 18nm,1.0s,mb4.5	22.24	24	eP	P	03 39 01.5	+0.6
SWET	Sewanee	22.26	28	eP	P	03 39 01.3	+0.2
Y13A	Salome baz=22	22.43	325	⇑P	P	03 39 02.9	+0.1
X14A	Yava baz=22	22.43	328	⇑P	P	03 39 03.5	+0.6
GLA	Glamis baz=22	22.44	322	⇑P	P	03 39 02.6	-0.4
GLA	Glamis 21nm,0.4s,mb4.9	22.44	322	eP	P	03 39 03.3	+0.3
SDCO	Great Sand Dun 85nm,2.6s,mb4.7	22.50	346	eP	P	03 39 03.4	-0.2
WUAZ	Wupatki baz=22,SNR=14	22.54	332	⇑P	P	03 39 04.3	+0.2
WUAZ	Wupatki 26nm,1.1s,mb4.6	22.54	332	eP	P	03 39 04.8	+0.7
T19A	Beclabito baz=22	22.72	338	⇓P	P	03 39 05.7	-0.2
MVCO	Mesa Verde baz=23,SNR=23	22.88	339	⇑P	P	03 39 07.5	-0.1
MVCO	Mesa Verde 32nm,1.1s,mb4.7	22.88	339	eP	P	03 39 07.5	0.0
CCM	Cathedral Cave 17nm,1.3s,mb4.3	22.92	15	eP	P	03 39 05.4	-2.7
FVM	French Village 15nm,1.1s,mb4.3	23.07	17	eP	P	03 39 09.6	0.0
CPCT	Cooper Cave	23.12	30	eP	P	03 39 10.0	-0.2
T18A	Mexican Hat baz=23,SNR=6.5	23.30	337	⇓P	P	03 39 11.4	-0.7
IRM	Iron Mountain baz=23,SNR=6.6	23.42	324	⇓P	P	03 39 13.1	-0.3
V14A	Boquillas Ranc baz=23	23.45	329	⇑P	P	03 39 13.9	+0.2
S19A	Harvey Farm, M baz=23,SNR=15	23.58	339	⇓P	P	03 39 14.4	-0.6
TKL	Tuckaleechee C 5.2nm,1.0s,mb3.9,baz=204,slow=13,SNR=3.8	23.65	31	P	P	03 39 15.8	+0.2
R20A	Redvale baz=23,SNR=13	23.72	341	⇑P	P	03 39 15.7	-0.6
BELC	Belle Mtn. baz=24	23.80	322	⇑P	P	03 39 17.1	0.0
S18A	Hurst Farm, Bl baz=24,SNR=14	23.84	337	⇑P	P	03 39 17.0	-0.3
PV04	Paradox Valley	24.08	340	eP	P	03 39 19.8	+0.3
R19A	Curley Farm, L baz=24	24.11	339	⇓P	P	03 39 18.4	-1.4
GMRC	Granite Mounta baz=24	24.16	324	⇓P	P	03 39 19.4	-0.9
V12A	Nelson baz=24	24.42	327	⇓P	P	03 39 22.4	-0.3
ISCO	Idaho Springs 34nm,1.6s,mb4.5	24.49	347	eP	P	03 39 23.9	+0.6
S16A	Weppner Ranch, baz=24	24.49	335	⇓P	P	03 39 23.1	-0.2
U13A	Pakoon Wash baz=24	24.50	329	⇓P	P	03 39 23.0	-0.3
WCI	Wyandotte Cave 12nm,0.8s,mb4.5	24.67	24	eP	P	03 39 24.8	-0.1
P21A	Newcastle baz=24,SNR=14	24.68	343	⇓P	P	03 39 24.9	-0.1
R16A	Teasdale baz=25	24.93	335	⇑P	P	03 39 26.6	-0.7
OGNE	Ogallala 36nm,1.1s,mb4.8	25.04	354	eP	P	03 39 28.4	+0.1
SHPR	Sheep Range	25.17	327	eP	P	03 39 30.9	+1.4
P19A	Cripple Cowboy baz=25,SNR=15	25.23	341	⇑P	P	03 39 29.2	-0.8
SRU	San Rafael baz=25,SNR=10	25.28	338	⇑P	P	03 39 29.6	-0.9
SRU	San Rafael	25.28	338	eP	P	03 39 32.6	+2.1
OTAV	Otavalo 10.0nm,1.5s,mb4.1	25.32	126	eP	P	03 39 37.3	+6.2
Q16A	Castle Valley baz=25,SNR=7.5	25.36	337	⇑P	P	03 39 29.7	-1.4
MSU	Marysvale	25.41	335	eP	P	03 39 33.6	+2.0
O20A	White River Ci baz=25,SNR=9.5	25.47	343	⇑P	P	03 39 31.7	-0.6
TMUT	Trail Mountain 38nm,1.7s,mb4.7	25.70	337	eP	P	03 39 35.3	+1.0
N21A	Black Mountain baz=26,SNR=13	25.86	344	⇓P	P	03 39 35.7	0.0
O19A	Miners Draw (B baz=26	25.89	341	⇓P	P	03 39 35.0	-1.0
PHWY	Pilot Hill 8.4nm,1.0s,mb4.2	25.90	348	eP	P	03 39 36.9	+0.8
Q14A	Sevier Lake (B baz=26	26.27	334	⇑P	P	03 39 39.4	-0.1
O17A	Robinson Place baz=26,SNR=11	26.32	339	⇑P	P	03 39 40.0	+0.1
ISA	Isabella baz=26	26.42	322	⇓P	P	03 39 40.4	-0.4
ISA	Isabella 32nm,2.0s,mb4.5	26.42	322	eP	P	03 39 44.1	+3.3
MPU	Maple Canyon 54nm,2.2s,mb4.7	26.49	337	eP	P	03 39 44.7	+3.3
Q13A	Wheeler Ranch, baz=26	26.57	332	⇑P	P	03 39 41.5	-0.6
NLU	North Lily Min 81nm,2.6s,mb4.8	26.60	336	eP	P	03 39 44.4	+1.9
O16A	Springville baz=26	26.61	338	⇓P	P	03 39 42.5	0.0
DAU	Daniels Canyon	26.70	338	eP	P	03 39 46.5	+3.2
R11A	Troy Canyon, C baz=26	26.81	329	⇑P	P	03 39 45.2	+0.9
DUG	Dugway 10nm,1.4s,mb4.2	27.10	336	eP	P	03 39 47.4	+0.5
S09A	Goldfield baz=27	27.17	326	⇓P	P	03 39 48.0	+0.4
L19A	Farson baz=27	27.61	343	⇓P	P	03 39 51.8	+0.3
N14A	Grayback Hills baz=28	27.80	336	⇓P	P	03 39 53.6	+0.3
K20A	Yellowstone Ra baz=28	27.85	345	⇓P	P	03 39 53.2	-0.4
SPUT	South Promonto	27.92	337	eP	P	03 39 55.1	+0.9
M15A	Larsen Ranch, baz=28	28.05	338	⇓P	P	03 39 55.7	+0.3
NVAR	Mina Array Bea 2.4nm,1.0s,mb3.8,baz=146,slow=9.4,SNR=14	28.27	326	P	P	03 39 57.9	+0.5
BW06	Boulder Array baz=28	28.28	343	⇑P	P	03 39 57.0	-0.5
BW06	Boulder Array 12nm,1.3s,mb4.3	28.28	343	eP	P	03 39 56.9	-0.6
PDAR	Pinedale Array 5.6nm,1.2s,mb4.1,baz=146,slow=7.0,SNR=13	28.28	343	P	P	03 39 57.4	-0.1
K18A	Toltan Ranch, baz=28	28.30	342	⇓P	P	03 39 57.4	-0.2
Q08A	Gabbs baz=28	28.39	327	⇑P	P	03 39 58.3	-0.2
RSSD	Black Hills 24nm,1.9s,mb4.5	28.41	352	eP	P	03 40 01.2	+2.6
M14A	Sheep Mountain baz=28	28.42	336	⇓P	P	03 39 58.8	0.0
HVU	Hansel Valley 8.6nm,1.1s,mb4.3	28.45	337	eP	P	03 40 03.1	+4.1
L15A	Malad City baz=28	28.50	338	⇑P	P	03 39 59.1	-0.3
J18A	Kendall Valley baz=28	28.82	343	⇑P	P	03 40 01.8	-0.5
R06C	Coleville baz=29	28.96	325	⇑P	P	03 40 04.9	+1.3
K15A	Arbon baz=29	29.15	339	⇓P	P	03 40 05.7	+0.5
L13A	Double Diamond baz=29	29.16	336	⇓P	P	03 40 05.4	+0.2
J17A	Brown Place, J baz=29	29.16	342	⇓P	P	03 40 05.5	+0.2
REDW	Red Top Meadow	29.21	342	eP	P	03 40 08.6	+2.9
K14A	Jones Ranch, D baz=29,SNR=5.3	29.26	338	⇑P	P	03 40 06.7	+0.5
LOHW	Long Hollow 6.9nm,1.1s,mb4.3	29.36	342	eP	P	03 40 07.8	+0.8
J16A	Bone baz=29	29.37	340	⇑P	P	03 40 07.0	-0.1
M11A	Holland Ranch, baz=29	29.37	333	⇑P	P	03 40 07.2	0.0
MOOW	Moose Ponds 8.5nm,1.3s,mb4.3	29.53	342	eP	P	03 40 10.9	+2.4
O08A	Rochester Mine baz=29	29.58	329	⇑P	P	03 40 09.5	+0.5
K12A	Draper Farm, C baz=30	30.00	336	⇓P	P	03 40 13.3	+0.5
L10A	Juniper Basin baz=30	30.19	333	⇓P	P	03 40 14.4	0.0
RLMT	Red Lodge 8.1nm,1.1s,mb4.4	30.39	345	eP	P	03 40 16.6	+0.4
BEKR	Beckwourth baz=30	30.41	326	⇑P	P	03 40 16.7	+0.3
HLID	Hailey 2.6nm,1.0s,mb4.0	30.59	337	eP	P	03 40 18.0	0.0
K09A	Rome baz=31,SNR=5.7	31.24	332	⇑P	P	03 40 24.3	+0.6
H13A	Challis baz=31	31.40	338	⇑P	P	03 40 25.1	0.0
WVOR	Wild Horse Val 10nm,1.5s,mb4.4	31.45	331	eP	P	03 40 24.8	-0.8
L07A	Adell baz=31	31.47	330	⇓P	P	03 40 26.1	+0.4
DLMT	Dillon	31.55	341	eP	P	03 40 29.2	+2.8
K08A	Mann Creek Ran baz=31	31.61	331	⇑P	P	03 40 27.5	+0.5
F16A	Kennard Place, baz=31	31.64	343	⇓P	P	03 40 26.4	-0.8
G13A	Cobalt baz=32	31.85	339	⇑P	P	03 40 29.4	+0.3
E18A	Harlowton baz=32	31.90	345	⇓P	P	03 40 29.7	+0.2
E17A	Martinsdale baz=32	32.05	344	⇓P	P	03 40 31.6	+0.8
J08A	Circle Bar Ran baz=32	32.10	332	⇑P	P	03 40 31.3	0.0
H11A	Donnelly baz=32	32.17	336	⇓P	P	03 40 31.7	-0.2
I09A	Lost Marbles R baz=32	32.27	334	⇓P	P	03 40 33.0	+0.3
E16A	East Helena baz=32	32.34	343	⇑P	P	03 40 33.8	+0.5
H10A	Noah’s Angus R baz=32	32.36	335	⇓P	P	03 40 33.3	-0.3
D18A	Linhart Farms, baz=32	32.47	346	⇓P	P	03 40 34.8	+0.4
F13A	Darby baz=32	32.49	339	⇑P	P	03 40 35.1	+0.5
D17A	Six Diamond Ra baz=32,SNR=12	32.64	345	⇓P	P	03 40 35.9	0.0
F12A	Elk City baz=32,SNR=6.1	32.79	338	⇑P	P	03 40 37.3	+0.1
E13A	Victor baz=33	33.02	340	⇓P	P	03 40 38.8	-0.4
G10A	Bishop Farm, J baz=33	33.09	336	⇑P	P	03 40 39.4	-0.5
H08A	Prairie City baz=33	33.11	333	⇓P	P	03 40 39.6	-0.4
C17A	Wharram Farm, baz=33,SNR=12	33.11	345	⇑P	P	03 40 39.3	-0.7
E11A	Bogner Ranch, baz=33	33.64	338	⇓P	P	03 40 44.1	-0.6
F10A	Beach Ranch, E baz=33	33.70	336	⇓P	P	03 40 44.2	-1.0
ULM	Lac du Bonnet 1.3nm,0.4s,mb4.2,baz=202,slow=8.9,SNR=3.6	34.24	3	P	P	03 40 49.7	-0.2
ULM	Lac du Bonnet	34.24	3	P	P	03 40 49.7	-0.2
A17A	Triple J Farms baz=34	34.32	346	⇓P	P	03 40 50.2	-0.4
E09A	Wood Farm, Sta baz=34	34.51	336	⇑P	P	03 40 51.5	-0.7
B13A	Whitefish baz=34	34.82	341	⇓P	P	03 40 54.9	0.0
ETW	Entiat	36.27	335	eP	P	03 41 08.0	+0.7
SCHQ	Schefferville 5.3nm,0.9s,mb4.5,baz=234,slow=4.5,SNR=8.3	45.87	25	P	P	03 42 24.7	-1.6
YKA	Yellowknife Ar 1.0nm,0.9s,mb3.8,baz=156,slow=7.8,SNR=13	47.79	350	P	P	03 42 39.2	-2.0
YKA	0.7nm,1.0s,baz=152,slow=10,SNR=3.8			PP	PP	03 44 34.3	+1.3
YKA	Yellowknife Ar	47.79	350	P	P	03 42 39.2	-2.0
YKA				PP	PP	03 44 34.3	+1.3
SIV	San Ignacio 1.0nm,0.9s,mb3.9,baz=281,slow=13,SNR=3.2	48.82	129	P	P	03 42 48.4	-1.4
CFAA	Coronel Fontan comp=Z,7.6nm,21.7s,MS2.7,baz=350,slow=30	55.59	148	LR	LR	04 02 01.7	
HHC	Hu-ho-hao-te	116.89	335	ePKP	PKPdf	03 52 53.3	+4.0
HHC				PP	PP	03 54 02.7	+5.8
HHC				PKS		03 56 28.4	
HHC				SKS	SKSdf	04 00 00.7	-1.4
HHC				SKKS	SKKSac	04 00 53.8	-5.8
HHC	comp=Z,170nm,5.4s			AMB	AMB		
HHC	comp=N,61nm,14.3s,MS5.0			LR	LR		
HHC	comp=E,290nm,16.7s,MS5.0			LR	LR		
HHC	comp=Z,120nm,15.5s,MS4.6			LR	LR		
WMQ	Urumqi	120.20	355	ePKP	PKPdf	03 53 01.0	+5.5
LZH	Lanzhou	124.01	338	ePKP	PKPdf	03 53 05.1	+2.0
LZH				sPKP		03 53 09.5	
LZH	comp=N,150nm,18.3s			LR	LR		
LZH	comp=Z,200nm,20.0s,MS4.8			LR	LR		
CD2	Chengdu	128.64	335	PKP	PKPdf	03 53 17.0	+4.9

CSEM ***10*** *03:42:59.8±0.1, 37°.50N×35°.94E, h10^{km}, MD2.5, Error ellipse: s-maj=3.4km s-min=3.0km az=175.0*

ISK ***10*** *03:42:59.3, 37°.49N×35°.98E, h11^{km}, MD2.5*

ISCJB ***10*** *03:43:00.2±0.7, 37°.44N±0°.05×35°.97E±0°.04, h9^{km}±5^{km}, Error ellipse: s-maj=9.6km s-min=4.4km az=23.0*

DDA ***10*** *03:43:00.4, 37°.47N×35°.97E, h7^{km}±3^{km}, Md2.9*

ISC 10 03:43:00.6±0.7**, 37°.46N**±0°.05×**35°.96E**±0°.04**, h10**^{km}±5^{km}**, n19, σ1^{s}.02**/36**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	Kozan	0.11	282	PG	Pg	03 43 02.5	-0.7
KOZT				eSG	Sg	03 43 05.3	+0.2
ANDN	Andirin	0.33	68	i P	Pg	03 43 06.8	-0.3
ANDN				i S	Sg	03 43 12.4	+0.9
ANDN	Andirin	0.33	68	i P	Pg	03 43 06.8	-0.3
ANDN				i S	Sg	03 43 12.4	+0.9
KMRS	Kahramanmaras	0.75	86	ePG	Pg	03 43 14.0	-1.0
KMRS				eSG	Sg	03 43 24.4	-0.3
KMRS	Kahramanmaras	0.75	86	ePg	Pg	03 43 14.0	-1.0
KMRS				eSg	Sg	03 43 24.5	-0.3
KUZU	Kuzuini	1.12	127	eP	Pg	03 43 22.3	+0.2
KUZU				i S	Sg	03 43 37.9	+1.2
KUZU	Kuzuini	1.12	127	eP	Pg	03 43 22.3	+0.2
KUZU				i S	Sg	03 43 37.9	+1.2
PINB	Pinarbasi	1.27	16	eP	Pn	03 43 23.6	-0.7
PINB				eS	Sb	03 43 42.8	+2.0
PINB	Pinarbasi	1.27	16	eP	Pn	03 43 23.6	-0.7
PINB				eS	Sb	03 43 42.8	+1.9
GZT	Gaziantep	1.28	94	i P	Pn	03 43 24.7	+0.2
GZT				i S	Sb	03 43 41.9	+0.6
SARI	SarD1z-Kayseri	1.35	25	ePG	Pn	03 43 18.4	-7.1
SARI				eSG	Sn	03 43 32.6	-11
BNN	Bunyan	1.40	356	ePN	Pn	03 43 24.7	-1.4
BNN				eSN	Sn	03 43 43.7	-0.9
BNN	Bunyan	1.40	356	ePn	Pn	03 43 24.7	-1.4
BNN				eSn	Sn	03 43 43.7	-0.9
AVNT	Avonos	1.58	327	eP	Pn	03 43 30.3	+1.6
AVNT				eS	Sn	03 43 51.7	+2.6
AVNT	Avonos	1.58	327	eP	Pn	03 43 30.3	+1.6
AVNT				eS	Sn	03 43 51.7	+2.5
AKCD	Akcadag	1.76	61	i P	Pn	03 43 30.4	-0.8
AKCD				i S	Sn	03 43 53.2	-0.4
AKCD	Akcadag	1.76	61	i P	Pn	03 43 30.4	-0.8
AKCD				i S	Sn	03 43 53.2	-0.5
MALT	Malatya	2.13	66	ePN	Pn	03 43 35.2	-1.0
MALT	Malatya	2.13	66	ePn	Pn	03 43 35.2	-1.0

IPEC ***10*** *03:59:09.7±0.3, 51°.54N×16°.21E, h0^{km}±1^{km}, ML1.7/3, Error ellipse: s-maj=2.2km s-min=0.8km az=27.0*

ISCJB ***10*** *03:59:10.1±0.7, 51°.39N±0°.04×16°.08E±0°.03, h0^{km}, Error ellipse: s-maj=5.6km s-min=2.8km az=15.6*

CSEM ***10*** *03:59:11.6±0.4, 51°.40N×16°.06E, h2^{km}, ML2.7/8, Error ellipse: s-maj=7.0km s-min=3.6km az=14.0*

WAR ***10*** *03:59:11.8, 51°.47N×16°.10E, ML2.3, Mining Induced*

PRU ***10*** *03:59:12.4, 51°.41N×16°.08E, h0^{km}*

ISC 10 03:59:11.1±0.7**, 51°.43N**±0°.04×**16°.09E**±0°.03**, h0**^{km}**, n29, σ0^{s}.93**/58**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.60	168	ePg	Pg	03 59 23.4	+0.8
KSP				eSg	Sg	03 59 32.1	+1.8
KSP	Ksiaz	0.60	168	ePg	Pg	03 59 23.5	+0.9
KSP				eSg	Sg	03 59 32.3	+2.0
KSP	Ksiaz	0.60	168	ePg	Pg	03 59 23.3	+0.7
KSP				eSg	Sg	03 59 31.8	+1.5
DPC	Dobruska-Polom	1.09	172	ePG	Pg	03 59 32.3	+0.3
DPC	comp=Z,10nm,0.4s			eSG	Sg	03 59 46.9	+0.9
DPC	Dobruska-Polom	1.09	172	Pg	Pg	03 59 32.3	+0.3
DPC	comp=Z,10nm,0.4s			Sg	Sg	03 59 46.9	+0.9
PVCC	Panska Ves	1.32	228	ePG	Pg	03 59 36.5	+0.1
PVCC				eSG	Sg	03 59 55.2	+1.7
PVCC	Panska Ves	1.32	228	Pg	Pg	03 59 36.5	+0.1
PVCC				Sg	Sg	03 59 55.2	+1.7
BRG	Berggiesshubel	1.46	249	PG	Pg	03 59 39.1	-0.1
BRG	comp=Z,18nm,0.4s			SG	Sg	03 59 59.2	+1.1
BRG	Berggiesshubel	1.46	249	ePn	Pn	03 59 38.8	0.0
BRG				eSg	Sg	03 59 58.8	+0.7
PRU	Pruhonice	1.75	215	ePN	Pn	03 59 42.4	-0.2
PRU				ePG	Pg	03 59 44.1	-0.5
PRU	comp=Z,6.8nm,0.3s			eSG	Sg	04 00 07.9	+0.7
PRU	Pruhonice	1.75	215	Pn	Pn	03 59 42.4	-0.2
MORC	Moravsky Berou	1.89	150	ePn	Pn	03 59 44.3	-0.3
MORC	comp=Z,4.8nm,0.2s			eSg	Sg	04 00 10.9	-1.0
CLL	Collm	1.94	268	ePn	Pn	03 59 45.0	-0.3
CLL				ePg	Pg	03 59 47.0	-1.3
CLL				i		03 59 51.5	
CLL	comp=Z,7.0nm,0.6s			eSg	Sg	04 00 13.0	-0.5
CLL	Collm	1.94	268	ePn	Pn	03 59 44.1	-1.2
CLL				eSg	Sg	04 00 13.1	-0.4
OKC	Ostrava-Krasne	2.06	140	ePG	Pg	03 59 50.7	+0.1
OKC	comp=Z,10nm,0.4s			eSG	Sg	04 00 15.6	-1.7
OKC	Ostrava-Krasne	2.06	140	Pg	Pg	03 59 50.7	+0.1
OKC	comp=Z,10nm,0.4s			Sg	Sg	04 00 15.6	-1.7
VRAC	Vranov	2.15	171	ePn	Pn	03 59 48.4	+0.3
VRAC	comp=Z,5.0nm,0.4s			eSg	Sg	04 00 19.0	-1.0
TREC	Trest	2.17	191	ePN	Pn	03 59 49.9	+1.4
TREC				ePG	Pg	03 59 52.3	-0.4
TREC	Trest	2.17	191	Pn	Pn	03 59 49.9	+1.4
KRUC	Moravsky	2.38	175	ePn	Pn	03 59 52.2	+0.9
KRUC	Moravsky	2.38	175	ePg	Pg	03 59 55.3	-1.3
KRUC	comp=Z,3.3nm,0.4s			eSg	Sg	04 00 26.7	-0.7
NKC	Novy Kostel	2.60	244	ePN	Pn	03 59 54.9	+0.5
NKC				ePG	Pg	04 00 00.7	-0.3
NKC	comp=Z,11nm,0.3s			eSG	Sg	04 00 34.2	-0.5
NKC	Novy Kostel	2.60	244	Pn	Pn	03 59 54.9	+0.5
OJC	Ojcow	2.64	116	ePg	Pg	04 00 03.1	+1.4
OJC				eSg	Sg	04 00 37.9	+1.9
OJC	Ojcow	2.64	116	ePg	Pg	04 00 03.1	+1.4
OJC				eSg	Sg	04 00 37.9	+1.9
KHC	Kasperske Hory	2.81	216	ePN	Pn	03 59 57.6	+0.4
KHC				ePG	Pg	04 00 03.4	-1.5
KHC				eSN	Sn	04 00 30.7	-1.1
KHC	comp=Z,6.0nm,0.8s			eSG	Sg	04 00 40.9	-0.4
KHC	Kasperske Hory	2.81	216	ePn	Pn	03 59 57.5	+0.3
MOX	Moxa	2.93	256	ePG	Pg	04 00 07.4	+0.1

MOX				eSG	Sg	04 00 46.5	+1.2
NIE	Niedzica	3.37	125	eP	Pg	04 00 14.4	-1.2
NIE				eS	Sg	04 00 58.9	-0.3

IDC 10 04:06:19.9±1.7,13°.40N×92°.52E,h0^{km},mb3.5/4, mb1 3.8/4,mb1mx3.4/22,mbtmp3.5/4,Error ellipse: s-maj=122.8km s-min=26.0km az=52.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	34.38	348	P	P	04 13 08.6	-0.1
	0.3nm,0.7s,baz=166,slow=7.8,SNR=3.5						
WRA	Warramunga Arr	52.83	128	P	P	04 15 37.5	-0.1
	0.4nm,0.6s,baz=298,slow=6.8,SNR=3.0						
ASAR	Alice Springs	54.72	132	P	P	04 15 51.5	+0.1
	1.1nm,1.1s,baz=305,slow=6.6,SNR=6.6						
GERES	GERESS Array B	72.69	317	P	P	04 17 50.0	+0.3
	0.3nm,0.6s,baz=80,slow=7.1,SNR=3.9						

IDC 10 04:12:30.8±3.8,6°.26S×151°.86E,h0^{km},mb3.1/2, mb1 3.5/2,mb1mx3.2/15,mbtmp3.2/2,Error ellipse: s-maj=171.2km s-min=50.2km az=121.0,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	21.79	230	P	P	04 17 25.5	+1.0
	0.6nm,0.8s,baz=54,slow=9.7,SNR=3.2						
ASAR	Alice Springs	24.45	223	P	P	04 17 51.2	-0.3
	0.6nm,0.7s,baz=58,slow=9.4,SNR=7.1						
TORD	Torodi Ar. Bea	149.83	285	PKPbc	PKPbc	04 32 23.4	-0.5
	0.3nm,0.8s,baz=63,slow=4.6,SNR=3.0						

IDC 10 04:18:06.2±1.6,22°.47S×148°.07E,h0^{km},mb3.7/2, mb1 3.7/6,mb1mx3.7/14,mbtmp3.6/6,ML3.6/4,Error ellipse: s-maj=25.8km s-min=18.9km az=66.0, Queensland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	2.91	324	Pn	Pn	04 18 54.0	+0.2
	11nm,0.3s,baz=130,slow=16,SNR=156						
CTA				Pg	Pg	04 18 59.8	-2.3
	22nm,0.3s,baz=152,slow=17,SNR=39						
CTA				Lg		04 19 38.3	
	24nm,0.3s,baz=215,slow=23,SNR=8.3						
STKA	Stephens Creek	11.00	210	Pn	Pn	04 20 44.9	0.0
	0.5nm,0.3s,baz=46,slow=13,SNR=9.5						
STKA				Sn	Sn	04 22 50.5	+1.9
	0.3nm,0.3s,baz=330,slow=18,SNR=2.5						
WRA	Warramunga Arr	13.05	279	Pn	Pn	04 21 12.6	-0.4
	0.2nm,0.3s,baz=97,slow=12,SNR=32						
WRA				Sn	Sn	04 23 37.5	-1.5
	0.1nm,0.3s,baz=118,slow=24,SNR=3.7						
WRA				Lg		04 25 01.9	
	0.1nm,0.3s,baz=107,slow=30,SNR=5.3						
ASAR	Alice Springs	13.10	262	Pn	Pn	04 21 14.0	+0.4
	0.2nm,0.3s,baz=91,slow=13,SNR=9.1						
ASAR				Sn	Sn	04 23 38.8	-1.3
	0.1nm,0.3s,baz=91,slow=25,SNR=3.3						
ASAR				Lg		04 25 05.5	
	0.1nm,0.3s,baz=84,slow=28,SNR=3.5						
SONM	Songino Array	79.35	333	P	P	04 30 14.7	+1.0
	0.2nm,0.4s,baz=150,slow=3.2,SNR=3.9						
MKAR	Makanchi Array	90.88	321	P	P	04 31 11.1	-0.5
	0.3nm,0.8s,baz=125,slow=3.5,SNR=2.7						
TORD	Torodi Ar. Bea	146.74	260	PKPbc	PKPbc	04 37 49.9	-1.1
	0.9nm,0.7s,baz=110,slow=3.5,SNR=12						

IDC 10 04:24:51.6±51.0,15°.62S×176°.54E,h0^{km},mb4.2/3, mb1 4.4/3,mb1mx3.8/16,mbtmp4.2/3,Error ellipse: s-maj=909.7km s-min=148.3km az=73.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	35.65	237	P	P	04 31 50.5	-1.0
	1.9nm,0.7s,baz=69,slow=11,SNR=4.2						
WRA	Warramunga Arr	40.34	257	P	P	04 32 31.9	+0.7
	0.6nm,0.3s,baz=89,slow=8.4,SNR=4.6						
ASAR	Alice Springs	40.82	252	P	P	04 32 35.2	0.0
	4.5nm,0.4s,baz=81,slow=8.8,SNR=108						

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*IDC **10** 04:49:49.8±1.3, 13°.64S×76°.82W, h0^{km}, mb3.9/5, mb1 3.9/9, mb1mx3.8/21, mbtmp3.8/9, ML3.5/3, Error ellipse: s-maj=48.2km s-min=17.3km az=74.0*

*ISCJB **10** 04:49:52.0±0.8, 13°.64S±0°.07×76°.8W±0°.1, h33^{km}, mb3.9/6, Error ellipse: s-maj=22.0km s-min=7.0km az=161.4*

*NEIC **10** 04:49:51.0±0.6, 13°.55S×76°.73W, h10^{km}, mb4.1/3, Error ellipse: s-maj=20.2km s-min=8.0km az=68.0*

ISC 10 04:49:54.2±0.7,13°.59S±0°.07×76°.7W±0°.1,h35^{km},n18, σ0^{s}.90/22,mb3.9/6,Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	Nana	1.60	354	Pn	Pn	04 50 19.1	-1.0
	128nm,0.3s,baz=186,slow=13,SNR=213						
NNA				Sn	Sn	04 50 39.8	+0.3
	206nm,0.3s,baz=146,slow=20,SNR=5.7						
ARE	Arequipa	5.76	120	eP	Pn	04 51 24.0	+6.7
ARE				eS	Sn	04 52 35.0	+13
ATAH	Atahualpa	6.76	345	Pn	Pn	04 51 31.2	+0.2
	2.9nm,0.3s,baz=153,slow=7.8,SNR=14						
ATAH				Sn	Sn	04 52 54.5	+7.6
	0.4nm,0.3s,baz=100,slow=17,SNR=1.3						
LVC	Limon Verde	11.62	142	Pn	Pn	04 52 37.3	-0.3
	0.8nm,0.3s,baz=299,slow=8.1,SNR=9.2						
LVC				Sn	Sn	04 54 45.1	-1.0
	0.7nm,0.3s,baz=72,slow=21,SNR=6.0						
LVC	Limon Verde	11.62	142	Pn	Pn	04 52 37.3	-0.3
LVC				Sn	Sn	04 54 45.1	-1.0
OTAV	Otavalo	13.85	353	ePn	Pn	04 53 06.0	-2.2
	2.4nm,0.7s						
SIV	San Ignacio	15.27	101	Pn	Pn	04 53 27.7	+0.3
	0.1nm,0.3s,baz=216,slow=19,SNR=2.7						
CFAA	Coronel Fontan	19.53	158	P	Pn	04 54 20.4	+0.1
	0.0nm,0.3s,baz=328,slow=12,SNR=7.5						
SDV	Santo Domingo	23.12	15	P	P	04 55 00.6	+3.2
	5.3nm,0.8s,mb4.0,baz=194,slow=10,SNR=7.8						
SDV	Santo Domingo	23.12	15	eP	P	04 54 58.1	+0.7
	5.2nm,0.7s,mb4.1						
PLCA	Paso Flores	27.57	170	P	P	04 55 38.8	+0.8
	1.9nm,0.9s,mb3.7,baz=351,slow=13,SNR=2.6						
PLCA	Paso Flores	27.57	170	eP	P	04 55 38.2	+0.3
	1.2nm,0.6s,mb3.7						
DUG	Dugway	63.16	330	eP	P	05 00 18.3	-0.4
	1.4nm,0.8s,mb4.1						
ULM	Lac du Bonnet	65.76	347	P	P	05 00 35.4	0.0
	1.7nm,0.7s,mb4.2,baz=210,slow=8.1,SNR=3.1						
YKA	Yellowknife Ar	81.41	343	P	P	05 02 08.0	+0.9
	0.3nm,0.5s,mb3.5,baz=144,slow=6.2,SNR=5.4						
TORD	Torodi Ar. Bea	82.06	74	P	P	05 02 12.8	+1.2
	0.8nm,0.8s,mb3.7,baz=257,slow=5.2,SNR=4.8						
TORD	Torodi Ar. Bea	82.06	74	P	P	05 02 12.8	+1.2
ULN	Ulaanbaatar	145.69	356	ePKPbc	PKPbc	05 09 31.8	+2.4

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*ISK **10** 05:20:09.3, 40°.75N×29°.10E, h15^{km}, MD2.7*

*ISCJB **10** 05:20:10.2±0.5, 40°.77N±0°.03×29°.17E±0°.06, h5^{km}±7^{km}, Error ellipse: s-maj=8.2km s-min=4.1km az=151.0*

*CSEM **10** 05:20:10.3±0.2, 40°.76N×29°.14E, h10^{km}, MD2.7, Error ellipse: s-maj=6.1km s-min=3.6km az=67.0*

*DDA **10** 05:20:10.7, 40°.75N×29°.15E, h7^{km}±2^{km}, Md2.5*

ISC 10 05:20:10.6±0.5,40°.77N±0°.03×29°.17E±0°.06,h8^{km}±6^{km}, n28,σ0^{s}.91/40,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YLV	Yalova	0.26	143	ePG	Pg	05 20 15.8	+0.1
YLV				eSG	Sg	05 20 19.2	0.0
YLV	Yalova	0.26	143	ePg	Pg	05 20 15.9	+0.2
YLV				eSg	Sg	05 20 19.2	0.0
ISK	Istanbul-Kandi	0.30	344	ePG	Pg	05 20 16.4	-0.2
ISK				eSG	Sg	05 20 21.5	+0.9
ISK	Istanbul-Kandi	0.30	344	ePg	Pg	05 20 16.4	-0.2
ISK				eSg	Sg	05 20 21.5	+0.9
GEMT	Gemlik	0.34	177	ePG	Pg	05 20 16.6	-0.6
GEMT				eSG	Sg	05 20 21.7	0.0
GEMT	Gemlik	0.34	177	ePg	Pg	05 20 16.6	-0.6
GEMT				eSg	Sg	05 20 21.7	0.0
HRT	Hereke	0.38	83	ePG	Pg	05 20 18.8	+0.7
HRT	Hereke	0.38	83	ePg	Pg	05 20 18.8	+0.8
KLYT	Kilyos	0.49	349	ePG	Pg	05 20 19.4	-0.7
KLYT	Kilyos	0.49	349	ePg	Pg	05 20 19.4	-0.7
BGKT	Bogazkoy	0.51	324	ePG	Pg	05 20 19.6	-0.8
BGKT	Bogazkoy	0.51	324	ePg	Pg	05 20 19.6	-0.8
SILT	Sile	0.52	43	ePG	Pg	05 20 21.2	+0.5
SILT	Sile	0.52	43	ePg	Pg	05 20 21.2	+0.5
ADVT	Abdulvahap	0.55	128	ePG	Pg	05 20 21.0	-0.2
ADVT	Abdulvahap	0.55	128	ePg	Pg	05 20 21.0	-0.2
ELBA	Catalca	0.67	304	i P	Pg	05 20 24.3	+0.7
ELBA				i S	Sg	05 20 33.3	+1.1
ELBA	Catalca	0.67	304	i P	Pg	05 20 24.3	+0.8
ELBA				i S	Sg	05 20 33.3	+1.0
CTKS	Kestanelik-??a	0.68	313	ePG	Pg	05 20 22.5	-1.2
CTKS	Kestanelik-??a	0.68	313	ePg	Pg	05 20 22.5	-1.2
DST	Dursunbey	1.24	200	ePN	Pn	05 20 31.8	-2.4
DST	Dursunbey	1.24	200	ePn	Pn	05 20 31.8	-2.4
DURS	Dursunbey	1.29	205	i P	Pn	05 20 34.5	-0.3
DURS				i S	Sb	05 20 52.7	+1.0
DURS	Dursunbey	1.29	205	i P	Pn	05 20 34.5	-0.3
DURS				i S	Sb	05 20 52.7	+1.0
GDZ	Gediz	1.70	172	i P	Pn	05 20 40.6	+0.1
GDZ				i S	Sn	05 21 04.4	+2.0
GDZ	Gediz	1.70	172	i P	Pn	05 20 40.6	+0.1
GDZ				i S	Sn	05 21 04.4	+2.0
ALT	Altintas	1.86	157	ePN	Pn	05 20 41.6	-1.2
ALT	Altintas	1.86	157	ePn	Pn	05 20 41.6	-1.2

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*NIED **10** 05:22:00, 44°.10N×148°.10E, h50^{km}, Mw4.0 Best double couple: M$_0$9.55000×10^{14} NP1:φ$_s$237.00000°, δ77.00000°, λ-134.00000°. NP2:φ$_s$134.00000°, δ45.00000°, λ-18.00000°.*

*MOS **10** 05:22:04.0±1.4, 44°.63N×148°.67E, h21^{km}, mb4.4/9, Error ellipse: s-maj=12.4km s-min=10.3km az=104.0*

*SKHL **10** 05:22:07.9±0.1, 44°.72N×148°.56E, h63^{km}±19^{km}, mb4.9/3*

*ISCJB **10** 05:22:09.4±0.8, 44°.61N±0°.06×148°.34E±0°.09, h60^{km}±6^{km}, mb4.1/23, Error ellipse: s-maj=13.1km s-min=5.8km az=39.0*

*JMA **10** 05:22:10.4±0.4, 44°.11N×148°.11E, h0^{km}, M4.7*

*IDC **10** 05:22:12.1±3.2, 44°.64N×148°.18E, h69^{km}±29^{km}, mb3.6/15, mb1 3.8/17, mb1mx3.7/26, mbtmp3.6/17, ML3.3/2, MS2.6/2, Ms1 2.6/2, ms1mx2.5/35, Error ellipse: s-maj=20.0km s-min=14.8km az=134.0*

*NEIC **10** 05:22:12.9±0.9, 44°.63N×148°.16E, h80^{km}±8^{km}, mb4.4/3, Error ellipse: s-maj=12.3km s-min=8.0km az=130.0*

ISC 10 05:22:11.0±0.8,44°.65N±0°.05×148°.31E±0°.09,h57^{km}±6^{km}, n82,σ1^{s}.19/93,mb4.1/23,1C-2D,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	0.66	332	⇓iPN	Pn	05 22 22.2	-2.3
KUR				i S	Sn	05 22 33.0	-1.4
KUR				pmax	pmax		
	comp=N,840nm,0.4s						
KUR				pmax	pmax		
	comp=E,450nm,0.4s						
KUR				pmax	pmax		
	comp=Z,2μm,0.4s						
KUR				pmax	pmax		
	comp=Z,4μm,1.6s						
KUR				smax			
	comp=N,6μm,0.4s						
KUR				smax			
	comp=E,4μm,0.4s						
KUR				smax			
	comp=N,15μm,1.6s						
KUR				smax			
	comp=E,10μm,1.6s						
KUR	Kuril'sk	0.66	332	⇑iP	Pn	05 22 22.2	-2.3
KUR				⇓iP		05 22 22.2	
KUR				AMB	AMB	05 22 22.6	
	comp=E,840nm,0.4s						
KUR				AMB	AMB	05 22 22.6	
	comp=E,450nm,0.4s						
KUR				AMB	AMB	05 22 22.6	
	comp=E,2μm,0.4s						
KUR				AMB	AMB	05 22 22.8	
	comp=E,4μm,1.6s						
KUR				i S	Sn	05 22 33.0	-1.4
KUR				A		05 22 35.0	
	comp=E,6μm,0.4s						
KUR				A		05 22 35.0	
	comp=E,4μm,0.4s						
KUR				A		05 22 36.8	
	comp=E,15μm,1.6s						
KUR				A		05 22 36.8	
	comp=E,10μm,1.6s						
YUK	Yuzh-Kuril'sk	1.86	252	ePN	Pn	05 22 39.7	-0.7
YUK				eS	Sn	05 23 03.5	+0.8
YUK				pmax	pmax		
	comp=Z,690nm,0.5s						
YUK				smax			
	comp=E,5μm,1.0s						
YUK				smax			
	comp=N,2μm,0.4s						
YUK				smax			
	comp=E,3μm,0.5s						
YUK	Yuzh-Kuril'sk	1.86	252	eP	Pn	05 22 39.7	-0.7
YUK				AMB	AMB	05 22 41.0	
	comp=E,690nm,0.5s						
YUK				eS	Sn	05 23 03.5	+0.8
YUK				A		05 23 06.4	
	comp=E,5μm,1.0s						
YUK				A		05 23 13.2	
	comp=E,2μm,0.5s						
YUK				A		05 23 13.2	
	comp=E,3μm,0.5s						
NEM2	Nemuro 2	2.25	236	P	Pn	05 22 44.0	-1.8
NEM2				eS	Sn	05 23 08.1	-4.2
JRA	Rausu	2.39	254	P	Pn	05 22 48.6	+0.9
JNK	Nakash	2.79	249	P	Pn	05 22 53.4	+0.2
JNK				eS	Sn	05 23 25.0	-0.6
JAK	Akkeshi	3.09	239	P	Pn	05 22 56.1	-1.1
JAK				eS	Sn	05 23 29.9	-3.0
JTKR	Abashiri--Toko	3.23	259	P	Pn	05 23 00.1	+1.0
JAR	Ashorobuto	3.54	249	P	Pn	05 23 04.3	+0.9
JAR				eS	Sn	05 23 44.4	+0.4
JKK2	Kamakawa 2	4.07	261	P	Pn	05 23 12.9	+2.3
JSE	Soyaes	4.08	276	P	Pn	05 23 12.6	+1.8
JCH	Churui	4.12	242	P	Pn	05 23 10.7	-0.7
JCH				eS	Sn	05 23 56.3	-2.0
ASAJ	Asahikawa	4.13	265	PN	Pn	05 23 14.0	+2.6
ASAJ				S	Sn	05 24 11.5	+13
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				smax			
	comp=N,3.0nm,0.3s						
ASAJ	Asahikawa	4.13	265	P	Pn	05 23 13.9	+2.5
	comp=N,4.8nm,0.3s,baz=71,slow=17,SNR=16						
ASAJ				S	Sn	05 24 11.5	+13
	comp=N,2.8nm,0.3s,baz=241,slow=5.7,SNR=4.1						
JFR	Furan	4.39	252	P	Pn	05 23 17.0	+2.0
YSS	Yuzh-Sakhalins	4.51	303	eP	Pn	05 23 14.0	-2.7
YSS	Yuzh-Sakhalins	4.51	303	ePn	Pn	05 23 18.4	+1.8
ERM	Erimo	4.59	237	eP	Pn	05 23 19.3	+1.6
ERM	Erimo	4.59	237	ePn	Pn	05 23 19.3	+1.6
JWK2	Keihoku	4.59	281	P	Pn	05 23 21.1	+3.3
JNBK	Urakawa-nobuka	4.68	242	P	Pn	05 23 18.6	-0.5
JHR	Hokuryu	4.82	261	P	Pn	05 23 23.9	+3.0
JKB	Kayabe	5.98	245	P	Pn	05 23 37.1	+0.2
JKB				eS	Sn	05 24 41.0	-3.0
JOT	Ohata	6.24	241	P	Pn	05 23 39.9	-0.5
JOT				eS	Sn	05 24 46.0	-4.3
NKL	Nikolayevsk	9.87	332	eP	Pn	05 24 29.2	-0.8
NKL				AMB	AMB	05 24 30.9	
	comp=N,20nm,1.1s						
PETK	Petropavlovsk-	10.47	33	P	Pn	05 24 40.8	+2.6
	comp=N,0.2nm,0.3s,baz=282,slow=16,SNR=6.0						
PETK				LR	LR	05 29 15.8	
	comp=N,56nm,19.1s,baz=82,slow=40						
MJAR	Matsushiro Arr	11.15	227	P	Pn	05 24 46.2	-1.4
	comp=N,0.2nm,0.3s,baz=27,slow=15,SNR=4.1						
MJAR	Matsushiro Arr	11.15	227	P	Pn	05 24 46.1	-1.4
KLR	Kul'dur	12.20	298	ePN	Pn	05 25 03.2	+1.4
KSRS	Korea Array	16.95	252	LR	LR	05 32 26.8	
	comp=N,10nm,20.0s,baz=355,slow=36						
SEY	Seymchan	18.47	6	eP	Pn	05 26 20.8	-1.6
SONM	Songino Array	28.90	291	eP	P	05 28 05.9	+1.7
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	28.90	291	P	P	05 28 03.9	-0.3
	comp=Z,0.7nm,0.6s,mb3.6,baz=76,slow=8.2,SNR=5.5						
MKAR	Makanchi Array	44.91	297	P	P	05 30 19.5	-0.2
MKAR						05 32 00.4	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	44.91	297	P	P	05 30 19.5	-0.2
	comp=Z,0.2nm,0.4s,mb3.3,baz=80,slow=8.2,SNR=9.6						
MKAR				PcP	PcP	05 32 00.3	+0.1
	comp=Z,0.6nm,0.5s,baz=64,slow=3.7,SNR=6.2						
CMAR	Chiang Mai Arr	48.58	254	P	P	05 30 48.3	-0.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	48.58	254	P	P	05 30 48.2	-0.4
	comp=Z,0.8nm,0.3s,mb4.2,baz=46,slow=7.7,SNR=4.7						
TAPN	Taplejung	50.82	272	eP	P	05 31 06.1	+0.5
	comp=Z,5.3nm,0.5s,mb4.7						
ODAN	Odare	51.34	271	eP	P	05 31 10.1	+0.5
	comp=Z,5.8nm,0.6s,mb4.7						
JIRN	Jiri	51.72	273	eP	P	05 31 13.5	+1.1
GUN	Gumba	51.79	273	eP	P	05 31 13.5	+0.6
	comp=Z,14nm,0.5s,mb5.1						
RAMN	Ramite	51.85	272	eP	P	05 31 13.6	+0.2
	comp=Z,39nm,0.4s						
KKN	Kakani	52.29	274	eP	P	05 31 17.0	+0.4
DMN	Daman	52.52	274	eP	P	05 31 18.8	+0.5
GKN	Gorkha	52.62	274	eP	P	05 31 19.0	-0.1
	comp=Z,5.4nm,0.3s,mb4.9						
DANN	Dangsing	53.04	275	eP	P	05 31 22.9	+0.7
KOLN	Koldanda	53.50	275	eP	P	05 31 24.9	-0.6
YKA	Yellowknife Ar	54.59	34	P	P	05 31 33.6	+0.7
	comp=Z,0.8nm,0.6s,mb3.9,baz=299,slow=6.9,SNR=16						
JOF	Joensuu	61.68	332	eP	P	05 32 19.6	-2.9
JOF				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.2						
JOF	Joensuu	61.68	332	ep	P	05 32 19.6	-2.9
	comp=Z,1.7nm,1.0s,mb4.1						
WRA	Warramunga Arr	65.53	194	P	P	05 32 47.5	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	65.53	194	P	P	05 32 47.5	-0.8
	comp=Z,1.1nm,0.7s,mb4.0,baz=12,slow=5.4,SNR=5.5						
NVAR	Mina Array Bea	66.40	59	P	P	05 32 54.8	+0.9
	comp=Z,0.6nm,0.7s,mb3.8,baz=300,slow=8.2,SNR=4.8						
PDAR	Pinedale Array	68.70	51	P	P	05 33 08.7	+0.5
	comp=Z,0.5nm,0.6s,mb3.6,baz=340,slow=3.1,SNR=5.2						
NB2	NORSAR Subarra	69.06	339	P	P	05 33 09.8	-0.4
	comp=Z,0.9nm,0.4s,mb4.0,baz=30,slow=6.5						
NOA	NORSAR Array B	69.06	339	eP	P	05 33 10.0	-0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
NOA	NORSAR Array B	69.06	339	P	P	05 33 08.4	-1.8
	comp=Z,1.1nm,0.4s,mb4.2,baz=30,slow=6.4,SNR=8.0						
HFS	Hagfors	69.18	338	P	P	05 33 10.4	-0.5
HFS				pmax	pmax		
	comp=Z,1.0nm,0.8s						
HFS	Hagfors	69.18	338	P	P	05 33 10.4	-0.6
	comp=Z,1.4nm,0.8s,mb3.9,baz=23,slow=5.4,SNR=8.4						
ASAR	Alice Springs	69.25	194	eP	P	05 33 11.8	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	69.25	194	P	P	05 33 11.4	-0.2
	comp=Z,0.7nm,0.7s,mb3.7,baz=5.8,slow=5.4,SNR=11						
SCHQ	Schefferville	76.50	20	P	P	05 33 54.3	0.0
	comp=Z,0.7nm,0.6s,mb3.8,baz=338,slow=9.7,SNR=3.9						
EKA	Eskdalemuir Ar	77.50	344	P	P	05 33 59.6	-0.4
EKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
EKA	Eskdalemuir Ar	77.50	344	P	P	05 33 59.6	-0.3
	comp=Z,1.2nm,0.6s,mb4.0,baz=24,slow=5.5,SNR=9.1						
GERES	GERESS Array B	78.77	331	P	P	05 34 06.7	-0.5
	comp=Z,0.3nm,0.4s,mb3.6,baz=45,slow=5.8,SNR=7.0						
TXAR	Lajitas Array	81.46	57	P	P	05 34 22.6	+0.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	81.46	57	P	P	05 34 22.6	+0.6
	comp=Z,0.7nm,0.5s,mb3.8,baz=301,slow=4.0,SNR=12						
MMAI	Mount Meron Ar	81.58	309	P	P	05 34 23.5	+0.9
	comp=Z,1.1nm,0.4s,mb4.1,baz=52,slow=9.6,SNR=3.5						
HINF	Hinteralfeld	81.89	335	eP	P	05 34 22.5	-1.4
LOR	Lormes	83.26	336	eP	P	05 34 29.8	-1.2
SMF	Signal de Mont	83.83	336	eP	P	05 34 33.1	-0.9
	comp=Z,9.5nm,1.1s,mb4.6						
SMF	Signal de Mont	83.83	336	eP	P	05 34 33.1	-0.9
SMF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
SMF	Signal de Mont	83.83	336	eP	P	05 34 33.1	-0.9
	comp=Z,4.8nm,1.0s,mb4.6						
AVF	Avril sur Loir	83.84	337	eP	P	05 34 33.9	-0.1
	comp=Z,13nm,1.1s,mb4.7						
AVF	Avril sur Loir	83.84	337	eP	P	05 34 33.9	-0.1
AVF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.6						
AVF	Avril sur Loir	83.84	337	eP	P	05 34 33.9	-0.1
	comp=Z,6.3nm,1.1s,mb4.7						
LPL	La Plagne	83.98	334	eP	P	05 34 34.4	-0.4
LPG	La Plagne	83.99	334	eP	P	05 34 34.6	-0.2
	comp=Z,6.2nm,0.9s,mb4.4						
LPG	La Plagne	83.99	334	eP	P	05 34 34.6	-0.2
LPG				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
LPG	La Plagne	83.99	334	eP	P	05 34 34.6	-0.2
	comp=Z,3.1nm,0.9s,mb4.4						
TORD	Torodi Ar. Bea	114.98	324	PKP	PKiKP	05 40 44.4	-1.3
	comp=Z,0.7nm,1.1s,baz=340,slow=1.5,SNR=4.9						

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*MAN **10** 06:01:06, 11°.74N×125°.79E, h9^{km}, mb4.5, ML3.4, MS3.3*

*ISCJB **10** 06:01:07.9±1.2, 11°.64N±0°.06×125°.7E±0°.1, h45^{km}±9^{km}, mb4.0/13, Error ellipse: s-maj=19.5km s-min=9.3km az=169.9*

*NEIC **10** 06:01:08.4±0.7, 11°.51N×125°.40E, h35^{km}, mb4.3/2, Error ellipse: s-maj=23.2km s-min=13.3km az=81.0*

NEIC Felt [II PIVS] at Borongan. Also felt [II PIVS] at Tacloban, Leyte.

*IDC **10** 06:01:21.0±12.0, 11°.52N×125°.56E, h154^{km}±121^{km}, mb3.5/10, mb1 3.6/10, mb1mx3.5/21, mbtmp3.5/10, MS3.2/1, Ms1 3.2/1, ms1mx2.2/27, Error ellipse: s-maj=80.8km s-min=16.2km az=64.0*

ISC 10 06:01:09.0±1.2,11°.64N±0°.06×125°.7E±0°.1,h38^{km}±10^{km}, n28,σ1^{s}.20/31,mb4.0/13,3D,Samar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BESP	Borongan	0.27	262	eP	Pn	06 01 15.2	-1.5
BESP				eS	Sn	06 01 20.6	-1.4
PLP	Palo	0.86	237	⇓iP	Pn	06 01 23.6	-0.9
PLP				eS	Sn	06 01 33.8	-2.1
OCLP	Ormoc	1.23	242	eP	Pn	06 01 31.2	+1.6
CNP	Catarman	1.34	310	eP	Pn	06 01 30.2	-1.0
CNP				eS	Sn	06 01 51.1	+3.3
MSLP	Maasin	1.71	209	eP	Pn	06 01 38.7	+2.4
MSLP				eS	Sn	06 02 02.7	+5.7
SCPH	Surigao	1.86	187	⇓eP	Pn	06 01 39.7	+1.3
PVCP	Virac	2.46	322	eP	Pn	06 01 47.1	+0.4
RCP	Roxas	2.90	269	⇓eP	Pn	06 01 54.4	+1.7
OTRP	Odiongan	3.68	282	eP	Pn	06 02 04.2	+0.9
BUKP	Musuan	3.79	190	eP	Pn	06 02 09.8	+4.9
PAGZ	Pagadian	4.41	212	eP	Pn	06 02 13.3	-0.2
DAV	Davao City (W)	4.54	182	LR	LR	06 04 31.2	
	comp=Z,236nm,18.0s,baz=267,slow=43						
POLP	Polilio Island	4.78	310	eP	Pn	06 02 22.6	+4.0
KSM	Kuching	18.32	238	eP	Pn	06 05 15.3	-5.0
	20nm,1.1s						
KAKA	Kakadu	25.10	164	eP	P	06 06 22.6	-7.7
KSRS	Korea Array	25.78	4	P	P	06 06 43.5	+7.1
	0.4nm,0.4s,mb3.3,baz=182,slow=9.5,SNR=2.8						
ASAR	Alice Springs	35.99	167	P	P	06 08 07.0	+0.5
	1.0nm,1.1s,mb3.6,baz=337,slow=7.0,SNR=4.1						
SONM	Songino Array	39.55	340	P	P	06 08 36.7	+0.4
	0.3nm,0.5s,mb3.3,baz=158,slow=9.3,SNR=3.5						
STKA	Stephens Creek	45.87	161	P	P	06 09 27.0	-0.7
	1.3nm,0.7s,mb4.0,baz=338,slow=11,SNR=3.1						
MKAR	Makanchi Array	50.61	322	P	P	06 10 04.4	+0.2
	4.0nm,0.8s,mb4.4,baz=120,slow=8.2,SNR=39						
ZALV	Zalesovo Beam	53.17	331	P	P	06 10 23.8	+0.8
	0.4nm,0.5s,mb3.6,baz=159,slow=8.6,SNR=3.5						
KURK	Kurchatov	54.63	325	P	P	06 10 33.8	0.0
	7.6nm,0.8s,mb4.8,baz=127,slow=7.0,SNR=39						
BVAR	Borovoye Array	60.23	325	P	P	06 11 13.2	0.0
	2.1nm,0.8s,mb4.2,baz=121,slow=11,SNR=8.9						
JOF	Joensuu	81.73	333	ep	P	06 13 22.4	-1.0

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	1.6nm,0.5s,mb4.2						
ARCES	ARCESS Array B	82.72	340	P	P	06 13 27.2	-1.3
	12nm,1.1s,mb4.8,baz=74,slow=7.6,SNR=4.5						
KAF	Kangasniemi	84.17	332	ep	P	06 13 30.7	-5.3
	1.9nm,0.7s,mb4.3						
AKASG	Malin Array Be	85.16	321	P	P	06 13 39.3	-2.0
	0.5nm,0.4s,mb4.0,baz=71,slow=4.5,SNR=4.7						
YKA	Yellowknife Ar	92.74	24	P	P	06 14 16.9	-0.1
	0.1nm,0.4s,mb3.6,baz=294,slow=4.6,SNR=2.7						

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*BJI **10** 06:02:52.9, 4°.14S×100°.61E, h30^{km}, mB5.1/24, mb4.7/37, Ms4.6/25, Ms7 4.3/25*
*IDC **10** 06:02:53.4±0.9, 3°.73S×100°.58E, h0^{km}, mb4.3/16, mb1 4.4/17, mb1mx4.3/26, mbtmp4.3/17, ML3.6/1, MS4.1/7, Ms1 4.1/7, ms1mx3.6/39, Error ellipse: s-maj=33.8km s-min=14.3km az=51.0*
*ISCJB **10** 06:02:53.9±1.3, 3°.78S±0°.07×100°.67E±0°.07, h15^{km}±9^{km}, mb4.7/57, MS4.3/20, Error ellipse: s-maj=14.2km s-min=8.2km az=141.3*
*MOS **10** 06:02:56.3±0.9, 3°.70S×100°.61E, h33^{km}, mb4.9/16, MS4.1/4, Error ellipse: s-maj=16.9km s-min=7.2km az=104.5*
*NEIC **10** 06:02:58.0±0.5, 3°.67S×100°.70E, mb4.8/14, Error ellipse: s-maj=16.3km s-min=6.7km az=54.0*
*DJA **10** 06:03:10, 2°.96S×100°.66E, h75^{km}, mb4.5/6*
ISC 10 06:02:56.5±1.4**, 3°.77S**±0°.07×**100°.71E**±0°.07**, h18**^{km}±9^{km}**, h30**^{km}±1.3^{km}**:pP-P, n109, σ1^{s}18**/106**, mb4.6**/57**, MS4.3**/20**,**
3C-5D, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNAI	Manna	2.32	105	P	Px	06 03 53.5	
PPI	Padang Panjang	3.30	355	P	Pn	06 03 47.2	-0.1
GSI	Gunungsitoli	5.93	328	P	Pn	06 04 25.3	+1.8
	59nm,1.0s,0.4nm						
PSI	Prapat	6.76	345	Pn	Pn	06 04 33.5	-1.4
	1.2nm,0.3s,baz=220,slow=8.2,SNR=7.7						
PSI				LR	LR	06 08 01.1	
	comp=Z,1µm,18.1s,baz=145,slow=47						
LEM	Lembang	7.52	114	P	Px	06 05 00.0	
	0.4nm98nm,1.6s						
KULM	Kulim	9.00	360	ePn	Pn	06 05 03.7	-1.9
	28nm,1.1s						
KULM	Kulim	9.00	360	P	Pn	06 05 07.4	+1.8
	31nm,1.7s,0.1nm						
BBKI	Banjar Baru	14.11	89	P	Pn	06 06 25.0	+9.4
	157nm,1.0s						
KAPI	Kappang	19.03	94	eP	Pn	06 07 18.2	-0.3
	60nm,1.3s						
CMAR	Chiang Mai Arr	22.15	356	P	P	06 07 49.7	-1.8
	6.3nm,0.8s,mb4.1,baz=183,slow=9.9,SNR=20						
CHTO	Chiang Mai	22.50	356	eP	P	06 07 54.4	-0.9
CHTO				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.1						
CHTO	Chiang Mai	22.50	356	eP	P	06 07 54.4	-0.8
	comp=Z,11nm,1.4s,mb4.1						
CHTO	Chiang Mai	22.50	356	P	P	06 07 54.7	-0.6
	comp=Z,13nm,1.2s,mb4.2						
FITZ	Fitzroy Crossi	28.26	122	P	P	06 08 58.5	+10
	comp=Z,6.7nm,0.9s,mb4.3,baz=307,slow=5.1,SNR=3.2						
FITZ				LR	LR	06 21 40.0	
	comp=Z,170nm,18.2s,MS3.7,baz=310,slow=40						
KMI	Kunming	28.78	4	P	P	06 08 56.9	+3.4
KMI				pP	pP	06 09 04.8	+5.9
KMI				sP	sP	06 09 08.3	+7.1
KMI				PP	PP	06 09 50.0	-8.7
KMI				S	S	06 13 44.5	+2.1
KMI				sS	sS	06 13 58.1	+6.7
KMI				SS	SS	06 15 13.6	-31
KMI				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.2						
KMI				pmax	pmax		
	comp=Z,180nm,4.7s						
KMI				LR	LR		
	comp=N,370nm,12.6s,MS4.3						
KMI				LR	LR		
	comp=E,280nm,13.1s,MS4.3						
KMI				LR	LR		
	comp=Z,440nm,14.6s,MS4.2						
GYA	Guiyang	30.59	11	eP	P	06 09 11.8	+2.3
GYA				pP	pP	06 09 21.2	+6.2
GYA				S	S	06 14 12.0	+1.2
GYA				sS	sS	06 14 27.5	+7.6
GYA				ScP	ScP	06 15 48.6	-1.4
GYA				SS	SS	06 15 56.0	-26
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
GYA				pmax	pmax		
	comp=Z,90nm,4.7s						
GYA				LR	LR		
	comp=N,540nm,17.1s,MS4.4						
GYA				LR	LR		
	comp=E,490nm,16.3s,MS4.4						
GYA				LR	LR		
	comp=Z,500nm,17.5s,MS4.2						
ODAN	Odare	33.06	338	eP	P	06 09 32.5	+1.3
	comp=Z,64nm,1.0s,mb5.5						
TAPN	Taplejung	33.38	339	eP	P	06 09 35.8	+1.8
	comp=Z,113nm,1.0s,mb5.8						
RAMN	Ramite	33.44	337	eP	P	06 09 36.4	+1.9
	comp=Z,12nm,0.6s,mb5.0						
JIRN	Jiri	34.24	337	eP	P	06 09 42.5	+1.1
	comp=Z,55nm,0.9s,mb5.5						
LSA	Lhasa	34.51	345	P	P	06 09 44.4	+0.6
LSA	Lhasa	34.51	345	eP	P	06 09 45.3	+1.5
LSA				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
LSA	Lhasa	34.51	345	eP	P	06 09 45.3	+1.5
	comp=Z,8.3nm,0.9s,mb4.7						
GUN	Gumba	34.58	336	eP	P	06 09 45.9	+1.5
CD2	Chengdu	34.60	5	P	P	06 09 42.8	-1.8
CD2				pP	pP	06 09 52.5	+2.4
CD2				sP	sP	06 09 56.4	+4.1
CD2				PP	PP	06 11 00.6	-2.6
CD2				PcP	PcP	06 12 16.0	-3.0
CD2				S	S	06 15 10.3	-2.9
CD2				sS	sS	06 15 26.4	+4.2
CD2				SS	SS	06 17 24.6	-19
CD2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CD2				pmax	pmax		
	comp=Z,140nm,4.9s						
CD2				LR	LR		
	comp=N,750nm,14.3s						
CD2				LR	LR		
	comp=Z,420nm,11.9s,MS4.4						
DMN	Daman	34.63	335	eP	P	06 09 45.8	+0.9
KKN	Kakani	34.72	336	eP	P	06 09 46.6	+1.0
GKN	Gorkha	35.18	335	eP	P	06 09 50.5	+0.9
KOLN	Koldanda	35.43	333	eP	P	06 09 52.9	+1.2
	comp=Z,30nm,0.9s,mb5.2						
DANN	Dangsing	35.86	334	eP	P	06 09 56.5	+1.1
	comp=Z,56nm,1.1s,mb5.4						
PYUN	Piuthan	35.99	333	eP	P	06 09 57.7	+1.2
WRA	Warramunga Arr	36.51	119	P	P	06 10 01.3	+0.2
	comp=Z,3.0nm,0.9s,mb4.1,baz=293,slow=9.4,SNR=6.2						
WRAB	Tennant Creek	36.51	119	P	P	06 10 01.7	+0.5
WRAB				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.9						
WRAB	Tennant Creek	36.51	119	P	P	06 10 01.7	+0.5
	comp=Z,27nm,1.4s,mb4.9						
WHN	Wuhan	36.52	20	eP	P	06 10 09.4	+8.3
ASAR	Alice Springs	37.66	125	P	P	06 10 11.6	+0.7
	comp=Z,1.4nm,0.8s,mb3.8,baz=290,slow=7.9,SNR=7.9						
XAN	Xi'an	38.39	11	P	P	06 10 16.0	-0.9
XAN				pP	pP	06 10 23.2	+0.8
XAN				sP	sP	06 10 27.7	+3.1
XAN				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.0						
XAN				pmax	pmax		
	comp=Z,110nm,8.2s						
XAN				LR	LR		
	comp=N,100nm,18.9s,MS4.2						
XAN				LR	LR		
	comp=E,370nm,18.2s,MS4.2						
XAN				LR	LR		
	comp=Z,300nm,16.5s,MS4.2						
NJ2	Nanjing	39.58	25	eP	P	06 10 27.5	+0.7
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
LZH	Lanzhou	39.75	4	eP	P	06 10 28.5	+0.3
LZH				pP	pP	06 10 38.2	+4.4
LZH				sP	sP	06 10 42.3	+6.3
LZH				PP	PP	06 12 05.6	+5.8
LZH				eS	S	06 16 31.5	+0.1
LZH				sS	sS	06 16 48.0	+7.5
LZH				eSS	SS	06 19 23.2	-4.4
LZH				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.0						
LZH				pmax	pmax		
	comp=Z,260nm,6.5s						
LZH				LR	LR		
	comp=E,380nm,11.4s						
LZH				LR	LR		
	comp=Z,580nm,16.5s						
GTA	Gaotai	42.97	359	eP	P	06 10 54.7	+0.1
GTA				pP	pP	06 11 00.8	+0.6
GTA				sP	sP	06 11 03.1	+0.7
GTA				S	S	06 17 20.9	+1.8
GTA				sS	sS	06 17 31.6	+3.3
GTA				SS	SS	06 20 27.5	-3.9
GTA				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
GTA				pmax	pmax		
	comp=Z,84nm,7.4s						
GTA				LR	LR		
	comp=N,180nm,11.6s,MS4.4						
GTA				LR	LR		
	comp=E,250nm,16.0s,MS4.4						
GTA				LR	LR		
	comp=Z,190nm,13.1s,MS4.2						
HHC	Hu-ho-hao-te	45.50	12	eP	P	06 11 15.7	+0.9
HHC				pP	pP	06 11 25.3	+4.9
HHC				sP	sP	06 11 29.8	+7.2
HHC				PP	PP	06 13 02.8	+1.2
HHC				PcS	PcS	06 16 45.9	-1.6
HHC				eS	S	06 17 56.2	+0.4
HHC				sS	sS	06 18 13.2	+8.1
HHC				ScS	ScS	06 21 05.5	-5.2
HHC				SS	SS	06 21 12.9	-7.2
HHC				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
HHC				pmax	pmax		
	comp=Z,190nm,5.6s						
HHC				LR	LR		
	comp=N,250nm,14.3s,MS4.5						
HHC				LR	LR		
	comp=E,230nm,11.9s,MS4.5						
HHC				LR	LR		
	comp=Z,280nm,14.7s,MS4.3						
BJT	Baijiatuau	45.83	17	eP	P	06 11 17.1	-0.4
BJT				pmax	pmax		
	comp=Z,7.0nm,0.4s						
BJT	Baijiatuau	45.83	17	eP	P	06 11 17.1	-0.3
	comp=Z,7.3nm,0.4s,mb5.0						
BJI	Beijing	45.85	17	P	P	06 11 17.7	+0.1
BJI				pP	pP	06 11 25.7	+2.4
BJI				S	S	06 18 03.9	+2.9
BJI				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
BJI				LR	LR		
	comp=N,370nm,17.0s,MS4.5						
BJI				LR	LR		
	comp=E,270nm,17.4s,MS4.5						
BJI				LR	LR		
	comp=Z,210nm,17.9s,MS4.1						
CTA	Charters Tower	47.22	114	P	P	06 11 29.7	+0.9
	comp=Z,4.5nm,0.9s,mb4.4,baz=304,slow=3.6,SNR=3.8						
CTA	Charters Tower	47.22	114	P	P	06 11 29.7	+0.9
STKA	Stephens Creek	47.46	131	P	P	06 11 31.7	+1.2
	comp=Z,2.2nm,1.0s,mb4.0,baz=315,slow=7.1,SNR=2.7						
STKA				LR	LR	06 32 52.0	
	comp=Z,179nm,18.1s,MS4.1,baz=210,slow=38						
STKA	Stephens Creek	47.46	131	P	P	06 11 31.7	+1.2
STKA				LR	LR	06 32 52.0	
KSRS	Korea Array	48.19	29	P	P	06 11 35.4	-0.5
	comp=Z,12nm,1.0s,mb4.9,baz=218,slow=8.3,SNR=31						
KSH	Kashi	48.72	334	P	P	06 11 39.1	-0.9
KSH				epP	pP	06 11 48.4	+2.7
KSH				esP	sP	06 11 52.9	+5.0
KSH				ePcP	PcP	06 13 05.1	+0.1
KSH				ePP	PP	06 13 31.1	-2.2
KSH				eScP	ScP	06 16 56.2	-3.1
KSH				ePcS	PcS	06 17 00.3	-0.8
KSH				eS	S	06 18 36.5	-5.4
KSH				esS	sS	06 18 52.9	+1.7
KSH				eScS	ScS	06 21 26.0	-5.9
KSH				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
KSH				pmax	pmax		
	comp=Z,180nm,3.4s						
KSH				LR	LR		
	comp=N,390nm,5.6s						
KSH				LR	LR		
	comp=E,510nm,8.0s						
KSH				LR	LR		
	comp=Z,450nm,5.8s						
WMQ	Urumqi	48.80	347	⇓iP	P	06 11 41.5	+1.0
WMQ				pP	pP	06 11 51.0	+4.8
WMQ				sP	sP	06 11 55.0	+6.6
WMQ				PcP	PcP	06 13 05.0	-0.2
WMQ				eS	S	06 18 42.0	-0.8
WMQ				sS	sS	06 18 59.0	+6.9
WMQ				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.2						
WMQ				pmax	pmax		
	comp=Z,250nm,5.2s						
WMQ				LR	LR		
	comp=N,240nm,19.8s,MS4.5						
WMQ				LR	LR		
	comp=E,360nm,19.4s,MS4.5						
WMQ				LR	LR		
	comp=Z,250nm,20.5s,MS4.2						
SONM	Songino Array	51.63	5	P	P	06 12 02.8	+0.9
	comp=Z,7.8nm,0.8s,mb4.7,baz=186,slow=9.7,SNR=40						
ULN	Ulaanbaatar	51.72	5	eP	P	06 12 01.6	-1.0
ULN				e*PP	pP	06 12 11.6	+3.4
ULN				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
ULN	Ulaanbaatar	51.72	5	eP	P	06 12 01.6	-1.0
	comp=Z,14nm,1.2s,mb4.8						
ULN				epP	pP	06 12 11.6	+3.4
ULN	Ulaanbaatar	51.72	5	P	P	06 12 02.7	+0.1
AML	Almayashu	51.85	335	eP	P	06 12 04.7	+1.0
	comp=Z,2.5nm,0.7s,mb4.2						
AAK	Ala-Archa	51.93	336	⇓eP	P	06 12 04.0	-0.3
AAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
AAK				MLR	MLR		
	comp=Z,100nm,21.0s,MS3.8						
EKS2	Erkin-Say	52.25	335	eP	P	06 12 07.7	+1.0
	comp=Z,8.5nm,0.8s,mb4.7						
CN2	Changchun	52.32	23	eP	P	06 12 06.5	-0.7
CN2				epP	pP	06 12 16.5	+3.6
CN2				eS	S	06 19 29.6	-2.2
CN2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,900nm,21.0s,MS4.8						
CN2				LR	LR		
	comp=E,500nm,21.0s,MS4.8						
CN2				LR	LR		
	comp=Z,300nm,21.0s,MS4.3						
MK31	Makanchi Array	52.91	344	i P	P	06 12 10.9	-0.6
MK31				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
MKAR	Makanchi Array	52.91	344	P	P	06 12 11.3	-0.1
	comp=Z,8.0nm,0.8s,mb4.7,baz=148,slow=8.0,SNR=49						
MJAR	Matsushiro Arr	53.21	38	P	P	06 12 12.9	-1.0
	comp=Z,7.9nm,1.1s,mb4.5,baz=221,slow=7.4,SNR=9.7						
ZAK	Zakamensk	53.98	2	eP	P	06 12 19.2	0.0
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
MDJ	Mudanjiang	54.66	25	P	P	06 12 25.6	+1.2
MDJ				pP	pP	06 12 31.9	+1.8
MDJ				sP	sP	06 12 34.5	+2.2
MDJ				PcP	PcP	06 13 27.5	+0.4
MDJ				PP	PP	06 14 27.1	0.0
MDJ				ScP	ScP	06 17 24.3	-0.6
MDJ				S	S	06 20 04.4	+0.8
MDJ				ScS	ScS	06 22 11.9	-1.0
MDJ				SS	SS	06 23 48.3	+1.4
MDJ				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,120nm,4.8s						
MDJ				LR	LR		
	comp=N,180nm,12.4s,MS4.4						
MDJ				LR	LR		
	comp=E,140nm,13.6s,MS4.4						
MDJ				LR	LR		
	comp=Z,250nm,11.9s,MS4.5						
TLY	Talaya	55.29	2	eP	P	06 12 29.4	+0.7
TLY				e		06 14 30.7	
TLY				pmax	pmax		
	comp=Z,15nm,2.2s,mb4.6						
TLY				MLR	MLR		
	comp=Z,132nm,14.0s,MS4.2						
KURK	Kurchatov	57.49	344	eP	P	06 12 44.3	-0.1
KURK				e*PP	pP	06 12 52.5	+2.3
KURK				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KURK	Kurchatov	57.49	344	P	P	06 12 43.7	-0.7
	comp=Z,7.5nm,0.9s,mb4.7,baz=168,slow=6.5,SNR=27						
KURK	Kurchatov	57.49	344	eP	P	06 12 44.3	-0.2
	comp=Z,14nm,1.0s,mb5.0						
KURK				epP	pP	06 12 52.5	+2.3
ZALV	Zalesovo Beam	59.02	349	P	P	06 12 54.6	-0.5
	comp=Z,15nm,0.9s,mb5.0,baz=163,slow=5.6,SNR=48						
ZALV				LR	LR	06 40 41.4	
	comp=Z,56nm,19.7s,MS3.7,baz=8.5,slow=38						
KLR	Kul'dur	59.26	23	eP	P	06 12 52.2	-4.6
KRAR	Krasnoyarsk	59.92	355	i P	P	06 13 00.5	-0.8
NVS	Novosibirsk	60.17	348	eP	P	06 13 01.4	-1.6
VOSK	Vostochnaya	61.62	340	P	P	06 13 10.5	-2.4
VOSK				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.8						
BVA0	Borovoye Array	62.08	340	i P	P	06 13 14.8	-1.2
BVAR	Borovoye Array	62.08	340	P	P	06 13 14.9	-1.0
	comp=Z,4.0nm,0.7s,mb4.7,baz=145,slow=8.8,SNR=23						
BRVK	Borovoye	62.14	340	eP	P	06 13 15.7	-0.7
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
BRVK	Borovoye	62.14	340	eP	P	06 13 15.7	-0.7
	comp=Z,1.6nm,0.6s,mb4.3						
YSS	Yuzh-Sakhalins	62.61	31	eP	P	06 13 18.4	-1.2
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.4						
YSS	Yuzh-Sakhalins	62.61	31	eP	P	06 13 19.2	-0.5
	comp=Z,14nm,0.9s,mb5.1						
YSS				epP	pP	06 13 27.6	+2.1
AB31	Akbulak array	63.52	331	P	P	06 13 24.6	-1.1
AB31				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
AKTK	Aktyubinsk	65.24	331	P	P	06 13 34.8	-2.1
AKTO	Aktyubinsk	65.24	331	P	P	06 13 34.8	-2.1
	comp=Z,1.9nm,1.0s,mb4.1,baz=136,slow=7.7,SNR=3.6						
ARU	Arti	69.10	336	eP	P	06 14 00.6	-0.7
ARU				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
ARU	Arti	69.10	336	eP	P	06 14 00.6	-0.7
	comp=Z,2.5nm,0.7s,mb4.2						
YAK	Yakutsk	69.27	14	eP	P	06 14 01.0	-1.2
YAK				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb5.0						
YAK	Yakutsk	69.27	14	eP	P	06 14 01.0	-1.2
	comp=Z,7.6nm,0.4s,mb5.0						
KIV	Kislovodsk	70.33	319	eP	P	06 14 07.5	-1.7
KIV				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
BRTR	Keskin Array B	75.03	313	P	P	06 14 36.0	-1.2
	comp=Z,1.4nm,0.8s,mb4.0,baz=136,slow=6.2,SNR=6.9						
SEY	Seymchan	76.99	22	⇓eP	P	06 14 47.8	-0.1
URZ	Urewera	77.00	128	LR	LR	06 46 21.2	
	comp=Z,138nm,18.3s,MS4.3,baz=204,slow=34						
TIXI	Tiksi	77.48	9	⇓eP	P	06 14 49.3	-1.2
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.5s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.2						
TIXI	Tiksi	77.48	9	eP	P	06 14 49.0	-1.5
	comp=Z,2.5nm,0.2s,mb4.8						
OBN	Obninsk	78.66	328	⇑eP	P	06 14 54.7	-2.6
OBN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.7						
AKASG	Malin Array Be	81.31	322	P	P	06 15 10.5	-1.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=88,slow=5.2,SNR=3.2						
BURAR	Bucovina Array	83.05	319	⇓iP	P	06 15 22.7	+1.7
DRGR		84.54	318	⇑iP	P	06 15 30.1	+1.5
BILL	Bilibino	84.56	20	⇑eP	P	06 15 28.3	0.0
BILL				e		06 18 41.7	
BILL				eS	S	06 25 55.3	+1.2
BILL				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.4						
GERES	GERESS Array B	90.83	319	P	P	06 15 58.8	-0.1
	comp=Z,1.9nm,1.0s,mb4.4,baz=90,slow=5.3,SNR=7.2						
GERES				PP	PP	06 19 31.5	-3.3
	comp=Z,0.3nm,0.7s,baz=113,slow=5.1,SNR=3.6						
HFS	Hagfors	91.75	330	LR	LR	07 00 58.6	
	comp=Z,314nm,20.0s,MS4.8,baz=228,slow=38						
TORD	Torodi Ar. Bea	99.62	283	LR	LR	06 57 15.9	
	comp=Z,114nm,18.5s,MS4.4,baz=350,slow=33						
YKA	Yellowknife Ar	115.84	17	PKP	PKPdf	06 21 37.0	-0.8
	comp=Z,0.1nm,0.8s,baz=352,slow=2.0,SNR=3.7						
NVAR	Mina Array Bea	130.49	41	PKP	PKPdf	06 22 07.9	+1.3
	comp=Z,0.6nm,0.8s,baz=318,slow=2.0,SNR=3.8						
PDAR	Pinedale Array	132.75	30	PKP	PKPdf	06 22 11.3	+0.6
	comp=Z,0.2nm,0.6s,baz=256,slow=3.6,SNR=2.4						
WMOK	Wichita Mounta	144.26	28	ePKIKP	PKPdf	06 22 29.5	-2.5
WCI	Wyandotte Cave	145.11	10	ePKIKP	PKPdf	06 22 31.6	-1.8
TXAR	Lajitas Array	145.63	40	PKPbc	PKPbc	06 22 35.6	+0.8
	comp=Z,8.8nm,0.8s,baz=272,slow=1.2,SNR=59						
MIAR	Mount Ida	146.62	22	ePKP2	PKPab	06 22 37.6	-1.0
WVT	Waverly	146.84	13	ePKPbc	PKPbc	06 22 37.8	-0.4
WVT				epPKPdf	pPKPdf	06 22 46.6	+4.1
JCT	Junction City	147.12	34	ePKP2	PKPab	06 22 39.1	-1.6

JMA 10 06:49:42.9±0.3**, 25°.64N×123°.82E, h201**^{km}**, M3.5,**
Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTJ	Tarama	1.28	141	P	Pn	06 50 15.1	+0.3
JTJ				S	Sn	06 50 39.2	-0.3
IRIF	Iriomote-Funau	1.30	184	P	Pn	06 50 14.7	-0.3
IRIF				S	Sn	06 50 40.2	+0.2
JIJ	Ishigaki jima	1.30	167	P	Pn	06 50 14.8	-0.3
JIJ				S	Sn	06 50 38.6	-1.4
YOJ	Yonaguni jima	1.38	212	P	Pn	06 50 15.8	+0.1
JKRS	Kuro-shima	1.41	173	P	Pn	06 50 16.1	+0.2
JKRS				S	Sn	06 50 41.1	-0.4
JMJ	Miyako jima 2	1.57	121	eS	Sn	06 50 43.7	-0.2
HATJ	Hateruma jima	1.58	180	S	Sn	06 50 45.1	+0.9
JOGS	Gusukube	1.68	121	eS	Sn	06 50 46.0	+0.2

MAN 10 07:09:35, 9°.89N×126°.06E, h1^{km}, mb4.3, ML3.1, MS2.9,
2D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	0.57	259	⇓eP	Pg	07 09 49.6	+3.7
SCPH				i S	Sg	07 09 58.0	+4.7
MSLP	Maasin	1.20	282	eP	Pg	07 09 59.7	+1.6
MSLP				eS	Sg	07 10 17.0	+3.3
PLP	Palo	1.65	320	⇓eP	Pn	07 10 06.3	+1.1
PLP				eS	Sn	07 10 25.4	-1.6
BESP	Borongan	1.81	340	eP	Pn	07 10 08.2	+0.9
BUKP	Musuan	2.23	206	eP	Pn	07 10 14.9	+1.9
PAGZ	Pagadian	3.33	233	eP	Pn	07 10 30.0	+1.7

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*ISCJB **10** 07:20:43.7±0.4, 39°.67N±0°.02×29°.43E±0°.03, h10^{km}, Error ellipse: s-maj=3.5km s-min=3.1km az=12.7*
*CSEM **10** 07:20:43.5±0.1, 39°.65N×29°.42E, h2^{km}, MD2.8, Error ellipse: s-maj=3.2km s-min=3.0km az=117.0*
*DDA **10** 07:20:43.1, 39°.65N×29°.41E, h7^{km}±3^{km}, Md2.8*
*ISK **10** 07:20:44.4, 39°.68N×29°.50E, h11^{km}, MD2.8*
ISC 10 07:20:43.8±0.5**, 39°.65N**±0°.02×**29°.42E**±0°.03**, h4**^{km}±6^{km}**,**
n35, σ0^{s}75/55**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULDT	Uludag	0.54	336	i P	Pg	07 20 53.3	-0.9
ULDT				i S	Sg	07 21 01.5	+0.3
ULDT	Uludag	0.54	336	i P	Pg	07 20 53.3	-0.9
ULDT				i S	Sg	07 21 01.5	+0.3
GDZ	Gediz	0.56	175	i P	Pg	07 20 54.3	-0.3

GDZ				*i* S	Sg	07 21 02.4	+0.6
GDZ	Gediz	0.56	175	*i* P	Pg	07 20 54.3	-0.3
GDZ				*i* S	Sg	07 21 02.4	+0.6
CAVI	Cavuskoy	0.64	30	*e*PG	Pg	07 20 55.3	-0.9
CAVI				*e*SG	Sg	07 21 04.6	+0.1
CAVI	Cavuskoy	0.64	30	*e*Pg	Pg	07 20 55.3	-0.9
CAVI				*e*Sg	Sg	07 21 04.6	+0.1
DURS	Dursunbey	0.73	267	*i* P	Pg	07 20 56.7	-1.1
DURS				*i* S	Sg	07 21 07.0	-0.3
DURS	Dursunbey	0.73	267	*i* P	Pg	07 20 56.7	-1.1
DURS				*i* S	Sg	07 21 07.0	-0.3
ADVT	Abdulvahap	0.82	17	*e*PG	Pg	07 20 59.5	-0.1
ADVT				*e*SG	Sg	07 21 10.8	+0.5
ADVT	Abdulvahap	0.82	17	*e*Pg	Pg	07 20 59.5	-0.1
ADVT				*e*Sg	Sg	07 21 10.8	+0.5
BORA	Eskisehir	0.83	73	*i* P	Pg	07 20 58.5	-1.2
BORA	Eskisehir	0.83	73	*i* P	Pg	07 20 58.5	-1.3
YLV	Yalova	0.92	358	*e*PG	Pg	07 21 02.2	+0.7
YLV				*e*SG	Sg	07 21 15.1	+1.7
YLV	Yalova	0.92	358	*e*Pg	Pg	07 21 02.2	+0.8
YLV				*e*Sg	Sg	07 21 15.1	+1.7
EYL	Eskiyayla	1.08	32	*e*PG	Pg	07 21 04.1	-0.4
ESKT	Eskisehir	1.11	96	*e*PG	Pg	07 21 05.0	-0.2
ESKT				*e*SG	Sg	07 21 20.6	+1.0
ESKT	Eskisehir	1.11	96	*i* P	Pg	07 21 04.7	-0.5
ESKT				*i* S	Sg	07 21 21.2	+1.6
ESKT	Eskisehir	1.11	96	*e*Pg	Pg	07 21 05.0	-0.2
ESKT				*e*Sg	Sg	07 21 20.6	+1.0
SEYT	Eskypehyr	1.11	96	*i* P	Pg	07 21 04.7	-0.5
SEYT				*i* S	Sg	07 21 21.2	+1.6
HRT	Hereke	1.19	9	*e*PN	Pn	07 21 06.3	-0.9
HRT	Hereke	1.19	9	*e*Pn	Pn	07 21 06.3	-0.9
KHL	Karahalli	1.32	176	*e*PN	Pn	07 21 09.7	+0.7
KHL	Karahalli	1.32	176	*e*Pn	Pn	07 21 09.7	+0.7
MANT	Manisa	1.33	210	*i* P	Pn	07 21 08.4	-0.8
MANT				*i* S	Sg	07 21 27.1	+0.4
MANT	Manisa	1.33	210	*i* P	Pn	07 21 08.4	-0.8
MANT				*i* S	Sg	07 21 27.1	+0.4
BALY	Balya	1.39	274	*i* P	Pn	07 21 09.8	-0.1
BALY				*i* S	Sb	07 21 29.6	+1.2
BALY	Balya	1.39	274	*i* P	Pn	07 21 09.8	-0.1
BALY				*i* S	Sb	07 21 29.5	+1.1
SHUT	Suhut-Afyon	1.40	141	*e*PN	Pn	07 21 10.5	+0.4
SHUT	Suhut-Afyon	1.40	141	*e*Pn	Pn	07 21 10.5	+0.4
MDU	Mudurnu	1.60	59	*e*PN	Pn	07 21 12.2	-0.6
MDU	Mudurnu	1.60	59	*e*Pn	Pn	07 21 12.2	-0.6
SVRH	Sivrihisar-ESK	1.64	96	*e*PN	Pn	07 21 13.1	-0.3
SVRH	Sivrihisar-ESK	1.64	96	*e*Pn	Pn	07 21 13.1	-0.3
KIZT	Kizilcal	2.06	111	*e*PN	Pn	07 21 19.6	+0.4
KIZT	Kizilcal	2.06	111	*e*Pn	Pn	07 21 19.6	+0.5

CSEM ***10*** *07:25:15.8±0.1, 42°.80N×1°.43W, h2^{km}, ML1.4, Error ellipse: s-maj=3.2km s-min=2.5km az=179.0*

LDG ***10*** *07:25:15.1±0.8, 42°.84N×1°.50W, h15^{km}, Md2.0/3, Ml2.0/1, Error ellipse: s-maj=15.6km s-min=8.7km az=49.0*

MDD 10 07:25:15.7±0.1**, 42°.80N×1°.39W, h0^{km}, mbLg1.3**/9**, 1C, Error ellipse: s-maj=1.5km s-min=1.0km az=173.0, PRIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IPRE	Itoiz	0.03	85	Pg	Pg	07 25 16.1	-0.1
	3.4nm,0.1s,SNR=113						
IPRE				Lg		07 25 16.8	
	31nm,0.1s,SNR=7.9						
IPRE	Itoiz	0.03	85	Pg	Pg	07 25 16.1	-0.1
	3.4nm,0.1s,SNR=113						
IPRE				Lg		07 25 16.8	
	31nm,0.1s,SNR=7.9						
IZUN	Zunzarren	0.07	321	⇑Pg	Pg	07 25 16.8	-0.4
	7.3nm,0.1s,SNR=18						
IZUN				Lg		07 25 18.0	
	45nm,0.1s,SNR=7.9						
IZUN	Zunzarren	0.07	321	Pg	Pg	07 25 16.8	-0.3
	7.3nm,0.1s,SNR=18						
IZUN				Lg		07 25 18.0	
	45nm,0.1s,SNR=7.9						
IUNC	Unciti	0.09	239	Pg	Pg	07 25 17.5	0.0
	19nm,0.1s,SNR=83						
IUNC				Lg		07 25 19.3	
	59nm,0.1s,SNR=7.9						
IUNC	Unciti	0.09	239	Pg	Pg	07 25 17.5	+0.1
	19nm,0.1s,SNR=83						
IUNC				Lg		07 25 19.3	
	59nm,0.1s,SNR=7.9						
EARA	Aranguren	0.14	257	Pg	Pg	07 25 18.2	-0.2
	12nm,0.1s,SNR=64						
EARA				Lg		07 25 22.1	
	67nm,0.2s,SNR=7.9						
EARA	Aranguren	0.14	257	Pg	Pg	07 25 18.2	-0.2
	12nm,0.1s,SNR=64						
EARA				Lg		07 25 22.1	
	67nm,0.2s,SNR=7.9						
IUSE	Utxeti	0.18	322	Pg	Pg	07 25 19.4	+0.2
	3.1nm,0.1s,SNR=15						
IUSE				Lg		07 25 22.1	
	10nm,0.2s,SNR=7.9						
IUSE	Utxeti	0.18	322	Pg	Pg	07 25 19.4	+0.2
	3.1nm,0.1s,SNR=15						
IUSE				Lg		07 25 22.1	
	10nm,0.2s,SNR=7.9						
SJPF	Ste Jean	0.33	22	*e*Pg	Pg	07 25 22.2	+0.1
SJPF				*e*Sg	Sg	07 25 26.5	+0.1
	11nm,0.3s						
SJPF	Ste Jean	0.33	22	Pg	Pg	07 25 22.2	+0.1
SJPF				Lg		07 25 26.5	
	5.7nm,0.3s						
SJPF	Ste Jean	0.33	22	*e*Pg	Pg	07 25 22.2	+0.1
SJPF				*e*Sg	Sg	07 25 26.5	+0.1
	5.7nm,0.3s						
ELIZ	Elizondo	0.37	345	Pg	Pg	07 25 23.3	+0.4
	0.6nm,0.1s,SNR=18						
ELIZ				Lg		07 25 28.6	
	3.6nm,0.2s,SNR=7.9						
ELIZ	Elizondo	0.37	345	Pg	Pg	07 25 23.3	+0.4
	0.6nm,0.1s,SNR=18						
ELIZ				Lg		07 25 28.6	
	3.6nm,0.2s,SNR=7.9						
EALK	Alkurruntz	0.42	349	Pg	Pg	07 25 24.1	+0.2
	4.6nm,0.4s,SNR=5.5						
EALK				Lg		07 25 30.0	
	7.3nm,0.4s,SNR=7.9						
EALK	Alkurruntz	0.42	349	Pg	Pg	07 25 24.1	+0.2
	4.6nm,0.4s,SNR=5.5						
EALK				Lg		07 25 30.0	
	7.3nm,0.4s,SNR=7.9						
ETSF	Etsaut	0.62	81	*e*Pg	Pg	07 25 28.0	+0.4
ETSF				*e*Sg	Sg	07 25 37.7	+2.1
	4.6nm,0.3s						
ETSF	Etsaut	0.62	81	Pg	Pg	07 25 28.0	+0.4
ETSF				Lg		07 25 37.7	
	2.3nm,0.3s						
ETSF	Etsaut	0.62	81	*e*Pg	Pg	07 25 28.0	+0.4
ETSF				*e*Sg	Sg	07 25 37.7	+2.1
	2.3nm,0.3s						
EBIE	Bielsa	1.14	95	Pg	Pg	07 25 39.1	+1.6
	0.9nm,0.2s,SNR=11						
EBIE				Lg		07 25 56.9	
	1.1nm,0.3s,SNR=6.4						
EBIE	Bielsa	1.14	95	Pg	Pg	07 25 39.1	+1.6
	0.9nm,0.2s,SNR=11						
EBIE				Lg		07 25 56.9	
	1.1nm,0.3s,SNR=6.4						
ESAC	San Caprasio	1.28	147	Lg		07 25 59.7	
	SNR=7.9						
EPF	Esparros	1.29	79	*e*Pg	Pg	07 25 41.0	+0.5
EPF				*e*Sg	Sg	07 25 58.5	+1.3
	2.7nm,0.3s						
EPF	Esparros	1.29	79	Pg	Pg	07 25 41.0	+0.5
EPF				Lg		07 25 58.5	
	1.4nm,0.3s						
EPF	Esparros	1.29	79	*e*Pg	Pg	07 25 41.0	+0.5

CASC ***10*** *07:36:02.0±2.4, 5°.63N×77°.98W, h36^{km}±22^{km}, MD4.7, mb4.8(NEIC)*

MOS ***10*** *07:36:04.2±0.9, 5°.65N×78°.00W, h33^{km}, mb5.2/58, Error ellipse: s-maj=8.1km s-min=5.9km az=81.0*

ISCJB ***10*** *07:36:04.5±0.2, 5°.68N±0°.04×77°.99W±0°.02, h36^{km}, mb4.8/124, MS4.2/19, Error ellipse: s-maj=5.7km s-min=2.7km az=26.0*

GCMT ***10*** *07:36:05.8±0.3, 5°.76N×77°.95W, h24^{km}±1^{km}, MW5.0/70, Moment Tensor Solution. s37,c48; s70,c102; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.54±.22; $M_{\theta\theta}$2.32±.16; $M_{\phi\phi}$-0.78±.20; $M_{r\theta}$0.04±.21; $M_{\theta\phi}$3.72±.12; $M_{\phi r}$0.94±.27; Best double couple: $M_0$4.20200×10^{16} NP1:ϕ_s100.00000°,δ72.00000°,λ-12.00000°. NP2: ϕ_s194.00000°,δ79.00000°,λ-161.00000°. Principal axes: T 4.8490, Plg5.0000°, Azm326.0000°; N -1.2970, Plg68.0000°, Azm223.0000°; P -3.5550, Plg21.0000°, Azm58.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***10*** *07:36:05.2±0.5, 5°.62N×77°.88W, h33^{km}±3^{km}, mb4.3/19, mb1 4.5/23, mb1mx4.5/26, mbtmp4.4/23, ML4.1/4, MS4.0/16, Ms1 4.0/16, ms1mx3.9/27 Error ellipse: s-maj=16.1km s-min=9.9km az=60.0*

NEIC ***10*** *07:36:05.8±0.2, 5°.58N×77°.96W, mb4.9/91, Error ellipse: s-maj=6.0km s-min=4.0km az=219.0*

SZGRF ***10*** *07:36:09.0, 5°.92N×77°.19W, h33^{km}, mb5.1, Near west coast of Colombia*

BGS ***10*** *07:36:23.5±2.0, 8°.56N×76°.51W, h33^{km}, mb5.2*

ISC 10 07:36:06.3±0.2**, 5°.61N**±0°.04×**77°.98W**±0°.02**, h38^{km}, h38^{km}**±.9^{km}**:pP-P, n525, $\sigma 0^{s}.79$**/508**, mb4.8**/124**, MS4.2**/19**, 94C-86D, Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOLC	Bahia Solano	0.91	34	*e*P	Pn	07 36 16.5	-6.1
SOLC				*e*S	Sn	07 36 27.3	-7.2
HELC	Santa Helena	2.49	76	*e*P	Pn	07 36 42.1	-2.3
TOLC	Tolima	2.81	111	*e*P	Pn	07 36 46.9	-1.9
TOLC	Tolima	2.81	111	*e*P	Pn	07 36 46.9	-1.9
UPD1	Univ de Panama	2.92	359	⇑*i*P	Pn	07 36 45.7	-4.4
UPD1				*e*S	Sn	07 37 19.3	-4.7
UPIG		3.69	335	⇑*i*P	Pn	07 36 55.7	-5.1
UPIG				*e*S	Sn	07 37 39.3	-4.0
ROSC	El Rosal	3.71	102	Pn	Pn	07 37 02.6	+1.5
	19nm,0.3s,baz=67,slow=2.0,SNR=29						
ROSC				Sn	Sn	07 37 43.4	-0.1
	16nm,0.3s,baz=293,slow=23,SNR=7.5						
ROSC				LR	LR	07 38 47.0	
	comp=Z,2μm,18.2s,baz=49,slow=45						
ZANG	Zanguenga, Cho	3.81	331	*e*P	Pn	07 36 55.3	-7.2
BCIP	Isla Barro Col	3.98	332	*e*Pn	Pn	07 37 00.2	-4.7
BCIP				*e*Sn	Sn	07 37 49.0	-1.4
BCIP	Isla Barro Col	3.98	332	*e*P	Pn	07 37 00.2	-4.7
BCIP				*e*S	Sn	07 37 47.0	-3.4
CRUC	La Cruz	4.21	166	*e*P	Pn	07 37 05.7	-2.3
OTAV	Otavalo	5.36	185	*e*Pn	Pn	07 37 21.8	-2.0
OTAV				*e*Sn	Sn	07 38 20.6	-3.8
OTAV	Otavalo	5.36	185	*e*P	Pn	07 37 21.8	-2.0
OTAV				*e*S	Sn	07 38 20.6	-3.8
BRU2	Volcan	5.65	304	⇑*i*P	Pn	07 37 24.2	-3.5
CNI	Changuinola	5.88	310	*e*P	Pn	07 37 26.0	-4.9
CNI				*e*S	Sn	07 38 32.8	-4.3
ACR	Cerro Adams	5.97	301	*e*P	Pn	07 37 28.7	-3.5
ACR				*e*S	Sn	07 38 35.9	-3.6
BAR1		6.40	305	⇑*e*P	Pn	07 37 35.0	-3.1
BUS	Buena Vista	6.94	305	*e*P	Pn	07 37 42.1	-3.4
BUS				*e*S	Sn	07 39 03.1	-0.2
URSC	Urasca	7.12	306	*e*P	Pn	07 37 45.7	-2.2
QCR	Quepos	7.21	302	⇑*e*P	Pn	07 37 47.0	-2.2
LCR2	La Lucha 2	7.25	305	⇑*e*P	Pn	07 37 47.5	-2.2
LAJ	Bijagual	7.41	305	*e*P	Pn	07 37 54.7	+2.8
PRS1	Puriscal	7.63	305	*e*P	Pn	07 37 52.8	-2.2
SDV	Santo Domingo	7.98	66	Pn	Pn	07 37 58.3	-1.4
	5.6nm,0.3s,baz=263,slow=9.8,SNR=71						
SDV				Sn	Sn	07 39 25.1	-3.6
	1.8nm,0.3s,baz=54,slow=19,SNR=3.7						
SDV				LR	LR	07 41 20.1	
	comp=Z,2μm,19.0s,baz=243,slow=40						
SDV	Santo Domingo	7.98	66	*e*Pn	Pn	07 37 58.7	-1.1
	74nm,0.8s						
SDV				*e*Sn	Sn	07 39 24.6	-4.1
JCR	Jicaral	8.23	301	*e*P	Pn	07 38 03.9	+0.7
TGUH	Tegucigalpa,Un	12.42	313	*e*Pn	Pn	07 38 59.2	-1.4
	116nm,1.0s						
ATAH	Atahualpa	12.54	182	Pn	Pn	07 39 04.6	+2.4
	0.9nm,0.3s,baz=347,slow=7.2,SNR=8.8						
PCRV	Puerto La Cruz	13.97	70	Pn	Pn	07 39 18.5	-3.3
	0.7nm,0.3s,baz=275,slow=3.6,SNR=3.6						
GTBY	Guantanamo Bay	14.50	11	*e*Pn	Pn	07 39 36.6	+7.6
MPR	Mayaguez	16.39	39	*e*Pn	Pn	07 39 56.9	+3.3
AOPR	Arecibo Observ	16.74	40	*e*Pn	Pn	07 40 01.7	+3.8
	49nm,1.1s						
HUMP	Col San Antoni	17.18	43	*e*Pn	Pn	07 40 05.7	+2.1
	70nm,1.3s						
CBYP	Canovanas	17.27	42	*e*Pn	Pn	07 40 07.5	+2.9
	80nm,1.1s						
NNA	Nana	17.52	176	P	Pn	07 40 09.6	+1.9
	2.9nm,0.3s,baz=0.6,slow=10.0,SNR=34						
NNA	Nana	17.52	176	*e*Pn	Pn	07 40 06.4	-1.4
	113nm,0.9s						
TEIG	Tepich	17.64	326	P	Pn	07 40 09.4	+0.2
	0.4nm,0.3s,baz=112,slow=4.5,SNR=5.5						
TEIG				LR	LR	07 46 07.1	
	comp=Z,618nm,21.8s,baz=118,slow=34						
TEIG	Tepich	17.64	326	*e*P	Pn	07 40 10.7	+1.5
CMIG	Matias Romero	20.10	306	P	P	07 40 36.4	-0.4
	15nm,0.6s,baz=96,slow=9.3,SNR=50						
CMIG				LR	LR	07 48 33.8	
	comp=Z,305nm,22.0s,MS3.6,baz=117,slow=37						
CMIG	Matias Romero	20.10	306	P	P	07 40 36.4	-0.4
CMIG				LR	LR	07 48 33.8	
ARE	Arequipa	22.85	164	*e*P	P	07 41 07.0	+0.7
SIV	San Ignacio	27.22	142	P	P	07 41 44.2	-2.5
	8.4nm,0.9s,mb4.3,baz=323,slow=10,SNR=35						
LVC	Limon Verde	29.42	163	P	P	07 42 07.7	+1.4
	8.4nm,1.1s,mb4.4,baz=342,slow=4.8,SNR=6.3						
LVC				pP	pP	07 42 15.7	-1.3
	14nm,0.9s,baz=330,slow=8.4,SNR=7.9						
LVC				LR	LR	07 55 38.4	
	comp=Z,459nm,20.3s,MS4.1,baz=196,slow=40						
LVC	Limon Verde	29.42	163	*e*P	P	07 42 07.4	+1.1
	19nm,1.0s,mb4.8						
HKT	Hockley	29.49	327	*e*P	P	07 42 06.2	-0.7
HKT				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.5						
HKT	Hockley	29.49	327	*e*P	P	07 42 06.2	-0.7
	comp=Z,16nm,1.5s,mb4.5						
CPCT	Cooper Cave	30.30	349	*e*P	P	07 42 15.0	+1.0
TKL	Tuckaleechee C	30.37	351	P	P	07 42 14.5	-0.1
	comp=Z,3.2nm,0.9s,mb4.1,baz=173,slow=16,SNR=3.9						
TKL				LR	LR	07 53 28.3	
	comp=Z,220nm,21.1s,MS3.8,baz=304,slow=34						
WVT	Waverly	31.69	345	*e*P	P	07 42 24.5	-1.8
WCI	Wyandotte Cave	33.34	348	*e*P	P	07 42 40.9	+0.3
WCI				*e**PP	pP	07 42 51.3	0.0
WCI				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
WCI	Wyandotte Cave	33.34	348	*e*P	P	07 42 40.9	+0.3
	comp=Z,22nm,0.9s,mb5.1						
WCI				*e*pP	pP	07 42 51.3	0.0
USIN	University of	33.39	346	*e*P	P	07 42 40.6	-0.5
	comp=Z,58nm,1.0s,mb5.5						
USIN				*e*pP	pP	07 42 51.4	-0.4
TXAR	Lajitas Array	33.85	317	P	P	07 42 45.3	0.0
TXAR						07 45 24.5	
TXAR	Lajitas Array	33.85	317	P	P	07 42 45.3	0.0
	comp=Z,2.5nm,1.1s,mb4.1,baz=133,slow=8.8,SNR=16						
TXAR				PcP	PcP	07 45 24.5	+0.8
	comp=Z,1.4nm,1.0s,baz=136,slow=4.5,SNR=5.0						
TXAR				LR	LR	07 58 24.4	
	comp=Z,103nm,21.1s,MS3.5,baz=185,slow=40						
FVM	French Village	34.16	342	*e*P	P	07 42 48.1	+0.3
FVM				*e**PP	pP	07 42 54.3	-4.2
BLO	Bloomington	34.29	348	*e*P	P	07 42 48.5	-0.4
BLO				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.3						
BLO	Bloomington	34.29	348	*e*P	P	07 42 48.5	-0.4
	comp=Z,35nm,0.8s,mb5.3						
CCM	Cathedral Cave	34.48	341	*e*P	P	07 42 49.8	-0.8
CCM				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
CCM	Cathedral Cave	34.48	341	*e*P	P	07 42 49.8	-0.8
	comp=Z,18nm,0.7s,mb5.1						
WMOK	Wichita Mounta	34.78	329	*e*P	P	07 42 52.3	-1.0
WMOK				pmax	pmax		
	comp=Z,21nm,1.6s,mb4.8						
WMOK	Wichita Mounta	34.78	329	*e*P	P	07 42 52.3	-1.0
	comp=Z,21nm,1.6s,mb4.8						
LPIG	La Paz	36.10	304	P	P	07 43 05.1	+0.3
	comp=Z,6.7nm,0.4s,mb4.9,baz=31,slow=5.7,SNR=4.0						
LPIG				LR	LR	07 56 51.8	
	comp=Z,229nm,22.0s,MS3.9,baz=299,slow=34						
KSU1	Kansas State U	37.36	336	*e*P	P	07 43 14.0	-1.2
	comp=Z,24nm,1.1s,mb4.9						
CPUP	Villa Florida	37.54	149	P	P	07 43 12.6	-4.3
	comp=Z,0.7nm,0.5s,mb3.7,baz=326,slow=14,SNR=3.3						
CPUP				LR	LR	08 01 08.5	
	comp=Z,211nm,19.8s,MS3.9,baz=177,slow=40						
CFAA	Coronel Fontan	38.16	166	P	P	07 43 21.5	-0.6
	comp=Z,0.8nm,0.8s,mb3.5,baz=344,slow=7.8,SNR=14						
319A	Douglas	38.95	315	⇑P	P	07 43 29.1	+0.3
	baz=39,SNR=13						
120A	U Bar Ranch, L	39.18	317	⇑P	P	07 43 30.9	+0.2
	baz=39						
ANMO	Albuquerque	39.28	322	*e*P	P	07 43 31.9	+0.4
ANMO	Albuquerque	39.28	322	LR	LR	08 03 31.4	
	comp=Z,114nm,19.2s,MS3.7,baz=216,slow=42						
219A	White Tail Can	39.29	316	⇓P	P	07 43 31.8	+0.2
	baz=40						
X22A	Bernardo	39.34	321	⇓P	P	07 43 32.3	+0.4
	baz=40						
318A	Bisbee	39.49	315	⇑P	P	07 43 33.6	+0.3
	baz=40,SNR=8.6						
218A	Dragoon	39.83	315	⇑P	P	07 43 36.0	-0.1
	baz=40						
W21A	San Fidel	40.13	321	⇑P	P	07 43 38.6	+0.1
	baz=40						
118A	Homack Ranch,	40.15	316	⇓P	P	07 43 38.9	+0.1
	baz=40						
217A	Green Valley	40.26	314	⇑P	P	07 43 40.5	+0.8
	baz=40,SNR=6.5						
Y19A	Nutrioso	40.44	318	⇓P	P	07 43 42.2	+1.1
	baz=41,SNR=7.2						
Z18A	Geronimo	40.45	317	⇓P	P	07 43 40.9	-0.4
	baz=41						
TUC	Tucson	40.53	315	*e*P	P	07 43 43.3	+1.4
SDCO	Great Sand Dun	40.63	326	*e*P	P	07 43 43.9	+1.3
	comp=Z,4.6nm,0.8s,mb4.2						
117A	Oracle	40.65	315	⇓P	P	07 43 44.0	+1.2
	baz=41,SNR=14						
W20A	Ramah	40.68	320	⇑P	P	07 43 43.6	+0.5
	baz=41,SNR=5.2						
216A	Three Points,	40.84	314	⇑P	P	07 43 45.0	+0.5
	baz=41						
Z17A	San Carlos Hig	40.88	317	⇓P	P	07 43 45.1	+0.3
	baz=41,SNR=9.9						
116A	Eloy	41.32	315	⇓P	P	07 43 47.8	-0.6
	baz=42,SNR=6.2						
W18A	Petrified Fore	41.46	319	⇓P	P	07 43 49.0	-0.6
	baz=42						
R22A	Saguache, Gunn	41.68	325	⇑P	P	07 43 51.3	0.0
	baz=42						
X17A	Forest Lakes	41.70	318	⇑P	P	07 43 51.3	-0.3
	baz=42,SNR=5.9						
214A	Organ Pipe Nat	41.79	313	⇑P	P	07 43 51.2	-1.1
	baz=42,SNR=7.5						
Y16A	Circle Bar Ran	41.90	317	⇑P	P	07 43 53.5	+0.4
	baz=42,SNR=11						
V18A	Ganado	41.95	320	⇑P	P	07 43 53.5	-0.1
	baz=42						
MVCO	Mesa Verde	42.01	323	⇑P	P	07 43 54.6	+0.6
	baz=42						
T19A	Beclabito	42.09	322	⇓P	P	07 43 54.8	+0.2
	baz=42						
ISCO	Idaho Springs	42.16	328	*e*P	P	07 43 55.1	-0.1
ISCO				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						
ISCO	Idaho Springs	42.16	328	*e*P	P	07 43 55.1	-0.1
	comp=Z,8.5nm,1.1s,mb4.3						
X16A	Lo Mia Camp, P	42.18	317	⇑P	P	07 43 55.6	+0.2
	baz=42,SNR=8.1						
114A	Black Gap (USA	42.26	314	⇑P	P	07 43 55.3	-0.8
	baz=42						
U18A	Rough Rock, Ch	42.35	321	⇓P	P	07 43 57.1	+0.4
	baz=42						
Y15A	Casa Rosa Ranc	42.53	316	⇓P	P	07 43 57.9	-0.4
	baz=43,SNR=6.5						
R20A	Redvale	42.59	324	⇑P	P	07 43 59.1	+0.4
	baz=43						
W16A	Flagstaff	42.63	318	⇑P	P	07 43 59.3	+0.2
	baz=43,SNR=6.6						
S19A	Harvey Farm, M	42.75	323	⇓P	P	07 44 00.4	+0.5
	baz=43						
X15A	Humboldt	42.76	317	⇑P	P	07 43 59.9	-0.2
	baz=43,SNR=10.0						
WUAZ	Wupatki	42.77	319	⇓P	P	07 44 00.7	+0.5
	baz=43,SNR=9.2						
WUAZ	Wupatki	42.77	319	*e*P	P	07 44 01.7	+1.5
	comp=Z,15nm,0.8s,mb4.8						
113A	Mohawk Valley,	42.90	314	⇓P	P	07 44 01.9	+0.6
	baz=43,SNR=5.2						
Y14A	Wickenburg	42.98	316	⇓P	P	07 44 02.2	+0.3
	baz=43,SNR=6.7						
U16A	Tuba City	42.99	320	⇓P	P	07 44 01.4	-0.5
	baz=43,SNR=5.9						
PV04	Paradox Valley	43.03	324	*e*P	P	07 44 03.1	+0.8
X14A	Yava	43.20	316	⇑P	P	07 44 03.1	-0.5
	baz=43,SNR=5.5						
V15A	Kaibab Nationa	43.48	318	⇓P	P	07 44 06.4	+0.5
	baz=44,SNR=14						
Y13A	Salome	43.49	315	⇓P	P	07 44 06.2	+0.1
	baz=44,SNR=6.7						
S17A	Black Ridge (B	43.69	321	⇑P	P	07 44 07.5	-0.1
	baz=44						
W14A	Seligman	43.74	317	⇑P	P	07 44 09.0	+1.0
	baz=44,SNR=10						
V14A	Boquillas Ranc	43.99	318	⇑P	P	07 44 10.7	+0.7
	baz=44,SNR=9.3						
R17A	Hanksville Air	44.13	322	⇓P	P	07 44 11.4	+0.3
	baz=44,SNR=5.6						
Q18A	Rafter H Ranch	44.22	324	⇑P	P	07 44 11.3	-0.5
	baz=44						
S16A	Weppner Ranch,	44.24	321	⇓P	P	07 44 11.6	-0.5
	baz=44						
N20A	Spence Gulch,	44.32	327	⇓P	P	07 44 12.2	-0.4
	baz=44						
O19A	Miners Draw (B	44.43	326	⇓P	P	07 44 12.4	-1.1
	baz=45						
SRU	San Rafael	44.46	323	*e*P	P	07 44 14.9	+1.2
SRU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
SRU	San Rafael	44.46	323	⇓P	P	07 44 14.0	+0.3
	baz=45						
SRU	San Rafael	44.46	323	*e*P	P	07 44 14.8	+1.1
	comp=Z,11nm,1.0s,mb4.5						
RPN	Rapa Nui	44.49	221	LR	LR	07 58 13.5	
	comp=Z,215nm,18.5s,MS4.1,baz=142,slow=30						
U14A	Mt Trumbull	44.49	318	⇓P	P	07 44 14.6	+0.6
	baz=45,SNR=6.1						
R16A	Teasdale	44.52	322	⇓P	P	07 44 14.9	+0.7
	baz=45						
IRM	Iron Mountain	44.61	314	⇓P	P	07 44 15.2	+0.2
	baz=45,SNR=9.1						
P18A	Preston Nutter	44.63	324	⇓P	P	07 44 15.3	+0.2
	baz=45						
RSSD	Black Hills	44.66	333	*e*P	P	07 44 16.1	+0.9
RSSD				pmax	pmax		
	comp=Z,27nm,1.3s,mb4.9						
RSSD	Black Hills	44.66	333	*e*P	P	07 44 16.1	+0.9
	comp=Z,27nm,1.3s,mb4.9						
V13A	Grand Canyon W	44.71	317	⇑P	P	07 44 15.5	-0.2
	baz=45						
T14A	Hurricane	44.80	319	⇑P	P	07 44 17.0	+0.5
	baz=45						
U13A	Pakoon Wash	45.01	318	⇓P	P	07 44 18.3	+0.1
	baz=45						
W12A	Cal Nev Ari	45.01	316	⇑P	P	07 44 18.7	+0.5
	baz=45						
MSU	Marysvale	45.09	321	*e*P	P	07 44 20.1	+1.3
BELC	Belle Mtn.	45.13	314	⇑P	P	07 44 19.5	+0.3
	baz=45,SNR=7.4						
V12A	Nelson	45.23	317	⇓P	P	07 44 20.8	+0.9
	baz=45,SNR=8.0						
PFO	Pinyon Flat Ob	45.27	313	*e*P	P	07 44 21.5	+1.2
PFO				*e**PP	pP	07 44 31.6	+0.3
PFO				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.3						
PFO	Pinyon Flat Ob	45.27	313	*e*P	P	07 44 21.5	+1.2
	comp=Z,5.5nm,1.1s,mb4.3						
PFO				*e*pP	pP	07 44 31.6	+0.3
O17A	Robinson Place	45.29	324	⇑P	P	07 44 21.3	+1.0
	baz=45						
T13A	Saint George	45.31	319	⇓P	P	07 44 20.9	+0.3
	baz=46,SNR=6.2						
S13A	Holt Ranch, En	45.60	319	⇑P	P	07 44 23.5	+0.7
	baz=46,SNR=13						
K20A	Yellowstone Ra	45.65	329	⇓P	P	07 44 24.0	+0.9
	baz=46						
SHPR	Sheep Range	45.86	317	*e*P	P	07 44 26.2	+1.3

K19A	Absolon Red Bu	46.03	328	⇓P	P	07 44 26.0	-0.1
	baz=46,SNR=6.1						
L18A	Fontenelle, Gr	46.04	327	⇑P	P	07 44 26.3	0.0
	baz=46						
Q14A	Sevier Lake (B	46.06	321	⇓P	P	07 44 27.6	+1.2
	baz=46,SNR=7.5						
M17A	Scullys Gap (B	46.09	326	⇓P	P	07 44 26.4	-0.2
	baz=46						
BW06	Boulder Array	46.36	328	eP	P	07 44 28.6	-0.2
	comp=Z,12nm,1.1s,mb4.7						
PDAR	Pinedale Array	46.36	328	P	P	07 44 28.9	+0.1
	comp=Z,1.5nm,0.6s,mb4.1,baz=122,slow=11,SNR=18						
PDAR				pP	pP	07 44 39.6	-0.2
	comp=Z,4.8nm,1.0s,baz=114,slow=10,SNR=13						
PDAR				LR	LR	08 06 23.4	
	comp=Z,166nm,18.3s,MS4.0,baz=129,slow=39						
PDAR	Pinedale Array	46.36	328	P	P	07 44 28.9	+0.1
PDAR				pP	pP	07 44 39.6	-0.2
PDAR				LR	LR	08 06 23.4	
Q13A	Wheeler Ranch,	46.51	321	⇑P	P	07 44 30.2	+0.2
	baz=47,SNR=8.1						
DUG	Dugway	46.51	323	eP	P	07 44 31.4	+1.4
K18A	Toltan Ranch,	46.53	327	⇑P	P	07 44 30.3	+0.2
	baz=47,SNR=7.3						
PLCA	Paso Flores	46.62	172	P	P	07 44 30.5	-0.2
	comp=Z,7.4nm,0.8s,mb4.7,baz=338,slow=10.0,SNR=8.1						
PLCA	Paso Flores	46.62	172	P	P	07 44 30.5	-0.2
L17A	Cokeville	46.62	326	⇑P	P	07 44 30.8	0.0
	baz=47,SNR=8.6						
L16A	Fish Haven	46.88	326	⇑P	P	07 44 32.9	+0.1
	baz=47						
J18A	Kendall Valley	46.91	328	⇑P	P	07 44 33.2	+0.1
	baz=47,SNR=11						
ULM	Lac du Bonnet	46.96	344	P	P	07 44 31.4	-1.9
	comp=Z,6.0nm,0.6s,mb4.7,baz=166,slow=8.7,SNR=10						
ULM				LR	LR	08 04 16.6	
	comp=Z,242nm,18.1s,MS4.2,baz=122,slow=36						
SPUT	South Promonto	47.00	324	eP	P	07 44 33.8	+0.1
	comp=Z,17nm,1.6s,mb4.7						
SPUT				epP	pP	07 44 45.3	+0.5
FURC	Furnace Creek,	47.00	316	⇓P	P	07 44 33.2	-0.7
	baz=47,SNR=6.1						
K17A	Gardner Place,	47.08	327	⇑P	P	07 44 33.8	-0.6
	baz=47						
M15A	Larsen Ranch,	47.10	324	⇑P	P	07 44 34.9	+0.3
	baz=47,SNR=5.9						
N14A	Grayback Hills	47.14	323	⇑P	P	07 44 35.3	+0.4
	baz=47,SNR=8.5						
I18A	Diamond G Ranc	47.15	329	⇓P	P	07 44 34.7	-0.2
	baz=47						
O13A	Hicks Ranch, I	47.18	322	⇓P	P	07 44 35.0	-0.2
	baz=47						
MPMC	Manual Prospec	47.23	315	⇓P	P	07 44 35.6	0.0
	baz=47						
P12A	McGill	47.37	321	⇑P	P	07 44 37.5	+0.8
	baz=48						
J17A	Brown Place, J	47.39	328	⇓P	P	07 44 37.1	+0.3
	baz=48,SNR=11						
L15A	Malad City	47.41	325	⇓P	P	07 44 37.0	0.0
	baz=48						
REDW	Red Top Meadow	47.46	327	eP	P	07 44 38.0	+0.6
	comp=Z,46nm,1.4s,mb5.2						
Q11A	Duckwater	47.48	320	⇓P	P	07 44 37.8	+0.2
	baz=48						
LOHW	Long Hollow	47.50	328	eP	P	07 44 38.1	+0.5
	comp=Z,18nm,1.2s,mb4.9						
S10A	Tonopah Range,	47.59	318	⇑P	P	07 44 38.7	+0.3
	baz=48,SNR=7.7						
M14A	Sheep Mountain	47.65	324	⇓P	P	07 44 38.8	+0.1
	baz=48,SNR=9.7						
MOOW	Moose Ponds	47.67	328	eP	P	07 44 39.3	+0.4
	comp=Z,12nm,1.2s,mb4.8						
I17A	Pilgrim Ck.	47.70	328	⇑P	P	07 44 38.9	-0.2
	baz=48,SNR=6.0						
RRI2	Red Ridge	47.70	327	eP	P	07 44 39.7	+0.5
	comp=Z,7.3nm,0.8s,mb4.8						
ISA	Isabella	47.73	314	eP	P	07 44 41.7	+2.2
O12A	Currie	47.73	322	⇓P	P	07 44 39.7	+0.2
	baz=48						
RLMT	Red Lodge	47.88	330	⇑P	P	07 44 40.8	+0.3
	baz=48,SNR=6.9						
RLMT	Red Lodge	47.88	330	eP	P	07 44 41.0	+0.5
K15A	Arbon	47.93	326	⇑P	P	07 44 40.8	-0.2
	baz=48,SNR=7.5						
M13A	Montello	48.04	323	⇓P	P	07 44 41.8	-0.1
	baz=48,SNR=5.8						
I16A	Newdale	48.15	328	⇑P	P	07 44 42.4	-0.3
	baz=48						
G18A	Lazy EL Ranch,	48.16	330	⇑P	P	07 44 41.8	-0.9
	baz=48						
K14A	Jones Ranch, D	48.20	325	⇓P	P	07 44 42.8	-0.3
	baz=48,SNR=5.6						
O11A	Cowboy Ranch,	48.22	321	⇑P	P	07 44 43.5	+0.2
	baz=48,SNR=5.7						
J15A	Blackfoot	48.34	326	⇓P	P	07 44 43.4	-0.7
	baz=48						
H16A	Russell Place,	48.59	329	⇓P	P	07 44 45.9	-0.1
	baz=49,SNR=6.5						
F18A	Big Timber	48.66	331	⇑P	P	07 44 46.9	+0.4
	baz=49,SNR=23						
NVAR	Mina Array Bea	49.00	318	P	P	07 44 50.6	+1.3
	comp=Z,2.0nm,0.6s,mb4.3,baz=123,slow=6.5,SNR=24						
NVAR				pP	pP	07 45 01.3	+1.0
	comp=Z,4.7nm,0.6s,baz=123,slow=6.6,SNR=20						
F17A	Fitzpatrick Pl	49.12	330	⇓P	P	07 44 50.2	+0.1
	baz=49,SNR=7.4						
O09A	Fish Creek Ran	49.21	320	⇑P	P	07 44 51.2	+0.4
	baz=49						
E18A	Harlowton	49.23	331	⇓P	P	07 44 50.9	+0.1
	baz=49						
G16A	Moss Hill, Enn	49.23	329	⇑P	P	07 44 51.1	+0.2
	baz=49,SNR=5.4						
I14A	Mackay	49.25	326	⇑P	P	07 44 51.3	+0.2
	baz=49						
K12A	Draper Farm, C	49.26	324	⇑P	P	07 44 51.2	+0.1
	baz=49						
H15A	Lima	49.26	328	⇑P	P	07 44 51.2	+0.1
	baz=49,SNR=8.4						
J13A	Cove Ranch, Pi	49.31	325	⇓P	P	07 44 50.7	-0.9
	baz=50						
BOZ	Bozeman (W)	49.43	329	eP	P	07 44 52.5	+0.1
BOZ				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.0						
BOZ	Bozeman (W)	49.43	329	⇓P	P	07 44 52.6	+0.2
	baz=50,SNR=9.8						
BOZ	Bozeman (W)	49.43	329	eP	P	07 44 52.5	+0.1
	comp=Z,24nm,1.4s,mb5.0						
L11A	Cat Creek Ranc	49.47	323	⇑P	P	07 44 52.3	-0.6
	baz=50						
F16A	Kennard Place,	49.52	329	⇓P	P	07 44 53.0	-0.2
	baz=50,SNR=5.5						
G15A	Dillon	49.55	328	⇓P	P	07 44 53.7	+0.3
	baz=50						
HLID	Hailey	49.55	325	⇓P	P	07 44 53.3	-0.1
	baz=50						
HLID	Hailey	49.55	325	eP	P	07 44 54.4	+1.0
E17A	Martinsdale	49.61	330	⇓P	P	07 44 54.3	+0.5
	baz=50,SNR=6.5						
J12A	Stokes Ranch,	49.75	325	⇓P	P	07 44 54.7	-0.2
	baz=50						
WAKR	Walker	49.80	317	eP	P	07 44 56.9	+1.5
WAKR				epP	pP	07 45 07.2	+0.7
L10A	Juniper Basin	49.85	323	⇑P	P	07 44 55.9	+0.1
	baz=50						
SCHQ	Schefferville	49.89	8	P	P	07 44 56.0	+0.3
	comp=Z,15nm,0.9s,mb5.0,baz=193,slow=6.8,SNR=26						
F15A	Butte	50.00	329	⇓P	P	07 44 57.0	+0.2
	baz=50,SNR=6.3						
D17A	Six Diamond Ra	50.02	331	⇑P	P	07 44 57.0	+0.1
	baz=50						
D17A				⇑P	pP	07 45 08.0	0.0
	baz=50,SNR=5.5						
E16A	East Helena	50.06	330	⇓P	P	07 44 57.7	+0.4
	baz=50						
E16A				⇓P	pP	07 45 08.1	-0.3
	baz=50,SNR=5.3						
H13A	Challis	50.10	327	⇑P	P	07 44 58.0	+0.4
	baz=50						
MFID	Camas Ranch	50.27	324	⇑P	P	07 44 58.3	-0.6
	baz=50						
D16A	Dana Ranch, Ca	50.35	331	⇓P	P	07 44 58.7	-0.7
	baz=50						
D16A				⇑P	pP	07 45 10.7	+0.2
	baz=50,SNR=5.4						
C17A	Wharram Farm,	50.40	332	⇑P	P	07 44 59.3	-0.4
	baz=51,SNR=15						
H12A	Diamond D Ranc	50.42	326	⇑P	P	07 44 59.2	-0.7
	baz=51						
H12A				⇑P	pP	07 45 10.7	-0.4
	baz=51,SNR=5.0						
G13A	Cobalt	50.43	327	⇓P	P	07 44 59.6	-0.5
	baz=51						
F14A	Wisdom	50.44	328	⇑P	P	07 44 59.9	-0.2
	baz=51						
E15A	Deer Lodge	50.48	329	P	P	07 45 00.9	+0.5
	baz=51,SNR=5.6						
B18A	Beardsley Farm	50.49	333	⇑P	P	07 45 00.7	+0.2
	baz=51						
K10A	MacKenzie Ranc	50.50	323	⇑P	P	07 45 01.0	+0.3
	baz=51,SNR=6.2						
D15A	Lincoln	50.84	330	⇑P	P	07 45 03.4	+0.3
	baz=51						
E14A	Clinton	50.91	329	⇓P	P	07 45 03.7	+0.1
	baz=51,SNR=8.3						
A18A	Metzger Ranch,	50.91	333	⇑P	P	07 45 02.0	-1.6
	baz=51,SNR=5.2						
F13A	Darby	50.93	328	⇓P	P	07 45 03.5	-0.3
	baz=51,SNR=9.2						
K09A	Rome	50.97	323	⇑P	P	07 45 02.4	-1.8
	baz=51,SNR=6.9						
C16A	Fuhringer Ranc	50.98	331	⇑P	P	07 45 03.1	-1.1
	baz=51						
L08A	Fields	51.06	322	⇓P	P	07 45 03.7	-1.1
	baz=51						
H11A	Donnelly	51.16	326	⇑P	P	07 45 04.5	-1.1
	baz=51						
E13A	Victor	51.28	328	⇓P	P	07 45 06.0	-0.5
	baz=51,SNR=7.2						
J09A	Fry Pan Ranch,	51.36	323	⇓P	P	07 45 05.9	-1.2
	baz=52						
WVOR	Wild Horse Val	51.37	322	eP	P	07 45 07.8	+0.6
WVOR				e*PP	pP	07 45 18.2	-0.1
WVOR				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
WVOR	Wild Horse Val	51.37	322	eP	P	07 45 07.8	+0.6
	comp=Z,24nm,1.1s,mb5.0						
WVOR				epP	pP	07 45 18.1	-0.2
C15A	Salmond Ranch,	51.38	331	⇑P	P	07 45 06.9	-0.2
	baz=52,SNR=6.6						
F12A	Elk City	51.41	327	⇓P	P	07 45 07.1	-0.2
	baz=52						
MSO	Missoula	51.41	329	eP	P	07 45 07.8	+0.4
	comp=Z,7.9nm,1.3s,mb4.5						
K08A	Mann Creek Ran	51.45	322	⇑P	P	07 45 07.6	-0.1
	baz=52,SNR=5.8						
L07A	Adell	51.58	321	⇓P	P	07 45 08.7	-0.1
	baz=52						
OHCM	Honcut	51.60	317	eP	P	07 45 10.2	+1.2
I09A	Lost Marbles R	51.72	324	⇑P	P	07 45 09.5	-0.2
	baz=52						
B15A	Bradely Ranch,	51.73	331	⇓P	P	07 45 10.6	+0.8
	baz=52						
D13A	Huson	51.85	329	⇓P	P	07 45 10.6	-0.1
	baz=52						
C14A	Swan Lake	51.94	330	⇓P	P	07 45 11.9	+0.5
	baz=52						
MOD	Modoc	52.12	320	eP	P	07 45 12.8	0.0
	comp=Z,2.1nm,0.7s,mb4.2						
MOD				epP	pP	07 45 23.9	-0.1
JTMT	Jette	52.20	330	eP	P	07 45 13.6	+0.3
C13A	Hot Springs	52.30	329	⇓P	P	07 45 13.9	-0.1
	baz=52						
E11A	Bogner Ranch,	52.30	327	P	P	07 45 13.9	-0.1
	baz=52,SNR=5.8						
BSMT	Bassoo Peak	52.52	329	eP	P	07 45 15.9	+0.3
F10A	Beach Ranch, E	52.62	326	⇑P	P	07 45 15.9	-0.5
	baz=53						
FFC	Flin Flon	52.66	343	iP	P	07 45 16.6	+0.1
FFC	Flin Flon	52.66	343	eP	P	07 45 15.7	-0.8
	comp=Z,5.2nm,0.9s,mb4.5						
FFC				epP	pP	07 45 26.3	-1.4
B13A	Whitefish	52.71	330	⇑P	P	07 45 17.1	+0.1
	baz=53						
J06A	Christmas Vall	52.75	322	⇓P	P	07 45 17.3	-0.2
	baz=53						
D11A	Klaveano Farm,	52.80	328	⇓P	P	07 45 16.6	-1.1
	baz=53						
D11A				⇑P	pP	07 45 28.0	-1.0
	baz=53,SNR=5.2						
LNOR	Lincton Mounta	53.15	326	eP	P	07 45 20.1	-0.2
D10A	Wagner Farm, O	53.31	327	⇓P	P	07 45 20.8	-0.7
	baz=54						
F08A	Pendleton	53.38	325	⇓P	P	07 45 21.6	-0.4
	baz=54						
E09A	Wood Farm, Sta	53.45	326	⇓P	P	07 45 22.6	0.0
	baz=54						
E09A				⇓P	pP	07 45 33.0	-0.8
	baz=54,SNR=5.6						
YBH	Yreka Blue Hor	53.59	319	P	P	07 45 22.3	-1.4
	comp=Z,1.2nm,0.7s,mb3.9,baz=350,slow=8.8,SNR=5.7						
A12A	Yaak River Ran	53.67	330	⇓P	P	07 45 23.4	-0.6
	baz=54						
KHMM	Horse Mountain	53.85	318	eP	P	07 45 26.1	+0.6
A11A	Hall Mountain,	54.04	330	⇑P	P	07 45 27.0	+0.3
	baz=54						
D08A	Wollman Farm,	54.20	326	⇑P	P	07 45 27.9	-0.1
	baz=54						
E07A	Sunnyside	54.43	326	⇑P	P	07 45 29.2	-0.5
	baz=55						
FCC	Fort Churchill	54.46	350	eP	P	07 45 28.5	-1.2
FCC				e*PP	pP	07 45 39.2	-1.7
B09A	Rice	54.62	328	⇑P	P	07 45 30.7	-0.3
	baz=55						
B09A				⇑P	pP	07 45 41.7	-0.5
	baz=55,SNR=5.9						
H04A	Detroit Lake	54.76	322	⇓P	P	07 45 31.8	-0.3
	baz=55						
D07A	Quincy	54.87	326	⇓P	P	07 45 33.0	+0.2
	baz=55						
A09A	Danville	55.19	329	⇓P	P	07 45 35.1	0.0
	baz=55						
C07A	Waterville	55.20	327	⇓P	P	07 45 35.0	-0.2
	baz=55,SNR=5.2						
B08A	Colville Reser	55.20	328	⇑P	P	07 45 35.3	+0.1
	baz=55,SNR=5.3						
ETW	Entiat	55.30	326	eP	P	07 45 37.7	+1.7
A08A	Turner Farm, O	55.53	328	⇓P	P	07 45 37.8	+0.2
	baz=56						
A08A				⇑P	pP	07 45 48.3	-0.6
	baz=56,SNR=5.2						
EDM	Edmonton	55.56	335	eP	P	07 45 36.6	-1.1
LON	Longmire	55.65	325	eP	P	07 45 43.2	+4.7
LON				pmax	pmax		
	comp=Z,104nm,2.4s,mb5.4						
LON	Longmire	55.65	325	eP	P	07 45 43.2	+4.7
	comp=Z,104nm,2.4s,mb5.4						
A07A	Ashnola River,	56.17	328	⇑P	P	07 45 42.8	+0.6
	baz=56,SNR=6.4						
B04A	Port Angeles	57.33	325	⇑P	P	07 45 50.7	+0.3
	baz=58						
EFI	East Falkland	59.56	166	eP	P	07 46 04.3	-1.5
EFI				pmax	pmax		
	comp=Z,78nm,1.3s,mb5.6						
EFI	East Falkland	59.56	166	eP	P	07 46 04.3	-1.5
	comp=Z,78nm,1.3s,mb5.6						
YKA	Yellowknife Ar	62.81	342	P	P	07 46 26.7	-1.0
YKA				*PP	pP	07 46 37.3	-1.8
YKA	Yellowknife Ar	62.81	342	P	P	07 46 26.7	-1.0
	comp=Z,7.8nm,0.6s,mb5.0,baz=128,slow=7.0,SNR=205						
YKA				pP	pP	07 46 37.3	-1.8
	comp=Z,10nm,0.7s,baz=135,slow=6.5,SNR=23						
YKA				LR	LR	08 12 37.9	
	comp=Z,138nm,18.9s,MS4.2,baz=130,slow=35						
YKA	Yellowknife Ar	62.81	342	P	P	07 46 26.7	-1.0
YKA				pP	pP	07 46 37.3	-1.8
YKA				LR	LR	08 12 37.9	
EVO	Evora	70.87	51	eP	P	07 47 17.8	-1.7
	comp=Z,15nm,0.9s,mb4.6						
EVO	Evora	70.87	51	eP	P	07 47 19.3	-0.2
	comp=Z,24nm,1.8s,mb4.8						
SUMG	Summit	71.10	12	eP	P	07 47 20.1	-0.1
	comp=Z,41nm,1.1s,mb5.3						
SUMG				epP	pP	07 47 31.4	-0.4
PESTR	Estremoz	71.24	51	eP	P	07 47 21.6	-0.2
	comp=Z,36nm,1.3s,mb5.1						
PVIS	Viseu	71.28	49	eP	P	07 47 21.9	-0.1
	comp=Z,25nm,1.2s,mb5.0						
PCBR	Castelo Branco	71.47	50	eP	P	07 47 26.3	+3.2
	comp=Z,22nm,1.5s,mb4.9						
PMRV	Marv??o	71.47	50	eP	P	07 47 23.3	+0.1
	comp=Z,15nm,1.5s,mb4.7						
MTE	Manteigas	71.50	49	eP	P	07 47 23.4	+0.1
PVRL	Vila Real	71.50	48	eP	P	07 47 23.6	+0.3
	comp=Z,35nm,1.7s,mb5.0						
MVO	Moncorvo	72.00	49	eP	P	07 47 26.3	0.0
	comp=Z,20nm,1.7s,mb4.8						
PBRG	Braganca	72.31	48	eP	P	07 47 28.1	0.0
	comp=Z,17nm,1.7s,mb4.7						
ECAL	Calabor	72.33	48	P	P	07 47 28.8	+0.5
	comp=Z,9.9nm,0.9s,mb4.7						
TIC	Toumodi	72.48	85	eP	P	07 47 28.4	-1.3
	comp=Z,76nm,1.5s,mb5.4						
LIC	Lamto	72.50	85	⇑iP	P	07 47 29.1	-0.7
	comp=Z,21nm,1.0s,mb4.7						
LIC				eMLR	MLR		
	comp=Z,137nm,21.0s,MS3.9						
LIC	Lamto	72.50	85	eP	P	07 47 28.5	-1.3
	comp=Z,39nm,1.2s,mb5.2						
LIC	Lamto	72.50	85	⇑iP	P	07 47 29.1	-0.7
	comp=Z,11nm,1.0s,mb4.7						
LIC				LR	LR		
	comp=Z,70nm,21.0s,MS3.9						
EPLA	Plasencia	72.56	50	P	P	07 47 30.3	+0.6
EPLA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
EPLA	Plasencia	72.56	50	P	P	07 47 30.3	+0.6
	comp=Z,9.7nm,0.6s,mb4.9						
DBIC	Dimbokro	72.64	85	P	P	07 47 29.6	-1.0
	comp=Z,5.7nm,0.8s,mb4.5,baz=257,slow=7.7,SNR=8.9						
KIC	Kosan Boka	72.78	85	eP	P	07 47 30.2	-1.3
	comp=Z,72nm,1.1s,mb5.5						
ELOJ	Sierra Loja	73.74	53	P	P	07 47 37.1	+0.4
ELOJ				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
ELOJ	Sierra Loja	73.74	53	P	P	07 47 37.1	+0.4
	comp=Z,11nm,0.7s,mb4.9						
PAB	San Pablo	73.83	51	eP	P	07 47 36.9	-0.3
PAB				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
PAB	San Pablo	73.83	51	eP	P	07 47 36.9	-0.3
	comp=Z,18nm,1.1s,mb4.9						
GUD	Guadarrama	74.09	49	P	P	07 47 39.3	+0.6
GUD				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GUD	Guadarrama	74.09	49	P	P	07 47 39.3	+0.6
	comp=Z,8.2nm,0.8s,mb4.7						
ESDC	Sonseca Array	74.14	50	P	P	07 47 38.9	-0.1
	comp=Z,8.4nm,0.8s,mb4.7,baz=266,slow=5.6,SNR=47						
ESDC	Sonseca Array	74.14	50	P	P	07 47 39.5	+0.5
	comp=Z,6.0nm,0.7s,mb4.6						
ECOG	Cogollos-Vega	74.22	53	P	P	07 47 40.8	+1.3
ECOG				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
ECOG	Cogollos-Vega	74.22	53	P	P	07 47 40.8	+1.3
	comp=Z,11nm,0.7s,mb4.9						
PPT	Papeete	74.31	250	LR	LR	08 11 43.5	
	comp=Z,300nm,18.2s,MS4.6,baz=261,slow=29						
EQES	Quesada	74.66	52	P	P	07 47 42.9	+0.9
	comp=Z,17nm,0.7s,mb5.1						
ELAN	Lanestosa	74.92	47	P	P	07 47 44.0	+0.6
	comp=Z,10nm,0.9s,mb4.8						
EHUE	Huescar	75.03	52	P	P	07 47 45.0	+0.8
EHUE				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
EHUE	Huescar	75.03	52	P	P	07 47 45.0	+0.7
	comp=Z,18nm,1.1s,mb4.9						
ECRI	Cripan	75.53	48	P	P	07 47 47.6	+0.7
ECRI				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ECRI	Cripan	75.53	48	P	P	07 47 47.6	+0.7
	comp=Z,8.9nm,0.8s,mb4.8						
ROSF	Rostrenen	75.67	42	eP	P	07 47 47.4	-0.2
	comp=Z,15nm,0.8s,mb4.7						
ROSF	Rostrenen	75.67	42	eP	P	07 47 47.4	-0.2
ROSF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
ROSF	Rostrenen	75.67	42	eP	P	07 47 47.4	-0.2
	comp=Z,7.7nm,0.8s,mb4.7						
QUIF	Quistinic	75.68	42	eP	P	07 47 47.4	-0.3
	comp=Z,14nm,0.8s,mb4.6						
QUIF	Quistinic	75.68	42	eP	P	07 47 47.4	-0.3
QUIF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
QUIF	Quistinic	75.68	42	eP	P	07 47 47.4	-0.3
	comp=Z,6.8nm,0.8s,mb4.6						
ETOR	Torete	75.70	49	P	P	07 47 48.9	+0.9
ETOR				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
ETOR	Torete	75.70	49	P	P	07 47 48.9	+0.9
	comp=Z,19nm,0.8s,mb5.1						
GAL1	Galloway	75.82	35	eP	P	07 47 48.2	-0.2
GAL1				AMb	AMB	07 47 49.1	
	comp=Z,66nm,1.8s,mb5.3						
ETOB	Tobarra	75.92	52	P	P	07 47 50.5	+1.2
	comp=Z,12nm,0.7s,mb5.0						
PGBU	Glenifferbraes	76.12	34	eP	P	07 47 49.6	-0.4
PGBU				AMb	AMB	07 47 50.3	
	comp=Z,138nm,1.6s,mb5.7						
SGMF	Saint Gilles	76.13	42	eP	P	07 47 49.9	-0.4
	comp=Z,25nm,0.9s,mb4.8						
SGMF	Saint Gilles	76.13	42	eP	P	07 47 49.9	-0.4
SGMF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
SGMF	Saint Gilles	76.13	42	eP	P	07 47 49.9	-0.4
	comp=Z,12nm,0.9s,mb4.8						
HTR	Trewern Hill	76.20	38	eP	P	07 47 50.1	-0.5
GCD	Castle Douglas	76.26	35	eP	P	07 47 50.0	-0.9
ELIZ	Elizondo	76.30	47	P	P	07 47 51.7	+0.4
ELIZ				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
ELIZ	Elizondo	76.30	47	P	P	07 47 51.7	+0.4
	comp=Z,13nm,1.1s,mb4.8						
EALK	Alkurruntz	76.32	47	P	P	07 47 51.1	-0.4
	comp=Z,27nm,1.1s,mb5.1						
SBD1	Bryn Du	76.34	37	eP	P	07 47 51.0	-0.3
MCH1	Michaelchurch	76.36	38	eP	P	07 47 51.2	-0.3
MCH1				AMb	AMB	07 47 52.2	
	comp=Z,59nm,1.4s,mb5.3						
HGH	Gray Hill	76.42	38	eP	P	07 47 51.3	-0.5
COLA	College	76.46	336	eP	P	07 47 51.9	+0.1
COLA				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
COLA	College	76.46	336	eP	P	07 47 51.9	0.0
	comp=Z,11nm,1.2s,mb4.7						
SJPF	Ste Jean	76.51	47	eP	P	07 47 52.9	+0.3
	comp=Z,92nm,1.1s,mb5.3						
SJPF	Ste Jean	76.51	47	eP	P	07 47 52.9	+0.3
SJPF				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.3						
SJPF	Ste Jean	76.51	47	eP	P	07 47 52.9	+0.3
	comp=Z,46nm,1.1s,mb5.3						
ESK	Eskdalemuir	76.75	35	eP	P	07 47 52.4	-1.2
ESK				AMb	AMB	07 47 58.1	
	comp=Z,29nm,1.5s,mb5.0						
ETSF	Etsaut	76.98	47	eP	P	07 47 55.5	+0.3
	comp=Z,16nm,1.0s,mb4.6						
ETSF	Etsaut	76.98	47	eP	P	07 47 55.5	+0.3
ETSF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
ETSF	Etsaut	76.98	47	eP	P	07 47 55.5	+0.3
	comp=Z,7.9nm,1.0s,mb4.6						
MCD	Coleburn Disti	77.11	32	eP	P	07 47 55.3	-0.3
ESY	Stoneypath	77.18	34	eP	P	07 47 55.6	-0.4
LHO	Holmfirth	77.27	36	eP	P	07 47 56.8	+0.2
GRR	Gorron	77.27	42	eP	P	07 47 56.4	-0.3
	comp=Z,26nm,0.7s,mb5.0						
GRR	Gorron	77.27	42	eP	P	07 47 56.4	-0.3
GRR				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
GRR	Gorron	77.27	42	eP	P	07 47 56.4	-0.3
	comp=Z,13nm,0.7s,mb5.0						
HPK	Haverah Park	77.46	36	eP	P	07 47 57.6	0.0
HPK				AMb	AMB	07 47 58.3	
	comp=Z,74nm,1.3s,mb5.5						
EBIE	Bielsa	77.48	48	P	P	07 47 59.2	+1.2
	comp=Z,7.1nm,0.7s,mb4.7						
CWF	Charnwood Fore	77.48	37	eP	P	07 47 57.6	-0.2
CWF				AMb	AMB	07 47 58.5	
	comp=Z,50nm,1.4s,mb5.3						
ERTA	Horta de San J	77.51	49	P	P	07 47 59.0	+0.8
	comp=Z,14nm,0.9s,mb4.9						
FLN	La Foliniere	77.56	41	eP	P	07 47 58.1	-0.2
MFF	Saint Martin d	77.58	44	eP	P	07 47 58.3	-0.2
	comp=Z,18nm,0.7s,mb4.8						
MFF	Saint Martin d	77.58	44	eP	P	07 47 58.3	-0.2
MFF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
MFF	Saint Martin d	77.58	44	eP	P	07 47 58.3	-0.2
	comp=Z,9.0nm,0.7s,mb4.8						
EPF	Esparros	77.65	47	eP	P	07 47 59.2	+0.2
	comp=Z,34nm,1.1s,mb4.9						
EPF	Esparros	77.65	47	eP	P	07 47 59.2	+0.2

EPF				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
EPF	**Esparros**	**77.65**	**47**	eP	**P**	**07 47 59.2**	**+0.2**
	comp=Z,17nm,1.1s,mb4.9						
LDF	**La Druitiere**	**77.78**	**42**	eP	**P**	**07 47 59.2**	**-0.3**
	comp=Z,38nm,1.0s,mb5.0						
LDF	**La Druitiere**	**77.78**	**42**	eP	**P**	**07 47 59.2**	**-0.3**
LDF				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
LDF	**La Druitiere**	**77.78**	**42**	eP	**P**	**07 47 59.2**	**-0.3**
	comp=Z,19nm,1.0s,mb5.0						
LFF	**La Frestale**	**78.07**	**45**	eP	**P**	**07 48 01.0**	**-0.2**
	comp=Z,51nm,1.1s,mb5.1						
LFF	**La Frestale**	**78.07**	**45**	eP	**P**	**07 48 01.0**	**-0.2**
LFF				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
LFF	**La Frestale**	**78.07**	**45**	eP	**P**	**07 48 01.0**	**-0.2**
	comp=Z,26nm,1.1s,mb5.1						
RJF	**Les Rejaudoux**	**78.64**	**45**	eP	**P**	**07 48 04.0**	**-0.4**
	comp=Z,37nm,1.1s,mb4.9						
RJF	**Les Rejaudoux**	**78.64**	**45**	eP	**P**	**07 48 04.0**	**-0.4**
RJF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
RJF	**Les Rejaudoux**	**78.64**	**45**	eP	**P**	**07 48 04.0**	**-0.4**
	comp=Z,18nm,1.1s,mb4.9						
TORD	**Torodi Ar. Bea**	**78.71**	**78**	P	**P**	**07 48 04.2**	**-1.1**
	comp=Z,3.2nm,1.0s,mb4.2,baz=282,slow=3.2,SNR=13						
TORD				LR	LR	08 20 22.5	
	comp=Z,149nm,18.3s,MS4.4,baz=325,slow=34						
CAF	**Calviac**	**79.01**	**45**	eP	**P**	**07 48 06.1**	**-0.3**
	comp=Z,49nm,1.2s,mb5.0						
CAF	**Calviac**	**79.01**	**45**	eP	**P**	**07 48 06.1**	**-0.3**
CAF				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
CAF	**Calviac**	**79.01**	**45**	eP	**P**	**07 48 06.1**	**-0.3**
	comp=Z,24nm,1.2s,mb5.0						
MTLF	**Montolieu**	**79.04**	**47**	eP	**P**	**07 48 06.2**	**-0.4**
	comp=Z,55nm,1.2s,mb5.0						
MTLF	**Montolieu**	**79.04**	**47**	eP	**P**	**07 48 06.2**	**-0.4**
MTLF				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
MTLF	**Montolieu**	**79.04**	**47**	eP	**P**	**07 48 06.2**	**-0.4**
	comp=Z,27nm,1.2s,mb5.1						
SVW2	**Sparrevohn**	**79.12**	**331**	eP	**P**	**07 48 06.1**	**-0.6**
TCF	**Toulx Ste Croi**	**79.18**	**44**	eP	**P**	**07 48 06.7**	**-0.6**
	comp=Z,20nm,1.1s,mb4.7						
TCF	**Toulx Ste Croi**	**79.18**	**44**	eP	**P**	**07 48 06.7**	**-0.6**
TCF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
TCF	**Toulx Ste Croi**	**79.18**	**44**	eP	**P**	**07 48 06.7**	**-0.6**
	comp=Z,10nm,1.1s,mb4.7						
EJON	**La Jonquera**	**79.50**	**48**	P	**P**	**07 48 09.8**	**+0.7**
	comp=Z,15nm,1.0s,mb4.9						
HYF	**Humbligny**	**79.53**	**43**	eP	**P**	**07 48 09.0**	**-0.2**
BGF	**Bois d'Agland**	**79.64**	**44**	eP	**P**	**07 48 09.2**	**-0.6**
	comp=Z,46nm,1.2s,mb5.0						
BGF	**Bois d'Agland**	**79.64**	**44**	eP	**P**	**07 48 09.2**	**-0.6**
BGF				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
BGF	**Bois d'Agland**	**79.64**	**44**	eP	**P**	**07 48 09.2**	**-0.6**
	comp=Z,23nm,1.2s,mb5.0						
AVF	**Avril sur Loir**	**80.00**	**44**	eP	**P**	**07 48 10.9**	**-0.8**
	comp=Z,29nm,1.2s,mb4.8						
AVF	**Avril sur Loir**	**80.00**	**44**	eP	**P**	**07 48 10.9**	**-0.8**
AVF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
AVF	**Avril sur Loir**	**80.00**	**44**	eP	**P**	**07 48 10.9**	**-0.8**
	comp=Z,15nm,1.2s,mb4.8						
SSF	**Saint Saulge**	**80.11**	**43**	eP	**P**	**07 48 11.4**	**-1.0**
	comp=Z,31nm,1.3s,mb4.8						
SSF	**Saint Saulge**	**80.11**	**43**	eP	**P**	**07 48 11.4**	**-1.0**
SSF				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.8						
SSF	**Saint Saulge**	**80.11**	**43**	eP	**P**	**07 48 11.4**	**-1.0**
	comp=Z,16nm,1.3s,mb4.8						
SMF	**Signal de Mont**	**80.33**	**44**	eP	**P**	**07 48 12.8**	**-0.7**
	comp=Z,36nm,1.2s,mb4.9						
SMF	**Signal de Mont**	**80.33**	**44**	eP	**P**	**07 48 12.8**	**-0.7**
SMF				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
SMF	**Signal de Mont**	**80.33**	**44**	eP	**P**	**07 48 12.8**	**-0.7**
	comp=Z,18nm,1.2s,mb4.9						
LOR	**Lormes**	**80.36**	**43**	eP	**P**	**07 48 12.9**	**-0.8**
	comp=Z,14nm,1.0s,mb4.6						
LOR	**Lormes**	**80.36**	**43**	eP	**P**	**07 48 12.9**	**-0.8**
LOR				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
LOR	**Lormes**	**80.36**	**43**	eP	**P**	**07 48 12.9**	**-0.8**
	comp=Z,7.1nm,1.0s,mb4.5						
BAIF	**Baives**	**80.70**	**40**	eP	**P**	**07 48 14.8**	**-0.7**
SNF	**Seneffe**	**80.77**	**40**	P	**P**	**07 48 15.9**	**+0.1**
UCC	**Uccle**	**80.83**	**40**	P	**P**	**07 48 16.1**	**0.0**
VIVF	**Saint-Julien-l**	**80.86**	**46**	eP	**P**	**07 48 16.7**	**+0.3**
	comp=Z,38nm,1.2s,mb4.9						
VIVF	**Saint-Julien-l**	**80.86**	**46**	eP	**P**	**07 48 16.7**	**+0.3**
VIVF				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
VIVF	**Saint-Julien-l**	**80.86**	**46**	eP	**P**	**07 48 16.7**	**+0.3**
	comp=Z,19nm,1.2s,mb4.9						
GIVF	**Givet**	**81.10**	**40**	eP	**P**	**07 48 17.3**	**-0.3**
MEZF	**Maizieres J'vi**	**81.20**	**42**	eP	**P**	**07 48 17.8**	**-0.4**
	comp=Z,23nm,0.7s,mb4.9						
MEZF	**Maizieres J'vi**	**81.20**	**42**	eP	**P**	**07 48 17.8**	**-0.4**
	comp=Z,23nm,0.7s,mb5.2						
BCLA	**Clavier**	**81.42**	**40**	P	**P**	**07 48 19.5**	**+0.3**
ORIF	**Oris-en-Rattie**	**81.72**	**46**	eP	**P**	**07 48 21.5**	**+0.5**
	comp=Z,35nm,1.0s,mb4.9						
ORIF	**Oris-en-Rattie**	**81.72**	**46**	eP	**P**	**07 48 21.5**	**+0.5**
ORIF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
ORIF	**Oris-en-Rattie**	**81.72**	**46**	eP	**P**	**07 48 21.5**	**+0.5**
	comp=Z,17nm,1.0s,mb4.9						
HGN	**Heimansgroeve**	**81.83**	**40**	eP	**P**	**07 48 21.6**	**+0.2**
TAM	**Tamanrasset**	**81.87**	**68**	eP	**P**	**07 48 23.3**	**+1.1**
TAM				e*PP	pP	07 48 34.4	+0.4
TAM				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
TAM	**Tamanrasset**	**81.87**	**68**	eP	**P**	**07 48 23.3**	**+1.0**
	comp=Z,12nm,1.3s,mb4.7						
TAM				epP	pP	07 48 34.4	+0.4
CABF	**La Chapelle**	**81.87**	**44**	eP	**P**	**07 48 21.5**	**-0.3**
	comp=Z,20nm,1.1s,mb4.7						
CABF	**La Chapelle**	**81.87**	**44**	eP	**P**	**07 48 21.5**	**-0.3**
CABF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CABF	**La Chapelle**	**81.87**	**44**	eP	**P**	**07 48 21.5**	**-0.3**
	comp=Z,10nm,1.1s,mb4.7						
MEM	**Membach**	**81.87**	**40**	P	**P**	**07 48 22.2**	**+0.5**
	comp=Z,5.2nm,1.0s,mb4.4						
WLF	**Walferdange**	**81.95**	**41**	P	**P**	**07 48 22.8**	**+0.6**
WLF	**Walferdange**	**81.95**	**41**	eP	**P**	**07 48 22.5**	**+0.4**
WLF				pmax	pmax		
	comp=Z,29nm,1.5s,mb5.0						
WLF	**Walferdange**	**81.95**	**41**	eP	**P**	**07 48 22.1**	**0.0**
WLF	**Walferdange**	**81.95**	**41**	eP	**P**	**07 48 22.5**	**+0.4**
	comp=Z,29nm,1.5s,mb5.0						
HAU	**Haudompre**	**82.06**	**42**	eP	**P**	**07 48 22.0**	**-0.7**
LMR	**La Mourre**	**82.17**	**47**	eP	**P**	**07 48 22.9**	**-0.5**
	comp=Z,72nm,1.4s,mb5.1						
LMR	**La Mourre**	**82.17**	**47**	eP	**P**	**07 48 22.9**	**-0.5**
LMR				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.1						
LMR	**La Mourre**	**82.17**	**47**	eP	**P**	**07 48 22.9**	**-0.5**
	comp=Z,36nm,1.4s,mb5.1						
LPL	**La Plagne**	**82.32**	**45**	eP	**P**	**07 48 24.6**	**+0.5**
	comp=Z,7.3nm,0.8s,mb4.4						
LPL	**La Plagne**	**82.32**	**45**	eP	**P**	**07 48 24.6**	**+0.5**
LPL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LPL	**La Plagne**	**82.32**	**45**	eP	**P**	**07 48 24.6**	**+0.5**
	comp=Z,3.7nm,0.8s,mb4.4						
LPG	**La Plagne**	**82.33**	**45**	eP	**P**	**07 48 24.8**	**+0.6**
	comp=Z,24nm,1.2s,mb4.7						
LPG	**La Plagne**	**82.33**	**45**	eP	**P**	**07 48 24.8**	**+0.6**
LPG				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
LPG	**La Plagne**	**82.33**	**45**	eP	**P**	**07 48 24.8**	**+0.6**
	comp=Z,12nm,1.2s,mb4.7						
MBDF	**Montbardon**	**82.35**	**46**	eP	**P**	**07 48 24.7**	**+0.4**
WTSB	**Winterswijk**	**82.39**	**38**	eP	**P**	**07 48 24.6**	**+0.2**
HINF	**Hinteralfeld**	**82.40**	**43**	eP	**P**	**07 48 23.7**	**-0.8**
	comp=Z,6.6nm,0.7s,mb4.4						
HINF	**Hinteralfeld**	**82.40**	**43**	eP	**P**	**07 48 23.7**	**-0.8**
HINF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
HINF	**Hinteralfeld**	**82.40**	**43**	eP	**P**	**07 48 23.7**	**-0.8**
	comp=Z,3.3nm,0.7s,mb4.4						
BUG	**Bochum--Univer**	**82.68**	**39**	eP	**P**	**07 48 25.8**	**-0.1**
	comp=Z,20nm,1.4s,mb5.0						
CDF	**Champ du Feu**	**82.68**	**42**	eP	**P**	**07 48 25.4**	**-0.6**
	comp=Z,9.2nm,0.9s,mb4.5						
CDF	**Champ du Feu**	**82.68**	**42**	eP	**P**	**07 48 25.4**	**-0.6**
CDF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
CDF	**Champ du Feu**	**82.68**	**42**	eP	**P**	**07 48 25.4**	**-0.6**
	comp=Z,4.6nm,0.9s,mb4.5						
IBBN	**Ibbenburen**	**82.98**	**38**	eP	**P**	**07 48 27.4**	**0.0**
TNS	**Taunus Mts**	**83.43**	**40**	eP	**P**	**07 48 29.6**	**-0.2**
TNS				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.1						
TNS	**Taunus Mts**	**83.43**	**40**	eP	**P**	**07 48 29.6**	**-0.2**
	comp=Z,26nm,1.4s,mb5.1						
STU	**Stuttgart**	**83.95**	**42**	eP	**P**	**07 48 32.1**	**-0.4**
NRDL	**Niedersach Rie**	**84.42**	**38**	eP	**P**	**07 48 34.7**	**-0.1**
BSEG	**Bad Segeberg**	**84.50**	**36**	eP	**P**	**07 48 35.0**	**-0.1**
	comp=Z,70nm,2.2s,mb5.4						
KEST	**Kesra**	**84.59**	**55**	P	**P**	**07 48 35.1**	**-0.9**
	comp=Z,4.0nm,0.9s,mb4.5,baz=213,slow=4.6,SNR=6.1						
CLZ	**Clausthal**	**84.61**	**39**	eP	**P**	**07 48 36.0**	**+0.3**
CLZ				pmax	pmax		
	comp=Z,47nm,1.9s,mb5.3						
CLZ	**Clausthal**	**84.61**	**39**	eP	**P**	**07 48 36.0**	**+0.3**
	comp=Z,47nm,1.9s,mb5.3						
NB2	**NORSAR Subarra**	**84.74**	**29**	P	**P**	**07 48 36.5**	**+0.3**
	comp=Z,1.5nm,0.8s,mb4.2,baz=272,slow=5.1						
NOA	**NORSAR Array B**	**84.74**	**29**	P	**P**	**07 48 36.3**	**+0.1**
	comp=Z,2.8nm,0.9s,mb4.4,baz=274,slow=4.9,SNR=6.5						
GRA1	**Grafenberg Arr**	**85.24**	**41**	eP	**P**	**07 48 38.9**	**-0.1**
	comp=Z,34nm,1.7s,mb5.2						
GRF	**Grafenberg Arr**	**85.24**	**41**	eP	**P**	**07 48 38.9**	**-0.1**
GRF				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.2						
GRF	**Grafenberg Arr**	**85.24**	**41**	eP	**P**	**07 48 38.9**	**-0.1**
GRF				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.2						
GRF	**Grafenberg Arr**	**85.24**	**41**	eP	**P**	**07 48 38.9**	**-0.1**
	comp=Z,34nm,1.7s,mb5.2						
MOX	**Moxa**	**85.44**	**40**	eP	**P**	**07 48 39.8**	**-0.2**
MOX	**Moxa**	**85.44**	**40**	eP	**P**	**07 48 39.9**	**-0.1**
	comp=Z,7.0nm,1.2s,mb4.7						
MANZ	**Manzenberg**	**85.80**	**40**	eP	**P**	**07 48 42.0**	**+0.3**
TANN	**Tannenbergstha**	**86.00**	**40**	eP	**P**	**07 48 42.7**	**0.0**
NKC	**Novy Kostel**	**86.00**	**40**	eP	**P**	**07 48 43.5**	**+0.8**
CLL	**Collm**	**86.27**	**39**	i P	**P**	**07 48 44.2**	**+0.1**
CLL				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.9						
CLL	**Collm**	**86.27**	**39**	eP	**P**	**07 48 44.2**	**+0.1**
	comp=Z,10.0nm,1.2s,mb4.9						
CLL	**Collm**	**86.27**	**39**	i P	**P**	**07 48 44.2**	**+0.1**
	comp=Z,10.0nm,1.2s,mb4.9						
WET	**Wettzell**	**86.36**	**41**	eP	**P**	**07 48 44.6**	**+0.1**
WET				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.2						
WET	**Wettzell**	**86.36**	**41**	eP	**P**	**07 48 44.6**	**+0.1**
	comp=Z,16nm,1.1s,mb5.2						
RJOB	**Jochberg**	**86.41**	**43**	eP	**P**	**07 48 44.4**	**-0.4**
KHC	**Kasperske Hory**	**86.82**	**41**	eP	**P**	**07 48 47.2**	**+0.4**
BRG	**Berggiesshubel**	**86.90**	**39**	eP	**P**	**07 48 47.9**	**+0.8**
BRG				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.8						
BRG	**Berggiesshubel**	**86.90**	**39**	eP	**P**	**07 48 47.3**	**+0.2**
	comp=Z,15nm,1.4s,mb5.0						
BRG	**Berggiesshubel**	**86.90**	**39**	eP	**P**	**07 48 47.9**	**+0.7**
	comp=Z,15nm,1.4s,mb5.0						
GEC2	**GERESS Array S**	**86.92**	**41**	eP	**P**	**07 48 47.2**	**-0.1**
GEC2				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
GEC2	**GERESS Array S**	**86.92**	**41**	eP	**P**	**07 48 47.2**	**-0.1**
	comp=Z,9.0nm,1.0s,mb5.0						
GERES	**GERESS Array B**	**86.92**	**41**	P	**P**	**07 48 47.4**	**+0.1**
	comp=Z,3.7nm,0.8s,mb4.6,baz=274,slow=3.9,SNR=29						
PVCC	**Panska Ves**	**87.33**	**40**	eP	**P**	**07 48 50.0**	**+0.8**
PRU	**Pruhonice**	**87.36**	**40**	eP	**P**	**07 48 50.1**	**+0.7**
TREC	**Trest**	**88.05**	**41**	eP	**P**	**07 48 53.2**	**+0.5**
DPC	**Dobruska-Polom**	**88.46**	**40**	eP	**P**	**07 48 55.7**	**+1.1**
OKC	**Ostrava-Krasne**	**89.69**	**40**	eP	**P**	**07 49 01.4**	**+1.0**
VYHS	**Vyhne**	**90.34**	**41**	eP	**P**	**07 49 04.0**	**+0.5**
STHS	**Stebnicka Huta**	**91.75**	**40**	eP	**P**	**07 49 10.2**	**+0.2**
CRVS	**Cervenica-Dubn**	**91.99**	**41**	eP	**P**	**07 49 12.0**	**+0.9**
KOLS	**Kolonicke sedl**	**92.51**	**41**	eP	**P**	**07 49 15.7**	**+2.2**
BILL	**Bilibino**	**94.17**	**340**⇓	eP	**P**	**07 49 21.2**	**+0.4**
BILL				e		07 53 06.3	
BILL				eS	SKSac	07 59 51.6	-1.0
BILL				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb4.1						
QSPA	**South Pole Qui**	**95.63**	**180**	eP	**P**	**07 49 28.2**	**+1.0**
	comp=Z,3.8nm,1.0s,mb4.8						
ZALV	**Zalesovo Beam**	**118.92**	**12**	PKP	PKPdf	07 54 49.5	-1.1
	comp=Z,0.9nm,0.5s,baz=248,slow=1.6,SNR=6.3						
ZALV				pPKP	pPKPdf	07 55 00.3	-2.6
	comp=Z,0.5nm,0.4s,baz=316,slow=2.4,SNR=2.9						
MKAR	**Makanchi Array**	**124.96**	**16**	PKP	PKPdf	07 55 01.2	-1.3
	comp=Z,1.0nm,0.8s,baz=346,slow=1.8,SNR=8.6						
CN2	**Changchun**	**126.46**	**339**	ePKP	PKPdf	07 55 05.3	-0.2
SONM	**Songino Array**	**126.64**	**356**	PKP	PKPdf	07 55 05.4	-0.3
	comp=Z,1.3nm,0.9s,baz=281,slow=1.6,SNR=6.8						
KSH	**Kashi**	**129.06**	**26**	ePKP	PKPdf	07 55 12.0	+1.4
KSH				esPKP		07 55 26.4	
KSH				ePKS		07 58 47.1	
KSH				eSKS	SKSdf	08 02 18.1	-1.4
KSH				AMB	AMB		
	comp=Z,470nm,6.8s						
KSH				LR	LR		
	comp=N,84nm,7.3s						
KSH				LR	LR		
	comp=E,110nm,5.6s						
WMQ	**Urumqi**	**129.12**	**13**	ePKP	PKPdf	07 55 11.0	+0.4
WMQ				LR	LR		
	comp=Z,200nm,24.0s,MS4.7						
HHC	**Hu-ho-hao-te**	**132.94**	**350**	ePKP	PKPdf	07 55 17.9	0.0
HHC				sPKP		07 55 32.0	
HHC				PP	PP	07 57 46.2	+4.0
HHC				PKS		07 58 52.0	
HHC				SKS	SKSdf	08 02 23.4	-3.1
HHC				SKKS	SKKSac	08 04 33.3	-3.3
HHC				SS	SS	08 15 23.1	+2.4
HHC				AMB	AMB		
	comp=Z,110nm,7.6s						
HHC				LR	LR		
	comp=N,180nm,14.3s,MS5.1						
HHC				LR	LR		
	comp=E,250nm,15.5s,MS5.1						
HHC				LR	LR		
	comp=Z,140nm,17.8s,MS4.7						
LZH	**Lanzhou**	**138.49**	**358**	ePKP	PKPdf	07 55 29.0	+0.6
LZH				sPKP		07 55 43.5	
LZH				ePP	PP	07 58 23.1	+6.1
LZH				SKKS	SKKSac	08 05 08.5	-1.4
LZH				eSS	SS	08 16 30.3	+3.3
LZH				AMB	AMB		
	comp=Z,120nm,8.6s						
LZH				LR	LR		
	comp=N,150nm,18.0s						
LZH				LR	LR		
	comp=Z,200nm,20.3s,MS4.8						
NJ2	**Nanjing**	**139.26**	**338**	ePKP	PKPdf	07 55 30.2	+0.3
DANN	**Dangsing**	**141.92**	**27**	eP	PKPdf	07 55 29.2	-5.6
WHN	**Wuhan**	**142.16**	**343**	PKP	PKPdf	07 55 37.1	+1.9
GKN	**Gorkha**	**142.60**	**26**	eP	PKPdf	07 55 31.3	-4.7
KKN	**Kakani**	**143.06**	**25**	eP	PKPdf	07 55 33.3	-3.6
DMN	**Daman**	**143.15**	**26**	eP	PKPdf	07 55 33.0	-4.0
	comp=Z,26nm,0.8s						
GUN	**Gumba**	**143.21**	**24**	eP	PKPdf	07 55 33.6	-3.5
PKI	**Pulchoki**	**143.31**	**25**	eP	PKPdf	07 55 33.5	-3.8
JIRN	**Jiri**	**143.56**	**24**	eP	PKPdf	07 55 34.4	-3.3
CD2	**Chengdu**	**143.65**	**357**	PKP	PKPdf	07 55 37.1	-0.7
RAMN	**Ramite**	**144.35**	**24**	eP	PKPdf	07 55 36.5	-2.6
TAPN	**Taplejung**	**144.43**	**22**	eP	PKPdf	07 55 37.4	-1.9
	comp=Z,39nm,0.9s						
ASAR	**Alice Springs**	**144.46**	**236**	PKP	PKPdf	07 55 36.5	-2.9
	comp=Z,2.0nm,0.7s,baz=120,slow=3.7,SNR=22						
ODAN	**Odare**	**144.75**	**23**	eP	PKPdf	07 55 38.2	-1.6
WRA	**Warramunga Arr**	**145.51**	**243**	PKPbc	PKPbc	07 55 40.2	-1.2
	comp=Z,1.5nm,0.7s,baz=104,slow=3.1,SNR=7.6						
WRA				pPKPbc	pPKPbc	07 55 50.2	-3.3
	comp=Z,3.2nm,0.8s,baz=105,slow=3.0,SNR=7.9						
HYB	**Hyderabad**	**147.42**	**45**	i PKP	PKPab	07 55 48.0	-1.0
GYA	**Guiyang**	**147.80**	**352**	PKPbc	PKPdf	07 55 44.2	-0.8
GYA				PKPab	PKPab	07 55 51.9	+1.7
GYA				pPKP	pPKPdf	07 55 56.7	-0.6
GYA				sPKP		07 55 59.8	
GYA				PP	PP	07 59 16.6	+3.4
GYA				SKKS	SKKSac	08 06 01.4	-2.4
GYA				SS	SS	08 18 15.0	+0.4
GYA				AMB	AMB		
	comp=Z,120nm,6.8s						
GYA				LR	LR		
	comp=N,240nm,22.1s,MS5.0						
GYA				LR	LR		
	comp=E,190nm,23.3s,MS5.0						
GYA				LR	LR		
	comp=Z,200nm,22.5s,MS4.8						
KMI	**Kunming**	**149.44**	**359**	PKPbc	PKPdf	07 55 46.5	-1.2
KMI				sPKP		07 56 01.4	
KMI				LR	LR		
	comp=Z,63nm,32.6s,MS4.2						
CMAR	**Chiang Mai Arr**	**155.89**	**7**	PKP	PKPdf	07 55 57.4	0.0
	comp=Z,0.5nm,0.3s,baz=321,slow=3.8,SNR=5.4						
CMAR				pPKP	pPKPdf	07 56 06.5	-3.1
	comp=Z,1.0nm,0.3s,baz=324,slow=2.7,SNR=2.2						
CMAR				PKPab	PKPab	07 56 21.8	-2.2
	comp=Z,0.7nm,0.3s,baz=334,slow=5.6,SNR=4.8						

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*ISCJB **10** 07:37:50.2±0.6, 39.°03N±0.°04×29.°71E±0.°04, h1^{km}±9^{km}, Error ellipse: s-maj=6.3km s-min=5.3km az=168.5*

*CSEM **10** 07:37:50.3±0.1, 39.°05N×29.°71E, h2^{km}, MD2.6, Error ellipse: s-maj=1.8km s-min=1.7km az=68.0*

*ISK **10** 07:37:50.0, 39.°02N×29.°72E, h4^{km}, MD2.6*

ISC 10 07:37:50.6±0.6**, 39.°04N**±0.°03×**29.°71E**±0.°04**, h0**^{km}±9^{km}**, n22, σ0.^{s}34**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GDZ	**Gediz**	**0.18**	**284**	i P	**Pg**	**07 37 54.0**	**-0.1**
GDZ				i S	**Sg**	**07 37 56.8**	**+0.3**
GDZ	**Gediz**	**0.18**	**284**	i P	**Pg**	**07 37 54.0**	**-0.1**
GDZ				i S	**Sg**	**07 37 56.8**	**+0.3**
ALT	**Altintas**	**0.31**	**88**	ePG	**Pg**	**07 37 56.4**	**-0.3**
ALT				eSG	**Sg**	**07 38 01.2**	**+0.5**
ALT	**Altintas**	**0.31**	**88**	ePg	**Pg**	**07 37 56.4**	**-0.2**
ALT				eSg	**Sg**	**07 38 01.2**	**+0.5**
KHAL	**Karahalli**	**0.69**	**194**	i P	**Pg**	**07 38 03.8**	**-0.1**
KHAL	**Karahalli**	**0.69**	**194**	i P	**Pg**	**07 38 03.8**	**-0.1**
KHAL				i S	**Sg**	**07 38 12.6**	**-0.3**
KHL	**Karahalli**	**0.73**	**191**	ePG	**Pg**	**07 38 04.5**	**-0.1**
KHL				eSG	**Sg**	**07 38 14.5**	**+0.3**
KHL	**Karahalli**	**0.73**	**191**	ePg	**Pg**	**07 38 04.5**	**-0.2**
KHL				eSg	**Sg**	**07 38 14.5**	**+0.3**
ESKT	**Eskisehir**	**1.00**	**61**	ePG	**Pg**	**07 38 09.7**	**-0.2**
ESKT	**Eskisehir**	**1.00**	**61**	ePg	**Pg**	**07 38 09.7**	**-0.2**
DST	**Dursunbey**	**1.01**	**304**	ePG	**Pg**	**07 38 10.2**	**+0.3**
DST	**Dursunbey**	**1.01**	**304**	ePg	**Pg**	**07 38 10.3**	**+0.3**
DURS	**Dursunbey**	**1.11**	**301**	eP	**Pg**	**07 38 11.8**	**-0.1**
DURS	**Dursunbey**	**1.11**	**301**	eP	**Pg**	**07 38 11.8**	**0.0**
DURS				i S	**Sg**	**07 38 26.2**	**0.0**
CAVI	**Cavuskoy**	**1.16**	**5**	ePN	**Pn**	**07 38 13.3**	**-0.8**
CAVI	**Cavuskoy**	**1.16**	**5**	ePn	**Pn**	**07 38 13.3**	**-0.8**
ULDT	**Uludag**	**1.18**	**338**	i P	**Pg**	**07 38 12.9**	**-0.4**
ULDT	**Uludag**	**1.18**	**338**	i P	**Pg**	**07 38 12.9**	**-0.4**
ADVT	**Abdulvahap**	**1.39**	**1**	ePN	**Pn**	**07 38 17.0**	**-0.2**
EYL	**Eskiyayla**	**1.56**	**13**	ePN	**Pn**	**07 38 20.0**	**+0.5**
KCT	**Karacabey**	**1.61**	**320**	ePN	**Pn**	**07 38 20.2**	**0.0**
ARMT	**Armutlu**	**1.65**	**337**	ePN	**Pn**	**07 38 21.4**	**+0.5**

IDC 10 07:41:17.5±17.0**, 6.°74N**×**124.°12E, h529**^{km}±261^{km}**, mb3.0**/6**, mb1 3.2**/6**, mb1mx2.9**/21**, mbtmp3.0**/6**, Error ellipse: s-maj=74.6km s-min=19.7km az=94.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**24.73**	**177**	P	P	07 45 56.7	-0.4
	4.8nm,1.0s,baz=350,slow=12,SNR=5.5						
WRA	**Warramunga Arr**	**28.36**	**159**	P	P	07 46 28.5	-0.4
	0.9nm,0.4s,baz=342,slow=9.3,SNR=11						
ASAR	**Alice Springs**	**31.70**	**163**	P	P	07 46 58.3	+0.6
	1.6nm,0.4s,baz=341,slow=6.8,SNR=32						
MJAR	**Matsushiro Arr**	**32.33**	**21**	P	P	07 47 02.8	-0.1
	1.4nm,0.7s,baz=193,slow=9.1,SNR=4.9						
SONM	**Songino Array**	**43.65**	**343**	P	P	07 48 35.5	+0.6
	0.7nm,0.9s,baz=154,slow=8.9,SNR=3.8						
MKAR	**Makanchi Array**	**53.62**	**325**	P	P	07 49 48.8	-0.2
	0.9nm,0.4s,baz=119,slow=7.6,SNR=37						

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*ISCJB **10** 07:43:42.0±0.5, 38.°29N±0.°02×27.°20E±0.°03, h11^{km}±3^{km}, Error ellipse: s-maj=4.5km s-min=3.4km az=171.4*

*ISK **10** 07:43:41.7, 38.°29N×27.°24E, h10^{km}, MD2.9*

*CSEM **10** 07:43:42.0±0.1, 38.°29N×27.°20E, h10^{km}, MD2.9, Error ellipse: s-maj=2.9km s-min=2.1km az=84.0*

*DDA **10** 07:43:42.0, 38.°29N×27.°21E, h7^{km}±2^{km}, Md3.1*

*ATH **10** 07:43:42.1, 38.°26N×27.°18E, h35^{km}±6^{km}, MD3.3/4*

ISC 10 07:43:42.3±0.4**, 38.°30N**±0.°02×**27.°21E**±0.°03**, h12**^{km}±3^{km}**, n51, σ0.^{s}71**/77**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IZM	**Izmir**	**0.11**	**25**	PG	**Pg**	**07 43 44.8**	**-0.5**
IZM				eSG	**Sg**	**07 43 46.7**	**-0.8**
IZM	**Izmir**	**0.11**	**25**	i Pg	**Pg**	**07 43 44.8**	**-0.5**
IZM				eSg	**Sg**	**07 43 46.7**	**-0.7**
URLA	**Izmir**	**0.48**	**277**	i P	**Pg**	**07 43 51.7**	**-0.1**
URLA				i S	**Sg**	**07 44 00.1**	**+1.8**
URLA	**Izmir**	**0.48**	**277**	i P	**Pg**	**07 43 51.7**	**-0.1**
URLA				i S	**Sg**	**07 44 00.1**	**+1.8**
GCAM	**G?zelcaml?**	**0.60**	**178**	i P	**Pg**	**07 43 53.6**	**-0.3**
GCAM				i S	**Sg**	**07 44 02.1**	**+0.3**
GCAM	**G?zelcaml?**	**0.60**	**178**	i P	**Pg**	**07 43 53.6**	**-0.4**
GCAM				i S	**Sg**	**07 44 02.2**	**+0.3**
SMG	**Samos**	**0.66**	**206**	ePN	**Pn**	**07 43 54.7**	**-2.7**
SMG				eSN	**Sg**	**07 44 04.3**	**+0.6**
SMG	**Samos**	**0.66**	**206**	ePn	**Pn**	**07 43 54.7**	**-2.7**
SMG				eSn	**Sg**	**07 44 04.3**	**+0.6**
AKHS	**Akhisar**	**0.75**	**39**	i P	**Pg**	**07 43 56.6**	**-0.3**
AKHS				i S	**Sg**	**07 44 06.6**	**-0.2**
AKHS	**Akhisar**	**0.75**	**39**	i P	**Pg**	**07 43 56.6**	**-0.3**
AKHS				i S	**Sg**	**07 44 06.6**	**-0.1**
AKS	**Akhisar**	**0.75**	**39**	ePG	**Pg**	**07 43 56.3**	**-0.5**
AKS				eSG	**Sg**	**07 44 07.2**	**+0.5**
AKS	**Akhisar**	**0.75**	**39**	ePg	**Pg**	**07 43 56.3**	**-0.6**
AKS				eSg	**Sg**	**07 44 07.2**	**+0.5**
AYDN	**Tasoluk**	**0.83**	**140**	i P	**Pg**	**07 43 58.5**	**+0.1**
AYDN				i S	**Sg**	**07 44 09.2**	**0.0**
AYDN	**Tasoluk**	**0.83**	**140**	i P	**Pg**	**07 43 58.5**	**+0.1**
AYDN				i S	**Sg**	**07 44 09.2**	**0.0**
CHOS	**Chios island**	**0.91**	**276**	ePN	**Pn**	**07 43 59.7**	**-1.2**
CHOS				eSN	**Sn**	**07 44 12.0**	**-1.9**
CHOS	**Chios island**	**0.91**	**276**	ePn	**Pn**	**07 43 59.7**	**-1.2**
CHOS				eSn	**Sn**	**07 44 12.0**	**-1.9**
AYVA	**Ayvalik**	**1.08**	**338**	eP	**Pb**	**07 44 03.3**	**+0.3**
AYVA				i S	**Sb**	**07 44 17.1**	**-0.1**
AYVA	**Ayvalik**	**1.08**	**338**	eP	**Pb**	**07 44 03.3**	**+0.3**
AYVA				i S	**Sb**	**07 44 17.1**	**0.0**
MLSB	**Milas**	**1.10**	**156**	ePN	**Pn**	**07 44 02.8**	**-0.8**
MLSB				eSN	**Sn**	**07 44 18.7**	**+0.1**
MLSB	**Milas**	**1.10**	**156**	ePn	**Pn**	**07 44 02.8**	**-0.7**
MLSB				eSn	**Sn**	**07 44 18.7**	**+0.1**
PRK	**Paraskevi**	**1.19**	**323**	ePN	**Pn**	**07 44 04.9**	**+0.1**
PRK				eSN	**Sn**	**07 44 20.5**	**-0.5**
PRK	**Paraskevi**	**1.19**	**323**	ePn	**Pn**	**07 44 04.9**	**+0.1**
PRK				eSn	**Sn**	**07 44 20.5**	**-0.5**
BODT	**Bodrum**	**1.24**	**176**	ePN	**Pn**	**07 44 05.6**	**+0.2**
BODT				eSN	**Sn**	**07 44 22.9**	**+0.9**
BODT	**Bodrum**	**1.24**	**176**	ePn	**Pn**	**07 44 05.6**	**+0.2**
BODT				eSn	**Sn**	**07 44 22.9**	**+0.9**
BDRM	**Kayabasi**	**1.25**	**171**	i P	**Pn**	**07 44 05.0**	**-0.5**
BDRM	**Kayabasi**	**1.25**	**171**	i P	**Pn**	**07 44 05.0**	**-0.5**
YER	**Yerkesik**	**1.44**	**143**	ePN	**Pn**	**07 44 08.5**	**+0.2**
YER	**Yerkesik**	**1.44**	**143**	ePn	**Pn**	**07 44 08.5**	**+0.3**
BALY	**Balya**	**1.48**	**13**	i P	**Pn**	**07 44 08.4**	**-0.3**
BALY				i S	**Sn**	**07 44 28.1**	**+0.2**
BALY	**Balya**	**1.48**	**13**	i P	**Pn**	**07 44 08.4**	**-0.3**
BALY				i S	**Sn**	**07 44 28.1**	**+0.2**
DENT	**Denizli**	**1.54**	**110**	ePN	**Pn**	**07 44 09.8**	**+0.2**
DENT	**Denizli**	**1.54**	**110**	ePn	**Pn**	**07 44 09.8**	**+0.2**
DAT	**Datca**	**1.59**	**169**	ePN	**Pn**	**07 44 10.3**	**0.0**
DAT	**Datca**	**1.59**	**169**	ePn	**Pn**	**07 44 10.3**	**0.0**
EZN	**Ezine**	**1.67**	**336**	ePN	**Pn**	**07 44 12.4**	**+1.0**
EZN	**Ezine**	**1.67**	**336**	ePn	**Pn**	**07 44 12.4**	**+1.0**
DST	**Dursunbey**	**1.71**	**40**	ePN	**Pn**	**07 44 11.9**	**0.0**

DST	Dursunbey	1.71	40	ePn	Pn	07 44 11.9	-0.1
KHL	Karahalli	1.82	89	ePN	Pn	07 44 13.4	-0.1
KHL	Karahalli	1.82	89	ePn	Pn	07 44 13.4	-0.1
DALT	Dalyan (Mudla)	1.91	143	ePN	Pn	07 44 14.6	0.0
DALT	Dalyan (Mudla)	1.91	143	ePn	Pn	07 44 14.6	0.0
KCT	Karacabey	2.16	24	ePN	Pn	07 44 18.8	+0.7
KCT	Karacabey	2.16	24	ePn	Pn	07 44 18.8	+0.7
ALT	Altintas	2.40	71	ePN	Pn	07 44 21.5	+0.1
ALT	Altintas	2.40	71	ePn	Pn	07 44 21.5	+0.2
ARMT	Armutlu	2.60	29	ePN	Pn	07 44 25.1	+0.9
ARMT	Armutlu	2.60	29	ePn	Pn	07 44 25.1	+0.9
ALN	Alexandroupoli	2.75	341	ePN	Pn	07 44 26.4	+0.2
ALN	Alexandroupoli	2.75	341	ePn	Pn	07 44 26.4	+0.2
DOU	Dourbes	19.96	313	P	Pn	07 48 16.9	+1.1

MAN 10 07:51:49, 13°.62N×121°.66E, h3^{km}, mb3.5, ML2.1, MS1.6, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGP	Puerto Galera	0.70	260	eP	Pg	07 52 02.9	+0.5
SJMP	San Jose	1.27	205	eP	Pg	07 52 13.3	0.0
OTRP	Odiongan	1.30	164	eP	Pg	07 52 13.6	-0.4
OTRP				eS	Sg	07 52 31.4	+0.6
LUBP	Lubang	1.38	275	eP	Pn	07 52 14.2	-1.0

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*ISCJB **10** 08:02:28.9±1.8, 7°.3S±0°.1×126°.5E±0°.2, h321^{km}±20^{km}, mb3.8/3, Error ellipse: s-maj=30.0km s-min=12.9km az=156.9*

*NEIC **10** 08:02:33.2±2.2, 7°.36S×126°.66E, h354^{km}±28^{km}, mb4.8/1, Error ellipse: s-maj=23.4km s-min=20.3km az=117.0*

*IDC **10** 08:02:35.8±3.8, 7°.47S×126°.48E, h384^{km}±46^{km}, mb3.4/3, mb1 3.3/6, mb1mx3.1/18, mbtmp3.2/6, Error ellipse: s-maj=47.6km s-min=18.9km az=66.0*

ISC 10 08:02:32.9±1.5, **7°.34S**±0°.10×**126°.7E**±0°.2, **h349**^{km}±17^{km}, **n9, σ0^{s}.65**/11, **mb3.8**/3, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	7.79	134	ePn	Pn	08 04 24.1	-0.6
FITZ	Fitzroy Crossi	10.74	185	P	Pn	08 05 00.9	+1.1
	1.0nm,0.3s,baz=22,slow=8.8,SNR=16						
WRAB	Tennant Creek	14.57	150	eP	P	08 05 42.5	-0.3
WRA	Warramunga Arr	14.57	150	P	P	08 05 42.5	-0.3
	0.5nm,0.3s,baz=328,slow=12,SNR=22						
WRA				S	S	08 08 20.3	-0.1
	0.1nm,0.3s,baz=326,slow=20,SNR=4.2						
MBWA	Marble Bar	15.29	205	eP	P	08 05 50.0	-0.7
	88nm,1.9s						
ASAR	Alice Springs	17.66	158	P	P	08 06 16.9	+0.7
	1.0nm,0.3s,baz=338,slow=12,SNR=72						
ASAR				S	S	08 09 21.5	+0.1
	0.1nm,0.3s,baz=328,slow=22,SNR=4.3						
PETK	Petropavlovsk-	65.72	20	P	P	08 12 41.9	+1.1
	1.6nm,0.5s,mb4.0,baz=161,slow=3.0,SNR=8.1						
ZALV	Zalesovo Beam	70.47	335	P	P	08 13 09.1	-0.9
	0.9nm,0.4s,mb3.8,baz=123,slow=5.5,SNR=4.1						
BVAR	Borovoye Array	76.62	329	P	P	08 13 45.6	0.0
	0.5nm,0.5s,mb3.5,baz=111,slow=8.0,SNR=2.9						

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*NIED **10** 08:04:00, 39°.40N×141°.10E, h125^{km}, Mw4.1 Best double couple: $M_0$1.72000×10^{15} NP1:ϕ_s72.00000°, δ56.00000°, λ-43.00000°. NP2:ϕ_s190.00000°, δ55.00000°, λ-137.00000°.*

*BJI **10** 08:04:41.6, 39°.60N×141°.26E, h134^{km}, mB5.0/8, mb4.4/9*

*MOS **10** 08:04:42.5±0.9, 39°.52N×141°.06E, h134^{km}, mb4.0/12, Error ellipse: s-maj=14.4km s-min=8.2km az=77.9*

*IDC **10** 08:04:42.8±1.3, 39°.47N×141°.04E, h120^{km}±11^{km}, mb3.7/17, mb1 3.8/20, mb1mx3.8/27, mbtmp3.6/20, Error ellipse: s-maj=14.9km s-min=9.3km az=119.0*

*NEIC **10** 08:04:43.2±0.4, 39°.48N×141°.08E, MG4.2(JMA), Error ellipse: s-maj=9.7km s-min=6.7km az=121.0*

NEIC Recorded [2 JMA] in Iwate and Miyagi; [1 JMA] in Akita.

*JMA **10** 08:04:44.2±0.1, 39°.43N×141°.08E, h128^{km}±1^{km}, M4.0 Broadband fault plane solution: P waves. NP1: ϕ_s186.00000°, δ60.00000°, λ-151.00000°. NP2: ϕ_s81.00000°, δ65.00000°, λ-33.00000°. Principal axes: T Plg3.0000°, Azm135.0000°; N Plg50.0000°, Azm229.0000°; P Plg40.0000°, Azm42.0000°;*

JMA Felt II J1.

ISC 10 08:04:43.7±0.3, **39°.46N**±0°.03×**141°.11E**±0°.06, **h130**^{km}±2^{km}, **n74, σ0^{s}.72**/94, **mb3.9**/23, **8C-9D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOM	Ohasama	0.15	84	⇓P	Pn	08 05 01.7	+0.4
JOM				S	Sn	08 05 14.8	+0.2
JRG	Rokugo	0.37	261	⇓P	Pn	08 05 02.5	+0.5
JRG				S	Sn	08 05 16.4	+0.6
JMK	Ichinoseki	0.51	170	⇓P	Pn	08 05 02.8	0.0
JMK				eS	Sn	08 05 16.9	-0.2
JYK	Kaneyama	0.79	227	⇓P	Pn	08 05 05.0	+0.3
JYK				S	Sn	08 05 20.7	+0.1
JAH	Hinai	0.81	334	⇑P	Pn	08 05 05.6	+0.7
JAH				eS	Sn	08 05 21.9	+0.9
JANG	Nango	0.97	19	⇑P	Pn	08 05 06.8	+0.6
JANG				S	Sn	08 05 23.3	-0.1
JIO	Ouri	1.02	169	⇓P	Pn	08 05 06.7	0.0
JIO				S	Sn	08 05 23.6	-0.6
JOU	Okura	1.14	198	⇓P	Pn	08 05 08.2	+0.3
JOU				eS	Sn	08 05 26.6	+0.3
JYA	Atsumi	1.39	232	⇓P	Pn	08 05 10.8	+0.3
JYA				eS	Sn	08 05 30.8	0.0
JMM	Marumori	1.61	189	⇓P	Pn	08 05 12.7	-0.3
JMM				eS	Sn	08 05 34.6	-0.7
JAW	Awa shima	1.76	236	⇓P	Pn	08 05 15.0	+0.3
JAW				eS	Sn	08 05 38.1	-0.3
JOT	Ohata	1.92	359	⇑P	Pn	08 05 17.1	+0.5
JOT				eS	Sn	08 05 41.9	0.0
ERM	Erimo	2.99	31	ePn	Pn	08 05 29.8	-0.3
ERM				eSn	Sn	08 06 00.7	-5.3
MAJO	Matsushiro	3.70	219	eP	Pn	08 05 39.8	+0.3
MAT	Matsushiro	3.70	219	P	Pn	08 05 39.8	+0.3
MAT				eS	Sn	08 06 21.7	-0.9
MJAR	Matsushiro Arr	3.70	219	P	Pn	08 05 39.8	+0.3
MJAR				S	Sn	08 06 20.4	-2.2
MJAR				pmax	pmax		
	comp=Z,5.0nm,0.3s						
MJAR				smax			
	comp=N,4.0nm,0.3s						
MJAR	Matsushiro Arr	3.70	219	P	Pn	08 05 39.8	+0.3
	comp=N,5.3nm,0.3s,baz=23,slow=15,SNR=75						
MJAR				S	Sn	08 06 20.4	-2.2
	comp=N,3.6nm,0.3s,baz=22,slow=24,SNR=4.9						
MJAR	Matsushiro Arr	3.70	219	P	Pn	08 05 39.8	+0.3
MJAR				S	Sn	08 06 20.4	-2.2
ASAJ	Asahikawa	4.79	13	P	Pn	08 05 53.7	-0.1
ASAJ				S	Sn	08 06 46.1	-2.3
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				smax			
	comp=N,5.0nm,0.3s						
ASAJ	Asahikawa	4.79	13	P	Pn	08 05 53.6	-0.2
	comp=N,2.4nm,0.3s,baz=201,slow=13,SNR=24						
ASAJ				S	Sn	08 06 46.1	-2.3
	comp=N,4.5nm,0.3s,baz=119,slow=32,SNR=11						
YUK	Yuzh-Kuril'sk	5.79	36	eP	Pn	08 06 06.0	-1.3
YUK				i S	Sn	08 07 08.0	-4.6
YUK				pmax	pmax		
	comp=Z,380nm,0.5s						
YUK				smax			
	comp=N,2µm,1.0s						
YUK				smax			
	comp=E,2µm,0.8s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=E,1µm,0.5s						
JHJ	Hachijo jima 2	6.42	190	S	Sn	08 07 21.6	-6.1
	comp=E,99nm,0.3s,baz=262,slow=22,SNR=9.7						
YSS	Yuzh-Sakhalins	7.59	9	⇑iP	Pn	08 06 30.7	-0.8
YSS				eS	Sn	08 07 52.4	-3.4
YSS				pmax	pmax		
	comp=Z,30nm,0.8s						
YSS				smax			
	comp=N,40nm,1.0s						
YSS	Yuzh-Sakhalins	7.59	9	ePn	Pn	08 06 31.3	-0.1
	comp=N,20nm,0.6s						
KUR	Kuril'sk	7.64	39	eP	Pn	08 06 28.0	-4.2
KUR				eS	Sn	08 07 50.0	-7.1
KUR				pmax	pmax		
	comp=Z,230nm,1.0s						
KUR				smax			
	comp=N,190nm,0.8s						
KUR				smax			
	comp=E,160nm,0.8s						
MDJ	Mudanjiang	9.99	305	ePn	Pn	08 07 03.8	0.0
	comp=E,21nm,0.9s						
HABR	Khabarovsk	10.01	336	eP	Pn	08 06 56.7	-7.3
HABR				eS	Sn	08 08 44.6	-10
HABR				MLR	MLR		
	comp=Z,55nm,15.0s						
KSRS	Korea Array	10.53	263	P	Pn	08 07 11.9	+0.9
	comp=Z,0.1nm,0.3s,baz=74,slow=12,SNR=6.0						
CBIJ	Chichi jima	12.36	176	S	Sn	08 09 43.9	-7.6
	comp=Z,16nm,0.3s,baz=302,slow=20,SNR=6.5						
SEY	Seymchan	24.47	12	⇑eP	P	08 09 50.3	+0.1
SONM	Songino Array	26.30	300	P	P	08 10 07.0	+0.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	26.30	300	P	P	08 10 07.0	+0.1
	comp=Z,0.8nm,0.6s,mb3.5,baz=95,slow=8.8,SNR=5.3						
ZAK	Zakamensk	28.63	305	eP	P	08 10 27.4	-0.3
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.6						
BILL	Bilibino	31.78	18	⇑eP	P	08 10 54.4	-0.9
BILL				e		08 11 59.0	
BILL				eS	S	08 15 58.8	+3.3
BILL				eSS	SS	08 17 56.9	-20
BILL				pmax	pmax		
	comp=Z,6.0nm,2.5s,mb3.9						
ZALV	Zalesovo Beam	40.13	310	P	P	08 12 06.5	0.0
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.2						
ZALV	Zalesovo Beam	40.13	310	P	P	08 12 06.5	0.0
	comp=Z,2.6nm,0.5s,mb4.1,baz=87,slow=8.4,SNR=15						
MKAR	Makanchi Array	42.66	300	P	P	08 12 27.3	+0.1
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	Makanchi Array	42.66	300	P	P	08 12 27.3	0.0
	comp=Z,2.0nm,0.8s,mb3.8,baz=86,slow=9.8,SNR=20						
MKAR	Makanchi Array	42.66	300	P	P	08 12 27.3	0.0
KURK	Kurchatov	44.28	306	P	P	08 12 40.5	+0.4
KURK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.3						
KURK	Kurchatov	44.28	306	P	P	08 12 40.5	+0.4
	comp=Z,3.5nm,0.5s,mb4.2,baz=81,slow=8.6,SNR=9.6						
KDAK	Kodiak Island	45.48	43	⇑eP	P	08 12 50.9	+1.4
KDAK	Kodiak Island	45.48	43	P	P	08 12 50.0	+0.4
	comp=Z,9.8nm,0.7s,mb4.5,baz=260,slow=6.1,SNR=4.2						
BVAR	Borovoye Array	48.79	311	P	P	08 13 15.2	0.0
BVAR						08 14 38.2	
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	48.79	311	P	P	08 13 15.2	0.0
	comp=Z,0.9nm,0.4s,mb3.7,baz=70,slow=9.4,SNR=7.7						
BVAR				PcP	PcP	08 14 38.2	+0.2
	comp=Z,0.7nm,0.5s,baz=101,slow=6.0,SNR=3.4						
WRA	Warramunga Arr	59.42	187	P	P	08 14 32.0	-0.6
WRA				*PP	pP	08 15 01.3	-2.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	59.42	187	P	P	08 14 32.0	-0.6
	comp=Z,0.6nm,0.8s,mb3.5,baz=4.0,slow=7.3,SNR=5.2						
WRA				pP	pP	08 15 01.3	-2.2
	comp=Z,1.2nm,0.8s,baz=5.0,slow=7.1,SNR=3.5						
KEV	Kevo	61.10	339	eP	Px	08 14 58.3	
KEV				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.9						
KEV	Kevo	61.10	339	ep	Px	08 14 58.3	
	comp=Z,25nm,1.3s						
ARCES	ARCESS Array B	61.65	339	P	P	08 14 46.3	-0.8
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	ARCESS Array B	61.65	339	P	P	08 14 46.3	-0.9
	comp=Z,5.5nm,1.0s,mb4.3,baz=50,slow=8.2,SNR=4.5						
YKA	Yellowknife Ar	61.84	31	P	P	08 14 48.7	+0.2
YKA						08 15 28.8	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	61.84	31	P	P	08 14 48.7	+0.2
	comp=Z,0.6nm,0.6s,mb3.6,baz=302,slow=6.7,SNR=22						
YKA				PcP	PcP	08 15 28.8	+0.5
	comp=Z,0.3nm,0.5s,baz=302,slow=4.4,SNR=4.6						
ASAR	Alice Springs	63.15	187	P	P	08 14 57.6	0.0
	comp=Z,0.4nm,0.6s,mb3.4,baz=2.9,slow=7.5,SNR=4.2						
ASAR				pP	pP	08 15 28.4	-0.4
	comp=Z,0.9nm,0.8s,baz=8.5,slow=4.8,SNR=5.0						
JOF	Joensuu	63.72	331	eP	P	08 15 00.0	-0.9
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
JOF	Joensuu	63.72	331	ep	P	08 15 00.0	-0.9
	comp=Z,0.5nm,0.4s,mb3.7						
KAF	Kangasniemi	66.05	332	eP	P	08 15 08.1	-7.9
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
KAF	Kangasniemi	66.05	332	ep	P	08 15 08.1	-7.9
	comp=Z,2.0nm,0.5s,mb4.2						
KIV	Kislovodsk	69.15	310	eP	P	08 15 36.1	+0.3
KIV				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.3						
FFC	Flin Flon	71.81	33	⇑eP	P	08 15 52.9	+1.2
NB2	NORSAR Subarra	71.86	337	P	P	08 15 51.9	-0.1
	comp=Z,1.0nm,0.6s,mb3.7,baz=39,slow=6.2						
NOA	NORSAR Array B	71.86	337	eP	P	08 15 51.9	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	71.86	337	P	P	08 15 51.5	-0.5
	comp=Z,1.9nm,0.8s,mb3.9,baz=38,slow=6.0,SNR=7.1						
AKASG	Malin Array Be	72.24	322	P	P	08 15 53.7	-0.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	72.24	322	P	P	08 15 53.7	-0.7
	comp=Z,0.8nm,0.5s,mb3.7,baz=47,slow=5.3,SNR=6.0						
AKASG	Malin Array Be	72.24	322	P	P	08 15 53.7	-0.7
NVAR	Mina Array Bea	73.74	54	P	P	08 16 05.2	+1.7
	comp=Z,1.4nm,0.8s,mb3.8,baz=283,slow=5.9,SNR=13						
PDAR	Pinedale Array	76.15	46	P	P	08 16 18.1	+0.9
	comp=Z,1.2nm,0.7s,mb3.7,baz=283,slow=1.8,SNR=14						
GERES	GERESS Array B	80.53	328	P	P	08 16 40.8	-0.4
	comp=Z,0.2nm,0.5s,mb3.0,baz=43,slow=5.9,SNR=4.0						
SCHQ	Schefferville	83.08	16	P	P	08 16 54.6	+0.2
	comp=Z,1.2nm,0.7s,mb3.8,baz=306,slow=8.7,SNR=4.2						
TXAR	Lajitas Array	88.83	52	eP	P	08 17 24.3	+1.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	88.83	52	P	P	08 17 23.7	+0.5
	comp=Z,0.5nm,0.6s,mb3.7,baz=286,slow=3.2,SNR=6.4						
TORD	Torodi Ar. Bea	115.44	315	PKP	PKPdf	08 23 09.3	-1.3
	comp=Z,0.4nm,1.0s,baz=33,slow=3.7,SNR=2.2						
VNA2	Neumayer--Watz	144.57	197	e	Pdif	08 21 34.3	+2.1

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*IDC **10** 08:35:44.9±6.8, 16°.89N×119°.48E, h49^{km}±71^{km}, mb3.5/8, mb1 3.7/9, mb1mx3.5/23, mbtmp3.6/9, ML4.6/1, Error ellipse: s-maj=33.0km s-min=16.6km az=65.0*

*ISCJB **10** 08:35:50.4±1.9, 16°.9N±0°.1×119°.4E±0°.2, h120^{km}±20^{km}, mb3.9/10, Error ellipse: s-maj=28.9km s-min=14.8km az=150.2*

*NEIC **10** 08:35:52.2±1.4, 16°.79N×119°.32E, h120^{km}±14^{km}, mb4.4/2, Error ellipse: s-maj=25.6km s-min=9.9km az=53.0*

ISC 10 08:35:51.4±1.7, **16°.9N**±0°.1×**119°.5E**±0°.2, **h114**^{km}±19^{km}, **n15, σ0^{s}.79**/14, **mb3.9**/10, **Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGY	Tagaytay City	3.14	153	P	Pn	08 36 39.9	+0.6
	36nm,0.3s,baz=330,slow=20,SNR=2.6						
CMAR	Chiang Mai Arr	19.62	278	P	P	08 40 10.6	-0.5
	0.8nm,0.3s,baz=89,slow=9.3,SNR=3.6						
KSRS	Korea Array	21.77	18	P	P	08 40 32.6	-1.3
	4.6nm,0.8s,mb3.8,baz=201,slow=11,SNR=14						
WRAB	Tennant Creek	39.43	158	eP	P	08 43 10.3	-0.2
	14nm,1.4s,mb4.6						
WRA	Warramunga Arr	39.44	158	P	P	08 43 09.7	-0.9
	0.8nm,0.6s,mb3.7,baz=340,slow=9.2,SNR=3.3						
ASAR	Alice Springs	42.73	160	P	P	08 43 37.4	-0.1
	0.6nm,0.5s,mb3.6,baz=340,slow=6.6,SNR=8.0						
MKAR	Makanchi Array	42.76	322	P	P	08 43 37.9	+0.3
	1.0nm,0.9s,mb3.6,baz=126,slow=9.2,SNR=8.6						
ZALV	Zalesovo Beam	45.67	332	P	P	08 44 00.5	0.0
	0.3nm,0.3s,mb3.5,baz=152,slow=13,SNR=3.6						
EKS2	Erkin-Say	46.49	313	eP	P	08 44 07.8	+0.6
	4.9nm,0.9s,mb4.2						
KURK	Kurchatov	46.88	325	P	P	08 44 10.3	+0.2
	3.2nm,0.8s,mb4.1,baz=121,slow=8.6,SNR=29						
KURK	Kurchatov	46.88	325	P	P	08 44 10.3	+0.2
BVAR	Borovoye Array	52.47	325	P	P	08 44 51.9	-0.4
	0.6nm,0.7s,mb3.7,baz=115,slow=9.7,SNR=3.6						
COLD	Coldfoot	74.67	24	eP	Px	08 47 29.4	
YKA	Yellowknife Ar	90.26	22	P	P	08 48 41.2	+2.1
	0.3nm,0.6s,mb3.6,baz=314,slow=4.2,SNR=8.2						
YKA	Yellowknife Ar	90.26	22	P	P	08 48 41.2	+2.1

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*BJI **10** 08:38:56.4, 26°.46N×95°.53E, h50^{km}, mB4.9/5, mb4.3/14, ML3.6/4*

*IDC **10** 08:38:59.7±2.1, 26°.43N×95°.73E, h75^{km}±19^{km}, mb3.6/16, mb1 3.7/17, mb1mx3.6/28, mbtmp3.6/17, MS4.0/1, Ms1 4.0/1, ms1mx2.7/35, Error ellipse: s-maj=21.1km s-min=12.8km az=44.0*

*NEIC **10** 08:39:00.7±1.0, 26°.42N×95°.68E, h85^{km}±11^{km}, mb3.7/3, Error ellipse: s-maj=15.8km s-min=7.7km az=52.0*

ISC 10 08:38:59.4±0.8, **26°.39N**±0°.07×**95°.40E**±0°.05, **h69**^{km}±9^{km}, **n41, σ1^{s}.31**/55, **mb3.8**/18, **Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	Imphal	2.08	220	ePKP	Pn	08 39 33.0	+0.9
IMP				eS	Sn	08 39 42.0	-15
IMP				ex	x	08 39 54.0	
IMP				ex	x	08 40 04.0	
LSA	Lhasa	5.00	312	P	Pn	08 40 14.1	+2.3
LSA				S	Sn	08 41 11.8	+3.6
LSA				smax			
	comp=N,40nm,0.5s						
LSA				smax			
	comp=E,100nm,0.6s						
LSA	Lhasa	5.00	312	ePn	Pn	08 40 15.1	+3.2
	comp=E,31nm,0.6s						
LSA				eSn	Sn	08 41 11.6	+3.3
TAPN	Taplejung	6.93	280	ePn	Pn	08 40 39.6	+1.3
TAPN				eSn	Sn	08 41 55.6	-0.1
	comp=E,51nm,0.3s						
ODAN	Odare	7.18	276	ePn	Pn	08 40 43.2	+1.4
ODAN				eSn	Sn	08 42 02.4	+0.5
	comp=E,116nm,0.4s						
RAMN	Ramite	7.89	276	ePn	Pn	08 40 52.9	+1.4
JIRN	Jiri	8.31	281	ePn	Pn	08 40 58.2	+1.0
JIRN				eSn	Sn	08 42 27.7	-1.7
	comp=E,75nm,0.3s						
CMAR	Chiang Mai Arr	8.55	157	P	Pn	08 41 01.4	+0.9
	comp=E,1.2nm,0.3s,baz=333,slow=13,SNR=63						
CMAR				Lg		08 43 30.8	
	comp=E,1.3nm,0.3s,baz=320,slow=28,SNR=5.5						
GUN	Gumba	8.61	282	ePn	Pn	08 41 01.9	+0.6
GUN				eSn	Sn	08 42 33.9	-3.0
	comp=E,60nm,0.3s						
PKI	Pulchoki	8.99	280	ePn	Pn	08 41 06.4	-0.1
PKI				eSn	Sn	08 42 44.2	-1.9
KKN	Kakani	9.12	281	ePn	Pn	08 41 07.7	-0.6
KKN				eSn	Sn	08 42 47.1	-2.3
	comp=E,32nm,0.2s						
DMN	Daman	9.26	280	ePn	Pn	08 41 10.8	+0.6
DMN				eSn	Sn	08 42 50.1	-2.6
	comp=E,33nm,0.4s						
GKN	Gorkha	9.71	282	ePn	Pn	08 41 16.8	+0.4
GKN				eSn	Sn	08 43 00.1	-3.8
	comp=E,43nm,0.3s						
DANN	Dangsing	10.53	283	ePn	Pn	08 41 26.6	-0.9
DANN				eSn	Sn	08 43 18.3	-5.4
	comp=E,58nm,0.4s						
KOLN	Koldanda	10.60	280	ePn	Pn	08 41 28.9	+0.4
KOLN				eSn	Sn	08 43 21.3	-4.3
	comp=E,22nm,0.3s						
PYUN	Piuthan	11.17	282	ePn	Pn	08 41 34.9	-1.4
PYUN				eSn	Sn	08 43 34.9	-4.6
LZH	Lanzhou	12.06	35	eP	Pn	08 41 46.0	-2.4
LZH				pP		08 41 51.2	
LZH				pmax	pmax		
	comp=Z,18nm,1.4s						
LZH				pmax	pmax		
	comp=Z,94nm,5.0s						
XAN	Xi'an	13.95	54	P	Pn	08 42 07.7	-6.1
XAN				pP		08 42 17.3	
XAN				pmax	pmax		
	comp=Z,6.0nm,1.3s						
XAN				pmax	pmax		
	comp=Z,240nm,12.8s						
MKAR	Makanchi Array	22.86	336	P	P	08 43 56.9	0.0
	comp=Z,0.6nm,0.3s,mb3.4,baz=148,slow=11,SNR=25						
MKAR				PcP	PcP	08 47 45.4	-0.1
	comp=Z,0.1nm,0.5s,baz=151,slow=1.7,SNR=4.4						
MKAR				ScP	ScP	08 51 16.8	-0.6
	comp=Z,0.4nm,0.7s,baz=114,slow=3.6,SNR=5.2						
MKAR	Makanchi Array	22.86	336	P	P	08 43 56.9	0.0
MKAR				PcP	PcP	08 47 45.4	-0.1
MKAR				ScP	ScP	08 51 16.8	-0.6
SONM	Songino Array	23.09	19	P	P	08 43 58.0	-1.2
	comp=Z,2.9nm,0.7s,mb3.7,baz=200,slow=10.0,SNR=16						
ULN	Ulaanbaatar	23.31	20	eP	P	08 44 01.2	-0.1
	comp=Z,2.0nm,0.6s,mb3.6						
AML	Almayashu	23.74	317	eP	P	08 44 07.5	+2.2
	comp=Z,3.8nm,0.9s,mb3.7						
KURK	Kurchatov	27.47	337	P	P	08 44 39.6	+0.6
	comp=Z,0.8nm,0.4s,mb3.6,baz=149,slow=9.2,SNR=7.8						
KURK				pP	pP	08 44 57.1	+1.8
	comp=Z,3.2nm,0.8s,baz=150,slow=10.0,SNR=9.4						
KURK	Kurchatov	27.47	337	eP	P	08 44 39.4	+0.4
	comp=Z,1.6nm,0.8s,mb3.6						
KURK				pP	pP	08 44 57.1	+1.8
ZALV	Zalesovo Beam	28.62	347	P	P	08 44 49.9	+0.7
	comp=Z,1.9nm,0.4s,mb4.1,baz=167,slow=7.3,SNR=12						
KSRS	Korea Array	29.59	60	P	P	08 44 53.9	-4.1
	comp=Z,0.4nm,0.5s,mb3.4,baz=252,slow=8.9,SNR=3.5						
BVAR	Borovoye Array	32.51	332	P	P	08 45 24.7	+1.3
	comp=Z,0.9nm,0.5s,mb3.9,baz=134,slow=9.7,SNR=6.7						
BVAR				ScP	ScP	08 51 45.7	-0.9
	comp=Z,0.6nm,0.7s,baz=186,slow=4.3,SNR=3.5						
AKTK	Aktyubinsk	37.28	320	P	P	08 46 05.8	+1.2
AKTO	Aktyubinsk	37.28	320	P	P	08 46 05.8	+1.2
	comp=Z,1.1nm,0.4s,mb4.2,baz=90,slow=5.3,SNR=8.2						
MJAR	Matsushiro Arr	37.63	64	P	P	08 46 04.1	-3.6
	comp=Z,0.7nm,0.5s,mb3.8,baz=275,slow=10,SNR=5.6						
MJAR				LR	LR	09 02 07.9	
	comp=Z,240nm,20.2s,baz=125,slow=37						
ASAJ	Asahikawa	41.79	52	P	P	08 46 40.7	-1.4
	comp=Z,1.2nm,0.4s,mb3.9,baz=259,slow=10,SNR=4.0						
BRTR	Keskin Array B	52.50	301	P	P	08 48 06.5	+1.0
	comp=Z,1.1nm,0.7s,mb4.0						
AKASG	Malin Array Be	55.14	315	P	P	08 48 24.1	-0.5
	comp=Z,0.8nm,0.4s,mb4.1,baz=89,slow=5.7,SNR=5.6						
ARCES	ARCESS Array B	58.51	337	P	P	08 48 48.8	+0.6
	comp=Z,1.4nm,0.7s,mb4.1,baz=72,slow=5.8,SNR=2.9						
WRA	Warramunga Arr	59.57	137	P	P	08 48 54.3	-1.9
	comp=Z,0.5nm,0.4s,mb3.9,baz=323,slow=7.3,SNR=7.3						
ASAR	Alice Springs	62.15	140	P	P	08 49 12.1	-1.5
	comp=Z,0.2nm,0.4s,mb3.5,baz=321,slow=6.6,SNR=5.7						
NB2	NORSAR Subarra	64.50	328	P	P	08 49 28.6	-0.1
	comp=Z,0.7nm,0.6s,mb3.7,baz=81,slow=6.5						
NOA	NORSAR Array B	64.50	328	P	P	08 49 28.5	-0.2
	comp=Z,1.0nm,0.7s,mb3.7,baz=81,slow=6.4,SNR=4.0						
GERES	GERESS Array B	65.32	314	P	P	08 49 35.1	+0.9
	comp=Z,0.7nm,0.6s,mb3.7,baz=70,slow=5.8,SNR=7.3						
GERES				pP	pP	08 49 53.0	+0.7
	comp=Z,0.7nm,0.7s,baz=68,slow=8.7,SNR=4.2						
GERES	GERESS Array B	65.32	314	P	P	08 49 35.1	+0.8
GERES				pP	pP	08 49 53.0	+0.7

IDC 10 08:42:27.9±47.0, **15°.54S**×**172°.76W, h0**^{km}**, mb4.1**/3, **mb1 4.3**/3, **mb1mx3.8**/18, **mbtmp4.1**/3, **Error ellipse: s-maj=904.7km s-min=183.2km az=79.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	44.51	240	P	P	08 50 41.7	+0.3
	0.6nm,0.3s,baz=95,slow=10,SNR=7.5						
WRA	Warramunga Arr	50.42	257	P	P	08 51 27.1	-0.5
	0.3nm,0.3s,baz=95,slow=7.2,SNR=5.6						
ASAR	Alice Springs	50.66	252	P	P	08 51 29.3	0.0
	5.9nm,0.5s,baz=88,slow=8.1,SNR=107						

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*NIED **10** 09:00:00, 36°.20N×141°.80E, h23^{km}, Mw4.1 Best double couple: $M_0$1.54000×10^{15} NP1:ϕ_s20.00000°, δ66.00000°,*

λ85.00000°. NP2:ϕ_s213.00000°,δ25.00000°,λ102.00000°.
*JMA **10** 09:00:09.3±0.3,36°.17N×141°.84E,h52^{km},M3.9*
*IDC **10** 09:00:11.4±0.8,36°.05N×141°.74E,h33^{km}±5^{km},mb3.8/16, mb1 4.0/18,mb1mx3.9/26,mbtmp3.8/18,ML4.0/2,MS3.8/3, Ms1 3.8/3,ms1mx3.0/37,Error ellipse: s-maj=17.4km s-min=15.7km az=83.0*
ISC 10 09:00:08.2±2.0,**36°.16N**±0°.04×**141°.83E**±0°.06,**h12**^{km}±12^{km}, **h35**^{km}±1.6^{km}**:pP-P,n40,**σ**0^s.89**/46,**mb4.0**/18,**MS4.2**/2,
Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOJ	**Chosi**	**0.91**	**240**	P	**Pb**	**09 00 26.1**	**+0.2**
CHOJ				S	**Sb**	**09 00 38.8**	**+0.8**
JHO	**Hitachi**	**1.11**	**294**	P	**Pb**	**09 00 28.3**	**-1.1**
JFK	**Kawauchi**	**1.43**	**328**	P	**Pn**	**09 00 33.2**	**-0.8**
JFK				S	**Sn**	**09 00 51.9**	**-0.8**
BSO1	**Boso 1**	**1.66**	**205**	P	**Pn**	**09 00 36.8**	**-0.2**
BSO1				S	**Sn**	**09 00 58.6**	**+0.4**
BSO3	**Boso 3**	**1.73**	**219**	P	**Pn**	**09 00 38.2**	**+0.1**
JFT	**Otama**	**1.81**	**319**	P	**Pn**	**09 00 39.6**	**+0.4**
JMM	**Marumori**	**1.90**	**334**	P	**Pn**	**09 00 40.2**	**-0.2**
JAG	**Ashikaga**	**1.94**	**279**	P	**Pn**	**09 00 40.5**	**-0.5**
JFY	**Yanaizu**	**2.11**	**307**	P	**Pn**	**09 00 43.8**	**+0.4**
JKT	**Katashina**	**2.17**	**287**	P	**Pn**	**09 00 44.5**	**+0.4**
JRY	**Ryogami san**	**2.38**	**267**	P	**Pn**	**09 00 46.6**	**-0.4**
JOD2	**Odawara 2**	**2.40**	**249**	P	**Pn**	**09 00 47.7**	**+0.4**
JNS	**Sasagawa**	**2.61**	**310**	P	**Pn**	**09 00 51.3**	**+1.2**
MJAR	**Matsushiro Arr**	**2.95**	**279**	Pn	**Pn**	**09 00 55.5**	**+0.7**
	16nm,0.3s,baz=295,slow=39,SNR=398						
MAT	**Matsushiro**	**2.95**	**279**	P	**Pn**	**09 00 55.6**	**+0.7**
MAT				*e*S	**Sn**	**09 01 29.6**	**-0.6**
JHJ	**Hachijo jima 2**	**3.47**	**210**	Pn	**Pn**	**09 01 01.8**	**-0.2**
	57nm,0.3s,baz=72,slow=22,SNR=7.1						
JHJ				Sn	**Sn**	**09 01 39.5**	**-3.5**
	130nm,0.3s,baz=214,slow=23,SNR=9.8						
ASAJ	**Asahikawa**	**7.97**	**4**	Pn	**Pn**	**09 02 01.8**	**-2.0**
	2.2nm,0.3s,baz=205,slow=10.0,SNR=18						
ASAJ				Sn	**Sn**	**09 03 30.0**	**-3.9**
	0.7nm,0.3s,baz=91,slow=31,SNR=3.3						
CBIJ	**Chichi jima**	**9.04**	**178**	Pn	**Pn**	**09 02 15.3**	**-3.2**
	15nm,0.3s,baz=296,slow=19,SNR=9.0						
CBIJ				Sn	**Sn**	**09 03 49.2**	**-11**
	4.5nm,0.3s,baz=297,slow=19,SNR=2.9						
KSRS	**Korea Array**	**11.23**	**281**	Pn	**Pn**	**09 02 51.9**	**+3.4**
	0.1nm,0.3s,baz=90,slow=13,SNR=9.2						
KSRS				LR	LR	09 06 51.0	
	comp=Z,119nm,19.2s,baz=358,slow=36						
SONM	**Songino Array**	**28.56**	**305**	P	**P**	**09 06 04.0**	**+0.3**
	3.9nm,0.8s,mb4.2,baz=104,slow=8.8,SNR=26						
ZALV	**Zalesovo Beam**	**42.76**	**313**	P	**P**	**09 08 05.4**	**+0.2**
	2.6nm,0.6s,mb4.2,baz=90,slow=7.6,SNR=15						
MKAR	**Makanchi Array**	**44.87**	**303**	P	**P**	**09 08 22.5**	**+0.2**
	1.8nm,0.6s,mb4.1,baz=82,slow=8.7,SNR=25						
MKAR				LR	LR	09 28 01.7	
	comp=Z,91nm,20.5s,MS3.7,baz=320,slow=37						
KURK	**Kurchatov**	**46.74**	**309**	P	**P**	**09 08 37.3**	**+0.3**
	4.2nm,0.5s,mb4.6,baz=83,slow=7.9,SNR=26						
BVAR	**Borovoye Array**	**51.41**	**313**	P	**P**	**09 09 12.8**	**0.0**
	1.2nm,0.6s,mb4.0,baz=64,slow=7.9,SNR=7.9						
WRA	**Warramunga Arr**	**56.24**	**188**	P	**P**	**09 09 47.5**	**-0.8**
	0.6nm,0.4s,mb3.9,baz=8.5,slow=7.2,SNR=9.3						
ASAR	**Alice Springs**	**59.97**	**188**	P	**P**	**09 10 13.4**	**-1.0**
	0.5nm,0.5s,mb3.8,baz=16,slow=12,SNR=10						
KEV	**Kevo**	**64.38**	**339**	*e*p	**P**	**09 10 34.3**	**-9.2**
YKA	**Yellowknife Ar**	**64.40**	**30**	P	**P**	**09 10 44.4**	**+0.7**
	0.4nm,0.7s,mb3.5,baz=301,slow=6.5,SNR=7.2						
YKA				pP	pP	09 10 54.1	+6.6
	0.6nm,0.7s,baz=300,slow=6.5,SNR=8.2						
ARCES	**ARCESS Array B**	**64.93**	**340**	P	**P**	**09 10 47.5**	**+0.4**
	8.5nm,1.1s,mb4.7,baz=45,slow=3.6,SNR=3.7						
JOF	**Joensuu**	**66.89**	**332**	*e*p	**P**	**09 10 58.5**	**-1.3**
	2.1nm,0.7s,mb4.3						
KAF	**Kangasniemi**	**69.24**	**333**	*e*p	**P**	**09 11 13.8**	**-0.8**
	2.3nm,0.5s,mb4.4						
NB2	**NORSAR Subarra**	**75.12**	**338**	P	**P**	**09 11 49.9**	**+0.1**
	comp=Z,0.8nm,0.6s,mb3.8,baz=41,slow=5.9						
NOA	**NORSAR Array B**	**75.12**	**338**	P	**P**	**09 11 50.2**	**+0.4**
	comp=Z,1.9nm,0.8s,mb4.1,baz=39,slow=5.7,SNR=5.5						
NOA				pP	pP	09 12 01.8	+8.1
	comp=Z,1.4nm,0.7s,baz=39,slow=5.7,SNR=4.2						
AKASG	**Malin Array Be**	**75.20**	**323**	P	**P**	**09 11 50.2**	**-0.2**
	comp=Z,1.9nm,0.6s,mb4.2,baz=45,slow=6.6,SNR=8.9						
NVAR	**Mina Array Bea**	**75.25**	**53**	P	**P**	**09 11 53.3**	**+2.4**
	comp=Z,0.2nm,0.5s,mb3.3,baz=302,slow=5.2,SNR=2.8						
PDAR	**Pinedale Array**	**78.04**	**46**	P	**P**	**09 12 07.8**	**+1.1**
	comp=Z,0.3nm,0.5s,mb3.5,baz=223,slow=1.2,SNR=6.1						
PDAR				pP	pP	09 12 17.8	+7.2
	comp=Z,0.5nm,0.5s,baz=296,slow=1.8,SNR=4.9						
BRTR	**Keskin Array B**	**79.69**	**312**	P	**P**	**09 12 15.8**	**+0.1**
	comp=Z,0.7nm,0.7s,mb3.7						
GERES	**GERESS Array B**	**83.63**	**328**	P	**P**	**09 12 36.5**	**+0.1**
	comp=Z,0.4nm,0.6s,mb3.7,baz=20,slow=4.3,SNR=4.5						
DAVOX	**Davos/Dischmat**	**86.85**	**329**	LR	LR	09 52 12.4	
	comp=Z,238nm,19.0s,MS4.6,baz=75,slow=36						
TXAR	**Lajitas Array**	**90.39**	**53**	P	**P**	**09 13 10.7**	**+1.1**
	comp=Z,0.3nm,0.7s,mb3.7,baz=316,slow=3.5,SNR=3.8						

IDC 10 09:21:04.7±55.0**,14°.69S**×**170°.45W,h0**^{km}**,mb4.2**/3**, mb1 4.4**/3**,mb1mx3.8**/18**,mbtmp4.2**/3**,Error ellipse: s-maj=1086.0km s-min=202.8km az=79.0,Samoa Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**46.86**	**240**	P	P	09 29 36.9	0.0
	1.1nm,0.4s,baz=99,slow=6.6,SNR=5.2						
WRA	**Warramunga Arr**	**52.78**	**256**	P	P	09 30 21.9	-0.1
	0.7nm,0.6s,baz=82,slow=7.1,SNR=19						
ASAR	**Alice Springs**	**53.04**	**251**	P	P	09 30 23.9	0.0
	5.1nm,0.5s,baz=88,slow=8.0,SNR=108						

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*CSEM **10** 09:30:31.7±0.3,50°.16N×19°.05E,h2^{km},ML2.6/4,Error ellipse: s-maj=8.2km s-min=3.0km az=2.0*
*NEIC **10** 09:30:31.4±1.1,50°.18N×19°.04E,h5^{km},MG2.5(WAR), Error ellipse: s-maj=18.3km s-min=6.8km az=2.0*
*IPEC **10** 09:30:32.1±0.1,50°.09N×19°.14E,h1^{km}±1^{km},ML2.0/3, Error ellipse: s-maj=1.4km s-min=0.7km az=166.0*
*PRU **10** 09:30:32.6,50°.14N×19°.04E,h0^{km}*
WAR 10 09:30:32.4,50°.10N×19°.17E,ML2.5,Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.42**	**73**	*e*Pg	Pg	09 30 40.5	0.0
OJC				*e*Sg	Sg	09 30 46.4	+0.5
OJC	**Ojcow**	**0.42**	**73**	*e*Pg	Pg	09 30 40.5	0.0
OJC				*e*Sg	Sg	09 30 46.5	+0.6
OJC	**Ojcow**	**0.42**	**73**	*e*Pg	Pg	09 30 40.5	0.0
	baz=254						
OJC				*e*Sg	Sg	09 30 46.5	+0.6
OKC	**Ostrava-Krasne**	**0.71**	**249**	*e*PG	Pg	09 30 44.8	-1.2
OKC				*e*SG	Sg	09 30 53.7	-1.5
	comp=Z,18nm,0.4s						
OKC	**Ostrava-Krasne**	**0.71**	**249**	Pg	Pg	09 30 44.8	-1.2
OKC				Sg	Sg	09 30 53.7	-1.5
	comp=Z,18nm,0.4s						
NIE	**Niedzica**	**1.00**	**132**	*e*Pg	Pg	09 30 51.5	-0.1
NIE				*e*Sg	Sg	09 31 07.8	+3.2
NIE	**Niedzica**	**1.00**	**132**	*e*Pg	Pg	09 30 51.5	-0.1
NIE				*e*Sg	Sg	09 31 07.8	+3.2
MORC	**Moravsky Berou**	**1.10**	**254**	*e*Pg	Pg	09 30 52.1	-1.3
MORC				*e*Sg	Sg	09 31 05.6	-2.1
MORC	**Moravsky Berou**	**1.10**	**254**	*e*Pg	Pg	09 30 52.1	-1.4
MORC				*e*Sg	Sg	09 31 05.6	-2.1
STHS	**Stebnicka Huta**	**1.50**	**116**	*e*PN	Pn	09 31 01.9	+1.3
STHS				*e*SN	Sn	09 31 22.6	+1.7
STHS	**Stebnicka Huta**	**1.50**	**116**	*e*Pn	Pn	09 31 01.9	+1.3
STHS				*e*Sn	Sn	09 31 22.6	+1.7
JAVC	**Velka Javorina**	**1.58**	**219**	*e*Pn	Pn	09 31 02.1	+0.5
	baz=37						
VYHS	**Vyhne**	**1.62**	**188**	*e*PN	Pn	09 31 00.9	-1.2
VYHS				*e*SN	Sn	09 31 22.5	-1.1
VYHS	**Vyhne**	**1.62**	**188**	*e*Pn	Pn	09 31 00.9	-1.2
	baz=7.0						
VYHS				*e*Sn	Sn	09 31 22.5	-1.1
DPC	**Dobruska-Polom**	**1.85**	**279**	*e*PG	Pn	09 31 04.0	-1.3
DPC				*e*SG	Sn	09 31 27.7	-1.7
	comp=Z,15nm,0.5s						
DPC	**Dobruska-Polom**	**1.85**	**279**	*e*Pn	Pn	09 31 03.8	-1.5
	baz=97						
DPC	**Dobruska-Polom**	**1.85**	**279**	Pg	Pn	09 31 04.0	-1.3
DPC				*e*Sg	Sn	09 31 28.3	-1.1
	baz=97						
VRAC	**Vranov**	**1.85**	**246**	*e*Pn	Pn	09 31 05.2	-0.1
	baz=64						
VRAC				*e*Sg	Sg	09 31 28.4	-3.4
	comp=Z,8.9nm,0.4s,baz=64						
CRVS	**Cervenica-Dubn**	**1.91**	**128**	*e*PN	Pn	09 31 07.6	+1.4
CRVS				*e*SN	Sn	09 31 33.9	+3.0
CRVS	**Cervenica-Dubn**	**1.91**	**128**	*e*Pn	Pn	09 31 07.6	+1.4
CRVS				*e*Sn	Sn	09 31 33.9	+3.0
KSP	**Ksiaz**	**1.99**	**293**	*e*Pn	Pn	09 31 11.0	+3.8
KSP				*e*Sn	Sn	09 31 34.6	+1.8
KSP				*e*Sg	Sg	09 31 37.0	+0.8
KRUC	**Moravsky**	**2.08**	**241**	*e*Pn	Pn	09 31 08.4	-0.1
	baz=59						
KRUC				*e*Sg	Sg	09 31 36.0	-3.3
	comp=Z,9.7nm,0.5s,baz=59						
MODS	**Modra-Piesok**	**2.12**	**217**	*e*SN	Sn	09 31 33.1	-3.0
MODS	**Modra-Piesok**	**2.12**	**217**	*e*Sn	Sn	09 31 33.1	-3.0
KOLS	**Kolonicke sedl**	**2.33**	**119**	*e*PG	Pg	09 31 18.8	+1.8
KOLS				*e*SN	Sn	09 31 42.4	+1.1
KOLS	**Kolonicke sedl**	**2.33**	**119**	*e*Pg	Pg	09 31 18.8	+1.8
KOLS				*e*Sn	Sn	09 31 42.4	+1.1
PRU	**Pruhonice**	**2.99**	**270**	*e*SG	Sg	09 32 03.3	-5.0
	comp=Z,3.8nm,0.4s						
PRU	**Pruhonice**	**2.99**	**270**	Sg	Sg	09 32 03.3	-5.0
	comp=Z,3.8nm,0.4s						
BRG	**Berggiesshubel**	**3.43**	**285**	SG	Sg	09 32 18.6	-3.9
	comp=Z,4.2nm,0.5s						
KHC	**Kasperske Hory**	**3.76**	**257**	*e*SG	Sg	09 32 29.6	-3.7
KHC	**Kasperske Hory**	**3.76**	**257**	Sg	Sg	09 32 29.6	-3.7
CLL	**Collm**	**4.11**	**290**	*e*Sg	Sg	09 32 43.0	-1.2

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*KRSC **10** 10:14:00.1±2.2,49°.39N×150°.80E,h514^{km}±53^{km},ML4.6*
*ISCJB **10** 10:14:04.6±0.6,50°.1N±0°.2×150°.3E±0°.3,h452^{km}±17^{km}, mb3.2/4,Error ellipse: s-maj=35.2km s-min=10.7km az=44.7*
*MOS **10** 10:14:04.6±1.1,50°.09N×150°.40E,h475^{km},mb4.7/3,Error ellipse: s-maj=33.4km s-min=14.0km az=50.7*
*IDC **10** 10:14:05.4±1.5,50°.17N×150°.13E,h444^{km}±23^{km},mb2.6/5, mb1 2.8/8,mb1mx2.7/25,mbtmp2.8/8,Error ellipse: s-maj=33.5km s-min=16.5km az=144.0*
ISC 10 10:14:05.8±0.6,**50°.0N**±0°.2×**150°.2E**±0°.3,**h455**^{km}±19^{km}, **n28,**σ**0^s.88**/33,**mb3.2**/4,**Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIPR	**Malaya Ipel'ka**	**4.67**	**59**	P	**P**	**10 15 28.2**	**+1.1**
PETK	**Petropavlovsk-**	**5.57**	**54**	PN	**P**	**10 15 34.7**	**-1.0**
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK	**Petropavlovsk-**	**5.57**	**54**	P	**P**	**10 15 34.7**	**-1.0**
	comp=Z,0.7nm,0.3s,baz=145,slow=5.1,SNR=11						
RUS	**Russkaya**	**5.72**	**62**	P	**P**	**10 15 36.1**	**-1.2**
RUS				*i* S	**S**	**10 16 47.4**	**-4.7**
GNL	**Ganaly**	**6.01**	**50**	*e*P	**P**	**10 15 39.3**	**-0.8**
PET	**Petropavlovsk**	**6.04**	**57**	*e*PN	**P**	**10 15 41.5**	**+1.1**
PET				pmax	pmax		
	comp=Z,14nm,0.5s						
PET	**Petropavlovsk**	**6.04**	**57**	P	**P**	**10 15 40.6**	**+0.2**
PET				*i* S	**S**	**10 16 53.8**	**-4.2**
AVH	**Avacha**	**6.19**	**55**	P	**P**	**10 15 42.3**	**+0.3**
NLC	**Nalytchevo**	**6.48**	**58**	P	**P**	**10 15 44.1**	**-0.9**
NLC				*i* S	**S**	**10 17 00.0**	**-6.2**
ASAJ	**Asahikawa**	**7.89**	**224**	PN	**P**	**10 16 00.4**	**+0.3**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	**7.89**	**224**	P	**P**	**10 16 00.4**	**+0.3**
	comp=Z,2.0nm,0.3s,baz=71,slow=8.3,SNR=22						
MKZ	**Mys Kozlova**	**8.37**	**53**	*e*P	**P**	**10 16 03.6**	**-1.3**
MKZ				*i* S	**S**	**10 17 34.3**	**-8.6**
KPT	**Kopyto**	**8.45**	**42**	P	**P**	**10 16 05.9**	**+0.1**
SRDR	**Sredinnyy**	**8.47**	**38**	P	**P**	**10 16 06.9**	**+0.8**
ZLN	**Zelenaya**	**8.73**	**43**	*e*P	**P**	**10 16 10.4**	**+1.5**
KRSR	**Krestovskiy**	**8.76**	**41**	P	**P**	**10 16 09.8**	**+0.7**
SRKR	**Sorokina**	**9.30**	**40**	P	**P**	**10 16 16.6**	**+1.6**
KBTR	**Krutoberegovo**	**9.75**	**46**	*i* P	**P**	**10 16 19.7**	**-0.2**
KBTR				*e*S	**S**	**10 18 02.3**	**-8.1**
MJAR	**Matsushiro Arr**	**16.06**	**217**	P	**P**	**10 17 27.8**	**-0.2**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	**16.06**	**217**	P	**P**	**10 17 27.8**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=19,slow=10,SNR=10						
KSRS	**Korea Array**	**20.36**	**240**	P	**P**	**10 18 10.9**	**+0.9**
KSRS				pmax	pmax		
	comp=Z,10.0nm,0.6s						
KSRS	**Korea Array**	**20.36**	**240**	P	**P**	**10 18 10.9**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=37,slow=10,SNR=3.7						
SONM	**Songino Array**	**28.58**	**283**	P	**P**	**10 19 22.8**	**-0.4**
	comp=Z,0.2nm,0.4s,mb2.9,baz=85,slow=9.3,SNR=3.3						
ZALV	**Zalesovo Beam**	**39.19**	**302**	P	**P**	**10 20 51.8**	**-0.9**
ZALV						10 22 50.9	
ZALV				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb4.6						
ZALV	**Zalesovo Beam**	**39.19**	**302**	P	**P**	**10 20 51.8**	**-1.0**
	comp=Z,0.9nm,0.4s,mb3.6,baz=53,slow=6.3,SNR=5.2						
ZALV				PcP	PcP	10 22 50.9	+0.1
	comp=Z,0.6nm,0.3s,baz=116,slow=2.8,SNR=4.2						
MKAR	**Makanchi Array**	**43.81**	**293**	P	**P**	**10 21 29.2**	**-0.4**
MKAR						10 23 06.2	
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MKAR	**Makanchi Array**	**43.81**	**293**	P	**P**	**10 21 29.2**	**-0.4**
	comp=Z,0.7nm,0.6s,mb3.2,baz=67,slow=7.9,SNR=11						
MKAR				PcP	PcP	10 23 06.2	-0.2
	comp=Z,0.2nm,0.3s,baz=68,slow=5.3,SNR=6.5						
YKA	**Yellowknife Ar**	**49.45**	**37**	P	**P**	**10 22 12.4**	**+0.1**
	comp=Z,0.1nm,0.4s,mb2.5,baz=303,slow=6.9,SNR=4.1						

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*ISCJB **10** 10:28:54.7±0.2,20°.12S±0°.02×68°.73W±0°.05,h124^{km}, mb4.3/30,Error ellipse: s-maj=6.1km s-min=3.4km az=2.6*
*GUC **10** 10:28:55.4±0.5,20°.14S×68°.96W,h124^{km}±4^{km},ML4.7*
*IDC **10** 10:28:55.9±0.5,20°.09S×68°.62W,h124^{km}±4^{km},mb4.1/13, mb1 4.2/16,mb1mx4.1/24,mbtmp4.1/16,MS2.8/1, Ms1 2.8/1,ms1mx2.5/20,Error ellipse: s-maj=15.9km s-min=8.6km az=90.0*
*NEIC **10** 10:28:56.1±0.3,20°.03S×68°.50W,mb4.3/17,Error ellipse: s-maj=10.9km s-min=7.0km az=72.0*
ISC 10 10:28:56.4±0.2,**20°.18S**±0°.03×**68°.69W**±0°.05,**h126**^{km}**, h126**^{km}±1.9^{km}**:pP-P,n231,**σ**0^s.83**/230,**mb4.3**/30,**66C-82D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HMBC	**Humberston**	**1.13**	**265**	⇑*i*P	**Pn**	**10 29 17.3**	**-2.9**
HMBC				*i* S	**Sn**	**10 29 33.8**	**-4.5**
HMBC				AML	AML	10 29 36.1	
	comp=E,24µm,0.5s						
PB01	**Plate Boundary**	**1.14**	**221**	⇑*i*P	**Pn**	**10 29 19.0**	**-1.3**
PB01				*e*S	**Sn**	**10 29 36.2**	**-2.2**
PB01				AML	AML	10 29 38.7	
	comp=N,22µm,0.2s						
MNMC	**Miæe Miæ**	**1.35**	**321**	⇓*i*P	**Pn**	**10 29 20.2**	**-2.4**
MNMC				*i* S	**Sn**	**10 29 39.2**	**-3.3**
MNMC				AML	AML	10 29 39.7	
	comp=N,29µm,0.2s						
PSGC	**Pisagua**	**1.47**	**293**	⇑*i*P	**Pn**	**10 29 20.6**	**-3.3**
PSGC				*e*S	**Sn**	**10 29 39.2**	**-5.6**
PSGC				AML	AML	10 29 40.6	
	comp=E,10µm,0.2s						
PB04	**Plate Boundary**	**2.20**	**200**	⇑*e*P	**Pn**	**10 29 34.8**	**+2.2**
PB04				*i* S	**Sn**	**10 30 05.2**	**+4.7**
PB04				AML	AML	10 30 20.5	
	comp=N,3µm,0.6s						
MACH	**Maria Elena**	**2.24**	**206**	⇓*i*P	**Pn**	**10 29 32.4**	**-0.7**
MACH				*i* S	**Sn**	**10 30 00.8**	**-0.5**
TOCH	**Tocopilla**	**2.37**	**216**	*e*P	**Pn**	**10 29 33.4**	**-1.4**
TOCH				*i* S	**Sn**	**10 30 01.6**	**-2.6**
TOCH				AML	AML	10 30 03.4	
	comp=N,4µm,0.5s						
LVC	**Limon Verde**	**2.43**	**185**	P	**Pn**	**10 29 36.5**	**+1.0**
	comp=N,103nm,0.3s,baz=20,slow=11,SNR=974						
LVC				S	**Sn**	**10 30 07.3**	**+1.7**
	comp=N,230nm,0.3s,baz=258,slow=20,SNR=10						
LVC	**Limon Verde**	**2.43**	**185**	*e*Pn	**Pn**	**10 29 36.5**	**+1.0**
LVC				*e*S	**Sn**	**10 30 06.6**	**+1.0**
LVC	**Limon Verde**	**2.43**	**185**	⇑*i*P	**Pn**	**10 29 36.5**	**+1.0**
LVC				*i* S	**Sn**	**10 30 07.6**	**+2.1**
LVC				AML	AML	10 30 13.3	
	comp=N,1µm,0.2s						
PECH	**Pedro de Valdi**	**2.57**	**201**	*e*P	**Pn**	**10 29 36.4**	**-0.9**
PECH				*e*S	**Sn**	**10 30 08.1**	**-0.8**
PECH				AML	AML	10 30 13.9	
	comp=N,4µm,0.7s						
MECH	**Mejillones**	**3.34**	**209**	*e*P	**Pn**	**10 29 46.4**	**-0.9**
MECH				AML	AML	10 30 48.2	
	comp=N,1µm,1.1s						
ARE	**Arequipa**	**4.56**	**324**	P	**Pn**	**10 30 00.0**	**-3.6**
ARE				*e*S	**Sn**	**10 30 51.0**	**-4.8**
SIV	**San Ignacio**	**8.35**	**61**	P	**Pn**	**10 30 51.8**	**-3.0**
	comp=N,28nm,0.3s,baz=262,slow=10.0,SNR=614						
LCO	**Las Campanas**	**8.98**	**191**	*e*Pn	**Pn**	**10 30 58.4**	**-4.7**
LCO				*e*Sn	**Sn**	**10 32 36.9**	**-5.5**
CFAA	**Coronel Fontan**	**11.38**	**178**	P	**Pn**	**10 31 31.4**	**-3.8**
	comp=N,0.2nm,0.3s,baz=7.5,slow=12,SNR=21						
CFAA				S	**Sn**	**10 33 29.8**	**-11**
	comp=N,0.1nm,0.3s,baz=262,slow=20,SNR=5.4						
CFAA	**Coronel Fontan**	**11.38**	**178**	P	**Pn**	**10 31 31.4**	**-3.8**
CFAA				S	**Sn**	**10 33 29.8**	**-11**
CPUP	**Villa Florida**	**12.10**	**123**	P	**Pn**	**10 31 44.3**	**-0.3**
	comp=N,1.0nm,0.3s,baz=286,slow=12,SNR=22						
CPUP				LR	LR	10 37 05.6	
	comp=N,46nm,18.9s,baz=301,slow=40						
PLCA	**Paso Flores**	**20.55**	**184**	P	**P**	**10 33 26.4**	**+1.5**
	comp=N,18nm,0.8s,baz=358,slow=11,SNR=16						
PLCA				ScP	ScP	10 41 03.0	+6.9
	comp=N,3.1nm,0.8s,baz=326,slow=7.3,SNR=3.3						
OTAV	**Otavalo**	**22.44**	**334**	*e*P	**P**	**10 33 47.6**	**+2.4**
	comp=N,12nm,1.2s,mb4.1						
SDV	**Santo Domingo**	**28.95**	**356**	P	**P**	**10 34 41.2**	**-2.8**
	comp=N,3.3nm,0.3s,mb4.4,baz=220,slow=11,SNR=4.7						
SDV	**Santo Domingo**	**28.95**	**356**	*e*P	**P**	**10 34 41.5**	**-2.6**
	comp=N,3.2nm,0.5s,mb4.2						
PCRV	**Puerto La Cruz**	**30.43**	**8**	P	**P**	**10 34 56.0**	**-1.1**
	comp=N,6.0nm,0.6s,mb4.4,baz=338,slow=10,SNR=5.0						
EFI	**East Falkland**	**32.51**	**168**	*e*P	**P**	**10 35 15.6**	**+0.6**
	comp=N,20nm,0.5s,mb5.2						
RCBR	**Riachuelo**	**34.89**	**70**	*e*P	**P**	**10 35 33.2**	**-2.9**
	comp=N,13nm,0.9s,mb4.8						
OBIP	**Obispado Ponce**	**38.04**	**3**	*e*P	**P**	**10 36 00.4**	**-2.3**
	comp=N,30nm,0.7s,mb5.2						
CELP	**Cerrillos**	**38.08**	**3**	*e*P	**P**	**10 36 01.2**	**-1.8**
TEIG	**Tepich**	**44.51**	**333**	P	**P**	**10 36 53.8**	**-1.7**
	comp=N,2.2nm,0.4s,mb4.3,baz=234,slow=21,SNR=3.8						
TEIG	**Tepich**	**44.51**	**333**	P	**P**	**10 36 53.8**	**-1.7**
SWET	**Sewanee**	**57.48**	**343**	*e*P	**P**	**10 38 30.4**	**-1.9**
SWET				*e*pP	pP	10 39 00.1	-2.1
TXAR	**Lajitas Array**	**59.68**	**325**	P	**P**	**10 38 46.6**	**-1.0**
	comp=N,0.7nm,0.8s,mb3.7,baz=151,slow=9.0,SNR=6.9						
SIUC	**Southern Illin**	**60.74**	**341**	*e*P	**P**	**10 38 52.8**	**-2.0**
	comp=N,3.7nm,0.6s,mb4.6						
VNA3	**Neumayer Olymp**	**61.25**	**162**	*e*P	**P**	**10 39 00.0**	**+2.2**
WMOK	**Wichita Mounta**	**61.66**	**332**	*e*P	**P**	**10 38 59.9**	**-1.1**
	comp=N,0.8nm,0.5s,mb4.0						
VNA2	**Neumayer--Watz**	**61.82**	**161**	*e*P	**P**	**10 39 03.1**	**+1.5**
	baz=312,slow=10						
219A	**White Tail Can**	**64.83**	**322**	⇓P	**P**	**10 39 21.2**	**-0.8**
	baz=65						
318A	**Bisbee**	**64.84**	**321**	⇓P	**P**	**10 39 21.7**	**-0.4**
	baz=65						
ANMO	**Albuquerque**	**65.52**	**326**	*e*P	**P**	**10 39 25.8**	**-0.6**
	comp=N,0.8nm,0.6s,mb3.7						
117A	**Oracle**	**66.10**	**322**	⇑P	**P**	**10 39 29.9**	**-0.2**
	baz=66						
216A	**Three Points,**	**66.11**	**321**	⇑P	**P**	**10 39 30.6**	**+0.4**
	baz=66						
Y19A	**Nutrioso**	**66.27**	**324**	P	**P**	**10 39 32.1**	**+0.9**
	baz=67,SNR=5.3						
W20A	**Ramah**	**66.73**	**325**	⇓P	**P**	**10 39 33.9**	**-0.2**
	baz=67						
Y17A	**Roosevelt**	**66.97**	**323**	⇓P	**P**	**10 39 35.6**	**0.0**
	baz=67						
SDCO	**Great Sand Dun**	**67.23**	**329**	*e*P	**P**	**10 39 36.9**	**-0.3**
	comp=N,1.4nm,0.4s,mb4.1						
SDCO				*e*pP	pP	10 40 06.4	-1.5
V19A	**Window Rock**	**67.47**	**325**	⇑P	**P**	**10 39 38.8**	**+0.1**
	baz=68						
LIC	**Lamto**	**67.82**	**74**	*e*P	**P**	**10 39 40.0**	**-1.5**
	comp=N,14nm,0.6s,mb5.0						
X16A	**Lo Mia Camp, P**	**67.84**	**323**	⇑P	**P**	**10 39 41.8**	**+0.7**
	baz=68						
TIC	**Toumodi**	**68.00**	**74**	*e*P	**P**	**10 39 41.3**	**-1.3**
	comp=N,32nm,1.0s,mb5.1						
Y15A	**Casa Rosa Ranc**	**68.02**	**322**	⇑P	**P**	**10 39 42.7**	**+0.5**
	baz=68						
KIC	**Kosan Boka**	**68.14**	**74**	*e*P	**P**	**10 39 42.3**	**-1.2**
	comp=N,56nm,0.6s						
DBIC	**Dimbokro**	**68.16**	**74**	P	**P**	**10 39 42.6**	**-1.0**
	comp=N,12nm,0.6s,mb4.9,baz=226,slow=6.5,SNR=32						
T19A	**Beclabito**	**68.30**	**326**	⇓P	**P**	**10 39 44.4**	**+0.5**
	baz=69						
MVCO	**Mesa Verde**	**68.31**	**327**	⇑P	**P**	**10 39 44.3**	**+0.3**
	baz=69						
X15A	**Humboldt**	**68.34**	**322**	⇑P	**P**	**10 39 44.7**	**+0.5**
	baz=69						
WUAZ	**Wupatki**	**68.60**	**324**	⇓P	**P**	**10 39 46.6**	**+0.8**
	baz=69						
Q22A	**Crested Butte,**	**68.79**	**329**	⇑P	**P**	**10 39 47.3**	**+0.4**
	baz=69						
T18A	**Mexican Hat**	**68.98**	**326**	P	**P**	**10 39 48.1**	**0.0**
	baz=69,SNR=5.7						
R20A	**Redvale**	**69.00**	**327**	⇓P	**P**	**10 39 48.5**	**+0.2**
	baz=69						
U17A	**Shonto**	**69.00**	**325**	⇑P	**P**	**10 39 49.0**	**+0.7**
	baz=69						
S19A	**Harvey Farm, M**	**69.05**	**327**	⇑P	**P**	**10 39 48.9**	**+0.3**
	baz=69						
PV01	**Paradox Valley**	**69.05**	**327**	*e*P	**P**	**10 39 48.8**	**+0.2**
X13A	**Yucca**	**69.34**	**321**	⇑P	**P**	**10 39 50.8**	**+0.4**
	baz=70						
T17A	**Navajo Res., N**	**69.37**	**325**	⇓P	**P**	**10 39 50.7**	**+0.1**
	baz=70						
S18A	**Hurst Farm, Bl**	**69.45**	**326**	⇑P	**P**	**10 39 51.3**	**+0.2**
	baz=70						
R19A	**Curley Farm, L**	**69.53**	**327**	⇑P	**P**	**10 39 51.6**	**+0.1**
	baz=70						
P21A	**Newcastle**	**69.57**	**329**	⇑P	**P**	**10 39 51.5**	**-0.2**
	baz=70						
V14A	**Boquillas Ranc**	**69.66**	**323**	⇓P	**P**	**10 39 52.6**	**+0.2**
	baz=70,SNR=5.3						
BC3	**Big Chuckw Mtn**	**69.67**	**320**	⇓P	**P**	**10 39 52.1**	**-0.3**
	baz=70						
IRM	**Iron Mountain**	**69.83**	**320**	⇑P	**P**	**10 39 52.9**	**-0.5**
	baz=70						
R18A	**Canyonlands Na**	**69.92**	**327**	⇓P	**P**	**10 39 53.5**	**-0.5**
	baz=70						
QSPA	**South Pole Qui**	**70.00**	**180**	*e*P	**P**	**10 39 56.1**	**+2.3**
	comp=N,14nm,1.1s,mb4.7						
QSPA				*e*pP	pP	10 40 27.4	+2.5
Q19A	**Hogan Spring (**	**70.03**	**327**	⇓P	**P**	**10 39 54.5**	**0.0**
	baz=70						
N22A	**Wattenberg Ran**	**70.10**	**330**	⇓P	**P**	**10 39 55.0**	**+0.1**
	baz=70						
T15A	**Red Dirt Ranch**	**70.25**	**324**	⇓P	**P**	**10 39 56.6**	**+0.6**
	baz=70						
PFO	**Pinyon Flat Ob**	**70.25**	**319**	⇑P	**P**	**10 39 55.6**	**-0.4**
	baz=70						
PFO	**Pinyon Flat Ob**	**70.25**	**319**	*e*P	**P**	**10 39 55.2**	**-0.8**
	comp=N,4.4nm,1.1s,mb4.2						
U14A	**Mt Trumbull**	**70.26**	**323**	⇑P	**P**	**10 39 56.1**	**0.0**
	baz=70,SNR=6.7						
V13A	**Grand Canyon W**	**70.32**	**322**	⇓P	**P**	**10 39 56.8**	**+0.4**
	baz=71						
S16A	**Weppner Ranch,**	**70.33**	**325**	⇑P	**P**	**10 39 56.4**	**0.0**
	baz=71						
R17A	**Hanksville Air**	**70.37**	**326**	⇓P	**P**	**10 39 56.8**	**+0.1**
	baz=71,SNR=7.9						
P19A	**Cripple Cowboy**	**70.41**	**328**	⇓P	**P**	**10 39 56.9**	**+0.1**
	baz=71,SNR=10						
O20A	**White River Ci**	**70.43**	**329**	⇓P	**P**	**10 39 57.4**	**+0.4**
	baz=71						
GMRC	**Granite Mounta**	**70.56**	**320**	⇑P	**P**	**10 39 58.4**	**+0.5**
	baz=71						
V12A	**Nelson**	**70.73**	**322**	⇑P	**P**	**10 39 58.7**	**-0.2**
	baz=71						
SRU	**San Rafael**	**70.79**	**327**	⇓P	**P**	**10 39 58.1**	**-1.1**
	baz=71,SNR=6.7						
SRU	**San Rafael**	**70.79**	**327**	*e*P	**P**	**10 39 59.0**	**-0.3**
	comp=N,4.7nm,0.7s,mb4.4						
N20A	**Spence Gulch,**	**70.98**	**329**	⇓P	**P**	**10 40 00.5**	**+0.2**
	baz=71						
O19A	**Miners Draw (B**	**70.98**	**328**	⇑P	**P**	**10 40 00.1**	**-0.2**
	baz=71						
Q16A	**Castle Valley**	**70.99**	**326**	⇓P	**P**	**10 40 00.6**	**+0.2**
	baz=71						
P18A	**Preston Nutter**	**71.04**	**327**	P	**P**	**10 40 01.7**	**+1.0**
	baz=71,SNR=5.8						

T13A	**Saint George**	**71.10**	**323**	⇓P	**P**	**10 40 01.6**	**+0.5**
	baz=71						
P17A	**Butcher Ranch,**	**71.17**	**327**	⇓P	**P**	**10 40 01.8**	**+0.3**
	baz=72						
L21A	**Rawlins**	**71.44**	**331**	⇓P	**P**	**10 40 02.8**	**-0.2**
	baz=72						
N19A	**John Jarvie Ra**	**71.47**	**329**	⇑P	**P**	**10 40 02.6**	**-0.6**
	baz=72						
S13A	**Holt Ranch, En**	**71.47**	**324**	⇓P	**P**	**10 40 04.2**	**+0.9**
	baz=72,SNR=7.5						
Q15A	**Fillmore**	**71.68**	**325**	⇑P	**P**	**10 40 05.5**	**+0.9**
	baz=72						
RSSD	**Black Hills**	**71.71**	**334**	*e*P	**P**	**10 40 04.5**	**-0.1**
	comp=N,3.0nm,0.8s,mb4.2						
O17A	**Robinson Place**	**71.71**	**327**	⇓P	**P**	**10 40 05.3**	**+0.6**
	baz=72,SNR=6.1						
L20A	**Wamsutter**	**71.92**	**330**	⇑P	**P**	**10 40 05.6**	**-0.3**
	baz=72						
R13A	**O'Grain Ranch,**	**71.96**	**324**	⇑P	**P**	**10 40 07.1**	**+0.9**
	baz=72						
T11A	**Corn Creek, Al**	**72.00**	**322**	⇓P	**P**	**10 40 07.2**	**+0.7**
	baz=72						
O16A	**Springville**	**72.11**	**327**	⇑P	**P**	**10 40 07.8**	**+0.7**
	baz=72						
Q14A	**Sevier Lake (B**	**72.16**	**325**	⇑P	**P**	**10 40 08.5**	**+1.1**
	baz=72						
N17A	**Moffit Pass**	**72.32**	**328**	⇓P	**P**	**10 40 09.1**	**+0.8**
	baz=73,SNR=7.8						
FURC	**Furnace Creek,**	**72.42**	**321**	⇓P	**P**	**10 40 09.2**	**+0.2**
	baz=73						
K20A	**Yellowstone Ra**	**72.43**	**330**	⇑P	**P**	**10 40 08.5**	**-0.4**
	baz=73						
P14A	**Drum Mountains**	**72.48**	**325**	P	**P**	**10 40 10.5**	**+1.2**
	baz=73,SNR=6.1						
Q13A	**Wheeler Ranch,**	**72.54**	**324**	⇓P	**P**	**10 40 10.1**	**+0.5**
	baz=73						
M17A	**Scullys Gap (B**	**72.64**	**328**	⇑P	**P**	**10 40 10.0**	**-0.2**
	baz=73						
L18A	**Fontenelle, Gr**	**72.67**	**329**	⇑P	**P**	**10 40 10.1**	**-0.3**
	baz=73,SNR=5.8						
DUG	**Dugway**	**72.78**	**326**	*e*P	**P**	**10 40 11.4**	**+0.4**
	comp=N,0.6nm,0.6s,mb3.6						
ISA	**Isabella**	**72.86**	**319**	*e*P	**P**	**10 40 12.2**	**+0.6**
	comp=N,2.1nm,0.7s,mb4.1						
P13A	**Bates Ranch, G**	**72.89**	**325**	⇓P	**P**	**10 40 12.5**	**+0.8**
	baz=73						
PDAR	**Pinedale Array**	**73.08**	**330**	P	**P**	**10 40 12.4**	**-0.4**
	comp=N,0.7nm,0.6s,mb3.7,baz=126,slow=8.2,SNR=8.3						
K18A	**Toltan Ranch,**	**73.21**	**329**	⇓P	**P**	**10 40 13.9**	**+0.4**
	baz=74						
S10A	**Tonopah Range,**	**73.26**	**322**	⇓P	**P**	**10 40 14.7**	**+0.8**
	baz=74						
Q11A	**Duckwater**	**73.36**	**323**	⇑P	**P**	**10 40 15.4**	**+0.9**
	baz=74						
P12A	**McGill**	**73.39**	**324**	⇓P	**P**	**10 40 15.5**	**+0.8**
	baz=74						
L16A	**Fish Haven**	**73.42**	**328**	⇓P	**P**	**10 40 14.1**	**-0.6**
	baz=74						
N14A	**Grayback Hills**	**73.46**	**326**	⇓P	**P**	**10 40 14.3**	**-0.7**
	baz=74						
M15A	**Larsen Ranch,**	**73.52**	**327**	P	**P**	**10 40 15.7**	**+0.2**
	baz=74,SNR=6.6						
J18A	**Kendall Valley**	**73.64**	**330**	P	**P**	**10 40 16.0**	**0.0**
	baz=74,SNR=6.6						
K17A	**Gardner Place,**	**73.72**	**329**	⇓P	**P**	**10 40 16.1**	**-0.4**
	baz=74						
Q10A	**Clear Creek Ra**	**73.77**	**323**	⇓P	**P**	**10 40 16.9**	**0.0**
	baz=74						
O12A	**Currie**	**73.86**	**325**	⇑P	**P**	**10 40 17.6**	**+0.2**
	baz=74						
L15A	**Malad City**	**73.89**	**328**	⇓P	**P**	**10 40 17.2**	**-0.3**
	baz=74,SNR=7.0						
I18A	**Diamond G Ranc**	**73.92**	**330**	⇓P	**P**	**10 40 17.9**	**+0.2**
	baz=74						
M14A	**Sheep Mountain**	**74.01**	**327**	⇓P	**P**	**10 40 18.5**	**+0.3**
	baz=74						
K16A	**Soda Springs**	**74.11**	**329**	⇓P	**P**	**10 40 19.1**	**+0.3**
	baz=74						
ULM	**Lac du Bonnet**	**74.13**	**342**	P	**P**	**10 40 17.0**	**-1.7**
	comp=N,2.0nm,0.6s,mb4.0,baz=145,slow=4.5,SNR=4.6						
NVAR	**Mina Array Bea**	**74.59**	**322**	P	**P**	**10 40 22.4**	**+0.7**
	comp=N,1.3nm,0.8s,mb3.7,baz=153,slow=6.2,SNR=9.7						
L13A	**Double Diamond**	**74.75**	**327**	⇑P	**P**	**10 40 21.6**	**-0.9**
	baz=75,SNR=5.3						
RLMT	**Red Lodge**	**74.76**	**331**	*e*P	**P**	**10 40 22.8**	**+0.3**
	comp=N,80nm,2.8s,mb5.0						
H17A	**Grant Village**	**74.80**	**330**	⇑P	**P**	**10 40 23.1**	**+0.4**
	baz=75						
J15A	**Blackfoot**	**74.94**	**329**	⇑P	**P**	**10 40 23.8**	**+0.2**
	baz=75						
G18A	**Lazy EL Ranch,**	**75.04**	**331**	P	**P**	**10 40 24.7**	**+0.5**
	baz=75,SNR=5.1						
K13A	**Stover Farm, H**	**75.22**	**327**	⇑P	**P**	**10 40 25.7**	**+0.5**
	baz=76						
L12A	**House Creek Ra**	**75.34**	**326**	⇑P	**P**	**10 40 25.8**	**-0.1**
	baz=76						
H16A	**Russell Place,**	**75.35**	**330**	⇓P	**P**	**10 40 26.3**	**+0.4**
	baz=76						
I15A	**Monteview**	**75.41**	**329**	⇓P	**P**	**10 40 26.5**	**+0.2**
	baz=76						
F18A	**Big Timber**	**75.57**	**332**	⇓P	**P**	**10 40 27.0**	**-0.1**
	baz=76,SNR=6.2						
K12A	**Draper Farm, C**	**75.63**	**327**	⇑P	**P**	**10 40 28.0**	**+0.4**
	baz=76,SNR=8.2						
J13A	**Cove Ranch, Pi**	**75.81**	**328**	⇑P	**P**	**10 40 29.0**	**+0.4**
	baz=76						
I14A	**Mackay**	**75.83**	**328**	⇓P	**P**	**10 40 29.2**	**+0.5**
	baz=76,SNR=8.2						
F17A	**Fitzpatrick Pl**	**75.99**	**331**	⇓P	**P**	**10 40 30.0**	**+0.4**
	baz=76						
HLID	**Hailey**	**76.05**	**328**	⇓P	**P**	**10 40 30.9**	**+1.0**
	baz=76,SNR=8.6						
HLID	**Hailey**	**76.05**	**328**	*e*P	**P**	**10 40 30.4**	**+0.5**
	comp=N,4.2nm,0.9s,mb4.2						
L10A	**Juniper Basin**	**76.06**	**325**	⇓P	**P**	**10 40 30.7**	**+0.7**
	baz=76,SNR=5.4						
I13A	**Wildhorse Cree**	**76.15**	**328**	⇓P	**P**	**10 40 31.3**	**+0.8**
	baz=76,SNR=6.2						
E18A	**Harlowton**	**76.16**	**332**	⇓P	**P**	**10 40 30.8**	**+0.3**
	baz=76						
G15A	**Dillon**	**76.28**	**330**	⇑P	**P**	**10 40 31.9**	**+0.7**
	baz=76						
E17A	**Martinsdale**	**76.50**	**331**	⇓P	**P**	**10 40 32.6**	**+0.2**
	baz=77,SNR=5.8						
D18A	**Linhart Farms,**	**76.60**	**333**	⇓P	**P**	**10 40 32.9**	**0.0**
	baz=77						
MFID	**Camas Ranch**	**76.66**	**327**	⇓P	**P**	**10 40 33.5**	**+0.1**
	baz=77						
H13A	**Challis**	**76.69**	**328**	⇓P	**P**	**10 40 33.4**	**-0.1**
	baz=77,SNR=9.1						
TORD	**Torodi Ar. Bea**	**76.72**	**71**	P	**P**	**10 40 33.5**	**-0.8**
	comp=N,4.5nm,0.4s,mb4.5,baz=254,slow=5.3,SNR=110						
TORD				pP	pP	10 41 03.6	-2.2
	comp=N,3.6nm,0.7s,baz=256,slow=5.5,SNR=2.9						
K10A	**MacKenzie Ranc**	**76.76**	**326**	⇓P	**P**	**10 40 33.2**	**-0.7**
	baz=77						
F15A	**Butte**	**76.78**	**330**	⇑P	**P**	**10 40 33.4**	**-0.6**
	baz=77						
E16A	**East Helena**	**76.93**	**331**	⇓P	**P**	**10 40 34.6**	**-0.2**
	baz=77						
D17A	**Six Diamond Ra**	**76.95**	**332**	P	**P**	**10 40 35.2**	**+0.3**
	baz=77,SNR=5.4						
H12A	**Diamond D Ranc**	**76.98**	**328**	⇓P	**P**	**10 40 35.4**	**+0.3**
	baz=77,SNR=5.1						
N06A	**Buffalo Meadow**	**77.02**	**323**	⇑P	**P**	**10 40 35.7**	**+0.2**
	baz=77						
G13A	**Cobalt**	**77.06**	**329**	⇓P	**P**	**10 40 36.0**	**+0.4**
	baz=77,SNR=15						
M07A	**Soldier Meadow**	**77.07**	**323**	⇑P	**P**	**10 40 35.9**	**+0.2**
	baz=77						
K09A	**Rome**	**77.16**	**325**	⇑P	**P**	**10 40 36.5**	**+0.3**
	baz=77						
D16A	**Dana Ranch, Ca**	**77.24**	**332**	P	**P**	**10 40 37.3**	**+0.8**
	baz=78,SNR=8.9						
E15A	**Deer Lodge**	**77.29**	**331**	⇓P	**P**	**10 40 37.2**	**+0.4**
	baz=78						
C17A	**Wharram Farm,**	**77.35**	**332**	⇑P	**P**	**10 40 36.6**	**-0.5**
	baz=78						
B18A	**Beardsley Farm**	**77.52**	**333**	⇓P	**P**	**10 40 37.5**	**-0.5**
	baz=78						
L07A	**Adell**	**77.58**	**324**	⇓P	**P**	**10 40 39.5**	**+0.9**
	baz=78						
F13A	**Darby**	**77.62**	**329**	⇑P	**P**	**10 40 39.2**	**+0.6**
	baz=78,SNR=15						
H11A	**Donnelly**	**77.67**	**328**	⇑P	**P**	**10 40 39.0**	**+0.1**
	baz=78						
E14A	**Clinton**	**77.68**	**330**	⇓P	**P**	**10 40 39.3**	**+0.3**
	baz=78						
D15A	**Lincoln**	**77.69**	**331**	⇑P	**P**	**10 40 39.2**	**+0.2**
	baz=78						
H10A	**Noah's Angus R**	**77.96**	**327**	⇓P	**P**	**10 40 40.4**	**-0.2**
	baz=78						
E13A	**Victor**	**78.02**	**330**	P	**P**	**10 40 41.8**	**+0.9**
	baz=78,SNR=8.0						
F12A	**Elk City**	**78.04**	**329**	⇓P	**P**	**10 40 41.5**	**+0.5**
	baz=78						
C15A	**Salmond Ranch,**	**78.28**	**331**	⇑P	**P**	**10 40 42.8**	**+0.6**
	baz=78,SNR=5.8						
A17A	**Triple J Farms**	**78.33**	**333**	⇓P	**P**	**10 40 42.6**	**+0.1**
	baz=79						
BMO	**Blue Mountains**	**78.43**	**327**	*e*P	**P**	**10 40 43.7**	**+0.6**
D13A	**Huson**	**78.63**	**330**	⇓P	**P**	**10 40 44.1**	**-0.1**
	baz=79						
G10A	**Bishop Farm, J**	**78.64**	**327**	⇓P	**P**	**10 40 44.7**	**+0.4**
	baz=79,SNR=8.4						
B15A	**Bradely Ranch,**	**78.66**	**332**	P	**P**	**10 40 44.1**	**-0.2**
	baz=79,SNR=5.5						
C14A	**Swan Lake**	**78.79**	**331**	⇓P	**P**	**10 40 45.1**	**+0.1**
	baz=79						
E11A	**Bogner Ranch,**	**78.93**	**329**	⇑P	**P**	**10 40 45.7**	**-0.2**
	baz=79						
I07A	**Izee**	**79.05**	**325**	⇓P	**P**	**10 40 46.9**	**+0.3**
	baz=79						
C13A	**Hot Springs**	**79.11**	**330**	⇓P	**P**	**10 40 47.1**	**+0.3**
	baz=79,SNR=5.1						
F10A	**Beach Ranch, E**	**79.17**	**328**	⇑P	**P**	**10 40 47.0**	**-0.1**
	baz=79						
YBH	**Yreka Blue Hor**	**79.31**	**322**	P	**P**	**10 40 47.0**	**-1.0**
	comp=N,2.2nm,1.1s,mb3.9,baz=63,slow=4.5,SNR=4.8						
I06A	**Prineville**	**79.34**	**325**	⇓P	**P**	**10 40 48.5**	**+0.4**
	baz=80						
E10A	**Myers Farm, Un**	**79.47**	**328**	⇑P	**P**	**10 40 48.2**	**-0.6**
	baz=80						
B13A	**Whitefish**	**79.56**	**331**	⇑P	**P**	**10 40 49.6**	**+0.4**
	baz=80						
G08A	**Pilot Rock**	**79.58**	**326**	⇑P	**P**	**10 40 49.9**	**+0.5**
	baz=80						
WALA	**Waterton Lakes**	**79.81**	**332**	*e*P	**P**	**10 40 50.1**	**-0.5**
	comp=N,0.2nm,0.9s						
H06A	**Lindquist Farm**	**79.93**	**325**	⇓P	**P**	**10 40 51.8**	**+0.4**
	baz=80						
G07A	**Ruggs Ranch, H**	**79.94**	**326**	⇓P	**P**	**10 40 51.6**	**+0.3**
	baz=80						
D10A	**Wagner Farm, O**	**79.95**	**329**	⇓P	**P**	**10 40 50.7**	**-0.7**
	baz=80						
D09A	**Jones Farm, Ri**	**80.46**	**328**	⇑P	**P**	**10 40 54.5**	**+0.4**
	baz=81						
A12A	**Yaak River Ran**	**80.51**	**331**	⇑P	**P**	**10 40 54.5**	**+0.2**
	baz=81						
A11A	**Hall Mountain,**	**80.86**	**330**	⇑P	**P**	**10 40 56.4**	**+0.2**
	baz=81						
OD2	**Odessa Site #2**	**80.89**	**328**	*e*P	**P**	**10 40 56.9**	**+0.6**
H04A	**Detroit Lake**	**80.90**	**324**	⇓P	**P**	**10 40 56.7**	**+0.2**
	baz=81						
C09A	**Chrisman Ranch**	**80.95**	**329**	⇑P	**P**	**10 40 56.9**	**+0.2**
	baz=81						
B09A	**Rice**	**81.32**	**329**	⇓P	**P**	**10 40 58.5**	**-0.2**
	baz=82						
FCC	**Fort Churchill**	**81.40**	**347**	*e*P	**P**	**10 40 57.8**	**-1.1**
	comp=N,0.1nm,0.5s						
FCC				*e*pP	pP	10 41 31.7	+1.1
C07A	**Waterville**	**81.76**	**328**	⇓P	**P**	**10 41 00.8**	**-0.2**
	baz=82						
ETW	**Entiat**	**81.84**	**328**	*e*P	**P**	**10 41 02.1**	**+0.7**
A09A	**Danville**	**81.91**	**329**	⇑P	**P**	**10 41 01.7**	**0.0**
	baz=82						
A08A	**Turner Farm, O**	**82.23**	**329**	⇑P	**P**	**10 41 03.5**	**+0.1**
	baz=82						
B07A	**Winthrop**	**82.31**	**328**	⇑P	**P**	**10 41 03.7**	**-0.1**
	baz=83						
EDM	**Edmonton**	**82.67**	**335**	*e*P	**P**	**10 41 04.0**	**-1.5**
EDM				*e*pP	pP	10 41 35.4	-2.0
A07A	**Ashnola River,**	**82.83**	**329**	⇓P	**P**	**10 41 06.8**	**+0.3**
	baz=83						
B05A	**Bryant**	**83.17**	**327**	⇓P	**P**	**10 41 07.8**	**-0.5**
	baz=83						
BOSA	**Boshof**	**83.88**	**118**	P	**P**	**10 41 12.9**	**+0.4**
	comp=N,0.9nm,0.3s,mb4.0,baz=254,slow=3.1,SNR=5.2						
ESDC	**Sonseca Array**	**84.75**	**44**	pP	pP	10 41 49.5	+0.9
	comp=N,0.1nm,0.3s,baz=252,slow=3.0,SNR=2.4						
YKA	**Yellowknife Ar**	**90.02**	**341**	P	**P**	**10 41 40.7**	**-0.6**
	comp=N,5.6nm,0.8s,mb4.8,baz=134,slow=4.4,SNR=113						
YKA				pP	pP	10 42 12.4	-1.2
	comp=N,2.7nm,0.8s,baz=135,slow=4.8,SNR=7.0						
YKA				sP	sP	10 42 26.2	-0.6
	comp=N,1.4nm,0.7s,baz=136,slow=4.4,SNR=3.2						
GERES	**GERESS Array B**	**100.09**	**42**	LR	LR	11 23 54.9	
	comp=N,303nm,18.4s,baz=167,slow=33						
ASAR	**Alice Springs**	**131.17**	**208**	PKP	PKPdf	10 47 54.3	0.0
	comp=N,1.1nm,0.5s,baz=129,slow=1.8,SNR=20						
PETK	**Petropavlovsk-**	**131.63**	**324**	PKP	PKPdf	10 47 54.6	+0.5
	comp=N,2.1nm,0.8s,baz=37,slow=2.5,SNR=3.1						
WRA	**Warramunga Arr**	**134.19**	**211**	PKhKP		10 47 50.0	
	comp=N,0.7nm,0.8s,baz=176,slow=1.0,SNR=4.6						
WRA				PKP	PKPdf	10 48 00.1	+0.1
	comp=N,1.3nm,0.5s,baz=151,slow=1.7,SNR=23						
ZALV	**Zalesovo Beam**	**140.68**	**25**	PKP	PKPdf	10 48 09.2	-1.7
	comp=N,1.1nm,0.5s,baz=298,slow=3.2,SNR=5.8						
KSH	**Kashi**	**144.10**	**50**	*e*PKP	PKPdf	10 48 21.0	+3.6
KSH				*e*sPKP		10 48 58.3	
KSH				*e*PKS		10 51 55.8	
KSH				AMB	AMB		
	comp=Z,570nm,6.0s						
KSH				LR	LR		
	comp=N,120nm,3.7s						
KSH				LR	LR		
	comp=E,110nm,4.0s						
KSH				LR	LR		
	comp=Z,75nm,3.4s						
MKAR	**Makanchi Array**	**144.44**	**35**	PKP	PKPdf	10 48 16.6	-1.2
	comp=Z,0.4nm,0.5s,baz=353,slow=2.4,SNR=7.1						
MKAR				pPKP	pPKPdf	10 48 51.6	0.0
	comp=Z,1.3nm,0.9s,baz=294,slow=3.7,SNR=4.6						
ASAJ	**Asahikawa**	**144.70**	**320**	PKP	PKPdf	10 48 17.9	-0.4
	comp=Z,7.2nm,0.8s,baz=294,slow=5.9,SNR=5.7						
MJAR	**Matsushiro Arr**	**151.40**	**310**	PKPbc	PKPbc	10 48 35.5	-0.2
	comp=Z,2.0nm,0.6s,baz=104,slow=1.3,SNR=11						
MJAR				pPKPbc	pPKPbc	10 49 09.2	-0.2
	comp=Z,1.7nm,0.7s,baz=106,slow=1.8,SNR=3.6						
SONM	**Songino Array**	**152.13**	**7**	PKP	PKPdf	10 48 31.3	+1.0
	comp=Z,0.6nm,0.9s,baz=297,slow=0.3,SNR=4.2						
SONM				PKPbc	PKPbc	10 48 36.8	-0.2
	comp=Z,1.3nm,0.7s,baz=303,slow=1.1,SNR=9.2						
SONM				pPKPbc	pPKPbc	10 49 10.8	+0.1
	comp=Z,1.2nm,0.7s,baz=317,slow=1.6,SNR=4.7						
CN2	**Changchun**	**153.65**	**337**	*e*PKPbc	PKPdf	10 48 35.2	+2.6
HHC	**Hu-ho-hao-te**	**159.40**	**359**	*e*PKP	PKPdf	10 48 40.9	+0.8
HHC				PKS		10 52 13.5	
HHC				PP	PP	10 53 02.2	+3.4
HHC				SKS	SKSdf	10 55 34.2	+0.2
HHC				SKKS	SKKSac	10 59 39.4	+2.8
HHC				SS	SS	11 12 55.2	+1.4
HHC				AMB	AMB		
	comp=Z,84nm,5.7s						
HHC				LR	LR		
	comp=N,230nm,16.6s						
HHC				LR	LR		
	comp=E,220nm,15.5s						
HHC				LR	LR		
	comp=Z,280nm,16.6s						
LZH	**Lanzhou**	**162.85**	**21**	*e*PKP	PKPdf	10 48 41.7	-2.2
LZH				pPKP	pPKPdf	10 49 15.8	-2.1
LZH				sPKP		10 49 29.3	
LZH				PKPab	PKPab	10 49 33.2	-0.3
LZH				LR	LR		
	comp=E,120nm,18.0s						
LZH				LR	LR		
	comp=Z,160nm,20.2s						
CD2	**Chengdu**	**167.33**	**31**	PKP	PKPdf	10 48 45.0	-2.9
GYA	**Guiyang**	**172.43**	**34**	*e*PKP	PKPdf	10 48 49.4	-1.6
GYA				pPKP	pPKPdf	10 49 22.8	-2.2
GYA				sPKP		10 49 36.0	
GYA				PKPab	PKPab	10 50 15.3	-0.8
GYA				PKS		10 52 20.5	
GYA				PP	PP	10 54 05.6	-1.3
GYA				AMB	AMB		
	comp=Z,60nm,8.9s						

IDC 10 11:20:16.6±24.0**, 53°.76N×174°.57W, h0^{km}, mb3.3**/3**, mb1 3.8**/3**, mb1mx3.4**/24**, mbtmp3.3**/3**, Error ellipse: s-maj=446.8km s-min=302.9km az=86.0, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVAR	**Mina Array Bea**	**40.80**	**89**	P	P	11 27 59.5	+0.1
	0.3nm,0.7s,baz=313,slow=7.0,SNR=3.0						
PDAR	**Pinedale Array**	**43.19**	**77**	P	P	11 28 19.2	+0.3
	0.4nm,0.6s,baz=314,slow=4.5,SNR=4.1						
TXAR	**Lajitas Array**	**55.82**	**86**	P	P	11 29 55.5	+0.1
	0.1nm,0.4s,baz=298,slow=5.4,SNR=4.1						

NIED ***10*** *11:36:00, 36°.30N×140°.00E, h83^{km}, Mw3.5 Best double couple: $M_0$2.19000×10^{14} NP1:ϕ_s356.00000°, δ69.00000°, λ95.00000°. NP2:ϕ_s162.00000°, δ22.00000°, λ77.00000°.*

ISCJB ***10*** *11:36:23.9±0.7, 36°.31N±0°.05×140°.07E±0°.09, h85^{km}±4^{km}, mb3.5/6, Error ellipse: s-maj=11.5km s-min=7.5km az=172.3*

JMA ***10*** *11:36:25.6, 36°.32N×140°.02E, h73^{km}±1^{km}, M3.5 Broadband fault plane solution: P waves. NP1: ϕ_s181.00000°, δ35.00000°, λ88.00000°. NP2:ϕ_s3.00000°, δ55.00000°, λ91.00000°. Principal axes: T Plg80.0000°, Azm278.0000°; N Plg1.0000°, Azm182.0000°; P Plg10.0000°, Azm92.0000°;*

JMA Felt I J1.

IDC ***10*** *11:36:30.4±4.1, 35°.98N×139°.09E, h103^{km}±11^{km}, mb3.3/6, mb1 3.4/6, mb1mx3.2/23, mbtmp3.3/6, MS3.5/1, Ms1 3.5/1, ms1mx2.6/21 Error ellipse: s-maj=129.4km s-min=18.3km az=63.0*

ISC 10 11:36:25.1±0.7**, 36°.32N**±0°.05×**140°.06E**±0°.08**, h79**^{km}±4^{km}**, n19, σ0^{s}59**/25**, mb3.5**/6**, 1C-6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYT	**Yasato**	**0.14**	**131**	⇑P	**Pn**	**11 36 36.5**	**0.0**
JYT				*e*S	**Sn**	**11 36 44.2**	**-0.7**
JAG	**Ashikaga**	**0.50**	**282**	⇓P	**Pn**	**11 36 38.4**	**-0.3**
JAG				*e*S	**Sn**	**11 36 47.8**	**-0.9**
JKT	**Katashina**	**0.79**	**304**	⇓P	**Pn**	**11 36 41.6**	**0.0**
JKT				*e*S	**Sn**	**11 36 53.9**	**+0.1**
JRY	**Ryogami san**	**0.98**	**252**	⇓P	**Pn**	**11 36 43.8**	**0.0**
JRY				*e*S	**Sn**	**11 36 57.2**	**-0.6**
JFY	**Yanaizu**	**1.12**	**345**	P	**Pn**	**11 36 45.8**	**+0.3**
JFY				*e*S	**Sn**	**11 37 01.5**	**+0.7**
JHK	**Hiroka**	**1.25**	**318**	⇓P	**Pn**	**11 36 47.4**	**+0.3**
JOD2	**Odawara 2**	**1.32**	**217**	⇓P	**Pn**	**11 36 47.8**	**-0.2**
JYN	**Shimob**	**1.48**	**237**	P	**Pn**	**11 36 50.5**	**+0.4**
MJAR	**Matsushiro Arr**	**1.51**	**279**	P	**Pn**	**11 36 50.1**	**-0.3**
	21nm,0.3s,baz=92,slow=15,SNR=348						
MJAR				S	**Sn**	**11 37 04.9**	**-4.6**
	11nm,0.3s,baz=21,slow=27,SNR=9.0						
MAT	**Matsushiro**	**1.51**	**279**	P	**Pn**	**11 36 50.8**	**+0.4**
MAT				S	**Sn**	**11 37 10.4**	**+0.8**
JNS	**Sasagawa**	**1.61**	**339**	⇓P	**Pn**	**11 36 52.2**	**+0.5**
JHJ	**Hachijo jima 2**	**3.20**	**184**	S	**Sn**	**11 37 51.5**	**+1.3**
	18nm,0.3s,baz=263,slow=23,SNR=3.8						
CBIJ	**Chichi jima**	**9.38**	**168**	LR	LR	11 41 51.7	
	comp=Z,286nm,19.9s,baz=336,slow=35						
SONM	**Songino Array**	**27.29**	**305**	P	**P**	**11 42 02.6**	**+0.6**
	0.2nm,0.4s,mb3.0,baz=109,slow=8.9,SNR=4.8						
ZALV	**Zalesovo Beam**	**41.59**	**313**	P	**P**	**11 44 04.9**	**-0.1**
	0.4nm,0.4s,mb3.5,baz=104,slow=6.1,SNR=3.1						
MKAR	**Makanchi Array**	**43.58**	**303**	P	**P**	**11 44 19.9**	**-1.2**
	0.2nm,0.5s,mb3.1,baz=81,slow=8.9,SNR=4.4						
KURK	**Kurchatov**	**45.52**	**308**	P	**P**	**11 44 35.8**	**-0.7**
	0.7nm,0.2s,mb4.0,baz=83,slow=7.6,SNR=8.7						
WRA	**Warramunga Arr**	**56.22**	**186**	P	**P**	**11 45 56.5**	**-0.6**
	0.5nm,0.5s,mb3.8,baz=2.0,slow=7.7,SNR=13						
ASAR	**Alice Springs**	**59.95**	**187**	P	**P**	**11 46 23.2**	**+0.2**
	0.3nm,0.9s,mb3.3,baz=19,slow=12,SNR=3.2						

MAN 10 11:52:53, 7°.76N×121°.98E, h22^{km}, mb4.0, ML2.8, MS2.5, 1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPIL	**Ipil**	**0.59**	**87**	*e*P	Pb	11 53 04.6	-0.1
IPIL				*e*S	Sb	11 53 11.0	-1.5
ZMPH	**Zamboanga City**	**0.81**	**174**	⇑*i*P	Pb	11 53 08.1	-0.3
ZMPH				*i* S	Sb	11 53 16.4	-2.4
PAGZ	**Pagadian**	**1.39**	**86**	*e*P	Pn	11 53 18.1	+1.0
PAGZ				*e*S	Sn	11 53 35.8	+0.9
GUIM	**Jordan**	**2.91**	**12**	*e*P	Pn	11 53 40.2	+2.2
GUIM				*e*S	Sn	11 54 13.5	+1.2

TRN ***10*** *12:01:31.8, 16°.69N×59°.98W, h3^{km}, MD4.2, M3.6(FDF)*

RSPR ***10*** *12:01:32.2, 18°.11N×59°.66W, h164^{km}±8^{km}, MD5.0/4, MD5.0/4*

ISC 10 12:01:33.2±1.5**, 16°.87N**±0°.05×**59°.66W**±0°.09**, h52**^{km}±52^{km}**, n29, σ0^{s}79**/35**, 6D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DEG	**La Desirade**	**1.46**	**248**	*e*P	**Pn**	**12 01 56.3**	**-0.9**
SEG	**Port Louis**	**1.83**	**256**	*e*P	**Pn**	**12 02 02.3**	**0.0**
MGG	**Marie-Galante**	**1.85**	**240**	*e*P	**Pn**	**12 02 02.5**	**-0.1**
DOG	**Dongo Capester**	**2.06**	**246**	*e*P	**Pn**	**12 02 05.6**	**+0.2**
PHG	**Guadaloupe-2**	**2.09**	**246**	*e*P	**Pn**	**12 02 06.3**	**+0.5**
BPA	**Boggy Peak**	**2.11**	**275**	*e*P	**Pn**	**12 02 05.7**	**-0.4**
BPA				*e*S	**Sn**	**12 02 30.5**	**-0.7**
SCG	**Saint Claude**	**2.12**	**247**	*e*P	**Pn**	**12 02 06.4**	**+0.2**
HMG	**Houelmont**	**2.15**	**246**	*e*P	**Pn**	**12 02 07.3**	**+0.7**
LZG	**Guadaloupe-1**	**2.16**	**251**	*e*P	**Pn**	**12 02 06.9**	**+0.1**
TBG	**Guadaloupe-3**	**2.16**	**242**	*e*P	**Pn**	**12 02 07.3**	**+0.5**
FDF	**Fort de France**	**2.57**	**214**	*e*P	**Pn**	**12 02 11.9**	**-0.5**
FDF				*e*S	**Sn**	**12 02 42.4**	**0.0**
MVM	**Montagne Vaucl**	**2.59**	**208**	*e*P	**Pn**	**12 02 12.4**	**-0.4**
BIM	**Bigot**	**2.71**	**210**	⇓*e*P	**Pn**	**12 02 13.8**	**-0.5**
BIM				⇓*e*S	**Sn**	**12 02 46.6**	**+0.8**
SLB	**Belfond**	**3.31**	**204**	*e*P	**Pn**	**12 02 22.2**	**-0.4**
SLB				*e*S	**Sn**	**12 03 00.5**	**-0.1**
SMRT	**St. Maarten**	**3.47**	**290**	*e*S	**Sn**	**12 03 04.8**	**+0.2**
SABA	**Saba**	**3.51**	**283**	⇓*e*P	**Pn**	**12 02 25.8**	**+0.5**
SABA	**Saba**	**3.51**	**283**	*e*S	**Sn**	**12 03 08.5**	**+3.0**
SVV	**Soufriere Volc**	**3.84**	**203**	*e*P	**Pn**	**12 02 32.1**	**+2.3**
SVV				*e*S	**Sn**	**12 03 14.3**	**+0.6**
FCV	**Fort Charlotte**	**4.00**	**203**	*e*P	**Pn**	**12 02 36.7**	**+4.7**
FCV				*e*S	**Sn**	**12 03 15.7**	**-1.9**
TBVI	**Tortola**	**4.97**	**289**	*e*S	**Sn**	**12 03 38.3**	**-3.3**
MTP	**Monte Pirata**	**5.76**	**283**	⇓*e*P	**Pn**	**12 02 55.5**	**-0.6**
MTP	**Monte Pirata**	**5.76**	**283**	*e*S	**Sn**	**12 03 59.9**	**-1.0**
HUMP	**Col San Antoni**	**6.04**	**283**	⇓*e*P	**Pn**	**12 03 00.1**	**0.0**
HUMP	**Col San Antoni**	**6.04**	**283**	*e*S	**Sn**	**12 04 08.4**	**+0.5**
CBYP	**Canovanas**	**6.08**	**284**	⇓*e*P	**Pn**	**12 03 00.1**	**-0.4**
CBYP	**Canovanas**	**6.08**	**284**	*e*S	**Sn**	**12 04 08.7**	**-0.1**
CPD	**Cerro la Pandu**	**6.08**	**282**	*e*S	**Sn**	**12 04 08.7**	**-0.2**
SJG	**San Juan**	**6.32**	**282**	*e*S	**Sn**	**12 04 15.1**	**+0.4**
LSP	**Las Mesas**	**7.21**	**281**	*e*S	**Sn**	**12 04 36.9**	**+0.4**

MEX 10 12:06:48.8±0.7**, 17°.06N×100°.25W, h8**^{km}±999^{km}**, MD3.5, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.02**	**244**	*i* P	Pg	12 06 49.3	-0.9
CAIG				*i* S	Sg	12 06 50.2	-1.0
MEIG	**Mezcala**	**1.05**	**35**	*e*P	Pg	12 07 06.7	-2.3
MEIG				*i* S	Sg	12 07 18.8	-3.8
PNIG	**Pinotepa**	**2.14**	**108**	*e*P	Pn	12 07 20.9	-3.9
PNIG				*i* S	Sn	12 07 47.5	-4.0

BJI ***10*** *12:21:58.6, 60°.80S×25°.60W, h8^{km}, mB6.7/41, Ms6.6/56, Ms7 6.4/48*

ISCJB ***10*** *12:22:01.7±0.2, 60°.75S±0°.04×25°.57W±0°.06, h10^{km}, mb6.3/94, MS6.5/233, Error ellipse: s-maj=5.3km s-min=4.2km az=21.5*

IDC ***10*** *12:22:01.1±0.3, 60°.79S×25°.68W, h0^{km}, mb5.7/22, mb1 5.7/22, mb1mx5.7/22, mbtmp5.7/22, MS6.4/20, Ms1 6.4/20, ms1mx6.4/20, Error ellipse: s-maj=14.3km s-min=12.8km az=61.0*

GCMT ***10*** *12:22:02.7±0.1, 61°.05S×25°.01W, h12^{km}, MW6.5/114, Moment Tensor Solution. s106,c246; s114,c505; Duration: 4^{s}6 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.71±.00; $M_{\theta\theta}$0.77±.00; $M_{\phi\phi}$-0.06±.00; $M_{r\theta}$0.12±.01; $M_{\theta\phi}$0.38±.00; $M_{\phi r}$-0.03±.01; Best double couple: $M_0$0.82600×10^{19} NP1:ϕ_s61.00000°, δ42.00000°,* *λ-101.00000°. NP2:ϕ_s256.00000°,δ49.00000°, λ-80.00000°. Principal axes: T 0.9280, Plg4.0000°, Azm339.0000°; N -0.2050, Plg8.0000°, Azm69.0000°; P -0.7230, Plg82.0000°, Azm224.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **10** 12:22:02.6±0.1, 60°.80S×25°.59W, h8km, mb6.4/64, MS6.5/184, MW6.5, MW6.6 Error ellipse: s-maj=6.7km s-min=5.7km az=203.0, Moment Tensor Solution. s29 Moment tensor: Scale 10^{18}Nm; M_{rr}-6.85; $M_{\theta\theta}$5.10; $M_{\phi\phi}$1.76; $M_{r\theta}$0.14; $M_{\theta\phi}$2.92; $M_{\phi r}$-0.26; Best double couple: $M_0$6.80000×10^{18} NP1:ϕ_s242.00000°,δ45.00000°, λ-86.00000°. NP2:ϕ_s57.00000°,δ45.00000°,λ-94.00000°. Principal axes: T 6.7900, Plg0.0000°, Azm149.0000°; N 0.0800, Plg2.0000°, Azm59.0000°; P -6.8600, Plg87.0000°, Azm240.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s46.00000°,δ38.00000°,λ-137.00000°. NP2: ϕ_s280.00000°,δ65.00000°,λ-60.00000°. Principal axes: T Plg15.0000°, Azm349.0000°; N Plg0.0000°, Azm0.0000°; P Plg59.0000°, Azm233.0000°; Depth from synthetics of broadband displacement seismograms.*

*IGIL **10** 12:22:04.4, 60°.76S×25°.51W, h10km, MS6.6*

*MOS **10** 12:22:06.1±0.8, 60°.98S×25°.48W, h33km, mb6.1/42, MS6.4/65, Error ellipse: s-maj=28.5km s-min=12.0km az=84.8*

*DJA **10** 12:22:10, 60°.51S×26°.51W, h90km, mb6.1/11*

ISC 10 12:22:03.3±0.2, **60°.78S**±0°.03×**25°.59W**±0°.06, **h10**km, **n1193**, σ**1^{s}31**/247, **mb6.3**/93, **MS6.5**/234, **191C-210D**,
South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**12.13**	**152**	*e*Pn	**Pn**	**12 24 52.1**	**-3.9**
VNA3	**Neumayer Olymp**	**12.27**	**155**	*e*Pn	**Pn**	**12 24 53.4**	**-4.4**
VNA3				*e*S	**Sn**	**12 27 01.2**	**-13**
VNA2	**Neumayer--Watz**	**12.53**	**152**	*e*Pn	**Pn**	**12 24 56.5**	**-4.9**
	baz=316,slow=14						
PMSA	**Palmer Station**	**17.83**	**240**	P	**Pn**	**12 26 12.6**	**+1.5**
	8.9nm,0.3s,baz=97,slow=11,SNR=42						
PMSA				S	**Sn**	**12 29 33.0**	**+3.4**
	0.5nm,0.3s,baz=49,slow=20,SNR=1.6						
PMSA				LR	LR	12 31 32.5	
	comp=Z,60µm,21.3s,baz=93,slow=32						
PMSA	**Palmer Station**	**17.83**	**240**	*e*P	**Pn**	**12 26 13.6**	**+2.4**
	9µm,2.1s						
MAIT	**Maitri**	**17.93**	**139**	⇑*i*P	**Pn**	**12 26 09.5**	**-2.9**
MAIT				*e*E		12 29 26.6	
NVL	**N'lazarevskaya**	**17.96**	**139**	*c* *i*P	**Pn**	**12 26 11.7**	**-1.0**
NVL				*e*S	**Sn**	**12 29 36.0**	**+3.3**
NVL				pmax	pmax		
	comp=Z,1µm,1.4s						
EFI	**East Falkland**	**20.02**	**282**	Pn	**P**	**12 26 36.6**	**+0.7**
	comp=Z,4µm,1.0s,SNR=29						
EFI	**East Falkland**	**20.02**	**282**	*e*P	**P**	**12 26 36.1**	**+0.2**
EFI				*e*S	**S**	**12 30 25.4**	**+4.7**
EFI				pmax	pmax		
	comp=Z,980nm,1.1s						
EFI	**East Falkland**	**20.02**	**282**	*e*P	**P**	**12 26 36.0**	**+0.1**
	comp=Z,984nm,1.1s						
EFI				*e*S	**S**	**12 30 21.7**	**+1.0**
EFI				LR	LR		
	comp=Z,62µm,20.0s,MS6.0						
USHA	**Ushuaia**	**23.24**	**266**	P	**P**	**12 27 10.7**	**+0.3**
	comp=Z,2µm,1.2s,mb6.3,baz=102,slow=11,SNR=178						
USHA				S	**S**	**12 31 25.1**	**+3.1**
	comp=Z,13nm,0.9s,baz=281,slow=16,SNR=2.2						
USHA				LR	LR	12 34 03.7	
	comp=Z,47µm,18.2s,MS6.0,baz=82,slow=31						
TRIS	**Tristan da Cun**	**25.19**	**26**	*e*P	**P**	**12 27 30.9**	**+2.2**
	comp=Z,1µm,1.1s,mb6.4						
TRIS				LR	LR		
	comp=Z,43µm,19.0s,MS6.0						
SYO	**Syowa Base**	**27.50**	**135**	⇓*i*P	**P**	**12 27 47.6**	**-1.7**
SYO	**Syowa Base**	**27.50**	**135**	⇓*i*sP	**P**	**12 27 51.4**	**+2.1**
QSPA	**South Pole Qui**	**29.45**	**180**	P	**P**	**12 28 07.0**	**+0.4**
	comp=Z,355nm,1.0s,mb6.1,baz=201,slow=4.0,SNR=159						
QSPA				S	**S**	**12 33 03.3**	**+3.1**
	comp=Z,16nm,0.9s,baz=328,slow=19,SNR=1.3						
QSPA				LR	LR	12 39 15.5	
	comp=Z,123µm,21.6s,MS6.5,baz=7.6,slow=35						
QSPA	**South Pole Qui**	**29.45**	**180**	*e*P	**P**	**12 28 07.0**	**+0.4**
	comp=Z,2µm,1.4s,mb6.7						
QSPA				*e*		12 28 47.6	
QSPA				LR	LR		
	comp=Z,112µm,20.0s,MS6.5						
COYC	**Coyhaique**	**30.96**	**278**	⇓*i*P	**P**	**12 28 19.2**	**-1.1**
COYC	**Coyhaique**	**30.96**	**278**	⇓*i*P	**P**	**12 28 19.2**	**-1.1**
LPA	**La Plata**	**33.17**	**307**	*c* *e*P	**P**	**12 28 39.0**	**-0.7**
LPA				*e*pP	pP	12 28 42.0	-0.7
LPA				*e*sP	sP	12 28 43.0	-1.0
LPA				*i* S	**S**	**12 33 59.0**	**+0.1**
LPA							
	comp=Z,48µm,18.0s						
PLCA	**Paso Flores**	**33.88**	**286**	P	**P**	**12 28 44.0**	**-1.8**
PLCA						12 31 25.9	
PLCA				S	**S**	**12 34 05.4**	**-4.5**
PLCA				pmax	pmax		
	comp=Z,34nm,0.7s						
PLCA				smax			
	comp=N,9.0nm,1.1s						
PLCA				MLR	MLR		
	comp=Z,66µm,18.3s						
PLCA	**Paso Flores**	**33.88**	**286**	P	**P**	**12 28 44.0**	**-1.8**
	comp=Z,34nm,0.7s,mb5.4,baz=151,slow=8.9,SNR=28						
PLCA				PcP	PcP	12 31 25.9	+1.7
	comp=Z,22nm,0.9s,baz=143,slow=3.8,SNR=2.9						
PLCA				S	**S**	**12 34 05.4**	**-4.5**
	comp=Z,9.2nm,1.1s,baz=37,slow=20,SNR=2.0						
PLCA				LR	LR	12 42 16.0	
	comp=Z,66µm,18.2s,MS6.4,baz=131,slow=36						
MAW	**Mawson**	**35.91**	**139**	P	**P**	**12 29 02.7**	**-0.4**
MAW						12 31 31.8	
MAW				S	**S**	**12 34 39.4**	**-1.3**
MAW				pmax	pmax		
	comp=Z,182nm,1.0s						
MAW				smax			
	comp=N,28nm,1.1s						
MAW				MLR	MLR		
	comp=Z,82µm,18.3s						
MAW	**Mawson**	**35.91**	**139**	*e*P	**P**	**12 29 03.3**	**+0.2**
	comp=Z,127nm,1.0s,mb5.8						
MAW				*e*S	**S**	**12 34 41.2**	**+0.5**
MAW	**Mawson**	**35.91**	**139**	P	**P**	**12 29 02.7**	**-0.4**
	comp=Z,182nm,1.0s,mb5.9,baz=220,slow=7.8,SNR=14						
MAW				PcP	PcP	12 31 31.8	+2.1
	comp=Z,43nm,0.8s,baz=209,slow=4.2,SNR=5.9						
MAW				S	**S**	**12 34 39.4**	**-1.3**
	comp=Z,28nm,1.1s,baz=297,slow=18,SNR=1.9						
MAW				LR	LR	12 42 21.7	
	comp=Z,82µm,18.2s,MS6.5,baz=246,slow=34						
CCHI	**Chillan**	**37.89**	**288**	⇓*i*P	**P**	**12 29 17.9**	**-2.4**
CCHI	**Chillan**	**37.89**	**288**	⇓*i*P	**P**	**12 29 17.9**	**-2.4**
NICH	**Los Niches**	**38.81**	**291**	⇓*i*P	**P**	**12 29 25.4**	**-2.6**
CICH	**Cipreses**	**39.01**	**292**	⇓*i*P	**P**	**12 29 28.7**	**-1.0**
ELIM	**Elim**	**39.01**	**69**	⇓*i*P	**P**	**12 29 30.2**	**+0.5**
CACH	**El Canelo**	**39.26**	**292**	⇓*i*P	**P**	**12 29 30.4**	**-1.3**
CACH	**El Canelo**	**39.26**	**292**	⇓*i*P	**P**	**12 29 30.4**	**-1.3**
LMEL	**Las Melosas**	**39.31**	**293**	⇓*i*P	**P**	**12 29 29.6**	**-2.5**
LMEL	**Las Melosas**	**39.31**	**293**	⇓*i*P	**P**	**12 29 29.6**	**-2.5**
CHCH	**Chadas Angostu**	**39.44**	**292**	⇓*i*P	**P**	**12 29 32.0**	**-1.2**
CHCH	**Chadas Angostu**	**39.44**	**292**	⇓*i*P	**P**	**12 29 32.0**	**-1.2**
ANTU	**Antumapu**	**39.73**	**292**	⇑*i*P	**P**	**12 29 35.6**	**-0.1**
ANTU	**Antumapu**	**39.73**	**292**	⇑*i*P	**P**	**12 29 35.6**	**-0.1**
FCH	**Farellones**	**39.78**	**293**	⇓*i*P	**P**	**12 29 36.7**	**+0.6**
CER	**Ceres**	**39.84**	**67**	⇓*i*P	**P**	**12 29 36.0**	**-0.6**
CER				AMb	AMB	12 30 17.5	
	comp=Z,123nm,1.9s,mb5.3						
PEL	**Peldehue**	**40.11**	**293**	⇑*i*P	**P**	**12 29 38.5**	**-0.3**
CPUP	**Villa Florida**	**40.63**	**314**	P	**P**	**12 29 40.8**	**-2.4**
	comp=Z,112nm,0.8s,mb5.6,baz=140,slow=7.3,SNR=121						
CPUP				S	**S**	**12 35 40.9**	**-12**
	comp=Z,3.3nm,0.6s,baz=219,slow=7.4,SNR=3.7						
CPUP				LR	LR	12 44 31.5	
	comp=Z,47µm,21.8s,MS6.3,baz=142,slow=33						
CPUP	**Villa Florida**	**40.63**	**314**	P	**P**	**12 29 40.8**	**-2.4**
CPUP				S	**S**	**12 35 40.9**	**-12**
CPUP				LR	LR	12 44 31.5	
SUR	**Sutherland**	**41.35**	**68**	P	**P**	**12 29 51.4**	**+2.3**
	comp=Z,1µm,2.4s,mb6.1,SNR=12						
SUR	**Sutherland**	**41.35**	**68**	P	**P**	**12 29 48.5**	**-0.6**
	comp=Z,97nm,1.1s,mb5.3,baz=219,slow=8.9,SNR=7.8						
SUR				S	**S**	**12 36 01.0**	**-2.4**
	comp=Z,8.3nm,1.0s,baz=162,slow=19,SNR=1.5						
SUR	**Sutherland**	**41.35**	**68**	*e*P	**P**	**12 29 49.5**	**+0.3**
	comp=Z,4µm,2.4s,mb6.6						
SUR				LR	LR		
	comp=Z,25µm,19.0s,MS6.1						
SUR	**Sutherland**	**41.35**	**68**	*i* P	**P**	**12 29 50.5**	**+1.4**
SUR				AMb	AMB	12 29 56.9	
	comp=Z,613nm,2.3s,mb5.8						
SBA	**Scott Base**	**41.40**	**184**	*e*P	**P**	**12 29 51.7**	**+2.7**
SBA				*e*		12 30 02.7	
SBA				pmax	pmax		
	comp=Z,2µm,1.8s,mb6.4						
SBA				MLR	MLR		
	comp=Z,31µm,20.0s,MS6.2						
SBA	**Scott Base**	**41.40**	**184**	*e*P	**P**	**12 29 51.7**	**+2.7**
	comp=Z,2µm,1.8s,mb6.4						
SBA				*e*		12 30 02.7	
SBA				LR	LR		
	comp=Z,31µm,20.0s,MS6.2						
CVNA	**Calvinia**	**41.64**	**66**	⇑*i*P	**P**	**12 29 51.8**	**+0.4**
CVNA				AMb	AMB	12 30 00.2	
	comp=Z,940nm,2.2s,mb6.0						
VNDA	**Vanda**	**41.87**	**182**	P	**P**	**12 29 51.3**	**-1.5**
VNDA						12 31 33.2	
VNDA				S	**S**	**12 36 15.8**	**+5.7**
VNDA				pmax	pmax		
	comp=Z,165nm,1.0s						
VNDA				smax			
	comp=N,4.0nm,1.0s						
VNDA				MLR	MLR		
	comp=Z,41µm,21.2s						
VNDA	**Vanda**	**41.87**	**182**	P	**P**	**12 29 51.2**	**-1.6**
	comp=Z,164nm,1.0s,mb5.6,baz=185,slow=6.8,SNR=38						
VNDA				PP	PP	12 31 33.2	+3.9
	comp=Z,19nm,0.7s,baz=183,slow=8.2,SNR=5.8						
VNDA				S	**S**	**12 36 15.8**	**+5.7**
	comp=Z,3.7nm,1.0s,baz=298,slow=18,SNR=1.8						
VNDA				LR	LR	12 46 09.9	
	comp=Z,41µm,21.2s,MS6.3,baz=174,slow=35						
VNDA	**Vanda**	**41.87**	**182**	P	**P**	**12 29 51.2**	**-1.6**
VNDA				PP	PP	12 31 33.2	+3.9
VNDA				S	**S**	**12 36 15.8**	**+5.7**
VNDA				LR	LR	12 46 09.9	
CMCH	**Combarbala**	**41.92**	**294**	⇑*i*P	**P**	**12 29 52.7**	**-1.0**
CMCH	**Combarbala**	**41.92**	**294**	⇑*i*P	**P**	**12 29 52.7**	**-1.0**
GRM	**Grahamstown**	**43.23**	**75**	⇑*i*P	**P**	**12 30 03.8**	**-0.6**
GRM				AMb	AMB	12 30 12.2	
	comp=Z,814nm,1.8s,mb6.2						
SOE	**Somerset East**	**43.27**	**73**	*i* P	**P**	**12 30 03.8**	**-1.0**
LCO	**Las Campanas**	**43.64**	**296**	*e*P	**P**	**12 30 06.8**	**-0.9**
	comp=Z,2µm,1.6s,mb6.6						
LCO				*e*ScP	ScP	12 35 48.4	+2.3
LCO				LR	LR		
	comp=Z,44µm,19.0s,MS6.4						
PKA	**Prieska**	**44.53**	**68**	⇓*i*P	**P**	**12 30 14.2**	**-0.7**
PKA				AMb	AMB	12 30 21.7	
	comp=Z,232nm,2.1s,mb5.6						
UPI	**Upington**	**44.97**	**65**	*e*P	**P**	**12 30 18.6**	**+0.2**
UPI				AMb	AMB	12 30 26.5	
	comp=Z,1µm,2.0s,mb6.3						
HVD	**Gariep Dam**	**45.00**	**72**	⇑*i*P	**P**	**12 30 18.2**	**-0.4**
MIR	**Mirnyy**	**45.21**	**150**	α *i*P	**P**	**12 30 21.0**	**+1.2**
MIR				*i*		12 32 04.0	
MIR				*i* S	**S**	**12 37 00.0**	**+0.9**
MIR				pmax	pmax		
	comp=Z,200nm,1.2s,mb5.8						
MIR				pmax	pmax		
	comp=Z,11µm,8.0s						
MIR				MLR	MLR		
	comp=Z,150µm,18.0s,MS7.0						
BOSA	**Boshof**	**46.57**	**70**	P	**P**	**12 30 29.6**	**-1.4**
BOSA				S	**S**	**12 37 19.4**	**-0.1**
BOSA				pmax	pmax		
	comp=Z,170nm,1.0s,mb5.9						
BOSA				smax			
	comp=N,2.0nm,0.9s						
BOSA	**Boshof**	**46.57**	**70**	P	**P**	**12 30 29.6**	**-1.4**
	comp=N,170nm,0.9s,mb6.0,baz=210,slow=7.8,SNR=33						
BOSA				S	**S**	**12 37 19.4**	**-0.1**
	comp=N,2.3nm,0.9s,baz=6.7,slow=17,SNR=1.4						
BOSA				LR	LR	12 45 31.4	
	comp=N,34µm,18.8s,MS6.3,baz=347,slow=30						
BOSA	**Boshof**	**46.57**	**70**	P	**P**	**12 30 29.6**	**-1.4**
BOSA				S	**S**	**12 37 19.4**	**-0.1**
BOSA				LR	LR	12 45 31.4	
KSD	**Kokstad**	**46.90**	**75**	*e*P	**P**	**12 30 33.9**	**+0.3**
KSD				AMb	AMB	12 30 41.6	
	comp=Z,2µm,1.9s,mb6.7						
SHEL	**Horse Pasture**	**47.00**	**27**	P	**P**	**12 30 35.6**	**+1.1**
	comp=Z,9µm,1.4s,mb7.5,SNR=19						
SHEL	**Horse Pasture**	**47.00**	**27**	*i* P	**P**	**12 30 35.7**	**+1.2**
SHEL	**Horse Pasture**	**47.00**	**27**	*e*P	**P**	**12 30 35.3**	**+0.8**
	comp=Z,8µm,1.8s,mb7.4						
SHEL				LR	LR		
	comp=Z,19µm,19.0s,MS6.1						
SEK	**Senekal**	**47.91**	**72**	*e*P	**P**	**12 30 40.9**	**-0.6**
LVC	**Limon Verde**	**48.47**	**302**	S	**S**	**12 37 44.8**	**-1.9**
	comp=Z,7.8nm,1.1s,baz=360,slow=19,SNR=2.1						
LVC				LR	LR	12 49 58.4	
	comp=Z,35µm,20.9s,MS6.3,baz=168,slow=35						
LVC	**Limon Verde**	**48.47**	**302**	*e*P	**P**	**12 30 45.0**	**-0.9**
	comp=Z,1µm,1.6s,mb6.7						
LVC				*e*PcP	PcP	12 32 13.7	+1.9
LVC				*e*S	**S**	**12 37 49.2**	**+2.6**
LVC				LR	LR		
	comp=Z,33µm,20.0s,MS6.3						
MECH	**Mejillones**	**48.68**	**300**	⇑*i*P	**P**	**12 30 47.5**	**0.0**
PRYS	**Parys**	**48.98**	**71**	*i* P	**P**	**12 30 48.8**	**-1.0**
PRYS				AMb	AMB	12 30 56.9	
	comp=Z,1µm,2.0s,mb6.5						
CASY	**Casey**	**49.17**	**158**	*e*P	**P**	**12 30 50.2**	**-0.5**
CASY				*e*S	**S**	**12 38 01.5**	**+5.9**
CASY	**Casey**	**49.17**	**158**	*e*P	**P**	**12 30 50.5**	**-0.2**
	comp=Z,316nm,1.2s,mb6.2						
CASY				*e*PcP	PcP	12 32 14.3	+0.6
CASY				*e*PP	PP	12 32 48.5	+4.5
CASY				LR	LR		
	comp=Z,132µm,20.0s,MS6.9						
KSR	**Koster**	**49.68**	**70**	⇓*i*P	**P**	**12 30 55.0**	**-0.1**
KSR				AMb	AMB	12 31 02.4	
	comp=Z,532nm,2.1s,mb6.2						
ERPM	**east rand prop**	**49.88**	**71**	*e*P	**P**	**12 30 55.6**	**-1.1**
ERPM				AMb	AMB	12 31 04.6	
	comp=Z,970nm,2.1s,mb6.5						
SLR	**Silverton**	**50.42**	**71**	⇓*i*P	**P**	**12 30 59.7**	**-1.0**
SLR				AMb	AMB	12 31 07.9	
	comp=Z,1µm,2.0s,mb6.5						
POGA	**Pongola**	**50.60**	**75**	⇓*i*P	**P**	**12 31 02.4**	**+0.4**
POGA				AMb	AMB	12 31 09.0	
	comp=Z,576nm,2.0s,mb6.2						
PAF	**Port-aux-Franc**	**51.19**	**123**	PFAKE		12 31 20.0	+14
PAF				LR	LR		
	comp=Z,57µm,20.0s,MS6.6						
TSUM	**Tsumeb**	**51.47**	**56**	*e*P	**P**	**12 31 07.0**	**-1.6**
	comp=Z,2µm,2.5s,mb6.6						
TSUM				LR	LR		
	comp=Z,19µm,19.0s,MS6.1						
TSUM	**Tsumeb**	**51.47**	**56**	⇑*i*P	**P**	**12 31 08.5**	**-0.1**
TSUM				AMb	AMB	12 31 15.6	
	comp=Z,3µm,2.3s,mb6.8						
SIV	**San Ignacio**	**51.48**	**314**	S	**S**	**12 38 20.4**	**-8.2**
	comp=Z,1.2nm,0.5s,baz=301,slow=18,SNR=1.5						
DRV	**Dumont d'Urvil**	**52.41**	**173**	P	**P**	**12 31 18.0**	**+2.9**
DRV				S	**S**	**12 38 43.0**	**+2.5**
DRV				S	SS	12 42 17.0	-0.4
DRV				R		12 46 00.0	
MOPA	**Mopani**	**53.77**	**73**	⇑*i*P	**P**	**12 31 25.5**	**-0.1**
MOPA				AMb	AMB	12 31 32.0	
	comp=Z,792nm,2.0s,mb6.3						
MSNA	**Messina**	**54.13**	**71**	⇑*i*P	**P**	**12 31 28.1**	**-0.2**
MSNA				AMb	AMB	12 31 35.9	
	comp=Z,787nm,1.8s,mb6.3						
ARE	**Arequipa**	**55.04**	**303**	*e*P	**P**	**12 31 35.0**	**+0.1**
RCBR	**Riachuelo**	**55.38**	**348**	*e*P	**P**	**12 31 36.9**	**-0.5**
	comp=Z,200nm,1.4s,mb6.0						
RCBR				*e*PcP	PcP	12 32 38.6	+0.9
RCBR				LR	LR		
	comp=Z,53µm,21.0s,MS6.6						
LSZ	**Lusaka**	**59.48**	**65**	*e*P	**P**	**12 32 04.6**	**-1.7**
	comp=Z,700nm,1.7s,mb6.4						
LSZ				LR	LR		
	comp=Z,49µm,20.0s,MS6.6						
LSZ	**Lusaka**	**59.48**	**65**	⇓*i*P	**P**	**12 32 05.2**	**-1.1**
LSZ				AMb	AMB	12 32 13.8	
	comp=Z,6µm,2.0s,mb7.3						
NNA	**Nana**	**61.30**	**300**	P	**P**	**12 32 18.2**	**-0.5**
	comp=Z,1µm,1.8s,mb6.8,SNR=13						
NNA	**Nana**	**61.30**	**300**	*e*P	**P**	**12 32 18.7**	**0.0**
NNA				*e*PP	PP	12 34 35.7	+2.1
NNA				LR	LR		
	comp=Z,40µm,22.0s,MS6.5						
RPN	**Rapa Nui**	**63.71**	**261**	P	**P**	**12 32 37.1**	**+2.3**
	comp=Z,4µm,1.7s,mb7.2,SNR=5.8						
RPN	**Rapa Nui**	**63.71**	**261**	*e*P	**P**	**12 32 36.6**	**+1.8**
	comp=Z,4µm,1.8s,mb7.2						
RPN				LR	LR		
	comp=Z,12µm,19.0s,MS6.1						
ABPO	**Ambohimpanom**	**65.21**	**85**	*e*P	**P**	**12 32 46.7**	**+2.0**
ABPO				pmax	pmax		
	comp=Z,2µm,2.3s,mb6.7						
ABPO				MLR	MLR		
	comp=Z,26µm,19.0s,MS6.5						
ABPO	**Ambohimpanom**	**65.21**	**85**	*e*P	**P**	**12 32 46.7**	**+2.1**
	comp=Z,2µm,2.3s,mb6.7						
ABPO				LR	LR		
	comp=Z,26µm,19.0s,MS6.5						
OPO	**Ambohidratompo**	**65.57**	**84**	PKPPKP		13 01 28.2	
	comp=Z,1.9nm,0.7s,baz=103,slow=8.8,SNR=5.0						
ATAH	**Atahualpa**	**66.42**	**300**	S	S	12 41 40.0	-2.6
	comp=Z,1.2nm,0.6s,baz=84,slow=19,SNR=1.8						
ATAH				LR	LR	13 00 51.6	
	comp=Z,23µm,21.8s,MS6.3,baz=348,slow=35						
ATAH				PKPPKP		13 01 25.1	
	comp=Z,5.5nm,1.0s,baz=99,slow=3.0,SNR=4.9						
RER	**Riviere de l'E**	**67.56**	**93**	*e*P	**P**	**12 33 01.4**	**+1.6**
	comp=Z,219nm,1.3s,mb6.0						
RER				LR	LR		
	comp=Z,19µm,19.0s,MS6.3						
LIC	**Lamto**	**68.73**	**22**	*e*P	**P**	**12 33 06.1**	**-0.9**
	comp=Z,3µm,1.6s,mb6.7						
LIC	**Lamto**	**68.73**	**22**	*e*P	**P**	**12 33 06.7**	**-0.3**
	comp=Z,3µm,2.0s,mb6.9						
LIC	**Lamto**	**68.73**	**22**	*e*P	**P**	**12 33 06.1**	**-0.9**
	comp=Z,1µm,1.6s,mb6.7						
KIC	**Kosan Boka**	**68.91**	**22**	*e*P	**P**	**12 33 07.9**	**-0.2**
	comp=Z,9µm,2.0s,mb7.3						
TIC	**Toumodi**	**69.14**	**22**	*e*P	**P**	**12 33 09.2**	**-0.3**
	comp=Z,8µm,2.0s,mb7.3						
DBIC	**Dimbokro**	**69.19**	**22**	P	**P**	**12 33 08.5**	**-1.4**
	comp=Z,60nm,0.7s,mb5.6,baz=169,slow=7.4,SNR=70						
DBIC				S	S	12 42 12.6	-3.0
	comp=Z,2.4nm,0.9s,baz=6.1,slow=18,SNR=2.4						
DBIC				LR	LR	12 56 34.0	
	comp=Z,25µm,20.1s,MS6.5,baz=180,slow=30						
DBIC				PKPPKP		13 01 16.1	
	comp=Z,2.6nm,0.9s,baz=1.1,slow=5.6,SNR=4.1						
DBIC	**Dimbokro**	**69.19**	**22**	P	**P**	**12 33 08.5**	**-1.4**
DBIC				S	S	12 42 12.6	-3.0
DBIC				LR	LR	12 56 34.0	
DBIC				P'P'		13 01 16.1	
OTAV	**Otavalo**	**72.98**	**304**	*e*P	**P**	**12 33 32.4**	**-0.5**
	comp=Z,1µm,1.7s,mb6.5						
OTAV				*e*PP	PP	12 36 15.6	+0.1
OTAV				LR	LR		
	comp=Z,17µm,22.0s,MS6.3						
MBAR	**Mbarara**	**73.68**	**60**	P	**P**	**12 33 39.1**	**+2.1**
	comp=Z,192nm,2.5s,mb5.6,SNR=18						
MBAR	**Mbarara**	**73.68**	**60**	*d* *i*P	**P**	**12 33 38.6**	**+1.6**
MBAR	**Mbarara**	**73.68**	**60**	*i* P	**P**	**12 33 38.6**	**+1.6**
MBAR				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
MBAR	**Mbarara**	**73.68**	**60**	*e*P	**P**	**12 33 38.3**	**+1.3**
MBAR				AMb	AMB	12 33 46.8	
	comp=Z,404nm,1.9s,mb6.0						
ODZ	**Otahua Downs**	**73.70**	**192**	*e*P	**P**	**12 33 38.2**	**+1.4**
	comp=Z,846nm,1.8s,mb6.4						
RPZ	**Rata Peaks**	**74.97**	**192**	*e*P	**P**	**12 33 45.5**	**+1.2**
	comp=Z,876nm,1.7s,mb6.4						
ROSC	**El Rosal**	**75.57**	**309**	P	**P**	**12 33 47.4**	**-0.6**
	comp=Z,45nm,1.1s,mb5.3,baz=100,slow=8.1,SNR=13						
ROSC				PKPPKP		13 01 12.0	
	comp=Z,2.6nm,0.3s,baz=270,slow=21,SNR=4.8						
ROSC				LR	LR	13 07 08.9	
	comp=Z,27µm,21.6s,MS6.5,baz=183,slow=36						
KHZ	**Kahutara**	**75.97**	**194**	*e*P	**P**	**12 33 51.2**	**+1.2**
	comp=Z,650nm,1.6s,mb6.3						
KMBO	**Kilima Mbogo**	**76.06**	**66**	P	**P**	**12 33 52.4**	**+1.6**
KMBO						12 36 44.3	
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.3s						
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.4s						
KMBO	**Kilima Mbogo**	**76.06**	**66**	P	**P**	**12 33 52.4**	**+1.5**
	comp=Z,3.7nm,0.3s,baz=207,slow=5.6,SNR=24						
KMBO				PP	PP	12 36 44.3	+2.7
	comp=Z,2.0nm,0.4s,baz=199,slow=10.0,SNR=4.0						
KMBO				LR	LR	13 04 41.5	
	comp=Z,24µm,19.4s,baz=189,slow=34						
TAU	**Tasmania Unive**	**76.50**	**175**	P	**P**	**12 33 53.8**	**+0.8**
	comp=Z,1µm,0.8s,mb6.8,SNR=7.8						
TAU	**Tasmania Unive**	**76.50**	**175**	*e*P	**P**	**12 33 52.8**	**-0.2**
	comp=Z,139nm,0.8s,mb5.9						
TAU				LR	LR		
	comp=Z,44µm,19.0s,MS6.8						
TRN	**Trinidad (W)**	**76.64**	**324**	*e*P	**P**	**12 33 55.9**	**+1.9**
TORD	**Torodi Ar. Bea**	**76.83**	**27**	P	**P**	**12 33 55.0**	**0.0**
	comp=Z,91nm,0.7s,mb5.8,baz=199,slow=5.4,SNR=227						
TORD				LR	LR	13 02 33.1	
	comp=Z,17µm,19.2s,MS6.4,baz=210,slow=32						
SNZO	**South Karori**	**76.92**	**196**	*e*P	**P**	**12 33 56.8**	**+1.5**
	comp=Z,1µm,1.6s,mb6.6						
SNZO				LR	LR		
	comp=Z,10µm,20.0s,MS6.2						
MOO	**Moorlands**	**76.96**	**175**	*e*P	**P**	**12 33 55.8**	**+0.2**
MOO				*e*PP	PP	12 36 52.9	+4.9
PAYG	**Puerto Ayora**	**77.30**	**292**	*e*P	**P**	**12 33 58.0**	**+0.2**
	comp=Z,321nm,1.8s,mb6.0						
PAYG				LR	LR		
	comp=Z,21µm,19.0s,MS6.5						
SDV	**Santo Domingo**	**77.94**	**314**	*e*P	**P**	**12 34 00.2**	**-1.2**
	comp=Z,290nm,1.2s,mb6.1						
SDV				*e*PP	PP	12 36 58.6	+1.1
SDV				LR	LR		
	comp=Z,25µm,21.0s,MS6.5						
GRGR	**Grenville**	**78.12**	**324**	*e*P	**P**	**12 34 04.1**	**+1.9**
	comp=Z,945nm,1.6s,mb6.5						
GRGR				LR	LR		
	comp=Z,22µm,21.0s,MS6.5						
BBGH	**Gun Hill**	**78.49**	**326**	PFAKE		12 34 20.0	+16
BBGH				LR	LR		
	comp=Z,29µm,20.0s,MS6.6						
URZ	**Urewera**	**79.57**	**198**	*e*P	**P**	**12 34 10.7**	**+0.6**
	comp=Z,2µm,2.0s,mb6.6						
FDF	**Fort de France**	**80.45**	**325**	*e*P	**P**	**12 34 16.9**	**+2.0**
FDF				pmax	pmax		
	comp=Z,307nm,1.3s,mb6.1						
FDF				MLR	MLR		
	comp=Z,13µm,22.0s,MS6.2						
FDF	**Fort de France**	**80.45**	**325**	*e*P	**P**	**12 34 16.9**	**+2.0**
	comp=Z,306nm,1.3s,mb6.1						
FDF				LR	LR		
	comp=Z,13µm,22.0s,MS6.2						
DSHT	**Scott's Head**	**80.97**	**325**	*e*	**P**	**12 34 15.8**	**-1.9**
DSTT	**Stowe**	**80.98**	**325**	*e*	**P**	**12 34 19.9**	**+2.1**
DBCT	**Belle View Cho**	**81.01**	**325**	*e*	**P**	**12 34 22.1**	**+4.2**
MDN	**Morne-Daniel**	**81.07**	**325**	*e*	**P**	**12 34 19.8**	**+1.5**
MSEY	**Mahe Island**	**81.58**	**84**	*e*P	**P**	**12 34 22.3**	**+1.1**
	comp=Z,2µm,2.5s,mb6.6						
MSEY				LR	LR		
	comp=Z,21µm,22.0s,MS6.5						
BCIP	**Isla Barro Col**	**81.65**	**306**	*e*P	**P**	**12 34 22.3**	**+0.8**
	comp=Z,618nm,1.7s,mb6.3						
BCIP				LR	LR		
	comp=Z,11µm,21.0s,MS6.2						
TOO	**Toolangi**	**81.72**	**173**	*e*P	**P**	**12 34 20.7**	**-1.0**
TOO				*e*S	S	12 44 34.5	+0.4
NWAO	**Narrogin (SRO)**	**81.80**	**149**	P	**P**	**12 34 21.3**	**-0.9**
	comp=Z,29nm,0.8s,mb5.3,baz=191,slow=7.4,SNR=14						
NWAO	**Narrogin (SRO)**	**81.80**	**149**	*e*P	**P**	**12 34 21.2**	**-0.9**
	comp=Z,191nm,1.5s,mb5.8						
NWAO				LR	LR		
	comp=Z,15µm,22.0s,MS6.3						
NWAO	**Narrogin (SRO)**	**81.80**	**149**	P	**P**	**12 34 23.2**	**+1.1**
	SNR=12						
NWAO				P		12 34 23.2	
	SNR=12						
MUN	**Mundaring**	**82.44**	**148**	⇓*i*P	**P**	**12 34 23.4**	**-2.1**
MUN				*e*S	S	12 44 39.2	-2.4
MUN				*e*PKPPKP		13 00 53.0	
BPA	**Boggy Peak**	**82.84**	**325**	*e*	**P**	**12 34 29.8**	**+2.2**
OUZ	**Omahuta**	**83.06**	**196**	*e*P	**P**	**12 34 28.4**	**-0.2**
	comp=Z,878nm,1.6s,mb6.5						

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KLBR  Kellerberrin      83.20 149  eP       P        12 34 27.4 -2.1
      comp=Z,226nm,1.2s,mb6.1
KLBR                               ePKPPKP           13 00 53.5
ANWB  Willy Bob         83.42 325   PFAKE            12 34 40.0 +9.5
ANWB                                LR      LR
      comp=Z,17µm,21.0s,MS6.4
CAN   Canberra          84.14 176   P       P        12 34 33.5 -0.7
CAN                                 pmax    pmax
      comp=Z,390nm,1.4s,mb6.3
CAN   Canberra          84.14 176  eP       P        12 34 33.6 -0.6
      comp=Z,389nm,1.4s,mb6.3
CAN                                 LR      LR
      comp=Z,25µm,21.0s,MS6.6
CNB   Canberra Magne    84.16 176  eP       P        12 34 33.1 -1.2
CNB                                eS       S        12 45 02.7 +3.8
MTP   Monte Pirata      84.91 322  eP       P        12 34 36.6 -1.6
      comp=Z,299nm,1.6s,mb6.2
STVI  Saint Thomas      84.97 323  eP       P        12 34 39.7 +1.3
      comp=Z,446nm,1.7s,mb6.3
HUMP  Col San Antoni    85.05 322  eP       P        12 34 38.9 +0.1
      comp=Z,70nm,1.0s,mb5.7
SJG   San Juan          85.11 322   PFAKE            12 34 50.0  +11
SJG                                 LR      LR
      comp=Z,23µm,22.0s,MS6.5
CBYP  Canovanas         85.17 322  eP       P        12 34 38.5 -0.9
      comp=Z,428nm,1.6s,mb6.3
OBIP  Obispado Ponce    85.18 321  eP       P        12 34 38.6 -0.8
CRPR  Cabo Rojo, PR     85.30 321  eP       P        12 34 39.4 -0.7
      comp=Z,314nm,1.9s,mb6.1
FURI  Furi              85.61  63  eP       P        12 34 45.8 +4.0
FURI                                S       S        12 45 14.2 +0.6
RIV   Riverview         85.69 177  eP       P        12 34 42.8 +0.7
FORT  Forrest           86.26 157  eP       P        12 34 43.3 -1.6
      comp=Z,168nm,1.2s,mb6.2
FORT                               eS       S        12 45 12.8 -7.0
FORT                               ePKPPKP           13 00 48.7
FORT  Forrest           86.26 157  eP       P        12 34 44.1 -0.8
      comp=Z,717nm,1.4s,mb6.7
TAM   Tamanrasset       87.02  29  eP       P        12 34 49.4 +0.9
TAM                                 pmax    pmax
      comp=Z,782nm,2.1s,mb6.6
TAM                                 MLR     MLR
      comp=Z,17µm,19.0s,MS6.5
TAM   Tamanrasset       87.02  29  eP       P        12 34 49.4 +0.9
      comp=Z,782nm,2.1s,mb6.6
TAM                                 LR      LR
      comp=Z,17µm,19.0s,MS6.5
STKA  Stephens Creek    87.08 169  eP       P        12 34 47.3 -1.6
      comp=Z,86nm,1.3s,mb5.8
STKA                               eS       S        12 45 15.0  -13
STKA                               e                 12 52 41.1
STKA                               ePKPPKP           13 00 42.0
STKA  Stephens Creek    87.08 169   P       P        12 34 47.2 -1.7
      comp=Z,54nm,1.0s,mb5.7,baz=166,slow=5.5,SNR=54
STKA                                LR      LR       13 12 39.8
      comp=Z,26µm,18.1s,MS6.7,baz=172,slow=35
RAO   Raoul Island      87.48 204   P       P        12 34 49.6 -1.3
      comp=Z,62nm,0.3s,mb6.3,baz=52,slow=21,SNR=6.0
RAO   Raoul Island      87.48 204   P       P        12 34 49.6 -1.3
RAO                                 LR      LR
      comp=Z,8µm,20.0s,MS6.1
DGAR  Diego Garcia      87.50 101   PFAKE            12 35 00.0 +8.8
DGAR                                LR      LR
      comp=Z,24µm,19.0s,MS6.6
DESE  Dese              88.00  63  eP       P        12 34 57.4 +3.9
DESE                                S       S        12 45 57.5  +21
EGOM  La Gomera         88.88   7   P       P        12 35 01.8 +4.6
      comp=Z,52nm,1.1s,mb5.8
EOSO  Osorio            88.91   9   P       P        12 35 00.5 +3.1
      comp=Z,3µm,1.8s,mb7.3
CCAN  Las Canadas       88.98   8   P       P        12 35 02.0 +4.3
      comp=Z,2µm,2.2s,mb7.0
MTDJ  Mount Denham      89.05 312  eP       P        12 34 59.3 +1.1
      comp=Z,225nm,1.4s,mb6.3
MRKH  Merkhyat          89.06  55  e        P        12 35 00.2 +1.8
      baz=162,slow=2.9
MRKH                               i P               12 35 00.9
MRKH                               i S      S        12 45 58.9  +12
MRKH                                AMS     AMS      12 46 09.0
      comp=N,50µm,5.3s
ARMA  Armidale          89.10 178  eP       P        12 34 58.1 -0.5
ARMA                               ePP      PP       12 38 25.1 -2.5
ARMA                               eS       S        12 45 31.1  -16
ARMA  Armidale          89.10 178  eP       P        12 34 58.3 -0.2
      comp=N,278nm,1.6s,mb6.3
ARMA                               ePP      PP       12 38 30.1 +2.4
TGUH  Tegucigalpa,Un    89.11 301  eP       P        12 34 58.0 -0.6
      comp=N,267nm,1.6s,mb6.3
TGUH                                LR      LR
      comp=Z,14µm,22.0s,MS6.3
EBAJ  Bajamar           89.32   8   P       P        12 35 03.3 +4.1
      comp=Z,2µm,2.1s,mb7.1
CFTV  Fuerteventura     89.37  10   P       P        12 35 02.2 +2.7
      comp=Z,560nm,1.7s,mb6.6
MASC  Masc              89.67 315  eP       P        12 35 03.7 +2.6
GTBY  Guantanamo Bay    89.74 314  eP       P        12 35 00.8 -0.6
      comp=Z,88nm,1.3s,mb5.9
GTBY                                LR      LR
      comp=Z,21µm,21.0s,MS6.5
GRTK  Grand Turk        89.87 318  eP       P        12 35 03.5 +1.6
      comp=Z,1µm,1.9s,mb6.9
PPT   Papeete           90.01 232  eP       P        12 35 03.2 +0.2
      comp=Z,100nm,1.6s,mb5.9
PPT   Papeete           90.01 232  ePP      PP       12 38 27.2 -8.2
      comp=Z,1µm,24.2s
PPT                                eS       S        12 45 53.5 -2.3
      comp=Z,6µm,25.5s
PPT                                eSS      SS       12 51 50.0 -2.9
PPT                                eLQ               12 59 46.3
      comp=Z,20µm,25.0s
PPT                                eLR      LR       13 03 39.9
      comp=Z,12µm,22.2s
PPT   Papeete           90.01 232   P       P        12 35 02.1 -0.9
      comp=Z,15nm,0.6s,mb5.5,baz=196,slow=1.4,SNR=5.7
PPT                                 LR      LR       13 09 31.1
      comp=Z,16µm,18.4s,MS6.5,baz=162,slow=32
RCC   Rio Carpintero    90.01 314  eP       P        12 35 00.6 -2.1
EFAM  Famara            90.13  11   P       P        12 35 05.7 +2.6
      comp=Z,2µm,1.9s,mb7.1
RAR   Rarotonga         90.32 222  eP       P        12 35 05.0 +0.6
      comp=Z,1µm,1.9s,mb6.8
RAR                                 LR      LR
      comp=Z,5µm,20.0s,MS6.0
LMGC  Las Mercedes      90.54 313  eP       P        12 35 06.7 +1.5
HLGC  Holguin           90.97 314  eP       P        12 35 09.1 +2.0
VAH   Vaihoa            91.35 235  eP       P        12 35 10.6 +1.4
      comp=Z,786nm,1.4s,mb6.8
PMOR  Pomariorio Ree    91.67 235  eP       P        12 35 12.2 +1.5
      comp=Z,521nm,1.4s,mb6.7
CCCC  Cccc              91.86 312  eP       P        12 35 10.0 -1.3
CCIG  Comitan           93.17 298  i P      P        12 35 17.2 -0.2
MBWA  Marble Bar        93.67 148  eP       P        12 35 19.7 -0.2
      comp=Z,59nm,0.9s,mb6.0
MBWA                                LR      LR
      comp=Z,15µm,20.0s,MS6.5
TAOE  Nuku Hiva Isla    93.91 244  eP       P        12 35 19.7 -1.4
TAOE                               eSP      SP       12 47 44.4 -0.3
      comp=Z,6µm,23.0s
TAOE                               eLQ               13 01 43.3
      comp=Z,26µm,29.8s
TAOE                               eLR      LR       13 05 51.5
      comp=Z,33µm,26.2s
TAOE  Nuku Hiva Isla    93.91 244  eP       P        12 35 19.7 -1.4
TAOE                               eSP      SP       12 47 44.4 -0.3
TAOE                               eLQ               13 01 43.3
EIDS  Eidsvold          94.12 177  eP       P        12 35 21.6 -0.3
      comp=Z,188nm,1.7s,mb6.2
ASAR  Alice Springs     94.22 161   P       P        12 35 20.5 -1.9
ASAR                                                 12 39 09.2
ASAR                                pmax    pmax
      comp=Z,26nm,0.8s
ASAR  Alice Springs     94.22 161   P       P        12 35 20.5 -1.9
      comp=Z,26nm,0.8s,mb5.7,baz=190,slow=3.8,SNR=51
ASAR                                PP      PP       12 39 09.2 +1.0
      comp=Z,8.4nm,0.9s,baz=191,slow=7.1,SNR=5.2
ASAR                                PKKPbc  PKKPbc   12 52 21.1 +1.1
      comp=Z,2.2nm,0.7s,baz=15,slow=1.9,SNR=22
ASAR                                PKPPKP           13 00 28.8
      comp=Z,1.2nm,0.9s,baz=31,slow=3.1,SNR=4.6
COCO  West Island       94.27 124   PFAKE            12 35 30.0 +7.3
COCO                                LR      LR
      comp=Z,15µm,19.0s,MS6.5
HUIG  Huatulco          94.46 294  i P      P        12 35 22.8 -0.6
MDT   Midelt            94.83  18   P       P        12 35 25.1 +0.4
      comp=Z,9.2nm,1.0s,mb5.2,baz=169,slow=6.1,SNR=11
MDT                                 LR      LR       13 11 32.8
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      comp=Z,20µm,21.3s,MS6.6,baz=197,slow=31
TEIG  Tepich            95.05 303   P       P        12 35 25.2 -0.8
      comp=Z,95nm,0.9s,mb6.2,baz=189,slow=1.4,SNR=35
TEIG  Tepich            95.05 303  eP       P        12 35 25.2 -0.7
      comp=Z,130nm,1.0s,mb6.3
TEIG                                LR      LR
      comp=Z,13µm,20.0s,MS6.4
CMIG  Matias Romero     95.08 296   P       P        12 35 24.5 -1.7
      comp=Z,23nm,1.0s,mb5.6,baz=123,slow=2.6,SNR=17
SOR   Soroa             95.27 309  eP       P        12 35 27.3 +0.4
RTC   Rabat Centre      95.67  16   PFAKE            12 35 40.0  +12
RTC                                 LR      LR
      comp=Z,25µm,20.0s,MS6.7
VHO   Vista Hermosa     95.89 295  i P      P        12 35 31.3 +1.4
PNIG  Pinotepa          95.91 293  i P      P        12 35 30.5 +0.5
CAIG  El Cayaco         97.46 291  i P      P        12 35 37.3 +0.3
WRA   Warramunga Arr    97.94 161   P       P        12 35 37.0 -2.3
WRA                                                  12 39 36.7
WRA                                 pmax    pmax
      comp=Z,26nm,1.2s
WRA   Warramunga Arr    97.94 161   P       P        12 35 37.0 -2.3
      comp=Z,26nm,1.2s,mb5.6,baz=190,slow=3.3,SNR=45
WRA                                 PP      PP       12 39 36.7 -0.3
      comp=Z,8.6nm,1.1s,baz=191,slow=5.8,SNR=5.4
WRA                                 PKKPbc  PKKPbc   12 52 10.8 +0.8
      comp=Z,2.6nm,0.7s,baz=355,slow=2.8,SNR=12
WRA                                 LR      LR       13 16 41.7
      comp=Z,67µm,21.5s,MS7.1,baz=190,slow=34
WRAB  Tennant Creek     97.95 161   P       P        12 35 39.9 +0.5
      comp=Z,226nm,1.7s,mb6.4,SNR=7.1
WRAB  Tennant Creek     97.95 161  eP       P        12 35 38.7 -0.7
WRAB                               e                 12 39 37.8
WRAB                                pmax    pmax
      comp=Z,181nm,1.8s,mb6.3
WRAB                                MLR     MLR
      comp=Z,81µm,22.0s,MS7.2
WRAB  Tennant Creek     97.95 161  eP       P        12 35 38.7 -0.7
      comp=Z,181nm,1.8s,mb6.3
WRAB                               ePP      PP       12 39 37.8 +0.7
WRAB                                LR      LR
      comp=Z,81µm,22.0s,MS7.2
FITZ  Fitzroy Crossi    98.05 152  eP       P        12 35 40.2 +0.4
      comp=Z,21nm,0.9s,mb5.7
FITZ                               ePP      PP       12 39 36.0 -1.9
FITZ                               eS       SKSac    12 46 20.9 +3.3
FITZ  Fitzroy Crossi    98.05 152   LR      LR       13 17 44.9
      comp=Z,14µm,19.6s,MS6.5,baz=178,slow=34
FITZ  Fitzroy Crossi    98.05 152  eP       P        12 35 39.7 -0.1
      comp=Z,90nm,1.5s,mb6.1
LVIG  Laguna Verde      98.08 296  i P      P        12 35 38.3 -1.4
BBSR  BB Station        98.17 327   PFAKE            12 35 50.0  +10
BBSR                                LR      LR
      comp=Z,15µm,22.0s,MS6.4
CMLA  Cha da Macela     98.20   0   PFAKE            12 35 50.0  +10
CMLA                                LR      LR
      comp=Z,9µm,20.0s,MS6.3
SFS   San Fernando      98.20  16   PFAKE            12 35 50.0  +10
SFS                                 LR      LR
      comp=Z,30µm,20.0s,MS6.8
PLIG  Platanillo        98.29 293  i P      P        12 35 41.3 +0.6
OJGS  Djebel Guires     98.34  21   P       PP       12 39 47.0 +5.9
PPM   Popocatepetl      98.48 294  i P      P        12 35 41.7 +0.1
PFVI  Vila Bisbo        98.53  13  eP       P        12 35 43.8 +2.5
PFVI  Vila Bisbo        98.53  13  ePP      PP       12 39 44.1 +1.6
PFVI                               eSKS              12 46 20.2
PFVI                               eSS      SS       12 54 05.5  +10
PFVI                               eLR      LR       13 08 24.1
      comp=Z,15µm,20.9s
MORF  Marmelete         98.72  14  eP       P        12 35 44.6 +2.4
MORF  Marmelete         98.72  14  ePP      PP       12 39 47.2 +3.3
MORF                               eSKS              12 46 22.0
MORF                               eSS      SS       12 54 11.4  +13
MORF                               eLQ               13 03 07.2
MORF                               eLR      LR       13 08 32.1
      comp=Z,16µm,20.0s
MORF  Marmelete         98.72  14  eP       P        12 35 44.1 +1.9
MORF                               eS       SKSac    12 46 21.9 +2.3
MORF                               eSS      SS       12 53 59.4 +1.2
PBDV  Barranco-do-Ve    98.75  14  eP       P        12 35 47.4 +5.1
PBDV  Barranco-do-Ve    98.75  14  ePP      PP       12 39 47.6 +3.5
PBDV                               eSKS              12 46 18.3
PBDV                               eLQ               13 03 25.4
PBDV                               eLR      LR       13 08 48.5
      comp=Z,17µm,20.4s
OKGL  Djebel Kef Gue    98.84  21   P       PP       12 39 49.0 +4.1
PVAQ  Vaqueiros         98.93  14  eP       P        12 35 41.6 -1.5
PVAQ  Vaqueiros         98.93  14  ePP      PP       12 39 49.3 +3.8
PVAQ                               eSKS              12 46 21.6
PVAQ                               eSS      SS       12 54 07.6 +6.5
PVAQ                               eLQ               13 03 28.5
PVAQ                               eLR      LR       13 09 06.5
      comp=Z,15µm,21.7s
PTEO  Sao Teotonio      98.95  14  eP       P        12 35 46.1 +2.9
CTA   Charters Tower    99.15 172   P       P        12 35 42.9 -1.8
CTA                                                  12 39 43.2
CTA                                 pmax    pmax
      comp=Z,39nm,1.3s
CTA                                 pmax    pmax
      comp=Z,7.0nm,1.1s
CTA                                 MLR     MLR
      comp=Z,46µm,20.1s
CTA   Charters Tower    99.15 172  eP       P        12 35 44.5 -0.2
      comp=Z,25nm,1.5s,mb5.5
CTA                                e                 12 36 24.9
CTA                                ePP      PP       12 39 45.9 -0.3
CTA                                eS       SKSac    12 46 24.0 +0.9
CTA                                e                 12 52 31.1
CTA   Charters Tower    99.15 172   P       P        12 35 42.9 -1.9
      comp=Z,39nm,1.3s,mb5.8,baz=194,slow=3.8,SNR=12
CTA                                 PP      PP       12 39 43.2 -3.0
      comp=Z,6.7nm,1.1s,baz=121,slow=5.5,SNR=4.1
CTA                                 LR      LR       13 19 50.2
      comp=Z,46µm,20.1s,MS7.0,baz=191,slow=35
CTAO  Charters Tower    99.15 172  eP       P        12 35 44.5 -0.2
CTAO                               e                 12 39 43.0
CTAO                                pmax    pmax
      comp=Z,180nm,1.8s,mb6.3
CTAO                                MLR     MLR
      comp=Z,44µm,20.0s,MS7.0
CTAO  Charters Tower    99.15 172  eP       P        12 35 44.5 -0.3
      comp=Z,180nm,1.8s,mb6.3
CTAO                               ePP      PP       12 39 43.0 -3.2
CTAO                                LR      LR
      comp=Z,44µm,20.0s,MS7.0
ATAF  Djebel Tarf       99.37  24   P       PP       12 39 39.1  -10
AKET  Djebel Ketaf      99.46  24   P       PP       12 39 39.9  -10
ADJB  Djebel Djouab     99.48  23   P       PP       12 39 40.9 -8.8
DWPF  Disney            99.50 312   PFAKE            12 36 00.0  +14
DWPF                                LR      LR
      comp=Z,28µm,21.0s,MS6.8
PBEJ  Beja              99.53  14  eP       P        12 35 48.9 +3.1
CKHR  Kef el Ahmar      99.76  25   P       PP       12 39 57.0 +5.1
SET   Setif             99.92  25   P       PP       12 39 59.0 +5.9
EVOP  Sao Brissos       99.99  14  eP       Pdif     12 35 47.4 -1.2
EVOP                               ePP      PP       12 39 54.2 +0.6
EVOP                               eS       SS       12 54 18.4 +2.5
EVOP                               eS       SS       12 54 18.9 +3.0
EVOP                                AMS     AMS      13 15 46.8
      comp=Z,21µm,21.2s,MS6.6
EVOP  Sao Brissos       99.99  14  eP       Pdif     12 35 47.4 -1.3
EVOP                               e                 12 39 54.2
EVOP                               eS       SS       12 54 18.4 +2.5
EVO   Evora            100.01  14  eP       Pdif     12 35 49.6 +0.9
      comp=Z,345nm,1.9s
EVO   Evora            100.01  14  eP       Pdif     12 35 51.5 +2.8
ABA   Alger-Bouzarea   100.03  23   P       PP       12 39 41.1  -13
LIS   Lisbon           100.06  13  eP       Pdif     12 35 49.5 +0.5
LIS                                ePP      PP       12 39 54.2  0.0
LIS                                eS       SKSac    12 46 28.4 +2.3
LIS                                eS       SKSac    12 46 29.7 +3.5
LIS                                eSS      SS       12 54 19.8 +2.9
LIS                                eSS      SS       12 54 20.0 +3.1
LIS   Lisbon           100.06  13  eP       Pdif     12 35 49.5 +0.5
LIS                                e                 12 39 54.2
LIS                                eS       SKSac    12 46 28.4 +2.2
LIS                                eSS      SS       12 54 19.8 +2.9
MOIG  Morelia          100.17 292  i P      Pdif     12 35 49.9 +0.4
CASM  Ain Smara        100.20  26   P       PP       12 40 02.0 +6.8
PMAFR Mafra            100.28  13  eP       Pdif     12 35 52.8 +2.8
PMAFR Mafra            100.28  13  ePP      PP       12 39 57.6 +1.8
PMAFR                              eSKS              12 46 34.1
PMAFR                              eSS      SS       12 54 27.7 +7.7
PMAFR                              eLQ               13 03 57.5
PMAFR                              eLR      LR       13 08 28.3
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      comp=Z,14µm,22.2s
KEST  Kesra            100.33  28   P       Pdif     12 35 51.2 +1.0
      comp=Z,2.7nm,1.1s,baz=204,slow=2.6,SNR=4.3
KEST                                PP      PP       12 39 58.2 +1.9
      comp=Z,4.1nm,1.1s,baz=138,slow=9.2,SNR=7.1
DFRA  Djebel Bou Aff   100.35  25   P       PP       12 40 00.0 +3.7
CKFL  Kef-Lekhel       100.39  26   P       PP       12 40 02.0 +5.4
PESTR Estremoz         100.39  14  eP       Pdif     12 35 53.0 +2.6
PESTR Estremoz         100.39  14  ePP      PP       12 39 45.5  -11
PESTR                              eSKS              12 46 37.6
PESTR                              eSS      SS       12 54 32.0  +11
PESTR                              eLQ               13 03 49.6
PESTR                              eLR      LR       13 09 27.0
      comp=Z,13µm,20.9s
ABSA  Djebel Ababsia   100.43  27   P       PP       12 40 02.0 +5.0
CMAH  Djebel Manchou   100.76  26   P       PP       12 40 02.0 +2.6
CAEH  'Ain El Ouahch   100.78  26   P       PP       12 40 02.0 +2.4
AFI   Afiamalu         100.82 213   PFAKE            12 36 00.0 +7.7
AFI                                 LR      LR
      comp=Z,8µm,19.0s,MS6.3
PMRV  Marv??o          100.97  14  eP       Pdif     12 35 55.9 +2.9
PMRV  Marv??o          100.97  14  ePP      PP       12 40 01.8 +0.8
PMRV  Marv??o          100.97  14  ePP      PP       12 40 06.1 +5.1
PMRV                               eSS      SS       12 54 50.4  +21
PMRV                               eLQ               13 04 14.4
PMRV                               eLR      LR       13 09 35.9
      comp=Z,11µm,19.2s
PAB   San Pablo        101.48  17  eP       Pdif     12 35 56.1 +0.8
PAB                                e                 12 40 15.7
PAB                                 pmax    pmax
      comp=Z,58nm,1.6s
PAB                                 MLR     MLR
      comp=Z,11µm,20.0s,MS6.4
PAB   San Pablo        101.48  17  ePdif    Pdif     12 35 56.1 +0.8
      comp=Z,58nm,1.6s
PAB                                ePKPdf   PKiKP    12 40 15.7 -2.5
PAB                                 LR      LR
      comp=Z,11µm,20.0s,MS6.4
ESDC  Sonseca Array    101.66  17   P       Pdif     12 35 57.1 +1.1
      comp=Z,4.8nm,1.0s,baz=188,slow=4.2,SNR=9.0
ESDC                                PP      PP       12 40 10.4 +4.2
      comp=Z,0.2nm,0.4s,baz=191,slow=7.4,SNR=5.9
ESDC  Sonseca Array    101.66  17   P       Pdif     12 35 58.8 +2.7
      comp=Z,2.8nm,1.0s
WDD   Wield Dalam      101.74  32   PFAKE            12 36 10.0  +14
WDD                                 LR      LR
      comp=Z,9µm,19.0s,MS6.3
MTE   Manteigas        101.91  14  eP       Pdif     12 35 55.9 -1.3
MTE   Manteigas        101.91  14  ePP      PP       12 40 09.3 +1.2
MTE                                eSKS              12 46 43.8
MTE                                eSS      SS       12 54 41.7 -0.8
MTE                                eLQ               13 04 19.5
MTE                                eLR      LR       13 09 51.3
      comp=Z,19µm,21.0s
MTE   Manteigas        101.91  14  ePdif    Pdif     12 35 57.5 +0.3
MTE                                 LR      LR
      comp=Z,19µm,20.0s,MS6.6
PVIS  Viseu            102.18  14  eP       Pdif     12 36 04.9 +6.5
MVO   Moncorvo         102.72  14  eP       Pdif     12 36 03.8 +3.0
MVO   Moncorvo         102.72  14  ePP      PP       12 40 15.1 +0.9
MVO                                eSKS              12 46 45.7
MVO                                eSS      SS       12 54 54.5 +0.7
MVO                                eLQ               13 04 35.6
MVO                                eLR      LR       13 10 30.7
      comp=Z,13µm,19.2s
PVRL  Vila Real        102.75  14  eP       Pdif     12 36 04.8 +3.9
PCAB  Cabril           103.14  13  eP       Pdif     12 36 09.1 +6.4
ZAIG  Zacatecas        103.49 292  i P      Pdif     12 36 05.4 +1.2
NHSC  New Hope         103.59 315   PFAKE            12 36 20.0  +15
NHSC                                LR      LR
      comp=Z,15µm,22.0s,MS6.5
VSL   Villasalto       103.94  27   PFAKE            12 36 20.0  +14
VSL                                 LR      LR
      comp=Z,13µm,19.0s,MS6.5
BRAL  Brewton          104.21 309   PFAKE            12 36 20.0  +13
BRAL                                LR      LR
      comp=Z,17µm,21.0s,MS6.6
CNNC  Cliffs of the    104.77 318   PFAKE            12 36 20.0  +10
CNNC                                LR      LR
      comp=Z,13µm,22.0s,MS6.4
GOGA  Godfrey          105.03 313  ePKPdf   PKiKP    12 40 21.3 -3.6
GOGA                                LR      LR
      comp=Z,21µm,22.0s,MS6.6
ETSF  Etsaut           105.33  19  eP       Pdif     12 36 09.9 -2.5
      comp=Z,92nm,1.7s
ETSF  Etsaut           105.33  19  eP       Pdif     12 36 09.9 -2.5
ETSF                                pmax    pmax
      comp=Z,46nm,1.7s
ETSF  Etsaut           105.33  19  eP       Pdif     12 36 09.9 -2.5
      comp=Z,46nm,1.7s
VLX   Vlachokerasia    105.36  38  eP       PP       12 40 35.3 +1.4
SJPF  Ste Jean         105.43  18  eP       Pdif     12 36 10.7 -2.2
TIP   Timpagrande      105.45  33  ePKPdf   PKiKP    12 40 24.4 -1.1
TIP                                ePP      PP       12 40 34.8 +0.2
TIP                                 LR      LR
      comp=Z,14µm,20.0s,MS6.5
KVTX  Kingsville       105.57 299   PFAKE            12 40 40.0  +14
KVTX                                LR      LR
      comp=Z,11µm,19.0s,MS6.4
VLS   Valsamata        105.58  36   P       PKiKP    12 40 27.9 +2.1
VLS   Valsamata        105.58  36  eP       PKiKP    12 40 29.3 +3.5
EPF   Esparros         105.60  19  eP       Pdif     12 36 11.4 -2.2
      comp=Z,108nm,1.9s
EPF   Esparros         105.60  19  eP       Pdif     12 36 11.4 -2.2
EPF                                 pmax    pmax
      comp=Z,54nm,1.9s
EPF   Esparros         105.60  19  eP       Pdif     12 36 11.4 -2.2
      comp=Z,54nm,1.9s
DID   Didima           105.75  38  eP       PP       12 40 38.3 +1.5
GUR   Goura            105.88  38  eP       PP       12 40 38.0 +0.3
CUC   Castrocucco      105.97  32   PFAKE            12 40 40.0  +14
CUC                                 LR      LR
      comp=Z,9µm,19.0s,MS6.3
LRAL  Lakeview Retre   105.99 310   PFAKE            12 40 40.0  +13
LRAL                                LR      LR
      comp=Z,30µm,21.0s,MS6.8
LTK   Loutraki         106.14  38  eP       PP       12 40 39.0 -0.7
BSY   Bisya            106.15  72  ⇓P       PP       12 40 39.0 -0.8
      SNR=7.6
TRIZ  Trizonia         106.19  37   P       PP       12 40 40.6 +0.6
EFP   Efpalio          106.20  37  eP       PP       12 40 39.3 -0.8
MTLF  Montolieu        106.22  21  eP       Pdif     12 36 13.1 -3.3
      comp=Z,24nm,1.4s
MTLF  Montolieu        106.22  21  eP       Pdif     12 36 13.1 -3.3
MTLF                                pmax    pmax
      comp=Z,12nm,1.4s
MTLF  Montolieu        106.22  21  eP       Pdif     12 36 13.1 -3.3
      comp=Z,12nm,1.4s
MNGI  Mangalore        106.28  93  i x      PP       12 40 39.6 -1.1
MNGI                               eS       SKSac    12 46 56.2 -0.2
MNGI                               ex       x        13 21 14.2
      comp=Z,2µm,16.3s
ATH   Athens Observa   106.33  39  eP       PP       12 40 34.6 -6.4
PTL   Penteli          106.44  39  eP       PP       12 40 40.7 -1.2
VBMS  Vicksburg        106.62 307   PFAKE            12 40 40.0  +12
VBMS                                LR      LR
      comp=Z,9µm,20.0s,MS6.3
EVR   Evrytania        106.62  37  eP       PP       12 40 47.6 +4.4
BHL   Bhannes          106.71  50  eP       PKiKP    12 40 28.3 +0.3
LKR   Lokris           106.73  38   P       PP       12 40 40.9 -3.1
LKR   Lokris           106.73  38  eP       PP       12 40 40.5 -3.5
IGT   Igoumenitsa      106.77  35   P       PP       12 40 47.0 +2.7
KEK   Kerkira          106.78  35  eP       PP       12 40 49.1 +4.7
HKT   Hockley          106.79 301  eP       Pdif     12 36 19.5 +0.6
HKT                                 pmax    pmax
      comp=Z,49nm,1.8s
HKT                                 MLR     MLR
      comp=Z,10µm,21.0s,MS6.3
HKT   Hockley          106.79 301  ePdif    Pdif     12 36 19.5 +0.6
      comp=Z,49nm,1.8s
HKT                                 LR      LR
      comp=Z,10µm,21.0s,MS6.3
CSS   Prodhromos       106.80  47   PFAKE            12 40 40.0  +12
CSS                                 LR      LR
      comp=Z,7µm,20.0s,MS6.2
BERF  Bertagne         106.83  23  eP       PKiKP    12 40 22.8 -5.1
GELF  Grande-Etoile    106.85  23  eP       PKiKP    12 40 21.7 -6.2
AGG   Agios Georgios   106.88  37   P       PP       12 40 39.2 -5.9
AGG   Agios Georgios   106.88  37  eP       PP       12 40 46.0 +0.9
JAN   Janina           107.03  36  eP       PP       12 40 47.4 +1.2
TREF  Trevaresse       107.07  23  eP       PKiKP    12 40 23.0 -5.3
TAVF  Tavernes         107.20  24  eP       PKiKP    12 40 20.8 -7.8
PRAF  Pradon           107.21  23  eP       PKiKP    12 40 23.9 -4.7
MEV   Metsovon         107.26  36   P       PP       12 40 47.4 -0.5
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THL	**Klokotos Trika**	**107.28**	**37**	P	PP	12 40 48.4	+0.4
THL	**Klokotos Trika**	**107.28**	**37**	*e*P	PP	12 40 47.6	-0.4
CBN	**Corbin**	**107.31**	**320**	PFAKE		12 40 40.0	+11
CBN				LR	LR		
	comp=Z,14µm,22.0s,MS6.5						
VILF	**Villemus**	**107.36**	**23**	*e*P	PKiKP	12 40 23.7	-5.2
BLA	**Blacksburg**	**107.40**	**317**	PFAKE		12 40 40.0	+11
BLA				LR	LR		
	comp=Z,16µm,21.0s,MS6.5						
NEO	**Neokhori**	**107.41**	**38**	*e*P	PP	12 40 48.5	-0.4
HATD	**Hatta, Dubai**	**107.44**	**70**	P	PP	12 40 52.5	+3.3
	SNR=9.7						
MVIF	**Mont Vial**	**107.68**	**24**	*e*P	PP	12 40 40.5	-10
LUCF	**Luceram**	**107.72**	**24**	*e*P	PP	12 40 40.5	-11
TOUF	**Mont Tournerai**	**107.81**	**24**	*e*P	PP	12 40 40.1	-12
AUTN	**L'Aution**	**107.83**	**24**	*e*P	PP	12 40 39.9	-12
SAOF	**Saorge**	**107.85**	**24**	*e*P	PKiKP	12 40 35.1	+5.3
TZTN	**Tazewell**	**107.88**	**314**	*e*PP	PP	12 40 51.7	-0.7
NATX	**Nacogdoches**	**107.89**	**303**	PFAKE		12 40 40.0	+10
NATX				LR	LR		
	comp=Z,7µm,22.0s,MS6.2						
KZN	**Kozani**	**107.90**	**36**	*e*P	PP	12 40 51.4	-1.1
LIT	**Litokhoron**	**107.92**	**37**	P	PP	12 40 50.8	-1.9
LIT	**Litokhoron**	**107.92**	**37**	*e*P	PP	12 40 49.7	-3.0
PAIG	**Paliouri**	**108.11**	**38**	P	PP	12 40 52.0	-2.1
PLAL	**Pickwick Lake**	**108.13**	**310**	PFAKE		12 40 40.0	+9.4
PLAL				LR	LR		
	comp=Z,33µm,21.0s,MS6.9						
FNA	**Florina**	**108.23**	**36**	P	PP	12 40 54.2	-0.7
LBL	**Lubilhac**	**108.23**	**21**	*e*P	PKiKP	12 40 31.0	+0.5
TIR	**Tirane**	**108.32**	**34**	PFAKE		12 40 40.0	+9.2
TIR				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
ISP	**Isparta**	**108.41**	**44**	PFAKE		12 40 40.0	+9.0
ISP				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
PLG	**Polygyros**	**108.45**	**37**	*e*P	PP	12 40 45.7	-11
SSB	**Saint Sauveur**	**108.51**	**22**	*e*PP	PP	12 40 59.6	+2.7
SSB				LR	LR		
	comp=Z,13µm,19.0s,MS6.5						
THE	**Thessaloniki**	**108.55**	**37**	P	PP	12 40 54.3	-3.0
HORT	**Hortiatis**	**108.56**	**37**	P	PP	12 40 55.6	-1.7
VLC	**Villacollemand**	**108.61**	**26**	PFAKE		12 40 40.0	+8.8
VLC				LR	LR		
	comp=Z,17µm,20.0s,MS6.6						
PSI	**Prapat**	**108.66**	**120**	PKKPbc	PKKPbc	12 51 42.2	+3.8
	comp=Z,5.1nm,0.7s,baz=292,slow=1.6,SNR=7.1						
PYM	**Petit Puy Mans**	**108.69**	**21**	*e*P	PKiKP	12 40 31.3	0.0
BNI	**Bardonecchia**	**108.70**	**24**	PFAKE		12 40 40.0	+8.7
BNI				LR	LR		
	comp=Z,17µm,20.0s,MS6.6						
KRUS	**Krusevo**	**108.73**	**35**	*e*PKP	PP	12 40 53.9	-4.7
SOH	**Sokhos**	**108.84**	**37**	P	PP	12 40 51.9	-7.5
SOH	**Sokhos**	**108.84**	**37**	*e*P	PP	12 40 55.7	-3.7
JCT	**Junction City**	**108.94**	**299**	*e*Pdif	Pdif	12 36 29.2	+0.7
JCT				*e*PKPdf	PKiKP	12 40 30.6	-1.6
JCT				LR	LR		
	comp=Z,7µm,21.0s,MS6.2						
MFF	**Saint Martin d**	**109.01**	**18**	*e*P	Pdif	12 36 27.7	-1.0
	comp=Z,78nm,1.8s						
AGO	**Saint Agoulin**	**109.01**	**21**	*e*P	PKiKP	12 40 29.2	-2.7
PLDF	**La Plantade**	**109.01**	**21**	*e*P	PKiKP	12 40 37.6	+5.7
MDRS	**Chennai**	**109.04**	**97**	*e*x	x	12 40 38.4	
MDRS				*e*x	x	12 42 27.2	
MDRS				AMS	AMS	13 20 58.5	
	comp=Z,8µm,24.4s,MS6.2						
KAPI	**Kappang**	**109.05**	**143**	PFAKE		12 40 40.0	+6.9
KAPI				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
WVT	**Waverly**	**109.06**	**311**	PFAKE		12 40 40.0	+7.7
WVT				LR	LR		
	comp=Z,13µm,22.0s,MS6.5						
VAY	**Valandovo**	**109.07**	**36**	*e*PKP	PP	12 40 58.8	-2.3
KONT	**Konya--Tatoy**	**109.13**	**45**	*e*P	PP	12 41 01.9	+0.3
SRS	**Serrai**	**109.18**	**37**	P	PP	12 41 00.1	-1.8
SKO	**Skopje**	**109.34**	**35**	*e*PKP	PP	12 41 01.0	-2.0
MCWV	**Mont Chateau**	**109.43**	**318**	PFAKE		12 40 40.0	+7.1
MCWV				LR	LR		
	comp=Z,15µm,22.0s,MS6.5						
NVR	**Nevrokopi**	**109.47**	**37**	*e*P	PP	12 41 03.7	-0.3
TXAR	**Lajitas Array**	**109.64**	**295**	P	Pdif	12 36 33.2	+1.6
TXAR						12 51 36.2	
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TXAR	**Lajitas Array**	**109.64**	**295**	Pdiff	Pdif	12 36 33.2	+1.6
	comp=Z,0.5nm,0.9s,baz=144,slow=4.5,SNR=4.8						
TXAR				PKiKP	PKiKP	12 40 34.4	+0.7
	comp=Z,5.3nm,1.0s,baz=163,slow=2.7,SNR=12						
TXAR				PKKPbc	PKKPbc	12 51 36.2	+0.4
	comp=Z,1.6nm,0.8s,baz=336,slow=3.1,SNR=9.0						
TXAR	**Lajitas Array**	**109.64**	**295**	Pdif	Pdif	12 36 33.2	+1.6
TXAR				PKPdf	PKiKP	12 40 34.4	+0.7
TXAR				PKKPbc	PKKPbc	12 51 36.2	+0.4
MMB	**Musomiste**	**109.65**	**37**	P	PP	12 41 03.4	-1.9
SSPA	**Standing Stone**	**109.69**	**320**	PFAKE		12 40 40.0	+6.7
SSPA				LR	LR		
	comp=Z,15µm,21.0s,MS6.5						
KAD	**Karad**	**109.71**	**90**	*e*x	PKiKP	12 40 33.5	-0.6
KAD				AMS	AMS	13 19 50.9	
	comp=Z,13µm,15.0s,MS6.6						
KKB	**Krupnik**	**109.72**	**37**	P	PP	12 41 01.5	-4.3
RDO	**Rodhopi**	**109.79**	**39**	*e*P	PP	12 41 10.6	+4.3
KIZT	**Kizilcal**	**109.81**	**44**	*e*P	PP	12 41 08.9	+2.4
HNR	**Honiara**	**109.87**	**186**	PFAKE		12 40 50.0	+15
HNR				LR	LR		
	comp=Z,14µm,21.0s,MS6.5						
MIAR	**Mount Ida**	**109.88**	**306**	PFAKE		12 40 50.0	+16
MIAR				LR	LR		
	comp=Z,6µm,22.0s,MS6.1						
KOZT	**Kozan**	**109.95**	**48**	*e*P	PP	12 40 53.6	-14
RZN	**Rozhen**	**110.04**	**38**	P	PP	12 41 08.1	0.0
GAZ	**Gaziantep**	**110.19**	**49**	*e*P	PP	12 41 11.4	+2.2
SVRH	**Sivrihisar-ESK**	**110.19**	**44**	*e*P	PP	12 41 07.0	-2.2
KDZ	**Kurdzhali**	**110.22**	**38**	P	PP	12 41 08.3	-1.1
WCI	**Wyandotte Cave**	**110.36**	**313**	PFAKE		12 40 50.0	+15
WCI				LR	LR		
	comp=Z,13µm,21.0s,MS6.5						
KMRS	**Kahramanmaras**	**110.37**	**49**	*e*P	PP	12 41 01.9	-8.6
BOM	**Bombay**	**110.39**	**88**	*e*x	x	12 39 42.7	
BOM				*e*x	x	12 41 01.1	
	comp=Z,1µm,4.5s						
BOM				*e*x	x	12 48 37.5	
PLD	**Plovdiv**	**110.42**	**38**	P	PP	12 41 08.3	-2.5
VTS	**Vitosha**	**110.42**	**36**	P	PP	12 41 08.5	-2.3
VTS	**Vitosha**	**110.42**	**36**	*e*P	PP	12 41 09.6	-1.2
VTS	**Vitosha**	**110.42**	**36**	P	PP	12 41 09.3	-1.5
BINY	**Binghamton**	**110.53**	**322**	PFAKE		12 40 50.0	+15
BINY				LR	LR		
	comp=Z,12µm,22.0s,MS6.4						
POO	**Poona**	**110.59**	**89**	*i* P	PKiKP	12 40 35.1	-0.6
POO				*i* x	x	12 41 10.3	
POO				AMS	AMS	13 23 30.2	
	comp=Z,8µm,19.2s,MS6.3						
TUE	**Stuetta**	**110.60**	**25**	PFAKE		12 40 50.0	+15
TUE				LR	LR		
	comp=Z,17µm,21.0s,MS6.6						
PGB	**Panagyurishte**	**110.67**	**37**	P	PP	12 41 17.7	+5.1
KDI	**Kendari**	**110.87**	**146**	⇑*e*P	PP	12 41 13.2	-0.3
KDI				*e*S	PKKPdf	12 51 52.6	+4.7
KDI	**Kendari**	**110.87**	**146**	⇑*e*P	PP	12 41 13.2	-0.3
KDI				*e*S	PKKPdf	12 51 52.6	+4.7
LOMF	**Lomont**	**110.94**	**23**	*e*P	PP	12 40 51.6	-23
ACSO	**Alum Creek Sta**	**110.99**	**316**	PFAKE		12 40 50.0	+14
ACSO				LR	LR		
	comp=Z,11µm,21.0s,MS6.4						
DAVOX	**Davos/Dischmat**	**111.00**	**25**	PKiKP	PKiKP	12 40 36.6	+1.0
	comp=Z,4.8nm,0.8s,baz=163,slow=11,SNR=5.9						
DAVOX				PKKPab	PKKPab	12 51 42.6	+3.1
	comp=Z,4.8nm,0.9s,baz=86,slow=2.5,SNR=5.3						
BOJS	**Bojanci**	**111.01**	**30**	*e*PP	PP	12 41 17.7	+2.7
DAVOS	**Davos**	**111.04**	**25**	PKIKP	PKiKP	12 40 36.6	+0.9
BRTR	**Keskin Array B**	**111.17**	**45**	*i* PKIKP	PKiKP	12 40 36.2	0.0
BRTR	**Keskin Array B**	**111.17**	**45**	PKiKP	PKiKP	12 40 36.2	0.0
BNN	**Bunyan**	**111.18**	**47**	*e*P	PP	12 41 15.9	-0.5
VOY	**Vojsko**	**111.18**	**28**	*e*PP	PP	12 41 13.3	-3.0
VOY				*e*		12 41 46.2	
VISS	**Visnje**	**111.19**	**29**	*e*PP	PP	12 41 17.3	+1.0
JMB	**Yambol**	**111.32**	**39**	P	PP	12 41 17.3	0.0
LJU	**Ljubljana**	**111.34**	**29**	*e*PP	PP	12 41 18.8	+1.4
MOF	**Molkenrain**	**111.47**	**23**	*e*P	PP	12 40 56.0	-22
THEF	**They Montfort**	**111.62**	**22**	*e*P	PP	12 40 55.3	-24
KULM	**Kulim**	**111.63**	**120**	PFAKE		12 40 50.0	+12
KULM				LR	LR		
	comp=Z,16µm,19.0s,MS6.6						
MALT	**Malatya**	**111.65**	**50**	*e*P	PKiKP	12 40 45.4	+8.3
MALT	**Malatya**	**111.65**	**50**	⇓*i*P	PKiKP	12 40 26.9	-10
MALT	**Malatya**	**111.65**	**50**	PFAKE		12 40 50.0	+13
MALT				LR	LR		
	comp=Z,13µm,20.0s,MS6.5						
ERPA	**Erie**	**111.70**	**319**	PFAKE		12 40 50.0	+13
ERPA				LR	LR		
	comp=Z,11µm,22.0s,MS6.4						
ECH	**Echery**	**111.83**	**23**	*e*P	PP	12 40 54.2	-27
ECH	**Echery**	**111.83**	**23**	PFAKE		12 40 50.0	+13
ECH				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
KDZE	**Karadeniz Ereo**	**111.84**	**43**	*e*P	PKiKP	12 40 44.7	+7.3
SZH	**Strazhica**	**111.85**	**38**	P	PP	12 41 18.0	-3.1
HYB	**Hyderabad**	**111.94**	**94**	*e*P	Pdif	12 36 38.0	-3.8
HYB				*e*		12 40 37.0	
HYB	**Hyderabad**	**111.94**	**94**	*i* Pdif	Pdif	12 36 38.0	-3.8
HYB				*e*		12 40 37.0	
HYB				*e*SKS	SKSac	12 47 19.0	-1.2
HYB				*e*PKKP	PKKPab	12 51 40.0	+1.4
HYB				*e*PSS		12 57 16.0	
HYB	**Hyderabad**	**111.94**	**94**	*e*P	Pdif	12 36 38.0	-3.8
HYB				*e*		12 40 37.0	
HYB				*e*		12 51 40.0	
CANT	**Cankiri**	**111.95**	**45**	*e*P	PP	12 41 18.4	-3.4
KSM	**Kuching**	**111.99**	**131**	PFAKE		12 40 50.0	+11
KSM				LR	LR		
	comp=Z,11µm,21.0s,MS6.4						
CCM	**Cathedral Cave**	**112.04**	**309**	PFAKE		12 40 50.0	+12
CCM				LR	LR		
	comp=Z,26µm,22.0s,MS6.8						
BFO	**Black Forest**	**112.17**	**24**	*e*PP	PP	12 41 23.3	0.0
BFO	**Black Forest**	**112.17**	**24**	PFAKE		12 40 50.0	+12
BFO				LR	LR		
	comp=Z,19µm,20.0s,MS6.7						
WMOK	**Wichita Mounta**	**112.17**	**302**	*e*PKIKP	PKiKP	12 40 37.3	-0.9
WMOK				*e*		12 41 25.5	
WMOK				MLR	MLR		
	comp=Z,8µm,22.0s,MS6.3						
PRD	**Provadia**	**112.24**	**39**	*e*P	PP	12 41 16.1	-7.8
TOS	**Tosya**	**112.47**	**45**	*e*P	PP	12 41 28.6	+3.0
RJOB	**Jochberg**	**112.54**	**27**	*e*PP	PP	12 41 28.0	+2.0
FUR	**Furstenfeldbru**	**112.61**	**26**	*e*PKPdf	PKiKP	12 40 38.1	-0.5
FUR				*e*PP	PP	12 41 27.5	+1.0
LANF	**Langenberg**	**112.69**	**23**	*e*P	PP	12 40 58.1	-29
CUKT	**Cukurca**	**112.72**	**54**	*e*P	PKiKP	12 40 43.4	+4.2
TOKT	**Tokat**	**112.73**	**47**	*e*P	PP	12 41 31.1	+3.7
BZS	**Buzias**	**112.75**	**34**	⇓*i*P	PKiKP	12 40 38.7	-0.3
BZS	**Buzias**	**112.75**	**34**	⇓P	PKiKP	12 40 38.6	-0.3
STU	**Stuttgart**	**112.76**	**24**	*e*PP	PP	12 41 28.1	+0.6
WLF	**Walferdange**	**113.03**	**22**	*e*PP	PP	12 41 29.6	+0.2
WLF	**Walferdange**	**113.03**	**22**	PFAKE		12 40 50.0	+11
WLF				LR	LR		
	comp=Z,14µm,22.0s,MS6.5						
AAM	**Ann Arbor**	**113.06**	**317**	PFAKE		12 40 50.0	+10
AAM				LR	LR		
	comp=Z,12µm,22.0s,MS6.5						
DOU	**Dourbes**	**113.17**	**21**	PP	PP	12 41 31.6	+1.2
SOP	**Sopron**	**113.36**	**30**	⇑*e*PKP	PKiKP	12 40 40.4	+0.3
CSNA	**Conrad Observa**	**113.43**	**29**	⇓*i*PKiKP	PKiKP	12 40 40.2	0.0
	comp=Z,11nm,1.7s						
CONA	**Conrad Observa**	**113.43**	**29**	⇓*i*PKPdf	PKiKP	12 40 40.2	0.0
	comp=Z,11nm,1.6s						
HDIL	**Hopedale**	**113.50**	**312**	PFAKE		12 40 50.0	+9.4
HDIL				LR	LR		
	comp=Z,17µm,22.0s,MS6.6						
SNF	**Seneffe**	**113.52**	**20**	PP	PP	12 41 34.0	+1.1
AMTX	**Amarillo**	**113.52**	**300**	*e*PKPdf	PKiKP	12 40 40.2	-0.6
AMTX				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
VOIR		**113.56**	**36**	⇓*i*P	PKiKP	12 40 41.4	+0.9
VOIR		**113.56**	**36**	⇓P	PKiKP	12 40 41.4	+0.8
BCLA	**Clavier**	**113.61**	**21**	PP	PP	12 41 33.4	-0.1
HARR	**Harsova**	**113.75**	**39**	⇑*i*P	PKiKP	12 40 37.3	-3.6
HARR	**Harsova**	**113.75**	**39**	⇑P	PKiKP	12 40 37.3	-3.6
GEC2	**GERESS Array S**	**113.79**	**27**	*e*PP	PP	12 41 35.1	+0.3
GERES	**GERESS Array B**	**113.79**	**27**	*i* PKIKP	PKiKP	12 40 39.9	-0.9
GERES						12 41 37.9	
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
GERES	**GERESS Array B**	**113.79**	**27**	PKiKP	PKiKP	12 40 39.9	-0.9
	comp=Z,2.0nm,0.7s,baz=191,slow=2.0,SNR=14						
GERES				PP	PP	12 41 37.9	+3.1
	comp=Z,7.2nm,0.9s,baz=199,slow=7.0,SNR=11						
GERES				PKKPbc	PKKPbc	12 51 21.6	-0.9
	comp=Z,0.5nm,0.5s,baz=25,slow=10,SNR=4.6						
BUD	**Budapest**	**113.79**	**31**	⇑*e*PKP	PKiKP	12 40 43.5	+2.6
VANB	**Van**	**113.79**	**53**	*e*P	PKiKP	12 40 53.0	+12
UCC	**Uccle**	**113.81**	**20**	PP	PP	12 41 36.7	+1.8
MLR	**Muntele Rosu**	**113.87**	**37**	*i* PKIKP	PKiKP	12 40 39.9	-1.2
MLR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MLR	**Muntele Rosu**	**113.87**	**37**	⇓*i*P	PKiKP	12 40 40.1	-1.0
MLR	**Muntele Rosu**	**113.87**	**37**	PKiKP	PKiKP	12 40 39.9	-1.2
	comp=Z,2.7nm,0.6s,baz=100,slow=4.0,SNR=6.4						
MLR	**Muntele Rosu**	**113.87**	**37**	⇓P	PKiKP	12 40 40.1	-1.0
WET	**Wettzell**	**113.89**	**27**	*e*PP	PP	12 41 36.0	+0.5
319A	**Douglas**	**113.91**	**292**	⇑P	PKiKP	12 40 41.2	-0.5
	baz=114						
MEM	**Membach**	**113.91**	**21**	PP	PP	12 41 34.1	-1.5
ZST	**Bratislava**	**113.98**	**30**	*e*PP	PP	12 41 37.9	+1.7
122A	**Conniff Cattle**	**114.00**	**294**	⇓P	PKiKP	12 40 41.7	-0.1
	baz=114						
TNS	**Taunus Mts**	**114.00**	**23**	*e*PKPdf	PKiKP	12 40 40.3	-0.9
TNS				*e*PP	PP	12 41 35.6	-0.7
KHC	**Kasperske Hory**	**114.03**	**27**	*e*PKIKP	PKiKP	12 40 36.6	-4.7
KHC				*e*		12 41 38.5	
KHC				*e*PS	PS	12 51 18.7	+6.1
KHC				*e*		12 57 27.8	
KHC				MLR	MLR		
	comp=Z,14µm,19.0s,MS6.6						
KHC	**Kasperske Hory**	**114.03**	**27**	*e*PKP		12 40 27.0	
KHC				*e*x	PKiKP	12 40 36.6	-4.7
KHC				*e*x	x	12 40 40.5	
KHC				*e*PP	PP	12 41 38.5	+2.0
KHC				*e*PS	PS	12 51 18.7	+6.1
KHC				*e*PKKP	PKKPbc	12 51 30.5	+8.8
KHC				*e*SS	SS	12 57 27.8	+1.5
KHC				AMS	AMS	13 24 50.0	
	comp=Z,14µm,19.0s						
KHC	**Kasperske Hory**	**114.03**	**27**	*e*PKP	PKiKP	12 40 36.6	-4.7
KHC				*e*PP	PP	12 41 38.5	+2.0
KHC				*e*PS	PS	12 51 18.7	+6.1
KHC				LR	LR		
	comp=Z,14µm,19.0s,MS6.6						
BEBN	**Eben Emael**	**114.03**	**21**	PP	PP	12 41 38.6	+2.0
ESPY	**Espiye-Giresun**	**114.04**	**48**	*e*P	PP	12 41 01.9	-35
HGN	**Heimansgroeve**	**114.05**	**21**	*e*x	PKiKP	12 40 41.3	0.0
HGN	**Heimansgroeve**	**114.05**	**21**	*e*PKiKP	PP	12 41 38.7	+2.1
	comp=Z,184nm,2.0s						
HGN	**Heimansgroeve**	**114.05**	**21**	*e*PP	PP	12 41 50.4	+14
HGN	**Heimansgroeve**	**114.05**	**21**	*e*Sdif	Sdif	12 49 39.0	+18
HGN	**Heimansgroeve**	**114.05**	**21**	*e*SS	SS	12 57 34.3	+7.8
GRF	**Grafenberg Arr**	**114.05**	**25**	*e*PP	PP	12 41 37.3	+0.6
GRF				*e*PS	PS	12 51 07.9	-4.9
GRF				*e*PKKP	PKKPbc	12 51 24.1	+2.4
GRF				*e*SS	SS	12 57 31.9	+5.3
GRF				*e*L		13 24 51.6	
	comp=Z,14µm,20.5s						
DRGR		**114.14**	**34**	⇓*i*P	PKiKP	12 40 41.0	-0.6
DRGR		**114.14**	**34**	⇓P	PKiKP	12 40 41.0	-0.6
EZM	**Erzurum**	**114.15**	**51**	*e*P	PP	12 41 19.3	-18
MODS	**Modra-Piesok**	**114.18**	**30**	*e*PKP	PKiKP	12 40 42.1	+0.5
MODS				*e*PP	PP	12 41 32.5	-5.1
MODS				*e*		12 51 30.5	
ROTZ	**Rotzenmuhle**	**114.33**	**26**	*e*PP	PP	12 41 38.2	-0.5
PSZ	**Piszkesteto**	**114.42**	**32**	⇑*e*PKP	PKiKP	12 40 42.9	+0.8
PSZ	**Piszkesteto**	**114.42**	**32**	*e*PKPdf	PKiKP	12 40 41.7	-0.4
PSZ				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
219A	**White Tail Can**	**114.42**	**292**	⇑P	PKiKP	12 40 42.0	-0.6
	baz=115						
VRI	**Vrincioaia**	**114.44**	**37**	⇑*i*P	PKiKP	12 40 41.1	-1.1
CLDR	**Caldiran**	**114.47**	**53**	*e*P	PKiKP	12 40 45.3	+2.8
AGRB	**Hanur-Agry**	**114.49**	**52**	*e*P	PKiKP	12 40 49.2	+6.7
KTUT	**Trabzon**	**114.49**	**49**	*e*P	PKiKP	12 40 44.1	+1.6
MANZ	**Manzenberg**	**114.52**	**26**	*e*PP	PP	12 41 39.6	-0.4
VIS	**Vishakhapatnam**	**114.54**	**98**	*e*PKP	PKiKP	12 40 42.9	-0.4
VIS				*i* x	x	12 41 39.0	
VIS				AMS	AMS	13 21 07.9	
	comp=Z,7µm,14.7s,MS6.4						
120A	**U Bar Ranch, L**	**114.60**	**293**	⇑P	PKiKP	12 40 42.4	-0.6
	baz=115						
TREC	**Trest**	**114.62**	**28**	*e*PKP	PKiKP	12 40 42.2	-0.2
TREC				*e*PP	PP	12 41 33.5	-7.2
TREC				*e*PS	PS	12 51 21.4	+3.5
TREC				*e*SS	SS	12 57 34.2	+0.1
TREC				AMS	AMS	13 24 20.0	
	comp=Z,11µm,20.6s						
VYHS	**Vyhne**	**114.68**	**31**	*e*PKP	PKiKP	12 40 41.9	-0.7
VYHS				*e*PP	PP	12 41 41.7	+0.5
VYHS				*e*		12 51 21.9	
218A	**Dragoon**	**114.76**	**291**	⇓P	PKiKP	12 40 42.7	-0.6
	baz=115						
NKC	**Novy Kostel**	**114.82**	**26**	*e*PKP	PKiKP	12 40 42.2	-0.6
NKC				*e*PP	PP	12 41 39.2	-2.9
NKC				*e*PKKP	PKKPab	12 51 31.2	+8.5
NKC				*e*SS	SS	12 57 36.3	-0.4
NKC				AMS	AMS	13 25 10.0	
	comp=Z,11µm,19.1s						
NKC	**Novy Kostel**	**114.82**	**26**	*e*PKP	PKiKP	12 40 42.2	-0.6
NKC				*e*PP	PP	12 41 39.2	-2.9
NKC				*e*PS	PKKPab	12 51 31.2	+8.5
NKC				*e*		12 57 36.3	
UBBA	**Unterbreizbach**	**114.87**	**24**	*e*PKPdf	PKiKP	12 40 42.2	-0.6
UBBA				*e*PP	PP	12 41 41.4	-1.1
VRAC	**Vranov**	**114.89**	**29**	PKIKP	PKiKP	12 40 42.0	-0.9
VRAC						12 41 43.2	
VRAC						12 51 27.4	
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VRAC	**Vranov**	**114.89**	**29**	⇑*i*P	PKiKP	12 40 42.7	-0.2
VRAC	**Vranov**	**114.89**	**29**	PKP	PKiKP	12 40 42.0	-1.0
	comp=Z,4.2nm,0.7s,baz=46,slow=2.4,SNR=7.8						
VRAC				PP	PP	12 41 43.2	+0.6
	comp=Z,4.0nm,0.7s,baz=212,slow=5.2,SNR=4.6						
VRAC				PKKPbc	PKKPab	12 51 27.4	+4.9
	comp=Z,3.6nm,0.9s,baz=40,slow=2.5,SNR=7.6						
VRAC	**Vranov**	**114.89**	**29**	⇑P	PKiKP	12 40 42.7	-0.2
BUG	**Bochum--Univer**	**114.94**	**22**	*e*PKPdf	PKiKP	12 40 41.3	-1.7
217A	**Green Valley**	**114.95**	**291**	⇓P	PKiKP	12 40 43.5	-0.1
	baz=115						
TANN	**Tannenbergstha**	**115.00**	**26**	*e*PKPdf	PKiKP	12 40 42.2	-0.9
TANN				*e*PP	PP	12 41 43.5	+0.1
KSU1	**Kansas State U**	**115.03**	**306**	PFAKE		12 41 00.0	+16
KSU1				LR	LR		
	comp=Z,21µm,20.0s,MS6.7						
MOX	**Moxa**	**115.03**	**25**	*e*PKP	PKiKP	12 40 43.3	+0.1
	comp=Z,67nm,2.2s						
MOX				*e*PP	PP	12 41 34.7	-8.9
MOX							
	comp=Z,10µm,22.0s						
MOX	**Moxa**	**115.03**	**25**	*e*PKIKP	PKiKP	12 40 43.3	+0.1
MOX				pmax	pmax		
	comp=Z,67nm,2.2s						
MOX				MLR	MLR		
	comp=Z,10µm,22.0s,MS6.4						
MOX	**Moxa**	**115.03**	**25**	*e*PKPdf	PKiKP	12 40 41.8	-1.4
MOX				*e*PP	PP	12 41 43.9	+0.3
PRU	**Pruhonice**	**115.05**	**27**	*e*PKP	PKiKP	12 40 43.2	0.0
PRU				*e*PP	PP	12 41 44.1	+0.3
PRU				*e*PS	PS	12 51 25.4	+3.5
PRU				*e*x	x	12 57 38.7	
PRU				AMS	AMS	13 24 00.0	
	comp=Z,10µm,22.9s						
119A	**Ashpeak Ranch,**	**115.09**	**292**	⇑P	PKiKP	12 40 43.7	-0.2
	baz=115						
118A	**Homack Ranch,**	**115.29**	**292**	⇑P	PKPdf	12 40 43.9	-0.4
	baz=116						
WTSB	**Winterswijk**	**115.36**	**22**	*e*x	PKPdf	12 40 44.1	+0.3
WTSB	**Winterswijk**	**115.36**	**22**	*e*PKiKP	PP	12 41 44.0	-1.9
	comp=Z,93nm,2.4s						
TUC	**Tucson**	**115.38**	**291**	*e*PKIKP	PKPdf	12 40 44.5	0.0
TUC				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.5						
KARS	**Kars**	**115.42**	**52**	*e*P	PKPdf	12 40 51.7	+7.4
MORC	**Moravsky Berou**	**115.55**	**29**	⇓*i*P	PKPdf	12 40 43.8	-0.4
MORC	**Moravsky Berou**	**115.55**	**29**	*e*PKPdf	PKPdf	12 40 43.2	-1.0
MORC				*e*PP	PP	12 41 49.2	+1.9
PVCC	**Panska Ves**	**115.56**	**27**	*e*PKP	PKPdf	12 40 44.5	+0.3
PVCC				*e*SS	SS	12 57 48.6	+2.1
PVCC				AMS	AMS	13 25 30.0	
	comp=Z,12µm,18.6s						
117A	**Oracle**	**115.58**	**291**	⇑P	PKPdf	12 40 44.8	-0.1
	baz=116						
BURAR	**Bucovina Array**	**115.59**	**36**	⇑*i*P	PKPdf	12 40 44.3	0.0
BURAR	**Bucovina Array**	**115.59**	**36**	⇑P	PKPdf	12 40 44.3	0.0
GLMI	**Grayling**	**115.62**	**317**	PFAKE		12 41 00.0	+15
GLMI				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
ANMO	**Albuquerque**	**115.65**	**296**	*e*PKPdf	PKPdf	12 40 44.7	-0.2
ANMO				*e*PP	PP	12 41 52.5	+4.3
ANMO				LR	LR		
	comp=Z,12µm,20.0s,MS6.5						
GNI	**Garni**	**115.66**	**53**	*e*P	PKPdf	12 40 48.7	+3.9
GNI	**Garni**	**115.66**	**53**	PKIKP	PKPdf	12 40 44.4	-0.3
GNI				pmax	pmax		
	comp=Z,2.0nm,0.4s						
GNI	**Garni**	**115.66**	**53**	PKP	PKPdf	12 40 44.4	-0.3
	comp=Z,1.6nm,0.3s,baz=56,slow=2.6,SNR=5.5						
GNI	**Garni**	**115.66**	**53**	*e*PKPdf	PKPdf	12 40 45.1	+0.4
GNI				LR	LR		
	comp=Z,9µm,20.0s,MS6.4						
UZH	**Uzhgorod**	**115.71**	**33**	*i* PKIKP	PKPdf	12 40 45.0	+0.5
UZH				*i*		12 51 31.0	
UZH				MLR	MLR		
	comp=N,3µm,20.0s,MS6.1						
UZH				MLR	MLR		
	comp=E,4µm,20.0s,MS6.1						
CRVS	**Cervenica-Dubn**	**115.73**	**32**	*e*PKP	PKPdf	12 40 41.7	-2.9
CRVS				*e*PP	PP	12 41 37.1	-11
CRVS				*e*		12 51 23.5	
BRG	**Berggiesshubel**	**115.75**	**27**	*e*PKIKP	PKPdf	12 40 44.1	-0.4
BRG				*i*		12 41 50.0	
BRG				S	PKKPdf	12 51 38.0	-3.3
BRG				PS	x	12 52 44.0	
BRG				SS	SS	12 57 43.0	-5.9
BRG				pmax	pmax		
	comp=Z,24nm,1.6s						
BRG				MLR	MLR		
	comp=N,8µm,25.0s,MS6.3						
BRG				MLR	MLR		
	comp=E,5µm,25.2s,MS6.3						
BRG				MLR	MLR		
	comp=Z,3µm,24.8s,MS5.8						
BRG	**Berggiesshubel**	**115.75**	**27**	*e*PKPdf	PKPdf	12 40 44.0	-0.5
BRG				*e*PP	PP	12 41 48.9	+0.3
BRG	**Berggiesshubel**	**115.75**	**27**	*e*P	PKPdf	12 40 44.1	-0.5
	comp=Z,41nm,1.6s						
BRG				*i*		12 41 50.0	
	comp=Z,252nm,2.0s						
BRG				*e*PP	SKPdf	12 44 13.1	-6.5
	comp=Z,130nm,2.1s						
BRG				SKS	PKKPbc	12 51 16.0	+0.2
BRG				S	PKKPdf	12 51 38.0	-3.3
BRG				PS	x	12 52 44.0	
BRG				*e*		12 55 13.8	
	comp=Z,80nm,2.4s						
BRG				SS	SS	12 57 43.0	-5.9
BRG							
	comp=N,13µm,30.0s						
BRG							
	comp=E,9µm,25.2s						
BRG							
	comp=Z,5µm,24.8s						
BRG	**Berggiesshubel**	**115.75**	**27**	*e*P	PKPdf	12 40 44.1	-0.5
BRG				*i*		12 41 50.0	
BRG				*e*PP	SKPdf	12 44 13.1	-6.5
BRG				SKS	PKKPbc	12 51 16.0	+0.2
BRG				S	PKKPdf	12 51 38.0	-3.3
BRG				PS	x	12 52 44.0	
BRG				*e*		12 55 13.8	
BRG				SS	SS	12 57 43.0	-5.9
BRG				LR	LR		
	comp=Z,3µm,24.8s,MS5.8						
OKC	**Ostrava-Krasne**	**115.76**	**30**	*e*PKP	PKPdf	12 40 44.2	-0.4
OKC				*e*PP	PP	12 41 41.6	-7.1
OKC				*e*PS	PS	12 51 37.4	+9.1
OKC				*e*SS	SS	12 57 56.4	+7.4
OKC				AMS	AMS	13 24 40.0	
	comp=Z,8µm,22.2s						

OKC	**Ostrava-Krasne**	**115.76**	**30**	*e*PKP	PKPdf	12 40 44.2	-0.4
OKC				*e*PP	PP	12 41 41.6	-7.1
OKC				*e*PS	PS	12 51 37.4	+9.1
OKC				*e*		12 57 56.4	
DPC	**Dobruska-Polom**	**115.80**	**28**	*e*PKP	PKPdf	12 40 43.2	-1.4
DPC				*e*PP	PP	12 41 47.5	-1.5
DPC				*e*PS	PS	12 51 34.7	+6.0
DPC				*e*SS	SS	12 57 48.1	-1.4
DPC				AMS	AMS	13 23 00.0	
	comp=Z,11µm,25.9s						
IBBN	**Ibbenburen**	**115.86**	**22**	*e*PKPdf	PKPdf	12 40 44.7	0.0
IBBN				*e*PP	PP	12 41 48.9	-0.5
UPC	**Upice**	**115.87**	**28**	*e*PKP	PKPdf	12 40 43.7	-1.1
UPC				*e*PP	PP	12 41 46.1	-3.4
JFWS	**Jewell Farm**	**115.91**	**312**	PFAKE		12 41 00.0	+15
JFWS				LR	LR		
	comp=Z,15µm,22.0s,MS6.6						
NIE	**Niedzica**	**115.91**	**31**	*e*PKiKP	PKiKP	12 40 45.5	+0.6
NIE				*e*PP	PP	12 41 51.6	+1.8
NIE	**Niedzica**	**115.91**	**31**	*i* PKIKP	PKPdf	12 40 45.5	+0.6
NIE				*e*		12 41 51.6	
CLZ	**Clausthal**	**115.92**	**24**	*e*PKPdf	PKPdf	12 40 44.9	+0.1
CLZ				*e*PP	PP	12 41 50.0	+0.2
CLL	**Collm**	**115.95**	**26**	*i* PKIKP	PKPdf	12 40 44.6	-0.3
CLL				*i*		12 41 49.4	
CLL				MLR	MLR		
	comp=Z,12µm,20.6s,MS6.5						
CLL	**Collm**	**115.95**	**26**	*e*PKPdf	PKPdf	12 40 43.8	-1.1
CLL				*e*PP	PP	12 41 50.4	+0.3
CLL	**Collm**	**115.95**	**26**	*e*(sPdif)		12 37 07.0	
CLL				*i* PKiKP	PKiKP	12 40 44.6	-0.3
	comp=Z,65nm,2.1s						
CLL				*e*		12 41 38.0	
CLL				*i* PP	PP	12 41 49.4	-0.7
	comp=Z,158nm,2.1s						
CLL				*e*		12 42 03.0	
CLL				*e*pPPP		12 44 09.0	
CLL				*e*SKSac	SKSac	12 47 36.0	+1.9
CLL				*e*(sSdif)		12 49 53.0	
CLL				*i* PKKPbc	PKKPbc	12 51 16.4	+1.3
CLL				*i* pPKKPbc		12 51 17.4	
	comp=Z,82nm,2.1s						
CLL				*e*PSKS		12 51 41.0	
CLL				*e*PKKPdf	PKKPdf	12 51 43.0	+2.1
CLL				*e*PPS		12 52 48.0	
CLL				*e*		12 55 11.0	
CLL				*e*SS	SS	12 57 59.0	+7.5
CLL				*e*PPPrev		12 59 06.0	
CLL				*e*SSS		13 02 24.0	
CLL				LmH(360		13 40 00.0	
	comp=N,1µm,21.3s						
CLL				LmH(360		13 40 00.0	
	comp=E,1µm,21.6s						
CLL				LmV(360		13 41 00.0	
	comp=Z,2µm,20.6s						
CLL	**Collm**	**115.95**	**26**	*i* PKP	PKPdf	12 40 44.6	-0.3
CLL				*i* PP	PP	12 41 49.4	-0.7
CLL				*i* PKKP	PKKPbc	12 51 16.4	+1.3
CLL				*e*PKKP	PKKPdf	12 51 43.0	+2.1
CLL				LR	LR		
	comp=Z,12µm,20.6s,MS6.5						
KOLS	**Kolonicke sedl**	**115.98**	**33**	*e*PKP	PKPdf	12 40 45.6	+0.6
KOLS				*e*PP	PP	12 41 58.0	+7.7
116A	**Eloy**	**116.02**	**290**	⇓P	PKPdf	12 40 44.7	-1.0
	baz=116						
214A	**Organ Pipe Nat**	**116.02**	**289**	⇑P	PKPdf	12 40 45.3	-0.4
	baz=116						
CBKS	**Cedar Bluff**	**116.05**	**303**	*e*PKIKP	PKPdf	12 40 45.1	-0.4
CBKS				*e*		12 41 49.5	
CBKS				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.4						
Z17A	**San Carlos Hig**	**116.07**	**292**	⇓P	PKPdf	12 40 45.2	-0.6
	baz=116						
Y19A	**Nutrioso**	**116.07**	**293**	⇑P	PKPdf	12 40 45.7	0.0
	baz=116						
KIS	**Kishinev**	**116.09**	**38**	*e*PKIKP	PKPdf	12 40 45.0	-0.3
KIS				*e*PS	PS	12 51 26.0	-5.5
KIS				*e*PPS		12 52 42.0	
KIS				*e*SS	SS	12 57 52.0	-1.5
KIS				pmax	pmax		
	comp=Z,290nm,2.0s						
KIS	**Kishinev**	**116.09**	**38**	*e*PKP	PKPdf	12 40 45.0	-0.3
	comp=Z,300nm,2.0s						
KIS	**Kishinev**	**116.09**	**38**	*e*PP	PP	12 41 48.0	-3.1
	comp=Z,2µm,8.0s						
KIS	**Kishinev**	**116.09**	**38**	*e*PS	PS	12 51 26.0	-5.5
SCIA	**State Center**	**116.13**	**310**	PFAKE		12 41 00.0	+14
SCIA				LR	LR		
	comp=Z,22µm,21.0s,MS6.8						
STHS	**Stebnicka Huta**	**116.15**	**32**	*e*PKIKP	PKPdf	12 40 45.5	+0.1
STHS				*e*		12 41 55.4	
STHS	**Stebnicka Huta**	**116.15**	**32**	*e*PKP	PKPdf	12 40 45.5	+0.1
STHS				*e*PP	PP	12 41 55.4	+3.9
STHS				*e*		12 51 21.0	
KSP	**Ksiaz**	**116.25**	**28**	*e*PKP	PKPdf	12 40 47.2	+1.7
KSP				*e*PP	PP	12 41 54.4	+2.2
KSP				LMZ		13 24 44.5	
	comp=Z,13µm,22.8s						
KSP	**Ksiaz**	**116.25**	**28**	*i* PKIKP	PKPdf	12 40 45.4	-0.1
KSP				*e*		12 41 51.8	
KSP				*e*PS	PS	12 51 37.0	+4.2
KSP				*e*SS	SS	12 58 01.0	+5.6
KSP	**Ksiaz**	**116.25**	**28**	*e*PKPdf	PKPdf	12 40 45.4	-0.1
KSP				*e*PP	PP	12 41 51.8	-0.4
KSP				*e*PS	PS	12 51 37.0	+4.2
KSP				*e*SS	SS	12 58 01.0	+5.6
BHPL	**Bhopal**	**116.33**	**89**	*e*PKP	PKPdf	12 40 45.2	-1.4
BHPL				*i* x	x	12 41 47.7	
BHPL				*e*x	x	12 51 39.5	
BHPL				AMS	AMS	13 24 24.6	
	comp=Z,13µm,15.2s,MS6.7						
BHPL				AMS	AMS	13 24 37.8	
	comp=N,8µm,21.1s						
115A	**Sonoran Desert**	**116.37**	**290**	⇑P	PKPdf	12 40 45.0	-1.4
	baz=116						
NRDL	**Niedersach Rie**	**116.48**	**23**	*e*PKPdf	PKPdf	12 40 46.3	+0.4
OJC	**Ojcow**	**116.52**	**31**	*e*PKiKP	PKiKP	12 40 46.1	+0.1
OJC				*e*PP	PP	12 41 54.9	+0.8
OJC				*e*SKSac	SKSac	12 47 34.2	-2.1
OJC				*e*SKSdf	SKSdf	12 47 56.7	-0.8
OJC				*e*SS	SS	12 57 58.9	-0.1
OJC				L		13 25 53.8	
	comp=N,5.3nm,23.2s						
OJC	**Ojcow**	**116.52**	**31**	*i* PKIKP	PKPdf	12 40 46.1	+0.1
OJC				*e*		12 41 54.9	
OJC				*e*		12 47 34.2	
OJC				*e*		12 47 56.7	
OJC				*e*SS	SS	12 57 58.9	-0.1
OJC	**Ojcow**	**116.52**	**31**	*e*PKPdf	PKPdf	12 40 46.1	+0.1
OJC				*e*PP	PP	12 41 54.9	+0.8
OJC				*e*SKSac	SKSac	12 47 34.2	-2.1
OJC				*e*SKSdf	SKSdf	12 47 56.7	-0.8
OJC				*e*SS	SS	12 57 58.9	-0.1
Y17A	**Roosevelt**	**116.57**	**292**	⇑P	PKPdf	12 40 46.1	-0.6
	baz=117						
W20A	**Ramah**	**116.71**	**294**	⇑P	PKPdf	12 40 44.8	-2.1
	baz=117						
SOC	**Sochi**	**116.72**	**48**	*i* PKIKP	PKPdf	12 40 46.2	-0.5
SOC				*e*		12 41 55.8	
SOC				*e*PS	PS	12 51 46.6	+9.3
SOC				pmax	pmax		
	comp=Z,42nm,1.3s						
KWP	**Kalwaria Pacla**	**116.73**	**33**	*e*PKP	PKPdf	12 40 46.5	+0.1
KWP				*e*PP	PP	12 41 53.4	-2.2
KWP				LMZ		13 29 00.0	
	comp=Z,17µm,20.8s						
KWP	**Kalwaria Pacla**	**116.73**	**33**	⇓*i*P	PKPdf	12 40 46.4	-0.1
KWP	**Kalwaria Pacla**	**116.73**	**33**	*e*PKP	PKPdf	12 40 46.5	0.0
KWP				*e*PP	PP	12 41 53.4	-2.2
Z15A	**Gila River Ind**	**116.83**	**290**	⇑P	PKPdf	12 40 46.9	-0.4
	baz=117						
X18A	**Snowflake**	**116.86**	**293**	⇓P	PKPdf	12 40 47.2	-0.1
	baz=117						
ANN	**Anapa**	**116.97**	**45**	*i* PKIKP	PKPdf	12 40 46.5	-0.6
ANN				*e*		12 40 58.5	
ANN				*e*		12 41 57.6	
ANN				*e*		12 47 34.1	
ANN				*i* PS	PS	12 51 30.6	-8.9
ANN				pmax	pmax		
	comp=Z,432nm,6.5s						
GOR	**Gori**	**116.99**	**52**	P	PKPdf	12 40 48.4	+1.2
Y16A	**Circle Bar Ran**	**117.01**	**291**	⇑P	PKPdf	12 40 47.5	-0.1
	baz=117						
TBLG	**Delisi**	**117.02**	**52**	*e*PKIKP	PKPdf	12 40 48.9	+1.6
TBLG	**Delisi**	**117.02**	**52**	P	PKPdf	12 40 48.9	+1.6
X17A	**Forest Lakes**	**117.09**	**292**	⇑P	PKPdf	12 40 47.5	-0.2
	baz=117						
W19A	**Sanders**	**117.09**	**294**	⇓P	PKPdf	12 40 47.7	0.0
	baz=117						
ESK	**Eskdalemuir**	**117.11**	**14**	PFAKE		12 41 00.0	+13
ESK				LR	LR		
	comp=Z,13µm,21.0s,MS6.5						
EKA	**Eskdalemuir Ar**	**117.13**	**14**	PKIKP	PKPdf	12 40 46.9	-0.1
EKA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
EKA	**Eskdalemuir Ar**	**117.13**	**14**	PKP	PKPdf	12 40 46.9	-0.1
	comp=Z,3.6nm,1.0s,baz=206,slow=4.3,SNR=4.4						
113A	**Mohawk Valley,**	**117.14**	**289**	⇑P	PKPdf	12 40 47.3	-0.5
	baz=117						
Z14A	**Wintersburg**	**117.26**	**290**	⇑P	PKPdf	12 40 47.2	-0.8
	baz=117						
LVV	**L'vov**	**117.26**	**34**	*i* PKIKP	PKPdf	12 40 46.0	-1.5
LVV				*e*		12 47 33.0	
LVV				*i*		12 51 46.0	
LVV				*i* SS	SS	12 58 12.0	+3.4
LVV				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.3						
112A	**Yuma**	**117.33**	**288**	⇑P	PKPdf	12 40 48.0	-0.3
	baz=118						
X16A	**Lo Mia Camp, P**	**117.44**	**292**	⇑P	PKPdf	12 40 48.2	-0.2
	baz=118						
SDCO	**Great Sand Dun**	**117.58**	**298**	*e*PKPdf	PKPdf	12 40 47.8	-0.8
SDCO				*e*PP	PP	12 42 01.8	+0.2
SDCO				LR	LR		
	comp=Z,17µm,22.0s,MS6.6						
AJM	**Ajmer**	**117.68**	**85**	*e*PKP	PKPdf	12 40 48.0	-1.1
AJM				*i* x	x	12 42 04.1	
Y14A	**Wickenburg**	**117.76**	**290**	⇓P	PKPdf	12 40 48.6	-0.4
	baz=118						
GLA	**Glamis**	**117.87**	**288**	⇓P	PKPdf	12 40 49.0	-0.3
	baz=118						
GLA	**Glamis**	**117.87**	**288**	*e*PKPdf	PKPdf	12 40 49.3	0.0
BSEG	**Bad Segeberg**	**117.89**	**23**	*e*PKPdf	PKPdf	12 40 48.8	+0.2
BSEG				*e*PP	PP	12 42 05.0	+1.4
Y13A	**Salome**	**118.04**	**289**	⇓P	PKPdf	12 40 49.0	-0.6
	baz=118						
KIV	**Kislovodsk**	**118.14**	**50**	*e*P	Pdif	12 37 06.7	-2.6
KIV				*i*		12 40 47.9	
KIV				*e*PS	PS	12 51 50.1	0.0
KIV				*e*SS	SS	12 58 16.7	-3.5
KIV				*e*SSS		13 02 40.3	
KIV				pmax	pmax		
	comp=Z,40nm,1.2s						
KIV	**Kislovodsk**	**118.14**	**50**	*e*PKPdf	PKPdf	12 40 47.8	-1.6
KIV				*e*PP	PP	12 42 07.8	+2.3
KIV				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
DVTC	**Desert V Tower**	**118.14**	**287**	⇑P	PKPdf	12 40 49.3	-0.4
	baz=118						
SWSC	**Sam W. Stewart**	**118.23**	**287**	⇓P	PKPdf	12 40 49.6	-0.3
	baz=118						
WUAZ	**Wupatki**	**118.33**	**292**	*e*PKPdf	PKPdf	12 40 50.1	+0.1
WUAZ				*e*PKKPab	PKKPab	12 51 08.8	-0.3
WUAZ				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
KKM	**Kota Kinabalu**	**118.33**	**136**	PFAKE		12 41 00.0	+9.2
KKM				LR	LR		
	comp=Z,11µm,21.0s,MS6.5						
T19A	**Beclabito**	**118.36**	**295**	⇑P	PKPdf	12 40 49.8	-0.3
	baz=118						
BAR	**Barrett**	**118.43**	**287**	*e*PKPdf	PKPdf	12 40 50.1	-0.3
BAR				*e*PP	PP	12 42 09.0	+1.4
MVCO	**Mesa Verde**	**118.44**	**296**	⇑P	PKPdf	12 40 50.0	-0.2
	baz=119						
MVCO	**Mesa Verde**	**118.44**	**296**	*e*PKPdf	PKPdf	12 40 49.7	-0.5
MVCO				*e*PKKPbc	PKKPbc	12 51 07.0	+1.1
MVCO				LR	LR		
	comp=Z,15µm,19.0s,MS6.7						
MONP	**Monument Peak**	**118.48**	**287**	⇓P	PKPdf	12 40 50.3	-0.1
	baz=119						
PDMCI	**Parker Dam,Lak**	**118.59**	**290**	⇑P	PKPdf	12 40 50.2	-0.4
	baz=119						
BC3	**Big Chuckw Mtn**	**118.66**	**288**	⇓P	PKPdf	12 40 50.7	0.0
	baz=119						
GKP	**Gorka Klasztor**	**118.72**	**28**	*e*PKP	PKPdf	12 40 50.7	+0.5
GKP				*e*PP	PP	12 42 12.2	+2.8
GKP				LMZ		13 28 17.2	
	comp=Z,15µm,19.9s						
GKP	**Gorka Klasztor**	**118.72**	**28**	*e*PKIKP	PKPdf	12 40 50.7	+0.5
GKP				*e*		12 42 12.2	
GKP	**Gorka Klasztor**	**118.72**	**28**	*e*PKP	PKPdf	12 40 50.7	+0.5
GKP				*e*PP	PP	12 42 12.2	+2.9
GKP				LR	LR		
	comp=Z,15µm,19.9s,MS6.6						
OGNE	**Ogallala**	**118.80**	**303**	*e*PKPdf	PKPdf	12 40 50.0	-0.8
OGNE				LR	LR		
	comp=Z,17µm,20.0s,MS6.7						
109C	**Camp Elliot, M**	**118.80**	**286**	⇑P	PKPdf	12 40 51.0	-0.1
	baz=119						
IRM	**Iron Mountain**	**118.94**	**289**	⇑P	PKPdf	12 40 51.3	0.0
	baz=119						
T18A	**Mexican Hat**	**119.00**	**295**	⇑P	PKPdf	12 40 51.2	-0.1
	baz=119						
PFO	**Pinyon Flat Ob**	**119.09**	**287**	⇓P	PKPdf	12 40 51.3	-0.3
	baz=119						
PFO	**Pinyon Flat Ob**	**119.09**	**287**	*e*PKPdf	PKPdf	12 40 51.4	-0.2
PFO				*e*PP	PP	12 42 15.2	+3.1
PFO				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
MAK	**Makhachkala**	**119.14**	**54**	*i* P	Pdif	12 37 14.8	+1.0
MAK				*e*		12 40 51.8	
MAK				*i*		12 47 50.2	
MAK				*i* PS	PS	12 51 57.6	-1.6
MAK				*e*		12 58 48.1	
MAK				*e*SSS		13 02 59.4	
MAK				pmax	pmax		
	comp=Z,483nm,1.5s						
BELC	**Belle Mtn.**	**119.20**	**288**	⇓P	PKPdf	12 40 51.7	0.0
	baz=119						
V14A	**Boquillas Ranc**	**119.21**	**291**	⇓P	PKPdf	12 40 51.6	-0.1
	baz=119						
T17A	**Navajo Res., N**	**119.30**	**294**	⇑P	PKPdf	12 40 52.0	+0.1
	baz=120						
ISCO	**Idaho Springs**	**119.34**	**299**	*e*PKIKP	PKPdf	12 40 52.4	+0.6
ISCO				MLR	MLR		
	comp=Z,10µm,21.0s,MS6.4						
KIEV	**Kiev**	**119.51**	**37**	*e*PKIKP	PKPdf	12 40 50.0	-1.8
KIEV				*e*		12 42 12.7	
KIEV				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.3						
AKASG	**Malin Array Be**	**119.52**	**37**	PKIKP	PKPdf	12 40 50.0	-1.8
AKASG						12 42 14.6	
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,6.0nm,1.0s						
AKASG	**Malin Array Be**	**119.52**	**37**	PKP	PKPdf	12 40 50.0	-1.8
	comp=Z,4.6nm,0.6s,baz=237,slow=1.9,SNR=26						
AKASG				PP	PP	12 42 14.6	-0.3
	comp=Z,5.7nm,1.0s,baz=205,slow=7.0,SNR=10						
AKASG				PKKPbc	PKKPbc	12 51 00.4	-1.8
	comp=Z,2.2nm,0.8s,baz=25,slow=3.6,SNR=9.7						
LDFC	**Landfair**	**119.68**	**289**	*e*PKPdf	PKPdf	12 40 52.7	0.0
GMRC	**Granite Mounta**	**119.69**	**289**	⇓P	PKPdf	12 40 52.0	-0.7
	baz=120						
V13A	**Grand Canyon W**	**119.80**	**291**	⇓P	PKPdf	12 40 52.3	-0.6
	baz=120						
SCHQ	**Schefferville**	**119.82**	**334**	PKP	PKPdf	12 40 50.6	-1.6
	comp=Z,18nm,0.8s,baz=169,slow=2.0,SNR=31						
SCHQ				PP	PP	12 42 19.9	+3.0
	comp=Z,12nm,1.1s,baz=156,slow=6.3,SNR=7.0						
SCHQ				PKKPbc	PKKPbc	12 51 02.2	+1.0
	comp=Z,2.7nm,0.7s,baz=46,slow=6.6,SNR=7.0						
SCHQ	**Schefferville**	**119.82**	**334**	PKP	PKPdf	12 40 50.6	-1.6
SCHQ				PP	PP	12 42 19.9	+3.0
SCHQ				PKKPbc	PKKPbc	12 51 02.2	+1.0
S17A	**Black Ridge (B**	**119.82**	**294**	⇓P	PKPdf	12 40 52.9	0.0
	baz=120						
BBRC	**Big Bear Sol-O**	**119.85**	**287**	⇓P	PKPdf	12 40 52.9	-0.1
	baz=120						
U14A	**Mt Trumbull**	**119.89**	**292**	⇑P	PKPdf	12 40 53.1	0.0
	baz=120						
P21A	**Newcastle**	**119.91**	**298**	⇓P	PKPdf	12 40 53.1	+0.1
	baz=120						
T15A	**Red Dirt Ranch**	**120.03**	**293**	⇑P	PKPdf	12 40 52.7	-0.6
	baz=120						
R18A	**Canyonlands Na**	**120.04**	**295**	⇑P	PKPdf	12 40 51.8	-1.4
	baz=120						
MUD	**Monsted U'grnd**	**120.07**	**21**	*e*PKIKP	PKPdf	12 40 52.4	-0.3
MUD				*i*		12 42 20.5	
MUD				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.3						
MUD	**Monsted U'grnd**	**120.07**	**21**	*i* P	PKPdf	12 40 52.4	-0.3
MUD				*i*		12 42 20.5	
MUD				*i*		12 52 22.6	
MUD							
	comp=Z,8µm,21.0s						
MUD	**Monsted U'grnd**	**120.07**	**21**	*e*P	PKPdf	12 40 52.4	-0.3
MUD				*i*		12 42 20.5	
MUD				*i*		12 52 22.6	
V12A	**Nelson**	**120.09**	**290**	⇓P	PKPdf	12 40 52.5	-0.9
	baz=120						
BFSC	**Mount Baldy St**	**120.18**	**287**	⇑P	PKPdf	12 40 52.9	-0.7
	baz=120						
Q19A	**Hogan Spring (**	**120.23**	**296**	⇓P	PKPdf	12 40 52.7	-0.9
	baz=120						
SNCC	**San Nicolas Is**	**120.24**	**285**	⇓P	PKPdf	12 40 52.8	-1.0
	baz=120						
SNCC	**San Nicolas Is**	**120.24**	**285**	*e*PKPdf	PKPdf	12 40 54.1	+0.3
S16A	**Weppner Ranch,**	**120.25**	**294**	⇑P	PKPdf	12 40 53.3	-0.4
	baz=120						
U13A	**Pakoon Wash**	**120.25**	**291**	⇓P	PKPdf	12 40 53.2	-0.5
	baz=120						
P20A	**De Beque**	**120.29**	**297**	⇓P	PKPdf	12 40 53.2	-0.4
	baz=120						
MWC	**Mount Wilson**	**120.35**	**286**	PKIKP	PKPdf	12 40 54.3	+0.3
MWC	**Mount Wilson**	**120.35**	**286**	*e*PKPdf	PKPdf	12 40 54.6	+0.7
PASC	**Pasadena Art C**	**120.37**	**286**	*e*PKPdf	PKPdf	12 40 54.2	+0.2
R17A	**Hanksville Air**	**120.43**	**295**	⇓P	PKPdf	12 40 53.1	-0.9
	baz=121						
O21A	**Pagoda**	**120.48**	**298**	⇑P	PKPdf	12 40 53.7	-0.3
	baz=121						
PHWY	**Pilot Hill**	**120.52**	**301**	*e*PKPdf	PKPdf	12 40 53.3	-0.8
PHWY				*e*PP	PP	12 42 21.6	-0.3
U12A	**Valley of Fire**	**120.53**	**291**	⇑P	PKPdf	12 40 54.2	-0.1
	baz=121						
N22A	**Wattenberg Ran**	**120.53**	**300**	⇑P	PKPdf	12 40 53.3	-0.8
	baz=121						
S15A	**Panguitch**	**120.56**	**293**	⇓P	PKPdf	12 40 53.7	-0.5
	baz=121						
AYAN	**Aya Nagar**	**120.56**	**86**	*e*PKP	PKPdf	12 40 53.5	-1.1
BHGR	**Bahadurgarh**	**120.64**	**85**	*e*x	x	12 40 39.0	
R16A	**Teasdale**	**120.66**	**294**	⇓P	PKPdf	12 40 54.4	0.0
	baz=121						
P19A	**Cripple Cowboy**	**120.66**	**297**	⇑P	PKPdf	12 40 53.9	-0.4
	baz=121						
EYMN	**Ely**	**120.69**	**314**	*e*PKPdf	PKPdf	12 40 52.5	-1.6
EYMN				*e*PP	PP	12 42 20.6	-2.4
EYMN				LR	LR		
	comp=Z,19µm,22.0s,MS6.7						
T13A	**Saint George**	**120.72**	**291**	⇑P	PKPdf	12 40 54.0	-0.6
	baz=121						
Q18A	**Rafter H Ranch**	**120.73**	**296**	⇑P	PKPdf	12 40 53.9	-0.6
	baz=121						
O20A	**White River Ci**	**120.75**	**298**	⇑P	PKPdf	12 40 53.7	-0.8
	baz=121						
NDI	**New Delhi**	**120.77**	**86**	*e*PKP	PKPdf	12 40 52.4	-2.6
NDI				*e*x	x	12 42 34.0	
NDI				*e*x	x	12 52 32.0	
SUW	**Suwalki**	**120.84**	**31**	*e*PKP	PKPdf	12 40 53.7	-0.5
SUW				*e*PP	PP	12 42 24.5	+0.6
SUW				LMZ		13 29 23.3	
	comp=Z,8µm,23.5s						
SUW	**Suwalki**	**120.84**	**31**	*e*PKP	PKPdf	12 40 53.7	-0.5
SUW				*e*PP	PP	12 42 24.5	+0.6
T12A	**Moapa**	**120.85**	**291**	⇓P	PKPdf	12 40 54.4	-0.5
	baz=121						
EDW2	**Edwards Air Fo**	**120.86**	**287**	⇓P	PKPdf	12 40 54.5	-0.4
	baz=121						
SHOC	**Shoshone**	**120.89**	**289**	⇑P	PKPdf	12 40 54.6	-0.4
	baz=121						
BSC	**Santa Cruz Isl**	**120.91**	**285**	⇓P	PKPdf	12 40 54.9	-0.2
	baz=121						
U11A	**Corn Creek**	**120.91**	**290**	⇑P	PKPdf	12 40 55.2	+0.2
	baz=121						
SRU	**San Rafael**	**120.91**	**295**	⇑P	PKPdf	12 40 54.1	-0.7
	baz=121						
BOK	**Bokaro**	**120.94**	**96**	*e*PKP	PKPdf	12 40 54.6	-0.8
BOK				*i* x	x	12 42 22.2	
BOK				AMS	AMS	13 26 46.3	
	comp=Z,7µm,20.9s,MS6.3						
N21A	**Black Mountain**	**120.95**	**299**	⇓P	PKPdf	12 40 54.8	-0.1
	baz=121						
OSI	**Osito Adit**	**120.98**	**286**	⇑P	PKPdf	12 40 54.5	-0.7
	baz=121						
OSI	**Osito Adit**	**120.98**	**286**	*e*PKPdf	PKPdf	12 40 55.9	+0.7
Q16A	**Castle Valley**	**121.04**	**295**	⇓P	PKPdf	12 40 54.5	-0.6
	baz=121						
CAL	**Calcutta**	**121.07**	**99**	*e*PKP	PKPdf	12 40 55.1	-0.6
CAL				*i* x	x	12 42 26.4	
CAL				*e*x	x	12 52 35.6	
CAL				AMP		12 53 10.1	
	comp=Z,2µm,15.5s						
M22A	**Cedar Creek Ra**	**121.09**	**300**	⇓P	PKPdf	12 40 54.8	-0.4
	baz=121						
S13A	**Holt Ranch, En**	**121.16**	**292**	⇑P	PKPdf	12 40 55.1	-0.3
	baz=121						
MVU	**Marysvale**	**121.17**	**294**	PFAKE		12 41 10.0	+15
MVU				LR	LR		
	comp=Z,9µm,20.0s,MS6.4						
P18A	**Preston Nutter**	**121.21**	**296**	⇓P	PKPdf	12 40 54.9	-0.6
	baz=121						
O19A	**Miners Draw (B**	**121.27**	**297**	⇓P	PKPdf	12 40 55.4	-0.2
	baz=122						
N20A	**Spence Gulch,**	**121.34**	**298**	⇑P	PKPdf	12 40 54.8	-0.8
	baz=122						
ARVC	**Arvin**	**121.45**	**286**	⇓P	PKPdf	12 40 54.7	-1.4
	baz=122						
T11A	**Corn Creek, Al**	**121.50**	**291**	⇑P	PKPdf	12 40 55.8	-0.3
	baz=122						
BDT	**Bhumibol Dam**	**121.53**	**113**	P	PKPdf	12 40 54.0	-2.7
RWWY	**Rawlins**	**121.59**	**300**	*e*PKPdf	PKPdf	12 40 55.2	-0.9
MPMC	**Manual Prospec**	**121.59**	**288**	⇓P	PKPdf	12 40 55.4	-0.9
	baz=122						
FURC	**Furnace Creek,**	**121.63**	**289**	⇓P	PKPdf	12 40 56.4	0.0
	baz=122						
S12A	**Delamar Landin**	**121.63**	**291**	⇓P	PKPdf	12 40 57.2	+0.9
	baz=122						
Q15A	**Fillmore**	**121.65**	**294**	⇑P	PKPdf	12 40 55.8	-0.5
	baz=122						
R13A	**O'Grain Ranch,**	**121.70**	**292**	⇓P	PKPdf	12 40 57.2	+0.8
	baz=122						
ISA	**Isabella**	**121.72**	**287**	⇑P	PKPdf	12 40 56.6	0.0
	baz=122						
ISA	**Isabella**	**121.72**	**287**	*e*PKPdf	PKPdf	12 40 56.6	0.0
ISA				*e*PP	PP	12 42 29.4	-0.8
N19A	**John Jarvie Ra**	**121.78**	**298**	⇓P	PKPdf	12 40 56.5	0.0
	baz=122						
DAC	**Darwin (Calif)**	**121.81**	**288**	PFAKE		12 41 10.0	+13
DAC				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
P16A	**Fountain Green**	**121.82**	**295**	⇓P	PKPdf	12 40 57.2	+0.6
	baz=122						
M20A	**Sweetwater, Wa**	**121.84**	**299**	⇓P	PKPdf	12 40 56.5	-0.1
	baz=122						
L21A	**Rawlins**	**121.88**	**300**	⇑P	PKPdf	12 40 55.4	-1.3
	baz=122						
O17A	**Robinson Place**	**121.89**	**296**	⇑P	PKPdf	12 40 57.1	+0.3
	baz=122						
Q14A	**Sevier Lake (B**	**122.04**	**293**	⇓P	PKPdf	12 40 56.5	-0.5
	baz=122						
P15A	**Leamington**	**122.07**	**294**	⇓P	PKPdf	12 40 57.1	0.0
	baz=122						
R12A	**Pony Springs,**	**122.11**	**292**	⇑P	PKPdf	12 40 57.3	+0.1
	baz=122						
SMMC	**Simmler**	**122.16**	**286**	⇑P	PKPdf	12 40 57.1	-0.3
	baz=122						
VES	**Vestal, Richgr**	**122.16**	**287**	⇑P	PKPdf	12 40 57.0	-0.4
	baz=122						
DAV	**Davao City (W)**	**122.22**	**146**	PKP	PKPdf	12 40 57.5	-0.8
	comp=Z,160nm,0.4s,baz=243,slow=18,SNR=2.9						
DAV	**Davao City (W)**	**122.22**	**146**	PKP	PKPdf	12 40 57.5	-0.7
DAV				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
O16A	**Springville**	**122.24**	**295**	⇓P	PKPdf	12 40 58.7	+1.3
	baz=122						
RSSD	**Black Hills**	**122.26**	**303**	*e*PKIKP	PKPdf	12 40 56.2	-1.1
RSSD				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.5						
M19A	**Rock Springs**	**122.27**	**298**	⇑P	PKPdf	12 40 56.8	-0.7
	baz=122						
GRAC	**Grapevine Rang**	**122.30**	**289**	⇓P	PKPdf	12 40 57.7	0.0
	baz=122						
L20A	**Wamsutter**	**122.33**	**299**	⇓P	PKPdf	12 40 57.0	-0.5

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      baz=122
Q13A  Wheeler Ranch,  122.35 293 ⇑P       PKPdf   12 40 58.1 +0.4
      baz=122
BLS5  Blasjo          122.43  19 eP       PKPdf   12 40 57.8 +0.6
BLS5                              AMb     AMB     12 41 04.7
      comp=Z,42nm,2.1s
KKTK  Khon Kaen       122.43 117  P       PKPdf   12 40 58.4 -0.1
      comp=Z,278nm,0.9s
MNK   Minsk           122.50  34⇓ePKIKP   PKPdf   12 40 54.0 -3.4
MNK                              e                12 48 12.0
MNK                              ePS      PS      12 52 32.0 +3.1
MNK                              eSS      SS      12 59 12.0 -3.9
MNK                               pmax    pmax
      comp=Z,280nm,1.0s
MNK                               MLR     MLR
      comp=E,18µm,16.0s,MS6.8
MNK                               MLR     MLR
      comp=N,10µm,18.0s,MS6.8
MNK                               MLR     MLR
      comp=Z,16µm,18.0s,MS6.7
MICGM Minsk           122.51  34⇑eP       PKPdf   12 40 54.0 -3.4
DDI   Dehra Dun       122.54  85 ePKP     PKPdf   12 40 56.8 -1.5
DDI                              ex       x       12 50 53.0
N17A  Moffit Pass     122.55 296 ⇑P       PKPdf   12 40 59.4 +1.4
      baz=123
AGMN  Agassiz Refuge  122.55 312  PFAKE           12 41 10.0  +12
AGMN                              LR      LR
      comp=Z,17µm,21.0s,MS6.7
CMAR  Chiang Mai Arr  122.56 112  PKP     PKPdf   12 40 57.4 -1.3
      comp=Z,25nm,0.9s,baz=235,slow=3.7,SNR=83
CMAR                              PKKPab  PKKPab  12 50 53.8 +0.6
      comp=Z,11nm,0.9s,baz=0.6,slow=3.9,SNR=41
NACGM Naroch          122.57  33 ePKP     PKPdf   12 40 53.0 -4.5
R11A  Troy Canyon, C  122.57 291 ⇑P       PKPdf   12 40 58.5 +0.4
      baz=123
M18A  Lyman           122.61 297 ⇑P       PKPdf   12 40 57.7 -0.4
      baz=123
RCTC  Rector, Farmer  122.61 287 ⇓P       PKPdf   12 40 57.8 -0.4
      baz=123
S10A  Tonopah Range,  122.69 290 ⇓P       PKPdf   12 40 58.0 -0.3
      baz=123
O15A  The Old Anders  122.73 295 ⇓P       PKPdf   12 40 58.5 +0.2
      baz=123
P13A  Bates Ranch, G  122.75 293 ⇑P       PKPdf   12 40 58.0 -0.4
      baz=123
N16A  Rees Ranch, Co  122.77 296 ⇓P       PKPdf   12 40 59.1 +0.8
      baz=123
Q12A  Willow Creek R  122.79 292 ⇑P       PKPdf   12 40 58.1 -0.4
      baz=123
DUG   Dugway          122.81 294 ePKIKP   PKPdf   12 40 57.8 -0.7
DUG                              e                12 42 41.5
DUG                               MLR     MLR
      comp=Z,18µm,22.0s,MS6.7
DUG   Dugway          122.81 294 ⇓P       PKPdf   12 40 58.2 -0.3
      baz=123
DUG   Dugway          122.81 294 ePKPdf   PKPdf   12 40 57.8 -0.7
DUG                              ePP      PP      12 42 41.5 +4.0
DUG                              ePKKPbc  PKKPbc  12 50 50.9 +1.3
DUG                               LR      LR
      comp=Z,18µm,22.0s,MS6.7
S09A  Goldfield       122.82 289 ⇑P       PKPdf   12 40 58.7 +0.1
      baz=123
L19A  Farson          122.84 298 ⇑P       PKPdf   12 40 58.1 -0.4
      baz=123
R10A  Warm Springs    122.85 291 ⇑P       PKPdf   12 40 58.9 +0.2
      baz=123
K20A  Yellowstone Ra  122.86 299 ⇑P       PKPdf   12 40 57.8 -0.7
      baz=123
CHG   Chiang Mai      122.87 112 ⇓P       PKPdf   12 40 58.5 -0.8
      comp=Z,32nm,1.5s
CHTO  Chiang Mai      122.87 112 ePKIKP   PKPdf   12 40 58.1 -1.2
CHTO                             e                12 42 37.0
CHTO                              MLR     MLR
      comp=Z,8µm,19.0s,MS6.4
M17A  Scullys Gap (B  122.90 297 ⇓P       PKPdf   12 40 58.5 -0.1
      baz=123
VORD  Divnogorie      122.91  43 ePKIKP   PKPdf   12 40 57.5 -0.8
VORD                              pmax    pmax
      comp=Z,30nm,1.3s
VORD                              pmax    pmax
      comp=N,10.0nm,0.7s
VORD                              pmax    pmax
      comp=E,10.0nm,0.6s
VORD                              MLR     MLR
      comp=Z,5µm,19.0s,MS6.2
VORD                              MLR     MLR
      comp=N,2µm,16.0s,MS6.2
VORD                              MLR     MLR
      comp=E,4µm,19.0s,MS6.2
ODD1  Odda            122.93  19 eP       PKPdf   12 40 57.1 -1.0
L18A  Fontenelle, Gr  123.00 298 ⇓P       PKPdf   12 40 58.3 -0.5
      baz=123
Q11A  Duckwater       123.00 291 ⇓P       PKPdf   12 40 59.2 +0.3
      baz=123
EGD   Espegrend       123.05  18 eP       PKPdf   12 40 58.4 +0.1
VSR   Storozhevoye    123.08  43 ePKIKP   PKPdf   12 40 58.0 -0.6
VSR                              e                12 42 38.1
VSR                               pmax    pmax
      comp=Z,6.0nm,0.5s
VSR                               pmax    pmax
      comp=N,5.0nm,0.9s
VSR                               pmax    pmax
      comp=E,4.0nm,0.4s
VSR                               pmax    pmax
      comp=Z,340nm,11.4s
VSR                               pmax    pmax
      comp=N,430nm,14.3s
VSR                               pmax    pmax
      comp=E,170nm,11.5s
VSR                               MLR     MLR
      comp=Z,1µm,20.0s,MS5.6
VSR                               MLR     MLR
      comp=N,600nm,23.0s,MS5.8
VSR                               MLR     MLR
      comp=E,2µm,19.0s,MS5.8
TPH   Tonopah         123.10 290 ePKIKP   PKPdf   12 41 00.1 +1.0
TPH                              e                12 42 38.6
TPH                               MLR     MLR
      comp=Z,9µm,21.0s,MS6.4
KONO  Kongsberg       123.16  20 eP       PKPdf   12 40 57.4 -1.1
KONO                             ePP      PP      12 42 39.1 -0.4
KONO  Kongsberg       123.16  20 ePKPdf   PKPdf   12 40 57.8 -0.7
KONO                              LR      LR
      comp=Z,10µm,21.0s,MS6.5
R09A  Tonopah         123.17 290 ⇑P       PKPdf   12 40 59.5 +0.2
      baz=123
P12A  McGill          123.17 292 ⇓P       PKPdf   12 40 58.2 -1.0
      baz=123
BER   Bergen          123.18  18 eP       PKPdf   12 40 58.9 +0.4
K19A  Absolon Red Bu  123.21 299 ⇓P       PKPdf   12 40 57.6 -1.5
      baz=123
N15A  Stansbury Isla  123.25 295 ⇓P       PKPdf   12 40 59.1 -0.2
      baz=123
ASK   Askoy           123.25  18 eP       PKPdf   12 40 58.1 -0.6
O13A  Hicks Ranch, I  123.29 294 ⇑P       PKPdf   12 40 59.5  0.0
      baz=124
Q10A  Clear Creek Ra  123.33 291 ⇑P       PKPdf   12 41 00.0 +0.5
      baz=124
BW06  Boulder Array   123.47 299 ⇓P       PKPdf   12 40 58.3 -1.4
      baz=124
BW06  Boulder Array   123.47 299 ePKPdf   PKPdf   12 40 58.3 -1.4
BW06                              LR      LR
      comp=Z,19µm,21.0s,MS6.7
PDAR  Pinedale Array  123.47 299  PKhKP           12 40 48.7
      comp=Z,2.5nm,0.9s,baz=123,slow=4.5,SNR=11
PDAR                              PKP     PKPdf   12 40 59.0 -0.7
      comp=Z,12nm,0.9s,baz=117,slow=1.3,SNR=9.8
PDAR                              PKKPbc  PKKPbc  12 50 47.5 +0.4
      comp=Z,1.3nm,0.9s,baz=312,slow=1.3,SNR=4.4
PDAR  Pinedale Array  123.47 299  PKP     PKPdf   12 40 59.0 -0.7
PDAR                              PKKPbc  PKKPbc  12 50 47.5 +0.4
MLAC  Mammoth Lakes   123.49 288 ⇓P       PKPdf   12 41 00.2 +0.3
      baz=124
L17A  Cokeville       123.50 297 ⇓P       PKPdf   12 40 59.2 -0.5
      baz=124
N14A  Grayback Hills  123.51 295 ⇑P       PKPdf   12 41 00.4 +0.6
      baz=124
K18A  Toltan Ranch,   123.58 298 ⇓P       PKPdf   12 40 59.2 -0.6
      baz=124
AGT   Agartala        123.61 101 ePKP     PKPdf   12 40 58.0 -2.6
AGT                              ex       x       12 41 38.0
P11A  Circle Ranch,   123.62 292 ⇑P       PKPdf   12 41 00.3 +0.3
      baz=124
OSL   Oslo            123.63  21 eP       PKPdf   12 40 58.5 -0.9
L16A  Fish Haven      123.68 297 ⇓P       PKPdf   12 40 59.3 -0.8
      baz=124
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M15A  Larsen Ranch,   123.68 296 ⇑P       PKPdf   12 40 59.4 -0.7
      baz=124
Q09A  Carvers         123.70 290 ⇑P       PKPdf   12 41 00.3 +0.1
      baz=124
R08A  Mina            123.73 289 ⇓P       PKPdf   12 41 00.7 +0.3
      baz=124
O12A  Currie          123.74 293 ⇑P       PKPdf   12 41 01.0 +0.7
      baz=124
VRHR  Novokhopersk    123.81  44 ePKIKP   PKPdf   12 40 59.1 -0.9
VRHR                              pmax    pmax
      comp=Z,40nm,1.4s
VRHR                              pmax    pmax
      comp=N,10.0nm,0.5s
VRHR                              pmax    pmax
      comp=E,10.0nm,1.1s
VRHR                              MLR     MLR
      comp=Z,119µm,13.0s,MS7.7
VRHR                              MLR     MLR
      comp=N,3µm,18.0s,MS6.2
VRHR                              MLR     MLR
      comp=E,3µm,16.0s,MS6.2
NVAR  Mina Array Bea  123.89 289  PKP     PKPdf   12 41 01.4 +0.8
      comp=E,20nm,0.9s,baz=158,slow=2.6,SNR=51
NVAR                              PKKPbc  PKKPbc  12 50 48.4 +3.0
      comp=E,1.1nm,0.7s,baz=296,slow=1.8,SNR=6.0
N13A  Wendover, West  123.97 294 ⇓P       PKPdf   12 41 00.5 -0.2
      baz=124
P10A  Eureka          124.00 291 ⇑P       PKPdf   12 41 00.4 -0.4
      baz=124
SAO   San Andreas Ge  124.02 285 ePKIKP   PKPdf   12 41 02.4 +1.5
SAO                               MLR     MLR
      comp=Z,7µm,19.0s,MS6.4
J18A  Kendall Valley  124.03 299 ⇓P       PKPdf   12 40 60.0 -0.8
      baz=124
O11A  Cowboy Ranch,   124.04 292 ⇓P       PKPdf   12 41 00.9  0.0
      baz=124
K17A  Gardner Place,  124.05 298 ⇓P       PKPdf   12 41 00.4 -0.4
      baz=124
HYA   Hoyanger        124.05  18 eP       PKPdf   12 41 01.7 +1.5
HYA                               AMb     AMB     12 41 07.1
      comp=Z,166nm,2.8s
HYA                              ePP      PP      12 42 47.6 +2.0
Q08A  Gabbs           124.06 290 ⇑P       PKPdf   12 41 00.5 -0.4
      baz=124
L15A  Malad City      124.09 296 ⇓P       PKPdf   12 40 59.7 -1.2
      baz=124
M14A  Sheep Mountain  124.11 295 ⇓P       PKPdf   12 41 00.5 -0.4
      baz=124
AHID  Auburn Hatcher  124.14 298 ePKPdf   PKPdf   12 41 01.3 +0.3
AHID                              LR      LR
      comp=Z,19µm,22.0s,MS6.7
ULM   Lac du Bonnet   124.18 313  PKP     PKPdf   12 40 58.8 -2.0
      comp=Z,33nm,0.8s,baz=122,slow=0.4,SNR=32
ULM                               PP      PP      12 42 46.7 +0.1
      comp=Z,6.4nm,0.9s,baz=160,slow=8.1,SNR=4.2
P09A  Austin          124.25 291 ⇑P       PKPdf   12 41 01.1 -0.1
      baz=124
I18A  Diamond G Ranc  124.34 299 ⇑P       PKPdf   12 41 00.7 -0.6
      baz=124
N12A  Clover Valley,  124.34 293 ⇑P       PKPdf   12 41 01.2 -0.2
      baz=124
ELK   Elko            124.35 293 ePKIKP   PKPdf   12 41 01.5 +0.1
ELK                              e                12 42 46.0
ELK                               MLR     MLR
      comp=Z,12µm,19.0s
HFS   Hagfors         124.36  23  PKIKP   PKPdf   12 40 58.6 -2.2
HFS                                               12 42 47.5
HFS                               pmax    pmax
      comp=Z,20nm,0.9s
HFS                               pmax    pmax
      comp=Z,5.0nm,0.7s
HFS   Hagfors         124.36  23  PKP     PKPdf   12 40 58.6 -2.2
      comp=Z,20nm,0.8s,baz=158,slow=4.3,SNR=24
HFS                               PP      PP      12 42 47.5 -0.1
      comp=Z,5.1nm,0.7s,baz=204,slow=3.3,SNR=5.1
M13A  Montello        124.36 294 ⇑P       PKPdf   12 41 01.6 +0.2
      baz=124
K16A  Soda Springs    124.41 297 ⇓P       PKPdf   12 41 01.7 +0.3
      baz=125
J17A  Brown Place, J  124.45 298 ⇑P       PKPdf   12 41 01.8 +0.3
      baz=125
L14A  Malta           124.49 295 ⇑P       PKPdf   12 41 01.9 +0.2
      baz=125
R06C  Coleville       124.50 288 ⇓P       PKPdf   12 41 01.6 -0.2
      baz=125
REDW  Red Top Meadow  124.51 298 ePKPdf   PKPdf   12 41 01.5 -0.2
Q07A  Schurz          124.53 289 ⇓P       PKPdf   12 41 03.5 +1.7
      baz=125
CMB   Columbia Colle  124.54 287 ePKIKP   PKPdf   12 41 01.2 -0.7
CMB                               MLR     MLR
      comp=Z,6µm,20.0s,MS6.3
O10A  Cortez Mining,  124.56 292 ⇑P       PKPdf   12 41 02.4 +0.5
      baz=125
LOHW  Long Hollow     124.61 298 ePKPdf   PKPdf   12 41 01.3 -0.5
N11A  Elko Archery C  124.63 293 ⇑P       PKPdf   12 41 02.8 +0.8
      baz=125
K15A  Arbon           124.70 296 ⇓P       PKPdf   12 41 01.9 -0.1
      baz=125
NB2   NORSAR Subarra  124.75  21  PKPdf   PKPdf   12 41 00.9 -0.6
      comp=Z,181nm,1.7s,baz=202,slow=1.9
NB2   NORSAR Subarra  124.75  21  PKPdf   PKPdf   12 41 00.9 -0.6
      baz=202,slow=1.9
NOA   NORSAR Array B  124.75  21  PKP     PKPdf   12 41 01.1 -0.5
      comp=Z,17nm,0.7s,baz=191,slow=1.7,SNR=45
NOA                               PKKPbc          12 50 44.3
      comp=Z,2.2nm,1.0s,baz=74,slow=7.0,SNR=3.2
O09A  Fish Creek Ran  124.77 291 ⇑P       PKPdf   12 41 02.4 +0.1
      baz=125
MOOW  Moose Ponds     124.78 298 ePKPdf   PKPdf   12 41 01.5 -0.6
P08A  Dixie Valley    124.80 290 ⇓P       PKPdf   12 41 03.0 +0.6
      baz=125
I17A  Pilgrim Ck.     124.84 299 ⇑P       PKPdf   12 41 02.4 +0.2
      baz=125
L13A  Double Diamond  124.85 295 ⇓P       PKPdf   12 41 02.8 +0.5
      baz=125
K14A  Jones Ranch, D  124.87 296 ⇑P       PKPdf   12 41 02.5 +0.1
      baz=125
BMN   Battle Mountai  125.00 291 ePKIKP   PKPdf   12 41 02.2 -0.5
BMN                               MLR     MLR
      comp=Z,14µm,20.0s,MS6.6
M11A  Holland Ranch,  125.15 293 ⇑P       PKPdf   12 41 03.9 +1.0
      baz=125
I16A  Newdale         125.20 298 ⇑P       PKPdf   12 41 03.1 +0.2
      baz=125
H17A  Grant Village   125.22 299 ⇑P       PKPdf   12 41 04.5 +1.5
      baz=125
J15A  Blackfoot       125.23 297 ⇓P       PKPdf   12 41 03.0  0.0
      baz=125
LAO   LASA Array      125.24 304 ePKPdf   PKPdf   12 41 02.5 -0.4
LAO                               LR      LR
      comp=Z,17µm,22.0s,MS6.7
RLMT  Red Lodge       125.25 300 ⇓P       PKPdf   12 41 02.0 -1.0
      baz=126
RLMT  Red Lodge       125.25 300 ePKPdf   PKPdf   12 41 02.2 -0.8
RLMT                              LR      LR
      comp=Z,24µm,22.0s,MS6.8
BORG  Borgarnes       125.26   2  PFAKE           12 41 10.0 +7.6
BORG                              LR      LR
      comp=Z,17µm,19.0s,MS6.7
WCN   Washoe City     125.26 289 ⇑P       PKPdf   12 41 04.2 +1.0
      baz=125
LKWY  Lake            125.28 299  PFAKE           12 41 10.0 +6.9
LKWY                              LR      LR
      comp=Z,27µm,20.0s,MS6.9
O08A  Rochester Mine  125.31 291 ⇓P       PKPdf   12 41 02.9 -0.4
      baz=126
K13A  Stover Farm, H  125.36 295 ⇓P       PKPdf   12 41 03.0 -0.3
      baz=126
L12A  House Creek Ra  125.37 294 ⇓P       PKPdf   12 41 03.2 -0.2
      baz=126
N09A  Rock Creek Ran  125.47 291 ⇓P       PKPdf   12 41 03.6  0.0
      baz=126
G18A  Lazy EL Ranch,  125.53 300 ⇓P       PKPdf   12 41 03.8 +0.2
      baz=126
O07A  Toulon          125.54 290 ⇓P       PKPdf   12 41 04.3 +0.5
      baz=126
M10A  I.L. Ranch, Tu  125.56 293 ⇓P       PKPdf   12 41 04.3 +0.6
      baz=126
OBN   Obninsk         125.56  39⇑iPKIKP   PKPdf   12 41 01.8 -1.5
OBN                              e                12 41 18.5
OBN                              i                12 42 58.1
OBN                              e                12 48 16.4
OBN                              ePS      PS      12 52 58.4 +2.4
OBN                               pmax    pmax
      comp=Z,278nm,1.7s
OBN                               MLR     MLR
      comp=Z,7µm,17.0s,MS6.4
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OBN   Obninsk         125.56  39 ePKPdf   PKPdf   12 41 03.3  0.0
OBN                               LR      LR
      comp=Z,8µm,20.0s,MS6.4
P06A  Stead Airport,  125.63 289 ⇓P       PKPdf   12 41 04.0 +0.1
      baz=126
N08A  GE Springer Mi  125.69 291 ⇑P       PKPdf   12 41 04.2 +0.1
      baz=126
K12A  Draper Farm, C  125.71 295 ⇓P       PKPdf   12 41 03.8 -0.2
      baz=126
L11A  Cat Creek Ranc  125.72 294 ⇑P       PKPdf   12 41 03.7 -0.3
      baz=126
I15A  Monteview       125.73 297 ⇓P       PKPdf   12 41 04.5 +0.6
      baz=126
H16A  Russell Place,  125.76 299 ⇓P       PKPdf   12 41 03.9 -0.1
      baz=126
MCCM  Marconi Confer  125.80 285  PFAKE           12 41 20.0  +16
MCCM                              LR      LR
      comp=Z,6µm,22.0s,MS6.2
M09A  Marrel Ranch,   125.89 292 ⇑P       PKPdf   12 41 04.9 +0.6
      baz=126
L10A  Juniper Basin   125.97 293 ⇓P       PKPdf   12 41 04.6 +0.1
      baz=126
O06A  Flanigan        125.98 289 ⇑P       PKPdf   12 41 05.4 +0.8
      baz=126
J13A  Cove Ranch, Pi  125.99 296 ⇓P       PKPdf   12 41 04.8 +0.3
      baz=126
BEKR  Beckwourth      125.99 289 ⇑P       PKPdf   12 41 04.6  0.0
      baz=126
G17A  Pierce Place,   126.03 300 ⇓P       PKPdf   12 41 05.2 +0.8
      baz=126
F18A  Big Timber      126.06 301 ⇑P       PKPdf   12 41 03.7 -0.8
      baz=126
N07B  Gerlach         126.08 290 ⇓P       PKPdf   12 41 05.5 +0.8
      baz=126
I14A  Mackay          126.10 297 ⇑P       PKPdf   12 41 04.8 +0.2
      baz=126
HLID  Hailey          126.23 296 ⇑P       PKPdf   12 41 04.7 -0.3
      baz=126
HLID  Hailey          126.23 296 ePKPdf   PKPdf   12 41 05.0  0.0
HLID                             ePP      PP      12 43 00.4  0.0
HLID                              LR      LR
      comp=Z,14µm,20.0s,MS6.6
J12A  Stokes Ranch,   126.28 295 ⇑P       PKPdf   12 41 05.7 +0.6
      baz=126
H15A  Lima            126.29 298 ⇓P       PKPdf   12 41 05.1 +0.1
      baz=126
K11A  Parker Ranch,   126.32 294 ⇑P       PKPdf   12 41 05.2 +0.1
      baz=126
M08A  Happy Creek Ra  126.34 291 ⇑P       PKPdf   12 41 05.6 +0.4
      baz=126
I13A  Wildhorse Cree  126.38 296 ⇑P       PKPdf   12 41 06.1 +0.9
      baz=127
MOS   Moscow          126.41  39 ePKIKP   PKPdf   12 41 02.3 -2.6
MOS                              e                12 43 04.9
MOS                              e                12 45 52.7
MOS                              e                12 54 30.2
MOS                               pmax    pmax
      comp=Z,2µm,2.6s
MOS                               pmax    pmax
      comp=Z,356nm,1.8s
MOS                               MLR     MLR
      comp=N,6µm,18.0s,MS6.4
MOS                               MLR     MLR
      comp=E,4µm,18.0s,MS6.4
MOS                               MLR     MLR
      comp=Z,6µm,18.0s,MS6.3
MOS   Moscow          126.41  39 eP       PKPdf   12 41 02.5 -2.4
G16A  Moss Hill, Enn  126.41 299 ⇓P       PKPdf   12 41 04.9 -0.3
      baz=127
N06A  Buffalo Meadow  126.45 290 ⇓P       PKPdf   12 41 05.4  0.0
      baz=127
F17A  Fitzpatrick Pl  126.46 300 ⇑P       PKPdf   12 41 06.1 +0.8
      baz=127
L09A  Wilkinson Ranc  126.47 292 ⇓P       PKPdf   12 41 05.9 +0.5
      baz=127
HOPS  Hopland         126.57 286 ePKPdf   PKPdf   12 41 05.4 -0.3
HOPS                              LR      LR
      comp=Z,9µm,21.0s,MS6.4
M07A  Soldier Meadow  126.65 291 ⇓P       PKPdf   12 41 06.5 +0.7
      baz=127
G15A  Dillon          126.66 298 ⇑P       PKPdf   12 41 05.8 +0.1
      baz=127
BOZ   Bozeman (W)     126.67 299 ⇑P       PKPdf   12 41 05.7  0.0
      baz=127
BOZ   Bozeman (W)     126.67 299 ePKPdf   PKPdf   12 41 06.3 +0.6
BOZ                              ePP      PP      12 43 03.2  0.0
BOZ                               LR      LR
      comp=Z,15µm,20.0s,MS6.7
E18A  Harlowton       126.67 301 ⇑P       PKPdf   12 41 05.7  0.0
      baz=127
K10A  MacKenzie Ranc  126.70 293 ⇑P       PKPdf   12 41 05.8 -0.1
      baz=127
MFID  Camas Ranch     126.74 295 ⇓P       PKPdf   12 41 05.8 -0.2
      baz=127
F16A  Kennard Place,  126.78 299 ⇑P       PKPdf   12 41 06.1 +0.2
      baz=127
DLMT  Dillon          126.86 298 ePKPdf   PKPdf   12 41 06.7 +0.6
L08A  Fields          126.91 292 ⇓P       PKPdf   12 41 06.7 +0.4
      baz=127
H13A  Challis         126.95 297 ⇑P       PKPdf   12 41 05.9 -0.4
      baz=127
E17A  Martinsdale     126.99 300 ⇑P       PKPdf   12 41 06.7 +0.4
      baz=127
K09A  Rome            127.03 293 ⇓P       PKPdf   12 41 06.6 +0.1
      baz=127
D18A  Linhart Farms,  127.12 302 ⇓P       PKPdf   12 41 06.0 -0.5
      baz=127
G14A  Jackson         127.14 298 ⇓P       PKPdf   12 41 06.7 +0.1
      baz=127
J10A  Berg Farm, Mel  127.17 294 ⇑P       PKPdf   12 41 06.7  0.0
      baz=127
F15A  Butte           127.19 299 ⇑P       PKPdf   12 41 06.4 -0.3
      baz=127
H12A  Diamond D Ranc  127.20 296 ⇓P       PKPdf   12 41 07.2 +0.4
      baz=127
LBCM  Butte Creek Ri  127.22 289  P       PKPdf   12 41 06.8 -0.1
L07A  Adell           127.23 291 ⇓P       PKPdf   12 41 06.7 -0.2
      baz=127
WVOR  Wild Horse Val  127.23 292 ePKIKP   PKPdf   12 41 07.3 +0.4
WVOR                              MLR     MLR
      comp=Z,10µm,19.0s,MS6.5
G13A  Cobalt          127.36 297 ⇑P       PKPdf   12 41 07.1  0.0
      baz=128
E16A  East Helena     127.39 300 ⇑P       PKPdf   12 41 06.8 -0.3
      baz=128
K08A  Mann Creek Ran  127.40 292 ⇑P       PKPdf   12 41 07.1 -0.1
      baz=128
D17A  Six Diamond Ra  127.46 301 ⇓P       PKPdf   12 41 07.4 +0.3
      baz=128
F14A  Wisdom          127.55 298 ⇑P       PKPdf   12 41 07.1 -0.3
      baz=128
J09A  Fry Pan Ranch,  127.55 293 ⇑P       PKPdf   12 41 07.8 +0.4
      baz=128
WDC   Whiskeytown Da  127.58 287 ePKIKP   PKPdf   12 41 07.6  0.0
WDC                               MLR     MLR
      comp=Z,6µm,22.0s,MS6.2
MOD   Modoc           127.58 290 ePKPdf   PKPdf   12 41 08.1 +0.5
I10A  Payette         127.70 294 ⇓P       PKPdf   12 41 08.9 +1.2
      baz=128
K07A  Rock Creek Ran  127.71 292 ⇓P       PKPdf   12 41 07.6 -0.2
      baz=128
E15A  Deer Lodge      127.72 299 ⇓P       PKPdf   12 41 07.9 +0.2
      baz=128
D16A  Dana Ranch, Ca  127.73 300 ⇓P       PKPdf   12 41 07.8 +0.1
      baz=128
EGMT  Eagleton        127.76 302 ⇑P       PKPdf   12 41 07.7  0.0
      baz=128
EGMT  Eagleton        127.76 302 ePKPdf   PKPdf   12 41 08.0 +0.3
EGMT                              LR      LR
      comp=Z,14µm,21.0s,MS6.6
PUL   Pulkovo         127.76  32⇑ePKIKP   PKPdf   12 41 07.6 +0.3
QIZ   Qiongzhong      127.81 123  PKP     PKPdf   12 41 09.3 +0.6
QIZ                               PP      PP      12 43 12.2 +1.6
QIZ                               PKS             12 44 43.9
QIZ                               SS      SS      13 00 23.4 +0.8
QIZ                               AMB     AMB
      comp=Z,1µm,6.7s
QIZ                               LR      LR
      comp=N,5µm,17.6s
QIZ                               LR      LR
      comp=Z,9µm,21.2s,MS6.4
QIZ   Qiongzhong      127.81 123 ePKPdf   PKPdf   12 41 09.1 +0.4
QIZ                               LR      LR
      comp=Z,9µm,20.0s,MS6.5
H11A  Donnelly        127.84 295 ⇑P       PKPdf   12 41 07.8 -0.1
      baz=128
C17A  Wharram Farm,   127.87 301 ⇓P       PKPdf   12 41 07.1 -0.8
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	baz=128						
J08A	**Circle Bar Ran**	**127.89**	**293**	⇑P	PKPdf	12 41 08.0	-0.1
	baz=128						
F13A	**Darby**	**127.95**	**297**	⇓P	PKPdf	12 41 07.9	-0.2
	baz=128						
I09A	**Lost Marbles R**	**128.04**	**294**	⇓P	PKPdf	12 41 07.9	-0.4
	baz=128						
B18A	**Beardsley Farm**	**128.06**	**303**	⇑P	PKPdf	12 41 08.2	-0.1
	baz=128						
H10A	**Noah's Angus R**	**128.07**	**295**	⇓P	PKPdf	12 41 08.2	-0.3
	baz=128						
E14A	**Clinton**	**128.08**	**299**	⇑P	PKPdf	12 41 08.4	+0.1
	baz=128						
NSS	**Namsos**	**128.14**	**20**	*e*P	PKPdf	12 41 06.6	-1.3
NSS				AMb	AMB	12 41 14.5	
	comp=Z,368nm,1.7s						
D15A	**Lincoln**	**128.15**	**300**	⇓P	PKPdf	12 41 08.7	+0.2
	baz=128						
J07A	**Hines**	**128.28**	**292**	⇑P	PKPdf	12 41 09.1	+0.2
	baz=128						
F12A	**Elk City**	**128.33**	**297**	⇓P	PKPdf	12 41 08.6	-0.2
	baz=128						
I08A	**Drewsey**	**128.36**	**293**	⇑P	PKPdf	12 41 09.7	+0.8
	baz=128						
FRB	**Frobisher Bay**	**128.37**	**337**	PKIKP	PKPdf	12 41 07.2	-1.2
FRB				pmax	pmax		
	comp=Z,62nm,0.8s						
FRB	**Frobisher Bay**	**128.37**	**337**	PKP	PKPdf	12 41 07.2	-1.1
	comp=Z,62nm,0.8s,baz=134,slow=3.1,SNR=39						
FRB	**Frobisher Bay**	**128.37**	**337**	PKP	PKPdf	12 41 07.2	-1.1
E13A	**Victor**	**128.40**	**298**	⇓P	PKPdf	12 41 09.8	+0.9
	baz=129						
B17A	**L&G Farms, Che**	**128.40**	**302**	⇓P	PKPdf	12 41 08.7	-0.2
	baz=129						
C16A	**Fuhringer Ranc**	**128.42**	**301**	⇑P	PKPdf	12 41 08.6	-0.4
	baz=129						
LSA	**Lhasa**	**128.44**	**97**	PKP	PKPdf	12 41 07.6	-2.0
LSA				PP	PP	12 43 10.3	-4.6
LSA				SS	SS	13 00 29.2	-1.5
LSA				LR	LR		
	comp=N,1µm,18.1s,MS5.9						
LSA				LR	LR		
	comp=E,2µm,18.1s,MS5.9						
LSA				LR	LR		
	comp=Z,4µm,18.1s,MS6.1						
LSA	**Lhasa**	**128.44**	**97**	*e*PKPdf	PKPdf	12 41 11.0	+1.3
LSA				*e*SKPdf	SKPdf	12 44 47.9	+3.3
LSA				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
HOG	**Hogback Mounta**	**128.49**	**289**	P	PKPdf	12 41 11.2	+1.9
K05A	**Summer Lake**	**128.50**	**290**	⇓P	PKPdf	12 41 10.0	+0.7
	baz=129						
A18A	**Metzger Ranch,**	**128.50**	**303**	⇑P	PKPdf	12 41 08.9	-0.2
	baz=129						
BMO	**Blue Mountains**	**128.53**	**295**	*e*PKPpre		12 40 51.9	
BMO				*e*PKPdf	PKPdf	12 41 09.3	0.0
BMO				LR	LR		
	comp=Z,16µm,21.0s,MS6.7						
H09A	**Durkee**	**128.54**	**294**	⇓P	PKPdf	12 41 09.4	+0.1
	baz=129						
YBH	**Yreka Blue Hor**	**128.56**	**288**	PKIKP	PKPdf	12 41 08.8	-0.6
YBH				pmax	pmax		
	comp=Z,14nm,1.1s						
YBH	**Yreka Blue Hor**	**128.56**	**288**	PKP	PKPdf	12 41 08.8	-0.7
	comp=Z,14nm,1.1s,baz=127,slow=4.7,SNR=17						
YBH	**Yreka Blue Hor**	**128.56**	**288**	*e*PKPdf	PKPdf	12 41 09.6	+0.2
YBH				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
J06A	**Christmas Vall**	**128.57**	**291**	⇓P	PKPdf	12 41 08.9	-0.5
	baz=129						
MSO	**Missoula**	**128.59**	**299**	*e*PKPdf	PKPdf	12 41 08.9	-0.4
MSO				LR	LR		
	comp=Z,11µm,21.0s,MS6.5						
D14A	**Greenough**	**128.60**	**299**	⇓P	PKPdf	12 41 08.9	-0.4
	baz=129						
KIP	**Kipapa**	**128.67**	**242**	*e*PKIKP	PKPdf	12 41 10.7	+0.4
KIP				*e*		12 43 18.6	
C15A	**Salmond Ranch,**	**128.76**	**300**	⇑P	PKPdf	12 41 08.3	-1.3
	baz=129						
G10A	**Bishop Farm, J**	**128.79**	**295**	⇑P	PKPdf	12 41 09.9	+0.1
	baz=129						
SFJD	**Kangerlussuaq**	**128.79**	**348**	*i* PKIKP	PKPdf	12 41 08.8	-0.3
SFJD				pmax	pmax		
	comp=Z,42nm,1.0s						
SFJD				MLR	MLR		
	comp=Z,19µm,23.0s,MS6.7						
SFJD	**Kangerlussuaq**	**128.79**	**348**	*i* P	PKPdf	12 41 08.8	-0.3
	comp=Z,42nm,1.0s						
SFJD							
	comp=Z,19µm,23.0s						
KAF	**Kangasniemi**	**128.81**	**28**	*e*pkp	PKPdf	12 41 06.2	-3.0
A17A	**Triple J Farms**	**128.87**	**302**	⇓P	PKPdf	12 41 09.4	-0.3
	baz=129						
B16A	**M & M Farms, S**	**128.88**	**301**	⇓P	PKPdf	12 41 09.2	-0.6
	baz=129						
H08A	**Prairie City**	**128.88**	**293**	⇓P	PKPdf	12 41 10.2	+0.2
	baz=129						
I07A	**Izee**	**128.92**	**292**	⇓P	PKPdf	12 41 11.7	+1.7
	baz=129						
KSH	**Kashi**	**128.93**	**77**	PKP	PKPdf	12 41 10.0	-0.2
KSH				PP	PP	12 43 14.0	-4.2
KSH				PKS		12 44 44.2	
KSH				*e*SKS	SKSdf	12 48 15.3	-6.1
KSH				AMB	AMB		
	comp=Z,4µm,5.9s						
KSH				LR	LR		
	comp=N,5µm,15.4s,MS6.5						
KSH				LR	LR		
	comp=E,7µm,15.6s,MS6.5						
KSH				LR	LR		
	comp=Z,7µm,14.8s,MS6.5						
D13A	**Huson**	**129.02**	**298**	⇓P	PKPdf	12 41 10.6	+0.5
	baz=129						
G09A	**Cove**	**129.07**	**295**	⇓P	PKPdf	12 41 10.7	+0.4
	baz=129						
I06A	**Prineville**	**129.13**	**292**	⇑P	PKPdf	12 41 11.5	+1.0
	baz=129						
B15A	**Bradely Ranch,**	**129.16**	**301**	⇑P	PKPdf	12 41 09.3	-1.0
	baz=129						
KK31	**Karatay Array**	**129.16**	**70**	*i* PKHKP		12 40 58.0	
KK31				pmax	pmax		
	comp=Z,25nm,0.9s						
E11A	**Bogner Ranch,**	**129.21**	**297**	⇓P	PKPdf	12 41 10.4	-0.1
	baz=129						
C14A	**Swan Lake**	**129.24**	**299**	⇓P	PKPdf	12 41 10.9	+0.4
	baz=129						
A16A	**West Butte Ran**	**129.25**	**302**	⇑P	PKPdf	12 41 10.4	-0.1
	baz=129						
AB31	**Akbulak array**	**129.29**	**58**	PKHKP		12 40 57.8	
AB31				pmax	pmax		
	comp=Z,203nm,1.3s						
PINOR	**Pine Mountain**	**129.33**	**291**	P	PKPdf	12 41 12.6	+1.8
H07A	**Lands Inn, Kim**	**129.34**	**293**	⇓P	PKPdf	12 41 10.3	-0.6
	baz=130						
HUMO	**Hull Mountain**	**129.36**	**289**	*e*PKPdf	PKPdf	12 41 11.0	+0.1
HUMO				*e*SKPdf	SKPdf	12 44 36.9	-8.9
HUMO				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
F10A	**Beach Ranch, E**	**129.36**	**296**	⇑P	PKPdf	12 41 10.7	-0.1
	baz=130						
AKTO	**Aktyubinsk**	**129.42**	**55**	PKHKP		12 40 59.5	
AKTO				pmax	pmax		
	comp=Z,35nm,1.4s						
C13A	**Hot Springs**	**129.52**	**299**	⇓P	PKPdf	12 41 09.5	-1.6
	baz=130						
G08A	**Pilot Rock**	**129.61**	**294**	⇑P	PKPdf	12 41 12.0	+0.7
	baz=130						
E10A	**Myers Farm, Un**	**129.71**	**296**	⇓P	PKPdf	12 41 11.1	-0.4
	baz=130						
A15A	**Johnson Ranch,**	**129.74**	**301**	⇑P	PKPdf	12 41 10.3	-1.2
	baz=130						
H06A	**Lindquist Farm**	**129.80**	**292**	⇓P	PKPdf	12 41 12.3	+0.6
	baz=130						
D11A	**Klaveano Farm,**	**129.80**	**297**	⇓P	PKPdf	12 41 11.3	-0.3
	baz=130						
AML	**Almayashu**	**129.89**	**73**	P	PKPdf	12 41 11.9	-0.1
	SNR=17						
AML	**Almayashu**	**129.89**	**73**	PFAKE		12 41 20.0	+8.0
AML				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
G07A	**Ruggs Ranch, H**	**129.91**	**293**	⇓P	PKPdf	12 41 12.7	+0.8
	baz=130						
F08A	**Pendleton**	**129.92**	**294**	⇑P	PKPdf	12 41 11.9	0.0
	baz=130						
C12B	**Naegeli Ranch,**	**129.94**	**298**	⇑P	PKPdf	12 41 11.9	+0.1
	baz=130						
FFC	**Flin Flon**	**130.00**	**313**	*e*PKIKP	PKPdf	12 41 10.9	-0.8
FFC				MLR	MLR		
	comp=Z,13µm,20.0s,MS6.6						
B13A	**Whitefish**	**130.01**	**299**	⇑P	PKPdf	12 41 11.8	-0.1
	baz=130						
A14A	**Double T Ranch**	**130.03**	**301**	⇓P	PKPdf	12 41 12.3	+0.3
	baz=130						
KMI	**Kunming**	**130.07**	**112**	Pdif	Pdif	12 38 03.6	+1.2
KMI				PKP	PKPdf	12 41 13.2	+0.3
KMI				PP	PP	12 43 25.4	-0.1
KMI				SKKS	SKKSac	12 50 21.6	-0.4
KMI				SS	SS	13 00 46.7	-4.0
KMI				AMB	AMB		
	comp=Z,1µm,5.2s						
KMI				LR	LR		
	comp=N,4µm,16.8s,MS6.4						
KMI				LR	LR		
	comp=E,5µm,15.5s,MS6.4						
KMI				LR	LR		
	comp=Z,6µm,16.8s,MS6.3						
E09A	**Wood Farm, Sta**	**130.19**	**295**	⇓P	PKPdf	12 41 12.9	+0.6
	baz=130						
D10A	**Wagner Farm, O**	**130.22**	**296**	⇑P	PKPdf	12 41 13.1	+0.7
	baz=130						
WALA	**Waterton Lakes**	**130.30**	**300**	*e*PKPdf	PKPdf	12 41 12.7	+0.1
WALA				*e*SKPbc	SKPbc	12 44 37.4	+2.1
G06A	**Carlson Farm,**	**130.32**	**293**	⇓P	PKPdf	12 41 13.8	+1.2
	baz=130						
EKS2	**Erkin-Say**	**130.34**	**73**	P	PKPdf	12 41 12.5	-0.3
	SNR=20						
EKS2	**Erkin-Say**	**130.34**	**73**	PFAKE		12 41 20.0	+7.2
EKS2				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
UCH	**Uchtor**	**130.35**	**74**	P	PKPdf	12 41 12.5	-0.3
	SNR=16						
UCH	**Uchtor**	**130.35**	**74**	PFAKE		12 41 20.0	+7.2
UCH				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
F07A	**Phinny Hill Vi**	**130.51**	**294**	⇓P	PKPdf	12 41 14.3	+1.3
	baz=131						
FCC	**Fort Churchill**	**130.54**	**320**	*e*PKIKP	PKPdf	12 41 11.4	-1.2
E08A	**Dider Farm, El**	**130.57**	**295**	⇓P	PKPdf	12 41 12.5	-0.6
	baz=131						
KZA	**Kyzart**	**130.58**	**74**	P	PKPdf	12 41 14.5	+1.2
	SNR=11						
H04A	**Detroit Lake**	**130.60**	**291**	⇓P	PKPdf	12 41 12.9	-0.3
	baz=131						
G05A	**Wamic**	**130.63**	**292**	⇑P	PKPdf	12 41 13.1	-0.2
	baz=131						
AAK	**Ala-Archa**	**130.65**	**73**	*e*PKIKP	PKPdf	12 41 12.2	-1.2
AAK				*e*		12 43 30.9	
AAK				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.4						
AAK	**Ala-Archa**	**130.65**	**73**	P	PKPdf	12 41 13.1	-0.3
	SNR=28						
AAK	**Ala-Archa**	**130.65**	**73**	*e*PKPdf	PKPdf	12 41 12.2	-1.2
AAK				*e*PP	PP	12 43 30.9	+1.5
AAK				*e*SKPbc	SKPbc	12 44 37.8	+1.0
AAK				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
D09A	**Jones Farm, Ri**	**130.68**	**296**	⇓P	PKPdf	12 41 13.3	0.0
	baz=131						
JOF	**Joensuu**	**130.70**	**30**	*e*PKIKP	PKPdf	12 41 11.1	-1.7
JOF				pmax	pmax		
	comp=Z,16nm,0.6s						
JOF	**Joensuu**	**130.70**	**30**	*e*pkp	PKPdf	12 41 11.1	-1.7
	comp=Z,16nm,0.6s						
HAWA	**Hanford**	**130.71**	**294**	*e*PKPdf	PKPdf	12 41 14.5	+1.2
HAWA				LR	LR		
	comp=Z,11µm,21.0s,MS6.5						
F06A	**Goldendale**	**130.79**	**293**	⇑P	PKPdf	12 41 13.9	+0.4
	baz=131						
C10A	**Spilker Farm,**	**130.82**	**297**	⇑P	PKPdf	12 41 13.6	+0.1
	baz=131						
HOOD	**Mount Hood Mea**	**130.85**	**292**	*e*PKPdf	PKPdf	12 41 15.3	+1.6
FRU	**Bishkek**	**130.86**	**73**	*e*PKIKP	PKPdf	12 41 13.5	-0.3
FRU				*e*		12 43 33.0	
FRU				*e*		12 48 18.0	
FRU				pmax	pmax		
	comp=Z,360nm,2.4s						
FRU				MLR	MLR		
	comp=Z,7µm,8.0s						
KBK	**Karagaybulak**	**130.88**	**74**	P	PKPdf	12 41 14.0	+0.2
	SNR=15						
D08A	**Wollman Farm,**	**130.95**	**295**	⇓P	PKPdf	12 41 14.1	+0.3
	baz=131						
A12A	**Yaak River Ran**	**130.95**	**299**	⇑P	PKPdf	12 41 14.0	+0.3
	baz=131						
E07A	**Sunnyside**	**130.98**	**294**	⇑P	PKPdf	12 41 14.0	+0.1
	baz=131						
SCO	**Scoresbysund**	**131.01**	**2**	*i* PKIKP	PKPdf	12 41 13.3	+0.1
SCO				pmax	pmax		
	comp=Z,24nm,1.1s						
SCO	**Scoresbysund**	**131.01**	**2**	*i* P	PKPdf	12 41 13.3	+0.1
	comp=Z,24nm,1.1s						
SCO				*i*		12 44 42.8	
COR	**Corvallis**	**131.04**	**290**	*e*PKPdf	PKPdf	12 41 14.7	+0.7
COR				*e*SKPbc	SKPbc	12 44 41.4	+3.2
COR				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
CHMS	**Chumysh**	**131.05**	**73**	P	PKPdf	12 41 13.4	-0.8
	SNR=16						
NEW	**Newport**	**131.07**	**298**	*e*PKHKP		12 40 58.5	
NEW				*e*		12 41 11.8	
NEW				MLR	MLR		
	comp=Z,17µm,19.0s						
NEW	**Newport**	**131.07**	**298**	*e*PKPpre		12 40 58.5	
NEW				*e*PKPdf	PKPdf	12 41 11.8	-2.2
NEW				*e*SKPbc	SKPbc	12 44 39.2	+1.0
NEW				LR	LR		
	comp=Z,17µm,19.0s,MS6.8						
G04A	**Mulino**	**131.14**	**291**	⇓P	PKPdf	12 41 14.7	+0.5
	baz=131						
USP	**Ospenovka**	**131.14**	**73**	P	PKPdf	12 41 12.6	-1.7
	SNR=18						
B10A	**Chitwood Farm,**	**131.15**	**298**	⇑P	PKPdf	12 41 14.2	+0.1
	baz=131						
MXC	**Moxie City**	**131.19**	**294**	P	PKPdf	12 41 15.9	+1.7
KLMR	**Klimovskoe**	**131.20**	**36**	*e*PKIKP	PKPdf	12 41 12.9	-0.9
KLMR				pmax	pmax		
	comp=Z,300nm,1.8s						
C09A	**Chrisman Ranch**	**131.22**	**296**	⇓P	PKPdf	12 41 14.9	+0.6
	baz=131						
A11A	**Hall Mountain,**	**131.27**	**299**	⇓P	PKPdf	12 41 14.2	-0.2
	baz=132						
TKM2	**Tokmak 2**	**131.39**	**74**	P	PKPdf	12 41 14.3	-0.5
	SNR=7.4						
TKM2	**Tokmak 2**	**131.39**	**74**	PFAKE		12 41 30.0	+15
TKM2				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
E06A	**Yakima**	**131.47**	**293**	⇑P	PKPdf	12 41 16.0	+1.2
	baz=132						
D07A	**Quincy**	**131.52**	**295**	⇑P	PKPdf	12 41 15.7	+0.8
	baz=132						
C08A	**Higginbotham F**	**131.55**	**296**	⇓P	PKPdf	12 41 15.8	+0.8
	baz=132						
B09A	**Rice**	**131.64**	**297**	⇑P	PKPdf	12 41 15.7	+0.6
	baz=132						
F04A	**Amboy**	**131.66**	**292**	⇓P	PKPdf	12 41 15.8	+0.6
	baz=132						
A10A	**Northport**	**131.81**	**298**	⇑P	PKPdf	12 41 15.2	-0.2
	baz=132						
D06A	**Cle Elum**	**131.91**	**294**	⇓P	PKPdf	12 41 15.9	+0.3
	baz=132						
C07A	**Waterville**	**131.93**	**295**	⇑P	PKPdf	12 41 15.5	-0.1
	baz=132						
LON	**Longmire**	**132.00**	**293**	*e*PKPdf	PKPdf	12 41 16.1	+0.3
LON				*e*SKPbc	SKPbc	12 44 43.7	+2.0
B08A	**Colville Reser**	**132.11**	**296**	⇑P	PKPdf	12 41 16.7	+0.7
	baz=132						
A09A	**Danville**	**132.25**	**297**	⇓P	PKPdf	12 41 16.5	+0.3
	baz=132						
E04A	**Onalaska**	**132.30**	**292**	⇓P	PKPdf	12 41 15.7	-0.7
	baz=132						
GUMO	**Guam**	**132.37**	**167**	PFAKE		12 41 30.0	+12
GUMO				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
HKC	**Hong Kong Obse**	**132.50**	**126**	P	PKPdf	12 41 18.0	+0.4
A08A	**Turner Farm, O**	**132.53**	**297**	⇓P	PKPdf	12 41 15.2	-1.5
	baz=133						
B07A	**Winthrop**	**132.54**	**296**	⇑P	PKPdf	12 41 15.3	-1.4
	baz=133						
E03A	**Lebam**	**132.65**	**292**	⇑P	PKPdf	12 41 16.3	-0.7
	baz=133						
C05A	**Tolt Reservoir**	**132.66**	**294**	⇓P	PKPdf	12 41 16.6	-0.4
	baz=133						
GZH	**Guangzhou**	**132.87**	**124**	PKP	PKPdf	12 41 20.5	+2.3
GZH				LR	LR		
	comp=N,8µm,17.0s,MS6.5						
GZH				LR	LR		
	comp=E,5µm,16.7s,MS6.5						
GZH				LR	LR		
	comp=Z,13µm,17.3s,MS6.7						
GYA	**Guiyang**	**132.99**	**115**	Pdif	Pdif	12 38 14.8	-0.6
GYA				PKP	PKPdf	12 41 18.2	-0.2
GYA				PP	PP	12 43 47.9	+3.6
GYA				PKS		12 44 50.8	
GYA				SKKS	SKKSac	12 50 36.0	-3.9
GYA				SS	SS	13 01 26.0	-0.3
GYA				AMB	AMB		
	comp=Z,2µm,6.9s						
GYA				LR	LR		
	comp=N,4µm,18.6s,MS6.3						
GYA				LR	LR		
	comp=E,4µm,18.0s,MS6.3						
GYA				LR	LR		
	comp=Z,5µm,18.9s,MS6.2						
GNW	**Green Mountain**	**133.07**	**293**	*e*PKPdf	PKPdf	12 41 17.9	+0.1
GNW				*e*SKPab		12 44 47.6	
A07A	**Ashnola River,**	**133.09**	**296**	⇓P	PKPdf	12 41 17.4	-0.3
	baz=133						
JCW	**Jim Creek**	**133.14**	**294**	P	PKPdf	12 41 18.4	+0.5
B06A	**Marblemount**	**133.18**	**295**	⇑P	PKPdf	12 41 17.6	-0.4
	baz=133						
EDM	**Edmonton**	**133.21**	**304**	*e*PKHKP		12 41 01.1	
EDM				*e*		12 41 17.0	
EDM	**Edmonton**	**133.21**	**304**	*e*PKPpre		12 41 01.1	
EDM				*e*PKPdf	PKPdf	12 41 17.0	-0.8
EDM				*e*SKPab		12 44 47.2	
B05A	**Bryant**	**133.27**	**294**	⇓P	PKPdf	12 41 18.3	+0.2
	baz=133						
SUMG	**Summit**	**133.38**	**355**	*e*PKPdf	PKPdf	12 41 17.5	-0.1
SUMG				*e*SKPab		12 44 49.7	
NLWA	**Neilton Lookou**	**133.42**	**292**	⇑P	PKPdf	12 41 17.9	-0.6
	baz=134						
NLWA	**Neilton Lookou**	**133.42**	**292**	*e*PKPdf	PKPdf	12 41 18.1	-0.4
NLWA				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
PRGR	**Permogore**	**133.64**	**39**	⇓*i*PKIKP	PKPdf	12 41 17.9	-0.5
PRGR				*e*		12 43 46.0	
PRGR				pmax	pmax		
	comp=Z,78nm,1.1s						
A05A	**Maple Falls**	**133.81**	**295**	⇑P	PKPdf	12 41 19.0	-0.1
	baz=134						
PGC	**Sidney**	**134.16**	**294**	*e*PKPdf	PKPdf	12 41 20.3	+0.5
PGC				*e*SKPbc	SKPbc	12 44 50.3	+1.4
ARU	**Arti**	**134.17**	**50**	*e*PKHKP		12 41 02.7	
ARU				*e*		12 41 19.1	
ARU				MLR	MLR		
	comp=Z,10µm,22.0s,MS6.5						
ARU	**Arti**	**134.17**	**50**	*e*PKPpre		12 41 02.7	
ARU				⇑*e*PKP	PKPdf	12 41 19.1	-0.5
ARU				*e*PKPdf	PKPdf	12 41 19.3	-0.3
ARU				LR	LR		
	comp=Z,10µm,22.0s,MS6.5						
ARCES	**ARCESS Array B**	**135.02**	**23**	PKIKP	PKPdf	12 41 21.5	+0.7
ARCES						12 43 58.2	
ARCES				pmax	pmax		
	comp=Z,37nm,0.9s						
ARCES				pmax	pmax		
	comp=Z,11nm,0.9s						
ARCES	**ARCESS Array B**	**135.02**	**23**	PKP	PKPdf	12 41 21.5	+0.7
	comp=Z,37nm,0.9s,baz=205,slow=1.9,SNR=20						
ARCES				PP	PP	12 43 58.2	+1.2
	comp=Z,11nm,0.9s,baz=193,slow=5.0,SNR=6.5						
ARCES				SKP		12 44 57.4	
	comp=Z,8.0nm,0.7s,baz=226,slow=2.3,SNR=5.5						
APA	**Apatity**	**135.05**	**28**	⇓*i*PKIKP	PKPdf	12 41 22.0	+1.1
APA				*i*		12 43 57.0	
APA				*e*		12 48 22.0	
APA				*e*PS	PS	12 54 10.0	-7.9
APA				pmax	pmax		
	comp=Z,470nm,20.0s						
APA				MLR	MLR		
	comp=Z,13µm,20.0s,MS6.7						
SVE	**Sverdlovsk**	**135.25**	**51**	⇓*i*PKIKP	PKPdf	12 41 21.8	+0.2
SVE				*e*		12 43 59.6	
SVE				*e*SS	SS	13 02 00.2	+6.7
SVE				*e*SSS		13 07 00.1	
SVE				pmax	pmax		
	comp=Z,52nm,1.1s						
SVE				MLR	MLR		
	comp=Z,11µm,22.0s,MS6.5						
CD2	**Chengdu**	**135.46**	**109**	PKP	PKPdf	12 41 22.5	-0.3
CD2				PP	PP	12 43 58.8	-1.2
CD2				PKS		12 44 54.5	
CD2				SKS	SKSdf	12 48 27.5	-6.1
CD2				SKKS	SKKSac	12 50 49.6	-5.1
CD2				SS	SS	13 01 57.3	+1.1
CD2				AMB	AMB		
	comp=Z,1µm,6.5s						
CD2				LR	LR		
	comp=N,7µm,21.4s						
CD2				LR	LR		
	comp=Z,9µm,21.1s,MS6.5						
KEV	**Kevo**	**135.49**	**23**	*e*pkp	PKPdf	12 41 20.9	-0.8
LVZ	**Lovozero**	**135.60**	**28**	PFAKE		12 41 30.0	+8.1
LVZ				LR	LR		
	comp=Z,12µm,19.0s,MS6.6						
SOKR	**Solikamsk**	**135.80**	**46**	*d* *i*PKIKP	PKPdf	12 41 22.2	-0.3
SOKR						12 44 01.1	
SOKR				SS	SS	13 01 59.5	-0.6
SOKR				pmax	pmax		
	comp=Z,90nm,1.9s						
SSLB	**Suanglung**	**136.42**	**133**	*e*PKPdf	PKPdf	12 41 25.9	+1.0
BRVK	**Borovoye**	**136.47**	**61**	*e*PKHKP		12 41 11.1	
BRVK				*e*		12 41 23.2	
BRVK				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.4						
BRVK	**Borovoye**	**136.47**	**61**	*e*PKPpre		12 41 11.1	
BRVK				⇑*e*PKP	PKPdf	12 41 23.2	-0.8
BRVK				*e*PKPdf	PKPdf	12 41 23.7	-0.3
BRVK				LR	LR		
	comp=Z,7µm,20.0s,MS6.4						
BVA0	**Borovoye Array**	**136.50**	**61**	*i* PKHKP		12 41 11.8	
BVA0				pmax	pmax		
	comp=Z,9.0nm,1.2s						
BVAR	**Borovoye Array**	**136.50**	**61**	PKHKP		12 41 11.2	
BVAR						12 41 23.0	
BVAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BVAR				pmax	pmax		
	comp=Z,22nm,0.9s						
BVAR	**Borovoye Array**	**136.50**	**61**	PKIKP	PKPdf	12 41 23.0	-1.0
BVAR	**Borovoye Array**	**136.50**	**61**	PKhKP		12 41 11.2	
	comp=Z,8.2nm,0.9s,baz=260,slow=0.9,SNR=1.4						
BVAR				PKP	PKPdf	12 41 23.0	-1.0
	comp=Z,22nm,0.9s,baz=238,slow=2.6,SNR=3.8						
VOSK	**Vostochnaya**	**136.54**	**61**	PKHKP		12 41 08.8	
VOSK				pmax	pmax		
	comp=Z,46nm,1.4s						
QZH	**Quanzhou**	**136.60**	**129**	⇓*i*PKP	PKPdf	12 41 24.8	-0.4
QZH				PP	PP	12 44 09.3	+2.3
QZH				SS	SS	13 02 08.7	-0.8
QZH				AMB	AMB		
	comp=Z,4µm,5.1s						
QZH				LR	LR		
	comp=N,7µm,17.1s,MS6.6						
QZH				LR	LR		
	comp=E,6µm,15.3s,MS6.6						
QZH				LR	LR		
	comp=Z,9µm,18.7s,MS6.5						
DAG	**Danmarks Havn**	**137.37**	**2**	⇓*e*PKHKP		12 41 17.2	
DAG				pmax	pmax		
	comp=Z,66nm,1.1s						
DAG	**Danmarks Havn**	**137.37**	**2**	⇓*i*P	PKPdf	12 41 17.2	-7.8
	comp=Z,66nm,1.1s						
YHNB	**Yeheng**	**137.38**	**133**	PFAKE		12 41 40.0	+13
YHNB				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
MK31	**Makanchi Array**	**137.45**	**75**	*i* PKHKP		12 41 12.4	
MK31				pmax	pmax		
	comp=Z,103nm,1.3s						
MKAR	**Makanchi Array**	**137.45**	**75**	PKhKP		12 41 13.2	
	comp=Z,3.7nm,1.0s,baz=242,slow=5.2,SNR=6.2						
MKAR				PKP	PKPdf	12 41 24.5	-1.5
	comp=Z,20nm,0.9s,baz=226,slow=1.7,SNR=25						
MKAR				SKPab		12 45 09.7	
	comp=Z,2.7nm,0.9s,baz=222,slow=1.6,SNR=3.0						
MKAR				PKKP		12 50 59.7	
	comp=Z,1.3nm,0.9s,baz=1.2,slow=1.7,SNR=4.6						
MKAR	**Makanchi Array**	**137.45**	**75**	PKP	PKPdf	12 41 24.5	-1.5

MKAR				SKPab		12 45 09.7	
MKAR				PKKP		12 50 59.7	
TATO	**Taipei**	**137.70**	**133**	PFAKE		12 41 40.0	+13
TATO				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
WMQ	**Urumqi**	**137.87**	**82**	PKP	PKPdf	12 41 22.2	-4.7
WMQ				PP	PP	12 44 14.0	-1.2
WMQ				PKS		12 44 57.0	
WMQ				SKS	SKSdf	12 48 28.0	-9.0
WMQ				SKKS	SKKSac	12 51 00.0	-8.5
WMQ				SS	SS	13 02 18.0	-7.1
WMQ				AMB	AMB		
	comp=Z,3µm,9.4s						
WMQ				LR	LR		
	comp=N,6µm,26.0s						
WMQ				LR	LR		
	comp=E,5µm,19.2s						
WMQ				LR	LR		
	comp=Z,6µm,22.6s,MS6.3						
KURK	**Kurchatov**	**138.52**	**69**	PKHKP		12 41 19.6	
KURK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
KURK	**Kurchatov**	**138.52**	**69**	PKhKP		12 41 19.6	
	comp=Z,5.3nm,0.6s,baz=240,slow=4.1,SNR=18						
KURK	**Kurchatov**	**138.52**	**69**	*e*PKPpre		12 41 18.6	
KURK				*i* PKP	PKPdf	12 41 27.2	-0.6
KURK				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
LZH	**Lanzhou**	**139.77**	**104**	PKP	PKPdf	12 41 22.0	-8.6
LZH				PP	PP	12 44 24.0	-2.9
LZH				PKS		12 44 58.1	
LZH				SKKS	SKKSac	12 51 10.4	-10
LZH				AMB	AMB		
	comp=Z,4µm,9.4s						
LZH				LR	LR		
	comp=E,8µm,18.5s						
LZH				LR	LR		
	comp=Z,8µm,20.3s,MS6.5						
WHN	**Wuhan**	**139.87**	**121**	⇓PKP	PKPdf	12 41 18.1	-13
WHN				PP	PP	12 44 27.8	+0.4
WHN				SS	SS	13 03 00.0	+12
WHN				LR	LR		
	comp=N,12µm,15.5s,MS6.8						
WHN				LR	LR		
	comp=E,4µm,14.5s,MS6.8						
WHN				LR	LR		
	comp=Z,24µm,19.1s,MS7.0						
YKA	**Yellowknife Ar**	**140.16**	**314**	PKHKP		12 41 20.1	
YKA						12 41 30.5	
YKA						12 44 28.0	
YKA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
YKA	**Yellowknife Ar**	**140.16**	**314**	PKhKP		12 41 20.1	
	comp=Z,6.5nm,0.8s,baz=144,slow=2.6,SNR=29						
YKA				PKP	PKPdf	12 41 30.5	+0.1
	comp=Z,53nm,0.9s,baz=124,slow=2.1,SNR=46						
YKA				PP	PP	12 44 28.0	-1.1
	comp=Z,20nm,1.1s,baz=127,slow=6.6,SNR=10						
YKA				SKPbc	SKPbc	12 45 08.9	+2.8
	comp=Z,2.9nm,0.6s,baz=133,slow=3.2,SNR=5.3						
YKA				PKKP		12 50 54.8	
	comp=Z,0.8nm,0.9s,baz=318,slow=2.2,SNR=6.5						
YKA	**Yellowknife Ar**	**140.16**	**314**	PKP	PKPdf	12 41 30.5	+0.1
YKA				PP	PP	12 44 28.0	-1.1
YKA				SKPbc	SKPbc	12 45 08.9	+2.8
YKA				PKKP		12 50 54.9	
XAN	**Xi’an**	**140.46**	**112**	PKP	PKPdf	12 41 23.8	-8.1
XAN				PKS		12 45 00.1	
XAN				AMB	AMB		
	comp=Z,3µm,13.7s						
XAN				LR	LR		
	comp=N,2µm,28.2s,MS6.1						
XAN				LR	LR		
	comp=E,5µm,30.1s,MS6.1						
XAN				LR	LR		
	comp=Z,7µm,20.9s						
GTA	**Gaotai**	**140.46**	**97**	PKP	PKPdf	12 41 25.2	-6.6
GTA				PKS		12 45 01.2	
GTA				AMB	AMB		
	comp=Z,2µm,12.2s						
GTA				LR	LR		
	comp=N,2µm,22.9s,MS6.0						
GTA				LR	LR		
	comp=E,3µm,19.3s,MS6.0						
GTA				LR	LR		
	comp=Z,4µm,22.6s,MS6.2						
KBS	**Kingsbay**	**141.24**	**11**	PFAKE		12 41 40.0	+8.0
KBS				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
RES	**Resolute Bay**	**142.56**	**336**	*e*PKPdf	PKPdf	12 41 29.1	-5.4
RES				*e*SKPbc	SKPbc	12 45 16.0	+4.1
NJ2	**Nanjing**	**143.05**	**125**	*e*PKP	PKPdf	12 41 31.1	-5.5
NJ2				pPKP	pPKPdf	12 41 41.2	+1.1
NJ2				PP	PP	12 44 45.9	-0.8
NJ2				SKS	SKSdf	12 48 35.5	-11
NJ2				AMB	AMB		
	comp=Z,2µm,10.2s						
NJ2				LR	LR		
	comp=N,3µm,31.2s,MS6.3						
NJ2				LR	LR		
	comp=E,7µm,27.3s,MS6.3						
NJ2				LR	LR		
	comp=Z,8µm,29.4s,MS6.3						
SSE	**Sheshan**	**143.12**	**128**	PKP	PKPdf	12 41 37.2	+0.4
SSE				PP	PP	12 44 50.3	+3.2
SSE				AMB	AMB		
	comp=Z,2µm,10.9s						
SSE				LR	LR		
	comp=N,4µm,17.7s,MS6.4						
SSE				LR	LR		
	comp=E,4µm,17.7s,MS6.4						
SSE				LR	LR		
	comp=Z,8µm,18.2s,MS6.5						
CRAG	**Craig**	**143.17**	**295**	*e*PKPpre		12 41 20.5	
CRAG				*e*PKPdf	PKPdf	12 41 35.0	-1.1
NVS	**Novosibirsk**	**143.36**	**67**	⇑*i*PKHKP		12 41 31.5	
NVS				pmax	pmax		
	comp=Z,952nm,2.2s						
NVS				pmax	pmax		
	comp=N,429nm,2.1s						
NVS				pmax	pmax		
	comp=E,255nm,2.1s						
ZALV	**Zalesovo Beam**	**143.51**	**69**	PKHKP		12 41 31.3	
ZALV				pmax	pmax		
	comp=Z,7.0nm,0.4s						
ZALV	**Zalesovo Beam**	**143.51**	**69**	PKhKP		12 41 31.3	
	comp=Z,6.7nm,0.4s,baz=255,slow=2.9,SNR=33						
DLBC	**Dease Lake**	**143.65**	**301**	*e*PKPdf	PKPdf	12 41 34.7	-2.1
SIT	**Sitka**	**145.12**	**296**	*e*PKIKP	PKPdf	12 41 39.9	+0.5
SIT				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.6						
CBIJ	**Chichi jima**	**145.31**	**161**	PKPbc	PKPbc	12 41 39.4	-1.1
	comp=Z,274nm,0.7s,baz=210,slow=5.3,SNR=12						
TIA	**Tai’an**	**145.92**	**119**	PKPbc	PKPbc	12 41 40.3	-1.9
TIA				PP	PP	12 45 07.0	+3.1
TIA				SS	SS	13 03 52.0	-6.2
TIA				LR	LR		
	comp=N,2µm,18.0s						
BTO	**Baotou**	**146.29**	**106**	*e*PKPbc	PKPbc	12 41 41.6	-1.6
SKAG	**Skagway**	**146.49**	**299**	*e*P	PKPdf	12 41 41.7	0.0
SKAG				LR	LR		
	comp=Z,11µm,23.0s,MS6.6						
HHC	**Hu-ho-hao-te**	**147.21**	**108**	⇓*e*PKPbc	PKPbc	12 41 43.5	-2.3
HHC				PKPab	PKPab	12 41 49.4	+1.9
HHC				PP	PP	12 45 14.7	+3.1
HHC				PKS		12 45 16.9	
HHC				SKS	SKSdf	12 48 47.2	-4.5
HHC				SKKS	SKKSac	12 52 00.3	-2.2
HHC				SS	SS	13 04 10.5	-2.5
HHC				AMB	AMB		
	comp=Z,2µm,10.0s						
HHC				LR	LR		
	comp=N,4µm,16.1s,MS6.4						
HHC				LR	LR		
	comp=E,3µm,17.3s,MS6.4						
HHC				LR	LR		
	comp=Z,5µm,18.3s,MS6.3						
PNL	**Peninsula**	**148.35**	**298**	*e*PKPbc	PKPbc	12 41 49.0	+0.8
KRAR	**Krasnoyarsk**	**148.46**	**71**	*d i*PKIKP	PKPdf	12 41 44.2	-0.9
BJT	**Baijiatuau**	**148.65**	**114**	*e*PKIKP	PKPdf	12 41 45.8	-0.1
BJT				*e*		12 41 50.1	
BJT				MLR	MLR		
	comp=Z,8µm,20.0s						
BJI	**Beijing**	**148.68**	**114**	PKPbc	PKPbc	12 41 45.8	-3.9
BJI				PP	PP	12 45 18.1	-2.0
BJI				AMB	AMB		
	comp=Z,4µm,6.9s						
BJI				LR	LR		
	comp=N,3µm,22.8s,MS6.1						
BJI				LR	LR		
	comp=E,3µm,20.4s,MS6.1						
BJI				LR	LR		
	comp=Z,7µm,31.1s						
MOY	**Mondy**	**149.75**	**83**	*e*PKIKP	PKPdf	12 41 46.2	-1.1
MOY				pmax	pmax		
	comp=Z,2µm,4.0s						
SONM	**Songino Array**	**149.89**	**93**	PKIKP	PKPdf	12 41 46.2	-1.4
SONM						12 41 52.0	
SONM				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SONM	**Songino Array**	**149.89**	**93**	PKP	PKPdf	12 41 46.2	-1.4
	comp=Z,10nm,1.0s,baz=201,slow=1.4,SNR=56						
SONM				PKPbc	PKPbc	12 41 52.0	-0.5
	comp=Z,128nm,1.0s,baz=221,slow=2.3,SNR=112						
ZAK	**Zakamensk**	**150.06**	**87**	*e*PKIKP	PKPdf	12 41 47.8	0.0
ZAK				pmax	pmax		
	comp=Z,280nm,1.2s						
DL2	**Dalian**	**150.10**	**122**	PKPbc	PKPbc	12 41 48.0	-5.3
DL2				PP	PP	12 45 27.5	-0.8
DL2				SS	SS	13 04 44.9	-0.2
DL2				AMB	AMB		
	comp=Z,2µm,14.0s						
DL2				LR	LR		
	comp=N,2µm,21.0s						
DL2				LR	LR		
	comp=Z,4µm,37.0s						
ULN	**Ulaanbaatar**	**150.23**	**94**	*e*PKIKP	PKPdf	12 41 47.6	-0.6
ULN				*e*		12 41 53.6	
ULN				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.5						
DAWY	**Dawson**	**150.42**	**305**	*e*PKPdf	PKPdf	12 41 45.3	-2.6
DAWY				*e*PKPbc	PKPbc	12 41 52.6	-0.6
INCN	**Inchon**	**150.85**	**130**	*e*PKPdf	PKPdf	12 41 49.2	-0.2
INCN				*e*PKPbc	PKPbc	12 41 55.3	+0.2
INCN				LR	LR		
	comp=Z,7µm,22.0s,MS6.4						
TLY	**Talaya**	**151.06**	**85**	*i* PKIKP	PKPdf	12 41 46.8	-2.5
TLY				*e*		12 41 49.9	
TLY				*e*		12 45 33.2	
TLY				pmax	pmax		
	comp=Z,538nm,2.1s						
TLY	**Talaya**	**151.06**	**85**	*e*PKPdf	PKPdf	12 41 48.2	-1.1
TLY				*e*PKPbc	PKPbc	12 41 55.0	-0.2
TLY				LR	LR		
	comp=Z,10µm,19.0s,MS6.6						
TLY	**Talaya**	**151.06**	**85**	P	PKPdf	12 41 47.4	-1.9
	SNR=248						
TLY				P		12 41 47.4	
	SNR=248						
KSRS	**Korea Array**	**151.30**	**132**	PKIKP	PKPdf	12 41 48.9	-1.3
KSRS						12 41 55.9	
KSRS				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KSRS	**Korea Array**	**151.30**	**132**	PKP	PKPdf	12 41 48.9	-1.3
	comp=Z,7.1nm,1.0s,baz=195,slow=1.9,SNR=29						
KSRS				PKPbc	PKPbc	12 41 55.9	-0.3
	comp=Z,36nm,0.9s,baz=206,slow=2.1,SNR=49						
EGAK	**Eagle**	**151.41**	**306**	*e*PKPdf	PKPdf	12 41 46.7	-2.8
EGAK				*e*PKPbc	PKPbc	12 41 55.6	+0.1
EGAK				*e*PKPab	PKPab	12 42 03.7	-0.3
EGAK				LR	LR		
	comp=Z,11µm,21.0s,MS6.6						
IRK	**Irkutsk**	**151.71**	**85**	*e*PKIKP	PKPdf	12 41 48.6	-1.7
IRK				*e*		12 45 33.5	
IRK				pmax	pmax		
	comp=Z,846nm,2.3s						
PAX	**Paxson**	**152.47**	**301**	*e*PKIKP	PKPbc	12 41 58.4	+0.4
PAX				*e*		12 42 10.5	
SEW	**Seward**	**153.01**	**294**	*e*PKPbc	PKPbc	12 41 59.5	+0.3
SNY	**Shenyang**	**153.36**	**121**	⇓PKPbc	PKPdf	12 41 49.2	-3.9
SNY				PP	PP	12 45 49.4	+2.5
SNY				SKKS	SKKSac	12 52 31.0	-5.4
SNY				AMB	AMB		
	comp=Z,2µm,12.2s						
SNY				LR	LR		
	comp=N,6µm,19.0s						
SNY				LR	LR		
	comp=Z,6µm,21.2s,MS6.4						
KDAK	**Kodiak Island**	**153.37**	**287**	*e*PKPbc	PKPbc	12 42 00.9	+0.8
KDAK				*e*PKPab	PKPab	12 42 13.8	+1.4
KDAK				LR	LR		
	comp=Z,15µm,22.0s,MS6.8						
OHAK	**Old Harbor**	**153.43**	**286**	*e*PKPbc	PKPbc	12 42 01.0	+0.7
PMR	**Palmer**	**153.50**	**297**	*e*PKIKP	PKPdf	12 41 48.5	-4.1
PMR				MLR	MLR		
	comp=Z,11µm,22.0s,MS6.6						
RC01	**Rabbit Creek A**	**153.56**	**295**	*e*PKPdf	PKPdf	12 41 49.5	-3.2
RC01				*e*PKPbc	PKPbc	12 42 00.4	0.0
RC01				*e*PKPab	PKPab	12 42 14.3	+1.2
MJAR	**Matsushiro Arr**	**153.64**	**150**	PKIKP	PKPdf	12 41 53.0	-0.7
MJAR						12 42 00.1	
MJAR						12 42 13.7	
MJAR				pmax	pmax		
	comp=Z,13nm,1.3s						
MJAR				pmax	pmax		
	comp=Z,15nm,0.8s						
MJAR	**Matsushiro Arr**	**153.64**	**150**	PKP	PKPdf	12 41 53.0	-0.7
	comp=Z,13nm,1.2s,baz=211,slow=2.5,SNR=16						
MJAR				PKPbc	PKPbc	12 42 00.1	-1.3
	comp=Z,30nm,1.0s,baz=190,slow=2.3,SNR=31						
MJAR				PKPab	PKPab	12 42 13.7	-0.4
	comp=Z,15nm,0.8s,baz=193,slow=3.4,SNR=11						
MAJO	**Matsushiro**	**153.64**	**150**	*e*PKIKP	PKPdf	12 41 53.1	-0.6
MAJO				*e*		12 42 01.5	
MAJO				MLR	MLR		
	comp=Z,6µm,22.0s,MS6.4						
MAT	**Matsushiro**	**153.64**	**150**	PKP	PKPdf	12 41 53.0	-0.7
FIB	**Fire Island**	**153.78**	**295**	*e*PKIKP	PKPdf	12 41 50.6	-2.4
FIB				*e*		12 42 01.6	
FIB	**Fire Island**	**153.78**	**295**	*e*PKPdf	PKPdf	12 41 50.6	-2.5
FIB				*e*PKPbc	PKPbc	12 42 01.6	+0.6
FIB				*e*PKPab	PKPab	12 42 16.0	+1.9
COLA	**College**	**154.13**	**304**	*e*PKIKP	PKPdf	12 41 48.6	-4.8
COLA				*e*		12 42 01.4	
COLA				*e*		12 42 16.3	
COLA				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.7						
MCK	**McKinley**	**154.20**	**301**	*e*PKIKP	PKPdf	12 41 50.2	-3.4
MCK				*e*		12 42 02.7	
TRF	**Thorofare Moun**	**154.68**	**300**	*e*PKPdf	PKPdf	12 41 50.7	-3.5
TRF				*e*PKPbc	PKPbc	12 42 03.1	+0.3
TRF				*e*PKPab	PKPab	12 42 19.1	+1.2
KTH	**Kantishna Hill**	**154.98**	**300**	*e*PKPdf	PKPdf	12 41 50.8	-3.8
KTH				*e*PKPbc	PKPbc	12 42 03.9	+0.5
PPLA	**Purkeypile**	**155.31**	**298**	*e*PKPdf	PKPdf	12 41 50.9	-4.3
PPLA				*e*PKPab	PKPab	12 42 20.7	+0.2
CHGN	**Chignik**	**155.41**	**281**	*e*PKPbc	PKPdf	12 42 05.9	+10
CHGN				*e*PKPab	PKPab	12 42 21.3	+0.1
COLD	**Coldfoot**	**155.66**	**309**	*e*PKPdf	PKPdf	12 41 51.5	-3.9
COLD				*e*PKPdif		12 42 05.8	
COLD				*e*PKPab	PKPab	12 42 22.9	+1.0
CHUM	**Lake Minchumin**	**155.67**	**301**	*e*PKPdf	PKPdf	12 41 51.2	-4.3
CHUM				*e*PKPdif		12 42 05.3	
CN2	**Changchun**	**155.76**	**121**	*e*PKP	PKPdf	12 41 55.3	-1.0
CN2				PKPab	PKPab	12 42 24.4	+1.4
CN2				SS	SS	13 05 48.6	+1.4
CN2				LR	LR		
	comp=N,2µm,23.0s,MS6.0						
CN2				LR	LR		
	comp=E,2µm,23.0s,MS6.0						
CN2				LR	LR		
	comp=Z,2µm,24.0s,MS5.8						
CIT	**Chita**	**156.12**	**93**	*e*PKIKP	PKPdf	12 41 56.2	-0.3
CIT				*e*		12 42 21.4	
CIT				*e*		12 46 00.5	
CIT				pmax	pmax		
	comp=Z,511nm,2.4s						
FALS	**False Pass**	**157.10**	**274**	*e*PKPdf	PKPdf	12 41 57.4	-0.3
FALS				*e*PKPab	PKPab	12 42 28.4	-0.1
HIA	**Hailar**	**157.33**	**105**	*e*PKIKP	PKPdf	12 41 57.2	-1.0
HIA				MLR	MLR		
	comp=Z,12µm,20.0s						
MDJ	**Mudanjiang**	**158.12**	**126**	PKP	PKPdf	12 41 57.4	-1.9
MDJ				pPKP	pPKPdf	12 42 00.7	-2.1
MDJ				sPKP		12 42 02.0	
MDJ				AMB	AMB		
	comp=Z,4µm,14.0s						
MDJ				LR	LR		
	comp=N,5µm,33.5s,MS6.2						
MDJ				LR	LR		
	comp=E,3µm,33.5s,MS6.2						
MDJ				LR	LR		
	comp=Z,6µm,28.7s,MS6.3						
MDJ	**Mudanjiang**	**158.12**	**126**	*e*PKPdf	PKPdf	12 41 58.0	-1.4
MDJ				*e*PKPab	PKPab	12 42 33.8	+0.7
MDJ				LR	LR		
	comp=Z,9µm,21.0s,MS6.6						
BOD	**Bodaibo**	**159.40**	**80**	*e*PKIKP	PKPdf	12 41 56.5	-3.9
BOD				pmax	pmax		
	comp=Z,63nm,1.6s						
ERM	**Erimo**	**159.99**	**155**	PFAKE		12 42 10.0	+8.4
ERM				LR	LR		
	comp=Z,8µm,22.0s,MS6.5						
ASAJ	**Asahikawa**	**161.87**	**152**	PKP	PKPdf	12 42 03.5	-0.1
	comp=Z,5.5nm,0.7s,baz=276,slow=13,SNR=11						
ASAJ				PKPab	PKPab	12 42 50.0	+0.5
	comp=Z,63nm,1.3s,baz=243,slow=14,SNR=7.1						
YUK	**Yuzh-Kuril’sk**	**162.46**	**159**	*i* PKIKP	PKPdf	12 42 03.0	-1.2
TNA	**Tin City**	**162.54**	**302**	*e*PKPdf	PKPdf	12 41 58.5	-5.0
TNA				*e*PKPab	PKPab	12 42 53.0	+1.1
KLR	**Kul’dur**	**162.71**	**122**	*e*PKIKP	PKPdf	12 41 58.0	-6.2
KLR				*e*		12 42 48.8	
KLR				*e*		12 46 35.0	
KLR				pmax	pmax		
	comp=Z,780nm,2.6s						
KLR				pmax	pmax		
	comp=Z,6µm,10.5s						
HABR	**Khabarovsk**	**163.43**	**129**	*e*PKP2	PKPab	12 42 56.8	+0.6
HABR				*e*		12 46 42.6	
HABR				*e*		12 49 07.0	
HABR				*e*PPP		12 50 30.1	
HABR				*e*SS	SS	13 07 08.7	+0.7
HABR				*e*SSS		13 13 29.3	
CLNS	**Chul’man**	**164.29**	**91**	*i* PKIKP	PKPdf	12 42 04.0	-1.4
CLNS				pmax	pmax		
	comp=N,26nm,1.7s						
CLNS				pmax	pmax		
	comp=Z,68nm,1.9s						
CLNS				pmax	pmax		
	comp=E,12nm,1.6s						
YSS	**Yuzh-Sakhalins**	**164.57**	**149**	α*i*PKIKP	PKPdf	12 42 05.0	-1.0
YSS				*e*		12 42 57.0	
YSS				*e*		12 46 45.0	
YSS				*e*SS	SS	13 07 14.0	-5.4
YSS				*e*SSS		13 13 44.0	
YSS				pmax	pmax		
	comp=Z,370nm,1.7s						
YSS				pmax	pmax		
	comp=Z,4µm,6.0s						
YSS	**Yuzh-Sakhalins**	**164.57**	**149**	*e*PKPdf	PKPdf	12 42 05.8	-0.3
YSS				LR	LR		
	comp=Z,3µm,22.0s						
TIXI	**Tiksi**	**165.18**	**32**	*e*PKIKP	PKPdf	12 42 01.3	-4.5
TIXI				MLR	MLR		
	comp=Z,8µm,20.0s						
FX1	**Attu Island--F**	**167.07**	**241**	PKPab	PKPab	12 43 11.8	-0.4
	baz=109,slow=12						
YAK	**Yakutsk**	**168.11**	**73**	*e*PKIKP	PKPdf	12 42 06.0	-2.3
YAK				pmax	pmax		
	comp=Z,4µm,5.2s						
YAK				pmax	pmax		
	comp=E,142nm,2.7s						
YAK				pmax	pmax		
	comp=N,464nm,5.2s						
YAK	**Yakutsk**	**168.11**	**73**	*e*PKPdf	PKPdf	12 42 05.9	-2.4
YAK				*e*PKPab	PKPab	12 43 16.4	-0.2
YAK				LR	LR		
	comp=Z,7µm,20.0s						
SKR	**Severo-Kuril’s**	**169.83**	**186**	*i* PKIKP	PKPdf	12 42 04.0	-5.8
SKR				*e*		12 47 19.0	
SKR				pmax	pmax		
	comp=Z,6µm,6.0s						
SKR				pmax	pmax		
	comp=E,4µm,4.0s						
BILL	**Bilibino**	**171.11**	**330**	⇑*i*PKIKP	PKPdf	12 42 05.7	-4.2
BILL				*i*		12 43 30.4	
BILL				*i*		12 47 29.4	
BILL				*e*		12 49 01.9	
BILL				pmax	pmax		
	comp=Z,164nm,2.2s						
BILL	**Bilibino**	**171.11**	**330**	*e*PKPdf	PKPdf	12 42 04.9	-5.0
BILL				LR	LR		
	comp=Z,14µm,21.0s						
PET	**Petropavlovsk**	**171.88**	**198**	*i* PKIKP	PKPdf	12 42 09.3	-1.5
PET				*e*		12 42 25.5	
PET				*e*		12 43 32.9	
PET				*e*		12 47 23.6	
PET				*e*SS	SS	13 08 23.4	-9.1
PET				*e*SSS		13 15 12.8	
PET				pmax	pmax		
	comp=Z,4µm,7.5s						
PET				pmax	pmax		
	comp=Z,104nm,2.3s						
PET				pmax	pmax		
	comp=Z,60nm,2.3s						
PET				pmax	pmax		
	comp=Z,3µm,10.3s						
PET				pmax	pmax		
	comp=Z,4µm,17.5s						
PET	**Petropavlovsk**	**171.88**	**198**	*e*PKPdf	PKPdf	12 42 09.3	-1.4
PET				LR	LR		
	comp=Z,9µm,22.0s						
PETK	**Petropavlovsk-**	**172.10**	**195**	PKIKP	PKPdf	12 42 09.7	-1.2
PETK						12 43 33.9	
PETK				pmax	pmax		
	comp=Z,30nm,1.1s						
PETK				pmax	pmax		
	comp=Z,21nm,1.0s						
PETK	**Petropavlovsk-**	**172.10**	**195**	PKP	PKPdf	12 42 09.7	-1.1
	comp=Z,30nm,1.1s,baz=117,slow=5.2,SNR=13						
PETK				PKPab	PKPab	12 43 33.9	-0.5
	comp=Z,21nm,1.0s,baz=114,slow=3.7,SNR=6.9						

*NEIC **10** 13:07:05.0, 32°.43N×115°.35W, h10^{km}, ML2.8(PAS),
ML3.0(ECX), After ECX.*

ECX 10 13:07:05.2±0.3**, 32°.44N×115°.35W, h10^{km}, MD2.9, ML3.0,
5C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	**0.04**	**116**	*e*P	Pg	13 07 08.4	+1.3
CPBX				*e*S	Sg	13 07 10.7	+2.2
CPBX				⇑*e*		13 07 11.5	
	comp=N,26µm,0.4s						
CPBX				⇓*e*		13 07 11.5	
	comp=E,24µm,0.3s						
SGL	**Mount Signal**	**0.38**	**304**	⇑*i*P	Pg	13 07 14.2	+1.5
EMX	**El Mayor**	**0.46**	**168**	⇓*e*P	Pg	13 07 15.8	+1.7
EMX				*e*S	Sg	13 07 23.5	+3.3
EMX				⇑*e*		13 07 25.1	
	comp=N,907nm,0.5s						
EMX				⇑*e*		13 07 25.2	
	comp=E,427nm,0.7s						
COA	**Coachella**	**0.47**	**24**	⇓*i*P	Pg	13 07 15.5	+1.1
YUH	**Yuha Desert**	**0.53**	**294**	⇑*i*P	Pg	13 07 16.7	+1.2
CRR	**Carrizo Plain**	**0.69**	**311**	*e*P	Pg	13 07 19.4	+0.8
GLA	**Glamis**	**0.76**	**35**	*e*Pg	Pg	13 07 19.4	-0.4
GLA				*e*Sg	Sg	13 07 28.7	-0.9
ECBX	**El Chinero**	**0.99**	**165**	*e*P	Pg	13 07 25.7	+1.4
ECBX				*e*S	Sg	13 07 39.4	+2.2
CBX	**Cerro Bola**	**1.12**	**264**	*e*P	Pb	13 07 27.7	+1.1
BAR	**Barrett**	**1.14**	**283**	*e*P	Pb	13 07 27.4	+0.4
BAR				*e*S	Sb	13 07 42.5	+0.6
SPX	**San Pedro Mart**	**1.39**	**184**	*e*PN	Pn	13 07 33.5	+2.8
PFO	**Pinyon Flat Ob**	**1.49**	**322**	*e*Pn	Pn	13 07 30.5	-1.6
PFO				*e*S	Sn	13 07 49.2	-2.4
LDFC	**Landfair**	**2.64**	**4**	*e*Pg	Pg	13 07 58.0	+2.1
TUC	**Tucson**	**3.86**	**91**	*e*Pg	Pg	13 08 18.1	-1.2

OTT 10 13:08:45.2±0.1**, 64°.81N×87°.01W, h8^{km}, MN3.5**/10**,
Wager Bay region, Nu 195km south from Repulse Bay,
Nu Boothia Ungava Seismic Zone., Northwest
Territories**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NUNN	**Nunuq Camp, NU**	**1.77**	**285**	PN	Pn	13 09 16.8	+0.8
NUNN				SN	Sn	13 09 37.8	-1.0
NUNN				Trac		13 09 44.5	
	comp=Z,702nm,0.1s						
YBKN	**Baker Lake, Hu**	**3.91**	**267**	PN	Pn	13 09 45.4	0.0

YBKN				SN	Sn	13 10 27.9	-3.5
YBKN				LG		13 10 47.4	
YBKN				Trac		13 10 49.5	
	comp=Z,115nm,0.2s						
IVKQ	**Ivujivik**	**4.72**	**116**	PN	Pn	13 09 56.3	-0.1
IVKQ				SN	Sn	13 10 47.8	-3.5
IVKQ				LG		13 11 13.4	
IVKQ				Trac		13 11 14.2	
	comp=Z,89nm,0.6s						
ARVN	**Arviat, NU**	**4.93**	**224**	PN	Pn	13 09 58.9	-0.5
ARVN				SN	Sn	13 10 53.6	-2.9
ARVN				LG		13 11 18.1	
ARVN				Trac		13 11 24.1	
	comp=Z,54nm,0.2s						
ILON	**Igloolik, Nuna**	**5.01**	**22**	PN	Pn	13 09 59.7	-0.7
ILON				SN	Sn	13 10 54.8	-3.5
ILON				LG		13 11 21.9	
ILON				Trac		13 11 23.4	
	comp=Z,50nm,0.2s						
AKVQ	**Akulivik**	**5.70**	**131**	PN	Pn	13 10 09.1	-0.8
AKVQ				SN	Sn	13 11 12.4	-3.0
AKVQ				Trac		13 11 43.9	
	comp=Z,69nm,0.6s						
AKVQ				LG		13 11 44.9	
FCC	**Fort Churchill**	**6.93**	**212**	PN	Pn	13 10 26.3	-0.6
FCC				SN	Sn	13 11 40.2	-5.6
FCC				Trac		13 12 21.8	
	comp=Z,26nm,0.3s						
FCC				LG		13 12 22.7	
INUQ	**Inukjuak**	**7.65**	**142**	PN	Pn	13 10 36.0	-0.8
INUQ				Trac		13 12 47.1	
	comp=Z,21nm,0.4s						
FRB	**Frobisher Bay**	**8.10**	**89**	PN	Pn	13 10 42.3	-0.5
FRB				SN	Sn	13 12 07.8	-6.6
FRB				LG		13 12 53.4	
FRB				Trac		13 13 03.2	
	comp=Z,19nm,0.5s						
SNQN	**Sanikiluaq**	**9.12**	**152**	PN	Pn	13 10 56.6	-0.3
SNQN				SN	Sn	13 12 31.0	-8.7
SNQN				Trac		13 13 29.1	
	comp=Z,18nm,0.7s						
SNQN				LG		13 13 34.7	
RES	**Resolute Bay**	**10.28**	**348**	PN	Pn	13 11 11.4	-1.2
RES				SN	Sn	13 12 59.8	-8.0
RES				LG		13 14 08.4	
RES				Trac		13 14 15.7	
	comp=Z,3.2nm,0.3s						
SILO	**Sutton Inlier**	**10.42**	**173**	PN	Pn	13 11 13.5	-1.2
SILO				SN	Sn	13 13 03.3	-8.1
SILO				LG		13 14 13.8	
SILO				Trac		13 14 27.2	
	comp=Z,3.4nm,0.3s						
KUQ	**Kuujjuuaa**	**11.11**	**119**	PN	Pn	13 11 23.5	-0.6
KUQ				SN	Sn	13 13 23.2	-5.2
KUQ				Trac		13 14 36.2	
	comp=Z,22nm,0.5s						
KUQ				LG		13 14 37.5	
VIMO	**Victor Mine**	**12.15**	**171**	PN	Pn	13 11 34.0	-4.3
SCHQ	**Schefferville**	**14.17**	**125**	PN	Pn	13 12 03.2	-2.6
SCHQ				SN	Sn	13 14 31.9	-11
SCHQ				LG		13 16 08.1	
SCHQ				Trac		13 16 11.8	
	comp=Z,3.4nm,0.5s						

IDC 10 13:23:38.8±7.3**, 21°.47N**×**143°.47E, h312**^{km}±101^{km}**, mb2.9**/5**, mb1 3.0**/6**, mb1mx2.8**/23**, mbtmp2.8**/6**, Error ellipse: s-maj=187.2km s-min=19.0km az=77.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**15.70**	**344**	P	P	13 27 02.7	-0.1
	0.2nm,0.3s,baz=172,slow=9.7,SNR=4.9						
KSRS	**Korea Array**	**20.86**	**323**	P	P	13 27 57.2	-0.1
	1.3nm,0.6s,baz=150,slow=9.5,SNR=7.5						
SONM	**Songino Array**	**39.69**	**320**	P	P	13 30 41.7	+0.4
	0.1nm,0.3s,baz=117,slow=6.7,SNR=7.0						
WRA	**Warramunga Arr**	**42.12**	**193**	P	P	13 31 01.2	-0.1
	1.3nm,1.1s,baz=24,slow=6.5,SNR=4.1						
ZALV	**Zalesovo Beam**	**54.56**	**322**	P	P	13 32 34.8	-0.3
	0.4nm,0.4s,baz=124,slow=9.6,SNR=3.4						
MKAR	**Makanchi Array**	**55.05**	**313**	P	P	13 32 38.8	0.0
	0.4nm,0.5s,baz=91,slow=8.1,SNR=8.4						

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*IDC **10** 13:52:54.6±2.1, 22°.88S×171°.58E, h0^{km}, mb4.0/5, mb1 4.2/5, mb1mx4.0/15, mbtmp3.9/5, Error ellipse: s-maj=104.4km s-min=30.4km az=162.0*

*NOU **10** 13:52:57.0±0.6, 22°.61S×170°.24E, h10^{km}±65^{km}, MD3.3, ML4.0*

*ISCJB **10** 13:52:59.4±2.9, 22°.9S±0°.4×171°.4E±0°.1, h39^{km}±22^{km}, mb3.9/5, Error ellipse: s-maj=66.2km s-min=19.2km az=2.4*

*NEIC **10** 13:52:59.7±1.1, 22°.95S×171°.55E, h35^{km}, Error ellipse: s-maj=57.5km s-min=18.4km az=173.0*

ISC 10 13:53:00.5±2.8**, 22°.9S**±0°.4×**171°.5E**±0°.1**, h36**^{km}±22^{km}**, n13, σ0^s.64**/13**, mb3.9**/5**, 1C-1D, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LASL	**Noumea**	**4.64**	**277**	*e*P	**Pn**	**13 54 08.3**	**+0.2**
LASL				*e*S	**Sn**	**13 55 00.7**	**-0.1**
DZM	**Mont Dzumac**	**4.75**	**279**	*e*P	**Pn**	**13 54 09.0**	**-0.7**
DZM				*e*S	**Sn**	**13 55 03.1**	**-0.5**
DZM				AMP		13 55 08.7	
	comp=Z,481nm,2.9s						
DZM	**Mont Dzumac**	**4.75**	**279**	*e*Pn	**Pn**	**13 54 09.3**	**-0.4**
DZM				*e*Sn	**Sn**	**13 55 04.4**	**+0.8**
NOUC	**Port Laguerre**	**4.88**	**278**	*e*P	**Pn**	**13 54 11.8**	**+0.4**
NOUC				*e*S	**Sn**	**13 55 06.7**	**0.0**
NOUC				AMP		13 55 15.1	
	comp=Z,33nm,5.1s						
ASAR	**Alice Springs**	**34.49**	**261**	P	**P**	**13 59 45.6**	**+0.3**
	comp=Z,1.3nm,0.9s,mb3.9,baz=95,slow=10,SNR=9.8						
WRA	**Warramunga Arr**	**34.67**	**268**	P	**P**	**13 59 46.0**	**-0.9**
	comp=Z,0.6nm,0.6s,mb3.7,baz=96,slow=7.9,SNR=16						
CMAR	**Chiang Mai Arr**	**81.92**	**294**	P	**P**	**14 05 18.2**	**+1.4**
	comp=Z,1.6nm,0.9s,mb4.0,baz=140,slow=3.7,SNR=9.5						
NVAR	**Mina Array Bea**	**89.65**	**48**	P	**P**	**14 05 54.9**	**+0.2**
	comp=Z,0.6nm,0.7s,mb4.0,baz=225,slow=8.6,SNR=6.7						
SONM	**Songino Array**	**91.39**	**322**	P	**P**	**14 06 01.6**	**-1.0**
	comp=Z,0.8nm,0.9s,mb4.1,baz=132,slow=4.2,SNR=5.6						
MLR	**Muntele Rosu**	**144.09**	**317**	⇓*i*P	PKPdf	14 12 30.5	-1.8
DRGR		**145.38**	**321**	⇑*i*P	PKPbc	14 12 34.2	-0.3
GERES	**GERESS Array B**	**148.69**	**331**	PKPbc	PKPbc	14 12 42.9	-0.9
	comp=Z,0.9nm,0.8s,baz=333,slow=1.5,SNR=6.7						
TORD	**Torodi Ar. Bea**	**166.31**	**227**	PKP	PKPdf	14 13 01.7	-1.0
	comp=Z,0.7nm,1.0s,baz=66,slow=1.7,SNR=3.3						

MAN 10 13:56:48, 9°.38N×**122°.47E, h26**^{km}**, mb3.9, ML2.7, MS2.3, Negros**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNPH	**Sibulan**	**0.76**	**93**	*e*P	Pb	13 57 02.5	0.0
GUIM	**Jordan**	**1.24**	**5**	*e*P	Pn	13 57 09.9	+0.2
GUIM				*e*S	Sn	13 57 25.4	-0.2
IPIL	**Ipil**	**1.59**	**176**	*e*P	Pn	13 57 15.2	+0.7
IPIL				*e*S	Sn	13 57 34.5	+0.4
PAGZ	**Pagadian**	**1.77**	**149**	*e*P	Pn	13 57 19.2	+2.2
MSLP	**Maasin**	**2.47**	**72**	*e*P	Pn	13 57 29.2	+2.6
BUSP	**Coron**	**3.43**	**320**	*e*P	Pn	13 57 41.5	+1.7

IDC 10 14:42:28.2±2.3**, 3°.85N**×**126°.81E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/19**, mbtmp3.4**/3**, Error ellipse: s-maj=196.2km s-min=26.2km az=66.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**24.77**	**163**	P	P	14 47 50.7	-1.1
	1.5nm,0.6s,baz=341,slow=10,SNR=11						
ASAR	**Alice Springs**	**28.21**	**166**	P	P	14 48 24.7	+1.9
	0.2nm,0.8s,baz=345,slow=14,SNR=2.9						
MKAR	**Makanchi Array**	**57.50**	**325**	P	P	14 52 19.3	0.0
	0.1nm,0.4s,baz=116,slow=7.8,SNR=5.8						

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*ISCJB **10** 14:43:53.1±1.4, 35°.3N±0°.1×140°.4E±0°.2, h22^{km}±12^{km}, Error ellipse: s-maj=27.2km s-min=11.2km az=139.1*

*JMA **10** 14:43:54.0±0.1, 35°.26N×140°.34E, h14^{km}±2^{km}, M2.6*

JMA Felt II J1.

ISC 10 14:43:53.4±1.5**, 35°.3N**±0°.1×**140°.4E**±0°.2**, h19**^{km}±8^{km}**, n7, σ0^s.51**/8**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTR	**Katsuura**	**0.14**	**221**	P	**Pg**	**14 43 57.1**	**-0.6**
JCN	**Nagara**	**0.25**	**311**	P	**Pg**	**14 43 59.3**	**+0.2**
BSO4	**Boso 4**	**0.28**	**196**	P	**Pg**	**14 43 59.8**	**+0.2**
BSO3	**Boso 3**	**0.46**	**172**	P	**Pg**	**14 44 03.4**	**+0.7**
TATJ	**Tateyama 2**	**0.49**	**243**	P	**Pg**	**14 44 03.2**	**-0.2**
BSO1	**Boso 1**	**0.75**	**143**	P	**Pb**	**14 44 07.4**	**-0.4**
MAT	**Matsushiro**	**2.21**	**306**	P	**Pn**	**14 44 28.9**	**-0.1**
MAT				S	**Sn**	**14 44 56.0**	**+0.2**

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*IDC **10** 14:57:44.8±0.8, 35°.14N×140°.32E, h0^{km}, mb3.9/10, mb1 4.0/14, mb1mx3.9/28, mbtmp4.0/14, ML3.7/4, Error ellipse: s-maj=28.1km s-min=13.6km az=80.0*

*NEIC **10** 14:57:46.5±0.6, 35°.23N×140°.40E, h10^{km}, MG4.2(JMA), Error ellipse: s-maj=14.1km s-min=10.2km az=73.0*

*ISCJB **10** 14:57:48.4±0.5, 35°.21N±0°.04×140°.33E±0°.06, h33^{km}±4^{km}, mb3.9/10, Error ellipse: s-maj=8.8km s-min=5.8km az=147.4*

*JMA **10** 14:57:49.7±0.1, 35°.25N×140°.33E, h16^{km}±2^{km}, M4.2 Broadband fault plane solution: P waves. NP1: ϕ_s269.00000°, δ17.00000°, λ135.00000°. NP2: ϕ_s43.00000°, δ78.00000°, λ78.00000°. Principal axes: T Plg55.0000°, Azm298.0000°; N Plg12.0000°, Azm45.0000°; P Plg32.0000°, Azm143.0000°;*

JMA Felt III J1.

ISC 10 14:57:49.1±0.4**, 35°.19N**±0°.04×**140°.30E**±0°.05**, h26**^{km}±3^{km}**, n27, σ0^s.93**/32**, mb3.9**/10**, 2C-1D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTR	**Katsuura**	**0.05**	**164**	⇑P	**Pb**	**14 57 52.8**	**-0.7**
KTR				S	**Sb**	**14 57 55.8**	**-0.7**
BSO4	**Boso 4**	**0.20**	**171**	P	**Pb**	**14 57 55.5**	**+0.6**
JCN	**Nagara**	**0.24**	**341**	⇓P	**Pb**	**14 57 55.1**	**-0.2**
TATJ	**Tateyama 2**	**0.37**	**244**	⇑P	**Pb**	**14 57 58.7**	**+1.5**
BSO3	**Boso 3**	**0.43**	**156**	P	**Pb**	**14 57 59.0**	**+0.9**
BSO2	**Boso 2**	**0.58**	**140**	S	**Sb**	**14 58 10.0**	**+1.5**
BSO1	**Boso 1**	**0.78**	**134**	P	**Pb**	**14 58 03.0**	**-0.9**
BSO1				S	**Sb**	**14 58 14.9**	**+0.8**
JIM2	**Oshima 3**	**0.86**	**237**	P	**Pb**	**14 58 04.4**	**-0.9**
JIM2				S	**Sb**	**14 58 16.2**	**-0.2**
JHJ	**Hachijo jima 2**	**2.11**	**192**	Pn	**Pn**	**14 58 22.2**	**-0.5**
	199nm,0.3s,baz=82,slow=2.7,SNR=18						
JHJ				Sn	**Sn**	**14 58 46.8**	**-1.4**
	199nm,0.3s,baz=79,slow=23,SNR=11						
MJAR	**Matsushiro Arr**	**2.17**	**309**	Pn	**Pn**	**14 58 23.4**	**-0.1**
	5.9nm,0.3s,baz=125,slow=16,SNR=130						
MAJO	**Matsushiro**	**2.17**	**309**	*e*Pn	**Pn**	**14 58 23.9**	**+0.4**
MAT	**Matsushiro**	**2.17**	**309**	P	**Pn**	**14 58 23.8**	**+0.3**
MAT				*e*S	**Sn**	**14 58 52.0**	**+2.5**
ERM	**Erimo**	**7.17**	**17**	*e*Pn	**Pn**	**14 59 29.4**	**-2.9**
CBIJ	**Chichi jima**	**8.23**	**168**	Pn	**Pn**	**14 59 43.0**	**-3.9**
	8.5nm,0.3s,baz=292,slow=19,SNR=4.0						
ASAJ	**Asahikawa**	**9.09**	**11**	Pn	**Pn**	**14 59 57.6**	**-0.8**
	0.3nm,0.3s,baz=198,slow=10,SNR=3.9						
SONM	**Songino Array**	**28.12**	**307**	P	**P**	**15 03 37.9**	**-0.9**
	0.3nm,0.6s,mb3.1,baz=106,slow=9.0,SNR=3.1						
ZALV	**Zalesovo Beam**	**42.51**	**314**	P	**P**	**15 05 42.2**	**+0.1**
	2.4nm,0.7s,mb4.0,baz=93,slow=7.6,SNR=12						
ZALV	**Zalesovo Beam**	**42.51**	**314**	P	**P**	**15 05 42.2**	**+0.1**
MKAR	**Makanchi Array**	**44.36**	**304**	P	**P**	**15 05 57.2**	**+0.2**
	1.4nm,0.6s,mb3.9,baz=86,slow=8.9,SNR=22						
KURK	**Kurchatov**	**46.38**	**309**	P	**P**	**15 06 13.1**	**+0.2**
	6.0nm,0.6s,mb4.7,baz=85,slow=7.7,SNR=17						
WRAB	**Tennant Creek**	**55.11**	**187**	*e*P	**P**	**15 07 20.4**	**+1.3**
WRA	**Warramunga Arr**	**55.12**	**187**	P	**P**	**15 07 18.6**	**-0.5**
	1.3nm,0.5s,mb4.2,baz=1.9,slow=7.8,SNR=18						
ASAR	**Alice Springs**	**58.85**	**187**	P	**P**	**15 07 44.6**	**-0.8**
	1.0nm,0.7s,mb4.0,baz=7.9,slow=7.4,SNR=26						
RES	**Resolute Bay**	**64.60**	**14**	P	**P**	**15 08 24.1**	**+0.4**
	0.8nm,0.7s,mb3.9,baz=243,slow=6.8,SNR=3.9						
YKA	**Yellowknife Ar**	**65.85**	**29**	P	**P**	**15 08 32.3**	**+0.4**
	0.5nm,0.8s,mb3.6,baz=299,slow=5.9,SNR=4.0						
AKASG	**Malin Array Be**	**75.20**	**322**	P	**P**	**15 09 28.9**	**-0.2**
	0.5nm,0.4s,mb3.8,baz=46,slow=5.9,SNR=3.8						
NOA	**NORSAR Array B**	**75.53**	**337**	P	**P**	**15 09 31.3**	**+0.5**
	0.4nm,0.7s,mb3.5,baz=66,slow=4.5,SNR=3.1						

JMA 10 15:04:21.9±0.1**, 35°.25N**×**140°.34E, h14**^{km}±2^{km}**, M2.8, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTR	**Katsuura**	**0.10**	**191**	P	Pg	15 04 24.9	-0.2
KTR				*e*S	Sg	15 04 27.6	+0.3
JCN	**Nagara**	**0.20**	**326**	P	Pg	15 04 27.4	+0.9
JCN				*e*S	Sg	15 04 32.2	+2.5
BSO4	**Boso 4**	**0.26**	**180**	P	Pg	15 04 27.6	+0.2
BSO4				*e*S	Sg	15 04 33.1	+2.0
TATJ	**Tateyama 2**	**0.43**	**240**	P	Pg	15 04 31.1	+0.7
TATJ				S	Sg	15 04 39.6	+3.4
BSO3	**Boso 3**	**0.47**	**163**	P	Pg	15 04 31.2	0.0
BSO3				S	Sg	15 04 40.2	+2.7
BSO2	**Boso 2**	**0.60**	**146**	*e*S	Sg	15 04 42.8	+1.1
BSO1	**Boso 1**	**0.79**	**138**	P	Pg	15 04 35.4	-1.9
BSO1				S	Sg	15 04 47.1	-0.6
JIM2	**Oshima 3**	**0.92**	**235**	*e*S	Sb	15 04 48.6	-3.0
MAT	**Matsushiro**	**2.16**	**307**	P	Pn	15 04 56.6	-0.8
MAT				*e*S	Sn	15 05 23.6	-0.4

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*SOF **10** 15:06:33.6, 39°.69N×23°.20E, h5^{km}, MD2.5*

*ISCJB **10** 15:06:35.6±0.3, 39°.75N±0°.01×23°.16E±0°.03, h5^{km}±3^{km}, Error ellipse: s-maj=3.6km s-min=2.4km az=10.5*

*NEIC **10** 15:06:36.0, 39°.74N×23°.12E, h22^{km}, ML3.0(ATH), After ATH.*

*ATH **10** 15:06:36.0, 39°.74N×23°.12E, h22^{km}, MD3.4/20, ML3.0*

*THE **10** 15:06:36.4, 39°.74N×23°.15E, h6^{km}, ML3.7/12, Error ellipse: s-maj=0.7km s-min=0.3km az=111.0*

*CSEM **10** 15:06:37.1±0.1, 39°.72N×23°.18E, h20^{km}, ML3.7/12, Error ellipse: s-maj=4.2km s-min=2.8km az=93.0*

ISC 10 15:06:36.5±0.3**, 39°.74N**±0°.01×**23°.15E**±0°.03**, h8**^{km}±3^{km}**, n111, σ0^s.76**/155**, 4C-4D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XOR	**Xorichti**	**0.38**	**175**	P	**Pg**	**15 06 43.6**	**-0.2**
XOR				S	**Sg**	**15 06 49.2**	**+0.5**
XOR	**Xorichti**	**0.38**	**175**	P	**Pg**	**15 06 43.6**	**-0.2**
XOR				S	**Sg**	**15 06 49.2**	**+0.5**
NEO	**Neokhori**	**0.44**	**173**	*e*PB	**Pg**	**15 06 44.9**	**-0.1**
NEO				*e*SB	**Sg**	**15 06 52.0**	**+1.3**
NEO	**Neokhori**	**0.44**	**173**	P	**Pg**	**15 06 45.3**	**+0.3**
NEO	**Neokhori**	**0.44**	**173**	*e*Pb	**Pg**	**15 06 44.9**	**-0.1**
NEO	**Neokhori**	**0.44**	**173**	P	**Pg**	**15 06 45.3**	**+0.3**
NEO				*e*Sb	**Sg**	**15 06 52.0**	**+1.3**
PAIG	**Paliouri**	**0.45**	**65**	P	**Pg**	**15 06 45.2**	**0.0**
PAIG				S	**Sg**	**15 06 51.9**	**+0.8**
PAIG	**Paliouri**	**0.45**	**65**	P	**Pg**	**15 06 45.2**	**0.0**
PAIG				S	**Sg**	**15 06 51.9**	**+0.8**
LIT	**Litokhoron**	**0.62**	**306**	P	**Pg**	**15 06 48.4**	**-0.1**
LIT				S	**Sg**	**15 06 57.6**	**+1.0**
LIT	**Litokhoron**	**0.62**	**306**	*e*PN	**Pg**	**15 06 48.3**	**-0.2**
LIT				*e*SN	**Sg**	**15 06 56.3**	**-0.3**
LIT	**Litokhoron**	**0.62**	**306**	P	**Pg**	**15 06 48.4**	**-0.1**
LIT				*e*Sn	**Sg**	**15 06 56.3**	**-0.3**
PLG	**Polygyros**	**0.67**	**20**	P	**Pg**	**15 06 49.1**	**-0.4**
PLG				S	**Sg**	**15 06 59.2**	**+1.0**
PLG	**Polygyros**	**0.67**	**20**	*e*PN	**Pg**	**15 06 49.0**	**-0.5**
PLG				*e*SN	**Sg**	**15 06 58.4**	**+0.2**
PLG	**Polygyros**	**0.67**	**20**	P	**Pg**	**15 06 49.1**	**-0.4**
PLG				*e*Sn	**Sg**	**15 06 58.4**	**+0.2**
PLG				S	**Sg**	**15 06 59.2**	**+1.0**
AOS	**Alonnisos**	**0.80**	**135**	P	**Pg**	**15 06 51.7**	**-0.2**
AOS	**Alonnisos**	**0.80**	**135**	P	**Pg**	**15 06 51.7**	**-0.2**
HORT	**Hortiatis**	**0.86**	**357**	P	**Pg**	**15 06 52.6**	**-0.4**
HORT				S	**Sg**	**15 07 05.3**	**+1.2**
HORT	**Hortiatis**	**0.86**	**357**	P	**Pg**	**15 06 52.6**	**-0.4**
HORT				S	**Sg**	**15 07 05.3**	**+1.2**
OUR	**Ouranopolis**	**0.87**	**47**	P	**Pg**	**15 06 52.9**	**-0.3**
OUR	**Ouranopolis**	**0.87**	**47**	P	**Pg**	**15 06 52.9**	**-0.3**
THL	**Klokotos Trika**	**0.89**	**259**	P	**Pg**	**15 06 52.9**	**-0.8**
THL				S	**Sg**	**15 07 05.9**	**+0.6**
THL	**Klokotos Trika**	**0.89**	**259**	*e*PN	**Pg**	**15 06 52.9**	**-0.8**
THL				*e*SN	**Sg**	**15 07 04.8**	**-0.5**
THL	**Klokotos Trika**	**0.89**	**259**	*e*Pn	**Pg**	**15 06 52.9**	**-0.8**
THL				*e*Sn	**Sg**	**15 07 04.8**	**-0.5**
THL				S	**Sg**	**15 07 05.9**	**+0.6**
THE	**Thessaloniki**	**0.90**	**351**	P	**Pg**	**15 06 53.4**	**-0.4**
THE				S	**Sg**	**15 07 06.5**	**+0.9**
THE	**Thessaloniki**	**0.90**	**351**	P	**Pg**	**15 06 53.4**	**-0.4**
THE				S	**Sg**	**15 07 06.5**	**+0.9**
AGG	**Agios Georgios**	**0.96**	**222**	P	**Pg**	**15 06 54.2**	**-0.7**
AGG				S	**Sg**	**15 07 08.2**	**+0.9**
AGG	**Agios Georgios**	**0.96**	**222**	*e*PN	**Pg**	**15 06 54.7**	**-0.2**
AGG				*e*SN	**Sg**	**15 07 06.9**	**-0.4**
AGG	**Agios Georgios**	**0.96**	**222**	*e*Pn	**Pg**	**15 06 54.7**	**-0.2**
AGG				*e*Sn	**Sg**	**15 07 06.9**	**-0.4**
AGG				S	**Sg**	**15 07 08.2**	**+0.9**
SOH	**Sokhos**	**1.09**	**8**	P	**Pg**	**15 06 56.9**	**-0.5**
SOH				S	**Sg**	**15 07 12.5**	**+0.9**
SOH	**Sokhos**	**1.09**	**8**	*e*PN	**Pg**	**15 06 56.9**	**-0.5**
SOH				*e*SN	**Sg**	**15 07 12.3**	**+0.7**
SOH	**Sokhos**	**1.09**	**8**	*e*Pn	**Pg**	**15 06 56.9**	**-0.5**
SOH				*e*Sn	**Sg**	**15 07 12.3**	**+0.7**
LKR	**Lokris**	**1.09**	**186**	P	**Pg**	**15 06 56.9**	**-0.6**
LKR				S	**Sg**	**15 07 12.5**	**+0.8**
LKR	**Lokris**	**1.09**	**186**	*e*PN	**Pg**	**15 06 56.9**	**-0.6**
LKR	**Lokris**	**1.09**	**186**	P	**Pg**	**15 06 57.3**	**-0.2**
LKR	**Lokris**	**1.09**	**186**	*e*Pn	**Pg**	**15 06 56.9**	**-0.6**
LKR				S	**Sg**	**15 07 12.5**	**+0.8**
KZN	**Kozani**	**1.20**	**299**	*e*PN	**Pn**	**15 06 59.0**	**-0.5**
KZN				*e*SN	**Sn**	**15 07 15.4**	**-0.6**
KZN	**Kozani**	**1.20**	**299**	P	**Pb**	**15 06 59.7**	**+0.3**
KZN	**Kozani**	**1.20**	**299**	*e*Pn	**Pn**	**15 06 59.0**	**-0.5**
KZN				*e*Sn	**Sn**	**15 07 15.4**	**-0.6**
EVR	**Evrytania**	**1.33**	**232**	*e*PN	**Pn**	**15 07 01.2**	**0.0**
EVR	**Evrytania**	**1.33**	**232**	*e*Pn	**Pn**	**15 07 02.0**	**+0.8**
EVR	**Evrytania**	**1.33**	**232**	*e*Pn	**Pn**	**15 07 02.0**	**+0.8**
GRG	**Griva**	**1.34**	**335**	P	**Pn**	**15 07 00.6**	**-0.9**
GRG				S	**Sb**	**15 07 19.9**	**+0.7**
GRG	**Griva**	**1.34**	**335**	P	**Pn**	**15 07 00.6**	**-0.9**
GRG				S	**Sb**	**15 07 19.9**	**+0.7**
SRS	**Serrai**	**1.42**	**14**	P	**Pn**	**15 07 01.4**	**-1.1**
SRS	**Serrai**	**1.42**	**14**	P	**Pn**	**15 07 01.4**	**-1.1**
KNT	**Kendrikon**	**1.43**	**352**	P	**Pn**	**15 07 02.2**	**-0.5**
KNT				S	**Sn**	**15 07 22.2**	**+0.5**
KNT	**Kendrikon**	**1.43**	**352**	P	**Pn**	**15 07 02.2**	**-0.5**
KNT				S	**Sn**	**15 07 22.2**	**+0.5**
MEV	**Metsovon**	**1.48**	**272**	P	**Pn**	**15 07 03.3**	**-0.1**
MEV	**Metsovon**	**1.48**	**272**	P	**Pn**	**15 07 03.3**	**-0.1**
LIA	**Limnos Island**	**1.57**	**84**	*e*PN	**Pn**	**15 07 05.3**	**+0.7**
LIA	**Limnos Island**	**1.57**	**84**	P	**Pn**	**15 07 07.1**	**+2.5**
LIA	**Limnos Island**	**1.57**	**84**	*e*Pn	**Pn**	**15 07 05.3**	**+0.7**
LIA	**Limnos Island**	**1.57**	**84**	P	**Pn**	**15 07 07.1**	**+2.5**
TRIZ	**Trizonia**	**1.61**	**212**	P	**Pn**	**15 07 04.5**	**-0.6**
TRIZ	**Trizonia**	**1.61**	**212**	P	**Pn**	**15 07 04.5**	**-0.6**
VAY	**Valandovo**	**1.64**	**345**	*e*Pn	**Pn**	**15 07 04.8**	**-0.7**
VAY				*e*Sn	**Sn**	**15 07 27.8**	**+1.0**
VAY	**Valandovo**	**1.64**	**345**	P	**Pn**	**15 07 05.3**	**-0.3**
VAY	**Valandovo**	**1.64**	**345**	*e*Pn	**Pn**	**15 07 04.8**	**-0.8**
VAY				*e*Sn	**Sn**	**15 07 27.8**	**+1.0**
NVR	**Nevrokopi**	**1.70**	**18**	*e*PB	**Pn**	**15 07 05.9**	**-0.4**
NVR	**Nevrokopi**	**1.70**	**18**	P	**Pg**	**15 07 08.9**	**-0.1**
NVR	**Nevrokopi**	**1.70**	**18**	*e*Pb	**Pn**	**15 07 05.9**	**-0.4**
NVR	**Nevrokopi**	**1.70**	**18**	P	**Pg**	**15 07 08.9**	**-0.1**
FNA	**Florina**	**1.71**	**308**	P	**Pn**	**15 07 06.5**	**0.0**
FNA				S	**Sn**	**15 07 28.9**	**+0.3**
FNA	**Florina**	**1.71**	**308**	P	**Pn**	**15 07 06.5**	**0.0**
FNA				S	**Sn**	**15 07 28.9**	**+0.3**
LTK	**Loutraki**	**1.72**	**185**	P	**Pn**	**15 07 05.8**	**-0.8**
LTK	**Loutraki**	**1.72**	**185**	*e*PN	**Pn**	**15 07 06.8**	**+0.2**
LTK	**Loutraki**	**1.72**	**185**	P	**Pn**	**15 07 05.8**	**-0.8**
LTK	**Loutraki**	**1.72**	**185**	*e*Pn	**Pn**	**15 07 06.8**	**+0.2**
JAN	**Janina**	**1.78**	**268**	*e*PN	**Pn**	**15 07 07.1**	**-0.3**
JAN	**Janina**	**1.78**	**268**	*e*Pn	**Pn**	**15 07 07.1**	**-0.3**
PTL	**Penteli**	**1.78**	**162**	*e*PB	**Pn**	**15 07 06.7**	**-0.7**
PTL	**Penteli**	**1.78**	**162**	*e*Pb	**Pn**	**15 07 06.7**	**-0.7**
ATH	**Athens Observa**	**1.82**	**166**	*e*PN	**Pn**	**15 07 08.3**	**+0.3**
ATH	**Athens Observa**	**1.82**	**166**	*e*Pn	**Pn**	**15 07 08.3**	**+0.3**
BIA	**Bitola**	**1.89**	**313**	*e*Pn	**Pn**	**15 07 13.2**	**+4.2**
BIA	**Bitola**	**1.89**	**313**	*e*Pn	**Pn**	**15 07 13.2**	**+4.2**
MMB	**Musomiste**	**1.90**	**13**	P	**Pn**	**15 07 08.2**	**-0.9**
MMB				Pg	**Pg**	**15 07 11.5**	**-1.4**
MMB				S	**Sn**	**15 07 36.8**	**+3.6**
GUR	**Goura**	**1.91**	**200**	*e*PB	**Pn**	**15 07 09.0**	**-0.2**
GUR	**Goura**	**1.91**	**200**	*e*Pb	**Pn**	**15 07 09.0**	**-0.2**
KKB	**Krupnik**	**2.12**	**359**	P	**Pn**	**15 07 12.1**	**-0.1**
KRUS	**Krusevo**	**2.18**	**319**	*e*Pn	**Pn**	**15 07 12.6**	**-0.4**
KRUS	**Krusevo**	**2.18**	**319**	*e*Pn	**Pn**	**15 07 12.5**	**-0.5**
RZN	**Rozhen**	**2.28**	**31**	P	**Pn**	**15 07 15.2**	**+0.8**
RZN				S	**Sg**	**15 07 49.4**	**-0.4**
RDO	**Rodhopi**	**2.30**	**52**	*e*PN	**Pn**	**15 07 14.9**	**+0.3**
RDO	**Rodhopi**	**2.30**	**52**	*e*Pn	**Pn**	**15 07 14.9**	**+0.3**
PRK	**Paraskevi**	**2.46**	**101**	*e*PN	**Pn**	**15 07 17.9**	**+1.0**
PRK	**Paraskevi**	**2.46**	**101**	*e*Pn	**Pn**	**15 07 17.9**	**+1.0**
KDZ	**Kurdzhali**	**2.57**	**41**	P	**Pg**	**15 07 24.9**	**-0.8**
KDZ				S	**Sg**	**15 07 58.2**	**-0.8**
KEK	**Kerkira**	**2.58**	**270**	*e*Pn	**Pn**	**15 07 18.3**	**-0.2**
KEK				P		15 07 21.9	
KEK	**Kerkira**	**2.58**	**270**	*e*Pn	**Pn**	**15 07 18.3**	**-0.2**
CHOS	**Chios island**	**2.63**	**120**	P	**Pn**	**15 07 18.6**	**-0.6**
CHOS	**Chios island**	**2.63**	**120**	P	**Pn**	**15 07 18.6**	**-0.6**
VTS	**Vitosha**	**2.85**	**1**	P	**Pn**	**15 07 23.9**	**+1.7**
VTS	**Vitosha**	**2.85**	**1**	*e*Pn	**Pn**	**15 07 23.7**	**+1.5**
VTS				P		15 07 30.4	
VTS	**Vitosha**	**2.85**	**1**	*e*Pn	**Pn**	**15 07 23.7**	**+1.5**
PYL	**PYLOS**	**3.05**	**202**	P	**Pn**	**15 07 25.0**	**+0.1**
PYL	**PYLOS**	**3.05**	**202**	P	**Pn**	**15 07 25.0**	**+0.1**
BARS	**Barje**	**3.23**	**342**	*i* Pn	**Pn**	**15 07 27.4**	**-0.1**
NISS		**3.77**	**347**	*i* Pn	**Pn**	**15 07 34.3**	**-0.5**
BOLS	**Boljevac**	**4.18**	**348**	*e*Pn	**Pn**	**15 07 39.5**	**-1.0**
GRUS	**Gruza**	**4.53**	**337**	*e*Pn	**Pn**	**15 07 46.5**	**+1.3**
DIVS	**Divibare**	**4.95**	**333**	*e*Pn	**Pn**	**15 07 54.7**	**+3.7**
BBLS	**Lazići**	**4.98**	**327**	*e*Pn	**Pn**	**15 07 53.1**	**+1.6**
GZR	**Gura Zlata**	**5.66**	**357**	⇓*i*P	**Pn**	**15 08 01.2**	**+0.5**
GZR	**Gura Zlata**	**5.66**	**357**	⇓*i*P	**Pn**	**15 08 01.2**	**+0.5**
VOIR		**5.86**	**13**	⇑*i*P	**Pn**	**15 08 08.9**	**+5.3**
BZS	**Buzias**	**5.98**	**350**	⇑*i*P	**Pn**	**15 07 59.1**	**-6.1**
HARR	**Harsova**	**6.09**	**34**	⇑*i*P	**Pn**	**15 08 05.2**	**-1.4**
HARR	**Harsova**	**6.09**	**34**	⇑*i*P	**Pn**	**15 08 05.2**	**-1.4**
MLR	**Muntele Rosu**	**6.11**	**19**	⇓*i*P	**Pn**	**15 08 06.7**	**-0.2**
MLR	**Muntele Rosu**	**6.11**	**19**	⇓*i*P	**Pn**	**15 08 06.7**	**-0.2**

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*IDC **10** 15:07:04.1±1.1, 7°.24S×128°.23E, h0^{km}, mb4.0/4, mb1 3.9/7, mb1mx3.8/17, mbtmp3.9/7, ML3.5/3, MS3.9/1, Ms1 3.9/1, ms1mx2.6/34, Error ellipse: s-maj=87.5km s-min=19.3km az=71.0*

ISC 10 15:07:12.2±4.4**, 7°.5S**±0°.2×**128°.5E**±0°.2**, h78**^{km}±50^{km}**, n8, σ0^s.97**/10**, mb3.8**/4**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**10.88**	**195**	Pn	**Pn**	**15 09 44.3**	**-0.6**
	0.3nm,0.3s,baz=13,slow=12,SNR=5.4						
FITZ				Sn	**Sn**	**15 11 45.1**	**+0.2**
	0.2nm,0.3s,baz=253,slow=20,SNR=4.0						
WRA	**Warramunga Arr**	**13.56**	**156**	Pn	**Pn**	**15 10 22.0**	**+0.8**
	0.3nm,0.3s,baz=325,slow=14,SNR=14						
WRA				Sn	**Sn**	**15 12 48.8**	**-1.5**
	0.6nm,0.3s,baz=330,slow=23,SNR=11						
ASAR	**Alice Springs**	**16.85**	**163**	P	**Pn**	**15 11 05.3**	**+2.2**
	0.1nm,0.3s,baz=332,slow=9.5,SNR=18						
ASAR				S	**S**	**15 14 08.3**	**-7.5**
	0.2nm,0.3s,baz=314,slow=17,SNR=7.2						
STKA	**Stephens Creek**	**27.11**	**155**	P	**P**	**15 12 53.0**	**+5.3**
	2.1nm,0.7s,mb3.8,baz=352,slow=6.7,SNR=6.2						
JOW	**Kunigami**	**34.16**	**360**	LR	LR	15 25 42.1	
	comp=Z,194nm,21.6s,baz=300,slow=33						
SONM	**Songino Array**	**58.50**	**343**	P	**P**	**15 16 60.0**	**-0.1**
	0.3nm,0.7s,mb3.4,baz=149,slow=6.2,SNR=3.7						
MKAR	**Makanchi Array**	**67.88**	**328**	P	**P**	**15 18 02.1**	**-0.1**
	1.1nm,0.5s,mb3.9,baz=123,slow=8.3,SNR=28						
ZALV	**Zalesovo Beam**	**71.42**	**334**	P	**P**	**15 18 23.3**	**-0.5**
	1.8nm,0.7s,mb4.0,baz=116,slow=5.1,SNR=8.0						

IDC 10 15:13:27.0±2.2**, 2°.65S**×**128°.10E, h0**^{km}**, mb3.6**/2**, mb1 4.0**/3**, mb1mx3.5**/18**, mbtmp3.7**/3**, ML3.8**/1**, Error ellipse: s-maj=144.8km s-min=27.8km az=67.0, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.23	161	P	Pn	15 17 41.9	+0.2
	0.3nm,0.3s,baz=340,slow=12,SNR=15						
ASAR	Alice Springs	21.63	165	P	P	15 18 18.5	-0.5
	1.7nm,0.4s,baz=347,slow=12,SNR=34						
MKAR	Makanchi Array	63.58	327	P	P	15 23 59.9	+0.4
	0.5nm,1.0s,baz=110,slow=6.9,SNR=3.2						

JMA 10 15:16:47.9±0.1, 35°.26N×140°.33E, h14^{km}±2^{km}, M2.8, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTR	Katsuura	0.11	186	P	Pg	15 16 51.0	-0.2
KTR				S	Sg	15 16 54.0	+0.5
JCN	Nagara	0.19	326	P	Pg	15 16 53.2	+0.9
BSO4	Boso 4	0.27	179	P	Pg	15 16 53.8	+0.2
TATJ	Tateyama 2	0.43	238	P	Pg	15 16 57.1	+0.7
BSO3	Boso 3	0.48	162	P	Pg	15 16 57.4	0.0
BSO1	Boso 1	0.81	138	P	Pg	15 17 01.4	-2.1
MAT	Matsushiro	2.15	307	P	Pn	15 17 23.7	+0.4
MAT				*e*S	Sn	15 17 50.1	+0.4

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*IDC **10** 15:23:34.1±1.3, 7°.11S×156°.15E, h0^{km}, mb4.0/9, mb1 4.1/10, mb1mx4.0/18, mbtmp4.0/10, ML3.8/1, Error ellipse: s-maj=34.6km s-min=20.4km az=100.0*

*NEIC **10** 15:23:38.6±0.7, 7°.10S×156°.29E, h35^{km}, mb4.3/2, Error ellipse: s-maj=14.9km s-min=13.3km az=91.0*

*ISCJB **10** 15:23:43.1±5.0, 7°.1S±0°.2×155°.9E±0°.1, h77^{km}±55^{km}, mb3.9/11, Error ellipse: s-maj=33.8km s-min=15.2km az=143.0*

ISC 10 15:23:43.8±4.4, 7°.1S±0°.2×155°.9E±0°.1, h63^{km}±50^{km}, n16, σ0^s.64/18, mb4.0/11, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.66	121	Pn	Pn	15 24 40.6	-11
	4.5nm,0.3s,baz=269,slow=11,SNR=2.6						
HNR				Sn	Sn	15 25 44.5	-0.1
	7.1nm,0.3s,baz=52,slow=19,SNR=2.4						
HNR	Honiara	4.66	121	Pn	Pn	15 24 40.8	-11
HNR				Sn	Sn	15 25 44.5	-0.1
CTA	Charters Tower	15.96	215	Pn	Pn	15 27 24.7	+0.2
	0.3nm,0.3s,baz=32,slow=14,SNR=3.7						
KAKA	Kakadu	23.75	255	*e*P	P	15 28 51.4	+0.7
WRAB	Tennant Creek	24.49	236	*e*P	P	15 28 57.4	+0.1
	6.7nm,0.6s,mb4.2						
WRA	Warramunga Arr	24.50	236	P	P	15 28 57.5	+0.1
	5.3nm,0.5s,mb4.3,baz=61,slow=9.2,SNR=48						
ASAR	Alice Springs	26.79	230	P	P	15 29 17.2	-0.8
	1.0nm,0.5s,mb3.6,baz=58,slow=10.0,SNR=47						
STKA	Stephens Creek	28.05	207	P	P	15 29 29.6	+0.3
	3.6nm,1.0s,mb4.0,baz=37,slow=12,SNR=4.1						
FITZ	Fitzroy Crossi	31.43	247	P	P	15 29 58.8	-0.6
	3.0nm,0.6s,mb4.3,baz=111,slow=9.7,SNR=5.8						
FITZ	Fitzroy Crossi	31.43	247	*e*P	P	15 29 59.3	0.0
MJAR	Matsushiro Arr	46.44	340	P	P	15 32 03.5	-0.9
	1.3nm,1.0s,mb3.8,baz=177,slow=9.1,SNR=3.9						
KSRS	Korea Array	51.41	331	P	P	15 32 42.9	+0.4
	0.7nm,0.7s,mb3.7,baz=147,slow=7.7,SNR=3.4						
CMAR	Chiang Mai Arr	61.61	295	P	P	15 33 53.9	-1.4
	0.9nm,0.8s,mb3.9,baz=108,slow=5.6,SNR=5.6						
ULN	Ulaanbaatar	69.53	327	P	P	15 34 46.2	+0.4
	1.7nm,0.8s,mb4.0						
SONM	Songino Array	69.87	327	P	P	15 34 49.0	+1.1
	1.5nm,0.4s,mb4.2,baz=146,slow=6.0,SNR=20						
MKAR	Makanchi Array	84.04	318	P	P	15 36 07.7	+0.1
	0.5nm,0.5s,mb4.0,baz=94,slow=6.9,SNR=13						

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*ISCJB **10** 15:31:09.5±1.1, 27°.67N±0°.06×53°.80E±0°.05, h3^{km}±8^{km}, Error ellipse: s-maj=11.7km s-min=5.9km az=27.6*

*CSEM **10** 15:31:11.2±0.4, 27°.77N×53°.77E, h2^{km}, ML3.1, Error ellipse: s-maj=15.3km s-min=9.3km az=11.0*

*TEH **10** 15:31:12.9, 27°.66N×53°.86E, h24^{km}*

ISC 10 15:31:11.2±1.2, 27°.73N±0°.06×53°.79E±0°.05, h0^{km}±9^{km}, n15, σ0^s.85/20, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	Ghir-Karzin	0.90	308	*e*Pg	Pg	15 31 28.1	-0.3
GHIR				*e*Sg	Sg	15 31 40.0	-0.1
IMOK	Mouk	1.62	324	*e*Pn	Pn	15 31 42.0	+1.1
IMOK				*e*Sg	Sg	15 32 06.8	+3.7
IMOK				*e*		15 32 17.6	
	comp=Z,3µm,0.2s						
ISRV	Sarvestan	1.75	340	*e*Pn	Pn	15 31 43.1	+0.4
ISRV				*e*		15 31 47.3	
	comp=Z,3µm,0.1s						
BNDS	Bandar-Abbas	2.14	98	*e*Pn	Pn	15 31 49.3	+1.3
BNDS				*e*Sg	Sg	15 32 19.2	-0.7
IPAR	Pars	2.20	343	*e*Pn	Pn	15 31 49.5	+0.6
IPAR				*e*Sn	Sn	15 32 16.3	-0.5
IPAR				*e*		15 32 36.1	
	comp=Z,904nm,0.4s						
KRBR	Kerman	3.43	49	*e*Pn	Pn	15 32 06.1	+0.2
IMEH	Mehriz	3.71	11	*e*	Pn	15 32 15.0	+5.2
	comp=Z,277nm,0.2s						
IMEH				*e*Pn	Pn	15 32 09.3	-0.4
IBAF	Bafgh	4.14	21	*e*Pn	Pn	15 32 15.0	-0.6
IBAF				*e*		15 32 38.1	
	comp=Z,187nm,0.2s						
ISAD	Sadrabad	4.17	359	*e*Pn	Pn	15 32 16.5	+0.5
ISAD				*e*		15 32 23.3	
	comp=Z,292nm,0.1s						
NASN	Na'in	5.12	351	*e*Pn	Pn	15 32 28.9	-0.2
IPIR	Pirpir	5.54	334	*e*Pn	Pn	15 32 34.4	-0.4
IPIR				*e*		15 33 38.2	
	comp=Z,220nm,0.2s						
IKLH	Kolahrood	5.89	342	*e*Pn	Pn	15 32 38.5	-1.1
IKLH				*e*		15 33 46.6	
	comp=Z,84nm,0.2s						
LYLS		8.21	228	P	Pn	15 33 12.4	+0.8
LYLS		8.21	228	P	Pn	15 33 12.4	+0.8
ASYS		8.39	271	P	Pn	15 33 12.0	-2.0

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*IDC **10** 15:54:43.3±2.7, 8°.78S×112°.83E, h0^{km}, mb3.4/3, mb1 3.6/3, mb1mx3.3/18, mbtmp3.4/3, Error ellipse: s-maj=154.8km s-min=24.4km az=48.0*

*ISCJB **10** 15:54:56.2±1.2, 7°.8S±0°.3×114°.0E±0°.1, h100^{km}, mb3.2/3, Error ellipse: s-maj=41.9km s-min=12.7km az=17.0*

ISC 10 15:54:57.7±1.1, 8°.0S±0°.3×113°.9E±0°.2, h100^{km}, n4, σ1^s.50/5, mb3.2/3, 1C, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRT	Tretes	1.27	284	⇑*e*P	Pn	15 55 19.6	-1.6
TRT				*e*S	Sn	15 55 40.0	+1.0
WRA	Warramunga Arr	23.09	123	P	P	15 59 56.1	+1.2
	0.3nm,0.5s,mb2.9,baz=296,slow=11,SNR=4.0						
ASAR	Alice Springs	24.70	131	P	P	16 00 08.8	-0.8
	0.4nm,0.9s,mb2.9,baz=304,slow=8.9,SNR=6.7						
MKAR	Makanchi Array	61.39	336	P	P	16 05 03.1	+0.1
	0.5nm,0.4s,mb3.9,baz=152,slow=7.2,SNR=21						

FUNV 10 16:23:54.0, 6°.80N×73°.22W, h160^{km}, MW3.5, 1D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.39	40	⇓*i*P	Pn	16 24 23.2	-0.1
CAPV				*e*S	Sn	16 24 44.1	-1.7
VIGV	El Vigia	2.74	42	*e*P	Pn	16 24 37.6	-1.0
VIGV				*e*S	Sn	16 25 09.4	-3.6
SOCV	Socops	2.77	58	*e*P	Pn	16 24 38.0	-1.0
SOCV				*e*S	Sn	16 25 10.2	-3.6
ELOV	Elorza	3.72	87	*e*P	Pn	16 24 49.8	-1.1
VIRV	Villa del Rosa	3.77	12	*e*P	Pn	16 24 49.8	-1.7
VIRV				*e*S	Sn	16 25 31.6	-4.8
CURV	Curarigua	4.54	45	*e*P	Pn	16 24 60.0	-1.6
CURV				*e*S	Sn	16 25 48.7	-5.6
DABV	Dabajuro	4.83	32	*e*P	Pn	16 25 03.6	-1.7
DABV				*e*S	Sn	16 25 56.2	-4.9
TEPV	Terepaima	5.08	51	*e*P	Pn	16 25 07.0	-1.6
TEPV				*e*S	Sn	16 26 01.4	-5.6
BAUV	El Baul	5.56	67	*e*S	Sn	16 26 11.3	-7.0

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*CASC **10** 16:28:12.5±1.7, 11°.07N×87°.03W, h0^{km}±18^{km}, MD4.1, mb4.0(NEIC)*

*IDC **10** 16:28:13.0±1.2, 11°.74N×86°.30W, h0^{km}, mb3.8/6, mb1 4.0/7, mb1mx3.8/19, mbtmp3.8/7, ML3.3/1, Error ellipse: s-maj=55.7km s-min=21.2km az=53.0*

*ISCJB **10** 16:28:16.1±1.3, 11°.15N±0°.08×87°.0W±0°.1, h46^{km}±13^{km}, mb3.9/7, Error ellipse: s-maj=21.0km s-min=7.9km az=145.4*

*NEIC **10** 16:28:19.1±2.2, 11°.27N×86°.92W, h56^{km}±18^{km}, mb4.0/1, Error ellipse: s-maj=32.2km s-min=19.3km az=54.0*

ISC 10 16:28:18.3±1.1, 11°.25N±0°.08×86°.8W±0°.1, h50^{km}±11^{km}, n32, σ0^s.85/32, mb3.9/7, 3C-1D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	Copaltepe	0.95	14	⇓*e*P	Pn	16 28 35.4	0.0
COPN				*e*S	Sn	16 28 54.2	+6.3
SSN	San Juan del S	0.96	87	*e*P	Pn	16 28 34.5	-1.0
APON	Apoyo	1.00	49	*e*P	Pn	16 28 36.3	+0.3
CSAN		1.01	23	*e*P	Pn	16 28 36.0	-0.2
XAVN	Gruta Xavier	1.02	29	*e*P	Pn	16 28 36.6	+0.3
TISN	Laguna Tiscapa	1.04	32	*e*P	Pn	16 28 36.7	+0.1
MGAN	Managua	1.06	33	⇑*e*P	Pn	16 28 36.9	+0.1
MGAN				⇑*e*P		16 28 36.9	
WILN	Americas 2	1.10	35	*e*P	Pn	16 28 37.5	+0.1
MOMN	Momotombo	1.18	14	*e*P	Pn	16 28 38.8	+0.3
MIRN	Miramar	1.19	6	*e*P	Pn	16 28 38.4	-0.1
CONN	Concepcion	1.22	75	*e*P	Pn	16 28 39.0	-0.1
HUEN		1.26	31	*e*P	Pn	16 28 39.5	0.0
TEL3	Telica 3	1.31	359	*e*P	Pn	16 28 40.3	0.0
BOAB	BOACO BROADBAN	1.65	44	⇑*e*P	Pn	16 28 44.5	-0.3
FORC	Fortuna	2.26	110	*e*P	Pn	16 28 56.7	+3.4
CGA2	Cerro Gallo 2	2.63	118	*e*P	Pn	16 28 57.3	-1.0
TGUH	Tegucigalpa,Un	2.82	351	*e*Pn	Pn	16 29 01.4	+0.5
LCR2	La Lucha 2	3.16	118	*e*P	Pn	16 29 05.4	-0.2
URSC	Urasca	3.32	115	*e*P	Pn	16 29 08.9	+1.2
URSC				*e*S	Sn	16 30 06.6	+21
BAR1		4.00	120	*e*P	Pn	16 29 16.6	-0.5
CMIG	Matias Romero	9.73	308	Pn	Pn	16 30 35.1	-0.6
	0.3nm,0.3s,baz=110,slow=12,SNR=3.7						
TXAR	Lajitas Array	23.88	321	P	P	16 33 27.9	+0.6
	1.3nm,0.7s,mb3.5,baz=137,slow=9.9,SNR=18						
TXAR				PcP	PcP	16 37 12.6	+3.4
	0.5nm,0.8s,baz=148,slow=5.6,SNR=4.9						
TKL	Tuckaleechee C	24.45	6	P	P	16 33 33.9	+1.5
	2.5nm,0.8s,mb3.7,baz=171,slow=8.7,SNR=4.5						
TKL	Tuckaleechee C	24.45	6	P	P	16 33 33.9	+1.5
WMOK	Wichita Mounta	25.79	337	*e*P	P	16 33 45.6	+1.0
	5.5nm,1.0s,mb4.0						
PDAR	Pinedale Array	37.11	332	P	P	16 35 24.4	+0.5
	0.6nm,0.7s,mb3.5,baz=125,slow=9.5,SNR=5.9						
SIV	San Ignacio	37.18	136	P	P	16 35 25.8	+0.9
	1.9nm,0.6s,mb4.1,baz=321,slow=7.7,SNR=10						
NVAR	Mina Array Bea	39.00	319	PcP	PcP	16 37 53.0	+3.5
	0.9nm,0.8s,baz=159,slow=4.5,SNR=6.4						
ULM	Lac du Bonnet	39.59	351	P	P	16 35 42.8	-1.9
	2.4nm,0.6s,mb4.1,baz=180,slow=5.1,SNR=3.6						
SCHQ	Schefferville	46.25	16	P	P	16 36 35.1	-3.4
	2.1nm,1.0s,mb4.0,baz=211,slow=12,SNR=2.6						
YKA	Yellowknife Ar	54.92	345	P	P	16 37 42.0	-1.7
	0.3nm,0.7s,baz=147,slow=7.0,SNR=5.1						
CMAR	Chiang Mai Arr	149.93	349	PKPbc	PKPbc	16 48 04.4	+0.4
	1.0nm,0.8s,baz=340,slow=2.8,SNR=9.1						

IDC 10 16:29:06.8±2.2, 5°.27N×126°.20E, h0^{km}, mb3.6/3, mb1 3.8/3, mb1mx3.4/19, mbtmp3.6/3, Error ellipse: s-maj=187.6km s-min=24.7km az=65.0, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	26.30	162	P	P	16 34 44.0	-0.4
	0.6nm,0.9s,baz=343,slow=11,SNR=6.4						
ASAR	Alice Springs	29.73	166	P	P	16 35 15.5	+0.6
	0.3nm,0.9s,baz=342,slow=7.2,SNR=5.5						
MKAR	Makanchi Array	56.00	325	P	P	16 38 47.1	0.0
	0.7nm,0.3s,baz=114,slow=7.5,SNR=41						

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*IDC **10** 16:33:11.7±1.1, 11°.89N×86°.12W, h0^{km}, mb3.7/7, mb1 4.0/8, mb1mx3.8/20, mbtmp3.7/8, ML3.5/1, Error ellipse: s-maj=71.0km s-min=20.7km az=51.0*

*CASC **10** 16:33:15.1±3.0, 11°.21N×86°.93W, h24^{km}±18^{km}, MD4.3, ML2.5, mb3.9(NEIC)*

*NEIC **10** 16:33:18.6±2.5, 11°.43N×86°.70W, h59^{km}±20^{km}, mb3.9/1, Error ellipse: s-maj=42.4km s-min=21.3km az=51.0*

ISC 10 16:33:14.7±2.9, 11°.20N±0°.05×86°.91W±0°.07, h20^{km}±20^{km}, n37, σ0^s.96/39, mb3.7/7, 3C-1D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRUN	El Crucero	0.98	38	*e*P	Pb	16 33 33.6	+0.6
COPN	Copaltepe	1.02	18	⇓*e*P	Pb	16 33 33.8	+0.1
SSN	San Juan del S	1.04	85	*e*P	Pb	16 33 33.0	-1.1
CSAN		1.08	26	*e*P	Pb	16 33 34.5	-0.4
APON	Apoyo	1.09	49	⇑*e*P	Pb	16 33 34.7	-0.2
XAVN	Gruta Xavier	1.10	31	*e*P	Pb	16 33 34.8	-0.3
TISN	Laguna Tiscapa	1.12	34	*e*P	Pn	16 33 35.0	-0.4
MGAN	Managua	1.14	35	*e*P	Pn	16 33 35.3	-0.3
MGAN				⇑*e*P		16 33 35.3	
MGAN				*e*S	Sb	16 33 52.2	+2.0
WILN	Americas 2	1.19	37	*e*P	Pn	16 33 35.7	-0.6
MIRN	Miramar	1.24	9	*e*P	Pn	16 33 36.8	-0.2
MOMN	Momotombo	1.25	17	*e*P	Pn	16 33 37.5	+0.3
MOMN				AML	AML	16 33 47.4	
	comp=Z,24nm,0.6s						
CONN	Concepcion	1.31	74	*e*P	Pn	16 33 37.1	-0.8
CONN				AML	AML	16 34 14.0	
	comp=Z,194nm,0.5s						
HUEN		1.34	33	*e*P	Pn	16 33 37.8	-0.5
CRIN	San Cristobal	1.49	355	*e*P	Pn	16 33 40.1	-0.4
VCR	Vista de Mar	1.65	130	*e*P	Pn	16 33 43.7	+1.0
VCR				*e*S	Sn	16 34 18.4	+15
BOAB	BOACO BROADBAN	1.74	44	⇑*e*P	Pn	16 33 43.0	-0.8
FORC	Fortuna	2.32	108	*e*P	Pn	16 33 55.0	+3.2
CGA2	Cerro Gallo 2	2.68	116	*e*P	Pn	16 34 00.4	+3.7
PRS1	Puriscal	2.83	115	*e*P	Pn	16 33 59.6	+0.8
TGUH	Tegucigalpa,Un	2.86	353	*e*Pn	Pn	16 34 00.1	+0.9
LCR2	La Lucha 2	3.21	117	*e*P	Pn	16 34 03.8	-0.2
LCR2				*e*S	Sn	16 34 55.8	+14
QCR	Quepos	3.23	123	*e*P	Pn	16 34 04.2	-0.1
URSC	Urasca	3.37	114	*e*P	Pn	16 34 07.5	+1.3
BUS	Buena Vista	3.51	118	*e*P	Pn	16 34 06.9	-1.3
BAR1		4.04	118	*e*P	Pn	16 34 15.2	-0.3
CMIG	Matias Romero	9.70	308	Pn	Pn	16 35 34.6	+1.4
	comp=Z,0.4nm,0.3s,baz=120,slow=10,SNR=4.5						
TXAR	Lajitas Array	23.87	322	P	P	16 38 26.4	-0.6
	comp=Z,1.3nm,0.7s,mb3.5,baz=133,slow=10.0,SNR=16						
TXAR				PcP	PcP	16 42 10.5	+0.7
	comp=Z,0.6nm,0.8s,baz=144,slow=4.5,SNR=5.5						
TXAR	Lajitas Array	23.87	322	P	P	16 38 26.4	-0.6
TXAR				PcP	PcP	16 42 10.5	+0.7
WMOK	Wichita Mounta	25.80	337	*e*P	P	16 38 44.4	-0.2
	comp=Z,4.2nm,1.0s,mb3.9						
ANMO	Albuquerque	29.59	326	P	P	16 39 17.8	-0.6
	comp=Z,0.6nm,0.7s,mb3.5,baz=110,slow=8.8,SNR=3.1						
PDAR	Pinedale Array	37.11	332	P	P	16 40 22.4	-1.6
	comp=Z,0.4nm,0.6s,mb3.4,baz=127,slow=11,SNR=4.4						
SIV	San Ignacio	37.20	136	P	P	16 40 24.7	-0.3
	comp=Z,1.2nm,0.5s,mb4.0,baz=310,slow=9.1,SNR=7.8						
NVAR	Mina Array Bea	38.98	319	P	P	16 40 41.6	+1.9
	comp=Z,0.4nm,0.7s,baz=163,slow=5.6,SNR=3.6						
NVAR				PcP	PcP	16 42 50.1	+0.1
	comp=Z,0.8nm,0.7s,baz=131,slow=3.6,SNR=6.9						
ULM	Lac du Bonnet	39.63	351	P	P	16 40 40.9	-4.1
	comp=Z,1.5nm,0.4s,mb4.0,baz=187,slow=0.8,SNR=3.2						
YKA	Yellowknife Ar	54.95	345	P	P	16 42 40.4	-3.7
	comp=Z,0.6nm,0.9s,mb3.6,baz=137,slow=7.6,SNR=5.9						
YKA				PcP	PcP	16 43 43.0	-2.7
	comp=Z,0.1nm,0.4s,baz=144,slow=3.4,SNR=3.8						
YKA	Yellowknife Ar	54.95	345	P	P	16 42 40.4	-3.6
YKA				PcP	PcP	16 43 43.0	-2.7
CMAR	Chiang Mai Arr	149.97	349	PKPbc	PKPbc	16 53 03.5	-1.2
	comp=Z,0.5nm,0.4s,baz=346,slow=2.3,SNR=6.1						

NEIC 10 16:39:11.7, 39°.22S×177°.71E, h29^{km}, ML4.1(WEL), After WEL., Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNZ	Kokohu	0.20	352	*e*P	Pb	16 39 16.8	-1.0
KNZ				S	Sb	16 39 21.4	-0.5
MWZ	Matawai	0.89	351	P	Pn	16 39 27.7	-0.6
MWZ				S	Sb	16 39 40.3	+0.1
BKZ	Black Stump Fm	0.95	273	P	Pn	16 39 29.0	0.0
URZ	Urewera	1.07	334	P	Pn	16 39 30.2	-0.5
PUZ	Puketiti	1.22	21	P	Pn	16 39 31.9	-0.9
TSZ	Takapari Road	1.59	238	P	Pn	16 39 37.4	-0.5
MXZ	Matakaoa Point	1.72	16	P	Pn	16 39 39.1	-0.5
BFZ	Birch Farm	1.84	217	P	Pn	16 39 40.1	-1.2
WAZ	Wanganui	2.17	255	P	Pn	16 39 47.5	+1.6
MRZ	Mangatainoka R	2.18	228	P	Pn	16 39 45.0	-1.0
VRZ	Vera Road	2.30	271	P	Pn	16 39 54.3	+6.7
HIZ	Hauiti	2.34	287	P	Pn	16 39 48.9	+0.8
MTW	Mount Morrison	2.57	220	P	Pn	16 39 49.3	-2.1
KIW	Kapiti Island	2.70	232	P	Pn	16 39 52.3	-0.9
CAW	Cannon Point	2.77	226	P	Pn	16 39 52.7	-1.3
PAWZ	Paruwai Farm	2.78	218	P	Pn	16 39 52.1	-2.1
MSWZ	Moikau Station	2.89	220	P	Pn	16 39 53.7	-2.0
WEL	Wellington	3.05	227	P	Pn	16 39 57.0	-1.0
MRW	Makara Radio	3.06	228	P	Pn	16 39 56.4	-1.6
SNZO	South Karori	3.11	227	P	Pn	16 39 56.7	-2.0
TCW	Tory Channel	3.30	232	P	Pn	16 39 59.6	-1.7
BSWZ	Blackbirch Sta	3.84	228	P	Pn	16 40 06.5	-2.3
NNZ	Nelson	3.87	238	P	Pn	16 40 08.4	-0.8
QRZ	Quartz Range	4.29	246	P	Pn	16 40 12.9	-2.1
THZ	Tophouse	4.46	234	P	Pn	16 40 14.8	-2.5
KHZ	Kahutara	4.50	223	P	Pn	16 40 14.8	-3.0
OUZ	Omahuta	5.17	319	*e*P	Pn	16 40 28.3	+1.3
LTZ	Lake Taylor	5.44	227	P	Pn	16 40 27.2	-3.6
MQZ	McQueen's Vall	5.88	219	P	Pn	16 40 33.4	-3.4
RPZ	Rata Peaks	6.72	226	P	Pn	16 40 45.5	-2.8
FOZ	Fox Glacier	7.43	232	P	Pn	16 40 53.7	-4.4
ODZ	Otahua Downs	7.84	220	P	Pn	16 41 01.0	-2.7
TUZ	Tuapeka	8.98	219	P	Pn	16 41 17.1	-2.3

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*BJI **10** 16:43:52.1, 17°.83N×146°.08E, h386^{km}, mB4.4/1, mb4.0/5*

*NEIC **10** 16:44:00.4±2.3, 18°.43N×145°.38E, h387^{km}±25^{km}, mb3.9/2, Error ellipse: s-maj=16.1km s-min=10.5km az=94.0*

*IDC **10** 16:44:00.5±3.9, 18°.45N×145°.40E, h388^{km}±42^{km}, mb3.2/11, mb1 3.3/12, mb1mx3.3/23, mbtmp3.2/12, Error ellipse: s-maj=22.4km s-min=14.2km az=89.0*

*ISCJB **10** 16:44:02.8±1.2, 18°.41N±0°.10×145°.3E±0°.2, h426^{km}±14^{km}, mb3.5/13, Error ellipse: s-maj=24.2km s-min=14.9km az=166.4*

ISC 10 16:44:02.3±1.2, 18°.45N±0°.09×145°.4E±0°.2, h405^{km}±14^{km}, n19, σ0^s.55/19, mb3.5/13, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	4.86	185	S	S	16 46 29.6	+0.7
	20nm,0.3s,baz=340,slow=22,SNR=8.1						
GUMO	Guam	4.86	185	*e*S	S	16 46 28.7	-0.2
MJAR	Matsushiro Arr	19.09	342	P	P	16 47 56.6	-1.2
	0.4nm,0.3s,baz=162,slow=9.5,SNR=15						
MAJO	Matsushiro	19.09	342	*e*P	P	16 47 57.6	-0.2
	3.3nm,0.5s						
NACB	Ninganchiao	22.83	289	P	P	16 48 32.4	+0.2
YULB	Yu-li	22.98	286	*e*P	P	16 48 33.5	-0.1
KSRS	Korea Array	24.32	325	P	P	16 48 45.8	+0.4
	1.1nm,0.7s,mb3.4,baz=146,slow=9.4,SNR=6.4						
WRA	Warramunga Arr	39.66	196	P	P	16 50 56.7	-0.5
	0.6nm,0.8s,mb3.0,baz=13,slow=8.7,SNR=5.6						
LZH	Lanzhou	40.51	304	*e*P	P	16 51 04.5	+0.5
LZH				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.2						
LZH				pmax	pmax		
	comp=Z,87nm,4.5s						
SONM	Songino Array	43.13	322	P	P	16 51 25.0	+0.4
	comp=Z,1.2nm,0.6s,mb3.4,baz=138,slow=7.2,SNR=9.7						
ASAR	Alice Springs	43.33	195	P	P	16 51 25.7	-0.8
	comp=Z,0.8nm,1.2s,mb2.9,baz=13,slow=6.6,SNR=5.0						
CMAR	Chiang Mai Arr	43.92	278	P	P	16 51 32.0	+0.6
	comp=Z,2.7nm,0.8s,mb3.6,baz=70,slow=6.6,SNR=24						
ZALV	Zalesovo Beam	58.01	323	P	P	16 53 14.1	-0.2
	comp=Z,0.3nm,0.3s,mb3.1,baz=97,slow=4.5,SNR=3.5						
MKAR	Makanchi Array	58.39	314	P	P	16 53 17.2	+0.2
	comp=Z,0.8nm,0.4s,mb3.4,baz=91,slow=7.8,SNR=27						
KURK	Kurchatov	61.23	318	P	P	16 53 36.1	+0.1
	comp=Z,5.3nm,0.6s,mb4.1,baz=97,slow=7.3,SNR=32						
BVAR	Borovoye Array	66.45	320	P	P	16 54 09.1	-0.5
	comp=Z,1.8nm,0.6s,mb3.9,baz=98,slow=7.5,SNR=18						
BRVK	Borovoye	66.51	321	*e*P	P	16 54 09.6	-0.4
	comp=Z,1.4nm,0.7s,mb3.7						
YKA	Yellowknife Ar	78.36	28	P	P	16 55 18.7	-0.1
	comp=Z,0.6nm,0.5s,mb3.5,baz=288,slow=5.0,SNR=14						
NVAR	Mina Array Bea	83.55	52	P	P	16 55 47.6	+1.2
	comp=Z,0.3nm,0.7s,mb3.2,baz=270,slow=5.3,SNR=5.6						

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*IDC **10** 16:49:33.0±2.6, 35°.24N×140°.57E, h0^{km}, mb3.6/4, mb1 3.7/6, mb1mx3.4/25, mbtmp3.6/6, ML3.4/2, Error ellipse: s-maj=75.3km s-min=19.2km az=63.0*

*NEIC **10** 16:49:33.9±2.4, 35°.28N×140°.69E, h10^{km}, mb4.1/1, Error ellipse: s-maj=80.0km s-min=12.7km az=56.0*

*ISCJB **10** 16:49:35.5±0.8, 35°.36N±0°.03×140°.50E±0°.07, h10^{km}, mb3.5/4, Error ellipse: s-maj=8.5km s-min=4.1km az=157.5*

*JMA **10** 16:49:38.6±0.1, 35°.25N×140°.35E, h14^{km}±2^{km}, M3.3*

JMA Felt II J1.

ISC 10 16:49:36.1±0.7, 35°.35N±0°.03×140°.50E±0°.07, h10^{km}, n17, σ1^s.11/23, mb3.5/4, 2C-1D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTR	Katsuura	0.25	217	P	Pg	16 49 41.6	+0.4
KTR				S	Sg	16 49 44.5	-0.1
JCN	Nagara	0.25	286	⇓P	Pg	16 49 44.1	+2.8
BSO4	Boso 4	0.38	200	P	Pg	16 49 44.3	+0.7
BSO4				S	Sg	16 49 48.9	+0.2
BSO3	Boso 3	0.54	179	P	Pg	16 49 47.8	+1.1
TATJ	Tateyama 2	0.59	238	⇑P	Pg	16 49 47.8	+0.2
BSO1	Boso 1	0.80	150	P	Pg	16 49 51.7	+0.2
BSO1				S	Sg	16 50 02.6	+0.7
JYT	Yasato	0.91	344	P	Pg	16 49 55.9	+2.2
JHU	Hanno	1.11	297	⇑P	Pg	16 49 56.9	-0.6
MJAR	Matsushiro Arr	2.21	303	Pn	Pn	16 50 12.8	-0.1
	3.7nm,0.3s,baz=102,slow=14,SNR=48						
MJAR				Sn	Sn	16 50 40.3	+0.1
	5.1nm,0.3s,baz=115,slow=14,SNR=8.3						
MAJO	Matsushiro	2.21	303	*e*Pn	Pn	16 50 13.3	+0.4
MAT	Matsushiro	2.21	303	P	Pn	16 50 13.1	+0.2
MAT				*e*S	Sn	16 50 39.7	-0.5
JHJ	Hachijo jima 2	2.30	195	Pn	Pn	16 50 11.3	-2.8
	86nm,0.3s,baz=57,slow=16,SNR=9.7						
JHJ				Sn	Sn	16 50 35.4	-7.1
	45nm,0.3s,baz=305,slow=16,SNR=3.6						
MKAR	Makanchi Array	44.41	303	P	P	16 57 46.2	-0.7
	0.2nm,0.6s,mb3.0,baz=81,slow=8.4,SNR=5.2						
KURK	Kurchatov	46.41	309	P	P	16 58 02.1	-0.5
	1.4nm,0.7s,mb4.0,baz=84,slow=7.6,SNR=7.2						
KURK	Kurchatov	46.41	309	*e*P	P	16 58 01.7	-1.0
	1.3nm,0.6s,mb4.0						
WRA	Warramunga Arr	55.29	187	P	P	16 59 06.9	-2.9
	0.6nm,0.7s,mb3.8,baz=3.1,slow=7.8,SNR=5.2						
ASAR	Alice Springs	59.02	187	P	P	16 59 34.2	-2.0
	0.3nm,0.8s,mb3.4,baz=1.7,slow=6.1,SNR=6.1						

IDC 10 16:50:24.8±5.0, 20°.23S×69°.03W, h0^{km}, mb3.9/2, mb1 4.1/2, mb1mx3.6/16, mbtmp3.9/2, Error ellipse: s-maj=231.5km s-min=58.2km az=18.0, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	77.04	71	P	P	17 02 20.3	+0.1
	0.2nm,0.4s,baz=243,slow=5.0,SNR=6.8						
YKA	Yellowknife Ar	89.96	341	P	P	17 03 25.4	-0.1
	0.7nm,0.7s,baz=134,slow=4.6,SNR=15						
MKAR	Makanchi Array	144.67	35	PKP	PKPdf	17 10 02.4	-1.1
	0.3nm,0.9s,baz=296,slow=3.9,SNR=3.6						
SONM	Songino Array	152.22	7	PKPbc	PKPbc	17 10 22.9	+0.5
	0.3nm,0.4s,baz=328,slow=2.0,SNR=5.0						

JMA 10 16:52:42.9±0.4, 43°.61N×147°.41E, h2^{km}±4^{km}, M3.8, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.24	259	P	Pg	16 53 06.5	-0.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2				*e*S	Sg	16 53 23.7	+1.1
JRA	Rausu	1.69	282	P	Pn	16 53 13.4	0.0
JNK	Nakash	1.96	270	P	Pn	16 53 17.4	+0.3
JAK	Akkeshi	2.07	254	P	Pn	16 53 18.9	+0.2
JTKR	Abashiri--Toko	2.56	279	P	Pn	16 53 26.9	+1.5
JAR	Ashorobuto	2.67	265	P	Pn	16 53 28.3	+1.4
JAR				*e*S	Sn	16 54 01.9	+2.1
JOB	Onbets	2.71	256	P	Pn	16 53 28.5	+1.1
JCH	Churui	3.13	253	P	Pn	16 53 34.2	+1.1
JCH				*e*S	Sn	16 54 12.3	+1.3
JEM	Erimo	3.51	244	P	Pn	16 53 41.2	+2.8
JFR	Furan	3.54	264	P	Pn	16 53 41.2	+2.4
JNBK	Urakawa-nobuka	3.67	250	P	Pn	16 53 42.2	+1.6

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*NEIC **10** 17:07:43.3, 17°.47N×68°.66W, h85km, MD3.6(RSPR), After RSPR.*

RSPR 10 17:07:43.3, 17°.47N×68°.66W, h85km±9km, MD3.6/6, MD3.6/6, 6C, Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRPR	Cabo Rojo, PR	1.57	70	⇑*e*P	Pn	17 08 09.1	-0.6
LSP	Las Mesas	1.66	65	⇑*e*P	Pn	17 08 10.6	-0.3
AGPR	Aguadilla, PR	1.78	56	⇑*e*P	Pn	17 08 11.8	-0.6
AOPR	Arecibo Observ	2.02	64	⇑*e*P	Pn	17 08 15.1	-0.5
AOPR				*e*S	Sn	17 08 40.0	-0.2
CELP	Cerrillos	2.07	73	⇑*e*P	Pn	17 08 16.1	-0.2
CELP				*e*S	Sn	17 08 41.1	-0.5
SJG	San Juan	2.48	75	⇑*e*P	Pn	17 08 21.2	-0.5
SJG				*e*S	Sn	17 08 51.1	0.0

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*IDC **10** 17:14:34.5±1.3, 7°.98S×158°.29E, h0km, mb3.8/5, mb1 3.9/6, mb1mx3.7/17, mbtmp3.8/6, ML3.9/1, MS3.4/1, Ms1 3.3/1, ms1mx2.4/25, Error ellipse: s-maj=29.6km s-min=22.4km az=51.0*

*ISCJB **10** 17:14:37.7±1.0, 8°.1S±0°.1×158°.27E±0°.09, h33km, mb3.8/7, Error ellipse: s-maj=23.0km s-min=7.2km az=27.6*

*NEIC **10** 17:14:38.9±1.1, 8°.16S×158°.42E, h35km, mb4.3/2, Error ellipse: s-maj=25.2km s-min=18.6km az=205.0*

ISC 10 17:14:38.5±3.2, **8°.1S**±0°.2×**158°.3E**±0°.1, **h28**km±22km, **n10**, σ**1ˢ.01**/12, **mb3.8**/7, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	2.08	130	Pn	Pn	17 15 10.8	-0.7
	33nm,0.3s,baz=270,slow=2.2,SNR=42						
HNR				Sn	Sb	17 15 41.3	+0.3
	69nm,0.3s,baz=194,slow=23,SNR=13						
HNR	Honiara	2.08	130	*e*Pn	Pn	17 15 09.6	-1.9
HNR				*e*Sn	Sn	17 15 36.8	+0.3
WRAB	Tennant Creek	26.03	241	*e*P	P	17 20 09.4	0.0
	25nm,1.5s,mb4.5						
WRA	Warramunga Arr	26.04	241	P	P	17 20 10.0	+0.4
	2.2nm,0.7s,mb3.8,baz=61,slow=9.2,SNR=23						
ASAR	Alice Springs	28.06	234	P	P	17 20 27.8	0.0
	0.5nm,0.7s,mb3.3,baz=63,slow=9.9,SNR=9.3						
STKA	Stephens Creek	28.33	211	P	P	17 20 31.1	+1.2
	0.9nm,0.5s,mb3.7,baz=33,slow=12,SNR=6.2						
STKA				LR	LR	17 30 59.6	
	comp=Z,70nm,18.3s,baz=332,slow=35						
NWAO	Narrogin (SRO)	45.31	231	*e*P	P	17 22 51.4	-2.7
	1.4nm,0.6s,mb4.0						
SONM	Songino Array	72.06	326	P	P	17 26 01.2	+1.2
	0.4nm,0.8s,mb3.4,baz=137,slow=5.5,SNR=2.6						
MKAR	Makanchi Array	86.42	318	P	P	17 27 17.8	-0.6
	0.5nm,0.6s,mb4.0,baz=102,slow=5.5,SNR=8.2						
MKAR	Makanchi Array	86.42	318	P	P	17 27 17.8	-0.6

PGC 10 17:31:04.3±1.6, **50°.40N**×**130°.08W**, **h10**km, **ML3.0**/9, **Mw3.6, 7D, 191km west of Pt. Hardy, Bc Vancouver Island Region, Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOLB	Holberg	1.27	78	⇑P	Pn	17 31 25.8	-2.2
BPBC	Brooks Peninsu	1.50	98	⇑Pn	Pn	17 31 28.6	-2.7
BPBC				⇑Sn	Sn	17 31 45.7	-5.1
PHC	Port Hardy	1.71	79	⇑Pn	Pn	17 31 32.4	-1.9
PHC				⇓Sn	Sn	17 31 52.7	-3.4
MAYB	Maynard	1.86	89	⇑Pn	Pn	17 31 34.2	-2.0
EDB	Eliza Dome	1.97	104	⇓Pn	Pn	17 31 35.5	-2.3
EDB				⇑Sn	Sn	17 31 58.1	-4.4
BBB	Bella Bella	2.17	34	⇓Pn	Pn	17 31 38.9	-1.6
BBB				⇓Sn	Sn	17 32 02.4	-5.0
WOSB	Woss	2.26	95	⇑Pn	Pn	17 31 40.3	-1.4
BNB	Barry Inlet	2.42	335	⇑Pn	Pn	17 31 41.1	-2.8
BNB				⇑Sn	Sn	17 32 08.7	-4.8
GDR	Gold River	2.68	102	⇓Pn	Pn	17 31 45.8	-1.7
MOBC	Moresby Island	2.99	338	⇓Pn	Pn	17 31 49.3	-2.4
MOBC				⇓Sn	Sn	17 32 23.6	-4.1

IDC 10 17:42:06.6±1.9, **6°.56N**×**122°.56E**, **h0**km, **mb3.6**/3, **mb1 3.8**/3, **mb1mx3.4**/21, **mbtmp3.6**/3, **Error ellipse: s-maj=219.3km s-min=24.3km az=63.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	28.77	156	P	P	17 48 05.9	-0.3
	0.7nm,0.3s,baz=335,slow=10,SNR=16						
ASAR	Alice Springs	32.01	160	P	P	17 48 35.3	+0.4
	0.3nm,0.3s,baz=340,slow=7.4,SNR=22						
MKAR	Makanchi Array	52.90	326	P	P	17 51 24.4	0.0
	0.2nm,0.4s,baz=117,slow=6.6,SNR=11						

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*IDC **10** 18:01:02.7±1.9, 6°.67S×131°.05E, h0km, mb3.5/3, mb1 4.2/6, mb1mx3.9/16, mbtmp3.9/6, ML4.4/3, Error ellipse: s-maj=73.7km s-min=24.7km az=79.0*

*ISCJB **10** 18:01:06.2±1.0, 6°.92S±0°.09×130°.5E±0°.2, h33km, mb3.7/4, Error ellipse: s-maj=29.8km s-min=7.1km az=157.0*

*NEIC **10** 18:01:08.5±0.8, 6°.85S×130°.53E, h35km, mb4.3/3, Error ellipse: s-maj=23.1km s-min=8.4km az=70.0*

ISC 10 18:01:08.6±0.9, **6°.85S**±0°.09×**130°.5E**±0°.2, **h35**km, **n12**, σ**0ˢ.95**/18, **mb3.7**/4, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.13	162	*e*Pn	Pn	18 02 40.8	+4.1
	146nm,0.5s						
KAKA				*e*Sn	Sn	18 03 45.4	-0.3
FITZ	Fitzroy Crossi	12.15	203	Pn	Pn	18 04 00.5	+1.2
	2.2nm,0.3s,baz=38,slow=11,SNR=37						
FITZ				Sn	Sn	18 06 05.5	-8.1
	2.7nm,0.3s,baz=221,slow=19,SNR=12						
FITZ	Fitzroy Crossi	12.15	203	*e*Pn	Pn	18 03 58.6	-0.7
	4.9nm,0.3s						
FITZ				*e*Sn	Sn	18 06 05.2	-8.4
WRAB	Tennant Creek	13.53	164	*e*Pn	Pn	18 04 17.5	-0.6
	10nm,0.6s						
WRAB				*e*Sn	Sn	18 06 39.6	-7.7
WRA	Warramunga Arr	13.54	164	Pn	Pn	18 04 17.7	-0.6
	1.9nm,0.3s,baz=354,slow=11,SNR=93						
WRA				Sn	Sn	18 06 40.2	-7.3
	1.9nm,0.3s,baz=332,slow=21,SNR=8.6						
ASAR	Alice Springs	17.04	169	P	Pn	18 05 04.8	+0.6
	1.6nm,0.3s,baz=14,slow=13,SNR=80						
ASAR				S	S	18 08 06.7	-15
	0.5nm,0.3s,baz=336,slow=15,SNR=7.0						
MBWA	Marble Bar	17.64	215	P	Pn	18 05 12.9	+1.2
	2.0nm,0.4s						
KKM	Kota Kinabalu	19.17	312	P	Pn	18 05 27.9	-2.5
	24nm,1.2s						
KULM	Kulim	32.15	291	P	P	18 07 33.3	+0.1
	12nm,1.0s,mb4.7						
CMAR	Chiang Mai Arr	40.02	309	P	P	18 08 41.1	+0.6
	0.5nm,0.8s,mb3.3,baz=138,slow=6.9,SNR=4.3						
SONM	Songino Array	58.46	341	P	P	18 11 01.7	+0.8
	0.1nm,0.4s,mb3.2,baz=159,slow=7.3,SNR=5.1						
MKAR	Makanchi Array	68.38	327	P	P	18 12 07.0	+0.4
	0.4nm,0.5s,mb3.7,baz=116,slow=8.1,SNR=11						

IDC 10 18:09:07.9±12.0, **22°.43S**×**179°.55E**, **h467**km±122km, **mb3.3**/4, **mb1 3.4**/5, **mb1mx3.1**/18, **mbtmp3.3**/5, **Error ellipse: s-maj=115.6km s-min=40.8km az=28.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	15.92	187	P	P	18 12 28.0	-0.2
	1.0nm,0.3s,baz=347,slow=11,SNR=5.2						
CTA	Charters Tower	31.08	268	P	P	18 14 48.1	+1.4
	3.1nm,0.4s,baz=102,slow=12,SNR=11						
STKA	Stephens Creek	34.91	246	P	P	18 15 19.3	+0.1
	0.5nm,0.3s,baz=84,slow=12,SNR=4.9						
ASAR	Alice Springs	41.88	259	P	P	18 16 15.8	-0.5
	0.7nm,0.3s,baz=85,slow=8.6,SNR=12						
WRA	Warramunga Arr	42.11	265	P	P	18 16 17.2	-0.9
	1.7nm,0.2s,baz=96,slow=8.2,SNR=87						
MMAI	Mount Meron Ar	146.70	296	PKPbc	PKPbc	18 27 56.6	-0.4
	1.1nm,0.5s,baz=72,slow=4.7,SNR=3.6						

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*IDC **10** 18:09:25.7±0.9, 14°.86N×104°.99W, h0km, mb4.3/10, mb1 4.5/11, mb1mx4.3/19, mbtmp4.3/11, ML3.7/1, MS4.4/16, Ms1 4.4/16, ms1mx4.3/24, Error ellipse: s-maj=29.5km s-min=18.7km az=64.0*

*ISCJB **10** 18:09:30.7±0.4, 15°.69N±0°.05×104°.26W±0°.03, h10km, mb4.6/41, MS4.5/17, Error ellipse: s-maj=7.0km s-min=3.2km az=13.0*

*MOS **10** 18:09:31.0±1.9, 15°.25N×104°.20W, h33km, mb4.9/17, Error ellipse: s-maj=13.8km s-min=6.0km az=91.2*

*GCMT **10** 18:09:32.5±0.4, 15°.27N×104°.63W, h15km±1km, MW5.2/76, Moment Tensor Solution. s22,c29; s76,c119; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.00±.23; $M_{\theta\theta}$2.09±.19; $M_{\phi\phi}$-1.08±.22; $M_{r\theta}$0.89±.60; $M_{\theta\phi}$-4.93±.17; $M_{\phi r}$4.20±.89; Best double couple: $M_0$6.72400×10^{16} NP1:ϕ_s266.00000°,δ54.00000°,λ-167.00000°. NP2: ϕ_s169.00000°,δ79.00000°,λ-37.00000°. Principal axes: T 6.2120, Plg17.0000°, Azm222.0000°; N 1.0340, Plg52.0000°, Azm335.0000°; P -7.2360, Plg33.0000°, Azm121.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **10** 18:09:32.5, 15°.65N×104°.36W, h33km, mb4.8/42, MD4.7(MEX), After MEX.*

*BJI **10** 18:09:32.2, 15°.82N×104°.13W, h31km, mB5.6/6, Ms5.4/5, Ms7 4.9/6*

*MEX **10** 18:09:36.1±3.0, 15°.87N×104°.21W, h11km±33km, MD4.6*

ISC 10 18:09:31.9±0.5, **15°.60N**±0°.05×**104°.33W**±0°.03, **h10**km, **n317**, σ**1ˢ.22**/316, **mb4.6**/42, **MS4.5**/17, **62C-87D, Off coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMIG	Aquila	2.83	19	*i* P	Pn	18 10 14.4	-2.8
MMIG				*i* S	Sn	18 10 44.4	-7.0
R15V		3.56	5	*e*P	Pn	18 10 25.2	-2.1
R15V				*i* S	Sn	18 11 03.4	-6.1
EZ5V		3.92	10	*e*P	Pn	18 10 30.2	-1.9
EZ5V				*i* S	Sn	18 11 13.6	-4.6
CAIG	El Cayaco	4.16	69	*i* P	Pn	18 10 32.1	-3.3
CAIG				*i* S	Sn	18 11 18.4	-5.7
CAIG	El Cayaco	4.16	69	*i* P	Pn	18 10 30.7	-4.7
MOIG	Morelia	5.04	36	*i* P	Pn	18 10 45.4	-2.1
MOIG				*i* S	Sn	18 11 40.4	-5.5
MOIG	Morelia	5.04	36	*i* P	Pn	18 10 44.4	-3.2
MOIG				*i* S	Sn	18 11 41.4	-4.5
MEIG	Mezcala	5.07	62	*i* P	Pn	18 10 46.9	-1.1
MEIG				*i* S	Sn	18 11 42.1	-4.5
PLIG	Platanillo	5.39	58	*i* P	Pn	18 10 51.1	-1.3
PLIG				*i* S	Sn	18 11 49.0	-5.4
PLIG	Platanillo	5.39	58	*i* P	Pn	18 10 51.1	-1.3
PLIG				*i* S	Sn	18 11 50.0	-4.4
ANIG	Ahuacatlan	5.43	358	*i* P	Pn	18 10 50.8	-2.1
ANIG				*i* S	Sn	18 11 48.8	-6.6
SZVM	Salazar	6.00	51	*i* P	Pn	18 10 59.3	-1.4
SZVM				*i* S	Sn	18 12 04.6	-4.9
PNIG	Pinotepa	6.01	82	*e*P	Pn	18 11 01.3	+0.3
PNIG				*i* S	Sn	18 12 06.0	-3.9
PNIG	Pinotepa	6.01	82	*e*P	Pn	18 10 58.3	-2.7
PNIG				*i* S	Sn	18 12 06.0	-3.9
MZVM		6.04	53	*e*P	Pn	18 11 00.5	-0.8
PTVM	Pico Tres Padr	6.36	51	*e*P	Pn	18 11 08.7	+3.0
PPM	Popocatepetl	6.44	57	*i* P	Pn	18 11 06.1	-0.7
PPM				*i* S	Sn	18 12 16.6	-3.9
PPM	Popocatepetl	6.44	57	*i* P	Pn	18 11 04.1	-2.7
PPM				*i* S	Sn	18 12 15.6	-4.9
H06S		7.06	297	*i* P	Pn	18 11 11.1	-4.2
H06S				*i* S	Sn	18 12 33.5	-2.2
TPIG	Tehuac#an	7.23	66	*i* P	Pn	18 11 20.4	+2.8
ZAIG	Zacatecas	7.32	13	*e*P	Pn	18 11 19.4	+0.5
ZAIG				*i* S	Sn	18 12 40.8	-1.3
VHO	Vista Hermosa	7.44	78	*e*P	Pn	18 11 21.6	+1.1
VHO				*i* S	Sn	18 12 43.3	-1.6
VHO	Vista Hermosa	7.44	78	*i* P	Pn	18 11 15.6	-4.9
VHO				*i* S	Sn	18 12 41.3	-3.6
HUIG	Huatulco	7.92	88	*e*P	Pn	18 11 28.9	+1.8
HUIG				*i* S	Sn	18 12 56.1	-0.7
HUIG	Huatulco	7.92	88	*i* P	Px	18 11 37.7	
LVIG	Laguna Verde	8.58	60	*i* P	Pn	18 11 33.0	-3.2
LVIG				*i* S	Sn	18 13 12.2	-0.9
CMIG	Matias Romero	9.19	79	Pn	Pn	18 11 48.0	+3.4
	0.1nm,0.3s,baz=272,slow=4.9,SNR=3.9						
CMIG	Matias Romero	9.19	79	Pn	Pn	18 11 48.0	+3.4
LPIG	La Paz	10.15	327	Pn	Pn	18 11 59.9	+2.1
	6.6nm,0.3s,baz=238,slow=5.0,SNR=8.1						
LPIG				LR	LR	18 14 56.3	
	comp=Z,3μm,21.8s,baz=149,slow=32						
LNIG	Linares	10.31	25	*i* P	Pn	18 12 01.0	+1.0
PCIG		10.70	88	*i* P	Pn	18 12 06.9	+1.6
TGIG		10.83	82	*e*P	Pn	18 12 09.2	+2.1
HPIG		11.35	354	*e*P	Pn	18 12 13.1	-1.0
HPIG				*i* S	Sn	18 14 14.8	-6.1
CCIG	Comitan	11.75	85	*i* P	Pn	18 12 20.7	+1.1
KVTX	Kingsville	13.30	26	*e*Pn	Px	18 12 51.3	
TXAR	Lajitas Array	13.68	2	Pn	Pn	18 12 49.9	+3.9
	0.1nm,0.3s,baz=181,slow=12,SNR=32						
HSIG		14.69	337	*i* P	Pn	18 13 01.1	+1.4
CGIG		15.07	348	*i* P	Pn	18 13 08.2	+3.2
JCT	Junction City	15.38	15	*e*P	Pn	18 13 12.3	+3.3
TEIG	Tepich	15.95	71	Pn	Pn	18 13 21.0	+4.5
	0.3nm,0.3s,baz=301,slow=16,SNR=4.2						
TEIG				LR	LR	18 19 50.4	
	comp=Z,1μm,21.1s,baz=264,slow=37						
HKT	Hockley	16.28	27	*e*P	Pn	18 13 20.4	-0.2
HKT				pmax	pmax		
	comp=Z,80nm,1.8s						
HKT	Hockley	16.28	27	*e*Pn	Pn	18 13 20.4	-0.3
	comp=Z,80nm,1.8s						
319A	Douglas	16.34	345	⇑P	Pn	18 13 23.1	+1.7
	baz=17,SNR=12						
GDL2	Guadalupe Moun	16.52	360	*e*Pn	Pn	18 13 27.0	+3.2
TGUH	Tegucigalpa,Un	16.56	93	*e*Pn	Pn	18 13 25.0	+0.6
	comp=Z,75nm,1.2s						
318A	Bisbee	16.59	343	⇑P	Pn	18 13 27.3	+2.6
	baz=17,SNR=22						
219A	White Tail Can	16.93	345	⇑P	Pn	18 13 31.3	+2.3
	baz=17,SNR=24						
218A	Dragoon	17.11	343	⇓P	Pn	18 13 33.7	+2.5
	baz=17,SNR=8.2						
217A	Green Valley	17.15	341	⇓P	Pn	18 13 34.4	+2.6
	baz=18,SNR=15						
120A	U Bar Ranch, L	17.32	348	⇓P	Pn	18 13 36.1	+2.4
	baz=18						
216A	Three Points,	17.57	340	⇑P	Pn	18 13 39.2	+2.3
	baz=18						
TUC	Tucson	17.64	342	*e*P	Pn	18 13 39.8	+2.0
TUC				pmax	pmax		
	comp=Z,20nm,1.2s						
TUC	Tucson	17.64	342	*e*Pn	Pn	18 13 39.8	+2.0
	comp=Z,20nm,1.2s						
119A	Ashpeak Ranch,	17.68	346	⇑P	Pn	18 13 40.0	+1.8
	baz=18,SNR=17						
118A	Homack Ranch,	17.72	344	⇑P	Pn	18 13 41.1	+2.3
	baz=18,SNR=26						
117A	Oracle	17.87	342	⇓P	Pn	18 13 42.1	+1.5
	baz=18,SNR=9.3						
214A	Organ Pipe Nat	18.02	336	⇑P	Pn	18 13 43.9	+1.4
	baz=18,SNR=13						
Z18A	Geronimo	18.16	344	⇓P	Pn	18 13 45.6	+1.5
	baz=18						
Z19A	T-Link Ranch,	18.17	347	⇓P	Pn	18 13 45.9	+1.6
	baz=18						
NATX	Nacogdoches	18.34	27	*e*Pn	Pn	18 13 47.9	+1.4
	comp=Z,62nm,1.1s						
115A	Sonoran Desert	18.47	339	⇓P	Pn	18 13 48.3	+0.3
	baz=19						
Z17A	San Carlos Hig	18.48	344	⇓P	Pn	18 13 48.9	+0.8
	baz=19						
LENM	Lemitar	18.64	353	*e*Pn	Pn	18 13 55.7	+5.6
LPM	Los Pinos Moun	18.75	354	*e*Pn	Pn	18 13 55.9	+4.6
Y19A	Nutrioso	18.81	347	⇑P	Pn	18 13 52.7	+0.5
	baz=19,SNR=30						
Y17A	Roosevelt	18.95	343	⇓P	Pn	18 13 54.3	+0.5
	baz=19,SNR=26						
113A	Mohawk Valley,	19.12	335	⇑P	Pn	18 13 55.3	-0.6
	baz=19,SNR=14						
Y16A	Circle Bar Ran	19.31	342	⇑P	Pn	18 13 57.0	-1.2
	baz=20,SNR=9.0						
AMTX	Amarillo	19.35	7	*e*Pn	Pn	18 13 58.5	-0.1
	comp=Z,24nm,0.9s						
ANMO	Albuquerque	19.36	355	*e*P	Pn	18 14 01.4	+2.6
ANMO				pmax	pmax		
	comp=Z,56nm,1.6s						
ANMO	Albuquerque	19.36	355	P	Pn	18 13 59.5	+0.7
	comp=Z,5.2nm,1.1s,baz=167,slow=12,SNR=12						
ANMO				LR	LR	18 22 25.5	
	comp=Z,605nm,19.3s,baz=184,slow=39						
ANMO	Albuquerque	19.36	355	*e*Pn	Pn	18 14 01.4	+2.6
	comp=Z,56nm,1.6s						
X18A	Snowflake	19.52	346	⇓P	Pn	18 14 00.1	-0.5
	baz=20,SNR=8.7						
X17A	Forest Lakes	19.55	344	⇓P	Pn	18 13 59.0	-2.0
	baz=20,SNR=5.7						
Y15A	Casa Rosa Ranc	19.65	340	⇑P	Pn	18 14 01.6	-0.6
	baz=20,SNR=21						
WMOK	Wichita Mounta	19.70	14	*e*P	Pn	18 14 02.0	-0.8
WMOK				pmax	pmax		
	comp=Z,16nm,0.8s						
WMOK	Wichita Mounta	19.70	14	*e*P	Pn	18 14 02.0	-0.8
	comp=Z,16nm,0.8s						
W20A	Ramah	19.80	350	⇓P	Pn	18 14 03.1	-0.9
	baz=20,SNR=14						
X16A	Lo Mia Camp, P	19.80	342	⇓P	Pn	18 14 03.6	-0.5
	baz=20,SNR=13						
GLA	Glamis	19.81	333	*e*P	Pn	18 14 03.3	-0.8
GLA				pmax	pmax		
	comp=Z,68nm,1.4s						
GLA	Glamis	19.81	333	⇓P	Pn	18 14 02.3	-1.8
	baz=20						
GLA	Glamis	19.81	333	*e*Pn	Pn	18 14 03.3	-0.8
	comp=Z,68nm,1.4s						
Y14A	Wickenburg	19.87	338	⇑P	Pn	18 14 03.5	-1.3
	baz=20,SNR=12						
DVTC	Desert V Tower	20.07	330	⇓P	P	18 14 05.9	+0.5
	baz=20						
X15A	Humboldt	20.11	341	⇓P	P	18 14 06.3	+0.5
	baz=20,SNR=32						
SWSC	Sam W. Stewart	20.15	331	⇑P	P	18 14 06.1	-0.2
	baz=20,SNR=11						
X14A	Yava	20.31	339	⇑P	P	18 14 08.5	+0.5
	baz=21,SNR=13						
BAR	Barrett	20.36	329	*e*P	P	18 14 09.7	+1.0
	comp=Z,87nm,1.8s						
MONP	Monument Peak	20.41	330	⇓P	P	18 14 08.9	-0.2
	baz=21,SNR=13						
W16A	Flagstaff	20.46	343	⇓P	P	18 14 10.3	+0.6
	baz=21,SNR=13						
BC3	Big Chuckw Mtn	20.60	333	⇑P	P	18 14 11.0	-0.1
	baz=21,SNR=23						
PDMCI	Parker Dam,Lak	20.61	336	⇓P	P	18 14 09.8	-1.5
	baz=21						
109C	Camp Elliot, M	20.75	328	⇑P	P	18 14 11.5	-1.3
	baz=21						
X13A	Yucca	20.75	337	⇓P	P	18 14 12.7	-0.2
	baz=21,SNR=20						
W15A	Williams	20.75	341	⇑P	P	18 14 13.2	+0.3
	baz=21,SNR=7.5						
VBMS	Vicksburg	20.77	35	*e*P	P	18 14 14.5	+1.4
	comp=Z,138nm,1.4s						
WUAZ	Wupatki	20.81	344	⇓P	P	18 14 13.9	+0.4
	baz=21,SNR=35						
WUAZ	Wupatki	20.81	344	*e*P	P	18 14 15.1	+1.6
	comp=Z,73nm,1.2s						
IRM	Iron Mountain	20.90	334	⇓P	P	18 14 13.9	-0.5
	baz=21,SNR=26						
PFO	Pinyon Flat Ob	21.01	331	*e*P	P	18 14 15.8	+0.1
PFO				pmax	pmax		
	comp=Z,66nm,1.4s,mb4.8						
PFO	Pinyon Flat Ob	21.01	331	⇑P	P	18 14 15.2	-0.5
	baz=21,SNR=21						
PFO	Pinyon Flat Ob	21.01	331	*e*P	P	18 14 15.8	+0.1
	comp=Z,66nm,1.4s,mb4.8						
W14A	Seligman	21.05	340	⇓P	P	18 14 16.1	0.0
	baz=21,SNR=24						
BELC	Belle Mtn.	21.13	332	⇑P	P	18 14 16.4	-0.5
	baz=21,SNR=12						
MIAR	Mount Ida	21.20	25	*e*P	P	18 14 18.7	+1.0
MIAR				pmax	pmax		
	comp=Z,49nm,1.1s,mb4.8						
MIAR	Mount Ida	21.20	25	*e*P	P	18 14 18.7	+1.0
	comp=Z,49nm,1.1s,mb4.8						
W13A	Hualapai Mount	21.23	338	⇑P	P	18 14 18.4	+0.4
	baz=22,SNR=22						
PAYG	Puerto Ayora	21.31	138	*e*P	P	18 14 09.7	-9.3
	comp=Z,66nm,1.3s,mb4.8						
U18A	Rough Rock, Ch	21.31	348	⇑P	P	18 14 18.8	0.0
	baz=22,SNR=11						
V15A	Kaibab Nationa	21.32	342	⇑P	P	18 14 20.4	+1.4
	baz=22,SNR=16						
U16A	Tuba City	21.34	345	⇑P	P	18 14 19.0	-0.1
	baz=22,SNR=6.0						
MURC	Murrieta	21.37	329	⇓P	P	18 14 18.6	-0.8
	baz=22,SNR=16						
V14A	Boquillas Ranc	21.44	340	⇓P	P	18 14 20.8	+0.5
	baz=22,SNR=22						
T22A	Edith	21.45	354	⇓P	P	18 14 20.9	+0.6
	baz=22,SNR=20						
T19A	Beclabito	21.55	350	⇓P	P	18 14 21.7	+0.3
	baz=22						
GMRC	Granite Mounta	21.64	334	⇓P	P	18 14 23.0	+0.5
	baz=22,SNR=19						
LDFC	Landfair	21.67	335	*e*P	P	18 14 24.1	+1.3
W12A	Cal Nev Ari	21.77	336	⇓P	P	18 14 24.6	+0.8
	baz=22						
CIS	Catalina Islan	21.83	327	⇓P	P	18 14 24.1	-0.3
	baz=22						
MVCO	Mesa Verde	21.84	351	*e*P	P	18 14 31.2	+6.7
UALR	University of	21.92	27	*e*P	P	18 14 27.1	+1.7
	comp=Z,202nm,1.9s,mb5.2						
V13A	Grand Canyon W	21.94	339	⇑P	P	18 14 25.2	-0.4
	baz=22,SNR=16						
HEC	Hector,Ludlow	21.98	333	⇑P	P	18 14 26.5	+0.5
	baz=22						
T18A	Mexican Hat	22.01	348	⇑P	P	18 14 26.9	+0.6
	baz=22,SNR=7.2						
BRAL	Brewton	22.02	43	*e*P	P	18 14 29.4	+2.9
T17A	Navajo Res., N	22.07	346	⇓P	P	18 14 27.7	+0.7
	baz=22						
SDCO	Great Sand Dun	22.08	358	*e*P	P	18 14 28.4	+1.3
	comp=Z,20nm,1.1s,mb4.5						
V12A	Nelson	22.14	337	⇑P	P	18 14 27.9	+0.1
	baz=22,SNR=18						
U14A	Mt Trumbull	22.18	341	⇑P	P	18 14 28.5	+0.3
	baz=22,SNR=32						
T16A	Glen Canyon Da	22.23	345	⇓P	P	18 14 29.5	+0.8
	baz=23						
MWC	Mount Wilson	22.29	329	*e*P	P	18 14 30.4	+1.0
MWC				pmax	pmax		
	comp=Z,32nm,1.1s,mb4.7						
MWC	Mount Wilson	22.29	329	*e*P	P	18 14 30.4	+1.0
	comp=Z,32nm,1.1s,mb4.7						
U13A	Pakoon Wash	22.44	339	⇓P	P	18 14 30.9	0.0
	baz=23,SNR=26						
S19A	Harvey Farm, M	22.46	350	⇑P	P	18 14 31.0	-0.2
	baz=23,SNR=8.5						
V11A	Goodsprings	22.46	336	⇓P	P	18 14 31.6	+0.4
	baz=23,SNR=12						
T15A	Red Dirt Ranch	22.50	343	⇓P	P	18 14 31.9	+0.4
	baz=23,SNR=26						
S18A	Hurst Farm, Bl	22.57	348	⇓P	P	18 14 32.2	0.0
	baz=23						
S17A	Black Ridge (B	22.68	347	⇑P	P	18 14 33.8	+0.3
	baz=23,SNR=7.6						
T14A	Hurricane	22.75	342	⇑P	P	18 14 34.8	+0.6
	baz=23,SNR=12						
R20A	Redvale	22.78	352	⇓P	P	18 14 35.1	+0.5
	baz=23						
EDW2	Edwards Air Fo	22.78	330	P	P	18 14 34.1	-0.5
	baz=23,SNR=16						
SHPR	Sheep Range	22.95	337	*e*P	P	18 14 36.8	+0.4
S16A	Weppner Ranch,	22.95	345	⇓P	P	18 14 36.4	0.0
	baz=23,SNR=14						
T13A	Saint George	22.97	340	⇓P	P	18 14 36.5	0.0
	baz=23,SNR=9.6						

R19A	Curley Farm, L	23.02	350	⇑P	P	18 14 36.9	-0.2
	baz=23						
R18A	Canyonlands Na	23.22	349	⇑P	P	18 14 39.7	+0.5
	baz=24,SNR=15						
Q22A	Crested Butte,	23.28	355	⇓P	P	18 14 39.2	-0.6
	baz=24						
U10A	Ash Meadows, A	23.33	335	⇓P	P	18 14 40.0	-0.4
	baz=24						
LRAL	Lakeview Retre	23.41	39	*e*P	P	18 14 42.0	+0.9
	comp=Z,58nm,0.9s,mb5.0						
R17A	Hanksville Air	23.41	347	⇓P	P	18 14 39.9	-1.3
	baz=24						
R16A	Teasdale	23.46	346	⇓P	P	18 14 39.2	-2.5
	baz=24						
S13A	Holt Ranch, En	23.46	341	⇓P	P	18 14 38.9	-2.9
	baz=24						
MPMC	Manual Prospec	23.52	332	⇑P	P	18 14 39.8	-2.5
	baz=24,SNR=14						
T11A	Corn Creek, Al	23.62	338	⇑P	P	18 14 42.1	-1.2
	baz=24,SNR=9.2						
ISA	Isabella	23.65	330	*e*P	P	18 14 42.8	-0.8
ISA				pmax	pmax		
	comp=Z,197nm,2.7s,mb5.1						
ISA	Isabella	23.65	330	⇓P	P	18 14 42.8	-0.8
	baz=24,SNR=12						
ISA	Isabella	23.65	330	*e*P	P	18 14 42.8	-0.7
	comp=Z,197nm,2.7s,mb5.1						
MSU	Marysvale	23.85	345	*e*P	P	18 14 47.3	+2.0
P21A	Newcastle	23.99	354	⇓P	P	18 14 46.9	+0.2
	baz=24,SNR=8.1						
SRU	San Rafael	24.04	348	*e*P	P	18 14 49.3	+2.2
SRU				pmax	pmax		
	comp=Z,202nm,2.9s,mb5.0						
SRU	San Rafael	24.04	348	⇓P	P	18 14 46.9	-0.2
	baz=24						
SRU	San Rafael	24.04	348	*e*P	P	18 14 49.3	+2.2
	comp=Z,202nm,2.9s,mb5.0						
R13A	O'Grain Ranch,	24.05	341	⇑P	P	18 14 47.2	0.0
	baz=24,SNR=22						
P20A	De Beque	24.07	352	⇓P	P	18 14 47.3	-0.1
	baz=24,SNR=5.9						
VES	Vestal, Richgr	24.09	330	⇓P	P	18 14 46.4	-1.1
	baz=24						
CWC	Cottonwood Cre	24.10	332	⇓P	P	18 14 47.3	-0.3
	baz=24						
SMMC	Simmler	24.13	327	⇓P	P	18 14 47.2	-0.8
	baz=24						
ISCO	Idaho Springs	24.13	358	*e*P	P	18 14 49.6	+1.6
ISCO				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.3						
ISCO	Idaho Springs	24.13	358	*e*P	P	18 14 49.6	+1.7
	comp=Z,14nm,1.2s,mb4.3						
PLAL	Pickwick Lake	24.19	34	*e*P	P	18 14 48.8	+0.2
GRAC	Grapevine Rang	24.26	334	⇑P	P	18 14 48.7	-0.4
	baz=24						
P19A	Cripple Cowboy	24.29	351	⇓P	P	18 14 48.7	-0.7
	baz=25						
TMUT	Trail Mountain	24.36	347	*e*P	P	18 14 54.2	+4.1
	comp=Z,256nm,2.8s,mb5.2						
KSU1	Kansas State U	24.37	15	*e*P	P	18 14 45.8	-4.3
	comp=Z,18nm,0.9s,mb4.5						
R12A	Pony Springs,	24.39	340	⇑P	P	18 14 49.5	-0.8
	baz=25,SNR=14						
P17A	Butcher Ranch,	24.44	348	⇑P	P	18 14 50.0	-0.8
	baz=25						
P18A	Preston Nutter	24.49	349	⇑P	P	18 14 50.2	-1.0
	baz=25						
Q14A	Sevier Lake (B	24.59	343	⇓P	P	18 14 51.8	-0.3
	baz=25,SNR=26						
PARMO	Parma	24.66	29	*e*P	P	18 14 59.8	+7.0
TIN	Tinemaha	24.68	333	⇓P	P	18 14 52.8	-0.2
	baz=25						
O20A	White River Ci	24.68	353	⇓P	P	18 14 52.6	-0.3
	baz=25,SNR=6.2						
S10A	Tonopah Range,	24.74	336	⇓P	P	18 14 52.6	-0.9
	baz=25,SNR=20						
R11A	Troy Canyon, C	24.74	338	⇓P	P	18 14 52.7	-0.8
	baz=25,SNR=15						
Q13A	Wheeler Ranch,	24.77	342	⇓P	P	18 14 53.1	-0.7
	baz=25,SNR=16						
S09A	Goldfield	24.81	335	⇑P	P	18 14 53.0	-1.2
	baz=25,SNR=17						
R10A	Warm Springs	24.94	337	⇑P	P	18 14 55.0	-0.4
	baz=25,SNR=6.3						
MTUM	Tungsten Hills	25.07	332	*e*P	P	18 14 57.8	+1.3
P14A	Drum Mountains	25.09	344	⇓P	P	18 14 55.9	-0.8
	baz=25,SNR=10						
Q12A	Willow Creek R	25.11	340	⇓P	P	18 14 55.7	-1.1
	baz=25						
TPH	Tonopah	25.11	335	*e*P	P	18 14 55.1	-1.8
TPH				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.6						
TPH	Tonopah	25.11	335	*e*P	P	18 14 55.1	-1.8
	comp=Z,27nm,1.4s,mb4.6						
MPU	Maple Canyon	25.15	347	*e*P	P	18 14 59.4	+2.2
	comp=Z,27nm,1.3s,mb4.6						
CCM	Cathedral Cave	25.17	25	*e*P	P	18 14 58.6	+1.1
CCM				pmax	pmax		
	comp=Z,51nm,1.6s,mb4.8						
CCM	Cathedral Cave	25.17	25	*e*P	P	18 14 58.6	+1.2
	comp=Z,51nm,1.6s,mb4.8						
N22A	Wattenberg Ran	25.18	356	⇓P	P	18 14 56.7	-0.8
	baz=26						
WVT	Waverly	25.19	33	*e*P	P	18 14 57.8	+0.2
WVT				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.7						
WVT	Waverly	25.19	33	*e*P	P	18 14 57.8	+0.1
	comp=Z,28nm,1.1s,mb4.7						
R09A	Tonopah	25.20	336	⇓P	P	18 14 56.5	-1.2
	baz=26,SNR=19						
Q11A	Duckwater	25.20	339	⇑P	P	18 14 56.7	-1.0
	baz=26,SNR=18						
P13A	Bates Ranch, G	25.23	342	⇓P	P	18 14 57.0	-1.0
	baz=26						
OGNE	Ogallala	25.33	4	*e*P	P	18 15 01.2	+2.4
MLAC	Mammoth Lakes	25.42	332	⇑P	P	18 15 00.1	+0.4
	baz=26						
DAU	Daniels Canyon	25.45	348	*e*P	P	18 15 02.8	+2.9
FVM	French Village	25.45	26	*e*P	P	18 15 01.5	+1.5
FVM				pmax	pmax		
	comp=Z,42nm,1.5s,mb4.8						
FVM	French Village	25.45	26	*e*P	P	18 15 01.5	+1.5
	comp=Z,42nm,1.5s,mb4.7						
Q10A	Clear Creek Ra	25.45	338	⇓P	P	18 14 59.0	-1.0
	baz=26,SNR=13						
P12A	McGill	25.52	341	⇓P	P	18 15 00.7	0.0
	baz=26,SNR=5.8						
SWET	Sewanee	25.56	37	*e*P	P	18 15 02.9	+1.9
DUG	Dugway	25.60	345	⇑P	P	18 15 00.9	-0.4
	baz=26						
NVAR	Mina Array Bea	25.86	334	P	P	18 15 03.4	-0.3
	comp=Z,4.9nm,1.1s,mb4.0,baz=149,slow=8.6,SNR=13						
NVAR				PcP	PcP	18 18 34.3	+1.5
	comp=Z,0.6nm,0.8s,baz=146,slow=1.8,SNR=4.0						
NVAR	Mina Array Bea	25.86	334	P	P	18 15 03.4	-0.3
NVAR				PcP	PcP	18 18 34.3	+1.5
P11A	Circle Ranch,	25.87	339	⇑P	P	18 15 02.2	-1.6
	baz=26						
GOGA	Godfrey	25.89	43	*e*P	P	18 15 04.3	+0.3
Q08A	Gabbs	26.07	335	⇓P	P	18 15 06.0	+0.4
	baz=26						
P10A	Eureka	26.18	338	⇑P	P	18 15 06.4	-0.1
	baz=26						
O12A	Currie	26.20	342	⇑P	P	18 15 04.4	-2.4
	baz=26						
O11A	Cowboy Ranch,	26.36	340	⇓P	P	18 15 08.8	+0.6
	baz=27						
O11A				⇑P	pP	18 15 13.2	+1.9
	baz=27						
WAKR	Walker	26.41	333	*e*P	P	18 15 08.7	0.0
R06C	Coleville	26.43	333	⇓P	P	18 15 07.9	-1.0
	baz=27						
L20A	Wamsutter	26.54	353	⇓P	P	18 15 14.6	+4.8
	baz=27,SNR=6.8						
SPUT	South Promonto	26.56	346	*e*P	P	18 15 18.5	+8.5
USIN	University of	26.70	30	*e*P	P	18 15 18.3	+7.0
	comp=Z,57nm,1.0s,mb5.1						
M15A	Larsen Ranch,	26.71	346	⇓P	P	18 15 16.4	+5.0
	baz=27						
O09A	Fish Creek Ran	26.93	338	⇓P	P	18 15 12.6	-0.7
	baz=27						
L16A	Fish Haven	27.02	348	⇑P	P	18 15 19.5	+5.4
	baz=27						
TKL	Tuckaleechee C	27.14	39	P	P	18 15 20.7	+5.4
	comp=Z,21nm,1.1s,mb4.6,baz=207,slow=13,SNR=6.0						
TKL				LR	LR	18 28 53.1	
	comp=Z,621nm,20.6s,MS4.2,baz=256,slow=42						
TKL	Tuckaleechee C	27.14	39	P	P	18 15 20.7	+5.4
TKL				LR	LR	18 28 53.1	
BMN	Battle Mountai	27.17	338	*e*P	P	18 15 15.4	-0.1
WCN	Washoe City	27.21	333	⇓P	P	18 15 16.6	+0.7
	baz=28						
PAHR	Pah Rah Range	27.39	334	*e*P	P	18 15 18.1	+0.6
O08A	Rochester Mine	27.39	337	⇓P	P	18 15 14.8	-2.6
	baz=28,SNR=15						
L14A	Malta	27.44	345	⇑P	P	18 15 18.8	+0.9
	baz=28,SNR=6.1						
PDAR	Pinedale Array	27.44	352	P	P	18 15 19.9	+2.0
	comp=Z,5.1nm,1.1s,mb4.0,baz=168,slow=7.6,SNR=5.5						
O07A	Toulon	27.56	335	⇑P	P	18 15 19.4	+0.4
	baz=28						
WCI	Wyandotte Cave	27.58	32	*e*P	P	18 15 25.0	+5.8
N08A	GE Springer Mi	27.81	337	⇑P	P	18 15 20.3	-0.9
	baz=28,SNR=5.3						
TZTN	Tazewell	27.87	38	*e*P	P	18 15 28.4	+6.5
	comp=Z,28nm,1.1s,mb4.8						
K14A	Jones Ranch, D	27.91	346	⇑P	P	18 15 23.0	+1.0
	baz=28						
M09A	Marrel Ranch,	28.12	339	⇓P	P	18 15 24.4	+0.4
	baz=28						
REDW	Red Top Meadow	28.22	350	*e*P	P	18 15 30.8	+5.9
	comp=Z,33nm,1.4s,mb4.8						
LOHW	Long Hollow	28.43	350	*e*P	P	18 15 32.0	+5.3
	comp=Z,30nm,1.5s,mb4.7						
RSSD	Black Hills	28.43	0	*e*P	P	18 15 29.6	+2.9
RSSD				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.0						
RSSD	Black Hills	28.43	0	*e*P	P	18 15 29.6	+2.9
	comp=Z,3.9nm,1.1s,mb4.0						
N06A	Buffalo Meadow	28.45	335	⇑P	P	18 15 26.4	-0.5
	baz=29						
M08A	Happy Creek Ra	28.48	337	⇑P	P	18 15 26.5	-0.7
	baz=29,SNR=6.4						
MOOW	Moose Ponds	28.58	350	*e*P	P	18 15 33.0	+5.0
J12A	Stokes Ranch,	29.05	344	⇑P	P	18 15 32.2	-0.1
	baz=29						
L08A	Fields	29.11	338	⇑P	P	18 15 31.8	-1.0
	baz=29						
K10A	MacKenzie Ranc	29.14	341	⇓P	P	18 15 32.2	-0.9
	baz=30						
L07A	Adell	29.33	337	⇓P	P	18 15 33.5	-1.2
	baz=30						
K09A	Rome	29.35	340	P	P	18 15 34.0	-1.0
	baz=30,SNR=20						
WVOR	Wild Horse Val	29.43	338	*e*P	P	18 15 34.9	-0.8
WVOR				pmax	pmax		
	comp=Z,24nm,1.5s,mb4.7						
WVOR	Wild Horse Val	29.43	338	*e*P	P	18 15 34.9	-0.7
	comp=Z,24nm,1.5s,mb4.7						
MOD	Modoc	29.61	335	*e*P	P	18 15 36.2	-1.0
	comp=Z,18nm,1.4s,mb4.6						
OTAV	Otavalo	29.76	118	*e*P	P	18 15 35.6	-3.3
	comp=Z,34nm,2.0s,mb4.7						
J09A	Fry Pan Ranch,	29.94	340	⇑P	P	18 15 40.6	+0.5
	baz=30,SNR=5.3						
DLMT	Dillon	30.48	348	*e*P	P	18 15 51.0	+6.2
YBH	Yreka Blue Hor	30.49	332	LR	LR	18 27 16.9	
	comp=Z,694nm,20.3s,MS4.3,baz=151,slow=35						
H10A	Noah's Angus R	30.75	343	⇓P	P	18 15 46.0	-1.3
	baz=31,SNR=19						
ACSO	Alum Creek Sta	30.79	33	*e*P	P	18 15 47.2	-0.4
LRM	Limekiln Ridge	30.89	349	*e*P	P	18 15 54.0	+5.5
F15A	Butte	30.92	349	⇓P	P	18 15 48.1	-0.6
	baz=31						
E18A	Harlowton	31.22	353	⇓P	P	18 15 50.2	-1.2
	baz=32,SNR=6.0						
F13A	Darby	31.25	346	⇓P	P	18 15 48.2	-3.4
	baz=32						
E17A	Martinsdale	31.25	351	⇓P	P	18 15 52.3	+0.6
	baz=32,SNR=5.3						
ROSC	El Rosal	31.34	107	P	P	18 15 53.3	+0.4
	comp=Z,3.0nm,0.4s,mb4.5,baz=98,slow=18,SNR=6.4						
ROSC				LR	LR	18 26 01.2	
	comp=Z,200nm,21.1s,MS3.8,baz=208,slow=31						
F12A	Elk City	31.43	345	⇓P	P	18 15 51.5	-1.8
	baz=32						
HRY	Holter Researc	31.64	350	*e*P	P	18 16 00.2	+5.1
D17A	Six Diamond Ra	31.90	352	⇓P	P	18 15 57.2	-0.2
	baz=32,SNR=6.7						
MSO	Missoula	32.15	348	*e*P	P	18 16 01.4	+1.8
C17A	Wharram Farm,	32.38	352	⇓P	P	18 16 00.7	-0.8
	baz=33,SNR=8.4						
EGMT	Eagleton	32.64	353	⇑P	P	18 16 02.2	-1.6
	baz=33,SNR=5.9						
EGMT	Eagleton	32.64	353	*e*P	P	18 16 03.8	-0.1
DGMT	Dagmar	32.78	0	*e*P	P	18 16 06.5	+1.4
	comp=Z,32nm,1.1s,mb5.2						
B18A	Beardsley Farm	33.01	353	⇓P	P	18 16 06.5	-0.6
	baz=33,SNR=8.4						
B17A	L&G Farms, Che	33.03	352	⇑P	P	18 16 06.4	-0.9
	baz=33,SNR=7.9						
F06A	Goldendale	33.09	339	⇓P	P	18 16 07.2	-0.6
	baz=33,SNR=6.7						
AGMN	Agassiz Refuge	33.34	10	*e*P	P	18 16 09.3	-0.7
	comp=Z,12nm,0.6s,mb5.0						
SDV	Santo Domingo	33.57	97	*e*P	P	18 16 11.2	-1.1
	comp=Z,17nm,0.8s,mb5.0						
SSPA	Standing Stone	33.90	37	*e*P	P	18 16 16.3	+1.3
	comp=Z,48nm,1.4s,mb5.2						
LON	Longmire	34.30	338	*e*P	P	18 16 22.7	+4.3
ULM	Lac du Bonnet	35.23	9	P	P	18 16 27.6	+1.3
	comp=Z,2.3nm,0.6s,mb4.3,baz=236,slow=8.4,SNR=3.1						
ULM				LR	LR	18 31 48.9	
	comp=Z,716nm,18.1s,MS4.5,baz=61,slow=37						
CELP	Cerrillos	36.17	81	*e*P	P	18 16 39.0	+4.2
EDM	Edmonton	38.20	351	*e*P	P	18 16 55.2	+3.6
FFC	Flin Flon	39.08	2	*e*P	P	18 16 57.2	-1.8
FFC				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
FFC	Flin Flon	39.08	2	*e*P	P	18 16 57.2	-1.8
	comp=Z,8.5nm,0.9s,mb4.5						
TAOE	Nuku Hiva Isla	43.01	238	*e*LR	LR	18 28 58.5	
	comp=Z,4µm,25.6s						
TAOE				*e*T		19 02 23.5	
	comp=Z,174nm,0.2s						
YKA	Yellowknife Ar	47.39	354	P	P	18 18 03.5	-2.5
YKA						18 19 33.2	
YKA	Yellowknife Ar	47.39	354	P	P	18 18 03.5	-2.5
	comp=Z,0.6nm,0.7s,mb3.6,baz=168,slow=7.4,SNR=8.1						
YKA				PcP	PcP	18 19 33.2	-3.3
	comp=Z,0.5nm,1.0s,baz=156,slow=3.1,SNR=2.4						
YKA				LR	LR	18 37 19.9	
	comp=Z,602nm,20.2s,MS4.6,baz=130,slow=35						
YKA	Yellowknife Ar	47.39	354	P	P	18 18 03.5	-2.5
YKA				PcP	PcP	18 19 33.2	-3.3
YKA				LR	LR	18 37 19.9	
SCHQ	Schefferville	48.67	28	P	P	18 18 17.9	+1.9
	comp=Z,8.6nm,1.0s,mb4.7,baz=280,slow=4.0,SNR=7.2						
SCHQ				LR	LR	18 39 51.7	
	comp=Z,548nm,20.9s,MS4.5,baz=66,slow=37						
LVC	Limon Verde	51.43	137	P	P	18 18 32.6	-4.9
	comp=Z,4.2nm,0.9s,mb4.4,baz=317,slow=7.3,SNR=3.6						
PMOR	Pomariorio Ree	52.70	237	*e*T		19 14 56.2	
	comp=Z,6.9nm,0.2s						
PPT	Papeete	55.46	235	*e*LR	LR	18 34 46.2	
	comp=Z,1µm,25.2s						
PPT	Papeete	55.46	235	LR	LR	18 35 24.5	
	comp=Z,695nm,18.7s,MS4.8,baz=312,slow=29						
CPUP	Villa Florida	61.84	132	P	P	18 19 45.6	-5.9
	comp=Z,1.5nm,0.7s,mb4.2,baz=312,slow=7.4,SNR=4.2						
CPUP				LR	LR	18 45 59.0	
	comp=Z,255nm,19.1s,MS4.4,baz=306,slow=36						
PLCA	Paso Flores	64.22	152	LR	LR	18 41 57.8	
	comp=Z,316nm,18.1s,MS4.5,baz=346,slow=31						
BILL	Bilibino	75.44	337	⇓*e*P	P	18 21 16.0	+0.3
BILL				*e*		18 24 06.4	
BILL				*e*S	S	18 30 57.2	+1.6
BILL				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
BILL	Bilibino	75.44	337	*e*P	P	18 21 15.5	-0.2
	comp=Z,13nm,1.3s,mb4.7						
SEY	Seymchan	82.17	333	*e*P	P	18 21 50.7	-2.1
PETK	Petropavlovsk-	82.38	323	LR	LR	18 50 13.0	
	comp=Z,148nm,19.7s,MS4.4,baz=263,slow=30						
EKA	Eskdalemuir Ar	83.53	34	P	P	18 22 01.4	+1.4
	comp=Z,1.7nm,0.9s,mb4.2,baz=303,slow=4.6,SNR=4.5						
TIXI	Tiksi	85.95	345	*e*P	P	18 22 11.5	-0.4
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.8s,mb4.7						
ARCES	ARCESS Array B	88.10	16	LR	LR	19 07 10.2	
	comp=Z,413nm,18.8s,MS4.9,baz=260,slow=39						
NOA	NORSAR Array B	88.21	26	LR	LR	19 02 22.0	
	comp=Z,308nm,20.9s,MS4.7,baz=270,slow=36						
GERES	GERESS Array B	95.65	36	LR	LR	19 03 40.0	
	comp=Z,210nm,21.2s,MS4.6,baz=322,slow=34						
HHC	Hu-ho-hao-te	114.71	331	*e*PKP	PKiKP	18 28 10.8	-2.1
HHC				sPKP		18 28 25.1	
HHC				PP	PP	18 29 14.0	+4.4
HHC				PKS		18 31 45.8	
HHC				SKS	SKSdf	18 35 18.6	-6.8
HHC				SKKS	SKKSac	18 36 02.5	-10
HHC				SS	SS	18 45 03.5	+0.2
HHC				AMB	AMB		
	comp=Z,150nm,5.1s						
HHC				LR	LR		
	comp=N,260nm,13.1s,MS5.2						
HHC				LR	LR		
	comp=E,340nm,15.5s,MS5.2						
HHC				LR	LR		
	comp=Z,220nm,14.3s,MS4.9						
NJ2	Nanjing	117.10	319	*e*PKP	PKPdf	18 28 15.1	-2.7
WMQ	Urumqi	119.85	350	*e*PKP	PKPdf	18 28 20.7	-2.0
WMQ				sPKP		18 28 35.0	
WMQ				*e*PP	PP	18 29 50.0	+5.0
WMQ				PKS		18 31 56.0	
WMQ				AMB	AMB		
	comp=Z,310nm,6.0s						
WMQ				LR	LR		
	comp=N,350nm,23.0s,MS5.1						
WMQ				LR	LR		
	comp=E,360nm,23.0s,MS5.1						
WMQ				LR	LR		
	comp=Z,360nm,20.2s,MS5.0						
WRA	Warramunga Arr	124.20	256	PKP	PKPdf	18 28 26.5	-5.2
	comp=Z,2.2nm,0.8s,baz=78,slow=2.2,SNR=4.9						
ASAR	Alice Springs	124.88	252	PKP	PKPdf	18 28 27.1	-5.8
	comp=Z,1.3nm,0.8s,baz=92,slow=1.1,SNR=3.4						
CD2	Chengdu	126.45	330	PKP	PKPdf	18 28 33.0	-2.8
GYA	Guiyang	128.47	324	Pdif	Pdif	18 25 21.4	-2.4
GYA				PKP	PKPdf	18 28 38.0	-1.8
GYA				sPKP		18 28 51.7	
GYA				PP	PP	18 30 47.9	+4.3
GYA				PKS		18 32 12.8	
GYA				SKKS	SKKSac	18 37 35.9	-6.5
GYA				SS	SS	18 47 55.8	-3.7
GYA				AMB	AMB		
	comp=Z,110nm,6.8s						
GYA				LR	LR		
	comp=N,190nm,18.9s,MS4.9						
GYA				LR	LR		
	comp=E,120nm,18.8s,MS4.9						
GYA				LR	LR		
	comp=Z,170nm,18.5s,MS4.8						
KMI	Kunming	131.68	326	PKP	PKPdf	18 28 43.8	-2.1
KMI				sPKP		18 28 59.4	
KMI				LR	LR		
	comp=Z,64nm,24.3s,MS4.2						
CMAR	Chiang Mai Arr	139.13	325	PKP	PKPdf	18 28 56.6	-3.3
	comp=Z,0.3nm,0.3s,baz=349,slow=2.8,SNR=4.4						
PSI	Prapat	150.61	307	⇑*e*P	PKPdf	18 29 17.6	-2.2
PSI	Prapat	150.61	307	PKPbc	PKPdf	18 29 19.1	-0.7
	comp=Z,19nm,0.9s,baz=304,slow=3.8,SNR=6.8						

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*ISCJB **10** 18:18:21.7±0.8, 27°.2S±0°.2×73°.3E±0°.2, h10^{km}, mb4.1/9, MS4.1/3, Error ellipse: s-maj=25.0km s-min=16.4km az=34.0*

*NEIC **10** 18:18:23.5±0.8, 27°.25S×73°.18E, h10^{km}, mb4.5/4, Error ellipse: s-maj=25.6km s-min=16.2km az=35.0*

*IDC **10** 18:18:26.5±5.1, 26°.77S×73°.93E, h0^{km}, mb3.8/5, mb1 4.1/5, mb1mx3.7/20, mbtmp3.8/5, MS4.0/3, Ms1 4.0/3, ms1mx3.3/27, Error ellipse: s-maj=142.0km s-min=32.8km az=53.0*

ISC 10 18:18:23.5±0.8**, 27°.3S**±0°.2×**73°.2E**±0°.2**, h10**^{km}**, n14, σ1^{s}06**/11**, mb4.1**/9**, MS4.1**/3**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABPO	Ambohimpanom	25.20	283	*e*P	P	18 23 50.2	+0.7
	8.8nm,1.0s,mb4.2						
MSEY	Mahe Island	28.10	320	*e*P	P	18 24 13.5	-2.1
	19nm,0.9s,mb4.7						
CASY	Casey	45.34	160	*e*P	P	18 26 41.1	-0.4
	9.4nm,1.0s,mb4.6						
CMAR	Chiang Mai Arr	51.85	32	P	P	18 27 31.0	-1.1
	0.5nm,0.6s,mb3.6,baz=211,slow=7.8,SNR=6.6						
ASAR	Alice Springs	54.48	101	P	P	18 27 52.5	+0.9
	2.6nm,0.6s,mb4.3,baz=253,slow=6.5,SNR=46						
WRA	Warramunga Arr	56.05	97	P	P	18 28 02.6	-0.3
	1.5nm,0.5s,mb4.3,baz=252,slow=7.6,SNR=18						
WRAB	Tennant Creek	56.06	97	*e*P	P	18 28 02.3	-0.8
	1.4nm,0.6s,mb4.2						
MK31	Makanchi Array	74.16	6	P	P	18 30 00.4	+0.4
MKAR	Makanchi Array	74.16	6	P	P	18 30 00.6	+0.6
	0.3nm,0.6s,mb3.4,baz=189,slow=6.9,SNR=3.9						
GUMO	Guam	80.46	69	LR	LR	19 00 42.7	
	comp=Z,68nm,21.1s,MS4.0,baz=245,slow=32						
SONM	Songino Array	80.49	22	P	P	18 30 37.3	+1.9
	0.3nm,0.7s,mb3.4,baz=183,slow=6.8,SNR=2.4						
SONM	Songino Array	80.49	22	P	P	18 30 37.3	+1.9
KSRS	Korea Array	82.35	41	LR	LR	19 05 07.6	
	comp=Z,121nm,18.1s,MS4.3,baz=226,slow=34						
AKASG	Malin Array Be	86.79	334	LR	LR	19 08 03.5	
	comp=Z,82nm,19.7s,MS4.1,baz=310,slow=34						

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*IDC **10** 18:29:32.0±1.3, 62°.63N×150°.87W, h0^{km}, mb3.2/2, mb1 3.4/4, mb1mx3.2/23, mbtmp3.2/4, ML3.3/1, MS4.2/1, Ms1 4.2/1, ms1mx3.3/15, Error ellipse: s-maj=28.3km s-min=18.6km az=106.0*

*NEIC **10** 18:29:34.8, 62°.25N×148°.24W, h29^{km}, ML3.1(AEIC), ML3.3(PMR), After AEIC.*

ISC 10 18:29:34.3±0.7**, 62°.25N**±0°.03×**148°.27W**±0°.08**, h33**^{km}±6^{km}**, n34, σ0^{s}82**/36**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SML	Sawmill	0.45	184	P	Pb	18 29 43.6	-0.4
SML				S	Sb	18 29 51.9	+1.3
GHO	Glory Hole Cre	0.57	213	P	Pb	18 29 45.2	-0.8
PMR	Palmer	0.78	212	*e*P	Pn	18 29 47.7	-1.1
KNK	Knik Glacier	0.85	186	P	Pn	18 29 49.1	-0.7
RC01	Rabbit Creek A	1.36	212	P	Pn	18 29 56.7	-0.1
RC01				S	Sn	18 30 15.1	+1.4
FIB	Fire Island	1.42	221	P	Pn	18 29 58.4	+0.8
FIB				S	Sn	18 30 16.8	+1.7
PAX	Paxson	1.48	60	P	Pn	18 29 58.6	0.0
PAX				S	Sn	18 30 17.7	+0.9
MCK	McKinley	1.52	349	P	Pn	18 29 59.3	+0.3
TRF	Thorofare Moun	1.52	323	P	Pn	18 29 59.0	-0.1
SKT	Skwentna	1.56	261	P	Pn	18 29 59.5	-0.1
KTH	Kantishna Hill	1.78	318	P	Pn	18 30 02.9	+0.2
PPLA	Purkeypile	1.93	291	P	Pn	18 30 05.2	+0.5
SLKM	Skilak Lake	1.98	209	P	Pn	18 30 05.9	+0.4
EYAK	Cordova Ski Ar	2.10	143	P	Pn	18 30 06.8	-0.2
MENT	Mentasta	2.22	70	*e*Pn	Pn	18 30 07.2	-1.4
BPAW	Bear Paw Mtn.	2.23	328	P	Pn	18 30 08.5	-0.2
SEW	Seward	2.23	195	P	Pn	18 30 09.5	+0.7
DOT	Dot Lake	2.38	52	P	Pn	18 30 11.3	+0.4
CHUM	Lake Minchumin	2.46	313	*e*Pn	Pn	18 30 11.3	-0.7
IL1	Eielson Array	2.61	13	P	Pn	18 30 13.8	-0.2
COLA	College	2.64	4	P	Pn	18 30 14.1	-0.3
BCA3	Beaver Creek A	3.10	72	P	Pn	18 30 21.2	+0.4
TT01	Tatalina	3.65	284	P	Pn	18 30 28.3	+0.1
SVW2	Sparrevohn	3.67	255	*e*P	Pn	18 30 28.2	-0.4
EGAK	Eagle	4.07	48	*e*Pn	Pn	18 30 33.7	-0.4
DAWY	Dawson	4.42	62	P	Pn	18 30 39.1	+0.2
IM3	Indian Mountai	4.45	330	P	Pn	18 30 39.5	+0.2
KDAK	Kodiak Island	4.98	208	Pn	Pn	18 30 44.5	-2.0
	1.3nm,0.3s,baz=40,slow=11,SNR=23						
KDAK				Sn	Sn	18 31 40.0	-2.8
	2.1nm,0.3s,baz=132,slow=23,SNR=9.1						
COLD	Coldfoot	5.07	351	P	Pn	18 30 48.2	+0.5
BM3	Burnt Mountain	5.42	15	P	Pn	18 30 53.0	+0.4
YKA	Yellowknife Ar	15.52	74	Pn	pP	18 33 23.7	+0.8
	baz=282,slow=10.0,SNR=3.1						
TXAR	Lajitas Array	43.81	118	P	pP	18 37 49.5	+3.1
	0.2nm,0.5s,baz=348,slow=6.9,SNR=4.0						
MJAR	Matsushiro Arr	50.89	276	LR	LR	18 58 58.7	
	comp=Z,251nm,18.7s,baz=50,slow=36						
MKAR	Makanchi Array	64.04	324	P	P	18 39 59.8	-4.3
	0.1nm,0.4s,baz=41,slow=5.9,SNR=7.2						

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*ISCJB **10** 18:32:31.3±0.6, 6°.51S±0°.05×129°.8E±0°.1, h33^{km}, mb3.9/7, Error ellipse: s-maj=19.4km s-min=6.9km az=171.4*

*NEIC **10** 18:32:34.0±0.6,6°.64S×129°.49E,h35^{km},mb4.3/2,Error ellipse: s-maj=33.9km s-min=9.6km az=77.0*

*IDC **10** 18:32:41.9±6.6,6°.80S×129°.12E,h107^{km}±68^{km},mb3.4/5,mb1 3.5/7,mb1mx3.4/16,mbtmp3.4/7,ML3.8/2,MS3.1/2,Ms1 3.1/2,ms1mx2.6/27,Error ellipse: s-maj=54.9km s-min=21.9km az=69.0*

ISC 10 18:32:33.6±0.6,6°.48S±0°.05×129°.9E±0°.1,h35^{km},n16,σ1^s.20/19,mb3.9/7,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	12.28	199	P	Pn	18 35 26.6	+0.5
	0.4nm,0.3s,baz=197,slow=23,SNR=6.0						
FITZ				S	Sn	18 37 42.1	+0.4
	0.3nm,0.3s,baz=128,slow=19,SNR=2.1						
FITZ				LR	LR	18 40 19.8	
	comp=Z,51nm,21.5s,baz=222,slow=39						
FITZ	**Fitzroy Crossi**	12.28	199	*e*Pn	Pn	18 35 23.4	-2.6
	14nm,1.0s						
FITZ				*e*Sn	Sn	18 37 43.3	+1.5
WRAB	**Tennant Creek**	14.06	162	*e*Pn	Pn	18 35 50.9	+0.5
	5.3nm,0.7s						
WRA	**Warramunga Arr**	14.06	163	P	Pn	18 35 48.8	-1.7
	0.3nm,0.3s,baz=339,slow=13,SNR=20						
WRA				S	Sn	18 38 25.5	+0.1
	0.3nm,0.3s,baz=335,slow=22,SNR=4.9						
WB2	**Warramunga Arr**	14.07	162	*e*Pn	Pn	18 35 49.0	-1.5
ASAR	**Alice Springs**	17.52	168	P	Pn	18 36 36.1	+0.9
	0.3nm,0.3s,baz=337,slow=9.8,SNR=24						
ASAR				S	S	18 39 52.3	-4.1
	0.1nm,0.3s,baz=355,slow=26,SNR=5.1						
CTA	**Charters Tower**	20.86	132	LR	LR	18 45 52.1	
	comp=Z,98nm,18.2s,baz=231,slow=37						
STKA	**Stephens Creek**	27.54	158	P	P	18 38 18.9	+1.8
	0.7nm,0.5s,mb3.5,baz=336,slow=13,SNR=3.5						
MAJO	**Matsushiro**	43.49	10	*e*P	P	18 40 34.5	+0.9
	6.1nm,0.9s,mb4.3						
MJAR	**Matsushiro Arr**	43.49	10	P	P	18 40 38.3	+4.7
	1.6nm,0.9s,mb3.8,baz=191,slow=9.4,SNR=4.7						
SONM	**Songino Array**	57.91	342	P	P	18 42 23.4	+1.3
	0.5nm,0.8s,mb3.6,baz=163,slow=5.4,SNR=3.1						
MK31	**Makanchi Array**	67.73	327	*e*P	P	18 43 26.6	-1.0
MKAR	**Makanchi Array**	67.73	327	P	P	18 43 26.7	-0.8
	0.8nm,0.6s,mb4.0,baz=132,slow=7.8,SNR=12						
ZALV	**Zalesovo Beam**	71.07	334	P	P	18 43 48.7	+0.7
	0.8nm,0.6s,mb3.8,baz=108,slow=4.7,SNR=3.6						
ZALV	**Zalesovo Beam**	71.07	334	P	P	18 43 48.7	+0.7
KURK	**Kurchatov**	72.02	329	*e*P	P	18 43 52.5	-1.4
	3.7nm,1.0s,mb4.3						

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*NIED **10** 18:46:00,36°.00N×139°.60E,h56^{km},Mw3.9 Best double couple: M$_0$7.00000×10^{14} NP1:φ$_s$241.00000°,δ66.00000°,λ87.00000°. NP2:φ$_s$69.00000°,δ24.00000°,λ96.00000°.*

*ISCJB **10** 18:46:08.5±0.5,35°.94N±0°.03×139°.63E±0°.08,h67^{km}±4^{km},mb3.5/7,Error ellipse: s-maj=10.3km s-min=4.9km az=168.5*

*IDC **10** 18:46:09.8±1.5,35°.90N×139°.52E,h64^{km}±13^{km},mb3.4/6,mb1 3.6/8,mb1mx3.4/23,mbtmp3.5/8,Error ellipse: s-maj=26.1km s-min=7.3km az=64.0*

*NEIC **10** 18:46:10.0,35°.99N×139°.62E,h54^{km},MG3.7(JMA),After JMA.*

*JMA **10** 18:46:10.0±0.1,35°.99N×139°.62E,h54^{km}±1^{km},M3.7 Broadband fault plane solution: P waves. NP1: φ$_s$79.00000°,δ31.00000°,λ100.00000°. NP2: φ$_s$248.00000°,δ59.00000°,λ84.00000°. Principal axes: T Plg75.0000°, Azm142.0000°; N Plg5.0000°, Azm251.0000°; P Plg14.0000°, Azm342.0000°;*

JMA Felt I J1.

ISC 10 18:46:09.6±0.5,35°.94N±0°.03×139°.62E±0°.07,h60^{km}±4^{km},n21,σ0^s.83/32,mb3.5/7,3C-3D,Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TOK	**Tokyo**	0.27	156	⇓P	Pn	18 46 20.7	+1.2
JHU	**Hanno**	0.29	253	⇑P	Pn	18 46 19.7	+0.1
JHU				S	Sn	18 46 26.9	+0.1
JAG	**Ashikaga**	0.51	344	⇑P	Pn	18 46 21.2	-0.4
JAG				S	Sn	18 46 29.4	-0.9
JRY	**Ryogami san**	0.59	278	⇑P	Pn	18 46 22.7	+0.2
JRY				S	Sn	18 46 32.4	+0.5
JOD2	**Odawara 2**	0.80	213	⇓P	Pn	18 46 25.0	0.0
JOD2				S	Sn	18 46 36.2	-0.2
JKT	**Katashina**	0.88	340	P	Pn	18 46 25.8	-0.2
JKT				S	Sn	18 46 37.5	-0.7
JYN	**Shimob**	0.98	244	P	Pn	18 46 27.9	+0.6
JIM2	**Oshima 3**	1.23	187	P	Pn	18 46 30.0	-0.6
JIM2				S	Sn	18 46 45.5	-0.8
MJAR	**Matsushiro Arr**	1.29	298	P	Pn	18 46 29.9	-1.5
	47nm,0.3s,baz=110,slow=8.0,SNR=447						
MJAR				S	Sn	18 46 46.5	-1.3
	50nm,0.3s,baz=136,slow=53,SNR=16						
MAJO	**Matsushiro**	1.29	298	*e*Pn	Pn	18 46 31.6	+0.1
MAJO				*e*Sn	Sn	18 46 49.4	+1.6
MAT	**Matsushiro**	1.29	298	P	Pn	18 46 31.9	+0.4
MAT				S	Sn	18 46 48.5	+0.7
JHK	**Hiroka**	1.40	340	⇓P	Pn	18 46 32.8	0.0
JHK				S	Sn	18 46 50.8	+0.5
JHJ	**Hachijo jima 2**	2.81	177	P	Pn	18 46 52.5	+0.3
	137nm,0.3s,baz=251,slow=23,SNR=22						
JHJ				S	Sn	18 47 24.9	0.0
	127nm,0.3s,baz=245,slow=23,SNR=7.4						
ASAJ	**Asahikawa**	8.48	15	P	Pn	18 48 09.8	+0.2
	0.5nm,0.3s,baz=218,slow=19,SNR=6.6						
SONM	**Songino Array**	27.23	306	P	P	18 51 50.5	+2.8
	0.3nm,0.7s,mb3.0,baz=105,slow=9.7,SNR=3.3						
ZALV	**Zalesovo Beam**	41.60	313	P	P	18 53 50.9	-0.5
	0.4nm,0.3s,mb3.5,baz=119,slow=8.4,SNR=3.3						
MKAR	**Makanchi Array**	43.49	303	P	P	18 54 05.3	-1.5
	0.3nm,0.7s,mb3.1,baz=82,slow=11,SNR=4.5						
WRA	**Warramunga Arr**	55.80	186	P	P	18 55 40.1	-0.4
	1.3nm,0.4s,mb4.3,baz=0.9,slow=7.6,SNR=47						
ASAR	**Alice Springs**	59.52	186	P	P	18 56 06.7	0.0
	0.6nm,0.6s,mb3.8,baz=21,slow=10,SNR=17						
NOA	**NORSAR Array B**	74.63	337	P	P	18 57 41.3	-0.7
	0.5nm,0.7s,mb3.5,baz=41,slow=5.9,SNR=3.4						
NVAR	**Mina Array Bea**	76.80	52	P	P	18 57 56.5	+1.7
	0.2nm,0.5s,mb3.3,baz=312,slow=5.4,SNR=2.6						

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*ISCJB **10** 19:06:48.3±1.7,37°.32N±0°.05×28°.10E±0°.07,h24^{km}±15^{km},Error ellipse: s-maj=10.7km s-min=7.9km az=144.0*

*CSEM **10** 19:06:48.2±0.9,37°.28N×28°.05E,h25^{km}±9^{km},MD2.5,Error ellipse: s-maj=12.2km s-min=10.3km az=62.0*

*ISK **10** 19:06:49.3,37°.17N×27°.99E,h12^{km},MD2.5*

ISC 10 19:06:48.3±1.5,37°.32N±0°.05×28°.09E±0°.07,h24^{km}±14^{km},n12,σ0^s.92/18,1C,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	**Yerkesik**	0.24	141	*e*PG	Pb	19 06 54.7	+0.4
YER				*e*SG	Sb	19 06 58.7	+0.2
YER	**Yerkesik**	0.24	141	*e*Pg	Pb	19 06 54.7	+0.4
YER				*e*Sg	Sb	19 06 58.7	+0.3
MLSB	**Milas**	0.25	264	*e*PG	Pb	19 06 54.4	-0.2
MLSB				*e*SG	Sb	19 06 58.0	-0.8
MLSB	**Milas**	0.25	264	*e*Pg	Pb	19 06 54.4	-0.1
MLSB				*e*Sg	Sb	19 06 58.0	-0.8
AYDN	**Tasoluk**	0.38	333	⇑*i*P	Pb	19 06 56.9	+0.5
AYDN	**Tasoluk**	0.38	333	*i* P	Pb	19 06 56.9	+0.5
AYDN				*i* S	Sb	19 07 01.9	-0.1
BDRM	**Kayabasi**	0.58	244	*e*P	Pb	19 07 00.4	+0.6
BDRM	**Kayabasi**	0.58	244	*e*P	Pb	19 07 00.4	+0.7
BDRM				*i* S	Sb	19 07 09.6	+2.1
BODT	**Bodrum**	0.68	248	*e*PG	Pb	19 07 00.6	-0.9
BODT	**Bodrum**	0.68	248	*e*Pg	Pb	19 07 00.5	-0.9
DAT	**Datca**	0.72	215	*e*PG	Pb	19 07 00.5	-1.7
DAT	**Datca**	0.72	215	*e*Pg	Pb	19 07 00.5	-1.7

MEX 10 19:38:57.9±1.1,15°.37N×93°.57W,h148^{km}±15^{km},MD3.8,Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		0.48	46	*i* P	Pn	19 39 16.8	-2.1
PCIG				*i* S	Sn	19 39 33.2	-1.8
TGIG		1.47	17	*i* P	Pn	19 39 25.1	-1.8
TGIG				*i* S	Sn	19 39 47.9	-1.3
CCIG	**Comitan**	1.65	57	*e*P	Pn	19 39 28.4	-0.6
CCIG				*i* S	Sn	19 39 51.6	-1.2
HUIG	**Huatulco**	2.47	280	*i* P	Pn	19 39 38.6	0.0
HUIG				*i* S	Sn	19 40 07.5	-2.5

IDC 10 19:39:27.4±63.0,23°.17S×176°.83W,h0^{km},mb3.7/3,mb1 3.8/3,mb1mx3.6/16,mbtmp3.7/3,Error ellipse: s-maj=1169.0km s-min=169.3km az=87.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	37.69	247	P	P	19 46 44.9	+0.2
	0.5nm,0.4s,baz=94,slow=11,SNR=5.8						
ASAR	**Alice Springs**	45.03	259	P	P	19 47 44.7	-0.3
	0.2nm,0.3s,baz=95,slow=9.4,SNR=4.4						
WRA	**Warramunga Arr**	45.37	264	P	P	19 47 47.7	-0.1
	0.5nm,0.3s,baz=104,slow=8.1,SNR=28						

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*NEIC **10** 19:52:26.7,32°.45N×115°.33W,h5^{km},ML3.3(PAS),ML3.5(ECX),After ECX.*

ECX 10 19:52:26.7±0.7,32°.45N×115°.33W,h5^{km},MD3.4,ML3.5,5C-6D,California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	**Cerro Prieto**	0.03	148	⇑*e*P	Pg	19 52 27.3	-0.5
CPBX				*e*S	Sg	19 52 28.7	+0.2
CPBX				⇑*e*		19 52 31.4	
	comp=E,177μm,0.6s						
CPBX				*e*		19 52 31.9	
	comp=N,150μm,0.4s						
SGL	**Mount Signal**	0.39	301	*e*P	Pg	19 52 33.3	-1.1
SNR	**Schaffner Ranc**	0.42	347	⇓*i*P	Pg	19 52 34.8	-0.2
COA	**Coachella**	0.45	22	*e*P	Pg	19 52 34.8	-0.6
EMX	**El Mayor**	0.46	171	⇓*e*P	Pg	19 52 34.7	-0.9
EMX				*e*S	Sg	19 52 41.4	-0.2
EMX				⇓*e*		19 52 46.9	
	comp=N,2μm,0.7s						
EMX				⇓*e*		19 52 51.5	
	comp=E,2μm,0.7s						
YMD	**Yuma Desert**	0.67	80	*e*P	Pg	19 52 38.2	-1.3
CRR	**Carrizo Plain**	0.70	309	*e*P	Pg	19 52 38.5	-1.6
RDX	**Rancho Dawling**	0.74	226	⇓*e*P	Pg	19 52 39.7	-1.1
RDX				*e*S	Sg	19 52 49.2	-1.2
ECBX	**El Chinero**	1.00	166	⇑*e*P	Pg	19 52 44.5	-1.3
ECBX				*e*S	Sg	19 52 58.3	-0.5
CBX	**Cerro Bola**	1.14	264	⇑*e*P	Pg	19 52 46.4	-2.1
CBX				*e*S	Sg	19 53 01.5	-1.9
ECNX	**Esteban Cantu**	1.34	234	⇑*e*P	Pn	19 52 50.3	-1.7
ECNX				*e*P		19 52 49.2	
ECNX				*e*S	Sb	19 53 05.8	-3.8
ECNX				*e*S	Sb	19 53 07.9	-1.7
PBX	**Punta Banda**	1.38	240	⇓*e*P	Pn	19 52 50.6	-2.0
PBX				*e*S	Sb	19 53 08.8	-2.1
PFO	**Pinyon Flat Ob**	1.50	321	*e*P	Pn	19 52 50.0	-4.3
PFO				*e*S	Sn	19 53 08.4	-5.8
LDFC	**Landfair**	2.63	4	*e*Pn	Pn	19 53 15.2	+5.4
MWC	**Mount Wilson**	2.89	309	*e*Pn	Pn	19 53 17.5	+4.1
MWC				*e*Sn	Sn	19 53 48.2	-0.4
PASC	**Pasadena Art C**	2.95	306	*e*Pn	Pn	19 53 19.1	+4.9
PASC				*e*S	Sn	19 53 53.2	+3.3
OSI	**Osito Adit**	3.57	308	*e*Pn	Pn	19 53 28.5	+5.8
WUAZ	**Wupatki**	4.49	46	*e*Pn	Pn	19 53 42.3	+7.0

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*ISCJB **10** 20:08:56.2±1.3,5°.1S±0°.2×151°.6E±0°.3,h33^{km},mb3.8/9,MS3.8/2,Error ellipse: s-maj=39.7km s-min=16.7km az=27.8*

*NEIC **10** 20:08:57.0±0.9,5°.23S×151°.80E,h35^{km},mb3.9/1,Error ellipse: s-maj=33.6km s-min=14.0km az=121.0*

*IDC **10** 20:09:02.1±13.0,5°.28S×151°.70E,h78^{km}±115^{km},mb3.6/8,mb1 3.9/8,mb1mx3.6/18,mbtmp3.6/8,MS3.8/2,Ms1 3.8/2,ms1mx3.1/33,Error ellipse: s-maj=55.0km s-min=36.1km az=86.0*

ISC 10 20:08:57.8±1.3,5°.2S±0°.2×151°.7E±0°.3,h35^{km},n14,σ0^s.66/9,mb3.8/9,MS3.8/2,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	**Tennant Creek**	22.34	228	*e*P	P	20 13 52.4	-0.3
	3.5nm,0.7s,mb3.9						
WRA	**Warramunga Arr**	22.36	228	P	P	20 13 52.7	-0.2
	2.7nm,0.7s,mb3.8,baz=52,slow=10,SNR=17						
ASAR	**Alice Springs**	25.11	221	P	P	20 14 20.5	+1.0
	5.8nm,0.7s,mb4.2,baz=56,slow=9.2,SNR=46						
FITZ	**Fitzroy Crossi**	28.50	241	P	P	20 14 49.3	-0.8
	6.0nm,1.0s,mb4.3,baz=70,slow=10.0,SNR=5.0						
NWAO	**Narrogin (SRO)**	42.32	225	LR	LR	20 35 30.1	
	comp=Z,86nm,18.3s,MS3.7,baz=136,slow=38						
RAR	**Rarotonga**	49.62	113	LR	LR	20 33 30.1	
	comp=Z,152nm,19.6s,MS4.0,baz=296,slow=30						
CMAR	**Chiang Mai Arr**	57.06	296	P	P	20 18 41.9	+1.0
	0.4nm,0.5s,mb3.7,baz=134,slow=6.5,SNR=4.2						
SONM	**Songino Array**	66.09	328	P	P	20 19 41.4	+0.2
	0.3nm,0.5s,mb3.6,baz=140,slow=4.9,SNR=6.0						
ZALV	**Zalesovo Beam**	80.88	327	P	P	20 21 08.2	+0.1
	0.4nm,0.3s,mb3.8,baz=121,slow=5.4,SNR=3.1						
KURK	**Kurchatov**	83.41	322	P	P	20 21 20.4	-1.1
	0.2nm,0.6s,mb3.4,baz=108,slow=3.4,SNR=2.3						
NVAR	**Mina Array Bea**	93.20	52	P	P	20 22 08.8	0.0
	0.2nm,0.6s,mb3.8,baz=240,slow=7.2,SNR=4.0						
GERES	**GERESS Array B**	123.82	328	PKP	PKPdf	20 27 50.9	-1.2
	0.4nm,0.5s,baz=109,slow=3.2,SNR=5.0						
TORD	**Torodi Ar. Bea**	149.38	287	PKPbc	PKPbc	20 28 42.5	-1.7
	0.9nm,0.3s,baz=89,slow=2.3,SNR=39						
TORD	**Torodi Ar. Bea**	149.38	287	PKPbc	PKPbc	20 28 42.5	-1.7

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*NEIC **10** 20:18:40.4,32°.41N×115°.38W,h10^{km},ML2.8(PAS),ML2.8(ECX),After ECX.*

ECX 10 20:18:40.1±0.2,32°.39N×115°.37W,h10^{km},MD2.8,ML2.7,3C-5D,California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGL	**Mount Signal**	0.40	311	*e*P	Pg	20 18 49.5	+1.6
EMX	**El Mayor**	0.42	165	⇓*e*P	Pg	20 18 50.8	+2.5
EMX				*e*S	Sg	20 18 58.1	+4.3
EMX				⇓*e*		20 19 01.3	
	comp=N,297nm,0.7s						
EMX				⇑*e*		20 19 07.8	
	comp=E,299nm,0.7s						
SNR	**Schaffner Ranc**	0.47	353	⇓*i*P	Pg	20 18 51.0	+1.6
COA	**Coachella**	0.52	24	⇓*i*P	Pg	20 18 51.4	+1.2
YUH	**Yuha Desert**	0.53	299	⇑*i*P	Pg	20 18 52.0	+1.5
RDX	**Rancho Dawling**	0.67	227	*e*P	Pg	20 18 55.6	+2.6
RDX				*e*S	Sg	20 19 06.5	+4.7
RDX				⇓*e*		20 19 08.2	
	comp=N,574nm,0.4s						
CRR	**Carrizo Plain**	0.71	315	⇑*i*P	Pg	20 18 54.8	+1.0
GLA	**Glamis**	0.80	35	*e*P	Pg	20 18 54.9	-0.7
GLA				*e*S	Sg	20 19 05.7	-0.4
ECBX	**El Chinero**	0.96	163	*e*P	Pg	20 19 00.5	+2.0
ECBX				*e*S	Sg	20 19 14.1	+3.2
CBX	**Cerro Bola**	1.10	266	*e*PN	Pn	20 19 02.9	+1.4
BAR	**Barrett**	1.14	285	*e*P	Pb	20 19 02.3	+0.4
BAR				*e*S	Sb	20 19 17.8	+1.2
ECNX	**Esteban Cantu**	1.27	235	*e*PN	Pn	20 19 06.4	+2.4
ECNX				*e*PN	Pn	20 19 04.4	+0.5
PFO	**Pinyon Flat Ob**	1.52	323	*e*Pn	Pn	20 19 05.5	-1.8
PFO				*e*Sn	Sn	20 19 24.5	-2.6
LDFC	**Landfair**	2.69	5	*e*Pn	Pn	20 19 25.4	+2.0
LDFC				*e*Sn	Sn	20 19 57.9	+1.8
GSC	**Goldstone**	3.14	338	*e*Pn	Pn	20 19 31.4	+1.8

FUNV 10 20:22:19.7,6°.78N×73°.09W,h171^{km},MW3.7,2C,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	**Capacho**	1.32	36	⇑*i*P	Pn	20 22 48.6	-0.6
CAPV				*e*S	Sn	20 23 10.4	-1.6
VIGV	**El Vigia**	2.67	40	*e*P	Pn	20 23 03.0	-0.8
VIGV				*e*S	Sn	20 23 34.2	-3.9
SOCV	**Socops**	2.67	56	*e*P	Pn	20 23 03.2	-0.7
SOCV				*e*S	Sn	20 23 35.0	-3.3
VIRV	**Villa del Rosa**	3.76	10	*e*P	Pn	20 23 15.6	-1.9
VIRV				*e*S	Sn	20 23 58.1	-4.4
QARV	**Quebrada Arrib**	4.25	37	⇑*i*P	Pn	20 23 22.9	-0.8
QARV				*e*S	Sn	20 24 08.5	-5.2
CURV	**Curarigua**	4.46	44	*e*P	Pn	20 23 25.3	-1.2
CURV				*e*S	Sn	20 24 13.6	-5.0
TEPV	**Terepaima**	4.99	50	*e*P	Pn	20 23 32.1	-1.2
SIQV	**Siquisique**	5.03	40	*e*P	Pn	20 23 32.3	-1.6
BAUV	**El Baul**	5.44	66	*e*P	Pn	20 23 36.7	-2.6
BAUV				*e*S	Sn	20 24 35.3	-6.5
MONV	**Montecano**	5.99	31	*e*P	Pn	20 23 44.8	-1.8

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*IDC **10** 20:23:21.6±6.4,20°.40S×177°.90W,h539^{km}±71^{km},mb3.3/7,mb1 3.5/8,mb1mx3.2/19,mbtmp3.3/8,Error ellipse: s-maj=36.4km s-min=32.7km az=74.0*

*ISCJB **10** 20:23:22.3±1.6,20°.4S±0°.2×178°.2W±0°.3,h550^{km},mb3.8/9,Error ellipse: s-maj=34.4km s-min=20.0km az=6.7*

*NEIC **10** 20:23:23.6±6.3,20°.50S×177°.98W,h568^{km}±70^{km},mb4.0/3,Error ellipse: s-maj=45.8km s-min=30.9km az=50.0*

ISC 10 20:23:23.2±1.6,20°.5S±0°.2×178°.1W±0°.3,h550^{km},n15,σ0^s.82/13,mb3.8/9,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	18.21	192	P	P	20 27 03.2	+0.4
	1.0nm,0.3s,baz=162,slow=3.2,SNR=4.4						
CTA	**Charters Tower**	33.40	264	P	P	20 29 17.2	+0.4
	2.9nm,0.5s,mb4.0,baz=83,slow=10,SNR=3.9						
CTAO	**Charters Tower**	33.40	264	*e*P	P	20 29 15.8	-1.0
	6.3nm,0.9s,mb4.2						
TAU	**Tasmania Unive**	36.58	224	P	P	20 29 41.7	-1.2
	3.3nm,0.8s,mb3.9						
ASAR	**Alice Springs**	44.44	257	P	P	20 30 46.1	+0.3
	2.7nm,0.5s,mb4.0,baz=95,slow=7.6,SNR=49						
WRAB	**Tennant Creek**	44.51	262	*e*P	P	20 30 45.9	-0.5
	1.5nm,0.5s,mb3.8						
WRA	**Warramunga Arr**	44.52	262	P	P	20 30 46.3	-0.2
	1.5nm,0.3s,mb4.0,baz=97,slow=7.6,SNR=46						
FITZ	**Fitzroy Crossi**	52.94	262	P	P	20 31 49.8	+1.0
	4.1nm,0.9s,mb3.8,baz=93,slow=3.6,SNR=3.8						
MJAR	**Matsushiro Arr**	70.13	324	P	P	20 33 40.2	-0.4
	0.4nm,0.5s,mb3.2,baz=153,slow=6.5,SNR=2.9						
MJAR	**Matsushiro Arr**	70.13	324	P	P	20 33 40.2	-0.4
PETK	**Petropavlovsk-**	76.22	345	P	P	20 34 14.3	-0.7
	3.9nm,1.0s,mb3.8,baz=119,slow=5.1,SNR=2.4						
PETK	**Petropavlovsk-**	76.22	345	P	P	20 34 14.3	-0.7
CMAR	**Chiang Mai Arr**	90.02	290	P	P	20 35 26.6	+1.7
	1.0nm,0.7s,mb3.8,baz=116,slow=3.5,SNR=6.7						
AKASG	**Malin Array Be**	142.94	331	PKP	PKPdf	20 41 50.8	-3.5
	1.2nm,0.4s,baz=43,slow=4.2,SNR=12						
BRTR	**Keskin Array B**	146.75	312	PKPbc	PKPbc	20 42 03.4	-0.5
	0.8nm,0.6s,baz=169,slow=3.1,SNR=3.7						

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*NIED **10** 20:29:00,33°.40N×138°.40E,h300^{km},Mw4.4 Best double couple: M$_0$4.62000×10^{15} NP1:φ$_s$148.00000°,δ72.00000°,λ28.00000°. NP2:φ$_s$49.00000°,δ64.00000°,λ160.00000°.*

*NEIC **10** 20:29:27.3,33°.40N×138°.42E,h303^{km},mb4.2/7,After JMA.*

*JMA **10** 20:29:27.3±0.4,33°.40N×138°.42E,h303^{km}±4^{km},M3.9*

*MOS **10** 20:29:27.5±0.8,33°.40N×138°.40E,h293^{km},mb4.2/4,Error ellipse: s-maj=19.2km s-min=9.1km az=108.3*

*BJI **10** 20:29:27.5,33°.53N×138°.48E,h298^{km},mB4.6/9,mb4.5/11*

*ISCJB **10** 20:29:28.1±0.4,33°.45N±0°.05×138°.44E±0°.08,h295^{km}±3^{km},mb3.7/20,Error ellipse: s-maj=11.3km s-min=8.5km az=169.1*

*IDC **10** 20:29:28.9±0.6,33°.36N×138°.24E,h281^{km}±6^{km},mb3.5/15,mb1 3.6/17,mb1mx3.5/27,mbtmp3.4/17,Error ellipse: s-maj=17.9km s-min=8.8km az=66.0*

ISC 10 20:29:29.2±0.4,33°.46N±0°.05×138°.39E±0°.08,h289^{km}±3^{km},n62,σ0^s.81/67,mb3.7/20,8C,Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TK02	**Tokai 2**	0.72	313	⇑P	Pn	20 30 07.4	+0.3
TK03	**Tokai 3**	0.79	333	P	Pn	20 30 08.1	+0.8
TK04	**Tokai 4**	1.02	335	⇑P	Pn	20 30 09.0	+0.7
JHJ	**Hachijo jima 2**	1.21	106	P	Pn	20 30 09.4	0.0
	80nm,0.3s,baz=252,slow=20,SNR=4.1						
JHJ				S	S	20 30 41.0	-0.4
	44nm,0.3s,baz=73,slow=19,SNR=2.6						
JSG	**Sagara**	1.22	352	P	Pn	20 30 10.1	+0.7
JKKG	**Kakegawa**	1.37	345	P	Pn	20 30 10.6	+0.3
HMMJ	**Hamamatsu 2**	1.50	338	P	Pn	20 30 11.1	0.0
HMMJ				S	S	20 30 43.6	-0.9
JIE	**Ise**	1.68	304	⇑P	Pn	20 30 12.3	-0.1
JOD2	**Odawara 2**	1.89	17	P	Pn	20 30 14.8	+0.9
JKN2	**Miekihoku**	1.93	294	⇑P	Pn	20 30 13.8	-0.5
JNY	**Yasuok**	1.94	347	⇑P	Pn	20 30 15.1	+0.7
JAO	**Obara**	2.03	333	⇑P	Pn	20 30 15.5	+0.4
JYN	**Shimob**	2.04	3	P	Pn	20 30 15.7	+0.6
JHU	**Hanno**	2.50	17	P	Pn	20 30 19.2	0.0
JHU				S	S	20 30 57.3	-1.7
JRY	**Ryogami san**	2.58	9	P	Pn	20 30 20.8	+0.8
JGM	**Miyama**	2.63	329	⇑P	Pn	20 30 20.7	+0.3
MJAR	**Matsushiro Arr**	3.08	357	P	Pn	20 30 24.9	+0.1
	3.6nm,0.3s,baz=174,slow=11,SNR=73						
MJAR				S	S	20 31 09.7	+0.4
	1.7nm,0.3s,baz=140,slow=45,SNR=8.5						
MAJO	**Matsushiro**	3.08	357	*e*P	Pn	20 30 24.9	+0.1
MAT	**Matsushiro**	3.08	357	P	Pn	20 30 25.1	+0.3
MAT				S	S	20 31 09.3	0.0
JAG	**Ashikaga**	3.08	16	P	Pn	20 30 24.3	-0.6
JYT	**Yasato**	3.13	28	P	Pn	20 30 24.4	-1.0
JHO	**Hitachi**	3.62	29	P	Pn	20 30 29.3	-1.2
JSZ	**Suzu**	4.07	348	P	Pn	20 30 35.7	+0.3
CBIJ	**Chichi jima**	7.14	152	S	S	20 32 26.4	-8.9
	35nm,0.3s,baz=295,slow=22,SNR=7.7						
KSRS	**Korea Array**	9.43	298	P	Pn	20 31 40.9	+0.7
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	**Korea Array**	9.43	298	P	Pn	20 31 40.9	+0.7
	comp=Z,0.5nm,0.3s,baz=110,slow=13,SNR=28						
ASAJ	**Asahikawa**	11.13	16	P	Pn	20 32 00.0	-1.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	11.13	16	P	Pn	20 31 60.0	-1.1
	comp=Z,1.1nm,0.3s,baz=231,slow=9.0,SNR=9.2						
MDJ	**Mudanjiang**	13.06	331	*e*Pn	Pn	20 32 23.6	-1.0
	comp=Z,21nm,0.8s						
YSS	**Yuzh-Sakhalins**	13.88	13	*e*P	Pn	20 32 34.2	-0.2
YSS	**Yuzh-Sakhalins**	13.88	13	*e*P	Pn	20 32 34.2	-0.2
	comp=Z,20nm,0.4s						
BJT	**Baijiatuau**	18.95	297	*e*P	P	20 33 27.9	-1.6
BJT				pmax	pmax		
	comp=Z,12nm,0.6s						
BJT	**Baijiatuau**	18.95	297	*e*P	P	20 33 27.9	-1.6
	comp=Z,12nm,0.6s						
WHN	**Wuhan**	20.59	268	⇑P	P	20 33 47.0	+0.1
HIA	**Hailar**	21.02	324	*e*P	P	20 33 49.2	-1.6
HIA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HIA	**Hailar**	21.02	324	*e*P	P	20 33 49.2	-1.5
	comp=Z,6.1nm,0.6s,mb4.1						
ULN	**Ulaanbaatar**	27.57	311	*e*P	P	20 34 50.4	+0.6
ULN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.8						
ULN	**Ulaanbaatar**	27.57	311	*e*P	P	20 34 50.4	+0.6
	comp=Z,3.2nm,0.7s,mb3.9						
SONM	**Songino Array**	27.97	310	P	P	20 34 54.3	+0.9
	comp=Z,2.1nm,0.7s,mb3.7,baz=112,slow=7.8,SNR=20						
ZALV	**Zalesovo Beam**	42.60	315	P	P	20 36 56.8	-0.3
	comp=Z,0.6nm,0.5s,mb3.1,baz=88,slow=8.7,SNR=4.8						
MKAR	**Makanchi Array**	44.02	305	P	P	20 37 08.6	+0.1
	comp=Z,2.6nm,0.6s,mb3.7,baz=89,slow=10,SNR=37						
MKAR				ScP	ScP	20 42 11.6	-0.5
	comp=Z,0.3nm,0.7s,baz=72,slow=5.3,SNR=3.8						
KURK	**Kurchatov**	46.28	311	P	P	20 37 26.4	+0.3
	comp=Z,3.0nm,0.5s,mb3.9,baz=94,slow=9.8,SNR=28						
BVAR	**Borovoye Array**	51.21	314	P	P	20 38 03.9	+0.6
	comp=Z,2.0nm,0.5s,mb3.7,baz=97,slow=8.1,SNR=15						
WRAB	**Tennant Creek**	53.23	185	*e*P	P	20 38 16.7	-1.7
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb3.9						
WRAB	**Tennant Creek**	53.23	185	*e*P	P	20 38 16.7	-1.8
	comp=Z,3.1nm,0.5s,mb3.9						
WRA	**Warramunga Arr**	53.24	185	P	P	20 38 18.0	-0.6
	comp=Z,3.3nm,0.4s,mb4.0,baz=360,slow=7.7,SNR=62						
ASAR	**Alice Springs**	56.97	185	P	P	20 38 44.9	0.0
	comp=Z,1.2nm,0.5s,mb3.5,baz=15,slow=11,SNR=22						
STKA	**Stephens Creek**	65.06	177	P	P	20 39 38.4	-0.5
	comp=Z,1.3nm,0.7s,mb3.7,baz=333,slow=6.8,SNR=4.7						
ARCES	**ARCESS Array B**	66.46	339	P	P	20 39 47.5	+0.1
	comp=Z,7.0nm,0.9s,mb4.4,baz=61,slow=7.3,SNR=4.0						

ARCES	**ARCESS Array B**	**66.46**	**339**	P	**P**	**20 39 47.5**	**+0.1**
JOF	**Joensuu**	**67.94**	**332**	*e*p	**P**	**20 39 56.0**	**-0.8**
	comp=Z,1.1nm,0.5s,mb3.8						
YKA	**Yellowknife Ar**	**68.13**	**29**	P	**P**	**20 39 59.2**	**+1.3**
	comp=Z,0.2nm,0.5s,mb3.1,baz=299,slow=6.1,SNR=3.7						
YKA	**Yellowknife Ar**	**68.13**	**29**	P	**P**	**20 39 59.2**	**+1.3**
KAF	**Kangasniemi**	**70.34**	**332**	*e*P	**P**	**20 40 11.0**	**-0.4**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
KAF	**Kangasniemi**	**70.34**	**332**	*e*p	**P**	**20 40 11.0**	**-0.4**
	comp=Z,1.6nm,0.4s,mb4.1						
AKASG	**Malin Array Be**	**75.58**	**322**	P	**P**	**20 40 42.2**	**0.0**
	comp=Z,1.3nm,0.5s,mb3.8,baz=48,slow=6.6,SNR=8.4						
NB2	**NORSAR Subarra**	**76.50**	**336**	P	**P**	**20 40 47.6**	**+0.5**
	comp=Z,0.6nm,0.6s,mb3.4,baz=50,slow=6.9						
NOA	**NORSAR Array B**	**76.50**	**336**	P	**P**	**20 40 47.0**	**-0.1**
	comp=Z,0.8nm,0.7s,mb3.5,baz=41,slow=5.5,SNR=3.6						
NVAR	**Mina Array Bea**	**79.13**	**51**	P	**P**	**20 41 04.8**	**+2.8**
	comp=Z,0.6nm,0.6s,mb3.5,baz=298,slow=4.9,SNR=7.5						
NVAR	**Mina Array Bea**	**79.13**	**51**	P	**P**	**20 41 04.8**	**+2.8**
GERES	**GERESS Array B**	**84.40**	**327**	P	**P**	**20 41 29.0**	**-0.1**
	comp=Z,0.3nm,0.6s,mb3.3,baz=41,slow=4.3,SNR=3.9						
TXAR	**Lajitas Array**	**94.28**	**51**	P	**P**	**20 42 18.5**	**+2.4**
	comp=Z,0.8nm,0.8s,mb3.8,baz=280,slow=2.9,SNR=7.3						

ISCJB ***10*** *20:36:46.8±1.3, 17°.8S±0°.1×178°.7W±0°.1, h523^{km}±19^{km}, mb4.0/15, Error ellipse: s-maj=25.4km s-min=11.0km az=145.1*

NEIC ***10*** *20:36:47.6±0.9, 17°.83S×178°.72W, h525^{km}±12^{km}, mb4.3/3, Error ellipse: s-maj=17.0km s-min=8.4km az=148.0*

IDC ***10*** *20:36:47.6±2.0, 17°.84S×178°.68W, h523^{km}±25^{km}, mb3.3/11, mb1 3.6/12, mb1mx3.4/21, mbtmp3.4/12, Error ellipse: s-maj=21.9km s-min=11.8km az=147.0*

ISC 10 20:36:48.0±1.3**, 17°.8S**±0°.1×**178°.7W**±0°.1**, h525**^{km}±18^{km}**, n28, σ0^{s}.80**/25**, mb4.0**/15**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**7.71**	**61**	P	**P**	**20 38 42.3**	**+0.2**
	6.4nm,0.3s,baz=278,slow=4.7,SNR=8.0						
URZ	**Urewera**	**20.72**	**189**	P	**P**	**20 40 49.7**	**-1.9**
	4.2nm,0.5s,baz=308,slow=5.8,SNR=5.2						
RPZ	**Rata Peaks**	**27.25**	**196**	P	**P**	**20 41 49.5**	**-0.2**
	7.6nm,0.8s,mb4.3,baz=315,slow=4.3,SNR=2.9						
ARMA	**Armidale**	**29.75**	**239**	*e*P	**P**	**20 42 13.1**	**+1.4**
CTA	**Charters Tower**	**33.18**	**260**	P	**P**	**20 42 40.3**	**-0.9**
	2.2nm,0.3s,mb4.1,baz=95,slow=7.5,SNR=5.9						
CTAO	**Charters Tower**	**33.18**	**260**	*e*P	**P**	**20 42 40.3**	**-0.9**
	3.0nm,0.4s,mb4.2						
CNB	**Canberra Magne**	**33.27**	**232**	*e*P	**P**	**20 42 42.9**	**+1.2**
CMSA	**Cobar Meteorol**	**34.96**	**240**	*e*P	**P**	**20 42 56.5**	**+0.5**
TOO	**Toolangi**	**37.02**	**231**	*e*P	**P**	**20 43 14.0**	**+1.0**
STKA	**Stephens Creek**	**38.43**	**241**	*e*P	**P**	**20 43 25.4**	**+0.8**
	4.5nm,0.5s,mb4.2						
STKA	**Stephens Creek**	**38.43**	**241**	P	**P**	**20 43 25.6**	**+0.9**
	6.2nm,0.6s,mb4.3,baz=94,slow=9.7,SNR=44						
BBOO	**Buckleboo**	**43.21**	**241**	*e*P	**P**	**20 44 02.8**	**+0.2**
	8.6nm,0.4s,mb4.6						
WRAB	**Tennant Creek**	**44.36**	**259**	*e*P	**P**	**20 44 10.6**	**-1.1**
	7.9nm,0.8s,mb4.3						
WRA	**Warramunga Arr**	**44.37**	**259**	P	**P**	**20 44 11.0**	**-0.8**
	2.6nm,0.5s,mb4.0,baz=97,slow=7.0,SNR=73						
ASAR	**Alice Springs**	**44.54**	**254**	P	**P**	**20 44 13.1**	**0.0**
	26nm,0.5s,mb5.0,baz=88,slow=8.1,SNR=547						
KAKA	**Kakadu**	**47.30**	**269**	*e*P	**P**	**20 44 33.5**	**-0.7**
FORT	**Forrest**	**49.80**	**245**	*e*P	**P**	**20 44 51.9**	**-0.7**
	14nm,0.5s,mb4.7						
MJAR	**Matsushiro Arr**	**67.64**	**324**	P	**P**	**20 46 52.2**	**-0.3**
	0.8nm,0.7s,mb3.3,baz=166,slow=6.2,SNR=4.9						
YBH	**Yreka Blue Hor**	**78.62**	**39**	P	**P**	**20 47 55.1**	**-0.2**
	1.4nm,0.7s,mb3.4,baz=236,slow=3.6,SNR=3.3						
NVAR	**Mina Array Bea**	**79.54**	**44**	P	**P**	**20 48 00.5**	**+0.2**
	1.1nm,0.7s,mb3.3,baz=225,slow=8.2,SNR=9.7						
MVCO	**Mesa Verde**	**85.72**	**49**	*e*P	**P**	**20 48 31.2**	**-0.3**
	11nm,0.6s,mb4.7						
TXAR	**Lajitas Array**	**86.18**	**58**	P	**P**	**20 48 34.7**	**+0.8**
	1.3nm,0.8s,mb3.6,baz=216,slow=5.9,SNR=14						
TXAR	**Lajitas Array**	**86.18**	**58**	P	**P**	**20 48 34.7**	**+0.8**
PDAR	**Pinedale Array**	**87.47**	**44**	P	**P**	**20 48 39.4**	**-0.2**
	0.6nm,0.6s,mb3.4,baz=205,slow=3.8,SNR=5.8						
CMAR	**Chiang Mai Arr**	**88.57**	**290**	P	**P**	**20 48 46.1**	**+0.8**
	0.4nm,0.5s,mb3.5,baz=52,slow=2.3,SNR=4.6						
BRTR	**Keskin Array B**	**144.49**	**315**	PKP	PKPdf	20 55 24.3	-0.4
	1.2nm,0.9s,baz=173,slow=3.8,SNR=5.0						
CLL	**Collm**	**145.28**	**347**	*e*PKPbc	PKPbc	20 55 26.0	-0.7
GERES	**GERESS Array B**	**147.42**	**345**	PKPbc	PKPbc	20 55 31.9	-0.7
	0.6nm,0.4s,baz=24,slow=3.2,SNR=12						

LDG ***10*** *21:02:50.8±0.7, 31°.82N×94°.89E, h10^{km}, Mb4.8/29, Error ellipse: s-maj=34.6km s-min=5.9km az=144.0*

ISCJB ***10*** *21:02:51.4±1.0, 32°.00N±0°.03×95°.01E±0°.02, h8^{km}±6^{km}, mb4.6/106, MS4.0/15, Error ellipse: s-maj=4.5km s-min=3.2km az=9.6*

IDC ***10*** *21:02:52.0±0.5, 32°.01N×95°.08E, h0^{km}, mb4.5/24, mb1 4.5/27, mb1mx4.5/32, mbtmp4.4/27, ML3.8/3, MS3.8/10, Ms1 3.9/10, ms1mx3.6/34, Error ellipse: s-maj=18.9km s-min=10.8km az=44.0*

BJI ***10*** *21:02:54.7, 32°.00N×95°.07E, h32^{km}, mB4.9/26, mb4.5/39, ML4.4/9, Ms4.5/41, Ms7 4.2/37*

MOS ***10*** *21:02:54.9±0.7, 31°.99N×95°.07E, h33^{km}, mb4.9/77, Error ellipse: s-maj=7.3km s-min=4.0km az=119.5*

NEIC ***10*** *21:02:57.2±0.7, 32°.05N×95°.12E, h36^{km}±6^{km}, mb4.7/68, Error ellipse: s-maj=4.8km s-min=4.3km az=50.0*

SZGRF ***10*** *21:03:37.1, 35°.42N×89°.65E, h14^{km}, mb4.8, Xizang*

ISC 10 21:02:56.1±1.0**, 31°.99N**±0°.03×**95°.05E**±0°.02**, h27**^{km}±7^{km}**, h19**^{km}±4.7^{km}**:pP-P, n357, σ0^{s}.96**/371**, mb4.6**/106**, MS4.0**/15**, 26C-6D, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	**4.06**	**237**	Pg	**Pn**	**21 04 02.0**	**+5.6**
LSA				Sg	Sn	21 05 04.0	+21
LSA				smax			
	comp=N,210nm,0.8s						
LSA				smax			
	comp=E,320nm,0.8s						
LSA	**Lhasa**	**4.06**	**237**	*e*Pn	**Pn**	**21 04 00.2**	**+3.8**
LSA				*e*Sn	**Sn**	**21 04 46.2**	**+3.2**
CD2	**Chengdu**	**7.52**	**96**	Pn	**Pn**	**21 04 46.8**	**+2.9**
CD2				Sn	**Sn**	**21 06 11.6**	**+3.3**
CD2				LR	LR		
	comp=N,4µm,7.7s						
CD2				LR	LR		
	comp=Z,4µm,9.2s						
TAPN	**Taplejung**	**7.88**	**236**	*e*P	**Pn**	**21 04 48.3**	**-0.7**
	comp=Z,53nm,0.4s						
GTA	**Gaotai**	**8.36**	**26**	*e*P	**Pn**	**21 04 56.5**	**+1.1**
GTA				pP		21 05 03.1	
GTA				sP		21 05 08.2	
GTA				S	**Sn**	**21 06 28.7**	**-0.1**
GTA				sS		21 06 40.6	
GTA				ScS	ScS	21 18 32.7	+2.2
GTA				pmax	pmax		
	comp=Z,8.0nm,1.2s						
GTA				pmax	pmax		
	comp=Z,120nm,8.0s						
GTA				LR	LR		
	comp=N,560nm,14.9s						
GTA				LR	LR		
	comp=E,860nm,11.6s						
GTA				LR	LR		
	comp=Z,630nm,11.6s						
LZH	**Lanzhou**	**8.36**	**58**	*e*P	**Pn**	**21 04 55.8**	**+0.3**
LZH				pP		21 05 02.7	
LZH				sP		21 05 07.8	
LZH				*e*S	**Sn**	**21 06 27.7**	**-1.3**
LZH				sS		21 06 39.2	
LZH				SS		21 06 41.5	
LZH				pmax	pmax		
	comp=Z,29nm,1.0s						
LZH				pmax	pmax		
	comp=Z,260nm,6.0s						
LZH				smax			
	comp=N,180nm,1.2s						
LZH				smax			
	comp=E,250nm,1.1s						
LZH				LR	LR		
	comp=N,2µm,6.8s						
LZH				LR	LR		
	comp=Z,2µm,8.4s						
ODAN	**Odare**	**8.41**	**235**	*e*P	**Pn**	**21 04 55.9**	**-0.3**
JIRN	**Jiri**	**8.82**	**243**	*e*P	**Pn**	**21 05 01.4**	**-0.5**
	comp=Z,51nm,0.4s						
GUN	**Gumba**	**8.93**	**245**	*e*P	**Pn**	**21 05 02.6**	**-0.8**
	comp=Z,75nm,0.4s						
KKN	**Kakani**	**9.46**	**246**	*e*P	**Pn**	**21 05 08.8**	**-1.7**
	comp=Z,45nm,0.4s						
PKI	**Pulchoki**	**9.46**	**245**	*e*P	**Pn**	**21 05 09.5**	**-1.1**
	comp=Z,80nm,0.5s						
KMI	**Kunming**	**9.61**	**133**	⇑P	**Pn**	**21 05 12.7**	**0.0**
KMI				pP		21 05 18.4	
KMI				PP		21 05 25.5	
KMI				S	**Sn**	**21 07 04.3**	**+4.4**
KMI				SS		21 07 18.2	
KMI				pmax	pmax		
	comp=Z,12nm,0.7s						
KMI				pmax	pmax		
	comp=Z,87nm,3.8s						
KMI				LR	LR		
	comp=N,2µm,6.7s						
KMI				LR	LR		
	comp=E,2µm,7.1s						
KMI				LR	LR		
	comp=Z,2µm,9.5s						
DMN	**Daman**	**9.68**	**246**	*e*P	**Pn**	**21 05 11.9**	**-1.7**
	comp=Z,55nm,0.6s						
GKN	**Gorkha**	**9.86**	**249**	*e*P	**Pn**	**21 05 13.8**	**-2.3**
	comp=Z,65nm,0.5s						
DANN	**Dangsing**	**10.42**	**253**	*e*P	**Pn**	**21 05 21.7**	**-2.1**
	comp=Z,66nm,0.4s						
KOLN	**Koldanda**	**10.79**	**250**	*e*P	**Pn**	**21 05 26.3**	**-2.5**
	comp=Z,22nm,0.3s						
PYUN	**Piuthan**	**11.15**	**253**	*e*P	**Pn**	**21 05 31.5**	**-2.2**
GYA	**Guiyang**	**11.54**	**116**	⇑*i*P	**Pn**	**21 05 41.2**	**+2.1**
GYA				pP		21 05 49.7	
GYA				S	**Sn**	**21 07 52.0**	**+4.9**
GYA				SS		21 08 04.6	
GYA				pmax	pmax		
	comp=Z,20nm,0.6s						
GYA				pmax	pmax		
	comp=Z,170nm,4.0s						
GYA				LR	LR		
	comp=N,690nm,10.9s						
GYA				LR	LR		
	comp=E,520nm,9.8s						
GYA				LR	LR		
	comp=Z,870nm,10.5s						
XAN	**Xi'an**	**11.82**	**76**	P	**Pn**	**21 05 43.5**	**+0.6**
XAN				pP		21 05 50.4	
XAN				PP		21 05 53.2	
XAN				SS		21 08 07.0	
XAN				pmax	pmax		
	comp=Z,10.0nm,1.5s						
XAN				pmax	pmax		
	comp=Z,110nm,6.7s						
XAN				LR	LR		
	comp=N,1µm,13.3s						
XAN				LR	LR		
	comp=E,590nm,14.0s						
XAN				LR	LR		
	comp=Z,2µm,10.7s						
WMQ	**Urumqi**	**13.15**	**336**	*e*P	**Pn**	**21 06 02.0**	**+1.0**
WMQ				pP		21 06 09.0	
WMQ				sP		21 06 14.0	
WMQ				*e*S	**Sn**	**21 08 28.0**	**+1.6**
WMQ				SS		21 08 44.0	
WMQ				pmax	pmax		
	comp=Z,26nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,270nm,7.2s						
WMQ				LR	LR		
	comp=N,2µm,11.7s						
WMQ				LR	LR		
	comp=E,2µm,10.9s						
WMQ				LR	LR		
	comp=Z,2µm,15.4s						
CHTO	**Chiang Mai**	**13.58**	**164**	*e*P	**Pn**	**21 06 08.0**	**+1.0**
CHTO				pmax	pmax		
	comp=Z,11nm,1.1s						
CHTO	**Chiang Mai**	**13.58**	**164**	*e*Pn	**Pn**	**21 06 08.0**	**+1.0**
	comp=Z,11nm,1.1s						
CHTO				Sn	Sn	21 09 10.8	+34
CMAR	**Chiang Mai Arr**	**13.92**	**164**	Pn	**Pn**	**21 06 11.2**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=340,slow=13,SNR=12						
CMAR				Lg		21 10 17.5	
	comp=Z,0.0nm,0.3s,baz=344,slow=28,SNR=3.1						
CMAR				LR	LR	21 12 18.8	
	comp=Z,273nm,18.3s,baz=339,slow=41						
CMAR	**Chiang Mai Arr**	**13.92**	**164**	Pn	**Pn**	**21 06 11.2**	**-0.4**
CMAR				Lg		21 10 17.5	
CMAR				LR	LR	21 12 18.8	
DDI	**Dehra Dun**	**14.65**	**268**	*e*x	x	21 06 20.0	
BTO	**Baotou**	**14.80**	**50**	*e*P	**Pn**	**21 06 30.3**	**+6.7**
HHC	**Hu-ho-hao-te**	**15.94**	**52**	*e*P	**Pn**	**21 06 39.5**	**+1.0**
HHC				pP	pP	21 06 47.1	-1.9
HHC				sP	sP	21 06 51.6	-0.8
HHC				S	**Sn**	**21 09 33.1**	**-1.3**
HHC				sS	sS	21 09 46.1	-13
HHC				SS		21 09 51.6	
HHC				PcP	PcP	21 11 39.4	+4.1
HHC				pmax	pmax		
	comp=Z,18nm,1.2s						
HHC				pmax	pmax		
	comp=Z,260nm,5.1s						
HHC				LR	LR		
	comp=N,860nm,9.6s						
HHC				LR	LR		
	comp=E,490nm,8.1s						
HHC				LR	LR		
	comp=Z,570nm,9.1s						
WHN	**Wuhan**	**16.57**	**90**	P	**Pn**	**21 06 45.0**	**-1.5**
WHN				S	**Sn**	**21 09 44.4**	**-5.2**
WHN				LR	LR		
	comp=N,2µm,6.9s						
WHN				LR	LR		
	comp=E,2µm,7.6s						
WHN				LR	LR		
	comp=Z,3µm,8.2s						
KSH	**Kashi**	**17.19**	**301**	P	**Pn**	**21 06 58.0**	**+3.7**
KSH				*e*pP	pP	21 07 05.2	+2.3
KSH				*e*sP	sP	21 07 10.2	+3.9
KSH				*e*PP		21 07 13.3	
KSH				*e*S	**Sn**	**21 10 05.4**	**+0.7**
KSH				*e*sS	sS	21 10 17.1	-7.6
KSH				*e*SS		21 10 26.0	
KSH				pmax	pmax		
	comp=Z,7.0nm,0.7s						
KSH				LR	LR		
	comp=N,1µm,7.9s						
KSH				LR	LR		
	comp=E,1µm,7.1s						
KSH				LR	LR		
	comp=Z,1µm,5.5s						
MKAR	**Makanchi Array**	**17.74**	**330**	P	**Pn**	**21 06 59.6**	**-1.4**
	comp=Z,0.4nm,0.3s,baz=134,slow=13,SNR=22						
MKAR				LR	LR	21 14 28.0	
	comp=Z,200nm,21.6s,baz=153,slow=39						
SONM	**Songino Array**	**18.03**	**25**	P	**Pn**	**21 07 04.0**	**-0.5**
	comp=Z,0.7nm,0.3s,baz=215,slow=12,SNR=48						
SONM				PcP	PcP	21 11 38.0	-0.4
	comp=Z,0.0nm,0.3s,baz=219,slow=1.4,SNR=3.8						
ULN	**Ulaanbaatar**	**18.30**	**26**	*e*P	**Pn**	**21 07 07.3**	**-0.5**
QIZ	**Qiongzhong**	**18.54**	**131**	P	**Pn**	**21 07 13.1**	**+2.1**
QIZ				S	**Sn**	**21 10 42.1**	**+4.6**
QIZ				LR	LR		
	comp=N,570nm,12.9s						
QIZ				LR	LR		
	comp=Z,750nm,14.9s						
KZA	**Kyzart**	**18.70**	**308**	P	**Pn**	**21 07 15.1**	**+2.2**
	SNR=12						
BJT	**Baijiatuau**	**18.84**	**59**	*e*P	**Pn**	**21 07 13.4**	**-1.1**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BJT	**Baijiatuau**	**18.84**	**59**	*e*P	**Pn**	**21 07 13.4**	**-1.1**
	comp=Z,10nm,0.6s						
BJI	**Beijing**	**18.85**	**59**	P	**Pn**	**21 07 14.1**	**-0.6**
BJI				pP	pP	21 07 21.4	+0.2
BJI				sP	sP	21 07 25.6	+1.0
BJI				S	**Sn**	**21 10 41.6**	**-3.3**
BJI				sS	sS	21 10 57.3	-1.1
BJI				pmax	pmax		
	comp=Z,12nm,0.9s						
BJI				pmax	pmax		
	comp=Z,71nm,3.5s						
BJI				LR	LR		
	comp=N,1µm,11.6s						
BJI				LR	LR		
	comp=E,710nm,10.7s						
BJI				LR	LR		
	comp=Z,240nm,16.6s						
TKM2	**Tokmak 2**	**18.87**	**311**	*e*P	**Pn**	**21 07 14.2**	**-0.6**
TKM2				pmax	pmax		
	comp=Z,39nm,1.5s						
TKM2	**Tokmak 2**	**18.87**	**311**	*e*P	**Pn**	**21 07 14.2**	**-0.6**
	comp=Z,39nm,1.5s						
KBK	**Karagaybulak**	**19.16**	**309**	P	**Pn**	**21 07 22.0**	**+3.6**
	SNR=12						
UCH	**Uchtor**	**19.26**	**308**	P	**Pn**	**21 07 20.9**	**+1.4**
	SNR=12						
UCH	**Uchtor**	**19.26**	**308**	*e*P	**Pn**	**21 07 20.1**	**+0.5**
	comp=Z,495nm,0.6s						
ZAK	**Zakamensk**	**19.37**	**16**	⇓*i*P	**Pn**	**21 07 20.3**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,15nm,1.6s						
CHMS	**Chumysh**	**19.45**	**310**	P	**Pn**	**21 07 22.1**	**+0.3**
	SNR=7.6						
AAK	**Ala-Archa**	**19.45**	**309**	*e*P	**Pn**	**21 07 22.0**	**+0.2**
AAK				pmax	pmax		
	comp=Z,98nm,1.4s						
AAK	**Ala-Archa**	**19.45**	**309**	P	**Pn**	**21 07 23.1**	**+1.2**
	SNR=17						
AAK	**Ala-Archa**	**19.45**	**309**	*e*P	**Pn**	**21 07 22.0**	**+0.1**
	comp=Z,98nm,1.4s						
USP	**Ospenovka**	**19.74**	**311**	P	**Pn**	**21 07 28.2**	**+3.0**
	SNR=6.4						
AML	**Almayashu**	**19.78**	**307**	P	**Pn**	**21 07 28.5**	**+2.8**
	SNR=20						
AML	**Almayashu**	**19.78**	**307**	*e*P	**Pn**	**21 07 25.0**	**-0.7**
	comp=Z,43nm,1.0s						
EKS2	**Erkin-Say**	**19.94**	**308**	P	**Pn**	**21 07 27.3**	**-0.3**
	SNR=6.1						
EKS2	**Erkin-Say**	**19.94**	**308**	*e*P	**Pn**	**21 07 27.8**	**+0.1**
	comp=Z,20nm,0.8s						
MOY	**Mondy**	**20.14**	**11**	*e*P	**P**	**21 07 29.7**	**+1.7**
MOY				pmax	pmax		
	comp=Z,36nm,1.4s						
NJ2	**Nanjing**	**20.18**	**83**	*e*P	**P**	**21 07 30.6**	**+2.0**
NJ2				pP		21 07 39.5	
NJ2				sP	sP	21 07 44.4	+5.2
NJ2				PP		21 07 49.9	
NJ2				S	**S**	**21 11 10.6**	**-3.2**
NJ2				sS	sS	21 11 19.6	-5.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NJ2				pmax	pmax		
	comp=Z,250nm,7.9s						
NJ2				LR	LR		
	comp=N,160nm,10.4s						
NJ2				LR	LR		
	comp=E,470nm,17.6s						
NJ2				LR	LR		
	comp=Z,1µm,10.1s,MS4.6						
TLY	**Talaya**	**20.66**	**15**	*e*P	**P**	**21 07 34.6**	**+1.0**
TLY				pmax	pmax		
	comp=Z,8.0nm,1.1s						
TLY				MLR	MLR		
	comp=Z,296nm,11.0s,MS3.9						
TLY	**Talaya**	**20.66**	**15**	*e*Pn	**P**	**21 07 33.6**	**0.0**
	comp=Z,7.1nm,1.0s						
HYB	**Hyderabad**	**20.82**	**230**	*i* P	**P**	**21 07 37.0**	**+1.4**
HYB	**Hyderabad**	**20.82**	**230**	*e*P	**P**	**21 07 35.0**	**-0.6**
IRK	**Irkutsk**	**21.33**	**16**	*e*P	**P**	**21 07 41.2**	**+0.4**
IRK				pmax	pmax		
	comp=Z,66nm,1.5s,mb4.7						
QZH	**Quanzhou**	**21.83**	**103**	*e*P	**P**	**21 07 46.0**	**-0.4**
QZH				*e*S	**S**	**21 11 43.2**	**-3.2**
QZH				LR	LR		
	comp=N,1µm,8.6s						
QZH				LR	LR		
	comp=E,1µm,5.2s						
QZH				LR	LR		
	comp=Z,960nm,20.9s,MS4.2						
SSE	**Sheshan**	**22.28**	**85**	P	**P**	**21 07 50.1**	**-1.1**
SSE				sP	sP	21 08 05.7	+3.9
SSE				S	**S**	**21 11 53.9**	**-1.2**
SSE				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.4						
SSE				pmax	pmax		
	comp=Z,140nm,5.2s						
SSE				LR	LR		
	comp=N,310nm,13.0s,MS4.2						
SSE				LR	LR		
	comp=E,540nm,13.0s,MS4.2						
SSE				LR	LR		
	comp=Z,570nm,13.2s,MS4.2						
KURK	**Kurchatov**	**22.32**	**332**	P	**P**	**21 07 50.3**	**-1.1**
KURK				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.6						
KURK	**Kurchatov**	**22.32**	**332**	P	**P**	**21 07 50.3**	**-1.1**
	comp=Z,23nm,1.0s,mb4.6,baz=138,slow=11,SNR=48						
KURK	**Kurchatov**	**22.32**	**332**	*e*P	**P**	**21 07 49.3**	**-2.1**
	comp=Z,82nm,1.3s,mb5.0						
KURK				*e*S	**S**	**21 11 39.0**	**-16**
ZALV	**Zalesovo Beam**	**23.14**	**345**	P	**P**	**21 07 59.2**	**-0.9**
ZALV				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.3						
ZALV	**Zalesovo Beam**	**23.14**	**345**	P	**P**	**21 07 59.2**	**-0.9**
	comp=Z,14nm,1.1s,mb4.3,baz=156,slow=11,SNR=28						
KRAR	**Krasnoyarsk**	**24.07**	**357**	*e*P	**P**	**21 08 08.2**	**-0.7**
KRAR				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.2						
YHNB	**Yeheng**	**24.25**	**101**	P	**P**	**21 08 19.8**	**+8.9**
NVS	**Novosibirsk**	**24.33**	**343**	*e*P	**P**	**21 08 10.7**	**-0.7**
NVS				pmax	pmax		
	comp=Z,59nm,1.9s,mb4.7						
NVS				pmax	pmax		
	comp=N,79nm,2.3s						
NVS				pmax	pmax		
	comp=E,23nm,1.3s						
HIA	**Hailar**	**25.30**	**40**	*e*P	**P**	**21 08 20.8**	**+0.6**
HIA				pmax	pmax		
	comp=Z,38nm,1.4s						
HIA	**Hailar**	**25.30**	**40**	*e*P	**P**	**21 08 20.8**	**+0.5**
	comp=Z,38nm,1.4s,mb4.7						
CN2	**Changchun**	**26.58**	**55**	⇓P	**P**	**21 08 32.3**	**+0.4**
CN2				*e*pP	pP	21 08 41.6	+2.0
CN2				*e*S	**S**	**21 13 01.4**	**-3.4**
CN2				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.6						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,400nm,10.0s,MS4.4						
CN2				LR	LR		
	comp=E,400nm,10.0s,MS4.4						
CN2				LR	LR		
	comp=Z,400nm,12.0s,MS4.2						
KSRS	**Korea Array**	**27.48**	**69**	P	**P**	**21 08 39.3**	**-0.7**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.5						
KSRS				MLR	MLR		
	comp=Z,203nm,21.4s,MS3.7						
KSRS	**Korea Array**	**27.48**	**69**	P	**P**	**21 08 39.3**	**-0.7**
	comp=Z,1.4nm,0.7s,mb3.6,baz=266,slow=9.8,SNR=5.1						
KSRS				LR	LR	21 20 36.5	
	comp=Z,202nm,21.4s,MS3.7,baz=98,slow=39						
BVAR	**Borovoye Array**	**27.55**	**327**	P	**P**	**21 08 40.5**	**0.0**
BVAR						21 11 57.8	
BVAR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BVAR				MLR	MLR		
	comp=Z,247nm,21.7s						
BVAR	**Borovoye Array**	**27.55**	**327**	P	**P**	**21 08 40.5**	**+0.1**
	comp=Z,5.0nm,0.8s,mb4.2,baz=134,slow=9.3,SNR=22						
BVAR				PcP	PcP	21 11 57.8	0.0
	comp=Z,0.8nm,0.6s,baz=101,slow=2.9,SNR=4.6						
BVAR				LR	LR	21 20 26.2	
	comp=Z,247nm,21.7s,MS3.8,baz=103,slow=38						
BVAR	**Borovoye Array**	**27.55**	**327**	P	**P**	**21 08 40.5**	**+0.1**
BVAR				PcP	PcP	21 11 57.8	0.0
BVAR				LR	LR	21 20 26.2	
BRVK	**Borovoye**	**27.62**	**327**	*e*P	**P**	**21 08 41.2**	**+0.1**
BRVK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.6						
BRVK	**Borovoye**	**27.62**	**327**	*e*P	**P**	**21 08 41.2**	**+0.1**
	comp=Z,12nm,0.8s,mb4.6						
PALK	**Pallekele**	**27.99**	**212**	*e*P	**P**	**21 08 45.5**	**+0.7**
PALK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
PALK	**Pallekele**	**27.99**	**212**	*e*P	**P**	**21 08 45.5**	**+0.7**
	comp=Z,6.3nm,0.9s,mb4.2						
BOD	**Bodaibo**	**28.90**	**21**	*e*P	**P**	**21 08 49.5**	**-3.0**

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BOD                              pmax   pmax
      comp=Z,2.0nm,1.4s,mb3.6
JOW   Kunigami        29.32  91  LR     LR      21 20 54.4
      comp=Z,125nm,20.2s,MS3.5,baz=258,slow=37
MDJ   Mudanjiang      29.67  55  P      P       21 08 58.7 -0.7
MDJ                              pP     pP      21 09 07.5 +0.2
MDJ                              sP     sP      21 09 11.4 +0.9
MDJ                              S      S       21 13 52.4 -1.0
MDJ                              sS     sS      21 14 07.4 +1.1
MDJ                              ScP    ScP     21 15 42.6 -0.8
MDJ                              ScS    ScS     21 19 37.5 -0.7
MDJ                              pmax   pmax
      comp=Z,10.0nm,2.1s,mb4.2
MDJ                              pmax   pmax
      comp=Z,130nm,5.2s
MDJ                              LR     LR
      comp=N,310nm,14.8s
MDJ                              LR     LR
      comp=E,140nm,7.0s
MDJ                              LR     LR
      comp=Z,200nm,7.0s
KLR   Kul'dur         32.35  47 eP      P       21 09 17.8 -5.3
AKTK  Aktyubinsk      32.96 315  P      P       21 09 28.9 +0.6
AKTK                             LR     LR      21 24 23.3
AKTO  Aktyubinsk      32.96 315  P      P       21 09 28.9 +0.6
AKTO                             pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.6
AKTO                             MLR    MLR
      comp=Z,217nm,19.6s,MS3.9
AKTO  Aktyubinsk      32.96 315  P      P       21 09 28.9 +0.6
      comp=Z,5.7nm,0.7s,mb4.6,baz=110,slow=9.0,SNR=22
AKTO                             LR     LR      21 24 23.3
      comp=Z,217nm,19.6s,MS3.9,baz=234,slow=39
HABR  Khabarovsk      34.24  49  P      P       21 09 38.1 -1.4
HABR                            e*SP    sP      21 09 50.6  0.0
HABR                            e               21 10 50.8
HABR                            e               21 12 13.2
HABR                            eSS     SS      21 17 13.6  -20
HABR                                            21 19 57.8
HABR                             MLR    MLR
      comp=Z,64nm,14.0s,MS3.5
SVE   Sverdlovsk      34.33 327⇓eP      P       21 09 41.4 +1.2
SVE                             eS      S       21 15 04.2 -1.7
SVE                              pmax   pmax
      comp=Z,33nm,1.1s,mb5.2
ARU   Arti            35.13 325 eP      P       21 09 47.5 +0.4
ARU                             e               21 12 18.1
ARU                              pmax   pmax
      comp=Z,13nm,0.9s,mb4.9
ARU   Arti            35.13 325 eP      P       21 09 47.5 +0.4
      comp=Z,13nm,0.9s,mb4.8
ARU                             ePcP    PcP     21 12 18.1  0.0
MAJO  Matsushiro      35.73  71 eP      P       21 09 56.9 +4.4
MJAR  Matsushiro Arr  35.73  71  LR     LR      21 23 35.0
      comp=Z,97nm,18.2s,MS3.6,baz=295,slow=35
YAK   Yakutsk         37.38  26 eP      P       21 10 04.6 -1.7
YAK                              pmax   pmax
      comp=Z,15nm,0.9s,mb4.8
YAK                              pmax   pmax
      comp=N,6.0nm,1.2s
YAK                              pmax   pmax
      comp=E,11nm,1.3s
YAK   Yakutsk         37.38  26 eP      P       21 10 06.4 +0.1
YAK                             ePcP    PcP     21 12 23.9 -0.8
DAV   Davao City (W)  37.73 125  LR     LR      21 27 54.9
      comp=E,203nm,19.4s,MS3.9,baz=340,slow=40
ASAJ  Asahikawa       38.84  58  P      P       21 10 19.0 +0.2
ASAJ                             pmax   pmax
      comp=Z,4.0nm,0.6s
ASAJ  Asahikawa       38.84  58  P      P       21 10 18.9 +0.1
      comp=Z,4.4nm,0.6s,mb4.4,baz=260,slow=13,SNR=10
YSS   Yuzh-Sakhalins  39.12  53 eP      P       21 10 21.0 -0.1
YSS                              pmax   pmax
      comp=Z,80nm,1.6s,mb5.2
YSS   Yuzh-Sakhalins  39.12  53 eP      P       21 10 21.0 -0.1
MIB   Mutribah        40.74 280 eP      P       21 10 34.3 -0.5
MIB                              AMb    AMB     21 10 39.7
      comp=Z,35nm,1.5s,mb4.8
RDF   Al-Radifah      40.81 279 eP      P       21 10 34.8 -0.5
RDF                              AMb    AMB     21 10 40.3
      comp=Z,32nm,1.4s,mb4.8
NAY   Al-Naaiem       40.98 279 eP      P       21 10 36.1 -0.6
NAY                              AMb    AMB     21 10 41.6
      comp=Z,21nm,1.2s,mb4.6
GNI   Garni           41.01 296  P      P       21 10 38.8 +1.9
GNI                              pmax   pmax
      comp=Z,12nm,1.0s
GNI   Garni           41.01 296  P      P       21 10 38.8 +1.9
      comp=Z,12nm,1.0s,mb4.5,baz=147,slow=12,SNR=12
GNI   Garni           41.01 296 eP      P       21 10 38.8 +1.9
      comp=Z,34nm,1.4s,mb4.8
GOF   Gofitskoye      42.05 303 eP      sP      21 11 03.4 +6.9
GOF                              pmax   pmax
      comp=Z,50nm,1.3s,mb5.0
KIV   Kislovodsk      42.32 302 eP      P       21 10 48.2 +0.6
KIV                              pmax   pmax
      comp=Z,12nm,1.2s,mb4.4
KIV   Kislovodsk      42.32 302 eP      P       21 10 49.1 +1.5
      comp=Z,16nm,1.2s,mb4.5
KIV                             ePcP    PcP     21 12 43.1 +2.3
TIXI  Tiksi           43.64  15⇑eP      P       21 10 56.8 -1.1
TIXI                             pmax   pmax
      comp=Z,20nm,1.7s,mb4.6
TIXI  Tiksi           43.64  15 eP      P       21 10 56.5 -1.3
      comp=Z,26nm,1.5s,mb4.7
VSR   Storozhevoye    44.80 312 eP      P       21 11 07.2 -0.2
VSR                              pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.2
VSR                              pmax   pmax
      comp=N,3.0nm,0.8s
VSR                              pmax   pmax
      comp=E,10.0nm,1.1s
KLMR  Klimovskoe      45.96 326 eP      P       21 11 14.6 -1.9
KLMR                            e               21 13 02.4
KLMR                             pmax   pmax
      comp=Z,25nm,1.3s,mb5.0
MALT  Malatya         46.12 294 eP      P       21 11 17.3 -0.7
MALT                             pmax   pmax
      comp=Z,23nm,1.5s,mb4.9
MALT  Malatya         46.12 294 eP      P       21 11 17.3 -0.7
      comp=Z,23nm,1.5s,mb4.9
OBN   Obninsk         46.63 318⇑eP      P       21 11 21.8  0.0
OBN                             e               21 13 12.2
OBN                             eS      S       21 18 05.0 -4.1
OBN                              pmax   pmax
      comp=Z,21nm,1.0s,mb5.0
OBN   Obninsk         46.63 318 eP      P       21 11 21.1 -0.7
      comp=Z,19nm,0.9s,mb5.0
SEY   Seymchan        47.26  32⇑eP      P       21 11 27.3 +0.7
ASF   Jabal al Asfar  48.73 287  P      P       21 11 39.9 +1.4
ASF                              pmax   pmax
      comp=Z,5.0nm,1.1s
ASF   Jabal al Asfar  48.73 287  P      P       21 11 39.9 +1.4
      comp=Z,5.3nm,1.1s,mb4.5,baz=214,slow=3.7,SNR=4.8
GUMO  Guam            48.99 100  LR     LR      21 33 40.9
      comp=Z,90nm,20.1s,MS3.8,baz=260,slow=38
BRTR  Keskin Array B  49.52 297  P      P       21 11 44.5 +0.1
BRTR                             pmax   pmax
      comp=Z,3.0nm,0.9s
BRTR  Keskin Array B  49.52 297  P      P       21 11 44.5 +0.1
      comp=Z,2.6nm,0.8s,mb4.3,baz=106,slow=5.8,SNR=7.7
MMAI  Mount Meron Ar  49.71 288  P      P       21 11 45.5 -0.4
      comp=Z,0.8nm,0.5s,mb4.0,baz=93,slow=12,SNR=4.2
APA   Apatity         50.08 334⇑eP      P       21 11 49.6 +1.4
JOF   Joensuu         50.15 328 eP      P       21 11 48.1 -0.7
JOF                              pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.5
JOF   Joensuu         50.15 328 ep      P       21 11 48.1 -0.7
      comp=Z,3.9nm,0.8s,mb4.5
AKASG Malin Array Be  51.09 312  P      P       21 11 55.5 -0.6
AKASG                            pmax   pmax
      comp=Z,10.0nm,0.6s
AKASG Malin Array Be  51.09 312  P      P       21 11 55.5 -0.6
      comp=Z,9.8nm,0.6s,mb4.9,baz=73,slow=7.0,SNR=30
KIEV  Kiev            51.10 312 eP      P       21 11 55.6 -0.6
KIEV                             pmax   pmax
      comp=Z,13nm,0.8s,mb4.9
KIEV  Kiev            51.10 312 eP      P       21 11 55.6 -0.5
      comp=Z,13nm,0.8s,mb4.9
ISP   Isparta         52.32 295 eP      P       21 12 07.2 +1.7
KAF   Kangasniemi     52.40 326 eP      P       21 12 07.7 +2.0
KAF                              pmax   pmax
      comp=Z,2.0nm,0.7s,mb4.2
KAF   Kangasniemi     52.40 326 ep      P       21 12 07.7 +2.0
      comp=Z,2.0nm,0.7s,mb4.2
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KEV   Kevo            52.78 336 ep      P       21 12 08.0 -0.4
      comp=Z,8.3nm,0.7s,mb4.8
KEV   Kevo            52.78 336  P      P       21 12 08.7 +0.3
ARCES ARCESS Array B  53.28 336  P      P       21 12 12.3 +0.2
ARCES                            pmax   pmax
      comp=Z,5.0nm,0.7s
ARCES ARCESS Array B  53.28 336  P      P       21 12 12.2 +0.2
      comp=Z,4.9nm,0.7s,mb4.6,baz=90,slow=7.0,SNR=22
VRI   Vrincioaia      53.38 306⇑iP      P       21 12 14.0 +0.8
PLOR  Plostina        53.44 306⇑iP      P       21 12 14.8 +1.2
BILL  Bilibino        53.74  26⇑eP      P       21 12 16.1 +0.6
BILL                            e               21 14 15.5
BILL                            eS      S       21 19 50.3 +2.5
BILL                             pmax   pmax
      comp=Z,13nm,1.1s,mb4.8
BILL                             MLR    MLR
      comp=Z,100nm,18.0s,MS3.9
BILL  Bilibino        53.74  26 eP      P       21 12 15.1 -0.4
      comp=Z,15nm,1.3s,mb4.8
MLR   Muntele Rosu    53.99 306⇑iP      P       21 12 19.3 +1.6
MLR   Muntele Rosu    53.99 306 ⇑P      P       21 12 19.3 +1.6
BURAR Bucovina Array  54.10 308⇑iP      P       21 12 18.6 +0.2
BURAR Bucovina Array  54.10 308 ⇑P      P       21 12 18.6 +0.2
SUW   Suwalki         54.44 316 eP      P       21 12 20.4 -0.4
SUW                             e               21 12 24.5
SUW   Suwalki         54.44 316 eP      P       21 12 20.4 -0.4
SUW                             e               21 12 24.5
LVV   L'vov           54.50 311 eP      P       21 12 20.9 -0.4
VOIR                  54.62 306⇑iP      P       21 12 22.7 +0.4
VOIR                  54.62 306 ⇑P      P       21 12 22.7 +0.4
KWP   Kalwaria Pacla  55.38 311 eP      P       21 12 28.1 +0.4
KWP                             e               21 12 32.0
KWP   Kalwaria Pacla  55.38 311 eP      P       21 12 28.1 +0.4
KWP                             e               21 12 32.0
KOLS  Kolonicke sedl  55.79 310 eP      P       21 12 30.8 +0.2
KOLS                             pmax   pmax
      comp=Z,6.0nm,1.6s,mb4.4
KOLS  Kolonicke sedl  55.79 310 eP      P       21 12 30.8 +0.2
      comp=Z,6.2nm,1.6s,mb4.4
DRGR                  55.93 308⇓iP      P       21 12 32.0 +0.3
DRGR                  55.93 308 ⇓P      P       21 12 32.0 +0.3
GZR   Gura Zlata      56.20 306⇑iP      P       21 12 33.9 +0.3
GZR   Gura Zlata      56.20 306 ⇑P      P       21 12 33.9 +0.3
CRVS  Cervenica-Dubn  56.32 310 eP      P       21 12 37.0 +2.6
CRVS                             pmax   pmax
      comp=Z,9.0nm,1.5s,mb4.6
CRVS  Cervenica-Dubn  56.32 310 eP      P       21 12 37.0 +2.6
      comp=Z,8.5nm,1.5s,mb4.5
STHS  Stebnicka Huta  56.36 311 eP      P       21 12 34.7  0.0
STHS                             pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.4
STHS  Stebnicka Huta  56.36 311 eP      P       21 12 34.7  0.0
      comp=Z,3.1nm,0.7s,mb4.5
BZS   Buzias          56.94 307⇑iP      P       21 12 38.8 -0.1
BZS   Buzias          56.94 307 ⇑P      P       21 12 38.8 -0.1
NIE   Niedzica        56.95 311 eP      P       21 12 39.7 +0.8
OJC   Ojcow           57.11 312 eP      P       21 12 40.7 +0.7
PSZ   Piszkesteto     57.55 310 eP      P       21 12 42.2 -1.0
PSZ                              pmax   pmax
      comp=Z,4.0nm,0.7s,mb4.6
PSZ   Piszkesteto     57.55 310 eP      P       21 12 42.1 -1.0
      comp=Z,3.5nm,0.7s,mb4.5
VYHS  Vyhne           58.11 310 eP      P       21 12 47.2 +0.1
OKC   Ostrava-Krasne  58.24 312 eP      P       21 12 48.0 +0.1
MORC  Moravsky Berou  58.63 312⇑iP      P       21 12 50.6 -0.1
MORC  Moravsky Berou  58.63 312 eP      P       21 12 50.5 -0.1
MODS  Modra-Piesok    59.14 311 eP      P       21 12 55.1 +0.8
MODS                             pmax   pmax
      comp=Z,3.0nm,1.4s,mb4.1
MODS  Modra-Piesok    59.14 311 eP      P       21 12 55.1 +0.8
      comp=Z,3.0nm,1.4s,mb4.1
DPC   Dobruska-Polom  59.26 313 eP      P       21 12 55.5 +0.5
DPC                             ex      x       21 12 59.3
UPC   Upice           59.41 313 eP      P       21 12 56.6 +0.5
NB2   NORSAR Subarra  59.67 326  P      P       21 12 57.0 -0.7
      comp=Z,5.6nm,0.7s,mb4.7,baz=79,slow=6.9
NOA   NORSAR Array B  59.67 326  P      P       21 12 57.3 -0.4
NOA                              pmax   pmax
      comp=Z,5.0nm,0.7s
NOA   NORSAR Array B  59.67 326  P      P       21 12 57.3 -0.4
      comp=Z,5.1nm,0.7s,mb4.7,baz=78,slow=6.8,SNR=16
CONA  Conrad Observa  60.18 310⇑iP      P       21 13 01.9 +0.5
      comp=Z,12nm,0.8s,mb5.0
CSNA  Conrad Observa  60.18 310⇑iP      P       21 13 01.9 +0.5
      comp=Z,11nm,0.8s,mb4.9
PRU   Pruhonice       60.46 313 eP      P       21 13 03.3  0.0
PRU                             ex      x       21 13 07.2
BRG   Berggiesshubel  60.59 314 eP      P       21 13 04.2 +0.1
      comp=Z,21nm,1.8s,mb5.0
BRG   Berggiesshubel  60.59 314 eP      P       21 13 04.3 +0.1
      comp=Z,5.7nm,0.9s,mb4.7
BRG                             i               21 13 07.9
      comp=Z,7.8nm,0.9s
KONO  Kongsberg       60.77 325 eP      P       21 13 04.9 -0.3
KONO                             pmax   pmax
      comp=Z,2.0nm,0.4s,mb4.6
KONO  Kongsberg       60.77 325 eP      P       21 13 04.9 -0.4
      comp=Z,1.6nm,0.4s,mb4.5
CLL   Collm           61.04 315 eP      P       21 13 07.0 -0.2
CLL                              pmax   pmax
      comp=Z,6.0nm,1.0s,mb4.7
CLL   Collm           61.04 315 eP      P       21 13 07.0 -0.2
      comp=Z,6.0nm,1.0s,mb4.7
CLL   Collm           61.04 315 eP      P       21 13 07.0 -0.2
      comp=Z,6.0nm,1.0s,mb4.7
SOKA  Soboth          61.07 309⇓iP      P       21 13 07.4 -0.1
      comp=Z,4.7nm,0.7s,mb4.7
KHC   Kasperske Hory  61.30 312 eP      P       21 13 08.9 -0.1
KHC                             ex      x       21 13 12.6
GEC2  GERESS Array S  61.30 312 eP      P       21 13 09.1 +0.1
GEC2                             pmax   pmax
      comp=Z,45nm,2.5s,mb5.2
GEC2  GERESS Array S  61.30 312 eP      P       21 13 09.1 +0.1
      comp=Z,45nm,2.5s,mb5.2
GEC2  GERESS Array S  61.30 312 eP      P       21 13 09.1 +0.1
      comp=Z,45nm,2.5s,mb5.2
GERES GERESS Array B  61.30 312  P      P       21 13 09.3 +0.3
GERES                            pmax   pmax
      comp=Z,3.0nm,0.7s
GERES                            MLR    MLR
      comp=Z,364nm,18.2s
GERES GERESS Array B  61.30 312  P      P       21 13 09.3 +0.3
      comp=Z,3.1nm,0.7s,mb4.5,baz=63,slow=5.6,SNR=19
GERES                            LR     LR      21 41 57.3
      comp=Z,364nm,18.2s,MS4.6,baz=132,slow=38
TANN  Tannenbergstha  61.62 314 eP      P       21 13 11.2  0.0
WET   Wettzell        61.73 312 eP      P       21 13 12.4 +0.5
WET   Wettzell        61.73 312 eP      P       21 13 12.4 +0.5
WET   Wettzell        61.73 312 eP      P       21 13 12.4 +0.5
MANZ  Manzenberg      61.96 313 eP      P       21 13 14.1 +0.6
ROTZ  Rotzenmuhle     61.97 313 eP      P       21 13 14.3 +0.8
MOX   Moxa            62.07 314 eP      P       21 13 13.8 -0.4
      comp=Z,11nm,1.6s,mb4.7
MOX   Moxa            62.07 314 eP      P       21 13 13.8 -0.4
MOX                              pmax   pmax
      comp=Z,11nm,1.6s,mb4.7
MOX   Moxa            62.07 314 eP      P       21 13 14.1 -0.1
      comp=Z,9.0nm,1.5s,mb4.7
NRDL  Niedersach Rie  62.42 317 eP      P       21 13 16.9 +0.4
CLZ   Clausthal       62.46 316 eP      P       21 13 17.2 +0.4
CLZ   Clausthal       62.46 316 eP      P       21 13 17.2 +0.4
CLZ   Clausthal       62.46 316 eP      P       21 13 17.2 +0.4
GRA1  Grafenberg Arr  62.60 313 eP      P       21 13 18.4 +0.7
      comp=Z,9.0nm,0.9s,mb4.9
GRA1                            epP     pP      21 13 22.2 -3.8
GRF   Grafenberg Arr  62.60 313 eP      P       21 13 18.4 +0.7
GRF                              pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.9
GRF   Grafenberg Arr  62.60 313 eP      P       21 13 18.4 +0.7
GRF                              pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.9
GRF   Grafenberg Arr  62.60 313 eP      P       21 13 18.4 +0.7
      comp=Z,9.0nm,0.9s,mb4.9
GRF                             epP     pP      21 13 22.2 -3.8
GRF   Grafenberg Arr  62.60 313 eP      P       21 13 18.4 +0.7
      comp=Z,9.0nm,0.9s,mb4.9
GRF                             epP     pP      21 13 22.2 -3.8
UBBA  Unterbreizbach  63.00 315 eP      P       21 13 21.0 +0.6
FUR   Furstenfeldbru  63.05 312 eP      P       21 13 21.4 +0.7
FUR   Furstenfeldbru  63.05 312 eP      P       21 13 21.4 +0.7
FUR   Furstenfeldbru  63.05 312 eP      P       21 13 21.4 +0.7
FETA  Feichten        63.77 311⇑iP      P       21 13 25.3 -0.2
      comp=Z,9.7nm,1.0s,mb4.8
IBBN  Ibbenburen      63.85 317 eP      P       21 13 27.1 +1.1
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WRAB  Tennant Creek   63.90 138 eP      P       21 13 26.9 +0.3
WRAB                             pmax   pmax
      comp=Z,18nm,0.8s,mb5.2
WRAB  Tennant Creek   63.90 138 eP      P       21 13 26.9 +0.3
      comp=Z,18nm,0.8s,mb5.2
WRA   Warramunga Arr  63.90 138  P      P       21 13 26.8 +0.2
WRA                              pmax   pmax
      comp=Z,12nm,0.8s
WRA   Warramunga Arr  63.90 138  P      P       21 13 26.8 +0.2
      comp=Z,12nm,0.8s,mb5.0,baz=330,slow=7.2,SNR=35
BUG   Bochum--Univer  64.42 316 eP      P       21 13 31.4 +1.7
BFO   Black Forest    64.85 313⇑eP      P       21 13 33.8 +1.2
TUE   Stuetta         64.85 310 eP      P       21 13 32.4 -0.3
      comp=Z,5.9nm,0.7s,mb4.7
CDF   Champ du Feu    65.47 313 eP      P       21 13 36.2 -0.4
      comp=Z,4.6nm,0.6s,mb4.4
CDF   Champ du Feu    65.47 313 eP      P       21 13 36.2 -0.4
CDF                              pmax   pmax
      comp=Z,2.0nm,0.6s,mb4.3
CDF   Champ du Feu    65.47 313 eP      P       21 13 36.2 -0.4
      comp=Z,2.3nm,0.6s,mb4.4
WLF   Walferdange     65.71 315  P      P       21 13 38.7 +0.5
      comp=Z,16nm,1.4s,mb4.8
WLF   Walferdange     65.71 315 eP      P       21 13 36.4 -1.8
WLF                              pmax   pmax
      comp=Z,23nm,1.1s,mb5.1
WLF   Walferdange     65.71 315 eP      P       21 13 36.4 -1.8
      comp=Z,23nm,1.1s,mb5.1
HINF  Hinteralfeld    65.95 312 eP      P       21 13 39.0 -0.8
      comp=Z,5.2nm,0.6s,mb4.4
HINF  Hinteralfeld    65.95 312 eP      P       21 13 39.0 -0.8
HINF                             pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.5
HINF  Hinteralfeld    65.95 312 eP      P       21 13 39.0 -0.8
      comp=Z,2.6nm,0.6s,mb4.4
HAU   Haudompre       66.20 313 eP      P       21 13 40.7 -0.6
PGF   Pioggiola       66.52 307 eP      P       21 13 43.0 -0.5
ASAR  Alice Springs   66.65 141  P      P       21 13 44.7 +0.3
ASAR                             pmax   pmax
      comp=Z,11nm,0.7s
ASAR  Alice Springs   66.65 141  P      P       21 13 44.7 +0.3
      comp=Z,11nm,0.7s,mb5.0,baz=325,slow=6.3,SNR=48
BAIF  Baives          66.73 315 eP      P       21 13 44.6 -0.1
MEZF  Maizieres J'vi  66.82 314 eP      P       21 13 45.0 -0.3
CABF  La Chapelle     66.89 311 eP      P       21 13 45.9 +0.1
      comp=Z,14nm,1.2s,mb4.6
CABF  La Chapelle     66.89 311 eP      P       21 13 45.9 +0.1
CABF                             pmax   pmax
      comp=Z,7.0nm,1.2s,mb4.6
CABF  La Chapelle     66.89 311 eP      P       21 13 45.9 +0.1
      comp=Z,7.0nm,1.2s,mb4.6
LPG   La Plagne       66.89 310 eP      P       21 13 46.1 +0.3
      comp=Z,19nm,0.8s,mb4.9
LPG   La Plagne       66.89 310 eP      P       21 13 46.1 +0.3
LPG                              pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.8
LPG   La Plagne       66.89 310 eP      P       21 13 46.1 +0.3
      comp=Z,9.4nm,0.8s,mb4.9
LPL   La Plagne       66.90 310 eP      P       21 13 46.0 +0.2
      comp=Z,24nm,0.8s,mb5.0
LPL   La Plagne       66.90 310 eP      P       21 13 46.0 +0.2
LPL                              pmax   pmax
      comp=Z,12nm,0.8s,mb5.0
LPL   La Plagne       66.90 310 eP      P       21 13 46.0 +0.2
      comp=Z,12nm,0.8s,mb5.0
SBF   Sospel          67.07 308 eP      P       21 13 46.6 -0.4
      comp=Z,20nm,0.7s,mb5.0
SBF   Sospel          67.07 308 eP      P       21 13 46.6 -0.4
SBF                              pmax   pmax
      comp=Z,10.0nm,0.7s,mb5.0
SBF   Sospel          67.07 308 eP      P       21 13 46.6 -0.4
      comp=Z,9.9nm,0.7s,mb5.0
BNI   Bardonecchia    67.11 310 eP      P       21 13 46.6 -0.6
BNI                              pmax   pmax
      comp=Z,5.0nm,0.8s,mb4.6
BNI   Bardonecchia    67.11 310 eP      P       21 13 46.6 -0.6
      comp=Z,4.7nm,0.8s,mb4.6
MBDF  Montbardon      67.17 309 eP      P       21 13 47.0 -0.6
      comp=Z,8.7nm,0.7s,mb4.6
MBDF  Montbardon      67.17 309 eP      P       21 13 47.0 -0.6
MBDF                             pmax   pmax
      comp=Z,4.0nm,0.7s,mb4.6
MBDF  Montbardon      67.17 309 eP      P       21 13 47.0 -0.6
      comp=Z,4.3nm,0.7s,mb4.6
ORIF  Oris-en-Rattie  67.68 310 eP      P       21 13 50.2 -0.6
      comp=Z,11nm,0.9s,mb4.6
ORIF  Oris-en-Rattie  67.68 310 eP      P       21 13 50.2 -0.6
ORIF                             pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.6
ORIF  Oris-en-Rattie  67.68 310 eP      P       21 13 50.2 -0.6
      comp=Z,5.7nm,0.9s,mb4.6
FRF   La Foret Royal  67.72 308 eP      P       21 13 50.2 -0.9
      comp=Z,14nm,0.9s,mb4.7
FRF   La Foret Royal  67.72 308 eP      P       21 13 50.2 -0.9
FRF                              pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.7
FRF   La Foret Royal  67.72 308 eP      P       21 13 50.2 -0.9
      comp=Z,7.1nm,0.9s,mb4.7
LMR   La Mourre       67.90 308 eP      P       21 13 51.6 -0.6
      comp=Z,16nm,0.9s,mb4.7
LMR   La Mourre       67.90 308 eP      P       21 13 51.6 -0.6
LMR                              pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.8
LMR   La Mourre       67.90 308 eP      P       21 13 51.6 -0.6
      comp=Z,7.8nm,0.9s,mb4.7
LOR   Lormes          68.04 313 eP      P       21 13 52.0 -1.0
SMF   Signal de Mont  68.30 312 eP      P       21 13 54.0 -0.7
      comp=Z,17nm,1.0s,mb4.8
SMF   Signal de Mont  68.30 312 eP      P       21 13 54.0 -0.7
SMF                              pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.8
SMF   Signal de Mont  68.30 312 eP      P       21 13 54.0 -0.7
      comp=Z,8.6nm,1.0s,mb4.7
SSF   Saint Saulge    68.34 313 eP      P       21 13 54.1 -0.8
      comp=Z,8.5nm,0.8s,mb4.5
SSF   Saint Saulge    68.34 313 eP      P       21 13 54.1 -0.8
SSF                              pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.5
SSF   Saint Saulge    68.34 313 eP      P       21 13 54.1 -0.8
      comp=Z,4.3nm,0.8s,mb4.5
VIVF  Saint-Julien-l  68.50 310 eP      P       21 13 55.4 -0.5
      comp=Z,16nm,1.1s,mb4.7
VIVF  Saint-Julien-l  68.50 310 eP      P       21 13 55.4 -0.5
VIVF                             pmax   pmax
      comp=Z,8.0nm,1.1s,mb4.7
VIVF  Saint-Julien-l  68.50 310 eP      P       21 13 55.4 -0.5
      comp=Z,8.2nm,1.1s,mb4.7
AVF   Avril sur Loir  68.55 312 eP      P       21 13 55.5 -0.7
      comp=Z,16nm,1.0s,mb4.6
AVF   Avril sur Loir  68.55 312 eP      P       21 13 55.5 -0.7
AVF                              pmax   pmax
      comp=Z,8.0nm,1.0s,mb4.6
AVF   Avril sur Loir  68.55 312 eP      P       21 13 55.5 -0.7
      comp=Z,7.9nm,1.0s,mb4.6
MBAR  Mbarara         68.73 255 eP      P       21 13 57.0 -0.8
HYF   Humbligny       68.80 313 eP      P       21 13 57.5 -0.3
BGF   Bois d'Agland   68.96 312 eP      P       21 13 58.1 -0.7
      comp=Z,7.9nm,0.7s,mb4.5
BGF   Bois d'Agland   68.96 312 eP      P       21 13 58.1 -0.7
BGF                              pmax   pmax
      comp=Z,4.0nm,0.7s,mb4.5
BGF   Bois d'Agland   68.96 312 eP      P       21 13 58.1 -0.7
      comp=Z,4.0nm,0.7s,mb4.5
KEST  Kesra           69.01 300  P      P       21 13 59.2 -0.1
      comp=Z,1.2nm,0.8s,mb3.9,baz=28,slow=8.3,SNR=6.8
TCF   Toulx Ste Croi  69.47 312 eP      P       21 14 01.8 -0.2
      comp=Z,28nm,1.1s,mb4.8
TCF   Toulx Ste Croi  69.47 312 eP      P       21 14 01.8 -0.2
TCF                              pmax   pmax
      comp=Z,14nm,1.1s,mb4.8
TCF   Toulx Ste Croi  69.47 312 eP      P       21 14 01.8 -0.2
      comp=Z,14nm,1.1s,mb4.8
LDF   La Druitiere    69.92 315 eP      P       21 14 04.5 -0.2
      comp=Z,7.6nm,0.7s,mb4.4
LDF   La Druitiere    69.92 315 eP      P       21 14 04.5 -0.2
LDF                              pmax   pmax
      comp=Z,4.0nm,0.7s,mb4.5
LDF   La Druitiere    69.92 315 eP      P       21 14 04.5 -0.2
      comp=Z,3.8nm,0.7s,mb4.4
CAF   Calviac         70.15 311 eP      P       21 14 06.2  0.0
      comp=Z,10nm,0.9s,mb4.5
CAF   Calviac         70.15 311 eP      P       21 14 06.2  0.0
CAF                              pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.4
CAF   Calviac         70.15 311 eP      P       21 14 06.2  0.0
      comp=Z,5.2nm,0.9s,mb4.5
RJF   Les Rejaudoux   70.33 312 eP      P       21 14 07.4 +0.1
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Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,17nm,1.1s,mb4.6						
RJF	**Les Rejaudoux**	70.33	312	eP	P	21 14 07.4	+0.1
RJF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
RJF	**Les Rejaudoux**	70.33	312	eP	P	21 14 07.4	+0.1
	comp=Z,8.3nm,1.1s,mb4.6						
GRR	**Gorron**	70.45	315	eP	P	21 14 07.3	-0.6
	comp=Z,25nm,0.9s,mb4.8						
GRR	**Gorron**	70.45	315	eP	P	21 14 07.3	-0.6
GRR				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
GRR	**Gorron**	70.45	315	eP	P	21 14 07.3	-0.6
	comp=Z,12nm,0.9s,mb4.8						
MTLF	**Montolieu**	70.74	309	eP	P	21 14 09.5	-0.3
MFF	**Saint Martin d**	70.81	313	eP	P	21 14 09.7	-0.4
SUMG	**Summit**	70.95	347	eP	P	21 14 10.4	-0.2
	comp=Z,8.4nm,0.9s,mb4.7						
LFF	**La Frestale**	70.99	311	eP	P	21 14 11.3	0.0
	comp=Z,14nm,0.8s,mb4.6						
LFF	**La Frestale**	70.99	311	eP	P	21 14 11.3	0.0
LFF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
LFF	**La Frestale**	70.99	311	eP	P	21 14 11.3	0.0
	comp=Z,6.8nm,0.8s,mb4.6						
CTA	**Charters Tower**	71.31	129	P	P	21 14 14.4	+0.9
CTA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
CTA	**Charters Tower**	71.31	129	P	P	21 14 14.3	+0.9
	comp=Z,4.4nm,0.8s,mb4.4,baz=336,slow=12,SNR=4.1						
PPLA	**Purkeypile**	71.45	26	eP	P	21 14 14.1	+0.3
	comp=Z,63nm,1.4s,mb5.3						
SGMF	**Saint Gilles**	71.52	316	eP	P	21 14 14.2	-0.2
	comp=Z,20nm,1.0s,mb4.7						
SGMF	**Saint Gilles**	71.52	316	eP	P	21 14 14.2	-0.2
SGMF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
SGMF	**Saint Gilles**	71.52	316	eP	P	21 14 14.2	-0.2
	comp=Z,10.0nm,1.0s,mb4.7						
COLA	**College**	71.85	24	eP	P	21 14 14.9	-1.2
COLA				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.0						
COLA	**College**	71.85	24	eP	P	21 14 14.9	-1.2
	comp=Z,27nm,1.3s,mb5.0						
ROSF	**Rostrenen**	71.91	316	eP	P	21 14 16.7	-0.1
	comp=Z,24nm,0.9s,mb4.8						
ROSF	**Rostrenen**	71.91	316	eP	P	21 14 16.7	-0.1
ROSF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
ROSF	**Rostrenen**	71.91	316	eP	P	21 14 16.7	-0.1
	comp=Z,12nm,0.9s,mb4.8						
ETSF	**Etsaut**	72.75	310	eP	P	21 14 22.1	+0.2
	comp=Z,14nm,0.6s,mb4.8						
ETSF	**Etsaut**	72.75	310	eP	P	21 14 22.1	+0.2
ETSF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
ETSF	**Etsaut**	72.75	310	eP	P	21 14 22.1	+0.2
	comp=Z,6.8nm,0.6s,mb4.8						
SJPF	**Ste Jean**	73.08	310	eP	P	21 14 24.3	+0.4
	comp=Z,8.7nm,0.7s,mb4.5						
SJPF	**Ste Jean**	73.08	310	eP	P	21 14 24.3	+0.4
SJPF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
SJPF	**Ste Jean**	73.08	310	eP	P	21 14 24.3	+0.4
	comp=Z,4.3nm,0.7s,mb4.5						
PMR	**Palmer**	73.38	27	eP	P	21 14 24.6	-0.7
PMR				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
PMR	**Palmer**	73.38	27	eP	P	21 14 24.6	-0.6
	comp=Z,25nm,1.2s,mb5.0						
RES	**Resolute Bay**	73.39	3	eP	P	21 14 24.9	-0.3
RES				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
RES	**Resolute Bay**	73.39	3	eP	P	21 14 24.9	-0.2
	comp=Z,3.7nm,1.0s,mb4.3						
KDAK	**Kodiak Island**	74.22	31	⇑eP	P	21 14 30.3	+0.1
QLP	**Quilpie**	74.77	135	eP	P	21 14 37.3	+3.5
BBOO	**Buckleboo**	75.19	145	eP	P	21 14 37.9	+1.8
	comp=Z,7.2nm,0.8s,mb4.7						
ESDC	**Sonseca Array**	76.56	308	P	P	21 14 44.2	+0.2
	comp=Z,1.2nm,0.7s,mb3.9,baz=43,slow=6.9,SNR=5.9						
ESDC	**Sonseca Array**	76.56	308	P	P	21 14 44.2	+0.2
STKA	**Stephens Creek**	77.28	141	eP	P	21 14 49.5	+1.5
	comp=Z,5.1nm,0.7s,mb4.6						
STKA	**Stephens Creek**	77.28	141	P	P	21 14 48.1	+0.2
	comp=Z,6.4nm,0.7s,mb4.6,baz=330,slow=6.2,SNR=15						
TAM	**Tamanrasset**	77.91	289	eP	P	21 14 51.8	-0.1
TAM				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
TAM	**Tamanrasset**	77.91	289	eP	P	21 14 51.8	-0.1
	comp=Z,3.0nm,1.0s,mb4.2						
LSZ	**Lusaka**	79.39	245	P	P	21 15 00.0	0.0
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LSZ	**Lusaka**	79.39	245	P	P	21 14 60.0	0.0
	comp=Z,3.8nm,0.8s,mb4.4						
EVO	**Evora**	79.84	309	eP	P	21 15 02.2	0.0
	comp=Z,11nm,0.9s,mb4.5						
ARMA	**Armidale**	82.03	133	eP	P	21 15 20.0	+6.2
YKA	**Yellowknife Ar**	82.87	13	P	P	21 15 17.3	-0.5
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	**Yellowknife Ar**	82.87	13	P	P	21 15 17.3	-0.5
	comp=Z,1.9nm,0.8s,mb4.2,baz=331,slow=4.6,SNR=31						
YKA	**Yellowknife Ar**	82.87	13	P	P	21 15 17.3	-0.5
TORD	**Torodi Ar. Bea**	85.95	283	P	P	21 15 34.2	-0.1
	comp=Z,6.6nm,0.7s,mb5.0,baz=47,slow=4.9,SNR=21						
TORD	**Torodi Ar. Bea**	85.95	283	P	P	21 15 34.2	-0.1
BOSA	**Boshof**	89.61	236	P	P	21 15 50.0	-1.4
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.5						
BOSA	**Boshof**	89.61	236	P	P	21 15 50.0	-1.4
	comp=Z,2.0nm,0.8s,mb4.5,baz=135,slow=2.9,SNR=2.9						
TSUM	**Tsumeb**	89.89	247	P	P	21 15 58.2	+5.2
FFC	**Flin Flon**	92.40	10	⇑eP	P	21 16 04.1	0.0
FFC	**Flin Flon**	92.40	10	eP	P	21 16 03.6	-0.5
	comp=Z,14nm,1.4s,mb5.1						
DBIC	**Dimbokro**	94.84	281	P	P	21 16 16.2	+0.1
DBIC				pmax	pmax		
	comp=Z,3.0nm,1.1s						
DBIC	**Dimbokro**	94.84	281	P	P	21 16 16.1	+0.1
	comp=Z,3.0nm,1.1s,mb4.6,baz=30,slow=8.5,SNR=3.9						
OTAV	**Otavalo**	147.36	348	ePKPdf	PKPdf	21 22 37.6	+1.9

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*NEIC **10** 21:10:38.6, 32°.41N×115°.38W, h10^{km}, ML3.0(PAS), ML3.3(ECX), After ECX.*

ECX 10 21:10:41.1±0.4**, 32°.42N×115°.42W, h13**^{km}±4^{km}**, MD3.2, ML3.4, 1C-4D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	**Mount Signal**	0.35	312	eP	Pg	21 10 47.4	-0.7
SNR	**Schaffner Ranc**	0.44	358	eP	Pg	21 10 49.0	-0.9
EMX	**El Mayor**	0.45	161	⇓eP	Pg	21 10 48.8	-1.3
EMX				eS	Sg	21 10 55.1	-1.0
EMX				⇓e		21 11 01.5	
	comp=E,1μm,0.5s						
EMX				⇑e		21 11 02.3	
	comp=N,1μm,0.5s						
YUH	**Yuha Desert**	0.48	298	eP	Pg	21 10 49.9	-0.7
CRR	**Carrizo Plain**	0.66	315	eP	Pg	21 10 52.7	-1.3
RDX	**Rancho Dawling**	0.66	223	⇓eP	Pg	21 10 53.8	-0.2
RDX				eS	Sg	21 11 03.0	+0.3
RDX				⇓e		21 11 05.2	
	comp=N,2μm,0.4s						
GLA	**Glamis**	0.81	38	eP	Pg	21 10 53.2	-3.5
GLA				eS	Sg	21 11 03.5	-3.8
ECBX	**El Chinero**	0.99	162	eP	Pb	21 10 58.6	-1.6
ECBX				eS	Sb	21 11 12.2	-0.9
CBX	**Cerro Bola**	1.06	265	ePN	Pn	21 11 00.5	-1.1
BAR	**Barrett**	1.09	284	eP	Pb	21 11 00.9	-1.0
BAR				eS	Sb	21 11 16.2	+0.3
ECNX	**Esteban Cantu**	1.26	233	ePN	Pn	21 11 04.3	-0.1
ECNX				ePN	Pn	21 11 03.0	-1.4
PBX	**Punta Banda**	1.30	239	ePN	Pn	21 11 04.8	-0.1
PFO	**Pinyon Flat Ob**	1.47	324	ePn	Pn	21 11 04.2	-3.2
PFO				eS	Sn	21 11 22.9	-3.6
LDFC	**Landfair**	2.67	5	ePn	Pn	21 11 23.2	-0.5
LDFC				eSg	Sg	21 12 06.2	-0.6
MWC	**Mount Wilson**	2.85	310	ePn	Pn	21 11 25.3	-1.0
MWC				ePg	Pg	21 11 34.0	-1.7
MWC				Sn	Sn	21 12 01.6	+1.2
PASC	**Pasadena Art C**	2.90	308	Pn	Pn	21 11 27.3	+0.3
PASC				Sg	Sg	21 12 10.7	-3.7
GSC	**Goldstone**	3.10	339	Pn	Pn	21 11 30.7	+1.0
GSC				ePg	Pg	21 11 42.0	+1.5
GSC				Sn	Sn	21 12 07.4	+0.8
TUC	**Tucson**	3.92	90	ePn	Pn	21 11 39.1	-1.9
TUC				ePg	Pg	21 11 52.9	-3.3
TUC				eSg	Sg	21 12 43.3	-3.8
ISA	**Isabella**	4.11	323	ePn	Pn	21 11 38.9	-4.8
ISA				ePg	Pg	21 11 59.3	-0.6
ISA				Sn	Sn	21 12 33.7	+2.1
WUAZ	**Wupatki**	4.56	46	ePn	Pn	21 11 48.5	-1.4
WUAZ				ePg	Pg	21 12 05.4	-3.2
WUAZ				eSg	Sg	21 13 01.8	-5.9
TPAW	**Teton Pass**	11.60	16	Pn	Pn	21 13 26.3	0.0

PGC 10 21:12:40.6±10.0**, 57°.10N×137°.47W, h10**^{km}**, ML3.6**/8**, 10D, 129km west of Sitka, Ak Off Coast Of Southeastern Alaska, Off coast of southeastern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLBC	**Pleasant Camp**	2.43	13	⇓Pn	Pn	21 13 20.1	-0.3
PLBC				⇓Sn	Sn	21 13 48.9	-1.2
HYT	**Haines Junctio**	3.73	360	⇑Pn	Pn	21 13 37.4	-0.8
HYT				⇑Sn	Sn	21 14 19.3	-2.8
WHY	**Whitehorse**	3.81	20	⇓Pn	Pn	21 13 39.8	+0.5
WHY				⇓Sn	Sn	21 14 21.7	-2.3
NDB	**Naden**	4.07	139	⇑Pn	Pn	21 13 42.2	-0.6
VIB	**Van Inlet**	4.78	142	⇓Pn	Pn	21 13 51.5	-1.0
DIB	**Dawson Inlet,**	4.84	142	⇓Pn	Pn	21 13 52.4	-1.0
RUBB	**Prince Rupert**	4.94	121	⇓Pn	Pn	21 13 55.0	+0.3
MOBC	**Moresby Island**	5.07	139	⇓Pn	Pn	21 13 55.2	-1.3
BNB	**Barry Inlet**	5.61	142	⇑Pn	Pn	21 14 02.6	-1.3
DAWY	**Dawson**	7.05	353	⇓Pn	Pn	21 14 23.0	-0.7
DAWY				⇓Sn	Sn	21 15 38.2	-5.6

ISC 10 21:44:39.4±3.6**, 38°.7N**±0°.2×**73°.3E**±0°.1**, h35**^{km}**, n8, σ0ˢ.66**/10**, 2C, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	2.23	67	Pn	**Pn**	**21 45 12.8**	**-1.0**
KSH				Sn	**Sn**	**21 45 40.5**	**+0.3**
KSH				pmax	pmax		
	comp=Z,40nm,0.5s						
KSH				smax			
	comp=N,140nm,0.4s						
KSH				smax			
	comp=E,130nm,0.6s						
AML	**Almayashu**	3.48	5	P	Pn	21 45 30.0	-0.9
	SNR=23						
UCH	**Uchtor**	3.67	14	P	Pn	21 45 34.1	+0.5
	SNR=7.7						
KZA	**Kyzart**	3.71	23	P	Pn	21 45 34.7	+0.5
	SNR=7.4						
EKS2	**Erkin-Say**	4.01	5	P	Pn	21 45 37.9	-0.3
	SNR=6.8						
AAK	**Ala-Archa**	4.06	12	P	Pn	21 45 38.9	-0.1
	SNR=10						
USP	**Ospenovka**	4.68	11	P	Pn	21 45 48.3	+0.7
	SNR=6.6						
KK31	**Karatay Array**	4.92	335	Pn	Pn	21 45 51.7	+0.9
	comp=E,0.7nm,0.4s,baz=157,slow=16,SNR=22						
KK31				⇑Sn	Sn	21 46 45.8	-0.6
	comp=E,1.7nm,0.4s,baz=149,slow=25,SNR=4.3						
KK31				⇑Lg		21 46 58.6	
	comp=E,5.5nm,0.7s,baz=136,slow=28						

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*ISCJB **10** 22:12:22.7±1.1, 5°.09N±0°.07×125°.2E±0°.1, h68^{km}±14^{km}, mb3.8/7, Error ellipse: s-maj=22.0km s-min=11.1km az=162.7*

*NEIC **10** 22:12:25.6±1.9, 5°.21N×125°.46E, h85^{km}±23^{km}, mb4.0/4, Error ellipse: s-maj=49.6km s-min=9.2km az=70.0*

*IDC **10** 22:12:26.2±3.4, 5°.20N×125°.54E, h90^{km}±44^{km}, mb3.6/5, mb1 3.8/5, mb1mx3.4/20, mbtmp3.6/5, Error ellipse: s-maj=94.4km s-min=17.1km az=70.0*

ISC 10 22:12:23.5±1.1**, 5°.09N**±0°.07×**125°.2E**±0°.1**, h57**^{km}±14^{km}**, n19, σ0ˢ.93**/21**, mb3.9**/7**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	**Kidapawan**	1.92	355	⇑iP	Pn	22 12 53.1	-0.8
KCP				iS	Sn	22 13 16.2	-0.6
DAV	**Davao City (W)**	2.00	10	P	Pn	22 12 55.7	+0.7
	14nm,0.3s,baz=128,slow=17,SNR=3.5						
DAV				S	Sn	22 13 20.1	+1.2
	67nm,0.3s,baz=288,slow=20,SNR=4.2						
MATI	**Mati**	2.10	29	eP	Pn	22 12 51.5	-4.9
BUKP	**Musuan**	2.78	356	eP	Pn	22 13 05.6	-0.1
PAGZ	**Pagadian**	3.31	326	eP	Pn	22 13 13.2	+0.3
IPIL	**Ipil**	3.78	315	eP	Pn	22 13 19.2	-0.1
TPUB	**Ta-pu**	18.65	347	eP	Pn	22 16 36.1	-1.5
	13nm,0.8s						
KAKA	**Kakadu**	19.07	158	P	Pn	22 16 41.2	-1.5
FITZ	**Fitzroy Crossi**	23.04	179	P	P	22 17 25.2	+1.1
	3.7nm,0.8s,mb3.9,baz=0.9,slow=11,SNR=3.9						
FITZ	**Fitzroy Crossi**	23.04	179	eP	P	22 17 24.9	+0.8
	2.5nm,0.4s,mb4.0						
WRAB	**Tennant Creek**	26.42	160	eP	P	22 17 56.1	+1.1
	2.0nm,0.4s,mb4.0						
WRA	**Warramunga Arr**	26.43	160	P	P	22 17 53.9	-1.2
	2.2nm,0.5s,mb3.9,baz=341,slow=10,SNR=6.6						
MBWA	**Marble Bar**	26.64	192	P	P	22 17 57.4	+0.5
ASAR	**Alice Springs**	29.80	164	P	P	22 18 25.4	+0.3
	1.0nm,0.5s,mb3.8,baz=346,slow=7.5,SNR=23						
STKA	**Stephens Creek**	39.92	158	P	P	22 19 52.3	+0.1
	1.2nm,0.5s,mb3.9,baz=331,slow=11,SNR=5.9						
LSA	**Lhasa**	40.44	311	P	P	22 19 57.8	+1.2
MKAR	**Makanchi Array**	55.60	325	P	P	22 21 53.0	-0.4
	0.2nm,0.4s,mb3.5,baz=118,slow=7.4,SNR=12						
KURK	**Kurchatov**	59.81	328	eP	P	22 22 23.3	+0.4
BRVK	**Borovoye**	65.46	327	eP	P	22 22 57.1	-3.3
	4.3nm,1.7s,mb4.2						

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*NEIC **10** 22:16:17.2, 51°.39N×179°.47W, h2^{km}, ML3.1(AEIC), After AEIC.*

*IDC **10** 22:16:19.1±4.9, 52°.13N×179°.33W, h0^{km}, mb3.4/5, mb1 3.8/5, mb1mx3.5/24, mbtmp3.4/5, Error ellipse: s-maj=254.6km s-min=24.0km az=10.0*

ISC 10 22:16:17.8±3.3**, 51°.1N**±0°.3×**179°.5W**±0°.1**, h8**^{km}±18^{km}**, n8, σ0ˢ.77**/10**, mb3.4**/5**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMKA	**Amchitka**	0.80	288	P	Pg	22 16 32.8	-0.4
AMKA				S	Sg	22 16 44.2	+0.7
ATKA	**Atka Island**	3.47	70	P	Pn	22 17 11.7	-0.4
ATKA				S	Sn	22 17 53.9	+0.7
AKUT	**Akutan**	8.87	65	eP	Pn	22 18 25.1	-1.0
NVAR	**Mina Array Bea**	44.02	82	P	P	22 24 27.1	+1.4
	0.8nm,0.8s,mb3.5,baz=293,slow=7.6,SNR=6.0						
SONM	**Songino Array**	46.37	296	P	P	22 24 44.3	+0.1
	0.2nm,0.7s,mb3.1,baz=42,slow=9.4,SNR=2.8						
PDAR	**Pinedale Array**	46.80	72	P	P	22 24 47.4	-0.2
	0.3nm,0.5s,mb3.5,baz=310,slow=3.4,SNR=2.4						
TXAR	**Lajitas Array**	59.12	81	P	P	22 26 19.1	+0.3
	0.3nm,0.5s,mb3.6,baz=305,slow=5.4,SNR=9.0						
MKAR	**Makanchi Array**	59.84	308	P	P	22 26 22.3	-1.2
	0.3nm,0.7s,mb3.5,baz=58,slow=5.9,SNR=3.1						

GUC 10 22:31:07.1±0.4**, 22°.99S×70°.19W, h48**^{km}±1^{km}**, MD3.5, ML2.8, 2C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PECH	**Pedro de Valdi**	0.61	51	⇑iP	Pn	22 31 20.1	+0.4
PECH				iS	Sn	22 31 30.2	+1.5
PECH				AML	AML	22 31 30.7	
	comp=E,2μm,0.2s						
TOCH	**Tocopilla**	0.89	359	⇓iP	Pn	22 31 23.8	+0.5
TOCH				iS	Sn	22 31 36.2	+1.0
TOCH				AML	AML	22 31 37.3	
	comp=E,620nm,0.2s						
PB04	**Plate Boundary**	0.97	42	⇓iP	Pn	22 31 20.5	-3.9
PB04				iS	Sn	22 31 31.3	-5.7
PB04				AML	AML	22 31 31.5	
	comp=E,526nm,0.2s						
LVC	**Limon Verde**	1.24	73	⇑iP	Pn	22 31 29.2	+1.2
LVC				iS	Sn	22 31 45.8	+2.2

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*IDC **10** 23:17:04.2±2.8, 4°.60S×140°.21E, h0^{km}, mb4.0/3, mb1 4.4/6, mb1mx4.0/16, mbtmp4.2/6, ML4.3/3, MS3.1/2, Ms1 3.1/2, ms1mx2.7/21, Error ellipse: s-maj=100.7km s-min=24.6km az=96.0*

*ISCJB **10** 23:17:06.8±1.1, 4°.71S±0°.04×140°.18E±0°.09, h34^{km}±12^{km}, mb4.1/6, Error ellipse: s-maj=14.5km s-min=6.7km az=12.3*

*MOS **10** 23:17:06.9±0.6, 4°.64S×140°.19E, h33^{km}, mb4.6/2, Error ellipse: s-maj=32.2km s-min=13.6km az=91.3*

*NEIC **10** 23:17:07.7±2.8, 4°.65S×140°.21E, h26^{km}±21^{km}, mb4.3/7, Error ellipse: s-maj=8.9km s-min=7.0km az=108.0*

*DJA **10** 23:17:07, 4°.38S×139°.53E, h30^{km}, mb4.8/4*

ISC 10 23:17:08.1±2.8**, 4°.70S**±0°.05×**140°.19E**±0°.08**, h30**^{km}±22^{km}**, n42, σ0ˢ.74**/47**, mb4.1**/6**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAY	**Jayapura**	2.23	13	P	Pn	23 17 42.4	-0.7
JAY				S	Sn	23 18 10.1	+0.4
COEN	**Coen**	9.66	162	eP	Pn	23 19 26.7	+1.6
COEN				eS	Sn	23 21 09.1	-3.5
COEN	**Coen**	9.66	162	P	Pn	23 19 26.0	+0.9
	94nm,2.0s						
KAKA	**Kakadu**	11.04	223	eP	Pn	23 19 45.2	+1.1
	59nm,0.8s						
KAKA				eS	Sn	23 21 40.8	-5.8
KAKA	**Kakadu**	11.04	223	ePn	Pn	23 19 45.4	+1.3
	172nm,0.7s						
KAKA				eSn	Sn	23 21 43.3	-3.3
KAKA	**Kakadu**	11.04	223	P	Pn	23 19 45.9	+1.8
	122nm,0.8s						
KAKA				S	Sn	23 21 42.2	-4.4
	122nm,0.8s						
KNA	**Kununurra**	15.70	225	eP	Pn	23 20 46.7	-0.6
	34nm,0.4s						
KNA				eS	Sn	23 23 33.1	-7.3
WRAB	**Tennant Creek**	16.17	200	eP	Pn	23 20 52.8	-0.5
WRAB				e		23 23 44.1	
WRAB				pmax	pmax		
	comp=Z,14nm,0.6s						
WRAB	**Tennant Creek**	16.17	200	ePn	Pn	23 20 52.8	-0.5
	comp=Z,14nm,0.6s						
WRAB				eSn	Sn	23 23 44.1	-7.7
WRAB	**Tennant Creek**	16.17	200	P	Pn	23 20 52.6	-0.7
	comp=Z,30nm,0.9s						
WRA	**Warramunga Arr**	16.18	200	P	Pn	23 20 52.5	-1.0
WRA						23 23 44.4	
WRA	**Warramunga Arr**	16.18	200	Pn	Pn	23 20 52.5	-0.9
	comp=Z,1.0nm,0.3s,baz=17,slow=13,SNR=26						
WRA				Sn	Sn	23 23 44.4	-7.7
	comp=Z,1.1nm,0.3s,baz=33,slow=24,SNR=5.3						
WRA				Lg		23 25 46.1	
	comp=Z,0.3nm,0.3s,baz=18,slow=29,SNR=3.9						
CTA	**Charters Tower**	16.39	159	LR	LR	23 27 05.4	
	comp=Z,98nm,21.6s,baz=228,slow=36						
CTAO	**Charters Tower**	16.39	159	P	Pn	23 20 56.7	+0.5
GUMO	**Guam**	18.76	14	eP	Pn	23 21 24.4	-1.0
GUMO				pmax	pmax		
	comp=Z,110nm,1.2s						
GUMO	**Guam**	18.76	14	eP	Pn	23 21 24.4	-1.1
	comp=Z,110nm,1.2s						
FITZ	**Fitzroy Crossi**	19.49	226	eP	Pn	23 21 34.3	+0.1
	comp=Z,30nm,2.0s						
FITZ	**Fitzroy Crossi**	19.49	226	P	Pn	23 21 34.8	+0.6
	comp=Z,0.7nm,0.3s,baz=42,slow=16,SNR=10						
FITZ				LR	LR	23 27 57.1	
	comp=Z,48nm,21.7s,baz=192,slow=33						
FITZ	**Fitzroy Crossi**	19.49	226	P	Pn	23 21 34.2	0.0
ASAR	**Alice Springs**	19.80	197	P	Pn	23 21 37.8	-0.1
ASAR				S	Sn	23 25 07.1	-13
ASAR	**Alice Springs**	19.80	197	P	Pn	23 21 37.8	-0.1
	comp=Z,2.1nm,0.3s,baz=29,slow=9.7,SNR=124						
ASAR				S	Sn	23 25 07.1	-13
	comp=Z,0.2nm,0.3s,baz=13,slow=29,SNR=5.6						
ASAR				Lg		23 27 38.0	
	baz=21,slow=29,SNR=2.7						
HNR	**Honiara**	20.16	105	eP	P	23 21 40.4	+0.2
MBWA	**Marble Bar**	25.73	229	eP	P	23 22 37.0	+0.9
	comp=Z,8.0nm,0.9s,mb4.2						
KSM	**Kuching**	30.48	281	eP	P	23 23 18.6	-0.1
NACB	**Ninganchiao**	33.94	329	P	P	23 23 48.4	-0.5
YHNB	**Yeheng**	34.46	329	eP	P	23 23 53.7	+0.3
NWAO	**Narrogin (SRO)**	35.32	215	P	P	23 24 01.4	+0.7
YSS	**Yuzh-Sakhalins**	51.48	2	P	P	23 26 10.5	-0.2
TLY	**Talaya**	64.23	336	eP	P	23 27 39.7	-0.4
TLY				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
TLY	**Talaya**	64.23	336	eP	P	23 27 39.7	-0.4
	comp=Z,1.8nm,0.4s,mb4.5						
MKAR	**Makanchi Array**	72.26	322	P	P	23 28 31.5	+0.9
	comp=Z,1.5nm,0.7s,mb4.0,baz=100,slow=7.9,SNR=21						
SBA	**Scott Base**	74.43	174	P	P	23 28 43.5	+0.6
KURK	**Kurchatov**	76.18	325	P	P	23 28 53.7	+0.3
	comp=Z,0.5nm,0.7s,mb3.6,baz=121,slow=4.8,SNR=3.2						
KURK	**Kurchatov**	76.18	325	eP	P	23 28 53.5	+0.1
	comp=Z,0.5nm,0.5s,mb3.7						
BVAR	**Borovoye Array**	81.78	325	P	P	23 29 24.3	+0.3
	comp=Z,1.1nm,0.6s,mb4.0,baz=117,slow=5.3,SNR=7.4						
BRVK	**Borovoye**	81.85	325	eP	P	23 29 23.7	-0.7
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
BRVK	**Borovoye**	81.85	325	eP	P	23 29 23.7	-0.7
	comp=Z,1.1nm,0.5s,mb4.0						
PMR	**Palmer**	85.06	27	eP	P	23 29 40.7	0.0
KIC	**Kosan Boka**	145.06	274	ePKIKP	PKPdf	23 36 42.8	-0.9
	comp=Z,20nm,0.9s						
DBIC	**Dimbokro**	145.16	275	PKPbc	PKPbc	23 36 43.4	-0.1
	comp=Z,3.3nm,0.7s,baz=99,slow=6.3,SNR=10						
TIC	**Toumodi**	145.33	275	ePKIKP	PKPdf	23 36 43.5	-0.7
	comp=Z,18nm,0.7s						
LIC	**Lamto**	145.34	274	ePKIKP	PKPdf	23 36 42.7	-1.5
	comp=Z,27nm,1.8s						

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*ISCJB **10** 23:50:39.5±2.4, 11°.38S±0°.05×117°.40E±0°.08, h25^{km}±18^{km}, mb4.6/19, Error ellipse: s-maj=14.9km s-min=6.4km az=151.3*

*MOS **10** 23:50:40.7±0.6, 11°.30S×117°.38E, h33^{km}, mb4.6/3, Error ellipse: s-maj=23.8km s-min=10.9km az=121.5*

*IDC **10** 23:50:40.7±1.0, 11°.33S×117°.36E, h18^{km}±4^{km}, mb4.0/6, mb1 4.2/9, mb1mx4.0/19, mbtmp4.1/9, ML4.5/2, Error ellipse: s-maj=45.8km s-min=17.2km az=57.0*

*NEIC **10** 23:50:42.4±2.5, 11°.28S×117°.46E, h30^{km}±19^{km}, mb4.4/5, Error ellipse: s-maj=15.4km s-min=6.0km az=53.0*

ISC 10 23:50:39.9±3.6**, 11°.34S**±0°.06×**117°.42E**±0°.08**, h13**^{km}±24^{km}**, h21**^{km}±.7^{km}**:pP-P, n55, σ0ˢ.97**/55**, mb4.6**/19**, 1C, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRT	**Tretes**	5.95	307	⇑eP	Pn	23 52 08.7	+0.9
MBWA	**Marble Bar**	10.01	168	eP	Pn	23 53 00.7	-2.8
MBWA				eS	Sx	23 54 38.2	
MBWA	**Marble Bar**	10.01	168	ePn	Pn	23 53 00.8	-2.7
	91nm,0.3s						
FITZ	**Fitzroy Crossi**	10.40	131	eP	Pn	23 53 07.5	-1.4
	54nm,0.6s						
FITZ				eS	Sx	23 54 54.2	
FITZ	**Fitzroy Crossi**	10.40	131	Pn	Pn	23 53 08.6	-0.3
	6.8nm,0.3s,baz=311,slow=7.2,SNR=76						
FITZ				Sn	Sn	23 54 56.5	-9.0
	3.1nm,0.3s,baz=21,slow=22,SNR=7.8						
GIRL	**Giralia**	11.64	195	eP	Pn	23 53 24.4	-1.5
	210nm,0.6s						
KSM	**Kuching**	14.57	330	Pn	Pn	23 54 05.8	-0.1
MEEK	**Meekatharra**	15.26	176	eP	Pn	23 54 12.0	-3.1
	20nm,0.2s						
MEEK				eS	Sx	23 56 43.9	
KKM	**Kota Kinabalu**	17.32	356	Pn	Pn	23 54 41.5	-0.1
MORW	**Morawa**	17.68	184	eP	Pn	23 54 43.6	-2.4
	17nm,0.4s						
MORW				eS	Sx	23 57 40.9	
WRA	**Warramunga Arr**	18.38	120	P	Pn	23 54 55.8	+1.1
	1.0nm,0.3s,baz=282,slow=15,SNR=10						
WRA				S	Sx	23 58 07.4	
	0.6nm,0.3s,baz=282,slow=25,SNR=3.9						
WRAB	**Tennant Creek**	18.39	120	eP	Pn	23 54 55.5	+0.7
WRAB				pmax	pmax		
	comp=Z,5.0nm,0.5s						
WRAB	**Tennant Creek**	18.39	120	eP	Pn	23 54 55.5	+0.7
	comp=Z,5.3nm,0.5s						
ASAR	**Alice Springs**	19.90	130	P	Pn	23 55 12.9	-0.1
	comp=Z,0.5nm,0.3s,baz=303,slow=9.3,SNR=22						

ASAR				S	Sx	23 58 41.8	
	comp=Z,0.4nm,0.3s,baz=308,slow=24,SNR=6.1						
KLBR	Kellerberrin	20.15	179	eP	P	23 55 16.4	+2.4
	comp=Z,8.0nm,0.3s						
KLBR				eS	Sx	23 58 36.4	
KMBL	Kambalda	20.35	169	eP	P	23 55 18.5	+2.4
	comp=Z,42nm,0.3s						
KMBL				eS	Sx	23 58 43.7	
MUN	Mundaring	20.57	183	eP	P	23 55 19.8	+1.3
MUN				eS	Sx	23 58 48.3	
NWAO	Narrogin (SRO)	21.48	180	eP	P	23 55 29.2	+0.8
NWAO				eS	Sx	23 59 13.1	
NWAO				pmax	pmax		
	comp=Z,13nm,0.6s						
NWAO	Narrogin (SRO)	21.48	180	eP	P	23 55 32.4	+4.0
	comp=Z,78nm,0.4s,mb5.4						
NWAO				eS	Sx	23 59 05.7	
NWAO	Narrogin (SRO)	21.48	180	P	P	23 55 28.3	-0.1
	comp=Z,3.6nm,0.5s,mb4.0,baz=348,slow=9.3,SNR=2.5						
NWAO				S	Sx	23 59 08.0	
	comp=Z,3.4nm,0.3s,baz=270,slow=18,SNR=3.2						
NWAO	Narrogin (SRO)	21.48	180	eP	P	23 55 29.2	+0.8
	comp=Z,13nm,0.6s,mb4.4						
NWAO				eS	Sx	23 59 13.1	
FORT	Forrest	21.71	155	eP	P	23 55 31.5	+0.6
	comp=Z,9.7nm,0.4s,mb4.6						
FORT				eS	S	23 59 21.8	-9.1
PSI	Prapat	23.15	306	P	P	23 55 48.2	+1.9
	comp=Z,7.8nm,0.9s,mb4.1,baz=182,slow=14,SNR=4.8						
KULM	Kulim	23.49	314	P	P	23 55 49.4	-0.5
CMAR	Chiang Mai Arr	34.77	328	P	P	23 57 31.3	+0.9
	comp=Z,0.6nm,0.3s,mb4.0,baz=150,slow=7.3,SNR=3.7						
TAU	Tasmania Unive	40.78	146	P	P	23 58 20.8	-0.1
ODAN	Odare	47.88	323	eP	P	23 59 18.0	0.0
	comp=Z,18nm,0.9s,mb5.1						
LSA	Lhasa	48.02	329	eP	P	23 59 19.2	+0.2
LSA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
LSA	Lhasa	48.02	329	eP	P	23 59 19.2	+0.2
	comp=Z,3.2nm,0.7s,mb4.5						
TAPN	Taplejung	48.06	324	eP	P	23 59 19.9	+0.6
	comp=Z,15nm,0.8s,mb5.1						
RAMN	Ramite	48.42	322	eP	P	23 59 22.8	+0.7
	comp=Z,13nm,0.6s,mb5.1						
JIRN	Jiri	49.19	323	eP	P	23 59 28.2	+0.2
	comp=Z,23nm,0.6s,mb5.4						
GUN	Gumba	49.56	323	eP	P	23 59 31.1	+0.3
	comp=Z,24nm,0.7s,mb5.4						
PKI	Pulchoki	49.59	322	eP	P	23 59 31.1	0.0
DMN	Daman	49.80	322	eP	P	23 59 32.6	-0.1
	comp=Z,18nm,0.9s,mb5.1						
KKN	Kakani	49.83	322	eP	P	23 59 32.8	-0.1
GKN	Gorkha	50.38	322	eP	P	23 59 36.7	-0.3
	comp=Z,8.7nm,0.5s,mb5.1						
KOLN	Koldanda	50.85	321	eP	P	23 59 40.4	-0.2
DANN	Dangsing	51.16	321	eP	P	23 59 42.8	-0.2
	comp=Z,23nm,0.5s,mb5.3						
MAJO	Matsushiro	51.50	21	P	P	23 59 44.9	-0.4
ULN	Ulaanbaatar	59.66	352	eP	P	00 00 44.0	+0.2
SONM	Songino Array	59.72	351	P	P	00 00 43.9	-0.3
	comp=Z,0.9nm,0.8s,mb3.9,baz=169,slow=7.9,SNR=8.5						
SONM				pP	pP	00 00 49.9	+1.6
	comp=Z,1.6nm,0.7s,baz=168,slow=9.0,SNR=14						
MKAR	Makanchi Array	65.85	334	P	P	00 01 24.8	-0.3
	comp=Z,0.7nm,0.5s,mb4.0,baz=149,slow=7.2,SNR=26						
MKAR				pP	pP	00 01 31.4	+2.2
	comp=Z,1.5nm,0.7s,baz=150,slow=7.0,SNR=9.9						
UCH	Uchtor	66.26	326	P	P	00 01 28.2	+0.4
AAK	Ala-Archa	66.54	327	eP	P	00 01 29.1	-0.6
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
AAK	Ala-Archa	66.54	327	eP	P	00 01 29.1	-0.6
	comp=Z,2.2nm,0.8s,mb4.2						
EKS2	Erkin-Say	66.95	326	eP	P	00 01 31.6	-0.7
	comp=Z,2.1nm,0.7s,mb4.3						
KURK	Kurchatov	70.43	335	eP	P	00 01 52.8	-1.0
ZALV	Zalesovo Beam	70.69	340	P	P	00 01 54.0	-1.3
	comp=Z,1.8nm,0.5s,mb4.3,baz=149,slow=5.9,SNR=9.7						
ZALV				pP	pP	00 01 60.0	+0.5
	comp=Z,2.0nm,0.5s,baz=137,slow=4.8,SNR=7.4						
ZALV	Zalesovo Beam	70.69	340	P	P	00 01 54.0	-1.3
ZALV				pP	pP	00 01 60.0	+0.5
PETK	Petropavlovsk-	72.83	24	P	P	00 02 08.6	+0.3
	comp=Z,3.5nm,0.7s,mb4.4,baz=332,slow=2.5,SNR=4.5						
YAK	Yakutsk	73.77	6	P	P	00 02 13.2	-0.4
BRVK	Borovoye	75.71	333	eP	P	00 02 24.0	-1.0
YKA	Yellowknife Ar	116.95	24	PKP	PKPdf	00 09 24.6	+0.5
	comp=Z,0.1nm,0.4s,baz=310,slow=2.9,SNR=4.3						
YKA	Yellowknife Ar	116.95	24	PKP	PKPdf	00 09 24.6	+0.5

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*IDC **11** 00:01:24.1±8.6,33°.76S×179°.24W,h46^{km}±69^{km},mb3.9/3,mb1 4.1/4,mb1mx3.8/17,mbtmp4.0/4,ML4.0/1,MS4.0/2,Ms1 3.9/2,ms1mx3.1/28,Error ellipse: s-maj=66.4km s-min=35.5km az=51.0*

ISC 11 00:01:28.2±5.3,33°.8S±0°.2×179°.6W±0°.3,h58^{km}±40^{km},n10,σ0^{s}.86/7,mb4.1/3,MS4.0/2,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	5.18	210	P	Pn	00 02 42.9	-0.1
	5.1nm,0.3s,baz=131,slow=9.3,SNR=16						
URZ				S	Sn	00 03 41.6	+0.1
	1.7nm,0.3s,baz=240,slow=20,SNR=2.5						
STKA	Stephens Creek	32.53	262	LR	LR	00 20 42.0	
	comp=Z,103nm,20.0s,MS3.5,baz=133,slow=35						
CTA	Charters Tower	33.20	286	P	P	00 08 00.6	+1.1
	1.7nm,0.3s,mb4.5,baz=124,slow=3.6,SNR=4.0						
ASAR	Alice Springs	41.70	271	P	P	00 09 11.2	-0.2
	0.7nm,0.6s,mb3.5,baz=112,slow=7.2,SNR=5.8						
WRA	Warramunga Arr	43.00	277	P	P	00 09 21.0	-1.0
	2.7nm,0.4s,mb4.3,baz=117,slow=7.5,SNR=13						
VNA3	Neumayer Olymp	75.00	177	e	P	00 13 10.4	+7.6
VNA2	Neumayer--Watz	75.42	177	e	P	00 13 05.3	+0.1
	baz=183,slow=3.6						
JHJ	Hachijo jima 2	76.75	326	LR	LR	00 41 11.7	
	comp=Z,226nm,19.2s,MS4.5,baz=32,slow=31						
AKASG	Malin Array Be	153.04	317	PKPbc	PKPbc	00 21 14.4	-4.1
	0.7nm,0.6s,baz=46,slow=3.0,SNR=3.0						
TORD	Torodi Ar. Bea	159.40	184	PKPab	PKPab	00 21 57.2	-1.0
	0.6nm,0.8s,baz=169,slow=1.5,SNR=5.2						

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*NIED **11** 00:27:00,44°.00N×147°.80E,h44^{km},Mw3.8 Best double couple: $M_0$5.61000×10^{14} NP1:ϕ_s353.00000°,δ80.00000°,λ59.00000°. NP2:ϕ_s247.00000°,δ32.00000°,λ161.00000°.*
*MOS **11** 00:27:04.8±1.8,44°.40N×148°.11E,h56^{km},mb4.1/5,Error ellipse: s-maj=12.8km s-min=11.2km az=61.1*
*ISCJB **11** 00:27:05.5±0.9,44°.30N±0°.06×148°.07E±0°.08,h62^{km}±8^{km},mb3.8/10,Error ellipse: s-maj=11.6km s-min=7.3km az=44.0*
*JMA **11** 00:27:05.7±0.2,43°.99N×147°.84E,h0^{km},M4.6*
*SKHL **11** 00:27:06.4±0.9,44°.45N×148°.11E,h42^{km}±11^{km},mb5.0/3*
*IDC **11** 00:27:07.9±2.7,44°.23N×148°.14E,h70^{km}±23^{km},mb3.6/7,mb1 3.8/10,mb1mx3.6/24,mbtmp3.6/10,Error ellipse: s-maj=30.8km s-min=16.1km az=154.0*
*NEIC **11** 00:27:07.6±1.1,44°.29N×148°.08E,h66^{km}±10^{km},mb4.0/2,Error ellipse: s-maj=17.4km s-min=9.5km az=130.0*

ISC 11 00:27:07.4±0.9,44°.27N±0°.06×148°.03E±0°.09,h61^{km}±8^{km},n48,σ1^{s}.10/64,mb3.8/10,2C-3D,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	0.97	353	⇓iP	Pn	00 27 19.5	-5.6
KUR				AMB	AMB	00 27 19.8	
	2µm,1.0s						
KUR				AMB	AMB	00 27 20.0	
	489nm,0.4s						
KUR				AMB	AMB	00 27 20.0	
	571nm,0.4s						
KUR				AMB	AMB	00 27 20.0	
	1µm,0.4s						
KUR				iS	Sn	00 27 30.0	-8.2
KUR				A		00 27 32.2	
	1µm,0.4s						
KUR				A		00 27 32.2	
	3µm,0.4s						
KUR				A		00 27 36.4	
	7µm,1.6s						
KUR				A		00 27 36.4	
	4µm,1.6s						
YUK	Yuzh-Kuril'sk	1.58	262	⇓iPN	Pn	00 27 32.1	-1.1
YUK				iS	Sn	00 27 50.8	-1.8
YUK				pmax	pmax		
	comp=N,430nm,0.2s						
YUK				pmax	pmax		
	comp=E,510nm,0.2s						
YUK				pmax	pmax		
	comp=Z,2µm,0.2s						
YUK				smax			
	comp=E,5µm,0.7s						
YUK				smax			
	comp=N,3µm,0.4s						
YUK				smax			
	comp=E,2µm,0.5s						
YUK	Yuzh-Kuril'sk	1.58	262	⇓iP	Pn	00 27 32.1	-1.1
YUK				AMB	AMB	00 27 34.1	
	comp=E,430nm,0.2s						
YUK				AMB	AMB	00 27 34.1	
	comp=E,510nm,0.2s						
YUK				AMB	AMB	00 27 34.1	
	comp=E,2µm,0.2s						
YUK				iS	Sn	00 27 50.8	-1.8
YUK				A		00 27 56.0	
	comp=E,5µm,0.7s						
YUK				A		00 27 56.3	
	comp=E,3µm,0.5s						
YUK				A		00 27 56.3	
	comp=E,2µm,0.5s						
NEM2	Nemuro 2	1.89	242	P	Pn	00 27 36.2	-1.1
NEM2				eS	Sn	00 27 58.0	-2.0
JRA	Rausu	2.12	262	P	Pn	00 27 41.0	+0.5
JRA				eS	Sn	00 28 06.9	+1.2
JNK	Nakash	2.49	255	P	Pn	00 27 45.7	+0.2
JNK				eS	Sn	00 28 14.3	-0.4
JAK	Akkeshi	2.73	243	P	Pn	00 27 48.3	-0.6
JAK				eS	Sn	00 28 19.3	-1.4
JTKR	Abashiri--Toko	2.98	266	P	Pn	00 27 52.8	+0.5
JAR	Ashorobuto	3.24	254	P	Pn	00 27 56.6	+0.9
JAR				eS	Sn	00 28 33.4	+0.4
JOB	Onbets	3.34	247	P	Pn	00 27 57.4	+0.3
JOB				eS	Sn	00 28 35.3	-0.3
JMP	Maruseppu	3.37	267	P	Pn	00 27 58.4	+0.8
JCH	Churui	3.78	246	P	Pn	00 28 03.2	0.0
JCH				eS	Sn	00 28 45.5	-0.9
ASAJ	Asahikawa	3.91	270	PN	Pn	00 28 06.6	+1.7
ASAJ				S	Sn	00 28 53.4	+3.8
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				smax			
	comp=N,3.0nm,0.3s						
ASAJ	Asahikawa	3.91	270	P	Pn	00 28 06.5	+1.6
	comp=N,2.4nm,0.3s,baz=87,slow=8.3,SNR=8.4						
ASAJ				S	Sn	00 28 53.4	+3.8
	comp=N,2.9nm,0.3s,baz=188,slow=14,SNR=4.2						
ERM	Erimo	4.22	239	eP	Pn	00 28 11.7	+2.5
ERM	Erimo	4.22	239	ePn	Pn	00 28 11.6	+2.4
ERM				eSn	Sn	00 28 59.9	+2.8
JNBK	Urakawa-nobuka	4.34	245	P	Pn	00 28 11.0	+0.2
YSS	Yuzh-Sakhalins	4.57	308	⇑ePN	Pn	00 28 14.0	0.0
YSS				eS	Sn	00 29 04.5	-1.3
YSS				pmax	pmax		
	comp=Z,30nm,0.5s						
YSS	Yuzh-Sakhalins	4.57	308	⇑eP	Pn	00 28 14.0	0.0
YSS				AMB	AMB	00 28 14.5	
	comp=Z,30nm,0.5s						
YSS				eS	Sn	00 29 04.5	-1.3
YSS	Yuzh-Sakhalins	4.57	308	ePn	Pn	00 28 13.8	-0.2
YSS				Sn	Sn	00 29 07.9	+2.2
MAJO	Matsushiro	10.75	227	PN	Pn	00 29 39.0	+0.5
MJAR	Matsushiro Arr	10.75	227	ePN	Pn	00 29 38.5	0.0
MJAR	Matsushiro Arr	10.75	227	P	Pn	00 29 37.8	-0.7
	comp=Z,0.3nm,0.3s,baz=32,slow=14,SNR=4.1						
PETK	Petropavlovsk-	10.90	32	P	Pn	00 29 40.3	-0.2
	comp=Z,0.1nm,0.3s,baz=195,slow=16,SNR=2.8						
JOW	Kunigami	23.59	229	P	P	00 32 11.2	-1.4
	comp=Z,9.5nm,0.4s,mb4.5,baz=85,slow=12,SNR=2.9						
SONM	Songino Array	28.86	292	eP	P	00 33 02.2	+2.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	28.86	292	P	P	00 33 00.6	+0.7
	comp=Z,0.5nm,0.7s,mb3.3,baz=78,slow=8.2,SNR=4.4						
ZALV	Zalesovo Beam	41.20	307	P	P	00 34 42.1	-3.6
ZALV						00 36 43.4	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
ZALV	Zalesovo Beam	41.20	307	P	P	00 34 42.1	-3.6
	comp=Z,0.2nm,0.3s,mb3.2,baz=346,slow=3.0,SNR=2.1						
ZALV				PcP	PcP	00 36 43.4	-0.3
	comp=Z,1.0nm,0.4s,baz=87,slow=3.1,SNR=5.1						
MKAR	Makanchi Array	44.91	297	P	P	00 35 15.9	+0.1
MKAR						00 36 56.3	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	44.91	297	P	P	00 35 15.9	+0.1
	comp=Z,1.0nm,0.6s,mb3.8,baz=80,slow=8.4,SNR=12						
MKAR				PcP	PcP	00 36 56.3	0.0
	comp=Z,0.6nm,0.6s,baz=75,slow=4.0,SNR=6.2						
KURK	Kurchatov	45.77	304	eP	P	00 35 23.4	+0.9
KURK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KURK	Kurchatov	45.77	304	eP	P	00 35 23.4	+0.8
	comp=Z,0.8nm,0.4s,mb4.0						
CMAR	Chiang Mai Arr	48.28	254	P	P	00 35 43.7	+1.2
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR	Chiang Mai Arr	48.28	254	P	P	00 35 43.6	+1.2
	comp=Z,0.6nm,0.4s,mb4.0,baz=52,slow=7.1,SNR=4.1						
BRVK	Borovoye	49.71	309	P	P	00 35 53.3	+0.3
AAK	Ala-Archa	51.71	296	P	P	00 36 08.5	+0.3
UCH	Uchtor	51.89	295	P	P	00 36 10.0	+0.5
AML	Almayashu	52.47	295	eP	P	00 36 14.8	+0.9
	comp=Z,1.1nm,0.6s,mb4.0						
ARU	Arti	54.40	317	P	P	00 36 26.4	-1.4
ARU	Arti	54.40	317	P	P	00 36 26.4	-1.4
YKA	Yellowknife Ar	55.02	34	P	P	00 36 31.9	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	55.02	34	P	P	00 36 31.9	-0.2
	comp=Z,0.7nm,0.5s,mb3.9,baz=302,slow=7.4,SNR=13						
YKA	Yellowknife Ar	55.02	34	P	P	00 36 31.9	-0.2
JOF	Joensuu	61.92	332	ep	P	00 37 18.3	-1.9
NOA	NORSAR Array B	69.35	339	P	P	00 38 06.1	-1.9
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	69.35	339	P	P	00 38 06.1	-1.9
	comp=Z,0.5nm,0.5s,mb3.7,baz=30,slow=6.3,SNR=3.4						
TXAR	Lajitas Array	81.83	57	P	P	00 39 20.4	+0.4
	comp=Z,0.4nm,0.6s,mb3.5,baz=305,slow=3.9,SNR=6.6						

IDC 11 00:38:41.1±3.7,20°.34S×176°.34W,h0^{km},mb4.0/4,mb1 4.2/4,mb1mx3.8/18,mbtmp4.0/4,Error ellipse: s-maj=164.9km s-min=48.8km az=148.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	35.06	264	P	P	00 45 37.2	+1.2
	3.2nm,0.5s,baz=111,slow=8.7,SNR=4.9						
STKA	Stephens Creek	39.27	244	P	P	00 46 12.2	+0.6
	0.8nm,0.6s,baz=78,slow=9.3,SNR=3.6						
ASAR	Alice Springs	46.08	256	P	P	00 47 06.3	-0.7
	0.9nm,0.5s,baz=93,slow=7.5,SNR=13						
WRA	Warramunga Arr	46.17	262	P	P	00 47 06.8	-1.1
	1.1nm,0.5s,baz=97,slow=8.6,SNR=4.8						
AKASG	Malin Array Be	143.61	332	PKP	PKPdf	00 58 16.2	-1.5
	1.2nm,0.3s,baz=43,slow=4.0,SNR=7.1						
BRTR	Keskin Array B	147.87	314	PKPbc	PKPbc	00 58 28.3	-0.1
	0.9nm,1.0s,baz=62,slow=3.4,SNR=2.4						

GUC 11 00:45:37.9±0.6,22°.34S×70°.07W,h44^{km}±1^{km},ML3.6,2C,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TOCH	Tocopilla	0.28	333	eP	Pn	00 45 46.1	-0.1
TOCH				iS	Sn	00 45 52.2	+0.1
TOCH				AML	AML	00 45 52.7	
	comp=E,13µm,0.1s						
MACH	Maria Elena	0.32	63	eP	Pn	00 45 47.5	+0.8
MACH				iS	Sn	00 45 54.0	+1.2
PECH	Pedro de Valdi	0.44	125	eP	Pn	00 45 48.3	+0.2
PECH				iS	Sn	00 45 56.1	+0.8
PECH				AML	AML	00 45 57.3	
	comp=E,6µm,0.3s						
PB04	Plate Boundary	0.54	82	⇑iP	Pn	00 45 45.3	-4.1
PB04				iS	Sn	00 45 50.2	-7.2
PB04				AML	AML	00 45 51.0	
	comp=E,6µm,0.1s						
MECH	Mejillones	0.84	205	eP	Pn	00 45 53.3	0.0
MECH				iS	Sn	00 46 05.5	+1.0
MECH				AML	AML	00 46 08.4	
	comp=N,3µm,0.7s						
LVC	Limon Verde	1.10	104	eP	Pn	00 45 58.3	+1.4
LVC				iS	Sn	00 46 13.7	+2.8
PB01	Plate Boundary	1.40	23	⇑iP	Pn	00 46 02.0	+1.1
PB01				iS	Sn	00 46 20.2	+2.0
PB01				AML	AML	00 46 23.3	
	comp=E,1µm,0.3s						

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*IDC **11** 00:57:24.6±1.2,0°.29N×127°.40E,h0^{km},mb3.7/6,mb1 3.9/7,mb1mx3.8/18,mbtmp3.7/7,ML3.6/1,Error ellipse: s-maj=113.7km s-min=17.1km az=70.0*
*ISCJB **11** 00:57:39.6±0.5,0°.16N±0°.07×127°.3E±0°.1,h153^{km}±4^{km},mb3.5/6,Error ellipse: s-maj=19.9km s-min=7.2km az=151.7*
*DJA **11** 00:57:40,0°.19N×127°.30E,h141^{km},MLv4.4/5*

ISC 11 00:57:40.8±0.5,0°.15N±0°.07×127°.3E±0°.1,h147^{km}±4^{km},n16,σ1^{s}.04/21,mb3.5/6,2D,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	0.62	5	P	Pn	00 58 02.8	+0.2
TNTI				S	Sn	00 58 19.5	+0.3
TNE	Ternate	0.64	5	⇓eP	Pn	00 58 00.0	-2.7
LBMI	Labuha	0.80	166	P	Pn	00 58 05.1	+1.3
LBMI				S	Sn	00 58 21.7	+0.4
MNI	Manado	2.79	298	⇓eP	Pn	00 58 25.5	+0.1
MNI				eS	Sn	00 59 00.0	+0.1
MNI	Manado	2.79	298	P	Pn	00 58 26.1	+0.7
MNI				S	Sn	00 58 59.4	-0.5
AAI	Ambon	3.91	167	P	Pn	00 58 40.2	+0.3
SGSI	Sangihe	3.94	333	P	Pn	00 58 41.5	+1.2
SGSI				S	Sn	00 59 24.7	-1.8
KAKA	Kakadu	13.75	158	P	Pn	01 00 47.6	-2.2
	26nm,0.7s						
FITZ	Fitzroy Crossi	18.21	185	P	P	01 01 41.9	-0.7
	0.2nm,0.3s,baz=11,slow=10,SNR=4.7						
WRAB	Tennant Creek	21.11	161	P	P	01 02 14.6	+0.6
WRA	Warramunga Arr	21.12	161	P	P	01 02 13.3	-0.7
	2.7nm,0.4s,mb4.0,baz=340,slow=11,SNR=8.2						
ASAR	Alice Springs	24.52	165	P	P	01 02 45.9	-0.8
	1.1nm,0.5s,mb3.6,baz=350,slow=14,SNR=11						
STKA	Stephens Creek	34.60	158	P	P	01 04 16.4	+0.7
	2.2nm,0.9s,mb3.8,baz=330,slow=11,SNR=3.2						
SONM	Songino Array	50.86	342	P	P	01 06 26.9	+0.4
	0.2nm,0.4s,mb3.1,baz=163,slow=11,SNR=4.3						
MKAR	Makanchi Array	60.83	326	P	P	01 07 37.5	+0.1
	0.1nm,0.4s,mb3.0,baz=119,slow=7.5,SNR=12						
ZALV	Zalesovo Beam	64.03	334	P	P	01 08 00.1	+1.5
	0.4nm,0.4s,mb3.6,baz=190,slow=5.1,SNR=3.7						

GUC 11 01:42:49.2±0.7,33°.06S×71°.63W,h15^{km}±47^{km},MD3.6,ML2.4,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PEL	Peldehue	0.80	96	eP	Pg	01 43 04.0	-0.8
PEL				iS	Sg	01 43 14.6	-0.6
PEL				AML	AML	01 43 17.4	
	comp=N,435nm,0.2s						
FCH	Farellones	1.16	104	eP	Pn	01 43 09.9	-0.9
FCH				iS	Sb	01 43 26.0	+0.4
FCH				AML	AML	01 43 28.2	
	comp=E,94nm,0.3s						
CHCH	Chadas Angostu	1.20	137	eP	Pn	01 43 10.3	-1.0
CHCH				iS	Sb	01 43 25.8	-1.0
CACH	El Canelo	1.36	141	eP	Pn	01 43 13.4	-0.3
CACH				iS	Sn	01 43 31.9	+0.5
LMEL	Las Melosas	1.43	124	eP	Pn	01 43 14.0	-0.6
LMEL				iS	Sn	01 43 33.3	+0.2
LMEL				AML	AML	01 43 35.2	
	comp=N,159nm,0.1s						
CICH	Cipreses	1.61	142	eP	Pn	01 43 16.8	-0.3
CICH				iS	Sn	01 43 38.1	+0.5

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*ISCJB **11** 01:47:18.6±0.2,38°.23N±0°.01×118°.35W±0°.02,h10^{km},Error ellipse: s-maj=2.3km s-min=1.9km az=147.3*
*NEIC **11** 01:47:18.0,38°.23N×118°.35W,h12^{km},ML3.8(REN),After REN.*

ISC 11 01:47:18.2±0.4,38°.23N±0°.01×118°.37W±0°.02,h0^{km}±3^{km},n78,σ0^{s}.94/110,37C-36D,California-Nevada border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
R08A	Mina	0.24	59	⇓P	Pg	01 47 23.2	+0.5
	baz=0.2						
R08A				⇓S	Sg	01 47 26.6	+0.8
	baz=0.2						
MLAC	Mammoth Lakes	0.70	212	⇑P	Pg	01 47 32.2	+0.6
	baz=0.7						
Q08A	Gabbs	0.72	28	⇓P	Pg	01 47 31.7	-0.2
	baz=0.7,SNR=27						
Q08A				⇑S	Sg	01 47 41.4	+0.2
	baz=0.7						
Q07A	Schurz	0.79	334	⇑P	Pg	01 47 33.4	+0.1
	baz=0.8,SNR=6.5						
Q07A				⇓S	Sg	01 47 44.3	+0.7
	baz=0.8						
MTUM	Tungsten Hills	0.89	190	ePg	Pg	01 47 35.4	+0.3
WAKR	Walker	0.89	288	ePn	Pn	01 47 35.2	-2.6
R06C	Coleville	0.90	289	P	Pg	01 47 35.8	+0.3
	baz=0.9,SNR=804						
R06C				⇑S	Sg	01 47 48.0	+0.8
	baz=0.9						
TPH	Tonopah	0.91	99	ePg	Pg	01 47 35.5	-0.2
TPH				eSg	Sg	01 47 48.6	+1.1
R09A	Tonopah	1.02	89	⇑P	Pg	01 47 37.3	-0.4
	baz=1.0,SNR=434						
R09A				⇓S	Sg	01 47 50.8	-0.1
	baz=1.0						
S09A	Goldfield	1.03	119	⇓P	Pg	01 47 37.7	-0.2
	baz=1.0						
S09A				⇓S	Sg	01 47 51.6	+0.3
	baz=1.0						
Q09A	Carvers	1.11	57	⇓P	Pg	01 47 38.9	-0.5
	baz=1.1,SNR=49						
Q09A				⇑S	Sg	01 47 54.2	+0.5
	baz=1.1						
TIN	Tinemaha	1.18	175	⇓P	Pg	01 47 40.9	+0.2
	baz=1.2						
TIN				⇑S	Sg	01 47 57.0	+1.1
	baz=1.2						
P07A	Fallon	1.37	343	⇓P	Pg	01 47 43.9	-0.5
	baz=1.4,SNR=53						
P07A				⇓S	Sg	01 48 03.6	+1.3
	baz=1.4						
S10A	Tonopah Range,	1.43	102	P	Pn	01 47 44.2	-1.1
	baz=1.4,SNR=1000						
S10A				⇓S	Sg	01 48 04.1	+0.1
	baz=1.4						
GRAC	Grapevine Rang	1.46	147	⇓P	Pn	01 47 45.4	-0.3
	baz=1.5,SNR=365						
GRAC				⇑S	Sg	01 48 06.0	+1.0
	baz=1.5						
P08A	Dixie Valley	1.48	9	⇓P	Pn	01 47 45.6	-0.5
	baz=1.5,SNR=89						
WCN	Washoe City	1.53	315	P	Pn	01 47 46.2	-0.5
	baz=1.5,SNR=1000						
WCN				⇓S	Sn	01 48 07.3	+0.1
	baz=1.5						
CMB	Columbia Colle	1.60	264	ePn	Pn	01 47 47.1	-0.6
CMB				eSn	Sn	01 48 08.6	-0.6
R10A	Warm Springs	1.62	87	⇓P	Pn	01 47 47.1	-0.9
	baz=1.6,SNR=298						
P09A	Austin	1.63	36	⇑Pb	Pb	01 47 48.6	-0.5
	baz=1.6						
Q10A	Clear Creek Ra	1.65	68	⇓P	Pn	01 47 47.7	-0.7
	baz=1.6,SNR=181						
Q10A				⇑Sb	Sb	01 48 11.7	+0.8
	baz=1.6						
PAHR	Pah Rah Range	1.68	332	ePb	Pb	01 47 48.1	-1.8
CWC	Cottonwood Cre	1.80	173	⇑P	Pn	01 47 50.2	-0.2
	baz=1.8,SNR=22						
P06A	Stead Airport,	1.88	321	⇓Pb	Pb	01 47 52.7	-0.6
	baz=1.9						

O07A	**Toulon**	**1.97**	**349**	P	**Pn**	**01 47 52.1**	**-0.7**
	baz=2.0,SNR=54						
O07A				⇓Sb	**Sb**	**01 48 21.4**	**+1.4**
	baz=2.0						
RCTC	**Rector, Farmer**	**2.04**	**200**	⇑Sb	**Sb**	**01 48 23.6**	**+1.7**
	baz=2.1						
O08A	**Rochester Mine**	**2.07**	**4**	P	**Pn**	**01 47 53.2**	**-0.8**
	baz=2.1,SNR=50						
O08A				⇑Sb	**Sb**	**01 48 23.6**	**+0.9**
	baz=2.1						
FURC	**Furnace Creek,**	**2.12**	**145**	⇑Pb	**Pb**	**01 47 57.2**	**-0.3**
	baz=2.1						
O09A	**Fish Creek Ran**	**2.14**	**25**	⇓P	**Pn**	**01 47 54.5**	**-0.7**
	baz=2.1						
R11A	**Troy Canyon, C**	**2.19**	**86**	⇓P	**Pn**	**01 47 54.5**	**-1.3**
	baz=2.1,SNR=41						
R11A				⇑Sb	**Sb**	**01 48 27.1**	**+0.7**
	baz=2.1						
Q11A	**Duckwater**	**2.21**	**73**	⇓Pb	**Pb**	**01 47 58.4**	**-0.6**
	baz=2.2						
Q11A				⇑Sb	**Sb**	**01 48 28.2**	**+1.2**
	baz=2.2						
O06A	**Flanigan**	**2.24**	**330**	⇓Sb	**Sb**	**01 48 29.3**	**+1.5**
	baz=2.3						
BEKR	**Beckwourth**	**2.25**	**317**	⇑P	**Pn**	**01 47 56.2**	**-0.5**
	baz=2.3,SNR=64						
BEKR				⇑Sb	**Sb**	**01 48 29.9**	**+1.7**
	baz=2.3						
MPMC	**Manual Prospec**	**2.27**	**162**	⇑P	**Pn**	**01 47 56.6**	**-0.3**
	baz=2.3,SNR=21						
MPMC				⇓Sb	**Sb**	**01 48 30.6**	**+1.9**
	baz=2.3						
BMN	**Battle Mountai**	**2.37**	**22**	*e*Pn	**Pn**	**01 47 57.4**	**-0.9**
BMN				Sn	**Sn**	**01 48 28.2**	**+0.2**
U10A	**Ash Meadows, A**	**2.43**	**137**	⇑Pb	**Pb**	**01 48 02.4**	**-0.2**
	baz=2.4						
P11A	**Circle Ranch,**	**2.43**	**56**	⇑Sb	**Sb**	**01 48 34.9**	**+1.7**
	baz=2.4						
VES	**Vestal, Richgr**	**2.45**	**194**	⇓Pb	**Pb**	**01 48 03.1**	**0.0**
	baz=2.5						
VES				⇑Sb	**Sb**	**01 48 35.9**	**+2.1**
	baz=2.5						
O10A	**Cortez Mining,**	**2.52**	**35**	P	**Pn**	**01 47 59.5**	**-0.8**
	baz=2.5,SNR=17						
O10A				⇑Sb	**Sb**	**01 48 37.1**	**+1.4**
	baz=2.5						
N08A	**GE Springer Mi**	**2.56**	**4**	⇑P	**Pn**	**01 48 00.1**	**-0.7**
	baz=2.5						
N08A				⇑Sb	**Sb**	**01 48 38.5**	**+1.7**
	baz=2.5						
ISA	**Isabella**	**2.56**	**182**	⇑Sb	**Sb**	**01 48 38.9**	**+1.9**
	baz=2.6						
ISA	**Isabella**	**2.56**	**182**	*e*Pn	**Pn**	**01 48 01.6**	**+0.7**
N07B	**Gerlach**	**2.59**	**350**	⇑P	**Pn**	**01 48 01.0**	**-0.3**
	baz=2.6,SNR=14						
N07B				⇑Sb	**Sb**	**01 48 39.8**	**+2.0**
	baz=2.6						
OHCM	**Honcut**	**2.68**	**295**	*e*Pn	**Pn**	**01 47 58.9**	**-3.5**
T11A	**Corn Creek, Al**	**2.68**	**111**	P	**Pn**	**01 48 01.6**	**-0.9**
	baz=2.6,SNR=73						
N09A	**Rock Creek Ran**	**2.70**	**14**	⇓P	**Pn**	**01 48 02.1**	**-0.7**
	baz=2.7,SNR=6.0						
N06A	**Buffalo Meadow**	**2.76**	**336**	⇑P	**Pn**	**01 48 03.2**	**-0.4**
	baz=2.8,SNR=17						
O11A	**Cowboy Ranch,**	**2.84**	**47**	⇓P	**Pn**	**01 48 03.9**	**-0.8**
	baz=2.8						
O11A				⇑Sb	**Sb**	**01 48 46.6**	**+1.7**
	baz=2.8						
S12A	**Delamar Landin**	**2.85**	**101**	⇑P	**Pn**	**01 48 03.9**	**-0.9**
	baz=2.8,SNR=10						
SAO	**San Andreas Ge**	**2.85**	**240**	Pn	**Pn**	**01 48 05.1**	**+0.2**
SAO				*e*Sg	**Sg**	**01 48 47.2**	**-2.6**
N10A	**Dunphy**	**2.87**	**29**	⇓S	**Sn**	**01 48 39.9**	**-0.5**
	baz=2.8						
Q12A	**Willow Creek R**	**2.88**	**73**	⇓P	**Pn**	**01 48 04.7**	**-0.6**
	baz=2.8						
R12A	**Pony Springs,**	**2.96**	**87**	⇑P	**Pn**	**01 48 05.3**	**-1.1**
	baz=2.9,SNR=11						
SHPR	**Sheep Range**	**3.08**	**123**	*e*Pn	**Pn**	**01 48 07.9**	**-0.1**
ARVC	**Arvin**	**3.12**	**187**	⇑Sb	**Sb**	**01 48 56.1**	**+3.1**
	baz=3.1						
GSC	**Goldstone**	**3.18**	**156**	*e*Pn	**Pn**	**01 48 09.2**	**-0.1**
GSC				Sn	**Sn**	**01 48 48.2**	**+0.3**
M07A	**Soldier Meadow**	**3.22**	**349**	⇓P	**Pn**	**01 48 09.9**	**0.0**
	baz=3.2,SNR=9.4						
R13A	**O'Grain Ranch,**	**3.46**	**89**	⇓P	**Pn**	**01 48 12.5**	**-0.8**
	baz=3.4,SNR=9.8						
ELK	**Elko**	**3.49**	**43**	*e*Pn	**Pn**	**01 48 13.6**	**0.0**
MCCM	**Marconi Confer**	**3.56**	**270**	Pn	**Pn**	**01 48 15.4**	**+0.8**
M10A	**I.L. Ranch, Tu**	**3.58**	**23**	⇑P	**Pn**	**01 48 14.2**	**-0.6**
	baz=3.6,SNR=10						
OSI	**Osito Adit**	**3.62**	**185**	*e*Pn	**Pn**	**01 48 15.8**	**+0.4**
OSI				*e*Pg	**Pg**	**01 48 26.0**	**-1.5**
S13A	**Holt Ranch, En**	**3.62**	**99**	⇑P	**Pn**	**01 48 14.7**	**-0.8**
	baz=3.6,SNR=10						
N12A	**Clover Valley,**	**3.67**	**43**	⇓P	**Pn**	**01 48 15.8**	**-0.4**
	baz=3.6,SNR=12						
T13A	**Saint George**	**3.74**	**107**	⇑P	**Pn**	**01 48 16.3**	**-0.8**
	baz=3.7,SNR=7.0						
ARUT	**Antelope Range**	**3.92**	**95**	*e*Pn	**Pn**	**01 48 18.7**	**-0.8**
ARUT				*e*Sg	**Sg**	**01 49 23.1**	**-0.8**
U13A	**Pakoon Wash**	**3.95**	**116**	⇓P	**Pn**	**01 48 19.4**	**-0.6**
	baz=3.9,SNR=15						
MOD	**Modoc**	**3.96**	**339**	*e*Pn	**Pn**	**01 48 19.8**	**-0.3**
MOD				*e*Pg	**Pg**	**01 48 31.5**	**-2.6**
WDC	**Whiskeytown Da**	**4.00**	**307**	*e*Pn	**Pn**	**01 48 20.6**	**0.0**
CCUT	**Cedar City**	**4.01**	**98**	*e*Pn	**Pn**	**01 48 20.4**	**-0.4**
L10A	**Juniper Basin**	**4.11**	**20**	⇓P	**Pn**	**01 48 22.0**	**-0.2**
	baz=4.1,SNR=18						
WVOR	**Wild Horse Val**	**4.21**	**357**	Pn	**Pn**	**01 48 24.6**	**+1.1**
V13A	**Grand Canyon W**	**4.23**	**123**	⇓P	**Pn**	**01 48 23.5**	**-0.4**
	baz=4.2,SNR=15						
T14A	**Hurricane**	**4.35**	**104**	⇑P	**Pn**	**01 48 24.9**	**-0.6**
	baz=4.3						
DUG	**Dugway**	**4.74**	**64**	*e*Pn	**Pn**	**01 48 31.9**	**+1.1**
MSU	**Marysvale**	**4.87**	**85**	*e*Pb	**Pb**	**01 48 49.3**	**+4.9**
T15A	**Red Dirt Ranch**	**4.90**	**102**	⇓P	**Pn**	**01 48 32.6**	**-0.4**
	baz=4.9,SNR=6.0						
BGU	**Big Grassy Mou**	**4.92**	**55**	*e*Pn	**Pn**	**01 48 34.0**	**+0.6**

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*ISCJB **11** 01:53:34.6±1.1, 17°.11N±0°.09×94°.42W±0°.04, h155^{km}±14^{km}, Error ellipse: s-maj=14.6km s-min=5.2km az=8.9*

*NEIC **11** 01:53:37.7, 17°.06N×94°.44W, h145^{km}, MD4.2(MEX), After MEX.*

*MEX **11** 01:53:37.6±0.9, 17°.06N×94°.45W, h146^{km}±17^{km}, MD4.2*

ISC 11 01:53:35.3±1.1**, 17°.10N**±0°.09×**94°.42W**±0°.04**,**
h154^{km}±14^{km}**, n11, σ1^{s}20**/21**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGIG		**1.28**	**104**	*i* P	**Pn**	**01 54 03.5**	**+0.6**
TGIG				*i* S	**Sn**	**01 54 23.3**	**-0.8**
PCIG		**1.80**	**140**	*e*P	**Pn**	**01 54 09.1**	**+0.6**
PCIG				*i* S	**Sn**	**01 54 33.6**	**-0.2**
HUIG	**Huatulco**	**2.10**	**231**	*i* P	**Pn**	**01 54 10.7**	**-1.0**
HUIG				*i* S	**Sn**	**01 54 38.9**	**-0.9**
OXX	**Oaxaca**	**2.21**	**270**	*i* P	**Pn**	**01 54 15.0**	**+2.0**
OXX				*i* S	**Sn**	**01 54 44.5**	**+2.4**
VHO	**Vista Hermosa**	**2.21**	**270**	*i* P	**Pn**	**01 54 14.5**	**+1.3**
VHO				*i* S	**Sn**	**01 54 42.2**	**0.0**
CCIG	**Comitan**	**2.33**	**110**	*i* P	**Pn**	**01 54 15.4**	**+0.9**
CCIG				*i* S	**Sn**	**01 54 44.8**	**-0.1**
TPIG	**Tehuac#an**	**3.10**	**295**	*i* P	**Pn**	**01 54 25.8**	**+1.8**
TPIG				*i* S	**Sn**	**01 55 01.1**	**-0.7**
UTMO	**Huajuapan**	**3.31**	**283**	*i* P	**Pn**	**01 54 28.2**	**+1.5**
UTMO				*i* S	**Sn**	**01 55 06.3**	**-0.3**
PNIG	**Pinotepa**	**3.62**	**259**	*e*P	**Pn**	**01 54 30.0**	**-0.8**
PNIG				*i* S	**Sn**	**01 55 12.4**	**-1.4**
PPM	**Popocatepetl**	**4.45**	**297**	*i* P	**Pn**	**01 54 41.0**	**-0.6**
PPM				*i* S	**Sn**	**01 55 30.4**	**-2.8**
TEIG	**Tepich**	**6.60**	**61**	*e*Pn	**Pn**	**01 55 08.3**	**-1.7**

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*NEIC **11** 02:13:09.0, 33°.95S×72°.25W, h39^{km}, MD3.8(GUC), After GUC.*

GUC 11 02:13:09.0±0.7**, 33°.95S**×**72°.25W, h39**^{km}±4^{km}**, MD3.8,**
ML2.7, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHCH	**Chadas Angostu**	**1.33**	**90**	*e*P	Pn	02 13 32.1	+1.1
CHCH				*i* S	Sn	02 13 50.1	+2.7
CHCH	**Chadas Angostu**	**1.33**	**90**	*e*P	Pn	02 13 32.1	+1.1
CHCH				*i* S	Sn	02 13 50.1	+2.7
CACH	**El Canelo**	**1.38**	**97**	*e*P	Pn	02 13 33.2	+1.5
CACH				*i* S	Sn	02 13 52.5	+3.8
CACH	**El Canelo**	**1.38**	**97**	*e*P	Pn	02 13 33.2	+1.5
CACH				*i* S	Sn	02 13 52.5	+3.8
ANTU	**Antumapu**	**1.40**	**75**	*e*P	Pn	02 13 33.2	+1.2
ANTU				S	Sn	02 13 49.5	+0.3
ANTU	**Antumapu**	**1.40**	**75**	*e*P	Pn	02 13 33.2	+1.2
ANTU				*i* S	Sn	02 13 49.5	+0.3
PEL	**Peldehue**	**1.54**	**59**	*e*P	Pn	02 13 35.4	+1.5
PEL				*i* S	Sn	02 13 54.9	+2.3
PEL				AML	AML	02 14 01.5	
	comp=E,274nm,0.4s						
CICH	**Cipreses**	**1.56**	**104**	*e*P	Pn	02 13 35.7	+1.5
LMEL	**Las Melosas**	**1.70**	**87**	*e*P	Pn	02 13 38.0	+1.8
LMEL				*i* S	Sn	02 13 59.8	+3.0
LMEL	**Las Melosas**	**1.70**	**87**	*e*P	Pn	02 13 38.0	+1.8
LMEL				*i* S	Sn	02 13 59.8	+3.0
LMEL				AML	AML	02 14 05.0	
	comp=N,98nm,0.2s						
FCH	**Farellones**	**1.75**	**70**	*e*P	Pn	02 13 39.0	+2.2
FCH				*i* S	Sn	02 14 01.1	+3.3
FCH				AML	AML	02 14 06.9	
	comp=N,130nm,0.2s						

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*IDC **11** 03:08:05.2±0.6, 52°.88N×171°.19E, h0^{km}, mb4.4/24, mb1 4.6/25, mb1mx4.6/27, mbtmp4.4/25, ML4.1/1, MS4.0/10, Ms1 4.0/10, ms1mx3.7/40, Error ellipse: s-maj=20.1km s-min=11.1km az=163.0*

*ISCJB **11** 03:08:06.8±0.8, 52°.81N±0°.04×171°.11E±0°.02, h22^{km}±5^{km}, mb4.7/152, MS4.2/23, Error ellipse: s-maj=7.2km s-min=2.3km az=5.9*

*BJI **11** 03:08:07.8, 53°.33N×170°.92E, h20^{km}, mB5.0/28, mb4.7/39, Ms4.7/26, Ms7 4.4/26*

*MOS **11** 03:08:08.0±1.0, 52°.85N×171°.07E, h28^{km}, mb5.0/74, Error ellipse: s-maj=7.7km s-min=4.7km az=104.0*

*KRSC **11** 03:08:09.5±2.1, 52°.94N×170°.55E, h21^{km}±20^{km}, ML5.1*

*NEIC **11** 03:08:10.2±1.1, 52°.83N×171°.13E, h32^{km}±8^{km}, mb4.8/84, ML4.3(AEIC), Error ellipse: s-maj=6.5km s-min=3.1km az=181.0*

*BGS **11** 03:08:10.0±1.6, 52°.80N×171°.50E, h33^{km}, mb5.1*

*SZGRF **11** 03:08:11.3, 52°.73N×171°.06E, h33^{km}, mb4.9, Near Islands, Aleutian Islands, United States*

ISC 11 03:08:10.5±0.8**, 52°.90N**±0°.04×**171°.12E**±0°.02**, h32**^{km}±5^{km}**,**
h31^{km}±1.2^{km}**:pP-P, n637, σ0^{s}66**/656**, mb4.7**/152**, MS4.2**/23**,**
189C-136D, Near Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FX1	**Attu Island--F**	**1.24**	**90**	P	**Pn**	**03 08 29.4**	**-2.2**
FX1				S	**Sn**	**03 08 46.9**	**-0.3**
SMY	**Shemya**	**1.81**	**94**	P	**Pn**	**03 08 38.6**	**-0.9**
SMY				S	**Sn**	**03 09 02.4**	**+1.0**
BKI	**Bering**	**3.81**	**309**	*e*P	**Pn**	**03 09 05.3**	**-1.7**
BKI				*i* S	**Sn**	**03 09 46.0**	**-4.6**
AMKA	**Amchitka**	**5.26**	**104**	P	**Pn**	**03 09 28.2**	**+1.4**
MKZ	**Mys Kozlova**	**5.82**	**290**	*e*P	**Pn**	**03 09 33.4**	**-1.1**
MKZ				*i* S	**Sn**	**03 10 35.5**	**-4.5**
KBTR	**Krutoberegovo**	**5.86**	**308**	*e*P	**Pn**	**03 09 33.4**	**-1.6**
KBTR				*i* S	**Sn**	**03 10 35.3**	**-5.7**
ZLN	**Zelenaya**	**6.78**	**302**	*e*P	**Pn**	**03 09 47.9**	**+0.3**
ZLN				*i* S	**Sn**	**03 11 00.4**	**-3.2**
SRKR	**Sorokina**	**6.88**	**307**	*e*P	**Pn**	**03 09 49.2**	**+0.2**
SRKR				*e*S	**Sn**	**03 11 01.8**	**-4.2**
KLY	**Klyuchi**	**6.98**	**304**	*e*P	**Pn**	**03 09 49.3**	**-1.1**
KLY				*i* S	**Sn**	**03 11 02.4**	**-6.1**
KRSR	**Krestovskiy**	**6.98**	**303**	P	**Pn**	**03 09 51.3**	**+0.9**
NLC	**Nalytchevo**	**7.11**	**277**	*e*P	**Pn**	**03 09 51.4**	**-0.8**
NLC				*i* S	**Sn**	**03 11 05.1**	**-6.7**
AVH	**Avacha**	**7.47**	**278**	*e*P	**Pn**	**03 09 56.9**	**-0.2**
AVH				*i* S	**Sn**	**03 11 14.6**	**-6.1**
PET	**Petropavlovsk**	**7.53**	**276**	*e*P	**Pn**	**03 09 58.0**	**0.0**
PET				*e*S	**Sn**	**03 11 17.0**	**-5.2**
PET				smax			
	comp=E,289nm,0.7s						
PET				smax			
	comp=N,190nm,0.7s						
PET				MLR	MLR		
	comp=Z,900nm,20.0s						
PET				MLR	MLR		
	comp=Z,600nm,17.0s						
PET	**Petropavlovsk**	**7.53**	**276**	*e*P	**Pn**	**03 09 58.5**	**+0.5**
PET				*i* S	**Sn**	**03 11 17.1**	**-5.1**
PET	**Petropavlovsk**	**7.53**	**276**	*e*Pn	**Pn**	**03 09 56.8**	**-1.2**
RUS	**Russkaya**	**7.68**	**272**	*e*P	**Pn**	**03 09 59.8**	**-0.3**
RUS				*i* S	**Sn**	**03 11 19.7**	**-6.2**
GNL	**Ganaly**	**7.94**	**281**	*e*P	**Pn**	**03 10 04.4**	**+0.8**
GNL				*i* S	**Sn**	**03 11 27.6**	**-4.6**
PETK	**Petropavlovsk-**	**8.10**	**277**	P	**Pn**	**03 10 06.1**	**+0.3**
PETK						03 11 29.8	
PETK				pmax	pmax		
	comp=Z,3.0nm,0.3s						
PETK				smax			
	comp=N,4.0nm,0.3s						
PETK				MLR	MLR		
	comp=Z,323nm,21.6s						
PETK	**Petropavlovsk-**	**8.10**	**277**	Pn	**Pn**	**03 10 06.1**	**+0.3**
	comp=Z,2.7nm,0.3s,baz=90,slow=19,SNR=64						
PETK				Sn	**Sn**	**03 11 29.8**	**-6.4**
	comp=Z,3.5nm,0.3s,baz=95,slow=17,SNR=5.0						
PETK				LR	LR	03 13 08.9	
	comp=Z,323nm,21.6s,baz=250,slow=37						
PETK	**Petropavlovsk-**	**8.10**	**277**	Pn	**Pn**	**03 10 06.1**	**+0.2**
PETK				Sn	**Sn**	**03 11 29.8**	**-6.4**
PETK				LR	LR	03 13 08.9	
ATKA	**Atka Island**	**8.98**	**89**	P	**Pn**	**03 10 17.7**	**-0.1**
SKR	**Severo-Kuril's**	**9.56**	**263**	*e*P	**Pn**	**03 10 26.1**	**+0.3**
NIKO	**Nikolski**	**12.08**	**82**	*e*Pn	**Pn**	**03 11 00.6**	**+0.3**
SEY	**Seymchan**	**14.09**	**323**	⇑*e*P	**Pn**	**03 11 29.5**	**+1.9**
GAMB	**Gambell**	**14.09**	**33**	*e*Pn	**Pn**	**03 11 29.4**	**+1.9**
	comp=Z,11nm,0.4s						
BILL	**Bilibino**	**15.37**	**353**	⇑*e*P	**Pn**	**03 11 46.6**	**+1.9**
BILL				pmax	pmax		
	comp=Z,75nm,1.5s						
BILL				MLR	MLR		
	comp=Z,300nm,13.0s						
BILL	**Bilibino**	**15.37**	**353**	*e*Pn	**Pn**	**03 11 45.8**	**+1.1**
	comp=Z,49nm,0.9s						
TNA	**Tin City**	**16.49**	**32**	*e*Pn	**Pn**	**03 12 00.4**	**+1.3**
	comp=Z,27nm,1.2s						
CHGN	**Chignik**	**17.90**	**67**	*e*P	**Pn**	**03 12 16.1**	**-0.6**
YSS	**Yuzh-Sakhalins**	**19.13**	**263**	*e*P	**Pn**	**03 12 33.0**	**+1.3**
SVW2	**Sparrevohn**	**19.71**	**52**	*e*P	**Pn**	**03 12 37.2**	**-1.3**
OHAK	**Old Harbor**	**20.68**	**64**	*e*P	**P**	**03 12 46.8**	**-0.7**
	comp=Z,111nm,2.0s						
OHAK				LR	LR		
	comp=Z,600nm,17.0s,MS4.0						
ASAJ	**Asahikawa**	**20.73**	**256**	P	**P**	**03 12 49.0**	**+0.9**
ASAJ				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ASAJ	**Asahikawa**	**20.73**	**256**	P	**P**	**03 12 49.0**	**+0.9**
	comp=Z,10nm,0.8s,baz=6.6,slow=12,SNR=3.9						
RSO	**Redoubt South**	**21.01**	**55**	*e*P	**P**	**03 12 51.7**	**+0.7**
KDAK	**Kodiak Island**	**21.03**	**62**	*e*P	**P**	**03 12 50.6**	**-0.7**
KDAK				pmax	pmax		
	comp=Z,474nm,2.5s,mb5.4						
KDAK	**Kodiak Island**	**21.03**	**62**	P	**P**	**03 12 50.2**	**-1.0**
	comp=Z,18nm,0.4s,mb4.7,baz=257,slow=7.7,SNR=38						
KDAK	**Kodiak Island**	**21.03**	**62**	*e*P	**P**	**03 12 50.5**	**-0.7**
	comp=Z,474nm,2.5s,mb5.4						
PPLA	**Purkeypile**	**21.60**	**48**	*e*P	**P**	**03 12 58.0**	**+0.6**
	comp=Z,62nm,1.2s,mb4.9						
CHUM	**Lake Minchumin**	**21.75**	**45**	*e*P	**P**	**03 12 59.0**	**0.0**
	comp=Z,13nm,0.5s,mb4.6						
KTH	**Kantishna Hill**	**22.29**	**47**	*e*P	**P**	**03 13 04.8**	**+0.1**
	comp=Z,45nm,1.1s,mb4.8						
BPAW	**Bear Paw Mtn.**	**22.37**	**45**	*e*P	**P**	**03 13 05.8**	**+0.2**
	comp=Z,23nm,1.0s,mb4.6						
RC01	**Rabbit Creek A**	**22.53**	**53**	*e*P	**P**	**03 13 07.7**	**+0.4**
	comp=Z,11nm,0.5s,mb4.6						
TRF	**Thorofare Moun**	**22.55**	**47**	*e*P	**P**	**03 13 07.1**	**-0.3**
	comp=Z,38nm,0.9s,mb4.8						
SEW	**Seward**	**22.63**	**56**	*e*P	**P**	**03 13 07.8**	**-0.6**
	comp=Z,83nm,2.0s,mb4.8						
PMR	**Palmer**	**22.86**	**52**	*e*P	**P**	**03 13 11.6**	**+0.9**
PMR				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.3						
PMR				MLR	MLR		
	comp=Z,300nm,17.0s,MS3.8						
PMR	**Palmer**	**22.86**	**52**	*e*P	**P**	**03 13 11.6**	**+0.9**
	comp=Z,17nm,1.3s,mb4.3						
PMR				LR	LR		
	comp=Z,300nm,17.0s,MS3.8						
HABR	**Khabarovsk**	**23.11**	**274**	*e*P	**P**	**03 13 14.5**	**+1.0**
HABR				*e**SP	sP	03 13 24.9	-1.2
HABR				*e*PPP		03 13 44.5	
HABR				*e*		03 16 58.3	
HABR				*e*S	**S**	**03 17 23.9**	**+1.6**
HABR				*e**SS	sS	03 17 36.9	-0.4
HABR				SS		03 17 55.9	
HABR				MLR	MLR		
	comp=Z,165nm,16.0s,MS3.6						
MCK	**McKinley**	**23.19**	**46**	*e*P	**P**	**03 13 13.7**	**-0.5**
MCK				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.6						
MCK	**McKinley**	**23.19**	**46**	*e*P	**P**	**03 13 13.7**	**-0.6**
	comp=Z,27nm,1.0s,mb4.6						
COLD	**Coldfoot**	**23.51**	**38**	*e*P	**P**	**03 13 16.2**	**-1.3**
	comp=Z,5.7nm,0.6s,mb4.2						
YAK	**Yakutsk**	**23.69**	**309**	*e*P	**P**	**03 13 17.4**	**-1.7**
YAK				*e**PP		03 13 23.6	
YAK				*e*		03 13 47.5	
YAK				*e*PPP		03 13 57.6	
YAK				*e*SS		03 18 35.1	
YAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb4.7						
YAK				pmax	pmax		
	comp=E,20nm,1.3s						
YAK				pmax	pmax		
	comp=N,5.0nm,0.7s						
YAK				pmax	pmax		
	comp=Z,56nm,1.7s,mb4.7						
YAK				MLR	MLR		
	comp=N,185nm,14.0s,MS3.8						
YAK				MLR	MLR		
	comp=Z,294nm,15.0s,MS3.9						
YAK				MLR	MLR		
	comp=E,185nm,16.0s,MS3.8						
YAK	**Yakutsk**	**23.69**	**309**	*e*P	**P**	**03 13 18.1**	**-1.0**
	comp=E,48nm,1.0s,mb4.9						
COLA	**College**	**23.85**	**44**	*e*P	**P**	**03 13 20.5**	**0.0**
COLA				pmax	pmax		
	comp=Z,20nm,0.6s,mb4.7						
COLA	**College**	**23.85**	**44**	*e*P	**P**	**03 13 20.5**	**-0.1**
	comp=Z,20nm,0.6s,mb4.7						
PAX	**Paxson**	**24.66**	**49**	*e*P	**P**	**03 13 28.0**	**+0.1**
PAX				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.7						
PAX	**Paxson**	**24.66**	**49**	*e*P	**P**	**03 13 28.0**	**+0.1**
	comp=Z,16nm,0.6s,mb4.7						
KLR	**Kul'dur**	**24.80**	**277**	*e*P	**P**	**03 13 25.8**	**-3.5**
KLR				pmax	pmax		
	comp=E,56nm,1.8s						
KLR				pmax	pmax		
	comp=Z,85nm,1.8s,mb5.0						
MENT	**Mentasta**	**25.46**	**49**	*e*P	**P**	**03 13 35.8**	**+0.6**
TIXI	**Tiksi**	**26.28**	**331**	⇑*e*P	**P**	**03 13 42.6**	**+0.1**
TIXI				pmax	pmax		
	comp=Z,51nm,1.7s,mb4.8						
TIXI	**Tiksi**	**26.28**	**331**	*e*P	**P**	**03 13 42.8**	**+0.4**
	comp=Z,23nm,0.9s,mb4.7						
EGAK	**Eagle**	**26.68**	**45**	*e*P	**P**	**03 13 45.3**	**-0.9**
	comp=Z,25nm,0.8s,mb4.8						
DAWY	**Dawson**	**27.43**	**47**	*e*P	**P**	**03 13 53.4**	**+0.5**
MJAR	**Matsushiro Arr**	**28.21**	**248**	P	**P**	**03 14 01.1**	**+1.0**
MJAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MJAR	**Matsushiro Arr**	**28.21**	**248**	P	**P**	**03 14 01.1**	**+1.0**
	comp=Z,2.6nm,1.0s,mb3.8,baz=32,slow=8.2,SNR=6.7						
MDJ	**Mudanjiang**	**28.26**	**270**	P	**P**	**03 13 59.5**	**-1.0**
MDJ				pP	pP	03 14 08.2	-1.5
MDJ				sP	sP	03 14 12.0	-1.6
MDJ				S	**S**	**03 18 42.6**	**-1.7**
MDJ				sS	sS	03 18 57.6	-1.9
MDJ				ScP	ScP	03 20 51.7	+0.3
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,120nm,4.9s						
MDJ				LR	LR		
	comp=N,120nm,16.4s						
MDJ				LR	LR		
	comp=E,170nm,9.8s						
MDJ				LR	LR		
	comp=Z,280nm,13.3s,MS4.0						
HYT	**Haines Junctio**	**28.50**	**53**	*e*P	**P**	**03 14 04.2**	**+1.8**
CN2	**Changchun**	**31.21**	**272**	*e*P	**P**	**03 14 26.4**	**-0.3**
CN2				*e*sP	sP	03 14 39.9	+0.2
CN2				PP	PP	03 15 29.2	-8.0
CN2				*e*S	**S**	**03 19 28.4**	**-2.2**
CN2				SS	SS	03 21 14.4	-30
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,200nm,14.0s,MS4.1						
CN2				LR	LR		
	comp=E,200nm,14.0s,MS4.1						
CN2				LR	LR		
	comp=Z,200nm,15.0s,MS3.9						
HIA	**Hailar**	**31.91**	**285**	*e*P	**P**	**03 14 32.3**	**-0.5**
HIA				pmax	pmax		
	comp=Z,19nm,1.4s						
HIA	**Hailar**	**31.91**	**285**	*e*P	**P**	**03 14 32.3**	**-0.5**
	comp=Z,19nm,1.4s,mb4.7						
BOD	**Bodaibo**	**31.99**	**302**	*e*P	**P**	**03 14 32.9**	**-0.5**
BOD				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.6						
DLBC	**Dease Lake**	**32.70**	**56**	*e*P	**P**	**03 14 39.2**	**-0.3**
KSRS	**Korea Array**	**33.57**	**260**	P	**P**	**03 14 48.0**	**+0.6**
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,143nm,19.3s,MS3.7						
KSRS	**Korea Array**	**33.57**	**260**	P	**P**	**03 14 48.0**	**+0.6**
	comp=Z,4.4nm,0.9s,mb4.4,baz=45,slow=9.0,SNR=9.3						
KSRS				LR	LR	03 26 48.8	
	comp=Z,143nm,19.3s,MS3.7,baz=134,slow=33						
YKA	**Yellowknife Ar**	**38.66**	**46**	P	**P**	**03 15 29.9**	**-0.7**
YKA						03 17 41.6	
YKA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,196nm,18.0s						
YKA	**Yellowknife Ar**	**38.66**	**46**	P	**P**	**03 15 29.9**	**-0.6**
	comp=Z,3.1nm,0.5s,mb4.3,baz=290,slow=8.7,SNR=33						
YKA				PcP	PcP	03 17 41.6	-0.3
	comp=Z,1.0nm,0.6s,baz=297,slow=3.3,SNR=9.7						
YKA				LR	LR	03 34 11.8	
	comp=Z,196nm,18.0s,MS4.0,baz=80,slow=40						
YKA	**Yellowknife Ar**	**38.66**	**46**	P	**P**	**03 15 29.9**	**-0.6**
YKA				PcP	PcP	03 17 41.6	-0.3
YKA				LR	LR	03 34 11.8	
TLY	**Talaya**	**39.91**	**296**	*e*P	**P**	**03 15 42.2**	**+1.1**
TLY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
TLY				MLR	MLR		
	comp=Z,265nm,20.0s,MS4.1						
ULN	**Ulaanbaatar**	**39.95**	**289**	*e*P	**P**	**03 15 42.4**	**+0.9**
ULN				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.4						
ULN	**Ulaanbaatar**	**39.95**	**289**	*e*P	**P**	**03 15 42.4**	**+0.9**
	comp=Z,10nm,1.3s,mb4.4						
SONM	**Songino Array**	**40.34**	**290**	P	**P**	**03 15 45.6**	**+0.8**
SONM						03 17 48.1	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM				MLR	MLR		
	comp=Z,272nm,18.2s						
SONM	**Songino Array**	**40.34**	**290**	P	**P**	**03 15 45.6**	**+0.8**
	comp=Z,2.1nm,0.8s,mb3.9,baz=59,slow=8.2,SNR=19						
SONM				PcP	PcP	03 17 48.1	+0.5
	comp=Z,1.0nm,0.6s,baz=88,slow=1.6,SNR=5.8						
SONM				LR	LR	03 34 34.4	
	comp=Z,272nm,18.2s,MS4.1,baz=58,slow=39						
ZAK	**Zakamensk**	**40.76**	**295**	*e*P	**P**	**03 15 47.7**	**-0.5**
ZAK				*e*		03 17 47.7	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb3.9						
RES	**Resolute Bay**	**40.90**	**24**	P	**P**	**03 15 49.0**	**-0.1**
RES						03 17 47.5	

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RES                            pmax    pmax
      comp=Z,2.0nm,0.9s,mb3.8
RES                            pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.0
RES   Resolute Bay      40.90  24  P       P       03 15 49.0 -0.1
      comp=Z,2.1nm,0.9s,mb3.8,baz=289,slow=8.2,SNR=6.8
RES                            PcP     PcP     03 17 47.5 -1.5
      comp=Z,1.8nm,0.5s,baz=324,slow=7.2,SNR=5.7
RES   Resolute Bay      40.90  24  P       P       03 15 49.0 -0.1
RES                            PcP     PcP     03 17 47.5 -1.5
A06A  Chilliwack        41.18  67 ⇓P       P       03 15 51.4 -0.2
      baz=41
B05A  Bryant            41.28  69 ⇑P       P       03 15 53.0 +0.5
      baz=41
HHC   Hu-ho-hao-te      41.30 278 eP       P       03 15 55.1 +2.3
HHC                            pP      pP      03 16 04.8 +2.6
HHC                            sP      sP      03 16 08.9 +2.9
HHC                            PP      PP      03 17 33.0 +4.8
HHC                            PcP     PcP     03 17 54.6 +3.8
HHC                            PcS     PcS     03 21 45.7 +3.8
HHC                            S       S       03 22 05.9 +1.2
HHC                            sS      sS      03 22 21.2 +1.0
HHC                            SS      SS      03 25 03.2 -5.3
HHC                            ScS     ScS     03 25 54.2 +0.2
HHC                            pmax    pmax
      comp=Z,9.0nm,1.0s,mb4.3
HHC                            pmax    pmax
      comp=Z,140nm,4.8s
HHC                            LR      LR
      comp=N,240nm,17.8s,MS4.5
HHC                            LR      LR
      comp=E,500nm,14.3s,MS4.5
HHC                            LR      LR
      comp=Z,190nm,15.5s,MS4.1
MOY   Mondy             41.35 298 eP       P       03 15 53.4 +0.4
C05A  Tolt Reservoir    41.82  69 ⇓P       P       03 15 57.1 +0.2
      baz=42
A07A  Ashnola River,    41.82  67 ⇓P       P       03 15 57.1 +0.2
      baz=42,SNR=7.8
B07A  Winthrop          42.28  67 ⇓P       P       03 16 00.7  0.0
      baz=42
F04A  Amboy             42.38  72 ⇑P       P       03 16 01.4 -0.1
      baz=42
A08A  Turner Farm, O    42.49  66 ⇓P       P       03 16 02.2 -0.1
      baz=42
D06A  Cle Elum          42.57  69 ⇓P       P       03 16 02.8 -0.2
      baz=42
NJ2   Nanjing           42.69 262 eP       P       03 16 02.9 -1.3
NJ2                            pmax    pmax
      comp=Z,20nm,1.0s,mb4.8
C07A  Waterville        42.74  68 ⇑P       P       03 16 04.3 -0.1
      baz=43,SNR=6.1
B08A  Colville Reser    42.78  67 ⇑P       P       03 16 04.6 -0.1
      baz=43,SNR=6.3
A09A  Danville          42.85  66 ⇑P       P       03 16 05.6 +0.3
      baz=43,SNR=13
D07A  Quincy            43.06  69 ⇑P       P       03 16 06.8 -0.3
      baz=43
C08A  Higginbotham F    43.26  67 ⇓P       P       03 16 08.2 -0.4
      baz=43
EDM   Edmonton          43.39  58 eP       P       03 16 09.4 -0.2
B09A  Rice              43.40  66 ⇓P       P       03 16 09.9 +0.1
      baz=43,SNR=10
A10A  Northport         43.42  65 ⇓P       P       03 16 09.6 -0.3
      baz=43
F06A  Goldendale        43.42  71 ⇑P       P       03 16 09.9  0.0
      baz=43
E07A  Sunnyside         43.49  69 ⇓P       P       03 16 10.2 -0.3
      baz=43
C09A  Chrisman Ranch    43.68  67 ⇑P       P       03 16 11.6 -0.4
      baz=44,SNR=5.2
D08A  Wollman Farm,     43.73  68 ⇑P       P       03 16 12.0 -0.4
      baz=44
HAWA  Hanford           43.77  69 eP       P       03 16 12.6 -0.2
      comp=Z,6.5nm,0.5s,mb4.6
E08A  Dider Farm, El    43.98  69 ⇑P       P       03 16 14.0 -0.4
      baz=44
D09A  Jones Farm, Ri    44.08  68 ⇓P       P       03 16 14.9 -0.3
      baz=44
A11A  Hall Mountain,    44.09  65 ⇑P       P       03 16 15.4 +0.1
      baz=44,SNR=6.7
H06A  Lindquist Farm    44.27  72 ⇓P       P       03 16 16.7 -0.1
      baz=44
F08A  Pendleton         44.54  70 ⇓P       P       03 16 18.6 -0.3
      baz=44
D10A  Wagner Farm, O    44.66  67 ⇓P       P       03 16 19.3 -0.6
      baz=44,SNR=7.4
YBH   Yreka Blue Hor    44.70  77 eP       P       03 16 21.4 +1.2
YBH                            pmax    pmax
      comp=Z,9.0nm,1.1s
YBH   Yreka Blue Hor    44.70  77 eP       P       03 16 21.4 +1.1
      comp=Z,9.1nm,1.1s,mb4.5
G08A  Pilot Rock        44.73  70 ⇑P       P       03 16 20.0 -0.4
      baz=45
H07A  Lands Inn, Kim    44.80  72 ⇓P       P       03 16 20.7 -0.3
      baz=45
I07A  Izee              45.14  72 ⇓P       P       03 16 23.6 -0.1
      baz=45
K05A  Summer Lake       45.16  74 ⇑P       P       03 16 24.5 +0.6
      baz=45
D11A  Klaveano Farm,    45.19  67 ⇑P       P       03 16 23.1 -1.0
      baz=45
J06A  Christmas Vall    45.27  73 ⇑P       P       03 16 25.0 +0.3
      baz=45
C12B  Naegeli Ranch,    45.28  66 ⇓P       P       03 16 24.7 -0.1
      baz=45,SNR=9.7
H08A  Prairie City      45.36  71 ⇑P       P       03 16 25.4  0.0
      baz=45
WALA  Waterton Lakes    45.36  63 ePn      P       03 16 25.4 -0.1
      comp=Z,0.6nm,0.8s,mb3.5
G09A  Cove              45.41  70 ⇑P       P       03 16 25.7 -0.2
      baz=45
E11A  Bogner Ranch,     45.66  68 ⇓P       P       03 16 27.1 -0.7
      baz=46
A14A  Double T Ranch    45.68  63 ⇓P       P       03 16 27.7 -0.2
      baz=46,SNR=16
J07A  Hines             45.68  73 ⇓P       P       03 16 28.3 +0.3
      baz=46
G10A  Bishop Farm, J    45.78  69 ⇓P       P       03 16 28.4 -0.3
      baz=46,SNR=14
C13A  Hot Springs       45.80  65 ⇓P       P       03 16 28.6 -0.3
      baz=46
MOD   Modoc             46.01  75 eP       P       03 16 30.8 +0.2
      comp=Z,3.8nm,0.6s,mb4.5
MOD                           ePcP     PcP     03 18 07.1 +0.4
A15A  Johnson Ranch,    46.05  63 ⇑P       P       03 16 30.1 -0.7
      baz=46,SNR=7.9
K07A  Rock Creek Ran    46.13  73 ⇓P       P       03 16 31.8 +0.3
      baz=46,SNR=7.5
J08A  Circle Bar Ran    46.17  72 ⇑P       P       03 16 31.9  0.0
      baz=46
D13A  Huson             46.20  66 ⇓P       P       03 16 31.6 -0.4
      baz=46
I09A  Lost Marbles R    46.22  71 ⇓P       P       03 16 32.4 +0.1
      baz=46
H10A  Noah's Angus R    46.41  70 ⇑P       P       03 16 33.4 -0.4
      baz=46,SNR=6.5
WHN   Wuhan             46.47 264  P       P       03 16 35.5 +1.1
L07A  Adell             46.50  74 ⇑P       P       03 16 34.7 +0.2
      baz=46,SNR=6.3
B15A  Bradely Ranch,    46.52  63 ⇓P       P       03 16 34.1 -0.5
      baz=46,SNR=6.9
K08A  Mann Creek Ran    46.55  73 ⇑P       P       03 16 35.0 +0.1
      baz=46
J09A  Fry Pan Ranch,    46.59  72 ⇓P       P       03 16 35.3 +0.1
      baz=46
MSO   Missoula          46.65  66 eP       P       03 16 35.0 -0.5
      comp=Z,6.1nm,0.9s,mb4.5
A16A  West Butte Ran    46.67  62 ⇑P       P       03 16 35.2 -0.5
      baz=46,SNR=46
I10A  Payette           46.69  70 ⇑P       P       03 16 36.2 +0.3
      baz=46
D14A  Greenough         46.73  65 ⇓P       P       03 16 35.8 -0.4
      baz=47,SNR=10
E13A  Victor            46.74  66 ⇑P       P       03 16 35.8 -0.5
      baz=47,SNR=5.8
H11A  Donnelly          46.76  69 ⇑P       P       03 16 35.9 -0.5
      baz=47,SNR=9.6
C15A  Salmond Ranch,    46.82  64 ⇑P       P       03 16 37.0 +0.1
      baz=47
B16A  M & M Farms, S    46.93  63 ⇓P       P       03 16 37.1 -0.7
      baz=47,SNR=9.7
L08A  Fields            46.97  73 ⇓P       P       03 16 37.8 -0.3
      baz=47
M07A  Soldier Meadow    46.99  75 ⇑P       P       03 16 38.4 +0.1
      baz=47,SNR=8.5
N06A  Buffalo Meadow    47.01  76 ⇓P       P       03 16 38.6 +0.1
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      baz=47,SNR=5.1
K09A  Rome              47.01  73 ⇑P       P       03 16 38.4  0.0
      baz=47
F13A  Darby             47.05  67 ⇓P       P       03 16 38.4 -0.3
      baz=47,SNR=5.5
J10A  Berg Farm, Mel    47.11  71 ⇑P       P       03 16 38.9 -0.3
      baz=47
E14A  Clinton           47.14  66 ⇓P       P       03 16 39.0 -0.4
      baz=47,SNR=9.5
A17A  Triple J Farms    47.15  62 ⇓P       P       03 16 38.8 -0.7
      baz=47,SNR=12
C16A  Fuhringer Ranc    47.27  63 ⇑P       P       03 16 40.0 -0.4
      baz=47,SNR=7.5
D15A  Lincoln           47.30  65 ⇑P       P       03 16 40.4 -0.3
      baz=47,SNR=6.1
XAN   Xi'an             47.32 272  P       P       03 16 41.8 +0.8
XAN                            pP      pP      03 16 50.1 -0.4
XAN                            sP      sP      03 16 54.2 -0.1
XAN                            pmax    pmax
      comp=Z,7.0nm,1.5s,mb4.4
XAN                            pmax    pmax
      comp=Z,170nm,8.1s
XAN                            LR      LR
      comp=N,180nm,14.1s,MS4.3
XAN                            LR      LR
      comp=E,170nm,14.1s,MS4.3
XAN                            LR      LR
      comp=Z,330nm,17.6s,MS4.3
O06A  Flanigan          47.38  77 ⇑P       P       03 16 41.6 +0.3
      baz=47
M08A  Happy Creek Ra    47.41  74 ⇑P       P       03 16 41.7 +0.1
      baz=47
K10A  MacKenzie Ranc    47.46  72 ⇓P       P       03 16 42.0 +0.1
      baz=47,SNR=10
L09A  Wilkinson Ranc    47.47  73 ⇓P       P       03 16 42.0  0.0
      baz=47
B17A  L&G Farms, Che    47.49  62 ⇑P       P       03 16 41.7 -0.4
      baz=47,SNR=8.5
H12A  Diamond D Ranc    47.51  69 ⇓P       P       03 16 41.9 -0.5
      baz=47
G13A  Cobalt            47.53  68 ⇓P       P       03 16 41.9 -0.5
      baz=47,SNR=13
F14A  Wisdom            47.57  67 ⇓P       P       03 16 42.3 -0.5
      baz=47
E15A  Deer Lodge        47.60  65 ⇓P       P       03 16 42.6 -0.4
      baz=48,SNR=8.9
A18A  Metzger Ranch,    47.62  61 ⇑P       P       03 16 42.4 -0.7
      baz=48
MFID  Camas Ranch       47.66  71 ⇓P       P       03 16 43.0 -0.5
      baz=48
D16A  Dana Ranch, Ca    47.84  64 ⇑P       P       03 16 44.6 -0.2
      baz=48
H13A  Challis           47.84  68 ⇓P       P       03 16 44.1 -0.7
      baz=48
C17A  Wharram Farm,     47.90  63 ⇓P       P       03 16 44.8 -0.5
      baz=48,SNR=23
K11A  Parker Ranch,     47.94  71 ⇓P       P       03 16 45.4 -0.3
      baz=48
O07A  Toulon            47.94  76 ⇑P       P       03 16 45.7  0.0
      baz=48
M09A  Marrel Ranch,     47.97  74 ⇓P       P       03 16 45.9  0.0
      baz=48
B18A  Beardsley Farm    47.97  62 ⇑P       P       03 16 45.3 -0.5
      baz=48,SNR=11
WCN   Washoe City       47.98  77 ⇑P       P       03 16 46.1 +0.1
      baz=48
N08A  GE Springer Mi    47.98  75 ⇑P       P       03 16 46.0  0.0
      baz=48
F15A  Butte             48.04  66 ⇑P       P       03 16 46.2 -0.2
      baz=48
E16A  East Helena       48.07  65 ⇑P       P       03 16 45.7 -0.9
      baz=48
L10A  Juniper Basin     48.13  72 ⇑P       P       03 16 46.9 -0.2
      baz=48
FFC   Flin Flon         48.16  51⇑eP       P       03 16 47.6 +0.4
J12A  Stokes Ranch,     48.18  70 ⇑P       P       03 16 47.6 +0.1
      baz=48,SNR=5.8
EGMT  Eagleton          48.21  62 ⇓P       P       03 16 47.3 -0.4
      baz=48,SNR=9.4
EGMT  Eagleton          48.21  62 eP       P       03 16 47.1 -0.5
      comp=Z,7.3nm,0.5s,mb5.0
D17A  Six Diamond Ra    48.23  64 ⇓P       P       03 16 47.6 -0.3
      baz=48,SNR=11
O08A  Rochester Mine    48.28  75 ⇓P       P       03 16 47.9 -0.5
      baz=48
N09A  Rock Creek Ran    48.29  74 ⇑P       P       03 16 48.0 -0.5
      baz=48
I13A  Wildhorse Cree    48.32  69 ⇑P       P       03 16 48.4 -0.2
      baz=48,SNR=15
ZALV  Zalesovo Beam     48.33 308  P       P       03 16 46.5 -2.0
ZALV                           pmax    pmax
      comp=Z,1.0nm,0.4s,mb4.2
ZALV                           MLR     MLR
      comp=Z,130nm,18.6s,MS3.9
ZALV  Zalesovo Beam     48.33 308  P       P       03 16 46.5 -2.1
      comp=Z,0.6nm,0.4s,mb4.0,baz=46,slow=6.4,SNR=5.1
ZALV                           LR      LR      03 38 04.9
      comp=Z,130nm,18.6s,MS3.9,baz=353,slow=37
ZALV  Zalesovo Beam     48.33 308  P       P       03 16 46.5 -2.1
ZALV                           LR      LR      03 38 04.9
HLID  Hailey            48.37  70 ⇓P       P       03 16 48.9 -0.1
      baz=48,SNR=12
HLID  Hailey            48.37  70 eP       P       03 16 48.8 -0.2
      comp=Z,3.0nm,0.5s,mb4.6
M10A  I.L. Ranch, Tu    48.44  73 ⇑P       P       03 16 49.9 +0.4
      baz=48,SNR=5.6
G15A  Dillon            48.46  67 ⇓P       P       03 16 49.0 -0.7
      baz=48,SNR=5.5
L11A  Cat Creek Ranc    48.48  72 ⇑P       P       03 16 50.1 +0.2
      baz=48,SNR=12
NVS   Novosibirsk       48.55 310 eP       P       03 16 49.0 -1.2
NVS                            pmax    pmax
      comp=Z,24nm,1.5s,mb5.0
NVS                            pmax    pmax
      comp=N,12nm,1.8s
NVS                            pmax    pmax
      comp=E,19nm,1.6s
F16A  Kennard Place,    48.55  66 ⇑P       P       03 16 50.0 -0.3
      baz=48
E17A  Martinsdale       48.56  64 ⇓P       P       03 16 50.6 +0.2
      baz=48,SNR=6.6
J13A  Cove Ranch, Pi    48.61  70 ⇑P       P       03 16 50.8 -0.1
      baz=48,SNR=11
BOZ   Bozeman (W)       48.64  66 eP       P       03 16 51.0  0.0
BOZ                            pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.7
BOZ   Bozeman (W)       48.64  66 ⇑P       P       03 16 51.0  0.0
      baz=48,SNR=13
BOZ   Bozeman (W)       48.64  66 eP       P       03 16 51.0  0.0
      comp=Z,5.6nm,0.8s,mb4.7
R06C  Coleville         48.66  78 ⇓P       P       03 16 51.4 +0.1
      baz=48
K12A  Draper Farm, C    48.67  71 ⇓P       P       03 16 51.5 +0.2
      baz=48,SNR=9.9
D18A  Linhart Farms,    48.69  63 ⇑P       P       03 16 51.4 +0.1
      baz=48,SNR=7.0
I14A  Mackay            48.69  69 ⇓P       P       03 16 51.5 +0.1
      baz=48,SNR=19
G16A  Moss Hill, Enn    48.80  66 ⇑P       P       03 16 52.1 -0.2
      baz=49,SNR=9.9
L12A  House Creek Ra    48.92  71 ⇓P       P       03 16 53.3 +0.1
      baz=49,SNR=14
O09A  Fish Creek Ran    48.93  75 ⇓P       P       03 16 53.5 +0.3
      baz=49
M11A  Holland Ranch,    48.93  73 ⇑P       P       03 16 53.5 +0.2
      baz=49
LZH   Lanzhou           49.00 278 eP       P       03 16 55.0 +1.1
LZH                            pP      pP      03 17 04.9 +1.5
LZH                            sP      sP      03 17 08.7 +1.5
LZH                           ePP      PP      03 18 47.8 +0.5
LZH                           eS       S       03 23 54.9 -1.1
LZH                            sS      sS      03 24 12.0 +0.3
LZH                           eSS      SS      03 27 22.3 -4.4
LZH                            pmax    pmax
      comp=Z,24nm,1.2s,mb5.1
LZH                            pmax    pmax
      comp=Z,97nm,5.6s
LZH                            LR      LR
      comp=N,400nm,15.2s
LZH                            LR      LR
      comp=Z,700nm,17.8s,MS4.7
E18A  Harlowton         49.01  64 ⇓P       P       03 16 54.2 +0.3
      baz=49,SNR=8.4
J14A  Carey             49.03  69 ⇑P       P       03 16 54.4 +0.4
      baz=49,SNR=5.8
GTA   Gaotai            49.20 284 eP       P       03 16 56.1 +0.7
GTA                            pP      pP      03 17 05.8 +0.9
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GTA                            sP      sP      03 17 09.5 +0.8
GTA                            PcP     PcP     03 18 19.6 +1.4
GTA                            S       S       03 23 58.0 -0.7
GTA                            sS      sS      03 24 14.2 -0.2
GTA                            SS      SS      03 27 23.2 -6.5
GTA                            pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.7
GTA                            pmax    pmax
      comp=Z,210nm,7.2s
GTA                            LR      LR
      comp=N,400nm,16.8s,MS4.6
GTA                            LR      LR
      comp=E,270nm,16.5s,MS4.6
GTA                            LR      LR
      comp=Z,460nm,15.3s,MS4.6
O10A  Cortez Mining,    49.25  74 ⇑P       P       03 16 56.2 +0.4
      baz=49
FCC   Fort Churchill    49.26  43 eP       P       03 16 55.0 -0.6
FCC                            pmax    pmax
      comp=Z,1.0nm,1.1s,mb3.8
FCC   Fort Churchill    49.26  43 eP       P       03 16 55.0 -0.5
      comp=Z,0.5nm,1.1s,mb3.5
G17A  Pierce Place,     49.33  66 ⇑P       P       03 16 56.6 +0.2
      baz=49
Q08A  Gabbs             49.34  77 ⇓P       P       03 16 56.6 +0.1
      baz=49,SNR=6.1
NVAR  Mina Array Bea    49.41  77  P       P       03 16 56.4 -0.6
      comp=Z,1.6nm,0.6s,mb4.2,baz=297,slow=7.5,SNR=9.0
NVAR                           PcP     PcP     03 18 18.7 -0.2
      comp=Z,1.0nm,0.7s,baz=296,slow=4.4,SNR=2.7
H16A  Russell Place,    49.44  66 ⇓P       P       03 16 57.3 +0.2
      baz=49,SNR=12
F18A  Big Timber        49.53  64 ⇓P       P       03 16 58.0 +0.2
      baz=49,SNR=7.4
L13A  Double Diamond    49.57  71 ⇑P       P       03 16 58.4 +0.2
      baz=49,SNR=5.7
J15A  Blackfoot         49.59  69 ⇓P       P       03 16 59.0 +0.7
      baz=49
P10A  Eureka            49.71  75 ⇓P       P       03 16 59.7 +0.4
      baz=50
K14A  Jones Ranch, D    49.72  70 ⇑P       P       03 16 59.4 +0.1
      baz=50
N12A  Clover Valley,    49.74  73 ⇑P       P       03 16 59.7 +0.2
      baz=50
O11A  Cowboy Ranch,     49.84  74 ⇑P       P       03 17 00.7 +0.4
      baz=50
M13A  Montello          49.91  72 ⇑P       P       03 17 00.8  0.0
      baz=50,SNR=5.2
K15A  Arbon             49.99  69 ⇑P       P       03 17 01.9 +0.5
      baz=50,SNR=7.0
H17A  Grant Village     50.00  66 ⇓P       P       03 17 02.7 +1.3
      baz=50,SNR=6.2
L14A  Malta             50.01  70 ⇓P       P       03 17 01.8 +0.2
      baz=50
J16A  Bone              50.14  68 ⇑P       P       03 17 03.0 +0.5
      baz=50
N13A  Wendover, West    50.22  72 ⇓P       P       03 17 03.1  0.0
      baz=50
R09A  Tonopah           50.26  77 ⇑P       P       03 17 03.6 +0.2
      baz=50,SNR=10.0
Q10A  Clear Creek Ra    50.27  76 ⇑P       P       03 17 03.9 +0.4
      baz=50,SNR=8.2
RLMT  Red Lodge         50.27  65 ⇑P       P       03 17 03.8 +0.4
      baz=50,SNR=8.6
O12A  Currie            50.28  73 ⇑P       P       03 17 04.0 +0.3
      baz=50,SNR=5.2
M14A  Sheep Mountain    50.29  71 ⇓P       P       03 17 03.3 -0.3
      baz=50
I17A  Pilgrim Ck.       50.30  67 ⇑P       P       03 17 04.0 +0.2
      baz=50
K16A  Soda Springs      50.43  69 ⇓P       P       03 17 05.6 +0.9
      baz=50,SNR=5.0
S09A  Goldfield         50.51  77 ⇑P       P       03 17 05.5 +0.1
      baz=50
L15A  Malad City        50.51  70 ⇓P       P       03 17 05.3  0.0
      baz=50
VES   Vestal, Richgr    50.67  80 ⇑P       P       03 17 06.6  0.0
      baz=50
R10A  Warm Springs      50.68  76 ⇓P       P       03 17 06.9 +0.3
      baz=50
Q11A  Duckwater         50.69  75 ⇑P       P       03 17 06.8 +0.1
      baz=51,SNR=5.4
P12A  McGill            50.71  74 ⇓P       P       03 17 06.4 -0.5
      baz=51
S10A  Tonopah Range,    50.75  77 ⇓P       P       03 17 07.0 -0.2
      baz=51
N14A  Grayback Hills    50.80  72 ⇑P       P       03 17 07.2 -0.3
      baz=51,SNR=6.5
O13A  Hicks Ranch, I    50.82  73 ⇑P       P       03 17 07.8 +0.1
      baz=51
M15A  Larsen Ranch,     50.83  70 ⇓P       P       03 17 07.5 -0.2
      baz=51,SNR=5.9
DGMT  Dagmar            50.86  59 ⇑P       P       03 17 07.1 -0.8
      baz=51
DGMT  Dagmar            50.86  59 eP       P       03 17 07.5 -0.4
      comp=Z,16nm,0.6s,mb5.1
I18A  Diamond G Ranc    50.87  67 ⇑P       P       03 17 07.2 -0.8
      baz=51
GRAC  Grapevine Rang    50.91  78 ⇓P       P       03 17 08.1 -0.3
      baz=51
LAO   LASA Array        50.92  62 eP       P       03 17 08.7 +0.3
      comp=Z,20nm,0.9s,mb5.0
L16A  Fish Haven        51.05  69 ⇓P       P       03 17 08.9 -0.5
      baz=51,SNR=5.1
R11A  Troy Canyon, C    51.06  76 ⇑P       P       03 17 09.3 -0.2
      baz=51,SNR=7.4
J18A  Kendall Valley    51.07  67 ⇓P       P       03 17 09.3 -0.2
      baz=51
ISA   Isabella          51.15  80 ⇓P       P       03 17 09.5 -0.7
      baz=51
N15A  Stansbury Isla    51.16  71 ⇓P       P       03 17 10.0 -0.2
      baz=51
P13A  Bates Ranch, G    51.24  73 ⇑P       P       03 17 11.0 +0.1
      baz=51,SNR=5.6
K18A  Toltan Ranch,     51.43  68 ⇓P       P       03 17 12.7 +0.5
      baz=51,SNR=11
DUG   Dugway            51.45  72 eP       P       03 17 12.6 +0.2
DUG                            pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.6
DUG   Dugway            51.45  72 ⇑P       P       03 17 12.5 +0.1
      baz=51,SNR=6.7
DUG   Dugway            51.45  72 eP       P       03 17 12.6 +0.2
      comp=Z,8.9nm,1.1s,mb4.6
MPMC  Manual Prospec    51.47  79 ⇑P       P       03 17 12.2 -0.4
      baz=51
FURC  Furnace Creek,    51.57  78 ⇓P       P       03 17 12.8 -0.6
      baz=51
Q13A  Wheeler Ranch,    51.57  74 ⇓P       P       03 17 13.4 +0.1
      baz=51,SNR=7.8
BW06  Boulder Array     51.62  67 ⇑P       P       03 17 13.3 -0.3
      baz=52,SNR=12
PDAR  Pinedale Array    51.62  67  P       P       03 17 13.6 -0.1
      comp=Z,3.7nm,0.5s,mb4.6,baz=313,slow=2.2,SNR=73
PDAR                           PcP     PcP     03 18 26.8 -0.2
      comp=Z,0.6nm,0.6s,baz=70,slow=1.3,SNR=2.0
R12A  Pony Springs,     51.65  75 ⇓P       P       03 17 13.9  0.0
      baz=52
P14A  Drum Mountains    51.70  73 ⇑P       P       03 17 14.1 -0.2
      baz=52,SNR=5.6
N16A  Rees Ranch, Co    51.78  70 ⇓P       P       03 17 14.6 -0.3
      baz=52
M17A  Scullys Gap (B    51.84  69 ⇓P       P       03 17 15.2 -0.1
      baz=52
L18A  Fontenelle, Gr    51.90  69 ⇑P       P       03 17 15.5 -0.2
      baz=52
U10A  Ash Meadows, A    51.91  78 ⇑P       P       03 17 15.8 -0.2
      baz=52
K19A  Absolon Red Bu    51.98  67 ⇓P       P       03 17 15.5 -0.8
      baz=52,SNR=8.6
EDW2  Edwards Air Fo    51.98  80 ⇑P       P       03 17 16.4  0.0
      baz=52
Q14A  Sevier Lake (B    51.98  73 ⇑P       P       03 17 16.5 +0.1
      baz=52,SNR=6.9
S12A  Delamar Landin    51.99  76 ⇑P       P       03 17 16.8 +0.4
      baz=52,SNR=6.8
T11A  Corn Creek, Al    52.02  76 ⇓P       P       03 17 16.5 -0.2
      baz=52,SNR=8.8
N17A  Moffit Pass       52.09  70 ⇑P       P       03 17 17.4 +0.2
      baz=52
R13A  O'Grain Ranch,    52.12  75 ⇑P       P       03 17 17.5 +0.1
      baz=52
L19A  Farson            52.16  68 ⇑P       P       03 17 17.4 -0.3
      baz=52
M18A  Lyman             52.20  69 ⇓P       P       03 17 18.2 +0.2
      baz=52
SHOC  Shoshone          52.30  78 ⇓P       P       03 17 18.7 -0.1
      baz=52
K20A  Yellowstone Ra    52.37  67 ⇓P       P       03 17 18.7 -0.5
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      baz=52
Q15A  Fillmore          52.49  73 ⇓P     P        03 17 20.3 +0.1
      baz=52
S13A  Holt Ranch, En    52.58  75 ⇓P     P        03 17 20.9  0.0
      baz=52,SNR=6.8
FMP   Fort Macarthur    52.60  82 ⇓P     P        03 17 20.8 -0.3
      baz=52
CD2   Chengdu           52.62 273  P     P        03 17 22.0 +0.8
CD2                                pP    pP       03 17 32.0 +1.1
CD2                                sP    sP       03 17 36.1 +1.5
CD2                                PcP   PcP      03 18 32.4 +1.4
CD2                                S     S        03 24 44.5 -1.8
CD2                                sS    sS       03 25 01.4 -0.7
CD2                                SS    SS       03 28 21.0 -3.5
CD2                                pmax  pmax
      comp=Z,10.0nm,1.1s,mb4.7
CD2                                pmax  pmax
      comp=Z,190nm,5.3s
CD2                                LR    LR
      comp=N,460nm,15.5s
CD2                                LR    LR
      comp=Z,410nm,15.5s,MS4.6
M19A  Rock Springs      52.67  68 ⇑P     P        03 17 21.4 -0.1
      baz=52
L20A  Wamsutter         52.79  67 ⇑P     P        03 17 22.3 -0.1
      baz=53
V11A  Goodsprings       52.84  78 ⇓P     P        03 17 21.3 -1.6
      baz=53
S14A  Cedar City        52.87  74 ⇑P     P        03 17 23.1 +0.1
      baz=53
T13A  Saint George      52.94  76 ⇑P     P        03 17 23.3 -0.2
      baz=53
N19A  John Jarvie Ra    53.06  69 ⇓P     P        03 17 24.0 -0.3
      baz=53,SNR=7.0
WMQ   Urumqi            53.19 296  P     P        03 17 25.5 +0.2
WMQ                                pP    pP       03 17 35.0 +0.1
WMQ                                sP    sP       03 17 39.0 +0.3
WMQ                                PcP   PcP      03 18 33.0 +0.1
WMQ                                S     S        03 24 53.0 -0.7
WMQ                                sS    sS       03 25 09.0 -0.6
WMQ                                pmax  pmax
      comp=Z,10.0nm,1.1s,mb4.7
WMQ                                pmax  pmax
      comp=Z,300nm,7.2s
WMQ                                LR    LR
      comp=N,590nm,21.2s,MS4.8
WMQ                                LR    LR
      comp=E,600nm,21.3s,MS4.8
WMQ                                LR    LR
      comp=Z,450nm,16.0s
M20A  Sweetwater, Wa    53.22  68 ⇓P     P        03 17 25.3 -0.2
      baz=53
Q16A  Castle Valley     53.25  72 ⇑P     P        03 17 26.0 +0.2
      baz=53
V12A  Nelson            53.26  77 ⇑P     P        03 17 26.6 +0.7
      baz=53
U13A  Pakoon Wash       53.31  76 ⇑P     P        03 17 26.5 +0.3
      baz=53,SNR=5.9
KURK  Kurchatov         53.32 308 eP     P        03 17 25.0 -1.1
KURK                               pmax  pmax
      comp=Z,18nm,1.1s,mb4.9
KURK  Kurchatov         53.32 308  LR    LR       03 41 19.3
      comp=Z,150nm,19.3s,MS4.1,baz=55,slow=37
KURK  Kurchatov         53.32 308 eP     P        03 17 25.0 -1.2
      comp=Z,18nm,1.1s,mb4.9
L21A  Rawlins           53.36  67 ⇓P     P        03 17 26.2 -0.3
      baz=53
T14A  Hurricane         53.39  75 ⇓P     P        03 17 27.2 +0.4
      baz=53
S15A  Panguitch         53.39  74 ⇑P     P        03 17 27.0 +0.1
      baz=53
GMRC  Granite Mounta    53.43  79 ⇓P     P        03 17 27.2  0.0
      baz=53
SRU   San Rafael        53.49  71 ⇓P     P        03 17 27.6 +0.1
      baz=53,SNR=7.2
O19A  Miners Draw (B    53.49  69 ⇑P     P        03 17 27.2 -0.3
      baz=53
R16A  Teasdale          53.49  73 ⇓P     P        03 17 28.1 +0.5
      baz=53,SNR=7.2
N20A  Spence Gulch,     53.62  68 ⇓P     P        03 17 28.7 +0.2
      baz=54
V13A  Grand Canyon W    53.69  77 ⇓P     P        03 17 29.2 +0.1
      baz=54,SNR=6.9
Q18A  Rafter H Ranch    53.72  71 ⇑P     P        03 17 29.2  0.0
      baz=54
RSSD  Black Hills       53.76  63 eP     P        03 17 29.4  0.0
RSSD                              e               03 18 35.3
RSSD                               pmax  pmax
      comp=Z,10.0nm,0.5s,mb5.0
RSSD  Black Hills       53.76  63 eP     P        03 17 29.4  0.0
      comp=Z,10nm,0.5s,mb5.0
RSSD                              ePcP   PcP      03 18 35.3 +0.2
U14A  Mt Trumbull       53.77  76 ⇑P     P        03 17 30.1 +0.4
      baz=54
S16A  Weppner Ranch,    53.81  73 ⇓P     P        03 17 30.4 +0.5
      baz=54,SNR=6.8
T15A  Red Dirt Ranch    53.83  75 ⇑P     P        03 17 30.3 +0.3
      baz=54
R17A  Hanksville Air    53.85  72 ⇓P     P        03 17 30.3 +0.1
      baz=54,SNR=6.2
ULM   Lac du Bonnet     53.87  53  P     P        03 17 29.7 -0.5
      comp=Z,5.7nm,0.4s,mb4.8,baz=308,slow=8.2,SNR=10
ULM   Lac du Bonnet     53.87  53  P     P        03 17 29.7 -0.5
P19A  Cripple Cowboy    54.02  70 ⇓P     P        03 17 31.2 -0.2
      baz=54,SNR=11
GYA   Guiyang           54.07 267  P     P        03 17 32.5 +0.5
GYA                                pP    pP       03 17 43.2 +1.6
GYA                                sP    sP       03 17 44.9 -0.5
GYA                                PcP   PcP      03 18 37.6 +1.1
GYA                                PP    PP       03 19 36.3 +2.8
GYA                                ScP   ScP      03 22 31.4 -0.6
GYA                                S     S        03 25 04.3 -1.8
GYA                                sS    sS       03 25 23.4 +1.4
GYA                                SS    SS       03 28 46.0 -1.5
GYA                                pmax  pmax
      comp=Z,20nm,1.0s,mb5.0
GYA                                pmax  pmax
      comp=Z,90nm,5.3s
GYA                                LR    LR
      comp=N,560nm,18.9s
GYA                                LR    LR
      comp=Z,520nm,19.3s,MS4.6
MK31  Makanchi Array    54.09 302  P     P        03 17 30.3 -1.5
MK31                               pmax  pmax
      comp=Z,1.0nm,0.5s,mb4.0
MKAR  Makanchi Array    54.09 302  P     P        03 17 30.4 -1.4
MKAR                               pmax  pmax
      comp=Z,1.0nm,0.4s
MKAR  Makanchi Array    54.09 302  P     P        03 17 30.4 -1.4
      comp=Z,0.7nm,0.3s,mb4.0,baz=53,slow=6.5,SNR=41
MKAR  Makanchi Array    54.09 302  P     P        03 17 30.4 -1.4
O20A  White River Ci    54.10  69 ⇓P     P        03 17 31.8 -0.2
      baz=54,SNR=5.8
IRM   Iron Mountain     54.17  79 ⇑P     P        03 17 32.2 -0.4
      baz=54
M22A  Cedar Creek Ra    54.17  67 ⇑P     P        03 17 32.3 -0.2
      baz=54
W13A  Hualapai Mount    54.27  77 ⇑P     P        03 17 33.1 -0.1
      baz=54
Q19A  Hogan Spring (    54.32  71 ⇑P     P        03 17 33.7 +0.1
      baz=54
S17A  Black Ridge (B    54.33  73 ⇓P     P        03 17 33.8 +0.1
      baz=54,SNR=10.0
BC3   Big Chuckw Mtn    54.34  80 ⇓P     P        03 17 33.5 -0.3
      baz=54
R18A  Canyonlands Na    54.34  72 ⇑P     P        03 17 33.4 -0.3
      baz=54,SNR=7.3
V14A  Boquillas Ranc    54.36  76 ⇑P     P        03 17 34.2 +0.3
      baz=54,SNR=7.0
P20A  De Beque          54.44  70 ⇓P     P        03 17 34.2 -0.3
      baz=54,SNR=5.2
X13A  Yucca             54.65  78 ⇓P     P        03 17 36.0  0.0
      baz=54
N22A  Wattenberg Ran    54.65  67 ⇑P     P        03 17 35.9 -0.1
      baz=54
W14A  Seligman          54.66  77 ⇑P     P        03 17 36.1  0.0
      baz=54,SNR=5.4
S18A  Hurst Farm, Bl    54.76  72 ⇓P     P        03 17 36.6 -0.2
      baz=55,SNR=8.3
T17A  Navajo Res., N    54.76  74 ⇓P     P        03 17 36.5 -0.3
      baz=55
R19A  Curley Farm, L    54.77  71 ⇑P     P        03 17 36.5 -0.3
      baz=55,SNR=7.5
V15A  Kaibab Nationa    54.78  76 ⇑P     P        03 17 37.4 +0.4
      baz=55,SNR=8.5
Q20A  Ridgley Place,    54.87  70 ⇑P     P        03 17 37.5  0.0
      baz=55
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KEV   Kevo              54.90 346 eP     P        03 17 35.0 -2.4
KEV                                pmax  pmax
      comp=Z,4.0nm,0.4s,mb4.8
KEV   Kevo              54.90 346 ep     P        03 17 35.0 -2.4
      comp=Z,3.7nm,0.4s,mb4.8
P21A  Newcastle         54.96  69 ⇓P     P        03 17 38.5 +0.2
      baz=55
U17A  Shonto            55.12  74 ⇑P     P        03 17 39.7 +0.3
      baz=55
U16A  Tuba City         55.16  75 ⇓P     P        03 17 40.0 +0.3
      baz=55
AGMN  Agassiz Refuge    55.18  54 eP     P        03 17 39.2 -0.5
      comp=Z,59nm,0.7s,mb5.7
Y13A  Salome            55.19  78 ⇑P     P        03 17 39.4 -0.6
      baz=55
T18A  Mexican Hat       55.21  73 ⇓P     P        03 17 39.3 -0.7
      baz=55,SNR=5.8
S19A  Harvey Farm, M    55.21  72 ⇑P     P        03 17 39.6 -0.5
      baz=55,SNR=7.5
X14A  Yava              55.29  77 ⇓P     P        03 17 40.8 +0.1
      baz=55
ARCES ARCESS Array B    55.32 346  P     P        03 17 39.8 -0.6
ARCES                              pmax  pmax
      comp=Z,5.0nm,0.5s
ARCES ARCESS Array B    55.32 346  P     P        03 17 39.8 -0.6
      comp=Z,4.7nm,0.5s,mb4.8,baz=25,slow=8.8,SNR=29
R20A  Redvale           55.34  71 ⇑P     P        03 17 41.0  0.0
      baz=55
WUAZ  Wupatki           55.45  75 ⇑P     P        03 17 42.3 +0.4
      baz=55
VOSK  Vostochnaya       55.48 313  P     P        03 17 40.6 -1.2
VOSK                               pmax  pmax
      comp=Z,10.0nm,1.3s,mb4.7
BVA0  Borovoye Array    55.53 314 i P    P        03 17 41.2 -1.0
BVA0                               pmax  pmax
      comp=Z,4.0nm,1.0s,mb4.4
BVAR  Borovoye Array    55.53 314  LR    LR       03 42 36.5
      comp=Z,345nm,19.4s,MS4.5,baz=34,slow=37
BRVK  Borovoye          55.56 314 eP     P        03 17 41.7 -0.6
BRVK                               pmax  pmax
      comp=Z,21nm,1.4s,mb5.0
BRVK  Borovoye          55.56 314 eP     P        03 17 41.6 -0.7
      comp=Z,21nm,1.4s,mb5.0
Y14A  Wickenburg        55.59  78 ⇓P     P        03 17 43.0 +0.2
      baz=56
X15A  Humboldt          55.66  77 ⇑P     P        03 17 43.9 +0.6
      baz=56
U18A  Rough Rock, Ch    55.70  73 ⇑P     P        03 17 43.9 +0.3
      baz=56
Q22A  Crested Butte,    55.72  69 ⇓P     P        03 17 43.7 -0.1
      baz=56
ISCO  Idaho Springs     55.81  68 eP     P        03 17 45.4 +1.1
ISCO                               pmax  pmax
      comp=Z,15nm,1.4s,mb4.8
ISCO  Idaho Springs     55.81  68 eP     P        03 17 45.4 +1.0
      comp=Z,15nm,1.4s,mb4.8
T19A  Beclabito         55.91  72 ⇑P     P        03 17 44.9 -0.2
      baz=56,SNR=6.3
MVCO  Mesa Verde        55.95  72 ⇓P     P        03 17 45.4  0.0
      baz=56
MVCO  Mesa Verde        55.95  72 eP     P        03 17 45.6 +0.2
      comp=Z,3.4nm,0.5s,mb4.6
113A  Mohawk Valley,    55.96  79 ⇑P     P        03 17 45.4 -0.1
      baz=56
Y15A  Casa Rosa Ranc    55.98  77 ⇓P     P        03 17 45.4 -0.3
      baz=56,SNR=7.7
V18A  Ganado            56.16  74 ⇑P     P        03 17 46.6 -0.3
      baz=56
X16A  Lo Mia Camp, P    56.18  76 ⇓P     P        03 17 47.2 +0.1
      baz=56
R22A  Saguache, Gunn    56.24  70 ⇑P     P        03 17 48.4 +0.9
      baz=56,SNR=6.3
Y16A  Circle Bar Ran    56.54  77 ⇑P     P        03 17 50.0 +0.4
      baz=56
115A  Sonoran Desert    56.93  78 ⇑P     P        03 17 52.8 +0.5
      baz=57,SNR=5.4
X18A  Snowflake         56.98  75 ⇓P     P        03 17 53.3 +0.6
      baz=57
OGNE  Ogallala          57.00  64 eP     P        03 17 53.4 +0.6
      comp=Z,31nm,0.5s,mb5.6
T22A  Edith             57.00  71 ⇑P     P        03 17 53.5 +0.7
      baz=57,SNR=5.8
Y17A  Roosevelt         57.04  76 ⇓P     P        03 17 53.6 +0.4
      baz=57
214A  Organ Pipe Nat    57.11  79 ⇓P     P        03 17 54.0 +0.3
      baz=57
SDCO  Great Sand Dun    57.29  69 eP     P        03 17 55.0 +0.1
      comp=Z,7.6nm,1.3s,mb4.6
W20A  Ramah             57.40  74 ⇓P     P        03 17 56.7 +1.0
      baz=57
KMI   Kunming           57.44 269  P     P        03 17 56.1  0.0
KMI                                S     S        03 25 50.6 -0.3
KMI                                pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.7
KMI                                LR    LR
      comp=N,230nm,20.0s
KMI                                LR    LR
      comp=E,260nm,10.0s
KMI                                LR    LR
      comp=Z,350nm,13.2s
Z17A  San Carlos Hig    57.54  76 ⇑P     P        03 17 57.2 +0.4
      baz=57
EYMN  Ely               57.55  52 eP     P        03 17 56.4 -0.2
      comp=Z,18nm,0.7s,mb5.2
Y19A  Nutrioso          57.79  75 ⇓P     P        03 17 59.3 +0.9
      baz=58
ARU   Arti              57.83 323c iP    P        03 17 57.9 -0.5
ARU                               e               03 20 06.5
ARU                                S     S        03 25 58.2 +2.9
ARU                                SS    SS       03 29 49.8 +4.5
ARU                                pmax  pmax
      comp=Z,23nm,1.6s,mb5.0
216A  Three Points,     57.88  78 ⇓P     P        03 17 59.6 +0.5
      baz=58
117A  Oracle            57.90  77 ⇑P     P        03 17 59.9 +0.6
      baz=58
PRGR  Permogore         57.92 333⇓iP     P        03 17 59.8 +0.8
PRGR                               pmax  pmax
      comp=Z,43nm,1.2s,mb5.3
TUC   Tucson            58.06  78 eP     P        03 18 00.8 +0.4
TUC                                pmax  pmax
      comp=Z,5.0nm,1.1s,mb4.5
TUC   Tucson            58.06  78 eP     P        03 18 00.8 +0.4
      comp=Z,5.4nm,1.1s,mb4.5
118A  Homack Ranch,     58.30  77 ⇑P     P        03 18 02.7 +0.6
      baz=58,SNR=8.1
217A  Green Valley      58.42  78 ⇓P     P        03 18 03.4 +0.5
      baz=58
119A  Ashpeak Ranch,    58.61  76 ⇑P     P        03 18 04.8 +0.6
      baz=58
X22A  Bernardo          58.71  73 ⇓P     P        03 18 05.2 +0.3
      baz=59
218A  Dragoon           58.74  77 ⇑P     P        03 18 05.6 +0.5
      baz=59
318A  Bisbee            59.15  78 ⇓P     P        03 18 08.3 +0.3
      baz=59,SNR=6.6
120A  U Bar Ranch, L    59.16  76 ⇓P     P        03 18 08.6 +0.6
      baz=59
219A  White Tail Can    59.18  77 ⇑P     P        03 18 08.8 +0.6
      baz=59,SNR=8.1
319A  Douglas           59.62  77 ⇓P     P        03 18 12.1 +0.9
      baz=60
KLMR  Klimovskoe        60.21 335 eP     P        03 18 14.7 -0.1
KLMR                               pmax  pmax
      comp=Z,46nm,1.3s,mb5.3
JOF   Joensuu           60.29 340 eP     P        03 18 13.8 -1.6
JOF                                pmax  pmax
      comp=Z,6.0nm,0.4s,mb5.0
JOF   Joensuu           60.29 340 ep     P        03 18 13.8 -1.6
      comp=Z,5.8nm,0.4s,mb5.0
AAK   Ala-Archa         60.97 303 eP     P        03 18 19.1 -1.2
AAK                                pmax  pmax
      comp=Z,2.0nm,1.3s,mb4.1
SCIA  State Center      61.00  58 eP     P        03 18 20.4 -0.1
      comp=Z,22nm,0.4s,mb5.6
JFWS  Jewell Farm       61.77  56 eP     P        03 18 24.6 -1.1
JFWS                               pmax  pmax
      comp=Z,21nm,0.5s,mb5.5
JFWS  Jewell Farm       61.77  56 eP     P        03 18 24.6 -1.1
      comp=Z,21nm,0.5s,mb5.5
KAF   Kangasniemi       62.01 342 eP     P        03 18 25.6 -1.4
KAF                                pmax  pmax
      comp=Z,3.0nm,0.4s,mb4.8
KAF   Kangasniemi       62.01 342 ep     P        03 18 25.6 -1.4
      comp=Z,3.3nm,0.4s,mb4.8
SCHQ  Schefferville     62.42  34  P     P        03 18 28.8 -1.1
      comp=Z,16nm,1.1s,mb5.1,baz=324,slow=6.3,SNR=10.0
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SCHQ                               LR    LR       03 46 05.5
      comp=Z,162nm,18.8s,MS4.2,baz=31,slow=36
KSH   Kashi             62.47 300  P     P        03 18 34.0 +3.5
KSH                               ePcP   PcP      03 19 13.0 +3.5
KSH                               ePP    PP       03 20 52.8 +5.1
KSH                               eScP   ScP      03 23 11.0 +2.1
KSH                               ePcS   PcS      03 23 15.0 +2.2
KSH                               eS     S        03 26 57.6 +2.3
KSH                               eSS    SS       03 31 02.8 +4.0
KSH                                pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.8
KSH                                pmax  pmax
      comp=Z,170nm,3.0s
KSH                                LR    LR
      comp=N,410nm,6.1s
KSH                                LR    LR
      comp=E,330nm,6.6s
KSH                                LR    LR
      comp=Z,460nm,5.7s
AKTO  Aktyubinsk        62.64 319  P     P        03 18 30.4 -1.0
AKTO                               pmax  pmax
      comp=Z,2.0nm,0.8s,mb4.3
FINES FINESS Array B    62.67 342 eP     P        03 18 31.0 -0.4
AB31  Akbulak array     62.77 317  P     P        03 18 31.6 -0.7
AB31                               pmax  pmax
      comp=Z,7.0nm,0.6s,mb5.0
HDIL  Hopedale          64.00  57 eP     P        03 18 40.1 -0.4
      comp=Z,43nm,0.6s,mb5.7
TXAR  Lajitas Array     64.41  75  P     P        03 18 43.5  0.0
      comp=Z,4.4nm,0.5s,mb4.8,baz=305,slow=5.0,SNR=167
TXAR                               LR    LR       03 44 50.4
      comp=Z,89nm,18.1s,MS4.0,baz=185,slow=34
CMAR  Chiang Mai Arr    64.76 267  P     P        03 18 45.4 -0.4
CMAR                               pmax  pmax
      comp=Z,3.0nm,0.8s
CMAR  Chiang Mai Arr    64.76 267  P     P        03 18 45.4 -0.4
      comp=Z,2.8nm,0.8s,mb4.4,baz=25,slow=7.5,SNR=12
NB2   NORSAR Subarra    65.28 349  P     P        03 18 48.2 -0.4
      comp=Z,10.0nm,0.7s,mb5.0,baz=13,slow=6.5
NOA   NORSAR Array B    65.28 349  P     P        03 18 48.3 -0.3
NOA                                pmax  pmax
      comp=Z,7.0nm,0.6s
NOA   NORSAR Array B    65.28 349  P     P        03 18 48.3 -0.3
      comp=Z,6.9nm,0.6s,mb4.8,baz=13,slow=6.6,SNR=32
OBN   Obninsk           65.98 333 eP     P        03 18 52.3 -0.9
OBN                               i               03 19 22.0
OBN                               i               03 21 21.0
OBN                                pmax  pmax
      comp=Z,32nm,2.5s,mb4.9
WVT   Waverly           68.10  59 eP     P        03 19 06.2 -0.7
WVT                                pmax  pmax
      comp=Z,11nm,1.0s,mb4.8
WVT   Waverly           68.10  59 eP     P        03 19 06.2 -0.8
      comp=Z,11nm,1.0s,mb4.8
MICGM Minsk             68.71 338 e      P        03 19 10.0 -0.4
MNK   Minsk             68.72 338 eP     P        03 19 10.0 -0.5
PLAL  Pickwick Lake     68.85  60 eP     P        03 19 10.7 -0.9
      comp=Z,6.8nm,0.6s,mb4.8
MCD   Coleburn Disti    69.78 357 eP     P        03 19 16.9 -0.1
MDO   Dochfour          69.96 357 eP     P        03 19 18.0 -0.2
MME1  Meikle Cairn      70.04 357 eP     P        03 19 18.2 -0.4
SUW   Suwalki           70.17 341 eP              03 19 20.4
EBH   Black Hill        71.13 357 eP     P        03 19 25.1 -0.2
EAB   Aberfoyle         71.21 357 eP     P        03 19 25.7 -0.1
ESY   Stoneypath        71.43 356 eP     P        03 19 26.9 -0.2
EAU   Auchinoon         71.53 357 eP     P        03 19 27.7  0.0
EBL   Broad Law         71.59 357 eP     P        03 19 26.9 -1.1
PGBU  Glenifferbraes    71.59 357 eP     P        03 19 27.9 -0.3
PGBU                               AMb   AMB      03 19 28.7
      comp=Z,95nm,1.5s,mb5.5
XSO   Sourhope Farm     71.84 356 eP     P        03 19 29.4 -0.2
AKASG Malin Array Be    71.89 336  P     P        03 19 29.6 -0.4
AKASG                              pmax  pmax
      comp=Z,3.0nm,0.6s
AKASG Malin Array Be    71.89 336  P     P        03 19 29.6 -0.4
      comp=Z,3.3nm,0.6s,mb4.5,baz=26,slow=6.2,SNR=14
ESK   Eskdalemuir       72.05 357 eP     P        03 19 30.7 -0.2
ESK                                AMb   AMB      03 19 38.7
      comp=Z,28nm,2.3s,mb4.8
ECK   Cauldkaine Hil    72.18 357 eP     P        03 19 30.9 -0.7
BSEG  Bad Segeberg      72.34 348 eP     P        03 19 32.3 -0.3
BSEG                               pmax  pmax
      comp=Z,11nm,1.0s,mb4.7
BSEG  Bad Segeberg      72.34 348 eP     P        03 19 32.3 -0.3
      comp=Z,11nm,1.0s,mb4.7
XAL   Allendale         72.47 356 eP     P        03 19 33.1 -0.2
GAL1  Galloway          72.55 357 eP     P        03 19 33.3 -0.5
GAL1                               AMb   AMB      03 19 33.5
      comp=Z,34nm,1.2s,mb5.2
GMM   Mts of Mourne     73.20 358 eP     P        03 19 37.3 -0.5
KIV   Kislovodsk        73.84 324 eP     P        03 19 41.7 +0.1
KIV                               eS     S        03 29 11.4 +0.7
KIV                                pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.7
KIV   Kislovodsk        73.84 324 eP     P        03 19 42.8 +1.1
      comp=Z,2.3nm,0.6s,mb4.3
LVV   L'vov             73.94 339 eP     P        03 19 42.5 +0.4
CLZ   Clausthal         74.39 348 eP     P        03 19 45.2 +0.5
CLZ                                pmax  pmax
      comp=Z,14nm,1.3s,mb4.7
CLZ   Clausthal         74.39 348 eP     P        03 19 45.2 +0.5
      comp=Z,14nm,1.3s,mb4.7
KWP   Kalwaria Pacla    74.40 339 eP              03 19 46.0
KWP   Kalwaria Pacla    74.40 339 eP     P        03 19 46.0 +1.2
OJC   Ojcow             74.44 341 eP     P        03 19 45.7 +0.7
SBD1  Bryn Du           74.46 356 eP     P        03 19 45.1  0.0
CLL   Collm             74.55 346 i P    P        03 19 45.8 +0.2
CLL                               e               03 19 53.0
CLL                                pmax  pmax
      comp=Z,11nm,1.3s,mb4.6
CLL   Collm             74.55 346 eP     P        03 19 45.8 +0.2
      comp=Z,11nm,1.2s,mb4.7
CLL   Collm             74.55 346 i P    P        03 19 45.8 +0.2
      comp=Z,11nm,1.3s,mb4.6
CLL                               epP    pP       03 19 53.0 -2.6
BRG   Berggiesshubel    74.83 345 eP     P        03 19 47.1 -0.2
BRG                                pmax  pmax
      comp=Z,9.0nm,1.4s,mb4.5
BRG   Berggiesshubel    74.83 345 eP     P        03 19 46.9 -0.4
      comp=Z,14nm,1.4s,mb4.7
BRG   Berggiesshubel    74.83 345 eP     P        03 19 47.1 -0.2
      comp=Z,14nm,1.4s,mb4.7
UPC   Upice             74.85 344 eP     P        03 19 48.5 +1.1
STHS  Stebnicka Huta    74.91 340 i P    P        03 19 49.0 +1.2
STHS                               pmax  pmax
      comp=Z,14nm,1.3s,mb4.7
STHS  Stebnicka Huta    74.91 340 i P    P        03 19 49.0 +1.2
      comp=Z,14nm,1.3s,mb4.7
DPC   Dobruska-Polom    74.95 344 eP     P        03 19 48.6 +0.6
DPC                               epP    pP       03 19 56.3 -1.6
NIE   Niedzica          75.10 341 eP     P        03 19 50.3 +1.4
OKC   Ostrava-Krasne    75.11 342 eP     P        03 19 49.8 +0.9
OKC                               epP    pP       03 19 58.6 -0.3
KOLS  Kolonicke sedl    75.16 339 i P    P        03 19 49.9 +0.7
SOC   Sochi             75.20 326 eP     P        03 19 48.3 -1.3
SOC                               e               03 22 43.1
SOC                               eS     S        03 29 23.0 -2.9
SOC                                pmax  pmax
      comp=Z,14nm,0.9s,mb4.9
HTR   Trewern Hill      75.29 356 eP     P        03 19 49.8 -0.1
CRVS  Cervenica-Dubn    75.36 340 i P    P        03 19 51.5 +1.2
CRVS                               pmax  pmax
      comp=Z,36nm,2.1s,mb4.9
CRVS  Cervenica-Dubn    75.36 340 i P    P        03 19 51.5 +1.2
      comp=Z,36nm,2.1s,mb4.9
MCH1  Michaelchurch     75.36 356 eP     P        03 19 49.5 -0.8
MCH1                               AMb   AMB      03 19 50.6
      comp=Z,37nm,1.4s,mb5.1
MOX   Moxa              75.39 347 eP     P        03 19 50.5  0.0
      comp=Z,9.0nm,1.5s,mb4.5
MOX   Moxa              75.39 347 eP     P        03 19 50.5  0.0
MOX                                pmax  pmax
      comp=Z,9.0nm,1.5s,mb4.5
MOX   Moxa              75.39 347 eP     P        03 19 50.4 -0.1
      comp=Z,8.0nm,1.3s,mb4.5
UBBA  Unterbreizbach    75.44 348 eP     P        03 19 50.9 +0.1
      comp=Z,12nm,1.4s,mb4.6
UZH   Uzhgorod          75.44 339 eP     P        03 19 46.0 -4.8
TANN  Tannenbergstha    75.50 346 eP     P        03 19 51.3 +0.2
      comp=Z,14nm,1.4s,mb4.7
PRU   Pruhonice         75.59 345 eP     P        03 19 52.0 +0.3
NKC   Novy Kostel       75.67 346 eP     P        03 19 52.9 +0.8
NKC                               epP    pP       03 20 01.4 -0.7
HGH   Gray Hill         75.71 356 eP     P        03 19 52.1 -0.2
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BURAR	**Bucovina Array**	**75.73**	**337**	⇑*i*P	**P**	**03 19 53.0**	**+0.5**
VRAC	**Vranov**	**75.90**	**343**	⇑*i*P	**P**	**03 19 55.0**	**+1.5**
MEM	**Membach**	**76.10**	**350**	P	**P**	**03 19 55.1**	**+0.5**
	comp=Z,10nm,1.7s,mb4.5						
TREC	**Trest**	**76.11**	**344**	*e*P	**P**	**03 19 55.0**	**+0.4**
ROTZ	**Rotzenmuhle**	**76.16**	**346**	*e*P	**P**	**03 19 55.3**	**+0.4**
	comp=Z,14nm,1.4s,mb4.7						
VYHS	**Vyhne**	**76.27**	**341**	*i* P	**P**	**03 19 56.7**	**+1.1**
PMOR	**Pomariorio Ree**	**76.27**	**139**	*e*T		04 43 25.2	
	comp=Z,8.7nm,0.3s						
BCLA	**Clavier**	**76.36**	**351**	P	**P**	**03 19 56.6**	**+0.6**
	comp=Z,6.0nm,1.6s,mb4.3						
GNI	**Garni**	**76.38**	**321**	⇑*e*P	**P**	**03 19 56.3**	**0.0**
GNI				pmax	pmax		
	comp=Z,21nm,1.7s						
GRA1	**Grafenberg Arr**	**76.38**	**347**	*e*P	**P**	**03 19 56.6**	**+0.4**
	comp=Z,35nm,1.5s,mb5.1						
GRF	**Grafenberg Arr**	**76.38**	**347**	*e*P	**P**	**03 19 56.6**	**+0.4**
GRF				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.1						
GRF	**Grafenberg Arr**	**76.38**	**347**	*e*P	**P**	**03 19 56.6**	**+0.4**
GRF				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.1						
GRF	**Grafenberg Arr**	**76.38**	**347**	*e*P	**P**	**03 19 56.6**	**+0.4**
	comp=Z,35nm,1.5s,mb5.1						
KHC	**Kasperske Hory**	**76.58**	**345**	*e*P	**P**	**03 19 58.0**	**+0.7**
KHC				*e*pP	pP	03 20 05.3	-2.0
PSZ	**Piszkesteto**	**76.61**	**341**	⇑*i*P	**P**	**03 19 59.6**	**+2.1**
WET	**Wettzell**	**76.67**	**346**	*e*P	**P**	**03 19 58.4**	**+0.6**
WET				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
WET	**Wettzell**	**76.67**	**346**	*e*P	**P**	**03 19 58.4**	**+0.6**
	comp=Z,16nm,1.4s,mb4.8						
MODS	**Modra-Piesok**	**76.68**	**342**	*i* P	**P**	**03 19 59.0**	**+1.1**
GIVF	**Givet**	**76.72**	**351**	*e*P	**P**	**03 19 57.7**	**-0.4**
DOU	**Dourbes**	**76.75**	**351**	P	**P**	**03 19 58.7**	**+0.4**
BAIF	**Baives**	**76.82**	**351**	*e*P	**P**	**03 19 58.6**	**-0.1**
	comp=Z,59nm,1.5s,mb5.0						
BAIF	**Baives**	**76.82**	**351**	*e*P	**P**	**03 19 58.6**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.0						
BAIF	**Baives**	**76.82**	**351**	*e*P	**P**	**03 19 58.6**	**-0.1**
	comp=Z,30nm,1.5s,mb5.0						
GEC2	**GERESS Array S**	**76.83**	**345**	*e*P	**P**	**03 19 59.1**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
GEC2	**GERESS Array S**	**76.83**	**345**	*e*P	**P**	**03 19 59.1**	**+0.3**
	comp=Z,12nm,1.3s,mb4.7						
GERES	**GERESS Array B**	**76.83**	**345**	P	**P**	**03 19 59.2**	**+0.4**
GERES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
GERES				MLR	MLR		
	comp=Z,222nm,21.9s						
GERES	**GERESS Array B**	**76.83**	**345**	P	**P**	**03 19 59.2**	**+0.4**
	comp=Z,2.4nm,0.5s,mb4.3,baz=25,slow=3.5,SNR=16						
GERES				LR	LR	03 55 11.9	
	comp=Z,222nm,21.9s,MS4.4,baz=212,slow=37						
ZST	**Bratislava**	**76.88**	**342**	*i* P	**P**	**03 20 00.7**	**+1.7**
WLF	**Walferdange**	**77.02**	**350**	*e*P	**P**	**03 19 58.3**	**-1.5**
	comp=Z,14nm,1.3s,mb4.7						
DRGR		**77.09**	**338**	⇑*i*P	**P**	**03 19 59.8**	**-0.4**
MLR	**Muntele Rosu**	**77.55**	**336**	⇑*i*P	**P**	**03 19 58.2**	**-4.6**
VOIR		**77.82**	**336**	⇑*i*P	**P**	**03 20 06.0**	**+1.7**
FUR	**Furstenfeldbru**	**77.86**	**346**	*e*P	**P**	**03 20 04.6**	**+0.1**
FUR				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.9						
FUR	**Furstenfeldbru**	**77.86**	**346**	*e*P	**P**	**03 20 04.6**	**+0.1**
	comp=Z,26nm,1.5s,mb4.9						
PPT	**Papeete**	**77.97**	**142**	*e*LR	LR	03 44 21.9	
	comp=Z,208nm,24.8s						
RJOB	**Jochberg**	**78.05**	**345**	*e*P	**P**	**03 20 06.1**	**+0.5**
	comp=Z,12nm,1.4s,mb4.6						
BFO	**Black Forest**	**78.09**	**348**	⇑*e*P	**P**	**03 20 07.5**	**+1.7**
CDF	**Champ du Feu**	**78.14**	**349**	*e*P	**P**	**03 20 05.7**	**-0.3**
MEZF	**Maizieres J’vi**	**78.28**	**351**	*e*P	**P**	**03 20 06.9**	**0.0**
	comp=Z,29nm,1.1s,mb4.8						
MEZF	**Maizieres J’vi**	**78.28**	**351**	*e*P	**P**	**03 20 06.9**	**0.0**
	comp=Z,29nm,1.1s,mb5.1						
GZR	**Gura Zlata**	**78.39**	**338**	⇑*i*P	**P**	**03 20 07.8**	**+0.3**
BZS	**Buzias**	**78.44**	**339**	⇓*i*P	**P**	**03 20 08.9**	**+1.1**
FLN	**La Foliniere**	**78.47**	**354**	*e*P	**P**	**03 20 07.2**	**-0.6**
	comp=Z,68nm,1.3s,mb5.1						
FLN	**La Foliniere**	**78.47**	**354**	*e*P	**P**	**03 20 07.2**	**-0.6**
FLN				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.1						
FLN	**La Foliniere**	**78.47**	**354**	*e*P	**P**	**03 20 07.2**	**-0.6**
	comp=Z,34nm,1.3s,mb5.1						
KBA	**Koelnbreinsper**	**78.61**	**345**	⇑*i*P	**P**	**03 20 10.2**	**+1.5**
	comp=Z,38nm,1.4s,mb5.1						
LDF	**La Druitiere**	**78.61**	**354**	*e*P	**P**	**03 20 07.9**	**-0.8**
	comp=Z,78nm,1.6s,mb5.1						
LDF	**La Druitiere**	**78.61**	**354**	*e*P	**P**	**03 20 07.9**	**-0.8**
LDF				pmax	pmax		
	comp=Z,39nm,1.6s,mb5.1						
LDF	**La Druitiere**	**78.61**	**354**	*e*P	**P**	**03 20 07.9**	**-0.8**
	comp=Z,39nm,1.6s,mb5.1						
HAU	**Haudompre**	**78.64**	**350**	⇑*i*P	**P**	**03 20 08.6**	**-0.2**
	comp=Z,20nm,1.1s,mb4.7						
HAU	**Haudompre**	**78.64**	**350**	⇑*i*P	**P**	**03 20 08.6**	**-0.2**
HAU				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
HAU	**Haudompre**	**78.64**	**350**	⇑*i*P	**P**	**03 20 08.6**	**-0.2**
	comp=Z,10nm,1.1s,mb4.7						
WTTA	**Wattenberg**	**78.69**	**346**	⇓*i*P	**P**	**03 20 10.4**	**+1.3**
	comp=Z,18nm,1.2s,mb4.9						
SOKA	**Soboth**	**78.72**	**343**	⇓*i*P	**P**	**03 20 10.6**	**+1.3**
	comp=Z,24nm,1.3s,mb5.0						
PERS	**Pernice**	**78.74**	**343**	*e*P	**P**	**03 20 10.3**	**+0.9**
HINF	**Hinteralfeld**	**78.77**	**349**	*e*P	**P**	**03 20 09.1**	**-0.5**
GRR	**Gorron**	**78.86**	**355**	⇑*i*P	**P**	**03 20 09.6**	**-0.4**
	comp=Z,46nm,1.2s,mb5.0						
GRR	**Gorron**	**78.86**	**355**	⇑*i*P	**P**	**03 20 09.6**	**-0.4**
GRR				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
GRR	**Gorron**	**78.86**	**355**	⇑*i*P	**P**	**03 20 09.6**	**-0.4**
	comp=Z,23nm,1.2s,mb5.0						
OBKA	**Obir**	**78.96**	**344**	⇓*i*P	**P**	**03 20 12.0**	**+1.4**
	comp=Z,19nm,1.1s,mb4.9						
ROSF	**Rostrenen**	**79.03**	**356**	*e*P	**P**	**03 20 10.6**	**-0.4**
	comp=Z,18nm,0.9s,mb4.7						
ROSF	**Rostrenen**	**79.03**	**356**	*e*P	**P**	**03 20 10.6**	**-0.4**
ROSF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
ROSF	**Rostrenen**	**79.03**	**356**	*e*P	**P**	**03 20 10.6**	**-0.4**
	comp=Z,8.8nm,0.9s,mb4.7						
FETA	**Feichten**	**79.06**	**346**	⇑*i*P	**P**	**03 20 11.6**	**+0.5**
	comp=Z,11nm,1.2s,mb4.6						
SGMF	**Saint Gilles**	**79.08**	**356**	*e*P	**P**	**03 20 10.8**	**-0.4**
	comp=Z,66nm,1.5s,mb5.0						
SGMF	**Saint Gilles**	**79.08**	**356**	*e*P	**P**	**03 20 10.8**	**-0.4**
SGMF				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.0						
SGMF	**Saint Gilles**	**79.08**	**356**	*e*P	**P**	**03 20 10.8**	**-0.4**
	comp=Z,33nm,1.5s,mb5.0						
WRA	**Warramunga Arr**	**79.24**	**215**	P	**P**	**03 20 10.6**	**-1.7**
WRA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
WRA	**Warramunga Arr**	**79.24**	**215**	P	**P**	**03 20 10.6**	**-1.7**
	comp=Z,3.3nm,1.0s,mb4.2,baz=30,slow=6.1,SNR=7.6						
GCIS	**Gornji Cirnik**	**79.40**	**343**	*e*P	**P**	**03 20 13.6**	**+0.5**
QUIF	**Quistinic**	**79.44**	**356**	*e*P	**P**	**03 20 12.9**	**-0.3**
	comp=Z,55nm,1.4s,mb5.0						
QUIF	**Quistinic**	**79.44**	**356**	*e*P	**P**	**03 20 12.9**	**-0.3**
QUIF				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
QUIF	**Quistinic**	**79.44**	**356**	*e*P	**P**	**03 20 12.9**	**-0.3**
	comp=Z,28nm,1.4s,mb5.0						
LOR	**Lormes**	**79.62**	**351**	⇑*i*P	**P**	**03 20 14.0**	**-0.2**
	comp=Z,25nm,1.3s,mb4.7						
LOR	**Lormes**	**79.62**	**351**	⇑*i*P	**P**	**03 20 14.0**	**-0.2**
LOR				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
LOR	**Lormes**	**79.62**	**351**	⇑*i*P	**P**	**03 20 14.0**	**-0.2**
	comp=Z,13nm,1.3s,mb4.7						
HYF	**Humbligny**	**79.73**	**352**	*e*P	**P**	**03 20 14.8**	**0.0**
BOJS	**Bojanci**	**79.82**	**343**	*e*P	**P**	**03 20 16.7**	**+1.4**
SSF	**Saint Saulge**	**79.86**	**351**	⇑*i*P	**P**	**03 20 15.2**	**-0.3**
	comp=Z,12nm,1.1s,mb4.5						
SSF	**Saint Saulge**	**79.86**	**351**	⇑*i*P	**P**	**03 20 15.2**	**-0.3**
SSF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
SSF	**Saint Saulge**	**79.86**	**351**	⇑*i*P	**P**	**03 20 15.2**	**-0.3**
	comp=Z,6.0nm,1.0s,mb4.5						
CABF	**La Chapelle**	**80.05**	**350**	*e*P	**P**	**03 20 16.7**	**+0.2**
AVF	**Avril sur Loir**	**80.14**	**352**	⇑*i*P	**P**	**03 20 16.9**	**-0.1**
	comp=Z,37nm,1.3s,mb4.8						
AVF	**Avril sur Loir**	**80.14**	**352**	⇑*i*P	**P**	**03 20 16.9**	**-0.1**
AVF				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.8						
AVF	**Avril sur Loir**	**80.14**	**352**	⇑*i*P	**P**	**03 20 16.9**	**-0.1**
	comp=Z,18nm,1.3s,mb4.8						
SMF	**Signal de Mont**	**80.24**	**351**	⇑*i*P	**P**	**03 20 17.3**	**-0.3**
	comp=Z,14nm,0.9s,mb4.6						
SMF	**Signal de Mont**	**80.24**	**351**	⇑*i*P	**P**	**03 20 17.3**	**-0.3**
SMF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
SMF	**Signal de Mont**	**80.24**	**351**	⇑*i*P	**P**	**03 20 17.3**	**-0.3**
	comp=Z,6.9nm,0.9s,mb4.6						
BGF	**Bois d’Agland**	**80.42**	**352**	*e*P	**P**	**03 20 18.5**	**0.0**
MFF	**Saint Martin d**	**80.60**	**354**	*e*P	**P**	**03 20 19.4**	**-0.1**
	comp=Z,49nm,1.4s,mb5.0						
MFF	**Saint Martin d**	**80.60**	**354**	*e*P	**P**	**03 20 19.4**	**-0.1**
MFF				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
MFF	**Saint Martin d**	**80.60**	**354**	*e*P	**P**	**03 20 19.4**	**-0.1**
	comp=Z,25nm,1.4s,mb4.9						
BRTR	**Keskin Array B**	**80.67**	**328**	P	**P**	**03 20 20.9**	**+0.9**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BRTR	**Keskin Array B**	**80.67**	**328**	P	**P**	**03 20 20.9**	**+0.9**
	comp=Z,3.7nm,0.8s,mb4.4,baz=47,slow=1.6,SNR=16						
TCF	**Toulx Ste Croi**	**80.74**	**352**	*e*P	**P**	**03 20 20.0**	**-0.2**
	comp=Z,35nm,1.5s,mb4.8						
TCF	**Toulx Ste Croi**	**80.74**	**352**	*e*P	**P**	**03 20 20.0**	**-0.2**
TCF				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
TCF	**Toulx Ste Croi**	**80.74**	**352**	*e*P	**P**	**03 20 20.0**	**-0.2**
	comp=Z,18nm,1.5s,mb4.8						
LPL	**La Plagne**	**81.05**	**349**	⇑*i*P	**P**	**03 20 23.2**	**+1.3**
LPG	**La Plagne**	**81.07**	**349**	⇑*i*P	**P**	**03 20 23.3**	**+1.3**
	comp=Z,59nm,1.5s,mb5.0						
LPG	**La Plagne**	**81.07**	**349**	⇑*i*P	**P**	**03 20 23.3**	**+1.3**
LPG				pmax	pmax		
	comp=Z,29nm,1.5s,mb5.0						
LPG	**La Plagne**	**81.07**	**349**	⇑*i*P	**P**	**03 20 23.3**	**+1.3**
	comp=Z,30nm,1.5s,mb5.0						
ORIF	**Oris-en-Rattie**	**81.74**	**349**	⇑*i*P	**P**	**03 20 26.5**	**+0.9**
	comp=Z,26nm,1.2s,mb4.7						
ORIF	**Oris-en-Rattie**	**81.74**	**349**	⇑*i*P	**P**	**03 20 26.5**	**+0.9**
ORIF				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
ORIF	**Oris-en-Rattie**	**81.74**	**349**	⇑*i*P	**P**	**03 20 26.5**	**+0.9**
	comp=Z,13nm,1.2s,mb4.7						
RJF	**Les Rejaudoux**	**81.77**	**353**	*e*P	**P**	**03 20 25.6**	**-0.1**
	comp=Z,36nm,1.4s,mb4.8						
RJF	**Les Rejaudoux**	**81.77**	**353**	*e*P	**P**	**03 20 25.6**	**-0.1**
RJF				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
RJF	**Les Rejaudoux**	**81.77**	**353**	*e*P	**P**	**03 20 25.6**	**-0.1**
	comp=Z,18nm,1.4s,mb4.8						
MBDF	**Montbardon**	**81.83**	**349**	⇑*i*P	**P**	**03 20 26.8**	**+0.7**
	comp=Z,16nm,0.9s,mb4.6						
MBDF	**Montbardon**	**81.83**	**349**	⇑*i*P	**P**	**03 20 26.8**	**+0.7**
MBDF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
MBDF	**Montbardon**	**81.83**	**349**	⇑*i*P	**P**	**03 20 26.8**	**+0.7**
	comp=Z,7.9nm,0.9s,mb4.6						
VIVF	**Saint-Julien-l**	**81.93**	**350**	*e*P	**P**	**03 20 27.0**	**+0.4**
CAF	**Calviac**	**82.10**	**352**	⇑*i*P	**P**	**03 20 27.9**	**+0.4**
	comp=Z,36nm,1.3s,mb4.8						
CAF	**Calviac**	**82.10**	**352**	⇑*i*P	**P**	**03 20 27.9**	**+0.4**
CAF				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.8						
CAF	**Calviac**	**82.10**	**352**	⇑*i*P	**P**	**03 20 27.9**	**+0.4**
	comp=Z,18nm,1.3s,mb4.8						
LFF	**La Frestale**	**82.19**	**353**	*e*P	**P**	**03 20 28.2**	**+0.2**
	comp=Z,45nm,1.1s,mb5.0						
LFF	**La Frestale**	**82.19**	**353**	*e*P	**P**	**03 20 28.2**	**+0.2**
LFF				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
LFF	**La Frestale**	**82.19**	**353**	*e*P	**P**	**03 20 28.2**	**+0.2**
	comp=Z,22nm,1.1s,mb5.0						
SMRF	**Simiane la Rot**	**82.70**	**350**	⇑*i*P	**P**	**03 20 31.6**	**+0.9**
	comp=Z,32nm,1.1s,mb5.0						
SMRF	**Simiane la Rot**	**82.70**	**350**	⇑*i*P	**P**	**03 20 31.6**	**+0.9**
	comp=Z,32nm,1.1s,mb5.3						
ASAR	**Alice Springs**	**82.83**	**214**	P	**P**	**03 20 30.8**	**-0.6**
ASAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ASAR	**Alice Springs**	**82.83**	**214**	P	**P**	**03 20 30.8**	**-0.6**
	comp=Z,2.8nm,1.1s,mb4.2,baz=20,slow=5.0,SNR=5.0						
MTLF	**Montolieu**	**83.66**	**352**	⇑*i*P	**P**	**03 20 36.0**	**+0.4**
	comp=Z,5.6nm,0.5s,mb4.6						
MTLF	**Montolieu**	**83.66**	**352**	⇑*i*P	**P**	**03 20 36.0**	**+0.4**
MTLF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.7						
MTLF	**Montolieu**	**83.66**	**352**	⇑*i*P	**P**	**03 20 36.0**	**+0.4**
	comp=Z,2.8nm,0.5s,mb4.7						
EPF	**Esparros**	**84.12**	**353**	*e*P	**P**	**03 20 37.8**	**-0.1**
SJPF	**Ste Jean**	**84.14**	**354**	*e*P	**P**	**03 20 38.0**	**0.0**
MIB	**Mutribah**	**84.22**	**313**	*e*P	**P**	**03 20 38.2**	**-0.6**
MIB				AMb	AMB	03 20 40.1	
	comp=Z,19nm,1.2s,mb5.1						
ETSF	**Etsaut**	**84.31**	**354**	⇑*i*P	**P**	**03 20 39.6**	**+0.7**
	comp=Z,11nm,0.8s,mb4.8						
ETSF	**Etsaut**	**84.31**	**354**	⇑*i*P	**P**	**03 20 39.6**	**+0.7**
ETSF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
ETSF	**Etsaut**	**84.31**	**354**	⇑*i*P	**P**	**03 20 39.6**	**+0.7**
	comp=Z,5.6nm,0.8s,mb4.8						
NAY	**Al-Naaiem**	**84.74**	**313**	*e*P	**P**	**03 20 40.4**	**-0.9**
NAY				AMb	AMB	03 20 42.0	
	comp=Z,12nm,1.4s,mb4.8						
RDF	**Al-Radifah**	**84.89**	**313**	*e*P	**P**	**03 20 41.2**	**-0.8**
RDF				AMb	AMB	03 20 42.9	
	comp=Z,31nm,1.4s,mb5.2						
ESDC	**Sonseca Array**	**87.70**	**356**	P	**P**	**03 20 55.6**	**-0.2**
	comp=Z,1.1nm,0.5s,mb4.3,baz=354,slow=4.4,SNR=12						
KEST	**Kesra**	**90.32**	**345**	P	**P**	**03 21 08.0**	**-0.1**
	comp=Z,0.9nm,0.8s,mb4.2,baz=5.0,slow=2.9,SNR=6.8						
BOSA	**Boshof**	**145.08**	**300**	PKIKP	PKPdf	03 27 43.0	-1.2
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
BOSA	**Boshof**	**145.08**	**300**	PKPbc	PKPbc	03 27 43.0	-0.7
	comp=Z,5.3nm,0.6s,baz=56,slow=2.7,SNR=19						
BOSA	**Boshof**	**145.08**	**300**	PKPbc	PKPbc	03 27 43.0	-0.8

ISCJB ***11*** *03:11:16.5±2.0, 16°.2S±0°.2×174°.2W±0°.2, h69^{km}±19^{km}, mb3.8/9, Error ellipse: s-maj=38.2km s-min=14.9km az=135.8*

NEIC ***11*** *03:11:17.9±1.7, 16°.33S×174°.19W, h66^{km}±15^{km}, Error ellipse: s-maj=30.6km s-min=12.4km az=130.0*

IDC ***11*** *03:11:18.4±3.0, 16°.40S×174°.09W, h74^{km}±27^{km}, mb3.6/9, mb1 3.9/10, mb1mx3.8/20, mbtmp3.7/10, Error ellipse: s-maj=32.6km s-min=15.8km az=138.0*

ISC 11 03:11:17.2±1.9**, 16°.3S**±0°.2×**174°.2W**±0°.2**, h61**^{km}±19^{km}**, n28, σ0^{s}.84**/12**, mb3.9**/9**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**3.28**	**45**	P	**Pn**	**03 12 08.1**	**+1.9**
	27nm,0.3s,baz=46,slow=3.4,SNR=29						
AFI				S	**Sn**	**03 12 42.3**	**-1.7**
	100nm,0.3s,baz=63,slow=20,SNR=12						
URZ	**Urewera**	**23.22**	**198**	P	**P**	**03 16 19.2**	**+0.1**
	2.5nm,0.4s,mb4.0,baz=311,slow=1.8,SNR=3.6						
STKA	**Stephens Creek**	**42.98**	**241**	P	**P**	**03 19 09.8**	**-0.8**
	1.7nm,0.8s,mb3.9,baz=138,slow=16,SNR=3.8						
WRA	**Warramunga Arr**	**48.94**	**258**	P	**P**	**03 19 57.6**	**-0.1**
	0.5nm,0.7s,mb3.7,baz=92,slow=6.8,SNR=5.2						
ASAR	**Alice Springs**	**49.16**	**253**	P	**P**	**03 19 59.2**	**0.0**
	2.3nm,0.6s,mb4.4,baz=88,slow=8.4,SNR=21						
QSPA	**South Pole Qui**	**73.79**	**180**	P	**P**	**03 22 44.0**	**-0.5**
	0.7nm,0.2s,mb4.2,baz=52,slow=3.6,SNR=4.8						
QSPA	**South Pole Qui**	**73.79**	**180**	P	**P**	**03 22 44.0**	**-0.5**
NVAR	**Mina Array Bea**	**75.45**	**42**	P	**P**	**03 22 55.6**	**+0.8**
	1.0nm,0.8s,mb3.8,baz=226,slow=8.9,SNR=6.8						
TXAR	**Lajitas Array**	**81.69**	**56**	P	**P**	**03 23 29.1**	**-0.2**
	0.7nm,1.0s,mb3.5,baz=252,slow=2.5,SNR=3.5						
PDAR	**Pinedale Array**	**83.39**	**42**	P	**P**	**03 23 38.2**	**+0.4**
	1.8nm,0.8s,mb4.2,baz=228,slow=3.3,SNR=15						
YKA	**Yellowknife Ar**	**91.17**	**24**	P	**P**	**03 24 15.3**	**+0.2**
	0.1nm,0.6s,mb3.3,baz=252,slow=4.5,SNR=3.0						
GIVF	**Givet**	**146.24**	**1**	*e*PKP1	PKPbc	03 30 50.9	+0.2
GIVF	**Givet**	**146.24**	**1**	*e*PKP	PKPbc	03 30 50.9	+0.2
BAIF	**Baives**	**146.26**	**2**	*e*PKP1	PKPbc	03 30 51.3	+0.5
	11nm,0.9s						
BAIF	**Baives**	**146.26**	**2**	*e*PKP	PKPbc	03 30 51.3	+0.5
BRTR	**Keskin Array B**	**146.35**	**320**	PKPbc	PKPbc	03 30 50.6	-0.8
	1.2nm,0.8s,baz=27,slow=3.5,SNR=6.2						
GERES	**GERESS Array B**	**146.88**	**350**	PKPbc	PKPbc	03 30 52.8	+0.2
	0.8nm,0.7s,baz=30,slow=3.2,SNR=8.9						
FLN	**La Foliniere**	**147.18**	**8**	*e*PKP1	PKPbc	03 30 53.4	-0.1
SGMF	**Saint Gilles**	**147.36**	**10**	*e*PKP1	PKPbc	03 30 53.8	-0.2
	12nm,0.7s						
LDF	**La Druitiere**	**147.39**	**7**	*e*PKP1	PKPbc	03 30 53.3	-0.8
GRR	**Gorron**	**147.49**	**8**	*e*PKP1	PKPbc	03 30 54.4	0.0
	10nm,0.7s						
CDF	**Champ du Feu**	**147.92**	**358**	*e*PKP1	PKPbc	03 30 55.3	-0.2
HAU	**Haudompre**	**148.34**	**359**	*e*PKP1	PKPbc	03 30 57.1	+0.5
	6.2nm,0.7s						
LOR	**Lormes**	**149.04**	**3**	*e*PKP1	PKPbc	03 30 58.9	+0.5
SSF	**Saint Saulge**	**149.23**	**3**	*e*PKP1	PKPbc	03 30 59.5	+0.6
	8.6nm,0.9s						
LPL	**La Plagne**	**150.83**	**359**	*e*PKP1	PKPbc	03 31 04.2	+1.4
LPG	**La Plagne**	**150.84**	**359**	*e*PKP1	PKPbc	03 31 04.2	+1.3
	7.2nm,0.9s						
TORD	**Torodi Ar. Bea**	**174.93**	**127**	PKPab	PKPab	03 32 53.6	-2.4
	0.7nm,0.9s,baz=236,slow=3.9,SNR=4.0						

IDC ***11*** *03:25:12.5±9.7, 7°.77S×116°.67E, h308^{km}±97^{km}, mb3.1/5, mb1 3.2/6, mb1mx3.1/19, mbtmp3.1/6, Error ellipse: s-maj=99.0km s-min=20.7km az=63.0*

NEIC ***11*** *03:25:13.1±2.2, 7°.60S×116°.77E, h321^{km}±27^{km}, mb3.7/3, Error ellipse: s-maj=31.2km s-min=12.5km az=62.0*

ISC 11 03:25:09.1±2.1**, 7°.8S**±0°.1×**116°.6E**±0°.2**, h270**^{km}±26^{km}**, n15, σ0^{s}.71**/16**, mb3.5**/7**, Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**13.51**	**140**	P	**Pn**	**03 28 11.4**	**+0.8**
	0.5nm,0.3s,baz=342,slow=14,SNR=8.6						
FITZ				S	**S**	**03 30 37.1**	**-3.2**
	0.2nm,0.3s,baz=293,slow=14,SNR=3.9						
FITZ	**Fitzroy Crossi**	**13.51**	**140**	*e*P	**Pn**	**03 28 12.0**	**+1.3**
FITZ				*e*S	**S**	**03 30 40.0**	**-0.3**
MBWA	**Marble Bar**	**13.64**	**168**	*e*Pn	**Pn**	**03 28 19.3**	**+7.0**
KKM	**Kota Kinabalu**	**13.73**	**358**	Pn	**Pn**	**03 28 13.0**	**-0.4**
KULM	**Kulim**	**20.55**	**309**	P	**P**	**03 29 27.7**	**0.0**
	5.6nm,0.9s						
WRA	**Warramunga Arr**	**21.00**	**127**	P	**P**	**03 29 31.6**	**-0.8**
	0.4nm,0.4s,mb3.1,baz=309,slow=8.7,SNR=10						
WRAB	**Tennant Creek**	**21.01**	**127**	*e*P	**P**	**03 29 32.8**	**+0.3**
	0.7nm,0.5s,mb3.2						
ASAR	**Alice Springs**	**22.90**	**136**	P	**P**	**03 29 50.5**	**+0.7**
	2.1nm,0.4s,mb3.8,baz=308,slow=8.2,SNR=19						
NWAO	**Narrogin (SRO)**	**25.04**	**179**	*e*P	**P**	**03 30 08.1**	**-0.8**
	2.0nm,0.4s,mb3.9						
CTAO	**Charters Tower**	**31.20**	**116**	P	**P**	**03 31 02.9**	**-0.7**
STKA	**Stephens Creek**	**33.40**	**139**	P	**P**	**03 31 23.4**	**+0.8**
	1.4nm,0.5s,mb3.8,baz=321,slow=9.1,SNR=7.0						
STKA	**Stephens Creek**	**33.40**	**139**	P	**P**	**03 31 23.4**	**+0.8**
SONM	**Songino Array**	**56.10**	**352**	P	**P**	**03 34 20.6**	**+0.3**
	0.7nm,0.6s,mb3.3,baz=172,slow=9.0,SNR=5.6						
MKAR	**Makanchi Array**	**62.31**	**334**	P	**P**	**03 35 02.9**	**+0.1**
	0.2nm,0.4s,mb3.1,baz=124,slow=7.2,SNR=0.9						
TORD	**Torodi Ar. Bea**	**115.92**	**281**	PKP	PKPdf	03 43 18.9	-1.7
	0.2nm,0.4s,baz=76,slow=1.6,SNR=6.8						

ISCJB ***11*** *03:30:54.6±0.4, 51°.53N±0°.02×6°.91E±0°.04, h0^{km}, Error ellipse: s-maj=3.7km s-min=2.6km az=28.9*

CSEM ***11*** *03:30:55.7±0.2, 51°.59N×6°.88E, h2^{km}, ML2.6/10, Error ellipse: s-maj=4.7km s-min=3.8km az=126.0*

NEIC ***11*** *03:30:56.1±0.8, 51°.64N×6°.84E, h10^{km}, ML2.1(SZGRF), ML2.6(LDG), Error ellipse: s-maj=11.7km s-min=6.2km az=151.0*

BNS ***11*** *03:30:56.1±0.5, 51°.66N×6°.94E, h1^{km}, ML1.9*

LDG ***11*** *03:30:56.0±0.2, 51°.66N×6°.95E, h1^{km}, Md3.0/1, Ml2.6/17, Error ellipse: s-maj=2.9km s-min=2.2km az=23.0*

BGR ***11*** *03:30:57.7±0.6, 51°.54N×7°.07E, h1^{km}, ML2.4/6, Error ellipse: s-maj=6.7km s-min=4.4km az=110.0*

ISC 11 03:30:55.6±0.3**, 51°.59N**±0°.02×**6°.91E**±0°.03**, h0**^{km}**, n106, σ1^{s}.12**/181**, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LAUG	**Laupendahl**	**0.24**	**175**	*e*Pg	**Pg**	**03 31 02.1**	**+1.9**
LAUG	**Laupendahl**	**0.24**	**175**	Pg	**Pg**	**03 31 02.1**	**+1.9**
BUG	**Bochum--Univer**	**0.27**	**124**	*e*Pg	**Pg**	**03 31 01.9**	**+1.2**
	SNR=23						
BUG				*e*Sg	**Sg**	**03 31 06.1**	**+1.9**
BUG	**Bochum--Univer**	**0.27**	**124**	*e*Pg	**Pg**	**03 31 01.7**	**+1.0**
BUG				*e*Sg	**Sg**	**03 31 06.1**	**+1.9**
BUG	**Bochum--Univer**	**0.27**	**124**	*e*Pg	**Pg**	**03 31 01.7**	**+1.0**
BUG				*e*Sg	**Sg**	**03 31 06.1**	**+1.9**
WTSB	**Winterswijk**	**0.38**	**349**	*e*Pg	**Pg**	**03 31 03.4**	**+0.5**
WTSB				*e*Sg	**Sg**	**03 31 08.6**	**+0.7**
WTSB	**Winterswijk**	**0.38**	**349**	*e*Pg	**Pg**	**03 31 03.4**	**+0.5**
WTSB				*e*Sg	**Sg**	**03 31 08.6**	**+0.8**
BNS	**Bensberg**	**0.65**	**165**	*e*Pg	**Pg**	**03 31 09.7**	**+1.7**
BNS	**Bensberg**	**0.65**	**165**	Pg	**Pg**	**03 31 09.7**	**+1.7**
HOBG	**Hohbusch**	**0.67**	**156**	*e*Pg	**Pg**	**03 31 09.7**	**+1.4**
HOBG	**Hohbusch**	**0.67**	**156**	Pg	**Pg**	**03 31 09.7**	**+1.4**
IBBN	**Ibbenburen**	**0.89**	**36**	*e*Pg	**Pg**	**03 31 13.8**	**+1.2**
	SNR=4.6						
IBBN				*e*Sg	**Sg**	**03 31 26.2**	**+2.1**
	SNR=2.7						
IBBN	**Ibbenburen**	**0.89**	**36**	*e*Pg	**Pg**	**03 31 13.6**	**+1.0**
IBBN				*e*Sg	**Sg**	**03 31 24.7**	**+0.7**
IBBN	**Ibbenburen**	**0.89**	**36**	*e*Pg	**Pg**	**03 31 13.6**	**+1.0**
IBBN				*e*Sg	**Sg**	**03 31 24.7**	**+0.7**
STB	**Steinbach**	**1.00**	**183**	*e*Pg	**Pg**	**03 31 16.2**	**+1.4**
STB				*e*Sg	**Sg**	**03 31 31.1**	**+3.5**
	32nm,0.3s						
STB	**Steinbach**	**1.00**	**183**	Pg	**Pg**	**03 31 16.2**	**+1.5**
KLL	**Kalltalsperre**	**1.02**	**202**	*e*Pg	**Pg**	**03 31 16.3**	**+1.2**
KLL	**Kalltalsperre**	**1.02**	**202**	Pg	**Pg**	**03 31 16.3**	**+1.2**
DREG	**Dreilaegerbach**	**1.02**	**205**	*e*Pg	**Pg**	**03 31 16.8**	**+1.6**
DREG	**Dreilaegerbach**	**1.02**	**205**	Pg	**Pg**	**03 31 16.8**	**+1.6**
HGN	**Heimansgroeve**	**1.03**	**217**	*e*Pg	**Pg**	**03 31 17.2**	**+1.8**
HGN				*e*Sg	**Sg**	**03 31 33.5**	**+4.7**
HGN	**Heimansgroeve**	**1.03**	**217**	*e*Pg	**Pg**	**03 31 17.2**	**+1.8**
HGN				*e*Sg	**Sg**	**03 31 33.5**	**+4.7**
BEBN	**Eben Emael**	**1.11**	**225**	P	**Pg**	**03 31 18.5**	**+1.6**
BEBN	**Eben Emael**	**1.11**	**225**	P	**Pg**	**03 31 18.4**	**+1.5**
MEM	**Membach**	**1.14**	**210**	P	**Pg**	**03 31 18.7**	**+1.3**
MEM	**Membach**	**1.14**	**210**	P	**Pg**	**03 31 18.6**	**+1.2**
KOE	**Koeppel**	**1.28**	**156**	*e*Pg	**Pg**	**03 31 20.3**	**+0.3**
KOE	**Koeppel**	**1.28**	**156**	Pg	**Pg**	**03 31 20.3**	**+0.3**
HILG	**Hillesheim**	**1.31**	**187**	*e*Pg	**Pg**	**03 31 21.3**	**+0.6**
HILG	**Hillesheim**	**1.31**	**187**	Pg	**Pg**	**03 31 21.3**	**+0.6**
BGG	**Burgeitz**	**1.41**	**169**	*e*Pg	**Pg**	**03 31 22.7**	**0.0**
BGG	**Burgeitz**	**1.41**	**169**	Pg	**Pg**	**03 31 22.7**	**0.0**
BCLA	**Clavier**	**1.55**	**222**	P	**Pn**	**03 31 25.2**	**+0.8**
BCLA	**Clavier**	**1.55**	**222**	P	**Pn**	**03 31 25.2**	**+0.8**
TNS	**Taunus Mts**	**1.68**	**144**	*e*Pg	**Pg**	**03 31 27.4**	**-0.4**
	SNR=3.0						
TNS				*e*Sg	**Sg**	**03 31 48.6**	**-0.9**
	SNR=3.5						
TNS	**Taunus Mts**	**1.68**	**144**	*e*Pn	**Pn**	**03 31 27.2**	**+1.0**
TNS				*e*Sg	**Sg**	**03 31 49.7**	**+0.2**
TNS	**Taunus Mts**	**1.68**	**144**	Pg	**Pg**	**03 31 27.4**	**-0.4**
	SNR=3.0						
TNS				*e*Sg	**Sg**	**03 31 49.7**	**+0.2**
GTTG	**Gvttingen**	**1.91**	**90**	*e*Sg	**Sg**	**03 31 55.1**	**-1.7**
	SNR=2.7						
SNF	**Seneffe**	**1.98**	**238**	P	**Pn**	**03 31 30.7**	**+0.4**
SNF	**Seneffe**	**1.98**	**238**	P	**Pn**	**03 31 30.7**	**+0.4**
WLF	**Walferdange**	**1.99**	**194**	P	**Pn**	**03 31 32.0**	**+1.6**
WLF	**Walferdange**	**1.99**	**194**	*e*Pn	**Pn**	**03 31 33.8**	**+3.3**
WLF				*e*Sn	**Sn**	**03 32 00.1**	**+4.1**
WLF	**Walferdange**	**1.99**	**194**	P	**Pn**	**03 31 32.0**	**+1.6**
WLF	**Walferdange**	**1.99**	**194**	*e*Pn	**Pn**	**03 31 33.8**	**+3.4**
WLF				Sg	**Sg**	**03 31 59.7**	**+0.2**
	SNR=2.3						
GIVF	**Givet**	**2.00**	**222**	*e*Pg	**Pg**	**03 31 34.0**	**+0.2**
GIVF				*e*Sn	**Sn**	**03 31 54.7**	**-1.4**
GIVF				*e*Sg	**Sg**	**03 32 01.0**	**+1.4**
	15nm,0.3s						
GIVF	**Givet**	**2.00**	**222**	*e*Pn	**Pn**	**03 31 30.4**	**-0.1**
GIVF				*e*Pg	**Pg**	**03 31 34.0**	**+0.2**
GIVF				*e*Sn	**Sn**	**03 31 54.7**	**-1.4**
GIVF				*e*Sg	**Sg**	**03 32 01.0**	**+1.4**
GIVF	**Givet**	**2.00**	**222**	*e*Pn	**Pn**	**03 31 30.4**	**-0.1**
GIVF	**Givet**	**2.00**	**222**	*e*Pg	**Pg**	**03 31 34.0**	**+0.2**
GIVF				*e*Sn	**Sn**	**03 31 54.7**	**-1.4**
GIVF				*e*Sg	**Sg**	**03 32 01.0**	**+1.4**
	7.3nm,0.3s						
UBBA	**Unterbreizbach**	**2.09**	**111**	*e*Sg	**Sg**	**03 32 00.6**	**-2.1**
	SNR=2.8						
DOU	**Dourbes**	**2.10**	**225**	P	**Pn**	**03 31 32.9**	**+0.9**

DOU	**Dourbes**	2.10	225	P	Pn	03 31 32.8	+0.9
CLZ	**Clausthal**	2.17	82	*e*Pg	Pg	03 31 36.1	-0.9
CLZ				*e*Sg	Sg	03 32 02.8	-2.4
	SNR=2.3						
CLZ	**Clausthal**	2.17	82	*e*Pg	Pg	03 31 36.1	-1.0
CLZ				*e*Sg	Sg	03 32 03.8	-1.3
CLZ	**Clausthal**	2.17	82	Pg	Pg	03 31 36.1	-1.0
CLZ				*e*Sg	Sg	03 32 03.8	-1.3
BAIF	**Baives**	2.30	229	*e*Pg	Pg	03 31 39.9	+0.2
BAIF				*e*Sn	Sn	03 32 01.5	-2.2
BAIF				*e*Sg	Sg	03 32 10.1	+0.6
	5.8nm,0.3s						
BAIF	**Baives**	2.30	229	*e*Pn	Pn	03 31 34.1	-0.6
BAIF				*e*Pg	Pg	03 31 39.9	+0.2
BAIF				*e*Sn	Sn	03 32 01.5	-2.2
BAIF				*e*Sg	Sg	03 32 10.1	+0.6
BAIF	**Baives**	2.30	229	*e*Pn	Pn	03 31 34.1	-0.6
BAIF	**Baives**	2.30	229	*e*Pg	Pg	03 31 39.9	+0.2
BAIF				*e*Sn	Sn	03 32 01.5	-2.2
BAIF				*e*Sg	Sg	03 32 10.1	+0.6
	2.9nm,0.3s						
RFYF	**Reffroy**	3.11	198	*e*Pn	Pn	03 31 45.4	-0.4
RFYF				*e*Sg	Sg	03 32 36.1	+0.7
	13nm,0.2s						
RFYF	**Reffroy**	3.11	198	*e*Pn	Pn	03 31 45.4	-0.4
RFYF				*e*Sg	Sg	03 32 36.1	+0.7
	6.4nm,0.2s						
CDF	**Champ du Feu**	3.19	176	*e*Pg	Pg	03 31 56.6	-0.1
CDF				*e*Sg	Sg	03 32 38.8	+0.7
	4.8nm,0.5s						
CDF	**Champ du Feu**	3.19	176	*e*Pn	Pn	03 31 46.6	-0.4
CDF				*e*Pg	Pg	03 31 56.6	-0.1
CDF				*e*Sg	Sg	03 32 38.8	+0.7
CDF	**Champ du Feu**	3.19	176	*e*Pn	Pn	03 31 46.6	-0.4
CDF	**Champ du Feu**	3.19	176	*e*Pg	Pg	03 31 56.6	-0.1
CDF				*e*Sg	Sg	03 32 38.8	+0.7
	2.4nm,0.5s						
MEZF	**Maizieres J’vi**	3.32	202	*e*Pn	Pn	03 31 47.9	-0.8
	baz=26						
MEZF	**Maizieres J’vi**	3.32	202	*e*Pg	Pg	03 31 59.0	-0.1
MEZF				*e*Sg	Sg	03 32 41.3	-0.8
	7.0nm,0.5s						
MEZF	**Maizieres J’vi**	3.32	202	*e*Pn	Pn	03 31 47.9	-0.8
MEZF				*e*Pg	Pg	03 31 59.0	-0.1
MEZF				*e*Sg	Sg	03 32 41.3	-0.8
MEZF	**Maizieres J’vi**	3.32	202	*e*Pn	Pn	03 31 47.9	-0.8
MEZF	**Maizieres J’vi**	3.32	202	*e*Pg	Pg	03 31 59.0	-0.1
MEZF				*e*Sg	Sg	03 32 41.3	-0.8
	3.5nm,0.5s						
BFO	**Black Forest**	3.39	164	Pn	Pn	03 31 51.2	+1.5
BFO	**Black Forest**	3.39	164	Pn	Pn	03 31 51.2	+1.5
SFTF	**Sexfontaines**	3.60	200	*e*Pg	Pg	03 32 03.9	-0.7
SFTF				*e*Sg	Sg	03 32 51.6	+0.4
	2.3nm,0.3s						
SFTF	**Sexfontaines**	3.60	200	*e*Pn	Pn	03 31 51.9	-0.7
SFTF				*e*Pg	Pg	03 32 03.9	-0.7
SFTF				*e*Sg	Sg	03 32 51.6	+0.4
SFTF	**Sexfontaines**	3.60	200	*e*Pn	Pn	03 31 51.9	-0.7
SFTF	**Sexfontaines**	3.60	200	*e*Pg	Pg	03 32 03.9	-0.7
SFTF				*e*Sg	Sg	03 32 51.6	+0.4
	1.1nm,0.3s						
HAU	**Haudompre**	3.61	186	*e*Pn	Pn	03 31 52.0	-0.7
HAU				*e*Sg	Sg	03 32 51.6	+0.1
	3.6nm,0.4s						
HAU	**Haudompre**	3.61	186	*e*Pn	Pn	03 31 52.0	-0.7
HAU				*e*Sg	Sg	03 32 51.6	+0.1
	1.8nm,0.4s						
HINF	**Hinteralfeld**	3.78	181	*e*Pn	Pn	03 31 54.0	-1.0
HINF				*e*Sg	Sg	03 32 56.7	-0.2
	2.2nm,0.4s						
HINF	**Hinteralfeld**	3.78	181	*e*Pn	Pn	03 31 54.0	-1.0
HINF				*e*Sg	Sg	03 32 56.7	-0.2
	1.1nm,0.4s						
CLL	**Collm**	3.82	92	*e*Sg	Sg	03 32 58.0	-0.2
LOR	**Lormes**	4.76	206	*e*Pn	Pn	03 32 08.3	-0.3
	baz=33						
LOR	**Lormes**	4.76	206	*e*Pg	Pg	03 32 25.0	-1.8
LOR				*e*Sn	Sn	03 33 01.2	-3.2
LOR				*e*Sg	Sg	03 33 28.0	-0.6
	1.5nm,0.4s,baz=27						
LOR	**Lormes**	4.76	206	*e*Pn	Pn	03 32 08.3	-0.3
LOR				*e*Pg	Pg	03 32 25.0	-1.8
LOR				*e*Sn	Sn	03 33 01.2	-3.2
LOR				*e*Sg	Sg	03 33 28.0	-0.6
LOR	**Lormes**	4.76	206	*e*Pn	Pn	03 32 08.3	-0.3
LOR	**Lormes**	4.76	206	*e*Pg	Pg	03 32 25.0	-1.8
LOR				*e*Sn	Sn	03 33 01.2	-3.2
LOR				*e*Sg	Sg	03 33 28.0	-0.6
	0.8nm,0.4s						
CABF	**La Chapelle**	5.01	187	*e*Pn	Pn	03 32 11.3	-0.7
CABF				*e*Sn	Sn	03 33 07.3	-3.3
	0.8nm,0.3s						
CABF	**La Chapelle**	5.01	187	*e*Pn	Pn	03 32 11.3	-0.7
CABF				*e*Sn	Sn	03 33 07.3	-3.3
	0.4nm,0.3s						
SSF	**Saint Saulge**	5.05	207	*e*Pg	Pg	03 32 30.4	-1.9
SSF				*e*Sn	Sn	03 33 08.2	-3.3
SSF				*e*Sg	Sg	03 33 37.5	-0.3
	1.0nm,0.2s						
SSF	**Saint Saulge**	5.05	207	*e*Pn	Pn	03 32 11.6	-0.9
SSF				*e*Pg	Pg	03 32 30.4	-1.9
SSF				*e*Sn	Sn	03 33 08.2	-3.3
SSF				*e*Sg	Sg	03 33 37.5	-0.3
SSF	**Saint Saulge**	5.05	207	*e*Pn	Pn	03 32 11.6	-0.9
SSF	**Saint Saulge**	5.05	207	*e*Pg	Pg	03 32 30.4	-1.9
SSF				*e*Sn	Sn	03 33 08.2	-3.3
SSF				*e*Sg	Sg	03 33 37.5	-0.3
	0.5nm,0.2s						
HYF	**Humbligny**	5.15	214	*e*Pn	Pn	03 32 13.2	-0.6
HYF	**Humbligny**	5.15	214	*e*Pn	Pn	03 32 13.2	-0.6
AVF	**Avril sur Loir**	5.34	207	*e*Pn	Pn	03 32 15.9	-0.6
AVF				*e*Sn	Sn	03 33 13.5	-5.2
	0.1nm,0.2s						
AVF	**Avril sur Loir**	5.34	207	*e*Pn	Pn	03 32 15.9	-0.6
AVF				*e*Sn	Sn	03 33 13.5	-5.2
	0.1nm,0.2s						
SMF	**Signal de Mont**	5.35	203	*e*Pn	Pn	03 32 15.6	-0.9
SMF				*e*Sn	Sn	03 33 14.0	-4.8
	0.6nm,0.3s						
SMF	**Signal de Mont**	5.35	203	*e*Pn	Pn	03 32 15.6	-0.9
SMF				*e*Sn	Sn	03 33 14.0	-4.8
	0.3nm,0.3s						
LDF	**La Druitiere**	5.43	239	*e*Sn	Sn	03 33 16.3	-4.6
FLN	**La Foliniere**	5.53	242	*e*Pn	Pn	03 32 17.9	-1.2
	baz=65						
FLN				*e*Sn	Sn	03 33 18.9	-4.4
	0.9nm,0.2s,baz=52						
FLN	**La Foliniere**	5.53	242	*e*Pn	Pn	03 32 17.9	-1.2
BGF	**Bois d’Agland**	5.70	210	*e*Pn	Pn	03 32 20.8	-0.6
BGF				*e*Sn	Sn	03 33 23.5	-4.0
	3.6nm,0.4s						
BGF	**Bois d’Agland**	5.70	210	*e*Pn	Pn	03 32 20.8	-0.6
BGF				*e*Sn	Sn	03 33 23.5	-4.0
	1.8nm,0.4s						
GRR	**Gorron**	5.95	240	*e*Pn	Pn	03 32 23.9	-0.9
GRR				*e*Sn	Sn	03 33 29.0	-4.6
	4.4nm,0.4s						
GRR	**Gorron**	5.95	240	*e*Pn	Pn	03 32 23.9	-0.9
TCF	**Toulx Ste Croi**	6.14	212	*e*Pn	Pn	03 32 26.8	-0.7
TCF	**Toulx Ste Croi**	6.14	212	*e*Pn	Pn	03 32 26.8	-0.7

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*BEO **11** 03:30:32.1,47°82N×33°44E,h0^{km}*

*ISCJB **11** 03:31:30.0±0.2,45°60N±0°02×26°63E±0°02,h113^{km}±2^{km},mb3.8/16,Error ellipse: s-maj=2.9km s-min=2.2km az=137.9*

*MOS **11** 03:31:30.2±1.0,45°64N×26°65E,h108^{km},mb3.9/9,Error ellipse: s-maj=6.5km s-min=4.6km az=128.9*

*CSEM **11** 03:31:30.8±0.1,45°61N×26°62E,h107^{km}±1^{km},mb4.0/8,Error ellipse: s-maj=3.3km s-min=2.2km az=38.0*

*BUC **11** 03:31:30.1±0.6,45°62N×26°60E,h117^{km}±7^{km},MD4.8/2,Error ellipse: s-maj=4.8km s-min=4.3km az=0.0*

*NEIC **11** 03:31:31.3,45°59N×26°58E,h104^{km},mb3.8/14,After BUC.*

*IDC **11** 03:31:31.3±0.4,45°82N×26°45E,h101^{km}±4^{km},mb3.4/12,mb1 3.5/17,mb1mx3.4/29,mbtmp3.4/17,Error ellipse: s-maj=14.5km s-min=9.4km az=135.0*

*PRU **11** 03:31:31.7,44°77N×25°17E,h0^{km},M3.8*

*SOF **11** 03:31:33.4,45°51N×26°49E,h59^{km},MD3.4*

ISC 11 03:31:31.2±0.2**,45°60N**±0°02×**26°65E**±0°02**,h105**^{km}±2^{km}**, h102**^{km}±3.6^{km}**:pP-P,n359,**σ**1^{s}09**/442**,mb3.8**/16**,31C-23D,**
Romania

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLOR	**Plostina**	0.25	1	⇑P	Pn	03 31 46.4	+0.3
PLOR				S	Sn	03 31 57.5	+0.2
PLOR	**Plostina**	0.25	1	⇑*i*P	Pn	03 31 46.4	+0.3
PLOR	**Plostina**	0.25	1	⇑*i*P	Pn	03 31 46.4	+0.3
VRI	**Vrincioaia**	0.27	12	⇑*i*P	Pn	03 31 46.6	+0.4
VRI				*i* S	Sn	03 31 57.8	+0.3
VRI	**Vrincioaia**	0.27	12	P	Pn	03 31 46.6	+0.4
VRI	**Vrincioaia**	0.27	12	⇑*i*P	Pn	03 31 46.6	+0.4
VRI				*i* S	Sn	03 31 57.8	+0.3
ODB	**Odobesti**	0.34	59	⇑*i*P	Pn	03 31 47.8	+1.3
ODB				*i* S	Sn	03 31 59.8	+1.8
ODB	**Odobesti**	0.34	59	P	Pn	03 31 47.8	+1.3
ODB	**Odobesti**	0.34	59	⇑*i*P	Pn	03 31 47.8	+1.3
ODB				*i* S	Sn	03 31 59.8	+1.8
ISR	**Istrita**	0.49	189	⇓*i*P	Pn	03 31 48.7	+1.3
ISR	**Istrita**	0.49	189	⇓*i*P	Pn	03 31 48.7	+1.3
MLR	**Muntele Rosu**	0.51	257	⇑*i*P	Pn	03 31 48.2	+0.7
MLR				*i* S	Sn	03 32 00.3	+0.6
MLR	**Muntele Rosu**	0.51	257	P	Pn	03 31 47.9	+0.4
	512nm,0.3s,baz=35,slow=3.7						
MLR				S	Sn	03 32 01.1	+1.4
	1µm,0.3s,baz=120,slow=20,SNR=104						
MLR	**Muntele Rosu**	0.51	257	P	Pn	03 31 48.0	+0.5
MLR	**Muntele Rosu**	0.51	257	P	Pn	03 31 48.0	+0.5
MLR				*i* S	Sn	03 32 00.3	+0.6
VOIR		1.13	262	⇑P	Pn	03 31 53.2	-0.2
VOIR				S	Sn	03 32 09.1	-1.1
VOIR		1.13	262	⇑*i*P	Pn	03 31 53.2	-0.2
VOIR		1.13	262	P	Pn	03 31 53.2	-0.2
VOIR		1.13	262	⇑*i*P	Pn	03 31 53.2	-0.2
VOIR				S	Sn	03 32 09.1	-1.1
HARR	**Harsova**	1.29	135	⇓*i*P	Pn	03 31 55.9	+0.7
HARR	**Harsova**	1.29	135	⇓*i*P	Pn	03 31 55.9	+0.7
BUC1	**Bucharest**	1.33	199	⇑P	Pn	03 31 56.3	+0.7
BUC1				S	Sn	03 32 14.1	0.0
BUC1	**Bucharest**	1.33	199	⇑*i*P	Pn	03 31 56.4	+0.8
BUC1				*i* S	Sn	03 32 14.6	+0.5
BUC1	**Bucharest**	1.33	199	P	Pn	03 31 56.2	+0.5
BUC1				S	Sn	03 32 13.8	-0.3
BUC1	**Bucharest**	1.33	199	P	Pn	03 31 56.3	+0.7
BUC1				S	Sn	03 32 14.1	0.0
TLCR		1.58	104	⇓*i*P	Pn	03 31 59.1	+0.4
TLCR				*i* S	Sn	03 32 20.0	+0.4
TLCR		1.58	104	⇓P	Pn	03 31 59.1	+0.5
TLCR				S	Sn	03 32 20.1	+0.5
TLCR		1.58	104	⇓*i*P	Pn	03 31 59.1	+0.4
TLCR				S	Sn	03 32 20.1	+0.5
CVD	**Cernavoda**	1.62	142	⇓*i*P	Pn	03 31 59.8	+0.6
CVD				*i* S	Sn	03 32 20.6	+0.2
CVD	**Cernavoda**	1.62	142	⇓P	Pn	03 31 59.8	+0.7
CVD				S	Sn	03 32 20.6	+0.2
CVD	**Cernavoda**	1.62	142	⇓*i*P	Pn	03 31 59.8	+0.6
CVD				*i* S	Sn	03 32 20.6	+0.2
MDB	**Medias**	1.67	290	⇓P	Pn	03 32 00.0	+0.2
MDB	**Medias**	1.67	290	⇓*i*P	Pn	03 32 00.1	+0.3
MDB				*i* S	Sn	03 32 21.5	0.0
MDB	**Medias**	1.67	290	P	Pn	03 32 00.1	+0.3
MDB	**Medias**	1.67	290	P	Pn	03 32 00.0	+0.2
MDB				*i* S	Sn	03 32 21.5	0.0
TIRR	**Tirgusor**	1.70	132	⇓P	Pn	03 32 00.9	+0.8
TIRR				S	Sn	03 32 22.2	+0.1
TIRR	**Tirgusor**	1.70	132	⇓*i*P	Pn	03 32 00.9	+0.8
TIRR				*i* S	Sn	03 32 22.4	+0.3
TIRR	**Tirgusor**	1.70	132	*e*Pn	Pn	03 32 00.8	+0.7
TIRR				*e*Sn	Sn	03 32 22.2	+0.1
TIRR	**Tirgusor**	1.70	132	*e*Pn	Pn	03 32 00.8	+0.7
TIRR				*e*Sn	Sn	03 32 22.2	+0.1
IAS	**Iasi**	1.71	21	⇑*i*P	Pn	03 32 00.2	-0.1
IAS	**Iasi**	1.71	21	P	Pn	03 32 00.3	0.0
IAS	**Iasi**	1.71	21	P	Pn	03 32 00.3	0.0
SIBR	**Sibiu**	1.74	278	⇑*i*P	Pn	03 32 00.6	0.0
KIS	**Kishinev**	2.05	46	*e*P	Pn	03 32 04.8	+0.2
KIS				*i* S	Sn	03 32 28.8	-1.3
KIS	**Kishinev**	2.05	46	⇑*i*P	Pn	03 32 04.8	+0.2
	350nm,0.3s						
KIS				*i* S	Sn	03 32 28.8	-1.3
	3µm,0.7s						
KIS	**Kishinev**	2.05	46	⇓*i*P	Pn	03 32 04.8	+0.2
KIS				*i* S	Sn	03 32 29.3	-0.8
KIS	**Kishinev**	2.05	46	S	Sn	03 32 29.3	-0.8
KIS	**Kishinev**	2.05	46	P	Pn	03 32 05.1	+0.6
KIS	**Kishinev**	2.05	46	⇑*i*P	Pn	03 32 04.8	+0.2
	350nm,0.3s						
KIS				*i* S	Sn	03 32 28.8	-1.3
ZIMR		2.15	206	⇓*i*P	Pn	03 32 06.0	+0.2
ZIMR				*i* S	Sn	03 32 32.0	-0.3
ZIMR		2.15	206	⇓P	Pn	03 32 06.0	+0.2
ZIMR				S	Sn	03 32 31.6	-0.7
PSN	**Preselentsi**	2.21	150	P	Pn	03 32 08.1	+1.5
PSN				S	Sn	03 32 34.6	+0.8
BURAR	**Bucovina Array**	2.24	334	⇑P	Pn	03 32 08.0	+1.0
BURAR				S	Sn	03 32 35.8	+1.4
BURAR	**Bucovina Array**	2.24	334	⇑*i*P	Pn	03 32 07.9	+0.9
BURAR	**Bucovina Array**	2.24	334	P	Pn	03 32 08.0	+1.0
BURAR	**Bucovina Array**	2.24	334	⇑*i*P	Pn	03 32 07.9	+0.9
BUR02	**Bucovina Ar. S**	2.24	335	P	Pn	03 32 07.5	+0.5
BUR02	**Bucovina Ar. S**	2.24	335	P	Pn	03 32 07.5	+0.5
BUR08	**Bucovina Ar. S**	2.27	335	*e*Pn	Pn	03 32 07.8	+0.4
BUR08	**Bucovina Ar. S**	2.27	335	*e*Pn	Pn	03 32 07.8	+0.4
CRAR	**CRAIOVA**	2.39	239	⇑P	Pn	03 32 08.6	-0.4
CRAR				S	Sn	03 32 36.4	-1.5
CRAR	**CRAIOVA**	2.39	239	⇑*i*P	Pn	03 32 08.6	-0.4
CRAR				*i* S	Sn	03 32 37.6	-0.3
CRAR	**CRAIOVA**	2.39	239	⇑*i*P	Pn	03 32 08.6	-0.4
CRAR				S	Sn	03 32 36.4	-1.5
SZH	**Strazhica**	2.39	193	P	Pn	03 32 09.3	+0.3
SZH				S	Sn	03 32 37.3	-0.6
PRD	**Provadia**	2.46	167	P	Pn	03 32 11.5	+1.6
PRD				S	Sn	03 32 40.6	+1.0
AVR	**AVREN**	2.59	163	P	Pn	03 32 12.9	+1.3
DEV	**Deva**	2.64	277	⇓*i*P	Pn	03 32 12.6	+0.4
DEV	**Deva**	2.64	277	⇑P	Pn	03 32 12.5	+0.4
DEV				S	Sn	03 32 43.0	-0.6
DEV	**Deva**	2.64	277	P	Pn	03 32 12.5	+0.3
DEV				S	Sn	03 32 43.0	-0.7
GZR	**Gura Zlata**	2.73	267	⇑*i*P	Pn	03 32 13.3	-0.1
GZR	**Gura Zlata**	2.73	267	P	Pn	03 32 13.3	-0.1
GZR	**Gura Zlata**	2.73	267	⇑*i*P	Pn	03 32 13.3	-0.1
DRGR		2.98	295	⇓*i*P	Pn	03 32 15.6	-1.1
DRGR		2.98	295	P	Pn	03 32 16.6	-0.1
DRGR		2.98	295	P	Pn	03 32 16.6	-0.1
DJES	**Djerdap**	3.07	254	*i* Pn	Pn	03 32 16.0	-1.9
DJES				*e*Sn	Sn	03 32 49.3	-4.6
JMB	**Yambol**	3.13	181	P	Pn	03 32 19.7	+0.9
JMB				S	Sn	03 32 54.2	-1.4
BZS	**Buzias**	3.53	272	*e*Pn	Pn	03 32 22.9	-1.1
BZS	**Buzias**	3.53	272	⇓*i*P	Pn	03 32 23.4	-0.6
BZS	**Buzias**	3.53	272	⇓P	Pn	03 32 23.4	-0.7
BZS	**Buzias**	3.53	272	*e*Pn	Pn	03 32 22.9	-1.1
BZS	**Buzias**	3.53	272	⇓*i*P	Pn	03 32 23.4	-0.6
PGB	**Panagyurishte**	3.54	211	P	Pn	03 32 25.0	+0.8
ZAPS	**Zavoj**	3.70	232	*i* Pn	Pn	03 32 25.9	-0.4
ZAPS				*e*Sn	Sn	03 33 00.4	-8.6
ZAPS	**Zavoj**	3.70	232	*i* Pn	Pn	03 32 25.9	-0.4
EDRB	**Edirne**	3.75	179	*e*PN	Pn	03 32 27.3	+0.2
EDRB				*e*SN	Sn	03 33 07.0	-3.4
EDRB	**Edirne**	3.75	179	*e*Pn	Pn	03 32 27.3	+0.2
EDRB				*e*Sn	Sn	03 33 07.0	-3.4
BOLS	**Boljevac**	3.79	244	*i* Pn	Pn	03 32 25.6	-1.9
BOLS				*e*Sn	Sn	03 33 02.7	-8.4
BOLS	**Boljevac**	3.79	244	*i* Pn	Pn	03 32 25.6	-1.9
VTS	**Vitosha**	3.90	221	*e*Pn	Pn	03 32 29.0	0.0
VTS				*e*Sn	Sn	03 33 00.3	-14
VTS	**Vitosha**	3.90	221	P	Pn	03 32 30.0	+1.0
VTS	**Vitosha**	3.90	221	*e*Pn	Pn	03 32 29.0	0.0
NISS		4.02	238	*i* Pn	Pn	03 32 29.6	-1.0
NISS				*e*Sn	Sn	03 33 04.3	-12
NISS		4.02	238	*i* Pn	Pn	03 32 29.6	-1.0
KDZ	**Kurdzhali**	4.05	193	P	Pn	03 32 31.8	+0.7
KDZ				S	Sn	03 33 17.1	-0.4
SVIS	**Svilajnac**	4.08	253	*i* Pn	Pn	03 32 34.4	+2.9
SVIS				*e*Sn	Sn	03 33 09.5	-8.7
RZN	**Rozhen**	4.16	200	P	Pn	03 32 33.2	+0.7
UZH	**Uzhgorod**	4.24	317	⇑*i*P	Pn	03 32 33.4	-0.2
UZH				*e*S	Sn	03 33 19.2	-2.9
UZH				pmax	pmax		
	comp=N,40nm,1.2s						
UZH				pmax	pmax		
	comp=E,90nm,1.2s						
UZH	**Uzhgorod**	4.24	317	*i* P	Pn	03 32 33.4	-0.2
BARS	**Barje**	4.45	233	*i* Pn	Pn	03 32 36.2	-0.3
BARS				*e*Sn	Sn	03 33 13.2	-14
BARS	**Barje**	4.45	233	*i* Pn	Pn	03 32 36.2	-0.3
KOLS	**Kolonicke sedl**	4.47	320	*e*PN	Pn	03 32 37.3	+0.7
KOLS	**Kolonicke sedl**	4.47	320	*e*Pn	Pn	03 32 37.3	+0.7
SLVT	**Silivri**	4.52	165	*e*PN	Pn	03 32 37.7	+0.3
SLVT	**Silivri**	4.52	165	*e*Pn	Pn	03 32 37.7	+0.3
RDO	**Rodhopi**	4.53	191	*e*P	Pn	03 32 38.0	+0.5
MMB	**Musomiste**	4.54	209	P	Pn	03 32 38.8	+1.2
CRLT	**Corlu**	4.54	170	*e*PN	Pn	03 32 38.0	+0.2
CRLT	**Corlu**	4.54	170	*e*Pn	Pn	03 32 38.0	+0.3
GRUS	**Gruza**	4.56	250	*i* Pn	Pn	03 32 36.8	-1.1
GRUS				*e*Sn	Sn	03 33 15.8	-14
GRUS	**Gruza**	4.56	250	*i* Pn	Pn	03 32 36.8	-1.1
CTKS	**Kestanelik-??a**	4.57	162	*e*PN	Pn	03 32 38.1	+0.1
CTKS	**Kestanelik-??a**	4.57	162	*e*Pn	Pn	03 32 38.1	0.0
LVV	**L’vov**	4.57	338	*e*P	Pn	03 32 37.9	-0.2
LVV				*i* S	Sn	03 33 28.1	-1.9
LVV	**L’vov**	4.57	338	*e*P	Pn	03 32 37.9	-0.2
LVV				*i* S	Sn	03 33 28.1	-1.9
TRUS	**Trudelj**	4.64	255	*i* Pn	Pn	03 32 36.8	-2.2
TRUS				*e*Sn	Sn	03 33 10.8	-21
TRUS	**Trudelj**	4.64	255	*i* Pn	Pn	03 32 36.8	-2.2
BGKT	**Bogazkoy**	4.68	160	*e*PN	Pn	03 32 39.2	-0.4
BGKT	**Bogazkoy**	4.68	160	*e*Pn	Pn	03 32 39.2	-0.4
KLYT	**Kilyos**	4.69	157	*e*PN	Pn	03 32 39.0	-0.6
KLYT	**Kilyos**	4.69	157	*e*Pn	Pn	03 32 39.0	-0.6
ALN	**Alexandroupoli**	4.72	186	*e*P	Pn	03 32 40.7	+0.5
KWP	**Kalwaria Pacla**	4.83	328	*e*Pn	Pn	03 32 42.6	+1.1
KWP				*e*Sn	Sn	03 33 36.8	+0.6
KWP	**Kalwaria Pacla**	4.83	328	*e*P	Pn	03 32 42.6	+1.1
KWP				*e*		03 33 36.8	
KWP	**Kalwaria Pacla**	4.83	328	*e*Pn	Pn	03 32 34.2	-7.3
KWP				*e*Sn	Sn	03 33 36.8	+0.5
KWP	**Kalwaria Pacla**	4.83	328	*e*Pn	Pn	03 32 42.6	+1.1
KWP				*e*Sn	Sn	03 33 36.8	+0.5
CRVS	**Cervenica-Dubn**	4.83	315	*e*PN	Pn	03 32 41.4	-0.2
CRVS	**Cervenica-Dubn**	4.83	315	*e*Pn	Pn	03 32 41.4	-0.2
ISK	**Istanbul-Kandi**	4.86	158	*e*PN	Pn	03 32 41.9	-0.1
ISK	**Istanbul-Kandi**	4.86	158	*e*Pn	Pn	03 32 41.9	-0.2
ENEZ	**Enez**	4.88	184	*e*PN	Pn	03 32 42.6	+0.3
ENEZ	**Enez**	4.88	184	*e*Pn	Pn	03 32 42.6	+0.4
SILT	**Sile**	4.96	153	*e*P	Pn	03 32 44.8	+1.5
SILT	**Sile**	4.96	153	*e*P	Pn	03 32 44.8	+1.5
DIVS	**Divibare**	4.96	255	*e*Pn	Pn	03 32 42.2	-1.2
DIVS				*e*Sn	Sn	03 33 31.6	-8.0
DIVS	**Divibare**	4.96	255	*e*Pn	Pn	03 32 42.2	-1.2
SEV	**Sevastopol’**	5.08	100	*e*P	Pn	03 32 44.7	-0.3
SEV				*e*S	Sn	03 33 39.5	-3.0
SEV	**Sevastopol’**	5.08	100	*e*P	Pn	03 32 44.7	-0.3
PSZ	**Piszkesteto**	5.18	299	⇓P	Pn	03 32 45.1	-1.2
PSZ	**Piszkesteto**	5.18	299	⇑*i*P	Pn	03 32 45.1	-1.2
PSZ	**Piszkesteto**	5.18	299	⇑*e*Pn	Pn	03 32 45.9	-0.4
PSZ	**Piszkesteto**	5.18	299	*e*Pn	Pn	03 32 44.0	-2.4
PSZ	**Piszkesteto**	5.18	299	*e*Pn	Pn	03 32 44.0	-2.3
PSZ	**Piszkesteto**	5.18	299	⇑*i*P	Pn	03 32 45.1	-1.2
VAY	**Valandovo**	5.21	216	*e*Pn	Pn	03 32 46.6	-0.1
VAY				*e*Sn	Sn	03 33 42.9	-2.5
VAY	**Valandovo**	5.21	216	P	Pn	03 32 47.6	+0.9
VAY	**Valandovo**	5.21	216	*e*Pn	Pn	03 32 46.5	-0.2
VAY				*e*Sn	Sn	03 33 42.9	-2.6
LPK	**Lapseki**	5.23	179	*e*P	Pn	03 32 47.4	+0.4
LPK	**Lapseki**	5.23	179	*e*P	Pn	03 32 47.4	+0.4
HRT	**Hereke**	5.26	154	*e*P	Pn	03 32 47.6	+0.1
HRT	**Hereke**	5.26	154	*e*P	Pn	03 32 47.6	+0.1
STHS	**Stebnicka Huta**	5.29	318	*i* PN	Pn	03 32 48.3	+0.6
STHS	**Stebnicka Huta**	5.29	318	*i* P	Pn	03 32 48.3	+0.6
SIM	**Simferopol’**	5.31	94	*e*P	Pn	03 32 48.1	0.0
SIM				*e*S	Sn	03 33 45.8	-2.2
SIM	**Simferopol’**	5.31	94	*e*P	Pn	03 32 48.1	0.0
SIM				*e*S	Sn	03 33 45.8	-2.2
SJES	**Sjenica**	5.32	246	*e*Sn	Sn	03 33 39.3	-8.9
EDC	**Edincik**	5.33	170	*e*P	Pn	03 32 48.6	+0.2
EDC	**Edincik**	5.33	170	*e*P	Pn	03 32 48.6	+0.2
SOH	**Sokhos**	5.35	208	*e*P	Pn	03 32 49.0	+0.4
KIEV	**Kiev**	5.38	18	*e*P	Pn	03 32 47.6	-1.3
KIEV				*e*		03 33 45.8	
KIEV				pmax	pmax		
	comp=Z,55nm,0.6s						
KIEV	**Kiev**	5.38	18	*e*Pn	Pn	03 32 47.6	-1.3
	comp=Z,55nm,0.6s						
KIEV				*e*Sn	Sn	03 33 45.8	-3.7
KIEV	**Kiev**	5.38	18	*e*Pn	Pn	03 32 47.6	-1.3
	comp=Z,55nm,0.6s						
KIEV				*e*Sn	Sn	03 33 45.8	-3.7
AKASG	**Malin Array Be**	5.39	18	P	Pn	03 32 47.7	-1.3
AKASG				S	Sn	03 33 43.4	-6.3
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.3s						
AKASG				smax			
	comp=N,51nm,0.3s						
AKASG	**Malin Array Be**	5.39	18	P	Pn	03 32 47.7	-1.4
	comp=N,4.8nm,0.3s,baz=204,slow=12,SNR=19						
AKASG				S	Sn	03 33 43.4	-6.3
	comp=N,51nm,0.3s,baz=182,slow=21,SNR=13						
AKASG	**Malin Array Be**	5.39	18	P	Pn	03 32 47.7	-1.4
AKASG				S	Sn	03 33 43.4	-6.3
AKASG	**Malin Array Be**	5.39	18	P	Pn	03 32 47.7	-1.3
	comp=N,5.0nm,0.3s						
AKASG				S	Sn	03 33 43.4	-6.3
YLV	**Yalova**	5.42	157	*e*P	Pn	03 32 50.3	+0.8
YLV	**Yalova**	5.42	157	*e*P	Pn	03 32 50.3	+0.8
YAL	**Yalta**	5.44	99	*e*P	Pn	03 32 50.3	+0.5
YAL				*e*S	Sn	03 33 48.8	-2.2
YAL	**Yalta**	5.44	99	*e*P	Pn	03 32 50.3	+0.5
YAL				*e*S	Sn	03 33 48.8	-2.2
BBLS	**Lazići**	5.44	254	*i* Pn	Pn	03 32 49.2	-0.7
BBLS				*e*Sn	Sn	03 33 36.8	-14
BBLS	**Lazići**	5.44	254	*i* Pn	Pn	03 32 49.2	-0.7
KDZE	**Karadeniz Ereo**	5.53	139	*e*P	Pn	03 32 50.5	-0.6
ALU	**Alushta**	5.56	97	⇑*i*P	Pn	03 32 50.3	-1.2
ALU				*e*S	Sn	03 33 50.4	-3.7
ALU	**Alushta**	5.56	97	*i* P	Pn	03 32 50.3	-1.2
ADVT	**Abdulvahap**	5.64	155	*e*P	Pn	03 32 52.4	-0.2
PLG	**Polygyros**	5.73	205	*e*P	Pn	03 32 54.8	+1.0
NIE	**Niedzica**	5.74	314	*e*Pn	Pn	03 32 54.2	+0.3
NIE				*e*Sn	Sn	03 33 59.5	+1.1
NIE	**Niedzica**	5.74	314	*e*P	Pn	03 32 54.2	+0.3
NIE				*e*		03 33 59.5	
NIE	**Niedzica**	5.74	314	*e*Pn	Pn	03 32 54.2	+0.3
NIE				*e*Sn	Sn	03 33 59.5	+1.1
NIE	**Niedzica**	5.74	314	*e*P	Pn	03 32 54.2	+0.3
NIE				*e*S	Sn	03 33 59.5	+1.1
ULDT	**Uludag**	5.76	161	*i* P	Pn	03 32 54.2	+0.1
KRUS	**Krusevo**	5.77	225	*e*Pn	Pn	03 32 52.7	-1.7
KRUS				*e*Sn	Sn	03 33 54.4	-4.8
EZN	**Ezine**	5.78	182	*e*P	Pn	03 32 55.4	+0.9
LIA	**Limnos Island**	5.80	191	*e*P	Pn	03 32 55.2	+0.4
SUDU	**Sudak**	5.94	94	*e*P	Pn	03 32 55.4	-1.2
SUDU				*e*S	Sn	03 33 59.9	-3.4
SUDU	**Sudak**	5.94	94	*e*P	Pn	03 32 55.4	-1.2
VYHS	**Vyhne**	6.07	301	*i* PN	Pn	03 32 59.5	+1.2
VYHS	**Vyhne**	6.07	301	*i* Pn	Pn	03 32 59.5	+1.2
VYHS	**Vyhne**	6.07	301	*i* P	Pn	03 32 59.5	+1.2
MDU	**Mudurnu**	6.13	145	*e*P	Pn	03 32 59.0	-0.2
MDU	**Mudurnu**	6.13	145	*e*P	Pn	03 32 59.0	-0.2
DST	**Dursunbey**	6.17	166	*e*P	Pn	03 33 00.5	+0.7
DST	**Dursunbey**	6.17	166	*e*P	Pn	03 33 00.5	+0.8
SAFT	**Safranbolu**	6.19	133	*e*P	Pn	03 32 59.2	-0.9
SAFT	**Safranbolu**	6.19	133	*e*P	Pn	03 32 59.2	-0.9
AYVA	**Ayvalik**	6.29	180	*i* P	Pn	03 32 59.6	-1.8
PRK	**Paraskevi**	6.36	183	*e*P	Pn	03 33 03.6	+1.3
BALT	**Daday**	6.36	127	*i* P	Pn	03 33 02.2	-0.2
SGKT	**Sivrigoynuk**	6.40	140	*i* P	Pn	03 33 03.5	+0.7
BZK	**Bozkurt**	6.45	122	*e*P	Pn	03 33 02.7	-0.9
BZK	**Bozkurt**	6.45	122	*e*P	Pn	03 33 02.7	-0.8
OJC	**Ojcow**	6.52	318	*e*Pn	Pn	03 33 03.7	-0.7
OJC	**Ojcow**	6.52	318	*e*P	Pn	03 33 03.7	-0.7
OJC	**Ojcow**	6.52	318	*e*Pn	Pn	03 33 03.7	-0.7
OJC	**Ojcow**	6.52	318	*e*P	Pn	03 33 03.7	-0.7
ESKT	**Eskisehir**	6.82	151	*e*P	Pn	03 33 08.8	+0.2
ESKT	**Eskisehir**	6.82	151	*i* P	Pn	03 33 08.2	-0.5
ESKT	**Eskisehir**	6.82	151	*e*P	Pn	03 33 08.8	+0.2
ALT	**Altintas**	7.03	157	*e*P	Pn	03 33 12.0	+0.6
ALT	**Altintas**	7.03	157	*e*P	Pn	03 33 12.0	+0.6

TOS	**Tosya**	7.05	128	*e*P	Pn	03 33 10.9	-0.9
TOS	**Tosya**	7.05	128	*e*P	Pn	03 33 10.9	-0.8
SVRH	**Sivrihisar-ESK**	7.13	148	*e*P	Pn	03 33 12.8	0.0
SVRH	**Sivrihisar-ESK**	7.13	148	*e*P	Pn	03 33 12.8	+0.1
CANT	**Cankiri**	7.14	132	*e*P	Pn	03 33 12.7	-0.2
MANT	**Manisa**	7.25	168	*i* P	Pn	03 33 12.4	-2.0
LOD	**Lodumlu**	7.27	140	*e*P	Pn	03 33 14.2	-0.5
LOD	**Lodumlu**	7.27	140	*e*P	Pn	03 33 14.2	-0.5
BOYT	**Boyabat**	7.31	122	*i* P	Pn	03 33 14.6	-0.7
KHL	**Karahalli**	7.58	163	*e*P	Pn	03 33 19.4	+0.5
KHL	**Karahalli**	7.58	163	*e*P	Pn	03 33 19.4	+0.5
SHUT	**Suhut-Afyon**	7.62	156	*e*P	Pn	03 33 19.4	0.0
SHUT	**Suhut-Afyon**	7.62	156	*e*P	Pn	03 33 19.4	0.0
VRAC	**Vranov**	7.76	302	P	Pn	03 33 20.0	-1.2
	comp=N,0.2nm,0.3s,baz=116,slow=12,SNR=4.2						
VRAC	**Vranov**	7.76	302	P	Pn	03 33 20.0	-1.2
KIZT	**Kizilcal**	7.76	148	*e*P	Pn	03 33 21.3	0.0
KIZT	**Kizilcal**	7.76	148	*e*P	Pn	03 33 21.3	0.0
CTKT	**Corum**	7.76	127	*i* P	Pn	03 33 21.6	+0.2
BRTR	**Keskin Array B**	7.81	136	P	Pn	03 33 22.1	+0.1
BRTR				S	Sn	03 34 47.9	-0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRTR				smax			
	comp=N,1.0nm,0.3s						
BRTR	**Keskin Array B**	7.81	136	P	Pn	03 33 22.1	+0.1
	comp=N,0.7nm,0.3s,baz=318,slow=13,SNR=24						
BRTR				S	Sn	03 34 47.9	-0.8
	comp=N,0.5nm,0.3s,baz=319,slow=17,SNR=3.5						
BRTR	**Keskin Array B**	7.81	136	P	Pn	03 33 22.1	+0.1
	comp=N,1.0nm,0.3s						
BRTR				S	Sn	03 34 47.9	-0.9
	comp=N,1.0nm,0.3s						
AYDN	**Tasoluk**	7.99	173	*i* P	Pn	03 33 23.9	-0.5
KAMT	**Kaman**	8.13	138	*e*P	Pn	03 33 25.1	-1.2
KAMT	**Kaman**	8.13	138	*e*P	Pn	03 33 25.1	-1.2
KVT	**Kavak**	8.21	120	*e*P	Pn	03 33 25.6	-1.8
KVT	**Kavak**	8.21	120	*e*P	Pn	03 33 25.6	-1.8
BCK	**Bucak**	8.65	159	*e*P	Pn	03 33 33.1	-0.4
BCK	**Bucak**	8.65	159	*e*P	Pn	03 33 33.1	-0.4
SUW	**Suwalki**	8.71	346	*e*P	Pn	03 33 32.2	-1.9
SUW	**Suwalki**	8.71	346	*e*P	Pn	03 33 32.2	-1.9
SUW	**Suwalki**	8.71	346	*e*P	Pn	03 33 32.2	-1.9
SUW	**Suwalki**	8.71	346	*e*P	Pn	03 33 32.2	-1.9
YOZ	**Yozgat**	8.74	130	*e*P	Pn	03 33 33.5	-1.1
YOZ	**Yozgat**	8.74	130	*e*P	Pn	03 33 33.5	-1.1
KONT	**Konya--Tatoy**	8.76	149	*e*P	Pn	03 33 35.0	+0.1
KONT	**Konya--Tatoy**	8.76	149	*e*P	Pn	03 33 35.0	+0.1
AVNT	**Avonos**	9.14	135	*i* P	Pn	03 33 41.2	+1.1
GERES	**GERESS Array B**	9.39	295	P	Pn	03 33 42.3	-1.0
	comp=N,0.2nm,0.3s,baz=106,slow=13,SNR=10						
GERES	**GERESS Array B**	9.39	295	P	Pn	03 33 42.3	-1.0
KHC	**Kasperske Hory**	9.54	296	*e*PN	Pn	03 33 40.5	-5.0
KHC	**Kasperske Hory**	9.54	296	Pn	Pn	03 33 40.5	-5.0
GRSN	**GIRESUNGRSN**	9.68	115	*i* P	Pn	03 33 44.2	-3.2
ESPY	**Espiye-Giresun**	9.98	114	*e*P	Pn	03 33 49.7	-1.7
ESPY	**Espiye-Giresun**	9.98	114	*e*P	Pn	03 33 49.7	-1.7
VSR	**Storozhevoye**	10.04	51	*e*P	Pn	03 33 55.2	+3.0
MACK	**Trabzon**	10.64	111	*i* P	Pn	03 33 57.8	-2.6
OBN	**Obninsk**	11.43	30	*e*P	Pn	03 34 12.6	+1.8
OBN				pmax	pmax		
	comp=Z,3.0nm,1.0s						
OBN	**Obninsk**	11.43	30	*e*P	Pn	03 34 12.6	+1.8
	comp=Z,3.0nm,1.0s						
LPG	**La Plagne**	13.94	277	*e*P	Pn	03 34 46.6	+2.6
	comp=Z,8.8nm,0.8s						
LPG	**La Plagne**	13.94	277	*e*P	Pn	03 34 46.6	+2.6
LPG				pmax	pmax		
	comp=Z,4.0nm,0.8s						
LPG	**La Plagne**	13.94	277	*e*P	Pn	03 34 46.6	+2.6
	comp=Z,4.4nm,0.8s						
LPG	**La Plagne**	13.94	277	*e*P	Pn	03 34 46.6	+2.6
	comp=Z,4.4nm,0.8s						
MBDF	**Montbardon**	14.05	274	*e*P	Pn	03 34 44.7	-0.7
	comp=Z,13nm,0.9s						
MBDF	**Montbardon**	14.05	274	*e*P	Pn	03 34 44.7	-0.7
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MBDF	**Montbardon**	14.05	274	*e*P	Pn	03 34 44.7	-0.7
	comp=Z,6.5nm,0.9s						
CABF	**La Chapelle**	14.30	281	*e*P	Pn	03 34 52.3	+3.8
	comp=Z,9.0nm,0.6s						
CABF	**La Chapelle**	14.30	281	*e*P	Pn	03 34 52.3	+3.8
CABF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CABF	**La Chapelle**	14.30	281	*e*P	Pn	03 34 52.3	+3.8
	comp=Z,4.5nm,0.6s						
CABF	**La Chapelle**	14.30	281	*e*P	Pn	03 34 52.3	+3.8
	comp=Z,4.5nm,0.6s						
LOR	**Lormes**	15.79	284	*e*P	Pn	03 35 09.7	+2.3
	comp=Z,14nm,1.0s						
LOR	**Lormes**	15.79	284	*e*P	Pn	03 35 09.7	+2.3
LOR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
LOR	**Lormes**	15.79	284	*e*P	Pn	03 35 09.7	+2.3
	comp=Z,6.9nm,1.0s						
LOR	**Lormes**	15.79	284	*e*P	Pn	03 35 09.7	+2.3
	comp=Z,6.9nm,1.0s						
SMF	**Signal de Mont**	15.84	282	*e*P	Pn	03 35 09.3	+1.3
	comp=Z,3.2nm,0.5s						
SMF	**Signal de Mont**	15.84	282	*e*P	Pn	03 35 09.3	+1.3
SMF				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SMF	**Signal de Mont**	15.84	282	*e*P	Pn	03 35 09.3	+1.3
	comp=Z,1.6nm,0.5s						
SMF	**Signal de Mont**	15.84	282	*e*P	Pn	03 35 09.3	+1.3
	comp=Z,1.6nm,0.5s						
SSF	**Saint Saulge**	16.04	284	*e*P	Pn	03 35 11.8	+1.3
	comp=Z,6.6nm,0.8s						
SSF	**Saint Saulge**	16.04	284	*e*P	Pn	03 35 11.8	+1.3
SSF				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SSF	**Saint Saulge**	16.04	284	*e*P	Pn	03 35 11.8	+1.3
	comp=Z,3.3nm,0.8s						
SSF	**Saint Saulge**	16.04	284	*e*P	Pn	03 35 11.8	+1.3
	comp=Z,3.3nm,0.8s						
AVF	**Avril sur Loir**	16.16	283	*e*P	Pn	03 35 12.3	+0.3
	comp=Z,4.8nm,0.8s						
AVF	**Avril sur Loir**	16.16	283	*e*P	Pn	03 35 12.3	+0.3
AVF				pmax	pmax		
	comp=Z,2.0nm,0.8s						
AVF	**Avril sur Loir**	16.16	283	*e*P	Pn	03 35 12.3	+0.3
	comp=Z,2.4nm,0.8s						
AVF	**Avril sur Loir**	16.16	283	*e*P	Pn	03 35 12.3	+0.3
	comp=Z,2.4nm,0.8s						
HFS	**Hagfors**	16.47	337	P	Pn	03 35 11.5	-4.2
HFS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
HFS	**Hagfors**	16.47	337	P	Pn	03 35 11.5	-4.2
	comp=Z,0.6nm,0.3s,baz=143,slow=12,SNR=16						
BGF	**Bois d'Agland**	16.53	282	*e*P	Pn	03 35 18.4	+1.9
	comp=Z,6.9nm,0.7s						
BGF	**Bois d'Agland**	16.53	282	*e*P	Pn	03 35 18.4	+1.9
BGF				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BGF	**Bois d'Agland**	16.53	282	*e*P	Pn	03 35 18.4	+1.9
	comp=Z,3.5nm,0.7s						
BGF	**Bois d'Agland**	16.53	282	*e*P	Pn	03 35 18.4	+1.9
	comp=Z,3.5nm,0.7s						
KAF	**Kangasniemi**	16.55	359	*e*P	Pn	03 35 10.3	-6.2
KAF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KAF	**Kangasniemi**	16.55	359	*e*p	Pn	03 35 10.3	-6.2
	comp=Z,3.6nm,0.7s						
TCF	**Toulx Ste Croi**	17.00	281	*e*P	Pn	03 35 23.3	+1.1
TCF	**Toulx Ste Croi**	17.00	281	*e*P	Pn	03 35 23.3	+1.1
JOF	**Joensuu**	17.55	7	*e*P	Pn	03 35 23.1	-5.7
JOF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
JOF	**Joensuu**	17.55	7	*e*p	Pn	03 35 23.1	-5.7
	comp=Z,4.6nm,0.6s						
NB2	**NORSAR Subarra**	17.92	335	P	Pn	03 35 29.9	-3.4
	comp=Z,3.4nm,0.7s,baz=139,slow=11						
NB2	**NORSAR Subarra**	17.92	335	P	Pn	03 35 29.9	-3.4
	comp=Z,3.4nm,0.7s,SNR=2.2						
NOA	**NORSAR Array B**	17.92	335	P	Pn	03 35 29.4	-3.9
NOA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NOA	**NORSAR Array B**	17.92	335	P	Pn	03 35 29.4	-3.9
	comp=Z,0.5nm,0.3s,baz=139,slow=11,SNR=12						
LFF	**La Frestale**	18.23	277	*e*P	P	03 35 37.2	+1.3
	comp=Z,12nm,0.6s						
LFF	**La Frestale**	18.23	277	*e*P	P	03 35 37.2	+1.3
LFF				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LFF	**La Frestale**	18.23	277	*e*P	P	03 35 37.2	+1.3
	comp=Z,6.2nm,0.6s						
LFF	**La Frestale**	18.23	277	*e*P	P	03 35 37.2	+1.3
	comp=Z,6.2nm,0.6s						
LDF	**La Druitiere**	18.43	289	*e*P	P	03 35 37.8	-0.4
LDF	**La Druitiere**	18.43	289	*e*P	P	03 35 37.8	-0.4
MFF	**Saint Martin d**	18.58	283	*e*P	P	03 35 39.1	-0.7
	comp=Z,14nm,0.9s						
MFF	**Saint Martin d**	18.58	283	*e*P	P	03 35 39.1	-0.7
MFF				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MFF	**Saint Martin d**	18.58	283	*e*P	P	03 35 39.1	-0.7
	comp=Z,7.2nm,0.9s						
MFF	**Saint Martin d**	18.58	283	*e*P	P	03 35 39.1	-0.7
	comp=Z,7.2nm,0.9s						
FLN	**La Foliniere**	18.67	290	*e*P	P	03 35 39.0	-1.8
FLN	**La Foliniere**	18.67	290	*e*P	P	03 35 39.0	-1.8
GRR	**Gorron**	18.93	288	*e*P	P	03 35 42.7	-0.9
	comp=Z,3.6nm,0.4s						
GRR	**Gorron**	18.93	288	*e*P	P	03 35 42.7	-0.9
GRR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
GRR	**Gorron**	18.93	288	*e*P	P	03 35 42.7	-0.9
	comp=Z,1.8nm,0.4s						
GRR	**Gorron**	18.93	288	*e*P	P	03 35 42.7	-0.9
	comp=Z,1.8nm,0.4s						
EPF	**Esparros**	18.97	272	*e*P	P	03 35 46.5	+2.4
	comp=Z,3.2nm,0.7s						
EPF	**Esparros**	18.97	272	*e*P	P	03 35 46.5	+2.4
EPF				pmax	pmax		
	comp=Z,2.0nm,0.7s						
EPF	**Esparros**	18.97	272	*e*P	P	03 35 46.5	+2.4
	comp=Z,1.6nm,0.7s						
QUIF	**Quistinic**	20.50	287	*e*P	P	03 36 03.3	+2.7
	comp=Z,15nm,0.8s						
QUIF	**Quistinic**	20.50	287	*e*P	P	03 36 03.3	+2.7
QUIF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
QUIF	**Quistinic**	20.50	287	*e*P	P	03 36 03.3	+2.7
	comp=Z,7.3nm,0.8s						
EKA	**Eskdalemuir Ar**	21.17	308	P	P	03 36 05.9	-1.8
EKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
EKA	**Eskdalemuir Ar**	21.17	308	P	P	03 36 05.8	-1.8
	comp=Z,2.0nm,0.9s,mb3.5,baz=101,slow=12,SNR=6.5						
EKA	**Eskdalemuir Ar**	21.17	308	P	P	03 36 05.9	-1.8
	comp=Z,2.0nm,0.9s,mb3.5						
AKTK	**Aktyubinsk**	21.44	66	P	P	03 36 10.8	+0.2
AKTK	**Aktyubinsk**	21.44	66	P	P	03 36 10.8	+0.2
	comp=Z,3.0nm,0.5s,mb3.9						
AKTO	**Aktyubinsk**	21.44	66	P	P	03 36 10.8	+0.2
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb3.9						
AKTO	**Aktyubinsk**	21.44	66	P	P	03 36 10.8	+0.2
	comp=Z,3.1nm,0.5s,mb3.9,baz=280,slow=6.6,SNR=12						
MIB	**Mutribah**	22.63	127	*e*P	P	03 36 24.5	+1.1
MIB				AMb	AMB	03 36 26.9	
	comp=Z,31nm,0.9s,mb4.7						
MIB	**Mutribah**	22.63	127	*e*P	P	03 36 24.5	+1.1
	comp=Z,31nm,0.9s,mb4.6						
NAY	**Al-Naaiem**	23.00	128	*e*P	P	03 36 28.0	+1.1
NAY				AMb	AMB	03 36 28.8	
	comp=Z,7.9nm,0.7s,mb4.2						
NAY	**Al-Naaiem**	23.00	128	*e*P	P	03 36 28.0	+1.1
	comp=Z,8.0nm,0.7s,mb4.2						
ESDC	**Sonseca Array**	23.20	266	P	P	03 36 26.8	-1.8
	comp=Z,0.2nm,0.4s,mb2.8,baz=62,slow=9.9,SNR=4.5						
RDF	**Al-Radifah**	23.43	128	*e*P	P	03 36 32.4	+1.6
RDF				AMb	AMB	03 36 33.3	
	comp=Z,13nm,0.7s,mb4.4						
RDF	**Al-Radifah**	23.43	128	*e*P	P	03 36 32.4	+1.6
	comp=Z,13nm,0.6s,mb4.4						
ARCES	**ARCESS Array B**	24.01	359	P	P	03 36 35.8	+0.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES	**ARCESS Array B**	24.01	359	P	P	03 36 35.8	+0.1
	comp=Z,2.7nm,0.7s,mb3.7,baz=179,slow=10,SNR=12						
ARCES	**ARCESS Array B**	24.01	359	P	P	03 36 35.8	+0.1
	comp=Z,3.0nm,0.7s,mb3.7						
KEV	**Kevo**	24.22	0	*e*p	P	03 36 36.8	-0.8
KEV	**Kevo**	24.22	0	*e*P	P	03 36 36.8	-0.8
BVAR	**Borovoye Array**	29.08	59	P	P	03 37 23.1	+1.7
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	**Borovoye Array**	29.08	59	P	P	03 37 23.1	+1.7
	comp=Z,0.6nm,0.7s,mb3.4,baz=238,slow=7.4,SNR=3.5						
BVAR	**Borovoye Array**	29.08	59	P	P	03 37 23.1	+1.7
	comp=Z,1.0nm,0.7s,mb3.5						
KURK	**Kurchatov**	34.45	62	P	P	03 38 08.5	+0.1
KURK				*PP	pP	03 38 31.2	-0.8
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
KURK	**Kurchatov**	34.45	62	P	P	03 38 08.4	+0.1
	comp=Z,0.6nm,0.5s,mb3.7,baz=288,slow=9.1,SNR=4.2						
KURK				pP	pP	03 38 31.2	-0.8
	comp=Z,0.3nm,0.3s,baz=317,slow=25,SNR=3.9						
KURK	**Kurchatov**	34.45	62	P	P	03 38 08.5	+0.1
	comp=Z,1.0nm,0.5s,mb3.9						
ZALV	**Zalesovo Beam**	37.51	56	P	P	03 38 35.7	+1.3
ZALV				*PP	pP	03 38 57.7	-0.6
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.1						
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.1						
ZALV	**Zalesovo Beam**	37.51	56	P	P	03 38 35.6	+1.2
	comp=Z,1.1nm,0.3s,mb4.1,baz=273,slow=11,SNR=4.5						
ZALV				pP	pP	03 38 57.7	-0.6
	comp=Z,0.6nm,0.3s,baz=265,slow=8.8,SNR=2.0						
MKAR	**Makanchi Array**	37.85	68	P	P	03 38 39.1	+1.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	37.85	68	P	P	03 38 39.0	+1.7
	comp=Z,0.8nm,0.4s,mb3.9,baz=268,slow=8.5,SNR=12						
TORD	**Torodi Ar. Bea**	38.65	221	P	P	03 38 44.8	+0.4
	comp=Z,1.0nm,0.4s,mb4.0,baz=28,slow=8.8,SNR=60						
TORD				pP	pP	03 39 07.9	-0.5
	comp=Z,0.4nm,0.4s,baz=24,slow=7.0,SNR=2.6						
SONM	**Songino Array**	52.38	57	P	P	03 40 33.6	+1.4
	comp=Z,0.4nm,0.5s,mb3.7,baz=294,slow=9.1,SNR=4.7						
CMAR	**Chiang Mai Arr**	64.74	89	P	P	03 41 58.8	+0.4
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CMAR	**Chiang Mai Arr**	64.74	89	P	P	03 41 58.8	+0.4
	comp=Z,1.7nm,0.5s,mb4.2,baz=311,slow=7.6,SNR=4.6						
YKA	**Yellowknife Ar**	67.88	342	P	P	03 42 16.2	-1.5
	comp=Z,0.1nm,0.4s,mb3.0,baz=40,slow=6.4,SNR=3.9						
YKA				pP	pP	03 42 43.0	-0.9
	comp=Z,0.4nm,0.7s,baz=26,slow=5.9,SNR=5.8						
YKA	**Yellowknife Ar**	67.88	342	P	P	03 42 16.2	-1.5
YKA				pP	pP	03 42 43.0	-0.9

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*CSEM **11** 03:36:20.6±0.4, 38°.59N×39°.31E, h10^{km}, MD3.1, Error ellipse: s-maj=9.5km s-min=6.1km az=29.0*

DDA 11 03:36:20.7, 38°.50N×39°.32E, h7^{km}±5^{km}, Md3.1, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.26	271	*i* P	Pg	03 36 26.6	+0.8
ELZG				*i* S	Sg	03 36 31.1	+1.8
ELZG	**Elazig**	0.26	271	*i* P	Pg	03 36 26.6	+0.8
ELZG				*i* S	Sg	03 36 31.1	+1.8
MALT	**Malatya**	0.72	256	*e*PG	Pg	03 36 34.5	0.0
MALT				*e*SG	Sg	03 36 45.7	+1.8
MALT	**Malatya**	0.72	256	*e*Pg	Pg	03 36 34.6	0.0
MALT				*e*Sg	Sg	03 36 45.7	+1.8
DIYA	**Diyarbakir**	0.85	132	*i* P	Pg	03 36 38.1	+1.0
DIYA				*i* S	Sg	03 36 49.2	+1.0
DIYA	**Diyarbakir**	0.85	132	*i* P	Pg	03 36 38.2	+1.1
DIYA				*i* S	Sg	03 36 49.2	+1.0
KEMA	**Kemaliye**	1.00	321	*i* P	Pg	03 36 38.9	-1.1
KEMA	**Kemaliye**	1.00	321	*i* P	Pg	03 36 38.9	-1.1
AKCD	**Akcadag**	1.11	260	*i* P	Pg	03 36 41.2	-0.8
AKCD				*i* S	Sg	03 36 55.3	-1.2
AKCD	**Akcadag**	1.11	260	*i* P	Pg	03 36 41.2	-0.8
AKCD				*i* S	Sg	03 36 55.3	-1.2
URFA	**Urfa**	1.12	200	*e*PN	Pn	03 36 43.8	+1.0
URFA				*e*SN	Sn	03 36 59.4	+0.9
URFA	**Urfa**	1.12	200	*e*Pn	Pn	03 36 43.8	+1.0
URFA				*e*Sn	Sn	03 36 59.4	+0.9
ATAB	**Bozova**	1.30	219	*i* P	Pn	03 36 47.4	+2.1
ATAB				*i* S	Sb	03 37 03.6	+1.2
ATAB	**Bozova**	1.30	219	*i* P	Pn	03 36 47.4	+2.1
ATAB				*i* S	Sb	03 37 03.6	+1.2
MARD	**Mardin**	1.65	135	*i* P	Pn	03 36 51.3	+1.2
BEST	**Besiri**	1.65	111	*i* P	Pn	03 36 50.7	+0.6

CASC 11 03:52:45.8±1.4**, 13°.73N×91°.28W, h35^{km}**±999^{km}**, MD3.5, 1C-1D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	0.68	329⇓	*e*P	Pn	03 52 59.1	+0.1
FUG	**Fuego 3**	0.83	30	*e*P	Pn	03 53 01.2	+0.2
PCG	**Pacaya**	0.93	44	*e*P	Pn	03 53 02.8	+0.5
PCG				*e*S	Sn	03 53 15.6	+1.2
TP2	**Tecpan 2**	1.08	13	*e*S	Sn	03 53 19.4	+1.3
NBG	**Las Nubes**	1.24	46	*e*P	Pn	03 53 08.0	+1.3
NBG				*e*S	Sn	03 53 24.9	+2.8
RBDL	**Robledal**	1.59	76	*e*P	Pn	03 53 11.8	+0.4
RBDL				*e*S	Sn	03 53 32.4	+1.6
RTR	**El Retiro**	1.59	84	*e*P	Pn	03 53 11.9	+0.5
RTR				*e*S	Sn	03 53 32.0	+1.2
SBLS	**San Blas**	1.61	86	*e*P	Pn	03 53 11.7	0.0
SBLS				*e*S	Sn	03 53 32.1	+0.9
SNJE	**San Jose**	1.63	85	*e*P	Pn	03 53 12.2	+0.2
MRL	**Marmol**	2.03	49⇑	*e*P	Pn	03 53 18.6	+1.1
MRL				*e*S	Sn	03 53 47.7	+6.0
LFRS	**El Faro**	2.15	93	*e*P	Pn	03 53 19.7	+0.5
LFRS				*e*S	Sn	03 53 46.2	+1.5
LBRS	**Las Brisas**	2.17	89	*e*P	Pn	03 53 20.1	+0.6
SNVI	**San Vicente**	2.37	92	*e*P	Pn	03 53 23.1	+0.9

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*ISCJB **11** 03:58:42.8±0.6, 18°.68N±0°.07×64°.97W±0°.02, h72^{km}±5^{km}, Error ellipse: s-maj=11.2km s-min=2.9km az=1.5*

*TRN **11** 03:58:42.2, 18°.67N×64°.98W, h64^{km}*

*NEIC **11** 03:58:44.5, 18°.69N×64°.99W, h64^{km}, MD3.9(RSPR), After RSPR.*

*RSPR **11** 03:58:44.5, 18°.70N×64°.99W, h64^{km}±1^{km}, MD3.9/20, MD3.9/20*

ISC 11 03:58:43.7±0.6**, 18°.71N**±0°.07×**64°.98W**±0°.02**, h64^{km}**±6^{km}**, n43, σ0^{s}.54**/81**, 20C-7D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STVI	**Saint Thomas**	0.35	176⇓	*e*P	Pn	03 58 54.5	-0.1
STVI				*e*Sn	Sn	03 59 02.3	-0.3
STVI				*e*S	Sn	03 59 02.7	+0.1
TBVI	**Tortola**	0.45	130⇑	*e*P	Pn	03 58 55.3	-0.2
TBVI				*e*S	Sn	03 59 04.0	-0.1
ABV	**Anegada**	0.62	88⇑	*e*P	Pn	03 58 57.5	+0.3
ABV				*e*S	Sn	03 59 07.8	+0.6
MTP	**Monte Pirata**	0.81	222⇓	*e*P	Pn	03 58 59.6	+0.1
MTP				*e*S	Sn	03 59 11.4	+0.2
MTP	**Monte Pirata**	0.81	222	*e*Pn	Pn	03 58 59.6	0.0
MTP				*e*Sn	Sn	03 59 11.2	+0.1
CBYP	**Canovanas**	0.94	243⇑	*e*P	Pn	03 59 00.9	-0.1
CBYP				*e*S	Sn	03 59 13.9	-0.1
CBYP	**Canovanas**	0.94	243	*e*Pn	Pn	03 59 00.9	-0.1
CBYP				*e*Sn	Sn	03 59 14.0	+0.1
CDVI	**St. Croix**	0.97	168⇓	*e*P	Pn	03 59 01.2	-0.3
CDVI				*e*S	Sn	03 59 15.5	+0.8
CDVI	**St. Croix**	0.97	168⇓	*e*P	Pn	03 59 01.2	-0.3
CDVI				*e*Sn	Sn	03 59 13.2	-1.5
CDVI				*e*S	Sn	03 59 15.1	+0.3
HUMP	**Col San Antoni**	1.00	236⇑	*e*P	Pn	03 59 01.6	-0.2
HUMP				*e*S	Sn	03 59 15.1	-0.2
CPD	**Cerro la Pandu**	1.11	233⇑	*e*P	Pn	03 59 03.3	0.0
CPD				*e*S	Sn	03 59 18.0	+0.1
SJG	**San Juan**	1.26	242⇑	*e*P	Pn	03 59 05.1	-0.1
SJG	**San Juan**	1.26	242⇑	*e*P	Pn	03 59 05.1	-0.1
SJG				*e*S	Sn	03 59 20.9	-0.4
SJG	**San Juan**	1.26	242⇑	*e*P	Pn	03 59 05.7	+0.5
SJG	**San Juan**	1.26	242⇑	*e*P	Pn	03 59 05.8	+0.6
SJG				*e*S	Sn	03 59 20.9	-0.4
SJG				*e*S	Sn	03 59 21.1	-0.2
SJG	**San Juan**	1.26	242	*e*Pn	Pn	03 59 05.0	-0.2
SJG				*e*Sn	Sn	03 59 20.0	-1.3
CELP	**Cerrillos**	1.64	248⇓	*e*P	Pn	03 59 10.7	+0.4
CELP				*e*S	Sn	03 59 30.7	+0.2
CELP	**Cerrillos**	1.64	248⇓	*e*P	Pn	03 59 10.7	+0.4
CELP				*e*S	Sn	03 59 30.7	+0.2
CELP				*e*Sn	Sn	03 59 31.0	+0.5
ICM	**Isla Caja Muer**	1.67	241⇑	*e*P	Pn	03 59 11.0	+0.2
ICM				*e*S	Sn	03 59 31.3	+0.1
OBIP	**Obispado Ponce**	1.68	247⇑	*e*P	Pn	03 59 11.1	+0.3
OBIP				*e*Sn	Sn	03 59 31.4	0.0
OBIP				*e*S	Sn	03 59 31.7	+0.3
AOPR	**Arecibo Observ**	1.72	258⇑	*e*P	Pn	03 59 11.4	0.0
AOPR				*e*S	Sn	03 59 32.6	+0.2
AOPR	**Arecibo Observ**	1.72	258⇑	*e*P	Pn	03 59 11.4	0.0
AOPR				*e*S	Sn	03 59 32.1	-0.3
AOPR				*e*Sn	Sn	03 59 32.4	0.0
LRS	**Lares**	1.81	257	*e*Pn	Pn	03 59 14.2	+1.5
LRS				*e*Sn	Sn	03 59 33.6	-1.1
SMRT	**St. Maarten**	1.93	109⇓	*e*P	Pn	03 59 13.9	-0.3
SMRT				*e*S	Sn	03 59 37.1	-0.2
GBPR	**Guanica, Bosqu**	1.94	248⇑	*e*P	Pn	03 59 14.8	+0.4
GBPR				*e*S	Sn	03 59 38.2	+0.4
SABA	**Saba**	1.98	123⇑	*e*P	Pn	03 59 14.6	-0.2
SABA				*e*S	Sn	03 59 38.8	+0.2
AGPR	**Aguadilla, PR**	2.03	264⇑	*e*P	Pn	03 59 15.5	-0.1
AGPR				*e*S	Sn	03 59 39.7	-0.3
LSP	**Las Mesas**	2.06	256⇑	*e*P	Pn	03 59 16.4	+0.3
LSP				*e*S	Sn	03 59 41.3	+0.5
LSP	**Las Mesas**	2.06	256⇑	*e*P	Pn	03 59 16.4	+0.3
LSP				*e*Sn	Sn	03 59 40.5	-0.2
LSP				*e*S	Sn	03 59 41.0	+0.2
AGP	**Aguadilla**	2.07	262	*e*Pn	Pn	03 59 15.8	-0.3
AGP				*e*Sn	Sn	03 59 39.5	-1.4
MPR	**Mayaguez**	2.11	257	*e*S	Sn	03 59 41.6	-0.2
MPR	**Mayaguez**	2.11	257	*e*Pn	Pn	03 59 16.8	+0.1
MPR				*e*Sn	Sn	03 59 41.1	-0.7
CRPR	**Cabo Rojo, PR**	2.14	251⇑	*e*P	Pn	03 59 17.5	+0.4
CRPR				*e*S	Sn	03 59 42.9	+0.4
SEUS	**St. Eustatius**	2.25	122⇑	*e*P	Pn	03 59 18.7	+0.1
ANWB	**Willy Bob**	3.21	108	*e*Pn	Pn	03 59 30.7	-1.0
ANWB				*e*Sn	Sn	04 00 09.3	+0.5
LZG	**Guadaloupe-1**	3.98	129	*e*P	Pn	03 59 41.8	-0.5
SEG	**Port Louis**	4.03	124	*e*P	Pn	03 59 42.8	-0.1
SCG	**Saint Claude**	4.13	130	*e*P	Pn	03 59 44.0	-0.2
HMG	**Houelmont**	4.14	130	*e*P	Pn	03 59 44.1	-0.4
PHG	**Guadaloupe-2**	4.16	129	*e*P	Pn	03 59 44.7	-0.1
MGG	**Marie-Galante**	4.47	128	*e*P	Pn	03 59 49.3	+0.4
SDV	**Santo Domingo**	11.20	210	*e*Pn	Pn	04 01 22.6	+1.6
OTAV	**Otavalo**	22.62	217	P	P	04 03 35.7	-3.6
	0.6nm,0.4s						

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*ISCJB **11** 04:27:29.4±0.5, 44°.66N±0°.02×18°.25E±0°.02, h1^{km}±3^{km}, Error ellipse: s-maj=3.4km s-min=1.9km az=140.2*

*CSEM **11** 04:27:30.8±0.1, 44°.61N×18°.19E, h2^{km}, ML3.0, Error ellipse: s-maj=4.0km s-min=1.8km az=44.0*

*BEO **11** 04:27:30.7±0.4, 44°.71N×18°.22E, h5^{km}±3^{km}, ML3.0/14*

*PDG **11** 04:27:30.3±0.3, 44°.49N×18°.10E, h0^{km}±11^{km}, ML3.1/10, Error ellipse: s-maj=1.4km s-min=2.5km az=0.0*

*NEIC **11** 04:27:31.5±0.3, 44°.53N×18°.19E, h10^{km}, ML2.5(BUC), ML3.1(PDG), Error ellipse: s-maj=8.2km s-min=3.9km az=64.0*

*VIE **11** 04:27:32.3±0.5, 44°.59N×18°.01E, h10^{km}, mb2.6/4, ML2.8/5, Error ellipse: s-maj=6.5km s-min=3.3km az=31.0 64 km S of Slavonski Brod*

*PRU **11** 04:27:32.4, 44°.65N×18°.19E, h0^{km}*

ISC 11 04:27:31.0±0.5**, 44°.63N**±0°.02×**18°.23E**±0°.02**, h4^{km}**±3^{km}**, n93, σ1^{s}.15**/165**, 27C-15D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLY	**Banja Luka**	0.75	279	*e*Pg	Pg	04 27 44.4	-1.1
BLY				*i* Sg	Sg	04 27 54.4	-0.8
BLY	**Banja Luka**	0.75	279	*e*Pg	Pg	04 27 44.4	-1.1
BBLS	**Lazići**	1.14	132⇑	*i*Pg	Pn	04 27 51.2	-2.5
BBLS				*e*Sg	Sg	04 28 08.8	+1.1
BBLS	**Lazići**	1.14	132⇑	*i*Pg	Pn	04 27 51.2	-2.5
BBLS				*e*Sg	Sg	04 28 08.8	+1.1
FRGS	**Fruska Gora**	1.24	64	*e*Sg	Sg	04 28 09.0	-1.9
RHK3	**Tenkes**	1.26	1⇓	*e*Pn	Pn	04 27 56.3	+1.0
RHK3	**Tenkes**	1.26	1	*e*Pg	Pg	04 27 58.4	+3.3
RHK3				*e*Sn	Sn	04 28 16.7	+4.1
DIVS	**Divibare**	1.37	112	*e*Pg	Pn	04 27 55.5	-1.4

DIVS				*i* Sg	Sg	04 28 15.1	0.0
UPM	**Unac-Piva**	**1.51**	**161**	⇑*i*Pg	Pn	04 27 56.5	-2.3
UPM				*e*Sg	Sn	04 28 18.6	-0.3
PLE	**Pljevlja**	**1.55**	**147**	⇓*i*Pg	Pn	04 27 57.6	-1.7
PLE				*e*Sg	Sg	04 28 21.0	+0.2
BEO	**Beograd**	**1.61**	**83**	*e*Sg	Sg	04 28 22.1	-0.6
TRUS	**Trudelj**	**1.61**	**104**	*e*Pn	Pn	04 28 00.5	+0.3
TRUS				*e*Sg	Sg	04 28 22.6	-0.2
TRUS	**Trudelj**	**1.61**	**104**	*e*Pn	Pn	04 28 00.5	+0.3
TRUS				*e*Sg	Sg	04 28 22.6	-0.2
BRY	**Bratogost**	**1.75**	**172**	⇑*i*Pn	Pn	04 27 59.8	-2.2
BRY				*e*Sn	Sn	04 28 25.2	+0.5
SJES	**Sjenica**	**1.86**	**137**	*e*Pn	Pn	04 28 03.1	-0.5
SJES				*e*Sg	Sg	04 28 30.2	-0.6
NKY	**Niksic**	**1.90**	**163**	⇑*i*Pn	Pn	04 28 03.2	-1.0
NKY				*e*Sn	Sn	04 28 30.2	+1.7
GRUS	**Gruza**	**1.94**	**112**	⇑*i*Pn	Pn	04 28 05.2	+0.6
GRUS				*e*Sg	Sg	04 28 33.6	+0.4
GRUS	**Gruza**	**1.94**	**112**	⇑*i*Pn	Pn	04 28 05.2	+0.6
GRUS				*e*Sg	Sg	04 28 33.6	+0.4
PKS9	**Tamasi**	**1.96**	**1**	⇓*e*Pn	Pn	04 28 06.1	+1.2
PKS9	**Tamasi**	**1.96**	**1**	Pg	Pg	04 28 12.4	+3.9
BEY	**Berane**	**2.14**	**145**	⇓*i*Pn	Pn	04 28 07.4	0.0
BEY				*e*Sn	Sn	04 28 36.5	+2.2
IVA	**Berane**	**2.14**	**145**	⇓*i*Pn	Pn	04 28 07.4	0.0
IVA				*e*Sn	Sn	04 28 36.5	+2.2
IVA	**Berane**	**2.14**	**145**	⇓*i*Pn	Pn	04 28 07.4	0.0
IVA				*e*Sn	Sn	04 28 36.5	+2.2
SVIS	**Svilajnac**	**2.17**	**99**	*e*Pn	Pn	04 28 08.5	+0.6
SVIS				*e*Sg	Sg	04 28 39.2	-1.5
SVIS	**Svilajnac**	**2.17**	**99**	*e*Pn	Pn	04 28 08.5	+0.6
SVIS				*e*Sg	Sg	04 28 39.2	-1.5
HCY	**Herceg Novi**	**2.19**	**175**	⇑*i*Pn	Pn	04 28 06.8	-1.4
HCY				*e*Sn	Sn	04 28 36.3	+0.6
BOJS	**Bojanci**	**2.28**	**293**	*i* Pn	Pn	04 28 10.4	+1.0
BOJS	**Bojanci**	**2.28**	**293**	*i* Pn	Pn	04 28 10.4	+1.0
KOGS	**Kog**	**2.29**	**323**	*i* Pn	Pn	04 28 09.9	+0.4
KOGS				*i* Sn	Sn	04 28 37.9	-0.2
KOGS	**Kog**	**2.29**	**323**	*i* Pn	Pn	04 28 09.9	+0.5
KOGS				*i* Sn	Sn	04 28 37.8	-0.2
GOLS	**Golise**	**2.30**	**308**	*i* Pn	Pn	04 28 09.4	-0.2
GOLS				*i* Sn	Sn	04 28 39.7	+1.5
GOLS	**Golise**	**2.30**	**308**	*i* Pn	Pn	04 28 09.4	-0.2
GOLS				*i* Sn	Sn	04 28 39.7	+1.5
PDG	**Podgorica**	**2.33**	**161**	*e*Sn	Sn	04 28 40.0	+1.0
TTG	**Podgorica**	**2.33**	**161**	⇓*i*Pn	Pn	04 28 09.6	-0.4
TTG				*e*Sn	Sn	04 28 40.0	+1.0
BUM	**Brajici-Budva**	**2.38**	**168**	⇑*i*Pn	Pn	04 28 10.5	-0.3
BUM				*e*Sn	Sn	04 28 41.7	+1.3
PVY	**Plav**	**2.40**	**147**	⇓*i*Pn	Pn	04 28 10.9	-0.1
PVY				*e*Sn	Sn	04 28 43.3	+2.5
PVY	**Plav**	**2.40**	**147**	⇓*i*Pn	Pn	04 28 10.9	-0.1
PVY				*e*Sn	Sn	04 28 43.3	+2.5
BZS	**Buzias**	**2.59**	**67**	*e*Pn	Pn	04 28 14.1	+0.4
BZS				*e*Sn	Sn	04 28 43.2	-2.4
BZS	**Buzias**	**2.59**	**67**	⇑*i*P	Pn	04 28 14.0	+0.3
BZS	**Buzias**	**2.59**	**67**	⇑P	Pn	04 28 14.0	+0.4
BZS				S	Sn	04 28 44.1	-1.4
BZS	**Buzias**	**2.59**	**67**	*e*Pn	Pn	04 28 14.1	+0.4
BZS				S	Sn	04 28 44.2	-1.4
PDKS	**Podkum**	**2.69**	**303**	*i* Pn	Pn	04 28 14.6	-0.4
PDKS				*i* Sn	Sn	04 28 46.5	-1.4
PKSG		**2.76**	**2**	⇓*e*Pn	Pn	04 28 17.7	+1.7
ULC	**Ulcinj**	**2.77**	**164**	⇓*i*Pn	Pn	04 28 15.8	-0.3
ULC				*e*Sn	Sn	04 28 50.6	+0.6
BOLS	**Boljevac**	**2.80**	**105**	*e*Pn	Pn	04 28 17.2	+0.7
BOLS				*e*Sg	Sg	04 29 00.8	0.0
BUD	**Budapest**	**2.91**	**11**	*e*Sg	Sg	04 29 10.7	+6.4
NISS		**2.95**	**113**	*e*Pn	Pn	04 28 19.5	+0.9
NISS				*e*Sg	Sg	04 29 05.5	-0.3
NISS		**2.95**	**113**	*e*Pn	Pn	04 28 19.5	+0.9
NISS				*e*Sg	Sg	04 29 05.5	-0.3
PERS	**Pernice**	**2.96**	**314**	*i* Pn	Pn	04 28 18.8	+0.1
PERS				*i* Sn	Sn	04 28 52.8	-1.8
PERS	**Pernice**	**2.96**	**314**	*i* Pn	Pn	04 28 18.8	+0.1
PERS				*i* Sn	Sn	04 28 52.8	-1.9
SOKA	**Soboth**	**3.03**	**314**	⇑*i*Pn	Pn	04 28 19.6	-0.1
SOKA				⇑*i*Sn	Sn	04 28 55.3	-1.1
SOKA	**Soboth**	**3.03**	**314**	Pn	Pn	04 28 19.6	-0.1
SOKA				Sn	Sn	04 28 55.3	-1.1
BARS	**Barje**	**3.17**	**124**	*e*Pn	Pn	04 28 20.3	-1.3
BARS				*e*Sg	Sg	04 29 14.0	+1.1
BARS	**Barje**	**3.17**	**124**	*e*Pn	Pn	04 28 20.3	-1.3
BARS				*e*Sg	Sg	04 29 14.0	+1.1
OBKA	**Obir**	**3.19**	**307**	⇑*i*Pn	Pn	04 28 21.5	-0.4
OBKA				⇓*i*Sn	Sn	04 28 58.9	-1.4
OBKA				⇑*i*Sg	Sg	04 29 14.7	+1.1
	22nm,0.5s						
OBKA	**Obir**	**3.19**	**307**	Pn	Pn	04 28 21.5	-0.4
OBKA				Sn	Sn	04 28 58.9	-1.5
OBKA				Sg	Sg	04 29 14.7	+1.2
	22nm,0.5s						
ARSA	**Arzberg**	**3.23**	**325**	⇓*i*Pn	Pn	04 28 22.8	+0.5
ARSA				⇓*i*Sn	Sn	04 29 00.9	-0.3
ARSA	**Arzberg**	**3.23**	**325**	Pn	Pn	04 28 22.8	+0.4
ARSA				Sn	Sn	04 29 00.9	-0.3
SOP	**Sopron**	**3.26**	**340**	*e*Pn	Pn	04 28 22.6	-0.3
SOP				*e*SB	Sg	04 29 19.0	+3.2
SOP	**Sopron**	**3.26**	**340**	*e*Pn	Pn	04 28 22.6	-0.3
GZR	**Gura Zlata**	**3.31**	**75**	⇑*i*P	Pn	04 28 24.3	+0.7
GZR	**Gura Zlata**	**3.31**	**75**	⇑P	Pn	04 28 24.3	+0.7
GZR				S	Sn	04 29 01.8	-1.6
GZR	**Gura Zlata**	**3.31**	**75**	⇑P	Pn	04 28 24.3	+0.7
GZR				S	Sn	04 29 01.8	-1.6
VOY	**Vojsko**	**3.36**	**296**	*e*Pn	Pn	04 28 24.6	+0.4
VOY				*e*Sn	Sn	04 29 02.8	-1.7
VOY	**Vojsko**	**3.36**	**296**	*e*Pn	Pn	04 28 24.6	+0.4
VOY				*e*Sn	Sn	04 29 02.8	-1.7
ZAPS	**Zavoj**	**3.46**	**112**	⇑*i*Pn	Pn	04 28 25.4	-0.2
PSZ	**Piszkesteto**	**3.48**	**19**	*e*Pn	Pn	04 28 27.5	+1.6
PSZ				*e*Sn	Sn	04 29 07.7	+0.2
PSZ	**Piszkesteto**	**3.48**	**19**	*e*Pn	Pn	04 28 27.3	+1.4
PSZ	**Piszkesteto**	**3.48**	**19**	*e*Pn	Pn	04 28 27.3	+1.4
PSZ				*e*Sn	Sn	04 29 07.7	+0.2
ZST	**Bratislava**	**3.65**	**348**	*e*PN	Pn	04 28 29.5	+1.3
ZST				*e*SN	Sn	04 29 11.0	-0.6
ZST	**Bratislava**	**3.65**	**348**	*e*Pn	Pn	04 28 29.5	+1.3
ZST				*e*Sn	Sn	04 29 11.0	-0.6
CSNA	**Conrad Observa**	**3.68**	**334**	⇑*i*Pn	Pn	04 28 29.5	+0.8
CSNA				⇑*i*Sn	Sn	04 29 14.1	+1.7
CSNA	**Conrad Observa**	**3.68**	**334**	Pn	Pn	04 28 29.5	+0.9
CSNA				Sn	Sn	04 29 14.1	+1.7
MODS	**Modra-Piesok**	**3.80**	**350**	*e*PN	Pn	04 28 31.6	+1.4
MODS				*e*SN	Sn	04 29 14.5	-0.8
MODS	**Modra-Piesok**	**3.80**	**350**	*e*Pn	Pn	04 28 31.6	+1.4
MODS				*e*Sn	Sn	04 29 14.5	-0.8
DRGR		**3.81**	**54**	⇑*i*P	Pn	04 28 28.4	-2.0
DRGR		**3.81**	**54**	S	Sn	04 29 11.5	-4.1
DRGR		**3.81**	**54**	⇑P	Pn	04 28 28.4	-2.0
DRGR				S	Sn	04 29 11.5	-4.1
DRGR		**3.81**	**54**	⇑*i*P	Pn	04 28 28.4	-2.0
VYHS	**Vyhne**	**3.88**	**6**	*e*PN	Pn	04 28 33.1	+1.7
VYHS				*e*SN	Sn	04 29 15.0	-2.4
VYHS	**Vyhne**	**3.88**	**6**	*e*Pn	Pn	04 28 33.1	+1.7
VYHS				*e*Sn	Sn	04 29 15.0	-2.4
SMOL	**Smolenice**	**3.92**	**352**	*e*SN	Sn	04 29 18.4	+0.1
SMOL	**Smolenice**	**3.92**	**352**	*e*Sn	Sn	04 29 18.4	+0.1
KBA	**Koelnbreinsper**	**4.20**	**307**	⇓*i*Pn	Pn	04 28 34.6	-1.1
KBA				⇑*i*Sn	Sn	04 29 24.1	-1.0
KBA	**Koelnbreinsper**	**4.20**	**307**	Pn	Pn	04 28 34.6	-1.1
KBA				Sn	Sn	04 29 24.1	-1.0
MOA	**Molln**	**4.23**	**321**	⇑*i*Pn	Pn	04 28 36.1	-0.1
MOA				⇑*i*Sn	Sn	04 29 26.1	+0.1
MOA	**Molln**	**4.23**	**321**	Pn	Pn	04 28 36.1	-0.1
MOA				Sn	Sn	04 29 26.1	+0.1
MORC	**Moravsky Berou**	**5.17**	**355**	*e*Pn	Pn	04 28 50.5	+1.5
MORC				*e*Sn	Sn	04 29 51.6	+2.5
MORC	**Moravsky Berou**	**5.17**	**355**	*e*Pn	Pn	04 28 50.5	+1.5
MORC				*e*Sn	Sn	04 29 51.6	+2.6
OKC	**Ostrava-Krasne**	**5.21**	**359**	*e*SN	Sn	04 29 50.0	0.0
OKC	**Ostrava-Krasne**	**5.21**	**359**	Sn	Sn	04 29 50.0	0.0
KHC	**Kasperske Hory**	**5.51**	**326**	*e*PN	Pn	04 28 54.8	+1.0
KHC				*e*SN	Sn	04 29 57.3	-0.2
KHC	**Kasperske Hory**	**5.51**	**326**	Pn	Pn	04 28 54.8	+1.0
KHC				Sn	Sn	04 29 57.3	-0.2

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*IDC **11** 04:42:52.0±2.1, 49°.37N×157°.31E, h0^{km}, mb3.4/4, mb1 3.7/5, mb1mx3.4/24, mbtmp3.4/5, ML3.3/1, MS2.8/1, Ms1 2.8/1, ms1mx2.7/18, Error ellipse: s-maj=43.8km s-min=35.1km az=19.0*

*KRSC **11** 04:42:54.2±1.7, 49°.54N×157°.30E, h21^{km}±20^{km}, ML4.2*

*MOS **11** 04:42:56.0±1.8, 49°.66N×156°.91E, h30^{km}, mb3.8/1, Error ellipse: s-maj=38.9km s-min=10.3km az=80.3*

*ISCJB **11** 04:42:57.4±1.8, 49°.6N±0°.1×157°.3E±0°.2, h41^{km}±15^{km}, mb3.5/4, Error ellipse: s-maj=24.7km s-min=14.3km az=25.6*

*NEIC **11** 04:42:58.2±1.3, 49°.53N×157°.37E, h35^{km}, Error ellipse: s-maj=23.0km s-min=20.6km az=68.0*

ISC 11 04:42:59.0±1.8, **49°.6N**±0°.1×**157°.3E**±0°.2, **h40**^{km}±16^{km}, **n20**, σ**0^{s}87**/28, **mb3.5**/4, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.33**	**326**	*e*PN	Pn	04 43 12.9	-8.1
SKR				pmax	pmax		
	comp=N,230nm,0.5s						
SKR				pmax	pmax		
	comp=E,90nm,0.5s						
SKR				pmax	pmax		
	comp=Z,310nm,0.5s						
MIPR	**Malaya Ipel'ka**	**2.71**	**353**	P	Pn	04 43 36.7	-3.3
RUS	**Russkaya**	**2.95**	**15**	*e*P	Pn	04 43 42.7	-0.6
RUS				*i* S	Sn	04 44 17.8	+0.4
PETK	**Petropavlovsk-**	**3.53**	**4**	PN	Pn	04 43 50.9	-0.4
PETK						04 44 37.4	
PETK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PETK				smax			
	comp=N,1.0nm,0.3s						
PETK				MLR	MLR		
	comp=Z,154nm,21.4s						
PETK	**Petropavlovsk-**	**3.53**	**4**	Pn	Pn	04 43 50.9	-0.4
	comp=Z,2.4nm,0.3s,baz=174,slow=11,SNR=36						
PETK				Sn	Sn	04 44 37.4	+5.7
	comp=Z,1.3nm,0.3s,baz=124,slow=24,SNR=4.2						
PETK				LR	LR	04 45 33.8	
	comp=Z,154nm,21.4s,baz=217,slow=43						
PET	**Petropavlovsk**	**3.54**	**14**	*e*PN	Pn	04 43 51.8	+0.4
PET				*e*S	Sn	04 44 35.0	+3.0
PET				pmax	pmax		
	comp=Z,45nm,0.6s						
PET				pmax	pmax		
	comp=N,272nm,0.7s						
PET				smax			
	comp=E,151nm,0.7s						
PET				smax			
	comp=N,168nm,0.8s						
PET				MLR	MLR		
	comp=Z,100nm,19.0s						
PET	**Petropavlovsk**	**3.54**	**14**	P	Pn	04 43 51.5	+0.1
PET				*i* S	Sn	04 44 33.1	+1.1
PET	**Petropavlovsk**	**3.54**	**14**	*e*Pn	Pn	04 43 51.7	+0.3
PET				*e*Sn	Sn	04 44 36.3	+4.3
NLC	**Nalytchevo**	**3.81**	**19**	P	Pn	04 43 54.1	-1.0
NLC				*i* S	Sn	04 44 38.3	-0.3
SDLR	**Sedlovina**	**3.83**	**15**	P	Pn	04 43 55.6	+0.3
GNL	**Ganaly**	**4.13**	**5**	P	Pn	04 43 59.1	-0.4
GNL				*i* S	Sn	04 44 46.0	-0.5
MKZ	**Mys Kozlova**	**5.68**	**27**	*e*P	Pn	04 44 20.7	0.0
MKZ				*e*S	Sn	04 45 24.0	-0.5
ZLN	**Zelenaya**	**6.78**	**17**	P	Pn	04 44 37.5	+1.7
KBTR	**Krutoberegovo**	**7.42**	**25**	P	Pn	04 44 44.5	-0.1
SRKR	**Sorokina**	**7.45**	**17**	P	Pn	04 44 47.3	+2.3
YKA	**Yellowknife Ar**	**46.97**	**39**	P	P	04 51 25.5	+0.1
	comp=Z,0.2nm,0.8s,mb3.1,baz=295,slow=7.4,SNR=3.4						
KURK	**Kurchatov**	**48.13**	**303**	P	P	04 51 35.0	+0.4
	comp=Z,0.4nm,0.8s,mb3.5,baz=66,slow=8.2,SNR=4.0						
PDAR	**Pinedale Array**	**60.84**	**57**	P	P	04 53 06.7	-0.3
	comp=Z,0.5nm,0.8s,mb3.7,baz=339,slow=6.1,SNR=3.5						
TXAR	**Lajitas Array**	**73.70**	**64**	P	P	04 54 28.4	-0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	**Lajitas Array**	**73.70**	**64**	P	P	04 54 28.4	-0.3
	comp=Z,0.5nm,0.8s,mb3.5,baz=308,slow=4.2,SNR=7.6						

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*ISCJB **11** 04:59:28.1±0.6, 37°.08N±0°.04×139°.55E±0°.06, h133^{km}±4^{km}, mb3.4/3, Error ellipse: s-maj=8.4km s-min=5.3km az=23.4*

*JMA **11** 04:59:29.0±0.1, 37°.06N×139°.60E, h127^{km}±1^{km}, M2.7*

*IDC **11** 04:59:30.1±1.9, 37°.06N×139°.30E, h133^{km}±11^{km}, mb3.2/3, mb1 3.3/3, mb1mx3.0/22, mbtmp3.2/3, Error ellipse: s-maj=33.5km s-min=21.3km az=62.0*

ISC 11 04:59:29.0±0.6, **37°.08N**±0°.03×**139°.56E**±0°.06, **h129**^{km}±4^{km}, **n19**, σ**0^{s}64**/34, **mb3.4**/3, **Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSB	**Shiboa**	**0.31**	**110**	P	Pn	04 59 46.7	-0.4
JSB				*e*S	Sn	05 00 00.6	-0.1
JFY	**Yanaizu**	**0.35**	**20**	P	Pn	04 59 47.1	-0.1
JFY				S	Sn	05 00 00.6	-0.4
JKT	**Katashina**	**0.40**	**218**	P	Pn	04 59 47.5	0.0
JKT				*e*S	Sn	05 00 01.4	+0.1
JAG	**Ashikaga**	**0.66**	**187**	P	Pn	04 59 48.8	-0.2
JNS	**Sasagawa**	**0.76**	**346**	P	Pn	04 59 49.7	-0.1
JNS				*e*S	Sn	05 00 05.2	-0.3
JRY	**Ryogami san**	**1.18**	**207**	P	Pn	04 59 53.9	+0.2
JRY				*e*S	Sn	05 00 12.4	+0.1
MJAR	**Matsushiro Arr**	**1.21**	**244**	P	Pn	04 59 53.9	0.0
	12nm,0.3s,baz=52,slow=8.3,SNR=150						
MJAR				S	Sn	05 00 11.1	-1.6
	3.1nm,0.3s,baz=58,slow=15,SNR=5.6						
MAT	**Matsushiro**	**1.21**	**244**	P	Pn	04 59 54.2	+0.3
MAT				S	Sn	05 00 13.3	+0.6
MAT	**Matsushiro**	**1.21**	**244**	P	Pn	04 59 54.2	+0.3
MAT				*e*S	Sn	05 00 13.7	+1.0
JMM	**Marumori**	**1.26**	**51**	P	Pn	04 59 54.6	+0.2
JMM				*e*S	Sn	05 00 13.3	-0.5
JAW	**Awa shima**	**1.40**	**350**	P	Pn	04 59 56.3	+0.4
JAW				*e*S	Sn	05 00 16.6	+0.2
JSD	**Sado**	**1.41**	**313**	P	Pn	04 59 56.0	0.0
JSD				S	Sn	05 00 16.0	-0.5
JYN	**Shimob**	**1.78**	**208**	P	Pn	05 00 00.9	+0.6
JYN				*e*S	Sn	05 00 25.8	+1.7
JSZ	**Suzu**	**1.79**	**283**	P	Pn	05 00 00.5	+0.1
JSZ				S	Sn	05 00 24.6	+0.3
JOD2	**Odawara 2**	**1.85**	**192**	P	Pn	05 00 00.6	-0.6
JOD2				*e*S	Sn	05 00 24.8	-0.9
JYK	**Kaneyama**	**1.94**	**19**	P	Pn	05 00 03.0	+0.8
JYK				S	Sn	05 00 28.5	+0.8
SONM	**Songino Array**	**26.53**	**304**	P	P	05 04 52.7	-1.7
	1.6nm,0.7s,mb3.8,baz=106,slow=9.3,SNR=16						
MKAR	**Makanchi Array**	**42.83**	**302**	P	P	05 07 14.6	+0.5
	0.3nm,0.6s,mb3.1,baz=88,slow=9.6,SNR=3.5						
WRA	**Warramunga Arr**	**56.92**	**186**	P	P	05 09 00.6	0.0
	0.4nm,0.8s,mb3.3,baz=4.3,slow=7.5,SNR=4.7						

KRSC 11 05:03:02.3±0.7, **50°.83N**×**158°.22E**, **h10**^{km}±10^{km}, **ML3.7**, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUS	**Russkaya**	**1.62**	**6**	*e*P	Pn	05 03 31.7	+0.9
RUS				*i* S	Sn	05 03 52.7	+1.0
MIPR	**Malaya Ipel'ka**	**1.71**	**328**	*e*P	Pn	05 03 31.9	-0.2
PET	**Petropavlovsk**	**2.21**	**7**	P	Pn	05 03 40.4	+1.4
PET				*i* S	Sn	05 04 07.7	+1.3
NLC	**Nalytchevo**	**2.45**	**16**	P	Pn	05 03 42.8	+0.6
NLC				*i* S	Sn	05 04 13.1	+1.0
AVH	**Avacha**	**2.46**	**7**	*e*P	Pn	05 03 45.3	+2.9
GNL	**Ganaly**	**2.88**	**357**	*e*P	Pn	05 03 50.2	+2.1
MKZ	**Mys Kozlova**	**4.30**	**28**	P	Pn	05 04 10.1	+2.4
KBTR	**Krutoberegovo**	**6.04**	**25**	P	Pn	05 04 34.8	+3.2

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*NEIC **11** 05:06:12.7, 10°.23N×74°.58W, h18^{km}, MW4.0(CAR), After CAR.*

*IDC **11** 05:06:15.1±1.5, 9°.90N×72°.70W, h0^{km}, mb3.3/2, mb1 3.6/3, mb1mx3.3/19, mbtmp3.5/3, ML2.4/1, Error ellipse: s-maj=49.7km s-min=29.0km az=101.0*

ISC 11 05:06:16.0±1.3, **10°.25N**±0°.07×**74°.36W**±0°.07, **h35**^{km}, **n14**, σ**0^{s}90**/24, **4C**, **Near north coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIRV	**Villa del Rosa**	**1.94**	**82**	⇑*i*P	Pn	05 06 46.6	+0.1
VIRV				*e*S	Sn	05 07 12.2	+2.6
CAPV	**Capacho**	**3.11**	**139**	*e*P	Pn	05 07 01.0	-1.6
CAPV				*e*S	Sn	05 07 38.8	+0.1
VIGV	**El Vigia**	**3.27**	**115**	*e*P	Pn	05 07 04.6	-0.2
VIGV				*e*S	Sn	05 07 43.3	+0.8
QARV	**Quebrada Arrib**	**3.78**	**90**	*e*P	Pn	05 07 12.5	+0.7
QARV				*e*S	Sn	05 07 55.2	+0.2
SDV	**Santo Domingo**	**3.92**	**110**	*e*Pn	Pn	05 07 13.5	-0.2
SDV				*e*Sn	Sn	05 07 59.3	+0.8
SOCV	**Socops**	**3.97**	**119**	⇑*i*P	Pn	05 07 14.2	-0.3
SOCV				*e*S	Sn	05 07 59.7	-0.2
CURV	**Curarigua**	**4.34**	**93**	*e*P	Pn	05 07 19.7	+0.2
CURV				*e*S	Sn	05 08 09.0	+0.1
SIQV	**Siquisique**	**4.50**	**84**	⇑*e*P	Pn	05 07 21.7	+0.1
MONV	**Montecano**	**4.63**	**68**	*e*P	Pn	05 07 23.7	+0.2
MONV				*e*S	Sn	05 08 15.5	-0.6
SANV	**Sanarito**	**4.81**	**98**	⇑*e*P	Pn	05 07 25.9	-0.1
SANV				*e*S	Sn	05 08 19.8	-0.8
ROSC	**El Rosal**	**5.36**	**180**	Pn	Pn	05 07 34.8	+1.3
	2.9nm,0.3s,baz=125,slow=4.7,SNR=13						
ROSC				Sn	Sn	05 08 40.3	+6.3
	2.8nm,0.3s,baz=244,slow=23,SNR=16						
BAUV	**El Baul**	**6.37**	**101**	*e*P	Pn	05 07 46.1	-1.2
BAUV				*e*S	Sn	05 08 56.0	-2.9
YKA	**Yellowknife Ar**	**59.65**	**340**	P	pP	05 16 27.0	-0.1
	0.2nm,0.7s,baz=129,slow=6.7,SNR=6.0						
TORD	**Torodi Ar. Bea**	**74.28**	**79**	P	P	05 17 45.9	-4.4
	0.4nm,1.0s,baz=279,slow=5.8,SNR=4.2						

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*BJI **11** 05:12:33.8, 11°.00S×113°.70E, h35^{km}, mB5.2/6, mb4.7/13, Ms5.2/1, Ms7 5.3/1*

*MOS **11** 05:12:35.7±0.6, 10°.69S×113°.99E, h33^{km}, mb4.9/14, Error ellipse: s-maj=40.0km s-min=12.5km az=104.4*

*ISCJB **11** 05:12:35.6±0.9, 10°.96S±0°.04×113°.63E±0°.04, h40^{km}±7^{km}, mb4.7/42, MS3.9/5, Error ellipse: s-maj=8.1km s-min=6.7km az=42.1*

*IDC **11** 05:12:36.8±4.0, 10°.60S×114°.08E, h23^{km}±26^{km}, mb4.2/10, mb1 4.3/11, mb1mx4.2/20, mbtmp4.2/11, ML3.9/1, MS3.6/5, Ms1 3.6/5, ms1mx3.3/29, Error ellipse: s-maj=35.1km s-min=11.6km az=50.0*

*NEIC **11** 05:12:36.9±0.5, 11°.00S×113°.74E, h35^{km}, mb4.8/13, Error ellipse: s-maj=28.1km s-min=7.9km az=52.0*

*DJA **11** 05:12:42, 10°.52S×113°.55E, h69^{km}, MLv4.7/7*

ISC 11 05:12:35.7±1.6, **11°.02S**±0°.03×**113°.66E**±0°.05, **h29**^{km}±11^{km}, **n88**, σ**1^{s}08**/101, **mb4.7**/42, **MS3.9**/5, **5C-1D**, **South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGBI	**Denpasar**	**2.63**	**34**	P	Pn	05 13 17.7	+1.4
IGBI				S	Sn	05 13 46.8	-0.5
DNP	**Denpasar**	**2.78**	**33**	P	Pn	05 13 19.6	+1.2
DNP				S	Sn	05 13 49.8	-1.2
NBBI	**Negara**	**2.80**	**20**	P	Pn	05 13 19.4	+0.8
NBBI				S	Sn	05 13 49.2	-2.2
KRKI	**Karangkates**	**3.09**	**337**	P	Pn	05 13 21.6	-0.9
KHKI	**Kahang-Kahang**	**3.26**	**36**	P	Pn	05 13 26.2	+1.2
KHKI				S	Sn	05 14 03.5	+0.6
TRT	**Tretes**	**3.45**	**343**	⇑*e*P	Pn	05 13 28.0	+0.5
TRT				*e*S	Sn	05 14 06.0	-1.5
TRT	**Tretes**	**3.45**	**343**	⇑*e*P	Pn	05 13 29.0	+1.5
TRT				*e*S	Sn	05 14 06.0	-1.5
SJI	**Sawahan**	**3.76**	**330**	P	Pn	05 13 31.9	0.0
KMMI	**Kalianget**	**3.96**	**4**	P	Pn	05 13 34.2	-0.3
KMMI				S	Sn	05 14 15.2	-4.8
UGM	**Wanagama**	**4.38**	**315**	P	Pn	05 13 40.8	+0.5
UGM				S	Sn	05 14 27.1	-3.2
GIRL	**Giralia**	**11.57**	**177**	*e*P	Pn	05 15 16.8	-2.2
	350nm,0.9s						
MBWA	**Marble Bar**	**11.64**	**151**	*e*P	Pn	05 15 16.1	-3.9
MBWA				*e*S	Sn	05 17 14.2	-15
MBWA	**Marble Bar**	**11.64**	**151**	*e*Pn	Pn	05 15 16.9	-3.0
	20nm,0.6s						
MBWA				*e*Sn	Sn	05 17 17.5	-12
FITZ	**Fitzroy Crossi**	**13.56**	**123**	Pn	Pn	05 15 44.4	-1.8
	0.5nm,0.3s,baz=115,slow=14,SNR=13						
FITZ				Sn	Sn	05 18 05.9	-10
	1.8nm,0.3s,baz=191,slow=20,SNR=7.7						
FITZ				LR	LR	05 20 46.8	
	comp=Z,219nm,18.1s,baz=306,slow=36						
FITZ	**Fitzroy Crossi**	**13.56**	**123**	Pn	Pn	05 15 44.4	-1.8
FITZ				Sn	Sn	05 18 05.9	-10
MEEK	**Meekatharra**	**16.22**	**164**	*e*P	Pn	05 16 18.9	-2.7
	9.7nm,0.3s						
MEEK				*e*S	Sn	05 19 05.1	-16
MORW	**Morawa**	**18.09**	**173**	*e*P	Pn	05 16 42.0	-3.0
	4.5nm,0.5s						
KULM	**Kulim**	**20.75**	**321**	*e*P	P	05 17 14.5	+0.2
	9.9nm,0.5s						
KLBR	**Kellerberrin**	**20.82**	**170**	*e*P	P	05 17 18.7	+3.8
	314nm,3.2s						
MUN	**Mundaring**	**20.99**	**174**	*e*P	P	05 17 22.6	+5.8
DAV	**Davao City (W)**	**21.53**	**34**	LR	LR	05 26 08.5	
	comp=Z,106nm,21.8s,MS3.2,baz=20,slow=39						
WRA	**Warramunga Arr**	**21.79**	**117**	P	P	05 17 27.2	+1.7
	10nm,0.7s,mb4.4,baz=290,slow=11,SNR=57						
WRA				S	S	05 21 20.4	-4.7
	1.7nm,0.7s,baz=289,slow=25,SNR=6.4						
WRA				LR	LR	05 25 26.7	
	comp=Z,104nm,19.6s,MS3.2,baz=325,slow=36						
WRA	**Warramunga Arr**	**21.79**	**117**	P	P	05 17 27.2	+1.7
WRA				S	S	05 21 20.4	-4.7
WRAB	**Tennant Creek**	**21.80**	**116**	*e*P	P	05 17 29.7	+4.1
WRAB				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
WRAB	**Tennant Creek**	**21.80**	**116**	*e*P	P	05 17 29.7	+4.1
	comp=Z,9.9nm,0.6s,mb4.4						
NWAO	**Narrogin (SRO)**	**22.05**	**172**	P	P	05 17 33.8	+5.6
	comp=Z,6.3nm,0.8s,mb4.1,baz=355,slow=11,SNR=3.1						
ASAR	**Alice Springs**	**23.01**	**126**	P	P	05 17 40.0	+1.6
	comp=Z,4.9nm,0.8s,mb4.0,baz=306,slow=10,SNR=18						
ASAR				S	S	05 21 53.2	+5.8
	comp=Z,4.0nm,0.9s,baz=303,slow=24,SNR=7.2						
FORT	**Forrest**	**23.77**	**148**	*e*P	P	05 17 46.9	+1.0
	comp=Z,53nm,0.6s,mb5.2						
FORT	**Forrest**	**23.77**	**148**	*e*P	P	05 17 46.8	+0.9
	comp=Z,59nm,0.6s,mb5.2						
CMAR	**Chiang Mai Arr**	**32.70**	**333**	P	P	05 19 06.3	+0.5
	comp=Z,2.0nm,0.5s,mb4.3,baz=170,slow=8.3,SNR=15						
CMAR				PcP	PcP	05 21 52.7	+1.4
	comp=Z,0.5nm,0.3s,baz=113,slow=1.2,SNR=4.1						
STKA	**Stephens Creek**	**33.09**	**133**	P	P	05 19 11.4	+2.2
	comp=Z,3.5nm,0.7s,mb4.4,baz=296,slow=12,SNR=4.5						
STKA				LR	LR	05 33 07.5	
	comp=Z,187nm,19.5s,MS3.8,baz=251,slow=37						
NJ2	**Nanjing**	**43.12**	**6**	*e*P	P	05 20 32.4	-1.1
NJ2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.0						
XAN	**Xi'an**	**45.04**	**354**	P	P	05 20 47.8	-1.1
XAN				pP	pP	05 20 55.4	-2.2
XAN				sP	sP	05 20 59.8	-1.2
XAN				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.3						
XAN				pmax	pmax		
	comp=Z,100nm,8.0s						
ODAN	**Odare**	**45.48**	**326**	*e*P	P	05 20 52.5	-0.1
	comp=Z,36nm,1.0s,mb5.2						
TAPN	**Taplejung**	**45.70**	**327**	*e*P	P	05 20 54.8	+0.5
	comp=Z,44nm,1.2s,mb5.3						
LSA	**Lhasa**	**45.93**	**332**	*e*P	P	05 20 57.4	+1.3
LSA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
LSA	**Lhasa**	**45.93**	**332**	*e*P	P	05 20 57.4	+1.3
	comp=Z,5.9nm,0.8s,mb4.6						
RAMN	**Ramite**	**45.99**	**326**	*e*P	P	05 20 56.9	+0.3
JIRN	**Jiri**	**46.77**	**326**	*e*P	P	05 21 03.0	+0.3
	comp=Z,47nm,1.0s,mb5.4						
GUN	**Gumba**	**47.14**	**326**	*e*P	P	05 21 05.8	+0.2
PKI	**Pulchoki**	**47.14**	**325**	*e*P	P	05 21 05.2	-0.4
DMN	**Daman**	**47.34**	**325**	*e*P	P	05 21 06.9	-0.2
	comp=Z,48nm,1.0s,mb5.4						
KKN	**Kakani**	**47.38**	**325**	*e*P	P	05 21 07.4	-0.1
GKN	**Gorkha**	**47.90**	**325**	*e*P	P	05 21 11.3	-0.2
KOLN	**Koldanda**	**48.32**	**324**	*e*P	P	05 21 14.5	-0.3
	comp=Z,19nm,0.7s,mb5.2						
DANN	**Dangsing**	**48.67**	**324**	*e*P	P	05 21 17.1	-0.3
	comp=Z,41nm,1.0s,mb5.4						
KSRS	**Korea Array**	**50.04**	**15**	P	P	05 21 27.1	-0.6
	comp=Z,4.0nm,0.8s,mb4.5,baz=190,slow=7.6,SNR=12						
BJT	**Baijiatuau**	**50.83**	**2**	*e*P	P	05 21 33.4	-0.3
BJT				pmax	pmax		
	comp=Z,11nm,0.5s						
BJT	**Baijiatuau**	**50.83**	**2**	*e*P	P	05 21 33.4	-0.3
	comp=Z,10nm,0.5s,mb5.0						
BJI	**Beijing**	**50.85**	**2**	P	P	05 21 32.9	-0.9

BJI				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
GTA	Gaotai	51.80	346	eP	P	05 21 42.0	+1.0
GTA				pP	pP	05 21 46.8	-2.9
GTA				sP	sP	05 21 50.0	-3.1
GTA				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.1						
MAJO	Matsushiro	52.65	25	eP	P	05 21 45.8	-1.6
MAJO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MAJO	Matsushiro	52.65	25	eP	P	05 21 45.8	-1.6
	comp=Z,3.1nm,0.6s,mb4.4						
ULN	Ulaanbaatar	58.92	355	eP	P	05 22 32.2	+0.2
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
ULN	Ulaanbaatar	58.92	355	eP	P	05 22 32.2	+0.1
	comp=Z,3.8nm,0.8s,mb4.5						
SONM	Songino Array	58.95	354	P	P	05 22 32.3	0.0
	comp=Z,3.0nm,0.6s,mb4.5,baz=178,slow=8.3,SNR=32						
KSH	Kashi	61.27	327	eP	P	05 22 47.2	-1.2
KSH				ePP	PP	05 25 06.9	+3.2
KSH				ePcS	PcS	05 27 29.1	-4.4
KSH				eS	S	05 31 05.7	-1.1
KSH				eScS	ScS	05 32 28.1	-10
KSH				eSS	SS	05 35 11.2	+3.4
KSH				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
KSH				pmax	pmax		
	comp=Z,320nm,4.2s						
KSH				LR	LR		
	comp=N,240nm,11.8s,MS5.0						
KSH				LR	LR		
	comp=E,560nm,10.2s,MS5.0						
KSH				LR	LR		
	comp=Z,610nm,5.8s						
TLY	Talaya	63.04	353	eP	P	05 23 00.0	0.0
TLY				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
TKM2	Tokmak 2	63.97	330	eP	P	05 23 07.2	+0.9
TKM2				pmax	pmax		
	comp=Z,31nm,1.5s,mb5.1						
TKM2	Tokmak 2	63.97	330	P	P	05 23 07.3	+1.0
	SNR=5.5						
TKM2	Tokmak 2	63.97	330	eP	P	05 23 07.2	+0.9
	comp=Z,31nm,1.5s,mb5.1						
UCH	Uchtor	64.00	329	eP	P	05 23 08.0	+1.4
	comp=Z,16nm,1.5s,mb4.8						
MKAR	Makanchi Array	64.03	337	P	P	05 23 06.7	+0.1
	comp=Z,1.6nm,0.4s,mb4.4,baz=148,slow=7.6,SNR=41						
AAK	Ala-Archa	64.31	329	⇑eP	P	05 23 09.5	+1.0
AAK				pmax	pmax		
	comp=Z,9.0nm,1.5s,mb4.6						
AAK	Ala-Archa	64.31	329	P	P	05 23 09.7	+1.1
	SNR=6.5						
AAK	Ala-Archa	64.31	329	eP	P	05 23 09.6	+1.0
	comp=Z,5.4nm,0.8s,mb4.6						
AML	Almayashu	64.36	328	P	P	05 23 10.0	+1.1
	SNR=8.6						
AML	Almayashu	64.36	328	eP	P	05 23 10.0	+1.1
	comp=Z,11nm,0.7s,mb5.0						
EKS2	Erkin-Say	64.69	328	P	P	05 23 12.3	+1.3
	SNR=8.1						
EKS2	Erkin-Say	64.69	328	eP	P	05 23 12.5	+1.4
	comp=Z,32nm,1.4s,mb5.2						
USP	Ospenovka	64.77	329	P	P	05 23 11.9	+0.4
	SNR=5.4						
BOD	Bodaibo	68.59	0	eP	P	05 23 35.7	+0.1
BOD				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
KURK	Kurchatov	68.63	337	eP	P	05 23 36.1	+0.1
KURK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
KURK	Kurchatov	68.63	337	eP	P	05 23 36.1	+0.1
	comp=Z,8.3nm,1.0s,mb4.6						
ZALV	Zalesovo Beam	69.20	342	P	P	05 23 39.1	-0.4
	comp=Z,5.4nm,0.6s,mb4.7,baz=150,slow=4.4,SNR=18						
NVS	Novosibirsk	70.44	342	eP	P	05 23 37.2	-10
YAK	Yakutsk	73.89	8	eP	P	05 24 06.8	-0.8
YAK				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.8						
YAK				pmax	pmax		
	comp=N,10.0nm,1.2s						
RDF	Al-Radifah	75.10	304	eP	P	05 24 15.1	-0.3
RDF				AMb	AMB	05 24 16.4	
	comp=Z,18nm,1.3s,mb4.8						
NAY	Al-Naaiem	75.47	304	eP	P	05 24 17.2	-0.3
NAY				AMb	AMB	05 24 18.4	
	comp=Z,7.2nm,1.1s,mb4.5						
MIB	Mutribah	75.60	305	eP	P	05 24 17.3	-0.9
MIB				AMb	AMB	05 24 19.9	
	comp=Z,13nm,1.7s,mb4.6						
SEY	Seymchan	79.54	17	⇑eP	P	05 24 40.4	+0.9
ARU	Arti	81.13	333	d iP	P	05 24 48.3	+0.1
ARU				S	S	05 34 48.9	-7.1
ARU				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
TIXI	Tiksi	83.11	5	⇑eP	P	05 24 57.1	-1.2
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
BOSA	Boshof	83.43	242	LR	LR	05 56 39.4	
	comp=Z,76nm,19.7s,MS4.1,baz=232,slow=32						
KIV	Kislovodsk	84.28	317	eP	P	05 25 06.6	+1.8
KIV				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
BRTR	Keskin Array B	89.41	311	P	P	05 25 31.2	+1.2
	comp=Z,2.9nm,1.1s,mb4.5,baz=290,slow=3.6,SNR=6.4						
TORD	Torodi Ar. Bea	113.62	280	PKiKP	PKiKP	05 31 13.2	+0.9
	comp=Z,0.2nm,0.6s,baz=20,slow=1.2,SNR=4.6						
YKA	Yellowknife Ar	118.14	23	PKP	PKPdf	05 31 20.6	+1.0
	comp=Z,0.6nm,0.7s,baz=303,slow=1.9,SNR=10.0						

MAN 11 05:19:55,7°.28N×122°.14E,h3^{km},mb4.3,ML3.2,MS3.0, 1D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZMPH	Zamboanga City	0.33	193	⇓iP	Pg	05 20 02.1	+0.7
ZMPH				i S	Sg	05 20 04.7	-1.1
IPIL	Ipil	0.66	41	eP	Pg	05 20 08.0	+0.3
IPIL				eS	Sg	05 20 18.2	+1.8
PAGZ	Pagadian	1.36	65	eP	Pn	05 20 21.6	+0.7
PAGZ				eS	Sg	05 20 40.0	+1.3

IGQ 11 05:25:54.7,1°.66S×77°.66W,h219^{km}±2^{km},Mb4.2,Ms4.0, 8C-15D,Error ellipse: s-maj=3.7km s-min=2.3km az=48.3,Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULBA	Ulba	0.77	286	⇑S	S	05 26 47.1	-1.6
ULBA	Ulba	0.77	286	⇑P	Pn	05 26 26.1	+1.0
PATA	Patacocha	0.79	281	⇑S	S	05 26 48.1	-0.7
PATA	Patacocha	0.79	281	⇑P	Pn	05 26 26.3	+1.1
RUN5	Runtun	0.80	288	⇓P	Pn	05 26 26.2	+1.0
ARRY	Arrayan	0.81	281	⇑S	S	05 26 47.2	-1.8
ARRY	Arrayan	0.81	281	⇑P	Pn	05 26 26.0	+0.8
PISA	Pisayambo	0.94	310	⇑S	S	05 26 50.9	+0.5
PISA	Pisayambo	0.94	310	⇑P	Pn	05 26 27.2	+1.2
IGUA	Igualata	0.99	280	P	Pn	05 26 27.5	+1.2
TAMB	Tambo	1.19	324	⇓P	Pn	05 26 28.8	+1.1
COV1	Cotopaxi Volc	1.20	325	P	Pn	05 26 29.6	+1.9
MOV1	Cotopaxi Vol s	1.22	320	P	Pn	05 26 29.4	+1.5
VC1	Cotopaxi 1	1.25	324	⇓P	Pn	05 26 29.4	+1.2
CAMI	Rancho Maria	1.29	319	P	Pn	05 26 30.0	+1.6
NAS2	Nasa	1.29	321	P	Pn	05 26 30.0	+1.6
ANTI	Antisana	1.30	337	⇓S	S	05 26 55.5	+0.5
ANTI	Antisana	1.30	337	⇓P	Pn	05 26 29.7	+1.2
PITA	Cotopaxi Volc	1.34	325	P	Pn	05 26 29.9	+1.1
LAV3	Lava3-Reventad	1.55	1	⇓P	Pn	05 26 31.2	+0.7
CHAR	Charly	1.56	360	⇓P	Pn	05 26 31.6	+1.0
CONE	Cono NE Rev Vo	1.58	1	⇓P	Pn	05 26 31.5	+0.8
JUA2	San Juan 2	1.72	327	⇓P	Pn	05 26 33.1	+1.1
GGP	Refugio Guagua	1.75	328	⇓P	Pn	05 26 33.5	+1.3
CAYA	Cayambe	1.75	349	⇓P	Pn	05 26 34.0	+1.7
TERV	Terraza Guagua	1.75	327	P	Pn	05 26 33.6	+1.4
PINO	Pino	1.77	328	⇓P	Pn	05 26 33.7	+1.3
YANA	Yana	1.78	329	⇓P	Pn	05 26 33.8	+1.2
OTAV	Otavalo	2.04	337	⇓P	Pn	05 26 36.0	+0.9
COTA	Cotacachi	2.09	341	⇓P	Pn	05 26 37.2	+1.6
CHIS	Cerro-Chispas-	3.12	281	S	S	05 27 25.1	-2.5
CHIS	Cerro-Chispas-	3.12	281	P	Pn	05 26 47.0	+0.3

IDC 11 05:55:46.4±1.6,30°.36S×60°.42E,h0^{km},mb4.1/4, mb1 4.2/4,mb1mx3.7/24,mbtmp4.1/4,Error ellipse: s-maj=47.1km s-min=40.7km az=132.0,Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QSPA	South Pole Qui	59.80	180	P	P	06 05 53.2	+0.4
	2.2nm,0.6s,baz=218,slow=2.5,SNR=14						
ASAR	Alice Springs	64.78	104	P	P	06 06 27.2	+0.1
	1.2nm,0.7s,baz=244,slow=6.0,SNR=13						
WRA	Warramunga Arr	66.69	100	P	P	06 06 39.2	-0.2
	1.1nm,0.6s,baz=246,slow=5.6,SNR=8.1						
STKA	Stephens Creek	67.84	115	P	P	06 06 47.0	+0.5
	1.0nm,0.7s,baz=287,slow=11,SNR=3.3						
YKA	Yellowknife Ar	147.70	356	PKPbc	PKPbc	06 15 31.4	-0.7
	0.2nm,0.5s,baz=350,slow=3.0,SNR=12						

BJI ***11*** *06:26:57.6,26°.79N×54°.90E,h35^{km},mb4.4/3*
ISCJB ***11*** *06:27:03.0±0.3,27°.60N±0°.03×55°.30E±0°.03,h10^{km}, mb4.1/36,Error ellipse: s-maj=4.6km s-min=3.6km az=28.5*
IDC ***11*** *06:27:03.6±0.9,27°.68N×55°.45E,h0^{km},mb4.0/19, mb1 4.1/22,mb1mx4.0/32,mbtmp4.0/22,ML3.6/2,Error ellipse: s-maj=22.4km s-min=13.8km az=173.0*
NEIC ***11*** *06:27:05.0±1.1,27°.27N×55°.48E,h35^{km},mb4.3/10, MN4.0(TEH),Error ellipse: s-maj=18.4km s-min=11.3km az=162.0*
CSEM ***11*** *06:27:04.8±0.2,27°.54N×55°.36E,h15^{km},mb4.2/26,Error ellipse: s-maj=8.7km s-min=6.5km az=12.0*
THR ***11*** *06:27:05.1±0.7,27°.63N×55°.42E,h14^{km}±7^{km},ML3.7*
TEH ***11*** *06:27:06.7,27°.57N×55°.41E,h13^{km}*
MOS ***11*** *06:27:06.3±1.4,27°.74N×55°.29E,h33^{km},mb4.5/25,Error ellipse: s-maj=9.9km s-min=7.0km az=115.9*

ISC 11 06:27:04.8±0.3,27°.59N±0°.03×55°.37E±0°.03,h10^{km},n205, σ1^{s}46/223,mb4.1/36,3C,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDS	Bandar-Abbas	0.74	105	ePg	Pg	06 27 18.6	-0.4
BNDS				AML	AML	06 27 44.1	
	comp=N,3μm,0.6s						
BNDS	Bandar-Abbas	0.74	105	ePg	Pg	06 27 18.6	-0.4
IBND	Bandar-abas	1.05	97	ePn	Pn	06 27 26.2	+0.7
IBND				eSn	Sn	06 27 41.7	+1.5
IBND				e		06 28 36.5	
	comp=Z,59μm,0.5s						
IBND	Bandar-abas	1.05	97	ePn	Pn	06 27 26.2	+0.7
BANOM	Banah	1.85	153	Pn	Pn	06 27 37.2	+0.6
	SNR=10						
BANOM				Sn	Sn	06 28 02.3	+2.2
GHIR	Ghir-Karzin	2.22	289	ePg	Pg	06 27 45.8	-1.5
GHIR				AML	AML	06 28 25.3	
	comp=E,638nm,0.6s						
GHIR				AML	AML	06 28 27.6	
	comp=N,613nm,0.5s						
GHIR	Ghir-Karzin	2.22	289	ePg	Pg	06 27 45.8	-1.6
NAZ	Nazwa, Dubai	2.60	174	Pn	Pn	06 27 49.7	+2.8
ISRV	Sarvestan	2.67	313	Pn	Pn	06 27 51.2	+3.3
ISRV				Sn	Sn	06 28 22.4	+2.1
ISRV	Sarvestan	2.67	313	ePn	Pn	06 27 51.2	+3.3
ISRV				eSn	Sn	06 28 22.4	+2.1
ISRV				e		06 28 56.0	
	comp=Z,9μm,0.6s						
ISRV	Sarvestan	2.67	313	ePn	Pn	06 27 51.2	+3.3
ISRV				eSn	Sn	06 28 22.4	+2.1
KRBR	Kerman	2.68	27	ePn	Pn	06 27 49.6	+1.6
KRBR				eSg	Sg	06 28 27.3	-3.6
KRBR				AML	AML	06 28 39.6	
	comp=E,267nm,0.7s						
KRBR				AML	AML	06 28 40.1	
	comp=N,281nm,0.6s						
KRBR	Kerman	2.68	27	ePn	Pn	06 27 49.6	+1.6
IMOK	Mouk	2.75	302	Pn	Pn	06 27 51.9	+2.9
IMOK				Lg		06 28 33.8	
IMOK	Mouk	2.75	302	Pn	Pn	06 27 51.9	+2.9
IMOK				Lg		06 28 33.8	
HATD	Hatta, Dubai	2.83	166	Pn	Pn	06 27 51.8	+1.7
	SNR=7.1						
IPAR	Pars	3.03	318	Pn	Pn	06 27 54.8	+2.0
IPAR				Sn	Sn	06 28 30.3	+1.1
IPAR	Pars	3.03	318	ePn	Pn	06 27 54.8	+2.0
IPAR				eSn	Sn	06 28 30.3	+1.1
IPAR				e		06 29 02.5	
	comp=Z,5μm,0.4s						
IPAR	Pars	3.03	318	ePn	Pn	06 27 54.8	+2.0
IPAR				eSn	Sn	06 28 30.3	+1.1
IMEH	Mehriz	3.85	350	Pn	Pn	06 28 05.9	+1.9
IMEH				Sn	Sn	06 28 50.1	+0.8
IMEH	Mehriz	3.85	350	ePn	Pn	06 28 05.9	+1.9
IMEH				eSn	Sn	06 28 50.1	+0.8
IMEH				e		06 29 29.6	
	comp=Z,2μm,0.4s						
IMEH	Mehriz	3.85	350	ePn	Pn	06 28 05.9	+1.9
IMEH				eSn	Sn	06 28 50.1	+0.8
IBAF	Bafgh	3.99	2	Pn	Pn	06 28 07.2	+1.2
IBAF				Sn	Sn	06 28 53.1	+0.2
IBAF	Bafgh	3.99	2	eSn	Sn	06 28 52.5	-0.4
IBAF				ePn	Pn	06 28 07.3	+1.3
IBAF				e		06 29 34.8	
	comp=Z,1μm,0.6s						
IBAF	Bafgh	3.99	2	ePn	Pn	06 28 07.3	+1.3
IBAF				Sn	Sn	06 28 53.1	+0.2
ISAD	Sadrabad	4.55	342	Pn	Pn	06 28 17.6	+3.9
ISAD				Sn	Sn	06 29 06.3	-0.4
ISAD	Sadrabad	4.55	342	ePn	Pn	06 28 17.7	+4.0
ISAD				eSn	Sn	06 29 06.4	-0.3
ISAD				e		06 29 40.5	
	comp=Z,1μm,0.3s						
ISAD	Sadrabad	4.55	342	Pn	Pn	06 28 17.6	+3.9
ISAD				eSn	Sn	06 29 06.4	-0.3
ICHK	Chekchek	4.72	350	Pn	Pn	06 28 17.9	+1.9
ICHK	Chekchek	4.72	350	ePn	Pn	06 28 17.9	+1.9
ICHK				e		06 29 49.7	
	comp=Z,739nm,0.3s						
ICHK	Chekchek	4.72	350	ePn	Pn	06 28 17.9	+1.9
ZHSF	Zahedan	5.16	66	ePn	Pn	06 28 23.6	+1.4
ZHSF	Zahedan	5.16	66	ePn	Pn	06 28 23.3	+1.2
BTHS		5.39	230	P	Pn	06 28 24.8	-0.5
BTHS		5.39	230	P	Pn	06 28 24.8	-0.5
IGAR	Gharneh	5.60	330	ePn	Pn	06 28 29.6	+1.5
IGAR				e		06 29 38.9	
	comp=Z,1μm,0.2s						
BOQSS		5.63	254	P	Pn	06 28 28.3	-0.2
IZEF	Zefreh	5.91	334	Pn	Pn	06 28 32.9	+0.5
IZEF	Zefreh	5.91	334	ePn	Pn	06 28 32.9	+0.5
IZEF				e		06 28 36.4	
	comp=Z,278nm,0.2s						
IZEF	Zefreh	5.91	334	ePn	Pn	06 28 32.9	+0.5
IPIR	Pirpir	6.39	324	Pn	Pn	06 28 40.6	+1.6
IPIR	Pirpir	6.39	324	ePn	Pn	06 28 40.6	+1.6
IPIR				e		06 30 00.5	
	comp=Z,641nm,0.3s						
IPIR	Pirpir	6.39	324	ePn	Pn	06 28 40.6	+1.6
IDAH	Dahanechah	6.44	36	ePn	Pn	06 28 43.0	+3.3
IDAH				e		06 30 41.5	
	comp=N,343nm,0.4s						
IDAH	Dahanechah	6.44	36	ePn	Pn	06 28 43.0	+3.3
IKLH	Kolahrood	6.58	331	Pn	Pn	06 28 42.9	+1.3
IKLH	Kolahrood	6.58	331	ePn	Pn	06 28 43.0	+1.4
IKLH				e		06 30 09.0	
	comp=Z,234nm,0.2s						
IKLH	Kolahrood	6.58	331	Pn	Pn	06 28 42.9	+1.3
KFJS		6.60	277	P	Pn	06 28 41.0	-0.9
KFJS		6.60	277	P	Pn	06 28 41.0	-0.9
QRN	Al-Qurain	6.68	282	eP	Pn	06 28 43.3	+0.4
QRN	Al-Qurain	6.68	282	eP	Pn	06 28 43.3	+0.3
KBD	Kabd	6.95	285	eP	Pn	06 28 47.5	+0.8
KBD	Kabd	6.95	285	eP	Pn	06 28 47.5	+0.9
NAY	Al-Naaiem	7.35	285	eP	Pn	06 28 52.6	+0.5
NAY				AML	AML	06 30 17.5	
	comp=Z,15nm,0.9s						
NAY	Al-Naaiem	7.35	285	eP	Pn	06 28 52.6	+0.5
MIB	Mutribah	7.39	289	eP	Pn	06 28 53.3	+0.6
MIB				AML	AML	06 30 18.1	
	comp=Z,21nm,0.8s						
MIB	Mutribah	7.39	289	eP	Pn	06 28 53.3	+0.6
IVRN	Varamin	8.01	338	Pn	Pn	06 29 02.1	+0.8
IVRN	Varamin	8.01	338	ePn	Pn	06 29 02.2	+0.9
IVRN				e		06 29 24.3	
	comp=Z,139nm,0.3s						
IVRN	Varamin	8.01	338	ePn	Pn	06 29 02.2	+0.9
IKIA	Kiasar	8.71	351	Pn	Pn	06 29 12.5	+1.7
IKIA	Kiasar	8.71	351	ePn	Pn	06 29 12.5	+1.7
IKIA				e		06 29 25.8	
	comp=Z,73nm,0.3s						
IKIA	Kiasar	8.71	351	ePn	Pn	06 29 12.5	+1.7
LYLS		9.22	235	S	Sn	06 30 56.8	-4.9
IKOM	Komasi	9.41	316	Pn	Pn	06 29 21.0	+0.5
IKOM	Komasi	9.41	316	ePn	Pn	06 29 21.1	+0.6
IKOM	Komasi	9.41	316	ePn	Pn	06 29 21.1	+0.6
ASYS		9.79	272	S	Sn	06 31 10.0	-5.6
IVIS	Veis	10.06	316	Pn	Pn	06 29 28.3	-1.0
IVIS	Veis	10.06	316	ePn	Pn	06 29 28.3	-1.0
IVIS				e		06 29 43.1	
	comp=Z,214nm,0.2s						
IVIS	Veis	10.06	316	ePn	Pn	06 29 28.3	-1.0
IGHG	Ghaleghazi	10.11	314	Pn	Pn	06 29 30.1	+0.1
IGHG	Ghaleghazi	10.11	314	ePn	Pn	06 29 30.2	+0.2
IGHG				e		06 29 38.7	
	comp=Z,337nm,0.2s						
IGHG	Ghaleghazi	10.11	314	ePn	Pn	06 29 30.2	+0.2
GNI	Garni	15.31	328	⇑eP	Pn	06 30 46.4	+5.5
GNI				pmax	pmax		
	comp=Z,8.0nm,0.7s						
GNI	Garni	15.31	328	Pn	Pn	06 30 47.6	+6.7
	comp=Z,1.1nm,0.3s,baz=191,slow=3.4,SNR=6.0						
GNI	Garni	15.31	328	Pn	Pn	06 30 47.6	+6.7
GNI	Garni	15.31	328	eP	Pn	06 30 46.4	+5.5
	comp=Z,8.0nm,0.7s						
ASF	Jabal al Asfar	16.66	290	Pn	Pn	06 30 59.1	+0.7
	comp=Z,0.2nm,0.3s,baz=329,slow=11,SNR=3.7						
MALT	Malatya	17.76	311	eP	Pn	06 31 14.8	+2.6
MALT				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MALT	Malatya	17.76	311	ePn	Pn	06 31 14.8	+2.7
	comp=Z,5.5nm,0.9s						
MALT	Malatya	17.76	311	eP	Pn	06 31 14.8	+2.6
	comp=Z,5.0nm,0.9s						
EIL	Elat	18.05	281	P	Pn	06 31 17.6	+1.9
	comp=Z,0.3nm,0.3s,baz=131,slow=9.3,SNR=4.4						
EIL	Elat	18.05	281	P	Pn	06 31 17.6	+1.9
MMAI	Mount Meron Ar	18.06	292	P	Pn	06 31 16.2	+0.4
	baz=90,slow=8.6,SNR=3.9						
KIV	Kislovodsk	19.27	331	eP	Pn	06 31 31.3	+0.9
KIV				pmax	pmax		
	comp=Z,14nm,1.1s						
KIV	Kislovodsk	19.27	331	eP	Pn	06 31 31.3	+0.9
	comp=Z,14nm,1.1s						
KK31	Karatay Array	19.75	34	eP	Pn	06 31 35.4	-0.9
KK31				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KK31	Karatay Array	19.75	34	eP	Pn	06 31 35.4	-0.9
	comp=Z,1.0nm,0.3s						
KSH	Kashi	20.84	50	P	P	06 31 39.8	-6.8
KSH				epP		06 31 51.0	
KSH				ePP		06 31 57.1	
KSH				esP	sP	06 31 59.4	+8.7
KSH				eS	S	06 35 03.6	-35
KSH				esS	sS	06 35 21.0	-23
KSH				eSS		06 35 30.3	
KSH				eScP	ScP	06 39 33.2	+1.3
KSH				ePcS	PcS	06 39 40.3	+7.4
KSH				pmax	pmax		
	comp=Z,15nm,0.8s						
KSH				pmax	pmax		
	comp=Z,200nm,6.1s						
KSH				LR	LR		
	comp=N,360nm,6.9s						
KSH				LR	LR		
	comp=E,570nm,7.4s						
KSH				LR	LR		
	comp=Z,590nm,7.6s						
AAK	Ala-Archa	21.61	41	⇑eP	P	06 31 55.0	+0.1
AAK				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.0						
AAK	Ala-Archa	21.61	41	eP	P	06 31 55.0	+0.1
	comp=Z,10.0nm,1.4s,mb4.0						
BRTR	Keskin Array B	21.70	309	P	P	06 31 56.7	+0.8
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	21.70	309	P	P	06 31 56.7	+0.8
	comp=Z,1.6nm,0.6s,mb3.6						
BRTR	Keskin Array B	21.70	309	P	P	06 31 56.7	+0.8
	comp=Z,2.0nm,0.6s,mb3.7						
AB31	Akbulak array	21.92	8	P	P	06 31 56.7	-1.4
AB31				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.3						
AB31	Akbulak array	21.92	8	P	P	06 31 56.7	-1.4
	comp=Z,14nm,1.0s,mb4.3						
AKTK	Aktyubinsk	22.91	4	P	P	06 32 07.9	-0.7
AKTK	Aktyubinsk	22.91	4	P	P	06 32 07.9	-0.7
AKTO	Aktyubinsk	22.91	4	P	P	06 32 07.7	-0.9
AKTO				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb3.6						
AKTO	Aktyubinsk	22.91	4	P	P	06 32 07.9	-0.7
	comp=Z,9.3nm,1.0s,mb4.2,baz=210,slow=8.5,SNR=19						
VOSK	Vostochnaya	27.68	21	P	P	06 32 51.6	-1.1
VOSK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
VOSK	Vostochnaya	27.68	21	P	P	06 32 51.6	-1.1
	comp=Z,5.0nm,1.0s,mb4.1						
BVAR	Borovoye Array	27.75	20	P	P	06 32 52.7	-0.7
BVAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BVAR	Borovoye Array	27.75	20	P	P	06 32 52.7	-0.8
	comp=Z,3.9nm,0.8s,mb4.1,baz=201,slow=7.9,SNR=23						
BVAR	Borovoye Array	27.75	20	P	P	06 32 52.7	-0.7
	comp=Z,4.0nm,0.8s,mb4.1						
MK31	Makanchi Array	28.54	41	i P	P	06 32 59.6	-1.0
MK31				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
MK31	Makanchi Array	28.54	41	i P	P	06 32 59.6	-1.0
	comp=Z,2.0nm,0.6s,mb4.0						
MKAR	Makanchi Array	28.54	41	P	P	06 32 59.9	-0.7
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	28.54	41	P	P	06 32 59.9	-0.7
	comp=Z,2.1nm,0.7s,mb4.0,baz=228,slow=8.6,SNR=23						
KURK	Kurchatov	29.07	31	P	P	06 33 03.6	-1.6
	comp=Z,0.4nm,0.3s,mb3.7,baz=232,slow=8.8,SNR=3.2						
KURK	Kurchatov	29.07	31	P	P	06 33 03.7	-1.5
AKASG	Malin Array Be	30.44	326	P	P	06 33 16.0	-1.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	30.44	326	P	P	06 33 16.0	-1.3
	comp=Z,0.5nm,0.3s,mb3.7,baz=134,slow=8.3,SNR=5.1						
AKASG	Malin Array Be	30.44	326	P	P	06 33 16.0	-1.3
	comp=Z,1.0nm,0.3s,mb4.0						
ZALV	Zalesovo Beam	34.06	31	P	P	06 33 47.7	-1.4
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
ZALV	Zalesovo Beam	34.06	31	P	P	06 33 47.7	-1.3
	comp=Z,3.3nm,0.5s,mb4.5,baz=238,slow=9.9,SNR=12						
VRAC	Vranov	36.76	317	P	P	06 34 13.8	+1.5
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.4s						
VRAC	Vranov	36.76	317	P	P	06 34 13.8	+1.5
	comp=Z,2.2nm,0.4s,mb4.4,baz=110,slow=12,SNR=2.2						
VRAC	Vranov	36.76	317	P	P	06 34 13.8	+1.5
	comp=Z,2.0nm,0.4s,mb4.3						
GERES	GERESS Array B	38.39	315	P	P	06 34 27.0	+0.9
	comp=Z,0.2nm,0.2s,mb3.4,baz=98,slow=7.1,SNR=3.9						
GERES	GERESS Array B	38.39	315	P	P	06 34 27.0	+0.9
GTA	Gaotai	38.54	61	eP	P	06 34 27.7	+0.2
GTA				pP	pP	06 34 31.9	+1.3
GTA				sP	sP	06 34 35.3	+3.4
GTA				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
KHC	Kasperske Hory	38.55	315	eP	P	06 34 27.5	0.0
KHC	Kasperske Hory	38.55	315	eP	P	06 34 27.5	0.0
KEST	Kesra	39.71	294	P	P	06 34 39.1	+1.7
	comp=Z,1.3nm,0.7s,mb3.7,baz=292,slow=0.4,SNR=4.1						
PGF	Pioggiola	40.28	304	eP	P	06 34 39.8	-2.2
PGF	Pioggiola	40.28	304	eP	P	06 34 39.8	-2.2
LZH	Lanzhou	41.69	66	eP	P	06 35 01.5	+7.8
LZH				pP	pP	06 35 05.0	+8.2
LZH				sP	sP	06 35 07.2	+9.1
LZH				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.5						
LZH				pmax	pmax		
	comp=Z,81nm,4.5s						
MBDF	Montbardon	42.14	307	eP	P	06 34 54.7	-2.6
	comp=Z,18nm,1.1s,mb4.3						
MBDF	Montbardon	42.14	307	eP	P	06 34 54.7	-2.6

MBDF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.3						
MBDF	Montbardon	42.14	307	*e*P	P	06 34 54.7	-2.6
	comp=Z,8.8nm,1.1s,mb4.3						
MBDF	Montbardon	42.14	307	*e*P	P	06 34 54.7	-2.6
	comp=Z,8.8nm,1.1s,mb4.3						
LPG	La Plagne	42.26	308	*e*P	P	06 34 55.5	-2.7
	comp=Z,7.8nm,0.8s,mb4.1						
LPG	La Plagne	42.26	308	*e*P	P	06 34 55.5	-2.7
LPG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
LPG	La Plagne	42.26	308	*e*P	P	06 34 55.5	-2.7
	comp=Z,3.9nm,0.8s,mb4.1						
LPL	La Plagne	42.27	308	*e*P	P	06 34 55.9	-2.4
	comp=Z,6.0nm,0.7s,mb4.0						
LPL	La Plagne	42.27	308	*e*P	P	06 34 55.9	-2.4
LPL				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
LPL	La Plagne	42.27	308	*e*P	P	06 34 55.9	-2.4
	comp=Z,3.0nm,0.7s,mb4.0						
LPL	La Plagne	42.27	308	*e*P	P	06 34 55.9	-2.4
	comp=Z,3.0nm,0.7s,mb4.0						
ORIF	Oris-en-Rattie	42.79	307	*e*P	P	06 35 00.5	-2.1
	comp=Z,22nm,1.3s,mb4.4						
ORIF	Oris-en-Rattie	42.79	307	*e*P	P	06 35 00.5	-2.1
ORIF				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.4						
ORIF	Oris-en-Rattie	42.79	307	*e*P	P	06 35 00.5	-2.1
	comp=Z,11nm,1.3s,mb4.4						
ORIF	Oris-en-Rattie	42.79	307	*e*P	P	06 35 00.5	-2.1
	comp=Z,11nm,1.3s,mb4.4						
CABF	La Chapelle	42.87	310	*e*P	P	06 35 00.6	-2.6
	comp=Z,9.6nm,0.9s,mb4.2						
CABF	La Chapelle	42.87	310	*e*P	P	06 35 00.6	-2.6
CABF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
CABF	La Chapelle	42.87	310	*e*P	P	06 35 00.6	-2.6
	comp=Z,4.8nm,0.9s,mb4.2						
CABF	La Chapelle	42.87	310	*e*P	P	06 35 00.6	-2.6
	comp=Z,4.8nm,0.9s,mb4.2						
HFS	Hagfors	43.06	331	P	P	06 35 05.8	+1.3
HFS				pmax	pmax		
	comp=Z,2.0nm,0.6s						
HFS	Hagfors	43.06	331	P	P	06 35 05.8	+1.2
	comp=Z,2.1nm,0.6s,mb4.0,baz=139,slow=9.8,SNR=6.7						
HFS	Hagfors	43.06	331	P	P	06 35 05.8	+1.3
	comp=Z,2.0nm,0.6s,mb4.0						
VIVF	Saint-Julien-l	43.64	307	*e*P	P	06 35 07.0	-2.4
	comp=Z,3.9nm,0.7s,mb3.9						
VIVF	Saint-Julien-l	43.64	307	*e*P	P	06 35 07.0	-2.4
VIVF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
VIVF	Saint-Julien-l	43.64	307	*e*P	P	06 35 07.0	-2.4
	comp=Z,2.0nm,0.7s,mb4.0						
VIVF	Saint-Julien-l	43.64	307	*e*P	P	06 35 07.0	-2.4
	comp=Z,2.0nm,0.7s,mb4.0						
SONM	Songino Array	44.23	49	P	P	06 35 13.8	-0.3
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	44.23	49	P	P	06 35 13.8	-0.4
	comp=Z,0.9nm,0.8s,mb3.6,baz=264,slow=9.5,SNR=8.8						
SONM	Songino Array	44.23	49	P	P	06 35 13.8	-0.3
	comp=Z,1.0nm,0.8s,mb3.6						
SMF	Signal de Mont	44.41	310	*e*P	P	06 35 13.0	-2.6
	comp=Z,5.6nm,0.7s,mb4.1						
SMF	Signal de Mont	44.41	310	*e*P	P	06 35 13.0	-2.6
SMF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
SMF	Signal de Mont	44.41	310	*e*P	P	06 35 13.0	-2.6
	comp=Z,2.8nm,0.7s,mb4.1						
SMF	Signal de Mont	44.41	310	*e*P	P	06 35 13.0	-2.6
	comp=Z,2.8nm,0.7s,mb4.1						
LOR	Lormes	44.48	310	*e*P	P	06 35 13.5	-2.6
LOR	Lormes	44.48	310	*e*P	P	06 35 13.5	-2.6
NB2	NORSAR Subarra	44.57	331	P	P	06 35 17.0	+0.3
	comp=Z,1.0nm,0.6s,mb3.8,baz=116,slow=7.9						
NB2	NORSAR Subarra	44.57	331	P	P	06 35 17.0	+0.3
	comp=Z,1.0nm,0.6s,mb3.8,SNR=6.8						
NOA	NORSAR Array B	44.57	331	P	P	06 35 17.2	+0.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	44.57	331	P	P	06 35 17.2	+0.5
	comp=Z,1.5nm,0.7s,mb3.9,baz=118,slow=7.9,SNR=6.9						
NOA	NORSAR Array B	44.57	331	P	P	06 35 17.2	+0.5
NOA	NORSAR Array B	44.57	331	P	P	06 35 17.2	+0.5
	comp=Z,2.0nm,0.7s,mb4.1						
SSF	Saint Saulge	44.69	310	*e*P	P	06 35 15.7	-2.1
SSF	Saint Saulge	44.69	310	*e*P	P	06 35 15.7	-2.1
AVF	Avril sur Loir	44.76	310	*e*P	P	06 35 15.7	-2.7
AVF	Avril sur Loir	44.76	310	*e*P	P	06 35 15.7	-2.7
TCF	Toulx Ste Croi	45.50	309	*e*P	P	06 35 22.6	-1.7
	comp=Z,6.9nm,0.7s,mb4.3						
TCF	Toulx Ste Croi	45.50	309	*e*P	P	06 35 22.6	-1.7
TCF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
TCF	Toulx Ste Croi	45.50	309	*e*P	P	06 35 22.6	-1.7
	comp=Z,3.5nm,0.7s,mb4.3						
TCF	Toulx Ste Croi	45.50	309	*e*P	P	06 35 22.6	-1.7
	comp=Z,3.5nm,0.7s,mb4.3						
LFF	La Frestale	46.43	307	*e*P	P	06 35 29.0	-2.7
	comp=Z,12nm,0.7s,mb4.6						
LFF	La Frestale	46.43	307	*e*P	P	06 35 29.0	-2.7
LFF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
LFF	La Frestale	46.43	307	*e*P	P	06 35 29.0	-2.7
	comp=Z,5.8nm,0.7s,mb4.6						
LFF	La Frestale	46.43	307	*e*P	P	06 35 29.0	-2.7
	comp=Z,5.8nm,0.7s,mb4.6						
LDF	La Druitiere	47.29	312	*e*P	P	06 35 36.1	-2.2
LDF	La Druitiere	47.29	312	*e*P	P	06 35 36.1	-2.2
SGMF	Saint Gilles	48.88	311	*e*P	P	06 35 48.1	-2.5
SGMF	Saint Gilles	48.88	311	*e*P	P	06 35 48.1	-2.5
BOD	Bodaibo	50.48	36	*e*P	P	06 36 01.2	-1.4
BOD				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
BOD	Bodaibo	50.48	36	*e*P	P	06 36 01.2	-1.4
	comp=Z,5.0nm,0.9s,mb4.5						
TORD	Torodi Ar. Bea	51.95	265	P	P	06 36 13.4	-1.0
	comp=Z,4.4nm,0.8s,mb4.5,baz=62,slow=7.5,SNR=33						
DBIC	Dimbokro	60.60	262	P	P	06 37 16.3	+0.2
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
DBIC	Dimbokro	60.60	262	P	P	06 37 16.3	+0.2
	comp=Z,1.5nm,0.7s,mb4.2,baz=63,slow=12,SNR=4.3						
DBIC	Dimbokro	60.60	262	P	P	06 37 16.3	+0.2
	comp=Z,2.0nm,0.7s,mb4.4						
KSRS	Korea Array	60.61	61	P	P	06 37 14.2	-1.7
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
KSRS	Korea Array	60.61	61	P	P	06 37 14.2	-1.7
	comp=Z,1.8nm,0.8s,mb4.3,baz=278,slow=6.9,SNR=7.3						
KSRS	Korea Array	60.61	61	P	P	06 37 14.2	-1.7
	comp=Z,2.0nm,0.8s,mb4.3						
SEY	Seymchan	68.90	29⇑	*e*P	P	06 38 08.8	-0.6
SEY	Seymchan	68.90	29	*e*P	P	06 38 08.8	-0.6
BILL	Bilibino	72.08	22	*e*P	P	06 38 27.1	-1.7
BILL				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.4						
BILL				MLR	MLR		
	comp=Z,300nm,15.0s						
BILL	Bilibino	72.08	22	*e*P	P	06 38 27.1	-1.7
	comp=Z,300nm,15.0s						
WRA	Warramunga Arr	89.80	113	P	P	06 40 05.3	+1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	89.80	113	P	P	06 40 05.3	+1.3
	comp=Z,0.6nm,0.7s,mb4.0,baz=320,slow=4.2,SNR=4.5						
YKA	Yellowknife Ar	89.88	355	P	P	06 40 03.1	-0.6
	comp=Z,0.2nm,0.6s,mb3.7,baz=5.1,slow=5.2,SNR=7.2						
YKA	Yellowknife Ar	89.88	355	P	P	06 40 03.1	-0.5
ASAR	Alice Springs	91.27	116	P	P	06 40 13.0	+2.3
	comp=Z,0.3nm,0.6s,mb3.8,baz=300,slow=4.7,SNR=3.9						

ISCJB ***11*** *06:59:34.9±0.3, 49°.34N±0°.02×6°.66E±0°.03, h0*^{km}*, Error ellipse: s-maj=2.7km s-min=2.2km az=31.4*

CSEM ***11*** *06:59:36.1±0.1, 49°.35N×6°.71E, h2*^{km}*, ML2.7/16, Error ellipse: s-maj=2.8km s-min=2.3km az=119.0*

NEIC ***11*** *06:59:37.3, 49°.39N×6°.77E, h1*^{km}*, ML2.4(STR), ML2.7(LDG), After LDG.*

BGR ***11*** *06:59:37.6±0.3, 49°.35N×6°.80E, h1*^{km}*, ML2.0/3, Error ellipse: s-maj=4.4km s-min=3.3km az=67.0*

LDG ***11*** *06:59:37.3±0.1, 49°.39N×6°.77E, h1*^{km}*, Md2.7/3, Ml2.7/18, Error ellipse: s-maj=1.2km s-min=1.1km az=111.0*

ISC 11 06:59:36.0±0.3, **49°.35N**±0°.02×**6°.68E**±0°.03, **h0**^{km}**, n74,** σ**1**^{s}**.04**/134, **Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	Ruppelstein	0.42	35	*e*Pg	Pg	06 59 44.3	+0.2
	SNR=15						
RUP	Ruppelstein	0.42	35	Pg	Pg	06 59 44.2	+0.1
RUP				Sg	Sg	06 59 49.6	0.0
RUP	Ruppelstein	0.42	35	Pg	Pg	06 59 44.3	+0.2
	SNR=15						
RUP				Sg	Sg	06 59 49.6	0.0
WLF	Walferdange	0.47	312	*e*Pg	Pg	06 59 47.8	+2.9
	SNR=3.4						
WLF				*e*Sg	Sg	06 59 54.4	+3.5
	SNR=2.0						
WLF	Walferdange	0.47	312	*e*Pg	Pg	06 59 47.6	+2.8
WLF				*e*Sg	Sg	06 59 53.3	+2.4
WLF	Walferdange	0.47	312	*e*Pg	Pg	06 59 47.6	+2.7
WLF				*e*Sg	Sg	06 59 53.3	+2.4
ABH	Alteburg	0.77	46	*e*Pg	Pg	06 59 50.7	0.0
	SNR=4.7						
ABH	Alteburg	0.77	46	Pg	Pg	06 59 50.6	-0.1
ABH	Alteburg	0.77	46	Pg	Pg	06 59 50.7	0.0
	SNR=4.7						
LANF	Langenberg	0.83	117	*e*Pg	Pg	06 59 52.0	+0.2
	SNR=11						
LANF	Langenberg	0.83	117	Pg	Pg	06 59 51.6	-0.2
LANF				Sg	Sg	07 00 00.8	-1.6
LANF	Langenberg	0.83	117	Pg	Pg	06 59 52.0	+0.2
	SNR=11						
LANF				Sg	Sg	07 00 00.8	-1.6
KTD	Kalmit	0.92	92	*e*Pg	Pg	06 59 54.5	+1.0
	SNR=3.0						
KTD	Kalmit	0.92	92	Pg	Pg	06 59 54.5	+1.0
	SNR=3.0						
CDF	Champ du Feu	1.02	157	*e*Pg	Pg	06 59 56.5	+1.0
CDF				*e*Sg	Sg	07 00 10.4	+1.7
	22nm,0.2s						
CDF	Champ du Feu	1.02	157	*e*Pg	Pg	06 59 56.5	+1.0
CDF				*e*Sg	Sg	07 00 10.4	+1.7
	11nm,0.2s						
ECH	Echery	1.18	164	*e*Pg	Pg	06 59 59.8	+1.2
	SNR=7.1						
ECH	Echery	1.18	164	Pg	Pg	06 59 59.6	+1.0
ECH				Sg	Sg	07 00 14.7	+0.8
ECH	Echery	1.18	164	Pg	Pg	06 59 59.6	+1.0
ECH				Sg	Sg	07 00 14.7	+0.8
THEF	They Montfort	1.22	202	*e*Pg	Pg	07 00 00.9	+1.6
	SNR=6.2						
THEF	They Montfort	1.22	202	Pg	Pg	07 00 00.5	+1.2
THEF	They Montfort	1.22	202	Pg	Pg	07 00 00.5	+1.2
HAU	Haudompre	1.37	189	*e*Pg	Pg	07 00 03.5	+1.4
HAU				*e*Sg	Sg	07 00 21.9	+2.0
	23nm,0.3s						
HAU	Haudompre	1.37	189	*e*Pn	Pn	07 00 02.6	+0.3
HAU				*e*Pg	Pg	07 00 03.5	+1.4
HAU				*e*Sg	Sg	07 00 21.9	+2.0
HAU	Haudompre	1.37	189	*e*Pn	Pn	07 00 02.6	+0.3
HAU	Haudompre	1.37	189	*e*Pg	Pg	07 00 03.5	+1.4
HAU				*e*Sg	Sg	07 00 21.9	+2.0
	11nm,0.3s						
MEZF	Maizieres J’vi	1.37	232	*e*Pn	Pn	07 00 02.9	+0.6
MEZF				*e*Sn	Sn	07 00 21.4	+0.2
	14nm,0.3s						
MEZF	Maizieres J’vi	1.37	232	*e*Pn	Pn	07 00 02.9	+0.6
MEZF				*e*Sn	Sn	07 00 21.4	+0.2
	6.8nm,0.3s						
TOD	Tromm	1.41	79	*e*Pn	Pn	07 00 01.7	-1.1
	SNR=1.5						
TOD	Tromm	1.41	79	Pg	Pg	07 00 01.5	-1.4
TOD	Tromm	1.41	79	Pg	Pg	07 00 01.5	-1.4
TOD	Tromm	1.41	79	Pn	Pn	07 00 01.7	-1.1
	SNR=1.5						
GIVF	Givet	1.42	303	*e*Pn	Pn	07 00 03.3	+0.3
GIVF				*e*Sn	Sn	07 00 21.7	-0.7
	21nm,0.4s						
GIVF	Givet	1.42	303	*e*Pn	Pn	07 00 03.3	+0.3
GIVF				*e*Sn	Sn	07 00 21.7	-0.7
	10nm,0.4s						
TNS	Taunus Mts	1.44	52	*e*Pn	Pn	07 00 01.8	-1.4
	SNR=1.8						
TNS				*e*Pg	Pg	07 00 03.4	0.0
	SNR=3.6						
TNS				*e*Sg	Sg	07 00 21.9	-0.1
	SNR=3.7						
TNS	Taunus Mts	1.44	52	Pn	Pn	07 00 01.8	-1.4
	SNR=1.8						
HGN	Heimansgroeve	1.49	341	*e*Pg	Pg	07 00 05.2	+0.7
HGN				*e*Sg	Sg	07 00 24.5	+0.6
HGN	Heimansgroeve	1.49	341	*e*Pg	Pg	07 00 05.2	+0.7
HGN				*e*Sg	Sg	07 00 24.5	+0.6
BFO	Black Forest	1.49	133	*e*Pn	Pn	07 00 03.6	-0.4
	SNR=1.5						
BFO				*e*Sg	Sg	07 00 22.6	-1.3
	SNR=4.1						
BFO	Black Forest	1.49	133	*e*Pn	Pn	07 00 05.6	+1.6
BFO				*e*Sg	Sg	07 00 24.3	+0.4
BFO	Black Forest	1.49	133	Pn	Pn	07 00 03.6	-0.4
	SNR=1.5						
BFO				*e*Sg	Sg	07 00 24.3	+0.4
MOF	Molkenrain	1.53	169	*e*Pg	Pg	07 00 06.3	+1.0
	SNR=12						
MOF	Molkenrain	1.53	169	Pg	Pg	07 00 06.1	+0.8
MOF				Sg	Sg	07 00 25.9	+0.7
MOF	Molkenrain	1.53	169	Pg	Pg	07 00 06.3	+1.0
	SNR=12						
MOF				Sg	Sg	07 00 25.9	+0.7
HINF	Hinteralfeld	1.54	176	*e*Pg	Pg	07 00 06.3	+0.8
HINF				*e*Sn	Sn	07 00 24.6	-0.8
	34nm,0.3s						
HINF	Hinteralfeld	1.54	176	*e*Pn	Pn	07 00 05.3	+0.6
HINF				*e*Pg	Pg	07 00 06.3	+0.8
HINF				*e*Sn	Sn	07 00 24.6	-0.8
HINF	Hinteralfeld	1.54	176	*e*Pn	Pn	07 00 05.3	+0.6
HINF	Hinteralfeld	1.54	176	*e*Pg	Pg	07 00 06.3	+0.8
HINF				*e*Sn	Sn	07 00 24.6	-0.8
	17nm,0.3s						
FELD	Feldberg im Sc	1.72	149	*e*Pg	Pg	07 00 09.3	+0.4
	SNR=2.5						
FELD	Feldberg im Sc	1.72	149	Pg	Pg	07 00 09.3	+0.4
	SNR=2.5						
BAIF	Baives	1.76	295	*e*Pn	Pn	07 00 07.7	+0.1
BAIF				*e*Sn	Sn	07 00 29.7	-0.9
	9.0nm,0.4s						
BAIF	Baives	1.76	295	*e*Pn	Pn	07 00 07.7	+0.1
BAIF				*e*Sn	Sn	07 00 29.7	-0.9
	4.5nm,0.4s						
CABF	La Chapelle	2.77	189	*e*Pn	Pn	07 00 21.3	-0.3
CABF				*e*Sn	Sn	07 00 54.1	-1.6
	12nm,0.7s						
CABF	La Chapelle	2.77	189	*e*Pn	Pn	07 00 21.3	-0.3
CABF				*e*Sn	Sn	07 00 54.1	-1.6
	6.2nm,0.7s						
LOR	Lormes	2.81	223	*e*Pn	Pn	07 00 22.2	+0.1
LOR				*e*Sn	Sn	07 00 55.6	-1.1
LOR				*e*Sg	Sg	07 01 07.7	+1.4
	3.9nm,0.3s						
LOR	Lormes	2.81	223	*e*Pn	Pn	07 00 22.2	+0.1
LOR				*e*Sn	Sn	07 00 55.6	-1.1
LOR				*e*Sg	Sg	07 01 07.7	+1.4
	2.0nm,0.3s						
SSF	Saint Saulge	3.13	224	*e*Pn	Pn	07 00 26.3	-0.1
SSF				*e*Sn	Sn	07 01 03.4	-1.1
SSF				*e*Sg	Sg	07 01 17.5	+1.1
	3.8nm,0.3s						
SSF	Saint Saulge	3.13	224	*e*Pn	Pn	07 00 26.3	-0.1
SSF				*e*Sn	Sn	07 01 03.4	-1.1
SSF				*e*Sg	Sg	07 01 17.5	+1.1
	1.9nm,0.3s						
SMF	Signal de Mont	3.31	216	*e*Pn	Pn	07 00 28.7	-0.3
SMF				*e*Sn	Sn	07 01 07.8	-1.3
	4.2nm,0.4s						
SMF	Signal de Mont	3.31	216	*e*Pn	Pn	07 00 28.7	-0.3
SMF				*e*Sn	Sn	07 01 07.8	-1.3
	2.1nm,0.4s						
AVF	Avril sur Loir	3.40	222	*e*Pn	Pn	07 00 29.9	-0.3
AVF				*e*Sn	Sn	07 01 09.8	-1.4
	1.6nm,0.3s						
AVF	Avril sur Loir	3.40	222	*e*Pn	Pn	07 00 29.9	-0.3
AVF				*e*Sn	Sn	07 01 09.8	-1.4
	0.8nm,0.3s						
HYF	Humbligny	3.41	234	*e*Pn	Pn	07 00 30.3	-0.1
HYF				*e*Sn	Sn	07 01 10.1	-1.4
	40nm,0.4s						
HYF	Humbligny	3.41	234	*e*Pn	Pn	07 00 30.3	-0.1
HYF				*e*Sn	Sn	07 01 10.1	-1.4
	20nm,0.4s						
BGF	Bois d’Agland	3.81	224	*e*Pn	Pn	07 00 35.2	-0.6
BGF				*e*Sn	Sn	07 01 19.8	-1.4
BGF				*e*Sg	Sg	07 01 38.9	+0.8
	11nm,0.5s						
BGF	Bois d’Agland	3.81	224	*e*Pn	Pn	07 00 35.2	-0.6
BGF				*e*Sn	Sn	07 01 19.8	-1.4
BGF				*e*Sg	Sg	07 01 38.9	+0.8
	5.7nm,0.5s						
LPL	La Plagne	3.84	179	*e*Pn	Pn	07 00 36.2	0.0
LPL				*e*Sn	Sn	07 01 19.8	-2.2
	5.3nm,0.7s						
LPL	La Plagne	3.84	179	*e*Pn	Pn	07 00 36.2	0.0
LPL				*e*Sn	Sn	07 01 19.8	-2.2
	2.7nm,0.7s						
LPG	La Plagne	3.86	179	*e*Pn	Pn	07 00 36.9	+0.4
LPG				*e*Sn	Sn	07 01 20.0	-2.5
	3.4nm,0.7s						
LPG	La Plagne	3.86	179	*e*Pn	Pn	07 00 36.9	+0.4
LPG				*e*Sn	Sn	07 01 20.0	-2.5
	1.7nm,0.7s						
TCF	Toulx Ste Croi	4.30	226	*e*Pn	Pn	07 00 42.9	+0.3
TCF				*e*Sn	Sn	07 01 31.6	-1.8
	0.8nm,0.3s						
TCF	Toulx Ste Croi	4.30	226	*e*Pn	Pn	07 00 42.9	+0.3
TCF				*e*Sn	Sn	07 01 31.6	-1.8
	0.4nm,0.3s						
GEC2	GERESS Array S	4.64	94	*e*Pn	Pn	07 00 47.2	0.0
	SNR=5.0						
GEC2	GERESS Array S	4.64	94	Pn	Pn	07 00 47.2	0.0
	SNR=5.0						

BJI ***11*** *07:00:19.4, 52°.80N×166°.70W, h30*^{km}*, mB5.1/3, mb4.6/6*

IDC ***11*** *07:00:19.4±0.7, 52°.99N×166°.79W, h0*^{km}*, mb4.0/20, mb1 4.2/20, mb1mx4.1/26, mbtmp4.0/20, MS3.7/5, Ms1 3.7/5, ms1mx3.3/34, Error ellipse: s-maj=23.1km s-min=13.0km az=178.0*

ISCJB ***11*** *07:00:22.6±1.8, 52°.80N±0°.06×166°.74W±0°.07, h33*^{km}*±11*^{km}*, mb4.3/42, MS3.6/5, Error ellipse: s-maj=11.4km s-min=6.2km az=153.5*

NEIC ***11*** *07:00:23.5±2.3, 52°.82N×166°.71W, h30*^{km}*±15*^{km}*, mb4.7/8, Error ellipse: s-maj=12.3km s-min=6.5km az=165.0*

MOS ***11*** *07:00:23.0±1.3, 53°.08N×166°.69W, h33*^{km}*, mb5.0/6, Error ellipse: s-maj=17.5km s-min=10.7km az=96.5*

ISC 11 07:00:23.7±1.7, **52°.83N**±0°.06×**166°.73W**±0°.07, **h31**^{km}±11^{km}**, n92,** σ**0**^{s}**.97**/95, **mb4.3**/42, **MS3.6**/5, **4C-1D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKFG	Magazine Ridge	0.92	310	P	Pn	07 00 39.3	-1.2
OKFG				S	Sb	07 00 54.3	+1.2
NIKO	Nikolski	1.30	277	P	Pn	07 00 44.1	-1.6
AKLV	Akutan Long Va	1.42	19	P	Pn	07 00 45.9	-1.3
AKUT	Akutan	1.43	23	*e*Pn	Pn	07 00 46.1	-1.3
AKUT				*e*Pg	Pn	07 00 50.0	+2.6
AKUT				S	Sn	07 01 05.9	+0.7
AKUT				*e*Sg	Sn	07 01 08.7	+3.5
AKA	Akutan	1.43	23	P	Pn	07 00 46.3	-1.2
AKA				S	Sn	07 01 05.8	+0.6
AKGG	Akutan Green G	1.44	17	P	Pn	07 00 46.6	-1.0
FALS	False Pass	2.83	43	*e*Pn	Pn	07 01 07.8	+1.1
FALS				*e*Pg	Pn	07 01 16.3	+10
FALS				*e*Sg	Sn	07 01 50.2	+11
SDPT	Sand Point	4.46	53	*e*Pn	Pn	07 01 28.8	-0.3
SDPT				*e*Sg	Sx	07 02 42.4	
SDPT	Sand Point	4.46	53	*e*Pg	Px	07 01 44.3	
ATKA	Atka Island	4.61	265	P	Pn	07 01 31.6	+0.6
SPIA	Saint Paul Isl	4.81	336	P	Pn	07 01 35.2	+1.4
KDAK	Kodiak Island	9.46	53	Pn	Pn	07 02 35.3	-2.3
	0.6nm,0.3s,baz=201,slow=10,SNR=6.7						
KDAK				Sn	Sn	07 04 17.6	-5.3
	0.3nm,0.3s,baz=138,slow=20,SNR=3.6						
GAMB	Gambell	11.28	349	*e*Pn	Pn	07 03 05.2	+2.7
	17nm,0.8s						
TNA	Tin City	12.79	358	*e*Pn	Pn	07 03 25.2	+2.1
	8.9nm,0.7s						
BILL	Bilibino	19.98	330⇑	*i*P	Pn	07 04 52.5	-2.4
BILL				pmax	pmax		
	comp=Z,5.0nm,1.5s						
DLBC	Dease Lake	21.26	60	P	P	07 05 11.2	+4.2
	comp=Z,2.0nm,0.5s,mb3.7,baz=210,slow=19,SNR=2.7						
DLBC				LR	LR	07 12 51.3	
	comp=Z,191nm,21.4s,MS3.5,baz=290,slow=35						
PETK	Petropavlovsk-	21.30	285	P	P	07 05 07.9	+0.4
	comp=Z,3.9nm,0.5s,mb4.0,baz=81,slow=13,SNR=27						
BBB	Bella Bella	23.33	76	LR	LR	07 14 04.3	
	comp=Z,193nm,18.5s,MS3.6,baz=324,slow=35						
SEY	Seymchan	23.56	311⇑	*e*P	P	07 05 30.5	-0.7
YKA	Yellowknife Ar	28.72	50	P	P	07 06 17.8	+0.1
	comp=Z,0.4nm,0.6s,mb3.4,baz=276,slow=8.3,SNR=11						
YKA				PcP	PcP	07 09 27.4	+0.2
	comp=Z,0.5nm,0.7s,baz=284,slow=2.4,SNR=6.7						
YKA				LR	LR	07 18 31.6	
	comp=Z,146nm,18.0s,MS3.6,baz=70,slow=38						
YKA	Yellowknife Ar	28.72	50	P	P	07 06 17.8	+0.1
YKA				PcP	PcP	07 09 27.4	+0.2
YBH	Yreka Blue Hor	31.38	93	P	P	07 06 43.0	+1.6
	comp=Z,1.4nm,1.0s,mb3.8,baz=299,slow=14,SNR=2.2						
RES	Resolute Bay	35.26	26	P	P	07 07 13.3	-1.6
	comp=Z,0.7nm,0.5s,mb3.8,baz=271,slow=9.1,SNR=8.5						
NVAR	Mina Array Bea	36.07	94	P	P	07 07 23.7	+1.4
	comp=Z,1.4nm,0.8s,mb3.9,baz=301,slow=9.3,SNR=7.4						
NVAR	Mina Array Bea	36.07	94	P	P	07 07 23.7	+1.4
PDAR	Pinedale Array	38.74	81	P	P	07 07 45.0	+0.2
	comp=Z,1.1nm,1.0s,mb3.5,baz=298,slow=3.2,SNR=5.0						
MJAR	Matsushiro Arr	41.32	269	P	P	07 08 06.6	+0.3
	comp=Z,2.2nm,0.6s,mb4.0,baz=40,slow=7.6,SNR=6.7						
MAJO	Matsushiro	41.32	269	*e*P	P	07 08 07.3	+1.0
MAJO				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.5						
MAJO	Matsushiro	41.32	269	*e*P	P	07 08 07.3	+1.0
	comp=Z,12nm,0.9s,mb4.5						
MDJ	Mudanjiang	41.54	285	P	P	07 08 06.6	-1.4
MDJ				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,44nm,3.2s						
BOD	Bodaibo	42.95	309	*e*P	P	07 08 17.3	-2.0
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
KSRS	Korea Array	46.94	278	P	P	07 08 51.8	+0.5
	comp=Z,2.7nm,0.9s,mb4.2,baz=54,slow=8.9,SNR=5.6						
KSRS				LR	LR	07 28 13.4	
	comp=Z,39nm,18.9s,MS3.4,baz=5.0,slow=36						
SUMG	Summit	49.86	18	*e*P	P	07 09 13.5	+0.2
	comp=Z,8.2nm,0.8s,mb4.8						
TXAR	Lajitas Array	51.14	91	P	P	07 09 23.7	+0.2
	comp=Z,0.5nm,0.6s,mb3.6,baz=304,slow=6.0,SNR=10						
TXAR	Lajitas Array	51.14	91	P	P	07 09 23.7	+0.2
ULN	Ulaanbaatar	52.08	302	*e*P	P	07 09 29.7	-0.6
ULN				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
ULN	Ulaanbaatar	52.08	302	*e*P	P	07 09 29.7	-0.5
	comp=Z,1.9nm,0.5s,mb4.3						
SONM	Songino Array	52.44	302	P	P	07 09 32.5	-0.4
	comp=Z,0.6nm,0.6s,mb3.7,baz=86,slow=4.0,SNR=6.4						
SONM				PcP	PcP	07 10 44.2	+0.9
	comp=Z,0.4nm,0.5s,baz=67,slow=3.2,SNR=3.4						
SCHQ	Schefferville	53.99	45	P	P	07 09 44.2	0.0
	comp=Z,5.4nm,1.1s,mb4.4,baz=294,slow=10.0,SNR=3.5						
SCHQ				LR	LR	07 32 21.6	
	comp=Z,112nm,18.2s,MS4.0,baz=352,slow=36						
SCHQ	Schefferville	53.99	45	P	P	07 09 44.2	-0.1
ARCES	ARCESS Array B	57.62	355	P	P	07 10 09.5	-0.5
	comp=Z,3.7nm,0.8s,mb4.4,baz=8.9,slow=6.4,SNR=3.0						
MKAR	Makanchi Array	64.64	315	P	P	07 10 56.9	-1.1
	comp=Z,1.0nm,0.9s,mb3.8,baz=39,slow=4.1,SNR=8.9						
CD2	Chengdu	65.75	290	P	P	07 11 05.7	+0.3
CD2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
CD2				pmax	pmax		
	comp=Z,160nm,6.1s						
NB2	NORSAR Subarra	66.47	1	P	P	07 11 08.2	-1.3
	comp=Z,2.9nm,0.8s,mb4.4,baz=0.5,slow=6.5						
NOA	NORSAR Array B	66.47	1	P	P	07 11 08.8	-0.7
	comp=Z,2.0nm,0.9s,mb4.1,baz=360,slow=6.3,SNR=3.9						
NOA	NORSAR Array B	66.47	1	P	P	07 11 08.8	-0.7
AAK	Ala-Archa	71.29	317⇑	*e*P	P	07 11 39.9	+0.1
AAK				pmax	pmax		
	comp=Z,3.0nm,1.7s,mb4.0						

AAK	Ala-Archa	71.29	317	*e*P	P	07 11 40.0	+0.2
	comp=Z,7.4nm,1.5s,mb4.4						
LSA	Lhasa	73.69	298	*e*P	P	07 11 56.1	+1.8
LSA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
LSA	Lhasa	73.69	298	*e*P	P	07 11 56.1	+1.8
	comp=Z,10nm,1.0s,mb4.7						
AKASG	Malin Array Be	75.97	350	P	P	07 12 05.8	-1.3
	comp=Z,4.3nm,0.5s,mb4.6,baz=12,slow=5.8,SNR=17						
BAIF	Baives	77.20	6	*e*P	P	07 12 14.0	-0.1
TAPN	Taplejung	77.38	299	*e*P	P	07 12 15.6	+0.1
	comp=Z,9.2nm,0.7s,mb4.8						
KWP	Kalwaria Pacla	77.61	354	⇓*i*P	P	07 12 16.6	+0.2
GUN	Gumba	77.90	300	*e*P	P	07 12 19.0	+0.6
	comp=Z,10nm,0.4s,mb5.1						
STHS	Stebnicka Huta	77.91	355	*e*P	P	07 12 19.0	+0.9
JIRN	Jiri	77.94	300	*e*P	P	07 12 19.2	+0.6
	comp=Z,9.7nm,0.6s,mb4.9						
CMAR	Chiang Mai Arr	78.08	285	P	P	07 12 19.1	-0.4
	comp=Z,0.9nm,0.4s,mb4.1,baz=27,slow=4.6,SNR=5.9						
RAMN	Ramite	78.29	299	*e*P	P	07 12 20.6	0.0
KOLS	Kolonicke sedl	78.33	354	*e*P	P	07 12 16.6	-3.8
PKI	Pulchoki	78.42	300	*e*P	P	07 12 21.2	-0.1
GKN	Gorkha	78.48	301	*e*P	P	07 12 21.5	-0.1
DMN	Daman	78.55	301	*e*P	P	07 12 22.4	+0.4
	comp=Z,6.2nm,0.5s,mb4.8						
DANN	Dangsing	78.65	302	*e*P	P	07 12 23.1	+0.6
	comp=Z,34nm,0.7s,mb5.4						
GERES	GERESS Array B	78.70	360	P	P	07 12 22.7	+0.2
	comp=Z,0.9nm,0.7s,mb3.8,baz=26,slow=3.4,SNR=6.2						
VYHS	Vyhne	78.95	356	*e*P	P	07 12 23.7	-0.1
KOLN	Koldanda	79.20	302	*e*P	P	07 12 25.6	0.0
BURAR	Bucovina Array	79.42	352	⇑*i*P	P	07 12 26.1	-0.3
LOR	Lormes	79.96	6	*e*P	P	07 12 29.3	0.0
SSF	Saint Saulge	80.14	7	*e*P	P	07 12 30.2	-0.1
MFF	Saint Martin d	80.29	9	*e*P	P	07 12 31.2	+0.1
	comp=Z,23nm,1.1s,mb4.7						
MFF	Saint Martin d	80.29	9	*e*P	P	07 12 31.2	+0.1
MFF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
MFF	Saint Martin d	80.29	9	*e*P	P	07 12 31.2	+0.1
	comp=Z,11nm,1.0s,mb4.8						
AVF	Avril sur Loir	80.40	7	*e*P	P	07 12 31.6	-0.1
	comp=Z,5.7nm,0.7s,mb4.3						
SMF	Signal de Mont	80.58	7	*e*P	P	07 12 32.6	-0.1
	comp=Z,12nm,0.8s,mb4.6						
SMF	Signal de Mont	80.58	7	*e*P	P	07 12 32.6	-0.1
SMF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
SMF	Signal de Mont	80.58	7	*e*P	P	07 12 32.6	-0.1
	comp=Z,6.1nm,0.8s,mb4.6						
BGF	Bois d'Agland	80.59	7	*e*P	P	07 12 32.8	0.0
CABF	La Chapelle	80.75	5	*e*P	P	07 12 34.2	+0.6
	comp=Z,6.5nm,0.7s,mb4.3						
TCF	Toulx Ste Croi	80.81	8	*e*P	P	07 12 33.9	0.0
	comp=Z,9.4nm,1.0s,mb4.4						
LFF	La Frestale	82.02	9	*e*P	P	07 12 40.6	+0.2
	comp=Z,36nm,1.2s,mb4.9						
LFF	La Frestale	82.02	9	*e*P	P	07 12 40.6	+0.2
LFF				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
LFF	La Frestale	82.02	9	*e*P	P	07 12 40.6	+0.2
	comp=Z,18nm,1.2s,mb4.9						
CAF	Calviac	82.15	8	*e*P	P	07 12 41.3	+0.2
	comp=Z,19nm,1.0s,mb4.7						
MTLF	Montolieu	83.74	8	*e*P	P	07 12 49.9	+0.6
BRTR	Keskin Array B	86.14	344	P	P	07 13 02.3	+0.8
	comp=Z,3.3nm,0.9s,mb4.6						
WRA	Warramunga Arr	88.56	234	P	P	07 13 13.4	+0.2
	comp=Z,0.6nm,0.7s,mb4.0,baz=32,slow=6.4,SNR=3.7						
ASAR	Alice Springs	91.94	232	P	P	07 13 29.4	+0.6
	comp=Z,0.4nm,0.7s,mb3.8,baz=35,slow=5.1,SNR=3.9						
STKA	Stephens Creek	95.60	222	P	P	07 13 42.5	-3.1
	comp=Z,0.9nm,0.6s,mb4.4,baz=315,slow=4.3,SNR=3.1						
TSUM	Tsumeb	146.27	353	PKPbc	PKPbc	07 20 01.8	+0.8
	comp=Z,1.0nm,0.3s,baz=346,slow=3.5,SNR=4.4						
LBTB	Lobatse	150.70	337	PKPbc	PKPbc	07 20 08.5	-3.9
	comp=Z,3.2nm,1.0s,baz=304,slow=7.3,SNR=2.1						
LBTB				PKPab	PKPab	07 20 19.5	+0.1
	comp=Z,4.7nm,0.9s,baz=47,slow=3.9,SNR=4.2						
LBTB	Lobatse	150.70	337	PKPbc	PKPbc	07 20 08.5	-3.9
LBTB				PKPab	PKPab	07 20 19.5	+0.1

ISCJB ***11*** *07:00:37.5±0.4, 59°.82S±0°.06×58°.6W±0°.1, h10^{km}, mb4.5/17, MS4.3/13, Error ellipse: s-maj=12.2km s-min=7.2km az=144.6*

IDC ***11*** *07:00:37.7±0.7, 59°.86S×58°.37W, h0^{km}, mb4.3/13, mb1 4.4/15, mb1mx4.3/22, mbtmp4.3/15, ML5.1/2, MS4.3/15, Ms1 4.3/15, ms1mx4.3/16, Error ellipse: s-maj=24.9km s-min=15.8km az=54.0*

NEIC ***11*** *07:00:39.2±0.3, 59°.90S×58°.39W, h10^{km}, mb4.9/2, Error ellipse: s-maj=8.7km s-min=5.7km az=62.0*

GCMT ***11*** *07:00:39.2±0.2, 59°.92S×58°.49W, h15^{km}±1^{km}, MW5.2/74, Moment Tensor Solution. s49,c70; s74,c117; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.91±.17; $M_{\theta\theta}$6.61±.19; $M_{\phi\phi}$-5.70±.19; $M_{r\theta}$-1.01±.28; $M_{\theta\phi}$1.02±.15; $M_{\phi r}$2.68±.43; Best double couple: $M_0$6.90700×10^{16} NP1:ϕ_s223.00000°,δ68.00000°,λ-167.00000°. NP2: ϕ_s128.00000°,δ78.00000°,λ-22.00000°. Principal axes: T 6.7810, Plg6.0000°, Azm177.0000°; N 0.2510, Plg65.0000°, Azm280.0000°; P -7.0320, Plg24.0000°, Azm84.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***11*** *07:00:45.2, 59°.90S×58°.40W, h10^{km}*

ISC 11 07:00:39.3±0.4**, 59°.86S**±0°.06×**58°.6W**±0°.1**, h10**^{km}**, n56, σ0**^{s}**.98**/33**, mb4.5**/16**, MS4.3**/13**, Scotia Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	Palmer Station	5.56	205	Pn	Pn	07 02 01.6	-0.3
	37nm,0.3s,baz=25,slow=13,SNR=29						
PMSA				Sn	Sn	07 02 59.6	-6.1
	22nm,0.3s,baz=230,slow=16,SNR=3.9						
PMSA				LR	LR	07 03 55.4	
	comp=Z,4µm,19.2s,baz=138,slow=35						
PMSA	Palmer Station	5.56	205	*e*Pn	Pn	07 02 01.6	-0.3
PMSA				Sn	Sn	07 02 59.6	-6.1
PMSA				*e*Sn	Sn	07 03 02.4	-3.3
PMSA				LR	LR	07 03 55.4	
USHA	Ushuaia	7.34	309	Pn	Pn	07 02 27.4	+1.0
	4.0nm,0.3s,baz=98,slow=11,SNR=21						
USHA				Sn	Sn	07 03 48.0	-1.6
	6.3nm,0.3s,baz=236,slow=11,SNR=7.4						
USHA				LR	LR	07 04 19.1	
	comp=Z,2µm,18.5s,baz=108,slow=30						
EFI	East Falkland	8.21	2	*e*Pn	Pn	07 02 38.9	+0.6
	117nm,0.4s						
EFI				*e*Sn	Sn	07 04 07.6	-3.4
COYC	Coyhaique	16.43	325	*e*P	Pn	07 04 31.2	+1.4
COYC	Coyhaique	16.43	325	*e*P	Pn	07 04 31.2	+1.4
PLCA	Paso Flores	20.56	333	P	P	07 05 19.1	+1.2
	5.9nm,0.9s,baz=158,slow=12,SNR=5.8						
PLCA				LR	LR	07 12 49.3	
	comp=Z,587nm,20.5s,MS3.9,baz=161,slow=36						
VNA3	Neumayer Olymp	22.45	140	*e*	P	07 05 38.3	+0.4
VNA3				*e*		07 06 43.4	
VNA2	Neumayer--Watz	23.17	139	*e*	P	07 05 46.8	+1.3
	baz=268,slow=14						
VNA2				*e*		07 06 44.8	
FCH	Farellones	27.65	338	*e*P	P	07 06 25.8	-1.1
CFAA	Coronel Fontan	28.99	343	P	P	07 06 37.8	-1.1
	0.4nm,0.4s,mb3.5,baz=165,slow=9.5,SNR=15						
CFAA				LR	LR	07 17 49.3	
	comp=Z,67nm,18.6s,MS3.3,baz=162,slow=36						
QSPA	South Pole Qui	30.38	180	LR	LR	07 20 11.9	
	comp=Z,1µm,18.5s,MS4.5,baz=165,slow=39						
CPUP	Villa Florida	33.52	2	P	P	07 07 18.2	-0.6
	1.8nm,0.6s,mb4.2,baz=158,slow=7.8,SNR=7.7						
CPUP				LR	LR	07 20 38.6	
	comp=Z,505nm,20.3s,MS4.2,baz=161,slow=36						
CPUP	Villa Florida	33.52	2	P	P	07 07 18.2	-0.7
CPUP				LR	LR	07 20 38.6	
LVC	Limon Verde	37.93	344	P	P	07 07 58.1	+1.5
	5.2nm,0.6s,mb4.4,baz=134,slow=7.3,SNR=4.6						
VNDA	Vanda	40.62	193	LR	LR	07 23 34.3	
	comp=Z,983nm,19.6s,MS4.7,baz=145,slow=34						
SIV	San Ignacio	43.84	357	P	P	07 08 45.6	+0.2
	1.5nm,0.6s,mb3.9,baz=184,slow=11,SNR=5.1						
MAW	Mawson	45.85	153	LR	LR	07 27 27.1	
	comp=Z,1µm,20.2s,MS4.8,baz=217,slow=35						
SUR	Sutherland	57.39	99	P	P	07 10 27.6	0.0
	6.2nm,0.6s,mb4.8,baz=194,slow=9.9,SNR=14						
SUR	Sutherland	57.39	99	P	P	07 10 27.6	0.0
OTAV	Otavalo	61.90	337	*e*P	P	07 11 00.9	+2.1
	26nm,1.4s,mb5.2						
BOSA	Boshof	62.67	100	P	P	07 11 02.8	-1.1
	4.9nm,0.8s,mb4.7,baz=246,slow=6.3,SNR=3.7						
BOSA				LR	LR	07 34 26.0	
	comp=Z,262nm,18.4s,MS4.4,baz=215,slow=32						
ROSC	El Rosal	65.71	343	LR	LR	07 39 23.9	
	comp=Z,492nm,20.3s,MS4.7,baz=201,slow=35						
LBTB	Lobatse	65.82	98	P	P	07 11 23.9	-0.7
	7.4nm,0.7s,mb4.8,baz=214,slow=4.4,SNR=11						
TSUM	Tsumeb	66.64	88	P	P	07 11 29.7	-0.2
	2.4nm,0.7s,mb4.3,baz=201,slow=6.8,SNR=10						
MEH	Mehetia	74.48	261	*e*T		08 33 50.3	
	365nm,0.3s						
TVO	Taravao	75.15	260	*e*T		08 34 35.8	
	42nm,0.3s						
LSZ	Lusaka	75.30	95	*e*P	P	07 12 23.0	+0.5
	4.6nm,0.8s,mb4.5						
PAE	Paea	75.42	260	*e*T		08 34 56.8	
	30nm,0.2s						
PPT	Papeete	75.50	260	*e*LR	LR	07 35 31.9	
	619nm,29.8s						
LIC	Lamto	78.16	55	*e*P	P	07 12 38.3	-0.3
	52nm,1.5s,mb5.2						
TAOE	Nuku Hiva Isla	78.17	273	*e*LR	LR	07 37 02.6	
	1µm,26.2s						
KIC	Kosan Boka	78.40	55	*e*P	P	07 12 39.4	-0.5
	52nm,1.4s,mb5.3						
TIC	Toumodi	78.54	55	*e*P	P	07 12 40.2	-0.5
	69nm,1.3s,mb5.4						
DBIC	Dimbokro	78.63	55	P	P	07 12 40.7	-0.5
	1.1nm,0.4s,mb4.1,baz=5.2,slow=6.9,SNR=4.0						
DBIC				LR	LR	07 38 02.1	
	comp=Z,102nm,18.8s,MS4.2,baz=186,slow=29						
STKA	Stephens Creek	87.10	197	LR	LR	07 52 21.0	
	comp=Z,163nm,20.0s,MS4.4,baz=22,slow=36						
TORD	Torodi Ar. Bea	87.20	58	P	P	07 13 25.4	-0.1
	1.1nm,0.6s,mb4.3,baz=210,slow=4.7,SNR=11						
TORD				LR	LR	07 43 17.9	
	comp=Z,127nm,18.2s,MS4.4,baz=10.0,slow=29						
ASAR	Alice Springs	96.16	191	P	P	07 14 07.1	-0.2
	0.3nm,0.7s,mb3.8,baz=183,slow=5.9,SNR=3.5						
TXAR	Lajitas Array	96.30	322	LR	LR	07 53 13.6	
	comp=Z,161nm,19.7s,MS4.5,baz=295,slow=33						
WRA	Warramunga Arr	99.80	192	P	Pdif	07 14 23.8	0.0
	0.5nm,0.9s,baz=180,slow=4.3,SNR=4.4						
WRA				LR	LR	07 58 03.4	
	comp=Z,162nm,19.5s,MS4.5,baz=185,slow=34						
GERES	GERESS Array B	123.13	49	PKP	PKPdf	07 19 34.9	+0.1
	0.2nm,0.5s,baz=288,slow=2.1,SNR=4.2						
BRTR	Keskin Array B	124.36	69	PKP	PKPdf	07 19 37.3	-0.2
	0.6nm,0.5s						
YKA	Yellowknife Ar	129.32	330	PKP	PKPdf	07 19 46.4	+0.2
	0.3nm,0.6s,baz=156,slow=1.8,SNR=5.6						
YKA	Yellowknife Ar	129.32	330	PKP	PKPdf	07 19 46.4	+0.2
AKASG	Malin Array Be	130.83	57	PKhKP		07 19 43.9	
	0.8nm,0.6s,baz=236,slow=31,SNR=4.1						
ARCES	ARCESS Array B	142.16	35	PKhKP		07 20 05.7	
	2.2nm,0.8s,baz=158,slow=1.3,SNR=4.5						
ARCES				PKP	PKPdf	07 20 10.6	+0.7
	4.4nm,1.1s,baz=224,slow=3.3,SNR=4.3						
AKTK	Aktyubinsk	143.91	76	PKP	PKPdf	07 20 09.8	-3.8
AKTO	Aktyubinsk	143.91	76	PKhKP		07 20 09.8	
	2.8nm,0.5s,baz=178,slow=2.6,SNR=14						
KSH	Kashi	145.18	105	P	PKPbc	07 20 14.4	-1.4
KSH				*e*pP		07 20 25.1	
KSH				*e*sP		07 20 29.2	
KSH				*e*ScP		07 25 37.1	
KSH				*e*PcS		07 25 41.0	
KSH				*e*S		07 26 59.6	
KSH				*e*sS		07 27 15.3	
KSH				*e*ScS		07 30 13.5	
KSH				*e*SS	SKKSac	07 30 15.4	-12
KSH				pmax	pmax		
	comp=Z,18nm,0.4s						
KSH				pmax	pmax		
	comp=Z,150nm,2.3s						
KSH				LR	LR		
	comp=N,290nm,6.9s						
KSH				LR	LR		
	comp=E,380nm,5.6s						
KSH				LR	LR		
	comp=Z,450nm,6.0s						
AML	Almayashu	146.04	100	*e*PKPdf	PKPdf	07 20 18.3	+0.8
UCH	Uchtor	146.52	100	*e*PKPbc	PKPbc	07 20 20.2	+0.5
TNA	Tin City	148.72	311	*e*PKPdf	PKPdf	07 20 20.7	-0.5
TNA				*e*PKPbc	PKPbc	07 20 25.5	+0.4
TNA				*e*PKPab	PKPab	07 20 29.4	+0.5
BVAR	Borovoye Array	151.60	81	PKPbc	PKPbc	07 20 32.1	-0.2
	comp=Z,3.3nm,0.6s,baz=236,slow=2.0,SNR=7.7						
BVAR				PKPab	PKPab	07 20 38.7	-2.4
	comp=Z,1.1nm,0.5s,baz=218,slow=1.7,SNR=5.2						
MKAR	Makanchi Array	153.66	102	PKPbc	PKPbc	07 20 36.4	-0.8
	comp=Z,0.9nm,0.7s,baz=321,slow=0.5,SNR=5.9						
MKAR				PKPab	PKPab	07 20 51.4	+1.4
	comp=Z,0.9nm,0.8s,baz=205,slow=1.4,SNR=5.3						
MKAR	Makanchi Array	153.66	102	PKPbc	PKPbc	07 20 36.4	-0.8
MKAR				PKPab	PKPab	07 20 51.4	+1.4
KURK	Kurchatov	154.39	92	*e*PKPab	PKPab	07 20 52.1	-0.8

TIR ***11*** *07:11:46.6, 40°.47N×20°.14E, h4^{km}, ML3.5*

ISCJB ***11*** *07:11:48.7±0.4, 40°.48N±0°.02×19°.99E±0°.04, h10^{km}, Error ellipse: s-maj=4.2km s-min=2.9km az=7.2*

CSEM ***11*** *07:11:48.7±0.2, 40°.46N×20°.01E, h2^{km}, MD3.3, Error ellipse: s-maj=5.6km s-min=4.2km az=94.0*

THE ***11*** *07:11:49.6, 40°.46N×20°.07E, h0^{km}±4^{km}, ML3.5/3, Error ellipse: s-maj=4.3km s-min=1.5km az=264.0*

BEO ***11*** *07:11:49.8±1.2, 40°.53N×19°.94E, h0^{km}, ML2.9/3*

SKO ***11*** *07:11:49.2, 40°.53N×19°.91E, h0^{km}*

NEIC ***11*** *07:11:51.2, 40°.29N×20°.11E, h5^{km}, MD3.3(ATH), After ATH.*

ATH ***11*** *07:11:51.2, 40°.29N×20°.11E, h5^{km}, MD3.3/4*

ISC 11 07:11:49.6±0.4**, 40°.46N**±0°.02×**20°.00E**±0°.04**, h10**^{km}**, n56, σ1**^{s}**.32**/85**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRN	Sarande	0.58	180	*e*PG	Pg	07 12 00.1	-0.7
SRN				*i* SG	Sg	07 12 09.1	+0.7
SRN	Sarande	0.58	180	*e*Pg	Pg	07 12 00.1	-0.7
	SNR=92						
SRN				*i* Sg	Sg	07 12 09.1	+0.7
	SNR=92						
KBN	Korca	0.62	75	*e*PG	Pg	07 11 59.8	-1.8
KBN				*i* SG	Sg	07 12 06.0	-3.7
KBN	Korca	0.62	75	*e*Pg	Pg	07 11 59.8	-1.8
	SNR=92						
KEK	Kerkira	0.76	192	*e*PB	Pg	07 12 03.4	-0.9
KEK	Kerkira	0.76	192	*e*Pb	Pg	07 12 03.4	-0.9
TIR	Tirane	0.89	353	*e*PG	Pg	07 12 06.0	-0.7
TIR				*i* SG	Sg	07 12 20.7	+2.4
TIR	Tirane	0.89	353	*e*Pg	Pg	07 12 06.9	+0.2
TIR				*e*Sg	Sg	07 12 25.6	+7.3
TIR	Tirane	0.89	353	*e*Pg	Pg	07 12 06.0	-0.7
	SNR=91						
TIR				S	Sg	07 12 20.7	+2.4
IGT	Igoumenitsa	0.96	165	P	Pg	07 12 07.0	-1.1
IGT				S	Sg	07 12 22.0	+1.4
IGT	Igoumenitsa	0.96	165	P	Pg	07 12 07.0	-1.1
IGT				S	Sg	07 12 22.0	+1.4
JAN	Janina	1.03	141	*e*PB	Pg	07 12 07.5	-1.9
JAN	Janina	1.03	141	*e*Pb	Pg	07 12 07.5	-1.9
FNA	Florina	1.09	72	P	Pb	07 12 08.5	-2.1
FNA				S	Sg	07 12 24.4	-0.4
FNA	Florina	1.09	72	P	Pb	07 12 08.5	-2.1
FNA				S	Sg	07 12 24.4	-0.4
BIA	Bitola	1.15	61	P	Pb	07 12 09.0	-2.5
BIA				S	Sg	07 12 26.4	-0.1
BIA	Bitola	1.15	61	*e*Pg	Pg	07 12 09.9	-1.7
BIA				*e*Sg	Sg	07 12 26.8	+0.2
BIA	Bitola	1.15	61	*e*Pg	Pg	07 12 09.9	-1.7
BIA				*e*Sg	Sg	07 12 26.7	+0.2
MEV	Metsovon	1.16	125	P	Pg	07 12 09.5	-2.3
MEV	Metsovon	1.16	125	P	Pg	07 12 09.5	-2.3
PHP	Peshkopia	1.27	15	*e*PN	Pn	07 12 14.4	+1.1
PHP	Peshkopia	1.27	15	*e*Pn	Pn	07 12 14.4	+1.1
KRUS	Krusevo	1.31	46	*e*Pg	Pg	07 12 12.2	-2.5
KRUS				*e*Sg	Sg	07 12 31.2	-0.5
KRUS	Krusevo	1.31	46	*e*Pg	Pg	07 12 12.1	-2.6
KRUS				*e*Sg	Sg	07 12 31.2	-0.5
KZN	Kozani	1.36	96	*e*PB	Pb	07 12 15.5	+0.4
KZN	Kozani	1.36	96	*e*Pb	Pb	07 12 15.5	+0.4
SKO	Skopje	1.86	35	*e*Pn	Pn	07 12 22.1	+0.7
SKO				*e*Sg	Sg	07 12 48.0	-1.3
SKO	Skopje	1.86	35	*e*Pn	Pn	07 12 22.1	+0.7
SKO				*e*Sg	Sg	07 12 48.0	-1.3
GRG	Griva	1.89	74	P	Pn	07 12 21.8	-0.1
GRG				S	Sn	07 12 48.0	+2.3
GRG	Griva	1.89	74	P	Pn	07 12 21.8	-0.1
GRG				S	Sn	07 12 48.0	+2.3
LIT	Litokhoron	1.94	100	P	Pn	07 12 23.4	+0.9
LIT				S	Sn	07 12 48.5	+1.6
LIT	Litokhoron	1.94	100	P	Pn	07 12 23.4	+0.9
LIT				S	Sn	07 12 48.5	+1.6
TAR1	Taranto	2.07	273	*e*Pn	Pn	07 12 23.5	-0.9
EVR	Evrytania	2.08	137	*e*PN	Pn	07 12 28.0	+3.5
EVR	Evrytania	2.08	137	*e*Pn	Pn	07 12 28.0	+3.5
VAY	Valandovo	2.13	65	*e*Pn	Pn	07 12 27.1	+1.9
VAY	Valandovo	2.13	65	*e*Pn	Pn	07 12 27.0	+1.9
KNT	Kendrikon	2.31	71	P	Pn	07 12 27.5	-0.1
KNT	Kendrikon	2.31	71	P	Pn	07 12 27.5	-0.1
VLS	Valsamata	2.33	169	*e*PN	Pn	07 12 30.6	+2.7
VLS	Valsamata	2.33	169	*e*Pn	Pn	07 12 30.6	+2.7
PLG	Polygyros	2.63	91	P	Pn	07 12 32.7	+0.7
PLG	Polygyros	2.63	91	P	Pn	07 12 32.7	+0.7
BARS	Barje	2.72	29	*e*Pn	Pn	07 12 33.8	+0.6
BARS				*e*Sn	Sn	07 13 07.9	+1.8
BARS	Barje	2.72	29	*e*Pn	Pn	07 12 33.8	+0.6
BARS				*e*Sn	Sn	07 13 07.9	+1.8
NISS		3.28	26	*e*Pn	Pn	07 12 42.1	+1.2
NISS		3.28	26	*e*Pn	Pn	07 12 42.1	+1.2
ZAPS	Zavoj	3.43	34	*e*Pn	Pn	07 12 43.9	+0.9
ZAPS				*e*Sn	Sn	07 13 24.7	+1.0
BBLS	Lazići	3.43	353	*e*Pn	Pn	07 12 43.9	+0.9
BBLS				*e*Sn	Sn	07 13 23.7	0.0
BBLS	Lazići	3.43	353	*e*Pn	Pn	07 12 43.9	+0.9
DIVS	Divibare	3.63	360	*e*Pn	Pn	07 12 46.3	+0.5
DIVS				*e*Sn	Sn	07 13 28.2	-0.6
DIVS	Divibare	3.63	360	*e*Pn	Pn	07 12 46.3	+0.5
DIVS				*e*Sn	Sn	07 13 28.2	-0.6
BOJS	Bojanci	6.13	327	*i* Pn	Pn	07 13 19.6	-0.5
BOJS				*i* Sn	Sn	07 14 27.6	-2.5
BOJS	Bojanci	6.13	327	Pn	Pn	07 13 19.6	-0.5
VISS	Visnje	6.54	326	*i* Pn	Pn	07 13 26.2	+0.5
VISS				*i* Sn	Sn	07 14 35.6	-4.7
VISS	Visnje	6.54	326	*i* Pn	Pn	07 13 26.2	+0.5

NEIC ***11*** *07:17:02.8, 14°.90N×92°.59W, h94^{km}, MD4.3(MEX), After MEX.*

MEX 11 07:17:02.5±0.6**, 14°.90N**×**92°.57W, h100**^{km}±8^{km}**, MD4.3, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.01	322	*e*P	Pn	07 17 21.5	-1.5
PCIG				*i* S	Sn	07 17 37.1	-1.4
CCIG	Comitan	1.43	17	*e*P	Pn	07 17 27.2	-0.7
CCIG				*i* S	Sn	07 17 45.7	-1.5
TGIG		1.94	344	*e*P	Pn	07 17 32.9	-1.4
TGIG				*i* S	Sn	07 17 57.2	-1.3
HUIG	Huatulco	3.52	285	*i* P	Pn	07 17 53.8	-1.3
HUIG				*i* S	Sn	07 18 34.8	-1.1
VHO	Vista Hermosa	4.55	299	*i* P	Pn	07 18 08.5	-0.6
VHO				*i* S	Sn	07 18 59.8	-1.0
PNIG	Pinotepa	5.55	286	*i* P	Pn	07 18 23.2	+0.5
PNIG				*i* S	Sn	07 19 23.5	-1.8

NIED ***11*** *07:30:00, 35°.60N×140°.20E, h47^{km}, Mw3.7 Best double couple: $M_0$3.70000×10^{14} NP1:ϕ_s81.00000°,δ82.00000°, λ-58.00000°. NP2:ϕ_s184.00000°,δ33.00000°, λ-165.00000°.*

ISCJB ***11*** *07:30:26.5±0.4, 35°.48N±0°.03×140°.13E±0°.05, h66^{km}±4^{km}, mb3.5/7, Error ellipse: s-maj=7.4km s-min=5.0km az=148.2*

NEIC ***11*** *07:30:26.5, 35°.54N×140°.14E, h64^{km}, MG3.7(JMA), After JMA.*

JMA ***11*** *07:30:26.4±0.2, 35°.54N×140°.14E, h64^{km}±2^{km}, M3.7 Broadband fault plane solution: P waves. NP1: ϕ_s216.00000°,δ14.00000°,λ-132.00000°. NP2: ϕ_s79.00000°,δ80.00000°,λ-81.00000°. Principal axes: T Plg34.0000°, Azm161.0000°; N Plg9.0000°, Azm257.0000°; P Plg54.0000°, Azm0.0000°;*

JMA Felt I J1.

IDC ***11*** *07:30:28.1±2.1, 35°.47N×140°.09E, h64^{km}±21^{km}, mb3.3/7, mb1 3.6/9, mb1mx3.4/24, mbtmp3.3/9 Error ellipse: s-maj=29.1km s-min=12.2km az=75.0*

ISC 11 07:30:27.4±0.4**, 35°.48N**±0°.03×**140°.13E**±0°.05**, h60**^{km}±4^{km}**, n25, σ0**^{s}**.82**/37**, mb3.5**/7**, 3C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCN	Nagara	0.08	137	⇓P	Pn	07 30 36.6	+0.2
JCN				*e*S	Sn	07 30 44.2	+1.4
KTR	Katsuura	0.36	156	P	Pn	07 30 37.9	-0.1
TOK	Tokyo	0.37	304	P	Pn	07 30 38.1	0.0
TOK				*e*S	Sn	07 30 46.0	+0.2
BSO3	Boso 3	0.74	155	P	Pn	07 30 41.9	-0.3
BSO3				*e*S	Sn	07 30 53.7	+0.7
JOD2	Odawara 2	0.88	256	⇓P	Pn	07 30 43.6	-0.3
JOD2				S	Sn	07 30 55.6	-0.4
JIM2	Oshima 3	0.95	217	P	Pn	07 30 44.2	-0.6
JIM2				*e*S	Sn	07 30 57.4	-0.3
BSO1	Boso 1	1.08	140	P	Pn	07 30 45.3	-1.2
JAG	Ashikaga	1.09	330	⇑P	Pn	07 30 45.7	-1.0
JAG				S	Sn	07 30 59.9	-1.0
JRY	Ryogami san	1.14	299	⇑P	Pn	07 30 47.1	-0.1
JRY				*e*S	Sn	07 31 02.3	+0.4
JIZS	Izushimoda	1.28	234	⇓P	Pn	07 30 48.9	-0.2
JIZS				S	Sn	07 31 05.2	-0.1
JYN	Shimob	1.30	271	⇑P	Pn	07 30 49.3	0.0
JYN				*e*S	Sn	07 31 05.7	-0.1
JKT	Katashina	1.47	331	P	Pn	07 30 50.5	-1.2
MJAR	Matsushiro Arr	1.89	305	P	Pn	07 30 56.7	-0.6
	26nm,0.3s,baz=73,slow=10,SNR=113						
MJAR				S	Sn	07 31 27.4	+7.4
	19nm,0.3s,baz=166,slow=32,SNR=7.8						
MAJO	Matsushiro	1.89	305	*e*Pn	Pn	07 30 57.4	0.0
MAT	Matsushiro	1.89	305	P	Pn	07 30 57.2	-0.1
MAT				*e*S	Sn	07 31 21.7	+1.7
JHJ	Hachijo jima 2	2.37	187	P	Pn	07 31 04.1	+0.1
	90nm,0.3s,baz=74,slow=23,SNR=5.1						
JHJ				S	Sn	07 31 32.9	+1.0
	125nm,0.3s,baz=59,slow=22,SNR=3.7						
CBIJ	Chichi jima	8.54	168	P	Pn	07 32 26.6	-1.9
	31nm,0.3s,baz=297,slow=16,SNR=9.4						
KSRS	Korea Array	10.03	285	P	Pn	07 32 51.1	+2.4
	0.3nm,0.3s,baz=100,slow=14,SNR=3.3						
ZALV	Zalesovo Beam	42.22	314	P	P	07 38 14.3	0.0
	1.0nm,0.3s,mb3.9,baz=105,slow=6.9,SNR=3.1						
MKAR	Makanchi Array	44.09	303	P	P	07 38 29.4	-0.1
	0.4nm,0.8s,mb3.2,baz=83,slow=9.5,SNR=4.8						
WRA	Warramunga Arr	55.39	187	P	P	07 39 55.4	-0.1
	0.5nm,0.3s,mb4.0,baz=3.5,slow=7.6,SNR=20						
ASAR	Alice Springs	59.12	187	P	P	07 40 21.8	+0.1
	0.2nm,0.4s,mb3.5,baz=23,slow=8.8,SNR=4.3						
YKA	Yellowknife Ar	65.67	29	P	P	07 41 04.7	-0.4
	0.2nm,0.7s,mb3.3,baz=303,slow=7.1,SNR=6.0						
NVAR	Mina Array Bea	76.75	52	P	P	07 42 14.5	+2.0
	0.4nm,0.7s,mb3.5,baz=282,slow=4.5,SNR=3.3						
PDAR	Pinedale Array	79.50	45	P	P	07 42 28.2	+0.7
	0.4nm,0.6s,mb3.5,baz=290,slow=0.8,SNR=4.3						

ISCJB ***11*** *07:54:07.8±1.2, 31°.76N±0°.07×141°.3E±0°.1, h83^{km}±10^{km}, mb3.6/9, Error ellipse: s-maj=18.1km s-min=11.0km az=173.8*

JMA ***11*** *07:54:10.1±0.2, 32°.09N×141°.09E, h7^{km}, M4.2*

IDC ***11*** *07:54:10.2±2.5, 31°.54N×140°.72E, h73^{km}±23^{km}, mb3.4/9, mb1 3.5/10, mb1mx3.4/23, mbtmp3.4/10, Error ellipse: s-maj=33.5km s-min=16.4km az=75.0*

NEIC ***11*** *07:54:11.6±1.5, 31°.54N×140°.68E, h86^{km}±13^{km}, MG4.2(JMA), Error ellipse: s-maj=21.6km s-min=12.5km az=76.0*

ISC 11 07:54:09.2±1.1**, 31°.76N**±0°.07×**141°.3E**±0°.1**, h75**^{km}±10^{km}**, n31, σ1**^{s}**.19**/40**, mb3.6**/9**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	1.85	317	P	Pn	07 54 36.9	-2.1
JHJ2				S	Sn	07 54 56.2	-5.5
JHJ	Hachijo jima 2	1.88	317	P	Pn	07 54 37.6	-1.8
	38nm,0.3s,baz=98,slow=21,SNR=5.8						
JHJ				S	Sn	07 54 56.2	-6.1
	199nm,0.3s,baz=90,slow=23,SNR=10						
BSO1	Boso 1	2.90	354	P	Pn	07 54 53.1	-0.1
BSO3	Boso 3	3.11	348	P	Pn	07 54 54.9	-1.1
BSO3				S	Sn	07 55 30.6	-1.5
BSO4	Boso 4	3.33	346	P	Pn	07 54 58.9	0.0
BSO4				S	Sn	07 55 36.8	-0.5
JOD2	Odawara 2	3.96	333	P	Pn	07 55 07.5	-0.1
JOD2				S	Sn	07 55 48.0	-4.8
HMMJ	Hamamatsu 2	4.32	317	P	Pn	07 55 11.9	-0.5
JYN	Shimob	4.39	329	P	Pn	07 55 14.4	+1.0
JHU	Hanno	4.42	338	P	Pn	07 55 14.4	+0.6
JHU				S	Sn	07 56 01.0	-3.1
JNY	Yasuok	4.61	322	P	Pn	07 55 17.9	+1.5
JIE	Ise	4.68	305	P	Pn	07 55 16.4	-0.9
JRY	Ryogami san	4.70	335	P	Pn	07 55 18.6	+1.0
JAO	Obara	4.87	317	P	Pn	07 55 20.1	+0.1
JHO	Hitachi	4.88	353	P	Pn	07 55 20.0	-0.1
JHO				*e*S	Sn	07 56 11.2	-4.1
JWZ	Kozaga	5.04	292	P	Pn	07 55 24.2	+1.9
MJAR	Matsushiro Arr	5.42	333	P	Pn	07 55 29.4	+1.8
	1.6nm,0.3s,baz=167,slow=13,SNR=10						
MJAR				S	Sn	07 56 29.6	+1.0
	1.3nm,0.3s,baz=128,slow=45,SNR=2.9						
MAJO	Matsushiro	5.43	332	*e*Pn	Pn	07 55 29.9	+2.4
	13nm,0.8s						
MAJO				*e*Sn	Sn	07 56 28.9	+0.3
MAT	Matsushiro	5.43	332	P	Pn	07 55 30.4	+2.9
MAT				*e*S	Px	07 56 07.1	
JGM	Miyama	5.49	317	P	Pn	07 55 28.9	+0.5
JMM	Marumori	6.11	356	P	Pn	07 55 36.4	-0.5
SONM	Songino Array	30.95	311	P	P	08 00 18.1	-0.8
	0.6nm,0.3s,mb3.8,baz=111,slow=8.3,SNR=5.9						
ZALV	Zalesovo Beam	45.54	316	P	P	08 02 20.8	-0.4
	0.4nm,0.3s,mb3.6,baz=91,slow=7.6,SNR=2.5						
MKAR	Makanchi Array	47.02	306	P	P	08 02 31.4	-1.5
	0.5nm,0.6s,mb3.4,baz=90,slow=8.8,SNR=10						
WRA	Warramunga Arr	51.84	188	P	P	08 03 08.3	-1.4
	0.3nm,0.4s,mb3.6,baz=5.0,slow=7.6,SNR=8.4						
ASAR	Alice Springs	55.56	188	P	P	08 03 36.8	-0.1
	0.4nm,0.9s,mb3.5,baz=6.2,slow=6.4,SNR=3.7						
AKTK	Aktyubinsk	62.21	314	P	P	08 04 23.2	+0.4
AKTO	Aktyubinsk	62.21	314	P	P	08 04 23.2	+0.4
	0.8nm,0.5s,mb4.0,baz=60,slow=12,SNR=3.8						
STKA	Stephens Creek	63.29	180	P	P	08 04 29.7	-0.2
	0.4nm,0.4s,mb3.7,baz=340,slow=23,SNR=3.5						
YKA	Yellowknife Ar	68.43	29	P	P	08 05 06.1	+3.4
	0.2nm,0.6s,mb3.1,baz=296,slow=6.0,SNR=4.1						
YKA	Yellowknife Ar	68.43	29	P	P	08 05 06.1	+3.4
TXAR	Lajitas Array	93.40	52	P	P	08 07 20.9	+4.4
	0.2nm,0.5s,mb3.7,baz=301,slow=3.1,SNR=4.1						

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*IDC **11** 08:05:16.0±1.3, 6°.70S×130°.46E, h0^{km}, mb3.9/3, mb1 4.1/5, mb1mx3.9/15, mbtmp4.0/5, ML4.1/2, Error ellipse: s-maj=112.2km s-min=21.6km az=69.0*

*NEIC **11** 08:05:18.1±1.1, 6°.61S×130°.79E, h15^{km}, Error ellipse: s-maj=127.0km s-min=11.1km az=72.0*

*ISCJB **11** 08:05:25.4±2.2, 7°.02S±0°.08×130°.3E±0°.1, h101^{km}±23^{km}, mb3.8/3, Error ellipse: s-maj=22.9km s-min=13.8km az=175.5*

ISC 11 08:05:25.6±2.8**, 7°.0S**±0°.1×**130°.3E**±0°.1**, h81**^{km}±30^{km}**, n9, σ1^s.17**/13**, mb3.8**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.08	160	*e*P	Pn	08 06 54.0	+1.0
	5.1nm,0.1s						
KAKA				*e*S	Sn	08 08 01.3	+0.2
FITZ	Fitzroy Crossi	11.96	202	*e*P	Pn	08 08 14.3	+1.2
	7.0nm,0.3s						
FITZ				*e*S	Sn	08 10 24.1	-0.6
WRAB	Tennant Creek	13.47	163	*e*Pn	Pn	08 08 31.4	-2.0
WRA	Warramunga Arr	13.47	163	Pn	Pn	08 08 31.3	-2.1
	0.7nm,0.3s,baz=347,slow=13,SNR=14						
WRA				Sn	Sn	08 10 55.4	-6.2
	1.9nm,0.3s,baz=343,slow=21,SNR=13						
ASAR	Alice Springs	16.95	169	P	Pn	08 09 18.9	+1.2
	1.1nm,0.3s,baz=349,slow=10,SNR=36						
ASAR				S	Sn	08 12 20.0	-5.8
	0.5nm,0.3s,baz=355,slow=27,SNR=6.9						
STKA	Stephens Creek	26.93	158	*e*P	P	08 11 00.5	+1.1
	2.1nm,1.1s,mb3.6						
STKA	Stephens Creek	26.93	158	P	P	08 11 00.6	+1.2
	0.7nm,0.3s,mb3.6,baz=330,slow=11,SNR=5.4						
SONM	Songino Array	58.51	341	P	P	08 15 12.8	-0.6
	0.4nm,0.6s,mb3.7,baz=159,slow=7.0,SNR=3.4						
MKAR	Makanchi Array	68.36	327	P	P	08 16 18.6	+0.2
	1.4nm,0.5s,mb4.1,baz=116,slow=8.2,SNR=23						

IDC 11 08:19:57.0±2.3**, 4°.47N**×**123°.58E, h0**^{km}**, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.5**/20**, mbtmp3.5**/3**, Error ellipse: s-maj=299.1km s-min=25.9km az=63.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	26.46	157	P	P	08 25 36.1	+0.3
	0.5nm,0.3s,baz=337,slow=9.5,SNR=9.8						
ASAR	Alice Springs	29.72	161	P	P	08 26 04.8	-0.1
	0.3nm,0.3s,baz=334,slow=7.8,SNR=6.6						
MKAR	Makanchi Array	55.19	326	P	P	08 29 31.5	0.0
	0.1nm,0.4s,baz=123,slow=8.4,SNR=6.5						

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*ATH **11** 09:28:47.2, 38°.67N×26°.09E, h10^{km}, MD3.1/3*

*ISCJB **11** 09:28:53.8±0.6, 39°.47N±0°.03×26°.38E±0°.05, h5^{km}±6^{km}, Error ellipse: s-maj=7.1km s-min=4.4km az=144.7*

*CSEM **11** 09:28:53.9±0.2, 39°.45N×26°.37E, h8^{km}, MD3.0, Error ellipse: s-maj=3.9km s-min=3.1km az=56.0*

*DDA **11** 09:28:53.6, 39°.47N×26°.39E, h7^{km}±4^{km}, Md3.0*

*ISK **11** 09:28:54.4, 39°.51N×26°.43E, h6^{km}, MD2.9*

ISC 11 09:28:54.1±0.6**, 39°.45N**±0°.03×**26°.37E**±0°.05**, h9**^{km}±5^{km}**, n27, σ0^s.55**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.22	200	*e*PB	Pg	09 28 58.6	0.0
PRK	Paraskevi	0.22	200	*e*Pb	Pg	09 28 58.6	0.0
AYVA	Ayvalik	0.29	120	*i* P	Pg	09 28 59.5	-0.3
AYVA				*i* S	Sg	09 29 03.7	0.0
AYVA	Ayvalik	0.29	120	*i* P	Pg	09 28 59.5	-0.3
AYVA				*i* S	Sg	09 29 03.7	0.0
EZN	Ezine	0.37	355	*e*PG	Pg	09 29 01.6	+0.2
EZN				*e*SG	Sg	09 29 06.4	0.0
EZN	Ezine	0.37	355	*e*Pg	Pg	09 29 01.6	+0.2
EZN				*e*Sg	Sg	09 29 06.4	0.0
BOZC	Bozcaada	0.46	328	*i* P	Pg	09 29 03.2	+0.2
BOZC				*i* S	Sg	09 29 09.4	+0.3
GADA	Gvkgeada	0.82	334	*e*PG	Pg	09 29 09.6	-0.3
GADA	Gvkgeada	0.82	334	*e*Pg	Pg	09 29 09.6	-0.3
LPK	Lapseki	0.97	18	*e*PG	Pg	09 29 11.7	-0.9
LPK				*e*SG	Sg	09 29 24.8	-0.4
LPK	Lapseki	0.97	18	*e*Pg	Pg	09 29 11.7	-1.0
LPK				*e*Sg	Sg	09 29 24.8	-0.4
BALY	Balya	1.01	73	*i* P	Pg	09 29 12.7	-0.8
BALY				*i* S	Sg	09 29 28.0	+1.4
BALY	Balya	1.01	73	*i* P	Pg	09 29 12.7	-0.8
BALY				*i* S	Sg	09 29 28.0	+1.4
LIA	Limnos Island	1.01	296	*e*PB	Pg	09 29 13.8	+0.2
LIA	Limnos Island	1.01	296	*e*Pb	Pg	09 29 13.8	+0.2
BALB	Balikesir	1.19	80	*e*PN	Pn	09 29 16.6	-0.2
BALB				*e*SN	Sn	09 29 32.4	-0.7
BALB	Balikesir	1.19	80	*e*Pn	Pn	09 29 16.6	-0.2
BALB				*e*Sn	Sn	09 29 32.4	-0.6
AKHS	Akhisar	1.26	117	*i* P	Pn	09 29 17.5	-0.4
AKHS				*i* S	Sb	09 29 34.5	+0.2
AKHS	Akhisar	1.26	117	*i* P	Pn	09 29 17.5	-0.4
AKHS				*i* S	Sb	09 29 34.5	+0.1
SART	Tekirdag	1.38	27	*i* P	Pn	09 29 19.4	-0.1
SART				*i* S	Sb	09 29 37.8	-0.1
SART	Tekirdag	1.38	27	*i* P	Pn	09 29 19.4	-0.1
SART				*i* S	Sb	09 29 37.8	0.0
EDC	Edincik	1.46	52	*e*PN	Pn	09 29 20.3	-0.2
EDC	Edincik	1.46	52	*e*Pn	Pn	09 29 20.3	-0.2
KCT	Karacabey	1.73	61	*e*PN	Pn	09 29 25.1	+0.8
KCT	Karacabey	1.73	61	*e*Pn	Pn	09 29 25.1	+0.8
ARMT	Armutlu	2.21	59	*e*PN	Pn	09 29 32.1	+1.1
ARMT	Armutlu	2.21	59	*e*Pn	Pn	09 29 32.1	+1.1

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*NIED **11** 09:31:00, 37°.50N×142°.80E, h20^{km}, Mw4.0 Best double couple: $M_0$1.13000×10^{15} NP1:ϕ$_s$21.00000°, δ72.00000°, λ88.00000°. NP2:ϕ$_s$206.00000°, δ18.00000°, λ95.00000°.*

*IDC **11** 09:31:36.2±0.9, 37°.48N×142°.95E, h0^{km}, mb3.9/11, mb1 3.9/14, mb1mx3.9/26, mbtmp3.8/14, ML3.7/2, MS3.2/2, Ms1 3.2/2, ms1mx2.5/41, Error ellipse: s-maj=24.5km s-min=19.6km az=75.0*

*ISCJB **11** 09:31:39.4±0.6, 37°.44N±0°.04×142°.81E±0°.05, h33^{km}, mb3.8/11, Error ellipse: s-maj=6.3km s-min=5.0km az=25.6*

*NEIC **11** 09:31:39.3, 37°.46N×142°.78E, h39^{km}, MG4.0(JMA), After JMA.*

*JMA **11** 09:31:39.3±0.1, 37°.46N×142°.78E, h39^{km}, M4.0*

ISC 11 09:31:40.7±1.8**, 37°.48N**±0°.04×**142°.77E**±0°.06**, h29**^{km}±13^{km}**, n31, σ0^s.94**/40**, mb3.8**/11**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIO	Ouri	1.48	311	P	Pn	09 32 04.7	-0.7
JIO				*e*S	Sn	09 32 23.2	-0.5
JFK	Kawauchi	1.51	266	P	Pn	09 32 04.8	-0.9
JFK				*e*S	Sn	09 32 23.4	-1.0
JMM	Marumori	1.61	284	P	Pn	09 32 06.2	-0.9
JMM				S	Sn	09 32 26.9	0.0
JMK	Ichinoseki	1.91	321	P	Pn	09 32 10.7	-0.5
JOM	Ohasama	2.30	330	P	Pn	09 32 16.2	-0.4
JYK	Kaneyama	2.38	308	P	Pn	09 32 17.7	0.0
JYK				*e*S	Sn	09 32 46.3	+0.5
JNS	Sasagawa	2.76	278	P	Pn	09 32 23.4	+0.5
JAG	Ashikaga	2.85	249	P	Pn	09 32 24.2	-0.1
JAW	Awa shima	2.94	290	P	Pn	09 32 26.4	+0.9
JANG	Nango	3.05	342	P	Pn	09 32 25.7	-1.2
BSO1	Boso 1	3.17	208	P	Pn	09 32 27.7	-0.9
BSO1				*e*S	Sn	09 33 04.0	-1.5
JRY	Ryogami san	3.43	246	P	Pn	09 32 32.0	-0.2
JRY				*e*S	Sn	09 33 10.2	-1.6
JOD2	Odawara 2	3.70	234	P	Pn	09 32 35.9	0.0
JOD2				*e*S	Sn	09 33 17.7	-0.9
MJAR	Matsushiro Arr	3.77	257	Pn	Pn	09 32 38.1	+1.3
	4.0nm,0.3s,baz=86,slow=14,SNR=33						
MAJO	Matsushiro	3.77	257	*e*Pn	Pn	09 32 39.7	+2.9
MAT	Matsushiro	3.77	257	P	Pn	09 32 37.8	+1.0
MAT				*e*S	Sn	09 33 21.4	+1.3
ASAJ	Asahikawa	6.63	359	Pn	Pn	09 33 15.7	-0.4
	1.6nm,0.3s,baz=336,slow=7.0,SNR=16						
ASAJ				Sn	Sn	09 34 28.1	-2.4
	0.5nm,0.3s,baz=246,slow=20,SNR=2.1						
ASAJ				LR	LR	09 36 38.0	
	comp=Z,138nm,18.4s,baz=231,slow=46						
KSRS	Korea Array	11.80	274	Pn	Pn	09 34 28.5	+1.6
	baz=91,slow=14,SNR=4.6						
KSRS				LR	LR	09 38 44.8	
	comp=Z,147nm,18.7s,baz=75,slow=36						
SONM	Songino Array	28.44	303	P	P	09 37 34.3	+1.6
	2.4nm,0.8s,mb3.9,baz=95,slow=8.4,SNR=20						
ZALV	Zalesovo Beam	42.41	312	P	P	09 39 32.5	+0.1
	3.1nm,0.7s,mb4.0,baz=98,slow=9.4,SNR=5.5						
ZALV	Zalesovo Beam	42.41	312	P	P	09 39 32.5	+0.1
MKAR	Makanchi Array	44.80	302	P	P	09 39 52.4	+0.7
	1.2nm,0.7s,mb3.8,baz=94,slow=7.0,SNR=11						
KURK	Kurchatov	46.51	308	P	P	09 40 06.0	+0.9
	4.8nm,0.6s,mb4.6,baz=81,slow=8.0,SNR=18						
TKM2	Tokmak 2	50.37	298	*e*P	P	09 40 35.6	+0.6
BVAR	Borovoye Array	51.07	312	P	P	09 40 40.5	+0.4
	1.0nm,0.6s,mb4.0,baz=71,slow=9.0,SNR=5.3						
WRA	Warramunga Arr	57.66	189	P	P	09 41 28.1	-0.3
	0.9nm,0.8s,mb3.9,baz=7.5,slow=7.2,SNR=6.9						
ASAR	Alice Springs	61.39	189	P	P	09 41 54.3	+0.3
	0.1nm,0.4s,mb3.3,baz=9.5,slow=7.2,SNR=6.0						
YKA	Yellowknife Ar	62.88	31	P	P	09 42 03.1	-0.5
	0.1nm,0.4s,mb3.3,baz=304,slow=6.8,SNR=3.9						
NOA	NORSAR Array B	74.19	338	P	P	09 43 14.3	+0.2
	1.2nm,0.7s,mb4.0,baz=37,slow=6.0,SNR=4.4						
AKASG	Malin Array Be	74.60	323	P	P	09 43 17.5	+0.7
	0.3nm,0.3s,mb3.8,baz=45,slow=4.3,SNR=5.2						
TXAR	Lajitas Array	88.99	53	P	P	09 44 33.3	+0.4
	0.1nm,0.5s,mb3.4,baz=334,slow=5.2,SNR=2.7						

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*NEIC **11** 09:43:59.0±4.1, 24°.19N×121°.81E, h14^{km}±15^{km}, Error ellipse: s-maj=48.0km s-min=11.4km az=94.0*

*ISCJB **11** 09:44:00.4±0.5, 24°.15N±0°.01×121°.78E±0°.03, h2^{km}±3^{km}, Error ellipse: s-maj=4.1km s-min=2.2km az=19.6*

*TAP **11** 09:44:00.9, 24°.17N×121°.70E, h11^{km}, ML3.7, B*

ISC 11 09:44:00.8±0.4**, 24°.14N**±0°.02×**121°.78E**±0°.03**, h4**^{km}±3^{km}**, n63, σ0^s.93**/100**, 9C-3D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	0.17	282	*e*Pg	Pg	09 44 03.6	-0.6
NACB				*e*Sg	Sg	09 44 05.8	-0.6
TWD	Chiawan	0.18	251	⇓*i*P	Pg	09 44 04.5	+0.2
	baz=230						
TWD				*i* S	Sg	09 44 06.8	+0.2
	baz=230						
HWA	Hwalien	0.23	225	*e*P	Pg	09 44 06.1	+0.9
	baz=213						
ENA	Nanau	0.29	353	⇑*i*P	Pg	09 44 06.6	+0.1
	baz=5.0						
ENA				S	Sg	09 44 10.6	+0.3
	baz=5.0						
ESF	Shoufeng Towns	0.36	223	*e*P	Pg	09 44 07.2	-0.6
	baz=221						
ESL	Shilin	0.45	225	P	Pg	09 44 09.5	0.0
	baz=217						
ESL				*e*S	Sg	09 44 16.4	+1.0
	baz=217						
WHF	Hehuan Shan	0.47	271	⇑*i*P	Pg	09 44 09.4	-0.4
	baz=267						
WHF				S	Sg	09 44 14.9	-1.0
	baz=267						
TWC	Suao	0.47	8	⇑*i*P	Pg	09 44 10.2	+0.2
	baz=15						
TWC				S	Sg	09 44 16.8	+0.7
	baz=15						
NNS	Nan Shan	0.48	309	⇑*i*P	Pg	09 44 09.5	-0.5
	baz=312						
NNS				S	Sg	09 44 15.0	-1.2
	baz=312						
TEGC	Jichi Village	0.48	207	*e*P	Pg	09 44 12.5	+2.5
	baz=201						
ENTT	Nioudou	0.54	339	⇑*i*P	Pg	09 44 11.1	0.0
	baz=344						
ENTT				*e*S	Sg	09 44 18.1	0.0
	baz=344						
TWE	Neicheng	0.59	350	⇑*i*P	Pg	09 44 12.3	+0.1
	baz=355						
TWE				S	Sg	09 44 19.9	0.0
	baz=355						
ILA	Ilan	0.63	357	*e*P	Pg	09 44 12.6	-0.2
	baz=2.0						
ILA				*e*S	Sg	09 44 21.7	+0.7
	baz=2.0						
YHNB	Yeheng	0.64	325	*e*Pn	Pg	09 44 12.7	-0.5
YHNB				*e*Sn	Sg	09 44 20.9	-0.6
NSK	Sanguang	0.66	325	⇑*i*P	Pg	09 44 13.1	-0.4
	baz=328						
NSK				S	Sg	09 44 21.4	-0.7
	baz=328						
EHY	Hungye	0.76	214	P	Pg	09 44 14.8	-0.5
	baz=211						
SSLB	Suanglung	0.83	245	*e*Pn	Pn	09 44 16.1	-3.1
SSLB				*e*Sn	Sg	09 44 27.2	-0.3
SMLT	Sun Moon Lake	0.84	253	⇓P	Pg	09 44 16.8	-0.2
	baz=250						
SMLT				*e*S	Sg	09 44 26.6	-1.3
	baz=250						
TWA	Mucha	0.86	348	*e*P	Pg	09 44 16.9	-0.4
	baz=351						
NSTT	Nanjuang	0.86	305	*e*P	Pg	09 44 16.8	-0.6
	baz=306						
NSTT				*e*S	Sg	09 44 27.4	-1.2
	baz=306						
YULB	Yu-li	0.86	211	*e*Pn	Pn	09 44 17.4	-2.2
YULB				*e*Sn	Sn	09 44 31.3	-1.4
TYC	Yuchr	0.87	255	P	Pg	09 44 17.2	-0.4
	baz=252						
TYC				*e*S	Sg	09 44 27.2	-1.8
	baz=252						
TATO	Taipei	0.88	342	*e*Pn	Pn	09 44 16.9	-2.9
TWB1	Santiao Chiao	0.89	12	*e*P	Pg	09 44 17.9	0.0
	baz=8.0						
TWB1				*e*S	Sg	09 44 29.4	0.0
	baz=8.0						
TWF1	Yuli	0.90	210	*e*P	Pg	09 44 17.2	-0.8
	baz=217						
TAP1	Taipei	0.93	346	*e*P	Pg	09 44 18.4	-0.3
	baz=349						
NWF	Wu-fen Shan	0.93	0	*i* P	Pg	09 44 19.1	+0.4
	baz=3.0						
TWQ1	Liyutan	0.94	283	*e*P	Pg	09 44 19.1	+0.2
	baz=282						
TWQ1				*e*S	Sg	09 44 31.4	+0.3
	baz=282						
NSY	Sanyi	0.97	287	*e*P	Pg	09 44 19.8	+0.4
	baz=286						
NSY				*e*S	Sg	09 44 32.0	0.0
	baz=286						
NCU	National Centr	0.99	327	*e*P	Pg	09 44 20.1	+0.3
	baz=329						
NCU				*e*S	Sg	09 44 34.0	+1.4
	baz=329						
HSN	Hsinchu	0.99	312	*e*P	Pg	09 44 19.7	-0.1
	baz=316						
HSN				*e*S	Sg	09 44 33.0	+0.4
	baz=316						
YUS	Yu-Shan	0.99	230	*e*P	Pg	09 44 20.0	+0.1
	baz=227						
YUS				*e*S	Sg	09 44 33.3	+0.5
	baz=227						
TCU	Taichung	1.01	271	*e*P	Pg	09 44 20.6	+0.5
	baz=269						
TWS1	Kuangyinshan	1.01	341	⇑*i*P	Pg	09 44 20.6	+0.3
	baz=343						
TWS1				*e*S	Sg	09 44 35.1	+1.7
	baz=343						
WNT	Mingjian	1.03	256	*e*P	Pg	09 44 21.2	+0.6
	baz=247						
WNT				*e*S	Sg	09 44 36.1	+2.0
	baz=247						
ALS	Alishan	1.09	235	⇓*i*P	Pg	09 44 21.6	0.0
	baz=224						
ALS				*e*S	Sg	09 44 36.3	+0.5
	baz=224						
CHKT	Chengkung	1.10	200	*e*P	Pg	09 44 20.6	-1.3
	baz=184						
CHN5	Tsauling	1.14	242	P	Pg	09 44 22.7	0.0
	baz=246						
CHN5				*e*S	Sg	09 44 38.9	+1.3
	baz=246						
TWY	Chenhua	1.15	352	*e*P	Pg	09 44 23.8	+1.0
	baz=340						
YOJ	Yonaguni jima	1.17	74	*e*P	Pg	09 44 24.5	+1.2
	baz=62						
ELDTW	Lidau	1.17	217	*e*P	Pg	09 44 22.2	-1.2
	baz=207						
WGK	Gukeng	1.20	248	*e*P	Pg	09 44 23.7	-0.1
	baz=246						
CHN2	Minshiung	1.34	243	*e*P	Pn	09 44 26.9	+0.7
	baz=242						
CHN4	Tsaushan	1.34	234	*e*P	Pn	09 44 26.4	+0.2
	baz=228						
CHN4				*e*S	Sg	09 44 45.4	+1.5
	baz=228						
TPUB	Ta-pu	1.34	232	*e*Pn	Pn	09 44 25.8	-0.5
TPUB				*e*Sn	Sn	09 44 45.1	+0.5
STYT	Tauyuan	1.35	224	P	Pn	09 44 25.6	-0.8
	baz=223						
STYT				*e*S	Sg	09 44 43.1	-1.0
	baz=223						
WTP	Ta-pu	1.39	230	*e*P	Pn	09 44 26.9	0.0
	baz=222						
WTP				*e*S	Sb	09 44 46.6	+1.3
	baz=222						
CHY	Chiayi	1.39	243	*e*P	Pn	09 44 26.9	-0.1
	baz=242						
WTCT	Ta-ch'eng	1.40	259	*e*P	Pn	09 44 26.1	-0.9
	baz=258						
WTCT				*e*S	Sb	09 44 46.0	+0.4
	baz=258						
TWG	Pinlang	1.46	206	*e*Pn	Pn	09 44 25.0	-2.9
TWG	Pinlang	1.46	206	*e*P	Pn	09 44 24.8	-3.1
	baz=187						
TWK	Hsinying	1.47	234	*e*P	Pn	09 44 28.2	+0.2
	baz=234						
TWK				*e*S	Sb	09 44 48.2	+0.7
	baz=234						
CHN1	Nanshi	1.49	231	*e*P	Pn	09 44 28.3	0.0
	baz=232						
CHN1				*e*S	Sn	09 44 49.3	+1.2
	baz=232						
SGST	Jiashian	1.52	226	*e*P	Pn	09 44 28.8	+0.1
	baz=226						
SGST				*e*S	Sn	09 44 50.7	+1.8
	baz=226						
CHN8	Yiju	1.64	242	*e*P	Pn	09 44 30.9	+0.6
	baz=241						
CHN8				*e*S	Sn	09 44 54.0	+2.2
	baz=241						
ECL	Taimali	1.71	206	*e*P	Pn	09 44 29.9	-1.5
	baz=194						
SCLT	Jiali	1.74	237	*e*P	Pn	09 44 31.8	0.0
	baz=238						
SSD	Sandimen	1.74	217	*e*P	Pn	09 44 31.6	-0.2
	baz=218						
TWM1	Shoushan	1.81	224	*e*P	Pn	09 44 32.7	0.0
	baz=226						
LAY	Lan-yu	2.10	186	*e*P	Pn	09 44 35.4	-1.4
	baz=189						
TWK1	Hengchun	2.36	203	*e*P	Pn	09 44 43.0	+2.7
	baz=192						
QZH	Quanzhou	3.01	286	⇑*i*Pn	Pn	09 44 48.6	-0.6
QZH				Sn	Sn	09 45 22.4	-3.3
QZH				smax			
	comp=N,110nm,0.3s						
QZH				smax			
	comp=E,60nm,0.4s						
KNM	Kinmen	3.06	276	*e*P	Pn	09 44 50.6	+0.6
	baz=274						

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*ISCJB **11** 09:44:58.0±0.7, 10°.81N±0°.05×62°.37W±0°.03, h93^{km}±7^{km}, Error ellipse: s-maj=9.1km s-min=4.8km az=161.7*

*NEIC **11** 09:44:59.2, 10°.86N×62°.40W, h75^{km}, MD3.3(TRN), After TRN.*

*FUNV **11** 09:44:59.2, 10°.85N×62°.27W, h85^{km}, MW3.4*

*TRN **11** 09:44:59.2, 10°.86N×62°.40W, h75^{km}, MD3.3*

ISC 11 09:44:58.8±0.7**, 10°.82N**±0°.05×**62°.36W**±0°.03**, h88**^{km}±7^{km}**, n16, σ0^s.84**/31**, 5C-1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	Guiria	0.22	142	⇑*i*P	Pn	09 45 11.7	0.0
GUIV				*e*S	Sn	09 45 20.7	-0.4
TCE	Chacachacare	0.61	102	⇑*i*P	Pn	09 45 14.6	+0.3
TCE				*e*S	Sn	09 45 25.4	-0.5
GUNV	Guanoco	0.87	221	⇑*e*P	Pn	09 45 17.8	+0.8
GUNV				*e*S	Sn	09 45 32.0	+1.6
CRUV	Carupano	0.87	260	⇓*i*P	Pn	09 45 16.9	0.0
CRUV				*e*S	Sn	09 45 30.1	-0.3
TRN	Trinidad (W)	0.96	100	⇑*i*P	Pn	09 45 18.2	+0.3
TRN				*e*S	Sn	09 45 31.0	-1.2
TPP	Pointe-a-Pierr	1.03	119	*e*P	Pn	09 45 19.6	+0.9
TPP				*e*S	Sn	09 45 33.6	0.0
TPP	Pointe-a-Pierr	1.03	119	*e*P	Pn	09 45 19.6	+0.9
TPP				*e*S	Sn	09 45 35.1	+1.5
TBH	Brigand Hill	1.32	105	*e*P	Pn	09 45 22.6	+0.4
TBH				*e*S	Sn	09 45 39.3	-0.5
GRW	Mount Saint Ca	1.50	27	*e*P	Pn	09 45 23.7	-0.7
GRW				*e*S	Sn	09 45 42.7	-1.2
TPR	Prospect	1.60	77	⇑*i*P	Pn	09 45 26.5	+0.7
TPR				*e*S	Sn	09 45 46.5	+0.4
BOT	Bacolet	1.65	78	*e*P	Pn	09 45 26.7	+0.3
BOT				*e*S	Sn	09 45 47.6	+0.3
PCRV	Puerto La Cruz	2.33	254	*e*P	Pn	09 45 35.9	+0.6
GURV	El Guri	3.13	193	*e*P	Pn	09 45 45.8	-0.2
GURV				*e*S	Sn	09 46 20.6	-1.9
CUPV	Cœpira	3.45	258	*e*P	Pn	09 45 51.6	+1.2
CUPV				*e*S	Sn	09 46 30.4	0.0
CAOV	Caicara del Or	5.23	229	*e*P	Pn	09 46 14.7	+0.1
CAOV				*e*S	Sn	09 47 10.5	-3.2
BAUV	El Baul	5.90	252	*e*P	Pn	09 46 23.1	-0.6
BAUV				*e*S	Sn	09 47 26.0	-3.9

ISCJB ***11*** *09:51:41.5±0.6, 40°.80N±0°.03×39°.67E±0°.07, h10^{km}, Error ellipse: s-maj=7.5km s-min=3.9km az=19.9*
DDA ***11*** *09:51:41.7, 40°.81N×39°.69E, h7^{km}±3^{km}, Md2.8*
ISK ***11*** *09:51:41.5, 40°.82N×39°.69E, h8^{km}, MD1.9*
CSEM ***11*** *09:51:42.2±0.2, 40°.82N×39°.70E, h2^{km}, MD2.8, Error ellipse: s-maj=6.0km s-min=4.2km az=99.0*
ISC 11 09:51:41.3±1.6**, 40°.84N**±0°.05×**39°.69E**±0°.07**, h18**^{km}±12^{km}**, n12, σ0^s.42**/21**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MACK	Trabzon	0.12	31	*i* P	Pg	09 51 44.6	-0.6
MACK				*i* S	Sg	09 51 48.0	+0.2
MACK	Trabzon	0.12	31	*i* P	Pg	09 51 44.7	-0.5
MACK				*i* S	Sg	09 51 48.0	+0.2
KTUT	Trabzon	0.15	22	PG	Pg	09 51 45.7	0.0
KTUT				*e*SG	Sg	09 51 48.8	+0.2
KTUT	Trabzon	0.15	22	*i* Pg	Pg	09 51 45.7	0.0
KTUT				*e*Sg	Sg	09 51 48.8	+0.2
GUMT	Gumushane	0.41	203	*e*PG	Pg	09 51 49.6	-0.2
GUMT				*e*SG	Sg	09 51 55.4	-0.2
GUMT	Gumushane	0.41	203	*e*Pg	Pg	09 51 49.6	-0.3
GUMT				*e*Sg	Sg	09 51 55.4	-0.2
ESPY	Espiye-Giresun	0.73	276	*e*PG	Pg	09 51 56.1	+0.4
ESPY	Espiye-Giresun	0.73	276	*e*Pg	Pg	09 51 56.1	+0.4
KOPT	Kop Dagi	1.03	143	*i* P	Pg	09 52 01.5	+0.2
KOPT				*i* S	Sg	09 52 15.0	+0.2
KOPT	Kop Dagi	1.03	143	*i* P	Pg	09 52 01.5	+0.2
KOPT				*i* S	Sg	09 52 15.0	+0.2
KEMA	Kemaliye	1.82	211	*i* P	Pg	09 52 15.4	-0.9
KEMA				*i* S	Sg	09 52 40.7	+0.7
KEMA	Kemaliye	1.82	211	*i* P	Pg	09 52 15.4	-0.9

ECX ***11*** *10:03:53.6±0.4, 32°.44N×115°.25W, h7^{km}, MD3.0, ML3.2*
ISCJB ***11*** *10:03:54.6±0.3, 32°.48N±0°.02×115°.32W±0°.02, h8^{km}±3^{km}, Error ellipse: s-maj=3.4km s-min=2.8km az=169.8*
NEIC ***11*** *10:03:55.0, 32°.41N×115°.27W, h6^{km}, ML2.8(PAS), After PAS.*
ISC 11 10:03:55.0±0.3**, 32°.46N**±0°.02×**115°.31W**±0°.02**, h13**^{km}±3^{km}**, n31, σ1^s.11**/47**, 16C-14D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.05	171	⇓*e*P	Pg	10 03 56.5	-0.9
CPBX				*e*S	Sg	10 03 58.7	-0.5
CPBX				*e*		10 04 60.0	
	comp=N,37μm,0.3s						
SNR	Schaffner Ranc	0.41	345	*e*P	Pg	10 04 04.3	+1.1
COA	Coachella	0.43	22	⇓*i*P	Pg	10 04 04.2	+0.7
EMX	El Mayor	0.48	173	⇓*e*P	Pg	10 04 04.9	+0.5
EMX				*e*S	Sg	10 04 11.8	+1.1
EMX				⇑*e*		10 04 13.5	
	comp=N,874nm,0.4s						
112A	Yuma	0.62	83	⇑P	Pg	10 04 06.8	-0.3
	baz=0.6,SNR=66						
112A				⇑S	Sg	10 04 15.6	+0.3
	baz=0.6						
SWSC	Sam W. Stewart	0.63	320	⇑P	Pg	10 04 07.1	-0.1
	baz=0.7,SNR=57						
SWSC				⇑S	Sg	10 04 16.3	+0.8
	baz=0.7						
YMD	Yuma Desert	0.66	82	⇑*i*P	Pg	10 04 07.3	-0.4
DVTC	Desert V Tower	0.69	287	⇑P	Pg	10 04 08.7	+0.2
	baz=0.7,SNR=126						
DVTC				⇓S	Sg	10 04 18.6	+1.0
	baz=0.7						
CRR	Carrizo Plain	0.70	307	⇑*i*P	Pg	10 04 08.6	+0.1
GLA	Glamis	0.71	35	P	Pg	10 04 08.3	-0.6
	baz=0.7,SNR=37						
GLA				⇓S	Sg	10 04 17.6	-0.7
	baz=0.7						
RDX	Rancho Dawling	0.76	226	⇑*e*P	Pg	10 04 10.1	+0.5
RDX				*e*S	Sg	10 04 21.4	+1.9
RDX				⇓*e*		10 04 23.4	
	comp=N,630nm,0.8s						
ECBX	El Chinero	1.01	167	*e*P	Pb	10 04 14.7	+0.3
ECBX				*e*S	Sb	10 04 28.4	+0.8
MONP	Monument Peak	1.03	295	⇓P	Pb	10 04 13.6	-0.9
	baz=1.1,SNR=178						
MONP				⇓S	Sb	10 04 27.6	-0.3
	baz=1.1						
CBX	Cerro Bola	1.15	263	*e*P	Pb	10 04 16.4	-0.3
BAR	Barrett	1.17	281	*e*Pg	Pg	10 04 16.1	-1.4
BAR				*e*Sg	Sg	10 04 32.1	-0.6
BC3	Big Chuckw Mtn	1.19	354	⇑P	Pn	10 04 15.5	-1.9
	baz=1.3,SNR=10						
113A	Mohawk Valley,	1.34	77	⇓P	Pn	10 04 17.7	-1.6
	baz=1.3						
113A				⇑Sb	Sb	10 04 36.1	-0.9
	baz=1.3						
ECNX	Esteban Cantu	1.35	234	*e*P	Pn	10 04 18.6	-0.9
ECNX				*e*PN	Pn	10 04 20.5	+0.9
PBX	Punta Banda	1.40	239	*e*P	Pn	10 04 19.4	-0.7
PFO	Pinyon Flat Ob	1.49	320	P	Pn	10 04 19.9	-1.5
	baz=1.6,SNR=69						
PFO				⇑S	Sn	10 04 38.8	-2.0
	baz=1.6						
PFO	Pinyon Flat Ob	1.49	320	*e*Pg	Pg	10 04 22.4	-1.3
109C	Camp Elliot, M	1.57	286	⇓P	Pn	10 04 21.5	-1.0
	baz=1.6,SNR=21						
109C				⇓Sb	Sb	10 04 44.3	+0.7
	baz=1.6						
Y13A	Salome	1.83	42	⇑P	Pn	10 04 24.7	-1.5
	baz=1.9						
Y13A				⇓Sb	Sb	10 04 51.2	0.0
	baz=1.9						
MURC	Murrieta	1.95	306	⇓Sb	Sb	10 04 56.0	+1.5
	baz=2.0						
PDMCI	Parker Dam,Lak	2.08	28	⇓Sb	Sb	10 04 59.0	+0.8
	baz=2.1						
214A	Organ Pipe Nat	2.18	103	P	Pn	10 04 28.9	-2.0
	baz=2.1,SNR=23						
Z14A	Wintersburg	2.18	65	⇑Sb	Sb	10 05 02.0	+0.7
	baz=2.2						
Y14A	Wickenburg	2.43	52	⇑Sb	Sb	10 05 09.5	+1.1
	baz=2.4						
X13A	Yucca	2.46	30	⇑Sb	Sb	10 05 10.5	+1.3
	baz=2.5						
LDFC	Landfair	2.61	4	*e*Pn	Pn	10 04 39.1	+2.2
LDFC				*e*Sn	Sn	10 05 10.8	+2.4
WUAZ	Wupatki	4.47	46	Pn	Pn	10 05 04.8	+2.5

ECX ***11*** *10:05:49.7±0.7, 32°.49N×115°.29W, h3^{km}, MD2.8, ML2.9*
ISC 11 10:05:48.8±0.4**, 32°.49N**±0°.03×**115°.30W**±0°.03**, h26**^{km}±5^{km}**, n20, σ0^s.62**/31**, 12C-14D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGL	Mount Signal	0.39	293	⇑*i*P	Pb	10 05 56.8	-0.5
COA	Coachella	0.40	22	*e*P	Pb	10 05 57.6	+0.3
EMX	El Mayor	0.51	175	⇓*e*P	Pb	10 05 58.2	-0.9
EMX				*e*S	Sb	10 06 06.5	+0.3
EMX				⇑*e*		10 06 06.8	
	comp=N,447nm,0.5s						
YUH	Yuha Desert	0.55	286	⇑*i*P	Pb	10 05 59.3	-0.6
112A	Yuma	0.61	86	⇓P	Pb	10 06 00.2	-0.6
	baz=0.6						
112A				⇓S	Sb	10 06 09.1	+0.1
	baz=0.6						
SWSC	Sam W. Stewart	0.61	317	⇑P	Pb	10 06 00.4	-0.5
	baz=0.7						
SWSC				⇓S	Sb	10 06 09.7	+0.6
	baz=0.7						
YMD	Yuma Desert	0.64	84	⇑*i*P	Pb	10 06 00.7	-0.7
GLA	Glamis	0.68	35	⇓P	Pb	10 06 01.7	-0.4
	baz=0.7						
GLA				⇓S	Sb	10 06 11.0	-0.2
	baz=0.7						
CRR	Carrizo Plain	0.69	305	⇑*i*P	Pb	10 06 01.9	-0.3
DVTC	Desert V Tower	0.70	284	⇓P	Pb	10 06 02.0	-0.3
	baz=0.7						
DVTC				⇑S	Sb	10 06 11.9	+0.4
	baz=0.7						
RDX	Rancho Dawling	0.79	225	*e*P	Pb	10 06 03.5	-0.3
RDX				*e*S	Sb	10 06 14.6	+0.5
RDX				⇓*e*		10 06 16.7	
	comp=N,322nm,0.7s						
MONP	Monument Peak	1.03	293	⇓P	Pn	10 06 07.1	-0.3
	baz=1.1						
MONP				⇓S	Sn	10 06 20.7	-0.3
	baz=1.1						
ECBX	El Chinero	1.04	168	*e*P	Pn	10 06 08.1	+0.4
ECBX				*e*S	Sn	10 06 22.1	+0.8
BC3	Big Chuckw Mtn	1.17	354	⇑P	Pn	10 06 09.1	-0.3
	baz=1.3						
CBX	Cerro Bola	1.17	262	*e*P	Pn	10 06 10.3	+0.9
113A	Mohawk Valley,	1.32	78	⇓P	Pn	10 06 11.0	-0.5
	baz=1.3						
113A				⇓S	Sn	10 06 27.7	-0.5
	baz=1.3						
PFO	Pinyon Flat Ob	1.48	319	⇑P	Pn	10 06 13.2	-0.4
	baz=1.6						
PFO				⇑S	Sn	10 06 32.1	0.0
	baz=1.6						
109C	Camp Elliot, M	1.57	285	⇓P	Pn	10 06 14.7	-0.3
	baz=1.6						
109C				⇑Sb	Sb	10 06 37.7	+1.0
	baz=1.6						
Y13A	Salome	1.80	43	⇓Sb	Sb	10 06 44.3	+1.0
	baz=1.9						
Y14A	Wickenburg	2.40	53	⇑Sb	Sb	10 07 02.3	+1.9
	baz=2.4						

PGC 11 10:12:04.3±0.1**, 57°.40N**×**125°.55W, h1**^{km}**, ML4.1**/8**, 17D, British Columbia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FNBB	Fort Nelson	2.01	41	⇓Pn	Pn	10 12 39.4	+0.1
FNBB				⇑Sg	Sg	10 13 04.5	-4.3
BMBC	Bull Mountain	2.32	124	⇑Pn	Pn	10 12 43.0	-0.5
BMBC				⇓Sg	Sg	10 13 14.8	-3.9
DLBC	Dease Lake	2.61	295	⇓Pn	Pn	10 12 46.9	-0.6
DLBC				⇓Pg	Pg	10 12 50.1	-4.1
DLBC				⇓Sg	Sg	10 13 24.5	-3.4
FSB	Fort Saint Jam	3.01	166	⇓Pn	Pn	10 12 51.9	-1.1
FSB				⇓Sg	Sg	10 13 37.1	-3.8
RUBB	Prince Rupert	4.06	223	⇑Pg	Pg	10 13 17.1	-5.0
RUBB				⇑Sg	Sg	10 14 07.5	-7.2
SULB	Vanderhoof	4.19	170	⇓Pn	Pn	10 13 08.7	-0.5
SULB				⇑Pg	Pg	10 13 18.6	-5.8
SULB				⇓Sg	Sg	10 14 12.0	-6.6
UBRB	Upper Baezaeko	4.60	169	⇓Pn	Pn	10 13 13.7	-1.1
UBRB				⇓Sg	Sg	10 14 24.9	-6.9
ALRB	Anaheim Lake	4.91	177	⇑Pn	Pn	10 13 18.4	-0.7
ALRB				⇓Pg	Pg	10 13 33.2	-5.0
ALRB				⇓Sg	Sg	10 14 34.5	-7.3
CLSB	Cack Lake	4.96	158	⇑Pn	Pn	10 13 19.2	-0.6
CLSB				⇑Pg	Pg	10 13 32.8	-6.4
CLSB				⇓Sg	Sg	10 14 37.6	-5.8
BCBC	Bella Coola	5.09	188	⇑Pn	Pn	10 13 20.4	-1.1
BBB	Bella Bella	5.43	197	⇓Pg	Pg	10 13 40.8	-7.5
BBB				⇑Sg	Sg	10 14 51.0	-7.7
TALB	Tatla Lake BC	5.45	172	⇑Pn	Pn	10 13 26.1	-0.4
TALB				⇓Pg	Pg	10 13 43.2	-5.3
TALB				⇓Sg	Sg	10 14 51.5	-7.6

ISCJB ***11*** *10:15:17.5±0.6, 24°.32S±0°.05×67°.83W±0°.07, h128^{km}±8^{km}, mb4.0/6, Error ellipse: s-maj=10.0km s-min=8.6km az=179.2*
IDC ***11*** *10:15:18.4±1.0, 24°.37S×67°.77W, h121^{km}±10^{km}, mb3.8/6, mb1 3.9/9, mb1mx3.8/19, mbtmp3.8/9, MS3.0/1, Ms1 3.0/1, ms1mx2.3/26, Error ellipse: s-maj=17.2km s-min=10.8km az=73.0*
GUC ***11*** *10:15:21.0±0.6, 24°.00S×68°.14W, h169^{km}±8^{km}, ML4.4*
NEIC ***11*** *10:15:21.0, 24°.00S×68°.14W, h169^{km}, MG4.4(GUC), After GUC.*
ISC 11 10:15:18.3±0.6**, 24°.35S**±0°.05×**67°.81W**±0°.06**, h118**^{km}±7^{km}**, n25, σ1^s.17**/31**, mb4.0**/6**, 2C-1D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.00	329	P	Pn	10 15 54.1	+2.4
	187nm,0.3s,baz=164,slow=5.6,SNR=1149						
LVC				S	Sn	10 16 19.4	+2.2
	268nm,0.3s,baz=261,slow=24,SNR=77						
LVC	Limon Verde	2.00	329	⇓*i*P	Pn	10 15 54.0	+2.3
LVC				*i* S	Sn	10 16 18.9	+1.7
LVC				AML	AML	10 16 20.4	
	comp=E,2μm,0.3s						
PECH	Pedro de Valdi	2.44	315	⇑*i*P	Pn	10 15 58.5	+1.3
PECH				*i* S	Sn	10 16 27.2	0.0
PECH				AML	AML	10 16 28.5	
	comp=E,3μm,0.2s						
PB04	Plate Boundary	2.58	323	⇑*i*P	Pn	10 16 04.2	+5.1
PB04				*i* S	Sn	10 16 37.2	+6.7
PB04				AML	AML	10 16 38.9	
	comp=N,1μm,0.8s						
MECH	Mejillones	2.72	297	*e*P	Pn	10 16 01.6	+0.8
MECH				*i* S	Sn	10 16 32.6	-0.9
MECH				AML	AML	10 16 38.5	
	comp=N,2μm,0.6s						
MACH	Maria Elena	2.79	320	*e*P	Pn	10 16 02.6	+0.8
MACH				*i* S	Sn	10 16 34.3	-1.0
TOCH	Tocopilla	3.14	315	*e*P	Pn	10 16 06.6	+0.2
TOCH				*i* S	Sn	10 16 41.1	-2.4
TOCH				AML	AML	10 16 43.9	
	comp=N,884nm,0.5s						
PB01	Plate Boundary	3.63	334	*e*P	Pn	10 16 13.0	+0.1
PB01				*i* S	Sn	10 16 50.1	-5.1
PB01				AML	AML	10 16 57.7	
	comp=E,453nm,0.5s						
PSGC	Pisagua	5.19	335	*e*P	Pn	10 16 30.7	-3.1
LCO	Las Campanas	5.32	208	*e*Pn	Pn	10 16 34.8	-0.7
CFAA	Coronel Fontan	7.24	183	P	Pn	10 17 01.6	+0.2
	comp=E,0.1nm,0.3s,baz=350,slow=12,SNR=11						
CFAA				S	Sn	10 18 19.2	-2.8
	comp=E,0.3nm,0.3s,baz=242,slow=16,SNR=10						
CPUP	Villa Florida	9.68	104	P	Pn	10 17 34.9	+0.3
	comp=E,0.5nm,0.3s,baz=277,slow=12,SNR=8.9						
CPUP				LR	LR	10 21 56.3	
	comp=E,85nm,18.3s,baz=132,slow=41						
SIV	San Ignacio	10.44	39	P	Pn	10 17 43.2	-1.6
	comp=E,1.6nm,0.3s,baz=251,slow=10,SNR=23						
SIV				S	Sn	10 19 39.4	-0.5
	comp=E,0.2nm,0.3s,baz=330,slow=24,SNR=6.2						
VNA3	Neumayer Olymp	57.07	161	*e*	P	10 24 55.1	+3.5
VNA2	Neumayer--Watz	57.64	160	*e*	P	10 24 56.7	+1.0
	baz=304,slow=7.6						
TXAR	Lajitas Array	63.53	325	P	P	10 25 35.6	-0.5
	comp=E,0.5nm,0.7s,mb3.5,baz=147,slow=8.6,SNR=5.4						
QSPA	South Pole Qui	65.86	180	P	P	10 25 51.7	+1.1
	comp=E,2.4nm,0.5s,mb4.3,baz=216,slow=1.2,SNR=18						
DBIC	Dimbokro	68.61	72	P	P	10 26 08.8	-0.2
	comp=E,4.0nm,0.6s,mb4.4,baz=223,slow=6.7,SNR=11						
PDAR	Pinedale Array	77.07	330	P	P	10 26 58.4	+0.2
	comp=E,0.3nm,0.6s,mb3.2,baz=132,slow=5.0,SNR=2.7						
TORD	Torodi Ar. Bea	77.38	69	P	P	10 27 00.5	-0.2
	comp=E,8.1nm,0.7s,mb4.6,baz=262,slow=6.1,SNR=55						
YKA	Yellowknife Ar	94.19	340	P	P	10 28 22.7	-0.5
	comp=E,0.4nm,0.6s,mb4.0,baz=135,slow=4.4,SNR=11						
ASAR	Alice Springs	127.83	205	PKP	PKPdf	10 34 10.1	-0.5
	comp=E,0.6nm,0.8s,baz=150,slow=2.0,SNR=7.1						
WRA	Warramunga Arr	130.98	208	PKP	PKPdf	10 34 15.8	-0.8
	comp=E,0.9nm,1.2s,baz=153,slow=1.8,SNR=5.3						
ZALV	Zalesovo Beam	144.04	28	PKP	PKPdf	10 34 38.4	-1.1
	comp=E,1.1nm,0.5s,baz=305,slow=5.1,SNR=3.2						
MKAR	Makanchi Array	147.26	39	PKPbc	PKPbc	10 34 47.4	-0.3
	comp=E,0.3nm,0.5s,baz=296,slow=3.6,SNR=5.8						

ISCJB ***11*** *10:35:12.1±0.9, 27°.65N±0°.07×55°.41E±0°.06, h10^{km}, mb3.5/3, Error ellipse: s-maj=11.8km s-min=5.4km az=30.5*
IDC ***11*** *10:35:12.0±9.8, 27°.88N×55°.15E, h0^{km}, mb3.6/3, mb1 3.6/3, mb1mx3.3/24, mbtmp3.6/3, Error ellipse: s-maj=417.0km s-min=29.3km az=148.0*
TEH ***11*** *10:35:19.2, 27°.78N×55°.66E, h19^{km}*
ISC 11 10:35:15.5±1.0**, 27°.69N**±0°.08×**55°.53E**±0°.06**, h10**^{km}**, n11, σ1^s.63**/16**, mb3.5**/3**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IBND	Bandar-abas	0.93	105	*e*Pg	Pg	10 35 33.9	+0.5
IBND				*e*Sg	Sg	10 35 46.2	+0.7
IBND				*e*		10 36 45.1	
	comp=Z,15μm,0.4s						
ISRV	Sarvestan	2.71	309	*e*Pn	Pn	10 36 02.1	+3.0
ISRV				*e*Sn	Sn	10 36 34.3	+2.3
ISRV				*e*		10 37 05.1	
	comp=Z,774nm,0.3s						
IMOK	Mouk	2.83	299	*e*Pn	Pg	10 36 09.6	0.0
IPAR	Pars	3.06	315	*e*Sn	Sn	10 36 42.4	+1.9
IPAR				*e*		10 37 11.6	
	comp=Z,614nm,0.4s						
IBAF	Bafgh	3.89	1	*e*	Pn	10 36 18.6	+3.3
	comp=Z,153nm,0.2s						
IBAF				*e*Sn	Sn	10 37 00.1	-0.9
ISAD	Sadrabad	4.51	340	*e*Pn	Pn	10 36 26.2	+2.4
ISAD				*e*Sn	Sn	10 37 15.9	-0.3
ISAD				*e*		10 37 49.2	
	comp=Z,214nm,0.4s						
IPIR	Pirpir	6.39	322	*e*Sn	Sn	10 38 01.3	-1.5
NAY	Al-Naaiem	7.46	284	*e*P	Pn	10 37 01.8	-2.5
NAY				*e*S	Sn	10 38 23.3	-5.7
NAY				AML	AML	10 38 24.1	
	comp=Z,1.3nm,0.6s						
MKAR	Makanchi Array	28.38	41	P	P	10 41 08.7	-1.1
	comp=Z,0.2nm,0.6s,mb3.0,baz=229,slow=6.5,SNR=3.8						
ZALV	Zalesovo Beam	33.91	31	P	P	10 41 56.6	-1.8
	comp=Z,1.0nm,0.5s,mb4.0,baz=248,slow=7.6,SNR=3.4						
TORD	Torodi Ar. Bea	52.10	265	P	P	10 44 21.8	-4.3
	comp=Z,0.4nm,0.5s,mb3.6,baz=63,slow=7.1,SNR=6.2						

ISK ***11*** *10:37:23.2, 37°.31N×28°.21E, h5^{km}, MD2.8*
ISCJB ***11*** *10:37:24.5±0.5, 37°.30N±0°.02×28°.23E±0°.03, h6^{km}±12^{km}, Error ellipse: s-maj=4.4km s-min=3.6km az=38.7*
CSEM ***11*** *10:37:24.8±0.2, 37°.28N×28°.22E, h2^{km}, MD2.8, Error ellipse: s-maj=5.1km s-min=3.8km az=31.0*
DDA ***11*** *10:37:24.6, 37°.23N×28°.22E, h7^{km}±6^{km}, Md2.6*
ISC 11 10:37:25.1±0.5**, 37°.29N**±0°.03×**28°.24E**±0°.03**, h6**^{km}±11^{km}**, n30, σ1^s.01**/51**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.16	168	*e*PG	Pg	10 37 27.4	-0.9
YER				*e*SG	Sg	10 37 31.1	+0.6
YER	Yerkesik	0.16	168	*e*Pg	Pg	10 37 27.5	-0.8
YER				*e*Sg	Sg	10 37 31.1	+0.6
MLSB	Milas	0.37	270	*e*PG	Pg	10 37 31.1	-1.2
MLSB				*e*SG	Sg	10 37 37.4	+0.3
MLSB	Milas	0.37	270	*e*Pg	Pg	10 37 31.1	-1.1
MLSB				*e*Sg	Sg	10 37 37.4	+0.3
AYDN	Tasoluk	0.47	322	*i* P	Pg	10 37 34.6	+0.5
AYDN				*i* S	Sg	10 37 39.8	-0.4
AYDN	Tasoluk	0.47	322	*i* P	Pg	10 37 34.6	+0.5
AYDN				*i* S	Sg	10 37 39.8	-0.4
TURN	Turunc	0.51	145	*i* P	Pg	10 37 33.6	-1.3
TURN				*i* S	Sg	10 37 41.0	-0.5
TURN	Turunc	0.51	145	*i* P	Pg	10 37 33.6	-1.3
TURN				*i* S	Sg	10 37 41.0	-0.5
DALT	Dalyan (Mudla)	0.61	149	*e*PG	Pg	10 37 36.6	-0.2
DALT				*e*SG	Sg	10 37 46.5	+1.7
DALT	Dalyan (Mudla)	0.61	149	*e*Pg	Pg	10 37 36.6	-0.2
DALT				*e*Sg	Sg	10 37 46.5	+1.7
BDRM	Kayabasi	0.68	251	*i* P	Pg	10 37 36.6	-1.5
BDRM				*i* S	Sg	10 37 47.7	+0.9
BDRM	Kayabasi	0.68	251	*i* P	Pg	10 37 36.6	-1.5
BDRM				*i* S	Sg	10 37 47.7	+0.9
DAT	Datca	0.77	223	*e*PG	Pg	10 37 39.1	-0.8
DAT				*e*SG	Sg	10 37 52.0	+2.0
DAT	Datca	0.77	223	*e*Pg	Pg	10 37 39.1	-0.8
BODT	Bodrum	0.78	253	*e*PG	Pg	10 37 39.4	-0.6
BODT				*e*SG	Sg	10 37 50.7	+0.6
BODT	Bodrum	0.78	253	*e*Pg	Pg	10 37 39.4	-0.6
BODT				*e*Sg	Sg	10 37 50.7	+0.6
GCAM	G?zelcaml?	0.90	297	*i* P	Pg	10 37 41.2	-1.1
GCAM	G?zelcaml?	0.90	297	*i* P	Pg	10 37 41.2	-1.1
FETY	Fethiye	0.94	134	*e*PG	Pg	10 37 43.4	+0.2
FETY	Fethiye	0.94	134	*e*Pg	Pg	10 37 43.4	+0.3
GOLH	Golhisar	1.05	93	*i* P	Pg	10 37 43.6	-1.7
GOLH				*i* S	Sg	10 38 06.3	+7.3
GOLH	Golhisar	1.05	93	*i* P	Pg	10 37 43.6	-1.7
MANT	Manisa	1.22	12	*i* P	Pg	10 37 49.7	+1.2
MANT				*i* S	Sg	10 38 05.9	+1.5
MANT	Manisa	1.22	12	*i* P	Pg	10 37 49.7	+1.2
MANT				*i* S	Sg	10 38 05.9	+1.5
ELL	Elmali	1.44	112	*e*PN	Pn	10 37 52.0	+0.3
ELL	Elmali	1.44	112	*e*Pn	Pn	10 37 52.0	+0.3
KHAL	Karahalli	1.46	42	*i* P	Pg	10 37 52.6	-0.5
KHAL				*i* S	Sg	10 38 16.4	+4.4
KHAL	Karahalli	1.46	42	*i* P	Pg	10 37 52.6	-0.5
KHAL				*i* S	Sg	10 38 16.5	+4.4
AKAS	Kas	1.52	134	*i* P	Pg	10 37 55.0	+0.7
AKAS				*i* S	Sg	10 38 18.5	+4.5
AKAS	Kas	1.52	134	*i* P	Pg	10 37 55.0	+0.7

IDC 11 10:43:47.7±2.1**, 12°.10N**×**91°.27E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/5**, mb1mx3.5**/23**, mbtmp3.5**/5**, ML3.9**/1**, Error ellipse: s-maj=64.3km s-min=23.9km az=69.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	9.73	49	Pn	Pn	10 46 07.0	-2.1
	0.3nm,0.3s,baz=236,slow=15,SNR=2.9						
MKAR	Makanchi Array	35.40	349	P	P	10 50 44.3	-0.9
	1.0nm,0.9s,baz=171,slow=8.4,SNR=8.4						
SONM	Songino Array	37.81	17	P	P	10 51 07.4	+1.7
	0.8nm,1.0s,baz=200,slow=8.3,SNR=4.2						
WRA	Warramunga Arr	53.02	126	P	P	10 53 06.8	0.0
	0.3nm,0.6s,baz=299,slow=10,SNR=4.9						
ASAR	Alice Springs	54.79	131	P	P	10 53 19.8	+0.1
	0.3nm,0.7s,baz=301,slow=8.7,SNR=4.1						

CSEM ***11*** *10:48:40.6±0.3, 37°.24N×26°.90E, h5^{km}, MD2.9, Error ellipse: s-maj=6.3km s-min=3.2km az=71.0*
ISK ***11*** *10:48:40.8, 37°.24N×26°.95E, h7^{km}, MD2.9*
DDA ***11*** *10:48:42.3, 37°.28N×27°.09E, h6^{km}±5^{km}, Md2.8*
ISC 11 10:48:40.7±1.5**, 37°.24N**±0°.04×**26°.89E**±0°.09**, h4**^{km}±8^{km}**, n24, σ0^s.59**/41**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BODT	Bodrum	0.38	118	*e*PG	Pg	10 48 47.8	-0.2
BODT				*e*SG	Sg	10 48 52.7	-0.2
BODT	Bodrum	0.38	118	*e*Pg	Pg	10 48 47.8	-0.2
BODT				*e*Sg	Sg	10 48 52.7	-0.2
BDRM	Kayabasi	0.47	111	*i* P	Pg	10 48 49.5	-0.3
BDRM				*i* S	Sg	10 48 56.2	+0.2
BDRM	Kayabasi	0.47	111	*i* P	Pg	10 48 49.5	-0.3
BDRM				*i* S	Sg	10 48 56.2	+0.2
GCAM	G?zelcaml?	0.53	31	*i* P	Pg	10 48 51.3	+0.3
GCAM				*i* S	Sg	10 48 59.2	+1.3
GCAM	G?zelcaml?	0.53	31	*i* P	Pg	10 48 51.3	+0.3
GCAM				*i* S	Sg	10 48 59.2	+1.3
MLSB	Milas	0.71	85	*e*PG	Pg	10 48 54.0	-0.3
MLSB				*e*SG	Sg	10 49 03.7	+0.3
MLSB	Milas	0.71	85	*e*Pg	Pg	10 48 54.0	-0.3
MLSB				*e*Sg	Sg	10 49 03.7	+0.2
DAT	Datca	0.75	133	*e*PG	Pg	10 48 55.2	+0.2
DAT				*e*SG	Sg	10 49 05.6	+0.8
DAT	Datca	0.75	133	*e*Pg	Pg	10 48 55.2	+0.1
DAT				*e*Sg	Sg	10 49 05.6	+0.8
AYDN	Tasoluk	0.89	62	*i* P	Pg	10 48 56.6	-1.2
AYDN				*i* S	Sg	10 49 08.1	-1.3
AYDN	Tasoluk	0.89	62	*i* P	Pg	10 48 56.6	-1.2
AYDN				*i* S	Sg	10 49 08.1	-1.3
YER	Yerkesik	1.12	95	*e*PG	Pg	10 49 02.2	+0.1
YER				*e*SG	Sg	10 49 16.9	+0.3
YER	Yerkesik	1.12	95	*e*Pg	Pg	10 49 02.2	+0.1
YER				*e*Sg	Sg	10 49 16.9	+0.3
IZM	Izmir	1.19	14	*e*PN	Pn	10 49 03.7	-0.4
IZM	Izmir	1.19	14	*e*Pn	Pn	10 49 03.7	-0.4
TURN	Turunc	1.42	104	*i* P	Pn	10 49 02.6	-4.6
TURN				*i* S	Sb	10 49 18.6	-7.4
TURN	Turunc	1.42	104	*i* P	Pn	10 49 02.6	-4.6
DALT	Dalyan (Mudla)	1.47	108	*e*PN	Pn	10 49 07.8	-0.2
DALT	Dalyan (Mudla)	1.47	108	*e*Pn	Pn	10 49 07.8	-0.2
MANT	Manisa	1.82	46	*i* P	Pn	10 49 13.2	+0.6
MANT				*i* S	Sn	10 49 36.4	+0.3
MANT	Manisa	1.82	46	*i* P	Pn	10 49 13.2	+0.5
MANT				*i* S	Sn	10 49 36.4	+0.3
FETY	Fethiye	1.86	108	*e*PN	Pn	10 49 13.0	-0.2
FETY	Fethiye	1.86	108	*e*Pn	Pn	10 49 13.0	-0.2

ISCJB **11** *10:50:17.0±1.3, 37°.25N±0°.04×26°.97E±0°.08, h7^{km}±6^{km}, Error ellipse: s-maj=11.6km s-min=6.3km az=165.6*
CSEM **11** *10:50:16.5±0.4, 37°.29N×26°.95E, h2^{km}, MD2.9, Error ellipse: s-maj=7.6km s-min=4.0km az=71.0*
DDA **11** *10:50:17.6, 37°.25N×27°.09E, h7^{km}±4^{km}, Md2.7*
ISK **11** *10:50:17.3, 37°.29N×27°.05E, h8^{km}, MD2.9*
ISC 11 10:50:16.7±1.5**, 37°.25N**±0°.04×**26°.93E**±0°.09**, h3**^{km}±7^{km}**, n25, σ0^{s}.86**/39**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BODT	Bodrum	0.36	121	*e*PG	Pg	10 50 23.4	-0.1
BODT				*e*SG	Sg	10 50 28.6	+0.4
BODT	Bodrum	0.36	121	*e*Pg	Pg	10 50 23.4	-0.2
BODT				*e*Sg	Sg	10 50 28.6	+0.4
BDRM	Kayabasi	0.45	114	*i* P	Pg	10 50 25.2	-0.1
BDRM				*i* S	Sg	10 50 32.1	+0.9
BDRM	Kayabasi	0.45	114	*i* P	Pg	10 50 25.2	-0.2
BDRM				*i* S	Sg	10 50 32.1	+0.9
GCAM	G?zelcaml?	0.51	28	*i* P	Pg	10 50 26.9	+0.4
GCAM				*i* S	Sg	10 50 34.9	+1.7
MLSB	Milas	0.68	86	*e*PG	Pg	10 50 29.0	-0.7
MLSB				*e*SG	Sg	10 50 37.6	-0.9
MLSB	Milas	0.68	86	*e*Pg	Pg	10 50 29.0	-0.7
MLSB				*e*Sg	Sg	10 50 37.6	-0.9
DAT	Datca	0.74	135	*e*PG	Pg	10 50 31.5	+0.7
DAT	Datca	0.74	135	*e*Pg	Pg	10 50 31.5	+0.7
AYDN	Tasoluk	0.86	61	*i* P	Pg	10 50 32.3	-0.9
AYDN				*i* S	Sg	10 50 43.4	-1.0
AYDN	Tasoluk	0.86	61	*i* P	Pg	10 50 32.3	-0.9
AYDN				*i* S	Sg	10 50 43.4	-1.0
YER	Yerkesik	1.09	96	*e*PG	Pg	10 50 37.2	-0.3
YER	Yerkesik	1.09	96	*e*Pg	Pg	10 50 37.2	-0.3
IZM	Izmir	1.18	13	*e*PN	Pn	10 50 39.1	-0.9
IZM				*e*SN	Sn	10 50 55.3	-1.2
IZM	Izmir	1.18	13	*e*Pn	Pn	10 50 39.1	-0.9
IZM				*e*Sn	Sn	10 50 55.3	-1.2
TURN	Turunc	1.39	105	*i* P	Pn	10 50 38.6	-4.4
TURN				*i* S	Sb	10 50 54.1	-7.4
TURN	Turunc	1.39	105	*i* P	Pn	10 50 38.6	-4.4
DALT	Dalyan (Mudla)	1.45	109	*e*PN	Pn	10 50 43.4	-0.4
DALT	Dalyan (Mudla)	1.45	109	*e*Pn	Pn	10 50 43.4	-0.4
MANT	Manisa	1.79	46	*i* P	Pn	10 50 49.5	+1.1
MANT				*i* S	Sn	10 51 13.3	+1.7
MANT	Manisa	1.79	46	*i* P	Pn	10 50 49.5	+1.1
MANT				*i* S	Sn	10 51 13.3	+1.7
FETY	Fethiye	1.83	109	*e*PN	Pn	10 50 48.8	-0.2
FETY	Fethiye	1.83	109	*e*Pn	Pn	10 50 48.8	-0.2
ELL	Elmali	2.44	101	*e*PN	Pn	10 50 57.7	+0.3
ELL	Elmali	2.44	101	*e*Pn	Pn	10 50 57.7	+0.3

TRN 11 11:01:08.5, 17°.51N×62°.33W, h27^{km}**, MD3.5, M3.7**(FDF)**, 2D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKI	Saint Kitts	0.43	246⇓	*i*P	Pb	11 01 19.7	+2.1
SKI				*e*S	Sb	11 01 26.8	+2.9
BPA	Boggy Peak	0.64	136⇓	*i*P	Pb	11 01 23.2	+2.1
BPA				*e*S	Sb	11 01 31.6	+1.8
SEG	Port Louis	1.35	144	*e*P	Pn	11 01 32.8	+1.2
LZG	Guadaloupe-1	1.46	159	*e*P	Pn	11 01 34.6	+1.6
SCG	Saint Claude	1.60	157	*e*P	Pn	11 01 36.8	+1.8
PHG	Guadaloupe-2	1.62	156	*e*P	Pn	11 01 37.5	+2.2
DEG	La Desirade	1.70	134	*e*P	Pn	11 01 37.1	+0.7
DEG				*e*S	Sn	11 01 59.3	+2.1
TBG	Guadaloupe-3	1.77	158	*e*P	Pn	11 01 39.5	+2.2
MGG	Marie-Galante	1.85	148	*e*P	Pn	11 01 40.5	+2.0

IDC 11 11:27:33.6±2.4**, 20°.71S×178°.33W, h545**^{km}±25^{km}**, mb3.1**/9**, mb1 3.4**/10**, mb1mx3.3**/18**, mbtmp3.2**/10**, Error ellipse: s-maj=55.3km s-min=14.2km az=151.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	9.21	44	P	P	11 29 42.9	-0.7
	3.1nm,0.3s,baz=51,slow=19,SNR=6.2						
CTA	Charters Tower	33.16	265	P	P	11 33 25.6	+0.1
	2.7nm,0.4s,baz=255,slow=20,SNR=5.9						
STKA	Stephens Creek	37.42	244	P	P	11 34 01.1	+0.3
	1.4nm,0.5s,baz=85,slow=12,SNR=9.0						
ASAR	Alice Springs	44.17	257	P	P	11 34 54.4	-0.1
	1.2nm,0.6s,baz=89,slow=8.6,SNR=26						
WRA	Warramunga Arr	44.26	262	P	P	11 34 54.8	-0.5
	0.5nm,0.2s,baz=96,slow=7.9,SNR=50						
PETK	Petropavlovsk-	76.39	345	P	P	11 38 27.3	+0.4
	2.0nm,0.7s,baz=98,slow=8.6,SNR=5.0						
NVAR	Mina Array Bea	81.39	43	P	P	11 38 54.8	+1.0
	0.6nm,0.6s,baz=234,slow=6.6,SNR=4.3						
TXAR	Lajitas Array	87.43	57	P	P	11 39 24.0	+0.4
	0.4nm,0.9s,baz=209,slow=7.2,SNR=4.1						
PDAR	Pinedale Array	89.33	43	P	P	11 39 32.6	+0.6
	0.7nm,0.6s,baz=211,slow=3.4,SNR=6.4						
CMAR	Chiang Mai Arr	89.89	290	P	P	11 39 36.2	+1.0
	0.3nm,0.4s,baz=119,slow=2.7,SNR=6.8						
BVAR	Borovoye Array	119.04	320	PKP	PKPdf	11 45 18.8	-1.5
	0.7nm,0.4s,baz=125,slow=3.3,SNR=5.3						
ARCES	ARCESS Array B	129.07	349	PKP	PKPdf	11 45 38.2	-0.9
	3.4nm,0.9s,baz=56,slow=3.1,SNR=3.6						
AKASG	Malin Array Be	143.04	331	PKhKP		11 46 01.7	
	4.2nm,0.4s,baz=42,slow=4.4,SNR=25						
BRTR	Keskin Array B	146.75	312	PKPbc	PKPbc	11 46 14.0	-0.8
	1.0nm,0.6s,baz=121,slow=3.7,SNR=4.3						
GERES	GERESS Array B	150.31	344	PKPbc	PKPbc	11 46 22.9	-0.5
	0.8nm,0.6s,baz=0.0,slow=1.3,SNR=7.0						

IDC **11** *11:39:02.5±0.7, 7°.89N×94°.82E, h0^{km}, mb4.0/11, mb1 4.1/11, mb1mx3.9/23, mbtmp3.9/11, MS3.7/2, Ms1 3.8/2, ms1mx3.1/29, Error ellipse: s-maj=34.0km s-min=17.3km az=59.0*
ISCJB **11** *11:39:07.9±1.2, 7°.79N±0°.07×94°.5E±0°.1, h64^{km}±15^{km}, mb4.3/24, Error ellipse: s-maj=21.7km s-min=9.6km az=156.9*
NEIC **11** *11:39:10.3±2.2, 7°.79N×94°.54E, h73^{km}±20^{km}, mb4.4/2, Error ellipse: s-maj=34.0km s-min=11.2km az=66.0*
BJI **11** *11:39:12.3, 7°.80N×94°.50E, h73^{km}, mB4.8/1, mb4.2/3*
ISC 11 11:39:09.3±1.0**, 7°.75N**±0°.07×**94°.4E**±0°.1**, h61**^{km}±12^{km}**, n39, σ1^{s}.11**/37**, mb4.3**/24**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	2.40	159⇓	*e*P	Pn	11 39 45.0	-1.3
BSI				*e*S	Sn	11 40 15.0	+0.4
KULM	Kulim	6.65	111	*e*Pn	Pn	11 40 44.2	-0.2
	13nm,0.8s						
PSI	Prapat	6.65	137	Pn	Pn	11 40 46.0	+1.5
	0.8nm,0.3s,baz=328,slow=9.4,SNR=8.2						
CMAR	Chiang Mai Arr	11.51	22	Pn	Pn	11 41 56.0	+5.1
	0.4nm,0.3s,baz=210,slow=15,SNR=15						
CMAR				LR	LR	11 46 24.0	
	comp=Z,72nm,21.1s,baz=195,slow=39						
CHTO	Chiang Mai	11.84	21	*e*Pn	Pn	11 41 55.9	+0.5
	5.0nm,0.8s						
ODAN	Odare	20.14	341	*e*P	P	11 43 38.8	+0.3
RAMN	Ramite	20.49	340	*e*P	P	11 43 42.3	+0.1
	51nm,0.7s						
TAPN	Taplejung	20.50	343	*e*P	P	11 43 44.3	+1.9
	45nm,0.8s						
JIRN	Jiri	21.28	340	*e*P	P	11 43 51.2	+0.4
	16nm,0.4s,mb4.7						
PKI	Pulchoki	21.48	338	*e*P	P	11 43 53.4	+0.5
	28nm,0.8s,mb4.7						
PKIN	Phulchoki	21.49	338	*e*P	P	11 43 52.4	-0.6
	13nm,0.6s,mb4.4						
GUN	Gumba	21.62	339	*e*P	P	11 43 55.8	+1.4
	28nm,0.6s,mb4.8						
DMN	Daman	21.63	337	*e*P	P	11 43 54.3	-0.2
	22nm,0.7s,mb4.7						
KKN	Kakani	21.73	338	*e*P	P	11 43 55.6	0.0
LSA	Lhasa	22.05	352	*e*P	P	11 43 58.4	-0.6
	13nm,0.8s,mb4.4						
GKN	Gorkha	22.17	337	*e*P	P	11 43 59.0	-1.2
	32nm,0.6s,mb4.9						
KOLN	Koldanda	22.39	334	*e*P	P	11 44 01.6	-1.0
	24nm,0.8s,mb4.7						
DANN	Dangsing	22.83	335	*e*P	P	11 44 05.3	-1.9
	27nm,0.7s,mb4.8						
LZH	Lanzhou	29.49	16	*e*P	P	11 45 14.8	+7.1
LZH				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.6						
LZH				pmax	pmax		
	comp=Z,85nm,4.2s						
GTA	Gaotai	31.89	8	*e*P	P	11 45 35.8	+7.0
GTA				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.9						
AML	Almayashu	38.83	335	P	P	11 46 27.7	-0.6
MKAR	Makanchi Array	40.27	347	P	P	11 46 39.1	-1.1
	comp=Z,0.8nm,0.7s,mb3.5,baz=163,slow=8.0,SNR=7.4						
SONM	Songino Array	41.22	12	P	P	11 46 49.2	+1.1
	comp=Z,0.8nm,0.4s,mb3.7,baz=199,slow=9.6,SNR=12						
KURK	Kurchatov	44.80	346	P	P	11 47 15.4	-1.5
	comp=Z,1.3nm,0.8s,mb3.8,baz=167,slow=7.0,SNR=8.6						
ZALV	Zalesovo Beam	46.71	352	P	P	11 47 32.0	0.0
	comp=Z,2.1nm,0.4s,mb4.4,baz=175,slow=8.5,SNR=12						
WRA	Warramunga Arr	47.96	126	P	P	11 47 41.4	-0.9
	comp=Z,1.3nm,0.7s,mb4.1,baz=305,slow=8.6,SNR=11						
ASAR	Alice Springs	49.62	130	P	P	11 47 53.9	-1.0
	comp=Z,0.4nm,0.3s,mb3.9,baz=303,slow=7.8,SNR=18						
AKTK	Aktyubinsk	52.19	331	P	P	11 48 13.1	-0.6
AKTO	Aktyubinsk	52.19	331	P	P	11 48 13.1	-0.6
	comp=Z,0.6nm,0.3s,mb4.0,baz=127,slow=12,SNR=3.5						
BRTR	Keskin Array B	62.72	311	P	P	11 49 31.1	+3.0
	comp=Z,0.7nm,0.5s,mb4.0,baz=150,slow=6.0,SNR=4.1						
TIXI	Tiksi	67.30	11	*e*P	P	11 49 56.9	-0.3
	comp=Z,3.2nm,0.6s,mb4.5						
ARCES	ARCESS Array B	75.47	340	P	P	11 50 48.8	+2.3
	comp=Z,3.4nm,0.9s,mb4.3,baz=98,slow=4.6,SNR=3.3						
ARCES				LR	LR	12 25 53.6	
	comp=Z,289nm,19.4s,baz=34,slow=37						
GERES	GERESS Array B	78.10	318	P	P	11 51 05.5	+3.8
	comp=Z,1.6nm,0.7s,mb4.0,baz=81,slow=4.2,SNR=7.4						
NOA	NORSAR Array B	79.97	331	P	P	11 51 13.8	+2.0
	comp=Z,1.1nm,0.8s,mb3.9,baz=95,slow=5.0,SNR=2.5						
NOA	NORSAR Array B	79.97	331	P	P	11 51 13.8	+2.0
TORD	Torodi Ar. Bea	90.90	283	P	P	11 52 11.4	+4.2
	comp=Z,0.3nm,0.5s,mb3.9,baz=93,slow=4.8,SNR=3.4						
CPUP	Villa Florida	147.41	232	PKPbc	PKPbc	11 58 48.5	+1.4
	comp=Z,1.0nm,0.3s,baz=260,slow=1.7,SNR=8.1						
CPUP	Villa Florida	147.41	232	PKPbc	PKPbc	11 58 48.5	+1.4
CFAA	Coronel Fontan	151.28	212	PKPbc	PKPbc	11 58 59.6	+3.1
	comp=Z,0.3nm,0.4s,baz=305,slow=7.1,SNR=5.0						

IDC **11** *11:40:59.2±1.4, 7°.06N×93°.23E, h0^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.7/25, mbtmp3.6/9, ML3.6/2, MS3.5/1, Ms1 3.5/1, ms1mx2.7/27, Error ellipse: s-maj=50.3km s-min=18.3km az=57.0*
ISCJB **11** *11:41:01.2±7.8, 7°.2N±0°.1×93°.5E±0°.3, h20^{km}±53^{km}, mb3.6/7, Error ellipse: s-maj=50.8km s-min=12.0km az=154.9*
NEIC **11** *11:41:04.1±0.7, 7°.15N×93°.47E, h30^{km}, Error ellipse: s-maj=18.5km s-min=8.3km az=58.0*
ISC 11 11:41:04.2±8.1**, 7°.2N**±0°.2×**93°.5E**±0°.3**, h29**^{km}±55^{km}**, n14, σ0^{s}.84**/14**, mb3.6**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	6.94	128	Pn	Pn	11 42 44.3	+0.2
	0.6nm,0.3s,baz=329,slow=13,SNR=2.2						
PSI				LR	LR	11 45 53.3	
	comp=Z,324nm,18.6s,baz=311,slow=41						
KULM	Kulim	7.37	104	Pn	Pn	11 42 49.4	-0.5
	68nm,0.6s						
CMAR	Chiang Mai Arr	12.42	25	Pn	Pn	11 43 59.1	0.0
	0.1nm,0.3s,baz=206,slow=15,SNR=4.5						
CHTO	Chiang Mai	12.74	24	*e*Pn	Pn	11 44 03.6	0.0
LSA	Lhasa	22.52	355	*e*P	P	11 46 01.4	-0.3
AML	Almayashu	38.98	336	P	P	11 48 29.1	+1.2
MKAR	Makanchi Array	40.64	348	P	P	11 48 43.0	+1.3
	0.3nm,0.7s,mb3.1,baz=148,slow=6.0,SNR=2.7						
SONM	Songino Array	41.99	13	P	P	11 48 52.7	-0.1
	0.4nm,0.4s,mb3.4,baz=185,slow=7.2,SNR=4.2						
KURK	Kurchatov	45.14	347	P	P	11 49 16.6	-1.5
	0.5nm,0.8s,mb3.4,baz=163,slow=5.8,SNR=2.9						
ZALV	Zalesovo Beam	47.17	353	P	P	11 49 34.4	+0.4
	0.8nm,0.3s,mb4.1,baz=182,slow=10,SNR=3.6						
WRA	Warramunga Arr	48.39	125	P	P	11 49 44.4	+0.4
	0.5nm,0.3s,mb4.0,baz=303,slow=9.5,SNR=7.1						
WRAB	Tennant Creek	48.40	125	*e*P	P	11 49 43.1	-0.9
ASAR	Alice Springs	49.97	129	P	P	11 49 57.0	+1.0
	0.8nm,0.5s,mb4.0,baz=301,slow=7.3,SNR=5.5						
GERES	GERESS Array B	77.92	318	P	P	11 52 58.0	-1.5
	0.2nm,0.2s,mb3.6,baz=81,slow=6.1,SNR=1.7						

IDC 11 11:59:29.1±61.0**, 20°.18S×178°.17E, h0**^{km}**, mb3.7**/3**, mb1 3.8**/3**, mb1mx3.6**/16**, mbtmp3.7**/3**, Error ellipse: s-maj=1086.0km s-min=144.9km az=81.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNB	Canberra Magne	29.48	233	*e*P	P	12 05 33.1	-1.8
TOO	Toolangi	33.23	232	*e*P	P	12 06 03.5	-4.4
STKA	Stephens Creek	34.71	243	*e*P	P	12 06 20.5	-0.4
	1.9nm,1.1s						
STKA	Stephens Creek	34.71	243	P	P	12 06 20.6	-0.3
	1.3nm,0.7s,baz=75,slow=11,SNR=5.0						
WRA	Warramunga Arr	41.08	263	P	P	12 07 15.5	+0.6
	0.4nm,0.3s,baz=96,slow=7.9,SNR=16						
ASAR	Alice Springs	41.09	257	P	P	12 07 14.3	-0.6
	0.6nm,0.7s,baz=98,slow=8.1,SNR=9.3						

MAN 11 12:01:03, 11°.05N×124°.59E, h19^{km}**, mb3.6, ML2.3, MS1.8, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OCLP	Ormoc	0.02	99	*e*P	Pg	12 01 06.7	+0.3
OCLP				*e*S	Sg	12 01 10.2	+1.6
MSLP	Maasin	0.95	164	*e*P	Pb	12 01 21.9	+1.0
MSLP				*e*S	Sb	12 01 35.4	+2.3
LLP	Lapu-Lapu	0.95	220	*e*P	Pb	12 01 19.9	-1.0
LLP				*e*S	Sb	12 01 31.4	-1.8
GUIM	Jordan	2.01	258	*e*P	Pn	12 01 36.5	+0.6

NEIC **11** *12:03:05.1, 15°.93N×98°.90W, h16^{km}, MD4.1(MEX), After MEX.*
MEX 11 12:03:04.8±0.8**, 15°.92N×98°.89W, h17**^{km}±49^{km}**, MD4.1, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.87	57	*i* P	Pb	12 03 18.3	-3.2
PNIG				*i* S	Sb	12 03 29.0	-3.9
ACX	Acapulco	1.36	314	*i* P	Pn	12 03 25.3	-3.7
CAIG	El Cayaco	1.73	311	*i* P	Pn	12 03 31.2	-2.9
CAIG				*i* S	Sn	12 03 50.3	-5.5
MEIG	Mezcala	2.11	341	*i* P	Pn	12 03 37.1	-2.3
MEIG				*i* S	Sn	12 04 00.9	-4.4
UTMO	Huajuapan	2.17	29	*i* P	Pn	12 03 38.0	-2.1
UTMO				*i* S	Sn	12 04 03.2	-3.4
VHO	Vista Hermosa	2.37	61	*i* P	Pn	12 03 40.7	-2.1
VHO				*i* S	Sn	12 04 08.6	-3.0
PLIG	Platanillo	2.53	347	*e*P	Pn	12 03 43.0	-2.0
PLIG				*i* S	Sn	12 04 11.3	-4.2
PLIG	Platanillo	2.53	347	*i* P	Pn	12 03 44.0	-1.0
PLIG				*i* S	Sn	12 04 11.3	-4.2
HUIG	Huatulco	2.68	93	*i* P	Pn	12 03 45.0	-2.2
HUIG				*i* S	Sn	12 04 14.9	-4.4
TPIG	Tehuac#an	2.88	30	*e*P	Pn	12 03 49.1	-0.9
TPIG				*i* S	Sn	12 04 20.2	-4.1
PPM	Popocatepetl	3.14	5	*e*P	Pn	12 03 59.1	+5.6
SZVM	Salazar	3.42	352	*i* P	Pn	12 03 54.9	-2.4
SZVM				*i* S	Sn	12 04 34.6	-2.9
MOIG	Morelia	4.33	330	*i* S	Sn	12 05 01.4	+1.4
MOIG	Morelia	4.33	330	*i* S	Sb	12 05 12.4	-0.1

ISK **11** *12:05:20.2, 38°.37N×38°.11E, h3^{km}, MD2.7*
CSEM **11** *12:05:21.3±0.4, 38°.24N×38°.13E, h2^{km}, MD2.8, Error ellipse: s-maj=10.6km s-min=6.7km az=169.0*
DDA **11** *12:05:21.6, 38°.33N×38°.09E, h7^{km}±6^{km}, Md2.8*
ISCJB **11** *12:05:22.0±0.6, 38°.32N±0°.04×38°.13E±0°.04, h10^{km}, Error ellipse: s-maj=6.2km s-min=4.0km az=161.3*
ISC 11 12:05:22.4±0.6**, 38°.28N**±0°.04×**38°.14E**±0°.03**, h0**^{km}±7^{km}**, n14, σ1^{s}.27**/28**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKCD	Akcadag	0.17	276	*i* P	Pg	12 05 24.1	-1.6
AKCD				*i* S	Sg	12 05 27.2	-0.7
AKCD	Akcadag	0.17	276	*i* P	Pg	12 05 24.1	-1.6
AKCD				*i* S	Sg	12 05 27.2	-0.7
MALT	Malatya	0.23	81	*e*PG	Pg	12 05 25.9	-0.8
MALT				*e*SG	Sg	12 05 30.6	+0.9
MALT	Malatya	0.23	81	*e*Pg	Pg	12 05 26.0	-0.8
MALT				*e*Sg	Sg	12 05 30.6	+0.9
MYA	Malataya	0.23	78	*e*PG	Pg	12 05 26.2	-0.6
MYA				*e*SG	Sg	12 05 30.4	+0.6
MYA	Malataya	0.23	78	*e*Pg	Pg	12 05 26.2	-0.6
MYA				*e*Sg	Sg	12 05 30.4	+0.6
ELZG	Elazig	0.70	72	*i* P	Pg	12 05 33.9	-1.9
ELZG				*i* S	Sg	12 05 46.7	+1.9
ELZG	Elazig	0.70	72	*i* P	Pg	12 05 33.9	-1.9
ELZG				*i* S	Sg	12 05 46.7	+1.9
URFA	Urfa	1.00	147	*e*PN	Pn	12 05 41.7	-1.8
URFA				*e*SN	Sn	12 05 57.5	-0.8
URFA	Urfa	1.00	147	*e*Pn	Pn	12 05 41.7	-1.8
URFA				*e*Sn	Sn	12 05 57.5	-0.8
KEMA	Kemaliye	1.03	16	*i* P	Pg	12 05 37.8	-4.2
KEMA				*i* S	Sg	12 05 55.6	+0.3
GZT	Gaziantep	1.03	206	*i* P	Pg	12 05 42.8	+0.7
GZT				*i* S	Sg	12 05 57.5	+2.1
SARI	SarD1z-Kayseri	1.20	290	*e*PN	Pn	12 05 46.5	+0.2
SARI				*e*SN	Sn	12 06 05.5	+2.1
SARI	SarD1z-Kayseri	1.20	290	*e*Pn	Pn	12 05 46.5	+0.1
SARI				*e*Sn	Sn	12 06 05.5	+2.2

SZGRF **11** *12:05:26.4, 16°.74S×179°.29W, h33^{km}, Fiji Islands region*
ISCJB **11** *12:05:28.2±1.9, 16°.1S±0°.1×174°.0W±0°.1, h74^{km}±18^{km}, mb3.9/8, Error ellipse: s-maj=24.4km s-min=16.2km az=140.5*
IDC **11** *12:05:30.4±2.9, 16°.14S×173°.98W, h80^{km}±25^{km}, mb3.8/8, mb1 4.1/10, mb1mx4.0/19, mbtmp3.9/10, Error ellipse: s-maj=41.1km s-min=16.2km az=150.0*
ISC 11 12:05:29.4±1.8**, 16°.1S**±0°.1×**174°.0W**±0°.1**, h69**^{km}±18^{km}**, n51, σ0^{s}.85**/11**, mb3.9**/8**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.03	46	P	Pn	12 06 16.9	+1.9
	43nm,0.3s,baz=158,slow=1.8,SNR=74						
AFI				S	Sn	12 06 48.5	-1.6
	247nm,0.3s,baz=82,slow=16,SNR=26						
RAR	Rarotonga	14.43	113	P	Pn	12 08 50.1	-0.1
	1.7nm,0.3s,baz=275,slow=9.0,SNR=5.3						
STKA	Stephens Creek	43.21	240	P	P	12 13 22.9	-0.9
	1.9nm,0.9s,mb3.8,baz=92,slow=13,SNR=2.8						
WRA	Warramunga Arr	49.13	257	P	P	12 14 10.3	-0.1
	0.6nm,0.7s,mb3.7,baz=97,slow=6.3,SNR=7.6						
ASAR	Alice Springs	49.36	252	P	P	12 14 12.0	-0.2
	1.8nm,0.7s,mb4.1,baz=89,slow=7.8,SNR=38						
PETK	Petropavlovsk-	73.07	343	P	P	12 16 52.3	+0.5
	3.8nm,0.9s,mb4.2,baz=152,slow=6.5,SNR=3.9						
NVAR	Mina Array Bea	75.20	42	P	P	12 17 05.4	+0.8
	2.4nm,0.8s,mb4.0,baz=227,slow=9.8,SNR=18						
TXAR	Lajitas Array	81.45	56	P	P	12 17 39.6	+0.3
	1.5nm,0.8s,mb3.9,baz=220,slow=7.0,SNR=16						
PDAR	Pinedale Array	83.13	42	P	P	12 17 47.5	-0.3
	3.3nm,0.8s,mb4.2,baz=221,slow=3.0,SNR=28						
YKA	Yellowknife Ar	90.92	24	P	P	12 18 24.7	-0.4
	0.5nm,0.9s,mb3.6,baz=241,slow=5.1,SNR=6.3						
ARCES	ARCESS Array B	125.16	352	PKP	PKPdf	12 24 19.2	-2.1
	4.1nm,0.9s,baz=32,slow=3.6,SNR=3.9						
KMBO	Kilima Mbogo	144.73	244	PKP	PKPdf	12 25 00.6	+1.3
	24nm,0.5s,baz=161,slow=0.1,SNR=2.7						
MOX	Moxa	145.19	354	*e*PKP	PKPdf	12 24 58.6	-0.4
	13nm,1.6s						
MOX	Moxa	145.19	354	*e*PKPbc	PKPbc	12 24 58.6	-0.1
PLN	Plauen	145.29	353	*e*PKPbc	PKPbc	12 24 59.2	+0.2
WERD	Werda	145.31	353	*e*PKPbc	PKPbc	12 24 59.3	+0.2
TANN	Tannenbergstha	145.32	353	*e*PKPbc	PKPbc	12 24 59.3	+0.2
GUNZ	Gunzen	145.39	353	*e*PKPbc	PKPbc	12 24 59.6	+0.3
PRU	Pruhonice	145.44	350	*e*PKPbc	PKPbc	12 24 59.5	0.0
WERN	Wernitzgruen	145.46	353	*e*PKPbc	PKPbc	12 24 59.6	+0.1
MANZ	Manzenberg	145.79	353	*e*PKPbc	PKPbc	12 25 00.3	-0.3
ROTZ	Rotzenmuhle	145.99	353	*e*PKPbc	PKPbc	12 25 01.8	+0.6
BAIF	Baives	146.04	2	*e*PKP1	PKPbc	12 25 00.8	-0.5
GRF	Grafenberg Arr	146.18	354	*e*PKPbc	PKPbc	12 25 02.6	+0.9
BRTR	Keskin Array B	146.28	320	PKPbc	PKPbc	12 25 02.7	+0.3
	1.9nm,0.8s,baz=141,slow=2.0,SNR=6.9						
GEC2	GERESS Array S	146.69	351	*e*PKPbc	PKPbc	12 25 03.5	+0.2
GERES	GERESS Array B	146.69	351	PKPbc	PKPbc	12 25 02.9	-0.3
	1.0nm,0.7s,baz=22,slow=1.4,SNR=7.8						
ROSF	Rostrenen	146.91	11	*e*PKP1	PKPbc	12 25 02.5	-1.4
SGMF	Saint Gilles	147.12	11	*e*PKP1	PKPbc	12 25 03.4	-1.1
	24nm,0.9s						
GRR	Gorron	147.26	8	*e*PKP1	PKPbc	12 25 04.6	-0.3
CDF	Champ du Feu	147.71	358	*e*PKP1	PKPbc	12 25 05.6	-0.5
BFO	Black Forest	147.75	357	*e*PKPbc	PKPbc	12 25 08.6	+2.4
RJOB	Jochberg	147.90	351	*e*PKPbc	PKPbc	12 25 06.8	+0.1
HAU	Haudompre	148.13	360	*e*PKP1	PKPbc	12 25 06.6	-0.7
LOR	Lormes	148.82	3	*e*PKP1	PKPbc	12 25 08.6	-0.5
	7.6nm,0.7s						
SSF	Saint Saulge	149.01	3	*e*PKP1	PKPbc	12 25 09.0	-0.5
	10nm,0.7s						
AVF	Avril sur Loir	149.27	4	*e*PKP1	PKPbc	12 25 09.4	-0.8
SMF	Signal de Mont	149.44	3	*e*PKP1	PKPbc	12 25 09.9	-0.7
BGF	Bois d'Agland	149.47	4	*e*PKP1	PKPbc	12 25 10.1	-0.6
	9.5nm,0.8s						
CABF	La Chapelle	149.53	360	*e*PKP1	PKPbc	12 25 10.9	0.0
	21nm,1.0s						
LPL	La Plagne	150.62	359	*e*PKP1	PKPbc	12 25 13.8	+0.3
LPG	La Plagne	150.63	359	*e*PKP1	PKPbc	12 25 14.0	+0.4
CAF	Calviac	151.02	6	*e*PKP1	PKPbc	12 25 14.5	0.0
ORIF	Oris-en-Rattie	151.22	0	*e*PKP1	PKPbc	12 25 15.5	+0.5
VIVF	Saint-Julien-l	151.26	2	*e*PKP1	PKPbc	12 25 14.7	-0.4
MBDF	Montbardon	151.40	359	*e*PKP1	PKPbc	12 25 15.2	-0.2
SMRF	Simiane la Rot	152.16	1	*e*PKP1	PKPbc	12 25 17.1	0.0
	7.3nm,0.8s						
SJPF	Ste Jean	152.33	11	*e*PKP1	PKPbc	12 25 17.7	+0.2
ETSF	Etsaut	152.66	11	*e*PKP1	PKPbc	12 25 18.7	+0.4
EPF	Esparros	152.68	9	*e*PKP1	PKPbc	12 25 18.5	+0.2
PGF	Pioggiola	153.46	355	*e*PKP1	PKPbc	12 25 20.2	+0.1

JMA **11** *12:16:28.9±0.1, 29°.95N×141°.08E, h147^{km}, M3.6*
ISCJB **11** *12:16:29.4±0.5, 29°.99N±0°.04×140°.93E±0°.08, h103^{km}±6^{km}, mb3.8/12, Error ellipse: s-maj=12.6km s-min=4.7km az=160.3*
IDC **11** *12:16:30.2±1.4, 29°.79N×140°.45E, h102^{km}±14^{km}, mb3.7/10, mb1 3.9/12, mb1mx3.8/22, mbtmp3.6/12, MS2.9/3, Ms1 2.9/3, ms1mx2.7/31, Error ellipse: s-maj=22.6km s-min=11.0km az=66.0*
NEIC **11** *12:16:31.5±1.2, 29°.79N×140°.33E, h115^{km}±10^{km}, MG3.6(JMA), Error ellipse: s-maj=16.5km s-min=10.3km az=75.0*
ISC 11 12:16:30.8±0.4**, 29°.97N**±0°.04×**140°.94E**±0°.08**, h104**^{km}±6^{km}**, n45, σ1^{s}.19**/49**, mb3.8**/12**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	3.07	159	P	Pn	12 17 16.8	-0.7
CBIJ				*e*S	Sn	12 17 53.8	+0.2
CBIJ	Chichi jima	3.07	159	P	Pn	12 17 17.1	-0.5
	43nm,0.3s,baz=86,slow=23,SNR=8.8						
CBIJ				S	Sn	12 17 53.9	+0.3
	62nm,0.3s,baz=287,slow=19,SNR=4.2						
CBIJ				LR	LR	12 18 31.5	
	comp=Z,227nm,19.9s,baz=356,slow=39						
JHHJ	Haha-jima-NKT	3.51	162	P	Pn	12 17 22.8	-0.6
JHHJ				*e*S	Sn	12 18 03.7	-0.3
BSO1	Boso 1	4.67	0	P	Pn	12 17 38.8	-0.1
JWZ	Kozaga	5.69	310	P	Pn	12 17 52.0	-0.8
JHU	Hanno	6.03	347	P	Pn	12 17 58.3	+1.0
JAO	Obara	6.12	330	P	Pn	12 18 00.7	+2.0
JAG	Ashikaga	6.55	349	P	Pn	12 18 04.3	-0.2
JAG				*e*S	Sn	12 19 16.1	-1.6
MJAR	Matsushiro Arr	6.94	341	P	Pn	12 18 10.6	+0.9
	1.8nm,0.3s,baz=162,slow=11,SNR=18						
MJAR				S	Sn	12 19 27.1	0.0
	0.7nm,0.3s,baz=45,slow=25,SNR=5.0						
MAJO	Matsushiro	6.94	341	*e*Pn	Pn	12 18 11.1	+1.4
MAT	Matsushiro	6.94	341	P	Pn	12 18 11.2	+1.4
MAT				*e*S	Sn	12 19 25.5	-1.6
JWT	Wachi	7.06	320	P	Pn	12 18 12.6	+1.2
JMN	Monobe	7.08	304	P	Pn	12 18 12.4	+0.7
JHK	Hiroka	7.43	348	P	Pn	12 18 16.5	+0.1
JTO	Tosashimizu	7.53	295	P	Pn	12 18 17.4	-0.4
JAD	Aida	7.57	313	P	Pn	12 18 19.1	+0.8

JMM	Marumori	7.87	359	P	Pn	12 18 21.4	-1.0
JMM				eS	Sn	12 19 43.2	-6.6
JNA	Nagahama	8.04	299	P	Pn	12 18 25.4	+0.6
JHT	Toyohira	8.59	305	P	Pn	12 18 32.8	+0.6
JMK	Ichinoseki	8.96	1	P	Pn	12 18 36.2	-1.0
JMK				eS	Sn	12 20 09.1	-7.1
JOW	Kunigami	11.58	257	LR	LR	12 23 07.3	
	comp=Z,51nm,18.0s,baz=208,slow=36						
ERM	Erimo	12.15	8	Pn	Pn	12 19 18.6	-1.6
KSRS	Korea Array	13.15	308	LR	LR	12 24 23.1	
	comp=Z,37nm,18.5s,baz=130,slow=36						
ASAJ	Asahikawa	14.18	5	P	Pn	12 19 45.5	-1.1
	0.7nm,0.3s,baz=277,slow=9.7,SNR=5.7						
GUMO	Guam	16.71	167	ePn	Pn	12 20 18.6	0.0
SDKM	Sandakan	32.97	227	P	P	12 22 51.1	-4.7
ZALV	Zalesovo Beam	46.62	318	PcP	PcP	12 26 19.1	-1.5
	0.9nm,0.4s,baz=88,slow=3.7,SNR=3.8						
MKAR	Makanchi Array	47.83	308	P	P	12 24 54.3	-3.5
	0.1nm,0.4s,mb3.0,baz=86,slow=9.7,SNR=5.7						
MKAR				PcP	PcP	12 26 24.0	-1.0
	0.6nm,0.8s,baz=69,slow=4.0,SNR=4.1						
WRA	Warramunga Arr	50.03	188	P	P	12 25 12.7	-2.1
	1.1nm,0.3s,mb4.2,baz=5.9,slow=7.7,SNR=23						
KURK	Kurchatov	50.21	313	P	P	12 25 14.0	-1.9
	0.3nm,0.4s,mb3.6,baz=90,slow=8.4,SNR=3.6						
KURK	Kurchatov	50.21	313	P	P	12 25 14.0	-1.9
BVAR	Borovoye Array	55.20	316	P	P	12 25 50.6	-2.0
	0.3nm,0.5s,mb3.6,baz=108,slow=9.5,SNR=3.6						
BVAR				PcP	PcP	12 26 50.4	-2.0
	0.8nm,0.7s,baz=93,slow=5.9,SNR=4.0						
YKA	Yellowknife Ar	70.14	29	P	P	12 27 32.9	+1.3
	2.0nm,0.8s,mb4.0,baz=294,slow=6.1,SNR=28						
YKA	Yellowknife Ar	70.14	29	P	P	12 27 32.9	+1.3
ARCES	ARCESS Array B	70.47	340	P	P	12 27 34.5	+0.9
	2.2nm,0.7s,mb4.1,baz=64,slow=8.2,SNR=5.2						
ARCES	ARCESS Array B	70.47	340	P	P	12 27 34.5	+0.9
JOF	Joensuu	72.03	333	ep	P	12 27 41.9	-1.1
	1.5nm,0.5s,mb4.1						
NVAR	Mina Array Bea	79.60	52	P	P	12 28 28.9	+2.3
	0.6nm,0.6s,mb3.6,baz=298,slow=5.8,SNR=7.1						
NOA	NORSAR Array B	80.54	338	P	P	12 28 31.9	+0.6
	0.3nm,0.5s,mb3.4,baz=45,slow=6.3,SNR=2.4						
NOA	NORSAR Array B	80.54	338	P	P	12 28 31.9	+0.6
PDAR	Pinedale Array	82.94	44	P	P	12 28 46.1	+2.0
	0.7nm,0.8s,mb3.5,baz=333,slow=2.3,SNR=6.2						
BRTR	Keskin Array B	83.26	312	P	P	12 28 45.4	-0.5
	0.9nm,0.7s,mb3.7,baz=27,slow=0.8,SNR=4.2						
TXAR	Lajitas Array	94.74	52	P	P	12 29 42.7	+1.9
	0.6nm,0.6s,mb4.2,baz=304,slow=2.4,SNR=11						
TXAR	Lajitas Array	94.74	52	P	P	12 29 42.7	+1.8
TORD	Torodi Ar. Bea	121.87	312	PKP	PKPdf	12 35 11.1	-2.4
	0.2nm,0.5s,baz=6.5,slow=1.9,SNR=1.7						

ISCJB **11** *12:17:11.3±3.5, 6°.0N±0°.2×127°.6E±0°.3, h59^{km}±30^{km}, mb3.7/6, Error ellipse: s-maj=59.8km s-min=16.5km az=145.7*

IDC **11** *12:17:18.9±1.6, 5°.34N×126°.18E, h94^{km}±17^{km}, mb3.4/6, mb1 3.5/6, mb1mx3.3/21, mbtmp3.4/6, Error ellipse: s-maj=119.3km s-min=14.7km az=68.0*

ISC 11 12:17:13.2±3.7, **5°.9N**±0°.2×**127°.4E**±0°.3, **h52**^{km}±33^{km}, **n8**, σ**0^{s}.92**/10, **mb3.7**/6, **1C, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	2.18	302	P	Pn	12 17 46.9	-0.1
	117nm,0.3s,baz=55,slow=2.0,SNR=16						
DAV				S	Sn	12 18 12.4	-0.4
	85nm,0.3s,baz=272,slow=11,SNR=11						
DMPH	Davao City--Mi	2.25	302	⇑eP	Pn	12 17 47.3	-0.6
DMPH				eS	Sn	12 18 15.5	+1.0
WRA	Warramunga Arr	26.57	165	P	P	12 22 46.1	-0.4
	1.5nm,0.5s,mb3.8,baz=344,slow=10.0,SNR=16						
ASAR	Alice Springs	30.06	168	P	P	12 23 18.4	+0.8
	0.3nm,0.7s,mb3.1,baz=346,slow=6.5,SNR=5.5						
SONM	Songino Array	45.49	340	P	P	12 25 29.8	+2.5
	0.4nm,0.8s,mb3.3,baz=145,slow=5.3,SNR=3.1						
MKAR	Makanchi Array	56.20	324	P	P	12 26 47.5	-0.5
	0.7nm,0.5s,mb3.9,baz=114,slow=7.5,SNR=8.9						
KURK	Kurchatov	60.31	327	P	P	12 27 16.1	-0.4
	1.4nm,0.3s,mb4.5,baz=120,slow=7.6,SNR=3.8						
BVAR	Borovoye Array	65.90	326	P	P	12 27 52.5	-1.1
	0.4nm,0.5s,mb3.8,baz=126,slow=7.3,SNR=3.7						

BJI **11** *12:18:26.7, 5°.99S×102°.04E, h36^{km}, mB5.2/17, mb4.7/28, Ms4.8/8, Ms7 4.3/8*

MOS **11** *12:18:31.9±1.0, 5°.22S×101°.96E, h33^{km}, mb5.0/17, Error ellipse: s-maj=19.7km s-min=7.8km az=106.7*

DJA **11** *12:18:31, 5°.57S×101°.60E, h30^{km}, mb5.1/12*

ISCJB **11** *12:18:32.4±0.3, 5°.28S±0°.05×101°.86E±0°.04, h34^{km}, mb4.8/66, MS4.0/15, Error ellipse: s-maj=7.9km s-min=4.1km az=39.6*

GCMT **11** *12:18:34.6±0.5, 5°.25S×101°.74E, h32^{km}±2^{km}, MW5.0/56, Moment Tensor Solution. s23,c29; s56,c80; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.17±.19; $M_{\theta\theta}$-0.68±.14; $M_{\phi\phi}$0.84±.20; $M_{r\theta}$-0.82±.26; $M_{\theta\phi}$-3.04±.13; $M_{\phi r}$-0.84±.33; Best double couple: $M_0$3.34500×10^{16} NP1:ϕ_s99.00000°, δ74.00000°, λ-168.00000°. NP2: ϕ_s5.00000°, δ78.00000°, λ-16.00000°. Principal axes: T 3.2250, Plg3.0000°, Azm53.0000°; N 0.2400, Plg70.0000°, Azm150.0000°; P -3.4650, Plg19.0000°, Azm322.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **11** *12:18:34.6±0.4, 5°.17S×102°.02E, mb4.8/11 Error ellipse: s-maj=15.5km s-min=6.1km az=56.0*

IDC **11** *12:18:35.3±0.8, 5°.04S×102°.10E, h35^{km}±4^{km}, mb4.4/16, mb1 4.6/17, mb1mx4.4/24, mbtmp4.4/17, ML4.4/1, MS4.0/12, Ms1 4.0/12, ms1mx3.7/29, Error ellipse: s-maj=27.5km s-min=10.7km az=51.0*

ISC 11 12:18:34.6±0.3, **5°.27S**±0°.05×**101°.87E**±0°.04, **h36**^{km}, **h36**^{km}±2.4^{km}**:pP-P**, **n150**, σ**1^{s}.11**/144, **mb4.8**/66, **MS4.0**/15, **5C, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNAI	Manna	1.41	50	P	Pn	12 18 56.8	-1.0
SBJI	Serang	4.32	101	P	Pn	12 19 38.8	+0.9
PDSI	Padang	4.55	342	P	Pn	12 19 40.1	-1.0
PDSI				S	Sn	12 20 31.4	-1.4
CBJI	Citeko	5.08	103	P	Pn	12 19 50.9	+2.6
LEM	Lembang	5.92	105	⇑eP	Pn	12 20 01.7	+1.8
LEM				eS	Sn	12 21 00.4	-6.1
XMIS	Christmas Isla	6.39	144	eP	Pn	12 19 59.6	-6.7
XMIS				eS	Sn	12 21 04.2	-14
XMIS	Christmas Isla	6.39	144	P	Pn	12 19 59.6	-6.7
	628nm,0.9s,4.1nm						
MYKOM	Kota Tinggi	7.29	16	P	Pn	12 20 20.0	+1.3
MYKOM	Kota Tinggi	7.29	16	P	Pn	12 20 23.0	+4.3
	82nm,1.0s,0.3nm						
KGM	Kluang	7.38	11	P	Pn	12 20 21.9	+2.0
FRIM	Kepong	8.45	358	P	Pn	12 20 34.1	-0.6
PSI	Prapat	8.54	340	P	Pn	12 20 32.7	-3.2
PSI						12 22 05.3	
PSI	Prapat	8.54	340	Pn	Pn	12 20 32.6	-3.2
	4.5nm,0.3s,baz=154,slow=9.6,SNR=24						
PSI				Sn	Sn	12 22 05.3	-5.8
	1.1nm,0.3s,baz=180,slow=19,SNR=2.3						
PSI				LR	LR	12 24 37.8	
	comp=Z,1μm,21.4s,baz=154,slow=44						
SMRI	Semarang	8.70	102	P	Pn	12 20 39.0	+0.9
	232nm,1.8s						
UGM	Wanagama	8.99	107	P	Pn	12 20 41.1	-0.9
	525nm,1.1s						
IPM	Ipoh	9.72	355	P	Pn	12 20 52.3	+0.2
IPM	Ipoh	9.72	355	P	Pn	12 20 53.6	+1.5
	42nm,1.1s						
SJI	Sawahan	10.13	105	P	Pn	12 20 58.3	+0.6
	141nm,0.7s						
KULM	Kulim	10.56	353	P	Pn	12 21 02.4	-1.2
KULM	Kulim	10.56	353	eP	Pn	12 21 01.1	-2.4
	26nm,0.7s						
KTGM	Kuala Trenggan	10.60	7	P	Pn	12 21 05.4	+1.2
KSM	Kuching	10.77	52	P	Pn	12 21 11.4	+5.0
SBUM	Sibu	12.87	54	P	Pn	12 21 37.7	+2.5
SBUM	Sibu	12.87	54	P	Pn	12 21 37.6	+2.4
	56nm,1.1s,520nm						
BTM	Bintulu	14.01	53	P	Pn	12 21 53.1	+2.4
SMKI	Samarinda	16.05	73	P	Pn	12 22 18.5	+0.8
	88nm,1.3s						
KKM	Kota Kinabalu	18.20	52	P	Pn	12 22 44.3	-0.4
KKM	Kota Kinabalu	18.20	52	eP	Pn	12 22 42.4	-2.3
	104nm,1.2s						
TSM	Tawau	18.59	60	P	Pn	12 22 49.9	+0.5
KDM	Kudat	19.22	51	P	Pn	12 22 56.0	-1.0
MYLDM	Lahad Datu	19.58	58	P	Pn	12 23 02.1	+0.8
MYLDM	Lahad Datu	19.58	58	P	Pn	12 23 02.7	+1.4
	113nm,2.1s						
BDT	Bhumibol Dam	22.55	353	P	P	12 23 30.0	-1.7
MBWA	Marble Bar	23.44	134	eP	P	12 23 40.4	-0.7
	62nm,1.3s,mb4.9						
MBWA	Marble Bar	23.44	134	P	P	12 23 41.2	+0.1
	58nm,1.3s,mb4.8						
CMAR	Chiang Mai Arr	23.75	353	P	P	12 23 42.5	-1.4
	19nm,0.9s,mb4.5,baz=186,slow=9.3,SNR=34						
CMAR				LR	LR	12 34 46.0	
	comp=Z,229nm,18.1s,MS3.7,baz=354,slow=41						
CHTO	Chiang Mai	24.11	353	eP	P	12 23 46.4	-0.7
CHTO	Chiang Mai	24.11	353	P	P	12 23 46.4	-0.7
	20nm,1.1s,mb4.5						
CHRT	Chiangrai	25.07	355	⇑P	P	12 23 57.0	+1.1
	110nm,1.0s,mb5.3						
QIZ	Qiongzhong	25.39	18	P	P	12 23 59.1	+0.3
QIZ				S	S	12 28 23.9	+0.7
QIZ				pmax	pmax		
	comp=Z,25nm,1.4s,mb4.5						
QIZ				LR	LR		
	comp=E,460nm,29.0s						
QIZ				LR	LR		
	comp=Z,340nm,22.0s						
LBMI	Labuha	26.00	81	P	P	12 24 02.7	-1.8
FITZ	Fitzroy Crossi	26.49	121	eP	P	12 24 08.0	-0.8
	comp=Z,32nm,0.4s,mb5.2						
FITZ				eS	S	12 28 59.7	+19
FITZ	Fitzroy Crossi	26.49	121	P	P	12 24 08.8	0.0
	comp=Z,19nm,0.5s,mb4.9,baz=299,slow=5.4,SNR=50						
VIS	Vishakhapatnam	29.27	322	ePKP	P	12 24 35.5	+1.8
VIS				AMb	AMB	12 24 38.8	
	comp=Z,28nm,0.9s,mb5.0						
NWAO	Narrogin (SRO)	31.02	154	P	P	12 24 47.3	-1.7
	comp=Z,9.7nm,0.9s,mb4.6,baz=332,slow=8.1,SNR=6.3						
KAKA	Kakadu	31.06	106	eP	P	12 24 47.3	-2.3
	comp=Z,12nm,0.6s,mb4.9						
SHL	Shillong	32.15	343	ePKP	P	12 24 59.0	0.0
BOK	Bokaro	32.83	332	ePKP	P	12 25 05.6	+0.6
BOK				AMb	AMB	12 25 08.2	
	comp=Z,38nm,0.5s,mb5.6						
WRA	Warramunga Arr	34.78	118	P	P	12 25 21.9	-0.1
WRA	Warramunga Arr	34.78	118	P	P	12 25 21.9	-0.1
	comp=Z,15nm,0.7s,mb5.0,baz=288,slow=11,SNR=7.6						
WRA	Warramunga Arr	34.78	118	P	P	12 25 21.9	-0.1
WRAB	Tennant Creek	34.79	118	eP	P	12 25 21.4	-0.7
WRAB				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
WRAB	Tennant Creek	34.79	118	eP	P	12 25 21.4	-0.7
	comp=Z,13nm,0.6s,mb5.0						
ODAN	Odare	34.88	337	eP	P	12 25 22.7	-0.1
TAPN	Taplejung	35.20	338	eP	P	12 25 26.8	+1.3
	comp=Z,66nm,0.9s,mb5.6						
RAMN	Ramite	35.28	336	eP	P	12 25 26.5	+0.3
	comp=Z,11nm,0.4s,mb5.2						
ASAR	Alice Springs	35.86	124	P	P	12 25 31.2	-0.1
	comp=Z,7.5nm,0.4s,mb5.0,baz=302,slow=8.1,SNR=226						
ASAR				pP	pP	12 25 42.2	+0.6
	comp=Z,5.8nm,0.4s,baz=302,slow=7.7,SNR=10						
JIRN	Jiri	36.07	336	eP	P	12 25 34.0	+1.0
ALBI	Allahabad	36.11	328	ex	x	12 28 22.0	
LSA	Lhasa	36.26	344	P	P	12 25 35.0	+0.4
LSA	Lhasa	36.26	344	eP	P	12 25 35.8	+1.2
LSA				e*PP	pP	12 25 44.9	0.0
LSA				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
LSA	Lhasa	36.26	344	eP	P	12 25 35.8	+1.3
	comp=Z,22nm,1.1s,mb5.0						
LSA				epP	pP	12 25 44.9	0.0
PKI	Pulchoki	36.32	335	eP	P	12 25 36.0	+0.9
GUN	Gumba	36.42	336	eP	P	12 25 37.3	+1.4
	comp=Z,32nm,0.5s,mb5.5						
DMN	Daman	36.48	334	eP	P	12 25 37.6	+1.1
KKN	Kakani	36.56	335	eP	P	12 25 38.1	+0.9
GKN	Gorkha	37.02	334	eP	P	12 25 42.0	+0.9
BHPL	Bhopal	37.06	321	ePKP	P	12 25 42.7	+1.3
BHPL				ex	x	12 28 40.5	
KOLN	Koldanda	37.28	333	eP	P	12 25 44.5	+1.2
	comp=Z,70nm,0.9s,mb5.5						
DANN	Dangsing	37.71	333	eP	P	12 25 48.1	+1.2
	comp=Z,35nm,0.5s,mb5.4						
XAN	Xi'an	39.66	9	P	P	12 26 02.4	-0.8
XAN				pP	pP	12 26 09.9	-3.7
XAN				sP	sP	12 26 13.2	-4.7
XAN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
XAN				pmax	pmax		
	comp=Z,49nm,8.0s						
XAN				LR	LR		
	comp=N,110nm,19.3s						
XAN				LR	LR		
	comp=E,460nm,28.9s						
XAN				LR	LR		
	comp=Z,390nm,15.9s,MS4.3						
AGRA	Agra	39.74	326	ePKP	P	12 26 03.4	-0.5
NJ2	Nanjing	40.49	22	eP	P	12 26 08.6	-1.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
SONA	Sohna	41.01	326	ePKP	P	12 26 14.3	-0.1
SONA				AMb	AMB	12 26 14.9	
	comp=Z,9.9nm,0.2s,mb5.0						
ASOR	Ausora	41.02	327	ePKP	P	12 26 15.3	+0.7
AYAN	Aya Nagar	41.16	326	ePKP	P	12 26 15.3	-0.5
AYAN				AMb	AMB	12 26 18.9	
	comp=Z,11nm,0.4s,mb4.8						
LZH	Lanzhou	41.18	2	eP	P	12 26 16.3	+0.6
LZH				pP	pP	12 26 21.0	-5.2
LZH				pmax	pmax		
	comp=Z,21nm,1.1s,mb4.7						
LZH				pmax	pmax		
	comp=Z,98nm,5.0s						
KUDL	Kundal	41.26	325	ePKP	P	12 26 16.5	0.0
KUDL				AMb	AMB	12 26 18.1	
	comp=Z,11nm,0.9s,mb4.5						
NDI	New Delhi	41.27	326	ex	P	12 26 10.0	-6.6
JOSI	Joshimath	41.53	330	ePKP	P	12 26 19.1	+0.4
KHET	Khetri	41.60	324	ePKP	P	12 26 19.7	+0.4
KHET				AMb	AMB	12 26 22.5	
	comp=Z,9.0nm,1.9s,mb4.1						
DDI	Dehra Dun	42.11	329	ex	x	12 26 22.0	
KLP	Kalpa	42.98	330	ePKP	P	12 26 30.8	+0.3
KLP				AMb	AMB	12 26 33.1	
	comp=Z,16nm,0.7s,mb4.9						
GTA	Gaotai	44.50	358	eP	P	12 26 43.9	+1.3
GTA				pP	pP	12 26 51.2	-1.9
GTA				sP	sP	12 26 53.7	-3.6
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.1						
CTA	Charters Tower	45.56	113	eP	P	12 26 51.8	+0.4
	comp=Z,9.3nm,0.7s,mb4.8						
CTA	Charters Tower	45.56	113	LR	LR	12 46 43.1	
	comp=Z,133nm,20.1s,MS3.9,baz=231,slow=37						
STKA	Stephens Creek	45.61	130	eP	P	12 26 51.6	0.0
	comp=Z,12nm,0.8s,mb4.9						
STKA	Stephens Creek	45.61	130	P	P	12 26 52.0	+0.4
	comp=Z,13nm,0.7s,mb5.0,baz=304,slow=7.7,SNR=23						
STKA				pP	pP	12 27 02.4	+0.3
	comp=Z,16nm,0.8s,baz=297,slow=9.0,SNR=10						
STKA				LR	LR	12 48 12.6	
	comp=Z,254nm,19.1s,MS4.2,baz=29,slow=39						
STKA	Stephens Creek	45.61	130	P	P	12 26 52.0	+0.4
STKA				pP	pP	12 27 02.4	+0.3
STKA				LR	LR	12 48 12.6	
GUMO	Guam	46.61	66	LR	LR	12 43 29.9	
	comp=Z,60nm,21.9s,MS3.5,baz=269,slow=32						
BJI	Beijing	46.97	15	P	P	12 27 01.6	-0.5
BJI				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BJI				LR	LR		
	comp=N,310nm,19.4s						
BJI				LR	LR		
	comp=E,380nm,14.2s						
BJI				LR	LR		
	comp=Z,170nm,18.4s,MS4.0						
KSRS	Korea Array	48.95	28	P	P	12 27 16.4	-1.1
	comp=Z,5.5nm,0.8s,mb4.6,baz=218,slow=7.4,SNR=14						
KSRS				LR	LR	12 51 55.8	
	comp=Z,75nm,18.9s,MS3.7,baz=42,slow=41						
WMQ	Urumqi	50.51	347	P	P	12 27 30.5	+1.3
WMQ				pP	pP	12 27 41.0	+1.1
WMQ				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,400nm,6.7s						
WMQ				LR	LR		
	comp=N,230nm,26.8s						
WMQ				LR	LR		
	comp=E,370nm,19.2s						
WMQ				LR	LR		
	comp=Z,210nm,26.0s,MS4.0						
KSH	Kashi	50.57	334	P	P	12 27 28.7	-1.1
KSH				epP	pP	12 27 36.1	-4.3
KSH				esP	sP	12 27 42.0	-2.7
KSH				ePcP	PcP	12 28 48.1	+0.9
KSH				ePP	PP	12 29 24.1	-1.9
KSH				eScP	ScP	12 32 40.1	-0.6
KSH				PcS	PcS	12 32 44.0	-0.4
KSH				eS	S	12 34 37.3	-4.5
KSH				eScS	ScS	12 37 14.0	-4.0
KSH				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
KSH				pmax	pmax		
	comp=Z,110nm,5.8s						
KSH				LR	LR		
	comp=N,310nm,6.4s						
KSH				LR	LR		
	comp=E,400nm,7.9s						
KSH				LR	LR		
	comp=Z,500nm,6.8s						
ARMA	Armidale	53.01	124	eP	pP	12 28 01.1	+2.2
SONM	Songino Array	53.03	4	P	P	12 27 48.5	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=184,slow=8.6,SNR=34						
ULN	Ulaanbaatar	53.10	4	eP	P	12 27 49.1	+0.6
ULN				e*PP	pP	12 27 57.9	-1.3
ULN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
ULN	Ulaanbaatar	53.10	4	eP	P	12 27 49.1	+0.6
	comp=Z,7.7nm,0.9s,mb4.6						
ULN				epP	pP	12 27 57.9	-1.3
CN2	Changchun	53.28	21	eP	P	12 27 48.6	-1.3
CN2				ePP	PP	12 29 51.2	+0.8
CN2				eS	S	12 35 16.6	-2.2
CN2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
UCH	Uchtor	53.43	335	eP	P	12 27 51.6	+0.6
	comp=Z,6.3nm,1.1s,mb4.5						
AML	Almayashu	53.70	334	eP	P	12 27 53.6	+0.6
	comp=Z,12nm,1.0s,mb4.8						
MJAR	Matsushiro Arr	53.70	36	P	P	12 27 50.7	-2.5
	comp=Z,2.7nm,0.5s,mb4.5,baz=217,slow=7.3,SNR=16						
MJAR				pP	pP	12 28 00.9	-3.0
	comp=Z,2.1nm,0.7s,baz=221,slow=7.7,SNR=4.3						
MJAR	Matsushiro Arr	53.70	36	P	P	12 27 50.7	-2.5
MJAR				pP	pP	12 28 00.9	-3.0
EKS2	Erkin-Say	54.10	335	eP	P	12 27 56.8	+0.9
	comp=Z,7.6nm,0.6s,mb4.8						
MK31	Makanchi Array	54.67	344	i P	P	12 27 59.7	-0.2
MK31				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
MKAR	Makanchi Array	54.67	344	P	P	12 27 60.0	0.0
	comp=Z,7.3nm,0.7s,mb4.8,baz=146,slow=9.3,SNR=38						
MKAR				LR	LR	12 54 34.0	
	comp=Z,81nm,18.8s,MS3.8,baz=327,slow=40						
MKAR	Makanchi Array	54.67	344	P	P	12 27 60.0	0.0
MKAR				LR	LR	12 54 34.0	
ZAK	Zakamensk	55.44	1	eP	P	12 28 05.3	-0.1
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
MOY	Mondy	56.72	359	eP	P	12 28 07.2	-7.4
TLY	Talaya	56.75	1	eP	P	12 28 15.1	+0.3
TLY				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
TLY	Talaya	56.75	1	eP	P	12 28 15.1	+0.3
	comp=Z,5.6nm,0.8s,mb4.7						
KURK	Kurchatov	59.26	343	P	P	12 28 31.9	-0.5
	comp=Z,5.3nm,0.8s,mb4.6,baz=154,slow=7.5,SNR=7.7						
KURK				pP	pP	12 28 42.4	-0.8
	comp=Z,3.1nm,0.7s,baz=223,slow=6.0,SNR=7.3						
KURK	Kurchatov	59.26	343	P	P	12 28 31.9	-0.5
KURK				pP	pP	12 28 42.4	-0.8
KLR	Kul'dur	60.19	22	eP	P	12 28 31.4	-7.4
ZALV	Zalesovo Beam	60.71	349	P	P	12 28 41.9	-0.4
	comp=Z,24nm,0.8s,mb5.4,baz=170,slow=4.5,SNR=22						
ZALV				LR	LR	12 58 43.9	
	comp=Z,111nm,18.2s,MS4.0,baz=76,slow=40						
ZALV	Zalesovo Beam	60.71	349	P	P	12 28 41.9	-0.4
ZALV				LR	LR	12 58 43.9	
HABR	Khabarovsk	60.89	25	eP	P	12 28 39.8	-3.8
HABR				e*PP	pP	12 28 50.9	-3.6
HABR				e		12 30 55.0	
HABR				*SS	sS	12 37 13.1	-3.8
HABR				eSS	SS	12 40 56.7	-2.1
HABR				MLR	MLR		
	comp=Z,103nm,18.0s,MS4.0						
ASAJ	Asahikawa	61.30	32	P	P	12 28 45.2	-1.3
	comp=Z,6.1nm,0.7s,mb4.9,baz=218,slow=15,SNR=9.3						
NVS	Novosibirsk	61.88	348	eP	P	12 28 47.0	-3.1
NVS				eS	S	12 37 09.3	-1.9
NVS				pmax	pmax		
	comp=N,4.0nm,1.1s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.1s						
NVS				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.7						
NVS				smax			
	comp=N,14nm,1.7s						
NVS				smax			
	comp=E,20nm,2.2s						
YSS	Yuzh-Sakhalins	63.30	30	eP	P	12 29 08.0	+8.2
YSS				e		12 29 15.0	
VOSK	Vostochnaya	63.43	340	P	P	12 28 59.4	-1.1
VOSK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
BOD	Bodaibo	63.64	7	eP	P	12 29 02.5	+0.6
BOD				e	pP	12 29 15.8	+3.0
BOD				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
BOD				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
BVA0	Borovoye Array	63.88	339	i P	P	12 29 02.6	-0.9
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
BVAR	Borovoye Array	63.88	339	P	P	12 29 03.0	-0.5
	comp=Z,2.5nm,0.4s,mb4.6,baz=136,slow=8.7,SNR=15						
BRVK	Borovoye	63.94	339	eP	P	12 29 03.2	-0.7
BRVK				e*PP	pP	12 29 15.3	+0.4
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
BRVK	Borovoye	63.94	339	eP	P	12 29 03.2	-0.7
	comp=Z,3.9nm,0.8s,mb4.5						
BRVK				epP	pP	12 29 15.3	+0.4
AB31	Akbulak array	65.39	331	P	P	12 29 12.4	-1.0
AB31				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
AKTO	Aktyubinsk	67.10	331	P	P	12 29 24.1	-0.3
AKTO				pmax	pmax		
	comp=Z,3.0nm,2.2s,mb3.9						
SVE	Sverdlovsk	70.40	337	eP	P	12 29 45.8	+1.0
SVE				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
YAK	Yakutsk	70.44	13	eP	P	12 29 42.5	-2.5
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ARU	Arti	70.93	336	c iP	P	12 29 48.3	+0.2
ARU				e		12 32 23.8	
ARU				S	S	12 39 01.4	+0.4
ARU				SS	SS	12 43 28.2	-6.3
ARU				pmax	pmax		
	comp=Z,13nm,1.7s,mb4.6						
ARU	Arti	70.93	336	eP	P	12 29 48.1	0.0
	comp=Z,10nm,1.0s,mb4.7						
KIV	Kislovodsk	72.22	319	eP	P	12 29 56.3	+0.2
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
PETK	Petropavlovsk-	74.67	31	P	P	12 30 08.3	-2.0
	comp=Z,2.9nm,0.8s,mb4.3,baz=270,slow=1.4,SNR=4.7						
URZ	Urewera	75.17	128	LR	LR	13 02 22.4	
	comp=Z,113nm,19.8s,MS4.2,baz=259,slow=35						
BOSA	Boshof	75.75	242	LR	LR	12 57 09.9	
	comp=Z,112nm,18.1s,MS4.2,baz=271,slow=30						
BRTR	Keskin Array B	76.90	313	P	P	12 30 23.7	+0.3
	comp=Z,1.5nm,0.9s,mb3.9,baz=127,slow=3.8,SNR=4.2						
BRTR				pP	pP	12 30 35.5	+1.0

```
         comp=Z,3.5nm,0.8s,baz=123,slow=5.3,SNR=7.5
BRTR  Keskin Array B    76.90 313  P       P        12 30 23.7 +0.3
BRTR                               pP      pP       12 30 35.5 +1.0
SEY   Seymchan          77.96  21⇑eP      P        12 30 28.5 -0.3
TIXI  Tiksi             78.78   8⇑eP      P        12 30 31.6 -1.6
TIXI                               pmax    pmax
         comp=Z,6.0nm,1.7s,mb4.2
PRGR  Permogore         79.39 336  eP      pP       12 30 48.2 +0.3
PRGR                               pmax    pmax
         comp=Z,13nm,0.9s,mb4.9
KLMR  Klimovskoe        81.57 334  P       P        12 30 52.7 +4.3
KLMR                               pmax    pmax
         comp=Z,33nm,1.9s,mb4.9
AKASG Malin Array Be    83.20 322  P       P        12 30 57.1  0.0
         comp=Z,0.4nm,0.4s,mb3.8,baz=108,slow=3.0,SNR=3.1
AKASG                              pP      pP       12 31 09.5 +1.1
         comp=Z,0.8nm,0.5s,baz=84,slow=5.3,SNR=2.3
ARCES ARCESS Array B    90.16 340  LR      LR       13 21 14.6
         comp=Z,221nm,19.7s,MS4.6,baz=341,slow=42
GERES GERESS Array B    92.72 319  pP      pP       12 31 54.6 +0.2
         comp=Z,0.3nm,0.2s,baz=63,slow=6.1,SNR=2.2
NOA   NORSAR Array B    94.89 331  LR      LR       13 15 32.3
         comp=Z,86nm,21.6s,MS4.2,baz=0.0,slow=36
WMOK  Wichita Mounta   145.00  30  ePKIKP  PKPdf    12 38 07.3 -1.4
TXAR  Lajitas Array    146.00  42  PKPbc   PKPbc    12 38 11.2 -0.1
         comp=Z,1.1nm,0.4s,baz=319,slow=0.7,SNR=39
JCT   Junction City    147.67  37  ePKP2   PKPab    12 38 16.2 -2.1
WVT   Waverly          148.02  15  ePKP2   PKPab    12 38 16.4 -3.1
```

IDC 11 12:29:32.3±1.6**, 11°.09S**×**165°.65E, h0km, mb3.9**/3**, mb1 4.2**/4**, mb1mx3.8**/18**, mbtmp4.0**/4**, ML4.3**/1**, MS3.3**/4**, Ms1 3.4**/4**, ms1mx3.1**/23**, Error ellipse: s-maj=58.8km s-min=27.2km az=164.0, Santa Cruz Islands**

```
Code  Station Name        Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
HNR   Honiara            5.85 286  Pn      Pn       12 31 01.0 +0.7
         8.3nm,0.3s,baz=179,slow=3.4,SNR=6.6
HNR                                Sn      Sn       12 32 07.7 -0.4
         baz=60,slow=20,SNR=1.8
HNR                                LR      LR       12 32 36.0
         comp=Z,94nm,19.0s,baz=328,slow=31
AFI   Afiamalu          22.22 100  LR      LR       12 40 34.7
         comp=Z,35nm,19.5s,baz=1.0,slow=30
WRA   Warramunga Arr    31.38 250  P       P        12 35 55.0 -0.1
         1.3nm,0.7s,baz=82,slow=8.3,SNR=7.5
ASAR  Alice Springs     32.69 243  P       P        12 36 06.7 +0.1
         2.7nm,0.9s,baz=68,slow=9.4,SNR=19
RAR   Rarotonga         34.63 111  LR      LR       12 46 31.3
         comp=Z,74nm,21.1s,baz=284,slow=29
NVAR  Mina Array Bea    86.13  50  P       P        12 42 15.8 +0.3
         0.3nm,0.6s,baz=246,slow=8.8,SNR=2.8
TXAR  Lajitas Array     95.94  61  LR      LR       13 20 17.6
         comp=Z,68nm,18.7s,baz=10.0,slow=32
```

ISK ***11*** *12:49:18.4, 37°.29N×35°.86E, h10km, ML2.5*

ISCJB ***11*** *12:49:19.1±0.7, 37°.32N±0°.05×35°.84E±0°.04, h10km±7km, Error ellipse: s-maj=8.4km s-min=5.7km az=16.2*

CSEM ***11*** *12:49:19.2±0.1, 37°.32N×35°.86E, h15km, ML2.5, Error ellipse: s-maj=2.5km s-min=2.4km az=169.0*

DDA ***11*** *12:49:19.6, 37°.31N×35°.92E, h7km±2km, Md2.8, Ml2.9*

ISC 11 12:49:19.3±0.6**, 37°.32N**±0°.04×**35°.84E**±0°.05**, h13km**±5km**, n18, σ0s.65**/30**, Turkey**

```
Code  Station Name        Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
KOZT  Kozan              0.16 357  ePG     Pg       12 49 22.7 -0.5
KOZT                               eSG     Sg       12 49 26.2 +0.3
ANDN  Andirin            0.48  57  i P     Pg       12 49 28.2 -0.6
ANDN                               i S     Sg       12 49 38.2 +3.0
ANDN  Andirin            0.48  57  i P     Pg       12 49 28.2 -0.6
ANDN                               i S     Sg       12 49 38.2 +3.0
KRTS  Karatas            0.83 207  ePG     Pg       12 49 35.4  0.0
KRTS  Karatas            0.83 207  ePg     Pg       12 49 35.4 -0.1
KMRS  Kahramanmaras      0.86  77  ePG     Pg       12 49 35.6 -0.5
KMRS                               eSG     Sg       12 49 47.1 -0.3
KMRS  Kahramanmaras      0.86  77  ePg     Pg       12 49 35.6 -0.5
KMRS                               eSg     Sg       12 49 47.1 -0.3
COBT  Iskenderun         0.87 157  i P     Pg       12 49 36.0 -0.1
COBT                               i S     Sg       12 49 47.9 +0.5
COBT  Iskenderun         0.87 157  i P     Pg       12 49 36.0 -0.1
COBT                               i S     Sg       12 49 47.9 +0.5
KUZU  Kuzuini            1.13 119  i P     Pb       12 49 39.9 -0.8
KUZU                               i S     Sb       12 49 55.7 +0.4
KUZU  Kuzuini            1.13 119  i P     Pb       12 49 39.9 -0.8
KUZU                               i S     Sb       12 49 55.7 +0.4
MERS  Mersin             1.15 247  ePN     Pn       12 49 40.9 -0.1
MERS                               eSN     Sn       12 49 56.7 +0.2
MERS  Mersin             1.15 247  ePn     Pn       12 49 40.9 -0.1
MERS                               eSn     Sn       12 49 56.7 +0.1
NIG   Nigde              1.25 309  ePN     Pn       12 49 42.9 +0.4
NIG   Nigde              1.25 309  ePn     Pn       12 49 42.9 +0.4
SARI  SarD1z-Kayseri     1.52  26  ePN     Pn       12 49 41.5 -4.7
SARI                               eSN     Sn       12 49 59.7 -6.1
BNN   Bunyan             1.53   0  ePN     Pn       12 49 46.3  0.0
BNN   Bunyan             1.53   0  ePn     Pn       12 49 46.3  0.0
```

IDC 11 12:50:16.2±1.2**, 60°.71S**×**26°.32W, h0km, mb4.1**/4**, mb1 4.1**/4**, mb1mx4.0**/13**, mbtmp4.1**/4**, Error ellipse: s-maj=50.5km s-min=34.6km az=63.0, South Sandwich Islands region**

```
Code  Station Name        Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
VNA1  Neumayer--Stat    12.37 151  eP      Pn       12 53 09.8 -3.5
VNA3  Neumayer Olymp    12.49 155  eP      Pn       12 53 10.9 -4.0
VNA2  Neumayer--Watz    12.77 151  eP      Pn       12 53 15.1 -3.6
         baz=310,slow=16
CPUP  Villa Florida     40.33 314  P       P        12 57 55.5 +0.3
         1.0nm,0.5s,baz=128,slow=8.0,SNR=4.1
DBIC  Dimbokro          69.26  23  P       P        13 01 24.5 -0.3
         1.4nm,0.7s,baz=178,slow=9.2,SNR=3.8
TORD  Torodi Ar. Bea    76.94  28  P       P        13 02 10.2  0.0
         3.0nm,0.6s,baz=202,slow=6.4,SNR=34
ASAR  Alice Springs     94.40 162  P       P        13 03 37.4 -0.4
         0.3nm,0.6s,baz=196,slow=4.0,SNR=5.7
MKAR  Makanchi Array   137.78  76  PKP     PKPdf    13 09 41.5 +0.4
         0.4nm,1.0s,baz=236,slow=1.6,SNR=3.5
YKA   Yellowknife Ar   139.85 314  PKP     PKPdf    13 09 43.0 -1.4
         0.3nm,0.7s,baz=115,slow=2.5,SNR=4.3
SONM  Songino Array    150.25  94  PKPbc   PKPbc    13 10 07.1 -0.8
         1.0nm,0.8s,baz=226,slow=3.1,SNR=8.9
SONM                               PKPab   PKPab    13 10 15.6 +1.4
         1.2nm,0.9s,baz=215,slow=2.9,SNR=5.9
```

IDC ***11*** *14:03:42.0±0.7, 27°.54N×55°.40E, h0km, mb4.1/19, mb1 4.2/21, mb1mx4.1/29, mbtmp4.1/21, ML3.7/2, MS3.6/7, Ms1 3.6/7, ms1mx3.2/40, Error ellipse: s-maj=17.6km s-min=13.2km az=168.0*

BJI ***11*** *14:03:42.2, 27°.67N×54°.96E, h27km, mB4.9/2, mb4.5/7*

MOS ***11*** *14:03:44.7±1.2, 27°.52N×55°.34E, h33km, mb4.5/31, Error ellipse: s-maj=9.0km s-min=6.5km az=97.1*

CSEM ***11*** *14:03:44.6±0.2, 27°.56N×55°.40E, h15km, mb4.3/34, Error ellipse: s-maj=5.8km s-min=4.8km az=23.0*

NEIC ***11*** *14:03:46.6±0.4, 27°.51N×55°.38E, h35km, mb4.3/14, MN4.2(TEH), Error ellipse: s-maj=7.1km s-min=5.8km az=189.0*

THR ***11*** *14:03:46.2±0.4, 27°.66N×55°.54E, h14km±3km, ML4.0*

TEH ***11*** *14:03:47.2, 27°.69N×55°.52E, h14km*

ISC 11 14:03:45.4±0.7**, 27°.53N**±0°.03×**55°.39E**±0°.02**, h20km**±4km**, n260, σ1s.22**/278**, mb4.3**/51**, MS3.9**/4**, 7C-5D, Southern Iran**

```
Code  Station Name        Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
BNDS  Bandar-Abbas       0.70 100  ePg     Pg       14 03 58.1 -1.2
BNDS                                AML    AML      14 04 26.4
         comp=N,8μm,0.5s
BNDS  Bandar-Abbas       0.70 100  ePg     Pg       14 03 57.9 -1.5
IBND  Bandar-abas        1.02  94  eSg     Sg       14 04 16.4 -2.5
IBND                               ePg     Pg       14 04 04.4 -1.0
IBND                               e                14 05 01.3
         comp=Z,27μm,0.4s
BANOM Banah              1.79 153  ⇑P      Pn       14 04 16.7 +1.4
         SNR=248
BANOM                              ⇑P               14 04 16.7
         SNR=248
BANOM Banah              1.79 153   P      Pn       14 04 16.7 +1.4
         SNR=248
GHIR  Ghir-Karzin        2.26 290  ePn     Pg       14 04 26.4 -2.4
GHIR                               eSg     Sg       14 04 59.9 +1.7
GHIR                                AML    AML      14 05 25.2
         comp=N,1μm,0.6s
GHIR                                AML    AML      14 05 43.8
         comp=E,769nm,0.6s
GHIR  Ghir-Karzin        2.26 290  ePn     Pg       14 04 26.4 -2.4
GHIR                               eSg     Sg       14 04 59.8 +1.6
NAZ   Nazwa, Dubai       2.54 174   P      Pg       14 04 29.6 -4.7
         SNR=10
KRBR  Kerman             2.72  26  ePn     Pn       14 04 29.2 +1.2
KRBR                               eSg     Sn       14 05 06.3 +5.8
KRBR                                AML    AML      14 05 18.9
         comp=N,552nm,0.6s
KRBR                                AML    AML      14 05 19.2
         comp=E,574nm,0.6s
KRBR  Kerman             2.72  26  ePn     Pn       14 04 29.2 +1.1
ISRV  Sarvestan          2.73 313   Pn     Pn       14 04 29.3 +1.2
ISRV                                Sn     Sn       14 05 02.4 +1.9
ISRV  Sarvestan          2.73 313  ePn     Pn       14 04 29.4 +1.3
ISRV                               eSn     Sn       14 05 02.5 +2.0
ISRV                               e                14 05 28.2
         comp=Z,10μm,0.5s
ISRV  Sarvestan          2.73 313   Pn     Pn       14 04 29.3 +1.2
ISRV                                Sn     Sn       14 05 02.4 +1.9
HATD  Hatta, Dubai       2.77 166  ⇓P      Pn       14 04 31.3 +2.5
         SNR=8.0
HATD                               ⇓P               14 04 31.3
         SNR=8.0
HATD  Hatta, Dubai       2.77 166   P      Pn       14 04 31.3 +2.5
         SNR=8.0
IMOK  Mouk               2.80 303   Pn     Pn       14 04 32.5 +3.3
IMOK                                Sn     Sn       14 05 04.8 +2.4
IMOK  Mouk               2.80 303  ePn     Pn       14 04 32.6 +3.4
IMOK                               eSn     Sn       14 05 04.8 +2.4
IMOK                               e                14 05 53.1
         comp=Z,13μm,0.4s
IMOK  Mouk               2.80 303   Pn     Pn       14 04 32.5 +3.3
IMOK                               eSn     Sn       14 05 04.8 +2.4
IPAR  Pars               3.09 319   Pn     Pn       14 04 35.0 +1.9
IPAR                                Sn     Sn       14 05 09.9 +0.4
IPAR  Pars               3.09 319  ePn     Pn       14 04 35.0 +1.9
IPAR                               eSn     Sn       14 05 10.0 +0.5
IPAR                               e                14 05 56.9
         comp=Z,7μm,0.4s
IPAR  Pars               3.09 319  ePn     Pn       14 04 35.0 +1.9
IPAR                                Sn     Sn       14 05 09.9 +0.4
IMEH  Mehriz             3.91 350   Pn     Pn       14 04 44.6 +0.3
IMEH                                Sn     Sn       14 05 27.6 -2.0
IMEH  Mehriz             3.91 350  ePn     Pn       14 04 44.6 +0.3
IMEH                               eSn     Sn       14 05 27.6 -2.0
IMEH                               e                14 05 57.3
         comp=Z,5μm,0.5s
IMEH  Mehriz             3.91 350  ePn     Pn       14 04 44.6 +0.3
IMEH                               eSn     Sn       14 05 27.6 -2.0
IBAF  Bafgh              4.05   2   Pn     Pn       14 04 46.9 +0.6
IBAF                                Sn     Sn       14 05 29.4 -3.8
IBAF  Bafgh              4.05   2  ePn     Pn       14 04 47.0 +0.7
IBAF                               eSn     Sn       14 05 29.4 -3.8
IBAF                               e                14 06 07.9
         comp=Z,3μm,0.4s
IBAF  Bafgh              4.05   2   Pn     Pn       14 04 46.9 +0.6
IBAF                               eSn     Sn       14 05 29.4 -3.8
ISAD  Sadrabad           4.61 342   Pn     Pn       14 04 55.8 +1.7
ISAD  Sadrabad           4.61 342  ePn     Pn       14 04 55.8 +1.7
ISAD                               e                14 06 26.9
         comp=Z,2μm,0.4s
ISAD  Sadrabad           4.61 342  ePn     Pn       14 04 55.8 +1.7
BIDO  Bidbid             4.69 148  ⇑P      Pn       14 04 56.2 +1.1
BIDO                               ⇑P               14 04 56.2
BIDO  Bidbid             4.69 148   P      Pn       14 04 56.2 +1.0
ICHK  Chekchek           4.78 350   Pn     Pn       14 04 56.1 -0.2
ICHK  Chekchek           4.78 350  ePn     Pn       14 04 56.1 -0.2
ICHK                               e                14 06 31.8
         comp=Z,2μm,0.4s
ICHK  Chekchek           4.78 350  ePn     Pn       14 04 56.1 -0.2
ZHSF  Zahedan            5.17  65  ePn     Pn       14 05 03.2 +1.5
ZHSF  Zahedan            5.17  65  ePn     Pn       14 05 03.2 +1.5
BTHS                     5.37 231   P      Pn       14 05 05.2 +0.8
BTHS                     5.37 231   P      Pn       14 05 05.2 +0.8
BTHS                                S      Sn       14 06 04.9 -0.8
BOQSS                    5.63 254   P      Pn       14 05 09.0 +1.0
IGAR  Gharneh            5.66 330  ePn     Pn       14 05 09.5 +1.1
IGAR                               e                14 06 19.2
         comp=Z,787nm,0.1s
JMDO  Jabal Madar        5.70 154  ⇑P      Pn       14 05 11.2 +2.2
         SNR=5.6
JMDO  Jabal Madar        5.70 154   P      Pn       14 05 11.2 +2.2
         SNR=5.6
IKOO  Kooshah            5.80  32  ePn     Pn       14 05 09.9 -0.4
IKOO                               e                14 07 01.0
         comp=Z,733nm,0.4s
IKOO  Kooshah            5.80  32  ePn     Pn       14 05 09.9 -0.4
IZEF  Zefreh             5.97 334   Pn     Pn       14 05 12.9 +0.2
IZEF  Zefreh             5.97 334  ePn     Pn       14 05 12.9 +0.2
IZEF                               e                14 05 24.6
         comp=Z,297nm,0.2s
IZEF  Zefreh             5.97 334  ePn     Pn       14 05 12.9 +0.2
ITEG  Tejag              6.09  28  ePn     Pn       14 05 14.1 -0.2
ITEG                               e                14 07 35.1
         comp=Z,913nm,0.5s
ITEG  Tejag              6.09  28  ePn     Pn       14 05 14.1 -0.2
IPIR  Pirpir             6.45 324   Pn     Pn       14 05 20.3 +1.0
IPIR                                Sn     Sn       14 06 29.6 -2.7
IPIR  Pirpir             6.45 324  ePn     Pn       14 05 20.3 +1.0
IPIR                               eSn     Sn       14 06 29.7 -2.6
IPIR                               e                14 06 38.4
         comp=Z,1μm,0.3s
IPIR  Pirpir             6.45 324  ePn     Pn       14 05 20.3 +1.0
IPIR                                Sn     Sn       14 06 29.6 -2.7
IDAH  Dahanechah         6.48  36  ePn     Pn       14 05 20.4 +0.7
IDAH                               e                14 07 55.3
         comp=Z,542nm,0.5s
IDAH  Dahanechah         6.48  36  ePn     Pn       14 05 20.4 +0.7
KFJS                     6.63 277   S      Sn       14 06 36.1 -0.6
KFJS                     6.63 277   S      Sn       14 06 36.1 -0.6
IKLH  Kolahrood          6.64 331   Pn     Pn       14 05 22.6 +0.7
IKLH  Kolahrood          6.64 331  ePn     Pn       14 05 22.7 +0.8
IKLH                               e                14 08 02.3
         comp=Z,618nm,0.6s
IKLH  Kolahrood          6.64 331   Pn     Pn       14 05 22.6 +0.7
QRN   Al-Qurain          6.71 282  eP      Pn       14 05 23.2 +0.3
QRN   Al-Qurain          6.71 282  eP      Pn       14 05 23.2 +0.3
KBD   Kabd               6.98 285  eP      Pn       14 05 27.2 +0.6
KBD                                 AML    AML      14 06 44.9
         comp=Z,15nm,0.5s
KBD   Kabd               6.98 285  eP      Pn       14 05 27.2 +0.6
RDF   Al-Radifah         7.06 283  eP      Pn       14 05 27.6 -0.1
RDF   Al-Radifah         7.06 283  eP      Pn       14 05 27.5 -0.1
ISFB  Sefidab            7.32 339   Pn     Pn       14 05 31.5 +0.3
ISFB  Sefidab            7.32 339  ePn     Pn       14 05 31.6 +0.4
ISFB                               e                14 06 08.6
         comp=Z,218nm,0.4s
ISFB  Sefidab            7.32 339   Pn     Pn       14 05 31.5 +0.3
NAY   Al-Naaiem          7.38 285  eP      Pn       14 05 32.2 +0.1
NAY                                 AML    AML      14 06 58.8
         comp=Z,28nm,0.6s
NAY   Al-Naaiem          7.38 285  eP      Pn       14 05 32.2 +0.1
MIB   Mutribah           7.43 290  eP      Pn       14 05 32.8 +0.1
MIB                                 AML    AML      14 06 59.2
         comp=Z,37nm,0.8s
MIB   Mutribah           7.43 290  eP      Pn       14 05 32.8 +0.1
IANJ  Anjilo             8.01 351   Pn     Pn       14 05 41.1 +0.4
IANJ  Anjilo             8.01 351   Pn     Pn       14 05 41.1 +0.4
IVRN  Varamin            8.07 338   Pn     Pn       14 05 41.2 -0.4
IVRN  Varamin            8.07 338  ePn     Pn       14 05 41.2 -0.4
IVRN                               e                14 06 31.0
         comp=Z,152nm,0.3s
IVRN  Varamin            8.07 338  ePn     Pn       14 05 41.2 -0.4
ISHM  Shahmirzad         8.44 348   Pn     Pn       14 05 47.1 +0.5
ISHM  Shahmirzad         8.44 348  ePn     Pn       14 05 47.1 +0.5
ISHM                               e                14 06 31.6
         comp=Z,177nm,0.3s
ISHM  Shahmirzad         8.44 348  ePn     Pn       14 05 47.1 +0.5
IDMV  Damavand           8.52 341   Pn     Pn       14 05 47.1 -0.6
IDMV  Damavand           8.52 341  ePn     Pn       14 05 47.2 -0.5
IDMV                               e                14 09 55.4
         comp=Z,452nm,0.7s
IDMV  Damavand           8.52 341   Pn     Pn       14 05 47.1 -0.6
IRAZ  Razeghan           9.13 331   Pn     Pn       14 05 56.9 +0.8
IRAZ  Razeghan           9.13 331  ePn     Pn       14 05 56.9 +0.8
IRAZ                               e                14 08 16.6
         comp=Z,180nm,0.3s
IRAZ  Razeghan           9.13 331  ePn     Pn       14 05 56.9 +0.8
LYLS                     9.20 235   S      Sn       14 07 37.1 -2.9
ASYS                     9.81 272   P      Pn       14 06 03.0 -2.5
GNI   Garni             15.37 328⇑eP      Pn       14 07 26.5 +5.4
GNI                                 pmax   pmax
         comp=Z,49nm,1.7s
GNI   Garni             15.37 328   Pn     Pn       14 07 26.1 +5.0
         baz=182,slow=18,SNR=4.2
GNI                                 LR     LR       14 13 53.2
         comp=Z,182nm,21.8s,baz=106,slow=40
GNI   Garni             15.37 328  eP      Pn       14 07 26.5 +5.4
         comp=Z,49nm,1.7s
ASF   Jabal al Asfar    16.70 291   Pn     Pn       14 07 38.1 -0.2
         comp=Z,0.2nm,0.3s,baz=351,slow=11,SNR=3.8
ASF                                 LR     LR       14 15 34.5
         comp=Z,59nm,18.5s,baz=288,slow=43
MALT  Malatya           17.82 311  eP      Pn       14 07 50.9 -1.3
MALT                                pmax   pmax
         comp=Z,7.0nm,1.0s
MALT  Malatya           17.82 311  eP      Pn       14 07 50.9 -1.3
         comp=Z,7.4nm,1.0s
MALT  Malatya           17.82 311  eP      Pn       14 07 50.9 -1.3
         comp=Z,7.0nm,1.0s
EIL   Elat              18.08 282   P      Pn       14 07 56.6 +1.2
         comp=Z,0.4nm,0.3s,baz=27,slow=9.1,SNR=4.1
EIL                                 LR     LR       14 14 34.5
         comp=Z,40nm,19.5s,baz=279,slow=36
EIL   Elat              18.08 282   P      Pn       14 07 56.6 +1.2
KIV   Kislovodsk        19.32 331  eP      Pn       14 08 13.0 +2.5
KIV                                 pmax   pmax
         comp=Z,22nm,1.0s
KIV   Kislovodsk        19.32 331  eP      Pn       14 08 10.8 +0.3
         comp=Z,32nm,1.1s
KIV   Kislovodsk        19.32 331  eP      Pn       14 08 10.8 +0.3
         comp=Z,32nm,1.1s
GOF   Gofitskoye        20.09 334  eP      P        14 08 21.8 +4.1
KSH   Kashi             20.86  50   P      P        14 08 19.3 -6.8
KSH                                epP              14 08 29.3
KSH                                esP     sP       14 08 36.0 +1.7
KSH                                ePP              14 08 39.2
KSH                                eS      S        14 11 55.7  -22
KSH                                esS     sS       14 12 12.2  -15
KSH                                eSS              14 12 26.2
KSH                                ePcP    PcP      14 12 34.0 -0.1
KSH                                eScP    ScP      14 16 04.1 -5.7
KSH                                ePcS    PcS      14 16 10.1 -1.9
KSH                                 pmax   pmax
         comp=Z,12nm,0.7s
KSH                                 pmax   pmax
         comp=Z,130nm,4.1s
KSH                                 LR     LR
         comp=N,540nm,6.0s
KSH                                 LR     LR
         comp=E,430nm,7.7s
KSH                                 LR     LR
         comp=Z,560nm,6.1s
AML   Almayashu         20.86  41   P      P        14 08 25.7 -0.4
         SNR=20
EKS2  Erkin-Say         21.24  40   P      P        14 08 30.6 +0.4
         SNR=19
EKS2  Erkin-Say         21.24  40  eP      P        14 08 30.4 +0.2
         comp=Z,15nm,0.8s,mb4.4
EKS2  Erkin-Say         21.24  40  eP      P        14 08 30.4 +0.2
         comp=Z,15nm,0.8s,mb4.4
UCH   Uchtor            21.40  42   P      P        14 08 31.6 -0.3
         SNR=12
UCH   Uchtor            21.40  42  eP      P        14 08 31.1 -0.8
         comp=Z,8.2nm,0.8s,mb4.1
UCH   Uchtor            21.40  42  eP      P        14 08 31.1 -0.8
         comp=Z,8.2nm,0.8s,mb4.1
AAK   Ala-Archa         21.64  41  eP      P        14 08 34.6 +0.1
AAK                                 pmax   pmax
         comp=Z,9.0nm,0.8s,mb4.2
AAK   Ala-Archa         21.64  41   P      P        14 08 34.0 -0.5
         SNR=10
AAK   Ala-Archa         21.64  41  eP      P        14 08 34.6 +0.2
         comp=Z,8.9nm,0.8s,mb4.2
AAK   Ala-Archa         21.64  41  eP      P        14 08 34.6 +0.1
         comp=Z,8.9nm,0.8s,mb4.2
BRTR  Keskin Array B    21.75 310   P      P        14 08 35.9 +0.2
BRTR                                pmax   pmax
         comp=Z,3.0nm,0.7s
BRTR  Keskin Array B    21.75 310   P      P        14 08 35.9 +0.1
         comp=Z,2.5nm,0.7s,mb3.8,baz=141,slow=12,SNR=11
BRTR  Keskin Array B    21.75 310   P      P        14 08 35.9 +0.2
         comp=Z,3.0nm,0.7s,mb3.8
KZA   Kyzart            21.76  43   P      P        14 08 39.4 +3.7
         SNR=12
AB31  Akbulak array     21.98   8   P      P        14 08 37.0 -1.0
AB31                                pmax   pmax
         comp=Z,18nm,0.8s,mb4.5
AB31  Akbulak array     21.98   8   P      P        14 08 37.0 -1.0
         comp=Z,18nm,0.8s,mb4.5
CHMS  Chumysh           22.01  40   P      P        14 08 40.6 +2.2
         SNR=6.3
USP   Ospenovka         22.04  40   P      P        14 08 40.8 +2.1
         SNR=12
TKM2  Tokmak 2          22.46  42  eP      P        14 08 42.0 -1.2
TKM2                                pmax   pmax
         comp=Z,5.0nm,0.7s,mb4.0
TKM2  Tokmak 2          22.46  42  eP      P        14 08 42.0 -1.2
         comp=Z,5.1nm,0.7s,mb4.1
TKM2  Tokmak 2          22.46  42  eP      P        14 08 42.0 -1.2
         comp=Z,5.1nm,0.7s,mb4.1
AKTK  Aktyubinsk        22.96   4   P      P        14 08 48.1 -0.3
AKTK  Aktyubinsk        22.96   4   P      P        14 08 48.1 -0.3
         comp=Z,15nm,1.0s,mb4.4
AKTO  Aktyubinsk        22.96   4   P      P        14 08 48.1 -0.3
AKTO                                pmax   pmax
         comp=Z,15nm,1.0s,mb4.4
AKTO  Aktyubinsk        22.96   4   P      P        14 08 48.1 -0.3
         comp=Z,14nm,1.0s,mb4.3,baz=187,slow=10.0,SNR=21
KOLN  Koldanda          24.97  83  eP      P        14 09 09.2 +1.4
DANN  Dangsing          25.05  81  eP      P        14 09 10.4 +1.9
         comp=Z,41nm,0.8s,mb5.0
VRHR  Novokhopersk      25.75 340  eP      P        14 09 16.5 +2.0
VRHR                                pmax   pmax
         comp=Z,10.0nm,0.9s,mb4.3
VRHR                                pmax   pmax
         comp=N,60nm,0.7s
VRHR                                pmax   pmax
         comp=E,30nm,0.5s
GKN   Gorkha            25.86  82  eP      P        14 09 16.6 +0.8
VORD  Divnogorie        26.40 337  eP      P        14 09 22.5 +2.0
VORD                                pmax   pmax
         comp=Z,10.0nm,0.8s,mb4.4
VORD                                pmax   pmax
         comp=N,30nm,0.6s
VORD                                pmax   pmax
         comp=E,110nm,0.6s
KKN   Kakani            26.45  82  eP      P        14 09 22.2 +1.0
         comp=E,41nm,1.2s,mb4.8
PKI   Pulchoki          26.59  83  eP      P        14 09 22.8 +0.4
VSR   Storozhevoye      26.66 337  eP      P        14 09 23.7 +0.9
VSR                                 pmax   pmax
         comp=Z,3.0nm,0.4s,mb4.2
VSR                                 pmax   pmax
         comp=N,10.0nm,1.2s
VSR                                 pmax   pmax
         comp=E,10.0nm,1.0s
VSR   Storozhevoye      26.66 337  eP      P        14 09 23.7 +0.9
         comp=E,10.0nm,1.2s,mb4.2
GUN   Gumba             26.96  82  eP      P        14 09 27.0 +1.2
         comp=E,30nm,0.9s,mb4.8
JIRN  Jiri              27.26  83  eP      P        14 09 29.6 +1.1
MDRS  Chennai           27.32 117  ex      x        14 09 11.2
MDRS                               ex      x        14 20 59.2
MDRS                               ex      x        14 23 47.2
MDRS                               ex      x        14 33 35.2
MDRS                               ex      x        14 36 55.2
RAMN  Ramite            27.72  84  eP      P        14 09 33.0 +0.4
         comp=E,14nm,0.9s,mb4.6
VOSK  Vostochnaya       27.72  21   P      P        14 09 30.5 -1.8
VOSK                                pmax   pmax
         comp=Z,6.0nm,0.9s,mb4.2
VOSK  Vostochnaya       27.72  21   P      P        14 09 30.5 -1.8
         comp=Z,6.0nm,0.9s,mb4.2
BRVK  Borovoye          27.80  19  eP      P        14 09 32.4 -0.6
BRVK                                pmax   pmax
         comp=Z,4.0nm,0.7s,mb4.2
BRVK  Borovoye          27.80  19  eP      P        14 09 32.4 -0.6
         comp=Z,4.0nm,0.7s,mb4.2
BRVK  Borovoye          27.80  19  eP      P        14 09 32.4 -0.6
         comp=Z,4.0nm,0.7s,mb4.2
BVA0  Borovoye Array    27.80  20  i P     P        14 09 32.3 -0.7
BVA0                                pmax   pmax
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	comp=Z,2.0nm,0.7s,mb3.9						
BVA0	Borovoye Array	27.80	20	iP	P	14 09 32.3	-0.7
	comp=Z,2.0nm,0.7s,mb3.9						
BVAR	Borovoye Array	27.80	20	P	P	14 09 32.5	-0.5
BVAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BVAR				MLR	MLR		
	comp=Z,223nm,20.1s						
BVAR	Borovoye Array	27.80	20	P	P	14 09 32.5	-0.6
	comp=Z,5.9nm,0.8s,mb4.3,baz=208,slow=8.1,SNR=28						
BVAR				LR	LR	14 22 16.0	
	comp=Z,223nm,20.1s,MS3.7,baz=211,slow=40						
BVAR	Borovoye Array	27.80	20	P	P	14 09 32.5	-0.5
	comp=Z,223nm,20.1s						
MK31	Makanchi Array	28.57	41	iP	P	14 09 39.2	-0.8
MK31				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
MK31	Makanchi Array	28.57	41	iP	P	14 09 39.2	-0.8
	comp=Z,3.0nm,0.6s,mb4.2						
MKAR	Makanchi Array	28.57	41	P	P	14 09 39.5	-0.5
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MKAR	Makanchi Array	28.57	41	P	P	14 09 39.5	-0.5
	comp=Z,3.8nm,0.6s,mb4.3,baz=226,slow=8.2,SNR=57						
MKAR	Makanchi Array	28.57	41	P	P	14 09 39.5	-0.5
	comp=Z,4.0nm,0.6s,mb4.3						
TAPN	Taplejung	28.64	83	eP	P	14 09 41.1	+0.3
KURK	Kurchatov	29.11	31	P	P	14 09 43.6	-1.1
KURK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
KURK				MLR	MLR		
	comp=Z,105nm,19.3s,MS3.5						
KURK	Kurchatov	29.11	31	P	P	14 09 43.5	-1.2
	comp=Z,1.3nm,0.7s,mb3.8,baz=233,slow=8.6,SNR=9.4						
KURK				LR	LR	14 22 58.8	
	comp=Z,105nm,19.2s,MS3.5,baz=315,slow=40						
KURK	Kurchatov	29.11	31	P	P	14 09 43.6	-1.1
	comp=Z,105nm,19.3s						
AKASG	Malin Array Be	30.50	326	P	P	14 09 55.9	-1.0
	comp=Z,0.3nm,0.3s,mb3.5,baz=136,slow=8.6,SNR=4.4						
AKASG	Malin Array Be	30.50	326	P	P	14 09 55.9	-1.1
OBN	Obninsk	30.77	339	⇓iP	P	14 10 01.5	+2.2
OBN				e		14 11 05.8	
OBN				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.8						
NVS	Novosibirsk	33.98	29	iP	P	14 10 22.4	-5.1
ZALV	Zalesovo Beam	34.10	31	P	P	14 10 27.6	-0.9
ZALV				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
ZALV	Zalesovo Beam	34.10	31	P	P	14 10 27.6	-0.9
	comp=Z,6.8nm,0.5s,mb4.8,baz=240,slow=9.3,SNR=30						
DPC	Dobruska-Polom	37.37	318	eP	P	14 10 48.3	-8.3
UPC	Upice	37.62	318	eP	P	14 10 58.1	-0.6
UPC	Upice	37.62	318	eP	P	14 10 58.1	-0.6
PRU	Pruhonice	38.30	317	eP	P	14 11 02.3	-2.2
PRU	Pruhonice	38.30	317	eP	P	14 11 02.3	-2.2
GERES	GERESS Array B	38.44	315	P	P	14 11 04.8	-0.9
	comp=Z,0.2nm,0.3s,mb3.3,baz=116,slow=7.8,SNR=2.6						
GERES	GERESS Array B	38.44	315	P	P	14 11 04.8	-0.9
GTA	Gaotai	38.55	60	eP	P	14 11 07.2	+0.4
GTA				pP	pP	14 11 11.3	-1.6
GTA				sP	sP	14 11 14.6	-0.8
GTA				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.6						
KHC	Kasperske Hory	38.61	315	eP	P	14 11 06.2	-0.9
KHC				ex	x	14 11 11.0	
KHC	Kasperske Hory	38.61	315	eP	P	14 11 06.2	-0.9
KRAR	Krasnoyarsk	39.09	33	⇓iP	P	14 11 10.3	-0.7
KRAR				pmax	pmax		
	comp=Z,16nm,0.4s,mb5.1						
KRAR	Krasnoyarsk	39.09	33	iP	P	14 11 10.3	-0.7
	comp=Z,16nm,0.4s,mb5.1						
CLL	Collm	39.68	318	eP	P	14 11 17.0	+1.0
CLL	Collm	39.68	318	eP	P	14 11 17.0	+1.0
KEST	Kesra	39.75	294	P	P	14 11 17.7	+0.8
	comp=Z,1.5nm,0.8s,mb3.8,baz=158,slow=9.7,SNR=4.6						
CMAR	Chiang Mai Arr	40.92	93	P	P	14 11 26.9	+0.2
CMAR						14 13 27.4	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	40.92	93	P	P	14 11 26.9	+0.2
	comp=Z,0.3nm,0.4s,mb3.3,baz=292,slow=5.7,SNR=3.8						
CMAR				PcP	PcP	14 13 27.4	+0.3
	comp=Z,1.1nm,0.7s,baz=293,slow=4.3,SNR=5.5						
CMAR	Chiang Mai Arr	40.92	93	P	P	14 11 26.9	+0.2
	comp=Z,1.0nm,0.7s,mb3.5						
CMAR	Chiang Mai Arr	40.92	93	PcP	PcP	14 13 27.4	+0.3
MOY	Mondy	41.70	42	eP	P	14 11 33.2	+0.5
MOY	Mondy	41.70	42	eP	P	14 11 33.2	+0.5
MBDF	Montbardon	42.19	307	eP	P	14 11 33.5	-3.3
	comp=Z,11nm,0.8s,mb4.3						
MBDF	Montbardon	42.19	307	eP	P	14 11 33.5	-3.3
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
MBDF	Montbardon	42.19	307	eP	P	14 11 33.5	-3.3
	comp=Z,5.4nm,0.8s,mb4.2						
KMI	Kunming	42.31	82	P	P	14 11 39.3	+1.3
KMI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
ZAK	Zakamensk	42.74	44	eP	P	14 11 34.6	-6.6
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
CABF	La Chapelle	42.93	310	eP	P	14 11 40.8	-2.0
	comp=Z,13nm,0.9s,mb4.4						
CABF	La Chapelle	42.93	310	eP	P	14 11 40.8	-2.0
CABF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
CABF	La Chapelle	42.93	310	eP	P	14 11 40.8	-2.0
	comp=Z,6.7nm,0.9s,mb4.4						
CABF	La Chapelle	42.93	310	eP	P	14 11 40.8	-2.0
	comp=Z,6.7nm,0.9s,mb4.4						
SONM	Songino Array	44.26	49	P	P	14 11 53.4	-0.1
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM	Songino Array	44.26	49	P	P	14 11 53.4	0.0
	comp=Z,1.5nm,0.8s,mb3.8,baz=258,slow=9.2,SNR=14						
SONM	Songino Array	44.26	49	P	P	14 11 53.4	-0.1
	comp=Z,2.0nm,0.9s,mb3.9						
SMF	Signal de Mont	44.47	310	eP	P	14 11 52.7	-2.5
	comp=Z,14nm,0.8s,mb4.4						
SMF	Signal de Mont	44.47	310	eP	P	14 11 52.7	-2.5
SMF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
SMF	Signal de Mont	44.47	310	eP	P	14 11 52.7	-2.5
	comp=Z,6.8nm,0.8s,mb4.4						
SMF	Signal de Mont	44.47	310	eP	P	14 11 52.7	-2.5
	comp=Z,6.8nm,0.8s,mb4.4						
NB2	NORSAR Subarra	44.63	331	P	P	14 11 54.9	-1.4
	comp=Z,2.3nm,0.7s,mb4.1,baz=116,slow=7.9						
NB2	NORSAR Subarra	44.63	331	P	P	14 11 54.9	-1.4
	comp=Z,2.3nm,0.7s,mb4.1,SNR=7.9						
NOA	NORSAR Array B	44.63	331	P	P	14 11 54.9	-1.4
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	44.63	331	P	P	14 11 54.9	-1.4
	comp=Z,2.3nm,0.8s,mb4.1,baz=118,slow=8.0,SNR=7.1						
NOA	NORSAR Array B	44.63	331	P	P	14 11 54.9	-1.4
	comp=Z,2.0nm,0.8s,mb4.0						
ULN	Ulaanbaatar	44.70	49	eP	P	14 11 56.9	-0.1
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
ULN	Ulaanbaatar	44.70	49	eP	P	14 11 56.9	-0.1
	comp=Z,2.4nm,0.8s,mb4.1						
ULN	Ulaanbaatar	44.70	49	eP	P	14 11 56.9	-0.1
	comp=Z,2.4nm,0.8s,mb4.1						
BAIF	Baives	44.74	314	eP	P	14 11 54.7	-2.6
	comp=Z,9.8nm,0.7s,mb4.4						
BAIF	Baives	44.74	314	eP	P	14 11 54.7	-2.6
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
BAIF	Baives	44.74	314	eP	P	14 11 54.7	-2.6
	comp=Z,4.9nm,0.7s,mb4.5						
BAIF	Baives	44.74	314	eP	P	14 11 54.7	-2.6
	comp=Z,4.9nm,0.7s,mb4.5						
AVF	Avril sur Loir	44.82	310	eP	P	14 11 55.3	-2.6
AVF	Avril sur Loir	44.82	310	eP	P	14 11 55.3	-2.6
TCF	Toulx Ste Croi	45.55	309	eP	P	14 12 02.2	-1.6
TCF	Toulx Ste Croi	45.55	309	eP	P	14 12 02.2	-1.6
SGMF	Saint Gilles	48.93	311	eP	P	14 12 28.0	-2.1
SGMF	Saint Gilles	48.93	311	eP	P	14 12 28.0	-2.1
BOD	Bodaibo	50.51	36	eP	P	14 12 40.5	-1.5
BOD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
BOD	Bodaibo	50.51	36	eP	P	14 12 40.5	-1.5
	comp=Z,8.0nm,0.9s,mb4.7						
TORD	Torodi Ar. Bea	51.97	265	P	P	14 12 52.9	-0.7
	comp=Z,4.0nm,0.6s,mb4.5,baz=60,slow=7.0,SNR=35						
NJ2	Nanjing	54.57	69	eP	P	14 13 13.4	+0.9
NJ2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
TIXI	Tiksi	58.93	21	⇑eP	P	14 13 43.1	+0.3
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.3						
TIXI	Tiksi	58.93	21	eP	P	14 13 43.1	+0.3
	comp=Z,5.0nm,1.4s,mb4.3						
DBIC	Dimbokro	60.61	262	P	P	14 13 54.8	-0.4
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DBIC	Dimbokro	60.61	262	P	P	14 13 54.8	-0.5
	comp=Z,2.3nm,0.8s,mb4.4,baz=31,slow=11,SNR=3.7						
DBIC	Dimbokro	60.61	262	P	P	14 13 54.8	-0.4
	comp=Z,2.0nm,0.8s,mb4.3						
KSRS	Korea Array	60.62	61	P	P	14 13 53.7	-1.3
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
KSRS	Korea Array	60.62	61	P	P	14 13 53.7	-1.3
	comp=Z,2.8nm,0.8s,mb4.5,baz=279,slow=6.7,SNR=7.9						
KSRS	Korea Array	60.62	61	P	P	14 13 53.7	-1.3
	comp=Z,3.0nm,0.8s,mb4.5						
LIC	Lamto	60.96	261	eP	P	14 13 56.7	-1.0
	comp=Z,30nm,1.3s,mb5.0						
LIC	Lamto	60.96	261	eP	P	14 13 56.7	-1.0
	comp=Z,15nm,1.3s,mb5.0						
LIC	Lamto	60.96	261	eP	P	14 13 56.7	-1.0
	comp=Z,15nm,1.3s,mb5.0						
BOSA	Boshof	62.86	210	P	P	14 14 09.8	-0.2
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
BOSA	Boshof	62.86	210	P	P	14 14 09.8	-0.2
	comp=Z,2.9nm,0.9s,mb4.4,baz=21,slow=12,SNR=2.8						
BOSA	Boshof	62.86	210	P	P	14 14 09.8	-0.2
BOSA	Boshof	62.86	210	P	P	14 14 09.8	-0.2
	comp=Z,3.0nm,0.9s,mb4.4						
JOW	Kunigami	63.90	72	LR	LR	14 44 34.2	
	comp=Z,92nm,19.3s,MS4.0,baz=31,slow=38						
YSS	Yuzh-Sakhalins	68.72	47	eP	P	14 14 45.7	-2.0
YSS	Yuzh-Sakhalins	68.72	47	eP	P	14 14 45.7	-2.0
SEY	Seymchan	68.94	29	⇓iP	P	14 14 48.5	-0.3
SEY				i *PP	PcP	14 15 06.9	-6.1
SEY	Seymchan	68.94	29	iP	P	14 14 48.5	-0.3
BILL	Bilibino	72.13	22	eP	P	14 15 08.0	-0.1
BILL				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
BILL	Bilibino	72.13	22	eP	P	14 15 07.9	-0.2
	comp=Z,4.6nm,1.1s,mb4.3						
BILL	Bilibino	72.13	22	eP	P	14 15 07.9	-0.2
	comp=Z,4.6nm,1.1s,mb4.3						
WRA	Warramunga Arr	89.75	113	P	P	14 16 42.5	-0.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	89.75	113	P	P	14 16 42.5	-0.3
	comp=Z,0.8nm,0.7s,mb4.1,baz=312,slow=3.6,SNR=4.1						
WRA	Warramunga Arr	89.75	113	P	P	14 16 42.5	-0.3
	comp=Z,1.0nm,0.7s,mb4.2						
YKA	Yellowknife Ar	89.94	355	P	P	14 16 43.0	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	89.94	355	P	P	14 16 43.0	+0.1
	comp=Z,0.5nm,0.7s,mb4.0,baz=5.0,slow=4.9,SNR=14						
YKA	Yellowknife Ar	89.94	355	P	P	14 16 43.0	+0.1
YKA	Yellowknife Ar	89.94	355	P	P	14 16 43.0	+0.1
	comp=Z,1.0nm,0.7s,mb4.2						
ASAR	Alice Springs	91.22	116	P	P	14 16 49.0	-0.6
	comp=Z,0.4nm,0.7s,mb3.9,baz=300,slow=4.7,SNR=6.4						
ASAR	Alice Springs	91.22	116	P	P	14 16 49.0	-0.6
MAW	Mawson	95.00	177	LR	LR	14 56 45.3	
	comp=Z,83nm,19.0s,MS4.2,baz=73,slow=34						
PFO	Pinyon Flat Ob	118.71	352	iPKIKP	PKPdf	14 22 30.7	-1.8

ISCJB **11** *14:09:02.7±0.7, 19°.71N±0°.04×75°.45W±0°.03, h23^{km}±5^{km}, mb4.3/29, MS4.0/8, Error ellipse: s-maj=6.6km s-min=4.0km az=18.5*

BJI **11** *14:09:03.8, 19°.70N×75°.50W, h27^{km}, Ms5.2/3, Ms7 4.8/3*

IDC **11** *14:09:04.3±6.8, 19°.76N×75°.47W, h24^{km}±44^{km}, mb4.0/15, mb1 4.3/19, mb1mx4.2/25, mbtmp4.1/19, ML4.5/4, MS3.7/10, Ms1 3.8/10, ms1mx3.6/26, Error ellipse: s-maj=16.6km s-min=13.2km az=32.0*

NEIC **11** *14:09:04.9±0.9, 19°.74N×75°.51W, h27^{km}±7^{km}, mb4.4/11, Error ellipse: s-maj=7.0km s-min=4.8km az=208.0*

NEIC Felt [IV] at Guantanamo.

SSNC **11** *14:09:05.3±2.4, 19°.75N×75°.50W, h14^{km}±15^{km}, MD3.8, ML4.3*

ISC 11 14:09:04.5±0.7**, 19°.77N**±0°.04×**75°.45W**±0°.03**, h21**^{km}±4^{km}**, n243, σ0^{s}.69**/241**, mb4.3**/29**, MS4.0**/8**, 83C-97D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCC	Rio Carpintero	0.33	314	⇓iPG	Pb	14 09 10.8	-0.9
RCC				iSG	Sb	14 09 15.8	-0.8
GTBY	Guantanamo Bay	0.35	63	ePn	Pb	14 09 13.1	+1.0
GTBY				eSn	Sb	14 09 18.7	+1.3
MOAC	Moa	1.00	27	eP	Pb	14 09 22.5	-0.7
MASC	Masc	1.21	70	⇑iP	Pn	14 09 25.7	-0.6
MASC				iS	Sn	14 09 41.5	-0.7
HLGC	Holguin	1.26	333	eP	Pn	14 09 26.1	-0.8
HLGC				eS	Sn	14 09 43.0	-0.2
LMGC	Las Mercedes	1.50	282	iP	Pn	14 09 28.7	-1.5
LMGC				iS	Sn	14 09 45.0	-4.1
	comp=N,5µm,0.1s						
LMGC				⇓e			
	comp=E,4µm,0.1s						
MTDJ	Mount Denham	2.50	233	ePn	Pn	14 09 41.7	-2.3
CCCC	Cccc	2.60	304	eP	Pn	14 09 42.8	-2.6
CCCC				eS	Sn	14 10 11.8	-4.6
	comp=N,2µm,0.6s						
CCCC				e			
	comp=E,810nm,0.7s						
GRTK	Grand Turk	4.40	66	ePn	Pn	14 10 10.5	+0.4
CRPR	Cabo Rojo, PR	8.09	101	ePn	Pn	14 11 02.1	+1.2
CBYP	Canovanas	9.19	98	ePn	Pn	14 11 16.4	+0.4
CBYP				eSn	Sn	14 12 53.1	-5.8
DWPF	Disney	9.94	328	Pn	Pn	14 11 26.7	+0.4
SDV	Santo Domingo	11.78	156	Pn	Pn	14 11 52.7	+1.3
	comp=E,7.3nm,0.3s,baz=10,slow=0.8,SNR=33						
SDV				Sn	Sn	14 14 01.0	-1.4
	comp=E,2.5nm,0.3s,baz=47,slow=19,SNR=3.9						
SDV				LR	LR	14 16 43.9	
	comp=E,160nm,19.6s,baz=12,slow=39						
SDV	Santo Domingo	11.78	156	ePn	Pn	14 11 51.8	+0.4
	comp=E,15nm,0.4s						
TEIG	Tepich	12.07	274	Pn	Pn	14 11 54.2	-1.2
	comp=E,2.2nm,0.3s,baz=1.3,slow=1.3,SNR=19						
TEIG				Sn	Sn	14 14 01.0	-8.5
	comp=E,3.4nm,0.3s,baz=157,slow=22,SNR=14						
TEIG				LR	LR	14 16 01.8	
	comp=E,242nm,19.4s,baz=22,slow=35						
TEIG	Tepich	12.07	274	Pn	Pn	14 11 54.2	-1.2
TEIG				Sn	Sn	14 14 01.0	-8.5
TEIG				LR	LR	14 16 01.8	
PCRV	Puerto La Cruz	14.13	131	Pn	Pn	14 12 25.4	+1.8
	comp=E,6.7nm,0.3s,baz=140,slow=0.3,SNR=16						
PCRV				LR	LR	14 17 22.8	
	comp=E,149nm,21.3s,baz=52,slow=35						
TKL	Tuckaleechee C	17.45	337	LR	LR	14 20 20.6	
	comp=E,530nm,19.6s,baz=344,slow=39						
CMIG	Matias Romero	18.63	265	P	Pn	14 13 18.9	-2.5
	comp=E,0.3nm,0.3s,baz=66,slow=11,SNR=3.8						
WCI	Wyandotte Cave	20.67	335	P	P	14 13 41.4	-1.6
	comp=E,15nm,0.9s						
MIAR	Mount Ida	21.78	316	eP	P	14 13 55.1	0.0
	comp=E,19nm,1.3s,mb4.4						
FVM	French Village	22.34	327	eP	P	14 14 01.2	+0.1
	comp=E,15nm,0.9s,mb4.4						
CCM	Cathedral Cave	22.82	326	eP	P	14 14 05.9	-0.2
	comp=E,12nm,0.9s,mb4.3						
JCT	Junction City	24.44	301	eP	P	14 14 22.2	+0.2
	comp=E,24nm,0.9s,mb4.6						
WMOK	Wichita Mounta	25.46	311	eP	P	14 14 30.5	-0.7
	comp=E,6.1nm,0.8s,mb4.2						
TXAR	Lajitas Array	27.32	296	P	P	14 14 47.9	-0.1
	comp=E,2.6nm,1.1s,mb3.7,baz=116,slow=8.5,SNR=12						
TXAR				PcP	PcP	14 18 07.1	-0.2
	comp=E,1.2nm,0.7s,baz=116,slow=3.5,SNR=12						
TXAR				LR	LR	14 29 41.5	
	comp=E,62nm,18.3s,MS3.2,baz=20,slow=45						
TXAR	Lajitas Array	27.32	296	P	P	14 14 47.9	-0.1
TXAR				PcP	PcP	14 18 07.1	-0.2
TXAR				LR	LR	14 29 41.5	
ANMO	Albuquerque	31.27	305	LR	LR	14 30 33.0	
	comp=E,89nm,19.4s,MS3.4,baz=18,slow=41						
120A	U Bar Ranch, L	32.25	300	⇓P	P	14 15 32.7	+0.9
	baz=32						
319A	Douglas	32.51	298	⇑P	P	14 15 35.1	+1.1
	baz=32						
119A	Ashpeak Ranch,	32.86	300	⇓P	P	14 15 37.8	+0.8
	baz=33						
318A	Bisbee	33.12	297	⇓P	P	14 15 39.5	+0.2
	baz=33,SNR=7.8						
Y19A	Nutrioso	33.14	302	⇑P	P	14 15 40.8	+1.3
	baz=33						
217A	Green Valley	33.88	298	⇓P	P	14 15 46.7	+0.8
	baz=34						
T19A	Beclabito	33.88	307	⇑P	P	14 15 46.5	+0.6
	baz=34						
Z17A	San Carlos Hig	33.94	301	⇓P	P	14 15 47.2	+0.8
	baz=34						
117A	Oracle	33.98	299	⇑P	P	14 15 47.3	+0.5
	baz=34						
Q20A	Ridgley Place,	34.17	311	⇓P	P	14 15 48.7	+0.3
	baz=34						
S19A	Harvey Farm, M	34.30	309	⇓P	P	14 15 49.6	+0.1
	baz=34						
U18A	Rough Rock, Ch	34.38	306	⇓P	P	14 15 50.5	+0.3
	baz=34						
P20A	De Beque	34.46	312	⇑P	P	14 15 51.5	+0.6
	baz=34						
ULM	Lac du Bonnet	34.48	337	P	P	14 15 49.5	-1.4
	comp=E,4.3nm,0.6s,mb4.6,baz=145,slow=8.9,SNR=6.5						
ULM				LR	LR	14 31 02.6	
	comp=E,392nm,18.4s,MS4.2,baz=107,slow=38						
X17A	Forest Lakes	34.48	302	⇑P	P	14 15 52.0	+0.9
	baz=34						
T18A	Mexican Hat	34.62	307	⇑P	P	14 15 52.8	+0.4
	baz=35,SNR=7.0						
O20A	White River Ci	34.63	313	⇑P	P	14 15 53.0	+0.6
	baz=35						
Y16A	Circle Bar Ran	34.90	301	⇓P	P	14 15 55.9	+1.1
	baz=35						
L21A	Rawlins	34.90	316	⇓P	P	14 15 54.7	0.0
	baz=35						
S18A	Hurst Farm, Bl	34.91	308	⇑P	P	14 15 55.0	+0.2
	baz=35						
P19A	Cripple Cowboy	34.93	312	⇑P	P	14 15 54.8	-0.2
	baz=35						
N20A	Spence Gulch,	34.96	314	⇑P	P	14 15 55.9	+0.7
	baz=35						
X16A	Lo Mia Camp, P	35.01	302	⇓P	P	14 15 56.6	+0.9
	baz=35						
U17A	Shonto	35.04	306	⇓P	P	14 15 56.3	+0.4
	baz=35						
R18A	Canyonlands Na	35.09	309	⇓P	P	14 15 56.4	0.0
	baz=35						
M20A	Sweetwater, Wa	35.21	315	⇑P	P	14 15 57.8	+0.4
	baz=35						
WUAZ	Wupatki	35.26	304	⇑P	P	14 15 58.3	+0.4
	baz=35,SNR=5.8						
WUAZ	Wupatki	35.26	304	eP	P	14 15 58.2	+0.4
	comp=E,8.2nm,1.0s,mb4.6						
W16A	Flagstaff	35.26	303	⇓P	P	14 15 58.5	+0.7
	baz=35						
T17A	Navajo Res., N	35.28	307	⇓P	P	14 15 58.9	+0.9
	baz=35						
O19A	Miners Draw (B	35.31	313	⇓P	P	14 15 58.1	-0.1
	baz=35						
S17A	Black Ridge (B	35.49	308	⇑P	P	14 16 00.4	+0.6
	baz=35,SNR=5.5						
Q18A	Rafter H Ranch	35.54	310	⇑P	P	14 16 00.6	+0.4
	baz=36						
L20A	Wamsutter	35.56	316	⇓P	P	14 16 00.8	+0.5
	baz=36						
214A	Organ Pipe Nat	35.58	298	⇓P	P	14 16 01.5	+0.9
	baz=36,SNR=6.3						
Y15A	Casa Rosa Ranc	35.61	301	⇓P	P	14 16 01.6	+0.7
	baz=36						
N19A	John Jarvie Ra	35.61	314	⇑P	P	14 16 00.7	-0.1
	baz=36,SNR=6.9						
SCHQ	Schefferville	35.62	9	P	P	14 15 59.8	-0.9
	comp=E,3.5nm,0.8s,mb4.3,baz=148,slow=7.0,SNR=4.9						
X15A	Humboldt	35.66	302	⇓P	P	14 16 02.4	+1.1
	baz=36						
R17A	Hanksville Air	35.70	309	⇓P	P	14 16 02.4	+0.8
	baz=36						
SRU	San Rafael	35.82	310	⇓P	P	14 16 02.8	+0.1
	baz=36						
K20A	Yellowstone Ra	35.87	317	⇓P	P	14 16 02.6	-0.4
	baz=36						
V15A	Kaibab Nationa	35.97	304	⇑P	P	14 16 04.6	+0.7
	baz=36						
S16A	Weppner Ranch,	36.11	307	⇑P	P	14 16 05.7	+0.5
	baz=36						
R16A	Teasdale	36.22	308	⇑P	P	14 16 06.1	+0.1
	baz=36						
L19A	Farson	36.27	315	⇑P	P	14 16 06.4	-0.1
	baz=36						
K19A	Absolon Red Bu	36.28	317	⇑P	P	14 16 06.2	-0.3
	baz=36						
O17A	Robinson Place	36.39	312	⇓P	P	14 16 08.2	+0.7
	baz=36						
M18A	Lyman	36.45	314	⇑P	P	14 16 07.8	-0.1
	baz=36						
T15A	Red Dirt Ranch	36.48	306	⇑P	P	14 16 09.4	+1.1
	baz=36						
L18A	Fontenelle, Gr	36.64	315	⇓P	P	14 16 09.8	+0.1
	baz=37						
V14A	Boquillas Ranc	36.64	304	⇓P	P	14 16 10.6	+0.9
	baz=37,SNR=5.5						
BW06	Boulder Array	36.71	316	⇑P	P	14 16 09.9	-0.3
	baz=37						
PDAR	Pinedale Array	36.71	316	P	P	14 16 09.6	-0.6
	comp=E,1.5nm,0.7s,mb3.9,baz=120,slow=10,SNR=15						
PDAR				PcP	PcP	14 18 31.6	-1.0
	comp=E,0.8nm,0.7s,baz=116,slow=5.4,SNR=5.1						
N17A	Moffit Pass	36.76	313	⇑P	P	14 16 10.7	+0.1
	baz=37						
U14A	Mt Trumbull	36.92	305	⇑P	P	14 16 12.8	+0.8
	baz=37,SNR=5.2						
K18A	Toltan Ranch,	36.97	316	⇑P	P	14 16 12.4	+0.1
	baz=37						
W13A	Hualapai Mount	37.12	302	⇓P	P	14 16 14.4	+0.6
	baz=37						
N16A	Rees Ranch, Co	37.16	312	⇑P	P	14 16 14.3	+0.3
	baz=37						
J18A	Kendall Valley	37.22	317	⇑P	P	14 16 14.3	-0.2
	baz=37						
V13A	Grand Canyon W	37.39	304	⇑P	P	14 16 17.1	+1.0
	baz=37						
U13A	Pakoon Wash	37.52	304	⇑P	P	14 16 18.3	+1.2
	baz=38						
L16A	Fish Haven	37.62	314	⇑P	P	14 16 17.5	-0.4
	baz=38						
T13A	Saint George	37.65	305	⇓P	P	14 16 19.4	+1.2
	baz=38						
RLMT	Red Lodge	37.69	320	eP	P	14 16 18.0	-0.4
	comp=E,9.8nm,0.9s,mb4.5						
J17A	Brown Place, J	37.74	317	⇓P	P	14 16 19.1	+0.2
	baz=38						
Q14A	Sevier Lake (B	37.78	309	⇑P	P	14 16 20.2	+0.9
	baz=38						
LOHW	Long Hollow	37.78	317	eP	P	14 16 19.2	0.0
	comp=E,3.3nm,0.8s,mb4.1						
REDW	Red Top Meadow	37.83	316	eP	P	14 16 19.1	-0.6
	comp=E,4.9nm,0.8s,mb4.3						
P14A	Drum Mountains	37.83	310	⇑P	P	14 16 20.4	+0.7
	baz=38						
DUG	Dugway	37.86	311	⇓P	P	14 16 20.2	+0.2
	baz=38,SNR=6.1						
I17A	Pilgrim Ck.	37.91	317	⇓P	P	14 16 20.9	+0.6
	baz=38						
N15A	Stansbury Isla	37.92	312	⇑P	P	14 16 20.5	0.0
	baz=38						
IRM	Iron Mountain	37.93	300	⇑P	P	14 16 21.4	+0.7
	baz=38,SNR=7.0						
MOOW	Moose Ponds	37.94	317	eP	P	14 16 20.1	-0.5
	comp=E,5.1nm,0.8s,mb4.3						
G18A	Lazy EL Ranch,	37.97	320	⇑P	P	14 16 20.7	-0.1
	baz=38,SNR=7.3						
R13A	O’Grain Ranch,	38.03	307	⇓P	P	14 16 21.8	+0.4
	baz=38						
V12A	Nelson	38.04	303	⇓P	P	14 16 22.4	+0.9
	baz=38						
M15A	Larsen Ranch,	38.09	313	⇓P	P	14 16 21.6	-0.3
	baz=38,SNR=5.8						
LDFC	Landfair	38.10	302	eP	P	14 16 23.0	+1.0
SIV	San Ignacio	38.24	157	P	P	14 16 22.7	-0.6
	comp=E,1.3nm,1.0s,mb3.6,baz=356,slow=13,SNR=3.3						
SIV				PcP	PcP	14 18 37.3	-0.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=E,1.2nm,0.8s,baz=90,slow=8.1,SNR=2.9						
L15A	Malad City	38.26	314	⇓P	P	14 16 22.8	-0.5
	baz=38,SNR=11						
J16A	Bone	38.28	316	⇓P	P	14 16 23.6	+0.1
	baz=38,SNR=6.5						
Q13A	Wheeler Ranch,	38.32	308	⇑P	P	14 16 24.6	+0.8
	baz=38,SNR=6.1						
F18A	Big Timber	38.36	321	⇓P	P	14 16 23.5	-0.6
	baz=38,SNR=5.2						
N14A	Grayback Hills	38.37	312	⇓P	P	14 16 24.5	+0.2
	baz=38						
I16A	Newdale	38.47	317	⇓P	P	14 16 24.7	-0.3
	baz=38,SNR=6.1						
P13A	Bates Ranch, G	38.48	309	⇓P	P	14 16 26.1	+0.9
	baz=38						
S12A	Delamar Landin	38.53	306	⇓P	P	14 16 26.5	+0.8
	baz=38						
R12A	Pony Springs,	38.56	307	⇓P	P	14 16 26.6	+0.7
	baz=38						
K15A	Arbon	38.64	315	⇑P	P	14 16 26.3	-0.2
	baz=39						
G17A	Pierce Place,	38.69	319	⇓P	P	14 16 27.1	+0.3
	baz=39						
T11A	Corn Creek, Al	38.72	305	⇑P	P	14 16 27.8	+0.5
	baz=39						
M14A	Sheep Mountain	38.73	312	⇑P	P	14 16 26.9	-0.4
	baz=39						
E18A	Harlowton	38.82	321	⇓P	P	14 16 27.9	0.0
	baz=39						
L14A	Malta	38.86	313	⇓P	P	14 16 27.9	-0.4
	baz=39,SNR=8.3						
J15A	Blackfoot	38.88	316	⇑P	P	14 16 28.5	0.0
	baz=39,SNR=5.6						
F17A	Fitzpatrick Pl	38.93	320	⇑P	P	14 16 29.6	+0.8
	baz=39						
Q12A	Willow Creek R	38.94	308	⇓P	P	14 16 29.6	+0.5
	baz=39						
K14A	Jones Ranch, D	39.02	314	⇓P	P	14 16 29.5	-0.2
	baz=39						
P12A	McGill	39.13	309	⇑P	P	14 16 31.5	+0.8
	baz=39						
I15A	Monteview	39.17	317	⇑P	P	14 16 31.0	0.0
	baz=39						
G16A	Moss Hill, Enn	39.30	319	⇓P	P	14 16 32.5	+0.5
	baz=39						
R11A	Troy Canyon, C	39.30	307	⇑P	P	14 16 32.3	+0.2
	baz=39						
E17A	Martinsdale	39.33	321	⇓P	P	14 16 32.0	-0.2
	baz=39,SNR=6.3						
L13A	Double Diamond	39.36	313	⇑P	P	14 16 32.1	-0.5
	baz=39						
U10A	Ash Meadows, A	39.37	304	⇑P	P	14 16 33.3	+0.6
	baz=39						
BOZ	Bozeman (W)	39.39	319	⇓P	P	14 16 33.0	+0.2
	baz=39						
Q11A	Duckwater	39.50	308	⇑P	P	14 16 34.1	+0.3
	baz=39						
H15A	Lima	39.55	317	⇑P	P	14 16 34.5	+0.4
	baz=40						
J14A	Carey	39.56	315	⇓P	P	14 16 34.5	+0.3
	baz=40,SNR=8.3						
D17A	Six Diamond Ra	39.58	322	⇑P	P	14 16 34.0	-0.3
	baz=40,SNR=7.0						
G15A	Dillon	39.70	318	⇑P	P	14 16 35.5	+0.2
	baz=40						
I14A	Mackay	39.77	316	⇓P	P	14 16 36.5	+0.6
	baz=40						
E16A	East Helena	39.85	320	⇓P	P	14 16 36.7	+0.1
	baz=40						
O11A	Cowboy Ranch,	39.89	309	⇑P	P	14 16 37.4	+0.4
	baz=40						
S10A	Tonopah Range,	39.95	306	⇓P	P	14 16 38.0	+0.5
	baz=40						
BFSC	Mount Baldy St	39.99	300	⇑P	P	14 16 38.4	+0.5
	baz=40						
F15A	Butte	40.02	319	⇓P	P	14 16 38.4	+0.5
	baz=40						
D16A	Dana Ranch, Ca	40.03	321	⇑P	P	14 16 38.1	0.0
	baz=40						
J13A	Cove Ranch, Pi	40.03	315	⇓P	P	14 16 37.7	-0.4
	baz=40,SNR=7.8						
Q10A	Clear Creek Ra	40.05	307	⇑P	P	14 16 38.9	+0.6
	baz=40						
L12A	House Creek Ra	40.12	313	⇓P	P	14 16 38.8	-0.1
	baz=40						
I13A	Wildhorse Cree	40.20	316	⇑P	P	14 16 39.7	+0.2
	baz=40,SNR=6.7						
HLID	Hailey	40.26	315	⇑P	P	14 16 40.3	+0.3
	baz=40						
EDW2	Edwards Air Fo	40.37	301	⇓P	P	14 16 41.2	+0.1
	baz=40						
E15A	Deer Lodge	40.38	320	⇓P	P	14 16 41.0	0.0
	baz=40						
S09A	Goldfield	40.38	305	⇓P	P	14 16 41.2	+0.1
	baz=40,SNR=5.4						
R09A	Tonopah	40.40	306	⇓P	P	14 16 41.4	+0.2
	baz=40,SNR=6.6						
M11A	Holland Ranch,	40.41	311	⇓P	P	14 16 41.3	-0.1
	baz=40						
C16A	Fuhringer Ranc	40.53	322	⇑P	P	14 16 41.6	-0.6
	baz=40						
F14A	Wisdom	40.55	319	⇑P	P	14 16 42.9	+0.6
	baz=40						
H13A	Challis	40.56	316	⇑P	P	14 16 43.0	+0.5
	baz=40						
L11A	Cat Creek Ranc	40.64	312	⇓P	P	14 16 42.9	-0.3
	baz=41						
I12A	Atlanta	40.83	315	⇓P	P	14 16 44.5	-0.2
	baz=41						
E14A	Clinton	40.90	319	⇑P	P	14 16 45.4	+0.2
	baz=41						
H12A	Diamond D Ranc	40.95	316	⇑P	P	14 16 45.1	-0.5
	baz=41						
O09A	Fish Creek Ran	41.02	309	⇓P	P	14 16 46.3	0.0
	baz=41						
C15A	Salmond Ranch,	41.02	322	⇑P	P	14 16 46.0	-0.2
	baz=41						
K11A	Parker Ranch,	41.05	313	⇑P	P	14 16 46.4	-0.1
	baz=41						
L10A	Juniper Basin	41.11	312	⇓P	P	14 16 46.8	-0.3
	baz=41,SNR=6.3						
F13A	Darby	41.14	318	⇓P	P	14 16 46.9	-0.3
	baz=41						
MFID	Camas Ranch	41.15	314	⇓P	P	14 16 47.1	-0.2
	baz=41						
Q08A	Gabbs	41.21	307	⇓P	P	14 16 48.1	+0.2
	baz=41						
D14A	Greenough	41.22	320	⇓P	P	14 16 47.6	-0.3
	baz=41,SNR=5.0						
B15A	Bradely Ranch,	41.27	322	⇓P	P	14 16 47.4	-0.8
	baz=41						
NVAR	Mina Array Bea	41.38	306	P	P	14 16 49.7	+0.4
	comp=E,1.4nm,0.8s,mb3.6,baz=101,slow=6.7,SNR=9.6						
NVAR				PcP	PcP	14 18 47.7	+0.4
	comp=E,1.1nm,0.7s,baz=139,slow=3.3,SNR=6.8						
NVAR	Mina Array Bea	41.38	306	P	P	14 16 49.7	+0.4
NVAR				PcP	PcP	14 18 47.7	+0.4
N09A	Rock Creek Ran	41.47	310	⇓P	P	14 16 49.8	-0.2
	baz=41						
M09A	Marrel Ranch,	41.59	311	⇓P	P	14 16 51.2	+0.2
	baz=42						
K10A	MacKenzie Ranc	41.63	313	⇑P	P	14 16 51.0	-0.3
	baz=42						
A15A	Johnson Ranch,	41.70	323	⇓P	P	14 16 51.4	-0.4
	baz=42						
H11A	Donnelly	41.77	316	⇑P	P	14 16 52.0	-0.4
	baz=42						
D13A	Huson	41.80	320	⇑P	P	14 16 52.2	-0.4
	baz=42						
A14A	Double T Ranch	42.09	323	⇓P	P	14 16 54.8	-0.2
	baz=42						
C13A	Hot Springs	42.14	321	⇓P	P	14 16 55.2	-0.1
	baz=42,SNR=5.1						
K09A	Rome	42.20	312	⇑P	P	14 16 56.1	+0.2
	baz=42						
H10A	Noah's Angus R	42.20	315	⇑P	P	14 16 55.0	-0.9
	baz=42,SNR=5.4						
O07A	Toulon	42.26	308	⇓P	P	14 16 56.3	-0.2
	baz=42						
M08A	Happy Creek Ra	42.26	310	⇓P	P	14 16 56.8	+0.3
	baz=42						
R06C	Coleville	42.28	306	⇓P	P	14 16 56.8	+0.1
	baz=42						
L08A	Fields	42.47	311	⇓P	P	14 16 57.8	-0.3
	baz=42,SNR=7.2						
N07B	Gerlach	42.50	309	⇑P	P	14 16 56.8	-1.6
	baz=42						
E11A	Bogner Ranch,	42.56	318	⇑P	P	14 16 58.7	-0.1
	baz=42						
C12B	Naegeli Ranch,	42.69	320	⇓P	P	14 17 00.1	+0.2
	baz=43						
G10A	Bishop Farm, J	42.72	316	⇑P	P	14 16 59.3	-0.8
	baz=43						
K08A	Mann Creek Ran	42.74	312	⇑P	P	14 16 59.8	-0.6
	baz=43						
M07A	Soldier Meadow	42.81	310	⇑P	P	14 17 00.6	-0.4
	baz=43,SNR=6.5						
F10A	Beach Ranch, E	43.05	317	⇓P	P	14 17 01.9	-0.9
	baz=43						
L07A	Adell	43.12	311	⇓P	P	14 17 03.1	-0.4
	baz=43						
N06A	Buffalo Meadow	43.12	309	⇓P	P	14 17 03.0	-0.4
	baz=43						
G09A	Cove	43.14	316	⇑P	P	14 17 02.8	-0.8
	baz=43,SNR=7.0						
K07A	Rock Creek Ran	43.26	312	⇓P	P	14 17 04.0	-0.6
	baz=43						
D10A	Wagner Farm, O	43.52	319	⇓P	P	14 17 05.7	-0.9
	baz=44						
A11A	Hall Mountain,	43.79	321	⇑P	P	14 17 09.1	+0.3
	baz=44						
G08A	Pilot Rock	43.92	316	⇓P	P	14 17 09.5	-0.4
	baz=44						
I06A	Prineville	44.31	313	⇑P	P	14 17 12.0	-1.1
	baz=44						
EDM	Edmonton	44.32	328	P	P	14 17 12.1	-0.8
G07A	Ruggs Ranch, H	44.38	315	⇑P	P	14 17 13.3	-0.2
	baz=44						
A10A	Northport	44.50	321	⇓P	P	14 17 13.9	-0.6
	baz=44						
C08A	Higginbotham F	44.91	319	⇓P	P	14 17 17.0	-0.8
	baz=45						
E07A	Sunnyside	44.96	317	⇓P	P	14 17 17.3	-0.8
	baz=45						
G06A	Carlson Farm,	45.02	315	⇑P	P	14 17 17.7	-0.9
	baz=45						
A09A	Danville	45.11	321	⇓P	P	14 17 19.0	-0.3
	baz=45						
D07A	Quincy	45.27	318	⇓P	P	14 17 20.3	-0.3
	baz=45						
B08A	Colville Reser	45.31	319	⇑P	P	14 17 20.1	-0.9
	baz=45						
YBH	Yreka Blue Hor	45.47	310	P	P	14 17 20.4	-1.9
	comp=E,1.3nm,0.7s,mb3.9,baz=73,slow=11,SNR=3.2						
A08A	Turner Farm, O	45.52	320	⇓P	P	14 17 21.6	-1.0
	baz=46						
H04A	Detroit Lake	45.89	314	⇓P	P	14 17 25.0	-0.6
	baz=46						
A07A	Ashnola River,	46.23	320	⇓P	P	14 17 27.9	-0.2
	baz=46						
G04A	Mulino	46.24	314	⇑P	P	14 17 28.0	-0.3
	baz=46						
CPUP	Villa Florida	49.08	158	LR	LR	14 40 59.6	
	comp=E,85nm,19.8s,MS3.7,baz=104,slow=39						
YKA	Yellowknife Ar	50.45	338	P	P	14 17 59.3	-1.1
	comp=E,0.6nm,0.4s,mb4.0,baz=116,slow=8.3,SNR=18						
YKA				PcP	PcP	14 19 17.4	-1.0
	comp=E,0.6nm,0.7s,baz=124,slow=3.9,SNR=3.9						
YKA				LR	LR	14 40 31.7	
	comp=E,234nm,18.3s,MS4.2,baz=345,slow=37						
YKA	Yellowknife Ar	50.45	338	P	P	14 17 59.4	-1.1
YKA				PcP	PcP	14 19 17.4	-1.0
YKA				LR	LR	14 40 31.7	
TIC	Toumodi	69.39	90	*e*P	P	14 20 10.5	-1.0
	comp=E,5.8nm,0.2s,mb5.2						
LIC	Lamto	69.51	91	*e*P	P	14 20 11.5	-0.8
	comp=E,22nm,1.1s,mb5.0						
DBIC	Dimbokro	69.53	90	P	P	14 20 10.5	-1.9
	comp=E,3.2nm,0.8s,mb4.3,baz=253,slow=4.5,SNR=5.9						
DBIC	Dimbokro	69.53	90	P	P	14 20 10.5	-1.9
KIC	Kosan Boka	69.74	90	*e*P	P	14 20 13.0	-0.7
	comp=E,34nm,0.9s,mb5.3						
NOA	NORSAR Array B	71.31	31	P	P	14 20 23.4	+1.0
	comp=E,4.9nm,1.2s,mb4.3,baz=280,slow=6.6,SNR=2.8						
NOA				LR	LR	14 44 17.2	
	comp=E,121nm,21.7s,MS4.1,baz=350,slow=30						
TORD	Torodi Ar. Bea	73.73	82	P	P	14 20 36.8	-0.9
	comp=E,2.3nm,1.0s,mb4.1,baz=297,slow=7.1,SNR=10						
KEST	Kesra	74.63	57	P	P	14 20 41.4	-1.2
	comp=E,1.0nm,0.7s,mb3.9,baz=166,slow=4.9,SNR=4.8						
GERES	GERESS Array B	74.83	43	P	P	14 20 43.8	+0.3
	comp=E,0.5nm,0.5s,mb3.7,baz=277,slow=5.2,SNR=6.8						
ARCES	ARCESS Array B	75.42	21	P	P	14 20 45.5	-0.9
	comp=E,3.3nm,0.8s,mb4.3,baz=335,slow=5.4,SNR=4.5						
PPT	Papeete	81.67	248	P	P	14 21 21.2	-0.7
	comp=E,25nm,0.6s,mb5.3,baz=23,slow=7.7,SNR=4.6						
MLR	Muntele Rosu	83.80	44	P	P	14 21 32.7	+0.2
	comp=E,7.9nm,0.7s,mb4.9,baz=291,slow=1.1,SNR=6.4						
CN2	Changchun	113.90	344	*e*PKP	PKiKP	14 27 44.3	+2.2
WMQ	Urumqi	114.86	13	*e*PKP	PKiKP	14 27 42.0	-1.9
HHC	Hu-ho-hao-te	119.35	354	*e*PKP	PKPdf	14 27 48.4	-4.3
HHC				sPKP		14 28 02.7	
HHC				PP	PP	14 29 12.8	+0.4
HHC				PKS		14 31 23.8	
HHC				SKS	SKSdf	14 34 55.9	-7.9
HHC				LR	LR		
	comp=N,140nm,14.3s,MS4.9						
HHC				LR	LR		
	comp=E,180nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,100nm,15.5s,MS4.6						
LZH	Lanzhou	124.45	1	*e*PKP	PKPdf	14 28 00.6	-2.0
LZH				sPKP		14 28 11.5	
LZH				LR	LR		
	comp=N,140nm,18.0s						
LZH				LR	LR		
	comp=Z,190nm,20.1s,MS4.8						
CD2	Chengdu	129.61	1	PKP	PKPdf	14 28 13.1	+0.5
GYA	Guiyang	134.00	357	*e*Pdif	Pdif	14 25 17.8	-1.5
GYA				PKP	PKPdf	14 28 20.3	-0.7
GYA				PP	PP	14 30 52.0	+2.5
GYA				AMB	AMB		
	comp=Z,80nm,6.9s						
STKA	Stephens Creek	144.71	243	PKP	PKPdf	14 28 38.4	-1.9
	comp=Z,16nm,0.9s,baz=66,slow=2.8,SNR=21						
WRA	Warramunga Arr	152.00	265	PKP	PKPdf	14 28 51.5	-1.0
	comp=Z,4.4nm,0.8s,baz=77,slow=1.7,SNR=22						
WRA				PKPbc	PKPbc	14 28 57.1	-1.8
	comp=Z,5.0nm,0.5s,baz=86,slow=2.9,SNR=102						
WRA				PKPab	PKPab	14 29 07.8	-0.5
	comp=Z,0.9nm,0.5s,baz=85,slow=3.1,SNR=6.2						
ASAR	Alice Springs	152.48	257	PKP	PKPdf	14 28 51.7	-1.4
	comp=Z,2.4nm,0.8s,baz=89,slow=1.5,SNR=30						
ASAR				PKPbc	PKPbc	14 28 57.9	-2.1
	comp=Z,4.2nm,0.5s,baz=82,slow=2.4,SNR=55						
ASAR				PKPab	PKPab	14 29 09.7	-0.7
	comp=Z,4.1nm,0.7s,baz=85,slow=2.5,SNR=5.9						

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*ISCJB **11** 14:22:04.6±0.3, 32°.47N±0°.02×115°.29W±0°.02, h30^{km}±3^{km}, Error ellipse: s-maj=3.6km s-min=2.8km az=5.4*

*NEIC **11** 14:22:04.1, 32°.43N×115°.36W, h10^{km}, ML3.3(PAS), ML3.4(ECX), After ECX.*

*ECX **11** 14:22:04.1±0.2, 32°.44N×115°.36W, h10^{km}, MD3.3, ML3.4*

ISC 11 14:22:04.7±0.4**, 32°.48N**±0°.02×**115°.30W**±0°.02**, h19**^{km}±3^{km}**, n48, σ0^{s}.85**/69**, 27C-22D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.06	181	*e*P	Pg	14 22 07.4	-0.8
CPBX				*e*S	Sg	14 22 09.8	-0.7
SGL	Mount Signal	0.40	295	⇑*i*P	Pg	14 22 13.1	+0.1
SNR	Schaffner Ranc	0.40	343	⇓*i*P	Pg	14 22 14.2	+1.1
EMX	El Mayor	0.49	174	⇓*e*P	Pg	14 22 14.5	-0.2
EMX				*e*S	Sg	14 22 22.6	+1.2
112A	Yuma	0.61	85	⇓P	Pb	14 22 16.5	-0.3
	baz=0.6,SNR=36						
112A				⇑S	Sb	14 22 24.9	-0.1
	baz=0.6						
SWSC	Sam W. Stewart	0.62	318	⇑P	Pb	14 22 16.8	-0.1
	baz=0.7,SNR=61						
SWSC				⇑S	Sb	14 22 25.8	+0.6
	baz=0.7						
CRR	Carrizo Plain	0.69	306	⇑*i*P	Pb	14 22 18.2	0.0
DVTC	Desert V Tower	0.70	285	P	Pb	14 22 18.4	+0.1
	baz=0.7,SNR=162						
DVTC				⇑S	Sb	14 22 27.8	+0.3
	baz=0.7						
GLA	Glamis	0.70	35	⇓P	Pb	14 22 18.1	-0.2
	baz=0.7,SNR=85						
GLA				⇓S	Sb	14 22 27.7	+0.2
	baz=0.7						
GLA	Glamis	0.70	35	*e*P	Pb	14 22 17.6	-0.6
GLA				*e*S	Sb	14 22 27.5	0.0
RDX	Rancho Dawling	0.77	225	⇑*e*P	Pb	14 22 19.7	+0.1
RDX				*e*S	Sb	14 22 30.5	+0.8
RDX				⇑*e*		14 22 31.1	
	comp=N,1μm,0.7s						
ECBX	El Chinero	1.03	168	*e*P	Pb	14 22 24.4	+0.5
ECBX				*e*S	Sb	14 22 37.8	+0.9
MONP	Monument Peak	1.03	294	⇓P	Pb	14 22 23.4	-0.5
	baz=1.1,SNR=257						
MONP				⇑S	Sb	14 22 37.0	0.0
	baz=1.1						
CBX	Cerro Bola	1.16	262	*e*PN	Pn	14 22 26.6	+0.6
BAR	Barrett	1.17	280	*e*Pn	Pn	14 22 25.4	-0.7
BAR				*e*Sn	Sn	14 22 40.7	-0.9
BC3	Big Chuckw Mtn	1.18	354	⇓P	Pn	14 22 25.5	-0.7
	baz=1.3,SNR=44						
BC3				⇑S	Sb	14 22 40.3	-1.1
	baz=1.3						
113A	Mohawk Valley,	1.33	77	⇑P	Pn	14 22 27.4	-0.8
	baz=1.3,SNR=255						
113A				⇓S	Sn	14 22 45.9	+0.5
	baz=1.3						
ECNX	Esteban Cantu	1.37	234	⇓*e*PN	Pn	14 22 29.7	+0.8
ECNX				⇑*e*PN	Pn	14 22 28.6	-0.2
PBX	Punta Banda	1.41	239	⇑*e*PN	Pn	14 22 30.1	+0.7
PFO	Pinyon Flat Ob	1.48	320	P	Pn	14 22 29.5	-0.9
	baz=1.6,SNR=27						
PFO				⇓S	Sn	14 22 48.1	-1.1
	baz=1.6						
PFO	Pinyon Flat Ob	1.48	320	*e*Pn	Pn	14 22 29.4	-1.0
PFO				*e*Sn	Sn	14 22 47.8	-1.4
109C	Camp Elliot, M	1.57	286	⇓P	Pn	14 22 31.4	-0.2
	baz=1.6,SNR=7.9						
109C				⇑S	Sn	14 22 51.4	-0.1
	baz=1.6						
Y13A	Salome	1.82	42	⇑Sb	Sb	14 23 01.3	+1.6
	baz=1.9						
MURC	Murrieta	1.95	306	⇑S	Sn	14 23 00.1	-0.5
	baz=2.0						
PDMCI	Parker Dam,Lak	2.06	28	⇓Sb	Sb	14 23 08.2	+1.5
	baz=2.1						
Z14A	Wintersburg	2.17	65	⇓P	Pn	14 22 39.1	-0.7
	baz=2.2						
Z14A				⇑S	Sn	14 23 05.6	-0.5
	baz=2.2						
214A	Organ Pipe Nat	2.17	103	⇓P	Pn	14 22 38.5	-1.4
	baz=2.1,SNR=80						
214A				⇑S	Sn	14 23 04.2	-2.1
	baz=2.1						
GMRC	Granite Mounta	2.31	353	⇓S	Sn	14 23 09.5	-0.2
	baz=2.4						
LDFC	Landfair	2.60	3	Pn	Pn	14 22 47.8	+2.1
115A	Sonoran Desert	2.60	84	⇓P	Pn	14 22 45.5	-0.3
	baz=2.6,SNR=21						
MWC	Mount Wilson	2.89	308	P	Pn	14 22 55.6	+5.9
MWC				*e*S	Sn	14 23 32.5	+8.6
X15A	Humboldt	3.25	51	⇓P	Pn	14 22 55.0	+0.3
	baz=3.3						
216A	Three Points,	3.29	97	⇓P	Pn	14 22 54.6	-0.6
	baz=3.2						
Y16A	Circle Bar Ran	3.50	65	⇑P	Pn	14 22 58.0	0.0
	baz=3.5,SNR=14						
X16A	Lo Mia Camp, P	3.76	58	⇑P	Pn	14 23 02.7	+1.0
	baz=3.8						
TUC	Tucson	3.83	91	*e*Pn	Pn	14 23 01.5	-1.1
TUC				*e*Pg	Pg	14 23 16.2	-1.8
117A	Oracle	3.86	87	⇑P	Pn	14 23 02.3	-0.7
	baz=3.8,SNR=21						
217A	Green Valley	3.87	99	⇑P	Pn	14 23 02.6	-0.6
	baz=3.8,SNR=10						
Y17A	Roosevelt	3.93	71	⇓P	Pn	14 23 03.7	-0.3
	baz=3.9						
WUAZ	Wupatki	4.45	46	*e*Pn	Pn	14 23 13.6	+2.5
318A	Bisbee	4.63	102	⇑P	Pn	14 23 13.4	-0.2
	baz=4.6,SNR=18						
X18A	Snowflake	4.92	64	⇓P	Pn	14 23 18.4	+0.9
	baz=4.9						
119A	Ashpeak Ranch,	5.07	85	⇑P	Pn	14 23 19.9	+0.2
	baz=5.0,SNR=5.1						
Z19A	T-Link Ranch,	5.14	79	⇓P	Pn	14 23 21.7	+1.0
	baz=5.1						
319A	Douglas	5.24	101	⇓P	Pn	14 23 22.0	0.0
	baz=5.2,SNR=6.1						
Y19A	Nutrioso	5.28	72	⇑P	Pn	14 23 23.8	+1.3
	baz=5.3						
W18A	Petrified Fore	5.33	59	⇑P	Pn	14 23 24.4	+1.2
	baz=5.3						
120A	U Bar Ranch, L	5.63	88	⇑P	Pn	14 23 27.7	+0.3
	baz=5.6,SNR=5.1						

IDC 11 14:36:12.0±14.0**, 7°.71S**×**128°.59E, h142**^{km}±158^{km}**, mb3.2**/1**, mb1 3.2**/4**, mb1mx3.0**/17**, mbtmp3.0**/4**, ML3.3**/3**, Error ellipse: s-maj=97.7km s-min=56.9km az=22.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.72	195	P	Pn	14 38 43.2	+1.6
	0.1nm,0.3s,baz=28,slow=15,SNR=3.4						
FITZ				S	Sn	14 40 37.8	-2.3
	0.2nm,0.3s,baz=56,slow=18,SNR=2.9						
WRA	Warramunga Arr	13.37	156	P	Pn	14 39 14.4	-1.8
	0.3nm,0.3s,baz=335,slow=13,SNR=18						
WRA				S	Sn	14 41 33.1	-11
	0.5nm,0.3s,baz=340,slow=22,SNR=12						
ASAR	Alice Springs	16.66	163	P	Pn	14 39 58.9	+1.6
	0.1nm,0.3s,baz=342,slow=10,SNR=10						
ASAR				S	S	14 42 54.6	-8.2
	0.1nm,0.3s,baz=350,slow=30,SNR=4.2						
MKAR	Makanchi Array	68.06	328	P	P	14 46 56.2	0.0
	0.3nm,0.5s,baz=116,slow=8.2,SNR=7.6						

MEX 11 14:36:56.9±0.3**, 16°.83N**×**99°.69W, h7**^{km}±2^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.23	279	*i* P	Pg	14 37 01.1	-0.3
ACX				*i* S	Sg	14 37 04.3	-0.1
CAIG	El Cayaco	0.60	291	*i* P	Pg	14 37 07.6	-0.9
CAIG				*i* S	Sg	14 37 16.2	0.0
MEIG	Mezcala	1.09	3	*i* P	Pg	14 37 14.9	-2.9
MEIG				*i* S	Sg	14 37 28.7	-3.3
PNIG	Pinotepa	1.56	106	*i* P	Pn	14 37 21.7	-3.4
PNIG				*i* S	Sn	14 37 40.4	-5.1
UTMO	Huajuapan	2.05	61	*i* P	Pn	14 37 28.9	-3.0
UTMO				*i* S	Sn	14 37 52.9	-4.9

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*NNC **11** 14:39:09.6±3.9, 38°.95N×70°.19E, h0^{km}, mb3.6, mpv3.5, Error ellipse: s-maj=28.9km s-min=24.4km az=12.0*

ISC 11 14:39:08.3±2.3**, 38°.4N**±0°.1×**70°.2E**±0°.2**, h94**^{km}±64^{km}**, n13, σ0^{s}.84**/18**, 3C-5D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	4.60	35	P	Pn	14 40 14.7	-0.7
	SNR=21						
KSH	Kashi	4.66	74	Pn	Pn	14 40 09.5	-6.8
KSH				Sn	Sn	14 40 58.4	-11
KSH				smax			
	comp=N,150nm,1.0s						
KSH				smax			
	comp=E,87nm,1.0s						
KK31	Karatay Array	4.70	3	⇑Pn	Pn	14 40 16.5	-0.4
	comp=E,1.5nm,0.2s,baz=186,slow=14,SNR=42						
KK31				⇓Sn	Sn	14 41 09.9	-0.2
	comp=E,1.5nm,0.3s						
KK31				⇓Lg		14 41 25.5	
	comp=E,15nm,0.8s,baz=182,slow=28,SNR=7.5						
UCH	Uchtor	5.06	40	P	Pn	14 40 22.4	+0.6
	SNR=9.6						
EKS2	Erkin-Say	5.06	32	P	Pn	14 40 20.3	-1.4
	SNR=6.3						
KZA	Kyzart	5.34	45	P	Pn	14 40 26.4	+0.9
	SNR=14						
AAK	Ala-Archa	5.36	37	P	Pn	14 40 26.2	+0.5
	SNR=9.9						
KBK	Karagaybulak	5.59	39	P	Pn	14 40 30.3	+1.3
	SNR=19						
USP	Ospenovka	5.86	33	P	Pn	14 40 32.1	-0.5
	SNR=6.2						
TKM2	Tokmak 2	6.11	41	P	Pn	14 40 36.5	+0.5
	SNR=9.8						

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TKM2 Tokmak 2            6.11  41 ⇑Pn       Pn       14 40 36.3 +0.3
          comp=E,4.9nm,0.5s
TKM2                              ⇓Sn       Sn       14 41 44.1 -0.4
          comp=E,4.4nm,0.8s
TKM2                              ⇓Lg                14 42 04.8
          comp=E,3.5nm,0.7s
AB31 Akbulak array      13.11 329  Pn       Pn       14 42 09.4 -1.2
          comp=E,0.5nm,0.7s,baz=188,slow=10,SNR=4.5
AB31                               Sn       Sn       14 44 29.5 -5.1
          comp=E,0.4nm,0.5s,baz=149,slow=24,SNR=2.7
AKTO Aktyubinsk         14.81 328 ⇓Pn       Pn       14 42 38.9 +6.2
          comp=E,0.7nm,1.2s
AKTO                              ⇑Sn       Sn       14 45 16.9 +1.2
          comp=E,1.3nm,2.0s
```

NIED **11** *14:44:00, 40°.50N×143°.20E, h23km, Mw3.7 Best double couple: Mo4.63000×10^{14} NP1:φs89.00000°, δ70.00000°, λ-109.00000°. NP2:φs314.00000°, δ27.00000°, λ-48.00000°.*
ISCJB **11** *14:44:57.7±0.5, 40°.52N±0°.03×143°.37E±0°.06, h33km, mb3.5/9, Error ellipse: s-maj=6.6km s-min=3.2km az=23.0*
JMA **11** *14:44:58.5±0.2, 40°.52N×143°.23E, h31km±5km, M3.8*
MOS **11** *14:44:58.3±1.2, 40°.50N×143°.30E, h43km, mb3.9/6, Error ellipse: s-maj=17.7km s-min=10.4km az=87.6*
NEIC **11** *14:45:00.6±1.2, 40°.53N×143°.31E, h45km±10km, mb3.7/3, Error ellipse: s-maj=16.0km s-min=8.6km az=100.0*
IDC **11** *14:45:00.8±3.0, 40°.51N×143°.31E, h44km±26km, mb3.3/7, mb1 3.6/9, mb1mx3.4/23, mbtmp3.4/9, ML3.7/2, MS2.8/1, Ms1 2.8/1, ms1mx2.5/19, Error ellipse: s-maj=31.9km s-min=18.3km az=88.0*

ISC 11 14:44:59.5±0.5**, 40°.54N**±0°.03×**143°.33E**±0°.06**, h35km, n42, σ0^{s}92**/55**, mb3.5**/9**, 7C-2D, Off east coast of Honshu**

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Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
JTH  Tanohata            1.27 242 ⇑P        Pn       14 45 19.6 -1.1
JANG Nango               1.39 264 ⇑P        Pn       14 45 21.4 -1.0
JANG                              eS        Sn       14 45 38.0 -1.6
ERM  Erimo               1.48 355 eP        Pn       14 45 24.6 +0.9
MIYJ Miyakonagasawa      1.50 231 ⇑P        Pn       14 45 22.9 -1.0
JNBK Urakawa-nobuka      1.79 346  P        Pn       14 45 28.4 +0.5
JNBK                              eS        Sn       14 45 50.7 +1.2
JOM  Ohasama             1.89 236 ⇑P        Pn       14 45 29.3  0.0
JOM                               eS        Sn       14 45 51.8  0.0
JOT  Ohata               1.92 297 ⇓P        Pn       14 45 29.5 -0.2
JOT                                S        Sn       14 45 51.9 -0.7
JCH  Churui              2.08   1 ⇑P        Pn       14 45 31.8  0.0
JCH                                S        Sn       14 45 55.5 -0.9
JKB  Kayabe              2.19 309  P        Pn       14 45 33.3 -0.1
JKB                               eS        Sn       14 45 58.9 -0.4
JMK  Ichinoseki          2.27 226 ⇑P        Pn       14 45 34.5  0.0
JMK                               eS        Sn       14 46 00.8 -0.4
JAK  Akkeshi             2.66  22  P        Pn       14 45 39.5 -0.4
JAK                                S        Sn       14 46 09.4 -1.5
JFR  Furan               2.68 348  P        Pn       14 45 40.8 +0.7
JFR                               eS        Sn       14 46 12.6 +1.3
JEW  Eniwo               2.70 329  P        Pn       14 45 41.5 +1.2
JEW                               eS        Sn       14 46 13.0 +1.3
JAR  Ashorobuto          2.78   7 ⇓P        Pn       14 45 41.3 -0.2
JAR                                S        Sn       14 46 11.6 -2.1
JYK  Kaneyama            2.80 236 ⇑P        Pn       14 45 42.3 +0.5
ASAJ Asahikawa           3.62 352  P        Pn       14 45 54.4 +1.4
ASAJ                               S        Sn       14 46 34.4  0.0
ASAJ                               pmax     pmax
          comp=Z,4.0nm,0.3s
ASAJ                               smax
          comp=N,4.0nm,0.3s
ASAJ Asahikawa           3.62 352  P        Pn       14 45 54.4 +1.4
          comp=N,4.3nm,0.3s,baz=212,slow=13,SNR=47
ASAJ                               S        Sn       14 46 34.4 -0.1
          comp=N,3.6nm,0.3s,baz=90,slow=28,SNR=5.5
YUK  Yuzh-Kuril'sk       3.97  27 eP        Pn       14 45 58.0 +0.2
YUK                               eS        Sn       14 46 40.0 -3.1
YUK                                pmax     pmax
          comp=Z,190nm,0.4s
YUK                                smax
          comp=N,670nm,0.4s
YUK                                smax
          comp=E,380nm,0.3s
MAJO Matsushiro          5.66 227 eP        Pn       14 46 21.9 +0.8
MAJO                               pmax     pmax
          comp=Z,23nm,0.6s
MAJO Matsushiro          5.66 227 ePn       Pn       14 46 21.9 +0.8
          comp=Z,23nm,0.6s
MAT  Matsushiro          5.66 227  P        Pn       14 46 22.1 +1.0
MAT                                S        Px       14 46 33.7
MJAR Matsushiro Arr      5.66 227  P        Pn       14 46 22.3 +1.2
MJAR                               pmax     pmax
          comp=Z,2.0nm,0.3s
MJAR Matsushiro Arr      5.66 227  P        Pn       14 46 22.3 +1.3
          comp=Z,2.2nm,0.3s,baz=35,slow=12,SNR=21
JHJ  Hachijo jima 2      7.93 202  LR       LR       14 49 20.8
          comp=Z,71nm,19.2s,baz=80,slow=33
HIA  Hailar             18.79 306 eP        Pn       14 49 15.0 -1.3
HIA                                pmax     pmax
          comp=Z,3.0nm,0.6s
HIA  Hailar             18.79 306 eP        Pn       14 49 15.0 -1.3
          comp=Z,2.7nm,0.6s
ULN  Ulaanbaatar        26.83 298 eP        P        14 50 37.6 +1.3
ULN                                pmax     pmax
          comp=Z,1.0nm,0.5s,mb3.6
ULN  Ulaanbaatar        26.83 298 eP        P        14 50 37.6 +1.3
          comp=Z,0.7nm,0.5s,mb3.5
SONM Songino Array      27.27 298  P        P        14 50 41.0 +0.6
          comp=Z,0.4nm,0.5s,mb3.2,baz=88,slow=9.0,SNR=5.3
ZALV Zalesovo Beam      40.75 309  P        P        14 52 37.0 +0.2
ZALV                                                 14 54 38.6
ZALV                               pmax     pmax
          comp=Z,1.0nm,0.4s,mb3.8
ZALV Zalesovo Beam      40.75 309  P        P        14 52 37.0 +0.2
          comp=Z,0.4nm,0.4s,mb3.5,baz=70,slow=13,SNR=2.9
ZALV                               PcP      PcP      14 54 38.6 +1.1
          comp=Z,0.6nm,0.3s,baz=131,slow=4.0,SNR=2.5
MKAR Makanchi Array     43.62 299  P        P        14 53 00.4 +0.2
MKAR                                                 14 54 47.7
MKAR                               pmax     pmax
          comp=Z,1.0nm,0.7s
MKAR Makanchi Array     43.62 299  P        P        14 53 00.4 +0.2
          comp=Z,0.6nm,0.7s,mb3.4,baz=82,slow=12,SNR=8.9
MKAR                               PcP      PcP      14 54 47.7 +0.6
          comp=Z,0.1nm,0.5s,baz=82,slow=5.1,SNR=2.2
KURK Kurchatov          45.03 306 eP        P        14 53 11.2 -0.2
KURK                               pmax     pmax
          comp=Z,1.0nm,0.7s,mb3.8
KURK Kurchatov          45.03 306 eP        P        14 53 11.2 -0.2
          comp=Z,1.1nm,0.7s,mb3.8
YKA  Yellowknife Ar     60.04  32  P        P        14 55 03.3 +0.9
          comp=Z,0.2nm,0.7s,mb3.3,baz=297,slow=6.3,SNR=4.3
WRA  Warramunga Arr     60.75 190  P        P        14 55 07.1 -0.5
WRA                                pmax     pmax
          comp=Z,1.0nm,0.6s
WRA  Warramunga Arr     60.75 190  P        P        14 55 07.1 -0.5
          comp=Z,0.5nm,0.6s,mb3.8,baz=7.2,slow=6.9,SNR=5.7
ASAR Alice Springs      64.47 190  P        P        14 55 32.3 -0.1
ASAR                               pmax     pmax
          comp=Z,1.0nm,0.9s
ASAR Alice Springs      64.47 190  P        P        14 55 32.3 -0.1
          comp=Z,0.5nm,0.9s,mb3.6,baz=24,slow=9.2,SNR=3.7
NOA  NORSAR Array B     71.53 338  P        P        14 56 15.6 -0.8
NOA                                pmax     pmax
          comp=Z,1.0nm,0.7s
NOA  NORSAR Array B     71.53 338  P        P        14 56 15.6 -0.7
          comp=Z,0.7nm,0.7s,mb3.7,baz=41,slow=5.9,SNR=3.1
```

GUC 11 15:39:00.6±0.4**, 19°.83S**×**69°.29W, h107km**±3km**, ML3.5, 3C-1D, Northern Chile**

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Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
HMBC Humberston          0.72 232⇑iP        Pn       15 39 19.3 +0.4
HMBC                              i S       Sn       15 39 33.7 +1.1
HMBC                               AML      AML      15 39 35.5
          comp=N,960nm,0.7s
MNMC Miæe Miæ            0.75 337⇓iP        Pn       15 39 19.9 +0.8
MNMC                              i S       Sn       15 39 34.4 +1.3
MNMC                               AML      AML      15 39 35.1
          comp=N,7μm,0.7s
PSGC Pisagua             0.82 286⇑iP        Pn       15 39 20.0 +0.3
PSGC                              i S       Sn       15 39 34.5 +0.3
PSGC                               AML      AML      15 39 35.9
          comp=E,710nm,0.6s
PB01 Plate Boundary      1.22 189⇑iP        Pn       15 39 24.4 +0.4
PB01                              i S       Sn       15 39 42.5 +0.8
PB01                               AML      AML      15 39 43.9
          comp=N,2μm,0.3s
PECH Pedro de Valdi      2.78 187 eP        Pn       15 39 45.0 +1.4
PECH                              i S       Sn       15 40 15.6 -1.0
PECH                               AML      AML      15 40 16.8
          comp=E,105nm,0.0s
LVC  Limon Verde         2.79 173 eP        Pn       15 39 45.5 +1.8
LVC                               i S       Sn       15 40 18.2 +1.2
```

NIED **11** *15:43:00, 36°.80N×140°.80E, h86km, Mw3.8 Best double couple: Mo5.02000×10^{14} NP1:φs166.00000°, δ69.00000°, λ-97.00000°. NP2:φs5.00000°, δ22.00000°, λ-72.00000°.*
ISCJB **11** *15:43:51.7±0.6, 36°.87N±0°.04×140°.86E±0°.06, h93km±2km, mb4.0/15, Error ellipse: s-maj=9.2km s-min=5.4km az=43.0*
JMA **11** *15:43:52.7±0.1, 36°.83N×140°.83E, h86km±1km, M3.7 Broadband fault plane solution: P waves. NP1: φs18.00000°, δ16.00000°, λ-58.00000°. NP2:φs165.00000°, δ76.00000°, λ-99.00000°. Principal axes: T Plg31.0000°, Azm262.0000°; N Plg9.0000°, Azm167.0000°; P Plg58.0000°, Azm63.0000°;*
JMA Felt II J1.
IDC **11** *15:43:54.4±2.0, 37°.34N×140°.69E, h79km±18km, mb3.5/8, mb1 3.7/11, mb1mx3.5/24, mbtmp3.5/11, MS3.0/1, Ms1 3.2/1, ms1mx2.3/31 Error ellipse: s-maj=20.8km s-min=11.8km az=120.0*
NEIC **11** *15:43:55.1±1.1, 37°.28N×140°.60E, h86km±10km, mb3.9/2, Error ellipse: s-maj=14.8km s-min=11.0km az=124.0*

ISC 11 15:43:52.7±0.6**, 36°.87N**±0°.04×**140°.86E**±0°.06**, h87km**±3km**, n42, σ0^{s}66**/57**, mb4.0**/15**, 2C-11D, Near east coast of eastern Honshu**

```
Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
ONAJ Iwakimizuishiy      0.24 348 ⇓P        Pn       15 44 05.5 +0.1
ONAJ                               S        Sn       15 44 14.9  0.0
JHO  Hitachi             0.34 223 ⇓P        Pn       15 44 05.8 -0.2
JHO                                S        Sn       15 44 15.3 -0.5
JFK  Kawauchi            0.50   1 ⇑P        Pn       15 44 07.3 +0.2
JFK                                S        Sn       15 44 17.7 -0.1
JFT  Otama               0.77 327 ⇓P        Pn       15 44 09.9 +0.3
JFT                                S        Sn       15 44 22.5 +0.2
JMM  Marumori            1.00 357 ⇓P        Pn       15 44 12.2 +0.1
JMM                                S        Sn       15 44 26.6 -0.1
JFY  Yanaizu             1.07 301 ⇓P        Pn       15 44 13.1 +0.2
JFY                                S        Sn       15 44 28.6 +0.5
JAG  Ashikaga            1.21 249 ⇓P        Pn       15 44 14.4 -0.3
JAG                                S        Sn       15 44 30.2 -1.0
JKT  Katashina           1.30 266 ⇓P        Pn       15 44 16.0 +0.3
JKT                                S        Sn       15 44 34.1 +1.1
JYS  Shirataka           1.49 335 ⇓P        Pn       15 44 18.5 +0.3
JYS                               eS        Sn       15 44 37.5 +0.1
JOU  Okura               1.51 354 ⇑P        Pn       15 44 18.5 +0.2
JOU                               eS        Sn       15 44 37.7  0.0
JHK  Hiroka              1.52 285 ⇓P        Pn       15 44 18.8 +0.3
JHK                                S        Sn       15 44 38.3 +0.2
JNS  Sasagawa            1.56 308 ⇓P        Pn       15 44 18.7 -0.2
JNS                               eS        Sn       15 44 38.2 -0.6
JRY  Ryogami san         1.79 242 ⇓P        Pn       15 44 21.8 -0.2
JRY                                S        Sn       15 44 42.9 -1.4
MJAR Matsushiro Arr      2.15 262  P        Pn       15 44 27.1 +0.4
          14nm,0.3s,baz=104,slow=26,SNR=158
MJAR                               S        Sn       15 44 53.6 +0.8
          22nm,0.3s,baz=90,slow=26,SNR=14
MAJO Matsushiro          2.16 262 eP        Pn       15 44 27.4 +0.6
MAT  Matsushiro          2.16 262  P        Pn       15 44 27.4 +0.6
MAT                                S        Sn       15 44 48.0 -4.9
ERM  Erimo               5.44  18 eP        Pn       15 45 10.6 -0.6
ASAJ Asahikawa           7.36  10  P        Pn       15 45 34.7 -2.7
          0.7nm,0.3s,baz=274,slow=4.1,SNR=7.6
ASAJ                               S        Sn       15 46 51.9 -7.4
          0.1nm,0.3s,baz=95,slow=14,SNR=2.2
KSRS Korea Array        10.34 277  P        Pn       15 46 19.2 +1.2
          0.2nm,0.3s,baz=92,slow=14,SNR=4.7
ULN  Ulaanbaatar        27.08 305 eP        P        15 49 26.9 -0.1
          1.1nm,0.4s,mb3.7
SONM Songino Array      27.51 304  P        P        15 49 30.0 -0.8
          2.5nm,0.7s,mb3.9,baz=108,slow=8.5,SNR=25
CMAR Chiang Mai Arr     41.02 255  LR       LR       16 10 43.3
          comp=Z,19nm,18.1s,baz=180,slow=39
ZALV Zalesovo Beam      41.70 313  P        P        15 51 32.3 -0.3
          0.8nm,0.4s,mb3.8,baz=101,slow=8.3,SNR=4.8
MKAR Makanchi Array     43.83 302  P        P        15 51 49.4 -0.5
          0.5nm,0.4s,mb3.6,baz=83,slow=10,SNR=18
TAPN Taplejung          45.51 274 eP        P        15 52 03.8 +0.3
KURK Kurchatov          45.69 308 eP        P        15 52 03.3 -1.3
          2.8nm,0.8s,mb4.0
ODAN Odare              45.98 273 eP        P        15 52 07.2  0.0
          2.8nm,0.4s,mb4.4
RAMN Ramite             46.57 274 eP        P        15 52 11.5 -0.4
          4.6nm,0.6s,mb4.4
JIRN Jiri               46.59 275 eP        P        15 52 12.6 +0.6
          2.3nm,0.3s,mb4.4
GUN  Gumba              46.73 276 eP        P        15 52 13.3 +0.2
KKN  Kakani             47.26 276 eP        P        15 52 16.6 -0.6
DMN  Daman              47.48 276 eP        P        15 52 18.0 -0.9
GKN  Gorkha             47.68 276 eP        P        15 52 20.1 -0.4
          13nm,0.7s,mb4.8
DANN Dangsing           48.23 277 eP        P        15 52 24.8 +0.1
          14nm,0.6s,mb5.0
KOLN Koldanda           48.61 277 eP        P        15 52 27.9 +0.3
WRAB Tennant Creek      56.82 187 eP        P        15 53 33.3 +5.2
WRA  Warramunga Arr     56.83 187  P        P        15 53 34.1 +6.0
          1.3nm,0.5s,mb4.2,baz=0.4,slow=7.7,SNR=24
ASAR Alice Springs      60.56 187  P        P        15 54 00.8 +6.8
          0.2nm,0.5s,mb3.4,baz=18,slow=11,SNR=9.0
NVAR Mina Array Bea     75.44  53  P        P        15 55 28.7 +1.5
          1.2nm,0.8s,mb3.7,baz=296,slow=5.0,SNR=7.8
NVAR Mina Array Bea     75.44  53  P        P        15 55 28.7 +1.5
PDAR Pinedale Array     78.10  45  P        P        15 55 43.0 +1.0
          0.6nm,0.7s,mb3.5,baz=255,slow=3.3,SNR=5.6
TXAR Lajitas Array      90.58  52  P        P        15 56 46.3 +0.9
          0.3nm,0.6s,mb3.6,baz=336,slow=2.0,SNR=3.3
```

IDC 11 15:56:02.7±2.3**, 18°.30S**×**176°.96W, h0km, mb3.9**/3**, mb1 4.2**/4**, mb1mx3.8**/18**, mbtmp3.9**/4**, ML2.0**/1**, Error ellipse: s-maj=178.6km s-min=24.3km az=155.0, Fiji Islands region**

```
Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
AFI  Afiamalu            6.62  50  Pn       Pn       15 57 42.1 +0.8
          1.7nm,0.3s,baz=240,slow=20,SNR=3.7
WRA  Warramunga Arr     45.92 260  P        P        16 04 27.6 +0.1
          1.1nm,0.3s,baz=96,slow=7.5,SNR=73
ASAR Alice Springs      46.01 255  P        P        16 04 28.1 -0.1
          1.4nm,0.6s,baz=84,slow=8.4,SNR=51
TXAR Lajitas Array      85.04  57  P        P        16 08 40.5 -0.1
          0.2nm,0.7s,baz=222,slow=9.3,SNR=3.1
```

IDC 11 15:59:45.4±1.4**, 1°.21S**×**124°.14E, h0km, mb3.4**/4**, mb1 3.6**/4**, mb1mx3.4**/18**, mbtmp3.4**/4**, Error ellipse: s-maj=96.3km s-min=24.8km az=63.0, Southern Molucca Sea**

```
Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
ASAR Alice Springs      24.25 158  P        P        16 05 04.3 +0.2
          0.5nm,0.5s,baz=342,slow=7.6,SNR=12
CMAR Chiang Mai Arr     31.56 309  P        P        16 06 09.8 +0.1
          0.5nm,0.3s,baz=114,slow=6.1,SNR=5.1
SONM Songino Array      51.24 345  P        P        16 08 52.2 +1.4
          0.2nm,0.5s,baz=152,slow=7.5,SNR=2.9
MKAR Makanchi Array     60.23 328  P        P        16 09 54.0 -1.3
          0.2nm,0.6s,baz=121,slow=8.7,SNR=4.8
```

BJI **11** *16:33:07.9, 10°.30S×66°.50E, h10km, mB5.0/5, mb4.8/7, Ms4.7/2, Ms7 4.5/2*
ISCJB **11** *16:33:09.9±0.6, 10°.2S±0°.1×66°.50E±0°.09, h10km, mb4.4/25, MS3.7/4, Error ellipse: s-maj=18.8km s-min=10.1km az=148.6*
IDC **11** *16:33:10.3±0.7, 10°.32S×66°.52E, h0km, mb4.2/15, mb1 4.3/15, mb1mx4.2/25, mbtmp4.2/15, MS3.8/4, Ms1 3.8/4, ms1mx3.4/35, Error ellipse: s-maj=23.8km s-min=15.9km az=170.0*
NEIC **11** *16:33:11.9±0.4, 10°.28S×66°.52E, h10km, mb4.7/5, Error ellipse: s-maj=15.2km s-min=8.5km az=148.0*
SZGRF **11** *16:33:18.8, 9°.69S×67°.49E, h33km, mb4.6, Mid-Indian Ridge*

ISC 11 16:33:11.9±0.6**, 10°.3S**±0°.1×**66°.51E**±0°.09**, h10km, (h17km**±3.7km**:pP-P), n43, σ1^{s}02**/34**, mb4.4**/25**, MS3.7**/4**, 1D, Mid-Indian Ridge**

```
Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
ABPO Ambohimpanom       20.56 243 eP        P        16 37 51.9 +0.9
          32nm,1.2s
TRD  Trivandrum         21.36  30⇓ePKP      P        16 38 09.0 +9.4
PALK Pallekele          22.44  40 eP        P        16 38 12.2 +1.0
          44nm,1.2s,mb4.8
PSI  Prapat             34.79  70  LR       LR       16 51 51.4
          comp=Z,206nm,20.2s,MS3.9,baz=224,slow=32
LSZ  Lusaka             37.66 258  P        P        16 40 28.1 +0.4
          14nm,1.1s,mb4.6,baz=74,slow=8.4,SNR=7.8
LSZ  Lusaka             37.66 258 eP        P        16 40 27.9 +0.3
LBTB Lobatse            41.47 244  P        P        16 40 59.2 -0.1
          13nm,1.1s,mb4.5,baz=89,slow=5.9,SNR=4.5
LBTB Lobatse            41.47 244 eP        P        16 40 59.1 -0.2
          18nm,1.2s,mb4.6
BOSA Boshof             42.70 239  LR       LR       16 58 40.5
          comp=Z,83nm,18.3s,MS3.7,baz=245,slow=36
CMAR Chiang Mai Arr     42.89  48  P        P        16 41 12.0 +1.1
          4.9nm,1.0s,mb4.2,baz=240,slow=8.8,SNR=22
CMAR                               LR       LR       16 58 17.1
          comp=Z,62nm,18.1s,MS3.5,baz=94,slow=35
SHL  Shillong           43.35  34 ePKP      P        16 41 17.0 +2.4
LSA  Lhasa              46.29  30 eP        P        16 41 39.4 +1.5
          7.9nm,1.1s,mb4.6
KSH  Kashi              50.31  10  P        P        16 42 06.3 -2.5
KSH                               epP       pP       16 42 10.5 -1.4
KSH                               esP       sP       16 42 13.3 +0.1
KSH                                pmax     pmax
          comp=Z,8.0nm,0.5s,mb5.0
KSH                                pmax     pmax
          comp=Z,130nm,3.2s
KSH                                LR       LR
          comp=N,230nm,7.3s
KSH                                LR       LR
          comp=E,440nm,10.6s
KSH                                LR       LR
          comp=Z,380nm,5.6s
CD2  Chengdu            54.35  40  P        P        16 42 39.3 +0.3
CD2                                pmax     pmax
          comp=Z,20nm,1.2s,mb4.9
CD2                                pmax     pmax
          comp=Z,190nm,4.3s
LZH  Lanzhou            58.00  35 eP        P        16 43 02.5 -2.5
LZH                                pP       pP       16 43 07.0 -1.2
LZH                                sP       sP       16 43 09.8 +0.4
LZH                                pmax     pmax
          comp=Z,19nm,1.5s,mb4.9
LZH                                pmax     pmax
          comp=Z,84nm,4.5s
GTA  Gaotai             58.32  30 eP        P        16 43 07.7 +0.6
GTA                                pP       pP       16 43 11.8 +1.4
GTA                                sP       sP       16 43 14.8 +3.2
GTA                                pmax     pmax
          comp=Z,5.0nm,1.2s,mb4.4
BRTR Keskin Array B     58.35 331  P        P        16 43 08.8 +1.5
          comp=Z,0.7nm,0.8s,mb3.7,baz=116,slow=8.2,SNR=3.0
MK31 Makanchi Array     58.53  13 eP        P        16 43 07.6 -0.9
MKAR Makanchi Array     58.53  13  P        P        16 43 07.1 -1.4
          comp=Z,0.8nm,0.7s,mb3.8,baz=200,slow=6.7,SNR=11
XAN  Xi'an              59.69  40  P        P        16 43 16.2 -0.6
XAN                                pP       pP       16 43 26.0 +6.0
XAN                                pmax     pmax
          comp=Z,9.0nm,1.5s,mb4.6
XAN                                pmax     pmax
          comp=Z,150nm,8.9s
XAN                                LR       LR
          comp=E,200nm,22.3s
XAN                                LR       LR
          comp=Z,230nm,28.8s
KURK Kurchatov          61.64   9  LR       LR       17 07 07.3
          comp=Z,84nm,19.9s,MS3.9,baz=5.0,slow=33
KURK Kurchatov          61.64   9 eP        P        16 43 29.1 -0.7
          comp=Z,26nm,1.8s,mb5.1
BRVK Borovoye           63.16   3 eP        P        16 43 39.9 +0.1
ASAR Alice Springs      65.32 111  P        P        16 43 53.6 -1.1
          comp=Z,1.7nm,1.0s,mb4.0,baz=272,slow=6.1,SNR=8.5
WRA  Warramunga Arr     65.83 107  P        P        16 43 57.9 -0.2
          comp=Z,3.2nm,0.9s,mb4.3,baz=278,slow=5.8,SNR=8.8
ZAA0 Zalesovo Array     65.83  12 eP        P        16 43 56.5 -0.8
ZALV Zalesovo Beam      65.83  12  P        P        16 43 56.3 -1.0
          comp=Z,2.5nm,0.8s,mb4.3,baz=210,slow=5.1,SNR=7.6
SONM Songino Array      67.80  28  P        P        16 44 10.5 +0.5
          comp=Z,1.8nm,0.9s,mb4.1,baz=219,slow=5.3,SNR=13
ULN  Ulaanbaatar        68.12  28 eP        P        16 44 12.1  0.0
TORD Torodi Ar. Bea     68.41 289  P        P        16 44 14.0 -0.5
          comp=Z,1.9nm,1.0s,mb4.1,baz=100,slow=4.0,SNR=7.5
AKASG Malin Array Be    68.82 336  P        P        16 44 16.6 +0.3
          comp=Z,0.7nm,0.5s,mb3.9,baz=144,slow=6.0,SNR=4.5
DBIC Dimbokro           73.03 280  P        P        16 44 42.3 -0.4
          comp=Z,4.3nm,1.1s,mb4.3,baz=135,slow=8.6,SNR=3.5
KSRS Korea Array        74.49  46  P        P        16 44 51.9 +1.1
          comp=Z,4.1nm,1.1s,mb4.3,baz=233,slow=6.9,SNR=5.8
BRG  Berggiesshubel     76.00 329 eP        P        16 45 05.3 +6.2
          comp=Z,5.5nm,1.1s,mb4.4
GRF  Grafenberg Arr     76.75 327 eP        P        16 45 08.4 +5.0
          comp=Z,5.0nm,0.9s,mb4.4
MJAR Matsushiro Arr     81.73  51  P        P        16 45 31.0  0.0
          comp=Z,2.8nm,0.9s,mb4.2,baz=249,slow=6.7,SNR=7.1
ESDC Sonseca Array      81.88 313  P        P        16 45 32.0 +0.3
          comp=Z,0.4nm,0.3s,mb3.8,baz=97,slow=3.1,SNR=4.2
YKA  Yellowknife Ar    127.86   1  PKP      PKPdf    16 52 18.1 +0.5
          comp=Z,0.5nm,0.9s,baz=6.5,slow=2.0,SNR=5.2
YKA  Yellowknife Ar    127.86   1  PKP      PKPdf    16 52 18.1 +0.5
RSSD Black Hills       145.29 348 ePKP      PKPdf    16 52 51.1 +0.8
PDAR Pinedale Array    147.45 355  PKPbc    PKPbc    16 52 56.5 +0.1
          comp=Z,0.6nm,0.9s,baz=79,slow=1.9,SNR=4.3
NVAR Mina Array Bea    151.63   8  PKPbc    PKPbc    16 53 08.8 +1.8
          comp=Z,2.7nm,0.9s,baz=300,slow=1.1,SNR=8.7
TXAR Lajitas Array     158.93 336  PKPab    PKPab    16 53 47.7 +0.9
          comp=Z,0.6nm,0.8s,baz=41,slow=4.0,SNR=4.4
```

SZGRF **11** *16:36:53.7, 17°.14S×177°.50E, h19km, Fiji Islands*
IDC **11** *16:36:54.4±0.8, 16°.36S×177°.49E, h0km, mb4.6/12, mb1 4.7/13, mb1mx4.7/17, mbtmp4.5/13, ML4.3/1, MS4.5/24, Ms1 4.5/24, ms1mx4.4/25, Error ellipse: s-maj=37.6km s-min=16.6km az=151.0*
ISCJB **11** *16:36:56.5±0.3, 16°.34S±0°.09×177°.78E±0°.05, h33km, mb4.8/47, MS4.6/36, Error ellipse: s-maj=13.1km s-min=5.8km az=156.9*
NEIC **11** *16:36:59.6±0.8, 16°.09S×177°.35E, h35km, mb5.1/16, Error ellipse: s-maj=36.8km s-min=15.2km az=157.0*
GCMT **11** *16:36:59.6±0.2, 16°.15S×178°.04E, h17km, MW5.2/95, Moment Tensor Solution. s67,c103; s95,c161; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.05±.18; $M_{\theta\theta}$-2.13±.17; $M_{\phi\phi}$2.09±.17; $M_{r\theta}$2.16±.43; $M_{\theta\phi}$8.18±.15; $M_{\phi r}$1.34±.42; Best double couple: Mo8.81200×10^{16} NP1:φs352.00000°, δ75.00000°, λ174.00000°. NP2:φs84.00000°, δ84.00000°, λ15.00000°. Principal axes: T 9.0600, Plg15.0000°, Azm309.0000°; N -0.4920, Plg74.0000°, Azm105.0000°; P -8.5630, Plg6.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
MOS **11** *16:37:02.9±1.1, 15°.18S×177°.13E, h33km, mb5.0/10, MS5.0/4 Error ellipse: s-maj=12.2km s-min=11.6km az=3.8*

ISC 11 16:36:58.3±0.3**, 16°.31S**±0°.08×**177°.79E**±0°.05**, h35km, (h35km**±1.8km**:pP-P), n377, σ0^{s}83**/302**, mb4.8**/47**, MS4.6**/36**, 116C-106D, Fiji Islands**

```
Code Station Name        Δ°   AZ°    Phase ID          Time     Res
                                   Op       ISC       h  m  s   ISC
AFI  Afiamalu           10.36  78  LR       LR       16 42 27.6
          comp=Z,2μm,18.7s,baz=254,slow=31
RAO  Raoul Island       13.47 164  LR       LR       16 44 14.4
          comp=Z,2μm,19.5s,baz=340,slow=33
HNR  Honiara            18.68 289 eP        Pn       16 41 11.7 -2.5
HNR                                pmax     pmax
          comp=Z,134nm,1.2s
HNR  Honiara            18.68 289  P        Pn       16 41 13.0 -1.2
          comp=Z,0.9nm,0.3s,baz=90,slow=19,SNR=8.7
HNR                                LR       LR       16 47 29.2
```

```
      comp=Z,864nm,18.8s,baz=124,slow=34
HNR   Honiara         18.68 289 eP      Pn      16 41 11.7 -2.5
      comp=Z,134nm,1.2s
URZ   Urewera         21.87 181 P       P       16 41 44.2 -3.8
      comp=Z,28nm,1.1s,mb4.6,baz=12,slow=4.9,SNR=5.7
URZ                             LR      LR      16 48 53.2
      comp=Z,2µm,18.1s,MS4.6,baz=276,slow=33
RPZ   Rata Peaks      27.91 190 LR      LR      16 52 49.1
      comp=Z,1µm,19.1s,MS4.5,baz=183,slow=34
RMQ   Roma            28.80 245 eP      P       16 42 55.1 +1.9
      comp=Z,43nm,1.2s,mb5.0
CTA   Charters Tower  30.17 258 eP      P       16 43 08.8 +3.4
      comp=Z,18nm,1.1s,mb4.7
CTA   Charters Tower  30.17 258 P       P       16 43 11.0 +5.6
      comp=Z,19nm,1.0s,mb4.8,baz=93,slow=11,SNR=5.8
CTA                             LR      LR      16 52 54.6
      comp=Z,675nm,19.9s,MS4.3,baz=257,slow=32
CTAO  Charters Tower  30.17 258 P       P       16 43 07.8 +2.4
CTAO                            pmax    pmax
      comp=Z,22nm,1.0s,mb4.8
CTAO  Charters Tower  30.17 258 P       P       16 43 07.8 +2.5
      comp=Z,22nm,1.0s,mb4.8
PPT   Papeete         31.22  97 eLQ             16 49 57.7
      comp=Z,4µm,26.0s
PPT                             eLR     LR      16 51 19.0
      comp=Z,2µm,28.8s
PPT   Papeete         31.22  97 LR      LR      16 52 01.3
      comp=Z,991nm,21.1s,MS4.5,baz=44,slow=29
CMSA  Cobar Meteorol  32.87 237 eP      P       16 43 29.2 +0.2
COEN  Coen            33.47 269 eP      P       16 43 40.6 +6.1
TOO   Toolangi        35.47 227 eP      P       16 43 51.7 +0.2
STKA  Stephens Creek  36.29 238 eP      P       16 43 59.0 +0.4
      comp=Z,16nm,0.9s,mb4.9
STKA  Stephens Creek  36.29 238 P       P       16 43 59.1 +0.5
      comp=Z,10.0nm,0.9s,mb4.7,baz=71,slow=9.5,SNR=14
STKA                            LR      LR      16 56 51.6
      comp=Z,1µm,20.5s,MS4.6,baz=65,slow=33
BBOO  Buckleboo       41.06 239 eP      P       16 44 35.9 -2.7
      comp=Z,9.2nm,0.7s,mb4.5
WRAB  Tennant Creek   41.36 258 P       P       16 44 45.7 +4.5
WRA   Warramunga Arr  41.37 258 P       P       16 44 39.4 -1.9
      comp=Z,11nm,1.2s,mb4.3,baz=91,slow=8.4,SNR=8.7
WRA                             LR      LR      16 59 39.5
      comp=Z,408nm,19.0s,MS4.3,baz=90,slow=33
TAOE  Nuku Hiva Isla  41.65  85 eLR     LR      16 56 15.7
      comp=Z,4µm,26.4s
ASAR  Alice Springs   41.76 253 P       P       16 44 43.5 -1.0
      comp=Z,6.2nm,1.0s,mb4.2,baz=84,slow=8.2,SNR=35
GUMO  Guam            44.06 311 LR      LR      17 00 49.3
      comp=Z,332nm,18.4s,MS4.3,baz=133,slow=33
FORT  Forrest         47.44 243 eP      P       16 45 31.9 +2.2
      comp=Z,32nm,0.8s,mb5.3
FORT  Forrest         47.44 243 eP      P       16 45 31.7 +1.9
      comp=Z,51nm,0.9s,mb5.5
FITZ  Fitzroy Crossi  49.71 260 LR      LR      17 05 19.7
      comp=Z,374nm,19.3s,MS4.4,baz=91,slow=34
CBIJ  Chichi jima     55.28 321 LR      LR      17 04 24.3
      comp=Z,809nm,20.8s,MS4.8,baz=129,slow=30
KLBR  Kellerberrin    56.30 243 eP      P       16 46 39.4 +3.6
      comp=Z,66nm,1.5s,mb5.5
JHJ   Hachijo jima 2  61.11 324 LR      LR      17 12 11.6
      comp=Z,222nm,18.9s,MS4.3,baz=102,slow=35
VNDA  Vanda           61.75 184 LR      LR      17 09 46.3
      comp=Z,328nm,20.2s,MS4.5,baz=26,slow=32
MJAR  Matsushiro Arr  64.50 325 P       P       16 47 29.3 -2.2
      comp=Z,8.4nm,1.1s,mb4.7,baz=161,slow=6.7,SNR=12
MJAR                            LR      LR      17 09 46.0
      comp=Z,394nm,21.7s,MS4.6,baz=135,slow=31
MAT   Matsushiro      64.50 325 P       P       16 47 28.7 -2.9
ASAJ  Asahikawa       68.19 333 LR      LR      17 17 17.5
      comp=Z,347nm,18.8s,MS4.6,baz=154,slow=36
YSS   Yuzh-Sakhalins  70.41 335 eP      P       16 48 10.9 +2.2
KSRS  Korea Array     71.12 320 P       P       16 48 13.3  0.0
      comp=Z,2.0nm,1.0s,mb4.0,baz=138,slow=4.3,SNR=4.4
PETK  Petropavlovsk-  71.28 347 P       P       16 48 16.8 +2.9
      comp=Z,12nm,1.0s,mb4.8,baz=144,slow=10,SNR=6.7
PETK                            LR      LR      17 20 45.7
      comp=Z,142nm,18.0s,MS4.3,baz=163,slow=37
PETK  Petropavlovsk-  71.28 347 P       P       16 48 16.8 +2.9
PETK                            LR      LR      17 20 45.7
QSPA  South Pole Qui  73.73 180 P       P       16 48 26.7 -1.5
      comp=Z,20nm,1.1s,mb5.0
MDJ   Mudanjiang      74.83 327 P       P       16 48 35.6 +0.6
MDJ                             pP      pP      16 48 45.0 -1.0
MDJ                             sP      sP      16 48 48.8 -1.2
MDJ                             PP      PP      16 51 21.9 -1.1
MDJ                             S       S       16 58 08.7 -0.7
MDJ                             sS      sS      16 58 24.5 -3.0
MDJ                             ScS     ScS     16 58 43.8 -0.5
MDJ                             pmax    pmax
      comp=Z,9.0nm,1.7s,mb4.4
MDJ                             pmax    pmax
      comp=Z,130nm,5.8s
MDJ                             LR      LR
      comp=N,200nm,23.2s
MDJ                             LR      LR
      comp=E,240nm,16.1s
MDJ                             LR      LR
      comp=Z,290nm,22.8s,MS4.5
HABR  Khabarovsk      74.87 332ceP      P       16 48 35.4 +0.2
HABR                            e       pP      16 48 48.5 +2.4
HABR                            e*PP    pP      16 48 54.0 +7.9
HABR                            e               16 51 24.2
HABR                            ePPP            16 53 09.6
HABR                            eS      S       16 58 08.0 -1.8
HABR                            pmax    pmax
      comp=Z,108nm,2.5s,mb5.3
HABR                            pmax    pmax
      comp=N,31nm,2.6s
HABR                            pmax    pmax
      comp=E,78nm,2.1s
HABR                            MLR     MLR
      comp=Z,127nm,16.0s,MS4.3
QIZ   Qiongzhong      75.49 295 P       P       16 48 44.0 +4.6
QIZ                             LR      LR
      comp=Z,370nm,30.6s,MS4.5
KLR   Kul’dur         76.93 331 eP      P       16 48 41.0 -5.9
CMB   Columbia Colle  79.24  45 eP      P       16 49 00.9 +0.9
CMB                             pmax    pmax
      comp=Z,14nm,1.3s,mb4.7
CMB   Columbia Colle  79.24  45 eP      P       16 49 00.9 +0.9
      comp=Z,14nm,1.3s,mb4.7
EDW2  Edwards Air Fo  79.37  49 ⇓P      P       16 48 59.9 -1.0
      baz=79,SNR=6.4
ISA   Isabella        79.40  48 ⇑P      P       16 49 00.1 -0.8
      baz=79,SNR=6.1
MONP  Monument Peak   79.60  51 ⇑P      P       16 49 01.2 -0.9
      baz=80
YBH   Yreka Blue Hor  79.65  41 P       P       16 49 04.8 +2.6
      comp=Z,10nm,1.1s,mb4.7,baz=262,slow=4.9,SNR=12
YBH   Yreka Blue Hor  79.65  41 P       P       16 49 04.5 +2.3
DVTC  Desert V Tower  79.74  52 ⇑P      P       16 49 02.4 -0.4
      baz=80
PFO   Pinyon Flat Ob  79.91  51 i P     P       16 49 09.3 +5.5
CWC   Cottonwood Cre  80.05  47 ⇑P      P       16 49 04.2 -0.3
      baz=80,SNR=7.1
BJI   Beijing         80.12 317 P       P       16 49 04.4 -0.4
BJI                             sP      sP      16 49 18.8 -1.0
BJI                             S       S       16 59 06.8 -0.2
BJI                             sS      sS      16 59 27.3 +2.1
BJI                             pmax    pmax
      comp=Z,11nm,1.5s,mb4.6
BJI                             LR      LR
      comp=N,220nm,17.2s,MS4.8
BJI                             LR      LR
      comp=E,300nm,19.5s,MS4.8
BJI                             LR      LR
      comp=Z,250nm,26.9s
GAMB  Gambell         80.25   5 P       P       16 49 03.9 -1.0
      comp=Z,30nm,1.4s,mb5.0
MPMC  Manual Prospec  80.29  48 ⇓P      P       16 49 04.8 -0.9
      baz=80,SNR=7.8
WCN   Washoe City     80.30  44 ⇓P      P       16 49 05.3 -0.4
      baz=80
GSC   Goldstone       80.43  49 P       P       16 49 05.9 -0.6
      baz=80
HEC   Hector,Ludlow   80.56  50 ⇓P      P       16 49 06.1 -1.1
      baz=80
BC3   Big Chuckw Mtn  80.67  51 ⇑P      P       16 49 07.2 -0.7
      baz=81
GRAC  Grapevine Rang  80.82  47 ⇓P      P       16 49 07.9 -0.7
      baz=81
NVAR  Mina Array Bea  80.86  46 P       P       16 49 12.3 +3.6
      comp=Z,1.4nm,0.2s,mb4.5,baz=232,slow=7.3,SNR=8.2
NVAR  Mina Array Bea  80.86  46 P       P       16 49 12.3 +3.6
N06A  Buffalo Meadow  80.98  43 ⇑P      P       16 49 09.1 -0.3
      baz=81,SNR=5.8
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GMRC  Granite Mounta  81.02  50 ⇑P      P       16 49 08.5 -1.3
      baz=81
GYA   Guiyang         81.10 301 P       P       16 49 12.0 +1.7
GYA                             pP      pP      16 49 23.7 +2.4
GYA                             PP      PP      16 52 17.4 +1.5
GYA                             S       S       16 59 16.3 -1.5
GYA                             SKS             16 59 22.1
GYA                             sS      sS      16 59 33.6 -2.4
GYA                             SS      SS      17 04 32.8 -0.8
GYA                             pmax    pmax
      comp=Z,20nm,1.0s,mb5.0
GYA                             pmax    pmax
      comp=Z,120nm,5.6s
GYA                             LR      LR
      comp=N,610nm,18.8s
GYA                             LR      LR
      comp=Z,490nm,19.0s,MS4.9
IRM   Iron Mountain   81.12  51 ⇑P      P       16 49 09.4 -0.9
      baz=81,SNR=7.3
S09A  Goldfield       81.26  47 ⇓P      P       16 49 09.9 -1.0
      baz=81
O07A  Toulon          81.32  44 ⇓P      P       16 49 11.4 +0.2
      baz=81,SNR=6.1
K05A  Summer Lake     81.32  41 ⇑P      P       16 49 11.0 -0.1
      baz=81,SNR=7.3
F03A  Seaside         81.44  37 ⇑P      P       16 49 11.7  0.0
      baz=81
N07B  Gerlach         81.56  43 ⇓P      P       16 49 12.3 -0.2
      baz=81,SNR=6.1
H04A  Detroit Lake    81.57  39 ⇓P      P       16 49 12.9 +0.5
      baz=81,SNR=5.2
R09A  Tonopah         81.61  46 ⇓P      P       16 49 12.5 -0.3
      baz=82
M07A  Soldier Meadow  81.74  43 ⇑P      P       16 49 12.6 -0.8
      baz=82,SNR=6.2
E03A  Lebam           81.79  37 ⇓P      P       16 49 12.9 -0.6
      baz=82
S10A  Tonopah Range,  81.80  47 ⇓P      P       16 49 12.7 -1.0
      baz=82,SNR=6.7
PDMCI Parker Dam,Lak  81.93  51 ⇓P      P       16 49 13.8 -0.8
      baz=82
L07A  Adell           81.94  42 ⇑P      P       16 49 13.7 -0.8
      baz=82,SNR=6.8
V12A  Nelson          82.04  49 ⇑P      P       16 49 15.2 +0.1
      baz=82
J06A  Christmas Vall  82.06  41 ⇓P      P       16 49 14.9 -0.1
      baz=82,SNR=6.4
F04A  Amboy           82.11  38 ⇑P      P       16 49 14.8 -0.4
      baz=82
N08A  GE Springer Mi  82.12  44 ⇓P      P       16 49 14.7 -0.7
      baz=82,SNR=6.1
R10A  Warm Springs    82.17  46 ⇑P      P       16 49 14.6 -1.2
      baz=82,SNR=5.1
M08A  Happy Creek Ra  82.28  43 ⇓P      P       16 49 15.5 -0.7
      baz=82
X13A  Yucca           82.29  51 ⇓P      P       16 49 14.5 -1.9
      baz=82,SNR=5.5
TNA   Tin City        82.34   6 P       P       16 49 16.0 +0.1
      comp=Z,34nm,1.6s,mb5.0
VFP   Flag Point      82.34  38 P       P       16 49 20.8 +4.4
K07A  Rock Creek Ran  82.34  42 ⇓P      P       16 49 15.8 -0.8
      baz=82,SNR=7.6
I06A  Prineville      82.38  40 ⇓P      P       16 49 16.3 -0.3
      baz=82
G05A  Wamic           82.39  39 ⇓P      P       16 49 16.5 -0.2
      baz=82
XAN   Xi’an           82.42 309 P       P       16 49 17.0 -0.1
XAN                             pP      pP      16 49 27.3 -0.9
XAN                             sP      sP      16 49 32.1 -0.1
XAN                             pmax    pmax
      comp=Z,11nm,1.6s,mb4.5
XAN                             pmax    pmax
      comp=Z,91nm,11.7s
O09A  Fish Creek Ran  82.45  44 ⇓P      P       16 49 16.9 -0.2
      baz=82
T11A  Corn Creek, Al  82.45  48 ⇑P      P       16 49 16.0 -1.2
      baz=82,SNR=8.8
W13A  Hualapai Mount  82.47  50 ⇑P      P       16 49 16.8 -0.6
      baz=82
N09A  Rock Creek Ran  82.56  44 ⇓P      P       16 49 17.8 +0.2
      baz=82
WVOR  Wild Horse Val  82.60  42 P       P       16 49 18.0 +0.1
WVOR                            pmax    pmax
      comp=Z,26nm,1.4s,mb5.1
WVOR  Wild Horse Val  82.60  42 P       P       16 49 18.0 +0.1
      comp=Z,26nm,1.4s,mb5.1
J07A  Hines           82.65  41 ⇑P      P       16 49 17.3 -0.7
      baz=82
P10A  Eureka          82.68  45 ⇑P      P       16 49 17.8 -0.5
      baz=83
R11A  Troy Canyon, C  82.70  47 ⇓P      P       16 49 17.3 -1.2
      baz=83,SNR=6.6
H06A  Lindquist Farm  82.71  39 ⇑P      P       16 49 18.6 +0.2
      baz=83,SNR=10
V13A  Grand Canyon W  82.73  50 ⇓P      P       16 49 17.8 -0.9
      baz=83
G06A  Carlson Farm,   82.79  39 ⇓P      P       16 49 18.0 -0.8
      baz=83
K08A  Mann Creek Ran  82.85  42 ⇑P      P       16 49 18.6 -0.5
      baz=83,SNR=6.4
Q11A  Duckwater       82.88  46 ⇓P      P       16 49 18.7 -0.7
      baz=83,SNR=8.2
M09A  Marrel Ranch,   82.88  43 ⇑P      P       16 49 18.6 -0.7
      baz=83,SNR=5.7
S12A  Delamar Landin  82.88  48 ⇑P      P       16 49 18.2 -1.2
      baz=83,SNR=6.3
I07A  Izee            82.89  40 ⇓P      P       16 49 19.3  0.0
      baz=83,SNR=11
X14A  Yava            82.94  51 ⇑P      P       16 49 19.1 -0.7
      baz=83
O10A  Cortez Mining,  82.97  45 ⇑P      P       16 49 19.6 -0.2
      baz=83
F06A  Goldendale      82.99  38 ⇓P      P       16 49 19.7  0.0
      baz=83
U13A  Pakoon Wash     82.99  49 ⇑P      P       16 49 19.5 -0.5
      baz=83,SNR=6.6
WPW   White Pass      83.03  37 P       P       16 49 24.3 +4.3
W14A  Seligman        83.11  50 ⇑P      P       16 49 20.1 -0.6
      baz=83,SNR=6.5
Y15A  Casa Rosa Ranc  83.14  52 ⇑P      P       16 49 20.8 -0.1
      baz=83,SNR=5.1
J08A  Circle Bar Ran  83.17  41 ⇓P      P       16 49 20.6 -0.1
      baz=83,SNR=5.4
CHUM  Lake Minchumin  83.22  13 eP      P       16 49 18.2 -2.3
      comp=Z,38nm,1.2s,mb5.3
CHUM                            e               16 49 24.1
KTH   Kantishna Hill  83.23  14 P       P       16 49 18.6 -2.0
      comp=Z,19nm,1.1s,mb5.0
KTH                             e               16 49 23.7
V14A  Boquillas Ranc  83.28  50 ⇓P      P       16 49 20.7 -0.8
      baz=83,SNR=5.5
E06A  Yakima          83.28  38 ⇑P      P       16 49 21.6 +0.3
      baz=83,SNR=5.8
TRF   Thorofare Moun  83.29  14 eP      P       16 49 21.0 +0.1
      comp=Z,24nm,1.0s,mb5.2
TRF                             e               16 49 25.1
K09A  Rome            83.32  42 ⇓P      P       16 49 22.8 +1.2
      baz=83,SNR=16
R12A  Pony Springs,   83.38  47 ⇑P      P       16 49 21.6 -0.3
      baz=83,SNR=6.2
G07A  Ruggs Ranch, H  83.39  39 ⇑P      P       16 49 21.9  0.0
      baz=83,SNR=7.0
217A  Green Valley    83.42  54 ⇓P      P       16 49 21.3 -1.1
      baz=83
X15A  Humboldt        83.44  51 ⇓P      P       16 49 21.5 -0.9
      baz=83
O11A  Cowboy Ranch,   83.47  45 ⇑P      P       16 49 21.8 -0.6
      baz=83,SNR=7.8
C05A  Tolt Reservoir  83.49  36 ⇑P      P       16 49 22.1 -0.2
      baz=83,SNR=7.2
M10A  I.L. Ranch, Tu  83.53  44 ⇓P      P       16 49 22.7  0.0
      baz=83,SNR=8.0
Q12A  Willow Creek R  83.54  46 ⇓P      P       16 49 22.9 +0.1
      baz=83,SNR=6.4
U14A  Mt Trumbull     83.56  49 ⇓P      P       16 49 22.7 -0.3
      baz=84,SNR=7.5
B05A  Bryant          83.57  36 ⇑P      P       16 49 22.6 -0.1
      baz=83
S13A  Holt Ranch, En  83.57  48 ⇓P      P       16 49 23.9 +0.9
      baz=84,SNR=6.2
HHC   Hu-ho-hao-te    83.58 316 eP      P       16 49 20.8 -2.2
HHC                             pP      pP      16 49 31.0 -3.0
HHC                             sP      sP      16 49 35.2 -2.9
HHC                             PP      PP      16 52 35.0 -1.1
HHC                             S       S       16 59 38.3 -4.4
HHC                             sS      sS      16 59 54.3 -6.7
HHC                             SS      SS      17 05 07.4 -2.5
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HHC                             pmax    pmax
      comp=Z,9.0nm,0.8s,mb5.0
HHC                             pmax    pmax
      comp=Z,220nm,4.1s
HHC                             LR      LR
      comp=N,200nm,16.6s,MS4.8
HHC                             LR      LR
      comp=E,280nm,16.6s,MS4.8
HHC                             LR      LR
      comp=Z,230nm,21.4s,MS4.5
J09A  Fry Pan Ranch,  83.62  41 ⇓P      P       16 49 23.2 +0.1
      baz=84,SNR=14
D06A  Cle Elum        83.70  37 ⇓P      P       16 49 23.9 +0.5
      baz=84
EBG   Ellensburg      83.71  37 P       P       16 49 28.0 +4.5
Y16A  Circle Bar Ran  83.76  52 ⇓P      P       16 49 24.0  0.0
      baz=84
R13A  O’Grain Ranch,  83.76  47 ⇓P      P       16 49 24.2 +0.3
      baz=84,SNR=6.2
117A  Oracle          83.79  54 ⇓P      P       16 49 24.1 -0.2
      baz=84
G08A  Pilot Rock      83.84  39 ⇓P      P       16 49 24.7 +0.5
      baz=84,SNR=15
L10A  Juniper Basin   83.84  43 ⇑P      P       16 49 24.4 +0.2
      baz=84,SNR=10
MCK   McKinley        83.84  14 eP      P       16 49 20.9 -2.9
MCK                             pmax    pmax
      comp=Z,51nm,1.2s,mb5.5
MCK   McKinley        83.84  14 eP      P       16 49 20.9 -2.9
      comp=Z,51nm,1.2s,mb5.5
KMI   Kunming         83.88 298 P       P       16 49 25.1 +0.3
KMI                             pP      pP      16 49 36.2 +0.3
KMI                             PP      PP      16 52 40.8 +2.0
KMI                             S       S       16 59 40.6 -5.7
KMI                             sS      sS      17 00 00.2 -4.4
KMI                             SS      SS      17 05 10.7 -4.2
KMI                             pmax    pmax
      comp=Z,7.0nm,1.3s,mb4.6
KMI                             pmax    pmax
      comp=Z,110nm,3.1s
KMI                             LR      LR
      comp=N,160nm,13.3s,MS4.7
KMI                             LR      LR
      comp=E,220nm,18.0s,MS4.7
KMI                             LR      LR
      comp=Z,350nm,29.4s
K10A  MacKenzie Ranc  83.91  42 ⇑P      P       16 49 25.3 +0.7
      baz=84,SNR=8.0
318A  Bisbee          83.93  55 ⇓P      P       16 49 25.0  0.0
      baz=84
E07A  Sunnyside       83.95  38 ⇓P      P       16 49 25.1 +0.4
      baz=84,SNR=8.2
M11A  Holland Ranch,  83.98  44 ⇓P      P       16 49 25.1 +0.1
      baz=84,SNR=8.1
X16A  Lo Mia Camp, P  84.01  52 ⇓P      P       16 49 25.5 +0.2
      baz=84
MDW   Midway          84.03  38 P       P       16 49 29.5 +4.4
V15A  Kaibab Nationa  84.04  50 ⇑P      P       16 49 25.1 -0.3
      baz=84,SNR=7.4
Q13A  Wheeler Ranch,  84.07  47 ⇑P      P       16 49 25.5  0.0
      baz=84,SNR=6.0
MAW   Mawson          84.10 200 LR      LR      17 24 25.8
      comp=Z,228nm,19.1s,MS4.6,baz=262,slow=34
O12A  Currie          84.15  45 ⇑P      P       16 49 26.7 +0.8
      baz=84
F08A  Pendleton       84.20  39 ⇑P      P       16 49 25.7 -0.3
      baz=84,SNR=5.7
D07A  Quincy          84.21  37 ⇑P      P       16 49 26.6 +0.6
      baz=84
P13A  Bates Ranch, G  84.29  46 ⇓P      P       16 49 26.7  0.0
      baz=84,SNR=9.5
L11A  Cat Creek Ranc  84.35  43 ⇓P      P       16 49 27.0 +0.1
      baz=84,SNR=9.1
A06A  Chilliwack      84.36  35 ⇓P      P       16 49 27.6 +0.9
      baz=84
E08A  Dider Farm, El  84.39  38 ⇓P      P       16 49 27.5 +0.5
      baz=84,SNR=5.3
T15A  Red Dirt Ranch  84.39  49 ⇓P      P       16 49 27.7 +0.4
      baz=84
118A  Homack Ranch,   84.42  54 ⇑P      P       16 49 27.4 -0.1
      baz=84
C07A  Waterville      84.42  37 ⇓P      P       16 49 27.5 +0.5
      baz=84
K11A  Parker Ranch,   84.45  43 ⇓P      P       16 49 27.1 -0.2
      baz=84,SNR=6.9
319A  Douglas         84.46  55 ⇑P      P       16 49 27.6 -0.1
      baz=84
EPH   Ephrata         84.51  37 P       P       16 49 31.3 +3.8
BILL  Bilibino        84.53 356 eP      P       16 49 31.0 +3.8
BILL                            pmax    pmax
      comp=Z,4.0nm,1.1s,mb4.5
G09A  Cove            84.55  40 ⇑P      P       16 49 28.4 +0.6
      baz=84,SNR=7.9
Q14A  Sevier Lake (B  84.60  47 ⇓P      P       16 49 27.9 -0.4
      baz=84,SNR=10
S15A  Panguitch       84.69  48 ⇑P      P       16 49 28.9 +0.2
      baz=85,SNR=5.3
D08A  Wollman Farm,   84.76  38 ⇓P      P       16 49 28.2 -0.6
      baz=85,SNR=5.6
N13A  Wendover, West  84.78  45 ⇑P      P       16 49 29.2 +0.1
      baz=85
B07A  Winthrop        84.79  36 ⇑P      P       16 49 28.5 -0.4
      baz=85,SNR=6.6
L12A  House Creek Ra  84.83  44 ⇓P      P       16 49 28.8 -0.5
      baz=85,SNR=6.7
H10A  Noah’s Angus R  84.86  41 ⇓P      P       16 49 28.8 -0.5
      baz=85,SNR=10
MFID  Camas Ranch     84.88  42 ⇓P      P       16 49 28.6 -1.0
      baz=85,SNR=11
CMAR  Chiang Mai Arr  84.92 291 P       P       16 49 30.1 -0.2
      comp=Z,2.1nm,0.9s,mb4.3,baz=116,slow=3.0,SNR=19
CMAR                            LR      LR      17 25 47.9
      comp=Z,141nm,18.9s,MS4.4,baz=319,slow=35
U16A  Tuba City       84.95  50 ⇑P      P       16 49 29.2 -0.8
      baz=85
A07A  Ashnola River,  84.95  36 ⇑P      P       16 49 29.8 +0.1
      baz=85
G10A  Bishop Farm, J  84.97  40 ⇓P      P       16 49 29.2 -0.6
      baz=85,SNR=6.6
P14A  Drum Mountains  85.01  46 ⇓P      P       16 49 29.4 -0.8
      baz=85,SNR=6.4
OD2   Odessa Site #2  85.05  38 P       P       16 49 34.9 +4.6
C08A  Higginbotham F  85.05  37 ⇑P      P       16 49 29.7 -0.6
      baz=85,SNR=5.3
COLA  College         85.06  14 eP      P       16 49 28.6 -1.3
COLA                            pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.8
COLA  College         85.06  14 eP      P       16 49 28.6 -1.4
      comp=Z,8.9nm,1.1s,mb4.8
COLA                            e               16 49 33.4
D09A  Jones Farm, Ri  85.12  38 ⇑P      P       16 49 31.0 +0.4
      baz=85,SNR=8.7
K12A  Draper Farm, C  85.12  43 ⇓P      P       16 49 30.8  0.0
      baz=85,SNR=5.9
CD2   Chengdu         85.16 304 P       P       16 49 31.8 +0.6
CD2                             pP      pP      16 49 42.3  0.0
CD2                             sP      sP      16 49 46.2 -0.1
CD2                             PP      PP      16 52 49.9 +0.7
CD2                             SKS             16 59 50.2
CD2                             sS      sS      17 00 14.0 -3.2
CD2                             SS      SS      17 05 32.5 -1.2
CD2                             pmax    pmax
      comp=Z,10.0nm,0.6s,mb5.1
CD2                             pmax    pmax
      comp=Z,130nm,5.9s
CD2                             LR      LR
      comp=N,300nm,17.3s
CD2                             LR      LR
      comp=Z,290nm,8.9s
B08A  Colville Reser  85.18  37 ⇓P      P       16 49 31.6 +0.7
      baz=85
F10A  Beach Ranch, E  85.23  39 ⇑P      P       16 49 31.4 +0.2
      baz=85,SNR=7.6
J12A  Stokes Ranch,   85.28  42 ⇑P      P       16 49 31.8 +0.3
      baz=85,SNR=11
H11A  Donnelly        85.37  41 ⇓P      P       16 49 31.6 -0.3
      baz=85,SNR=11
DUG   Dugway          85.45  46 ⇑P      P       16 49 32.3 -0.1
      baz=85,SNR=5.6
U17A  Shonto          85.48  50 ⇑P      P       16 49 33.1 +0.4
      baz=85
Y19A  Nutrioso        85.48  53 ⇑P      P       16 49 32.9 +0.2
      baz=85,SNR=6.2
I12A  Atlanta         85.51  42 ⇓P      P       16 49 32.5 -0.1
      baz=85,SNR=10.0
L13A  Double Diamond  85.51  44 ⇑P      P       16 49 32.9 +0.2
      baz=85,SNR=6.8
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A08A	Turner Farm, O	85.52	36	⇓P	P	16 49 32.5	0.0
	baz=85,SNR=5.5						
T17A	Navajo Res., N	85.53	50	⇑P	P	16 49 32.5	-0.5
	baz=85,SNR=6.5						
R16A	Teasdale	85.57	48	⇑P	P	16 49 33.3	+0.2
	baz=86						
M14A	Sheep Mountain	85.65	45	⇓P	P	16 49 32.9	-0.6
	baz=86,SNR=12						
D10A	Wagner Farm, O	85.73	38	⇓P	P	16 49 32.9	-0.7
	baz=86,SNR=8.4						
S17A	Black Ridge (B	85.80	49	⇑P	P	16 49 35.0	+0.8
	baz=86						
HLID	Hailey	85.86	42	⇓P	P	16 49 34.3	-0.1
	baz=86,SNR=9.8						
HLID	Hailey	85.86	42	eP	P	16 49 34.8	+0.4
	comp=Z,8.4nm,0.9s,mb5.0						
B09A	Rice	85.89	37	⇑P	P	16 49 35.7	+1.3
	baz=86						
A09A	Danville	85.92	36	⇑P	P	16 49 35.5	+0.9
	baz=86						
J13A	Cove Ranch, Pi	85.95	43	⇓P	P	16 49 34.0	-0.9
	baz=86,SNR=9.7						
U18A	Rough Rock, Ch	85.99	50	⇑P	P	16 49 35.1	-0.1
	baz=86,SNR=5.5						
E11A	Bogner Ranch,	86.03	39	⇓P	P	16 49 36.0	+0.8
	baz=86						
R17A	Hanksville Air	86.18	48	⇓P	P	16 49 36.5	+0.4
	baz=86						
I13A	Wildhorse Cree	86.22	42	⇑P	P	16 49 36.5	+0.4
	baz=86,SNR=8.3						
M15A	Larsen Ranch,	86.24	45	⇓P	P	16 49 36.0	-0.3
	baz=86,SNR=9.2						
T18A	Mexican Hat	86.27	50	⇓P	P	16 49 36.4	-0.2
	baz=86,SNR=10						
D11A	Klaveano Farm,	86.29	39	⇑P	P	16 49 37.5	+1.1
	baz=86,SNR=6.9						
J14A	Carey	86.34	43	⇓P	P	16 49 37.1	+0.4
	baz=86,SNR=8.2						
S18A	Hurst Farm, Bl	86.40	49	⇑P	P	16 49 37.8	+0.5
	baz=86						
H13A	Challis	86.42	42	⇑P	P	16 49 37.3	+0.2
	baz=86,SNR=11						
W20A	Ramah	86.51	52	⇓P	P	16 49 38.1	+0.3
	baz=86						
A10A	Northport	86.51	37	⇑P	P	16 49 38.3	+0.8
	baz=86						
L15A	Malad City	86.52	44	⇑P	P	16 49 37.4	-0.3
	baz=86,SNR=9.1						
SRU	San Rafael	86.60	48	⇓P	P	16 49 38.1	0.0
	baz=86,SNR=6.5						
I14A	Mackay	86.65	42	⇑P	P	16 49 38.0	-0.3
	baz=86,SNR=7.7						
G13A	Cobalt	86.67	41	⇓P	P	16 49 38.3	-0.1
	baz=86,SNR=8.7						
N16A	Rees Ranch, Co	86.69	46	⇑P	P	16 49 39.1	+0.5
	baz=87						
R18A	Canyonlands Na	86.75	49	⇑P	P	16 49 38.5	-0.5
	baz=87,SNR=5.3						
YAK	Yakutsk	86.78	339	eP	P	16 49 40.4	+1.9
YAK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.8						
Q18A	Rafter H Ranch	86.87	48	⇑P	P	16 49 38.4	-1.1
	baz=87,SNR=5.1						
O17A	Robinson Place	86.89	47	⇑P	P	16 49 38.8	-0.8
	baz=87,SNR=6.7						
F13A	Darby	86.93	40	⇑P	P	16 49 39.3	-0.3
	baz=87,SNR=12						
S19A	Harvey Farm, M	87.05	49	⇓P	P	16 49 41.0	+0.6
	baz=87						
LZH	Lanzhou	87.05	309	eP	P	16 49 40.5	+0.1
LZH				pP	pP	16 49 50.6	-1.0
LZH				sP	sP	16 49 54.5	-1.1
LZH				ePP	PP	16 53 05.4	+1.0
LZH				SKS		17 00 01.7	
LZH				eS	S	17 00 13.5	-3.7
LZH				sS	sS	17 00 31.6	-3.9
LZH				eSS	SS	17 05 59.7	-1.6
LZH				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.2						
LZH				pmax	pmax		
	comp=Z,100nm,8.7s						
LZH				LR	LR		
	comp=N,310nm,17.2s						
LZH				LR	LR		
	comp=Z,470nm,19.6s,MS4.9						
J15A	Blackfoot	87.09	43	⇓P	P	16 49 40.4	0.0
	baz=87,SNR=13						
L16A	Fish Haven	87.17	45	⇑P	P	16 49 41.5	+0.7
	baz=87,SNR=8.0						
A11A	Hall Mountain,	87.19	37	⇓P	P	16 49 41.3	+0.5
	baz=87,SNR=8.0						
G14A	Jackson	87.23	41	⇓P	P	16 49 41.6	+0.5
	baz=87,SNR=8.1						
E13A	Victor	87.31	40	⇑P	P	16 49 40.7	-0.7
	baz=87,SNR=6.9						
K16A	Soda Springs	87.40	44	⇓P	P	16 49 42.8	+0.8
	baz=87						
D13A	Huson	87.44	39	⇑P	P	16 49 41.9	-0.2
	baz=87,SNR=7.5						
M17A	Scullys Gap (B	87.46	46	⇓P	P	16 49 43.2	+0.9
	baz=87						
H15A	Lima	87.48	42	⇑P	P	16 49 43.1	+0.8
	baz=87						
F14A	Wisdom	87.54	41	⇓P	P	16 49 43.2	+0.6
	baz=87,SNR=6.1						
J16A	Bone	87.58	44	⇑P	P	16 49 43.2	+0.4
	baz=87,SNR=14						
A12A	Yaak River Ran	87.59	37	⇓P	P	16 49 43.8	+1.1
	baz=87						
BSMT	Bassoo Peak	87.59	38	P	P	16 49 45.8	+3.1
C13A	Hot Springs	87.64	39	⇑P	P	16 49 43.4	+0.4
	baz=88						
E14A	Clinton	87.73	40	⇓P	P	16 49 43.6	+0.1
	baz=88,SNR=14						
G15A	Dillon	87.81	42	⇑P	P	16 49 44.5	+0.6
	baz=88,SNR=14						
I16A	Newdale	87.91	43	⇑P	P	16 49 45.5	+1.2
	baz=88,SNR=6.2						
D14A	Greenough	88.02	40	⇑P	P	16 49 45.6	+0.8
	baz=88,SNR=8.4						
F15A	Butte	88.10	41	⇑P	P	16 49 46.1	+0.9
	baz=88,SNR=10						
J17A	Brown Place, J	88.21	44	⇓P	P	16 49 47.4	+1.6
	baz=88,SNR=7.7						
TXAR	Lajitas Array	88.25	59	P	P	16 49 49.9	+3.6
	comp=Z,2.0nm,0.9s,mb4.3,baz=225,slow=5.1,SNR=16						
TXAR				LR	LR	17 22 41.2	
	comp=Z,278nm,19.6s,MS4.7,baz=355,slow=31						
TXAR	Lajitas Array	88.25	59	P	P	16 49 49.9	+3.6
TXAR				LR	LR	17 22 41.1	
N19A	John Jarvie Ra	88.26	47	⇑P	P	16 49 46.8	+0.7
	baz=88						
E15A	Deer Lodge	88.26	40	⇑P	P	16 49 46.1	+0.1
	baz=88,SNR=7.0						
P20A	De Beque	88.27	48	⇓P	P	16 49 46.8	+0.6
	baz=88						
G16A	Moss Hill, Enn	88.28	42	⇑P	P	16 49 46.9	+0.8
	baz=88,SNR=5.8						
K18A	Toltan Ranch,	88.36	45	⇑P	P	16 49 46.7	+0.1
	baz=88,SNR=9.0						
H16A	Russell Place,	88.41	42	⇑P	P	16 49 47.3	+0.6
	baz=88,SNR=13						
I17A	Pilgrim Ck.	88.53	43	⇑P	P	16 49 47.8	+0.5
	baz=88,SNR=5.7						
BOZ	Bozeman (W)	88.57	41	⇑P	P	16 49 47.4	0.0
	baz=88,SNR=10						
D15A	Lincoln	88.61	40	⇓P	P	16 49 48.5	+0.9
	baz=88,SNR=9.1						
J18A	Kendall Valley	88.61	44	⇑P	P	16 49 48.3	+0.6
	baz=88,SNR=14						
F16A	Kennard Place,	88.63	41	⇑P	P	16 49 49.2	+1.5
	baz=88,SNR=7.6						
H17A	Grant Village	88.72	43	⇓P	P	16 49 49.4	+1.2
	baz=89,SNR=8.0						
BW06	Boulder Array	88.74	45	⇑P	P	16 49 48.1	-0.3
	baz=89,SNR=8.7						
PDAR	Pinedale Array	88.74	45	P	P	16 49 51.1	+2.8
	comp=Z,5.0nm,1.1s,mb4.8,baz=207,slow=3.0,SNR=21						
PDAR				LR	LR	17 21 23.4	
	comp=Z,280nm,18.9s,MS4.7,baz=256,slow=30						
C15A	Salmond Ranch,	88.87	39	⇓P	P	16 49 49.2	+0.4
	baz=89,SNR=8.9						
N20A	Spence Gulch,	88.87	47	⇓P	P	16 49 49.4	+0.4
	baz=89,SNR=6.5						
E16A	East Helena	88.91	41	⇓P	P	16 49 50.0	+1.0
	baz=89,SNR=6.0						
A14A	Double T Ranch	88.91	38	⇓P	P	16 49 49.0	+0.1
	baz=89,SNR=8.2						
R22A	Saguache, Gunn	88.97	50	⇑P	P	16 49 50.4	+0.8
	baz=89						
Q22A	Crested Butte,	89.09	49	⇑P	P	16 49 50.8	+0.7
	baz=89						
B15A	Bradely Ranch,	89.14	39	⇓P	P	16 49 50.3	+0.3
	baz=89,SNR=9.6						
M20A	Sweetwater, Wa	89.18	46	⇓P	P	16 49 51.1	+0.7
	baz=89						
D16A	Dana Ranch, Ca	89.20	40	⇓P	P	16 49 50.5	+0.1
	baz=89,SNR=12						
K19A	Absolon Red Bu	89.24	45	⇑P	P	16 49 51.0	+0.4
	baz=89,SNR=7.4						
L20A	Wamsutter	89.27	46	⇓P	P	16 49 51.2	+0.3
	baz=89,SNR=6.3						
F17A	Fitzpatrick Pl	89.29	41	⇓P	P	16 49 51.2	+0.3
	baz=89,SNR=6.4						
A15A	Johnson Ranch,	89.32	38	⇑P	P	16 49 51.3	+0.4
	baz=89,SNR=7.8						
N21A	Black Mountain	89.37	47	⇓P	P	16 49 51.6	+0.3
	baz=89,SNR=6.8						
C16A	Fuhringer Ranc	89.41	39	⇑P	P	16 49 51.6	+0.3
	baz=89,SNR=9.6						
ULN	Ulaanbaatar	89.60	321	eP	P	16 49 51.6	-0.6
ULN				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.8						
ULN	Ulaanbaatar	89.60	321	eP	P	16 49 51.5	-0.7
	comp=Z,5.8nm,1.1s,mb4.8						
B16A	M & M Farms, S	89.69	39	⇓P	P	16 49 53.0	+0.4
	baz=90,SNR=7.6						
D17A	Six Diamond Ra	89.79	40	⇑P	P	16 49 53.4	+0.2
	baz=90,SNR=13						
SYO	Syowa Base	89.86	194	⇑eP	P	16 49 44.9	-8.3
F18A	Big Timber	89.89	42	⇓P	P	16 49 54.0	+0.3
	baz=90						
L21A	Rawlins	89.92	46	⇓P	P	16 49 54.1	+0.2
	baz=90,SNR=6.3						
A16A	West Butte Ran	89.99	38	⇑P	P	16 49 54.3	+0.3
	baz=90,SNR=8.8						
SONM	Songino Array	89.99	320	P	P	16 49 53.7	-0.4
	comp=Z,1.6nm,1.1s,mb4.3,baz=132,slow=4.6,SNR=7.2						
SONM				LR	LR	17 29 37.8	
	comp=Z,155nm,19.9s,MS4.4,baz=82,slow=35						
SONM	Songino Array	89.99	320	P	P	16 49 53.7	-0.4
SONM				LR	LR	17 29 37.8	
E18A	Harlowton	90.03	41	⇑P	P	16 49 54.7	+0.5
	baz=90,SNR=8.8						
N22A	Wattenberg Ran	90.13	47	⇑P	P	16 49 55.3	+0.4
	baz=90						
B17A	L&G Farms, Che	90.19	39	⇓P	P	16 49 55.1	+0.1
	baz=90,SNR=9.9						
D18A	Linhart Farms,	90.36	41	⇑P	P	16 49 56.4	+0.6
	baz=90						
BOD	Bodaibo	90.50	331	eP	P	16 49 50.8	-5.4
BOD				pmax	pmax		
	comp=Z,4.0nm,1.9s,mb4.4						
A17A	Triple J Farms	90.52	39	⇑P	P	16 49 56.5	0.0
	baz=90,SNR=14						
EGMT	Eagleton	90.72	40	⇑P	P	16 49 58.1	+0.6
	baz=91						
B18A	Beardsley Farm	90.86	39	⇓P	P	16 49 57.6	-0.5
	baz=91						
A18A	Metzger Ranch,	91.03	39	⇑P	P	16 49 58.5	-0.4
	baz=91						
GTA	Gaotai	91.23	311	eP	P	16 49 59.5	-0.6
GTA				pP	pP	16 50 08.5	-2.7
GTA				sP	sP	16 50 12.7	-2.5
GTA				SKS		17 00 28.7	
GTA				S	S	17 00 57.7	+1.5
GTA				sS	sS	17 01 17.2	+2.5
GTA				pmax	pmax		
	comp=Z,4.0nm,2.0s,mb4.4						
GTA				pmax	pmax		
	comp=Z,110nm,7.8s						
GTA				LR	LR		
	comp=N,190nm,13.2s,MS4.8						
GTA				LR	LR		
	comp=E,170nm,15.9s,MS4.8						
GTA				LR	LR		
	comp=Z,180nm,16.2s,MS4.6						
ZAK	Zakamensk	92.88	322	eP	P	16 50 06.2	-1.2
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb4.0						
VNA2	Neumayer--Watz	92.91	178	eP	P	16 50 07.4	+0.1
RSSD	Black Hills	92.98	45	eP	P	16 50 08.4	+0.4
RSSD				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.4						
RSSD	Black Hills	92.98	45	eP	P	16 50 08.4	+0.4
	comp=Z,21nm,1.3s,mb5.4						
TIXI	Tiksi	93.72	346	⇑eP	P	16 50 14.8	+4.0
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.6						
YKA	Yellowknife Ar	94.44	26	P	P	16 50 17.3	+3.0
YKA						16 54 00.1	
YKA	Yellowknife Ar	94.44	26	P	P	16 50 17.3	+3.0
	comp=Z,3.0nm,1.0s,mb4.7,baz=249,slow=4.5,SNR=21						
YKA				PP	PP	16 54 00.1	-2.1
	comp=Z,0.1nm,0.5s,baz=241,slow=7.7,SNR=3.7						
YKA				LR	LR	17 24 22.2	
	comp=Z,369nm,21.0s,MS4.8,baz=250,slow=30						
YKA	Yellowknife Ar	94.44	26	P	P	16 50 17.3	+3.0
YKA				PP	PP	16 54 00.1	-2.2
YKA				LR	LR	17 24 22.2	
PLCA	Paso Flores	95.04	135	LR	LR	17 23 35.7	
	comp=Z,158nm,19.6s,MS4.5,baz=79,slow=29						
FFC	Flin Flon	97.64	35	i P	P	16 50 34.7	+5.7
WMQ	Urumqi	101.17	312	eP	Pdif	16 50 44.8	-0.2
WMQ				pP		16 50 55.0	
WMQ				sP		16 51 00.0	
WMQ				SKS		17 01 20.0	
WMQ				eS	Sdif	17 02 16.0	-5.6
WMQ				pmax	pmax		
	comp=Z,7.0nm,1.2s						
WMQ				pmax	pmax		
	comp=Z,130nm,4.7s						
WMQ				LR	LR		
	comp=N,180nm,20.2s,MS4.9						
WMQ				LR	LR		
	comp=E,390nm,23.4s,MS4.9						
WMQ				LR	LR		
	comp=Z,480nm,30.3s						
MKAR	Makanchi Array	105.43	315	Pdiff	Pdif	16 51 06.4	+2.5
	comp=Z,0.2nm,0.7s,baz=98,slow=6.4,SNR=3.7						
BVAR	Borovoye Array	113.32	321	PKiKP	PKiKP	16 55 35.5	+3.3
	comp=Z,0.9nm,0.8s,baz=101,slow=1.5,SNR=4.0						
AKTK	Aktyubinsk	121.30	319	PKP	PKPdf	16 55 50.6	+3.0
AKTO	Aktyubinsk	121.30	319	PKP	PKPdf	16 55 50.6	+3.0
	comp=Z,2.6nm,0.8s,baz=57,slow=4.2,SNR=5.7						
AKASG	Malin Array Be	137.43	331	PKP	PKPdf	16 56 18.9	+0.7
	comp=Z,0.2nm,0.4s,baz=71,slow=1.7,SNR=3.0						
UPC	Upice	142.87	341	ePKP	PKPdf	16 56 30.9	+2.9
DPC	Dobruska-Polom	142.90	340	ePKP	PKPdf	16 56 25.7	-2.4
BRG	Berggiesshubel	143.16	343	ePKIKP	PKPdf	16 56 30.2	+1.7
BRG				pmax	pmax		
	comp=Z,7.0nm,1.5s						
BRG				pmax	pmax		
	comp=Z,7.0nm,1.6s						
BRG	Berggiesshubel	143.16	343	eP	PKPdf	16 56 30.2	+1.7
	comp=Z,11nm,1.5s						
BRG				e		16 57 02.0	
	comp=Z,12nm,1.6s						
ROTZ	Rotzenmuhle	144.64	344	ePKPbc	PKPdf	16 56 29.4	-1.8
ROTZ				epPKPbc		16 56 35.4	
KHC	Kasperske Hory	144.83	342	ePKP	PKPdf	16 56 29.2	-2.3
KHC				ex	x	16 56 35.9	
GRF	Grafenberg Arr	144.97	345	ePKPbc	PKPdf	16 56 30.4	-1.3
GRF				epPKPbc		16 56 36.4	
WET	Wettzell	145.02	343	ePKPbc	PKPbc	16 56 30.5	-0.7
WET				epPKPbc		16 56 36.5	
GEC2	GERESS Array S	145.05	342	ePKPbc	PKPbc	16 56 30.7	-0.6
GEC2				epPKPbc		16 56 36.3	
GERES	GERESS Array B	145.05	342	PKPbc	PKPbc	16 56 30.8	-0.5
	comp=Z,1.8nm,0.9s,baz=46,slow=2.8,SNR=12						
CONA	Conrad Observa	145.14	339	⇑iPKPdf	PKPdf	16 56 31.4	-0.7
	comp=Z,34nm,1.5s						
CSNA	Conrad Observa	145.14	339	⇑iPKPdf	PKPdf	16 56 31.3	-0.8
	comp=Z,33nm,1.6s						
MOA	Molln	145.75	340	⇑iPKPbc	PKPdf	16 56 31.3	-1.8
	comp=Z,25nm,1.6s						
GIVF	Givet	145.82	352	ePKP1	PKPbc	16 56 35.3	+1.6
ARSA	Arzberg	145.84	338	⇑iPKPbc	PKPbc	16 56 32.3	-1.6
	comp=Z,10.0nm,1.2s						
BAIF	Baives	145.94	353	ePKP1	PKPbc	16 56 36.0	+1.9
	comp=Z,47nm,1.1s						
WLF	Walferdange	146.05	350	PKP	PKPdf	16 56 34.1	+0.5
WLF	Walferdange	146.05	350	ePKPbc	PKPbc	16 56 34.1	-0.3
WLF				epPKPbc	pPKPbc	16 56 39.9	-5.9
WLF	Walferdange	146.05	350	ePKP	PKPdf	16 56 33.9	+0.3
RJOB	Jochberg	146.31	342	ePKPbc	PKPbc	16 56 34.7	-0.6
FUR	Furstenfeldbru	146.36	344	ePKPbc	PKPbc	16 56 34.8	-0.6
FUR				epPKPbc	pPKPbc	16 56 40.5	-6.3
BFO	Black Forest	146.92	347	ePKPbc	PKPbc	16 56 36.0	-1.0
BFO				epPKPbc	pPKPbc	16 56 42.0	-6.4
CDF	Champ du Feu	147.06	348	ePKP1	PKPab	16 56 40.4	+1.5
	comp=Z,26nm,1.0s						
MEZF	Maizieres J’vi	147.35	351	ePKP1	PKPbc	16 56 40.1	+1.9
	comp=Z,58nm,1.1s						
FETA	Feichten	147.55	343	⇑iPKPbc	PKPbc	16 56 38.1	-0.7
	comp=Z,19nm,1.1s						
FLN	La Foliniere	147.61	358	ePKP1	PKPbc	16 56 40.2	+1.3
FLN				eMLR	MLR		
	comp=Z,368nm,19.8s,MS4.9						
FLN	La Foliniere	147.61	358	ePKP	PKPbc	16 56 40.2	+1.3
FLN				LR	LR		
	comp=Z,370nm,19.8s,MS5.2						
HAU	Haudompre	147.62	349	ePKP1	PKPbc	16 56 40.5	+1.5
HAU				eMLR	MLR		
	comp=Z,264nm,20.8s,MS4.7						
HAU	Haudompre	147.62	349	ePKP	PKPbc	16 56 40.5	+1.5
HAU				LR	LR		
	comp=Z,260nm,20.8s,MS5.0						
HINF	Hinteralfeld	147.71	349	ePKP1	PKPbc	16 56 40.7	+1.5
LDF	La Druitiere	147.76	357	ePKP1	PKPbc	16 56 40.4	+1.1
GRR	Gorron	147.99	358	ePKP1	PKPbc	16 56 41.5	+1.5
ROSF	Rostrenen	148.05	1	ePKP1	PKPbc	16 56 41.3	+1.2
SGMF	Saint Gilles	148.15	0	ePKP1	PKPbc	16 56 41.6	+1.2
	comp=Z,120nm,1.4s						
QUIF	Quistinic	148.47	1	ePKP1	PKPbc	16 56 42.1	+0.8
LOR	Lormes	148.73	352	ePKP1	PKPbc	16 56 43.6	+1.7
	comp=Z,41nm,1.4s						
LOR				eMLR	MLR		
	comp=Z,292nm,18.5s,MS4.8						
LOR	Lormes	148.73	352	ePKP	PKPbc	16 56 43.6	+1.7
LOR				LR	LR		
	comp=Z,290nm,18.5s,MS5.1						
SSF	Saint Saulge	148.98	352	ePKP1	PKPbc	16 56 44.3	+1.7
	comp=Z,55nm,1.3s						
CABF	La Chapelle	149.01	349	ePKP1	PKPbc	16 56 44.9	+2.2
	comp=Z,43nm,1.2s						
AVF	Avril sur Loir	149.26	353	ePKP1	PKPbc	16 56 44.7	+1.4
	comp=Z,36nm,1.4s						
SMF	Signal de Mont	149.34	352	ePKP1	PKPbc	16 56 44.9	+1.4
BGF	Bois d’Agland	149.55	353	ePKP1	PKPbc	16 56 45.7	+1.7
MFF	Saint Martin d	149.75	357	ePKP1	PKPbc	16 56 46.1	+1.6
	comp=Z,43nm,1.3s						
TCF	Toulx Ste Croi	149.89	354	ePKP1	PKPbc	16 56 46.4	+1.6
	comp=Z,42nm,1.3s						
LPL	La Plagne	149.93	347	ePKP1	PKPbc	16 56 47.5	+2.5
	comp=Z,32nm,1.2s						
LPG	La Plagne	149.95	347	ePKP1	PKPbc	16 56 47.5	+2.5
	comp=Z,66nm,1.4s						
MBDF	Montbardon	150.68	347	ePKP1	PKPbc	16 56 48.6	+1.8
	comp=Z,31nm,1.2s						
ORIF	Oris-en-Rattie	150.68	348	ePKP1	PKPbc	16 56 48.6	+1.8
	comp=Z,13nm,0.8s						
ORIF				eMLR	MLR		
	comp=Z,244nm,19.2s,MS4.7						
RJF	Les Rejaudoux	150.93	355	ePKP1	PKPbc	16 56 48.9	+1.5
	comp=Z,14nm,0.8s						
RJF				eMLR	MLR		
	comp=Z,310nm,19.8s,MS4.8						
RJF	Les Rejaudoux	150.93	355	ePKP	PKPbc	16 56 48.9	+1.5
RJF				LR	LR		
	comp=Z,310nm,19.8s,MS5.1						
VIVF	Saint-Julien-l	150.96	350	ePKP1	PKPbc	16 56 49.4	+1.9
CAF	Calviac	151.25	354	ePKP1	PKPbc	16 56 49.9	+1.8
	comp=Z,12nm,1.0s						
LFF	La Frestale	151.35	356	ePKP1	PKPbc	16 56 49.9	+1.5
ESDC	Sonseca Array	156.68	3	PKPab	PKPab	16 57 21.8	+2.7
	comp=Z,0.3nm,0.3s,baz=343,slow=4.2,SNR=5.8						
TORD	Torodi Ar. Bea	175.08	231	PKP	PKPdf	16 57 06.3	+0.8
	comp=Z,0.8nm,1.0s,baz=249,slow=2.2,SNR=3.1						
TORD				PKPab	PKPab	16 58 39.3	-1.6
	comp=Z,1.5nm,1.1s,baz=136,slow=4.3,SNR=5.4						

ISCJB **11** *16:41:17.8±1.1, 38°.91N±0°.04×26°.05E±0°.09, h1^{km}±20^{km}, Error ellipse: s-maj=12.7km s-min=6.4km az=161.1*

DDA **11** *16:41:17.4, 38°.92N×26°.02E, h7^{km}±2^{km}, Md2.5*

CSEM **11** *16:41:18.5±0.4, 38°.88N×26°.10E, h2^{km}, MD2.5, Error ellipse: s-maj=12.7km s-min=6.7km az=77.0*

ATH **11** *16:41:19.2, 38°.93N×26°.24E, h10^{km}, MD3.0/3*

ISC 11 16:41:18.5±1.1, **38°.91N**±0°.04×**26°.06E**±0°.10, **h7**^{km}±17^{km}, **n11,** σ**0^{s}.86**/16, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	Paraskevi	0.37	26	ePB	Pg	16 41 25.5	-0.3
PRK	Paraskevi	0.37	26	ePb	Pg	16 41 25.5	-0.3
AYVA	Ayvalik	0.63	51	i P	Pg	16 41 30.4	-0.2
AYVA				i S	Sg	16 41 39.6	+0.8
AYVA	Ayvalik	0.63	51	i P	Pg	16 41 30.4	-0.3
AYVA				i S	Sg	16 41 39.6	+0.8
URLA	Izmir	0.69	143	i P	Pg	16 41 30.4	-1.4
URLA				i S	Sg	16 41 41.7	+0.9
URLA	Izmir	0.69	143	i P	Pg	16 41 30.4	-1.4
URLA				i S	Sg	16 41 41.7	+0.9
BOZC	Bozcaada	0.93	360	i P	Pg	16 41 35.4	-1.0
BOZC				i S	Sg	16 41 48.2	-0.2
LIA	Limnos Island	1.20	326	ePB	Pg	16 41 43.0	+1.5
LIA	Limnos Island	1.20	326	ePb	Pg	16 41 43.0	+1.5
SMG	Samos	1.35	153	ePB	Pn	16 41 43.8	+0.1
SMG	Samos	1.35	153	ePb	Pn	16 41 43.8	+0.1

IDC **11** *16:43:55.7±1.6, 1°.75N×96°.51E, h0^{km}, mb3.7/7, mb1 3.8/9, mb1mx3.7/25, mbtmp3.7/9, ML3.4/2, Error ellipse: s-maj=49.7km s-min=19.6km az=53.0*

NEIC **11** *16:44:01.0±1.0, 1°.82N×96°.62E, h35^{km}, mb3.9/1, Error ellipse: s-maj=19.5km s-min=13.5km az=46.0*

ISCJB **11** *16:44:02.7±5.8, 1°.9N±0°.3×96°.8E±0°.3, h62^{km}±46^{km}, mb4.0/11, Error ellipse: s-maj=69.0km s-min=16.0km az=141.5*

ISC 11 16:44:04.3±5.8, **1°.9N**±0°.3×**96°.9E**±0°.4, **h57**^{km}±46^{km}, **n19,** σ**0^{s}.77**/19, **mb4.0**/11, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.24	67	Pn	Pn	16 44 39.1	+0.1
	0.9nm,0.3s,baz=234,slow=9.8,SNR=4.6						
KULM	Kulim	5.05	48	eP	Pn	16 45 17.3	-0.2
	14nm,0.8s						
CMAR	Chiang Mai Arr	16.55	7	Pn	Pn	16 47 52.4	-0.3
	0.2nm,0.3s,baz=198,slow=11,SNR=26						
ODAN	Odare	26.40	341	eP	P	16 49 35.8	+0.2
TAPN	Taplejung	26.75	342	eP	P	16 49 39.2	+0.5
	10nm,1.0s,mb4.3						
RAMN	Ramite	26.75	339	eP	P	16 49 38.8	+0.1
	4.9nm,0.5s,mb4.3						
JIRN	Jiri	27.55	339	eP	P	16 49 46.4	+0.6
	14nm,0.9s,mb4.6						
GUN	Gumba	27.89	339	eP	P	16 49 49.7	+0.8
DMN	Daman	27.90	337	eP	P	16 49 49.7	+0.7
GKN	Gorkha	28.44	337	eP	P	16 49 53.5	-0.3
KOLN	Koldanda	28.66	335	eP	P	16 49 54.8	-0.9
	3.2nm,0.6s,mb4.3						
WRA	Warramunga Arr	42.71	122	P	P	16 51 58.1	+2.0
	0.8nm,0.6s,mb3.6,baz=298,slow=9.5,SNR=7.8						
ASAR	Alice Springs	44.11	127	P	P	16 52 05.4	-1.8
	0.4nm,0.8s,mb3.2,baz=297,slow=8.2,SNR=4.2						
MKAR	Makanchi Array	46.46	346	P	P	16 52 25.0	-0.4
	1.5nm,0.7s,mb4.0,baz=164,slow=7.4,SNR=19						
SONM	Songino Array	46.47	9	P	P	16 52 26.0	+0.5
	0.8nm,0.8s,mb3.7,baz=187,slow=9.6,SNR=6.6						
KURK	Kurchatov	51.00	345	P	P	16 52 60.0	-0.3
	0.7nm,0.7s,mb3.7,baz=160,slow=7.0,SNR=5.3						
KURK	Kurchatov	51.00	345	P	P	16 52 59.5	-0.8
	1.0nm,0.8s,mb3.8						
ZALV	Zalesovo Beam	52.79	351	P	P	16 53 12.9	-0.6
	2.5nm,0.8s,mb4.2,baz=181,slow=6.9,SNR=9.0						
BVAR	Borovoye Array	55.45	341	P	P	16 53 32.6	-0.3
	0.7nm,0.6s,mb3.9,baz=132,slow=6.0,SNR=2.9						

IDC **11** *16:45:58.8±1.4, 11°.76N×124°.66E, h0^{km}, mb3.8/7, mb1 3.9/7, mb1mx3.7/21, mbtmp3.8/7, MS3.1/1, Ms1 3.1/1, ms1mx2.7/32, Error ellipse: s-maj=176.9km s-min=16.5km az=67.0*

ISCJB **11** *16:46:02.2±0.9, 11°.71N±0°.04×124°.34E±0°.05, h30^{km}±8^{km},* *mb3.9/7, Error ellipse: s-maj=8.0km s-min=5.6km az=149.1*

MAN ***11*** *16:46:02, 11°.68N×124°.30E, h20^{km}, mb4.6, ML3.4, MS3.4*

ISC 11 16:46:01.5±0.8**, 11°.70N**±0°.04×**124°.33E**±0°.05**, h13**^{km}±6^{km}**, n26, σ0^{s}.97**/28**, mb3.9**/7**, 1C-3D, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OCLP	**Ormoc**	**0.70**	**157**	*e*P	**Pg**	**16 46 15.5**	**+0.4**
CNP	**Catarman**	**0.87**	**22**	*e*P	**Pg**	**16 46 18.1**	**-0.3**
MMPH	**Masbate**	**0.95**	**314**	⇓*e*P	**Pg**	**16 46 20.0**	**+0.1**
MMPH				*e*S	**Sg**	**16 46 31.3**	**-1.0**
BESP	**Borongan**	**1.09**	**95**	*e*P	**Pg**	**16 46 22.3**	**-0.3**
LLP	**Lapu-Lapu**	**1.42**	**195**	⇑*e*P	**Pn**	**16 46 25.6**	**-1.3**
LLP				*e*S	**Sn**	**16 46 45.0**	**-0.5**
RCP	**Roxas**	**1.56**	**265**	⇓*e*P	**Pn**	**16 46 27.4**	**-1.5**
RCP				*e*S	**Sn**	**16 46 48.0**	**-1.0**
MSLP	**Maasin**	**1.64**	**161**	*e*P	**Pn**	**16 46 30.9**	**+0.9**
PVCP	**Virac**	**1.90**	**355**	*e*P	**Pn**	**16 46 33.2**	**-0.3**
KALP	**Kalibo**	**1.95**	**270**	*e*P	**Pn**	**16 46 37.3**	**+3.0**
GUIM	**Jordan**	**2.01**	**238**	*e*P	**Pn**	**16 46 35.1**	**0.0**
SCPH	**Surigao**	**2.22**	**149**	⇓*e*P	**Pn**	**16 46 37.5**	**-0.5**
AUQP	**San Andres**	**2.28**	**315**	*e*P	**Pn**	**16 46 40.0**	**+1.1**
GQP	**Guinayangan**	**2.86**	**320**	*e*P	**Sg**	**16 47 40.4**	**+6.9**
SJMP	**San Jose**	**3.23**	**284**	*e*P	**Pn**	**16 46 53.0**	**+1.1**
CUYO	**Cuyo Island**	**3.35**	**256**	*e*P	**Pn**	**16 46 54.1**	**+0.5**
BUKP	**Musuan**	**3.86**	**169**	*e*P	**Pn**	**16 47 03.2**	**+2.6**
PAGZ	**Pagadian**	**3.94**	**194**	*e*P	**Pn**	**16 47 02.5**	**+0.9**
BUSP	**Coron**	**4.05**	**275**	*e*P	**Pn**	**16 47 03.9**	**+0.6**
DAV	**Davao City (W)**	**4.76**	**165**	LR	LR	16 49 22.6	
	comp=Z,179nm,18.2s,baz=201,slow=43						
WRA	**Warramunga Arr**	**32.95**	**163**	P	**P**	**16 52 34.3**	**-1.7**
	1.7nm,1.0s,mb3.9,baz=343,slow=9.3,SNR=5.7						
ASAR	**Alice Springs**	**36.37**	**165**	P	**P**	**16 53 05.3**	**-0.2**
	0.7nm,0.5s,mb3.8,baz=345,slow=7.0,SNR=31						
SONM	**Songino Array**	**39.04**	**341**	P	**P**	**16 53 28.1**	**+0.2**
	0.6nm,0.8s,mb3.4,baz=165,slow=7.4,SNR=3.5						
STKA	**Stephens Creek**	**46.38**	**160**	P	**P**	**16 54 26.3**	**-1.3**
	1.8nm,0.8s,mb4.1,baz=67,slow=7.8,SNR=3.9						
MKAR	**Makanchi Array**	**49.74**	**323**	P	**P**	**16 54 54.4**	**+0.8**
	1.0nm,0.9s,mb3.9,baz=122,slow=9.3,SNR=6.5						
ZALV	**Zalesovo Beam**	**52.47**	**332**	P	**P**	**16 55 13.9**	**0.0**
	0.5nm,0.3s,mb3.9,baz=101,slow=7.8,SNR=2.9						
KURK	**Kurchatov**	**53.82**	**326**	P	**P**	**16 55 24.0**	**+0.1**
	2.0nm,0.9s,mb4.0,baz=126,slow=7.3,SNR=10.0						

ISCJB ***11*** *16:53:13.4±0.6, 38°.90N±0°.02×26°.02E±0°.03, h6^{km}±4^{km}, Error ellipse: s-maj=4.7km s-min=3.2km az=155.1*

CSEM ***11*** *16:53:13.6±0.2, 38°.90N×26°.01E, h8^{km}, ML3.7/5, Error ellipse: s-maj=4.4km s-min=3.1km az=60.0*

DDA ***11*** *16:53:13.4, 38°.92N×26°.08E, h33^{km}±2^{km}, Md3.1*

THE ***11*** *16:53:13.3, 38°.90N×26°.01E, h0^{km}±1^{km}, ML3.7/5, Error ellipse: s-maj=1.2km s-min=0.5km az=101.0*

ATH ***11*** *16:53:14.0, 38°.98N×26°.16E, h31^{km}, MD3.3/3*

ISC 11 16:53:13.9±0.5**, 38°.90N**±0°.02×**26°.02E**±0°.04**, h9**^{km}±3^{km}**, n39, σ0^{s}.84**/68**, 1C, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIGR	**SIGRI**	**0.33**	**338**	P	**Pg**	**16 53 20.5**	**0.0**
SIGR				S	**Sg**	**16 53 25.2**	**+0.3**
SIGR	**SIGRI**	**0.33**	**338**	P	**Pg**	**16 53 20.5**	**0.0**
SIGR				S	**Sg**	**16 53 25.2**	**+0.3**
PRK	**Paraskevi**	**0.40**	**30**	P	**Pg**	**16 53 21.4**	**-0.3**
PRK				S	**Sg**	**16 53 27.7**	**+0.8**
PRK	**Paraskevi**	**0.40**	**30**	⇑*i*PB	**Pg**	**16 53 21.5**	**-0.2**
PRK	**Paraskevi**	**0.40**	**30**	P	**Pg**	**16 53 21.4**	**-0.3**
PRK				S	**Sg**	**16 53 27.7**	**+0.8**
CHOS	**Chios island**	**0.52**	**177**	P	**Pg**	**16 53 23.5**	**-0.4**
CHOS				S	**Sg**	**16 53 31.0**	**+0.4**
CHOS	**Chios island**	**0.52**	**177**	P	**Pg**	**16 53 23.5**	**-0.4**
CHOS				S	**Sg**	**16 53 31.0**	**+0.4**
AYVA	**Ayvalik**	**0.66**	**52**	*i* P	**Pg**	**16 53 26.4**	**-0.2**
AYVA				*i* S	**Sg**	**16 53 35.6**	**+0.3**
AYVA	**Ayvalik**	**0.66**	**52**	*i* P	**Pg**	**16 53 26.4**	**-0.3**
AYVA				*i* S	**Sg**	**16 53 35.6**	**+0.3**
URLA	**Izmir**	**0.70**	**140**	*i* P	**Pg**	**16 53 27.0**	**-0.5**
URLA				*i* S	**Sg**	**16 53 37.4**	**+0.7**
URLA	**Izmir**	**0.70**	**140**	*i* P	**Pg**	**16 53 27.0**	**-0.5**
URLA				*i* S	**Sg**	**16 53 37.4**	**+0.7**
BOZC	**Bozcaada**	**0.94**	**2**	*i* P	**Pg**	**16 53 31.3**	**-0.7**
BOZC				*i* S	**Sg**	**16 53 44.2**	**+0.1**
LIA	**Limnos Island**	**1.19**	**327**	P	**Pb**	**16 53 35.6**	**-1.0**
LIA				S	**Sg**	**16 53 52.9**	**+0.8**
LIA	**Limnos Island**	**1.19**	**327**	*e*PN	**Pn**	**16 53 36.3**	**-0.4**
LIA	**Limnos Island**	**1.19**	**327**	P	**Pb**	**16 53 35.6**	**-1.0**
LIA	**Limnos Island**	**1.19**	**327**	*e*Pn	**Pn**	**16 53 36.3**	**-0.4**
LIA				S	**Sg**	**16 53 52.9**	**+0.8**
SMG	**Samos**	**1.35**	**151**	*e*PN	**Pn**	**16 53 39.0**	**0.0**
SMG	**Samos**	**1.35**	**151**	*e*Pn	**Pn**	**16 53 39.0**	**0.0**
AKHS	**Akhisar**	**1.40**	**90**	*i* P	**Pn**	**16 53 38.7**	**-0.9**
AKHS				*i* S	**Sb**	**16 53 59.6**	**+1.4**
AKHS	**Akhisar**	**1.40**	**90**	*i* P	**Pn**	**16 53 38.7**	**-1.0**
AKHS				*i* S	**Sb**	**16 53 59.6**	**+1.3**
BALY	**Balya**	**1.50**	**56**	*i* P	**Pn**	**16 53 40.0**	**-1.0**
BALY				*i* S	**Sn**	**16 53 59.1**	**-1.5**
BALY	**Balya**	**1.50**	**56**	*i* P	**Pn**	**16 53 40.0**	**-1.0**
BALY				*i* S	**Sn**	**16 53 59.1**	**-1.6**
GCAM	**G?zelcaml?**	**1.53**	**141**	*i* P	**Pn**	**16 53 42.9**	**+1.4**
GCAM				*i* S	**Sn**	**16 54 01.7**	**+0.1**
GCAM	**G?zelcaml?**	**1.53**	**141**	*i* P	**Pn**	**16 53 42.9**	**+1.4**
GCAM				*i* S	**Sn**	**16 54 01.7**	**+0.1**
AOS	**Alonnisos**	**1.69**	**280**	P	**Pn**	**16 53 43.0**	**-0.6**
AOS				S	**Sn**	**16 54 06.2**	**+0.9**
AOS	**Alonnisos**	**1.69**	**280**	P	**Pn**	**16 53 43.0**	**-0.6**
AOS				S	**Sn**	**16 54 06.2**	**+0.9**
AYDN	**Tasoluk**	**1.92**	**130**	*e*P	**Pn**	**16 53 45.8**	**-1.0**
AYDN				*i* S	**Sn**	**16 54 11.8**	**+0.8**
AYDN	**Tasoluk**	**1.92**	**130**	*e*P	**Pn**	**16 53 45.8**	**-1.0**
AYDN				*i* S	**Sn**	**16 54 11.8**	**+0.7**
ALN	**Alexandroupoli**	**1.99**	**1**	P	**Pn**	**16 53 46.8**	**-1.0**
ALN				S	**Sn**	**16 54 14.2**	**+1.3**
ALN	**Alexandroupoli**	**1.99**	**1**	P	**Pn**	**16 53 46.8**	**-1.0**
ALN				S	**Sn**	**16 54 14.2**	**+1.3**
SART	**Tekirdag**	**2.00**	**26**	*i* P	**Pn**	**16 53 49.4**	**+1.5**
SART				*i* S	**Sn**	**16 54 16.8**	**+3.8**
SART	**Tekirdag**	**2.00**	**26**	*i* P	**Pn**	**16 53 49.4**	**+1.5**
SART				*i* S	**Sn**	**16 54 16.8**	**+3.8**
DURS	**Dursunbey**	**2.03**	**69**	*i* P	**Pn**	**16 53 47.5**	**-0.9**
DURS	**Dursunbey**	**2.03**	**69**	*i* P	**Pn**	**16 53 47.5**	**-0.8**
OUR	**Ouranopolis**	**2.13**	**313**	P	**Pn**	**16 53 49.0**	**-0.6**
OUR				S	**Sn**	**16 54 17.1**	**+0.9**
OUR	**Ouranopolis**	**2.13**	**313**	P	**Pn**	**16 53 49.0**	**-0.6**
OUR				S	**Sn**	**16 54 17.1**	**+0.9**
BDRM	**Kayabasi**	**2.15**	**148**	*e*P	**Pn**	**16 53 54.9**	**+4.9**
RDO	**Rodhopi**	**2.27**	**351**	*e*PN	**Pn**	**16 53 51.0**	**-0.6**
RDO	**Rodhopi**	**2.27**	**351**	*e*Pn	**Pn**	**16 53 51.0**	**-0.6**

MEX 11 17:14:09.8±0.6**, 17°.07N**×**100°.30W, h4**^{km}±16^{km}**, MD3.6, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.04**	**128**	*i* P	Pg	17 14 10.1	-0.8
CAIG				*i* S	Sg	17 14 10.9	-0.7
ACX	**Acapulco**	**0.41**	**119**	*i* P	Pg	17 14 17.7	-0.1
ACX				*i* S	Sg	17 14 23.8	+0.6
MEIG	**Mezcala**	**1.07**	**37**	*e*P	Pg	17 14 27.7	-2.7
MEIG				*i* S	Sg	17 14 41.0	-3.2
PLIG	**Platanillo**	**1.52**	**30**	*e*P	Pn	17 14 35.0	-2.7
PLIG				*i* S	Sn	17 14 53.2	-4.7
PNIG	**Pinotepa**	**2.18**	**108**	*e*P	Pn	17 14 44.5	-2.4
PNIG				*i* S	Sn	17 15 09.8	-4.5
UTMO	**Huajuapan**	**2.50**	**72**	*i* P	Pn	17 14 49.3	-1.8
UTMO				*i* S	Sn	17 15 17.9	-4.1

MAN 11 17:46:41, 9°.60N×**125°.32E, h2**^{km}**, mb4.3, ML3.1, MS2.9, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**0.24**	**43**	⇓*e*P	Pg	17 46 45.7	0.0
SCPH				*e*S	Sg	17 46 58.5	+10
BUTP	**Butuan**	**0.70**	**155**	*e*P	Pg	17 46 55.0	+0.7
MSLP	**Maasin**	**0.70**	**319**	*e*P	Pg	17 46 55.0	+0.6
OCLP	**Ormoc**	**1.60**	**334**	*e*P	Pn	17 47 14.0	+3.6
BUKP	**Musuan**	**1.73**	**188**	*e*P	Pn	17 47 12.5	+0.3
GUIM	**Jordan**	**2.87**	**291**	*e*P	Pn	17 47 28.3	+0.5
PVCP	**Virac**	**4.13**	**344**	*e*P	Pn	17 47 30.9	-14

ISCJB ***11*** *17:47:57.4±0.7, 10°.4S±0°.2×66°.5E±0°.1, h10^{km}, mb3.8/9, MS3.7/2, Error ellipse: s-maj=26.5km s-min=16.4km az=157.7*

IDC ***11*** *17:47:57.8±0.8, 10°.44S×66°.52E, h0^{km}, mb3.9/9, mb1 4.0/9, mb1mx3.8/25, mbtmp3.9/9, MS3.6/2, Ms1 3.7/2, ms1mx3.2/28, Error ellipse: s-maj=28.4km s-min=19.5km az=161.0*

NEIC ***11*** *17:47:59.3±0.5, 10°.43S×66°.51E, h10^{km}, mb4.3/1, Error ellipse: s-maj=19.6km s-min=12.1km az=158.0*

ISC 11 17:47:59.3±0.7**, 10°.4S**±0°.2×**66°.5E**±0°.1**, h10**^{km}**, n13, σ0^{s}.46**/10**, mb3.8**/9**, MS3.7**/2**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSZ	**Lusaka**	**37.65**	**259**	P	**P**	**17 55 14.9**	**0.0**
	4.2nm,1.0s,mb4.1,baz=70,slow=9.5,SNR=4.7						
LBTB	**Lobatse**	**41.41**	**244**	P	**P**	**17 55 46.5**	**+0.3**
	3.9nm,0.8s,mb4.1,baz=89,slow=6.7,SNR=4.9						
LBTB	**Lobatse**	**41.41**	**244**	*e*P	**P**	**17 55 46.8**	**+0.5**
	5.4nm,0.9s,mb4.2						
CMAR	**Chiang Mai Arr**	**42.98**	**48**	P	**P**	**17 55 59.7**	**+0.6**
	2.6nm,1.0s,mb3.9,baz=239,slow=9.1,SNR=17						
CMAR				LR	LR	18 10 34.7	
	comp=Z,35nm,18.9s,MS3.3,baz=190,slow=32						
MKAR	**Makanchi Array**	**58.68**	**13**	P	**P**	**17 57 56.5**	**-0.5**
	0.4nm,1.0s,mb3.4,baz=202,slow=8.4,SNR=2.4						
ASAR	**Alice Springs**	**65.25**	**111**	P	**P**	**17 58 40.9**	**-0.8**
	0.3nm,0.9s,mb3.3,baz=279,slow=5.6,SNR=4.1						
WRA	**Warramunga Arr**	**65.77**	**107**	P	**P**	**17 58 45.5**	**+0.4**
	1.2nm,0.9s,mb3.9,baz=278,slow=6.6,SNR=3.8						
ZALV	**Zalesovo Beam**	**65.98**	**12**	P	**P**	**17 58 45.4**	**-0.3**
	0.6nm,0.6s,mb3.8,baz=218,slow=8.6,SNR=2.9						
SONM	**Songino Array**	**67.93**	**28**	P	**P**	**17 58 58.6**	**+0.4**
	0.7nm,1.0s,mb3.6,baz=222,slow=2.0,SNR=4.1						
SONM				LR	LR	18 27 49.8	
	comp=Z,98nm,19.0s,MS4.0,baz=234,slow=35						
TORD	**Torodi Ar. Bea**	**68.47**	**289**	P	**P**	**17 59 02.1**	**-0.2**
	1.1nm,1.0s,mb3.9,baz=109,slow=5.5,SNR=5.0						
YKA	**Yellowknife Ar**	**128.02**	**1**	PKP	PKPdf	18 07 05.0	-0.3
	0.2nm,0.9s,baz=15,slow=2.6,SNR=3.1						
NVAR	**Mina Array Bea**	**151.79**	**8**	PKPbc	PKPbc	18 07 55.9	+1.2
	0.7nm,0.9s,baz=64,slow=2.1,SNR=3.3						
TXAR	**Lajitas Array**	**159.07**	**335**	PKPab	PKPab	18 08 35.1	+0.3
	0.2nm,0.6s,baz=6.9,slow=3.0,SNR=2.2						

IDC ***11*** *17:48:22.7±3.2, 4°.78S×154°.06E, h0^{km}, mb3.7/7, mb1 3.9/7, mb1mx3.8/17, mbtmp3.7/7, Error ellipse: s-maj=96.1km s-min=24.5km az=109.0*

NEIC ***11*** *17:48:30.1±2.2, 4°.64S×153°.66E, h35^{km}, mb4.4/2, Error ellipse: s-maj=62.1km s-min=18.9km az=112.0*

ISC 11 17:48:31.2±2.8**, 4°.6S**±0°.2×**153°.5E**±0°.5**, h35**^{km}**, n12, σ0^{s}.92**/11**, mb3.8**/9**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**22.30**	**248**	*e*P	**P**	**17 53 24.8**	**-1.0**
	18nm,0.6s,mb4.7						
WRAB	**Tennant Creek**	**24.08**	**229**	*e*P	**P**	**17 53 45.7**	**+2.2**
	2.5nm,0.5s,mb3.9						
WRA	**Warramunga Arr**	**24.09**	**229**	P	**P**	**17 53 43.0**	**-0.6**
	2.3nm,0.4s,mb3.9,baz=47,slow=9.7,SNR=39						
ASAR	**Alice Springs**	**26.76**	**223**	P	**P**	**17 54 07.3**	**-0.5**
	0.5nm,0.4s,mb3.4,baz=56,slow=9.1,SNR=7.9						
FITZ	**Fitzroy Crossi**	**30.36**	**242**	P	**P**	**17 54 40.2**	**+0.2**
	1.5nm,0.5s,mb4.0,baz=64,slow=8.3,SNR=5.6						
CMAR	**Chiang Mai Arr**	**58.43**	**295**	P	**P**	**17 58 24.7**	**+0.8**
	0.3nm,0.8s,mb3.4,baz=117,slow=5.2,SNR=4.1						
SONM	**Songino Array**	**66.54**	**327**	P	**P**	**17 59 18.0**	**+0.5**
	0.3nm,0.8s,mb3.4,baz=132,slow=5.9,SNR=2.7						
SONM	**Songino Array**	**66.54**	**327**	P	**P**	**17 59 18.0**	**+0.5**
MKAR	**Makanchi Array**	**80.64**	**319**	P	**P**	**18 00 40.3**	**-0.2**
	0.7nm,0.5s,mb3.9,baz=97,slow=7.6,SNR=21						
ZALV	**Zalesovo Beam**	**81.38**	**326**	P	**P**	**18 00 43.2**	**-1.0**
	0.5nm,0.4s,mb3.8,baz=106,slow=6.6,SNR=2.8						
ZALV	**Zalesovo Beam**	**81.38**	**326**	P	**P**	**18 00 43.2**	**-1.0**
TORD	**Torodi Ar. Bea**	**150.91**	**289**	PKPbc	PKPbc	18 08 19.6	-1.6
	0.6nm,0.5s,baz=70,slow=2.5,SNR=5.6						

DJA 11 18:16:45, 1°.46S×**121°.53E, h10**^{km}**, MLv3.7**/4**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCI	**Palu**	**1.78**	**288**	P	Pn	18 17 27.1	+11
PCI				S	Sn	18 17 32.4	-6.2
KDI	**Kendari**	**2.71**	**156**	P	Pn	18 17 29.5	+0.9
KAPI	**Kappang**	**3.95**	**207**	P	Pn	18 17 43.3	-2.4
MNI	**Manado**	**4.39**	**49**	P	Pn	18 17 49.4	-2.4

IDC 11 18:24:59.8±1.1**, 26°.59S**×**175°.72W, h0**^{km}**, mb3.6**/2**, mb1 3.9**/2**, mb1mx3.7**/14**, mbtmp3.6**/2**, MS3.7**/3**, Ms1 3.7**/3**, ms1mx3.1**/23**, Error ellipse: s-maj=56.6km s-min=38.7km az=172.0, South of Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**3.28**	**216**	Sn	Sn	18 26 37.0	+4.8
	115nm,0.3s,baz=76,slow=21,SNR=6.2						
URZ	**Urewera**	**13.11**	**206**	Sn	Sn	18 30 26.8	-6.9
	1.6nm,0.3s,baz=9.9,slow=16,SNR=6.4						
HNR	**Honiara**	**28.66**	**302**	LR	LR	18 40 17.5	
	comp=Z,115nm,18.3s,baz=156,slow=32						
STKA	**Stephens Creek**	**37.44**	**252**	LR	LR	18 45 26.3	
	comp=Z,94nm,19.6s,baz=24,slow=33						
ASAR	**Alice Springs**	**45.47**	**262**	P	P	18 33 20.7	-0.2
	1.5nm,1.1s,baz=96,slow=8.1,SNR=6.4						
WRA	**Warramunga Arr**	**46.12**	**267**	P	P	18 33 26.3	+0.2
	0.3nm,0.4s,baz=102,slow=8.3,SNR=6.5						
FITZ	**Fitzroy Crossi**	**54.50**	**266**	LR	LR	18 55 10.3	
	comp=Z,121nm,21.5s,baz=338,slow=33						
MKAR	**Makanchi Array**	**116.83**	**311**	PKP	PKPdf	18 43 45.1	-0.9
	0.5nm,0.6s,baz=221,slow=1.6,SNR=8.0						
NB2	**NORSAR Subarra**	**145.24**	**354**	P	PKPbc	18 44 37.7	-0.8
	comp=Z,3.2nm,0.7s,baz=0.3,slow=6.5						
NOA	**NORSAR Array B**	**145.24**	**354**	PKPbc	PKPbc	18 44 38.1	-0.4
	comp=Z,5.0nm,0.8s,baz=5.0,slow=2.3,SNR=12						
AKASG	**Malin Array Be**	**149.31**	**328**	PKPbc	PKPbc	18 44 49.8	-0.4
	comp=Z,1.3nm,0.5s,baz=37,slow=3.7,SNR=10						
BRTR	**Keskin Array B**	**152.29**	**306**	PKPbc	PKPbc	18 44 57.9	+0.3
	comp=Z,0.8nm,0.8s,baz=114,slow=3.8,SNR=3.4						
TORD	**Torodi Ar. Bea**	**166.41**	**169**	PKP	PKPdf	18 45 07.2	-0.7
	comp=Z,0.2nm,0.7s,baz=191,slow=3.7,SNR=2.5						
TORD				PKPab	PKPab	18 46 08.9	-0.2
	comp=Z,0.3nm,0.6s,baz=176,slow=2.4,SNR=2.4						

BJI ***11*** *18:29:29.3, 32°.42N×115°.08W, h3^{km}, mB5.7/14, mb5.2/14, Ms5.3/18, Ms7 4.9/18*

GCMT ***11*** *18:29:31.8±0.2, 32°.46N×115°.28W, h12^{km}, MW5.1/97, Moment Tensor Solution. s44,c56; s97,c168; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.76±.12; M$_{\theta\theta}$-4.56±.11; M$_{\phi\phi}$5.33±.11; M$_{r\theta}$0.49±.32; M$_{\theta\phi}$2.97±.10; M$_{\phi r}$-2.85±.33; Best double couple: M$_0$6.38700×10^{16} NP1:φ$_s$242.00000°, δ65.00000°, λ2.00000°. NP2: φ$_s$151.00000°, δ88.00000°, λ155.00000°. Principal axes: T 7.0440, Plg19.0000°, Azm104.0000°; N -1.3070, Plg65.0000°, Azm326.0000°; P -5.7300, Plg16.0000°, Azm199.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***11*** *18:29:31.8, 32°.44N×115°.32W, h3^{km}, mb5.0/45, MS5.0/6, MD5.4(ECX), MW5.1(PAS), After ECX.*

NEIC Felt [V] at Mexicali. Felt at Ensenada and San Luis Rio Colorado. Also felt [V] at Calexico and [IV] at El Centro, Holtville and Imperial; [III] at Brawley, Chula Vista, Coronado, Heber, La Jolla, La Mesa, San Diego and Winterhaven, California. Felt in much of southern California, as far northwest as San Fernando. Felt [IV] at Yuma and [III] at Somerton and Wellton, Arizona. Felt widely in southwestern Arizona, as far north as Parker and as far east as Tucson.

ECX ***11*** *18:29:31.9±0.6, 32°.47N×115°.36W, h7^{km}, MD5.4, ML5.3, MW5.0, Fault plane solution: NP1:φ$_s$146.60000°, δ75.50000°, λ-26.60000°.*

ISCJB ***11*** *18:29:33.0±0.2, 32°.40N±0°.01×115°.23W±0°.01, h10^{km}, mb4.8/54, MS4.8/43, Error ellipse: s-maj=2.2km s-min=1.5km az=16.9*

IDC ***11*** *18:29:34.5±0.7, 32°.48N×114°.99W, h0^{km}, mb4.2/14, mb1 4.3/19, mb1mx4.2/25, mbtmp4.1/19, ML3.8/4, MS4.7/34, Ms1 4.7/34, ms1mx4.6/39, Error ellipse: s-maj=16.9km s-min=9.1km az=48.0*

MOS ***11*** *18:29:36.8±1.4, 32°.42N×115°.07W, h25^{km}, mb5.1/23, MS5.0/8, Error ellipse: s-maj=7.3km s-min=5.2km az=76.2*

MEX ***11*** *18:29:42.7±2.8, 32°.14N×115°.00W, h16^{km}±79^{km}, MD5.1*

SZGRF ***11*** *18:29:44.8, 32°.38N×114°.89W, h33^{km}, mb5.0, MS5.3, Western Arizona-Sonora border region*

ISC 11 18:29:34.7±0.2**, 32°.33N**±0°.02×**115°.24W**±0°.02**, h10**^{km}**, n609, σ1^{s}.48**/612**, mb4.8**/54**, MS4.8**/43**, 187C-172D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DELX	**Delta**	**0.04**	**63**	*i* P	**Pg**	**18 29 37.6**	**+0.9**
DELX				*i* S	**Sg**	**18 29 42.4**	**+4.3**
CPBX	**Cerro Prieto**	**0.10**	**325**	⇓*i*P	**Pg**	**18 29 35.2**	**-2.1**
CPBX				*e*S	**Sg**	**18 29 37.4**	**-1.8**
CHIX	**Chihuahua**	**0.15**	**358**	⇓*i*P	**Pg**	**18 29 35.4**	**-2.7**
CHIX				*i* S	**Sg**	**18 29 38.7**	**-1.8**
EMX	**El Mayor**	**0.34**	**181**	⇓*e*P	**Pg**	**18 29 42.7**	**+1.1**
EMX				*e*S	**Sg**	**18 29 50.8**	**+4.6**
SGL	**Mount Signal**	**0.52**	**307**	⇑*i*P	**Pg**	**18 29 41.2**	**-3.7**
SGL	**Mount Signal**	**0.52**	**307**	⇑*e*P	**Pg**	**18 29 41.2**	**-3.7**
COA	**Coachella**	**0.54**	**10**	⇓*i*P	**Pg**	**18 29 42.1**	**-3.1**
COA	**Coachella**	**0.54**	**10**	⇓*e*P	**Pg**	**18 29 42.1**	**-3.1**
SNR	**Schaffner Ranc**	**0.55**	**342**	⇓*i*P	**Pg**	**18 29 42.2**	**-3.3**
112A	**Yuma**	**0.59**	**70**	⇓P	**Pg**	**18 29 44.7**	**-1.4**
	baz=0.6,SNR=174						
112A				⇑S	**Sg**	**18 29 53.3**	**-0.6**
	baz=0.6						
YMD	**Yuma Desert**	**0.62**	**69**	⇑*i*P	**Pg**	**18 29 45.1**	**-1.7**
COK	**Cook Ranch**	**0.66**	**321**	⇑*i*P	**Pg**	**18 29 43.6**	**-3.9**
YUH	**Yuha Desert**	**0.66**	**298**	⇑*i*P	**Pg**	**18 29 43.7**	**-3.8**
RDX	**Rancho Dawling**	**0.72**	**236**	⇓*e*P	**Pg**	**18 29 47.9**	**-0.8**
SWSC	**Sam W. Stewart**	**0.77**	**322**	⇓P	**Pg**	**18 29 44.9**	**-4.7**
	baz=0.8,SNR=1000						
SWSC				⇑S	**Sg**	**18 29 54.1**	**-5.5**
	baz=0.8						
GLA	**Glamis**	**0.79**	**26**	⇓P	**Pg**	**18 29 46.2**	**-3.8**
	baz=0.8,SNR=1000						
GLA				⇓S	**Sg**	**18 29 55.9**	**-4.5**
	baz=0.8						
GLA	**Glamis**	**0.79**	**26**	*e*P	**Pg**	**18 29 45.9**	**-4.2**
DVTC	**Desert V Tower**	**0.80**	**294**	P	**Pg**	**18 29 46.5**	**-3.6**
	baz=0.8,SNR=822						
DVTC				⇑S	**Sg**	**18 29 56.0**	**-4.6**
	baz=0.8						
CRR	**Carrizo Plain**	**0.83**	**312**	⇑*i*P	**Pg**	**18 29 46.3**	**-4.4**
ECBX	**El Chinero**	**0.87**	**170**	⇑*e*P	**Pg**	**18 29 51.0**	**-0.5**
ECBX				⇑*e*S	**Sg**	**18 30 05.9**	**+2.9**
MONP	**Monument Peak**	**1.14**	**299**	P	**Pb**	**18 29 51.6**	**-5.0**
	baz=1.1,SNR=1000						
MONP				⇑S	**Sb**	**18 30 05.7**	**-5.8**
	baz=1.1						
CBX	**Cerro Bola**	**1.21**	**269**	⇑*e*P	**Pb**	**18 29 54.3**	**-3.4**
CBX				*i* S	**Sb**	**18 30 10.8**	**-2.6**
BAR	**Barrett**	**1.26**	**286**	⇑*i*P	**Pn**	**18 29 53.9**	**-4.5**
SPX	**San Pedro Mart**	**1.30**	**189**	*e*P	**Pn**	**18 29 58.7**	**-0.3**
SPX				*i* S	**Sb**	**18 30 19.8**	**+3.8**
SPX				⇓*e*		18 30 24.1	
	comp=N,29μm,1.0s						
113A	**Mohawk Valley,**	**1.31**	**70**	P	**Pn**	**18 29 55.5**	**-3.6**
	baz=1.3,SNR=1000						
113A				⇓S	**Sb**	**18 30 13.3**	**-3.0**
	baz=1.3						
BC3	**Big Chuckw Mtn**	**1.33**	**352**	P	**Pn**	**18 29 53.6**	**-5.8**
	baz=1.3,SNR=525						
ECNX	**Esteban Cantu**	**1.34**	**240**	⇓*e*P	**Pn**	**18 29 57.9**	**-1.6**
ECNX				⇓*e*P		18 29 57.0	
ECNX				*e*PN	**Pn**	**18 29 57.1**	**-2.3**
PBX	**Punta Banda**	**1.40**	**245**	⇓*e*P	**Pn**	**18 29 58.4**	**-1.9**
PFO	**Pinyon Flat Ob**	**1.63**	**321**	*i* P	**Pn**	**18 29 57.7**	**-5.8**
PFO	**Pinyon Flat Ob**	**1.63**	**321**	⇑P	**Pn**	**18 29 57.7**	**-5.8**
	baz=1.6,SNR=791						
PFO				⇓S	**Sn**	**18 30 16.5**	**-8.1**
	baz=1.6						
PFO	**Pinyon Flat Ob**	**1.63**	**321**	*e*Pn	**Pn**	**18 29 57.5**	**-6.1**
109C	**Camp Elliot, M**	**1.67**	**290**	⇓P	**Pn**	**18 29 59.4**	**-4.7**
	baz=1.7,SNR=190						
109C				⇑Sb	**Sb**	**18 30 22.1**	**-4.6**
	baz=1.7						
BELC	**Belle Mtn.**	**1.78**	**339**	⇓P	**Pn**	**18 29 59.7**	**-5.8**
	baz=1.8						
IRM	**Iron Mountain**	**1.82**	**2**	⇑P	**Pn**	**18 30 00.6**	**-5.5**
	baz=1.8,SNR=432						
Y13A	**Salome**	**1.89**	**38**	⇑P	**Pn**	**18 30 02.8**	**-4.2**
	baz=1.9,SNR=53						
Y13A				⇑Sb	**Sb**	**18 30 29.8**	**-3.1**
	baz=1.9						
MURC	**Murrieta**	**2.08**	**308**	⇓P	**Pn**	**18 30 04.3**	**-5.4**
	baz=2.1,SNR=40						
MURC				⇓Sb	**Sb**	**18 30 33.6**	**-4.8**
	baz=2.1						
214A	**Organ Pipe Nat**	**2.09**	**100**	P	**Pn**	**18 30 06.7**	**-3.1**
	baz=2.1,SNR=583						
214A				⇑S	**Sn**	**18 30 34.3**	**-1.5**
	baz=2.1						
PDMCI	**Parker Dam,Lak**	**2.16**	**25**	⇑P	**Pn**	**18 30 06.1**	**-4.7**
	baz=2.2						
PDMCI				⇓S	**Sn**	**18 30 31.2**	**-6.5**
	baz=2.2						
Z14A	**Wintersburg**	**2.18**	**61**	⇓P	**Pn**	**18 30 07.5**	**-3.5**
	baz=2.2,SNR=71						
Z14A				⇓Sb	**Sb**	**18 30 40.2**	**-1.2**
	baz=2.2						
BBRC	**Big Bear Sol-O**	**2.38**	**324**	⇓P	**Pn**	**18 30 08.9**	**-5.0**
	baz=2.4						
Y14A	**Wickenburg**	**2.46**	**49**	⇓P	**Pn**	**18 30 11.1**	**-3.8**
	baz=2.5,SNR=21						
Y14A				⇓Sb	**Sb**	**18 30 47.7**	**-1.7**
	baz=2.5						
GMRC	**Granite Mounta**	**2.46**	**352**	⇑P	**Pn**	**18 30 09.6**	**-5.3**
	baz=2.5,SNR=41						
NEE2	**Needles Airpor**	**2.48**	**12**	⇓P	**Pn**	**18 30 10.3**	**-4.8**
	baz=2.5,SNR=13						
X13A	**Yucca**	**2.54**	**27**	⇓P	**Pn**	**18 30 11.9**	**-4.1**
	baz=2.6,SNR=191						
X13A				⇑Sb	**Sb**	**18 30 48.6**	**-3.1**
	baz=2.6						
115A	**Sonoran Desert**	**2.57**	**81**	⇑P	**Pn**	**18 30 13.1**	**-3.2**
	baz=2.6,SNR=163						
HEC	**Hector,Ludlow**	**2.65**	**340**	⇑P	**Pn**	**18 30 12.3**	**-5.2**
	baz=2.7,SNR=18						
LDFC	**Landfair**	**2.74**	**2**	*e*P	**Pn**	**18 30 18.3**	**-0.4**
Z15A	**Gila River Ind**	**2.76**	**69**	⇑P	**Pn**	**18 30 15.8**	**-3.2**
	baz=2.8,SNR=7.1						
Z15A				⇑Sb	**Sb**	**18 30 57.3**	**-0.7**
	baz=2.8						
BFSC	**Mount Baldy St**	**2.78**	**314**	⇓P	**Pn**	**18 30 14.3**	**-5.0**
	baz=2.8						
SCI	**San Clemente I**	**2.87**	**284**	⇑P	**Pn**	**18 30 15.9**	**-4.6**
	baz=2.8,SNR=23						
SCI				⇑Sb	**Sb**	**18 30 58.1**	**-3.0**
	baz=2.8						
CIS	**Catalina Islan**	**2.87**	**293**	⇑P	**Pn**	**18 30 15.7**	**-4.9**
	baz=2.9,SNR=50						
CIS				⇓Sb	**Sb**	**18 30 57.7**	**-3.5**
	baz=2.9						
X14A	**Yava**	**2.89**	**42**	⇓P	**Pn**	**18 30 17.2**	**-3.7**
	baz=2.9,SNR=52						
FMP	**Fort Macarthur**	**2.91**	**299**	⇑P	**Pn**	**18 30 16.6**	**-4.6**
	baz=2.9						
FMP				⇑Sb	**Sb**	**18 30 59.6**	**-2.9**
	baz=2.9						
Y15A	**Casa Rosa Ranc**	**2.92**	**56**	⇑P	**Pn**	**18 30 17.2**	**-4.0**
	baz=2.9,SNR=68						
RRX	**Edison Barstow**	**2.94**	**330**	⇓P	**Pn**	**18 30 16.5**	**-4.9**
	baz=2.9						
W12A	**Cal Nev Ari**	**2.97**	**6**	⇓P	**Pn**	**18 30 16.9**	**-5.0**
	baz=3.0						
W13A	**Hualapai Mount**	**2.98**	**22**	⇑P	**Pn**	**18 30 17.5**	**-4.5**
	baz=3.0,SNR=64						
116A	**Eloy**	**2.99**	**85**	⇑P	**Pn**	**18 30 19.1**	**-3.1**
	baz=3.0,SNR=55						
MWC	**Mount Wilson**	**3.02**	**309**	*e*P	**Pn**	**18 30 18.5**	**-4.1**
PASC	**Pasadena Art C**	**3.08**	**307**	*e*Pn	**Pn**	**18 30 23.8**	**+0.4**
DECC	**Green Verdugo**	**3.22**	**307**	⇑P	**Pn**	**18 30 19.7**	**-5.6**
	baz=3.2						
216A	**Three Points,**	**3.22**	**95**	⇓P	**Pn**	**18 30 22.5**	**-2.9**
	baz=3.2,SNR=62						
GSC	**Goldstone**	**3.24**	**337**	⇑P	**Pn**	**18 30 20.3**	**-5.2**
	baz=3.2						

GSC	Goldstone	3.24	337	*e*Pn	Pn	18 30 21.2	-4.4
X15A	Humboldt	3.30	49	⇓P	Pn	18 30 23.4	-3.0
	baz=3.3						
Z16A	Peralta Trail,	3.36	72	⇓P	Pn	18 30 23.9	-3.3
	baz=3.4,SNR=9.4						
W14A	Seligman	3.38	31	⇑P	Pn	18 30 23.8	-3.8
	baz=3.4						
V12A	Nelson	3.40	5	⇑P	Pn	18 30 23.0	-4.8
	baz=3.4						
EDW2	Edwards Air Fo	3.42	319	⇓P	Pn	18 30 23.8	-4.3
	baz=3.4						
V11A	Goodsprings	3.50	357	⇑P	Pn	18 30 24.5	-4.7
	baz=3.5						
Y16A	Circle Bar Ran	3.51	63	⇓P	Pn	18 30 25.9	-3.4
	baz=3.5,SNR=22						
V13A	Grand Canyon W	3.66	16	⇑P	Pn	18 30 27.0	-4.3
	baz=3.7						
SHOC	Shoshone	3.66	347	⇓P	Pn	18 30 26.3	-5.1
	baz=3.7						
BLG	Laguna Peak	3.67	300	⇑P	Pn	18 30 26.7	-4.7
	baz=3.6						
OSI	Osito Adit	3.70	309	⇓P	Pn	18 30 28.2	-3.7
	baz=3.7						
OSI	Osito Adit	3.70	309	*e*Pn	Pn	18 30 28.8	-3.1
SNCC	San Nicolas Is	3.73	285	⇑P	Pn	18 30 28.8	-3.5
	baz=3.7						
SNCC	San Nicolas Is	3.73	285	*e*P	Pn	18 30 28.7	-3.6
V14A	Boquillas Ranc	3.74	28	⇑P	Pn	18 30 28.5	-3.9
	baz=3.8						
W15A	Williams	3.76	40	⇓P	Pn	18 30 29.8	-3.0
	baz=3.8						
TUC	Tucson	3.77	89	*e*P	Pn	18 30 29.9	-3.0
217A	Green Valley	3.79	97	⇑P	Pn	18 30 30.8	-2.4
	baz=3.8,SNR=46						
X16A	Lo Mia Camp, P	3.79	56	⇑P	Pn	18 30 30.2	-3.0
	baz=3.8						
117A	Oracle	3.81	85	⇓P	Pn	18 30 30.4	-3.0
	baz=3.8,SNR=86						
Y17A	Roosevelt	3.93	69	⇓P	Pn	18 30 31.8	-3.3
	baz=3.9,SNR=98						
BSC	Santa Cruz Isl	4.04	295	⇑P	Pn	18 30 32.6	-4.0
	baz=4.0						
ARVC	Arvin	4.09	314	⇑P	Pn	18 30 32.5	-4.7
	baz=4.1						
Z17A	San Carlos Hig	4.12	75	⇓P	Pn	18 30 35.5	-2.2
	baz=4.1						
U12A	Valley of Fire	4.13	8	⇓P	Pn	18 30 33.5	-4.3
	baz=4.1						
W16A	Flagstaff	4.14	47	⇓P	Pn	18 30 35.3	-2.7
	baz=4.2						
MPMC	Manual Prospec	4.16	334	⇑P	Pn	18 30 33.8	-4.4
	baz=4.2						
SHPR	Sheep Range	4.16	1	*e*Pn	Pn	18 30 34.6	-3.7
U10A	Ash Meadows, A	4.17	348	⇑P	Pn	18 30 34.4	-4.0
	baz=4.2						
U13A	Pakoon Wash	4.20	14	⇑P	Pn	18 30 35.3	-3.5
	baz=4.2						
X17A	Forest Lakes	4.21	60	⇓P	Pn	18 30 36.6	-2.3
	baz=4.2						
ISA	Isabella	4.27	322	⇓P	Pn	18 30 35.4	-4.4
	baz=4.3						
ISA	Isabella	4.27	322	*e*Pn	Pn	18 30 34.8	-5.0
V15A	Kaibab Nationa	4.30	35	⇑P	Pn	18 30 37.5	-2.7
	baz=4.3						
DAC	Darwin (Calif)	4.39	334	*e*Sg	Sg	18 31 53.0	-2.7
T12A	Moapa	4.40	5	⇑P	Pn	18 30 38.0	-3.6
	baz=4.4						
U14A	Mt Trumbull	4.41	22	⇑P	Pn	18 30 38.7	-3.0
	baz=4.4						
218A	Dragoon	4.42	93	⇑P	Pn	18 30 39.1	-2.6
	baz=4.4,SNR=28						
Z18A	Geronimo	4.45	79	⇓P	Pn	18 30 40.6	-1.6
	baz=4.5						
118A	Homack Ranch,	4.46	85	⇓P	Pn	18 30 39.9	-2.4
	baz=4.5,SNR=89						
WUAZ	Wupatki	4.51	44	⇑P	Pn	18 30 40.7	-2.4
	baz=4.5						
WUAZ	Wupatki	4.51	44	*e*Pn	Pn	18 30 41.0	-2.1
318A	Bisbee	4.55	100	⇑P	Pn	18 30 41.2	-2.4
	baz=4.6,SNR=114						
W17A	Winslow	4.66	53	⇓P	Pn	18 30 43.0	-2.1
	baz=4.7						
VES	Vestal, Richgr	4.74	319	⇑P	Pn	18 30 42.5	-3.7
	baz=4.7						
T13A	Saint George	4.80	13	⇓P	Pn	18 30 44.0	-3.1
	baz=4.8						
T11A	Corn Creek, Al	4.89	0	⇓P	Pn	18 30 45.2	-3.1
	baz=4.9						
X18A	Snowflake	4.93	62	⇓P	Pn	18 30 46.6	-2.2
	baz=4.9						
HSIG		4.95	131	*i* P	Pn	18 30 50.8	+1.7
HSIG				*i* S	Sn	18 31 42.4	-4.1
GRAC	Grapevine Rang	4.98	340	⇑P	Pn	18 30 46.2	-3.2
	baz=5.0						
119A	Ashpeak Ranch,	5.03	84	⇑P	Pn	18 30 47.6	-2.6
	baz=5.0,SNR=22						
T14A	Hurricane	5.04	20	⇑P	Pn	18 30 47.3	-3.0
	baz=5.1						
U16A	Tuba City	5.10	41	⇑P	Pn	18 30 50.0	-1.2
	baz=5.1						
Z19A	T-Link Ranch,	5.12	78	⇑P	Pn	18 30 49.8	-1.6
	baz=5.1						
319A	Douglas	5.16	99	⇑P	Pn	18 30 49.9	-2.1
	baz=5.2,SNR=89						
T15A	Red Dirt Ranch	5.23	26	⇓P	Pn	18 30 50.7	-2.3
	baz=5.3						
S12A	Delamar Landin	5.27	3	⇓P	Pn	18 30 50.4	-3.1
	baz=5.3						
Y19A	Nutrioso	5.27	71	⇓P	Pn	18 30 52.3	-1.2
	baz=5.3						
S13A	Holt Ranch, En	5.35	12	⇓P	Pn	18 30 51.6	-3.0
	baz=5.4						
W18A	Petrified Fore	5.36	57	⇑P	Pn	18 30 53.7	-1.0
	baz=5.4						
V18A	Ganado	5.54	51	⇓P	Pn	18 30 56.5	-0.7
	baz=5.6						
T16A	Glen Canyon Da	5.56	32	⇑P	Pn	18 30 55.9	-1.6
	baz=5.6						
120A	U Bar Ranch, L	5.59	86	⇓P	Pn	18 30 55.7	-2.1
	baz=5.6,SNR=48						
W19A	Sanders	5.60	59	⇑P	Pn	18 30 57.1	-1.0
	baz=5.6						
S09A	Goldfield	5.62	344	⇓P	Pn	18 30 55.8	-2.5
	baz=5.6						
S14A	Cedar City	5.67	17	⇓P	Pn	18 30 56.7	-2.3
	baz=5.7						
S10A	Tonopah Range,	5.69	349	⇑P	Pn	18 30 56.9	-2.4
	baz=5.7						
U17A	Shonto	5.69	40	⇓P	Pn	18 30 58.0	-1.3
	baz=5.7						
MTUM	Tungsten Hills	5.71	332	*e*Pn	Pn	18 31 03.0	+3.5
S15A	Panguitch	5.83	23	⇑P	Pn	18 30 59.2	-2.0
	baz=5.8						
T17A	Navajo Res., N	5.91	37	⇑P	Pn	18 31 01.0	-1.3
	baz=5.9						
R13A	O’Grain Ranch,	5.92	10	⇑P	Pn	18 31 00.0	-2.4
	baz=5.9						
TPH	Tonopah	5.95	345	*e*P	Pn	18 31 05.2	+2.3
R12A	Pony Springs,	6.00	5	⇑P	Pn	18 31 00.7	-2.8
	baz=6.0						
R10A	Warm Springs	6.00	352	⇑P	Pn	18 31 00.8	-2.8
	baz=6.0						
R11A	Troy Canyon, C	6.01	357	⇑P	Pn	18 31 00.5	-3.1
	baz=6.0						
U18A	Rough Rock, Ch	6.02	46	⇑P	Pn	18 31 03.4	-0.4
	baz=6.0						
R09A	Tonopah	6.08	346	⇓P	Pn	18 31 03.2	-1.4
	baz=6.1						
V19A	Window Rock	6.15	55	⇑P	Pn	18 31 04.7	-0.8
	baz=6.2						
S16A	Weppner Ranch,	6.15	28	⇓P	Pn	18 31 04.2	-1.3
	baz=6.2						
R14A	James Farms, M	6.22	16	⇓P	Pn	18 31 03.9	-2.6
	baz=6.2						
W20A	Ramah	6.26	62	⇓P	Pn	18 31 06.1	-1.0
	baz=6.3						
S17A	Black Ridge (B	6.42	33	⇓P	Pn	18 31 08.6	-0.7
	baz=6.4						
Q11A	Duckwater	6.51	357	⇑P	Pn	18 31 07.9	-2.5
	baz=6.5						
CGIG		6.51	106	*i* P	Pn	18 31 10.3	-0.3
CGIG				*i* S	Sn	18 32 22.9	-2.0
T18A	Mexican Hat	6.51	41	⇓P	Pn	18 31 10.2	-0.4
	baz=6.5						
Q10A	Clear Creek Ra	6.54	352	⇑P	Pn	18 31 09.2	-1.9
	baz=6.6						
NVAR	Mina Array Bea	6.58	338	Pn	Pn	18 31 11.5	0.0
	comp=N,0.3nm,0.3s,baz=167,slow=15,SNR=8.1						
NVAR				Lg		18 33 01.9	
	baz=148,slow=24,SNR=1.8						
MSU	Marysvale	6.65	21	*e*P	Pn	18 31 06.6	-5.8
Q13A	Wheeler Ranch,	6.68	8	⇑P	Pn	18 31 10.9	-1.9
	baz=6.7						
R16A	Teasdale	6.68	26	⇓P	Pn	18 31 11.7	-1.1
	baz=6.7						
Q12A	Willow Creek R	6.70	3	⇓P	Pn	18 31 11.4	-1.7
	baz=6.7						
SAO	San Andreas Ge	6.77	312	*e*P	Px	18 31 25.5	
T19A	Beclabito	6.81	47	⇑P	Pn	18 31 14.3	-0.3
	baz=6.8						
Q14A	Sevier Lake (B	6.83	13	⇑P	Pn	18 31 13.0	-1.8
	baz=6.9						
S18A	Hurst Farm, Bl	6.86	37	⇑P	Pn	18 31 14.8	-0.5
	baz=6.9						
W21A	San Fidel	6.90	64	⇓P	Pn	18 31 15.9	-0.1
	baz=6.9						
122A	Conniff Cattle	6.96	85	⇓P	Pn	18 31 15.8	-1.0
	baz=7.0						
WAKR	Walker	7.05	332	*e*Pn	Pn	18 31 24.4	+6.5
CMB	Columbia Colle	7.08	325	*e*P	Pn	18 31 20.0	+1.7
P12A	McGill	7.13	2	⇑P	Pn	18 31 16.7	-2.3
	baz=7.2						
LENM	Lemitar	7.16	73	*e*Pn	Pn	18 31 18.3	-1.1
P13A	Bates Ranch, G	7.17	8	⇓P	Pn	18 31 17.5	-2.1
	baz=7.2						
Y22D	IRIS PASSCAL I	7.18	74	⇑P	Pn	18 31 19.7	0.0
	baz=7.2						
X22A	Bernardo	7.21	70	⇓P	Pn	18 31 20.0	-0.1
	baz=7.2						
P11A	Circle Ranch,	7.22	357	⇑P	Pn	18 31 18.7	-1.6
	baz=7.2						
P10A	Eureka	7.34	353	⇓P	Pn	18 31 19.9	-2.0
	baz=7.4						
Q16A	Castle Valley	7.35	26	⇓P	Pn	18 31 21.9	-0.3
	baz=7.4						
S19A	Harvey Farm, M	7.36	41	⇓P	Pn	18 31 22.0	-0.2
	baz=7.4						
MVCO	Mesa Verde	7.37	47	⇓P	Pn	18 31 22.4	0.0
	baz=7.4						
MVCO	Mesa Verde	7.37	47	*e*Pn	Pn	18 31 22.7	+0.3
R18A	Canyonlands Na	7.45	34	⇑P	Pn	18 31 22.6	-0.8
	baz=7.5						
P14A	Drum Mountains	7.45	13	⇓P	Pn	18 31 21.8	-1.6
	baz=7.5						
LPM	Los Pinos Moun	7.46	72	*e*Pn	Pn	18 31 23.1	-0.5
W22A	Albuquerque	7.49	66	⇓P	Pn	18 31 24.3	+0.4
	baz=7.5						
TMUT	Trail Mountain	7.68	24	*e*Pn	Pn	18 31 30.5	+3.9
R19A	Curley Farm, L	7.69	38	⇓P	Pn	18 31 26.8	0.0
	baz=7.7						
P08A	Dixie Valley	7.70	343	⇓P	Pn	18 31 25.3	-1.5
	baz=7.7						
ANMO	Albuquerque	7.77	68	Pn	Pn	18 31 27.7	-0.1
	comp=N,0.3nm,0.3s,baz=258,slow=11,SNR=17						
ANMO				Lg		18 33 34.6	
	comp=N,1.1nm,0.3s,baz=22,slow=2.3,SNR=3.3						
ANMO				LR	LR	18 34 44.9	
	comp=N,5µm,20.1s,baz=63,slow=41						
ANMO	Albuquerque	7.77	68	*e*Pn	Pn	18 31 27.6	-0.2
SRU	San Rafael	7.77	28	⇓P	Pn	18 31 26.5	-1.3
	baz=7.8						
SRU	San Rafael	7.77	28	*e*Pn	Pn	18 31 27.4	-0.5
O11A	Cowboy Ranch,	7.79	358	⇓P	Pn	18 31 26.2	-1.9
	baz=7.8						
P16A	Fountain Green	7.81	21	⇑P	Pn	18 31 27.8	-0.6
	baz=7.8						
Q18A	Rafter H Ranch	7.92	30	⇑P	Pn	18 31 28.7	-1.2
	baz=7.9						
O12A	Currie	7.93	3	⇑P	Pn	18 31 28.0	-2.0
	baz=8.0						
PV04	Paradox Valley	7.95	39	*e*Pn	Pn	18 31 31.2	+0.8
P17A	Butcher Ranch,	8.00	26	⇓P	Pn	18 31 30.2	-0.8
	baz=8.0						
NLU	North Lily Min	8.02	18	*e*Pn	Pn	18 31 35.1	+3.8
DUG	Dugway	8.08	13	*e*P	Pn	18 31 32.5	+0.4
DUG				pmax	pmax		
	comp=Z,378nm,1.3s						
DUG	Dugway	8.08	13	⇑P	Pn	18 31 31.3	-0.8
	baz=8.1						
DUG	Dugway	8.08	13	*e*P	Pn	18 31 32.5	+0.3
	comp=Z,378nm,1.3s						
R20A	Redvale	8.09	42	⇓P	Pn	18 31 32.3	0.0
	baz=8.1						
Q19A	Hogan Spring (	8.20	35	⇓P	Pn	18 31 32.9	-0.8
	baz=8.2						
O15A	The Old Anders	8.24	15	⇑P	Pn	18 31 32.7	-1.6
	baz=8.3						
BMN	Battle Mountai	8.24	349	*e*P	Pn	18 31 38.9	+4.7
T22A	Edith	8.30	53	⇑P	Pn	18 31 34.3	-0.8
	baz=8.3						
P18A	Preston Nutter	8.32	28	⇑P	Pn	18 31 34.6	-0.8
	baz=8.3						
O07A	Toulon	8.35	340	⇓P	Pn	18 31 33.9	-1.8
	baz=8.4						
ELK	Elko	8.39	360	*e*P	Pn	18 31 34.2	-2.2
ELK				pmax	pmax		
	comp=Z,519nm,1.4s						
ELK	Elko	8.39	360	*e*P	Pn	18 31 34.2	-2.2
	comp=Z,519nm,1.4s						
N12A	Clover Valley,	8.50	1	⇓P	Pn	18 31 35.9	-1.9
	baz=8.5						
N13A	Wendover, West	8.54	5	⇓P	Pn	18 31 37.1	-1.3
	baz=8.6						
BEKR	Beckwourth	8.58	333	⇓P	Pn	18 31 38.0	-0.9
	baz=8.6						
O17A	Robinson Place	8.64	24	⇑P	Pn	18 31 40.1	+0.3
	baz=8.7						
N14A	Grayback Hills	8.66	10	⇓P	Pn	18 31 39.5	-0.5
	baz=8.7						
NOQ	North Oquirrh	8.67	16	*e*Pn	Pn	18 31 44.5	+4.4
DAU	Daniels Canyon	8.68	21	*e*P	Pn	18 31 42.5	+2.3
Q20A	Ridgley Place,	8.69	39	⇑P	Pn	18 31 39.7	-0.7
	baz=8.7						
JLU	Jordanelle	8.79	19	*e*Pn	Pn	18 31 44.1	+2.3
CTU	Camp Tracy	8.80	18	*e*Pn	Pn	18 31 50.1	+8.1
P19A	Cripple Cowboy	8.87	33	⇓P	Pn	18 31 42.6	-0.3
	baz=8.9						
Q21A	Lamborn Mesa,	9.00	42	⇓P	Pn	18 31 44.7	0.0
	baz=9.0						
P20A	De Beque	9.05	36	⇑P	Pn	18 31 45.2	-0.2
	baz=9.1						
M13A	Montello	9.05	5	⇑P	Pn	18 31 45.1	-0.3
	baz=9.1						
N16A	Rees Ranch, Co	9.06	19	⇑P	Pn	18 31 45.8	+0.2
	baz=9.1						
R22A	Saguache, Gunn	9.09	47	⇓P	Pn	18 31 46.1	+0.2
	baz=9.1						
M11A	Holland Ranch,	9.09	357	⇑P	Pn	18 31 45.5	-0.4
	baz=9.1						
N06A	Buffalo Meadow	9.17	338	⇓P	Pn	18 31 47.1	0.0
	baz=9.2						
GDL2	Guadalupe Moun	9.21	88	*e*Pn	Pn	18 31 48.1	+0.5
M10A	I.L. Ranch, Tu	9.23	354	⇓P	Pn	18 31 46.7	-1.1
	baz=9.3						
SPUT	South Promonto	9.23	13	*e*Pn	Pn	18 31 49.8	+1.9
M14A	Sheep Mountain	9.28	9	⇑P	Pn	18 31 47.6	-0.8
	baz=9.3						
N17A	Moffit Pass	9.29	21	⇓P	Pn	18 31 48.3	-0.3
	baz=9.3						
M15A	Larsen Ranch,	9.38	13	⇓P	Pn	18 31 49.8	-0.1
	baz=9.4						
Q22A	Crested Butte,	9.40	44	⇑P	Pn	18 31 50.8	+0.7
	baz=9.4						
M08A	Happy Creek Ra	9.44	345	⇓P	Pn	18 31 50.1	-0.6
	baz=9.5						
P21A	Newcastle	9.55	39	⇓P	Pn	18 31 52.3	0.0
	baz=9.6						
M07A	Soldier Meadow	9.57	342	⇓P	Pn	18 31 52.1	-0.4
	baz=9.6						
O20A	White River Ci	9.61	34	⇑P	Pn	18 31 53.0	-0.1
	baz=9.6						
HVU	Hansel Valley	9.63	11	*e*P	Pn	18 31 55.4	+2.1
SDCO	Great Sand Dun	9.63	53	*e*Pn	Pn	18 31 55.4	+2.0
L10A	Juniper Basin	9.78	355	⇑P	Pn	18 31 54.2	-1.1
	baz=9.8						
L13A	Double Diamond	9.79	6	⇑P	Pn	18 31 55.6	+0.1
	baz=9.8						
L12A	House Creek Ra	9.79	1	⇑P	Pn	18 31 54.4	-1.2
	baz=9.8						
L14A	Malta	9.81	9	⇑P	Pn	18 31 55.7	-0.2
	baz=9.8						
L11A	Cat Creek Ranc	9.82	358	⇑P	Pn	18 31 56.1	+0.1
	baz=9.8						
N19A	John Jarvie Ra	9.83	28	⇑P	Pn	18 31 56.7	+0.6
	baz=9.9						
HPIG		9.91	120	*e*P	Pn	18 32 00.8	+3.6
HPIG				*i* S	Sn	18 33 46.3	-2.2
L15A	Malad City	9.91	12	⇑P	Pn	18 31 57.4	+0.2
	baz=9.9						
L16A	Fish Haven	10.13	16	⇑P	Pn	18 32 00.6	+0.5
	baz=10						
L08A	Fields	10.14	347	⇑P	Pn	18 32 00.7	+0.4
	baz=10						
N20A	Spence Gulch,	10.16	31	⇑P	Pn	18 32 00.4	-0.3
	baz=10						
L07A	Adell	10.20	342	⇓P	Pn	18 32 01.7	+0.5
	baz=10						
K12A	Draper Farm, C	10.29	1	⇓P	Pn	18 32 02.6	+0.3
	baz=10						
K14A	Jones Ranch, D	10.32	9	⇑P	Pn	18 32 03.0	+0.1
	baz=10						
K13A	Stover Farm, H	10.34	5	⇓P	Pn	18 32 03.3	+0.3
	baz=10						
L17A	Cokeville	10.35	18	⇓P	Pn	18 32 03.9	+0.8
	baz=10						
MOD	Modoc	10.37	339	*e*Pn	Pn	18 32 09.3	+5.9
TXAR	Lajitas Array	10.38	104	Pn	Pn	18 32 03.7	0.0
	comp=Z,1.3nm,0.3s,baz=290,slow=13,SNR=70						
TXAR				Lg		18 35 03.6	
	comp=Z,0.6nm,0.3s,baz=272,slow=30,SNR=4.0						
TXAR				LR	LR	18 36 29.7	
	comp=Z,8µm,20.4s,baz=20,slow=41						
L18A	Fontenelle, Gr	10.43	22	⇑P	Pn	18 32 05.1	+0.8
	baz=10						
K11A	Parker Ranch,	10.44	357	⇓P	Pn	18 32 05.4	+1.0
	baz=10						
N21A	Black Mountain	10.45	34	⇑P	Pn	18 32 05.0	+0.5
	baz=10						
K10A	MacKenzie Ranc	10.51	353	⇑P	Pn	18 32 05.7	+0.4
	baz=10						
K09A	Rome	10.53	350	⇑P	Pn	18 32 06.2	+0.5
	baz=11						
K15A	Arbon	10.55	11	⇑P	Pn	18 32 06.4	+0.5
	baz=11						
K08A	Mann Creek Ran	10.69	347	⇓P	Pn	18 32 08.9	+1.1
	baz=11						
M20A	Sweetwater, Wa	10.73	30	⇓P	Pn	18 32 09.9	+1.5
	baz=11						
ISCO	Idaho Springs	10.77	44	*e*P	Pn	18 32 10.4	+1.5
ISCO				pmax	pmax		
	comp=Z,38nm,1.0s						
ISCO	Idaho Springs	10.77	44	*e*P	Pn	18 32 10.4	+1.5
	comp=Z,38nm,1.0s						
K07A	Rock Creek Ran	10.82	344	⇓P	Pn	18 32 10.5	+1.0
	baz=11						
K16A	Soda Springs	10.87	14	⇑P	Pn	18 32 11.5	+1.2
	baz=11						
J12A	Stokes Ranch,	10.90	1	⇑P	Pn	18 32 12.0	+1.3
	baz=11						
AHID	Auburn Hatcher	10.91	16	*e*P	Pn	18 32 12.5	+1.6
	comp=Z,143nm,1.1s						
K17A	Gardner Place,	10.95	17	⇑P	Pn	18 32 12.4	+1.1
	baz=11						
N22A	Wattenberg Ran	11.01	37	⇑P	Pn	18 32 14.5	+2.3
	baz=11						
J14A	Carey	11.05	7	⇑P	Pn	18 32 14.4	+1.5
	baz=11						
MFID	Camas Ranch	11.07	358	⇑P	Pn	18 32 14.3	+1.3
	baz=11						
J13A	Cove Ranch, Pi	11.08	4	⇓P	Pn	18 32 14.8	+1.7
	baz=11						
K18A	Toltan Ranch,	11.08	20	⇑P	Pn	18 32 13.5	+0.3
	baz=11						
YBH	Yreka Blue Hor	11.12	330	Pn	Pn	18 32 18.3	+4.7
	comp=Z,0.1nm,0.3s,baz=160,slow=9.0,SNR=8.0						
YBH				Lg		18 35 24.2	
	comp=Z,0.1nm,0.3s,baz=142,slow=6.8,SNR=3.4						
YBH				LR	LR	18 36 47.1	
	comp=Z,2µm,21.2s,baz=329,slow=39						
YBH	Yreka Blue Hor	11.12	330	Pn	Pn	18 32 18.3	+4.6
YBH				Lg		18 35 24.2	
YBH				LR	LR	18 36 47.1	
J09A	Fry Pan Ranch,	11.17	350	⇑P	Pn	18 32 15.1	+0.7
	baz=11						
HLID	Hailey	11.23	3	⇓P	Pn	18 32 16.5	+1.3
	baz=11						
HLID	Hailey	11.23	3	*e*Pn	Pn	18 32 18.0	+2.8
J15A	Blackfoot	11.27	11	⇓P	Pn	18 32 16.9	+1.2
	baz=11						
J16A	Bone	11.29	14	⇓P	Pn	18 32 17.2	+1.2
	baz=11						
J08A	Circle Bar Ran	11.30	348	⇓P	Pn	18 32 18.0	+1.9
	baz=11						
K05A	Summer Lake	11.30	338	⇓P	Pn	18 32 18.0	+1.8
	baz=11						
RWWY	Rawlins	11.32	32	P	Pn	18 32 21.2	+4.8
	comp=Z,450nm,1.5s						
BW06	Boulder Array	11.34	22	⇑P	Pn	18 32 17.8	+1.0
	baz=11						
BW06	Boulder Array	11.34	22	*e*Pn	Pn	18 32 19.0	+2.2
PDAR	Pinedale Array	11.34	22	Pn	Pn	18 32 17.9	+1.2
	baz=196,slow=10,SNR=7.4						
PDAR				Lg		18 35 25.8	
	comp=Z,0.2nm,0.3s,baz=198,slow=24,SNR=2.3						
PDAR				LR	LR	18 36 51.1	
	comp=Z,8µm,18.8s,baz=215,slow=39						
M22A	Cedar Creek Ra	11.38	35	⇓P	Pn	18 32 19.5	+2.1
	baz=11						
I12A	Atlanta	11.44	0	⇓P	Pn	18 32 19.9	+1.8
	baz=12						
L21A	Rawlins	11.47	31	⇑P	Pn	18 32 19.9	+1.4
	baz=12						
J07A	Hines	11.48	345	⇑P	Pn	18 32 20.1	+1.4
	baz=12						
REDW	Red Top Meadow	11.54	16	*e*Pn	Pn	18 32 21.4	+2.0
J06A	Christmas Vall	11.57	342	⇓P	Pn	18 32 21.6	+1.8
	baz=12						
J17A	Brown Place, J	11.57	17	⇑P	Pn	18 32 21.0	+1.1
	baz=12						
AMTX	Amarillo	11.58	74	*e*Pn	Pn	18 32 21.7	+1.6
I13A	Wildhorse Cree	11.60	4	⇑P	Pn	18 32 22.5	+2.3
	baz=12						
J18A	Kendall Valley	11.61	19	⇑P	Pn	18 32 21.1	+0.7
	baz=12						
TPAW	Teton Pass	11.64	16	*e*Pn	Pn	18 32 23.1	+2.3
SNOW	Snow King Moun	11.66	16	*e*Pn	Pn	18 32 25.6	+4.6
I14A	Mackay	11.66	6	⇓P	Pn	18 32 22.9	+1.8
	baz=12						
DCID1	Drake Creek	11.68	15	*e*P	Pn	18 32 23.5	+2.0
	comp=Z,134nm,1.4s						
I09A	Lost Marbles R	11.79	351	⇓P	Pn	18 32 25.1	+2.2
	baz=12						
I15A	Monteview	11.85	10	⇑P	Pn	18 32 25.1	+1.4
	baz=12						
I08A	Drewsey	11.85	348	⇑P	Pn	18 32 25.2	+1.5
	baz=12						
I16A	Newdale	11.89	13	⇓P	Pn	18 32 25.6	+1.3
	baz=12						
MOOW	Moose Ponds	11.93	16	*e*P	Pn	18 32 24.6	-0.2
	comp=Z,26nm,0.9s						
HUMO	Hull Mountain	11.94	331	*e*Pn	Pn	18 32 28.4	+3.5
I17A	Pilgrim Ck.	12.13	16	⇑P	Pn	18 32 28.4	+0.9
	baz=12						
I07A	Izee	12.20	345	⇓P	Pn	18 32 29.5	+1.1
	baz=12						
H12A	Diamond D Ranc	12.20	1	⇓P	Pn	18 32 30.3	+1.8
	baz=12						
I06A	Prineville	12.23	343	⇓P	Pn	18 32 29.9	+1.0
	baz=12						
H13A	Challis	12.23	3	⇓P	Pn	18 32 30.8	+1.9
	baz=12						
H10A	Noah’s Angus R	12.29	355	⇓P	Pn	18 32 31.1	+1.4
	baz=12						
H11A	Donnelly	12.37	357	⇓P	Pn	18 32 32.5	+1.8
	baz=12						
H15A	Lima	12.43	9	⇓P	Pn	18 32 33.4	+1.8
	baz=12						
H09A	Durkee	12.46	352	⇑P	Pn	18 32 33.3	+1.3
	baz=12						
H08A	Prairie City	12.46	349	⇑P	Pn	18 32 33.6	+1.5
	baz=12						
YFT	Old Faithful	12.58	15	*e*Pn	Pn	18 32 40.0	+6.4
H17A	Grant Village	12.58	16	⇑P	Pn	18 32 35.5	+1.8
	baz=13						
H16A	Russell Place,	12.74	13	⇑P	Pn	18 32 37.0	+1.2
	baz=13						
G13A	Cobalt	12.76	3	⇑P	Pn	18 32 38.3	+2.1
	baz=13						
QLMT	Earthquake Lak	12.82	12	*e*Pn	Pn	18 32 39.3	+2.3
YNR	Norris Junctio	12.86	15	*e*Pn	Pn	18 32 40.9	+3.3
IRO	Indian Ridge	12.89	337	P	Pn	18 32 41.0	+3.2
G14A	Jackson	12.96	6	⇓P	Pn	18 32 41.0	+2.1

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      baz=13
G15A  Dillon            12.99   9 ⇑P    Pn    18 32 40.9 +1.7
      baz=13
H06A  Lindquist Farm    13.00 344 ⇓P    Pn    18 32 41.2 +1.7
      baz=13
G10A  Bishop Farm, J    13.02 354 ⇓P    Pn    18 32 42.0 +2.3
      baz=13
G09A  Cove              13.07 352 ⇑P    Pn    18 32 41.7 +1.3
      baz=13
G16A  Moss Hill, Enn    13.15  11 ⇓P    Pn    18 32 43.6 +2.2
      baz=13
DLMT  Dillon            13.17   8 ePn   Pn    18 32 44.8 +3.0
G08A  Pilot Rock        13.26 348 ⇓P    Pn    18 32 45.1 +2.2
      baz=13
JCT   Junction City     13.31  94 eP    Pn    18 32 46.0 +2.2
JCT                                pmax  pmax
      comp=Z,33nm,1.0s
JCT   Junction City     13.31  94 eP    Pn    18 32 46.0 +2.2
      comp=Z,33nm,1.0s
G07A  Ruggs Ranch, H    13.36 346 ⇓P    Pn    18 32 46.4 +2.0
      baz=13
CROR  Criterion Ridg    13.40 342  P    Pn    18 32 50.6 +5.7
G17A  Pierce Place,     13.43  14 ⇑P    Pn    18 32 47.4 +2.1
      baz=14
F13A  Darby             13.45   3 ⇑P    Pn    18 32 47.3 +1.7
      baz=14
H04A  Detroit Lake      13.47 338 ⇑P    Pn    18 32 47.6 +1.8
      baz=14
F14A  Wisdom            13.54   6 ⇓P    Pn    18 32 48.1 +1.4
      baz=14
G06A  Carlson Farm,     13.55 344 ⇑P    Pn    18 32 47.6 +0.8
      baz=14
BOZ   Bozeman (W)       13.58  11 ⇑P    Pn    18 32 48.3 +1.0
      baz=14
RLMT  Red Lodge         13.59  18 ⇑P    Pn    18 32 48.8 +1.4
      baz=14
RLMT  Red Lodge         13.59  18 ePn   Pn    18 32 48.6 +1.2
LRM   Limekiln Ridge    13.64   8 ePn   Pn    18 32 50.5 +2.4
F15A  Butte             13.65   8 ⇑P    Pn    18 32 49.5 +1.1
      baz=14
G18A  Lazy EL Ranch,    13.69  17 ⇑P    Pn    18 32 50.0 +1.2
      baz=14
F16A  Kennard Place,    13.72  11 ⇓P    Pn    18 32 51.3 +2.1
      baz=14
F08A  Pendleton         13.72 350 ⇓P    Pn    18 32 50.4 +1.2
      baz=14
LNOR  Lincton Mounta    13.72 351 eP    Pn    18 32 52.3 +3.0
G05A  Wamic             13.73 342 ⇑P    Pn    18 32 50.4 +1.1
      baz=14
HOOD  Mount Hood Mea    13.89 341 ePn   Pn    18 32 50.6 -0.9
WMOK  Wichita Mounta    13.93  76 eP    Pn    18 32 52.4 +0.2
YPT   Yellepit          13.99 349  P    Pn    18 32 58.8 +5.8
F17A  Fitzpatrick Pl    14.01  13 ⇑P    Pn    18 32 54.3 +1.1
      baz=14
F07A  Phinny Hill Vi    14.02 346 ⇑P    Pn    18 32 55.0 +1.7
      baz=14
E11A  Bogner Ranch,     14.02 357 ⇑P    Pn    18 32 54.1 +0.8
      baz=14
G04A  Mulino            14.03 338 ⇓P    Pn    18 32 54.7 +1.2
      baz=14
F06A  Goldendale        14.08 344 ⇑P    Pn    18 32 54.6 +0.5
      baz=14
E13A  Victor            14.11   3 ⇓P    Pn    18 32 55.8 +1.2
      baz=14
E14A  Clinton           14.13   5 ⇓P    Pn    18 32 56.0 +1.2
      baz=14
CBKS  Cedar Bluff       14.16  59 eP    Pn    18 33 01.2 +5.8
CBKS                               pmax  pmax
      comp=Z,39nm,1.1s
CBKS  Cedar Bluff       14.16  59 eP    Pn    18 33 01.2 +5.8
      comp=Z,39nm,1.1s
E10A  Myers Farm, Un    14.21 355 ⇑P    Pn    18 32 56.3 +0.4
      baz=14
F18A  Big Timber        14.21  16 ⇑P    Pn    18 32 57.0 +1.1
      baz=14
E15A  Deer Lodge        14.21   7 ⇓P    Pn    18 32 56.8 +0.8
      baz=14
E09A  Wood Farm, Sta    14.34 352 ⇑P    Pn    18 32 58.8 +1.1
      baz=14
HAWA  Hanford           14.42 348 ePn   Pn    18 33 00.8 +2.0
RSW   Rattlesnake Hi    14.44 348 ePn   Pn    18 33 00.9 +1.9
E08A  Dider Farm, El    14.44 349 ⇓P    Pn    18 33 00.2 +1.1
      baz=14
E16A  East Helena       14.44  10 ⇑P    Pn    18 33 00.4 +1.3
      baz=14
E17A  Martinsdale       14.51  12 ⇑P    Pn    18 33 01.4 +1.4
      baz=14
MSO   Missoula          14.51   4 ePn   Pn    18 33 01.4 +1.4
HRY   Holter Researc    14.59   9 ePn   Pn    18 33 05.0 +3.8
CHMT  Chamberlain Mo    14.64   5 ePn   Pn    18 33 03.0 +1.3
E07A  Sunnyside         14.64 347 ⇑P    Pn    18 33 02.4 +0.6
      baz=15
F04A  Amboy             14.67 340 ⇑P    Pn    18 33 03.9 +1.8
      baz=15
MDW   Midway            14.68 348  P    Pn    18 33 04.1 +1.8
RSSD  Black Hills       14.68  34 eP    Pn    18 33 05.3 +3.0
D11A  Klaveano Farm,    14.72 357 ⇓P    Pn    18 33 03.2 +0.3
      baz=15
ZAIG  Zacatecas         14.72 127 i P   Pn    18 33 06.9 +3.9
MXC   Moxie City        14.74 346  P    Pn    18 33 07.8 +4.6
ANIG  Ahuacatlan        14.75 137 i P   Pn    18 33 10.1 +6.7
D13A  Huson             14.75   2 ⇑P    Pn    18 33 03.9 +0.6
      baz=15
D10A  Wagner Farm, O    14.79 355 ⇑P    Pn    18 33 03.8 +0.1
      baz=15
D14A  Greenough         14.79   5 ⇓P    Pn    18 33 04.3 +0.5
      baz=15
E18A  Harlowton         14.79  15 ⇑P    Pn    18 33 04.7 +0.9
      baz=15
D15A  Lincoln           14.84   7 ⇑P    Pn    18 33 05.4 +1.0
      baz=15
E06A  Yakima            14.86 344 ⇓P    Pn    18 33 05.5 +0.7
      baz=15
D09A  Jones Farm, Ri    14.89 352 ⇑P    Pn    18 33 05.3  0.0
      baz=15
D16A  Dana Ranch, Ca    14.95  10 ⇓P    Pn    18 33 06.4 +0.5
      baz=15
SLMT  Seeley Lake       14.95   5 ePn   Pn    18 33 07.0 +1.0
D08A  Wollman Farm,     14.97 350 ⇓P    Pn    18 33 06.3  0.0
      baz=15
F03A  Seaside           15.02 337 ⇑P    Pn    18 33 06.8 -0.1
      baz=15
SWMT  Swartz Lake       15.19   3 ePn   Pn    18 33 08.6 -0.6
D17A  Six Diamond Ra    15.20  12 ⇓P    Pn    18 33 09.4 +0.1
      baz=15
LON   Longmire          15.25 343 eP    Pn    18 33 10.9 +0.9
LON                                pmax  pmax
      comp=Z,202nm,1.8s
LON   Longmire          15.25 343 ePn   Pn    18 33 10.9 +0.9
      comp=Z,202nm,1.8s
OD2   Odessa Site #2    15.27 351 ePn   Pn    18 33 10.4 +0.2
D07A  Quincy            15.28 348 ⇓P    Pn    18 33 10.2 -0.1
      baz=15
C13A  Hot Springs       15.34   2 ⇓P    Pn    18 33 10.9 -0.2
      baz=15
C12B  Naegeli Ranch,    15.36 359 ⇓P    Pn    18 33 11.1 -0.3
      baz=15
JTMT  Jette             15.41   2 ePn   Pn    18 33 11.9 -0.2
D18A  Linhart Farms,    15.41  14 ⇑P    Pn    18 33 11.9 -0.3
      baz=15
D06A  Cle Elum          15.45 346 ⇑P    Pn    18 33 12.2 -0.4
      baz=16
BSMT  Bassoo Peak       15.50   1 ePn   Pn    18 33 13.2 -0.1
YBMT  Yellow Bay        15.54   3 ePn   Pn    18 33 15.7 +1.9
C15A  Salmond Ranch,    15.55   7 ⇓P    Pn    18 33 13.4 -0.5
      baz=16
E03A  Lebam             15.57 338 ⇑P    Pn    18 33 13.0 -1.1
      baz=16
C09A  Chrisman Ranch    15.62 352 ⇓P    Pn    18 33 15.0 +0.2
      baz=16
C16A  Fuhringer Ranc    15.68   9 ⇓P    Pn    18 33 15.4 -0.2
      baz=16
LNIG  Linares           15.70 114 i P   Pn    18 33 19.6 +3.6
LNIG                              i S   Sn    18 36 11.6 +1.7
C08A  Higginbotham F    15.70 350 ⇓P    Pn    18 33 15.2 -0.7
      baz=16
C07A  Waterville        15.77 348 ⇓P    Pn    18 33 16.5 -0.3
      baz=16
D04A  Dobbs Creek Ra    15.85 341 ⇑P    Pn    18 33 16.3 -1.5
      baz=16
LAO   LASA Array        15.91  23 eP    Pn    18 33 13.8 -4.8
      comp=Z,174nm,1.2s
NEW   Newport           15.98 355 eP    Pn    18 33 19.6 +0.2
B10A  Chitwood Farm,    16.02 355 ⇓P    Pn    18 33 19.1 -0.9
      baz=16
B15A  Bradely Ranch,    16.09   6 ⇑P    Pn    18 33 19.9 -1.0
      baz=16
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C05A  Tolt Reservoir    16.11 344 ⇑P    Pn    18 33 19.5 -1.7
      baz=16
EGMT  Eagleton          16.21  13 ⇓P    Pn    18 33 22.4 -0.1
      baz=16
EGMT  Eagleton          16.21  13 eP    Pn    18 33 22.9 +0.4
      comp=Z,73nm,1.2s
B09A  Rice              16.22 353 ⇑P    Pn    18 33 22.1 -0.5
      baz=16
GNW   Green Mountain    16.27 341 eP    Pn    18 33 26.0 +2.7
      comp=Z,100nm,1.5s
B16A  M & M Farms, S    16.28   8 ⇓P    Pn    18 33 22.5 -0.9
      baz=16
B08A  Colville Reser    16.30 350 ⇑P    Pn    18 33 22.5 -1.2
      baz=16
NLWA  Neilton Lookou    16.42 339 ePn   Pn    18 33 28.2 +3.1
B07A  Winthrop          16.53 349 ⇓P    Pn    18 33 25.7 -0.8
      baz=16
KSU1  Kansas State U    16.55  61 ePn   Pn    18 33 30.6 +3.7
B18A  Beardsley Farm    16.56  13 ⇓P    Pn    18 33 26.7 -0.3
      baz=17
A12A  Yaak River Ran    16.59 359 ⇓P    Pn    18 33 27.0 -0.2
      baz=17
A11A  Hall Mountain,    16.63 357 ⇑P    Pn    18 33 27.4 -0.3
      baz=17
A14A  Double T Ranch    16.68   4 ⇓P    Pn    18 33 28.4  0.0
      baz=17
A10A  Northport         16.72 355 ⇑P    Pn    18 33 28.1 -0.9
      baz=17
A15A  Johnson Ranch,    16.73   6 ⇓P    Pn    18 33 28.5 -0.6
      baz=17
WALA  Waterton Lakes    16.74   3 ePn   Pn    18 33 29.8 +0.6
B05A  Bryant            16.74 344 ⇑P    Pn    18 33 27.8 -1.4
      baz=17
HKT   Hockley           16.78  93 eP    Pn    18 33 31.5 +1.7
HKT                                pmax  pmax
      comp=Z,107nm,1.5s
HKT   Hockley           16.78  93 eP    Pn    18 33 31.5 +1.6
      comp=Z,107nm,1.5s
RPW   Rockport          16.78 345 eP    Pn    18 33 34.6 +4.9
A09A  Danville          16.81 352 ⇑P    Pn    18 33 29.8 -0.3
      baz=17
A16A  West Butte Ran    16.82   8 ⇑P    Pn    18 33 30.0 -0.2
      baz=17
A08A  Turner Farm, O    16.88 351 ⇑P    Pn    18 33 30.9  0.0
      baz=17
A17A  Triple J Farms    16.94  10 ⇓P    Pn    18 33 32.3 +0.6
      baz=17
A18A  Metzger Ranch,    17.06  12 ⇑P    Pn    18 33 33.4 +0.2
      baz=17
C03A  Quillayute Air    17.13 338 ⇓P    Pn    18 33 34.1  0.0
      baz=17
A07A  Ashnola River,    17.14 348 ⇓P    Pn    18 33 33.5 -0.7
      baz=17
A04A  Legoe Bay, Lum    17.31 343 ⇑P    Pn    18 33 35.9 -0.4
      baz=17
A05A  Maple Falls       17.43 345 ⇑P    Pn    18 33 37.6 -0.2
      baz=17
PGC   Sidney            17.44 342 eP    Pn    18 33 40.1 +2.2
      comp=Z,17nm,1.6s
NATX  Nacogdoches       17.45  86 eP    Pn    18 33 44.4 +6.1
MMIG  Aquila            17.62 140 i P   Pn    18 33 44.0 +3.6
MMIG                              i S   Sn    18 36 57.7 +1.0
DGMT  Dagmar            18.15  24 ⇑P    Pn    18 33 45.7 -1.0
      baz=18
DGMT  Dagmar            18.15  24 eP    Pn    18 33 45.8 -0.9
      comp=Z,127nm,1.3s
MIAR  Mount Ida         18.21  77 eP    Pn    18 33 48.1 +0.5
MIAR                               pmax  pmax
      comp=Z,77nm,1.4s
MIAR  Mount Ida         18.21  77 eP    Pn    18 33 48.1 +0.5
      comp=Z,77nm,1.4s
UALR  University of     19.23  76 eP    Pn    18 34 04.3 +4.3
PPM   Popocatepetl      19.93 128 i P   Pn    18 34 01.5 -6.9
PPM   Popocatepetl      19.93 128 i P   Pn    18 34 11.0 +2.6
SCIA  State Center      19.94  55 eP    Pn    18 34 08.8 +0.4
      comp=Z,43nm,0.6s
CCM   Cathedral Cave    20.39  67 eP    P     18 34 12.9 +1.2
CCM                                pmax  pmax
      comp=Z,157nm,1.8s
CCM   Cathedral Cave    20.39  67 eP    P     18 34 12.9 +1.2
      comp=Z,157nm,1.8s
VBMS  Vicksburg         20.89  84 eP    P     18 34 18.7 +1.6
      comp=Z,214nm,1.2s
EDM   Edmonton          20.92   3 eP    P     18 34 15.3 -1.9
FVM   French Village    21.02  68 eP    P     18 34 19.6 +1.1
SLM   Saint Louis       21.27  66 eP    P     18 34 20.3 -0.9
AGMN  Agassiz Refuge    21.64  37 eP    P     18 34 24.0 -1.1
SIUC  Southern Illin    21.94  69 eP    P     18 34 32.2 +3.8
BBB   Bella Bella       21.94 338  LR   LR    18 42 58.6
      comp=Z,2µm,18.2s,MS4.5,baz=155,slow=37
JFWS  Jewell Farm       22.36  55 eP    P     18 34 32.0 -0.7
JFWS                               pmax  pmax
      comp=Z,33nm,1.0s,mb4.7
JFWS  Jewell Farm       22.36  55 eP    P     18 34 32.0 -0.7
      comp=Z,33nm,1.0s,mb4.7
HDIL  Hopedale          22.37  61 eP    P     18 34 35.5 +2.6
      comp=Z,55nm,1.1s,mb4.9
PLAL  Pickwick Lake     22.74  76 eP    P     18 34 39.2 +2.4
      comp=Z,60nm,1.4s,mb4.8
OLIL  Olney             22.94  66 eP    P     18 34 39.5 +0.5
WVT   Waverly           22.94  73 eP    P     18 34 38.3 -0.7
WVT                                pmax  pmax
      comp=Z,30nm,1.1s,mb4.6
WVT   Waverly           22.94  73 eP    P     18 34 38.3 -0.8
      comp=Z,30nm,1.1s,mb4.6
ULM   Lac du Bonnet     22.95  33  P    P     18 34 36.8 -2.1
      comp=Z,16nm,1.1s,mb4.4,baz=236,slow=10,SNR=6.9
ULM                                LR   LR    18 44 35.3
      comp=Z,1µm,18.9s,MS4.4,baz=48,slow=40
USIN  University of     23.19  68 eP    P     18 34 50.3 +8.7
LRAL  Lakeview Retre    23.75  81 eP    P     18 34 49.7 +2.4
EYMN  Ely               23.79  42 eP    P     18 34 48.4 +0.9
      comp=Z,83nm,1.6s,mb4.9
BRAL  Brewton           23.99  86 eP    P     18 34 51.7 +2.2
      comp=Z,395nm,1.4s,mb5.7
BLO   Bloomington       24.22  66 eP    P     18 34 50.3 -1.2
FFC   Flin Flon         24.28  19 eP    P     18 34 49.9 -2.0
FFC                                pmax  pmax
      comp=Z,35nm,1.3s,mb4.6
FFC   Flin Flon         24.28  19 eP    P     18 34 49.9 -2.0
      comp=Z,35nm,1.3s,mb4.6
COWI  Conover           24.32  48 eP    P     18 34 51.1 -1.2
      comp=Z,31nm,0.9s,mb4.7
CPCT  Cooper Cave       25.63  75 eP    P     18 35 07.9 +3.5
TKL   Tuckaleechee C    26.24  74  P    P     18 35 10.1 +0.2
      comp=Z,2.8nm,0.7s,mb3.9,baz=288,slow=20,SNR=2.5
TKL                                LR   LR    18 45 57.2
      comp=Z,3µm,19.1s,MS4.9,baz=270,slow=38
TEIG  Tepich            26.93 110  LR   LR    18 48 54.0
      comp=Z,734nm,18.0s,MS4.3,baz=306,slow=43
ACSO  Alum Creek Sta    27.06  64 eP    P     18 35 16.6 -0.7
      comp=Z,62nm,1.3s,mb5.0
DLBC  Dease Lake        27.96 343  P    P     18 35 26.2 +1.0
      comp=Z,1.7nm,0.6s,mb3.9,baz=154,slow=10,SNR=3.0
DLBC                               LR   LR    18 46 32.0
      comp=Z,2µm,18.7s,MS4.8,baz=159,slow=36
YKA   Yellowknife Ar    30.18   1  P    P     18 35 43.5 -1.3
      comp=Z,0.9nm,0.8s,baz=179,slow=8.4,SNR=13
YKA                                LR   LR    18 47 25.5
      comp=Z,1µm,18.8s,baz=160,slow=36
TGUH  Tegucigalpa,Un    31.34 119 eP    P     18 36 00.0 +4.5
DAWY  Dawson            35.14 342 eP    P     18 36 28.9 +0.8
EGAK  Eagle             36.18 341 eP    P     18 36 37.9 +0.9
      comp=Z,51nm,1.7s,mb5.2
PMR   Palmer            36.53 333 eP    P     18 36 39.7 -0.4
MCK   McKinley          37.81 336  P    P     18 36 49.0 -1.9
MCK                                pmax  pmax
      comp=Z,23nm,1.2s,mb4.8
MCK   McKinley          37.81 336  P    P     18 36 49.0 -2.0
      comp=Z,23nm,1.2s,mb4.8
TRF   Thorofare Moun    38.10 335 eP    P     18 36 52.5 -0.9
      comp=Z,47nm,1.5s,mb5.0
KTH   Kantishna Hill    38.39 335  P    P     18 36 53.9 -1.9
      comp=Z,11nm,1.0s,mb4.5
CHUM  Lake Minchumin    39.08 335 eP    P     18 37 02.6 +1.0
      comp=Z,12nm,0.4s,mb5.0
COLD  Coldfoot          40.50 340 eP    P     18 37 14.3 +0.9
      comp=Z,18nm,1.3s,mb4.5
SCHQ  Schefferville     40.59  42  LR   LR    18 54 28.5
      comp=Z,105nm,18.7s,MS3.7,baz=75,slow=37
ROSC  El Rosal          46.97 117  P    P     18 38 08.7 +2.6
      comp=Z,3.9nm,0.3s,mb4.8,baz=311,slow=7.5,SNR=7.2
ROSC                               LR   LR    18 57 33.0
      comp=Z,613nm,21.9s,MS4.5,baz=206,slow=36
OTAV  Otavalo           47.14 125 eP    P     18 38 08.4 +1.0
      comp=Z,46nm,1.6s,mb5.2
TAOE  Nuku Hiva Isla    47.36 214 eLR   LR    18 51 28.8
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      comp=Z,4µm,26.7s
SFJD  Kangerlussuaq     50.80  27 i P   P     18 38 37.2 +2.4
SFJD                               pmax  pmax
      comp=Z,5.0nm,1.1s,mb4.4
SFJD  Kangerlussuaq     50.80  27 i P   P     18 38 37.2 +2.4
      comp=Z,4.5nm,1.1s,mb4.3
ATAH  Atahualpa         52.55 131  P    P     18 38 50.8 +2.3
      comp=Z,17nm,1.0s,mb4.9,baz=341,slow=5.0,SNR=9.1
SUMG  Summit            55.54  21 eP    P     18 39 09.7 +0.1
      comp=Z,40nm,1.4s,mb5.2
BILL  Bilibino          56.17 334⇓iP    P     18 39 13.7 -0.5
BILL                               pmax  pmax
      comp=Z,9.0nm,1.6s,mb4.5
BILL  Bilibino          56.17 334 eP    P     18 39 11.6 -2.6
      comp=Z,32nm,1.3s,mb5.2
RKT   Rikitea           58.28 201 eS    S     18 47 31.8  0.0
      comp=Z,537nm,27.5s
RKT                               eLR   LR    18 56 26.0
      comp=Z,1µm,26.0s,baz=19
PPT   Papeete           59.53 219 eS    S     18 47 46.0 -2.2
      comp=Z,500nm,29.5s
PPT                               eLQ         18 54 31.8
      comp=Z,538nm,25.8s
PPT                               eLR   LR    18 57 07.0
      comp=Z,874nm,24.2s,baz=25
PPT   Papeete           59.53 219  LR   LR    18 58 29.3
      comp=Z,546nm,18.2s,MS4.7,baz=57,slow=29
SCO   Scoresbysund      60.99  23 eP    P     18 39 50.3 +2.6
SCO                                pmax  pmax
      comp=Z,3.0nm,1.1s,mb4.3
SCO                                MLR  MLR
      comp=Z,1µm,17.0s,MS5.2
SCO   Scoresbysund      60.99  23 i P   P     18 39 50.3 +2.6
      comp=Z,3.4nm,1.1s,mb4.4
SCO
      comp=Z,1µm,17.0s
SCO   Scoresbysund      60.99  23 eP    P     18 39 50.3 +2.6
      comp=Z,3.4nm,1.1s,mb4.4
SCO                                LR   LR
      comp=Z,1µm,17.0s,MS5.1
PETK  Petropavlovsk-    63.21 318  P    P     18 40 04.2 +1.2
      comp=Z,3.8nm,0.9s,mb4.5,baz=93,slow=8.9,SNR=3.1
PETK                               LR   LR    19 01 52.6
      comp=Z,182nm,21.0s,MS4.2,baz=260,slow=31
TIXI  Tiksi             67.19 342⇑iP    P     18 40 26.0 -2.4
TIXI                               pmax  pmax
      comp=Z,24nm,2.3s,mb4.8
TIXI  Tiksi             67.19 342 eP    P     18 40 29.4 +0.9
      comp=Z,5.3nm,0.3s,mb5.0
AFI   Afiamalu          70.97 239  LR   LR    19 05 26.0
      comp=Z,203nm,18.7s,MS4.4,baz=64,slow=30
YAK   Yakutsk           72.53 333 eP    P     18 41 02.4 +0.9
YAK                                pmax  pmax
      comp=Z,7.0nm,1.5s,mb4.4
YAK   Yakutsk           72.53 333 eP    P     18 41 01.1 -0.4
      comp=Z,18nm,1.2s,mb4.9
ARCES ARCESS Array B    74.47  13  LR   LR    19 15 22.1
      comp=Z,716nm,20.0s,MS5.0,baz=337,slow=37
NOA   NORSAR Array B    77.28  24  P    P     18 41 28.4 -0.5
      comp=Z,2.7nm,1.1s,mb4.1,baz=317,slow=5.8,SNR=3.0
NOA                                LR   LR    19 16 51.5
      comp=Z,357nm,20.8s,MS4.7,baz=295,slow=37
QUIF  Quistinic         79.64  39 eP    P     18 41 43.6 +1.4
CPUP  Villa Florida     80.28 130  P    P     18 41 45.6 -0.2
      comp=Z,5.8nm,1.0s,mb4.5,baz=305,slow=7.4,SNR=7.4
CPUP                               LR   LR    19 17 40.5
      comp=Z,198nm,19.6s,MS4.5,baz=317,slow=36
LDF   La Druitiere      80.82  38 eP    P     18 41 50.1 +1.5
      comp=Z,174nm,1.9s,mb5.4
LDF   La Druitiere      80.82  38 eP    P     18 41 50.1 +1.5
LDF                                pmax  pmax
      comp=Z,87nm,1.9s,mb5.4
LDF   La Druitiere      80.82  38 eP    P     18 41 50.1 +1.5
      comp=Z,87nm,1.9s,mb5.4
BOD   Bodaibo           81.15 336 eP    P     18 41 50.4 +0.2
BOD                                pmax  pmax
      comp=Z,9.0nm,1.5s,mb4.5
MJAR  Matsushiro Arr    83.03 309  P    P     18 42 01.9 +1.5
      comp=Z,0.8nm,0.6s,mb3.9,baz=64,slow=2.8,SNR=4.0
MJAR                               LR   LR    19 11 50.5
      comp=Z,317nm,20.9s,MS4.7,baz=75,slow=30
MDJ   Mudanjiang        83.37 319  P    P     18 41 57.0 -5.1
MDJ                                S    S     18 52 16.1 -7.0
MDJ                                ScS  ScS   18 52 30.8 -6.0
MDJ                                pmax  pmax
      comp=Z,60nm,3.2s
MDJ                                LR   LR
      comp=N,86nm,36.2s
MDJ                                LR   LR
      comp=E,190nm,31.2s
MDJ                                LR   LR
      comp=Z,200nm,37.6s,MS4.2
TCF   Toulx Ste Croi    83.52  38 eP    P     18 42 04.3 +1.5
      comp=Z,14nm,1.0s,mb4.7
TCF   Toulx Ste Croi    83.52  38 eP    P     18 42 04.3 +1.5
TCF                                pmax  pmax
      comp=Z,7.0nm,1.0s,mb4.8
TCF   Toulx Ste Croi    83.52  38 eP    P     18 42 04.3 +1.5
      comp=Z,6.8nm,1.0s,mb4.7
PLCA  Paso Flores       83.60 147  LR   LR    19 15 18.3
      comp=Z,264nm,18.4s,MS4.7,baz=158,slow=33
BGF   Bois d'Agland     83.67  38 eP    P     18 42 05.0 +1.4
      comp=Z,15nm,0.8s,mb4.9
BGF   Bois d'Agland     83.67  38 eP    P     18 42 05.0 +1.4
BGF                                pmax  pmax
      comp=Z,7.0nm,0.8s,mb4.8
BGF   Bois d'Agland     83.67  38 eP    P     18 42 05.0 +1.4
      comp=Z,7.3nm,0.8s,mb4.9
SJPF  Ste Jean          83.67  42 eP    P     18 42 04.0 +0.4
SSF   Saint Saulge      83.68  37 eP    P     18 42 05.2 +1.6
      comp=Z,56nm,1.6s,mb5.1
SSF   Saint Saulge      83.68  37 eP    P     18 42 05.2 +1.6
SSF                                pmax  pmax
      comp=Z,28nm,1.6s,mb5.1
SSF   Saint Saulge      83.68  37 eP    P     18 42 05.2 +1.6
      comp=Z,28nm,1.6s,mb5.1
LOR   Lormes            83.72  37 eP    P     18 42 04.1 +0.3
LOR                               eMLR  MLR
      comp=Z,814nm,19.0s,MS4.8
LOR   Lormes            83.72  37 eP    P     18 42 04.1 +0.3
LOR                                LR   LR
      comp=Z,810nm,19.0s,MS5.1
AVF   Avril sur Loir    83.78  37 eP    P     18 42 05.4 +1.3
      comp=Z,40nm,1.5s,mb5.0
AVF   Avril sur Loir    83.78  37 eP    P     18 42 05.4 +1.3
AVF                                pmax  pmax
      comp=Z,20nm,1.5s,mb5.0
AVF   Avril sur Loir    83.78  37 eP    P     18 42 05.4 +1.3
      comp=Z,20nm,1.5s,mb5.0
RJF   Les Rejaudoux     83.79  39 eP    P     18 42 05.7 +1.5
      comp=Z,94nm,1.7s,mb5.3
RJF                               eMLR  MLR
      comp=Z,717nm,19.0s,MS4.8
RJF   Les Rejaudoux     83.79  39 eP    P     18 42 05.7 +1.5
RJF                                pmax  pmax
      comp=Z,47nm,1.7s,mb5.3
RJF                                MLR  MLR
      comp=Z,720nm,19.0s,MS5.1
RJF   Les Rejaudoux     83.79  39 eP    P     18 42 05.7 +1.5
      comp=Z,47nm,1.7s,mb5.3
RJF                                LR   LR
      comp=Z,720nm,19.0s,MS5.1
SMF   Signal de Mont    84.12  37 eP    P     18 42 07.1 +1.2
      comp=Z,38nm,1.3s,mb5.1
SMF   Signal de Mont    84.12  37 eP    P     18 42 07.1 +1.2
SMF                                pmax  pmax
      comp=Z,19nm,1.3s,mb5.1
SMF   Signal de Mont    84.12  37 eP    P     18 42 07.1 +1.2
      comp=Z,19nm,1.3s,mb5.1
ESDC  Sonseca Array     84.18  46  P    P     18 42 08.4 +2.1
      comp=Z,1.6nm,1.0s,mb4.1,baz=292,slow=4.8,SNR=5.6
CAF   Calviac           84.33  39 eP    P     18 42 08.3 +1.3
      comp=Z,40nm,1.5s,mb5.0
CAF   Calviac           84.33  39 eP    P     18 42 08.3 +1.3
CAF                                pmax  pmax
      comp=Z,20nm,1.5s,mb5.0
CAF   Calviac           84.33  39 eP    P     18 42 08.3 +1.3
      comp=Z,20nm,1.5s,mb5.0
HAU   Haudompre         84.45  35 eP    P     18 42 07.7 +0.2
      comp=Z,45nm,1.3s,mb5.1
HAU                               eMLR  MLR
      comp=Z,514nm,18.0s,MS4.7
HAU   Haudompre         84.45  35 eP    P     18 42 07.7 +0.2
HAU                                pmax  pmax
      comp=Z,23nm,1.3s,mb5.2
HAU                                MLR  MLR
      comp=Z,510nm,18.0s,MS5.0
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HAU	Haudompre	84.45	35	eP	P	18 42 07.7	+0.2
	comp=Z,23nm,1.3s,mb5.1						
HAU				LR	LR		
	comp=Z,510nm,18.0s,MS5.0						
CDF	Champ du Feu	84.62	34	eP	P	18 42 09.7	+1.4
HINF	Hinteralfeld	84.83	35	eP	P	18 42 09.2	-0.2
	comp=Z,81nm,1.7s,mb5.3						
HINF	Hinteralfeld	84.83	35	eP	P	18 42 09.2	-0.2
HINF				pmax	pmax		
	comp=Z,41nm,1.7s,mb5.3						
HINF	Hinteralfeld	84.83	35	eP	P	18 42 09.2	-0.2
	comp=Z,40nm,1.7s,mb5.3						
KLMR	Klimovskoe	84.88	12	eP	P	18 42 08.1	-1.3
KLMR				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.2						
MOX	Moxa	85.00	31	eP	P	18 42 14.3	+4.1
MOX							
	comp=Z,400nm,18.0s						
CLL	Collm	85.10	30	eP	P	18 42 14.0	+3.3
CLL				MLR	MLR		
	comp=Z,500nm,18.2s,MS4.9						
CLL	Collm	85.10	30	e(PcP)	PcP	18 42 14.0	+0.1
CLL				LmH		18 19 00.0	
	comp=N,300nm,19.5s						
CLL				LmH		18 19 00.0	
	comp=E,500nm,18.7s						
CLL				LmV		18 22 00.0	
	comp=Z,500nm,18.2s						
CABF	La Chapelle	85.29	36	eP	P	18 42 13.3	+1.6
	comp=Z,16nm,1.0s,mb4.8						
CABF	La Chapelle	85.29	36	eP	P	18 42 13.3	+1.6
CABF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
CABF	La Chapelle	85.29	36	eP	P	18 42 13.3	+1.6
	comp=Z,8.1nm,1.0s,mb4.8						
GRA1	Grafenberg Arr	85.52	32	eP	P	18 42 17.5	+4.7
	comp=Z,17nm,1.9s,mb5.0						
GRA1				LR	LR		
	comp=Z,1µm,18.3s,MS5.2						
GRF	Grafenberg Arr	85.52	32	eP	P	18 42 17.5	+4.7
	comp=Z,17nm,1.9s,mb5.0						
GRF				eL		19 21 02.7	
	comp=Z,1µm,18.3s						
CN2	Changchun	86.16	321	eP	P	18 42 14.0	-2.1
DAVOX	Davos/Dischmat	87.02	34	LR	LR	19 18 52.6	
	comp=Z,474nm,19.1s,MS4.9,baz=301,slow=34						
GERES	GERESS Array B	87.24	31	P	P	18 42 21.3	0.0
	comp=Z,0.3nm,0.8s,baz=337,slow=1.7,SNR=4.3						
GERES				LR	LR	19 22 52.6	
	comp=Z,653nm,19.5s,baz=312,slow=37						
MDT	Midelt	87.94	52	LR	LR	19 20 56.8	
	comp=Z,470nm,19.1s,MS4.9,baz=312,slow=35						
VRAC	Vranov	88.11	29	LR	LR	19 22 47.8	
	comp=Z,700nm,19.1s,MS5.1,baz=311,slow=36						
KSRS	Korea Array	88.96	315	LR	LR	19 20 05.5	
	comp=Z,171nm,21.2s,MS4.4,baz=35,slow=34						
BBTS	Babate	89.43	73	LR	LR	19 23 01.9	
	comp=Z,467nm,19.0s,MS4.9,baz=129,slow=36						
TLY	Talaya	89.64	337	eP	P	18 42 32.4	-0.2
TLY				pmax	pmax		
	comp=Z,12nm,1.7s,mb5.0						
TLY				MLR	MLR		
	comp=Z,407nm,18.0s,MS4.9						
TLY	Talaya	89.64	337	eP	P	18 42 31.1	-1.6
	comp=Z,14nm,1.5s,mb5.1						
MOY	Mondy	90.51	338	eP	P	18 42 42.5	+5.8
ZAK	Zakamensk	90.87	337	eP	P	18 42 36.7	-1.7
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb4.5						
GUMO	Guam	90.99	287	LR	LR	19 14 14.3	
	comp=Z,421nm,21.4s,MS4.8,baz=68,slow=29						
AKASG	Malin Array Be	91.56	22	P	P	18 42 39.7	-1.9
	comp=Z,0.2nm,0.3s,mb3.9,baz=308,slow=4.6,SNR=3.5						
AKASG				LR	LR	19 24 45.9	
	comp=Z,656nm,18.3s,MS5.1,baz=305,slow=36						
AKASG	Malin Array Be	91.56	22	P	P	18 42 39.7	-1.9
AKASG				LR	LR	19 24 45.9	
SONM	Songino Array	91.89	333	P	P	18 42 46.1	+3.0
	comp=Z,0.5nm,1.1s,mb3.8,baz=20,slow=4.6,SNR=3.7						
SONM				LR	LR	19 29 43.7	
	comp=Z,387nm,18.3s,MS4.9,baz=52,slow=39						
ZALV	Zalesovo Beam	92.33	348	P	P	18 42 47.5	+2.4
	comp=Z,0.3nm,0.3s,mb4.1,baz=15,slow=6.0,SNR=3.7						
ZALV				LR	LR	19 27 38.7	
	comp=Z,266nm,19.1s,MS4.7,baz=51,slow=38						
BJI	Beijing	93.69	323	P	P	18 42 48.0	-3.6
BJI				S	S	18 53 56.6	-4.2
BJI				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb5.3						
BJI				pmax	pmax		
	comp=Z,160nm,4.4s						
BJI				LR	LR		
	comp=N,250nm,13.9s,MS5.0						
BJI				LR	LR		
	comp=E,370nm,15.6s,MS5.0						
BJI				LR	LR		
	comp=Z,340nm,30.1s						
MLR	Muntele Rosu	94.91	26	LR	LR	19 28 21.8	
	comp=Z,804nm,18.4s,MS5.2,baz=187,slow=37						
HHC	Hu-ho-hao-te	95.33	326	eP	P	18 42 55.7	-3.4
HHC				pP	pP	18 43 00.5	-2.0
HHC				PP	PP	18 46 46.8	-1.7
HHC				SKS		18 53 28.8	
HHC				S	S	18 54 05.7	-9.4
HHC				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
HHC				pmax	pmax		
	comp=Z,230nm,4.5s						
HHC				LR	LR		
	comp=N,280nm,15.5s,MS5.1						
HHC				LR	LR		
	comp=E,400nm,14.3s,MS5.1						
HHC				LR	LR		
	comp=Z,410nm,19.0s,MS4.9						
JOW	Kunigami	95.65	307	LR	LR	19 21 06.4	
	comp=Z,289nm,18.7s,MS4.8,baz=84,slow=32						
VAE	Valguarnera	96.16	38	LR	LR	19 28 04.6	
	comp=Z,525nm,18.0s,MS5.1,baz=138,slow=37						
EFI	East Falkland	97.51	148	⇓iP	P	18 43 04.6	-3.9
NJ2	Nanjing	98.08	316	eP	P	18 43 09.1	-2.7
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.5						
ANN	Anapa	99.30	19	eP	P	18 43 12.9	-4.1
ANN				pmax	pmax		
	comp=Z,91nm,1.3s						
ANN				MLR	MLR		
	comp=Z,983nm,18.0s,MS5.3						
MKAR	Makanchi Array	99.67	348	LR	LR	19 30 15.8	
	comp=Z,297nm,21.7s,MS4.8,baz=12,slow=37						
WMQ	Urumqi	101.37	343	eP	Pdif	18 43 26.3	+0.1
WMQ				pP		18 43 31.0	
WMQ				SKS		18 54 04.0	
WMQ				eS	Sdif	18 55 03.0	-3.2
WMQ				pmax	pmax		
	comp=Z,8.0nm,1.4s						
WMQ				pmax	pmax		
	comp=Z,160nm,6.6s						
WMQ				LR	LR		
	comp=N,500nm,26.0s,MS5.2						
WMQ				LR	LR		
	comp=E,730nm,24.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,710nm,26.0s,MS5.1						
LZH	Lanzhou	102.72	328	eP	Pdif	18 43 27.6	-4.6
LZH				pP		18 43 32.5	
LZH				sP		18 43 34.7	
LZH				ePP	PP	18 47 43.2	-1.7
LZH				pmax	pmax		
	comp=Z,16nm,1.4s						
LZH				pmax	pmax		
	comp=Z,100nm,6.6s						
LZH				LR	LR		
	comp=E,170nm,17.5s						
LZH				LR	LR		
	comp=Z,210nm,19.7s,MS4.7						
CD2	Chengdu	107.06	326	Pdif	Pdif	18 43 51.5	0.0
CD2				PP	PP	18 48 20.0	+2.7
CD2				S	Sdif	18 55 49.6	-4.1
CD2				LR	LR		
	comp=N,300nm,8.4s						
CD2				LR	LR		
	comp=Z,360nm,8.3s						
GYA	Guiyang	109.21	321	Pdif	Pdif	18 43 57.8	-3.2
GYA				PKP	PKiKP	18 48 01.2	-4.2
GYA				PP	PP	18 48 32.8	-0.3
GYA				PKS		18 51 36.6	
GYA				AMB	AMB		
	comp=Z,140nm,7.8s						
GYA				LR	LR		
	comp=N,210nm,20.8s						
GYA				LR	LR		
	comp=Z,190nm,22.0s,MS4.6						
KMI	Kunming	112.34	323	PKP	PKiKP	18 48 07.2	-4.1
KMI				sPKP		18 48 09.6	
KMI				PP	PP	18 48 55.2	-0.5
KMI				AMB	AMB		
	comp=Z,140nm,5.0s						
KMI				LR	LR		
	comp=N,320nm,17.6s,MS5.1						
KMI				LR	LR		
	comp=E,260nm,14.1s,MS5.1						
KMI				LR	LR		
	comp=Z,230nm,22.8s						
ASAR	Alice Springs	119.27	259	PKP	PKPdf	18 48 25.2	+0.7
	comp=Z,0.3nm,0.8s,baz=91,slow=2.3,SNR=2.9						
CMAR	Chiang Mai Arr	119.82	322	PKP	PKPdf	18 48 33.1	+7.3
	comp=Z,0.4nm,0.8s,baz=11,slow=1.6,SNR=3.1						
LBTB	Lobatse	145.02	88	ePKIKP	PKPdf	18 49 11.5	-1.1
BOSA	Boshof	145.88	94	PKPbc	PKPbc	18 49 15.1	+0.5
	comp=Z,14nm,1.0s,baz=270,slow=5.1,SNR=9.2						

IDC 11 18:57:45.7±3.8, 4°.67S×147°.97E, h0^{km}, mb3.9/3, mb1 4.2/3, mb1mx3.7/16, mbtmp4.0/3, MS4.1/2, Ms1 4.1/2, ms1mx3.0/24, Error ellipse: s-maj=113.2km s-min=45.4km az=111.0, Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.16	220	P	P	19 02 22.0	+0.1
	1.4nm,0.4s,baz=43,slow=11,SNR=23						
ASAR	Alice Springs	23.25	214	P	P	19 02 54.2	-0.8
	1.9nm,0.5s,baz=47,slow=8.4,SNR=34						
FITZ	Fitzroy Crossi	25.59	237	P	P	19 03 17.4	+0.5
	2.2nm,0.3s,baz=55,slow=12,SNR=10						
RPZ	Rata Peaks	43.90	156	LR	LR	19 20 39.9	
	comp=Z,124nm,18.9s,baz=0.3,slow=31						
MAW	Mawson	83.84	203	LR	LR	19 47 08.0	
	comp=Z,170nm,18.8s,baz=183,slow=35						
TORD	Torodi Ar. Bea	145.67	286	PKPbc	PKPbc	19 17 26.8	-0.7
	0.1nm,0.6s,baz=42,slow=3.1,SNR=2.6						

CSEM 11 19:10:46.9±0.2, 27°.42N×53°.69E, h15^{km}, ML3.2, Error ellipse: s-maj=6.3km s-min=4.4km az=127.0

TEH 11 19:10:46.1, 27°.38N×53°.66E, h9^{km}

ISC 11 19:10:46.2±1.2, 27°.39N±0°.04×53°.74E±0°.05, h10^{km}±9^{km}, n37, σ0^{s}87/44, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	Ghir-Karzin	1.11	324	ePg	Pg	19 11 08.2	+0.6
IMOK	Mouk	1.88	332	ePn	Pn	19 11 18.8	+0.4
IMOK				eSn	Sn	19 11 41.9	-0.2
IMOK				e		19 12 05.5	
	comp=Z,4µm,0.2s						
IMOK	Mouk	1.88	332	ePn	Pn	19 11 18.8	+0.4
IMOK				eSn	Sn	19 11 41.9	-0.2
ISRV	Sarvestan	2.06	345	e	Pn	19 11 23.2	+2.4
	comp=Z,4µm,0.1s						
IBND	Bandar-abas	2.49	88	ePn	Pn	19 11 28.4	+1.6
IBND				eSg	Sg	19 12 05.3	-1.1
IBND				e		19 12 17.4	
	comp=Z,4µm,0.3s						
IBND	Bandar-abas	2.49	88	ePn	Pn	19 11 28.4	+1.6
KRBR	Kerman	3.71	45	ePn	Pn	19 11 43.1	-0.4
SLWS		3.79	228	P	Pn	19 11 45.3	+0.6
SLWS		3.79	228	P	Pn	19 11 45.3	+0.6
IMEH	Mehriz	4.06	11	ePn	Pn	19 11 48.6	+0.3
IMEH				e		19 11 50.3	
	comp=Z,791nm,0.1s						
IMEH				eSn	Sn	19 12 35.1	-0.8
IMEH	Mehriz	4.06	11	ePn	Pn	19 11 48.6	+0.3
IMEH				eSn	Sn	19 12 35.1	-0.8
BTHS		4.23	219	P	Pn	19 11 50.5	-0.2
BTHS		4.23	219	P	Pn	19 11 50.5	-0.2
BTHS				S	Sn	19 12 40.3	+0.2
IBAF	Bafgh	4.48	20	ePn	Pn	19 11 53.8	-0.3
IBAF				e		19 11 54.8	
	comp=Z,1µm,0.1s						
IBAF	Bafgh	4.48	20	ePn	Pn	19 11 53.8	-0.3
ISAD	Sadrabad	4.51	359	ePn	Pn	19 11 56.0	+1.5
ISAD				e		19 12 48.9	
	comp=Z,459nm,0.2s						
ISAD	Sadrabad	4.51	359	ePn	Pn	19 11 56.0	+1.5
ICHK	Chekchek	4.87	7	ePn	Pn	19 11 59.7	+0.2
ICHK				e		19 12 00.9	
	comp=Z,855nm,0.1s						
ICHK	Chekchek	4.87	7	ePn	Pn	19 11 59.7	+0.2
IGAR	Gharneh	5.21	344	e	Pn	19 12 08.8	+4.7
	comp=N,773nm,0.1s						
IGAR				ePn	Pn	19 12 04.7	+0.6
NASN	Na’in	5.45	352	ePn	Pn	19 12 07.5	+0.1
IZEF	Zefreh	5.62	348	e	Pn	19 12 11.0	+1.3
	comp=Z,546nm,0.2s						
RDF	Al-Radifah	5.67	287	eP	Pn	19 12 09.6	-0.9
RDF				AML	AML	19 13 13.5	
	comp=Z,10nm,0.3s						
RDF	Al-Radifah	5.67	287	eP	Pn	19 12 09.6	-0.9
IPIR	Pirpir	5.82	336	ePn	Pn	19 12 11.8	-0.8
IPIR				e		19 12 16.5	
	comp=Z,226nm,0.1s						
IPIR	Pirpir	5.82	336	ePn	Pn	19 12 11.8	-0.8
NAY	Al-Naaiem	6.02	289	eP	Pn	19 12 14.7	-0.5
NAY				AML	AML	19 13 22.7	
	comp=Z,5.7nm,0.4s						
NAY	Al-Naaiem	6.02	289	eP	Pn	19 12 14.7	-0.5
MIB	Mutribah	6.12	295	eP	Pn	19 12 16.5	-0.1
MIB	Mutribah	6.12	295	eP	Pn	19 12 16.5	-0.1
IKLH	Kolahrood	6.20	343	ePn	Pn	19 12 17.1	-0.6
IKLH				e		19 12 21.1	
	comp=Z,196nm,0.1s						
IKLH	Kolahrood	6.20	343	ePn	Pn	19 12 17.1	-0.6
IVRN	Varamin	7.77	348	ePn	Pn	19 12 38.3	-1.0
IVRN	Varamin	7.77	348	ePn	Pn	19 12 38.3	-1.0
IANJ	Anjilo	8.05	1	ePn	Pn	19 12 42.7	-0.5
IANJ				e		19 12 49.0	
	comp=Z,181nm,0.2s						
IANJ	Anjilo	8.05	1	ePn	Pn	19 12 42.7	-0.5
ASYS		8.35	273	P	Pn	19 12 45.8	-1.4

ISCJB 11 19:23:27.9±0.6, 32°.50N±0°.02×115°.28W±0°.02, h12^{km}±5^{km}, Error ellipse: s-maj=3.5km s-min=2.8km az=1.4

NEIC 11 19:23:27.4, 32°.46N×115°.32W, h3^{km}, ML3.7(PAS), ML4.0(ECX), After ECX.

ECX 11 19:23:27.4±0.3, 32°.46N×115°.32W, h13^{km}±3^{km}, MD3.9, ML4.0

ISC 11 19:23:28.5±0.4, 32°.50N±0°.02×115°.29W±0°.02, h18^{km}±3^{km}, n42, σ1^{s}01/60, 26C-20D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.08	187	⇓iP	Pg	19 23 31.0	-1.0
COA	Coachella	0.39	21	⇓eP	Pg	19 23 37.6	+1.0
ERPC	Ernies Place	0.40	308	⇑eP	Pg	19 23 37.2	+0.4
WESC	Westside Schoo	0.46	306	⇑eP	Pg	19 23 37.8	+0.1
EMX	El Mayor	0.51	175	⇓iP	Pg	19 23 38.4	-0.3
EMX				eS	Sg	19 23 46.3	+0.8
EMX				⇓e		19 23 47.6	
	comp=N,6µm,0.6s						
EMX				⇑e		19 23 47.9	
	comp=E,8µm,0.6s						
COK	Cook Ranch	0.51	314	⇑eP	Pg	19 23 38.9	+0.1
YUH	Yuha Desert	0.55	286	⇑eP	Pg	19 23 39.0	-0.5
112A	Yuma	0.60	86	P	Pg	19 23 40.6	+0.2
	baz=0.6,SNR=57						
112A				⇑S	Sg	19 23 49.2	+0.6
	baz=0.6						
SWSC	Sam W. Stewart	0.61	316	⇑P	Pg	19 23 40.2	-0.4
	baz=0.7,SNR=24						
SWSC				⇑S	Sg	19 23 49.2	+0.2
	baz=0.7						
YMD	Yuma Desert	0.63	84	⇑eP	Pg	19 23 41.0	0.0
GLA	Glamis	0.68	35	⇓P	Pb	19 23 41.8	-0.1
	baz=0.7,SNR=30						
GLA				⇑S	Sb	19 23 51.2	+0.3
	baz=0.7						
CRR	Carrizo Plain	0.69	305	⇑eP	Pb	19 23 41.6	-0.4
DVTC	Desert V Tower	0.70	284	⇑P	Pb	19 23 41.8	-0.4
	baz=0.7,SNR=117						
DVTC				⇓S	Sb	19 23 51.2	-0.3
	baz=0.7						
RDX	Rancho Dawling	0.79	225	⇑eP	Pb	19 23 43.5	-0.2
RDX				eS	Sb	19 23 54.4	+0.3
RDX				⇓e		19 23 55.6	
	comp=N,4µm,0.3s						
MONP	Monument Peak	1.03	293	P	Pb	19 23 46.9	-0.9
	baz=1.1,SNR=58						
MONP				⇑S	Sb	19 24 00.5	-0.5
	baz=1.1						
ECBX	El Chinero	1.04	169	⇓eP	Pb	19 23 48.3	+0.4
ECBX				eS	Sb	19 24 02.4	+1.2
BC3	Big Chuckw Mtn	1.17	353	P	Pn	19 23 48.9	-1.0
	baz=1.2,SNR=104						
BC3				⇑S	Sb	19 24 03.8	-1.1
	baz=1.2						
CBX	Cerro Bola	1.17	262	⇓eP	Pn	19 23 49.9	-0.1
CBX				eS	Sb	19 24 05.4	+0.3
BAR	Barrett	1.18	279	eP	Pn	19 23 49.2	-0.9
113A	Mohawk Valley,	1.32	78	⇓P	Pn	19 23 51.2	-0.8
	baz=1.3,SNR=54						
113A				⇑Sb	Sb	19 24 10.1	+0.9
	baz=1.3						
ECNX	Esteban Cantu	1.39	233	⇓eP	Pn	19 23 53.4	+0.5
ECNX				eP		19 23 52.2	
ECNX				eS	Sn	19 24 08.8	-2.0
ECNX				eS	Sn	19 24 12.2	+1.4
PBX	Punta Banda	1.43	239	⇓eP	Pn	19 23 54.0	+0.4
PBX				eS	Sn	19 24 13.3	+1.5
PFO	Pinyon Flat Ob	1.48	319	P	Pn	19 23 53.0	-1.2
	baz=1.5,SNR=31						
PFO				⇑S	Sn	19 24 11.4	-1.7
	baz=1.5						
109C	Camp Elliot, M	1.58	285	⇓P	Pn	19 23 54.1	-1.4
	baz=1.6,SNR=20						
109C				⇓Sb	Sb	19 24 16.9	+0.1
	baz=1.6						
BELC	Belle Mtn.	1.61	339	⇑P	Pn	19 23 55.0	-1.1
	baz=1.7						
IRM	Iron Mountain	1.67	4	⇑P	Pn	19 23 55.8	-1.0
	baz=1.7						
Y13A	Salome	1.80	43	⇓Sb	Sb	19 24 25.2	+2.1
	baz=1.8						
MURC	Murrieta	1.94	305	⇓Sb	Sb	19 24 28.6	+1.2
	baz=2.0						
214A	Organ Pipe Nat	2.17	104	P	Pn	19 24 02.6	-1.1
	baz=2.2,SNR=61						
X13A	Yucca	2.42	30	P	Pn	19 24 05.8	-1.4
	baz=2.5,SNR=9.6						
X13A				⇑Sb	Sb	19 24 43.3	+2.3
	baz=2.5						
CIS	Catalina Islan	2.77	290	⇑P	Pn	19 24 11.1	-0.8
	baz=2.8						
CIS				⇑Sb	Sb	19 24 52.9	+1.8
	baz=2.8						
FMP	Fort Macarthur	2.80	297	⇓Sb	Sb	19 24 54.1	+2.2
	baz=2.8						
EDW2	Edwards Air Fo	3.27	317	⇓Sb	Sb	19 25 08.6	+3.1
	baz=3.3						
216A	Three Points,	3.29	98	⇓P	Pn	19 24 18.3	-0.8
	baz=3.3,SNR=7.6						
OSI	Osito Adit	3.56	307	P	Pn	19 24 23.5	+0.7
117A	Oracle	3.85	88	⇑P	Pn	19 24 26.0	-0.8
	baz=3.8,SNR=16						
217A	Green Valley	3.86	100	⇓P	Pn	19 24 26.4	-0.6
	baz=3.9,SNR=5.2						
ISA	Isabella	4.12	321	P	Pn	19 24 33.7	+3.2
WUAZ	Wupatki	4.44	46	eP	Pn	19 24 37.1	+2.2
318A	Bisbee	4.63	102	⇑P	Pn	19 24 37.0	-0.5
	baz=4.6,SNR=20						
319A	Douglas	5.23	101	⇑P	Pn	19 24 45.5	-0.3
	baz=5.2						
M17A	Scullys Gap (B	9.69	21	⇑P	Pn	19 25 46.8	-0.2
	baz=9.8,SNR=59						

IDC 11 19:38:56.5±7.0, 2°.07N×95°.68E, h0^{km}, mb3.6/3, mb1 3.5/5, mb1mx3.4/23, mbtmp3.5/5, ML3.3/2, Error ellipse: s-maj=135.9km s-min=41.7km az=18.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.32	77	Pn	Pn	19 39 50.0	+0.3
	1.2nm,0.3s,baz=246,slow=13,SNR=5.4						
CMAR	Chiang Mai Arr	16.59	11	Pn	Pn	19 42 51.6	+0.9
	0.1nm,0.3s,baz=202,slow=12,SNR=2.8						
MKAR	Makanchi Array	46.05	347	P	P	19 47 22.6	+0.7
	0.5nm,0.6s,baz=161,slow=8.7,SNR=9.0						
SONM	Songino Array	46.52	10	P	P	19 47 24.6	-1.0
	0.2nm,0.7s,baz=181,slow=9.0,SNR=3.8						
ZALV	Zalesovo Beam	52.47	352	P	P	19 48 10.8	-0.2
	0.8nm,0.4s,baz=168,slow=7.6,SNR=5.1						

IDC 11 19:47:03.0±63.0, 20°.72S×178°.50W, h0^{km}, mb3.8/3, mb1 4.0/3, mb1mx3.7/16, mbtmp3.8/3, Error ellipse: s-maj=1155.0km s-min=163.5km az=83.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	37.27	244	P	P	19 54 16.1	-0.6
	1.5nm,0.9s,baz=94,slow=15,SNR=4.0						
ASAR	Alice Springs	44.01	257	P	P	19 55 12.2	-0.4
	0.8nm,0.7s,baz=96,slow=8.5,SNR=9.6						
WRA	Warramunga Arr	44.11	262	P	P	19 55 14.0	+0.6
	0.4nm,0.3s,baz=95,slow=8.3,SNR=30						

IDC 11 19:54:25.0±5.8, 15°.74S×167°.93E, h0^{km}, mb3.9/6, mb1 4.1/6, mb1mx4.0/17, mbtmp3.9/6, Error ellipse: s-maj=151.4km s-min=31.6km az=118.0, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.45	192	eP	Pn	19 56 13.5	+12
DZM				eS	Sn	19 57 25.6	+10
STKA	Stephens Creek	28.85	231	P	P	20 00 25.5	+0.3
	1.2nm,0.8s,baz=66,slow=10.0,SNR=3.2						
WRA	Warramunga Arr	32.22	258	P	P	20 00 54.7	-0.4
	0.3nm,0.4s,baz=78,slow=6.0,SNR=13						
ASAR	Alice Springs	32.93	251	P	P	20 01 01.5	+0.2
	3.0nm,0.5s,baz=78,slow=8.8,SNR=48						
MJAR	Matsushiro Arr	59.09	332	P	P	20 04 27.4	+0.3
	1.4nm,0.6s,baz=172,slow=8.9,SNR=4.6						
CMAR	Chiang Mai Arr	75.94	294	P	P	20 06 14.7	+0.5
	0.4nm,0.7s,baz=126,slow=3.2,SNR=3.6						
SONM	Songino Array	83.68	323	P	P	20 06 55.1	-0.5
	0.5nm,0.6s,baz=130,slow=4.7,SNR=6.6						

CASC 11 19:57:57.7±1.4, 13°.30N×90°.27W, h21^{km}±4^{km}, MD3.7, 2C, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	San Blas	0.83	50	eP	Pb	19 58 13.4	0.0
SBLS				eS	Sb	19 58 25.4	+1.3
RTR	El Retiro	0.85	46	eP	Pb	19 58 13.9	+0.1
RTR				eS	Sb	19 58 26.1	+1.4
SNJE	San Jose	0.86	49	eP	Pb	19 58 13.9	-0.1
SNJE				eS	Sb	19 58 26.1	+1.0
IXG	Ixpaco	0.89	348	⇑eP	Pb	19 58 14.4	0.0
IXG				eS	Sb	19 58 25.7	-0.1
BOQS	Boqueron	1.06	66	eP	Pn	19 58 16.7	-0.5
BOQS				eS	Sb	19 58 32.1	+1.4
PCG	Pacaya	1.13	343	eP	Pn	19 58 18.2	-0.1
LFRS	El Faro	1.22	75	eP	Pn	19 58 18.9	-0.6
LFRS				eS	Sn	19 58 36.4	+1.0
FUG	Fuego 3	1.27	334	eP	Pn	19 58 19.8	-0.4
LBRS	Las Brisas	1.27	70	eP	Pn	19 58 20.2	-0.1
NBG	Las Nubes	1.28	357	⇑eP	Pn	19 58 21.7	+1.3
NBG				eS	Sn	19 58 39.2	+2.3
FG6		1.39	335	eP	Pn	19 58 21.6	-0.2
SNVI	San Vicente	1.43	77	eP	Pn	19 58 22.6	+0.3
SNVI				eS	Sn	19 58 42.3	+1.8
TP2	Tecpan 2	1.64	334	eP	Pn	19 58 26.2	+0.8
JAT	Jato	1.67	307	eP	Pn	19 58 25.4	-0.2
MRL	Marmol	1.84	18	eP	Pn	19 58 29.4	+1.3
BLLM	Bellamira	1.98	86	eP	Pn	19 58 30.0	0.0
BLLM				eS	Sn	19 58 54.7	+0.4
CAHU	Cacacuatique	2.06	77	eP	Pn	19 58 30.9	-0.2

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
CNCH	**Conchagua**	2.37	90	*e*P	Pn	19 58 35.6	+0.2
CNCH				*e*S	Sn	19 59 05.4	+1.5

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*NEIC **11** 20:07:46.5±0.4, 0°.52S×122°.26E, h15^{km}, mb4.9/8, Error ellipse: s-maj=14.0km s-min=7.1km az=80.0*
*MOS **11** 20:07:46.8±1.6, 0°.64S×122°.32E, h33^{km}, mb4.8/10, Error ellipse: s-maj=25.3km s-min=12.2km az=112.0*
*ISCJB **11** 20:07:47.8±0.3, 0°.63S±0°.03×122°.21E±0°.04, h33^{km}, mb4.6/40, MS3.8/10, Error ellipse: s-maj=5.8km s-min=4.8km az=175.9*
*IDC **11** 20:07:49.5±6.7, 0°.53S×122°.25E, h33^{km}±52^{km}, mb4.0/12, mb1 4.1/13, mb1mx4.0/22, mbtmp4.0/13, ML3.6/1, MS3.8/9, Ms1 3.8/9, ms1mx3.4/27, Error ellipse: s-maj=28.0km s-min=13.2km az=61.0*
*DJA **11** 20:07:52, 0°.80S×122°.09E, h36^{km}, mb5.2/11*
ISC 11 20:07:49.9±0.3, 0°.64S±0°.03×122°.23E±0°.04, h35^{km}, (h18^{km}±6.7^{km}:pP-P), n90, σ1^{s}.23/84, mb4.6/40, MS3.8/10, 2C-5D, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCI	**Palu**	2.40	264	P	Pn	20 08 25.3	-1.5
PCI				S	Sn	20 08 56.5	+1.5
KDI	**Kendari**	3.32	173⇑	*e*P	Pn	20 08 39.6	+0.2
KDI				*e*S	Sn	20 09 16.7	-0.9
KDI	**Kendari**	3.32	173	P	Pn	20 08 39.5	+0.1
MNI	**Manado**	3.33	52	P	Pn	20 08 42.5	+2.9
KAPI	**Kappang**	5.00	210	*e*P	Pn	20 09 00.9	-1.6
	469nm,0.6s						
KAPI	**Kappang**	5.00	210	P	Pn	20 09 01.1	-1.4
LBMI	**Labuha**	5.27	90	P	Pn	20 09 08.8	+2.5
	491nm,0.9s,5μm2.8nm						
MKS	**Makassar**	5.31	211⇓	*e*P	Pn	20 09 04.5	-2.3
TNTI	**Ternate**	5.33	75	P	Pn	20 09 12.4	+5.4
	1.0nm3μm233nm,1.0s						
TNTI				S	Sx	20 10 16.9	
	1.0nm3μm233nm,1.0s						
AAI	**Ambon**	6.69	117	P	Pn	20 09 30.6	+4.9
	0.7nm181nm,0.9s						
MYLDM	**Lahad Datu**	6.88	327	P	Pn	20 09 32.2	+3.9
	1.6nm296nm,0.9s						
MSAI	**Masohi**	7.22	112	P	Px	20 09 47.7	
BBKI	**Banjar Baru**	7.89	249	P	Pn	20 09 42.9	+0.6
	145nm,0.7s,0.7nm						
BBKI				S	Sn	20 11 11.3	+0.8
	145nm,0.7s,0.7nm						
DAV	**Davao City (W)**	8.36	24	LR	LR	20 13 06.2	
	comp=Z,778nm,21.1s,baz=191,slow=38						
DAV	**Davao City (W)**	8.36	24	*e*P	Pn	20 09 43.4	-5.2
	358nm,0.4s						
DAV	**Davao City (W)**	8.36	24	P	Pn	20 09 49.7	+1.0
SBUM	**Sibu**	10.46	287	P	Pn	20 10 20.1	+2.5
	20nm,1.9s						
BAKI	**Biak**	13.89	92	P	Pn	20 11 13.6	+9.2
LEM	**Lembang**	15.81	247	P	Pn	20 11 28.4	-1.7
	86nm,1.1s						
FITZ	**Fitzroy Crossi**	17.67	169	P	Pn	20 11 53.3	-0.2
	0.2nm,0.3s,baz=342,slow=9.6,SNR=3.5						
MBWA	**Marble Bar**	20.54	187	*e*P	P	20 12 25.6	+0.1
IPM	**Ipoh**	21.78	284	P	P	20 12 40.6	+1.6
	43nm,1.4s,mb4.7						
PPI	**Padang Panjang**	21.83	270	P	P	20 12 40.9	+1.4
	33nm,0.9s,mb4.8						
WRAB	**Tennant Creek**	22.55	149	*e*P	P	20 12 47.7	+0.6
WRAB				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.6						
WRAB	**Tennant Creek**	22.55	149	*e*P	P	20 12 47.7	+0.6
	comp=Z,23nm,1.0s,mb4.6						
WRA	**Warramunga Arr**	22.55	149	P	P	20 12 48.2	+1.1
	comp=Z,9.2nm,0.8s,mb4.3,baz=331,slow=10.0,SNR=34						
WRA				PcP	PcP	20 16 40.2	+0.1
	comp=Z,1.3nm,1.0s,baz=333,slow=2.1,SNR=3.1						
PSI	**Prapat**	23.54	278⇓	*e*P	P	20 12 56.9	-0.6
PSI	**Prapat**	23.54	278	P	P	20 12 56.6	-0.8
	comp=Z,7.8nm,0.8s,mb4.2,baz=153,slow=4.2,SNR=8.3						
PSI				LR	LR	20 22 13.7	
	comp=Z,203nm,21.4s,MS3.5,baz=238,slow=37						
TPUB	**Ta-pu**	23.85	356	*e*P	P	20 12 58.5	-1.6
SSLB	**Suanglung**	24.31	357	*e*P	P	20 13 03.9	-0.5
	comp=Z,55nm,1.0s,mb4.9						
GSI	**Gunungsitoli**	24.73	274	P	P	20 13 08.3	+0.1
ASAR	**Alice Springs**	25.54	155	P	P	20 13 16.2	+0.7
	comp=Z,2.4nm,0.6s,mb3.9,baz=348,slow=16,SNR=21						
ASAR				PcP	PcP	20 16 46.8	+0.3
	comp=Z,0.4nm,0.4s,baz=350,slow=2.1,SNR=7.1						
JOW	**Kunigami**	27.93	12	LR	LR	20 25 26.4	
	comp=Z,152nm,18.1s,MS3.6,baz=285,slow=38						
CMAR	**Chiang Mai Arr**	29.73	311	P	P	20 13 54.2	+1.1
	comp=Z,1.7nm,0.8s,mb3.9,baz=135,slow=7.2,SNR=14						
KMI	**Kunming**	31.81	325	P	P	20 14 21.2	+10
KMI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.3						
WHN	**Wuhan**	31.91	347	*e*P	P	20 14 21.0	+8.9
NWAO	**Narrogin (SRO)**	32.46	188	LR	LR	20 29 09.4	
	comp=Z,137nm,20.5s,MS3.6,baz=208,slow=39						
NJ2	**Nanjing**	32.67	355	*e*P	P	20 14 18.1	-0.7
NJ2				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.5						
CD2	**Chengdu**	35.95	332	P	P	20 14 47.2	-0.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CD2				pmax	pmax		
	comp=Z,160nm,6.9s						
STKA	**Stephens Creek**	36.06	151	P	P	20 14 49.2	+1.0
	comp=Z,2.9nm,0.9s,mb4.2,baz=299,slow=7.6,SNR=7.6						
STKA	**Stephens Creek**	36.06	151	P	P	20 14 49.2	+1.0
KSRS	**Korea Array**	38.27	7	LR	LR	20 30 52.2	
	comp=Z,84nm,18.9s,MS3.6,baz=325,slow=36						
SHL	**Shillong**	39.23	314	*e*PKP	P	20 15 19.5	+4.4
MJAR	**Matsushiro Arr**	39.86	20	P	P	20 15 18.2	-2.0
	comp=Z,4.2nm,0.8s,mb4.2,baz=197,slow=9.5,SNR=12						
MJAR				LR	LR	20 29 49.6	
	comp=Z,106nm,18.2s,MS3.7,baz=165,slow=33						
BJI	**Beijing**	40.86	353	P	P	20 15 34.1	+5.7
BJI				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.6						
BJI				LR	LR		
	comp=Z,99nm,19.1s,MS3.7						
LSA	**Lhasa**	42.30	318	P	P	20 15 43.0	+2.6
LSA	**Lhasa**	42.30	318	*e*P	P	20 15 41.4	+1.0
LSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
LSA	**Lhasa**	42.30	318	*e*P	P	20 15 41.4	+1.0
	comp=Z,7.5nm,0.8s,mb4.4						
ODAN	**Odare**	43.26	312	*e*P	P	20 15 49.7	+1.4
	comp=Z,13nm,0.6s,mb4.8						
TAPN	**Taplejung**	43.30	313	*e*P	P	20 15 48.9	+0.3
	comp=Z,16nm,0.7s,mb4.8						
RAMN	**Ramite**	43.90	311	*e*P	P	20 15 54.4	+1.0
	comp=Z,14nm,0.5s,mb4.9						
GTA	**Gaotai**	44.84	335	*e*P	P	20 16 02.2	+1.5
GTA				pP	pP	20 16 06.9	-4.1
GTA				sP	sP	20 16 10.0	-5.2
GTA				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.0						
GUN	**Gumba**	44.96	312	*e*P	P	20 16 02.3	+0.4
	comp=Z,63nm,1.0s,mb5.4						
KKN	**Kakani**	45.34	312	*e*P	P	20 16 05.4	+0.5
DMN	**Daman**	45.38	311	*e*P	P	20 16 05.7	+0.5
	comp=Z,16nm,0.7s,mb4.9						
GKN	**Gorkha**	45.94	311	*e*P	P	20 16 09.6	0.0
HYB	**Hyderabad**	46.59	295	*i* P	P	20 16 15.0	+0.1
KOLN	**Koldanda**	46.60	310	*e*P	P	20 16 14.8	0.0
	comp=Z,12nm,0.7s,mb5.0						
DANN	**Dangsing**	46.78	311	*e*P	P	20 16 16.3	+0.1
	comp=Z,39nm,0.7s,mb5.4						
ULN	**Ulaanbaatar**	50.09	347	*e*P	P	20 16 40.6	-0.7
ULN				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
ULN	**Ulaanbaatar**	50.09	347	*e*P	P	20 16 40.6	-0.7
	comp=Z,14nm,1.1s,mb4.9						
SONM	**Songino Array**	50.21	346	P	P	20 16 42.4	+0.1
	comp=Z,2.6nm,0.6s,mb4.4,baz=168,slow=8.3,SNR=27						
SONM				LR	LR	20 38 49.3	
	comp=Z,81nm,21.0s,MS3.7,baz=285,slow=37						
ZAK	**Zakamensk**	53.35	345	*e*P	P	20 17 05.0	-0.6
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
WMQ	**Urumqi**	53.94	330	*e*P	P	20 17 10.7	+0.6
WMQ				pP	pP	20 17 16.0	-4.7
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,270nm,6.0s						
WMQ				LR	LR		
	comp=Z,200nm,16.3s,MS4.3						
KSH	**Kashi**	58.14	319	P	P	20 17 40.8	+0.5
KSH				*e*pP	pP	20 17 50.3	-0.6
KSH				*e*sP	sP	20 17 55.1	+0.1
KSH				*e*PcP	PcP	20 18 32.0	+0.4
KSH				*e*PP	PP	20 19 51.1	+1.7
KSH				*e*ScP	ScP	20 22 28.1	-1.3
KSH				*e*PcS	PcS	20 22 32.0	-1.0
KSH				*e*S	S	20 25 38.1	-1.3
KSH				*e*sS	sS	20 25 55.2	-1.7
KSH				*e*ScS	ScS	20 27 24.1	-3.3
KSH				*e*SS	SS	20 29 32.1	+0.7
KSH				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
KSH				pmax	pmax		
	comp=Z,70nm,2.7s,mb5.2						
KSH				LR	LR		
	comp=N,320nm,5.5s						
KSH				LR	LR		
	comp=E,200nm,6.2s						
KSH				LR	LR		
	comp=Z,320nm,5.5s						
BOD	**Bodaibo**	58.65	355	*e*P	P	20 17 46.5	+3.1
BOD				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MKAR	**Makanchi Array**	58.75	329	P	P	20 17 44.0	-0.4
	comp=Z,1.6nm,0.4s,mb4.4,baz=124,slow=9.0,SNR=74						
TKM2	**Tokmak 2**	60.21	322	*e*P	P	20 17 53.8	-0.7
TKM2				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
TKM2	**Tokmak 2**	60.21	322	*e*P	P	20 17 53.8	-0.7
	comp=Z,13nm,1.1s,mb4.9						
AAK	**Ala-Archa**	60.74	321⇓	*e*P	P	20 17 56.3	-1.8
AML	**Almayashu**	60.98	320	*e*P	P	20 17 59.7	0.0
	comp=Z,8.7nm,1.0s,mb4.8						
PETK	**Petropavlovsk-**	61.18	24	P	P	20 18 00.5	-0.4
	comp=Z,1.0nm,0.5s,mb4.2,baz=206,slow=2.4,SNR=5.4						
ZAA0	**Zalesovo Array**	62.58	336	*e*P	P	20 18 06.9	-3.4
ZALV	**Zalesovo Beam**	62.58	336	P	P	20 18 08.5	-1.8
	comp=Z,1.9nm,0.6s,mb4.4,baz=123,slow=5.5,SNR=8.3						
YAK	**Yakutsk**	62.77	4	*e*P	P	20 18 09.0	-2.4
YAK				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.9						
YAK				pmax	pmax		
	comp=N,7.0nm,1.6s						
YAK	**Yakutsk**	62.77	4	*e*P	P	20 18 09.7	-1.6
	comp=N,14nm,0.8s,mb5.2						
KURK	**Kurchatov**	63.15	331	P	P	20 18 12.9	-1.2
	comp=N,7.8nm,1.1s,mb4.8,baz=136,slow=6.1,SNR=17						
KURK	**Kurchatov**	63.15	331	*e*P	P	20 18 12.8	-1.3
SEY	**Seymchan**	67.32	14⇓	*i*P	P	20 18 39.8	-1.1
BVAR	**Borovoye Array**	68.63	329	P	P	20 18 48.8	-0.6
	comp=N,1.3nm,0.9s,mb3.9,baz=128,slow=9.6,SNR=5.7						
BRVK	**Borovoye**	68.70	329	*e*P	P	20 18 48.8	-1.0
TIXI	**Tiksi**	72.30	2	*e*P	P	20 19 09.2	-2.2
TIXI				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
TIXI	**Tiksi**	72.30	2	*e*P	P	20 19 09.2	-2.2
	comp=Z,19nm,1.1s,mb4.9						
BILL	**Bilibino**	74.93	16⇑	*i*P	P	20 19 29.1	+2.2
BILL				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.4						
ARU	**Arti**	76.28	329*d*	*i*P	P	20 19 32.0	-2.9
ARU				*e*		20 22 21.2	
ARU				S	S	20 29 12.7	-4.2
ARU				SS	SS	20 34 12.4	+1.0
ARU				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.4						
MAW	**Mawson**	78.14	200	LR	LR	20 48 29.3	
	comp=Z,102nm,19.5s,MS4.2,baz=299,slow=31						
BOSA	**Boshof**	95.82	241	LR	LR	21 00 32.5	
	comp=Z,102nm,18.0s,MS4.3,baz=184,slow=33						
TORD	**Torodi Ar. Bea**	119.83	285	PKP	PKPdf	20 26 35.3	-2.2
	comp=Z,0.5nm,1.0s,baz=71,slow=1.6,SNR=2.6						
TORD	**Torodi Ar. Bea**	119.83	285	PKP	PKPdf	20 26 35.3	-2.2
TXAR	**Lajitas Array**	127.81	53	PKP	PKPdf	20 26 52.0	-0.5
	comp=Z,0.2nm,0.5s,baz=252,slow=5.4,SNR=2.7						

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*NEIC **11** 20:14:01.1, 32°.46N×115°.28W, h0^{km}, ML3.2(PAS), ML3.5(ECX), After ECX.*
ECX 11 20:14:01.4±0.5, 32°.46N×115°.31W, h10^{km}, MD3.4, ML3.5, 6C-6D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	**Cerro Prieto**	0.04	172⇓	*e*P	Pg	20 14 04.7	+1.4
SGL	**Mount Signal**	0.40	299⇑	*i*P	Pg	20 14 10.6	+1.4
ERPC	**Ernies Place**	0.41	314⇑	*i*P	Pg	20 14 11.3	+1.8
COA	**Coachella**	0.43	21⇓	*i*P	Pg	20 14 11.4	+1.4
EMX	**El Mayor**	0.47	173⇓	*e*P	Pg	20 14 12.2	+1.6
EMX				*e*S	Sg	20 14 19.2	+2.3
COK	**Cook Ranch**	0.53	318	*e*P	Pg	20 14 13.0	+1.4
YUH	**Yuha Desert**	0.55	290⇑	*i*P	Pg	20 14 13.2	+1.1
RUN	**Ruthven**	0.58	29⇓	*i*P	Pg	20 14 13.4	+0.6
YMD	**Yuma Desert**	0.65	81	*e*P	Pg	20 14 13.3	-0.8
CRR	**Carrizo Plain**	0.70	308⇑	*i*P	Pg	20 14 15.7	+0.7
GLA	**Glamis**	0.72	34⇓	*i*P	Pg	20 14 15.4	+0.1
GLA	**Glamis**	0.72	34	*e*P	Pg	20 14 15.3	0.0
RDX	**Rancho Dawling**	0.75	226⇑	*e*P	Pg	20 14 17.3	+1.4
RDX				*e*S	Sg	20 14 29.3	+3.5
RDX				⇑*e*		20 14 31.1	
	comp=N,1μm,0.4s						
ECBX	**El Chinero**	1.01	167⇓	*e*P	Pg	20 14 21.9	+1.1
ECBX				*e*S	Sg	20 14 36.2	+2.3
BAR	**Barrett**	1.17	281	*e*P	Pb	20 14 23.2	-0.5
BAR				*e*S	Sb	20 14 39.7	+0.8
ECNX	**Esteban Cantu**	1.35	234	*e*PN	Pn	20 14 27.2	+0.9
ECNX				*e*PN	Pn	20 14 27.1	+0.8
PBX	**Punta Banda**	1.40	240	*e*PN	Pn	20 14 27.9	+0.9
PFO	**Pinyon Flat Ob**	1.50	320	*e*P	Pn	20 14 27.2	-1.1
LDFC	**Landfair**	2.62	4	*e*Pg	Pg	20 14 54.6	+3.0
MWC	**Mount Wilson**	2.90	308	*e*Pg	Pg	20 14 57.9	+1.0
PASC	**Pasadena Art C**	2.95	306	*e*Pg	Pg	20 15 05.3	+7.3
GSC	**Goldstone**	3.10	337	*e*Pg	Pg	20 15 03.1	+2.3
OSI	**Osito Adit**	3.57	308	*e*Pg	Pg	20 15 11.3	+1.5
TUC	**Tucson**	3.83	91	*e*Pn	Pn	20 14 59.4	-1.0
TUC				*e*Pg	Pg	20 15 13.1	-1.7
ISA	**Isabella**	4.14	321	*e*Pg	Pg	20 15 21.1	+0.4
WUAZ	**Wupatki**	4.47	46	*e*Pn	Pn	20 15 10.7	+1.5

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*IDC **11** 20:26:21.9±2.1, 7°.48S×107°.16E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/20, mbtmp3.7/5, Error ellipse: s-maj=108.5km s-min=20.7km az=53.0*
*ISCJB **11** 20:26:30.4±1.7, 6°.8S±0°.3×108°.1E±0°.2, h59^{km}±21^{km}, mb3.6/5, Error ellipse: s-maj=54.5km s-min=15.3km az=35.8*
*DJA **11** 20:26:34, 6°.01S×107°.83E, h10^{km}, MLv3.9/4*
ISC 11 20:26:31.1±2.6, 6°.8S±0°.3×108°.1E±0°.2, h49^{km}±32^{km}, n10, σ0^{s}.80/11, mb3.6/5, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEM	**Lembang**	0.50	261	P	Sn	20 26 49.9	-0.5
CBJI	**Citeko**	1.30	285	P	Pn	20 26 52.2	-0.7
CBJI				S	Sn	20 27 08.8	-0.4
DBJI	**Dramaga**	1.37	278	P	Pn	20 26 54.8	+0.9
DBJI				S	Sn	20 27 11.6	+0.7
SBJI	**Serang**	2.07	287	P	Pn	20 27 03.8	+0.3
WRA	**Warramunga Arr**	28.63	120	P	P	20 32 24.0	+0.8
	0.5nm,0.8s,mb3.3,baz=291,slow=12,SNR=4.6						
STKA	**Stephens Creek**	39.99	133	P	P	20 34 00.6	-0.7
	5.8nm,0.7s,mb4.4,baz=301,slow=8.3,SNR=19						
SONM	**Songino Array**	54.37	359	P	P	20 35 56.3	+3.4
	0.2nm,0.7s,mb3.2,baz=188,slow=9.7,SNR=2.4						
SONM				PcP	PcP	20 36 56.9	+0.7
	0.7nm,0.5s,baz=178,slow=3.7,SNR=17						
MKAR	**Makanchi Array**	58.04	339	P	P	20 36 18.2	-0.8
	0.2nm,0.5s,mb3.4,baz=155,slow=8.1,SNR=4.3						
BVAR	**Borovoye Array**	67.58	336	P	P	20 37 22.2	-0.2
	0.3nm,0.5s,mb3.6,baz=131,slow=8.0,SNR=3.9						
TXAR	**Lajitas Array**	142.57	49	PKP	PKPdf	20 45 58.5	-0.9
	0.5nm,0.7s,baz=290,slow=2.4,SNR=4.2						

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*IDC **11** 20:32:10.2±1.0, 2°.55N×128°.01E, h0^{km}, mb3.6/6, mb1 3.7/6, mb1mx3.6/17, mbtmp3.6/6, Error ellipse: s-maj=106.1km s-min=17.5km az=74.0*
*ISCJB **11** 20:32:17.5±4.5, 2°.6N±0°.2×128°.1E±0°.5, h75^{km}±44^{km}, mb3.5/6, Error ellipse: s-maj=94.6km s-min=18.7km az=162.7*
ISC 11 20:32:18.1±4.7, 2°.6N±0°.2×128°.2E±0°.5, h62^{km}±47^{km}, n7, σ0^{s}.66/7, mb3.6/6, 1D, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNE	**Ternate**	1.95	205⇓	*e*P	Pn	20 32 49.0	0.0
WRA	**Warramunga Arr**	23.17	165	P	P	20 37 18.9	-0.6
	1.4nm,0.7s,mb3.5,baz=344,slow=10,SNR=26						
ASAR	**Alice Springs**	26.66	168	P	P	20 37 51.0	-0.2
	0.3nm,0.5s,mb3.1,baz=352,slow=7.6,SNR=7.2						
ASAR				PcP	PcP	20 41 13.8	0.0
	0.3nm,0.7s,baz=11,slow=2.1,SNR=4.3						
KSRS	**Korea Array**	34.72	360	P	P	20 39 02.2	+0.2
	1.4nm,0.6s,mb4.1,baz=176,slow=10,SNR=5.3						
STKA	**Stephens Creek**	36.54	161	P	P	20 39 18.6	+0.8
	1.1nm,0.5s,mb3.9,baz=343,slow=8.8,SNR=4.8						
SONM	**Songino Array**	48.86	341	P	P	20 40 56.8	-0.6
	0.3nm,0.8s,mb3.4,baz=133,slow=5.0,SNR=2.9						
MKAR	**Makanchi Array**	59.34	325	P	P	20 42 14.1	+0.4
	0.2nm,0.5s,mb3.4,baz=118,slow=7.1,SNR=4.7						

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*NEIC **11** 20:33:30.8, 16°.90N×94°.27W, h149^{km}, MD4.3(MEX), After MEX.*
MEX 11 20:33:30.8±1.2, 16°.90N×94°.27W, h149^{km}±17^{km}, MD4.3, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TUIG	**Tuzandepetl**	1.14	353	*i* P	Pn	20 33 55.0	-1.7
TUIG				*i* S	Sn	20 34 14.4	-2.2
PCIG		1.56	139	*e*P	Pn	20 34 00.2	-0.7
PCIG				*i* S	Sn	20 34 22.0	-1.9
HUIG	**Huatulco**	2.09	238	*i* P	Pn	20 34 04.5	-2.4
HUIG				*i* S	Sn	20 34 33.0	-1.7
CCIG	**Comitan**	2.13	106	*e*P	Pn	20 34 06.5	-0.9
CCIG				*i* S	Sn	20 34 33.1	-2.5
VHO	**Vista Hermosa**	2.36	275	*e*P	Pn	20 34 10.3	+0.1
VHO				*i* S	Sn	20 34 39.7	-0.8
TPIG	**Tehuac#an**	3.31	298	*i* P	Pn	20 34 22.3	+0.2
TPIG				*i* S	Sn	20 34 59.9	-2.0
LVIG	**Laguna Verde**	3.47	324	*i* P	Pn	20 34 22.6	-1.6
UTMO	**Huajuapan**	3.50	286	*e*P	Pn	20 34 25.1	+0.5
UTMO				*i* S	Sn	20 35 03.2	-3.0
PNIG	**Pinotepa**	3.73	263	*e*P	Pn	20 34 25.5	-2.1
PNIG				*i* S	Sn	20 35 09.1	-2.4
PPM	**Popocatepetl**	4.67	298	*e*P	Pn	20 34 41.0	+1.1
PPM				*i* S	Sn	20 35 33.3	-0.4
PLIG	**Platanillo**	5.21	287	*i* P	Pn	20 34 47.2	+0.3
PLIG				*i* S	Sn	20 35 42.2	-4.2
MEIG	**Mezcala**	5.21	282	*i* P	Pn	20 34 47.3	+0.3
CAIG	**El Cayaco**	5.74	272	*i* P	Pn	20 34 53.6	-0.5
CAIG				*i* S	Sn	20 35 54.8	-4.3
R15V		9.51	285	*i* P	Pn	20 35 48.8	+4.4

IDC 11 20:40:30.2±10.0, 2°.15S×100°.60E, h0^{km}, mb3.3/3, mb1 3.6/3, mb1mx3.3/21, mbtmp3.3/3, Error ellipse: s-maj=528.4km s-min=29.7km az=53.0, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	37.40	121	P	P	20 47 45.2	-0.1
	0.3nm,0.6s,baz=291,slow=8.2,SNR=3.2						
ASAR	**Alice Springs**	38.68	126	P	P	20 47 56.0	0.0
	0.3nm,0.7s,baz=303,slow=8.1,SNR=4.8						
MKAR	**Makanchi Array**	51.34	344	P	P	20 49 36.3	0.0
	0.1nm,0.5s,baz=154,slow=8.8,SNR=5.3						

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*ISCJB **11** 21:06:16.1±0.4, 43°.95N±0°.02×105°.38W±0°.03, h0^{km}, Error ellipse: s-maj=3.5km s-min=3.2km az=159.6*
*IDC **11** 21:06:16.4±2.0, 43°.70N×105°.39W, h0^{km}, mb3.7/1, mb1 3.9/4, mb1mx3.5/23, mbtmp3.7/4, ML3.6/3, Error ellipse: s-maj=49.7km s-min=8.8km az=151.0*
*NEIC **11** 21:06:17.7±0.4, 43°.80N×105°.22W, h0^{km}, ML3.3, Error ellipse: s-maj=6.7km s-min=5.5km az=161.0, Suspected Mining explosion.*
NEIC 60 km [35 miles] SSE of Gillette.
ISC 11 21:06:17.6±0.4, 43°.93N±0°.02×105°.32W±0°.03, h0^{km}, n29, σ1^{s}.39/71, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSSD	**Black Hills**	0.94	78	*e*P	Pg	21 06 35.5	-0.2
PHWY	**Pilot Hill**	2.63	182	*e*Pn	Pn	21 06 58.8	-2.5
PHWY				*e*S	Sn	21 07 33.7	-0.2
RWWY	**Rawlins**	2.64	212	*e*Pn	Pn	21 07 01.2	-0.2
RWWY				*e*Sn	Sn	21 07 33.5	-0.6
LAO	**LASA Array**	2.83	347	*e*Pn	Pn	21 07 05.9	+1.9
LAO				*e*Pg	Pg	21 07 14.8	+3.0
LAO				*e*Sg	Sg	21 07 47.3	-1.2
RLMT	**Red Lodge**	3.06	294	*e*Pn	Pn	21 07 09.0	+1.8
RLMT				*e*Sn	Sn	21 07 44.1	-0.4
RLMT				*e*Sg	Sg	21 07 54.7	-1.4
PDAR	**Pinedale Array**	3.30	251	Pn	Pn	21 07 10.9	+0.4
	7.7nm,0.3s,baz=72,slow=16,SNR=87						
PDAR				Lg		21 07 56.1	
	23nm,0.3s,baz=72,slow=35,SNR=13						
BW06	**Boulder Array**	3.31	251	*e*Pn	Pn	21 07 10.4	-0.2
BW06				*e*Pg	Pg	21 07 19.4	-1.6
BW06				*e*Sg	Sg	21 07 59.3	-4.4
LKWY	**Lake**	3.71	282	*e*Pn	Pn	21 07 17.0	+1.0
LKWY				*e*Pg	Pg	21 07 29.8	+1.2
LKWY				*e*Sn	Sn	21 08 00.1	-0.3
LKWY				*e*Sg	Sg	21 08 16.2	-0.5
LOHW	**Long Hollow**	3.84	267	*e*Pn	Pn	21 07 20.9	+3.0
LOHW				*e*Pg	Pg	21 07 28.5	-2.8
LOHW				Sn	Sn	21 08 04.5	+0.8
LOHW				*e*Sg	Sg	21 08 16.0	-5.0
OGNE	**Ogallala**	3.85	140	*e*Pn	Pn	21 07 17.1	-0.9
OGNE				*e*Pg	Pg	21 07 27.0	-4.4
OGNE				Sn	Sn	21 08 15.1	+11
MOOW	**Moose Ponds**	3.93	269	*e*Pn	Pn	21 07 20.0	+0.9
MOOW				*e*Sn	Sn	21 08 06.8	+0.9
MOOW				Sg	Sg	21 08 23.0	-0.9
REDW	**Red Top Meadow**	4.06	264	*e*Pn	Pn	21 07 22.3	+1.4
REDW				*e*Sg	Sg	21 08 27.4	-0.5
TPAW	**Teton Pass**	4.11	266	*e*Pn	Pn	21 07 23.2	+1.7
TPAW				*e*Pg	Pg	21 07 34.7	-1.6
TPAW				*e*Sn	Sn	21 08 11.3	+1.0
TPAW				*e*Sg	Sg	21 08 29.5	-0.1
ISCO	**Idaho Springs**	4.14	183	*e*Pn	Pn	21 07 20.6	-1.4
ISCO				Sn	Sn	21 08 17.4	+6.4
RRI2	**Red Ridge**	4.39	264	*e*Pn	Pn	21 07 26.6	+1.0
RRI2				*e*Pg	Pg	21 07 39.5	-2.3
RRI2				Sn	Sn	21 08 18.8	+1.3
RRI2				*e*Sg	Sg	21 08 40.7	+2.0
DGMT	**Dagmar**	4.61	9	*e*Pn	Pn	21 07 31.3	+2.9
DGMT				*e*Pg	Pg	21 07 46.6	+0.8
DGMT				*e*Sn	Sn	21 08 24.6	+2.0
DGMT				*e*Sg	Sg	21 08 43.6	-1.9
BOZ	**Bozeman (W)**	4.81	293	*e*Pn	Pn	21 07 32.4	+1.2
BOZ				*e*Pg	Pg	21 07 45.3	-4.4
BOZ				Sn	Sn	21 08 27.8	+0.2
BOZ				*e*Sg	Sg	21 08 49.1	-2.9
EGMT	**Eagleton**	5.13	324	*e*Pn	Pn	21 07 37.1	+1.5
	26nm,0.4s						
EGMT				*e*Pg	Pg	21 07 56.5	+0.7
EGMT				Sn	Sn	21 08 33.8	-1.6
DLMT	**Dillon**	5.39	288	*e*Pn	Pn	21 07 40.8	+1.6
	6.0nm,0.6s						
DLMT				*e*Pg	Pg	21 07 56.0	-4.8
DLMT				Sn	Sn	21 08 41.3	-0.5
DLMT				*e*Sg	Sg	21 09 08.3	-2.2
SDCO	**Great Sand Dun**	6.18	181	*e*Pn	Pn	21 07 48.2	-1.9
	2.7nm,0.7s						
SDCO				Sg	Sg	21 09 30.0	-6.2
CBKS	**Cedar Bluff**	6.62	139	Pn	Pn	21 08 02.7	+6.6
	16nm,0.4s						
CBKS				*e*Sn	Sn	21 09 20.1	+8.0
DUG	**Dugway**	6.71	239	*e*Pn	Pn	21 07 56.4	-1.0
	3.8nm,0.3s						
DUG				Sn	Sn	21 09 17.3	+2.9
MVCO	**Mesa Verde**	7.14	201	Pn	Pn	21 08 04.3	+1.1
ULM	**Lac du Bonnet**	9.02	42	Pn	Pn	21 08 28.2	-0.7
	2.2nm,0.3s,baz=234,slow=10.0,SNR=11						
ULM				Pg	Pg	21 08 59.0	-11
	1.1nm,0.3s,baz=196,slow=14,SNR=2.7						

ULM				Lg		21 11 01.1	
	0.6nm,0.3s,baz=319,slow=19,SNR=2.5						
AMTX	Amarillo	9.46	162	Pn	Pn	21 08 41.1	+5.9
	8.5nm,0.4s						
EDM	Edmonton	10.70	333	Pn	Pn	21 08 49.2	-2.8
FFC	Flin Flon	11.02	10	*e*Pn	Pn	21 08 56.2	-0.1
	3.8nm,0.6s						
FFC				Sn	Sn	21 10 58.0	-2.1
YKA	Yellowknife Ar	19.37	347	P	Pn	21 10 46.2	+0.6
	0.2nm,0.3s,baz=161,slow=13,SNR=7.1						
MKAR	Makanchi Array	89.41	355	P	P	21 19 16.1	+0.1
	0.4nm,0.8s,baz=13,slow=4.8,SNR=4.8						

ISCJB ***11*** *21:12:46.1±0.4, 12°.89S±0°.05×36°.98E±0°.04, h10^{km}, mb4.2/10, Error ellipse: s-maj=7.7km s-min=5.8km az=169.5*

NEIC ***11*** *21:12:48.6±0.5, 12°.82S×36°.81E, h10^{km}, mb3.8/2, Error ellipse: s-maj=12.5km s-min=9.7km az=176.0*

IDC ***11*** *21:12:50.1±0.9, 12°.93S×36°.83E, h20^{km}±5^{km}, mb3.6/5, mb1 3.7/9, mb1mx3.6/25, mbtmp3.7/9, ML3.9/3, MS2.8/4, Ms1 2.8/4, ms1mx2.7/22, Error ellipse: s-maj=26.0km s-min=18.4km az=140.0*

ISC 11 21:12:47.9±0.4**, 12°.89S**±0°.05×**36°.87E**±0°.04**, h10^{km}, (h23^{km}**±.3^{km}**:pP-P), n30, σ0^{s}99**/35**, mb4.2**/10**, 2C, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSZ	Lusaka	8.75	253	Pn	Pn	21 14 54.5	0.0
	2.0nm,0.3s,baz=78,slow=12,SNR=54						
LSZ				Sn	Sn	21 16 25.2	-8.0
	2.2nm,0.3s,baz=70,slow=12,SNR=2.6						
LSZ				Lg		21 17 14.6	
	5.2nm,0.3s,baz=167,slow=20,SNR=4.8						
LSZ				LR	LR	21 18 45.7	
	comp=Z,56nm,19.6s,baz=188,slow=41						
LSZ	Lusaka	8.75	253	*e*Pn	Pn	21 14 54.5	-0.1
LSZ				*e*Sn	Sn	21 16 31.0	-2.3
LSZ				Lg		21 17 14.6	
LSZ				LR	LR	21 18 45.7	
OPO	Ambohidratompo	11.43	121	Pn	Pn	21 15 33.8	+2.5
	0.4nm,0.3s,baz=281,slow=14,SNR=3.6						
OPO				Sn	Sn	21 17 37.4	-1.7
	0.7nm,0.3s,baz=277,slow=17,SNR=2.1						
ABPO	Ambohimpanom	11.68	123	*e*Pn	Pn	21 15 36.1	+1.4
ABPO				*e*Sn	Sn	21 17 44.2	-0.9
LBTB	Lobatse	16.08	220	Pn	Pn	21 16 38.0	+3.8
	0.5nm,0.3s,baz=46,slow=14,SNR=8.0						
LBTB				Sn	Sn	21 19 34.0	+1.3
	0.4nm,0.3s,baz=348,slow=14,SNR=3.0						
LBTB				Lg		21 21 02.9	
	1.0nm,0.3s,baz=333,slow=14,SNR=4.8						
LBTB				LR	LR	21 23 26.0	
	comp=Z,10nm,20.0s,baz=99,slow=40						
LBTB	Lobatse	16.08	220	Pn	Pn	21 16 38.0	+3.8
LBTB				Sn	Sn	21 19 34.0	+1.3
LBTB				Lg		21 21 02.9	
LBTB				LR	LR	21 23 26.0	
BOSA	Boshof	19.02	213	P	Pn	21 17 10.8	+0.1
	0.3nm,0.3s,baz=1.0,slow=11,SNR=6.0						
BOSA				Lg		21 22 39.9	
	0.4nm,0.3s,baz=321,slow=22,SNR=4.6						
BOSA				LR	LR	21 25 27.8	
	comp=Z,35nm,20.3s,baz=353,slow=40						
TSUM	Tsumeb	19.56	249	P	Pn	21 17 15.8	-1.4
	0.3nm,0.3s,baz=8.2,slow=8.1,SNR=8.8						
TSUM				Lg		21 22 59.3	
	0.1nm,0.3s,baz=114,slow=21,SNR=3.9						
TSUM				LR	LR	21 25 03.6	
	comp=Z,87nm,20.0s,baz=106,slow=38						
TSUM	Tsumeb	19.56	249	*e*Pn	Pn	21 17 16.2	-1.0
	6.5nm,1.2s						
TSUM				*e*Sn	Sn	21 20 55.9	-1.0
TSUM				Lg		21 22 59.3	
TSUM				LR	LR	21 25 03.6	
SUR	Sutherland	24.35	215	P	P	21 18 06.5	+0.5
	4.9nm,0.8s,mb4.0,baz=68,slow=13,SNR=2.9						
TORD	Torodi Ar. Bea	43.42	305	P	P	21 20 51.6	+0.4
	0.6nm,0.6s,mb3.5,baz=125,slow=8.7,SNR=11						
TORD				pP	pP	21 20 58.1	+3.8
	0.3nm,0.6s,baz=123,slow=7.9,SNR=3.2						
DBIC	Dimbokro	45.78	293	*e*P	P	21 21 10.4	+0.3
	1.0nm,0.8s,mb3.8						
BRTR	Keskin Array B	52.43	357	P	P	21 22 02.1	+1.6
	0.9nm,0.7s,mb3.8,baz=179,slow=9.0,SNR=4.2						
BRTR				pP	pP	21 22 08.9	+5.2
	1.3nm,0.6s,baz=177,slow=10.0,SNR=5.0						
SYO	Syowa Base	56.10	179	⇑*e*P	P	21 22 20.2	-6.8
SYO	Syowa Base	56.10	179	⇑*e*P	P	21 22 31.8	+4.8
KOLN	Koldanda	60.69	48	*e*P	P	21 22 59.3	-0.4
GKN	Gorkha	61.58	48	*e*P	P	21 23 04.9	-0.8
	5.5nm,0.7s,mb4.8						
DMN	Daman	61.70	49	*e*P	P	21 23 06.0	-0.5
	8.1nm,0.7s,mb5.0						
PKI	Pulchoki	61.90	49	*e*P	P	21 23 07.4	-0.5
KKN	Kakani	61.92	49	*e*P	P	21 23 06.8	-1.2
GUN	Gumba	62.43	49	*e*P	P	21 23 11.0	-0.5
	5.0nm,0.4s,mb5.0						
RAMN	Ramite	62.44	50	*e*P	P	21 23 11.3	-0.2
JIRN	Jiri	62.52	49	*e*P	P	21 23 11.6	-0.5
ODAN	Odare	62.99	51	*e*P	P	21 23 16.0	+0.8
TAPN	Taplejung	63.49	50	*e*P	P	21 23 18.7	+0.2
	3.9nm,0.5s,mb4.8						
CMAR	Chiang Mai Arr	68.67	64	pP	pP	21 23 59.5	+4.3
	0.8nm,0.7s,baz=252,slow=7.7,SNR=5.9						
MKAR	Makanchi Array	71.99	31	P	P	21 24 11.6	-0.1
	0.3nm,0.6s,mb3.4,baz=212,slow=7.4,SNR=5.6						
MKAR				pP	pP	21 24 18.5	+3.5
	0.6nm,0.6s,baz=214,slow=7.9,SNR=6.3						
FITZ	Fitzroy Crossi	84.93	107	P	P	21 25 24.5	+0.6
SONM	Songino Array	86.22	39	P	P	21 25 30.7	+1.2
	0.2nm,0.6s,mb3.5,baz=241,slow=7.6,SNR=3.2						
SONM				pP	pP	21 25 37.4	+4.5
	0.4nm,0.7s,baz=246,slow=4.7,SNR=3.7						
NVAR	Mina Array Bea	146.33	323	PKPbc	PKPbc	21 32 30.5	+1.2
	0.4nm,0.7s,baz=72,slow=2.9,SNR=2.2						

NEIC ***11*** *21:23:50.7, 19°.21N×64°.83W, h88^{km}, MD3.5(RSPR), After RSPR.*

RSPR 11 21:23:50.7, 19°.21N×64°.83W, h88^{km}±4^{km}**, MD3.5**/8**, MD3.5**/8**, 12C, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABV	Anegada	0.67	135	⇑*e*P	Pn	21 24 06.1	-0.7
ABV	Anegada	0.67	135	⇑*e*P	Pn	21 24 06.6	-0.2
TBVI	Tortola	0.82	166	⇑*e*P	Pn	21 24 07.8	-0.5
TBVI				*e*S	Sn	21 24 21.6	+0.3
TBVI	Tortola	0.82	166	⇑*e*P	Pn	21 24 07.8	-0.5
TBVI				*e*S	Sn	21 24 21.1	-0.2
STVI	Saint Thomas	0.86	188	⇑*e*P	Pn	21 24 08.2	-0.6
STVI				*e*S	Sn	21 24 21.8	-0.4
MTP	Monte Pirata	1.30	212	⇑*e*P	Pn	21 24 13.4	-0.5
MTP				*e*S	Sn	21 24 30.9	-0.4
CBYP	Canovanas	1.35	226	⇑*e*P	Pn	21 24 14.1	-0.4
HUMP	Col San Antoni	1.44	222	⇑*e*P	Pn	21 24 14.9	-0.7
HUMP				*e*S	Sn	21 24 34.1	-0.2
SJG	San Juan	1.66	229	⇑*e*P	Pn	21 24 18.0	-0.4
SJG	San Juan	1.66	229	⇑*e*P	Pn	21 24 18.3	-0.1
CELP	Cerrillos	2.01	236	⇑*e*P	Pn	21 24 22.4	-0.6
AOPR	Arecibo Observ	2.02	245	⇑*e*P	Pn	21 24 22.5	-0.5

IDC ***11*** *21:47:31.4±5.5, 20°.93S×67°.15W, h0^{km}, mb3.4/1, mb1 3.7/2, mb1mx3.4/17, mbtmp3.5/2, ML4.2/1, Error ellipse: s-maj=170.5km s-min=62.3km az=47.0*

GUC ***11*** *21:47:46.6±0.8, 24°.21S×67°.67W, h202^{km}±14^{km}, ML4.1*

ISCJB ***11*** *21:47:47.2±0.9, 24°.10S±0°.08×67°.8W±0°.1, h227^{km}±13^{km}, Error ellipse: s-maj=19.8km s-min=12.1km az=169.2*

ISC 11 21:47:48.1±0.9**, 24°.08S**±0°.08×**67°.8W**±0°.1**, h223^{km}**±14^{km}**, n9, σ0^{s}49**/14**, 2C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	1.81	324	⇑*e*P	Pn	21 48 26.6	+0.1
LVC				*i* S	S	21 48 56.8	+0.2
PECH	Pedro de Valdi	2.30	310	*e*P	Pn	21 48 31.4	+0.1
PECH				*i* S	S	21 49 06.3	+1.0
PECH				AML	AML	21 49 09.0	
	comp=N,411nm,0.3s						
PB04	Plate Boundary	2.41	318	⇑*e*P	Pn	21 48 38.0	+5.5
PB04				*i* S	S	21 49 17.2	+10
PB04				AML	AML	21 49 20.0	
	comp=N,209nm,0.6s						
CPN1	Cerro Paranal	2.48	257	*e*P	Pn	21 48 33.2	0.0
CPN1				*i* S	S	21 49 08.2	-0.4
CPN1				AML	AML	21 49 10.8	
	comp=E,203nm,0.3s						
HMBC	Humberston	4.27	332	*e*P	Pn	21 48 53.6	-0.4
HMBC				*i* S	S	21 49 46.4	+0.2
HMBC				AML	AML	21 49 53.5	
	comp=E,130nm,0.6s						
PSGC	Pisagua	4.97	333	*e*P	Pn	21 49 02.1	-0.7
PSGC				*e*S	S	21 50 01.5	-0.5
CPUP	Villa Florida	9.70	106	Pn	Pn	21 50 03.0	-0.2
	comp=E,0.5nm,0.3s,baz=262,slow=15,SNR=5.1						
TORD	Torodi Ar. Bea	77.24	69	P	P	21 59 18.8	+0.7
	comp=E,0.2nm,0.6s,baz=249,slow=5.1,SNR=6.5						
MKAR	Makanchi Array	147.02	39	PKP	PKPdf	22 07 08.7	+6.8
	comp=E,0.4nm,0.5s,baz=307,slow=2.9,SNR=12						

ISK ***11*** *22:00:20.8, 39°.27N×40°.00E, h14^{km}, MD2.8*

CSEM ***11*** *22:00:27.7±0.5, 39°.40N×39°.19E, h10^{km}, MD2.9, Error ellipse: s-maj=18.7km s-min=8.8km az=133.0*

DDA ***11*** *22:00:27.8, 39°.41N×39°.22E, h7^{km}±1^{km}, Md2.9*

ISCJB ***11*** *22:00:28.7±0.7, 39°.41N±0°.06×39°.18E±0°.06, h10^{km}, Error ellipse: s-maj=10.1km s-min=4.5km az=143.3*

ISC 11 22:00:28.6±0.8**, 39°.39N**±0°.06×**39°.21E**±0°.06**, h5^{km}**±7^{km}**, n17, σ1^{s}08**/27**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEMA	Kemaliye	0.57	258	*i* P	Pg	22 00 39.0	-0.6
KEMA				*i* S	Sg	22 00 47.8	+0.8
KEMA	Kemaliye	0.57	258	*i* P	Pg	22 00 39.0	-0.6
KEMA				*i* S	Sg	22 00 47.8	+0.8
EZC	Erzincan	0.59	53	PG	Pg	22 00 34.6	-5.3
ELZG	Elazig	0.91	191	*i* P	Pg	22 00 45.4	-0.7
ELZG				*i* S	Sg	22 00 58.9	+0.9
ELZG	Elazig	0.91	191	*i* P	Pg	22 00 45.4	-0.7
ELZG				*i* S	Sg	22 00 58.9	+0.9
GUMT	Gumushane	1.08	11	*e*PN	Pn	22 00 44.7	-5.8
GUMT	Gumushane	1.08	11	*e*Pn	Pn	22 00 44.7	-5.8
KOPT	Kop Dagi	1.17	57	*i* P	Pg	22 00 50.0	-1.1
KOPT				*i* S	Sg	22 01 07.2	+0.9
KOPT	Kop Dagi	1.17	57	*i* P	Pg	22 00 50.0	-1.1
KOPT				*i* S	Sg	22 01 07.2	+0.9
MYA	Malataya	1.23	210	*e*PN	Pn	22 00 49.0	-3.5
MYA	Malataya	1.23	210	*e*Pn	Pn	22 00 49.0	-3.4
MALT	Malatya	1.24	210	*e*PN	Pn	22 00 49.2	-3.4
MALT				*e*SN	Sn	22 01 09.0	-0.7
MALT	Malatya	1.24	210	*e*Pn	Pn	22 00 49.2	-3.4
MALT				*e*Sn	Sn	22 01 09.0	-0.7
AKCD	Akcadag	1.49	223	*i* P	Pn	22 00 56.1	+0.1
AKCD				*i* S	Sn	22 01 17.0	+1.3
AKCD	Akcadag	1.49	223	*i* P	Pn	22 00 56.1	+0.1
ERZM	Erzurum	1.74	72	*i* P	Pn	22 01 00.4	+0.9
ERZM				*i* S	Sn	22 01 26.8	+4.7
ERZM	Erzurum	1.74	72	*i* P	Pn	22 01 00.4	+0.9

NEIC ***11*** *22:01:23.1, 32°.42N×115°.34W, h10^{km}, ML2.8(ECX), ML2.9(PAS), After ECX.*

ECX 11 22:01:25.3±0.7**, 32°.46N×115°.29W, h9^{km}, MD2.8, ML2.9, 3C-5D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.05	200	⇑*e*P	Pg	22 01 26.4	-0.7
CPBX				*e*S	Sg	22 01 28.5	+0.1
SGL	Mount Signal	0.41	297	*i* P	Pg	22 01 32.4	-1.1
SNR	Schaffner Ranc	0.42	342	*e*P	Pg	22 01 33.4	-0.1
COA	Coachella	0.42	19	*e*P	Pg	22 01 33.5	0.0
EMX	El Mayor	0.47	176	⇓*e*P	Pg	22 01 33.6	-0.9
EMX				*e*S	Sg	22 01 40.4	-0.3
EMX				⇓*e*		22 01 41.0	
	comp=N,643nm,0.3s						
COK	Cook Ranch	0.54	316	*e*P	Pg	22 01 34.9	-0.8
YMD	Yuma Desert	0.63	81	*e*P	Pg	22 01 36.7	-0.9
GLA	Glamis	0.70	33	*e*P	Pg	22 01 37.6	-1.2
GLA				*e*S	Sg	22 01 47.0	-1.1
CRR	Carrizo Plain	0.71	306	*e*P	Pg	22 01 37.6	-1.5
RDX	Rancho Dawling	0.77	227	*e*P	Pg	22 01 38.8	-1.3
RDX				*e*S	Sg	22 01 49.3	-0.9
RDX				⇓*e*		22 01 53.9	
	comp=N,243nm,0.4s						
ECBX	El Chinero	1.01	169	⇓*e*P	Pg	22 01 43.5	-1.1
ECBX				*e*S	Sg	22 01 57.5	-0.3
CBX	Cerro Bola	1.18	263	⇑*e*P	Pb	22 01 45.8	-1.9
BAR	Barrett	1.19	281	*e*P	Pb	22 01 45.4	-2.6
BAR				*e*S	Sb	22 02 01.0	-2.6
ECNX	Esteban Cantu	1.37	235	⇑*e*P	Pn	22 01 49.6	-1.0
ECNX				*e*S	Sb	22 02 07.9	-0.9
PBX	Punta Banda	1.42	240	*e*P	Pn	22 01 50.0	-1.3
PBX				*e*S	Sn	22 02 08.8	-1.2
SPX	San Pedro Mart	1.42	186	⇓*e*PN	Pn	22 01 51.5	+0.2
SPX				*e*S	Sn	22 02 10.4	+0.3
PFO	Pinyon Flat Ob	1.51	320	*e*Pn	Pn	22 01 48.9	-3.6
LDFC	Landfair	2.61	3	*e*Pn	Pn	22 02 09.1	+1.4
LDFC				*e*Pg	Pg	22 02 16.4	+1.1
LDFC				*e*S	Sn	22 02 40.3	+0.8
GSC	Goldstone	3.10	336	*e*Pn	Pn	22 02 13.8	-0.6
GSC				*e*Pg	Pg	22 02 25.5	+0.8
TUC	Tucson	3.81	91	Pn	Pn	22 02 23.4	-0.7
WUAZ	Wupatki	4.45	46	Pn	Pn	22 02 32.6	-0.4
WUAZ				Sn	Sn	22 03 24.9	0.0

MOS ***11*** *22:20:28.8±0.8, 16°.38N×93°.79W, h57^{km}, mb5.4/70, MS4.3/5, Error ellipse: s-maj=7.7km s-min=4.0km az=79.4*

SZGRF ***11*** *22:20:32.3, 15°.66N×94°.30W, h102^{km}, mb5.3, Near coast of Oaxaca, Mexico*

CASC ***11*** *22:20:32.3±2.2, 16°.93N×93°.71W, h174^{km}±59^{km}, MD4.9, mb5.0(NEIC)*

IDC ***11*** *22:20:32.7±0.7, 16°.36N×93°.94W, h88^{km}±6^{km}, mb4.6/28, mb1 4.7/29, mb1mx4.7/31, mbtmp4.5/29, MS3.9/14, Ms1 3.9/14, ms1mx3.7/26, Error ellipse: s-maj=15.4km s-min=9.8km az=46.0*

ISCJB ***11*** *22:20:33.7±0.1, 16°.41N±0°.02×94°.02W±0°.02, h101^{km}, mb4.9/177, Error ellipse: s-maj=3.7km s-min=1.7km az=31.0*

MEX ***11*** *22:20:33.9±1.0, 16°.24N×94°.23W, h108^{km}±15^{km}, MD4.9*

GCMT ***11*** *22:20:33.0±0.3, 16°.44N×94°.10W, h92^{km}±2^{km}, MW5.1/76, Moment Tensor Solution. s48,c64; s76,c123; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.07±.16; $M_{\theta\theta}$-0.89±.17; $M_{\phi\phi}$3.97±.19; $M_{r\theta}$2.69±.08; $M_{\theta\phi}$-1.88±.15; $M_{\phi r}$-2.34±.11; Best double couple: $M_0$5.36800×10^{16} NP1:ϕ_s190.00000°, δ32.00000°, λ-43.00000°. NP2: ϕ_s318.00000°, δ69.00000°, λ-115.00000°. Principal axes: T 5.7470, Plg20.0000°, Azm66.0000°; N -0.7520, Plg23.0000°, Azm327.0000°; P -4.9880, Plg59.0000°, Azm193.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***11*** *22:20:33.0, 16°.22N×94°.22W, h109^{km}, mb5.0/129, MD4.8(MEX), After MEX.*

NEIC Felt at Tuxtla Gutierrez.

BGS ***11*** *22:20:49.3±2.0, 18°.22N×92°.15W, h110^{km}, mb5.2*

ISC 11 22:20:36.1±0.1**, 16°.52N**±0°.02×**93°.81W**±0°.02**, h103^{km}, h103^{km}**±1.0^{km}**:pP-P, n740, σ0^{s}92**/767**, mb4.9**/177**, 105C-106D, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		0.99	145	*i* P	Pn	22 20 55.3	-1.3
PCIG				*i* S	Sn	22 21 11.3	-0.7
CMIG	Matias Romero	1.18	299	P	Pn	22 20 54.1	-4.6
	1µm,0.3s,baz=142,slow=7.2						
CMIG				S	Sn	22 21 09.5	-6.2
	8µm,0.3s,baz=24,slow=19,SNR=165						
CMIG				LR	LR	22 21 26.8	
	comp=Z,3µm,18.4s,baz=319,slow=47						
TUIG	Tuzandepetl	1.62	339	⇓*i*P	Pn	22 21 02.8	-1.2
TUIG				*i* S	Sn	22 21 25.8	+0.7
CCIG	Comitan	1.62	98	*i* P	Pn	22 21 06.3	+2.2
CCIG				*i* S	Sn	22 21 30.3	+5.0
HUIG	Huatulco	2.33	252	*i* P	Pn	22 21 02.4	-11
HUIG				*i* S	Sn	22 21 27.6	-14
OXX	Oaxaca	2.84	282	*i* P	Pn	22 21 12.1	-7.7
OXX				*i* S	Sn	22 21 42.5	-11
VHO	Vista Hermosa	2.85	282	⇑*i*P	Pn	22 21 13.3	-6.6
VHO				*i* S	Sn	22 21 44.0	-10
JAT	Jato	3.03	136	*e*P	Pn	22 21 23.9	+1.6
TP2	Tecpan 2	3.19	122	*e*P	Pn	22 21 26.8	+2.3
FG6		3.43	124	*e*P	Pn	22 21 31.0	+3.3
SCIG	Sabancuy	3.50	45	⇑*i*P	Pn	22 21 31.2	+2.7
SCIG				*i* S	Sn	22 22 17.5	+8.4
FUG	Fuego 3	3.53	125	*e*P	Pn	22 21 31.5	+2.5
NBG	Las Nubes	3.85	119	*e*P	Pn	22 21 36.4	+3.0
TPIG	Tehuac#an	3.88	300	*i* P	Pn	22 21 28.0	-5.7
TPIG				*i* S	Sn	22 22 10.5	-7.8
IXG	Ixpaco	3.99	125	*e*P	Pn	22 21 37.5	+2.3
UTMO	Huajuapan	4.03	289	*i* P	Pn	22 21 31.1	-4.7
UTMO				*i* S	Sn	22 22 12.7	-9.3
LVIG	Laguna Verde	4.04	323	*i* P	Pn	22 21 31.5	-4.3
LVIG				*i* S	Sn	22 22 15.0	-7.2
PNIG	Pinotepa	4.14	269	⇑*i*P	Pn	22 21 28.2	-9.1
PNIG				*i* S	Sn	22 22 11.0	-14
MRL	Marmol	4.22	109	*e*P	Pn	22 21 39.6	+1.3
MRL				*e*S	Sn	22 22 28.7	+2.1
RBDL	Robledal	4.64	120	*e*P	Pn	22 21 45.0	+0.9
MTO2	Montecristo 2	4.78	116	*e*P	Pn	22 21 45.7	-0.1
MTO2				*e*S	Sn	22 22 44.9	+4.7
RTR	El Retiro	4.79	122	*e*P	Pn	22 21 47.0	+1.0
BOQS	Boqueron	5.18	122	*e*P	Pn	22 21 52.6	+1.3
PPM	Popocatepetl	5.24	300	*i* P	Pn	22 21 47.1	-5.0
PPM				*i* P		22 21 49.5	
PPM				*i* S	Sn	22 22 43.7	-7.6
YAIG	Yautepec	5.53	296	*i* P	Pn	22 21 51.9	-4.0
YAIG				*i* S	Sn	22 22 46.5	-12
IIO	Organos	5.58	304	*e*P	Pn	22 21 52.1	-4.7
IIO				*i* S	Sn	22 22 52.5	-7.1
CHVM	Chichinautzin	5.69	298	*i* P	Pn	22 21 55.4	-2.8
CHVM				*i* S	Sn	22 22 52.9	-9.3
MEIG	Mezcala	5.72	285	*i* P	Pn	22 21 52.5	-6.2
MEIG				*i* S	Sn	22 22 49.7	-13
PLIG	Platanillo	5.74	290	⇑*i*P	Pn	22 21 52.5	-6.4
PLIG				*i* S	Sn	22 22 53.6	-10
PBVM	Pinon	5.80	301	*e*P	Pn	22 21 53.7	-6.0
PBVM				*i* S	Sn	22 23 00.0	-4.9
MZVM		5.80	298	*i* P	Pn	22 21 54.2	-5.5
MZVM				*i* S	Sn	22 23 00.8	-4.2
UNM	Universidad Na	5.82	300	*e*P	Pn	22 21 55.1	-5.0
UNM				*i* S	Sn	22 22 57.0	-8.5
ACX	Acapulco	5.86	274	*i* P	Pn	22 21 52.0	-8.6
ACX				*i* S	Sn	22 22 53.5	-13
PTVM	Pico Tres Padr	5.90	302	*e*P	Pn	22 21 55.6	-5.4
PTVM				*i* S	Sn	22 23 00.6	-6.7
SZVM	Salazar	5.99	299	*i* P	Pn	22 21 58.0	-4.3
SZVM				*i* S	Sn	22 22 57.4	-12
CAHU	Cacacuatique	6.06	116	*e*P	Pn	22 22 01.9	-1.3
CAIG	El Cayaco	6.21	276	*i* P	Pn	22 21 57.5	-7.8
CAIG				*i* S	Sn	22 23 01.1	-14
DEIG	Demacu	6.22	308	*i* P	Pn	22 22 04.3	-1.2
DEIG				*i* S	Sn	22 23 09.7	-5.6
TEIG	Tepich	6.42	54	⇑*i*P	Pn	22 22 10.0	+1.9
TEIG				*i* S	Sn	22 23 25.1	+5.0
TEIG	Tepich	6.42	54	P	Pn	22 22 10.0	+1.9
	134nm,0.3s,baz=256,slow=6.6,SNR=146						
TEIG				S	Sn	22 23 24.7	+4.7
	283nm,0.3s,baz=349,slow=22,SNR=19						
TEIG				LR	LR	22 25 15.1	
	comp=Z,2µm,20.6s,baz=16,slow=43						
TEIG	Tepich	6.42	54	*e*Pn	Pn	22 22 10.1	+1.9
TEIG				*e*Sn	Sn	22 23 20.5	+0.4
TGUH	Tegucigalpa,Un	6.77	110	*e*Pn	Pn	22 22 15.4	+2.5
	263nm,1.0s						
TGUH				*e*Sn	Sn	22 23 27.9	-0.5
MOIG	Morelia	7.69	295	*i* P	Pn	22 22 23.1	-2.3
MOIG				*i* S	Sn	22 23 42.9	-8.0
SFJM	Santa Fe	9.60	296	*i* P	Pn	22 22 49.2	-2.2
LNIG	Linares	9.87	329	*e*P	Pn	22 22 51.4	-3.7
LNIG				*i* S	Sn	22 24 38.1	-5.9
VCR	Vista de Mar	10.18	128	*e*P	Pn	22 23 00.3	+1.0
ZAIG	Zacatecas	10.33	308	*e*P	Pn	22 22 59.4	-1.9
CJM	Chamela	11.09	287	*i* P	Pn	22 23 08.4	-3.2
CGA2	Cerro Gallo 2	11.16	124	*e*P	Pn	22 23 13.2	+0.6
PRS1	Puriscal	11.30	124	*e*P	Pn	22 23 15.5	+1.1
LCR2	La Lucha 2	11.69	124	*e*P	Pn	22 23 19.8	+0.2
QCR	Quepos	11.75	126	*e*P	Pn	22 23 19.9	-0.5
URSC	Urasca	11.81	123	*e*P	Pn	22 23 21.9	+0.6
SOR	Soroa	11.94	57	*e*P	Pn	22 23 23.7	+0.8
	baz=232						
SOR				*e*S	Sn	22 25 37.7	+3.5
SOR				*e*			
BUS	Buena Vista	11.99	124	*e*P	Pn	22 23 24.4	+0.8
ACR	Cerro Adams	12.99	126	*e*P	Pn	22 23 37.1	+0.2
HKT	Hockley	13.50	352	*e*P	Pn	22 23 43.3	-0.1
HKT				*e*		22 26 10.3	
HKT				pmax	pmax		
	comp=Z,70nm,1.5s						
HKT	Hockley	13.50	352	*e*Pn	Pn	22 23 43.3	-0.1
	comp=Z,70nm,1.5s						
HKT				*e*Sn	Sn	22 26 10.3	-1.7
MGV	Manicaragua	14.19	65	*e*P	Pn	22 23 55.1	+2.7
MGV				*e*S	Sn	22 26 30.0	+1.2
JCT	Junction City	14.94	340	*e*Pn	Pn	22 24 01.7	-0.3
JCT				*e*Sn	Sn	22 26 45.0	-1.8
NATX	Nacogdoches	15.20	357	*e*Pn	Pn	22 24 05.0	-0.1
	comp=Z,46nm,0.6s						
NATX				*e*Sn	Sn	22 26 41.2	-12
MTDJ	Mount Denham	15.63	81	*e*Pn	Pn	22 24 14.1	+3.4
MTDJ				Sn	Sn	22 26 59.5	-4.2
TXAR	Lajitas Array	15.64	326	P	Pn	22 24 10.4	-0.4
	comp=Z,0.3nm,0.3s,baz=148,slow=14,SNR=48						
TXAR				LR	LR	22 31 25.8	
	comp=Z,98nm,18.6s,baz=60,slow=42						
BRAL	Brewton	15.69	22	*e*Pn	Pn	22 24 14.0	+2.6
	comp=Z,273nm,1.1s						
BRAL				*e*Sn	Sn	22 27 03.0	-2.0
CCCC	Cccc	15.88	70	*e*P	Pn	22 24 19.3	+5.4
VBMS	Vicksburg	15.92	10	*e*Pn	Pn	22 24 14.6	+0.4
	comp=Z,141nm,1.2s						
VBMS				*e*Sn	Sn	22 26 59.8	-11
DWPF	Disney	16.24	43	*e*Pn	Pn	22 24 19.8	+1.5
	comp=Z,692nm,1.6s						
DWPF				*e*Sn	Sn	22 27 16.2	-2.1
LMGC	Las Mercedes	16.35	75	*e*P	Pn	22 24 22.5	+2.9
PAYG	Puerto Ayora	17.43	168	*e*P	Pn	22 24 32.5	-0.4
RCC	Rio Carpintero	17.55	76	*e*P	Pn	22 24 33.8	-0.5
LRAL	Lakeview Retre	17.56	19	*e*Pn	Pn	22 24 35.4	+1.1
LRAL				*e*S	S	22 27 39.7	-11
MIAR	Mount Ida	17.96	1	*e*P	Pn	22 24 38.3	-0.8
MIAR				*e*S	S	22 27 45.4	-14
MIAR				pmax	pmax		
	comp=Z,69nm,0.8s						
MIAR	Mount Ida	17.96	1	*e*P	Pn	22 24 38.3	-0.8
	comp=Z,69nm,0.8s						
MIAR				*e*S	S	22 27 45.4	-14
GTBY	Guantanamo Bay	18.09	76	*e*P	P	22 24 40.5	+0.7
GTBY				*e*S	S	22 27 57.8	-4.1
UALR	University of	18.23	4	*e*Pn	Pn	22 24 43.4	+1.0
	comp=Z,154nm,1.2s						
WMOK	Wichita Mounta	18.68	347	*e*P	P	22 24 45.6	-0.6
WMOK				*e*S	S	22 28 04.6	-9.1
WMOK				pmax	pmax		
	comp=Z,31nm,0.6s						
WMOK	Wichita Mounta	18.68	347	*e*P	P	22 24 45.6	-0.6
	comp=Z,31nm,0.6s						
WMOK				*e*S	S	22 28 04.6	-9.1
CGIG		18.92	319	*e*P	P	22 24 49.7	+0.9
PLAL	Pickwick Lake	19.09	15	*e*P	P	22 24 50.7	0.0
PLAL				*e*S	S	22 28 08.8	-13
GOGA	Godfrey	19.24	27	*e*P	P	22 24 51.4	-0.9
GOGA				*e*S	S	22 28 21.9	-2.9
GOGA				pmax	pmax		
	comp=Z,48nm,0.7s						
GOGA	Godfrey	19.24	27	*e*P	P	22 24 51.4	-0.9
	comp=Z,48nm,0.7s						
GOGA				*e*S	S	22 28 21.9	-2.9
AMTX	Amarillo	19.60	340	*e*P	P	22 24 56.2	-0.1
	comp=Z,143nm,0.6s						
AMTX				*e*S	S	22 28 29.0	-3.0
SWET	Sewanee	19.91	19	*e*P	P	22 24 59.3	-0.3
122A	Conniff Cattle	20.05	326	⇓P	P	22 25 01.6	+0.5
	baz=20						
WVT	Waverly	20.25	14	*e*P	P	22 25 02.3	-0.9
WVT				*e*S	S	22 28 44.4	-0.3
319A	Douglas	20.42	319	⇑P	P	22 25 05.7	+0.5
	baz=20						
CPCT	Cooper Cave	20.60	22	*e*P	P	22 25 08.2	+1.2

NHSC	New Hope	20.60	34	eP	P	22 25 06.9	-0.2
	comp=Z,502nm,1.5s						
219A	White Tail Can	20.84	320	⇑P	P	22 25 10.5	+0.9
	baz=21						
120A	U Bar Ranch, L	20.85	323	⇓P	P	22 25 10.6	+0.8
	baz=21						
318A	Bisbee	20.92	318	⇑P	P	22 25 10.7	+0.3
	baz=21						
TKL	Tuckaleechee C	21.06	23	P	P	22 25 11.6	-0.3
	comp=Z,12nm,1.0s,mb4.2,baz=208,slow=12,SNR=6.5						
LHS	Liberty Hill	21.36	31	eP	P	22 25 13.6	-1.5
119A	Ashpeak Ranch,	21.40	322	⇑P	P	22 25 16.4	+0.8
	baz=22						
X22A	Bernardo	21.47	329	⇑P	P	22 25 17.3	+0.9
	baz=22						
SIUC	Southern Illin	21.50	10	eP	P	22 25 16.3	-0.3
	comp=Z,159nm,1.3s,mb5.2						
SIUC				eS	S	22 29 10.4	+1.3
ANMO	Albuquerque	21.57	331	eP	P	22 25 18.0	+0.6
ANMO				eS	S	22 29 05.8	-4.7
ANMO				pmax	pmax		
	comp=Z,12nm,0.9s						
ANMO	Albuquerque	21.57	331	P	P	22 25 17.6	+0.2
	comp=Z,9.9nm,0.9s,mb4.2,baz=143,slow=12,SNR=13						
ANMO	Albuquerque	21.57	331	eP	P	22 25 18.0	+0.7
	comp=Z,12nm,0.9s,mb4.2						
ANMO				eS	S	22 29 05.8	-4.7
CCM	Cathedral Cave	21.58	6	eP	P	22 25 16.6	-0.8
CCM				eS	S	22 29 10.4	-0.2
CCM				pmax	pmax		
	comp=Z,81nm,0.9s,mb5.0						
CCM	Cathedral Cave	21.58	6	eP	P	22 25 16.6	-0.8
	comp=Z,81nm,0.9s,mb5.0						
CCM				eS	S	22 29 10.4	-0.2
FVM	French Village	21.59	7	eP	P	22 25 15.8	-1.8
FVM				eS	S	22 29 10.0	-0.9
FVM				pmax	pmax		
	comp=Z,42nm,1.3s,mb4.6						
FVM	French Village	21.59	7	eP	P	22 25 15.8	-1.8
	comp=Z,42nm,1.3s,mb4.6						
FVM				eS	S	22 29 09.9	-1.0
TZTN	Tazewell	21.93	23	eP	P	22 25 21.7	+0.5
	comp=Z,85nm,1.0s,mb5.0						
GRTK	Grand Turk	22.00	73	eP	P	22 25 19.0	-3.1
GRTK				ePcP	PcP	22 29 13.1	-3.7
USIN	University of	22.04	13	eP	P	22 25 21.6	-0.7
	comp=Z,153nm,1.0s,mb5.3						
USIN				epP		22 25 44.9	
OTAV	Otavalo	22.16	135	eP	P	22 25 25.0	+1.2
OTAV				ePcP	PcP	22 29 16.2	-1.1
SLM	Saint Louis	22.26	7	eP	P	22 25 23.7	-0.9
SLM				pmax	pmax		
	comp=Z,116nm,0.9s,mb5.2						
SLM	Saint Louis	22.26	7	eP	P	22 25 23.7	-0.9
	comp=Z,116nm,0.9s,mb5.2						
ROSC	El Rosal	22.35	119	P	P	22 25 25.8	0.0
	comp=Z,7.2nm,0.6s,mb4.2,baz=267,slow=22,SNR=8.9						
WCI	Wyandotte Cave	22.62	16	eP	P	22 25 26.8	-1.6
WCI				e		22 25 49.3	
WCI				eS	S	22 29 30.5	+2.1
KSU1	Kansas State U	22.63	354	eP	P	22 25 26.9	-1.6
	comp=Z,59nm,0.8s,mb5.0						
KSU1				e		22 25 48.3	
KSU1				ePcP	PcP	22 29 16.8	-0.9
OLIL	Olney	22.70	12	eP	P	22 25 28.2	-1.0
	comp=Z,84nm,1.0s,mb5.0						
W20A	Ramah	22.71	327	⇑P	P	22 25 30.4	+0.9
	baz=23						
CBKS	Cedar Bluff	22.81	348	eP	P	22 25 27.8	-2.6
CBKS				e		22 25 47.4	
CBKS				pmax	pmax		
	comp=Z,265nm,1.4s,mb5.4						
CBKS	Cedar Bluff	22.81	348	eP	P	22 25 27.8	-2.5
	comp=Z,265nm,1.4s,mb5.4						
CBKS				e		22 25 47.4	
BLO	Bloomington	23.46	14	eP	P	22 25 35.6	-0.6
BLO				pmax	pmax		
	comp=Z,251nm,1.1s,mb5.5						
BLO	Bloomington	23.46	14	eP	P	22 25 35.6	-0.6
	comp=Z,251nm,1.1s,mb5.5						
T22A	Edith	23.48	333	⇑P	P	22 25 37.5	+1.0
	baz=24						
BLA	Blacksburg	23.77	27	eP	P	22 25 38.1	-1.1
BLA				eS	S	22 29 51.4	+4.2
BLA				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.0						
BLA	Blacksburg	23.77	27	eP	P	22 25 38.1	-1.1
	comp=Z,90nm,1.1s,mb5.0						
BLA				eS	S	22 29 51.4	+4.2
SDV	Santo Domingo	23.83	106	P	P	22 25 38.2	-1.7
	comp=Z,17nm,0.7s,mb4.5,baz=335,slow=4.8,SNR=23						
SDV				LR	LR	22 36 37.8	
	comp=Z,39nm,19.3s,baz=128,slow=40						
SDV	Santo Domingo	23.83	106	eP	P	22 25 38.3	-1.6
	comp=Z,160nm,2.0s,mb5.0						
SDV				e		22 26 02.9	
SDV				ePcP	PcP	22 29 20.9	+0.2
HDIL	Hopedale	24.27	8	eP	P	22 25 42.7	-1.0
HDIL				e		22 26 05.7	
R22A	Saguache, Gunn	24.44	335	⇑P	P	22 25 46.5	+1.3
	baz=24						
GLA	Glamis	25.12	315	eP	P	22 25 46.9	-4.6
GLA				pmax	pmax		
	comp=Z,153nm,0.4s,mb5.8						
GLA	Glamis	25.12	315	eP	P	22 25 46.9	-4.6
	comp=Z,153nm,0.4s,mb5.8						
PV01	Paradox Valley	25.14	332	eP	P	22 25 51.1	-0.5
	comp=Z,8µm,1.1s						
PV01				e	pP	22 26 15.5	+1.3
Q21A	Lamborn Mesa,	25.29	334	⇓P	P	22 25 54.5	+1.5
	baz=25						
SCIA	State Center	25.31	1	eP	P	22 25 52.3	-0.8
	comp=Z,86nm,0.5s,mb5.4						
OGNE	Ogallala	25.36	345	eP	P	22 25 54.2	+0.7
	comp=Z,116nm,0.8s,mb5.4						
OGNE				e	pP	22 26 15.5	-0.6
ISCO	Idaho Springs	25.38	338	eP	P	22 25 54.9	+1.2
ISCO				e	pP	22 26 15.9	-0.4
ACSO	Alum Creek Sta	25.44	20	eP	P	22 25 52.1	-2.1
ACSO				e	pP	22 26 13.7	-3.1
Q20A	Ridgley Place,	25.70	333	⇓P	P	22 25 58.5	+1.9
	baz=26						
MCWV	Mont Chateau	26.07	25	eP	P	22 25 58.6	-1.4
	comp=Z,29nm,0.8s,mb4.8						
MCWV				e	pP	22 26 22.9	+0.2
R17A	Hanksville Air	26.39	329	⇓P	P	22 26 04.9	+2.0
	baz=26						
JFWS	Jewell Farm	26.49	6	eP	P	22 26 02.5	-1.2
JFWS				e	pP	22 26 25.5	-0.8
N22A	Wattenberg Ran	26.56	338	⇓P	P	22 26 05.8	+1.4
	baz=27						
PHWY	Pilot Hill	26.67	340	eP	P	22 26 05.9	+0.6
	comp=Z,52nm,1.3s,mb4.9						
PHWY				e	pP	22 26 27.9	-0.1
CBYP	Canovanas	26.73	82	eP	P	22 26 05.4	-0.8
N21A	Black Mountain	26.92	337	⇓P	P	22 26 08.9	+1.3
	baz=27						
MTP	Monte Pirata	27.02	82	eP	P	22 26 07.6	-1.2
MTP				ePcP	PcP	22 29 27.9	0.0
M22A	Cedar Creek Ra	27.14	339	⇓P	P	22 26 11.0	+1.4
	baz=27						
P17A	Butcher Ranch,	27.23	330	⇓P	P	22 26 11.6	+1.3
	baz=27						
N20A	Spence Gulch,	27.27	336	⇓P	P	22 26 11.8	+1.1
	baz=27						
TMUT	Trail Mountain	27.31	330	eP	P	22 26 12.4	+1.3
	comp=Z,15nm,0.5s,mb4.8						
TMUT				epP	pP	22 26 34.8	+0.9
RWWY	Rawlins	27.61	338	eP	P	22 26 16.3	+2.5
	comp=Z,76nm,1.1s,mb5.1						
RWWY				epP	pP	22 26 36.3	-0.2
M20A	Sweetwater, Wa	27.80	336	⇓P	P	22 26 16.1	+0.6
	baz=28						
L21A	Rawlins	27.91	338	⇓P	P	22 26 16.9	+0.4
	baz=28						
ERPA	Erie	28.14	22	epP	pP	22 26 41.9	+0.6
M17A	Scullys Gap (B	28.80	333	⇑P	P	22 26 25.6	+1.2
	baz=29						
RSSD	Black Hills	28.85	345	eP	P	22 26 25.3	+0.6
RSSD				e	pP	22 26 46.8	-0.8
RSSD				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.4						
RSSD	Black Hills	28.85	345	eP	P	22 26 25.3	+0.6
	comp=Z,12nm,1.1s,mb4.4						
RSSD				e	pP	22 26 46.8	-0.8
P13A	Bates Ranch, G	28.86	326	⇑P	P	22 26 26.2	+1.3
	baz=29						
L18A	Fontenelle, Gr	28.91	334	⇓P	P	22 26 26.1	+0.8
	baz=29						
PCRV	Puerto La Cruz	29.06	99	P	P	22 26 24.7	-2.3
	comp=Z,8.5nm,0.5s,mb4.6,baz=243,slow=2.3,SNR=3.9						
ISA	Isabella	29.09	316	eP	P	22 26 26.6	-0.4
GRAC	Grapevine Rang	29.16	319	⇑P	P	22 26 28.5	+0.9
	baz=29						
K19A	Absolon Red Bu	29.20	337	⇓P	P	22 26 28.5	+0.7
	baz=29						
GLMI	Grayling	29.27	13	eP	P	22 26 26.7	-1.7
GLMI				epP	pP	22 26 51.1	-0.2
S10A	Tonopah Range,	29.27	321	⇑P	P	22 26 29.1	+0.6
	baz=29						
BW06	Boulder Array	29.42	336	⇓P	P	22 26 30.3	+0.4
	baz=30						
BW06	Boulder Array	29.42	336	eP	P	22 26 31.3	+1.5
	comp=Z,9.0nm,1.1s,mb4.3						
BW06				epP	pP	22 26 52.1	-0.6
PDAR	Pinedale Array	29.42	336	P	P	22 26 29.2	-0.6
	comp=Z,2.4nm,0.8s,mb3.9,baz=139,slow=9.2,SNR=9.5						
PDAR				pP	pP	22 26 50.4	-2.4
	comp=Z,2.4nm,1.0s,baz=133,slow=7.5,SNR=4.0						
K18A	Toltan Ranch,	29.50	335	⇑P	P	22 26 31.5	+0.9
	baz=30,SNR=6.7						
S09A	Goldfield	29.52	320	⇑P	P	22 26 31.1	+0.3
	baz=30						
L16A	Fish Haven	29.57	333	⇑P	P	22 26 31.7	+0.5
	baz=30						
M15A	Larsen Ranch,	29.59	331	⇑P	P	22 26 32.3	+0.9
	baz=30						
VES	Vestal, Richgr	29.60	315	⇓P	P	22 26 31.3	-0.2
	baz=30,SNR=5.0						
TPH	Tonopah	29.74	321	eP	P	22 26 33.0	+0.2
COWI	Conover	29.75	7	eP	P	22 26 31.3	-1.4
	comp=Z,34nm,1.3s,mb4.8						
COWI				epP	pP	22 26 54.6	-1.1
COWI				ePcP	PcP	22 29 34.7	+0.6
R09A	Tonopah	29.76	321	⇑P	P	22 26 33.3	+0.4
	baz=30						
O12A	Currie	29.84	327	⇓P	P	22 26 34.2	+0.6
	baz=30						
RCTC	Rector, Farmer	29.96	316	⇓P	P	22 26 35.1	+0.3
	baz=30						
J18A	Kendall Valley	29.98	336	⇑P	P	22 26 34.9	+0.2
	baz=30,SNR=6.0						
N13A	Wendover, West	29.99	328	⇓P	P	22 26 35.1	+0.2
	baz=30						
L15A	Malad City	29.99	332	⇑P	P	22 26 35.9	+1.0
	baz=30						
HVU	Hansel Valley	30.00	331	eP	P	22 26 36.7	+1.8
HVU				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
HVU	Hansel Valley	30.00	331	eP	P	22 26 36.7	+1.7
	comp=Z,8.2nm,0.8s,mb4.4						
M14A	Sheep Mountain	30.05	330	⇓P	P	22 26 36.7	+1.2
	baz=30						
Q09A	Carvers	30.21	322	⇓P	P	22 26 38.1	+1.3
	baz=30						
O11A	Cowboy Ranch,	30.23	325	⇑P	P	22 26 37.8	+0.8
	baz=30,SNR=5.4						
P10A	Eureka	30.32	324	⇑P	P	22 26 39.0	+1.1
	baz=30						
M13A	Montello	30.34	329	⇓P	P	22 26 39.0	+1.0
	baz=30						
J17A	Brown Place, J	30.38	335	⇑P	P	22 26 38.8	+0.5
	baz=30,SNR=7.9						
L14A	Malta	30.41	331	⇓P	P	22 26 39.5	+0.9
	baz=30,SNR=7.6						
N12A	Clover Valley,	30.41	327	⇓P	P	22 26 39.6	+1.0
	baz=30						
REDW	Red Top Meadow	30.43	335	eP	P	22 26 39.7	+0.9
	comp=Z,45nm,1.1s,mb5.0						
ELK	Elko	30.44	327	eP	P	22 26 38.7	-0.2
ELK				e*PP	pP	22 27 02.1	+0.3
LOHW	Long Hollow	30.55	336	eP	P	22 26 39.1	-0.6
	comp=Z,27nm,1.4s,mb4.8						
LOHW				epP	pP	22 27 02.2	-0.4
TPAW	Teton Pass	30.58	335	eP	P	22 26 41.4	+1.3
	comp=Z,29nm,1.1s,mb4.9						
RRI2	Red Ridge	30.61	334	eP	P	22 26 41.7	+1.3
	comp=Z,147nm,2.1s,mb5.3						
NVAR	Mina Array Bea	30.63	320	P	P	22 26 40.8	+0.3
	comp=Z,19nm,0.8s,mb4.9,baz=137,slow=8.9,SNR=54						
NVAR				pP	pP	22 27 02.0	-1.5
	comp=Z,6.2nm,0.8s,baz=133,slow=9.5,SNR=3.8						
NVAR				PcP	PcP	22 29 35.9	-0.7
	comp=Z,2.4nm,0.8s,baz=128,slow=3.7,SNR=3.8						
NVAR	Mina Array Bea	30.63	320	P	P	22 26 40.8	+0.3
NVAR				pP	pP	22 27 02.0	-1.5
NVAR				PcP	PcP	22 29 35.9	-0.7
Q08A	Gabbs	30.67	321	⇓P	P	22 26 42.0	+1.0
	baz=31						
J16A	Bone	30.68	334	⇑P	P	22 26 41.3	+0.4
	baz=31,SNR=6.8						
MOOW	Moose Ponds	30.71	336	eP	P	22 26 41.5	+0.2
	comp=Z,13nm,0.9s,mb4.7						
N11A	Elko Archery C	30.75	326	⇑P	P	22 26 42.5	+0.9
	baz=31						
SADO	Sadowa	30.76	21	P	P	22 26 39.5	-2.2
	comp=Z,19nm,0.8s,mb4.9,baz=235,slow=6.1,SNR=7.4						
K14A	Jones Ranch, D	30.78	331	⇓P	P	22 26 42.2	+0.3
	baz=31,SNR=5.2						
L13A	Double Diamond	30.79	330	⇑P	P	22 26 43.4	+1.5
	baz=31						
I17A	Pilgrim Ck.	30.79	336	⇑P	P	22 26 42.5	+0.5
	baz=31,SNR=12						
J15A	Blackfoot	31.13	333	⇓P	P	22 26 45.9	+1.0
	baz=31						
H17A	Grant Village	31.19	336	⇑P	P	22 26 46.5	+1.0
	baz=31						
BMN	Battle Mountai	31.30	324	eP	P	22 26 47.5	+1.1
RLMT	Red Lodge	31.34	339	⇑P	P	22 26 47.5	+0.8
	baz=31,SNR=5.2						
RLMT	Red Lodge	31.34	339	eP	P	22 26 47.1	+0.4
RLMT				epP	pP	22 27 08.8	-0.8
WAKR	Walker	31.38	319	eP	P	22 26 48.0	+0.9
R06C	Coleville	31.39	319	⇑P	P	22 26 48.3	+1.0
	baz=32						
EYMN	Ely	31.40	3	eP	P	22 26 45.4	-1.9
EYMN				epP	pP	22 27 07.7	-2.5
EYMN				ePcP	PcP	22 29 37.9	-0.6
J14A	Carey	31.55	332	⇑P	P	22 26 49.2	+0.7
	baz=32						
G18A	Lazy EL Ranch,	31.61	339	⇓P	P	22 26 48.7	-0.4
	baz=32,SNR=8.3						
K12A	Draper Farm, C	31.67	330	⇓P	P	22 26 50.7	+1.1
	baz=32						
M10A	I.L. Ranch, Tu	31.68	326	⇑P	P	22 26 50.7	+0.9
	baz=32						
CMB	Columbia Colle	31.70	318	eP	P	22 26 49.7	-0.3
CMB				e*PP	pP	22 27 11.3	-1.7
CMB				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
CMB	Columbia Colle	31.70	318	eP	P	22 26 49.7	-0.3
	comp=Z,7.1nm,1.1s,mb4.3						
CMB				epP	pP	22 27 11.3	-1.7
H16A	Russell Place,	31.71	336	⇓P	P	22 26 50.8	+0.7
	baz=32						
L11A	Cat Creek Ranc	31.74	328	⇓P	P	22 26 50.7	+0.4
	baz=32						
AGMN	Agassiz Refuge	31.74	357	eP	P	22 26 48.0	-2.2
	comp=Z,34nm,0.6s,mb5.2						
AGMN				epP	pP	22 27 10.0	-3.2
N09A	Rock Creek Ran	31.75	325	⇑P	P	22 26 50.8	+0.3
	baz=32						
LAO	LASA Array	31.80	344	eP	P	22 26 50.2	-0.6
	comp=Z,18nm,0.9s,mb4.8						
LAO				epP	pP	22 27 12.2	-1.5
LAO				ePcP	PcP	22 29 38.7	-0.8
QLMT	Earthquake Lak	31.89	336	eP	P	22 26 53.6	+2.0
I14A	Mackay	31.99	333	⇑P	P	22 26 53.1	+0.6
	baz=32,SNR=7.9						
G17A	Pierce Place,	32.04	337	⇓P	P	22 26 53.6	+0.7
	baz=32						
L10A	Juniper Basin	32.04	327	⇑P	P	22 26 53.6	+0.7
	baz=32						
WCN	Washoe City	32.06	320	⇑P	P	22 26 53.8	+0.7
	baz=32						
O07A	Toulon	32.07	322	⇑P	P	22 26 53.0	-0.2
	baz=32,SNR=5.4						
PAHR	Pah Rah Range	32.08	321	eP	P	22 26 53.9	+0.5
	comp=Z,13nm,1.0s,mb4.6						
M09A	Marrel Ranch,	32.10	325	⇑P	P	22 26 54.2	+0.7
	baz=32						
HLID	Hailey	32.14	331	⇑P	P	22 26 54.4	+0.6
	baz=32,SNR=8.9						
HLID	Hailey	32.14	331	eP	P	22 26 53.8	0.0
	comp=Z,9.7nm,1.0s,mb4.5						
HLID				epP	pP	22 27 17.9	+1.1
F18A	Big Timber	32.17	339	⇑P	P	22 26 54.2	+0.2
	baz=32,SNR=8.3						
H15A	Lima	32.20	334	⇓P	P	22 26 55.2	+0.9
	baz=32						
J12A	Stokes Ranch,	32.22	330	⇓P	P	22 26 55.5	+1.0
	baz=32						
I13A	Wildhorse Cree	32.28	332	⇑P	P	22 26 56.0	+1.0
	baz=32						
K11A	Parker Ranch,	32.32	329	⇓P	P	22 26 56.5	+1.2
	baz=32						
G16A	Moss Hill, Enn	32.37	336	⇓P	P	22 26 56.8	+1.1
	baz=32						
F17A	Fitzpatrick Pl	32.51	338	⇓P	P	22 26 57.8	+0.9
	baz=33,SNR=19						
N07B	Gerlach	32.52	323	⇑P	P	22 26 57.6	+0.4
	baz=33						
G15A	Dillon	32.59	335	⇑P	P	22 26 58.8	+1.1
	baz=33,SNR=10						
M08A	Happy Creek Ra	32.63	325	⇓P	P	22 26 58.6	+0.5
	baz=33						
O06A	Flanigan	32.63	321	⇑P	P	22 26 58.6	+0.4
	baz=33,SNR=14						
BOZ	Bozeman (W)	32.65	337	eP	P	22 26 58.7	+0.5
BOZ				e*PP	pP	22 27 21.2	0.0
BOZ				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.7						
BOZ	Bozeman (W)	32.65	337	⇓P	P	22 26 58.8	+0.6
	baz=33						
BOZ	Bozeman (W)	32.65	337	eP	P	22 26 58.7	+0.5
	comp=Z,18nm,1.5s,mb4.7						
BOZ				epP	pP	22 27 21.2	0.0
I12A	Atlanta	32.65	331	⇑P	P	22 26 58.7	+0.4
	baz=33,SNR=6.9						
MFID	Camas Ranch	32.70	330	⇑P	P	22 26 59.5	+0.9
	baz=33						
F16A	Kennard Place,	32.76	337	⇓P	P	22 27 00.1	+0.9
	baz=33						
BEKR	Beckwourth	32.77	321	⇓P	P	22 27 00.1	+0.7
	baz=33,SNR=10						
DLMT	Dillon	32.79	335	eP	P	22 26 59.6	+0.2
	comp=Z,29nm,1.2s,mb5.0						
DLMT				epP	pP	22 27 23.4	+0.9
DLMT				esP	sP	22 27 34.6	+0.2
E18A	Harlowton	32.82	339	⇓P	P	22 27 00.3	+0.7
	baz=33						
H13A	Challis	32.85	333	⇓P	P	22 27 01.0	+1.0
	baz=33,SNR=14						
DGMT	Dagmar	32.98	347	⇓P	P	22 27 00.9	-0.2
	baz=33,SNR=7.0						
DGMT	Dagmar	32.98	347	eP	P	22 27 00.9	-0.2
	comp=Z,49nm,1.0s,mb5.3						
DGMT				epP	pP	22 27 23.4	-0.8
N06A	Buffalo Meadow	33.01	322	⇓P	P	22 27 01.8	+0.5
	baz=33,SNR=14						
G14A	Jackson	33.05	334	⇓P	P	22 27 02.0	+0.3
	baz=33						
E17A	Martinsdale	33.06	338	⇓P	P	22 27 02.0	+0.3
	baz=33						
H12A	Diamond D Ranc	33.11	332	⇑P	P	22 27 03.4	+1.2
	baz=33,SNR=18						
L08A	Fields	33.12	326	⇑P	P	22 27 02.5	+0.2
	baz=33,SNR=6.9						
I11A	Placerville	33.13	330	⇓P	P	22 27 02.9	+0.5
	baz=33						
K09A	Rome	33.14	327	⇓P	P	22 27 02.7	+0.2
	baz=33,SNR=5.5						
F15A	Butte	33.15	336	⇓P	P	22 27 03.0	+0.5
	baz=33,SNR=19						
OHCM	Honcut	33.15	319	eP	P	22 27 02.8	+0.1
BBGH	Gun Hill	33.26	91	P	P	22 27 03.8	-0.1
G13A	Cobalt	33.26	333	⇑P	P	22 27 04.1	+0.6
	baz=33,SNR=5.8						
D18A	Linhart Farms,	33.33	340	⇑P	P	22 27 04.5	+0.4
	baz=33						
E16A	East Helena	33.41	337	⇓P	P	22 27 05.2	+0.4
	baz=34,SNR=15						
WVOR	Wild Horse Val	33.44	326	eP	P	22 27 04.5	-0.6
WVOR				e*PP	pP	22 27 31.0	+2.8
WVOR				e		22 29 44.4	
WVOR				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.6						
WVOR	Wild Horse Val	33.44	326	eP	P	22 27 04.5	-0.6
	comp=Z,11nm,1.1s,mb4.6						
WVOR				epP	pP	22 27 31.0	+2.8
WVOR				ePcP	PcP	22 29 44.4	+0.2
F14A	Wisdom	33.47	335	⇑P	P	22 27 06.1	+0.7
	baz=34						
L07A	Adell	33.55	324	⇓P	P	22 27 06.3	+0.2
	baz=34,SNR=9.3						
K08A	Mann Creek Ran	33.56	326	⇑P	P	22 27 06.7	+0.5
	baz=34						
D17A	Six Diamond Ra	33.59	339	⇑P	P	22 27 06.5	+0.1
	baz=34,SNR=10						
J09A	Fry Pan Ranch,	33.61	328	⇑P	P	22 27 07.0	+0.4
	baz=34						
HRY	Holter Researc	33.62	337	eP	P	22 27 07.2	+0.5
HRY				epP	pP	22 27 29.6	-0.2
I10A	Payette	33.67	329	⇓P	P	22 27 07.6	+0.5
	baz=34						
E15A	Deer Lodge	33.69	336	⇑P	P	22 27 07.5	+0.3
	baz=34						
ULM	Lac du Bonnet	33.69	358	P	P	22 27 05.1	-2.1
	comp=Z,22nm,0.6s,mb5.2,baz=179,slow=10,SNR=34						
ULM				pP	pP	22 27 27.7	-2.6
	comp=Z,24nm,1.0s,baz=172,slow=8.7,SNR=7.2						
ULM				LR	LR	22 42 48.4	
	comp=Z,135nm,18.1s,baz=282,slow=40						
ULM	Lac du Bonnet	33.69	358	P	P	22 27 05.1	-2.1
ULM				pP	pP	22 27 27.7	-2.6
ULM				LR	LR	22 42 48.4	
H11A	Donnelly	33.76	331	⇓P	P	22 27 08.2	+0.4
	baz=34,SNR=15						
D16A	Dana Ranch, Ca	33.79	338	⇓P	P	22 27 08.4	+0.3
	baz=34						
F13A	Darby	33.85	334	⇑P	P	22 27 08.4	-0.3
	baz=34,SNR=5.6						
K07A	Rock Creek Ran	33.95	325	⇑P	P	22 27 10.0	+0.5
	baz=34,SNR=8.9						
J08A	Circle Bar Ran	33.99	327	⇓P	P	22 27 10.0	+0.1
	baz=34,SNR=15						
E14A	Clinton	34.02	335	⇓P	P	22 27 10.2	+0.2
	baz=34						
H10A	Noah’s Angus R	34.02	330	⇓P	P	22 27 10.3	+0.2
	baz=34						
EGMT	Eagleton	34.05	341	⇑P	P	22 27 10.8	+0.5
	baz=34,SNR=9.3						
EGMT	Eagleton	34.05	341	eP	P	22 27 10.6	+0.3
	comp=Z,52nm,1.2s,mb5.2						
EGMT				epP	pP	22 27 32.4	-1.0
I09A	Lost Marbles R	34.05	328	⇑P	P	22 27 10.1	-0.4
	baz=34						
D15A	Lincoln	34.16	337	⇓P	P	22 27 11.1	-0.1
	baz=34,SNR=5.3						
E13A	Victor	34.32	335	⇑P	P	22 27 12.3	-0.4
	baz=34,SNR=7.3						
B18A	Beardsley Farm	34.38	341	⇓P	P	22 27 13.0	-0.2
	baz=34						
J07A	Hines	34.44	326	⇑P	P	22 27 13.9	+0.1
	baz=34						
H09A	Durkee	34.51	329	⇓P	P	22 27 14.1	-0.3
	baz=35						
C16A	Fuhringer Ranc	34.52	339	⇓P	P	22 27 14.5	+0.1
	baz=35,SNR=12						
MSO	Missoula	34.53	335	eP	P	22 27 14.7	+0.2
MSO				epP	pP	22 27 37.0	-0.6
MSO				esP	sP	22 27 48.2	-1.3
D14A	Greenough	34.56	336	⇑P	P	22 27 14.4	-0.4
	baz=35,SNR=7.6						
B17A	L&G Farms, Che	34.62	340	⇓P	P	22 27 15.3	+0.1
	baz=35						
G10A	Bishop Farm, J	34.72	331	⇑P	P	22 27 15.5	-0.7
	baz=35,SNR=7.8						
C15A	Salmond Ranch,	34.80	338	⇓P	P	22 27 17.3	+0.5
	baz=35,SNR=6.5						
J06A	Christmas Vall	34.81	325	⇓P	P	22 27 16.6	-0.4
	baz=35						
A18A	Metzger Ranch,	34.87	341	⇑P	P	22 27 17.1	-0.3
	baz=35						
D13A	Huson	34.95	335	⇑P	P	22 27 18.3	+0.2
	baz=35,SNR=6.8						
G09A	Cove	35.02	330	⇓P	P	22 27 17.8	-0.9
	baz=35,SNR=12						
B16A	M & M Farms, S	35.03	339	⇓P	P	22 27 18.6	-0.2

	baz=35						
I07A	**Izee**	35.03	327	⇑P	P	22 27 18.9	0.0
	baz=35						
E11A	**Bogner Ranch,**	35.11	333	⇓P	P	22 27 18.9	-0.6
	baz=35,SNR=10						
A17A	**Triple J Farms**	35.16	341	⇑P	P	22 27 19.8	-0.1
	baz=35						
B15A	**Bradely Ranch,**	35.24	338	⇑P	P	22 27 20.3	-0.3
	baz=35						
F10A	**Beach Ranch, E**	35.28	331	⇑P	P	22 27 20.3	-0.6
	baz=35,SNR=24						
I06A	**Prineville**	35.31	326	⇑P	P	22 27 20.7	-0.6
	baz=35						
YBMT	**Yellow Bay**	35.40	336	*e*P	P	22 27 21.5	-0.5
JTMT	**Jette**	35.41	336	*e*P	P	22 27 20.8	-1.3
H07A	**Lands Inn, Kim**	35.41	328	⇓P	P	22 27 21.3	-0.8
	baz=36,SNR=17						
A16A	**West Butte Ran**	35.45	340	⇓P	P	22 27 21.8	-0.6
	baz=36						
C13A	**Hot Springs**	35.47	336	⇓P	P	22 27 22.1	-0.4
	baz=36,SNR=6.2						
G08A	**Pilot Rock**	35.60	329	⇑P	P	22 27 23.3	-0.5
	baz=36						
H06A	**Lindquist Farm**	35.91	327	⇓P	P	22 27 26.1	-0.2
	baz=36						
G07A	**Ruggs Ranch, H**	35.94	328	⇓P	P	22 27 26.4	-0.2
	baz=36						
B13A	**Whitefish**	36.00	336	⇓P	P	22 27 27.2	+0.1
	baz=36,SNR=13						
E09A	**Wood Farm, Sta**	36.10	331	⇑P	P	22 27 27.7	-0.3
	baz=36						
A14A	**Double T Ranch**	36.10	338	⇓P	P	22 27 28.1	+0.2
	baz=36,SNR=7.8						
WALA	**Waterton Lakes**	36.35	338	*e*P	P	22 27 30.4	+0.3
	comp=Z,0.2nm,0.9s						
WALA				*e*pP	pP	22 27 53.1	-0.3
WALA				*e*sP	sP	22 28 09.2	+4.0
G06A	**Carlson Farm,**	36.41	328	⇑P	P	22 27 30.6	0.0
	baz=36						
B12A	**Libby**	36.51	335	⇓P	P	22 27 31.5	+0.1
	baz=37						
D09A	**Jones Farm, Ri**	36.59	332	⇑P	P	22 27 31.9	-0.2
	baz=37						
G05A	**Wamic**	36.77	327	⇓P	P	22 27 33.8	+0.1
	baz=37						
F06A	**Goldendale**	36.85	328	⇑P	P	22 27 34.4	+0.1
	baz=37						
H04A	**Detroit Lake**	36.86	326	⇓P	P	22 27 34.2	-0.3
	baz=37						
D08A	**Wollman Farm,**	36.86	331	⇓P	P	22 27 34.4	0.0
	baz=37						
A12A	**Yaak River Ran**	36.91	336	⇓P	P	22 27 34.5	-0.3
	baz=37						
E07A	**Sunnyside**	36.95	330	⇓P	P	22 27 35.1	0.0
	baz=37						
KEBM	**Edson Butte**	36.96	322	*e*P	P	22 27 35.8	+0.5
NEW	**Newport**	36.98	334	*e*P	P	22 27 36.3	+0.9
NEW				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NEW	**Newport**	36.98	334	*e*P	P	22 27 36.3	+0.9
	comp=Z,7.3nm,0.8s,mb4.7						
HOOD	**Mount Hood Mea**	37.00	327	*e*P	P	22 27 36.5	+0.9
	comp=Z,48nm,1.1s,mb5.3						
C09A	**Chrisman Ranch**	37.12	332	⇓P	P	22 27 36.7	+0.1
	baz=37						
A11A	**Hall Mountain,**	37.21	335	⇓P	P	22 27 37.6	+0.2
	baz=37,SNR=7.8						
G04A	**Mulino**	37.36	326	⇓P	P	22 27 38.8	+0.1
	baz=37						
C08A	**Higginbotham F**	37.46	332	⇓P	P	22 27 39.1	-0.4
	baz=38,SNR=11						
E06A	**Yakima**	37.48	329	⇓P	P	22 27 39.8	+0.1
	baz=38						
B09A	**Rice**	37.54	333	⇓P	P	22 27 40.2	0.0
	baz=38,SNR=7.2						
A10A	**Northport**	37.72	334	⇑P	P	22 27 42.2	+0.5
	baz=38						
C07A	**Waterville**	37.86	331	⇓P	P	22 27 42.9	0.0
	baz=38						
D06A	**Cle Elum**	37.87	330	⇓P	P	22 27 43.4	+0.4
	baz=38						
B08A	**Colville Reser**	38.01	332	⇓P	P	22 27 44.7	+0.5
	baz=38						
LON	**Longmire**	38.04	328	*e*P	P	22 27 44.5	+0.1
LON				pmax	pmax		
	comp=Z,35nm,1.7s,mb4.9						
LON	**Longmire**	38.04	328	*e*P	P	22 27 44.5	+0.1
	comp=Z,35nm,1.7s,mb4.9						
A09A	**Danville**	38.15	333	⇓P	P	22 27 45.5	+0.3
	baz=38						
E04A	**Onalaska**	38.40	328	⇓P	P	22 27 47.4	0.0
	baz=38						
B07A	**Winthrop**	38.44	332	⇑P	P	22 27 48.1	+0.4
	baz=38						
FFC	**Flin Flon**	38.65	352	P	P	22 27 48.6	-0.8
	comp=Z,252nm,0.6s,mb6.2,SNR=17						
FFC	**Flin Flon**	38.65	352	*i* P	P	22 27 48.5	-0.9
FFC	**Flin Flon**	38.65	352	*e*P	P	22 27 48.6	-0.8
FFC				*e**PP	pP	22 28 11.7	-1.2
FFC				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.2						
FFC	**Flin Flon**	38.65	352	*e*P	P	22 27 48.5	-0.8
	comp=Z,25nm,0.6s,mb5.2						
FFC				*e*pP	pP	22 28 11.7	-1.2
A07A	**Ashnola River,**	38.99	332	⇑P	P	22 27 53.3	+1.0
	baz=39						
B06A	**Marblemount**	39.12	331	⇓P	P	22 27 54.6	+1.2
	baz=39						
A06A	**Chilliwack**	39.53	331	⇓P	P	22 27 58.1	+1.3
	baz=40						
EDM	**Edmonton**	39.70	342	*e*P	P	22 27 57.4	-0.8
EDM				*e**PP	pP	22 28 20.8	-1.0
FCC	**Fort Churchill**	42.18	360	*e*P	P	22 28 16.9	-1.5
SCHQ	**Schefferville**	43.53	22	P	P	22 28 28.0	-1.3
	comp=Z,5.0nm,0.8s,mb4.3,baz=212,slow=6.8,SNR=7.2						
SCHQ				LR	LR	22 48 41.1	
	comp=Z,204nm,18.6s,baz=360,slow=39						
SCHQ	**Schefferville**	43.53	22	P	P	22 28 28.0	-1.3
SCHQ				LR	LR	22 48 41.1	
LVC	**Limon Verde**	45.89	147	*e*P	P	22 28 47.7	-0.8
	comp=Z,3.0nm,0.6s,mb4.2						
LVC				*e*pP	pP	22 29 13.5	+0.9
LVC				*e*PcP	PcP	22 30 24.2	+0.1
RPN	**Rapa Nui**	45.92	199	P	P	22 28 47.4	-1.3
YKA	**Yellowknife Ar**	48.19	347	P	P	22 29 04.9	-1.0
YKA				*PP	pP	22 29 28.1	-2.1
YKA						22 30 57.4	
YKA	**Yellowknife Ar**	48.19	347	P	P	22 29 04.9	-1.0
	comp=Z,31nm,0.8s,mb5.2,baz=150,slow=7.5,SNR=224						
YKA				pP	pP	22 29 28.0	-2.1
	comp=Z,6.4nm,0.7s,baz=150,slow=7.7,SNR=3.1						
YKA				PP	PP	22 30 57.4	-1.6
	comp=Z,3.7nm,0.8s,baz=149,slow=9.3,SNR=4.6						
YKA				LR	LR	22 51 59.8	
	comp=Z,101nm,18.8s,baz=200,slow=39						
YKA	**Yellowknife Ar**	48.19	347	P	P	22 29 04.9	-1.0
YKA				pP	pP	22 29 28.1	-2.1
YKA				PP	PP	22 30 57.4	-1.6
YKA				LR	LR	22 51 59.9	
DLBC	**Dease Lake**	49.66	336	P	P	22 29 18.4	+1.3
	baz=147,slow=3.6						
DLBC	**Dease Lake**	49.66	336	*e*P	P	22 29 17.5	+0.4
DLBC				*e*pP	pP	22 29 40.9	-0.7
FRB	**Frobisher Bay**	50.29	14	P	P	22 29 20.3	-1.5
	comp=Z,20nm,0.8s,mb5.1,baz=219,slow=8.8,SNR=43						
LCO	**Las Campanas**	50.47	154	*e*P	P	22 29 22.7	-0.9
	comp=Z,23nm,0.8s,mb5.2						
LCO				*e*pP	pP	22 29 46.7	-1.4
TAOE	**Nuku Hiva Isla**	52.31	245	*e*LR	LR	22 44 22.2	
	comp=Z,1µm,27.2s						
CPUP	**Villa Florida**	55.42	140	P	P	22 29 57.0	-3.0
	comp=Z,5.9nm,0.7s,mb4.7,baz=312,slow=7.4,SNR=14						
CPUP				LR	LR	22 52 53.2	
	comp=Z,73nm,19.7s,baz=102,slow=35						
SFJD	**Kangerlussuaq**	57.68	19	P	P	22 30 16.7	+1.2
SFJD				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.6						
SFJD	**Kangerlussuaq**	57.68	19	P	P	22 30 16.7	+1.2
	comp=Z,75nm,1.2s,mb5.6						
RES	**Resolute Bay**	58.18	360	*e*P	P	22 30 17.2	-1.7
RES				*e**PP	pP	22 30 42.7	-1.3
RES				*e*		22 31 08.2	
RES				*e*		22 32 26.8	
RES				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
RES	**Resolute Bay**	58.18	360	*e*P	P	22 30 17.2	-1.7
	comp=Z,7.0nm,0.6s,mb4.9						
RES				*e*pP	pP	22 30 42.7	-1.2
RES				*e*PcP	PcP	22 31 08.2	-1.0
RES				*e*PP	PP	22 32 26.8	-1.9
POHA	**Pohakuloa**	58.47	283	P	P	22 30 18.7	-3.1
PMR	**Palmer**	59.39	333	*e*P	P	22 30 26.7	-0.8
MCK	**McKinley**	60.19	335	*e*P	P	22 30 31.4	-1.5
MCK				*e**PP	pP	22 30 56.2	-1.9
MCK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
MCK	**McKinley**	60.19	335	*e*P	P	22 30 31.4	-1.5
	comp=Z,11nm,0.9s,mb4.9						
MCK				*e*pP	pP	22 30 56.2	-1.9
COLA	**College**	60.27	337	*e*P	P	22 30 32.4	-1.0
COLA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
COLA	**College**	60.27	337	*e*P	P	22 30 32.4	-1.0
	comp=Z,11nm,0.8s,mb4.9						
COLA				*e*pP	pP	22 30 59.5	+0.9
TRF	**Thorofare Moun**	60.63	335	*e*P	P	22 30 35.4	-0.5
	comp=Z,19nm,0.8s,mb5.2						
TRF				*e*pP	pP	22 30 59.9	-1.3
PLCA	**Paso Flores**	60.92	160	P	P	22 30 36.5	-1.5
	comp=Z,24nm,0.9s,mb5.2,baz=339,slow=9.1,SNR=14						
KTH	**Kantishna Hill**	60.93	335	*e*P	P	22 30 37.0	-0.9
	comp=Z,18nm,1.0s,mb5.0						
KTH				*e*pP	pP	22 31 01.6	-1.6
RCBR	**Riachuelo**	61.41	106	*e*P	P	22 30 40.3	-1.7
SVW2	**Sparrevohn**	62.13	331	*e*P	P	22 30 44.5	-1.6
CAM4	**Nova Friburgo**	63.32	126	⇑*i*P	P	22 30 53.9	-0.7
CAM4				*i*		22 30 56.7	
CAM4				*i*		22 30 59.1	
CAM4				*i*		22 31 11.2	
CAM3	**Guarapari**	64.07	123	⇑*i*P	P	22 30 57.8	-1.7
CAM3				*i*		22 30 59.9	
CAM3				*i*		22 31 03.2	
SUMG	**Summit**	64.30	16	*e*P	P	22 30 59.2	-1.0
	comp=Z,15nm,0.8s,mb4.9						
SUMG				*e*pP	pP	22 31 27.7	+2.0
PPT	**Papeete**	64.53	241	*e*LR	LR	22 50 01.2	
	comp=Z,541nm,31.5s						
PPT	**Papeete**	64.53	241	LR	LR	22 50 07.8	
	comp=Z,328nm,20.0s,baz=189,slow=28						
ALE	**Alert**	67.20	4	P	P	22 31 16.6	-2.1
	comp=Z,127nm,0.8s,mb5.8,SNR=13						
SCO	**Scoresbysund**	68.50	20	*i* P	P	22 31 25.8	-1.2
SCO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
SCO	**Scoresbysund**	68.50	20	*i* P	P	22 31 25.8	-1.2
	comp=Z,3.8nm,0.8s,mb4.3						
DAG	**Danmarks Havn**	70.64	14	⇓*i*P	P	22 31 38.6	-1.5
DAG				pmax	pmax		
	comp=Z,49nm,0.3s,mb5.8						
DAG	**Danmarks Havn**	70.64	14	⇓*i*P	P	22 31 38.6	-1.5
	comp=Z,49nm,0.3s,mb5.8						
EFI	**East Falkland**	74.71	158	P	P	22 32 02.9	-1.5
GMM	**Mts of Mourne**	75.54	37	*e*P	P	22 32 08.4	-0.9
MDO	**Dochfour**	75.96	34	*e*P	P	22 32 11.2	-0.4
GAL1	**Galloway**	76.16	37	*e*P	P	22 32 11.7	-1.1
GAL1				AMb	AMB	22 32 13.4	
	comp=Z,71nm,1.5s,mb5.2						
PVIS	**Viseu**	76.38	51	*e*P	P	22 32 14.5	+0.1
	comp=Z,18nm,1.4s,mb4.6						
MCD	**Coleburn Disti**	76.53	34	*e*P	P	22 32 14.6	-0.2
GCD	**Castle Douglas**	76.60	36	*e*P	P	22 32 15.2	-0.1
EBH	**Black Hill**	76.61	35	*e*P	P	22 32 14.7	-0.6
EVO	**Evora**	76.68	53	*e*P	P	22 32 14.7	-1.4
	comp=Z,30nm,1.3s,mb4.5						
EVO				*e*MLR	MLR		
	comp=Z,199nm,20.0s						
EVO	**Evora**	76.68	53	*e*P	P	22 32 18.1	+2.0
	comp=Z,19nm,1.5s,mb4.6						
MTE	**Manteigas**	76.70	52	*e*P	P	22 32 13.9	-2.3
	comp=Z,18nm,1.7s,mb4.5						
MME1	**Meikle Cairn**	76.73	34	*e*P	P	22 32 14.6	-1.4
EDI	**Edinburgh**	76.84	35	*e*P	P	22 32 16.7	+0.1
EDI				AMb	AMB	22 32 17.9	
	comp=Z,108nm,1.6s,mb5.3						
PCBR	**Castelo Branco**	76.85	52	*e*P	P	22 32 14.9	-2.1
	comp=Z,23nm,1.6s,mb4.7						
PBEJ	**Beja**	76.89	54	*e*P	P	22 32 17.6	+0.3
	comp=Z,24nm,1.5s,mb4.7						
ESK	**Eskdalemuir**	76.94	36	*e*P	P	22 32 16.4	-0.8
ESK				AMb	AMB	22 32 17.0	
	comp=Z,46nm,1.0s,mb5.2						
ESK	**Eskdalemuir**	76.94	36	*i* P	P	22 32 17.9	+0.7
ESK	**Eskdalemuir**	76.94	36	*e*P	P	22 32 16.5	-0.7
MVO	**Moncorvo**	76.94	51	*e*P	P	22 32 17.7	+0.2
	comp=Z,27nm,1.6s,mb4.7						
EBL	**Broad Law**	76.95	35	*e*P	P	22 32 17.5	+0.2
EKA	**Eskdalemuir Ar**	76.96	36	P	P	22 32 16.9	-0.5
	comp=Z,10nm,0.8s,mb4.6,baz=287,slow=5.7,SNR=25						
PMRV	**Marv??o**	76.99	53	*e*P	P	22 32 16.4	-1.4
	comp=Z,15nm,1.5s,mb4.5						
ECK	**Cauldkaine Hil**	77.01	36	*e*P	P	22 32 16.6	-1.0
ESY	**Stoneypath**	77.16	35	*e*P	P	22 32 17.9	-0.5
XAL	**Allendale**	77.58	36	*e*P	P	22 32 20.1	-0.6
SPITS	**Spitsbergen Ar**	77.98	11	P	P	22 32 22.7	+0.1
	comp=Z,20nm,0.9s,mb4.8,baz=153,slow=0.4,SNR=13						
LHO	**Holmfirth**	78.05	38	*e*P	P	22 32 23.1	-0.3
ROSF	**Rostrenen**	78.20	43	*e*P	P	22 32 24.0	-0.4
	comp=Z,84nm,1.3s,mb5.0						
ROSF	**Rostrenen**	78.20	43	*e*P	P	22 32 24.0	-0.4
ROSF				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.0						
ROSF	**Rostrenen**	78.20	43	*e*P	P	22 32 24.0	-0.4
	comp=Z,42nm,1.3s,mb5.0						
QUIF	**Quistinic**	78.36	43	*e*P	P	22 32 25.0	-0.2
	comp=Z,40nm,1.0s,mb4.8						
QUIF	**Quistinic**	78.36	43	*e*P	P	22 32 25.0	-0.2
QUIF				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
QUIF	**Quistinic**	78.36	43	*e*P	P	22 32 25.0	-0.2
	comp=Z,20nm,1.0s,mb4.8						
BILL	**Bilibino**	78.48	338	*e*P	P	22 32 24.4	-1.1
BILL				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.6						
BILL	**Bilibino**	78.48	338	*e*P	P	22 32 25.5	-0.1
	comp=Z,16nm,1.1s,mb4.7						
BILL				*e*pP	pP	22 32 50.3	-1.6
SGMF	**Saint Gilles**	78.69	43	*e*P	P	22 32 26.6	-0.5
ESDC	**Sonseca Array**	79.54	52	P	P	22 32 31.6	-0.3
	comp=Z,5.8nm,0.9s,mb4.4,baz=295,slow=5.6,SNR=20						
GRR	**Gorron**	79.77	43	*e*P	P	22 32 32.8	-0.1
	comp=Z,42nm,0.9s,mb5.0						
GRR	**Gorron**	79.77	43	*e*P	P	22 32 32.8	-0.1
GRR				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
GRR	**Gorron**	79.77	43	*e*P	P	22 32 32.8	-0.1
	comp=Z,21nm,0.9s,mb5.0						
FLN	**La Foliniere**	79.92	42	*e*P	P	22 32 33.7	-0.1
	comp=Z,52nm,1.0s,mb5.0						
FLN				*e*MLR	MLR		
	comp=Z,162nm,21.2s						
FLN	**La Foliniere**	79.92	42	*e*P	P	22 32 33.7	-0.1
FLN				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.0						
FLN				MLR	MLR		
	comp=Z,160nm,21.3s						
FLN	**La Foliniere**	79.92	42	*e*P	P	22 32 33.7	-0.1
	comp=Z,26nm,1.0s,mb5.0						
FLN				LR	LR		
	comp=Z,160nm,21.3s						
LDF	**La Druitiere**	80.20	42	*e*P	P	22 32 35.1	-0.1
	comp=Z,30nm,0.9s,mb4.8						
LDF	**La Druitiere**	80.20	42	*e*P	P	22 32 35.1	-0.1
LDF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.8						
LDF	**La Druitiere**	80.20	42	*e*P	P	22 32 35.1	-0.1
	comp=Z,15nm,0.9s,mb4.8						
MDT	**Midelt**	80.58	59	P	P	22 32 38.6	+1.0
	baz=304,slow=4.6						
MFF	**Saint Martin d**	80.66	44	*e*P	P	22 32 37.3	-0.4
	comp=Z,40nm,1.2s,mb4.8						
MFF	**Saint Martin d**	80.66	44	*e*P	P	22 32 37.3	-0.4
MFF				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.8						
MFF	**Saint Martin d**	80.66	44	*e*P	P	22 32 37.3	-0.4
	comp=Z,20nm,1.2s,mb4.8						
SJPF	**Ste Jean**	80.75	48	*e*P	P	22 32 38.4	+0.1
	comp=Z,37nm,1.1s,mb4.8						
SJPF	**Ste Jean**	80.75	48	*e*P	P	22 32 38.4	+0.1
SJPF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.8						
SJPF	**Ste Jean**	80.75	48	*e*P	P	22 32 38.4	+0.1
	comp=Z,18nm,1.1s,mb4.8						
ETSF	**Etsaut**	81.28	48	*e*P	P	22 32 41.3	+0.2
	comp=Z,14nm,0.8s,mb4.5						
ETSF	**Etsaut**	81.28	48	*e*P	P	22 32 41.3	+0.2
ETSF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
ETSF	**Etsaut**	81.28	48	*e*P	P	22 32 41.3	+0.2
	comp=Z,7.2nm,0.8s,mb4.5						
LFF	**La Frestale**	81.67	46	*e*P	P	22 32 42.9	-0.3
	comp=Z,41nm,0.9s,mb5.0						
LFF	**La Frestale**	81.67	46	*e*P	P	22 32 42.9	-0.3
LFF				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
LFF	**La Frestale**	81.67	46	*e*P	P	22 32 42.9	-0.3
	comp=Z,21nm,0.9s,mb5.0						
EPF	**Esparros**	81.89	48	*e*P	P	22 32 44.3	0.0
	comp=Z,22nm,0.9s,mb4.7						
EPF	**Esparros**	81.89	48	*e*P	P	22 32 44.3	0.0
EPF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
EPF	**Esparros**	81.89	48	*e*P	P	22 32 44.3	0.0
	comp=Z,11nm,0.9s,mb4.7						
RJF	**Les Rejaudoux**	82.11	45	*e*P	P	22 32 45.0	-0.4
	comp=Z,34nm,0.9s,mb4.9						
RJF				*e*MLR	MLR		
	comp=Z,201nm,20.5s						
RJF	**Les Rejaudoux**	82.11	45	*e*P	P	22 32 45.0	-0.4
RJF				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.9						
RJF				MLR	MLR		
	comp=Z,200nm,20.5s						
RJF	**Les Rejaudoux**	82.11	45	*e*P	P	22 32 45.0	-0.4
	comp=Z,17nm,0.9s,mb4.9						
RJF				LR	LR		
	comp=Z,200nm,20.5s						
TCF	**Toulx Ste Croi**	82.31	44	*e*P	P	22 32 45.9	-0.6
	comp=Z,33nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	82.31	44	*e*P	P	22 32 45.9	-0.6
TCF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	82.31	44	*e*P	P	22 32 45.9	-0.6
	comp=Z,16nm,1.1s,mb4.8						
HYF	**Humbligny**	82.33	43	*e*P	P	22 32 46.5	0.0
UCC	**Uccle**	82.43	39	P	P	22 32 46.7	-0.3
	comp=Z,24nm,1.1s,mb4.9						
KONO	**Kongsberg**	82.51	30	⇑*e*P	P	22 32 47.7	+0.5
BAIF	**Baives**	82.55	40	*e*P	P	22 32 47.6	0.0
	comp=Z,38nm,0.9s,mb4.9						
BAIF	**Baives**	82.55	40	*e*P	P	22 32 47.6	0.0
BAIF				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.9						
BAIF	**Baives**	82.55	40	*e*P	P	22 32 47.6	0.0
	comp=Z,19nm,0.9s,mb4.9						
CAF	**Calviac**	82.58	45	*e*P	P	22 32 47.4	-0.5
	comp=Z,22nm,0.9s,mb4.7						
CAF	**Calviac**	82.58	45	*e*P	P	22 32 47.4	-0.5
CAF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
CAF	**Calviac**	82.58	45	*e*P	P	22 32 47.4	-0.5
	comp=Z,11nm,0.9s,mb4.7						
BGF	**Bois d’Agland**	82.66	44	*e*P	P	22 32 47.8	-0.5
	comp=Z,60nm,0.9s,mb5.1						
BGF	**Bois d’Agland**	82.66	44	*e*P	P	22 32 47.8	-0.5
BGF				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.1						
BGF	**Bois d’Agland**	82.66	44	*e*P	P	22 32 47.8	-0.5
	comp=Z,30nm,0.9s,mb5.1						
NAO01	**NORSAR Array S**	82.70	29	*e*P	P	22 32 48.5	+0.4
	comp=Z,16nm,1.0s,mb4.8						
DOU	**Dourbes**	82.77	40	P	P	22 32 48.9	+0.1
	comp=Z,11nm,1.1s,mb4.6						
NB2	**NORSAR Subarra**	82.78	28	P	P	22 32 49.1	+0.5
	comp=Z,1.1nm,0.6s,mb3.9,baz=296,slow=5.3						
NOA	**NORSAR Array B**	82.78	28	P	P	22 32 49.1	+0.5
	comp=Z,18nm,0.9s,mb4.9,baz=291,slow=5.2,SNR=32						
NOA				LR	LR	23 08 02.9	
	comp=Z,77nm,18.1s,baz=0.0,slow=34						
GIVF	**Givet**	82.91	40	*e*P	P	22 32 49.5	0.0
AVF	**Avril sur Loir**	82.93	43	*e*P	P	22 32 48.9	-0.8
	comp=Z,34nm,0.9s,mb4.9						
AVF	**Avril sur Loir**	82.93	43	*e*P	P	22 32 48.9	-0.8
AVF				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.9						
AVF	**Avril sur Loir**	82.93	43	*e*P	P	22 32 48.9	-0.8
	comp=Z,17nm,0.9s,mb4.9						
SSF	**Saint Saulge**	82.96	43	*e*P	P	22 32 49.1	-0.7
	comp=Z,47nm,0.9s,mb5.0						
SSF	**Saint Saulge**	82.96	43	*e*P	P	22 32 49.1	-0.7
SSF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.0						
SSF	**Saint Saulge**	82.96	43	*e*P	P	22 32 49.1	-0.7
	comp=Z,23nm,0.9s,mb5.0						
AGO	**Saint Agoulin**	82.99	44	*e*P	P	22 32 50.8	+0.8
PYM	**Petit Puy Mans**	83.00	44	*e*P	P	22 32 51.3	+1.3
BCLA	**Clavier**	83.11	40	P	P	22 32 50.7	+0.2
MTLF	**Montolieu**	83.13	47	*e*P	P	22 32 50.4	-0.3
	comp=Z,44nm,1.0s,mb4.9						
MTLF	**Montolieu**	83.13	47	*e*P	P	22 32 50.4	-0.3
MTLF				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.9						
MTLF	**Montolieu**	83.13	47	*e*P	P	22 32 50.4	-0.3
	comp=Z,22nm,1.0s,mb4.9						
LOR	**Lormes**	83.13	43	*e*P	P	22 32 50.2	-0.5
	comp=Z,45nm,1.0s,mb5.0						
LOR				*e*MLR	MLR		
	comp=Z,155nm,19.5s						
LOR	**Lormes**	83.13	43	*e*P	P	22 32 50.2	-0.5
LOR				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.9						
LOR				MLR	MLR		
	comp=Z,150nm,19.5s						
LOR	**Lormes**	83.13	43	*e*P	P	22 32 50.2	-0.5
	comp=Z,22nm,1.0s,mb5.0						
LOR				LR	LR		
	comp=Z,150nm,19.5s						
SMF	**Signal de Mont**	83.30	43	*e*P	P	22 32 50.7	-0.8
	comp=Z,28nm,0.9s,mb4.8						
SMF	**Signal de Mont**	83.30	43	*e*P	P	22 32 50.7	-0.8
SMF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
SMF	**Signal de Mont**	83.30	43	*e*P	P	22 32 50.7	-0.8
	comp=Z,14nm,0.9s,mb4.8						
LBL	**Lubilhac**	83.30	45	*e*P	P	22 32 52.3	+0.7
PLDF	**La Plantade**	83.34	44	*e*P	P	22 32 51.8	0.0
MUD	**Monsted U’grnd**	83.38	33	*i* P	P	22 32 52.1	+0.3
MUD				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
MUD	**Monsted U’grnd**	83.38	33	*i* P	P	22 32 52.1	+0.3
	comp=Z,11nm,0.9s,mb4.7						
HGN	**Heimansgroeve**	83.39	39	*e*P	P	22 32 52.1	+0.1
	comp=Z,23nm,0.9s,mb5.0						
MEM	**Membach**	83.48	39	P	P	22 32 52.1	-0.3
WTSB	**Winterswijk**	83.53	38	*e*P	P	22 32 52.8	+0.2
MEZF	**Maizieres J’vi**	83.53	41	*e*P	P	22 32 52.7	0.0
	comp=Z,43nm,0.7s,mb5.1						
MEZF	**Maizieres J’vi**	83.53	41	*e*P	P	22 32 52.7	0.0
	comp=Z,43nm,0.7s,mb5.4						
WLF	**Walferdange**	83.86	40	P	P	22 32 54.2	-0.2
	comp=Z,22nm,1.6s,mb4.7						
WLF	**Walferdange**	83.86	40	*e*P	P	22 32 53.6	-0.8
WLF				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.9						
WLF	**Walferdange**	83.86	40	*e*P	P	22 32 54.8	+0.4
	comp=Z,28nm,1.1s,mb5.0						
WLF	**Walferdange**	83.86	40	*e*P	P	22 32 53.5	-0.8
	comp=Z,22nm,1.0s,mb4.9						
BUG	**Bochum--Univer**	83.98	38	*e*P	P	22 32 55.0	+0.1
	comp=Z,31nm,1.4s,mb5.0						
IBBN	**Ibbenburen**	83.98	37	*e*P	P	22 32 55.1	+0.2
	comp=Z,35nm,1.1s,mb5.1						
THEF	**They Montfort**	84.21	41	*e*P	P	22 32 56.0	-0.2
HFS	**Hagfors**	84.25	29	P	P	22 32 56.2	0.0
	comp=Z,14nm,0.9s,mb4.8,baz=309,slow=3.1,SNR=21						
ARCES	**ARCESS Array B**	84.30	18	P	P	22 32 56.4	+0.2
	comp=Z,36nm,0.7s,mb5.3,baz=296,slow=4.8,SNR=97						
VIVF	**Saint-Julien-l**	84.38	45	*e*P	P	22 32 57.3	+0.2
	comp=Z,50nm,1.2s,mb4.9						
VIVF	**Saint-Julien-l**	84.38	45	*e*P	P	22 32 57.3	+0.2
VIVF				pmax	pmax		
	comp=Z,25nm,1.2s,mb4.9						
VIVF	**Saint-Julien-l**	84.38	45	*e*P	P	22 32 57.3	+0.2
	comp=Z,25nm,1.2s,mb4.9						
RUP	**Ruppelstein**	84.41	40	*e*P	P	22 32 57.5	+0.3
HAU	**Haudompre**	84.51	42	*e*P	P	22 32 57.5	-0.2
	comp=Z,76nm,1.0s,mb5.3						
HAU				*e*MLR	MLR		
	comp=Z,156nm,17.8s						
HAU	**Haudompre**	84.51	42	*e*P	P	22 32 57.5	-0.2

HAU				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
HAU				MLR	MLR		
	comp=Z,160nm,17.8s						
HAU	**Haudompre**	**84.51**	**42**	eP	**P**	**22 32 57.5**	**-0.2**
	comp=Z,38nm,1.0s,mb5.3						
HAU				LR	LR		
	comp=Z,160nm,17.8s						
KEV	**Kevo**	**84.62**	**17**	eP	**P**	**22 32 56.9**	**-0.9**
KEV				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.2						
KEV	**Kevo**	**84.62**	**17**	ep	**P**	**22 32 56.9**	**-0.9**
	comp=Z,22nm,0.7s,mb5.2						
ABH	**Alteburg**	**84.65**	**40**	eP	**P**	**22 32 58.8**	**+0.4**
CABF	**La Chapelle**	**84.78**	**43**	eP	**P**	**22 32 59.0**	**-0.1**
	comp=Z,55nm,1.2s,mb5.1						
CABF	**La Chapelle**	**84.78**	**43**	eP	**P**	**22 32 59.0**	**-0.1**
CABF				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.1						
CABF	**La Chapelle**	**84.78**	**43**	eP	**P**	**22 32 59.0**	**-0.1**
	comp=Z,28nm,1.2s,mb5.1						
BSEG	**Bad Segeberg**	**84.87**	**35**	eP	**P**	**22 32 59.6**	**+0.2**
BSEG				e*PP	pP	22 33 25.8	-0.3
BSEG				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.5						
BSEG	**Bad Segeberg**	**84.87**	**35**	eP	**P**	**22 32 59.6**	**+0.2**
	comp=Z,57nm,0.9s,mb5.5						
BSEG				epP	pP	22 33 25.8	-0.3
HINF	**Hinteralfeld**	**84.89**	**42**	eP	**P**	**22 32 59.3**	**-0.3**
	comp=Z,51nm,0.9s,mb5.2						
HINF	**Hinteralfeld**	**84.89**	**42**	eP	**P**	**22 32 59.3**	**-0.3**
HINF				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
HINF	**Hinteralfeld**	**84.89**	**42**	eP	**P**	**22 32 59.3**	**-0.3**
	comp=Z,25nm,0.9s,mb5.2						
ECH	**Echery**	**84.95**	**41**	eP	**P**	**22 32 59.4**	**-0.5**
ECH	**Echery**	**84.95**	**41**	eP	**P**	**22 32 59.7**	**-0.2**
ECH				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.2						
ECH	**Echery**	**84.95**	**41**	eP	**P**	**22 32 59.7**	**-0.2**
	comp=Z,33nm,1.0s,mb5.2						
ECH				epP	pP	22 33 29.4	+2.7
CDF	**Champ du Feu**	**84.97**	**41**	eP	**P**	**22 32 59.9**	**-0.1**
	comp=Z,66nm,0.9s,mb5.2						
CDF	**Champ du Feu**	**84.97**	**41**	eP	**P**	**22 32 59.9**	**-0.1**
CDF				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
CDF	**Champ du Feu**	**84.97**	**41**	eP	**P**	**22 32 59.9**	**-0.1**
	comp=Z,33nm,0.9s,mb5.3						
LOMF	**Lomont**	**85.03**	**42**	eP	**P**	**22 33 00.1**	**-0.2**
PRAF	**Pradon**	**85.04**	**46**	eP	**P**	**22 33 01.1**	**+0.7**
MOF	**Molkenrain**	**85.06**	**42**	eP	**P**	**22 32 59.9**	**-0.5**
TNS	**Taunus Mts**	**85.08**	**39**	eP	**P**	**22 33 00.4**	**-0.1**
TNS				pmax	pmax		
	comp=Z,105nm,0.9s,mb5.8						
TNS	**Taunus Mts**	**85.08**	**39**	eP	**P**	**22 33 00.4**	**-0.1**
	comp=Z,105nm,0.9s,mb5.8						
LANF	**Langenberg**	**85.11**	**40**	eP	**P**	**22 33 00.7**	**0.0**
ORIF	**Oris-en-Rattie**	**85.18**	**45**	eP	**P**	**22 33 01.4**	**+0.3**
	comp=Z,25nm,0.8s,mb4.9						
ORIF				eMLR	MLR		
	comp=Z,216nm,22.0s						
ORIF	**Oris-en-Rattie**	**85.18**	**45**	eP	**P**	**22 33 01.4**	**+0.3**
ORIF				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
ORIF	**Oris-en-Rattie**	**85.18**	**45**	eP	**P**	**22 33 01.4**	**+0.3**
	comp=Z,12nm,0.8s,mb4.9						
LIBD	**Limburg**	**85.26**	**41**	eP	**P**	**22 33 01.4**	**0.0**
OG01	**Vacheresse**	**85.26**	**43**	eP	**P**	**22 33 01.6**	**+0.1**
SMRF	**Simiane la Rot**	**85.27**	**46**	eP	**P**	**22 33 02.3**	**+0.7**
	comp=Z,71nm,1.1s,mb5.2						
SMRF	**Simiane la Rot**	**85.27**	**46**	eP	**P**	**22 33 02.3**	**+0.7**
	comp=Z,71nm,1.1s,mb5.5						
NRDL	**Niedersach Rie**	**85.27**	**37**	eP	**P**	**22 33 01.5**	**+0.1**
	comp=Z,30nm,0.9s,mb5.2						
NRDL				epP	pP	22 33 27.7	-0.4
GELF	**Grande-Etoile**	**85.35**	**46**	eP	**P**	**22 33 01.7**	**-0.3**
VILF	**Villemus**	**85.40**	**46**	eP	**P**	**22 33 02.4**	**+0.2**
BBS	**Basel-Blauen**	**85.43**	**42**	eP	**P**	**22 33 02.0**	**-0.3**
RSL	**Roselend**	**85.43**	**44**	eP	**P**	**22 33 02.5**	**+0.2**
STOF	**St-Etienne Org**	**85.49**	**46**	eP	**P**	**22 33 02.6**	**-0.1**
TOD	**Tromm**	**85.51**	**40**	eP	**P**	**22 33 02.2**	**-0.5**
LPL	**La Plagne**	**85.56**	**44**	eP	**P**	**22 33 03.7**	**+0.7**
	comp=Z,40nm,1.1s,mb5.0						
LPL	**La Plagne**	**85.56**	**44**	eP	**P**	**22 33 03.7**	**+0.7**
LPL				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
LPL	**La Plagne**	**85.56**	**44**	eP	**P**	**22 33 03.7**	**+0.7**
	comp=Z,20nm,1.0s,mb5.0						
LPG	**La Plagne**	**85.58**	**44**	eP	**P**	**22 33 03.9**	**+0.8**
	comp=Z,47nm,1.1s,mb5.0						
LPG	**La Plagne**	**85.58**	**44**	eP	**P**	**22 33 03.9**	**+0.8**
LPG				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
LPG	**La Plagne**	**85.58**	**44**	eP	**P**	**22 33 03.9**	**+0.8**
	comp=Z,24nm,1.1s,mb5.0						
FELD	**Feldberg im Sc**	**85.60**	**41**	eP	**P**	**22 33 02.9**	**-0.3**
BFO	**Black Forest**	**85.66**	**41**	P	**P**	**22 33 02.0**	**-1.4**
	comp=Z,104nm,1.1s,mb5.7,SNR=6.3						
BFO	**Black Forest**	**85.66**	**41**	eP	**P**	**22 33 02.7**	**-0.7**
BFO				e*PP	pP	22 33 30.0	-0.2
BFO				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
BFO	**Black Forest**	**85.66**	**41**	eP	**P**	**22 33 02.7**	**-0.7**
	comp=Z,29nm,1.2s,mb5.1						
BFO				epP	pP	22 33 30.0	-0.2
CLZ	**Clausthal**	**85.66**	**37**	eP	**P**	**22 33 03.4**	**+0.1**
CLZ				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.1						
CLZ	**Clausthal**	**85.66**	**37**	eP	**P**	**22 33 03.4**	**+0.1**
	comp=Z,27nm,1.1s,mb5.1						
BNI	**Bardonecchia**	**85.67**	**44**	eP	**P**	**22 33 04.3**	**+0.7**
BNI				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
BNI	**Bardonecchia**	**85.67**	**44**	eP	**P**	**22 33 04.3**	**+0.7**
	comp=Z,26nm,1.2s,mb5.0						
TAVF	**Tavernes**	**85.71**	**46**	eP	**P**	**22 33 04.1**	**+0.3**
SEY	**Seymchan**	**85.75**	**335**	⇑eP	**P**	**22 33 02.3**	**-1.3**
UBBA	**Unterbreizbach**	**85.81**	**38**	eP	**P**	**22 33 04.5**	**+0.4**
	comp=Z,26nm,1.5s,mb4.9						
MBDF	**Montbardon**	**85.84**	**45**	eP	**P**	**22 33 04.8**	**+0.4**
	comp=Z,52nm,0.9s,mb5.1						
MBDF	**Montbardon**	**85.84**	**45**	eP	**P**	**22 33 04.8**	**+0.4**
MBDF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
MBDF	**Montbardon**	**85.84**	**45**	eP	**P**	**22 33 04.8**	**+0.4**
	comp=Z,26nm,0.9s,mb5.2						
SPAK	**Spaichingen-Ko**	**86.02**	**41**	eP	**P**	**22 33 04.6**	**-0.6**
STU	**Stuttgart**	**86.04**	**40**	eP	**P**	**22 33 04.7**	**-0.6**
STU				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
STU	**Stuttgart**	**86.04**	**40**	eP	**P**	**22 33 05.4**	**+0.1**
	comp=Z,42nm,0.7s,mb5.5						
STU	**Stuttgart**	**86.04**	**40**	eP	**P**	**22 33 04.7**	**-0.6**
	comp=Z,33nm,0.9s,mb5.3						
LMR	**La Mourre**	**86.11**	**46**	eP	**P**	**22 33 05.6**	**-0.2**
	comp=Z,79nm,0.8s,mb5.4						
LMR	**La Mourre**	**86.11**	**46**	eP	**P**	**22 33 05.6**	**-0.2**
LMR				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
LMR	**La Mourre**	**86.11**	**46**	eP	**P**	**22 33 05.6**	**-0.2**
	comp=Z,40nm,0.8s,mb5.4						
FRF	**La Foret Royal**	**86.14**	**46**	eP	**P**	**22 33 05.7**	**-0.2**
	comp=Z,74nm,1.0s,mb5.3						
FRF	**La Foret Royal**	**86.14**	**46**	eP	**P**	**22 33 05.7**	**-0.2**
FRF				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
FRF	**La Foret Royal**	**86.14**	**46**	eP	**P**	**22 33 05.7**	**-0.2**
	comp=Z,37nm,1.0s,mb5.3						
PZZ	**Stroppo**	**86.14**	**45**	P	**P**	**22 33 06.5**	**+0.6**
PZZ				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.4						
PZZ	**Stroppo**	**86.14**	**45**	P	**P**	**22 33 06.5**	**+0.6**
	comp=Z,39nm,0.8s,mb5.4						
ORO	**Oropa**	**86.35**	**43**	P	**P**	**22 33 06.9**	**0.0**
SBF	**Sospel**	**86.58**	**45**	eP	**P**	**22 33 08.6**	**+0.6**
	comp=Z,50nm,0.9s,mb5.2						
SBF	**Sospel**	**86.58**	**45**	eP	**P**	**22 33 08.6**	**+0.6**
SBF				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
SBF	**Sospel**	**86.58**	**45**	eP	**P**	**22 33 08.6**	**+0.6**
	comp=Z,25nm,0.9s,mb5.2						
VAI	**Varese**	**86.78**	**43**	P	**P**	**22 33 08.9**	**-0.1**
VAI				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.1						
VAI	**Varese**	**86.78**	**43**	P	**P**	**22 33 08.9**	**-0.1**
	comp=Z,14nm,0.6s,mb5.1						
MOX	**Moxa**	**86.83**	**38**	eP	**P**	**22 33 08.9**	**-0.2**
	comp=Z,9.0nm,0.9s,mb4.7						
MOX				epP	pP	22 33 34.6	-1.3
GRA1	**Grafenberg Arr**	**86.95**	**39**	eP	**P**	**22 33 09.8**	**+0.1**
	comp=Z,26nm,1.1s,mb5.1						
GRA1				epP	pP	22 33 36.9	+0.4
GRF	**Grafenberg Arr**	**86.95**	**39**	eP	**P**	**22 33 09.8**	**+0.1**
GRF				e*PP	pP	22 33 36.9	+0.4
GRF				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**86.95**	**39**	eP	**P**	**22 33 09.8**	**+0.1**
GRF				e*PP	pP	22 33 36.9	+0.4
GRF				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**86.95**	**39**	eP	**P**	**22 33 09.8**	**+0.1**
	comp=Z,26nm,1.1s,mb5.1						
GRF				epP	pP	22 33 36.9	+0.4
TUE	**Stuetta**	**86.95**	**42**	eP	**P**	**22 33 09.1**	**-0.7**
	comp=Z,28nm,1.1s,mb5.1						
TIC	**Toumodi**	**86.99**	**84**	eP	**P**	**22 33 09.1**	**-1.5**
	comp=Z,64nm,1.1s,mb5.5						
DAVA	**Damuels**	**87.00**	**41**	⇑iPcP	**P**	**22 33 10.3**	**+0.3**
	comp=Z,31nm,0.9s,mb5.2						
LIC	**Lamto**	**87.10**	**84**	eP	**P**	**22 33 09.8**	**-1.3**
	comp=Z,47nm,1.0s,mb5.0						
LIC				eMLR	MLR		
	comp=Z,107nm,18.4s						
LIC	**Lamto**	**87.10**	**84**	eP	**P**	**22 33 10.5**	**-0.6**
	comp=Z,52nm,1.0s,mb5.4						
LIC	**Lamto**	**87.10**	**84**	eP	**P**	**22 33 09.8**	**-1.3**
	comp=Z,24nm,1.0s,mb5.1						
LIC				LR	LR		
	comp=Z,50nm,18.4s						
DAVOS	**Davos**	**87.11**	**42**	P	**P**	**22 33 10.0**	**-0.5**
DBIC	**Dimbokro**	**87.14**	**84**	P	**P**	**22 33 10.6**	**-0.8**
	comp=Z,13nm,1.0s,mb4.8,baz=291,slow=3.0,SNR=12						
DBIC				LR	LR	23 07 05.7	
	comp=Z,71nm,18.2s,baz=304,slow=32						
DBIC	**Dimbokro**	**87.14**	**84**	P	**P**	**22 33 10.6**	**-0.8**
DBIC				LR	LR	23 07 05.7	
DAVOX	**Davos/Dischmat**	**87.18**	**42**	P	**P**	**22 33 10.0**	**-0.9**
	comp=Z,7.4nm,1.0s,mb4.6,baz=305,slow=11						
KIC	**Kosan Boka**	**87.33**	**84**	eP	**P**	**22 33 11.7**	**-0.6**
	comp=Z,85nm,0.9s,mb5.7						
CLL	**Collm**	**87.38**	**37**	i P	**P**	**22 33 11.6**	**-0.1**
CLL				eS	S	22 43 54.0	+10
CLL				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
CLL				MLR	MLR		
	comp=Z,100nm,19.8s						
CLL	**Collm**	**87.38**	**37**	eP	**P**	**22 33 11.5**	**-0.2**
	comp=Z,4.0nm,0.9s,mb4.3						
CLL				epP	pP	22 33 38.3	-0.3
CLL	**Collm**	**87.38**	**37**	i P	**P**	**22 33 11.6**	**-0.1**
	comp=Z,4.0nm,0.7s,mb4.5						
CLL				eS	S	22 43 51.0	+7.2
CLL				Lm		23 03 00.0	
	comp=Z,100nm,19.8s						
CLL	**Collm**	**87.38**	**37**	i P	**P**	**22 33 11.6**	**-0.1**
	comp=Z,4.0nm,0.7s,mb4.5						
CLL				eS	S	22 43 54.0	+10
CLL				LR	LR		
	comp=Z,100nm,19.8s						
TANN	**Tannenbergstha**	**87.41**	**38**	eP	**P**	**22 33 11.9**	**0.0**
	comp=Z,9.0nm,1.0s,mb4.7						
TIXI	**Tiksi**	**87.44**	**348**	⇑eP	**P**	**22 33 10.2**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
TIXI	**Tiksi**	**87.44**	**348**	eP	**P**	**22 33 10.3**	**-1.3**
	comp=Z,29nm,0.3s,mb5.7						
NKC	**Novy Kostel**	**87.47**	**38**	eP	**P**	**22 33 12.6**	**+0.4**
ROTZ	**Rotzenmuhle**	**87.51**	**39**	eP	**P**	**22 33 12.1**	**-0.3**
	comp=Z,6.0nm,0.9s,mb4.6						
ROTZ				epP	pP	22 33 38.7	-0.6
FETA	**Feichten**	**87.64**	**42**	⇓iPcP	**P**	**22 33 12.8**	**-0.3**
	comp=Z,7.2nm,0.7s,mb4.8						
MOTA	**Moosalm**	**87.75**	**41**	⇓iPcP	**P**	**22 33 12.9**	**-0.7**
	comp=Z,7.4nm,0.7s,mb4.8						
BRG	**Berggiesshubel**	**88.10**	**37**	eP	**P**	**22 33 14.9**	**-0.3**
BRG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
BRG	**Berggiesshubel**	**88.10**	**37**	eP	**P**	**22 33 14.9**	**-0.3**
	comp=Z,14nm,0.9s,mb5.0						
PGF	**Pioggiola**	**88.10**	**46**	eP	**P**	**22 33 14.9**	**-0.5**
	comp=Z,32nm,0.8s,mb5.1						
PGF	**Pioggiola**	**88.10**	**46**	eP	**P**	**22 33 14.9**	**-0.5**
PGF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
PGF	**Pioggiola**	**88.10**	**46**	eP	**P**	**22 33 14.9**	**-0.5**
	comp=Z,16nm,0.8s,mb5.1						
WET	**Wettzell**	**88.16**	**39**	eP	**P**	**22 33 15.4**	**-0.1**
WET				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
WET	**Wettzell**	**88.16**	**39**	eP	**P**	**22 33 15.4**	**-0.1**
	comp=Z,13nm,1.0s,mb4.9						
KHC	**Kasperske Hory**	**88.58**	**39**	eP	**P**	**22 33 17.2**	**-0.3**
PVCC	**Panska Ves**	**88.60**	**37**	eP	**P**	**22 33 17.3**	**-0.3**
RJOB	**Jochberg**	**88.66**	**40**	eP	**P**	**22 33 17.9**	**0.0**
	comp=Z,9.0nm,1.0s,mb4.8						
KAF	**Kangasniemi**	**88.68**	**24**	eP	**P**	**22 33 16.0**	**-1.7**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
KAF	**Kangasniemi**	**88.68**	**24**	ep	**P**	**22 33 16.0**	**-1.7**
	comp=Z,3.1nm,0.6s,mb4.5						
GEC2	**GERESS Array S**	**88.77**	**39**	eP	**P**	**22 33 17.9**	**-0.5**
GEC2				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
GEC2	**GERESS Array S**	**88.77**	**39**	eP	**P**	**22 33 17.9**	**-0.5**
	comp=Z,15nm,1.1s,mb4.9						
GERES	**GERESS Array B**	**88.77**	**39**	P	**P**	**22 33 18.0**	**-0.4**
	comp=Z,7.6nm,0.9s,mb4.7,baz=316,slow=3.7,SNR=38						
GERES				LR	LR	23 11 14.3	
	comp=Z,121nm,21.2s,baz=85,slow=34						
PRU	**Pruhonice**	**88.81**	**38**	eP	**P**	**22 33 18.2**	**-0.3**
GKP	**Gorka Klasztor**	**88.92**	**34**	eP	**P**	**22 33 18.9**	**-0.1**
GKP	**Gorka Klasztor**	**88.92**	**34**	eP	**P**	**22 33 18.9**	**-0.1**
KBA	**Koelnbreinsper**	**89.27**	**41**	⇑iPcP	**P**	**22 33 20.4**	**-0.3**
	comp=Z,9.5nm,1.1s,mb4.8						
UPC	**Upice**	**89.44**	**37**	eP	**P**	**22 33 21.7**	**+0.2**
KSP	**Ksiaz**	**89.46**	**37**	eP	**P**	**22 33 21.8**	**+0.2**
MOA	**Molln**	**89.52**	**40**	⇑iPcP	**P**	**22 33 21.4**	**-0.6**
	comp=Z,17nm,1.1s,mb5.1						
TREC	**Trest**	**89.66**	**38**	eP	**P**	**22 33 21.9**	**-0.6**
DPC	**Dobruska-Polom**	**89.69**	**37**	eP	**P**	**22 33 22.7**	**0.0**
ROBS	**Robic**	**89.70**	**41**	i P	**P**	**22 33 22.2**	**-0.6**
CADS	**Cadrg**	**89.85**	**41**	i P	**P**	**22 33 23.0**	**-0.5**
VOJS	**Vojsko**	**90.03**	**42**	eP	**P**	**22 33 23.9**	**-0.4**
JOF	**Joensuu**	**90.08**	**22**	eP	**P**	**22 33 20.7**	**-3.5**
JOF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.6						
JOF	**Joensuu**	**90.08**	**22**	ep	**P**	**22 33 20.7**	**-3.5**
	comp=Z,3.0nm,0.6s,mb4.6						
VRAC	**Vranov**	**90.31**	**38**	⇑iP	**P**	**22 33 25.3**	**-0.3**
VRAC	**Vranov**	**90.31**	**38**	P	**P**	**22 33 25.2**	**-0.3**
	comp=Z,7.6nm,1.0s,mb4.8,baz=287,slow=5.9,SNR=9.7						
VRAC	**Vranov**	**90.31**	**38**	⇑P	**P**	**22 33 25.3**	**-0.3**
CSNA	**Conrad Observa**	**90.46**	**39**	⇑iPcP	**P**	**22 33 26.2**	**-0.2**
	comp=Z,7.5nm,0.8s,mb4.9						
CONA	**Conrad Observa**	**90.47**	**39**	⇑iPcP	**P**	**22 33 26.2**	**-0.1**
	comp=Z,8.4nm,0.8s,mb4.9						
ARSA	**Arzberg**	**90.55**	**40**	⇑iPcP	**P**	**22 33 26.0**	**-0.7**
	comp=Z,6.3nm,0.8s,mb4.8						
MORC	**Moravsky Berou**	**90.65**	**37**	⇑iP	**P**	**22 33 27.1**	**-0.1**
MORC	**Moravsky Berou**	**90.65**	**37**	eP	**P**	**22 33 26.9**	**-0.3**
	comp=Z,16nm,1.1s,mb5.0						
KEST	**Kesra**	**90.77**	**52**	P	**P**	**22 33 28.1**	**+0.1**
	comp=Z,3.1nm,0.9s,mb4.5,baz=287,slow=3.7,SNR=12						
KEST				LR	LR	23 09 24.0	
	comp=Z,34nm,21.9s,baz=194,slow=32						
OKC	**Ostrava-Krasne**	**90.97**	**37**	eP	**P**	**22 33 28.7**	**+0.1**
ZST	**Bratislava**	**91.10**	**39**	eP	**P**	**22 33 29.3**	**0.0**
ZST				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.1						
ZST	**Bratislava**	**91.10**	**39**	eP	**P**	**22 33 29.3**	**0.0**
	comp=Z,18nm,1.2s,mb5.1						
GOLS	**Golise**	**91.14**	**41**	eP	**P**	**22 33 29.3**	**-0.2**
TORD	**Torodi Ar. Bea**	**91.48**	**76**	P	**P**	**22 33 30.1**	**-1.5**
	comp=Z,2.0nm,0.7s,mb4.4,baz=294,slow=4.8,SNR=37						
TORD				PKKP	PKKPbc	22 50 49.2	-2.1
	comp=Z,0.7nm,0.9s,baz=78,slow=0.9,SNR=3.7						
TORD				LR	LR	23 10 19.4	
	comp=Z,109nm,18.1s,baz=300,slow=33						
BEL	**Belsk**	**91.50**	**34**	eP	**P**	**22 33 31.2**	**+0.1**
SUW	**Suwalki**	**91.66**	**32**	eP	**P**	**22 33 30.6**	**-1.1**
SUW	**Suwalki**	**91.66**	**32**	eP	**P**	**22 33 30.6**	**-1.1**
OJC	**Ojcow**	**91.74**	**36**	eP	**P**	**22 33 30.2**	**-2.0**
OJC				e		22 33 31.9	
OJC	**Ojcow**	**91.74**	**36**	eP	**P**	**22 33 30.2**	**-2.0**
OJC				e		22 33 31.9	
VYHS	**Vyhne**	**91.99**	**38**	i P	**P**	**22 33 33.1**	**-0.3**
TAM	**Tamanrasset**	**91.99**	**66**	eP	**P**	**22 33 34.2**	**+0.3**
TAM				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.9						
TAM	**Tamanrasset**	**91.99**	**66**	eP	**P**	**22 33 34.1**	**+0.2**
	comp=Z,9.4nm,1.1s,mb4.9						
NIE	**Niedzica**	**92.41**	**37**	eP	**P**	**22 33 36.0**	**+0.7**
NACGM	**Naroch**	**92.94**	**30**	e	**P**	**22 33 33.0**	**-4.6**
STHS	**Stebnicka Huta**	**92.94**	**36**	i P	**P**	**22 33 37.5**	**-0.3**
STHS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
STHS	**Stebnicka Huta**	**92.94**	**36**	i P	**P**	**22 33 37.5**	**-0.3**
	comp=Z,6.1nm,1.0s,mb4.9						
KWP	**Kalwaria Pacla**	**93.66**	**36**	eP	**P**	**22 33 41.7**	**+0.6**
KWP	**Kalwaria Pacla**	**93.66**	**36**	⇓iP	**P**	**22 33 41.4**	**+0.3**
KWP	**Kalwaria Pacla**	**93.66**	**36**	eP	**P**	**22 33 41.7**	**+0.6**
KOLS	**Kolonicke sedl**	**93.77**	**36**	i P	**P**	**22 33 42.1**	**+0.5**
KOLS				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.2						
KOLS	**Kolonicke sedl**	**93.77**	**36**	i P	**P**	**22 33 42.0**	**+0.4**
KOLS	**Kolonicke sedl**	**93.77**	**36**	i P	**P**	**22 33 42.1**	**+0.5**
	comp=Z,15nm,1.2s,mb5.2						
UZH	**Uzhgorod**	**93.94**	**37**	⇑iP	**P**	**22 33 42.5**	**+0.1**
TRPA	**Tarpa**	**94.33**	**37**	⇑iP	**P**	**22 33 44.1**	**-0.1**
BZS	**Buzias**	**95.04**	**40**	⇓iP	**P**	**22 33 47.2**	**-0.3**
BZS	**Buzias**	**95.04**	**40**	⇓P	**P**	**22 33 47.2**	**-0.3**
DRGR		**95.11**	**38**	⇓iP	**P**	**22 33 47.5**	**-0.3**
DRGR		**95.11**	**38**	⇓P	**P**	**22 33 47.5**	**-0.2**
PRGR	**Permogore**	**95.73**	**18**	eP	**P**	**22 33 47.7**	**-2.6**
PRGR				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.6						
GZR	**Gura Zlata**	**95.86**	**39**	⇑iP	**P**	**22 33 51.0**	**-0.2**
GZR	**Gura Zlata**	**95.86**	**39**	⇑P	**P**	**22 33 51.0**	**-0.2**
BURAR	**Bucovina Array**	**96.14**	**37**	⇑iP	**P**	**22 33 52.0**	**-0.4**
BURAR	**Bucovina Array**	**96.14**	**37**	⇑P	**P**	**22 33 52.0**	**-0.4**
AKASG	**Malin Array Be**	**96.58**	**32**	P	**P**	**22 33 52.5**	**-1.8**
	comp=Z,2.2nm,0.6s,mb4.8,baz=290,slow=4.0,SNR=6.8						
AKASG				LR	LR	23 17 16.8	
	comp=Z,108nm,18.9s,baz=330,slow=35						
VOIR		**97.20**	**38**	⇓iP	**P**	**22 33 56.5**	**-0.8**
VOIR		**97.20**	**38**	⇓P	**P**	**22 33 56.5**	**-0.8**
OBN	**Obninsk**	**97.23**	**26**	⇑iP	**P**	**22 33 55.7**	**-1.5**
OBN				pmax	pmax		
	comp=Z,26nm,2.0s,mb5.3						
MLR	**Muntele Rosu**	**97.71**	**38**	⇑iP	**P**	**22 33 58.7**	**-0.9**
MLR	**Muntele Rosu**	**97.71**	**38**	P	**P**	**22 33 57.6**	**-2.0**
	comp=Z,9.0nm,1.0s,mb5.3,baz=134,slow=1.5,SNR=9.0						
MLR	**Muntele Rosu**	**97.71**	**38**	⇑P	**P**	**22 33 58.7**	**-0.9**
MDJ	**Mudanjiang**	**107.46**	**329**	P	Pdif	22 34 41.8	-1.0
MDJ				pmax	pmax		
	comp=Z,7.0nm,2.3s						
MDJ				pmax	pmax		
	comp=Z,91nm,3.7s						
BVAR	**Borovoye Array**	**109.42**	**10**	PP	PP	22 39 24.0	-0.6
	comp=Z,0.7nm,0.8s,baz=277,slow=3.6,SNR=3.8						
ZALV	**Zalesovo Beam**	**109.81**	**1**	PP	PP	22 39 22.4	-5.0
	comp=Z,0.5nm,0.3s,baz=24,slow=15,SNR=4.4						
KURK	**Kurchatov**	**112.73**	**5**	PKiKP	PKiKP	22 38 58.7	-2.0
	comp=Z,0.3nm,0.3s,baz=345,slow=2.4,SNR=4.4						
KURK				PP	PP	22 39 38.3	-10
	comp=Z,0.6nm,0.8s,baz=357,slow=5.7,SNR=3.6						
KURK				PKKPbc	PKKPbc	22 49 44.2	-6.4
	comp=Z,0.7nm,0.8s,baz=174,slow=2.7,SNR=4.0						
KURK	**Kurchatov**	**112.73**	**5**	PKPdf	PKiKP	22 38 58.7	-2.0
KURK				PP	PP	22 39 38.3	-10
KURK				PKKPbc	PKKPbc	22 49 44.2	-6.5
SONM	**Songino Array**	**113.44**	**345**	PKiKP	PKiKP	22 39 00.1	-2.0
	comp=Z,0.5nm,0.9s,baz=38,slow=2.6,SNR=3.3						
SONM				PP	PP	22 39 49.6	-3.9
	comp=Z,0.5nm,0.8s,baz=359,slow=7.2,SNR=4.2						
SONM				PKKPbc	PKKPbc	22 49 43.5	-4.7
	comp=Z,0.8nm,0.7s,baz=200,slow=3.7,SNR=7.0						
MKAR	**Makanchi Array**	**116.89**	**3**	PKP	PKPdf	22 39 06.2	-2.6
	comp=Z,0.8nm,0.8s,baz=352,slow=2.5,SNR=7.9						
MKAR				PP	PP	22 40 14.1	-3.5
	comp=Z,0.9nm,0.8s,baz=15,slow=5.0,SNR=6.7						
MKAR				PKKPab	PKKPab	22 49 35.2	-6.4
	comp=Z,0.5nm,0.8s,baz=129,slow=7.1,SNR=5.8						
MKAR	**Makanchi Array**	**116.89**	**3**	PKP	PKPdf	22 39 06.2	-2.6
MKAR				PP	PP	22 40 14.1	-3.5
MKAR				PKKPab	PKKPab	22 49 35.2	-6.4
HHC	**Hu-ho-hao-te**	**118.26**	**338**	ePKP	PKPdf	22 39 08.6	-3.0
HHC				PP	PP	22 40 29.9	+2.5
HHC				PKS		22 42 43.5	
HHC				SKS	SKSdf	22 46 03.3	-11
HHC				AMB	AMB		
	comp=Z,62nm,4.7s						
HHC				LR	LR		
	comp=N,180nm,15.5s						
HHC				LR	LR		
	comp=E,180nm,13.1s						
HHC				LR	LR		
	comp=Z,140nm,15.5s						
SUR	**Sutherland**	**119.26**	**118**	ePKPdf	PKPdf	22 39 13.6	-0.1
WMQ	**Urumqi**	**119.94**	**359**	ePKP	PKPdf	22 39 11.5	-3.3
BOSA	**Boshof**	**122.98**	**114**	PKP	PKPdf	22 39 19.2	-1.7
	comp=Z,7.2nm,1.0s,baz=112,slow=3.8,SNR=6.5						
CTAO	**Charters Tower**	**123.12**	**257**	ePKIKP	PKPdf	22 39 21.6	+0.1
LSZ	**Lusaka**	**124.37**	**97**	ePKIKP	PKPdf	22 39 22.9	-1.1
LZH	**Lanzhou**	**125.08**	**343**	ePKP	PKPdf	22 39 23.1	-1.8
LZH				ePP	PP	22 41 17.2	+3.5
LZH				SKKS	SKKSac	22 47 51.6	-12
LZH				AMB	AMB		
	comp=Z,110nm,8.5s						
STKA	**Stephens Creek**	**127.72**	**242**	ePKP	PKPdf	22 39 27.0	-3.0
	comp=Z,5.4nm,0.7s						
STKA	**Stephens Creek**	**127.72**	**242**	PKP	PKPdf	22 39 27.4	-2.5
	comp=Z,7.3nm,0.7s,baz=15,slow=1.7,SNR=12						
CD2	**Chengdu**	**129.91**	**340**	PKP	PKPdf	22 39 30.0	-4.3
CD2				PP	PP	22 41 46.6	+1.0
CD2				PKS		22 43 05.0	
CD2				SKS	SKSdf	22 46 23.7	-13
CD2				AMB	AMB		
	comp=Z,250nm,6.5s						
GYA	**Guiyang**	**132.88**	**335**	Pdif	Pdif	22 36 34.9	-0.9
GYA				PKP	PKPdf	22 39 38.5	-1.5
GYA				sPKP		22 40 34.2	
GYA				PP	PP	22 42 08.7	+3.9
GYA				PKS		22 43 13.0	
GYA				SKS	SKSdf	22 46 31.3	-11
GYA				SKKS	SKKSac	22 48 42.7	-10
GYA				SS	SS	22 59 32.5	-5.3
GYA				AMB	AMB		
	comp=Z,130nm,7.6s						
GYA				LR	LR		
	comp=N,230nm,22.8s						
GYA				LR	LR		
	comp=Z,180nm,23.0s						
GYA				LR	LR		
	comp=Z,220nm,22.4s						
LSA	**Lhasa**	**133.81**	**354**	ePKIKP	PKPdf	22 39 40.9	-0.8
WRAB	**Tennant Creek**	**134.25**	**258**	ePKIKP	PKPdf	22 39 40.5	-2.1
WRA	**Warramunga Arr**	**134.26**	**258**	PKhKP		22 39 34.6	
	comp=Z,3.6nm,0.9s,baz=87,slow=2.4,SNR=7.0						
WRA				PKP	PKPdf	22 39 40.2	-2.4
	comp=Z,4.1nm,0.6s,baz=85,slow=1.8,SNR=21						
ASAR	**Alice Springs**	**134.79**	**253**	PKhKP		22 39 33.6	
	comp=Z,1.1nm,0.8s,baz=111,slow=4.0,SNR=5.3						
ASAR				PKP	PKPdf	22 39 41.0	-2.6
	comp=Z,3.0nm,0.8s,baz=86,slow=2.0,SNR=15						
KMI	**Kunming**	**135.58**	**338**	PKP	PKPdf	22 39 44.4	-0.7
FITZ	**Fitzroy Crossi**	**142.35**	**262**	ePKPdf	PKPdf	22 39 56.5	-1.0
CMAR	**Chiang Mai Arr**	**143.05**	**340**	PKhKP		22 39 51.8	
	comp=Z,1.1nm,0.3s,baz=355,slow=3.0,SNR=5.3						
CMAR				PKP	PKPdf	22 39 56.9	-2.0
	comp=Z,1.2nm,0.3s,baz=349,slow=3.1,SNR=7.6						
CMAR				pPKP	pPKPdf	22 40 20.4	-6.6
	comp=Z,0.9nm,0.4s,baz=2.1,slow=4.2,SNR=1.5						
KMBL	**Kambalda**	**144.36**	**239**	ePKP	PKPdf	22 39 55.6	-5.1
	comp=Z,210nm,0.8s						
HYB	**Hyderabad**	**145.45**	**13**	i PKP	PKPdf	22 40 00.5	-2.5
NWAO	**Narrogin (SRO)**	**147.57**	**234**	eP	PKPdf	22 40 05.7	-0.4
	comp=Z,128nm,0.9s						
NWAO	**Narrogin (SRO)**	**147.57**	**234**	PKPbc	PKPbc	22 40 05.9	-3.0
	comp=Z,20nm,0.8s,baz=42,slow=5.4,SNR=6.6						
KLBR	**Kellerberrin**	**147.65**	**237**	eP	PKPdf	22 40 05.6	-0.7
	comp=Z,20nm,1.0s						
MEEK	**Meekatharra**	**148.29**	**246**	ePKP	PKPdf	22 40 07.6	+0.1
	comp=Z,15nm,0.7s						
MUN	**Mundaring**	**148.73**	**235**	eP	PKPdf	22 40 09.0	+0.9

*IDC **11** 22:21:58.8±5.0, 7°.39S×128°.66E, h102^{km}±47^{km}, mb3.6/6, mb1 3.8/9, mb1mx3.7/18, mbtmp3.7/9, Error ellipse: s-maj=69.7km s-min=19.5km az=62.0*

*NEIC **11** 22:21:59.1±1.3, 7°.38S×128°.68E, h107^{km}±14^{km}, mb4.1/5, Error ellipse: s-maj=13.9km s-min=8.5km az=58.0*

ISC 11 22:21:58.1±1.8, **7°.45S**±0°.09×**128°.63E**±0°.09, **h94**^{km}±19^{km}, **n32**, σ**1^{s}.16**/39, **mb3.9**/9, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.44**	**145**	*e*P	**Pn**	**22 23 32.9**	**+2.6**
	7.8nm,0.1s						
KAKA	**Kakadu**	**6.44**	**145**	*e*Pn	**Pn**	**22 23 32.9**	**+2.6**
	13µm,1.8s						
KAKA				*e*Sn	**Sn**	**22 24 40.3**	**-2.1**
KNA	**Kununurra**	**8.25**	**179**	*e*P	**Pn**	**22 23 58.5**	**+3.5**
	27nm,0.8s						
KNA				*e*S	**Sn**	**22 25 24.0**	**-2.6**
FITZ	**Fitzroy Crossi**	**10.98**	**195**	*e*P	**Pn**	**22 24 33.6**	**+1.4**
	7.2nm,0.6s						
FITZ				*e*S	**Sn**	**22 26 27.4**	**-5.7**
FITZ	**Fitzroy Crossi**	**10.98**	**195**	P	**Pn**	**22 24 33.4**	**+1.2**
	1.6nm,0.3s,baz=28,slow=9.5,SNR=26						
FITZ				S	**Sn**	**22 26 27.4**	**-5.7**
	1.6nm,0.3s,baz=87,slow=17,SNR=5.2						
FITZ	**Fitzroy Crossi**	**10.98**	**195**	*e*Pn	**Pn**	**22 24 34.0**	**+1.8**
FITZ				*e*Sn	**Sn**	**22 26 29.3**	**-3.8**
WRAB	**Tennant Creek**	**13.60**	**156**	*e*Pn	**Pn**	**22 25 06.7**	**-0.3**
	8.4nm,1.0s						
WRAB				*e*Sn	Sn	22 27 12.5	-24
WRA	**Warramunga Arr**	**13.60**	**157**	P	**Pn**	**22 25 06.7**	**-0.4**
	0.6nm,0.3s,baz=340,slow=12,SNR=20						
WRA				S	**Sn**	**22 27 30.0**	**-6.8**
	3.2nm,0.3s,baz=338,slow=23,SNR=13						
COEN	**Coen**	**15.69**	**116**	*e*P	**Pn**	**22 25 35.4**	**+1.6**
COEN				*e*S	**Sn**	**22 28 12.9**	**-14**
MBWA	**Marble Bar**	**16.12**	**211**	*e*Pn	**Pn**	**22 25 41.9**	**+2.7**
MBWA				*e*Sn	**Sn**	**22 28 31.6**	**-6.0**
ASAR	**Alice Springs**	**16.90**	**163**	P	**Pn**	**22 25 50.2**	**+1.3**
	0.6nm,0.3s,baz=339,slow=10.0,SNR=47						
ASAR				S	**Sn**	**22 28 49.0**	**-7.6**
	0.5nm,0.3s,baz=332,slow=17,SNR=5.1						
KSM	**Kuching**	**20.31**	**295**	Pn	**P**	**22 26 25.4**	**-1.3**
STKA	**Stephens Creek**	**27.15**	**155**	P	**P**	**22 27 33.2**	**+0.7**
	1.3nm,0.4s,mb3.8,baz=327,slow=13,SNR=4.7						
NWAO	**Narrogin (SRO)**	**27.47**	**201**	P	**P**	**22 27 35.8**	**+0.3**
KULM	**Kulim**	**30.65**	**294**	*e*P	**P**	**22 28 03.4**	**-0.4**
	8.3nm,1.1s,mb4.4						
NACB	**Ninganchiao**	**32.17**	**348**	P	**P**	**22 28 16.4**	**-0.7**
CMAR	**Chiang Mai Arr**	**38.99**	**312**	P	**P**	**22 29 16.0**	**+0.5**
	0.4nm,0.3s,mb3.7,baz=139,slow=10,SNR=5.3						
LSA	**Lhasa**	**51.59**	**318**	P	**P**	**22 30 54.8**	**-0.2**
	0.8nm,0.5s,mb4.0						
MCQ	**Macquarie Isla**	**52.85**	**158**	*e*P	**P**	**22 31 04.4**	**+0.5**
	1µm,0.9s						
DGAR	**Diego Garcia**	**55.67**	**266**	*e*P	**P**	**22 31 26.1**	**+1.0**
SONM	**Songino Array**	**58.44**	**343**	P	**P**	**22 31 44.5**	**+0.6**
	0.4nm,0.8s,mb3.5,baz=166,slow=7.7,SNR=3.6						
MKAR	**Makanchi Array**	**67.86**	**328**	P	**P**	**22 32 46.0**	**-0.3**
	1.5nm,0.5s,mb4.1,baz=118,slow=8.4,SNR=52						
TKM2	**Tokmak 2**	**69.47**	**321**	*e*P	**P**	**22 32 56.2**	**-0.1**
	1.1nm,0.5s,mb3.9						
UCH	**Uchtor**	**69.78**	**320**	*e*P	**P**	**22 32 58.5**	**+0.2**
AAK	**Ala-Archa**	**70.01**	**320**	*e*P	**P**	**22 33 00.1**	**+0.5**
EKS2	**Erkin-Say**	**70.47**	**320**	P	**P**	**22 33 02.8**	**+0.2**
ZALV	**Zalesovo Beam**	**71.39**	**334**	P	**P**	**22 33 06.4**	**-1.4**
	0.7nm,0.5s,mb3.8,baz=143,slow=5.2,SNR=2.4						
KURK	**Kurchatov**	**72.19**	**329**	P	**P**	**22 33 12.0**	**-0.7**
	1.9nm,0.5s,mb4.2,baz=124,slow=4.9,SNR=31						
KURK	**Kurchatov**	**72.19**	**329**	*e*P	**P**	**22 33 12.1**	**-0.6**
	1.4nm,0.4s,mb4.1						
COLA	**College**	**93.94**	**25**	*e*P	**P**	**22 35 03.7**	**-1.3**
TORD	**Torodi Ar. Bea**	**127.56**	**281**	PKP	PKPdf	22 40 52.0	-1.3
	0.2nm,0.6s,baz=69,slow=1.8,SNR=3.9						
CPUP	**Villa Florida**	**145.93**	**170**	PKPbc	PKPbc	22 41 27.4	-0.2
	0.4nm,0.3s,baz=184,slow=2.8,SNR=3.5						

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*ISCJB **11** 22:22:36.3±0.3, 32°.51N±0°.02×115°.33W±0°.02, h13^{km}±2^{km}, Error ellipse: s-maj=3.1km s-min=2.6km az=174.3*

*NEIC **11** 22:22:36.0, 32°.46N×115°.36W, h10^{km}, ML3.4(PAS), ML3.5(ECX), After ECX.*

*ECX **11** 22:22:36.1±0.4, 32°.46N×115°.36W, h10^{km}, MD3.3, ML3.5*

ISC 11 22:22:37.0±0.3, **32°.50N**±0°.02×**115°.33W**±0°.02, **h13**^{km}±2^{km}, **n41**, σ**0^{s}.96**/72, **19C-19D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	**0.08**	**164**	⇓*e*P	**Pg**	**22 22 39.9**	**+0.1**
CPBX				*e*S	**Sg**	**22 22 42.0**	**+0.2**
CPBX				⇓*e*		22 22 43.6	
	comp=N,62µm,0.2s						
SGL	**Mount Signal**	**0.36**	**295**	⇑*i*P	**Pg**	**22 22 44.8**	**+0.4**
SNR	**Schaffner Ranc**	**0.37**	**346**	⇓*i*P	**Pg**	**22 22 45.8**	**+1.2**
COA	**Coachella**	**0.41**	**26**	⇓*i*P	**Pg**	**22 22 46.1**	**+0.9**
COK	**Cook Ranch**	**0.48**	**317**	⇑*i*P	**Pg**	**22 22 47.2**	**+0.6**
EMX	**El Mayor**	**0.51**	**171**	⇓*e*P	**Pg**	**22 22 47.1**	**0.0**
EMX				*e*S	**Sg**	**22 22 55.1**	**+1.1**
EMX				⇓*e*		22 22 56.0	
	comp=N,4µm,0.5s						
EMX				⇑*e*		22 22 58.3	
	comp=E,1µm,0.4s						
YUH	**Yuha Desert**	**0.52**	**287**	⇑*i*P	**Pg**	**22 22 47.3**	**0.0**
SWSC	**Sam W. Stewart**	**0.59**	**319**	⇓P	**Pg**	**22 22 48.5**	**-0.1**
	baz=0.6						
SWSC				⇑S	**Sg**	**22 22 57.3**	**+0.8**
	baz=0.6						
112A	**Yuma**	**0.64**	**86**	⇓P	**Pg**	**22 22 49.0**	**-0.5**
	baz=0.6						
112A				⇓S	**Sg**	**22 22 58.1**	**+0.3**
	baz=0.6						
CRR	**Carrizo Plain**	**0.66**	**306**	⇑*i*P	**Pg**	**22 22 49.9**	**-0.1**
YMD	**Yuma Desert**	**0.67**	**85**	⇑*i*P	**Pg**	**22 22 49.4**	**-0.6**
DVTC	**Desert V Tower**	**0.67**	**284**	⇑P	**Pg**	**22 22 50.1**	**0.0**
	baz=0.7						
DVTC				⇓S	**Sg**	**22 22 59.5**	**+0.6**
	baz=0.7						
GLA	**Glamis**	**0.70**	**37**	⇓P	**Pg**	**22 22 50.1**	**-0.5**
	baz=0.7						
GLA				⇑S	**Sg**	**22 22 59.5**	**-0.3**
	baz=0.7						
GLA	**Glamis**	**0.70**	**37**	*e*P	**Pg**	**22 22 50.0**	**-0.6**
GLA				*e*S	**Sg**	**22 22 59.5**	**-0.4**
RDX	**Rancho Dawling**	**0.77**	**223**	⇑*e*P	**Pg**	**22 22 51.9**	**-0.1**
RDX				*e*S	**Sg**	**22 23 02.6**	**+0.6**
MONP	**Monument Peak**	**1.00**	**293**	⇑P	**Pg**	**22 22 55.1**	**-1.2**
	baz=1.0						
MONP				⇓S	**Sg**	**22 23 08.8**	**-0.6**
	baz=1.0						
ECBX	**El Chinero**	**1.05**	**167**	⇑*e*P	**Pg**	**22 22 57.0**	**-0.3**
ECBX				*e*S	**Sg**	**22 23 11.0**	**0.0**
CBX	**Cerro Bola**	**1.14**	**261**	⇑*e*PN	**Pg**	**22 22 58.4**	**-0.6**
CBX				*e*S	**Sg**	**22 23 13.6**	**-0.4**
BAR	**Barrett**	**1.15**	**280**	*e*P	**Pg**	**22 22 57.1**	**-2.0**
BAR				*e*S	**Sg**	**22 23 13.5**	**-0.5**
BC3	**Big Chuckw Mtn**	**1.16**	**355**	⇓P	**Pb**	**22 22 57.2**	**-1.7**
	baz=1.2						
113A	**Mohawk Valley,**	**1.35**	**78**	⇑P	**Pn**	**22 22 59.6**	**-1.9**
	baz=1.3						
113A				⇑Sb	**Sb**	**22 23 18.8**	**-0.5**
	baz=1.3						
ECNX	**Esteban Cantu**	**1.36**	**232**	*e*PN	**Pn**	**22 23 02.5**	**+0.7**
ECNX				*e*PN	**Pn**	**22 23 01.3**	**-0.5**
ECNX				*e*S	**Sn**	**22 23 18.4**	**-1.3**
ECNX				*e*S	**Sn**	**22 23 20.5**	**+0.9**
PBX	**Punta Banda**	**1.40**	**238**	⇓*e*PN	**Pn**	**22 23 02.9**	**+0.6**
PBX				*e*S	**Sn**	**22 23 21.7**	**+1.1**
SPX	**San Pedro Mart**	**1.45**	**184**	*e*PN	**Pn**	**22 23 04.8**	**+1.8**
PFO	**Pinyon Flat Ob**	**1.46**	**320**	⇓P	**Pn**	**22 23 01.2**	**-1.8**
	baz=1.5						
PFO				⇑S	**Sn**	**22 23 19.5**	**-2.4**
	baz=1.5						
PFO	**Pinyon Flat Ob**	**1.46**	**320**	*e*Pn	**Pn**	**22 23 00.9**	**-2.1**
PFO				*e*Sn	**Sn**	**22 23 19.6**	**-2.4**
109C	**Camp Elliot, M**	**1.55**	**285**	⇑Sb	**Sb**	**22 23 25.0**	**+0.1**
	baz=1.6						
Y13A	**Salome**	**1.82**	**43**	⇓Sb	**Sb**	**22 23 33.5**	**+0.6**
	baz=1.8						
MURC	**Murrieta**	**1.92**	**306**	⇓Sb	**Sb**	**22 23 36.6**	**+0.9**
	baz=2.0						
PDMCI	**Parker Dam,Lak**	**2.06**	**29**	⇓Sb	**Sb**	**22 23 40.6**	**+0.9**
	baz=2.1						
214A	**Organ Pipe Nat**	**2.20**	**104**	⇓P	**Pn**	**22 23 11.1**	**-2.2**
	baz=2.2						
X13A	**Yucca**	**2.44**	**31**	⇑Sb	**Sb**	**22 23 52.1**	**+1.4**
	baz=2.5						
LDFC	**Landfair**	**2.58**	**4**	*e*Pn	**Pn**	**22 23 19.2**	**+0.7**
LDFC				*e*Pg	**Pg**	**22 23 26.8**	**+0.3**
LDFC				S	**Sg**	**22 24 02.8**	**+2.8**
CIS	**Catalina Islan**	**2.74**	**290**	⇑Sb	**Sb**	**22 24 01.0**	**+1.7**
	baz=2.8						
MWC	**Mount Wilson**	**2.86**	**308**	*e*Pn	**Pn**	**22 23 22.2**	**-0.1**
MWC				*e*Pg	**Pg**	**22 23 31.4**	**-0.4**
MWC				*e*Sn	**Sn**	**22 23 56.7**	**+0.1**
GSC	**Goldstone**	**3.05**	**337**	*e*Pn	**Pn**	**22 23 25.0**	**0.0**
GSC				*e*Pg	**Pg**	**22 23 36.1**	**+0.5**
OSI	**Osito Adit**	**3.53**	**308**	*e*Pn	**Pn**	**22 23 32.2**	**+0.7**
OSI				*e*Pg	**Pg**	**22 23 42.9**	**-1.8**
OSI				S	**Sg**	**22 24 25.4**	**-5.1**
ISA	**Isabella**	**4.09**	**321**	*e*Pn	**Pn**	**22 23 38.2**	**-1.1**
ISA				*e*Pg	**Pg**	**22 23 55.5**	**0.0**
ISA				*e*S	**Sg**	**22 24 42.9**	**-5.7**
WUAZ	**Wupatki**	**4.46**	**46**	Pn	**Pn**	**22 23 44.5**	**+0.2**
WUAZ				*e*Pg	**Pg**	**22 24 01.9**	**-0.5**
WUAZ				*e*Sg	**Sg**	**22 24 60.0**	**-0.2**
MVCO	**Mesa Verde**	**7.32**	**48**	*e*Pn	**Pn**	**22 24 24.0**	**+0.3**
	comp=E,5.4nm,0.6s						
MVCO				*e*S	**Sn**	**22 25 46.0**	**-0.6**
SDCO	**Great Sand Dun**	**9.60**	**54**	Pn	**Pn**	**22 24 56.8**	**+1.9**
	comp=E,30nm,1.1s						

GUC 11 22:59:10.9±0.5, **22°.64S**×**70°.59W**, **h35**^{km}±2^{km}, **ML3.5, 4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MECH	**Mejillones**	**0.48**	**164**	⇓*e*P	Pn	22 59 20.4	-1.0
MECH				*i* S	Sb	22 59 28.2	-0.3
MECH				AML	AML	22 59 35.6	
	comp=N,3µm,0.9s						
TOCH	**Tocopilla**	**0.65**	**34**	*e*P	Pn	22 59 23.2	-0.5
TOCH				*i* S	Sn	22 59 32.6	-0.1
TOCH				AML	AML	22 59 34.6	
	comp=E,4µm,0.1s						
PECH	**Pedro de Valdi**	**0.85**	**88**	⇓*e*P	Pn	22 59 26.6	+0.2
PECH				*i* S	Sn	22 59 38.5	+0.9
PECH				AML	AML	22 59 40.4	
	comp=N,3µm,0.5s						
PB04	**Plate Boundary**	**1.09**	**70**	⇓*i*P	Pn	22 59 21.3	-8.4
PB04				*i* S	Sn	22 59 29.2	-14
PB04				AML	AML	22 59 30.6	
	comp=E,8µm,0.6s						
LVC	**Limon Verde**	**1.55**	**89**	⇓*i*P	Pn	22 59 38.2	+2.2
LVC				*i* S	Sn	22 59 58.8	+3.8
LVC				AML	AML	22 59 59.6	
	comp=N,1µm,0.3s						
PB01	**Plate Boundary**	**1.89**	**33**	*e*P	Pn	22 59 42.6	+1.9
PB01				*i* S	Sn	23 00 06.1	+2.8
PB01				AML	AML	23 00 11.6	
	comp=E,475nm,0.3s						
PSGC	**Pisagua**	**3.06**	**8**	*e*P	Pn	22 59 57.0	+0.2

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*ISCJB **11** 23:06:03.8±0.3, 32°.47N±0°.02×115°.27W±0°.02, h25^{km}±3^{km}, Error ellipse: s-maj=3.3km s-min=2.6km az=1.9*

*ECX **11** 23:06:03.2±0.4, 32°.45N×115°.36W, h10^{km}, MD3.9, ML4.1*

*NEIC **11** 23:06:03.1, 32°.46N×115°.36W, h10^{km}, ML3.9(ECX), ML3.9(PAS), After ECX.*

NEIC Felt [III] at Brawley and El Centro, California. Also felt at Calexico, Holtville and Imperial. Felt [II] at Yuma, Arizona.

*IDC **11** 23:06:13.7±1.9, 32°.50N×114°.34W, h0^{km}, mb1 3.5/4, mb1mx3.4/23, mbtmp3.1/4, ML3.2/4, Error ellipse: s-maj=27.4km s-min=11.3km az=43.0*

ISC 11 23:06:04.2±0.3, **32°.46N**±0°.02×**115°.29W**±0°.02, **h16**^{km}±2^{km}, **n65**, σ**1^{s}.23**/110, **25C-29D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	**0.04**	**196**	⇓*e*P	**Pg**	**23 06 06.9**	**-0.1**
CPBX				*e*S	**Sg**	**23 06 09.1**	**+0.3**
SGL	**Mount Signal**	**0.41**	**298**	⇑*i*P	**Pg**	**23 06 11.9**	**-0.6**
SNR	**Schaffner Ranc**	**0.42**	**343**	⇓*i*P	**Pg**	**23 06 13.0**	**+0.3**
COA	**Coachella**	**0.43**	**19**	⇓*i*P	**Pg**	**23 06 13.2**	**+0.3**
EMX	**El Mayor**	**0.47**	**175**	⇓*e*P	**Pg**	**23 06 14.1**	**+0.5**
EMX				*e*S	**Sg**	**23 06 21.7**	**+1.9**
COK	**Cook Ranch**	**0.54**	**317**	⇑*i*P	**Pg**	**23 06 14.3**	**-0.5**
YUH	**Yuha Desert**	**0.57**	**290**	⇑*i*P	**Pg**	**23 06 14.4**	**-0.9**
112A	**Yuma**	**0.61**	**82**	⇑P	**Pg**	**23 06 16.0**	**-0.1**
	baz=0.6,SNR=54						
YMD	**Yuma Desert**	**0.64**	**81**	⇑*i*P	**Pg**	**23 06 16.4**	**-0.2**
SWSC	**Sam W. Stewart**	**0.64**	**319**	P	**Pg**	**23 06 15.7**	**-1.1**
	baz=0.6,SNR=527						
SWSC				⇓S	**Sg**	**23 06 24.6**	**-0.7**
	baz=0.6						
GLA	**Glamis**	**0.71**	**33**	P	**Pg**	**23 06 17.2**	**-0.8**
	baz=0.7,SNR=377						
GLA				⇑S	**Sg**	**23 06 26.9**	**-0.6**
	baz=0.7						
GLA	**Glamis**	**0.71**	**33**	*e*P	**Pg**	**23 06 17.3**	**-0.8**
GLA				*e*S	**Sg**	**23 06 26.9**	**-0.6**
DVTC	**Desert V Tower**	**0.71**	**287**	⇓P	**Pg**	**23 06 17.3**	**-0.8**
	baz=0.7,SNR=1000						
CRR	**Carrizo Plain**	**0.71**	**307**	⇑*i*P	**Pg**	**23 06 17.0**	**-1.1**
RDX	**Rancho Dawling**	**0.76**	**227**	⇑*e*P	**Pg**	**23 06 18.9**	**-0.1**
RDX				*e*S	**Sg**	**23 06 29.9**	**+0.8**
ECBX	**El Chinero**	**1.00**	**168**	⇑*e*P	**Pg**	**23 06 24.0**	**+0.4**
ECBX				*e*S	**Sg**	**23 06 37.9**	**+1.2**
ECBX				⇓*e*		23 06 38.7	
	comp=E,7µm,0.6s						
ECBX				⇓*e*		23 06 41.3	
	comp=N,6µm,0.8s						
MONP	**Monument Peak**	**1.05**	**295**	⇑P	**Pg**	**23 06 22.2**	**-2.2**
	baz=1.0,SNR=906						
CBX	**Cerro Bola**	**1.17**	**263**	⇑*e*PN	**Pn**	**23 06 25.5**	**-0.4**
CBX				*e*S	**Sb**	**23 06 40.8**	**-0.1**
BAR	**Barrett**	**1.19**	**281**	*e*P	**Pn**	**23 06 24.6**	**-1.6**
BAR				*e*S	**Sb**	**23 06 41.0**	**-0.5**
BC3	**Big Chuckw Mtn**	**1.20**	**354**	P	**Pn**	**23 06 24.4**	**-2.0**
	baz=1.2,SNR=306						
BC3				⇑S	**Sb**	**23 06 39.0**	**-3.0**
	baz=1.2						
113A	**Mohawk Valley,**	**1.32**	**76**	⇑P	**Pn**	**23 06 26.7**	**-1.4**
	baz=1.3,SNR=163						
113A				⇑Sb	**Sb**	**23 06 45.6**	**+0.2**
	baz=1.3						
ECNX	**Esteban Cantu**	**1.37**	**235**	⇑*e*PN	**Pn**	**23 06 28.6**	**0.0**
ECNX				⇓*e*PN	**Pn**	**23 06 28.0**	**-0.6**
ECNX				*e*S	**Sn**	**23 06 45.7**	**-0.7**
ECNX				*e*S	**Sn**	**23 06 47.8**	**+1.4**
PBX	**Punta Banda**	**1.41**	**240**	⇑*e*PN	**Pn**	**23 06 29.2**	**0.0**
PBX				*e*S	**Sn**	**23 06 48.6**	**+1.1**
SPX	**San Pedro Mart**	**1.41**	**186**	*e*PN	**Pn**	**23 06 32.4**	**+3.1**
SPX				⇓*e*		23 07 02.0	
	comp=E,2µm,0.4s						
SPX				⇓*e*		23 07 02.9	
	comp=N,1µm,0.4s						
PFO	**Pinyon Flat Ob**	**1.51**	**320**	P	**Pn**	**23 06 28.5**	**-2.1**
	baz=1.5,SNR=134						
PFO				⇑S	**Sn**	**23 06 46.9**	**-3.1**
	baz=1.5						
PFO	**Pinyon Flat Ob**	**1.51**	**320**	*e*Pn	**Pn**	**23 06 28.6**	**-2.0**
PFO				*e*Pg	**Pg**	**23 06 37.8**	**+4.6**
PFO				*e*S	**Sn**	**23 06 54.3**	**+4.4**
109C	**Camp Elliot, M**	**1.59**	**286**	⇓P	**Pn**	**23 06 30.1**	**-1.5**
	baz=1.6,SNR=59						
109C				⇓Sb	**Sb**	**23 06 52.5**	**-0.5**
	baz=1.6						
IRM	**Iron Mountain**	**1.70**	**4**	⇑P	**Pn**	**23 06 31.7**	**-1.5**
	baz=1.7						
IRM				⇓Sb	**Sb**	**23 06 57.1**	**+0.7**
	baz=1.7						
Y13A	**Salome**	**1.83**	**42**	⇓P	**Pn**	**23 06 33.5**	**-1.5**
	baz=1.9						
MURC	**Murrieta**	**1.97**	**306**	⇓P	**Pn**	**23 06 35.0**	**-1.9**
	baz=2.0,SNR=21						
MURC				⇓Sb	**Sb**	**23 07 04.4**	**+0.4**
	baz=2.0						
PDMCI	**Parker Dam,Lak**	**2.08**	**27**	⇓Sb	**Sb**	**23 07 08.2**	**+1.1**
	baz=2.1						
214A	**Organ Pipe Nat**	**2.16**	**103**	⇓P	**Pn**	**23 06 38.1**	**-1.5**
	baz=2.2,SNR=125						
Z14A	**Wintersburg**	**2.17**	**65**	⇓P	**Pn**	**23 06 37.9**	**-1.7**
	baz=2.2,SNR=16						
GMRC	**Granite Mounta**	**2.34**	**353**	⇓P	**Pn**	**23 06 40.2**	**-1.8**
	baz=2.4						
X13A	**Yucca**	**2.46**	**29**	⇓Sb	**Sb**	**23 07 19.5**	**+1.5**
	baz=2.5						
115A	**Sonoran Desert**	**2.60**	**84**	⇓P	**Pn**	**23 06 44.4**	**-1.1**
	baz=2.6,SNR=42						
LDFC	**Landfair**	**2.62**	**3**	*e*Pn	**Pn**	**23 06 47.1**	**+1.3**
LDFC				*e*Pg	**Pg**	**23 06 56.6**	**+2.2**
LDFC				*e*Sg	**Sg**	**23 07 29.1**	**+0.7**
CIS	**Catalina Islan**	**2.78**	**291**	⇓P	**Pn**	**23 06 46.5**	**-1.6**
	baz=2.8,SNR=29						
Y15A	**Casa Rosa Ranc**	**2.90**	**58**	⇑P	**Pn**	**23 06 48.7**	**-0.9**
	baz=2.9,SNR=14						
MWC	**Mount Wilson**	**2.91**	**308**	*e*Pn	**Pn**	**23 06 53.4**	**+3.5**
MWC				*e*Pg	**Pg**	**23 07 00.3**	**+0.3**
MWC				*e*Sn	**Sn**	**23 07 25.9**	**+1.4**
MWC				*e*Sg	**Sg**	**23 07 35.5**	**-2.1**
PASC	**Pasadena Art C**	**2.97**	**306**	*e*Pn	**Pn**	**23 06 49.5**	**-1.1**
PASC				*e*Pg	**Pg**	**23 07 00.9**	**-0.1**
PASC				*e*Sn	**Sn**	**23 07 27.5**	**+1.6**
116A	**Eloy**	**3.03**	**87**	⇓P	**Pn**	**23 06 50.7**	**-0.8**
	baz=3.0,SNR=7.9						
GSC	**Goldstone**	**3.10**	**336**	Pn	**Pn**	**23 06 57.4**	**+4.8**
GSC				*e*Pg	**Pg**	**23 07 05.0**	**+1.3**
216A	**Three Points,**	**3.28**	**97**	⇓P	**Pn**	**23 06 54.1**	**-0.9**
	baz=3.3						
Y16A	**Circle Bar Ran**	**3.50**	**65**	⇓P	**Pn**	**23 06 57.1**	**-0.9**
	baz=3.5,SNR=22						
OSI	**Osito Adit**	**3.58**	**308**	Pn	**Pn**	**23 07 00.4**	**+1.3**
OSI				*e*Pg	**Pg**	**23 07 12.6**	**-0.3**
OSI				Sn	**Sn**	**23 07 44.8**	**+3.6**
OSI				*e*Sg	**Sg**	**23 07 59.5**	**+0.1**
SNCC	**San Nicolas Is**	**3.65**	**284**	Pn	**Pn**	**23 07 00.7**	**+0.7**
SNCC				*e*Pg	**Pg**	**23 07 15.1**	**+1.0**
SNCC				Sn	**Sn**	**23 07 44.2**	**+1.5**
SNCC				*e*Sg	**Sg**	**23 08 02.8**	**+1.4**
117A	**Oracle**	**3.85**	**87**	⇑P	**Pn**	**23 07 01.8**	**-1.0**
	baz=3.9,SNR=36						
217A	**Green Valley**	**3.86**	**99**	⇑P	**Pn**	**23 07 02.0**	**-0.9**
	baz=3.9,SNR=24						
ISA	**Isabella**	**4.15**	**321**	*e*Pn	**Pn**	**23 07 09.2**	**+2.4**
ISA				*e*Pg	**Pg**	**23 07 24.2**	**+0.6**
ISA				Sn	**Sn**	**23 07 55.6**	**+0.6**
ISA				*e*Sg	**Sg**	**23 08 14.6**	**-2.8**
WUAZ	**Wupatki**	**4.46**	**46**	*e*Pn	**Pn**	**23 07 12.9**	**+1.7**
WUAZ				*e*Pg	**Pg**	**23 07 29.6**	**-0.1**
WUAZ				Sn	**Sn**	**23 08 04.7**	**+1.9**
WUAZ				*e*Sg	**Sg**	**23 08 29.1**	**+1.7**
218A	**Dragoon**	**4.47**	**95**	⇑P	**Pn**	**23 07 10.8**	**-0.5**
	baz=4.5						
318A	**Bisbee**	**4.62**	**101**	⇓P	**Pn**	**23 07 12.7**	**-0.7**
	baz=4.6,SNR=42						
119A	**Ashpeak Ranch,**	**5.06**	**85**	⇑P	**Pn**	**23 07 19.2**	**-0.3**
	baz=5.1						
219A	**White Tail Can**	**5.13**	**93**	⇓P	**Pn**	**23 07 19.9**	**-0.5**
	baz=5.1						
319A	**Douglas**	**5.22**	**100**	⇑P	**Pn**	**23 07 21.3**	**-0.3**
	baz=5.2						
120A	**U Bar Ranch, L**	**5.63**	**87**	⇑P	**Pn**	**23 07 27.0**	**-0.2**
	baz=5.6						
TPH	**Tonopah**	**5.82**	**345**	Pn	**Pn**	**23 07 29.1**	**-0.8**
	comp=N,19nm,0.7s						
TPH				*e*Pg	**Pg**	**23 07 57.0**	**+1.3**
TPH				*e*Sg	**Sg**	**23 09 12.3**	**+1.2**
NVAR	**Mina Array Bea**	**6.45**	**338**	Pn	Px	23 07 55.2	
	comp=N,0.3nm,0.3s,baz=167,slow=15,SNR=5.0						
NVAR				Pg	**Pg**	**23 08 09.1**	**+1.6**
	comp=N,0.8nm,0.3s,baz=160,slow=18,SNR=11						
NVAR				Lg		23 09 45.2	
	comp=N,0.3nm,0.3s,baz=163,slow=27,SNR=2.5						
NVAR	**Mina Array Bea**	**6.45**	**338**	Pn	Px	23 07 55.2	
NVAR				Pg	**Pg**	**23 08 09.1**	**+1.6**
NVAR				Lg		23 09 45.2	
CMB	**Columbia Colle**	**6.95**	**325**	Pn	**Pn**	**23 07 45.5**	**+0.1**
	comp=N,12nm,1.1s						
CMB				*e*Pg	Pn	23 08 16.7	+31
CMB				*e*Sn	**Sn**	**23 09 05.9**	**+1.7**
CMB				*e*Sg	Sn	23 09 47.1	+43
MVCO	**Mesa Verde**	**7.33**	**48**	*e*Pn	**Pn**	**23 07 53.1**	**+2.6**
	comp=N,20nm,0.6s						
MVCO				*e*Pg	Pn	23 08 23.0	+33
MVCO				Sn	**Sn**	**23 09 08.5**	**-4.8**
MVCO				*e*Sg	Sn	23 10 00.2	+47
ANMO	**Albuquerque**	**7.77**	**69**	Pn	**Pn**	**23 07 59.1**	**+2.6**
	comp=N,0.2nm,0.3s,baz=270,slow=11,SNR=3.7						
ANMO				Lg		23 09 57.6	
	comp=N,0.2nm,0.3s,baz=205,slow=19,SNR=1.7						
TXAR	**Lajitas Array**	**10.46**	**104**	Pn	**Pn**	**23 08 35.4**	**+1.8**
	comp=N,0.3nm,0.3s,baz=289,slow=13,SNR=14						
TXAR				Lg		23 11 21.1	
	comp=N,0.0nm,0.3s,baz=328,slow=38,SNR=3.0						
PDAR	**Pinedale Array**	**11.25**	**22**	Pn	**Pn**	**23 08 53.2**	**+8.9**
	comp=N,0.0nm,0.3s,baz=192,slow=13,SNR=2.7						
PDAR				Pg	Pn	23 09 30.6	+46
	comp=N,0.1nm,0.3s,baz=202,slow=12,SNR=4.0						
PDAR				Lg		23 11 59.4	
	baz=187,slow=20,SNR=3.0						

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*SZGRF **11** 23:05:43.5, 28°.97N×138°.55E, h33^{km}, mb5.0, Bonin Islands, Japan, region*

*NIED **11** 23:06:00, 28°.50N×140°.20E, h440^{km}, Mw4.6 Best double couple: $M_0$8.77000×10^{15} NP1:ϕ_s11.00000°, δ61.00000°, λ-46.00000°. NP2:ϕ_s127.00000°, δ51.00000°, λ-142.00000°.*

*MOS **11** 23:06:19.3±0.8, 28°.33N×139°.62E, h414^{km}, mb4.7/53, Error ellipse: s-maj=10.5km s-min=4.7km az=109.7*

*IDC **11** 23:06:20.0±0.6, 28°.31N×139°.65E, h408^{km}±5^{km}, mb3.9/23, mb1 4.0/28, mb1mx4.0/31, mbtmp3.9/28, Error ellipse: s-maj=11.4km s-min=8.5km az=67.0*

*JMA **11** 23:06:21.9±0.3, 28°.51N×140°.22E, h412^{km}±5^{km}, M4.1*

*ISCJB **11** 23:06:22.7±0.5, 28°.58N±0°.04×139°.49E±0°.03, h432^{km}±3^{km}, mb4.4/124, Error ellipse: s-maj=6.0km s-min=3.6km az=167.2*

*BJI **11** 23:06:22.7, 28°.44N×139°.49E, h439^{km}, mB4.7/24, mb4.6/46*

*NEIC **11** 23:06:23.8±0.6, 28°.48N×139°.58E, h446^{km}±5^{km}, mb4.6/69, MW4.6(NIED), Error ellipse: s-maj=5.4km s-min=4.5km az=117.0*

*BGS **11** 23:06:23.7±1.7, 28°.48N×139°.58E, h446^{km}, mb4.8*

ISC 11 23:06:23.7±0.4, **28°.61N**±0°.03×**139°.52E**±0°.03, **h431**^{km}±3^{km}, **h428**^{km}±6.9^{km}**:pP-P, n528**, σ**0^{s}.81**/546, **mb4.4**/124, **106C-118D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**2.80**	**122**	P	**P**	**23 07 20.7**	**-7.0**
CBIJ	**Chichi jima**	**2.80**	**122**	P	**P**	**23 07 20.8**	**-6.9**
	422nm,0.3s,baz=23,slow=1.4,SNR=87						
CBIJ				S	**S**	**23 08 08.3**	**-11**
	283nm,0.3s,baz=119,slow=23,SNR=12						
JHJ2	**Mitsune**	**4.50**	**3**	P	**P**	**23 07 41.3**	**-0.7**
JHJ2				*e*S	**S**	**23 08 43.1**	**-2.8**
JHJ	**Hachijo jima 2**	**4.50**	**3**	P	**P**	**23 07 41.5**	**-0.6**
	42nm,0.3s,baz=49,slow=20,SNR=4.4						
JHJ				S	**S**	**23 08 43.8**	**-2.3**
	111nm,0.3s,baz=256,slow=22,SNR=5.9						
BSO1	**Boso 1**	**6.15**	**11**	P	**P**	**23 07 58.0**	**-0.7**
BSO1				S	**S**	**23 09 13.7**	**-2.8**
BSO3	**Boso 3**	**6.23**	**8**	P	**P**	**23 07 59.0**	**-0.6**
BSO3				S	**S**	**23 09 15.7**	**-2.3**
JIE	**Ise**	**6.24**	**338**	P	**P**	**23 08 02.5**	**+2.8**
JKN2	**Miekihoku**	**6.26**	**335**	P	**P**	**23 08 02.5**	**+2.6**
BSO4	**Boso 4**	**6.40**	**6**	P	**P**	**23 08 00.7**	**-0.6**
BSO4				S	**S**	**23 09 19.6**	**-1.7**
HMMJ	**Hamamatsu 2**	**6.41**	**347**	P	**P**	**23 08 02.9**	**+1.4**
HMMJ				S	**S**	**23 09 22.2**	**+0.7**
JOD2	**Odawara 2**	**6.64**	**357**	P	**P**	**23 08 06.0**	**+2.1**
JOD2				*e*S	**S**	**23 09 26.1**	**+0.1**
JTO	**Tosashimizu**	**7.17**	**308**	P	**P**	**23 08 12.0**	**+2.4**
JRY	**Ryogami san**	**7.40**	**356**	P	**P**	**23 08 12.0**	**-0.1**
JRY				*e*S	**S**	**23 09 38.2**	**-2.9**
MJAR	**Matsushiro Arr**	**7.99**	**352**	P	**P**	**23 08 18.2**	**-0.3**
MJAR				S	**S**	**23 09 53.3**	**+0.5**
MJAR				pmax	pmax		
	comp=Z,6.0nm,0.3s						
MJAR				smax			
	comp=N,4.0nm,0.3s						
MJAR	**Matsushiro Arr**	**7.99**	**352**	P	**P**	**23 08 18.2**	**-0.3**
	comp=N,6.3nm,0.3s,baz=171,slow=10,SNR=17						
MJAR				S	**S**	**23 09 53.3**	**+0.5**

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      comp=N,3.5nm,0.3s,baz=172,slow=13,SNR=8.6
MJAR  Matsushiro Arr    7.99 352  P       P      23 08 18.2 -0.3
MJAR                              S       S      23 09 53.3 +0.5
MAJO  Matsushiro        7.99 352  eP      P      23 08 17.6 -0.9
MAJO                              eS      S      23 09 53.6 +0.8
MAJO                              pmax    pmax
      comp=Z,34nm,0.4s
MAJO  Matsushiro        7.99 352  eP      P      23 08 17.6 -0.9
      comp=Z,34nm,0.4s
MAJO                              eS      S      23 09 53.6 +0.8
MAT   Matsushiro        7.99 352  P       P      23 08 17.9 -0.6
MAT                               S       S      23 09 50.9 -1.9
MAT   Matsushiro        7.99 352  P       P      23 08 18.8 +0.3
MAT                               S       S      23 09 52.2 -0.6
JHS   Saijyo            8.38 321  P       P      23 08 26.0 +3.2
JOW   Kunigami         10.12 263  P       P      23 08 43.6 +1.5
      comp=Z,24nm,0.3s,baz=109,slow=9.2,SNR=18
JMK   Ichinoseki       10.41   7  P       P      23 08 46.1 +1.0
JMK                               eS      S      23 10 40.2 -1.5
KSRS  Korea Array      13.12 315  P       P      23 09 16.4 +1.6
KSRS                              pmax    pmax
      comp=Z,1.0nm,0.3s
KSRS  Korea Array      13.12 315  P       P      23 09 16.4 +1.6
      comp=Z,1.1nm,0.3s,baz=126,slow=10,SNR=18
ERM   Erimo            13.70  12⇑iP      P      23 09 20.9 -0.1
INCN  Inchon           13.96 313  P       P      23 09 25.8 +2.0
ASAJ  Asahikawa        15.67   8  P       P      23 09 43.9 +1.7
ASAJ                              pmax    pmax
      comp=Z,1.0nm,0.3s
ASAJ  Asahikawa        15.67   8  P       P      23 09 43.9 +1.7
      comp=Z,1.4nm,0.3s,baz=212,slow=13,SNR=5.2
GUMO  Guam             15.75 160  P       P      23 09 42.2 -1.2
TATO  Taipei           16.50 262  P       P      23 09 51.5 +0.2
NACB  Ninganchiao      16.65 259  eP      P      23 09 56.5 +3.6
      comp=Z,10nm,0.4s
YHNB  Yeheng           16.69 261  eP      P      23 09 52.4 -0.9
      comp=Z,14nm,0.5s
SSLB  Suanglung        17.34 258  eP      P      23 10 00.7 +0.6
      comp=Z,25nm,0.5s
SSLB                              eS      S      23 12 59.0  0.0
MDJ   Mudanjiang       17.83 336  P       P      23 10 05.5 +0.5
MDJ                               S       S      23 13 09.2 +1.4
MDJ                               ScP     ScP    23 17 10.9 -0.9
MDJ                               PcS     PcS    23 17 54.1 -0.4
MDJ                               ScS     ScS    23 20 51.9 -0.5
MDJ                               pmax    pmax
      comp=Z,8.0nm,1.6s
MDJ                               pmax    pmax
      comp=Z,92nm,4.8s
MDJ   Mudanjiang       17.83 336  eP      P      23 10 06.5 +1.5
      comp=Z,57nm,1.1s
NJ2   Nanjing          18.16 286  eP      P      23 10 07.1 -1.6
NJ2                               pmax    pmax
      comp=Z,40nm,1.1s
YSS   Yuzh-Sakhalins   18.49   7  eP      P      23 10 11.8  0.0
YSS                               pmax    pmax
      comp=Z,40nm,0.9s
SNY   Shenyang         18.49 320 ⇓P       P      23 10 12.6 +0.6
SNY                               S       S      23 13 12.5 -6.6
CN2   Changchun        18.90 327  eP      P      23 10 16.9 +1.0
CN2                               eS      S      23 13 26.3 +0.6
CN2                               PcP     PcP    23 14 23.6 +3.7
CN2                               ScS     ScS    23 20 59.5 +3.6
CN2                               pmax    pmax
      comp=Z,30nm,1.2s
CN2                               pmax    pmax
      comp=Z,200nm,5.0s
HABR  Khabarovsk       20.13 351  eP      P      23 10 28.3 +1.2
HABR                              *SP     sP     23 12 23.7 +0.1
HABR                                             23 20 58.4
HABR                              pmax    pmax
      comp=N,104nm,1.7s
HABR                              pmax    pmax
      comp=Z,148nm,1.0s
HABR                              pmax    pmax
      comp=E,31nm,0.8s
KLR   Kul’dur          21.44 346⇑iP      P      23 10 36.8 -2.1
KLR                               pmax    pmax
      comp=Z,56nm,0.8s,mb5.0
BJT   Baijiatuau       22.33 307  eP      P      23 10 48.1 +0.9
BJT                               pmax    pmax
      comp=Z,9.0nm,0.5s
BJT   Baijiatuau       22.33 307  eP      P      23 10 48.1 +0.9
      comp=Z,8.5nm,0.5s,mb4.4
BJT                               epP            23 12 02.4
BJI   Beijing          22.33 307  P       P      23 10 48.0 +0.8
BJI                               pmax    pmax
      comp=Z,18nm,1.3s,mb4.3
DAV   Davao City (W)   25.15 214  P       P      23 11 13.6 +0.9
HIA   Hailar           25.59 329  eP      P      23 11 17.0 +0.8
HIA                               pmax    pmax
      comp=Z,28nm,0.9s
HIA   Hailar           25.59 329  eP      P      23 11 17.0 +0.8
      comp=Z,28nm,0.9s,mb4.7
HHC   Hu-ho-hao-te     25.90 306  eP      P      23 11 20.0 +0.9
HHC                               sP      sP     23 13 27.7 +2.4
HHC                               PcP     PcP    23 14 34.1 -0.3
HHC                               eS      S      23 15 18.0 +0.7
HHC                               PcS     PcS    23 18 14.3 -1.3
HHC                               ScS     ScS    23 21 20.8 -2.0
HHC                               pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.1
HHC                               pmax    pmax
      comp=Z,130nm,4.4s
ENH   Enshi            26.17 281  P       P      23 11 22.7 +1.1
XAN   Xi’an            26.64 289  P       P      23 11 26.0 +0.3
XAN                               pmax    pmax
      comp=Z,19nm,0.7s,mb4.6
XAN                               pmax    pmax
      comp=Z,57nm,6.4s
PETK  Petropavlovsk-   27.91  24  P       P      23 11 37.5 +0.8
PETK                              pmax    pmax
      comp=Z,1.0nm,0.5s,mb3.4
PETK  Petropavlovsk-   27.91  24  P       P      23 11 37.5 +0.8
      comp=Z,1.4nm,0.5s,mb3.6,baz=180,slow=2.5,SNR=11
GYA   Guiyang          29.16 274  P       P      23 11 47.8 -0.3
GYA                               pP             23 13 06.9
GYA                               sP      sP     23 13 57.2 +2.3
GYA                               PcP     PcP    23 14 42.0 -0.8
GYA                               S       S      23 16 09.2 +0.5
GYA                               ScP     ScP    23 17 42.4 -0.5
GYA                               PcS     PcS    23 18 25.8 -0.5
GYA                               ScS     ScS    23 21 36.0 -2.2
GYA                               pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.2
CLNS  Chul’man         30.05 344  eP      P      23 11 57.5 +2.1
CLNS                              eS      S      23 16 32.0  +10
CLNS                              eSS     SS     23 18 58.2 +4.2
CLNS                              pmax    pmax
      comp=Z,43nm,0.8s,mb4.8
CLNS                              pmax    pmax
      comp=E,10.0nm,0.8s
CLNS                              pmax    pmax
      comp=N,26nm,0.8s
CLNS                              pmax    pmax
      comp=E,7.0nm,1.0s
CLNS                              pmax    pmax
      comp=Z,4.0nm,0.8s,mb3.8
CLNS                              pmax    pmax
      comp=N,5.0nm,0.7s
CLNS                              smax
      comp=N,138nm,15.9s
CLNS                              smax
      comp=E,154nm,15.4s
LZH   Lanzhou          30.92 293 ⇑P       P      23 12 04.0 +0.8
LZH                               pP      pP     23 13 23.5 +3.1
LZH                               PP      PP     23 13 30.6 +5.7
LZH                               sP      sP     23 14 13.8 +3.3
LZH                               pmax    pmax
      comp=Z,22nm,1.1s,mb4.4
LZH                               pmax    pmax
      comp=Z,68nm,4.6s
CD2   Chengdu          31.05 283  P       P      23 12 04.5 +0.1
CD2                               pP      pP     23 13 24.7 +3.0
CD2                               PP      PP     23 13 31.5 +5.1
CD2                               sP      sP     23 14 15.4 +3.7
CD2                               PcP     PcP    23 14 46.8 -0.9
CD2                               S       S      23 16 37.5 -0.4
CD2                               sS      sS     23 19 01.5 +1.0
CD2                               SS      SS     23 19 12.3 -2.5
CD2                               pmax    pmax
      comp=Z,60nm,0.7s,mb5.0
CD2                               pmax    pmax
      comp=Z,160nm,4.7s
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KKM   Kota Kinabalu    31.47 229  eP      P      23 12 06.9 -1.3
ULN   Ulaanbaatar      31.60 316  eP      P      23 12 10.5 +1.6
ULN                               pmax    pmax
      comp=Z,23nm,0.9s,mb4.5
ULN   Ulaanbaatar      31.60 316  eP      P      23 12 10.5 +1.5
      comp=Z,23nm,0.9s,mb4.5
SONM  Songino Array    31.99 316  P       P      23 12 13.5 +1.2
SONM                                             23 14 49.7
SONM                              pmax    pmax
      comp=Z,7.0nm,0.5s
SONM                              pmax    pmax
      comp=Z,1.0nm,0.4s
SONM                              pmax    pmax
      comp=N,3.0nm,0.8s
SONM  Songino Array    31.99 316  P       P      23 12 13.5 +1.2
      comp=N,6.5nm,0.5s,mb4.2,baz=128,slow=8.4,SNR=138
SONM                              PcP     PcP    23 14 49.7 -0.2
      comp=N,1.2nm,0.4s,baz=122,slow=2.3,SNR=12
SONM                              ScP     ScP    23 17 52.4 +0.5
      comp=N,3.0nm,0.8s,baz=142,slow=3.3,SNR=18
KMI   Kunming          32.91 273  P       P      23 12 21.3 +0.8
KMI                               pmax    pmax
      comp=Z,14nm,1.1s,mb4.2
YAK   Yakutsk          34.05 352  eP      P      23 12 29.3 -0.3
YAK                               pmax    pmax
      comp=E,9.0nm,1.0s
YAK                               pmax    pmax
      comp=N,34nm,1.6s
YAK                               pmax    pmax
      comp=Z,74nm,0.9s,mb5.0
YAK   Yakutsk          34.05 352  eP      P      23 12 30.1 +0.5
      comp=Z,88nm,0.8s,mb5.1
GTA   Gaotai           34.38 299  eP      P      23 12 33.3 +0.5
GTA                               pmax    pmax
      comp=Z,12nm,1.1s,mb4.1
ZAK   Zakamensk        34.92 319  eP      P      23 12 38.0 +0.9
ZAK                               e              23 14 55.3
ZAK                               pmax    pmax
      comp=Z,6.0nm,1.0s,mb3.9
TLY   Talaya           35.28 321  eP      P      23 12 41.2 +1.1
TLY                               pmax    pmax
      comp=Z,15nm,0.9s,mb4.3
TLY   Talaya           35.28 321  eP      P      23 12 41.5 +1.4
      comp=Z,14nm,0.9s,mb4.3
SEY   Seymchan         35.34  10⇑eP      P      23 12 41.4 +0.9
MOY   Mondy            36.77 320  eP      P      23 12 53.2 +0.6
CMAR  Chiang Mai Arr   38.39 264  P       P      23 13 06.4  0.0
CMAR                                             23 15 09.6
CMAR                              pmax    pmax
      comp=Z,1.0nm,0.4s
CMAR                              pmax    pmax
      comp=Z,1.0nm,0.3s
CMAR  Chiang Mai Arr   38.39 264  P       P      23 13 06.4  0.0
      comp=Z,0.6nm,0.3s,mb3.3,baz=52,slow=10,SNR=4.7
CMAR                              PcP     PcP    23 15 09.6 +0.1
      comp=Z,0.6nm,0.3s,baz=58,slow=2.2,SNR=5.3
KSM   Kuching          38.80 231  P       P      23 13 09.2 -0.6
LSA   Lhasa            42.01 284  eP      P      23 13 36.7 +1.2
LSA                               pmax    pmax
      comp=Z,3.0nm,0.4s,mb4.0
LSA   Lhasa            42.01 284  eP      P      23 13 36.7 +1.1
      comp=Z,2.5nm,0.4s,mb3.9
BILL  Bilibino         42.55  15  eP      P      23 13 39.4 +0.2
BILL                              pmax    pmax
      comp=Z,64nm,1.1s,mb4.9
BILL  Bilibino         42.55  15  eP      P      23 13 39.6 +0.4
      comp=Z,54nm,0.9s,mb4.9
TIXI  Tiksi            43.49 355⇑eP      P      23 13 46.3 -0.2
TIXI                              pmax    pmax
      comp=Z,24nm,0.6s,mb4.7
TIXI  Tiksi            43.49 355  eP      P      23 13 46.9 +0.4
      comp=Z,28nm,0.7s,mb4.7
KULM  Kulim            43.50 245  eP      P      23 13 46.7 -0.8
      comp=Z,3.2nm,0.5s,mb3.9
TAPN  Taplejung        45.47 281  eP      P      23 14 03.5 +0.8
      comp=Z,12nm,0.5s,mb4.5
ODAN  Odare            45.87 281  eP      P      23 14 06.4 +0.6
      comp=Z,17nm,0.4s,mb4.8
RAMN  Ramite           46.53 281  eP      P      23 14 11.4 +0.6
      comp=Z,18nm,0.5s,mb4.7
JIRN  Jiri             46.71 282  eP      P      23 14 13.3 +1.2
      comp=Z,57nm,0.6s,mb5.1
ZAA0  Zalesovo Array   46.80 319  eP      P      23 14 11.7 -0.7
ZAA0                              ePcP    PcP    23 15 36.2 -1.1
ZALV  Zalesovo Beam    46.80 319  P       P      23 14 12.3 -0.1
ZALV                                      pP     23 15 36.4  0.0
ZALV                              pmax    pmax
      comp=Z,6.0nm,0.7s,mb4.0
ZALV                              pmax    pmax
      comp=Z,6.0nm,0.5s,mb4.2
ZALV                              pmax    pmax
      comp=N,2.0nm,0.6s
ZALV  Zalesovo Beam    46.80 319  P       P      23 14 12.3 -0.1
      comp=N,5.8nm,0.7s,mb4.0,baz=96,slow=7.6,SNR=24
ZALV                              PcP     PcP    23 15 36.4 -0.9
      comp=N,6.1nm,0.5s,baz=115,slow=3.2,SNR=19
ZALV                              ScP     ScP    23 18 48.5 -0.6
      comp=N,2.2nm,0.6s,baz=120,slow=4.5,SNR=8.5
ZALV  Zalesovo Beam    46.80 319  P       P      23 14 12.3 -0.1
ZALV                              PcP     PcP    23 15 36.4 -0.9
ZALV                              ScP     ScP    23 18 48.5 -0.6
GUN   Gumba            46.91 283  eP      P      23 14 14.8 +1.1
      comp=N,47nm,0.5s,mb5.1
PKI   Pulchoki         47.40 282  eP      P      23 14 17.7 +0.3
KKN   Kakani           47.45 283  eP      P      23 14 18.2 +0.4
      comp=N,13nm,0.7s,mb4.4
DMN   Daman            47.65 282  eP      P      23 14 19.7 +0.4
      comp=N,8.4nm,0.4s,mb4.4
MKAR  Makanchi Array   47.69 309  P       P      23 14 19.7 +0.4
MKAR                                      pP     23 15 40.2 -3.5
MKAR                              pmax    pmax
      comp=Z,7.0nm,0.8s
MKAR                              pmax    pmax
      comp=Z,5.0nm,0.6s
MKAR                              pmax    pmax
      comp=N,4.0nm,0.7s
MKAR  Makanchi Array   47.69 309  P       P      23 14 19.7 +0.4
      comp=N,6.5nm,0.8s,mb4.0,baz=89,slow=9.4,SNR=70
MKAR                              PcP     PcP    23 15 40.2 -0.4
      comp=N,5.4nm,0.6s,baz=79,slow=5.9,SNR=19
MKAR                              ScP     ScP    23 18 52.7 -0.4
      comp=N,3.7nm,0.7s,baz=84,slow=4.8,SNR=23
MKAR  Makanchi Array   47.69 309  P       P      23 14 19.7 +0.4
MKAR                              PcP     PcP    23 15 40.2 -0.4
MKAR                              ScP     ScP    23 18 52.7 -0.4
NVS   Novosibirsk      47.87 320  i P     P      23 14 20.2 -0.3
GKN   Gorkha           47.95 283  eP      P      23 14 22.0 +0.4
      comp=N,8.6nm,0.5s,mb4.4
FITZ  Fitzroy Crossi   48.34 198  P       P      23 14 21.9 -2.6
WRAB  Tennant Creek    48.52 186  eP      P      23 14 22.6 -3.2
WRAB                              e              23 15 42.0
WRAB                              pmax    pmax
      comp=Z,1.0nm,0.5s,mb3.4
WRAB  Tennant Creek    48.52 186  eP      P      23 14 22.6 -3.2
      comp=Z,0.8nm,0.5s,mb3.3
WRAB                              ePcP    PcP    23 15 42.0 -2.0
WRA   Warramunga Arr   48.52 187  P       P      23 14 22.2 -3.6
WRA                                       pP     23 15 42.3 -8.4
WRA                               pmax    pmax
      comp=Z,2.0nm,0.7s
WRA                               pmax    pmax
      comp=Z,1.0nm,0.6s
WRA                               pmax    pmax
      comp=N,3.0nm,0.9s
WRA   Warramunga Arr   48.52 187  P       P      23 14 22.2 -3.7
      comp=N,2.1nm,0.7s,mb3.6,baz=6.8,slow=8.1,SNR=7.7
WRA                               PcP     PcP    23 15 42.3 -1.7
      comp=N,1.4nm,0.6s,baz=8.4,slow=5.0,SNR=4.0
WRA                               ScP     ScP    23 18 55.2 -1.7
      comp=N,2.8nm,0.8s,baz=360,slow=4.4,SNR=5.6
DANN  Dangsing         48.62 284  eP      P      23 14 27.6 +1.0
      comp=N,22nm,0.4s,mb4.8
CTAO  Charters Tower   48.85 172  P       P      23 14 28.5 +0.3
KOLN  Koldanda         48.90 283  eP      P      23 14 29.3 +0.6
      comp=N,17nm,0.7s,mb4.5
TNA   Tin City         49.04  26  eP      P      23 14 28.6 -0.5
      comp=N,2.9nm,0.6s,mb3.8
KURK  Kurchatov        50.24 314  P       P      23 14 39.1 +0.8
KURK                                             23 15 49.0
KURK                              pmax    pmax
      comp=Z,7.0nm,0.4s,mb4.3
KURK                              pmax    pmax
      comp=Z,2.0nm,0.8s,mb3.5
KURK                              pmax    pmax
      comp=N,1.0nm,0.6s
KURK  Kurchatov        50.24 314  P       P      23 14 39.1 +0.8
```

```
      comp=N,6.9nm,0.4s,mb4.3,baz=93,slow=7.5,SNR=48
KURK                              PcP     PcP    23 15 49.0 -1.0
      comp=N,1.6nm,0.8s,baz=92,slow=4.1,SNR=4.3
KURK                              ScP     ScP    23 19 03.2 -0.7
      comp=N,1.1nm,0.6s,baz=92,slow=4.0,SNR=5.0
KURK  Kurchatov        50.24 314  eP      P      23 14 38.4 +0.1
      comp=N,24nm,0.9s,mb4.5
ASAR  Alice Springs    52.25 187  P       P      23 14 49.0 -4.3
ASAR                                             23 15 56.5
ASAR                              pmax    pmax
      comp=Z,1.0nm,0.7s
ASAR                              pmax    pmax
      comp=Z,1.0nm,0.8s
ASAR                              pmax    pmax
      comp=N,1.0nm,0.8s
ASAR  Alice Springs    52.25 187  P       P      23 14 49.0 -4.3
      comp=N,0.7nm,0.7s,mb3.0,baz=16,slow=12,SNR=5.8
ASAR                              PcP     PcP    23 15 56.5 -1.3
      comp=N,1.2nm,0.8s,baz=15,slow=3.7,SNR=6.2
ASAR                              ScP     ScP    23 19 10.8 -2.1
      comp=N,0.7nm,0.8s,baz=354,slow=5.9,SNR=4.5
TKM2  Tokmak 2         52.62 304  eP      P      23 14 55.3 -0.4
TKM2                              e              23 15 58.6
TKM2                              pmax    pmax
      comp=Z,2.0nm,0.6s,mb3.5
TKM2  Tokmak 2         52.62 304  eP      P      23 14 55.3 -0.5
      comp=Z,1.8nm,0.6s,mb3.5
TKM2                              ePcP    PcP    23 15 58.6 -0.5
KSH   Kashi            52.78 300  P       P      23 15 01.1 +4.1
KSH                               epP     pP     23 16 26.0 +2.5
KSH                               esP     sP     23 17 15.3 +4.3
KSH                               eS      S      23 21 55.4 +3.6
KSH                               pmax    pmax
      comp=Z,13nm,0.5s,mb4.4
KSH                               pmax    pmax
      comp=Z,440nm,5.5s
MBWA  Marble Bar       53.04 203  P       P      23 14 57.8 -1.2
AAK   Ala-Archa        53.46 304  eP      P      23 15 02.7 +0.9
AAK                               e              23 16 01.7
UCH   Uchtor           53.49 303  eP      P      23 15 03.3 +1.2
      comp=Z,7.0nm,1.0s,mb3.9
UCH                               ePcP    PcP    23 16 03.3 +0.9
UCH                               eScP    ScP    23 19 18.6 +0.3
EKS2  Erkin-Say        53.98 304  eP      P      23 15 06.2 +0.7
      comp=Z,6.0nm,1.1s,mb3.7
EKS2                              ePcP    PcP    23 16 04.2 -0.1
AML   Almayashu        54.11 303  eP      P      23 15 07.7 +1.3
      comp=Z,5.1nm,0.7s,mb3.9
AML                               ePcP    PcP    23 16 05.4 +0.6
KDAK  Kodiak Island    54.59  38  i P     P      23 15 09.0 -0.5
KDAK  Kodiak Island    54.59  38  P       P      23 15 08.8 -0.7
      comp=Z,14nm,0.9s,mb4.2,baz=124,slow=22,SNR=8.9
BVAR  Borovoye Array   55.33 317  ScP     ScP    23 19 25.6 -0.5
      comp=Z,1.5nm,0.7s,baz=103,slow=5.6,SNR=6.5
BRVK  Borovoye         55.39 317  eP      P      23 15 15.8 +0.5
BRVK                              e              23 16 08.5
BRVK                              pmax    pmax
      comp=Z,32nm,0.9s,mb4.5
BRVK  Borovoye         55.39 317  eP      P      23 15 15.8 +0.5
      comp=Z,32nm,0.9s,mb4.5
BRVK                              ePcP    PcP    23 16 08.5 -1.0
KTH   Kantishna Hill   55.71  31  eP      P      23 15 17.9 +0.6
BPAW  Bear Paw Mtn.    55.72  30  eP      P      23 15 17.1 -0.3
      comp=Z,3.3nm,0.5s,mb3.9
PMR   Palmer           56.44  33  eP      P      23 15 22.1 -0.4
MCK   McKinley         56.60  30  eP      P      23 15 23.5 -0.1
COLA  College          57.12  29  eP      P      23 15 27.4 +0.3
COLA                                             23 16 14.5
COLA                              pmax    pmax
      comp=Z,9.0nm,0.9s,mb4.1
COLA  College          57.12  29  eP      P      23 15 27.4 +0.3
      comp=Z,9.3nm,0.9s,mb4.1
COLA                              PcP     PcP    23 16 14.5 -1.7
KBL   Kabul            59.24 295  eP      P      23 15 41.6 -0.5
KBL                               pmax    pmax
      comp=Z,7.0nm,0.8s,mb4.0
KBL   Kabul            59.24 295  eP      P      23 15 41.6 -0.5
      comp=Z,6.8nm,0.8s,mb4.0
EGAK  Eagle            59.99  29  eP      P      23 15 46.3 -0.2
      comp=Z,7.2nm,0.8s,mb4.2
SVE   Sverdlovsk       60.59 322⇓eP      P      23 15 51.7 +1.0
SVE                               e              23 18 10.1
SVE                               eS      S      23 23 50.6  +18
SVE                               pmax    pmax
      comp=Z,37nm,0.8s,mb4.9
DAWY  Dawson           60.81  30  eP      P      23 15 52.7 +0.6
ARU   Arti             61.78 321d iP      P      23 15 58.7 +0.1
ARU                               e              23 18 20.3
ARU                               S       S      23 23 49.0 +2.0
ARU                               SS      SS     23 27 59.7 +2.2
ARU                               pmax    pmax
      comp=Z,40nm,1.0s,mb4.9
ARU   Arti             61.78 321  eP      P      23 15 58.8 +0.2
SOKR  Solikamsk        62.18 325  eP      P      23 16 01.6 +0.4
SOKR                              pmax    pmax
      comp=Z,20nm,0.9s,mb4.7
PRGR  Permogore        67.04 329⇓iP      P      23 16 32.5 +0.4
PRGR                              pmax    pmax
      comp=Z,35nm,0.8s,mb5.0
SPITS Spitsbergen Ar   68.47 349  P       P      23 16 41.5 +0.8
SPITS                             pmax    pmax
      comp=Z,3.0nm,0.4s
SPITS Spitsbergen Ar   68.47 349  P       P      23 16 41.5 +0.8
      comp=Z,2.5nm,0.4s,mb4.2,baz=15,slow=8.1,SNR=12
KLMR  Klimovskoe       70.08 329⇓iP      P      23 16 50.4 -0.3
KLMR                              pmax    pmax
      comp=Z,29nm,1.0s,mb4.8
KEV   Kevo             70.77 340  eP      P      23 16 53.4 -1.2
KEV                               pmax    pmax
      comp=Z,14nm,0.6s,mb4.7
KEV   Kevo             70.77 340  ep      P      23 16 53.4 -1.2
      comp=Z,14nm,0.6s,mb4.7
ARCES ARCESS Array B   71.33 340  P       P      23 16 58.9 +1.0
ARCES                             pmax    pmax
      comp=Z,16nm,0.5s
ARCES ARCESS Array B   71.33 340  P       P      23 16 58.9 +1.0
      comp=Z,16nm,0.5s,mb4.8,baz=68,slow=8.2,SNR=90
TAU   Tasmania Unive   71.53 174  P       P      23 16 56.3 -3.0
YKA   Yellowknife Ar   71.93  28  P       P      23 17 00.9 -0.7
YKA                               pmax    pmax
      comp=Z,7.0nm,0.7s
YKA   Yellowknife Ar   71.93  28  P       P      23 17 00.9 -0.6
      comp=Z,6.7nm,0.7s,mb4.3,baz=296,slow=5.9,SNR=99
YKA   Yellowknife Ar   71.93  28  P       P      23 17 00.9 -0.6
JOF   Joensuu          72.67 333  eP      P      23 17 04.4 -1.5
JOF                               pmax    pmax
      comp=Z,39nm,0.5s,mb5.2
JOF   Joensuu          72.67 333  ep      P      23 17 04.4 -1.5
      comp=Z,39nm,0.5s,mb5.2
OBN   Obninsk          73.94 324⇑iP      P      23 17 13.4 +0.1
OBN                               i *PP   pP     23 18 50.3 +3.0
OBN                               pmax    pmax
      comp=Z,35nm,1.0s,mb4.9
OBN   Obninsk          73.94 324  eP      P      23 17 12.5 -0.8
      comp=Z,22nm,0.7s,mb4.9
VSR   Storozhevoye     74.28 320⇑iP      P      23 17 15.2 -0.1
VSR                               pmax    pmax
      comp=Z,23nm,0.8s,mb4.9
A06A  Chilliwack       74.42  42 ⇑P       P      23 17 15.9 -0.3
      baz=74
KAF   Kangasniemi      75.08 333  eP      P      23 17 17.1 -2.6
KAF                               pmax    pmax
      comp=Z,18nm,0.4s,mb5.0
KAF   Kangasniemi      75.08 333  ep      P      23 17 17.1 -2.6
      comp=Z,18nm,0.4s,mb5.0
A07A  Ashnola River,   75.09  42 ⇓P       P      23 17 20.1 +0.1
      baz=75
F04A  Amboy            75.22  46 ⇓P       P      23 17 20.8  0.0
      baz=75
KIV   Kislovodsk       75.29 312  eP      P      23 17 21.9 +0.7
KIV                               pmax    pmax
      comp=Z,18nm,1.0s,mb4.7
KIV   Kislovodsk       75.29 312  eP      P      23 17 21.2  0.0
      comp=Z,16nm,0.9s,mb4.7
G04A  Mulino           75.50  46 ⇓P       P      23 17 22.7 +0.3
      baz=75
B07A  Winthrop         75.51  43 ⇑P       P      23 17 22.5 +0.2
      baz=75
D06A  Cle Elum         75.64  44 ⇑P       P      23 17 23.2 +0.1
      baz=76
A08A  Turner Farm, O   75.79  42 ⇓P       P      23 17 24.0 +0.1
      baz=76
E06A  Yakima           75.85  45 ⇑P       P      23 17 24.4 +0.1
      baz=76
C07A  Waterville       75.89  43 ⇓P       P      23 17 24.4 -0.1
      baz=76
```

H04A	**Detroit Lake**	**75.92**	**47**	⇑P	**P**	**23 17 24.6**	**-0.1**
	baz=76						
B08A	**Colville Reser**	**76.02**	**42**	⇑P	**P**	**23 17 24.8**	**-0.4**
	baz=76						
A09A	**Danville**	**76.18**	**42**	⇑P	**P**	**23 17 26.4**	**+0.4**
	baz=76						
F06A	**Goldendale**	**76.32**	**45**	⇑P	**P**	**23 17 27.2**	**+0.2**
	baz=76						
C08A	**Higginbotham F**	**76.46**	**43**	⇓P	**P**	**23 17 27.4**	**-0.2**
	baz=76						
E07A	**Sunnyside**	**76.53**	**44**	⇓P	**P**	**23 17 28.0**	**0.0**
	baz=76						
G06A	**Carlson Farm,**	**76.65**	**46**	⇓P	**P**	**23 17 29.0**	**+0.2**
	baz=76						
B09A	**Rice**	**76.69**	**42**	⇑P	**P**	**23 17 29.0**	**+0.1**
	baz=76						
A10A	**Northport**	**76.77**	**41**	⇑P	**P**	**23 17 29.7**	**+0.3**
	baz=77						
F07A	**Phinny Hill Vi**	**76.79**	**45**	⇑P	**P**	**23 17 29.6**	**0.0**
	baz=77						
OD2	**Odessa Site #2**	**76.84**	**43**	*e*P	**P**	**23 17 29.2**	**-0.5**
D08A	**Wollman Farm,**	**76.87**	**43**	⇑P	**P**	**23 17 30.2**	**+0.2**
	baz=77						
YBH	**Yreka Blue Hor**	**76.89**	**50**	P	**P**	**23 17 30.5**	**+0.4**
YBH				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YBH	**Yreka Blue Hor**	**76.89**	**50**	P	**P**	**23 17 30.5**	**+0.3**
	comp=Z,1.2nm,0.6s,mb3.7,baz=347,slow=3.4,SNR=5.9						
C09A	**Chrisman Ranch**	**76.91**	**43**	⇓P	**P**	**23 17 30.2**	**0.0**
	baz=77						
VSU	**Vasula**	**76.92**	**330**	⇑*i*P	**P**	**23 17 30.3**	**+0.3**
EDM	**Edmonton**	**77.00**	**36**	*e*P	**P**	**23 17 30.7**	**+0.2**
H06A	**Lindquist Farm**	**77.07**	**46**	⇑P	**P**	**23 17 31.1**	**0.0**
	baz=77						
D09A	**Jones Farm, Ri**	**77.24**	**43**	⇑P	**P**	**23 17 31.8**	**-0.1**
	baz=77						
G07A	**Ruggs Ranch, H**	**77.25**	**45**	⇑P	**P**	**23 17 31.7**	**-0.3**
	baz=77						
NEW	**Newport**	**77.37**	**42**	*e*P	**P**	**23 17 31.9**	**-0.7**
A11A	**Hall Mountain,**	**77.47**	**41**	⇑P	**P**	**23 17 33.9**	**+0.7**
	baz=77						
I06A	**Prineville**	**77.52**	**47**	⇑P	**P**	**23 17 33.8**	**+0.2**
	baz=77						
E09A	**Wood Farm, Sta**	**77.60**	**44**	⇑P	**P**	**23 17 34.3**	**+0.3**
	baz=77						
K05A	**Summer Lake**	**77.64**	**48**	⇑P	**P**	**23 17 34.5**	**+0.3**
	baz=78						
G08A	**Pilot Rock**	**77.68**	**45**	⇑P	**P**	**23 17 34.6**	**+0.2**
	baz=78						
J06A	**Christmas Vall**	**77.88**	**47**	⇓P	**P**	**23 17 35.7**	**+0.2**
	baz=78						
I07A	**Izee**	**77.90**	**46**	⇑P	**P**	**23 17 35.7**	**+0.1**
	baz=78						
H08A	**Prairie City**	**78.22**	**46**	⇓P	**P**	**23 17 37.8**	**+0.5**
	baz=78						
J07A	**Hines**	**78.36**	**47**	⇓P	**P**	**23 17 38.8**	**+0.6**
	baz=78						
G09A	**Cove**	**78.41**	**45**	⇓P	**P**	**23 17 38.6**	**+0.2**
	baz=78						
F10A	**Beach Ranch, E**	**78.42**	**44**	⇑P	**P**	**23 17 38.5**	**+0.1**
	baz=78						
D11A	**Klaveano Farm,**	**78.43**	**43**	⇓P	**P**	**23 17 38.2**	**-0.2**
	baz=78						
K07A	**Rock Creek Ran**	**78.73**	**48**	⇑P	**P**	**23 17 40.5**	**+0.4**
	baz=78						
H09A	**Durkee**	**78.78**	**45**	⇓P	**P**	**23 17 40.8**	**+0.4**
	baz=79						
G10A	**Bishop Farm, J**	**78.81**	**44**	⇑P	**P**	**23 17 40.7**	**+0.2**
	baz=79						
E11A	**Bogner Ranch,**	**78.84**	**43**	⇑P	**P**	**23 17 40.4**	**-0.2**
	baz=79						
B13A	**Whitefish**	**78.86**	**41**	⇓P	**P**	**23 17 41.0**	**+0.3**
	baz=79,SNR=5.4						
NACGM	**Naroch**	**78.90**	**327**	*e*	**P**	**23 17 37.0**	**-3.8**
J08A	**Circle Bar Ran**	**78.90**	**47**	⇑P	**P**	**23 17 41.4**	**+0.3**
	baz=79						
L07A	**Adell**	**78.98**	**48**	⇑P	**P**	**23 17 41.9**	**+0.3**
	baz=79						
I09A	**Lost Marbles R**	**79.07**	**46**	⇑P	**P**	**23 17 42.1**	**+0.1**
	baz=79						
SUMG	**Summit**	**79.08**	**359**	*e*P	**P**	**23 17 42.2**	**+0.8**
	comp=Z,17nm,1.2s,mb4.6						
A14A	**Double T Ranch**	**79.14**	**40**	⇑P	**P**	**23 17 42.4**	**+0.2**
	baz=79						
C13A	**Hot Springs**	**79.15**	**41**	⇑P	**P**	**23 17 42.2**	**0.0**
	baz=79,SNR=6.1						
K08A	**Mann Creek Ran**	**79.20**	**47**	⇑P	**P**	**23 17 42.8**	**+0.2**
	baz=79						
N06A	**Buffalo Meadow**	**79.26**	**49**	⇓P	**P**	**23 17 43.0**	**0.0**
	baz=79						
BEKR	**Beckwourth**	**79.33**	**50**	⇓P	**P**	**23 17 43.0**	**-0.4**
	baz=79						
J09A	**Fry Pan Ranch,**	**79.37**	**46**	⇓P	**P**	**23 17 43.6**	**+0.1**
	baz=79						
YBMT	**Yellow Bay**	**79.38**	**41**	*e*P	**P**	**23 17 42.7**	**-0.8**
H10A	**Noah’s Angus R**	**79.39**	**45**	⇓P	**P**	**23 17 43.3**	**-0.4**
	baz=79						
D13A	**Huson**	**79.51**	**42**	⇑P	**P**	**23 17 44.3**	**+0.1**
	baz=79						
A15A	**Johnson Ranch,**	**79.53**	**40**	⇑P	**P**	**23 17 44.3**	**0.0**
	baz=79						
O06A	**Flanigan**	**79.55**	**50**	⇓P	**P**	**23 17 44.5**	**-0.1**
	baz=79						
L08A	**Fields**	**79.55**	**48**	⇓P	**P**	**23 17 44.9**	**+0.4**
	baz=79						
K09A	**Rome**	**79.70**	**47**	⇑P	**P**	**23 17 45.3**	**0.0**
	baz=80						
H11A	**Donnelly**	**79.79**	**45**	⇑P	**P**	**23 17 45.6**	**-0.1**
	baz=80						
N07B	**Gerlach**	**79.82**	**49**	⇓P	**P**	**23 17 46.0**	**0.0**
	baz=80						
B15A	**Bradely Ranch,**	**79.97**	**40**	⇓P	**P**	**23 17 46.7**	**+0.1**
	baz=80						
AKASG	**Malin Array Be**	**80.00**	**323**	P	**P**	**23 17 46.2**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.5s						
AKASG	**Malin Array Be**	**80.00**	**323**	P	**P**	**23 17 46.1**	**-0.6**
	comp=Z,10nm,0.5s,mb4.7,baz=51,slow=5.5,SNR=47						
WCN	**Washoe City**	**80.01**	**51**	⇑P	**P**	**23 17 47.0**	**0.0**
	baz=80						
KIEV	**Kiev**	**80.01**	**323**	*e*P	**P**	**23 17 46.2**	**-0.6**
KIEV				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
KIEV	**Kiev**	**80.01**	**323**	*e*P	**P**	**23 17 46.2**	**-0.6**
	comp=Z,9.7nm,0.6s,mb4.6						
PAHR	**Pah Rah Range**	**80.06**	**50**	*e*P	**P**	**23 17 47.0**	**-0.3**
D14A	**Greenough**	**80.08**	**42**	⇑P	**P**	**23 17 47.0**	**-0.2**
	baz=80						
A16A	**West Butte Ran**	**80.18**	**39**	⇓P	**P**	**23 17 47.7**	**0.0**
	baz=80						
O07A	**Toulon**	**80.19**	**50**	⇑P	**P**	**23 17 47.8**	**-0.1**
	baz=80						
K10A	**MacKenzie Ranc**	**80.21**	**47**	⇓P	**P**	**23 17 48.3**	**+0.3**
	baz=80						
C15A	**Salmond Ranch,**	**80.23**	**41**	⇑P	**P**	**23 17 48.0**	**0.0**
	baz=80						
F13A	**Darby**	**80.26**	**43**	⇓P	**P**	**23 17 47.7**	**-0.5**
	baz=80						
SCO	**Scoresbysund**	**80.30**	**354**	*i* P	**P**	**23 17 48.4**	**+0.5**
SCO				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
SCO	**Scoresbysund**	**80.30**	**354**	*i* P	**P**	**23 17 48.4**	**+0.5**
	comp=Z,4.7nm,0.8s,mb4.2						
B16A	**M & M Farms, S**	**80.41**	**40**	⇓P	**P**	**23 17 48.7**	**-0.2**
	baz=80,SNR=5.6						
MFID	**Camas Ranch**	**80.55**	**46**	⇑P	**P**	**23 17 49.7**	**-0.1**
	baz=80						
H12A	**Diamond D Ranc**	**80.58**	**44**	⇓P	**P**	**23 17 49.8**	**-0.1**
	baz=80						
R06C	**Coleville**	**80.59**	**51**	⇓P	**P**	**23 17 49.9**	**-0.1**
	baz=80						
G13A	**Cobalt**	**80.68**	**44**	⇓P	**P**	**23 17 49.8**	**-0.6**
	baz=80						
C16A	**Fuhringer Ranc**	**80.71**	**40**	⇓P	**P**	**23 17 50.1**	**-0.4**
	baz=80,SNR=8.1						
MALT	**Malatya**	**80.73**	**309**	⇑*i*P	**P**	**23 17 52.2**	**+1.4**
MALT	**Malatya**	**80.73**	**309**	*e*P	**P**	**23 17 52.2**	**+1.4**
	comp=Z,15nm,1.3s,mb4.6						
N09A	**Rock Creek Ran**	**80.75**	**49**	⇓P	**P**	**23 17 51.3**	**+0.5**
	baz=81						
K11A	**Parker Ranch,**	**80.75**	**46**	⇑P	**P**	**23 17 50.8**	**0.0**
	baz=81,SNR=5.5						
I12A	**Atlanta**	**80.80**	**45**	⇑P	**P**	**23 17 51.4**	**+0.4**
	baz=81						
L10A	**Juniper Basin**	**80.82**	**47**	⇑P	**P**	**23 17 51.7**	**+0.5**
	baz=81						
E15A	**Deer Lodge**	**80.93**	**42**	⇑P	**P**	**23 17 51.7**	**+0.1**
	baz=81						
H13A	**Challis**	**80.94**	**44**	⇓P	**P**	**23 17 51.8**	**+0.1**
	baz=81,SNR=12						
B17A	**L&G Farms, Che**	**80.98**	**40**	⇓P	**P**	**23 17 52.0**	**+0.1**
	baz=81,SNR=9.6						
M10A	**I.L. Ranch, Tu**	**81.05**	**48**	⇑P	**P**	**23 17 53.0**	**+0.6**
	baz=81						
SUW	**Suwalki**	**81.12**	**328**	*e*P	**P**	**23 17 52.0**	**-0.6**
SUW	**Suwalki**	**81.12**	**328**	*e*P	**P**	**23 17 52.0**	**-0.5**
A18A	**Metzger Ranch,**	**81.16**	**39**	⇓P	**P**	**23 17 53.0**	**+0.1**
	baz=81,SNR=7.3						
L11A	**Cat Creek Ranc**	**81.23**	**47**	⇓P	**P**	**23 17 53.6**	**+0.2**
	baz=81,SNR=6.1						
HRY	**Holter Researc**	**81.25**	**41**	*e*P	**P**	**23 17 53.6**	**+0.3**
O09A	**Fish Creek Ran**	**81.31**	**49**	⇑P	**P**	**23 17 53.9**	**+0.2**
	baz=81						
NB2	**NORSAR Subarra**	**81.32**	**337**	P	**P**	**23 17 52.7**	**-0.7**
	comp=Z,12nm,0.6s,mb4.8,baz=51,slow=4.6						
NB2	**NORSAR Subarra**	**81.32**	**337**	P	**P**	**23 17 52.7**	**-0.7**
	baz=51,slow=4.6						
NOA	**NORSAR Array B**	**81.32**	**337**	P	**P**	**23 17 53.2**	**-0.2**
NOA						23 21 05.8	
NOA				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	**NORSAR Array B**	**81.32**	**337**	P	**P**	**23 17 53.2**	**-0.2**
	comp=Z,9.5nm,0.5s,mb4.8,baz=46,slow=4.8,SNR=52						
NOA				PP	PP	23 21 05.8	+0.1
	comp=Z,3.1nm,0.9s,baz=44,slow=8.1,SNR=5.3						
NOA	**NORSAR Array B**	**81.32**	**337**	P	**P**	**23 17 53.2**	**-0.2**
NOA				PP	PP	23 21 05.8	+0.1
F15A	**Butte**	**81.33**	**42**	⇑P	**P**	**23 17 54.0**	**+0.3**
	baz=81,SNR=9.1						
HLID	**Hailey**	**81.36**	**45**	⇓P	**P**	**23 17 54.3**	**+0.3**
	baz=81,SNR=8.0						
I13A	**Wildhorse Cree**	**81.36**	**45**	⇓P	**P**	**23 17 54.1**	**+0.1**
	baz=81,SNR=6.4						
NVAR	**Mina Array Bea**	**81.42**	**51**	P	**P**	**23 17 54.4**	**0.0**
	comp=Z,5.1nm,0.7s,mb4.4,baz=284,slow=5.3,SNR=39						
E16A	**East Helena**	**81.43**	**41**	⇓P	**P**	**23 17 54.5**	**+0.3**
	baz=81						
B18A	**Beardsley Farm**	**81.49**	**39**	⇓P	**P**	**23 17 54.9**	**+0.3**
	baz=81,SNR=7.1						
K12A	**Draper Farm, C**	**81.53**	**46**	⇓P	**P**	**23 17 55.3**	**+0.4**
	baz=81						
M11A	**Holland Ranch,**	**81.58**	**47**	⇓P	**P**	**23 17 55.9**	**+0.7**
	baz=81						
J13A	**Cove Ranch, Pi**	**81.60**	**45**	⇓P	**P**	**23 17 55.5**	**+0.3**
	baz=81,SNR=5.1						
D17A	**Six Diamond Ra**	**81.67**	**40**	⇓P	**P**	**23 17 55.6**	**+0.1**
	baz=82,SNR=8.9						
FFC	**Flin Flon**	**81.69**	**31**	*i* P	**P**	**23 17 55.4**	**0.0**
EGMT	**Eagleton**	**81.71**	**39**	⇑P	**P**	**23 17 56.2**	**+0.5**
	baz=82						
L12A	**House Creek Ra**	**81.72**	**46**	⇑P	**P**	**23 17 56.3**	**+0.4**
	baz=82,SNR=5.7						
I14A	**Mackay**	**81.76**	**44**	⇓P	**P**	**23 17 56.7**	**+0.6**
	baz=82,SNR=11						
F16A	**Kennard Place,**	**81.87**	**42**	⇑P	**P**	**23 17 56.9**	**+0.4**
	baz=82						
BOZ	**Bozeman (W)**	**81.94**	**42**	⇓P	**P**	**23 17 57.2**	**+0.3**
	baz=82						
E17A	**Martinsdale**	**81.95**	**41**	⇓P	**P**	**23 17 57.3**	**+0.3**
	baz=82,SNR=8.2						
J14A	**Carey**	**82.04**	**45**	⇓P	**P**	**23 17 57.8**	**+0.3**
	baz=82,SNR=8.1						
K13A	**Stover Farm, H**	**82.04**	**46**	⇓P	**P**	**23 17 57.8**	**+0.3**
	baz=82						
G16A	**Moss Hill, Enn**	**82.06**	**43**	⇓P	**P**	**23 17 57.7**	**+0.2**
	baz=82						
P10A	**Eureka**	**82.06**	**49**	⇓P	**P**	**23 17 58.0**	**+0.3**
	baz=82						
FCC	**Fort Churchill**	**82.26**	**25**	*e*P	**P**	**23 17 56.7**	**-1.6**
FCC				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb3.4						
FCC	**Fort Churchill**	**82.26**	**25**	*e*P	**P**	**23 17 56.6**	**-1.6**
	comp=Z,0.6nm,1.4s,mb3.1						
O11A	**Cowboy Ranch,**	**82.34**	**48**	⇑P	**P**	**23 17 59.7**	**+0.6**
	baz=82						
R09A	**Tonopah**	**82.36**	**51**	⇑P	**P**	**23 17 59.8**	**+0.6**
	baz=82						
F17A	**Fitzpatrick Pl**	**82.37**	**42**	⇓P	**P**	**23 17 59.8**	**+0.7**
	baz=82						
N12A	**Clover Valley,**	**82.37**	**48**	⇓P	**P**	**23 17 59.7**	**+0.5**
	baz=82						
E18A	**Harlowton**	**82.43**	**41**	⇓P	**P**	**23 17 59.9**	**+0.5**
	baz=82,SNR=9.2						
S09A	**Goldfield**	**82.51**	**51**	⇑P	**P**	**23 18 00.4**	**+0.4**
	baz=82						
Q10A	**Clear Creek Ra**	**82.51**	**50**	⇑P	**P**	**23 18 00.3**	**+0.3**
	baz=82						
CWC	**Cottonwood Cre**	**82.56**	**53**	⇓P	**P**	**23 18 00.3**	**0.0**
	baz=82						
K14A	**Jones Ranch, D**	**82.67**	**45**	⇑P	**P**	**23 18 01.5**	**+0.8**
	baz=82						
M13A	**Montello**	**82.67**	**47**	⇓P	**P**	**23 18 01.3**	**+0.6**
	baz=82						
J15A	**Blackfoot**	**82.67**	**44**	⇓P	**P**	**23 18 01.6**	**+0.9**
	baz=82						
ISA	**Isabella**	**82.67**	**53**	⇓P	**P**	**23 18 00.2**	**-0.7**
	baz=82						
H16A	**Russell Place,**	**82.68**	**43**	⇑P	**P**	**23 18 01.5**	**+0.7**
	baz=82						
S10A	**Tonopah Range,**	**82.84**	**51**	⇓P	**P**	**23 18 02.2**	**+0.5**
	baz=83,SNR=7.5						
R10A	**Warm Springs**	**82.85**	**50**	⇓P	**P**	**23 18 02.2**	**+0.5**
	baz=83						
O12A	**Currie**	**82.86**	**48**	⇓P	**P**	**23 18 02.1**	**+0.3**
	baz=83						
L14A	**Malta**	**82.90**	**46**	⇑P	**P**	**23 18 02.8**	**+1.0**
	baz=83,SNR=6.8						
F18A	**Big Timber**	**82.92**	**41**	⇑P	**P**	**23 18 02.4**	**+0.5**
	baz=83						
I16A	**Newdale**	**82.99**	**44**	⇑P	**P**	**23 18 03.4**	**+1.0**
	baz=83						
K15A	**Arbon**	**83.00**	**45**	⇓P	**P**	**23 18 03.4**	**+1.0**
	baz=83						
M14A	**Sheep Mountain**	**83.11**	**46**	⇓P	**P**	**23 18 03.6**	**+0.7**
	baz=83,SNR=21						
MPMC	**Manual Prospec**	**83.17**	**53**	⇓P	**P**	**23 18 03.3**	**0.0**
	baz=83						
P12A	**McGill**	**83.17**	**49**	⇑P	**P**	**23 18 03.4**	**+0.1**
	baz=83,SNR=8.0						
BR131	**Keskin Array S**	**83.24**	**312**	*e*P	**P**	**23 18 03.7**	**0.0**
	comp=Z,6.2nm,0.7s,mb4.5						
BRTR	**Keskin Array B**	**83.24**	**312**	P	**P**	**23 18 03.5**	**-0.2**
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BRTR	**Keskin Array B**	**83.24**	**312**	P	**P**	**23 18 03.5**	**-0.2**
	comp=Z,6.5nm,0.8s,mb4.4,baz=123,slow=2.9,SNR=21						
J16A	**Bone**	**83.24**	**44**	⇓P	**P**	**23 18 04.1**	**+0.5**
	baz=83,SNR=6.8						
H17A	**Grant Village**	**83.25**	**43**	⇓P	**P**	**23 18 05.3**	**+1.7**
	baz=83,SNR=6.8						
R11A	**Troy Canyon, C**	**83.30**	**50**	⇑P	**P**	**23 18 04.0**	**0.0**
	baz=83,SNR=8.7						
G18A	**Lazy EL Ranch,**	**83.33**	**42**	⇑P	**P**	**23 18 04.9**	**+0.9**
	baz=83						
RRI2	**Red Ridge**	**83.38**	**44**	*e*P	**P**	**23 18 04.6**	**+0.3**
	comp=Z,5.7nm,0.8s,mb4.3						
EDW2	**Edwards Air Fo**	**83.41**	**54**	⇓P	**P**	**23 18 04.7**	**+0.1**
	baz=83						
Q12A	**Willow Creek R**	**83.45**	**49**	⇓P	**P**	**23 18 04.8**	**0.0**
	baz=83						
L15A	**Malad City**	**83.45**	**45**	⇓P	**P**	**23 18 04.8**	**+0.2**
	baz=83,SNR=7.4						
K16A	**Soda Springs**	**83.50**	**44**	⇓P	**P**	**23 18 05.8**	**+0.9**
	baz=83,SNR=10						
I17A	**Pilgrim Ck.**	**83.52**	**43**	⇓P	**P**	**23 18 06.2**	**+1.2**
	baz=83,SNR=5.3						
N14A	**Grayback Hills**	**83.56**	**47**	⇓P	**P**	**23 18 05.6**	**+0.3**
	baz=83						
RLMT	**Red Lodge**	**83.62**	**42**	⇓P	**P**	**23 18 06.2**	**+0.7**
	baz=83,SNR=9.2						
RLMT	**Red Lodge**	**83.62**	**42**	*e*P	**P**	**23 18 05.2**	**-0.2**
	comp=Z,5.2nm,0.7s,mb4.4						
M15A	**Larsen Ranch,**	**83.71**	**46**	⇑P	**P**	**23 18 06.0**	**0.0**
	baz=84,SNR=5.3						
P13A	**Bates Ranch, G**	**83.77**	**48**	⇑P	**P**	**23 18 06.7**	**+0.4**
	baz=84,SNR=6.1						
U10A	**Ash Meadows, A**	**83.79**	**52**	⇓P	**P**	**23 18 06.9**	**+0.4**
	baz=84						
BURAR	**Bucovina Array**	**83.92**	**322**	⇓*i*P	**P**	**23 18 06.7**	**-0.2**
BURAR	**Bucovina Array**	**83.92**	**322**	⇓P	**P**	**23 18 06.7**	**-0.2**
R12A	**Pony Springs,**	**83.97**	**50**	⇑P	**P**	**23 18 07.8**	**+0.5**
	baz=84						
KWP	**Kalwaria Pacla**	**84.03**	**324**	*e*P	**P**	**23 18 07.7**	**+0.3**
KWP	**Kalwaria Pacla**	**84.03**	**324**	⇓*i*P	**P**	**23 18 07.2**	**-0.2**
GSC	**Goldstone**	**84.03**	**53**	*e*P	**P**	**23 18 06.8**	**-0.9**
GSC				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
GSC	**Goldstone**	**84.03**	**53**	⇑P	**P**	**23 18 08.0**	**+0.3**
	baz=84						
GSC	**Goldstone**	**84.03**	**53**	*e*P	**P**	**23 18 06.8**	**-1.0**
	comp=Z,1.9nm,0.6s,mb4.0						
L16A	**Fish Haven**	**84.04**	**45**	⇓P	**P**	**23 18 08.0**	**+0.4**
	baz=84,SNR=9.6						
BSD	**Bornholm Skovb**	**84.09**	**332**	*i* P	**P**	**23 18 05.2**	**-2.4**
BSD				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
BSD	**Bornholm Skovb**	**84.09**	**332**	*i* P	**P**	**23 18 05.2**	**-2.4**
	comp=Z,20nm,0.7s,mb4.9						
I18A	**Diamond G Ranc**	**84.09**	**43**	⇓P	**P**	**23 18 08.4**	**+0.6**
	baz=84						
VRI	**Vrincioaia**	**84.10**	**320**	⇓*i*P	**P**	**23 18 07.9**	**+0.1**
T11A	**Corn Creek, Al**	**84.13**	**51**	⇓P	**P**	**23 18 08.5**	**+0.3**
	baz=84						
PLOR	**Plostina**	**84.15**	**320**	⇓*i*P	**P**	**23 18 08.0**	**-0.1**
DUG	**Dugway**	**84.16**	**47**	*e*P	**P**	**23 18 08.0**	**-0.2**
DUG				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
DUG	**Dugway**	**84.16**	**47**	⇓P	**P**	**23 18 08.4**	**+0.1**
	baz=84,SNR=10						
DUG	**Dugway**	**84.16**	**47**	*e*P	**P**	**23 18 08.0**	**-0.3**
	comp=Z,4.6nm,0.6s,mb4.4						
J18A	**Kendall Valley**	**84.25**	**44**	⇑P	**P**	**23 18 08.9**	**+0.3**
	baz=84,SNR=6.3						
P14A	**Drum Mountains**	**84.32**	**48**	⇓P	**P**	**23 18 08.9**	**-0.2**
	baz=84,SNR=7.2						
GKP	**Gorka Klasztor**	**84.33**	**329**	*e*P	**P**	**23 18 08.3**	**-0.5**
GKP	**Gorka Klasztor**	**84.33**	**329**	*e*P	**P**	**23 18 08.3**	**-0.5**
O15A	**The Old Anders**	**84.33**	**47**	⇑P	**P**	**23 18 09.3**	**+0.2**
	baz=84						
L17A	**Cokeville**	**84.34**	**45**	⇓P	**P**	**23 18 09.6**	**+0.5**
	baz=84						
SFJD	**Kangerlussuaq**	**84.39**	**4**	*e*P	**P**	**23 18 08.6**	**-0.2**
SFJD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
SFJD	**Kangerlussuaq**	**84.39**	**4**	*i* P	**P**	**23 18 08.6**	**-0.2**
	comp=Z,5.4nm,0.8s,mb4.3						
SFJD	**Kangerlussuaq**	**84.39**	**4**	*e*P	**P**	**23 18 08.6**	**-0.2**
	comp=Z,5.4nm,0.8s,mb4.3						
Q14A	**Sevier Lake (B**	**84.50**	**48**	⇑P	**P**	**23 18 10.1**	**+0.2**
	baz=84,SNR=6.9						
K18A	**Toltan Ranch,**	**84.56**	**44**	⇓P	**P**	**23 18 10.7**	**+0.6**
	baz=84						
TUQ	**Turquoise Moun**	**84.58**	**53**	⇑P	**P**	**23 18 10.7**	**+0.3**
	baz=84						
COP	**Copenhagen**	**84.70**	**333**	*i* P	**P**	**23 18 10.4**	**-0.2**
COP				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
COP	**Copenhagen**	**84.70**	**333**	*i* P	**P**	**23 18 10.4**	**-0.2**
	comp=Z,11nm,0.9s,mb4.6						
MLR	**Muntele Rosu**	**84.77**	**320**	⇓*i*P	**P**	**23 18 11.2**	**+0.1**
BW06	**Boulder Array**	**84.78**	**44**	⇑P	**P**	**23 18 11.5**	**+0.3**
	baz=85						
PDAR	**Pinedale Array**	**84.78**	**44**	P	**P**	**23 18 10.8**	**-0.4**
	comp=Z,2.8nm,0.8s,mb4.0,baz=271,slow=1.9,SNR=17						
M17A	**Scullys Gap (B**	**84.82**	**45**	⇑P	**P**	**23 18 11.8**	**+0.3**
	baz=85						
P15A	**Leamington**	**84.84**	**47**	⇓P	**P**	**23 18 12.0**	**+0.4**
	baz=85						
ASF	**Jabal al Asfar**	**84.87**	**304**	P	**P**	**23 18 11.2**	**-0.7**
ASF				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASF	**Jabal al Asfar**	**84.87**	**304**	P	**P**	**23 18 11.2**	**-0.7**
	comp=Z,1.2nm,0.5s,mb3.9,baz=319,slow=7.6,SNR=4.6						
S13A	**Holt Ranch, En**	**84.87**	**50**	⇑P	**P**	**23 18 12.5**	**+0.7**
	baz=85						
STHS	**Stebnicka Huta**	**84.91**	**325**	*e*P	**P**	**23 18 11.6**	**-0.1**
STHS				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.9						
STHS	**Stebnicka Huta**	**84.91**	**325**	*e*P	**P**	**23 18 11.6**	**-0.1**
	comp=Z,4.0nm,1.5s,mb3.9						
TRPA	**Tarpa**	**85.04**	**323**	⇑*i*P	**P**	**23 18 12.0**	**-0.4**
K19A	**Absolon Red Bu**	**85.17**	**43**	⇑P	**P**	**23 18 13.1**	**0.0**
	baz=85						
L19A	**Farson**	**85.28**	**44**	⇑P	**P**	**23 18 13.9**	**+0.2**
	baz=85						
VOIR		**85.31**	**320**	⇑*i*P	**P**	**23 18 13.1**	**-0.7**
VOIR		**85.31**	**320**	⇑P	**P**	**23 18 13.1**	**-0.7**
MUD	**Monsted U’grnd**	**85.40**	**335**	*i* P	**P**	**23 18 12.9**	**-1.1**
MUD				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
MUD	**Monsted U’grnd**	**85.40**	**335**	*i* P	**P**	**23 18 12.9**	**-1.1**
	comp=Z,5.5nm,0.8s,mb4.3						
U13A	**Pakoon Wash**	**85.42**	**51**	⇑P	**P**	**23 18 14.9**	**+0.4**
	baz=85						
O17A	**Robinson Place**	**85.49**	**46**	⇓P	**P**	**23 18 15.0**	**+0.3**
	baz=85						
MMAI	**Mount Meron Ar**	**85.52**	**305**	P	**P**	**23 18 15.1**	**+0.1**
	comp=Z,6.4nm,0.7s,mb4.5,baz=54,slow=7.3,SNR=9.2						
DRGR		**85.78**	**322**	⇓*i*P	**P**	**23 18 15.4**	**-0.6**
DRGR		**85.78**	**322**	⇓P	**P**	**23 18 15.4**	**-0.6**
R16A	**Teasdale**	**86.06**	**48**	⇑P	**P**	**23 18 18.7**	**+1.1**
	baz=86						
OKC	**Ostrava-Krasne**	**86.18**	**326**	*e*P	**P**	**23 18 17.3**	**-0.6**
MORC	**Moravsky Berou**	**86.51**	**327**	⇑*i*P	**P**	**23 18 18.5**	**-1.0**
MORC	**Moravsky Berou**	**86.51**	**327**	*e*P	**P**	**23 18 18.2**	**-1.2**
	comp=Z,2.4nm,0.6s,mb4.1						
PSZ	**Piszkesteto**	**86.55**	**324**	⇓*i*P	**P**	**23 18 18.8**	**-0.9**
PSZ	**Piszkesteto**	**86.55**	**324**	*e*P	**P**	**23 18 19.4**	**-0.3**
DPC	**Dobruska-Polom**	**86.71**	**328**	*e*P	**P**	**23 18 20.1**	**-0.3**
VYHS	**Vyhne**	**86.72**	**325**	*e*P	**P**	**23 18 20.1**	**-0.4**
VYHS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
VYHS	**Vyhne**	**86.72**	**325**	*e*P	**P**	**23 18 20.1**	**-0.4**
	comp=Z,2.9nm,0.8s,mb4.1						
UPC	**Upice**	**86.75**	**328**	*e*P	**P**	**23 18 20.1**	**-0.5**
P19A	**Cripple Cowboy**	**86.92**	**46**	⇓P	**P**	**23 18 22.1**	**+0.4**
	baz=87						
BZS	**Buzias**	**87.10**	**322**	⇓*i*P	**P**	**23 18 21.2**	**-1.2**
BZS	**Buzias**	**87.10**	**322**	⇓P	**P**	**23 18 21.2**	**-1.2**
VRAC	**Vranov**	**87.29**	**327**	⇑*i*P	**P**	**23 18 22.9**	**-0.2**
VRAC	**Vranov**	**87.29**	**327**	⇑P	**P**	**23 18 22.9**	**-0.2**
PVCC	**Panska Ves**	**87.41**	**328**	*e*P	**P**	**23 18 23.2**	**-0.5**
SMOL	**Smolenice**	**87.41**	**326**	*e*P	**P**	**23 18 23.6**	**-0.1**
ULM	**Lac du Bonnet**	**87.44**	**32**	P	**P**	**23 18 22.9**	**-1.0**
	comp=Z,2.0nm,0.4s,mb4.2,baz=258,slow=2.8,SNR=6.0						
BRG	**Berggiesshubel**	**87.45**	**329**	*e*P	**P**	**23 18 23.3**	**-0.6**
BRG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
BRG	**Berggiesshubel**	**87.45**	**329**	*e*P	**P**	**23 18 23.0**	**-0.9**
	comp=Z,4.0nm,0.7s,mb4.3						
BRG	**Berggiesshubel**	**87.45**	**329**	*e*P	**P**	**23 18 23.3**	**-0.6**
	comp=Z,4.3nm,0.7s,mb4.3						
CLL	**Collm**	**87.57**	**330**	⇓*i*P	**P**	**23 18 23.3**	**-1.1**
CLL				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
CLL	**Collm**	**87.57**	**330**	*e*P	**P**	**23 18 23.2**	**-1.2**
	comp=Z,6.0nm,0.7s,mb4.4						
CLL	**Collm**	**87.57**	**330**	⇓*i*P	**P**	**23 18 23.3**	**-1.1**
	comp=Z,6.0nm,0.7s,mb4.4						
CLL	**Collm**	**87.57**	**330**	⇓*i*P	**P**	**23 18 23.3**	**-1.1**
	comp=Z,6.0nm,0.7s,mb4.4						
PRU	**Pruhonice**	**87.80**	**328**	*e*P	**P**	**23 18 24.9**	**-0.6**
TREC	**Trest**	**87.83**	**327**	*e*P	**P**	**23 18 25.2**	**-0.5**
MLA1	**Latheron**	**88.03**	**341**	⇑*e*P	**P**	**23 18 25.8**	**-0.7**
Q21A	**Lamborn Mesa,**	**88.27**	**46**	⇑P	**P**	**23 18 28.7**	**+0.7**
	baz=88						
CLZ	**Clausthal**	**88.33**	**331**	*e*P	**P**	**23 18 26.8**	**-1.2**
CLZ				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
CLZ	**Clausthal**	**88.33**	**331**	*e*P	**P**	**23 18 26.8**	**-1.2**
	comp=Z,6.0nm,0.8s,mb4.4						
CSNA	**Conrad Observa**	**88.58**	**326**	⇑*i*PcP	PcP	23 18 29.3	-1.2
	comp=Z,4.3nm,0.7s						
MVH1	**Achvaich**	**88.58**	**342**	⇑*e*P	**P**	**23 18 28.6**	**-0.4**
NKC	**Novy Kostel**	**88.58**	**329**	*e*P	**P**	**23 18 28.1**	**-1.1**
MCD	**Coleburn Disti**	**88.61**	**341**	⇑*e*P	**P**	**23 18 28.2**	**-1.0**
MOX	**Moxa**	**88.66**	**330**	*e*P	**P**	**23 18 28.7**	**-0.8**
	comp=Z,8.0nm,1.1s,mb4.4						
MOX	**Moxa**	**88.66**	**330**	*e*P	**P**	**23 18 28.7**	**-0.8**
MOX				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.4						
MOX	**Moxa**	**88.66**	**330**	*e*P	**P**	**23 18 28.6**	**-0.9**
	comp=Z,4.0nm,0.9s,mb4.2						
Q22A	**Crested Butte,**	**88.67**	**46**	⇑P	**P**	**23 18 31.1**	**+1.2**
	baz=88						
KHC	**Kasperske Hory**	**88.84**	**328**	*e*P	**P**	**23 18 29.6**	**-0.8**
GEC2	**GERESS Array S**	**88.99**	**328**	*e*P	**P**	**23 18 30.1**	**-1.0**
GEC2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
GEC2	**GERESS Array S**	**88.99**	**328**	*e*P	**P**	**23 18 30.1**	**-1.0**

	comp=Z,4.0nm,0.8s,mb4.2						
GERES	GERESS Array B	88.99	328	P	P	23 18 30.2	-0.9
GERES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
GERES	GERESS Array B	88.99	328	P	P	23 18 30.2	-0.9
	comp=Z,2.9nm,0.6s,mb4.2,baz=43,slow=5.0,SNR=33						
ROTZ	Rotzenmuhle	89.02	329	*e*P	P	23 18 31.0	-0.3
	comp=Z,8.0nm,1.1s,mb4.4						
MDO	Dochfour	89.05	341	*e*P	P	23 18 30.1	-1.2
IBBN	Ibbenburen	89.06	333	*e*P	P	23 18 31.3	-0.1
	comp=Z,14nm,0.6s,mb4.9						
WET	Wettzell	89.16	328	*e*P	P	23 18 31.2	-0.7
WET				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.4						
WET	Wettzell	89.16	328	*e*P	P	23 18 31.2	-0.7
	comp=Z,11nm,1.5s,mb4.4						
KAC	Achnashellach	89.26	342	*e*P	P	23 18 31.1	-1.1
KPL	Plockton	89.49	342	*e*P	P	23 18 32.3	-0.9
KPL				AMb	AMB	23 18 38.3	
	comp=Z,103nm,1.7s,mb5.3						
GRA1	Grafenberg Arr	89.52	329	*e*P	P	23 18 33.0	-0.6
	comp=Z,22nm,1.3s,mb4.8						
GRF	Grafenberg Arr	89.52	329	*e*P	P	23 18 33.0	-0.6
GRF				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.8						
GRF	Grafenberg Arr	89.52	329	*e*P	P	23 18 33.0	-0.6
GRF				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.8						
GRF	Grafenberg Arr	89.52	329	*e*P	P	23 18 33.0	-0.6
	comp=Z,22nm,1.3s,mb4.8						
T22A	Edith	89.77	47	⇑P	P	23 18 35.5	+0.5
	baz=90						
EBH	Black Hill	89.82	340	*e*P	P	23 18 33.6	-1.2
W20A	Ramah	89.82	49	⇓P	P	23 18 35.5	+0.2
	baz=90						
ESY	Stoneypath	89.83	340	*e*P	P	23 18 33.7	-1.2
SOKA	Soboth	89.85	325	⇑*i*PcP	PcP	23 18 34.0	-2.1
	comp=Z,9.8nm,1.2s						
EDI	Edinburgh	90.00	340	*e*P	P	23 18 35.5	-0.2
EDI				AMb	AMB	23 18 43.2	
	comp=Z,40nm,1.7s,mb5.0						
XSO	Sourhope Farm	90.08	339	*e*P	P	23 18 35.5	-0.5
EBL	Broad Law	90.08	340	*e*P	P	23 18 34.7	-1.4
EAB	Aberfoyle	90.11	341	*e*P	P	23 18 35.2	-1.0
EAU	Auchinoon	90.14	340	*e*P	P	23 18 35.2	-1.1
RJOB	Jochberg	90.20	327	*e*P	P	23 18 36.3	-0.5
	comp=Z,10.0nm,0.9s,mb4.7						
ESK	Eskdalemuir	90.52	340	*e*P	P	23 18 37.2	-0.9
ESK				AMb	AMB	23 18 39.5	
	comp=Z,36nm,1.8s,mb4.9						
218A	Dragoon	90.57	53	⇑P	P	23 18 39.4	+0.6
	baz=90						
XAL	Allendale	90.60	339	*e*P	P	23 18 37.2	-1.2
FUR	Furstenfeldbru	90.60	328	*e*P	P	23 18 37.8	-0.8
FUR				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.0						
FUR	Furstenfeldbru	90.60	328	*e*P	P	23 18 37.8	-0.8
	comp=Z,25nm,1.0s,mb5.0						
ECK	Cauldkaine Hil	90.61	340	*e*P	P	23 18 37.7	-0.8
119A	Ashpeak Ranch,	90.63	52	⇓P	P	23 18 40.1	+1.0
	baz=90						
318A	Bisbee	90.91	53	⇓P	P	23 18 40.9	+0.5
	baz=91						
STU	Stuttgart	91.10	330	*e*P	P	23 18 40.8	-0.1
219A	White Tail Can	91.10	52	⇑P	P	23 18 41.8	+0.5
	baz=91						
GCD	Castle Douglas	91.13	340	*e*P	P	23 18 40.0	-1.0
HPK	Haverah Park	91.17	338	*e*P	P	23 18 40.4	-0.7
HPK				AMb	AMB	23 18 46.1	
	comp=Z,43nm,1.9s,mb5.0						
120A	U Bar Ranch, L	91.22	52	⇓P	P	23 18 42.3	+0.5
	baz=91						
ANMO	Albuquerque	91.28	49	*e*P	P	23 18 41.1	-1.0
ANMO				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ANMO	Albuquerque	91.28	49	P	P	23 18 42.8	+0.7
	comp=Z,4.7nm,0.7s,mb4.5,baz=312,slow=5.8,SNR=11						
ANMO	Albuquerque	91.28	49	*e*P	P	23 18 41.1	-0.9
	comp=Z,4.2nm,0.8s,mb4.3						
GAL1	Galloway	91.36	340	*e*P	P	23 18 40.3	-1.7
GAL1				AMb	AMB	23 18 42.0	
	comp=Z,45nm,1.3s,mb5.2						
319A	Douglas	91.44	53	⇑P	P	23 18 43.7	+0.8
	baz=91						
LHO	Holmfirth	91.59	338	⇑*e*P	P	23 18 41.5	-1.5
FETA	Feichten	91.69	328	⇑*i*PcP	PcP	23 18 42.9	-1.4
	comp=Z,7.0nm,1.0s						
WLF	Walferdange	91.73	332	*e*P	P	23 18 43.4	-0.4
	comp=Z,18nm,1.4s,mb4.8						
BFO	Black Forest	91.81	330	*i* P	P	23 18 43.7	-0.5
BFO	Black Forest	91.81	330	*e*P	P	23 18 43.0	-1.2
	comp=Z,12nm,1.1s,mb4.7						
DAVA	Damuels	91.89	328	⇑*i*PcP	PcP	23 18 44.0	-1.1
	comp=Z,9.0nm,0.8s						
CWF	Charnwood Fore	92.08	337	*e*P	P	23 18 43.8	-1.6
CWF				AMb	AMB	23 18 45.3	
	comp=Z,26nm,1.5s,mb4.9						
CDF	Champ du Feu	92.21	330	⇓*i*P	P	23 18 44.9	-1.1
	comp=Z,16nm,0.8s,mb4.7						
CDF	Champ du Feu	92.21	330	⇓*i*P	P	23 18 44.9	-1.1
CDF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
CDF	Champ du Feu	92.21	330	⇓*i*P	P	23 18 44.9	-1.1
	comp=Z,8.0nm,0.8s,mb4.7						
BAIF	Baives	92.22	333	*e*P	P	23 18 46.6	+0.6
HINF	Hinteralfeld	92.85	330	*e*P	P	23 18 47.5	-1.5
	comp=Z,12nm,0.9s,mb4.5						
HINF	Hinteralfeld	92.85	330	*e*P	P	23 18 47.5	-1.5
HINF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
HINF	Hinteralfeld	92.85	330	*e*P	P	23 18 47.5	-1.5
	comp=Z,6.2nm,0.9s,mb4.5						
HAU	Haudompre	92.92	331	*e*P	P	23 18 47.9	-1.4
MEZF	Maizieres J'vi	93.09	332	*e*P	P	23 18 48.6	-1.5
	comp=Z,14nm,0.7s,mb4.7						
MEZF	Maizieres J'vi	93.09	332	*e*P	P	23 18 48.6	-1.5
	comp=Z,14nm,0.7s,mb5.0						
CABF	La Chapelle	94.11	330	⇓*i*P	P	23 18 53.4	-1.4
LOR	Lormes	94.56	331	*e*P	P	23 18 55.3	-1.5
	comp=Z,11nm,0.9s,mb4.6						
LOR	Lormes	94.56	331	*e*P	P	23 18 55.3	-1.5
LOR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
LOR	Lormes	94.56	331	*e*P	P	23 18 55.3	-1.5
	comp=Z,5.6nm,0.9s,mb4.6						
LPL	La Plagne	94.66	329	⇓*i*P	P	23 18 56.3	-1.0
	comp=Z,8.5nm,0.5s,mb4.7						
LPL	La Plagne	94.66	329	⇓*i*P	P	23 18 56.3	-1.0
LPL				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
LPL	La Plagne	94.66	329	⇓*i*P	P	23 18 56.3	-1.0
	comp=Z,4.3nm,0.5s,mb4.7						
LPG	La Plagne	94.66	329	⇓*i*P	P	23 18 56.4	-0.9
	comp=Z,15nm,0.8s,mb4.8						
LPG	La Plagne	94.66	329	⇓*i*P	P	23 18 56.4	-0.9
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
LPG	La Plagne	94.66	329	⇓*i*P	P	23 18 56.4	-0.9
	comp=Z,7.3nm,0.8s,mb4.8						
SSF	Saint Saulge	94.87	332	*e*P	P	23 18 56.9	-1.3
	comp=Z,13nm,0.9s,mb4.6						
SSF	Saint Saulge	94.87	332	*e*P	P	23 18 56.9	-1.3
SSF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
SSF	Saint Saulge	94.87	332	*e*P	P	23 18 56.9	-1.3
	comp=Z,6.3nm,0.9s,mb4.7						
SMF	Signal de Mont	95.06	331	*e*P	P	23 18 57.9	-1.2
	comp=Z,7.3nm,0.8s,mb4.5						
SMF	Signal de Mont	95.06	331	*e*P	P	23 18 57.9	-1.2
SMF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
SMF	Signal de Mont	95.06	331	*e*P	P	23 18 57.9	-1.2
	comp=Z,3.7nm,0.8s,mb4.5						
AVF	Avril sur Loir	95.15	331	*e*P	P	23 18 58.4	-1.1
	comp=Z,14nm,0.8s,mb4.8						
AVF	Avril sur Loir	95.15	331	*e*P	P	23 18 58.4	-1.1
AVF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
AVF	Avril sur Loir	95.15	331	*e*P	P	23 18 58.4	-1.1
	comp=Z,7.2nm,0.8s,mb4.8						
TCF	Toulx Ste Croi	96.03	332	*e*P	P	23 19 02.3	-1.2
	comp=Z,4.0nm,0.7s,mb4.3						
TCF	Toulx Ste Croi	96.03	332	*e*P	P	23 19 02.3	-1.2
TCF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.4						
TCF	Toulx Ste Croi	96.03	332	*e*P	P	23 19 02.3	-1.2
	comp=Z,2.0nm,0.7s,mb4.4						
VIVF	Saint-Julien-l	96.09	330	*e*P	P	23 19 03.0	-0.8
	comp=Z,5.9nm,0.8s,mb4.5						
VIVF	Saint-Julien-l	96.09	330	*e*P	P	23 19 03.0	-0.8
VIVF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
VIVF	Saint-Julien-l	96.09	330	*e*P	P	23 19 03.0	-0.8
	comp=Z,3.0nm,0.8s,mb4.5						
FRF	La Foret Royal	96.19	328	*e*P	P	23 19 02.3	-2.0
TXAR	Lajitas Array	96.56	52	P	P	23 19 06.0	-0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	96.56	52	P	P	23 19 06.0	-0.2
	comp=Z,1.2nm,0.6s,mb4.2,baz=298,slow=2.7,SNR=15						
MFF	Saint Martin d	96.72	333	*e*P	P	23 19 05.5	-1.1
	comp=Z,17nm,1.1s,mb4.8						
MFF	Saint Martin d	96.72	333	*e*P	P	23 19 05.5	-1.1
MFF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
MFF	Saint Martin d	96.72	333	*e*P	P	23 19 05.5	-1.1
	comp=Z,8.6nm,1.1s,mb4.8						
CAF	Calviac	97.18	331	*e*P	P	23 19 08.8	+0.1
	comp=Z,8.7nm,0.8s,mb4.6						
CAF	Calviac	97.18	331	*e*P	P	23 19 08.8	+0.1
CAF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
CAF	Calviac	97.18	331	*e*P	P	23 19 08.8	+0.1
	comp=Z,4.3nm,0.8s,mb4.6						
QSPA	South Pole Qui	118.38	180	PKP	PKPdf	23 24 17.9	-2.0
	comp=Z,1.3nm,0.6s,baz=301,slow=4.1,SNR=8.4						
TORD	Torodi Ar. Bea	121.81	310	PKP	PKPdf	23 24 26.9	-1.5
	comp=Z,2.5nm,0.7s,baz=334,slow=2.2,SNR=34						
TORD					SKP	23 27 22.1	
	comp=Z,0.1nm,0.4s,baz=49,slow=0.8,SNR=4.3						
DBIC	Dimbokro	130.92	310	PKIKP	PKPdf	23 24 44.1	-1.7
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
DBIC				pmax	pmax		
	comp=N,7.0nm,0.7s						
DBIC	Dimbokro	130.92	310	PKP	PKPdf	23 24 44.0	-1.8
	comp=N,1.9nm,0.7s,baz=73,slow=5.1,SNR=4.6						
DBIC				SKPbc	SKPbc	23 27 28.9	-0.4
	comp=N,7.2nm,0.7s,baz=44,slow=4.2,SNR=16						
VNA2	Neumayer--Watz	133.79	194	*e*PKPdf	PKPdf	23 24 48.4	-1.1
	baz=339,slow=0.7						

IDC ***11*** *23:20:21.8±2.3, 16°.02S×174°.63W, h0^{km}, mb3.8/5, mb1 4.2/5, mb1mx4.0/17, mbtmp3.8/5, MS4.1/20, Ms1 4.1/20, ms1mx4.1/26, Error ellipse: s-maj=153.6km s-min=27.3km az=153.0*

GCMT ***11*** *23:20:24.0±0.3, 15°.39S×174°.78W, h21^{km}±1^{km}, MW5.0/64, Moment Tensor Solution. s27,c35; s64,c83; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.21±.19; $M_{\theta\theta}$0.60±.18; $M_{\phi\phi}$0.60±.16; $M_{r\theta}$0.53±.28; $M_{\theta\phi}$3.46±.13; $M_{\phi r}$0.23±.25; Best double couple: $M_0$3.50000×10^{16} NP1:ϕ_s360.00000°, δ81.00000°, λ-179.00000°. NP2: ϕ_s270.00000°, δ89.00000°, λ-9.00000°. Principal axes: T 4.1170, Plg6.0000°, Azm315.0000°; N -1.2370, Plg81.0000°, Azm83.0000°; P -2.8840, Plg7.0000°, Azm224.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB ***11*** *23:20:25.8±2.0, 15°.6S±1°.0×175°.0W±0°.6, h33^{km}, mb3.9/5, MS4.2/17 Error ellipse: s-maj=157.5km s-min=24.8km az=150.9*

ISC 11 23:20:27.9±2.0**, 15°.5S**±1°.0×**175°.0W**±0°.6**, h35**^{km}**, n27, σ0^{s}.78**/6**, mb3.9**/5**, MS4.2**/17**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.53	64	Pn	Pn	23 21 12.3	-8.0
	10nm,0.3s,baz=353,slow=19,SNR=8.6						
AFI				LR	LR	23 22 35.7	
	comp=Z,1μm,20.9s,baz=278,slow=39						
AFI				T		23 24 38.9	
	11nm,0.3s,baz=284,slow=22,SNR=4.2						
RAO	Raoul Island	13.92	191	LR	LR	23 27 37.3	
	comp=Z,476nm,20.5s,baz=347,slow=32						
RAR	Rarotonga	15.55	114	LR	LR	23 28 33.4	
	comp=Z,556nm,21.7s,baz=298,slow=33						
PPT	Papeete	24.48	98	*e*LQ		23 30 19.2	
	2μm,24.8s						
PPT				*e*LR	LR	23 31 22.1	
	395nm,28.5s						
PPT	Papeete	24.48	98	LR	LR	23 31 57.2	
	comp=Z,237nm,21.0s,MS3.7,baz=257,slow=29						
HNR	Honiara	25.15	281	LR	LR	23 34 07.9	
	comp=Z,1μm,21.0s,MS4.4,baz=122,slow=32						
RPZ	Rata Peaks	30.50	200	LR	LR	23 37 44.8	
	comp=Z,474nm,18.9s,MS4.2,baz=196,slow=35						
STKA	Stephens Creek	42.62	240	LR	LR	23 44 01.2	
	comp=Z,243nm,19.5s,MS4.1,baz=29,slow=33						
WRA	Warramunga Arr	48.28	257	LR	LR	23 46 57.0	
	comp=Z,229nm,20.3s,MS4.2,baz=105,slow=33						
ASAR	Alice Springs	48.58	252	P	P	23 29 08.2	0.0
	2.1nm,0.8s,mb4.2,baz=85,slow=8.2,SNR=15						
DAV	Davao City (W)	62.95	286	LR	LR	23 57 20.8	
	comp=Z,172nm,18.4s,MS4.3,baz=94,slow=35						
VNDA	Vanda	63.10	185	LR	LR	23 52 23.5	
	comp=Z,119nm,18.9s,MS4.1,baz=22,slow=31						
MJAR	Matsushiro Arr	68.02	321	LR	LR	23 55 22.4	
	comp=Z,231nm,21.5s,MS4.4,baz=60,slow=31						
PETK	Petropavlovsk-	72.27	343	LR	LR	23 56 54.8	
	comp=Z,138nm,21.1s,MS4.2,baz=167,slow=30						
KSRS	Korea Array	75.15	316	LR	LR	00 02 23.1	
	comp=Z,131nm,19.8s,MS4.2,baz=314,slow=33						
NVAR	Mina Array Bea	75.48	43	P	P	23 32 09.0	+0.5
	1.1nm,0.8s,mb3.8,baz=230,slow=9.6,SNR=6.3						
TXAR	Lajitas Array	81.99	57	P	P	23 32 44.9	+0.3
	0.5nm,0.8s,mb3.5,baz=254,slow=9.0,SNR=4.3						
TXAR				LR	LR	00 04 46.5	
	comp=Z,91nm,18.7s,MS4.2,baz=185,slow=32						
PDAR	Pinedale Array	83.41	42	P	P	23 32 50.5	-1.1
	1.1nm,0.9s,mb3.9,baz=153,slow=0.7,SNR=6.9						
MAW	Mawson	87.17	199	LR	LR	00 10 03.6	
	comp=Z,153nm,18.1s,MS4.5,baz=293,slow=34						
PLCA	Paso Flores	90.59	133	LR	LR	00 04 30.3	
	comp=Z,184nm,18.7s,MS4.5,baz=213,slow=29						
YKA	Yellowknife Ar	90.84	24	P	P	23 33 27.5	+0.3
	0.2nm,0.3s,mb3.9,baz=239,slow=7.2,SNR=4.1						
YKA				LR	LR	00 09 51.3	
	comp=Z,90nm,18.6s,MS4.2,baz=345,slow=33						
CMAR	Chiang Mai Arr	91.16	289	LR	LR	00 10 03.5	
	comp=Z,62nm,18.8s,MS4.1,baz=269,slow=32						
SONM	Songino Array	93.89	319	LR	LR	00 09 51.7	
	comp=Z,131nm,20.8s,MS4.4,baz=66,slow=31						
ULM	Lac du Bonnet	95.02	39	LR	LR	00 11 21.1	
	comp=Z,162nm,18.6s,MS4.5,baz=286,slow=32						
BRTR	Keskin Array B	145.24	320	PKPbc	PKPbc	23 40 02.8	+0.9
	1.6nm,0.8s,baz=124,slow=2.2,SNR=5.4						
GERES	GERESS Array B	146.00	350	PKPbc	PKPbc	23 40 03.8	-0.1
	0.2nm,0.4s,baz=354,slow=5.4,SNR=3.8						
MMAI	Mount Meron Ar	147.41	308	PKPbc	PKPbc	23 40 11.6	+3.1
	1.8nm,0.7s,baz=86,slow=4.6,SNR=3.6						

IDC ***11*** *23:27:23.6±1.7, 8°.39S×125°.00E, h0^{km}, mb3.6/1, mb1 4.0/3, mb1mx3.7/16, mbtmp3.8/3, ML3.9/2, MS3.0/1, Ms1 3.0/1, ms1mx2.9/24, Error ellipse: s-maj=169.2km s-min=30.4km az=59.0*

ISCJB ***11*** *23:27:37.7±2.2, 9°.5S±0°.1×124°.5E±0°.1, h165^{km}±26^{km}, Error ellipse: s-maj=24.7km s-min=17.1km az=154.2*

ISC 11 23:27:38.5±2.0**, 9°.5S**±0°.1×**124°.5E**±0°.2**, h150**^{km}±22^{km}**, n6, σ0^{s}.99**/10**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNA	Kununurra	7.52	147	*e*P	Pn	23 29 26.4	+0.9
	18nm,0.2s						
KNA				*e*S	Sn	23 30 49.2	-0.3
KAKA	Kakadu	8.46	113	*e*P	Pn	23 29 37.3	-0.7
	16nm,0.9s						
FITZ	Fitzroy Crossi	8.66	173	*e*P	Pn	23 29 41.1	+0.4
	12nm,0.3s						
FITZ				*e*S	Sn	23 31 16.1	-0.8
WRA	Warramunga Arr	14.12	139	Pn	Pn	23 30 52.6	+0.7
	0.6nm,0.3s,baz=319,slow=13,SNR=7.4						
WRA				Sn	Sn	23 33 24.7	-3.7
	0.8nm,0.3s,baz=320,slow=26,SNR=6.2						
WRA				LR	LR	23 36 17.9	
	comp=Z,52nm,18.4s,baz=275,slow=37						
ASAR	Alice Springs	16.75	149	P	Pn	23 31 27.4	+3.1
	0.4nm,0.3s,baz=320,slow=11,SNR=17						
ASAR				S	S	23 34 30.8	0.0
	0.2nm,0.3s,baz=315,slow=21,SNR=5.3						
MKAR	Makanchi Array	67.44	330	P	P	23 38 17.0	-0.8
	0.3nm,0.4s,baz=134,slow=7.7,SNR=19						

BJI ***11*** *23:47:00.2, 33°.30N×35°.40E, h10^{km}, mB4.9/6, mb4.7/9, Ms4.5/4, Ms7 4.6/5*

ISCJB ***11*** *23:47:01.2±0.3, 33°.31N±0°.01×35°.34E±0°.02, h9^{km}±2^{km}, mb4.1/39, MS3.5/5, Error ellipse: s-maj=2.5km s-min=1.8km az=18.2*

GII ***11*** *23:47:02.3±0.5, 33°.26N×35°.42E, h1^{km}±1^{km}, Mb4.4/6, Md4.3/7, Mm3.8/7*

IDC ***11*** *23:47:02.2±0.7, 33°.32N×35°.36E, h0^{km}, mb3.6/9, mb1 3.9/14, mb1mx3.8/28, mbtmp3.8/14, ML4.1/4, MS3.4/6, Ms1 3.4/6, ms1mx3.1/34, Error ellipse: s-maj=13.4km s-min=5.2km az=77.0*

NEIC ***11*** *23:47:02.2, 33°.26N×35°.42E, h0^{km}, mb4.3/21, ML4.2(GII), ML4.5(ISK), After GII.*

NEIC Felt at Beirut and in northern Israel.

CSEM ***11*** *23:47:02.0±0.1, 33°.31N×35°.33E, h2^{km}, mb4.1/6, Mw3.7, Error ellipse: s-maj=2.5km s-min=1.5km az=87.0*

NSSC ***11*** *23:47:03, 33°.29N×35°.50E, h7^{km}±3^{km}*

NIC ***11*** *23:47:03.5±0.2, 33°.38N×35°.39E, h15^{km}, mb4.4, ML4.2, MW3.7*

GRAL ***11*** *23:47:03.1±0.4, 33°.32N×35°.42E, h0^{km}±5^{km}, MD4.2*

HLW ***11*** *23:47:03.1, 33°.46N×35°.47E, h30^{km}, Mb4.8*

MOS ***11*** *23:47:04.3±1.0, 33°.29N×35°.36E, h38^{km}, mb4.3/20, Error ellipse: s-maj=9.4km s-min=4.4km az=112.6*

ISC 11 23:47:02.2±0.3**, 33°.31N**±0°.01×**35°.37E**±0°.02**, h6**^{km}±2^{km}**, n366, σ1^{s}.01**/428**, mb4.1**/39**, MS3.5**/5**, 7C-14D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.18	350	*e*P	Pg	23 47 06.4	+0.6
MATL	Matirih	0.18	350	*e*P	Pg	23 47 06.4	+0.6
KSDI	Kefar Szold	0.27	116	Pg	Pg	23 47 07.2	-0.3
KSDI	Kefar Szold	0.27	116	Pg	Pg	23 47 07.2	-0.3
KSDI	Kefar Szold	0.27	116	Pg	Pg	23 47 07.2	-0.3
MMA0	Mount Meron ar	0.30	174	Pg	Pg	23 47 08.2	+0.3
MMA0				Sg	Sg	23 47 13.1	+1.2
MMAI	Mount Meron Ar	0.30	174	Pg	Pg	23 47 08.2	+0.2
	6μm,0.3s,baz=8.3,slow=18						
MMAI				Lg		23 47 12.3	
	21μm,0.3s,baz=12,slow=24,SNR=93						
RCY	Rachaya	0.41	65	*e*P	Pg	23 47 09.9	-0.3
RCY				*e*S	Sg	23 47 15.2	-0.4
RCY	Rachaya	0.41	65	*e*P	Pg	23 47 09.9	-0.3
RCY				*e*S	Sg	23 47 15.2	-0.4
BRBR	Barbar	0.50	78	⇑P	Pg	23 47 11.0	-0.8
BRBR				⇑S	Sg	23 47 17.0	-1.2
BEYL	Beyrouth	0.57	11	*e*P	Pg	23 47 13.1	-0.1
BEYL	Beyrouth	0.57	11	*e*P	Pg	23 47 13.1	0.0
BLGI	Bet Lehem HaGe	0.60	195	Pg	Pg	23 47 14.1	+0.5
BHL	Bhannes	0.64	22	*e*P	Pg	23 47 13.9	-0.5
BHL				*e*S	Sg	23 47 22.3	-0.4
BHL	Bhannes	0.64	22	*e*P	Pg	23 47 13.9	-0.5
BHL				*e*S	Sg	23 47 22.3	-0.4
OFRI	‘Ofer	0.76	205	Pg	Pg	23 47 17.3	+0.5
OFRI				Sg	Sg	23 47 29.1	+2.5
OFRI	‘Ofer	0.76	205	Pg	Pg	23 47 17.3	+0.5
OFRI				Sg	Sg	23 47 29.1	+2.5
OFRI	‘Ofer	0.76	205	Pg	Pg	23 47 17.3	+0.5
OFRI				Sg	Sg	23 47 29.1	+2.5
QASN	Qassioun	0.79	74	⇑P	Pg	23 47 17.0	-0.4
TCHB	Talchebab	0.82	142	⇓P	Pg	23 47 17.0	-0.8
TCHB				⇑S	Sg	23 47 27.0	-1.4
MMLI	Mount Malkishu	0.87	177	Pg	Pg	23 47 18.9	0.0
MMLI				Sg	Sg	23 47 31.4	+1.2
MMLI	Mount Malkishu	0.87	177	Pg	Pg	23 47 18.9	0.0
MMLI				Sg	Sg	23 47 31.0	+0.8
MMLI	Mount Malkishu	0.87	177	Pg	Pg	23 47 18.9	0.0
MMLI				Sg	Sg	23 47 31.4	+1.2
TOTH	TOTAH	0.89	87	⇓P	Pg	23 47 18.0	-1.2
TOTH				⇓S	Sg	23 47 30.0	-0.8
HMDT	Nahal Hemdat	1.06	173	Pg	Pg	23 47 22.1	-0.5
HMDT	Nahal Hemdat	1.06	173	Pg	Pg	23 47 22.1	-0.5
HMDT	Nahal Hemdat	1.06	173	Pg	Pg	23 47 22.1	-0.5
HWQ	Hawqa	1.08	26	*e*P	Pg	23 47 22.0	-0.8
HWQ				*e*S	Sg	23 47 35.8	-1.0
HWQ	Hawqa	1.08	26	*e*P	Pg	23 47 22.0	-0.9
HWQ				*e*S	Sg	23 47 35.8	-1.0
SLTI	Sal’it	1.10	195	Pg	Pg	23 47 23.2	-0.1
SLTI				Sg	Sg	23 47 38.7	+1.1
SLTI	Sal’it	1.10	195	Pg	Pg	23 47 23.2	-0.1
SLTI				Sg	Sg	23 47 39.0	+1.4
SLTI	Sal’it	1.10	195	Pg	Pg	23 47 23.2	-0.1
SLTI				Sg	Sg	23 47 38.7	+1.1
MARH	Ras Al Marh	1.17	52	⇑P	Pg	23 47 24.0	-0.6
MARH				⇓S	Sg	23 47 40.0	+0.2
FKH	Fakeheh	1.26	43	*e*P	Pg	23 47 25.4	-0.9
FKH	Fakeheh	1.26	43	*e*P	Pg	23 47 25.4	-1.0
SALA	Sala	1.29	117	⇓P	Pn	23 47 25.0	-1.8
SALA				⇓S	Sg	23 47 42.0	-1.8
HAWK	Haweek	1.48	35	⇑P	Pn	23 47 29.0	-0.4
ZALF	Zalf	1.69	103	⇓P	Pn	23 47 32.0	-0.3
ZALF				⇓S	Sn	23 47 53.0	-1.3
ASF	Jabal al Asfar	1.72	131	Pg	Pg	23 47 33.1	-2.0
	684nm,0.3s,baz=184,slow=13,SNR=6566						
ASF				Lg		23 47 56.1	
	732nm,0.3s,baz=358,slow=14,SNR=63						
DSI	Dead Sea	1.74	180	Pn	Pn	23 47 32.9	0.0
DSI	Dead Sea	1.74	180	Pn	Pn	23 47 32.9	0.0
DSI	Dead Sea	1.74	180	Pn	Pn	23 47 32.9	0.0
ROOS	tl_alroos	1.81	61	⇑P	Pn	23 47 35.0	+1.0
ROOS				⇑S	Sn	23 47 57.0	-0.3
BIDA	Albida	1.87	25	⇑P	Pn	23 47 34.0	-0.8
RABH	Abou Rabah	1.90	53	⇑P	Pn	23 47 36.0	+0.9
RABH				⇓S	Sn	23 47 59.0	-0.3
YTIR	Yattir	1.96	186	Pn	Pn	23 47 36.9	+1.0
YTIR	Yattir	1.96	186	Pn	Pn	23 47 36.9	+1.0
YTIR	Yattir	1.96	186	Pn	Pn	23 47 36.9	+1.0
MZDA	Masada	2.00	180	Pn	Pn	23 47 37.6	+1.1
MZDA	Masada	2.00	180	Pn	Pn	23 47 37.1	+0.6
MZDA	Masada	2.00	180	Pn	Pn	23 47 37.6	+1.1
PHNC	Paralimni	2.02	327	P	Pn	23 47 36.1	-0.7
	33nm,0.5s						
PHNC				S	Sn	23 48 00.7	-1.7
PHNC	Paralimni	2.02	327	P	Pn	23 47 36.1	-0.7
	33nm,0.5s						
PHNC				S	Sn	23 48 00.7	-1.7
RTMI	Retamim	2.32	194	Pn	Pn	23 47 42.0	+1.0
RTMI	Retamim	2.32	194	Pn	Pn	23 47 42.1	+1.1
RTMI	Retamim	2.32	194	Pn	Pn	23 47 42.0	+1.0
WRDH	Warideh	2.35	21	⇑P	Pn	23 47 41.0	-0.4
CSS	Prodhromos	2.36	315	P	Pn	23 47 40.7	-0.8
	10nm,0.3s						
CSS				S	Sn	23 48 09.5	-1.3
CSS	Prodhromos	2.36	315	P	Pn	23 47 40.7	-0.8
	10nm,0.3s						
CSS				S	Sn	23 48 09.5	-1.3
EREN	Erenkoy	2.42	336	*e*PN	Pn	23 47 41.6	-0.7
EREN				*e*SN	Sn	23 48 12.7	+0.3
EREN	Erenkoy	2.42	336	Pn	Pn	23 47 41.6	-0.7
EREN				Sg	Sn	23 48 09.6	-2.7
EREN	Erenkoy	2.42	336	Pn	Pn	23 47 41.6	-0.8
EREN				*e*Sn	Sn	23 48 12.7	+0.3
LFK	Lefkose	2.48	323	*e*PN	Pn	23 47 42.1	-1.1
LFK				*e*SN	Sn	23 48 13.0	-0.8
LFK	Lefkose	2.48	323	Pn	Pn	23 47 42.1	-1.1
LFK				*e*Sn	Sn	23 48 13.0	-0.8
SZAC	Souni-Zanaja	2.52	306	P	Pn	23 47 43.2	-0.4
	34nm,0.3s						
SZAC				S	Sn	23 48 14.1	-0.5
SZAC	Souni-Zanaja	2.52	306	P	Pn	23 47 43.2	-0.4
	34nm,0.3s						
SZAC				S	Sn	23 48 14.1	-0.5
MAMC	Mammari	2.57	317	P	Pn	23 47 44.0	-0.4
MAMC	Mammari	2.57	317	P	Pn	23 47 44.0	-0.4
RSH		2.73	211	P	Pn	23 47 46.6	0.0
RSH				S	Sn	23 48 19.0	-0.9
LEF	Lefka	2.73	312	*e*PN	Pn	23 47 45.7	-0.9
LEF				*e*SN	Sn	23 48 19.3	-0.6
LEF	Lefka	2.73	312	Pn	Pn	23 47 45.7	-0.9
LEF				*e*Sn	Sn	23 48 19.3	-0.7
ZFRI	Zfri	2.75	183	Pn	Pn	23 47 47.3	+0.4
ZFRI	Zfri	2.75	183	Pn	Pn	23 47 47.3	+0.4
ZFRI	Zfri	2.75	183	Pn	Pn	23 47 47.3	+0.4

RMNI	Mount Ramon	2.76	191	Pn	Pn	23 47 47.9	+1.0
RMNI	Mount Ramon	2.76	191	Pn	Pn	23 47 47.9	+1.0
RMNI	Mount Ramon	2.76	191	Pn	Pn	23 47 47.9	+1.0
HTY	Hatay	2.87	13	*e*PN	Pn	23 47 48.8	+0.3
HTY	Hatay	2.87	13	Pn	Pn	23 47 48.8	+0.3
ALFC	Alevga	2.94	310	P	Pn	23 47 48.9	-0.6
	24nm,0.3s						
ALFC				S	Sn	23 48 24.7	-0.4
ALFC	Alevga	2.94	310	P	Pn	23 47 48.9	-0.6
	24nm,0.3s						
ALFC				S	Sn	23 48 24.7	-0.4
PPCY	Paphos	2.96	303	P	Pn	23 47 49.2	-0.5
PPCY	Paphos	2.96	303	P	Pn	23 47 49.2	-0.5
PRNI	Paran	2.97	186	P	Pn	23 47 50.4	+0.6
PRNI	Paran	2.97	186	Pn	Pn	23 47 50.4	+0.6
PRNI	Paran	2.97	186	Pn	Pn	23 47 50.4	+0.6
AMAG	Maghara	3.23	215	⇓*e*P	Pn	23 47 53.5	+0.1
AMAG				S	Sn	23 48 31.4	-0.9
AMAG	Maghara	3.23	215	P	Pn	23 47 53.5	0.0
AMAG				S	Sn	23 48 31.4	-0.9
IKL	Isikli	3.23	335	*e*PN	Pn	23 47 52.4	-1.1
IKL	Isikli	3.23	335	Pn	Pn	23 47 52.4	-1.1
KRMI	Paran Flat	3.23	190	Pn	Pn	23 47 53.1	-0.4
KRMI	Paran Flat	3.23	190	Pn	Pn	23 47 53.9	+0.4
KRMI	Paran Flat	3.23	190	Pn	Pn	23 47 53.1	-0.4
KRTS	Karatas	3.25	0	*e*PN	Pn	23 47 54.6	+0.8
KRTS	Karatas	3.25	0	*e*Pn	Pn	23 47 54.6	+0.8
HRFI	Mount Harif	3.28	185	Pn	Pn	23 47 54.5	+0.4
HRFI	Mount Harif	3.28	185	Pn	Pn	23 47 54.5	+0.4
HRFI	Mount Harif	3.28	185	Pn	Pn	23 47 54.5	+0.4
COBT	Iskenderun	3.28	13	*i* P	Pn	23 47 54.5	+0.4
COBT	Iskenderun	3.28	13	*i* P	Pn	23 47 54.5	+0.3
JHLN	Al Jahlan	3.46	46	⇑P	Pn	23 47 57.0	+0.4
MBRI	Mt Berech	3.53	186	Pn	Pn	23 47 57.7	+0.2
HNKL	Nakhl	3.57	200	P	Pn	23 47 58.8	+0.6
HNKL	Nakhl	3.57	200	P	Pn	23 47 58.8	+0.6
AQBJ	Aqaba	3.58	184	Pn	Pn	23 47 58.8	+0.5
AQBJ	Aqaba	3.58	184	Pn	Pn	23 47 58.8	+0.5
MERS	Mersin	3.62	349	*e*PN	Pn	23 47 58.4	-0.4
MERS	Mersin	3.62	349	*e*Pn	Pn	23 47 58.4	-0.3
EIL	Elat	3.65	186	Pn	Pn	23 47 59.5	+0.3
	8.9nm,0.3s,baz=0.8,slow=9.7,SNR=65						
EIL				Pg	Pg	23 48 06.8	-5.2
	76nm,0.3s,baz=9.4,slow=6.5,SNR=83						
EIL				Lg		23 48 56.5	
	106nm,0.3s,baz=14,slow=18,SNR=12						
EIL				LR	LR	23 49 31.7	
	comp=Z,547nm,19.9s,baz=8.0,slow=41						
EIL	Elat	3.65	186	Pn	Pn	23 47 59.5	+0.3
EIL				Pg	Pg	23 48 06.8	-5.2
EIL				Lg		23 48 56.5	
EIL				LR	LR	23 49 31.7	
EIL	Elat	3.65	186	Pn	Pn	23 47 59.5	+0.3
KUZU	Kuzuini	3.73	22	*i* P	Pn	23 48 00.1	-0.2
KUZU	Kuzuini	3.73	22	*i* P	Pn	23 48 00.1	-0.2
KUZU				*i* S	Sn	23 48 49.7	+5.2
SUZ		4.08	213	P	Pn	23 48 05.3	+0.1
SUZ		4.08	213	P	Pn	23 48 05.3	+0.1
HBST	Basata	4.12	188	⇓P	Pn	23 48 05.7	0.0
HBST	Basata	4.12	188	P	Pn	23 48 05.7	0.0
GAZ	Gaziantep	4.14	21	*e*PN	Pn	23 48 07.1	+1.2
GAZ	Gaziantep	4.14	21	Pn	Pn	23 48 07.3	+1.4
GAZ	Gaziantep	4.14	21	Pn	Pn	23 48 07.3	+1.4
KOZT	Kozan	4.18	5	*e*PN	Pn	23 48 07.2	+0.8
ANDN	Andirin	4.33	10	*i* P	Pn	23 48 08.9	+0.3
ANDN	Andirin	4.33	10	*i* P	Pn	23 48 08.9	+0.3
ANDN				*i* S	Sn	23 48 59.3	-0.1
HDMB	Hadim	4.34	328	*e*PN	Pn	23 48 09.0	+0.3
HDMB	Hadim	4.34	328	Pn	Pn	23 48 09.0	+0.3
HHAG	Hagoal	4.36	221	⇓*e*P	Pn	23 48 09.2	+0.2
HHAG				S	Sn	23 48 57.8	-2.3
HHAG	Hagoal	4.36	221	P	Pn	23 48 09.1	+0.2
HHAG				S	Sn	23 48 57.8	-2.3
KMRS	Kahramanmaras	4.37	16	*e*PN	Pn	23 48 09.5	+0.4
KMRS	Kahramanmaras	4.37	16	*e*Pn	Pn	23 48 09.5	+0.4
ZNM		4.46	209	⇓P	Pn	23 48 10.4	0.0
ZNM				S	Sn	23 49 01.1	-1.6
ZNM		4.46	209	P	Pn	23 48 10.4	0.0
ZNM				S	Sn	23 49 01.1	-1.6
AANS		4.53	229	⇓P	Pn	23 48 10.9	-0.3
KOT	Kottamia	4.53	223	P	Pn	23 48 11.2	-0.1
KOT				S	Sn	23 49 01.8	-2.5
KOT	Kottamia	4.53	223	P	Pn	23 48 11.2	-0.1
KOT				S	Sn	23 49 01.8	-2.4
HDHB	Dhahab	4.62	188	P	Pn	23 48 12.9	+0.4
HDHB	Dhahab	4.62	188	P	Pn	23 48 12.9	+0.3
ZAF		4.69	212	P	Pn	23 48 13.5	0.0
ZAF		4.69	212	P	Pn	23 48 13.5	0.0
NIG	Nigde	4.83	353	*e*PN	Pn	23 48 16.3	+0.9
NIG	Nigde	4.83	353	Pn	Pn	23 48 16.3	+0.9
GLL	Jalalah	4.86	221	P	Pn	23 48 15.9	0.0
GLL	Jalalah	4.86	221	P	Pn	23 48 15.9	0.0
HSAF	As Saff	4.92	223	P	Pn	23 48 16.4	-0.3
HSAF	As Saff	4.92	223	P	Pn	23 48 16.4	-0.2
HKAT	Jabal Katrina	4.92	194	⇑P	Pn	23 48 16.7	+0.1
HKAT	Jabal Katrina	4.92	194	P	Pn	23 48 16.7	0.0
SQR		4.94	227	P	Pn	23 48 16.4	-0.5
SQR		4.94	227	P	Pn	23 48 16.4	-0.5
URFA	Urfa	4.99	33	*e*PN	Pn	23 48 19.5	+1.8
URFA	Urfa	4.99	33	Pn	Pn	23 48 19.5	+1.8
AYT	Al ‘Ayyat	5.09	226	P	Pn	23 48 19.2	+0.2
AYT	Al ‘Ayyat	5.09	226	P	Pn	23 48 19.2	+0.2
SULT	Sultanhani-AKS	5.10	343	*e*PN	Pn	23 48 20.1	+0.9
SULT	Sultanhani-AKS	5.10	343	Pn	Pn	23 48 20.0	+0.8
KONT	Konya--Tatoy	5.23	333	*e*PN	Pn	23 48 21.4	+0.5
KONT	Konya--Tatoy	5.23	333	Pn	Pn	23 48 21.4	+0.5
HMYD	Mayadein	5.24	229	P	Pn	23 48 21.4	+0.2
HMYD	Mayadein	5.24	229	P	Pn	23 48 21.4	+0.3
ANTB	Antalya	5.27	314	*e*PN	Pn	23 48 21.2	-0.2
ANTB	Antalya	5.27	314	*e*Pn	Pn	23 48 21.3	-0.1
AKCD	Akcadag	5.39	22	*i* P	Pn	23 48 24.6	+1.6
AKCD	Akcadag	5.39	22	*i* P	Pn	23 48 24.6	+1.5
PINB	Pinarbasi	5.42	9	*i* P	Pn	23 48 25.0	+1.5
PINB	Pinarbasi	5.42	9	*i* P	Pn	23 48 25.0	+1.5
SARI	SarD1z-Kayseri	5.46	11	*e*PN	Pn	23 48 21.2	-2.9
HNAT	Natroun	5.47	229	P	Pn	23 48 24.1	-0.1
HNAT	Natroun	5.47	229	P	Pn	23 48 24.1	-0.1
	18µm,0.2s						
AVNT	Avonos	5.47	356	*i* P	Pn	23 48 25.2	+0.9
AVNT	Avonos	5.47	356	*i* P	Pn	23 48 25.2	+1.0
BNN	Bunyan	5.54	4	*e*PN	Pn	23 48 26.9	+1.7
BNN	Bunyan	5.54	4	Pn	Pn	23 48 26.9	+1.7
AKAS	Kas	5.57	303	*i* P	Pn	23 48 25.1	-0.5
AKAS	Kas	5.57	303	*i* P	Pn	23 48 25.1	-0.5
AKAS				*i* S	Sn	23 49 27.9	-2.0
MALT	Malatya	5.58	26	*e*PN	Pn	23 48 28.3	+2.6
MALT	Malatya	5.58	26	*e*P	Pn	23 48 26.6	+0.9
MALT						23 49 35.1	
MALT				pmax	pmax		
	comp=Z,161nm,0.8s						
MALT	Malatya	5.58	26	*e*Pn	Pn	23 48 26.6	+1.0
	comp=Z,161nm,0.8s						
MALT				*e*Pg	Pg	23 48 50.5	+1.5
MALT				Sn	Sn	23 49 35.1	+5.1
MALT				*e*Sg	Sg	23 49 59.1	-2.0
MALT	Malatya	5.58	26	*e*Pn	Pn	23 48 26.6	+0.9
	comp=Z,161nm,0.8s						
MALT	Malatya	5.58	26	*e*Pg	Pg	23 48 50.5	+1.5
MYA	Malataya	5.58	26	*e*PN	Pn	23 48 28.2	+2.4
MYA	Malataya	5.58	26	Pn	Pn	23 48 28.2	+2.4
ELL	Elmali	5.64	309	*e*PN	Pn	23 48 26.8	+0.2
ELL	Elmali	5.64	309	Pn	Pn	23 48 26.8	+0.2
BCK	Bucak	5.69	318	*e*PN	Pn	23 48 27.5	+0.3
BCK	Bucak	5.69	318	Pn	Pn	23 48 27.5	+0.3
KDHN	Kadinhani	5.83	334	*i* P	Pn	23 48 29.2	+0.1
KDHN	Kadinhani	5.83	334	*i* P	Pn	23 48 29.2	+0.1
ISP	Isparta	6.01	320	*e*Pn	Pn	23 48 33.6	+2.0
ISP				Sn	Sn	23 49 37.8	-3.0
FETY	Fethiye	6.13	304	*e*PN	Pn	23 48 32.7	-0.7
FETY	Fethiye	6.13	304	Pn	Pn	23 48 32.7	-0.6
GOLH	Golhisar	6.16	311	*i* P	Pn	23 48 35.2	+1.6
GOLH	Golhisar	6.16	311	*i* P	Pn	23 48 35.2	+1.6
GOLH				*i* S	Sn	23 49 42.9	-1.5
KAMT	Kaman	6.19	348	*e*PN	Pn	23 48 35.4	+1.3
KAMT	Kaman	6.19	348	Pn	Pn	23 48 35.4	+1.3
KIZT	Kizilcal	6.23	334	*e*PN	Pn	23 48 35.2	+0.5
KIZT	Kizilcal	6.23	334	Pn	Pn	23 48 35.2	+0.5
DALT	Dalyan (Mudla)	6.51	304	*e*PN	Pn	23 48 38.0	-0.5
DALT	Dalyan (Mudla)	6.51	304	Pn	Pn	23 48 38.0	-0.5
SHUT	Suhut-Afyon	6.53	325	*e*PN	Pn	23 48 39.0	+0.3
SHUT	Suhut-Afyon	6.53	325	*e*Pn	Pn	23 48 39.1	+0.4
BRTR	Keskin Array B	6.55	348	P	Pn	23 48 41.0	+2.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BRTR	Keskin Array B	6.55	348	Pn	Pn	23 48 41.0	+1.9
	comp=Z,1.5nm,0.3s,baz=197,slow=16,SNR=24						
BRTR	Keskin Array B	6.55	348	Pn	Pn	23 48 41.0	+2.0
TURN	Turunc	6.58	305	*i* P	Pn	23 48 41.8	+2.2
TURN	Turunc	6.58	305	*i* P	Pn	23 48 41.8	+2.3
TURN				*i* S	Sn	23 49 56.2	+1.2
ASUT		6.75	210	P	Pn	23 48 42.0	+0.2
ASUT		6.75	210	P	Pn	23 48 42.0	+0.2
DENT	Denizli	6.80	312	*e*PN	Pn	23 48 42.3	-0.3
DENT	Denizli	6.80	312	Pn	Pn	23 48 42.3	-0.3
HSFG		6.84	191	P	Pn	23 48 42.5	-0.6
HSFG		6.84	191	P	Pn	23 48 42.5	-0.5
KHL	Karahalli	6.89	318	*e*PN	Pn	23 48 43.7	-0.1
KHL	Karahalli	6.89	318	Pn	Pn	23 48 43.7	-0.1
YER	Yerkesik	6.94	305	*e*PN	Pn	23 48 44.3	-0.1
YER	Yerkesik	6.94	305	Pn	Pn	23 48 43.2	-1.2
YER	Yerkesik	6.94	305	Pn	Pn	23 48 43.2	-1.2
KHAL	Karahalli	6.95	318	*i* P	Pn	23 48 44.4	-0.1
KHAL	Karahalli	6.95	318	*i* P	Pn	23 48 44.4	-0.1
KHAL				*i* S	Sn	23 50 01.6	-2.2
MSL	Mosul	7.07	62	*e*x	x	23 48 50.0	
MSL				*e*x	x	23 50 05.5	
ALT	Altintas	7.13	325	*e*PN	Pn	23 48 47.1	0.0
ALT	Altintas	7.13	325	Pn	Pn	23 48 47.1	0.0
ESKT	Eskisehir	7.19	331	*e*PN	Pn	23 48 48.1	+0.3
ESKT	Eskisehir	7.19	331	Pn	Pn	23 48 48.1	+0.3
AWBH		7.46	230	P	Pn	23 48 50.9	-0.6
AWBH		7.46	230	P	Pn	23 48 50.9	-0.7
BHD	Baghdad	7.55	88	*e*x	Pn	23 48 53.0	+0.3
BHD				*e*x	x	23 50 18.0	
BHD				*e*x	x	23 50 48.0	
BHD				*e*x	x	23 51 10.0	
BHD	Baghdad	7.55	88	*e*Pn	Pn	23 48 53.0	+0.3
BHD				*e*Sn	Sn	23 50 18.0	-0.6
HEDF	Idfu	8.41	194	P	Pn	23 49 04.1	-0.5
HEDF	Idfu	8.41	194	P	Pn	23 49 04.1	-0.5
HFRF	Wahat Farafira	8.66	227	P	Pn	23 49 07.1	-1.0
HFRF	Wahat Farafira	8.66	227	P	Pn	23 49 07.1	-0.9
IDI	Anoyia	8.89	286	Pn	Pn	23 49 09.9	-1.3
	comp=Z,4.1nm,0.3s,baz=108,slow=12,SNR=17						
IDI				Sn	Sn	23 50 46.3	-5.4
	comp=Z,8.4nm,0.3s,baz=255,slow=20,SNR=7.7						
IDI	Anoyia	8.89	286	Pn	Pn	23 49 09.9	-1.3
SWA2		9.40	247	P	Pn	23 49 17.2	-1.0
GNI	Garni	10.15	45	Pn	Pn	23 49 34.3	+5.8
	baz=181,slow=5.9,SNR=5.9						
GNI				LR	LR	23 53 39.9	
	comp=Z,147nm,18.4s,baz=87,slow=39						
GNI	Garni	10.15	45	*e*Pn	Pn	23 49 29.3	+0.8
	comp=Z,16nm,1.4s						
GNI				*e*Sn	Sn	23 51 26.0	+3.4
GNI				LR	LR	23 53 39.9	
GNI	Garni	10.15	45	*e*Pn	Pn	23 49 29.3	+0.9
	comp=Z,16nm,1.4s						
GNI				*e*Sn	Sn	23 51 26.0	+3.4
KIV	Kislovodsk	12.06	26	*e*P	Pn	23 49 55.5	+0.9
KIV				pmax	pmax		
	comp=Z,4.0nm,1.2s						
KIV				MLR	MLR		
	comp=Z,31nm,10.0s						
KIV	Kislovodsk	12.06	26	Pn	Pn	23 49 55.0	+0.4
KIV	Kislovodsk	12.06	26	Pn	Pn	23 49 55.0	+0.4
KIV	Kislovodsk	12.06	26	*e*P	Pn	23 49 55.5	+0.9
	comp=Z,31nm,10.0s						
TIP	Timpagrande	16.11	297	*e*Pn	Pn	23 50 45.1	-4.0
VORD	Divnogorie	17.88	8	*e*P	Pn	23 51 12.1	+0.8
VORD				pmax	pmax		
	comp=Z,8.0nm,0.5s						
VORD				pmax	pmax		
	comp=N,30nm,0.6s						
VORD				pmax	pmax		
	comp=E,50nm,0.6s						
VORD	Divnogorie	17.88	8	*e*P	Pn	23 51 12.1	+0.8
	comp=E,8.0nm,0.5s						
AKASG	Malin Array Be	17.95	347	P	Pn	23 51 14.2	+1.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	17.95	347	P	Pn	23 51 14.2	+1.9
	comp=Z,1.1nm,0.3s,baz=167,slow=9.9,SNR=6.7						
AKASG	Malin Array Be	17.95	347	P	Pn	23 51 14.2	+1.9
	comp=Z,1.0nm,0.3s						
VSR	Storozhevoye	18.11	8	*e*P	Pn	23 51 15.8	+1.6
VSR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
VSR				pmax	pmax		
	comp=N,6.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,10.0nm,1.2s						
VSR	Storozhevoye	18.11	8	*e*P	Pn	23 51 15.8	+1.6
	comp=E,6.0nm,0.6s						
UZH	Uzhgorod	18.17	331	*e*P	Pn	23 51 16.3	+1.3
UZH	Uzhgorod	18.17	331	*e*P	Pn	23 51 16.3	+1.3
VRHR	Novokhopersk	18.35	13	*e*P	Pn	23 51 17.3	+0.1
VRHR				pmax	pmax		
	comp=Z,8.0nm,1.8s						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRHR				pmax	pmax		
	comp=E,10.0nm,1.4s						
VRHR	Novokhopersk	18.35	13	*e*P	Pn	23 51 17.3	+0.1
	comp=E,10.0nm,0.9s						
PSZ	Piszkesteto	18.68	326	*e*P	Pn	23 51 22.5	+1.3
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						
PSZ	Piszkesteto	18.68	326	*e*P	Pn	23 51 22.5	+1.3
	comp=Z,2.8nm,0.7s						
PSZ	Piszkesteto	18.68	326	*e*P	Pn	23 51 22.5	+1.3
	comp=Z,2.8nm,0.7s						
KWP	Kalwaria Pacla	18.82	334	*e*P	Pn	23 51 23.0	+0.1
KWP				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KWP	Kalwaria Pacla	18.82	334	*e*P	Pn	23 51 23.0	+0.1
	comp=Z,9.9nm,0.9s						
KWP	Kalwaria Pacla	18.82	334	*e*P	Pn	23 51 23.0	+0.1
	comp=Z,9.9nm,0.9s						
ARSA	Arzberg	20.49	319	⇑*i*P	P	23 51 41.7	+1.0
	comp=Z,8.4nm,0.8s						
ARSA	Arzberg	20.49	319	P	P	23 51 41.7	+1.0
	comp=Z,8.4nm,0.8s						
OKC	Ostrava-Krasne	20.86	327	*e*P	P	23 51 45.9	+1.2
OKC	Ostrava-Krasne	20.86	327	*e*P	P	23 51 45.9	+1.2
MORC	Moravsky Berou	21.09	327	*e*P	P	23 51 47.7	+0.5
MORC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.6						
MORC	Moravsky Berou	21.09	327	*e*P	P	23 51 47.7	+0.4
	comp=Z,2.4nm,0.7s,mb3.6						
MORC	Moravsky Berou	21.09	327	*e*P	P	23 51 47.7	+0.5
	comp=Z,2.4nm,0.7s,mb3.6						
VRAC	Vranov	21.22	324	P	P	23 51 50.5	+1.9
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VRAC	Vranov	21.22	324	P	P	23 51 50.5	+1.9
	comp=Z,3.8nm,0.9s,mb3.7,baz=133,slow=10.0,SNR=4.5						
VRAC	Vranov	21.22	324	P	P	23 51 50.5	+1.9
	comp=Z,4.0nm,0.9s,mb3.8						
MOA	Molln	21.53	319	⇑*i*P	P	23 51 56.7	+4.8
	comp=Z,9.5nm,0.9s,mb4.2						
KEST	Kesra	21.56	284	P	P	23 51 53.4	+1.0
	comp=Z,3.0nm,1.0s,mb3.7,baz=14,slow=10,SNR=5.7						
TREC	Trest	21.76	323	*e*P	P	23 51 55.6	+1.2
TREC				*e*x	x	23 51 59.5	
TREC	Trest	21.76	323	*e*P	P	23 51 55.6	+1.2
OBN	Obninsk	21.81	2	⇑*i*P	P	23 51 54.3	-0.6
OBN				*i*		23 52 17.4	
OBN				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.2						
OBN	Obninsk	21.81	2	*i* P	P	23 51 54.3	-0.6
	comp=Z,14nm,1.5s,mb4.2						
DPC	Dobruska-Polom	22.06	326	*e*P	P	23 51 58.6	+1.0
DPC	Dobruska-Polom	22.06	326	*e*P	P	23 51 58.6	+1.0
UPC	Upice	22.31	326	*e*P	P	23 52 01.7	+1.4
UPC	Upice	22.31	326	*e*P	P	23 52 01.7	+1.4
GERES	GERESS Array B	22.41	320	P	P	23 52 02.7	+1.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES				MLR	MLR		
	comp=Z,85nm,20.7s						
GERES	GERESS Array B	22.41	320	P	P	23 52 02.7	+1.3
	comp=Z,1.4nm,0.5s,mb3.6,baz=122,slow=10.0,SNR=12						
GERES				LR	LR	00 02 09.9	
	comp=Z,85nm,20.7s,MS3.1,baz=296,slow=40						
GERES	GERESS Array B	22.41	320	P	P	23 52 02.7	+1.3
	comp=Z,85nm,20.7s						
SUW	Suwalki	22.43	341	*e*P	P	23 52 00.1	-1.4
SUW				pmax	pmax		
	comp=Z,36nm,0.8s,mb4.8						
SUW	Suwalki	22.43	341	*e*P	P	23 52 00.1	-1.4
	comp=Z,36nm,0.8s,mb4.9						
SUW	Suwalki	22.43	341	*e*P	P	23 52 00.1	-1.4
	comp=Z,36nm,0.8s,mb4.9						
MOS	Moscow	22.48	3	*e*P	P	23 52 01.0	-1.0
MOS				*e*		23 52 09.4	
MOS	Moscow	22.48	3	*e*P	P	23 52 01.0	-1.0
KHC	Kasperske Hory	22.65	321	*e*P	P	23 52 03.3	-0.6
KHC				*e*x	x	23 52 06.3	
KHC	Kasperske Hory	22.65	321	*e*P	P	23 52 03.3	-0.6
PGF	Pioggiola	22.68	302	*e*P	P	23 52 02.6	-1.6
PGF	Pioggiola	22.68	302	*e*P	P	23 52 02.6	-1.6
PRU	Pruhonice	22.68	323	*e*P	P	23 52 05.3	+1.1
PRU	Pruhonice	22.68	323	*e*P	P	23 52 05.3	+1.1
FETA	Feichten	23.16	314	⇑*i*P	P	23 52 09.3	0.0
	comp=Z,6.4nm,1.2s,mb3.9						
FETA	Feichten	23.16	314	P	P	23 52 09.3	0.0
	comp=Z,6.4nm,1.2s,mb3.9						
BRG	Berggiesshubel	23.54	325	*e*P	P	23 52 15.2	+2.0
BRG				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.7						
BRG	Berggiesshubel	23.54	325	*e*P	P	23 52 15.2	+2.0
	comp=Z,4.3nm,0.9s,mb3.9						
DAVOX	Davos/Dischmat	23.57	312	P	P	23 52 13.7	+0.1
	comp=Z,1.7nm,0.7s,mb3.6,baz=321,slow=13,SNR=3.7						
DAVOX				LR	LR	00 01 41.9	
	comp=Z,109nm,18.1s,MS3.4,baz=78,slow=37						
DAVOS	Davos	23.65	312	P	P	23 52 13.8	-0.6
AKTK	Aktyubinsk	23.87	37	P	P	23 52 16.3	0.0
AKTK				LR	LR	00 03 53.7	
AKTO	Aktyubinsk	23.87	37	P	P	23 52 16.3	0.0
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
AKTO				MLR	MLR		
	comp=Z,102nm,18.1s,MS3.3						
AKTO	Aktyubinsk	23.87	37	P	P	23 52 16.3	0.0
	comp=Z,1.8nm,0.6s,mb3.7,baz=224,slow=11,SNR=6.3						
AKTO				LR	LR	00 03 53.7	
	comp=Z,102nm,18.1s,MS3.3,baz=91,slow=42						
CLL	Collm	24.27	324	*e*P	P	23 52 20.0	0.0
CLL				*i* (pP)		23 52 24.7	
	comp=Z,17nm,1.5s						
MOX	Moxa	24.57	322	*e*P	P	23 52 23.4	+0.8
	comp=Z,42nm,2.0s,mb4.6						
MOX	Moxa	24.57	322	*e*P	P	23 52 23.4	+0.8
MOX				pmax	pmax		
	comp=Z,42nm,2.0s,mb4.6						
MBDF	Montbardon	24.84	306	*e*P	P	23 52 23.1	-2.2
	comp=Z,10nm,0.8s,mb4.1						
MBDF	Montbardon	24.84	306	*e*P	P	23 52 23.1	-2.2
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
MBDF	Montbardon	24.84	306	*e*P	P	23 52 23.1	-2.2
	comp=Z,5.3nm,0.8s,mb4.1						
LPG	La Plagne	25.10	307	*e*P	P	23 52 26.6	-1.0
	comp=Z,9.4nm,0.8s,mb4.1						
LPG	La Plagne	25.10	307	*e*P	P	23 52 26.6	-1.0
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
LPG	La Plagne	25.10	307	*e*P	P	23 52 26.6	-1.0
	comp=Z,4.7nm,0.8s,mb4.1						
LPL	La Plagne	25.12	307	*e*P	P	23 52 27.0	-0.7
BFO	Black Forest	25.20	315	*e*P	P	23 52 28.9	+0.4
BFO				*e*		23 56 03.0	
BFO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
BFO	Black Forest	25.20	315	*e*P	P	23 52 28.9	+0.5
	comp=Z,9.8nm,0.8s,mb4.4						
BFO				*e*PcP	PcP	23 56 03.0	+1.0
SMRF	Simiane la Rot	25.46	303	*e*P	P	23 52 29.2	-1.7
	comp=Z,16nm,1.0s,mb4.2						
SMRF	Simiane la Rot	25.46	303	*e*P	P	23 52 29.2	-1.7
	comp=Z,16nm,1.0s,mb4.5						
ORIF	Oris-en-Rattie	25.51	306	*e*P	P	23 52 29.2	-2.1
	comp=Z,10nm,0.8s,mb4.1						
ORIF	Oris-en-Rattie	25.51	306	*e*P	P	23 52 29.2	-2.1
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
ORIF	Oris-en-Rattie	25.51	306	*e*P	P	23 52 29.2	-2.1
	comp=Z,5.3nm,0.8s,mb4.1						
ECH	Echery	25.86	314	*e*P	P	23 52 35.2	+0.8
ECH				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.2						
ECH	Echery	25.86	314	*e*P	P	23 52 35.2	+0.8
	comp=Z,8.3nm,1.1s,mb4.2						
CDF	Champ du Feu	25.87	314	*e*P	P	23 52 34.6	+0.1
	comp=Z,18nm,0.9s,mb4.3						
CDF	Champ du Feu	25.87	314	*e*P	P	23 52 34.6	+0.1
CDF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.3						
CDF	Champ du Feu	25.87	314	*e*P	P	23 52 34.6	+0.1
	comp=Z,9.2nm,0.9s,mb4.3						
HINF	Hinteralfeld	25.88	313	*e*P	P	23 52 34.4	-0.2
	comp=Z,4.2nm,0.6s,mb3.8						
HINF	Hinteralfeld	25.88	313	*e*P	P	23 52 34.4	-0.2
HINF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
HINF	Hinteralfeld	25.88	313	*e*P	P	23 52 34.4	-0.2
	comp=Z,2.1nm,0.6s,mb3.8						
CABF	La Chapelle	25.91	309	*e*P	P	23 52 33.5	-1.4
VIVF	Saint-Julien-l	26.31	305	*e*P	P	23 52 37.4	-1.2
	comp=Z,8.8nm,0.9s,mb4.0						
VIVF	Saint-Julien-l	26.31	305	*e*P	P	23 52 37.4	-1.2
VIVF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
VIVF	Saint-Julien-l	26.31	305	*e*P	P	23 52 37.4	-1.2
	comp=Z,4.4nm,0.9s,mb4.0						
LOR	Lormes	27.57	310	*e*P	P	23 52 49.4	-0.5
	comp=Z,16nm,1.2s,mb4.2						
LOR	Lormes	27.57	310	*e*P	P	23 52 49.4	-0.5
LOR				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.2						
LOR	Lormes	27.57	310	*e*P	P	23 52 49.4	-0.5
	comp=Z,7.8nm,1.2s,mb4.2						
SSF	Saint Saulge	27.73	309	*e*P	P	23 52 51.1	-0.2
	comp=Z,7.2nm,0.9s,mb4.0						
SSF	Saint Saulge	27.73	309	*e*P	P	23 52 51.1	-0.2
SSF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
SSF	Saint Saulge	27.73	309	*e*P	P	23 52 51.1	-0.2
	comp=Z,3.6nm,0.9s,mb4.0						
EPF	Esparros	29.02	300	*e*P	P	23 53 02.2	-0.6
	comp=Z,21nm,1.2s,mb4.4						
EPF	Esparros	29.02	300	*e*P	P	23 53 02.2	-0.6
EPF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
EPF	Esparros	29.02	300	*e*P	P	23 53 02.2	-0.6
	comp=Z,10nm,1.2s,mb4.4						
EKS2	Erkin-Say	31.45	61	*e*P	P	23 53 25.1	+0.7
BRVK	Borovoye	31.76	41	P	P	23 53 26.8	-0.1
BVAR	Borovoye Array	31.80	41	LR	LR	00 08 02.3	
	comp=Z,110nm,19.1s,MS3.5,baz=341,slow=40						
UCH	Uchtor	31.97	62	P	P	23 53 30.5	+1.6
ESDC	Sonseca Array	32.06	293	P	P	23 53 30.6	+0.9
	comp=Z,0.7nm,0.6s,mb3.7,baz=82,slow=8.2,SNR=5.2						
ROSF	Rostrenen	32.48	309	*e*P	P	23 53 33.6	+0.2
	comp=Z,39nm,1.1s,mb4.8						
ROSF	Rostrenen	32.48	309	*e*P	P	23 53 33.6	+0.2
ROSF				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.8						
ROSF	Rostrenen	32.48	309	*e*P	P	23 53 33.6	+0.2
	comp=Z,19nm,1.1s,mb4.8						
TKM2	Tokmak 2	32.80	61	*e*P	P	23 53 34.9	-1.3
TKM2				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
TKM2	Tokmak 2	32.80	61	*e*P	P	23 53 34.9	-1.3
	comp=Z,4.3nm,1.3s,mb4.2						
MDT	Midelt	33.37	280	P	P	23 53 44.9	+3.6
	comp=Z,2.4nm,1.0s,mb4.1,baz=33,slow=4.3,SNR=4.0						
EVO	Evora	35.27	291	*e*P	P	23 53 57.6	-0.1
KURK	Kurchatov	35.94	48	*e*P	P	23 54 02.8	-0.5
TORD	Torodi Ar. Bea	36.64	245	P	P	23 54 10.4	+0.7
	comp=Z,0.9nm,0.6s,mb3.8,baz=36,slow=7.1,SNR=9.6						
MKAR	Makanchi Array	37.80	55	P	P	23 54 20.1	+0.9
	comp=Z,0.2nm,0.5s,mb3.1,baz=254,slow=8.4,SNR=3.5						
WMQ	Urumqi	41.62	60	*e*P	P	23 54 53.0	+2.0
KRAR	Krasnoyarsk	45.18	42	⇑*i*P	P	23 55 16.1	-3.5
TSUM	Tsumeb	54.91	201	*e*P	P	23 56 34.5	+0.7
	comp=Z,0.3nm,0.4s,mb3.7						
LZH	Lanzhou	55.29	66	*e*P	P	23 56 38.5	+1.9

LZH				pP	pP	23 56 41.8	+3.4
LZH				sP	sP	23 56 43.0	+3.9
LZH				*e*PP	PP	23 58 43.6	+3.6
LZH				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.9						
LZH				pmax	pmax		
	comp=Z,49nm,6.5s						
LZH				LR	LR		
	comp=N,150nm,15.6s						
LZH				LR	LR		
	comp=Z,200nm,18.2s,MS4.2						
BOD	**Bodaibo**	56.63	39	*e*P	P	23 56 42.2	-3.6
BOD				pmax	pmax		
	comp=Z,4.0nm,2.0s,mb4.1						
CD2	**Chengdu**	57.01	72	P	P	23 56 50.4	+1.5
CD2				PcP	PcP	23 57 45.0	+0.9
CD2				PP	PP	23 58 58.0	+2.6
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
CD2				pmax	pmax		
	comp=Z,170nm,5.3s						
CD2				LR	LR		
	comp=N,320nm,9.5s						
CD2				LR	LR		
	comp=Z,210nm,6.5s						
HHC	**Hu-ho-hao-te**	59.49	59	*e*P	P	23 57 06.0	-0.1
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
HHC				pmax	pmax		
	comp=Z,150nm,3.8s						
TIXI	**Tiksi**	59.85	21	⇑*i*P	P	23 57 05.8	-2.3
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.0						
GYA	**Guiyang**	61.12	76	*e*P	P	23 57 17.6	+0.1
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
MDJ	**Mudanjiang**	70.21	49	P	P	23 58 15.4	-0.5
MDJ				pmax	pmax		
	comp=Z,6.0nm,2.2s,mb4.1						
YKA	**Yellowknife Ar**	81.52	346	P	P	23 59 20.4	+0.3
	comp=Z,0.3nm,0.7s,mb3.3,baz=24,slow=4.8,SNR=3.8						
YKA	**Yellowknife Ar**	81.52	346	P	P	23 59 20.4	+0.3

IDC 11 23:53:48.4±6.7**, 15°.97S**×**174°.48W, h0^{km}, mb3.8**/4**, mb1 4.2**/5**, mb1mx3.9**/18**, mbtmp3.9**/5**, ML1.9**/1**, MS3.7**/14**, Ms1 3.7**/14**, ms1mx3.6**/32**, Error ellipse: s-maj=528.5km s-min=22.2km az=151.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	3.32	52	Pn	Pn	23 54 39.6	-2.0
	7.8nm,0.3s,baz=69,slow=3.8,SNR=18						
AFI				LR	LR	23 55 21.0	
	comp=Z,360nm,20.7s,baz=19,slow=28						
AFI				T		23 57 58.6	
	5.0nm,0.3s,baz=100,slow=22,SNR=5.6						
RAO	**Raoul Island**	13.60	193	LR	LR	00 00 52.1	
	comp=Z,187nm,19.8s,baz=336,slow=31						
RAR	**Rarotonga**	14.88	113	LR	LR	00 01 51.7	
	comp=Z,288nm,18.8s,baz=86,slow=32						
HNR	**Honiara**	25.76	282	LR	LR	00 07 33.5	
	comp=Z,354nm,20.2s,baz=130,slow=32						
RPZ	**Rata Peaks**	30.27	201	LR	LR	00 11 21.3	
	comp=Z,182nm,18.9s,baz=186,slow=35						
STKA	**Stephens Creek**	42.85	240	LR	LR	00 16 33.3	
	comp=Z,103nm,18.3s,baz=25,slow=32						
WRA	**Warramunga Arr**	48.70	257	P	P	00 02 35.6	+0.6
	0.8nm,0.6s,baz=86,slow=6.8,SNR=3.3						
ASAR	**Alice Springs**	48.95	252	P	P	00 02 35.8	-1.1
	1.4nm,0.7s,baz=83,slow=8.0,SNR=4.7						
GUMO	**Guam**	49.78	304	LR	LR	00 21 13.2	
	comp=Z,62nm,20.5s,baz=105,slow=33						
FITZ	**Fitzroy Crossi**	57.08	259	LR	LR	00 26 19.6	
	comp=Z,72nm,21.3s,baz=202,slow=34						
NWAO	**Narrogin (SRO)**	63.44	241	LR	LR	00 27 29.4	
	comp=Z,80nm,21.6s,baz=164,slow=32						
PETK	**Petropavlovsk-**	72.86	343	LR	LR	00 36 25.9	
	comp=Z,41nm,18.6s,baz=278,slow=35						
NVAR	**Mina Array Bea**	75.44	42	P	P	00 05 35.2	+0.8
	1.4nm,0.9s,baz=229,slow=8.2,SNR=6.4						
KSRS	**Korea Array**	75.84	316	LR	LR	00 34 40.8	
	comp=Z,60nm,18.1s,baz=55,slow=32						
TXAR	**Lajitas Array**	81.79	56	LR	LR	00 36 16.6	
	comp=Z,61nm,18.3s,baz=190,slow=31						
PDAR	**Pinedale Array**	83.38	42	P	P	00 06 18.6	+1.0
	0.6nm,0.8s,baz=187,slow=2.4,SNR=5.2						
PLCA	**Paso Flores**	89.90	132	LR	LR	00 37 36.2	
	comp=Z,68nm,19.6s,baz=203,slow=29						
CMAR	**Chiang Mai Arr**	91.81	289	LR	LR	00 42 57.3	
	comp=Z,34nm,21.2s,baz=190,slow=32						
BRTR	**Keskin Array B**	145.93	320	PKPbc	PKPbc	00 13 32.5	+2.2
	0.5nm,0.6s,baz=54,slow=1.8,SNR=3.5						

IDC 11 23:55:46.2±1.4**, 2°.33S**×**120°.91E, h0^{km}, mb3.6**/4**, mb1 3.8**/4**, mb1mx3.6**/18**, mbtmp3.6**/4**, MS3.5**/1**, Ms1 3.5**/1**, ms1mx2.2**/27**, 1D, Error ellipse: s-maj=340.0km s-min=23.6km az=59.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDI	**Kendari**	2.35	133	⇓*e*P	Pn	23 56 31.1	+5.0
KDI				*e*S	Sn	23 57 10.1	+14
WRA	**Warramunga Arr**	21.88	144	P	P	00 00 40.8	-0.1
	1.3nm,0.8s,baz=321,slow=11,SNR=5.3						
ASAR	**Alice Springs**	24.66	150	P	P	00 01 08.9	+0.1
	1.2nm,0.8s,baz=329,slow=7.9,SNR=8.7						
CTA	**Charters Tower**	30.40	127	LR	LR	00 13 29.8	
	comp=Z,88nm,19.1s,baz=56,slow=35						
STKA	**Stephens Creek**	35.26	149	P	P	00 02 42.8	0.0
	9.8nm,1.2s,baz=316,slow=14,SNR=4.2						
MKAR	**Makanchi Array**	59.53	330	P	P	00 05 51.5	+0.1
	0.2nm,0.7s,baz=130,slow=6.8,SNR=4.1						

ISK ***11*** *23:57:50.2, 39°.41N×39°.23E, h5^{km}, MD3.3*
ISCJB ***11*** *23:57:51.9±0.4, 39°.42N±0°.03×39°.15E±0°.04, h10^{km}, Error ellipse: s-maj=5.0km s-min=3.0km az=135.1*
CSEM ***11*** *23:57:51.0±0.2, 39°.42N×39°.20E, h2^{km}, MD3.3, Error ellipse: s-maj=6.7km s-min=3.5km az=129.0*
DDA ***11*** *23:57:51.0, 39°.40N×39°.21E, h5^{km}±2^{km}, Md2.9*
ISC 11 23:57:51.7±0.6**, 39°.44N**±0°.03×**39°.18E**±0°.04**, h3**^{km}±5^{km}**, n35, σ1^s.18**/54**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEMA	**Kemaliye**	0.56	253	*i* P	Pg	23 58 02.3	-0.2
KEMA				*i* S	Sg	23 58 11.2	+1.4
KEMA	**Kemaliye**	0.56	253	*i* P	Pg	23 58 02.3	-0.2
KEMA				*i* S	Sg	23 58 11.2	+1.4
EZC	**Erzincan**	0.58	58	PG	Pg	23 57 57.9	-5.0
EZC				*e*SG	Sg	23 58 02.9	-7.5
ELZG	**Elazig**	0.95	189	*i* P	Pg	23 58 08.8	-1.2
ELZG				*i* S	Sg	23 58 22.8	+0.5
ELZG	**Elazig**	0.95	189	*i* P	Pg	23 58 08.8	-1.2
ELZG				*i* S	Sg	23 58 22.8	+0.5
GUMT	**Gumushane**	1.05	13	*e*PG	Pg	23 58 10.8	-1.0
GUMT	**Gumushane**	1.05	13	*e*Pg	Pg	23 58 10.8	-1.0
KOPT	**Kop Dagi**	1.17	60	*i* P	Pg	23 58 13.4	-0.8
KOPT				*i* S	Sg	23 58 30.5	+1.2
KOPT	**Kop Dagi**	1.17	60	*i* P	Pg	23 58 13.4	-0.7
KOPT				*i* S	Sg	23 58 30.5	+1.2
DARE	**Darende-Malaty**	1.18	246	*e*PN	Pg	23 58 20.6	+6.3
MYA	**Malataya**	1.26	208	*e*PN	Pn	23 58 14.1	-2.1
MYA				*e*SN	Sn	23 58 32.5	-1.1
MYA	**Malataya**	1.26	208	*e*Pn	Pn	23 58 14.1	-2.1
MYA				*e*Sn	Sn	23 58 32.5	-1.1
MALT	**Malatya**	1.27	208	*e*PN	Pn	23 58 14.2	-2.1
MALT	**Malatya**	1.27	208	*e*Pn	Pn	23 58 14.2	-2.1
AKCD	**Akcadag**	1.51	221	*i* P	Pn	23 58 18.3	-1.4
AKCD				*i* S	Sn	23 58 40.5	+0.7
AKCD	**Akcadag**	1.51	221	*i* P	Pn	23 58 18.3	-1.3
AKCD				*i* S	Sn	23 58 40.5	+0.7
ESPY	**Espiye-Giresun**	1.52	347	*e*PN	Pn	23 58 19.3	-0.5
ESPY				*e*SN	Sn	23 58 40.0	0.0
ESPY	**Espiye-Giresun**	1.52	347	*e*Pn	Pn	23 58 19.3	-0.5
ESPY				*e*Sn	Sn	23 58 40.0	0.0
MACK	**Trabzon**	1.57	16	*i* P	Pn	23 58 20.0	-0.5
MACK				*i* S	Sn	23 58 42.0	+0.7
MACK	**Trabzon**	1.57	16	*i* P	Pn	23 58 20.0	-0.5
MACK				*i* S	Sn	23 58 42.0	+0.7
KTUT	**Trabzon**	1.61	16	*e*PN	Pn	23 58 20.4	-0.6
KTUT	**Trabzon**	1.61	16	*e*Pn	Pn	23 58 20.4	-0.7
EZM	**Erzurum**	1.75	74	*e*PN	Pn	23 58 21.8	-1.1
ERZM	**Erzurum**	1.75	74	*i* P	Pn	23 58 23.4	+0.5
ERZM				*i* S	Sn	23 58 47.9	+2.1
ERZM	**Erzurum**	1.75	74	*i* P	Pn	23 58 23.4	+0.4
ERZM				*i* S	Sn	23 58 47.8	+2.1
SARI	**SarD1z-Kayseri**	2.08	249	*e*PN	Pg	23 58 31.7	+0.1
BEST	**Besiri**	2.25	133	*i* P	Pn	23 58 31.6	+1.8
BEST				*i* S	Sn	23 59 01.1	+3.0
PINB	**Pinarbasi**	2.29	252	*i* P	Pn	23 58 32.2	+1.8
PINB				*i* S	Sg	23 59 07.0	+1.6
PINB	**Pinarbasi**	2.29	252	*i* P	Pn	23 58 32.2	+1.7
KMRS	**Kahramanmaras**	2.63	224	*e*PN	Pn	23 58 35.2	+0.1
KMRS	**Kahramanmaras**	2.63	224	*e*Pn	Pn	23 58 35.2	+0.1
BNN	**Bunyan**	2.66	258	*e*PN	Pn	23 58 35.5	0.0
BNN	**Bunyan**	2.66	258	*e*Pn	Pn	23 58 35.5	0.0
AGRB	**Hanur-Agry**	2.95	86	*e*PN	Pn	23 58 38.6	-0.9
AGRB	**Hanur-Agry**	2.95	86	*e*Pn	Pn	23 58 38.6	-0.9

IDC ***11*** *23:59:55.7±1.2, 2°.49S×28°.98E, h0^{km}, mb3.7/5, mb1 3.8/6, mb1mx3.6/21, mbtmp3.8/6, ML4.0/1, Error ellipse: s-maj=30.0km s-min=21.6km az=178.0*
ISCJB ***11*** *23:59:56.6±4.1, 2°.55S±0°.06×28°.96E±0°.08, h20^{km}±32^{km}, mb3.6/5, Error ellipse: s-maj=14.5km s-min=10.3km az=15.4*
NEIC ***11*** *23:59:57.2±0.4, 2°.47S×28°.94E, h10^{km}, mb3.7/1, Error ellipse: s-maj=9.7km s-min=7.9km az=116.0*
ISC 11 23:59:57.9±4.5**, 2°.51S**±0°.06×**28°.94E**±0°.08**, h14**^{km}±30^{km}**, n12, σ0^s.45**/15**, mb3.6**/5**, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBAR	**Mbarara**	2.61	44	Pn	Pn	00 00 39.3	-0.5
KMBO	**Kilima Mbogo**	8.42	81	Pn	Pn	00 01 59.4	-0.2
	2.1nm,0.3s,baz=238,slow=1.1,SNR=16						
KMBO				Sn	Sn	00 03 30.4	-4.1
	4.8nm,0.3s,baz=81,slow=1.3,SNR=4.1						
KMBO				Lg		00 04 18.7	
	3.8nm,0.3s,baz=341,slow=23,SNR=8.5						
KMBO	**Kilima Mbogo**	8.42	81	*e*Pn	Pn	00 01 59.1	-0.5
KMBO				Sn	Sn	00 03 34.9	+0.3
KMBO				Lg		00 04 18.7	
LSZ	**Lusaka**	12.71	183	*e*Pn	Pn	00 02 58.6	+0.2
LSZ				*e*Sn	Sn	00 05 19.1	-0.8
ABPO	**Ambohimpanom**	24.28	134	Pn	P	00 05 15.5	+0.5
BOSA	**Boshof**	26.20	187	P	P	00 05 32.6	+0.3
	3.2nm,1.0s,mb3.8,baz=9.7,slow=9.1,SNR=4.5						
SUR	**Sutherland**	30.68	194	*e*P	P	00 06 13.0	+0.7
TORD	**Torodi Ar. Bea**	31.20	301	P	P	00 06 16.8	-0.3
	0.8nm,0.5s,mb3.8,baz=106,slow=6.7,SNR=17						
DBIC	**Dimbokro**	34.95	285	P	P	00 06 49.8	-0.2
	1.6nm,1.1s,mb3.9,baz=90,slow=5.1,SNR=3.8						
DBIC	**Dimbokro**	34.95	285	*e*P	P	00 06 49.6	-0.3
	0.4nm,0.4s,mb3.7						
GERES	**GERESS Array B**	52.83	347	P	P	00 09 13.0	+0.1
	0.1nm,0.3s,mb3.3,baz=170,slow=6.0,SNR=3.5						
MKAR	**Makanchi Array**	67.78	37	P	P	00 10 55.6	+0.3
	0.3nm,0.6s,mb3.5,baz=228,slow=8.3,SNR=3.7						

ISCJB ***12*** *00:07:45.8±0.6, 33°.33N±0°.03×35°.40E±0°.04, h9^{km}±5^{km}, Error ellipse: s-maj=6.6km s-min=3.9km az=21.1*
GRAL ***12*** *00:07:46.7±0.3, 33°.31N×35°.42E, h4^{km}±18^{km}, MD2.5*
CSEM ***12*** *00:07:46.7, 33°.31N×35°.42E, h3^{km}, ML2.5, After GRAL*
GII ***12*** *00:07:46.0±0.5, 33°.26N×35°.42E, h2^{km}±1^{km}, Md2.0/7*
ISC 12 00:07:46.1±0.6**, 33°.34N**±0°.02×**35°.41E**±0°.05**, h10**^{km}±7^{km}**, n18, σ0^s.62**/30**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	**Matirih**	0.16	336	*e*P	Pg	00 07 50.2	+0.5
MATL	**Matirih**	0.16	336	*e*P	Pg	00 07 50.2	+0.5
KSDI	**Kefar Szold**	0.26	125	Pg	Pg	00 07 50.9	-0.4
KSDI				Sg	Sg	00 07 55.3	+0.5
HNTI	**Hanita**	0.32	217	Pg	Pg	00 07 52.4	-0.1
HNTI				Sg	Sg	00 07 57.4	+0.5
MMA0	**Mount Meron ar**	0.32	181	Pg	Pg	00 07 51.9	-0.7
MMA0				Sg	Sg	00 07 56.9	0.0
RCY	**Rachaya**	0.37	67	*e*P	Pg	00 07 53.9	+0.4
RCY	**Rachaya**	0.37	67	*e*P	Pg	00 07 53.9	+0.4
KSHT	**Keshet**	0.49	136	Pg	Pg	00 07 55.4	-0.3
KSHT				Sg	Sg	00 08 03.2	+1.0
BHL	**Bhannes**	0.60	20	*e*P	Pg	00 07 57.8	+0.1
BHL	**Bhannes**	0.60	20	*e*P	Pg	00 07 57.8	+0.1
BLGI	**Bet Lehem HaGe**	0.63	197	Pg	Pg	00 07 58.2	-0.2
BLGI				Sg	Sg	00 08 07.1	+0.5
OFRI	**‘Ofer**	0.80	206	Pg	Pg	00 08 01.2	-0.4
OFRI				Sg	Sg	00 08 13.7	+1.7
MMLI	**Mount Malkishu**	0.90	179	Pg	Pg	00 08 02.5	-1.0
MMLI				Sg	Sg	00 08 14.8	-0.4
HWQ	**Hawqa**	1.04	25	*e*P	Pg	00 08 05.9	-0.2
HWQ				*e*S	Sg	00 08 19.8	+0.2
HWQ	**Hawqa**	1.04	25	*e*P	Pg	00 08 05.9	-0.2
HWQ				*e*S	Sg	00 08 19.8	+0.2
HMDT	**Nahal Hemdat**	1.09	175	Pg	Pg	00 08 05.9	-1.2
HMDT				Sg	Sg	00 08 21.3	+0.1
SLTI	**Sal’it**	1.14	196	Pg	Pg	00 08 07.2	-0.8
SLTI				Sg	Sg	00 08 22.6	-0.2
DSI	**Dead Sea**	1.77	181	Pn	Pn	00 08 16.6	-0.2
DSI				Sn	Sn	00 08 40.0	+0.7

IDC 12 00:11:23.7±2.9**, 20°.65N**×**143°.51E, h0^{km}, mb4.2**/6**, mb1 4.3**/6**, mb1mx3.8**/23**, mbtmp4.2**/6**, Error ellipse: s-maj=89.1km s-min=43.0km az=6.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	**Zalesovo Beam**	55.22	322	P	P	00 20 58.2	-0.1
	0.6nm,0.3s,baz=101,slow=6.0,SNR=3.5						
MKAR	**Makanchi Array**	55.63	313	P	P	00 21 02.3	+0.9
	0.4nm,0.5s,baz=88,slow=9.2,SNR=8.8						
MKAR				PcP	PcP	00 22 00.3	-0.8
	0.3nm,0.5s,baz=76,slow=4.7,SNR=6.7						
KURK	**Kurchatov**	58.45	318	P	P	00 21 21.5	+0.2
	1.1nm,0.4s,baz=95,slow=7.5,SNR=10						
BVAR	**Borovoye Array**	63.66	320	P	P	00 21 56.7	0.0
	1.8nm,0.4s,baz=100,slow=7.7,SNR=22						
YKA	**Yellowknife Ar**	77.24	28	P	P	00 23 20.0	+0.5
	0.8nm,0.6s,baz=292,slow=5.8,SNR=9.0						
ARCES	**ARCESS Array B**	80.01	342	P	P	00 23 33.8	-0.8
	9.8nm,1.0s,baz=74,slow=8.9,SNR=7.5						
TORD	**Torodi Ar. Bea**	129.63	309	PKP	PKPdf	00 30 35.6	0.0
	0.4nm,1.1s,baz=39,slow=1.8,SNR=4.8						

IDC 12 00:11:30.0±8.2**, 7°.96S**×**157°.45E, h0^{km}, mb4.3**/6**, mb1 4.3**/6**, mb1mx4.0**/18**, mbtmp4.2**/6**, Error ellipse: s-maj=253.6km s-min=38.5km az=118.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	25.36	240	P	P	00 16 59.0	0.0
	1.1nm,0.7s,baz=63,slow=9.4,SNR=3.6						
SONM	**Songino Array**	71.47	326	P	P	00 22 53.1	+0.7
	0.9nm,0.4s,baz=139,slow=6.0,SNR=13						
MKAR	**Makanchi Array**	85.74	318	P	P	00 24 11.6	+0.5
	3.2nm,0.7s,baz=100,slow=6.2,SNR=34						
ZALV	**Zalesovo Beam**	86.35	326	P	P	00 24 13.8	0.0
	2.1nm,0.4s,baz=106,slow=5.3,SNR=7.9						
KURK	**Kurchatov**	89.10	321	P	P	00 24 26.2	-1.0
	0.3nm,0.3s,baz=98,slow=5.1,SNR=5.6						
BVAR	**Borovoye Array**	94.53	323	P	P	00 24 52.2	-0.1
	0.7nm,0.6s,baz=112,slow=4.3,SNR=5.4						

SKHL 12 00:16:00.9±0.2**, 55°.75N**×**124°.05E, h8**^{km}±1^{km}**, mb3.5**/5**, Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLNS	**Chul’man**	1.19	23	*e*Pg	Pg	00 16 24.0	+0.3
CLNS				AMB	AMB	00 16 24.1	
	9.0nm,0.2s						
CLNS				*e*Sg	Sg	00 16 40.9	+1.9
CLNS				A		00 16 41.6	
	113nm,0.2s						
CLNS				A		00 16 41.6	
	107nm,0.2s						
KROS	**Kirovskiy**	2.14	127	*e*Pn	Pn	00 16 37.5	+0.7
KROS				*e*Pg	Pg	00 16 39.7	-2.1
KROS				AMB	AMB	00 16 40.5	
	13nm,0.5s						
KROS				AMB	AMB	00 16 40.5	
	19nm,0.5s						
KROS				pPg		00 16 43.3	
KROS				*e*Sn	Sn	00 17 03.5	+0.1
KROS				*i* Sg	Sg	00 17 08.0	-1.4
KROS				A		00 17 10.3	
	36nm,0.5s						
KROS				A		00 17 10.3	
	47nm,0.5s						
KROS				A		00 17 10.3	
	29nm,0.5s						
TUP	**Tupik**	2.70	242	*e*Pg	Pg	00 16 51.3	-1.3
TUP				*e*rx	rx	00 16 56.6	
TUP				*e*Sg	Sg	00 17 26.1	-1.5
ZEA	**Zeya**	2.74	136	*e*Pn	Pn	00 16 46.5	+1.4
ZEA				*e*Pg	Pg	00 16 51.4	-1.9
ZEA				pPg		00 16 54.2	
ZEA				*e*Sg	Sg	00 17 27.2	-1.6
ZEA				A		00 17 32.1	
	58nm,0.5s						
BMKR	**Bomnak**	2.94	109	*e*Pn	Pn	00 16 48.5	+0.7
BMKR				*e*Pg	Pg	00 16 53.8	-3.3
BMKR				AMB	AMB	00 16 54.9	
	11nm,0.5s						
BMKR				AMB	AMB	00 16 54.9	
	10.0nm,0.5s						
BMKR				pPg		00 16 57.4	
BMKR				*e*Sn	Sn	00 17 25.3	+2.2
BMKR				*e*Sg	Sg	00 17 31.9	-3.2
BMKR				A		00 17 34.0	
	45nm,0.5s						
BMKR				A		00 17 34.0	
	29nm,0.5s						
BMKR				A		00 17 34.0	
	25nm,0.5s						
YASR	**Yasnyy**	3.37	135	*e*Pn	Pn	00 16 55.1	+1.4
YASR				*e*Pg	Pg	00 17 01.9	-3.4
YASR				AMB	AMB	00 17 03.4	
	4.0nm,0.5s						
YASR				*e*Sg	Sg	00 17 46.6	-2.3
YASR				A		00 17 48.8	
	10.0nm,0.7s						
CRS	**Chara**	3.42	292	*e*Pg	Pg	00 17 00.3	-6.0
CRS				AMB	AMB	00 17 07.1	
	20nm,1.0s						
CRS				*e*Sg	Sg	00 17 51.6	+1.0
CRS				A		00 18 00.8	
	42nm,1.1s						
EKMR	**Ekimchan**	5.85	114	*e*Sg	Sg	00 19 03.5	-5.0
EKMR				A		00 19 11.5	
	5.0nm,0.7s						

IDC ***12*** *00:18:04.8±0.9, 52°.20N×170°.10W, h0^{km}, mb4.0/15, mb1 4.2/16, mb1mx4.1/29, mbtmp4.1/16, ML4.9/1, Error ellipse: s-maj=29.4km s-min=15.3km az=7.0*
NEIC ***12*** *00:18:08.2, 52°.27N×169°.99W, h7^{km}, ML3.8(AEIC), After AEIC.*
ISCJB ***12*** *00:18:09.1±1.2, 52°.2N±0°.1×170°.01W±0°.10, h41^{km}±9^{km}, mb4.0/15, Error ellipse: s-maj=20.2km s-min=7.8km az=160.4*
ISC 12 00:18:10.5±1.2**, 52°.2N**±0°.1×**169°.99W**±0°.10**, h36**^{km}±9^{km}**, n27, σ0^s.98**/29**, mb4.0**/15**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	**Nikolski**	1.01	43	P	Pn	00 18 26.2	-1.9
NIKO				S	Sn	00 18 40.0	-1.1
OKFG	**Magazine Ridge**	1.72	46	P	Pn	00 18 37.4	-0.5
OKFG				S	Sn	00 18 59.7	+1.0
ATKA	**Atka Island**	2.59	271	P	Pn	00 18 49.6	-0.2
ATKA				S	Sn	00 19 25.0	+5.1
AKGG	**Akutan Green G**	3.10	49	P	Pn	00 18 58.1	+1.3
SPIA	**Saint Paul Isl**	4.95	358	P	Pn	00 19 24.7	+2.5
AMKA	**Amchitka**	6.70	267	*e*P	Pn	00 19 47.3	+1.1
CHGN	**Chignik**	7.90	54	*e*P	Px	00 20 21.1	
RC01	**Rabbit Creek A**	14.18	43	Pn	Pn	00 21 27.1	-1.3
PETK	**Petropavlovsk-**	19.53	285	P	Pn	00 22 34.9	-1.1
	3.2nm,0.3s,baz=83,slow=14,SNR=18						
YKA	**Yellowknife Ar**	30.62	49	P	P	00 24 21.2	+0.6
	0.5nm,0.5s,mb3.6,baz=271,slow=8.6,SNR=10						
YKA	**Yellowknife Ar**	30.62	49	P	P	00 24 21.2	+0.6
NVAR	**Mina Array Bea**	38.04	90	P	P	00 25 25.5	+0.4
	0.8nm,0.7s,mb3.5,baz=282,slow=8.7,SNR=4.3						
NVAR	**Mina Array Bea**	38.04	90	P	P	00 25 25.5	+0.4
PDAR	**Pinedale Array**	40.80	79	P	P	00 25 48.6	+0.6
	2.5nm,0.5s,mb4.1,baz=300,slow=3.2,SNR=38						
SONM	**Songino Array**	51.04	301	P	P	00 27 08.9	+0.3
	0.5nm,0.4s,mb3.8,baz=54,slow=5.9,SNR=6.2						
SONM				PcP	PcP	00 28 24.4	+0.3
	0.7nm,0.7s,baz=64,slow=2.9,SNR=4.2						
SONM				ScP	ScP	00 32 21.7	+4.3
	0.2nm,0.6s,baz=101,slow=2.9,SNR=2.3						
TXAR	**Lajitas Array**	53.13	88	P	P	00 27 24.6	+0.2
	1.0nm,0.6s,mb3.9,baz=299,slow=5.6,SNR=10						
KURK	**Kurchatov**	62.22	318	P	P	00 28 28.7	+0.8
	0.9nm,0.5s,mb4.1,baz=44,slow=6.9,SNR=4.5						
BVAR	**Borovoye Array**	63.59	324	P	P	00 28 37.0	0.0
	2.9nm,0.5s,mb4.6,baz=55,slow=6.3,SNR=35						
MKAR	**Makanchi Array**	63.62	313	P	P	00 28 35.9	-1.4
	0.4nm,0.3s,mb3.9,baz=49,slow=6.8,SNR=26						
NOA	**NORSAR Array B**	67.07	359	P	P	00 29 00.8	+1.4
	0.3nm,0.4s,mb3.6,baz=22,slow=12,SNR=2.7						
HFS	**Hagfors**	67.94	358	P	P	00 29 03.9	-1.0
	0.9nm,0.3s,mb4.3,baz=12,slow=2.4,SNR=17						
AKTK	**Aktyubinsk**	69.94	330	P	P	00 29 17.4	-0.1
AKTO	**Aktyubinsk**	69.94	330	P	P	00 29 17.4	-0.1
	1.8nm,0.5s,mb4.3,baz=43,slow=4.2,SNR=7.5						
AKASG	**Malin Array Be**	76.16	348	P	P	00 29 53.6	-0.6
	0.3nm,0.2s,mb3.8,baz=16,slow=6.0,SNR=2.8						
CMAR	**Chiang Mai Arr**	76.28	282	P	P	00 29 54.8	-0.7
	2.1nm,0.6s,mb4.3,baz=28,slow=6.9,SNR=11						
BRTR	**Keskin Array B**	86.14	342	P	P	00 30 48.4	+1.0
	0.8nm,0.8s,mb4.0,baz=130,slow=38,SNR=2.8						
ASAR	**Alice Springs**	90.02	230	P	P	00 31 05.4	-0.6
	1.0nm,0.6s,mb4.4,baz=29,slow=4.6,SNR=15						

ISK ***12*** *00:23:02.6, 37°.28N×35°.88E, h5^{km}, MD3.4*
ISCJB ***12*** *00:23:03.8±0.4, 37°.27N±0°.03×35°.87E±0°.03, h10^{km}, Error ellipse: s-maj=3.7km s-min=3.6km az=147.3*
CSEM ***12*** *00:23:03.4±0.1, 37°.26N×35°.86E, h5^{km}, MD3.4, Error ellipse: s-maj=3.6km s-min=3.3km az=166.0*
DDA ***12*** *00:23:04.2, 37°.30N×35°.91E, h7^{km}±4^{km}, Md2.8*
ISC 12 00:23:03.4±0.7**, 37°.28N**±0°.03×**35°.83E**±0°.04**, h1**^{km}±5^{km}**, n42, σ0^s.98**/63**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	**Kozan**	0.20	0	PG	Pg	00 23 07.2	-0.1
KOZT				*e*SG	Sg	00 23 10.2	+0.2
ANDN	**Andirin**	0.51	54	*i* P	Pg	00 23 12.8	-0.5
ANDN				*i* S	Sg	00 23 21.2	+1.3
ANDN	**Andirin**	0.51	54	*i* P	Pg	00 23 12.8	-0.5
ANDN				*i* S	Sg	00 23 21.2	+1.3
KRTS	**Karatas**	0.79	207	*e*PG	Pg	00 23 18.3	-0.3
KRTS	**Karatas**	0.79	207	*e*Pg	Pg	00 23 18.3	-0.2
COBT	**Iskenderun**	0.83	155	*i* P	Pg	00 23 20.0	+0.7
COBT				*i* S	Sg	00 23 32.4	+2.3
COBT	**Iskenderun**	0.83	155	*i* P	Pg	00 23 20.0	+0.7
COBT				*i* S	Sg	00 23 32.4	+2.3
KMRS	**Kahramanmaras**	0.89	75	*e*PG	Pg	00 23 19.1	-1.3
KMRS				*e*SG	Sg	00 23 31.4	-0.5
KMRS	**Kahramanmaras**	0.89	75	*e*Pg	Pg	00 23 19.1	-1.3
KMRS				*e*Sg	Sg	00 23 31.4	-0.5
GAZ	**Gaziantep**	1.11	95	*e*PG	Pg	00 23 24.0	-0.7
GAZ	**Gaziantep**	1.11	95	*e*Pg	Pg	00 23 24.0	-0.7
KUZU	**Kuzuini**	1.12	116	*i* P	Pg	00 23 24.6	-0.2
KUZU				*i* S	Sg	00 23 40.1	+0.8
KUZU	**Kuzuini**	1.12	116	*i* P	Pg	00 23 24.6	-0.3
KUZU				*i* S	Sg	00 23 40.2	+0.8
MERS	**Mersin**	1.12	249	*e*PN	Pn	00 23 25.4	-0.8
MERS				*e*SN	Sn	00 23 41.5	-0.7
MERS	**Mersin**	1.12	249	*e*Pn	Pn	00 23 25.4	-0.7
MERS				*e*Sn	Sn	00 23 41.5	-0.6
HTY	**Hatay**	1.18	168	*e*PN	Pn	00 23 25.1	-1.9
HTY	**Hatay**	1.18	168	*e*Pn	Pn	00 23 25.1	-1.9
NIG	**Nigde**	1.27	311	*e*PN	Pn	00 23 27.8	-0.4
NIG	**Nigde**	1.27	311	*e*Pn	Pn	00 23 27.8	-0.5
PINB	**Pinarbasi**	1.47	18	*i* P	Pn	00 23 30.3	-0.7

PINB				*i* S	Sb	00 23 51.5	+0.8
PINB	Pinarbasi	1.47	18	*i* P	Pn	00 23 30.3	-0.7
PINB				*i* S	Sb	00 23 51.5	+0.8
SARI	SarD1z-Kayseri	1.56	26	*e*PN	Pn	00 23 25.8	-6.4
SARI				*e*SN	Sn	00 23 43.3	-10
BNN	Bunyan	1.57	1	*e*PN	Pn	00 23 31.7	-0.7
BNN				*e*SN	Sn	00 23 53.5	+0.1
BNN	Bunyan	1.57	1	*e*Pn	Pn	00 23 31.7	-0.7
BNN				*e*Sn	Sn	00 23 53.5	+0.1
AVNT	Avonos	1.69	333	*e*P	Pn	00 23 33.8	-0.2
AVNT				*i* S	Sn	00 23 57.3	+1.2
AVNT	Avonos	1.69	333	*e*P	Pn	00 23 33.8	-0.1
AVNT				*i* S	Sn	00 23 57.3	+1.2
AKCD	Akcadag	1.95	58	*i* P	Pn	00 23 37.0	-0.5
AKCD				*i* S	Sn	00 24 04.7	+2.1
AKCD	Akcadag	1.95	58	*i* P	Pn	00 23 37.0	-0.6
AKCD				*i* S	Sn	00 24 04.7	+2.1
IKL	Isikli	2.01	240	*e*PN	Pn	00 23 39.5	+1.1
IKL	Isikli	2.01	240	*e*Pn	Pn	00 23 39.5	+1.2
SULT	Sultanhani-AKS	2.05	297	*e*PN	Pn	00 23 39.6	+0.6
SULT	Sultanhani-AKS	2.05	297	*e*Pn	Pn	00 23 39.6	+0.7
MALT	Malatya	2.31	63	*e*PN	Pn	00 23 41.9	-0.6
MALT	Malatya	2.31	63	*e*Pn	Pn	00 23 41.9	-0.6
MYA	Malataya	2.31	62	*e*PN	Pn	00 23 42.0	-0.5
MYA	Malataya	2.31	62	*e*Pn	Pn	00 23 42.0	-0.5
URFA	Urfa	2.39	85	*e*PN	Pn	00 23 43.5	-0.2
URFA	Urfa	2.39	85	*e*Pn	Pn	00 23 43.5	-0.2
HDMB	Hadim	2.69	264	*e*PN	Pn	00 23 49.1	+1.4
HDMB	Hadim	2.69	264	*e*Pn	Pn	00 23 49.1	+1.4
ELZG	Elazig	2.78	63	*e*P	Pn	00 23 45.9	-3.1
ELZG				*i* S	Sn	00 24 33.0	+10
ELZG	Elazig	2.78	63	*e*P	Pn	00 23 45.9	-3.1

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*ISCJB **12** 00:51:01.2±0.6, 33°35N±0°03×35°40E±0°05, h3^{km}±6^{km}, Error ellipse: s-maj=7.1km s-min=3.5km az=23.8*

*GII **12** 00:51:01.5±0.7, 33°24N×35°42E, h1^{km}±3^{km}, Md2.0/5*

*CSEM **12** 00:51:02.2, 33°32N×35°42E, h9^{km}, ML2.9, After GRAL*

*GRAL **12** 00:51:02.2±0.3, 33°32N×35°42E, h10^{km}±2^{km}, MD2.9*

ISC 12 00:51:01.8±0.6, **33°35N**±0°03×**35°41E**±0°05, **h3**^{km}±6^{km}, **n20,** σ**0^{s}67**/31, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	335	*e*P	Pg	00 51 05.9	+0.9
MATL	Matirih	0.16	335	*e*P	Pg	00 51 05.9	+1.0
KSDI	Kefar Szold	0.26	126	Pg	Pg	00 51 06.7	-0.2
KSDI				Sg	Sg	00 51 11.1	+0.9
MMA1	Mount Meron ar	0.33	180	Pg	Pg	00 51 07.8	-0.3
HNTI	Hanita	0.33	217	Sg	Sg	00 51 13.3	+0.9
MMA0	Mount Meron ar	0.33	181	Pg	Pg	00 51 07.7	-0.5
MMA0				Sg	Sg	00 51 12.5	0.0
RCY	Rachaya	0.37	68	*e*P	Pg	00 51 09.5	+0.5
RCY				*e*S	Sg	00 51 14.7	+1.0
RCY	Rachaya	0.37	68	*e*P	Pg	00 51 09.5	+0.5
RCY				*e*S	Sg	00 51 14.7	+0.9
KSHT	Keshet	0.50	137	Pg	Pg	00 51 11.2	-0.2
BHL	Bhannes	0.59	20	*e*P	Pg	00 51 13.5	+0.3
BHL	Bhannes	0.59	20	*e*P	Pg	00 51 13.5	+0.3
BLGI	Bet Lehem HaGe	0.64	197	Sg	Sg	00 51 23.3	+1.0
OFRI	‘Ofer	0.81	206	Pg	Pg	00 51 16.9	-0.4
OFRI				Sg	Sg	00 51 28.6	+0.9
MMLI	Mount Malkishu	0.91	179	Pg	Pg	00 51 18.2	-1.0
MMLI				Sg	Sg	00 51 30.5	-0.5
HWQ	Hawqa	1.03	26	*e*P	Pg	00 51 20.7	-1.0
HWQ				*e*S	Sg	00 51 34.5	-0.5
HWQ	Hawqa	1.03	26	*e*P	Pg	00 51 20.7	-0.9
HWQ				*e*S	Sg	00 51 34.5	-0.5
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	00 51 21.7	-1.1
HMDT				Sg	Sg	00 51 36.8	-0.2
SLTI	Sal’it	1.15	196	Pg	Pg	00 51 23.1	-0.7
SLTI				Sg	Sg	00 51 38.6	0.0
DSI	Dead Sea	1.77	181	Sn	Sn	00 51 56.3	0.0
MZDA	Masada	2.03	181	Pn	Pn	00 51 36.3	-0.6
MZDA				Sn	Sn	00 52 03.7	+0.9

IDC 12 01:10:26.9±2.8, **2°77N**×**128°11E, h0**^{km}, **mb3.5**/3, **mb1 3.8**/3, **mb1mx3.5**/18, **mbtmp3.6**/3, **Error ellipse: s-maj=231.9km s-min=25.0km az=68.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.39	165	P	P	01 15 37.1	-0.4
	1.0nm,0.5s,baz=343,slow=10,SNR=6.1						
ASAR	Alice Springs	26.88	168	P	P	01 16 09.6	+0.1
	0.5nm,0.5s,baz=356,slow=8.0,SNR=7.7						
MKAR	Makanchi Array	59.12	325	P	P	01 20 29.5	+0.2
	0.2nm,0.4s,baz=115,slow=8.8,SNR=8.7						

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*NEIC **12** 01:11:53.8, 32°69S×71°85W, h15^{km}, ML2.8(GUC), After GUC.*

GUC 12 01:11:53.8±0.5, **32°69S**×**71°85W, h15**^{km}±70^{km}, **MD3.6, ML2.8, 1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PEL	Peldehue	1.07	115	*e*P	Pb	01 12 12.8	-1.3
PEL				*i* S	Sb	01 12 26.9	-1.0
TACH	Talagante	1.22	142	*e*P	Pn	01 12 15.1	-1.3
TACH				*i* S	Sb	01 12 30.9	-1.3
TACH	Talagante	1.22	142	*e*P	Pn	01 12 15.1	-1.3
TACH				*i* S	Sb	01 12 30.9	-1.3
PCH	Pirque	1.45	130	*e*P	Pn	01 12 18.7	-0.8
PCH				*i* S	Sn	01 12 38.0	-0.2
PCH	Pirque	1.45	130	*e*P	Pn	01 12 18.7	-0.8
PCH				*i* S	Sn	01 12 38.0	-0.2
FCH	Farellones	1.45	116	⇓*e*P	Pn	01 12 18.9	-0.6
FCH				*i* S	Sn	01 12 37.4	-0.9
CHCH	Chadas Angostu	1.59	141	*e*P	Pn	01 12 20.9	-0.5
CHCH				*i* S	Sn	01 12 41.4	-0.3
CHCH	Chadas Angostu	1.59	141	*e*P	Pn	01 12 20.9	-0.5
CHCH				*i* S	Sn	01 12 41.4	-0.3
CACH	El Canelo	1.76	144	P	Pn	01 12 24.9	+1.1
CACH				*i* S	Sn	01 12 47.9	+2.0
CACH	El Canelo	1.76	144	*e*P	Pn	01 12 24.9	+1.1
CACH				*i* S	Sn	01 12 47.9	+2.0
LMEL	Las Melosas	1.79	130	*e*P	Pn	01 12 24.3	+0.1
LMEL				*i* S	Sn	01 12 47.9	+1.2
LMEL	Las Melosas	1.79	130	*e*P	Pn	01 12 24.3	+0.1
LMEL				*i* S	Sn	01 12 47.9	+1.2
LMEL				AML	AML	01 12 51.3	
	comp=N,172nm,0.2s						

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*NEIC **12** 01:19:58.7±1.9, 21°58S×175°20W, h35^{km}, Error ellipse: s-maj=88.5km s-min=26.1km az=142.0*

IDC 12 01:19:52.8±1.9, **21°68S**×**175°05W, h0**^{km}, **mb4.2**/5, **mb1 4.4**/5, **mb1mx4.0**/17, **mbtmp4.2**/5, **Error ellipse: s-maj=87.9km s-min=28.8km az=141.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.80	246	P	P	01 27 27.3	-0.5
	0.6nm,0.4s,baz=319,slow=20,SNR=2.4						
ASAR	Alice Springs	46.95	257	P	P	01 28 27.4	+1.7
	2.1nm,0.6s,baz=97,slow=7.5,SNR=27						
ASAR				PcP	PcP	01 29 58.0	-0.3
	0.3nm,0.8s,baz=101,slow=4.2,SNR=4.2						
WRA	Warramunga Arr	47.18	262	P	P	01 28 26.8	-0.7
	0.8nm,0.3s,baz=97,slow=7.2,SNR=18						
PETK	Petropavlovsk-	78.14	344	P	P	01 31 53.9	+0.4
	1.1nm,0.6s,baz=156,slow=7.6,SNR=3.1						
PETK	Petropavlovsk-	78.14	344	P	P	01 31 53.9	+0.4
CMAR	Chiang Mai Arr	93.10	289	P	P	01 33 07.5	-1.7
	1.3nm,0.3s,baz=136,slow=1.8,SNR=5.4						
KURK	Kurchatov	116.73	317	PKP	PKPdf	01 38 39.1	+0.2
	0.3nm,0.7s,baz=86,slow=4.8,SNR=2.9						
BVAR	Borovoye Array	121.75	320	PKP	PKPdf	01 38 47.9	-0.6
	0.6nm,0.5s,baz=158,slow=0.8,SNR=5.1						
AKASG	Malin Array Be	145.35	333	PKP	PKPdf	01 39 31.1	-1.4
	1.2nm,0.4s,baz=40,slow=4.0,SNR=5.8						
BRTR	Keskin Array B	149.66	313	PKPbc	PKPbc	01 39 43.7	-1.0
	0.8nm,0.9s,baz=254,slow=3.7,SNR=3.2						
CLL	Collm	149.76	350	*e*PKPbc	PKPbc	01 39 47.0	+2.5
MMAI	Mount Meron Ar	150.79	299	PKPbc	PKPbc	01 39 47.2	-0.4
	0.8nm,0.4s,baz=70,slow=7.3,SNR=6.8						
GERES	GERESS Array B	152.00	348	PKPbc	PKPbc	01 39 51.7	+1.8
	0.6nm,0.7s,baz=127,slow=0.7,SNR=5.0						

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*MOS **12** 01:29:38.3±0.9, 2°81S×101°29E, h33^{km}, mb5.9/92, MS5.0/40, Error ellipse: s-maj=8.2km s-min=4.1km az=119.6*

*BJI **12** 01:29:38.1, 3°17S×101°07E, h58^{km}, mB5.4/40, mb5.4/67, Ms5.3/63, Ms7 5.1/53*

*ISCJB **12** 01:29:39.6±0.1, 2°96S±0°03×101°18E±0°02, h47^{km}, mb5.7/235, MS5.1/181, Error ellipse: s-maj=3.8km s-min=3.0km az=29.4*

*NEIC **12** 01:29:40.9±0.1, 3°01S×101°21E, mb5.6/92, MS5.2/133, MW5.4, Error ellipse: s-maj=5.1km s-min=3.3km az=34.0, Moment Tensor Solution. s40 Moment tensor: Scale 10^{17}Nm; M_{rr}1.00; $M_{\theta\theta}$-0.03; $M_{\phi\phi}$-0.97; $M_{r\theta}$0.81; $M_{\theta\phi}$0.59; $M_{\phi r}$-0.26; Best double couple: $M_0$1.40000×10^{17} NP1: ϕ_s129.00000°, δ64.00000°, λ63.00000°. NP2: ϕ_s359.00000°, δ37.00000°, λ134.00000°. Principal axes: T 1.4500, Plg60.0000°, Azm357.0000°; N -0.0400, Plg24.0000°, Azm141.0000°; P -1.4100, Plg15.0000°, Azm238.0000°;*

NEIC Felt [IV] at Mukomuko; [III] at Bengkulu and Padang. Also felt at Kapahiang.

*GCMT **12** 01:29:40.9±0.2, 3°21S×100°93E, h51^{km}, MW5.5/89, Moment Tensor Solution. s83,c144; s89,c182; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}1.75±.04; $M_{\theta\theta}$-0.83±.03; $M_{\phi\phi}$-0.92±.03; $M_{r\theta}$1.18±.03; $M_{\theta\phi}$1.13±.02; $M_{\phi r}$-0.70±.03; Best double couple: $M_0$2.33100×10^{17} NP1:ϕ_s328.00000°, δ28.00000°, λ109.00000°. NP2:ϕ_s126.00000°, δ63.00000°, λ80.00000°. Principal axes: T 2.2320, Plg70.0000°, Azm16.0000°; N 0.1990, Plg9.0000°, Azm131.0000°; P -2.4310, Plg18.0000°, Azm224.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*SZGRF **12** 01:29:40.7, 3°50S×101°00E, h50^{km}, mb5.8, MS4.8, Southern Sumatera, Indonesia*

*IDC **12** 01:29:41.0±0.5, 2°92S×101°33E, h52^{km}±3^{km}, mb5.1/32, mb1 5.1/33, mb1mx5.1/35, mbtmp5.1/33, MS4.8/28, Ms1 4.9/28, ms1mx4.7/39, Error ellipse: s-maj=12.1km s-min=6.9km az=46.0*

*DJA **12** 01:29:43, 3°04S×101°02E, h53^{km}, mb5.5/28*

ISC 12 01:29:41.5±0.1, **2°98S**±0°03×**101°16E**±0°02, **h49**^{km}, **h49**^{km}±.7^{km}**:pP-P, n1128,** σ**0^{s}92**/660, **mb5.7**/234, **MS5.1**/181, **252C-173D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSI	Kapahiang	1.58	115	P	Pn	01 30 08.0	+1.0
PDSI	Padang	2.17	341	P	Pn	01 30 15.1	-0.1
MNAI	Manna	2.26	127	P	Pn	01 30 19.3	+3.0
PPI	Padang Panjang	2.62	343	P	Pn	01 30 23.0	+1.6
RGRI	Rengat	2.87	24	P	Pn	01 30 19.3	-5.4
PMBI	Palembang	3.61	89	P	Pn	01 30 38.5	+3.6
MYKOM	Kota Tinggi	5.45	30	P	Pn	01 31 02.3	+2.1
	1μm,1.1s,7.9nm						
GSI	Gunungsitoli	5.56	320	P	Pn	01 31 01.0	-0.8
	2μm,1.1s,16nm						
SBJI	Serang	5.85	122	P	Pn	01 31 10.5	+4.8
	870nm,1.3s,4.9nm						
PSI	Prapat	6.16	339	P	Pn	01 31 10.0	0.0
	6.4nm,0.3s,baz=165,slow=10,SNR=24						
PSI				S	Sn	01 32 29.9	+11
	16nm,0.3s,baz=197,slow=13,SNR=4.1						
PSI				LR	LR	01 33 58.2	
	comp=Z,28μm,20.0s,baz=147,slow=42						
PSI	Prapat	6.16	339	P	Pn	01 31 10.0	0.0
PSI				S	Sn	01 32 29.9	+11
PSI				LR	LR	01 33 58.2	
IPM	Ipoh	7.41	359	P	Pn	01 31 30.2	+3.1
	695nm,0.9s,2.5nm						
LEM	Lembang	7.48	121	⇓*e*P	Pn	01 31 31.2	+3.1
LEM				*e*S	Sn	01 32 44.3	-7.3
KULM	Kulim	8.23	356	*e*Pn	Pn	01 31 40.2	+1.8
	645nm,1.0s						
KULM				*e*Sn	Sn	01 33 13.3	+3.2
KULM	Kulim	8.23	356	P	Pn	01 31 40.3	+1.9
	830nm,1.1s,9μm2.6nm						
XMIS	Christmas Isla	8.68	149	*e*P	Pn	01 31 36.9	-7.6
XMIS				*e*S	Sn	01 33 06.5	-15
XMIS	Christmas Isla	8.68	149	*e*Pn	Pn	01 31 37.5	-7.1
XMIS				*e*Sn	Sn	01 33 08.0	-13
SMRI	Semarang	10.09	114	P	Pn	01 32 11.3	+7.5
SNG	Songkhla	10.11	357	P	Pn	01 32 04.0	-0.1
	760nm,0.9s						
KSM	Kuching	10.16	64	*e*Pn	Pn	01 32 06.5	+1.7
	101nm,1.0s						
KSM				*e*Sn	Sn	01 34 08.7	+11
KSM	Kuching	10.16	64	P	Pn	01 32 08.8	+4.0
	122nm,1.1s,1μm						
UGM	Wanagama	10.53	118	P	Pn	01 32 11.4	+1.6
	392nm,1.5s						
SJI	Sawahan	11.57	115	P	Pn	01 32 24.3	+0.3
	218nm,1.4s						
SBUM	Sibu	12.30	64	P	Pn	01 32 38.9	+4.8
	330nm,1.9s,4μm						
NBBI	Negara	14.42	112	P	Pn	01 33 05.7	+2.8
	294nm,1.1s						
KKM	Kota Kinabalu	17.51	59	*e*Pn	Pn	01 33 43.5	+1.3
	203nm,1.1s						
KKM	Kota Kinabalu	17.51	59	P	Pn	01 33 45.8	+3.6
	195nm,1.3s,3μm						
MKS	Makassar	18.40	98	⇓*e*P	Pn	01 33 54.8	+1.6
UBT	Ubonrachathani	18.51	12	P	pP	01 34 05.5	+0.4
NST	Nakhon Sawan	18.56	357	P	Pn	01 33 52.0	-3.1
KAPI	Kappang	18.66	97	*e*P	Pn	01 33 56.3	0.0
	570nm,1.1s						
KAPI	Kappang	18.66	97	P	Pn	01 33 58.6	+2.3
	SNR=7.0						
KAPI				P		01 33 58.6	
	SNR=7.0						
KAPI	Kappang	18.66	97	P	Pn	01 33 56.8	+0.5
	289nm,1.1s,3μm						
MYLDM	Lahad Datu	19.13	65	P	Pn	01 34 03.6	+1.7
	564nm,1.1s,7μm						
KKTK	Khon Kaen	19.27	5	⇓P	Pn	01 34 02.0	-1.5
	1μm,1.0s						
BDT	Bhumibol Dam	20.21	354	⇓P	P	01 34 10.0	-2.4
	40nm,1.0s						
BATP	Bataraza	20.30	55	*e*P	P	01 34 13.2	-0.2
CMAR	Chiang Mai Arr	21.42	354	P	P	01 34 23.7	-1.7
CMAR						01 38 27.6	
CMAR				pmax	pmax		
	comp=Z,70nm,0.9s						
CMAR				pmax	pmax		
	comp=Z,12nm,0.9s						
CMAR				pmax	pmax		
	comp=N,9.0nm,1.0s						
CMAR				MLR	MLR		
	comp=Z,3μm,18.2s						
CMAR	Chiang Mai Arr	21.42	354	P	P	01 34 23.7	-1.7
	comp=Z,70nm,0.9s,mb5.0,baz=185,slow=10,SNR=104						
CMAR				PcP	PcP	01 38 27.6	-0.1
	comp=Z,12nm,0.9s,baz=217,slow=3.2,SNR=6.3						
CMAR				ScP	ScP	01 41 57.7	-3.2
	comp=Z,8.5nm,1.0s,baz=211,slow=1.6,SNR=7.9						
CMAR				LR	LR	01 43 34.2	
	comp=Z,3μm,18.1s,MS4.8,baz=177,slow=39						
KDI	Kendari	21.44	93	P	P	01 34 34.7	+8.9
PPR	Puerto Princes	21.61	54	⇑*e*P	P	01 34 28.6	+1.0
CHG	Chiang Mai	21.77	354	⇓P	P	01 34 26.3	-2.9
	comp=Z,60nm,0.9s,mb5.0						
CHTO	Chiang Mai	21.77	354	*e*P	P	01 34 26.4	-2.8
	comp=Z,46nm,0.8s,mb5.0						
CHTO				LR	LR		
	comp=Z,4μm,22.0s,MS4.7						
CHTO	Chiang Mai	21.77	354	P	P	01 34 30.3	+1.1
	SNR=17						
CHTO				P		01 34 30.3	
	SNR=17						
CHTO	Chiang Mai	21.77	354	P	P	01 34 26.7	-2.5
	comp=Z,82nm,0.9s,mb5.1						
PALK	Pallekele	22.82	297	*i* P	P	01 34 43.2	+2.8
PALK	Pallekele	22.82	297	*e*P	P	01 34 42.3	+1.8
	comp=Z,202nm,1.5s,mb5.3						
PALK	Pallekele	22.82	297	P	P	01 34 43.3	+2.8
	SNR=6.0						
PALK				P		01 34 43.3	
	SNR=6.0						
PALK	Pallekele	22.82	297	P	P	01 34 43.3	+2.9
	comp=Z,55nm,1.5s,mb4.8						
ENPP	El Nido	23.00	52	*e*P	P	01 34 42.9	+0.6
QIZ	Qiongzhong	23.48	21	⇑P	P	01 34 47.4	+0.3
QIZ				pP		01 34 59.8	
QIZ				S	S	01 38 59.4	+2.2
QIZ				pmax	pmax		
	comp=Z,180nm,1.5s,mb5.3						
QIZ				pmax	pmax		
	comp=Z,800nm,9.3s						
QIZ				LR	LR		
	comp=N,3μm,21.5s						
QIZ				LR	LR		
	comp=Z,4μm,23.8s,MS4.8						
QIZ	Qiongzhong	23.48	21	*e*P	P	01 34 47.4	+0.3
	comp=Z,340nm,1.4s,mb5.6						
QIZ				LR	LR		
	comp=Z,4μm,21.0s,MS4.9						
CUYO	Cuyo Island	24.07	55	*e*P	P	01 34 53.9	+1.4
BUSP	Coron	24.08	51	*e*P	P	01 34 53.4	+0.8
SJMP	San Jose	25.07	52	*e*P	P	01 35 02.5	+0.9
LUBP	Lubang	25.19	48	*e*P	P	01 35 02.9	+0.3
GUIM	Jordan	25.25	57	*e*P	P	01 35 04.3	+1.0
MBWA	Marble Bar	25.56	136	*e*P	P	01 35 04.5	-1.5
	comp=Z,83nm,1.2s,mb5.1						
MBWA				LR	LR		
	comp=Z,2μm,22.0s,MS4.7						
MBWA	Marble Bar	25.56	136	P	P	01 35 08.3	+2.3
	comp=Z,88nm,1.5s,mb5.1						
OTRP	Odiongan	25.73	53	*e*P	P	01 35 08.4	+0.8
RCP	Roxas	25.88	56	⇑*e*P	P	01 35 09.7	+0.7
TGY	Tagaytay City	25.94	49	P	P	01 35 08.5	-1.0
TGY				pmax	pmax		
	comp=Z,911nm,0.7s						
TGY				MLR	MLR		
	comp=Z,10.0nm,22.0s						
TGY	Tagaytay City	25.94	49	P	P	01 35 08.5	-0.9
	comp=Z,911nm,0.7s,mb6.4,baz=177,slow=7.8,SNR=28						
TGY				LR	LR	01 45 08.4	
	comp=Z,10nm,22.0s,baz=222,slow=36						
BUKP	Musuan	26.17	66	*e*P	P	01 35 13.6	+2.0
MDRS	Chennai	26.18	308	⇑*e*x	x	01 34 51.2	
MDRS				*e*x	x	01 35 34.2	
SCZP	Santa Cruz	26.30	44	*e*P	P	01 35 12.7	0.0
DAV	Davao City (W)	26.34	68	P	P	01 35 12.0	-1.1
	comp=Z,194nm,0.4s,mb6.0,baz=204,slow=3.0,SNR=6.2						
DAV				LR	LR	01 46 27.3	
	comp=Z,4μm,21.9s,MS4.9,baz=58,slow=38						
DAV	Davao City (W)	26.34	68	P	P	01 35 17.5	+4.3
	comp=Z,523nm,0.7s,mb6.2						
LBMI	Labuha	26.43	85	P	P	01 35 15.2	+1.2
	comp=Z,272nm,1.2s,comp=Z,2μm,mb5.7						
TNTI	Ternate	26.46	82	P	P	01 35 15.4	+1.1
	comp=Z,156nm,1.2s,mb5.4						
TRD	Trivandrum	26.70	296	⇑*e*x	x	01 35 30.0	
TRD				*e*x	x	01 39 16.0	
VIS	Vishakhapatnam	27.06	320	*e*PKP	P	01 35 19.6	0.0
VIS				AMb	AMB	01 35 25.2	
	comp=Z,151nm,1.3s,mb5.4						
BALP	Baler	27.46	47	*e*P	P	01 35 23.1	0.0
BWNR	Bhubaneshwar	27.61	328	*e*x	x	01 35 18.0	
KMI	Kunming	27.98	3	⇑P	P	01 35 28.0	+0.3
KMI				PP	PP	01 36 15.7	-16
KMI				S	S	01 40 09.0	+0.4
KMI				SS		01 41 31.1	
KMI				PcS	PcS	01 42 24.9	+0.6
KMI				pmax	pmax		
	comp=Z,27nm,0.9s,mb4.9						
KMI				pmax	pmax		
	comp=Z,320nm,7.3s						
KMI				LR	LR		
	comp=N,4μm,17.8s,MS5.2						
KMI				LR	LR		
	comp=E,3μm,15.2s,MS5.2						
KMI				LR	LR		
	comp=Z,5μm,17.2s,MS5.1						
CAL	Calcutta	28.29	334	*e*PKP	P	01 35 30.4	-0.1
CAL				*e*x	x	01 41 11.3	
FITZ	Fitzroy Crossi	28.31	124	*e*P	P	01 35 29.2	-1.5
	comp=Z,55nm,0.9s,mb5.2						
FITZ	Fitzroy Crossi	28.31	124	P	P	01 35 29.4	-1.4
	comp=Z,23nm,1.0s,mb4.8,baz=317,slow=5.8,SNR=25						
FITZ				LR	LR	01 47 59.4	
	comp=Z,885nm,20.7s,MS4.3,baz=303,slow=39						
FITZ	Fitzroy Crossi	28.31	124	*e*P	P	01 35 29.4	-1.3
	comp=Z,45nm,1.0s,mb5.1						
FITZ	Fitzroy Crossi	28.31	124	P	P	01 35 29.9	-0.8
	comp=Z,128nm,1.3s,mb5.4						
AGT	Agartala	28.39	341	*e*x	P	01 35 28.0	-3.4
AGT				*e*x	x	01 35 57.0	
GZH	Guangzhou	28.51	24	P	P	01 35 38.4	+6.0
GZH				S	S	01 40 28.1	+11
GZH				pmax	pmax		
	comp=Z,250nm,0.8s,mb6.0						
GZH				LR	LR		
	comp=N,3μm,16.7s,MS5.0						
GZH				LR	LR		
	comp=E,2μm,15.9s,MS5.0						
GZH				LR	LR		
	comp=Z,4μm,14.9s,MS5.2						
DGAR	Diego Garcia	28.92	260	P	P	01 35 37.9	+1.7
GYA	Guiyang	29.75	10	⇑*i*P	P	01 35 44.7	+1.3
GYA				pP	pP	01 35 55.0	-1.1
GYA				PcP	PcP	01 38 47.5	+1.0
GYA				S	S	01 40 38.2	+1.8
GYA				SS	SS	01 42 13.0	-32
GYA				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.2						
GYA				pmax	pmax		
	comp=Z,180nm,4.6s						
GYA				LR	LR		
	comp=N,6μm,17.8s						
GYA				LR	LR		
	comp=Z,4μm,16.0s,MS5.2						
GYA				LR	LR		
	comp=Z,8μm,17.4s						
SHL	Shillong	29.77	343	*e*PKP	P	01 35 44.5	+0.9
SHL				*e*x	x	01 40 33.0	
HYB	Hyderabad	30.14	313	⇑*i*P	P	01 35 47.0	0.0
HYB				*e*S	S	01 40 46.0	+3.3
HYB	Hyderabad	30.14	313	*e*P	P	01 35 47.0	0.0
HYB				*e*		01 35 54.0	
HYB				*e*S	S	01 40 40.0	-2.7
BOK	Bokaro	30.49	332	*e*PKP	P	01 35 51.6	+1.6
BOK				AMb	AMB	01 35 53.7	
	comp=Z,405nm,1.6s,mb5.9						
BOK				*e*S	S	01 40 48.4	+0.3
MUN	Mundaring	32.13	155	*e*P	P	01 36 04.1	-0.3
TPUB	Ta-pu	32.29	35	*e*P	P	01 36 06.2	+0.4
	comp=Z,236nm,1.1s,mb5.9						
KAKA	Kakadu	32.42	109	*e*P	P	01 36 04.1	-3.1
	comp=Z,12nm,0.4s,mb5.1						
KAKA	Kakadu	32.42	109	P	P	01 36 10.1	+3.0
	comp=Z,53nm,0.9s,mb5.4						
ODAN	Odare	32.51	337	*e*P	P	01 36 08.3	+0.5
	comp=Z,1μm,0.9s,mb6.8						
QZH	Quanzhou	32.51	30	⇑*i*P	P	01 36 08.8	+1.0
QZH				sP	sP	01 36 26.9	+0.6
QZH				S	S	01 41 21.5	+1.8
QZH				pmax	pmax		
	comp=Z,250nm,1.1s,mb6.1						
QZH				LR	LR		
	comp=N,3μm,14.2s,MS5.2						
QZH				LR	LR		
	comp=E,2μm,12.5s,MS5.2						
QZH				LR	LR		
	comp=Z,4μm,28.6s						
YULB	Yu-li	32.75	36	*e*P	P	01 36 10.0	+0.1
	comp=Z,81nm,1.0s,mb5.6						
TAPN	Taplejung	32.83	338	*e*P	P	01 36 11.6	+1.1
	comp=Z,2μm,0.9s,mb7.0						
SSLB	Suanglung	32.86	35	*e*P	P	01 36 11.1	+0.3
	comp=Z,244nm,1.5s,mb5.9						
RAMN	Ramite	32.91	336	*e*P	P	01 36 12.4	+1.2
	comp=Z,419nm,0.9s,mb6.4						
JBP	Jabalpur	33.20	323	⇑*i*P	P	01 36 14.4	+0.6
JBP				*e*x	x	01 36 17.2	
	comp=Z,148nm,1.7s						
JBP				*e*S	S	01 41 30.8	+0.5
NWAO	Narrogin (SRO)	33.38	155	*e*P	P	01 36 16.3	+1.0
NWAO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NWAO				MLR	MLR		
	comp=Z,2μm,21.0s						
NWAO	Narrogin (SRO)	33.38	155	P	P	01 36 14.2	-1.1
	comp=Z,22nm,1.1s,mb5.0,baz=230,slow=10,SNR=3.8						
NWAO				LR	LR	01 48 16.9	
	comp=Z,3μm,21.2s,MS5.0,baz=331,slow=33						
NWAO	Narrogin (SRO)	33.38	155	*e*P	P	01 36 16.2	+0.9

	comp=Z,8.6nm,0.8s,mb4.7						
NWAO				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
KAD	**Karad**	**33.39**	**308**	*e*PKP	**P**	**01 36 16.3**	**+0.8**
KAD				AMb	AMB	01 36 16.8	
	comp=Z,80nm,0.8s,mb5.7						
NACB	**Ninganchiao**	**33.52**	**35**	*e*P	**P**	**01 36 16.9**	**+0.3**
	comp=Z,83nm,0.9s,mb5.7						
JIRN	**Jiri**	**33.71**	**336**	*e*P	**P**	**01 36 19.4**	**+1.2**
	comp=Z,2µm,1.0s,mb7.0						
YHNB	**Yeheng**	**33.78**	**34**	*e*P	**P**	**01 36 17.9**	**-1.0**
	comp=Z,292nm,1.5s,mb6.0						
YHNB				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
CD2	**Chengdu**	**33.79**	**4**	P	**P**	**01 36 17.3**	**-1.6**
CD2				PP	PP	01 37 30.9	-5.3
CD2				PcP	PcP	01 38 53.0	-4.3
CD2				S	**S**	**01 41 36.0**	**-3.4**
CD2				SS	SS	01 43 46.3	-21
CD2				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
CD2				pmax	pmax		
	comp=Z,250nm,10.2s						
CD2				LR	LR		
	comp=N,5µm,20.2s						
CD2				LR	LR		
	comp=Z,6µm,22.0s,MS5.3						
LSA	**Lhasa**	**33.88**	**344**	P	**P**	**01 36 20.0**	**+0.3**
LSA				sP	sP	01 36 37.3	-0.9
LSA				S	**S**	**01 41 42.8**	**+2.0**
LSA				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.5						
LSA				LR	LR		
	comp=N,1µm,32.4s,MS4.6						
LSA				LR	LR		
	comp=E,2µm,36.6s,MS4.6						
LSA				LR	LR		
	comp=Z,2µm,32.4s,MS4.6						
LSA	**Lhasa**	**33.88**	**344**	*e*P	**P**	**01 36 20.0**	**+0.3**
LSA				pmax	pmax		
	comp=Z,130nm,1.3s,mb5.7						
LSA				MLR	MLR		
	comp=Z,685nm,19.0s,MS4.4						
LSA	**Lhasa**	**33.88**	**344**	*e*P	**P**	**01 36 20.0**	**+0.4**
	comp=Z,130nm,1.3s,mb5.7						
LSA				LR	LR		
	comp=Z,685nm,19.0s,MS4.4						
PKI	**Pulchoki**	**33.96**	**334**	*e*P	**P**	**01 36 21.0**	**+0.6**
	comp=Z,467nm,1.1s,mb6.3						
GUN	**Gumba**	**34.06**	**335**	*e*P	**P**	**01 36 22.2**	**+1.0**
	comp=Z,2µm,0.9s,mb7.0						
TATO	**Taipei**	**34.09**	**34**	PFAKE		01 36 30.0	+8.5
TATO				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
DMN	**Daman**	**34.12**	**334**	*e*P	**P**	**01 36 22.6**	**+0.8**
KKN	**Kakani**	**34.20**	**334**	*e*P	**P**	**01 36 23.2**	**+0.7**
	comp=Z,1µm,1.0s,mb6.7						
POO	**Poona**	**34.35**	**310**	*e*PKP	**P**	**01 36 24.1**	**+0.2**
POO				AMb	AMB	01 36 26.1	
	comp=Z,104nm,1.6s,mb5.5						
GKN	**Gorkha**	**34.67**	**334**	*e*P	**P**	**01 36 27.1**	**+0.6**
	comp=Z,1µm,1.1s,mb6.8						
BHPL	**Bhopal**	**34.85**	**320**	*e*PKP	**P**	**01 36 28.0**	**-0.1**
BHPL				AMb	AMB	01 36 30.3	
	comp=Z,80nm,1.2s,mb5.5						
KOLN	**Koldanda**	**34.94**	**332**	*e*P	**P**	**01 36 29.8**	**+0.9**
	comp=Z,612nm,0.8s,mb6.6						
DANN	**Dangsing**	**35.36**	**333**	*e*P	**P**	**01 36 33.2**	**+0.7**
	comp=Z,438nm,0.5s,mb6.7						
WHN	**Wuhan**	**35.64**	**20**	⇑P	**P**	**01 36 34.7**	**-0.1**
WHN				pP	pP	01 36 48.0	+0.3
WHN				sP	sP	01 36 53.5	+0.1
WHN				S	**S**	**01 42 06.4**	**-1.4**
WHN				pmax	pmax		
	comp=Z,150nm,0.9s,mb5.9						
WHN				pmax	pmax		
	comp=Z,990nm,8.1s						
WHN				LR	LR		
	comp=N,4µm,13.2s,MS5.4						
WHN				LR	LR		
	comp=E,1µm,12.2s,MS5.4						
WHN				LR	LR		
	comp=Z,6µm,15.7s,MS5.4						
WRA	**Warramunga Arr**	**36.50**	**120**	P	**P**	**01 36 40.8**	**-1.6**
WRA				S	**S**	**01 42 15.5**	**-5.9**
WRA				pmax	pmax		
	comp=Z,73nm,1.0s						
WRA				smax			
	comp=N,7.0nm,0.9s						
WRA				MLR	MLR		
	comp=Z,746nm,20.6s						
WRA	**Warramunga Arr**	**36.50**	**120**	P	**P**	**01 36 40.8**	**-1.6**
	comp=Z,73nm,0.9s,mb5.5,baz=306,slow=9.0,SNR=273						
WRA				S	**S**	**01 42 15.5**	**-5.9**
	comp=Z,6.8nm,0.9s,baz=293,slow=16,SNR=8.2						
WRA				LR	LR	01 53 38.8	
	comp=Z,746nm,20.6s,MS4.5,baz=295,slow=40						
WRAB	**Tennant Creek**	**36.51**	**120**	*e*P	**P**	**01 36 41.0**	**-1.4**
	comp=Z,142nm,1.1s,mb5.7						
WRAB				LR	LR		
	comp=Z,969nm,20.0s,MS4.6						
WRAB	**Tennant Creek**	**36.51**	**120**	P	**P**	**01 36 40.9**	**-1.5**
	comp=Z,161nm,1.2s,comp=Z,2µm,mb5.7						
WB2	**Warramunga Arr**	**36.51**	**120**	*e*P	**P**	**01 36 40.8**	**-1.7**
WB2				*e*S	**S**	**01 42 16.2**	**-5.3**
XAN	**Xi’an**	**37.54**	**11**	P	**P**	**01 36 49.7**	**-1.3**
XAN				pP	pP	01 37 02.2	-1.7
XAN				PP	PP	01 38 16.8	-0.7
XAN				S	**S**	**01 42 32.2**	**-4.6**
XAN				PcS	PcS	01 42 57.4	+0.5
XAN				SS	SS	01 45 12.3	-11
XAN				ScS	ScS	01 46 58.8	-1.5
XAN				pmax	pmax		
	comp=Z,230nm,0.9s,mb5.9						
XAN				pmax	pmax		
	comp=Z,390nm,12.4s						
XAN				LR	LR		
	comp=N,1µm,22.9s,MS5.1						
XAN				LR	LR		
	comp=E,3µm,23.2s,MS5.1						
XAN				LR	LR		
	comp=Z,5µm,17.7s						
FORT	**Forrest**	**37.55**	**140**	*e*P	**P**	**01 36 55.4**	**+4.3**
	comp=Z,32nm,0.7s,mb5.2						
FORT	**Forrest**	**37.55**	**140**	*e*P	**P**	**01 36 51.1**	**0.0**
	comp=Z,36nm,0.6s,mb5.3						
FORT				*e*pP	pP	01 37 04.2	+0.1
ASAR	**Alice Springs**	**37.74**	**126**	P	**P**	**01 36 51.9**	**-1.0**
ASAR						01 39 08.9	
ASAR				S	**S**	**01 42 35.8**	**-4.4**
ASAR				pmax	pmax		
	comp=Z,25nm,0.7s						
ASAR				pmax	pmax		
	comp=Z,14nm,0.9s						
ASAR				smax			
	comp=N,7.0nm,0.7s						
ASAR	**Alice Springs**	**37.74**	**126**	P	**P**	**01 36 51.9**	**-1.0**
	comp=N,25nm,0.7s,mb5.0,baz=298,slow=7.7,SNR=109						
ASAR				PcP	PcP	01 39 08.9	-0.3
	comp=N,14nm,0.9s,baz=308,slow=2.1,SNR=7.0						
ASAR				S	**S**	**01 42 35.8**	**-4.4**
	comp=N,7.3nm,0.7s,baz=296,slow=16,SNR=15						
LGTI	**Lohaghat**	**37.97**	**330**	*e*PKP	**P**	**01 36 54.0**	**-0.7**
LGTI				*e*S	**S**	**01 42 46.2**	**+2.8**
PTH	**Pithoragarh**	**38.06**	**330**	*e*PKP	**P**	**01 36 56.5**	**+1.0**
PTH				*e*x	x	01 38 21.0	
NJ2	**Nanjing**	**38.68**	**24**	*e*P	**P**	**01 37 01.1**	**+0.5**
NJ2				pP	pP	01 37 13.6	0.0
NJ2				sP	sP	01 37 19.0	-0.3
NJ2				PP	PP	01 38 34.3	+4.3
NJ2				S	**S**	**01 42 53.5**	**-0.6**
NJ2				sS	sS	01 43 15.5	-0.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
NJ2				pmax	pmax		
	comp=Z,360nm,4.6s						
NJ2				LR	LR		
	comp=N,2µm,21.0s,MS5.1						
NJ2				LR	LR		
	comp=E,2µm,19.0s,MS5.1						
NJ2				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
SSE	**Sheshan**	**38.89**	**28**	⇑P	**P**	**01 37 03.1**	**+0.7**
SSE				pP	pP	01 37 15.9	+0.5
SSE				sP	sP	01 37 21.9	+0.8
SSE				S	**S**	**01 42 55.2**	**-2.1**
SSE				pmax	pmax		
	comp=Z,78nm,1.5s,mb5.2						
SSE				pmax	pmax		
	comp=Z,340nm,4.2s						
SSE				LR	LR		
	comp=N,2µm,19.2s,MS4.9						
SSE				LR	LR		
	comp=E,450nm,19.2s,MS4.9						
SSE				LR	LR		
	comp=Z,2µm,24.7s						
AJM	**Ajmer**	**38.92**	**320**	*e*PKP	**P**	**01 37 02.6**	**-0.1**
AJM				AMb	AMB	01 37 05.2	
	comp=Z,137nm,0.8s,mb5.7						
LZH	**Lanzhou**	**38.95**	**3**	⇑P	**P**	**01 37 02.4**	**-0.4**
LZH				PP	PP	01 38 36.5	+3.7
LZH				PcP	PcP	01 39 12.6	-0.1
LZH				ScP	ScP	01 42 56.3	-0.8
LZH				S	**S**	**01 42 59.5**	**+1.5**
LZH				SS	SS	01 45 46.5	-4.9
LZH				ScS	ScS	01 47 06.7	-1.5
LZH				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.5						
LZH				pmax	pmax		
	comp=Z,490nm,4.5s						
LZH				LR	LR		
	comp=N,4µm,15.7s						
LZH				LR	LR		
	comp=Z,7µm,19.2s,MS5.5						
NDI	**New Delhi**	**38.99**	**325**	*i* P	**P**	**01 37 01.5**	**-1.7**
NDI				*e*x	x	01 42 47.5	
JAY	**Jayapura**	**39.50**	**90**	P	**P**	**01 37 07.4**	**-0.4**
	comp=Z,43nm,0.8s,mb5.2						
DDI	**Dehra Dun**	**39.80**	**328**	⇑*i*P	**P**	**01 37 09.6**	**-0.4**
DDI				*e*x	x	01 43 08.6	
SDNR	**Sundarnagar**	**41.30**	**328**	*e*PKP	**P**	**01 37 23.0**	**+0.6**
SDNR				*e*S	**S**	**01 43 35.0**	**+1.7**
BHK	**Bhakra**	**41.53**	**327**	*e*x	**P**	**01 37 19.4**	**-4.8**
TIA	**Tai’an**	**41.75**	**20**	*e*P	**P**	**01 37 25.0**	**-0.9**
GTA	**Gaotai**	**42.20**	**358**	*e*P	**P**	**01 37 28.8**	**-0.8**
GTA				pP	pP	01 37 40.8	-1.9
GTA				sP	sP	01 37 46.5	-1.9
GTA				PcP	PcP	01 39 23.5	+0.4
GTA				ScP	ScP	01 43 08.9	-0.9
GTA				PcS	PcS	01 43 13.6	-1.3
GTA				S	**S**	**01 43 43.3**	**-3.1**
GTA				SS	SS	01 46 45.3	-11
GTA				ScS	ScS	01 47 23.9	-3.7
GTA				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.6						
GTA				pmax	pmax		
	comp=Z,320nm,8.7s						
GTA				LR	LR		
	comp=N,2µm,18.9s,MS5.1						
GTA				LR	LR		
	comp=E,1µm,20.4s,MS5.1						
GTA				LR	LR		
	comp=Z,4µm,20.1s,MS5.2						
THN	**Thein Dam**	**42.69**	**328**	*e*PKP	**P**	**01 37 32.0**	**-1.7**
THN				*e*x	x	01 44 02.0	
BTO	**Baotou**	**44.13**	**10**	*e*P	**P**	**01 37 44.6**	**-0.5**
BBOO	**Buckleboo**	**44.14**	**136**	*e*P	**P**	**01 37 44.5**	**-0.9**
	comp=Z,13nm,0.5s,mb4.9						
HHC	**Hu-ho-hao-te**	**44.65**	**11**	*e*P	**P**	**01 37 49.9**	**+0.6**
HHC				pP	pP	01 37 59.8	-2.6
HHC				PcP	PcP	01 39 27.3	-4.0
HHC				PP	PP	01 39 35.0	+0.7
HHC				PcS	PcS	01 43 19.9	-4.8
HHC				S	**S**	**01 44 24.2**	**+2.1**
HHC				sS	sS	01 44 47.1	+3.0
HHC				ScS	ScS	01 47 40.0	-2.8
HHC				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.4						
HHC				pmax	pmax		
	comp=Z,470nm,6.4s						
HHC				LR	LR		
	comp=N,2µm,18.4s,MS5.2						
HHC				LR	LR		
	comp=E,1µm,14.7s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,18.4s,MS5.0						
BJT	**Baijiatuau**	**44.95**	**16**	*e*P	**P**	**01 37 51.8**	**+0.1**
BJT				e*PP	pP	01 38 03.3	-1.6
BJT				pmax	pmax		
	comp=Z,173nm,1.2s						
BJT				MLR	MLR		
	comp=Z,4µm,20.0s						
BJT	**Baijiatuau**	**44.95**	**16**	*e*P	**P**	**01 37 51.8**	**+0.1**
	comp=Z,173nm,1.2s,mb5.8						
BJT				*e*pP	pP	01 38 03.3	-1.6
BJT				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
NIL	**Nilore**	**44.95**	**326**	P	**P**	**01 37 52.2**	**+0.3**
BJI	**Beijing**	**44.98**	**16**	P	**P**	**01 37 51.5**	**-0.4**
BJI				pP	pP	01 38 03.3	-1.8
BJI				sP	sP	01 38 09.9	-0.9
BJI				PP	PP	01 39 40.9	+3.1
BJI				S	**S**	**01 44 25.8**	**-1.1**
BJI				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.2						
BJI				pmax	pmax		
	comp=Z,470nm,4.9s						
BJI				LR	LR		
	comp=N,4µm,19.5s,MS5.4						
BJI				LR	LR		
	comp=E,3µm,19.5s,MS5.4						
BJI				LR	LR		
	comp=Z,3µm,20.1s,MS5.2						
MSEY	**Mahe Island**	**45.60**	**266**	PFAKE		01 38 10.0	+13
MSEY				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
DL2	**Dalian**	**45.76**	**22**	P	**P**	**01 37 57.2**	**-0.9**
DL2				*e*S	**S**	**01 44 37.9**	**-0.4**
DL2				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.1						
DL2				pmax	pmax		
	comp=Z,430nm,3.2s						
INCN	**Inchon**	**46.69**	**28**	PFAKE		01 38 20.0	+14
INCN				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
CTA	**Charters Tower**	**47.13**	**115**	P	**P**	**01 38 08.2**	**-1.1**
CTA				pmax	pmax		
	comp=Z,105nm,1.1s						
CTA				MLR	MLR		
	comp=Z,951nm,21.0s						
CTA	**Charters Tower**	**47.13**	**115**	*e*P	**P**	**01 38 08.0**	**-1.3**
	comp=Z,66nm,1.0s,mb5.5						
CTA	**Charters Tower**	**47.13**	**115**	P	**P**	**01 38 08.2**	**-1.1**
	comp=Z,104nm,1.1s,mb5.7,baz=289,slow=9.1,SNR=31						
CTA				LR	LR	02 00 02.4	
	comp=Z,951nm,21.0s,MS4.7,baz=156,slow=39						
CTAO	**Charters Tower**	**47.13**	**115**	*e*P	**P**	**01 38 08.2**	**-1.0**
CTAO				*e*pP	pP	01 38 19.6	-2.9
CTAO				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
CTAO	**Charters Tower**	**47.13**	**115**	P	**P**	**01 38 08.1**	**-1.2**
	comp=Z,141nm,1.2s,mb5.8						
KSRS	**Korea Array**	**47.29**	**29**	P	**P**	**01 38 09.9**	**-0.3**
KSRS				*PP	pP	01 38 21.6	-1.8
KSRS						01 39 55.9	
KSRS				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.3						
KSRS				pmax	pmax		
	comp=Z,108nm,1.1s,mb5.7						
KSRS				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
KSRS				MLR	MLR		
	comp=Z,934nm,18.1s,MS4.8						
KSRS	**Korea Array**	**47.29**	**29**	P	**P**	**01 38 09.8**	**-0.3**
	comp=Z,35nm,0.9s,mb5.3,baz=223,slow=7.6,SNR=40						
KSRS				pP	pP	01 38 21.6	-1.8
	comp=Z,108nm,1.1s,baz=217,slow=7.8,SNR=14						
KSRS				PP	PP	01 39 55.9	-5.8
	comp=Z,11nm,1.0s,baz=211,slow=5.5,SNR=5.2						
KSRS				LR	LR	02 00 14.2	
	comp=Z,934nm,18.1s,MS4.8,baz=233,slow=39						
STKA	**Stephens Creek**	**47.63**	**132**	*e*P	**P**	**01 38 12.4**	**-0.6**
	comp=Z,54nm,1.0s,mb5.5						
STKA				*e*S	**S**	**01 45 01.7**	**-3.7**
STKA	**Stephens Creek**	**47.63**	**132**	P	**P**	**01 38 12.5**	**-0.5**
	comp=Z,54nm,1.1s,mb5.5,baz=305,slow=8.4,SNR=39						
STKA				LR	LR	01 58 43.7	
	comp=Z,2µm,21.9s,MS5.0,baz=293,slow=37						
WMQ	**Urumqi**	**48.14**	**347**	⇑*i*P	**P**	**01 38 17.4**	**+0.8**
WMQ				pP	pP	01 38 28.0	-1.9
WMQ				PcP	PcP	01 39 44.0	+0.5
WMQ				PP	PP	01 40 10.0	+0.7
WMQ				sS	sS	01 45 33.0	-1.2
WMQ				pmax	pmax		
	comp=Z,510nm,1.0s,mb6.5						
WMQ				pmax	pmax		
	comp=Z,930nm,3.5s						
WMQ				LR	LR		
	comp=N,2µm,16.6s,MS5.3						
WMQ				LR	LR		
	comp=E,2µm,21.5s,MS5.3						
WMQ				LR	LR		
	comp=Z,2µm,23.6s,MS5.0						
KSH	**Kashi**	**48.22**	**334**	⇑*i*P	**P**	**01 38 16.3**	**-1.0**
KSH				*e*PcP	PcP	01 39 45.1	+1.2
KSH				PP	PP	01 40 07.0	-3.1
KSH				*e*PcS	PcS	01 43 39.2	-0.5
KSH				S	**S**	**01 45 09.8**	**-3.5**
KSH				*e*ScS	ScS	01 48 04.1	-2.1
KSH				*e*SS	SS	01 48 32.3	-11
KSH				pmax	pmax		
	comp=Z,100nm,0.6s,mb6.0						
KSH				pmax	pmax		
	comp=Z,1µm,3.4s						
KSH				LR	LR		
	comp=N,410nm,8.5s						
KSH				LR	LR		
	comp=E,340nm,9.3s						
KSH				LR	LR		
	comp=Z,540nm,5.9s						
WBK	**Wadi Bani Khal**	**48.40**	**304**	P	**P**	**01 38 20.6**	**+1.6**
	SNR=5.7						
SNY	**Shenyang**	**49.03**	**22**	⇑P	**P**	**01 38 22.0**	**-1.5**
SNY				S	**S**	**01 45 25.8**	**+1.1**
SNY				pmax	pmax		
	comp=Z,32nm,1.5s,mb5.1						
SNY				pmax	pmax		
	comp=Z,320nm,6.5s						
SNY				LR	LR		
	comp=N,2µm,18.6s,MS5.1						
SNY				LR	LR		
	comp=E,1µm,21.6s,MS5.1						
SNY				LR	LR		
	comp=Z,1µm,19.8s,MS4.9						
SMDO	**Samad**	**49.35**	**304**	⇓P	**P**	**01 38 27.0**	**+0.7**
	SNR=7.8						
BIDO	**Bidbid**	**49.49**	**305**	P	**P**	**01 38 28.7**	**+1.3**
	SNR=15						
CBIJ	**Chichi jima**	**49.59**	**50**	LR	LR	01 57 09.1	
	comp=Z,1µm,20.5s,MS4.9,baz=260,slow=33						
BSY	**Bisya**	**49.93**	**303**	P	**P**	**01 38 31.9**	**+1.2**
	SNR=8.2						
HOQ	**Hoqain**	**50.19**	**304**	⇓P	**P**	**01 38 33.4**	**+0.7**
	SNR=11						
ULHL	**Ulahol**	**50.37**	**336**	P	**P**	**01 38 34.0**	**+0.3**
	SNR=18						
KZA	**Kyzart**	**50.64**	**335**	P	**P**	**01 38 36.7**	**+1.0**
	SNR=77						
ARQ	**Araqi**	**50.74**	**303**	⇑P	**P**	**01 38 37.4**	**+0.5**
	SNR=8.1						
SONM	**Songino Array**	**50.81**	**5**	P	**P**	**01 38 37.4**	**+0.5**
SONM				*PP	pP	01 38 49.5	-0.8
SONM				pmax	pmax		
	comp=Z,176nm,1.0s						
SONM				pmax	pmax		
	comp=Z,64nm,0.9s						
SONM				pmax	pmax		
	comp=Z,103nm,1.0s						
SONM				pmax	pmax		
	comp=N,5.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,2µm,20.6s						
SONM	**Songino Array**	**50.81**	**5**	P	**P**	**01 38 37.4**	**+0.5**
	comp=Z,176nm,0.9s,mb6.0,baz=183,slow=6.5,SNR=649						
SONM				pP	pP	01 38 49.5	-0.8
	comp=Z,64nm,0.9s,baz=191,slow=7.0,SNR=8.4						
SONM				sP	sP	01 38 55.6	-0.3
	comp=Z,103nm,1.0s,baz=187,slow=8.4,SNR=6.6						
SONM				ScP	ScP	01 43 42.9	-2.6
	comp=Z,5.2nm,1.0s,baz=205,slow=4.1,SNR=4.5						
SONM				LR	LR	02 02 04.9	
	comp=Z,2µm,20.6s,MS5.1,baz=182,slow=38						
ULN	**Ulaanbaatar**	**50.90**	**5**	*e*P	**P**	**01 38 38.1**	**+0.5**
ULN				e*PP	pP	01 38 49.6	-1.3
ULN				e*SP	sP	01 38 56.2	-0.4
ULN				pmax	pmax		
	comp=Z,117nm,1.1s,mb5.7						
ULN				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
ULN	**Ulaanbaatar**	**50.90**	**5**	*e*P	**P**	**01 38 38.1**	**+0.6**
	comp=Z,117nm,1.1s,mb5.7						
ULN				*e*pP	pP	01 38 49.6	-1.4
ULN				*e*sP	sP	01 38 56.2	-0.3
ULN				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
ULN	**Ulaanbaatar**	**50.90**	**5**	P	**P**	**01 38 38.3**	**+0.7**
	SNR=45						
ULN				P		01 38 38.3	
	SNR=45						
ULN	**Ulaanbaatar**	**50.90**	**5**	P	**P**	**01 38 37.5**	**-0.1**
	comp=Z,149nm,1.2s,comp=Z,2µm,mb5.8						
UCH	**Uchtor**	**51.07**	**335**	P	**P**	**01 38 40.0**	**+1.0**
	SNR=72						
UCH	**Uchtor**	**51.07**	**335**	*e*P	**P**	**01 38 40.0**	**+1.0**
	comp=Z,159nm,1.3s,mb5.8						
UCH				LR	LR		
	comp=Z,949nm,22.0s,MS4.8						
TKM2	**Tokmak 2**	**51.19**	**336**	*e*P	**P**	**01 38 40.4**	**+0.6**
	comp=Z,248nm,0.9s,mb6.1						
TKM2				*e*pP	pP	01 38 53.7	+0.5
TKM2				*e*sP	sP	01 38 59.8	+0.9
TKM2				LR	LR		
	comp=Z,613nm,19.0s,MS4.7						
KBK	**Karagaybulak**	**51.24**	**335**	P	**P**	**01 38 41.4**	**+1.1**
	SNR=99						
AML	**Almayashu**	**51.35**	**334**	P	**P**	**01 38 42.0**	**+0.9**
	SNR=14						
AML	**Almayashu**	**51.35**	**334**	*e*P	**P**	**01 38 42.0**	**+1.0**
	comp=Z,115nm,0.8s,mb5.9						
AML				LR	LR		
	comp=Z,593nm,21.0s,MS4.6						
AAK	**Ala-Archa**	**51.41**	**335**	P	**P**	**01 38 42.1**	**+0.6**
	comp=Z,434nm,0.9s,mb6.4,SNR=61						
AAK	**Ala-Archa**	**51.41**	**335**	*e*P	**P**	**01 38 42.2**	**+0.7**
AAK				pmax	pmax		
	comp=Z,67nm,0.9s,mb5.6						
AAK				MLR	MLR		
	comp=Z,913nm,20.0s,MS4.8						
AAK	**Ala-Archa**	**51.41**	**335**	P	**P**	**01 38 42.4**	**+0.8**
	SNR=70						
AAK	**Ala-Archa**	**51.41**	**335**	*e*P	**P**	**01 38 42.2**	**+0.7**
	comp=Z,68nm,0.9s,mb5.6						
AAK				LR	LR		
	comp=Z,913nm,20.0s,MS4.8						
AAK	**Ala-Archa**	**51.41**	**335**	P	**P**	**01 38 42.6**	**+1.1**
	SNR=31						
AAK				P		01 38 42.6	
	SNR=31						
AAK	**Ala-Archa**	**51.41**	**335**	P	**P**	**01 38 41.8**	**+0.3**
	comp=Z,26nm,1.1s,comp=Z,493nm,mb5.1						
CN2	**Changchun**	**51.43**	**22**	⇑P	**P**	**01 38 40.5**	**-1.2**
CN2				*e*S	**S**	**01 45 56.4**	**-1.6**
CN2				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.6						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,2µm,15.0s,MS5.3						
CN2				LR	LR		
	comp=E,1µm,15.0s,MS5.3						
CN2				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
CHMS	**Chumysh**	**51.60**	**335**	P	**P**	**01 38 43.0**	**+0.1**
	SNR=39						
HATD	**Hatta, Dubai**	**51.70**	**305**	P	**P**	**01 38 45.0**	**+0.9**
	SNR=8.4						
EKS2	**Erkin-Say**	**51.74**	**334**	P	**P**	**01 38 44.9**	**+0.9**
	SNR=244						
EKS2	**Erkin-Say**	**51.74**	**334**	*e*P	**P**	**01 38 44.9**	**+0.9**
	comp=Z,347nm,0.9s,mb6.3						
EKS2				*e*pP	pP	01 38 58.6	+1.2
EKS2				LR	LR		
	comp=Z,758nm,21.0s,MS4.7						
USP	**Ospenovka**	**51.93**	**335**	P	**P**	**01 38 45.4**	**0.0**
	SNR=134						
NAZ	**Nazwa, Dubai**	**52.16**	**305**	P	**P**	**01 38 48.1**	**+0.6**
	SNR=7.3						
MK31	**Makanchi Array**	**52.28**	**344**	*i* P	**P**	**01 38 47.2**	**-0.8**

```
MK31                               pmax    pmax
      comp=Z,273nm,1.0s,mb6.1
MKAR  Makanchi Array    52.28 344  P       P        01 38 47.6 -0.4
MKAR                               S       S        01 46 08.0 -1.6
MKAR                               pmax    pmax
      comp=Z,168nm,0.9s
MKAR                               smax
      comp=N,2.0nm,1.0s
MKAR                               MLR     MLR
      comp=Z,1μm,20.9s
MKAR  Makanchi Array    52.28 344  P       P        01 38 47.6 -0.4
      comp=Z,168nm,0.9s,mb6.0,baz=148,slow=6.9,SNR=578
MKAR                               S       S        01 46 08.0 -1.7
      comp=Z,1.8nm,1.0s,baz=166,slow=14,SNR=2.5
MKAR                               LR      LR       02 05 59.1
      comp=Z,1μm,20.9s,MS4.8,baz=155,slow=42
MKAR                               PKP2bc           02 09 39.8
      comp=Z,0.8nm,1.1s,baz=341,slow=2.6,SNR=3.6
MKAR  Makanchi Array    52.28 344  P       P        01 38 47.6 -0.4
MKAR                               S       S        01 46 08.0 -1.7
MKAR                               LR      LR       02 05 59.1
MKAR                             ⇑e                 02 09 39.8
MAJO  Matsushiro        52.32  38 eP       P        01 38 47.4 -1.0
MAJO                              e        pP       01 39 00.1 -1.7
MAJO                               pmax    pmax
      comp=Z,120nm,1.3s,mb5.7
MAJO  Matsushiro        52.32  38 eP       P        01 38 47.0 -1.4
      comp=Z,51nm,1.2s,mb5.3
MAJO                              epP      pP       01 38 58.5 -3.4
MAJO                               LR      LR
      comp=Z,1μm,19.0s,MS5.0
MAT   Matsushiro        52.32  38  P       P        01 38 46.8 -1.6
MJAR  Matsushiro Arr    52.32  38  P       P        01 38 46.9 -1.5
MJAR                               *PP     pP       01 38 59.9 -1.9
MJAR                                                01 39 58.2
MJAR                               pmax    pmax
      comp=Z,31nm,1.0s
MJAR                               pmax    pmax
      comp=Z,6.0nm,0.6s
MJAR                               pmax    pmax
      comp=Z,6.0nm,0.8s
MJAR                               pmax    pmax
      comp=N,3.0nm,0.7s
MJAR                               MLR     MLR
      comp=Z,577nm,21.6s
MJAR  Matsushiro Arr    52.32  38  P       P        01 38 46.9 -1.5
      comp=Z,31nm,1.0s,mb5.2,baz=219,slow=7.6,SNR=43
MJAR                               pP      pP       01 38 59.9 -2.0
      comp=Z,6.1nm,0.6s,baz=214,slow=18,SNR=11
MJAR                               PcP     PcP      01 39 58.2 -0.9
      comp=Z,5.6nm,0.8s,baz=169,slow=2.5,SNR=2.0
MJAR                               ScP     ScP      01 43 50.4 -2.1
      comp=Z,2.7nm,0.7s,baz=213,slow=4.2,SNR=5.7
MJAR                               LR      LR       02 01 09.6
      comp=Z,577nm,21.6s,MS4.6,baz=230,slow=36
MJAR  Matsushiro Arr    52.32  38  P       P        01 38 46.9 -1.5
MJAR                               pP      pP       01 38 59.9 -2.0
MJAR                               PcP     PcP      01 39 58.2 -0.9
MJAR                               ScP     ScP      01 43 50.4 -2.1
MJAR                               LR      LR       02 01 09.6
EIDS  Eidsvold          52.87 120 eP       P        01 38 51.9 -0.8
      comp=Z,99nm,1.2s,mb5.6
ZAK   Zakamensk         53.19   2⇓iP       P        01 38 54.7 +0.2
ZAK                                pmax    pmax
      comp=Z,71nm,1.6s,mb5.3
TOO   Toolangi          53.20 136 eP       P        01 38 55.8 +0.8
KK31  Karatay Array     53.55 332 i P      P        01 38 56.3 -1.1
KK31                               pmax    pmax
      comp=Z,58nm,1.1s,mb5.4
MDJ   Mudanjiang        53.77  25  P       P        01 38 58.2 -0.8
MDJ                                ScP     ScP      01 43 56.9 -1.6
MDJ                                S       S        01 46 30.8 +0.9
MDJ                                pmax    pmax
      comp=Z,30nm,1.1s,mb5.1
MDJ                                pmax    pmax
      comp=Z,420nm,9.7s
MDJ                                LR      LR
      comp=E,2μm,22.1s
MDJ                                LR      LR
      comp=Z,2μm,23.4s,MS5.1
MDJ   Mudanjiang        53.77  25 eP       P        01 38 58.8 -0.2
      comp=Z,59nm,1.1s,mb5.4
MDJ                                LR      LR
      comp=Z,2μm,22.0s,MS5.0
MOY   Mondy             54.44 360 eP       P        01 39 03.4 -0.3
MOY                                pmax    pmax
      comp=Z,144nm,2.5s,mb5.5
HIA   Hailar            54.48  15 eP       P        01 39 03.0 -1.0
HIA                               e*PP     pP       01 39 15.8 -1.7
HIA                                pmax    pmax
      comp=Z,107nm,1.5s
HIA                                MLR     MLR
      comp=Z,2μm,19.0s
HIA   Hailar            54.48  15 eP       P        01 39 03.0 -1.0
      comp=Z,107nm,1.5s,mb5.5
HIA                               epP      pP       01 39 15.8 -1.7
HIA                                LR      LR
      comp=Z,2μm,19.0s,MS5.1
TLY   Talaya            54.50   2  P       P        01 39 04.0 -0.1
      comp=Z,732nm,1.0s,mb6.6,SNR=38
TLY   Talaya            54.50   2c iP      P        01 39 04.7 +0.6
TLY                               eS       S        01 46 40.6 +1.1
TLY                                pmax    pmax
      comp=Z,154nm,1.0s,mb5.9
TLY                                MLR     MLR
      comp=Z,3μm,18.0s,MS5.3
TLY   Talaya            54.50   2 eP       P        01 39 04.8 +0.7
      comp=Z,107nm,0.9s,mb5.8
TLY                                LR      LR
      comp=Z,3μm,19.0s,MS5.3
TLY   Talaya            54.50   2  P       P        01 39 04.7 +0.6
      SNR=65
TLY                                P                01 39 04.7
      SNR=65
CAN   Canberra          54.70 132  P       P        01 39 06.3 +0.4
CAN                                pmax    pmax
      comp=Z,79nm,1.1s,mb5.7
CAN   Canberra          54.70 132 eP       P        01 39 06.2 +0.3
      comp=Z,79nm,1.1s,mb5.7
CAN                                LR      LR
      comp=Z,909nm,20.0s,MS4.8
ARMA  Armidale          54.89 125 eP       P        01 39 07.6 +0.2
ARMA  Armidale          54.89 125 eP       P        01 39 07.9 +0.4
OPO   Ambohidratompo    55.00 249  P       P        01 39 07.3 -1.1
      comp=Z,5.8nm,0.8s,mb4.6,baz=72,slow=9.1,SNR=4.8
ABPO  Ambohimpanom      55.04 249  P       P        01 39 09.7 +1.0
ABPO  Ambohimpanom      55.04 249  PFAKE            01 39 20.0  +11
ABPO                               LR      LR
      comp=Z,2μm,22.0s,MS5.2
IRK   Irkutsk           55.08   2⇑iP       P        01 39 08.2 -0.1
IRK                               e        pP       01 39 26.2 +4.4
IRK                                pmax    pmax
      comp=Z,226nm,3.2s
KURK  Kurchatov         56.87 343  P       P        01 39 20.3 -0.9
KURK                               S       S        01 47 07.0 -4.2
KURK                               pmax    pmax
      comp=Z,70nm,0.8s,mb5.7
KURK                               smax
      comp=N,2.0nm,0.9s
KURK  Kurchatov         56.87 343  P       P        01 39 20.3 -0.9
      comp=N,70nm,0.8s,mb5.8,baz=162,slow=6.8,SNR=312
KURK                               S       S        01 47 07.0 -4.2
      comp=N,1.7nm,0.9s,baz=146,slow=14,SNR=3.7
KURK  Kurchatov         56.87 343  P       P        01 39 21.0 -0.1
      SNR=44
KURK                               P                01 39 21.0
      SNR=44
ABKT  Ailbek            56.94 320  P       P        01 39 21.3 -0.6
      comp=N,434nm,0.9s,mb6.5,SNR=35
ZAA0  Zalesovo Array    58.35 349 eP       P        01 39 30.8 -0.7
ZALV  Zalesovo Beam     58.35 349  P       P        01 39 30.9 -0.6
ZALV                               S       S        01 47 26.8 -3.6
ZALV                               pmax    pmax
      comp=Z,772nm,0.9s,mb6.7
ZALV                               smax
      comp=N,12nm,1.0s
ZALV                               MLR     MLR
      comp=Z,696nm,18.5s,MS4.8
ZALV  Zalesovo Beam     58.35 349  P       P        01 39 30.9 -0.6
      comp=Z,772nm,0.9s,mb6.7,baz=163,slow=5.7,SNR=1298
ZALV                               S       S        01 47 26.8 -3.6
      comp=Z,12nm,1.0s,baz=158,slow=13,SNR=13
ZALV                               LR      LR       02 08 32.4
      comp=Z,696nm,18.5s,MS4.8,baz=44,slow=40
ZALV                               PKPPKP           02 09 11.9
      comp=Z,0.4nm,0.4s,baz=320,slow=3.9,SNR=3.8
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ZALV  Zalesovo Beam     58.35 349  P       P        01 39 30.9 -0.6
ZALV                               S       S        01 47 26.8 -3.6
ZALV                               LR      LR       02 08 32.4
ZALV                               P'P'             02 09 11.9
KLR   Kul'dur           58.36  23⇓eP       P        01 39 27.0 -4.7
KLR                               e        pP       01 39 40.2 -5.1
KLR                               eS       S        01 47 21.0  -10
KLR                               e                 01 51 21.0
KLR                                pmax    pmax
      comp=E,68nm,1.2s
KLR                                pmax    pmax
      comp=Z,200nm,1.2s,mb6.0
KLR                                MLR     MLR
      comp=E,900nm,16.0s
KLR                                MLR     MLR
      comp=Z,2μm,16.0s,MS5.3
HNR   Honiara           58.73  99  P       P        01 39 33.3 -1.6
      comp=Z,64nm,0.5s,mb5.9,baz=239,slow=5.4,SNR=13
HNR                                LR      LR       02 06 00.8
      comp=Z,400nm,20.3s,MS4.5,baz=81,slow=37
HNR   Honiara           58.73  99 eP       P        01 39 33.6 -1.4
      comp=Z,276nm,1.4s,mb6.1
HNR                                LR      LR
      comp=Z,983nm,20.0s,MS4.9
ERM   Erimo             58.76  36  PFAKE            01 39 50.0  +15
ERM                                LR      LR
      comp=Z,749nm,22.0s,MS4.8
HABR  Khabarovsk        59.13  26 eP       P        01 39 33.6 -3.4
HABR                              e*SP     sP       01 39 47.1 -9.1
HABR                              e                 01 40 21.8
HABR                              e                 01 41 43.4
HABR                              eS       S        01 47 37.7 -3.1
HABR                               pmax    pmax
      comp=Z,84nm,1.0s,mb5.7
HABR                               pmax    pmax
      comp=N,22nm,0.9s
HABR                               pmax    pmax
      comp=E,35nm,1.1s
HABR                               MLR     MLR
      comp=Z,1μm,19.0s,MS5.1
KRAR  Krasnoyarsk       59.19 355c iP      P        01 39 36.6 -0.7
KRAR                               pmax    pmax
      comp=Z,701nm,1.3s,mb6.5
NVS   Novosibirsk       59.50 348 i P      P        01 39 37.8 -1.7
NVS                               i S      S        01 47 42.6 -2.8
NVS                               i PS              01 48 01.9
NVS                                pmax    pmax
      comp=Z,279nm,1.2s,mb6.2
NVS                                pmax    pmax
      comp=N,288nm,1.6s
NVS                                pmax    pmax
      comp=E,85nm,1.2s
NVS                                smax
      comp=N,50nm,1.1s
NVS                                smax
      comp=E,76nm,1.6s
QRN   Al-Qurain         59.99 306 eP       P        01 39 42.9 -0.5
QRN                                AMb     AMB      01 39 44.5
      comp=Z,146nm,1.1s,mb5.9
KBD   Kabd              60.34 306 eP       P        01 39 45.5 -0.2
KBD                                AMb     AMB      01 39 47.1
      comp=Z,123nm,1.1s,mb5.8
RDF   Al-Radifah        60.36 306 eP       P        01 39 45.5 -0.4
RDF                                AMb     AMB      01 39 47.2
      comp=Z,211nm,1.0s,mb6.1
NAY   Al-Naaiem         60.73 306 eP       P        01 39 47.6 -0.8
NAY                                AMb     AMB      01 39 49.1
      comp=Z,74nm,0.9s,mb5.8
MIB   Mutribah          60.87 307 eP       P        01 39 49.3 -0.1
MIB                                AMb     AMB      01 39 50.8
      comp=Z,295nm,1.0s,mb6.4
VOSK  Vostochnaya       61.05 340  P       P        01 39 48.3 -1.8
VOSK                               pmax    pmax
      comp=Z,147nm,1.0s,mb6.1
BOD   Bodaibo           61.48   8⇓iP       P        01 39 52.1 -0.8
BOD                                pmax    pmax
      comp=Z,13nm,0.9s,mb5.1
BVA0  Borovoye Array    61.50 339 i P      P        01 39 51.7 -1.4
BVA0                               pmax    pmax
      comp=Z,45nm,1.6s,mb5.3
BVAR  Borovoye Array    61.50 339  P       P        01 39 52.0 -1.1
BVAR                               *PP     pP       01 40 05.3 -1.5
BVAR                               pmax    pmax
      comp=Z,98nm,0.8s
BVAR                               pmax    pmax
      comp=Z,55nm,0.8s
BVAR                               pmax    pmax
      comp=Z,25nm,0.7s
BVAR  Borovoye Array    61.50 339  P       P        01 39 52.0 -1.1
      comp=Z,98nm,0.8s,mb6.0,baz=144,slow=8.1,SNR=376
BVAR                               pP      pP       01 40 05.3 -1.6
      comp=Z,54nm,0.8s,baz=142,slow=9.2,SNR=12
BVAR                               sP      sP       01 40 11.4 -1.0
      comp=Z,25nm,0.7s,baz=133,slow=11,SNR=3.5
BRVK  Borovoye          61.57 339 eP       P        01 39 52.5 -1.0
      comp=Z,118nm,1.0s,mb6.0
BRVK                              epP      pP       01 40 06.0 -1.3
BRVK                              esP      sP       01 40 11.5 -1.3
BRVK                               LR      LR
      comp=Z,712nm,21.0s,MS4.8
BRVK  Borovoye          61.57 339  P       P        01 39 52.8 -0.7
      SNR=34
BRVK                               P                01 39 52.8
      SNR=34
YSS   Yuzh-Sakhalins    61.71  31⇑iP       P        01 39 54.0 -0.7
YSS                               e*PP     pP       01 40 07.5 -0.8
YSS                               eS       S        01 48 19.0 +5.2
YSS                                pmax    pmax
      comp=N,110nm,1.0s
YSS                                pmax    pmax
      comp=E,80nm,1.0s
YSS                                pmax    pmax
      comp=Z,320nm,1.0s,mb6.4
YSS                                MLR     MLR
      comp=E,700nm,16.0s
YSS                                MLR     MLR
      comp=Z,500nm,16.0s,MS4.8
YSS   Yuzh-Sakhalins    61.71  31 eP       P        01 39 54.5 -0.1
      comp=Z,274nm,1.0s,mb6.3
YSS                               epP      pP       01 40 07.7 -0.7
YSS                                LR      LR
      comp=Z,171nm,21.0s,MS4.2
CLNS  Chul'man          62.66  14 eP       P        01 40 00.5 -0.3
CLNS                               pmax    pmax
      comp=Z,84nm,1.0s,mb5.8
CLNS                               pmax    pmax
      comp=N,50nm,1.1s
CLNS                               pmax    pmax
      comp=E,38nm,1.0s
CLNS                               MLR     MLR
      comp=Z,2μm,16.0s,MS5.4
CLNS                               MLR     MLR
      comp=N,2μm,17.0s,MS5.3
CLNS                               MLR     MLR
      comp=E,899nm,17.0s,MS5.3
AB31  Akbulak array     63.05 331  P       P        01 40 02.5 -1.1
AB31                               pmax    pmax
      comp=Z,247nm,0.8s,mb6.4
CASY  Casey             63.52 176  PFAKE            01 40 20.0  +14
CASY                               LR      LR
      comp=Z,2μm,22.0s,MS5.2
AKTK  Aktyubinsk        64.77 331  P       P        01 40 13.8 -1.0
AKTK                               S       S        01 48 49.5 -2.4
AKTO  Aktyubinsk        64.77 331  P       P        01 40 13.8 -1.1
AKTO                               S       S        01 48 49.5 -2.4
AKTO                               pmax    pmax
      comp=Z,74nm,1.0s,mb5.7
AKTO                               smax
      comp=N,2.0nm,0.9s
AKTO  Aktyubinsk        64.77 331  P       P        01 40 13.8 -1.0
      comp=N,74nm,1.0s,mb5.7,baz=130,slow=6.7,SNR=118
AKTO                               S       S        01 48 49.5 -2.4
      comp=N,2.0nm,0.8s,baz=288,slow=20,SNR=3.8
DZM   Mont Dzumac       66.01 113 eP       P        01 40 23.2 -0.2
      comp=N,66nm,1.3s,mb5.5
MAK   Makhachkala       66.46 320 eP       P        01 40 23.2 -2.7
MAK                               i                 01 40 50.2
MAK                               i                 01 42 51.4
MAK                               i S      S        01 49 08.7 -4.2
MAK                               i                 01 50 17.6
MAK                               eSS      SS       01 53 33.3 +2.7
MAK                                pmax    pmax
      comp=Z,231nm,1.1s,mb6.1
GNI   Garni             67.03 316⇑eP       P        01 40 29.5 -0.1
GNI                                pmax    pmax
      comp=Z,143nm,2.5s
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GNI   Garni             67.03 316  P       P        01 40 30.6 +0.9
      comp=Z,24nm,1.0s,mb5.2,baz=344,slow=1.6,SNR=24
GNI   Garni             67.03 316 eP       P        01 40 30.0 +0.4
      comp=Z,189nm,1.4s,mb5.9
GNI                               epP      pP       01 40 44.0 +0.5
GNI                                LR      LR
      comp=Z,272nm,21.0s,MS4.4
GNI   Garni             67.03 316  P       P        01 40 30.6 +0.9
      SNR=14
GNI                                P                01 40 30.6
      SNR=14
TVAN  Van               67.30 314 i P      P        01 40 31.8 +0.4
DYDN  Diyadin           67.51 315 i P      P        01 40 33.9 +1.2
MTA   Mtatsminda        67.67 318  P       P        01 40 33.8 +0.2
TBLG  Delisi            67.72 318  P       P        01 40 34.3 +0.3
SVE   Sverdlovsk        68.03 337⇓eP       P        01 40 35.2 -0.4
SVE                               e        pP       01 40 49.0 -0.4
SVE                               e                 01 43 06.6
SVE                               eS       S        01 49 30.5 -0.7
SVE                               eSS      SS       01 53 46.6 -7.7
SVE                                pmax    pmax
      comp=Z,278nm,1.0s,mb6.2
SVE                                MLR     MLR
      comp=Z,1μm,20.0s,MS5.1
GOR   Gori              68.25 318  P       P        01 40 37.4 +0.1
YAK   Yakutsk           68.40  14c iP      P        01 40 36.3 -1.5
YAK                               e*PP     pP       01 40 48.9 -2.8
YAK                               e                 01 43 07.9
YAK                               e*SS     sS       01 50 06.6 +7.9
YAK                               e                 01 50 32.4
YAK                                pmax    pmax
      comp=Z,370nm,0.9s,mb6.4
YAK                                pmax    pmax
      comp=N,119nm,1.1s
YAK                                pmax    pmax
      comp=E,107nm,1.4s
YAK                                pmax    pmax
      comp=Z,19nm,1.0s,mb5.1
YAK                                pmax    pmax
      comp=N,19nm,1.4s
YAK                                pmax    pmax
      comp=E,11nm,1.1s
YAK                                MLR     MLR
      comp=Z,2μm,17.0s,MS5.5
YAK                                MLR     MLR
      comp=N,2μm,20.0s,MS5.3
YAK                                MLR     MLR
      comp=E,1μm,22.0s,MS5.3
YAK   Yakutsk           68.40  14 eP       P        01 40 36.2 -1.6
      comp=E,417nm,0.9s,mb6.5
YAK                               epP      pP       01 40 49.7 -1.9
YAK                                LR      LR
      comp=Z,2μm,19.0s,MS5.4
ARU   Arti              68.57 336  P       P        01 40 38.4 -0.5
      comp=Z,729nm,1.0s,mb6.6,SNR=53
ARU   Arti              68.57 336c iP      P        01 40 38.0 -0.9
ARU                               e                 01 41 03.6
ARU                               e                 01 43 13.7
ARU                                PPP              01 44 50.6
ARU                               eS       S        01 49 39.5 +1.9
ARU                                SS      SS       01 53 58.9 -3.8
ARU                                pmax    pmax
      comp=Z,181nm,1.2s,mb5.9
ARU   Arti              68.57 336 eP       P        01 40 38.0 -0.9
      comp=Z,175nm,1.1s,mb5.9
ARU                               epP      pP       01 40 51.2 -1.6
ARU                                LR      LR
      comp=Z,1μm,21.0s,MS5.1
BEST  Besiri            68.61 313 i P      P        01 40 40.0 +0.4
HOMI  Horasan           68.97 315 i P      P        01 40 42.7 +0.9
ERZM  Erzurum           69.30 315 i P      P        01 40 45.1 +1.2
MAW   Mawson            69.63 195  LR      LR       02 04 36.0
      comp=Z,2μm,21.6s,MS5.3,baz=39,slow=30
KOPT  Kop Dagi          69.96 315 i P      P        01 40 49.7 +1.7
KIV   Kislovodsk        70.04 319  P       P        01 40 48.5 +0.2
      comp=Z,491nm,1.1s,mb6.3,SNR=16
KIV   Kislovodsk        70.04 319 eP       P        01 40 48.1 -0.2
KIV                               e                 01 41 09.5
KIV                               eS       S        01 49 53.3 -2.2
KIV                                pmax    pmax
      comp=Z,103nm,1.1s,mb5.7
KIV                                pmax    pmax
      comp=Z,151nm,8.1s
KIV                                MLR     MLR
      comp=Z,286nm,19.0s,MS4.5
KIV   Kislovodsk        70.04 319 eP       P        01 40 48.4 +0.1
KIV                               epP      pP       01 41 01.6 -0.6
KIV                                LR      LR
      comp=Z,468nm,21.0s,MS4.7
KIV   Kislovodsk        70.04 319  P       P        01 40 48.5 +0.2
      SNR=17
KIV                                P                01 40 48.5
      SNR=17
ASF   Jabal al Asfar    70.10 306  P       P        01 40 50.2 +1.2
ASF                                pmax    pmax
      comp=Z,49nm,1.0s
ASF   Jabal al Asfar    70.10 306  P       P        01 40 50.2 +1.2
      comp=Z,49nm,1.0s,mb5.4,baz=346,slow=3.0,SNR=51
GOF   Gofitskoye        70.29 320⇑iP       P        01 40 57.4 +7.6
GOF                               i        pP       01 41 11.7 +8.0
GOF                               eS       S        01 50 29.6  +31
GOF                                pmax    pmax
      comp=Z,110nm,1.1s,mb5.7
MBAR  Mbarara           70.42 270c iP      P        01 40 51.5 +0.2
ELZG  Elazig            70.50 313 i P      P        01 40 52.2 +0.9
ATAB  Bozova            70.66 311 i P      P        01 40 52.7 +0.4
MALT  Malatya           70.85 312  P       P        01 40 54.0 +0.6
MALT                               pmax    pmax
      comp=Z,58nm,1.1s,mb5.4
MALT  Malatya           70.85 312⇑iP       P        01 40 54.0 +0.6
MALT  Malatya           70.85 312 eP       P        01 40 53.8 +0.4
      comp=Z,58nm,1.1s,mb5.4
MALT                               LR      LR
      comp=Z,417nm,22.0s,MS4.7
MALT  Malatya           70.85 312  P       P        01 40 53.8 +0.4
      comp=Z,68nm,1.2s,comp=Z,782nm,mb5.5
EIL   Elat              71.02 303  P       P        01 40 55.2 +0.6
      comp=Z,61nm,0.9s,mb5.5,baz=103,slow=2.0,SNR=46
EIL   Elat              71.02 303  P       P        01 40 55.2 +0.6
SKR   Severo-Kuril's    71.04  33 eP       P        01 40 53.5 -0.8
SKR                               e        pP       01 41 06.5 -1.7
SKR                                pmax    pmax
      comp=E,220nm,1.0s
SKR                                pmax    pmax
      comp=Z,450nm,1.0s,mb6.3
KEMA  Kemaliye          71.13 313 i P      P        01 40 55.4 +0.3
GZT   Gaziantep         71.17 311 i P      P        01 40 55.8 +0.4
AKCD  Akcadag           71.22 312 i P      P        01 40 55.9 +0.2
KUZU  Kuzuini           71.36 310 i P      P        01 40 57.1 +0.6
SOKR  Solikamsk         71.40 338c iP      P        01 40 55.8 -0.5
SOKR                               pmax    pmax
      comp=Z,240nm,1.2s,mb6.0
SOKR                               MLR     MLR
      comp=Z,850nm,24.0s,MS4.9
MMAI  Mount Meron Ar    71.55 306  P       P        01 40 59.0 +1.3
      comp=Z,33nm,0.8s,mb5.3,baz=106,slow=7.9,SNR=33
SOC   Sochi             71.86 318c iP      P        01 40 58.2 -1.2
SOC                               e*PP     pP       01 41 07.2 -6.1
SOC                               e*SP     sP       01 41 12.2 -6.6
SOC                               e        pP       01 41 16.1 +2.8
SOC                               eS       S        01 50 16.4 -0.2
SOC                               e                 01 50 58.8
SOC                               eSS      SS       01 54 57.7 +3.9
SOC                                pmax    pmax
      comp=Z,91nm,0.9s,mb5.7
ANDN  Andirin           72.17 311 i P      P        01 41 01.5 +0.2
PINB  Pinarbasi         72.47 312 i P      P        01 41 02.7 -0.4
LSZ   Lusaka            72.80 255  P       P        01 41 06.3 +0.8
LSZ                                pmax    pmax
      comp=Z,41nm,1.3s,mb5.2
LSZ   Lusaka            72.80 255 eP       P        01 41 06.0 +0.5
      comp=Z,34nm,1.3s,mb5.1
LSZ                                LR      LR
      comp=Z,1μm,19.0s,MS5.1
PEA0B Petropavlovsk-    73.10  32 eP       P        01 41 05.8 -0.8
PETK  Petropavlovsk-    73.10  32  P       P        01 41 05.6 -0.9
PETK                               pmax    pmax
      comp=Z,48nm,0.8s,mb5.5
PETK                               MLR     MLR
      comp=Z,444nm,18.1s,MS4.8
PETK  Petropavlovsk-    73.10  32  P       P        01 41 05.6 -0.9
      comp=Z,48nm,0.8s,mb5.5,baz=203,slow=4.3,SNR=52
PETK                               LR      LR       02 18 11.2
      comp=Z,444nm,18.1s,MS4.8,baz=257,slow=40
RPZ   Rata Peaks        73.47 135  LR      LR       02 12 12.3
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	comp=Z,906nm,20.6s,MS5.0,baz=277,slow=35						
PET	**Petropavlovsk**	**73.56**	**32**	⇑iP	**P**	**01 41 08.4**	**-0.9**
PET				e*PP	pP	01 41 21.7	-1.6
PET				e*SP	sP	01 41 27.0	-1.8
PET				e		01 43 59.4	
PET				eS	S	01 50 40.1	+4.5
PET				pmax	pmax		
	comp=Z,273nm,0.9s,mb6.2						
PET				pmax	pmax		
	comp=Z,200nm,11.8s						
PET	**Petropavlovsk**	**73.56**	**32**	eP	**P**	**01 41 08.5**	**-0.8**
	comp=Z,251nm,1.0s,mb6.1						
PET				epP	pP	01 41 21.9	-1.4
PET				LR	LR		
	comp=Z,711nm,22.0s,MS4.9						
AVNT	**Avonos**	**73.65**	**312**	iP	**P**	**01 41 09.4**	**-0.8**
CSS	**Prodhromos**	**73.74**	**308**	eP	**P**	**01 41 10.9**	**+0.2**
	comp=Z,100nm,1.0s,mb5.7						
CSS				LR	LR		
	comp=Z,463nm,20.0s,MS4.8						
VRHR	**Novokhopersk**	**73.79**	**326**	eP	**P**	**01 41 09.3**	**-1.4**
VRHR				e	pP	01 41 23.8	-0.9
VRHR				eS	S	01 50 34.0	-4.3
VRHR				pmax	pmax		
	comp=Z,230nm,0.8s,mb6.2						
VRHR				pmax	pmax		
	comp=N,110nm,0.9s						
VRHR				pmax	pmax		
	comp=E,170nm,0.9s						
VRHR				smax			
	comp=N,70nm,1.4s						
VRHR				smax			
	comp=Z,10.0nm,1.6s						
VRHR				smax			
	comp=E,60nm,1.9s						
ANN	**Anapa**	**73.83**	**318**	eP	**P**	**01 41 03.9**	**-7.2**
ANN				eS	S	01 50 32.0	-7.0
ANN				pmax	pmax		
	comp=Z,121nm,2.6s,mb5.4						
CDAG	**Cicekdag**	**74.27**	**312**	iP	**P**	**01 41 13.1**	**-0.6**
BOYT	**Boyabat**	**74.43**	**314**	iP	**P**	**01 41 14.6**	**-0.1**
BR131	**Keskin Array S**	**74.83**	**312**	eP	**P**	**01 41 16.2**	**-0.8**
	comp=Z,35nm,0.9s,mb5.3						
BRTR	**Keskin Array B**	**74.83**	**312**	P	**P**	**01 41 16.2**	**-0.8**
BRTR				pmax	pmax		
	comp=Z,34nm,0.8s						
BRTR	**Keskin Array B**	**74.83**	**312**	P	**P**	**01 41 16.1**	**-0.9**
	comp=Z,34nm,0.8s,mb5.3,baz=136,slow=7.3,SNR=119						
VORD	**Divnogorie**	**75.06**	**325**	eP	**P**	**01 41 16.4**	**-1.7**
VORD				e	pP	01 41 29.9	-2.2
VORD				eS	S	01 50 47.9	-4.6
VORD				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.8						
VORD				pmax	pmax		
	comp=N,70nm,1.0s						
VORD				pmax	pmax		
	comp=E,170nm,1.1s						
VORD				smax			
	comp=E,80nm,3.5s						
VORD				smax			
	comp=Z,10.0nm,2.0s						
VORD				smax			
	comp=N,70nm,2.3s						
BALAT	**Bala**	**75.17**	**312**	iP	**P**	**01 41 18.3**	**-0.7**
VSR	**Storozhevoye**	**75.24**	**325**	eP	**P**	**01 41 17.5**	**-1.6**
VSR				e	pP	01 41 31.7	-1.4
VSR				eS	S	01 50 54.5	0.0
VSR				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.6						
VSR				pmax	pmax		
	comp=N,40nm,1.0s						
VSR				pmax	pmax		
	comp=E,120nm,1.0s						
VSR				smax			
	comp=E,40nm,3.0s						
VSR				smax			
	comp=Z,10.0nm,4.5s						
VSR				smax			
	comp=N,40nm,2.9s						
VOR	**Voronezh**	**75.43**	**325**	⇑iP	**P**	**01 41 20.0**	**-0.2**
VOR				pmax	pmax		
	comp=Z,400nm,1.4s,mb6.2						
BALT	**Daday**	**75.55**	**314**	iP	**P**	**01 41 20.2**	**-0.9**
KDHN	**Kadinhani**	**75.63**	**311**	iP	**P**	**01 41 20.4**	**-1.2**
SNZO	**South Karori**	**75.69**	**132**	PFAKE		01 41 30.0	+8.1
SNZO				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
SIM	**Simferopol'**	**76.10**	**318**	ceP	**P**	**01 41 23.9**	**-0.2**
SIM				pmax	pmax		
	comp=Z,66nm,0.8s,mb5.6						
SEY	**Seymchan**	**76.10**	**22**	⇑eP	**P**	**01 41 23.4**	**-0.4**
BOSA	**Boshof**	**76.20**	**241**	P	**P**	**01 41 24.4**	**-0.7**
	comp=Z,10nm,1.0s,mb4.7,baz=69,slow=5.8,SNR=15						
BOSA				LR	LR	02 08 43.1	
	comp=Z,690nm,21.9s,MS4.9,baz=113,slow=31						
BOSA	**Boshof**	**76.20**	**241**	P	**P**	**01 41 24.4**	**-0.7**
BOSA				LR	LR	02 08 43.1	
TIXI	**Tiksi**	**76.64**	**9**	⇑eP	**P**	**01 41 24.4**	**-2.3**
TIXI				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.8						
TIXI	**Tiksi**	**76.64**	**9**	eP	**P**	**01 41 24.8**	**-1.9**
	comp=Z,124nm,1.1s,mb5.8						
TIXI				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
ISP	**Isparta**	**76.68**	**310**	PFAKE		01 41 40.0	+12
ISP				LR	LR		
	comp=Z,368nm,19.0s,MS4.7						
PRGR	**Permogore**	**77.03**	**336**	⇑iP	**P**	**01 41 28.4**	**-0.6**
PRGR				e	pP	01 41 38.5	-4.6
PRGR				eS	S	01 51 18.0	+4.3
PRGR				pmax	pmax		
	comp=Z,185nm,0.9s,mb6.0						
URZ	**Urewera**	**77.13**	**128**	P	**P**	**01 41 29.8**	**-0.3**
	comp=Z,9.7nm,1.0s,mb4.7,baz=157,slow=1.8,SNR=6.4						
MOS	**Moscow**	**77.93**	**329**	eP	**P**	**01 41 32.8**	**-1.4**
MOS				i	pP	01 41 42.0	-6.3
MOS				e		01 44 29.8	
MOS				eS	S	01 51 20.3	-3.4
MOS				e		01 51 43.2	
MOS				pmax	pmax		
	comp=Z,246nm,1.2s,mb6.0						
MOS				pmax	pmax		
	comp=Z,500nm,1.7s,mb6.2						
OBN	**Obninsk**	**78.23**	**328**	P	**P**	**01 41 35.3**	**-0.6**
	comp=Z,1µm,0.8s,mb6.8,SNR=9.8						
OBN	**Obninsk**	**78.23**	**328**	αiP	**P**	**01 41 35.5**	**-0.4**
OBN				e	pP	01 41 45.6	-4.4
OBN				e*PP	pP	01 41 49.8	-0.2
OBN				e		01 44 33.9	
OBN						01 51 35.0	
OBN				pmax	pmax		
	comp=Z,274nm,1.2s,mb6.1						
OBN				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.9						
OBN	**Obninsk**	**78.23**	**328**	PFAKE		01 41 50.0	+14
OBN				LR	LR		
	comp=Z,803nm,20.0s,MS5.0						
AYDN	**Tasoluk**	**78.66**	**309**	iP	**P**	**01 41 38.4**	**-0.2**
KLMR	**Klimovskoe**	**79.21**	**334**	⇑iP	**P**	**01 41 40.7**	**-0.4**
KLMR				pmax	pmax		
	comp=Z,279nm,1.6s,mb5.9						
TLCR		**79.77**	**317**	⇑iP	**P**	**01 41 44.8**	**+0.3**
TLCR		**79.77**	**317**	⇑P	**P**	**01 41 44.8**	**+0.3**
TIRR	**Tirgusor**	**79.86**	**316**	P	**P**	**01 41 45.2**	**+0.2**
TIRR	**Tirgusor**	**79.86**	**316**	⇑iP	**P**	**01 41 44.8**	**-0.2**
TIRR	**Tirgusor**	**79.86**	**316**	eP	**P**	**01 41 44.9**	**-0.1**
	comp=Z,66nm,1.0s,mb5.5						
KIS	**Kishinev**	**80.23**	**319**	eP	**P**	**01 41 46.0**	**-1.0**
KIS				e		01 41 51.0	
KIS				e		01 44 46.0	
KIS				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.0						
KIS	**Kishinev**	**80.23**	**319**	eUNK	**P**	**01 41 46.0**	**-1.0**
KIS				XM		01 41 47.0	
	comp=Z,200nm,1.0s						
KIS	**Kishinev**	**80.23**	**319**	P	**P**	**01 41 46.9**	**-0.1**
HARR	**Harsova**	**80.25**	**316**	⇑iP	**P**	**01 41 47.8**	**+0.7**
HARR	**Harsova**	**80.25**	**316**	P	**P**	**01 41 47.4**	**+0.3**
SUR	**Sutherland**	**80.26**	**238**	PFAKE		01 42 00.0	+13
SUR				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
RAO	**Raoul Island**	**80.63**	**119**	LR	LR	02 17 26.5	
	comp=Z,478nm,19.5s,MS4.8,baz=295,slow=36						
RAO	**Raoul Island**	**80.63**	**119**	PFAKE		01 42 00.0	+10
RAO				LR	LR		
	comp=Z,386nm,22.0s,MS4.7						
AKASG	**Malin Array Be**	**80.96**	**322**	P	**P**	**01 41 49.8**	**-1.0**
AKASG						01 44 55.2	
AKASG				pmax	pmax		
	comp=Z,29nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,10.0nm,1.0s						
AKASG	**Malin Array Be**	**80.96**	**322**	P	**P**	**01 41 49.8**	**-1.0**
	comp=Z,29nm,0.8s,mb5.2,baz=89,slow=4.9,SNR=83						
AKASG				PP	PP	01 44 55.2	-0.8
	comp=Z,10nm,1.0s,baz=85,slow=7.5,SNR=5.1						
AKASG				LR	LR	02 25 38.0	
	comp=Z,319nm,20.4s,MS4.7,baz=85,slow=41						
KIEV	**Kiev**	**80.97**	**322**	P	**P**	**01 41 49.8**	**-1.0**
KIEV				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
KIEV	**Kiev**	**80.97**	**322**	eP	**P**	**01 41 49.8**	**-1.1**
	comp=Z,41nm,1.0s,mb5.3						
KIEV				epP	pP	01 42 04.2	-0.8
VNDA	**Vanda**	**80.98**	**169**	P	**P**	**01 41 51.5**	**+1.1**
	comp=Z,4.4nm,0.9s,mb4.4,baz=303,slow=7.5,SNR=4.0						
VNDA				LR	LR	02 12 25.8	
	comp=Z,710nm,21.9s,MS5.0,baz=311,slow=32						
IAS	**Iasi**	**81.11**	**319**	⇑iP	**P**	**01 41 44.2**	**-7.5**
IAS	**Iasi**	**81.11**	**319**	P	**P**	**01 41 51.7**	**0.0**
VRI	**Vrincioaia**	**81.36**	**317**	⇑iP	**P**	**01 41 53.4**	**+0.4**
VRI	**Vrincioaia**	**81.36**	**317**	P	**P**	**01 41 53.7**	**+0.7**
PLOR	**Plostina**	**81.40**	**317**	⇓iP	**P**	**01 41 53.9**	**+0.6**
MLR	**Muntele Rosu**	**81.81**	**317**	⇑iP	**P**	**01 41 55.7**	**+0.3**
MLR	**Muntele Rosu**	**81.81**	**317**	P	**P**	**01 41 55.9**	**+0.5**
ZIMR		**81.82**	**315**	⇓iP	**P**	**01 41 56.0**	**+0.5**
ZIMR		**81.82**	**315**	⇓P	**P**	**01 41 56.0**	**+0.5**
SBA	**Scott Base**	**82.07**	**169**	PFAKE		01 42 10.0	+14
SBA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
VOIR		**82.41**	**316**	⇑iP	**P**	**01 42 01.6**	**+3.0**
VOIR		**82.41**	**316**	P	**P**	**01 42 00.4**	**+1.9**
BUR02	**Bucovina Ar. S**	**82.76**	**319**	P	**P**	**01 42 01.3**	**+1.0**
BURAR	**Bucovina Array**	**82.76**	**319**	⇑iP	**P**	**01 42 01.3**	**+1.0**
MICGM	**Minsk**	**82.78**	**326**	⇑eP	**P**	**01 41 56.0**	**-4.3**
MNK	**Minsk**	**82.81**	**326**	⇑eP	**P**	**01 41 56.0**	**-4.4**
MNK				pmax	pmax		
	comp=Z,730nm,1.0s,mb6.7						
TSUM	**Tsumeb**	**82.96**	**251**	eP	**P**	**01 42 03.0**	**+1.0**
	comp=Z,7.8nm,1.0s,mb4.7						
TSUM				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
VAY	**Valandovo**	**83.41**	**312**	eP	**P**	**01 42 02.5**	**-1.3**
NACGM	**Naroch**	**83.50**	**326**	eP	**P**	**01 42 01.0**	**-3.0**
JOF	**Joensuu**	**83.60**	**334**	eP	**P**	**01 42 02.6**	**-1.7**
JOF				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.4						
JOF	**Joensuu**	**83.60**	**334**	ep	**P**	**01 42 02.6**	**-1.7**
	comp=Z,26nm,0.8s,mb5.4						
BILL	**Bilibino**	**83.67**	**20**	⇑eP	**P**	**01 42 03.1**	**-1.5**
BILL				e	pP	01 42 13.6	-5.2
BILL				e		01 53 46.3	
BILL				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.5						
BILL	**Bilibino**	**83.67**	**20**	eP	**P**	**01 42 03.3**	**-1.3**
	comp=Z,57nm,1.3s,mb5.5						
BILL				LR	LR		
	comp=Z,943nm,20.0s,MS5.2						
GZR	**Gura Zlata**	**83.97**	**316**	⇑iP	**P**	**01 42 06.8**	**+0.2**
GZR	**Gura Zlata**	**83.97**	**316**	P	**P**	**01 42 07.0**	**+0.4**
DEV	**Deva**	**83.97**	**317**	⇑iP	**P**	**01 42 07.6**	**+1.0**
DEV	**Deva**	**83.97**	**317**	⇑P	**P**	**01 42 07.6**	**+1.0**
LVV	**L'vov**	**83.99**	**321**	eP	**P**	**01 42 06.1**	**-0.5**
LVV				e	pP	01 42 21.1	+0.3
LVZ	**Lovozero**	**84.10**	**340**	⇑eP	**P**	**01 42 05.6**	**-1.2**
LVZ				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.6						
DRGR		**84.27**	**317**	⇑iP	**P**	**01 42 08.5**	**+0.4**
DRGR		**84.27**	**317**	P	**P**	**01 42 08.5**	**+0.4**
SKO	**Skopje**	**84.35**	**312**	eP	**P**	**01 42 07.1**	**-1.5**
KRUS	**Krusevo**	**84.40**	**312**	eP	**P**	**01 42 07.1**	**-1.7**
APA	**Apatity**	**84.41**	**339**	⇓iP	**P**	**01 42 07.7**	**-0.7**
APA				i	pP	01 42 22.2	-0.4
APA				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.6						
APA				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.6						
VSU	**Vasula**	**84.44**	**329**	c iP	**P**	**01 42 08.1**	**-0.6**
VSU				pmax	pmax		
	comp=Z,199nm,1.3s,mb6.1						
TRPA	**Tarpa**	**84.63**	**319**	⇑iP	**P**	**01 42 10.1**	**+0.2**
OHR	**Ohrid**	**84.69**	**312**	eP	**P**	**01 42 08.6**	**-1.8**
KWP	**Kalwaria Pacla**	**84.79**	**320**	eP	**P**	**01 42 10.2**	**-0.4**
KWP				ePcP	PcP	01 42 13.0	-1.0
KWP				epP	pP	01 42 17.6	-7.3
KWP				LMZ		02 21 34.1	
	comp=Z,400nm,30.2s						
KWP	**Kalwaria Pacla**	**84.79**	**320**	⇑iP	**P**	**01 42 10.8**	**+0.1**
KWP	**Kalwaria Pacla**	**84.79**	**320**	eP	**P**	**01 42 10.2**	**-0.5**
KWP				ePcP	PcP	01 42 13.0	-1.0
KWP				epP	pP	01 42 17.6	-7.3
BZS	**Buzias**	**84.81**	**316**	⇑iP	**P**	**01 42 10.8**	**-0.1**
BZS	**Buzias**	**84.81**	**316**	P	**P**	**01 42 11.1**	**+0.2**
UZH	**Uzhgorod**	**84.88**	**319**	eP	**P**	**01 42 10.5**	**-0.6**
UZH				e	pP	01 42 24.7	-0.7
UZH				e		01 45 30.0	
UZH				eS	S	01 52 32.3	-3.7
KOLS	**Kolonicke sedl**	**84.95**	**319**	iP	**P**	**01 42 12.1**	**+0.6**
KOLS				pmax	pmax		
	comp=Z,151nm,1.0s,mb6.1						
KOLS	**Kolonicke sedl**	**84.95**	**319**	iP	**P**	**01 42 12.1**	**+0.6**
	comp=Z,151nm,1.0s,mb6.1						
KOLS				ePP	pP	01 42 27.2	+1.5
SUW	**Suwalki**	**85.35**	**325**	iPc		01 42 13.0	
SUW				epP	pP	01 42 20.0	-7.6
SUW				esP	sP	01 42 27.5	-5.6
SUW				LMZ		02 19 11.9	
	comp=Z,400nm,31.5s						
SUW	**Suwalki**	**85.35**	**325**	⇑iP	**P**	**01 42 13.0**	**-0.4**
SUW				ePP	PcP	01 42 20.0	+3.6
SUW				esP	pP	01 42 27.5	-0.1
TIR	**Tirane**	**85.42**	**312**	PFAKE		01 42 30.0	+16
TIR				LR	LR		
	comp=Z,482nm,20.0s,MS4.9						
CRVS	**Cervenica-Dubn**	**85.47**	**319**	iP	**P**	**01 42 14.4**	**+0.3**
CRVS				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.4						
CRVS	**Cervenica-Dubn**	**85.47**	**319**	iP	**P**	**01 42 14.3**	**+0.2**
CRVS	**Cervenica-Dubn**	**85.47**	**319**	iP	**P**	**01 42 14.4**	**+0.3**
	comp=Z,36nm,1.2s,mb5.4						
KAF	**Kangasniemi**	**85.58**	**333**	eP	**P**	**01 42 12.3**	**-2.0**
KAF				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.6						
KAF	**Kangasniemi**	**85.58**	**333**	ep	**P**	**01 42 12.3**	**-2.0**
	comp=Z,30nm,0.8s,mb5.6						
STHS	**Stebnicka Huta**	**85.69**	**320**	iP	**P**	**01 42 15.8**	**+0.6**
STHS				epP	pP	01 42 30.6	+1.1
NIE	**Niedzica**	**86.30**	**320**	eP	**P**	**01 42 18.7**	**+0.6**
WAR	**Warsaw**	**86.31**	**323**	eP	**P**	**01 42 18.6**	**+0.5**
WAR				epP	pP	01 42 25.5	-6.9
WAR				LMZ		02 18 54.0	
	comp=Z,500nm,29.1s						
WAR	**Warsaw**	**86.31**	**323**	eP	**P**	**01 42 18.6**	**+0.5**
WAR				e*PP	pP	01 42 25.5	-6.9
WAR	**Warsaw**	**86.31**	**323**	eP	**P**	**01 42 18.6**	**+0.5**
WAR				epP	pP	01 42 25.5	-6.9
WAR				LR	LR		
	comp=Z,500nm,29.1s,MS4.8						
PSZ	**Piszkesteto**	**86.34**	**318**	eP	**P**	**01 42 18.4**	**0.0**
PSZ				e		01 45 40.2	
PSZ				pmax	pmax		
	comp=Z,90nm,1.3s,mb5.8						
PSZ				MLR	MLR		
	comp=Z,269nm,19.0s,MS4.7						
PSZ	**Piszkesteto**	**86.34**	**318**	⇑iP	**P**	**01 42 18.5**	**+0.1**
PSZ	**Piszkesteto**	**86.34**	**318**	eP	**P**	**01 42 18.4**	**-0.1**
	comp=Z,90nm,1.3s,mb5.8						
PSZ				ePP	PP	01 45 40.2	+0.1
PSZ				LR	LR		
	comp=Z,269nm,19.0s,MS4.7						
BEL	**Belsk**	**86.38**	**322**	eP	**P**	**01 42 18.8**	**+0.3**
AFI	**Afiamalu**	**86.44**	**104**	P	**P**	**01 42 18.8**	**-0.8**
AFI				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.5						
AFI	**Afiamalu**	**86.44**	**104**	P	**P**	**01 42 18.8**	**-0.8**
	comp=Z,17nm,0.6s,mb5.5,baz=230,slow=4.5,SNR=3.1						
OJC	**Ojcow**	**86.75**	**320**	iP	**P**	**01 42 20.3**	**0.0**
OJC				ePcP	PcP	01 42 23.0	+0.4
BUD	**Budapest**	**86.86**	**318**	⇑eP	**P**	**01 42 20.9**	**-0.1**
QSPA	**South Pole Qui**	**86.98**	**180**	PFAKE		01 42 30.0	+9.0
QSPA				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
VYHS	**Vyhne**	**87.12**	**319**	iP	**P**	**01 42 22.2**	**0.0**
VYHS				epP	pP	01 42 36.2	-0.3
KEV	**Kevo**	**87.34**	**340**	eP	**P**	**01 42 21.3**	**-1.5**
KEV				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.4						
KEV	**Kevo**	**87.34**	**340**	ep	**P**	**01 42 21.3**	**-1.5**
	comp=Z,21nm,0.8s,mb5.4						
TIP	**Timpagrande**	**87.52**	**309**	eP	**P**	**01 42 24.9**	**+0.6**
	comp=Z,22nm,1.0s,mb5.3						
TIP				LR	LR		
	comp=Z,331nm,20.0s,MS4.7						
OKC	**Ostrava-Krasne**	**87.75**	**320**	⇑iP	**P**	**01 42 25.5**	**+0.3**
OKC				epP	pP	01 42 38.8	-0.7
GRI	**Girifalco**	**87.75**	**309**	P	**P**	**01 42 26.4**	**+0.9**
ARCES	**ARCESS Array B**	**87.78**	**340**	P	**P**	**01 42 24.6**	**-0.3**
ARCES						01 45 53.7	
ARCES				pmax	pmax		
	comp=Z,54nm,0.9s						
ARCES				pmax	pmax		
	comp=Z,18nm,1.1s						
ARCES				MLR	MLR		
	comp=Z,862nm,21.9s						
ARCES	**ARCESS Array B**	**87.78**	**340**	P	**P**	**01 42 24.6**	**-0.4**
	comp=Z,54nm,0.9s,mb5.8,baz=106,slow=4.3,SNR=36						
ARCES				PP	PP	01 45 53.7	+2.6
	comp=Z,18nm,1.1s,baz=130,slow=5.1,SNR=4.5						
ARCES				LR	LR	02 23 26.7	
	comp=Z,862nm,21.9s,MS5.1,baz=109,slow=37						
ARCES	**ARCESS Array B**	**87.78**	**340**	P	**P**	**01 42 24.6**	**-0.4**
ARCES				PP	PP	01 45 53.7	+2.6
ARCES				LR	LR	02 23 26.7	
ORI	**Oriolo Calabro**	**87.85**	**310**	P	**P**	**01 42 27.2**	**+1.3**
ORI				pmax	pmax		
	comp=Z,294nm,1.5s,mb6.3						
ORI	**Oriolo Calabro**	**87.85**	**310**	P	**P**	**01 42 27.2**	**+1.3**
	comp=Z,294nm,1.5s,mb6.3						
SMOL	**Smolenice**	**88.06**	**319**	iP	**P**	**01 42 27.0**	**+0.3**
MORC	**Moravsky Berou**	**88.13**	**320**	P	**P**	**01 42 27.5**	**+0.5**
MORC	**Moravsky Berou**	**88.13**	**320**	⇑iP	**P**	**01 42 27.4**	**+0.4**
MORC	**Moravsky Berou**	**88.13**	**320**	eP	**P**	**01 42 27.1**	**+0.1**
	comp=Z,48nm,0.9s,mb5.7						
PTRP	**Pietrapertosa**	**88.19**	**311**	P	**P**	**01 42 28.3**	**+0.8**
ZST	**Bratislava**	**88.24**	**318**	iP	**P**	**01 42 27.8**	**+0.2**
ZST				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.7						
ZST	**Bratislava**	**88.24**	**318**	iP	**P**	**01 42 27.8**	**+0.2**
	comp=Z,45nm,0.9s,mb5.7						
ZST				ePP	pP	01 42 42.6	+0.7
MTTG	**Motta San Giov**	**88.24**	**308**	P	**P**	**01 42 28.4**	**+0.6**
SCLL	**Scilla**	**88.25**	**308**	P	**P**	**01 42 28.6**	**+0.8**
ACER	**Acerenza**	**88.30**	**311**	P	**P**	**01 42 28.8**	**+0.8**
CUC	**Castrocucco**	**88.33**	**310**	eP	**P**	**01 42 27.7**	**-0.4**
	comp=Z,62nm,1.0s,mb5.8						
CUC				LR	LR		
	comp=Z,591nm,22.0s,MS5.0						
SOP	**Sopron**	**88.55**	**318**	⇑eP	**P**	**01 42 29.0**	**0.0**
VRAC	**Vranov**	**88.69**	**319**	P	**P**	**01 42 30.2**	**+0.5**
GKP	**Gorka Klasztor**	**88.73**	**323**	iPc	**P**	**01 42 30.0**	**+0.2**
GKP				epP	pP	01 42 41.1	-3.0
GKP				ePP	PP	01 46 00.2	+1.1
GKP				eSKS		01 52 52.5	
GKP				eS	S	01 53 14.0	+1.0
GKP				LMZ		02 20 05.4	
	comp=Z,400nm,32.7s						
GKP	**Gorka Klasztor**	**88.73**	**323**	⇑iP	**P**	**01 42 30.0**	**+0.2**
GKP				e*PP	pP	01 42 41.1	-3.0
GKP				e		01 46 00.2	
GKP				e		01 52 52.5	
GKP				eS	S	01 53 14.0	+1.0
GKP	**Gorka Klasztor**	**88.73**	**323**	⇑iP	**P**	**01 42 30.0**	**+0.2**
GKP				epP	pP	01 42 41.1	-3.0
GKP				ePP	PP	01 46 00.2	+1.1
GKP				eSKS		01 52 52.5	
GKP				eS	S	01 53 14.0	+1.0
GKP				LR	LR		
	comp=Z,400nm,32.7s,MS4.6						
SGO	**Sicignano**	**88.76**	**311**	P	**P**	**01 42 30.3**	**+0.1**
SGO				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb5.1						
SGO	**Sicignano**	**88.76**	**311**	P	**P**	**01 42 30.3**	**+0.1**
	comp=Z,3.8nm,0.4s,mb5.1						
FG5	**Orsara di Pugl**	**88.86**	**311**	P	**P**	**01 42 30.6**	**0.0**
DPC	**Dobruska-Polom**	**88.97**	**320**	⇑iP	**P**	**01 42 31.9**	**+0.9**
DPC				epP	pP	01 42 44.3	-1.0
DPC				ePP	PP	01 46 02.0	+0.9
WDD	**Wield Dalam**	**89.00**	**306**	PFAKE		01 42 40.0	+8.5
WDD				LR	LR		
	comp=Z,443nm,21.0s,MS4.9						
CSSN	**Cassano Irpino**	**89.00**	**311**	P	**P**	**01 42 31.4**	**0.0**
	comp=Z,30nm,1.1s,mb5.5						
CONA	**Conrad Observa**	**89.04**	**318**	⇑iP	**P**	**01 42 31.3**	**-0.1**
	comp=Z,27nm,1.2s,mb5.5,SNR=16						
CSNA	**Conrad Observa**	**89.04**	**318**	⇑iP	**P**	**01 42 31.2**	**-0.1**
	comp=Z,24nm,1.1s,mb5.4						
KSP	**Ksiaz**	**89.04**	**321**	ePc	**P**	**01 42 32.0**	**+0.8**
KSP				epP	pP	01 42 43.6	-2.0
KSP				e		01 45 09.3	
KSP				LMZ		02 27 53.9	
	comp=Z,900nm,23.2s						
KSP	**Ksiaz**	**89.04**	**321**	⇑eP	**P**	**01 42 31.7**	**+0.4**
KSP				epP	pP	01 42 45.0	-0.6
KSP				eS	S	01 53 17.0	+0.9
UPC	**Upice**	**89.19**	**320**	⇑iP	**P**	**01 42 32.7**	**+0.7**
UPC				epP	pP	01 42 47.5	+1.2
UPC				ePP	PP	01 46 03.6	+0.8
PSB1	**Pescosannita**	**89.19**	**311**	P	**P**	**01 42 31.9**	**-0.3**
	comp=Z,128nm,1.9s,mb5.9						
ARSA	**Arzberg**	**89.20**	**317**	⇑iP	**P**	**01 42 32.4**	**+0.2**
	comp=Z,57nm,1.1s,mb5.8,SNR=19						
BOJS	**Bojanci**	**89.23**	**315**	iP	**P**	**01 42 32.5**	**+0.2**
BOJS				ipP	pP	01 42 47.6	+0.9
BOJS				eSKSac	SKSac	01 52 36.7	-22
TREC	**Trest**	**89.41**	**319**	⇑iP	**P**	**01 42 33.4**	**+0.3**
TREC				epP	pP	01 42 44.1	-3.3
PERS	**Pernice**	**89.42**	**317**	iP	**P**	**01 42 33.5**	**+0.3**
PERS				i	pP	01 42 48.5	+1.0
SOKA	**Soboth**	**89.49**	**317**	⇓iPcP	**P**	**01 42 33.9**	**+0.4**
	comp=Z,92nm,1.1s,mb6.0						
LJU	**Ljubljana**	**89.78**	**316**	iP	**P**	**01 42 35.5**	**+0.6**
LJU				ipP	pP	01 42 50.4	+1.2
OBKA	**Obir**	**89.81**	**316**	⇓iPcP	**P**	**01 42 35.4**	**+0.4**
	comp=Z,68nm,1.3s,mb5.8,SNR=8.7						
SDI	**San Donato**	**89.98**	**312**	P	**P**	**01 42 34.8**	**-1.1**
SDI				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.3						
SDI	**San Donato**	**89.98**	**312**	P	**P**	**01 42 34.8**	**-1.1**
	comp=Z,19nm,1.2s,mb5.3						
PRU	**Pruhonice**	**90.08**	**320**	⇑iP	**P**	**01 42 36.6**	**+0.4**
PRU				epP	pP	01 42 49.5	-1.0
PRU				ePP	PP	01 46 13.6	+3.6
JAVS	**Javornik**	**90.09**	**316**	iP	**P**	**01 42 35.9**	**-0.4**
JAVS				epP	pP	01 42 56.4	+5.7
MOA	**Molln**	**90.10**	**318**	⇑iP	**P**	**01 42 36.2**	**-0.1**
	comp=Z,26nm,1.0s,mb5.5,SNR=17						
PVCC	**Panska Ves**	**90.11**	**320**	⇑iP	**P**	**01 42 36.9**	**+0.6**
PVCC				epP	pP	01 42 50.4	-0.2
VOY	**Vojsko**	**90.22**	**316**	eP	**P**	**01 42 36.5**	**-0.4**
VOY				e	pP	01 42 51.9	+0.6
VOY				e		01 42 57.1	
VOY	**Vojsko**	**90.22**	**316**	eP	**P**	**01 42 36.5**	**-0.4**
VOY				e	pP	01 42 51.9	+0.6
PTQR	**Pietraquaria**	**90.31**	**312**	P	**P**	**01 42 37.6**	**+0.2**
	comp=Z,16nm,0.8s,mb5.4						
AQU	**L'Aquila**	**90.33**	**312**	P	**P**	**01 42 38.3**	**+0.8**
	comp=Z,35nm,1.0s,mb5.7						
MYKA	**Terra Mystica**	**90.44**	**316**	⇑iP	**P**	**01 42 37.9**	**0.0**
	comp=Z,47nm,1.5s,mb5.6						
BRG	**Berggiesshubel**	**90.53**	**321**	iP	**P**	**01 42 38.7**	**+0.5**
BRG				i*PP	pP	01 42 53.7	+1.1
BRG				e		01 53 04.0	
BRG				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.2						
BRG				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.6						
BRG				pmax	pmax		
	comp=N,38nm,1.5s						
BRG				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.8						
BRG				MLR	MLR		
	comp=N,8µm,23.8s,MS6.1						
BRG				MLR	MLR		

	comp=E,220nm,19.7s,MS6.1						
BRG				MLR	MLR		
	comp=Z,302nm,23.8s,MS4.7						
BRG	Berggiesshubel	90.53	321	eP	P	01 42 38.8	+0.6
	comp=Z,59nm,1.1s,mb5.8						
BRG				epP	pP	01 42 53.5	+0.9
BRG				esP	sP	01 42 59.8	+1.8
BRG	Berggiesshubel	90.53	321	i P	P	01 42 38.7	+0.5
	comp=Z,59nm,1.1s,mb5.8						
BRG				i pP	pP	01 42 53.7	+1.1
	comp=Z,64nm,1.2s						
BRG				i sP	sP	01 42 59.6	+1.6
	comp=Z,82nm,1.4s						
BRG				ePP	PP	01 46 29.7	+16
	comp=Z,13nm,1.1s						
BRG				eSKS		01 53 04.0	
BRG				S	S	01 53 50.0	+20
BRG							
	comp=N,367nm,23.8s						
BRG							
	comp=E,504nm,19.7s						
BRG							
	comp=Z,808nm,23.8s						
BRG	Berggiesshubel	90.53	321	i P	P	01 42 38.7	+0.5
	comp=Z,35nm,1.1s,mb5.6						
BRG				i pP	pP	01 42 53.7	+1.1
BRG				i sP	sP	01 42 59.6	+1.6
BRG				ePP	PP	01 46 29.7	+16
BRG				eSKS		01 53 04.0	
BRG				S	S	01 53 50.0	+20
BRG				LR	LR		
	comp=Z,480nm,23.8s,MS4.8						
GEC2	GERESS Array S	90.55	319	eP	P	01 42 38.9	+0.5
GEC2				e*PP	pP	01 42 53.6	+0.9
GEC2				pmax	pmax		
	comp=Z,107nm,1.4s,mb6.0						
GEC2	GERESS Array S	90.55	319	eP	P	01 42 38.9	+0.5
	comp=Z,107nm,1.4s,mb6.0						
GEC2				epP	pP	01 42 53.6	+0.9
GEC2				esP	sP	01 43 00.0	+1.9
GERES	GERESS Array B	90.55	319	P	P	01 42 38.7	+0.3
GERES				*PP	pP	01 42 53.7	+1.0
GERES				pmax	pmax		
	comp=Z,24nm,0.9s						
GERES				pmax	pmax		
	comp=Z,27nm,1.1s						
GERES	GERESS Array B	90.55	319	P	P	01 42 38.7	+0.4
	comp=Z,24nm,0.9s,mb5.5,baz=93,slow=4.5,SNR=157						
GERES				pP	pP	01 42 53.7	+1.0
	comp=Z,27nm,1.1s,baz=88,slow=4.1,SNR=12						
NRCA	Norcia	90.57	313	P	P	01 42 39.0	+0.4
	comp=Z,22nm,1.3s,mb5.3						
PTCC	Patocco-Chiusa	90.62	316	P	P	01 42 38.8	0.0
	comp=Z,25nm,1.4s,mb5.3						
KHC	Kasperske Hory	90.65	319	⇑iP	P	01 42 38.9	+0.1
KHC				epP	pP	01 42 50.5	-2.7
KHC				AMS	AMS	02 32 30.0	
	comp=Z,600nm,20.5s						
KBA	Koelnbreinsper	90.67	317	⇑iP	P	01 42 38.6	-0.4
	comp=Z,32nm,1.1s,mb5.5,SNR=11						
GMNA	Gemona	90.69	316	P	P	01 42 39.7	+0.6
	comp=Z,28nm,0.3s,mb6.1						
RUE	Ruedersdorf	90.74	322	eP	P	01 42 39.8	+0.6
	comp=Z,166nm,1.1s,mb6.3						
RUE				epP	pP	01 42 54.4	+0.9
RUE				esP	sP	01 43 00.6	+1.6
RUE	Ruedersdorf	90.74	322	eP	P	01 42 39.7	+0.5
	comp=Z,160nm,1.1s,mb6.3						
FBE	Freiberg	90.91	321	eP	P	01 42 40.6	+0.6
	comp=Z,65nm,1.0s,mb5.9						
FBE				epP	pP	01 42 54.9	+0.6
FBE				esP	sP	01 43 01.4	+1.6
RJOB	Jochberg	91.08	318	eP	P	01 42 40.5	-0.4
	comp=Z,28nm,1.0s,mb5.5						
RJOB				epP	pP	01 42 55.4	+0.2
WET	Wettzell	91.11	319	eP	P	01 42 41.4	+0.4
WET				e*PP	pP	01 42 56.2	+0.9
WET				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.9						
WET	Wettzell	91.11	319	eP	P	01 42 41.4	+0.4
	comp=Z,70nm,1.1s,mb5.9						
WET				epP	pP	01 42 56.2	+0.9
WET				esP	sP	01 43 02.4	+1.7
RGN	Rugen	91.15	324	eP	P	01 42 41.3	+0.3
	comp=Z,93nm,1.2s,mb6.0						
CLL	Collm	91.15	321	⇑iP	P	01 42 40.7	-0.4
CLL				i *PP	pP	01 42 55.9	+0.4
CLL				eS	S	01 53 37.0	+1.5
CLL				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.5						
CLL				MLR	MLR		
	comp=Z,300nm,18.9s,MS4.8						
CLL	Collm	91.15	321	eP	P	01 42 41.1	0.0
	comp=Z,40nm,1.1s,mb5.7						
CLL				epP	pP	01 42 55.6	+0.1
CLL				esP	sP	01 43 02.0	+1.1
CLL	Collm	91.15	321	⇑iP	P	01 42 40.7	-0.4
	comp=Z,41nm,1.1s,mb5.7						
CLL				i pP	pP	01 42 55.9	+0.4
CLL				i sP	sP	01 43 01.5	+0.6
CLL				ePP	PP	01 46 19.0	+0.6
CLL				eS	S	01 53 37.0	+1.5
CLL				e		01 54 17.0	
CLL				ePS	PS	01 54 52.0	+2.0
CLL				eSSS		02 03 30.0	
CLL				eSSSS		02 06 31.0	
CLL				Lm		02 30 00.0	
	comp=N,200nm,21.1s						
CLL				Lm		02 30 00.0	
	comp=E,300nm,21.0s						
CLL				LV		02 44 00.0	
	comp=Z,300nm,18.9s						
CLL	Collm	91.15	321	⇑iP	P	01 42 40.7	-0.4
	comp=Z,41nm,1.1s,mb5.7						
CLL				i pP	pP	01 42 55.9	+0.4
CLL				eS	S	01 53 37.0	+1.5
CLL				LR	LR		
	comp=Z,300nm,18.9s,MS4.8						
ABTA	Abfaltersbach	91.22	317	i P	P	01 42 41.1	-0.5
	comp=Z,31nm,1.0s,mb5.6,SNR=18						
HFS	Hagfors	91.30	330	LR	LR	02 29 34.5	
	comp=Z,595nm,18.7s,MS5.1,baz=92,slow=39						
SEST	Monte Rota	91.42	317	P	P	01 42 41.7	-0.8
NKC	Novy Kostel	91.44	320	⇑iP	P	01 42 42.9	+0.4
NKC				epP	pP	01 42 55.3	-1.6
TANN	Tannenbergstha	91.44	320	eP	P	01 42 42.9	+0.4
	comp=Z,33nm,1.2s,mb5.5						
TANN				epP	pP	01 42 57.2	+0.3
TANN				esP	sP	01 43 03.8	+1.5
WERN	Wernitzgruen	91.49	320	eP	P	01 42 43.3	+0.6
	comp=Z,33nm,1.1s,mb5.6						
WERN				epP	pP	01 42 58.0	+0.9
GUNZ	Gunzen	91.52	320	eP	P	01 42 43.3	+0.4
	comp=Z,44nm,1.1s,mb5.7						
GUNZ				epP	pP	01 42 58.2	+1.0
GUNZ				esP	sP	01 43 04.2	+1.6
WERD	Werda	91.55	320	eP	P	01 42 43.3	+0.3
	comp=Z,36nm,1.1s,mb5.6						
WERD				epP	pP	01 42 57.9	+0.6
WERD				esP	sP	01 43 04.2	+1.5
ROTZ	Rotzenmuhle	91.58	320	eP	P	01 42 44.0	+0.9
	comp=Z,41nm,1.1s,mb5.7						
ROTZ				epP	pP	01 42 58.6	+1.1
PLN	Plauen	91.64	320	eP	P	01 42 43.7	+0.3
	comp=Z,79nm,1.2s,mb5.9						
PLN				epP	pP	01 42 58.7	+0.9
PLN				esP	sP	01 43 04.7	+1.5
MANZ	Manzenberg	91.65	320	eP	P	01 42 44.3	+0.8
	comp=Z,80nm,1.2s,mb5.9						
MANZ				epP	pP	01 42 59.0	+1.2
MANZ				esP	sP	01 43 05.2	+2.0
CTI	Castel Tesino	91.78	316	P	P	01 42 44.6	+0.4
SPITS	Spitsbergen Ar	91.83	348	LR	LR	02 30 18.2	
	comp=Z,688nm,19.9s,MS5.1,baz=5.0,slow=40						
WTTA	Wattenberg	91.84	317	i P	P	01 42 44.1	-0.4
	comp=Z,55nm,0.9s,mb5.9,SNR=16						
WATA	Walderalm	91.89	317	⇑iP	P	01 42 44.0	-0.6
	comp=Z,20nm,0.8s,mb5.5,SNR=8.7						
NEUB	Neuenburg	91.92	321	eP	P	01 42 44.9	+0.2
	comp=Z,92nm,1.0s,mb6.1						
NEUB				epP	pP	01 42 59.6	+0.6
NEUB				esP	sP	01 43 05.9	+1.5
MOX	Moxa	91.99	320	eP	P	01 42 45.2	+0.2
	comp=Z,46nm,1.3s,mb5.7						
MOX				ePP	pP	01 42 59.1	-0.3
MOX				eSP	sP	01 43 06.2	+1.4
MOX	Moxa	91.99	320	eP	P	01 42 45.2	+0.2
MOX				e	pP	01 42 59.1	-0.3
MOX				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.7						
MOX	Moxa	91.99	320	eP	P	01 42 45.4	+0.4
	comp=Z,45nm,1.3s,mb5.6						
MOX				esP	sP	01 43 06.3	+1.5
FUR	Furstenfeldbru	92.12	318	eP	P	01 42 45.7	0.0
FUR				e*PP	pP	01 43 00.7	+0.6
FUR				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.8						
FUR	Furstenfeldbru	92.12	318	eP	P	01 42 45.7	0.0
	comp=Z,55nm,1.0s,mb5.8						
FUR				epP	pP	01 43 00.7	+0.6
FUR				esP	sP	01 43 06.5	+1.0
MOTA	Moosalm	92.21	317	⇑iP	P	01 42 45.8	-0.4
	comp=Z,46nm,0.9s,mb5.8,SNR=20						
GRA1	Grafenberg Arr	92.21	319	eP	P	01 42 46.7	+0.6
	comp=Z,64nm,1.1s,mb5.9						
GRA1				ePP	PP	01 46 28.1	+1.3
GRA1				eS	S	01 53 46.5	+1.3
GRA1				LR	LR		
	comp=Z,400nm,21.3s,MS4.8						
GRF	Grafenberg Arr	92.21	319	eP	P	01 42 46.7	+0.6
	comp=Z,64nm,1.1s,mb5.9						
GRF				ePP	PP	01 46 28.1	+1.3
GRF				eS	S	01 53 46.5	+1.3
GRF				eL		02 28 09.9	
	comp=Z,410nm,21.3s						
RETA	Reutte	92.45	317	⇑iP	P	01 42 46.9	-0.3
	comp=Z,41nm,0.9s,mb5.7,SNR=28						
FETA	Feichten	92.45	317	i PcP	P	01 42 47.3	+0.1
	comp=Z,38nm,1.0s,mb5.7,SNR=26						
NB2	NORSAR Subarra	92.56	331	P	P	01 42 46.7	-0.7
	comp=Z,36nm,1.0s,mb5.8,baz=92,slow=4.6						
NOA	NORSAR Array B	92.56	331	P	P	01 42 46.8	-0.6
NOA				*PP	pP	01 43 00.3	-1.5
NOA						01 46 27.7	
NOA				pmax	pmax		
	comp=Z,21nm,0.9s						
NOA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
NOA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NOA				MLR	MLR		
	comp=Z,461nm,21.4s						
NOA	NORSAR Array B	92.56	331	P	P	01 42 46.8	-0.7
	comp=Z,20nm,0.9s,mb5.6,baz=93,slow=4.7,SNR=37						
NOA				pP	pP	01 43 00.3	-1.5
	comp=Z,9.5nm,0.9s,baz=95,slow=5.0,SNR=6.8						
NOA				PP	PP	01 46 27.7	-1.5
	comp=Z,4.9nm,0.9s,baz=94,slow=7.4,SNR=6.3						
NOA				LR	LR	02 28 03.7	
	comp=Z,461nm,21.4s,MS4.9,baz=100,slow=38						
VLC	Villacollemand	92.61	314	PFAKE		01 43 00.0	+12
VLC				LR	LR		
	comp=Z,393nm,21.0s,MS4.8						
KBS	Kingsbay	92.75	349	PFAKE		01 43 00.0	+12
KBS				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
CLZ	Clausthal	92.81	322	eP	P	01 42 49.1	+0.3
CLZ				e*PP	pP	01 43 03.7	+0.5
CLZ				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.7						
CLZ	Clausthal	92.81	322	eP	P	01 42 49.1	+0.3
	comp=Z,35nm,1.1s,mb5.7						
CLZ				epP	pP	01 43 03.7	+0.5
CLZ				esP	sP	01 43 10.2	+1.6
BSEG	Bad Segeberg	92.89	324	eP	P	01 42 49.4	+0.3
BSEG				e*PP	pP	01 43 03.9	+0.4
BSEG				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.9						
BSEG	Bad Segeberg	92.89	324	eP	P	01 42 49.4	+0.3
	comp=Z,47nm,1.0s,mb5.9						
BSEG				epP	pP	01 43 03.9	+0.4
NRDL	Niedersach Rie	92.99	322	eP	P	01 42 50.0	+0.4
	comp=Z,38nm,1.0s,mb5.8						
UBBA	Unterbreizbach	93.02	321	eP	P	01 42 49.8	0.0
	comp=Z,28nm,1.5s,mb5.5						
DAVA	Damuels	93.04	317	⇑iPcP	PcP	01 42 50.2	-0.4
	comp=Z,63nm,0.9s,SNR=24						
KEST	Kesra	93.20	305	P	P	01 42 52.3	+1.4
	comp=Z,11nm,1.0s,mb5.2,baz=287,slow=0.7,SNR=21						
KEST				LR	LR	02 23 02.7	
	comp=Z,204nm,21.0s,MS4.6,baz=77,slow=34						
VSL	Villasalto	93.25	309	PFAKE		01 43 00.0	+8.9
VSL				LR	LR		
	comp=Z,260nm,21.0s,MS4.7						
KONO	Kongsberg	93.34	329	P	P	01 42 51.1	0.0
KONO				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.7						
KONO	Kongsberg	93.34	329	eP	P	01 42 50.9	-0.2
TUE	Stuetta	93.39	316	PFAKE		01 43 00.0	+8.4
TUE				LR	LR		
	comp=Z,393nm,19.0s,MS4.9						
STU	Stuttgart	93.52	319	eP	P	01 42 52.0	-0.1
	comp=Z,40nm,1.2s,mb5.7						
TOD	Tromm	93.78	319	eP	P	01 42 53.1	-0.2
SPAK	Spaichingen-Ko	93.79	318	eP	P	01 42 53.1	-0.3
TNS	Taunus Mts	94.01	320	eP	P	01 42 54.7	+0.3
TNS				e*PP	pP	01 43 09.2	+0.5
TNS				pmax	pmax		
	comp=Z,88nm,1.0s,mb6.1						
TNS	Taunus Mts	94.01	320	eP	P	01 42 54.7	+0.3
	comp=Z,88nm,1.0s,mb6.1						
TNS				epP	pP	01 43 09.2	+0.5
TNS				esP	sP	01 43 15.6	+1.5
BFO	Black Forest	94.09	318	i P	P	01 42 54.7	-0.1
BFO	Black Forest	94.09	318	eP	P	01 42 54.4	-0.4
	comp=Z,18nm,1.1s,mb5.4						
FELD	Feldberg im Sc	94.31	318	eP	P	01 42 55.3	-0.5
IBBN	Ibbenburen	94.43	322	eP	P	01 42 56.3	+0.1
	comp=Z,35nm,1.0s,mb5.7						
LANF	Langenberg	94.44	319	eP	P	01 42 56.4	+0.1
LIBD	Limburg	94.58	318	eP	P	01 42 57.0	0.0
ABH	Alteburg	94.59	320	eP	P	01 42 57.0	0.0
BUG	Bochum--Univer	94.74	321	eP	P	01 42 57.9	+0.2
	comp=Z,19nm,0.9s,mb5.5						
BUG				epP	pP	01 43 12.2	+0.1
BUG				esP	sP	01 43 18.4	+0.9
CDF	Champ du Feu	94.80	318	eP	P	01 42 57.5	-0.5
	comp=Z,20nm,0.9s,mb5.2						
CDF				epP	pP	01 43 11.7	-0.7
CDF	Champ du Feu	94.80	318	eP	P	01 42 57.5	-0.5
CDF				e*PP	pP	01 43 11.7	-0.7
CDF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.2						
CDF	Champ du Feu	94.80	318	eP	P	01 42 57.5	-0.5
	comp=Z,9.8nm,0.9s,mb5.2						
CDF				epP	pP	01 43 11.7	-0.7
ECH	Echery	94.88	318	eP	P	01 42 57.7	-0.7
ECH	Echery	94.88	318	P	P	01 42 58.3	-0.1
ECH				e	pP	01 43 12.7	-0.1
ECH				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.3						
ECH	Echery	94.88	318	eP	P	01 42 58.2	-0.2
	comp=Z,11nm,0.9s,mb5.3						
ECH				LR	LR		
	comp=Z,467nm,22.0s,MS4.9						
MOF	Molkenrain	94.90	318	eP	P	01 42 57.5	-1.0
RUP	Ruppelstein	94.91	319	eP	P	01 42 58.6	+0.1
LOMF	Lomont	95.12	317	eP	P	01 42 58.8	-0.7
LPG	La Plagne	95.20	315	eP	P	01 42 59.9	0.0
	comp=Z,19nm,0.9s,mb5.2						
LPG				epP	pP	01 43 14.0	-0.3
LPG	La Plagne	95.20	315	eP	P	01 42 59.9	0.0
LPG				e*PP	pP	01 43 14.0	-0.3
LPG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.2						
LPG	La Plagne	95.20	315	eP	P	01 42 59.9	0.0
	comp=Z,9.4nm,0.9s,mb5.2						
LPG				epP	pP	01 43 14.0	-0.3
LPL	La Plagne	95.22	315	eP	P	01 42 59.9	-0.1
	comp=Z,32nm,1.0s,mb5.4						
LPL	La Plagne	95.22	315	eP	P	01 42 59.9	-0.1
LPL				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.4						
LPL	La Plagne	95.22	315	eP	P	01 42 59.9	-0.1
	comp=Z,16nm,1.0s,mb5.4						
BNI	Bardonecchia	95.27	315	PFAKE		01 43 10.0	+10
BNI				LR	LR		
	comp=Z,550nm,20.0s,MS5.0						
HAU	Haudompre	95.42	318	eP	P	01 43 00.3	-0.6
	comp=Z,58nm,1.0s,mb5.6						
HAU				eMLR	MLR		
	comp=Z,308nm,20.2s,MS4.5						
HAU	Haudompre	95.42	318	eP	P	01 43 00.3	-0.6
HAU				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.7						
HAU				MLR	MLR		
	comp=Z,310nm,20.3s,MS4.8						
HAU	Haudompre	95.42	318	eP	P	01 43 00.3	-0.6
	comp=Z,29nm,1.0s,mb5.7						
HAU				LR	LR		
	comp=Z,310nm,20.3s,MS4.8						
WLF	Walferdange	95.50	319	P	P	01 43 01.7	+0.5
	comp=Z,11nm,1.9s,mb5.0						
WLF	Walferdange	95.50	319	eP	P	01 43 01.9	+0.7
WLF				e*PP	pP	01 43 16.3	+0.7
WLF				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.6						
WLF				MLR	MLR		
	comp=Z,546nm,20.0s,MS5.0						
WLF	Walferdange	95.50	319	eP	P	01 43 01.5	+0.3
	comp=Z,26nm,1.2s,mb5.5						
WLF	Walferdange	95.50	319	eP	P	01 43 01.9	+0.7
	comp=Z,31nm,1.3s,mb5.6						
WLF				epP	pP	01 43 16.3	+0.7
WLF				LR	LR		
	comp=Z,546nm,20.0s,MS5.0						
MEM	Membach	95.56	320	P	P	01 43 00.7	-0.8
	comp=Z,6.8nm,1.1s,mb5.0						
CABF	La Chapelle	95.64	316	eP	P	01 43 01.8	-0.1
	comp=Z,25nm,0.9s,mb5.3						
CABF	La Chapelle	95.64	316	eP	P	01 43 01.8	-0.1
CABF				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.3						
CABF	La Chapelle	95.64	316	eP	P	01 43 01.8	-0.1
	comp=Z,12nm,0.9s,mb5.3						
THEF	They Montfort	95.66	318	eP	P	01 43 00.7	-1.3
ORIF	Oris-en-Rattie	95.83	315	eP	P	01 43 01.6	-1.2
	comp=Z,45nm,1.3s,mb5.4						
ORIF				eMLR	MLR		
	comp=Z,418nm,22.0s,MS4.6						
ORIF	Oris-en-Rattie	95.83	315	eP	P	01 43 01.6	-1.2
ORIF				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.5						
ORIF	Oris-en-Rattie	95.83	315	eP	P	01 43 01.6	-1.2
	comp=Z,23nm,1.3s,mb5.4						
BCLA	Clavier	96.02	320	P	P	01 43 04.1	+0.6
	comp=Z,6.0nm,1.2s,mb4.9						
MEZF	Maizieres J'vi	96.27	318	eP	P	01 43 04.4	-0.3
	comp=Z,27nm,0.9s,mb5.4						
MEZF				epP	pP	01 43 18.6	-0.5
MEZF	Maizieres J'vi	96.27	318	eP	P	01 43 04.4	-0.3
	comp=Z,27nm,0.9s,mb5.7						
MEZF				epP	pP	01 43 18.6	-0.5
TAM	Tamanrasset	96.34	292	eP	P	01 43 06.7	+1.1
TAM				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.5						
TAM				MLR	MLR		
	comp=Z,423nm,19.0s,MS4.9						
TAM	Tamanrasset	96.34	292	eP	P	01 43 06.7	+1.1
	comp=Z,2.2nm,1.1s,mb4.5						
TAM				LR	LR		
	comp=Z,423nm,19.0s,MS4.9						
GIVF	Givet	96.34	320	eP	P	01 43 04.6	-0.4
DOU	Dourbes	96.49	320	P	P	01 43 05.5	-0.2
	comp=Z,6.6nm,1.2s,mb4.9						
BAIF	Baives	96.74	320	eP	P	01 43 06.7	-0.1
	comp=Z,36nm,1.0s,mb5.4						
BAIF				epP	pP	01 43 20.8	-0.4
BAIF	Baives	96.74	320	eP	P	01 43 06.7	-0.1
BAIF				e*PP	pP	01 43 20.8	-0.4
BAIF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.5						
BAIF	Baives	96.74	320	eP	P	01 43 06.7	-0.1
	comp=Z,18nm,1.0s,mb5.5						
BAIF				epP	pP	01 43 20.8	-0.4
LOR	Lormes	97.14	317	eP	P	01 43 08.2	-0.5
	comp=Z,33nm,1.1s,mb5.4						
LOR				epP	pP	01 43 22.4	-0.7
LOR				eMLR	MLR		
	comp=Z,308nm,22.2s,MS4.4						
LOR	Lormes	97.14	317	eP	P	01 43 08.2	-0.5
LOR				e*PP	pP	01 43 22.4	-0.7
LOR				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.4						
LOR				MLR	MLR		
	comp=Z,310nm,22.3s,MS4.7						
LOR	Lormes	97.14	317	eP	P	01 43 08.2	-0.5
	comp=Z,17nm,1.1s,mb5.4						
LOR				epP	pP	01 43 22.4	-0.7
LOR				LR	LR		
	comp=Z,310nm,22.3s,MS4.7						
SMF	Signal de Mont	97.19	316	eP	P	01 43 08.4	-0.5
	comp=Z,49nm,1.2s,mb5.5						
SMF				epP	pP	01 43 22.6	-0.7
SMF	Signal de Mont	97.19	316	eP	P	01 43 08.4	-0.5
SMF				e*PP	pP	01 43 22.6	-0.7
SMF				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.5						
SMF	Signal de Mont	97.19	316	eP	P	01 43 08.4	-0.5
	comp=Z,24nm,1.2s,mb5.5						
SMF				epP	pP	01 43 22.6	-0.7
PLDF	La Plantade	97.38	316	eP	P	01 43 09.3	-0.5
SSF	Saint Saulge	97.39	317	eP	P	01 43 09.5	-0.3
AVF	Avril sur Loir	97.51	317	eP	P	01 43 09.9	-0.5
	comp=Z,14nm,1.1s,mb5.1						
AVF	Avril sur Loir	97.51	317	eP	P	01 43 09.9	-0.5
AVF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb5.1						
AVF	Avril sur Loir	97.51	317	eP	P	01 43 09.9	-0.5
	comp=Z,7.2nm,1.1s,mb5.1						
LBL	Lubilhac	97.68	315	eP	P	01 43 11.3	+0.1
AGO	Saint Agoulin	97.71	316	eP	P	01 43 10.7	-0.6
BGF	Bois d'Agland	97.88	316	eP	P	01 43 11.9	-0.1
	comp=Z,80nm,1.6s,mb5.7						
BGF				epP	pP	01 43 26.2	-0.2
BGF	Bois d'Agland	97.88	316	eP	P	01 43 11.9	-0.1
BGF				e*PP	pP	01 43 26.2	-0.2
BGF				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.7						
BGF	Bois d'Agland	97.88	316	eP	P	01 43 11.9	-0.1
	comp=Z,40nm,1.6s,mb5.7						
BGF				epP	pP	01 43 26.2	-0.2
TCF	Toulx Ste Croi	98.33	316	eP	P	01 43 14.1	0.0
JMIC	Jan Mayen	99.15	342	LR	LR	02 33 33.6	
	comp=Z,726nm,19.1s,MS5.2,baz=292,slow=39						
LFF	La Frestale	99.48	315	eP	P	01 43 19.2	0.0
	comp=Z,17nm,0.9s,mb5.3						
LFF	La Frestale	99.48	315	eP	P	01 43 19.2	0.0
LFF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.3						
LFF	La Frestale	99.48	315	eP	P	01 43 19.2	0.0
	comp=Z,8.6nm,0.9s,mb5.3						
TORD	Torodi Ar. Bea	99.88	283	P	Pdif	01 43 21.2	+0.4
	comp=Z,2.4nm,1.0s,baz=82,slow=3.9,SNR=9.1						
TORD				PKiKP	PKiKP	01 47 46.9	-3.1
	comp=Z,1.5nm,1.1s,baz=46,slow=1.4,SNR=4.3						
MCK	McKinley	101.40	25	eP	Pdif	01 43 26.3	-1.2
COLA	College	101.51	24	PFAKE		01 43 40.0	+12
COLA				LR	LR		
	comp=Z,526nm,20.0s,MS5.0						
EGAK	Eagle	104.21	23	PFAKE		01 43 50.0	+10
EGAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
SFS	San Fernando	105.72	307	PFAKE		01 48 10.0	+10
SFS				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
RTC	Rabat Centre	106.58	304	PFAKE		01 48 10.0	+8.3
RTC				LR	LR		
	comp=Z,465nm,19.0s,MS5.0						
PPT	Papeete	107.39	109	eLR	LR	02 19 05.6	
	comp=Z,460nm,23.2s						
PMSA	Palmer Station	111.54	187	PFAKE		01 48 20.0	+10
PMSA				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
SFJD	Kangerlussuaq	113.17	348	PFAKE		01 48 20.0	+6.9
SFJD				LR	LR		
	comp=Z,906nm,20.0s,MS5.4						
YKA	Yellowknife Ar	114.96	17	PKIKP	PKiKP	01 48 15.0	-1.7
YKA						01 58 57.3	
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	114.96	17	PKP	PKiKP	01 48 15.0	-1.7
	comp=Z,3.4nm,0.9s,baz=314,slow=2.3,SNR=27						
YKA				PKKPbc	PKKPbc	01 58 57.3	+1.7
	comp=Z,0.1nm,0.5s,baz=107,slow=9.0,SNR=3.6						
YKA				PKKP	PKKPdf	01 59 15.7	-3.2

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      comp=Z,0.4nm,0.7s,baz=134,slow=3.1,SNR=6.2
YKA   Yellowknife Ar   114.96  17  PKP      PKiKP    01 48 15.1 -1.6
YKA                                PKKPbc   PKKPbc   01 58 57.3 +1.7
YKA                                PKKP     PKKPdf   01 59 15.7 -3.2
TAOE  Nuku Hiva Isla   117.77 102  eLR      LR       02 24 12.6
      comp=Z,2µm,26.0s
RKT   Rikitea          119.48 119  eSS      SS       02 06 11.6 +2.8
      comp=Z,406nm,32.0s
RKT                                eLR      LR       02 24 39.7
      comp=Z,758nm,40.2s
A05A  Maple Falls      121.20  32  ⇓P       PKPdf    01 48 28.2 -1.0
      baz=121
A06A  Chilliwack       121.45  31  ⇑P       PKPdf    01 48 28.5 -1.1
      baz=121
B05A  Bryant           121.63  33  ⇓P       PKPdf    01 48 29.0 -1.0
      baz=122,SNR=7.2
B06A  Marblemount      121.81  32  ⇑P       PKPdf    01 48 29.8 -0.5
      baz=122
E03A  Lebam            121.81  35  ⇓P       PKPdf    01 48 29.8 -0.5
      baz=122
A07A  Ashnola River,   122.05  31  ⇑P       PKPdf    01 48 29.8 -1.0
      baz=122,SNR=6.6
F03A  Seaside          122.16  35  ⇑P       PKPdf    01 48 30.6 -0.4
      baz=122
C05A  Tolt Reservoir   122.19  33  ⇑P       PKPdf    01 48 30.2 -0.9
      baz=122,SNR=5.2
EDM   Edmonton         122.42  24   PKIKP   PKPdf    01 48 30.6 -0.7
EDM   Edmonton         122.42  24  ePKPdf   PKPdf    01 48 30.5 -0.9
C06A  Tall Timber Ra   122.48  32  ⇑P       PKPdf    01 48 31.0 -0.6
      baz=122
B07A  Winthrop         122.56  31  ⇓P       PKPdf    01 48 31.0 -0.7
      baz=122,SNR=6.2
A08A  Turner Farm, O   122.68  31  ⇓P       PKPdf    01 48 31.5 -0.5
      baz=123
LON   Longmire         122.68  34  ePKIKP   PKPdf    01 48 31.5 -0.5
F04A  Amboy            122.82  35  ⇓P       PKPdf    01 48 31.9 -0.5
      baz=123,SNR=9.5
D06A  Cle Elum         122.95  33  ⇑P       PKPdf    01 48 31.9 -0.7
      baz=123
A09A  Danville         123.01  30  ⇑P       PKPdf    01 48 32.1 -0.5
      baz=123,SNR=5.4
B08A  Colville Reser   123.03  31  ⇑P       PKPdf    01 48 31.8 -0.9
      baz=123,SNR=12
C07A  Waterville       123.07  32  ⇓P       PKPdf    01 48 31.7 -1.0
      baz=123,SNR=5.5
TBM   Table Mountain   123.10  33   P       PKPdf    01 48 32.8  0.0
FCC   Fort Churchill   123.11   9  ePKIKP   PKPdf    01 48 31.2 -1.3
G04A  Mulino           123.20  36  ⇓P       PKPdf    01 48 32.8 -0.2
      baz=123
E06A  Yakima           123.27  34  ⇓P       PKPdf    01 48 32.6 -0.6
      baz=123
EBG   Ellensburg       123.27  33   P       PKPdf    01 48 32.9 -0.2
D07A  Quincy           123.42  33  ⇓P       PKPdf    01 48 32.6 -0.8
      baz=123,SNR=5.5
A10A  Northport        123.52  30  ⇓P       PKPdf    01 48 32.8 -0.8
      baz=124
EPH   Ephrata          123.52  32   P       PKPdf    01 48 33.0 -0.6
C08A  Higginbotham F   123.54  31  ⇓P       PKPdf    01 48 33.0 -0.7
      baz=124,SNR=11
B09A  Rice             123.59  30  ⇓P       PKPdf    01 48 33.1 -0.6
      baz=124,SNR=11
HOOD  Mount Hood Mea   123.61  35  ePKPdf   PKPdf    01 48 34.4 +0.5
H04A  Detroit Lake     123.66  36  ⇓P       PKPdf    01 48 33.2 -0.8
      baz=124
F06A  Goldendale       123.84  34  ⇑P       PKPdf    01 48 34.1 -0.2
      baz=124,SNR=9.2
G05A  Wamic            123.85  35  ⇑P       PKPdf    01 48 34.1 -0.2
      baz=124
E07A  Sunnyside        123.88  33  ⇓P       PKPdf    01 48 34.2 -0.1
      baz=124
C09A  Chrisman Ranch   123.93  31  ⇓P       PKPdf    01 48 33.9 -0.5
      baz=124,SNR=5.7
OD2   Odessa Site #2   123.97  32   P       PKPdf    01 48 33.8 -0.7
D08A  Wollman Farm,    124.07  32  ⇑P       PKPdf    01 48 34.4 -0.3
      baz=124,SNR=12
RSW   Rattlesnake Hi   124.12  33  ePKPdf   PKPdf    01 48 35.1 +0.3
A11A  Hall Mountain,   124.12  29  ⇑P       PKPdf    01 48 34.6 -0.1
      baz=124
B10A  Chitwood Farm,   124.14  30  ⇑P       PKPdf    01 48 34.9 +0.1
      baz=124
HAWA  Hanford          124.15  33  ePKPdf   PKPdf    01 48 34.5 -0.3
HAWA                                LR      LR
      comp=Z,505nm,19.0s,MS5.2
NEW   Newport          124.21  30  ePKIKP   PKPdf    01 48 34.4 -0.5
G06A  Carlson Farm,    124.24  35  ⇑P       PKPdf    01 48 34.8 -0.2
      baz=124,SNR=6.0
F07A  Phinny Hill Vi   124.24  34  ⇑P       PKPdf    01 48 35.2 +0.1
      baz=124,SNR=6.3
HUMO  Hull Mountain    124.35  38  ePKPdf   PKPdf    01 48 35.6 +0.3
HUMO                                LR      LR
      comp=Z,445nm,22.0s,MS5.1
E08A  Dider Farm, El   124.35  33  ⇓P       PKPdf    01 48 35.1 -0.1
      baz=124,SNR=12
D09A  Jones Farm, Ri   124.39  32  ⇓P       PKPdf    01 48 34.5 -0.8
      baz=124,SNR=7.7
C10A  Spilker Farm,    124.41  31  ⇓P       PKPdf    01 48 35.0 -0.3
      baz=124
A12A  Yaak River Ran   124.48  29  ⇑P       PKPdf    01 48 35.0 -0.4
      baz=124,SNR=10
H06A  Lindquist Farm   124.71  35  ⇓P       PKPdf    01 48 35.7 -0.3
      baz=125,SNR=12
KHMM  Horse Mountain   124.77  41  ePKPdf   PKPdf    01 48 36.9 +0.7
G07A  Ruggs Ranch, H   124.77  34  ⇓P       PKPdf    01 48 35.6 -0.5
      baz=125
E09A  Wood Farm, Sta   124.82  32  ⇓P       PKPdf    01 48 35.5 -0.6
      baz=125,SNR=5.4
B12A  Libby            124.83  29  ⇑P       PKPdf    01 48 35.5 -0.5
      baz=125
D10A  Wagner Farm, O   124.93  31  ⇑P       PKPdf    01 48 35.9 -0.5
      baz=125
YBH   Yreka Blue Hor   124.97  39   PKIKP   PKPdf    01 48 35.2 -1.4
YBH                                 pmax    pmax
      comp=Z,6.0nm,1.1s
YBH   Yreka Blue Hor   124.97  39   PKP     PKPdf    01 48 35.2 -1.4
      comp=Z,6.2nm,1.1s,baz=78,slow=5.5,SNR=5.4
FFC   Flin Flon        125.09  16  i PKIKP  PKPdf    01 48 35.4 -1.0
FFC   Flin Flon        125.09  16  ePKPdf   PKPdf    01 48 35.0 -1.4
FFC                                 LR      LR
      comp=Z,1µm,20.0s,MS5.5
G08A  Pilot Rock       125.15  34  ⇑P       PKPdf    01 48 36.7 -0.1
      baz=125,SNR=10.0
LNOR  Lincton Mounta   125.16  33   PKIKP   PKPdf    01 48 36.2 -0.6
WALA  Waterton Lakes   125.21  28  ePKPdf   PKPdf    01 48 36.2 -0.6
H07A  Lands Inn, Kim   125.23  35  ⇑P       PKPdf    01 48 37.0  0.0
      baz=125
I06A  Prineville       125.25  36  ⇓P       PKPdf    01 48 37.2 +0.2
      baz=125,SNR=7.7
E10A  Myers Farm, Un   125.39  32  ⇑P       PKPdf    01 48 36.6 -0.6
      baz=125,SNR=9.7
C12B  Naegeli Ranch,   125.41  30  ⇑P       PKPdf    01 48 36.6 -0.6
      baz=125
D11A  Klaveano Farm,   125.42  31  ⇑P       PKPdf    01 48 36.2 -1.1
      baz=125,SNR=8.1
B13A  Whitefish        125.43  28  ⇑P       PKPdf    01 48 36.7 -0.6
      baz=125,SNR=14
A14A  Double T Ranch   125.50  27  ⇑P       PKPdf    01 48 36.7 -0.7
      baz=125
K05A  Summer Lake      125.55  37  ⇑P       PKPdf    01 48 37.7  0.0
      baz=126
I07A  Izee             125.58  35  ⇓P       PKPdf    01 48 37.7 +0.1
      baz=126,SNR=10
BSMT  Bassoo Peak      125.64  29   P       PKPdf    01 48 35.9 -1.8
F10A  Beach Ranch, E   125.66  32  ⇑P       PKPdf    01 48 37.5 -0.3
      baz=126,SNR=18
J06A  Christmas Vall   125.69  36  ⇓P       PKPdf    01 48 37.7 -0.2
      baz=126,SNR=14
H08A  Prairie City     125.79  34  ⇑P       PKPdf    01 48 37.9 -0.2
      baz=126,SNR=8.1
G09A  Cove             125.81  33  ⇓P       PKPdf    01 48 37.4 -0.7
      baz=126
A15A  Johnson Ranch,   125.81  27  ⇓P       PKPdf    01 48 37.0 -0.9
      baz=126
C13A  Hot Springs      125.87  29  ⇑P       PKPdf    01 48 37.0 -1.1
      baz=126,SNR=9.9
E11A  Bogner Ranch,    125.94  31  ⇑P       PKPdf    01 48 37.5 -0.8
      baz=126,SNR=19
J07A  Hines            126.11  36  ⇓P       PKPdf    01 48 38.9 +0.2
      baz=126,SNR=7.3
G10A  Bishop Farm, J   126.16  33  ⇓P       PKPdf    01 48 38.0 -0.8
      baz=126
I08A  Drewsey          126.22  35  ⇑P       PKPdf    01 48 38.9  0.0
      baz=126,SNR=6.0
H09A  Durkee           126.26  34  ⇑P       PKPdf    01 48 38.3 -0.7
      baz=126
SWMT  Swartz Lake      126.27  29  ePKPdf   PKPdf    01 48 36.8 -2.1
LBCM  Butte Creek Ri   126.32  40   P       PKPdf    01 48 39.1 -0.1
D13A  Huson            126.33  30  ⇓P       PKPdf    01 48 38.1 -0.9
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      baz=126
A16A  West Butte Ran   126.34  26  ⇑P       PKPdf    01 48 38.4 -0.6
      baz=126
B15A  Bradely Ranch,   126.37  27  ⇑P       PKPdf    01 48 38.1 -1.0
      baz=126,SNR=16
MOD   Modoc            126.38  38  ePKPdf   PKPdf    01 48 39.4 +0.1
MOD                                 LR      LR
      comp=Z,444nm,19.0s,MS5.2
K07A  Rock Creek Ran   126.56  37  ⇓P       PKPdf    01 48 39.7 +0.1
      baz=126,SNR=21
J08A  Circle Bar Ran   126.61  35  ⇑P       PKPdf    01 48 39.9 +0.3
      baz=127,SNR=24
I09A  Lost Marbles R   126.65  34  ⇓P       PKPdf    01 48 39.1 -0.6
      baz=127
B16A  M & M Farms, S   126.69  27  ⇑P       PKPdf    01 48 38.9 -0.7
      baz=127
A17A  Triple J Farms   126.73  26  ⇑P       PKPdf    01 48 39.3 -0.4
      baz=127
C15A  Salmond Ranch,   126.74  28  ⇓P       PKPdf    01 48 39.0 -0.7
      baz=127,SNR=14
MSO   Missoula         126.77  30  ePKPdf   PKPdf    01 48 39.0 -0.9
MSO                                 LR      LR
      comp=Z,386nm,20.0s,MS5.1
D14A  Greenough        126.80  29  ⇓P       PKPdf    01 48 38.7 -1.2
      baz=127,SNR=8.2
H10A  Noah's Angus R   126.81  33  ⇑P       PKPdf    01 48 39.2 -0.8
      baz=127,SNR=11
L07A  Adell            126.89  37  ⇑P       PKPdf    01 48 40.6 +0.4
      baz=127,SNR=9.3
E13A  Victor           126.92  30  ⇑P       PKPdf    01 48 39.5 -0.6
      baz=127,SNR=18
K08A  Mann Creek Ran   126.98  36  ⇑P       PKPdf    01 48 40.6 +0.2
      baz=127,SNR=12
J09A  Fry Pan Ranch,   127.03  35  ⇓P       PKPdf    01 48 40.6 +0.1
      baz=127,SNR=18
OHCM  Honcut           127.04  41  ePKPdf   PKPdf    01 48 40.0 -0.6
WVOR  Wild Horse Val   127.07  36  ePKIKP   PKPdf    01 48 40.9 +0.3
WVOR                                MLR     MLR
      comp=Z,490nm,19.0s,MS5.2
I10A  Payette          127.10  34  ⇑P       PKPdf    01 48 40.6  0.0
      baz=127
C16A  Fuhringer Ranc   127.12  27  ⇑P       PKPdf    01 48 39.8 -0.7
      baz=127
A18A  Metzger Ranch,   127.12  25  ⇓P       PKPdf    01 48 40.0 -0.5
      baz=127
H11A  Donnelly         127.14  33  ⇓P       PKPdf    01 48 40.2 -0.5
      baz=127,SNR=18
B17A  L&G Farms, Che   127.18  26  ⇓P       PKPdf    01 48 39.9 -0.7
      baz=127
G12A  Big Creek, Yel   127.22  32  ⇑P       PKPdf    01 48 40.0 -0.8
      baz=127,SNR=7.3
E14A  Clinton          127.28  30  ⇓P       PKPdf    01 48 40.3 -0.5
      baz=127,SNR=7.7
F13A  Darby            127.29  31  ⇑P       PKPdf    01 48 39.9 -1.0
      baz=127,SNR=9.0
D15A  Lincoln          127.31  28  ⇑P       PKPdf    01 48 40.2 -0.6
      baz=127,SNR=9.5
N06A  Buffalo Meadow   127.32  39  ⇓P       PKPdf    01 48 41.1 -0.1
      baz=127
M07A  Soldier Meadow   127.36  38  ⇓P       PKPdf    01 48 41.3 +0.1
      baz=127
L08A  Fields           127.39  37  ⇑P       PKPdf    01 48 41.8 +0.6
      baz=127,SNR=26
SCHQ  Schefferville    127.39 351   PKP     PKPdf    01 48 40.3 -0.5
      comp=Z,12nm,1.0s,baz=337,slow=3.8,SNR=7.7
SCHQ                                PP      PP       01 50 41.1 +0.9
      comp=Z,13nm,1.1s,baz=8.6,slow=10,SNR=4.4
K09A  Rome             127.44  36  ⇓P       PKPdf    01 48 41.6 +0.4
      baz=127,SNR=26
BEKR  Beckwourth       127.48  40  ⇓P       PKPdf    01 48 41.1 -0.3
      baz=127
J10A  Berg Farm, Mel   127.54  34  ⇑P       PKPdf    01 48 41.3 -0.1
      baz=128
B18A  Beardsley Farm   127.55  26  ⇑P       PKPdf    01 48 40.7 -0.6
      baz=128
O06A  Flanigan         127.66  39  ⇓P       PKPdf    01 48 42.2 +0.4
      baz=128
I11A  Placerville      127.68  33  ⇑P       PKPdf    01 48 41.6 -0.1
      baz=128,SNR=7.1
E15A  Deer Lodge       127.69  29  ⇑P       PKPdf    01 48 41.2 -0.4
      baz=128,SNR=5.3
F14A  Wisdom           127.76  30  ⇓P       PKPdf    01 48 41.7 -0.1
      baz=128,SNR=5.4
D16A  Dana Ranch, Ca   127.77  28  ⇓P       PKPdf    01 48 41.9 +0.1
      baz=128,SNR=16
M08A  Happy Creek Ra   127.81  37  ⇓P       PKPdf    01 48 42.7 +0.7
      baz=128,SNR=14
G13A  Cobalt           127.82  31  ⇑P       PKPdf    01 48 41.6 -0.3
      baz=128
N07B  Gerlach          127.84  38  ⇑P       PKPdf    01 48 42.4 +0.3
      baz=128
EGMT  Eagleton         127.84  26  ⇑P       PKPdf    01 48 41.5 -0.4
      baz=128
EGMT  Eagleton         127.84  26  ePKPdf   PKPdf    01 48 41.5 -0.4
EGMT                                LR      LR
      comp=Z,713nm,20.0s,MS5.3
H12A  Diamond D Ranc   127.86  32  ⇓P       PKPdf    01 48 41.5 -0.5
      baz=128,SNR=18
P06A  Stead Airport,   127.88  40  ⇑P       PKPdf    01 48 42.5 +0.3
      baz=128
K10A  MacKenzie Ranc   127.89  35  ⇑P       PKPdf    01 48 42.4 +0.2
      baz=128,SNR=14
L09A  Wilkinson Ranc   127.89  36  ⇑P       PKPdf    01 48 43.0 +0.8
      baz=128,SNR=9.1
E16A  East Helena      128.07  28  ⇓P       PKPdf    01 48 42.1 -0.3
      baz=128,SNR=8.2
MFID  Camas Ranch      128.07  34  ⇑P       PKPdf    01 48 42.8 +0.4
      baz=128,SNR=22
D17A  Six Diamond Ra   128.08  27  ⇓P       PKPdf    01 48 42.2 -0.2
      baz=128
G14A  Jackson          128.11  31  ⇑P       PKPdf    01 48 42.4 -0.1
      baz=128
H13A  Challis          128.17  32  ⇓P       PKPdf    01 48 42.4 -0.2
      baz=128,SNR=25
F15A  Butte            128.18  30  ⇑P       PKPdf    01 48 42.1 -0.4
      baz=128,SNR=7.7
WCN   Washoe City      128.18  40  ⇑P       PKPdf    01 48 43.1 +0.3
      baz=128
PAHR  Pah Rah Range    128.19  40  ePKPdf   PKPdf    01 48 42.9 +0.1
I12A  Atlanta          128.21  33  ⇓P       PKPdf    01 48 43.1 +0.4
      baz=128,SNR=13
LRM   Limekiln Ridge   128.21  30  ePKPdf   PKPdf    01 48 43.0 +0.3
O07A  Toulon           128.26  39  ⇑P       PKPdf    01 48 42.9  0.0
      baz=128
N08A  GE Springer Mi   128.36  38  ⇓P       PKPdf    01 48 43.6 +0.5
      baz=128,SNR=12
K11A  Parker Ranch,    128.37  35  ⇓P       PKPdf    01 48 43.1 +0.1
      baz=128,SNR=8.4
M09A  Marrel Ranch,    128.39  37  ⇑P       PKPdf    01 48 43.8 +0.7
      baz=128,SNR=6.1
D18A  Linhart Farms,   128.45  27  ⇑P       PKPdf    01 48 43.0  0.0
      baz=128
CMB   Columbia Colle   128.46  42  ePKIKP   PKPdf    01 48 43.2 -0.2
CMB                                 MLR     MLR
      comp=Z,509nm,20.0s,MS5.2
DLMT  Dillon           128.47  30  ePKPdf   PKPdf    01 48 43.6 +0.4
E17A  Martinsdale      128.51  28  ⇓P       PKPdf    01 48 43.3 +0.1
      baz=128
L10A  Juniper Basin    128.56  36  ⇑P       PKPdf    01 48 44.3 +0.8
      baz=128,SNR=18
J12A  Stokes Ranch,    128.59  34  ⇓P       PKPdf    01 48 44.0 +0.6
      baz=128,SNR=19
O08A  Rochester Mine   128.63  38  ⇓P       PKPdf    01 48 44.4 +0.8
      baz=129,SNR=16
F16A  Kennard Place,   128.64  29  ⇓P       PKPdf    01 48 43.1 -0.3
      baz=129
G15A  Dillon           128.66  30  ⇓P       PKPdf    01 48 43.8 +0.3
      baz=129
I13A  Wildhorse Cree   128.68  32  ⇓P       PKPdf    01 48 44.0 +0.4
      baz=129,SNR=15
N09A  Rock Creek Ran   128.69  37  ⇑P       PKPdf    01 48 44.4 +0.7
      baz=129,SNR=9.4
BOZ   Bozeman (W)      128.74  29  ⇑P       PKPdf    01 48 44.2 +0.5
      baz=129,SNR=7.5
BOZ   Bozeman (W)      128.74  29  ePKPdf   PKPdf    01 48 43.6  0.0
BOZ                                 LR      LR
      comp=Z,697nm,20.0s,MS5.3
HLID  Hailey           128.75  33  ⇓P       PKPdf    01 48 44.1 +0.4
      baz=129,SNR=14
HLID  Hailey           128.75  33  ePKPdf   PKPdf    01 48 43.9 +0.1
HLID                                LR      LR
      comp=Z,572nm,20.0s,MS5.3
R06C  Coleville        128.81  41  ⇑P       PKPdf    01 48 44.6 +0.6
      baz=129
WAKR  Walker           128.83  41  ePKPdf   PKPdf    01 48 44.9 +0.8
L11A  Cat Creek Ranc   128.92  35  ⇓P       PKPdf    01 48 44.6 +0.4
      baz=129,SNR=21
G16A  Moss Hill, Enn   128.95  30  ⇓P       PKPdf    01 48 44.2 +0.1
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      baz=129,SNR=22
H15A  Lima             128.96  31  ⇓P       PKPdf    01 48 45.0 +0.9
      baz=129,SNR=16
J13A  Cove Ranch, Pi   128.99  33  ⇓P       PKPdf    01 48 44.7 +0.5
      baz=129,SNR=24
F17A  Fitzpatrick Pl   129.02  28  ⇓P       PKPdf    01 48 44.3 +0.2
      baz=129,SNR=7.6
I14A  Mackay           129.02  32  ⇑P       PKPdf    01 48 44.2  0.0
      baz=129
P08A  Dixie Valley     129.03  39  ⇓P       PKPdf    01 48 44.8 +0.4
      baz=129
K12A  Draper Farm, C   129.10  34  ⇑P       PKPdf    01 48 44.5 +0.1
      baz=129,SNR=7.2
BMN   Battle Mountai   129.12  38   PFAKE            01 49 00.0  +15
BMN                                 LR      LR
      comp=Z,621nm,19.0s,MS5.3
O09A  Fish Creek Ran   129.30  38  ⇑P       PKPdf    01 48 45.2 +0.3
      baz=129
L12A  House Creek Ra   129.35  35  ⇑P       PKPdf    01 48 45.6 +0.7
      baz=129,SNR=8.5
M11A  Holland Ranch,   129.36  36  ⇑P       PKPdf    01 48 45.9 +0.9
      baz=129,SNR=7.3
J14A  Carey            129.40  33  ⇑P       PKPdf    01 48 45.6 +0.6
      baz=129,SNR=10
G17A  Pierce Place,    129.41  29  ⇓P       PKPdf    01 48 45.3 +0.4
      baz=129,SNR=6.0
QLMT  Earthquake Lak   129.42  30  ePKPdf   PKPdf    01 48 45.8 +0.8
F18A  Big Timber       129.46  28  ⇑P       PKPdf    01 48 44.8 -0.2
      baz=129
I15A  Monteview        129.48  31  ⇑P       PKPdf    01 48 45.6 +0.5
      baz=129
K13A  Stover Farm, H   129.54  34  ⇓P       PKPdf    01 48 45.5 +0.2
      baz=130,SNR=9.6
Q08A  Gabbs            129.60  40  ⇓P       PKPdf    01 48 45.7 +0.2
      baz=130,SNR=6.7
H16A  Russell Place,   129.60  30  ⇑P       PKPdf    01 48 46.0 +0.6
      baz=130,SNR=9.4
NVAR  Mina Array Bea   129.61  40   PKP     PKPdf    01 48 46.3 +0.8
      comp=Z,11nm,1.0s,baz=255,slow=0.9,SNR=26
O10A  Cortez Mining,   129.65  37  ⇓P       PKPdf    01 48 46.1 +0.5
      baz=130
DGMT  Dagmar           129.73  22  ⇓P       PKPdf    01 48 45.7 +0.2
      baz=130
DGMT  Dagmar           129.73  22   PFAKE            01 49 00.0  +15
DGMT                                LR      LR
      comp=Z,582nm,20.0s,MS5.3
J15A  Blackfoot        129.92  32  ⇑P       PKPdf    01 48 46.4 +0.5
      baz=130,SNR=11
L13A  Double Diamond   129.99  34  ⇑P       PKPdf    01 48 46.4 +0.3
      baz=130,SNR=6.4
YFT   Old Faithful     129.99  30  ePKPdf   PKPdf    01 48 48.7 +2.6
P10A  Eureka           130.07  38  ⇓P       PKPdf    01 48 46.7 +0.4
      baz=130,SNR=7.4
I16A  Newdale          130.08  31  ⇑P       PKPdf    01 48 46.7 +0.5
      baz=130,SNR=6.6
K14A  Jones Ranch, D   130.11  33  ⇑P       PKPdf    01 48 46.5 +0.2
      baz=130,SNR=7.1
ELK   Elko             130.12  36  ePKIKP   PKPdf    01 48 46.9 +0.5
ELK                                 MLR     MLR
      comp=Z,587nm,21.0s
LKWY  Lake             130.12  29  ePKIKP   PKPdf    01 48 47.7 +1.4
LKWY                                MLR     MLR
      comp=Z,832nm,20.0s,MS5.4
N12A  Clover Valley,   130.17  36  ⇑P       PKPdf    01 48 47.2 +0.6
      baz=130,SNR=11
O11A  Cowboy Ranch,    130.25  37  ⇓P       PKPdf    01 48 46.8 +0.1
      baz=130,SNR=13
RLMT  Red Lodge        130.25  28  ⇓P       PKPdf    01 48 46.7 +0.1
      baz=130
RLMT  Red Lodge        130.25  28  ePKPdf   PKPdf    01 48 43.4 -3.1
RLMT                                LR      LR
      comp=Z,709nm,21.0s,MS5.3
M13A  Montello         130.34  35  ⇑P       PKPdf    01 48 47.1 +0.3
      baz=130,SNR=17
K15A  Arbon            130.36  32  ⇓P       PKPdf    01 48 47.0 +0.2
      baz=130,SNR=5.9
LAO   LASA Array       130.39  25  ePKPdf   PKPdf    01 48 47.2 +0.4
LAO                                 LR      LR
      comp=Z,765nm,19.0s,MS5.4
DCID1 Drake Creek      130.43  31  ePKPdf   PKPdf    01 48 48.6 +1.7
J16A  Bone             130.44  31  ⇑P       PKPdf    01 48 47.2 +0.2
      baz=130,SNR=6.5
I17A  Pilgrim Ck.      130.50  30  ⇓P       PKPdf    01 48 47.2 +0.1
      baz=130
TPH   Tonopah          130.51  40   PFAKE            01 49 00.0  +13
TPH                                 LR      LR
      comp=Z,482nm,21.0s,MS5.2
R09A  Tonopah          130.51  40  ⇑P       PKPdf    01 48 47.2 -0.1
      baz=130
RRI2  Red Ridge        130.54  31  ePKPdf   PKPdf    01 48 47.3 +0.2
MOOW  Moose Ponds      130.54  30  ePKPdf   PKPdf    01 48 47.9 +0.8
P11A  Circle Ranch,    130.55  38  ⇑P       PKPdf    01 48 47.4 +0.1
      baz=130
Q10A  Clear Creek Ra   130.59  39  ⇑P       PKPdf    01 48 47.7 +0.3
      baz=130,SNR=6.9
TPAW  Teton Pass       130.62  31  ePKPdf   PKPdf    01 48 48.4 +1.1
N13A  Wendover, West   130.65  35  ⇑P       PKPdf    01 48 47.6 +0.1
      baz=131
O12A  Currie           130.71  36  ⇑P       PKPdf    01 48 47.7 +0.1
      baz=131
S09A  Goldfield        130.71  41  ⇓P       PKPdf    01 48 47.8 +0.2
      baz=131,SNR=7.4
LOHW  Long Hollow      130.71  30  ePKPdf   PKPdf    01 48 47.0 -0.5
M14A  Sheep Mountain   130.71  34  ⇓P       PKPdf    01 48 47.9 +0.4
      baz=131,SNR=19
ULM   Lac du Bonnet    130.74  14   PKP     PKPdf    01 48 45.6 -1.7
      comp=Z,17nm,0.9s,baz=340,slow=3.1,SNR=23
ULM                                 PP      PP       01 50 59.2 -3.0
      comp=Z,6.4nm,0.9s,baz=348,slow=5.7,SNR=3.6
SNOW  Snow King Moun   130.74  31  ePKPdf   PKPdf    01 48 48.7 +1.1
K16A  Soda Springs     130.76  32  ⇑P       PKPdf    01 48 47.6  0.0
      baz=131,SNR=5.9
REDW  Red Top Meadow   130.77  31  ePKPdf   PKPdf    01 48 47.8 +0.2
J17A  Brown Place, J   130.84  31  ⇓P       PKPdf    01 48 48.1 +0.4
      baz=131,SNR=9.5
HVU   Hansel Valley    130.85  34  ePKIKP   PKPdf    01 48 48.0 +0.2
L15A  Malad City       130.91  33  ⇑P       PKPdf    01 48 47.8 -0.1
      baz=131,SNR=7.3
R10A  Warm Springs     130.97  39  ⇓P       PKPdf    01 48 48.1 -0.1
      baz=131
S10A  Tonopah Range,   131.00  40  ⇑P       PKPdf    01 48 48.6 +0.4
      baz=131,SNR=15
ISA   Isabella         131.02  44  ⇓P       PKPdf    01 48 48.0 -0.3
      baz=131
ISA   Isabella         131.02  44  ePKPdf   PKPdf    01 48 47.9 -0.4
I18A  Diamond G Ranc   131.04  30  ⇑P       PKPdf    01 48 48.5 +0.4
      baz=131
Q11A  Duckwater        131.04  38  ⇑P       PKPdf    01 48 48.9 +0.7
      baz=131,SNR=10
AHID  Auburn Hatcher   131.06  31   PFAKE            01 49 00.0  +12
AHID                                LR      LR
      comp=Z,587nm,20.0s,MS5.3
P12A  McGill           131.11  37  ⇑P       PKPdf    01 48 48.6 +0.2
      baz=131,SNR=6.0
N14A  Grayback Hills   131.24  35  ⇓P       PKPdf    01 48 48.4 -0.1
      baz=131,SNR=18
M15A  Larsen Ranch,    131.24  34  ⇓P       PKPdf    01 48 48.3 -0.3
      baz=131,SNR=7.8
DAC   Darwin (Calif)   131.28  42   PFAKE            01 49 00.0  +11
DAC                                 LR      LR
      comp=Z,444nm,19.0s,MS5.2
J18A  Kendall Valley   131.30  30  ⇓P       PKPdf    01 48 48.9 +0.3
      baz=131,SNR=5.8
R11A  Troy Canyon, C   131.39  39  ⇑P       PKPdf    01 48 49.5 +0.5
      baz=131,SNR=34
L16A  Fish Haven       131.41  32  ⇑P       PKPdf    01 48 49.1 +0.3
      baz=131
Q12A  Willow Creek R   131.43  38  ⇓P       PKPdf    01 48 49.3 +0.3
      baz=131,SNR=5.9
MPMC  Manual Prospec   131.47  42  ⇓P       PKPdf    01 48 49.5 +0.4
      baz=131
N15A  Stansbury Isla   131.59  34  ⇓P       PKPdf    01 48 49.2  0.0
      baz=132,SNR=9.1
P13A  Bates Ranch, G   131.66  37  ⇑P       PKPdf    01 48 49.7 +0.3
      baz=132,SNR=10
FURC  Furnace Creek,   131.66  42  ⇓P       PKPdf    01 48 49.9 +0.4
      baz=132
K18A  Toltan Ranch,    131.70  31  ⇓P       PKPdf    01 48 49.8 +0.4
      baz=132
EDW2  Edwards Air Fo   131.77  44  ⇓P       PKPdf    01 48 50.0 +0.2
      baz=132
BW06  Boulder Array    131.85  30  ⇓P       PKPdf    01 48 49.7  0.0
      baz=132,SNR=5.7
BW06  Boulder Array    131.85  30  ePKPdf   PKPdf    01 48 49.9 +0.2
BW06                                LR      LR
      comp=Z,451nm,20.0s,MS5.2
PDAR  Pinedale Array   131.85  30   PKhKP            01 48 42.9
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	comp=Z,0.5nm,0.8s,baz=0.0,slow=1.9,SNR=3.9						
PDAR				PKP	PKPdf	01 48 48.1	-1.6
	comp=Z,2.2nm,0.8s,baz=197,slow=1.1,SNR=16						
PDAR				SKPbc	SKPbc	01 52 08.7	-3.0
	comp=Z,18nm,1.3s,baz=252,slow=2.8,SNR=10						
DUG	**Dugway**	**131.88**	**35**	⇓P	PKPdf	01 48 49.8	0.0
	baz=132,SNR=16						
DUG	**Dugway**	**131.88**	**35**	PFAKE		01 49 00.0	+10
DUG				LR	LR		
	comp=Z,430nm,20.0s,MS5.2						
Q13A	**Wheeler Ranch,**	**131.97**	**37**	⇓P	PKPdf	01 48 50.4	+0.4
	baz=132,SNR=15						
R12A	**Pony Springs,**	**132.01**	**38**	⇑P	PKPdf	01 48 50.0	-0.1
	baz=132						
O15A	**The Old Anders**	**132.02**	**35**	⇑P	PKPdf	01 48 50.5	+0.4
	baz=132						
U10A	**Ash Meadows, A**	**132.04**	**41**	⇓P	PKPdf	01 48 50.3	+0.1
	baz=132						
P14A	**Drum Mountains**	**132.13**	**36**	⇓P	PKPdf	01 48 50.5	+0.2
	baz=132,SNR=23						
K19A	**Absolon Red Bu**	**132.16**	**30**	⇑P	PKPdf	01 48 49.5	-0.7
	baz=132						
N16A	**Rees Ranch, Co**	**132.19**	**33**	⇓P	PKPdf	01 48 50.2	-0.2
	baz=132						
M17A	**Scullys Gap (B**	**132.20**	**32**	⇓P	PKPdf	01 48 50.3	0.0
	baz=132						
L18A	**Fontenelle, Gr**	**132.21**	**31**	⇓P	PKPdf	01 48 50.0	-0.4
	baz=132,SNR=5.5						
CIS	**Catalina Islan**	**132.25**	**46**	⇓P	PKPdf	01 48 51.0	+0.3
	baz=132						
T11A	**Corn Creek, Al**	**132.28**	**40**	⇑P	PKPdf	01 48 51.1	+0.5
	baz=132,SNR=13						
S12A	**Delamar Landin**	**132.30**	**39**	⇑P	PKPdf	01 48 51.2	+0.5
	baz=132,SNR=12						
BFSC	**Mount Baldy St**	**132.34**	**45**	⇑P	PKPdf	01 48 50.5	-0.3
	baz=132						
GSC	**Goldstone**	**132.36**	**43**	⇑P	PKPdf	01 48 51.3	+0.4
	baz=132,SNR=11						
GSC	**Goldstone**	**132.36**	**43**	*e*PKPdf	PKPdf	01 48 51.3	+0.4
JLU	**Jordanelle**	**132.38**	**34**	*e*PKPdf	PKPdf	01 48 51.5	+0.8
Q14A	**Sevier Lake (B**	**132.40**	**37**	⇑P	PKPdf	01 48 51.4	+0.5
	baz=132,SNR=8.1						
L19A	**Farson**	**132.44**	**31**	⇑P	PKPdf	01 48 50.8	0.0
	baz=132						
NLU	**North Lily Min**	**132.47**	**35**	*e*PKPdf	PKPdf	01 48 51.6	+0.7
N17A	**Moffit Pass**	**132.48**	**33**	⇓P	PKPdf	01 48 51.0	+0.1
	baz=132						
R13A	**O’Grain Ranch,**	**132.49**	**38**	⇓P	PKPdf	01 48 51.4	+0.4
	baz=132,SNR=5.0						
K20A	**Yellowstone Ra**	**132.54**	**30**	⇑P	PKPdf	01 48 51.0	0.0
	baz=132						
AGMN	**Agassiz Refuge**	**132.54**	**15**	*e*PKPdf	PKPdf	01 48 49.2	-1.6
AGMN				LR	LR		
	comp=Z,749nm,21.0s,MS5.4						
M18A	**Lyman**	**132.55**	**32**	⇑P	PKPdf	01 48 51.2	+0.2
	baz=132						
P15A	**Leamington**	**132.60**	**35**	⇑P	PKPdf	01 48 51.4	+0.2
	baz=132						
MPU	**Maple Canyon**	**132.68**	**34**	*e*PKPdf	PKPdf	01 48 52.2	+0.9
SHPR	**Sheep Range**	**132.76**	**41**	*e*PKPdf	PKPdf	01 48 52.4	+0.8
TUQ	**Turquoise Moun**	**132.88**	**42**	⇑P	PKPdf	01 48 51.9	+0.1
	baz=133						
Q15A	**Fillmore**	**132.92**	**36**	⇓P	PKPdf	01 48 52.2	+0.4
	baz=133,SNR=6.8						
S13A	**Holt Ranch, En**	**132.93**	**39**	⇑P	PKPdf	01 48 52.4	+0.5
	baz=133,SNR=15						
P16A	**Fountain Green**	**132.94**	**35**	⇓P	PKPdf	01 48 52.5	+0.7
	baz=133						
HEC	**Hector,Ludlow**	**132.94**	**43**	⇑P	PKPdf	01 48 52.0	0.0
	baz=133						
M19A	**Rock Springs**	**132.97**	**31**	⇑P	PKPdf	01 48 52.2	+0.3
	baz=133						
L20A	**Wamsutter**	**133.02**	**30**	⇓P	PKPdf	01 48 51.6	-0.3
	baz=133						
O17A	**Robinson Place**	**133.05**	**34**	⇑P	PKPdf	01 48 52.2	+0.2
	baz=133,SNR=29						
U12A	**Valley of Fire**	**133.21**	**40**	⇑P	PKPdf	01 48 52.7	+0.3
	baz=133,SNR=6.6						
S14A	**Cedar City**	**133.25**	**38**	⇓P	PKPdf	01 48 52.8	+0.4
	baz=133,SNR=6.9						
T13A	**Saint George**	**133.25**	**39**	⇑P	PKPdf	01 48 52.7	+0.2
	baz=133						
MVU	**Marysvale**	**133.35**	**36**	PFAKE		01 49 00.0	+7.4
MVU				LR	LR		
	comp=Z,442nm,20.0s,MS5.2						
RSSD	**Black Hills**	**133.37**	**25**	*e*PKIKP	PKPdf	01 48 51.8	-0.7
N19A	**John Jarvie Ra**	**133.40**	**32**	⇓P	PKPdf	01 48 52.1	-0.6
	baz=133,SNR=9.0						
TMUT	**Trail Mountain**	**133.40**	**35**	*e*PKPdf	PKPdf	01 48 54.0	+1.3
V12A	**Nelson**	**133.42**	**41**	⇓P	PKPdf	01 48 52.9	+0.1
	baz=133,SNR=8.8						
GMRC	**Granite Mounta**	**133.43**	**43**	⇓P	PKPdf	01 48 53.2	+0.3
	baz=133,SNR=13						
M20A	**Sweetwater, Wa**	**133.48**	**30**	⇑P	PKPdf	01 48 52.8	+0.1
	baz=133						
PFO	**Pinyon Flat Ob**	**133.53**	**45**	*i* PKIKP	PKPdf	01 48 54.3	+1.2
PFO	**Pinyon Flat Ob**	**133.53**	**45**	⇓P	PKPdf	01 48 53.5	+0.4
	baz=134,SNR=7.0						
PFO	**Pinyon Flat Ob**	**133.53**	**45**	PKhKP	PKPdf	01 48 48.5	-4.6
	comp=Z,2.4nm,0.6s,baz=328,slow=11,SNR=5.0						
PFO	**Pinyon Flat Ob**	**133.53**	**45**	PKP	PKPdf	01 48 48.5	-4.6
PFO				*e*PKPdf	PKPdf	01 48 53.7	+0.6
L21A	**Rawlins**	**133.53**	**29**	⇓P	PKPdf	01 48 52.3	-0.5
	baz=134						
P17A	**Butcher Ranch,**	**133.55**	**34**	⇓P	PKPdf	01 48 53.4	+0.4
	baz=134						
U13A	**Pakoon Wash**	**133.58**	**40**	⇓P	PKPdf	01 48 53.6	+0.4
	baz=134,SNR=5.2						
BELC	**Belle Mtn.**	**133.63**	**44**	⇑P	PKPdf	01 48 53.3	0.0
	baz=134,SNR=6.8						
Q16A	**Castle Valley**	**133.68**	**35**	⇑P	PKPdf	01 48 53.6	+0.4
	baz=134						
P18A	**Preston Nutter**	**133.72**	**34**	⇓P	PKPdf	01 48 53.6	+0.3
	baz=134,SNR=10						
T14A	**Hurricane**	**133.74**	**39**	⇓P	PKPdf	01 48 53.5	+0.1
	baz=134,SNR=8.6						
RWWY	**Rawlins**	**133.82**	**30**	*e*PKPdf	PKPdf	01 48 52.5	-0.9
O19A	**Miners Draw (B**	**133.86**	**32**	⇑P	PKPdf	01 48 53.1	-0.5
	baz=134						
EYMN	**Ely**	**133.90**	**12**	*e*PKPdf	PKPdf	01 48 53.1	-0.2
EYMN				LR	LR		
	comp=Z,799nm,20.0s,MS5.4						
V13A	**Grand Canyon W**	**133.91**	**40**	⇑P	PKPdf	01 48 53.8	+0.1
	baz=134,SNR=11						
SRU	**San Rafael**	**133.92**	**35**	⇑P	PKPdf	01 48 53.4	-0.2
	baz=134,SNR=5.1						
SRU	**San Rafael**	**133.92**	**35**	*e*PKPdf	PKPdf	01 48 53.8	+0.1
R16A	**Teasdale**	**133.92**	**36**	⇓P	PKPdf	01 48 53.9	+0.2
	baz=134,SNR=6.8						
N20A	**Spence Gulch,**	**133.92**	**31**	⇓P	PKPdf	01 48 53.4	-0.2
	baz=134,SNR=8.5						
MONP	**Monument Peak**	**133.94**	**45**	⇓P	PKPdf	01 48 54.9	+1.0
	baz=134,SNR=6.0						
U14A	**Mt Trumbull**	**134.08**	**39**	⇑P	PKPdf	01 48 54.7	+0.7
	baz=134,SNR=8.8						
IRM	**Iron Mountain**	**134.12**	**43**	⇑P	PKPdf	01 48 54.5	+0.3
	baz=134,SNR=7.6						
Q18A	**Rafter H Ranch**	**134.15**	**34**	⇓P	PKPdf	01 48 54.1	0.0
	baz=134,SNR=8.4						
BC3	**Big Chuckw Mtn**	**134.20**	**44**	⇓P	PKPdf	01 48 54.2	-0.1
	baz=134,SNR=8.2						
T15A	**Red Dirt Ranch**	**134.20**	**38**	⇓P	PKPdf	01 48 54.5	+0.2
	baz=134,SNR=6.0						
S16A	**Weppner Ranch,**	**134.22**	**37**	⇓P	PKPdf	01 48 54.4	+0.1
	baz=134,SNR=24						
R17A	**Hanksville Air**	**134.28**	**35**	⇓P	PKPdf	01 48 54.5	+0.1
	baz=134,SNR=16						
DVTC	**Desert V Tower**	**134.29**	**46**	⇓P	PKPdf	01 48 54.3	-0.3
	baz=134						
M22A	**Cedar Creek Ra**	**134.34**	**29**	⇓P	PKPdf	01 48 54.2	-0.2
	baz=134						
SWSC	**Sam W. Stewart**	**134.35**	**45**	⇓P	PKPdf	01 48 54.8	+0.1
	baz=134,SNR=5.6						
N21A	**Black Mountain**	**134.36**	**31**	⇓P	PKPdf	01 48 54.4	-0.1
	baz=134						
P19A	**Cripple Cowboy**	**134.41**	**33**	⇓P	PKPdf	01 48 54.6	0.0
	baz=134,SNR=12						
W13A	**Hualapai Mount**	**134.43**	**41**	⇑P	PKPdf	01 48 55.0	+0.3
	baz=134,SNR=6.5						
O20A	**White River Ci**	**134.44**	**32**	⇑P	PKPdf	01 48 54.6	0.0
	baz=134,SNR=10						
V14A	**Boquillas Ranc**	**134.61**	**40**	⇑P	PKPdf	01 48 55.5	+0.4
	baz=135,SNR=15						
Q19A	**Hogan Spring (**	**134.73**	**34**	⇑P	PKPdf	01 48 55.4	+0.2
	baz=135,SNR=33						
S17A	**Black Ridge (B**	**134.75**	**36**	⇓P	PKPdf	01 48 55.6	+0.3
	baz=135						
T16A	**Glen Canyon Da**	**134.76**	**37**	⇑P	PKPdf	01 48 55.4	+0.1
	baz=135,SNR=5.7						
X13A	**Yucca**	**134.76**	**42**	⇑P	PKPdf	01 48 55.4	0.0
	baz=135,SNR=6.8						
R18A	**Canyonlands Na**	**134.77**	**35**	⇑P	PKPdf	01 48 55.5	+0.2
	baz=135,SNR=17						
O21A	**Pagoda**	**134.79**	**31**	⇑P	PKPdf	01 48 55.4	+0.1
	baz=135						
P20A	**De Beque**	**134.82**	**33**	⇑P	PKPdf	01 48 55.5	+0.1
	baz=135						
N22A	**Wattenberg Ran**	**134.86**	**30**	⇑P	PKPdf	01 48 55.4	0.0
	baz=135						
W14A	**Seligman**	**134.88**	**41**	⇓P	PKPdf	01 48 56.0	+0.4
	baz=135,SNR=9.1						
PHWY	**Pilot Hill**	**134.97**	**28**	*e*PKPdf	PKPdf	01 48 54.7	-0.9
GLA	**Glamis**	**134.97**	**44**	⇓P	PKPdf	01 48 56.3	+0.5
	baz=135,SNR=6.6						
GLA	**Glamis**	**134.97**	**44**	*e*PKPdf	PKPdf	01 48 56.6	+0.8
V15A	**Kaibab Nationa**	**135.09**	**39**	⇑P	PKPdf	01 48 56.4	+0.4
	baz=135,SNR=12						
T17A	**Navajo Res., N**	**135.18**	**37**	⇑P	PKPdf	01 48 56.5	+0.4
	baz=135,SNR=19						
S18A	**Hurst Farm, Bl**	**135.19**	**36**	⇓P	PKPdf	01 48 56.5	+0.4
	baz=135,SNR=12						
R19A	**Curley Farm, L**	**135.20**	**34**	⇑P	PKPdf	01 48 56.3	+0.2
	baz=135,SNR=12						
Y13A	**Salome**	**135.22**	**43**	⇑P	PKPdf	01 48 56.6	+0.4
	baz=135,SNR=9.3						
Q20A	**Ridgley Place,**	**135.27**	**33**	⇑P	PKPdf	01 48 56.5	+0.3
	baz=135,SNR=15						
PV04	**Paradox Valley**	**135.33**	**34**	*e*PKPdf	PKPdf	01 48 56.7	+0.4
W15A	**Williams**	**135.43**	**40**	⇑P	PKPdf	01 48 57.5	+0.9
	baz=135,SNR=7.6						
X14A	**Yava**	**135.46**	**41**	⇓P	PKPdf	01 48 57.2	+0.5
	baz=135,SNR=5.9						
U17A	**Shonto**	**135.53**	**37**	⇑P	PKPdf	01 48 57.2	+0.4
	baz=136						
U16A	**Tuba City**	**135.54**	**38**	⇓P	PKPdf	01 48 57.3	+0.5
	baz=136						
T18A	**Mexican Hat**	**135.64**	**36**	⇑P	PKPdf	01 48 57.1	+0.2
	baz=136,SNR=16						
S19A	**Harvey Farm, M**	**135.65**	**35**	⇑P	PKPdf	01 48 57.1	+0.2
	baz=136,SNR=9.0						
Y14A	**Wickenburg**	**135.70**	**42**	⇓P	PKPdf	01 48 57.3	+0.1
	baz=136,SNR=7.0						
Q21A	**Lamborn Mesa,**	**135.74**	**33**	⇑P	PKPdf	01 48 57.3	+0.2
	baz=136						
R20A	**Redvale**	**135.76**	**34**	⇓P	PKPdf	01 48 57.3	+0.2
	baz=136						
WUAZ	**Wupatki**	**135.79**	**39**	⇑P	PKPdf	01 48 57.5	+0.3
	baz=136,SNR=7.6						
WUAZ	**Wupatki**	**135.79**	**39**	*e*PKPdf	PKPdf	01 48 57.9	+0.6
WUAZ				LR	LR		
	comp=Z,399nm,19.0s,MS5.2						
PLCA	**Paso Flores**	**135.84**	**189**	PKIKP	PKPdf	01 48 57.8	+0.6
PLCA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
PLCA	**Paso Flores**	**135.84**	**189**	PKP	PKPdf	01 48 57.8	+0.6
	comp=Z,6.1nm,0.9s,baz=302,slow=13,SNR=3.6						
113A	**Mohawk Valley,**	**135.87**	**44**	⇓P	PKPdf	01 48 57.6	+0.1
	baz=136						
X15A	**Humboldt**	**135.88**	**41**	⇑P	PKPdf	01 48 57.7	+0.2
	baz=136,SNR=12						
W16A	**Flagstaff**	**135.95**	**40**	⇓P	PKPdf	01 48 57.3	-0.3
	baz=136,SNR=6.7						
ISCO	**Idaho Springs**	**136.04**	**30**	PFAKE		01 49 10.0	+12
ISCO				LR	LR		
	comp=Z,558nm,21.0s,MS5.3						
Q22A	**Crested Butte,**	**136.08**	**32**	⇓P	PKPdf	01 48 58.4	+0.7
	baz=136						
Z14A	**Wintersburg**	**136.08**	**43**	⇑P	PKPdf	01 48 58.3	+0.4
	baz=136						
U18A	**Rough Rock, Ch**	**136.12**	**37**	⇓P	PKPdf	01 48 57.9	0.0
	baz=136,SNR=6.3						
COWI	**Conover**	**136.12**	**10**	*e*PKPdf	PKPdf	01 48 57.2	-0.3
COWI				LR	LR		
	comp=Z,906nm,20.0s,MS5.5						
Y15A	**Casa Rosa Ranc**	**136.14**	**41**	⇓P	PKPdf	01 48 58.1	+0.1
	baz=136,SNR=16						
RCBR	**Riachuelo**	**136.23**	**258**	PFAKE		01 49 10.0	+11
RCBR				LR	LR		
	comp=Z,813nm,20.0s,MS5.5						
T19A	**Beclabito**	**136.34**	**36**	⇓P	PKPdf	01 48 58.9	+0.6
	baz=136						
MVCO	**Mesa Verde**	**136.38**	**35**	⇓P	PKPdf	01 48 58.9	+0.5
	baz=136						
MVCO	**Mesa Verde**	**136.38**	**35**	*e*PKPdf	PKPdf	01 48 59.5	+1.2
MVCO				LR	LR		
	comp=Z,562nm,22.0s,MS5.2						
X16A	**Lo Mia Camp, P**	**136.44**	**40**	⇑P	PKPdf	01 48 58.7	+0.2
	baz=136,SNR=12						
V18A	**Ganado**	**136.55**	**38**	⇓P	PKPdf	01 48 59.2	+0.5
	baz=136,SNR=13						
R22A	**Saguache, Gunn**	**136.62**	**32**	⇓P	PKPdf	01 48 59.4	+0.7
	baz=137						
OGNE	**Ogallala**	**136.81**	**26**	PFAKE		01 49 10.0	+11
OGNE				LR	LR		
	comp=Z,783nm,19.0s,MS5.5						
X17A	**Forest Lakes**	**136.90**	**40**	⇑P	PKPdf	01 48 59.9	+0.6
	baz=137,SNR=14						
115A	**Sonoran Desert**	**136.96**	**43**	⇑P	PKPdf	01 49 00.1	+0.5
	baz=137						
214A	**Organ Pipe Nat**	**136.99**	**44**	⇑P	PKPdf	01 49 00.1	+0.5
	baz=137,SNR=5.9						
W18A	**Petrified Fore**	**137.06**	**38**	⇑P	PKPdf	01 49 00.4	+0.7
	baz=137,SNR=14						
V19A	**Window Rock**	**137.09**	**37**	⇑P	PKPdf	01 49 00.3	+0.6
	baz=137,SNR=11						
Z16A	**Peralta Trail,**	**137.11**	**41**	⇓P	PKPdf	01 49 00.1	+0.3
	baz=137						
Y17A	**Roosevelt**	**137.27**	**41**	⇑P	PKPdf	01 49 00.6	+0.6
	baz=137,SNR=8.4						
X18A	**Snowflake**	**137.31**	**39**	⇓P	PKPdf	01 49 00.8	+0.7
	baz=137						
116A	**Eloy**	**137.40**	**43**	⇓P	PKPdf	01 49 01.0	+0.6
	baz=137						
T22A	**Edith**	**137.42**	**34**	⇓P	PKPdf	01 49 01.0	+0.7
	baz=137						
SDCO	**Great Sand Dun**	**137.65**	**32**	*e*PKPdf	PKPdf	01 49 00.1	-0.6
SDCO				LR	LR		
	comp=Z,540nm,22.0s,MS5.2						
W20A	**Ramah**	**137.81**	**37**	⇓P	PKPdf	01 49 01.6	+0.6
	baz=138,SNR=19						
216A	**Three Points,**	**137.90**	**43**	⇑P	PKPdf	01 49 02.0	+0.8
	baz=138						
GLMI	**Grayling**	**138.02**	**6**	PFAKE		01 49 10.0	+8.9
GLMI				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
117A	**Oracle**	**138.04**	**42**	⇑P	PKPdf	01 49 02.2	+0.6
	baz=138,SNR=5.7						
Y19A	**Nutrioso**	**138.12**	**39**	⇓P	PKPdf	01 49 02.6	+0.9
	baz=138						
TUC	**Tucson**	**138.17**	**42**	PFAKE		01 49 10.0	+8.2
TUC				LR	LR		
	comp=Z,461nm,19.0s,MS5.2						
217A	**Green Valley**	**138.47**	**43**	⇑P	PKPdf	01 49 03.1	+0.7
	baz=138						
118A	**Homack Ranch,**	**138.50**	**41**	⇓P	PKPdf	01 49 02.9	+0.5
	baz=138,SNR=9.9						
119A	**Ashpeak Ranch,**	**138.86**	**40**	⇓P	PKPdf	01 49 04.0	+1.0
	baz=139						
218A	**Dragoon**	**138.87**	**42**	⇓P	PKPdf	01 49 03.6	+0.5
	baz=139						
JFWS	**Jewell Farm**	**138.96**	**13**	*e*PKIKP	PKPdf	01 49 01.6	-1.3
JFWS				MLR	MLR		
	comp=Z,840nm,20.0s,MS5.5						
ANMO	**Albuquerque**	**139.14**	**36**	PKHKP		01 48 56.1	
ANMO						01 49 03.1	
ANMO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ANMO				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ANMO	**Albuquerque**	**139.14**	**36**	PKhKP		01 48 56.1	
	comp=Z,3.1nm,0.9s,baz=261,slow=1.7,SNR=8.7						
ANMO				PKP	PKPdf	01 49 03.1	-0.4
	comp=Z,8.7nm,1.0s,baz=210,slow=2.4,SNR=14						
ANMO	**Albuquerque**	**139.14**	**36**	PKP		01 48 56.1	
ANMO				PKP	PKPdf	01 49 03.1	-0.4
ANMO				LR	LR		
	comp=Z,612nm,20.0s,MS5.3						
SCIA	**State Center**	**139.16**	**16**	*e*PKPdf	PKPdf	01 49 02.7	-0.6
SCIA				LR	LR		
	comp=Z,779nm,22.0s,MS5.4						
318A	**Bisbee**	**139.23**	**43**	⇓P	PKPdf	01 49 04.2	+0.5
	baz=139						
219A	**White Tail Can**	**139.37**	**41**	⇑P	PKPdf	01 49 04.8	+0.8
	baz=139,SNR=12						
120A	**U Bar Ranch, L**	**139.43**	**40**	⇑P	PKPdf	01 49 05.3	+1.2
	baz=139						
CBKS	**Cedar Bluff**	**139.56**	**25**	PFAKE		01 49 20.0	+16
CBKS				LR	LR		
	comp=Z,970nm,21.0s,MS5.5						
319A	**Douglas**	**139.75**	**42**	⇓P	PKPdf	01 49 05.8	+1.1
	baz=140,SNR=6.9						
KSU1	**Kansas State U**	**140.58**	**22**	*e*PKPdf	PKPdf	01 49 05.1	-0.9
KSU1				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
AAM	**Ann Arbor**	**140.62**	**6**	PFAKE		01 49 20.0	+14
AAM				LR	LR		
	comp=Z,987nm,20.0s,MS5.6						
BINY	**Binghamton**	**140.87**	**357**	*e*PKPdf	PKPdf	01 49 06.0	-0.4
BINY				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
ERPA	**Erie**	**141.02**	**1**	PFAKE		01 49 20.0	+13
ERPA				LR	LR		
	comp=Z,833nm,21.0s,MS5.5						
HDIL	**Hopedale**	**141.42**	**13**	PFAKE		01 49 20.0	+13
HDIL				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
AMTX	**Amarillo**	**141.82**	**31**	PFAKE		01 49 20.0	+12
AMTX				LR	LR		
	comp=Z,837nm,22.0s,MS5.5						
GDL2	**Guadalupe Moun**	**142.32**	**37**	*e*PKPdf	PKPdf	01 49 06.2	-3.2
SSPA	**Standing Stone**	**142.51**	**359**	*e*PKPdf	PKPdf	01 49 04.4	-5.0
SSPA				LR	LR		
	comp=Z,697nm,20.0s,MS5.4						
ACSO	**Alum Creek Sta**	**142.73**	**5**	*e*PKPdf	PKPdf	01 49 09.1	-0.7
ACSO				LR	LR		
	comp=Z,956nm,21.0s,MS5.5						
MVL	**Millersville**	**143.08**	**357**	*e*PKPdf	PKPdf	01 49 10.7	+0.3
CCM	**Cathedral Cave**	**143.29**	**16**	*e*PKHKP	PKPdf	01 49 05.9	-5.0
CCM				MLR	MLR		
	comp=Z,763nm,19.0s,MS5.5						
WMOK	**Wichita Mounta**	**143.37**	**28**	*e*PKIKP	PKPdf	01 49 06.9	-4.2
WMOK				MLR	MLR		
	comp=Z,820nm,20.0s,MS5.5						
OLIL	**Olney**	**143.43**	**12**	*e*PKPdf	PKPdf	01 49 07.8	-3.2
MCWV	**Mont Chateau**	**143.48**	**1**	*e*PKPdf	PKPdf	01 49 07.1	-4.0
MCWV				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
FVM	**French Village**	**143.58**	**16**	*e*PKIKP	PKPdf	01 49 07.5	-3.9
SIUC	**Southern Illin**	**144.15**	**14**	*e*PKPdf	PKPdf	01 49 09.3	-3.0
SIUC				*e*PP	PP	01 52 24.4	-1.4
CPUP	**Villa Florida**	**144.19**	**214**	PKIKP	PKPdf	01 49 11.2	-1.6
CPUP				pmax	pmax		
	comp=Z,13nm,0.9s						
CPUP	**Villa Florida**	**144.19**	**214**	PKP	PKPdf	01 49 11.2	-1.6
	comp=Z,13nm,0.9s,baz=100,slow=4.1,SNR=23						
USIN	**University of**	**144.26**	**12**	*e*PKPdf	PKPdf	01 49 09.5	-3.1
WCI	**Wyandotte Cave**	**144.26**	**10**	*e*PKIKP	PKPdf	01 49 09.2	-3.4
WCI				MLR	MLR		
	comp=Z,900nm,20.0s,MS5.5						
TXAR	**Lajitas Array**	**144.75**	**39**	PKIKP	PKPdf	01 49 12.4	-1.3
TXAR						01 52 35.6	
TXAR				pmax	pmax		
	comp=Z,42nm,0.8s						
TXAR				pmax	pmax		
	comp=N,7.0nm,1.1s						
TXAR	**Lajitas Array**	**144.75**	**39**	PKP	PKPdf	01 49 12.4	-1.2
	comp=N,42nm,0.8s,baz=286,slow=1.3,SNR=412						
TXAR				SKP		01 52 35.6	
	comp=N,7.2nm,1.1s,baz=11,slow=0.9,SNR=6.7						
CBN	**Corbin**	**144.92**	**358**	*e*PKPdf	PKPdf	01 49 11.7	-2.0
CBN				LR	LR		
	comp=Z,765nm,21.0s,MS5.5						
PARMO	**Parma**	**145.01**	**15**	*e*PKPdf	PKPdf	01 49 12.0	-1.9
JSRW	**J. Sargeant Re**	**145.44**	**359**	*e*PKPab	PKPdf	01 49 13.3	-1.3
UTMT	**University of**	**145.54**	**14**	*e*PKPdf	PKPdf	01 49 14.0	-0.8
GNAR	**Gosnell**	**145.59**	**16**	*e*PKPdf	PKPdf	01 49 14.3	-0.6
MIAR	**Mount Ida**	**145.73**	**22**	*e*PKP2	PKPab	01 49 15.2	-0.8
MIAR				MLR	MLR		
	comp=Z,685nm,22.0s,MS5.4						
VWCC	**Virginia Weste**	**145.89**	**2**	*e*PKPdf	PKPdf	01 49 14.2	-1.2
BLA	**Blacksburg**	**145.91**	**2**	*e*PKP2	PKPdf	01 49 14.4	-1.0
BLA				MLR	MLR		
	comp=Z,764nm,20.0s,MS5.5						
UALR	**University of**	**145.97**	**20**	*e*PKPbc	PKPbc	01 49 16.6	+0.3
WVT	**Waverly**	**145.99**	**13**	*e*PKP2	PKPdf	01 49 15.1	-0.5
WVT				MLR	MLR		
	comp=Z,776nm,20.0s,MS5.5						
JCT	**Junction City**	**146.22**	**34**	*e*PKP2	PKPbc	01 49 16.5	-0.7
JCT				MLR	MLR		
	comp=Z,846nm,22.0s,MS5.5						
TZTN	**Tazewell**	**146.32**	**7**	*e*PKPbc	PKPdf	01 49 15.9	-0.3
MET	**Memphis--Engin**	**146.40**	**17**	*e*PKPbc	PKPbc	01 49 16.9	-0.7
PLAL	**Pickwick Lake**	**147.03**	**14**	*e*PKPbc	PKPdf	01 49 17.5	+0.1
PLAL				LR	LR		
	comp=Z,770nm,22.0s,MS5.4						
TKL	**Tuckaleechee C**	**147.17**	**7**	PKIKP	PKPdf	01 49 17.3	-0.3
TKL				pmax	pmax		
	comp=Z,62nm,1.0s						
TKL	**Tuckaleechee C**	**147.17**	**7**	PKPbc	PKPdf	01 49 17.3	-0.3
	comp=Z,62nm,1.0s,baz=164,slow=1.8,SNR=26						
LCO	**Las Campanas**	**147.25**	**193**	*e*PKPbc	PKPdf	01 49 18.4	+0.5
LCO				LR	LR		
	comp=Z,834nm,21.0s,MS5.5						
SWET	**Sewanee**	**147.26**	**11**	*e*PKPdf	PKPdf	01 49 17.1	-0.6
NATX	**Nacogdoches**	**147.73**	**26**	*e*PKPdf	PKPdf	01 49 18.8	+0.1
NATX				*e*PKPbc	PKPbc	01 49 21.1	-0.4
NATX				LR	LR		
	comp=Z,781nm,19.0s,MS5.5						
CNNC	**Cliffs of the**	**147.89**	**359**	*e*PKPdf	PKPdf	01 49 18.4	-0.4
CNNC				*e*PKPbc	PKPbc	01 49 21.2	-0.6
CNNC				LR	LR		
	comp=Z,781nm,21.0s,MS5.5						
HKT	**Hockley**	**148.71**	**29**	*e*PKP2	PKPbc	01 49 23.8	-0.3
VBMS	**Vicksburg**	**148.92**	**19**	*e*PKPbc	PKPbc	01 49 24.0	-0.6
LRAL	**Lakeview Retre**	**149.14**	**13**	*e*PKPdf	PKPdf	01 49 19.9	-1.1
LRAL				*e*PKPbc	PKPbc	01 49 23.6	-1.5
LRAL				LR	LR		
	comp=Z,848nm,21.0s,MS5.5						
GOGA	**Godfrey**	**149.42**	**8**	*e*PKP2	PKPbc	01 49 24.5	-1.3
KVTX	**Kingsville**	**149.53**	**35**	*e*PKPbc	PKPbc	01 49 27.1	+0.8
NHSC	**New Hope**	**150.01**	**2**	*e*PKPbc	PKPbc	01 49 26.6	-0.6
BRAL	**Brewton**	**151.06**	**15**	*e*PKPbc	PKPbc	01 49 29.4	-0.4
LVC	**Limon Verde**	**152.78**	**200**	PFAKE		01 49 40.0	+13
LVC				LR	LR		
	comp=Z,514nm,21.0s,MS5.3						
DWPF	**Disney**	**154.89**	**5**	PFAKE		01 49 40.0	+10
DWPF				LR	LR		
	comp=Z,822nm,20.0s,MS5.5						
ANWB	**Willy Bob**	**157.80**	**312**	PFAKE		01 49 40.0	+6.3
ANWB				LR	LR		
	comp=Z,565nm,19.0s,MS5.4						
FDF	**Fort de France**	**159.01**	**305**	PFAKE		01 49 50.0	+15
FDF				LR	LR		
	comp=Z,611nm,20.0s,MS5.4						
SJG	**San Juan**	**160.49**	**321**	PFAKE		01 49 50.0	+13
SJG				LR	LR		
	comp=Z,710nm,21.0s						
TEIG	**Tepich**	**160.54**	**28**	PFAKE		01 49 50.0	+13
TEIG				LR	LR		
	comp=Z,681nm,22.0s						
GTBY	**Guantanamo Bay**	**162.77**	**348**	PFAKE		01 49 50.0	+11
GTBY				LR	LR		
	comp=Z,914nm,19.0s						
TGUH	**Tegucigalpa,Un**	**166.20**	**37**	PFAKE		01 49 50.0	+7.7
TGUH				LR	LR		
	comp=Z,489nm,21.0s						
SDV	**Santo Domingo**	**169.95**	**306**	PKP	PKPdf	01 49 43.6	-1.3
	comp=Z,8.4nm,1.1s,baz=253,slow=4.7,SNR=3.8						
SDV				PKPab	PKPab	01 50 59.2	-0.6
	comp=Z,7.2nm,0.9s,baz=57,slow=2.2,SNR=5.0						
SDV	**Santo Domingo**	**169.95**	**306**	PKP	PKPdf	01 49 43.6	-1.3
SDV				PKPab	PKPab	01 50 59.2	-0.6
SDV				LR	LR		
	comp=Z,358nm,21.0s						
ATAH	**Atahualpa**	**170.07**	**183**	PKP	PKPdf	01 49 45.0	0.0
	comp=Z,6.4nm,0.9s,baz=231,slow=5.5,SNR=8.1						
BCIP	**Isla Barro Col**	**173.78**	**9**	PFAKE		01 50 00.0	+13
BCIP				LR	LR		
	comp=Z,586nm,20.0s						
ROSC	**El Rosal**	**175.13**	**293**	PKP	PKPdf	01 49 45.9	-1.2
	comp=Z,3.8nm,0.5s,baz=103,slow=18,SNR=6.1						
OTAV	**Otavalo**	**177.25**	**188**	*e*PKPdf	PKPdf	01 49 47.4	-0.2
OTAV				LR	LR		
	comp=Z,639nm,20.0s						

IDC ***12*** *01:36:41.4±2.2, 13°.32N×91°.35W, h0km, mb3.3/2, mb1 3.8/5, mb1mx3.6/20, mbtmp3.5/5, ML3.7/3, Error ellipse: s-maj=56.1km s-min=41.7km az=42.0*

*NEIC **12** 01:36:45.5±1.6, 13.°18N×91.°55W, h35^{km}, Error ellipse: s-maj=30.3km s-min=24.9km az=19.0*
*ISCJB **12** 01:36:53.7±1.0, 14.°06N±0.°10×91.°78W±0.°06, h76^{km}±9^{km}, mb3.3/2, Error ellipse: s-maj=17.6km s-min=6.3km az=26.5*
*CASC **12** 01:36:54.8±1.8, 13.°90N×91.°66W, h24^{km}±14^{km}, MD3.6*
ISC 12 01:36:54.4±1.0, **14.°01N**±0.°09×**91.°79W**±0.°06, **h62**^{km}±11^{km}, **n22, σ0^{s}.84**/30, **mb3.3**/2, **3C-1D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	0.34	26	⇑eP	Pn	01 37 05.5	+0.3
FUG	Fuego 3	1.02	64	⇑eP	Pn	01 37 12.5	-0.3
FG6		1.04	58	⇑eP	Pn	01 37 13.1	0.0
FG6				eS	Sn	01 37 27.7	+0.8
TP2	Tecpan 2	1.07	44	eP	Pn	01 37 14.0	+0.5
PCG	Pacaya	1.21	71	⇓eP	Pn	01 37 15.7	+0.4
PCG				eS	Sn	01 37 31.7	+0.7
IXG	Ixpaco	1.31	82	eP	Pn	01 37 16.4	-0.2
IXG				eS	Sn	01 37 32.8	-0.5
NBG	Las Nubes	1.51	67	eP	Pn	01 37 20.6	+1.2
RBDL	Robledal	2.04	87	eP	Pn	01 37 26.5	0.0
RBDL				eS	Sn	01 37 51.1	+0.1
RTR	El Retiro	2.08	93	eP	Pn	01 37 26.5	-0.6
RTR				eS	Sn	01 37 52.3	+0.3
SBLS	San Blas	2.11	94	eP	Pn	01 37 27.0	-0.4
SBLS				eS	Sn	01 37 52.8	+0.2
SNJE	San Jose	2.13	93	eP	Pn	01 37 27.4	-0.2
SNJE				eS	Sn	01 37 53.4	+0.4
LFRS	El Faro	2.68	98	eP	Pn	01 37 35.1	-0.1
LFRS				eS	Sn	01 38 05.0	-1.5
LBRS	Las Brisas	2.68	95	eP	Pn	01 37 34.8	-0.4
CMIG	Matias Romero	4.28	316	Pn	Pn	01 37 57.6	+0.6
	3.0nm,0.3s,baz=102,slow=11,SNR=39						
CMIG				Sn	Sn	01 38 43.8	-1.9
	3.0nm,0.3s,baz=77,slow=9.5,SNR=6.2						
TEIG	Tepich	7.04	28	Pn	Pn	01 38 32.5	-2.3
	2.8nm,0.3s,baz=227,slow=10,SNR=18						
TEIG				Sn	Sn	01 39 46.1	-7.4
	baz=287,slow=19,SNR=2.1						
TEIG	Tepich	7.04	28	ePn	Pn	01 38 35.1	+0.3
TEIG				eSn	Sn	01 39 52.0	-1.5
TXAR	Lajitas Array	18.80	326	P	Pn	01 41 11.3	+1.3
	0.0nm,0.3s,baz=155,slow=12,SNR=6.3						
NVAR	Mina Array Bea	33.79	321	P	P	01 43 33.5	+3.1
	0.3nm,0.4s,mb3.5,baz=133,slow=9.4,SNR=5.0						
YKA	Yellowknife Ar	51.07	347	P	P	01 45 49.6	-0.5
	0.1nm,0.5s,mb3.0,baz=151,slow=7.4,SNR=3.7						
MKAR	Makanchi Array	119.25	5	PKP	PKPdf	01 55 32.6	-4.1
	0.4nm,0.4s,baz=339,slow=1.7,SNR=13						
NIL	Nilore	130.51	16	PKPdf	PKPdf	01 55 54.1	-4.6
CMAR	Chiang Mai Arr	146.05	342	PKPbc	PKPbc	01 56 27.8	-0.4
	1.1nm,0.4s,baz=331,slow=3.5,SNR=4.5						

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*ISCJB **12** 01:49:01.3±0.5, 33.°33N±0.°03×35.°40E±0.°05, h3^{km}±6^{km}, Error ellipse: s-maj=7.5km s-min=3.9km az=16.5*
*GII **12** 01:49:01.5±0.6, 33.°23N×35.°42E, h1^{km}±2^{km}, Md2.2/5*
*CSEM **12** 01:49:02.4, 33.°31N×35.°41E, h0^{km}, ML3.2, After GRAL*
*GRAL **12** 01:49:02.4±0.5, 33.°31N×35.°41E, h0^{km}±181^{km}, MD3.2*
ISC 12 01:49:01.9±0.5, **33.°33N**±0.°03×**35.°40E**±0.°05, **h3**^{km}±6^{km}, **n21, σ0^{s}.51**/31, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	339	eP	Pg	01 49 05.8	+0.7
MATL	Matirih	0.17	339	eP	Pg	01 49 05.8	+0.7
KSDI	Kefar Szold	0.26	123	Pg	Pg	01 49 06.6	-0.2
KSDI				Sg	Sg	01 49 11.1	+0.9
HNTI	Hanita	0.31	218	Pg	Pg	01 49 08.0	+0.1
HNTI				Sg	Sg	01 49 13.0	+1.1
MMA1	Mount Meron ar	0.31	179	Pg	Pg	01 49 07.6	-0.3
MMA0	Mount Meron ar	0.32	180	Pg	Pg	01 49 07.7	-0.2
MMA0				Sg	Sg	01 49 12.3	+0.3
RCY	Rachaya	0.38	66	eP	Pg	01 49 09.4	+0.3
RCY	Rachaya	0.38	66	eP	Pg	01 49 09.4	+0.2
KSHT	Keshet	0.49	135	Pg	Pg	01 49 11.3	0.0
BHL	Bhannes	0.61	20	eP	Pg	01 49 13.4	-0.1
BHL	Bhannes	0.61	20	eP	Pg	01 49 13.4	-0.1
BLGI	Bet Lehem HaGe	0.62	197	Pg	Pg	01 49 13.6	-0.2
OFRI	‘Ofer	0.79	206	Pg	Pg	01 49 16.7	-0.3
MMLI	Mount Malkishu	0.89	179	Pg	Pg	01 49 18.2	-0.8
MMLI				Sg	Sg	01 49 30.4	-0.1
HWQ	Hawqa	1.05	26	eP	Pg	01 49 21.8	-0.1
HWQ				eS	Sg	01 49 35.6	+0.1
HWQ	Hawqa	1.05	26	eP	Pg	01 49 21.8	-0.1
HWQ				eS	Sg	01 49 35.6	+0.1
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	01 49 21.4	-1.2
HMDT				Sg	Sg	01 49 36.8	+0.2
SLTI	Sal’it	1.13	196	Pg	Pg	01 49 22.8	-0.7
SLTI				Sg	Sg	01 49 38.6	+0.4
DSI	Dead Sea	1.76	181	Pn	Pn	01 49 32.3	-0.8
DSI				Sn	Sn	01 49 56.2	+0.2
MZDA	Masada	2.02	181	Pn	Pn	01 49 36.6	-0.1
MZDA				Sn	Sn	01 50 03.0	+0.6
RTMI	Retamim	2.35	195	Pn	Pn	01 49 41.6	+0.3

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*KRSC **12** 01:52:46.5±1.0, 50.°81N×158.°19E, h10^{km}±10^{km}, ML4.6*
*MOS **12** 01:52:46.5±2.2, 50.°81N×158.°19E, h10^{km}, mb3.8/1, Error ellipse: s-maj=31.3km s-min=10.6km az=77.0*
*ISCJB **12** 01:52:48.6±0.7, 51.°18N±0.°03×159.°64E±0.°09, h10^{km}, mb3.6/5, Error ellipse: s-maj=8.5km s-min=4.8km az=167.1*
*IDC **12** 01:52:49.1±1.1, 51.°21N×159.°29E, h0^{km}, mb3.7/5, mb1 4.0/5, mb1mx3.6/23, mbtmp3.7/5, ML3.0/1, Error ellipse: s-maj=36.7km s-min=24.1km az=120.0*
ISC 12 01:52:50.4±0.7, **51.°20N**±0.°04×**159.°69E**±0.°09, **h10**^{km}, **n23, σ1^{s}.54**/35, **mb3.6**/5, **1C, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUS	Russkaya	1.43	330	eP	Pg	01 53 16.0	-1.9
RUS				i S	Sg	01 53 37.6	+1.2
GRL	Gorelyy	1.68	324	eP	Pn	01 53 18.1	-1.7
GRL				i S	Sn	01 53 40.9	-0.5
PET	Petropavlovsk	1.93	341	ePN	Pg	01 53 25.2	-2.2
PET				eS	Sg	01 53 53.7	+1.2
PET				pmax	pmax		
	comp=Z,86nm,0.4s						
PET				smax			
	comp=N,1µm,0.5s						
PET				smax			
	comp=E,722nm,0.5s						
PET	Petropavlovsk	1.93	341	eP	Pn	01 53 25.1	+1.8
PET				i S	Sg	01 53 53.6	+1.1
NLC	Nalytchevo	1.98	354	eP	Pg	01 53 27.7	-0.7
NLC				i S	Sg	01 53 58.2	+4.1
MIPR	Malaya Ipel’ka	2.12	302	eP	Pn	01 53 15.4	-10
MIPR				i S	Sn	01 53 36.4	-16
AVH	Avacha	2.15	344	eP	Pg	01 53 29.7	-1.8
AVH				i S	Sg	01 54 01.5	+2.2
PETK	Petropavlovsk-	2.27	328	Pn	Pn	01 53 25.7	-2.2
	comp=E,4.9nm,0.3s,baz=166,slow=15,SNR=61						
PETK				Sn	Sg	01 54 03.7	+0.5
	comp=E,14nm,0.3s,baz=98,slow=23,SNR=6.8						
GNL	Ganaly	2.72	337	eP	Pn	01 53 34.5	+0.5
GNL				i S	Sn	01 54 09.1	+2.2
MKZ	Mys Kozlova	3.58	19	P	Pg	01 53 54.1	-4.8
MKZ				i S	Sg	01 54 42.7	-2.5
KMNR	Kamenistaya	4.57	4	P	Pn	01 54 07.7	+8.2
ZLN	Zelenaya	4.87	7	P	Pb	01 54 11.3	-4.3
ZLN				i S	Sb	01 55 14.0	-0.2
SRDR	Sredinnyy	5.12	0	P	Pn	01 54 12.7	+5.6
KBTR	Krutoberegovo	5.35	19	P	Pb	01 54 19.3	-4.5
KBTR				i S	Sb	01 55 26.9	-1.0
SRKR	Sorokina	5.53	8	P	Pn	01 54 19.0	+6.3
ERM	Erimo	14.59	237	⇑iP	Pn	01 56 16.1	-0.5
YKA	Yellowknife Ar	44.74	41	P	P	02 01 05.4	+2.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	44.74	41	P	P	02 01 05.4	+2.1
	comp=Z,0.5nm,0.7s,mb3.5,baz=298,slow=7.6,SNR=8.4						
PDAR	Pinedale Array	58.68	60	P	P	02 02 50.2	+2.6
	comp=Z,1.1nm,0.8s,mb3.9,baz=314,slow=3.0,SNR=7.6						
TXAR	Lajitas Array	71.62	66	eP	P	02 04 12.9	+1.0
TXAR	Lajitas Array	71.62	66	P	P	02 04 12.9	+1.0
	comp=Z,0.7nm,0.7s,mb3.7,baz=298,slow=4.8,SNR=10						
WRA	Warramunga Arr	74.26	205	P	P	02 04 26.1	-1.3
	comp=Z,0.4nm,0.8s,mb3.4,baz=12,slow=6.1,SNR=3.0						
ASAR	Alice Springs	77.93	204	P	P	02 04 49.4	+1.1
	comp=Z,0.4nm,0.7s,mb3.5,baz=14,slow=5.6,SNR=5.5						

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*ECX **12** 01:58:57.5±0.4, 32.°47N×115.°22W, h10^{km}, MD2.9, ML3.2*
*ISCJB **12** 01:58:58.9±0.3, 32.°48N±0.°02×115.°33W±0.°02, h20^{km}±5^{km}, Error ellipse: s-maj=3.7km s-min=3.3km az=161.9*
ISC 12 01:58:58.7±0.3, **32.°49N**±0.°02×**115.°33W**±0.°02, **h15**^{km}±3^{km}, **n28, σ1^{s}.03**/41, **12C-14D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	165	eP	Pg	01 59 01.2	-0.5
CPBX				eS	Sg	01 59 04.3	+0.7
CPBX				e		01 59 05.5	
	comp=N,37µm,0.3s						
SNR	Schaffner Ranc	0.39	346	eP	Pg	01 59 07.5	+0.9
COA	Coachella	0.41	24	⇓iP	Pg	01 59 07.6	+0.6
EMX	El Mayor	0.50	172	⇓eP	Pg	01 59 08.3	-0.3
EMX				eS	Sg	01 59 16.4	+1.0
EMX				⇓e		01 59 17.0	
	comp=N,513nm,0.2s						
YUH	Yuha Desert	0.53	288	⇑iP	Pg	01 59 08.9	-0.3
SWSC	Sam W. Stewart	0.60	319	P	Pg	01 59 10.2	-0.4
	baz=0.7,SNR=52						
SWSC				⇑S	Sg	01 59 19.1	+0.5
	baz=0.7						
112A	Yuma	0.63	85	P	Pg	01 59 10.3	-0.7
	baz=0.6,SNR=107						
112A				⇓S	Sg	01 59 19.4	-0.1
	baz=0.6						
YMD	Yuma Desert	0.66	84	eP	Pg	01 59 10.8	-0.9
CRR	Carrizo Plain	0.67	307	⇑iP	Pg	01 59 11.4	-0.5
DVTC	Desert V Tower	0.68	285	⇓P	Pg	01 59 11.7	-0.3
	baz=0.7,SNR=25						
DVTC				⇑S	Sg	01 59 21.3	+0.4
	baz=0.7						
GLA	Glamis	0.70	37	P	Pg	01 59 11.7	-0.7
	baz=0.7,SNR=57						
GLA				⇓S	Sg	01 59 21.2	-0.6
	baz=0.7						
RDX	Rancho Dawling	0.76	223	eP	Pg	01 59 13.2	-0.4
RDX				eS	Sg	01 59 24.4	+0.7
RDX				⇓e		01 59 25.2	
	comp=N,701nm,0.4s						
MONP	Monument Peak	1.01	294	P	Pb	01 59 16.7	-1.1
	baz=1.1,SNR=120						
MONP				⇑S	Sb	01 59 31.2	+0.3
	baz=1.1						
ECBX	El Chinero	1.04	167	eP	Pb	01 59 18.1	-0.2
ECBX				eS	Sb	01 59 32.1	+0.4
CBX	Cerro Bola	1.15	262	⇑ePN	Pn	01 59 19.9	-0.2
BC3	Big Chuckw Mtn	1.17	355	⇓P	Pn	01 59 18.9	-1.6
	baz=1.2,SNR=8.3						
BC3				⇑S	Sb	01 59 33.4	-2.1
	baz=1.2						
113A	Mohawk Valley,	1.34	78	⇓P	Pn	01 59 21.1	-1.8
	baz=1.3,SNR=49						
113A				⇓Sb	Sb	01 59 40.1	-0.5
	baz=1.3						
ECNX	Esteban Cantu	1.36	233	ePN	Pn	01 59 24.1	+1.0
ECNX				ePN	Pn	01 59 22.2	-0.9
SPX	San Pedro Mart	1.44	185	ePN	Pn	01 59 25.9	+1.7
PFO	Pinyon Flat Ob	1.47	320	P	Pn	01 59 22.9	-1.7
	baz=1.5,SNR=21						
109C	Camp Elliot, M	1.55	285	⇓P	Pn	01 59 24.7	-1.1
	baz=1.6,SNR=7.3						
109C				⇑Sb	Sb	01 59 47.0	+0.4
	baz=1.6						
IRM	Iron Mountain	1.68	5	⇑Sb	Sb	01 59 51.7	+1.5
	baz=1.7						
Y13A	Salome	1.82	43	⇓Sb	Sb	01 59 55.4	+1.0
	baz=1.9						
MURC	Murrieta	1.93	306	⇑Sb	Sb	01 59 59.0	+1.7
	baz=2.0						
Z14A	Wintersburg	2.18	66	⇓Sb	Sb	02 00 05.9	+1.2
	baz=2.2						
214A	Organ Pipe Nat	2.19	103	⇑S	Sn	01 59 58.0	-3.5
	baz=2.2						
Y14A	Wickenburg	2.42	53	⇑Sb	Sb	02 00 13.6	+2.0
	baz=2.4						
X13A	Yucca	2.44	30	⇓Sb	Sb	02 00 14.0	+1.7
	baz=2.5						

IDC 12 02:04:17.2±3.3, **16.°88N**×**119.°30E, h96**^{km}±32^{km}, **mb3.4**/7, **mb1 3.6**/8, **mb1mx3.4**/21, **mbtmp3.4**/8, **MS3.3**/1, **Ms1 3.5**/1, **ms1mx2.7**/21, **Error ellipse: s-maj=52.6km s-min=15.6km az=74.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGY	Tagaytay City	3.18	150	P	Pn	02 05 06.6	+1.2
	32nm,0.3s,baz=360,slow=19,SNR=1.9						
CMAR	Chiang Mai Arr	19.46	278	LR	LR	02 15 30.9	
	comp=Z,104nm,21.2s,baz=95,slow=35						
KSRS	Korea Array	21.86	19	P	P	02 09 00.8	-1.3
	2.5nm,0.7s,baz=203,slow=12,SNR=5.4						
SONM	Songino Array	32.64	344	P	P	02 10 39.6	-0.2
	0.2nm,0.4s,baz=164,slow=8.9,SNR=2.5						
WRA	Warramunga Arr	39.46	157	P	P	02 11 37.0	-1.2
	0.5nm,0.6s,baz=340,slow=9.1,SNR=7.0						
MKAR	Makanchi Array	42.69	322	P	P	02 12 04.5	0.0
	0.9nm,0.9s,baz=124,slow=10,SNR=6.2						
ASAR	Alice Springs	42.75	160	P	P	02 12 05.0	-0.1
	0.5nm,0.6s,baz=340,slow=7.7,SNR=10.0						
STKA	Stephens Creek	52.98	156	P	P	02 13 24.5	+0.5
	1.3nm,0.5s,baz=274,slow=6.6,SNR=4.6						
YKA	Yellowknife Ar	90.36	22	P	P	02 17 08.6	+1.3
	0.3nm,0.7s,baz=317,slow=4.0,SNR=6.7						

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*IDC **12** 02:08:39.6±3.9, 4.°20S×142.°13E, h0^{km}, mb3.6/6, mb1 3.8/7, mb1mx3.7/16, mbtmp3.7/7, ML3.7/1, Error ellipse: s-maj=132.8km s-min=23.1km az=100.0*
*ISCJB **12** 02:08:50.1±1.1, 4.°4S±0.°1×141.°9E±0.°2, h100^{km}, mb3.5/5, Error ellipse: s-maj=30.7km s-min=9.9km az=22.4*
*NEIC **12** 02:08:50.3±6.5, 4.°45S×142.°26E, h98^{km}±54^{km}, mb3.7/2, Error ellipse: s-maj=60.0km s-min=21.8km az=82.0*
ISC 12 02:08:52.1±1.1, **4.°4S**±0.°1×**141.°9E**±0.°2, **h100**^{km}, **n11, σ0^{s}.82**/12, **mb3.5**/5, **New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.47	228	ePn	Pn	02 11 48.3	+2.2
KAKA				eSn	Sn	02 14 02.5	-0.9
WRAB	Tennant Creek	17.09	205	eP	Pn	02 12 44.4	-0.5
	8.8nm,1.2s						
WRA	Warramunga Arr	17.11	205	P	Pn	02 12 44.5	-0.6
	0.3nm,0.3s,baz=24,slow=12,SNR=9.8						
ASAR	Alice Springs	20.64	201	P	P	02 13 23.9	+0.2
	0.4nm,0.4s,baz=22,slow=11,SNR=5.7						
FITZ	Fitzroy Crossi	20.94	228	P	P	02 13 27.5	+0.5
	2.6nm,0.6s,baz=80,slow=12,SNR=6.2						
ULN	Ulaanbaatar	60.37	334	eP	P	02 18 49.9	-0.8
	0.1nm,0.3s,mb3.3						
SONM	Songino Array	60.64	333	P	P	02 18 52.9	+0.4
	0.1nm,0.4s,mb3.2,baz=137,slow=7.2,SNR=3.4						
MKAR	Makanchi Array	73.09	322	P	P	02 20 11.8	+0.3
	0.4nm,0.4s,mb3.6,baz=100,slow=7.1,SNR=15						
MKAR	Makanchi Array	73.09	322	P	P	02 20 11.8	+0.3
ZALV	Zalesovo Beam	75.02	329	P	P	02 20 21.6	-0.9
	0.4nm,0.3s,mb3.6,baz=124,slow=5.8,SNR=2.8						
BVAR	Borovoye Array	82.54	325	P	P	02 21 04.0	+0.3
	0.7nm,0.5s,mb3.8,baz=118,slow=7.8,SNR=4.7						

IDC 12 02:19:56.4±0.9, **16.°66N**×**119.°16E, h0**^{km}, **mb3.6**/8, **mb1 3.8**/8, **mb1mx3.7**/20, **mbtmp3.7**/8, **Error ellipse: s-maj=44.7km s-min=17.3km az=77.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	22.11	19	P	P	02 24 52.2	-1.2
	2.1nm,0.6s,baz=199,slow=11,SNR=5.4						
SONM	Songino Array	32.82	344	P	P	02 26 31.7	+0.2
	0.2nm,0.5s,baz=163,slow=10,SNR=2.9						
WRA	Warramunga Arr	39.31	157	P	P	02 27 26.4	-0.9
	0.5nm,0.4s,baz=338,slow=9.1,SNR=7.1						
ASAR	Alice Springs	42.59	160	P	P	02 27 54.6	+0.3
	0.4nm,0.7s,baz=333,slow=6.4,SNR=4.3						
MKAR	Makanchi Array	42.79	323	P	P	02 27 56.2	+0.4
	0.6nm,0.8s,baz=129,slow=9.6,SNR=5.0						
MKAR				PcP	PcP	02 29 46.4	-0.8
	0.2nm,0.7s,baz=145,slow=3.6,SNR=2.1						
PETK	Petropavlovsk-	47.21	31	P	P	02 28 31.6	+0.8
	1.4nm,0.7s,baz=227,slow=5.7,SNR=3.8						
STKA	Stephens Creek	52.84	156	P	P	02 29 14.4	+0.6
	1.2nm,0.6s,baz=312,slow=14,SNR=2.8						
YKA	Yellowknife Ar	90.62	22	P	P	02 33 00.1	-0.4
	0.2nm,0.6s,baz=312,slow=4.5,SNR=7.2						

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*NEIC **12** 02:27:30.1, 32.°47N×115.°31W, h9^{km}, ML3.2(PAS), ML3.5(ECX), After ECX.*
*ECX **12** 02:27:30.4±0.4, 32.°46N×115.°34W, h9^{km}, MD3.2, ML3.5*
*ISCJB **12** 02:27:31.2±0.3, 32.°48N±0.°02×115.°32W±0.°02, h7^{km}±3^{km}, Error ellipse: s-maj=3.4km s-min=2.7km az=178.4*
ISC 12 02:27:31.6±0.3, **32.°48N**±0.°02×**115.°31W**±0.°02, **h11**^{km}±3^{km}, **n44, σ1^{s}.16**/62, **20C-19D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	174	⇓eP	Pg	02 27 33.8	-0.2
CPBX				eS	Sg	02 27 35.8	+0.2
CPBX				⇑e		02 27 37.0	
	comp=N,67µm,0.3s						
CPBX	Cerro Prieto	0.07	174	⇓eP	Pg	02 27 33.8	-0.2
CPBX				eS	Sg	02 27 35.8	+0.2
SNR	Schaffner Ranc	0.39	344	eP	Pg	02 27 39.4	0.0
COA	Coachella	0.41	23	⇓iP	Pg	02 27 40.5	+0.7
EMX	El Mayor	0.50	173	⇓eP	Pg	02 27 41.1	-0.2
EMX				eS	Sg	02 27 49.1	+1.1
EMX				⇑e		02 27 49.9	
	comp=N,2µm,0.1s						
YUH	Yuha Desert	0.54	288	⇑iP	Pg	02 27 42.2	0.0
SWSC	Sam W. Stewart	0.61	318	P	Pg	02 27 43.4	-0.1
	baz=0.7,SNR=207						
SWSC				⇓S	Sg	02 27 52.6	+1.0
	baz=0.7						
112A	Yuma	0.62	85	⇑P	Pg	02 27 43.0	-0.6
	baz=0.6,SNR=278						
112A				⇑S	Sg	02 27 51.9	+0.1
	baz=0.6						
YMD	Yuma Desert	0.65	84	⇑iP	Pg	02 27 43.6	-0.7
DVTC	Desert V Tower	0.69	285	⇑P	Pg	02 27 45.0	0.0
	baz=0.7,SNR=38						
DVTC				⇓S	Sg	02 27 54.8	+0.8
	baz=0.7						
GLA	Glamis	0.70	36	P	Pg	02 27 44.5	-0.6
	baz=0.7,SNR=182						
GLA				⇑S	Sg	02 27 53.8	-0.6
	baz=0.7						
GLA	Glamis	0.70	36	⇓iP	Pg	02 27 44.5	-0.6
GLA	Glamis	0.70	36	ePg	Pg	02 27 44.7	-0.5
GLA				eSg	Sg	02 27 54.0	-0.3
RDX	Rancho Dawling	0.77	224	ePN	Pg	02 27 46.4	-0.1
RDX				eS	Sg	02 27 58.6	+2.0
RDX				⇑e		02 28 00.3	
	comp=N,1µm,0.5s						
RDX	Rancho Dawling	0.77	224	ePn	Pg	02 27 46.4	-0.1
RDX				eS	Sg	02 27 58.6	+2.0
MONP	Monument Peak	1.02	294	⇓P	Pg	02 27 50.0	-1.3
	baz=1.1,SNR=112						
MONP				⇑S	Sg	02 28 04.0	-0.5
	baz=1.1						
ECBX	El Chinero	1.03	168	⇓eP	Pg	02 27 50.9	-0.6
ECBX				eS	Sg	02 28 05.1	+0.2
CBX	Cerro Bola	1.16	262	eP	Pb	02 27 52.7	-0.9
BAR	Barrett	1.17	280	ePg	Pg	02 27 52.5	-1.5
BAR				eSg	Sg	02 28 08.8	-0.4
BC3	Big Chuckw Mtn	1.18	354	⇓P	Pb	02 27 51.7	-2.2
	baz=1.2,SNR=13						
BC3				⇑S	Sb	02 28 08.5	-0.6
	baz=1.2						
113A	Mohawk Valley,	1.33	77	⇓P	Pn	02 27 53.8	-2.3
	baz=1.3,SNR=27						
113A				⇑S	Sb	02 28 10.6	-3.1
	baz=1.3						
ECNX	Esteban Cantu	1.37	233	ePN	Pn	02 27 57.3	+0.7
ECNX				ePN	Pn	02 27 56.5	-0.1
PBX	Punta Banda	1.41	239	ePN	Pn	02 27 57.5	+0.3
SPX	San Pedro Mart	1.44	185	ePN	Pn	02 27 58.5	+1.0
PFO	Pinyon Flat Ob	1.48	320	⇑P	Pn	02 27 56.1	-2.0
	baz=1.5,SNR=90						
PFO				⇑S	Sn	02 28 15.0	-2.4
	baz=1.5						
PFO	Pinyon Flat Ob	1.48	320	ePn	Pn	02 27 57.3	-0.8
109C	Camp Elliot, M	1.57	285	⇑P	Pn	02 27 57.8	-1.5
	baz=1.6						
109C				⇓S	Sn	02 28 18.2	-1.4
	baz=1.6						
IRM	Iron Mountain	1.68	5	⇑Sb	Sb	02 28 24.3	+0.7
	baz=1.7						
Y13A	Salome	1.82	43	⇑Sb	Sb	02 28 27.9	+0.2
	baz=1.8						
MURC	Murrieta	1.94	306	⇓Sb	Sb	02 28 32.1	+1.0
	baz=2.0						
PDMCI	Parker Dam,Lak	2.06	28	⇓Sb	Sb	02 28 35.0	+0.4
	baz=2.1						
Z14A	Wintersburg	2.17	66	⇓Sb	Sb	02 28 38.0	+0.1
	baz=2.2						
214A	Organ Pipe Nat	2.18	103	⇑P	Pn	02 28 05.1	-2.7
	baz=2.1,SNR=29						
Y14A	Wickenburg	2.42	52	⇓Sb	Sb	02 28 45.4	+0.5
	baz=2.4						
X13A	Yucca	2.44	30	⇓Sb	Sb	02 28 46.8	+1.2
	baz=2.5						
LDFC	Landfair	2.59	4	ePn	Pn	02 28 16.2	+2.7
115A	Sonoran Desert	2.61	84	⇑P	Pn	02 28 12.1	-1.7
	baz=2.6						
CIS	Catalina Islan	2.76	290	⇓Sb	Sb	02 28 56.3	+1.6
	baz=2.8						
X14A	Yava	2.83	45	⇑Sb	Sb	02 28 58.5	+1.7
	baz=2.8						
MWC	Mount Wilson	2.88	308	ePn	Pn	02 28 19.5	+2.1
Y15A	Casa Rosa Ranc	2.90	59	⇓Sb	Sb	02 28 59.7	+1.1
	baz=2.9						
PASC	Pasadena Art C	2.94	306	ePn	Pn	02 28 19.4	+1.2
TUC	Tucson	3.83	91	ePn	Pn	02 28 32.2	+1.7
WUAZ	Wupatki	4.46	46	ePn	Pn	02 28 43.4	+4.3

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*IDC **12** 02:28:15.9±1.4, 11.°60N×124.°23E, h0^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.6/21, mbtmp3.6/7, Error ellipse: s-maj=187.8km s-min=16.6km az=67.0*
*MAN **12** 02:28:19, 11.°71N×124.°26E, h19^{km}, mb4.5, ML3.3, MS3.2*
ISC 12 02:28:20.0±0.9, **11.°72N**±0.°04×**124.°31E**±0.°05, **h23**^{km}±8^{km}, **n23, σ0^{s}.76**/25, **mb3.7**/7, **2C-2D, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OCLP	Ormoc	0.72	156	eP	Pb	02 28 33.3	-0.6
CNP	Catarman	0.86	23	eP	Pb	02 28 35.9	-0.5
MMPH	Masbate	0.93	313	⇑eP	Pb	02 28 37.2	-0.2
MMPH				eS	Sb	02 28 49.9	+0.5
LLP	Lapu-Lapu	1.43	194	i P	Pn	02 28 43.6	-0.9
LLP				i S	Sn	02 29 03.1	+0.5
RCP	Roxas	1.54	264	⇓eP	Pn	02 28 44.6	-1.5
RCP				eS	Sn	02 29 05.1	-0.3
MSLP	Maasin	1.66	161	eP	Pn	02 28 48.5	+0.7
PVCP	Virac	1.87	355	eP	Pn	02 28 50.8	+0.2
KALP	Kalibo	1.94	269	eP	Sn	02 29 10.5	-4.6
GUIM	Jordan	2.01	238	eP	Pn	02 28 52.5	-0.1
SCPH	Surigao	2.24	149	⇑eP	Pn	02 28 57.3	+1.6
OTRP	Odiongan	2.33	286	eP	Pn	02 28 56.8	-0.1
SNPH	Sibulan	2.58	204	eP	Pn	02 29 01.0	+0.5
GQP	Guinayangan	2.84	320	⇓eP	Pn	02 29 04.5	+0.6
SJMP	San Jose	3.21	284	eP	Px	02 29 20.4	
PAGZ	Pagadian	3.95	194	eP	Pn	02 29 19.8	+0.5
BUSP	Coron	4.04	274	eP	Pn	02 29 21.5	+1.1
WRA	Warramunga Arr	32.97	162	P	P	02 34 50.0	-3.2
	0.7nm,0.6s,mb3.8,baz=340,slow=9.4,SNR=3.0						
ASAR	Alice Springs	36.40	165	P	P	02 35 22.4	-0.4
	0.6nm,0.5s,mb3.8,baz=345,slow=7.0,SNR=8.2						
SONM	Songino Array	39.01	341	P	P	02 35 45.1	+0.4
	0.4nm,0.7s,mb3.2,baz=158,slow=9.6,SNR=3.9						
STKA	Stephens Creek	46.40	160	P	P	02 36 44.4	-0.4
	1.5nm,0.7s,mb4.0,baz=312,slow=13,SNR=2.7						
MKAR	Makanchi Array	49.72	323	P	P	02 37 10.8	+0.4
	0.7nm,0.8s,mb3.7,baz=125,slow=10,SNR=6.2						
ZALV	Zalesovo Beam	52.45	332	P	P	02 37 30.5	-0.2
	0.9nm,0.3s,mb4.2,baz=111,slow=3.7,SNR=4.0						
BVAR	Borovoye Array	59.39	325	P	P	02 38 19.9	-0.6
	0.4nm,0.8s,mb3.5,baz=90,slow=1.9,SNR=4.5						

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*IDC **12** 03:04:24.8±2.8, 19.°53S×170.°75E, h0^{km}, mb4.1/3,*

mb1 4.1/3, mb1mx3.9/15, mbtmp4.1/3, Error ellipse: s-maj=105.7km s-min=38.2km az=140.0
*ISCJB **12** 03:05:00.7±2.4, 18°.8S±0°.2×168°.9E±0°.5, h250^{km}, mb3.7/3, Error ellipse: s-maj=76.6km s-min=11.4km az=23.3*
ISC 12 03:05:01.6±2.5, 18°.9S±0°.3×169°.0E±0°.6, h250^{km}, n8, σ1^{s}.32/7, mb3.7/3, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.96	216	eP	Pn	03 06 05.7	+0.9
DZM				eS	S	03 06 53.5	-1.6
NOUC	Port Laguerre	4.06	218	eP	Pn	03 06 08.2	+2.1
NOUC				eS	S	03 06 56.7	-0.6
ASAR	Alice Springs	32.97	255	P	P	03 11 14.6	+1.3
	1.8nm,0.6s,mb3.8,baz=82,slow=9.1,SNR=23						
PETK	Petropavlovsk-	72.35	353	P	P	03 15 58.3	-1.6
	1.9nm,0.7s,mb3.8,baz=148,slow=6.2,SNR=3.2						
SONM	Songino Array	86.79	323	P	P	03 17 17.3	-0.3
	0.4nm,0.5s,mb3.4,baz=154,slow=5.8,SNR=5.3						
YKA	Yellowknife Ar	100.47	27	P	Pdif	03 18 12.3	-8.1
	0.4nm,1.1s,baz=255,slow=6.3,SNR=3.1						
GERES	GERESS Array B	144.06	332	PKPbc	PKPdf	03 24 03.7	-3.5
	0.6nm,0.6s,baz=48,slow=4.3,SNR=6.0						
TORD	Torodi Ar. Bea	166.51	247	PKP	PKPdf	03 24 33.7	-4.1
	0.4nm,1.0s,baz=135,slow=0.6,SNR=2.6						

*NEIC **12** 03:09:33.0, 35°.26S×72°.21W, h27^{km}, ML3.2(GUC), After GUC.*
GUC 12 03:09:33.0±0.6, 35°.26S×72°.21W, h27^{km}±8^{km}, MD3.5, ML3.2, 2C, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TALC	Talca	0.49	107	⇑eP	Pb	03 09 42.5	-0.6
TALC				i S	Sb	03 09 50.5	+0.5
TALC	Talca	0.49	107	⇑eP	Pb	03 09 42.5	-0.6
TALC				i S	Sb	03 09 50.5	+0.5
TALC				AML	AML	03 09 51.6	
	comp=E,3µm,0.1s						
CNCO	Chanco	0.55	209	eP	Pb	03 09 43.5	-0.6
CNCO				i S	Sb	03 09 51.9	+0.3
CNCO	Chanco	0.55	209	eP	Pb	03 09 43.5	-0.6
CNCO				i S	Sb	03 09 51.9	+0.3
NICH	Los Niches	0.84	73	eP	Pb	03 09 48.4	-0.6
CCHI	Chillan	1.35	176	eP	Pn	03 09 54.4	-1.5
CCHI				i S	Sn	03 10 12.0	-0.9
CCHI	Chillan	1.35	176	eP	Pn	03 09 54.4	-1.5
CCHI				i S	Sn	03 10 12.0	-0.9
CICH	Cipreses	1.74	58	eP	Pn	03 10 02.6	+1.2
CACH	El Canelo	1.75	50	eP	Pn	03 10 03.3	+1.8
CACH	El Canelo	1.75	50	eP	Pn	03 10 03.3	+1.8
LMEL	Las Melosas	2.17	50	eP	Pn	03 10 09.1	+1.8
LMEL				S	Sn	03 10 33.3	0.0
LMEL	Las Melosas	2.17	50	eP	Pn	03 10 09.1	+1.8
LMEL				i S	Sn	03 10 33.3	0.0

MAN 12 03:09:44, 18°.21N×120°.51E, h46^{km}, 2C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.16	42	⇑iP	Pn	03 09 54.5	+2.9
PIP				eS	Sn	03 09 59.8	+2.8
SIPP	Brgy, Tapao	0.29	190	⇑eP	Pn	03 09 54.8	+2.2
SIPP				i S	Sn	03 10 04.0	+5.2
ABRA	Dolores	0.59	161	eP	Pn	03 09 58.4	+2.2
ABRA				eS	Sn	03 10 03.7	-1.1
APYP	Conner	0.78	116	eP	Pn	03 10 00.7	+2.1
APYP				eS	Sn	03 10 07.2	-2.0

*ISCJB **12** 03:50:04.4±0.6, 33°.33N±0°.03×35°.39E±0°.05, h6^{km}±5^{km}, Error ellipse: s-maj=7.6km s-min=3.9km az=19.9*
*GII **12** 03:50:04.4±0.5, 33°.24N×35°.41E, h1^{km}±2^{km}, Md2.1/5*
*CSEM **12** 03:50:05.5, 33°.31N×35°.39E, h0^{km}, ML2.9, After GRAL*
*GRAL **12** 03:50:05.5±0.4, 33°.31N×35°.39E, h0^{km}±144^{km}, MD2.9*
ISC 12 03:50:05.0±0.6, 33°.33N±0°.03×35°.40E±0°.05, h6^{km}±6^{km}, n18, σ0^{s}.62/28, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	341	eP	Pg	03 50 08.8	+0.4
MATL	Matirih	0.17	341	eP	Pg	03 50 08.8	+0.4
KSDI	Kefar Szold	0.26	122	Pg	Pg	03 50 09.8	-0.3
KSDI				Sg	Sg	03 50 14.5	+0.9
HNTI	Hanita	0.31	217	Pg	Pg	03 50 11.0	-0.1
HNTI				Sg	Sg	03 50 15.6	+0.5
MMA0	Mount Meron ar	0.32	179	Pg	Pg	03 50 10.6	-0.6
MMA0				Sg	Sg	03 50 15.3	0.0
RCY	Rachaya	0.39	67	eP	Pg	03 50 13.0	+0.5
RCY	Rachaya	0.39	67	eP	Pg	03 50 13.0	+0.5
KSHT	Keshet	0.49	135	Pg	Pg	03 50 14.3	-0.2
BHL	Bhannes	0.61	21	eP	Pg	03 50 16.9	+0.1
BHL	Bhannes	0.61	21	eP	Pg	03 50 16.9	+0.1
OFRI	‘Ofer	0.79	206	Pg	Pg	03 50 19.7	-0.5
OFRI				Sg	Sg	03 50 32.1	+1.7
MMLI	Mount Malkishu	0.89	179	Pg	Pg	03 50 21.5	-0.6
HWQ	Hawqa	1.05	26	eP	Pg	03 50 25.0	-0.2
HWQ				eS	Sg	03 50 39.0	+0.2
HWQ	Hawqa	1.05	26	eP	Pg	03 50 25.0	-0.2
HWQ				eS	Sg	03 50 39.0	+0.2
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	03 50 24.6	-1.2
HMDT				Sg	Sg	03 50 40.0	+0.2
SLTI	Sal’it	1.13	195	Pg	Pg	03 50 25.8	-0.9
SLTI				Sg	Sg	03 50 41.3	0.0
DSI	Dead Sea	1.76	180	Pn	Pn	03 50 35.5	-0.5
DSI				Sn	Sn	03 50 59.5	+0.8
MZDA	Masada	2.02	181	Pn	Pn	03 50 39.1	-0.5
MZDA				Sn	Sn	03 51 05.5	+0.4

*ISCJB **12** 03:51:16.2±0.6, 33°.33N±0°.03×35°.39E±0°.05, h4^{km}±6^{km}, Error ellipse: s-maj=7.6km s-min=3.7km az=19.2*
*GII **12** 03:51:16.5±0.6, 33°.23N×35°.41E, h1^{km}±2^{km}, Md2.1/6*
*CSEM **12** 03:51:17.5, 33°.32N×35°.40E, h0^{km}, ML3.2, After GRAL*
*GRAL **12** 03:51:17.5±0.5, 33°.32N×35°.40E, h0^{km}±156^{km}, MD3.2*
ISC 12 03:51:16.8±0.6, 33°.33N±0°.03×35°.40E±0°.05, h4^{km}±6^{km}, n20, σ0^{s}.58/30, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	340	eP	Pg	03 51 20.8	+0.6
MATL	Matirih	0.17	340	eP	Pg	03 51 20.8	+0.7
KSDI	Kefar Szold	0.26	122	Pg	Pg	03 51 21.7	-0.1
KSDI				Sg	Sg	03 51 26.1	+0.9
MMC7	Mount Meron ar	0.31	181	Pg	Pg	03 51 22.3	-0.5
HNTI	Hanita	0.31	217	Sg	Sg	03 51 27.5	+0.6
MMA1	Mount Meron ar	0.31	179	Pg	Pg	03 51 22.3	-0.5
MMA1				Sg	Sg	03 51 27.0	+0.1
RCY	Rachaya	0.38	66	eP	Pg	03 51 24.8	+0.6
RCY	Rachaya	0.38	66	eP	Pg	03 51 24.8	+0.6
KSHT	Keshet	0.49	135	Pg	Pg	03 51 26.6	+0.3
BHL	Bhannes	0.61	20	eP	Pg	03 51 28.6	+0.1
BHL	Bhannes	0.61	20	eP	Pg	03 51 28.6	0.0
BLGI	Bet Lehem HaGe	0.62	196	Pg	Pg	03 51 28.6	-0.1
BLGI				Sg	Sg	03 51 37.0	+0.2
OFRI	‘Ofer	0.79	206	Pg	Pg	03 51 31.6	-0.4
OFRI				Sg	Sg	03 51 43.7	+1.5
MMLI	Mount Malkishu	0.89	179	Pg	Pg	03 51 33.1	-0.8
MMLI				Sg	Sg	03 51 45.2	-0.3
HWQ	Hawqa	1.05	26	eP	Pg	03 51 36.8	-0.2
HWQ				eS	Sg	03 51 50.4	-0.2
HWQ	Hawqa	1.05	26	eP	Pg	03 51 36.8	-0.2
HWQ				eS	Sg	03 51 50.4	-0.2
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	03 51 36.5	-1.1
HMDT				Sg	Sg	03 51 51.6	+0.1
SLTI	Sal’it	1.13	196	Pg	Pg	03 51 37.6	-0.9
SLTI				Sg	Sg	03 51 53.1	0.0
DSI	Dead Sea	1.76	181	Pn	Pn	03 51 47.3	-0.8
DSI				Sn	Sn	03 52 11.2	+0.3
MZDA	Masada	2.02	181	Sn	Sn	03 52 17.8	+0.5

*ISCJB **12** 03:58:53.6±0.9, 51°.48N±0°.04×16°.03E±0°.04, h0^{km}, Error ellipse: s-maj=6.6km s-min=3.5km az=11.7*
*CSEM **12** 03:58:55.3±0.6, 51°.46N×16°.03E, h2^{km}, ML2.9/5, Error ellipse: s-maj=10.8km s-min=5.3km az=177.0*
*WAR **12** 03:58:55.5, 51°.51N×16°.06E, ML2.3, Mining Induced*
*VIE **12** 03:58:56.0±0.6, 51°.37N×16°.01E, h0^{km}, mb1.9/1, ML2.3/3, Error ellipse: s-maj=3.9km s-min=2.6km az=15.0 76 km WNW of Wroclaw Suspected Mining induced.*
*PRU **12** 03:58:56.3, 51°.45N×16°.06E, h0^{km}*
ISC 12 03:58:55.0±0.9, 51°.49N±0°.05×16°.06E±0°.04, h0^{km}, n23, σ0^{s}.80/42, 2C, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.67	167	ePg	Pg	03 59 08.0	+0.2
KSP				eSg	Sg	03 59 17.1	+0.7
KSP	Ksiaz	0.67	167	ePg	Pg	03 59 08.0	+0.2
UPC	Upice	0.99	182	ePG	Pg	03 59 14.0	+0.1
UPC	Upice	0.99	182	Pg	Pg	03 59 14.0	+0.1
DPC	Dobruska-Polom	1.16	171	ePG	Pg	03 59 16.7	-0.4
DPC				eSG	Sg	03 59 31.9	-0.2
	comp=Z,8.9nm,0.3s						
DPC	Dobruska-Polom	1.16	171	Pg	Pg	03 59 16.7	-0.4
DPC				Sg	Sg	03 59 31.9	-0.2
	comp=Z,8.9nm,0.3s						
PVCC	Panska Ves	1.35	225	ePG	Pg	03 59 20.8	0.0
PVCC				eSG	Sg	03 59 39.2	+1.0
	comp=Z,35nm,0.2s						
PVCC	Panska Ves	1.35	225	Pg	Pg	03 59 20.8	0.0
PVCC				Sg	Sg	03 59 39.2	+1.0
	comp=Z,35nm,0.2s						
BRG	Berggiesshubel	1.47	246	PG	Pg	03 59 22.6	-0.5
BRG				SG	Sg	03 59 43.2	+1.1
	comp=Z,19nm,0.3s						
PRU	Pruhonice	1.79	213	ePG	Pg	03 59 27.4	-1.8
PRU				eSG	Sg	03 59 52.6	+0.2
	comp=Z,6.8nm,0.4s						
PRU	Pruhonice	1.79	213	Pg	Pg	03 59 27.4	-1.8
PRU				Sg	Sg	03 59 52.6	+0.2
	comp=Z,6.8nm,0.4s						
CLL	Collm	1.92	266	ePg	Pg	03 59 31.0	-0.8
CLL				eSg	Sg	03 59 57.0	+0.3
	comp=Z,5.0nm,0.6s						
MORC	Moravsky Berou	1.96	151	ePn	Pn	03 59 28.8	-0.7
VRAC	Vranov	2.21	171	ePn	Pn	03 59 33.1	+0.2
NKC	Novy Kostel	2.61	243	ePN	Pn	03 59 38.8	+0.4
NKC				ePG	Pg	03 59 44.6	-0.4
NKC				eSG	Sg	04 00 18.9	+0.1
	comp=Z,7.5nm,0.3s						
NKC	Novy Kostel	2.61	243	Pn	Pn	03 59 38.8	+0.4
OJC	Ojcow	2.69	117	ePg	Pg	03 59 46.8	+0.2
OJC				eSg	Sg	04 00 22.3	+0.8
OJC	Ojcow	2.69	117	ePg	Pg	03 59 46.8	+0.2
OJC				eSg	Sg	04 00 22.3	+0.8
KHC	Kasperske Hory	2.85	215	ePN	Pn	03 59 42.6	+0.9
KHC				ePG	Pg	03 59 47.4	-2.2
KHC				eSN	Sn	04 00 16.1	-0.5
KHC				eSG	Sg	04 00 24.9	-1.5
KHC	Kasperske Hory	2.85	215	Pn	Pn	03 59 42.6	+0.9
MOX	Moxa	2.93	255	ePG	Pg	03 59 51.0	-0.1
MOX				eSG	Sg	04 00 30.3	+1.3
MOA	Molln	3.83	198	⇑iPn	Pn	03 59 55.5	+0.4
MOA				⇑iSg	Sg	04 00 58.4	+0.6
	comp=Z,2.6nm,0.5s						
MOA	Molln	3.83	198	Pn	Pn	03 59 55.5	+0.4
MOA				Sg	Sg	04 00 58.4	+0.5
	comp=Z,2.6nm,0.5s						

*ECX **12** 04:23:23.5±0.5, 32°.38N×115°.25W, h6^{km}, MD3.4, ML3.6*
*ISCJB **12** 04:23:24.9±0.4, 32°.41N±0°.02×115°.27W±0°.02, h6^{km}±2^{km}, Error ellipse: s-maj=3.5km s-min=2.4km az=170.6*
*NEIC **12** 04:23:26.6, 32°.43N×115°.30W, h6^{km}, ML3.4(PAS), ML3.5(ECX), After PAS.*
ISC 12 04:23:25.9±0.3, 32°.44N±0°.02×115°.30W±0°.02, h9^{km}±2^{km}, n61, σ1^{s}.35/88, 24C-33D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.02	196	⇓eP	Pg	04 23 26.3	-1.2
CPBX				eS	Sg	04 23 28.8	+0.2
CPBX				⇑e		04 23 30.0	
	comp=N,60µm,0.3s						
CPBX				e		04 23 30.4	
	comp=E,109µm,0.3s						
CPBX	Cerro Prieto	0.02	196	⇓eP	Pg	04 23 26.3	-1.2
CPBX				eS	Sg	04 23 28.8	+0.2
SNR	Schaffner Ranc	0.44	344	⇓iP	Pg	04 23 35.5	+1.0
COA	Coachella	0.45	19	⇓iP	Pg	04 23 35.7	+1.0
EMX	El Mayor	0.45	174	⇓eP	Pg	04 23 36.4	+1.7
EMX				eS	Sg	04 23 44.2	+3.6
EMX	El Mayor	0.45	174	⇓eP	Pg	04 23 36.5	+1.8
EMX				eS	Sg	04 23 44.2	+3.6
YUH	Yuha Desert	0.57	292	⇑iP	Pg	04 23 36.9	0.0
112A	Yuma	0.61	81	P	Pg	04 23 38.4	+0.6
	baz=0.6,SNR=408						
YMD	Yuma Desert	0.65	79	⇑iP	Pg	04 23 38.9	+0.5
SWSC	Sam W. Stewart	0.66	320	P	Pg	04 23 38.2	-0.4
	baz=0.7,SNR=140						
SWSC				⇑S	Sg	04 23 46.7	-0.4
	baz=0.7						
DVTC	Desert V Tower	0.71	288	P	Pg	04 23 39.7	+0.1
	baz=0.7,SNR=537						
DVTC				⇓S	Sg	04 23 48.9	-0.1
	baz=0.7						
CRR	Carrizo Plain	0.72	309	eP	Pg	04 23 39.5	-0.3
GLA	Glamis	0.73	33	⇓P	Pg	04 23 39.6	-0.4
	baz=0.7,SNR=119						
GLA				⇓S	Sg	04 23 49.0	-0.5
	baz=0.7						
GLA	Glamis	0.73	33	ePg	Pg	04 23 39.6	-0.3
GLA				eSg	Sg	04 23 49.2	-0.3
RDX	Rancho Dawling	0.75	228	⇑eP	Pg	04 23 41.3	+1.0
RDX				eS	Sg	04 23 52.4	+2.3
RDX				e		04 23 52.9	
	comp=N,3µm,0.4s						
ECBX	El Chinero	0.98	168	⇑eP	Pg	04 23 46.4	+1.5
ECBX				eS	Sg	04 24 00.6	+3.0
MONP	Monument Peak	1.05	296	⇑P	Pg	04 23 44.7	-1.3
	baz=1.1,SNR=382						
MONP				⇑S	Sg	04 23 57.9	-1.8
	baz=1.1						
CBX	Cerro Bola	1.16	264	ePN	Pn	04 23 47.9	-0.4
CBX				eS	Sb	04 24 03.4	+0.1
BAR	Barrett	1.19	282	eP	Pb	04 23 46.9	-1.7
BAR				eS	Sb	04 24 02.9	-1.0
BC3	Big Chuckw Mtn	1.22	354	P	Pn	04 23 46.8	-2.3
	baz=1.2,SNR=91						
113A	Mohawk Valley,	1.33	75	⇑P	Pn	04 23 49.1	-1.6
	baz=1.3,SNR=470						
113A				⇓Sb	Sb	04 24 08.3	0.0
	baz=1.3						
ECNX	Esteban Cantu	1.35	235	⇑ePN	Pn	04 23 52.0	+1.1
ECNX				⇓ePN	Pn	04 23 50.3	-0.6
ECNX				eS	Sb	04 24 07.6	-1.1
ECNX				eS	Sb	04 24 10.1	+1.3
PBX	Punta Banda	1.40	241	ePN	Pn	04 23 52.2	+0.7
PBX				eS	Sb	04 24 11.1	+1.1
SPX	San Pedro Mart	1.40	186	ePN	Pn	04 23 53.8	+2.3
SPX				eS	Sb	04 24 12.6	+2.6
PFO	Pinyon Flat Ob	1.52	321	P	Pn	04 23 50.8	-2.5
	baz=1.5,SNR=92						
PFO				⇑S	Sn	04 24 09.2	-4.0
	baz=1.5						
PFO	Pinyon Flat Ob	1.52	321	ePn	Pn	04 23 50.7	-2.6
109C	Camp Elliot, M	1.59	287	⇓P	Pn	04 23 52.7	-1.5
	baz=1.6,SNR=59						
109C				⇓Sb	Sb	04 24 14.9	-0.7
	baz=1.6						
IRM	Iron Mountain	1.72	4	⇑P	Pn	04 23 53.9	-2.1
	baz=1.7						
IRM				⇓Sb	Sb	04 24 19.5	0.0
	baz=1.7						
Y13A	Salome	1.84	42	⇑Sb	Sb	04 24 23.5	+0.6
	baz=1.9						
MURC	Murrieta	1.98	306	⇓Sb	Sb	04 24 26.6	-0.1
	baz=2.0						
PDMCI	Parker Dam,Lak	2.10	27	⇑Sb	Sb	04 24 30.1	-0.1
	baz=2.1						
214A	Organ Pipe Nat	2.16	102	⇓P	Pn	04 24 00.3	-1.7
	baz=2.2,SNR=114						
Z14A	Wintersburg	2.18	64	⇑P	Pn	04 24 01.1	-1.3
	baz=2.2,SNR=10						
BBRC	Big Bear Sol-O	2.27	324	⇓Sb	Sb	04 24 35.5	+0.2
	baz=2.3						
GMRC	Granite Mounta	2.36	353	⇓P	Pn	04 24 03.0	-1.7
	baz=2.4						
NEE2	Needles Airpor	2.39	14	⇓Sb	Sb	04 24 40.3	+1.6
	baz=2.4						
Y14A	Wickenburg	2.44	51	⇓Sb	Sb	04 24 41.6	+1.6
	baz=2.4						
X13A	Yucca	2.48	29	⇓Sb	Sb	04 24 42.0	+0.9
	baz=2.5						
115A	Sonoran Desert	2.60	83	⇓P	Pn	04 24 07.2	-0.9
	baz=2.6,SNR=25						
BFSC	Mount Baldy St	2.67	313	⇑Sb	Sb	04 24 47.2	+0.4
	baz=2.7						
CIS	Catalina Islan	2.79	291	⇓Sb	Sb	04 24 50.7	+0.6
	baz=2.8						
SCI	San Clemente I	2.79	282	⇑Sb	Sb	04 24 51.7	+1.4
	baz=2.8						
FMP	Fort Macarthur	2.82	298	⇓Sb	Sb	04 24 52.4	+1.4
	baz=2.8						
X14A	Yava	2.85	44	⇓Sb	Sb	04 24 54.4	+2.4
	baz=2.9						
W12A	Cal Nev Ari	2.88	7	⇓Sb	Sb	04 24 54.7	+2.0
	baz=2.9						
W13A	Hualapai Mount	2.90	24	⇓Sb	Sb	04 24 55.2	+1.7
	baz=2.9						
Y15A	Casa Rosa Ranc	2.91	58	⇓P	Pn	04 24 11.3	-1.0
	baz=2.9,SNR=8.2						
Y15A				⇓Sb	Sb	04 24 55.9	+2.3
	baz=2.9						
MWC	Mount Wilson	2.92	308	ePg	Pg	04 24 18.6	-3.2
DECC	Green Verdugo	3.12	306	⇓S	Sn	04 24 49.2	-3.3
	baz=3.1						
X15A	Humboldt	3.27	51	⇓Sb	Sb	04 25 06.5	+2.4
	baz=3.3						
216A	Three Points,	3.28	97	⇑P	Pn	04 24 16.2	-1.3
	baz=3.3,SNR=6.2						
V12A	Nelson	3.30	6	⇑Sb	Sb	04 25 08.3	+3.5
	baz=3.3						
EDW2	Edwards Air Fo	3.31	318	⇑Sb	Sb	04 25 07.2	+2.0
	baz=3.3						
W14A	Seligman	3.33	33	⇓Sb	Sb	04 25 09.2	+3.6
	baz=3.3						
Y16A	Circle Bar Ran	3.51	65	⇑P	Pn	04 24 19.6	-1.0
	baz=3.5,SNR=6.9						
TUC	Tucson	3.82	91	ePn	Pn	04 24 23.3	-1.6
TUC				ePb	Pb	04 24 31.5	-2.0
TUC				ePg	Pg	04 24 38.4	-0.7
TUC				eSg	Sg	04 25 27.0	-1.6
217A	Green Valley	3.86	99	⇑P	Pn	04 24 24.3	-1.1
	baz=3.9,SNR=21						
Y17A	Roosevelt	3.94	70	⇓P	Pn	04 24 25.3	-1.2
	baz=3.9,SNR=17						
WUAZ	Wupatki	4.48	46	ePn	Pn	04 24 35.1	+1.1
WUAZ				ePg	Pg	04 24 52.2	+0.6
318A	Bisbee	4.62	101	⇑P	Pn	04 24 34.9	-1.0
	baz=4.6,SNR=33						
319A	Douglas	5.22	100	⇑P	Pn	04 24 43.6	-0.5
	baz=5.2,SNR=16						

*NEIC **12** 04:32:37.9, 32°.47N×115°.33W, h13^{km}, mb4.7/29, ML5.0(PAS), ML5.1(ECX), After ECX.*
NEIC Felt at Mexicali. Felt [V] at Winterhaven; [IV] at Calexico, El Centro, Imperial, Jacumba and La Jolla; [III] at Brawley, Chula Vista, Holtville, Lakeside and San Diego; [II] at Aliso Viejo, Blythe, Carlsbad, El Cajon, Escondido, La Mesa, Poway and Santee, California. Also felt at Aguanga, Apple Valley, Borrego Springs, Corona, Coronado, Costa Mesa, Dana Point, Del Mar, Encinitas, Fallbrook, Heber, Imperial Beach, Jamul, Lake Forest, La Mirada, La Quinta, Los Angeles, Mecca, Mission Viejo, Newbury Park, Newport Beach, Niland, Palm Desert, Parker Dam, Pine Valley, San Clemente, San Ysidro, Spring Valley, Thermal and Westmorland. Felt [IV] at Wellton and [III] at Parker, Somerton and Yuma, Arizona. Also felt at Lake Havasu City and Salome.
*GCMT **12** 04:32:37.9±0.2, 32°.48N×115°.34W, h12^{km}±1^{km}, MW5.0/85, Moment Tensor Solution. s31,c37; s85,c129; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.17±.12; M$_{\theta\theta}$-3.46±.10; M$_{\phi\phi}$4.63±.13; M$_{r\theta}$0.02±.29; M$_{\theta\phi}$-0.31±.10; M$_{\phi r}$-1.55±.31; Best double couple: M$_0$4.25100×10^{16} NP1:φ$_s$132.00000°, δ79.00000°, λ171.00000°. NP2: φ$_s$224.00000°, δ81.00000°, λ11.00000°. Principal axes: T 5.0290, Plg14.0000°, Azm88.0000°; N -1.5570, Plg76.0000°, Azm263.0000°; P -3.4720, Plg1.0000°, Azm358.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB **12** 04:32:37.7±0.4, 32°.46N±0°.01×115°.29W±0°.01, h4^{km}±2^{km}, mb4.6/35, MS4.5/35 Error ellipse: s-maj=2.5km s-min=1.8km az=2.3*
*BJI **12** 04:32:38.3, 32°.58N×114°.86W, h24^{km}, mB5.6/11, mb4.9/14, Ms5.0/11, Ms7 4.7/14*
*ECX **12** 04:32:38.1±0.5, 32°.47N×115°.37W, h9^{km}±2^{km}, MD5.1, ML5.3, MW5.0, Fault plane solution: NP1:φ$_s$120.00000°, δ90.00000°, λ30.00000°.*
*MOS **12** 04:32:39.3±1.5, 32°.42N×115°.31W, h17^{km}, mb4.7/10, Error ellipse: s-maj=6.7km s-min=4.7km az=91.1*
*IDC **12** 04:32:39.1±0.9, 32°.45N×115°.20W, h0^{km}, mb4.4/11, mb1 4.4/16, mb1mx4.2/30, mbtmp4.3/16, ML3.9/4, MS4.5/29, Ms1 4.5/29, ms1mx4.4/32, Error ellipse: s-maj=20.1km s-min=9.1km az=50.0*
ISC 12 04:32:38.8±0.3, 32°.46N±0°.01×115°.33W±0°.01, h1^{km}±2^{km}, n322, σ1^{s}.44/335, mb4.7/35, MS4.5/35, 75C-69D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.05	152	⇓eP	Pg	04 32 41.6	+1.9
CHIX	Chihuahua	0.08	70	i P	Pg	04 32 42.4	+2.0
DELX	Delta	0.16	131	⇓iP	Pg	04 32 44.4	+2.6
SNR	Schaffner Ranc	0.41	347	⇓iP	Pg	04 32 47.8	+1.2
COA	Coachella	0.44	23	⇓iP	Pg	04 32 48.1	+0.9
EMX	El Mayor	0.48	171	⇓iP	Pg	04 32 49.1	+1.2
YUH	Yuha Desert	0.54	291	⇑iP	Pg	04 32 49.4	+0.3
SWSC	Sam W. Stewart	0.62	321	⇑P	Pg	04 32 50.8	+0.2
	baz=0.6,SNR=1000						
SWSC				⇓S	Sg	04 33 00.1	+1.3
	baz=0.6						
112A	Yuma	0.64	83	⇓P	Pg	04 32 50.8	-0.2
	baz=0.6,SNR=1000						
112A				⇑S	Sg	04 33 00.0	+0.7
	baz=0.6						
YMD	Yuma Desert	0.67	82	⇑iP	Pg	04 32 51.5	-0.2
DVTC	Desert V Tower	0.68	287	⇑P	Pg	04 32 52.1	+0.3
	baz=0.7,SNR=1000						
DVTC				⇑S	Sg	04 33 01.9	+1.2
	baz=0.7						
CRR	Carrizo Plain	0.69	308	⇑iP	Pg	04 32 52.0	+0.1
GLA	Glamis	0.73	36	P	Pg	04 32 52.3	-0.4
	baz=0.7,SNR=1000						
GLA				⇑S	Sg	04 33 02.3	+0.1
	baz=0.7						
GLA	Glamis	0.73	36	⇓eP	Pg	04 32 52.3	-0.4
GLA	Glamis	0.73	36	ePg	Pg	04 32 53.0	+0.3
GLA				eSg	Sg	04 33 02.0	-0.1
RDX	Rancho Dawling	0.74	225	eP	Pg	04 32 54.1	+1.1
RDX				eS	Sg	04 33 04.2	+1.5
ECBX	El Chinero	1.01	166	⇓eP	Pg	04 32 57.5	-0.7
ECBX				eS	Sg	04 33 11.7	+0.4
MONP	Monument Peak	1.01	295	⇓P	Pg	04 32 57.3	-1.0
	baz=1.0,SNR=1000						
MONP				⇑S	Sg	04 33 11.7	+0.3
	baz=1.0						
CBX	Cerro Bola	1.14	263	⇑ePN	Pn	04 33 00.7	-1.1
CBX				eS	Sg	04 33 16.6	+1.2
CBX				e		04 33 19.4	
	comp=N,102µm,0.4s						
CBX				e		04 33 23.0	
	comp=E,112µm,0.9s						
BAR	Barrett	1.15	281	ePg	Pg	04 33 00.6	-0.3
BAR				eSg	Sg	04 33 15.9	0.0
BC3	Big Chuckw Mtn	1.20	355	⇑P	Pg	04 32 59.6	-2.1
	baz=1.2,SNR=911						
ECNX	Esteban Cantu	1.34	234	⇑ePN	Pn	04 33 04.0	-0.6
ECNX				⇑ePN	Pn	04 33 03.0	-1.6
ECNX				eS	Sg	04 33 20.8	-1.0
ECNX				eS	Sg	04 33 21.3	-0.5
113A	Mohawk Valley,	1.35	76	P	Pg	04 33 01.9	-2.9
	baz=1.3,SNR=1000						
113A				⇓S	Sg	04 33 20.1	-2.2
	baz=1.3						
PBX	Punta Banda	1.38	239	⇑ePN	Pn	04 33 04.5	-0.8
PBX				eS	Sg	04 33 24.1	+0.9
SPX	San Pedro Mart	1.42	185	⇓ePN	Pn	04 33 06.8	+1.2

SPX				eS	Sg	04 33 23.4	-0.9
SPX				⇑e		04 33 27.2	
	comp=N,14µm,0.8s						
SPX				⇑e		04 33 34.3	
	comp=E,21µm,0.8s						
PFO	Pinyon Flat Ob	1.49	321	P	Pn	04 33 03.5	-3.2
	baz=1.5,SNR=1000						
PFO	Pinyon Flat Ob	1.49	321	ePn	Pn	04 33 04.0	-2.7
109C	Camp Elliot, M	1.56	286	⇑P	Pn	04 33 05.5	-2.1
	baz=1.6,SNR=479						
109C				⇑Sb	Sb	04 33 27.8	-0.8
	baz=1.6						
BELC	Belle Mtn.	1.64	340	⇓P	Pn	04 33 06.0	-2.7
	baz=1.7						
IRM	Iron Mountain	1.70	5	⇓P	Pn	04 33 06.6	-3.1
	baz=1.7,SNR=401						
IRM				⇑Sb	Sb	04 33 32.7	-0.1
	baz=1.7						
Y13A	Salome	1.85	43	⇑P	Pn	04 33 08.9	-2.8
	baz=1.9,SNR=26						
Y13A				⇓Sb	Sb	04 33 36.4	-0.6
	baz=1.9						
MURC	Murrieta	1.94	306	P	Pn	04 33 10.4	-2.5
	baz=2.0,SNR=64						
MURC				⇑Sb	Sb	04 33 39.8	+0.1
	baz=2.0						
PDMCI	Parker Dam,Lak	2.09	28	⇓P	Pn	04 33 12.4	-2.5
	baz=2.1						
PDMCI				⇓Sb	Sb	04 33 43.3	-0.6
	baz=2.1						
214A	Organ Pipe Nat	2.19	103	⇓P	Pn	04 33 13.3	-3.1
	baz=2.2,SNR=1000						
Z14A	Wintersburg	2.20	65	⇓P	Pn	04 33 13.7	-2.8
	baz=2.2,SNR=127						
Z14A				⇑S	Sn	04 33 41.6	-2.7
	baz=2.2						
BBRC	Big Bear Sol-O	2.24	324	⇓P	Pn	04 33 15.1	-1.9
	baz=2.3,SNR=68						
BBRC				⇓Sb	Sb	04 33 49.1	+0.8
	baz=2.3						
GMRC	Granite Mounta	2.33	353	⇑P	Pn	04 33 16.0	-2.3
	baz=2.4,SNR=120						
NEE2	Needles Airpor	2.38	14	⇑P	Pn	04 33 16.9	-2.0
	baz=2.4,SNR=26						
Y14A	Wickenburg	2.44	52	⇓P	Pn	04 33 17.4	-2.5
	baz=2.4,SNR=41						
Y14A				⇑Sb	Sb	04 33 54.0	-0.2
	baz=2.4						
X13A	Yucca	2.47	30	⇓P	Pn	04 33 18.0	-2.2
	baz=2.5,SNR=150						
X13A				⇓Sb	Sb	04 33 55.6	+0.7
	baz=2.5						
HEC	Hector,Ludlow	2.51	341	⇓P	Pn	04 33 18.2	-2.5
	baz=2.5,SNR=7.8						
LDFC	Landfair	2.62	4	ePn	Pn	04 33 21.9	-0.3
115A	Sonoran Desert	2.63	84	⇑P	Pn	04 33 19.7	-2.7
	baz=2.6,SNR=253						
BFSC	Mount Baldy St	2.64	313	⇑P	Pn	04 33 20.5	-1.9
	baz=2.7,SNR=30						
BFSC				⇓Sb	Sb	04 34 01.1	+1.4
	baz=2.7						
CIS	Catalina Islan	2.75	291	⇑P	Pn	04 33 21.9	-2.2
	baz=2.8,SNR=98						
CIS				⇓Sb	Sb	04 34 03.7	+0.7
	baz=2.8						
SCI	San Clemente I	2.76	282	⇓P	Pn	04 33 22.1	-2.1
	baz=2.8,SNR=32						
FMP	Fort Macarthur	2.78	297	⇓Sb	Sb	04 34 04.2	+0.2
	baz=2.8						
Z15A	Gila River Ind	2.79	72	⇑P	Pn	04 33 22.1	-2.6
	baz=2.8,SNR=15						
X14A	Yava	2.86	45	⇓P	Pn	04 33 23.7	-1.8
	baz=2.9						
W12A	Cal Nev Ari	2.86	8	⇓P	Pn	04 33 23.9	-1.6
	baz=2.9						
MWC	Mount Wilson	2.88	308	ePn	Pn	04 33 25.6	-0.3
MWC				eSg	Sg	04 34 09.6	-1.8
W13A	Hualapai Mount	2.89	24	⇑P	Pn	04 33 23.8	-2.2
	baz=2.9,SNR=79						
Y15A	Casa Rosa Ranc	2.92	59	⇑P	Pn	04 33 23.8	-2.5
	baz=2.9,SNR=136						
PASC	Pasadena Art C	2.94	306	ePn	Pn	04 33 28.1	+1.5
PASC				eSg	Sg	04 34 10.4	-2.8
TUQ	Turquoise Moun	3.01	351	⇓P	Pn	04 33 25.6	-2.0
	baz=3.0						
116A	Eloy	3.06	87	⇓P	Pn	04 33 26.0	-2.4
	baz=3.0,SNR=75						
GSC	Goldstone	3.09	337	⇓P	Pn	04 33 26.5	-2.2
	baz=3.1						
GSC	Goldstone	3.09	337	ePn	Pn	04 33 28.2	-0.5
EDW2	Edwards Air Fo	3.28	318	⇓P	Pn	04 33 29.4	-1.9
	baz=3.3,SNR=48						
X15A	Humboldt	3.28	51	⇑P	Pn	04 33 29.2	-2.1
	baz=3.3,SNR=209						
V12A	Nelson	3.28	7	⇓P	Pn	04 33 29.2	-2.2
	baz=3.3,SNR=94						
216A	Three Points,	3.31	97	⇑P	Pn	04 33 29.1	-2.6
	baz=3.3						
W14A	Seligman	3.32	34	⇑P	Pn	04 33 29.9	-2.1
	baz=3.3						
V11A	Goodsprings	3.37	359	⇑P	Pn	04 33 30.8	-1.8
	baz=3.4,SNR=38						
Z16A	Peralta Trail,	3.40	74	P	Pn	04 33 30.4	-2.5
	baz=3.4,SNR=47						
SHOC	Shoshone	3.52	347	⇑P	Pn	04 33 32.9	-1.8
	baz=3.5						
Y16A	Circle Bar Ran	3.53	65	P	Pn	04 33 32.6	-2.1
	baz=3.5,SNR=319						
OSI	Osito Adit	3.56	308	ePn	Pn	04 33 35.0	-0.1
V13A	Grand Canyon W	3.56	18	⇑P	Pn	04 33 33.7	-1.5
	baz=3.6,SNR=431						
SNCC	San Nicolas Is	3.62	284	⇓P	Pn	04 33 34.0	-1.9
	baz=3.6						
SNCC	San Nicolas Is	3.62	284	ePn	Pn	04 33 35.5	-0.5
SNCC				eSg	Sg	04 34 33.8	-1.2
V14A	Boquillas Ranc	3.67	30	⇓P	Pn	04 33 35.2	-1.5
	baz=3.7						
W15A	Williams	3.72	42	⇓P	Pn	04 33 37.2	-0.2
	baz=3.7						
X16A	Lo Mia Camp, P	3.79	58	⇓P	Pn	04 33 37.5	-0.9
	baz=3.8						
TUC	Tucson	3.85	91	ePn	Pn	04 33 37.0	-2.1
TUC				eSg	Sg	04 34 44.9	+2.4
217A	Green Valley	3.89	99	P	Pn	04 33 37.3	-2.4
	baz=3.9,SNR=149						
BSC	Santa Cruz Isl	3.92	294	⇑P	Pn	04 33 40.2	+0.1
	baz=3.9						
ARVC	Arvin	3.94	313	⇓P	Pn	04 33 38.9	-1.6
	baz=4.0						
U11A	Corn Creek	3.95	359	⇓P	Pn	04 33 40.6	0.0
	baz=4.0						
Y17A	Roosevelt	3.96	71	P	Pn	04 33 38.2	-2.5
	baz=4.0,SNR=197						
MPMC	Manual Prospec	4.01	334	⇑P	Pn	04 33 39.4	-2.0
	baz=4.0,SNR=9.9						
U12A	Valley of Fire	4.02	9	⇑P	Pn	04 33 39.6	-1.9
	baz=4.0						
U10A	Ash Meadows, A	4.04	348	⇑P	Pn	04 33 40.3	-1.5
	baz=4.1						
SHPR	Sheep Range	4.04	2	ePn	Pn	04 33 41.1	-0.6
U13A	Pakoon Wash	4.10	16	⇓P	Pn	04 33 42.5	-0.2
	baz=4.1						
W16A	Flagstaff	4.11	49	⇑P	Pn	04 33 41.2	-1.6
	baz=4.1						
ISA	Isabella	4.12	322	⇓P	Pn	04 33 41.2	-1.7
	baz=4.1						
ISA	Isabella	4.12	322	ePn	Pn	04 33 41.2	-1.7
Z17A	San Carlos Hig	4.17	77	⇓P	Pn	04 33 42.8	-0.8
	baz=4.2						
X17A	Forest Lakes	4.22	62	⇑P	Pn	04 33 43.6	-0.6
	baz=4.2						
V15A	Kaibab Nationa	4.25	37	⇑P	Pn	04 33 45.0	+0.3
	baz=4.3						
T12A	Moapa	4.29	7	⇑P	Pn	04 33 44.9	-0.3
	baz=4.3						
U14A	Mt Trumbull	4.33	24	⇓P	Pn	04 33 45.7	-0.1
	baz=4.3						
WUAZ	Wupatki	4.48	46	⇑P	Pn	04 33 46.2	-1.7
	baz=4.5						
WUAZ	Wupatki	4.48	46	ePn	Pn	04 33 47.8	0.0
WUAZ				eSg	Sg	04 35 03.6	+0.8
Z18A	Geronimo	4.50	81	⇑P	Pn	04 33 46.3	-1.9
	baz=4.5,SNR=21						
218A	Dragoon	4.50	95	⇑P	Pn	04 33 46.1	-2.0
	baz=4.5,SNR=37						
118A	Homack Ranch,	4.53	86	⇑P	Pn	04 33 46.8	-1.7
	baz=4.5,SNR=157						
TPNV	Topopah Spring	4.54	351	eP	Pn	04 33 46.7	-2.0
VES	Vestal, Richgr	4.59	318	⇑P	Pn	04 33 48.2	-1.2
	baz=4.6						
W17A	Winslow	4.65	55	⇑P	Pn	04 33 50.8	+0.7
	baz=4.6						
318A	Bisbee	4.65	101	⇓P	Pn	04 33 48.3	-1.9
	baz=4.6,SNR=303						
T13A	Saint George	4.70	14	⇓P	Pn	04 33 49.8	-1.0
	baz=4.7,SNR=65						
T11A	Corn Creek, Al	4.77	1	⇓P	Pn	04 33 50.9	-0.9
	baz=4.8,SNR=29						
GRAC	Grapevine Rang	4.83	340	⇑P	Pn	04 33 52.3	-0.4
	baz=4.8						
X18A	Snowflake	4.95	64	⇓P	Pn	04 33 53.6	-0.6
	baz=4.9						
T14A	Hurricane	4.95	21	⇑P	Pn	04 33 54.1	-0.2
	baz=5.0						
RCTC	Rector, Farmer	5.02	321	⇓P	Pn	04 33 55.3	0.0
	baz=5.0						
U16A	Tuba City	5.06	42	⇓P	Pn	04 33 57.1	+1.3
	baz=5.1						
119A	Ashpeak Ranch,	5.09	85	⇑P	Pn	04 33 54.2	-2.0
	baz=5.1,SNR=69						
S12A	Delamar Landin	5.15	4	⇓P	Pn	04 33 57.6	+0.6
	baz=5.2,SNR=62						
T15A	Red Dirt Ranch	5.15	27	⇓P	Pn	04 33 55.3	-1.8
	baz=5.2						
219A	White Tail Can	5.17	93	⇑P	Pn	04 33 55.1	-2.1
	baz=5.1						
Z19A	T-Link Ranch,	5.17	79	⇓P	Pn	04 33 55.1	-2.2
	baz=5.2						
S13A	Holt Ranch, En	5.25	13	⇑P	Pn	04 33 57.5	-0.9
	baz=5.3,SNR=22						
319A	Douglas	5.26	100	P	Pn	04 33 56.5	-1.9
	baz=5.2,SNR=117						
Y19A	Nutrioso	5.31	72	⇓P	Pn	04 33 58.8	-0.4
	baz=5.3						
CCUT	Cedar City	5.33	17	ePn	Pn	04 34 00.2	+0.7
	comp=E,444nm,0.7s						
CCUT				eSg	Sg	04 35 28.9	-1.1
W18A	Petrified Fore	5.36	59	⇓P	Pn	04 34 00.2	+0.3
	baz=5.4						
S09A	Goldfield	5.48	344	⇓P	Pn	04 34 02.1	+0.5
	baz=5.5						
T16A	Glen Canyon Da	5.50	34	⇓P	Pn	04 34 02.7	+0.8
	baz=5.5						
V18A	Ganado	5.53	53	⇓P	Pn	04 34 03.0	+0.8
	baz=5.5						
S10A	Tonopah Range,	5.55	350	⇑P	Pn	04 34 03.4	+0.9
	baz=5.6						
MTUM	Tungsten Hills	5.56	332	ePn	Pn	04 34 07.5	+4.9
S14A	Cedar City	5.58	18	⇑P	Pn	04 34 03.3	+0.4
	baz=5.6						
W19A	Sanders	5.61	60	⇑P	Pn	04 34 03.5	+0.1
	baz=5.6						
120A	U Bar Ranch, L	5.66	87	P	Pn	04 34 02.5	-1.5
	baz=5.6,SNR=42						
TPH	Tonopah	5.81	345	eP	Pn	04 34 07.2	+1.1
TPH				pmax	pmax		
	comp=Z,266nm,0.8s						
TPH	Tonopah	5.81	345	ePn	Pn	04 34 07.2	+1.0
	comp=Z,266nm,0.8s						
R13A	O'Grain Ranch,	5.81	11	⇑P	Pn	04 34 07.2	+1.0
	baz=5.8,SNR=28						
R11A	Troy Canyon, C	5.88	358	⇑P	Pn	04 34 06.4	-0.7
	baz=5.9,SNR=31						
R12A	Pony Springs,	5.88	6	⇓P	Pn	04 34 08.1	+1.0
	baz=5.9,SNR=14						
R09A	Tonopah	5.94	347	⇑P	Pn	04 34 06.5	-1.4
	baz=6.0						
U18A	Rough Rock, Ch	6.00	47	⇓P	Pn	04 34 09.9	+1.2
	baz=6.0						
S16A	Weppner Ranch,	6.08	29	⇑P	Pn	04 34 11.0	+1.3
	baz=6.1						
V19A	Window Rock	6.14	56	⇓P	Pn	04 34 11.8	+1.1
	baz=6.1						
W20A	Ramah	6.28	63	⇓P	Pn	04 34 12.9	+0.4
	baz=6.3						
S17A	Black Ridge (B	6.36	34	⇑P	Pn	04 34 14.6	+0.9
	baz=6.4						
Q11A	Duckwater	6.38	358	⇑P	Pn	04 34 14.6	+0.8
	baz=6.4						
Q10A	Clear Creek Ra	6.41	352	⇑P	Pn	04 34 15.2	+0.9
	baz=6.4						
NVAR	Mina Array Bea	6.43	339	Pn	Pn	04 34 14.4	-0.2
	comp=Z,1.2nm,0.3s,baz=161,slow=14,SNR=15						
NVAR				Lg		04 36 03.4	
	baz=135,slow=19,SNR=1.5						
T18A	Mexican Hat	6.47	42	⇑P	Pn	04 34 16.0	+0.9
	baz=6.5						
MSU	Marysvale	6.56	22	P	Pn	04 34 19.7	+3.3
MSU				pmax	pmax		
	comp=Z,286nm,0.7s						
MSU	Marysvale	6.56	22	Pn	Pn	04 34 19.7	+3.3
	comp=Z,286nm,0.7s						
MSU				ePb	Pb	04 34 31.2	-2.5
Q13A	Wheeler Ranch,	6.57	9	⇓P	Pn	04 34 17.4	+0.9
	baz=6.6,SNR=9.5						
Q12A	Willow Creek R	6.58	3	⇓P	Pn	04 34 17.8	+1.1
	baz=6.6						
R16A	Teasdale	6.61	27	⇓P	Pn	04 34 18.1	+1.1
	baz=6.6						
SAO	San Andreas Ge	6.62	312	eP	Pn	04 34 16.4	-0.9
Q14A	Sevier Lake (B	6.72	14	⇑P	Pn	04 34 17.4	-1.3
	baz=6.7,SNR=7.6						
Q08A	Gabbs	6.73	342	⇑P	Pn	04 34 20.0	+1.3
	baz=6.8						
WAKR	Walker	6.90	332	ePn	Pn	04 34 29.6	+8.5
CMB	Columbia Colle	6.93	325	eP	Pn	04 34 21.2	-0.3
P12A	McGill	7.01	3	⇑P	Pn	04 34 23.8	+1.3
	baz=7.0,SNR=49						
122A	Conniff Cattle	7.04	86	⇑P	Pn	04 34 23.1	+0.2
	baz=7.0						
R17A	Hanksville Air	7.04	31	⇑P	Pn	04 34 23.9	+0.9
	baz=7.0						
P13A	Bates Ranch, G	7.06	8	⇓P	Pn	04 34 24.1	+0.8
	baz=7.1,SNR=8.1						
LAZ	Ladron	7.12	72	ePn	Pn	04 34 24.6	+0.6
	comp=Z,84nm,0.8s						
LENM	Lemitar	7.20	74	ePn	Pn	04 34 25.4	+0.3
Y22D	IRIS PASSCAL I	7.22	75	⇑P	Pn	04 34 26.2	+0.7
	baz=7.2						
MVCO	Mesa Verde	7.35	48	ePn	Pn	04 34 29.3	+2.1
	comp=Z,89nm,0.6s						
MVCO				eSg	Sg	04 36 29.1	-5.6
P14A	Drum Mountains	7.35	14	⇓P	Pn	04 34 27.3	+0.1
	baz=7.4,SNR=6.2						
BNM	Barren Site	7.48	75	ePn	Pn	04 34 29.4	+0.4
	comp=Z,56nm,0.4s						
TMUT	Trail Mountain	7.60	25	ePn	Pn	04 34 38.6	+8.0
O11A	Cowboy Ranch,	7.66	358	⇑P	Pn	04 34 32.9	+1.4
	baz=7.7						
SRU	San Rafael	7.70	29	eP	Pn	04 34 34.2	+2.2
ANMO	Albuquerque	7.80	69	Pn	Pn	04 34 34.2	+0.8
	comp=Z,1.1nm,0.3s,baz=255,slow=12,SNR=86						
ANMO				Lg		04 36 41.0	
	comp=Z,2.4nm,0.3s,baz=16,slow=19,SNR=3.2						
ANMO				LR	LR	04 37 41.3	
	comp=Z,5µm,18.4s,baz=252,slow=39						
ANMO	Albuquerque	7.80	69	ePn	Pn	04 34 34.1	+0.7
PV10	Paradox Valley	7.82	39	ePn	Pn	04 34 34.9	+1.1
	comp=Z,8µm,0.6s						
PV10				eSg	Sg	04 36 43.5	-6.4
PV04	Paradox Valley	7.91	40	ePn	Pn	04 34 37.3	+2.5
PV01	Paradox Valley	7.91	42	ePn	Pn	04 34 35.6	+0.7
	comp=Z,11µm,0.6s						
DUG	Dugway	7.98	14	eP	Pn	04 34 36.2	+0.3
DUG				pmax	pmax		
	comp=Z,87nm,1.8s						
DUG	Dugway	7.98	14	ePn	Pn	04 34 36.1	+0.2
	comp=Z,88nm,1.8s						
BMN	Battle Mountai	8.10	350	ePn	Pn	04 34 40.3	+2.8
BMN				eSn	Sn	04 36 24.1	+14
MPU	Maple Canyon	8.11	21	ePn	Pn	04 34 42.4	+4.8
ELK	Elko	8.27	0	ePn	Pn	04 34 40.9	+1.1
ELK				eSg	Sg	04 37 04.3	0.0
N12A	Clover Valley,	8.38	2	⇑P	Pn	04 34 41.7	+0.3
	baz=8.4,SNR=10						
NOQ	North Oquirrh	8.57	17	ePn	Pn	04 34 50.5	+6.5
JLU	Jordanelle	8.70	20	ePn	Pn	04 34 50.8	+5.0
SPUT	South Promonto	9.13	14	ePn	Pn	04 34 55.7	+4.1
GDL2	Guadalupe Moun	9.28	89	ePn	Pn	04 34 54.4	+0.6
HVU	Hansel Valley	9.52	12	eP	Pn	04 35 00.6	+3.6
SDCO	Great Sand Dun	9.62	54	ePn	Pn	04 34 59.4	+1.0
MOD	Modoc	10.22	339	ePn	Pn	04 35 08.3	+1.7
	comp=Z,30nm,1.5s						
WVOR	Wild Horse Val	10.30	346	eP	Pn	04 35 10.6	+3.0
WVOR				pmax	pmax		
	comp=Z,37nm,0.9s						
WVOR	Wild Horse Val	10.30	346	ePn	Pn	04 35 10.6	+2.9
	comp=Z,37nm,0.9s						
TXAR	Lajitas Array	10.49	104	Pn	Pn	04 35 10.4	+0.1
	comp=Z,5.1nm,0.3s,baz=284,slow=13,SNR=278						
TXAR				Lg		04 38 14.2	
	comp=Z,1.4nm,0.3s,baz=290,slow=33,SNR=5.4						
TXAR				LR	LR	04 39 26.2	
	comp=Z,3µm,21.0s,baz=185,slow=39						
ISCO	Idaho Springs	10.74	44	eP	Pn	04 35 16.9	+3.2
ISCO				pmax	pmax		
	comp=Z,14nm,0.6s						
ISCO	Idaho Springs	10.74	44	ePn	Pn	04 35 16.9	+3.2
	comp=Z,14nm,0.6s						
AHID	Auburn Hatcher	10.82	17	ePn	Pn	04 35 16.0	+1.2
	comp=Z,27nm,0.8s						
YBH	Yreka Blue Hor	10.97	330	eP	Pn	04 35 21.9	+5.1
YBH				pmax	pmax		
	comp=Z,13nm,1.3s						
YBH	Yreka Blue Hor	10.97	330	Pn	Pn	04 35 21.9	+5.1
	comp=Z,0.1nm,0.3s,baz=78,slow=10,SNR=6.4						
YBH				Lg		04 38 36.4	
	baz=80,slow=8.4,SNR=4.9						
YBH				LR	LR	04 39 52.3	
	comp=Z,1µm,20.7s,baz=321,slow=39						
YBH	Yreka Blue Hor	10.97	330	ePn	Pn	04 35 21.9	+5.1
	comp=Z,13nm,1.3s						
HLID	Hailey	11.11	3	ePn	Pn	04 35 22.6	+3.9
PDAR	Pinedale Array	11.26	22	Pn	Pn	04 35 23.9	+3.1
	comp=Z,0.2nm,0.3s,baz=215,slow=10,SNR=13						
PDAR				Lg		04 38 37.7	
	comp=Z,0.2nm,0.3s,baz=163,slow=19,SNR=3.6						
RRI2	Red Ridge	11.32	15	ePn	Pn	04 35 26.4	+4.8
REDW	Red Top Meadow	11.44	17	ePn	Pn	04 35 26.2	+2.9
TPAW	Teton Pass	11.54	16	ePn	Pn	04 35 28.9	+4.2
SNOW	Snow King Moun	11.56	17	ePn	Pn	04 35 29.9	+5.0
DCID1	Drake Creek	11.59	15	ePn	Pn	04 35 27.9	+2.6
	comp=Z,76nm,1.3s						
AMTX	Amarillo	11.63	74	ePn	Pn	04 35 27.8	+1.9
	comp=Z,103nm,1.1s						
LOHW	Long Hollow	11.74	17	ePn	Pn	04 35 30.4	+3.0
	comp=Z,14nm,0.9s						
MOOW	Moose Ponds	11.83	16	ePn	Pn	04 35 27.0	-1.6
	comp=Z,8.0nm,0.9s						
VIPM	Ingram Point	12.72	343	P	Pn	04 35 46.6	+5.9
QLMT	Earthquake Lak	12.72	13	ePn	Pn	04 35 46.1	+5.3
IRO	Indian Ridge	12.74	337	P	Pn	04 35 46.7	+5.7
DLMT	Dillon	13.06	9	ePn	Pn	04 35 50.5	+5.1
JCT	Junction City	13.40	94	eP	Pn	04 35 52.5	+2.3
JCT				pmax	pmax		
	comp=Z,31nm,0.8s						
JCT	Junction City	13.40	94	ePn	Pn	04 35 52.5	+2.3
	comp=Z,31nm,0.8s						
LRM	Limekiln Ridge	13.53	9	ePn	Pn	04 35 56.7	+4.9
LNOR	Lincton Mounta	13.59	351	eP	Pn	04 35 58.3	+5.7
OGNE	Ogallala	13.61	48	ePn	Pn	04 35 56.6	+3.7
	comp=Z,120nm,1.5s						
HOOD	Mount Hood Mea	13.75	341	ePn	Pn	04 35 59.9	+5.1
WMOK	Wichita Mounta	13.98	76	eP	Pn	04 35 58.0	0.0
WMOK				pmax	pmax		
	comp=Z,32nm,1.1s						
WMOK	Wichita Mounta	13.98	76	ePn	Pn	04 35 58.0	0.0
	comp=Z,32nm,1.1s						
CBKS	Cedar Bluff	14.17	59	eP	Pn	04 36 00.6	0.0
CBKS				pmax	pmax		
	comp=Z,21nm,0.8s						
CBKS	Cedar Bluff	14.17	59	ePn	Pn	04 36 00.6	0.0
	comp=Z,21nm,0.8s						
H2OWA	Water	14.27	348	P	Pn	04 36 06.3	+4.4
HAWA	Hanford	14.29	348	ePn	Pn	04 36 05.2	+3.1
	comp=Z,50nm,1.2s						
RSW	Rattlesnake Hi	14.30	348	P	Pn	04 36 07.0	+4.7
MSO	Missoula	14.39	4	ePn	Pn	04 36 05.8	+2.3
	comp=Z,29nm,1.4s						
MDW	Midway	14.54	348	P	Pn	04 36 09.9	+4.3
RSSD	Black Hills	14.62	34	eP	Pn	04 36 07.2	+0.5
RSSD				pmax	pmax		
	comp=Z,12nm,0.8s						
RSSD	Black Hills	14.62	34	ePn	Pn	04 36 07.2	+0.5
	comp=Z,12nm,0.8s						
SLMT	Seeley Lake	14.83	5	ePn	Pn	04 36 12.9	+3.3
ZAIG	Zacatecas	14.86	127	i P	Pn	04 36 13.9	+3.8
SWMT	Swartz Lake	15.07	3	ePn	Pn	04 36 14.4	+1.6
LON	Longmire	15.11	343	eP	Pn	04 36 17.3	+3.9
OD2	Odessa Site #2	15.13	351	P	Pn	04 36 16.6	+3.0
JTMT	Jette	15.29	3	ePn	Pn	04 36 18.0	+2.2
LAO	LASA Array	15.83	24	ePn	Pn	04 36 22.9	+0.1
	comp=Z,58nm,1.1s						
NEW	Newport	15.85	356	eP	Pn	04 36 25.5	+2.5
NEW				pmax	pmax		
	comp=Z,53nm,0.8s						
NEW	Newport	15.85	356	eP	Pn	04 36 25.5	+2.5
	comp=Z,53nm,0.8s						
EGMT	Eagleton	16.11	14	eP	Pn	04 36 28.7	+2.3
	comp=Z,22nm,1.1s						
GNW	Green Mountain	16.13	341	eP	Pn	04 36 32.1	+5.5
	comp=Z,54nm,1.3s						
NLWA	Neilton Lookou	16.27	339	eP	Pn	04 36 33.9	+5.4
	comp=Z,79nm,1.5s						
KSU1	Kansas State U	16.56	61	eP	Pn	04 36 35.2	+3.0
	comp=Z,83nm,1.0s						
WALA	Waterton Lakes	16.62	3	eP	Pn	04 36 35.6	+2.8
	comp=Z,0.8nm,0.9s						
HKT	Hockley	16.87	93	eP	Pn	04 36 37.2	+1.0
HKT				pmax	pmax		
	comp=Z,113nm,1.5s						
HKT	Hockley	16.87	93	eP	Pn	04 36 37.2	+1.0
	comp=Z,113nm,1.5s						
PGC	Sidney	17.29	342	eP	Pn	04 36 44.8	+3.4
	comp=Z,8.0nm,1.4s						
NATX	Nacogdoches	17.53	87	ePn	Pn	04 36 45.0	+0.5
	comp=Z,88nm,1.2s						
DGMT	Dagmar	18.07	24	ePn	Pn	04 36 52.7	+1.7
	comp=Z,52nm,1.1s						
MIAR	Mount Ida	18.26	78	eP	Pn	04 36 53.0	-0.5
MIAR				pmax	pmax		
	comp=Z,44nm,1.1s						
MIAR	Mount Ida	18.26	78	eP	Pn	04 36 53.0	-0.6
	comp=Z,44nm,1.1s						
UALR	University of	19.28	77	eP	Pn	04 37 08.1	+2.2
	comp=Z,59nm,1.4s						
SCIA	State Center	19.94	55	ePn	Pn	04 37 13.9	+0.3
	comp=Z,54nm,1.2s						
CCM	Cathedral Cave	20.42	67	eP	P	04 37 17.5	+0.1
CCM				pmax	pmax		
	comp=Z,53nm,1.4s						
CCM	Cathedral Cave	20.42	67	eP	P	04 37 17.5	+0.1
	comp=Z,53nm,1.4s						
EDM	Edmonton	20.80	3	eP	P	04 37 21.9	+0.6
VBMS	Vicksburg	20.96	84	eP	P	04 37 25.9	+2.7
	comp=Z,173nm,1.3s						
FVM	French Village	21.05	68	eP	P	04 37 23.9	-0.3
FVM				pmax	pmax		
	comp=Z,97nm,1.4s,mb4.9						
FVM	French Village	21.05	68	eP	P	04 37 23.9	-0.3
	comp=Z,97nm,1.4s,mb4.9						
SLM	Saint Louis	21.29	66	eP	P	04 37 28.0	+1.2
SLM				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.3						
SLM	Saint Louis	21.29	66	eP	P	04 37 27.9	+1.1
	comp=Z,9.3nm,0.6s,mb4.3						
AGMN	Agassiz Refuge	21.59	37	eP	P	04 37 30.8	+0.9
	comp=Z,54nm,1.2s,mb4.8						
BBB	Bella Bella	21.80	338	LR	LR	04 46 14.5	
	comp=Z,1µm,18.4s,MS4.3,baz=146,slow=37						
SIUC	Southern Illin	21.97	69	eP	P	04 37 34.8	+0.7
	comp=Z,47nm,1.0s,mb4.9						
JFWS	Jewell Farm	22.35	55	eP	P	04 37 38.9	+0.8
JFWS				pmax	pmax		
	comp=Z,24nm,1.0s,mb4.6						
JFWS	Jewell Farm	22.35	55	eP	P	04 37 38.9	+0.8
	comp=Z,24nm,1.0s,mb4.6						
HDIL	Hopedale	22.38	61	eP	P	04 37 39.1	+0.7
	comp=Z,106nm,1.4s,mb5.1						
PLAL	Pickwick Lake	22.79	76	eP	P	04 37 43.3	+0.6
	comp=Z,64nm,1.4s,mb5.0						
ULM	Lac du Bonnet	22.89	33	P	P	04 37 45.5	+1.7
	comp=Z,7.1nm,0.8s,mb4.2,baz=228,slow=10.0,SNR=9.6						
ULM				Lg		04 44 47.0	
	comp=Z,3.3nm,0.9s,baz=322,slow=15,SNR=3.5						
ULM				LR	LR	04 46 35.3	
	comp=Z,1µm,18.3s,MS4.3,baz=238,slow=37						
WVT	Waverly	22.98	73	eP	P	04 37 46.0	+1.1
WVT				pmax	pmax		
	comp=Z,34nm,1.3s,mb4.7						

WVT	Waverly	22.98	73	eP	P	04 37 46.0	+1.1
	comp=Z,34nm,1.3s,mb4.7						
LRAL	Lakeview Retre	23.81	81	eP	P	04 37 54.9	+1.6
	comp=Z,53nm,1.5s,mb4.8						
CMIG	Matias Romero	23.99	125	P	P	04 37 55.7	+0.7
	comp=Z,10nm,1.0s,mb4.3,baz=298,slow=9.1,SNR=9.5						
CMIG				LR	LR	04 47 33.3	
	comp=Z,1µm,18.0s,MS4.4,baz=289,slow=37						
CMIG	Matias Romero	23.99	125	P	P	04 37 55.7	+0.7
CMIG				LR	LR	04 47 33.3	
BRAL	Brewton	24.06	86	eP	P	04 37 57.3	+1.7
	comp=Z,169nm,1.3s,mb5.4						
FFC	Flin Flon	24.18	19	eP	P	04 37 56.8	+0.3
FFC				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.4						
FFC	Flin Flon	24.18	19	eP	P	04 37 56.8	+0.3
	comp=Z,11nm,0.8s,mb4.4						
COWI	Conover	24.29	48	eP	P	04 37 58.4	+0.8
	comp=Z,15nm,0.8s,mb4.6						
TKL	Tuckaleechee C	26.28	74	P	P	04 38 12.6	-3.2
	comp=Z,2.0nm,0.8s,mb3.8,baz=252,slow=6.4,SNR=2.5						
TKL				Lg		04 46 29.1	
	comp=Z,4.2nm,1.0s,baz=177,slow=17,SNR=3.6						
TKL				LR	LR	04 49 03.2	
	comp=Z,3µm,19.9s,MS4.8,baz=268,slow=38						
TEIG	Tepich	27.05	110	LR	LR	04 52 44.8	
	comp=Z,700nm,18.0s,MS4.3,baz=269,slow=45						
DLBC	Dease Lake	27.82	343	P	P	04 38 31.8	+2.4
	comp=Z,7.5nm,0.8s,mb4.6,baz=159,slow=9.1,SNR=9.9						
DLBC				LR	LR	04 50 48.8	
	comp=Z,2µm,18.8s,MS4.6,baz=169,slow=39						
DLBC	Dease Lake	27.82	343	P	P	04 38 31.8	+2.4
DLBC				LR	LR	04 50 48.8	
YKA	Yellowknife Ar	30.05	1	P	P	04 38 49.4	+0.3
	comp=Z,2.0nm,1.0s,mb3.9,baz=182,slow=8.5,SNR=18						
YKA				LR	LR	04 51 10.1	
	comp=Z,782nm,18.3s,MS4.4,baz=315,slow=37						
SCHQ	Schefferville	40.55	42	LR	LR	04 57 51.7	
	comp=Z,719nm,19.3s,MS4.5,baz=81,slow=37						
RES	Resolute Bay	43.49	8	P	P	04 40 43.1	-0.1
	comp=Z,4.0nm,1.0s,mb4.1,baz=270,slow=20						
ROSC	El Rosal	47.10	117	P	P	04 41 11.6	-1.0
	comp=Z,2.1nm,0.4s,mb4.6,baz=258,slow=20,SNR=1.7						
ROSC				LR	LR	05 00 39.6	
	comp=Z,428nm,21.7s,MS4.4,baz=16,slow=36						
OTAV	Otavalo	47.28	125	eP	P	04 41 14.7	+0.7
	comp=Z,5.0nm,0.9s,mb4.6						
ATAH	Atahualpa	52.69	131	P	P	04 41 54.9	-0.2
	comp=Z,4.4nm,0.8s,mb4.5,baz=106,slow=19,SNR=2.0						
SUMG	Summit	55.45	21	eP	P	04 42 15.4	+0.9
	comp=Z,16nm,1.1s,mb5.0						
BILL	Bilibino	56.02	334	P	P	04 42 21.0	+2.3
BILL				e		04 42 25.7	
BILL				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.7						
BILL				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.5						
BILL	Bilibino	56.02	334	eP	P	04 42 20.5	+1.8
	comp=Z,30nm,1.5s,mb5.1						
RKT	Rikitea	58.37	201	eLQ		04 57 26.7	
	comp=Z,443nm,34.5s						
RKT				eLR	LR	04 59 44.4	
	comp=Z,278nm,27.0s						
PPT	Papeete	59.58	219	eLQ		04 57 49.8	
	comp=Z,366nm,25.0s						
PPT				eLR	LR	05 00 29.4	
	comp=Z,219nm,25.2s						
PPT	Papeete	59.58	219	LR	LR	05 01 12.7	
	comp=Z,270nm,20.5s,MS4.4,baz=52,slow=29						
SEY	Seymchan	62.64	329	eP	P	04 43 06.3	+1.7
PETK	Petropavlovsk-	63.06	318	P	P	04 43 07.6	+0.1
	comp=Z,2.2nm,0.7s,mb4.4,baz=76,slow=7.7,SNR=2.4						
PETK				LR	LR	05 05 32.0	
	comp=Z,117nm,19.5s,MS4.1,baz=266,slow=31						
PETK	Petropavlovsk-	63.06	318	P	P	04 43 07.6	+0.1
PETK				LR	LR	05 05 32.0	
TIXI	Tiksi	67.04	342	eP	P	04 43 35.1	+2.0
TIXI				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.7						
SIV	San Ignacio	70.81	124	P	P	04 43 57.2	-0.1
	comp=Z,4.2nm,1.0s,mb4.5,baz=316,slow=5.3,SNR=12						
AFI	Afiamalu	70.97	239	LR	LR	05 08 51.0	
	comp=Z,282nm,20.1s,MS4.5,baz=81,slow=31						
ARCES	ARCESS Array B	74.37	13	LR	LR	05 20 25.9	
	comp=Z,626nm,18.8s,MS4.9,baz=144,slow=39						
NB2	NORSAR Subarra	77.20	24	P	P	04 44 36.3	+2.2
	comp=Z,25nm,2.0s,mb5.0,baz=320,slow=5.9						
NOA	NORSAR Array B	77.20	24	P	P	04 44 36.3	+2.2
	comp=Z,2.0nm,0.8s,mb4.3,baz=318,slow=5.8,SNR=5.5						
NOA				LR	LR	05 18 14.5	
	comp=Z,182nm,20.8s,MS4.4,baz=330,slow=36						
HFS	Hagfors	78.70	23	P	P	04 44 43.9	+1.5
	comp=Z,5.0nm,0.8s,mb4.6,baz=228,slow=3.8,SNR=3.6						
CPUP	Villa Florida	80.42	129	LR	LR	05 20 36.1	
	comp=Z,116nm,19.0s,MS4.2,baz=74,slow=36						
MJAR	Matsushiro Arr	82.89	309	LR	LR	05 14 55.9	
	comp=Z,192nm,20.2s,MS4.5,baz=80,slow=31						
MDJ	Mudanjiang	83.23	319	P	P	04 45 06.0	-0.9
MDJ				S	S	04 55 26.1	-2.1
MDJ				SS	SS	05 00 50.2	-1.3
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.8						
MDJ				pmax	pmax		
	comp=Z,64nm,5.3s						
MDJ				LR	LR		
	comp=N,150nm,37.3s						
MDJ				LR	LR		
	comp=Z,130nm,27.7s						
PLCA	Paso Flores	83.75	147	LR	LR	05 15 41.8	
	comp=Z,162nm,18.6s,MS4.4,baz=96,slow=31						
ESDC	Sonseca Array	84.15	46	LR	LR	05 20 07.5	
	comp=Z,319nm,18.1s,MS4.7,baz=295,slow=34						
CN2	Changchun	86.01	321	eP	P	04 45 21.2	+0.2
CN2				eS	S	04 55 53.8	-2.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=Z,200nm,15.0s,MS4.6						
GERES	GERESS Array B	87.17	31	LR	LR	05 25 41.1	
	comp=Z,382nm,18.3s,MS4.8,baz=316,slow=36						
KSRS	Korea Array	88.82	315	LR	LR	05 19 34.3	
	comp=Z,96nm,22.0s,MS4.2,baz=244,slow=32						
TLY	Talaya	89.50	337	eP	P	04 45 40.6	+3.0
TLY				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.6						
TLY				MLR	MLR		
	comp=Z,141nm,22.0s,MS4.3						
OBN	Obninsk	89.50	16	P	P	04 45 42.0	+4.5
OBN				e		04 45 45.6	
OBN						04 56 10.0	
OBN				ePS	PS	04 57 26.5	-6.7
ZAK	Zakamensk	90.72	336	eP	P	04 45 44.3	+1.0
ZAK				pmax	pmax		
	comp=Z,3.0nm,2.1s,mb4.2						
GUMO	Guam	90.87	287	LR	LR	05 17 45.1	
	comp=Z,241nm,19.8s,MS4.6,baz=342,slow=30						
SONM	Songino Array	91.74	333	LR	LR	05 32 40.6	
	comp=Z,328nm,18.6s,MS4.8,baz=38,slow=39						
ZALV	Zalesovo Beam	92.20	348	LR	LR	05 30 31.8	
	comp=Z,84nm,18.1s,MS4.2,baz=66,slow=38						
BJI	Beijing	93.54	323	P	P	04 45 53.6	-3.0
BJI				S	S	04 56 54.0	-12
BJI				SS	SS	05 03 21.9	+0.3
BJI				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.7						
BJI				LR	LR		
	comp=N,160nm,33.2s						
BJI				LR	LR		
	comp=E,200nm,25.4s						
BJI				LR	LR		
	comp=Z,230nm,29.3s,MS4.5						
BVAR	Borovoye Array	94.73	357	LR	LR	05 30 49.6	
	comp=Z,220nm,20.3s,MS4.6,baz=16,slow=37						
HHC	Hu-ho-hao-te	95.18	326	eP	P	04 46 00.2	-3.9
HHC				PP	PP	04 49 51.4	-1.5
HHC				SKS		04 56 33.3	
HHC				S	S	04 57 10.6	-10
HHC				SS	SS	05 03 38.2	-6.6
HHC				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.1						
HHC				pmax	pmax		
	comp=Z,170nm,9.3s						
HHC				LR	LR		
	comp=N,160nm,14.3s,MS4.8						
HHC				LR	LR		
	comp=E,190nm,16.6s,MS4.8						
HHC				LR	LR		
	comp=Z,180nm,16.6s,MS4.6						
KURK	Kurchatov	96.28	351	LR	LR	05 37 20.9	
	comp=Z,132nm,18.1s,MS4.5,baz=10.0,slow=40						
NJ2	Nanjing	97.93	316	eP	P	04 46 15.8	-0.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.7						
MKAR	Makanchi Array	99.53	348	LR	LR	05 32 57.0	
	comp=Z,180nm,19.6s,MS4.6,baz=9.6,slow=36						
WMQ	Urumqi	101.22	343	eP	Pdif	04 46 30.8	-0.3
WMQ				pP		04 46 36.0	
WMQ				SKS		04 57 08.0	
WMQ				eS	Sdif	04 58 06.0	-5.6
WMQ				pmax	pmax		
	comp=Z,6.0nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,92nm,4.2s						
WMQ				LR	LR		
	comp=N,270nm,27.8s,MS4.9						
WMQ				LR	LR		
	comp=E,380nm,26.2s,MS4.9						
WMQ				LR	LR		
	comp=Z,390nm,28.0s,MS4.8						
LZH	Lanzhou	102.57	328	eP	Pdif	04 46 35.0	-2.1
LZH				pP		04 46 39.7	
LZH				ePP	PP	04 50 50.2	+0.8
LZH				SKS		04 57 12.5	
LZH				eS	Sdif	04 58 14.2	-8.7
LZH				eSS	SS	05 05 25.6	-2.9
LZH				pmax	pmax		
	comp=Z,18nm,1.4s						
LZH				pmax	pmax		
	comp=Z,96nm,8.5s						
LZH				LR	LR		
	comp=N,200nm,17.5s						
LZH				LR	LR		
	comp=Z,340nm,19.6s,MS4.9						
GYA	Guiyang	109.06	321	Pdif	Pdif	04 47 04.9	-1.1
GYA				PKS		04 54 44.6	
GYA				S	Sdif	04 59 11.5	-5.5
GYA				SS	SS	05 06 55.9	-1.6
GYA				AMB	AMB		
	comp=Z,130nm,7.9s						
GYA				LR	LR		
	comp=N,210nm,20.8s						
GYA				LR	LR		
	comp=Z,190nm,22.0s,MS4.6						
GYA				LR	LR		
	comp=Z,240nm,21.4s						
KMI	Kunming	112.20	323	PKP	PKiKP	04 51 15.8	-0.9
KMI				LR	LR		
	comp=Z,87nm,25.2s,MS4.2						
BOSA	Boshof	145.97	94	PKPbc	PKPbc	04 52 20.1	-0.4
	comp=Z,4.4nm,0.8s,baz=222,slow=5.1,SNR=4.6						

ECX ***12*** *04:40:43.1±0.3, 32°.36N×115°.29W, h4^{km}, MD4.1, ML4.0*
ISCJB ***12*** *04:40:45.2±0.3, 32°.43N±0°.02×115°.29W±0°.02, h10^{km}±2^{km}, Error ellipse: s-maj=3.5km s-min=2.5km az=2.4*
NEIC ***12*** *04:40:46.0, 32°.44N×115°.28W, h6^{km}, ML4.0(PAS), ML4.1(ECX), After PAS.*
NEIC Felt at Mexicali. Felt [V] at Calexico; [IV] at Imperial; [III] at Brawley, El Centro, San Diego and Winterhaven; [II] at Blythe and Chula Vista, California. Also felt at El Cajon, Heber, Julian and Thermal. Felt [IV] at Yuma, Arizona. Also felt at Somerton.

ISC 12 04:40:46.1±0.3, 32°.44N±0°.02×115°.30W±0°.02, h13^{km}±2^{km}, n59, σ1^{s}19/77, 25C-27D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.03	183	i P	Pg	04 40 45.9	-2.5
CPBX				eS	Sg	04 40 48.0	-2.0
ERPC	Ernies Place	0.43	315	⇑iP	Pg	04 40 55.4	+0.9
SNR	Schaffner Ranc	0.43	345	⇓iP	Pg	04 40 55.7	+1.0
COA	Coachella	0.45	20	⇓iP	Pg	04 40 55.8	+0.9
COA	Coachella	0.45	20	⇓iP	Pg	04 40 55.8	+0.9
EMX	El Mayor	0.46	173	⇓eP	Pg	04 40 56.2	+1.1
EMX				eS	Sg	04 41 03.1	+1.9
YUH	Yuha Desert	0.56	291	⇑iP	Pg	04 40 57.2	+0.2
112A	Yuma	0.62	81	P	Pg	04 40 58.4	+0.2
	baz=0.6,SNR=147						
112A				⇓S	Sg	04 41 07.0	+0.7
	baz=0.6						
SWSC	Sam W. Stewart	0.65	320	⇑P	Pg	04 40 58.5	-0.2
	baz=0.7,SNR=14						
SWSC				⇑S	Sg	04 41 07.8	+0.5
	baz=0.7						
YMD	Yuma Desert	0.65	80	⇑iP	Pg	04 40 58.7	0.0
DVTC	Desert V Tower	0.71	288	⇑P	Pg	04 40 60.0	+0.2
	baz=0.7,SNR=66						
DVTC				⇑S	Sg	04 41 09.8	+0.7
	baz=0.7						
CRR	Carrizo Plain	0.71	308	⇑iP	Pg	04 40 59.8	-0.1
GLA	Glamis	0.73	33	P	Pg	04 40 59.8	-0.4
	baz=0.7,SNR=23						
GLA				⇓S	Sg	04 41 09.3	-0.5
	baz=0.7						
GLA	Glamis	0.73	33	ePg	Pg	04 40 59.8	-0.4
GLA				eSg	Sg	04 41 09.3	-0.5
RDX	Rancho Dawling	0.75	227	eP	Pg	04 41 01.5	+0.9
ECBX	El Chinero	0.99	168	eP	Pg	04 41 06.0	+0.8
ECBX				eS	Sg	04 41 19.6	+1.4
MONP	Monument Peak	1.04	296	⇓P	Pg	04 41 05.1	-1.1
	baz=1.1,SNR=49						
MONP				⇑S	Sg	04 41 18.9	-0.9
	baz=1.1						
CBX	Cerro Bola	1.16	264	ePN	Pn	04 41 08.2	+0.3
CBX				eS	Sb	04 41 23.3	+0.5
BAR	Barrett	1.18	282	ePg	Pg	04 41 07.7	-1.1
BAR				eSg	Sg	04 41 23.7	-0.5
BC3	Big Chuckw Mtn	1.21	354	P	Pn	04 41 07.1	-1.6
	baz=1.2,SNR=36						
113A	Mohawk Valley,	1.34	76	⇓P	Pn	04 41 09.0	-1.4
	baz=1.3,SNR=33						
113A				⇓Sb	Sb	04 41 27.6	-0.3
	baz=1.3						
ECNX	Esteban Cantu	1.35	235	ePN	Pn	04 41 10.0	-0.6
PBX	Punta Banda	1.40	240	ePN	Pn	04 41 11.8	+0.6
SPX	San Pedro Mart	1.40	186	ePN	Pn	04 41 12.2	+1.0
SPX				⇑e		04 41 38.9	
	comp=N,2µm,0.8s						
SPX				⇓e		04 41 43.2	
	comp=E,2µm,1.2s						
PFO	Pinyon Flat Ob	1.51	321	⇑P	Pn	04 41 11.2	-1.6
	baz=1.5,SNR=10						
PFO				⇑S	Sn	04 41 29.9	-2.5
	baz=1.5						
PFO	Pinyon Flat Ob	1.51	321	ePn	Pn	04 41 11.3	-1.5
PFO				eSn	Sn	04 41 29.6	-2.8
109C	Camp Elliot, M	1.58	287	⇑P	Pn	04 41 12.7	-1.0
	baz=1.6,SNR=28						
109C				⇓Sb	Sb	04 41 35.4	+0.3
	baz=1.6						
IRM	Iron Mountain	1.72	4	⇑P	Pn	04 41 13.2	-2.4
	baz=1.7						
IRM				⇑Sb	Sb	04 41 39.7	+0.8
	baz=1.7						
Y13A	Salome	1.84	42	⇓Sb	Sb	04 41 42.6	+0.1
	baz=1.8						
MURC	Murrieta	1.97	306	⇑P	Pn	04 41 18.1	-0.9
	baz=2.0,SNR=10						
MURC				⇓Sb	Sb	04 41 46.7	+0.6
	baz=2.0						
PDMCI	Parker Dam,Lak	2.09	27	⇓Sb	Sb	04 41 50.1	+0.4
	baz=2.1						
214A	Organ Pipe Nat	2.17	102	⇓P	Pn	04 41 20.2	-1.6
	baz=2.2,SNR=32						
Z14A	Wintersburg	2.18	65	⇓Sb	Sb	04 41 53.5	+1.2
	baz=2.2						
GMRC	Granite Mounta	2.35	353	⇑P	Pn	04 41 22.7	-1.6
	baz=2.4						
Y14A	Wickenburg	2.44	52	⇑Sb	Sb	04 42 01.6	+2.0
	baz=2.4						
X13A	Yucca	2.47	29	⇓Sb	Sb	04 42 00.9	+0.2
	baz=2.5						
115A	Sonoran Desert	2.61	84	⇓P	Pn	04 41 26.9	-1.0
	baz=2.6,SNR=14						
LDFC	Landfair	2.63	3	Pn	Pn	04 41 31.3	+3.1
Z15A	Gila River Ind	2.78	71	⇓P	Pn	04 41 29.1	-1.1
	baz=2.8,SNR=5.9						
CIS	Catalina Islan	2.78	291	⇓P	Pn	04 41 29.5	-0.7
	baz=2.8,SNR=24						
CIS				⇓Sb	Sb	04 42 11.3	+1.9
	baz=2.8						
FMP	Fort Macarthur	2.81	298	⇓Sb	Sb	04 42 12.7	+2.3
	baz=2.8						
X14A	Yava	2.85	44	⇓Sb	Sb	04 42 14.4	+2.8
	baz=2.9						
Y15A	Casa Rosa Ranc	2.91	58	⇑Sb	Sb	04 42 15.6	+2.4
	baz=2.9						
MWC	Mount Wilson	2.91	308	ePn	Pn	04 41 33.1	+1.1
216A	Three Points,	3.29	97	⇓P	Pn	04 41 35.4	-1.8
	baz=3.3,SNR=8.4						
Z16A	Peralta Trail,	3.38	74	⇓P	Pn	04 41 37.1	-1.4
	baz=3.4						
Y16A	Circle Bar Ran	3.51	65	⇑P	Pn	04 41 39.8	-0.5
	baz=3.5,SNR=13						
TUC	Tucson	3.83	91	ePn	Pn	04 41 44.0	-0.6
217A	Green Valley	3.87	99	⇑P	Pn	04 41 44.1	-1.0
	baz=3.8,SNR=9.8						
Y17A	Roosevelt	3.95	70	⇓P	Pn	04 41 45.4	-0.9
	baz=3.9,SNR=19						
ISA	Isabella	4.15	322	ePn	Pn	04 41 50.0	+0.9
WUAZ	Wupatki	4.48	46	ePn	Pn	04 41 56.0	+2.5
118A	Homack Ranch,	4.51	86	⇑P	Pn	04 41 53.9	-0.1
	baz=4.5,SNR=19						
318A	Bisbee	4.62	101	⇑P	Pn	04 41 55.0	-0.6
	baz=4.6,SNR=40						
119A	Ashpeak Ranch,	5.07	85	⇑P	Pn	04 42 01.1	-0.7
	baz=5.1,SNR=9.5						
319A	Douglas	5.23	100	⇓P	Pn	04 42 03.5	-0.4
	baz=5.2,SNR=20						
120A	U Bar Ranch, L	5.64	87	⇑P	Pn	04 42 09.3	-0.2
	baz=5.6,SNR=7.7						
MVCO	Mesa Verde	7.34	48	ePn	Pn	04 42 36.4	+3.5
	comp=E,59nm,0.9s						
BNM	Barren Site	7.46	74	ePn	Pn	04 42 36.3	+1.8
	comp=E,14nm,0.8s						

GUC 12 04:51:37.3±0.4, 22°.17S×69°.72W, h60^{km}±2^{km}, ML3.9, 1C-2D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MACH	Maria Elena	0.04	233	⇓iP	Pn	04 51 46.7	+0.5
MACH				i S	Sn	04 51 54.0	+1.4
PECH	Pedro de Valdi	0.43	174	⇓iP	Pn	04 51 48.8	+0.3
PECH				i S	Sn	04 51 57.8	+1.1
PECH				AML	AML	04 51 58.3	
	comp=N,6µm,0.2s						
LVC	Limon Verde	0.87	121	eP	Pn	04 51 54.4	+0.8
LVC				i S	Sn	04 52 07.6	+1.9
PB01	Plate Boundary	1.14	11	⇑iP	Pn	04 51 57.5	+0.3
PB01				i S	Sn	04 52 13.1	+1.1
PB01				AML	AML	04 52 13.9	
	comp=E,9µm,0.1s						
MECH	Mejillones	1.15	216	eP	Pn	04 51 56.9	-0.4
MECH				i S	Sn	04 52 14.3	+2.1

IDC 12 04:53:29.8±2.2, 9°.36S×149°.55E, h0^{km}, mb4.0/7, mb1 4.0/8, mb1mx4.0/15, mbtmp4.0/8, ML3.2/1, MS3.5/3, Ms1 3.5/3, ms1mx2.9/21, Error ellipse: s-maj=73.0km s-min=22.0km az=105.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	11.13	196	LR	LR	05 00 01.5	
	comp=Z,47nm,20.6s,baz=230,slow=35						
WRA	Warramunga Arr	18.07	233	P	Pn	04 57 42.3	-0.2
	0.1nm,0.3s,baz=53,slow=12,SNR=3.5						
WRA				LR	LR	05 04 50.3	
	comp=Z,99nm,18.6s,baz=70,slow=38						
ASAR	Alice Springs	20.64	225	P	P	04 58 10.5	-0.6
	0.9nm,0.8s,baz=54,slow=12,SNR=6.7						
STKA	Stephens Creek	23.59	197	P	P	04 58 43.2	+0.6
	1.9nm,0.4s,baz=25,slow=6.1,SNR=4.6						
FITZ	Fitzroy Crossi	24.77	247	P	P	04 58 54.0	+0.5
	3.6nm,0.8s,baz=111,slow=13,SNR=4.4						
CBIJ	Chichi jima	36.94	349	LR	LR	05 13 24.9	
	comp=Z,380nm,19.0s,baz=111,slow=32						
KSRS	Korea Array	50.79	338	P	P	05 02 33.2	+1.3
	2.8nm,1.0s,baz=161,slow=11,SNR=3.6						
SONM	Songino Array	68.55	330	P	P	05 04 35.0	+0.7
	1.7nm,0.6s,baz=152,slow=6.3,SNR=15						
MKAR	Makanchi Array	81.68	320	P	P	05 05 49.9	-0.2
	0.7nm,0.6s,baz=109,slow=6.7,SNR=6.2						
ZALV	Zalesovo Beam	83.18	327	P	P	05 05 56.5	-1.2
	1.6nm,0.6s,baz=111,slow=3.8,SNR=6.9						
TORD	Torodi Ar. Bea	148.26	280	PKPbc	PKPbc	05 13 18.0	-1.0
	3.4nm,0.8s,baz=52,slow=2.8,SNR=32						

CASC 12 05:17:06.2±1.6, 13°.01N×88°.50W, h79^{km}±17^{km}, MD3.6, ML3.1, 1D, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VSM	San Miguel	0.47	28	eP	Pn	05 17 20.2	+0.5
BLLM	Bellamira	0.50	31	eP	Pn	05 17 20.0	+0.1
BLLM				eS	Sn	05 17 30.6	+0.5
SNVI	San Vicente	0.69	332	eP	Pn	05 17 21.7	0.0
CNCH	Conchagua	0.70	68	eP	Pn	05 17 22.1	+0.3
CNCH				eS	Sn	05 17 35.9	+2.4
LFRS	El Faro	0.82	318	⇓iP	Pn	05 17 22.9	-0.2
LFRS				eS	Sn	05 17 35.2	-0.5
LBRS	Las Brisas	0.90	324	eP	Pn	05 17 24.6	+0.6
LBRS				eS	Sn	05 17 38.8	+1.5
SNJE	San Jose	1.37	309	eP	Pn	05 17 30.5	+0.6
CRIN	San Cristobal	1.45	102	eP	Pn	05 17 31.6	+0.8
CRIN				eS	Sn	05 17 50.2	+0.7
RBDL	Robledal	1.59	314	eP	Pn	05 17 33.6	+0.9
MIRN	Miramar	1.84	108	eP	Pn	05 17 35.8	-0.1
MOMN	Momotombo	2.01	107	eP	Pn	05 17 38.6	+0.4
COPN	Copaltepe	2.04	114	eP	Pn	05 17 38.1	-0.5
XAVN	Gruta Xavier	2.29	112	eP	Pn	05 17 41.9	-0.1
TICN	Ticuantepe	2.42	113	eP	Pn	05 17 44.7	+1.0
BOAB	BOACO BROADBAN	2.82	101	eP	Pn	05 17 48.4	-0.7

IDC ***12*** *05:27:51.7±1.2, 5°.97N×72°.43W, h206^{km}±11^{km}, mb3.5/7, mb1 3.7/9, mb1mx3.4/23, mbtmp3.6/9, Error ellipse: s-maj=20.4km s-min=14.6km az=93.0*
ISCJB ***12*** *05:27:53.6±0.5, 6°.82N±0°.06×72°.99W±0°.06, h172^{km}±5^{km}, mb3.8/5, Error ellipse: s-maj=12.6km s-min=6.9km az=44.5*
FUNV ***12*** *05:27:53.6, 6°.72N×73°.16W, h170^{km}, MW3.6*

ISC 12 05:27:54.6±0.5, 6°.80N±0°.06×72°.96W±0°.06, h167^{km}±5^{km}, n30, σ0^{s}74/35, mb3.8/5, 13C, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.24	31	⇑iP	Pn	05 28 23.6	+0.6
CAPV				eS	Sn	05 28 45.2	+0.3
ROSC	El Rosal	2.36	215	P	Pn	05 28 35.0	+0.1
	85nm,0.3s,baz=346,slow=1.8,SNR=285						
ROSC				S	Sn	05 29 05.6	-0.6
	68nm,0.3s,baz=83,slow=16,SNR=5.8						
SOCV	Socops	2.56	55	⇑iP	Pn	05 28 38.1	+0.9
SOCV				eS	Sn	05 29 10.6	+0.4
VIGV	El Vigia	2.57	38	⇑iP	Pn	05 28 38.0	+0.6
VIGV				eS	Sn	05 29 10.8	+0.1
SDV	Santo Domingo	3.10	48	P	Pn	05 28 44.9	+1.0
	99nm,0.3s,baz=241,slow=6.3,SNR=808						
SDV				S	Sn	05 29 22.3	+0.1
	20nm,0.3s,baz=5.4,slow=13,SNR=4.4						
ELOV	Elorza	3.46	86	⇑iP	Pn	05 28 49.7	+1.2
VIRV	Villa del Rosa	3.72	8	⇑iP	Pn	05 28 50.2	-1.5
VIRV				eS	Sn	05 29 33.3	-3.0
QARV	Quebrada Arrib	4.16	35	⇑iP	Pn	05 28 57.8	+0.5
SANV	Sanarito	4.33	51	⇑eP	Pn	05 28 59.6	+0.1
CURV	Curarigua	4.36	43	⇑iP	Pn	05 29 00.0	0.0
DABV	Dabajuro	4.70	29	eP	Pn	05 29 04.4	0.0
TEPV	Terepaima	4.88	50	⇑iP	Pn	05 29 07.0	+0.3
SIQV	Siquisique	4.94	39	⇑iP	Pn	05 29 07.2	-0.2
BAUV	El Baul	5.32	66	⇑iP	Pn	05 29 11.6	-0.9
MAPV	Macapo	5.38	56	eP	Pn	05 29 13.4	+0.1
JACV	Jacura	5.90	43	⇑eP	Pn	05 29 20.7	+0.5
MONV	Montecano	5.91	30	eP	Pn	05 29 19.4	-0.9
TURV	Turiamo	6.23	54	eP	Pn	05 29 24.1	-0.4
CAOV	Caicara del Or	6.61	85	⇑iP	Pn	05 29 28.4	-1.1
MERV	Las Mercedes	7.04	69	eP	Pn	05 29 34.1	-1.0
CUPV	Cœpira	7.80	65	eP	Pn	05 29 44.8	-0.5
PCRV	Puerto La Cruz	8.89	67	eP	Pn	05 29 59.9	+0.2

PCRV	Puerto La Cruz 1.2nm,0.3s,baz=146,slow=21,SNR=12	8.89	67	P	Pn	05 29 58.8	-0.9
TEIG	Tepich 9.2nm,1.0s,baz=173,slow=18,SNR=5.6	19.97	313	P	P	05 32 18.0	+3.9
LVC	Limon Verde 3.0nm,0.4s,baz=9.4,slow=10,SNR=26	29.50	172	P	Px	05 33 28.8	
TXAR	Lajitas Array 0.3nm,0.5s,mb3.2,baz=125,slow=9.3,SNR=8.7	36.59	312	P	P	05 34 45.2	+0.4
ULM	Lac du Bonnet 2.3nm,0.3s,mb4.2,baz=143,slow=5.4,SNR=4.2	47.36	340	P	P	05 36 11.3	-0.3
SCHQ	Schefferville 2.9nm,0.8s,mb3.9,baz=194,slow=7.4,SNR=5.4	48.15	5	P	P	05 36 18.2	+0.6
PDAR	Pinedale Array 0.5nm,0.6s,mb3.3,baz=134,slow=9.0,SNR=5.8	48.19	324	P	P	05 36 18.7	+0.5
YKA	Yellowknife Ar 1.5nm,0.5s,mb4.0,baz=133,slow=6.6,SNR=40	63.34	340	P	P	05 38 05.7	+0.1

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*MAN **12** 06:04:21, 5°.57N×125°.77E, h50km, mb4.6, ML3.5, MS3.4*
*ISCJB **12** 06:04:23.3±0.5, 5°.93N±0°.07×125°.81E±0°.08, h129km±7km, mb4.2/13, Error ellipse: s-maj=15.3km s-min=10.1km az=146.6*
*IDC **12** 06:04:24.5±1.5, 5°.86N×125°.44E, h125km±15km, mb3.9/8, mb1 4.1/8, mb1mx3.8/21, mbtmp3.9/8, MS2.9/1, Ms1 2.9/1, ms1mx2.0/30, Error ellipse: s-maj=56.4km s-min=11.9km az=72.0*
*DJA **12** 06:04:25, 5°.86N×126°.15E, h109km, MLv4.8/4*
ISC 12 06:04:24.3±0.5**, 5°.95N**±0°.07×**125°.81E**±0°.09**, h124**km±6km**, n28, σ0s.78**/29**, mb4.3**/13**, 1C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.09	24	eP	Pn	06 04 46.9	-0.8
MATI				eS	Sn	06 05 04.2	-1.1
DAV	Davao City (W) 166nm,0.3s,baz=199,slow=7.6,SNR=10	1.14	349	P	Pn	06 04 48.9	+0.7
DMPH	Davao City--Mi	1.17	345	eP	Pn	06 04 48.1	-0.3
DMPH				eS	Sn	06 05 07.0	+0.2
CTBH	Cotabato--PC H	2.00	309	⇓eP	Pn	06 04 57.7	-0.3
CTBH				eS	Sn	06 05 23.5	-0.3
BUKP	Musuan	2.06	339	eP	Pn	06 04 59.7	+1.0
BUKP				eS	Sn	06 05 29.1	+4.0
PAGZ	Pagadian	3.06	308	eP	Pn	06 05 11.9	+0.3
SCPH	Surigao	3.83	355	⇑eP	Pn	06 05 25.0	+3.3
KAKA	Kakadu 18nm,0.6s	19.67	160	eP	P	06 08 44.0	+0.2
KNA	Kununurra 29nm,0.6s,mb4.8	21.75	172	eP	P	06 09 06.9	+0.8
FITZ	Fitzroy Crossi 19nm,0.7s,mb4.5	23.89	180	eP	P	06 09 26.7	0.0
FITZ	Fitzroy Crossi 7.3nm,0.4s,mb4.4,baz=28,slow=2.4,SNR=39	23.89	180	P	P	06 09 27.0	+0.3
COEN	Coen	26.23	139	eP	P	06 09 48.1	+0.1
WRA	Warramunga Arr 0.9nm,0.3s,mb3.7,baz=335,slow=11,SNR=30	27.06	162	P	P	06 09 54.7	-0.6
ASAR	Alice Springs 1.5nm,0.3s,mb4.0,baz=345,slow=7.6,SNR=23	30.47	165	P	P	06 10 25.6	0.0
ASAR	0.6nm,0.3s,baz=332,slow=3.4,SNR=4.9			PcP	PcP	06 13 22.0	-0.1
KSRS	Korea Array comp=Z,19nm,18.6s,baz=350,slow=35	31.42	3	LR	LR	06 22 47.3	
FORT	Forrest 16nm,0.7s,mb5.0	36.58	177	eP	P	06 11 17.9	-0.5
KLBR	Kellerberrin 82nm,1.8s,mb5.3	38.11	191	eP	P	06 11 31.2	-0.1
MUN	Mundaring	38.80	193	eP	P	06 11 36.1	-1.0
BBOO	Buckleboo 6.5nm,0.2s,mb5.1	39.75	166	eP	P	06 11 45.4	+0.4
STKA	Stephens Creek 7.3nm,0.8s,mb4.6	40.51	159	eP	P	06 11 51.8	+0.5
STKA	Stephens Creek 4.3nm,0.4s,mb4.6,baz=321,slow=8.4,SNR=14	40.51	159	P	P	06 11 51.9	+0.7
SONM	Songino Array 0.3nm,0.7s,mb3.2,baz=163,slow=10,SNR=2.6	44.92	342	P	P	06 12 27.3	+0.7
SONM	0.8nm,0.8s,baz=159,slow=4.2,SNR=4.4			PcP	PcP	06 14 05.9	-0.1
MKAR	Makanchi Array 0.4nm,0.4s,mb3.8,baz=115,slow=7.4,SNR=22	55.22	325	P	P	06 13 44.1	-0.3
MKAR	0.8nm,0.7s,baz=131,slow=6.6,SNR=5.2			PcP	PcP	06 14 42.4	-1.5
KURK	Kurchatov 0.6nm,0.6s,mb3.8,baz=125,slow=6.0,SNR=4.9	59.39	327	P	P	06 14 12.1	-1.5
ARCES	ARCESS Array B 5.8nm,1.1s,mb4.5,baz=64,slow=6.1,SNR=3.1	88.07	340	P	P	06 16 59.3	-1.1
YKA	Yellowknife Ar 0.4nm,1.0s,mb3.9,baz=298,slow=5.3,SNR=4.0	97.87	24	P	P	06 17 46.8	+1.1
TXAR	Lajitas Array 0.2nm,0.8s,baz=241,slow=5.0,SNR=3.3	120.95	51	PKP	PKPdf	06 23 04.8	+2.0
TORD	Torodi Ar. Bea 0.5nm,0.3s,baz=66,slow=1.7,SNR=14	121.34	289	PKP	PKPdf	06 23 02.5	-1.4

IDC 12 06:17:40.6±10.0**, 31°.18S**×**176°.97W, h0**km**, mb4.0**/3**, mb1 4.2**/5**, mb1mx4.0**/17**, mbtmp4.0**/5**, ML3.8**/2**, MS3.4**/2**, Ms1 3.4**/2**, ms1mx2.9**/20**, Error ellipse: s-maj=194.2km s-min=26.9km az=93.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island 106nm,0.3s,baz=227,slow=23,SNR=8.3	2.09	337	Pn	Pn	06 18 17.1	+0.2
RAO	123nm,0.3s,baz=224,slow=24,SNR=5.6			Sn	Sn	06 18 43.3	-0.3
RAO	comp=Z,390nm,19.2s,baz=92,slow=31			LR	LR	06 18 44.7	
URZ	Urewera 0.4nm,0.3s,baz=329,slow=17,SNR=2.5	8.58	213	Pn	Pn	06 19 44.6	-1.4
STKA	Stephens Creek 1.2nm,0.7s,baz=108,slow=14,SNR=3.8	35.17	258	P	P	06 24 36.8	+0.4
ASAR	Alice Springs 1.1nm,0.6s,baz=105,slow=7.5,SNR=16	43.95	267	P	P	06 25 49.8	+0.1
WRA	Warramunga Arr 1.6nm,0.4s,baz=111,slow=8.1,SNR=43	45.01	272	P	P	06 25 58.0	-0.1
NWAO	Narrogin (SRO) comp=Z,60nm,20.0s,baz=358,slow=35	54.95	250	LR	LR	06 50 00.9	

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*IDC **12** 06:33:48.7±5.0, 23°.09N×121°.61E, h0km, mb3.4/2, mb1 3.7/3, mb1mx3.4/22, mbtmp3.5/3, ML3.6/1, Error ellipse: s-maj=116.8km s-min=57.6km az=178.0*
*TAP **12** 06:33:55.8, 24°.11N×121°.69E, h10km, ML3.6, C*
*NEIC **12** 06:33:55.0±2.6, 24°.08N×121°.76E, h9km±11km, Error ellipse: s-maj=32.7km s-min=8.5km az=99.0*
ISC 12 06:33:55.9±0.5**, 24°.10N**±0°.02×**121°.77E**±0°.03**, h7**km±3km**, n57, σ0s.90**/89**, 7C-1D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWD	Chiawan baz=251	0.16	263	⇑iP	Pg	06 33 58.6	-0.5
TWD	baz=251			iS	Sg	06 34 00.5	-0.8
NACB	Ninganchiao	0.18	295	ePg	Pg	06 33 58.2	-1.3
HWA	Hwalien baz=220	0.19	231	eP	Pg	06 34 00.0	+0.2
ENA	Nanau baz=5.0	0.33	356	⇑iP	Pg	06 34 02.4	+0.1
ENA	baz=5.0			S	Sg	06 34 06.8	+0.1
ESF	Shoufeng Towns baz=226	0.33	227	eP	Pg	06 34 03.1	+0.8
ESL	Shilin baz=229	0.42	227	eP	Pg	06 34 03.7	-0.3
WHF	Hehuan Shan baz=275	0.46	276	⇑iP	Pg	06 34 04.2	-0.7
WHF	baz=275			S	Sg	06 34 10.0	-0.9
NNS	Nan Shan baz=317	0.49	313	⇑iP	Pg	06 34 05.1	-0.4
NNS	baz=317			iS	Sg	06 34 11.3	-0.7
TWC	Suao baz=12	0.51	8	⇑P	Pg	06 34 06.1	+0.3
TWC	baz=12			eS	Sg	06 34 13.5	+1.0
ENTT	Nioudou baz=344	0.57	341	⇑P	Pg	06 34 06.9	+0.1
ENTT	baz=344			S	Sg	06 34 14.6	+0.3
TWE	Neicheng baz=355	0.62	351	eP	Pg	06 34 08.0	+0.1
TWE	baz=355			eS	Sg	06 34 16.2	+0.1
ILA	Ilan baz=1.0	0.66	358	eP	Pg	06 34 09.0	+0.4
ILA	baz=1.0			eS	Sg	06 34 18.2	+0.9
YHNB	Yeheng	0.67	328	ePg	Pg	06 34 08.3	-0.5
YHNB				eSg	Sg	06 34 16.9	-0.6
NSK	Sanguang baz=330	0.69	327	⇑iP	Pg	06 34 09.0	-0.1
NSK	baz=330			S	Sg	06 34 17.5	-0.6
EHY	Hungye baz=218	0.72	215	eP	Pg	06 34 09.2	-0.5
EHY	baz=218			eS	Sg	06 34 21.5	+2.4
SSLB	Suanglung	0.81	248	ePg	Pg	06 34 10.2	-1.2
SSLB				eSg	Sg	06 34 21.3	-0.6
SMLT	Sun Moon Lake baz=253	0.82	255	P	Pg	06 34 11.0	-0.7
SMLT	baz=253			S	Sg	06 34 21.4	-1.0
YULB	Yu-li	0.83	212	ePg	Pg	06 34 11.4	-0.4
YULB				eSg	Sg	06 34 24.7	+2.2
TYC	Yuchr baz=256	0.86	257	eP	Pg	06 34 11.1	-1.3
TWF1	Yuli baz=218	0.86	210	eP	Pg	06 34 11.7	-0.7
TWF1	baz=218			eS	Sg	06 34 24.1	+0.5
NSTT	Nanjuang baz=308	0.88	307	P	Pg	06 34 12.8	0.0
NSTT	baz=308			eS	Sg	06 34 23.5	-0.7
TWA	Mucha baz=340	0.89	349	eP	Pg	06 34 12.8	-0.2
TWA	baz=340			eS	Sg	06 34 24.2	-0.5
TATO	Taipei	0.91	344	ePg	Pg	06 34 13.4	0.0
TWB1	Santiao Chiao baz=6.0	0.93	12	eP	Pg	06 34 13.5	-0.2
TWQ1	Liyutan baz=286	0.94	285	eP	Pg	06 34 14.9	+0.9
YUS	Yu-Shan baz=230	0.96	231	eP	Pg	06 34 14.3	-0.1
YUS	baz=230			eS	Sg	06 34 26.7	-0.3
NWF	Wu-fen Shan baz=352	0.97	1	eP	Pg	06 34 14.8	+0.3
NWF	baz=352			eS	Sg	06 34 27.3	+0.2
NSY	Sanyi baz=290	0.97	289	eP	Pg	06 34 15.3	+0.7
TCU	Taichung baz=264	1.00	273	eP	Pg	06 34 16.0	+0.9
TCU	baz=264			eS	Sg	06 34 30.0	+1.9
HSN	Hsinchu baz=318	1.01	314	eP	Pg	06 34 14.4	-0.9
NCU	National Centr baz=330	1.02	329	eP	Pg	06 34 16.3	+0.9
WNT	Mingjian baz=250	1.02	258	eP	Pg	06 34 15.7	+0.3
WNT	baz=250			eS	Sg	06 34 29.2	+0.6
TWS1	Kuangyinshan baz=343	1.05	342	eP	Pg	06 34 16.9	+0.9
TWS1	baz=343			eS	Sg	06 34 31.7	+2.1
ALS	Alishan baz=226	1.06	237	P	Pg	06 34 16.3	0.0
ALS	baz=226			eS	Sg	06 34 29.8	-0.2
CHKT	Chengkung baz=184	1.06	200	eP	Pg	06 34 14.3	-2.0
CHN5	Tsauling baz=243	1.12	244	⇓iP	Pg	06 34 17.6	+0.2
CHN5	baz=243			eS	Sg	06 34 33.4	+1.5
ELDTW	Lidau baz=208	1.14	217	eP	Pg	06 34 16.9	-0.9
TWY	Chenhua baz=339	1.18	353	eP	Pg	06 34 19.2	+0.7
CHN4	Tsaushan baz=228	1.31	236	eP	Pn	06 34 20.9	+0.3
CHN4	baz=228			eS	Sb	06 34 39.7	+1.8
CHN2	Minshiung baz=246	1.31	245	eP	Pn	06 34 21.4	+0.8
TPUB	Ta-pu	1.31	233	ePn	Pn	06 34 20.7	0.0
TPUB				eSn	Sn	06 34 36.8	-1.7
STYT	Tauyuan baz=228	1.32	225	eP	Pn	06 34 19.7	-1.0
STYT	baz=228			eS	Sb	06 34 37.5	-0.5
WTP	Ta-pu baz=231	1.36	231	eP	Pn	06 34 22.1	+0.7
WTP	baz=231			eS	Sb	06 34 40.4	+1.2
CHY	Chiayi baz=246	1.37	244	eP	Pn	06 34 21.3	-0.2
TWG	Pinlang	1.43	207	ePn	Pn	06 34 19.1	-3.1
TWG	Pinlang baz=191	1.43	207	eP	Pn	06 34 19.4	-2.9
TWK	Hsinying baz=229	1.44	235	eP	Pn	06 34 22.6	+0.2
TWK	baz=229			eS	Sn	06 34 42.7	+1.2
CHN1	Nanshi baz=233	1.46	232	eP	Pn	06 34 23.6	+0.9
CHN1	baz=233			eS	Sn	06 34 43.8	+1.7
SGST	Jiashian baz=228	1.49	227	eP	Pn	06 34 23.4	+0.4
SGST	baz=228			eS	Sn	06 34 43.7	+0.9
ECL	Taimali baz=193	1.67	207	eP	Pn	06 34 24.2	-1.5
SSD	Sandimen baz=221	1.71	218	eP	Pn	06 34 25.5	-0.6
TWM1	Shoushan baz=228	1.77	224	eP	Pn	06 34 26.9	-0.1
SCZT	Fangliau baz=196	2.02	212	eP	Pn	06 34 30.3	-0.1
QZH	Quanzhou	3.01	287	Pn	Pn	06 34 44.4	+0.3
QZH				Sn	Sn	06 35 18.3	-2.2
QZH	comp=N,200nm,1.3s			smax			
QZH	comp=E,110nm,0.8s			smax			
KSRS	Korea Array comp=E,0.2nm,0.3s,baz=202,slow=12,SNR=4.9	14.32	20	Pn	Pn	06 37 25.8	+6.7
MKAR	Makanchi Array comp=E,0.2nm,0.7s,baz=106,slow=10,SNR=5.8	38.77	316	P	P	06 41 20.1	-1.0
YKA	Yellowknife Ar comp=E,0.2nm,0.7s,baz=310,slow=4.8,SNR=6.3	82.84	23	P	P	06 46 19.9	-0.9

IDC 12 06:47:34.2±1.2**, 19°.29S**×**174°.38W, h0**km**, mb4.1**/5**, mb1 4.4**/7**, mb1mx4.1**/20**, mbtmp4.3**/7**, ML3.8**/2**, Error ellipse: s-maj=41.9km s-min=21.8km az=143.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu 16nm,0.3s,baz=98,slow=2.5,SNR=20	5.90	25	Pn	Pn	06 49 03.7	+0.8
AFI	13nm,0.3s,baz=180,slow=20,SNR=3.7			Sn	Sn	06 50 01.1	-10
RAR	Rarotonga 4.2nm,0.3s,baz=244,slow=9.3,SNR=7.2	13.85	100	Pn	Pn	06 50 52.9	+1.1
URZ	Urewera 3.1nm,0.6s,baz=8.1,slow=14,SNR=1.9	20.30	200	P	P	06 52 10.9	-0.8
URZ	3.6nm,0.5s,baz=180,slow=20,SNR=4.7			S	S	06 55 49.3	-11
RPZ	Rata Peaks 6.3nm,0.6s,baz=333,slow=2.3,SNR=3.5	27.25	203	P	P	06 53 23.3	+3.3
STKA	Stephens Creek 1.3nm,0.8s,baz=90,slow=11,SNR=3.0	41.37	243	P	P	06 55 23.9	+1.7
ASAR	Alice Springs 5.0nm,0.5s,baz=90,slow=8.2,SNR=68	48.11	255	P	P	06 56 16.2	+0.1
WRA	Warramunga Arr 1.2nm,0.3s,baz=96,slow=5.2,SNR=13	48.15	260	P	P	06 56 15.5	-0.9
NVAR	Mina Array Bea 0.5nm,0.6s,baz=221,slow=8.0,SNR=4.6	77.83	42	P	P	06 59 33.5	-0.1

CASC 12 06:57:56.1±2.0**, 14°.35N**×**90°.69W, h184**km±11km**, MD3.6, 2C-2D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	Fuego 3	0.17	303	⇓eP	Pn	06 58 21.1	+0.6
FUG				eS	Sn	06 58 39.7	+0.5
FG6		0.28	318	⇑eP	Pn	06 58 21.8	+1.2
FG6				eS	Sn	06 58 50.0	+10
TP2	Tecpan 2	0.54	323	⇓eP	Pn	06 58 22.8	+1.3
TP2				eS	Sn	06 58 54.9	+14
JAT	Jato	0.92	268	⇑eP	Pn	06 58 24.7	+1.1
JAT				eS	Sn	06 58 42.9	-1.9
RTR	El Retiro	1.11	114	eP	Pn	06 58 25.3	+0.3
SBLS	San Blas	1.15	116	eP	Pn	06 58 25.9	+0.4
SNJE	San Jose	1.16	114	eP	Pn	06 58 25.8	+0.4
LBRS	Las Brisas	1.71	111	eP	Pn	06 58 30.4	0.0
LFRS	El Faro	1.74	114	eP	Pn	06 58 31.5	+0.7
SNVI	San Vicente	1.94	112	eS	Sn	06 59 05.1	+3.8

NEIC 12 06:58:05.9, 37°.92S×**176°.44E, h158**km**, MG3.9**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKRZ	Makatiti	0.22	175	P	Pn	06 58 27.2	+0.1
TGRZ	Tauranga	0.24	323	P	Pn	06 58 27.1	-0.1
URZ	Urewera	0.63	123	P	Pn	06 58 28.4	-0.4
MWZ	Matawai	0.95	116	P	Pn	06 58 30.7	-0.3
BKZ	Black Stump Fm	1.25	178	P	Pn	06 58 33.4	-0.1
BKZ				S	Sn	06 58 54.4	-0.4
WTVZ	West Tongariro	1.37	209	P	Pn	06 58 34.8	+0.1
HIZ	Hauiti	1.38	244	P	Pn	06 58 35.0	+0.2
TWVZ	Taurewa	1.39	214	P	Pn	06 58 35.1	+0.2
NGZ	Ngauruhoe	1.42	207	P	Pn	06 58 35.5	+0.3
PUZ	Puketiti	1.44	97	P	Pn	06 58 34.9	-0.5
KNZ	Kokohu	1.47	139	P	Pn	06 58 35.7	0.0
TUVZ	Tukino	1.48	204	P	Pn	06 58 36.1	+0.3
MXZ	Matakaoa Point	1.52	77	P	Pn	06 58 35.9	-0.3
WNVZ	Wahianoa	1.55	205	P	Pn	06 58 36.6	0.0
MOVZ	Moawhango	1.58	200	P	Pn	06 58 36.4	-0.4
WAZ	Wanganui	2.16	211	P	Pn	06 58 42.7	-0.6
TSZ	Takapari Road	2.17	190	P	Pn	06 58 42.6	-0.8
BFZ	Birch Farm	2.76	183	P	Pn	06 58 49.0	-1.5
MRZ	Mangatainoka R	2.82	193	P	Pn	06 58 49.2	-2.0
KIW	Kapiti Island	3.17	201	P	Pn	06 58 53.1	-2.5
MTW	Mount Morrison	3.31	192	P	Pn	06 58 54.6	-2.9
CAW	Cannon Point	3.36	198	P	Pn	06 58 55.3	-2.7
PAWZ	Paruwai Farm	3.54	192	P	Pn	06 58 57.4	-3.0
MRW	Makara Radio	3.57	202	P	Pn	06 58 57.6	-3.1
WEL	Wellington	3.60	200	P	Pn	06 58 58.3	-2.8
MSWZ	Moikau Station	3.61	194	P	Pn	06 58 58.0	-3.2
SNZO	South Karori	3.64	201	P	Pn	06 58 58.3	-3.3
BHW	Baring Head	3.69	199	P	Pn	06 58 58.9	-3.3
TCW	Tory Channel	3.69	206	P	Pn	06 58 59.1	-3.2
NNZ	Nelson	4.05	215	P	Pn	06 59 02.6	-4.4
QRZ	Quartz Range	4.20	225	P	Pn	06 59 04.8	-4.0
BSWZ	Blackbirch Sta	4.27	207	P	Pn	06 59 06.4	-3.4
THZ	Tophouse	4.71	214	P	Pn	06 59 11.3	-4.2
KHZ	Kahutara	5.01	205	P	Pn	06 59 15.6	-3.9
LTZ	Lake Taylor	5.81	212	P	Pn	06 59 24.7	-5.3
MQZ	McQueen's Vall	6.46	205	P	Pn	06 59 32.7	-5.9
RPZ	Rata Peaks	7.08	213	P	Pn	06 59 41.9	-5.0
FOZ	Fox Glacier	7.62	220	P	Pn	06 59 46.8	-7.2
ODZ	Otahua Downs	8.34	210	P	Pn	06 59 58.1	-5.5
JCZ	Jackson Bay	8.46	221	P	Pn	06 59 59.9	-5.3

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*IDC **12** 07:02:46.2±4.6, 35°.17N×69°.58E, h0km, mb3.6/2, mb1 3.6/6, mb1mx3.4/27, mbtmp3.6/6, ML3.5/4, Error ellipse: s-maj=79.0km s-min=54.5km az=151.0*
*NNC **12** 07:03:13.7±2.8, 36°.77N×69°.61E, h199km±30km, mb2.8, mpv4.2, Error ellipse: s-maj=24.8km s-min=15.7km az=29.0*
ISC 12 07:03:11.9±2.4**, 36°.7N**±0°.1×**69°.5E**±0°.1**, h155**km±19km**, n19, σ1s.35**/23**, 4C-4D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu SNR=20	6.34	30	P	Pn	07 04 42.9	-0.2
KK31	Karatay Array 8.8nm,0.5s,baz=188,slow=13,SNR=68	6.46	7	P	Pn	07 04 45.7	+1.1
KK31	1.1nm,0.3s,baz=190,slow=22,SNR=6.2			⇓S	Sn	07 05 59.0	+1.6
UCH	Uchtor SNR=32	6.77	34	P	Pn	07 04 48.6	-0.1
EKS2	Erkin-Say SNR=11	6.83	28	P	Pn	07 04 50.1	+0.6
KZA	Kyzart SNR=10.0	7.00	38	P	Pn	07 04 51.0	-0.7
AAK	Ala-Archa SNR=14	7.09	32	P	Pn	07 04 52.5	-0.5
CHMS	Chumysh SNR=12	7.50	31	P	Pn	07 04 57.9	-0.5
USP	Ospenovka SNR=12	7.62	29	P	Pn	07 04 60.0	-0.1
TKM2	Tokmak 2 SNR=18	7.81	35	P	Pn	07 05 02.0	-0.6
TKM2	Tokmak 2 7.7nm,0.5s	7.81	35	⇑P	Pn	07 05 02.0	-0.5
TKM2	4.4nm,0.8s			⇑S	Sn	07 06 30.8	+1.2
MK31	Makanchi Array 0.8nm,0.6s,baz=226,slow=15,SNR=7.5	13.89	39	⇑P	Pn	07 06 20.3	-1.7
MKAR	Makanchi Array 0.1nm,0.3s,baz=229,slow=15,SNR=7.5	13.89	39	Pn	Pn	07 06 20.5	-1.5
AB09	Akbulak array 1.1nm,0.5s	14.37	334	⇓P	Pn	07 06 29.9	+1.8
AB09	2.5nm,0.6s			⇓S	Sn	07 09 06.4	-0.9
KURK	Kurchatov 0.0nm,0.3s,baz=209,slow=12,SNR=7.1	15.49	22	Pn	Pn	07 06 39.1	-2.8
AKTO	Aktyubinsk 0.2nm,0.3s,baz=138,slow=14,SNR=3.6	16.04	333	P	Pn	07 06 51.2	+2.7
AKTO	Aktyubinsk 0.2nm,0.8s	16.04	333	⇑P	Pn	07 06 47.6	-1.0
AKTO	0.5nm,0.8s			⇓S	S	07 09 44.9	-2.0
BVAR	Borovoye Array 0.3nm,0.3s,baz=167,slow=11,SNR=5.5	16.36	2	P	Pn	07 06 55.2	+2.8
ZALV	Zalesovo Beam 6.5nm,0.6s,baz=219,slow=11,SNR=24	20.28	27	P	P	07 07 36.8	+1.6
YKA	Yellowknife Ar 0.1nm,0.8s,baz=352,slow=4.5,SNR=4.5	81.11	2	P	P	07 15 11.1	+1.7

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*ISK **12** 07:05:30.8, 36°.91N×29°.15E, h5km, MD2.7*
*ISCJB **12** 07:05:31.6±0.6, 36°.96N±0°.04×29°.18E±0°.03, h10km, Error ellipse: s-maj=6.3km s-min=3.8km az=2.1*
*CSEM **12** 07:05:31.5±0.2, 36°.98N×29°.18E, h5km, MD2.7, Error ellipse: s-maj=6.2km s-min=4.3km az=8.0*
*DDA **12** 07:05:31.9, 37°.01N×29°.21E, h7km±5km, Md3.1, Ml3.0*
ISC 12 07:05:32.0±0.6**, 36°.98N**±0°.04×**29°.17E**±0°.03**, h7**km±12km**, n18, σ0s.82**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.35	192	ePG	Pg	07 05 37.2	-1.5
FETY	Fethiye	0.35	192	ePg	Pg	07 05 37.2	-1.6
GOLH	Golhisar	0.40	50	iP	Pg	07 05 38.4	-1.4
GOLH				iS	Sg	07 05 45.4	+0.3
GOLH	Golhisar	0.40	50	iP	Pg	07 05 38.4	-1.4
GOLH				iS	Sg	07 05 45.4	+0.3
TURN	Turunc	0.47	257	eP	Pg	07 05 45.5	+4.5
TURN				iS	Sg	07 05 58.1	+11
TURN	Turunc	0.47	257	eP	Pg	07 05 45.5	+4.5
DALT	Dalyan (Mudla)	0.48	244	ePG	Pg	07 05 40.3	-0.9
DALT				eSG	Sg	07 05 47.9	+0.4
DALT	Dalyan (Mudla)	0.48	244	ePg	Pg	07 05 40.3	-0.9
DALT				eSg	Sg	07 05 47.9	+0.5
ELL	Elmali	0.63	111	ePG	Pg	07 05 44.0	-0.2
ELL				eSG	Sg	07 05 53.7	+1.3
ELL	Elmali	0.63	111	ePg	Pg	07 05 44.0	-0.2
ELL				eSg	Sg	07 05 53.7	+1.3
YER	Yerkesik	0.73	283	ePG	Pg	07 05 46.0	0.0
YER				eSG	Sg	07 05 56.5	+1.1
YER	Yerkesik	0.73	283	ePg	Pg	07 05 46.0	0.0
YER				eSg	Sg	07 05 56.5	+1.0
AKAS	Kas	0.82	155	eP	Pg	07 05 48.2	+0.5
AKAS				eS	Sg	07 06 03.1	+4.7
AKAS	Kas	0.82	155	eP	Pg	07 05 48.2	+0.5
AKAS				eS	Sg	07 06 03.1	+4.7
AYDN	Tasoluk	1.24	304	eP	Pb	07 05 55.5	-0.1
AYDN				eS	Sg	07 06 11.8	+0.1
AYDN	Tasoluk	1.24	304	eP	Pb	07 05 55.5	-0.2

AYDN				eS	Sg	07 06 11.8	+0.1
DAT	Datca	1.30	259	ePN	Pn	07 05 56.8	+0.2
DAT	Datca	1.30	259	ePn	Pn	07 05 56.8	+0.2

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*DDA **12** 07:07:28.3, 36°.97N×29°.12E, h7^{km}±5^{km}, Md2.9*
*ISK **12** 07:07:28.8, 36°.90N×29°.06E, h29^{km}, MD2.4*
*ISCJB **12** 07:07:29.0±0.6, 36°.99N±0°.04×29°.11E±0°.04, h10^{km}±9^{km}, Error ellipse: s-maj=6.9km s-min=5.3km az=5.9*
*CSEM **12** 07:07:29.2±0.2, 36°.97N×29°.09E, h15^{km}, MD2.4, Error ellipse: s-maj=6.5km s-min=4.1km az=20.0*
ISC 12 07:07:29.2±0.6**, 36°.98N**±0°.04×**29°.11E**±0°.04**, h17**^{km}±8^{km}**, n14,** σ**0^{s}.85**/25**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.35	184	ePG	Pg	07 07 36.0	-0.5
FETY				eSG	Sg	07 07 41.8	+0.4
FETY	Fethiye	0.35	184	ePg	Pg	07 07 36.0	-0.5
FETY				eSg	Sg	07 07 41.8	+0.4
TURN	Turunc	0.42	255	eP	Pg	07 07 44.4	+6.5
TURN				eS	Sg	07 07 52.9	+9.3
DALT	Dalyan (Mudla)	0.44	241	ePG	Pg	07 07 37.1	-1.0
DALT	Dalyan (Mudla)	0.44	241	ePg	Pg	07 07 37.1	-1.0
GOLH	Golhisar	0.44	55	i P	Pg	07 07 36.6	-1.5
GOLH				i S	Sg	07 07 44.0	-0.1
GOLH	Golhisar	0.44	55	i S	Sg	07 07 44.0	-0.1
ELL	Elmali	0.68	110	ePG	Pg	07 07 43.3	+0.8
ELL				eSG	Sg	07 07 53.1	+1.5
ELL	Elmali	0.68	110	ePg	Pg	07 07 43.3	+0.7
ELL				eSg	Sg	07 07 53.1	+1.5
YER	Yerkesik	0.68	283	ePG	Pg	07 07 42.6	+0.1
YER				eSG	Sg	07 07 52.4	+0.7
YER	Yerkesik	0.68	283	ePg	Pg	07 07 42.6	0.0
YER				eSg	Sg	07 07 52.4	+0.8
AKAS	Kas	0.85	152	eP	Pb	07 07 44.6	-0.8
AKAS				eS	Sb	07 08 02.6	+6.0
AYDN	Tasoluk	1.19	305	eP	Pn	07 07 50.7	-0.4
AYDN				eS	Sb	07 08 07.5	+0.9
AYDN	Tasoluk	1.19	305	eP	Pn	07 07 50.7	-0.4
AYDN				eS	Sb	07 08 07.5	+1.0

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*ISCJB **12** 07:34:52.8±0.3, 32°.50N±0°.02×115°.34W±0°.02, h11^{km}±3^{km}, Error ellipse: s-maj=3.2km s-min=2.8km az=10.8*
*NEIC **12** 07:34:52.2, 32°.47N×115°.35W, h0^{km}, ML3.5(PAS), ML3.8(ECX), After ECX.*
*ECX **12** 07:34:52.4±0.3, 32°.47N×115°.34W, h10^{km}, MD3.7, ML3.8*
ISC 12 07:34:53.1±0.3**, 32°.49N**±0°.02×**115°.32W**±0°.02**, h17**^{km}±2^{km}**, n47,** σ**1^{s}.17**/72**, 16C-13D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	168	⇓eP	Pg	07 34 55.8	-0.5
CPBX				eS	Sg	07 34 58.3	-0.2
ERPC	Ernies Place	0.39	312	eP	Pg	07 35 01.8	+0.7
SNR	Schaffner Ranc	0.39	345	⇓eP	Pg	07 35 02.0	+0.9
COA	Coachella	0.41	24	⇓eP	Pg	07 35 02.2	+0.7
WESC	Westside Schoo	0.44	308	eP	Pg	07 35 02.5	+0.5
EMX	El Mayor	0.50	172	⇓eP	Pg	07 35 03.2	+0.2
EMX				eS	Sg	07 35 11.6	+1.8
EMX				⇑e		07 35 12.1	
	comp=N,4μm,0.7s						
EMX	El Mayor	0.50	172	eP	Pg	07 35 03.2	+0.2
EMX				eS	Sg	07 35 11.6	+1.8
BTCC	Brunts Corner	0.53	9	eP	Pg	07 35 04.0	+0.3
YUH	Yuha Desert	0.53	288	⇑eP	Pg	07 35 03.6	-0.1
SWSC	Sam W. Stewart	0.61	319	⇑P	Pg	07 35 04.8	-0.2
	baz=0.7,SNR=115						
SWSC				⇓S	Sg	07 35 13.4	+0.2
	baz=0.7						
SWSC	Sam W. Stewart	0.61	319	eP	Pg	07 35 04.9	-0.2
112A	Yuma	0.63	85	P	Pg	07 35 05.2	-0.2
	baz=0.6,SNR=540						
112A				⇑S	Sg	07 35 14.1	+0.3
	baz=0.6						
YMD	Yuma Desert	0.66	84	⇑eP	Pg	07 35 05.7	-0.4
CLIC	Calipatria	0.68	345	eP	Pg	07 35 06.2	-0.1
CRR	Carrizo Plain	0.68	306	⇓eP	Pg	07 35 06.3	-0.1
DVTC	Desert V Tower	0.68	285	P	Pg	07 35 06.5	+0.1
	baz=0.7,SNR=296						
DVTC				⇑S	Sg	07 35 15.8	+0.3
	baz=0.7						
DVTC	Desert V Tower	0.68	285	eP	Pg	07 35 06.5	+0.1
GLA	Glamis	0.70	36	⇑P	Pg	07 35 06.3	-0.6
	baz=0.7,SNR=39						
GLA				⇓S	Sg	07 35 15.6	-0.6
	baz=0.7						
GLA	Glamis	0.70	36	ePg	Pg	07 35 06.4	-0.5
GLA				eSg	Sg	07 35 15.3	-0.9
RDX	Rancho Dawling	0.77	224	ePN	Pg	07 35 08.1	+0.1
RDX				eS	Sg	07 35 19.4	+1.3
RDX				⇑e		07 35 20.6	
	comp=N,3μm,0.3s						
RDX	Rancho Dawling	0.77	224	ePn	Pg	07 35 08.1	+0.1
RDX				eS	Sg	07 35 19.4	+1.3
MONP	Monument Peak	1.01	294	P	Pg	07 35 11.5	-1.2
	baz=1.0,SNR=217						
MONP				⇑S	Sg	07 35 25.2	-0.8
	baz=1.0						
ECBX	El Chinero	1.03	167	eP	Pg	07 35 13.1	0.0
ECBX				eS	Sg	07 35 27.2	+0.5
CBX	Cerro Bola	1.15	262	ePN	Pn	07 35 14.7	+0.4
BAR	Barrett	1.16	280	ePg	Pg	07 35 13.9	-1.5
BAR				eSg	Sg	07 35 29.6	-1.0
BC3	Big Chuckw Mtn	1.17	355	P	Pn	07 35 13.5	-1.2
	baz=1.2,SNR=55						
113A	Mohawk Valley,	1.34	77	⇑P	Pn	07 35 15.9	-1.1
	baz=1.3,SNR=94						
113A				⇑Sb	Sb	07 35 34.8	+0.2
	baz=1.3						
ECNX	Esteban Cantu	1.36	233	ePN	Pn	07 35 18.1	+0.8
ECNX				ePN	Pn	07 35 17.1	-0.2
PBX	Punta Banda	1.40	239	ePN	Pn	07 35 18.7	+0.9
SPX	San Pedro Mart	1.44	185	ePN	Pn	07 35 21.0	+2.6
PFO	Pinyon Flat Ob	1.47	320	P	Pn	07 35 17.6	-1.2
	baz=1.5,SNR=102						
PFO				⇓S	Sn	07 35 35.9	-1.7
	baz=1.5						
PFO	Pinyon Flat Ob	1.47	320	ePn	Pn	07 35 17.1	-1.7
PFO				eSg	Sg	07 35 35.6	-4.9
109C	Camp Elliot, M	1.56	285	⇓P	Pn	07 35 19.5	-0.4
	baz=1.6						
109C				⇓Sb	Sb	07 35 41.6	+0.8
	baz=1.6						
IRM	Iron Mountain	1.68	5	⇑P	Pn	07 35 20.7	-0.9
	baz=1.7,SNR=65						
Y13A	Salome	1.82	43	⇑Sb	Sb	07 35 49.6	+1.2
	baz=1.8						
MURC	Murrieta	1.93	306	⇓Sb	Sb	07 35 53.2	+1.6
	baz=2.0						
PDMCI	Parker Dam,Lak	2.06	28	⇓Sb	Sb	07 35 56.0	+0.7
	baz=2.1						
214A	Organ Pipe Nat	2.19	103	⇑P	Pn	07 35 27.1	-1.6
	baz=2.2,SNR=93						
214A				⇓S	Sn	07 35 53.1	-2.3
	baz=2.2						
Y14A	Wickenburg	2.42	53	⇑Sb	Sb	07 36 07.4	+1.7
	baz=2.4						
X13A	Yucca	2.44	30	⇑Sb	Sb	07 36 08.6	+2.3
	baz=2.5						
LDFC	Landfair	2.59	4	ePg	Pg	07 35 44.6	+1.8
MWC	Mount Wilson	2.87	308	ePg	Pg	07 35 46.5	-1.7
MWC				eSg	Sg	07 36 22.1	-3.3
PASC	Pasadena Art C	2.93	306	ePg	Pg	07 35 46.2	-3.0
PASC				eSg	Sg	07 36 22.0	-5.2
TUC	Tucson	3.84	91	ePn	Pn	07 35 50.7	-0.6
TUC				ePg	Pg	07 36 05.0	-1.7
TUC				eSg	Sg	07 36 55.0	-1.4
ISA	Isabella	4.11	321	ePg	Pg	07 36 11.2	-0.6
ISA				eSg	Sg	07 37 07.9	+2.8
WUAZ	Wupatki	4.46	46	ePn	Pn	07 36 02.4	+2.6
WUAZ				eSg	Sg	07 37 08.0	-8.2
TPH	Tonopah	5.79	345	ePg	Pg	07 36 46.2	+2.3

NEIC 12 07:47:06.1, 38°.33S×175°.98E, h183^{km}**, MG3.7**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WTVZ	West Tongariro	0.84	201	P	Pn	07 47 33.1	+0.1
TWVZ	Taurewa	0.85	210	P	Pn	07 47 33.1	+0.1
URZ	Urewera	0.89	86	P	Pn	07 47 33.1	-0.2
BKZ	Black Stump Fm	0.93	155	P	Pn	07 47 33.7	+0.2
BKZ				S	Sn	07 47 54.5	-0.3
TUVZ	Tukino	0.97	195	P	Pn	07 47 34.0	+0.2
TUVZ				S	Sn	07 47 55.9	+0.5
WNVZ	Wahianoa	1.04	197	P	Pn	07 47 34.5	+0.2
MOVZ	Moawhango	1.09	189	P	Pn	07 47 34.4	-0.3
MWZ	Matawai	1.22	91	P	Pn	07 47 36.0	+0.2
TSZ	Takapari Road	1.73	180	P	Pn	07 47 40.0	-0.5
MXZ	Matakaoa Point	1.99	68	P	Pn	07 47 43.2	-0.1
MRZ	Mangatainoka R	2.35	187	P	Pn	07 47 45.2	-2.0
BFZ	Birch Farm	2.36	175	P	Pn	07 47 46.0	-1.2
KIW	Kapiti Island	2.66	198	P	Pn	07 47 48.7	-2.0
MTW	Mount Morrison	2.85	187	P	Pn	07 47 50.6	-2.4
CAW	Cannon Point	2.86	194	P	Pn	07 47 51.0	-2.1
MRW	Makara Radio	3.06	198	P	Pn	07 47 53.2	-2.3
MSWZ	Moikau Station	3.13	190	P	Pn	07 47 53.7	-2.7
SNZO	South Karori	3.13	198	P	Pn	07 47 53.8	-2.6
TCW	Tory Channel	3.17	204	P	Pn	07 47 54.4	-2.4
NNZ	Nelson	3.51	214	P	Pn	07 47 57.9	-3.2
QRZ	Quartz Range	3.65	226	P	Pn	07 47 58.8	-4.0
BSWZ	Blackbirch Sta	3.75	205	P	Pn	07 48 01.2	-2.8
THZ	Tophouse	4.16	214	P	Pn	07 48 05.9	-3.4
KHZ	Kahutara	4.49	204	P	Pn	07 48 10.3	-3.1
DSZ	Denniston Nort	4.68	222	P	Pn	07 48 11.3	-4.6
LTZ	Lake Taylor	5.27	211	P	Pn	07 48 19.2	-4.3
MQZ	McQueen's Vall	5.93	204	P	Pn	07 48 27.1	-5.0
RPZ	Rata Peaks	6.54	213	P	Pn	07 48 35.7	-4.4
FOZ	Fox Glacier	7.07	220	P	Pn	07 48 41.1	-5.9
ODZ	Otahua Downs	7.81	209	P	Pn	07 48 52.5	-4.2

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*DDA **12** 07:47:13.8, 35°.91N×28°.97E, h7^{km}±5^{km}, Md3.4, Ml3.5*
*ISCJB **12** 07:47:14.9±1.3, 35°.98N±0°.06×28°.97E±0°.05, h3^{km}±7^{km}, Error ellipse: s-maj=9.7km s-min=6.6km az=13.6*
*CSEM **12** 07:47:15.5±0.5, 36°.00N×28°.98E, h5^{km}, MD3.0, Error ellipse: s-maj=9.8km s-min=5.6km az=5.0*
*ISK **12** 07:47:15.2, 36°.06N×29°.01E, h5^{km}, MD3.0*
ISC 12 07:47:16.0±1.3**, 36°.00N**±0°.06×**28°.99E**±0°.05**, h11**^{km}±6^{km}**, n24,** σ**1^{s}.00**/44**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKAS	Kas	0.55	64	i P	Pg	07 47 26.2	-0.6
AKAS				i S	Sg	07 47 34.7	+0.7
AKAS	Kas	0.55	64	i P	Pg	07 47 26.2	-0.6
AKAS				i S	Sg	07 47 34.7	+0.6
FETY	Fethiye	0.64	7	ePG	Pg	07 47 27.4	-1.1
FETY				eSG	Sg	07 47 36.9	-0.1
FETY	Fethiye	0.64	7	ePg	Pg	07 47 27.4	-1.1
FETY				eSg	Sg	07 47 36.9	0.0
DALT	Dalyan (Mudla)	0.82	340	ePG	Pg	07 47 31.0	-0.9
DALT				eSG	Sg	07 47 43.0	+0.3
DALT	Dalyan (Mudla)	0.82	340	ePg	Pg	07 47 31.0	-0.9
DALT				eSg	Sg	07 47 43.0	+0.3
TURN	Turunc	0.93	340	i P	Pg	07 47 34.4	+0.4
TURN				eS	Sg	07 47 47.6	+1.5
TURN	Turunc	0.93	340	i P	Pg	07 47 34.4	+0.5
TURN				eS	Sg	07 47 47.6	+1.6
ELL	Elmali	1.05	44	ePG	Pg	07 47 34.9	-1.4
ELL				eSG	Sg	07 47 50.6	+0.6
ELL	Elmali	1.05	44	ePg	Pg	07 47 34.9	-1.4
ELL				eSg	Sg	07 47 50.7	+0.6
YER	Yerkesik	1.27	334	ePN	Pn	07 47 39.5	-0.2
YER				eSN	Sn	07 47 57.6	+0.9
YER	Yerkesik	1.27	334	ePn	Pn	07 47 39.5	-0.2
YER				eSn	Sn	07 47 57.6	+0.9
GOLH	Golhisar	1.32	20	i P	Pn	07 47 39.5	-0.9
GOLH				i S	Sb	07 47 57.5	-0.2
GOLH	Golhisar	1.32	20	i P	Pn	07 47 39.5	-0.9
GOLH				i S	Sb	07 47 57.5	-0.2
DAT	Datca	1.35	303	ePN	Pn	07 47 41.9	+1.1
DAT	Datca	1.35	303	ePn	Pn	07 47 41.9	+1.1
BDRM	Kayabasi	1.64	311	eP	Pn	07 47 45.4	+0.7
BDRM				eS	Sn	07 48 06.8	+1.0
BDRM	Kayabasi	1.64	311	eP	Pn	07 47 45.4	+0.7
BDRM				eS	Sn	07 48 06.8	+1.0
AYDN	Tasoluk	1.88	332	eP	Pn	07 47 47.9	-0.2
AYDN				eS	Sn	07 48 11.1	-0.7
AYDN	Tasoluk	1.88	332	eP	Pn	07 47 47.9	-0.2
AYDN				eS	Sn	07 48 11.1	-0.7
GCAM	G?zelcaml?	2.21	321	eP	Pn	07 47 51.6	-0.9
GCAM				eS	Sn	07 48 17.4	-2.4
GCAM	G?zelcaml?	2.21	321	eP	Pn	07 47 51.6	-1.0
GCAM				eS	Sn	07 48 17.4	-2.4
HDMB	Hadim	2.98	70	ePN	Pn	07 48 05.3	+2.2
HDMB	Hadim	2.98	70	ePn	Pn	07 48 05.3	+2.2

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*NEIC **12** 07:55:38.3, 32°.47N×115°.27W, h0^{km}, MD3.5(ECX), ML3.2(PAS), After ECX.*
ECX 12 07:55:40.6±0.6**, 32°.47N×115°.27W, h6**^{km}**, MD3.5, ML3.5, 7C-5D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	210	⇓eP	Pg	07 55 41.8	-0.4
CPBX				eS	Sg	07 55 43.6	+0.3
CPBX	Cerro Prieto	0.07	210	⇓eP	Pg	07 55 41.8	-0.4
CPBX				eS	Sg	07 55 44.2	+0.9
COA	Coachella	0.41	17	⇓eP	Pg	07 55 48.2	-0.3
SNR	Schaffner Ranc	0.41	340	eP	Pg	07 55 48.6	+0.1
ERPC	Ernies Place	0.43	309	eP	Pg	07 55 48.3	-0.7
EMX	El Mayor	0.48	178	⇓eP	Pg	07 55 49.1	-0.8
EMX				eS	Sg	07 55 56.4	+0.1
EMX				⇑e		07 55 58.5	
	comp=E,2μm,0.4s						
EMX				⇑e		07 55 59.7	
	comp=N,2μm,0.6s						
EMX	El Mayor	0.48	178	eP	Pg	07 55 49.1	-0.8
EMX				eS	Sg	07 55 56.2	-0.1
WESC	Westside Schoo	0.48	306	eP	Pg	07 55 49.0	-1.0
BTCC	Brunts Corner	0.54	4	eP	Pg	07 55 50.3	-0.7
YUH	Yuha Desert	0.58	288	⇑e	Pg	07 55 50.1	-1.7
YMD	Yuma Desert	0.61	82	⇑eP	Pg	07 55 51.3	-1.1
GLA	Glamis	0.69	33	⇓eP	Pg	07 55 52.3	-1.5
GLA	Glamis	0.69	33	ePg	Pg	07 55 52.5	-1.3
GLA				eSg	Sg	07 56 01.7	-1.0
RDX	Rancho Dawling	0.79	227	⇑eP	Pg	07 55 54.6	-1.2
RDX				eS	Sg	07 56 05.0	-1.0
RDX				⇑e		07 56 08.9	
	comp=N,1μm,0.5s						
RDX	Rancho Dawling	0.79	227	eP	Pg	07 55 54.5	-1.3
RDX				eS	Sg	07 56 05.1	-1.0
ECBX	El Chinero	1.02	170	⇑eP	Pg	07 55 59.2	-0.9
ECBX				eS	Sg	07 56 13.0	-0.2
CBX	Cerro Bola	1.19	263	ePN	Pn	07 56 03.5	-0.3
BAR	Barrett	1.21	280	ePg	Pg	07 56 00.4	-3.3
BAR				eSg	Sg	07 56 16.4	-3.0
CCX	Cicese	1.33	243	eP	Pn	07 56 04.0	-1.7
CCX				eS	Sb	07 56 20.7	-2.5
ECNX	Esteban Cantu	1.39	235	ePN	Pn	07 56 05.8	-0.7
ECNX				eP		07 56 03.8	
SPX	San Pedro Mart	1.44	187	ePN	Pn	07 56 06.8	-0.3
PBX	Punta Banda	1.44	240	eP	Pn	07 56 05.6	-1.6
PBX	Punta Banda	1.44	240	eP	Pn	07 56 05.7	-1.4
PBX				eS	Sb	07 56 25.0	-1.3
PFO	Pinyon Flat Ob	1.51	319	ePn	Pn	07 56 06.7	-1.5
PFO				ePg	Pg	07 56 12.5	+3.0
LDFC	Landfair	2.60	3	ePg	Pg	07 56 31.6	+1.2
LDFC				eSg	Sg	07 57 04.0	-0.2
MWC	Mount Wilson	2.92	308	ePg	Pg	07 56 32.6	-3.9
PASC	Pasadena Art C	2.97	305	ePg	Pg	07 56 36.1	-1.5
TUC	Tucson	3.79	91	Pn	Pn	07 56 40.6	+1.0
TUC				ePg	Pg	07 56 52.7	-0.6
TUC				eSg	Sg	07 57 40.8	-1.7
ISA	Isabella	4.15	321	ePg	Pg	07 56 57.5	-2.6
WUAZ	Wupatki	4.43	46	Pn	Pn	07 56 49.3	+0.9
MVCO	Mesa Verde	7.30	48	Pn	Pn	07 57 30.1	+2.4
	comp=N,5.6nm,0.6s						

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*ISK **12** 07:59:49.5, 39°.60N×40°.15E, h5^{km}, MD2.9*
*DDA **12** 07:59:50.4, 39°.51N×40°.13E, h7^{km}±3^{km}, Md2.8*
*ISCJB **12** 07:59:51.1±0.8, 39°.57N±0°.05×40°.13E±0°.04, h10^{km}, Error ellipse: s-maj=7.9km s-min=4.6km az=170.7*
*CSEM **12** 07:59:51.0±0.5, 39°.56N×40°.12E, h10^{km}, MD2.8, Error ellipse: s-maj=13.5km s-min=6.9km az=170.0*
ISC 12 07:59:51.0±1.0**, 39°.52N**±0°.06×**40°.10E**±0°.04**, h9**^{km}±14^{km}**, n11,** σ**1^{s}.03**/21**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZC	Erzincan	0.32	316	ePG	Pg	08 00 02.6	+5.4
EZC				eSG	Sg	08 00 12.9	+11
KOPT	Kop Dagi	0.58	31	i P	Pg	08 00 01.3	-1.0
KOPT				i S	Sg	08 00 10.8	+0.9
KOPT	Kop Dagi	0.58	31	i P	Pg	08 00 01.3	-0.9
KOPT				i S	Sg	08 00 10.8	+0.9
EZM	Erzurum	1.04	68	ePG	Pg	08 00 09.6	-1.5
EZM				eSG	Sg	08 00 24.2	-0.4
ERZM	Erzurum	1.05	68	i P	Pg	08 00 10.0	-1.1
ERZM				i S	Sg	08 00 26.8	+2.1
ERZM	Erzurum	1.05	68	i P	Pg	08 00 10.0	-1.1
ERZM				i S	Sg	08 00 26.8	+2.1
GUMT	Gumushane	1.05	333	ePG	Pg	08 00 10.1	-1.1
GUMT				eSG	Sg	08 00 24.9	+0.1
KEMA	Kemaliye	1.27	259	i P	Pg	08 00 15.1	-0.2
KEMA				i S	Sg	08 00 33.1	+1.2
KEMA	Kemaliye	1.27	259	i P	Pg	08 00 15.1	-0.3
KEMA				i S	Sg	08 00 33.1	+1.2
HOMI	Horasan	1.48	69	i P	Pn	08 00 17.0	-0.8
HOMI				i S	Sg	08 00 39.6	+0.9
AGRB	Hanur-Agry	2.23	88	ePN	Pn	08 00 28.9	+0.7

IDC 12 08:00:00.8±8.9**, 2°.86S×138°.43E, h0**^{km}**, mb3.6**/2**, mb1 3.9**/3**, mb1mx3.6**/13**, mbtmp3.7**/3**, ML3.8**/1**, Error ellipse: s-maj=379.8km s-min=31.3km az=85.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.44	193	P	Pn	08 04 05.6	-0.1
	0.4nm,0.3s,baz=13,slow=13,SNR=17						
ASAR	Alice Springs	21.14	192	P	P	08 04 47.7	+0.2
	2.1nm,0.6s,baz=16,slow=11,SNR=24						
MKAR	Makanchi Array	69.74	323	P	P	08 11 12.9	+0.1
	0.3nm,0.4s,baz=121,slow=7.2,SNR=3.9						

GRAL 12 08:13:54.4±0.3**, 33°.30N×35°.37E, h0**^{km}±144^{km}**, MD2.5, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.20	351	eP	Pg	08 13 57.8	-0.3
RCY	Rachaya	0.42	63	eP	Pg	08 14 02.4	-0.1
RCY				eS	Sg	08 14 08.2	+0.2
HWQ	Hawqa	1.09	26	eP	Pg	08 14 14.1	-1.3

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*ISK **12** 08:14:56.4, 36°.99N×29°.22E, h5^{km}, MD3.1*
*ISCJB **12** 08:14:58.0±0.4, 36°.97N±0°.03×29°.23E±0°.03, h10^{km}, Error ellipse: s-maj=4.6km s-min=3.5km az=166.4*
*CSEM **12** 08:14:57.5±0.1, 37°.00N×29°.23E, h2^{km}, MD3.1, Error ellipse: s-maj=3.5km s-min=2.7km az=160.0*
*DDA **12** 08:14:58.2, 36°.99N×29°.22E, h7^{km}±5^{km}, Md2.8*
ISC 12 08:14:57.9±0.7**, 37°.01N**±0°.04×**29°.23E**±0°.03**, h3**^{km}±7^{km}**, n36,** σ**0^{s}.68**/51**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.39	197	ePG	Pg	08 15 04.4	-0.9
FETY				eSG	Sg	08 15 10.7	+0.4
FETY	Fethiye	0.39	197	ePg	Pg	08 15 04.4	-0.9
FETY				eSg	Sg	08 15 10.7	+0.4
TURN	Turunc	0.52	255	i P	Pg	08 15 12.4	+4.6
TURN				i S	Sg	08 15 22.7	+8.2
TURN	Turunc	0.52	255	i P	Pg	08 15 12.4	+4.6
DALT	Dalyan (Mudla)	0.53	244	ePG	Pg	08 15 07.2	-0.8
DALT				eSG	Sg	08 15 15.4	+0.6
DALT	Dalyan (Mudla)	0.53	244	ePg	Pg	08 15 07.2	-0.8
DALT				eSg	Sg	08 15 15.5	+0.6
ELL	Elmali	0.60	115	ePG	Pg	08 15 08.8	-0.7
ELL				eSG	Sg	08 15 18.6	+1.3
ELL	Elmali	0.60	115	ePg	Pg	08 15 08.8	-0.7
ELL				eSg	Sg	08 15 18.6	+1.3
DENT	Denizli	0.76	348	ePG	Pg	08 15 11.8	-0.8
DENT	Denizli	0.76	348	ePg	Pg	08 15 11.8	-0.8
YER	Yerkesik	0.77	280	ePG	Pg	08 15 12.7	+0.1
YER				eSG	Sg	08 15 23.6	+1.0
YER	Yerkesik	0.77	280	ePg	Pg	08 15 12.7	+0.1
YER				eSg	Sg	08 15 23.6	+1.1
AKAS	Kas	0.83	158	i P	Pg	08 15 13.6	-0.2
AKAS				i S	Sg	08 15 28.3	+3.8
AKAS	Kas	0.83	158	i P	Pg	08 15 13.6	-0.2
AKAS				i S	Sg	08 15 28.3	+3.8
BCK	Bucak	1.18	67	ePN	Pn	08 15 20.4	-0.9
BCK	Bucak	1.18	67	ePn	Pn	08 15 20.4	-0.9
MLSB	Milas	1.19	284	ePN	Pn	08 15 20.7	-0.8
MLSB	Milas	1.19	284	ePn	Pn	08 15 20.7	-0.8
ISP	Isparta	1.32	50	ePN	Pn	08 15 22.6	-0.6
ISP	Isparta	1.32	50	ePn	Pn	08 15 22.7	-0.6
KHL	Karahalli	1.34	10	ePN	Pn	08 15 23.6	+0.1
KHL				eSN	Sn	08 15 42.6	+0.8
KHL	Karahalli	1.34	10	ePn	Pn	08 15 23.6	+0.1
KHL				eSn	Sn	08 15 42.6	+0.8
DAT	Datca	1.35	259	ePN	Pn	08 15 23.0	-0.7
DAT	Datca	1.35	259	ePn	Pn	08 15 23.0	-0.7
BDRM	Kayabasi	1.43	273	i P	Pn	08 15 25.2	+0.5
BDRM				i S	Sb	08 15 43.7	0.0
BDRM	Kayabasi	1.43	273	i P	Pn	08 15 25.2	+0.5
BDRM				i S	Sb	08 15 43.7	0.0
BODT	Bodrum	1.53	273	ePN	Pn	08 15 26.3	+0.1
BODT	Bodrum	1.53	273	ePn	Pn	08 15 26.3	+0.1
SHUT	Suhut-Afyon	1.87	34	ePN	Pn	08 15 31.4	+0.6
SHUT	Suhut-Afyon	1.87	34	ePn	Pn	08 15 31.4	+0.6
ALT	Altintas	2.16	19	ePN	Pn	08 15 34.9	+0.1
ALT	Altintas	2.16	19	ePn	Pn	08 15 34.9	+0.1
KONT	Konya--Tatoy	2.66	68	ePN	Pn	08 15 41.7	-0.1
KONT	Konya--Tatoy	2.66	68	ePn	Pn	08 15 41.7	0.0
KIZT	Kizilcal	2.81	47	ePN	Pn	08 15 44.2	+0.5
KIZT	Kizilcal	2.81	47	ePn	Pn	08 15 44.3	+0.5

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*NEIC **12** 08:25:18.8, 51°.45N×174°.74W, h21^{km}, mb3.9/1, ML3.3(AEIC), After AEIC.*
*ISCJB **12** 08:25:19.3±1.5, 51°.5N±0°.1×174°.8W±0°.1, h56^{km}±11^{km}, mb3.9/8, Error ellipse: s-maj=25.0km s-min=11.0km az=166.3*
*IDC **12** 08:25:24.0±8.9, 51°.41N×174°.75W, h87^{km}±93^{km}, mb3.4/6, mb1 3.5/7, mb1mx3.3/27, mbtmp3.4/7, ML3.4/1, Error ellipse: s-maj=99.4km s-min=19.5km az=15.0*
ISC 12 08:25:20.3±1.7**, 51°.5N**±0°.2×**174°.8W**±0°.1**, h47**^{km}±12^{km}**, n15,** σ**1^{s}.27**/16**, mb3.9**/8**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	0.80	25	P	Pn	08 25 33.5	-1.7
ATKA				S	Sn	08 25 45.9	-0.2
AMKA	Amchitka	3.72	271	P	Pn	08 26 14.1	-1.1
NIKO	Nikolski	3.92	65	ePn	Pn	08 26 21.2	+3.3
AKUT	Akutan	6.06	60	eP	Pn	08 26 50.3	+3.1
TNA	Tin City	14.55	11	ePn	Pn	08 28 45.7	+2.8
SEW	Seward	16.55	49	ePn	Pn	08 29 05.3	-3.3
PETK	Petropavlovsk-	16.89	286	P	Pn	08 29 14.6	+1.6
	0.1nm,0.3s,baz=88,slow=14,SNR=6.1						
EGAK	Eagle	21.83	40	eP	P	08 30 07.0	-1.2
	2.8nm,0.6s,mb3.9						
MDJ	Mudanjiang	37.04	282	P	P	08 32 25.3	0.0
MDJ				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,110nm,6.8s						
PDAR	Pinedale Array	43.85	75	P	P	08 33 21.4	-0.1
	comp=Z,0.6nm,0.8s,mb3.4,baz=291,slow=4.1,SNR=4.9						
TXAR	Lajitas Array	56.13	84	P	P	08 34 54.4	-0.4
	comp=Z,0.3nm,1.1s,mb3.3,baz=285,slow=4.6,SNR=2.4						
KURK	Kurchatov	60.75	316	P	P	08 35 27.2	+0.6
	comp=Z,0.9nm,0.4s,mb4.2,baz=43,slow=6.8,SNR=15						
KURK				pP	pP	08 35 46.6	+6.6
	comp=Z,0.4nm,0.4s,baz=44,slow=6.8,SNR=3.7						
MKAR	Makanchi Array	61.92	311	P	P	08 35 34.2	-0.4
	comp=Z,0.6nm,0.4s,mb4.1,baz=46,slow=6.2,SNR=28						
BVAR	Borovoye Array	62.41	322	P	P	08 35 37.5	-0.3
	comp=Z,0.7nm,0.4s,mb4.1,baz=62,slow=5.3,SNR=4.7						
NOA	NORSAR Array B	67.73	357	P	P	08 36 12.0	-0.1
	comp=Z,1.2nm,1.0s,mb3.9,baz=351,slow=7.2,SNR=2.8						

ISCJB **12** *08:34:32.4±0.7, 55°.62N±0°.03×165°.71E±0°.02, h18^{km}±5^{km}, mb4.6/129, MS4.1/28, Error ellipse: s-maj=5.0km s-min=1.9km az=176.7*

KRSC **12** *08:34:33.6±0.2, 55°.49N×165°.69E, h31^{km}±31^{km}, ML4.9*

NEIC **12** *08:34:34.3±0.2, 55°.66N×165°.73E, mb4.7/80, Error ellipse: s-maj=5.5km s-min=2.9km az=174.0*

BJI **12** *08:34:35.7, 56°.17N×164°.96E, h19^{km}, mB5.0/24, mb4.5/34, Ms4.6/24, Ms7 4.4/26*

MOS **12** *08:34:36.0±1.1, 55°.61N×165°.58E, h50^{km}, mb4.7/57, Error ellipse: s-maj=8.1km s-min=5.9km az=84.0*

IDC **12** *08:34:38.2±3.3, 55°.69N×165°.63E, h52^{km}±30^{km}, mb4.1/26, mb1 4.3/28, mb1mx4.2/31, mbtmp4.1/28, ML4.1/2, MS3.9/19, Ms1 3.9/19, ms1mx3.7/44, Error ellipse: s-maj=15.9km s-min=10.1km az=162.0*

ISC 12 08:34:33.4±0.8**, 55°.63N**±0°.03×**165°.69E**±0°.02**, h11**^{km}±4^{km}**, h18**^{km}±1.1^{km}**:pP-P, n598,** σ0^{s}.**74**/625**, mb4.6**/129**, MS4.1**/28**, 165C-160D, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	Bering	0.46	159	*i* P	Pg	08 34 41.0	-1.3
BKI				*i* S	Sg	08 34 46.6	-1.7
KBTR	Krutoberegovo	1.72	291	*i* P	Pn	08 35 01.5	-1.6
KBTR				*i* S	Sn	08 35 21.2	-3.8
MKZ	Mys Kozlova	2.52	246	*i* P	Pn	08 35 13.2	-0.9
MKZ				*i* S	Sn	08 35 42.8	-1.9
SRKR	Sorokina	2.73	294	*i* P	Pn	08 35 17.5	+0.5
SRKR				*i* S	Sn	08 35 49.7	-0.3
ZLN	Zelenaya	2.78	280	*e*P	Pn	08 35 18.6	+0.8
ZLN				*i* S	Sn	08 35 50.2	-1.1
KLY	Klyuchi	2.91	286	*i* P	Pn	08 35 18.3	-1.3
KLY				*i* S	Sn	08 35 51.2	-3.3
KRSR	Krestovskiy	2.94	284	*i* P	Pn	08 35 20.4	+0.4
KRSR				*i* S	Sn	08 35 54.5	-0.7
BZMR	Bezymyannaya	2.95	278	*e*P	Pn	08 35 20.9	+0.8
BZMR				*i* S	Sn	08 35 56.8	+1.3
KMNR	Kamenistaya	3.09	275	*e*P	Pn	08 35 23.2	+1.2
KMNR				*i* S	Sn	08 35 58.7	-0.1
KPT	Kopyto	3.10	278	*i* P	Pn	08 35 23.2	+1.0
KPT				*i* S	Sn	08 35 59.7	+0.5
TUMR	Tumrok	3.18	266	*e*P	Pn	08 35 24.3	+1.1
TUMR				*i* S	Sn	08 36 00.1	-0.9
KOZR	Kozyr	3.30	280	PN	Pn	08 35 26.2	+1.4
KOZR				S	Sn	08 36 05.8	+1.9
KOZ	Kozyrevsk	3.31	280	*i* P	Pn	08 35 26.2	+1.2
KOZ				*i* S	Sn	08 36 05.8	+1.6
SRDR	Sredinnyy	3.43	284	*e*P	Pn	08 35 27.6	+1.0
SRDR				*i* S	Sn	08 36 06.0	-1.1
NLC	Nalytchevo	4.45	239	*e*P	Pn	08 35 40.3	-0.4
NLC				*i* S	Sn	08 36 30.2	-2.2
AVH	Avacha	4.70	243	*i* P	Pn	08 35 45.1	+1.0
AVH				*i* S	Sn	08 36 37.8	-0.7
INSR	Institute	4.88	241	*e*P	Pn	08 35 46.9	+0.4
INSR				*i* S	Sn	08 36 39.7	-3.2
PET	Petropavlovsk	4.88	241	*e*P	Pn	08 35 47.1	+0.6
PET				*i* S	Sn	08 36 40.5	-2.4
PET	Petropavlovsk	4.88	241	*e*Pn	Pn	08 35 46.0	-0.6
PET				*e*Sg	Sn	08 36 42.9	+0.1
GNL	Ganaly	4.90	250	*e*P	Pn	08 35 48.2	+1.4
RUS	Russkaya	5.30	236	*e*P	Pn	08 35 52.4	0.0
RUS				*i* S	Sn	08 36 49.8	-3.6
PETK	Petropavlovsk-	5.31	245	PN	Pn	08 35 53.1	+0.6
PETK				pmax	pmax		
	comp=Z,9.0nm,0.3s						
PETK				MLR	MLR		
	comp=Z,465nm,21.3s						
PETK	Petropavlovsk-	5.31	245	P	Pn	08 35 53.1	+0.6
	comp=Z,8.9nm,0.3s,baz=68,slow=17,SNR=126						
PETK				LR	LR	08 38 14.9	
	comp=Z,465nm,21.3s,baz=297,slow=41						
SMY	Shemya	5.73	117	*e*PN	Pn	08 35 56.2	-2.0
MIPR	Malaya Ipel'ka	6.25	241	*e*P	Pn	08 36 06.5	+1.1
SKR	Severo-Kuril's	7.59	233	*e*PN	Pn	08 36 23.4	-0.4
SKR				pmax	pmax		
	comp=Z,170nm,0.9s						
SKR				pmax	pmax		
	comp=E,50nm,0.5s						
SKR				MLR	MLR		
	comp=N,3µm,16.0s						
SKR				MLR	MLR		
	comp=Z,3µm,16.0s						
SEY	Seymchan	9.98	323	⇑*e*PN	Pn	08 36 56.9	+0.5
BILL	Bilibino	12.46	1	⇑*e*PN	Pn	08 37 31.7	+1.4
BILL				pmax	pmax		
	comp=Z,40nm,1.7s						
BILL	Bilibino	12.46	1	*e*Pn	Pn	08 37 31.5	+1.2
	comp=Z,31nm,1.1s						
GAMB	Gambell	13.96	45	*e*Pn	Pn	08 37 48.7	-2.0
NIKO	Nikolski	15.07	90	*e*P	Pn	08 38 04.2	-1.7
	comp=Z,136nm,1.1s						
TNA	Tin City	16.19	42	*e*P	Pn	08 38 20.5	0.0
	comp=Z,26nm,1.2s						
AKUT	Akutan	16.44	83	*e*P	Pn	08 38 22.5	-1.2
	comp=Z,235nm,1.4s						
YSS	Yuzh-Sakhalins	16.70	248	*e*P	Pn	08 38 30.0	+2.9
YSS				MLR	MLR		
	comp=Z,600nm,14.0s						
YSS				MLR	MLR		
	comp=N,600nm,12.0s						
ASAJ	Asahikawa	18.72	242	P	Pn	08 38 52.8	+0.7
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,293nm,20.6s						
ASAJ	Asahikawa	18.72	242	P	Pn	08 38 52.8	+0.7
	comp=Z,1.1nm,0.3s,baz=68,slow=10,SNR=8.5						
ASAJ				LR	LR	08 45 56.3	
	comp=Z,293nm,20.6s,baz=176,slow=36						
YAK	Yakutsk	19.50	304	*e*P	Pn	08 38 58.7	-2.6
YAK				*e*S	Sn	08 42 27.2	-13
YAK				pmax	pmax		
	comp=Z,43nm,1.2s						
YAK				pmax	pmax		
	comp=N,11nm,1.4s						
YAK				pmax	pmax		
	comp=E,27nm,1.4s						
YAK				pmax	pmax		
	comp=Z,34nm,0.9s						
YAK				pmax	pmax		
	comp=N,20nm,1.2s						
YAK				pmax	pmax		
	comp=E,39nm,1.3s						
YAK				smax			
	comp=N,128nm,10.7s						
YAK				smax			
	comp=E,36nm,9.9s						
YAK				MLR	MLR		
	comp=Z,407nm,18.0s						
YAK				MLR	MLR		
	comp=N,240nm,17.0s						
YAK				MLR	MLR		
	comp=E,365nm,18.0s						
YAK	Yakutsk	19.50	304	*e*P	Pn	08 38 58.6	-2.8
	comp=E,33nm,0.7s						
ERM	Erimo	20.02	237	*e*P	P	08 39 05.9	0.0
ERM				pmax	pmax		
	comp=Z,28nm,0.8s						
ERM	Erimo	20.02	237	*e*P	P	08 39 05.9	+0.1
	comp=Z,28nm,0.8s						
SVW2	Sparrevohn	20.80	59	*e*P	P	08 39 14.5	+0.3
TIXI	Tiksi	22.33	330	⇑*e*P	P	08 39 31.0	+0.5
TIXI				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.5						
TIXI	Tiksi	22.33	330	*e*P	P	08 39 30.5	0.0
	comp=Z,21nm,1.1s,mb4.5						
PPLA	Purkeypile	22.36	54	*e*P	P	08 39 31.8	+0.9
	comp=Z,43nm,1.2s,mb4.8						
CLNS	Chul'man	22.48	290	*e*P	P	08 39 35.1	+2.9
CLNS				*e**PP		08 39 42.6	
CLNS				*e*		08 39 57.9	
CLNS				*e*SS		08 44 17.2	
CLNS				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
CLNS				pmax	pmax		
	comp=N,4.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,7.0nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.0						
CLNS				pmax	pmax		
	comp=N,5.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,12nm,1.1s						
CLNS				MLR	MLR		
	comp=Z,379nm,16.0s,MS3.9						
CLNS				MLR	MLR		
	comp=N,384nm,15.0s,MS4.1						
CLNS				MLR	MLR		
	comp=E,376nm,17.0s,MS4.1						
BPAW	Bear Paw Mtn.	22.91	51	*e*P	P	08 39 37.6	+0.9
	comp=E,25nm,1.2s,mb4.5						
KTH	Kantishna Hill	22.93	52	*e*P	P	08 39 37.1	+0.1
	comp=E,25nm,1.2s,mb4.5						
TRF	Thorofare Moun	23.21	52	*e*P	P	08 39 37.1	-2.9
	comp=E,21nm,0.9s,mb4.6						
RC01	Rabbit Creek A	23.63	58	*e*P	P	08 39 44.4	+0.2
	comp=E,7.8nm,0.9s,mb4.1						
MCK	McKinley	23.81	52	*e*P	P	08 39 45.6	-0.3
MCK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.3						
MCK	McKinley	23.81	52	*e*P	P	08 39 45.6	-0.3
	comp=Z,12nm,0.9s,mb4.3						
PMR	Palmer	23.86	57	*e*P	P	08 39 45.9	-0.4
PMR				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.0						
PMR	Palmer	23.86	57	*e*P	P	08 39 45.9	-0.4
	comp=Z,3.7nm,0.7s,mb3.9						
SEW	Seward	23.91	61	*e*P	P	08 39 44.8	-2.0
	comp=Z,25nm,1.0s,mb4.6						
COLA	College	24.27	49	*e*P	P	08 39 49.4	-0.7
COLA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.4						
COLA	College	24.27	49	*e*P	P	08 39 49.4	-0.7
	comp=Z,14nm,0.8s,mb4.5						
MDJ	Mudanjiang	25.34	259	P	P	08 39 59.0	-0.9
MDJ				pP	pP	08 40 05.2	+1.9
MDJ				S	S	08 44 25.7	-0.1
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb3.9						
MDJ				pmax	pmax		
	comp=Z,160nm,5.2s						
MDJ				LR	LR		
	comp=N,210nm,19.0s						
MDJ				LR	LR		
	comp=E,140nm,24.6s						
MDJ				LR	LR		
	comp=Z,160nm,25.8s						
MAJO	Matsushiro	26.69	236	*e*P	P	08 40 14.6	+2.4
MAJO				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.6						
MAJO	Matsushiro	26.69	236	*e*P	P	08 40 14.6	+2.4
	comp=Z,15nm,0.7s,mb4.6						
MAT	Matsushiro	26.69	236	P	P	08 40 13.1	+0.9
MAT				*e*S	S	08 44 43.6	-3.6
MJAR	Matsushiro Arr	26.69	236	P	P	08 40 12.4	+0.2
MJAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MJAR	Matsushiro Arr	26.69	236	P	P	08 40 12.4	+0.2
	comp=Z,5.4nm,0.7s,mb4.2,baz=33,slow=8.5,SNR=14						
EGAK	Eagle	27.14	49	*e*P	P	08 40 14.9	-1.1
	comp=Z,41nm,1.6s,mb4.7						
BOD	Bodaibo	27.88	296	*e*P	P	08 40 21.0	-1.7
DAWY	Dawson	27.99	50	*e*P	P	08 40 22.8	-0.8
CN2	Changchun	28.17	262	*e*P	P	08 40 22.1	-3.3
CN2				*e*S	S	08 45 05.2	-5.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,500nm,16.0s,MS4.3						
CN2				LR	LR		
	comp=E,500nm,16.0s,MS4.3						
CN2				LR	LR		
	comp=Z,300nm,18.0s,MS3.9						
KSRS	Korea Array	31.18	250	P	P	08 40 52.6	+0.4
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
KSRS				MLR	MLR		
	comp=Z,163nm,18.7s,MS3.7						
KSRS	Korea Array	31.18	250	P	P	08 40 52.6	+0.4
	comp=Z,2.4nm,0.7s,mb4.1,baz=38,slow=8.5,SNR=5.3						
KSRS				LR	LR	08 53 26.1	
	comp=Z,163nm,18.7s,MS3.7,baz=58,slow=36						
DLBC	Dease Lake	33.91	58	P	P	08 41 16.6	+0.8
	comp=Z,4.0nm,0.9s,mb4.3,baz=253,slow=20,SNR=3.6						
DLBC	Dease Lake	33.91	58	*e*P	P	08 41 16.2	+0.4
BJI	Beijing	35.86	265	P	P	08 41 32.4	-0.4
BJI				PP	PP	08 42 53.0	-1.2
BJI				S	S	08 47 09.9	-0.3
BJI				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
BJI				pmax	pmax		
	comp=Z,120nm,4.1s						
BJI				LR	LR		
	comp=N,430nm,13.2s,MS4.5						
BJI				LR	LR		
	comp=E,550nm,16.7s,MS4.5						
BJI				LR	LR		
	comp=Z,240nm,20.7s,MS3.9						
TLY	Talaya	35.90	290	*e*P	P	08 41 34.0	+0.9
TLY				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
TLY				MLR	MLR		
	comp=Z,244nm,17.0s,MS4.0						
ULN	Ulaanbaatar	36.13	283	*e*P	P	08 41 36.1	+1.0
ULN				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
ULN	Ulaanbaatar	36.13	283	*e*P	P	08 41 36.1	+1.0
	comp=Z,12nm,1.1s,mb4.7						
SONM	Songino Array	36.51	283	P	P	08 41 39.2	+0.9
SONM				pmax	pmax		
	comp=Z,7.0nm,0.7s						
SONM				MLR	MLR		
	comp=Z,155nm,19.5s						
SONM	Songino Array	36.51	283	P	P	08 41 39.2	+0.8
	comp=Z,7.3nm,0.7s,mb4.6,baz=58,slow=9.2,SNR=36						
SONM				LR	LR	08 57 24.0	
	comp=Z,155nm,19.5s,MS3.8,baz=66,slow=38						
ZAK	Zakamensk	36.79	289	*e*P	P	08 41 41.3	+0.7
ZAK				*e*		08 44 07.6	
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.3						
MOY	Mondy	37.31	292	*e*P	P	08 41 46.4	+1.3
HHC	Hu-ho-hao-te	37.93	270	*e*P	P	08 41 49.7	-0.8
HHC				pP	pP	08 41 54.2	+0.3
HHC				PP	PP	08 43 18.9	+2.0
HHC				S	S	08 47 39.8	-2.0
HHC				sS	sS	08 47 46.4	-1.0
HHC				PcS	PcS	08 47 53.8	-1.1
HHC				SS	SS	08 50 14.7	-13
HHC				ScS	ScS	08 51 59.8	-2.5
HHC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
HHC				pmax	pmax		
	comp=Z,140nm,6.1s						
HHC				LR	LR		
	comp=N,320nm,15.2s,MS4.5						
HHC				LR	LR		
	comp=E,360nm,11.4s,MS4.5						
HHC				LR	LR		
	comp=Z,320nm,11.6s,MS4.4						
YKA	Yellowknife Ar	39.06	46	P	P	08 41 59.4	-0.2
YKA						08 44 09.4	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	39.06	46	P	P	08 41 59.4	-0.2
	comp=Z,2.1nm,0.7s,mb4.0,baz=300,slow=8.0,SNR=26						
YKA				PcP	PcP	08 44 09.4	+0.1
	comp=Z,0.5nm,0.7s,baz=290,slow=3.3,SNR=3.5						
YKA	Yellowknife Ar	39.06	46	P	P	08 41 59.4	-0.2
YKA				PcP	PcP	08 44 09.4	+0.1
RES	Resolute Bay	39.70	24	P	P	08 42 04.2	-0.7
RES				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
RES	Resolute Bay	39.70	24	P	P	08 42 04.2	-0.7
	comp=Z,5.4nm,0.8s,mb4.3,baz=311,slow=9.9						
RES	Resolute Bay	39.70	24	P	P	08 42 04.2	-0.7
NJ2	Nanjing	40.14	254	*e*P	P	08 42 11.6	+2.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
A05A	Maple Falls	42.79	67	⇓P	P	08 42 30.0	-0.6
	baz=43						
NLWA	Neilton Lookou	42.84	70	⇑P	P	08 42 30.9	0.0
	baz=43						
A06A	Chilliwack	43.05	67	⇓P	P	08 42 32.7	0.0
	baz=43						
B05A	Bryant	43.24	68	⇑P	P	08 42 34.2	+0.1
	baz=43						
B06A	Marblemount	43.40	68	⇑P	P	08 42 35.6	0.0
	baz=43						
E03A	Lebam	43.53	71	⇓P	P	08 42 36.4	-0.2
	baz=43						
A07A	Ashnola River,	43.65	66	⇓P	P	08 42 37.4	-0.1
	baz=43						
WHN	Wuhan	43.77	257	P	P	08 42 38.3	-0.4
F03A	Seaside	43.92	72	⇑P	P	08 42 39.8	+0.1
	baz=44						
E04A	Onalaska	43.95	71	⇓P	P	08 42 40.2	+0.2
	baz=44						
ZALV	Zalesovo Beam	44.15	303	P	P	08 42 40.3	-1.2
ZALV						08 44 23.5	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ZALV				MLR	MLR		
	comp=Z,75nm,19.5s,MS3.6						
ZALV	Zalesovo Beam	44.15	303	P	P	08 42 40.3	-1.1
	comp=Z,0.4nm,0.3s,mb3.6,baz=44,slow=4.4,SNR=2.8						
ZALV				PcP	PcP	08 44 23.5	-2.6
	comp=Z,0.9nm,0.5s,baz=57,slow=5.5,SNR=3.0						
ZALV				LR	LR	09 02 17.3	
	comp=Z,75nm,19.5s,MS3.6,baz=358,slow=38						
B07A	Winthrop	44.15	67	⇑P	P	08 42 41.7	+0.2
	baz=44						
A08A	Turner Farm, O	44.28	66	⇓P	P	08 42 42.6	0.0
	baz=44,SNR=5.5						
NVS	Novosibirsk	44.36	305	*e*P	P	08 42 43.3	+0.1
F04A	Amboy	44.53	71	⇑P	P	08 42 44.4	-0.2
	baz=44						
D06A	Cle Elum	44.57	69	⇓P	P	08 42 44.4	-0.5
	baz=44						
B08A	Colville Reser	44.62	66	⇑P	P	08 42 45.4	0.0
	baz=44,SNR=8.4						
A09A	Danville	44.63	65	⇓P	P	08 42 45.6	+0.2
	baz=44,SNR=7.9						
EDM	Edmonton	44.63	58	*e*P	P	08 42 45.1	-0.2
C07A	Waterville	44.66	68	⇓P	P	08 42 45.1	-0.5
	baz=44						
E06A	Yakima	44.91	69	⇑P	P	08 42 47.5	-0.1
	baz=45						
G04A	Mulino	44.97	72	⇓P	P	08 42 47.9	-0.2
	baz=45						
D07A	Quincy	45.02	68	⇓P	P	08 42 48.2	-0.4
	baz=45						
C08A	Higginbotham F	45.14	67	⇑P	P	08 42 49.2	-0.2
	baz=45,SNR=10						
SPITS	Spitsbergen Ar	45.14	351	LR	LR	09 02 17.2	
	comp=Z,174nm,19.5s,MS4.0,baz=285,slow=37						
A10A	Northport	45.15	65	⇑P	P	08 42 49.3	-0.2
	baz=45,SNR=5.4						
B09A	Rice	45.20	66	⇓P	P	08 42 49.9	0.0
	baz=45						
HOOD	Mount Hood Mea	45.34	71	*e*P	P	08 42 50.5	-0.5
	comp=Z,22nm,0.9s,mb5.0						
H04A	Detroit Lake	45.46	72	⇓P	P	08 42 51.9	-0.2
	baz=45						
E07A	Sunnyside	45.49	69	⇓P	P	08 42 51.9	-0.4
	baz=45						
F06A	Goldendale	45.51	70	⇑P	P	08 42 51.9	-0.5
	baz=45						
C09A	Chrisman Ranch	45.53	66	⇑P	P	08 42 52.0	-0.5
	baz=45						
GTA	Gaotai	45.54	278	*e*P	P	08 42 53.3	+0.6
GTA				pP	pP	08 42 58.3	+2.1
GTA				sP	sP	08 43 00.6	+3.0
GTA				PP	PP	08 44 40.5	+1.4
GTA				S	S	08 49 37.0	+2.6
GTA				sS	sS	08 49 43.8	+3.6
GTA				SS	SS	08 52 48.3	-10
GTA				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GTA				pmax	pmax		
	comp=Z,120nm,6.3s						
GTA				LR	LR		
	comp=N,370nm,19.2s,MS4.4						
GTA				LR	LR		
	comp=E,210nm,16.2s,MS4.4						
GTA				LR	LR		
	comp=Z,380nm,15.3s,MS4.5						
OD2	Odessa Site #2	45.56	67	*e*P	P	08 42 51.8	-1.0
G05A	Wamic	45.57	71	⇓P	P	08 42 52.9	+0.1
	baz=45						
LZH	Lanzhou	45.59	271	*e*P	P	08 42 53.5	+0.3
LZH				pP	pP	08 43 01.2	+4.5
LZH				sP	sP	08 43 04.3	+6.3
LZH				PP	PP	08 44 40.6	+0.9
LZH				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.9						
LZH				pmax	pmax		
	comp=Z,98nm,5.2s						
LZH				LR	LR		
	comp=E,400nm,13.7s						
LZH				LR	LR		
	comp=Z,510nm,17.5s,MS4.5						
D08A	Wollman Farm,	45.66	68	⇑P	P	08 42 53.2	-0.4
	baz=45						
RSW	Rattlesnake Hi	45.74	69	*e*P	P	08 42 54.4	+0.1
HAWA	Hanford	45.77	69	*e*P	P	08 42 54.1	-0.4
	comp=Z,9.3nm,1.1s,mb4.6						
HAWA				*e*		08 43 02.5	
A11A	Hall Mountain,	45.78	64	⇓P	P	08 42 54.6	+0.1
	baz=46						
NEW	Newport	45.83	65	*e*P	P	08 42 53.5	-1.4
NEW				pmax	pmax		
	comp=Z,5.0nm,0.8s						
NEW	Newport	45.83	65	*e*P	P	08 42 53.5	-1.3
	comp=Z,4.7nm,0.8s,mb4.5						
NEW				*e*		08 43 00.9	
F07A	Phinny Hill Vi	45.88	70	⇓P	P	08 42 55.3	0.0
	baz=46,SNR=8.4						
G06A	Carlson Farm,	45.94	71	⇓P	P	08 42 55.4	-0.4
	baz=46						
E08A	Dider Farm, El	45.96	68	⇓P	P	08 42 55.3	-0.7
	baz=46						
D09A	Jones Farm, Ri	45.98	67	⇓P	P	08 42 55.3	-0.8
	baz=46						
C10A	Spilker Farm,	46.02	66	⇑P	P	08 42 55.6	-0.8
	baz=46						
A12A	Yaak River Ran	46.15	64	⇓P	P	08 42 56.9	-0.6
	baz=46						
E09A	Wood Farm, Sta	46.42	68	⇑P	P	08 42 59.3	-0.3
	baz=46,SNR=7.8						
H06A	Lindquist Farm	46.43	71	⇑P	P	08 42 59.4	-0.2
	baz=46,SNR=5.3						
G07A	Ruggs Ranch, H	46.43	70	⇑P	P	08 42 59.5	-0.2
	baz=46						
D10A	Wagner Farm, O	46.53	67	⇑P	P	08 42 59.9	-0.5
	baz=46						
G08A	Pilot Rock	46.79	70	⇑P	P	08 43 02.1	-0.4
	baz=47						
H07A	Lands Inn, Kim	46.93	71	⇑P	P	08 43 03.3	-0.3
	baz=47						
WALA	Waterton Lakes	46.95	63	*e*P	P	08 43 02.8	-1.0
	comp=Z,0.3nm,0.6s,mb3.4						
E10A	Myers Farm, Un	46.98	67	⇑P	P	08 43 03.6	-0.4
	baz=47						
I06A	Prineville	47.02	72	⇑P	P	08 43 04.3	+0.1
	baz=47						
D11A	Klaveano Farm,	47.02	66	⇑P	P	08 43 03.6	-0.6
	baz=47,SNR=9.8						
C12B	Naegeli Ranch,	47.03	65	⇓P	P	08 43 03.9	-0.4
	baz=47						
B13A	Whitefish	47.12	64	⇓P	P	08 43 05.0	0.0
	baz=47,SNR=7.5						
YBH	Yreka Blue Hor	47.14	76	*e*P	P	08 43 05.0	-0.3
YBH				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YBH	Yreka Blue Hor	47.14	76	*e*P	P	08 43 05.0	-0.3
	comp=Z,3.9nm,0.7s,mb4.5						
A14A	Double T Ranch	47.26	62	⇑P	P	08 43 05.6	-0.5
	baz=47						
F10A	Beach Ranch, E	47.26	68	⇓P	P	08 43 05.7	-0.4
	baz=47						
BSMT	Bassoo Peak	47.29	64	*e*P	P	08 43 05.2	-1.2
	comp=Z,28nm,1.3s,mb5.0						
I07A	Izee	47.30	71	⇓P	P	08 43 05.9	-0.6
	baz=47						
G09A	Cove	47.43	69	⇑P	P	08 43 06.8	-0.7
	baz=47						
H08A	Prairie City	47.46	70	⇓P	P	08 43 07.3	-0.4
	baz=47						
K05A	Summer Lake	47.46	73	⇓P	P	08 43 08.4	+0.6
	baz=47						

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J06A  Christmas Vall    47.51  72 ⇑P     P      08 43 08.2 +0.1
      baz=47,SNR=11
C13A  Hot Springs       47.52  64 ⇑P     P      08 43 08.0 -0.1
      baz=47,SNR=8.1
E11A  Bogner Ranch,     47.54  67 ⇑P     P      08 43 07.4 -0.9
      baz=47,SNR=6.0
A15A  Johnson Ranch,    47.60  62 ⇑P     P      08 43 07.7 -1.0
      baz=47
JTMT  Jette             47.62  64 eP     P      08 43 07.6 -1.3
      comp=Z,9.1nm,0.6s,mb5.0
G10A  Bishop Farm, J    47.77  68 ⇑P     P      08 43 09.7 -0.4
      baz=48,SNR=9.3
J07A  Hines             47.88  72 ⇓P     P      08 43 10.9 -0.1
      baz=48
H09A  Durkee            47.90  69 ⇑P     P      08 43 10.5 -0.6
      baz=48
I08A  Drewsey           47.92  71 ⇓P     P      08 43 11.2 -0.1
      baz=48,SNR=7.0
SWMT  Swartz Lake       47.92  64 eP     P      08 43 09.7 -1.5
      comp=Z,7.3nm,1.0s,mb4.7
D13A  Huson             47.96  65 ⇓P     P      08 43 10.8 -0.7
      baz=48
B15A  Bradely Ranch,    48.12  63 ⇓P     P      08 43 12.0 -0.8
      baz=48,SNR=5.8
A16A  West Butte Ran    48.19  61 ⇓P     P      08 43 12.5 -0.8
      baz=48,SNR=8.3
I09A  Lost Marbles R    48.32  70 ⇑P     P      08 43 13.8 -0.6
      baz=48
J08A  Circle Bar Ran    48.34  71 ⇑P     P      08 43 14.6  0.0
      baz=48
MOD   Modoc             48.34  74 eP     P      08 43 14.5 -0.1
SLMT  Seeley Lake       48.35  64 eP     P      08 43 14.0 -0.6
      comp=Z,16nm,1.0s,mb5.0
K07A  Rock Creek Ran    48.38  72 ⇓P     P      08 43 15.0 +0.1
      baz=48,SNR=6.4
MSO   Missoula          48.40  65 eP     P      08 43 14.3 -0.7
      comp=Z,1.9nm,0.7s,mb4.2
H10A  Noah’s Angus R    48.43  69 ⇓P     P      08 43 14.7 -0.5
      baz=48,SNR=5.4
C15A  Salmond Ranch,    48.45  63 ⇑P     P      08 43 15.3  0.0
      baz=48,SNR=7.0
D14A  Greenough         48.45  64 ⇑P     P      08 43 14.9 -0.5
      baz=48,SNR=8.2
B16A  M & M Farms, S    48.48  62 ⇑P     P      08 43 14.5 -1.0
      baz=48
E13A  Victor            48.53  65 ⇓P     P      08 43 15.9  0.0
      baz=48
A17A  Triple J Farms    48.63  61 ⇓P     P      08 43 15.4 -1.3
      baz=48
J09A  Fry Pan Ranch,    48.74  71 ⇓P     P      08 43 17.7 +0.1
      baz=48,SNR=7.5
I10A  Payette           48.74  69 ⇑P     P      08 43 17.1 -0.5
      baz=48
H11A  Donnelly          48.74  68 ⇓P     P      08 43 17.4 -0.3
      baz=48,SNR=16
K08A  Mann Creek Ran    48.76  72 ⇑P     P      08 43 17.9 +0.1
      baz=48,SNR=5.1
L07A  Adell             48.79  73 ⇑P     P      08 43 18.4 +0.4
      baz=49,SNR=5.8
C16A  Fuhringer Ranc    48.87  63 ⇑P     P      08 43 18.1 -0.5
      baz=49
FFC   Flin Flon         48.89  50 i P    P      08 43 19.7 +1.1
F13A  Darby             48.89  66 ⇓P     P      08 43 18.3 -0.4
      baz=49,SNR=5.7
E14A  Clinton           48.91  65 ⇑P     P      08 43 18.7 -0.2
      baz=49,SNR=8.0
D15A  Lincoln           48.98  64 ⇓P     P      08 43 18.6 -0.9
      baz=49
B17A  L&G Farms, Che    49.02  62 ⇑P     P      08 43 18.5 -1.2
      baz=49
A18A  Metzger Ranch,    49.07  60 ⇑P     P      08 43 19.0 -1.1
      baz=49
KURK  Kurchatov         49.14 303  P     P      08 43 20.7 +0.1
KURK                               pmax  pmax
      comp=Z,19nm,0.9s,mb5.1
KURK                               MLR   MLR
      comp=Z,73nm,19.8s,MS3.7
KURK  Kurchatov         49.14 303  P     P      08 43 20.7 +0.1
      comp=Z,19nm,0.9s,mb5.1,baz=56,slow=7.6,SNR=29
KURK                               LR    LR     09 04 13.8
      comp=Z,73nm,19.8s,MS3.7,baz=55,slow=36
KURK  Kurchatov         49.14 303 eP     P      08 43 20.0 -0.6
      comp=Z,19nm,0.8s,mb5.2
WMQ   Urumqi            49.18 291  P     P      08 43 21.7 +0.7
WMQ                                pP    pP     08 43 28.0 +3.5
WMQ                                sP    sP     08 43 31.0 +5.1
WMQ                                PcP   PcP    08 44 45.0 +0.9
WMQ                               eS     S      08 50 25.0 -1.1
WMQ                                sS    sS     08 50 35.0 +3.1
WMQ                                pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.8
WMQ                                pmax  pmax
      comp=Z,580nm,5.2s
WMQ                                LR    LR
      comp=N,1µm,19.8s,MS5.0
WMQ                                LR    LR
      comp=E,730nm,23.4s,MS5.0
WMQ                                LR    LR
      comp=Z,690nm,18.0s
K09A  Rome              49.19  71 ⇓P     P      08 43 21.0 -0.1
      baz=49,SNR=5.5
L08A  Fields            49.21  72 ⇓P     P      08 43 21.2  0.0
      baz=49,SNR=7.1
I11A  Placerville       49.31  69 ⇓P     P      08 43 21.6 -0.4
      baz=49,SNR=10
M07A  Soldier Meadow    49.31  74 ⇑P     P      08 43 22.2 +0.2
      baz=49,SNR=7.5
E15A  Deer Lodge        49.34  64 ⇑P     P      08 43 22.0 -0.2
      baz=49,SNR=8.3
F14A  Wisdom            49.38  66 ⇓P     P      08 43 23.0 +0.5
      baz=49
N06A  Buffalo Meadow    49.39  75 ⇑P     P      08 43 22.6  0.0
      baz=49,SNR=6.9
G13A  Cobalt            49.41  67 ⇓P     P      08 43 22.2 -0.6
      baz=49,SNR=9.7
FCC   Fort Churchill    49.42  42 eP     P      08 43 21.8 -0.8
FCC                                pmax  pmax
      comp=Z,1.0nm,1.4s,mb3.6
FCC   Fort Churchill    49.42  42 eP     P      08 43 21.8 -0.8
      comp=Z,0.8nm,1.4s,mb3.6
FCC                               e             08 43 28.9
CD2   Chengdu           49.43 267  P     P      08 43 23.7 +0.6
CD2                                pP    pP     08 43 29.6 +3.0
CD2                                sP    sP     08 43 32.5 +4.5
CD2                                PcP   PcP    08 44 46.8 +1.6
CD2                                PP    PP     08 45 18.0 +1.0
CD2                                S     S      08 50 27.9 -2.0
CD2                                sS    sS     08 50 37.7 +2.0
CD2                                SS    SS     08 53 55.3 -6.0
CD2                                pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.8
CD2                                pmax  pmax
      comp=Z,260nm,5.3s
CD2                                LR    LR
      comp=N,470nm,7.5s
CD2                                LR    LR
      comp=Z,310nm,5.0s
B18A  Beardsley Farm    49.46  61 ⇓P     P      08 43 22.7 -0.3
      baz=49,SNR=6.4
H12A  Diamond D Ranc    49.46  68 ⇑P     P      08 43 23.1  0.0
      baz=49
OHCM  Honcut            49.47  77 eP     P      08 43 22.9 -0.4
D16A  Dana Ranch, Ca    49.48  63 ⇓P     P      08 43 23.7 +0.4
      baz=49,SNR=6.8
HRY   Holter Researc    49.56  64 eP     P      08 43 24.0 +0.2
      comp=Z,3.3nm,0.5s,mb4.6
K10A  MacKenzie Ranc    49.60  71 ⇓P     P      08 43 24.5 +0.3
      baz=49,SNR=6.0
L09A  Wilkinson Ranc    49.69  72 ⇓P     P      08 43 24.9 -0.1
      baz=50
M08A  Happy Creek Ra    49.70  73 ⇑P     P      08 43 25.5 +0.5
      baz=50,SNR=7.2
G14A  Jackson           49.71  66 ⇑P     P      08 43 24.4 -0.6
      baz=50
MFID  Camas Ranch       49.72  69 ⇑P     P      08 43 24.7 -0.4
      baz=50
BEKR  Beckwourth        49.72  76 ⇓P     P      08 43 25.0 -0.2
      baz=50
E16A  East Helena       49.76  64 ⇑P     P      08 43 25.6 +0.3
      baz=50,SNR=7.3
H13A  Challis           49.76  67 ⇑P     P      08 43 25.1 -0.3
      baz=50,SNR=8.1
O06A  Flanigan          49.80  75 ⇓P     P      08 43 26.0 +0.2
      baz=50,SNR=5.8
F15A  Butte             49.81  65 ⇑P     P      08 43 25.2 -0.6
      baz=50
I12A  Atlanta           49.83  69 ⇓P     P      08 43 25.7 -0.3
      baz=50
D17A  Six Diamond Ra    49.84  63 ⇓P     P      08 43 25.9 -0.1
      baz=50
N07B  Gerlach           49.84  74 ⇓P     P      08 43 26.2 +0.1
      baz=50,SNR=6.3
MKAR  Makanchi Array    49.97 297  P     P      08 43 25.9 -1.1
MKAR                               pmax  pmax
      comp=Z,3.0nm,0.7s
MKAR                               MLR   MLR
      comp=Z,146nm,18.5s
MKAR  Makanchi Array    49.97 297  P     P      08 43 25.9 -1.1
      comp=Z,3.1nm,0.7s,mb4.4,baz=54,slow=6.9,SNR=34
MKAR                               LR    LR     09 05 25.8
      comp=Z,146nm,18.5s,MS4.0,baz=245,slow=37
K11A  Parker Ranch,     50.05  70 ⇓P     P      08 43 27.1 -0.5
      baz=50
DLMT  Dillon            50.08  65 eP     P      08 43 27.5 -0.3
      comp=Z,1.7nm,0.6s,mb4.2
J12A  Stokes Ranch,     50.22  69 ⇑P     P      08 43 29.0 +0.1
      baz=50,SNR=8.1
E17A  Martinsdale       50.22  63 ⇑P     P      08 43 29.4 +0.6
      baz=50,SNR=11
M09A  Marrel Ranch,     50.22  72 ⇓P     P      08 43 29.2 +0.2
      baz=50,SNR=5.2
D18A  Linhart Farms,    50.25  62 ⇓P     P      08 43 28.9 -0.2
      baz=50
G15A  Dillon            50.27  66 ⇓P     P      08 43 29.0 -0.3
      baz=50
I13A  Wildhorse Cree    50.28  68 ⇓P     P      08 43 29.2 -0.2
      baz=50,SNR=12
L10A  Juniper Basin     50.30  71 ⇓P     P      08 43 29.5  0.0
      baz=50,SNR=5.1
N08A  GE Springer Mi    50.30  73 ⇑P     P      08 43 29.6  0.0
      baz=50,SNR=6.3
O07A  Toulon            50.33  75 ⇑P     P      08 43 30.0 +0.3
      baz=50,SNR=8.3
HLID  Hailey            50.36  68 ⇑P     P      08 43 29.8 -0.2
      baz=50,SNR=6.2
HLID  Hailey            50.36  68 eP     P      08 43 29.8 -0.2
      comp=Z,2.8nm,0.7s,mb4.4
PAHR  Pah Rah Range     50.37  75 eP     P      08 43 29.9 -0.2
      comp=Z,7.3nm,0.8s,mb4.8
BOZ   Bozeman (W)       50.38  65 ⇑P     P      08 43 30.1  0.0
      baz=50,SNR=6.2
WCN   Washoe City       50.45  76 ⇑P     P      08 43 30.9 +0.2
      baz=50
H15A  Lima              50.56  66 ⇓P     P      08 43 30.9 -0.6
      baz=50
G16A  Moss Hill, Enn    50.58  65 ⇑P     P      08 43 31.5 -0.1
      baz=50,SNR=12
N09A  Rock Creek Ran    50.58  73 ⇓P     P      08 43 31.6  0.0
      baz=50
J13A  Cove Ranch, Pi    50.60  68 ⇓P     P      08 43 31.8  0.0
      baz=50,SNR=5.8
I14A  Mackay            50.62  67 ⇑P     P      08 43 32.4 +0.5
      baz=50,SNR=12
L11A  Cat Creek Ranc    50.62  71 ⇓P     P      08 43 32.1 +0.2
      baz=50,SNR=9.8
E18A  Harlowton         50.62  63 ⇓P     P      08 43 31.5 -0.5
      baz=50
O08A  Rochester Mine    50.63  74 ⇓P     P      08 43 32.4 +0.3
      baz=50,SNR=8.2
M10A  I.L. Ranch, Tu    50.64  72 ⇑P     P      08 43 31.8 -0.3
      baz=50
F17A  Fitzpatrick Pl    50.70  64 ⇓P     P      08 43 32.3 -0.2
      baz=50
K12A  Draper Farm, C    50.74  70 ⇑P     P      08 43 33.0 +0.1
      baz=50,SNR=5.9
SUMG  Summit            50.99   9 eP     P      08 43 34.3 -0.1
      comp=Z,23nm,1.1s,mb5.0
CMB   Columbia Colle    51.00  78 eP     P      08 43 34.9  0.0
CMB                                pmax  pmax
      comp=Z,1.0nm,0.6s,mb3.9
CMB   Columbia Colle    51.00  78 eP     P      08 43 34.9 +0.1
      comp=Z,1.3nm,0.6s,mb4.0
J14A  Carey             51.00  68 ⇑P     P      08 43 35.3 +0.5
      baz=51,SNR=9.3
L12A  House Creek Ra    51.03  70 ⇑P     P      08 43 35.1 +0.1
      baz=51
QLMT  Earthquake Lak    51.05  65 eP     P      08 43 35.0 -0.1
      comp=Z,5.9nm,1.1s,mb4.4
G17A  Pierce Place,     51.06  64 ⇑P     P      08 43 35.5 +0.2
      baz=51
P08A  Dixie Valley      51.09  74 ⇑P     P      08 43 35.9 +0.4
      baz=51
M11A  Holland Ranch,    51.11  71 ⇑P     P      08 43 36.0 +0.3
      baz=51
R06C  Coleville         51.17  76 ⇑P     P      08 43 36.6 +0.5
      baz=51
F18A  Big Timber        51.18  63 ⇑P     P      08 43 36.5 +0.4
      baz=51,SNR=6.2
WAKR  Walker            51.19  76 eP     P      08 43 37.1 +0.8
GYA   Guiyang           51.20 260  P     P      08 43 37.8 +1.3
GYA                                pP    pP     08 43 44.2 +4.2
GYA                                sP    sP     08 43 48.0 +6.6
GYA                                PcP   PcP    08 44 53.9 +2.2
GYA                                PP    PP     08 45 36.2 +3.1
GYA                                ScP   ScP    08 48 48.7 +0.9
GYA                                S     S      08 50 54.3 -0.3
GYA                                SS    SS     08 54 26.5 -3.1
GYA                                pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.7
GYA                                pmax  pmax
      comp=Z,90nm,5.2s
GYA                                LR    LR
      comp=N,410nm,18.8s
GYA                                LR    LR
      comp=Z,390nm,19.0s,MS4.5
GYA                                LR    LR
      comp=Z,440nm,19.4s
N10A  Dunphy            51.22  72 ⇑P     P      08 43 36.6 +0.1
      baz=51
H16A  Russell Place,    51.23  65 ⇑P     P      08 43 36.9 +0.4
      baz=51,SNR=10
O09A  Fish Creek Ran    51.24  73 ⇓P     P      08 43 37.2 +0.5
      baz=51,SNR=7.0
BVAR  Borovoye Array    51.34 310  P     P      08 43 36.7 -0.5
BVAR                               pmax  pmax
      comp=Z,1.0nm,0.3s
BVAR                               MLR   MLR
      comp=Z,243nm,19.7s
BVAR  Borovoye Array    51.34 310  P     P      08 43 36.7 -0.5
      comp=Z,1.2nm,0.3s,mb4.3,baz=54,slow=7.5,SNR=16
BVAR                               LR    LR     09 08 20.6
      comp=Z,243nm,19.7s,MS4.2,baz=45,slow=39
BRVK  Borovoye          51.36 310 eP     P      08 43 37.0 -0.4
BRVK                               pmax  pmax
      comp=Z,15nm,1.1s,mb4.8
BRVK  Borovoye          51.36 310 eP     P      08 43 37.0 -0.4
      comp=Z,15nm,1.1s,mb4.8
J15A  Blackfoot         51.52  67 ⇑P     P      08 43 39.4 +0.7
      baz=51
L13A  Double Diamond    51.64  69 ⇑P     P      08 43 40.0 +0.4
      baz=51,SNR=7.2
G18A  Lazy EL Ranch,    51.66  64 ⇑P     P      08 43 39.4 -0.3
      baz=51
I16A  Newdale           51.68  66 ⇓P     P      08 43 40.3 +0.4
      baz=51
P09A  Austin            51.70  74 ⇑P     P      08 43 40.5 +0.4
      baz=52
K14A  Jones Ranch, D    51.72  68 ⇑P     P      08 43 40.8 +0.6
      baz=52,SNR=9.3
LKWY  Lake              51.76  65 eP     P      08 43 41.7 +1.2
LKWY                               pmax  pmax
      comp=Z,4.0nm,0.9s,mb4.3
LKWY  Lake              51.76  65 eP     P      08 43 41.7 +1.2
      comp=Z,4.1nm,0.9s,mb4.4
Q08A  Gabbs             51.76  75 ⇓P     P      08 43 41.1 +0.6
      baz=52,SNR=20
H17A  Grant Village     51.79  65 ⇑P     P      08 43 41.6 +0.9
      baz=52
ARCES ARCESS Array B    51.84 343  P     P      08 43 38.6 -2.2
ARCES                              pmax  pmax
      comp=Z,6.0nm,0.8s
ARCES                              MLR   MLR
      comp=Z,209nm,18.6s
ARCES ARCESS Array B    51.84 343  P     P      08 43 38.6 -2.2
      comp=Z,6.2nm,0.8s,mb4.6,baz=359,slow=9.7,SNR=5.6
ARCES                              LR    LR     09 09 27.8
      comp=Z,209nm,18.6s,MS4.2,baz=249,slow=40
NVAR  Mina Array Bea    51.87  76  P     P      08 43 41.6 +0.3
      comp=Z,5.5nm,0.7s,mb4.6,baz=300,slow=7.4,SNR=44
ELK   Elko              51.89  71 eP     P      08 43 41.2 -0.3
ELK                                pmax  pmax
      comp=Z,2.0nm,0.7s
ELK   Elko              51.89  71 eP     P      08 43 41.2 -0.3
      comp=Z,2.1nm,0.7s,mb4.2
N12A  Clover Valley,    51.92  71 ⇑P     P      08 43 42.3 +0.5
      baz=52,SNR=5.5
RLMT  Red Lodge         51.95  64 ⇑P     P      08 43 42.5 +0.6
      baz=52,SNR=13
RLMT  Red Lodge         51.95  64 eP     P      08 43 42.1 +0.3
      comp=Z,11nm,0.8s,mb4.8
K15A  Arbon             51.97  68 ⇑P     P      08 43 42.9 +0.8
      baz=52,SNR=9.5
DCID1 Drake Creek       52.03  66 eP     P      08 43 43.0 +0.5
      comp=Z,6.0nm,1.0s,mb4.5
R08A  Mina              52.03  76 ⇑P     P      08 43 42.9 +0.3
      baz=52
J16A  Bone              52.03  67 ⇓P     P      08 43 42.3 -0.3
      baz=52
O11A  Cowboy Ranch,     52.10  72 ⇓P     P      08 43 43.2 +0.1
      baz=52
I17A  Pilgrim Ck.       52.12  66 ⇑P     P      08 43 43.7 +0.5
      baz=52
DGMT  Dagmar            52.12  57 ⇑P     P      08 43 43.1  0.0
      baz=52
RRI2  Red Ridge         52.13  67 eP     P      08 43 42.4 -0.9
      comp=Z,2.5nm,0.7s,mb4.2
SNOW  Snow King Moun    52.35  66 eP     P      08 43 46.0 +1.1
      comp=Z,58nm,2.5s,mb5.1
K16A  Soda Springs      52.35  67 ⇓P     P      08 43 46.7 +1.8
      baz=52,SNR=6.0
M14A  Sheep Mountain    52.37  70 ⇓P     P      08 43 45.5 +0.5
      baz=52
REDW  Red Top Meadow    52.37  66 eP     P      08 43 45.3 +0.3
      comp=Z,17nm,1.7s,mb4.7
LAO   LASA Array        52.38  60 eP     P      08 43 44.8 -0.2
      comp=Z,30nm,1.5s,mb5.0
J17A  Brown Place, J    52.44  66 ⇓P     P      08 43 46.3 +0.8
      baz=52
P11A  Circle Ranch,     52.46  73 ⇓P     P      08 43 46.5 +0.8
      baz=52
HVU   Hansel Valley     52.47  69 eP     P      08 43 46.2 +0.4
HVU                                pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.5
HVU   Hansel Valley     52.47  69 eP     P      08 43 46.2 +0.3
      comp=Z,4.7nm,0.7s,mb4.5
O12A  Currie            52.49  72 ⇑P     P      08 43 46.3 +0.4
      baz=52
L15A  Malad City        52.52  68 ⇑P     P      08 43 46.5 +0.3
      baz=52
Q10A  Clear Creek Ra    52.62  74 ⇓P     P      08 43 47.6 +0.6
      baz=52,SNR=11
I18A  Diamond G Ranc    52.66  65 ⇑P     P      08 43 47.3 +0.1
      baz=52
R09A  Tonopah           52.68  75 ⇓P     P      08 43 47.6 +0.2
      baz=52,SNR=8.3
TPH   Tonopah           52.71  75 eP     P      08 43 47.5 -0.1
TPH                                pmax  pmax
      comp=Z,23nm,1.4s,mb4.9
TPH   Tonopah           52.71  75 eP     P      08 43 47.5 -0.1
      comp=Z,23nm,1.4s,mb4.9
M15A  Larsen Ranch,     52.87  69 ⇑P     P      08 43 48.8  0.0
      baz=53
RCTC  Rector, Farmer    52.87  78 ⇓P     P      08 43 48.8  0.0
      baz=53
J18A  Kendall Valley    52.90  66 ⇓P     P      08 43 49.4 +0.4
      baz=53
N14A  Grayback Hills    52.91  70 ⇓P     P      08 43 49.0 -0.1
      baz=53
S09A  Goldfield         52.96  76 ⇓P     P      08 43 49.7 +0.2
      baz=53,SNR=7.9
P12A  McGill            52.97  72 ⇓P     P      08 43 49.8 +0.3
      baz=53,SNR=5.3
O13A  Hicks Ranch, I    53.00  71 ⇓P     P      08 43 49.8 +0.1
      baz=53
L16A  Fish Haven        53.01  68 ⇓P     P      08 43 50.0 +0.1
      baz=53
Q11A  Duckwater         53.02  73 ⇑P     P      08 43 49.6 -0.3
      baz=53
R10A  Warm Springs      53.06  74 ⇓P     P      08 43 50.4 +0.2
      baz=53
S10A  Tonopah Range,    53.16  75 ⇑P     P      08 43 51.3 +0.3
      baz=53,SNR=6.3
N15A  Stansbury Isla    53.24  69 ⇓P     P      08 43 51.8 +0.3
      baz=53,SNR=5.9
L17A  Cokeville         53.25  67 ⇓P     P      08 43 51.5  0.0
      baz=53
K18A  Toltan Ranch,     53.30  66 ⇑P     P      08 43 52.7 +0.8
      baz=53,SNR=12
VES   Vestal, Richgr    53.30  78 ⇑P     P      08 43 51.5 -0.5
      baz=53
Q12A  Willow Creek R    53.32  73 ⇑P     P      08 43 52.1  0.0
      baz=53
GRAC  Grapevine Rang    53.41  76 ⇓P     P      08 43 53.1 +0.4
      baz=53
R11A  Troy Canyon, C    53.41  74 ⇓P     P      08 43 52.9 +0.1
      baz=53,SNR=6.6
CWC   Cottonwood Cre    53.42  77 ⇓P     P      08 43 53.2 +0.4
      baz=53
BW06  Boulder Array     53.46  66 ⇑P     P      08 43 53.2 +0.1
      baz=53,SNR=10
BW06  Boulder Array     53.46  66 eP     P      08 43 52.8 -0.3
      comp=Z,20nm,1.4s,mb4.8
PDAR  Pinedale Array    53.46  66  P     P      08 43 52.8 -0.3
      comp=Z,4.5nm,0.8s,mb4.5,baz=321,slow=3.1,SNR=41
P13A  Bates Ranch, G    53.47  72 ⇑P     P      08 43 53.5 +0.3
      baz=53,SNR=7.9
DUG   Dugway            53.58  70 eP     P      08 43 54.1 +0.1
DUG                                pmax  pmax
      comp=Z,16nm,1.5s,mb4.7
DUG   Dugway            53.58  70 ⇓P     P      08 43 54.3 +0.3
      baz=53,SNR=5.8
DUG   Dugway            53.58  70 eP     P      08 43 54.1 +0.1
      comp=Z,16nm,1.5s,mb4.7
ARU   Arti              53.70 319d iP    P      08 43 53.9 -0.7
ARU                               e             08 45 53.6
ARU                                S     S      08 51 29.3 +1.3
ARU                                pmax  pmax
      comp=Z,14nm,1.2s,mb4.8
ARU   Arti              53.70 319 eP     P      08 43 54.0 -0.7
      comp=Z,8.1nm,0.9s,mb4.7
ISA   Isabella          53.77  78 eP     P      08 43 54.3 -1.1
ISA                                pmax  pmax
      comp=Z,10.0nm,1.2s,mb4.6
ISA   Isabella          53.77  78 ⇓P     P      08 43 55.0 -0.4
      baz=54
ISA   Isabella          53.77  78 eP     P      08 43 54.2 -1.2
      comp=Z,10nm,1.2s,mb4.6
K19A  Absolon Red Bu    53.78  65 ⇓P     P      08 43 55.3 -0.2
      baz=54
M17A  Scullys Gap (B    53.80  68 ⇑P     P      08 43 55.2 -0.4
      baz=54
L18A  Fontenelle, Gr    53.81  67 ⇓P     P      08 43 55.1 -0.5
      baz=54
N16A  Rees Ranch, Co    53.82  69 ⇓P     P      08 43 55.1 -0.6
      baz=54
Q13A  Wheeler Ranch,    53.82  72 ⇑P     P      08 43 56.3 +0.5
      baz=54,SNR=14
P14A  Drum Mountains    53.88  71 ⇓P     P      08 43 56.5 +0.3
      baz=54,SNR=5.2
R12A  Pony Springs,     53.96  73 ⇓P     P      08 43 56.9 +0.1
      baz=54,SNR=8.5
PRGR  Permogore         53.99 329 eP     P      08 43 55.2 -1.5
PRGR                               pmax  pmax
      comp=Z,16nm,1.0s,mb4.9
MPMC  Manual Prospec    54.02  77 ⇓P     P      08 43 57.7 +0.4
      baz=54,SNR=8.5
L19A  Farson            54.04  66 ⇑P     P      08 43 56.5 -0.8
      baz=54
FURC  Furnace Creek,    54.07  76 ⇑P     P      08 43 58.1 +0.5
      baz=54,SNR=20
N17A  Moffit Pass       54.09  68 ⇓P     P      08 43 57.5 -0.2
      baz=54
M18A  Lyman             54.15  67 ⇑P     P      08 43 57.9 -0.3
      baz=54
K20A  Yellowstone Ra    54.16  65 ⇓P     P      08 43 57.7 -0.5
      baz=54
Q14A  Sevier Lake (B    54.20  72 ⇑P     P      08 43 59.0 +0.4
      baz=54,SNR=9.4
S12A  Delamar Landin    54.35  74 ⇓P     P      08 44 00.4 +0.7
      baz=54,SNR=18
U10A  Ash Meadows, A    54.40  76 ⇓P     P      08 44 00.9 +0.9
      baz=54
R13A  O’Grain Ranch,    54.41  73 ⇑P     P      08 44 00.6 +0.5
      baz=54,SNR=5.8
T11A  Corn Creek, Al    54.41  74 ⇓P     P      08 44 00.7 +0.6
      baz=54,SNR=23
KMI   Kunming           54.44 263  P     P      08 44 01.8 +1.3
KMI                                pP    pP     08 44 07.5 +3.5
KMI                                sP    sP     08 44 10.8 +5.4
KMI                                S     S      08 51 36.7 -2.1
KMI                                SS    SS     08 55 19.8 -1.1
KMI                                pmax  pmax
      comp=Z,7.0nm,0.5s,mb4.8
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KMI				LR	LR		
	comp=N,330nm,9.5s						
KMI				LR	LR		
	comp=E,220nm,11.1s						
KMI				LR	LR		
	comp=Z,250nm,12.6s,MS4.5						
M19A	Rock Springs	54.57	67	⇑P	P	08 44 01.1	-0.1
	baz=54						
EDW2	Edwards Air Fo	54.61	78	⇑P	P	08 44 01.3	-0.3
	baz=54						
L20A	Wamsutter	54.63	66	⇑P	P	08 44 01.8	+0.1
	baz=54,SNR=5.6						
Q15A	Fillmore	54.67	71	⇑P	P	08 44 02.7	+0.7
	baz=54,SNR=8.6						
O17A	Robinson Place	54.68	69	⇓P	P	08 44 03.0	+1.0
	baz=54,SNR=5.6						
ULM	Lac du Bonnet	54.69	51	P	P	08 44 01.4	-0.5
	comp=Z,4.5nm,0.6s,mb4.7,baz=314,slow=7.1,SNR=9.1						
ULM				LR	LR	09 07 54.8	
	comp=Z,181nm,19.1s,MS4.2,baz=264,slow=36						
ULM	Lac du Bonnet	54.69	51	P	P	08 44 01.4	-0.5
ULM				LR	LR	09 07 54.8	
SHOC	Shoshone	54.81	76	⇑P	P	08 44 03.6	+0.5
	baz=55,SNR=6.4						
S13A	Holt Ranch, En	54.91	73	⇓P	P	08 44 04.2	+0.5
	baz=55,SNR=8.1						
SHPR	Sheep Range	54.98	75	eP	P	08 44 04.7	+0.4
N19A	John Jarvie Ra	55.00	67	⇓P	P	08 44 04.2	-0.1
	baz=55						
MWC	Mount Wilson	55.06	79	eP	P	08 44 04.6	-0.2
MWC				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
MWC	Mount Wilson	55.06	79	eP	P	08 44 04.6	-0.3
	comp=Z,3.1nm,0.6s,mb4.5						
M20A	Sweetwater, Wa	55.08	66	⇑P	P	08 44 05.2	+0.3
	baz=55						
TMUT	Trail Mountain	55.08	70	eP	P	08 44 05.9	+0.9
	comp=Z,14nm,0.8s,mb5.0						
S14A	Cedar City	55.15	73	⇑P	P	08 44 05.8	+0.4
	baz=55,SNR=9.5						
L21A	Rawlins	55.16	65	⇓P	P	08 44 05.3	-0.2
	baz=55						
P17A	Butcher Ranch,	55.20	69	⇓P	P	08 44 05.9	+0.1
	baz=55						
BFSC	Mount Baldy St	55.27	79	⇑P	P	08 44 06.6	+0.3
	baz=55						
RSSD	Black Hills	55.29	61	eP	P	08 44 05.7	-0.7
RSSD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
RSSD	Black Hills	55.29	61	eP	P	08 44 05.7	-0.7
	comp=Z,4.7nm,0.8s,mb4.6						
T13A	Saint George	55.29	74	⇓P	P	08 44 07.2	+0.7
	baz=55,SNR=13						
V11A	Goodsprings	55.32	76	⇑P	P	08 44 07.2	+0.5
	baz=55,SNR=10						
TUQ	Turquoise Moun	55.35	77	⇓P	P	08 44 07.4	+0.5
	baz=55,SNR=5.3						
P18A	Preston Nutter	55.35	69	⇓P	P	08 44 07.7	+0.7
	baz=55,SNR=7.3						
U12A	Valley of Fire	55.37	75	⇑P	P	08 44 07.6	+0.5
	baz=55						
Q16A	Castle Valley	55.38	70	⇓P	P	08 44 07.7	+0.6
	baz=55,SNR=6.5						
O19A	Miners Draw (B	55.46	68	⇓P	P	08 44 07.9	+0.3
	baz=55,SNR=7.1						
CIS	Catalina Islan	55.47	80	⇓P	P	08 44 07.3	-0.5
	baz=55						
N20A	Spence Gulch,	55.52	67	⇑P	P	08 44 08.7	+0.6
	baz=55,SNR=13						
HEC	Hector,Ludlow	55.57	77	⇑P	P	08 44 08.6	+0.1
	baz=55,SNR=6.0						
SRU	San Rafael	55.58	70	eP	P	08 44 08.7	+0.1
SRU				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
SRU	San Rafael	55.58	70	⇑P	P	08 44 09.0	+0.4
	baz=55,SNR=20						
SRU	San Rafael	55.58	70	eP	P	08 44 08.7	+0.1
	comp=Z,31nm,1.0s,mb5.3						
S15A	Panguitch	55.65	72	⇑P	P	08 44 10.1	+1.0
	baz=55,SNR=8.5						
BBRC	Big Bear Sol-O	55.66	78	⇓P	P	08 44 09.3	+0.1
	baz=56						
R16A	Teasdale	55.67	71	⇓P	P	08 44 10.4	+1.2
	baz=55,SNR=6.5						
U13A	Pakoon Wash	55.70	74	⇑P	P	08 44 10.2	+0.8
	baz=56,SNR=16						
T14A	Hurricane	55.71	73	⇑P	P	08 44 10.1	+0.7
	baz=56,SNR=12						
V12A	Nelson	55.72	75	⇓P	P	08 44 10.0	+0.4
	baz=56,SNR=9.7						
Q18A	Rafter H Ranch	55.80	69	⇑P	P	08 44 10.3	+0.2
	baz=56,SNR=7.8						
N21A	Black Mountain	55.96	66	⇑P	P	08 44 11.7	+0.4
	baz=56						
M22A	Cedar Creek Ra	55.97	65	⇓P	P	08 44 11.1	-0.2
	baz=56						
GMRC	Granite Mounta	55.98	77	⇓P	P	08 44 11.8	+0.4
	baz=56,SNR=9.1						
R17A	Hanksville Air	55.99	70	⇑P	P	08 44 11.8	+0.3
	baz=56,SNR=13						
MURC	Murrieta	56.00	79	⇑P	P	08 44 11.9	+0.3
	baz=56						
P19A	Cripple Cowboy	56.02	68	⇑P	P	08 44 11.9	+0.2
	baz=56,SNR=15						
S16A	Weppner Ranch,	56.02	72	⇓P	P	08 44 12.8	+1.0
	baz=56,SNR=12						
W12A	Cal Nev Ari	56.02	76	⇑P	P	08 44 12.2	+0.4
	baz=56,SNR=5.1						
O20A	White River Ci	56.04	67	⇓P	P	08 44 12.2	+0.3
	baz=56,SNR=14						
TKM2	Tokmak 2	56.07	298	eP	P	08 44 11.3	-0.7
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
TKM2	Tokmak 2	56.07	298	eP	P	08 44 11.3	-0.7
	comp=Z,5.0nm,0.8s,mb4.6						
V13A	Grand Canyon W	56.10	75	⇑P	P	08 44 13.0	+0.6
	baz=56,SNR=18						
T15A	Red Dirt Ranch	56.12	73	⇓P	P	08 44 12.8	+0.4
	baz=56						
AGMN	Agassiz Refuge	56.12	53	eP	P	08 44 12.3	0.0
	comp=Z,15nm,1.1s,mb4.9						
U14A	Mt Trumbull	56.13	74	⇓P	P	08 44 13.3	+0.8
	baz=56,SNR=20						
Q19A	Hogan Spring (	56.37	69	⇑P	P	08 44 14.4	+0.2
	baz=56,SNR=46						
O21A	Pagoda	56.38	67	⇑P	P	08 44 14.9	+0.6
	baz=56,SNR=7.9						
PFO	Pinyon Flat Ob	56.40	78	⇑P	P	08 44 14.1	-0.4
	baz=56						
P20A	De Beque	56.43	68	⇑P	P	08 44 14.5	-0.1
	baz=56,SNR=6.6						
R18A	Canyonlands Na	56.45	70	⇓P	P	08 44 14.6	-0.2
	baz=56,SNR=19						
N22A	Wattenberg Ran	56.48	65	⇓P	P	08 44 15.6	+0.7
	baz=56,SNR=6.9						
S17A	Black Ridge (B	56.52	71	⇓P	P	08 44 15.7	+0.4
	baz=56,SNR=15						
109C	Camp Elliot, M	56.58	79	⇓P	P	08 44 15.8	0.0
	baz=56						
JOF	Joensuu	56.58	337	eP	P	08 44 13.6	-1.7
JOF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
JOF	Joensuu	56.58	337	ep	P	08 44 13.6	-1.7
	comp=Z,9.5nm,0.6s,mb5.0						
T16A	Glen Canyon Da	56.62	72	⇑P	P	08 44 15.8	-0.1
	baz=56						
W13A	Hualapai Mount	56.72	75	⇓P	P	08 44 16.9	+0.1
	baz=56,SNR=8.4						
IRM	Iron Mountain	56.72	77	⇓P	P	08 44 16.9	+0.2
	baz=56,SNR=12						
V14A	Boquillas Ranc	56.75	74	⇓P	P	08 44 17.7	+0.8
	baz=56,SNR=13						
AAK	Ala-Archa	56.83	298	d iP	P	08 44 16.4	-1.0
AAK				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.4						
AAK	Ala-Archa	56.83	298	eP	P	08 44 16.7	-0.8
	comp=Z,9.1nm,0.8s,mb4.9						
R19A	Curley Farm, L	56.85	69	⇓P	P	08 44 17.8	+0.1
	baz=57,SNR=11						
Q20A	Ridgley Place,	56.88	68	⇑P	P	08 44 17.7	-0.1
	baz=57,SNR=9.5						
P21A	Newcastle	56.90	67	⇑P	P	08 44 18.6	+0.6
	baz=57,SNR=7.2						
S18A	Hurst Farm, Bl	56.91	70	⇑P	P	08 44 18.1	+0.1
	baz=57,SNR=15						
PV10	Paradox Valley	56.91	69	eP	P	08 44 18.7	+0.7
	comp=Z,185nm,0.8s						
BC3	Big Chuckw Mtn	56.92	78	⇓P	P	08 44 17.9	-0.3
	baz=57						
MONP	Monument Peak	56.96	79	⇓P	P	08 44 18.4	-0.1
	baz=57						
PV04	Paradox Valley	56.97	69	eP	P	08 44 18.3	-0.1
T17A	Navajo Res., N	56.98	72	⇑P	P	08 44 18.2	-0.4
	baz=57						
W14A	Seligman	57.07	75	⇑P	P	08 44 19.9	+0.6
	baz=57,SNR=8.9						
V15A	Kaibab Nationa	57.12	73	⇓P	P	08 44 20.2	+0.6
	baz=57,SNR=8.8						
X13A	Yucca	57.12	76	⇓P	P	08 44 19.7	+0.1
	baz=57,SNR=6.4						
UCH	Uchtor	57.12	298	eP	P	08 44 19.7	+0.2
	comp=Z,4.1nm,1.0s,mb4.4						
EKS2	Erkin-Say	57.17	299	eP	P	08 44 19.8	-0.1
	comp=Z,8.3nm,0.8s,mb4.8						
PDMCI	Parker Dam,Lak	57.17	76	⇓P	P	08 44 20.0	+0.1
	baz=57						
DVTC	Desert V Tower	57.31	79	⇑P	P	08 44 20.7	-0.2
	baz=57						
S19A	Harvey Farm, M	57.32	70	⇑P	P	08 44 21.0	+0.1
	baz=57,SNR=16						
PV01	Paradox Valley	57.34	69	eP	P	08 44 20.9	-0.2
	comp=Z,630nm,1.0s						
Q21A	Lamborn Mesa,	57.34	68	⇓P	P	08 44 21.6	+0.4
	baz=57,SNR=6.3						
U17A	Shonto	57.36	72	⇓P	P	08 44 21.6	+0.4
	baz=57						
T18A	Mexican Hat	57.38	71	⇓P	P	08 44 21.3	-0.1
	baz=57,SNR=9.7						
R20A	Redvale	57.40	69	⇓P	P	08 44 21.8	+0.3
	baz=57,SNR=6.9						
U16A	Tuba City	57.44	72	⇓P	P	08 44 22.4	+0.5
	baz=57,SNR=9.1						
W15A	Williams	57.54	74	⇑P	P	08 44 23.6	+1.0
	baz=57						
AML	Almayashu	57.60	298	eP	P	08 44 23.0	+0.1
	comp=Z,5.7nm,0.8s,mb4.7						
AML				e	pP	08 44 28.1	+1.6
ISCO	Idaho Springs	57.65	66	eP	P	08 44 23.7	+0.4
ISCO				pmax	pmax		
	comp=Z,22nm,1.4s,mb5.0						
ISCO	Idaho Springs	57.65	66	eP	P	08 44 23.6	+0.4
	comp=Z,22nm,1.4s,mb5.0						
Q22A	Crested Butte,	57.67	67	⇑P	P	08 44 24.3	+0.9
	baz=57,SNR=9.1						
Y13A	Salome	57.70	76	⇓P	P	08 44 24.0	+0.3
	baz=58						
X14A	Yava	57.73	75	⇑P	P	08 44 24.6	+0.7
	baz=58,SNR=6.8						
WUAZ	Wupatki	57.78	73	⇓P	P	08 44 24.7	+0.5
	baz=58,SNR=5.9						
WUAZ	Wupatki	57.78	73	eP	P	08 44 23.9	-0.3
	comp=Z,14nm,1.4s,mb4.8						
U18A	Rough Rock, Ch	57.92	71	⇑P	P	08 44 25.8	+0.7
	baz=58						
W16A	Flagstaff	58.00	74	⇓P	P	08 44 26.8	+0.9
	baz=58,SNR=6.7						
MVCO	Mesa Verde	58.06	70	⇓P	P	08 44 26.4	+0.2
	baz=58						
MVCO	Mesa Verde	58.06	70	eP	P	08 44 26.0	-0.2
	comp=Z,3.6nm,0.8s,mb4.5						
Y14A	Wickenburg	58.06	76	⇓P	P	08 44 26.4	+0.1
	baz=58						
X15A	Humboldt	58.07	75	⇓P	P	08 44 27.2	+0.9
	baz=58,SNR=8.5						
R22A	Saguache, Gunn	58.22	68	⇑P	P	08 44 28.6	+1.3
	baz=58						
EYMN	Ely	58.32	50	eP	P	08 44 26.8	-1.0
	comp=Z,3.4nm,0.5s,mb4.6						
KAF	Kangasniemi	58.37	339	eP	P	08 44 26.2	-1.7
KAF				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
KAF	Kangasniemi	58.37	339	ep	P	08 44 26.2	-1.7
	comp=Z,4.5nm,0.5s,mb4.8						
KSH	Kashi	58.39	295	eP	P	08 44 31.3	+2.9
KSH				epP	pP	08 44 35.2	+3.2
KSH				esP	sP	08 44 39.3	+5.9
KSH				ePcP	PcP	08 45 21.0	+1.8
KSH				ePP	PP	08 46 33.2	-4.1
KSH				eScP	ScP	08 49 19.3	+0.2
KSH				ePcS	PcS	08 49 21.1	+0.4
KSH				eS	S	08 52 33.4	+2.5
KSH				esS	sS	08 52 40.0	+3.3
KSH				eScS	ScS	08 54 16.8	-1.0
KSH				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
KSH				pmax	pmax		
	comp=Z,200nm,2.6s,mb5.7						
KSH				LR	LR		
	comp=N,190nm,7.2s						
KSH				LR	LR		
	comp=E,220nm,9.3s						
KSH				LR	LR		
	comp=Z,210nm,4.9s						
V18A	Ganado	58.41	72	⇓P	P	08 44 29.2	+0.5
	baz=58,SNR=6.2						
Y15A	Casa Rosa Ranc	58.42	75	⇑P	P	08 44 29.3	+0.5
	baz=58,SNR=8.0						
AKTK	Aktyubinsk	58.46	314	P	P	08 44 27.8	-0.9
AKTK				LR	LR	09 14 23.1	
AKTO	Aktyubinsk	58.46	314	P	P	08 44 27.8	-1.0
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
AKTO				MLR	MLR		
	comp=Z,125nm,18.8s,MS4.1						
AKTO	Aktyubinsk	58.46	314	P	P	08 44 27.8	-0.9
	comp=Z,2.6nm,0.8s,mb4.3,baz=32,slow=2.3,SNR=5.6						
AKTO				LR	LR	09 14 23.1	
	comp=Z,125nm,18.8s,MS4.1,baz=34,slow=41						
113A	Mohawk Valley,	58.52	77	⇑P	P	08 44 29.5	0.0
	baz=58,SNR=5.5						
Z14A	Wintersburg	58.53	76	⇑P	P	08 44 29.5	0.0
	baz=58						
X16A	Lo Mia Camp, P	58.56	74	⇓P	P	08 44 30.7	+1.0
	baz=58,SNR=8.5						
V19A	Window Rock	58.88	71	⇑P	P	08 44 32.8	+0.8
	baz=59						
Y16A	Circle Bar Ran	58.94	74	⇓P	P	08 44 32.9	+0.5
	baz=59						
W18A	Petrified Fore	58.96	72	⇑P	P	08 44 33.2	+0.7
	baz=59						
X17A	Forest Lakes	58.97	74	⇑P	P	08 44 33.3	+0.8
	baz=59						
Z15A	Gila River Ind	59.02	75	⇑P	P	08 44 32.7	-0.2
	baz=59						
T22A	Edith	59.05	69	⇓P	P	08 44 34.2	+1.1
	baz=59,SNR=6.8						
SDCO	Great Sand Dun	59.24	67	eP	P	08 44 33.4	-1.0
	comp=Z,11nm,1.6s,mb4.6						
X18A	Snowflake	59.29	73	⇑P	P	08 44 35.7	+1.0
	baz=59,SNR=10						
115A	Sonoran Desert	59.42	76	⇓P	P	08 44 36.4	+0.7
	baz=59,SNR=15						
Y17A	Roosevelt	59.43	74	⇑P	P	08 44 36.5	+0.8
	baz=59,SNR=7.7						
W20A	Ramah	59.62	71	⇑P	P	08 44 37.5	+0.4
	baz=59,SNR=6.6						
214A	Organ Pipe Nat	59.66	77	⇓P	P	08 44 37.4	0.0
	baz=60,SNR=7.0						
116A	Eloy	59.81	76	⇑P	P	08 44 38.4	0.0
	baz=60						
Z17A	San Carlos Hig	59.93	74	⇑P	P	08 44 39.6	+0.4
	baz=60						
Y19A	Nutrioso	60.10	73	⇑P	P	08 44 41.5	+1.1
	baz=60,SNR=6.8						
216A	Three Points,	60.38	76	⇓P	P	08 44 42.6	+0.3
	baz=60						
TUC	Tucson	60.51	75	eP	P	08 44 42.3	-0.9
TUC				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.7						
TUC	Tucson	60.51	75	eP	P	08 44 42.3	-0.9
	comp=Z,10.0nm,1.5s,mb4.7						
118A	Homack Ranch,	60.71	74	⇓P	P	08 44 44.9	+0.4
	baz=60,SNR=6.8						
ANMO	Albuquerque	60.84	70	eP	P	08 44 45.5	+0.1
ANMO				pmax	pmax		
	comp=Z,7.0nm,1.3s						
ANMO	Albuquerque	60.84	70	P	P	08 44 45.1	-0.3
	comp=Z,3.4nm,0.9s,mb4.5,baz=316,slow=8.5,SNR=15						
ANMO	Albuquerque	60.84	70	eP	P	08 44 45.5	0.0
	comp=Z,7.4nm,1.3s,mb4.7						
X22A	Bernardo	60.89	71	⇑P	P	08 44 46.6	+0.8
	baz=61						
217A	Green Valley	60.90	76	⇓P	P	08 44 46.1	+0.3
	baz=61						
218A	Dragoon	61.17	75	⇑P	P	08 44 47.7	0.0
	baz=61						
TAPN	Taplejung	61.22	277	eP	P	08 44 47.7	-0.4
	comp=Z,33nm,0.9s,mb5.4						
120A	U Bar Ranch, L	61.51	73	⇑P	P	08 44 50.4	+0.5
	baz=61						
CHTO	Chiang Mai	61.57	262	eP	P	08 44 50.4	-0.1
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
CHTO	Chiang Mai	61.57	262	eP	P	08 44 50.4	-0.1
	comp=Z,6.8nm,0.8s,mb4.8						
CHTO				e	pP	08 44 55.1	+1.0
219A	White Tail Can	61.58	74	⇑P	P	08 44 51.0	+0.5
	baz=61,SNR=15						
318A	Bisbee	61.61	75	⇑P	P	08 44 50.9	+0.3
	baz=61,SNR=5.7						
GUN	Gumba	61.82	279	eP	P	08 44 52.5	+0.4
	comp=Z,57nm,0.9s,mb5.7						
SCHQ	Schefferville	61.83	31	P	P	08 44 50.4	-1.4
	comp=Z,3.3nm,1.0s,mb4.4,baz=343,slow=14,SNR=2.7						
CMAR	Chiang Mai Arr	61.85	262	P	P	08 44 52.6	+0.2
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CMAR				MLR	MLR		
	comp=Z,100nm,18.8s						
CMAR	Chiang Mai Arr	61.85	262	P	P	08 44 52.5	+0.1
	comp=Z,4.7nm,0.6s,mb4.8,baz=15,slow=6.4,SNR=7.4						
CMAR				LR	LR	09 14 00.7	
	comp=Z,100nm,18.8s,MS4.0,baz=263,slow=38						
NB2	NORSAR Subarra	61.94	346	P	P	08 44 51.4	-1.0
	comp=Z,1.8nm,0.5s,mb4.5,baz=17,slow=6.9						
NOA	NORSAR Array B	61.94	346	P	P	08 44 51.7	-0.7
NOA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NOA				MLR	MLR		
	comp=Z,66nm,18.2s						
NOA	NORSAR Array B	61.94	346	P	P	08 44 51.7	-0.7
	comp=Z,4.0nm,0.8s,mb4.6,baz=16,slow=6.6,SNR=7.9						
NOA				LR	LR	09 13 27.8	
	comp=Z,66nm,18.2s,MS3.8,baz=90,slow=38						
319A	Douglas	62.05	75	⇓P	P	08 44 53.9	+0.3
	baz=62,SNR=6.9						
OBN	Obninsk	62.06	330	P	P	08 44 53.0	-0.3
OBN				e		08 45 03.6	
OBN				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.0						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.1						
RAMN	Ramite	62.15	278	eP	P	08 44 53.8	-0.6
	comp=Z,36nm,0.7s,mb5.6						
SCIA	State Center	62.19	56	eP	P	08 44 53.7	-0.7
	comp=Z,14nm,0.7s,mb5.2						
KKN	Kakani	62.24	279	eP	P	08 44 55.3	+0.3
PKI	Pulchoki	62.34	279	eP	P	08 44 55.4	-0.2
	comp=Z,35nm,0.8s,mb5.5						
GKN	Gorkha	62.44	280	eP	P	08 44 56.5	+0.2
	comp=Z,40nm,0.9s,mb5.5						
HFS	Hagfors	62.46	345	LR	LR	09 15 58.7	
	comp=Z,155nm,20.6s,MS4.2,baz=252,slow=40						
DANN	Dangsing	62.66	281	eP	P	08 44 57.6	-0.2
	comp=Z,52nm,0.7s,mb5.8						
KOLN	Koldanda	63.20	280	eP	P	08 45 02.1	+0.8
HNR	Honiara	65.00	186	LR	LR	09 12 08.0	
	comp=Z,115nm,18.0s,MS4.1,baz=358,slow=35						
WMOK	Wichita Mounta	65.03	65	eP	P	08 45 11.5	-1.8
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
WMOK	Wichita Mounta	65.03	65	eP	P	08 45 11.5	-1.8
	comp=Z,4.5nm,0.8s,mb4.5						
HDIL	Hopedale	65.07	54	eP	P	08 45 12.6	-0.8
	comp=Z,14nm,0.5s,mb5.2						
HDIL				e		08 45 18.5	
TXAR	Lajitas Array	66.68	72	P	P	08 45 23.7	-0.3
TXAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
TXAR	Lajitas Array	66.68	72	P	P	08 45 23.7	-0.3
	comp=Z,3.9nm,0.7s,mb4.6,baz=298,slow=5.0,SNR=64						
AKASG	Malin Array Be	68.03	332	P	P	08 45 31.2	-1.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG				MLR	MLR		
	comp=Z,126nm,18.1s						
AKASG	Malin Array Be	68.03	332	P	P	08 45 31.2	-1.0
	comp=Z,0.9nm,0.4s,mb4.2,baz=26,slow=5.8,SNR=6.5						
AKASG				LR	LR	09 19 33.1	
	comp=Z,126nm,18.1s,MS4.2,baz=15,slow=40						
AKASG	Malin Array Be	68.03	332	P	P	08 45 31.2	-1.0
AKASG				LR	LR	09 19 33.1	
OJC	Ojcow	70.76	338	eP	P	08 45 49.2	+0.1
SWET	Sewanee	70.95	55	eP	P	08 45 49.2	-1.3
SWET				e		08 45 54.7	
CLL	Collm	71.04	342	eP	P	08 45 50.0	-0.8
STHS	Stebnicka Huta	71.19	336	eP	P	08 45 52.5	+0.8
STHS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
STHS	Stebnicka Huta	71.19	336	eP	P	08 45 52.5	+0.8
	comp=Z,3.2nm,0.8s,mb4.3						
STHS				ePP	pP	08 45 56.0	+0.7
UPC	Upice	71.26	340	eP	P	08 45 52.2	+0.1
BRG	Berggiesshubel	71.30	342	eP	P	08 45 52.0	-0.3
BRG				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
BRG	Berggiesshubel	71.30	342	eP	P	08 45 52.0	-0.3
	comp=Z,16nm,1.4s,mb4.8						
DPC	Dobruska-Polom	71.35	340	eP	P	08 45 53.1	+0.5
DPC				epP	pP	08 45 57.5	+1.2
KOLS	Kolonicke sedl	71.41	336	eP	P	08 45 53.2	+0.2
KOLS				pmax	pmax		
	comp=Z,14nm,1.6s,mb4.6						
KOLS	Kolonicke sedl	71.41	336	eP	P	08 45 53.2	+0.2
	comp=Z,14nm,1.6s,mb4.6						
CRVS	Cervenica-Dubn	71.62	336	eP	P	08 45 53.1	-1.2
CRVS				esP	sP	08 46 04.7	+5.4
MORC	Moravsky Berou	71.65	339	eP	P	08 45 53.2	-1.3
MORC				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
MORC	Moravsky Berou	71.65	339	eP	P	08 45 53.2	-1.3
	comp=Z,11nm,1.2s,mb4.7						
PRU	Pruhonice	72.03	341	eP	P	08 45 56.7	-0.1
GNI	Garni	72.22	316	eP	P	08 45 58.4	+0.4
GNI				pmax	pmax		
	comp=Z,12nm,1.8s						
LRAL	Lakeview Retre	72.24	57	eP	P	08 45 56.9	-1.4
	comp=Z,4.8nm,0.6s,mb4.6						
KECS	Kecovo	72.24	337	eP	P	08 45 57.2	-0.8
KECS				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
KECS	Kecovo	72.24	337	eP	P	08 45 57.2	-0.8
	comp=Z,1.4nm,0.8s,mb3.9						
KECS				ePcP	PcP	08 46 12.4	-3.8
TREC	Trest	72.52	340	eP	P	08 45 59.7	0.0
VYHS	Vyhne	72.60	338	eP	P	08 46 00.4	+0.2
VYHS				esP	sP	08 46 14.2	+9.1
VYHS	Vyhne	72.60	338	eP	P	08 46 00.4	+0.2
VYHS				ePcP	PcP	08 46 14.3	-3.4
KHC	Kasperske Hory	73.04	341	eP	P	08 46 03.6	+0.8
KHC				epP	pP	08 46 08.7	+2.3
KHC	Kasperske Hory	73.04	341	eP	P	08 46 03.6	+0.8
KHC				e	pP	08 46 08.7	+2.3
ZST	Bratislava	73.25	339	eP	P	08 46 05.3	+1.3
ZST				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
ZST	Bratislava	73.25	339	eP	P	08 46 05.3	+1.3
	comp=Z,7.6nm,0.7s,mb4.7						
GERES	GERESS Array B	73.29	341	P	P	08 46 03.5	-0.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				MLR	MLR		
	comp=Z,81nm,19.6s						
GERES	GERESS Array B	73.29	341	P	P	08 46 03.5	-0.8
	comp=Z,1.4nm,0.6s,mb4.1,baz=35,slow=4.9,SNR=9.7						
GERES				LR	LR	09 22 23.0	
	comp=Z,80nm,19.6s,MS4.0,baz=277,slow=39						
FETA	Feichten	75.58	343	⇑iP	P	08 46 18.1	+0.6
	comp=Z,8.2nm,1.1s,mb4.6						
BRTR	Keskin Array B	76.62	324	P	P	08 46 21.7	-2.0
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
BRTR				MLR	MLR		
	comp=Z,38nm,18.1s						
BRTR	Keskin Array B	76.62	324	P	P	08 46 21.7	-2.0
	comp=Z,2.7nm,1.1s,mb4.1,baz=42,slow=8.3,SNR=4.4						
BRTR				LR	LR	09 23 28.9	
	comp=Z,38nm,18.1s,MS3.7,baz=277,slow=38						
LPL	La Plagne	77.67	345	eP	P	08 46 30.1	+0.6
LPG	La Plagne	77.69	345	eP	P	08 46 30.5	+0.9
	comp=Z,21nm,1.2s,mb4.6						

LPG	La Plagne	77.69	345	eP	P	08 46 30.5	+0.9
LPG				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
LPG	La Plagne	77.69	345	eP	P	08 46 30.5	+0.9
	comp=Z,10nm,1.2s,mb4.6						
MBDF	Montbardon	78.44	345	eP	P	08 46 34.2	+0.5
	comp=Z,10nm,0.9s,mb4.5						
MBDF	Montbardon	78.44	345	eP	P	08 46 34.2	+0.5
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
MBDF	Montbardon	78.44	345	eP	P	08 46 34.2	+0.5
	comp=Z,5.2nm,0.9s,mb4.5						
WRAB	Tennant Creek	79.83	210	eP	P	08 46 43.0	+1.5
WRAB				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
WRAB	Tennant Creek	79.83	210	eP	P	08 46 43.0	+1.6
	comp=Z,13nm,1.2s,mb4.7						
WRA	Warramunga Arr	79.84	210	P	P	08 46 40.2	-1.3
WRA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
WRA	Warramunga Arr	79.84	210	P	P	08 46 40.2	-1.3
	comp=Z,4.5nm,1.0s,mb4.4,baz=22,slow=5.8,SNR=8.1						
ASAR	Alice Springs	83.50	209	P	P	08 47 00.2	-0.6
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	83.50	209	P	P	08 47 00.2	-0.6
	comp=Z,1.3nm,0.7s,mb4.0,baz=16,slow=4.6,SNR=17						
ESDC	Sonseca Array	84.66	352	P	P	08 47 04.9	-1.8
	comp=Z,0.6nm,0.4s,mb4.1,baz=11,slow=6.5,SNR=4.4						
NWAO	Narrogin (SRO)	97.43	219	eP	P	08 48 06.9	+0.5
NWAO				pmax	pmax		
	comp=Z,42nm,1.3s						
NWAO	Narrogin (SRO)	97.43	219	eP	P	08 48 06.9	+0.5
	comp=Z,42nm,1.3s,mb5.7						
SIV	San Ignacio	126.81	61	PKP	PKPdf	08 53 35.9	-1.0
	comp=Z,0.5nm,0.6s,baz=352,slow=14,SNR=3.2						
QSPA	South Pole Qui	145.38	180	PKPbc	PKPbc	08 54 07.1	-2.2
	comp=Z,1.7nm,0.7s,baz=333,slow=2.4,SNR=4.8						
QSPA	South Pole Qui	145.38	180	ePKPdf	PKPdf	08 54 09.4	+0.2

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*NIED **12** 08:39:00, 35°.50N×136°.40E, h23^{km}, Mw3.5 Best double couple: M₀2.35000×10^{14} NP1:ϕ_s312.00000°, δ70.00000°, λ34.00000°. NP2:ϕ_s209.00000°, δ58.00000°, λ156.00000°.*
*ISCJB **12** 08:39:57.0±0.6, 35°.47N±0°.03×136°.37E±0°.04, h9^{km}±5^{km}, Error ellipse: s-maj=5.7km s-min=4.5km az=29.8*
*JMA **12** 08:39:57.0, 35°.48N×136°.37E, h15^{km}, M3.4*
JMA Felt II J1.

ISC 12 08:39:57.3±0.5, **35°.47N**±0°.03×**136°.36E**±0°.04, **h4**^{km}±9^{km}, **n9**, σ**0^{s}61**/17, **5C-3D, Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFM	Mihama	0.31	281	⇓P	Pg	08 40 03.6	+0.3
JFM				S	Sg	08 40 08.4	+1.0
JEG	Eigenji	0.34	176	⇑P	Pg	08 40 04.0	+0.3
JEG				S	Sg	08 40 08.9	+0.8
JGM	Miyama	0.37	52	⇑P	Pg	08 40 04.4	0.0
JGM				S	Sg	08 40 09.3	+0.1
TSUJ	Tsu 2	0.76	176	⇑P	Pg	08 40 11.4	-0.5
TSUJ				eS	Sg	08 40 21.7	0.0
JKG	Kaga	0.80	358	⇑P	Pg	08 40 12.4	-0.3
JKG				eS	Sg	08 40 22.8	-0.3
JWT	Wachi	0.81	257	⇓P	Pg	08 40 12.2	-0.6
JHE	Heguri	0.99	214	⇑P	Pg	08 40 15.6	-0.6
JHE				eS	Sg	08 40 28.7	-0.3
JKY	Yasaka	1.04	279	⇓P	Pg	08 40 16.5	-0.7
JKY				eS	Sg	08 40 31.1	+0.5
MAT	Matsushiro	1.84	54	P	Pn	08 40 28.5	-1.0
MAT				S	Sn	08 40 54.6	+1.4

IDC 12 08:46:08.9±0.9, **30°.37S**×**177°.52W**, **h0**^{km}, **mb4.4**/4, **mb1 4.5**/4, **mb1mx4.2**/16, **mbtmp4.4**/4, **MS3.6**/2, **Ms1 3.6**/2, **ms1mx2.9**/26, **Error ellipse: s-maj=29.0km s-min=18.4km az=83.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.17	343	Pn	Pn	08 46 34.2	+1.7
	2μm,0.3s,baz=221,slow=12,SNR=107						
RAO				Sn	Sn	08 46 49.9	+0.7
	3μm,0.3s,baz=107,slow=19,SNR=29						
URZ	Urewera	9.03	208	Pn	Pn	08 48 15.1	-5.4
	1.8nm,0.3s,baz=262,slow=2.7,SNR=16						
URZ				Sn	Sn	08 49 55.4	-7.6
	7.0nm,0.3s,baz=125,slow=22,SNR=10						
RPZ	Rata Peaks	16.12	211	Pn	Pn	08 49 54.1	-2.6
	1.2nm,0.3s,baz=15,slow=7.1,SNR=7.8						
RPZ				Sn	Sn	08 52 36.9	-19
	1.0nm,0.3s,baz=38,slow=22,SNR=6.1						
STKA	Stephens Creek	34.89	257	P	P	08 53 03.4	+1.3
	4.1nm,0.4s,baz=97,slow=10,SNR=34						
ASAR	Alice Springs	43.52	267	P	P	08 54 13.8	-0.6
	1.5nm,0.5s,baz=106,slow=7.1,SNR=32						
WRA	Warramunga Arr	44.51	272	P	P	08 54 21.5	-0.9
	3.8nm,0.5s,baz=110,slow=8.0,SNR=77						
WRA				LR	LR	09 13 31.8	
	comp=Z,61nm,19.6s,baz=310,slow=37						
FITZ	Fitzroy Crossi	52.77	270	LR	LR	09 17 47.4	
	comp=Z,57nm,18.3s,baz=196,slow=36						
QSPA	South Pole Qui	59.74	180	P	P	08 56 16.6	+1.7
	1.1nm,0.4s,baz=360,slow=0.8,SNR=3.0						
MKAR	Makanchi Array	118.07	310	PKP	PKPdf	09 04 56.4	-1.0
	0.2nm,0.4s,baz=202,slow=2.2,SNR=3.7						
KURK	Kurchatov	121.33	314	PKP	PKPdf	09 05 02.5	-1.1
	0.5nm,0.6s,baz=118,slow=2.0,SNR=3.0						
BVAR	Borovoye Array	126.67	316	PKP	PKPdf	09 05 13.8	0.0
	0.3nm,0.3s,baz=177,slow=2.9,SNR=3.2						
NOA	NORSAR Array B	148.78	352	PKPbc	PKPbc	09 05 57.2	-0.4
	1.1nm,0.6s,baz=12,slow=4.1,SNR=4.1						
HFS	Hagfors	149.30	349	PKPbc	PKPbc	09 05 58.4	-0.4
	1.9nm,0.6s,baz=64,slow=5.1,SNR=5.7						
AKASG	Malin Array Be	151.53	323	PKPbc	PKPbc	09 06 04.0	-0.5
	0.5nm,0.3s,baz=49,slow=3.0,SNR=4.5						
BRTR	Keskin Array B	152.95	299	PKPbc	PKPbc	09 06 07.2	-0.8
	0.8nm,0.4s,baz=165,slow=3.7,SNR=4.1						
GERES	GERESS Array B	159.67	338	PKPab	PKPab	09 06 47.6	-0.1
	0.2nm,0.3s,baz=22,slow=3.6,SNR=2.6						
TORD	Torodi Ar. Bea	162.84	177	PKPab	PKPab	09 07 01.9	-0.5
	2.0nm,1.2s,baz=224,slow=4.1,SNR=3.7						

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*ISCJB **12** 08:52:41.7±0.4, 32°.49N±0°.02×115°.33W±0°.02, h11^{km}±4^{km}, Error ellipse: s-maj=3.6km s-min=3.0km az=9.8*
*NEIC **12** 08:52:41.6, 32°.44N×115°.42W, h0^{km}, ML3.1(ECX), ML3.1(PAS), After ECX.*
*ECX **12** 08:52:46.8±2.5, 32°.80N×115°.63W, h10^{km}, ML3.4*

ISC 12 08:52:42.2±0.3, **32°.49N**±0°.02×**115°.32W**±0°.02, **h18**^{km}±3^{km}, **n40**, σ**1^{s}08**/55, **12C-19D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERPC	Ernies Place	0.38	312	iP	Pg	08 52 51.0	+0.8
SNR	Schaffner Ranc	0.39	345	⇓iP	Pg	08 52 51.3	+1.2
COA	Coachella	0.41	24	⇓iP	Pg	08 52 51.5	+1.0
COA	Coachella	0.41	24	eP	Pg	08 52 51.5	+1.0
EMX	El Mayor	0.50	172	⇓eP	Pg	08 52 52.6	+0.3
EMX				eS	Sg	08 53 00.2	+1.2
EMX				⇑e		08 53 00.9	
	comp=E,802nm,0.3s						
YUH	Yuha Desert	0.53	288	⇑iP	Pg	08 52 52.2	-0.6
YUH				eS	Sg	08 53 00.2	+0.2
YUH	Yuha Desert	0.53	288	eP	Pg	08 52 52.2	-0.6
YUH				eS	Sg	08 53 00.2	+0.2
SWSC	Sam W. Stewart	0.60	319	⇓P	Pg	08 52 53.9	-0.1
	baz=0.6,SNR=36						
SWSC				⇑S	Sg	08 53 02.6	+0.4
	baz=0.6						
SWSC	Sam W. Stewart	0.60	319	eP	Pg	08 52 54.0	-0.1
112A	Yuma	0.63	85	⇓S	Sg	08 53 03.1	+0.1
	baz=0.6						
YMD	Yuma Desert	0.66	84	⇑iP	Pb	08 52 54.9	-0.3
CLIC	Calipatria	0.67	345	iP	Pb	08 52 55.4	0.0
CRR	Carrizo Plain	0.68	306	⇑iP	Pb	08 52 55.3	-0.1
DVTC	Desert V Tower	0.68	285	⇓P	Pb	08 52 55.6	+0.1
	baz=0.7,SNR=130						
DVTC				⇓S	Sb	08 53 04.7	+0.2
	baz=0.7						
DVTC	Desert V Tower	0.68	285	eP	Pb	08 52 55.6	+0.1
GLA	Glamis	0.70	36	⇓P	Pb	08 52 55.5	-0.4
	baz=0.7,SNR=15						
GLA				⇓S	Sb	08 53 04.9	-0.3
	baz=0.7						
GLA	Glamis	0.70	36	ePg	Pg	08 52 55.4	-0.5
GLA				eSg	Sg	08 53 04.9	-0.3
RDX	Rancho Dawling	0.77	223	⇑eP	Pg	08 52 57.3	+0.1
RDX				eS	Sg	08 53 08.0	+0.7
MONP	Monument Peak	1.01	294	P	Pg	08 53 00.6	-1.1
	baz=1.0,SNR=94						
MONP				⇓S	Sg	08 53 14.1	-0.9
	baz=1.0						
ECBX	El Chinero	1.04	167	⇑eP	Pg	08 53 02.4	+0.1
ECBX				eS	Sg	08 53 16.3	+0.4
ECBX				⇑e		08 53 17.6	
	comp=E,290nm,0.3s						
ECBX				e		08 53 18.0	
	comp=N,373nm,0.4s						
CBX	Cerro Bola	1.15	262	⇑ePN	Pg	08 53 03.9	-0.5
BAR	Barrett	1.16	280	ePg	Pg	08 53 03.1	-1.4
BAR				eSg	Sg	08 53 18.5	-1.2
BC3	Big Chuckw Mtn	1.17	355	⇓P	Pn	08 53 02.6	-1.1
	baz=1.2,SNR=6.3						
113A	Mohawk Valley,	1.34	78	P	Pn	08 53 05.2	-0.9
	baz=1.3,SNR=40						
113A				⇓Sb	Sb	08 53 24.3	+0.6
	baz=1.3						
ECNX	Esteban Cantu	1.36	233	ePN	Pn	08 53 05.7	-0.7
PBX	Punta Banda	1.40	238	ePN	Pn	08 53 08.4	+1.5
SPX	San Pedro Mart	1.44	185	ePN	Pn	08 53 10.4	+3.0
PFO	Pinyon Flat Ob	1.47	320	P	Pn	08 53 06.8	-1.0
	baz=1.5,SNR=15						
PFO				⇓S	Sn	08 53 24.9	-1.7
	baz=1.5						
PFO	Pinyon Flat Ob	1.47	320	ePn	Pn	08 53 06.7	-1.1
PFO				eSg	Sn	08 53 24.4	-2.1
109C	Camp Elliot, M	1.56	285	⇑P	Pn	08 53 08.5	-0.4
	baz=1.6,SNR=26						
109C				⇓S	Sn	08 53 28.3	-0.4
	baz=1.6						
IRM	Iron Mountain	1.67	5	⇓Sb	Sb	08 53 34.4	+1.2
	baz=1.7						
MURC	Murrieta	1.93	306	⇑Sb	Sb	08 53 42.3	+1.7
	baz=2.0						
214A	Organ Pipe Nat	2.19	103	⇑P	Pn	08 53 16.3	-1.4
	baz=2.2,SNR=24						
X13A	Yucca	2.44	30	⇓Sb	Sb	08 53 57.6	+2.3
	baz=2.5						
LDFC	Landfair	2.59	4	ePg	Pg	08 53 33.3	+1.5
115A	Sonoran Desert	2.62	85	⇓P	Pn	08 53 23.2	-0.5
	baz=2.6,SNR=6.4						
BFSC	Mount Baldy St	2.62	312	⇓Sb	Sb	08 54 02.8	+2.3
	baz=2.7						
CIS	Catalina Islan	2.75	290	⇓Sb	Sb	08 54 07.0	+2.9
	baz=2.8						
MWC	Mount Wilson	2.87	308	ePg	Pg	08 53 35.4	-1.8
TUC	Tucson	3.84	91	ePg	Pg	08 53 53.4	-2.4

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*TAP **12** 08:53:31.8, 24°.29N×122°.73E, h69^{km}±1^{km}, ML3.1, C*
*JMA **12** 08:53:31.9±0.2, 24°.54N×122°.83E, h61^{km}±2^{km}, M1.9*
*ISCJB **12** 08:53:32.1±0.6, 24°.21N±0°.07×122°.77E±0°.03, h47^{km}±13^{km}, Error ellipse: s-maj=11.8km s-min=3.9km az=174.5*

ISC 12 08:53:32.6±0.6, **24°.23N**±0°.07×**122°.77E**±0°.03, **h47**^{km}±14^{km}, **n24**, σ**0^{s}80**/37, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.32	44	P	Pn	08 53 41.4	-0.2
YOJ				eS	Sn	08 53 48.2	+0.3
IRIF	Iriomote-Funau	0.88	83	P	Pn	08 53 47.9	-0.7
IRIF				eS	Sn	08 54 00.3	0.0
HATJ	Hateruma jima	0.96	100	eS	Sn	08 54 03.8	+1.6
ENA	Nanau	0.96	282	P	Pn	08 53 49.3	-0.3
	baz=278						
TWD	Chiawan	1.08	262	eP	Pn	08 53 50.8	-0.5
	baz=250						
TWD				eS	Sn	08 54 04.9	-0.3
	baz=250						
JKRS	Kuro-shima	1.13	90	P	Pn	08 53 51.8	-0.2
JKRS				eS	Sn	08 54 07.2	+0.8
ENTT	Nioudou	1.17	290	P	Pn	08 53 52.6	+0.1
	baz=297						
ENTT				eS	Sn	08 54 07.5	+0.1
	baz=297						
JIJ	Ishigaki jima	1.26	84	P	Pn	08 53 52.6	-1.1
JIJ				eS	Sn	08 54 08.4	-1.1
NNS	Nan Shan	1.29	279	eP	Pn	08 53 53.7	-0.5
	baz=268						
ESL	Shilin	1.29	251	eP	Pn	08 53 53.2	-1.0
	baz=242						
ESL				eS	Sn	08 54 09.8	-0.6
	baz=242						
NSK	Sanguang	1.36	289	eP	Pn	08 53 54.9	-0.3
	baz=287						
WHF	Hehuan Shan	1.38	267	iP	Pn	08 53 55.0	-0.4
	baz=265						
WHF				eS	Sn	08 54 12.4	-0.1
	baz=265						
EHY	Hungye	1.51	242	eP	Pn	08 53 57.1	-0.1
	baz=237						
EHY				eS	Sn	08 54 15.0	-0.8
	baz=237						
TWF1	Yuli	1.61	237	P	Pn	08 53 58.3	-0.2
	baz=229						
TWF1				eS	Sn	08 54 17.9	-0.3
	baz=229						
CHKT	Chengkung	1.71	229	eP	Pn	08 53 58.9	-1.1
	baz=221						
CHKT				eS	Sn	08 54 19.0	-1.7
	baz=221						
SMLT	Sun Moon Lake	1.75	259	P	Pn	08 54 00.7	+0.3
	baz=256						
TYC	Yuchr	1.78	260	eP	Pn	08 54 01.3	+0.4
	baz=251						
YUS	Yu-Shan	1.82	246	eP	Pn	08 54 02.1	+0.7
	baz=238						
ELDTW	Lidau	1.92	237	eP	Pn	08 54 02.2	-0.6
	baz=228						
ALS	Alishan	1.94	249	P	Pn	08 54 04.1	+1.0
	baz=247						
ALS				eS	Sn	08 54 27.4	+1.1
	baz=247						
CHN5	Tsauling	2.02	252	P	Pn	08 54 05.2	+1.0
	baz=251						
CHN5				eS	Sn	08 54 29.6	+1.4
	baz=251						
STYT	Tauyuan	2.13	240	eP	Pn	08 54 06.4	+0.6
	baz=233						
CHN4	Tsaushan	2.18	247	eP	Pn	08 54 07.3	+1.0
	baz=245						
CHN1	Nanshi	2.31	244	eP	Pn	08 54 09.8	+1.7
	baz=242						

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*IDC **12** 08:56:26.9±2.6, 12°.12N×62°.09W, h0^{km}, mb3.3/4, mb1 3.6/4, mb1mx3.5/20, mbtmp3.3/4, Error ellipse: s-maj=109.2km s-min=25.7km az=13.0*
*ISCJB **12** 08:56:36.0±0.4, 10°.96N±0°.03×62°.41W±0°.03, h119^{km}±4^{km}, mb3.5/5, Error ellipse: s-maj=5.3km s-min=3.7km az=147.6*
*FUNV **12** 08:56:38.0, 10°.97N×62°.33W, h108^{km}, MW3.4*
*NEIC **12** 08:56:39.1, 11°.07N×62°.30W, h109^{km}, MD3.4(TRN), After TRN.*
*TRN **12** 08:56:39.3, 11°.03N×62°.29W, h108^{km}, MD3.4*

ISC 12 08:56:37.0±0.4, **10°.96N**±0°.03×**62°.40W**±0°.03, **h114**^{km}±4^{km}, **n35**, σ**1^{s}05**/59, **mb3.5**/5, **10C-4D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.36	150	⇑iP	Pn	08 56 53.5	0.0
GUIV				eS	Sn	08 57 04.6	-1.4
TCE	Chacachacare	0.69	112	⇑iP	Pn	08 56 56.5	+0.8
TCE				iS	Sn	08 57 09.6	-0.1
CRUV	Carupano	0.87	251	⇑iP	Pn	08 56 57.5	+0.3
CRUV				eS	Sn	08 57 11.8	-0.6
GUNV	Guanoco	0.95	214	⇑eP	Pn	08 56 59.1	+1.0
GUNV				eS	Sn	08 57 14.6	+0.6
TRN	Trinidad (W)	1.03	107	⇑iP	Pn	08 57 00.0	+1.2
TRN				eS	Sn	08 57 14.7	-0.7
BUAY	Buenos Aires	1.10	140	eP	Pn	08 57 02.1	+2.5
BUAY				eS	Sn	08 57 18.2	+1.5
BUAY	Buenos Aires	1.10	140	eP	Pn	08 57 02.7	+3.1
BUAY				eS	Sn	08 57 18.2	+1.5
TPP	Pointe-a-Pierr	1.13	124	⇑iP	Pn	08 57 01.9	+2.0
TPP				eS	Sn	08 57 17.7	+0.4
GRGR	Grenville	1.38	32	ePn	Pn	08 57 02.4	-0.2
GRGR				eSn	Sn	08 57 22.4	+0.3
TBH	Brigand Hill	1.40	110	⇑iP	Pn	08 57 04.2	+1.4
TBH				eS	Sn	08 57 22.7	+0.2
GRW	Mount Saint Ca	1.40	31	⇑iP	Pn	08 57 04.0	+1.1
GRW				eS	Sn	08 57 21.2	-1.4
TPR	Prospect	1.61	82	⇑eP	Pn	08 57 06.3	+1.0
TPR				eS	Sn	08 57 26.4	-0.6
BOT	Bacolet	1.67	83	⇑iP	Pn	08 57 06.8	+0.8
BOT				eS	Sn	08 57 26.5	-1.7
TOSP	Speyside	1.86	79	iP	Pn	08 57 07.8	-0.7
TOSP				eS	Sn	08 57 31.0	-1.5
ORIV	Oritupano	2.12	208	⇓eP	Pn	08 57 12.6	+0.8
ORIV				eS	Sn	08 57 38.2	-0.2
IBAV	Isla La Blanqu	2.30	292	eP	Pn	08 57 14.9	+1.0
IBAV				eS	Sn	08 57 42.2	-0.1
PCRV	Puerto La Cruz	2.33	251	⇓eP	Pn	08 57 15.3	+1.0
PCRV				eS	Sn	08 57 42.0	-1.1
SVB	Belmont	2.56	26	iP	Pn	08 57 17.4	+0.1
SVB				eS	Sn	08 57 47.7	-0.7
SVB	Belmont	2.56	26	iP	Pn	08 57 17.4	+0.1
SVB				eS	Sn	08 57 51.3	+2.9
RIOV	Rio Grande	2.93	169	eP	Pn	08 57 22.7	+0.5
RIOV				eS	Sn	08 57 55.1	-1.9
MCLT	Moule a Chique	3.08	27	eP	Pn	08 57 24.7	+0.5
MCLT				eS	Sn	08 57 58.8	-1.9
MCLT	Moule a Chique	3.08	27	iP	Pn	08 57 23.4	-0.8
MCLT				eS	Sn	08 58 00.5	-0.2
GURV	El Guri	3.25	192	⇓iP	Pn	08 57 26.5	0.0
GURV				eS	Sn	08 58 02.2	-2.4
CUPV	Cœpira	3.45	255	⇓eP	Pn	08 57 29.9	+0.9
CUPV				eS	Sn	08 58 08.7	-0.6
MERV	Las Mercedes	4.19	246	eP	Pn	08 57 38.9	-0.1
LUEV	Luepa	5.17	170	eP	Pn	08 57 50.9	-1.3
CAOV	Caicara del Or	5.29	227	eP	Pn	08 57 53.0	-0.9
TURV	Turiamo	5.37	265	eP	Pn	08 57 55.6	+0.8
BAUV	El Baul	5.90	251	eP	Pn	08 58 01.1	-1.1
TEIG	Tepich	26.54	293	P	P	09 02 04.9	+0.7
	8.6nm,1.0s,mb4.2,baz=157,slow=18,SNR=2.7						
TEIG	Tepich	26.54	293	P	P	09 02 04.9	+0.7
TXAR	Lajitas Array	42.56	302	P	P	09 04 22.4	+0.7
	0.1nm,0.4s,mb2.9,baz=129,slow=8.2,SNR=3.9						
PDAR	Pinedale Array	51.72	317	P	P	09 05 31.6	-0.9
	0.4nm,0.6s,mb3.6,baz=111,slow=9.2,SNR=5.5						
TORD	Torodi Ar. Bea	62.58	81	P	P	09 06 50.2	+0.7
	0.2nm,0.4s,mb3.4,baz=293,slow=6.1,SNR=3.8						
YKA	Yellowknife Ar	63.47	336	P	P	09 06 52.3	-2.1
	0.1nm,0.4s,mb3.1,baz=106,slow=7.3,SNR=4.3						

IDC 12 08:58:59.4±36.0, **9°.05N**×**127°.29E**, **h0**^{km}, **mb3.8**/4, **mb1 4.0**/4, **mb1mx3.6**/21, **mbtmp3.8**/4, **Error ellipse: s-maj=613.4km s-min=127.6km az=164.0, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	27.02	183	P	P	09 04 43.9	+0.5
	4.0nm,0.9s,baz=16,slow=15,SNR=2.8						
WRA	Warramunga Arr	29.63	166	P	P	09 05 06.4	-0.3
	0.8nm,0.9s,baz=345,slow=9.3,SNR=3.8						
ASAR	Alice Springs	33.15	169	P	P	09 05 37.4	-0.3
	0.2nm,0.3s,baz=350,slow=7.1,SNR=7.6						
STKA	Stephens Creek	42.93	162	P	P	09 07 00.2	+0.1
	1.8nm,0.8s,baz=345,slow=6.3,SNR=3.8						

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*IDC **12** 09:20:06.9±2.0, 32°.12N×115°.57W, h0^{km}, mb3.7/2, mb1 3.8/6, mb1mx3.6/24, mbtmp3.4/6, ML3.6/3, MS3.5/2, Ms1 3.5/2, ms1mx3.1/33, Error ellipse: s-maj=29.0km s-min=14.8km az=44.0*
*ISCJB **12** 09:20:10.9±0.3, 32°.48N±0°.02×115°.27W±0°.02, h13^{km}±2^{km}, Error ellipse: s-maj=2.8km s-min=2.2km az=175.7*
*ECX **12** 09:20:12.9±0.8, 32°.49N×115°.31W, h6^{km}, MD4.2, ML4.2*
*NEIC **12** 09:20:12.9, 32°.49N×115°.31W, h6^{km}, mb3.8/2, ML4.2(ECX), ML4.2(PAS), After ECX.*
NEIC Felt at Guadalupe Victoria. Also felt Yuma, Arizona and at Calexico, El Centro, Heber, Imperial, San Diego and Winterhaven, California.

ISC 12 09:20:11.6±0.3, **32°.47N**±0°.02×**115°.31W**±0°.02, **h14**^{km}±2^{km}, **n122**, σ**1^{s}12**/152, **29C-31D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.05	176	⇓eP	Pg	09 20 13.9	-0.3
CPBX				eS	Sg	09 20 16.4	+0.3
SNR	Schaffner Ranc	0.41	345	⇓iP	Pg	09 20 20.5	+0.6
COA	Coachella	0.43	21	⇓iP	Pg	09 20 20.7	+0.5
EMX	El Mayor	0.48	173	⇓eP	Pg	09 20 21.4	+0.3
EMX				eS	Sg	09 20 28.7	+1.2
EMX				e		09 20 31.0	
	comp=E,10μm,0.5s						
EMX	El Mayor	0.48	173	eP	Pg	09 20 21.4	+0.3
EMX				eS	Sg	09 20 28.7	+1.2
YUH	Yuha Desert	0.55	289	⇑iP	Pg	09 20 22.0	-0.4
112A	Yuma	0.62	83	⇑P	Pg	09 20 23.5	-0.2
	baz=0.6,SNR=1000						
112A				⇑S	Sg	09 20 32.5	+0.6
	baz=0.6						
SWSC	Sam W. Stewart	0.63	319	P	Pg	09 20 23.3	-0.6
	baz=0.6,SNR=756						
SWSC				⇑S	Sg	09 20 32.5	+0.3
	baz=0.6						
YMD	Yuma Desert	0.65	82	⇑iP	Pg	09 20 24.0	-0.3
DVTC	Desert V Tower	0.70	286	⇓P	Pg	09 20 24.7	-0.5
	baz=0.7,SNR=1000						
DVTC				⇑S	Sg	09 20 34.5	+0.1
	baz=0.7						
CRR	Carrizo Plain	0.70	307	⇑iP	Pg	09 20 24.7	-0.5
GLA	Glamis	0.71	35	P	Pg	09 20 24.8	-0.6
	baz=0.7,SNR=509						
GLA				⇓S	Sg	09 20 34.2	-0.7
	baz=0.7						
GLA	Glamis	0.71	35	⇓iP	Pg	09 20 24.8	-0.7
GLA	Glamis	0.71	35	ePg	Pg	09 20 24.8	-0.7
GLA				eSg	Sg	09 20 34.6	-0.3
RDX	Rancho Dawling	0.76	225	⇑eP	Pg	09 20 26.5	+0.1
RDX				eS	Sg	09 20 36.6	+0.3
ECBX	El Chinero	1.01	168	⇓eP	Pb	09 20 31.1	+0.1
ECBX				eS	Sb	09 20 45.4	+1.3
MONP	Monument Peak	1.03	295	P	Pb	09 20 30.0	-1.2
	baz=1.0,SNR=634						
MONP				⇓S	Sb	09 20 43.7	-0.8
	baz=1.0						
CBX	Cerro Bola	1.16	263	⇑eP	Pb	09 20 32.7	-0.6
CBX				eS	Sb	09 20 48.6	+0.4
BAR	Barrett	1.17	281	ePg	Pg	09 20 32.1	-2.1
BAR				eSg	Sg	09 20 48.3	-1.1
BC3	Big Chuckw Mtn	1.19	354	P	Pn	09 20 32.0	-1.9
	baz=1.2,SNR=118						
113A	Mohawk Valley,	1.33	77	P	Pn	09 20 34.3	-1.5
	baz=1.3,SNR=310						
113A				⇓Sb	Sb	09 20 53.0	-0.4
	baz=1.3						
ECNX	Esteban Cantu	1.36	234	eP	Pn	09 20 36.5	+0.4
ECNX				⇓eP		09 20 35.3	
ECNX				eS	Sn	09 20 52.5	-1.4
ECNX				eS	Sn	09 20 55.3	+1.3
PBX	Punta Banda	1.40	239	⇓eP	Pn	09 20 37.1	+0.4
PBX				eS	Sn	09 20 56.5	+1.4
SPX	San Pedro Mart	1.42	185	eP	Pn	09 20 37.5	+0.5
SPX				eS	Sn	09 20 58.1	+2.6
PFO	Pinyon Flat Ob	1.49	320	P	Pn	09 20 36.0	-1.9
	baz=1.5,SNR=240						
PFO				⇑S	Sn	09 20 55.0	-2.3
	baz=1.5						
PFO	Pinyon Flat Ob	1.49	320	ePn	Pn	09 20 35.9	-2.0
109C	Camp Elliot, M	1.57	286	⇓P	Pn	09 20 38.0	-1.0
	baz=1.6,SNR=88						
109C				⇓Sb	Sb	09 21 00.3	+0.1
	baz=1.6						
IRM	Iron Mountain	1.69	4	⇑P	Pn	09 20 39.1	-1.7
	baz=1.7,SNR=282						
Y13A	Salome	1.83	42	⇓P	Pn	09 20 41.2	-1.4
	baz=1.8,SNR=11						
Y13A				⇑Sb	Sb	09 21 08.2	+0.6
	baz=1.8						
MURC	Murrieta	1.95	306	⇓Sb	Sb	09 21 11.8	+0.8
	baz=2.0						
PDMCI	Parker Dam,Lak	2.07	28	⇓Sb	Sb	09 21 15.4	+0.8
	baz=2.1						

214A	**Organ Pipe Nat**	**2.18**	**103**	P	**Pn**	**09 20 45.5**	**-1.9**
	baz=2.2,SNR=300						
214A				⇓S	**Sn**	**09 21 12.4**	**-1.8**
	baz=2.2						
Z14A	**Wintersburg**	**2.18**	**65**	⇓P	**Pn**	**09 20 46.0**	**-1.4**
	baz=2.2,SNR=21						
Z14A				⇑Sb	**Sb**	**09 21 19.1**	**+1.4**
	baz=2.2						
GMRC	**Granite Mounta**	**2.33**	**353**	⇑P	**Pn**	**09 20 47.9**	**-1.5**
	baz=2.4						
Y14A	**Wickenburg**	**2.43**	**52**	⇑Sb	**Sb**	**09 21 26.6**	**+1.8**
	baz=2.4						
X13A	**Yucca**	**2.46**	**30**	⇓P	**Pn**	**09 20 50.5**	**-0.7**
	baz=2.5,SNR=49						
X13A				⇑Sb	**Sb**	**09 21 27.3**	**+1.7**
	baz=2.5						
HEC	**Hector,Ludlow**	**2.51**	**340**	⇑P	**Pn**	**09 20 50.3**	**-1.7**
	baz=2.5						
LDFC	**Landfair**	**2.61**	**4**	*e*Pn	**Pn**	**09 20 53.5**	**+0.2**
LDFC				*e*Sg	**Sg**	**09 21 47.1**	**+12**
115A	**Sonoran Desert**	**2.61**	**84**	⇑P	**Pn**	**09 20 52.0**	**-1.4**
	baz=2.6,SNR=36						
CIS	**Catalina Islan**	**2.77**	**291**	⇑P	**Pn**	**09 20 54.2**	**-1.3**
	baz=2.8,SNR=12						
CIS				⇑Sb	**Sb**	**09 21 35.8**	**+1.3**
	baz=2.8						
Z15A	**Gila River Ind**	**2.77**	**72**	P	**Pn**	**09 20 54.8**	**-0.9**
	baz=2.8,SNR=20						
W12A	**Cal Nev Ari**	**2.85**	**7**	⇓P	**Pn**	**09 20 55.7**	**-0.9**
	baz=2.9,SNR=12						
W13A	**Hualapai Mount**	**2.88**	**24**	P	**Pn**	**09 20 56.5**	**-0.6**
	baz=2.9,SNR=37						
MWC	**Mount Wilson**	**2.89**	**308**	*e*Pn	**Pn**	**09 21 00.2**	**+3.0**
Y15A	**Casa Rosa Ranc**	**2.90**	**58**	⇑P	**Pn**	**09 20 56.7**	**-0.7**
	baz=2.9,SNR=37						
PASC	**Pasadena Art C**	**2.95**	**306**	Pn	**Pn**	**09 21 03.6**	**+5.6**
PASC				*e*Sg	**Sg**	**09 21 42.9**	**-3.5**
116A	**Eloy**	**3.05**	**87**	P	**Pn**	**09 20 58.2**	**-1.1**
	baz=3.0,SNR=13						
X15A	**Humboldt**	**3.26**	**51**	⇑P	**Pn**	**09 21 02.5**	**+0.2**
	baz=3.3,SNR=47						
V12A	**Nelson**	**3.27**	**7**	⇑P	**Pn**	**09 21 01.0**	**-1.4**
	baz=3.3						
216A	**Three Points,**	**3.30**	**97**	⇑P	**Pn**	**09 21 01.2**	**-1.5**
	baz=3.3,SNR=5.8						
W14A	**Seligman**	**3.31**	**33**	P	**Pn**	**09 21 03.6**	**+0.7**
	baz=3.3,SNR=13						
V11A	**Goodsprings**	**3.37**	**358**	⇓P	**Pn**	**09 21 03.0**	**-0.7**
	baz=3.4						
Z16A	**Peralta Trail,**	**3.38**	**74**	P	**Pn**	**09 21 02.8**	**-1.1**
	baz=3.4,SNR=12						
Y16A	**Circle Bar Ran**	**3.51**	**65**	P	**Pn**	**09 21 05.6**	**-0.1**
	baz=3.5,SNR=15						
V13A	**Grand Canyon W**	**3.55**	**18**	P	**Pn**	**09 21 06.9**	**+0.6**
	baz=3.6,SNR=130						
OSI	**Osito Adit**	**3.57**	**308**	*e*Pn	**Pn**	**09 21 03.0**	**-3.5**
OSI				*e*Sg	**Sg**	**09 22 10.7**	**+4.5**
V14A	**Boquillas Ranc**	**3.65**	**29**	⇓P	**Pn**	**09 21 08.1**	**+0.4**
	baz=3.7,SNR=7.2						
X16A	**Lo Mia Camp, P**	**3.77**	**58**	⇑P	**Pn**	**09 21 09.8**	**+0.5**
	baz=3.8,SNR=28						
TUC	**Tucson**	**3.83**	**91**	*e*Pn	**Pn**	**09 21 09.2**	**-0.9**
TUC				*e*Sg	**Sg**	**09 22 15.7**	**+1.1**
217A	**Green Valley**	**3.87**	**99**	P	**Pn**	**09 21 09.6**	**-1.1**
	baz=3.9,SNR=26						
Y17A	**Roosevelt**	**3.94**	**71**	⇓P	**Pn**	**09 21 11.3**	**-0.4**
	baz=3.9,SNR=34						
U12A	**Valley of Fire**	**4.01**	**9**	⇓P	**Pn**	**09 21 13.1**	**+0.6**
	baz=4.0						
SHPR	**Sheep Range**	**4.03**	**2**	*e*Pn	**Pn**	**09 21 13.3**	**+0.4**
U13A	**Pakoon Wash**	**4.09**	**15**	⇑P	**Pn**	**09 21 14.1**	**+0.4**
	baz=4.1,SNR=57						
W16A	**Flagstaff**	**4.09**	**49**	⇑P	**Pn**	**09 21 14.1**	**+0.3**
	baz=4.1,SNR=50						
ISA	**Isabella**	**4.13**	**321**	*e*Pn	**Pn**	**09 21 16.7**	**+2.4**
X17A	**Forest Lakes**	**4.20**	**62**	P	**Pn**	**09 21 15.9**	**+0.7**
	baz=4.2,SNR=24						
V15A	**Kaibab Nationa**	**4.24**	**37**	⇓P	**Pn**	**09 21 15.8**	**+0.1**
	baz=4.3,SNR=15						
U14A	**Mt Trumbull**	**4.32**	**23**	⇓P	**Pn**	**09 21 17.2**	**+0.4**
	baz=4.3,SNR=17						
WUAZ	**Wupatki**	**4.46**	**46**	*e*Pn	**Pn**	**09 21 20.8**	**+2.0**
Z18A	**Geronimo**	**4.48**	**81**	⇑P	**Pn**	**09 21 18.5**	**-0.6**
	baz=4.5,SNR=10						
118A	**Homack Ranch,**	**4.51**	**86**	⇓P	**Pn**	**09 21 19.1**	**-0.4**
	baz=4.5,SNR=25						
TPNV	**Topopah Spring**	**4.54**	**350**	*e*Pn	**Pn**	**09 21 19.4**	**-0.4**
TPNV				*e*Pg	**Pg**	**09 21 44.5**	**+5.9**
318A	**Bisbee**	**4.63**	**101**	⇓P	**Pn**	**09 21 20.0**	**-1.2**
	baz=4.6,SNR=38						
T13A	**Saint George**	**4.69**	**14**	P	**Pn**	**09 21 22.7**	**+0.8**
	baz=4.7,SNR=19						
T15A	**Red Dirt Ranch**	**5.14**	**27**	⇓P	**Pn**	**09 21 28.7**	**+0.6**
	baz=5.2,SNR=12						
S12A	**Delamar Landin**	**5.14**	**4**	⇑P	**Pn**	**09 21 29.5**	**+1.3**
	baz=5.2,SNR=9.6						
219A	**White Tail Can**	**5.15**	**94**	P	**Pn**	**09 21 27.6**	**-0.6**
	baz=5.1,SNR=11						
319A	**Douglas**	**5.24**	**100**	P	**Pn**	**09 21 28.9**	**-0.6**
	baz=5.2,SNR=19						
MTUM	**Tungsten Hills**	**5.56**	**332**	*e*Pg	**Pg**	**09 22 00.8**	**+2.7**
120A	**U Bar Ranch, L**	**5.64**	**87**	P	**Pn**	**09 21 34.9**	**-0.1**
	baz=5.6,SNR=23						
NVAR	**Mina Array Bea**	**6.43**	**339**	Pn	**Pn**	**09 21 47.0**	**+1.2**
	comp=E,0.1nm,0.3s,baz=162,slow=15,SNR=3.2						
NVAR				Pg	**Pg**	**09 22 16.1**	**+1.4**
	baz=161,slow=16,SNR=23						
MSU	**Marysvale**	**6.55**	**22**	*e*Pn	**Pn**	**09 21 52.5**	**+5.0**
CMB	**Columbia Colle**	**6.94**	**325**	*e*Pn	**Pn**	**09 21 59.0**	**+6.3**
P12A	**McGill**	**7.00**	**3**	⇓P	**Pn**	**09 21 55.1**	**+1.5**
	baz=7.0,SNR=14						
MVCO	**Mesa Verde**	**7.33**	**48**	*e*Pn	**Pn**	**09 22 01.9**	**+3.7**
MVCO				*e*Sg	**Sn**	**09 24 07.6**	**+46**
SRU	**San Rafael**	**7.68**	**29**	*e*Pn	**Pn**	**09 22 09.5**	**+6.5**
SRU				*e*Sg	Sn	09 24 19.8	+50
ANMO	**Albuquerque**	**7.78**	**69**	Pn	**Pn**	**09 22 05.4**	**+1.1**
	comp=E,0.2nm,0.3s,baz=259,slow=10.0,SNR=12						
ANMO				Pg	Pn	09 22 38.5	+34
	comp=E,0.3nm,0.3s,baz=241,slow=13,SNR=6.3						
ANMO				Lg		09 24 25.7	
	comp=E,0.4nm,0.3s,baz=328,slow=23,SNR=5.1						
ANMO	**Albuquerque**	**7.78**	**69**	*e*Pn	**Pn**	**09 22 08.9**	**+4.6**
ANMO				Pg	Pn	09 22 38.5	+34
ANMO				Lg		09 24 25.7	
PV04	**Paradox Valley**	**7.89**	**40**	*e*Pn	**Pn**	**09 22 10.6**	**+4.7**
PV04				*e*Sb	Sb	09 24 27.3	+25
NLU	**North Lily Min**	**7.92**	**18**	*e*Pn	**Pn**	**09 22 16.6**	**+10**
DUG	**Dugway**	**7.97**	**14**	*e*Pn	**Pn**	**09 22 13.1**	**+6.1**
ELK	**Elko**	**8.26**	**0**	*e*Pn	**Pn**	**09 22 14.4**	**+3.4**
ELK				*e*Pg	Pn	09 22 50.3	+39
DAU	**Daniels Canyon**	**8.57**	**21**	*e*Pn	**Pn**	**09 22 23.3**	**+8.1**
JLU	**Jordanelle**	**8.69**	**20**	*e*Pn	**Pn**	**09 22 24.4**	**+7.5**
SPUT	**South Promonto**	**9.12**	**14**	*e*Pn	**Pn**	**09 22 29.0**	**+6.3**
SDCO	**Great Sand Dun**	**9.60**	**54**	Pn	**Pn**	**09 22 28.3**	**-1.1**
TXAR	**Lajitas Array**	**10.48**	**104**	Pn	**Pn**	**09 22 42.1**	**+0.8**
	comp=E,0.3nm,0.3s,baz=293,slow=13,SNR=28						
TXAR				Lg		09 25 51.1	
	comp=E,0.2nm,0.3s,baz=263,slow=29,SNR=4.4						
ISCO	**Idaho Springs**	**10.72**	**44**	Pn	**Pn**	**09 22 50.0**	**+5.4**
	comp=E,3.0nm,0.9s						
YBH	**Yreka Blue Hor**	**10.97**	**330**	LR	LR	09 27 25.0	
	comp=E,233nm,21.3s,baz=319,slow=39						
HLID	**Hailey**	**11.10**	**3**	*e*Pn	**Pn**	**09 22 59.2**	**+9.3**
BW06	**Boulder Array**	**11.24**	**22**	*e*Pn	**Pn**	**09 22 57.5**	**+5.7**
PDAR	**Pinedale Array**	**11.24**	**22**	Pn	**Pn**	**09 22 57.3**	**+5.5**
	comp=E,0.0nm,0.3s,baz=217,slow=9.3,SNR=8.3						
PDAR				Lg		09 26 17.4	
	comp=E,0.1nm,0.3s,baz=207,slow=31,SNR=4.6						
RRI2	**Red Ridge**	**11.31**	**15**	*e*Pn	**Pn**	**09 22 58.7**	**+6.0**
REDW	**Red Top Meadow**	**11.43**	**17**	*e*Pn	**Pn**	**09 23 00.4**	**+6.1**
TPAW	**Teton Pass**	**11.53**	**16**	*e*Pn	**Pn**	**09 23 04.6**	**+8.9**
SNOW	**Snow King Moun**	**11.55**	**17**	*e*Pn	**Pn**	**09 23 03.9**	**+7.9**
DLMT	**Dillon**	**13.05**	**8**	*e*Pn	**Pn**	**09 23 23.6**	**+7.1**
JCT	**Junction City**	**13.38**	**94**	*e*Pn	**Pn**	**09 23 24.5**	**+3.4**
	comp=E,6.2nm,0.6s						
RLMT	**Red Lodge**	**13.48**	**19**	*e*Pn	**Pn**	**09 23 26.1**	**+3.7**
LRM	**Limekiln Ridge**	**13.52**	**9**	*e*Pn	**Pn**	**09 23 32.2**	**+9.3**
HAWA	**Hanford**	**14.28**	**348**	*e*Pn	**Pn**	**09 23 39.4**	**+6.1**
MSO	**Missoula**	**14.38**	**4**	*e*Pn	**Pn**	**09 23 43.0**	**+8.3**
LON	**Longmire**	**15.11**	**343**	*e*Pn	**Pn**	**09 23 52.6**	**+8.1**
OD2	**Odessa Site #2**	**15.13**	**351**	*e*Pn	**Pn**	**09 23 53.0**	**+8.3**
NEW	**Newport**	**15.84**	**356**	*e*Pn	**Pn**	**09 23 56.9**	**+2.9**
	comp=E,17nm,0.8s						
WALA	**Waterton Lakes**	**16.61**	**3**	*e*Pn	**Pn**	**09 24 13.4**	**+10**
	comp=E,5.8nm,2.8s						
DGMT	**Dagmar**	**18.05**	**24**	*e*Pn	**Pn**	**09 24 28.6**	**+6.8**
EDM	**Edmonton**	**20.79**	**3**	*e*P	**P**	**09 24 56.1**	**+3.9**
ULM	**Lac du Bonnet**	**22.87**	**33**	LR	LR	09 33 48.5	
	comp=E,121nm,18.1s,baz=339,slow=35						
DLBC	**Dease Lake**	**27.82**	**343**	P	**P**	**09 26 00.7**	**+0.6**
	comp=E,1.4nm,0.4s,baz=126,slow=13,SNR=3.6						
YKA	**Yellowknife Ar**	**30.05**	**1**	P	**P**	**09 26 20.9**	**+1.0**
	comp=E,0.2nm,0.7s,baz=182,slow=8.7,SNR=3.5						

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*DDA **12** 09:21:43.0, 39°.10N×39°.03E, h5^{km}, Md3.0*
*ISK **12** 09:21:43.0, 39°.20N×38°.86E, h5^{km}, MD3.3*
*ISCJB **12** 09:21:44.6±0.4, 39°.12N±0°.03×39°.02E±0°.04, h10^{km}, Error ellipse: s-maj=4.5km s-min=3.3km az=38.6*
*CSEM **12** 09:21:44.0±0.2, 39°.15N×38°.95E, h2^{km}, MD3.0, Error ellipse: s-maj=8.0km s-min=4.4km az=118.0*
ISC 12 09:21:44.9±0.4**, 39°.11N**±0°.03×**39°.05E**±0°.04**, h10^{km}, n30, σ1^{s}40**/47**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KEMA	**Kemaliye**	**0.46**	**291**	*i* P	**Pg**	**09 21 52.6**	**-1.3**
KEMA				*i* S	**Sg**	**09 22 00.4**	**+0.3**
KEMA	**Kemaliye**	**0.46**	**291**	*i* P	**Pg**	**09 21 52.7**	**-1.2**
ELZG	**Elazig**	**0.61**	**185**	*i* P	**Pg**	**09 21 55.5**	**-1.3**
ELZG				*i* S	**Sg**	**09 22 05.2**	**+0.5**
ELZG	**Elazig**	**0.61**	**185**	*i* P	**Pg**	**09 21 55.5**	**-1.2**
ELZG				*i* S	**Sg**	**09 22 05.2**	**+0.5**
EZC	**Erzincan**	**0.87**	**43**	*e*PG	**Pg**	**09 21 56.5**	**-5.3**
EZC				*e*SG	**Sg**	**09 22 06.1**	**-7.1**
MYA	**Malataya**	**0.92**	**212**	*e*PG	**Pg**	**09 22 01.1**	**-1.5**
MYA				*e*SG	**Sg**	**09 22 14.9**	**+0.3**
MYA	**Malataya**	**0.92**	**212**	*e*Pg	**Pg**	**09 22 01.1**	**-1.5**
MYA				*e*Sg	**Sg**	**09 22 14.9**	**+0.3**
AKCD	**Akcadag**	**1.20**	**228**	*i* P	**Pn**	**09 22 06.1**	**-1.6**
AKCD				*i* S	**Sb**	**09 22 23.8**	**+0.6**
AKCD	**Akcadag**	**1.20**	**228**	*i* P	**Pn**	**09 22 06.1**	**-1.6**
AKCD				*i* S	**Sb**	**09 22 23.8**	**+0.6**
GUMT	**Gumushane**	**1.39**	**14**	*e*PN	**Pn**	**09 22 09.2**	**-1.2**
GUMT				*e*SN	**Sn**	**09 22 28.2**	**-0.6**
GUMT	**Gumushane**	**1.39**	**14**	*e*Pn	**Pn**	**09 22 09.2**	**-1.2**
GUMT				*e*Sn	**Sn**	**09 22 28.3**	**-0.5**
KOPT	**Kop Dagi**	**1.44**	**50**	*i* P	**Pn**	**09 22 11.4**	**+0.3**
KOPT				*i* S	**Sg**	**09 22 32.5**	**+1.2**
KOPT	**Kop Dagi**	**1.44**	**50**	*i* P	**Pn**	**09 22 11.4**	**+0.3**
KOPT				*i* S	**Sg**	**09 22 32.5**	**+1.2**
DIYA	**Diyarbakir**	**1.45**	**144**	*i* P	**Pn**	**09 22 11.8**	**+0.6**
DIYA				*i* S	**Sn**	**09 22 32.2**	**+2.0**
DIYA	**Diyarbakir**	**1.45**	**144**	*i* P	**Pn**	**09 22 11.8**	**+0.6**
DIYA				*i* S	**Sn**	**09 22 32.2**	**+2.0**
URFA	**Urfa**	**1.67**	**186**	*e*PN	**Pn**	**09 22 15.0**	**+0.7**
URFA	**Urfa**	**1.67**	**186**	*e*Pn	**Pn**	**09 22 15.0**	**+0.8**
ESPY	**Espiye-Giresun**	**1.83**	**352**	*e*PN	**Pn**	**09 22 14.6**	**-1.8**
ESPY	**Espiye-Giresun**	**1.83**	**352**	*e*Pn	**Pn**	**09 22 14.6**	**-1.8**
SARI	**SarD1z-Kayseri**	**1.89**	**258**	*e*PN	**Pn**	**09 22 19.4**	**+2.3**
SARI	**SarD1z-Kayseri**	**1.89**	**258**	*e*Pn	**Pn**	**09 22 19.4**	**+2.2**
EZM	**Erzurum**	**1.96**	**65**	*e*PN	**Pn**	**09 22 19.4**	**+1.2**
PINB	**Pinarbasi**	**2.11**	**259**	*i* P	**Pg**	**09 22 22.1**	**-3.3**
PINB				*i* S	**Sg**	**09 22 55.1**	**+2.4**
MARD	**Mardin**	**2.25**	**142**	*i* P	**Pg**	**09 22 25.7**	**-2.3**
MARD				*i* S	**Sg**	**09 22 54.6**	**-2.6**
KMRS	**Kahramanmaras**	**2.33**	**227**	*e*PN	**Pn**	**09 22 22.7**	**-0.5**
KMRS	**Kahramanmaras**	**2.33**	**227**	*e*Pn	**Pn**	**09 22 22.7**	**-0.5**
KUZU	**Kuzuini**	**2.80**	**214**	*i* P	**Pn**	**09 22 31.1**	**+1.3**
KUZU				*i* S	**Sg**	**09 23 14.8**	**-0.1**
KUZU	**Kuzuini**	**2.80**	**214**	*i* P	**Pn**	**09 22 31.1**	**+1.3**
AGRB	**Hanur-Agry**	**3.09**	**80**	*e*PN	**Pn**	**09 22 36.5**	**+2.8**
AGRB	**Hanur-Agry**	**3.09**	**80**	*e*Pn	**Pn**	**09 22 36.5**	**+2.7**

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*ISCJB **12** 09:27:18.6±0.3, 32°.49N±0°.02×115°.27W±0°.02, h13^{km}±2^{km}, mb4.0/4, MS4.0/7, Error ellipse: s-maj=2.7km s-min=2.2km az=174.7*
*NEIC **12** 09:27:18.0, 32°.45N×115°.32W, h9^{km}, mb4.2/2, ML4.5(ECX), ML4.5(PAS), After ECX.*
NEIC Felt at Mexicali. Felt [V] at Calexico and [III] at El Centro, California. Also felt at Blythe, Calipatria, Murrieta and San Diego. Felt [III] at Yuma, Arizona.
*ECX **12** 09:27:20.5±0.8, 32°.47N×115°.31W, h4^{km}, MD4.5, ML4.7, Fault plane solution: NP1:ϕ_s205.60000°, δ75.50000°, λ-26.60000°.*
*IDC **12** 09:27:21.4±2.0, 32°.43N×115°.01W, h0^{km}, mb3.8/2, mb1 3.8/7, mb1mx3.7/24, mbtmp3.6/7, ML3.5/4, MS3.8/6, Ms1 3.8/6, ms1mx3.6/28, Error ellipse: s-maj=37.7km s-min=12.1km az=43.0*
ISC 12 09:27:19.3±0.3**, 32°.48N**±0°.02×**115°.32W**±0°.02**, h13^{km}**±2^{km}**, n124,** σ**1^{s}03**/150**, mb4.0**/4**, MS4.0**/7**, 42C-45D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	**0.06**	**167**	⇓*e*P	**Pg**	**09 27 21.0**	**-0.9**
CPBX				*e*S	**Sg**	**09 27 23.0**	**-0.7**
SNR	**Schaffner Ranc**	**0.40**	**346**	⇓*i*P	**Pg**	**09 27 28.3**	**+1.0**
COA	**Coachella**	**0.42**	**23**	⇓*i*P	**Pg**	**09 27 28.5**	**+0.9**
EMX	**El Mayor**	**0.49**	**172**	⇓*e*P	**Pg**	**09 27 29.5**	**+0.5**
EMX				*e*S	**Sg**	**09 27 36.2**	**+0.7**
EMX	**El Mayor**	**0.49**	**172**	*e*P	**Pg**	**09 27 29.5**	**+0.5**
EMX				*e*S	**Sg**	**09 27 36.7**	**+1.2**
YUH	**Yuha Desert**	**0.54**	**289**	*i* P	**Pg**	**09 27 29.9**	**+0.1**
SWSC	**Sam W. Stewart**	**0.61**	**319**	P	**Pg**	**09 27 31.1**	**-0.2**
	baz=0.6,SNR=270						
SWSC				⇑S	**Sg**	**09 27 39.8**	**+0.4**
	baz=0.6						
112A	**Yuma**	**0.63**	**84**	P	**Pg**	**09 27 31.5**	**0.0**
	baz=0.6,SNR=1000						
112A				⇓S	**Sg**	**09 27 40.6**	**+0.7**
	baz=0.6						
YMD	**Yuma Desert**	**0.66**	**83**	⇑*i*P	**Pg**	**09 27 32.0**	**-0.2**
CRR	**Carrizo Plain**	**0.68**	**307**	⇑*i*P	**Pg**	**09 27 32.4**	**-0.2**
DVTC	**Desert V Tower**	**0.68**	**286**	⇓P	**Pg**	**09 27 32.7**	**+0.1**
	baz=0.7						
DVTC				⇑S	**Sg**	**09 27 42.0**	**+0.4**
	baz=0.7						
GLA	**Glamis**	**0.71**	**36**	P	**Pg**	**09 27 32.7**	**-0.3**
	baz=0.7,SNR=245						
GLA				⇓S	**Sg**	**09 27 42.0**	**-0.5**
	baz=0.7						
GLA	**Glamis**	**0.71**	**36**	⇓*i*P	**Pg**	**09 27 32.8**	**-0.3**
GLA	**Glamis**	**0.71**	**36**	*e*Pg	**Pg**	**09 27 32.8**	**-0.3**
GLA				*e*Sg	**Sg**	**09 27 42.4**	**-0.1**
RDX	**Rancho Dawling**	**0.76**	**224**	⇑*e*P	**Pg**	**09 27 34.4**	**+0.4**
RDX				*e*S	**Sg**	**09 27 44.4**	**+0.4**
RDX	**Rancho Dawling**	**0.76**	**224**	⇑*e*P	**Pg**	**09 27 34.4**	**+0.4**
RDX				*e*S	**Sg**	**09 27 45.9**	**+1.9**
MONP	**Monument Peak**	**1.02**	**294**	P	**Pb**	**09 27 37.8**	**-0.9**
	baz=1.0,SNR=438						
MONP				⇓S	**Sb**	**09 27 51.2**	**-0.7**
	baz=1.0						
ECBX	**El Chinero**	**1.03**	**167**	⇓*e*P	**Pb**	**09 27 39.4**	**+0.5**
ECBX				*e*S	**Sb**	**09 27 53.3**	**+1.1**
ECBX				⇓*e*		09 27 55.6	
	comp=E,11μm,0.8s						
CBX	**Cerro Bola**	**1.15**	**262**	⇑*e*P	**Pb**	**09 27 40.5**	**-0.4**
CBX				*e*S	**Sb**	**09 27 56.4**	**+0.7**
BAR	**Barrett**	**1.16**	**280**	*e*Pg	**Pg**	**09 27 40.1**	**-1.6**
BAR				*e*Sg	**Sg**	**09 27 55.5**	**-1.2**
BC3	**Big Chuckw Mtn**	**1.18**	**355**	P	**Pn**	**09 27 39.8**	**-1.7**
	baz=1.2,SNR=124						
BC3				⇑S	**Sb**	**09 27 56.7**	**0.0**
	baz=1.2						
113A	**Mohawk Valley,**	**1.34**	**77**	⇓P	**Pn**	**09 27 42.2**	**-1.5**
	baz=1.3,SNR=84						
113A				⇑S	**Sb**	**09 28 00.8**	**-0.5**
	baz=1.3						
ECNX	**Esteban Cantu**	**1.36**	**233**	*e*P	**Pn**	**09 27 44.1**	**+0.2**
ECNX				*e*P		09 27 43.2	
ECNX				*e*S	**Sn**	**09 28 00.0**	**-1.7**
ECNX				*e*S	**Sn**	**09 28 02.7**	**+0.9**
PBX	**Punta Banda**	**1.40**	**239**	*e*P	**Pn**	**09 27 44.8**	**+0.3**
PBX				*e*S	**Sn**	**09 28 04.3**	**+1.6**
SPX	**San Pedro Mart**	**1.43**	**185**	*e*PN	**Pn**	**09 27 46.8**	**+1.9**
SPX				*e*S	**Sn**	**09 28 03.5**	**0.0**
SPX				⇓*e*		09 28 08.8	
	comp=N,7μm,0.6s						
PFO	**Pinyon Flat Ob**	**1.48**	**320**	P	**Pn**	**09 27 43.9**	**-1.7**
	baz=1.5,SNR=252						
PFO				⇑S	**Sn**	**09 28 02.3**	**-2.4**
	baz=1.5						
PFO	**Pinyon Flat Ob**	**1.48**	**320**	*e*Pn	**Pn**	**09 27 43.8**	**-1.8**
PFO				*e*Sg	**Sg**	**09 28 09.8**	**+2.8**
109C	**Camp Elliot, M**	**1.56**	**286**	⇑P	**Pn**	**09 27 45.8**	**-0.9**
	baz=1.6,SNR=116						
109C				⇓S	**Sn**	**09 28 05.7**	**-1.0**
	baz=1.6						
BELC	**Belle Mtn.**	**1.62**	**340**	⇑P	**Pn**	**09 27 45.9**	**-1.7**
	baz=1.6						
IRM	**Iron Mountain**	**1.69**	**5**	⇑P	**Pn**	**09 27 47.0**	**-1.4**
	baz=1.7						
Y13A	**Salome**	**1.83**	**43**	⇑P	**Pn**	**09 27 49.3**	**-1.1**
	baz=1.8						
Y13A				⇓Sb	**Sb**	**09 28 16.5**	**+1.1**
	baz=1.8						
MURC	**Murrieta**	**1.94**	**306**	⇑P	**Pn**	**09 27 50.9**	**-1.0**
	baz=2.0,SNR=35						
MURC				⇑Sb	**Sb**	**09 28 19.7**	**+1.2**
	baz=2.0						
PDMCI	**Parker Dam,Lak**	**2.07**	**28**	⇓Sb	**Sb**	**09 28 23.0**	**+0.7**
	baz=2.1						
Z14A	**Wintersburg**	**2.18**	**65**	⇑P	**Pn**	**09 27 54.2**	**-1.1**
	baz=2.2,SNR=17						
Z14A				⇑Sb	**Sb**	**09 28 27.0**	**+1.4**
	baz=2.2						
214A	**Organ Pipe Nat**	**2.19**	**103**	P	**Pn**	**09 27 53.6**	**-1.7**
	baz=2.2,SNR=182						
BBRC	**Big Bear Sol-O**	**2.23**	**323**	⇑P	**Pn**	**09 27 55.1**	**-0.8**
	baz=2.2						
GMRC	**Granite Mounta**	**2.32**	**353**	⇓P	**Pn**	**09 27 56.0**	**-1.1**
	baz=2.3						
NEE2	**Needles Airpor**	**2.36**	**14**	⇓P	**Pn**	**09 27 56.9**	**-0.8**
	baz=2.4						
Y14A	**Wickenburg**	**2.43**	**52**	⇓P	**Pn**	**09 27 58.0**	**-0.7**
	baz=2.4						
X13A	**Yucca**	**2.45**	**30**	⇑P	**Pn**	**09 27 58.3**	**-0.7**
	baz=2.5,SNR=41						
X13A				⇑Sb	**Sb**	**09 28 35.1**	**+1.8**
	baz=2.5						
HEC	**Hector,Ludlow**	**2.50**	**341**	⇑P	**Pn**	**09 27 58.8**	**-0.8**
	baz=2.5						
LDFC	**Landfair**	**2.60**	**4**	*e*Pn	**Pn**	**09 28 01.5**	**+0.4**
LDFC				*e*Sg	**Sg**	**09 28 54.8**	**+12**
115A	**Sonoran Desert**	**2.62**	**84**	⇓P	**Pn**	**09 28 00.3**	**-0.9**
	baz=2.6,SNR=55						
BFSC	**Mount Baldy St**	**2.63**	**313**	⇓P	**Pn**	**09 28 00.9**	**-0.5**
	baz=2.6						
CIS	**Catalina Islan**	**2.75**	**291**	⇓P	**Pn**	**09 28 02.1**	**-1.0**
	baz=2.8,SNR=28						
CIS				⇓Sb	**Sb**	**09 28 43.4**	**+1.4**
	baz=2.8						
Z15A	**Gila River Ind**	**2.78**	**72**	⇓P	**Pn**	**09 28 02.6**	**-0.9**
	baz=2.8,SNR=11						
FMP	**Fort Macarthur**	**2.79**	**297**	⇑Sb	**Sb**	**09 28 45.0**	**+2.1**
	baz=2.8						
X14A	**Yava**	**2.84**	**45**	⇓P	**Pn**	**09 28 03.8**	**-0.5**
	baz=2.8						
W12A	**Cal Nev Ari**	**2.84**	**7**	⇓P	**Pn**	**09 28 03.4**	**-1.0**
	baz=2.9,SNR=12						
W13A	**Hualapai Mount**	**2.88**	**24**	⇑P	**Pn**	**09 28 04.5**	**-0.3**
	baz=2.9						
MWC	**Mount Wilson**	**2.88**	**308**	Pn	**Pn**	**09 28 08.7**	**+3.8**
MWC				*e*Sg	**Sg**	**09 28 48.9**	**-2.9**
Y15A	**Casa Rosa Ranc**	**2.91**	**59**	⇓P	**Pn**	**09 28 04.7**	**-0.5**
	baz=2.9,SNR=23						
TUQ	**Turquoise Moun**	**3.00**	**351**	⇑P	**Pn**	**09 28 05.9**	**-0.5**
	baz=3.0						
116A	**Eloy**	**3.06**	**87**	⇑P	**Pn**	**09 28 06.0**	**-1.2**
	baz=3.0,SNR=12						
X15A	**Humboldt**	**3.27**	**51**	⇓P	**Pn**	**09 28 10.2**	**+0.1**
	baz=3.3						
V12A	**Nelson**	**3.27**	**7**	⇓P	**Pn**	**09 28 10.0**	**-0.1**
	baz=3.3						
EDW2	**Edwards Air Fo**	**3.27**	**318**	⇓P	**Pn**	**09 28 10.2**	**0.0**
	baz=3.3						
W14A	**Seligman**	**3.30**	**34**	⇓P	**Pn**	**09 28 11.4**	**+0.8**
	baz=3.3						
216A	**Three Points,**	**3.31**	**97**	⇓P	**Pn**	**09 28 09.7**	**-1.0**
	baz=3.3						
V11A	**Goodsprings**	**3.36**	**358**	⇑P	**Pn**	**09 28 11.7**	**+0.4**
	baz=3.4						
Z16A	**Peralta Trail,**	**3.39**	**74**	⇓P	**Pn**	**09 28 10.6**	**-1.2**
	baz=3.4,SNR=14						
Y16A	**Circle Bar Ran**	**3.51**	**65**	⇑P	**Pn**	**09 28 12.7**	**-0.8**
	baz=3.5,SNR=50						
V13A	**Grand Canyon W**	**3.54**	**18**	⇑P	**Pn**	**09 28 14.2**	**+0.2**
	baz=3.6						
OSI	**Osito Adit**	**3.55**	**308**	*e*Pn	**Pn**	**09 28 17.5**	**+3.4**
OSI				*e*Sg	**Sg**	**09 29 21.6**	**+8.2**
V14A	**Boquillas Ranc**	**3.65**	**30**	⇓P	**Pn**	**09 28 16.2**	**+0.9**
	baz=3.7						
X16A	**Lo Mia Camp, P**	**3.78**	**58**	⇑P	**Pn**	**09 28 17.7**	**+0.5**
	baz=3.8						
TUC	**Tucson**	**3.84**	**91**	*e*Pn	**Pn**	**09 28 17.8**	**-0.3**
217A	**Green Valley**	**3.88**	**99**	P	**Pn**	**09 28 17.4**	**-1.3**
	baz=3.9,SNR=15						
Y17A	**Roosevelt**	**3.95**	**71**	P	**Pn**	**09 28 18.6**	**-0.9**
	baz=3.9,SNR=37						
U12A	**Valley of Fire**	**4.00**	**9**	⇓P	**Pn**	**09 28 20.9**	**+0.7**
	baz=4.0,SNR=17						
MPMC	**Manual Prospec**	**4.00**	**334**	⇑P	**Pn**	**09 28 20.8**	**+0.6**
	baz=4.0						
U13A	**Pakoon Wash**	**4.09**	**16**	⇓P	**Pn**	**09 28 22.0**	**+0.6**
	baz=4.1,SNR=28						
W16A	**Flagstaff**	**4.10**	**49**	⇓P	**Pn**	**09 28 22.6**	**+1.0**
	baz=4.1						
ISA	**Isabella**	**4.12**	**321**	⇑P	**Pn**	**09 28 22.2**	**+0.4**
	baz=4.1						
ISA	**Isabella**	**4.12**	**321**	*e*Pn	**Pn**	**09 28 21.6**	**-0.2**
ISA				*e*Sg	**Sg**	**09 29 38.4**	**+6.8**
X17A	**Forest Lakes**	**4.21**	**63**	⇓P	**Pn**	**09 28 23.1**	**0.0**
	baz=4.2						
V15A	**Kaibab Nationa**	**4.23**	**37**	⇓P	**Pn**	**09 28 24.2**	**+0.8**
	baz=4.2						
T12A	**Moapa**	**4.27**	**7**	⇓P	**Pn**	**09 28 25.0**	**+1.1**
	baz=4.3						
U14A	**Mt Trumbull**	**4.31**	**24**	⇑P	**Pn**	**09 28 24.8**	**+0.3**
	baz=4.3,SNR=13						
Z18A	**Geronimo**	**4.49**	**81**	⇓P	**Pn**	**09 28 27.3**	**+0.3**
	baz=4.5						
218A	**Dragoon**	**4.50**	**95**	⇑P	**Pn**	**09 28 26.6**	**-0.5**
	baz=4.5						
118A	**Homack Ranch,**	**4.52**	**86**	⇑P	**Pn**	**09 28 26.9**	**-0.5**
	baz=4.5,SNR=28						
318A	**Bisbee**	**4.65**	**101**	⇓P	**Pn**	**09 28 28.3**	**-0.8**
	baz=4.6,SNR=46						
T13A	**Saint George**	**4.68**	**14**	⇓P	**Pn**	**09 28 30.3**	**+0.7**
	baz=4.7,SNR=20						
T14A	**Hurricane**	**4.93**	**21**	⇑P	**Pn**	**09 28 33.9**	**+0.9**
	baz=4.9,SNR=15						
S12A	**Delamar Landin**	**5.13**	**4**	⇑P	**Pn**	**09 28 37.1**	**+1.3**
	baz=5.2,SNR=11						
T15A	**Red Dirt Ranch**	**5.14**	**27**	⇓P	**Pn**	**09 28 37.2**	**+1.4**
	baz=5.1,SNR=7.1						
219A	**White Tail Can**	**5.16**	**94**	P	**Pn**	**09 28 35.6**	**-0.6**
	baz=5.1,SNR=8.4						
Z19A	**T-Link Ranch,**	**5.16**	**79**	⇓P	**Pn**	**09 28 36.2**	**0.0**
	baz=5.1						
S13A	**Holt Ranch, En**	**5.23**	**13**	⇑P	**Pn**	**09 28 38.2**	**+1.1**
	baz=5.2						
319A	**Douglas**	**5.25**	**100**	⇑P	**Pn**	**09 28 36.8**	**-0.6**
	baz=5.2,SNR=21						
Y19A	**Nutrioso**	**5.29**	**72**	⇑P	**Pn**	**09 28 39.0**	**+0.9**
	baz=5.3						
W18A	**Petrified Fore**	**5.34**	**59**	⇑P	**Pn**	**09 28 40.1**	**+1.4**
	baz=5.3						
120A	**U Bar Ranch, L**	**5.65**	**87**	⇑P	**Pn**	**09 28 42.4**	**-0.5**
	baz=5.6,SNR=16						
NVAR	**Mina Array Bea**	**6.42**	**339**	Pn	**Pn**	**09 29 00.5**	**+7.0**
	comp=N,0.2nm,0.3s,baz=164,slow=14,SNR=4.2						
MVCO	**Mesa Verde**	**7.33**	**48**	*e*Pn	**Pn**	**09 29 09.6**	**+3.6**
MVCO				*e*Sg	Sn	09 31 20.2	+51
ANMO	**Albuquerque**	**7.78**	**69**	Pn	**Pn**	**09 29 14.2**	**+2.0**
	comp=N,0.2nm,0.3s,baz=256,slow=8.5,SNR=7.7						
ANMO				Lg		09 31 32.6	
	comp=N,0.4nm,0.3s,baz=162,slow=22,SNR=6.7						
ANMO	**Albuquerque**	**7.78**	**69**	Pn	**Pn**	**09 29 13.3**	**+1.1**
PV04	**Paradox Valley**	**7.89**	**40**	*e*Pn	**Pn**	**09 29 22.2**	**+8.5**
SPUT	**South Promonto**	**9.11**	**14**	*e*Pn	**Pn**	**09 29 38.8**	**+8.4**
TXAR	**Lajitas Array**	**10.49**	**104**	Pn	**Pn**	**09 29 50.1**	**+0.8**
	comp=N,0.5nm,0.3s,baz=284,slow=13,SNR=32						
TXAR				Lg		09 32 51.0	
	comp=N,0.1nm,0.3s,baz=301,slow=25,SNR=3.9						
YBH	**Yreka Blue Hor**	**10.96**	**330**	Pn	**Pn**	**09 30 02.6**	**+6.9**
	baz=147,slow=11,SNR=4.2						
PDAR	**Pinedale Array**	**11.24**	**22**	Pn	**Pn**	**09 30 05.6**	**+6.1**
	comp=N,0.0nm,0.3s,baz=218,slow=9.4,SNR=3.9						
PDAR				Lg		09 33 24.7	
	comp=N,0.1nm,0.3s,baz=201,slow=33,SNR=4.7						
PDAR	**Pinedale Array**	**11.24**	**22**	Pn	**Pn**	**09 30 05.6**	**+6.1**
PDAR				Lg		09 33 24.7	

DLMT	Dillon	13.04	9	ePn	Pn	09 30 23.8	-0.3
HOOD	Mount Hood Mea	13.73	341	ePn	Pn	09 30 41.8	+8.1
HAWA	Hanford	14.27	348	ePn	Pn	09 30 47.1	+6.2
RSW	Rattlesnake Hi	14.28	348	ePn	Pn	09 30 50.1	+9.0
CHMT	Chamberlain Mo	14.51	6	ePn	Pn	09 30 52.3	+8.2
NEW	Newport	15.83	356	ePn	Pn	09 31 06.6	+4.9
	comp=N,18nm,0.8s						
EDM	Edmonton	20.78	3	eP	P	09 32 03.4	+3.5
AGMN	Agassiz Refuge	21.57	37	eP	P	09 32 10.9	+2.4
	comp=N,11nm,1.2s,mb4.2						
ULM	Lac du Bonnet	22.87	33	P	P	09 32 27.2	+5.0
	comp=N,3.1nm,0.9s,mb3.7,baz=256,slow=8.3,SNR=4.0						
ULM	Lac du Bonnet	22.87	33	P	P	09 32 27.2	+4.9
CMIG	Matias Romero	23.99	125	P	P	09 32 36.6	+3.0
	comp=N,3.4nm,0.9s,mb3.8,baz=311,slow=7.9,SNR=4.1						
TKL	Tuckaleechee C	26.27	74	LR	LR	09 43 43.5	
	comp=N,360nm,21.1s,MS3.9,baz=117,slow=38						
TEIG	Tepich	27.05	110	LR	LR	09 44 51.8	
	comp=N,120nm,18.6s,MS3.5,baz=131,slow=39						
DLBC	Dease Lake	27.81	343	LR	LR	09 45 29.9	
	comp=N,351nm,22.0s,MS3.9,baz=198,slow=39						
YKA	Yellowknife Ar	30.04	1	P	P	09 33 27.6	0.0
	comp=N,0.2nm,0.8s,baz=178,slow=9.0,SNR=3.8						
YKA				LR	LR	09 45 21.0	
	comp=N,119nm,19.6s,baz=270,slow=36						
PETK	Petropavlovsk-	63.05	318	LR	LR	10 01 31.0	
	comp=N,60nm,22.0s,MS3.7,baz=283,slow=32						
AFI	Afiamalu	70.98	239	LR	LR	10 01 41.2	
	comp=N,101nm,21.2s,MS4.0,baz=109,slow=29						
MDJ	Mudanjiang	83.22	319	P	P	09 39 41.2	-4.1
MDJ				pmax	pmax		
	comp=Z,11nm,2.4s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,140nm,5.3s						
HHC	Hu-ho-hao-te	95.17	326	eP	P	09 40 38.9	-3.5
HHC				pP	pP	09 40 49.5	+2.6
HHC				sP	sP	09 40 54.2	+5.8
HHC				PP	PP	09 44 29.9	-1.5
HHC				SKS		09 51 10.4	
HHC				eS	S	09 51 47.1	-10
HHC				sS	sS	09 52 04.3	-0.5
HHC				SS	SS	09 58 14.8	-7.2
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,180nm,4.9s						
HHC				LR	LR		
	comp=N,100nm,16.7s,MS4.6						
HHC				LR	LR		
	comp=E,150nm,19.0s,MS4.6						
HHC				LR	LR		
	comp=Z,100nm,16.6s,MS4.4						
LZH	Lanzhou	102.56	328	eP	Pdif	09 41 12.0	-3.5
LZH				pP		09 41 22.7	
LZH				sP		09 41 26.5	
LZH				ePP	PP	09 45 27.0	-0.8
LZH				pmax	pmax		
	comp=Z,15nm,1.4s						
LZH				pmax	pmax		
	comp=Z,78nm,5.4s						
LZH				LR	LR		
	comp=N,200nm,17.7s						
LZH				LR	LR		
	comp=Z,290nm,19.5s,MS4.8						

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*NEIC **12** 09:40:30.4, 32°.47N×115°.34W, h10^{km}, ML3.1(PAS), ML3.3(ECX), After ECX.*
NEIC Felt at Guadalupe Victoria.
ECX 12 09:40:30.3±0.3**, 32°.48N×115°.27W, h10^{km}, MD3.2, ML3.3, 6D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.06	207	eP	Pg	09 40 33.6	+1.2
CPBX				eS	Sg	09 40 36.5	+2.5
COA	Coachella	0.41	18	⇓iP	Pg	09 40 40.3	+2.0
SNR	Schaffner Ranc	0.41	340	eP	Pg	09 40 40.0	+1.6
EMX	El Mayor	0.49	177	⇓eP	Pg	09 40 41.2	+1.5
EMX				eS	Sg	09 40 49.7	+3.5
EMX				⇓e		09 40 51.1	
	comp=N,1μm,0.4s						
EMX	El Mayor	0.49	177	⇓eP	Pg	09 40 41.2	+1.5
EMX				eS	Sg	09 40 49.7	+3.5
GLA	Glamis	0.69	33	eP	Pg	09 40 41.7	-1.8
GLA				eS	Sg	09 40 53.6	+1.1
RDX	Rancho Dawling	0.79	227	eP	Pg	09 40 46.2	+0.7
RDX				eS	Sg	09 40 58.1	+2.3
RDX				⇓e		09 40 59.6	
	comp=N,1μm,0.4s						
RDX	Rancho Dawling	0.79	227	eP	Pg	09 40 46.2	+0.7
RDX				eS	Sg	09 40 58.1	+2.3
ECBX	El Chinero	1.02	169	⇓eP	Pg	09 40 51.0	+1.1
ECBX				eS	Sg	09 41 05.2	+2.1
ECNX	Esteban Cantu	1.39	234	ePN	Pn	09 40 54.8	-1.0
PBX	Punta Banda	1.44	240	ePN	Pn	09 40 57.4	+1.0
SPX	San Pedro Mart	1.44	187	ePN	Pn	09 40 59.0	+2.6
LDFC	Landfair	2.60	3	Pn	Pn	09 41 11.5	-0.9
MWC	Mount Wilson	2.91	308	ePn	Pn	09 41 17.1	+0.4
MWC				ePg	Pg	09 41 25.8	-0.3
MWC				eSn	Sn	09 41 50.4	-1.3
MWC				eSg	Sg	09 42 01.3	-2.6
TUC	Tucson	3.80	91	Pn	Pn	09 41 30.4	+1.5
TUC				eS	Sn	09 42 28.1	+14
ISA	Isabella	4.14	321	ePn	Pn	09 41 33.6	0.0
ISA				ePg	Pg	09 41 51.4	+1.7
ISA				eS	Sn	09 42 41.0	+19
WUAZ	Wupatki	4.44	46	ePn	Pn	09 41 39.3	+1.6
WUAZ				eS	Sn	09 42 43.9	+15

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*MAN **12** 09:51:14, 6°.33N×126°.27E, h52^{km}, mb4.8, ML3.7, MS3.7*
*ISCJB **12** 09:51:16.4±0.8, 6°.43N±0°.06×125°.9E±0°.1, h106^{km}±7^{km}, mb4.2/16, Error ellipse: s-maj=22.2km s-min=9.3km az=168.9*
*NEIC **12** 09:51:16.9±0.8, 6°.39N×125°.65E, h91^{km}±8^{km}, mb4.1/8, Error ellipse: s-maj=20.9km s-min=6.4km az=77.0*
*IDC **12** 09:51:16.4±1.2, 6°.36N×125°.68E, h88^{km}±15^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.5/21, mbtmp3.6/7, Error ellipse: s-maj=102.8km s-min=14.9km az=71.0*
ISC 12 09:51:17.5±0.8**, 6°.43N**±0°.06×**125°.9E**±0°.1**, h99**^{km}±7^{km}**, n29, σ1^{s}.15**/34**, mb4.2**/16**, 2C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	0.61	32	eP	Pn	09 51 28.8	-5.2
MATI				eS	Sn	09 51 39.6	-6.7
DAV	Davao City (W)	0.73	331	P	Pn	09 51 33.4	-1.7
	178nm,0.3s,baz=281,slow=2.6,SNR=7.5						
DAV				S	Sn	09 51 57.4	+9.1
	256nm,0.3s,baz=312,slow=23,SNR=6.9						
DMPH	Davao City--Mi	0.78	327	⇑eP	Pn	09 51 34.3	-1.2
DMPH				eS	Sn	09 51 49.0	-0.1
KCP	Kidapawan	1.02	305	⇓eP	Pn	09 51 37.1	-1.0
KCP				eS	Sn	09 51 55.4	+1.8
BUKP	Musuan	1.68	329	eP	Pn	09 51 47.0	+1.0
BUKP				eS	Sn	09 52 09.2	+1.5
SCPH	Surigao	3.36	352	⇑eP	Pn	09 52 08.2	+0.1
MSLP	Maasin	3.83	344	eP	Pn	09 52 14.8	+0.3
TWG	Pinlang	16.96	344	Pn	Pn	09 55 07.8	-0.9
SSLB	Suanglung	17.91	345	eP	Pn	09 55 19.4	-0.9
	3.1nm,0.6s						
NACB	Ninganchiao	18.13	347	P	Pn	09 55 21.9	-1.0
YHNB	Yeheng	18.66	347	eP	Pn	09 55 26.9	-2.3
FITZ	Fitzroy Crossi	24.37	181	P	P	09 56 25.4	-1.2
	2.9nm,0.8s,mb3.6,baz=98,slow=14,SNR=2.8						
FITZ	Fitzroy Crossi	24.37	181	eP	P	09 56 26.0	-0.5
	2.3nm,0.5s,mb3.8						
WRAB	Tennant Creek	27.47	163	eP	P	09 56 56.6	+2.1
	1.5nm,0.5s,mb3.8						
WRA	Warramunga Arr	27.48	163	P	P	09 56 56.0	+1.5
	0.7nm,0.5s,mb3.4,baz=339,slow=10,SNR=12						
ASAR	Alice Springs	30.90	166	P	P	09 57 24.4	-0.5
	0.3nm,0.3s,mb3.5,baz=344,slow=6.9,SNR=7.1						
INCN	Inchon	30.92	1	eP	P	09 57 24.9	0.0
	12nm,0.3s,mb5.1						
XAN	Xi'an	31.67	332	P	P	09 57 33.1	+1.6
XAN				pP	pP	09 57 43.7	-10
XAN				sP	sP	09 57 49.0	-16
XAN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
XAN				pmax	pmax		
	comp=Z,130nm,7.5s						
MAJO	Matsushiro	32.01	19	eP	P	09 57 36.4	+1.9
	comp=Z,10nm,0.9s,mb4.6						
BJT	Baijiatuau	34.58	347	eP	P	09 57 56.4	-0.4
	comp=Z,6.3nm,0.3s,mb4.9						
STKA	Stephens Creek	40.91	159	P	P	09 58 49.7	-0.5
	comp=Z,0.9nm,0.4s,mb4.0,baz=327,slow=21,SNR=3.8						
YSS	Yuzh-Sakhalins	42.89	17	eP	P	09 59 07.3	+1.3
ULN	Ulaanbaatar	44.33	342	eP	P	09 59 18.6	+1.0
	comp=Z,1.1nm,0.6s,mb3.8						
SONM	Songino Array	44.51	341	P	P	09 59 19.7	+0.7
	comp=Z,0.5nm,0.7s,mb3.4,baz=151,slow=7.2,SNR=4.0						
PET	Petropavlovsk	53.58	24	eP	P	10 00 28.9	+0.7
	comp=Z,9.7nm,1.0s,mb4.8						
MKAR	Makanchi Array	54.91	325	P	P	10 00 37.6	-0.3
	comp=Z,0.5nm,0.4s,mb3.9,baz=117,slow=7.0,SNR=16						
KURK	Kurchatov	59.06	327	eP	P	10 01 06.3	-0.8
	comp=Z,1.0nm,0.7s,mb4.0						
KBL	Kabul	59.28	306	eP	P	10 01 07.7	-1.3
	comp=Z,3.5nm,0.4s,mb4.7						
ARCES	ARCESS Array B	87.66	340	P	P	10 03 53.3	-1.3
	comp=Z,11nm,1.1s,mb4.8,baz=96,slow=4.9,SNR=4.8						

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*NEIC **12** 10:02:21.8, 32°.43N×115°.32W, h6^{km}, ML2.6(PAS), After PAS.*
ECX 12 10:02:23.8±0.3**, 32°.45N×115°.25W, h8^{km}, ML3.1, 2C-1D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.06	236	eP	Pg	10 02 26.9	+1.3
CPBX				eS	Sg	10 02 29.3	+2.4
ERPC	Ernies Place	0.46	310	eP	Pg	10 02 30.1	-2.6
EMX	El Mayor	0.46	180	eP	Pg	10 02 35.0	+2.2
EMX				eS	Sg	10 02 42.5	+3.7
EMX				⇓e		10 02 42.8	
	comp=E,664nm,0.2s						
EMX				⇑e		10 02 45.1	
	comp=N,1μm,0.4s						
WESC	Westside Schoo	0.51	307	eP	Pg	10 02 30.8	-2.9
YMD	Yuma Desert	0.60	80	⇑iP	Pg	10 02 34.3	-1.2
YUH	Yuha Desert	0.60	289	eP	Pg	10 02 31.8	-3.7
GLA	Glamis	0.70	30	eP	Pg	10 02 36.2	-1.1
GLA				eS	Sg	10 02 45.0	-1.3
CRR	Carrizo Plain	0.75	306	eP	Pg	10 02 39.6	+1.4
RDX	Rancho Dawling	0.79	229	eP	Pg	10 02 40.5	+1.5
RDX				e		10 02 52.5	
	comp=N,675nm,0.6s						
ECBX	El Chinero	0.99	170	eP	Pg	10 02 45.1	+2.3
ECBX				eS	Sg	10 02 59.0	+3.3
CBX	Cerro Bola	1.21	264	eP	Pb	10 02 47.0	+0.1
BAR	Barrett	1.23	281	eP	Pb	10 02 42.8	-4.5
BAR				eS	Sb	10 03 00.6	-2.6
ECNX	Esteban Cantu	1.39	236	eP	Pn	10 02 47.7	-1.8
SPX	San Pedro Mart	1.41	188	ePN	Pn	10 02 53.6	+3.8
PBX	Punta Banda	1.44	241	eP	Pn	10 02 49.4	-0.8
MWC	Mount Wilson	2.94	308	ePn	Pn	10 03 06.5	-4.3
ISA	Isabella	4.18	321	Pn	Pn	10 03 25.1	-2.7
ISA				Pg	Pg	10 03 41.5	-2.3
WUAZ	Wupatki	4.44	45	ePn	Pn	10 03 29.6	-1.8

NEIC 12 10:02:26.2, 32°.39N×115°.32W, h6^{km}, ML3.2(ECX)**, ML3.3**(PAS)**, After PAS., California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WESC	Westside Schoo	0.51	317	eP	Pg	10 02 35.7	-0.3
WESC				eS	Sg	10 02 43.0	+0.4
YUH	Yuha Desert	0.57	297	eP	Pg	10 02 36.9	-0.3
YUH	Yuha Desert	0.57	297	eP	Pg	10 02 36.9	-0.3
YMD	Yuma Desert	0.68	76	eP	Pg	10 02 39.2	0.0
GLA	Glamis	0.78	32	P	Pg	10 02 40.1	-1.1
GLA				eSg	Sg	10 02 50.0	-1.3
BAR	Barrett	1.18	285	P	Pg	10 02 48.4	-0.5
PFO	Pinyon Flat Ob	1.55	322	ePn	Pn	10 02 54.3	0.0
LDFC	Landfair	2.69	4	Pn	Pn	10 03 10.8	+0.9
LDFC				ePg	Pg	10 03 19.0	+1.3
LDFC				eSg	Sg	10 03 53.7	+1.2
MWC	Mount Wilson	2.93	309	eS	Sn	10 03 55.3	+6.4
ISA	Isabella	4.19	322	ePg	Pg	10 03 47.5	+1.1
ISA	Isabella	4.19	322	eS	Sn	10 04 31.8	+12
WUAZ	Wupatki	4.53	45	ePn	Pn	10 03 35.7	+0.4

KRSC 12 10:03:28.8±1.2**, 55°.49N×166°.16E, h18**^{km}±17^{km}**, ML3.5, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	Bering	0.31	201	i P	Pg	10 03 36.1	+0.7
BKI				i S	Sg	10 03 41.7	+1.8
KBTR	Krutoberegovo	2.02	292	P	Pn	10 04 01.3	-0.6
KBTR				i S	Sn	10 04 25.1	-1.5
ZLN	Zelenaya	3.07	282	P	Pn	10 04 19.1	+2.7
ZLN				i S	Sn	10 04 55.2	+2.6
KMNR	Kamenistaya	3.37	277	P	Pn	10 04 23.3	+2.9
NLC	Nalytchevo	4.62	243	P	Pn	10 04 40.1	+2.5
NLC				i S	Sn	10 05 31.3	+0.7
AVH	Avacha	4.88	246	eP	Pn	10 04 44.1	+3.0
GNL	Ganaly	5.11	253	P	Pn	10 04 47.2	+2.9

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*NEIC **12** 10:39:43.7, 32°.44N×115°.35W, h4^{km}, ML3.6(PAS), ML3.7(ECX), After ECX.*
*ECX **12** 10:39:43.7±0.5, 32°.44N×115°.35W, h4^{km}, MD3.6, ML3.7*
*ISCJB **12** 10:39:45.0±0.3, 32°.50N±0°.02×115°.33W±0°.02, h5^{km}±3^{km}, Error ellipse: s-maj=2.8km s-min=2.4km az=170.2*
ISC 12 10:39:45.5±0.3**, 32°.49N**±0°.02×**115°.32W**±0°.02**, h12**^{km}±2^{km}**, n48, σ1^{s}.33**/86**, 22C-19D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	166	⇓eP	Pg	10 39 46.2	-1.7
CPBX				eS	Sg	10 39 47.9	-1.9
SNR	Schaffner Ranc	0.39	346	⇓iP	Pg	10 39 54.3	+1.1
COA	Coachella	0.41	24	⇓iP	Pg	10 39 54.6	+0.8
EMX	El Mayor	0.50	172	eP	Pg	10 39 55.7	+0.3
EMX				eS	Sg	10 40 02.9	+0.9
EMX				⇓e		10 40 04.5	
	comp=N,3μm,0.5s						
EMX	El Mayor	0.50	172	eP	Pg	10 39 55.7	+0.3
EMX				eS	Sg	10 40 02.9	+0.9
YUH	Yuha Desert	0.53	288	⇑iP	Pg	10 39 56.0	+0.1
SWSC	Sam W. Stewart	0.60	319	P	Pg	10 39 57.4	0.0
	baz=0.7,SNR=89						
SWSC				⇑S	Sg	10 40 06.4	+1.1
	baz=0.7						
112A	Yuma	0.63	85	⇑P	Pg	10 39 57.6	-0.2
	baz=0.6,SNR=620						
112A				⇓S	Sg	10 40 06.8	+0.7
	baz=0.6						
YMD	Yuma Desert	0.66	84	⇑iP	Pg	10 39 58.0	-0.4
CRR	Carrizo Plain	0.68	307	⇑iP	Pg	10 39 58.6	-0.1
DVTC	Desert V Tower	0.68	285	P	Pg	10 39 58.8	+0.1
	baz=0.7,SNR=300						
DVTC				⇑S	Sg	10 40 08.3	+0.7
	baz=0.7						
GLA	Glamis	0.70	36	⇑P	Pg	10 39 58.7	-0.5
	baz=0.7,SNR=74						
GLA				⇑S	Sg	10 40 08.3	-0.2
	baz=0.7						
GLA	Glamis	0.70	36	eP	Pg	10 39 59.2	0.0
GLA				eS	Sg	10 40 08.3	-0.2
RDX	Rancho Dawling	0.76	224	⇑eP	Pg	10 40 00.7	+0.4
RDX				⇑e		10 40 13.5	
	comp=N,3μm,0.6s						
MONP	Monument Peak	1.01	294	⇑P	Pb	10 40 03.9	-1.0
	baz=1.1,SNR=195						
MONP				⇓S	Sg	10 40 18.0	-0.1
	baz=1.1						
ECBX	El Chinero	1.04	167	⇓eP	Pb	10 40 05.6	+0.2
ECBX				eS	Sb	10 40 20.0	+1.1
CBX	Cerro Bola	1.15	262	⇑eP	Pb	10 40 07.1	-0.1
CBX				eS	Sb	10 40 22.5	+0.3
BAR	Barrett	1.16	280	eP	Pb	10 40 06.0	-1.4
BAR				eS	Sb	10 40 21.5	-0.9
BC3	Big Chuckw Mtn	1.17	355	⇑P	Pb	10 40 05.9	-1.8
	baz=1.2,SNR=91						
113A	Mohawk Valley,	1.34	77	⇓P	Pn	10 40 08.3	-1.8
	baz=1.3,SNR=93						
113A				⇓Sb	Sb	10 40 27.3	-0.5
	baz=1.3						
ECNX	Esteban Cantu	1.36	233	ePN	Pn	10 40 11.6	+1.2
ECNX				⇓ePN	Pn	10 40 09.7	-0.7
ECNX				eS	Sb	10 40 27.3	-1.0
ECNX				eS	Sb	10 40 29.4	+1.1
PBX	Punta Banda	1.40	238	ePN	Pn	10 40 11.9	+1.1
PBX				eS	Sn	10 40 30.6	+1.3
SPX	San Pedro Mart	1.44	185	ePN	Pn	10 40 13.5	+2.0
SPX				eS	Sn	10 40 32.4	+2.2
PFO	Pinyon Flat Ob	1.47	320	⇑P	Pn	10 40 09.9	-1.9
	baz=1.5,SNR=120						
PFO				⇓S	Sn	10 40 28.8	-2.2
	baz=1.5						
PFO	Pinyon Flat Ob	1.47	320	ePn	Pn	10 40 09.4	-2.5
PFO				eS	Sn	10 40 28.5	-2.5
109C	Camp Elliot, M	1.56	285	⇓Sb	Sb	10 40 34.1	+0.2
	baz=1.6						
Y13A	Salome	1.82	43	⇑Sb	Sb	10 40 42.1	+0.4
	baz=1.8						
MURC	Murrieta	1.93	306	⇑Sb	Sb	10 40 45.1	+0.4
	baz=2.0						
PDMCI	Parker Dam,Lak	2.06	28	⇓Sb	Sb	10 40 49.2	+0.6
	baz=2.1						
214A	Organ Pipe Nat	2.19	103	⇓P	Pn	10 40 19.6	-2.2
	baz=2.2,SNR=36						
214A				⇓S	Sn	10 40 46.8	-2.1
	baz=2.2						
BBRC	Big Bear Sol-O	2.22	323	⇓S	Sn	10 40 47.0	-2.6
	baz=2.3						
Y14A	Wickenburg	2.42	53	⇑Sb	Sb	10 41 00.1	+1.2
	baz=2.4						
X13A	Yucca	2.44	30	⇓Sb	Sb	10 41 00.6	+1.1
	baz=2.5						
LDFC	Landfair	2.59	4	ePn	Pn	10 40 27.6	+0.4
LDFC				ePg	Pg	10 40 38.0	+2.7
LDFC				eS	Sg	10 41 13.8	+4.9
BFSC	Mount Baldy St	2.62	312	⇑Sb	Sb	10 41 06.4	+1.8
	baz=2.7						
CIS	Catalina Islan	2.75	290	⇑P	Pn	10 40 28.2	-1.2
	baz=2.8,SNR=7.2						
CIS				⇑Sb	Sb	10 41 09.8	+1.5
	baz=2.8						
FMP	Fort Macarthur	2.78	297	⇑Sb	Sb	10 41 11.2	+2.1
	baz=2.8						
X14A	Yava	2.84	45	⇓Sb	Sb	10 41 12.5	+1.7
	baz=2.9						
W13A	Hualapai Mount	2.87	24	⇓Sb	Sb	10 41 13.9	+2.2
	baz=2.9						
MWC	Mount Wilson	2.87	308	ePn	Pn	10 40 30.8	-0.3
MWC				ePg	Pg	10 40 41.9	+1.3
MWC				eS	Sg	10 41 15.6	-2.2
Y15A	Casa Rosa Ranc	2.90	59	⇑Sb	Sb	10 41 14.8	+2.1
	baz=2.9						
PASC	Pasadena Art C	2.93	306	ePn	Pn	10 40 29.8	-2.1
PASC				ePg	Pg	10 40 42.5	+0.8
PASC				eS	Sg	10 41 15.6	-4.0
OSI	Osito Adit	3.54	308	ePn	Pn	10 40 39.4	-1.0
OSI				eS	Sn	10 41 19.6	-2.7
TUC	Tucson	3.84	91	ePn	Pn	10 40 44.2	-0.3
TUC				ePg	Pg	10 40 59.9	+0.7
TUC				eS	Sg	10 41 47.2	-1.8
ISA	Isabella	4.11	321	ePn	Pn	10 40 47.5	-0.6
ISA				ePg	Pg	10 41 02.8	-1.4
ISA				eS	Sg	10 41 59.5	+2.1
WUAZ	Wupatki	4.46	46	ePn	Pn	10 40 52.6	-0.4
WUAZ				ePg	Pg	10 41 10.2	-0.8
WUAZ				eSg	Sg	10 42 08.3	-0.5
TPH	Tonopah	5.79	345	ePn	Pn	10 41 08.3	-3.0
	comp=N,17nm,0.8s						
TPH				ePg	Pg	10 41 39.5	+3.1
TPH				eS	Sn	10 42 15.3	-2.3
MVCO	Mesa Verde	7.33	48	ePn	Pn	10 41 33.9	+1.5
	comp=N,12nm,0.6s						
MVCO				eS	Sg	10 43 32.6	-8.0

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*IDC **12** 10:49:42.3±1.9, 38°.10N×75°.70E, h0^{km}, mb3.4/4, mb1 3.4/6, mb1mx3.4/25, mbtmp3.3/6, ML3.1/2, Error ellipse: s-maj=45.4km s-min=23.8km az=151.0*
*ISCJB **12** 10:49:50.5±0.8, 38°.97N±0°.05×75°.58E±0°.08, h56^{km}±9^{km}, mb3.3/4, Error ellipse: s-maj=11.4km s-min=7.5km az=26.2*
*NEIC **12** 10:49:53.5±1.4, 39°.17N×75°.38E, h70^{km}±14^{km}, Error ellipse: s-maj=19.3km s-min=10.9km az=134.0*
ISC 12 10:49:52.4±0.8**, 39°.00N**±0°.06×**75°.63E**±0°.09**, h59**^{km}±9^{km}**, n30, σ1^{s}.31**/39**, mb3.3**/4**, 3D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.58	27	Pg	Pn	10 50 03.2	-2.0
KSH				Sg	Sn	10 50 12.9	-1.6
KSH				smax			
	comp=N,3μm,0.6s						
KSH				smax			
	comp=E,5μm,0.6s						
KZA	Kyzart	3.09	355	P	Pn	10 50 39.6	+1.0
	SNR=20						
ULHL	Ulahol	3.27	8	P	Pn	10 50 48.6	+7.3
	SNR=12						
UCH	Uchtor	3.33	346	P	Pn	10 50 40.7	-1.3
	SNR=116						
UCH	Uchtor	3.33	346	ePn	Pn	10 50 40.6	-1.4
UCH				eS	Sn	10 51 21.8	+1.5
AML	Almayashu	3.46	335	P	Pn	10 50 39.8	-3.9
	SNR=128						
AML	Almayashu	3.46	335	ePn	Pn	10 50 40.1	-3.6
AML				eS	Sn	10 51 17.9	-5.5
KBK	Karagaybulak	3.69	352	P	Pn	10 50 48.0	+1.1
	SNR=20						
AAK	Ala-Archa	3.73	347	P	Pn	10 50 46.7	-0.8
	SNR=35						
AAK	Ala-Archa	3.73	347	ePn	Pn	10 50 46.5	-0.9
AAK				eS	Sn	10 51 31.8	+1.7
TKM2	Tokmak 2	3.92	360	P	Pn	10 50 52.4	+2.4
	SNR=35						
TKM2	Tokmak 2	3.92	360	ePn	Pn	10 50 51.3	+1.3
TKM2				eS	Sn	10 51 38.7	+4.1
TKM2	Tokmak 2	3.92	360	⇓Pn	Pn	10 50 51.7	+1.7
	comp=E,16nm,0.4s						
TKM2				⇓Sn	Sn	10 51 38.2	+3.6
	comp=E,55nm,0.7s						
EKS2	Erkin-Say	3.92	340	P	Pn	10 50 47.9	-2.1
	SNR=25						
EKS2	Erkin-Say	3.92	340	ePn	Pn	10 50 47.6	-2.5
EKS2				eS	Sn	10 51 34.3	-0.4
CHMS	Chumysh	4.05	351	P	Pn	10 50 52.2	+0.4
	SNR=10						
USP	Ospenovka	4.34	349	P	Pn	10 50 56.1	+0.3
	SNR=8.8						
KK31	Karatay Array	5.63	318	Pn	Pn	10 51 07.3	-6.3
	comp=E,2.9nm,0.4s,baz=133,slow=12,SNR=29						
KK31				⇓Sn	Sn	10 52 03.2	-14
	comp=E,2.9nm,0.3s,baz=137,slow=27,SNR=3.6						
KBL	Kabul	6.91	232	ePn	Pn	10 51 31.7	+0.7
KBL				eSn	Sn	10 52 49.1	+0.8
MK31	Makanchi Array	9.19	30	Pn	Pn	10 52 03.2	+1.0
MKAR	Makanchi Array	9.19	30	Pn	Pn	10 52 07.9	+5.7
	comp=E,0.1nm,0.3s,baz=219,slow=16,SNR=3.4						
KURK	Kurchatov	11.90	9	Pn	Pn	10 52 37.8	-1.3
BVAR	Borovoye Array	14.48	347	Pn	Pn	10 53 18.6	+4.7
	comp=E,0.1nm,0.3s,baz=223,slow=44,SNR=3.2						
BRVK	Borovoye	14.53	347	Pn	Pn	10 53 13.3	-1.3
SONM	Songino Array	23.90	58	P	P	10 55 01.2	+0.8
	comp=E,0.1nm,0.3s,mb2.7,baz=243,slow=7.6,SNR=3.4						
ULN	Ulaanbaatar	24.34	58	P	P	10 55 04.4	0.0
BRTR	Keskin Array B	32.26	285	P	P	10 56 13.3	-1.9
	comp=E,0.4nm,0.3s,mb3.7,baz=101,slow=6.6,SNR=2.4						
TORD	Torodi Ar. Bea	69.41	270	P	P	11 00 54.2	-0.2
	comp=E,0.4nm,0.6s,mb3.5,baz=50,slow=5.6,SNR=4.6						
TORD	Torodi Ar. Bea	69.41	270	P	P	11 00 54.2	-0.2
YKA	Yellowknife Ar	78.52	5	P	P	11 01 50.1	+3.3
	comp=E,0.2nm,0.3s,mb3.5,baz=347,slow=5.7,SNR=7.4						

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*ISCJB **12** 10:55:28.7±0.2, 39°.27N±0°.02×74°.70E±0°.05, h10^{km}, mb4.0/19, MS3.4/7, Error ellipse: s-maj=5.9km s-min=2.9km az=159.8*
*IDC **12** 10:55:28.2±0.8, 39°.18N×74°.72E, h0^{km}, mb4.0/11, mb1 4.1/15, mb1mx4.0/27, mbtmp4.0/15, ML3.7/4, MS3.3/8, Ms1 3.3/8, ms1mx3.1/34, Error ellipse: s-maj=18.3km s-min=15.3km az=29.0*

*NNC **12** 10:55:31.3±3.1, 39°.34N×74°.42E, h0^{km}, mb4.3, mpv4.4, Error ellipse: s-maj=26.1km s-min=15.7km az=176.0*
*MOS **12** 10:55:32.9±1.8, 39°.46N×74°.65E, h33^{km}, mb4.3/12, Error ellipse: s-maj=11.2km s-min=6.9km az=90.9*
*BJI **12** 10:55:36.6, 39°.60N×75°.49E, h15^{km}, mB4.9/5, mb4.4/9, ML3.8/5, Ms3.9/4, Ms7 3.8/3*
*NEIC **12** 10:55:37.6±0.7, 39°.49N×74°.70E, h67^{km}±6^{km}, mb4.0/4, Error ellipse: s-maj=8.3km s-min=5.5km az=153.0*
ISC 12 10:55:31.2±0.2**, 39°.32N**±0°.02×**74°.81E**±0°.05**, h10^{km}, n108, σ1^{s}.66**/131**, mb4.0**/19**, MS3.4**/7**, 9C-6D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**0.92**	**78**	Pg	**Pg**	**10 55 41.9**	**-6.9**
KSH				Sg	**Sg**	**10 55 52.2**	**-8.6**
KSH				smax			
	comp=N,7μm,0.5s						
KSH				smax			
	comp=E,37μm,1.3s						
KZA	**Kyzart**	**2.77**	**7**	P	**Pn**	**10 56 17.6**	**+2.1**
	SNR=88						
UCH	**Uchtor**	**2.91**	**356**	P	**Pn**	**10 56 19.8**	**+2.3**
	SNR=137						
UCH	**Uchtor**	**2.91**	**356**	*e*Pn	**Pn**	**10 56 19.7**	**+2.2**
UCH				*e*Sn	**Sn**	**10 56 57.5**	**+5.0**
AML	**Almayashu**	**2.93**	**343**	P	**Pn**	**10 56 20.0**	**+2.3**
	SNR=117						
AML	**Almayashu**	**2.93**	**343**	*e*Pn	**Pn**	**10 56 19.0**	**+1.2**
AML				*e*S	**Sn**	**10 56 52.6**	**-0.4**
ULHL	**Ulahol**	**3.11**	**20**	P	**Pn**	**10 56 23.0**	**+2.7**
	SNR=13						
AAK	**Ala-Archa**	**3.31**	**356**	P	**Pn**	**10 56 25.4**	**+2.4**
	SNR=141						
AAK	**Ala-Archa**	**3.31**	**356**	*e*Pn	**Pn**	**10 56 25.5**	**+2.4**
AAK				*e*Sn	**Sg**	**10 57 12.7**	**-4.9**
KBK	**Karagaybulak**	**3.33**	**2**	P	**Pn**	**10 56 25.9**	**+2.6**
	SNR=178						
EKS2	**Erkin-Say**	**3.42**	**347**	P	**Pn**	**10 56 27.5**	**+2.9**
	SNR=85						
EKS2	**Erkin-Say**	**3.42**	**347**	*e*Pn	**Pn**	**10 56 27.1**	**+2.5**
EKS2				*e*Sn	**Sn**	**10 57 02.7**	**-2.5**
FRU	**Bishkek**	**3.51**	**358**	*i* PN	**Pn**	**10 56 30.0**	**+4.3**
FRU				*i* S	**Sn**	**10 57 13.0**	**+5.7**
FRU				pmax	pmax		
	comp=Z,350nm,2.0s						
FRU				smax			
	comp=E,2μm,1.8s						
TKM2	**Tokmak 2**	**3.64**	**9**	P	**Pn**	**10 56 30.1**	**+2.6**
	SNR=154						
TKM2	**Tokmak 2**	**3.64**	**9**	*e*Pn	**Pn**	**10 56 29.9**	**+2.4**
TKM2				*e*Sn	**Sn**	**10 57 11.1**	**+0.6**
TKM2	**Tokmak 2**	**3.64**	**9**	⇑Pn	**Pn**	**10 56 30.3**	**+2.8**
	comp=E,104nm,0.7s						
TKM2				⇑Sn	**Sn**	**10 57 15.3**	**+4.7**
	comp=E,336nm,0.8s						
CHMS	**Chumysh**	**3.67**	**359**	P	**Pn**	**10 56 30.2**	**+2.3**
	SNR=52						
USP	**Ospenovka**	**3.95**	**357**	P	**Pn**	**10 56 34.3**	**+2.6**
	SNR=30						
AAA	**Alma-Ata**	**4.26**	**21**	*e*PN	**Pg**	**10 56 47.6**	**-5.1**
AAA				pmax	pmax		
	comp=Z,209nm,0.7s						
KK31	**Karatay Array**	**4.98**	**321**	*e*PN	**Pn**	**10 56 45.7**	**-0.2**
KK31				*i*		10 57 43.3	
KK31						10 58 02.9	
KK31				pmax	pmax		
	comp=Z,19nm,0.5s						
KK31				smax			
	comp=N,25nm,0.3s						
KK31				smax			
	comp=N,67nm,0.6s						
KK31	**Karatay Array**	**4.98**	**321**	⇑Pn	**Pn**	**10 56 45.7**	**-0.1**
	comp=N,19nm,0.5s,baz=138,slow=14,SNR=86						
KK31				⇓Sn	**Sn**	**10 57 43.3**	**-0.1**
	comp=N,13nm,0.3s,baz=123,slow=16,SNR=4.1						
KK31				⇓Lg		10 58 02.9	
	comp=N,53nm,0.6s,baz=147,slow=28,SNR=4.4						
CEP	**Cherat**	**5.97**	**204**	P	**Pn**	**10 57 03.3**	**+3.8**
CEP				S	**Sn**	**10 58 17.0**	**+9.1**
KBL	**Kabul**	**6.64**	**226**	*e*PN	**Pn**	**10 57 13.3**	**+4.5**
KBL				*e*		10 58 29.4	
KBL				pmax	pmax		
	comp=Z,23nm,0.7s						
KBL	**Kabul**	**6.64**	**226**	*e*Pn	**Pn**	**10 57 13.3**	**+4.5**
	comp=Z,23nm,0.7s						
KBL				*e*Sn	**Sn**	**10 58 29.4**	**+4.8**
THN	**Thein Dam**	**6.92**	**174**	*e*PKP	**Pn**	**10 57 15.0**	**+2.5**
THN				*e*x	x	10 58 36.8	
SDNR	**Sundarnagar**	**8.00**	**167**	*e*x	**Pn**	**10 57 33.0**	**+5.5**
SDNR				*e*S	**Sn**	**10 58 56.6**	**-1.4**
MK31	**Makanchi Array**	**9.25**	**34**	*e*Pn	**Pn**	**10 57 46.9**	**+2.3**
MK31				*e*Sn	**Sn**	**10 59 27.2**	**-1.4**
MK31	**Makanchi Array**	**9.25**	**34**	Pn	**Pn**	**10 57 47.0**	**+2.5**
	comp=Z,3.1nm,0.7s,baz=208,slow=14,SNR=9.2						
MK31				⇑Lg		11 00 26.4	
	comp=Z,11nm,0.8s,baz=216,slow=26,SNR=4.4						
MKAR	**Makanchi Array**	**9.25**	**34**	Pn	**Pn**	**10 57 46.8**	**+2.2**
	comp=Z,0.2nm,0.3s,baz=210,slow=14,SNR=6.7						
MKAR				Lg		11 00 21.4	
	comp=Z,0.2nm,0.3s,baz=217,slow=30,SNR=3.0						
DDI	**Dehra Dun**	**9.37**	**163**	*e*PKP	**Pn**	**10 57 46.5**	**+0.3**
DDI				*e*x	x	10 59 32.2	
JOSI	**Joshimath**	**9.57**	**155**	*e*PKP	**Pn**	**10 57 50.3**	**+1.3**
JOSI				*e*S	**Sn**	**10 59 32.0**	**-4.6**
JOSI				AML	AML	10 59 58.4	
	comp=E,125nm,0.3s						
JOSI				AML	AML	10 59 59.0	
	comp=N,144nm,0.6s						
WMQ	**Urumqi**	**10.64**	**61**	P	**Pn**	**10 58 05.4**	**+1.8**
WMQ				pP		10 58 14.0	
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.6s						
WMQ				pmax	pmax		
	comp=Z,220nm,5.2s						
NDI	**New Delhi**	**10.80**	**169**	*e*PKP	**Pn**	**10 58 07.0**	**+1.2**
NDI				*e*S	**Sn**	**10 59 59.0**	**-7.7**
ASOR	**Ausora**	**10.82**	**166**	*e*S	**Sn**	**11 00 03.8**	**-3.5**
AYAN	**Aya Nagar**	**10.98**	**169**	*e*x	x	10 58 07.5	
AYAN				*e*S	**Sn**	**11 00 05.5**	**-5.7**
AYAN				AML	AML	11 00 18.4	
	comp=Z,25nm,0.4s						
SONA	**Sohna**	**11.21**	**170**	*e*PKP	**Pn**	**10 58 13.7**	**+2.4**
SONA				*e*S	**Sn**	**11 00 10.4**	**-6.3**
SONA				*e*S	**Sn**	**11 00 14.2**	**-2.4**
SONA				AML	AML	11 00 18.6	
	comp=N,16nm,0.3s						
SONA				AML	AML	11 00 19.1	
	comp=E,30nm,0.2s						
KUDL	**Kundal**	**11.24**	**172**	*e*PKP	**Pn**	**10 58 14.5**	**+2.7**
KUDL				*e*S	**Sn**	**11 00 11.9**	**-5.5**
KUDL				AML	AML	11 00 21.6	
	comp=N,9.5nm,0.3s						
KUDL				AML	AML	11 00 28.4	
	comp=E,18nm,0.1s						
KHET	**Khetri**	**11.25**	**175**	*e*PKP	**Pn**	**10 58 13.4**	**+1.4**
KHET				*e*S	**Sn**	**11 00 10.9**	**-6.9**
KHET				*e*S	**Sn**	**11 00 18.2**	**+0.4**
KHET				AML	AML	11 00 22.2	
	comp=N,12nm,0.1s						
KHET				AML	AML	11 00 32.8	
	comp=E,10nm,0.6s						
KURK	**Kurchatov**	**11.70**	**12**	P	**Pn**	**10 58 19.1**	**+1.0**
KURK	**Kurchatov**	**11.70**	**12**	Lg		11 01 33.7	
	comp=E,0.1nm,0.3s,baz=202,slow=29,SNR=6.5						
KURK				LR	LR	11 03 16.3	
	comp=E,67nm,20.2s,baz=305,slow=40						
AGRA	**Agra**	**12.34**	**167**	*e*PKP	**Pn**	**10 58 29.1**	**+2.2**
AGRA				*e*S	**Sn**	**11 00 38.0**	**-6.4**
AGRA				AML	AML	11 00 51.6	
	comp=N,92nm,0.1s						
AGRA				AML	AML	11 00 53.1	
	comp=E,87nm,0.3s						
DANN	**Dangsing**	**13.22**	**143**	*e*P	**Pn**	**10 58 37.2**	**-1.7**
	comp=E,11nm,0.4s						
KOLN	**Koldanda**	**13.64**	**145**	*e*P	**Pn**	**10 58 44.1**	**-0.6**
	comp=E,50nm,1.0s						
VOSK	**Vostochnaya**	**13.66**	**350**	⇓P	**Pn**	**10 58 42.5**	**-2.3**
	comp=E,2.3nm,0.7s						
GKN	**Gorkha**	**13.93**	**141**	*e*P	**Pn**	**10 58 47.4**	**-1.2**
	comp=E,21nm,0.6s						
BVA0	**Borovoye Array**	**14.04**	**349**	⇓P	**Pn**	**10 58 49.6**	**-0.3**
	comp=E,1.6nm,1.1s,baz=162,slow=13,SNR=6.1						
BVAR	**Borovoye Array**	**14.04**	**349**	P	**Pn**	**10 58 48.3**	**-1.6**
BVAR						11 01 20.3	
BVAR				MLR	MLR		
	comp=Z,131nm,21.2s						
BVAR	**Borovoye Array**	**14.04**	**349**	Pn	**Pn**	**10 58 48.3**	**-1.6**
	comp=Z,0.4nm,0.3s,baz=158,slow=13,SNR=6.8						
BVAR				Sn	**Sn**	**11 01 20.3**	**-5.4**
	comp=Z,0.2nm,0.3s,baz=170,slow=26,SNR=2.7						
BVAR				Lg		11 02 51.7	
	comp=Z,0.2nm,0.3s,baz=141,slow=27,SNR=4.1						
BVAR				LR	LR	11 04 26.2	
	comp=Z,131nm,21.2s,baz=55,slow=38						
BRVK	**Borovoye**	**14.09**	**349**	*e*P	**Pn**	**10 58 51.1**	**+0.5**
BRVK				*e*		11 01 26.8	
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BRVK	**Borovoye**	**14.09**	**349**	*e*Pn	**Pn**	**10 58 51.0**	**+0.5**
	comp=Z,6.6nm,0.8s						
BRVK				*e*Sn	**Sn**	**11 01 26.8**	**-0.1**
AB01	**Akbulak array**	**14.53**	**318**	⇓P	**Pn**	**10 58 53.5**	**-3.2**
	comp=Z,10nm,0.7s						
AB01				⇓S	**Sn**	**11 01 32.2**	**-5.6**
	comp=Z,3.2nm,0.8s						
AB31	**Akbulak array**	**14.53**	**318**	P	**Pn**	**10 58 53.4**	**-3.3**
AB31				pmax	pmax		
	comp=Z,9.0nm,0.6s						
GUN	**Gumba**	**14.63**	**138**	*e*P	**Pn**	**10 58 56.6**	**-1.6**
JIRN	**Jiri**	**15.00**	**137**	*e*P	**Pn**	**10 59 00.7**	**-2.5**
	comp=Z,16nm,0.4s						
RAMN	**Ramite**	**15.78**	**138**	*e*P	**Pn**	**10 59 11.9**	**-1.6**
	comp=Z,29nm,0.6s						
TAPN	**Taplejung**	**16.06**	**134**	*e*P	**Pn**	**10 59 15.7**	**-1.4**
ZAA0	**Zalesovo Array**	**16.14**	**22**	*e*Pn	**Pn**	**10 59 19.1**	**+1.2**
ZALV	**Zalesovo Beam**	**16.14**	**22**	P	**Pn**	**10 59 18.9**	**+1.1**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ZALV				MLR	MLR		
	comp=Z,48nm,19.1s						
ZALV	**Zalesovo Beam**	**16.14**	**22**	Pn	**Pn**	**10 59 18.9**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=206,slow=12,SNR=5.4						
ZALV				LR	LR	11 05 56.4	
	comp=Z,48nm,19.1s,baz=12,slow=38						
BHPL	**Bhopal**	**16.19**	**171**	*e*x	x	11 02 09.5	
AKTK	**Aktyubinsk**	**16.24**	**319**	Pn	**Pn**	**10 59 16.6**	**-2.7**
AKTK				LR	LR	11 05 57.4	
AKTO	**Aktyubinsk**	**16.24**	**319**	Pn	**Pn**	**10 59 16.6**	**-2.7**
	comp=Z,0.3nm,0.3s,baz=115,slow=12,SNR=17						
AKTO				LR	LR	11 05 57.4	
	comp=Z,112nm,18.3s,baz=292,slow=39						
AKTO	**Aktyubinsk**	**16.24**	**319**	⇑P	**Pn**	**10 59 16.6**	**-2.6**
	comp=Z,2.0nm,0.8s						
AKTO				⇑S	**Sn**	**11 02 11.9**	**-7.4**
	comp=Z,0.8nm,0.9s						
ODAN	**Odare**	**16.27**	**136**	*e*P	**Pn**	**10 59 17.7**	**-2.1**
GTA	**Gaotai**	**19.32**	**82**	*e*P	**Pn**	**10 59 58.2**	**+0.8**
GTA				pP	pP	11 00 02.6	+3.4
GTA				sP	sP	11 00 06.0	+5.5
GTA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ARU	**Arti**	**20.20**	**333**c	*i*P	**P**	**11 00 04.6**	**-1.2**
ARU				*e*		11 00 25.7	
ARU				S	**S**	**11 03 43.4**	**-8.9**
ARU				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ARU	**Arti**	**20.20**	**333**	*e*Pn	**P**	**11 00 05.4**	**-0.4**
	comp=Z,8.8nm,0.7s						
ZAK	**Zakamensk**	**22.87**	**52**	*e*P	**P**	**11 00 37.2**	**+2.7**
ZAK				*e*		11 04 39.0	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.5						
GNI	**Garni**	**23.09**	**282**	⇑*e*P	**P**	**11 00 40.8**	**+3.8**
GNI				pmax	pmax		
	comp=Z,19nm,1.3s						
GNI	**Garni**	**23.09**	**282**	LR	LR	11 11 46.1	
	comp=Z,42nm,18.9s,MS2.9,baz=271,slow=42						
GNI	**Garni**	**23.09**	**282**	*e*Pn	**P**	**11 00 37.5**	**+0.5**
	comp=Z,28nm,1.1s,mb4.6						
LZH	**Lanzhou**	**23.15**	**89**	*e*P	**P**	**11 00 41.7**	**+4.1**
LZH				pP		11 00 48.8	
LZH				pmax	pmax		
	comp=Z,22nm,1.5s,mb4.4						
LZH				pmax	pmax		
	comp=Z,100nm,5.0s						
LZH				LR	LR		
	comp=E,210nm,14.6s						
LZH				LR	LR		
	comp=Z,280nm,17.8s,MS3.8						
ONI	**Oni**	**23.84**	**288**	P	**P**	**11 00 46.5**	**+2.1**
SONM	**Songino Array**	**24.27**	**59**	P	**P**	**11 00 49.0**	**+0.7**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,112nm,19.5s						
SONM	**Songino Array**	**24.27**	**59**	P	**P**	**11 00 49.0**	**+0.7**
	comp=Z,1.0nm,0.8s,mb3.3,baz=266,slow=8.8,SNR=9.5						
SONM				LR	LR	11 11 25.6	
	comp=Z,112nm,19.5s,MS3.4,baz=128,slow=39						
KIV	**Kislovodsk**	**24.36**	**291**	*e*P	**P**	**11 00 49.8**	**+0.6**
KIV				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
KIV				MLR	MLR		
	comp=Z,34nm,12.0s,MS3.0						
ULN	**Ulaanbaatar**	**24.72**	**59**	*e*P	**P**	**11 00 52.7**	**+0.4**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
ULN	**Ulaanbaatar**	**24.72**	**59**	*e*P	**P**	**11 00 52.7**	**+0.4**
	comp=Z,1.9nm,0.7s,mb3.7						
MALT	**Malatya**	**28.25**	**280**	*e*P	**P**	**11 01 22.7**	**-1.6**
MALT				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
MALT	**Malatya**	**28.25**	**280**	*e*P	**P**	**11 01 22.7**	**-1.6**
	comp=Z,2.1nm,0.7s,mb3.9						
OBN	**Obninsk**	**29.94**	**315**	P	**P**	**11 01 37.5**	**-1.6**
BRTR	**Keskin Array B**	**31.57**	**284**	P	**P**	**11 01 53.4**	**-0.3**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BRTR	**Keskin Array B**	**31.57**	**284**	P	**P**	**11 01 53.4**	**-0.3**
	comp=Z,3.9nm,0.7s,mb4.3,baz=104,slow=7.1,SNR=15						
AKASG	**Malin Array Be**	**33.67**	**305**	P	**P**	**11 02 10.2**	**-1.7**
	comp=Z,0.4nm,0.4s,mb3.7,baz=82,slow=7.5,SNR=4.1						
NJ2	**Nanjing**	**36.22**	**88**	*e*P	**P**	**11 02 36.4**	**+2.2**
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CN2	**Changchun**	**37.67**	**66**	*e*P	**P**	**11 02 46.7**	**+0.3**
CN2				*e*S	**S**	**11 08 28.9**	**-7.3**
CN2				LR	LR		
	comp=Z,200nm,13.0s,MS4.1						
ARCES	**ARCESS Array B**	**39.76**	**335**	P	**P**	**11 03 02.1**	**-1.5**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ARCES	**ARCESS Array B**	**39.76**	**335**	P	**P**	**11 03 02.1**	**-1.5**
	comp=Z,3.2nm,0.5s,mb4.3,baz=101,slow=5.6,SNR=16						
YAK	**Yakutsk**	**39.91**	**37**	P	**P**	**11 03 03.5**	**-1.4**
KSRS	**Korea Array**	**41.17**	**75**	LR	LR	11 21 59.9	
	comp=Z,54nm,18.4s,MS3.5,baz=290,slow=39						
DPC	**Dobruska-Polom**	**41.90**	**305**	*e*P	**P**	**11 03 22.1**	**+0.6**
TIXI	**Tiksi**	**42.02**	**23**	⇑*e*P	**P**	**11 03 19.2**	**-3.0**
TIXI				pmax	pmax		
	comp=Z,9.0nm,2.5s,mb4.0						
GERES	**GERESS Array B**	**43.83**	**303**	P	**P**	**11 03 35.9**	**-1.3**
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
GERES	**GERESS Array B**	**43.83**	**303**	P	**P**	**11 03 35.9**	**-1.3**
	comp=Z,1.9nm,0.6s,mb4.0,baz=69,slow=7.3,SNR=9.8						
CLL	**Collm**	**43.84**	**307**	*e*P	**P**	**11 03 37.0**	**-0.2**
KHC	**Kasperske Hory**	**43.86**	**304**	*e*P	**P**	**11 03 37.4**	**0.0**
NB2	**NORSAR Subarra**	**44.01**	**321**	P	**P**	**11 03 35.9**	**-2.5**
	comp=Z,7.2nm,1.2s,mb4.3,baz=91,slow=8.6						
NOA	**NORSAR Array B**	**44.01**	**321**	P	**P**	**11 03 35.8**	**-2.6**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA				MLR	MLR		
	comp=Z,52nm,20.7s						
NOA	**NORSAR Array B**	**44.01**	**321**	P	**P**	**11 03 35.8**	**-2.6**
	comp=Z,1.6nm,0.6s,mb3.9,baz=91,slow=8.0,SNR=4.8						
NOA				LR	LR	11 23 17.5	
	comp=Z,52nm,20.6s,MS3.4,baz=0.0,slow=38						
MJAR	**Matsushiro Arr**	**49.16**	**72**	P	**P**	**11 04 18.9**	**-0.3**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJAR	**Matsushiro Arr**	**49.16**	**72**	P	**P**	**11 04 18.9**	**-0.3**
	comp=Z,1.3nm,0.7s,mb4.1,baz=297,slow=9.7,SNR=3.8						
TORD	**Torodi Ar. Bea**	**68.77**	**270**	P	**P**	**11 06 34.7**	**-0.9**
	comp=Z,1.0nm,0.6s,mb3.9,baz=58,slow=6.1,SNR=8.4						
KTH	**Kantishna Hill**	**71.22**	**20**	P	**P**	**11 06 47.7**	**-2.2**
YKA	**Yellowknife Ar**	**78.25**	**4**	P	**P**	**11 07 29.1**	**-1.5**
	comp=Z,1.7nm,0.8s,mb4.0,baz=346,slow=5.5,SNR=25						
WRA	**Warramunga Arr**	**81.02**	**125**	P	**P**	**11 07 46.1**	**-0.2**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	**81.02**	**125**	P	**P**	**11 07 46.1**	**-0.1**
	comp=Z,0.9nm,0.7s,mb3.8,baz=318,slow=4.3,SNR=7.7						
ASAR	**Alice Springs**	**83.49**	**128**	P	**P**	**11 07 56.2**	**-2.9**
	comp=Z,0.4nm,0.8s,mb3.5,baz=306,slow=3.6,SNR=4.9						
FFC	**Flin Flon**	**86.28**	**358**	*i* P	**P**	**11 08 14.1**	**+1.3**

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*ISCJB **12** 11:22:21.9±0.5, 37°.95N±0°.02×27°.83E±0°.04, h2^{km}±8^{km}, Error ellipse: s-maj=6.0km s-min=3.4km az=7.3*
*DDA **12** 11:22:21.9, 37°.95N×27°.84E, h8^{km}±2^{km}, Md3.1*
*CSEM **12** 11:22:22.3±0.1, 37°.95N×27°.83E, h5^{km}, MD3.1, Error ellipse: s-maj=2.9km s-min=1.9km az=94.0*
*ISK **12** 11:22:22.0, 37°.94N×27°.77E, h10^{km}, MD2.9*
ISC 12 11:22:22.5±0.4**, 37°.95N**±0°.02×**27°.83E**±0°.05**, h6**^{km}±8^{km}**, n29, σ0^{s}.45**/44**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AYDN	**Tasoluk**	**0.29**	**172**	*i* P	**Pg**	**11 22 28.0**	**-0.2**
AYDN				*i* S	**Sg**	**11 22 32.1**	**0.0**
AYDN	**Tasoluk**	**0.29**	**172**	*i* P	**Pg**	**11 22 28.0**	**-0.2**
AYDN				*i* S	**Sg**	**11 22 32.1**	**0.0**
GCAM	**G?zelcaml?**	**0.53**	**242**	*i* P	**Pg**	**11 22 32.6**	**-0.2**
GCAM				*i* S	**Sg**	**11 22 40.3**	**+0.5**
GCAM	**G?zelcaml?**	**0.53**	**242**	*i* P	**Pg**	**11 22 32.6**	**-0.2**
GCAM				*i* S	**Sg**	**11 22 40.3**	**+0.6**
IZM	**Izmir**	**0.63**	**315**	*e*PG	**Pg**	**11 22 34.0**	**-0.6**
IZM				*e*SG	**Sg**	**11 22 42.9**	**+0.1**
MLSB	**Milas**	**0.66**	**184**	*e*PG	**Pg**	**11 22 35.1**	**0.0**
MLSB				*e*SG	**Sg**	**11 22 44.2**	**+0.5**
MLSB	**Milas**	**0.66**	**184**	*e*Pg	**Pg**	**11 22 35.1**	**0.0**
MLSB				*e*Sg	**Sg**	**11 22 44.2**	**+0.5**
BLCB	**Balcova**	**0.76**	**305**	*e*PG	**Pg**	**11 22 36.6**	**-0.4**
BLCB	**Balcova**	**0.76**	**305**	*e*Pg	**Pg**	**11 22 36.6**	**-0.4**
MANT	**Manisa**	**0.79**	**47**	*i* P	**Pg**	**11 22 36.8**	**-0.8**
MANT				*i* S	**Sg**	**11 22 48.1**	**+0.2**
MANT	**Manisa**	**0.79**	**47**	*i* P	**Pg**	**11 22 36.8**	**-0.8**
MANT				*i* S	**Sg**	**11 22 48.1**	**+0.2**
YER	**Yerkesik**	**0.89**	**156**	*e*PG	**Pg**	**11 22 39.6**	**0.0**
YER	**Yerkesik**	**0.89**	**156**	*e*Pg	**Pg**	**11 22 39.6**	**0.0**
AKHS	**Akhisar**	**0.93**	**359**	*i* P	**Pg**	**11 22 40.7**	**+0.4**
AKHS				*i* S	**Sg**	**11 22 52.9**	**+0.6**
AKHS	**Akhisar**	**0.93**	**359**	*i* P	**Pg**	**11 22 40.7**	**+0.4**
AKHS				*i* S	**Sg**	**11 22 52.8**	**+0.5**
AKS	**Akhisar**	**0.93**	**359**	*e*PG	**Pg**	**11 22 40.5**	**+0.2**
AKS	**Akhisar**	**0.93**	**359**	*e*Pg	**Pg**	**11 22 40.5**	**+0.2**
BDRM	**Kayabasi**	**0.94**	**199**	*i* P	**Pg**	**11 22 39.9**	**-0.6**
BDRM				*i* S	**Sg**	**11 22 52.9**	**+0.2**
BDRM	**Kayabasi**	**0.94**	**199**	*i* P	**Pg**	**11 22 39.8**	**-0.7**
BDRM				*i* S	**Sg**	**11 22 52.9**	**+0.3**
BODT	**Bodrum**	**0.98**	**205**	*e*PG	**Pg**	**11 22 40.8**	**-0.5**
BODT				*e*SG	**Sg**	**11 22 54.6**	**+0.6**
BODT	**Bodrum**	**0.98**	**205**	*e*Pg	**Pg**	**11 22 40.8**	**-0.5**
BODT				*e*Sg	**Sg**	**11 22 54.6**	**+0.6**
DAT	**Datca**	**1.24**	**189**	*e*PN	**Pn**	**11 22 45.8**	**-0.5**
DAT	**Datca**	**1.24**	**189**	*e*Pn	**Pn**	**11 22 45.8**	**-0.5**
DALT	**Dalyan (Mudla)**	**1.35**	**151**	*e*PN	**Pn**	**11 22 47.4**	**-0.4**
DALT	**Dalyan (Mudla)**	**1.35**	**151**	*e*Pn	**Pn**	**11 22 47.4**	**-0.4**
KHL	**Karahalli**	**1.39**	**74**	*e*PN	**Pn**	**11 22 48.8**	**+0.4**
KHL	**Karahalli**	**1.39**	**74**	*e*Pn	**Pn**	**11 22 48.8**	**+0.4**
FETY	**Fethiye**	**1.65**	**142**	*e*PN	**Pn**	**11 22 52.7**	**+0.7**
FETY	**Fethiye**	**1.65**	**142**	*e*Pn	**Pn**	**11 22 52.7**	**+0.7**

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*ISCJB **12** 11:51:35.9±0.5, 33°.33N±0°.02×35°.43E±0°.03, h10^{km}±3^{km}, Error ellipse: s-maj=5.3km s-min=3.0km az=31.1*
*GII **12** 11:51:35.4±0.8, 33°.26N×35°.43E, h1^{km}±3^{km}, Md2.5/6*
*CSEM **12** 11:51:36.4, 33°.30N×35°.38E, h3^{km}, ML3.0, After GRAL*
*GRAL **12** 11:51:36.4±0.6, 33°.30N×35°.38E, h3^{km}±30^{km}, MD3.0*
*NSSC **12** 11:51:39, 33°.34N×35°.62E, h22^{km}±3^{km}*
ISC 12 11:51:36.3±0.4**, 33°.33N**±0°.02×**35°.44E**±0°.03**, h10**^{km}±4^{km}**, n26, σ0^{s}.80**/44**, 4D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	**Matirih**	**0.18**	**329**	*e*P	**Pg**	**11 51 40.0**	**-0.2**
MATL	**Matirih**	**0.18**	**329**	*e*P	**Pg**	**11 51 40.0**	**-0.2**
KSDI	**Kefar Szold**	**0.23**	**128**	Pg	**Pg**	**11 51 40.7**	**-0.3**
KSDI				Sg	**Sg**	**11 51 44.9**	**+0.8**
MMA0	**Mount Meron ar**	**0.32**	**186**	Pg	**Pg**	**11 51 41.8**	**-0.8**
MMA0				Sg	**Sg**	**11 51 47.1**	**+0.2**
HNTI	**Hanita**	**0.34**	**222**	Sg	**Sg**	**11 51 47.1**	**-0.3**
RCY	**Rachaya**	**0.35**	**64**	*e*P	**Pg**	**11 51 43.6**	**+0.4**
RCY				*e*S	**Sg**	**11 51 49.8**	**+1.9**
RCY	**Rachaya**	**0.35**	**64**	*e*P	**Pg**	**11 51 43.6**	**+0.4**
RCY				*e*S	**Sg**	**11 51 49.8**	**+1.9**
BRBR	**Barbar**	**0.43**	**79**	⇓P	**Pg**	**11 51 45.0**	**+0.3**
BRBR				⇓S	**Sg**	**11 51 50.0**	**-0.5**
KSHT	**Keshet**	**0.47**	**138**	Pg	**Pg**	**11 51 45.5**	**+0.1**
KSHT				Sg	**Sg**	**11 51 52.7**	**+1.2**
BHL	**Bhannes**	**0.60**	**17**	*e*P	**Pg**	**11 51 47.7**	**-0.1**
BHL	**Bhannes**	**0.60**	**17**	*e*P	**Pg**	**11 51 47.7**	**-0.1**
BLGI	**Bet Lehem HaGe**	**0.63**	**200**	Pg	**Pg**	**11 51 48.1**	**-0.5**
BLGI				Sg	**Sg**	**11 51 58.1**	**+1.2**
QASN	**Qassioun**	**0.72**	**74**	⇑P	**Pg**	**11 51 50.0**	**-0.3**
QASN				⇓S	**Sg**	**11 51 59.0**	**-0.8**
OFRI	**‘Ofer**	**0.81**	**209**	Pg	**Pg**	**11 51 51.0**	**-0.9**
OFRI				Sg	**Sg**	**11 52 03.8**	**+1.4**
MMLI	**Mount Malkishu**	**0.89**	**181**	Pg	**Pg**	**11 51 52.2**	**-1.3**
MMLI				Sg	**Sg**	**11 52 04.8**	**-0.3**
HWQ	**Hawqa**	**1.03**	**24**	*e*P	**Pg**	**11 51 55.9**	**-0.3**
HWQ				*e*S	**Sg**	**11 52 10.1**	**+0.5**
HWQ	**Hawqa**	**1.03**	**24**	*e*P	**Pg**	**11 51 55.9**	**-0.2**
HWQ				*e*S	**Sg**	**11 52 10.1**	**+0.5**
HMDT	**Nahal Hemdat**	**1.08**	**176**	Pg	**Pg**	**11 51 55.6**	**-1.4**
HMDT				Sg	**Sg**	**11 52 11.5**	**+0.4**
SLTI	**Sal’it**	**1.14**	**197**	Pg	**Pg**	**11 51 57.1**	**-1.1**
SLTI				Sg	**Sg**	**11 52 13.0**	**0.0**
SALA	**Sala**	**1.25**	**119**	⇑P	**Pn**	**11 51 59.0**	**-0.8**
SALA				⇑S	**Sb**	**11 52 14.0**	**-2.1**
DSI	**Dead Sea**	**1.76**	**182**	Pn	**Pn**	**11 52 06.7**	**-0.2**
DSI				Sn	**Sn**	**11 52 30.7**	**+1.4**
BIDA	**Albida**	**1.83**	**23**	⇑P	**Pn**	**11 52 08.0**	**+0.2**
BIDA				⇓S	**Sn**	**11 52 31.0**	**0.0**
YTIR	**Yattir**	**1.98**	**188**	Pn	**Pn**	**11 52 10.3**	**+0.4**
MZDA	**Masada**	**2.02**	**182**	Pn	**Pn**	**11 52 11.1**	**+0.7**
WRDH	**Warideh**	**2.31**	**20**	⇑P	**Pn**	**11 52 15.0**	**+0.5**
WRDH				⇑S	**Sn**	**11 52 43.0**	**0.0**
PRNI	**Paran**	**3.00**	**187**	Pn	**Pn**	**11 52 24.2**	**+0.3**

IDC 12 12:00:50.6±6.9**, 0°.12S**×**19°.82W, h0**^{km}**, mb3.4**/1**, mb1 3.7**/2**, mb1mx3.4**/22**, mbtmp3.7**/2**, ML4.0**/1**, Error ellipse: s-maj=308.5km s-min=51.8km az=132.0, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	**Dimbokro**	**16.38**	**65**	Pn	Pn	12 04 42.0	-0.1
	0.6nm,0.3s,baz=239,slow=15,SNR=8.3						
DBIC				Sn	Sn	12 07 31.4	-13
	0.3nm,0.3s,baz=148,slow=6.6,SNR=4.7						
TORD	**Torodi Ar. Bea**	**25.07**	**57**	P	P	12 06 17.1	+0.1
	0.8nm,0.9s,baz=246,slow=8.3,SNR=3.7						
ASAR	**Alice Springs**	**145.21**	**135**	PKPbc	PKPbc	12 20 29.9	-0.8
	0.8nm,0.6s,baz=221,slow=2.4,SNR=5.8						

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*IDC **12** 12:02:07.1±0.9, 25°.21N×56°.18E, h0^{km}, mb4.0/13, mb1 4.1/13, mb1mx3.9/26, mbtmp4.0/13, Error ellipse: s-maj=23.9km s-min=18.9km az=128.0*
*ISCJB **12** 12:02:08.1±0.6, 25°.36N±0°.03×55°.98E±0°.03, h15^{km}±4^{km}, mb3.9/17, Error ellipse: s-maj=4.9km s-min=4.2km az=163.7*
*CSEM **12** 12:02:08.4±0.1, 25°.33N×56°.12E, h5^{km}, mb4.1/6, Error ellipse: s-maj=4.6km s-min=3.3km az=99.0*
*KISR **12** 12:02:08.9±0.6, 25°.80N×55°.78E, h1^{km}±999^{km}, ML4.1*
*NEIC **12** 12:02:08.8±0.5, 25°.27N×56°.17E, h10^{km}, mb4.0/8, Error ellipse: s-maj=11.1km s-min=8.8km az=135.0*
NEIC Felt at Al Fujayrah and Sharjah, United Arab Emirates.
ISC 12 12:02:08.7±0.7**, 25°.33N**±0°.03×**56°.03E**±0°.03**, h8**^{km}±4^{km}**, n80, σ1^{s}.03**/89**, mb3.9**/17**, 4C-18D, Eastern Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NAZ	**Nazwa, Dubai**	**0.47**	**225**	⇓P	**Pg**	**12 02 18.9**	**+1.0**

	SNR=64						
NAZ				⇓P		12 02 18.9	
	SNR=64						
NAZ	Nazwa, Dubai	0.47	225	P	Pg	12 02 18.9	+1.0
	SNR=64						
NAZ	Nazwa, Dubai	0.47	225	Pg	Pg	12 02 19.1	+1.2
	SNR=64						
HATD	Hatta, Dubai	0.51	169	⇓P	Pg	12 02 18.6	+0.1
	SNR=879						
HATD				⇓P		12 02 18.6	
	SNR=879						
HATD	Hatta, Dubai	0.51	169	Pg	Pg	12 02 16.9	-1.7
	SNR=1000						
HATD	Hatta, Dubai	0.51	169	P	Pg	12 02 18.6	0.0
	SNR=879						
HATD				Sg	Sg	12 02 23.2	-2.0
BANOM	Banah	0.64	22	⇓P	Pg	12 02 18.5	-2.6
	SNR=340						
BANOM				⇓P		12 02 18.5	
	SNR=340						
BANOM	Banah	0.64	22	P	Pg	12 02 18.5	-2.6
	SNR=340						
BANOM	Banah	0.64	22	Pg	Pg	12 02 20.4	-0.7
	SNR=147						
BANOM				Sg	Sg	12 02 29.4	-0.1
FAQ	Al Faqa, Dubai	0.70	214	⇓P	Pg	12 02 22.9	+0.6
	SNR=170						
FAQ				⇓P		12 02 22.9	
	SNR=170						
FAQ	Al Faqa, Dubai	0.70	214	Pg	Pg	12 02 22.6	+0.3
	SNR=153						
FAQ	Al Faqa, Dubai	0.70	214	P	Pg	12 02 22.9	+0.6
	SNR=170						
ARQ	Araqi	2.03	167	⇓P	Pn	12 02 43.9	+0.5
	SNR=22						
ARQ				⇓P		12 02 43.9	
	SNR=22						
ARQ	Araqi	2.03	167	P	Pn	12 02 43.9	+0.6
	SNR=22						
HOQ	Hoqain	2.09	146	⇓P	Pn	12 02 44.1	0.0
	SNR=12						
HOQ				⇓P		12 02 44.1	
	SNR=12						
HOQ	Hoqain	2.09	146	P	Pn	12 02 44.1	-0.1
	SNR=12						
BIDO	Bidbid	2.62	133	⇑P	Pn	12 02 51.0	-0.4
	SNR=12						
BIDO				⇑P		12 02 51.0	
	SNR=12						
BIDO	Bidbid	2.62	133	P	Pn	12 02 51.0	-0.5
	SNR=12						
BSY	Bisya	2.78	157	⇓P	Pn	12 02 54.5	+0.8
	SNR=9.9						
BSY				⇓P		12 02 54.5	
	SNR=9.9						
BSYO	Bisya	2.81	157	P	Pn	12 02 54.5	+0.5
	SNR=9.9						
SMDO	Samad	2.92	140	⇑P	Pn	12 02 55.3	-0.1
	SNR=13						
SMDO				⇑P		12 02 55.3	
	SNR=13						
SMDO	Samad	2.92	140	P	Pn	12 02 55.3	-0.2
	SNR=13						
WBK	Wadi Bani Khal	3.81	135	⇓P	Pn	12 03 07.3	-0.5
	SNR=19						
WBK				⇓P		12 03 07.3	
	SNR=19						
WBK				⇓S	Sn	12 03 54.0	+1.0
WBK				⇓S	Sn	12 03 54.0	+1.0
BTHS		4.88	256	S	Sn	12 04 16.9	-2.4
BTHS		4.88	256	P	Pn	12 03 22.4	-0.1
BTHS		4.88	256	P	Pn	12 03 22.4	-0.2
KFJS		7.77	293	P	Pn	12 04 02.7	+0.5
QRN	Al-Qurain	7.99	297	*e*P	Pn	12 04 06.6	+1.4
QRN				*e*S	Sn	12 05 34.6	-1.4
QRN				AML	AML	12 05 35.2	
	comp=Z,47nm,0.6s						
QRN	Al-Qurain	7.99	297	*e*P	Pn	12 04 06.6	+1.3
KBD	Kabd	8.35	299	*e*P	Pn	12 04 11.5	+1.4
KBD				AML	AML	12 05 45.1	
	comp=Z,9.0nm,0.3s						
KBD	Kabd	8.35	299	*e*P	Pn	12 04 11.5	+1.3
LYLS		8.69	250	P	Pn	12 04 14.6	-0.3
NAY	Al-Naaiem	8.74	299	*e*P	Pn	12 04 16.6	+1.1
NAY				AML	AML	12 05 53.0	
	comp=Z,5.8nm,0.4s						
NAY				*e*S	Sn	12 05 53.1	-1.1
NAY	Al-Naaiem	8.74	299	*e*P	Pn	12 04 16.6	+1.1
MIB	Mutribah	8.91	302	*e*P	Pn	12 04 19.1	+1.3
MIB				*e*S	Sn	12 05 56.6	-1.8
MIB				AML	AML	12 05 57.1	
	comp=Z,25nm,0.6s						
MIB	Mutribah	8.91	302	*e*P	Pn	12 04 19.1	+1.3
ASYS		10.70	284	S	Sn	12 06 36.9	-5.5
GNI	Garni	17.54	330	Pn	Pn	12 06 14.8	+1.2
	comp=Z,12nm,1.3s						
GNI	Garni	17.54	330	Pn	Pn	12 06 14.9	+1.2
	comp=Z,12nm,1.3s						
MALT	Malatya	19.74	315	*e*P	Pn	12 06 39.6	-0.8
	comp=Z,2.4nm,0.8s						
MALT				S	Sn	12 10 21.9	-0.4
MALT	Malatya	19.74	315	*e*P	Pn	12 06 39.6	-0.8
	comp=Z,2.4nm,0.8s						
MALT				S	Sn	12 10 22.0	-0.3
EKS2	Erkin-Say	22.63	36	*e*P	P	12 07 09.5	-0.6
	comp=Z,1.3nm,0.6s,mb3.5						
EKS2	Erkin-Say	22.63	36	*e*P	P	12 07 09.5	-0.5
	comp=Z,1.3nm,0.6s,mb3.5						
UCH	Uchtor	22.73	38	P	P	12 07 10.3	-0.9
UCH	Uchtor	22.73	38	P	P	12 07 10.3	-0.8
AAK	Ala-Archa	22.99	37	*e*P	P	12 07 13.7	-0.2
	comp=Z,4.9nm,1.1s,mb3.9						
AAK	Ala-Archa	22.99	37	*e*P	P	12 07 13.7	-0.2
	comp=Z,4.9nm,1.1s,mb3.9						
BRTR	Keskin Array B	23.63	313	P	P	12 07 22.4	+1.9
	comp=Z,1.6nm,0.8s,mb3.5,baz=126,slow=9.7,SNR=5.2						
BRTR	Keskin Array B	23.63	313	P	P	12 07 22.5	+1.9
TKM2	Tokmak 2	23.79	38	*e*P	P	12 07 21.4	-0.6
	comp=Z,5.5nm,1.6s,mb3.7						
TKM2	Tokmak 2	23.79	38	*e*P	P	12 07 21.4	-0.6
	comp=Z,5.5nm,1.6s,mb3.7						
AKTK	Aktyubinsk	25.11	3	P	P	12 07 34.7	+0.7
AKTK	Aktyubinsk	25.11	3	P	P	12 07 34.7	+0.7
AKTO	Aktyubinsk	25.11	3	P	P	12 07 34.7	+0.7
	comp=Z,3.9nm,0.6s,mb4.1,baz=190,slow=11,SNR=11						
BVAR	Borovoye Array	29.70	18	P	P	12 08 15.5	+0.4
	comp=Z,0.8nm,0.6s,mb3.6,baz=187,slow=7.3,SNR=2.8						
BVAR	Borovoye Array	29.70	18	P	P	12 08 15.5	+0.4
MKAR	Makanchi Array	29.92	38	P	P	12 08 17.6	+0.5
	comp=Z,0.3nm,0.6s,mb3.2,baz=238,slow=6.0,SNR=6.4						
MKAR	Makanchi Array	29.92	38	P	P	12 08 17.6	+0.5
ZALV	Zalesovo Beam	35.71	29	P	P	12 09 07.2	-0.4
	comp=Z,0.8nm,0.3s,mb4.1,baz=240,slow=11,SNR=4.2						
FIA1	FINESS Array S	41.42	339	P	P	12 09 56.2	+0.7
FIA1	FINESS Array S	41.42	339	P	P	12 09 56.2	+0.7
NOA	NORSAR Array B	46.84	332	P	P	12 10 39.5	+0.6
	comp=Z,0.9nm,0.7s,mb3.8,baz=119,slow=7.6,SNR=3.5						
NOA	NORSAR Array B	46.84	332	P	P	12 10 39.5	+0.6
ARCES	ARCESS Array B	47.74	346	P	P	12 10 47.3	+1.4
	comp=Z,5.8nm,0.9s,mb4.6,baz=154,slow=6.9,SNR=6.2						
ARCES	ARCESS Array B	47.74	346	P	P	12 10 47.3	+1.4
TORD	Torodi Ar. Bea	52.40	267	P	P	12 11 21.6	-0.4
	comp=Z,2.4nm,0.7s,mb4.2,baz=65,slow=7.0,SNR=14						
LBTB	Lobatse	58.06	213	P	P	12 12 02.9	+0.4
	comp=Z,2.2nm,0.7s,mb4.3						
LBTB	Lobatse	58.06	213	P	P	12 12 02.9	+0.3
	comp=Z,2.2nm,0.7s,mb4.3						
DBIC	Dimbokro	60.89	263	P	P	12 12 22.6	+0.2
	comp=Z,1.7nm,0.4s,mb4.5,baz=28,slow=6.4,SNR=6.7						
DBIC	Dimbokro	60.89	263	*e*P	P	12 12 22.4	-0.1
	comp=Z,1.9nm,0.5s,mb4.5						
DBIC	Dimbokro	60.89	263	*e*P	P	12 12 22.4	-0.1
	comp=Z,1.9nm,0.5s,mb4.5						
BOSA	Boshof	61.25	211	P	P	12 12 25.8	+1.3
	comp=Z,1.3nm,0.6s,mb4.3,baz=12,slow=7.5,SNR=4.0						
BOSA	Boshof	61.25	211	*e*P	P	12 12 26.3	+1.7
	comp=Z,2.1nm,0.7s,mb4.4						
BOSA	Boshof	61.25	211	*e*P	P	12 12 26.3	+1.8
	comp=Z,2.1nm,0.7s,mb4.4						
WRA	Warramunga Arr	88.38	113	P	P	12 15 00.0	-1.7
	comp=Z,0.7nm,0.9s,mb3.9,baz=313,slow=4.1,SNR=5.1						
WRA	Warramunga Arr	88.38	113	P	P	12 15 00.0	-1.7
ASAR	Alice Springs	89.74	116	P	P	12 15 06.5	-1.6
	comp=Z,0.6nm,0.9s,mb3.9,baz=300,slow=5.0,SNR=5.9						
ASAR	Alice Springs	89.74	116	P	P	12 15 06.4	-1.7
YKA	Yellowknife Ar	92.17	356	P	P	12 15 17.2	-1.5
	comp=Z,0.1nm,0.5s,mb3.4,baz=353,slow=4.5,SNR=2.9						
YKA	Yellowknife Ar	92.17	356	P	P	12 15 17.2	-1.5

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*ISCJB **12** 12:09:12.2±0.4, 33°.32N±0°.02×35°.42E±0°.03, h9^{km}±3^{km}, Error ellipse: s-maj=4.5km s-min=2.6km az=25.5*

*CSEM **12** 12:09:12.4±0.4, 33°.32N×35°.40E, h2^{km}, ML3.0, Error ellipse: s-maj=12.5km s-min=4.7km az=99.0*

*GII **12** 12:09:12.3±0.7, 33°.23N×35°.44E, h1^{km}±2^{km}, Md2.9/6, Mm2.5/4*

*NSSC **12** 12:09:13, 33°.31N×35°.44E, h12^{km}±2^{km}*

*GRAL **12** 12:09:13.0±0.3, 33°.31N×35°.41E, h3^{km}±17^{km}, MD3.0*

ISC 12 12:09:12.7±0.4**, 33°.33N**±0°.02×**35°.43E**±0°.03**, h10**^{km}±3^{km}**, n33, σ0^{s}.77**/59**, 10D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.18	333	*e*P	Pg	12 09 16.6	+0.1
MATL	Matirih	0.18	333	*e*P	Pg	12 09 16.6	+0.1
KSDI	Kefar Szold	0.24	126	Pg	Pg	12 09 17.2	-0.4
KSDI				Sg	Sg	12 09 21.6	+0.8
MMA0	Mount Meron ar	0.32	184	Pg	Pg	12 09 18.2	-0.8
MMA0				Sg	Sg	12 09 23.3	+0.1
MMA2	Mount Meron ar	0.32	183	Pg	Pg	12 09 18.3	-0.7
HNTI	Hanita	0.33	221	Pg	Pg	12 09 18.8	-0.3
HNTI				Sg	Sg	12 09 23.8	+0.3
RCY	Rachaya	0.36	65	*e*P	Pg	12 09 20.1	+0.3
RCY				*e*S	Sg	12 09 25.8	+1.2
RCY	Rachaya	0.36	65	*e*P	Pg	12 09 20.1	+0.3
RCY				*e*S	Sg	12 09 25.8	+1.2
BRBR	Barbar	0.45	80	⇓P	Pg	12 09 21.0	-0.4
BRBR				⇓S	Sg	12 09 28.0	+0.7
KSHT	Keshet	0.47	137	Pg	Pg	12 09 21.9	0.0
KSHT				Sg	Sg	12 09 28.4	+0.2
BHL	Bhannes	0.60	18	*e*P	Pg	12 09 24.3	-0.1
BHL				*e*S	Sg	12 09 32.6	+0.3
BHL	Bhannes	0.60	18	*e*P	Pg	12 09 24.3	-0.1
BHL				*e*S	Sg	12 09 32.6	+0.4
BLGI	Bet Lehem HaGe	0.63	198	Pg	Pg	12 09 24.4	-0.4
QASN	Qassioun	0.74	74	⇑P	Pg	12 09 27.0	+0.1
QASN				⇑S	Sg	12 09 37.0	+0.4
OFRI	‘Ofer	0.80	208	Pg	Pg	12 09 27.5	-0.6
OFRI				Sg	Sg	12 09 40.3	+1.8
TCHB	Talchebab	0.80	145	⇑P	Pg	12 09 27.0	-1.1
TCHB				⇑S	Sg	12 09 39.0	+0.4
TOTH	TOTAH	0.84	88	⇓P	Pg	12 09 28.0	-0.8
TOTH				⇓S	Sg	12 09 40.0	+0.2
MMLI	Mount Malkishu	0.89	180	Pg	Pg	12 09 28.9	-0.9
MMLI				Sg	Sg	12 09 41.2	-0.2
HWQ	Hawqa	1.04	24	*e*P	Pg	12 09 32.3	-0.4
HWQ				*e*S	Sg	12 09 46.4	+0.2
HWQ	Hawqa	1.04	24	*e*P	Pg	12 09 32.3	-0.4
HWQ				*e*S	Sg	12 09 46.4	+0.2
HMDT	Nahal Hemdat	1.08	176	Pg	Pg	12 09 32.2	-1.2
HMDT				Sg	Sg	12 09 47.5	+0.1
MARH	Ras Al Marh	1.12	51	⇓P	Pb	12 09 35.0	+0.8
MARH				⇓S	Sg	12 09 49.0	+0.2
SLTI	Sal’it	1.14	197	Pg	Pg	12 09 33.5	-1.0
SLTI				Sg	Sg	12 09 49.4	+0.2
SALA	Sala	1.26	119	⇓P	Pn	12 09 35.0	-1.4
SALA				⇓S	Sb	12 09 51.0	-1.8
ZALF	Zalf	1.65	104	⇑P	Pn	12 09 42.0	+0.2
ZALF				⇑S	Sn	12 10 02.0	-1.0
DSI	Dead Sea	1.76	181	Pn	Pn	12 09 43.0	-0.2
DSI				Sn	Sn	12 10 06.5	+0.9
ROOS	tl_alroos	1.76	61	⇑P	Pn	12 09 45.0	+1.7
ROOS				⇑S	Sn	12 10 06.0	+0.2
BIDA	Albida	1.83	24	⇓P	Pn	12 09 44.0	-0.3
BIDA				⇓S	Sn	12 10 07.0	-0.6
YTIR	Yattir	1.98	188	Pn	Pn	12 09 47.0	+0.7
MZDA	Masada	2.02	182	Pn	Pn	12 09 47.4	+0.6
MZDA				Sn	Sn	12 10 13.3	+1.3
WRDH	Warideh	2.32	20	⇑P	Pn	12 09 51.0	+0.1
WRDH				⇑S	Sn	12 10 18.0	-1.5
PRNI	Paran	2.99	187	Pn	Pn	12 10 00.7	+0.5
EIL	Elat	3.67	186	Pn	Pn	12 10 11.0	+1.4

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*GII **12** 12:10:14.7±1.1, 33°.35N×35°.42E, h10^{km}±2^{km}, Md2.0/6*

*ISCJB **12** 12:10:15.0±0.5, 33°.30N±0°.03×35°.40E±0°.05, h14^{km}±7^{km}, Error ellipse: s-maj=7.0km s-min=5.3km az=28.8*

*CSEM **12** 12:10:15.5, 33°.29N×35°.38E, h3^{km}, ML2.9, After GRAL*

*GRAL **12** 12:10:15.5±0.5, 33°.29N×35°.38E, h3^{km}±27^{km}, MD2.9*

ISC 12 12:10:15.2±0.6**, 33°.32N**±0°.03×**35°.39E**±0°.05**, h15**^{km}±7^{km}**, n19, σ0^{s}.49**/31**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	342	*e*P	Pg	12 10 19.2	-0.2
MATL	Matirih	0.17	342	*e*P	Pg	12 10 19.2	-0.3
KSDI	Kefar Szold	0.26	120	Pg	Pg	12 10 20.0	-0.8
KSDI				Sg	Sg	12 10 24.3	-0.2
HNTI	Hanita	0.30	218	Sg	Sg	12 10 26.4	+0.6
MMA0	Mount Meron ar	0.31	178	Pg	Pg	12 10 21.1	-0.5
MMA0				Sg	Sg	12 10 26.4	+0.5
MMA2	Mount Meron ar	0.31	178	Pg	Pg	12 10 21.0	-0.7
MMA3	Mount Meron ar	0.31	179	Pg	Pg	12 10 22.5	+0.8
RCY	Rachaya	0.39	65	*e*P	Pg	12 10 22.9	-0.3
RCY				*e*S	Sg	12 10 29.2	+0.7
RCY	Rachaya	0.39	65	*e*P	Pg	12 10 22.9	-0.2
RCY				*e*S	Sg	12 10 29.2	+0.7
KSHT	Keshet	0.49	134	Pg	Pg	12 10 24.9	0.0
KSHT				Sg	Sg	12 10 31.7	+0.3
BLGI	Bet Lehem HaGe	0.61	196	Pg	Pg	12 10 27.3	+0.1
BHL	Bhannes	0.62	20	*e*P	Pg	12 10 27.1	-0.3
BHL				*e*S	Sg	12 10 35.9	+0.2
BHL	Bhannes	0.62	20	*e*P	Pg	12 10 27.1	-0.3
BHL				*e*S	Sg	12 10 35.9	+0.3
OFRI	‘Ofer	0.78	206	Pg	Pg	12 10 30.3	-0.1
MMLI	Mount Malkishu	0.88	178	Pg	Pg	12 10 31.6	-0.7
MMLI				Sg	Sg	12 10 43.8	-0.1
HWQ	Hawqa	1.06	26	*e*P	Pb	12 10 35.2	0.0
HWQ				*e*S	Sb	12 10 49.5	+0.5
HWQ	Hawqa	1.06	26	*e*P	Pb	12 10 35.2	-0.1
HWQ				*e*S	Sb	12 10 49.5	+0.6
HMDT	Nahal Hemdat	1.07	174	Pg	Pg	12 10 35.2	-0.7
HMDT				Sg	Sg	12 10 50.7	+0.8
SLTI	Sal’it	1.12	196	Pg	Pg	12 10 36.4	-0.4
SLTI				Sg	Sg	12 10 51.9	+0.5

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*ISCJB **12** 12:12:15.2±0.4, 32°.48N±0°.02×115°.32W±0°.02, h4^{km}±3^{km}, Error ellipse: s-maj=3.1km s-min=2.3km az=167.2*

*NEIC **12** 12:12:15.0, 32°.44N×115°.37W, h8^{km}, ML3.2(PAS), ML3.5(ECX), After ECX.*

*ECX **12** 12:12:15.0±0.3, 32°.44N×115°.37W, h8^{km}, MD3.3, ML3.5*

ISC 12 12:12:16.2±0.3**, 32°.48N**±0°.02×**115°.33W**±0°.02**, h15**^{km}±3^{km}**, n49, σ1^{s}.25**/80**, 20C-28D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.06	163	*e*P	Pg	12 12 11.1	-8.0
CPBX				*e*S	Sg	12 12 13.5	-7.4
CPBX				⇑*e*		12 12 14.9	
	comp=E,43μm,0.4s						
SNR	Schaffner Ranc	0.39	346	⇓*i*P	Pg	12 12 25.1	+1.0
COA	Coachella	0.42	24	⇓*i*P	Pg	12 12 25.3	+0.7
EMX	El Mayor	0.49	172	⇓*e*P	Pg	12 12 26.3	+0.3
EMX				*e*S	Sg	12 12 33.6	+1.0
EMX				⇓*e*		12 12 35.1	
	comp=N,2μm,0.4s						
EMX				⇑*e*		12 12 35.4	
	comp=E,2μm,0.4s						
EMX	El Mayor	0.49	172	*e*P	Pg	12 12 26.3	+0.3
EMX				*e*S	Sg	12 12 33.6	+1.0
YUH	Yuha Desert	0.53	289	⇑*i*P	Pg	12 12 26.7	0.0
SWSC	Sam W. Stewart	0.61	319	P	Pg	12 12 27.9	-0.3
	baz=0.7,SNR=91						
SWSC				⇓S	Sg	12 12 36.5	+0.3
	baz=0.7						
112A	Yuma	0.63	85	⇑P	Pg	12 12 28.2	-0.4
	baz=0.6,SNR=336						
112A				⇓S	Sg	12 12 36.7	-0.3
	baz=0.6						
YMD	Yuma Desert	0.66	83	⇑*i*P	Pg	12 12 28.7	-0.5
CRR	Carrizo Plain	0.68	307	⇑*i*P	Pg	12 12 29.2	-0.3
DVTC	Desert V Tower	0.68	286	⇓P	Pg	12 12 29.4	-0.1
	baz=0.7,SNR=61						
DVTC				⇑S	Sg	12 12 38.7	+0.3
	baz=0.7						
GLA	Glamis	0.71	36	P	Pg	12 12 29.4	-0.6
	baz=0.7,SNR=48						
GLA				⇑S	Sg	12 12 38.7	-0.7
	baz=0.7						
GLA	Glamis	0.71	36	*e*Pg	Pg	12 12 29.4	-0.7
GLA				*e*Sg	Sg	12 12 38.9	-0.6
RDX	Rancho Dawling	0.76	224	⇑*e*P	Pg	12 12 31.3	+0.3
RDX				*e*S	Sg	12 12 42.1	+1.2
RDX				⇓*e*		12 12 42.8	
	comp=N,3μm,0.4s						
MONP	Monument Peak	1.01	294	⇓P	Pb	12 12 34.4	-1.0
	baz=1.0,SNR=163						
MONP				⇓S	Sb	12 12 47.7	-0.8
	baz=1.0						
ECBX	El Chinero	1.03	167	⇑*e*P	Pb	12 12 36.2	+0.5
ECBX				*e*S	Sb	12 12 50.2	+1.1
CBX	Cerro Bola	1.14	262	*e*P	Pb	12 12 37.1	-0.5
CBX				*e*S	Sb	12 12 52.5	+0.2
BAR	Barrett	1.15	280	*e*Pg	Pg	12 12 36.7	-1.7
BAR				*e*Sg	Sg	12 12 52.6	-0.9
BC3	Big Chuckw Mtn	1.18	355	⇓P	Pn	12 12 36.5	-1.6
	baz=1.2,SNR=40						
BC3				⇑S	Sb	12 12 51.1	-2.2
	baz=1.2						
113A	Mohawk Valley,	1.35	77	⇑P	Pn	12 12 38.8	-1.6
	baz=1.3,SNR=54						
113A				⇑Sb	Sb	12 12 57.8	-0.4
	baz=1.3						
ECNX	Esteban Cantu	1.36	233	*e*PN	Pn	12 12 41.7	+1.1
ECNX				⇓*e*PN	Pn	12 12 40.3	-0.2
ECNX				*e*S	Sn	12 12 57.5	-0.8
ECNX				*e*S	Sn	12 12 59.7	+1.4
PBX	Punta Banda	1.40	239	*e*PN	Pn	12 12 41.6	+0.5
PBX				*e*S	Sn	12 13 01.0	+1.7
SPX	San Pedro Mart	1.43	185	*e*PN	Pn	12 12 44.1	+2.4
PFO	Pinyon Flat Ob	1.47	320	⇑P	Pn	12 12 40.5	-1.7
	baz=1.5,SNR=81						
PFO				⇓S	Sn	12 12 58.6	-2.6
	baz=1.5						
PFO	Pinyon Flat Ob	1.47	320	*e*Pn	Pn	12 12 40.5	-1.7
PFO				*e*Sg	Sg	12 12 58.5	-5.2
109C	Camp Elliot, M	1.56	286	⇓P	Pn	12 12 42.4	-0.9
	baz=1.6,SNR=34						
109C				⇑Sb	Sb	12 13 04.6	+0.4
	baz=1.6						
IRM	Iron Mountain	1.68	5	⇑Sb	Sb	12 13 09.0	+1.1
	baz=1.7						
Y13A	Salome	1.83	43	⇓Sb	Sb	12 13 12.8	+0.7
	baz=1.8						
MURC	Murrieta	1.93	306	⇓Sb	Sb	12 13 16.3	+1.3
	baz=2.0						
PDMCI	Parker Dam,Lak	2.07	28	⇓Sb	Sb	12 13 19.6	+0.6
	baz=2.1						
Z14A	Wintersburg	2.19	66	⇓Sb	Sb	12 13 23.6	+1.2
	baz=2.2						
214A	Organ Pipe Nat	2.19	103	⇓P	Pn	12 12 50.1	-2.0
	baz=2.2,SNR=91						
214A				⇓S	Sn	12 13 16.8	-2.2
	baz=2.2						
Y14A	Wickenburg	2.43	53	⇓Sb	Sb	12 13 30.9	+1.6
	baz=2.4						
X13A	Yucca	2.45	30	⇓Sb	Sb	12 13 31.1	+1.2
	baz=2.5						
115A	Sonoran Desert	2.62	84	⇓P	Pn	12 12 57.1	-0.9
	baz=2.6						
BFSC	Mount Baldy St	2.62	313	⇑Sb	Sb	12 13 36.8	+1.8
	baz=2.7						
CIS	Catalina Islan	2.75	291	⇑Sb	Sb	12 13 40.4	+1.9
	baz=2.8						
X14A	Yava	2.84	45	⇓Sb	Sb	12 13 43.9	+2.7
	baz=2.9						
MWC	Mount Wilson	2.87	308	Pn	Pn	12 13 01.0	-0.4
MWC				*e*Pg	Pg	12 13 11.5	+0.2
MWC				*e*Sg	Sg	12 13 46.7	-1.8
W13A	Hualapai Mount	2.88	24	⇓Sb	Sb	12 13 44.5	+2.3
	baz=2.9						
Y15A	Casa Rosa Ranc	2.91	59	⇓Sb	Sb	12 13 45.6	+2.5
	baz=2.9						
GSC	Goldstone	3.07	337	Pn	Pn	12 13 03.6	-0.6
GSC				*e*Pg	Pg	12 13 17.5	+2.4
Y16A	Circle Bar Ran	3.52	66	⇓P	Pn	12 13 09.6	-0.7
	baz=3.5,SNR=15						
TUC	Tucson	3.84	91	*e*Pn	Pn	12 13 13.7	-1.1
TUC				*e*Pg	Pg	12 13 27.9	-2.0
TUC				*e*Sg	Sg	12 14 21.3	+1.6
217A	Green Valley	3.89	99	⇑P	Pn	12 13 13.9	-1.5
	baz=3.9,SNR=9.6						
Y17A	Roosevelt	3.95	71	⇓P	Pn	12 13 14.7	-1.6
	baz=3.9,SNR=15						
ISA	Isabella	4.11	321	*e*Pn	Pn	12 13 15.6	-2.8
ISA				*e*Pg	Pg	12 13 35.5	+0.5
WUAZ	Wupatki	4.47	46	*e*Pn	Pn	12 13 25.2	+1.8
WUAZ				*e*Pg	Pg	12 13 41.2	-0.5
WUAZ				*e*Sg	Sg	12 14 39.8	+0.2
318A	Bisbee	4.65	101	⇑P	Pn	12 13 24.7	-1.2
	baz=4.6,SNR=16						

IDC 12 12:13:48.6±1.9**, 55°.80S×27°.84W, h0**^{km}**, mb4.3**/2**, mb1 4.5**/2**, mb1mx4.1**/13**, mbtmp4.3**/2**, Error ellipse: s-maj=152.4km s-min=32.2km az=104.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	17.17	158	*e*P	Pn	12 17 54.8	+5.3
VNA3	Neumayer Olymp	17.35	160	*e*P	Pn	12 17 55.6	+3.8
VNA3				*e*		12 18 03.6	
VNA2	Neumayer--Watz	17.57	158	*e*P	Pn	12 17 57.9	+3.5
	baz=316,slow=13						
VNA2				*e*		12 18 06.0	
VNDA	Vanda	46.81	183	P	P	12 22 19.9	+0.6
	3.2nm,0.6s,baz=193,slow=6.5,SNR=13						
TORD	Torodi Ar. Bea	73.02	30	P	P	12 25 21.2	+1.3
	1.2nm,0.7s,baz=200,slow=6.4,SNR=7.3						
YKA	Yellowknife Ar	135.74	318	PKP	PKPdf	12 33 07.9	-1.5
	0.4nm,0.5s,baz=130,slow=2.3,SNR=13						
SONM	Songino Array	151.08	87	PKPbc	PKPbc	12 33 41.0	-1.5
	2.9nm,0.5s,baz=222,slow=3.5,SNR=43						

GUC 12 12:22:19.3±0.8**, 33°.57S×71°.92W, h4**^{km}±50^{km}**, MD3.5, ML2.3, 2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PEL	Peldehue	1.11	68	*e*P	Pg	12 22 40.1	-0.5
PEL				*i* S	Sg	12 22 57.8	+2.7
PEL				AML	AML	12 23 04.3	
	comp=N,158nm,0.5s						
CHCH	Chadas Angostu	1.11	110	*e*P	Pg	12 22 39.0	-1.7
CACH	El Canelo	1.23	117	⇓*i*P	Pg	12 22 42.5	-0.3
CACH				*i* S	Sg	12 23 00.3	+1.6
FCH	Farellones	1.38	81	*e*P	Pn	12 22 45.1	-0.3
FCH				*i* S	Sg	12 23 04.4	+0.8
FCH				AML	AML	12 23 07.7	
	comp=N,69nm,0.2s						
CICH	Cipreses	1.45	122	⇓*i*P	Pn	12 22 46.1	-0.3
CICH				*i* S	Sb	12 23 05.8	0.0
LMEL	Las Melosas	1.46	102	*e*P	Pn	12 22 45.5	-0.9
LMEL				*i* S	Sb	12 23 06.2	+0.4
LMEL				AML	AML	12 23 10.3	
	comp=N,87nm,0.1s						

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*GII **12** 12:39:44.5±0.7, 33°.26N×35°.43E, h1^{km}±2^{km}, Md2.0/5*

*ISCJB **12** 12:39:45.1±0.6, 33°.32N±0°.03×35°.40E±0°.04, h10^{km}, Error ellipse: s-maj=5.6km s-min=3.4km az=27.2*

*CSEM **12** 12:39:45.6, 33°.29N×35°.38E, h3^{km}, ML2.7, After GRAL*

*GRAL **12** 12:39:45.6±0.4, 33°.29N×35°.38E, h3^{km}±5^{km}, MD2.7*

ISC 12 12:39:45.1±0.8**, 33°.33N**±0°.03×**35°.40E**±0°.05**, h17**^{km}±9^{km}**, n19, σ0^{s}.69**/27**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	339	*e*P	Pg	12 39 49.4	-0.1
MATL	Matirih	0.17	339	*e*P	Pg	12 39 49.4	-0.1
KSDI	Kefar Szold	0.25	122	Pg	Pg	12 39 50.0	-0.8
KSDI				Sg	Sg	12 39 54.5	-0.1
MMC7	Mount Meron ar	0.30	182	Pg	Pg	12 39 51.1	-0.5
MMA1	Mount Meron ar	0.31	180	Pg	Pg	12 39 50.9	-0.8
HNTI	Hanita	0.31	218	Sg	Sg	12 39 56.6	+0.4
MMA0	Mount Meron ar	0.31	180	Pg	Pg	12 39 51.1	-0.6
MMA0				Sg	Sg	12 39 56.1	-0.1

RCY	**Rachaya**	0.38	66	*e*P	Pg	12 39 53.3	+0.3
RCY				*e*S	Sg	12 39 59.2	+1.0
RCY	**Rachaya**	0.38	66	*e*P	Pg	12 39 53.3	+0.3
RCY				*e*S	Sg	12 39 59.2	+0.9
KSHT	**Keshet**	0.48	135	Pg	Pg	12 39 54.5	-0.4
KSHT				Sg	Sg	12 40 02.2	+0.8
BHL	**Bhannes**	0.61	20	*e*P	Pg	12 39 57.1	-0.1
BHL	**Bhannes**	0.61	20	*e*P	Pg	12 39 57.1	-0.1
BLGI	**Bet Lehem HaGe**	0.62	197	Pg	Pg	12 39 57.1	-0.2
OFRI	**‘Ofer**	0.79	207	Pg	Pg	12 40 00.4	-0.1
OFRI				Sg	Sg	12 40 13.1	+2.2
MMLI	**Mount Malkishu**	0.89	179	Pg	Pg	12 40 01.5	-0.9
MMLI				Sg	Sg	12 40 13.9	-0.1
HWQ	**Hawqa**	1.05	25	*e*P	Pb	12 40 05.3	+0.4
HWQ	**Hawqa**	1.05	25	*e*P	Pb	12 40 05.3	+0.4
HMDT	**Nahal Hemdat**	1.08	174	Pg	Pg	12 40 05.0	-1.0
HMDT				Sg	Sg	12 40 20.8	+0.8
SLTI	**Sal’it**	1.13	196	Sg	Sg	12 40 22.0	+0.4

MOS **12** *12:50:10.9±0.9, 16°.21N×94°.31W, h33^{km}, mb6.3/134, MS5.9/26, Error ellipse: s-maj=5.7km s-min=3.6km az=77.4*

CASC **12** *12:50:16.4, 16°.40N×94°.39W, h192^{km}, MD5.6, ML4.5, mb6.0(NEIC)*

ISCJB **12** *12:50:17.8±0.1, 16°.41N±0°.02×94°.30W±0°.01, h84^{km}, mb5.9/356, Error ellipse: s-maj=2.9km s-min=1.2km az=32.7*

MEX **12** *12:50:18.3±0.8, 16°.19N×94°.56W, h96^{km}±7^{km}, MD5.3*

GCMT **12** *12:50:18.5±0.1, 16°.35N×94°.51W, h87^{km}, MW6.5/117, Moment Tensor Solution. s117,c293; s106,c398; Duration: 4^{s}.2 Moment tensor: Scale 10^{18}Nm; M_{rr}-4.47±.03; $M_{\theta\theta}$-0.22±.03; $M_{\phi\phi}$4.69±.04; $M_{r\theta}$2.73±.03; $M_{\theta\phi}$-2.84±.03; $M_{\phi r}$-1.81±.03; Best double couple: $M_0$6.26300×10^{18} NP1:ϕ_s178.00000°, δ35.00000°, λ-54.00000°. NP2:ϕ_s316.00000°, δ62.00000°, λ-113.00000°. Principal axes: T 6.7050, Plg14.0000°, Azm62.0000°; N -0.8830, Plg20.0000°, Azm327.0000°; P -5.8200, Plg65.0000°, Azm186.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

IDC **12** *12:50:18.2±0.4, 16°.32N×94°.25W, h87^{km}±2^{km}, mb5.4/31, mb1 5.6/32, mb1mx5.6/32, mbtmp5.4/32, MS5.7/21, Ms1 5.7/21, ms1mx5.7/26 Error ellipse: s-maj=8.4km s-min=7.2km az=79.0*

NEIC **12** *12:50:18.5±0.1, 16°.36N×94°.30W, h83^{km}, mb6.0/264, ME6.2, MW6.4, MW6.4, MD6.6(MEX), Error ellipse: s-maj=3.3km s-min=2.1km az=216.0, Moment Tensor Solution. s94 Moment tensor: Scale 10^{18}Nm; M_{rr}-4.07; $M_{\theta\theta}$0.21; $M_{\phi\phi}$3.86; $M_{r\theta}$2.43; $M_{\theta\phi}$-1.59; $M_{\phi r}$-1.47; Best double couple: $M_0$5.10000×10^{18} NP1:ϕ_s320.00000°, δ62.00000°, λ-110.00000°. NP2:ϕ_s178.00000°, δ34.00000°, λ-57.00000°. Principal axes: T 5.0400, Plg14.0000°, Azm64.0000°; N 0.1900, Plg17.0000°, Azm329.0000°; P -5.2200, Plg66.0000°, Azm191.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

NEIC Power outages occurred in the Tuxtla Gutierrez area. Felt [V] at Huatulco; [IV] at Jalapa, Oaxaca, San Cristobal de las Casas and Villahermosa; [III] at Huajuapan, Mexico, Puerto Escondido and Tuxtla Gutierrez. Also felt at Arriaga, Cancun, Cintalapa, Coatepec, Comitan, Cozumel, El Espinal, Etla, Mitla, Paraiso, Pochutla, Tapachula, Tehuacan, Tehuantepec, Tierra Blanca, Tuxpan, Tuxtepec, Veracruz and Xico. Felt [II] at Belize City and San Pedro, Belize. Also felt at Orange Walk and San Ignacio. Felt [II] at Guatemala, Guatemala. Also felt at Flores and Quetzaltenango.

IGIL **12** *12:50:19.9, 16°.41N×94°.17W, h100^{km}, MS6.2*

SZGRF **12** *12:50:20.7, 17°.48N×95°.36W, h82^{km}, mb6.2, Oaxaca, Mexico*

BGS **12** *12:50:27.9±1.5, 18°.08N×92°.30W, h44^{km}±152^{km}, mb6.0, MS5.9*

ISC 12 12:50:19.7±0.1**, 16°.43N**±0°.02×**94°.24W**±0°.01**, h86**^{km}**, h86**^{km}±.6^{km}**:pP-P, n1662,** σ**0^{s}.98**/1544**, mb5.9**/356**, 468C-347D, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	0.90	317	*e*P	Pn	12 50 36.4	-1.6
CMIG				*i* S	Sn	12 50 50.9	-0.7
CMIG	**Matias Romero**	0.90	317	P	Pn	12 50 36.2	-1.8
	12µm,0.3s,baz=138,slow=12						
CMIG				S	Sn	12 50 55.5	+3.9
	13µm,0.3s,baz=296,slow=20,SNR=7.8						
CMIG	**Matias Romero**	0.90	317	P	Pn	12 50 36.2	-1.8
CMIG				*e*P		12 50 36.4	
CMIG				*i* S	Sn	12 50 50.9	-0.7
CMIG				S	Sn	12 50 55.5	+3.9
TGIG		1.13	72	*i* P	Pn	12 50 43.1	+2.5
PCIG		1.22	126	*i* P	Pn	12 50 42.0	+0.2
PCIG				*i* S	Sn	12 50 59.3	+0.9
TUIG	**Tuzandepetl**	1.60	354	*e*P	Pn	12 50 47.6	+1.0
TUIG				*i* S	Sn	12 51 09.8	+2.8
HUIG	**Huatulco**	1.91	250	*i* P	Pn	12 50 42.9	-7.7
HUIG				*i* S	Sn	12 51 03.5	-11
CCIG	**Comitan**	2.03	94	*i* P	Pn	12 50 54.0	+1.9
CCIG				*i* S	Sn	12 51 22.0	+5.2
CCIG	**Comitan**	2.03	94	*i* P	Pn	12 50 54.0	+1.9
CCIG				*i* S	Sn	12 51 22.9	+6.1
OXX	**Oaxaca**	2.46	286	*i* P	Pn	12 50 55.5	-2.4
OXX				*i* S	Sn	12 51 21.3	-5.9
OXX	**Oaxaca**	2.46	286	*e*P	Pn	12 50 55.8	-2.1
OXX				*i* S	Sn	12 51 17.1	-10
VHO	**Vista Hermosa**	2.47	285	*i* P	Pn	12 50 54.0	-4.0
VHO				*i* S	Sn	12 51 21.7	-5.7
VHO	**Vista Hermosa**	2.47	285	*i* P	Pn	12 50 54.9	-3.1
VHO				*i* S	Sn	12 51 21.7	-5.7
JAT	**Jato**	3.28	130	*e*P	Pn	12 51 10.7	+1.8
TP2	**Tecpan 2**	3.51	117	⇑*i*P	Pn	12 51 14.8	+2.8
TPIG	**Tehuac#an**	3.57	304	*e*P	Pn	12 51 10.6	-2.3
TPIG				*i* S	Sn	12 51 49.6	-4.5
UTMO	**Huajuapan**	3.68	293	*e*P	Pn	12 51 10.0	-4.3
UTMO				*i* S	Sn	12 51 49.1	-7.5
PNIG	**Pinotepa**	3.73	270	*i* P	Pn	12 51 08.5	-6.5
PNIG				*i* S	Sn	12 51 48.4	-9.5
FG6		3.74	119	⇑*e*P	Pn	12 51 18.0	+2.9
FUG	**Fuego 3**	3.83	121	⇑*i*P	Pn	12 51 18.5	+2.1
SCIG	**Sabancuy**	3.85	49	*i* P	Pn	12 51 18.7	+2.0
SCIG				*i* S	Sn	12 52 06.3	+5.4
LVIG	**Laguna Verde**	3.87	328	*e*P	Pn	12 51 14.0	-3.0
LVIG				*i* S	Sn	12 51 57.1	-4.3
GCG	**Guatemala City**	4.02	117	*e*P	Pn	12 51 20.6	+1.6
GCG				*e*S	Sn	12 52 09.6	+4.6
PCG	**Pacaya**	4.05	120	*e*P	Pn	12 51 22.0	+2.6
NBG	**Las Nubes**	4.18	115	*e*P	Pn	12 51 23.5	+2.3
MRL	**Marmol**	4.59	107	*i* P	Pn	12 51 31.3	+4.6
PPM	**Popocatepetl**	4.93	303	*e*P	Pn	12 51 31.0	-0.3
PPM				*e*P		12 51 32.1	
PPM				*i* S	Sn	12 52 22.9	-4.3
RBDL	**Robledal**	4.96	117	*e*P	Pn	12 51 33.0	+1.2
RTR	**El Retiro**	5.10	119	*e*P	Pn	12 51 35.6	+1.9
SBLS	**San Blas**	5.15	119	*e*P	Pn	12 51 36.3	+1.9
SNJE	**San Jose**	5.15	119	⇑*i*P	Pn	12 51 36.4	+2.0
MEIG	**Mezcala**	5.35	287	*i* P	Pn	12 51 34.1	-3.0
MEIG				*i* S	Sn	12 52 29.5	-7.9
CHVM	**Chichinautzin**	5.37	300	*e*P	Pn	12 51 34.7	-2.6
CHVM				*i* S	Sn	12 52 32.4	-5.4
PLIG	**Platanillo**	5.39	292	*i* P	Pn	12 51 35.5	-2.1
PLIG				*i* S	Sn	12 52 29.9	-8.4
ACX	**Acapulco**	5.46	275	*i* P	Pn	12 51 32.2	-6.4
ACX				*i* S	Sn	12 52 30.0	-10
ACX	**Acapulco**	5.46	275	*i* P	Pn	12 51 32.1	-6.4
ACX				*i* S	Sn	12 52 23.8	-16
MZVM		5.49	301	*i* P	Pn	12 51 38.6	-0.3
UNM	**Universidad Na**	5.51	302	*e*P	Pn	12 51 38.9	-0.4
SNET	**Serv Nac Est T**	5.56	119	⇑*i*P	Pn	12 51 41.7	+1.8
SNET				*e*S	Sn	12 52 48.9	+6.4
SZVM	**Salazar**	5.67	301	*i* P	Pn	12 51 38.4	-3.1
SZVM				*i* S	Sn	12 52 43.2	-2.1
LBRS	**Las Brisas**	5.69	117	*e*P	Pn	12 51 43.7	+1.9
LFRS	**El Faro**	5.73	118	⇑*e*P	Pn	12 51 43.9	+1.6
CAIG	**El Cayaco**	5.80	277	*i* P	Pn	12 51 37.9	-5.3
CAIG				*i* S	Sn	12 52 38.0	-11
SNVI	**San Vicente**	5.92	118	*e*P	Pn	12 51 47.2	+2.2
DEIG	**Demacu**	5.96	311	*e*P	Pn	12 51 43.0	-2.4
DEIG				*i* S	Sn	12 52 46.5	-5.8
CAHU	**Cacacuatique**	6.40	114	*e*P	Pn	12 51 53.5	+2.1
VSM	**San Miguel**	6.50	117	*e*P	Pn	12 51 55.1	+2.4
BLLM	**Bellamira**	6.52	116	*e*P	Pn	12 51 55.1	+2.0
TEIG	**Tepich**	6.81	55	*i* P	Pn	12 51 58.1	+1.2
TEIG				*i* S	Sn	12 53 18.3	+5.3
TEIG	**Tepich**	6.81	55	P	Pn	12 51 57.5	+0.5
	3µm,0.3s,baz=254,slow=10,SNR=398						
TEIG				S	Sn	12 53 14.1	+1.1
	2µm,0.3s,baz=80,slow=18,SNR=12						
TEIG				LR	LR	12 55 07.5	
	comp=Z,178µm,21.9s,baz=251,slow=42						
TEIG	**Tepich**	6.81	55	⇑*i*Pn	Pn	12 51 58.1	+1.1
TEIG				*e*Sn	Sn	12 53 14.3	+1.3
TEIG				*i* S	Sn	12 53 18.3	+5.3
CNCH	**Conchagua**	6.95	116	*e*P	Pn	12 52 00.8	+1.9
TGUH	**Tegucigalpa,Un**	7.13	108	⇑*i*Pn	Pn	12 52 02.0	+0.6
	15µm,1.3s						
TGUH				*e*Sn	Sn	12 53 21.7	+0.8
MOIG	**Morelia**	7.35	297	*i* P	Pn	12 52 04.1	-0.3
MOIG				*i* S	Sn	12 53 20.9	-5.4
CRIN	**San Cristobal**	7.89	117	*e*P	Pn	12 52 13.4	+1.7
CRIN				*e*S	Sn	12 53 42.8	+3.4
CNGN	**Cerro Negro**	8.29	117	*e*P	Pn	12 52 17.7	+0.5
CNGN				⇑*e*P		12 52 18.9	
MIRN	**Miramar**	8.30	118	*e*P	Pn	12 52 18.9	+1.5
MOMN	**Momotombo**	8.46	117	*e*P	Pn	12 52 22.3	+2.7
COPN	**Copaltepe**	8.53	119	*e*P	Pn	12 52 22.0	+1.4
CSAN		8.68	118	*e*P	Pn	12 52 24.1	+1.7
XAVN	**Gruta Xavier**	8.77	118	*e*P	Pn	12 52 25.2	+1.4
HUEN		8.81	116	*e*P	Pn	12 52 25.7	+1.3
MGAN	**Managua**	8.84	118	*e*P	Pn	12 52 26.1	+1.3
MGAN				AMS	AMS	12 58 10.4	
	comp=E,39µm,20.6s						
CRUN	**El Crucero**	8.88	119	*e*P	Pn	12 52 27.2	+1.9
MMIG	**Aquila**	8.89	283	*i* P	Pn	12 52 21.5	-3.9
MMIG				*i* S	Sn	12 53 54.7	-9.1
WILN	**Americas 2**	8.89	117	*e*P	Pn	12 52 25.3	-0.1
TICN	**Ticuantepe**	8.91	118	*e*P	Pn	12 52 27.2	+1.5
MASN	**Masaya**	9.00	118	*e*P	Pn	12 52 27.1	+0.2
APON	**Apoyo**	9.11	118	*e*P	Pn	12 52 28.3	-0.1
BOAB	**BOACO BROADBAN**	9.20	114	AMb	AMB	12 52 43.0	
	comp=Z,2µm,1.8s						
SSN	**San Juan del S**	9.61	121	*e*P	Pn	12 52 36.1	+0.9
GDLC		9.64	297	*i* P	Pn	12 52 36.3	+0.7
CONN	**Concepcion**	9.66	119	*e*P	Pn	12 52 36.2	+0.3
R15V		9.67	288	*e*P	Pn	12 52 34.3	-1.7
LNIG	**Linares**	9.74	331	*e*P	Pn	12 52 37.1	+0.2
ZAIG	**Zacatecas**	10.06	310	*e*P	Pn	12 52 38.3	-3.1
VCR	**Vista de Mar**	10.46	126	⇑*e*P	Pn	12 52 48.1	+1.2
VCR	**Vista de Mar**	10.46	126	⇑*e*P	Pn	12 52 48.1	+1.2
VCR				*e*S	Sn	12 54 46.5	+4.1
CJM	**Chamela**	10.72	288	*i* P	Pn	12 52 47.5	-2.8
ANIG	**Ahuacatlan**	10.77	297	*e*P	Pn	12 52 50.5	-0.4
FORC	**Fortuna**	11.04	121	*e*P	Pn	12 52 55.4	+0.8
FORC	**Fortuna**	11.04	121	*e*P	Pn	12 52 55.4	+0.8
JCR	**Jicaral**	11.04	125	⇑*e*P	Pn	12 52 55.8	+1.1
JCR	**Jicaral**	11.04	125	*e*P	Pn	12 52 55.7	+1.0
JCR				⇑*e*P		12 52 55.8	
CGA2	**Cerro Gallo 2**	11.45	123	⇑*e*P	Pn	12 53 01.1	+0.8
CGA2	**Cerro Gallo 2**	11.45	123	⇑*e*P	Pn	12 53 01.1	+0.8
KVTX	**Kingsville**	11.57	344	⇑*e*Pn	Pn	12 53 02.5	+0.8
	comp=Z,4µm,1.2s						
KVTX				Sn	Sn	12 55 05.6	-3.4
PRS1	**Puriscal**	11.60	122	⇓*e*P	Pn	12 53 04.0	+1.7
PRS1	**Puriscal**	11.60	122	⇓*e*P	Pn	12 53 04.0	+1.7
LAJ	**Bijagual**	11.82	122	⇓*e*P	Pn	12 53 02.5	-2.8
LAJ	**Bijagual**	11.82	122	⇓*e*P	Pn	12 53 02.5	-2.8
LAJ				⇓*i*P		12 53 02.6	
SJS	**Escuela Geolog**	11.83	122	*e*P	Pn	12 53 07.5	+2.0
SJS	**Escuela Geolog**	11.83	122	*e*P	Pn	12 53 07.5	+2.0
LCR2	**La Lucha 2**	11.98	122	⇑*e*P	Pn	12 53 07.8	+0.2
LCR2	**La Lucha 2**	11.98	122	⇑*e*P	Pn	12 53 07.8	+0.2
QCR	**Quepos**	12.04	124	⇑*e*P	Pn	12 53 08.6	+0.3
QCR	**Quepos**	12.04	124	⇑*e*P	Pn	12 53 08.6	+0.3
URSC	**Urasca**	12.12	121	⇑*e*P	Pn	12 53 09.3	0.0
URSC	**Urasca**	12.12	121	⇑*e*P	Pn	12 53 09.3	0.0
URSC				*e*S	Sn	12 55 22.9	+0.3
BUS	**Buena Vista**	12.29	123	⇑*e*P	Pn	12 53 12.2	+0.5
BUS	**Buena Vista**	12.29	123	*e*P	Pn	12 53 12.2	+0.5
BUS				⇑*e*P		12 53 12.2	
BAR1		12.83	123	*e*S	Sn	12 55 38.4	-1.5
MAIG	**Mazatlaan**	13.28	302	*e*P	Pn	12 53 23.9	-0.9
ACR	**Cerro Adams**	13.29	124	*e*P	Pn	12 53 24.5	-0.5
ACR	**Cerro Adams**	13.29	124	*e*P	Pn	12 53 24.6	-0.3
CNI	**Changuinola**	13.38	120	*e*P	Pn	12 53 25.8	-0.4
CNI	**Changuinola**	13.38	120	*e*P	Pn	12 53 26.5	+0.3
HKT	**Hockley**	13.54	354	⇑*i*P	Pn	12 53 27.1	-1.0
HKT				*e*		12 55 55.7	
HKT				pmax	pmax		
	comp=Z,5µm,2.1s						
HKT	**Hockley**	13.54	354	⇑*i*Pn	Pn	12 53 27.1	-1.0
	comp=Z,5µm,2.1s						
HKT				*e*Sn	Sn	12 55 55.7	-1.2
DVD	**David**	13.98	123	*e*P	Pn	12 53 32.2	-1.9
MGV	**Manicaragua**	14.60	65	*e*P	Pn	12 53 43.2	+1.2
MGV				*e*S	Sn	12 56 18.8	-4.0
JCT	**Junction City**	14.88	341	*e*Pn	Pn	12 53 44.8	-0.7
JCT				*e*Sn	Sn	12 56 23.1	-6.4
HPIG		14.89	317	*e*P	Pn	12 53 45.4	-0.3
HPIG				*i* S	Sn	12 56 27.9	-1.8
NATX	**Nacogdoches**	15.27	359	⇑*e*Pn	Pn	12 53 49.4	-1.1
	comp=Z,15µm,2.0s						
NATX				*e*Sn	Sn	12 56 28.7	-10
TXAR	**Lajitas Array**	15.49	328	P	Pn	12 53 52.3	-1.0
	comp=Z,2.2nm,0.3s,baz=150,slow=13,SNR=272						
TXAR				S	S	12 56 53.4	-1.3
	comp=Z,0.1nm,0.3s,baz=36,slow=32,SNR=2.3						
TXAR				LR	LR	13 00 01.4	
	comp=Z,23µm,20.0s,baz=35,slow=37						
TXAR				P3KPbc		13 29 16.2	
	comp=Z,0.0nm,0.3s,baz=316,slow=3.5,SNR=10.0						
BCIP	**Isla Barro Col**	15.79	115	⇑*i*Pn	Pn	12 53 54.8	-2.4
BRAL	**Brewton**	15.93	23	*e*P	Pn	12 54 01.4	+2.6
	comp=Z,11µm,1.6s						
BRAL				*e*Sn	Sn	12 56 48.5	-6.3
MTDJ	**Mount Denham**	16.05	81	⇑*i*P	Pn	12 54 01.1	+0.7
MTDJ				*e*S	S	12 57 06.8	+0.5
VBMS	**Vicksburg**	16.08	11	*e*P	Pn	12 54 02.2	+1.6
	comp=Z,28µm,2.5s						
VBMS				*e*Sn	Sn	12 56 46.8	-12
H06S		16.10	281	*e*P	Pn	12 53 56.7	-4.3
PCJ	**Portland Cotta**	16.39	83	⇓*e*P	Pn	12 54 06.3	+1.7
DWPF	**Disney**	16.59	43	*e*Pn	Pn	12 54 05.2	-1.8
	comp=Z,2µm,0.8s						
DWPF				*e*Sn	Sn	12 57 06.6	-4.2
STH	**Stony Hill**	16.73	82	⇑*e*P	Pn	12 54 09.2	+0.3
LMGC	**Las Mercedes**	16.77	75	⇑*i*P	Pn	12 54 11.5	+2.2
LMGC				*i* S	S	12 57 20.0	-0.8
	comp=N,43µm,19.4s						
LMGC				*e*			
	comp=E,21µm,19.4s						
HOJ	**Hope**	16.79	82	⇓*e*P	Pn	12 54 09.9	+0.4
GWJ	**Greenwich**	16.81	82	⇑*e*P	Pn	12 54 10.7	+0.9
CMJ	**Castle Mountai**	17.15	82	⇓*i*P	Pn	12 54 14.7	+0.7
PAYG	**Puerto Ayora**	17.44	167	⇓*i*P	Pn	12 54 18.0	+0.4
	comp=E,2µm,1.8s						
PAYG				*e*S	S	12 57 41.5	+9.0
PAYG	**Puerto Ayora**	17.44	167	*e*P	Pn	12 54 17.1	-0.5
LRAL	**Lakeview Retre**	17.78	20	*e*P	Pn	12 54 21.8	+0.2
	comp=E,9µm,2.5s						
HLGC	**Holguin**	17.79	73	*e*P	Pn	12 54 20.3	-1.5
RCC	**Rio Carpintero**	17.97	76	*e*P	Pn	12 54 22.8	-1.2
RCC				*e*S	S	12 57 39.1	-5.7
	comp=N,9µm,1.8s						
RCC				*e*			
	comp=E,481nm,1.9s						
MIAR	**Mount Ida**	18.05	2	*e*P	Pn	12 54 24.4	-0.4
MIAR				*e*S	S	12 57 34.7	-12
MIAR				pmax	pmax		
	comp=Z,991nm,0.9s						
MIAR	**Mount Ida**	18.05	2	*e*P	Pn	12 54 24.4	-0.4
	comp=Z,991nm,0.9s						
MIAR				*e*S	S	12 57 34.7	-12
GDL2	**Guadalupe Moun**	18.19	331	*e*Pn	Pn	12 54 26.8	+0.3
UALR	**University of**	18.35	5	*e*P	Pn	12 54 29.3	+0.9
	comp=Z,26µm,2.2s						
UALR				*e*S	S	12 57 34.8	-18
GTBY	**Guantanamo Bay**	18.51	76	*e*P	Pn	12 54 29.4	-1.0
WMOK	**Wichita Mounta**	18.68	348	*e*P	Pn	12 54 31.0	-1.4
WMOK				*e*S	S	12 57 52.7	-6.6
WMOK				pmax	pmax		
	comp=Z,941nm,0.8s						
WMOK	**Wichita Mounta**	18.68	348	*e*P	Pn	12 54 31.0	-1.4
	comp=Z,941nm,0.8s						
WMOK				*e*S	S	12 57 52.7	-6.6
CGIG		18.71	320	*e*P	Pn	12 54 32.2	-0.6
MET	**Memphis--Engin**	19.01	11	*e*P	Pn	12 54 33.4	-2.8
	comp=Z,687nm,0.6s						
MET				*e*S	S	12 57 57.7	-8.2
PLAL	**Pickwick Lake**	19.28	15	*e*P	Pn	12 54 36.8	-2.7
	comp=Z,2µm,1.6s						
PLAL				*e*S	S	12 58 04.0	-7.3
MASC	**Masc**	19.36	76	*e*P	Pn	12 54 39.1	-1.5
MASC				*e*S	S	12 58 14.7	+1.5
GOGA	**Godfrey**	19.50	28	*e*P	Pn	12 54 39.4	-2.7
GOGA				pmax	pmax		
	comp=Z,4µm,1.3s						
GOGA	**Godfrey**	19.50	28	*e*P	Pn	12 54 39.4	-2.7
	comp=Z,4µm,1.3s						
GOGA				*e*S	S	12 58 04.7	-11
AMTX	**Amarillo**	19.55	341	*e*P	Pn	12 54 40.7	-1.9
	comp=Z,3µm,1.3s						
AMTX				*e*S	S	12 58 15.8	-0.8
GNAR	**Gosnell**	19.82	10	*e*P	Pn	12 54 43.3	-2.4
HSIG		19.83	312	*e*P	Pn	12 54 43.5	-2.5
122A	**Conniff Cattle**	19.89	327	⇓P	Pn	12 54 45.2	-1.5
	baz=20						
SWET	**Sewanee**	20.13	20	*e*P	P	12 54 45.9	-0.9
319A	**Douglas**	20.22	320	⇓P	P	12 54 48.9	+1.0
	baz=20,SNR=317						
319A				⇑S	S	12 58 39.7	+10
	baz=20						
PVMO	**Portageville**	20.31	11	*e*P	P	12 54 49.2	+0.5
	comp=Z,450nm,0.7s						
PVMO				*e*S	S	12 58 36.4	+4.7
UTMT	**University of**	20.40	13	*e*P	P	12 54 48.7	-1.1
	comp=Z,1µm,1.0s						
UTMT				*e*S	S	12 58 33.2	-0.3
WVT	**Waverly**	20.43	15	*e*P	P	12 54 48.5	-1.6
WVT				pmax	pmax		
	comp=Z,2µm,1.4s						
WVT	**Waverly**	20.43	15	*e*P	P	12 54 48.5	-1.6
	comp=Z,2µm,1.4s						
WVT				*e*S	S	12 58 30.6	-3.5
219A	**White Tail Can**	20.64	321	⇓P	P	12 54 53.4	+1.0
	baz=21,SNR=467						
219A				⇓S	S	12 58 46.7	+8.3
	baz=21						
120A	**U Bar Ranch, L**	20.67	324	⇑P	P	12 54 54.2	+1.5
	baz=21						
120A				⇓S	S	12 58 47.0	+8.0
	baz=21						
318A	**Bisbee**	20.71	319	⇑P	P	12 54 53.6	+0.5
	baz=21,SNR=372						
318A				⇑S	S	12 58 47.4	+7.7
	baz=21						
CPCT	**Cooper Cave**	20.84	23	*e*P	P	12 54 53.4	-1.0
NHSC	**New Hope**	20.91	35	*e*P	P	12 54 56.2	+1.0
	comp=Z,3µm,1.1s						
NHSC				*e*S	S	12 58 33.6	-10
Y22D	**IRIS PASSCAL I**	20.94	329	⇓P	P	12 54 57.0	+1.4
	baz=21,SNR=52						
LPM	**Los Pinos Moun**	21.00	330	*e*P	P	12 54 57.2	+1.0
LENM	**Lemitar**	21.04	329	*e*P	P	12 54 57.8	+1.1
218A	**Dragoon**	21.11	320	⇑P	P	12 54 58.0	+0.6
	baz=21,SNR=116						
218A				⇓S	S	12 58 53.5	+6.1
	baz=21						
TKL	**Tuckaleechee C**	21.30	24	P	P	12 54 58.4	-1.1
TKL				S	S	12 58 52.2	+0.9
TKL				pmax	pmax		
	comp=Z,96nm,0.7s,mb5.2						
TKL				smax			
	comp=N,135nm,0.9s						
TKL	**Tuckaleechee C**	21.30	24	P	P	12 54 58.4	-1.1
	comp=N,96nm,0.7s,mb5.3,baz=203,slow=9.3,SNR=63						
TKL				S	S	12 58 52.2	+1.0
	comp=N,135nm,0.9s,baz=332,slow=21,SNR=9.1						
TKL	**Tuckaleechee C**	21.30	24	⇑*i*P	P	12 54 58.3	-1.2
TKL				*e*S	S	12 58 52.4	+1.1
X22A	**Bernardo**	21.34	330	⇑P	P	12 55 01.7	+1.9
	baz=21,SNR=162						
ANMO	**Albuquerque**	21.44	332	P	P	12 55 01.6	+0.7
ANMO				S	S	12 58 58.5	+4.5
ANMO				pmax	pmax		
	comp=Z,142nm,1.0s						
ANMO				smax			
	comp=N,18nm,0.8s						
ANMO	**Albuquerque**	21.44	332	P	P	12 55 01.6	+0.6
	comp=N,142nm,1.0s,mb5.3,baz=145,slow=12,SNR=287						
ANMO				S	S	12 58 58.5	+4.5
	comp=N,18nm,0.8s,baz=76,slow=15,SNR=1.6						
ANMO	**Albuquerque**	21.44	332	*e*P	P	12 55 01.5	+0.5
	comp=N,406nm,1.0s,mb5.7						
217A	**Green Valley**	21.45	318	⇑P	P	12 55 01.8	+0.7
	baz=22,SNR=501						
217A				⇓S	S	12 58 58.5	+4.2
	baz=22						
118A	**Homack Ranch,**	21.52	321	⇑P	P	12 55 02.6	+0.8
	baz=22,SNR=519						
118A				⇓S	S	12 58 59.8	+4.3
	baz=22						
Z19A	**T-Link Ranch,**	21.58	324	⇑P	P	12 55 03.2	+0.8
	baz=22,SNR=51						
Z19A				⇑S	S	12 59 01.0	+4.4
	baz=22						
LHS	**Liberty Hill**	21.64	31	*e*P	P	12 55 10.6	+7.5
SIUC	**Southern Illin**	21.66	11	*e*P	P	12 55 02.4	-0.9
	comp=N,5µm,1.5s,mb6.6						
SIUC				*e*S	S	12 58 58.4	+0.3
CCM	**Cathedral Cave**	21.70	6	*e*P	P	12 55 01.7	-2.0
CCM				*e*S	S	12 58 55.9	-3.0
CCM				pmax	pmax		
	comp=Z,433nm,0.9s,mb5.8						
CCM	**Cathedral Cave**	21.70	6	*e*P	P	12 55 01.7	-1.9
	comp=Z,433nm,0.9s,mb5.8						
CCM				*e*S	S	12 58 55.9	-3.1
W22A	**Albuquerque**	21.73	331	⇓P	P	12 55 05.2	+1.1
	baz=22,SNR=58						
FVM	**French Village**	21.73	8	*e*P	P	12 55 02.0	-2.0
FVM				*e*S	S	12 59 01.6	+2.1
FVM				pmax	pmax		
	comp=Z,255nm,0.6s,mb5.7						
FVM	**French Village**	21.73	8	*e*P	P	12 55 02.0	-2.0
	comp=Z,255nm,0.6s,mb5.7						
FVM				*e*S	S	12 59 01.6	+2.1
TUC	**Tucson**	21.79	319	P	P	12 55 04.9	+0.2
TUC				pmax	pmax		
	comp=Z,2µm,1.3s,mb6.3						
TUC	**Tucson**	21.79	319	*e*P	P	12 55 04.8	+0.1
	comp=Z,2µm,1.4s,mb6.2						
TUC				*e*ScP	ScP	13 02 07.6	-24
Z18A	**Geronimo**	21.88	322	⇓P	P	12 55 06.5	+0.9
	baz=22,SNR=172						
216A	**Three Points,**	22.01	318	⇓P	P	12 55 07.1	0.0
	baz=22,SNR=397						
216A				⇓S	S	12 59 07.5	+2.4
	baz=22						
Y19A	**Nutrioso**	22.07	325	⇑P	P	12 55 08.9	+1.3
	baz=22,SNR=237						
Y19A				⇑S	S	12 59 10.5	+4.6
	baz=22						
W21A	**San Fidel**	22.14	330	⇓P	P	12 55 09.5	+1.1
	baz=22,SNR=46						
W21A				⇓S	S	12 59 10.6	+3.6
	baz=22						
TZTN	**Tazewell**	22.17	23	*e*P	P	12 55 07.1	-1.5
	comp=Z,3µm,1.2s,mb6.5						
TZTN				*e*		12 55 29.0	
USIN	**University of**	22.22	14	*e*P	P	12 55 07.9	-1.3
	comp=Z,1µm,1.0s,mb6.3						
USIN				*e*S	S	12 59 17.1	+8.8
Z17A	**San Carlos Hig**	22.28	322	⇓P	P	12 55 10.4	+0.5
	baz=22,SNR=186						
Z17A				⇓S	S	12 59 12.8	+3.4
	baz=22						
OTAV	**Otavalo**	22.39	134	*e*P	P	12 55 12.0	+0.8
	comp=Z,2µm,1.7s,mb6.2						
SLM	**Saint Louis**	22.40	8	*e*P	P	12 55 09.8	-1.3
SLM				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.2						
SLM	**Saint Louis**	22.40	8	*e*P	P	12 55 09.8	-1.2
	comp=Z,1µm,1.0s,mb6.2						
SLM				*e*PcP	PcP	12 59 03.2	+0.3
SLM				*e*S	S	12 59 21.3	+10

GRTK	Grand Turk	22.42	73	eP	P	12 55 10.1	-1.4
	comp=Z,10µm,1.5s,mb6.9						
116A	Eloy	22.54	319	⇑P	P	12 55 12.5	-0.1
	baz=23,SNR=132						
116A				⇓S	S	12 59 15.5	+1.9
	baz=23						
W20A	Ramah	22.57	328	⇓P	P	12 55 14.2	+1.4
	baz=23,SNR=949						
W20A				⇑S	S	12 59 18.2	+4.2
	baz=23						
ROSC	El Rosal	22.67	118	P	P	12 55 11.8	-2.4
	comp=Z,84nm,0.5s,mb5.3,baz=105,slow=1.7,SNR=18						
ROSC				S	S	12 59 15.9	-0.3
	comp=Z,7.2nm,0.4s,baz=100,slow=22,SNR=2.7						
KSU1	Kansas State U	22.68	355	eP	P	12 55 12.2	-1.8
	comp=Z,72nm,0.9s,mb5.0						
KSU1				eS	S	12 59 33.2	+17
Y17A	Roosevelt	22.78	322	⇓P	P	12 55 15.4	+0.2
	baz=23,SNR=169						
Y17A				⇓S	S	12 59 19.6	+2.0
	baz=23						
CBKS	Cedar Bluff	22.81	349	eP	P	12 55 14.5	-0.9
	comp=Z,939nm,0.8s,mb6.2						
CBKS				eS	S	12 59 26.2	+8.2
OLIL	Olney	22.86	12	eP	P	12 55 14.5	-1.5
	comp=Z,2µm,0.9s,mb6.3						
OLIL				ePcP	PcP	12 59 01.9	-2.0
OLIL				eS	S	12 59 17.1	-1.7
214A	Organ Pipe Nat	22.87	316	⇑P	P	12 55 16.1	-0.1
	baz=23,SNR=227						
214A				⇓S	S	12 59 23.0	+3.8
	baz=23						
X18A	Snowflake	22.88	325	⇓P	P	12 55 16.9	+0.8
	baz=23,SNR=158						
X18A				⇑S	S	12 59 21.7	+2.6
	baz=23						
Z16A	Peralta Trail,	22.89	321	⇓P	P	12 55 16.2	-0.1
	baz=23,SNR=31						
Z16A				⇓S	S	12 59 23.1	+3.7
	baz=23						
115A	Sonoran Desert	22.96	318	⇓P	P	12 55 17.3	+0.3
	baz=23,SNR=169						
115A				⇑S	S	12 59 25.0	+4.5
	baz=23						
W19A	Sanders	23.01	327	⇓P	P	12 55 18.3	+0.9
	baz=23,SNR=270						
W19A				⇑S	S	12 59 26.7	+5.4
	baz=23						
W18A	Petrified Fore	23.20	326	⇑P	P	12 55 20.2	+1.0
	baz=23,SNR=39						
W18A				⇓S	S	12 59 27.8	+3.4
	baz=23						
X17A	Forest Lakes	23.22	323	⇓P	P	12 55 20.4	+1.1
	baz=23,SNR=125						
X17A				⇓S	S	12 59 29.2	+4.5
	baz=23						
Y16A	Circle Bar Ran	23.29	321	⇓P	P	12 55 20.5	+0.5
	baz=23,SNR=101						
Y16A				⇓S	S	12 59 29.2	+3.4
	baz=23						
V19A	Window Rock	23.30	328	⇑P	P	12 55 21.2	+1.1
	baz=23,SNR=167						
V19A				⇑S	S	12 59 30.0	+3.9
	baz=23						
Z15A	Gila River Ind	23.30	319	⇓P	P	12 55 20.0	-0.1
	baz=23,SNR=5.7						
T22A	Edith	23.37	334	⇓P	P	12 55 22.0	+1.4
	baz=24,SNR=790						
SDCO	Great Sand Dun	23.44	337	eP	P	12 55 21.9	+0.6
	comp=Z,509nm,1.1s,mb5.8						
BLO	Bloomington	23.64	15	eP	P	12 55 21.1	-2.0
BLO				eS	S	12 59 31.9	+0.5
BLO				pmax	pmax		
	comp=Z,3µm,1.3s,mb6.5						
BLO	Bloomington	23.64	15	eP	P	12 55 21.1	-2.0
	comp=Z,3µm,1.3s,mb6.5						
BLO				eS	S	12 59 31.9	+0.5
X16A	Lo Mia Camp, P	23.64	322	⇓P	P	12 55 24.0	+0.8
	baz=24,SNR=228						
W17A	Winslow	23.70	325	⇓P	P	12 55 24.5	+0.8
	baz=24,SNR=136						
V18A	Ganado	23.76	327	⇑P	P	12 55 24.9	+0.6
	baz=24,SNR=288						
CNNC	Cliffs of the	23.76	35	eP	P	12 55 23.6	-0.6
	comp=Z,304nm,1.3s,mb5.5						
CNNC				eS	S	12 59 55.9	+22
Z14A	Wintersburg	23.85	318	⇓P	P	12 55 25.6	+0.5
	baz=24,SNR=269						
Y15A	Casa Rosa Ranc	23.86	320	⇑P	P	12 55 25.5	+0.4
	baz=24,SNR=284						
113A	Mohawk Valley,	24.01	316	⇓P	P	12 55 26.3	-0.3
	baz=24,SNR=168						
BLA	Blacksburg	24.04	28	eP	P	12 55 26.2	-0.6
BLA				pmax	pmax		
	comp=Z,161nm,0.5s,mb5.6						
BLA	Blacksburg	24.04	28	eP	P	12 55 26.2	-0.6
	comp=Z,161nm,0.5s,mb5.6						
BLA				eS	S	13 00 02.5	+25
X15A	Humboldt	24.16	321	⇓P	P	12 55 28.6	+0.6
	baz=24,SNR=313						
T19A	Beclabito	24.18	330	⇑P	P	12 55 28.0	0.0
	baz=24,SNR=130						
W16A	Flagstaff	24.18	323	⇑P	P	12 55 28.8	+0.8
	baz=24,SNR=177						
SDV	Santo Domingo	24.21	105	P	P	12 55 23.4	-5.1
	comp=Z,81nm,0.5s,mb5.3,baz=314,slow=3.7,SNR=90						
SDV				S	S	12 59 45.2	+4.2
	comp=Z,57nm,1.1s,baz=300,slow=22,SNR=2.0						
SDV				LR	LR	13 05 59.4	
	comp=Z,20µm,20.6s,baz=213,slow=39						
SDV	Santo Domingo	24.21	105	eP	P	12 55 25.8	-2.7
MVCO	Mesa Verde	24.24	331	⇑P	P	12 55 29.2	+0.6
	baz=24,SNR=228						
MVCO	Mesa Verde	24.24	331	eP	P	12 55 29.1	+0.5
	comp=Z,300nm,1.0s,mb5.6						
Y14A	Wickenburg	24.26	319	⇑P	P	12 55 28.7	-0.1
	baz=24,SNR=294						
U18A	Rough Rock, Ch	24.27	328	⇑P	P	12 55 29.1	+0.3
	baz=24,SNR=393						
VWCC	Virginia Weste	24.27	29	eP	P	12 55 34.0	+5.1
R22A	Saguache, Gunn	24.34	336	⇑P	P	12 55 30.8	+1.2
	baz=24,SNR=176						
WUAZ	Wupatki	24.39	324	⇑P	P	12 55 30.9	+0.9
	baz=24,SNR=641						
WUAZ	Wupatki	24.39	324	eP	P	12 55 30.4	+0.4
	comp=Z,1µm,1.1s,mb6.1						
112A	Yuma	24.42	315	⇑P	P	12 55 30.0	-0.3
	baz=24,SNR=12						
HDIL	Hopedale	24.42	9	eP	P	12 55 28.7	-1.5
	comp=Z,6.5nm,0.3s,mb4.4						
HDIL				eS	S	13 00 23.1	+39
X14A	Yava	24.55	321	⇓P	P	12 55 31.8	+0.4
	baz=25,SNR=155						
W15A	Williams	24.66	323	⇓P	P	12 55 33.5	+1.0
	baz=25,SNR=307						
Y13A	Salome	24.70	318	⇓P	P	12 55 33.2	+0.4
	baz=25,SNR=96						
U16A	Tuba City	24.72	326	⇑P	P	12 55 33.5	+0.5
	baz=25,SNR=303						
U17A	Shonto	24.82	327	⇑P	P	12 55 34.3	+0.5
	baz=25,SNR=72						
T18A	Mexican Hat	24.83	329	⇓P	P	12 55 34.1	+0.1
	baz=25,SNR=216						
GLA	Glamis	24.89	315	eP	P	12 55 34.6	0.0
GLA				pmax	pmax		
	comp=Z,910nm,1.2s,mb6.1						
GLA	Glamis	24.89	315	⇓P	P	12 55 34.7	+0.1
	baz=25,SNR=109						
GLA	Glamis	24.89	315	eP	P	12 55 34.6	0.0
	comp=Z,910nm,1.3s,mb6.0						
Q22A	Crested Butte,	24.95	336	⇑P	P	12 55 35.9	+0.9
	baz=25,SNR=144						
S19A	Harvey Farm, M	24.96	331	⇑P	P	12 55 35.7	+0.5
	baz=25,SNR=187						
R20A	Redvale	24.99	333	⇑P	P	12 55 36.6	+1.2
	baz=25,SNR=194						
PV01	Paradox Valley	25.03	333	eP	P	12 55 36.8	+1.0
	comp=Z,29µm,1.0s						
V15A	Kaibab Nationa	25.06	324	⇑P	P	12 55 36.8	+0.7
	baz=25,SNR=350						
W14A	Seligman	25.16	322	⇑P	P	12 55 37.5	+0.5
	baz=25,SNR=232						
T17A	Navajo Res., N	25.19	328	⇑P	P	12 55 38.0	+0.7
	baz=25,SNR=240						
Q21A	Lamborn Mesa,	25.19	335	⇑P	P	12 55 38.0	+0.7
	baz=25,SNR=68						
X13A	Yucca	25.21	320	⇓P	P	12 55 37.6	+0.1
	baz=25,SNR=107						
PDMCI	Parker Dam,Lak	25.21	319	⇓P	P	12 55 37.6	+0.1
	baz=25,SNR=85						
ISCO	Idaho Springs	25.30	339	eP	P	12 55 38.8	+0.6
ISCO				pmax	pmax		
	comp=Z,13nm,0.4s,mb4.7						
ISCO	Idaho Springs	25.30	339	eP	P	12 55 38.8	+0.6
	comp=Z,13nm,0.4s,mb4.7						
S18A	Hurst Farm, Bl	25.33	330	⇑P	P	12 55 38.7	+0.2
	baz=25,SNR=120						
OGNE	Ogallala	25.34	346	eP	P	12 55 39.3	+0.8
	comp=Z,766nm,0.7s,mb6.2						
PV04	Paradox Valley	25.39	332	eP	P	12 55 39.8	+0.8
SCIA	State Center	25.40	2	eP	P	12 55 38.2	-0.9
	comp=Z,161nm,0.5s,mb5.7						
PV10	Paradox Valley	25.43	332	eP	P	12 55 39.4	0.0
	comp=Z,10µm,1.0s,mb7.2						
R19A	Curley Farm, L	25.47	332	⇑P	P	12 55 40.2	+0.5
	baz=26,SNR=120						
V14A	Boquillas Ranc	25.47	322	⇑P	P	12 55 40.5	+0.7
	baz=26,SNR=369						
SWSC	Sam W. Stewart	25.48	314	⇑P	P	12 55 39.9	0.0
	baz=26,SNR=79						
DVTC	Desert V Tower	25.54	313	⇑P	P	12 55 40.8	+0.3
	baz=26,SNR=68						
T16A	Glen Canyon Da	25.55	327	⇓P	P	12 55 41.2	+0.7
	baz=26,SNR=37						
W13A	Hualapai Mount	25.57	320	⇓P	P	12 55 41.4	+0.6
	baz=26,SNR=88						
Q20A	Ridgley Place,	25.59	334	⇓P	P	12 55 41.5	+0.6
	baz=26,SNR=30						
JSRW	J. Sargeant Re	25.63	31	eP	P	12 55 39.1	-2.1
ACSO	Alum Creek Sta	25.66	20	eP	P	12 55 39.3	-2.1
	comp=Z,945nm,1.0s,mb6.2						
ACSO				eS	S	13 00 35.9	+32
BC3	Big Chuckw Mtn	25.67	316	⇑P	P	12 55 41.9	+0.2
	baz=26,SNR=306						
S17A	Black Ridge (B	25.68	329	⇓P	P	12 55 42.2	+0.5
	baz=26,SNR=147						
P21A	Newcastle	25.73	336	⇓P	P	12 55 43.1	+1.0
	baz=26,SNR=131						
IRM	Iron Mountain	25.77	317	⇑P	P	12 55 42.8	+0.2
	baz=26,SNR=154						
NEE2	Needles Airpor	25.82	319	⇑P	P	12 55 43.0	+0.1
	baz=26,SNR=6.2						
R18A	Canyonlands Na	25.83	331	⇓P	P	12 55 43.1	0.0
	baz=26,SNR=90						
MONP	Monument Peak	25.89	313	⇓P	P	12 55 43.7	+0.1
	baz=26,SNR=91						
BAR	Barrett	25.95	313	eP	P	12 55 43.4	-0.8
	comp=Z,208nm,1.3s,mb5.4						
AGPR	Aguadilla, PR	25.95	82	eP	P	12 55 43.2	-1.2
	comp=Z,4µm,1.7s,mb6.5						
AGPR				eScP	ScP	13 02 44.8	+1.6
CRPR	Cabo Rojo, PR	25.96	83	eP	P	12 55 41.4	-3.0
	comp=Z,230nm,1.4s,mb5.4						
CRPR				ePcP	PcP	12 59 09.9	-1.1
CRPR				eS	S	13 00 17.9	+9.1
Q19A	Hogan Spring (	26.01	333	⇑P	P	12 55 45.0	+0.4
	baz=26,SNR=125						
T15A	Red Dirt Ranch	26.04	325	⇓P	P	12 55 45.6	+0.6
	baz=26,SNR=93						
U14A	Mt Trumbull	26.06	323	⇓P	P	12 55 45.7	+0.6
	baz=26,SNR=105						
P20A	De Beque	26.09	335	⇑P	P	12 55 46.0	+0.6
	baz=26,SNR=83						
V13A	Grand Canyon W	26.14	321	⇓P	P	12 55 46.3	+0.5
	baz=26						
S16A	Weppner Ranch,	26.15	328	⇑P	P	12 55 46.4	+0.5
	baz=26,SNR=74						
BELC	Belle Mtn.	26.24	316	⇓P	P	12 55 47.0	+0.2
	baz=26,SNR=34						
R17A	Hanksville Air	26.25	330	⇓P	P	12 55 47.2	+0.4
	baz=26,SNR=101						
CBN	Corbin	26.28	31	eP	P	12 55 47.5	+0.4
	comp=Z,675nm,1.0s,mb6.0						
CBN				eS	S	13 00 50.2	+37
W12A	Cal Nev Ari	26.32	319	⇓P	P	12 55 47.8	+0.3
	baz=26,SNR=14						
PFO	Pinyon Flat Ob	26.32	315	i P	P	12 55 47.7	+0.2
PFO	Pinyon Flat Ob	26.32	315	⇓P	P	12 55 47.8	+0.2
	baz=26,SNR=89						
PFO	Pinyon Flat Ob	26.32	315	eP	P	12 55 47.7	+0.1
	comp=Z,378nm,1.1s,mb5.7						
LDFC	Landfair	26.32	319	eP	P	12 55 48.9	+1.4
	comp=Z,649nm,1.0s,mb6.0						
MCWV	Mont Chateau	26.33	26	eP	P	12 55 45.9	-1.6
	comp=Z,99nm,1.4s,mb5.0						
MCWV				eS	S	13 00 32.6	+18
O21A	Pagoda	26.34	337	⇑P	P	12 55 48.4	+0.8
	baz=26,SNR=35						
109C	Camp Elliot, M	26.37	313	⇑P	P	12 55 47.8	-0.2
	baz=26,SNR=18						
OBIP	Obispado Ponce	26.44	82	eP	P	12 55 49.5	+0.8
	comp=Z,640nm,1.4s,mb5.9						
P19A	Cripple Cowboy	26.45	334	⇓P	P	12 55 48.8	+0.2
	baz=27,SNR=32						
CELP	Cerrillos	26.46	82	eP	P	12 55 47.8	-1.1
T14A	Hurricane	26.46	325	⇓P	P	12 55 49.5	+0.7
	baz=27,SNR=79						
GMRC	Granite Mounta	26.49	318	⇑P	P	12 55 49.4	+0.4
	baz=27,SNR=106						
N22A	Wattenberg Ran	26.49	339	⇑P	P	12 55 50.0	+1.1
	baz=27,SNR=96						
U13A	Pakoon Wash	26.51	322	⇑P	P	12 55 49.9	+0.7
	baz=27,SNR=143						
S15A	Panguitch	26.52	326	⇑P	P	12 55 50.5	+1.2
	baz=27,SNR=65						
Q18A	Rafter H Ranch	26.52	332	⇑P	P	12 55 49.9	+0.6
	baz=27,SNR=102						
R16A	Teasdale	26.52	329	⇑P	P	12 55 49.9	+0.6
	baz=27,SNR=26						
O20A	White River Ci	26.57	336	⇓P	P	12 55 50.4	+0.7
	baz=27,SNR=58						
V12A	Nelson	26.58	320	⇑P	P	12 55 50.3	+0.5
	baz=27,SNR=185						
PHWY	Pilot Hill	26.61	341	eP	P	12 55 50.6	+0.6
	comp=Z,49nm,0.8s,mb5.1						
PHWY				ePcP	PcP	12 59 11.0	-1.1
PHWY				eScP	ScP	13 02 45.0	+0.4
JFWS	Jewell Farm	26.61	7	eP	P	12 55 49.0	-1.0
JFWS				pmax	pmax		
	comp=Z,555nm,0.6s,mb6.3						
JFWS	Jewell Farm	26.61	7	eP	P	12 55 49.0	-1.0
	comp=Z,555nm,0.6s,mb6.3						
SRU	San Rafael	26.71	331	eP	P	12 55 51.4	+0.5
SRU				pmax	pmax		
	comp=Z,2µm,2.2s,mb6.3						
SRU	San Rafael	26.71	331	⇓P	P	12 55 51.2	+0.2
	baz=27,SNR=32						
SRU	San Rafael	26.71	331	eP	P	12 55 51.4	+0.4
	comp=Z,2µm,2.2s,mb6.3						
MURC	Murrieta	26.83	314	⇑P	P	12 55 52.2	+0.2
	baz=27,SNR=41						
N21A	Black Mountain	26.83	337	⇓P	P	12 55 53.2	+1.2
	baz=27,SNR=75						
U12A	Valley of Fire	26.86	322	⇓P	P	12 55 52.7	+0.3
	baz=27,SNR=114						
Q16A	Castle Valley	26.86	330	⇓P	P	12 55 53.0	+0.7
	baz=27,SNR=36						
T13A	Saint George	26.90	323	⇑P	P	12 55 53.4	+0.7
	baz=27,SNR=96						
HEC	Hector,Ludlow	26.95	317	⇑P	P	12 55 53.7	+0.5
	baz=27,SNR=150						
P18A	Preston Nutter	27.00	332	⇓P	P	12 55 54.2	+0.7
	baz=27,SNR=52						
V11A	Goodsprings	27.01	320	⇓P	P	12 55 54.1	+0.4
	baz=27,SNR=113						
BBRC	Big Bear Sol-O	27.01	315	⇑P	P	12 55 54.5	+0.8
	baz=27,SNR=69						
S14A	Cedar City	27.01	326	⇓P	P	12 55 54.5	+0.8
	baz=27,SNR=136						
TUQ	Turquoise Moun	27.07	318	⇓P	P	12 55 54.5	+0.3
	baz=27,SNR=48						
O19A	Miners Draw (B	27.07	334	⇑P	P	12 55 54.3	+0.2
	baz=27,SNR=32						
M22A	Cedar Creek Ra	27.07	339	⇓P	P	12 55 55.1	+0.9
	baz=27,SNR=43						
P17A	Butcher Ranch,	27.10	331	⇓P	P	12 55 54.9	+0.5
	baz=27,SNR=49						
CBYP	Canovanas	27.15	82	eP	P	12 55 50.9	-4.2
	comp=Z,343nm,1.2s,mb5.8						
CBYP				eScP	ScP	13 02 55.2	+8.5
HUMP	Col San Antoni	27.15	82	eP	P	12 55 52.9	-2.3
	comp=Z,2µm,1.9s,mb6.2						
T12A	Moapa	27.16	322	⇑P	P	12 55 55.4	+0.3
	baz=27,SNR=47						
N20A	Spence Gulch,	27.18	336	⇑P	P	12 55 55.6	+0.5
	baz=27,SNR=77						
S13A	Holt Ranch, En	27.26	324	⇑P	P	12 55 57.2	+1.2
	baz=27,SNR=136						
SHPR	Sheep Range	27.28	321	eP	P	12 55 56.4	+0.3
R14A	James Farms, M	27.33	327	⇓P	P	12 55 56.9	+0.4
	baz=27						
AAM	Ann Arbor	27.34	17	eP	P	12 55 54.0	-2.5
AAM				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.2						
AAM	Ann Arbor	27.34	17	eP	P	12 55 54.0	-2.5
	comp=Z,1µm,1.3s,mb6.2						
U11A	Corn Creek	27.36	321	⇑P	P	12 55 57.2	+0.3
	baz=28,SNR=25						
RRX	Edison Barstow	27.43	316	⇓P	P	12 55 57.8	+0.4
	baz=28,SNR=5.5						
MTP	Monte Pirata	27.44	82	eP	P	12 55 54.5	-3.2
	comp=Z,1µm,1.3s,mb6.2						
MTP				eScP	ScP	13 02 54.1	+6.6
SCI	San Clemente I	27.45	311	⇑P	P	12 55 57.5	-0.1
	baz=28,SNR=14						
SDMD	Soldier's Deli	27.48	30	eP	P	12 55 57.4	-0.5
BFSC	Mount Baldy St	27.50	315	⇓P	P	12 55 58.4	+0.3
	baz=28,SNR=39						
Q15A	Fillmore	27.52	328	⇑P	P	12 55 58.8	+0.6
	baz=28,SNR=80						
RWWY	Rawlins	27.54	339	eP	P	12 55 59.2	+0.9
	comp=Z,945nm,1.0s,mb6.3						
RWWY				e	pP	12 56 20.9	+3.0
CIS	Catalina Islan	27.57	312	⇑P	P	12 55 58.5	-0.2
	baz=28,SNR=48						
SHOC	Shoshone	27.58	319	⇓P	P	12 55 58.8	0.0
	baz=28,SNR=24						
N19A	John Jarvie Ra	27.59	335	⇑P	P	12 55 58.8	0.0
	baz=28,SNR=6.0						
P16A	Fountain Green	27.64	330	⇓P	P	12 56 00.4	+1.1
	baz=28,SNR=75						
FMP	Fort Macarthur	27.65	313	⇓P	P	12 55 59.2	-0.2
	baz=28,SNR=5.5						
O17A	Robinson Place	27.68	332	⇑P	P	12 56 00.6	+1.0
	baz=28,SNR=111						
M20A	Sweetwater, Wa	27.71	337	⇑P	P	12 56 00.4	+0.4
	baz=28,SNR=32						
R13A	O'Grain Ranch,	27.75	325	⇓P	P	12 56 01.6	+1.3
	baz=28,SNR=134						
MWC	Mount Wilson	27.77	314	eP	P	12 56 00.7	+0.2
	comp=Z,322nm,1.4s,mb5.7						
MWC				e	pP	12 56 20.5	+0.4
T11A	Corn Creek, Al	27.81	322	⇑P	P	12 56 01.5	+0.7
	baz=28,SNR=74						
PASC	Pasadena Art C	27.82	314	eP	P	12 56 00.9	-0.1
	comp=Z,2µm,1.4s,mb6.4						
PASC				e	pP	12 56 21.4	+0.8
PASC				ePcP	PcP	12 59 14.2	-1.0
L21A	Rawlins	27.84	339	⇓P	P	12 56 01.3	+0.3
	baz=28,SNR=96						
S12A	Delamar Landin	27.84	323	⇑P	P	12 56 02.2	+1.1
	baz=28,SNR=44						
ALLY	Alegheny Colle	27.91	23	eP	P	12 56 00.1	-1.6
P15A	Leamington	27.91	329	⇓P	P	12 56 02.4	+0.7
	baz=28,SNR=45						
U10A	Ash Meadows, A	27.94	320	⇓P	P	12 56 02.8	+0.8
	baz=28,SNR=109						
MPU	Maple Canyon	27.95	331	eP	P	12 56 02.6	+0.6
DECC	Green Verdugo	27.97	314	⇓P	P	12 56 02.5	+0.2
	baz=28,SNR=7.5						
Q14A	Sevier Lake (B	27.97	327	⇓P	P	12 56 03.2	+1.0
	baz=28,SNR=84						
SSPA	Standing Stone	27.98	27	eP	P	12 56 00.1	-2.2
	comp=Z,487nm,1.4s,mb5.8						
SSPA				eS	S	13 01 43.5	+63
SSPA				eScP	ScP	13 02 47.6	-1.2
EDW2	Edwards Air Fo	28.09	315	⇑P	P	12 56 03.0	-0.3
	baz=28,SNR=54						
M19A	Rock Springs	28.10	336	⇓P	P	12 56 03.0	-0.4
	baz=28						
NLU	North Lily Min	28.11	330	eP	P	12 56 04.3	+0.9
MVL	Millersville	28.17	30	eP	P	12 56 02.5	-1.5
CDVI	St. Croix	28.19	83	eP	P	12 56 03.7	-0.7
R12A	Pony Springs,	28.21	325	⇓P	P	12 56 05.6	+1.2
	baz=28,SNR=120						
L20A	Wamsutter	28.22	337	⇓P	P	12 56 04.5	+0.1
	baz=28,SNR=46						
SNCC	San Nicolas Is	28.29	311	⇓P	P	12 56 04.9	-0.2
	baz=28						
SNCC	San Nicolas Is	28.29	311	eP	P	12 56 04.8	-0.3
	comp=Z,173nm,1.2s,mb5.5						
SNCC				e	pP	12 56 24.9	+0.2
SNCC				ePcP	PcP	12 59 15.5	-0.9
SNCC				eS	S	13 00 39.6	-5.7
FURC	Furnace Creek,	28.30	319	⇓P	P	12 56 05.7	+0.4
	baz=28,SNR=109						
P14A	Drum Mountains	28.32	328	⇓P	P	12 56 06.5	+1.2
	baz=28,SNR=75						
N17A	Moffit Pass	28.33	333	⇑P	P	12 56 06.2	+0.8
	baz=28,SNR=64						
JLU	Jordanelle	28.33	332	eP	P	12 56 06.0	+0.7
Q13A	Wheeler Ranch,	28.34	326	⇓P	P	12 56 06.6	+1.1
	baz=28,SNR=167						
ERPA	Erie	28.37	23	eP	P	12 56 03.6	-2.2
	comp=Z,104nm,0.8s,mb5.4						
ERPA				e	pP	12 56 26.4	+1.0
M18A	Lyman	28.40	334	⇓P	P	12 56 05.9	-0.2
	baz=28,SNR=23						
BLG	Laguna Peak	28.40	313	⇓P	P	12 56 06.4	+0.3
	baz=28,SNR=8.6						
OSI	Osito Adit	28.44	314	⇑P	P	12 56 06.4	-0.1
	baz=28,SNR=8.3						
OSI	Osito Adit	28.44	314	eP	P	12 56 06.5	0.0
	comp=Z,116nm,1.0s,mb5.4						
MPMC	Manual Prospec	28.45	318	⇑P	P	12 56 06.7	+0.2
	baz=29,SNR=205						
CTU	Camp Tracy	28.54	331	eP	P	12 56 08.6	+1.3
N16A	Rees Ranch, Co	28.55	332	⇓P	P	12 56 08.2	+0.8
	baz=29,SNR=36						
O15A	The Old Anders	28.55	330	⇓P	P	12 56 08.5	+1.1
	baz=29						
DUG	Dugway	28.65	329	eP	P	12 56 08.8	+0.5
DUG				e		12 59 16.5	
DUG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
DUG	Dugway	28.65	329	⇑P	P	12 56 09.1	+0.8
	baz=29,SNR=54						
DUG	Dugway	28.65	329	eP	P	12 56 08.8	+0.5
	comp=Z,0.6nm,0.3s						
DUG				ePcP	PcP	12 59 16.5	-0.6
NOQ	North Oquirrh	28.68	331	eP	P	12 56 09.4	+0.9
L19A	Farson	28.69	336	⇑P	P	12 56 08.4	-0.2
	baz=29,SNR=21						
M17A	Scullys Gap (B	28.69	334	⇑P	P	12 56 08.4	-0.2
	baz=29,SNR=49						
P13A	Bates Ranch, G	28.70	327	⇑P	P	12 56 10.1	+1.3
	baz=29,SNR=82						
BSC	Santa Cruz Isl	28.75	312	⇓P	P	12 56 09.2	0.0
	baz=29,SNR=11						
R11A	Troy Canyon, C	28.77	324	⇓P	P	12 56 10.3	+0.9
	baz=29,SNR=136						
K20A	Yellowstone Ra	28.79	338	⇑P	P	12 56 09.4	-0.1
	baz=29,SNR=49						
ARVC	Arvin	28.80	315	⇑P	P	12 56 09.8	+0.2
	baz=29,SNR=50						
L18A	Fontenelle, Gr	28.81	335	⇓P	P	12 56 09.9	+0.3
	baz=29,SNR=12						
RSSD	Black Hills	28.82	345	P	P	12 56 10.4	+0.7
RSSD				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.5						
RSSD	Black Hills	28.82	345	eP	P	12 56 10.4	+0.7
	comp=Z,104nm,0.9s,mb5.5						
Q12A	Willow Creek R	28.84	325	⇑P	P	12 56 10.9	+0.9
	baz=29,SNR=58						
ISA	Isabella	28.86	316	eP	P	12 56 10.5	+0.3
ISA	Isabella	28.86	316	⇑P	P	12 56 10.8	+0.7
	baz=29,SNR=65						
ISA	Isabella	28.86	316	eP	P	12 56 10.4	+0.2
	comp=Z,259nm,1.3s,mb5.7						
ISA				e	pP	12 56 30.4	+0.6
ISA				ePcP	PcP	12 59 17.4	-0.4
GRAC	Grapevine Rang	28.95	319	⇓P	P	12 56 12.0	+1.0
	baz=29,SNR=50						
SBC	Santa Barbara	29.04	313	⇓P	P	12 56 11.8	+0.1
	baz=29						
N15A	Stansbury Isla	29.05	331	⇑P	P	12 56 12.3	+0.4
	baz=29,SNR=72						
CWC	Cottonwood Cre	29.06	318	⇑P	P	12 56 12.2	+0.3
	baz=29,SNR=56						
S10A	Tonopah Range,	29.08	322	⇓P	P	12 56 13.0	+0.9
	baz=29,SNR=234						
K19A	Absolon Red Bu	29.12	338	⇑P	P	12 56 11.8	-0.6
	baz=29,SNR=79						

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R10A  Warm Springs      29.15 323 ⇓P      P        12 56 13.9 +1.2
      baz=29,SNR=110
Q11A  Duckwater         29.16 324 ⇓P      P        12 56 13.7 +0.9
      baz=29,SNR=162
O13A  Hicks Ranch, I    29.19 328 ⇓P      P        12 56 14.1 +1.1
      baz=29,SNR=12
P12A  McGill            29.19 326 ⇑P      P        12 56 14.0 +0.9
      baz=29,SNR=60
L17A  Cokeville         29.30 334 ⇓P      P        12 56 13.8 -0.2
      baz=29,SNR=42
S09A  Goldfield         29.32 321 ⇑P      P        12 56 14.7 +0.4
      baz=29,SNR=255
BW06  Boulder Array     29.33 337 ⇑P      P        12 56 14.3 +0.1
      baz=30,SNR=68
BW06  Boulder Array     29.33 337 eP      P        12 56 14.0 -0.3
      comp=Z,123nm,1.1s,mb5.5
BW06                              e       pP       12 56 35.1 +1.1
PDAR  Pinedale Array    29.33 337  P      P        12 56 14.0 -0.3
      comp=Z,45nm,0.9s,mb5.1,baz=139,slow=7.8,SNR=147
PDAR                               LR     LR       13 11 47.2
      comp=Z,14µm,19.4s,baz=157,slow=44
PDAR                               P3KPbc          13 28 14.2
      comp=Z,1.2nm,0.9s,baz=17,slow=2.3,SNR=6.9
PDAR                               PKPPKP          13 30 09.9
      comp=Z,1.8nm,1.2s,baz=245,slow=3.1,SNR=3.9
PDAR  Pinedale Array    29.33 337  P      P        12 56 14.0 -0.3
PDAR                               LR     LR       13 11 47.2
PDAR                              e                13 28 14.2
N14A  Grayback Hills    29.34 330 ⇓P      P        12 56 15.0 +0.7
      baz=30,SNR=163
SPUT  South Promonto    29.35 331 eP      P        12 56 15.1 +0.6
VES   Vestal, Richgr    29.37 316 ⇑P      P        12 56 15.2 +0.5
      baz=30,SNR=104
K18A  Toltan Ranch,     29.41 336 ⇓P      P        12 56 15.9 +0.9
      baz=30,SNR=160
GLMI  Grayling          29.45  14 eP      P        12 56 13.7 -1.5
      comp=Z,1.0nm,0.4s
GLMI                              e                12 56 39.5
GLMI                              eScP    ScP      13 03 06.6  +13
PCRV  Puerto La Cruz    29.45  98  P      P        12 56 14.1 -1.6
      comp=Z,32nm,0.4s,mb5.3,baz=225,slow=2.9,SNR=16
PCRV                               pP     pP       12 56 34.6 -0.8
      comp=Z,39nm,0.6s,baz=338,slow=4.5,SNR=3.6
PCRV                               S      S        13 01 05.4 +1.5
      comp=Z,19nm,1.0s,baz=23,slow=23,SNR=2.3
L16A  Fish Haven        29.46 333 ⇓P      P        12 56 15.6 +0.2
      baz=30,SNR=112
M15A  Larsen Ranch,     29.47 331 ⇑P      P        12 56 16.2 +0.7
      baz=30,SNR=88
TIN   Tinemaha          29.53 319 ⇑P      P        12 56 17.0 +0.9
      baz=30,SNR=20
TPH   Tonopah           29.55 321 eP      P        12 56 16.8 +0.5
TPH                                pmax   pmax
      comp=Z,278nm,1.3s,mb5.7
TPH   Tonopah           29.55 321 eP      P        12 56 16.8 +0.6
      comp=Z,278nm,1.3s,mb5.7
Q10A  Clear Creek Ra    29.57 323 ⇓P      P        12 56 17.8 +1.4
      baz=30,SNR=171
R09A  Tonopah           29.57 322 ⇓P      P        12 56 17.3 +0.9
      baz=30,SNR=174
O12A  Currie            29.68 327 ⇓P      P        12 56 18.5 +1.1
      baz=30,SNR=166
SMMC  Simmler           29.70 314 ⇓P      P        12 56 18.0 +0.4
      baz=30,SNR=18
P11A  Circle Ranch,     29.71 325 ⇓P      P        12 56 18.4 +0.8
      baz=30,SNR=39
RCTC  Rector, Farmer    29.74 317 ⇓P      P        12 56 18.4 +0.4
      baz=30,SNR=84
N13A  Wendover, West    29.84 329 ⇓P      P        12 56 19.7 +0.9
      baz=30,SNR=128
K17A  Gardner Place,    29.86 335 ⇓P      P        12 56 19.1 +0.2
      baz=30,SNR=98
HVU   Hansel Valley     29.87 331 eP      P        12 56 19.6 +0.6
L15A  Malad City        29.87 332 ⇓P      P        12 56 19.4 +0.3
      baz=30,SNR=123
J18A  Kendall Valley    29.89 336 ⇑P      P        12 56 19.4 +0.2
      baz=30,SNR=143
M14A  Sheep Mountain    29.92 330 ⇓P      P        12 56 20.2 +0.7
      baz=30,SNR=180
MTUM  Tungsten Hills    29.92 319 eP      P        12 56 20.2 +0.6
AHID  Auburn Hatcher    29.94 335 eP      P        12 56 19.9 +0.2
      comp=Z,2µm,2.2s,mb6.5
AHID                              e       pP       12 56 39.6 +0.3
AHID                              ePcP    PcP      12 59 19.8 -0.6
Q09A  Carvers           30.02 323 ⇓P      P        12 56 21.6 +1.2
      baz=30,SNR=18
O11A  Cowboy Ranch,     30.06 326 ⇓P      P        12 56 21.8 +1.0
      baz=30,SNR=182
BINY  Binghamton        30.08  28 eP      P        12 56 19.3 -1.6
      comp=Z,2µm,2.2s,mb6.4
P10A  Eureka            30.15 324 ⇓P      P        12 56 22.7 +1.2
      baz=30,SNR=96
K16A  Soda Springs      30.20 334 ⇓P      P        12 56 22.4 +0.4
      baz=30,SNR=45
M13A  Montello          30.20 329 ⇓P      P        12 56 22.9 +0.9
      baz=30,SNR=285
I18A  Diamond G Ranc    30.23 337 ⇑P      P        12 56 22.7 +0.5
      baz=30
R08A  Mina              30.26 321 ⇑P      P        12 56 23.8 +1.3
      baz=30,SNR=166
MLAC  Mammoth Lakes     30.26 319 ⇑P      P        12 56 23.5 +0.9
      baz=30,SNR=40
N12A  Clover Valley,    30.26 328 ⇑P      P        12 56 23.4 +0.9
      baz=30,SNR=125
J17A  Brown Place, J    30.29 336 ⇓P      P        12 56 23.6 +0.9
      baz=30,SNR=277
L14A  Malta             30.29 331 ⇑P      P        12 56 23.4 +0.7
      baz=30,SNR=28
ELK   Elko              30.29 327  P      P        12 56 23.5 +0.8
ELK                                pmax   pmax
      comp=Z,250nm,1.0s
ELK   Elko              30.29 327 eP      P        12 56 23.5 +0.8
      comp=Z,250nm,1.0s,mb5.8
ELK                               e       pP       12 56 43.4 +0.9
ELK                               ePcP    PcP      12 59 21.1 -0.2
REDW  Red Top Meadow    30.34 336 eP      P        12 56 23.7 +0.6
      comp=Z,1µm,2.2s,mb6.1
REDW                              e       pP       12 56 43.7 +0.8
NVAR  Mina Array Bea    30.43 321  P      P        12 56 25.1 +1.1
      comp=Z,348nm,1.0s,mb6.0,baz=138,slow=8.5,SNR=1059
NVAR                               pP     pP       12 56 44.9 +1.1
      comp=Z,81nm,0.8s,baz=131,slow=6.2,SNR=4.6
NVAR                               PcP    PcP      12 59 19.7 -2.1
      comp=Z,40nm,0.8s,baz=132,slow=3.8,SNR=4.5
NVAR                               PKiKP  PKiKP    13 06 52.1 -1.0
      comp=Z,1.7nm,0.8s,baz=205,slow=2.5,SNR=4.2
NVAR                               P3KPbc          13 28 12.5
      comp=Z,3.3nm,0.8s,baz=290,slow=4.4,SNR=17
NVAR  Mina Array Bea    30.43 321  P      P        12 56 25.1 +1.1
NVAR                               pP     pP       12 56 44.9 +1.1
NVAR                               PcP    PcP      12 59 19.7 -2.1
P09A  Austin            30.48 324 ⇑P      P        12 56 25.4 +0.9
      baz=31,SNR=26
K15A  Arbon             30.48 333 ⇑P      P        12 56 25.0 +0.5
      baz=31,SNR=132
Q08A  Gabbs             30.48 322 ⇓P      P        12 56 25.5 +1.0
      baz=31,SNR=175
TPAW  Teton Pass        30.49 336 eP      P        12 56 24.7 +0.2
      comp=Z,2.4nm,0.6s
TPAW                              ePcP    PcP      12 59 21.3 -0.5
RRI2  Red Ridge         30.52 335 eP      P        12 56 25.2 +0.5
      comp=Z,2.4nm,0.6s
RRI2                              e       pP       12 56 46.0 +1.6
J16A  Bone              30.57 335 ⇓P      P        12 56 25.9 +0.7
      baz=31,SNR=149
N11A  Elko Archery C    30.60 327 ⇑P      P        12 56 26.5 +1.0
      baz=31,SNR=108
O10A  Cortez Mining,    30.63 325 ⇓P      P        12 56 27.0 +1.2
      baz=31,SNR=39
L13A  Double Diamond    30.66 331 ⇓P      P        12 56 26.8 +0.8
      baz=31,SNR=114
K14A  Jones Ranch, D    30.66 332 ⇓P      P        12 56 26.2 +0.2
      baz=31,SNR=76
DCID1 Drake Creek       30.67 335 eP      P        12 56 26.7 +0.7
      comp=Z,2.4nm,0.6s
DCID1                             ePcP    PcP      12 59 20.6 -1.6
I17A  Pilgrim Ck.       30.70 337 ⇓P      P        12 56 27.5 +1.2
      baz=31,SNR=160
O09A  Fish Creek Ran    30.93 324 ⇑P      P        12 56 29.3 +0.9
      baz=31,SNR=97
N10A  Dunphy            30.94 326 ⇑P      P        12 56 29.5 +1.0
      baz=31,SNR=12
SADO  Sadowa            30.99  21  P      P        12 56 26.7 -2.1
      comp=Z,113nm,0.8s,mb5.6,baz=233,slow=9.4,SNR=68
SADO                               pP     pP       12 56 49.1 +0.5
      comp=Z,219nm,0.8s,baz=234,slow=8.6,SNR=15
SADO                               S      S        13 01 25.4 -1.9
      comp=Z,33nm,1.0s,baz=129,slow=22,SNR=3.3
SADO                               LR     LR       13 11 03.7
      comp=Z,12µm,18.5s,baz=210,slow=40
J15A  Blackfoot         31.02 334 ⇑P      P        12 56 29.7 +0.5
      baz=31,SNR=99
I16A  Newdale           31.02 335 ⇓P      P        12 56 29.8 +0.7
      baz=31,SNR=39
ANWB  Willy Bob         31.04  83  P      P        12 56 29.6 -0.1
ANWB                              e                12 57 04.0
ANWB                              eS      S        13 01 25.6 -3.0
Q07A  Schurz            31.06 321 ⇓P      P        12 56 30.7 +1.1
      baz=31,SNR=6.8
M11A  Holland Ranch,    31.07 328 ⇓P      P        12 56 30.8 +1.1
      baz=31,SNR=162
BBSR  BB Station        31.10  54  P      P        12 56 30.8 +0.7
      comp=Z,760nm,1.6s,mb6.2
BBSR                              e       pP       12 56 52.3 +2.5
H17A  Grant Village     31.11 337 ⇓P      P        12 56 31.2 +1.3
      baz=31,SNR=66
P08A  Dixie Valley      31.12 323 ⇑P      P        12 56 31.2 +1.1
      baz=31,SNR=44
BMN   Battle Mountai    31.13 325 eP      P        12 56 31.0 +0.8
BMN                                pmax   pmax
      comp=Z,317nm,1.2s,mb5.9
BMN   Battle Mountai    31.13 325 eP      P        12 56 31.0 +0.8
      comp=Z,317nm,1.2s,mb5.9
BMN                               e       pP       12 56 52.0 +2.1
K13A  Stover Farm, H    31.16 331 ⇑P      P        12 56 30.5 +0.2
      baz=31,SNR=32
LKWY  Lake              31.19 337 eP      P        12 56 32.2 +1.6
LKWY                               pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.4
LKWY  Lake              31.19 337 eP      P        12 56 32.2 +1.6
      comp=Z,4.8nm,0.6s,mb4.4
LKWY                              e       pP       12 56 53.4 +3.0
R06C  Coleville         31.19 320 ⇓P      P        12 56 32.0 +1.2
      baz=31,SNR=108
L12A  House Creek Ra    31.21 329 ⇑P      P        12 56 31.4 +0.5
      baz=31,SNR=112
RLMT  Red Lodge         31.27 339 ⇑P      P        12 56 31.8 +0.5
      baz=31,SNR=158
RLMT  Red Lodge         31.27 339 eP      P        12 56 31.6 +0.3
      comp=Z,360nm,0.3s,mb6.6
RLMT                              e       pP       12 56 52.8 +1.7
J14A  Carey             31.43 332 ⇑P      P        12 56 33.3 +0.5
      baz=32,SNR=104
SAO   San Andreas Ge    31.47 315 eP      P        12 56 32.6 -0.6
SAO                               e                12 59 29.1
SAO                                pmax   pmax
      comp=Z,858nm,1.8s,mb6.2
SAO   San Andreas Ge    31.47 315 eP      P        12 56 32.6 -0.7
      comp=Z,858nm,1.8s,mb6.2
SAO                               e       pP       12 56 52.7 -0.2
SAO                               ePcP    PcP      12 59 29.1 +4.5
CMB   Columbia Colle    31.49 318 eP      P        12 56 33.2 -0.2
CMB                               e                12 59 23.8
CMB                                pmax   pmax
      comp=Z,239nm,1.4s,mb5.7
CMB   Columbia Colle    31.49 318 eP      P        12 56 33.2 -0.2
      comp=Z,239nm,1.4s,mb5.7
CMB                               e       pP       12 56 53.6 +0.5
CMB                               ePcP    PcP      12 59 23.8 -0.8
P07A  Fallon            31.49 322 ⇑P      P        12 56 34.3 +1.0
      baz=32,SNR=25
EYMN  Ely               31.51   4 eP      P        12 56 31.7 -1.7
      comp=Z,4µm,2.9s,mb6.6
EYMN                              eS      S        13 01 34.9 -0.4
M10A  I.L. Ranch, Tu    31.53 327 ⇑P      P        12 56 34.8 +1.1
      baz=32,SNR=114
I15A  Monteview         31.53 334 ⇓P      P        12 56 34.7 +1.0
      baz=32,SNR=54
K12A  Draper Farm, C    31.53 330 ⇑P      P        12 56 34.2 +0.5
      baz=32,SNR=69
G18A  Lazy EL Ranch,    31.54 339 ⇓P      P        12 56 33.7  0.0
      baz=32,SNR=146
O08A  Rochester Mine    31.55 324 ⇑P      P        12 56 34.7 +0.7
      baz=32,SNR=146
N09A  Rock Creek Ran    31.58 325 ⇑P      P        12 56 35.0 +0.9
      baz=32,SNR=256
L11A  Cat Creek Ranc    31.59 329 ⇑P      P        12 56 34.8 +0.5
      baz=32,SNR=283
H16A  Russell Place,    31.62 337 ⇑P      P        12 56 35.6 +1.1
      baz=32,SNR=107
LAO   LASA Array        31.77 344 eP      P        12 56 35.8 +0.1
      comp=Z,282nm,1.0s,mb6.0
LAO                               e       pP       12 56 55.5 +0.1
LAO                               ePcP    PcP      12 59 24.6 -0.5
LAO                               eS      S        13 01 36.1 -3.4
J13A  Cove Ranch, Pi    31.78 332 ⇓P      P        12 56 36.1 +0.3
      baz=32,SNR=105
AGMN  Agassiz Refuge    31.81 358 eP      P        12 56 35.0 -1.1
      comp=Z,5µm,1.1s,mb7.1
AGMN                              e       pP       12 56 55.2 -0.6
AGMN                              ePcP    PcP      12 59 23.4 -1.8
AGMN                              eScP    ScP      13 03 01.0  0.0
GRGR  Grenville         31.85  93 eP      P        12 56 34.5 -2.3
      comp=Z,3µm,1.5s,mb6.7
GRGR                              eS      S        13 01 42.0 +0.6
WCN   Washoe City       31.86 321 ⇓P      P        12 56 37.6 +1.0
      baz=32,SNR=101
N08A  GE Springer Mi    31.87 324 ⇓P      P        12 56 36.7  0.0
      baz=32,SNR=110
I14A  Mackay            31.88 333 ⇓P      P        12 56 37.9 +1.1
      baz=32,SNR=208
O07A  Toulon            31.88 323 ⇓P      P        12 56 37.2 +0.4
      baz=32,SNR=142
L10A  Juniper Basin     31.89 328 ⇑P      P        12 56 37.3 +0.5
      baz=32,SNR=226
FDF   Fort de France    31.90  88  P      P        12 56 34.4 -2.9
FDF                                pmax   pmax
      comp=Z,85nm,0.6s,mb5.7
FDF   Fort de France    31.90  88 eP      P        12 56 34.4 -2.8
      comp=Z,85nm,0.6s,mb5.7
FDF                               ePcP    PcP      12 59 26.7 +0.7
M09A  Marrel Ranch,     31.94 326 ⇑P      P        12 56 38.4 +1.1
      baz=32,SNR=287
G17A  Pierce Place,     31.96 338 ⇓P      P        12 56 38.9 +1.5
      baz=32,SNR=94
HLID  Hailey            32.02 332 ⇑P      P        12 56 38.4 +0.5
      baz=32,SNR=192
HLID  Hailey            32.02 332 eP      P        12 56 37.3 -0.6
      comp=Z,196nm,0.9s,mb5.8
HLID                              e       pP       12 56 58.2 +0.5
SVV   Soufriere Volc    32.05  91 e       P        12 56 37.0 -1.6
TCE   Chacachacare      32.07  96 e       sP       12 57 14.4 +6.0
SSV   Crater Summit     32.07  91 e       P        12 56 37.5 -1.2
J12A  Stokes Ranch,     32.09 331 ⇑P      P        12 56 38.7 +0.1
      baz=32,SNR=45
H15A  Lima              32.10 335 ⇓P      P        12 56 40.1 +1.5
      baz=32,SNR=154
F18A  Big Timber        32.11 339 ⇓P      P        12 56 38.9 +0.2
      baz=32,SNR=138
SLB   Belfond           32.13  90 e       P        12 56 36.8 -2.5
I13A  Wildhorse Cree    32.16 333 ⇑P      P        12 56 39.9 +0.7
      baz=32,SNR=89
P06A  Stead Airport,    32.18 321 ⇑P      P        12 56 40.5 +1.1
      baz=32,SNR=40
K11A  Parker Ranch,     32.18 329 ⇑P      P        12 56 39.6 +0.2
      baz=32,SNR=79
G16A  Moss Hill, Enn    32.28 336 ⇑P      P        12 56 41.4 +1.2
      baz=32,SNR=102
N07B  Gerlach           32.34 324 ⇓P      P        12 56 41.2 +0.3
      baz=32,SNR=74
TRN   Trinidad (W)      32.41  96 e       sP       12 57 17.3 +5.8
F17A  Fitzpatrick Pl    32.43 338 ⇑P      P        12 56 42.8 +1.2
      baz=32,SNR=391
O06A  Flanigan          32.44 322 ⇑P      P        12 56 42.5 +0.8
      baz=32,SNR=229
M08A  Happy Creek Ra    32.46 325 ⇑P      P        12 56 42.3 +0.5
      baz=33,SNR=89
L09A  Wilkinson Ranc    32.47 327 ⇓P      P        12 56 42.5 +0.6
      baz=33,SNR=138
G15A  Dillon            32.49 336 ⇑P      P        12 56 43.4 +1.4
      baz=33,SNR=238
I12A  Atlanta           32.53 331 ⇓P      P        12 56 43.0 +0.6
      baz=33,SNR=166
MFID  Camas Ranch       32.56 330 ⇓P      P        12 56 42.9 +0.2
      baz=33,SNR=68
BOZ   Bozeman (W)       32.56 337  P      P        12 56 42.8 +0.1
BOZ                                pmax   pmax
      comp=Z,1µm,2.2s,mb6.4
BOZ   Bozeman (W)       32.56 337 ⇓P      P        12 56 43.2 +0.5
      baz=33,SNR=126
BOZ   Bozeman (W)       32.56 337 eP      P        12 56 42.8 +0.1
      comp=Z,407nm,0.4s,mb6.6
BOZ                               e       pP       12 57 04.9 +2.4
BOZ                               e                12 57 16.2
BOZ                               ePcP    PcP      12 59 26.8 -0.5
BEKR  Beckwourth        32.57 321 ⇑P      P        12 56 43.9 +1.1
      baz=33
K10A  MacKenzie Ranc    32.60 328 ⇑P      P        12 56 43.2 +0.1
      baz=33,SNR=94
LONY  Lake Ozonia       32.63  26 eP      P        12 56 41.5 -1.8
      comp=Z,24nm,0.2s,mb5.7
LONY                              e       pP       12 57 04.4 +1.4
LONY                              e                12 57 18.7
LONY                              ePcP    PcP      12 59 25.9 -1.7
F16A  Kennard Place,    32.68 337 ⇑P      P        12 56 44.3 +0.6
      baz=33,SNR=144
DLMT  Dillon            32.70 336 eP      P        12 56 43.9 +0.1
      comp=Z,798nm,0.8s,mb6.6
DLMT                              e       pP       12 57 05.8 +2.2
DLMT                              e                12 57 16.3
H13A  Challis           32.74 333 ⇑P      P        12 56 45.2 +1.0
      baz=33,SNR=307
E18A  Harlowton         32.75 340 ⇑P      P        12 56 44.7 +0.3
      baz=33,SNR=101
N06A  Buffalo Meadow    32.82 323 ⇑P      P        12 56 45.7 +0.7
      baz=33,SNR=447
M07A  Soldier Meadow    32.86 324 ⇑P      P        12 56 45.3 -0.1
      baz=33,SNR=141
TPR   Prospect          32.89  95 e       sP       12 57 15.2 -0.4
BOT   Bacolet           32.95  95 e       sP       12 57 19.8 +3.6
G14A  Jackson           32.95 335 ⇓P      P        12 56 46.8 +0.7
      baz=33,SNR=182
L08A  Fields            32.95 326 ⇓P      P        12 56 46.3 +0.2
      baz=33,SNR=374
DGMT  Dagmar            32.98 348 ⇑P      P        12 56 46.0 -0.2
      baz=33,SNR=69
DGMT  Dagmar            32.98 348 eP      P        12 56 46.3 +0.1
      comp=Z,196nm,0.9s,mb5.9
DGMT                              e       pP       12 57 07.0 +0.9
E17A  Martinsdale       32.98 339 ⇓P      P        12 56 46.8 +0.5
      baz=33,SNR=121
K09A  Rome              32.98 327 ⇑P      P        12 56 47.1 +0.7
      baz=33,SNR=449
H12A  Diamond D Ranc    32.99 332 ⇑P      P        12 56 47.2 +0.8
      baz=33,SNR=396
I11A  Placerville       33.00 331 ⇓P      P        12 56 47.2 +0.7
      baz=33,SNR=448
J10A  Berg Farm, Mel    33.03 329 ⇑P      P        12 56 46.9 +0.1
      baz=33,SNR=40
F15A  Butte             33.05 336 ⇑P      P        12 56 47.9 +1.0
      baz=33,SNR=260
NNA   Nana              33.07 148⇓iP      P        12 56 46.2 -1.2
      comp=Z,299nm,1.3s,mb6.0
NNA                               ePP     PP       12 58 01.6 -2.2
NNA                                PcP    PcP      12 59 27.3 -1.9
NNA                                S      S        13 02 05.4 +5.2
G13A  Cobalt            33.15 334 ⇑P      P        12 56 48.5 +0.7
      baz=33,SNR=160
MCCM  Marconi Confer    33.17 316 eP      P        12 56 48.5 +0.4
      comp=Z,2µm,2.2s,mb6.5
MCCM                              e       pP       12 57 08.5 +0.6
MCCM                              ePcP    PcP      12 59 28.7 -0.5
D18A  Linhart Farms,    33.27 341 ⇓P      P        12 56 49.3 +0.4
      baz=33,SNR=130
WVOR  Wild Horse Val    33.28 326 eP      P        12 56 49.1 +0.1
WVOR                              e                12 59 29.7
WVOR                               pmax   pmax
      comp=Z,620nm,1.2s,mb6.3
WVOR  Wild Horse Val    33.28 326 eP      P        12 56 49.1 +0.1
      comp=Z,620nm,1.2s,mb6.3
WVOR                              e       pP       12 57 09.4 +0.6
WVOR                              ePcP    PcP      12 59 29.7 +0.3
E16A  East Helena       33.34 338 ⇑P      P        12 56 49.8 +0.5
      baz=34,SNR=288
F14A  Wisdom            33.38 335 ⇓P      P        12 56 50.2 +0.5
      baz=34,SNR=118
L07A  Adell             33.38 325 ⇑P      P        12 56 50.5 +0.7
      baz=34,SNR=232
K08A  Mann Creek Ran    33.40 327 ⇑P      P        12 56 50.9 +0.8
      baz=34,SNR=164
J09A  Fry Pan Ranch,    33.46 328 ⇑P      P        12 56 51.0 +0.4
      baz=34,SNR=126
D17A  Six Diamond Ra    33.52 340 ⇓P      P        12 56 51.5 +0.4
      baz=34,SNR=242
I10A  Payette           33.53 330 ⇑P      P        12 56 51.7 +0.6
      baz=34,SNR=45
E15A  Deer Lodge        33.60 337 ⇓P      P        12 56 52.0 +0.3
      baz=34,SNR=120
H11A  Donnelly          33.63 331 ⇓P      P        12 56 52.3 +0.3
      baz=34,SNR=336
D16A  Dana Ranch, Ca    33.72 338 ⇓P      P        12 56 53.0 +0.3
      baz=34,SNR=100
F13A  Darby             33.75 334 ⇓P      P        12 56 53.2 +0.2
      baz=34,SNR=199
ULM   Lac du Bonnet     33.76 358  P      P        12 56 51.4 -1.6
      comp=Z,77nm,0.5s,mb5.8,baz=181,slow=9.0,SNR=176
ULM                                pP     pP       12 57 11.4 -1.5
      comp=Z,261nm,0.8s,baz=180,slow=11,SNR=12
ULM                                S      S        13 02 04.5 -5.8
      comp=Z,18nm,0.8s,baz=242,slow=12,SNR=1.8
ULM                                LR     LR       13 13 48.4
      comp=Z,13µm,20.2s,baz=181,slow=42
ULM                                P3KPbc          13 27 54.7
      comp=Z,2.9nm,0.7s,baz=356,slow=4.8,SNR=4.6
ULM   Lac du Bonnet     33.76 358  P      P        12 56 51.4 -1.6
ULM                                pP     pP       12 57 11.4 -1.5
ULM                                S      S        13 02 04.5 -5.8
ULM                                LR     LR       13 13 48.4
ULM                               e                13 27 54.7
HOPS  Hopland           33.76 317 eP      P        12 56 53.6 +0.3
      comp=Z,2µm,2.1s,mb6.5
HOPS                              e       pP       12 57 12.8 -0.3
LBCM  Butte Creek Ri    33.77 322  P      P        12 56 53.4 +0.2
K07A  Rock Creek Ran    33.78 326 ⇑P      P        12 56 53.9 +0.5
      baz=34,SNR=512
MOD   Modoc             33.84 324 eP      P        12 56 53.7 -0.1
      comp=Z,157nm,0.6s,mb6.0
MOD                               e       pP       12 57 15.2 +1.5
MOD                               ePcP    PcP      12 59 31.1 +0.1
J08A  Circle Bar Ran    33.84 327 ⇑P      P        12 56 54.5 +0.7
      baz=34,SNR=587
H10A  Noah's Angus R    33.88 331 ⇓P      P        12 56 53.6 -0.6
      baz=34,SNR=153
I09A  Lost Marbles R    33.91 329 ⇑P      P        12 56 54.6 +0.2
      baz=34,SNR=95
E14A  Clinton           33.92 336 ⇓P      P        12 56 54.7 +0.2
      baz=34,SNR=132
EGMT  Eagleton          33.99 341 ⇑P      P        12 56 55.2 +0.2
      baz=34,SNR=72
EGMT  Eagleton          33.99 341 eP      P        12 56 55.4 +0.3
      comp=Z,620nm,1.2s,mb6.3
EGMT                              e       pP       12 57 16.6 +1.6
EGMT                              ePcP    PcP      12 59 30.1 -1.2
D15A  Lincoln           34.07 337 ⇑P      P        12 56 56.0 +0.2
      baz=34,SNR=119
E13A  Victor            34.22 335 ⇑P      P        12 56 57.2 +0.2
      baz=34,SNR=362
I08A  Drewsey           34.28 328 ⇓P      P        12 56 57.8 +0.2
      baz=34,SNR=162
J07A  Hines             34.28 327 ⇑P      P        12 56 57.6 -0.1
      baz=34,SNR=133
B18A  Beardsley Farm    34.33 342 ⇑P      P        12 56 58.4 +0.4
      baz=34,SNR=82
WDC   Whiskeytown Da    34.34 320 eP      P        12 56 55.8 -2.4
WDC                               e                12 59 31.2
WDC                                pmax   pmax
      comp=Z,76nm,1.1s,mb5.4
WDC   Whiskeytown Da    34.34 320 eP      P        12 56 55.8 -2.4
      comp=Z,76nm,1.1s,mb5.4
WDC                               e       pP       12 57 17.4 -0.6
WDC                               e                12 57 27.1
WDC                               ePcP    PcP      12 59 31.2 -1.2
H09A  Durkee            34.38 330 ⇓P      P        12 56 58.1 -0.3
      baz=34,SNR=102
MSO   Missoula          34.44 336 eP      P        12 56 58.9 -0.1
      comp=Z,3µm,2.8s,mb6.6
MSO                               e       pP       12 57 19.8 +1.0
MSO                               ePcP    PcP      12 59 32.8 +0.2
C16A  Fuhringer Ranc    34.45 339 ⇑P      P        12 56 59.4 +0.4
      baz=35,SNR=297
D14A  Greenough         34.48 337 ⇓P      P        12 56 59.1 -0.2
      baz=35,SNR=97
B17A  L&G Farms, Che    34.56 340 ⇓P      P        12 56 60.0  0.0
      baz=35,SNR=66
G10A  Bishop Farm, J    34.59 331 ⇓P      P        12 56 59.7 -0.6
      baz=35,SNR=280
J06A  Christmas Vall    34.65 326 ⇓P      P        12 57 00.2 -0.6
      baz=35,SNR=108
K05A  Summer Lake       34.71 325 ⇓P      P        12 57 01.5 +0.1
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	baz=35,SNR=53						
C15A	**Salmond Ranch,**	**34.73**	**338**	⇓P	**P**	**12 57 01.7**	**+0.3**
	baz=35,SNR=154						
H08A	**Prairie City**	**34.77**	**329**	⇑P	**P**	**12 57 01.8**	**0.0**
	baz=35,SNR=142						
A18A	**Metzger Ranch,**	**34.82**	**342**	⇑P	**P**	**12 57 02.2**	**0.0**
	baz=35,SNR=178						
HOG	**Hogback Mounta**	**34.86**	**323**	P	**P**	**12 57 02.8**	**+0.2**
D13A	**Huson**	**34.86**	**336**	⇑P	**P**	**12 57 02.6**	**0.0**
	baz=35,SNR=220						
I07A	**Izee**	**34.88**	**327**	⇑P	**P**	**12 57 02.5**	**-0.2**
	baz=35,SNR=108						
G09A	**Cove**	**34.89**	**330**	⇓P	**P**	**12 57 02.1**	**-0.7**
	baz=35,SNR=356						
B16A	**M & M Farms, S**	**34.96**	**340**	⇓P	**P**	**12 57 03.3**	**-0.1**
	baz=35,SNR=74						
E11A	**Bogner Ranch,**	**34.99**	**333**	⇓P	**P**	**12 57 02.9**	**-0.9**
	baz=35,SNR=252						
A17A	**Triple J Farms**	**35.10**	**341**	⇓P	**P**	**12 57 04.7**	**+0.1**
	baz=35,SNR=113						
YBH	**Yreka Blue Hor**	**35.13**	**322**	*e*P	**P**	**12 57 03.1**	**-1.9**
YBH				*e*		12 59 34.0	
YBH				pmax	pmax		
	comp=Z,52nm,0.9s						
YBH	**Yreka Blue Hor**	**35.13**	**322**	*e*P	**P**	**12 57 03.1**	**-1.8**
	comp=Z,52nm,0.9s,mb5.4						
YBH				*e*	pP	12 57 25.7	+0.8
YBH				*e*PcP	PcP	12 59 34.0	-0.7
I06A	**Prineville**	**35.15**	**327**	⇓P	**P**	**12 57 04.8**	**-0.4**
	baz=35,SNR=71						
F10A	**Beach Ranch, E**	**35.15**	**332**	⇑P	**P**	**12 57 04.8**	**-0.4**
	baz=35,SNR=520						
B15A	**Bradely Ranch,**	**35.17**	**339**	⇑P	**P**	**12 57 04.8**	**-0.4**
	baz=35,SNR=126						
C13A	**Hot Springs**	**35.38**	**336**	⇑P	**P**	**12 57 06.8**	**-0.2**
	baz=36,SNR=94						
A16A	**West Butte Ran**	**35.39**	**340**	⇑P	**P**	**12 57 07.1**	**0.0**
	baz=36,SNR=99						
G08A	**Pilot Rock**	**35.46**	**329**	⇑P	**P**	**12 57 07.0**	**-0.8**
	baz=36,SNR=60						
E10A	**Myers Farm, Un**	**35.49**	**332**	⇑P	**P**	**12 57 07.0**	**-1.0**
	baz=36,SNR=48						
D11A	**Klaveano Farm,**	**35.59**	**334**	⇓P	**P**	**12 57 07.9**	**-1.0**
	baz=36,SNR=33						
H06A	**Lindquist Farm**	**35.76**	**328**	⇓P	**P**	**12 57 09.9**	**-0.4**
	baz=36,SNR=86						
C12B	**Naegeli Ranch,**	**35.76**	**335**	⇑P	**P**	**12 57 10.1**	**-0.2**
	baz=36,SNR=115						
A15A	**Johnson Ranch,**	**35.79**	**339**	⇓P	**P**	**12 57 10.7**	**+0.1**
	baz=36,SNR=266						
G07A	**Ruggs Ranch, H**	**35.80**	**329**	⇓P	**P**	**12 57 10.1**	**-0.5**
	baz=36,SNR=77						
HUMO	**Hull Mountain**	**35.81**	**323**	*e*P	**P**	**12 57 08.8**	**-1.9**
	comp=Z,67nm,1.1s,mb5.5						
HUMO				*e*	pP	12 57 31.2	+0.4
HUMO				*e*		12 57 40.5	
HUMO				*e*PcP	PcP	12 59 36.7	0.0
B13A	**Whitefish**	**35.91**	**337**	⇓P	**P**	**12 57 12.1**	**+0.5**
	baz=36,SNR=356						
E09A	**Wood Farm, Sta**	**35.98**	**332**	⇓P	**P**	**12 57 11.2**	**-1.0**
	baz=36,SNR=99						
D10A	**Wagner Farm, O**	**36.00**	**333**	⇓P	**P**	**12 57 11.5**	**-0.9**
	baz=36,SNR=151						
A14A	**Double T Ranch**	**36.03**	**338**	⇑P	**P**	**12 57 13.1**	**+0.5**
	baz=36,SNR=257						
G06A	**Carlson Farm,**	**36.26**	**328**	⇓P	**P**	**12 57 14.3**	**-0.3**
	baz=36,SNR=44						
WALA	**Waterton Lakes**	**36.28**	**338**	*e*P	**P**	**12 57 14.8**	**+0.2**
	comp=Z,0.8nm,1.5s						
WALA				*e*	pP	12 57 36.1	+1.4
F07A	**Phinny Hill Vi**	**36.37**	**329**	⇓P	**P**	**12 57 15.0**	**-0.5**
	baz=36,SNR=60						
E08A	**Dider Farm, El**	**36.38**	**331**	⇑P	**P**	**12 57 14.0**	**-1.7**
	baz=36,SNR=33						
B12A	**Libby**	**36.42**	**336**	⇑P	**P**	**12 57 16.4**	**+0.5**
	baz=36,SNR=307						
D09A	**Jones Farm, Ri**	**36.46**	**332**	⇑P	**P**	**12 57 15.8**	**-0.5**
	baz=37,SNR=137						
HAWA	**Hanford**	**36.54**	**330**	*e*P	**P**	**12 57 15.3**	**-1.6**
	comp=Z,103nm,1.1s,mb5.7						
HAWA				*e*	pP	12 57 37.0	0.0
HAWA				*e*PcP	PcP	12 59 38.2	-0.6
C10A	**Spilker Farm,**	**36.61**	**334**	⇓P	**P**	**12 57 17.1**	**-0.4**
	baz=37,SNR=51						
G05A	**Wamic**	**36.62**	**327**	⇑P	**P**	**12 57 17.6**	**-0.1**
	baz=37,SNR=80						
H04A	**Detroit Lake**	**36.70**	**326**	⇓P	**P**	**12 57 18.2**	**-0.2**
	baz=37,SNR=182						
F06A	**Goldendale**	**36.70**	**328**	⇑P	**P**	**12 57 18.3**	**-0.1**
	baz=37,SNR=110						
D08A	**Wollman Farm,**	**36.74**	**331**	⇓P	**P**	**12 57 18.0**	**-0.7**
	baz=37,SNR=137						
E07A	**Sunnyside**	**36.81**	**330**	⇓P	**P**	**12 57 18.7**	**-0.5**
	baz=37,SNR=53						
A12A	**Yaak River Ran**	**36.82**	**336**	⇑P	**P**	**12 57 19.7**	**+0.3**
	baz=37,SNR=209						
HOOD	**Mount Hood Mea**	**36.84**	**327**	⇓*i*P	**P**	**12 57 19.7**	**+0.1**
	comp=Z,1µm,1.0s,mb6.7						
HOOD				*e*pP	pP	12 57 39.0	-0.6
HOOD				*e*S	**S**	**13 02 58.6**	**+0.9**
NEW	**Newport**	**36.88**	**334**	⇓*e*P	**P**	**12 57 18.9**	**-0.9**
NEW						12 58 45.3	
NEW				*e*		12 59 37.6	
NEW				*e*S	**S**	**13 02 55.2**	**-2.9**
NEW				pmax	pmax		
	comp=Z,146nm,1.0s						
NEW	**Newport**	**36.88**	**334**	⇓*e*P	**P**	**12 57 18.9**	**-0.9**
	comp=Z,146nm,1.0s,mb5.9						
NEW				*e*	pP	12 57 38.2	-1.7
NEW				PP	PP	12 58 45.3	0.0
NEW				*e*PcP	PcP	12 59 37.6	-2.1
NEW				*e*S	**S**	**13 02 55.2**	**-2.9**
B10A	**Chitwood Farm,**	**36.95**	**334**	⇑P	**P**	**12 57 19.8**	**-0.5**
	baz=37,SNR=25						
C09A	**Chrisman Ranch**	**37.01**	**333**	⇑P	**P**	**12 57 20.6**	**-0.3**
	baz=37,SNR=149						
A11A	**Hall Mountain,**	**37.12**	**336**	⇓P	**P**	**12 57 22.4**	**+0.6**
	baz=37,SNR=266						
G04A	**Mulino**	**37.20**	**326**	⇑P	**P**	**12 57 22.4**	**-0.2**
	baz=37,SNR=61						
COR	**Corvallis**	**37.24**	**325**	⇓*e*P	**P**	**12 57 22.7**	**-0.3**
COR				*e*		12 59 40.4	
COR				S	**S**	**13 03 02.6**	**-1.2**
COR				pmax	pmax		
	comp=Z,832nm,1.2s,mb6.5						
COR	**Corvallis**	**37.24**	**325**	⇓*e*P	**P**	**12 57 22.7**	**-0.3**
	comp=Z,832nm,1.2s,mb6.5						
COR				*e*pP	pP	12 57 42.0	-1.1
COR				*e*PcP	PcP	12 59 40.4	-0.6
COR				S	**S**	**13 03 02.5**	**-1.2**
D07A	**Quincy**	**37.33**	**331**	⇑P	**P**	**12 57 23.7**	**+0.1**
	baz=37,SNR=82						
C08A	**Higginbotham F**	**37.34**	**332**	⇑P	**P**	**12 57 23.7**	**-0.1**
	baz=37,SNR=308						
E06A	**Yakima**	**37.34**	**329**	⇓P	**P**	**12 57 24.0**	**+0.2**
	baz=37						
B09A	**Rice**	**37.43**	**334**	⇓P	**P**	**12 57 24.3**	**-0.2**
	baz=38,SNR=216						
A10A	**Northport**	**37.62**	**335**	⇓P	**P**	**12 57 25.4**	**-0.7**
	baz=38,SNR=46						
F04A	**Amboy**	**37.65**	**327**	⇓P	**P**	**12 57 25.8**	**-0.6**
	baz=38,SNR=31						
C07A	**Waterville**	**37.73**	**331**	⇓P	**P**	**12 57 26.8**	**-0.2**
	baz=38,SNR=81						
D06A	**Cle Elum**	**37.74**	**330**	⇑P	**P**	**12 57 27.5**	**+0.4**
	baz=38,SNR=59						
HEBO	**Mount Hebo**	**37.89**	**325**	⇓*i*P	**P**	**12 57 28.7**	**+0.3**
	comp=Z,4µm,2.0s,mb7.0						
HEBO				*e*pP	pP	12 57 47.9	-0.7
HEBO				sP	sP	12 57 58.3	-0.2
HEBO				*e*PP	PP	12 58 59.7	+3.1
HEBO				*e*PcP	PcP	12 59 42.6	-0.4
B08A	**Colville Reser**	**37.90**	**333**	⇓P	**P**	**12 57 27.8**	**-0.6**
	baz=38,SNR=85						
LON	**Longmire**	**37.90**	**329**	⇓*i*P	**P**	**12 57 28.3**	**-0.2**
LON				*e*		12 59 17.9	
LON				*e*S	**S**	**13 03 15.7**	**+2.0**
LON				pmax	pmax		
	comp=Z,204nm,1.0s,mb5.9						
LON	**Longmire**	**37.90**	**329**	⇓*i*P	**P**	**12 57 28.3**	**-0.2**
	comp=Z,204nm,1.0s,mb5.9						
LON				*e*pP	pP	12 57 47.7	-0.9
LON				*e*		12 59 17.9	
LON				*e*S	**S**	**13 03 15.7**	**+2.0**
A09A	**Danville**	**38.04**	**334**	⇓P	**P**	**12 57 29.4**	**-0.2**
	baz=38,SNR=83						
F03A	**Seaside**	**38.25**	**326**	⇓P	**P**	**12 57 31.8**	**+0.4**
	baz=38,SNR=30						
E04A	**Onalaska**	**38.25**	**328**	⇑P	**P**	**12 57 31.6**	**+0.1**
	baz=38,SNR=46						
A08A	**Turner Farm, O**	**38.32**	**333**	⇓P	**P**	**12 57 31.6**	**-0.3**
	baz=38,SNR=45						
B07A	**Winthrop**	**38.32**	**332**	⇓P	**P**	**12 57 31.3**	**-0.7**
	baz=38,SNR=23						
D04A	**Dobbs Creek Ra**	**38.64**	**328**	⇑P	**P**	**12 57 34.2**	**-0.5**
	baz=39,SNR=7.5						
E03A	**Lebam**	**38.65**	**327**	⇓P	**P**	**12 57 35.0**	**+0.3**
	baz=39,SNR=42						
FFC	**Flin Flon**	**38.68**	**353**	⇑*e*P	**P**	**12 57 35.6**	**+0.7**
FFC				*e**PP	pP	12 57 54.0	-1.1
FFC				*e*		13 03 26.6	
FFC				pmax	pmax		
	comp=Z,674nm,1.1s,mb6.4						
FFC	**Flin Flon**	**38.68**	**353**	⇑*e*P	**P**	**12 57 35.6**	**+0.7**
	comp=Z,674nm,1.1s,mb6.4						
FFC				*e*pP	pP	12 57 54.0	-1.1
FFC				*e*ScP	ScP	13 03 26.6	+0.8
A07A	**Ashnola River,**	**38.87**	**332**	⇓P	**P**	**12 57 36.7**	**+0.1**
	baz=39,SNR=109						
GNW	**Green Mountain**	**38.96**	**329**	⇓*e*P	**P**	**12 57 35.9**	**-1.4**
	comp=Z,206nm,1.1s,mb5.9						
GNW				*e*pP	pP	12 57 55.8	-1.8
GNW				*e*sP	sP	12 58 04.4	-3.1
GNW				*e*PP	PP	12 59 08.0	-0.2
GNW				*e*PcP	PcP	12 59 44.8	-1.5
GNW				*e*ScP	ScP	13 03 24.4	-2.6
B06A	**Marblemount**	**38.99**	**331**	⇓P	**P**	**12 57 36.8**	**-0.7**
	baz=39,SNR=28						
B05A	**Bryant**	**39.09**	**330**	⇓P	**P**	**12 57 37.2**	**-1.2**
	baz=39,SNR=25						
D03A	**Wishkah Elem.**	**39.14**	**328**	⇑P	**P**	**12 57 39.1**	**+0.2**
	baz=39,SNR=34						
NLWA	**Neilton Lookou**	**39.37**	**328**	⇑P	**P**	**12 57 40.9**	**+0.1**
	baz=40,SNR=43						
NLWA	**Neilton Lookou**	**39.37**	**328**	⇓*e*P	**P**	**12 57 40.0**	**-0.8**
	comp=Z,488nm,1.3s,mb6.2						
NLWA				*e*pP	pP	12 58 00.2	-0.8
NLWA				*e*sP	sP	12 58 10.0	-0.9
NLWA				S	**S**	**13 03 37.2**	**+1.4**
A06A	**Chilliwack**	**39.40**	**332**	⇑P	**P**	**12 57 40.4**	**-0.6**
	baz=40,SNR=44						
A05A	**Maple Falls**	**39.61**	**331**	⇑P	**P**	**12 57 42.0**	**-0.8**
	baz=40,SNR=37						
B04A	**Port Angeles**	**39.63**	**329**	⇑P	**P**	**12 57 43.0**	**+0.1**
	baz=40,SNR=16						
ARE	**Arequipa**	**39.65**	**144**	⇓*i*P	**P**	**12 57 44.0**	**+0.6**
EDM	**Edmonton**	**39.66**	**342**	⇓*i*P	**P**	**12 57 42.4**	**-0.6**
EDM				*e*pP	pP	12 58 02.6	-0.7
EDM				*e*sP	sP	12 58 12.1	-1.1
EDM				*e*PcP	PcP	12 59 49.3	+1.0
EDM				*e*S	**S**	**13 03 40.4**	**+0.5**
A04A	**Legoe Bay, Lum**	**39.70**	**330**	⇓P	**P**	**12 57 42.9**	**-0.6**
	baz=40,SNR=22						
PGC	**Sidney**	**40.01**	**330**	*e*P	**P**	**12 57 45.6**	**-0.5**
	comp=Z,19nm,1.1s,mb4.8						
PGC				*e*	pP	12 58 06.1	-0.3
PGC				*e*PcP	PcP	12 59 49.1	-0.5
C03A	**Quillayute Air**	**40.09**	**328**	⇓P	**P**	**12 57 47.4**	**+0.6**
	baz=40						
FCC	**Fort Churchill**	**42.26**	**0**	*e*P	**P**	**12 58 03.3**	**-1.1**
FCC				*e*S	**S**	**13 04 17.7**	**-0.7**
FCC				pmax	pmax		
	comp=Z,47nm,3.1s						
FCC	**Fort Churchill**	**42.26**	**0**	*e*P	**P**	**12 58 03.3**	**-1.1**
	comp=Z,47nm,3.1s						
FCC				*e*S	**S**	**13 04 17.7**	**-0.7**
SCHQ	**Schefferville**	**43.76**	**23**	P	**P**	**12 58 14.2**	**-2.4**
	comp=Z,89nm,0.8s,mb5.5,baz=218,slow=5.6,SNR=58						
SCHQ				pP	pP	12 58 37.5	+0.4
	comp=Z,74nm,0.9s,baz=210,slow=2.9,SNR=5.2						
SCHQ				S	**S**	**13 04 31.6**	**-8.9**
	comp=Z,12nm,0.8s,baz=304,slow=6.3,SNR=2.1						
SCHQ				LR	LR	13 18 00.7	
	comp=Z,22µm,21.4s,baz=222,slow=38						
SCHQ	**Schefferville**	**43.76**	**23**	P	**P**	**12 58 14.2**	**-2.4**
SCHQ				pP	pP	12 58 37.5	+0.4
SCHQ				S	**S**	**13 04 31.6**	**-8.9**
SCHQ				LR	LR	13 18 00.7	
RPN	**Rapa Nui**	**45.71**	**199**	*i* P	**P**	**12 58 31.1**	**-1.2**
RPN	**Rapa Nui**	**45.71**	**199**	P	**P**	**12 58 30.4**	**-1.9**
	comp=Z,740nm,1.2s,mb6.3,baz=322,slow=4.9,SNR=16						
RPN	**Rapa Nui**	**45.71**	**199**	*e*P	**P**	**12 58 30.6**	**-1.8**
	comp=Z,3µm,1.6s,mb6.7						
CEN1	**Los Morros**	**46.03**	**149**	⇑*i*P	**P**	**12 58 36.3**	**+1.4**
LVC	**Limon Verde**	**46.05**	**147**	*e*P	**P**	**12 58 34.8**	**-0.3**
	comp=Z,1µm,1.8s,mb6.3						
LVC				*e*PcP	PcP	13 00 10.6	+0.3
YKA	**Yellowknife Ar**	**48.19**	**347**	P	**P**	**12 58 50.3**	**-0.9**
YKA				pmax	pmax		
	comp=Z,121nm,0.9s						
YKA				pmax	pmax		
	comp=Z,153nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**48.19**	**347**	P	**P**	**12 58 50.3**	**-0.9**
	comp=Z,121nm,0.9s,mb5.7,baz=149,slow=7.6,SNR=518						
YKA				pP	pP	12 59 10.7	-1.3
	comp=Z,153nm,0.8s,baz=153,slow=7.3,SNR=11						
YKA				PKPPKP		13 29 40.6	
	comp=Z,0.7nm,0.8s,baz=2.7,slow=2.7,SNR=5.9						
YKA	**Yellowknife Ar**	**48.19**	**347**	P	**P**	**12 58 50.3**	**-0.9**
YKA				pP	pP	12 59 10.7	-1.3
YKA				P'P'		13 29 40.6	
CRAG	**Craig**	**48.97**	**332**	*e*P	**P**	**12 58 58.4**	**+1.2**
	comp=Z,1µm,1.4s,mb6.7						
CRAG				*e*	pP	12 59 19.9	+1.7
WRAK	**Wrangell Islan**	**49.20**	**333**	P	**P**	**12 58 58.8**	**-0.3**
	comp=Z,81nm,0.8s,mb5.7						
WRAK				*e*	pP	12 59 20.6	+0.6
DLBC	**Dease Lake**	**49.56**	**336**	*e*P	**P**	**12 59 01.8**	**0.0**
DLBC				*e*	pP	12 59 24.4	+1.7
DLBC				*e*PcP	PcP	13 00 23.9	+1.7
LCO	**Las Campanas**	**50.58**	**153**	*e*P	**P**	**12 59 09.1**	**-0.7**
	comp=Z,432nm,1.0s,mb6.4						
SIT	**Sitka**	**50.90**	**332**	*e*P	**P**	**12 59 13.2**	**+1.3**
SIT				pmax	pmax		
	comp=Z,248nm,1.4s,mb6.0						
SIT	**Sitka**	**50.90**	**332**	*e*P	**P**	**12 59 13.2**	**+1.4**
	comp=Z,248nm,1.4s,mb6.0						
SIT				*e*	pP	12 59 34.0	+1.1
TAOE	**Nuku Hiva Isla**	**51.91**	**244**	*e*S	**S**	**13 06 35.2**	**-1.6**
	comp=Z,30µm,22.6s						
TAOE				*e*LQ		13 12 17.4	
	comp=Z,37µm,25.0s						
TAOE				*e*LR	LR	13 14 12.6	
	comp=Z,151µm,27.5s,baz=63						
SKAG	**Skagway**	**52.33**	**335**	⇓*e*P	**P**	**12 59 22.8**	**+0.3**
	comp=Z,1µm,1.1s,mb6.8						
SKAG				*e*pP	pP	12 59 42.9	-0.7
SKAG				PcP	PcP	13 00 38.8	+6.3
SKAG				*e*S	**S**	**13 06 39.3**	**-2.1**
SKAG				LR	LR		
	comp=Z,9µm,18.0s						
PNL	**Peninsula**	**54.15**	**334**	⇓*e*P	**P**	**12 59 36.5**	**+0.7**
	comp=Z,4µm,2.0s,mb7.0						
PNL				*e*pP	pP	12 59 56.1	-1.0
PEL	**Peldehue**	**54.19**	**156**	⇑*i*P	**P**	**12 59 35.0**	**-1.5**
FCH	**Farellones**	**54.51**	**155**	⇓*i*P	**P**	**12 59 39.0**	**+0.3**
LMEL	**Las Melosas**	**55.00**	**156**	⇓*i*P	**P**	**12 59 41.6**	**-0.7**
LMEL	**Las Melosas**	**55.00**	**156**	⇓*i*P	**P**	**12 59 41.6**	**-0.7**
NICH	**Los Niches**	**55.62**	**157**	⇓*i*P	**P**	**12 59 45.4**	**-1.4**
RKT	**Rikitea**	**55.96**	**226**	⇓*i*P	**P**	**12 59 46.5**	**-2.9**
	comp=Z,530nm,1.3s,mb6.4						
RKT				*e*pP	pP	13 00 10.3	-0.5
	comp=Z,185nm,1.2s						
RKT				*e*S	**S**	**13 07 28.8**	**-2.4**
	comp=Z,8µm,40.5s						
RKT				*e*LQ		13 13 51.1	
	comp=Z,18µm,32.0s						
RKT				*e*LR	LR	13 16 18.7	
	comp=Z,36µm,31.0s,baz=47						
RKT	**Rikitea**	**55.96**	**226**	⇓*i*P	**P**	**12 59 46.5**	**-2.9**
RKT				*e*S	**S**	**13 07 28.8**	**-2.4**
RKT				pmax	pmax		
	comp=Z,530nm,1.3s,mb6.4						
RKT	**Rikitea**	**55.96**	**226**	⇓*i*P	**P**	**12 59 46.5**	**-2.9**
	comp=Z,530nm,1.3s,mb6.4						
RKT				*e*pP	pP	13 00 10.3	-0.5
RKT				*e*S	**S**	**13 07 28.8**	**-2.4**
RKT				*e*LQ		13 13 51.1	
DAWY	**Dawson**	**56.63**	**338**	⇓*e*P	**P**	**12 59 52.6**	**-0.9**
DAWY				*e*pP	pP	13 00 12.6	-2.3
CCHI	**Chillan**	**56.75**	**159**	⇓*i*P	**P**	**12 59 53.7**	**-1.1**
CCHI	**Chillan**	**56.75**	**159**	⇓*i*P	**P**	**12 59 53.7**	**-1.1**
EGAK	**Eagle**	**57.66**	**338**	⇓*e*P	**P**	**12 59 59.8**	**-1.0**
	comp=Z,849nm,1.5s,mb6.5						
EGAK				*e*pP	pP	13 00 20.7	-1.6
EGAK				*e*sP	sP	13 00 30.3	-1.5
EGAK				*e*PP	PP	13 02 07.6	-1.8
STCH	**Steam Cracks**	**57.76**	**283**	⇓*i*P	**P**	**13 00 00.7**	**-1.6**
STCH				pP	pP	13 00 22.6	-1.1
SFJD	**Kangerlussuaq**	**57.89**	**19**	P	**P**	**13 00 00.8**	**-1.6**
SFJD				S	**S**	**13 07 54.0**	**-1.4**
SFJD				pmax	pmax		
	comp=Z,195nm,0.6s,mb6.3						
SFJD				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.6						
SFJD				smax			
	comp=N,2.0nm,0.4s						
SFJD	**Kangerlussuaq**	**57.89**	**19**	⇑*i*P	**P**	**13 00 00.9**	**-1.5**
	comp=N,221nm,0.7s,mb6.3						
SFJD				*i*		13 07 52.9	
SFJD							
	comp=Z,10µm,18.0s						
SFJD	**Kangerlussuaq**	**57.89**	**19**	P	**P**	**13 00 00.8**	**-1.5**
	comp=Z,195nm,0.6s,mb6.3,baz=214,slow=4.4,SNR=127						
SFJD				pP	pP	13 00 22.4	-1.5
	comp=Z,40nm,0.6s,baz=188,slow=11,SNR=2.0						
SFJD				S	**S**	**13 07 54.0**	**-1.4**
	comp=Z,1.6nm,0.4s,baz=343,slow=21,SNR=7.4						
POHA	**Pohakuloa**	**58.09**	**283**	*e*P	**P**	**13 00 03.2**	**-1.4**
	comp=Z,588nm,0.7s,mb6.7						
RES	**Resolute Bay**	**58.26**	**360**	P	**P**	**13 00 04.0**	**-0.9**
RES				S	**S**	**13 07 55.9**	**-4.1**
RES				pmax	pmax		
	comp=Z,71nm,0.6s,mb5.9						
RES				smax			
	comp=N,5.0nm,1.0s						
RES	**Resolute Bay**	**58.26**	**360**	P	**P**	**13 00 04.0**	**-0.9**
	comp=N,71nm,0.6s,mb5.9						
RES				pP	pP	13 00 25.7	-0.6
RES				S	**S**	**13 07 55.9**	**-4.1**
	comp=N,4.7nm,1.0s,baz=307,slow=22,SNR=2.1						
PAX	**Paxson**	**58.36**	**335**	⇓*e*P	**P**	**13 00 05.3**	**-0.4**
PAX				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.6						
PAX	**Paxson**	**58.36**	**335**	⇓*e*P	**P**	**13 00 05.3**	**-0.4**
	comp=Z,1µm,1.6s,mb6.6						
PAX				*e*pP	pP	13 00 25.7	-1.5
PAX				*e*sP	sP	13 00 36.8	0.0
SEW	**Seward**	**58.83**	**331**	⇓*e*P	**P**	**13 00 08.2**	**-0.8**
	comp=Z,279nm,1.2s,mb6.2						
SEW				*e*pP	pP	13 00 28.5	-2.0
PMR	**Palmer**	**59.28**	**333**	⇓*i*P	**P**	**13 00 11.7**	**-0.4**
PMR				*e*		13 00 57.7	
PMR				*e*		13 02 23.1	
PMR				pmax	pmax		
	comp=Z,456nm,1.4s,mb6.3						
PMR	**Palmer**	**59.28**	**333**	⇓*i*P	**P**	**13 00 11.7**	**-0.5**
	comp=Z,456nm,1.4s,mb6.3						
PMR				*e*pP	pP	13 00 32.5	-1.1
PMR				*e*sP	sP	13 00 42.0	-1.2
PMR				*e*PcP	PcP	13 00 57.7	-1.7
PMR				*e*PP	PP	13 02 23.1	-0.6
RC01	**Rabbit Creek A**	**59.34**	**332**	⇓*e*P	**P**	**13 00 12.8**	**+0.3**
	comp=Z,298nm,1.0s,mb6.3						
RC01				*e*pP	pP	13 00 32.9	-1.2
FIB	**Fire Island**	**59.57**	**332**	⇓*e*P	**P**	**13 00 14.3**	**+0.2**
FIB				pmax	pmax		
	comp=Z,741nm,1.1s,mb6.6						
FIB	**Fire Island**	**59.57**	**332**	⇓*e*P	**P**	**13 00 14.3**	**+0.2**
	comp=Z,741nm,1.1s,mb6.6						
FIB				*e*pP	pP	13 00 34.8	-0.9
FIB				*e*sP	sP	13 00 44.0	-1.2
OHAK	**Old Harbor**	**59.71**	**327**	⇓*e*P	**P**	**13 00 14.9**	**-0.3**
	comp=Z,639nm,1.4s,mb6.5						
OHAK				*e*pP	pP	13 00 36.3	-0.4
MCK	**McKinley**	**60.09**	**335**	⇓*i*P	**P**	**13 00 17.1**	**-0.6**
MCK				pmax	pmax		
	comp=Z,1µm,1.7s,mb6.7						
MCK	**McKinley**	**60.09**	**335**	⇓*i*P	**P**	**13 00 17.1**	**-0.6**
	comp=Z,1µm,1.7s,mb6.7						
MCK				*e*pP	pP	13 00 37.8	-1.4
MCK				*e*S	**S**	**13 08 18.1**	**-5.8**
COLA	**College**	**60.18**	**337**	⇓*i*P	**P**	**13 00 16.9**	**-1.3**
COLA						13 02 32.4	
COLA				*e*S	**S**	**13 08 21.8**	**-3.2**
COLA				pmax	pmax		
	comp=Z,620nm,1.5s,mb6.4						
COLA	**College**	**60.18**	**337**	⇓*i*P	**P**	**13 00 16.9**	**-1.3**
	comp=Z,620nm,1.5s,mb6.4						
COLA				*e*pP	pP	13 00 38.0	-1.8
COLA				PP	PP	13 02 32.4	+0.8
COLA				*e*S	**S**	**13 08 21.8**	**-3.2**
HON	**Honolulu**	**60.18**	**285**	⇓*e*P	**P**	**13 00 17.8**	**-1.2**
HON				*e*pP	pP	13 00 38.0	-2.6
KIP	**Kipapa**	**60.18**	**286**	*e*P	**P**	**13 00 17.7**	**-1.3**
KIP				pmax	pmax		
	comp=Z,940nm,1.5s,mb6.6						
KIP	**Kipapa**	**60.18**	**286**	*e*P	**P**	**13 00 17.7**	**-1.3**
	comp=Z,940nm,1.5s,mb6.6						
KIP				*e*pP	pP	13 00 37.9	-2.8
KIP				*e*ScP	ScP	13 04 54.0	-3.4
TRF	**Thorofare Moun**	**60.53**	**335**	⇓*i*P	**P**	**13 00 20.0**	**-0.7**
	comp=Z,22nm,0.3s,mb5.7						
TRF				*e*pP	pP	13 00 41.2	-1.0
KTH	**Kantishna Hill**	**60.83**	**335**	⇓*i*P	**P**	**13 00 21.7**	**-1.0**
	comp=Z,2µm,1.7s,mb6.8						
KTH				*e*pP	pP	13 00 43.0	-1.4
PLCA	**Paso Flores**	**60.98**	**160**	P	**P**	**13 00 22.4**	**-1.6**
PLCA				S	**S**	**13 08 26.8**	**-9.0**
PLCA				pmax	pmax		
	comp=Z,249nm,0.9s						
PLCA				smax			
	comp=N,3.0nm,0.8s						
PLCA	**Paso Flores**	**60.98**	**160**	P	**P**	**13 00 22.4**	**-1.6**
	comp=N,249nm,0.9s,mb6.2,baz=330,slow=8.1,SNR=130						
PLCA				S	**S**	**13 08 26.8**	**-9.0**
	comp=N,2.9nm,0.8s,baz=266,slow=23,SNR=2.0						
PLCA				LR	LR	13 21 45.6	
	comp=N,5µm,18.9s,baz=352,slow=31						
PLCA	**Paso Flores**	**60.98**	**160**	P	**P**	**13 00 22.4**	**-1.6**
PLCA				S	**S**	**13 08 26.8**	**-9.0**
PLCA				LR	LR	13 21 45.6	
BPAW	**Bear Paw Mtn.**	**61.07**	**335**	⇓*i*P	**P**	**13 00 23.3**	**-1.0**
	comp=N,2µm,1.7s,mb6.8						
BPAW				*e*pP	pP	13 00 44.2	-1.8
BPAW				*e*PcP	PcP	13 01 06.0	-0.6
BPAW				*e*S	**S**	**13 08 31.2**	**-5.2**
PPLA	**Purkeypile**	**61.11**	**334**	⇓*i*P	**P**	**13 00 23.5**	**-1.1**
	comp=N,2µm,1.8s,mb6.8						
PPLA				*e*pP	pP	13 00 45.1	-1.1
PPLA				*e*S	**S**	**13 08 36.5**	**-0.4**
VAH	**Vaihoa**	**61.37**	**242**	⇓*i*P	**P**	**13 00 24.7**	**-2.4**
	comp=N,758nm,1.5s,mb6.5						
VAH				*e*pP	pP	13 00 49.5	+0.7
	comp=N,320nm,1.4s						
PMOR	**Pomariorio Ree**	**61.49**	**242**	⇓*i*P	**P**	**13 00 25.7**	**-2.2**
	comp=N,589nm,1.5s,mb6.4						
PMOR				*e*pP	pP	13 00 50.3	+0.7
	comp=N,244nm,1.3s						
CHUM	**Lake Minchumin**	**61.53**	**335**	⇓*e*P	**P**	**13 00 26.2**	**-1.2**
	comp=N,159nm,1.1s,mb6.0						
CHUM				*e*pP	pP	13 00 47.2	-1.9
CHUM				*e*PP	PP	13 02 42.8	-0.7
CHUM				*e*S	**S**	**13 08 41.1**	**-1.1**
LPA	**La Plata**	**61.61**	**146**	*de*P	**P**	**13 00 27.0**	**-1.4**
LPA				*e*PP	PP	13 02 43.0	-2.2
LPA				*e*S	**S**	**13 08 43.0**	**-1.0**
LPA				*e*sS	sS	13 09 22.0	+1.0
LPA				*e*SCS	ScS	13 10 08.0	-4.1
LPA							
	comp=Z,9µm,22.0s						
RCBR	**Riachuelo**	**61.79**	**106**	⇑*e*P	**P**	**13 00 28.1**	**-1.8**
	comp=Z,204nm,1.0s,mb6.1						
RCBR				*e*pP	pP	13 00 50.1	-1.6
RCBR				*e*PcP	PcP	13 01 09.7	-0.7
RCBR				*e*PP	PP	13 02 46.3	-0.7
RCBR				ScP	ScP	13 05 04.6	0.0
SVW2	**Sparrevohn**	**62.01**	**331**	*e*P	**P**	**13 00 29.1**	**-1.5**
SVW2				*e*pP	pP	13 00 50.8	-1.6
COLD	**Coldfoot**	**62.09**	**339**	⇓*e*P	**P**	**13 00 31.0**	**-0.1**
	comp=Z,1µm,1.9s,mb6.7						
COLD				*e*pP	pP	13 00 53.0	+0.2
COLD				*e*S	**S**	**13 08 49.5**	**+0.3**

MEH	Mehetia	63.02	240	⇓iP	P	13 00 35.5	-2.6
	comp=Z,4µm,1.4s,mb7.2						
MEH				epP	pP	13 01 00.1	+0.3
	comp=Z,3µm,1.4s						
SDPT	Sand Point	63.15	324	⇓eP	P	13 00 36.6	-1.8
	comp=Z,1µm,1.2s,mb6.7						
SDPT				epP	pP	13 00 58.1	-2.0
SDPT				esP	sP	13 01 07.7	-1.9
SDPT				ScP	ScP	13 05 09.6	-0.3
PDA	Ponta Delgada	63.31	56	i LR	LR	13 20 42.4	
XMAS	Kiritimati	63.75	264	eP	P	13 00 41.1	-1.9
	comp=Z,1µm,1.5s,mb6.4						
XMAS				ePcP	PcP	13 01 21.6	+3.2
XMAS				ePP	PP	13 03 03.0	-1.3
TIAR	Tiarei	63.93	241	⇓iP	P	13 00 41.4	-2.7
	comp=Z,2µm,1.2s,mb6.9						
TIAR				epP	pP	13 01 05.8	-0.1
	comp=Z,2µm,1.3s						
TVO	Taravao	63.96	240	⇓iP	P	13 00 41.8	-2.5
	comp=Z,4µm,1.4s,mb7.0						
TVO				epP	pP	13 01 05.1	-1.0
	comp=Z,2µm,1.3s						
PPT	Papeete	64.13	241	⇓iP	P	13 00 42.9	-2.5
	comp=Z,163nm,1.6s,mb5.6						
PPT				eS	S	13 09 12.4	-3.6
	comp=Z,12µm,23.2s						
PPT				eLQ		13 17 01.3	
	comp=Z,24µm,29.5s						
PPT				eLR	LR	13 19 41.5	
	comp=Z,49µm,30.0s,baz=57						
PPT	Papeete	64.13	241	P	P	13 00 43.4	-1.9
	comp=Z,35nm,1.0s,mb5.1,baz=71,slow=5.5,SNR=9.9						
PPT				LR	LR	13 20 48.5	
	comp=Z,8µm,21.8s,baz=70,slow=29						
PAE	Paea	64.17	241	⇓iP	P	13 00 43.1	-2.6
	comp=Z,3µm,1.4s,mb6.9						
PAE				epP	pP	13 01 07.8	+0.3
	comp=Z,2µm,1.4s						
SUMG	Summit	64.49	16	eP	P	13 00 46.9	0.0
	comp=Z,226nm,0.6s,mb6.2						
SUMG				epP	pP	13 01 08.9	+0.1
SUMG				ePP	PP	13 03 10.4	+1.0
SUMG				eS	S	13 09 20.6	+1.6
COYC	Coyhaique	64.90	163	⇓iP	P	13 00 48.2	-1.6
COYC	Coyhaique	64.90	163	⇓iP	P	13 00 48.2	-1.6
AKUT	Akutan	66.03	322	eP	P	13 00 55.5	-1.7
	comp=Z,2µm,1.6s,mb6.6						
AKUT				epP	pP	13 01 17.2	-1.9
AKUT				eS	S	13 09 40.6	+2.2
ALE	Alert	67.31	4	P	P	13 01 04.0	-0.9
	comp=Z,678nm,0.7s,mb6.6,SNR=79						
NIKO	Nikolski	67.80	321	⇓eP	P	13 01 06.4	-2.0
	comp=Z,834nm,1.2s,mb6.4						
NIKO				epP	pP	13 01 28.1	-2.3
NIKO				ePcP	PcP	13 01 33.7	-0.8
TNA	Tin City	68.42	335	⇓iP	P	13 01 11.2	-0.8
	comp=Z,253nm,1.2s,mb5.9						
TNA				epP	pP	13 01 33.9	-0.2
TNA				eS	S	13 10 06.0	-0.7
SCO	Scoresbysund	68.72	20	⇑iP	P	13 01 14.1	+0.2
SCO				i		13 10 05.7	
SCO				pmax	pmax		
	comp=Z,74nm,0.6s,mb5.7						
SCO				MLR	MLR		
	comp=Z,6µm,19.0s						
SCO	Scoresbysund	68.72	20	⇑iP	P	13 01 14.1	+0.2
	comp=Z,74nm,0.6s,mb5.7						
SCO				i		13 10 05.7	
SCO							
	comp=Z,6µm,19.0s						
GAMB	Gambell	69.85	332	⇓iP	P	13 01 20.2	-0.7
	comp=Z,636nm,1.8s,mb6.2						
GAMB				epP	pP	13 01 41.8	-1.2
DAG	Danmarks Havn	70.82	14	⇓iP	P	13 01 25.6	-1.0
DAG				pmax	pmax		
	comp=Z,240nm,0.4s,mb6.4						
DAG	Danmarks Havn	70.82	14	⇓iP	P	13 01 25.6	-1.0
	comp=Z,238nm,0.4s,mb6.4						
JMIC	Jan Mayen	73.20	20	eP	P	13 01 46.1	+5.2
JMIC				eS	S	13 11 03.9	+1.9
JMIC				AMS	AMS	13 33 51.5	
	comp=Z,7µm,28.3s						
RAR	Rarotonga	74.35	242	P	P	13 01 45.4	-3.1
	comp=Z,53nm,0.8s,mb5.3,baz=168,slow=1.8,SNR=14						
RAR				LR	LR	13 26 00.4	
	comp=Z,6µm,19.5s,baz=36,slow=29						
EFI	East Falkland	74.79	158	⇓eP	P	13 01 48.2	-2.1
EFI				e		13 04 32.1	
EFI				pmax	pmax		
	comp=Z,159nm,1.1s,mb5.7						
EFI	East Falkland	74.79	158	⇓eP	P	13 01 48.1	-2.2
	comp=Z,159nm,1.1s,mb5.7						
EFI				ePP	PP	13 04 32.1	-6.8
RRH	Rhenigidale	74.95	34	⇑eP	P	13 01 50.2	-1.2
KSK	Scoval	75.00	34	⇑eP	P	13 01 51.0	-0.6
RRR	Rubha Reidh	75.43	34	⇑eP	P	13 01 52.9	-1.2
KAR1	Arisaig	75.54	34	⇑eP	P	13 01 53.8	-1.0
KPL	Plockton	75.58	34	⇑eP	P	13 01 54.2	-0.8
KPL				AMb	AMB	13 01 56.0	
	comp=Z,649nm,0.9s,mb6.4						
KPL				AMS	AMS	13 29 54.4	
	comp=Z,6µm,23.3s						
RSC	Scourie	75.70	33	⇑eP	P	13 01 55.1	-0.5
KAC	Achnashellach	75.75	34	⇑eP	P	13 01 55.1	-0.8
DSB	Dublin	75.75	38	⇑eP	P	13 01 54.9	-1.1
	comp=Z,83nm,1.0s,mb5.4						
DSB				pP	pP	13 02 17.6	-0.8
DSB				ePP	PP	13 04 48.8	+2.2
GMM	Mts of Mourne	75.86	37	⇑eP	P	13 01 55.6	-1.0
STS	Santiago	75.90	49	⇓P	P	13 01 57.0	-0.1
STS				pmax	pmax		
	comp=Z,246nm,1.4s,mb5.7						
STS	Santiago	75.90	49	⇓P	P	13 01 57.0	-0.1
	comp=Z,246nm,1.4s,mb5.7						
EZAM	Zamans	75.92	50	⇓P	P	13 01 57.2	0.0
EZAM				pmax	pmax		
	comp=Z,171nm,1.2s,mb5.7						
EZAM	Zamans	75.92	50	⇓P	P	13 01 57.2	0.0
	comp=Z,171nm,1.2s,mb5.7						
PMAFR	Mafra	76.01	53	eP	P	13 01 57.9	+0.1
PMAFR				eS	S	13 11 33.6	-0.8
PMAFR				eLQ		13 21 58.8	
PMAFR				eLR	LR	13 25 52.5	
PTO	Porto	76.15	51	eP	P	13 01 59.4	+0.8
LIS	Lisbon	76.15	53	eP	P	13 01 56.9	-1.8
LIS				eS	S	13 11 33.0	-2.9
LIS				eS	S	13 11 33.6	-2.4
MDO	Dochfour	76.26	34	⇑iP	P	13 01 58.0	-0.8
MVH1	Achvaich	76.28	33	⇑iP	P	13 01 58.4	-0.6
PMSU	Muirshiel	76.30	35	⇑eP	P	13 01 58.1	-1.0
ELOB	Lobios	76.43	50	P	P	13 01 60.0	-0.2
	comp=Z,263nm,1.4s,mb5.8						
PGBU	Glenifferbraes	76.45	35	⇑eP	P	13 01 59.4	-0.5
PGBU				AMb	AMB	13 02 01.0	
	comp=Z,419nm,0.9s,mb6.2						
PGBU				AMS	AMS	13 33 56.4	
	comp=Z,8µm,21.8s						
EAB	Aberfoyle	76.47	35	⇑iP	P	13 01 59.4	-0.7
GAL1	Galloway	76.47	36	eP	P	13 01 59.0	-1.1
GAL1				AMb	AMB	13 02 01.1	
	comp=Z,305nm,0.9s,mb6.0						
GAL1				eS	S	13 11 29.1	-10
GAL1				AMS	AMS	13 35 16.0	
	comp=Z,6µm,20.0s						
PCAB	Cabril	76.48	50	eP	P	13 02 00.0	-0.4
	comp=Z,122nm,1.1s,mb5.5						
ALMR	Almeirim	76.52	53	eP	P	13 01 59.1	-1.6
MLA1	Latheron	76.65	33	⇑iP	P	13 02 00.5	-0.5
PFVI	Vila Bisbo	76.69	55	eP	P	13 02 02.5	+0.8
PFVI				eS	S	13 11 39.5	-2.3
PFVI				eLR	LR	13 25 49.0	
PTEO	Sao Teotonio	76.69	55	eP	P	13 02 01.8	+0.1
PVIS	Viseu	76.75	51	eP	P	13 02 01.8	-0.2
	comp=Z,157nm,1.7s,mb5.5						
ELO	Logie Almond	76.77	35	eP	P	13 02 01.6	-0.1
PVRL	Vila Real	76.79	51	eP	P	13 02 02.0	-0.2
	comp=Z,118nm,1.4s,mb5.4						
MORF	Marmelete	76.79	55	eP	P	13 02 02.5	+0.2
	comp=Z,68nm,1.2s,mb5.3						
MORF				eS	S	13 11 47.3	+4.3
MORF				eLQ		13 23 10.4	
MORF				eLR	LR	13 26 28.8	
MORF	Marmelete	76.79	55	eP	P	13 02 01.1	-1.2
MORF				eS	S	13 11 40.0	-3.0
MCD	Coleburn Disti	76.83	34	⇑iP	P	13 02 01.8	-0.3
EPON	Pontenova	76.84	48	P	P	13 02 01.9	-0.5
	comp=Z,447nm,1.5s,mb6.0						
GCD	Castle Douglas	76.91	36	⇑iP	P	13 02 02.0	-0.6
EBH	Black Hill	76.92	35	⇑iP	P	13 02 01.9	-0.7
EVOP	Sao Brissos	76.98	53	eP	P	13 02 01.5	-1.8
EVOP				eS	S	13 11 42.4	-2.6
EVOP				eS	S	13 11 42.4	-2.6
EVOP				AMS	AMS	13 30 30.8	
	comp=Z,9µm,23.4s						
EVOP	Sao Brissos	76.98	53	eP	P	13 02 01.5	-1.8
EVOP				eS	S	13 11 42.4	-2.6
ERUA	La Rua	77.01	49	⇓P	P	13 02 03.5	+0.1
ERUA				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.3						
ERUA	La Rua	77.01	49	⇓P	P	13 02 03.5	+0.1
	comp=Z,75nm,1.2s,mb5.3						
EAU	Auchinoon	77.02	35	⇑eP	P	13 02 02.6	-0.6
MME1	Meikle Cairn	77.03	34	⇑iP	P	13 02 02.6	-0.6
KBS	Kingsbay	77.05	11	⇑eP	P	13 02 02.8	-0.2
KBS				pmax	pmax		
	comp=Z,550nm,2.5s,mb5.8						
KBS	Kingsbay	77.05	11	eP	P	13 02 05.0	+2.0
KBS				AMS	AMS	13 31 19.7	
	comp=Z,6µm,34.1s						
KBS	Kingsbay	77.05	11	⇑eP	P	13 02 02.9	-0.1
EVO	Evora	77.06	53	eP	P	13 02 01.9	-1.9
	comp=Z,160nm,0.9s,mb5.4						
EVO				eMLR	MLR		
	comp=Z,7µm,21.5s						
EVO	Evora	77.06	53	eP	P	13 02 01.3	-2.5
	comp=Z,132nm,1.4s,mb5.5						
MTE	Manteigas	77.07	51	eP	P	13 02 01.6	-2.2
	comp=Z,239nm,1.4s,mb5.7						
MTE				eS	S	13 11 42.6	-3.3
MTE				eLQ		13 22 16.2	
MTE				eLR	LR	13 26 35.3	
MTE	Manteigas	77.07	51	⇑eP	P	13 02 01.9	-1.9
	comp=Z,226nm,1.2s,mb5.8						
EDI	Edinburgh	77.15	35	eP	P	13 02 02.7	-1.2
EDI				AMb	AMB	13 02 05.0	
	comp=Z,575nm,0.9s,mb6.3						
EDI				eS	S	13 11 36.8	-9.4
EDI				AMS	AMS	13 31 30.8	
	comp=Z,3µm,23.9s						
WAL1	Walls	77.19	31	eP	P	13 02 03.6	-0.4
PCBR	Castelo Branco	77.23	52	eP	P	13 02 06.3	+1.6
	comp=Z,154nm,1.3s,mb5.6						
ESK	Eskdalemuir	77.25	36	⇑eP	P	13 02 03.5	-0.9
ESK				AMb	AMB	13 02 05.5	
	comp=Z,477nm,0.8s,mb6.2						
ESK				eS	S	13 11 38.9	-8.3
ESK				AMS	AMS	13 35 51.4	
	comp=Z,8µm,20.4s						
ESK	Eskdalemuir	77.25	36	i P	P	13 02 04.2	-0.2
ESK	Eskdalemuir	77.25	36	i P	P	13 02 04.2	-0.2
EBL	Broad Law	77.26	35	⇑eP	P	13 02 03.9	-0.6
HTL	Hartland	77.27	40	eP	P	13 02 03.9	-0.7
HTL				AMb	AMB	13 02 06.5	
	comp=Z,184nm,0.7s,mb5.9						
HTL				eS	S	13 11 37.0	-11
HTL				AMS	AMS	13 35 12.2	
	comp=Z,7µm,20.7s						
PBEJ	Beja	77.27	54	eP	P	13 02 04.7	-0.2
	comp=Z,109nm,1.8s,mb5.3						
EKA	Eskdalemuir Ar	77.27	36	P	P	13 02 03.9	-0.7
EKA				pmax	pmax		
	comp=Z,241nm,0.8s						
EKA	Eskdalemuir Ar	77.27	36	P	P	13 02 03.9	-0.7
	comp=Z,241nm,0.8s,mb6.0,baz=283,slow=5.8,SNR=420						
ECK	Cauldkaine Hil	77.32	36	⇑iP	P	13 02 04.0	-0.8
MVO	Moncorvo	77.32	51	eP	P	13 02 03.7	-1.4
	comp=Z,183nm,1.6s,mb5.6						
MVO				eS	S	13 11 45.3	-3.2
MVO				eLQ		13 22 17.1	
MVO				eLR	LR	13 26 21.9	
PESTR	Estremoz	77.32	53	eP	P	13 02 03.3	-1.9
	comp=Z,95nm,1.4s,mb5.3						
PESTR				eS	S	13 11 46.8	-1.9
PESTR				eLQ		13 22 32.3	
PESTR				eLR	LR	13 26 17.8	
PBDV	Barranco-do-Ve	77.37	55	eP	P	13 02 04.4	-1.1
	comp=Z,154nm,1.3s,mb5.6						
PBDV				eS	S	13 11 48.2	-1.0
PBDV				eLQ		13 23 07.3	
PBDV				eLR	LR	13 26 11.1	
PMRV	Marv??o	77.37	52	eP	P	13 02 03.2	-2.3
	comp=Z,123nm,1.6s,mb5.4						
PMRV				eS	S	13 11 46.4	-2.8
PMRV				eLQ		13 23 47.1	
PMRV				eLR	LR	13 26 39.2	
ECAL	Calabor	77.39	50	P	P	13 02 05.5	0.0
	comp=Z,334nm,1.4s,mb5.9						
PBRG	Braganca	77.41	50	eP	P	13 02 05.6	0.0
	comp=Z,157nm,1.4s,mb5.5						
LRW	Lerwick	77.43	31	eP	P	13 02 04.4	-1.0
LRW				AMb	AMB	13 02 06.5	
	comp=Z,258nm,0.9s,mb6.0						
LRW				AMS	AMS	13 33 36.4	
	comp=Z,9µm,22.7s						
ESY	Stoneypath	77.47	35	⇑iP	P	13 02 05.3	-0.4
PVAQ	Vaqueiros	77.50	55	eP	P	13 02 05.2	-1.1
PVAQ				eS	S	13 11 47.6	-3.1
PVAQ				eLQ		13 23 04.0	
PVAQ				eLR	LR	13 26 47.7	
SBD1	Bryn Du	77.66	38	eP	P	13 02 05.8	-1.0
EGRO	El Granado	77.66	54	P	P	13 02 06.7	-0.5
	comp=Z,290nm,1.6s,mb5.8						
DYA	Yadsworthy	77.72	41	eP	P	13 02 06.3	-0.9
DYA				AMb	AMB	13 02 11.8	
	comp=Z,226nm,2.1s,mb5.5						
DYA				AMS	AMS	13 33 24.9	
	comp=Z,6µm,19.9s						
XSO	Sourhope Farm	77.75	36	⇑iP	P	13 02 06.8	-0.5
EBAD	Badajoz	77.79	53	P	P	13 02 07.1	-0.7
	comp=Z,19nm,1.1s,mb4.7						
HTR	Trewern Hill	77.81	39	eP	P	13 02 07.4	-0.3
XAL	Allendale	77.89	36	⇑eP	P	13 02 07.5	-0.5
MCH1	Michaelchurch	77.99	39	⇑eP	P	13 02 07.8	-0.8
MCH1				AMb	AMB	13 02 12.3	
	comp=Z,173nm,2.3s,mb5.4						
MCH1				AMS	AMS	13 36 28.3	
	comp=Z,6µm,19.4s						
HGH	Gray Hill	78.18	40	eP	P	13 02 09.0	-0.7
EARI	Arriondas	78.23	48	P	P	13 02 09.8	-0.3
	comp=Z,212nm,1.3s,mb5.7						
EMIN	Mina Concepcio	78.25	54	P	P	13 02 09.8	-0.6
	comp=Z,22nm,0.8s,mb4.9						
STNC	Stoke	78.25	38	eP	P	13 02 10.0	-0.1
STNC				AMb	AMB	13 02 15.3	
	comp=Z,374nm,1.8s,mb5.8						
BILL	Bilibino	78.41	338	κ iP	P	13 02 10.0	-0.6
BILL				i		13 02 16.4	
BILL				e		13 05 09.4	
BILL				i		13 11 58.3	
BILL				i		13 13 02.8	
BILL				i SS	SS	13 17 11.1	+7.9
BILL				pmax	pmax		
	comp=Z,621nm,1.7s,mb6.1						
BILL				MLR	MLR		
	comp=Z,4µm,21.0s						
BILL	Bilibino	78.41	338	⇑eP	P	13 02 10.1	-0.5
HPK	Haverah Park	78.41	37	⇑eP	P	13 02 10.4	-0.5
HPK				AMb	AMB	13 02 12.4	
	comp=Z,295nm,1.0s,mb6.0						
HPK				AMS	AMS	13 35 54.1	
	comp=Z,5µm,20.4s						
ROSF	Rostrenen	78.55	43	⇑iP	P	13 02 11.2	-0.6
	comp=Z,87nm,0.8s,mb5.3						
ROSF	Rostrenen	78.55	43	⇑iP	P	13 02 11.2	-0.6
ROSF				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.3						
ROSF	Rostrenen	78.55	43	⇑iP	P	13 02 11.2	-0.6
	comp=Z,43nm,0.8s,mb5.3						
QUIF	Quistinic	78.70	43	⇑iP	P	13 02 12.1	-0.6
	comp=Z,178nm,0.7s,mb5.7						
QUIF	Quistinic	78.70	43	⇑iP	P	13 02 12.1	-0.6
QUIF				pmax	pmax		
	comp=Z,89nm,0.7s,mb5.7						
QUIF	Quistinic	78.70	43	⇑iP	P	13 02 12.1	-0.6
	comp=Z,89nm,0.7s,mb5.7						
SWN1	Swindon	78.82	40	eP	P	13 02 12.9	-0.3
SWN1				AMb	AMB	13 02 18.2	
	comp=Z,640nm,2.0s,mb6.1						
SWN1				AMS	AMS	13 34 37.2	
	comp=Z,9µm,20.3s						
CWF	Charnwood Fore	78.86	38	eP	P	13 02 12.8	-0.6
CWF				AMb	AMB	13 02 15.2	
	comp=Z,173nm,1.0s,mb5.8						
CWF				eS	S	13 11 55.6	-8.9
CWF				AMS	AMS	13 31 48.8	
	comp=Z,5µm,23.3s						
SGMF	Saint Gilles	79.03	43	⇑iP	P	13 02 13.6	-0.9
	comp=Z,109nm,0.9s,mb5.4						
SGMF	Saint Gilles	79.03	43	⇑iP	P	13 02 13.6	-0.9
SGMF				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.4						
SGMF	Saint Gilles	79.03	43	⇑iP	P	13 02 13.6	-0.9
	comp=Z,54nm,0.9s,mb5.4						
ESPR	Espera	79.07	55	P	P	13 02 15.4	+0.5
	comp=Z,49nm,1.0s,mb5.3						
JSA	Saint Aubin	79.08	42	eP	P	13 02 14.3	-0.4
JSA				AMb	AMB	13 02 19.6	
	comp=Z,221nm,1.7s,mb5.7						
ECAB	El Cabril	79.15	53	P	P	13 02 14.9	-0.4
	comp=Z,634nm,1.5s,mb6.2						
WOL	Wolverton	79.22	40	eP	P	13 02 14.5	-0.9
WOL				AMb	AMB	13 02 17.3	
	comp=Z,501nm,0.8s,mb6.4						
EJIF	Jimena Fronter	79.46	55	P	P	13 02 16.3	-0.8
EJIF				pmax	pmax		
	comp=Z,183nm,1.3s,mb5.8						
EJIF	Jimena Fronter	79.46	55	P	P	13 02 16.2	-0.8
	comp=Z,183nm,1.3s,mb5.8						
GUD	Guadarrama	79.56	51	P	P	13 02 16.4	-1.1
GUD				pmax	pmax		
	comp=Z,69nm,0.7s,mb5.6						
GUD	Guadarrama	79.56	51	P	P	13 02 16.4	-1.1
	comp=Z,69nm,0.7s,mb5.6						
PAB	San Pablo	79.65	52	⇑eP	P	13 02 16.8	-1.2
PAB				pmax	pmax		
	comp=Z,353nm,1.1s,mb6.1						
PAB	San Pablo	79.65	52	⇑eP	P	13 02 16.8	-1.2
	comp=Z,354nm,1.1s,mb6.1						
PAB				epP	pP	13 02 37.7	-2.9
PAB				esP	sP	13 02 49.4	-0.5
EADA	Adamuz	79.78	53	P	P	13 02 18.7	0.0
	comp=Z,297nm,1.4s,mb5.9						
ESDC	Sonseca Array	79.91	52	P	P	13 02 19.3	-0.1
	comp=Z,80nm,0.9s,mb5.6,baz=292,slow=5.3,SNR=143						
ESDC				S	S	13 12 07.3	-9.0
	comp=Z,0.2nm,0.3s,baz=120,slow=33,SNR=3.2						
ESDC				PKKPbc	PKKPbc	13 21 01.6	-3.3
	comp=Z,0.2nm,0.3s,baz=95,slow=1.3,SNR=4.6						
ESDC				LR	LR	13 34 34.8	
	comp=Z,7µm,20.4s,baz=280,slow=33						
ESDC	Sonseca Array	79.91	52	P	P	13 02 19.0	-0.4
	comp=Z,78nm,0.9s,mb5.5						
ESLA	Sonseca Array	79.91	52	⇑iP	P	13 02 18.2	-1.3
	comp=Z,0.3nm,0.4s						
ESLA				ePcP	PcP	13 02 24.8	-1.9
ESLA				epP	pP	13 02 41.6	-0.4
ESLA				esP	sP	13 02 51.6	+0.3
EMIJ	Mijas	79.99	55	P	P	13 02 19.9	0.0
	comp=Z,210nm,1.3s,mb5.8						
FOO	Floro	80.05	29	eP	P	13 02 19.4	-0.3
FOO				AMS	AMS	13 30 36.7	
	comp=Z,12µm,31.1s						
GRR	Gorron	80.11	42	⇑iP	P	13 02 19.8	-0.5
	comp=Z,393nm,0.8s,mb6.0						
GRR	Gorron	80.11	42	⇑iP	P	13 02 19.8	-0.5
GRR				pmax	pmax		
	comp=Z,196nm,0.8s,mb6.0						
GRR	Gorron	80.11	42	⇑iP	P	13 02 19.8	-0.5
	comp=Z,196nm,0.8s,mb6.0						
ELUQ	Luque	80.16	54	P	P	13 02 20.5	-0.3
ELUQ				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.3						
ELUQ	Luque	80.16	54	P	P	13 02 20.5	-0.3
	comp=Z,55nm,1.1s,mb5.3						
FLN	La Foliniere	80.26	42	⇑iP	P	13 02 20.9	-0.2
	comp=Z,171nm,0.5s,mb5.9						
FLN				eMLR	MLR		
	comp=Z,15µm,22.0s						
FLN	La Foliniere	80.26	42	⇑iP	P	13 02 20.9	-0.2
FLN				pmax	pmax		
	comp=Z,85nm,0.5s,mb5.8						
FLN				MLR	MLR		
	comp=Z,15µm,22.0s						
FLN	La Foliniere	80.26	42	⇑iP	P	13 02 20.9	-0.2
	comp=Z,85nm,0.5s,mb5.8						
FLN				LR	LR		
	comp=Z,15µm,22.0s						
ECRI	Cripan	80.32	48	⇓P	P	13 02 22.1	+0.6
ECRI				pmax	pmax		
	comp=Z,230nm,1.2s,mb5.9						
ECRI	Cripan	80.32	48	⇓P	P	13 02 22.1	+0.6
	comp=Z,230nm,1.2s,mb5.9						
BJO	Bjornoya	80.32	14	eSKS	S	13 12 25.4	+6.1
BJO				AMS	AMS	13 40 12.2	
	comp=Z,6µm,17.2s						
ELOJ	Sierra Loja	80.34	54	⇓P	P	13 02 22.6	+0.8
ELOJ				pmax	pmax		
	comp=Z,196nm,1.4s,mb5.8						
ELOJ	Sierra Loja	80.34	54	⇓P	P	13 02 22.6	+0.8
	comp=Z,196nm,1.4s,mb5.8						
EBAN	Banos Encina	80.39	53	⇓P	P	13 02 22.1	+0.1
EBAN				pmax	pmax		
	comp=Z,132nm,1.2s,mb5.6						
EBAN	Banos Encina	80.39	53	⇓P	P	13 02 22.1	+0.1
	comp=Z,132nm,1.2s,mb5.6						
ASK	Askoy	80.43	30	eP	P	13 02 21.5	-0.2
EGD	Espegrend	80.50	30	eP	P	13 02 21.9	-0.3
BER	Bergen	80.52	30	eP	P	13 02 23.0	+0.7
BER				eS	S	13 12 21.9	+0.1
BER				AMS	AMS	13 31 49.5	
	comp=Z,11µm,26.3s						
LDF	La Druitiere	80.53	42	⇑iP	P	13 02 22.2	-0.4
	comp=Z,321nm,0.9s,mb5.8						
LDF	La Druitiere	80.53	42	⇑iP	P	13 02 22.2	-0.4
LDF				pmax	pmax		
	comp=Z,160nm,0.9s,mb5.8						
LDF	La Druitiere	80.53	42	⇑iP	P	13 02 22.2	-0.4
	comp=Z,160nm,0.9s,mb5.8						
ERON	Agron	80.64	54	⇓P	P	13 02 24.2	+0.8
	comp=Z,226nm,1.3s,mb5.8						
HYA	Hoyanger	80.70	29	⇓iP	P	13 02 25.6	+2.5
HYA				AMb	AMB	13 02 29.7	
	comp=Z,234nm,1.0s,mb6.0						
TFO1	Folkestone	80.71	39	eP	P	13 02 23.1	-0.3
TFO1				AMb	AMB	13 02 28.6	
	comp=Z,678nm,1.4s,mb6.3						
TFO1				AMS	AMS	13 35 46.5	
	comp=Z,10µm,20.3s						
ECOG	Cogollos-Vega	80.76	54	P	P	13 02 24.8	+0.7
ECOG				pmax	pmax		
	comp=Z,316nm,1.2s,mb6.0						
ECOG	Cogollos-Vega	80.76	54	P	P	13 02 24.8	+0.8
	comp=Z,316nm,1.2s,mb6.0						
KMY	Karmoy	80.81	31	⇓iP	P	13 02 24.1	+0.3
KMY				AMb	AMB	13 02 25.8	
	comp=Z,152nm,1.0s,mb5.8						
EGUA	Guajares	80.87	54	⇓P	P	13 02 24.7	+0.1
EGUA				pmax	pmax		
	comp=Z,135nm,0.8s,mb5.8						
EGUA	Guajares	80.87	54	⇓P	P	13 02 24.7	+0.1
	comp=Z,135nm,0.8s,mb5.8						
ELIZ	Elizondo	80.89	48	⇓P	P	13 02 24.5	-0.1
ELIZ				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.2						
ELIZ	Elizondo	80.89	48	⇓P	P	13 02 24.5	-0.1
	comp=Z,43nm,1.0s,mb5.2						
EALK	Alkurruntz	80.89	48	P	P	13 02 24.2	-0.4
	comp=Z,435nm,1.4s,mb6.1						
MOL	Molde	80.89	27	eP	P	13 02 28.9	+4.7
MOL				AMS	AMS	13 32 15.2	
	comp=Z,9µm,27.1s						
MDT	Midelt	80.97	58	P	P	13 02 24.1	-1.2
	comp=Z,64nm,1.1s,mb5.4,baz=288,slow=5.4,SNR=26						
MDT				S	S	13 12 20.8	-6.9
	comp=Z,1.6nm,0.9s,baz=330,slow=16,SNR=1.8						
MFF	Saint Martin d	81.01	44	⇑iP	P	13 02 24.6	-0.5
	comp=Z,335nm,1.1s,mb5.8						
MFF	Saint Martin d	81.01	44	⇑iP	P	13 02 24.6	-0.5
MFF				pmax	pmax		
	comp=Z,168nm,1.1s,mb5.8						
MFF	Saint Martin d	81.01	44	⇑iP	P	13 02 24.6	-0.5
	comp=Z,168nm,1.1s,mb5.8						
EQES	Quesada	81.02	53	P	P	13 02 25.9	+0.5
	comp=Z,298nm,1.2s,mb6.0						
OSSF	Osses	81.06	48	eP	P	13 02 24.3	-1.2
ETOR	Torete	81.07	50	⇑P	P	13 02 25.9	+0.3

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ETOR                                pmax    pmax
       comp=Z,151nm,1.2s,mb5.7
ETOR   Torete           81.07  50 ⇑P       P       13 02 25.9 +0.3
       comp=Z,151nm,1.2s,mb5.7
SJPF   Ste Jean         81.12  48⇑iP       P       13 02 25.7  -0.1
       comp=Z,488nm,1.2s,mb5.9
SJPF   Ste Jean         81.12  48⇑iP       P       13 02 25.7  -0.1
SJPF                                pmax    pmax
       comp=Z,244nm,1.2s,mb5.9
SJPF   Ste Jean         81.12  48⇑iP       P       13 02 25.7  -0.1
       comp=Z,244nm,1.2s,mb5.9
EVIA   Vianos           81.26  52 ⇓P       P       13 02 27.2 +0.6
EVIA                                pmax    pmax
       comp=Z,185nm,1.0s,mb5.9
EVIA   Vianos           81.26  52 ⇓P       P       13 02 27.2 +0.6
       comp=Z,185nm,1.0s,mb5.9
ODD1   Odda             81.28  30⇓iP       P       13 02 26.5 +0.2
ODD1                                AMb     AMB     13 02 28.3
       comp=Z,154nm,1.1s,mb5.8
ODD1                               epP      pP      13 02 48.1  -0.9
LOF    Lofoten          81.33  21 eP       P       13 02 29.8 +3.4
BLS5   Blasjo           81.34  31 eP       P       13 02 28.8 +2.1
BLS5                                AMb     AMB     13 02 30.6
       comp=Z,111nm,0.7s,mb5.8
EBER   Berja            81.38  54  P       P       13 02 27.9 +0.5
       comp=Z,410nm,1.1s,mb6.2
EHUE   Huescar          81.39  53 ⇑P       P       13 02 27.7 +0.3
MENF   Mencas           81.47  40 eP       P       13 02 26.9  -0.6
ATE    Arette           81.50  48 eP       P       13 02 27.3  -0.5
ETSF   Etsaut           81.64  48⇑iP       P       13 02 28.5  -0.1
       comp=Z,187nm,0.8s,mb5.7
ETSF   Etsaut           81.64  48⇑iP       P       13 02 28.5  -0.1
ETSF                                pmax    pmax
       comp=Z,93nm,0.8s,mb5.7
ETSF   Etsaut           81.64  48⇑iP       P       13 02 28.5  -0.1
       comp=Z,93nm,0.8s,mb5.7
REYF   Montagne du Re   81.72  48 eP       P       13 02 28.6  -0.4
DOMB   Dombas           81.73  28 eP       P       13 02 29.6 +1.0
DOMB                                AMb     AMB     13 02 31.6
       comp=Z,211nm,0.8s,mb6.0
DOMB                               epP      pP      13 02 50.4  -0.9
KONS   Konsvik          81.80  23⇓iP       P       13 02 30.4 +1.5
ENIJ   Nijar            81.89  54  P       P       13 02 29.5  -0.5
ENIJ                                pmax    pmax
       comp=Z,14nm,0.4s,mb5.1
ENIJ   Nijar            81.89  54  P       P       13 02 29.5  -0.6
       comp=Z,14nm,0.4s,mb5.2
FLOS   Flostrand        81.95  23 eP       P       13 02 30.9 +1.2
ETOB   Tobarra          81.98  52  P       P       13 02 31.2 +0.8
       comp=Z,92nm,0.8s,mb5.7
STEI   Steigen          81.99  21 eP       P       13 02 30.9 +1.0
STEI                                AMb     AMB     13 02 33.2
       comp=Z,273nm,1.7s,mb5.8
ESAC   San Caprasio     82.00  49  P       P       13 02 30.8 +0.2
LFF    La Frestale      82.03  46⇑iP       P       13 02 30.1  -0.5
       comp=Z,400nm,0.8s,mb6.0
LFF    La Frestale      82.03  46⇑iP       P       13 02 30.1  -0.5
LFF                                 pmax    pmax
       comp=Z,200nm,0.8s,mb6.0
LFF    La Frestale      82.03  46⇑iP       P       13 02 30.1  -0.5
       comp=Z,200nm,0.8s,mb6.0
SNART  Snartemo         82.05  31 eP       P       13 02 31.0 +0.6
SNART                               AMb     AMB     13 02 33.5
       comp=Z,124nm,1.7s,mb5.5
LABF   Labassere        82.05  48 eP       P       13 02 30.4  -0.3
NSS    Namsos           82.09  25 eP       P       13 02 30.4  -0.1
NSS                                 AMS     AMS     13 32 47.8
       comp=Z,11µm,30.5s
ECHE   Chera            82.18  51  P       P       13 02 32.0 +0.5
ECHE                                pmax    pmax
       comp=Z,105nm,1.0s,mb5.6
ECHE   Chera            82.18  51  P       P       13 02 32.0 +0.6
       comp=Z,105nm,1.0s,mb5.6
EBIE   Bielsa           82.20  48  P       P       13 02 31.6 +0.2
       comp=Z,74nm,0.8s,mb5.6
EPF    Esparros         82.25  48⇑iP       P       13 02 31.5  -0.2
       comp=Z,403nm,1.2s,mb5.8
EPF    Esparros         82.25  48⇑iP       P       13 02 31.5  -0.2
EPF                                 pmax    pmax
       comp=Z,201nm,1.2s,mb5.8
EPF    Esparros         82.25  48⇑iP       P       13 02 31.5  -0.2
       comp=Z,201nm,1.2s,mb5.8
AFI    Afiamalu         82.30 253⇑eP       P       13 02 29.7  -2.8
AFI                                 pmax    pmax
       comp=Z,152nm,1.4s,mb5.6
AFI    Afiamalu         82.30 253  LR      LR      13 30 53.0
       comp=Z,4µm,19.5s,baz=102,slow=30
AFI    Afiamalu         82.30 253⇑eP       P       13 02 29.7  -2.7
       comp=Z,152nm,1.4s,mb5.6
AFI                                e        pP      13 02 53.5  -1.6
RESF   Ens              82.30  48 eP       P       13 02 32.2 +0.1
EMOS   Mosqueruela      82.35  50  P       P       13 02 33.4 +1.0
       comp=Z,170nm,0.9s,mb5.9
MOR8   Moi Rana         82.42  23⇓iP       P       13 02 33.0 +0.8
MOR8                                AMb     AMB     13 02 35.6
       comp=Z,224nm,2.4s,mb5.6
EMUR   La Murta         82.42  53  P       P       13 02 32.8   0.0
       comp=Z,116nm,0.9s,mb5.7
RJF    Les Rejaudoux    82.46  45⇑iP       P       13 02 32.1  -0.7
       comp=Z,420nm,1.0s,mb5.9
RJF                                eMLR     MLR
       comp=Z,8µm,21.0s
RJF    Les Rejaudoux    82.46  45⇑iP       P       13 02 32.1  -0.7
RJF                                 pmax    pmax
       comp=Z,210nm,1.0s,mb5.9
RJF                                 MLR     MLR
       comp=Z,8µm,21.0s
RJF    Les Rejaudoux    82.46  45⇑iP       P       13 02 32.1  -0.7
       comp=Z,210nm,1.0s,mb5.9
RJF                                 LR      LR
       comp=Z,8µm,21.0s
TRO    Tromso           82.47  19 eP       P       13 02 33.2 +0.9
TRO                                eSKS             13 12 44.9
TRO                                 AMS     AMS     13 38 09.5
       comp=Z,7µm,17.5s
MELF   Melles           82.58  48 eP       P       13 02 33.2  -0.3
TCF    Toulx Ste Croi   82.66  44⇑iP       P       13 02 33.2  -0.6
       comp=Z,148nm,0.6s,mb5.7
TCF    Toulx Ste Croi   82.66  44⇑iP       P       13 02 33.2  -0.6
TCF                                 pmax    pmax
       comp=Z,74nm,0.6s,mb5.7
TCF    Toulx Ste Croi   82.66  44⇑iP       P       13 02 33.2  -0.6
       comp=Z,74nm,0.6s,mb5.7
HYF    Humbligny        82.67  43⇑iP       P       13 02 33.6  -0.3
UCC    Uccle            82.75  39  P       P       13 02 33.0  -1.2
UCC                                 S       S       13 12 45.9 +0.7
ERTA   Horta de San J   82.79  50  P       P       13 02 34.8 +0.2
       comp=Z,70nm,1.0s,mb5.5
KONO   Kongsberg        82.79  30⇑eP       P       13 02 34.1  -0.1
KONO   Kongsberg        82.79  30 eP       P       13 02 33.4  -0.8
KONO                               eSKS             13 12 48.3
KONO                                AMS     AMS     13 33 53.1
       comp=Z,12µm,35.2s
KONO   Kongsberg        82.79  30⇑eP       P       13 02 34.7 +0.5
KONO                               epP      pP      13 02 54.2  -2.7
KONO                               ePP      PP      13 05 46.6 +1.7
SNF    Seneffe          82.79  40  P       P       13 02 34.9 +0.5
       comp=Z,72nm,1.6s,mb5.3
BAIF   Baives           82.88  40⇑iP       P       13 02 34.7  -0.2
       comp=Z,167nm,1.0s,mb5.5
BAIF   Baives           82.88  40⇑iP       P       13 02 34.7  -0.2
BAIF                                pmax    pmax
       comp=Z,83nm,1.0s,mb5.5
BAIF   Baives           82.88  40⇑iP       P       13 02 34.7  -0.2
       comp=Z,83nm,1.0s,mb5.5
SALF   Salau            82.92  48 eP       P       13 02 35.1  -0.2
CAF    Calviac          82.94  45⇑iP       P       13 02 34.7  -0.6
       comp=Z,208nm,0.9s,mb5.7
CAF    Calviac          82.94  45⇑iP       P       13 02 34.7  -0.6
CAF                                 pmax    pmax
       comp=Z,104nm,0.9s,mb5.7
CAF    Calviac          82.94  45⇑iP       P       13 02 34.7  -0.6
       comp=Z,104nm,0.9s,mb5.7
OLHC   Oulhaca          82.94  55  P       P       13 02 35.0  -0.5
EBEN   Beniarda         82.97  52  P       P       13 02 36.5 +0.9
       comp=Z,50nm,1.0s,mb5.3
NAO01  NORSAR Array S   82.97  28⇑eP       P       13 02 36.2 +1.1
       comp=Z,216nm,0.8s,mb6.0
NAO01                              epP      pP      13 02 57.5  -0.3
BGF    Bois d'Agland    83.01  44⇑iP       P       13 02 35.0  -0.6
       comp=Z,563nm,0.9s,mb6.1
BGF    Bois d'Agland    83.01  44⇑iP       P       13 02 35.0  -0.6
BGF                                 pmax    pmax
       comp=Z,282nm,0.9s,mb6.1
BGF    Bois d'Agland    83.01  44⇑iP       P       13 02 35.0  -0.6
       comp=Z,282nm,0.9s,mb6.1
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NB2    NORSAR Subarra   83.05  28  P       P       13 02 36.4 +0.9
       comp=Z,284nm,0.8s,mb6.2,baz=291,slow=5.1
NOA    NORSAR Array B   83.05  28  P       P       13 02 36.3 +0.8
NOA                                 S       S       13 12 49.6 +1.8
NOA                                 pmax    pmax
       comp=Z,226nm,0.8s
NOA                                 pmax    pmax
       comp=Z,70nm,1.0s
NOA                                 smax
       comp=N,1.0nm,0.9s
NOA                                 MLR     MLR
       comp=Z,8µm,21.6s
NOA    NORSAR Array B   83.05  28  P       P       13 02 36.3 +0.8
       comp=Z,226nm,0.8s,mb6.1,baz=292,slow=5.2,SNR=475
NOA                                 pP      pP      13 02 58.0  -0.3
       comp=Z,70nm,1.0s,baz=296,slow=5.1,SNR=1.8
NOA                                 S       S       13 12 49.6 +1.8
       comp=Z,1.0nm,0.8s,baz=342,slow=16,SNR=3.1
NOA                                 LR      LR      13 38 18.4
       comp=Z,8µm,21.6s,baz=285,slow=35
ODZI   Dziouia          83.08  55  P       P       13 02 37.0 +0.7
DOU    Dourbes          83.10  40  P       P       13 02 35.1  -1.0
       comp=Z,40nm,0.9s,mb5.2
DOU                                 S       S       13 12 49.9 +1.1
OSL    Oslo             83.22  29 eP       P       13 02 37.1 +0.7
OSL                                epP      pP      13 02 58.3  -0.9
EPOB   Poblet           83.22  49  P       P       13 02 36.7  -0.2
       comp=Z,29nm,0.9s,mb5.1
GIVF   Givet            83.24  40⇑iP       P       13 02 36.8 +0.1
       comp=Z,185nm,0.7s,mb5.7
GIVF   Givet            83.24  40⇑iP       P       13 02 36.8 +0.1
GIVF                                pmax    pmax
       comp=Z,93nm,0.7s,mb5.7
GIVF   Givet            83.24  40⇑iP       P       13 02 36.8 +0.1
       comp=Z,93nm,0.7s,mb5.7
AVF    Avril sur Loir   83.28  43⇑iP       P       13 02 36.0  -1.0
       comp=Z,245nm,0.9s,mb5.7
AVF    Avril sur Loir   83.28  43⇑iP       P       13 02 36.0  -1.0
AVF                                 pmax    pmax
       comp=Z,122nm,0.9s,mb5.7
AVF    Avril sur Loir   83.28  43⇑iP       P       13 02 36.0  -1.0
       comp=Z,122nm,0.9s,mb5.7
SSF    Saint Saulge     83.30  43⇑iP       P       13 02 36.4  -0.7
       comp=Z,302nm,0.9s,mb5.8
SSF    Saint Saulge     83.30  43⇑iP       P       13 02 36.4  -0.7
SSF                                 pmax    pmax
       comp=Z,151nm,0.9s,mb5.8
SSF    Saint Saulge     83.30  43⇑iP       P       13 02 36.4  -0.7
       comp=Z,151nm,0.9s,mb5.8
AGO    Saint Agoulin    83.34  44 eP       P       13 02 36.9  -0.4
PYM    Petit Puy Mans   83.34  44 eP       P       13 02 37.6 +0.2
BCLA   Clavier          83.44  39  P       P       13 02 37.8 +0.1
       comp=Z,76nm,0.8s,mb5.6
BCLA                                S       S       13 12 52.9 +0.7
LOR    Lormes           83.47  43⇑iP       P       13 02 37.5  -0.5
       comp=Z,423nm,1.1s,mb5.9
LOR                                eMLR     MLR
       comp=Z,12µm,23.0s
LOR    Lormes           83.47  43⇑iP       P       13 02 37.5  -0.5
LOR                                 pmax    pmax
       comp=Z,211nm,1.1s,mb5.9
LOR                                 MLR     MLR
       comp=Z,12µm,23.0s
LOR    Lormes           83.47  43⇑iP       P       13 02 37.5  -0.5
       comp=Z,211nm,1.1s,mb5.9
LOR                                 LR      LR
       comp=Z,12µm,23.0s
MTLF   Montolieu        83.48  47⇑iP       P       13 02 37.7  -0.4
       comp=Z,259nm,1.0s,mb5.7
MTLF   Montolieu        83.48  47⇑iP       P       13 02 37.7  -0.4
MTLF                                pmax    pmax
       comp=Z,130nm,1.0s,mb5.7
MTLF   Montolieu        83.48  47⇑iP       P       13 02 37.7  -0.4
       comp=Z,130nm,1.0s,mb5.7
USTO   Oran             83.50  55  P       P       13 02 40.0 +1.6
WIT    Witteveen        83.50  37 eP       P       13 02 38.5 +0.5
BEBN   Eben Emael       83.55  39  P       P       13 02 38.4 +0.1
BEBN                                S       S       13 12 54.1 +0.8
CARF   Carcanieres      83.58  47 eP       P       13 02 37.7  -1.0
VALF   Valcebollere     83.61  48 eP       P       13 02 38.8   0.0
SMF    Signal de Mont   83.64  43⇑iP       P       13 02 38.0  -0.9
       comp=Z,254nm,1.0s,mb5.7
SMF    Signal de Mont   83.64  43⇑iP       P       13 02 38.0  -0.9
SMF                                 pmax    pmax
       comp=Z,127nm,1.0s,mb5.7
SMF    Signal de Mont   83.64  43⇑iP       P       13 02 38.0  -0.9
       comp=Z,127nm,1.0s,mb5.7
LBL    Lubilhac         83.66  45 eP       P       13 02 39.5 +0.5
MUD    Monsted U'grnd   83.67  33⇑iP       P       13 02 39.7 +0.9
MUD                                i                13 12 48.3
MUD
       comp=Z,6µm,24.0s
MUD    Monsted U'grnd   83.67  33⇑iP       P       13 02 39.7 +0.9
MUD                                i                13 12 48.3
PLDF   La Plantade      83.69  44 eP       P       13 02 38.6  -0.5
HGN    Heimansgroeve    83.71  39⇑eP       P       13 02 38.4  -0.7
       comp=Z,137nm,0.7s,mb5.9
HGN    Heimansgroeve    83.71  39 eS       S       13 12 52.5  -2.5
MEM    Membach          83.81  39  P       P       13 02 40.0 +0.3
       comp=Z,68nm,1.0s,mb5.4
MEM                                 S       S       13 12 57.1 +1.2
LRDF   Laroque-de-Fa    83.82  47 eP       P       13 02 39.8  -0.1
WTSB   Winterswijk      83.85  38⇑eP       P       13 02 39.5  -0.3
       comp=Z,469nm,1.9s,mb6.0
MEZF   Maizieres J'vi   83.87  41⇑iP       P       13 02 39.8  -0.2
       comp=Z,469nm,0.8s,mb6.1
MEZF   Maizieres J'vi   83.87  41⇑iP       P       13 02 39.8  -0.2
       comp=Z,469nm,0.8s,mb6.4
COLF   Collangettes     83.87  44 eP       P       13 02 40.0  -0.1
ODJA   Bouhanifia       83.92  55  P       P       13 02 42.0 +1.4
EIBI   Ibiza            84.06  51  P       P       13 02 41.5 +0.4
       comp=Z,70nm,0.8s,mb5.5
PMSA   Palmer Station   84.18 167 eP       P       13 02 39.7  -1.3
PMSA                               ePcP     PcP     13 02 42.4  -2.2
PMSA                                pP      pP      13 03 03.6  -0.2
WLF    Walferdange      84.19  40  P       P       13 02 40.3  -1.3
       comp=Z,150nm,1.1s,mb5.7
WLF                                 S       S       13 12 58.4  -1.4
WLF    Walferdange      84.19  40⇑eP       P       13 02 41.8 +0.2
WLF                                 pmax    pmax
       comp=Z,196nm,0.7s,mb6.0
WLF    Walferdange      84.19  40 eP       P       13 02 42.3 +0.7
       comp=Z,273nm,0.8s,mb6.1
WLF                                epP      pP      13 03 04.4   0.0
WLF                                eSKSac   SKSac   13 12 57.2  -0.2
WLF    Walferdange      84.19  40⇑eP       P       13 02 41.8 +0.1
       comp=Z,196nm,0.7s,mb6.0
WLF                                ePcP     PcP     13 02 45.1  -0.1
WLF                                epP      pP      13 03 02.8  -1.6
SJAF   Saint Jean de    84.20  48 eP       P       13 02 40.9  -0.9
EJON   La Jonquera      84.21  48  P       P       13 02 42.4 +0.5
       comp=Z,146nm,1.0s,mb5.8
OJBR   Djebel Berber    84.25  55  P       P       13 02 44.0 +1.8
BUG    Bochum--Univer   84.30  38 eP       P       13 02 42.4 +0.3
       comp=Z,437nm,1.8s,mb6.0
BUG                                ePP      PP      13 05 54.5  -3.0
BUG                                eSKSac   SKSac   13 12 57.9  -0.1
IBBN   Ibbenburen       84.30  37 eP       P       13 02 42.5 +0.4
       comp=Z,254nm,1.2s,mb5.9
IBBN                               epP      pP      13 03 04.4  -0.5
IBBN                               eSKSac   SKSac   13 12 57.8  -0.2
OKGL   Djebel Kef Gue   84.35  54  P       P       13 02 42.0  -0.7
ARCES  ARCESS Array B   84.51  18  P       P       13 02 42.7  -0.1
ARCES                               S       S       13 12 58.4  -3.8
ARCES                               pmax    pmax
       comp=Z,82nm,0.6s
ARCES                               pmax    pmax
       comp=Z,66nm,0.6s
ARCES                               smax
       comp=N,6.0nm,0.9s
ARCES                               pmax    pmax
       comp=Z,6.0nm,0.9s
ARCES                               MLR     MLR
       comp=Z,5µm,22.0s
ARCES  ARCESS Array B   84.51  18  P       P       13 02 42.7  -0.1
       comp=Z,82nm,0.6s,mb5.9,baz=302,slow=2.2,SNR=88
ARCES                               pP      pP      13 03 04.5  -1.2
       comp=Z,66nm,0.6s,baz=296,slow=5.3,SNR=5.8
ARCES                               S       S       13 12 58.4  -3.9
       comp=Z,5.6nm,0.9s,baz=327,slow=24,SNR=2.6
ARCES                               PKKPbc  PKKPbc  13 20 49.5  -6.1
       comp=Z,6.3nm,0.9s,baz=11,slow=2.5,SNR=6.2
ARCES                               LR      LR      13 40 32.0
       comp=Z,5µm,22.0s,baz=316,slow=36
ARCES  ARCESS Array B   84.51  18  P       P       13 02 42.7  -0.2
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ARCES                               pP      pP      13 03 04.5  -1.2
ARCES                               S       S       13 12 58.4  -3.8
ARCES                               PKKPbc  PKKPbc  13 20 49.5  -6.1
ARCES                               LR      LR      13 40 32.0
SSB    Saint Sauveur    84.51  45⇑eP       P       13 02 42.6  -0.7
SSB                                e                13 05 59.8
SSB                                 pmax    pmax
       comp=Z,102nm,1.0s,mb5.7
SSB    Saint Sauveur    84.51  45⇑eP       P       13 02 42.6  -0.7
       comp=Z,102nm,1.0s,mb5.7
SSB                                epP      pP      13 03 03.9  -2.2
SSB                                ePP      PP      13 05 59.8 +0.4
HFS    Hagfors          84.52  29  P       P       13 02 43.3 +0.2
HFS                                 pmax    pmax
       comp=Z,144nm,0.9s
HFS                                 pmax    pmax
       comp=Z,54nm,1.0s
HFS    Hagfors          84.52  29  P       P       13 02 43.3 +0.2
       comp=Z,144nm,0.9s,mb5.9,baz=250,slow=3.0,SNR=99
HFS                                 pP      pP      13 03 05.2  -0.7
       comp=Z,54nm,1.0s,baz=210,slow=17,SNR=2.8
THEF   They Montfort    84.55  41 eP       P       13 02 44.0 +0.6
OJGS   Djebel Guires    84.58  55  P       P       13 02 43.0  -0.9
VIVF   Saint-Julien-l   84.73  45⇑iP       P       13 02 44.6 +0.2
       comp=Z,660nm,1.5s,mb6.0
VIVF   Saint-Julien-l   84.73  45⇑iP       P       13 02 44.6 +0.2
VIVF                                pmax    pmax
       comp=Z,330nm,1.5s,mb6.0
VIVF   Saint-Julien-l   84.73  45⇑iP       P       13 02 44.6 +0.2
       comp=Z,330nm,1.5s,mb6.0
EANR   'Ain N'Sour      84.73  54  P       P       13 02 43.5  -1.1
RUP    Ruppelstein      84.74  40 eP       P       13 02 45.3 +0.9
KEV    Kevo             84.82  17 eP       P       13 02 42.8  -1.6
KEV                                 pmax    pmax
       comp=Z,66nm,0.8s,mb5.6
KEV    Kevo             84.82  17 ep       P       13 02 42.8  -1.6
       comp=Z,66nm,0.8s,mb5.6
HAU    Haudompre        84.84  42⇑iP       P       13 02 44.7  -0.2
       comp=Z,235nm,0.7s,mb5.9
HAU                                eMLR     MLR
       comp=Z,9µm,22.2s
HAU    Haudompre        84.84  42⇑iP       P       13 02 44.7  -0.2
HAU                                 pmax    pmax
       comp=Z,118nm,0.7s,mb5.9
HAU                                 MLR     MLR
       comp=Z,9µm,22.3s
HAU    Haudompre        84.84  42⇑iP       P       13 02 44.7  -0.2
       comp=Z,118nm,0.7s,mb5.9
HAU                                 LR      LR
       comp=Z,9µm,22.3s
ECHA   Ech Chlef        84.88  54  P       P       13 02 44.5  -0.9
ETOS   Mallorca         84.94  50  P       P       13 02 45.8 +0.2
       comp=Z,75nm,0.9s,mb5.6
EBNR   Beni Rached      84.97  54  P       P       13 02 45.0  -0.8
ABH    Alteburg         84.98  39 eP       P       13 02 46.3 +0.7
ETRT   Tiaret           85.05  55  P       P       13 02 46.0  -0.2
CABF   La Chapelle      85.12  43⇑iP       P       13 02 46.2  -0.2
       comp=Z,453nm,1.3s,mb5.9
CABF   La Chapelle      85.12  43⇑iP       P       13 02 46.2  -0.2
CABF                                pmax    pmax
       comp=Z,227nm,1.3s,mb5.9
CABF   La Chapelle      85.12  43⇑iP       P       13 02 46.2  -0.2
       comp=Z,227nm,1.3s,mb5.9
BSEG   Bad Segeberg     85.18  35 eP       P       13 02 47.1 +0.6
BSEG                               e                13 06 01.4
BSEG                               e                13 13 02.9
BSEG                                pmax    pmax
       comp=Z,331nm,1.0s,mb6.2
BSEG   Bad Segeberg     85.18  35 eP       P       13 02 47.1 +0.6
       comp=Z,331nm,1.0s,mb6.2
BSEG                               epP      pP      13 03 08.9  -0.4
BSEG                               ePP      PP      13 06 01.4  -3.1
BSEG                               eSKSac   SKSac   13 13 02.9  -0.7
HINF   Hinteralfeld     85.23  42⇑iP       P       13 02 46.7  -0.2
       comp=Z,276nm,1.1s,mb5.8
HINF   Hinteralfeld     85.23  42⇑iP       P       13 02 46.7  -0.2
HINF                                pmax    pmax
       comp=Z,138nm,1.1s,mb5.8
HINF   Hinteralfeld     85.23  42⇑iP       P       13 02 46.7  -0.2
       comp=Z,138nm,1.1s,mb5.8
OCF    Saint Nazaire    85.24  45 eP       P       13 02 48.3 +1.3
OG26   St.-Nazaire-De   85.24  45 eP       P       13 02 48.3 +1.3
ECH    Echery           85.29  41 eP       P       13 02 47.4 +0.2
CDF    Champ du Feu     85.30  41⇑iP       P       13 02 47.3 +0.1
       comp=Z,308nm,1.0s,mb5.9
CDF    Champ du Feu     85.30  41⇑iP       P       13 02 47.3 +0.1
CDF                                 pmax    pmax
       comp=Z,154nm,1.0s,mb5.9
CDF    Champ du Feu     85.30  41⇑iP       P       13 02 47.3 +0.1
       comp=Z,154nm,1.0s,mb5.9
GRN    Grenoble         85.33  44 eP       P       13 02 48.4 +1.0
LOMF   Lomont           85.36  42 eP       P       13 02 47.8 +0.3
MOF    Molkenrain       85.39  41 eP       P       13 02 47.9 +0.2
PRAF   Pradon           85.40  46 eP       P       13 02 47.6  -0.2
TNS    Taunus Mts       85.41  39 eP       P       13 02 48.0 +0.3
TNS                                e                13 06 04.7
TNS                                e                13 13 06.8
TNS                                 pmax    pmax
       comp=Z,443nm,0.8s,mb6.4
TNS    Taunus Mts       85.41  39 eP       P       13 02 48.0 +0.3
       comp=Z,443nm,0.8s,mb6.4
TNS                                epP      pP      13 03 10.5   0.0
TNS                                ePP      PP      13 06 04.7  -1.8
TNS                                eSKSac   SKSac   13 13 06.8 +1.6
LANF   Langenberg       85.44  40 eP       P       13 02 48.0 +0.1
KTD    Kalmit           85.50  40 eP       P       13 02 48.2   0.0
ORIF   Oris-en-Rattie   85.53  45⇑iP       P       13 02 48.7 +0.3
       comp=Z,146nm,1.0s,mb5.6
ORIF                               eMLR     MLR
       comp=Z,10µm,23.0s
ORIF   Oris-en-Rattie   85.53  45⇑iP       P       13 02 48.7 +0.3
ORIF                                pmax    pmax
       comp=Z,73nm,1.0s,mb5.6
ORIF   Oris-en-Rattie   85.53  45⇑iP       P       13 02 48.7 +0.3
       comp=Z,73nm,1.0s,mb5.6
STR    Strasbourg       85.55  41 eP       P       13 02 49.0 +0.6
NRDL   Niedersach Rie   85.58  36 eP       P       13 02 49.0 +0.5
       comp=Z,229nm,1.2s,mb6.0
NRDL                               ePP      PP      13 06 05.3  -2.6
NRDL                               eSKSac   SKSac   13 13 06.1  -0.1
NRDL                               eS       S       13 13 16.5 +3.1
LIBD   Limburg          85.59  41 eP       P       13 02 49.0 +0.3
GDM    Grand'Maison     85.59  44 eP       P       13 02 49.9 +1.2
TREF   Trevaresse       85.60  46 eP       P       13 02 48.7  -0.1
OG01   Vacheresse       85.60  43 eP       P       13 02 49.4 +0.6
SMRF   Simiane la Rot   85.62  46⇑iP       P       13 02 49.5 +0.6
       comp=Z,468nm,1.3s,mb5.9
SMRF   Simiane la Rot   85.62  46⇑iP       P       13 02 49.5 +0.6
       comp=Z,468nm,1.3s,mb6.3
SEY    Seymchan         85.65 335⇓iP       P       13 02 45.9  -2.8
SEY    Seymchan         85.65 335⇓iP       P       13 02 45.0  -3.6
COP    Copenhagen       85.66  33⇑iP       P       13 02 49.2 +0.4
COP                                 pmax    pmax
       comp=Z,64nm,0.9s,mb5.5
COP                                 MLR     MLR
       comp=Z,2µm,26.0s
COP    Copenhagen       85.66  33⇑iP       P       13 02 49.2 +0.4
       comp=Z,64nm,0.9s,mb5.5
COP
       comp=Z,2µm,26.0s
GELF   Grande-Etoile    85.71  46 eP       P       13 02 49.5 +0.2
VILF   Villemus         85.75  46 eP       P       13 02 50.2 +0.6
BBS    Basel-Blauen     85.76  42 eP       P       13 02 49.5   0.0
TOD    Tromm            85.84  39 eP       P       13 02 49.2  -0.7
STOF   St-Etienne Org   85.84  45 eP       P       13 02 49.4  -0.6
LPL    La Plagne        85.90  44⇑iP       P       13 02 51.3 +1.0
       comp=Z,234nm,1.1s,mb5.7
LPL    La Plagne        85.90  44⇑iP       P       13 02 51.3 +1.0
LPL                                 pmax    pmax
       comp=Z,117nm,1.1s,mb5.7
LPL    La Plagne        85.90  44⇑iP       P       13 02 51.3 +1.0
       comp=Z,117nm,1.1s,mb5.7
BERF   Bertagne         85.91  46 eP       P       13 02 49.7  -0.6
LPG    La Plagne        85.92  44⇑iP       P       13 02 51.4 +1.0
       comp=Z,211nm,1.0s,mb5.7
LPG    La Plagne        85.92  44⇑iP       P       13 02 51.4 +1.0
LPG                                 pmax    pmax
       comp=Z,106nm,1.0s,mb5.7
LPG    La Plagne        85.92  44⇑iP       P       13 02 51.4 +1.0
       comp=Z,106nm,1.0s,mb5.7
FELD   Feldberg im Sc   85.94  41 eP       P       13 02 49.8  -0.6
CLZ    Clausthal        85.97  37 eP       P       13 02 51.2 +0.7
CLZ                                e                13 06 08.6
CLZ                                e                13 13 09.7
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CLZ                               eS        S         13 13 21.5 +4.2
CLZ                                pmax     pmax
      comp=Z,307nm,1.5s,mb6.0
CLZ   Clausthal         85.97  37 eP        P         13 02 51.2 +0.7
      comp=Z,307nm,1.5s,mb6.0
CLZ                               epP       pP        13 03 13.1 -0.2
CLZ                               ePP       PP        13 06 08.6 -2.4
CLZ                               eSKSac    SKSac     13 13 09.7 +1.1
CLZ                               eS        S         13 13 21.5 +4.2
ABA   Alger-Bouzarea    85.98  53  P        P         13 02 52.8 +2.0
BFO   Black Forest      85.99  41 eP        P         13 02 50.6  0.0
BFO                               e                   13 13 08.4
BFO                               eS        S         13 13 18.1 +0.5
BFO                                pmax     pmax
      comp=Z,111nm,1.0s,mb5.8
BFO   Black Forest      85.99  41 eP        P         13 02 50.6  0.0
      comp=Z,111nm,1.0s,mb5.8
BFO                               eSKSac    SKSac     13 13 08.4 -0.5
BFO                               eS        S         13 13 18.1 +0.5
BNI   Bardonecchia      86.02  44⇑eP        P         13 02 50.6 -0.2
BNI                                pmax     pmax
      comp=Z,451nm,1.6s,mb6.2
BNI   Bardonecchia      86.02  44⇑eP        P         13 02 50.6 -0.3
      comp=Z,451nm,1.6s,mb6.2
BNI                               ePcP      PcP       13 02 52.8 -0.6
BNI                               epP       pP        13 03 12.6 -1.1
TAVF  Tavernes          86.07  46 eP        P         13 02 50.4 -0.7
EMHD  Djebel Mahouad    86.10  54  P        P         13 02 50.3 -1.1
UBBA  Unterbreizbach    86.13  38 eSKSac    SKSac     13 13 10.6 +1.0
UBBA                              eS        S         13 13 22.1 +3.3
MBDF  Montbardon        86.19  45⇑iP        P         13 02 52.3 +0.6
      comp=Z,266nm,1.1s,mb5.8
MBDF  Montbardon        86.19  45⇑iP        P         13 02 52.3 +0.6
MBDF                               pmax     pmax
      comp=Z,133nm,1.1s,mb5.8
MBDF  Montbardon        86.19  45⇑iP        P         13 02 52.3 +0.6
      comp=Z,133nm,1.1s,mb5.8
SURF  Saint Ours        86.30  45 eP        P         13 02 53.3 +1.1
SPAK  Spaichingen-Ko    86.35  41 eP        P         13 02 51.7 -0.7
STU   Stuttgart         86.37  40⇑eP        P         13 02 52.4 -0.1
STU                                pmax     pmax
      comp=Z,263nm,0.8s,mb6.2
STU   Stuttgart         86.37  40 eP        P         13 02 52.5  0.0
      comp=Z,313nm,0.9s,mb6.2
STU                               eSKSac    SKSac     13 13 11.8 +0.6
STU                               eS        S         13 13 23.3 +2.0
STU   Stuttgart         86.37  40⇑eP        P         13 02 52.4 -0.1
      comp=Z,263nm,0.8s,mb6.2
STU                               ePcP      PcP       13 02 54.1 -0.8
STU                               epP       pP        13 03 13.9 -1.5
STU                               esP       sP        13 03 23.1 -1.5
LMR   La Mourre         86.47  46⇑iP        P         13 02 53.1  0.0
      comp=Z,263nm,0.9s,mb5.9
LMR   La Mourre         86.47  46⇑iP        P         13 02 53.1  0.0
LMR                                pmax     pmax
      comp=Z,132nm,0.9s,mb5.9
LMR   La Mourre         86.47  46⇑iP        P         13 02 53.1  0.0
      comp=Z,132nm,0.9s,mb5.9
ADJB  Djebel Djouab     86.48  53  P        P         13 02 53.4 +0.1
FRF   La Foret Royal    86.49  46⇑iP        P         13 02 53.2  0.0
      comp=Z,868nm,1.5s,mb6.2
FRF   La Foret Royal    86.49  46⇑iP        P         13 02 53.2  0.0
FRF                                pmax     pmax
      comp=Z,434nm,1.5s,mb6.2
FRF   La Foret Royal    86.49  46⇑iP        P         13 02 53.2  0.0
      comp=Z,434nm,1.5s,mb6.2
RGN   Rugen             86.58  34 eP        P         13 02 53.8 +0.4
      comp=Z,576nm,1.9s,mb6.2
RGN   Rugen             86.58  34 eP        P         13 02 52.9 -0.5
      comp=Z,106nm,0.8s,mb5.8
RGN                               ePcP      PcP       13 02 55.6 -0.1
RGN                               epP       pP        13 03 16.5 +0.3
DOI   San Damiano       86.58  45  P        P         13 02 52.9 -0.7
CALN  Calern            86.59  45 eP        P         13 02 54.4 +0.7
MVIF  Mont Vial         86.72  45 eP        P         13 02 54.9 +0.6
STV   Sant Anna di V    86.72  45  P        P         13 02 54.7 +0.4
TOUF  Mont Tournerai    86.75  45 eP        P         13 02 53.9 -0.5
LUCF  Luceram           86.86  45 eP        P         13 02 54.7 -0.3
AKET  Djebel Ketaf      86.86  53  P        P         13 02 56.2 +1.0
AUTN  L'Aution          86.88  45 eP        P         13 02 54.5 -0.6
REVF  Revere            86.92  45 eP        P         13 02 55.4 +0.1
SBF   Sospel            86.93  45⇑iP        P         13 02 55.2 -0.1
PET   Petropavlovsk     86.93 325κ iP       P         13 02 53.9 -1.2
PET                               i S       S         13 13 13.6  -13
PET                               eSS       SS        13 19 12.0 +2.0
PET                               eSSS                13 22 43.8
PET                                pmax     pmax
      comp=Z,169nm,1.7s,mb5.7
PET                                pmax     pmax
      comp=Z,2µm,6.8s
PET                                MLR      MLR
      comp=Z,2µm,21.0s
PET                                MLR      MLR
      comp=Z,2µm,22.0s
PET   Petropavlovsk     86.93 325 i P       P         13 02 53.8 -1.3
SAOF  Saorge            86.97  45 eP        P         13 02 55.3 -0.2
NEUB  Neuenburg         87.02  37 eP        P         13 02 56.1 +0.5
      comp=Z,226nm,1.5s,mb5.9
MOX   Moxa              87.14  38 eP        P         13 02 56.3 +0.1
      comp=Z,463nm,2.3s,mb6.0
MOX                               ePP       pP        13 03 18.7 -0.4
MOX                               eSKS                13 13 18.4
MOX
      comp=Z,5µm,20.0s
MOX   Moxa              87.14  38 eP        P         13 02 56.3 +0.1
MOX                               e                   13 13 18.4
MOX                                pmax     pmax
      comp=Z,463nm,2.3s,mb6.0
MOX                                MLR      MLR
      comp=Z,5µm,20.0s
MOX   Moxa              87.14  38 eP        P         13 02 56.6 +0.4
      comp=Z,106nm,1.3s,mb5.6
MOX                               eSKSac    SKSac     13 13 17.0 +1.1
MOX                               eS        S         13 13 30.8 +2.1
BSD   Bornholm Skovb    87.18  33 i P       P         13 02 55.5 -0.8
BSD                               i                   13 13 26.3
BSD                                pmax     pmax
      comp=Z,48nm,1.0s,mb5.4
BSD                                MLR      MLR
      comp=Z,4µm,25.0s
BSD   Bornholm Skovb    87.18  33 i P       P         13 02 55.5 -0.8
      comp=Z,48nm,1.0s,mb5.4
BSD                               i                   13 13 26.3
BSD
      comp=Z,5µm,25.0s
BSD   Bornholm Skovb    87.18  33 i P       P         13 02 55.5 -0.8
      comp=Z,48nm,1.0s,mb5.4
BSD                               i                   13 13 26.3
AKF   Akfadou           87.20  53  P        P         13 02 58.0 +1.2
ATAF  Djebel Tarf       87.22  54  P        P         13 02 55.6 -1.3
GRA1  Grafenberg Arr    87.27  39 eP        P         13 02 57.6 +0.7
      comp=Z,303nm,1.4s,mb6.0
GRA1                              ePP       PP        13 06 18.4 -3.2
GRA1                              eSKSac    SKSac     13 13 19.1 +2.4
GRA1                              eS        S         13 13 33.3 +3.4
GRA1                              ePKKPbc   PKKPbc    13 20 45.1 -3.3
GRA1                              eP'P'               13 28 46.4
GRF   Grafenberg Arr    87.27  39 eP        P         13 02 57.6 +0.7
GRF                               e                   13 06 18.4
GRF                               e                   13 13 19.1
GRF                               eS        S         13 13 33.3 +3.4
GRF                                pmax     pmax
      comp=Z,303nm,1.4s,mb6.0
GRF   Grafenberg Arr    87.27  39 eP        P         13 02 57.6 +0.7
      comp=Z,303nm,1.4s,mb6.0
GRF                               ePP       PP        13 06 18.4 -3.2
GRF                               eSKSac    SKSac     13 13 19.1 +2.4
GRF                               eS        S         13 13 33.3 +3.4
GRF                               ePKKPbc   PKKPbc    13 20 45.1 -3.3
GRF                               ePKPPKPdf           13 28 46.4
TUE   Stuetta           87.29  42⇑iP        P         13 02 57.6 +0.6
      comp=Z,236nm,1.4s,mb5.9
TUE                               epP       pP        13 03 19.1 -0.8
TUE                               ePP       PP        13 06 21.2 -0.6
TUE                               eS        S         13 13 10.4  -20
DAVA  Damuels           87.33  41⇑iPcP      PcP       13 02 57.9 -1.3
      comp=Z,2µm,3.9s,SNR=47
DAVA                             ⇑iS        S         13 13 29.6 -1.1
      comp=Z,56nm,1.8s
TIC   Toumodi           87.41  84 eP        P         13 02 55.7 -2.5
      comp=Z,1µm,1.4s,mb6.6
TIC   Toumodi           87.41  84 ePKIKP    PKKPbc    13 20 45.6 -1.4
      comp=Z,34nm,0.7s
PEA0B Petropavlovsk-    87.42 325⇓eP        P         13 02 56.3 -1.3
PEA0B                             epP       pP        13 03 18.4 -2.0
PEA0B                             ePP       PP        13 06 23.4 +0.7
PETK  Petropavlovsk-    87.42 325  P        P         13 02 56.4 -1.1
PETK                               pmax     pmax
      comp=Z,14nm,0.8s,mb4.9
PETK                               pmax     pmax
      comp=Z,34nm,0.9s,mb5.3
PETK                               pmax     pmax
      comp=Z,3.0nm,0.8s
PETK                               MLR      MLR
      comp=Z,958nm,18.7s
PETK  Petropavlovsk-    87.42 325  P        P         13 02 56.4 -1.1
      comp=Z,14nm,0.8s,mb4.9,baz=79,slow=7.9,SNR=26
PETK                               pP       pP        13 03 19.7 -0.7
      comp=Z,34nm,0.9s,baz=77,slow=8.5,SNR=4.1
PETK                               PKKPbc   PKKPbc    13 20 44.6 -3.6
      comp=Z,2.6nm,0.8s,baz=242,slow=3.2,SNR=4.4
PETK                               LR       LR        13 42 38.2
      comp=Z,958nm,18.7s,baz=72,slow=36
TIXI  Tiksi             87.44 347⇑eP        P         13 02 55.3 -1.9
TIXI                               pmax     pmax
      comp=Z,478nm,2.5s,mb6.0
DAVOS Davos             87.44  42  P        P         13 02 58.3 +0.6
DAVOS                              S        S         13 13 21.6  -10
LIC   Lamto             87.52  84 eP        P         13 02 56.5 -2.2
      comp=Z,674nm,1.2s,mb6.2
LIC                               eMLR      MLR
      comp=Z,5µm,21.8s
LIC   Lamto             87.52  84 eP        P         13 02 56.4 -2.3
      comp=Z,724nm,1.2s,mb6.6
LIC   Lamto             87.52  84 ePKIKP    PKKPbc    13 20 45.4 -1.4
      comp=Z,43nm,1.0s
LIC   Lamto             87.52  84 eP        P         13 02 56.5 -2.2
      comp=Z,337nm,1.2s,mb6.2
LIC                                LR       LR
      comp=Z,2µm,21.8s
DAVOX Davos/Dischmat    87.52  42  P        P         13 02 58.3 +0.2
      comp=Z,50nm,1.0s,mb5.5,baz=311,slow=4.1,SNR=31
DAVOX                              S        S         13 13 21.6  -11
      comp=Z,1.3nm,0.4s,baz=80,slow=21,SNR=7.0
DAVOX                              PKKPbc   PKKPbc    13 20 43.5 -4.2
      comp=Z,2.6nm,0.8s,baz=313,slow=22,SNR=3.7
PLN   Plauen            87.53  38 eP        P         13 02 58.5 +0.4
      comp=Z,579nm,1.9s,mb6.3
PLN                               epP       pP        13 03 19.9 -1.1
DBIC  Dimbokro          87.56  84  P        P         13 02 56.5 -2.4
DBIC                               S        S         13 13 22.4  -12
DBIC                               pmax     pmax
      comp=Z,60nm,0.9s
DBIC                               smax
      comp=N,4.0nm,0.9s
DBIC                               pmax     pmax
      comp=Z,6.0nm,0.9s
DBIC                               pmax     pmax
      comp=Z,10.0nm,1.2s
DBIC  Dimbokro          87.56  84  P        P         13 02 56.5 -2.4
      comp=Z,60nm,0.9s,mb5.6,baz=269,slow=4.8,SNR=37
DBIC                               S        S         13 13 22.4  -12
      comp=Z,3.6nm,0.9s,baz=88,slow=21,SNR=13
DBIC                               PKKP     PKKPbc    13 20 41.3 -5.4
      comp=Z,6.4nm,0.9s,baz=117,slow=1.9,SNR=3.5
DBIC                               PKPPKP             13 28 51.4
      comp=Z,9.7nm,1.2s,baz=198,slow=3.4,SNR=4.0
DBIC                               LR       LR        13 37 34.3
      comp=Z,4µm,21.2s,baz=295,slow=32
WERD  Werda             87.63  38 eP        P         13 02 58.9 +0.4
      comp=Z,230nm,2.0s,mb5.9
RUE   Ruedersdorf       87.66  36 eP        P         13 02 58.6 -0.1
      comp=Z,29nm,0.6s,mb5.5
GUNZ  Gunzen            87.67  38 eP        P         13 02 59.3 +0.5
      comp=Z,88nm,1.0s,mb5.7
MANZ  Manzenberg        87.69  38 eP        P         13 02 59.4 +0.6
      comp=Z,100nm,1.4s,mb5.7
MANZ                              ePP       PP        13 06 21.7 -3.2
CLL   Collm             87.69  37⇓iP        P         13 02 58.4 -0.4
CLL                               e                   13 13 20.0
CLL                               eS        S         13 13 41.0 +7.1
CLL                                pmax     pmax
      comp=Z,41nm,2.3s,mb5.0
CLL   Collm             87.69  37 eP        P         13 02 59.1 +0.3
      comp=Z,51nm,1.0s,mb5.5
CLL                               ePP       PP        13 06 22.4 -2.5
CLL                               eSKSac    SKSac     13 13 19.2  0.0
CLL   Collm             87.69  37⇓iP        P         13 02 58.4 -0.4
      comp=Z,407nm,2.3s,mb6.0
CLL                               i pP      pP        13 03 20.2 -1.6
CLL                               esP       sP        13 03 28.0 -3.0
CLL                               e                   13 03 47.0
CLL                               epPP                13 06 47.0
CLL                               e                   13 12 55.0
CLL                               eSKSac    SKSac     13 13 20.0 +0.8
CLL                               i Sk                13 13 37.1
CLL                               eS        S         13 13 41.0 +7.1
      comp=N,4µm,20.0s
CLL                               eS        S         13 13 41.0 +7.1
      comp=E,13µm,23.8s
CLL                               esS       sS        13 14 13.0 -0.1
CLL                               eSP                 13 14 33.0
CLL                               ePS                 13 14 44.0
CLL                               ePPS                13 15 14.0
CLL                               ePKKPbc   PKKPbc    13 20 44.0 -3.4
CLL                               eSSSS               13 25 53.0
CLL                               ePKPPKPdf           13 28 47.0
      comp=Z,48nm,2.2s
CLL                                LV                 13 40 00.0
      comp=Z,5µm,21.7s
CLL   Collm             87.69  37⇓iP        P         13 02 58.4 -0.4
      comp=Z,407nm,2.3s,mb6.0
CLL                               i pP      pP        13 03 20.2 -1.6
CLL                               eSKS                13 12 55.0
CLL                               eSKKS     SKKSac    13 13 20.0 -9.1
CLL                               eS        S         13 13 41.0 +7.1
CLL                               ePKKP     PKKPbc    13 20 44.0 -3.4
CLL                               eP'P'               13 28 47.0
WERN  Wernitzgruen      87.73  38 eP        P         13 02 59.7 +0.7
      comp=Z,434nm,2.2s,mb6.1
TANN  Tannenbergstha    87.73  38 eP        P         13 02 59.6 +0.6
      comp=Z,104nm,1.3s,mb5.7
TANN                              ePP       PP        13 06 22.8 -2.4
TANN                              eSKSac    SKSac     13 13 21.2 +1.7
TANN                              eS        S         13 13 35.7 +1.4
KIC   Kosan Boka        87.75  84 eP        P         13 02 57.7 -2.2
      comp=Z,898nm,1.0s,mb6.7
KIC   Kosan Boka        87.75  84 ePKIKP    PKKPbc    13 20 45.0 -1.2
      comp=Z,54nm,1.2s
NKC   Novy Kostel       87.80  38 ePCP      PcP       13 02 59.7 -1.4
NKC                               epP       pP        13 03 21.5 -0.8
NKC                               ePP       PP        13 06 44.0  +18
NKC                               eSKS                13 13 22.3
NKC                               ex        x         13 13 40.0
NKC                                AMS      AMS       13 36 10.0
      comp=Z,9µm,26.1s
RETA  Reutte            87.82  41⇑iPcP      PcP       13 02 59.9 -1.4
      comp=Z,1µm,3.1s,SNR=14
RETA                             ⇑iS        S         13 13 38.6 +3.4
      comp=Z,29nm,1.5s
ROTZ  Rotzenmuhle       87.83  38 eP        P         13 03 00.4 +0.9
ROTZ                              ePP       PP        13 06 23.1 -3.0
ROTZ                              eSKSac    SKSac     13 13 22.5 +2.4
ROTZ                              eS        S         13 13 37.5 +2.2
FUR   Furstenfeldbru    87.88  40 eP        P         13 03 00.2 +0.4
FUR                               eSKSac    SKSac     13 13 23.5 +3.0
FUR                               eS        S         13 13 37.3 +1.5
BRMO  Bormio            87.95  42  P        P         13 03 00.7 +0.6
BOB   Bobbio (Coli)     87.97  44  P        P         13 03 00.3  0.0
FETA  Feichten          87.97  41⇑iPcP      PcP       13 03 00.4 -1.6
      comp=Z,1µm,3.6s,SNR=22
FETA                             ⇑iS        S         13 13 39.4 +2.7
      comp=Z,48nm,2.1s
SET   Setif             87.98  53  P        P         13 03 02.0 +1.5
APA   Apatity           88.02  18⇑eP        P         13 02 58.4 -1.6
APA                               e                   13 13 17.0
APA                               eS        S         13 13 36.0 -0.4
APA                               i PS                13 14 39.0
APA                                pmax     pmax
      comp=Z,2µm,5.0s
APA                                pmax     pmax
      comp=Z,39nm,1.0s,mb5.4
APA                                MLR      MLR
      comp=Z,8µm,19.0s
FBE   Freiberg          88.05  37 eP        P         13 03 01.0 +0.5
FBE                               ePP       PP        13 06 21.0 -6.8
MOTA  Moosalm           88.09  41⇑iPcP      PcP       13 03 01.1 -1.4
      comp=Z,340nm,1.9s,SNR=27
CKHR  Kef el Ahmar      88.12  53  P        P         13 03 02.5 +1.3
SQTA  Sankt Quirin      88.20  41⇑iPcP      PcP       13 03 01.8 -1.2
      comp=Z,116nm,0.9s
DFRA  Djebel Bou Aff    88.23  52  P        P         13 03 01.5 -0.2
WATA  Walderalm         88.39  41⇑iPcP      PcP       13 03 02.5 -1.3
      comp=Z,750nm,3.0s
BRG   Berggiesshubel    88.41  37⇑iP        P         13 03 02.4 +0.2
BRG                                                   13 13 21.0
BRG                                S        S         13 13 46.0 +5.3
BRG                                pmax     pmax
      comp=Z,3.0nm,1.0s
BRG                                pmax     pmax
      comp=Z,46nm,0.9s,mb5.5
BRG                                MLR      MLR
      comp=N,38µm,26.4s
BRG                                MLR      MLR
      comp=E,4µm,31.9s
BRG                                MLR      MLR
      comp=Z,4µm,27.5s
BRG   Berggiesshubel    88.41  37 eP        P         13 03 02.6 +0.4
BRG                               eSKSac    SKSac     13 13 24.1 +0.6
BRG                               eS        S         13 13 42.2 +1.5
BRG   Berggiesshubel    88.41  37⇑iP        P         13 03 02.4 +0.1
      comp=Z,77nm,1.0s,mb5.7
BRG                               i                   13 03 05.0
      comp=Z,64nm,0.9s
BRG                                pP       pP        13 03 25.0 -0.2
BRG                               i PP      sP        13 03 50.9  +16
BRG                                SKS                13 13 21.0
BRG                                S        S         13 13 46.0 +5.3
BRG
      comp=N,6µm,26.4s
BRG
      comp=E,6µm,31.9s
BRG
      comp=Z,11µm,27.5s
BRG   Berggiesshubel    88.41  37⇑iP        P         13 03 02.4 +0.1
      comp=Z,46nm,1.0s,mb5.5
BRG                               i                   13 03 05.0
BRG                                pP       pP        13 03 25.0 -0.2
BRG                               i PP      sP        13 03 50.9  +16
BRG                                LR       LR
      comp=Z,6µm,27.5s
WTTA  Wattenberg        88.45  41 i PcP     PcP       13 03 03.0 -1.1
      comp=Z,1µm,3.2s,SNR=14
WTTA                             ⇓iS        S         13 13 32.4 -8.9
      comp=Z,40nm,1.9s
PGF   Pioggiola         88.46  46⇑iP        P         13 03 01.4 -1.2
      comp=Z,226nm,1.1s,mb5.8
PGF   Pioggiola         88.46  46⇑iP        P         13 03 01.4 -1.2
PGF                                pmax     pmax
      comp=Z,113nm,1.1s,mb5.8
PGF   Pioggiola         88.46  46⇑iP        P         13 03 01.4 -1.2
      comp=Z,113nm,1.1s,mb5.8
WET   Wettzell          88.48  39 eP        P         13 03 03.4 +0.8
WET                               eSKSac    SKSac     13 13 25.7 +1.7
WET                               eS        S         13 13 43.6 +2.1
APPI  Appiano           88.49  42  P        P         13 03 02.0 -0.7
ERBM  Eremo             88.73  44  P        P         13 03 04.7 +0.8
CASM  Ain Smara         88.79  53  P        P         13 03 04.9 +0.5
CTEI  Djebel Teioual    88.79  53  P        P         13 03 05.2 +0.8
CAEH  'Ain El Ouahch    88.89  52  P        P         13 03 05.5 +0.7
KHC   Kasperske Hory    88.91  39 eP        P         13 03 04.9 +0.3
KHC                               ex        x         13 03 14.0
KHC                               epP       pP        13 03 25.7 -1.9
KHC                               ePP       PP        13 06 33.7 -1.0
KHC                               eSKS                13 13 28.5
KHC                               ex        x         13 13 50.3
KHC                                AMS      AMS       13 39 50.0
      comp=Z,11µm,21.1s
KHC   Kasperske Hory    88.91  39⇑eP        P         13 03 04.8 +0.2
KHC                               epP       pP        13 03 25.9 -1.7
KHC                               esP       sP        13 03 36.1 -0.7
KHC                               ePP       PP        13 06 32.6 -2.0
PVCC  Panska Ves        88.92  37 eP        P         13 03 04.8 +0.2
PVCC                              epP       pP        13 03 26.8 -0.8
PVCC                              eSKS                13 13 28.3
PVCC                              ex        x         13 13 50.2
PVCC                               AMS      AMS       13 44 40.0
      comp=Z,6µm,20.2s
CKFL  Kef-Lekhel        88.92  52  P        P         13 03 05.1 +0.1
KAF   Kangasniemi       88.93  24 eP        P         13 03 01.7 -2.7
KAF                                pmax     pmax
      comp=Z,32nm,0.7s,mb5.5
KAF   Kangasniemi       88.93  24 ep        P         13 03 01.7 -2.7
      comp=Z,32nm,0.7s,mb5.5
CTI   Castel Tesino     88.93  42  P        P         13 03 04.6 -0.2
CTI                                pmax     pmax
      comp=Z,32nm,0.6s,mb5.5
CTI   Castel Tesino     88.93  42  P        P         13 03 04.6 -0.2
      comp=Z,32nm,0.6s,mb5.5
RJOB  Jochberg          88.99  40 eP        P         13 03 05.6 +0.6
RJOB                              eSKSac    SKSac     13 13 28.2 +1.1
RJOB                              eS        S         13 13 48.0 +1.7
PII   Pisa              89.07  45  P        P         13 03 04.7 -0.8
PII                                pmax     pmax
      comp=Z,47nm,1.1s,mb5.4
PII   Pisa              89.07  45  P        P         13 03 04.7 -0.8
      comp=Z,47nm,1.1s,mb5.4
GEC2  GERESS Array S    89.10  39 eP        P         13 03 05.7 +0.2
GEC2                              ePP       PP        13 06 27.8 -8.4
GEC2                              eSKSac    SKSac     13 13 29.2 +1.5
GEC2                              eS        S         13 13 49.6 +2.3
GERES GERESS Array B    89.10  39  P        P         13 03 05.7 +0.2
      comp=Z,33nm,0.8s,mb5.4,baz=316,slow=3.7,SNR=136
GERES                              pP       pP        13 03 29.2 +0.7
      comp=Z,16nm,0.9s,baz=316,slow=3.7,SNR=3.0
GERES                              S        SKSac     13 13 15.8  -12
      comp=Z,0.5nm,0.3s,baz=3.7,slow=23,SNR=4.9
GERES                              PKKP     PKKPbc    13 20 40.5 -3.4
      comp=Z,4.2nm,0.8s,baz=126,slow=2.3,SNR=17
GERES                              LR       LR        13 40 41.9
      comp=Z,11µm,20.9s,baz=291,slow=34
PRU   Pruhonice         89.13  38 eP        P         13 03 05.9 +0.3
PRU                               epP       pP        13 03 28.1 -0.5
PRU                               ePP       PP        13 06 34.6 -1.8
PRU                               eSKS                13 13 29.7
PRU                               ex        x         13 13 52.4
PRU                                AMS      AMS       13 36 50.0
      comp=Z,12µm,28.1s
ABTA  Abfaltersbach     89.21  41⇑iPcP      PcP       13 03 06.3 -1.2
      comp=Z,682nm,3.6s,SNR=43
GKP   Gorka Klasztor    89.22  34 eP        P         13 03 06.1 +0.2
GKP                               epP       pP        13 03 26.9 -2.0
GKP                               eSKS                13 13 28.4
GKP                               eS        S         13 13 52.5 +4.3
GKP                                LMZ                13 33 35.4
      comp=Z,31µm,50.0s
GKP   Gorka Klasztor    89.22  34 eP        P         13 03 06.1 +0.1
GKP                               e                   13 13 28.4
GKP                               eS        S         13 13 52.5 +4.3
GKP   Gorka Klasztor    89.22  34 eP        P         13 03 06.1 +0.1
GKP                               epP       pP        13 03 26.9 -2.1
GKP                               eSKS                13 13 28.4
GKP                               eS        S         13 13 52.5 +4.3
GKP                                LR       LR
      comp=Z,31µm,50.0s
FNVD  Fontana Vidola    89.30  44  P        P         13 03 06.8 +0.2
SKR   Severo-Kuril's    89.33 323 eP        P         13 03 03.5 -3.1
SKR                               e                   13 03 15.2
SKR                               e                   13 06 38.0
SKR                               eS        SKSac     13 13 30.0 +1.0
SKR                               eSSS                13 23 30.0
SKR                                pmax     pmax
      comp=Z,130nm,0.9s,mb6.0
SKR                                pmax     pmax
      comp=Z,3µm,4.0s
SKR                                smax
      comp=N,5µm,16.0s
SKR                                smax
      comp=E,5µm,16.0s
SKR                                MLR      MLR
      comp=Z,3µm,18.0s
CMAH  Djebel Manchou    89.38  52  P        P         13 03 06.3 -0.8
ABSA  Djebel Ababsia    89.54  52  P        P         13 03 07.7 -0.2
KBA   Koelnbreinsper    89.60  41⇑iPcP      PcP       13 03 08.3 -0.9
      comp=Z,926nm,3.7s,SNR=16
KBA                              ⇑iSKSac    SKSac     13 13 35.6 +4.9
      comp=Z,64nm,2.0s
VMG   Vicchio           89.66  44  P        P         13 03 07.6 -0.7
      comp=Z,77nm,1.2s,mb5.7
UPC   Upice             89.76  37 eP        P         13 03 08.8 +0.2
UPC                               epP       pP        13 03 30.1 -1.5
UPC                               eSKS                13 13 34.2
KSP   Ksiaz             89.77  36 eP        P         13 03 08.4 -0.3
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KSP                                 epP      pP       13 03 30.3  -1.3
KSP                                 eSKS              13 13 33.6
KSP                                 eS       S        13 13 57.7  +4.2
KSP                                  LMZ              13 34 40.2
      comp=Z,26µm,35.5s
KSP   Ksiaz             89.77  36⇓eP       P        13 03 08.2  -0.4
KSP                                 epP      pP       13 03 30.4  -1.2
KSP                                 ePP      PP       13 06 35.0  -6.5
KSP                                 eSKS              13 13 31.0
KSP                                 eS       S        13 13 53.0  -0.5
VSL   Villasalto        89.82  49⇑eP       P        13 03 08.8  -0.3
      comp=Z,124nm,0.8s,mb6.1
VSL                                 epP      pP       13 03 30.2  -1.9
VSL                                 ePP      PP       13 06 43.7  +1.5
MOA   Molln             89.85  40⇑iPcP     PcP      13 03 09.3  -1.0
      comp=Z,3µm,6.5s,SNR=44
MOA                               ⇑iS       S        13 13 48.8  -5.6
      comp=Z,31nm,1.8s
GMNA  Gemona            89.85  41   P       P        13 03 08.6  -0.5
      comp=Z,506nm,0.9s,mb6.7
PTCC  Patocco-Chiusa    89.88  41   P       P        13 03 09.1  -0.1
      comp=Z,65nm,0.8s,mb5.8
MYKA  Terra Mystica     89.97  41⇑iPcP     PcP      13 03 09.6  -1.2
      comp=Z,1µm,4.8s
MYKA                              ⇓iSKSac   SKSac    13 13 33.8  +0.9
      comp=Z,64nm,1.6s
TREC  Trest             89.98  38  eP       P        13 03 09.7  +0.1
TREC                                epP      pP       13 03 30.2  -2.4
TREC                                eSKS              13 13 35.0
TREC                                ex       x        13 13 59.9
TREC                                 AMS     AMS      13 47 20.0
      comp=Z,8µm,17.6s
DPC   Dobruska-Polom    90.01  37  eP       P        13 03 09.9  +0.2
DPC                                 epP      pP       13 03 32.1  -0.6
DPC                                 eSKS              13 13 34.8
DPC                                 ex       x        13 14 00.4
DPC                                  AMS     AMS      13 41 30.0
      comp=Z,8µm,21.3s
JOF   Joensuu           90.31  22  eP       P        13 03 08.1  -2.8
JOF                                  pmax    pmax
      comp=Z,17nm,0.6s,mb5.3
JOF   Joensuu           90.31  22  ep       P        13 03 08.1  -2.8
      comp=Z,17nm,0.6s,mb5.3
VOY   Vojsko            90.37  41  eP       P        13 03 10.8  -0.7
VOY                                 e        pP       13 03 34.0  -0.5
VOY                                 e                 13 04 00.2
VOY                                 eSKSac   SKSac    13 13 36.7  +1.5
VOY                                 eS       S        13 14 02.3  +3.1
JAVS  Javornik          90.53  42  i P      P        13 03 12.6  +0.3
JAVS                                e        pP       13 03 32.1  -3.2
JAVS                                eSKSac   SKSac    13 13 38.4  +2.2
JAVS                                eS       S        13 14 03.6  +2.9
OBKA  Obir              90.59  41⇑iPcP     PcP      13 03 12.4  -1.1
      comp=Z,844nm,3.6s,SNR=36
OBKA                              ⇓iSKSac   SKSac    13 13 38.3  +1.9
VRAC  Vranov            90.62  38   P       P        13 03 11.7  -0.9
VRAC                                 S       SKSac    13 13 38.2  +1.6
VRAC                                 pmax    pmax
      comp=Z,36nm,0.9s
VRAC                                 pmax    pmax
      comp=Z,14nm,0.9s
VRAC                                 smax
      comp=N,2.0nm,0.4s
VRAC                                 pmax    pmax
      comp=Z,2.0nm,0.4s
VRAC  Vranov            90.62  38⇑iP       P        13 03 12.8  +0.2
VRAC  Vranov            90.62  38   P       P        13 03 11.7  -1.0
      comp=Z,36nm,0.9s,mb5.5,baz=281,slow=6.3,SNR=30
VRAC                                 pP      pP       13 03 35.2  -0.4
      comp=Z,14nm,0.9s,baz=302,slow=5.6,SNR=2.2
VRAC                                 S       SKSac    13 13 38.2  +1.6
      comp=Z,1.5nm,0.4s,baz=320,slow=23,SNR=9.3
VRAC                                 PKKPbc  PKKPbc   13 20 38.6  -1.6
      comp=Z,2.1nm,0.4s,baz=286,slow=3.5,SNR=3.9
VRAC  Vranov            90.62  38 ⇑P       P        13 03 12.8  +0.1
ASS   Assisi            90.75  45   P       P        13 03 12.2  -1.2
ASS                                  pmax    pmax
      comp=Z,26nm,0.5s,mb5.6
ASS   Assisi            90.75  45   P       P        13 03 12.2  -1.2
      comp=Z,26nm,0.5s,mb5.6
LJU   Ljubljana         90.77  41  i P      P        13 03 13.7  +0.3
LJU                                 e        pP       13 03 33.9  -2.4
LJU                                 i SKSac  SKSac    13 13 39.0  +1.4
LJU                                 eS       S        13 14 04.3  +1.5
CSNA  Conrad Observa    90.79  39⇑iPcP     PcP      13 03 14.0  -0.4
      comp=Z,2µm,5.0s
CSNA                              ⇑iSKSac   SKSac    13 13 40.0  +2.4
      comp=Z,32nm,1.7s
CONA  Conrad Observa    90.79  39⇑iPcP     PcP      13 03 14.0  -0.5
      comp=Z,2µm,5.0s,SNR=25
CONA                              ⇑iSKSac   SKSac    13 13 40.1  +2.5
      comp=Z,33nm,1.7s
SOKA  Soboth            90.82  41⇑iPcP     PcP      13 03 13.4  -1.2
      comp=Z,444nm,3.0s
SOKA                              ⇑iSKSac   SKSac    13 13 38.8  +1.0
      comp=Z,30nm,1.8s
SNTG  Esanatoglia       90.87  44   P       P        13 03 13.5  -0.4
      comp=Z,15nm,0.6s,mb5.3
ARSA  Arzberg           90.88  40⇑iPcP     PcP      13 03 13.8  -1.0
      comp=Z,970nm,4.3s,SNR=12
ARSA                              ⇓iSKSac   SKSac    13 13 35.0  -3.1
      comp=Z,7.4nm,1.0s
PERS  Pernice           90.89  41  i P      P        13 03 13.6  -0.4
PERS                                i        pP       13 03 34.5  -2.4
PERS                                eSKSac   SKSac    13 13 36.8  -1.4
PERS                                eS       S        13 14 04.0  +0.2
MORC  Moravsky Berou    90.97  37⇑iP       P        13 03 14.5  +0.3
MORC  Moravsky Berou    90.97  37 ⇑P       P        13 03 14.5  +0.3
KEST  Kesra             91.15  52   P       P        13 03 14.9  -0.5
      comp=Z,12nm,0.9s,mb5.0,baz=219,slow=2.8,SNR=29
KEST                                 S       SKSac    13 13 39.7  -0.5
      comp=Z,0.7nm,0.8s,baz=270,slow=21,SNR=3.2
KEST                                 PKKPbc  PKKPbc   13 20 37.9  -0.5
      comp=Z,1.3nm,0.7s,baz=202,slow=4.8,SNR=4.6
KEST                                 LR      LR       13 41 53.7
      comp=Z,2µm,20.2s,baz=243,slow=34
VSU   Vasula            91.17  27  eP       P        13 03 13.1  -1.9
VSU                                  pmax    pmax
      comp=Z,131nm,1.7s,mb5.8
RAC   Raciborz          91.20  37  eP       P        13 03 16.1  +0.8
RAC                                 ePP      pP       13 03 37.8  -0.5
RAC                                 eSKSac   SKSac    13 13 38.7  -1.1
RAC                                  LR      LR
      comp=Z,8µm,19.0s
OKC   Ostrava-Krasne    91.29  37  eP       P        13 03 16.1  +0.4
OKC                                 epP      pP       13 03 38.1  -0.6
OKC                                 eSKS              13 13 42.5
OKC                                  AMS     AMS      13 44 40.0
      comp=Z,6µm,19.2s
SOP   Sopron            91.32  39⇑ePcP     PcP      13 03 16.4  -0.4
CERT  Cerreto           91.42  45   P       P        13 03 16.0  -0.5
ZST   Bratislava        91.42  39  eP       P        13 03 17.3  +0.9
ZST                                 epP      pP       13 03 40.3  +0.9
ZST   Bratislava        91.42  39  eP       P        13 03 17.3  +0.9
      comp=Z,76nm,1.0s,mb5.8
ZST                                 e        pP       13 03 40.3  +0.9
ZST                                 eS       SKSac    13 13 41.5  +0.3
ZST                                 eScS     ScS      13 14 12.3  +0.9
ZST                                  LR      LR
      comp=Z,4µm,19.6s
BOJS  Bojanci           91.45  42  i P      P        13 03 17.0  +0.4
BOJS                                e        pP       13 03 37.2  -2.4
BOJS                                eSKSac   SKSac    13 13 42.5  +1.1
BOJS                                eS       S        13 14 12.4  +3.4
TORD  Torodi Ar. Bea    91.90  76   P       P        13 03 17.0  -2.2
      comp=Z,10nm,0.5s,mb5.3,baz=296,slow=4.8,SNR=70
TORD                                 S       SKSac    13 13 40.8  -4.3
      comp=Z,3.4nm,1.2s,baz=265,slow=2.6,SNR=5.1
TORD                                 PKKPbc  PKKPbc   13 20 35.0  -1.0
      comp=Z,6.1nm,0.8s,baz=78,slow=2.5,SNR=22
TORD                                 PKPPKP           13 28 39.6
      comp=Z,2.8nm,0.9s,baz=101,slow=1.6,SNR=4.6
TORD  Torodi Ar. Bea    91.90  76   P       P        13 03 17.0  -2.2
TORD                                 S       SKSac    13 13 40.8  -4.3
TORD                                 PKKPbc  PKKPbc   13 20 35.0  -1.0
TORD                                 P'P'             13 28 39.6
SUW   Suwalki           91.94  32  eP       P        13 03 18.1  -0.6
SUW                                 eSKS              13 13 42.8
SUW                                 eS       S        13 14 12.6  -0.5
SUW                                  LMZ              13 37 44.8
      comp=Z,19µm,29.7s
SUW   Suwalki           91.94  32  eP       P        13 03 18.1  -0.5
SUW                                 e                 13 13 42.8
SUW                                 eS       S        13 14 12.6  -0.5
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SUW   Suwalki           91.94  32⇑eP       P        13 03 18.0  -0.7
SUW                                 epP      pP       13 03 39.0  -2.6
OJC   Ojcow             92.05  36  eP       P        13 03 19.0  -0.2
OJC                                 epP      pP       13 03 40.4  -1.8
OJC                                 ePP      PP       13 06 57.6  -1.8
OJC                                 eSKSac   SKSac    13 13 42.5  -2.1
OJC                                 eSS      SS       13 20 22.3  -1.8
OJC                                  L                13 43 31.0
      comp=Z,8.1nm,22.0s
OJC   Ojcow             92.05  36  eP       P        13 03 19.0  -0.2
OJC                                 e                 13 06 57.6
OJC                                 e                 13 13 42.5
OJC                                  MLR     MLR
      comp=Z,8µm,22.0s
VYHS  Vyhne             92.31  38  eP       P        13 03 20.9  +0.4
VYHS                                eS       SKSac    13 13 46.4  +0.2
VYHS                                e                 13 14 21.1
VYHS  Vyhne             92.31  38  eP       P        13 03 20.9  +0.4
VYHS                                epP      pP       13 03 43.1  -0.4
VYHS  Vyhne             92.31  38  eP       P        13 03 20.9  +0.4
VYHS                                e        pP       13 03 43.1  -0.4
VYHS                                eS       SKSac    13 13 46.4  +0.2
VYHS                                eScS     ScS      13 14 21.1  +2.3
VYHS                                e                 13 20 32.5
VYHS                                e                 13 21 12.2
VYHS                                 LR      LR
      comp=Z,7µm,29.6s
TAM   Tamanrasset       92.40  66⇑eP       P        13 03 21.8  +0.4
TAM                                  S       SKSac    13 13 45.5  -2.2
TAM                                  pmax    pmax
      comp=Z,239nm,1.5s,mb6.2
TAM   Tamanrasset       92.40  66⇑eP       P        13 03 21.8  +0.4
      comp=Z,239nm,1.5s,mb6.2
TAM                                 epP      pP       13 03 43.2  -1.3
TAM                                  S       SKSac    13 13 45.5  -2.1
MIDA  Miranda           92.41  45   P       P        13 03 20.5  -0.6
RAO   Raoul Island      92.54 240  LR       LR       13 39 02.5
      comp=Z,2µm,18.4s,baz=72,slow=32
NIE   Niedzica          92.73  36  eP       P        13 03 23.4  +1.0
BUD   Budapest          92.90  39⇓ePcP     P        13 03 23.7  +0.5
PSB1  Pescosannita      92.97  46   P       P        13 03 23.0  -0.7
PSZ   Piszkesteto       93.21  38⇑iP       P        13 03 25.8  +1.2
PSZ   Piszkesteto       93.21  38⇓ePcP     P        13 03 25.3  +0.7
NACGM Naroch            93.22  30  eP       P        13 03 20.0  -4.5
STHS  Stebnicka Huta    93.26  36  eP       P        13 03 25.6  +0.8
STHS                                eS       SKSac    13 13 52.9  +1.5
STHS                                e                 13 14 30.9
STHS                                 pmax    pmax
      comp=Z,34nm,1.1s,mb5.6
STHS  Stebnicka Huta    93.26  36  eP       P        13 03 25.6  +0.8
STHS                                epP      pP       13 03 48.3  +0.5
STHS  Stebnicka Huta    93.26  36  eP       P        13 03 25.6  +0.8
      comp=Z,34nm,1.1s,mb5.6
STHS                                e        pP       13 03 48.3  +0.5
STHS                                eS       SKSac    13 13 52.9  +1.5
STHS                                eScS     ScS      13 14 30.9  +4.3
CSSN  Cassano Irpino    93.27  46   P       P        13 03 24.6  -0.4
      comp=Z,74nm,1.0s,mb6.0
KECS  Kecovo            93.28  37  eP       P        13 03 25.5  +0.6
KECS                                eS       SKSac    13 13 52.1  +0.6
KECS                                e                 13 14 29.5
KECS                                 pmax    pmax
      comp=Z,34nm,1.1s,mb5.6
KECS  Kecovo            93.28  37  eP       P        13 03 25.5  +0.6
KECS                                epP      pP       13 03 47.4  -0.6
KECS  Kecovo            93.28  37  eP       P        13 03 25.5  +0.6
      comp=Z,34nm,1.1s,mb5.6
KECS                                e        pP       13 03 47.4  -0.6
KECS                                eS       SKSac    13 13 52.1  +0.6
KECS                                eScS     ScS      13 14 29.5  +2.6
KECS                                e                 13 20 29.4
CRVS  Cervenica-Dubn    93.64  37  eP       P        13 03 26.8  +0.2
CRVS                                eS       SKSac    13 13 52.0  -1.5
CRVS                                e                 13 14 31.4
CRVS                                 pmax    pmax
      comp=Z,72nm,1.2s,mb5.9
CRVS  Cervenica-Dubn    93.64  37  eP       P        13 03 26.8  +0.2
CRVS                                epP      pP       13 03 48.5  -1.1
CRVS  Cervenica-Dubn    93.64  37  eP       P        13 03 26.8  +0.2
      comp=Z,72nm,1.2s,mb5.9
CRVS                                e        pP       13 03 48.5  -1.1
CRVS                                eS       SKSac    13 13 52.0  -1.5
CRVS                                eScS     ScS      13 14 31.4  +1.6
CRVS                                e                 13 20 29.0
CRVS                                 LR      LR
      comp=Z,9µm,32.8s
MGR   Morigerati        93.94  46   P       P        13 03 27.4  -0.8
MNK   Minsk             93.95  30⇑eP       P        13 03 25.0  -2.9
MNK                                 eS       S        13 14 24.0  -6.9
MNK                                 eSSS              13 24 36.0
MNK                                  pmax    pmax
      comp=Z,240nm,1.2s,mb6.4
KWP   Kalwaria Pacla    93.97  36  eP       P        13 03 28.3  +0.3
KWP                                 epP      pP       13 03 49.9  -1.2
KWP                                 eSKS              13 13 55.6
KWP                                 eS       S        13 14 35.9  +4.6
KWP                                  LMZ              13 35 47.0
      comp=Z,15µm,43.0s
KWP   Kalwaria Pacla    93.97  36⇑iP       P        13 03 28.7  +0.6
KWP   Kalwaria Pacla    93.97  36  eP       P        13 03 28.3  +0.2
KWP                                 epP      pP       13 03 49.9  -1.2
KWP                                 eSKS              13 13 55.6
KWP                                 eS       S        13 14 35.9  +4.7
MICGM Minsk             93.97  30  eP       P        13 03 25.0  -3.0
KOLS  Kolonicke sedl    94.08  36  eP       P        13 03 29.1  +0.5
KOLS                                eS       SKSac    13 13 54.9  -1.0
KOLS                                e                 13 14 27.2
KOLS                                 pmax    pmax
      comp=Z,74nm,1.3s,mb5.9
KOLS  Kolonicke sedl    94.08  36  eP       P        13 03 29.0  +0.4
KOLS                                epP      pP       13 03 50.9  -0.8
KOLS  Kolonicke sedl    94.08  36  eP       P        13 03 29.1  +0.5
      comp=Z,74nm,1.3s,mb5.8
KOLS                                e        pP       13 03 50.9  -0.8
KOLS                                eS       SKSac    13 13 54.9  -1.0
KOLS                                eScS     ScS      13 14 27.2  -6.3
KOLS                                e                 13 20 28.3
KOLS                                e                 13 30 15.2
KOLS                                 LR      LR
      comp=Z,8µm,32.3s
CUC   Castrocucco       94.18  46  eP       P        13 03 27.9  -1.4
      comp=Z,99nm,0.9s,mb6.1
VAE   Valguarnera       94.24  49   S       SKSac    13 13 53.4  -3.8
      comp=Z,5.7nm,0.4s,baz=101,slow=6.8,SNR=2.4
UZH   Uzhgorod          94.25  37⇓iP       P        13 03 29.0  -0.4
UZH                                 e                 13 07 18.0
UZH                                 i                 13 13 54.0
UZH                                 eS       S        13 14 29.0  -4.7
UZH                                  MLR     MLR
      comp=E,5µm,19.0s
UZH                                  MLR     MLR
      comp=Z,4µm,19.0s
YAK   Yakutsk           94.47 341d iP      P        13 03 28.6  -1.5
YAK                                 e                 13 07 16.4
YAK                                 ePPP              13 09 31.9
YAK                                 eSSS              13 24 53.5
YAK                                  pmax    pmax
      comp=Z,126nm,1.1s,mb6.2
YAK                                  pmax    pmax
      comp=N,25nm,1.3s
YAK                                  pmax    pmax
      comp=E,32nm,1.3s
YAK                                  pmax    pmax
      comp=Z,601nm,3.3s
YAK                                  pmax    pmax
      comp=N,257nm,3.2s
YAK                                  pmax    pmax
      comp=E,226nm,3.4s
YAK   Yakutsk           94.47 341⇓iP       P        13 03 28.7  -1.4
      comp=E,147nm,1.1s,mb6.2
YAK                               ⇑epP      pP       13 03 51.0  -2.2
KLMR  Klimovskoe        94.58  21⇓iP       P        13 03 27.5  -3.1
KLMR                                e                 13 07 16.1
KLMR                                i S      SKSac    13 13 56.9  -1.2
KLMR                                eSP      SP       13 16 00.0  +8.8
KLMR                                 pmax    pmax
      comp=Z,119nm,1.6s,mb6.1
LVV   L'vov             94.61  35  eP       P        13 03 30.1  -0.9
LVV                                 e                 13 07 23.9
LVV                                 i                 13 13 55.7
LVV                                 eS       S        13 14 30.3  -6.4
LVV                                 i PS     PS       13 15 55.5  -7.8
LVV                                  MLR     MLR
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      comp=N,4µm,22.0s
LVV                                  MLR     MLR
      comp=E,4µm,22.0s
LVV                                  MLR     MLR
      comp=Z,5µm,22.0s
TRPA  Tarpa             94.64  37⇓iP       P        13 03 30.8  -0.4
SSY   Sortino           94.85  49   P       P        13 03 32.2  -0.2
CEL   Celeste           94.98  48   P       P        13 03 31.8  -1.2
      comp=Z,12nm,0.8s,mb5.4
TIP   Timpagrande       95.19  47  eP       P        13 03 32.8  -1.1
      comp=Z,101nm,1.4s,mb6.1
TIP                                  pP      pP       13 03 56.0  -0.9
TIP                                 esP      sP       13 04 05.8  -0.3
TIP                                 ePP      PP       13 07 24.8  +0.4
BZS   Buzias            95.37  39⇑iP       P        13 03 34.9  +0.3
BZS   Buzias            95.37  39 ⇑P       P        13 03 34.9  +0.4
DRGR                    95.43  38   P       P        13 03 34.9  +0.1
DRGR                    95.43  38⇓iP       P        13 03 34.5  -0.3
DRGR                    95.43  38 ⇓P       P        13 03 34.5  -0.4
BMR   Baia Mare         95.43  37   P       P        13 03 34.9  +0.1
PRGR  Permogore         95.94  18⇓iP       P        13 03 35.4  -1.4
PRGR                                eS       SKSac    13 14 04.5  -0.8
PRGR                                 pmax    pmax
      comp=Z,127nm,0.9s,mb6.3
GZR   Gura Zlata        96.18  39⇓iP       P        13 03 38.3   0.0
GZR   Gura Zlata        96.18  39 ⇓P       P        13 03 38.3   0.0
BUR08 Bucovina Ar. S    96.42  36⇑eP       P        13 03 39.5  +0.2
BUR08                               epP      pP       13 04 00.6  -1.8
BUR08                               esP      sP       13 04 10.2  -1.3
BUR02 Bucovina Ar. S    96.45  36 ⇑P       P        13 03 39.5   0.0
BURAR Bucovina Array    96.45  36⇑iP       P        13 03 39.4   0.0
BURAR Bucovina Array    96.45  36 ⇑P       P        13 03 39.4   0.0
MDB   Medias            96.75  38   P       P        13 03 42.1  +1.2
KIEV  Kiev              96.86  32  eP       P        13 03 39.9  -1.3
KIEV                                e                 13 07 37.4
KIEV                                 pmax    pmax
      comp=Z,192nm,1.9s,mb6.2
KIEV  Kiev              96.86  32  eP       P        13 03 39.9  -1.4
      comp=Z,192nm,1.9s,mb6.2
KIEV                                epP      pP       13 04 02.5  -1.8
KIEV                                ePP      PP       13 07 37.4  +0.5
AKASG Malin Array Be    96.87  32   P       P        13 03 39.8  -1.5
AKASG                                S       SKSac    13 14 09.3  -1.3
AKASG                                pmax    pmax
      comp=Z,5.0nm,0.6s
AKASG                                pmax    pmax
      comp=Z,3.0nm,0.5s
AKASG                                pmax    pmax
      comp=Z,4.0nm,0.7s
AKASG                                MLR     MLR
      comp=Z,5µm,20.2s
AKASG Malin Array Be    96.87  32   P       P        13 03 39.8  -1.5
      comp=Z,5.2nm,0.6s,mb5.1,baz=290,slow=3.9,SNR=33
AKASG                                pP      pP       13 04 02.6  -1.7
      comp=Z,2.7nm,0.5s,baz=298,slow=4.3,SNR=3.4
AKASG                                S       SKSac    13 14 09.3  -1.2
      comp=Z,0.2nm,0.2s,baz=304,slow=5.6,SNR=6.3
AKASG                                PKKPbc  PKKPbc   13 20 19.7  -4.3
      comp=Z,4.1nm,0.7s,baz=99,slow=2.3,SNR=15
AKASG                                LR      LR       13 51 03.4
      comp=Z,5µm,20.2s,baz=300,slow=38
OHR   Ohrid             97.05  44⇑iP       P        13 03 42.8  +0.4
OHR                                 i pP     pP       13 04 14.5  +9.1
SKO   Skopje            97.06  43⇑iP       P        13 03 43.0  +0.7
SKO                                 i pP     pP       13 04 15.8   +10
KRUS  Krusevo           97.23  43⇑iP       P        13 03 42.5  -0.6
KRUS                                epP      pP       13 04 15.2  +9.0
BIA   Bitola            97.45  44  i P      P        13 03 43.5  -0.6
BIA                                 epP      pP       13 04 16.3  +9.2
OBN   Obninsk           97.49  26α iP      P        13 03 42.9  -1.0
OBN                                 e                 13 07 44.2
OBN                                 ePPP              13 09 44.2
OBN                                 i                 13 14 12.5
OBN                                 e                 13 14 59.9
OBN                                 ePS      PS       13 16 23.9   -10
OBN                                 i                 13 17 12.1
OBN                                 eSS      SS       13 21 51.3   +10
OBN                                  pmax    pmax
      comp=Z,197nm,1.7s,mb6.3
OBN   Obninsk           97.49  26  eP       P        13 03 42.0  -1.9
MOS   Moscow            97.49  25  eP       P        13 03 40.6  -3.4
MOS                                 e                 13 14 58.6
MOS                                  pmax    pmax
      comp=Z,97nm,0.8s,mb6.3
VOIR                    97.53  38⇑iP       P        13 03 45.1  +0.7
VOIR                    97.53  38 ⇑P       P        13 03 45.1  +0.7
VTS   Vitosha           97.88  41  i P      P        13 03 46.7  +0.7
MLR   Muntele Rosu      98.03  38   P       P        13 03 45.8  -0.8
MLR                                  S       SKSac    13 14 13.7  -3.0
MLR                                  pmax    pmax
      comp=Z,53nm,1.1s
MLR                                  pmax    pmax
      comp=Z,23nm,1.1s
MLR                                  smax
      comp=N,1.0nm,0.3s
MLR   Muntele Rosu      98.03  38⇓iP       P        13 03 47.0  +0.4
MLR   Muntele Rosu      98.03  38   P       P        13 03 45.8  -0.8
      comp=N,53nm,1.1s,mb6.0,baz=357,slow=1.7,SNR=16
MLR                                  pP      pP       13 04 08.9  -0.8
      comp=N,23nm,1.1s,baz=160,slow=16,SNR=2.0
MLR                                  S       SKSac    13 14 13.7  -3.0
      comp=N,1.3nm,0.3s,baz=160,slow=8.3,SNR=1.9
MLR   Muntele Rosu      98.03  38 ⇓P       P        13 03 47.0  +0.4
VAY   Valandovo         98.11  43⇑iP       P        13 03 46.7  -0.4
VRI   Vrincioaia        98.28  37⇑iP       P        13 03 49.2  +1.5
VRI   Vrincioaia        98.28  37 ⇑P       P        13 03 49.2  +1.5
MMB   Musomiste         98.73  42  i P      P        13 03 49.3  -0.5
YSS   Yuzh-Sakhalins    98.82 324⇓eP       P        13 03 48.0  -2.1
YSS                                 eS       S        13 15 05.0  -8.0
YSS                                 ePPS              13 16 42.0
YSS                                 eSS      SS       13 22 00.0  -0.1
YSS                                  pmax    pmax
      comp=Z,190nm,1.6s,mb6.4
YSS                                  pmax    pmax
      comp=Z,1µm,6.0s
YSS                                  MLR     MLR
      comp=E,2µm,20.0s
YSS                                  MLR     MLR
      comp=Z,2µm,20.0s
YSS   Yuzh-Sakhalins    98.82 324⇑eP       P        13 03 48.0  -2.1
KIS   Kishinev          98.82  35  eP       P        13 03 48.0  -2.1
KIS                                 epP      pP       13 04 15.0  +1.8
KIS   Kishinev          98.82  35  ePP      PP       13 07 37.0   -15
KIS   Kishinev          98.82  35  ePPP              13 10 20.0
KIS                                 i S      SKSac    13 14 18.0  -2.7
KIS                                 i sS     S        13 15 14.0  +0.9
KIS   Kishinev          98.82  35  i PS     SP       13 16 37.0  -1.1
KIS                                  LRM              13 44 14.0
      comp=Z,4µm,21.0s
URZ   Urewera           98.95 233   LR      LR       13 37 30.0
      comp=Z,4µm,20.8s,baz=92,slow=29
DIM   Dimitrovgrad      99.64  41  i P      Pdif     13 03 45.7  -7.9
TIRR  Tirgusor         100.06  38⇑iP       Pdif     13 03 55.2  -0.3
SOKR  Solikamsk        100.69  15  eP       Pdif     13 03 51.6  -6.7
SOKR                                                  13 08 07.8
SOKR                                 pmax    pmax
      comp=Z,30nm,1.2s
SOKR                                 MLR     MLR
      comp=Z,4µm,23.0s
VOR   Voronezh         100.97  27  eP       Pdif     13 03 58.0  -1.5
VOR                                  pmax    pmax
      comp=Z,240nm,1.6s
VSR   Storozhevoye     101.32  28  eP       Pdif     13 04 00.4  -0.7
VSR                                  pmax    pmax
      comp=Z,60nm,1.3s
VSR                                  pmax    pmax
      comp=N,30nm,1.7s
VSR                                  pmax    pmax
      comp=E,30nm,1.2s
VORD  Divnogorie       101.55  28  eP       Pdif     13 04 02.6  +0.5
VORD                                 pmax    pmax
      comp=Z,60nm,1.5s
VORD                                 pmax    pmax
      comp=N,90nm,0.8s
VORD                                 pmax    pmax
      comp=E,50nm,0.8s
HABR  Khabarovsk       101.93 329d iP      Pdif     13 04 02.7  -1.1
HABR                                e                 13 08 14.3
HABR                                ePPP              13 10 23.6
HABR                                eS       SKSac    13 14 34.7  -1.1
HABR                                eS       Sdif     13 15 38.0  -0.7
HABR                                eSP      SP       13 17 12.6  +1.5
HABR                                ePS      PS       13 17 21.1  -1.1
HABR                                 SS      SS       13 22 45.8  +2.7
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HABR				*e*SSS		13 26 39.9	
HABR				pmax	pmax		
	comp=Z,82nm,2.8s						
HABR				pmax	pmax		
	comp=E,44nm,2.1s						
HABR				pmax	pmax		
	comp=N,23nm,1.8s						
HABR				MLR	MLR		
	comp=Z,718nm,20.0s						
VRHR	**Novokhopersk**	**102.48**	**27**	*e*P	Pdif	13 04 05.0	-1.3
VRHR				pmax	pmax		
	comp=Z,40nm,1.7s						
VRHR				pmax	pmax		
	comp=N,20nm,0.7s						
VRHR				pmax	pmax		
	comp=E,20nm,0.6s						
IDI	**Anoyia**	**102.74**	**47**	S	SKSac	13 14 36.6	-3.6
	comp=E,21nm,1.1s,baz=11,slow=16,SNR=2.1						
KLR	**Kul'dur**	**102.99**	**331**	*e*P	Pdif	13 04 02.5	-6.0
KLR				*e*		13 08 26.5	
KLR				*e*S	Sdif	13 15 41.0	-6.6
KLR				*e*		13 23 09.0	
KLR				*e*		13 27 04.5	
KLR				pmax	pmax		
	comp=Z,120nm,2.2s						
VNA3	**Neumayer Olymp**	**103.69**	**161**	*e*Pdiff	Pdif	13 04 08.4	-3.2
VNA3				*e*		13 08 25.4	
VNA3				*e*		13 20 00.1	
ARU	**Arti**	**103.91**	**15**	P	Pdif	13 04 09.9	-2.7
ARU				*e*S	SKSac	13 14 42.1	-2.6
ARU				PS	PS	13 17 35.1	-7.5
ARU				MLR	MLR		
	comp=Z,8μm,22.0s						
ARU	**Arti**	**103.91**	**15**	*e*Pdif	Pdif	13 04 11.5	-1.1
	comp=Z,104nm,1.8s						
ARU				*e*PP	PP	13 08 31.1	+1.4
VNA2	**Neumayer--Watz**	**104.37**	**160**	*e*Pdiff	Pdif	13 04 11.9	-2.7
VNA2				*e*		13 08 29.0	
VNA2				*e*		13 19 58.3	
ISP	**Isparta**	**105.15**	**42**	*e*P	PKiKP	13 08 33.2	+0.6
LADK	**Ladik-KONYA**	**106.13**	**41**	*e*P	PKiKP	13 08 26.0	-8.3
KONT	**Konya--Tatoy**	**106.28**	**41**	*e*P	PP	13 08 43.5	-4.5
QSPA	**South Pole Qui**	**106.36**	**180**	*e*Pdif	Pdif	13 04 23.6	0.0
	comp=Z,14nm,0.9s						
QSPA				*e*PKPdf	PKiKP	13 08 33.4	-0.1
MDJ	**Mudanjiang**	**107.31**	**329**	Pdif	Pdif	13 04 25.4	-2.3
MDJ				PP	PP	13 08 53.9	-1.3
MDJ				S	Sdif	13 16 20.2	-3.5
MDJ				SS	SS	13 23 56.4	-0.4
MJAR	**Matsushiro Arr**	**107.72**	**318**	PP	PP	13 08 56.5	-2.1
	comp=Z,8.4nm,1.2s,baz=56,slow=5.7,SNR=5.2						
MAT	**Matsushiro**	**107.72**	**318**	PP	PP	13 08 55.0	-3.6
BNN	**Bunyan**	**107.87**	**39**	*e*P	PP	13 08 55.0	-4.5
KIV	**Kislovodsk**	**108.17**	**31**	*e*P	Pdif	13 04 31.7	+0.2
KIV				*e*		13 08 58.5	
KIV				*e*PS	PS	13 18 19.0	-8.1
KIV				*e*SS	SS	13 24 10.2	+1.8
KIV				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KIV				MLR	MLR		
	comp=Z,3μm,21.0s						
KIV	**Kislovodsk**	**108.17**	**31**	*e*PKPdf	PKiKP	13 08 37.5	-0.5
MERS	**Mersin**	**108.30**	**41**	*e*P	PP	13 08 55.0	-7.7
SARI	**SarD1z-Kayseri**	**108.50**	**39**	*e*P	PP	13 09 00.2	-3.9
LFK	**Lefkose**	**108.62**	**43**	*e*P	PP	13 08 57.0	-8.2
KTUT	**Trabzon**	**108.73**	**35**	*e*P	PP	13 09 02.1	-3.6
NVS	**Novosibirsk**	**108.98**	**2**	*e*P	Pdif	13 04 41.1	+6.0
NVS				pmax	pmax		
	comp=Z,25nm,1.9s						
NVS				pmax	pmax		
	comp=N,17nm,2.0s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.6s						
AKTO	**Aktyubinsk**	**109.09**	**18**	PKKPbc	PKKPbc	13 19 43.4	-4.7
	comp=E,3.2nm,0.9s,baz=124,slow=3.2,SNR=7.8						
KMRS	**Kahramanmaras**	**109.37**	**39**	*e*P	PP	13 08 56.3	-14
BRVK	**Borovoye**	**109.52**	**10**	P	Pdif	13 04 36.7	-0.8
BRVK				*e*		13 19 41.9	
BRVK	**Borovoye**	**109.52**	**10**	Pdif	Pdif	13 04 36.7	-0.8
BRVK				*e*PKKPbc	PKKPbc	13 19 41.9	-4.9
BRVK				*e*		13 19 53.5	
MALT	**Malatya**	**109.76**	**38**	*e*P	PP	13 08 54.6	-19
MALT	**Malatya**	**109.76**	**38**	*e*PKPdf	PKiKP	13 08 39.5	-1.7
ZAA0	**Zalesovo Array**	**109.90**	**1**	*e*Pdif	Pdif	13 04 37.7	-1.6
ZALV	**Zalesovo Beam**	**109.90**	**1**	P	Pdif	13 04 37.1	-2.1
ZALV						13 08 38.7	
ZALV						13 09 11.9	
ZALV						13 19 39.7	
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ZALV				pmax	pmax		
	comp=Z,15nm,0.8s						
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ZALV	**Zalesovo Beam**	**109.90**	**1**	Pdiff	Pdif	13 04 37.0	-2.2
	comp=Z,0.3nm,0.4s,baz=343,slow=4.6,SNR=5.9						
ZALV				pPdiff		13 05 03.5	
	comp=Z,1.5nm,0.6s,baz=350,slow=4.5,SNR=6.1						
ZALV				PKiKP	PKiKP	13 08 38.6	-2.3
	comp=Z,5.3nm,0.9s,baz=349,slow=1.5,SNR=5.5						
ZALV				PP	PP	13 09 11.8	-1.6
	comp=Z,15nm,0.8s,baz=4.6,slow=6.3,SNR=5.9						
ZALV				PKKPbc	PKKPbc	13 19 39.6	-6.0
	comp=Z,2.2nm,0.8s,baz=197,slow=3.1,SNR=4.7						
CN2	**Changchun**	**109.93**	**331**	*e*Pdif	Pdif	13 04 35.3	-4.0
CN2				PP	PP	13 09 14.2	0.0
CN2				SKS	SKSdf	13 15 36.6	-9.2
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,2μm,20.0s						
CN2				LR	LR		
	comp=E,2μm,20.0s						
CN2				LR	LR		
	comp=Z,2μm,20.0s						
TLY	**Talaya**	**110.41**	**348**	*e*P	Pdif	13 04 41.8	+0.3
TLY				*e*PS	PS	13 18 37.0	-11
TLY				pmax	pmax		
	comp=Z,15nm,1.8s						
URFA	**Urfa**	**110.57**	**38**	*e*P	PP	13 09 14.3	-4.8
AB31	**Akbulak array**	**110.71**	**18**	PKIKP	PKiKP	13 08 41.1	-1.5
AB31				pmax	pmax		
	comp=Z,20nm,1.2s						
KARS	**Kars**	**110.79**	**33**	*e*P	PP	13 09 17.4	-3.1
BHL	**Bhannes**	**110.85**	**43**	*e*P	PP	13 09 08.2	-13
MMAI	**Mount Meron Ar**	**111.22**	**44**	PKKPbc	PKKPbc	13 19 37.5	-3.2
	comp=Z,6.9nm,0.8s,baz=204,slow=6.0,SNR=6.7						
MAK	**Makhachkala**	**111.25**	**29**	*e*P	Pdif	13 04 49.2	+4.0
MAK				*i*		13 08 41.7	
MAK				*e*		13 09 20.9	
MAK				*e*PPP		13 11 51.1	
MAK				*i*		13 15 12.9	
MAK				*i*		13 15 51.5	
MAK				*e*SP	SP	13 18 44.7	-1.4
MAK				*i* PS	PS	13 18 56.9	+0.3
MAK				pmax	pmax		
	comp=Z,173nm,1.2s						
MAK				MLR	MLR		
	comp=Z,5μm,24.0s						
AGRB	**Hanur-Agry**	**111.48**	**34**	*e*P	PP	13 09 20.8	-4.7
ZAK	**Zakamensk**	**111.71**	**348**	*e*P	Pdif	13 04 46.6	-0.7
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.6s						
GNI	**Garni**	**111.99**	**33**	PKKPbc	PKKPbc	13 19 34.8	-3.6
	comp=Z,2.6nm,0.5s,baz=184,slow=6.3,SNR=3.2						
CLDR	**Caldiran**	**112.29**	**34**	*e*P	PP	13 09 28.5	-2.8
VANB	**Van**	**112.39**	**35**	*e*P	PP	13 09 25.9	-6.1
ASF	**Jabal al Asfar**	**112.74**	**44**	PP	PP	13 09 29.3	-5.6
	comp=Z,2.7nm,0.7s,baz=329,slow=5.9,SNR=2.0						
ASF				PKKPbc	PKKPbc	13 19 32.9	-2.8
	comp=Z,0.9nm,0.3s,baz=36,slow=3.9,SNR=4.0						
KURK	**Kurchatov**	**112.85**	**5**	P	Pdif	13 04 52.9	+0.5
KURK						13 08 44.8	
KURK						13 09 35.1	
KURK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KURK				pmax	pmax		
	comp=Z,11nm,0.9s						
KURK				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KURK				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KURK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KURK	**Kurchatov**	**112.85**	**5**	Pdiff	Pdif	13 04 52.9	+0.5
	comp=Z,0.2nm,0.3s,baz=349,slow=4.6,SNR=3.2						
KURK				pPdiff		13 05 15.2	
	comp=Z,2.0nm,0.9s,baz=338,slow=5.1,SNR=4.6						
KURK				PKiKP	PKiKP	13 08 44.8	-1.9
	comp=Z,11nm,0.9s,baz=353,slow=1.8,SNR=28						
KURK				PP	PP	13 09 35.1	+0.5
	comp=Z,7.9nm,0.9s,baz=357,slow=6.4,SNR=5.1						
KURK				PKKPbc	PKKPbc	13 19 31.6	-4.4
	comp=Z,7.7nm,0.9s,baz=195,slow=3.5,SNR=19						
KURK				PKPPKP		13 27 57.3	
	comp=Z,0.6nm,0.3s,baz=230,slow=2.1,SNR=5.7						
KURK	**Kurchatov**	**112.85**	**5**	Pdif	Pdif	13 04 52.9	+0.5
KURK				*e*PKPdf	PKiKP	13 08 45.0	-1.6
ULN	**Ulaanbaatar**	**113.22**	**345**	*e*P	Pdif	13 04 54.6	+0.6
ULN				*i*		13 08 45.6	
ULN	**Ulaanbaatar**	**113.22**	**345**	*e*Pdif	Pdif	13 04 54.6	+0.6
ULN				*i* PKP	PKiKP	13 08 45.6	-1.8
ULN				*e*PKPdf	PKiKP	13 08 45.9	-1.6
KSRS	**Korea Array**	**113.32**	**324**	*i* PKIKP	PKiKP	13 08 46.0	-1.9
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.7s						
KSRS				pmax	pmax		
	comp=Z,5.0nm,1.2s						
KSRS	**Korea Array**	**113.32**	**324**	PKiKP	PKiKP	13 08 46.0	-2.0
	comp=Z,4.9nm,0.7s,baz=16,slow=1.8,SNR=14						
KSRS				PKKPbc	PKKPbc	13 19 30.1	-3.8
	comp=Z,5.1nm,1.2s,baz=154,slow=29,SNR=2.7						
SONM	**Songino Array**	**113.41**	**345**	P	Pdif	13 04 54.4	-0.4
SONM						13 08 46.2	
SONM				pmax	pmax		
	comp=Z,7.0nm,0.9s						
SONM				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SONM				pmax	pmax		
	comp=Z,8.0nm,0.8s						
SONM	**Songino Array**	**113.41**	**345**	Pdiff	Pdif	13 04 54.4	-0.5
	comp=Z,0.4nm,0.8s,baz=25,slow=3.9,SNR=4.2						
SONM				PKiKP	PKiKP	13 08 46.2	-1.6
	comp=Z,6.7nm,0.9s,baz=340,slow=0.7,SNR=16						
SONM				PP	PP	13 09 34.7	-4.1
	comp=Z,5.7nm,0.9s,baz=18,slow=2.2,SNR=3.7						
SONM				PKKPbc	PKKPbc	13 19 28.2	-5.8
	comp=Z,7.8nm,0.8s,baz=202,slow=2.7,SNR=23						
DL2	**Dalian**	**115.53**	**330**	Pdif	Pdif	13 05 10.2	+6.0
DL2				S	Sdif	13 17 29.5	-2.6
DL2				SS	SS	13 25 44.8	-1.4
DL2				AMB	AMB		
	comp=Z,400nm,4.2s						
DL2				smax			
	comp=N,700nm,19.8s						
DL2				smax			
	comp=E,800nm,20.7s						
DL2				SMZ			
	comp=E,2μm,39.0s						
MK31	**Makanchi Array**	**117.00**	**3**	*i* PKIKP	PKPdf	13 08 50.8	-3.9
MK31				pmax	pmax		
	comp=Z,39nm,1.3s						
MKAR	**Makanchi Array**	**117.00**	**3**	PKIKP	PKPdf	13 08 51.8	-2.9
MKAR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MKAR				pmax	pmax		
	comp=Z,13nm,0.9s						
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	**Makanchi Array**	**117.00**	**3**	PKP	PKPdf	13 08 51.8	-2.9
	comp=Z,9.2nm,0.8s,baz=359,slow=2.0,SNR=29						
MKAR				pPKP	pPKPdf	13 09 15.7	-3.0
	comp=Z,4.6nm,0.8s,baz=314,slow=2.3,SNR=5.0						
MKAR				PP	PP	13 10 00.2	-3.5
	comp=Z,12nm,0.9s,baz=12,slow=6.2,SNR=5.9						
MKAR				PKKPbc	PKKPbc	13 19 16.4	-5.2
	comp=Z,6.0nm,0.9s,baz=138,slow=4.1,SNR=14						
MKAR				PKPPKP		13 27 52.5	
	comp=Z,0.7nm,0.9s,baz=174,slow=2.2,SNR=4.2						
BJI	**Beijing**	**117.08**	**334**	PKP	PKPdf	13 08 52.5	-2.6
BJI				SS	SS	13 26 05.3	-0.9
BJI				AMB	AMB		
	comp=Z,3μm,9.5s						
BJI				LR	LR		
	comp=N,3μm,30.2s						
BJI				LR	LR		
	comp=E,3μm,28.0s						
BJI				LR	LR		
	comp=Z,8μm,29.1s						
BJT	**Baijiatuau**	**117.10**	**334**	*e*PKPdf	PKPdf	13 08 52.6	-2.6
BJT				*e*pPKPdf	pPKPdf	13 09 18.1	-1.0
HHC	**Hu-ho-hao-te**	**118.18**	**338**	*e*PKP	PKPdf	13 08 55.7	-1.5
HHC				sPKP		13 09 33.3	
HHC				PP	PP	13 10 13.6	+1.3
HHC				PKS		13 12 30.8	
HHC				SKS	SKSdf	13 15 57.3	-4.5
HHC				SKKS	SKKSac	13 16 57.8	-8.2
HHC				SS	SS	13 26 16.2	-4.0
HHC				AMB	AMB		
	comp=Z,2μm,11.2s						
HHC				LR	LR		
	comp=N,2μm,24.3s						
HHC				LR	LR		
	comp=E,2μm,22.5s						
HHC				LR	LR		
	comp=Z,7μm,29.7s						
DRV	**Dumont d'Urvil**	**118.76**	**202**	Pdif	Pdif	13 05 23.0	+4.4
DRV	**Dumont d'Urvil**	**118.76**	**202**	PP	PP	13 10 10.0	-6.7
DRV				SP	SP	13 20 04.0	+10
DRV				R		13 46 00.0	
KK31	**Karatay Array**	**119.13**	**13**	*i* PKIKP	PKPdf	13 08 56.6	-2.3
KK31				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SUR	**Sutherland**	**119.58**	**118**	*e*PKPdf	PKPdf	13 08 59.2	-0.8
USP	**Ospenovka**	**119.70**	**9**	P	PKPdf	13 08 59.0	-1.1
	SNR=34						
USP	**Ospenovka**	**119.70**	**9**	P	PKKPbc	13 19 07.2	-4.6
	SNR=7.1						
UPI	**Upington**	**119.80**	**114**	⇑*i*P	PKPdf	13 08 58.1	-2.4
UPI				AMS	AMS	13 58 11.7	
	comp=Z,4μm,20.5s						
CHMS	**Chumysh**	**120.01**	**9**	P	PKPdf	13 08 59.9	-0.7
	SNR=7.1						
CHMS	**Chumysh**	**120.01**	**9**	P	PKKPbc	13 19 07.0	-3.7
	SNR=5.6						
WMQ	**Urumqi**	**120.02**	**358**	PKP	PKPdf	13 08 58.8	-1.8
WMQ				PKS		13 12 34.0	
WMQ				SKS	SKSdf	13 15 58.0	-7.1
WMQ				SKKS	SKKSac	13 17 08.0	-10
WMQ				LR	LR		
	comp=N,8μm,29.6s						
WMQ				AMB	AMB		
	comp=Z,2μm,9.5s						
WMQ				LR	LR		
	comp=E,4μm,23.0s						
WMQ				LR	LR		
	comp=Z,6μm,29.7s						
FRU	**Bishkek**	**120.15**	**9**	*e*PKIKP	PKPdf	13 08 59.0	-1.9
FRU				*e*		13 10 28.0	
EKS2	**Erkin-Say**	**120.18**	**10**	P	PKPdf	13 09 00.3	-0.7
	SNR=28						
EKS2	**Erkin-Say**	**120.18**	**10**	P	PKKPbc	13 19 06.3	-3.8
	SNR=5.3						
EKS2	**Erkin-Say**	**120.18**	**10**	*e*PKPdf	PKPdf	13 09 00.1	-0.9
EKS2				*e*pPKPdf	pPKPdf	13 09 24.3	-0.7
TKM2	**Tokmak 2**	**120.21**	**9**	P	PKPdf	13 08 60.0	-1.1
	SNR=23						
TKM2	**Tokmak 2**	**120.21**	**9**	*e*PKPdf	PKPdf	13 08 59.8	-1.2
TKM2				*e*pPKPdf	pPKPdf	13 09 24.1	-0.9
AAK	**Ala-Archa**	**120.32**	**10**	*d i*PKIKP	PKPdf	13 08 59.8	-1.5
AAK	**Ala-Archa**	**120.32**	**10**	P	PKPdf	13 09 00.4	-0.9
	SNR=16						
AAK	**Ala-Archa**	**120.32**	**10**	P	PKKPbc	13 19 06.5	-3.0
	SNR=6.8						
AAK	**Ala-Archa**	**120.32**	**10**	*i* PKP	PKPdf	13 08 59.9	-1.4
AAK				*e*PKPdf	PKPdf	13 09 00.2	-1.1
AAK				*e*pPKPdf	pPKPdf	13 09 25.3	+0.1
AAK				*e*PP	PP	13 10 26.2	-0.6
AAK	**Ala-Archa**	**120.32**	**10**	⇑P	PKPdf	13 08 59.1	-2.1
	SNR=12						
AAK				⇑P		13 08 59.1	
	SNR=12						
KBK	**Karagaybulak**	**120.37**	**9**	P	PKPdf	13 09 00.4	-1.0
	SNR=15						
KBK	**Karagaybulak**	**120.37**	**9**	P	PKKPbc	13 19 06.4	-2.9
	SNR=8.7						
AML	**Almayashu**	**120.68**	**10**	P	PKPdf	13 09 01.5	-0.4
	SNR=26						
AML	**Almayashu**	**120.68**	**10**	P	PKKPbc	13 19 05.3	-2.8
	SNR=13						
AML	**Almayashu**	**120.68**	**10**	*e*PKPdf	PKPdf	13 09 01.6	-0.4
AML				*e*pPKPdf	pPKPdf	13 09 25.4	-0.6
AML				*e*PKKPbc	PKKPbc	13 19 05.0	-3.2
CNB	**Canberra Magne**	**120.71**	**238**	*e*P	PKPdf	13 09 00.2	-1.9
CNB				*e*pPKP	pPKPdf	13 09 44.9	+19
UCH	**Uchtor**	**120.72**	**10**	P	PKPdf	13 09 01.7	-0.4
	SNR=28						
UCH	**Uchtor**	**120.72**	**10**	P	PKKPbc	13 19 05.4	-2.6
	SNR=9.8						
UCH	**Uchtor**	**120.72**	**10**	*e*PKPdf	PKPdf	13 09 01.9	-0.2
ULHL	**Ulahol**	**120.96**	**8**	P	PKPdf	13 09 02.4	-0.1
	SNR=24						
ULHL	**Ulahol**	**120.96**	**8**	P	PKKPbc	13 19 03.9	-3.2
	SNR=6.3						
MIB	**Mutribah**	**120.97**	**39**	*e*P	PKPdf	13 08 60.0	-2.9
MIB				AMb	AMB	13 09 02.4	
	comp=Z,61nm,1.0s						
KZA	**Kyzart**	**120.98**	**9**	P	PKPdf	13 09 02.4	-0.2
	SNR=16						
KZA	**Kyzart**	**120.98**	**9**	P	PKKPbc	13 19 04.0	-3.0
	SNR=10						
PKA	**Prieska**	**121.17**	**115**	⇓*i*P	PKPdf	13 09 01.0	-2.1
PKA				AMS	AMS	13 58 40.3	
	comp=Z,1μm,20.1s						
NAY	**Al-Naaiem**	**121.30**	**40**	*e*P	PKPdf	13 09 00.3	-3.2
NAY				AMb	AMB	13 09 02.5	
	comp=Z,38nm,1.1s						
KBD	**Kabd**	**121.63**	**39**	*e*P	PKPdf	13 09 00.5	-3.7
KBD				AMb	AMB	13 09 03.9	
	comp=Z,74nm,1.5s						
SSE	**Sheshan**	**121.76**	**324**	⇓PKP	PKPdf	13 09 01.7	-2.6
SSE				PP	PP	13 10 40.2	+2.9
SSE				SS	SS	13 27 03.7	-3.4
SSE				AMB	AMB		
	comp=Z,320nm,12.0s						
SSE				LR	LR		
	comp=N,2μm,29.0s						
SSE				LR	LR		
	comp=E,1μm,28.9s						
SSE				LR	LR		
	comp=Z,2μm,23.9s						
NJ2	**Nanjing**	**122.29**	**327**	*e*PKP	PKPdf	13 09 04.1	-1.3
NJ2				sPKP		13 09 41.4	
NJ2				PP	PP	13 10 45.5	+4.6
NJ2				SKS	SKSdf	13 16 03.0	-6.9
NJ2				SKKS	SKKSac	13 17 28.0	-5.2
NJ2				SS	SS	13 27 12.0	-1.7
NJ2				AMB	AMB		
	comp=Z,440nm,7.7s						
NJ2				LR	LR		
	comp=N,11μm,28.4s						
NJ2				LR	LR		
	comp=E,11μm,25.4s						
NJ2				LR	LR		
	comp=Z,12μm,25.4s						
CTA	**Charters Tower**	**122.70**	**256**	*e*PKP	PKPdf	13 09 04.0	-2.3
	comp=Z,25nm,0.9s						
CTA				*e*pPKP	pPKPdf	13 09 29.7	-0.6
CTA				*e*PP	PP	13 10 40.7	-4.5
GTA	**Gaotai**	**122.92**	**347**	PKP	PKPdf	13 09 04.3	-2.0
GTA				sPKP		13 09 41.6	
GTA				PKS		13 12 40.4	
GTA				SKKS	SKKSac	13 17 32.8	-4.1
GTA				AMB	AMB		
	comp=Z,860nm,6.3s						
GTA				LR	LR		
	comp=N,1μm,24.9s						
GTA				LR	LR		
	comp=E,1μm,28.2s						
GTA				LR	LR		
	comp=Z,3μm,29.4s						
BOSA	**Boshof**	**123.33**	**114**	PKIKP	PKPdf	13 09 05.2	-2.1
BOSA				pmax	pmax		
	comp=Z,56nm,0.9s						
BOSA				pmax	pmax		
	comp=Z,27nm,0.9s						
BOSA	**Boshof**	**123.33**	**114**	PKP	PKPdf	13 09 05.2	-2.2
	comp=Z,56nm,0.9s,baz=290,slow=2.6,SNR=50						
BOSA				pPKP	pPKPdf	13 09 29.8	-1.5
	comp=Z,27nm,0.9s,baz=217,slow=1.6,SNR=3.2						
BOSA	**Boshof**	**123.33**	**114**	PKP	PKPdf	13 09 05.2	-2.2
BOSA				pPKP	pPKPdf	13 09 29.8	-1.5
LBTB	**Lobatse**	**123.47**	**109**	*e*PKPdf	PKPdf	13 09 06.2	-1.5
LBTB				*e*pPKPdf	pPKPdf	13 09 29.5	-2.2
HVD	**Gariep Dam**	**123.56**	**116**	*e*P	PKPdf	13 09 06.4	-1.3
MBAR	**Mbarara**	**123.58**	**80**	*d i*PKIKP	PKPdf	13 09 06.6	-1.7
SOE	**Somerset East**	**123.60**	**119**	⇑*i*P	PKPdf	13 09 06.2	-1.6
KSH	**Kashi**	**123.60**	**9**	*i* PKP	PKPdf	13 09 07.4	-0.2
KSH				*e*PKS		13 12 42.3	
KSH				SKS	SKSdf	13 16 07.1	-5.0
KSH				AMB	AMB		
	comp=Z,2μm,9.3s						
KSH				LR	LR		
	comp=N,9μm,19.3s						
KSH				LR	LR		
	comp=E,9μm,20.0s						
KSH				LR	LR		
	comp=Z,12μm,20.3s						
TOO	**Toolangi**	**123.71**	**236**	*e*PKP	PKPdf	13 09 05.3	-2.5
TOO				*e*		13 09 35.3	
GRM	**Grahamstown**	**124.37**	**119**	⇓*i*P	PKPdf	13 09 07.4	-1.8
GRM				AMS	AMS	13 56 47.5	
	comp=Z,4μm,19.4s						
COEN	**Coen**	**124.69**	**264**	*e*PKPdf	PKPdf	13 09 08.2	-2.1
COEN				*e*pPKPdf	pPKPdf	13 09 33.1	-1.1
LSZ	**Lusaka**	**124.77**	**97**	*e*PKPdf	PKPdf	13 09 09.4	-1.0
LSZ				*e*pPKPdf	pPKPdf	13 09 35.3	+0.9
LSZ	**Lusaka**	**124.77**	**97**	*e*P	PKPdf	13 09 08.5	-1.9
LSZ				AMS	AMS	14 11 46.1	
	comp=Z,20μm,17.9s						
LZH	**Lanzhou**	**125.04**	**342**	Pdif	Pdif	13 05 44.2	-2.3
LZH				PKP	PKPdf	13 09 09.1	-1.4
LZH				PP	PP	13 11 01.2	+2.4
LZH				AMB	AMB		
	comp=Z,1μm,5.8s						
LZH				LR	LR		
	comp=N,6μm,19.0s						
LZH				LR	LR		
	comp=Z,6μm,20.5s						
PRYS	**Parys**	**125.14**	**112**	⇓*i*P	PKPdf	13 09 08.9	-2.0
PRYS				AMS	AMS	14 01 45.9	
	comp=Z,3μm,20.3s						
XAN	**Xi'an**	**125.17**	**336**	PKP	PKPdf	13 09 08.4	-2.4
XAN				sPKP		13 09 44.2	
XAN				PP	PP	13 11 00.2	+0.3
XAN				PKS		13 12 44.6	
XAN				SKS	SKSdf	13 16 08.6	-6.7
XAN				SKKS	SKKSac	13 17 41.3	-10
XAN				AMB	AMB		
	comp=Z,2μm,17.4s						
XAN				LR	LR		
	comp=N,2μm,22.0s						
XAN				LR	LR		
	comp=E,4μm,23.3s						
XAN				LR	LR		
	comp=Z,5μm,21.5s						
SEK	**Senekal**	**125.41**	**113**	*e*P	PKPdf	13 09 10.0	-1.3
WHN	**Wuhan**	**125.79**	**329**	⇓PKP	PKPdf	13 09 08.4	-3.7
WHN				sPKP		13 09 37.8	
WHN				SS	SS	13 27 59.3	+1.6
WHN				LR	LR		
	comp=Z,5μm,20.1s						
ERPM	**east rand prop**	**125.91**	**111**	*e*P	PKPdf	13 09 10.6	-1.8
ERPM				AMS	AMS	14 01 34.9	
	comp=Z,3μm,20.2s						
SLR	**Silverton**	**125.93**	**110**	*e*P	PKPdf	13 09 10.7	-1.7
SLR				AMS	AMS	13 55 05.2	
	comp=Z,3μm,24.0s						
MAW	**Mawson**	**126.76**	**169**	PKIKP	PKPdf	13 09 10.9	-1.8
MAW				pmax	pmax		
	comp=Z,60nm,0.9s						
MAW				pmax	pmax		
	comp=N,48nm,1.2s						
MAW	**Mawson**	**126.76**	**169**	*e*PKP	PKPdf	13 09 10.8	-1.9
	comp=N,54nm,0.9s						
MAW	**Mawson**	**126.76**	**169**	PKP	PKPdf	13 09 10.9	-1.9
	comp=N,60nm,0.9s,baz=233,slow=2.9,SNR=17						
MAW				SKP		13 12 48.3	
	comp=N,48nm,1.2s,baz=272,slow=5.0,SNR=3.6						

KBL	Kabul	126.88	17	ePKPdf	PKPdf	13 09 13.2	-0.9
KBL				epPKPdf	pPKPdf	13 09 37.2	-0.8
KBL				ePP	PP	13 11 11.8	+0.8
SSLB	Suanglung	127.28	318	ePKPdf	PKPdf	13 09 13.0	-2.1
STKA	Stephens Creek	127.32	242	ePKP	PKPdf	13 09 12.5	-2.4
	comp=N,60nm,0.9s						
STKA				epPKP	pPKPdf	13 09 37.9	-0.9
STKA	Stephens Creek	127.32	242	PKP	PKPdf	13 09 12.7	-2.2
	comp=N,66nm,0.9s,baz=42,slow=1.8,SNR=52						
STKA				pPKP	pPKPdf	13 09 38.1	-0.7
	comp=N,14nm,0.8s,baz=41,slow=5.2,SNR=2.4						
MSNA	Messina	127.34	106	⇑iP	PKPdf	13 09 13.6	-1.6
MSNA				AMS	AMS	14 01 26.2	
	comp=Z,4µm,23.5s						
CASY	Casey	127.56	192	ePKP	PKPdf	13 09 12.5	-1.8
CASY	Casey	127.56	192	ePKPdf	PKPdf	13 09 12.8	-1.5
QZH	Quanzhou	127.89	321	ePKP	PKPdf	13 09 16.0	-0.2
QZH				PP	PP	13 11 27.1	+8.7
QZH				LR	LR		
	comp=Z,4µm,26.1s						
MOPA	Mopani	128.67	107	⇑iP	PKPdf	13 09 16.0	-1.7
MOPA				AMS	AMS	14 03 32.3	
	comp=Z,2µm,19.4s						
POGA	Pongola	128.94	112	⇑iP	PKPdf	13 09 16.7	-1.4
POGA				AMS	AMS	14 04 03.7	
	comp=Z,5µm,18.9s						
BANOM	Banah	129.07	35	P	PKPdf	13 09 16.9	-1.6
	SNR=10						
NAZ	Nazwa, Dubai	129.45	36	P	PKPdf	13 09 17.7	-1.5
	SNR=19						
FAQ	Al Faqa, Dubai	129.60	36	P	PKPdf	13 09 17.9	-1.7
	SNR=15						
HATD	Hatta, Dubai	129.84	36	P	PKPdf	13 09 18.3	-1.7
	SNR=28						
CD2	Chengdu	129.85	340	PKP	PKPdf	13 09 18.3	-1.5
CD2				sPKP		13 09 51.8	
CD2				PP	PP	13 11 31.1	+0.5
CD2				PKS		13 12 54.3	
CD2				SKS	SKSdf	13 16 18.2	-5.9
CD2				SKKS	SKKSac	13 18 13.8	-7.2
CD2				AMB	AMB		
	comp=Z,2µm,11.9s						
CD2				LR	LR		
	comp=N,2µm,28.5s						
CD2				LR	LR		
	comp=Z,6µm,28.2s						
KMBO	Kilima Mbogo	129.88	77	PKIKP	PKPdf	13 09 20.0	-0.3
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.3s						
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KMBO				pmax	pmax		
	comp=N,12nm,0.5s						
KMBO	Kilima Mbogo	129.88	77	PKP	PKPdf	13 09 19.9	-0.4
	comp=N,5.3nm,0.3s,baz=258,slow=1.0,SNR=8.0						
KMBO				pPKP	pPKPdf	13 09 45.0	+0.7
	comp=N,7.2nm,0.6s,baz=189,slow=2.1,SNR=1.4						
KMBO				SKPbc		13 12 36.2	
	comp=N,12nm,0.5s,baz=122,slow=0.5,SNR=9.1						
QUE	Quetta	130.24	21	eP	PKPdf	13 09 30.0	+9.4
QUE				eS	SKPdf	13 12 47.0	-1.4
THN	Thein Dam	130.47	11	ePKP	PKPdf	13 09 18.3	-2.7
ARQ	Araqi	131.22	37	P	PKPdf	13 09 21.0	-1.7
	SNR=15						
HOQ	Hoqain	131.48	36	P	PKPdf	13 09 21.1	-2.0
	SNR=10						
KLP	Kalpa	131.77	9	ePKP	PKPdf	13 09 22.6	-0.8
BIDO	Bidbid	131.98	35	P	PKPdf	13 09 22.8	-1.2
	SNR=9.7						
BSY	Bisya	132.07	36	P	PKPdf	13 09 22.2	-2.1
	SNR=24						
SMDO	Samad	132.30	35	P	PKPdf	13 09 23.5	-1.1
	SNR=23						
JMDO	Jabal Madar	132.88	36	P	PKPdf	13 09 23.8	-2.0
	SNR=5.8						
JOSI	Joshimath	132.91	7	ePKP	PKPdf	13 09 24.5	-1.2
WHFO	Wadi Hawf	133.55	44	P	PKPdf	13 09 25.5	-1.7
	SNR=5.2						
ABTO	Aybut	133.63	45	P	PKPdf	13 09 26.5	-0.8
	SNR=6.2						
WRAB	Tennant Creek	133.82	258	ePKIKP	PKPdf	13 09 25.9	-1.6
WRA	Warramunga Arr	133.84	258	PKHKP		13 09 08.3	
WRA						13 09 25.6	
WRA						13 11 54.1	
WRA				pmax	pmax		
	comp=Z,3.0nm,1.1s						
WRA				pmax	pmax		
	comp=Z,58nm,1.0s						
WRA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
WRA				pmax	pmax		
	comp=Z,12nm,1.2s						
WRA	Warramunga Arr	133.84	258	PKhKP		13 09 08.3	
	comp=Z,3.3nm,1.1s,baz=89,slow=3.4,SNR=9.8						
WRA				PKP	PKPdf	13 09 25.6	-1.9
	comp=Z,58nm,1.0s,baz=81,slow=2.4,SNR=64						
WRA				pPKP	pPKPdf	13 09 50.1	-1.4
	comp=Z,6.0nm,0.5s,baz=350,slow=0.8,SNR=2.0						
WRA				PP	PP	13 11 54.1	-4.2
	comp=Z,12nm,1.2s,baz=80,slow=7.1,SNR=5.6						
LSA	Lhasa	133.84	353	PKP	PKPdf	13 09 26.3	-1.1
LSA				PP	PP	13 11 59.3	+3.2
LSA				SS	SS	13 29 39.7	+4.0
LSA				LR	LR		
	comp=E,4µm,32.2s						
LSA				LR	LR		
	comp=Z,6µm,30.5s						
LSA	Lhasa	133.84	353	ePKPdf	PKPdf	13 09 27.0	-0.4
LSA				epPKPdf	pPKPdf	13 09 52.1	+0.7
LSA				ePP	PP	13 11 57.4	+1.3
LGTI	Lohaghat	134.08	7	ePKP	PKPdf	13 09 24.3	-3.6
LGTI				ex	x	13 11 54.5	
BHGR	Bahadurgarh	134.34	11	ex	x	13 09 36.2	
ASAR	Alice Springs	134.37	253	PKHKP		13 09 08.4	
ASAR						13 09 25.9	
ASAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ASAR				pmax	pmax		
	comp=Z,18nm,0.7s						
ASAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ASAR	Alice Springs	134.37	253	PKhKP		13 09 08.3	
	comp=Z,3.8nm,0.9s,baz=96,slow=2.9,SNR=16						
ASAR				PKP	PKPdf	13 09 25.9	-2.6
	comp=Z,18nm,0.7s,baz=84,slow=1.8,SNR=31						
ASAR				pPKP	pPKPdf	13 09 51.7	-0.7
	comp=Z,8.4nm,0.8s,baz=75,slow=1.8,SNR=1.5						
NDI	New Delhi	134.40	11	ePKP	PKPdf	13 09 26.0	-2.5
NDI				ex	x	13 09 56.0	
AYAN	Aya Nagar	134.58	11	ePKP	PKPdf	13 09 26.8	-2.0
KHET	Khetri	134.72	12	ePKP	PKPdf	13 09 27.5	-1.6
KAKA	Kakadu	134.74	268	ePKP	PKPdf	13 09 26.8	-2.6
	comp=Z,38nm,0.8s						
KAKA				e		13 09 40.0	
KAKA				e		13 10 54.3	
KAKA	Kakadu	134.74	268	ePKPdf	PKPdf	13 09 28.5	-0.9
KUDL	Kundal	134.79	12	ePKP	PKPdf	13 09 28.0	-1.2
SONA	Sohna	134.80	11	ePKP	PKPdf	13 09 27.6	-1.6
DANN	Dangsing	135.44	3	eP		13 09 15.7	
	comp=Z,37nm,0.9s						
KMI	Kunming	135.50	338	Pdif	Pdif	13 06 30.7	-2.4
KMI				PKP	PKPdf	13 09 28.6	-2.0
KMI				sPKP		13 10 05.0	
KMI				PP	PP	13 12 09.2	+2.3
KMI				PKS		13 12 59.9	
KMI				SKS	SKSdf	13 16 27.1	-7.3
KMI				SKKS	SKKSac	13 18 49.0	-6.7
KMI				AMB	AMB		
	comp=Z,720nm,3.6s						
KMI				AMB	AMB		
	comp=Z,420nm,3.9s						
KMI				LR	LR		
	comp=N,3µm,19.4s						
KMI				LR	LR		
	comp=E,2µm,23.8s						
KMI				LR	LR		
	comp=Z,4µm,19.4s						
GKN	Gorkha	135.82	1	eP		13 09 16.0	
GUN	Gumba	135.92	360	eP		13 09 15.6	
	comp=Z,58nm,0.9s						
AGRA	Agra	135.94	10	ePKP	PKPdf	13 09 29.9	-1.5
AJM	Ajmer	136.00	14	ePKP	PKPdf	13 09 28.8	-2.7
AJM				i PP	PP	13 12 11.6	+1.8
KOLN	Koldanda	136.01	3	eP		13 09 16.1	
KKN	Kakani	136.04	1	eP		13 09 16.1	
	comp=Z,43nm,0.9s						
DMN	Daman	136.22	1	eP		13 09 16.5	
TAPN	Taplejung	136.44	357	eP		13 09 15.8	
RAMN	Ramite	136.87	359	eP		13 09 15.3	
	comp=Z,18nm,0.7s						
QIZ	Qiongzhong	137.54	325	PKP	PKPdf	13 09 27.0	-7.5
QIZ				PP	PP	13 12 23.0	+2.9
QIZ				PKS		13 13 03.4	
QIZ				AMB	AMB		
	comp=Z,1µm,31.9s						
QIZ				LR	LR		
	comp=E,2µm,29.1s						
QIZ				LR	LR		
	comp=Z,5µm,37.1s						
SHL	Shillong	137.83	352	ex	x	13 09 22.5	
SHL				ex	x	13 13 07.5	
SHL				ex	x	13 20 21.0	
IMP	Imphal	138.27	349	ePKP	PKPdf	13 09 34.0	-1.8
IMP				ex	x	13 12 24.0	
ALBI	Allahabad	138.34	5	ex	x	13 09 27.0	
FORT	Forrest	138.94	242	ePKP	PKPdf	13 09 34.6	-2.1
	comp=Z,59nm,0.8s						
AGT	Agartala	139.57	352	ePKP	PKPdf	13 09 35.0	-3.2
AGT				ex	x	13 09 59.0	
BHPL	Bhopal	139.74	12	ePKP	PKPdf	13 09 36.1	-2.4
BOK	Bokaro	140.02	360	ePKP	PKPdf	13 09 35.9	-3.1
CAL	Calcutta	141.19	356	ePKP	PKPdf	13 09 38.2	-2.9
CAL				AMP		13 09 45.1	
	comp=Z,805nm,0.3s						
CAL				ex	x	13 13 02.5	
KDI	Kendari	141.75	285	⇓eP		13 09 34.5	
FITZ	Fitzroy Crossi	141.93	261	ePKP		13 09 34.3	
	comp=Z,139nm,1.0s						
FITZ				e		13 10 09.4	
FITZ	Fitzroy Crossi	141.93	261	PKhKP		13 09 34.8	
	comp=Z,65nm,0.8s,baz=70,slow=3.9,SNR=17						
FITZ				pPKP	pPKPdf	13 10 05.5	-1.0
	comp=Z,32nm,0.9s,baz=175,slow=4.5,SNR=2.5						
FITZ	Fitzroy Crossi	141.93	261	PKP		13 09 34.8	
FITZ				PKPdf	PKPdf	13 09 35.0	-7.5
FITZ				epPKPdf	pPKPdf	13 10 04.3	-2.1
FITZ				pPKP	pPKPdf	13 10 05.5	-1.0
KKM	Kota Kinabalu	142.50	304	ePKPdf	PKPdf	13 09 39.3	-4.4
CHTO	Chiang Mai	142.65	339	ePKHKP		13 09 36.7	
CHTO	Chiang Mai	142.65	339	⇑P	PKPdf	13 09 39.1	-4.7
	SNR=17						
CHTO				⇑P		13 09 39.1	
	SNR=17						
CMAR	Chiang Mai Arr	142.98	339	PKHKP		13 09 38.8	
CMAR				pmax	pmax		
	comp=Z,31nm,0.8s						
CMAR				pmax	pmax		
	comp=Z,19nm,1.0s						
CMAR	Chiang Mai Arr	142.98	339	PKhKP		13 09 38.8	
	comp=Z,31nm,0.8s,baz=347,slow=4.0,SNR=122						
CMAR				pPKP	pPKPdf	13 10 07.4	-1.0
	comp=Z,19nm,1.0s,baz=335,slow=2.2,SNR=2.7						
OPO	Ambohidratompo	143.20	99	PKP	PKPdf	13 09 41.5	-3.2
	comp=Z,29nm,0.8s,baz=264,slow=3.9,SNR=28						
OPO				pPKP	pPKPdf	13 10 05.8	-2.9
	comp=Z,25nm,1.0s,baz=182,slow=3.9,SNR=2.3						
ABPO	Ambohimpanom	143.26	100	ePKIKP	PKPdf	13 09 41.4	-3.4
POO	Poona	143.34	19	ePKP	PKPdf	13 09 41.3	-3.7
POO				i x	x	13 13 10.2	
LATR	Latur	144.21	15	ePKP	PKPdf	13 09 42.0	-4.6
KAPI	Kappang	144.79	285	ePKPdf	PKPdf	13 09 43.9	-3.8
KAPI	Kappang	144.79	285	P	PKPdf	13 09 44.1	-3.6
	SNR=12						
KAPI				P		13 09 44.1	
	SNR=12						
HYB	Hyderabad	145.62	12	⇓iPKP	PKPdf	13 09 46.0	-3.0
	comp=Z,160nm,1.0s						
HYB				eSKS	SKSdf	13 16 44.0	-6.9
WSI	Waingapu	145.72	277	⇓eP	PKPdf	13 09 46.5	-2.8
WSI				eS		13 09 48.0	
WSI	Waingapu	145.72	277	⇓eP	PKPdf	13 09 46.5	-2.8
WSI				eS		13 09 48.0	
VIS	Vishakhapatnam	145.98	4	ePKP	PKPdf	13 09 47.4	-2.2
NWAO	Narrogin (SRO)	147.19	234	PKIKP	PKPdf	13 09 49.1	-2.1
NWAO				pmax	pmax		
	comp=Z,206nm,1.0s						
NWAO				pmax	pmax		
	comp=Z,49nm,0.9s						
NWAO	Narrogin (SRO)	147.19	234	PKPbc	PKPdf	13 09 49.1	-2.1
	comp=Z,206nm,1.0s,baz=114,slow=4.1,SNR=37						
NWAO				pPKPbc	pPKPbc	13 10 15.2	-2.1
	comp=Z,49nm,0.8s,baz=135,slow=4.7,SNR=2.6						
NWAO	Narrogin (SRO)	147.19	234	P	PKPdf	13 09 50.3	-0.9
	SNR=12						
NWAO				P		13 09 50.3	
	SNR=12						
KLBR	Kellerberrin	147.25	237	eP	PKPdf	13 09 49.5	-1.9
	comp=Z,2µm,2.0s						
MBWA	Marble Bar	147.53	256	ePKPdf	PKPdf	13 09 49.7	-2.4
MBWA				epPKPdf	pPKPdf	13 10 14.3	-1.8
MBWA				esPKPdf		13 10 22.4	
MBWA	Marble Bar	147.53	256	P	PKPdf	13 09 50.3	-1.8
	SNR=24						
MBWA				P		13 09 50.3	
	SNR=24						
MSEY	Mahe Island	148.08	72	i PKP2	PKPbc	13 09 56.0	-0.5
MSEY	Mahe Island	148.08	72	ePKPbc	PKPbc	13 09 55.5	-1.0
MUN	Mundaring	148.35	235	ePKP	PKPdf	13 09 51.1	-2.0
MNGI	Mangalore	148.88	21	ePKP	PKPdf	13 09 52.0	-2.5
KSM	Kuching	149.93	304	ePKPdf	PKPdf	13 09 54.5	-1.8
KSM				ePKPbc	PKPbc	13 09 59.6	-1.6
KSM				ePKPab	PKPab	13 10 05.4	-1.5
MDRS	Chennai	150.19	11	ePKP	PKPdf	13 09 52.7	-3.9
MDRS				AMS	AMS	13 44 20.1	
	comp=N,1µm,13.0s						
MDRS				AMS	AMS	13 46 26.9	
	comp=E,2µm,11.8s						
RER	Riviere de l'E	151.23	104	ePKPbc	PKPbc	13 10 03.9	-0.1
RER				ePKPab	PKPab	13 10 10.1	-2.1
KOD	Kodaikanal	152.27	18	ePKP	PKPdf	13 09 57.0	-2.8
TRD	Trivandrum	153.74	20	ePKP	PKPdf	13 09 57.0	-4.9
KULM	Kulim	153.87	324	ePKPdf	PKPdf	13 10 00.3	-1.8
KULM				ePKPbc	PKPbc	13 10 08.6	-1.5
KULM				ePKPab	PKPab	13 10 22.3	-1.0
PALK	Pallekele	155.92	12	ePKIKP	PKPdf	13 10 03.5	-1.5
PALK				e		13 10 12.8	
PALK				e		13 10 31.0	
PSI	Prapat	156.88	325	PKIKP	PKPdf	13 10 03.9	-2.3
PSI				pmax	pmax		
	comp=Z,23nm,0.8s						
PSI				pmax	pmax		
	comp=Z,209nm,1.0s						
PSI	Prapat	156.88	325	PKP	PKPdf	13 10 03.9	-2.3
	comp=Z,23nm,0.8s,baz=261,slow=3.0,SNR=39						
PSI				PKPab	PKPab	13 10 34.9	-1.3
	comp=Z,209nm,0.9s,baz=337,slow=3.4,SNR=27						
PSI	Prapat	156.88	325	PKP	PKPdf	13 10 03.9	-2.3
PSI				PKPab	PKPab	13 10 34.9	-1.3

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*IDC **12** 12:56:43.4±2.6, 6°.53S×106°.99E, h0^{km}, mb3.8/5, mb1 4.1/5, mb1mx3.8/21, mbtmp3.9/5, MS4.7/1, Ms1 5.0/1, ms1mx3.5/39, Error ellipse: s-maj=134.2km s-min=25.0km az=53.0*

*DJA **12** 12:56:46, 6°.89S×106°.63E, h30^{km}, MLv4.3/4*

ISC 12 12:56:44.1±2.2, **6°.7S**±0°.2×**106°.7E**±0°.1, **h10**^{km}±14^{km}, **n11, σ0^{s}.89**/13, **mb3.7**/5, **1D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBJI	**Citeko**	**0.36**	**29**	P	**Pg**	**12 56 49.6**	**-1.7**
SBJI	**Serang**	**0.82**	**319**	P	**Pg**	**12 56 59.2**	**-0.7**
SBJI				S	**Sg**	**12 57 11.6**	**+1.0**
LEM	**Lembang**	**0.94**	**95**	⇓eP	**Pg**	**12 57 02.6**	**+0.3**
LEM				eS	**Sg**	**12 57 21.4**	**+6.8**
LEM	**Lembang**	**0.94**	**95**	P	**Pg**	**12 57 02.3**	**0.0**
LEM				S	**Sg**	**12 57 16.5**	**+1.9**
TPI	**Tanjungpandan**	**4.07**	**14**	P	Px	12 58 02.2	
KSI	**Kapahiang**	**5.09**	**307**	P	**Pn**	**12 58 05.9**	**+5.4**
FITZ	**Fitzroy Crossi**	**21.67**	**123**	P	**P**	**13 01 35.5**	**+0.4**
	3.2nm,0.8s,mb3.8,baz=308,slow=17,SNR=3.4						
CMAR	**Chiang Mai Arr**	**26.17**	**343**	P	**P**	**13 02 19.6**	**+0.7**
	0.6nm,0.7s,mb3.3,baz=171,slow=8.2,SNR=3.9						
CMAR				LR	LR	13 13 44.6	
	comp=Z,2µm,20.0s,baz=291,slow=39						
WRA	**Warramunga Arr**	**29.88**	**119**	P	**P**	**13 02 52.2**	**+0.1**
	0.7nm,0.5s,mb3.6,baz=303,slow=8.4,SNR=8.1						
WRA				PcP	PcP	13 05 54.1	-1.1
	0.4nm,0.6s,baz=303,slow=1.9,SNR=4.7						
ASAR	**Alice Springs**	**31.10**	**126**	P	**P**	**13 03 02.3**	**-0.6**
	1.0nm,0.8s,mb3.7,baz=301,slow=8.8,SNR=9.9						
STKA	**Stephens Creek**	**41.06**	**132**	P	**P**	**13 04 27.4**	**-0.6**
	3.2nm,0.5s,mb4.2,baz=298,slow=6.5,SNR=13						

PGC 12 13:07:18.4±2.9, **51°.51N×131°.33W, h10**^{km}**, ML3.0**/7, **Mw3.6, 4D, 196km Sse of Sandspit, Bc Queen Charlotte Islands Region, Queen Charlotte Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNB	**Barry Inlet**	**1.10**	**347**	⇓Pn	Pn	13 07 37.3	-2.5
BNB				⇑Sn	Sn	13 07 50.7	-4.3
MOBC	**Moresby Island**	**1.68**	**347**	⇑Sn	Sn	13 08 06.2	-3.3
VIB	**Van Inlet**	**1.90**	**337**	⇑Sn	Sn	13 08 10.4	-4.3
BBB	**Bella Bella**	**2.11**	**70**	⇑Pn	Pn	13 07 52.1	-1.6
BBB				⇓Sn	Sn	13 08 15.7	-4.3
HOLB	**Holberg**	**2.20**	**112**	⇑Pn	Pn	13 07 53.4	-1.5
PHC	**Port Hardy**	**2.59**	**107**	⇓Pn	Pn	13 07 58.0	-2.3
MAYB	**Maynard**	**2.86**	**111**	⇓Pn	Pn	13 08 02.2	-1.8
WOSB	**Woss**	**3.31**	**112**	⇑Pn	Pn	13 08 09.2	-1.0

MAN 12 13:18:30, 17°.90N×122°.34E, h17^{km}**, mb3.8, ML2.5, MS2.1, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	**Mt. Cagua**	**0.43**	**321**	eP	Pg	13 18 40.1	+1.3
PALP	**Palanan**	**0.84**	**174**	eP	Pb	13 18 46.5	+0.4
PALP				eS	Sb	13 18 59.9	+2.8
APYP	**Conner**	**1.04**	**268**	eP	Pb	13 18 49.7	+0.1
APYP				eS	Sb	13 19 05.0	+2.1
CAUP	**Cauayan**	**1.07**	**207**	eP	Pb	13 18 51.4	+1.2
BALP	**Baler**	**2.27**	**199**	eP	Pn	13 19 08.8	+2.0

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*NAO **12** 13:21:52.6±4.3, 78°.07N×8°.01E, ML3.0*

*CSEM **12** 13:21:53.6±0.4, 78°.05N×8°.42E, h10^{km}, ML3.0, Error ellipse: s-maj=9.7km s-min=1.6km az=59.0*

*BER **12** 13:21:55.6±1.7, 78°.02N×8°.33E, h15^{km}±25^{km}, MD2.5, ML2.9, ML3.0(NAO)*

ISC 12 13:21:54.9±4.1, **78°.1N**±0°.1×°±°, **h8**^{km}±23^{km}, **n6, σ0^{s}.30**/8, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBS	**Kingsbay**	**1.08**	**35**	Pg	**Pg**	**13 22 15.3**	**-0.2**
KBS				Lg		13 22 29.7	
KBS	**Kingsbay**	**1.08**	**35**	eP	**Pg**	**13 22 15.1**	**-0.4**
KBS				eS	**Sg**	**13 22 29.7**	**+0.2**
KBS				AML	AML	13 22 31.8	
	comp=Z,349nm,0.2s						
KBS	**Kingsbay**	**1.08**	**35**	Pg	**Pg**	**13 22 15.3**	**-0.3**
KBS				Lg		13 22 29.7	
SPA0	**Spitsbergen Ar**	**1.58**	**82**	Pg	**Pg**	**13 22 25.3**	**0.0**
	baz=264,slow=14						
SPA0				Lg		13 22 47.0	
	baz=264,slow=28						
SPA0	**Spitsbergen Ar**	**1.58**	**82**	Pg	**Pg**	**13 22 25.3**	**0.0**
	SNR=936						
SPA0				Lg		13 22 47.0	
HSP	**Hornsund**	**1.82**	**122**	eP	**Pn**	**13 22 26.8**	**+0.3**
HSP				eS	**Sn**	**13 22 49.6**	**-0.2**

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*ISCJB **12** 13:26:54.0±0.7, 29°.18N±0°.07×140°.9E±0°.2, h33^{km}, mb3.5/3, Error ellipse: s-maj=26.8km s-min=5.9km az=160.3*

*IDC **12** 13:26:53.3±1.5, 28°.80N×140°.47E, h0^{km}, mb3.6/3, mb1 3.7/5, mb1mx3.5/22, mbtmp3.5/5, ML3.5/1, Error ellipse: s-maj=54.5km s-min=20.2km az=59.0*

*JMA **12** 13:26:54.6, 29°.13N×141°.19E, h150^{km}, M3.8*

ISC 12 13:26:56.1±0.7, **29°.17N**±0°.08×**141°.0E**±0°.2, **h35**^{km}**, n9, σ0^{s}.98**/11, **mb3.5**/3, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**2.34**	**152**	P	**Pn**	**13 27 32.4**	**+0.4**
CBIJ				eS	**Sn**	**13 27 57.0**	**-2.5**
CBIJ	**Chichi jima**	**2.34**	**152**	Pn	**Pn**	**13 27 32.6**	**+0.6**
	20nm,0.3s,baz=109,slow=23,SNR=7.4						
CBIJ				Sn	**Sn**	**13 28 00.2**	**+0.7**
	66nm,0.3s,baz=284,slow=22,SNR=8.1						
JHJ2	**Mitsune**	**4.05**	**346**	eS	**Sn**	**13 28 40.0**	**-1.6**
BSO1	**Boso 1**	**5.47**	**0**	P	**Pn**	**13 28 15.6**	**+0.6**
BSO3	**Boso 3**	**5.63**	**356**	P	**Pn**	**13 28 18.0**	**+0.8**
MJAR	**Matsushiro Arr**	**7.70**	**343**	Pn	**Pn**	**13 28 51.5**	**+5.8**
	0.6nm,0.3s,baz=180,slow=15,SNR=6.2						
MKAR	**Makanchi Array**	**48.33**	**308**	P	**P**	**13 35 34.9**	**+0.9**
	0.3nm,0.7s,mb3.5,baz=95,slow=7.7,SNR=3.4						
WRA	**Warramunga Arr**	**49.24**	**188**	P	**P**	**13 35 41.1**	**-0.1**
	0.4nm,0.5s,mb3.7,baz=7.2,slow=7.8,SNR=14						
WRA				PcP	PcP	13 37 04.3	+0.4
	0.4nm,0.5s,baz=0.4,slow=3.8,SNR=4.9						
ASAR	**Alice Springs**	**52.97**	**188**	P	**P**	**13 36 08.5**	**-0.6**
	0.3nm,0.7s,mb3.3,baz=20,slow=11,SNR=4.1						

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*CSEM **12** 13:29:30.3±0.4, 50°.35N×19°.16E, h2^{km}, Error ellipse: s-maj=10.8km s-min=3.6km az=7.0*

*PRU **12** 13:29:31.8, 50°.34N×19°.13E, h0^{km}*

WAR 12 13:29:31.5, 50°.28N×19°.26E, ML2.6, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.35**	**100**	ePg	Pg	13 29 38.3	+0.1
OJC				eSg	Sg	13 29 43.6	+0.9
OJC	**Ojcow**	**0.35**	**100**	ePg	Pg	13 29 38.3	+0.1
OJC				eSg	Sg	13 29 43.6	+0.9
OKC	**Ostrava-Krasne**	**0.84**	**239**	ePG	Pg	13 29 47.1	-0.5
OKC				eSG	Sg	13 29 57.6	-0.9
	comp=Z,16nm,0.3s						
OKC	**Ostrava-Krasne**	**0.84**	**239**	Pg	Pg	13 29 47.1	-0.5
OKC				Sg	Sg	13 29 57.6	-0.9
	comp=Z,16nm,0.3s						
NIE	**Niedzica**	**1.10**	**141**	ePg	Pg	13 29 52.3	-0.2
NIE				eSg	Sg	13 30 08.7	+1.9
NIE	**Niedzica**	**1.10**	**141**	ePg	Pg	13 29 52.3	-0.2
NIE				eSg	Sg	13 30 08.7	+1.9
MORC	**Moravsky Berou**	**1.22**	**246**	ePg	Pg	13 29 53.6	-1.2
MORC				eSg	Sg	13 30 08.6	-2.0
STHS	**Stebnicka Huta**	**1.55**	**123**	ePN	Pn	13 30 01.4	+1.1
STHS				eSN	Sn	13 30 25.0	+4.0
STHS	**Stebnicka Huta**	**1.55**	**123**	ePn	Pn	13 30 01.4	+1.1
STHS				eSn	Sn	13 30 25.0	+4.0
VYHS	**Vyhne**	**1.81**	**189**	ePN	Pn	13 30 03.3	-0.6
VYHS				eSN	Sn	13 30 26.1	-1.4
VYHS	**Vyhne**	**1.81**	**189**	ePn	Pn	13 30 03.3	-0.6
VYHS				eSn	Sn	13 30 26.1	-1.4
DPC	**Dobruska-Polom**	**1.89**	**273**	ePG	Pg	13 30 03.8	-3.8
DPC				eSG	Sg	13 30 29.4	-2.6
	comp=Z,15nm,0.6s						
DPC	**Dobruska-Polom**	**1.89**	**273**	Pg	Pg	13 30 03.8	-3.8
DPC				Sg	Sg	13 30 29.4	-2.6
	comp=Z,15nm,0.6s						
KECS	**Kecovo**	**1.97**	**156**	ePN	Pn	13 30 05.7	-0.4
KECS				eSN	Sn	13 30 33.4	+2.0
KSP	**Ksiaz**	**1.97**	**288**	ePg	Pg	13 30 08.6	-0.7
KSP				eSg	Sg	13 30 33.4	-1.5
VRAC	**Vranov**	**1.98**	**242**	eSg	Sg	13 30 32.2	-3.0
CRVS	**Cervenica-Dubn**	**1.99**	**133**	ePN	Pn	13 30 09.6	+3.3
CRVS				eSN	Sn	13 30 35.7	+3.8
CRVS	**Cervenica-Dubn**	**1.99**	**133**	ePn	Pn	13 30 09.6	+3.3
CRVS				eSn	Sn	13 30 35.7	+3.8
UPC	**Upice**	**2.09**	**277**	eSG	Sg	13 30 37.4	-1.2
UPC	**Upice**	**2.09**	**277**	Sg	Sg	13 30 37.4	-1.2
KOLS	**Kolonicke sedl**	**2.38**	**123**	eSG	Sg	13 30 50.4	+2.5
KOLS	**Kolonicke sedl**	**2.38**	**123**	eSg	Sg	13 30 50.4	+2.5
KOLS	**Kolonicke sedl**	**2.38**	**123**	eSg	Sg	13 30 50.4	+2.5
PRU	**Pruhonice**	**3.05**	**266**	eSG	Sg	13 31 06.3	-3.1
PRU	**Pruhonice**	**3.05**	**266**	Sg	Sg	13 31 06.3	-3.1
KHC	**Kasperske Hory**	**3.86**	**255**	eSG	Sg	13 31 32.2	-3.3
	comp=Z,5.8nm,0.5s						
KHC	**Kasperske Hory**	**3.86**	**255**	Sg	Sg	13 31 32.2	-3.3
	comp=Z,5.8nm,0.5s						

IDC 12 13:42:10.3±1.1, **1°.77N×125°.83E, h0**^{km}**, mb3.6**/4, **mb1 3.8**/4, **mb1mx3.6**/17, **mbtmp3.7**/4, **1D, Error ellipse:**

s-maj=136.9km s-min=19.9km az=68.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNE	**Ternate**	**1.82**	**122**	⇓*e*P	Pn	13 42 44.0	+1.1
WRA	**Warramunga Arr**	**23.14**	**159**	P	P	13 47 18.6	+0.3
	0.5nm,0.3s,baz=334,slow=11,SNR=18						
WRA				PcP	PcP	13 51 05.5	-1.9
	0.2nm,0.6s,baz=332,slow=2.0,SNR=4.0						
ASAR	**Alice Springs**	**26.48**	**163**	P	P	13 47 50.4	+1.1
	0.5nm,0.6s,baz=342,slow=7.3,SNR=14						
ASAR				PcP	PcP	13 51 13.6	-1.1
	0.3nm,0.6s,baz=348,slow=2.0,SNR=6.8						
SONM	**Songino Array**	**48.87**	**343**	P	P	13 50 56.8	-0.9
	0.9nm,0.7s,baz=161,slow=8.0,SNR=9.0						
MKAR	**Makanchi Array**	**58.66**	**326**	P	P	13 52 11.2	+1.7
	0.6nm,0.4s,baz=118,slow=8.3,SNR=24						

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*IDC **12** 13:56:56.6±1.0, 27°.80S×72°.24W, h0^{km}, mb4.2/3, mb1 4.0/5, mb1mx3.9/17, mbtmp3.9/5, ML3.8/2, MS4.6/1, Ms1 4.6/1, ms1mx3.2/31, Error ellipse: s-maj=34.8km s-min=25.9km az=86.0*

*NEIC **12** 13:56:58.2±0.7, 27°.80S×72°.17W, h10^{km}, Error ellipse: s-maj=23.0km s-min=13.2km az=69.0*

*ISCJB **12** 13:57:01.4±1.3, 27°.77S±0°.04×72°.0W±0°.1, h33^{km}, mb4.1/3, Error ellipse: s-maj=18.0km s-min=6.0km az=172.8*

ISC 12 13:57:03.0±1.3**, 27°.81S**±0°.06×**72°.0W**±0°.2**, h35^{km}, n18, σ1^{s}07**/12**, mb4.1**/3**, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	**Las Campanas**	**1.67**	**136**	*e*Pn	**Pn**	**13 57 27.9**	**-1.9**
LCO				*e*S	**Sn**	**13 57 49.1**	**-0.8**
CFAA	**Coronel Fontan**	**5.01**	**140**	Pn	**Pn**	**13 58 16.4**	**+0.7**
	0.5nm,0.3s,baz=307,slow=10,SNR=36						
CFAA				Sn	**Sn**	**13 59 13.9**	**+1.5**
	0.9nm,0.3s,baz=55,slow=23,SNR=12						
LVC	**Limon Verde**	**5.88**	**29**	Pn	**Pn**	**13 58 26.7**	**-1.1**
	1.7nm,0.3s,baz=209,slow=9.1,SNR=58						
LVC				Sn	**Sn**	**13 59 35.3**	**+1.3**
	3.6nm,0.3s,baz=272,slow=23,SNR=9.8						
LVC	**Limon Verde**	**5.88**	**29**	*e*Pn	**Pn**	**13 58 25.9**	**-1.8**
LVC				*e*S	**Sn**	**13 59 34.2**	**+0.2**
SIV	**San Ignacio**	**15.52**	**43**	Pn	**Pn**	**14 00 32.8**	**-6.5**
	0.2nm,0.3s,baz=248,slow=14,SNR=3.5						
CMIG	**Matias Romero**	**49.83**	**331**	LR	LR	14 22 13.6	
	comp=Z,708nm,21.9s,baz=91,slow=30						
DBIC	**Dimbokro**	**73.26**	**73**	P	**P**	**14 08 31.4**	**+0.3**
	6.3nm,1.1s,mb4.5,baz=210,slow=5.4,SNR=5.5						
TORD	**Torodi Ar. Bea**	**82.11**	**71**	P	**P**	**14 09 20.5**	**0.0**
	2.6nm,1.0s,mb4.1,baz=253,slow=5.1,SNR=8.0						
YKA	**Yellowknife Ar**	**96.21**	**342**	P	**P**	**14 10 27.5**	**+0.6**
	0.2nm,0.7s,mb3.6,baz=147,slow=3.5,SNR=3.5						
ASAR	**Alice Springs**	**123.05**	**209**	PKP	PKPdf	14 15 54.6	-1.7
	0.9nm,1.1s,baz=208,slow=24,SNR=2.6						
WRA	**Warramunga Arr**	**126.12**	**211**	PKP	PKPdf	14 16 00.2	-2.1
	0.6nm,0.8s,baz=144,slow=1.7,SNR=4.8						
KURK	**Kurchatov**	**148.10**	**36**	PKPbc	PKPbc	14 16 43.8	-0.8
	1.4nm,0.9s,baz=304,slow=3.5,SNR=6.2						
ZALV	**Zalesovo Beam**	**148.83**	**27**	PKPbc	PKPbc	14 16 45.1	-1.3
	5.6nm,0.8s,baz=298,slow=3.2,SNR=5.2						
AAK	**Ala-Archa**	**149.13**	**53**	*e*PKPbc	PKPbc	14 16 48.4	+0.9
MK31	**Makanchi Array**	**152.32**	**40**	*e*PKPbc	PKPbc	14 16 54.4	-0.6
MKAR	**Makanchi Array**	**152.32**	**40**	PKPbc	PKPbc	14 16 54.3	-0.6
	2.3nm,1.0s,baz=306,slow=2.8,SNR=12						
MKAR				PKPab	PKPab	14 17 03.5	-1.6
	0.9nm,0.8s,baz=329,slow=1.8,SNR=5.6						
MKAR	**Makanchi Array**	**152.32**	**40**	PKPbc	PKPbc	14 16 54.3	-0.6
MKAR				PKPab	PKPab	14 17 03.5	-1.6
CMAR	**Chiang Mai Arr**	**167.53**	**136**	PKPab	PKPab	14 18 12.1	+0.4
	0.4nm,0.3s,baz=198,slow=0.9,SNR=5.6						

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*BJI **12** 14:02:14.0, 56°.24N×110°.99E, h10^{km}, mb4.5/1*

*MOS **12** 14:02:17.2±1.6, 55°.92N×110°.73E, h12^{km}, mb4.2/4, Error ellipse: s-maj=11.8km s-min=7.4km az=69.5*

*ISCJB **12** 14:02:17.7±0.3, 55°.74N±0°.03×110°.61E±0°.03, h10^{km}, mb3.9/10, Error ellipse: s-maj=3.9km s-min=2.2km az=152.6*

*IDC **12** 14:02:17.2±0.9, 55°.96N×110°.92E, h0^{km}, mb3.6/7, mb1 3.9/11, mb1mx3.6/28, mbtmp3.7/11, ML3.8/4, Error ellipse: s-maj=20.8km s-min=19.4km az=159.0*

*BYKL **12** 14:02:18.7±0.3, 55°.89N×110°.49E, #FAULT_PLANE Typ Strike Dip Rake NP NS Plane Author # FM 94.00 80.00 -80.00 20 0 IEC + 229.00 14.00 -134.00 IEC #PRINAX sc T_val T_azim T_pl B_val B_azim B_pl P_val P_azim P_pl Author + eTv eTa eTp eBv eBa eBp ePv ePa ePp fCLVD # 176.00 34.00 273.00 10.00 16.00 54.00 IEC + 3.00 0.58 0.56 3.51 2.71 1.00 IEC*

*NEIC **12** 14:02:18.6±0.4, 55°.92N×110°.93E, h10^{km}, mb4.1/1, Error ellipse: s-maj=8.2km s-min=7.6km az=157.0*

ISC 12 14:02:19.4±0.3**, 55°.82N**±0°.02×**110°.62E**±0°.03**, h10^{km}, n69, σ1^{s}37**/127**, mb3.9**/10**, 16C-10D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMO	**Kumora**	**0.33**	**77**	⇑*i*Pg	**Pg**	**14 02 25.7**	**-0.3**
KMO				Pmax		14 02 26.1	
	2µm,0.4s						
KMO				*i* Sg	**Sg**	**14 02 30.8**	**+0.3**
KMO				Smax		14 02 31.7	
	7µm,0.6s						
NIZ	**Nizh Angarsk**	**0.61**	**267**	⇓*i*Pg	**Pg**	**14 02 29.8**	**-1.4**
NIZ				Pmax		14 02 31.0	
	162nm,0.1s						
NIZ				*e*		14 02 35.2	
NIZ				Smax		14 02 35.2	
	2µm,0.3s						
NIZ				*e*Sg	**Sg**	**14 02 37.6**	**-1.6**
YOA	**Uoyan**	**0.70**	**62**	⇑*i*Pg	**Pg**	**14 02 32.1**	**-0.8**
YOA				Pmax		14 02 33.6	
	1µm,0.4s						
YOA				*e*Sg	**Sg**	**14 02 42.8**	**+0.8**
YOA				Smax		14 02 44.0	
	5µm,0.5s						
YLYR	**Ulyunkhan**	**0.99**	**162**	⇓*i*Pg	**Pg**	**14 02 38.5**	**+0.1**
	896nm,0.5s						
YLYR				⇑*i*Pg	**Pg**	**14 02 38.5**	**+0.1**
	286nm,0.5s						
YLYR				⇑*i*Pg	**Pg**	**14 02 38.5**	**+0.1**
	839nm,0.5s						
YLYR				Pmax		14 02 40.0	
	620nm,0.6s						
YLYR				*e*Sg	**Sg**	**14 02 52.9**	**+1.6**
YLYR				*e*		14 02 59.3	
YLYR				max		14 03 00.3	
	2µm,0.2s						
SVKR	**Severomuysk**	**1.68**	**78**	⇓*i*Pg	**Pg**	**14 02 50.3**	**-1.3**
SVKR				Pmax		14 02 51.2	
	1µm,0.5s						
SVKR				*e*		14 02 54.7	
SVKR				*e*Sg	**Sg**	**14 03 14.5**	**+1.2**
SVKR				Smax		14 03 16.5	
	11µm,0.8s						
UKT	**Uakit**	**1.73**	**100**	⇑*i*Pg	**Pg**	**14 02 51.5**	**-1.1**
UKT				Pmax		14 02 52.8	
	258nm,0.3s						
UKT				*e*Sg	**Sg**	**14 03 15.0**	**-0.1**
UKT				Smax		14 03 17.9	
	3µm,0.5s						
SYVR	**Suvo**	**2.19**	**190**	*e*Pn	**Pn**	**14 02 57.2**	**+1.4**
SYVR				⇓*i*Pg	**Pg**	**14 02 59.3**	**-2.1**
	469nm,0.6s						
SYVR				⇓*i*Pg	**Pg**	**14 02 59.3**	**-2.1**
	277nm,0.6s						
SYVR				⇑*i*Pg	**Pg**	**14 02 59.3**	**-2.1**
	672nm,0.6s						
SYVR				Pmax		14 02 59.8	
	1µm,0.6s						
SYVR				*e*Sg	**Sg**	**14 03 30.1**	**+0.4**
SYVR				Smax		14 03 32.2	
	2µm,1.0s						
SYVR	**Suvo**	**2.19**	**190**	*e*Pn	**Pn**	**14 02 57.2**	**+1.4**
SYVR				⇓*i*Pg	**Pg**	**14 02 59.3**	**-2.1**
	469nm,0.6s						
SYVR				⇓*i*Pg	**Pg**	**14 02 59.3**	**-2.1**
	277nm,0.6s						
SYVR				⇑*i*Pg	**Pg**	**14 02 59.3**	**-2.1**
	672nm,0.6s						
SYVR				Pmax		14 02 59.8	
	1µm,0.6s						
SYVR				*e*Sg	**Sg**	**14 03 30.1**	**+0.4**
SYVR				Smax		14 03 32.2	
	2µm,1.0s						
BOD	**Bodaibo**	**2.74**	**41**	⇓*i*Pn	**Pn**	**14 03 03.7**	**+0.4**
BOD				*e*Pg	**Pg**	**14 03 07.2**	**-4.6**
BOD				Pmax		14 03 09.7	
	129nm,0.7s						
BOD				*e*		14 03 37.3	
BOD				*e*Sg	**Sg**	**14 03 41.8**	**-5.5**
BOD				Smax		14 03 43.4	
	2µm,0.7s						
MXMB	**Maximikha**	**2.78**	**204**	⇑*i*Pn	**Pn**	**14 03 05.2**	**+1.3**
MXMB				⇑*i*Pg	**Pg**	**14 03 09.1**	**-3.6**
MXMB				Pmax		14 03 12.2	
	331nm,0.4s						
MXMB				*e*Sg	**Sg**	**14 03 45.7**	**-3.0**
MXMB				Smax		14 03 55.1	
	2µm,1.1s						
OGRR	**Ongureny**	**2.80**	**220**	*e*Pn	**Pn**	**14 03 05.6**	**+1.5**
OGRR				*e*Pg	**Pg**	**14 03 09.4**	**-3.5**
OGRR				Pmax		14 03 14.8	
	99nm,0.5s						
OGRR				*e*		14 03 40.6	
OGRR				*e*Sg	**Sg**	**14 03 45.8**	**-3.3**
OGRR				Smax		14 03 46.9	
	1µm,0.4s						
NLYR	**Nelyaty**	**2.92**	**74**	⇓*i*Pn	**Pn**	**14 03 07.0**	**+1.1**
NLYR				*e*Pg	**Pg**	**14 03 11.9**	**-3.5**
NLYR				Pmax		14 03 15.0	
	187nm,0.9s						
NLYR				*e*Sg	**Sg**	**14 03 49.9**	**-3.3**
NLYR				Smax		14 03 52.1	
	946nm,0.9s						
ZRHB	**Zarechye**	**3.85**	**213**	*e*	**Pn**	**14 03 20.9**	**+2.3**
ZRHB				*e*Pg	**Pg**	**14 03 27.2**	**-5.9**
ZRHB				Pmax		14 03 31.7	
	205nm,0.5s						
ZRHB				*e*Sg	**Sg**	**14 04 17.0**	**-6.0**
ZRHB				Smax		14 04 36.5	
	1µm,1.2s						
ZRHB	**Zarechye**	**3.85**	**213**	*e*	**Pn**	**14 03 20.9**	**+2.3**
ZRHB				*e*Pg	**Pg**	**14 03 27.2**	**-5.9**
ZRHB				Pmax		14 03 31.7	
	205nm,0.5s						
ZRHB				*e*Sg	**Sg**	**14 04 17.0**	**-6.0**
ZRHB				Smax		14 04 36.5	
	1µm,1.2s						
TRG	**Tyrgan**	**3.95**	**221**	*e*PN	**Pn**	**14 03 21.5**	**+1.5**
TRG				*e*		14 03 31.0	
TRG				*e*S	**Sn**	**14 04 07.3**	**+0.9**
TRG				*e*		14 04 21.4	
TRG				pmax	pmax		
	comp=Z,40nm,0.4s						
TRG				smax			
	comp=N,586nm,0.6s						
TRG	**Tyrgan**	**3.95**	**221**	⇑*i*Pn	**Pn**	**14 03 21.3**	**+1.3**
TRG				*e*Pg	**Pg**	**14 03 28.2**	**-6.9**
TRG				Pmax		14 03 33.2	
	comp=N,41nm,0.4s						
TRG				*e*Sn	**Sn**	**14 04 06.7**	**+0.3**
TRG				*e*Sg	**Sg**	**14 04 19.7**	**-6.6**
TRG				Smax		14 04 28.8	
	comp=N,591nm,0.9s						
TRTB	**Turuntaevo**	**4.00**	**207**	⇑*i*Pn	**Pn**	**14 03 22.0**	**+1.3**
TRTB				*e*Pg	**Pg**	**14 03 30.7**	**-5.3**
TRTB				Pmax		14 03 37.5	
	comp=N,79nm,0.8s						
TRTB				*e*Sg	**Sg**	**14 04 22.3**	**-5.5**
TRTB				Smax		14 04 24.4	
	comp=N,314nm,1.0s						
CIT	**Chita**	**4.18**	**154**	⇑*i*Pg	**Pg**	**14 03 35.5**	**-3.9**
CIT				Pmax		14 03 37.8	
	comp=N,367nm,1.2s						
CIT				*e*Sg	**Sg**	**14 04 31.3**	**-2.1**
CIT				Smax		14 04 34.3	
	comp=N,410nm,0.7s						
CRS	**Chara**	**4.39**	**73**	*e*PN	**Pn**	**14 03 27.5**	**+1.5**
CRS				*e*		14 04 36.2	
CRS				pmax	pmax		
	comp=Z,109nm,0.9s						
CRS				smax			
	comp=E,454nm,0.9s						
CRS	**Chara**	**4.39**	**73**	⇓*i*Pn	**Pn**	**14 03 27.2**	**+1.2**
CRS				*e*Pg	**Pg**	**14 03 38.3**	**-5.1**
CRS				Pmax		14 03 43.9	
	comp=E,109nm,1.0s						
CRS				*e*Sg	**Sg**	**14 04 35.8**	**-4.5**
CRS				Smax		14 04 55.8	
	comp=E,454nm,1.0s						
FFNB	**Fofonovo**	**4.41**	**213**	*e*Pn	**Pn**	**14 03 27.1**	**+0.8**
FFNB				*e*Pg	**Pg**	**14 03 37.5**	**-6.3**
FFNB				*e*		14 03 41.6	
FFNB				max		14 03 43.8	
	comp=E,133nm,0.2s						
FFNB				*e*Sn	**Sn**	**14 04 16.9**	**-0.7**
FFNB				*e*Sg	**Sg**	**14 04 34.9**	**-6.0**
FFNB				Smax		14 04 42.4	
	comp=E,738nm,0.5s						
HRMR	**Khuramsha**	**4.73**	**209**	*e*Pn	**Pn**	**14 03 31.7**	**+1.1**
HRMR				*e*Pg	**Pg**	**14 03 43.4**	**-6.5**
HRMR				Pmax		14 03 50.9	
	comp=E,110nm,0.4s						
HRMR				*e*Sg	**Sg**	**14 04 44.5**	**-6.5**
HRMR				Smax		14 04 53.4	
	comp=E,1µm,0.5s						
IRK	**Irkutsk**	**5.18**	**229**	*e*PN	**Pn**	**14 03 38.6**	**+1.8**
IRK				*e*		14 03 52.8	
IRK				*e*S	**Sn**	**14 04 35.8**	**-0.8**
IRK				*e*		14 04 59.4	
IRK				pmax	pmax		
	comp=Z,76nm,0.1s						
IRK				smax			
	comp=N,804nm,0.5s						
TUP	**Tupik**	**5.53**	**101**	⇑*i*PN	**Pn**	**14 03 42.7**	**+1.0**
TUP				*e*		14 04 00.0	
TUP				*e*		14 05 12.8	
TUP				pmax	pmax		
	comp=Z,20nm,0.5s						
TUP				smax			
	comp=N,336nm,1.1s						
TUP	**Tupik**	**5.53**	**101**	*e*Pn	**Pn**	**14 03 43.0**	**+1.3**
TUP				*e*Pg	**Pg**	**14 04 00.1**	**-5.2**
TUP				Pmax		14 04 08.8	
	comp=N,20nm,0.6s						
TUP				*e*Sn	**Sn**	**14 04 46.2**	**+0.9**
TUP				*e*Sg	**Sg**	**14 05 12.6**	**-4.3**
TUP				Smax		14 05 19.0	
	comp=N,340nm,1.1s						
TLY	**Talaya**	**5.85**	**228**	*e*PN	**Pn**	**14 03 48.2**	**+2.1**
TLY				*e*		14 04 05.4	
TLY				*e*S	**Sn**	**14 04 52.7**	**-0.5**
TLY				*e*		14 05 18.4	
TLY				pmax	pmax		
	comp=Z,28nm,0.6s						
TLY				smax			
	comp=E,249nm,0.7s						
TLY	**Talaya**	**5.85**	**228**	*e*Pn	**Pn**	**14 03 46.2**	**+0.1**
TLY				*e*		14 04 05.6	
TLY				max		14 04 10.2	
	comp=E,27nm,0.6s						
TLY				*e*Sg	**Sg**	**14 05 19.1**	**-8.1**
TLY				Smax		14 05 30.0	
	comp=E,344nm,1.8s						
TLY	**Talaya**	**5.85**	**228**	*e*P	**Pn**	**14 03 46.1**	**0.0**
	comp=E,28nm,0.6s						
KPC	**Khapcheranga**	**6.21**	**169**	*e*PN	**Pn**	**14 03 51.9**	**+0.8**
KPC				*e*		14 04 12.8	
KPC				*e*S	**Sn**	**14 05 02.6**	**+0.5**
KPC				*e*		14 05 34.3	
KPC				pmax	pmax		
	comp=Z,52nm,0.6s						
KPC				smax			
	comp=E,169nm,1.3s						
KPC	**Khapcheranga**	**6.21**	**169**	*e*Pn	**Pn**	**14 03 54.0**	**+2.9**
KPC				*e*Pg	**Pg**	**14 04 12.7**	**-5.6**
KPC				Pmax		14 04 16.8	
	comp=E,51nm,0.7s						
KPC				*e*		14 05 11.5	
KPC				*e*Sg	**Sg**	**14 05 33.7**	**-5.0**
KPC				Smax		14 05 50.3	
	comp=E,171nm,1.1s						
ARS	**Arshan**	**6.22**	**235**	*e*PN	**Pn**	**14 03 52.0**	**+0.8**
ARS				*e*		14 04 12.9	
ARS				*e*S	**Sn**	**14 05 00.7**	**-1.6**
ARS				*e*		14 05 31.7	
ARS				pmax	pmax		
	comp=Z,68nm,0.6s						
ARS				smax			
	comp=E,767nm,0.7s						
ARS	**Arshan**	**6.22**	**235**	*e*Pn	**Pn**	**14 03 51.9**	**+0.7**
ARS				max		14 04 25.7	
	comp=E,68nm,0.5s						
ARS				*e*Sn	**Sn**	**14 05 01.1**	**-1.2**
ARS				*e*Sg	**Sg**	**14 05 30.5**	**-8.5**
ARS				Smax		14 05 36.2	
	comp=E,748nm,0.9s						
MOY	**Mondy**	**7.06**	**238**	*e*PN	**Pn**	**14 04 04.8**	**+2.1**
MOY				*e*		14 04 26.0	
MOY				*e*S	**Sn**	**14 05 20.8**	**-2.1**
MOY				*e*		14 05 57.7	
MOY				pmax	pmax		
	comp=Z,30nm,0.5s						
MOY				pmax	pmax		
	comp=E,266nm,1.0s						
MOY	**Mondy**	**7.06**	**238**	⇑*i*Pn	**Pn**	**14 04 04.7**	**+2.0**
MOY				*e*		14 04 13.6	
MOY				max		14 04 15.0	
	comp=E,63nm,0.9s						
MOY				*e*Sg	**Sg**	**14 05 57.8**	**-8.0**
MOY				Smax		14 06 13.6	
	comp=E,266nm,1.5s						
ORL	**Orlik**	**7.14**	**247**	*e*PN	**Pn**	**14 04 05.0**	**+1.2**
ORL				*e*		14 04 28.7	
ORL	**Orlik**	**7.14**	**247**	⇑*i*	**Pn**	**14 04 05.2**	**+1.4**
ORL				*e*		14 05 24.9	
ORL				*e*Sg	**Sg**	**14 05 59.5**	**-9.0**
ORL				Smax		14 06 14.2	
	comp=E,222nm,0.8s						
ORL	**Orlik**	**7.14**	**247**	⇑*i*	**Pn**	**14 04 05.2**	**+1.4**
ORL				*e*		14 05 24.9	
ORL				*e*Sg	**Sg**	**14 05 59.5**	**-9.0**
ORL				Smax		14 06 14.2	
	comp=E,222nm,0.8s						
ULN	**Ulaanbaatar**	**8.26**	**197**	*e*PN	**Pn**	**14 04 21.1**	**+1.9**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ULN	**Ulaanbaatar**	**8.26**	**197**	*e*P	**Pn**	**14 04 21.1**	**+1.9**
	comp=Z,6.5nm,0.6s						
SONM	**Songino Array**	**8.41**	**200**	PN	**Pn**	**14 04 23.4**	**+2.2**
SONM						14 04 54.3	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM	**Songino Array**	**8.41**	**200**	Pn	**Pn**	**14 04 23.4**	**+2.2**
	comp=Z,0.7nm,0.3s,baz=13,slow=14,SNR=24						
SONM				Pg	Pn	14 04 54.3	+33
	comp=Z,1.3nm,0.3s,baz=1.8,slow=16,SNR=9.6						
SONM				Lg		14 06 45.3	
	comp=Z,2.9nm,0.3s,baz=14,slow=26,SNR=10						
HIA	**Hailar**	**8.59**	**136**	PN	**Pn**	**14 04 21.8**	**-1.9**
KRAR	**Krasnoyarsk**	**9.97**	**278**	*e*P	**Pn**	**14 04 42.2**	**-0.3**
HVS	**Khovu-Aksy**	**11.11**	**252**	*e*P	**Pn**	**14 04 59.3**	**+1.2**
YAK	**Yakutsk**	**11.62**	**50**	*e*P	**Pn**	**14 05 01.1**	**-4.0**
YAK				*e*		14 07 05.5	
YAK				pmax	pmax		
	comp=Z,10.0nm,0.6s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.4s						
YAK				pmax	pmax		
	comp=Z,12nm,0.6s						
YAK				pmax	pmax		
	comp=E,8.0nm,0.9s						
YAK				smax			
	comp=N,5.0nm,0.6s						
YAK				smax			
	comp=E,10.0nm,0.8s						
YAK				pmax	pmax		
	comp=N,47nm,0.7s						
YAK				pmax	pmax		
	comp=E,41nm,0.7s						
YAK				MLR	MLR		
	comp=Z,867nm,14.0s						
YAK	**Yakutsk**	**11.62**	**50**	*e*P	**Pn**	**14 05 01.4**	**-3.7**
	comp=Z,12nm,0.8s						
ZAA0	**Zalesovo Array**	**14.94**	**274**	P	**Pn**	**14 05 52.1**	**+1.7**
ZALV	**Zalesovo Beam**	**14.94**	**274**	Pn	**Pn**	**14 05 51.3**	**+0.9**
	comp=Z,0.3nm,0.3s,baz=64,slow=13,SNR=8.0						
ZALV				Lg		14 10 13.6	
	comp=Z,0.1nm,0.3s,baz=119,slow=17,SNR=3.6						
HABR	**Khabarovsk**	**16.64**	**106**	*e*P	**Pn**	**14 06 12.1**	**-0.3**
HABR						14 09 17.9	
HABR				MLR	MLR		
	comp=Z,889nm,16.0s						
TIXI	**Tiksi**	**17.68**	**19**	*e*P	**Pn**	**14 06 22.9**	**-2.5**
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.7s						
KURK	**Kurchatov**	**19.70**	**268**	P	**Pn**	**14 06 50.8**	**+0.9**
	comp=Z,0.2nm,0.3s,baz=69,slow=12,SNR=22						
MKAR	**Makanchi Array**	**19.76**	**255**	P	**Pn**	**14 06 49.6**	**-1.1**
	comp=Z,0.2nm,0.3s,baz=58,slow=9.9,SNR=16						
SEY	**Seymchan**	**22.08**	**54**	*e*P	**P**	**14 07 12.8**	**-1.4**
BVAR	**Borovoye Array**	**23.34**	**280**	P	**P**	**14 07 29.6**	**+2.0**
BVAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
BVAR	**Borovoye Array**	**23.34**	**280**	P	**P**	**14 07 29.6**	**+2.0**
	comp=Z,3.1nm,0.6s,mb3.9,baz=71,slow=15,SNR=10.0						
BRVK	**Borovoye**	**23.39**	**280**	*e*P	**P**	**14 07 29.3**	**+1.2**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
BRVK	**Borovoye**	**23.39**	**280**	*e*P	**P**	**14 07 29.3**	**+1.2**
	comp=Z,3.5nm,0.6s,mb4.0						
NJ2	**Nanjing**	**24.45**	**163**	*e*P	**P**	**14 07 38.7**	**+0.6**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
ARCES	**ARCESS Array B**	**37.85**	**325**	P	**P**	**14 09 35.4**	**-0.3**
ARCES				pmax	pmax		
	comp=Z,31nm,1.3s						
ARCES	**ARCESS Array B**	**37.85**	**325**	P	**P**	**14 09 35.4**	**-0.2**
	comp=Z,30nm,1.3s,mb4.9,baz=45,slow=12,SNR=2.8						
ARCES	**ARCESS Array B**	**37.85**	**325**	P	**P**	**14 09 35.4**	**-0.2**
HFS	**Hagfors**	**47.11**	**317**	P	**P**	**14 10 49.2**	**-1.8**
HFS				pmax	pmax		
	comp=Z,1.0nm,0.5s						
HFS	**Hagfors**	**47.11**	**317**	P	**P**	**14 10 49.2**	**-1.9**
	comp=Z,1.2nm,0.5s,mb4.0,baz=56,slow=11,SNR=4.1						
NOA	**NORSAR Array B**	**47.45**	**319**	P	**P**	**14 10 53.1**	**-0.6**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	**NORSAR Array B**	**47.45**	**319**	P	**P**	**14 10 53.0**	**-0.6**
	comp=Z,2.0nm,0.9s,mb4.0,baz=50,slow=7.5,SNR=3.3						
YKA	**Yellowknife Ar**	**56.87**	**23**	P	**P**	**14 12 02.0**	**-1.7**
	comp=Z,0.2nm,0.3s,mb3.6,baz=330,slow=7.3,SNR=6.8						
NVAR	**Mina Array Bea**	**77.31**	**37**	P	**P**	**14 14 12.0**	**-1.8**
	comp=Z,0.1nm,0.3s,mb3.2,baz=331,slow=7.6,SNR=4.3						
WRA	**Warramunga Arr**	**78.09**	**157**	P	**P**	**14 14 17.8**	**-0.3**
	comp=Z,0.3nm,0.7s,mb3.4,baz=350,slow=6.2,SNR=3.2						
ASAR	**Alice Springs**	**81.61**	**159**	P	**P**	**14 14 37.2**	**+0.1**
	comp=Z,0.3nm,0.8s,mb3.3,baz=349,slow=5.4,SNR=4.5						

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*SOF **12** 14:08:39.6, 42°.44N×19°.77E, h2^{km}, MD2.7*

*BEO **12** 14:08:40.8±0.7, 42°.30N×19°.75E, h0^{km}, ML3.0/6*

*TIR **12** 14:08:41.9, 42°.41N×19°.78E, h5^{km}, ML3.3*

*THE **12** 14:08:41.5, 42°.43N×19°.83E, h2^{km}±4^{km}, Error ellipse: s-maj=6.9km s-min=1.4km az=279.0*

*NEIC **12** 14:08:42.2, 42°.39N×19°.77E, h0^{km}, ML3.0(PDG), After PDG.*

*CSEM **12** 14:08:42.0±0.1, 42°.40N×19°.78E, h2^{km}, ML3.0/9, Error ellipse: s-maj=3.4km s-min=3.0km az=67.0*

*SKO **12** 14:08:43.5, 42°.36N×19°.74E, h0^{km}*

PDG 12 14:08:42.2±0.3**, 42°.39N×19°.77E, h0^{km}**±11^{km}**, MD3.1**/7**, ML3.0**/9**, 15C-8D, Error ellipse: s-maj=0.7km s-min=1.0km az=0.0, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVY	**Plav**	**0.25**	**36**	⇑*i*Pg	Pg	14 08 46.4	-0.6
PVY				*e*Sg	Sg	14 08 50.7	+0.4
PVY	**Plav**	**0.25**	**36**	⇑*i*Pg	Pg	14 08 46.4	-0.6
PVY				*e*Sg	Sg	14 08 50.7	+0.4
PDG	**Podgorica**	**0.38**	**276**	⇑*i*Pg	Pg	14 08 48.8	-0.7
PDG				*e*Sg	Sg	14 08 55.3	+0.8
TTG	**Podgorica**	**0.38**	**276**	⇑*i*Pg	Pg	14 08 48.8	-0.7
TTG				*e*Sg	Sg	14 08 55.3	+0.8
BEY	**Berane**	**0.49**	**11**	⇑*i*Pg	Pg	14 08 51.1	-0.5
BEY				*e*Sg	Sg	14 08 59.2	+1.3
IVA	**Berane**	**0.49**	**11**	⇑*i*Pg	Pg	14 08 51.1	-0.5

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IVA				*e*Sg	Sg	14 08 59.2	+1.3
ULC	**Ulcinj**	**0.58**	**223**	⇑*i*Pg	Pg	14 08 52.9	-0.4
ULC				*e*Sg	Sg	14 09 01.6	+0.8
ULC	**Ulcinj**	**0.58**	**223**	⇑*i*Pg	Pg	14 08 52.9	-0.4
ULC				*e*Sg	Sg	14 09 01.6	+0.8
BUM	**Brajici-Budva**	**0.66**	**262**	⇓*i*Pg	Pg	14 08 53.8	-1.0
BUM				*e*Sg	Sg	14 09 04.9	+1.6
BUM	**Brajici-Budva**	**0.66**	**262**	⇓*i*Pg	Pg	14 08 53.8	-1.0
BUM				*e*Sg	Sg	14 09 04.9	+1.6
NKY	**Niksic**	**0.71**	**307**	⇑*i*Pg	Pg	14 08 55.1	-0.8
NKY				*e*Sg	Sg	14 09 07.2	+2.1
NKY	**Niksic**	**0.71**	**307**	⇑*i*Pg	Pg	14 08 55.1	-0.8
NKY				*e*Sg	Sg	14 09 07.2	+2.1
PHP	**Peshkopia**	**0.86**	**145**	*e*PG	Pg	14 08 58.7	0.0
PHP				*i* SG	Sg	14 09 10.7	+0.8
PHP	**Peshkopia**	**0.86**	**145**	*e*Pg	Pg	14 08 58.7	0.0
	SNR=90						
PHP				*i* Sg	Sg	14 09 10.7	+0.8
	SNR=90						
SJES	**Sjenica**	**0.88**	**9**	⇑*i*Pg	Pg	14 08 57.7	-1.4
SJES				*e*Sg	Sg	14 09 11.9	+1.3
SJES	**Sjenica**	**0.88**	**9**	⇑*i*Pg	Pg	14 08 57.7	-1.4
SJES				*e*Sg	Sg	14 09 11.9	+1.3
HCY	**Herceg Novi**	**0.95**	**274**	⇓*i*Pg	Pg	14 08 59.6	-0.8
HCY				*e*Sg	Sg	14 09 14.8	+2.2
HCY	**Herceg Novi**	**0.95**	**274**	⇓*i*Pg	Pg	14 08 59.6	-0.8
HCY				*e*Sg	Sg	14 09 14.8	+2.2
PLE	**Pljevlja**	**0.98**	**344**	⇑*i*Pg	Pg	14 09 00.5	-0.5
PLE				*e*Sg	Sg	14 09 15.7	+2.0
PLE	**Pljevlja**	**0.98**	**344**	⇑*i*Pg	Pg	14 09 00.5	-0.5
PLE				*e*Sg	Sg	14 09 15.7	+2.0
UPM	**Unac-Piva**	**1.03**	**322**	⇓*i*Pg	Pg	14 09 01.8	-0.2
UPM				*e*Sg	Sg	14 09 17.3	+1.9
UPM	**Unac-Piva**	**1.03**	**322**	⇓*i*Pg	Pg	14 09 01.8	-0.2
UPM				*e*Sg	Sg	14 09 17.3	+1.9
BRY	**Bratogost**	**1.04**	**300**	⇓*i*Pg	Pg	14 09 01.0	-1.2
BRY				*e*Sg	Sg	14 09 18.2	+2.5
BRY	**Bratogost**	**1.04**	**300**	⇓*i*Pg	Pg	14 09 01.0	-1.2
BRY				*e*Sg	Sg	14 09 18.2	+2.5
TIR	**Tirane**	**1.04**	**176**	P	Pg	14 09 01.5	-0.7
TIR				S	Sg	14 09 17.6	+1.8
TIR	**Tirane**	**1.04**	**176**	*e*Pg	Pg	14 09 01.8	-0.4
TIR				*e*Sg	Sg	14 09 15.7	0.0
TIR	**Tirane**	**1.04**	**176**	*e*Pg	Pg	14 09 01.8	-0.4
TIR				*e*Sg	Sg	14 09 15.7	-0.1
TIR				S	Sg	14 09 17.6	+1.8
SKO	**Skopje**	**1.31**	**108**	P	Pg	14 09 05.9	-1.4
SKO				S	Sg	14 09 25.7	+1.5
SKO	**Skopje**	**1.31**	**108**	*e*Pn	Pn	14 09 06.7	-1.0
SKO				*e*Sn	Sn	14 09 25.9	+0.1
SKO	**Skopje**	**1.31**	**108**	*i* P	Pg	14 09 05.8	-1.4
SKO				Sg	Sg	14 09 25.5	+1.3
SKO	**Skopje**	**1.31**	**108**	*e*Pn	Pn	14 09 06.6	-1.1
SKO				*e*Sn	Sn	14 09 25.8	0.0
OHR	**Ohrid**	**1.49**	**149**	P	Pn	14 09 08.7	-1.5
OHR				S	Sg	14 09 29.6	-0.5
OHR	**Ohrid**	**1.49**	**149**	*e*Pn	Pn	14 09 10.0	-0.2
OHR				*e*Sn	Sn	14 09 31.1	+0.7
OHR	**Ohrid**	**1.49**	**149**	*e*Pn	Pn	14 09 10.0	-0.2
OHR				S	Sg	14 09 29.6	-0.5
OHR				*e*Sn	Sn	14 09 31.0	+0.6
BBLS	**Lazići**	**1.50**	**350**	*e*Pn	Pn	14 09 09.5	-0.8
BBLS				*e*Sn	Sn	14 09 31.8	+1.2
BBLS	**Lazići**	**1.50**	**350**	*e*Pn	Pn	14 09 09.5	-0.8
BBLS				*e*Sn	Sn	14 09 31.8	+1.2
KRUS	**Krusevo**	**1.50**	**132**	*e*Pn	Pn	14 09 09.7	-0.7
KRUS				*e*Sn	Sn	14 09 31.1	+0.4
BARS	**Barje**	**1.57**	**74**	⇑*i*Pg	Pg	14 09 10.2	-2.0
BARS				*e*Sg	Sg	14 09 31.8	-0.7
STON	**Ston**	**1.60**	**288**	*e*Pn	Pn	14 09 11.3	-0.4
STON				Sn	Sn	14 09 36.9	+3.7
STON	**Ston**	**1.60**	**288**	*e*Pn	Pn	14 09 11.4	-0.4
STON				Sn	Sn	14 09 36.9	+3.7
GRUS	**Gruza**	**1.65**	**24**	*e*Pn	Pn	14 09 11.7	-0.7
GRUS				*e*Sn	Sn	14 09 35.8	+1.5
DIVS	**Divibare**	**1.71**	**5**	*e*Pn	Pn	14 09 12.7	-0.6
DIVS				*e*Sn	Sn	14 09 37.3	+1.4
DIVS	**Divibare**	**1.71**	**5**	*e*Pn	Pn	14 09 12.7	-0.6
BIA	**Bitola**	**1.80**	**139**	P	Pn	14 09 13.3	-1.1
BIA	**Bitola**	**1.80**	**139**	*e*Pn	Pn	14 09 15.7	+1.3
BIA				*e*Sn	Sn	14 09 39.8	+1.9
BIA	**Bitola**	**1.80**	**139**	*e*Pn	Pn	14 09 15.7	+1.3
BIA				*e*Sn	Sn	14 09 39.7	+1.8
TRUS	**Trudelj**	**1.89**	**14**	*e*Pn	Pn	14 09 16.1	+0.4
TRUS	**Trudelj**	**1.89**	**14**	*e*Pn	Pn	14 09 16.1	+0.4
NISS		**1.89**	**57**	*e*Pn	Pn	14 09 14.4	-1.3
NISS		**1.89**	**57**	*e*Pn	Pn	14 09 14.4	-1.3
KBN	**Korca**	**1.92**	**156**	*e*PN	Pn	14 09 19.2	+3.0
KBN				*i* SN	Sn	14 09 46.6	+5.6
KBN	**Korca**	**1.92**	**156**	*e*Pn	Pn	14 09 19.2	+3.0
	SNR=57						
KBN				*i* Sn	Sn	14 09 46.6	+5.6
	SNR=57						
FNA	**Florina**	**2.01**	**143**	P	Pn	14 09 15.1	-2.2
FNA	**Florina**	**2.01**	**143**	P	Pn	14 09 15.1	-2.2
BOLS	**Boljevac**	**2.15**	**47**	*e*Pn	Pn	14 09 18.8	-0.5
BOLS				*e*Sn	Sn	14 09 46.2	-0.4
BOLS				*e*Sg	Sg	14 09 51.3	+0.1
BOLS	**Boljevac**	**2.15**	**47**	*e*Pn	Pn	14 09 18.8	-0.5
SVIS	**Svilajnac**	**2.15**	**29**	*e*Pn	Pn	14 09 19.2	-0.1
SVIS				*e*Sg	Sg	14 09 52.5	+1.3
ZAPS	**Zavoj**	**2.28**	**66**	*e*Pn	Pn	14 09 21.0	-0.1
ZAPS				*e*Sn	Sn	14 09 50.6	+0.7
ZAPS	**Zavoj**	**2.28**	**66**	*e*Pn	Pn	14 09 21.0	-0.1
ZAPS				*e*Sn	Sn	14 09 50.6	+0.7
PE1	**Pezze di Greco**	**2.37**	**229**	*e*Sn	Sn	14 09 50.8	-1.3
GRG	**Griva**	**2.43**	**125**	P	Pn	14 09 21.5	-1.7
GRG	**Griva**	**2.43**	**125**	P	Pn	14 09 21.5	-1.7
VTS	**Vitosha**	**2.55**	**84**	P	Pn	14 09 24.1	-0.7
VTS				Sg	Sg	14 10 04.5	+0.5
KNT	**Kendrikon**	**2.64**	**117**	P	Pn	14 09 25.0	-1.0
KNT	**Kendrikon**	**2.64**	**117**	P	Pn	14 09 25.0	-1.0
MMB	**Musomiste**	**3.05**	**104**	P	Pn	14 09 37.0	+5.3
MMB				Sg	Sg	14 10 26.0	+5.7
CUC	**Castrocucco**	**3.83**	**233**	*e*Pn	Pn	14 09 43.0	+0.7
CUC				*e*Sn	Sn	14 10 28.7	+0.6
CUC	**Castrocucco**	**3.83**	**233**	*e*Pn	Pn	14 09 43.0	+0.6
CUC				*e*Sn	Sn	14 10 28.7	+0.6
TIP	**Timpagrande**	**3.94**	**217**	*e*Pn	Pn	14 09 43.7	-0.2
TIP	**Timpagrande**	**3.94**	**217**	*e*Pn	Pn	14 09 43.7	-0.2
KECS	**Kecovo**	**6.11**	**4**	*e*PN	Pn	14 10 16.2	+2.5
KECS	**Kecovo**	**6.11**	**4**	*e*Pn	Pn	14 10 16.3	+2.6
STHS	**Stebnicka Huta**	**7.10**	**8**	*e*PN	Pn	14 10 24.3	-3.0

ISCJB ***12*** *14:16:32.6±3.4, 18°.88N±0°.08×146°.5E±0°.6, h177^{km}±20^{km}, mb3.6/8, Error ellipse: s-maj=87.7km s-min=12.8km az=176.8*

NEIC ***12*** *14:16:34.8±2.6, 18°.86N×146°.20E, h173^{km}±13^{km}, mb4.0/1, Error ellipse: s-maj=94.3km s-min=8.6km az=86.0*

IDC ***12*** *14:16:34.8±4.7, 18°.83N×146°.34E, h175^{km}±26^{km}, mb3.3/7, mb1 3.5/9, mb1mx3.3/24, mbtmp3.3/9, MS3.7/1, Ms1 3.7/1, ms1mx3.0/15, Error ellipse: s-maj=102.1km s-min=12.5km az=84.0*

ISC 12 14:16:34.0±3.4, 18°.85N±0°.08×146°.5E±0°.6, h171^{km}±19^{km}, n14, σ0^{s}.62/16, mb3.6/8, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**5.45**	**196**	P	**Pn**	**14 17 53.8**	**+0.1**
	9.4nm,0.3s,baz=2.7,slow=4.1,SNR=7.1						
GUMO				S	**Sn**	**14 18 56.1**	**-0.2**
	16nm,0.3s,baz=22,slow=21,SNR=4.0						
GUMO				LR	LR	14 19 50.2	
	comp=Z,691nm,18.7s,baz=84,slow=36						
GUMO	**Guam**	**5.45**	**196**	P	**Pn**	**14 17 53.8**	**+0.1**
GUMO				S	**Sn**	**14 18 56.1**	**-0.2**
GUMO				LR	LR	14 19 50.2	
MJAR	**Matsushiro Arr**	**19.06**	**339**	P	**P**	**14 20 43.6**	**+0.5**
	0.8nm,0.3s,baz=162,slow=10,SNR=8.2						
MAJO	**Matsushiro**	**19.06**	**339**	P	**P**	**14 20 42.4**	**-0.8**
MAT	**Matsushiro**	**19.06**	**339**	P	**P**	**14 20 47.7**	**+4.5**
KSRS	**Korea Array**	**24.62**	**323**	P	**P**	**14 21 40.0**	**+1.5**
	1.6nm,0.6s,mb3.7,baz=149,slow=8.5,SNR=6.1						
WRAB	**Tennant Creek**	**40.33**	**198**	*e*P	**P**	**14 23 55.3**	**+0.4**
	2.2nm,0.5s,mb4.0						
WRA	**Warramunga Arr**	**40.34**	**198**	P	**P**	**14 23 54.9**	**-0.1**
	0.9nm,0.4s,mb3.8,baz=26,slow=8.6,SNR=30						
FITZ	**Fitzroy Crossi**	**42.03**	**210**	P	**P**	**14 24 09.0**	**+0.2**
	1.7nm,0.4s,mb4.0,baz=22,slow=11,SNR=16						
FITZ	**Fitzroy Crossi**	**42.03**	**210**	*e*P	**P**	**14 24 08.9**	**+0.1**
SONM	**Songino Array**	**43.47**	**321**	P	**P**	**14 24 19.7**	**-0.4**
	0.6nm,0.6s,mb3.4,baz=136,slow=9.6,SNR=7.4						
ASAR	**Alice Springs**	**44.00**	**197**	P	**P**	**14 24 24.4**	**-0.1**
	0.3nm,0.5s,mb3.2,baz=14,slow=6.7,SNR=9.4						
MKAR	**Makanchi Array**	**58.87**	**314**	P	**P**	**14 26 13.8**	**-1.0**
	0.2nm,0.5s,mb3.2,baz=99,slow=7.0,SNR=4.5						
BVAR	**Borovoye Array**	**66.81**	**320**	P	**P**	**14 27 07.0**	**-0.1**
	1.0nm,0.6s,mb3.8,baz=101,slow=8.6,SNR=7.7						

ISCJB ***12*** *14:19:37.6±0.4, 33°.34N±0°.02×35°.39E±0°.03, h5^{km}±3^{km}, Error ellipse: s-maj=4.4km s-min=2.4km az=23.2*

GII ***12*** *14:19:37.8±0.0, 33°.24N×35°.43E, h1^{km}, Md3.3/6, Mm2.6/5*

CSEM ***12*** *14:19:38.3±0.3, 33°.34N×35°.41E, h2^{km}, ML3.4, Error ellipse: s-maj=10.1km s-min=4.1km az=96.0*

GRAL ***12*** *14:19:39.0±1.4, 33°.33N×35°.42E, h0^{km}±7^{km}, MD3.4*

ISC 12 14:19:38.1±0.4, 33°.35N±0°.02×35°.39E±0°.03, h4^{km}±3^{km}, n41, σ0^{s}.71/67, 16D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	**Matirih**	**0.15**	**340**	*e*P	**Pg**	**14 19 42.2**	**+1.1**
MATL	**Matirih**	**0.15**	**340**	*e*P	**Pg**	**14 19 42.2**	**+1.1**
KSDI	**Kefar Szold**	**0.27**	**124**	Pg	**Pg**	**14 19 42.8**	**-0.5**
KSDI				Sg	**Sg**	**14 19 46.6**	**-0.3**
HNTI	**Hanita**	**0.32**	**215**	Sg	**Sg**	**14 19 49.1**	**+0.7**
MMA1	**Mount Meron ar**	**0.33**	**178**	Pg	**Pg**	**14 19 44.0**	**-0.4**
MMA0	**Mount Meron ar**	**0.33**	**178**	Pg	**Pg**	**14 19 43.8**	**-0.7**
MMA0				Sg	**Sg**	**14 19 49.1**	**+0.4**
RCY	**Rachaya**	**0.38**	**69**	*e*P	**Pg**	**14 19 45.9**	**+0.4**
RCY				*e*S	**Sg**	**14 19 51.3**	**+0.8**
RCY	**Rachaya**	**0.38**	**69**	*e*P	**Pg**	**14 19 45.9**	**+0.4**
RCY				*e*S	**Sg**	**14 19 51.3**	**+0.8**
BRBR	**Barbar**	**0.47**	**82**	⇑P	**Pg**	**14 19 47.3**	**+0.1**
BRBR				⇑S	**Sg**	**14 19 53.9**	**+0.6**
KSHT	**Keshet**	**0.50**	**136**	Pg	**Pg**	**14 19 47.3**	**-0.5**
BHL	**Bhannes**	**0.60**	**21**	*e*P	**Pg**	**14 19 49.7**	**+0.1**
BHL				*e*S	**Sg**	**14 19 58.2**	**+0.8**
BHL	**Bhannes**	**0.60**	**21**	*e*P	**Pg**	**14 19 49.7**	**+0.1**
BHL				*e*S	**Sg**	**14 19 58.2**	**+0.8**
BLGI	**Bet Lehem HaGe**	**0.63**	**196**	Pg	**Pg**	**14 19 50.1**	**-0.2**
BLGI				Sg	**Sg**	**14 19 59.4**	**+0.9**
QASN	**Qassioun**	**0.76**	**76**	⇓P	**Pg**	**14 19 53.0**	**+0.3**
QASN				⇓S	**Sg**	**14 20 03.5**	**+0.9**
OFRI	**‘Ofer**	**0.80**	**205**	Pg	**Pg**	**14 19 53.1**	**-0.3**
TCHB	**Talchebab**	**0.83**	**144**	⇑P	**Pg**	**14 19 53.7**	**-0.3**
TCHB				⇑S	**Sg**	**14 20 04.9**	**+0.1**
TOTH	**TOTAH**	**0.87**	**89**	⇓P	**Pg**	**14 19 54.7**	**0.0**
TOTH				⇓S	**Sg**	**14 20 07.0**	**+1.0**
MMLI	**Mount Malkishu**	**0.91**	**178**	Pg	**Pg**	**14 19 54.2**	**-1.3**
MMLI				Sg	**Sg**	**14 20 06.9**	**-0.3**
HWQ	**Hawqa**	**1.04**	**26**	*e*P	**Pg**	**14 19 57.7**	**-0.3**
HWQ	**Hawqa**	**1.04**	**26**	*e*P	**Pg**	**14 19 57.7**	**-0.4**
HMDT	**Nahal Hemdat**	**1.09**	**174**	Pg	**Pg**	**14 19 58.0**	**-1.1**
HMDT				Sg	**Sg**	**14 20 13.8**	**+0.5**
MARH	**Ras Al Marh**	**1.13**	**53**	⇓P	**Pg**	**14 20 00.7**	**+0.8**
MARH				⇓S	**Sg**	**14 20 15.0**	**+0.4**
SLTI	**Sal’it**	**1.14**	**195**	Pg	**Pg**	**14 19 58.9**	**-1.1**
SLTI				Sg	**Sg**	**14 20 14.8**	**0.0**
SALA	**Sala**	**1.29**	**119**	⇓P	**Pg**	**14 20 01.7**	**-1.2**
SALA				⇓S	**Sg**	**14 20 18.3**	**-1.3**
ZALF	**Zalf**	**1.68**	**104**	⇓P	**Pn**	**14 20 08.1**	**-0.2**
ZALF				⇓S	**Sn**	**14 20 29.6**	**-0.7**
DSI	**Dead Sea**	**1.77**	**180**	Pn	**Pn**	**14 20 08.8**	**-0.7**
DSI				Sn	**Sn**	**14 20 33.3**	**+0.8**
ROOS	**tl_alroos**	**1.78**	**62**	⇓P	**Pn**	**14 20 11.1**	**+1.4**
ROOS				⇓S	**Sn**	**14 20 32.6**	**-0.2**
BIDA	**Albida**	**1.83**	**25**	⇑P	**Pn**	**14 20 10.3**	**-0.1**
BIDA				⇑S	**Sn**	**14 20 33.5**	**-0.6**
YTIR	**Yattir**	**1.99**	**187**	Pn	**Pn**	**14 20 12.8**	**+0.3**
YTIR				Sn	**Sn**	**14 20 39.1**	**+1.2**
MZDA	**Masada**	**2.03**	**181**	Pn	**Pn**	**14 20 13.1**	**0.0**
MZDA				Sn	**Sn**	**14 20 40.0**	**+1.1**
WRDH	**Warideh**	**2.32**	**21**	⇑P	**Pn**	**14 20 17.1**	**+0.1**
WRDH				⇑S	**Sn**	**14 20 45.8**	**-0.2**
SLNF	**Slenfeh**	**2.35**	**17**	⇓P	**Pn**	**14 20 17.4**	**0.0**
SLNF				⇓S	**Sn**	**14 20 45.9**	**-0.8**
KZIT	**Kziot**	**2.57**	**199**	Pn	**Pn**	**14 20 20.9**	**+0.3**
BTCH	**Batrach**	**2.83**	**18**	⇓P	**Pn**	**14 20 24.7**	**+0.6**
BTCH				⇓S	**Sn**	**14 20 57.9**	**-0.7**
PRNI	**Paran**	**3.00**	**186**	Pn	**Pn**	**14 20 26.3**	**-0.2**
COBT	**Iskenderun**	**3.25**	**12**	*i* P	**Pn**	**14 20 30.3**	**+0.4**
COBT	**Iskenderun**	**3.25**	**12**	*i* P	**Pn**	**14 20 30.3**	**+0.5**
COBT				*i* S	**Sn**	**14 21 07.9**	**-1.0**
HRFI	**Mount Harif**	**3.31**	**185**	Pn	**Pn**	**14 20 30.3**	**-0.4**
MBRI	**Mt Berech**	**3.56**	**187**	Pn	**Pn**	**14 20 34.8**	**+0.6**
EIL	**Elat**	**3.68**	**186**	Pn	**Pn**	**14 20 36.4**	**+0.6**
GZT	**Gaziantep**	**4.38**	**23**	*i* P	**Pg**	**14 21 00.1**	**-1.9**

CASC 12 14:20:02.3±1.5, 11°.78N×87°.72W, h15^{km}±12^{km}, MD4.0, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	**Copaltepe**	**1.17**	**70**	*e*P	Pn	14 20 23.0	-1.1
CNCH	**Conchagua**	**1.49**	**356**	*e*P	Pn	14 20 28.6	+0.1
CNCH				*e*S	Sn	14 20 49.5	+1.8
HUEN		**1.61**	**70**	*e*P	Pn	14 20 29.0	-1.1
BLLM	**Bellamira**	**1.73**	**343**	*e*P	Pn	14 20 31.5	-0.3
LFRS	**El Faro**	**2.25**	**325**	*e*P	Pn	14 20 39.2	+0.2
LFRS				*e*S	Sn	14 21 07.2	+0.7
PRS1	**Puriscal**	**3.80**	**118**	*e*P	Pn	14 21 01.5	+1.3
LCR2	**La Lucha 2**	**4.18**	**119**	*e*P	Pn	14 21 06.0	+0.6
URSC	**Urasca**	**4.33**	**116**	*e*P	Pn	14 21 08.6	+1.0
URSC				*e*S	Sn	14 21 59.4	+1.6
BUS	**Buena Vista**	**4.48**	**119**	*e*P	Pn	14 21 09.7	0.0
BUS				*e*S	Sn	14 21 58.3	-3.2
BAR1		**5.02**	**120**	*e*P	Pn	14 21 16.8	-0.3
BAR1				*e*S	Sn	14 22 09.9	-4.9

IDC ***12*** *14:34:04.6±1.1, 27°.85S×72°.38W, h0^{km}, mb4.4/2, mb1 4.2/5, mb1mx4.0/18, mbtmp4.2/5, ML4.1/3, Error ellipse: s-maj=37.4km s-min=27.0km az=88.0*

NEIC ***12*** *14:34:10.1±0.8, 27°.90S×72°.20W, h35^{km}, Error ellipse: s-maj=23.8km s-min=13.0km az=83.0*

ISC 12 14:34:09.5±1.4, 27°.81S±0°.05×72°.2W±0°.2, h35^{km}, n15, σ1^{s}.37/15, mb4.3/2, Off coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	**Las Campanas**	**1.80**	**132**	*e*Pn	**Pn**	**14 34 36.6**	**-1.4**
LCO				*e*Sn	**Sn**	**14 34 58.8**	**-0.8**
CFAA	**Coronel Fontan**	**5.13**	**138**	Pn	**Pn**	**14 35 25.3**	**+1.4**
	1.8nm,0.3s,baz=329,slow=12,SNR=15						
CFAA				Sn	**Sn**	**14 36 23.1**	**+1.2**
	1.9nm,0.3s,baz=61,slow=23,SNR=10						
CFAA	**Coronel Fontan**	**5.13**	**138**	Pn	**Pn**	**14 35 25.3**	**+1.4**
CFAA				Sn	**Sn**	**14 36 23.1**	**+1.2**
LVC	**Limon Verde**	**5.98**	**31**	Pn	**Pn**	**14 35 36.3**	**+0.7**
	1.4nm,0.3s,baz=207,slow=9.1,SNR=28						
LVC				Sn	**Sn**	**14 36 42.2**	**-0.7**
	4.2nm,0.3s,baz=284,slow=24,SNR=6.3						
LVC	**Limon Verde**	**5.98**	**31**	*e*Pn	**Pn**	**14 35 35.8**	**+0.1**
LVC				Sn	**Sn**	**14 36 42.2**	**-0.7**
PLCA	**Paso Flores**	**12.96**	**174**	Pn	**Pn**	**14 37 09.0**	**-2.2**
	0.3nm,0.3s,baz=352,slow=14,SNR=3.7						
PLCA	**Paso Flores**	**12.96**	**174**	*e*Pn	**Pn**	**14 37 09.2**	**-2.0**
SIV	**San Ignacio**	**15.65**	**44**	Pn	**Pn**	**14 37 44.3**	**-3.3**
	0.5nm,0.3s,baz=254,slow=13,SNR=8.1						
DBIC	**Dimbokro**	**73.44**	**73**	P	**P**	**14 45 40.0**	**+1.2**
	2.5nm,0.5s,mb4.4,baz=225,slow=6.6,SNR=11						
TORD	**Torodi Ar. Bea**	**82.30**	**71**	P	**P**	**14 46 29.4**	**+1.4**
	2.3nm,0.8s,mb4.2,baz=270,slow=5.2,SNR=17						
ASAR	**Alice Springs**	**122.95**	**209**	PKP	PKPdf	14 53 02.3	-0.4
	0.3nm,0.9s,baz=142,slow=1.7,SNR=4.5						
WRA	**Warramunga Arr**	**126.01**	**211**	PKP	PKPdf	14 53 09.2	+0.6
	0.7nm,1.0s,baz=153,slow=1.8,SNR=9.8						
ZAA0	**Zalesovo Array**	**148.92**	**27**	*e*PKPbc	PKPbc	14 53 54.6	+1.4
ZALV	**Zalesovo Beam**	**148.92**	**27**	PKPbc	PKPbc	14 53 55.0	+1.8
	3.0nm,0.5s,baz=276,slow=5.4,SNR=3.9						
MKAR	**Makanchi Array**	**152.45**	**40**	PKPbc	PKPbc	14 54 03.3	+1.5
	0.7nm,0.4s,baz=301,slow=2.2,SNR=33						
MKAR				PKPab	PKPab	14 54 10.9	-1.2
	0.3nm,0.4s,baz=311,slow=1.5,SNR=5.1						

BJI ***12*** *15:00:37.7, 6°.45S×147°.08E, h86^{km}, mB5.2/10, mb4.7/17, Ms4.7/4, Ms7 4.5/4*

ISCJB ***12*** *15:00:43.6±2.1, 5°.69S±0°.06×146°.35E±0°.09, h72^{km}±19^{km}, mb4.3/21, Error ellipse: s-maj=14.2km s-min=10.6km az=3.7*

IDC ***12*** *15:00:44.3±3.6, 5°.70S×146°.17E, h58^{km}±33^{km}, mb4.0/12, mb1 4.2/14, mb1mx4.1/18, mbtmp4.0/14, ML4.2/2, MS4.2/1, Ms1 4.2/1, ms1mx3.4/20, Error ellipse: s-maj=20.4km s-min=10.4km az=106.0*

NEIC ***12*** *15:00:46.8±2.0, 5°.72S×146°.26E, h86^{km}±18^{km}, mb4.1/6, Error ellipse: s-maj=14.4km s-min=9.9km az=52.0*

DJA ***12*** *15:00:52, 6°.18S×146°.42E, h154^{km}, mb5.0/9*

ISC 12 15:00:48.4±1.6, 5°.85S±0°.06×146°.22E±0°.09, h99^{km}±15^{km}, n43, σ1^{s}.08/41, mb4.4/20, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	**Coen**	**8.60**	**200**	*e*Pn	**Pn**	**15 02 49.8**	**-0.3**
	266nm,0.6s						
CTA	**Charters Tower**	**14.16**	**180**	*e*P	**Pn**	**15 04 06.0**	**+1.5**
	7.9nm,0.8s						
CTA	**Charters Tower**	**14.16**	**180**	P	**Pn**	**15 04 05.6**	**+1.1**
	1.3nm,0.3s,baz=10,slow=13,SNR=10.0						
CTA				LR	LR	15 09 34.8	
	comp=Z,984nm,18.9s,baz=342,slow=37						
CTAO	**Charters Tower**	**14.16**	**180**	*e*Pn	**Pn**	**15 04 06.1**	**+1.6**
KAKA	**Kakadu**	**15.21**	**242**	*e*P	**Pn**	**15 04 17.4**	**-0.6**
	34nm,1.1s						
KAKA	**Kakadu**	**15.21**	**242**	*e*P	**Pn**	**15 04 17.9**	**0.0**
	62nm,0.6s						
WRAB	**Tennant Creek**	**18.15**	**218**	*e*P	**Pn**	**15 04 53.2**	**-0.8**
	8.1nm,0.8s						
WRA	**Warramunga Arr**	**18.16**	**218**	P	**Pn**	**15 04 52.7**	**-1.5**
	0.6nm,0.3s,baz=33,slow=11,SNR=39						
WRA				S	**S**	**15 08 15.5**	**-0.7**
	0.1nm,0.3s,baz=36,slow=22,SNR=3.1						
WRA	**Warramunga Arr**	**18.16**	**218**	P	**Pn**	**15 04 52.7**	**-1.5**
WRA				S	**S**	**15 08 15.5**	**-0.7**
EIDS	**Eidsvold**	**19.96**	**167**	P	**Pn**	**15 05 13.4**	**-2.1**
ASAR	**Alice Springs**	**21.32**	**213**	P	**P**	**15 05 28.6**	**+1.1**
	3.6nm,0.6s,mb3.9,baz=51,slow=8.1,SNR=50						
ASAR				S	**S**	**15 09 23.7**	**+4.9**
	1.1nm,0.9s,baz=355,slow=29,SNR=2.6						
FITZ	**Fitzroy Crossi**	**23.50**	**237**	*e*P	**P**	**15 05 49.6**	**+0.1**
	29nm,0.9s,mb4.6						
FITZ	**Fitzroy Crossi**	**23.50**	**237**	P	**P**	**15 05 50.1**	**+0.6**
	15nm,0.8s,mb4.4,baz=56,slow=9.5,SNR=17						
FITZ	**Fitzroy Crossi**	**23.50**	**237**	*e*P	**P**	**15 05 50.1**	**+0.5**
	15nm,0.9s,mb4.3						
DZM	**Mont Dzumac**	**25.35**	**131**	*e*P	**P**	**15 06 05.2**	**-1.2**
STKA	**Stephens Creek**	**26.26**	**189**	*e*P	**P**	**15 06 15.7**	**+1.3**
	2.5nm,0.6s,mb3.8						
STKA	**Stephens Creek**	**26.26**	**189**	P	**P**	**15 06 15.9**	**+1.5**
	1.6nm,0.5s,mb3.7,baz=6.1,slow=7.0,SNR=6.3						
KMBL	**Kambalda**	**34.13**	**219**	*e*P	**P**	**15 07 24.2**	**+0.2**
	91nm,1.5s,mb5.4						
RPZ	**Rata Peaks**	**43.59**	**154**	P	**P**	**15 08 43.7**	**+1.0**
	18nm,0.6s,mb5.0,baz=225,slow=1.7,SNR=22						
KSRS	**Korea Array**	**46.33**	**340**	P	**P**	**15 09 04.0**	**-0.5**
	4.0nm,0.9s,mb4.2,baz=156,slow=8.7,SNR=6.7						
GYA	**Guiyang**	**50.00**	**312**	P	**P**	**15 09 34.7**	**+1.7**
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MDJ	**Mudanjiang**	**52.41**	**345**	P	**P**	**15 09 52.1**	**+1.5**
CMAR	**Chiang Mai Arr**	**52.49**	**298**	P	**P**	**15 09 52.6**	**+0.9**
	comp=Z,3.2nm,0.6s,mb4.5,baz=123,slow=6.1,SNR=26						
CD2	**Chengdu**	**54.61**	**315**	P	**P**	**15 10 06.7**	**-0.3**
CD2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
CD2				pmax	pmax		
	comp=Z,320nm,5.1s						
HHC	**Hu-ho-hao-te**	**56.30**	**329**	*e*P	**P**	**15 10 18.6**	**-0.3**
HHC				pP	pP	15 10 42.2	-0.8
HHC				sP	sP	15 10 53.8	-0.1
HHC				PP	PP	15 12 26.8	+1.4
HHC				PcS	PcS	15 15 13.1	-2.6
HHC				S	**S**	**15 17 59.7**	**-1.8**
HHC				sS	sS	15 18 41.0	-1.8
HHC				ScS	ScS	15 19 54.7	-4.0
HHC				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
HHC				pmax	pmax		
	comp=Z,230nm,4.9s						
HHC				LR	LR		
	comp=N,190nm,11.8s						
HHC				LR	LR		
	comp=E,240nm,13.1s						
HHC				LR	LR		
	comp=Z,170nm,13.4s						
LZH	**Lanzhou**	**57.59**	**320**	*e*P	**P**	**15 10 32.0**	**+3.9**
LZH				*e*PP	PP	15 12 42.3	+5.3
LZH				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
LZH				pmax	pmax		
	comp=Z,95nm,5.5s						
LZH				LR	LR		
	comp=N,170nm,15.0s						
LZH				LR	LR		
	comp=Z,200nm,17.9s						
PETK	**Petropavlovsk-**	**59.53**	**8**	P	**P**	**15 10 40.2**	**-1.0**
	comp=Z,7.0nm,1.1s,mb4.6,baz=163,slow=7.5,SNR=4.2						
PETK	**Petropavlovsk-**	**59.53**	**8**	P	**P**	**15 10 40.2**	**-1.0**
GTA	**Gaotai**	**62.13**	**321**	*e*P	**P**	**15 10 59.3**	**+0.2**
GTA				pP	pP	15 11 24.0	+0.3
GTA				sP	sP	15 11 34.7	+0.2
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
LSA	**Lhasa**	**63.53**	**307**	*e*P	**P**	**15 11 09.9**	**+1.2**
	comp=Z,1.4nm,0.6s,mb4.0						
ULN	**Ulaanbaatar**	**63.60**	**332**	*e*P	**P**	**15 11 08.3**	**-0.5**
	comp=Z,0.9nm,0.6s,mb3.8						
SONM	**Songino Array**	**63.89**	**331**	P	**P**	**15 11 10.8**	**+0.1**
	comp=Z,1.5nm,0.7s,mb3.9,baz=162,slow=3.2,SNR=13						
VNDA	**Vanda**	**72.11**	**176**	P	**P**	**15 12 02.8**	**+1.1**
	comp=Z,3.8nm,0.7s,mb4.3,baz=276,slow=4.6,SNR=7.0						
MKAR	**Makanchi Array**	**76.89**	**321**	P	**P**	**15 12 28.8**	**-1.0**
	comp=Z,0.9nm,0.6s,mb3.7,baz=98,slow=8.3,SNR=15						
ZALV	**Zalesovo Beam**	**78.47**	**328**	P	**P**	**15 12 36.2**	**-2.2**
	comp=Z,1.4nm,0.5s,mb3.9,baz=114,slow=6.1,SNR=8.6						
ZALV	**Zalesovo Beam**	**78.47**	**328**	P	**P**	**15 12 36.2**	**-2.3**
AML	**Almayashu**	**81.11**	**314**	*e*P	**P**	**15 12 53.5**	**+0.6**
	comp=Z,3.0nm,1.0s,mb4.1						
YKA	**Yellowknife Ar**	**99.39**	**28**	P	Pdif	15 14 18.7	-1.0
	comp=Z,0.2nm,0.5s,baz=264,slow=4.5,SNR=4.0						
TORD	**Torodi Ar. Bea**	**144.30**	**284**	PKP	PKPdf	15 20 12.9	-1.1
	comp=Z,3.6nm,0.8s,baz=69,slow=3.3,SNR=17						
KIC	**Kosan Boka**	**151.12**	**273**	*e*P	PKPbc	15 20 31.3	+0.1
	comp=Z,152nm,1.9s						
DBIC	**Dimbokro**	**151.24**	**273**	PKPbc	PKPbc	15 20 31.9	+0.4
	comp=Z,2.7nm,0.6s,baz=136,slow=3.6,SNR=7.8						
DBIC				PKPab	PKPab	15 20 39.7	0.0
	comp=Z,2.0nm,0.7s,baz=176,slow=1.7,SNR=4.7						
TIC	**Toumodi**	**151.40**	**273**	*e*P	PKPbc	15 20 32.7	+0.8
	comp=Z,9.7nm,0.2s						
LIC	**Lamto**	**151.41**	**272**	*e*P	PKPbc	15 20 32.8	+0.9
	comp=Z,47nm,1.4s						

ISCJB ***12*** *15:22:17.1±0.6, 24°.82N±0°.04×140°.9E±0°.1, h150^{km}, mb3.7/5, Error ellipse: s-maj=14.8km s-min=5.9km az=6.8*

IDC ***12*** *15:22:18.7±1.5, 24°.71N×141°.29E, h148^{km}±17^{km}, mb3.7/4, mb1 3.8/7, mb1mx3.5/21, mbtmp3.7/7, Error ellipse: s-maj=28.7km s-min=13.8km az=81.0*

NEIC ***12*** *15:22:20.6±2.7, 24°.69N×141°.17E, h167^{km}±28^{km}, Error ellipse: s-maj=34.2km s-min=13.1km az=83.0*

JMA ***12*** *15:22:22.3±0.1, 25°.06N×141°.09E, h164^{km}, M4.3*

ISC 12 15:22:18.7±0.6, 24°.87N±0°.04×140°.9E±0°.1, h150^{km}, n21, σ1^{s}.11/28, mb3.7/5, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	**2.12**	**34**	P	**Pn**	**15 22 56.8**	**+1.5**
JHHJ				*e*S	**Sn**	**15 23 23.3**	**-0.2**
CBIJ	**Chichi jima**	**2.52**	**28**	P	**Pn**	**15 23 01.5**	**+1.4**
CBIJ				*e*S	**Sn**	**15 23 31.5**	**-0.6**
CBIJ	**Chichi jima**	**2.52**	**28**	P	**Pn**	**15 23 01.5**	**+1.4**
	81nm,0.3s,baz=282,slow=17,SNR=19						
CBIJ				S	**Sn**	**15 23 31.6**	**-0.4**
	138nm,0.3s,baz=290,slow=22,SNR=16						
BSO1	**Boso 1**	**9.75**	**1**	P	**Pn**	**15 24 35.9**	**+0.5**
BSO1				*e*S	**Sn**	**15 26 20.6**	**-2.8**
BSO3	**Boso 3**	**9.90**	**358**	P	**Pn**	**15 24 37.8**	**+0.4**
BSO3				*e*S	**Sn**	**15 26 25.9**	**-1.1**
BSO4	**Boso 4**	**10.10**	**358**	P	**Pn**	**15 24 40.6**	**+0.7**
BSO4				*e*S	**Sn**	**15 26 30.4**	**-1.3**
JOD2	**Odawara 2**	**10.47**	**352**	P	**Pn**	**15 24 47.1**	**+2.2**

JOD2				eS	Sn	15 26 40.7	0.0
JAG	Ashikaga	11.58	354	P	Pn	15 24 59.2	-0.3
JHO	Hitachi	11.71	359	P	Pn	15 25 00.4	-0.7
MJAR	Matsushiro Arr 0.7nm,0.3s,baz=87,slow=27,SNR=6.2	11.85	350	P	Pn	15 25 07.3	+4.3
KSRS	Korea Array 0.5nm,0.3s,baz=137,slow=12,SNR=17	16.70	322	P	Pn	15 26 09.9	+6.0
SONM	Songino Array 0.3nm,0.6s,mb3.1,baz=134,slow=5.5,SNR=3.3	35.54	319	P	P	15 29 05.3	+4.1
WRAB	Tennant Creek 50nm,0.4s	44.98	189	eP	P	15 30 18.4	-0.7
WRA	Warramunga Arr 41nm,0.3s,baz=7.5,slow=8.6,SNR=846	44.99	189	P	P	15 30 18.5	-0.7
ASAR	Alice Springs 1.0nm,0.4s,mb3.8,baz=358,slow=6.6,SNR=44	48.71	188	P	P	15 30 47.1	-0.9
MKAR	Makanchi Array 0.5nm,0.4s,mb3.5,baz=87,slow=9.4,SNR=34	50.99	311	P	P	15 31 07.0	+2.0
STKA	Stephens Creek 3.4nm,0.4s,mb4.5	56.43	179	eP	P	15 31 43.5	-1.2
STKA	Stephens Creek 4.8nm,0.5s,mb4.6,baz=357,slow=8.1,SNR=19	56.43	179	P	P	15 31 43.9	-0.8
STKA	Stephens Creek	56.43	179	eP	P	15 31 43.5	-1.1
YKA	Yellowknife Ar 0.8nm,0.6s,mb3.5,baz=292,slow=5.8,SNR=13	74.66	28	P	P	15 33 41.5	+0.1
YKA	Yellowknife Ar	74.66	28	P	P	15 33 41.5	+0.1

TAP 12 15:30:38.5, 24°.73N×122°.17E, h91^{km}, ML3.6, 3D, C, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWC	Suao baz=247	0.31	247	P	Pn	15 30 52.1	0.0
TWC	baz=247			i S	Sn	15 31 02.2	0.0
TWB1	Santiao Chiao baz=325	0.32	330	i P	Pn	15 30 52.4	+0.2
TWB1	baz=325			i S	Sn	15 31 02.2	0.0
ILA	Ilan baz=278	0.38	275	i P	Pn	15 30 53.2	+0.7
ILA	baz=278			S	Sn	15 31 03.1	+0.2
TWE	Neicheng baz=274	0.45	269	i P	Pn	15 30 53.5	+0.6
TWE	baz=274			S	Sn	15 31 04.0	+0.2
NWF	Wu-fen Shan baz=307	0.48	314	P	Pn	15 30 53.6	+0.4
NWF	baz=307			S	Sn	15 31 04.2	0.0
ENA	Nanau baz=227	0.49	232	i P	Pn	15 30 53.9	+0.6
ENA	baz=227			S	Sn	15 31 05.1	+0.8
ENTT	Nioudou baz=262	0.55	260	i P	Pn	15 30 54.6	+0.8
ENTT	baz=262			S	Sn	15 31 05.8	+0.7
TWA	Mucha baz=290	0.58	295	i P	Pn	15 30 54.2	+0.2
TWA	baz=290			S	Sn	15 31 05.8	+0.2
NSK	Sanguang baz=274	0.74	266	⇓iP	Pn	15 30 56.1	+0.7
NSK	baz=274			S	Sn	15 31 08.9	+0.8
TWS1	Kuangyinshan baz=305	0.77	298	i P	Pn	15 30 56.2	+0.5
TWS1	baz=305			eS	Sn	15 31 09.2	+0.5
NNS	Nan Shan baz=239	0.78	248	⇓iP	Pn	15 30 56.9	+1.0
NNS	baz=239			S	Sn	15 31 10.0	+1.1
TWD	Chiawan baz=229	0.83	219	P	Pn	15 30 56.8	+0.3
TWD	baz=229			S	Sn	15 31 10.1	+0.3
HWA	Hwalien baz=206	0.91	214	eP	Pn	15 30 58.1	+0.9
NCU	National Centr baz=275	0.92	285	eP	Pn	15 30 58.3	+1.0
NCU	baz=275			eS	Sn	15 31 13.4	+1.9
WHF	Hehuan Shan baz=229	1.01	235	P	Pn	15 30 59.4	+1.1
WHF	baz=229			S	Sn	15 31 14.2	+1.0
NSTT	Nanjuang baz=264	1.06	265	⇓iP	Pn	15 30 59.7	+0.7
NSTT	baz=264			eS	Sn	15 31 15.2	+0.8
HSN	Hsinchu baz=275	1.09	274	eP	Pn	15 30 59.9	+0.6
HSN	baz=275			eS	Sn	15 31 15.5	+0.6
ESL	Shilin baz=222	1.13	216	i P	Pn	15 30 59.5	-0.3
ESL	baz=222			eS	Sn	15 31 15.1	-0.7
NSY	Sanyi baz=255	1.32	256	P	Pn	15 31 03.3	+1.3
NSY	baz=255			eS	Sn	15 31 20.9	+1.1
TWQ1	Liyutan baz=252	1.32	253	P	Pn	15 31 03.0	+0.9
TWQ1	baz=252			S	Sn	15 31 21.2	+1.3
SMLT	Sun Moon Lake baz=229	1.43	234	eP	Pn	15 31 05.4	+2.0
SMLT	baz=229			eS	Sn	15 31 24.8	+2.5
EHY	Hungye baz=217	1.45	212	eP	Pn	15 31 04.1	+0.5
EHY	baz=217			eS	Sn	15 31 20.9	-1.7
TYC	Yuchr baz=234	1.45	236	eP	Pn	15 31 05.3	+1.6
TYC	baz=234			eS	Sn	15 31 24.0	+1.3
TWF1	Yuli baz=216	1.59	210	eP	Pn	15 31 05.5	+0.1
TWF1	baz=216			eS	Sn	15 31 24.8	-1.0
WNT	Mingjian baz=246	1.60	238	eP	Pn	15 31 06.9	+1.4
WNT	baz=246			eS	Sn	15 31 27.6	+1.6
YUS	Yu-Shan baz=213	1.66	222	eP	Pn	15 31 08.1	+1.7
YUS	baz=213			eS	Sn	15 31 29.3	+1.8
ALS	Alishan baz=216	1.74	226	P	Pn	15 31 09.5	+2.2
ALS	baz=216			eS	Sn	15 31 32.3	+3.0
CHN5	Tsauling baz=238	1.77	231	eP	Pn	15 31 09.4	+1.7
CHN5	baz=238			eS	Sn	15 31 31.9	+1.9
CHKT	Chengkung baz=196	1.78	204	eP	Pn	15 31 08.7	+0.8
CHKT	baz=196			eS	Sn	15 31 28.4	-1.9
WGK	Gukeng baz=233	1.80	235	eP	Pn	15 31 09.9	+1.8
WGK	baz=233			eS	Sn	15 31 34.0	+3.4
ELDTW	Lidau baz=213	1.86	215	P	Pn	15 31 09.5	+0.5
ELDTW	baz=213			eS	Sn	15 31 32.2	+0.1
WTCT	Ta-ch’eng baz=249	1.93	244	eP	Pn	15 31 10.8	+1.1
CHN2	Minshiung baz=240	1.95	233	eP	Pn	15 31 12.0	+1.9
CHN2	baz=240			eS	Sn	15 31 37.1	+2.9
CHN4	Tsaushan baz=224	1.99	227	eP	Pn	15 31 12.3	+1.7
CHN4	baz=224			eS	Sn	15 31 36.3	+1.2
STYT	Tauyuan baz=218	2.03	220	eP	Pn	15 31 13.1	+2.0
STYT	baz=218			eS	Sn	15 31 37.6	+1.7
WTP	Ta-pu baz=222	2.05	224	eP	Pn	15 31 13.2	+1.8
WTP	baz=222			eS	Sn	15 31 38.0	+1.5
TWK	Hsinying baz=234	2.12	227	eP	Pn	15 31 13.0	+0.8
CHN1	Nanshi baz=222	2.15	225	P	Pn	15 31 14.1	+1.4
CHN1	baz=222			eS	Sn	15 31 39.8	+1.0
TWG	Pinlang baz=203	2.15	208	eP	Pn	15 31 12.9	+0.2
TWG	baz=203			eS	Sn	15 31 37.4	-1.5
SGST	Jiashian baz=219	2.19	222	eP	Pn	15 31 14.9	+1.6
SGST	baz=219			eS	Sn	15 31 42.2	+2.4
ECL	Taimali baz=204	2.40	208	eP	Pn	15 31 15.1	-0.9
ECL	baz=204			eS	Sn	15 31 43.1	-1.6
SSD	Sandimen baz=213	2.43	216	eP	Pn	15 31 17.7	+1.3
SSD	baz=213			eS	Sn	15 31 46.2	+0.8

MAN 12 15:35:41, 17°.29N×121°.91E, h32^{km}, mb4.1, ML2.9, MS2.6, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAUP	Cauayan	0.36	193	eP	Pb	15 35 51.8	+2.4
CAUP				eS	Sb	15 35 56.1	+1.0
PALP	Palanan	0.54	115	eP	Pb	15 35 53.4	+1.1
PALP				eS	Sb	15 35 58.4	-1.5
SGCP	Mt. Cagua	0.95	8	eP	Pn	15 35 59.1	+0.9
ABRA	Dolores	1.20	287	eP	Pn	15 36 02.5	+1.0
ABRA				eS	Sn	15 36 17.2	+0.5
BALP	Baler	1.57	192	eP	Pn	15 36 08.0	+1.3
BALP				eS	Sn	15 36 23.7	-2.3

MAN 12 15:57:41, 15°.06N×119°.86E, h32^{km}, mb3.7, ML2.4, MS1.9, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCZP	Santa Cruz	0.72	4	eP	Pn	15 57 56.2	+1.2
SCZP				eS	Sb	15 58 04.6	-0.2
SCZP	Santa Cruz	0.72	4	eP	Pn	15 57 55.6	+0.7
PCPH	Palayan	1.30	67	eP	Pn	15 58 03.4	+0.4
PCPH				eS	Sn	15 58 19.8	+0.6
BOLP	Bolinao	1.32	2	eP	Pn	15 58 04.6	+1.4
BOLP	Bolinao	1.32	2	eP	Pn	15 58 04.2	+1.0
LUBP	Lubang	1.37	164	eP	Pn	15 58 05.0	+1.2
LUBP	Lubang	1.37	164	eP	Pn	15 58 05.6	+1.7
BALP	Baler	1.79	67	eP	Pn	15 58 11.3	+1.5
POLP	Polilio Island	2.04	99	eP	Pn	15 58 15.7	+2.6
CAUP	Cauayan	2.67	45	eP	Pn	15 58 22.4	+0.6
ABRA	Dolores	2.71	18	eP	Pn	15 58 25.2	+2.9
BUSP	Coron	3.05	174	eP	Pn	15 58 29.0	+2.0
ENPP	El Nido	3.85	186	eP	Pn	15 58 39.1	+1.0

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*ISCJB **12** 16:01:48.8±0.3, 40°.71S±0°.04×174°.51E±0°.07, h82^{km}±7^{km}, mb3.5/3, Error ellipse: s-maj=10.4km s-min=3.8km az=30.8*

*IDC **12** 16:01:49.5±2.3, 40°.54S×174°.34E, h51^{km}±26^{km}, mb3.3/3, mb1 3.5/5, mb1mx3.4/15, mbtmp3.3/5, ML2.8/2, Error ellipse: s-maj=27.2km s-min=16.9km az=135.0*

*NEIC **12** 16:01:51.0, 40°.68S×174°.56E, h59^{km}, ML4.0(WEL), After WEL.*

NEIC Felt at Wellington and along the Kapiti Coast.

ISC 12 16:01:50.0±0.3, 40°.71S±0°.04×174°.52E±0°.07, h71^{km}±8^{km}, n62, σ0^s.88/62, mb3.5/3, Cook Strait

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIW	Kapiti Island	0.33	118	P	Pn	16 02 01.0	-0.5
KIW				S	Sn	16 02 08.3	-1.7
TCW	Tory Channel	0.54	200	P	Pn	16 02 03.3	0.0
MRW	Makara Radio	0.54	165	P	Pn	16 02 03.8	+0.5
MRW				S	Sn	16 02 13.5	+0.4
CAW	Cannon Point	0.58	134	P	Pn	16 02 03.9	+0.2
WEL	Wellington	0.61	162	P	Pn	16 02 04.5	+0.5
SNZO	South Karori	0.62	167	P	Pn	16 02 04.3	+0.2
SNZO				P		16 02 04.7	
BHW	Baring Head	0.75	159	P	Pn	16 02 05.9	+0.3
MRZ	Mangatainoka R	0.81	87	P	Pn	16 02 05.9	-0.3
MTW	Mount Morrison	0.87	122	P	Pn	16 02 06.8	-0.2
MSWZ	Moikau Station	0.90	142	P	Pn	16 02 07.5	+0.2
PAWZ	Paruwai Farm	0.96	135	P	Pn	16 02 08.2	+0.1
NNZ	Nelson	1.00	239	P	Pn	16 02 08.5	-0.1
WAZ	Wanganui	1.01	21	P	Pn	16 02 08.2	-0.6
CMWZ	Cape Campbell	1.06	192	P	Pn	16 02 11.7	+2.3
BSWZ	Blackbirch Sta	1.12	206	P	Pn	16 02 11.3	+1.3
BFZ	Birch Farm	1.31	89	P	Pn	16 02 11.9	-0.6
QRZ	Quartz Range	1.52	265	P	Pn	16 02 14.9	-0.3
MOVZ	Moawhango	1.61	36	P	Pn	16 02 16.3	-0.1
WNVZ	Wahianoa	1.61	31	P	Pn	16 02 16.7	+0.3
THZ	Tophouse	1.61	229	P	Pn	16 02 17.5	+1.0
DRZ	Dome Shelter	1.64	30	P	Pn	16 02 18.6	+1.7
TUVZ	Tukino	1.68	32	P	Pn	16 02 18.1	+0.7
NGZ	Ngauruhoe	1.74	29	P	Pn	16 02 19.0	+0.8
TWVZ	Taurewa	1.78	24	P	Pn	16 02 18.8	+0.1
WTVZ	West Tongariro	1.79	28	P	Pn	16 02 19.2	+0.3
KHZ	Kahutara	1.86	203	P	Pn	16 02 20.7	+0.9
KATZ	Kakaramea	1.95	28	P	Pn	16 02 22.3	+1.3
RATZ	Rangitukua	2.08	28	P	Pn	16 02 24.8	+2.1
BKZ	Black Stump Fm	2.16	45	P	Pn	16 02 23.5	-0.3
WATZ	Wairara	2.21	26	P	Pn	16 02 25.9	+1.5
HIZ	Hauiti	2.21	7	P	Pn	16 02 24.2	-0.3
DSZ	Denniston Nort	2.30	242	P	Pn	16 02 25.9	+0.3
LTZ	Lake Taylor	2.67	218	P	Pn	16 02 30.9	+0.2
TOZ	Tahuroa Road	3.07	15	P	Pn	16 02 36.3	+0.1
URZ	Urewera 0.8nm,0.3s,baz=228,slow=8.3,SNR=17	3.16	40	P	Pn	16 02 35.1	-2.3
URZ	7.0nm,0.3s,baz=164,slow=14,SNR=3.7			S	Sn	16 03 13.5	-0.5
URZ	Urewera	3.16	40	P	Pn	16 02 35.1	-2.3
MQZ	McQueen’s Vall	3.30	204	P	Pn	16 02 38.0	-1.3
MWZ	Matawai	3.32	45	P	Pn	16 02 37.8	-1.8
MKAZ	Moumakai	3.63	8	P	Pn	16 02 43.4	-0.4
WVZ	Waitaha Valley	3.68	229	P	Pn	16 02 44.5	0.0
OTAZ	Otara	3.77	5	P	Pn	16 02 45.9	+0.3
WTAZ	Waiatarua	3.77	1	P	Pn	16 02 45.5	-0.2
RPZ	Rata Peaks 0.9nm,0.3s,baz=38,slow=15,SNR=17	3.96	219	P	Pn	16 02 47.7	-0.5
RPZ	7.5nm,0.3s,baz=77,slow=21,SNR=15			S	Sn	16 03 29.2	-4.2
RPZ	Rata Peaks	3.96	219	P	Pn	16 02 47.0	-1.2
KUZ	Kuaotunu	4.07	14	P	Pn	16 02 49.2	-0.5
MXZ	Matakaoa Point	4.30	44	P	Pn	16 03 00.0	+7.0
WCZ	Waipu Caves	4.76	358	P	Pn	16 02 58.5	-0.8
LBZ	Lake Benmore	4.88	220	P	Pn	16 02 59.3	-1.4
ODZ	Otahua Downs	5.19	212	P	Pn	16 03 03.7	-1.3
JCZ	Jackson Bay	5.43	230	P	Pn	16 03 06.9	-1.5
OUZ	Omahuta	5.53	352	eP	Pn	16 03 09.0	-0.7
WKZ	Wanaka	5.77	223	P	Pn	16 03 12.8	-0.2
MSZ	Milford Sound	6.27	229	P	Pn	16 03 20.3	+0.5
TUZ	Tuapeka	6.34	213	P	Pn	16 03 20.9	+0.1
ASAR	Alice Springs 0.3nm,0.4s,mb3.5,baz=120,slow=6.8,SNR=20	37.96	284	P	P	16 09 01.1	+0.3
WRA	Warramunga Arr 0.3nm,0.5s,mb3.4,baz=125,slow=8.2,SNR=6.9	39.94	289	P	P	16 09 17.6	+0.2
QSPA	South Pole Qui 0.3nm,0.3s,mb3.6,baz=53,slow=3.9,SNR=7.0	49.42	180	P	P	16 10 36.3	+4.3
QSPA	South Pole Qui	49.42	180	P	P	16 10 36.3	+4.3
LIC	Lamto 29nm,1.4s	145.66	181	ePKIKP	PKPab	16 21 23.0	+1.7
KIC	Kosan Boka 47nm,1.2s	145.79	181	ePKIKP	PKPab	16 21 23.4	+1.6
TIC	Toumodi 8.3nm,0.2s	146.08	181	ePKIKP	PKPab	16 21 22.8	-0.1
TORD	Torodi Ar. Bea 0.2nm,0.4s,baz=165,slow=4.6,SNR=3.8	151.83	195	PKPbc	PKPbc	16 21 38.0	+1.0

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*BJI **12** 16:17:14.7, 1°.52N×98°.12E, h83^{km}, mb4.7/2*

*ISCJB **12** 16:17:16.1±1.8, 1°.9N±0°.1×97°.9E±0°.1, h65^{km}±13^{km}, mb4.3/14, Error ellipse: s-maj=25.7km s-min=10.0km az=41.0*

*NEIC **12** 16:17:17.5±0.4, 1°.88N×97°.88E, mb4.2/2, Error ellipse: s-maj=10.0km s-min=6.6km az=55.0*

*IDC **12** 16:17:18.0±1.1, 1°.91N×97°.92E, h62^{km}±7^{km}, mb4.1/12, mb1 4.1/13, mb1mx3.8/25, mbtmp4.0/13, MS3.5/1, Ms1 3.5/1, ms1mx2.7/33, Error ellipse: s-maj=27.8km s-min=13.0km az=53.0*

ISC 12 16:17:17.3±1.7, 1°.9N±0°.1×97°.9E±0°.1, h58^{km}±13^{km}, h63^{km}±1.2^{km}:pP-P, n27, σ0^s.60/27, mb4.3/14, 2D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	1.39	49	⇓eP	Pn	16 17 40.2	-0.2
PSI	Prapat 51nm,0.3s,baz=244,slow=6.6,SNR=81	1.39	49	P	Pn	16 17 40.0	-0.4
PSI	Prapat	1.39	49	P	Pn	16 17 40.0	-0.5
KULM	Kulim	4.37	39	eP	Pn	16 18 21.8	+0.7
BSI	Banda Aceh	4.41	324	⇓eP	Pn	16 18 23.0	+1.3
BSI				eS	Sn	16 19 10.5	-1.2
CMAR	Chiang Mai Arr 0.3nm,0.3s,baz=195,slow=12,SNR=14	16.50	4	P	Pn	16 21 04.1	-0.9
FITZ	Fitzroy Crossi comp=Z,83nm,19.2s,baz=159,slow=37	33.80	127	LR	LR	16 38 05.7	
WRA	Warramunga Arr 1.3nm,0.3s,mb4.0,baz=322,slow=11,SNR=18	41.84	123	P	P	16 25 01.4	-0.4
WRA	0.7nm,0.5s,baz=315,slow=2.7,SNR=8.1			PcP	PcP	16 26 58.3	+1.2
WRAB	Tennant Creek	41.84	123	eP	P	16 25 02.0	+0.1
ASAR	Alice Springs 0.5nm,0.5s,mb3.5,baz=297,slow=7.4,SNR=16	43.28	128	P	P	16 25 13.2	-0.3
ASAR	0.6nm,0.8s,baz=266,slow=2.6,SNR=4.6			PcP	PcP	16 27 03.0	+1.2
SONM	Songino Array 2.2nm,0.7s,mb4.2,baz=189,slow=8.9,SNR=20	46.36	8	P	P	16 25 38.0	+0.5
SONM	0.5nm,0.5s,baz=189,slow=3.3,SNR=5.3			PcP	PcP	16 27 12.8	+0.9
ULN	Ulaanbaatar 1.0nm,0.6s,mb3.9	46.48	9	eP	P	16 25 38.8	+0.3
MK31	Makanchi Array	46.74	345	eP	P	16 25 41.1	+0.6
MKAR	Makanchi Array 6.6nm,0.6s,mb4.7,baz=156,slow=8.9,SNR=88	46.74	345	P	P	16 25 41.3	+0.7
KURK	Kurchatov 7.5nm,0.6s,mb4.8,baz=163,slow=7.2,SNR=30	51.30	344	P	P	16 26 15.8	+0.3
KURK	1.5nm,0.5s,baz=164,slow=6.9,SNR=4.0			pP	pP	16 26 31.1	+0.4
ZAA0	Zalesovo Array	52.99	350	eP	P	16 26 28.2	+0.3
ZALV	Zalesovo Beam 7.6nm,0.4s,mb5.0,baz=173,slow=7.3,SNR=47	52.99	350	P	P	16 26 28.2	+0.4
ZALV	1.9nm,0.3s,baz=159,slow=6.5,SNR=4.2			pP	pP	16 26 44.5	+1.2
STKA	Stephens Creek 1.3nm,0.7s,mb4.0,baz=307,slow=10,SNR=2.9	53.33	133	P	P	16 26 30.7	-0.1
BVAR	Borovoye Array 1.9nm,0.4s,mb4.4,baz=138,slow=8.8,SNR=17	55.82	340	P	P	16 26 48.5	0.0
BVAR	1.4nm,0.5s,baz=146,slow=8.2,SNR=4.6			pP	pP	16 27 05.1	+1.1
BRVK	Borovoye 2.7nm,0.6s,mb4.5	55.89	340	eP	P	16 26 48.8	-0.2
ASAJ	Asahikawa 8.5nm,1.0s,mb4.7,baz=225,slow=10.0,SNR=3.5	57.71	37	P	P	16 27 01.3	-0.7
AKASG	Malin Array Be 0.8nm,0.4s,mb4.0,baz=91,slow=5.2,SNR=3.7	75.12	322	P	P	16 28 53.1	-0.1
JOF	Joensuu	77.81	335	ep	P	16 29 07.0	-1.1
KAF	Kangasniemi	79.77	333	ep	P	16 29 18.7	-0.2
ARCES	ARCESS Array B 3.8nm,0.8s,mb4.4,baz=80,slow=8.7,SNR=6.9	82.11	340	P	P	16 29 31.8	+0.5
NB2	NORSAR Subarra comp=Z,3.0nm,0.9s,mb4.5,baz=91,slow=5.3	86.73	331	P	P	16 29 55.3	+0.5
NOA	NORSAR Array B comp=Z,1.4nm,0.8s,mb4.2,baz=93,slow=4.6,SNR=4.4	86.73	331	P	P	16 29 54.1	-0.6

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*IDC **12** 16:19:25.2±1.1, 31°.94N×95°.02E, h0^{km}, mb3.6/4, mb1 3.6/6, mb1mx3.4/24, mbtmp3.4/6, ML3.0/1, Error ellipse: s-maj=48.9km s-min=20.2km az=54.0*

*ISCJB **12** 16:19:29.2±2.5, 31°.98N±0°.09×95°.0E±0°.2, h44^{km}±27^{km}, mb3.7/4, Error ellipse: s-maj=24.3km s-min=14.6km az=14.2*

ISC 12 16:19:31.9±2.0, 32°.05N±0°.09×95°.0E±0°.2, h50^{km}±23^{km}, n14, σ0^s.81/14, mb3.7/4, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	4.06	236	P	Pn	16 20 33.8	+2.4
TAPN	Taplejung 3.9nm,0.5s	7.88	235	eP	Pn	16 21 23.6	-0.3
ODAN	Odare 8.7nm,0.5s	8.41	234	eP	Pn	16 21 31.4	+0.2
JIRN	Jiri 4.5nm,0.4s	8.81	242	eP	Pn	16 21 37.1	+0.4
RAMN	Ramite 4.6nm,0.4s	8.91	237	eP	Pn	16 21 37.4	-0.6
GUN	Gumba	8.92	245	eP	Pn	16 21 38.1	-0.1
KKN	Kakani 7.5nm,0.6s	9.44	246	eP	Pn	16 21 43.7	-1.6
MKAR	Makanchi Array baz=129,slow=13,SNR=2.9	17.66	330	P	Pn	16 23 34.0	-0.1
SONM	Songino Array 0.1nm,0.3s,baz=218,slow=11,SNR=3.4	17.99	26	P	Pn	16 23 38.4	+0.3
KURK	Kurchatov 0.9nm,0.7s,mb3.3,baz=137,slow=11,SNR=4.4	22.25	332	P	P	16 24 23.8	-0.5
BRTR	Keskin Array B 0.9nm,0.8s,mb3.8,baz=72,slow=9.3,SNR=3.5	49.46	297	P	P	16 28 17.9	+0.9
BRTR	Keskin Array B	49.46	297	P	P	16 28 17.9	+0.9
WRA	Warramunga Arr 0.7nm,0.8s,mb3.8,baz=330,slow=6.6,SNR=4.9	63.97	138	P	P	16 29 59.8	-0.3
ASAR	Alice Springs 1.0nm,0.7s,mb3.9,baz=324,slow=6.1,SNR=13	66.72	141	P	P	16 30 17.8	-0.1

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*NEIC **12** 16:20:07.0, 16°.20N×94°.63W, h92^{km}, MD3.9(MEX), After MEX.*

MEX 12 16:20:06.9±0.7, 16°.20N×94°.63W, h94^{km}±11^{km}, MD3.9, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.92	345	eP	Pn	16 20 24.9	-1.1
CMIG				i S	Sn	16 20 38.5	-1.8
PCIG		1.44	110	i P	Pn	16 20 31.1	-1.0
PCIG				i S	Sn	16 20 49.7	-1.4
HUIG	Huatulco	1.49	253	i P	Pn	16 20 31.1	-1.5
HUIG				i S	Sn	16 20 50.6	-1.5
VHO	Vista Hermosa	2.20	294	i P	Pn	16 20 41.3	-0.5
VHO				i S	Sn	16 21 07.9	-0.6
VHO	Vista Hermosa	2.20	294	i P	Pn	16 20 43.3	+1.5
VHO				i S	Sn	16 21 09.9	+1.4
CCIG	Comitan	2.39	88	eP	Pn	16 20 42.0	-2.5
CCIG				i S	Sn	16 21 10.9	-2.3
PNIG	Pinotepa	3.37	274	i P	Pn	16 20 57.5	+0.1
PNIG				i S	Sn	16 21 35.7	-0.8

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*IDC **12** 16:25:39.8±2.7, 33°.93S×178°.71W, h0^{km}, mb3.9/2, mb1 4.2/4, mb1mx4.0/17, mbtmp4.0/4, ML3.9/2, Error ellipse: s-maj=63.8km s-min=34.2km az=113.0*

*NEIC **12** 16:25:55.1±5.5, 34°.68S×179°.15W, h114^{km}±34^{km}, Error ellipse: s-maj=63.6km s-min=27.1km az=60.0*

ISC 12 16:25:56.3±4.1, 34°.7S±0°.1×179°.3W±0°.4, h116^{km}±23^{km}, n7, σ0^s.38/10, mb3.8/2, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera 5.3nm,0.3s,baz=55,slow=2.5,SNR=36	4.60	218	Pn	Pn	16 27 04.0	+0.3
URZ	3.3nm,0.3s,baz=145,slow=20,SNR=8.5			Sn	Sn	16 28 05.6	+10
URZ	Urewera	4.60	218	eP	Pn	16 27 04.2	+0.5
URZ				eS	Sn	16 28 05.4	+9.3
URZ				Sn	Sn	16 28 05.6	+10
OUZ	Omahuta	5.89	263	eP	Pn	16 27 21.0	-0.1
RPZ	Rata Peaks 0.4nm,0.3s,baz=53,slow=6.2,SNR=3.6	11.71	217	Pn	Pn	16 28 39.0	-0.5
RPZ	0.3nm,0.3s,baz=63,slow=18,SNR=4.2			Sn	Sn	16 30 48.4	+0.1
ASAR	Alice Springs 1.3nm,0.8s,mb3.7,baz=110,slow=7.7,SNR=15	42.01	272	P	P	16 33 36.8	+0.6
ASAR	0.4nm,0.8s,baz=115,slow=3.8,SNR=4.2			PcP	PcP	16 35 29.1	-0.1
WRA	Warramunga Arr 1.7nm,0.7s,mb3.9,baz=116,slow=7.5,SNR=17	43.39	277	P	P	16 33 47.0	-0.4
MKAR	Makanchi Array	119.67	309	PKP	PKPdf	16 44 31.1	-0.8

0.1nm,0.6s,baz=122,slow=0.7,SNR=4.5

IDC 12 16:43:04.0±27.0,23°.78S×173°.40W,h0^{km},mb4.2/4, mb1 4.4/4,mb1mx4.0/16,mbtmp4.2/4,MS3.8/1,Ms1 3.8/1, ms1mx2.6/23,Error ellipse: s-maj=505.4km s-min=147.3km az=79.0,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	37.52	268	P	P	16 50 20.0	+0.1
	2.9nm,0.4s,baz=92,slow=12,SNR=7.4						
CTA				LR	LR	17 02 16.7	
	comp=Z,159nm,21.2s,baz=56,slow=31						
STKA	Stephens Creek	40.38	248	P	P	16 50 43.7	-0.1
	1.1nm,0.3s,baz=82,slow=8.1,SNR=6.0						
ASAR	Alice Springs	48.01	259	P	P	16 51 45.0	-0.1
	0.7nm,0.3s,baz=96,slow=8.5,SNR=26						
WRA	Warramunga Arr	48.44	264	P	P	16 51 48.3	-0.1
	4.3nm,0.8s,baz=104,slow=8.0,SNR=55						

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*ISCJB **12** 16:49:08.3±1.3,51°.41N±0°.06×16°.03E±0°.05,h0^{km},Error ellipse: s-maj=8.7km s-min=3.5km az=23.0*
*WAR **12** 16:49:09,51°.49N×16°.09E,ML2.2,Mining Induced*
*PRU **12** 16:49:09.9,51°.42N×16°.08E,h0^{km}*
*CSEM **12** 16:49:10.2±1.0,51°.37N×16°.03E,h2^{km},ML2.9/4,Error ellipse: s-maj=14.9km s-min=6.7km az=8.0*

ISC 12 16:49:08.9±1.4,51°.45N±0°.06×16°.08E±0°.05,h0^{km},n21, σ0^s.91/36,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.62	168	ePg	Pg	16 49 21.3	+0.6
KSP				eSg	Sg	16 49 30.0	+1.3
KSP	Ksiaz	0.62	168	ePg	Pg	16 49 21.2	+0.5
KSP				eSg	Sg	16 49 29.8	+1.1
UPC	Upice	0.94	183	ePG	Pg	16 49 27.1	+0.2
UPC	Upice	0.94	183	Pg	Pg	16 49 27.1	+0.2
DPC	Dobruska-Polom	1.11	172	ePG	Pg	16 49 30.0	-0.1
DPC				eSG	Sg	16 49 44.3	-0.1
	comp=Z,5.1nm,0.3s						
DPC	Dobruska-Polom	1.11	172	Pg	Pg	16 49 30.0	-0.1
DPC				Sg	Sg	16 49 44.3	-0.1
	comp=Z,5.1nm,0.3s						
PVCC	Panska Ves	1.33	227	ePG	Pg	16 49 34.3	0.0
PVCC				eSG	Sg	16 49 52.7	+1.2
	comp=Z,31nm,0.2s						
PVCC	Panska Ves	1.33	227	Pg	Pg	16 49 34.3	0.0
PVCC				Sg	Sg	16 49 52.7	+1.2
	comp=Z,31nm,0.2s						
BRG	Berggiesshubel	1.47	248	PG	Pg	16 49 36.8	-0.1
BRG				SG	Sg	16 49 56.8	+0.9
	comp=Z,12nm,0.7s						
PRU	Pruhonice	1.76	214	ePG	Pg	16 49 42.6	+0.1
PRU				eSG	Sg	16 50 04.6	-0.7
	comp=Z,4.2nm,0.2s						
PRU	Pruhonice	1.76	214	Pg	Pg	16 49 42.6	+0.1
PRU				Sg	Sg	16 50 04.6	-0.7
	comp=Z,4.2nm,0.2s						
MORC	Moravsky Berou	1.91	150	ePn	Pn	16 49 44.3	+1.6
MORC				eSg	Sg	16 50 10.0	-0.3
CLL	Collm	1.94	267	ePg	Pg	16 49 44.0	-1.9
CLL				eSg	Sg	16 50 11.0	0.0
OKC	Ostrava-Krasne	2.08	140	eSG	Sg	16 50 15.0	-0.6
OKC	Ostrava-Krasne	2.08	140	Sg	Sg	16 50 15.0	-0.6
VRAC	Vranov	2.17	171	eSg	Sg	16 50 18.3	-0.1
NKC	Novy Kostel	2.61	244	eSG	Sg	16 50 33.0	+0.5
	comp=Z,9.5nm,0.3s						
NKC	Novy Kostel	2.61	244	Sg	Sg	16 50 33.0	+0.5
	comp=Z,9.5nm,0.3s						
KHC	Kasperske Hory	2.82	216	ePG	Pg	16 50 01.0	-1.9
KHC				eSN	Sn	16 50 29.5	-0.3
KHC				eSG	Sg	16 50 37.8	-1.6
KHC	Kasperske Hory	2.82	216	Pg	Pg	16 50 01.0	-1.9
KHC				Sn	Sn	16 50 29.5	-0.3
KHC				Sg	Sg	16 50 37.8	-1.6
MOX	Moxa	2.93	256	eSG	Sg	16 50 44.1	+1.1

JMA 12 16:51:06.8±0.4,34°.55N×138°.29E,h269^{km}±4^{km},M3.5, Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIZS	Izushimoda	0.51	71	P	Pn	16 51 42.3	+0.5
JOD2	Odawara 2	0.97	42	P	Pn	16 51 44.2	+0.6
JHU	Hanno	1.53	32	P	Pn	16 51 47.5	+0.4
JHU				eS	S	16 52 18.0	-1.0
JRY	Ryogami san	1.55	19	P	Pn	16 51 47.9	+0.7
JRY				eS	S	16 52 18.8	-0.4
JKN2	Miekihoku	1.70	260	P	Pn	16 51 48.1	-0.3
BSO4	Boso 4	1.74	75	eS	S	16 52 20.2	-1.6
BSO3	Boso 3	1.85	82	P	Pn	16 51 50.0	+0.5
BSO3				eS	S	16 52 22.1	-1.2
JNG	Nsakai	1.86	355	P	Pn	16 51 49.9	+0.3
MAT	Matsushiro	1.99	358	P	Pn	16 51 50.8	+0.1
JAG	Ashikaga	2.10	27	P	Pn	16 51 51.4	-0.2
BSO1	Boso 1	2.22	87	P	Pn	16 51 52.8	0.0
BSO1				eS	S	16 52 28.1	-1.1
JYT	Yasato	2.29	42	P	Pn	16 51 53.1	-0.2
JYT				eS	S	16 52 27.1	-3.1
JKT	Katashina	2.35	19	P	Pn	16 51 53.2	-0.7
JKT				eS	S	16 52 28.3	-2.9
JHO	Hitachi	2.77	41	P	Pn	16 51 58.0	0.0
JHO				eS	S	16 52 35.4	-3.3

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*TAP **12** 17:17:57.1,24°.99N×122°.56E,h128^{km},ML3.6,C*
*JMA **12** 17:17:57.6±0.4,25°.00N×122°.46E,h109^{km},M2.4*
*ISCJB **12** 17:17:58.0±0.7,24°.90N±0°.05×122°.56E±0°.03, h125^{km}±5^{km},Error ellipse: s-maj=7.8km s-min=3.9km az=172.6*

ISC 12 17:17:58.3±0.8,24°.92N±0°.05×122°.56E±0°.03,h125^{km}±6^{km}, n35,σ0^s.58/66,2D,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.52	279	P	Pn	17 18 16.2	-0.7
	baz=272						
TWB1				S	Sn	17 18 30.8	-0.2
	baz=272						
TWC	Suao	0.71	244	P	Pn	17 18 18.1	-0.2
	baz=233						
TWC				S	Sn	17 18 33.0	-0.4
	baz=233						
ILA	Ilan	0.75	258	P	Pn	17 18 18.3	-0.3
	baz=244						
ILA				S	Sn	17 18 34.1	+0.2
	baz=244						
TWE	Neicheng	0.83	256	i P	Pn	17 18 19.2	0.0
	baz=244						
TWE				i S	Sn	17 18 35.7	+0.6
	baz=244						
TWA	Mucha	0.89	274	P	Pn	17 18 19.9	+0.2
	baz=261						
TWA				S	Sn	17 18 35.7	-0.1
	baz=261						
ENA	Nanau	0.89	237	P	Pn	17 18 19.9	+0.1
	baz=227						
ENA				S	Sn	17 18 36.6	+0.6
	baz=227						
ENTT	Nioudou	0.94	253	P	Pn	17 18 20.4	+0.1
	baz=243						
ENTT				S	Sn	17 18 37.0	+0.2
	baz=243						
TAP1	Taipei	0.94	277	eP	Pn	17 18 18.9	-1.3
	baz=265						
TWS1	Kuangyinshan	1.05	280	P	Pn	17 18 21.2	0.0
	baz=276						
TWS1				eS	Sn	17 18 38.8	+0.2
	baz=276						
NSK	Sanguang	1.12	257	P	Pn	17 18 21.9	-0.1
	baz=254						
NSK				S	Sn	17 18 39.7	-0.1
	baz=254						
NNS	Nan Shan	1.18	246	P	Pn	17 18 22.6	0.0
	baz=235						
NNS				eS	Sn	17 18 41.7	+0.7
	baz=235						
TWD	Chiawan	1.21	226	eP	Pn	17 18 22.5	-0.4
	baz=219						
TWD				eS	Sn	17 18 41.4	-0.2
	baz=219						
IRIF	Iriomote-Funau	1.22	119	P	Pn	17 18 22.6	-0.4
IRIF				eS	Sn	17 18 41.9	+0.2
WHF	Hehuan Shan	1.41	237	eP	Pn	17 18 25.3	+0.2
	baz=230						
WHF				eS	Sn	17 18 46.1	+0.7
	baz=230						
TWT	Tachien	1.42	242	eP	Pn	17 18 25.7	+0.5
	baz=235						
TWT				eS	Sn	17 18 46.6	+0.9
	baz=235						
HATJ	Hateruma jima	1.43	127	eS	Sn	17 18 46.2	+0.4
NSTT	Nanjuang	1.44	259	⇓iP	Pn	17 18 25.0	-0.4
	baz=255						
NSTT				S	Sn	17 18 45.3	-0.7
	baz=255						
JKRS	Kuro-shima	1.49	117	P	Pn	17 18 25.9	-0.1
JKRS				eS	Sn	17 18 47.2	+0.2
ESL	Shilin	1.51	223	eP	Pn	17 18 25.1	-1.0
	baz=228						
ESL				eS	Sn	17 18 45.6	-1.8
	baz=228						
JIJ	Ishigaki jima	1.55	111	P	Pn	17 18 26.3	-0.3
JIJ				eS	Sn	17 18 47.4	-0.8
TWQ1	Liyutan	1.72	251	⇓iP	Pn	17 18 28.3	-0.3
	baz=256						
TWQ1				S	Sn	17 18 51.2	-0.6
	baz=256						
EHY	Hungye	1.81	219	eP	Pn	17 18 29.8	+0.1
	baz=224						
EHY				eS	Sn	17 18 52.6	-1.0
	baz=224						
SMLT	Sun Moon Lake	1.83	236	eP	Pn	17 18 30.4	+0.4
	baz=231						
SMLT				eS	Sn	17 18 54.9	+0.8
	baz=231						
TYC	Yuchr	1.85	237	P	Pn	17 18 30.6	+0.3
	baz=235						
TYC				eS	Sn	17 18 55.2	+0.6
	baz=235						
TWF1	Yuli	1.94	217	eP	Pn	17 18 30.9	-0.5
	baz=215						
TWF1				eS	Sn	17 18 55.1	-1.5
	baz=215						
JTJ	Tarama	1.97	98	P	Pn	17 18 32.2	+0.5
JTJ				eS	Sn	17 18 58.0	+0.8
YUS	Yu-Shan	2.05	226	eP	Pn	17 18 33.8	+1.2
	baz=220						
ALS	Alishan	2.13	229	eP	Pn	17 18 34.1	+0.5
	baz=220						
ALS				eS	Sn	17 19 01.2	+0.5
	baz=220						
CHN5	Tsauling	2.16	233	P	Pn	17 18 34.2	+0.1
	baz=239						
CHN5				eS	Sn	17 19 02.1	+0.7
	baz=239						
ELDTW	Lidau	2.23	219	eP	Pn	17 18 34.9	0.0
	baz=212						
ELDTW				eS	Sn	17 19 01.7	-1.2
	baz=212						
CHN4	Tsaushan	2.38	229	eP	Pn	17 18 37.2	+0.4
	baz=227						
CHN4				eS	Sn	17 19 06.8	+0.5
	baz=227						
STYT	Tauyuan	2.40	224	eP	Pn	17 18 37.4	+0.3
	baz=221						
STYT				eS	Sn	17 19 07.1	+0.3
	baz=221						
WTP	Ta-pu	2.44	227	eP	Pn	17 18 37.2	-0.3
	baz=225						
WTP				eS	Sn	17 19 07.9	+0.3
	baz=225						
CHN1	Nanshi	2.54	227	eP	Pn	17 18 38.6	-0.2
	baz=225						
CHN1				eS	Sn	17 19 10.3	+0.5
	baz=225						
SGST	Jiashian	2.57	225	eP	Pn	17 18 39.1	-0.2
	baz=223						

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*ISCJB **12** 17:28:14.2±0.4,33°.32N±0°.02×35°.42E±0°.03,h7^{km}±3^{km}, Error ellipse: s-maj=4.3km s-min=2.5km az=23.3*
*CSEM **12** 17:28:14.6±0.2,33°.33N×35°.44E,h2^{km},ML3.3,Error ellipse: s-maj=7.4km s-min=2.4km az=97.0*
*GII **12** 17:28:14.6±0.0,33°.32N×35°.41E,h1^{km},Md2.8/8,Mm2.4/4*
*NSSC **12** 17:28:15,33°.29N×35°.47E,h11^{km}±2^{km}*
*GRAL **12** 17:28:15.2±0.4,33°.31N×35°.42E,h0^{km}±6^{km},MD3.3*

ISC 12 17:28:14.7±0.4,33°.33N±0°.02×35°.43E±0°.03,h6^{km}±3^{km}, n41,σ0^s.64/65,12D,Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.18	334	eP	Pg	17 28 18.6	+0.2
MATL	Matirih	0.18	334	eP	Pg	17 28 18.6	+0.3
KSDI	Kefar Szold	0.24	124	Pg	Pg	17 28 19.3	-0.1
KSDI				Sg	Sg	17 28 23.2	+0.7
MMC7	Mount Meron ar	0.30	185	Pg	Pg	17 28 20.3	-0.3
MMA0B	Mount Meron ar	0.31	184	Pg	Pg	17 28 20.2	-0.5
MMA0B				Sg	Sg	17 28 24.9	+0.1
MMC6	Mount Meron ar	0.32	185	Pg	Pg	17 28 20.4	-0.4
HNTI	Hanita	0.32	221	Pg	Pg	17 28 21.0	0.0
HNTI				Sg	Sg	17 28 25.1	-0.1
RCY	Rachaya	0.36	64	eP	Pg	17 28 22.1	+0.3
RCY				eS	Sg	17 28 27.6	+1.0
RCY	Rachaya	0.36	64	eP	Pg	17 28 22.1	+0.3
RCY				eS	Sg	17 28 27.6	+1.0
BRBR	Barbar	0.45	79	⇓P	Pg	17 28 24.0	+0.7
BRBR				⇓S	Sg	17 28 29.0	-0.2
KSHT	Keshet	0.47	137	Pg	Pg	17 28 23.8	0.0
BEYL	Beyrouth	0.55	6	eP	Pg	17 28 25.2	0.0
BEYL	Beyrouth	0.55	6	eP	Pg	17 28 25.2	0.0
BHL	Bhannes	0.61	18	eP	Pg	17 28 26.1	-0.3
BHL				eS	Sg	17 28 34.6	+0.4
BHL	Bhannes	0.61	18	eP	Pg	17 28 26.1	-0.3
BHL				eS	Sg	17 28 34.6	+0.3
BLGI	Bet Lehem HaGe	0.62	198	Pg	Pg	17 28 26.5	-0.2
QASN	Qassioun	0.74	74	⇓P	Pg	17 28 29.0	+0.1
QASN				⇓S	Sg	17 28 40.0	+1.5
OFRI	‘Ofer	0.80	208	Pg	Pg	17 28 29.6	-0.4
TCHB	Talchebab	0.80	145	⇓P	Pg	17 28 30.0	0.0
TCHB				⇓S	Sg	17 28 40.0	-0.4
TOTH	TOTAH	0.84	87	⇓P	Pg	17 28 31.0	+0.2
TOTH				⇓S	Sg	17 28 42.0	+0.3
MMLI	Mount Malkishu	0.89	180	Pg	Pg	17 28 30.9	-0.8
MMLI				Sg	Sg	17 28 43.2	0.0
HWQ	Hawqa	1.04	24	eP	Pg	17 28 34.4	-0.3
HWQ				eS	Sg	17 28 48.2	-0.1
HWQ	Hawqa	1.04	24	eP	Pg	17 28 34.4	-0.3
HWQ				eS	Sg	17 28 48.2	-0.1
HMDT	Nahal Hemdat	1.07	175	Pg	Pg	17 28 34.3	-1.0
HMDT				Sg	Sg	17 28 49.9	+0.7
SLTI	Sal’it	1.13	197	Pg	Pg	17 28 35.4	-1.0
SLTI				Sg	Sg	17 28 51.2	+0.1
FKH	Fakeheh	1.22	42	eP	Pg	17 28 37.8	-0.3
FKH	Fakeheh	1.22	42	eP	Pg	17 28 37.8	-0.3
SALA	Sala	1.26	119	⇓P	Pn	17 28 38.0	-0.8
SALA				⇓S	Sg	17 28 54.0	-1.1
ZALF	Zalf	1.65	104	⇑P	Pn	17 28 44.0	-0.2
ZALF				⇑S	Sn	17 29 04.0	-1.7
DSI	Dead Sea	1.75	181	Pn	Pn	17 28 45.3	-0.3
DSI				Sn	Sn	17 29 09.3	+1.1
ROOS	tl_alroos	1.77	61	⇑P	Pn	17 28 47.0	+1.2
ROOS				⇑S	Sn	17 29 07.0	-1.5
BIDA	Albida	1.84	24	⇑P	Pn	17 28 47.0	+0.2
BIDA				⇑S	Sn	17 29 10.0	-0.3
YTIR	Yattir	1.98	188	Pn	Pn	17 28 49.1	+0.5
MZDA	Masada	2.01	182	Pn	Pn	17 28 49.5	+0.4
MZDA				Sn	Sn	17 29 16.1	+1.5
WRDH	Warideh	2.32	20	⇓P	Pn	17 28 53.0	-0.4
WRDH				⇓S	Sn	17 29 22.0	-0.3
RTMI	Retamim	2.35	196	Pn	Pn	17 28 54.3	+0.5
SLNF	Slenfeh	2.36	16	⇑P	Pn	17 28 54.0	+0.1
SLNF				⇑S	Sn	17 29 23.0	-0.1
KZIT	Kziot	2.57	200	Pn	Pn	17 28 57.7	+0.9
PRNI	Paran	2.99	187	Pn	Pn	17 29 02.9	+0.3
MBRI	Mt Berech	3.55	187	Pn	Pn	17 29 10.6	+0.3
EIL	Elat	3.67	186	Pn	Pn	17 29 11.6	-0.3

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*DJA **12** 17:32:21,5°.13N×96°.25E,h16^{km},MLv4.6/6*
*ISCJB **12** 17:32:23.2±0.9,4°.84N±0°.06×96°.28E±0°.06,h42^{km}±9^{km}, mb4.1/18,MS3.3/2,Error ellipse: s-maj=11.3km s-min=7.1km az=43.0*
*NEIC **12** 17:32:26.1±0.4,4°.83N×96°.44E,mb4.0/3,Error ellipse: s-maj=10.7km s-min=6.9km az=53.0*
*IDC **12** 17:32:27.1±0.8,4°.98N×96°.88E,h52^{km}±6^{km},mb3.8/12, mb1 3.9/13,mb1mx3.8/25,mbtmp3.8/13,MS3.3/3, Ms1 3.4/3,ms1mx2.9/34,Error ellipse: s-maj=34.5km s-min=12.7km az=59.0*

ISC 12 17:32:25.3±0.8,4°.83N±0°.06×96°.28E±0°.06,h47^{km}±9^{km}, h53^{km}±2.2^{km}:pP-P,n40,σ1^s.47/43,mb4.1/18,MS3.3/2,1C, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	1.18	304	⇑eP	Pn	17 32 40.0	-5.5
BSI				eS	Sn	17 32 57.0	-3.4
BSI	Banda Aceh	1.18	304	P	Pn	17 32 39.0	-6.5
BSI				S	Sn	17 32 53.6	-6.8
PSI	Prapat	3.32	127	P	Pn	17 33 16.3	+1.5
	19nm,0.3s,baz=315,slow=12,SNR=53						
PSI				S	Sn	17 34 04.1	+11
	23nm,0.3s,baz=271,slow=17,SNR=5.0						
PSI	Prapat	3.32	127	P	Pn	17 33 16.3	+1.5
PSI				S	Sn	17 34 04.1	+11
GSI	Gunungsitoli	3.73	160	P	Pn	17 33 19.1	-1.3
KULM	Kulim	4.38	84	ePn	Pn	17 33 28.6	-0.7
KULM	Kulim	4.38	84	P	Pn	17 33 28.4	-0.9
IPM	Ipoh	4.74	94	P	Pn	17 33 33.2	-1.1
IPM				S	Sn	17 34 29.8	+1.7
PPI	Padang Panjang	6.67	142	P	Pn	17 34 01.1	+0.3
	27nm,0.8s,0.2nm						
PDSI	Padang	7.07	144	P	Pn	17 34 11.2	+5.0
	62nm,0.9s,0.2nm						
KSI	Kapahiang	10.52	143	P	Pn	17 34 56.7	+3.1
CMAR	Chiang Mai Arr	13.79	11	P	Pn	17 35 38.3	0.0
	0.4nm,0.3s,baz=198,slow=14,SNR=9.7						
CMAR				sP		17 35 53.1	
	0.2nm,0.3s,baz=203,slow=11,SNR=18						
CMAR				LR	LR	17 41 14.1	
	comp=Z,116nm,19.5s,baz=215,slow=39						
CHTO	Chiang Mai	14.14	10	ePn	Pn	17 35 43.0	0.0
	3.5nm,0.8s						
CHTO	Chiang Mai	14.14	10	P	Px	17 35 55.2	
PALK	Pallekele	15.68	280	ePn	Pn	17 36 05.0	+1.8
HYB	Hyderabad	21.40	307	i P	P	17 37 07.0	-2.2
LSA	Lhasa	25.21	349	eP	P	17 37 44.4	-2.3
	3.6nm,0.6s,mb4.1						
LZH	Lanzhou	31.88	12	eP	P	17 38 50.0	+3.9
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.7						
LZH				pmax	pmax		
	comp=Z,73nm,4.2s						
GTA	Gaotai	34.57	5	eP	P	17 39 13.5	+3.9
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KSH	Kashi	39.11	335	ePn	P	17 39 45.1	-3.1
KSH				smax			
	comp=N,7.0nm,0.3s						
KSH				smax			
	comp=E,13nm,0.5s						
BJI	Beijing	39.38	24	P	P	17 39 55.9	+5.5
BJI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.6						
UCH	Uchtor	41.98	336	eP	P	17 40 09.3	-2.5
	comp=Z,3.5nm,1.2s,mb3.9						
NWAO	Narrogin (SRO)	42.49	154	P	P	17 40 15.4	-0.6
	comp=Z,5.9nm,0.8s,mb4.3,baz=336,slow=10.0,SNR=4.7						
MKAR	Makanchi Array	43.52	346	P	P	17 40 24.5	+0.3
	comp=Z,0.4nm,0.5s,mb3.4,baz=158,slow=7.5,SNR=6.7						
MKAR				pP	pP	17 40 39.1	+2.2
	comp=Z,1.4nm,0.7s,baz=161,slow=9.6,SNR=7.9						
MKAR	Makanchi Array	43.52	346	P	P	17 40 24.5	+0.3
MKAR				pP	pP	17 40 39.1	+2.2
SONM	Songino Array	43.72	10	P	P	17 40 24.9	-0.9
	comp=Z,2.3nm,0.8s,mb3.9,baz=188,slow=9.0,SNR=12						
ULN	Ulaanbaatar	43.86	10	eP	P	17 40 27.4	+0.4
	comp=Z,1.7nm,0.8s,mb3.8						
WRA	Warramunga Arr	44.78	125	P	P	17 40 33.3	-1.4
	comp=Z,3.1nm,0.5s,mb4.4,baz=302,slow=9.2,SNR=38						
WRAB	Tennant Creek	44.79	125	eP	P	17 40 33.5	-1.2
ASAR	Alice Springs	46.35	129	P	P	17 40 45.9	-1.1
	comp=Z,6.1nm,0.6s,mb4.7,baz=300,slow=7.8,SNR=89						
KURK	Kurchatov	48.07	345	P	P	17 41 01.5	+1.4
	comp=Z,0.4nm,0.5s,mb3.7,baz=162,slow=6.9,SNR=2.6						
KURK				pP	pP	17 41 14.7	+1.7
	comp=Z,0.7nm,0.5s,baz=165,slow=7.1,SNR=4.1						
KURK				LR	LR	18 02 34.4	
	comp=Z,29nm,20.7s,MS3.2,baz=325,slow=38						
ZALV	Zalesovo Beam	49.85	351	P	P	17 41 14.5	+0.8
	comp=Z,0.6nm,0.4s,mb4.0,baz=181,slow=5.9,SNR=5.4						
ZALV				LR	LR	18 03 47.8	
	comp=Z,44nm,21.8s,MS3.4,baz=110,slow=38						
BVAR	Borovoye Array	52.55	341	P	P	17 41 35.5	+1.6
	comp=Z,0.4nm,0.5s,mb3.6,baz=136,slow=9.0,SNR=2.4						
BVAR				pP	pP	17 41 50.7	+3.9
	comp=Z,1.2nm,0.7s,baz=138,slow=12,SNR=4.1						
STKA	Stephens Creek	56.48	133	P	P	17 42 01.5	-1.3
	comp=Z,3.5nm,0.6s,mb4.5,baz=308,slow=6.3,SNR=8.6						
BRTR	Keskin Array B	66.02	311	P	P	17 43 12.5	+5.2
	comp=Z,0.9nm,0.7s,mb3.9,baz=134,slow=6.2,SNR=3.1						
BRTR				pP	pP	17 43 25.8	+5.2
	comp=Z,1.2nm,0.7s,baz=127,slow=7.5,SNR=3.3						
LSZ	Lusaka	70.31	252	P	P	17 43 37.2	+2.6
ARCES	ARCESS Array B	78.83	340	P	P	17 44 24.0	+1.0
	comp=Z,7.6nm,1.0s,mb4.6,baz=83,slow=7.4,SNR=3.4						
GERES	GERESS Array B	81.50	319	P	P	17 44 40.4	+2.6
	comp=Z,0.3nm,0.5s,mb3.5,baz=111,slow=5.4,SNR=3.4						
GERES				pP	pP	17 44 54.6	+3.1
	comp=Z,0.4nm,0.6s,baz=114,slow=4.8,SNR=3.2						
ESLA	Sonseca Array	94.80	310	P	P	17 45 42.8	+0.5
SSPA	Standing Stone	134.44	354	eP	Pdif	17 48 41.6	+3.1

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*ISCJB **12** 17:48:55.1±0.6,21°.42S±0°.04×68°.43W±0°.08, h113^{km}±10^{km},mb3.7/2,Error ellipse: s-maj=12.9km s-min=6.1km az=172.0*
*IDC **12** 17:48:56.2±1.6,21°.43S×68°.27W,h101^{km}±18^{km},mb3.6/2, mb1 3.6/4,mb1mx3.4/17,mbtmp3.4/4,Error ellipse: s-maj=42.7km s-min=16.7km az=141.0*
*GUC **12** 17:48:57.2±0.9,21°.48S×68°.64W,h111^{km}±9^{km},ML3.8*
*NEIC **12** 17:48:57.2,21°.48S×68°.64W,h111^{km},MG3.8(GUC), After GUC.*

ISC 12 17:48:55.8±0.5,21°.40S±0°.04×68°.38W±0°.06,h104^{km}±9^{km}, n18,σ1^s.10/29,mb3.7/2,4C-1D,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB01	Plate Boundary	1.09	289	⇑iP	Pn	17 49 18.1	+0.6
PB01				i S	Sn	17 49 33.6	-0.4
PB01				AML	AML	17 49 35.2	
	comp=N,1µm,0.3s						
LVC	Limon Verde	1.30	202	P	Pn	17 49 21.1	+1.2
	comp=N,28nm,0.3s,baz=31,slow=13,SNR=238						
LVC				S	Sn	17 49 39.0	+0.9
	comp=N,30nm,0.3s,baz=110,slow=23,SNR=124						
LVC	Limon Verde	1.30	202	⇓iP	Pn	17 49 21.1	+1.2
LVC				i S	Sn	17 49 38.8	+0.7
PB04	Plate Boundary	1.34	230	eP	Pn	17 49 26.2	+5.9
PB04				i S	Sn	17 49 48.2	+9.3
PB04				AML	AML	17 49 54.7	
	comp=E,801nm,0.6s						
PECH	Pedro de Valdi	1.69	225	⇑iP	Pn	17 49 24.7	+0.1
PECH				i S	Sn	17 49 45.4	-1.2
PECH				AML	AML	17 49 45.8	
	comp=N,1µm,0.4s						
HMBC	Humberston	1.80	308	⇑iP	Pn	17 49 26.6	+0.6
HMBC				i S	Sn	17 49 49.2	+0.2
HMBC				AML	AML	17 49 55.6	
	comp=N,2µm,0.5s						
TOCH	Tocopilla	1.83	248	eP	Pn	17 49 25.5	-0.8
TOCH				i S	Sn	17 49 46.5	-3.1
TOCH				AML	AML	17 49 50.2	
	comp=N,1µm,0.5s						
PSGC	Pisagua	2.43	317	⇑iP	Pn	17 49 34.1	0.0
PSGC				i S	Sn	17 50 02.2	-1.2
PSGC				AML	AML	17 50 09.1	
	comp=E,743nm,0.3s						
MNMC	Miæe Miæ	2.53	333	eP	Pn	17 49 37.2	+1.8
MNMC				eS	Sn	17 50 08.7	+2.8
MNMC				AML	AML	17 50 11.2	
	comp=N,2µm,0.2s						
CEN1	Los Morros	2.60	220	eP	Pn	17 49 36.8	+0.6
CEN1				i S	Sn	17 50 07.1	-0.3
ARE	Arequipa	5.73	329	eP	Pn	17 50 19.0	+0.5
ARE				eS	Sn	17 51 21.0	-1.9

SIV	San Ignacio	8.77	53	P	Pn	17 51 00.5	+0.7
	comp=N,0.6nm,0.3s,baz=239,slow=14,SNR=16						
SIV				S	Sn	17 52 34.9	-2.0
	comp=N,0.2nm,0.3s,baz=325,slow=23,SNR=3.6						
CFAA	Coronel Fontan	10.16	179	S	Sn	17 53 02.8	-7.8
	comp=N,0.1nm,0.3s,baz=288,slow=20,SNR=3.0						
CPUP	Villa Florida	11.24	118	P	Pn	17 51 32.2	-1.0
	comp=N,0.5nm,0.3s,baz=283,slow=14,SNR=4.5						
CPUP	Villa Florida	11.24	118	P	Pn	17 51 32.2	-1.0
TORD	Torodi Ar. Bea	76.86	70	P	P	18 00 37.0	+0.2
	comp=N,0.8nm,0.6s,mb3.6,baz=257,slow=5.1,SNR=6.4						
YKA	Yellowknife Ar	91.26	340	P	P	18 01 49.2	+0.4
	comp=N,0.4nm,0.6s,mb3.7,baz=133,slow=4.7,SNR=8.6						
MKAR	Makanchi Array	145.26	36	PKPbc	PKPbc	18 08 21.8	+0.8
	comp=N,0.3nm,0.8s,baz=302,slow=2.7,SNR=3.9						
MKAR				pPKPbc	pPKPbc	18 08 54.4	+5.2
	comp=N,0.3nm,0.6s,baz=330,slow=4.2,SNR=3.0						

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*NEIC **12** 17:52:48.3±1.2, 36°.27N×75°.83E, h10^{km}, mb4.0/3, Error ellipse: s-maj=29.1km s-min=15.0km az=86.0*

*BJI **12** 17:53:12.3, 37°.90N×75°.25E, h19^{km}, mb3.4/2, ML3.6/4, Ms3.6/1*

*MOS **12** 17:53:14.6±1.5, 38°.03N×74°.97E, h117^{km}, mb3.8/5, Error ellipse: s-maj=25.0km s-min=8.9km az=93.7*

*IDC **12** 17:53:14.3±5.1, 38°.08N×74°.98E, h95^{km}±43^{km}, mb3.5/6, mb1 3.6/11, mb1mx3.4/28, mbtmp3.5/11, Error ellipse: s-maj=35.1km s-min=21.6km az=16.0*

*ISCJB **12** 17:53:15.7±0.4, 38°.14N±0°.02×75°.18E±0°.07, h130^{km}±7^{km}, mb3.7/8, Error ellipse: s-maj=8.5km s-min=4.0km az=172.7*

*NNC **12** 17:53:22.8±3.6, 38°.61N×74°.82E, h148^{km}±38^{km}, mb2.9, mpv3.8, Error ellipse: s-maj=34.7km s-min=19.9km az=168.0*

ISC 12 17:53:16.9±0.3**, 38°.14N**±0°.02×**75°.23E**±0°.07**, h128**^{km}±6^{km}**, n70,** σ1^{s}**29**/83**, mb3.7**/8**, 8C, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	1.50	23	⇑*i*Pg	Pn	17 53 41.4	-3.4
KSH				Sg	Sn	17 53 56.9	-9.2
KSH				smax			
	comp=N,4µm,0.2s						
KSH				smax			
	comp=E,4µm,0.2s						
KZA	Kyzart	3.94	0	P	Pn	17 54 16.4	+0.7
	SNR=53						
UCH	Uchtor	4.12	353	P	Pn	17 54 18.9	+0.7
	SNR=94						
UCH	Uchtor	4.12	353	*e*P	Pn	17 54 18.8	+0.7
	comp=E,51nm,0.7s						
AML	Almayashu	4.16	344	P	Pn	17 54 18.6	0.0
	SNR=81						
AML	Almayashu	4.16	344	*e*Pn	Pn	17 54 18.0	-0.6
	comp=E,42nm,0.6s						
ULHL	Ulahol	4.18	10	P	Pn	17 54 19.9	+1.0
	SNR=20						
KBK	Karagaybulak	4.52	357	P	Pn	17 54 24.1	+0.7
	SNR=20						
AAK	Ala-Archa	4.52	353	*e*PN	Pn	17 54 24.1	+0.6
AAK				pmax	pmax		
	comp=Z,25nm,0.8s						
AAK	Ala-Archa	4.52	353	P	Pn	17 54 24.3	+0.8
	SNR=16						
AAK	Ala-Archa	4.52	353	*e*P	Pn	17 54 24.1	+0.6
	comp=Z,24nm,0.8s						
EKS2	Erkin-Say	4.65	347	P	Pn	17 54 25.5	+0.3
	SNR=19						
EKS2	Erkin-Say	4.65	347	*e*P	Pn	17 54 25.1	0.0
	comp=Z,10.0nm,0.6s						
FRU	Bishkek	4.71	355	*e*PN	Pn	17 54 26.0	0.0
CHCP	Chirah Chowk	4.75	200	P	Pn	17 54 29.6	+3.0
TKM2	Tokmak 2	4.79	3	*e*PN	Pn	17 54 27.7	+0.7
TKM2				pmax	pmax		
	comp=Z,29nm,0.6s						
TKM2	Tokmak 2	4.79	3	P	Pn	17 54 28.0	+1.0
	SNR=29						
TKM2	Tokmak 2	4.79	3	*e*Pn	Pn	17 54 27.7	+0.7
	comp=Z,29nm,0.6s						
TKM2				*e*Sn	Sn	17 55 14.5	-7.0
TKM2	Tokmak 2	4.79	3	⇑Pn	Pn	17 54 27.6	+0.6
	comp=Z,18nm,0.6s						
TKM2				⇑Sn	Sn	17 55 19.1	-2.4
	comp=Z,35nm,0.7s						
CHMS	Chumysh	4.87	356	P	Pn	17 54 28.7	+0.6
	SNR=7.0						
CEP	Cherat	5.08	213	P	Pn	17 54 33.7	+2.7
CEP				S	Sn	17 55 28.0	-0.6
USP	Ospenovka	5.15	354	P	Pn	17 54 32.1	+0.2
	SNR=18						
THN	Thein Dam	5.71	176	*e*PKP	Pn	17 54 41.0	+1.5
THN				*e*x	x	17 55 47.4	
KK31	Karatay Array	6.12	326	Pn	Pn	17 54 43.4	-1.5
	comp=Z,1.9nm,0.2s,baz=137,slow=13,SNR=86						
KK31				⇑Sn	Sn	17 55 46.2	-7.4
	comp=Z,17nm,0.5s,baz=144,slow=22,SNR=5.0						
SARP	Sargodha	6.55	199	P	Pn	17 54 52.3	+1.5
SARP				S	Sn	17 56 02.0	-2.1
JOSI	Joshimath	8.37	153	*e*PKP	Pn	17 55 17.9	+2.6
JOSI				*e*S	Sn	17 56 30.5	-18
JOSI				AML	AML	17 56 52.5	
	comp=E,240nm,0.7s						
JOSI				AML	AML	17 56 53.6	
	comp=N,171nm,0.7s						
AYAN	Aya Nagar	9.76	170	*e*PKP	Pn	17 55 34.8	+0.7
AYAN				*e*S	Sn	17 57 04.9	-17
SONA	Sohna	9.98	171	*e*PKP	Pn	17 55 37.7	+0.6
SONA				*e*S	Sn	17 57 10.0	-17
SONA				AML	AML	17 57 30.6	
	comp=E,42nm,0.3s						
SONA				AML	AML	17 57 31.9	
	comp=N,16nm,0.2s						
KUDL	Kundal	10.02	174	*e*PKP	Pn	17 55 38.0	+0.4
KUDL				*e*S	Sn	17 57 10.1	-18
KHET	Khetri	10.05	177	*e*PKP	Pn	17 55 38.3	+0.4
KHET				*e*S	Sn	17 57 11.9	-17
MK31	Makanchi Array	10.10	29	⇑Pn	Pn	17 55 39.2	+0.8
	comp=N,1.3nm,0.8s,baz=212,slow=12,SNR=6.0						
MKAR	Makanchi Array	10.10	29	P	Pn	17 55 37.9	-0.5
	comp=N,0.1nm,0.3s,baz=214,slow=16,SNR=7.5						
MKAR				S	Sn	17 57 07.9	-22
	comp=N,0.4nm,0.3s,baz=228,slow=21,SNR=6.9						
MKAR	Makanchi Array	10.10	29	P	Pn	17 55 37.9	-0.5
MKAR				S	Sn	17 57 07.9	-22
DANN	Dangsing	12.09	141	*e*P	Pn	17 56 03.6	-1.3
	comp=N,33nm,0.4s						
KOLN	Koldanda	12.50	143	*e*P	Pn	17 56 07.5	-2.7
	comp=N,7.0nm,0.3s						
KURK	Kurchatov	12.80	10	P	Pn	17 56 10.7	-3.4
	comp=N,0.1nm,0.3s,baz=195,slow=12,SNR=7.0						
GKN	Gorkha	12.81	139	*e*P	Pn	17 56 13.0	-1.4
	comp=N,7.4nm,0.3s						
KKN	Kakani	13.32	138	*e*P	Pn	17 56 19.8	-1.1
	comp=N,3.7nm,0.2s						
DMN	Daman	13.38	139	*e*P	Pn	17 56 20.3	-1.3
GUN	Gumba	13.55	136	*e*P	Pn	17 56 23.9	0.0
	comp=N,7.1nm,0.5s						
JIRN	Jiri	13.92	135	*e*P	Pn	17 56 28.5	-0.1
	comp=N,13nm,0.4s						
VOSK	Vostochnaya	14.88	350	⇑P	Pn	17 56 38.3	-2.2
	comp=N,3.5nm,0.8s						
TAPN	Taplejung	15.02	132	*e*P	Pn	17 56 42.5	0.0
	comp=N,2.6nm,0.3s						
BVA0	Borovoye Array	15.26	349	P	Pn	17 56 45.9	+0.6
	comp=N,2.0nm,1.1s,baz=156,slow=12,SNR=33						
BVAR	Borovoye Array	15.26	349	P	Pn	17 56 44.5	-0.8
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BVAR	Borovoye Array	15.26	349	P	Pn	17 56 44.5	-0.7
	comp=Z,0.9nm,0.3s,baz=155,slow=11,SNR=17						
BRVK	Borovoye	15.31	349	*e*P	Pn	17 56 48.3	+2.4
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.8s						
BRVK	Borovoye	15.31	349	*e*Pn	Pn	17 56 48.3	+2.4
	comp=Z,8.9nm,0.8s						
AB01	Akbulak array	15.64	320	⇑P	Pn	17 56 47.9	-2.1
	comp=Z,1.7nm,0.9s						
ZAA0	Zalesovo Array	17.13	20	*e*P	Pn	17 57 07.5	-0.7
ZALV	Zalesovo Beam	17.13	20	P	Pn	17 57 07.8	-0.4
	comp=Z,0.3nm,0.3s,baz=211,slow=11,SNR=15						
AKTK	Aktyubinsk	17.35	321	P	Pn	17 57 10.8	-0.1
AKTK				S	S	18 00 12.4	-11
AKTO	Aktyubinsk	17.35	321	P	Pn	17 57 10.8	-0.1
	comp=Z,0.2nm,0.3s,baz=118,slow=15,SNR=5.4						
AKTO				S	S	18 00 12.4	-11
	comp=Z,0.1nm,0.3s,baz=54,slow=18,SNR=4.0						
AKTO	Aktyubinsk	17.35	321	⇑P	Pn	17 57 09.0	-1.9
	comp=Z,0.2nm,0.6s						
GTA	Gaotai	19.20	79	*e*P	P	17 57 35.5	+4.8
GTA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ARU	Arti	21.41	334	*e*P	P	17 57 56.4	+2.3
ARU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.1						
ARU	Arti	21.41	334	*e*P	P	17 57 56.4	+2.3
	comp=Z,11nm,1.0s,mb4.1						
SONM	Songino Array	24.63	57	P	P	17 58 28.7	+3.6
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM	Songino Array	24.63	57	P	P	17 58 28.7	+3.6
	comp=Z,0.7nm,0.4s,mb3.5,baz=252,slow=12,SNR=9.0						
ARCES	ARCESS Array B	40.97	336	P	P	18 00 47.5	+1.0
ARCES				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ARCES	ARCESS Array B	40.97	336	P	P	18 00 47.5	+0.9
	comp=Z,8.4nm,0.9s,mb4.3,baz=113,slow=9.1,SNR=8.1						
MORC	Moravsky Berou	42.14	305	P	P	18 00 53.5	-2.7
MORC				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
MORC	Moravsky Berou	42.14	305	P	P	18 00 53.5	-2.8
	comp=Z,0.8nm,0.5s,mb3.6						
NB2	NORSAR Subarra	45.14	322	P	P	18 01 20.3	+0.2
	comp=Z,1.2nm,0.6s,mb3.7,baz=91,slow=7.9						
NOA	NORSAR Array B	45.14	322	P	P	18 01 20.5	+0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	45.14	322	P	P	18 01 20.5	+0.4
	comp=Z,1.1nm,0.8s,mb3.5,baz=93,slow=7.9,SNR=3.6						
TORD	Torodi Ar. Bea	69.10	271	P	P	18 04 09.1	-0.2
	comp=Z,0.4nm,0.5s,mb3.4,baz=48,slow=6.1,SNR=5.5						
YKA	Yellowknife Ar	79.40	5	P	P	18 05 09.1	+0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	79.40	5	P	P	18 05 09.1	+0.9
	comp=Z,0.7nm,0.6s,mb3.5,baz=344,slow=5.3,SNR=12						
WRA	Warramunga Arr	80.08	125	P	P	18 05 14.3	+1.9
	comp=Z,0.4nm,0.8s,mb3.1,baz=320,slow=4.6,SNR=3.8						

IDC 12 17:59:23.3±5.0**, 14°.39S**×**167°.13E, h0**^{km}**, mb4.0**/4**, mb1 4.2**/4**, mb1mx3.8**/17**, mbtmp4.0**/4**, Error ellipse: s-maj=136.4km s-min=47.4km az=118.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	29.11	229	P	P	18 05 26.1	+0.2
	2.5nm,0.4s,baz=57,slow=10.0,SNR=13						
WRA	Warramunga Arr	31.78	255	P	P	18 05 49.7	+0.1
	0.8nm,0.8s,baz=84,slow=7.8,SNR=5.9						
ASAR	Alice Springs	32.67	249	P	P	18 05 57.3	-0.1
	1.0nm,0.4s,baz=77,slow=9.2,SNR=16						
MKAR	Makanchi Array	96.86	316	P	P	18 12 56.3	-0.1
	0.1nm,0.5s,baz=96,slow=5.2,SNR=3.0						

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*CSEM **12** 18:18:56.4±0.7, 36°.73N×27°.30E, h2^{km}, MD2.8, Error ellipse: s-maj=13.2km s-min=4.4km az=44.0*

*DDA **12** 18:18:57.3, 36°.88N×27°.73E, h7^{km}±6^{km}, Md2.8*

ISK 12 18:18:56.2, 36°.76N×**27°.32E, h5**^{km}**, MD2.8, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAT	Datca	0.21	97	*e*PG	Pg	18 19 01.2	+0.9
DAT				*e*SG	Sg	18 19 04.4	+1.3
DAT	Datca	0.21	97	*e*Pg	Pg	18 19 01.2	+0.8
DAT				*e*Sg	Sg	18 19 04.4	+1.2
BODT	Bodrum	0.31	359	*e*PG	Pg	18 19 02.8	+0.7
BODT				*e*SG	Sg	18 19 07.5	+1.4
BODT	Bodrum	0.31	359	*e*Pg	Pg	18 19 02.8	+0.7
BODT				*e*Sg	Sg	18 19 07.6	+1.4
BDRM	Kayabasi	0.33	19	*i* P	Pg	18 19 02.8	+0.2
BDRM				*i* S	Sg	18 19 06.8	0.0
BDRM	Kayabasi	0.33	19	*i* P	Pg	18 19 02.8	+0.3
BDRM				*i* S	Sg	18 19 06.8	0.0
MLSB	Milas	0.65	34	*e*PG	Pg	18 19 09.0	+0.3
MLSB	Milas	0.65	34	*e*Pg	Pg	18 19 09.0	+0.2
YER	Yerkesik	0.86	64	*e*PG	Pg	18 19 13.1	+0.3
YER				*e*SG	Sg	18 19 26.1	+2.1
YER	Yerkesik	0.86	64	*e*Pg	Pg	18 19 13.1	+0.3
YER				*e*Sg	Sg	18 19 26.1	+2.1
GCAM	G?zelcaml?	0.94	356	*i* P	Pg	18 19 15.6	+1.3
GCAM				*i* S	Sg	18 19 28.8	+2.2
GCAM	G?zelcaml?	0.94	356	*i* P	Pg	18 19 15.6	+1.3
GCAM				*i* S	Sg	18 19 28.8	+2.2
TURN	Turunc	1.04	83	*i* P	Pg	18 19 10.3	-5.9
TURN				*i* S	Sg	18 19 21.6	-8.1
DALT	Dalyan (Mudla)	1.06	89	*e*PG	Pg	18 19 17.1	+0.5
DALT	Dalyan (Mudla)	1.06	89	*e*Pg	Pg	18 19 17.1	+0.5

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*ISCJB **12** 18:24:31.8±0.6, 31°.48N±0°.08×86°.6E±0°.1, h10^{km}, mb3.5/8, Error ellipse: s-maj=14.5km s-min=9.7km az=143.9*

*IDC **12** 18:24:32.3±1.0, 31°.51N×86°.94E, h0^{km}, mb3.4/7, mb1 3.6/9, mb1mx3.5/25, mbtmp3.4/9, ML2.4/1, Error ellipse: s-maj=37.0km s-min=19.5km az=59.0*

*NEIC **12** 18:24:34.2±7.8, 31°.49N×86°.71E, h13^{km}±51^{km}, mb3.7/3, Error ellipse: s-maj=22.4km s-min=10.7km az=66.0*

ISC 12 18:24:33.6±0.6**, 31°.47N**±0°.08×**86°.6E**±0°.1**, h10**^{km}**, n16,** σ1^{s}**27**/15**, mb3.5**/8**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	4.29	113	*e*Pn	Pn	18 25 40.6	+1.7
SHL	Shillong	7.49	140	*e*x	x	18 26 49.0	
KBL	Kabul	15.06	286	*e*P	Pn	18 28 05.0	-1.4
	2.7nm,0.8s						
MKAR	Makanchi Array	15.66	349	Pn	Pn	18 28 13.9	-0.2
	0.0nm,0.3s,baz=172,slow=12,SNR=3.4						
CMAR	Chiang Mai Arr	17.09	136	Pn	Pn	18 28 31.3	-1.4
	baz=326,slow=12,SNR=3.4						
KURK	Kurchatov	20.12	345	P	P	18 29 07.1	-0.4
	1.5nm,1.0s,baz=160,slow=11,SNR=6.5						
SONM	Songino Array	22.23	37	P	P	18 29 28.8	-1.5
	0.6nm,0.8s,mb3.1,baz=216,slow=7.1,SNR=2.8						
ZALV	Zalesovo Beam	22.50	357	P	P	18 29 32.6	-0.4
	0.2nm,0.3s,mb3.0,baz=186,slow=10,SNR=3.5						
ULN	Ulaanbaatar	22.60	38	*e*P	P	18 29 35.2	+1.1
	1.7nm,0.9s,mb3.5						
BRVK	Borovoye	24.61	336	P	P	18 29 57.8	+4.1
	3.3nm,1.2s,mb3.7						
PALK	Pallekele	24.70	194	P	P	18 29 55.0	+0.1
GERES	GERESS Array B	56.23	311	P	P	18 34 15.8	+2.0
	0.8nm,0.7s,mb3.8,baz=38,slow=5.0,SNR=4.6						
WRA	Warramunga Arr	68.62	132	P	P	18 35 37.3	+0.3
	0.9nm,0.8s,mb3.8,baz=324,slow=6.6,SNR=6.5						
WRA	Warramunga Arr	68.62	132	P	P	18 35 37.3	+0.3
ASAR	Alice Springs	71.09	135	P	P	18 35 50.5	-1.6
	1.1nm,0.9s,mb3.8,baz=321,slow=6.2,SNR=6.7						
TORD	Torodi Ar. Bea	78.98	279	P	P	18 36 40.1	+2.1
	0.5nm,1.0s,mb3.4,baz=79,slow=3.1,SNR=2.4						

IDC 12 18:27:47.5±48.0**, 15°.15S**×**172°.10W, h0**^{km}**, mb4.7**/3**, mb1 4.9**/3**, mb1mx4.0**/18**, mbtmp4.7**/3**, Error ellipse: s-maj=940.2km s-min=172.6km az=79.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARMA	Armidale	36.55	239	*e*P	P	18 34 54.9	-0.2
CTA	Charters Tower	39.92	257	*e*P	P	18 35 22.3	-1.4
	4.4nm,0.9s						
STKA	Stephens Creek	45.25	240	*e*P	P	18 36 07.3	+0.5
	3.6nm,0.6s						
STKA	Stephens Creek	45.25	240	P	P	18 36 07.2	+0.4
	3.5nm,0.5s,baz=78,slow=8.7,SNR=15						
WRA	Warramunga Arr	51.12	256	P	P	18 36 52.1	-0.4
	2.8nm,0.7s,baz=96,slow=6.9,SNR=61						
ASAR	Alice Springs	51.38	252	P	P	18 36 54.2	-0.1
	20nm,0.5s,baz=88,slow=8.3,SNR=570						
KAKA	Kakadu	53.77	265	*e*P	P	18 37 14.9	+2.7
	37nm,1.5s						
FITZ	Fitzroy Crossi	59.49	258	*e*P	P	18 37 55.3	+2.4
	23nm,1.9s						

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*NNC **12** 18:37:33.6±4.6, 37°.79N×69°.30E, h85^{km}±69^{km}, mb3.7, mpv4.5, Error ellipse: s-maj=35.7km s-min=29.6km az=18.0*

*IDC **12** 18:37:45.7±0.8, 39°.09N×69°.45E, h0^{km}, mb3.7/10, mb1 3.9/16, mb1mx3.8/30, mbtmp3.8/16, ML3.7/5, MS3.2/3, Ms1 3.2/3, ms1mx2.8/42, Error ellipse: s-maj=14.8km s-min=12.9km az=168.0*

*ISCJB **12** 18:37:46.2±1.8, 39°.12N±0°.04×69°.44E±0°.05, h15^{km}±12^{km}, mb3.8/16, MS3.3/2, Error ellipse: s-maj=6.8km s-min=5.7km az=38.2*

*MOS **12** 18:37:48.2±1.9, 39°.14N×69°.50E, h33^{km}, mb4.1/10, Error ellipse: s-maj=10.4km s-min=6.8km az=79.7*

*NEIC **12** 18:37:48.4±3.3, 39°.28N×69°.34E, h15^{km}±22^{km}, mb4.3/18, Error ellipse: s-maj=8.9km s-min=7.1km az=176.0*

*BJI **12** 18:37:53.8, 38°.93N×70°.27E, h14^{km}, mb4.6/5, ML3.7/4, Ms7 4.3/1*

ISC 12 18:37:49.1±1.9**, 39°.22N**±0°.04×**69°.33E**±0°.05**, h20**^{km}±12^{km}**, n91,** σ1^{s}**47**/101**, mb3.8**/16**, MS3.3**/2**, 4C-5D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	3.99	13	Pn	Pn	18 38 50.0	+0.9
	10nm,0.3s,baz=198,slow=14,SNR=560						
KK31				Sn	Sn	18 39 53.6	+18
	120nm,0.5s,baz=192,slow=26,SNR=9.2						
AML	Almayashu	4.42	47	P	Pn	18 38 56.2	+1.3
	SNR=105						
AML	Almayashu	4.42	47	*e*Pn	Pn	18 38 55.6	+0.6
KBL	Kabul	4.67	183	*e*Pn	Pn	18 38 58.2	-0.3
KBL				*e*Sn	Sn	18 39 50.8	-1.3
EKS2	Erkin-Say	4.82	43	P	Pn	18 39 01.9	+1.4
	SNR=74						
EKS2	Erkin-Say	4.82	43	*e*Pn	Pn	18 39 01.4	+1.0
EKS2				*e*Sn	Sn	18 39 52.6	-3.1
UCH	Uchtor	4.96	51	P	Pn	18 39 03.9	+1.5
	SNR=91						
UCH	Uchtor	4.96	51	*e*Pn	Pn	18 39 03.2	+0.8
UCH				*e*Sn	Sn	18 40 00.3	+1.2
KSH	Kashi	5.16	85	*e*Pn	Pn	18 39 02.3	-2.9
KSH				Sn	Sn	18 39 57.4	-6.7
KSH				smax			
	comp=N,680nm,1.0s						
KSH				smax			
	comp=E,470nm,1.2s						
AAK	Ala-Archa	5.19	47	*i* PN	Pn	18 39 06.4	+0.8
AAK	Ala-Archa	5.19	47	P	Pn	18 39 07.0	+1.3
	SNR=102						
AAK	Ala-Archa	5.19	47	*e*Pn	Pn	18 39 06.6	+1.0
	comp=E,68nm,0.5s						
KZA	Kyzart	5.33	56	P	Pn	18 39 09.3	+1.7
	SNR=39						
FRU	Bishkek	5.39	46	*i* PN	Pn	18 39 10.0	+1.6
FRU				*i* S	Sn	18 40 09.0	-0.8
FRU				pmax	pmax		
	comp=Z,230nm,1.8s						
FRU				pmax	pmax		
	comp=E,510µm,1.8s						
KBK	Karagaybulak	5.47	49	P	Pn	18 39 11.1	+1.6
	SNR=106						
CHMS	Chumysh	5.57	46	P	Pn	18 39 12.1	+1.2
	SNR=13						
USP	Ospenovka	5.62	42	P	Pn	18 39 12.0	+0.5
	SNR=67						
TKM2	Tokmak 2	6.01	50	*e*PN	Pn	18 39 17.5	+0.6
TKM2				pmax	pmax		
	comp=Z,53nm,0.6s						
TKM2	Tokmak 2	6.01	50	P	Pn	18 39 18.9	+2.0
	SNR=18						
TKM2	Tokmak 2	6.01	50	*e*Pn	Pn	18 39 17.5	+0.7
	comp=Z,52nm,0.6s						
TKM2	Tokmak 2	6.01	50	⇑Pn	Pn	18 39 15.7	-1.1
	comp=Z,44nm,0.6s						
TKM2				⇓Sn	Sn	18 40 30.8	+5.7
	comp=Z,32nm,0.7s						
ULHL	Ulahol	6.06	58	P	Pn	18 39 19.2	+1.6
	SNR=19						
AB09	Akbulak array	12.09	329	⇓P	Pn	18 40 38.0	-2.2
	comp=Z,3.4nm,0.3s						
MK31	Makanchi Array	12.13	47	*e*P	Pn	18 40 39.9	-0.8
MK31	Makanchi Array	12.13	47	⇑P	Pn	18 40 38.6	-2.1
	comp=Z,3.8nm,0.8s,baz=229,slow=13,SNR=32						
MKAR	Makanchi Array	12.13	47	Pn	Pn	18 40 39.3	-1.4
	comp=Z,0.3nm,0.3s,baz=234,slow=13,SNR=40						
MKAR				Lg		18 44 11.5	
	comp=Z,0.2nm,0.3s,baz=241,slow=26,SNR=3.4						
MKAR				LR	LR	18 45 38.0	
	comp=Z,80nm,21.1s,baz=244,slow=39						
KURBB	Kurchatov Arra	13.12	27	⇓P	Pn	18 40 51.9	-2.4
	comp=Z,0.6nm,0.8s						
KURK	Kurchatov	13.23	27	Pn	Pn	18 40 50.8	-4.9
	comp=Z,0.1nm,0.3s,baz=217,slow=12,SNR=12						
KURK				Lg		18 44 41.8	
	comp=Z,0.1nm,0.3s,baz=212,slow=27,SNR=4.9						
VOSK	Vostochnaya	13.56	4	⇓P	Pn	18 40 59.1	-1.0
	comp=Z,1.2nm,0.6s						
AKTK	Aktyubinsk	13.77	328	Pn	Pn	18 41 01.6	-1.5
AKTK				Sn	Sn	18 43 32.2	-3.2
AKTK				Lg		18 45 09.3	
AKTK				LR	LR	18 46 59.7	
AKTO	Aktyubinsk	13.77	328	Pn	Pn	18 41 01.6	-1.5
	comp=Z,0.9nm,0.3s,baz=149,slow=14,SNR=15						
AKTO				Sn	Sn	18 43 32.2	-3.2
	comp=Z,0.4nm,0.3s,baz=87,slow=14,SNR=4.6						
AKTO				Lg		18 45 09.3	
	comp=Z,0.1nm,0.3s,baz=31,slow=18,SNR=1.8						
AKTO				LR	LR	18 46 59.7	
	comp=Z,62nm,18.1s,baz=211,slow=40						
AKTO	Aktyubinsk	13.77	328	⇓P	Pn	18 41 01.9	-1.3
	comp=Z,0.4nm,0.5s						
BVA0	Borovoye Array	13.83	3	⇑P	Pn	18 41 05.5	+1.6
	comp=Z,0.3nm,0.5s,baz=184,slow=11,SNR=3.7						
BVAR	Borovoye Array	13.83	3	P	Pn	18 41 02.0	-1.9
BVAR						18 43 33.9	
BVAR	Borovoye Array	13.83	3	Pn	Pn	18 41 02.0	-1.9
	comp=Z,0.4nm,0.3s,baz=162,slow=11,SNR=11						
BVAR				Sn	Sn	18 43 33.9	-2.9
	comp=Z,0.4nm,0.3s,baz=191,slow=22,SNR=3.6						
BVAR				Lg		18 45 08.3	
	comp=Z,0.2nm,0.3s,baz=170,slow=27,SNR=3.4						
BRVK	Borovoye	13.86	2	*e*P	Pn	18 41 02.0	-2.3
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BRVK	Borovoye	13.86	2	*e*Pn	Pn	18 41 01.9	-2.4
	comp=Z,4.0nm,0.6s						
DANN	Dangsing	16.14	128	*e*P	Pn	18 41 28.3	-6.6
	comp=Z,8.7nm,0.4s						
KOLN	Koldanda	16.47	130	*e*P	Pn	18 41 31.8	-7.2
	comp=Z,14nm,0.7s						
GKN	Gorkha	16.93	127	*e*P	Pn	18 41 37.5	-7.4
	comp=Z,24nm,0.5s						
KKN	Kakani	17.49	126	*e*P	Pn	18 41 46.1	-5.7
	comp=Z,19nm,0.7s						
KKN	Kakani	17.49	126	*e*P	Pn	18 41 46.1	-5.7
KKN				pmax	pmax		
	comp=Z,19nm,0.7s						
DMN	Daman	17.51	127	*e*P	Pn	18 41 45.6	-6.4
	comp=Z,18nm,0.6s						
PKI	Pulchoki	17.72	126	*e*P	Pn	18 41 48.8	-5.9
	comp=Z,18nm,0.6s						
PKI	Pulchoki	17.72	126	*e*P	Pn	18 41 48.8	-5.9
PKI				pmax	pmax		
	comp=Z,18nm,0.6s						
GUN	Gumba	17.78	124	*e*P	Pn	18 41 49.7	-5.8
	comp=Z,42nm,0.9s						
ZAA0	Zalesovo Array	18.12	31	*e*Pn	Pn	18 41 57.5	-1.8
ZALV	Zalesovo Beam	18.12	31	P	Pn	18 41 58.2	-1.2
	comp=Z,0.4nm,0.3s,baz=222,slow=9.7,SNR=13						
JIRN	Jiri	18.16	124	*e*P	Pn	18 41 54.9	-5.1
	comp=Z,22nm,0.5s						
NVS	Novosibirsk	18.22	26	*e*P	Pn	18 42 03.9	+3.2
NVS				pmax	pmax		
	comp=N,3.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,4.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ARU	Arti	18.64	341*c*	*i*P	Pn	18 42 06.0	+0.3
ARU				S	Sn	18 45 36.3	+2.9
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ARU	Arti	18.64	341	*e*Pn	Pn	18 42 04.7	-1.1
	comp=Z,5.2nm,0.8s						
RAMN	Ramite	18.91	125	*e*P	Pn	18 42 03.4	-5.8
	comp=Z,34nm,0.6s						
GNI	Garni	18.94	281	*e*P	Pn	18 42 11.6	+2.1

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GNI                                    pmax   pmax
       comp=Z,5.0nm,0.7s
GNI    Garni             18.94 281   P      Pn       18 42 11.5 +2.0
       comp=Z,0.4nm,0.3s,baz=323,slow=4.9,SNR=5.1
GNI    Garni             18.94 281  eP      Pn       18 42 08.9 -0.6
       comp=Z,18nm,1.1s
TAPN   Taplejung         19.35 122  eP      Pn       18 42 09.2 -5.4
       comp=Z,7.8nm,0.6s
ODAN   Odare             19.48 124  eP      Pn       18 42 11.6 -4.4
       comp=Z,14nm,0.7s
LSA    Lhasa             20.30 111   P      P        18 42 24.3 +0.6
LSA    Lhasa             20.30 111  eP      P        18 42 25.1 +1.4
LSA                                  pmax   pmax
       comp=Z,4.0nm,0.7s
LSA    Lhasa             20.30 111  eP      P        18 42 25.1 +1.3
       comp=Z,3.8nm,0.7s
KIV    Kislovodsk        20.44 292  eP      P        18 42 27.9 +2.7
KIV                                  pmax   pmax
       comp=Z,13nm,0.7s
KIV                                  MLR    MLR
       comp=Z,32nm,12.0s,MS2.9
KIV    Kislovodsk        20.44 292  eP      P        18 42 25.5 +0.4
       comp=Z,14nm,0.8s
GTA    Gaotai            23.54  80  eP      P        18 42 59.3 +1.1
GTA                                  pP              18 43 03.5
GTA                                  sP     sP       18 43 06.8 +0.4
GTA                                  pmax   pmax
       comp=Z,3.0nm,1.0s,mb3.7
TLY    Talaya            26.84  51   P      P        18 43 27.7 -0.4
TLY                                  pmax   pmax
       comp=Z,1.0nm,0.7s,mb3.5
TLY    Talaya            26.84  51   P      P        18 43 27.7 -0.4
       comp=Z,1.0nm,0.7s,mb3.5
BRTR   Keskin Array B    27.45 283   P      P        18 43 35.5 +1.9
BRTR                                 pmax   pmax
       comp=Z,2.0nm,1.1s
BRTR   Keskin Array B    27.45 283   P      P        18 43 35.5 +1.9
       comp=Z,1.8nm,1.1s,mb3.5,baz=57,slow=10,SNR=2.6
SONM   Songino Array     28.00  60   P      P        18 43 37.8 -0.7
SONM                                 pmax   pmax
       comp=Z,1.0nm,0.7s
SONM   Songino Array     28.00  60   P      P        18 43 37.8 -0.7
       comp=Z,0.5nm,0.7s,mb3.2,baz=277,slow=9.8,SNR=2.9
CSS    Prodhromos        28.91 273   P      P        18 43 47.9 +1.2
       comp=Z,13nm,1.2s,mb4.5
BOD    Bodaibo           34.15  42  eP      P        18 44 32.2 -0.3
ARCES  ARCESS Array B    38.13 337   P      P        18 45 07.1 +0.7
ARCES                                pmax   pmax
       comp=Z,2.0nm,0.6s
ARCES  ARCESS Array B    38.13 337   P      P        18 45 07.1 +0.6
       comp=Z,1.9nm,0.6s,mb4.0,baz=115,slow=8.3,SNR=5.7
HFS    Hagfors           40.13 320   P      P        18 45 23.0 -0.2
HFS                                  pmax   pmax
       comp=Z,1.0nm,0.4s
HFS    Hagfors           40.13 320   P      P        18 45 23.0 -0.2
       comp=Z,0.7nm,0.4s,mb3.8,baz=93,slow=13,SNR=8.0
GERES  GERESS Array B    40.32 303   P      P        18 45 27.1 +2.1
       comp=Z,0.1nm,0.4s,mb2.9,baz=61,slow=10,SNR=2.3
NJ2    Nanjing           40.47  84  eP      P        18 45 25.7 -0.7
NJ2                                  pmax   pmax
       comp=Z,10.0nm,1.0s,mb4.5
NOA    NORSAR Array B    41.43 321  eP      P        18 45 36.3 +2.4
NOA                                  pmax   pmax
       comp=Z,2.0nm,0.8s
NOA    NORSAR Array B    41.43 321   P      P        18 45 33.8 -0.1
       comp=Z,1.5nm,0.8s,mb3.7,baz=98,slow=7.9,SNR=3.5
YAK    Yakutsk           42.57  37   P      P        18 45 39.5 -3.7
YAK                                  pmax   pmax
       comp=Z,3.0nm,0.5s,mb4.3
YAK    Yakutsk           42.57  37   P      P        18 45 39.5 -3.7
       comp=Z,3.5nm,0.5s,mb4.3
TIXI   Tiksi             43.78  23  eP      P        18 45 51.5 -1.4
TIXI                                 pmax   pmax
       comp=Z,9.0nm,2.4s,mb4.1
TIXI   Tiksi             43.78  23  eP      P        18 45 51.3 -1.6
       comp=Z,1.5nm,0.3s,mb4.2
PETK   Petropavlovsk-    58.96  45   LR     LR       19 17 40.5
       comp=Z,62nm,20.4s,MS3.7,baz=324,slow=41
TORD   Torodi Ar. Bea    64.52 266   P      P        18 48 24.2 -0.6
       comp=Z,0.7nm,0.4s,mb4.0,baz=52,slow=6.1,SNR=16
YKA    Yellowknife Ar    78.59   2   P      P        18 49 48.3 -0.5
       comp=Z,0.4nm,0.6s,mb3.5,baz=348,slow=6.1,SNR=6.6
WRA    Warramunga Arr    84.53 121   P      P        18 50 20.4 -0.4
       comp=Z,0.5nm,0.7s,mb3.8,baz=323,slow=4.8,SNR=5.8
ASAR   Alice Springs     86.88 124  eP      P        18 50 28.1 -4.3
ASAR   Alice Springs     86.88 124   P      P        18 50 32.8 +0.3
       comp=Z,0.3nm,0.7s,mb3.6,baz=318,slow=5.4,SNR=3.8
ASAR   Alice Springs     86.88 124   P      P        18 50 32.8 +0.3
```

MOS ***12*** *18:47:41.4±1.1, 14°.66N×55°.02E, h10^{km}, mb4.7/31, Error ellipse: s-maj=9.0km s-min=5.3km az=112.8*

BJI ***12*** *18:47:41.3, 14°.57N×55°.08E, h12^{km}, mB5.3/3, mb4.6/6*

IDC ***12*** *18:47:41.6±0.5, 14°.66N×55°.16E, h0^{km}, mb4.2/31, mb1 4.3/31, mb1mx4.3/37, mbtmp4.2/31, MS4.0/19, Ms1 4.0/19, ms1mx3.8/30, Error ellipse: s-maj=13.3km s-min=12.6km az=140.0*

ISCJB ***12*** *18:47:41.6±0.4, 14°.67N±0°.06×55°.04E±0°.04, h10^{km}, mb4.5/82, MS4.0/22, Error ellipse: s-maj=8.5km s-min=5.7km az=4.1*

NEIC ***12*** *18:47:43.0±0.3, 14°.65N×55°.09E, h10^{km}, mb4.6/27, Error ellipse: s-maj=7.7km s-min=6.3km az=174.0*

CSEM ***12*** *18:47:43.7±0.2, 14°.71N×55°.03E, h10^{km}, mb4.6/41, Error ellipse: s-maj=8.2km s-min=5.6km az=2.0*

ISC 12 18:47:43.6±0.4**, 14°.67N**±0°.06×**55°.04E**±0°.04**, h10^{km}, n261,** σ**1^{s}01**/253**, mb4.5**/82**, MS4.0**/22**, 18C-7D, Owen Fracture Zone region**

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Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                     Op     ISC        h  m  s   ISC
RDF    Al-Radifah        15.79 335  eP      Pn       18 51 21.5 -4.6
RDF                                  AMb    AMB      18 51 25.0
       comp=Z,91nm,1.2s
RDF    Al-Radifah        15.79 335  eP      Pn       18 51 21.5 -4.6
       comp=Z,91nm,1.2s
KBD    Kabd              15.95 336  eP      Pn       18 51 24.4 -3.9
KBD                                  AMb    AMB      18 51 27.1
       comp=Z,45nm,1.1s
NAY    Al-Naaiem         16.20 335  eP      Pn       18 51 26.7 -4.7
NAY                                  AMb    AMB      18 51 37.1
       comp=Z,32nm,1.7s
NAY    Al-Naaiem         16.20 335  eP      Pn       18 51 26.7 -4.7
       comp=Z,33nm,1.7s
MIB    Mutribah          16.65 336  eP      Pn       18 51 32.9 -4.3
MIB                                  AMb    AMB      18 51 39.3
       comp=Z,60nm,1.3s
MIB    Mutribah          16.65 336  eP      Pn       18 51 32.9 -4.2
       comp=Z,60nm,1.3s
KBL    Kabul             23.47  30  eP      P        18 52 54.8 +1.2
KBL                                  pmax   pmax
       comp=Z,11nm,1.0s,mb4.2
KBL    Kabul             23.47  30  eP      P        18 52 54.8 +1.1
       comp=Z,10nm,1.0s,mb4.2
KBL    Kabul             23.47  30  eP      P        18 52 54.8 +1.2
       comp=Z,11nm,1.0s,mb4.2
EIL    Elat              23.79 312   P      P        18 52 57.9 +1.2
       comp=Z,6.1nm,1.1s,mb4.0,baz=117,slow=9.0,SNR=2.7
EIL                                  LR     LR       19 02 48.9
       comp=Z,340nm,19.5s,MS3.8,baz=266,slow=38
EIL    Elat              23.79 312   P      P        18 52 57.9 +1.2
EIL                                  LR     LR       19 02 48.9
EIL    Elat              23.79 312   P      P        18 52 57.9 +1.2
ASF    Jabal al Asfar    24.03 320   P      P        18 52 59.4 +0.6
       comp=Z,5.2nm,0.9s,mb4.0,baz=74,slow=6.8,SNR=4.9
ASF                                  LR     LR       19 03 09.0
       comp=Z,263nm,18.3s,MS3.8,baz=147,slow=38
MMAI   Mount Meron Ar    25.53 319   P      P        18 53 14.7 +2.2
       comp=Z,4.5nm,0.8s,mb4.1,baz=133,slow=12,SNR=4.1
MMAI                                 LR     LR       19 04 06.5
       comp=Z,161nm,19.8s,MS3.5,baz=95,slow=38
GNI    Garni             26.93 342⇑eP      P        18 53 25.1  0.0
GNI                                  pmax   pmax
       comp=Z,26nm,1.7s
GNI    Garni             26.93 342   P      P        18 53 26.9 +1.8
       comp=Z,11nm,0.8s,mb4.5,baz=155,slow=19,SNR=6.0
GNI                                  LR     LR       19 06 31.2
       comp=Z,219nm,20.8s,MS3.7,baz=141,slow=42
GNI    Garni             26.93 342  eP      P        18 53 25.1  0.0
       comp=Z,26nm,1.7s,mb4.5
MALT   Malatya           27.76 331  eP      P        18 53 32.5  0.0
MALT                                 pmax   pmax
       comp=Z,11nm,1.1s,mb4.4
MALT   Malatya           27.76 331  eP      P        18 53 32.5  0.0
       comp=Z,11nm,1.1s,mb4.4
MALT   Malatya           27.76 331  eP      P        18 53 32.5  0.0
       comp=Z,11nm,1.1s,mb4.4
KOLN   Koldanda          29.55  59  eP      P        18 53 49.8 +1.2
       comp=Z,27nm,1.2s,mb4.9
KOLN   Koldanda          29.55  59  eP      P        18 53 49.8 +1.2
GKN    Gorkha            30.50  59  eP      P        18 53 57.5 +0.5
       comp=Z,24nm,1.0s,mb4.9
GKN    Gorkha            30.50  59  eP      P        18 53 57.5 +0.5
DMN    Daman             30.76  60  eP      P        18 53 59.5 +0.2
       comp=Z,17nm,1.1s,mb4.8
DMN    Daman             30.76  60  eP      P        18 53 59.5 +0.2
KKN    Kakani            30.96  60  eP      P        18 54 01.9 +0.8
       comp=Z,21nm,0.8s,mb5.0
KKN    Kakani            30.96  60  eP      P        18 54 01.9 +0.8
KIV    Kislovodsk        31.03 343  eP      P        18 54 01.8 +0.3
KIV                                 ePPP             18 55 08.7
KIV                                 e                18 56 58.8
KIV                                 eS      S        18 59 04.1 -2.4
KIV                                  pmax   pmax
       comp=Z,9.0nm,1.1s,mb4.5
KIV                                  MLR    MLR
       comp=Z,194nm,16.0s,MS3.9
KIV    Kislovodsk        31.03 343  eP      P        18 54 01.8 +0.3
       comp=Z,9.0nm,1.1s,mb4.5
KIV                                 eS      S        18 59 04.1 -2.4
       comp=Z,194nm,16.0s
BRTR   Keskin Array B    31.22 327   P      P        18 54 03.1 -0.1
       comp=Z,0.9nm,0.9s,mb3.6,baz=148,slow=8.4,SNR=2.9
BRTR                                 LR     LR       19 08 12.3
       comp=Z,134nm,19.0s,MS3.6,baz=113,slow=39
BRTR   Keskin Array B    31.22 327   P      P        18 54 03.1 -0.1
GUN    Gumba             31.50  60  eP      P        18 54 07.0 +1.1
       comp=Z,48nm,0.9s,mb5.3
GUN    Gumba             31.50  60  eP      P        18 54 07.0 +1.1
JIRN   Jiri              31.69  61  eP      P        18 54 08.1 +0.6
       comp=Z,12nm,0.7s,mb4.9
JIRN   Jiri              31.69  61  eP      P        18 54 08.1 +0.6
UCH    Uchtor            32.20  28  eP      P        18 54 13.1 +1.3
       comp=Z,4.1nm,0.8s,mb4.3
UCH    Uchtor            32.20  28  eP      P        18 54 13.1 +1.3
       comp=Z,4.1nm,0.8s,mb4.3
EKS2   Erkin-Say         32.22  26  eP      P        18 54 13.1 +1.2
       comp=Z,4.4nm,0.8s,mb4.3
EKS2   Erkin-Say         32.22  26  eP      P        18 54 13.1 +1.1
       comp=Z,4.3nm,0.8s,mb4.3
AAK    Ala-Archa         32.51  27⇑eP      P        18 54 16.1 +1.6
AAK                                  pmax   pmax
       comp=Z,8.0nm,1.7s,mb4.4
AAK    Ala-Archa         32.51  27  eP      P        18 54 15.9 +1.4
       comp=Z,6.7nm,1.0s,mb4.5
AAK    Ala-Archa         32.51  27  eP      P        18 54 15.9 +1.4
       comp=Z,6.7nm,1.0s,mb4.5
TAPN   Taplejung         32.89  62  eP      P        18 54 18.6 +0.5
       comp=Z,15nm,0.7s,mb5.0
TAPN   Taplejung         32.89  62  eP      P        18 54 18.6 +0.5
ANN    Anapa             33.54 337  eP      P        18 54 22.5 -1.0
ANN                                 eS      S        18 59 44.7 -0.8
ANN                                  pmax   pmax
       comp=Z,103nm,1.9s,mb5.4
ANN    Anapa             33.54 337  eP      P        18 54 22.5 -1.0
       comp=Z,103nm,1.9s,mb5.4
ANN                                 eS      S        18 59 44.7 -0.8
AKTK   Aktyubinsk        35.75   3   P      P        18 54 42.0 -0.5
AKTK   Aktyubinsk        35.75   3   P      P        18 54 42.0 -0.5
AKTO   Aktyubinsk        35.75   3   P      P        18 54 42.0 -0.5
       comp=Z,6.8nm,0.7s,mb4.7,baz=184,slow=9.1,SNR=28
VSR    Storozhevoye      38.63 344  eP      P        18 55 06.6 -0.4
VSR                                  pmax   pmax
       comp=Z,7.0nm,0.7s,mb4.5
VSR    Storozhevoye      38.63 344  eP      P        18 55 06.6 -0.4
       comp=Z,7.0nm,0.7s,mb4.5
VRI    Vrincioaia        39.16 328⇑iP      P        18 55 14.2 +2.7
VRI    Vrincioaia        39.16 328 ⇑P      P        18 55 14.2 +2.7
VRI    Vrincioaia        39.16 328 ⇑P      P        18 55 14.2 +2.7
PLOR   Plostina          39.19 328⇓iP      P        18 55 13.2 +1.5
PLOR   Plostina          39.19 328   P      P        18 55 13.2 +1.5
MKAR   Makanchi Array    39.28  30   P      P        18 55 12.4 -0.1
MKAR                                                 18 57 20.3
MKAR   Makanchi Array    39.28  30   P      P        18 55 12.4 -0.1
       comp=Z,2.5nm,0.6s,mb4.1,baz=215,slow=8.2,SNR=36
MKAR                                 PcP    PcP      18 57 20.3 -1.0
       comp=Z,0.5nm,0.6s,baz=205,slow=1.8,SNR=4.4
MKAR                                 LR     LR       19 13 12.8
       comp=Z,163nm,19.6s,MS3.9,baz=228,slow=39
MKAR   Makanchi Array    39.28  30   P      P        18 55 12.4 -0.1
MKAR                                 PcP    PcP      18 57 20.3 -1.0
MKAR                                 LR     LR       19 13 12.8
MLR    Muntele Rosu      39.31 327⇓iP      P        18 55 14.9 +2.2
MLR    Muntele Rosu      39.31 327   P      P        18 55 12.7 -0.1
       comp=Z,1.4nm,0.6s,mb3.9,baz=107,slow=19,SNR=2.1
MLR                                  LR     LR       19 14 23.0
       comp=Z,125nm,19.5s,MS3.8,baz=317,slow=41
MLR    Muntele Rosu      39.31 327 ⇓P      P        18 55 14.9 +2.2
MLR    Muntele Rosu      39.31 327 ⇓P      P        18 55 14.9 +2.2
VOIR                     39.74 327⇓iP      P        18 55 17.3 +0.9
VOIR                     39.74 327 ⇓P      P        18 55 17.3 +0.9
VOIR                     39.74 327 ⇓P      P        18 55 17.3 +0.9
LSZ    Lusaka            39.88 223   P      P        18 55 18.7 +0.9
       comp=Z,1.1nm,0.3s,mb4.0,baz=55,slow=20,SNR=6.5
LSZ                                  LR     LR       19 11 47.1
       comp=Z,420nm,21.1s,MS4.3,baz=5.2,slow=36
LSZ    Lusaka            39.88 223   P      P        18 55 18.7 +0.9
BVAR   Borovoye Array    40.15  14   P      P        18 55 18.5 -1.1
       comp=Z,1.2nm,0.6s,mb3.8,baz=194,slow=7.3,SNR=12
BVAR                                 PcP    PcP      18 57 23.0 -0.9
       comp=Z,0.8nm,0.6s,baz=192,slow=4.4,SNR=4.2
BVAR   Borovoye Array    40.15  14   P      P        18 55 18.5 -1.1
BVAR   Borovoye Array    40.15  14   PcP    PcP      18 57 23.0 -0.9
KURK   Kurchatov         40.70  23   P      P        18 55 22.7 -1.5
       comp=Z,2.9nm,0.7s,mb4.0,baz=225,slow=7.9,SNR=20
KURK                                 PcP    PcP      18 57 25.4 -0.3
       comp=Z,0.6nm,0.7s,baz=224,slow=2.7,SNR=3.0
KURK   Kurchatov         40.70  23   P      P        18 55 22.7 -1.5
KURK   Kurchatov         40.70  23   PcP    PcP      18 57 25.4 -0.3
BURAR  Bucovina Array    41.11 329⇑iP      P        18 55 29.1 +1.4
BURAR  Bucovina Array    41.11 329 ⇑P      P        18 55 29.1 +1.4
BURAR  Bucovina Array    41.11 329 ⇑P      P        18 55 29.1 +1.4
BUR08  Bucovina Ar. S    41.14 329  eP      P        18 55 28.1 +0.1
BUR08  Bucovina Ar. S    41.14 329  eP      P        18 55 28.0 +0.1
AKASG  Malin Array Be    41.56 335   P      P        18 55 30.6 -0.7
       comp=Z,2.4nm,0.8s,mb3.9,baz=140,slow=7.8,SNR=9.3
AKASG  Malin Array Be    41.56 335   P      P        18 55 30.6 -0.7
ARU    Arti              41.76   3c iP      P        18 55 32.2 -0.7
ARU                                  S      S        19 01 46.1 -3.9
ARU                                  pmax   pmax
       comp=Z,12nm,1.7s,mb4.2
ARU    Arti              41.76   3  i P     P        18 55 32.2 -0.7
       comp=Z,12nm,1.7s,mb4.2
CHTO   Chiang Mai        42.16  78  eP      P        18 55 35.8 -0.9
CHTO                                 pmax   pmax
       comp=Z,3.0nm,0.8s,mb4.0
CHTO   Chiang Mai        42.16  78  eP      P        18 55 35.8 -1.0
       comp=Z,3.1nm,0.8s,mb4.0
CHTO   Chiang Mai        42.16  78  eP      P        18 55 35.8 -0.9
       comp=Z,3.0nm,0.8s,mb4.0
CMAR   Chiang Mai Arr    42.17  79   P      P        18 55 37.0 +0.3
       comp=Z,5.7nm,0.8s,mb4.2,baz=276,slow=9.0,SNR=30
CMAR                                 LR     LR       19 14 43.4
       comp=Z,64nm,19.6s,MS3.5,baz=310,slow=39
CMAR   Chiang Mai Arr    42.17  79   P      P        18 55 37.0 +0.2
OBN    Obninsk           42.83 344⇑eP      P        18 55 42.1 +0.5
OBN                                 e                18 55 47.8
OBN                                  pmax   pmax
       comp=Z,39nm,2.5s,mb4.7
OBN                                  MLR    MLR
       comp=Z,200nm,19.0s,MS4.0
OBN    Obninsk           42.83 344  eP      P        18 55 42.1 +0.5
       comp=Z,39nm,2.5s,mb4.7
ZAA0   Zalesovo Array    45.61  24  eP      P        18 56 02.5 -1.4
ZAA0   Zalesovo Array    45.61  24  eP      P        18 56 02.5 -1.4
ZALV   Zalesovo Beam     45.61  24   P      P        18 56 02.7 -1.2
       comp=Z,6.6nm,0.6s,mb4.7,baz=230,slow=7.8,SNR=33
ZALV                                 LR     LR       19 17 05.4
       comp=Z,135nm,18.3s,MS3.9,baz=229,slow=39
NVS    Novosibirsk       45.67  22  eP      P        18 56 03.5 -0.9
NVS                                  pmax   pmax
       comp=N,14nm,1.0s
NVS                                  pmax   pmax
       comp=Z,18nm,1.0s,mb5.0
NVS                                  pmax   pmax
       comp=E,4.0nm,0.8s
KEST   Kesra             45.87 306   P      P        18 56 07.6 +1.3
       comp=E,1.2nm,0.8s,mb3.9,baz=104,slow=13,SNR=4.5
CONA   Conrad Observa    46.30 324⇑iP      P        18 56 10.4 +0.9
       comp=E,3.3nm,0.6s,mb4.4
CONA   Conrad Observa    46.30 324   P      P        18 56 10.4 +0.9
       comp=E,3.3nm,0.6s,mb4.4
CSNA   Conrad Observa    46.31 324⇑iP      P        18 56 10.5 +1.0
       comp=E,4.1nm,0.6s,mb4.5
CSNA   Conrad Observa    46.31 324   P      P        18 56 10.5 +1.0
       comp=E,4.1nm,0.6s,mb4.5
VRAC   Vranov            46.66 326   P      P        18 56 14.2 +2.0
       comp=E,1.6nm,0.4s,mb4.3,baz=92,slow=3.7,SNR=3.5
VRAC   Vranov            46.66 326   P      P        18 56 14.2 +2.0
MOA    Molln             47.18 323⇑iP      P        18 56 17.1 +0.8
       comp=E,4.5nm,0.7s,mb4.5
MOA    Molln             47.18 323   P      P        18 56 17.1 +0.8
       comp=E,4.5nm,0.7s,mb4.5
DPC    Dobruska-Polom    47.39 327  eP      P        18 56 18.1 +0.2
DPC    Dobruska-Polom    47.39 327  eP      P        18 56 18.1 +0.2
TAM    Tamanrasset       47.41 288  eP      P        18 56 18.5  0.0
TAM                                  pmax   pmax
       comp=Z,2.0nm,0.8s,mb4.1
TAM    Tamanrasset       47.41 288  eP      P        18 56 18.5  0.0
       comp=Z,2.5nm,0.8s,mb4.2
TAM    Tamanrasset       47.41 288  eP      P        18 56 18.5  0.0
       comp=Z,2.5nm,0.8s,mb4.2
GERES  GERESS Array B    48.01 324   P      P        18 56 23.7 +0.9
       comp=Z,0.9nm,0.6s,mb4.0,baz=102,slow=5.6,SNR=5.5
GERES                                PcP    PcP      18 57 50.7 -0.1
       comp=Z,0.6nm,0.7s,baz=110,slow=4.5,SNR=3.5
GERES  GERESS Array B    48.01 324   P      P        18 56 23.7 +0.9
GERES  GERESS Array B    48.01 324   PcP    PcP      18 57 50.7 -0.1
KHC    Kasperske Hory    48.23 324  eP      P        18 56 23.7 -0.8
KHC    Kasperske Hory    48.23 324  eP      P        18 56 23.7 -0.8
LBTB   Lobatse           48.79 216   P      P        18 56 30.3 +1.2
       comp=Z,13nm,0.8s,mb5.0,baz=54,slow=6.8,SNR=14
LBTB   Lobatse           48.79 216   P      P        18 56 30.3 +1.2
MOTA   Moosalm           48.82 321⇑iP      P        18 56 28.6 -0.5
       comp=Z,6.0nm,0.7s,mb4.8
MOTA   Moosalm           48.82 321   P      P        18 56 28.6 -0.4
       comp=Z,6.0nm,0.7s,mb4.8
FETA   Feichten          48.90 321⇑iP      P        18 56 27.7 -2.0
       comp=Z,6.1nm,1.5s,mb4.4
FETA   Feichten          48.90 321   P      P        18 56 27.7 -2.0
       comp=Z,6.1nm,1.5s,mb4.4
DAVOX  Davos/Dischmat    49.32 320   P      P        18 56 34.1 +1.2
       comp=Z,4.5nm,0.8s,mb4.6,baz=181,slow=18,SNR=6.1
DAVOX  Davos/Dischmat    49.32 320   P      P        18 56 34.2 +1.3
DAVOS  Davos             49.40 320   P      P        18 56 34.2 +0.7
DAVA   Damuels           49.54 321⇑iP      P        18 56 34.2 -0.4
       comp=Z,8.1nm,1.2s,mb4.6
DAVA   Damuels           49.54 321   P      P        18 56 34.2 -0.3
       comp=Z,8.1nm,1.2s,mb4.6
LMR    La Mourre         50.23 315  eP      P        18 56 39.6 -0.3
       comp=Z,11nm,0.8s,mb4.7
LMR    La Mourre         50.23 315  eP      P        18 56 39.6 -0.3
LMR                                  pmax   pmax
       comp=Z,6.0nm,0.8s,mb4.7
LMR    La Mourre         50.23 315  eP      P        18 56 39.6 -0.3
       comp=Z,5.5nm,0.8s,mb4.6
LMR    La Mourre         50.23 315  eP      P        18 56 39.6 -0.3
       comp=Z,5.5nm,0.8s,mb4.7
KRAR   Krasnoyarsk       50.39  27  eP      P        18 56 41.5 +0.6
KRAR                                 pmax   pmax
       comp=Z,9.0nm,1.4s,mb4.6
MBDF   Montbardon        50.53 316  eP      P        18 56 42.4 +0.3
       comp=Z,8.2nm,0.7s,mb4.5
MBDF   Montbardon        50.53 316  eP      P        18 56 42.4 +0.3
MBDF                                 pmax   pmax
       comp=Z,4.0nm,0.7s,mb4.5
MBDF   Montbardon        50.53 316  eP      P        18 56 42.4 +0.3
       comp=Z,4.1nm,0.7s,mb4.5
MBDF   Montbardon        50.53 316  eP      P        18 56 42.4 +0.3
       comp=Z,4.1nm,0.7s,mb4.5
LPG    La Plagne         50.81 317  eP      P        18 56 43.9 -0.4
       comp=Z,16nm,0.8s,mb4.7
LPG    La Plagne         50.81 317  eP      P        18 56 43.9 -0.4
LPG                                  pmax   pmax
       comp=Z,8.0nm,0.8s,mb4.7
LPG    La Plagne         50.81 317  eP      P        18 56 43.9 -0.4
       comp=Z,7.8nm,0.8s,mb4.7
LPG    La Plagne         50.81 317  eP      P        18 56 43.9 -0.4
       comp=Z,7.8nm,0.8s,mb4.7
LPL    La Plagne         50.83 317  eP      P        18 56 44.0 -0.4
       comp=Z,12nm,0.8s,mb4.6
LPL    La Plagne         50.83 317  eP      P        18 56 44.0 -0.4
LPL                                  pmax   pmax
       comp=Z,6.0nm,0.8s,mb4.6
LPL    La Plagne         50.83 317  eP      P        18 56 44.0 -0.4
       comp=Z,6.2nm,0.8s,mb4.6
LPL    La Plagne         50.83 317  eP      P        18 56 44.0 -0.4
       comp=Z,6.2nm,0.8s,mb4.6
BFO    Black Forest      50.93 321  i P     P        18 56 46.3 +1.2
JOF    Joensuu           51.00 346  ep      P        18 56 43.9 -1.5
       comp=Z,2.1nm,0.6s,mb4.2
JOF    Joensuu           51.00 346  eP      P        18 56 43.9 -1.5
ORIF   Oris-en-Rattie    51.19 316  eP      P        18 56 46.9 -0.2
       comp=Z,9.6nm,1.0s,mb4.4
ORIF   Oris-en-Rattie    51.19 316  eP      P        18 56 46.9 -0.2
ORIF                                 pmax   pmax
       comp=Z,5.0nm,1.0s,mb4.4
ORIF   Oris-en-Rattie    51.19 316  eP      P        18 56 46.9 -0.2
       comp=Z,4.8nm,1.0s,mb4.4
ORIF   Oris-en-Rattie    51.19 316  eP      P        18 56 46.9 -0.2
       comp=Z,4.8nm,1.0s,mb4.4
KAF    Kangasniemi       51.60 343  eP      P        18 56 48.5 -1.4
KAF                                  pmax   pmax
       comp=Z,2.0nm,0.6s,mb4.2
KAF    Kangasniemi       51.60 343  ep      P        18 56 48.5 -1.4
       comp=Z,1.5nm,0.6s,mb4.1
KAF    Kangasniemi       51.60 343  eP      P        18 56 48.5 -1.4
       comp=Z,1.5nm,0.6s,mb4.1
CDF    Champ du Feu      51.60 321  eP      P        18 56 50.2 +0.1
       comp=Z,7.7nm,0.8s,mb4.4
CDF    Champ du Feu      51.60 321  eP      P        18 56 50.2 +0.1
CDF                                  pmax   pmax
       comp=Z,4.0nm,0.8s,mb4.4
CDF    Champ du Feu      51.60 321  eP      P        18 56 50.2 +0.1
       comp=Z,3.8nm,0.8s,mb4.4
CDF    Champ du Feu      51.60 321  eP      P        18 56 50.2 +0.1
       comp=Z,3.8nm,0.8s,mb4.4
CABF   La Chapelle       51.65 318  eP      P        18 56 50.6 +0.1
       comp=Z,14nm,0.7s,mb4.7
CABF   La Chapelle       51.65 318  eP      P        18 56 50.6 +0.1
CABF                                 pmax   pmax
       comp=Z,7.0nm,0.7s,mb4.7
CABF   La Chapelle       51.65 318  eP      P        18 56 50.6 +0.1
       comp=Z,7.1nm,0.7s,mb4.7
CABF   La Chapelle       51.65 318  eP      P        18 56 50.6 +0.1
       comp=Z,7.1nm,0.7s,mb4.7
TORD   Torodi Ar. Bea    51.71 275   P      P        18 56 50.9 -0.5
       comp=Z,2.1nm,0.8s,mb4.1,baz=88,slow=6.6,SNR=14
TORD                                 PcP    PcP      18 58 04.9 -0.1
       comp=Z,0.7nm,0.7s,baz=82,slow=4.2,SNR=6.7
TORD   Torodi Ar. Bea    51.71 275   P      P        18 56 50.9 -0.5
TORD                                 PcP    PcP      18 58 04.9 -0.1
TORD   Torodi Ar. Bea    51.71 275   P      P        18 56 50.9 -0.5
TORD   Torodi Ar. Bea    51.71 275   PcP    PcP      18 58 04.9  0.0
BOSA   Boshof            51.79 214   P      P        18 56 51.8 +0.1
       comp=Z,4.0nm,0.6s,mb4.5,baz=53,slow=6.8,SNR=12
BOSA                                 LR     LR       19 21 18.2
       comp=Z,142nm,18.9s,MS4.0,baz=230,slow=39
BOSA   Boshof            51.79 214   P      P        18 56 51.8 +0.1
MEZF   Maizieres J'vi    53.00 320  eP      P        18 57 00.0 -0.5
MEZF   Maizieres J'vi    53.00 320  eP      P        18 57 00.0 -0.5
SMF    Signal de Mont    53.11 318  eP      P        18 57 01.1 -0.3
SMF    Signal de Mont    53.11 318  eP      P        18 57 01.1 -0.3
LOR    Lormes            53.31 319  eP      P        18 57 02.0 -0.8
       comp=Z,32nm,1.2s,mb4.8
LOR    Lormes            53.31 319  eP      P        18 57 02.0 -0.8
LOR                                  pmax   pmax
       comp=Z,16nm,1.2s,mb4.8
LOR    Lormes            53.31 319  eP      P        18 57 02.0 -0.8
       comp=Z,16nm,1.2s,mb4.8
LOR    Lormes            53.31 319  eP      P        18 57 02.0 -0.8
       comp=Z,16nm,1.2s,mb4.8
TLY    Talaya            53.46  36  eP      P        18 57 05.6 +1.8
TLY                                  pmax   pmax
       comp=Z,2.0nm,0.7s,mb4.2
TLY                                  MLR    MLR
       comp=Z,89nm,15.0s,MS3.9
SSF    Saint Saulge      53.47 318  eP      P        18 57 03.3 -0.7
       comp=Z,16nm,1.1s,mb4.5
SSF    Saint Saulge      53.47 318  eP      P        18 57 03.3 -0.7
SSF                                  pmax   pmax
       comp=Z,8.0nm,1.1s,mb4.6
SSF    Saint Saulge      53.47 318  eP      P        18 57 03.3 -0.7
       comp=Z,7.8nm,1.1s,mb4.5
SSF    Saint Saulge      53.47 318  eP      P        18 57 03.3 -0.7
       comp=Z,7.8nm,1.1s,mb4.5
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AVF	Avril sur Loir	53.48	318	*e*P	P	18 57 03.8	-0.3
	comp=Z,7.1nm,0.9s,mb4.3						
AVF	Avril sur Loir	53.48	318	*e*P	P	18 57 03.8	-0.3
AVF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
AVF	Avril sur Loir	53.48	318	*e*P	P	18 57 03.8	-0.3
	comp=Z,3.5nm,0.9s,mb4.3						
AVF	Avril sur Loir	53.48	318	*e*P	P	18 57 03.8	-0.3
	comp=Z,3.5nm,0.9s,mb4.3						
SONM	Songino Array	53.61	41	P	P	18 57 05.8	+0.8
	comp=Z,5.8nm,1.1s,mb4.4,baz=242,slow=7.7,SNR=22						
SONM				LR	LR	19 22 47.9	
	comp=Z,168nm,18.6s,MS4.1,baz=357,slow=39						
SONM	Songino Array	53.61	41	P	P	18 57 05.8	+0.8
BGF	Bois d'Agland	53.73	317	*e*P	P	18 57 05.5	-0.4
	comp=Z,19nm,0.9s,mb4.7						
BGF	Bois d'Agland	53.73	317	*e*P	P	18 57 05.5	-0.4
BGF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
BGF	Bois d'Agland	53.73	317	*e*P	P	18 57 05.5	-0.4
	comp=Z,9.7nm,0.9s,mb4.7						
BGF	Bois d'Agland	53.73	317	*e*P	P	18 57 05.5	-0.4
	comp=Z,9.7nm,0.9s,mb4.7						
CAF	Calviac	53.76	315	*e*P	P	18 57 06.3	+0.1
CAF	Calviac	53.76	315	*e*P	P	18 57 06.3	+0.1
ULN	Ulaanbaatar	54.04	41	*e*P	P	18 57 08.3	+0.1
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
ULN	Ulaanbaatar	54.04	41	*e*P	P	18 57 08.3	+0.1
	comp=Z,2.8nm,0.8s,mb4.2						
ULN	Ulaanbaatar	54.04	41	*e*P	P	18 57 08.3	+0.1
	comp=Z,2.8nm,0.8s,mb4.2						
BAIF	Baives	54.10	322	*e*P	P	18 57 07.9	-0.6
	comp=Z,14nm,0.9s,mb4.6						
BAIF	Baives	54.10	322	*e*P	P	18 57 07.9	-0.6
BAIF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BAIF	Baives	54.10	322	*e*P	P	18 57 07.9	-0.6
	comp=Z,7.1nm,0.9s,mb4.6						
BAIF	Baives	54.10	322	*e*P	P	18 57 07.9	-0.6
	comp=Z,7.1nm,0.9s,mb4.6						
HFS	Hagfors	54.44	336	P	P	18 57 09.7	-1.2
	comp=Z,2.2nm,0.5s,mb4.4,baz=134,slow=8.4,SNR=12						
HFS	Hagfors	54.44	336	P	P	18 57 09.7	-1.2
ETSF	Etsaut	55.08	312	*e*P	P	18 57 15.1	-0.7
	comp=Z,11nm,0.8s,mb4.6						
ETSF	Etsaut	55.08	312	*e*P	P	18 57 15.1	-0.7
ETSF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
ETSF	Etsaut	55.08	312	*e*P	P	18 57 15.1	-0.7
	comp=Z,5.5nm,0.8s,mb4.6						
ETSF	Etsaut	55.08	312	*e*P	P	18 57 15.1	-0.7
	comp=Z,5.5nm,0.8s,mb4.6						
SJPF	Ste Jean	55.60	312	*e*P	P	18 57 19.2	-0.4
	comp=Z,19nm,0.9s,mb4.8						
SJPF	Ste Jean	55.60	312	*e*P	P	18 57 19.2	-0.4
SJPF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SJPF	Ste Jean	55.60	312	*e*P	P	18 57 19.2	-0.4
	comp=Z,9.6nm,0.9s,mb4.8						
SJPF	Ste Jean	55.60	312	*e*P	P	18 57 19.2	-0.4
	comp=Z,9.6nm,0.9s,mb4.8						
NB2	NORSAR Subarra	55.97	336	P	P	18 57 20.7	-1.1
	comp=Z,3.7nm,0.8s,mb4.5,baz=120,slow=7.9						
NB2	NORSAR Subarra	55.97	336	P	P	18 57 20.7	-1.1
	comp=Z,3.7nm,0.8s,mb4.5,baz=120,slow=7.7,SNR=6.1						
NOA	NORSAR Array B	55.97	336	P	P	18 57 20.8	-1.0
	comp=Z,1.2nm,0.9s,mb3.9,baz=133,slow=9.1,SNR=3.2						
NOA				LR	LR	19 24 36.6	
	comp=Z,150nm,18.7s,MS4.1,baz=205,slow=40						
NOA	NORSAR Array B	55.97	336	P	P	18 57 20.8	-1.0
LDF	La Druitiere	56.27	319	*e*P	P	18 57 23.4	-0.9
LDF	La Druitiere	56.27	319	*e*P	P	18 57 23.4	-0.9
FLN	La Foliniere	56.55	319	*e*P	P	18 57 26.3	+0.1
FLN	La Foliniere	56.55	319	*e*P	P	18 57 26.3	+0.1
GRR	Gorron	56.68	319	*e*P	P	18 57 26.7	-0.5
GRR	Gorron	56.68	319	*e*P	P	18 57 26.7	-0.5
ESDC	Sonseca Array	57.00	308	P	P	18 57 29.3	-0.3
	comp=Z,3.9nm,0.9s,mb4.4,baz=84,slow=6.3,SNR=5.3						
ESDC	Sonseca Array	57.00	308	P	P	18 57 29.3	-0.3
SGMF	Saint Gilles	57.74	318	*e*P	P	18 57 34.2	-0.5
SGMF	Saint Gilles	57.74	318	*e*P	P	18 57 34.2	-0.5
ARCES	ARCESS Array B	57.88	348	P	P	18 57 34.5	-0.8
	comp=Z,8.3nm,1.0s,mb4.7,baz=132,slow=1.8,SNR=9.8						
ARCES				LR	LR	19 25 58.3	
	comp=Z,205nm,18.9s,MS4.3,baz=340,slow=40						
ARCES	ARCESS Array B	57.88	348	P	P	18 57 34.5	-0.8
ARCES				LR	LR	19 25 58.3	
ARCES	ARCESS Array B	57.88	348	P	P	18 57 34.5	-0.8
DBIC	Dimbokro	59.26	269	P	P	18 57 45.5	-0.3
	comp=Z,3.0nm,0.8s,mb4.4,baz=85,slow=6.3,SNR=5.5						
DBIC				LR	LR	19 26 23.1	
	comp=Z,100nm,18.0s,MS4.0,baz=45,slow=39						
DBIC	Dimbokro	59.26	269	P	P	18 57 45.5	-0.3
LIC	Lamto	59.52	269	*e*P	P	18 57 48.1	+0.4
	comp=Z,14nm,0.6s,mb4.9						
LIC	Lamto	59.52	269	*e*P	P	18 57 48.1	+0.4
	comp=Z,6.8nm,0.6s,mb4.8						
LIC	Lamto	59.52	269	*e*P	P	18 57 48.1	+0.4
	comp=Z,6.8nm,0.6s,mb4.9						
EKA	Eskdalemuir Ar	60.13	326	P	P	18 57 49.4	-1.8
	comp=Z,0.8nm,0.6s,mb3.9,baz=102,slow=7.5,SNR=6.9						
EKA	Eskdalemuir Ar	60.13	326	P	P	18 57 49.3	-1.9
NJ2	Nanjing	60.29	61	*e*P	P	18 57 52.9	+0.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
KSRS	Korea Array	67.72	55	P	P	18 58 38.9	-2.6
	comp=Z,2.8nm,1.0s,mb4.3,baz=288,slow=7.3,SNR=5.3						
YAK	Yakutsk	69.95	29	*e*P	P	18 58 55.0	+0.1
YAK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
YAK	Yakutsk	69.95	29	*e*P	P	18 58 53.2	-1.7
	comp=Z,12nm,0.6s,mb5.0						
YAK	Yakutsk	69.95	29	*e*P	P	18 58 55.0	+0.1
	comp=Z,10.0nm,0.8s,mb4.8						
KLR	Kul'dur	70.37	43	*e*P	P	18 58 54.0	-3.7
TIXI	Tiksi	71.09	19	⇑*e*P	P	18 59 03.3	+1.6
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.5s,mb4.3						
TIXI	Tiksi	71.09	19	*e*P	P	18 59 03.3	+1.6
	comp=Z,10.0nm,2.5s,mb4.3						
SUMG	Summit	77.16	342	*e*P	P	18 59 37.0	-0.1
	comp=Z,14nm,1.1s,mb4.8						
SUMG	Summit	77.16	342	*e*P	P	18 59 37.0	-0.1
	comp=Z,14nm,1.1s,mb4.8						
SEY	Seymchan	80.37	27	⇑*e*P	P	18 59 55.5	+0.5
SEY	Seymchan	80.37	27	*e*P	P	18 59 55.5	+0.5
MAW	Mawson	82.25	177	LR	LR	19 29 39.9	
	comp=Z,153nm,18.8s,MS4.4,baz=177,slow=31						
WRA	Warramunga Arr	85.20	112	P	P	19 00 19.1	-1.7
	comp=Z,1.9nm,0.9s,mb4.2,baz=301,slow=3.9,SNR=7.3						
WRA	Warramunga Arr	85.20	112	P	P	19 00 19.1	-1.7
WRAB	Tennant Creek	85.20	112	*e*P	P	19 00 18.7	-2.2
WRAB				pmax	pmax		
	comp=Z,40nm,1.8s,mb5.2						
WRAB	Tennant Creek	85.20	112	*e*P	P	19 00 18.7	-2.2
	comp=Z,40nm,1.8s,mb5.2						
WRAB	Tennant Creek	85.20	112	*e*P	P	19 00 18.7	-2.2
	comp=Z,40nm,1.8s,mb5.2						
PETK	Petropavlovsk-	85.82	36	LR	LR	19 42 35.8	
	comp=Z,51nm,19.1s,MS3.9,baz=26,slow=38						
ASAR	Alice Springs	85.93	116	P	P	19 00 22.6	-1.8
	comp=Z,1.7nm,0.7s,mb4.4,baz=293,slow=4.6,SNR=21						
ASAR	Alice Springs	85.93	116	P	P	19 00 22.6	-1.8
RES	Resolute Bay	88.85	352	LR	LR	19 45 50.5	
	comp=Z,194nm,20.7s,MS4.5,baz=26,slow=39						
STKA	Stephens Creek	94.75	122	LR	LR	19 37 57.6	
	comp=Z,142nm,20.7s,MS4.4,baz=206,slow=32						
PDAR	Pinedale Array	121.12	347	PKP	PKPdf	19 06 36.1	-0.8
	comp=Z,0.9nm,0.7s,baz=104,slow=3.7,SNR=6.6						
PDAR	Pinedale Array	121.12	347	PKIKP	PKPdf	19 06 36.1	-0.8
NVAR	Mina Array Bea	126.81	353	PKP	PKPdf	19 06 48.7	+0.7
	comp=Z,1.9nm,0.7s,baz=28,slow=0.7,SNR=12						
NVAR	Mina Array Bea	126.81	353	PKP	PKPdf	19 06 48.7	+0.7
NVAR	Mina Array Bea	126.81	353	PKIKP	PKPdf	19 06 48.7	+0.7

NEIC ***12*** *18:53:41.3, 32°.48N×115°.30W, h2^{km}, ML3.1(PAS), ML3.2(ECX), After ECX.*

ECX 12 18:53:42.3±0.7**, 32°.48N×115°.35W, h6**^{km}**, MD3.2, ML3.3, 6C-8D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.07	152	⇓*e*P	Pg	18 53 42.2	-1.8
CPBX				*e*S	Sg	18 53 44.0	-1.3
CPBX				⇓*e*		18 53 45.9	
	comp=N,41μm,0.4s						
CPBX	Cerro Prieto	0.07	152	⇓*e*P	Pg	18 53 42.2	-1.8
CPBX				*e*S	Sg	18 53 44.7	-0.6
SNR	Schaffner Ranc	0.39	348	⇓*i*P	Pg	18 53 49.6	-0.2
COA	Coachella	0.42	26	⇓*i*P	Pg	18 53 49.9	-0.6
COK	Cook Ranch	0.49	319	⇑*i*P	Pg	18 53 51.0	-0.7
EMX	El Mayor	0.50	170	⇓*e*P	Pg	18 53 50.7	-1.2
EMX				*e*S	Sg	18 53 58.0	-0.5
EMX				*e*		18 53 59.9	
	comp=E,1μm,0.3s						
EMX	El Mayor	0.50	170	⇓*e*P	Pg	18 53 50.7	-1.2
EMX				*e*S	Sg	18 53 58.3	-0.2
YUH	Yuha Desert	0.52	289	⇑*i*P	Pg	18 53 51.1	-1.1
CRR	Carrizo Plain	0.66	308	⇑*i*P	Pg	18 53 53.6	-1.4
GLA	Glamis	0.71	37	*e*Pg	Pg	18 53 53.8	-2.3
GLA				*e*Sg	Sg	18 54 03.3	-2.0
RDX	Rancho Dawling	0.75	223	⇑*e*P	Pg	18 53 55.7	-1.0
RDX				*e*S	Sg	18 54 05.6	-0.9
RDX				⇓*e*		18 54 06.7	
	comp=N,996nm,0.5s						
RDX	Rancho Dawling	0.75	223	*e*P	Pg	18 53 55.7	-1.0
RDX				*e*S	Sg	18 54 05.6	-0.9
ECBX	El Chinero	1.04	166	⇑*e*P	Pg	18 54 00.7	-1.5
ECBX				*e*S	Sg	18 54 14.4	-1.4
CBX	Cerro Bola	1.13	262	⇑*e*P	Pg	18 54 02.2	-1.7
BAR	Barrett	1.14	280	*e*Pg	Pg	18 54 01.4	-2.8
BAR				*e*Sg	Sg	18 54 16.9	-2.0
ECNX	Esteban Cantu	1.34	233	*e*P	Pn	18 54 05.5	-2.1
ECNX				*e*P		18 54 04.1	
ECNX				*e*S	Sb	18 54 22.1	-3.3
ECNX				*e*S	Sb	18 54 23.9	-1.5
PBX	Punta Banda	1.39	238	*e*P	Pn	18 54 05.9	-2.2
PBX				*e*S	Sb	18 54 25.6	-1.0
SPX	San Pedro Mart	1.44	184	*e*PN	Pn	18 54 08.2	-0.7
SPX				*e*S	Sb	18 54 27.3	-0.7
PFO	Pinyon Flat Ob	1.46	321	*e*Pg	Pg	18 54 05.0	-5.3
PFO				*e*Sg	Sg	18 54 23.1	-6.1
LDFC	Landfair	2.59	4	*e*Pn	Pn	18 54 21.2	-3.6
MWC	Mount Wilson	2.86	308	*e*Pn	Pn	18 54 28.6	+0.2
GSC	Goldstone	3.06	337	*e*Pg	Pg	18 54 40.4	-0.6
TUC	Tucson	3.86	91	*e*Pn	Pn	18 54 39.0	-3.2
TUC				*e*Pg	Pg	18 54 53.8	-2.5
ISA	Isabella	4.10	322	Pn	Pn	18 54 45.7	+0.2
ISA				*e*Pg	Pg	18 55 00.4	-0.4
WUAZ	Wupatki	4.47	46	*e*Pn	Pn	18 54 48.0	-2.6
WUAZ				*e*Pg	Pg	18 55 05.9	-2.1
CCUT	Cedar City	5.31	17	*e*Pn	Pn	18 55 04.0	+1.9
	comp=N,4.2nm,0.8s						
CCUT				*e*Pg	Pg	18 55 22.4	-1.6
CCUT				*e*Sg	Sg	18 56 28.0	-4.8

NNC ***12*** *19:24:30.8±4.2, 39°.89N×71°.84E, h0^{km}, mb3.9, mpv3.8, Error ellipse: s-maj=35.3km s-min=18.1km az=8.0*

ISCJB ***12*** *19:24:32.8±1.7, 40°.22N±0°.06×71°.82E±0°.06, h10^{km}±11^{km}, mb3.5/7, Error ellipse: s-maj=9.7km s-min=8.0km az=158.4*

IDC ***12*** *19:24:33.0±1.1, 40°.33N×72°.14E, h0^{km}, mb3.6/5, mb1 3.6/9, mb1mx3.5/27, mbtmp3.4/9, ML3.0/4, Error ellipse: s-maj=21.2km s-min=17.9km az=146.0*

NEIC ***12*** *19:24:34.2±0.7, 40°.25N×71°.95E, h10^{km}, mb3.7/2, Error ellipse: s-maj=13.7km s-min=9.9km az=144.0*

ISC 12 19:24:33.3±1.9**, 40°.21N**±0°.06×**71°.88E**±0°.06**, h2**^{km}±12^{km}**, n34, σ1s.18**/43**, mb3.5**/7**, 4C-3D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	2.36	35	P	Pn	19 25 12.9	-0.2
	SNR=79						
AML	Almayashu	2.36	35	*e*Pn	Pn	19 25 12.3	-0.8
AML				*e*Sn	Sn	19 25 38.1	-4.5
UCH	Uchtor	2.83	44	P	Pn	19 25 19.8	+0.2
	SNR=15						
UCH	Uchtor	2.83	44	*e*Pn	Pn	19 25 19.4	-0.2
UCH				*e*Sn	Sn	19 25 51.1	-3.2
EKS2	Erkin-Say	2.84	30	P	Pn	19 25 20.0	+0.4
	SNR=12						
EKS2	Erkin-Say	2.84	30	*e*Pn	Pn	19 25 19.5	-0.1
EKS2				*e*Sn	Sn	19 25 54.1	-0.2
KK31	Karatay Array	3.07	341	Pn	Pn	19 25 24.5	+1.7
	9.2nm,0.2s,baz=159,slow=13,SNR=684						
KK31				Pg	Pg	19 25 31.4	-0.7
	9.2nm,0.2s,baz=161,slow=15,SNR=49						
KK31				Sn	Sn	19 26 06.3	+6.3
	37nm,0.4s,baz=157,slow=31,SNR=5.5						
AAK	Ala-Archa	3.12	38	P	Pn	19 25 23.8	+0.3
	SNR=8.5						
AAK	Ala-Archa	3.12	38	*e*Pn	Pn	19 25 23.3	-0.2
AAK				*e*Sn	Sn	19 26 03.7	+2.3
KZA	Kyzart	3.16	53	P	Pn	19 25 24.7	+0.7
	SNR=22						
KSH	Kashi	3.23	101	⇑*i*Pn	Pn	19 25 26.6	+1.6
KSH				Sn	Sn	19 26 02.9	-1.1
KSH				smax			
	comp=N,220nm,0.5s						
KSH				smax			
	comp=E,160nm,0.4s						
KBK	Karagaybulak	3.36	42	P	Pn	19 25 27.9	+1.1
	SNR=12						
USP	Ospenovka	3.63	32	P	Pn	19 25 30.6	+0.1
	SNR=9.4						
ULHL	Ulahol	3.87	57	P	Pn	19 25 34.6	+0.8
	SNR=6.2						
TKM2	Tokmak 2	3.89	45	P	Pn	19 25 34.6	+0.5
	SNR=14						
TKM2	Tokmak 2	3.89	45	*e*Pn	Pn	19 25 34.1	0.0
TKM2				*e*Sg	Sb	19 26 28.2	-2.0
TKM2	Tokmak 2	3.89	45	⇓Pn	Pn	19 25 34.7	+0.6
	comp=E,8.6nm,0.5s						
TKM2				⇑Sn	Sn	19 26 28.3	+8.0
	comp=E,52nm,0.7s						
MK31	Makanchi Array	10.02	46	⇑Pn	Pn	19 26 58.5	+0.2
	comp=E,0.8nm,0.8s,baz=224,slow=11,SNR=3.0						
MKAR	Makanchi Array	10.02	46	Pn	Pn	19 26 56.4	-1.9
	comp=E,0.0nm,0.3s,baz=233,slow=14,SNR=4.6						
MKAR				Lg		19 29 40.6	
	comp=E,0.1nm,0.3s,baz=234,slow=27,SNR=2.9						
KURBB	Kurchatov Arra	11.41	22	⇑Pn	Pn	19 27 19.7	+2.5
	comp=E,0.3nm,0.7s						
KURK	Kurchatov	11.52	22	Pn	Pn	19 27 12.4	-6.3
	comp=E,0.1nm,0.3s,baz=216,slow=12,SNR=7.8						
KURK				Lg		19 30 24.4	
	comp=E,0.1nm,0.3s,baz=235,slow=35,SNR=4.4						
KURK	Kurchatov	11.52	22	⇓Pn	Pn	19 27 21.9	+3.3
	comp=E,4.2nm,1.4s						
AB09	Akbulak array	12.40	321	⇓Pn	Pn	19 27 29.7	-1.1
	comp=E,0.8nm,0.6s						
AKTK	Aktyubinsk	14.10	321	Pn	Pn	19 27 53.2	-0.8
AKTO	Aktyubinsk	14.10	321	Pn	Pn	19 27 53.2	-0.8
	comp=E,0.1nm,0.3s,baz=135,slow=4.3,SNR=2.2						
ZALV	Zalesovo Beam	16.29	28	Pn	Pn	19 28 18.4	-4.7
	comp=E,0.1nm,0.3s,baz=224,slow=8.1,SNR=2.2						
TLY	Talaya	24.69	52	P	P	19 29 56.3	+0.8
	comp=E,1.6nm,0.7s,mb3.7						
SONM	Songino Array	25.80	61	P	P	19 30 04.2	-1.4
	comp=E,0.2nm,0.5s,mb2.9,baz=274,slow=8.5,SNR=2.6						
ULN	Ulaanbaatar	26.25	61	*e*P	P	19 30 04.4	-5.2
	comp=E,1.6nm,1.0s,mb3.5						
TORD	Torodi Ar. Bea	66.53	268	P	P	19 35 26.3	+1.4
	comp=E,0.2nm,0.5s,mb3.4,baz=60,slow=5.7,SNR=5.3						
YKA	Yellowknife Ar	77.51	3	P	P	19 36 29.3	-0.7
	comp=E,0.3nm,0.5s,mb3.5,baz=349,slow=5.8,SNR=8.1						
YKA	Yellowknife Ar	77.51	3	P	P	19 36 29.3	-0.7
WRA	Warramunga Arr	83.39	123	P	P	19 37 01.1	-1.1
	comp=E,1.0nm,1.1s,mb3.7,baz=298,slow=8.5,SNR=5.1						
ASAR	Alice Springs	85.83	126	P	P	19 37 14.1	-0.4
	comp=E,0.2nm,0.4s,mb3.7,baz=324,slow=5.5,SNR=4.5						

ISCJB ***12*** *19:50:46.8±2.5, 48°.4N±0°.2×154°.7E±0°.3, h57^{km}±21^{km}, mb3.5/3, Error ellipse: s-maj=45.8km s-min=13.1km az=135.6*

MOS ***12*** *19:50:48.9±0.5, 48°.64N×154°.38E, h69^{km}, mb3.9/2, Error ellipse: s-maj=58.9km s-min=22.0km az=64.7*

IDC ***12*** *19:50:48.8±4.0, 48°.38N×154°.79E, h61^{km}±33^{km}, mb3.2/3, mb1 3.6/5, mb1mx3.2/24, mbtmp3.4/5, ML3.5/2, Error ellipse: s-maj=60.1km s-min=24.6km az=155.0*

ISC 12 19:50:49.1±2.2**, 48°.4N**±0°.2×**154°.7E**±0°.3**, h60**^{km}±18^{km}**, n10, σ0s.53**/11**, mb3.5**/3**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.45	21	*e*PN	Pn	19 51 26.0	-0.6
SKR				*e*S	Sn	19 51 55.9	+0.6
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				pmax	pmax		
	comp=E,50nm,0.4s						
SKR				smax			
	comp=E,80nm,0.5s						
SKR				smax			
	comp=N,170nm,0.7s						
SKR				smax			
	comp=Z,60nm,0.5s						
PETK	Petropavlovsk-	5.07	21	PN	Pn	19 52 02.1	-0.3
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK	Petropavlovsk-	5.07	21	P	Pn	19 52 02.1	-0.2
	comp=Z,1.1nm,0.3s,baz=169,slow=12,SNR=23						
ASAJ	Asahikawa	9.44	247	PN	Pn	19 53 02.5	+0.3
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.44	247	P	Pn	19 53 02.5	+0.3
	comp=Z,0.6nm,0.3s,baz=94,slow=19,SNR=6.9						
MKAR	Makanchi Array	47.17	297	P	P	19 59 15.1	-0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	47.17	297	P	P	19 59 15.1	-0.2
	comp=Z,0.8nm,0.7s,mb3.8,baz=66,slow=8.0,SNR=7.7						
YKA	Yellowknife Ar	48.94	38	P	P	19 59 28.5	-0.2
	comp=Z,0.2nm,0.6s,mb3.3,baz=294,slow=7.3,SNR=3.8						
TXAR	Lajitas Array	75.73	62	*e*P	P	20 02 29.6	+1.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	75.73	62	P	P	20 02 27.8	-0.4
	comp=Z,0.5nm,0.7s,mb3.6,baz=321,slow=1.8,SNR=4.1						

ISCJB ***12*** *20:24:57.7±0.5, 33°.32N±0°.02×35°.39E±0°.05, h4^{km}±6^{km}, Error ellipse: s-maj=7.1km s-min=3.2km az=21.4*

GII ***12*** *20:24:57.9±0.0, 33°.32N×35°.40E, h1^{km}±1^{km}, Md2.1/6*

CSEM ***12*** *20:24:58.4, 33°.30N×35°.38E, h3^{km}, ML3.0, After GRAL*

GRAL ***12*** *20:24:58.4±0.4, 33°.30N×35°.38E, h3^{km}±20^{km}, MD3.0*

ISC 12 20:24:58.1±0.5**, 33°.33N**±0°.02×**35°.39E**±0°.05**, h3**^{km}±7^{km}**, n19, σ0s.58**/33**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	344	*e*P	Pg	20 25 01.8	+0.4
MATL	Matirih	0.17	344	*e*P	Pg	20 25 01.8	+0.4
KSDI	Kefar Szold	0.26	120	Pg	Pg	20 25 02.8	-0.4
KSDI				Sg	Sg	20 25 07.3	+0.6
HNTI	Hanita	0.30	216	Pg	Pg	20 25 04.0	+0.1
HNTI				Sg	Sg	20 25 08.8	+1.0
MMA1	Mount Meron ar	0.31	177	Pg	Pg	20 25 03.5	-0.5
MMA1				Sg	Sg	20 25 08.2	+0.2
MMA4	Mount Meron ar	0.31	178	Pg	Pg	20 25 03.7	-0.4
RCY	Rachaya	0.40	66	*e*P	Pg	20 25 06.0	+0.3
RCY				*e*S	Sg	20 25 11.6	+0.7
RCY	Rachaya	0.40	66	*e*P	Pg	20 25 06.0	+0.3
RCY				*e*S	Sg	20 25 11.6	+0.7
BLGI	Bet Lehem HaGe	0.61	196	Pg	Pg	20 25 09.8	-0.1
BLGI				Sg	Sg	20 25 18.7	+0.9
BHL	Bhannes	0.62	21	*e*P	Pg	20 25 09.7	-0.3
BHL				*e*S	Sg	20 25 18.5	+0.4
BHL	Bhannes	0.62	21	*e*P	Pg	20 25 09.7	-0.3
BHL				*e*S	Sg	20 25 18.5	+0.5
OFRI	'Ofer	0.78	206	Pg	Pg	20 25 12.9	-0.2
MMLI	Mount Malkishu	0.89	178	Pg	Pg	20 25 14.0	-1.1
MMLI				Sg	Sg	20 25 26.4	-0.2
HWQ	Hawqa	1.06	26	*e*P	Pg	20 25 17.8	-0.6
HWQ				*e*S	Sg	20 25 32.1	0.0
HWQ	Hawqa	1.06	26	*e*P	Pg	20 25 17.8	-0.6
HWQ				*e*S	Sg	20 25 32.1	-0.1
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	20 25 17.7	-1.1
HMDT				Sg	Sg	20 25 32.8	+0.1
SLTI	Sal'it	1.12	195	Pg	Pg	20 25 18.9	-0.7
SLTI				Sg	Sg	20 25 34.8	+0.7
DSI	Dead Sea	1.75	180	Pn	Pn	20 25 28.5	-0.9
DSI				Sn	Sn	20 25 52.6	+0.5
RTMI	Retamim	2.34	195	Pn	Pn	20 25 38.1	+0.6

NEIC ***12*** *20:29:01.3, 15°.89N×98°.88W, h22^{km}, MD4.2(MEX), After MEX.*

MEX 12 20:29:01.5±0.8**, 15°.91N×98°.88W, h20**^{km}±27^{km}**, MD4.2, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.87	56	*i* P	Pb	20 29 15.0	-2.9
PNIG				*i* S	Sb	20 29 25.5	-3.5
CAIG	El Cayaco	1.75	311	*i* P	Pn	20 29 28.5	-2.3
CAIG				*i* S	Sn	20 29 47.8	-4.7
VHO	Vista Hermosa	2.36	60	*i* P	Pn	20 29 37.6	-1.4
VHO				*i* S	Sn	20 30 05.0	-2.4
VHO	Vista Hermosa	2.36	60	*i* P	Pn	20 29 37.6	-1.4
VHO				*i* S	Sn	20 30 06.0	-1.5
PLIG	Platanillo	2.54	346	*i* P	Pn	20 29 39.0	-2.6
PLIG				*i* S	Sn	20 30 09.8	-2.3
PLIG	Platanillo	2.54	346	*i* P	Pn	20 29 43.9	+2.2
PLIG				*i* S	Sn	20 30 09.8	-2.3
HUIG	Huatulco	2.67	93	*e*P	Pn	20 29 41.2	-2.1
HUIG				*i* S	Sn	20 30 10.2	-4.9
TPIG	Tehuac#an	2.89	30	*i* P	Pn	20 29 45.0	-1.3
TPIG				*i* S	Sn	20 30 17.8	-2.8
PPM	Popocatepetl	3.15	4	*i* P	Pn	20 29 44.5	-5.5
PPM				*i* S	Sn	20 30 24.6	-2.5
PPM	Popocatepetl	3.15	4	*i* P	Pn	20 29 51.9	+1.8
CMIG	Matias Romero	4.01	72	*i* P	Pn	20 29 59.6	-2.1
CMIG				*i* S	Sn	20 30 44.5	-3.6
PCIG		5.45	91	*i* P	Pn	20 30 20.0	-1.6

TAP 12 20:33:21.9, 25°.04N×121°.83E, h139^{km}**, ML3.7, 7D, C, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWF	Wu-fen Shan	0.05	307	⇓*i*P	Pn	20 33 40.5	-0.1
	baz=307						
NWF				*e*S	Sn	20 33 54.4	-0.3
	baz=307						
TWB1	Santiao Chiao	0.15	102	⇓*i*P	Pn	20 33 40.7	0.0
	baz=101						
TWB1				*i* S	Sn	20 33 54.5	-0.4
	baz=101						
TWA	Mucha	0.23	255	*i* P	Pn	20 33 40.9	+0.1
	baz=254						
TWA				*i* S	Sn	20 33 54.9	-0.3
	baz=254						
TAP1	Taipei	0.28	270	P	Pn	20 33 40.9	-0.1
	baz=269						
TAP1				S	Sn	20 33 54.5	-0.9
	baz=269						
TWY	Chenhua	0.31	319	P	Pn	20 33 41.2	+0.1
	baz=319						
TWY				S	Sn	20 33 55.1	-0.6
	baz=319						
TWE	Neicheng	0.35	205	⇓*i*P	Pn	20 33 41.3	+0.1
	baz=202						
TWE				S	Sn	20 33 55.5	-0.4
	baz=202						
TWS1	Kuangyinshan	0.38	279	⇓*i*P	Pn	20 33 41.6	+0.2
	baz=279						
TWS1				S	Sn	20 33 55.8	-0.3
	baz=279						
TWC	Suao	0.43	177	P	Pn	20 33 41.6	0.0
	baz=176						
TWC				S	Sn	20 33 56.2	-0.3
	baz=176						
ENTT	Nioudou	0.46	211	⇓*i*P	Pn	20 33 41.7	-0.1
	baz=209						
ENTT				S	Sn	20 33 56.1	-0.7
	baz=209						
NSK	Sanguang	0.56	230	⇓*i*P	Pn	20 33 41.9	-0.3
	baz=229						
NSK				S	Sn	20 33 56.1	-1.6
	baz=229						
NCU	National Centr	0.59	263	*i* P	Pn	20 33 42.6	+0.2
	baz=263						
NCU				S	Sn	20 33 57.9	0.0
	baz=263						
ENA	Nanau	0.61	187	P	Pn	20 33 42.8	+0.2

	baz=186						
ENA				S	Sn	20 33 58.7	+0.3
	baz=186						
NNS	**Nan Shan**	**0.73**	**215**	*i* P	Pn	20 33 43.4	+0.1
	baz=214						
NNS				S	Sn	20 33 59.2	-0.5
	baz=214						
HSN	**Hsinchu**	**0.81**	**253**	*e*P	Pn	20 33 43.9	-0.2
	baz=254						
HSN				*e*S	Sn	20 33 60.0	-0.8
	baz=254						
NSTT	**Nanjuang**	**0.85**	**242**	*i* P	Pn	20 33 44.3	0.0
	baz=241						
NSTT				*e*S	Sn	20 34 00.4	-1.0
	baz=241						
TWD	**Chiawan**	**0.98**	**193**	*e*P	Pn	20 33 44.3	-1.1
	baz=192						
TWD				*e*S	Sn	20 34 01.8	-1.5
	baz=192						
WHF	**Hehuan Shan**	**1.03**	**210**	P	Pn	20 33 46.6	+0.8
	baz=209						
WHF				*e*S	Sn	20 34 04.4	+0.3
	baz=209						
NSY	**Sanyi**	**1.15**	**238**	P	Pn	20 33 47.4	+0.4
	baz=237						
NSY				*e*S	Sn	20 34 05.9	-0.2
	baz=237						
TWQ1	**Liyutan**	**1.18**	**235**	P	Pn	20 33 47.4	+0.1
	baz=234						
TWQ1				S	Sn	20 34 05.8	-0.8
	baz=234						
ESL	**Shilin**	**1.27**	**197**	*e*P	Pn	20 33 46.8	-1.5
	baz=196						
ESL				*e*S	Sn	20 34 05.8	-2.5
	baz=196						
TCU	**Taichung**	**1.37**	**230**	*e*P	Pn	20 33 49.6	+0.4
	baz=229						
SMLT	**Sun Moon Lake**	**1.43**	**217**	P	Pn	20 33 50.2	+0.4
	baz=216						
SMLT				S	Sn	20 34 10.8	-0.3
	baz=216						
TYC	**Yuchr**	**1.44**	**218**	⇓*i*P	Pn	20 33 50.1	+0.2
	baz=217						
TYC				*e*S	Sn	20 34 10.6	-0.6
	baz=217						
WNT	**Mingjian**	**1.56**	**222**	*e*P	Pn	20 33 51.5	+0.3
	baz=221						
WNT				*e*S	Sn	20 34 13.2	-0.4
	baz=221						
EHY	**Hungye**	**1.59**	**197**	*e*P	Pn	20 33 50.9	-0.8
	baz=196						
EHY				*e*S	Sn	20 34 12.3	-2.1
	baz=196						
YUS	**Yu-Shan**	**1.74**	**208**	*e*P	Pn	20 33 53.5	+0.2
	baz=207						
YUS				*e*S	Sn	20 34 18.9	+1.6
	baz=207						
TWF1	**Yuli**	**1.75**	**196**	*e*P	Pn	20 33 52.9	-0.5
	baz=195						
TWF1				*e*S	Sn	20 34 16.7	-0.8
	baz=195						
WGK	**Gukeng**	**1.77**	**221**	*e*P	Pn	20 33 54.2	+0.5
	baz=220						
WGK				*e*S	Sn	20 34 17.5	-0.5
	baz=220						
CHN5	**Tsauling**	**1.78**	**216**	P	Pn	20 33 54.0	+0.3
	baz=216						
CHN5				*e*S	Sn	20 34 18.0	-0.1
	baz=216						
ALS	**Alishan**	**1.79**	**212**	P	Pn	20 33 54.5	+0.6
	baz=211						
ALS				*e*S	Sn	20 34 18.1	-0.2
	baz=211						
CHKT	**Chengkung**	**1.98**	**192**	*e*P	Pn	20 33 56.5	+0.5
	baz=192						
CHKT				*e*S	Sn	20 34 21.5	-0.8
	baz=192						
ELDTW	**Lidau**	**1.98**	**202**	*e*P	Pn	20 33 56.6	+0.4
	baz=201						
ELDTW				*e*S	Sn	20 34 21.6	-0.9
	baz=201						
CHN4	**Tsaushan**	**2.02**	**214**	*e*P	Pn	20 33 56.9	+0.2
	baz=213						
CHN4				*e*S	Sn	20 34 22.6	-0.7
	baz=213						
WTP	**Ta-pu**	**2.10**	**212**	*e*P	Pn	20 33 58.0	+0.5
	baz=211						
WTP				*e*S	Sn	20 34 24.1	-0.8
	baz=211						
STYT	**Tauyuan**	**2.11**	**208**	*e*P	Pn	20 33 58.0	+0.3
	baz=207						
STYT				*e*S	Sn	20 34 24.7	-0.4
	baz=207						
TWK	**Hsinying**	**2.15**	**215**	*e*P	Pn	20 33 59.5	+1.4
	baz=214						
CHN1	**Nanshi**	**2.19**	**213**	*e*P	Pn	20 33 59.2	+0.5
	baz=212						
CHN1				*e*S	Sn	20 34 26.4	-0.5
	baz=212						
SGST	**Jiashian**	**2.26**	**211**	*e*P	Pn	20 33 59.1	-0.3
	baz=210						
SGST				*e*S	Sn	20 34 26.8	-1.5
	baz=210						
TWG	**Pinlang**	**2.31**	**198**	*e*P	Pn	20 34 00.4	+0.2
	baz=197						
TWG				*e*S	Sn	20 34 27.7	-1.9
	baz=197						
SSD	**Sandimen**	**2.53**	**206**	*e*P	Pn	20 34 03.5	+0.7
	baz=205						
SSD				*e*S	Sn	20 34 34.1	-0.3
	baz=205						
ECL	**Taimali**	**2.56**	**198**	*e*P	Pn	20 34 03.3	+0.1
	baz=198						
ECL				*e*S	Sn	20 34 32.7	-2.4
	baz=198						
SCZT	**Fangliau**	**2.88**	**203**	*e*P	Pn	20 34 07.2	-0.1
	baz=202						

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*JMA **12** 20:35:59.2±0.3, 25°.07N×123°.53E, h21^{km}, M3.0*

*ISCJB **12** 20:36:01.2±1.3, 24°.96N±0°.08×123°.49E±0°.07, h33^{km}, mb3.4/4, Error ellipse: s-maj=12.4km s-min=8.1km az=28.5*

*IDC **12** 20:36:07.8±1.8, 24°.03N×120°.91E, h0^{km}, mb3.4/4, mb1 3.6/4, mb1mx3.4/21, mbtmp3.4/4, Error ellipse: s-maj=152.2km s-min=22.7km az=64.0*

ISC 12 20:36:02.1±1.3**, 24°.91N**±0°.09×**123°.49E**±0°.07**, h35**^{km}**, n9,** σ**1**^{s}**.03**/14**, mb3.4**/4**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.61**	**159**	P	**Pn**	**20 36 13.2**	**-1.1**
IRIF				*e*S	**Sn**	**20 36 23.0**	**+0.1**
YOJ	**Yonaguni jima**	**0.62**	**224**	P	**Pn**	**20 36 13.6**	**-0.8**
YOJ				*e*S	**Sn**	**20 36 23.0**	**-0.1**
JIJ	**Ishigaki jima**	**0.81**	**132**	P	**Pn**	**20 36 15.3**	**-1.7**
JIJ				*e*S	**Sn**	**20 36 28.2**	**+0.5**
JKRS	**Kuro-shima**	**0.82**	**144**	P	**Pn**	**20 36 16.6**	**-0.5**
JKRS				*e*S	**Sn**	**20 36 28.4**	**+0.3**
HATJ	**Hateruma jima**	**0.90**	**161**	P	**Pn**	**20 36 18.0**	**-0.2**
HATJ				*e*S	**Sn**	**20 36 31.9**	**+2.0**
SONM	**Songino Array**	**26.58**	**334**	P	**P**	**20 41 46.8**	**+10**
	0.3nm,0.7s,mb2.9,baz=142,slow=9.2,SNR=3.5						
MKAR	**Makanchi Array**	**39.30**	**314**	P	**P**	**20 43 29.3**	**+1.8**
	0.4nm,0.9s,mb3.1,baz=111,slow=11,SNR=3.3						
WRA	**Warramunga Arr**	**45.82**	**166**	P	**P**	**20 44 29.7**	**+9.1**
	0.9nm,0.6s,mb3.9,baz=347,slow=8.9,SNR=5.0						
ASAR	**Alice Springs**	**49.33**	**167**	P	**P**	**20 44 57.1**	**+9.2**
	0.3nm,0.5s,mb3.6,baz=351,slow=7.6,SNR=4.8						

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*NIED **12** 21:05:00, 44°.50N×147°.90E, h140^{km}, Mw4.7 Best double couple: M$_0$1.38000×10^{16} NP1:φ$_s$23.00000°, δ86.00000°, λ103.00000°. NP2:φ$_s$128.00000°, δ13.00000°, λ16.00000°.*

*SZGRF **12** 21:05:17.5, 46°.19N×147°.54E, h33^{km}, mb5.5, Northwest of Kuril Islands, Russia*

*MOS **12** 21:05:18.2±1.0, 44°.91N×147°.71E, h124^{km}, mb4.9/96, Error ellipse: s-maj=6.6km s-min=4.1km az=99.9*

MOS Felt (II) at Yuzhno-Kuril'sk.

*BJI **12** 21:05:18.2, 44°.87N×147°.78E, h129^{km}, mB5.1/28, mb5.3/57*

*ISCJB **12** 21:05:19.2±0.1, 44°.85N±0°.02×147°.75E±0°.02, h134^{km}, mb4.9/232, Error ellipse: s-maj=3.4km s-min=1.7km az=160.3*

*NEIC **12** 21:05:19.3±0.5, 44°.85N×147°.65E, h123^{km}±4^{km}, mb4.9/113, Error ellipse: s-maj=4.2km s-min=2.5km az=163.0*

NEIC Recorded [2 JMA] in Hokkaido and [1 JMA] in Aomori.

*IDC **12** 21:05:20.3±0.4, 44°.90N×147°.67E, h133^{km}±3^{km}, mb4.5/27, mb1 4.6/32, mb1mx4.6/33, mbtmp4.5/32, MS3.7/4, Ms1 3.7/4, ms1mx3.3/27, Error ellipse: s-maj=11.2km s-min=8.3km az=148.0*

*SKHL **12** 21:05:20.1±0.5, 44°.85N×147°.97E, h119^{km}±5^{km}, mb6.0/4, msh5.9/4*

SKHL Felt (II) at Yushno-Kurilsk.

*BGS **12** 21:05:21.1±1.6, 45°.17N×147°.71E, h125^{km}±999^{km}, mb5.2*

*JMA **12** 21:05:21.4±0.3, 44°.47N×147°.88E, h139^{km}, M4.9*

JMA Felt II J1.

ISC 12 21:05:21.0±0.1**, 44°.86N**±0°.02×**147°.69E**±0°.02**, h136**^{km}**, h136**^{km}±.7^{km}**:pP-P, n840,** σ**0**^{s}**.84**/878**, mb4.9**/232**, 227C-110D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**0.39**	**18**	*j* *i*PN	**Pn**	**21 05 37.0**	**-3.2**
KUR				*i* S	**Sn**	**21 05 50.0**	**-4.7**
KUR				pmax	pmax		
	comp=N,3µm,0.4s						
KUR				pmax	pmax		
	comp=E,3µm,0.4s						
KUR				pmax	pmax		
	comp=Z,11µm,0.4s						
KUR				pmax	pmax		
	comp=N,5µm,1.2s						
KUR				pmax	pmax		
	comp=E,6µm,1.2s						
KUR				pmax	pmax		
	comp=Z,12µm,1.2s						
KUR				smax			
	comp=N,54µm,1.6s						
KUR				smax			
	comp=E,82µm,1.6s						
KUR	**Kuril'sk**	**0.39**	**18**	⇑*i*P	**Pn**	**21 05 37.0**	**-3.2**
KUR				⇓*i*P		21 05 37.0	
KUR				AMB	AMB	21 05 38.0	
	comp=E,3µm,0.4s						
KUR				AMB	AMB	21 05 38.0	
	comp=E,3µm,0.4s						
KUR				AMB	AMB	21 05 38.0	
	comp=E,11µm,0.4s						
KUR				AMB	AMB	21 05 40.4	
	comp=E,5µm,1.2s						
KUR				AMB	AMB	21 05 40.4	
	comp=E,6µm,1.2s						
KUR				AMB	AMB	21 05 40.4	
	comp=E,12µm,1.2s						
KUR				*i* S	**Sn**	**21 05 50.0**	**-4.7**
KUR				A		21 05 52.0	
	comp=E,30µm,1.6s						
KUR				A		21 05 52.0	
	comp=E,55µm,1.6s						
KUR				A		21 05 54.4	
	comp=E,54µm,1.6s						
KUR				A		21 05 54.4	
	comp=E,82µm,1.6s						
YUK	**Yuzh-Kuril'sk**	**1.55**	**238**	⇓*i*PN	**Pn**	**21 05 50.3**	**+0.3**
YUK				*i* S	**Sn**	**21 06 12.5**	**+0.4**
YUK				pmax	pmax		
	comp=Z,90µm,0.8s						
YUK				pmax	pmax		
	comp=N,15µm,0.6s						
YUK				pmax	pmax		
	comp=E,32µm,0.6s						
YUK				pmax	pmax		
	comp=Z,23µm,0.3s						
YUK				pmax	pmax		
	comp=N,11µm,0.3s						
YUK				pmax	pmax		
	comp=E,21µm,0.3s						
YUK				smax			
	comp=N,34µm,0.6s						
YUK				smax			
	comp=E,67µm,0.6s						
YUK				smax			
	comp=N,20µm,0.5s						
YUK				smax			
	comp=E,26µm,0.5s						
YUK	**Yuzh-Kuril'sk**	**1.55**	**238**	⇓*i*P	**Pn**	**21 05 50.3**	**+0.3**
YUK				⇓*i*P		21 05 50.3	
YUK				AMB	AMB	21 05 51.0	
	comp=E,15µm,0.6s						
YUK				AMB	AMB	21 05 51.0	
	comp=E,32µm,0.6s						
YUK				AMB	AMB	21 05 51.0	
	comp=E,90µm,0.8s						
YUK				AMB	AMB	21 05 51.4	
	comp=E,21µm,0.2s						
YUK				AMB	AMB	21 05 51.4	
	comp=E,23µm,0.2s						
YUK				*i* S	**Sn**	**21 06 12.5**	**+0.4**
YUK				A		21 06 13.5	
	comp=E,34µm,0.6s						
YUK				A		21 06 13.5	
	comp=E,67µm,0.6s						
YUK				A		21 06 17.5	
	comp=E,20µm,0.5s						
YUK				A		21 06 17.5	
	comp=E,26µm,0.5s						
NEM2	**Nemuro 2**	**2.05**	**224**	P	**Pn**	**21 05 54.8**	**-1.1**
NEM2				*e*S	**Sn**	**21 06 19.7**	**-2.9**
JRA	**Rausu**	**2.06**	**244**	P	**Pn**	**21 05 56.8**	**+0.8**
JRA				*e*S	**Sn**	**21 06 24.5**	**+1.7**
JNK	**Nakash**	**2.49**	**240**	P	**Pn**	**21 06 01.8**	**+0.5**
JTKR	**Abashiri--Toko**	**2.85**	**253**	P	**Pn**	**21 06 07.1**	**+1.2**
JTKR				*e*S	**Sn**	**21 06 43.4**	**+2.9**
JAK	**Akkeshi**	**2.86**	**230**	P	**Pn**	**21 06 05.2**	**-0.8**
JAK				*e*S	**Sn**	**21 06 38.6**	**-2.0**
JAR	**Ashorobuto**	**3.23**	**242**	P	**Pn**	**21 06 11.8**	**+1.0**
JSE	**Soyaes**	**3.63**	**273**	P	**Pn**	**21 06 18.1**	**+2.1**
JKK2	**Kamakawa 2**	**3.68**	**256**	P	**Pn**	**21 06 18.4**	**+1.8**
JKK2				*e*S	**Sn**	**21 07 03.3**	**+3.6**
ASAJ	**Asahikawa**	**3.72**	**260**	PN	**Pn**	**21 06 19.4**	**+2.2**
ASAJ				S	**Sn**	**21 07 01.7**	**+1.0**
ASAJ				pmax	pmax		
	comp=Z,132nm,0.3s						
ASAJ				smax			
	comp=N,50nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,905nm,19.1s						
ASAJ	**Asahikawa**	**3.72**	**260**	P	**Pn**	**21 06 19.4**	**+2.2**
	comp=Z,132nm,0.3s,baz=81,slow=19,SNR=849						
ASAJ				S	**Sn**	**21 07 01.6**	**+1.0**
	comp=Z,50nm,0.3s,baz=69,slow=17,SNR=3.9						
ASAJ				LR	LR	21 07 20.0	
	comp=Z,905nm,19.1s,baz=106,slow=32						
JCH	**Churui**	**3.86**	**236**	P	**Pn**	**21 06 18.5**	**-0.5**
JCH				*e*S	**Sn**	**21 07 01.8**	**-2.1**
YSS	**Yuzh-Sakhalins**	**4.03**	**303**	⇓*i*PN	**Pn**	**21 06 23.1**	**+1.9**
YSS				pmax	pmax		
	comp=N,80nm,0.4s						
YSS				pmax	pmax		
	comp=E,90nm,0.4s						
YSS				pmax	pmax		
	comp=Z,120nm,0.4s						
YSS	**Yuzh-Sakhalins**	**4.03**	**303**	⇓*i*P	**Pn**	**21 06 23.1**	**+1.9**
YSS				AMB	AMB	21 06 24.3	
	comp=Z,80nm,0.4s						
YSS				AMB	AMB	21 06 24.3	
	comp=Z,90nm,0.4s						
YSS				AMB	AMB	21 06 24.3	
	comp=Z,120nm,0.4s						
YSS				*i* S	**Sn**	**21 07 10.5**	**+2.5**
YSS				A		21 07 12.0	
	comp=Z,760nm,1.0s						
YSS				A		21 07 12.0	
	comp=Z,1µm,1.0s						
YSS				A		21 07 15.5	
	comp=Z,2µm,2.5s						
YSS				A		21 07 15.5	
	comp=Z,4µm,2.5s						
YSS	**Yuzh-Sakhalins**	**4.03**	**303**	*e*Pn	**Pn**	**21 06 23.0**	**+1.8**
YSS				*e*Sn	**Sn**	**21 07 11.1**	**+3.1**
JFR	**Furan**	**4.05**	**247**	P	**Pn**	**21 06 22.7**	**+1.2**
JFR				*e*S	**Sn**	**21 07 11.2**	**+2.8**
JWK2	**Keihoku**	**4.13**	**278**	P	**Pn**	**21 06 26.0**	**+3.5**
JWK2				*e*S	**Sn**	**21 07 17.4**	**+7.1**
ERM	**Erimo**	**4.36**	**231**	*i* PN	**Pn**	**21 06 26.3**	**+0.7**
ERM	**Erimo**	**4.36**	**231**	*e*P	**Pn**	**21 06 26.3**	**+0.7**
ERM	**Erimo**	**4.36**	**231**	*e*Pn	**Pn**	**21 06 24.3**	**-1.4**
JNBK	**Urakawa-nobuka**	**4.42**	**236**	P	**Pn**	**21 06 25.1**	**-1.3**
JNBK				*e*S	**Sn**	**21 07 14.2**	**-3.0**
JHR	**Hokuryu**	**4.43**	**257**	P	**Pn**	**21 06 29.0**	**+2.5**
JYG	**Yagishiri**	**4.49**	**267**	P	**Pn**	**21 06 29.9**	**+2.5**
JEW	**Eniwo**	**4.95**	**248**	P	**Pn**	**21 06 34.8**	**+1.4**
JEW				*e*S	**Sn**	**21 07 31.8**	**+2.1**
JKB	**Kayabe**	**5.69**	**241**	P	**Pn**	**21 06 42.5**	**-0.9**
JKB				*e*S	**Sn**	**21 07 42.9**	**-4.7**
UGL	**Uglegorsk**	**5.71**	**320**	*e*P	**Pn**	**21 06 45.0**	**+1.4**
UGL				AMB	AMB	21 06 47.0	
	comp=Z,700nm,2.5s						
UGL				AMB	AMB	21 06 50.5	
	comp=Z,170nm,0.7s						
UGL				*e*S	**Sn**	**21 07 53.0**	**+5.0**
UGL				A		21 08 00.0	
	comp=Z,3µm,4.0s						
UGL				A		21 08 00.0	
	comp=Z,3µm,4.0s						
UGL				A		21 08 00.0	
	comp=Z,3µm,4.0s						
UGL				A		21 08 03.0	
	comp=Z,120nm,1.0s						
UGL				A		21 08 03.0	
	comp=Z,130nm,1.0s						
JOT	**Ohata**	**5.98**	**237**	P	**Pn**	**21 06 45.1**	**-2.1**
JOT				*e*S	**Sn**	**21 07 49.2**	**-5.3**
TYV	**Tymovskoe**	**6.89**	**332**	*e*P	**Pn**	**21 07 00.5**	**+1.1**
TYV				AMB	AMB	21 07 29.5	
	comp=Z,66nm,0.9s						
TYV				AMB	AMB	21 07 29.5	
	comp=Z,44nm,0.9s						
TEY	**Ternei**	**7.87**	**275**	*e*P	**Pn**	**21 07 19.0**	**+6.4**
TEY				AMB	AMB	21 07 21.0	
	comp=Z,17nm,1.0s						
TEY				AMB	AMB	21 07 21.0	
	comp=Z,77nm,1.0s						
TEY				AMB	AMB	21 07 21.0	
	comp=Z,86nm,1.0s						
SKR	**Severo-Kuril's**	**8.13**	**41**	*e*PN	**Pn**	**21 07 13.2**	**-2.9**
SKR				*e*S	**Sn**	**21 08 43.4**	**-2.9**
SKR				pmax	pmax		
	comp=N,90nm,0.7s						
SKR				pmax	pmax		
	comp=E,90nm,0.7s						
SKR				pmax	pmax		
	comp=Z,130nm,0.7s						
SKR				smax			
	comp=E,220nm,1.0s						
SKR				smax			
	comp=N,90nm,0.7s						
SKR				smax			
	comp=Z,60nm,0.5s						
SKR	**Severo-Kuril's**	**8.13**	**41**	*e*P	**Pn**	**21 07 13.2**	**-2.9**
SKR				AMB	AMB	21 07 16.0	
	comp=Z,90nm,0.7s						
SKR				AMB	AMB	21 07 16.0	
	comp=Z,130nm,0.7s						
SKR				*e*S	**Sn**	**21 08 43.4**	**-2.9**
SKR				A		21 09 06.0	
	comp=Z,90nm,0.7s						
SKR				A		21 09 06.0	
	comp=Z,220nm,0.7s						
SKR				A		21 09 06.0	
	comp=Z,60nm,0.5s						
OKH	**Okha**	**9.23**	**342**	*e*P	**Pn**	**21 07 32.2**	**+1.4**
OKH				*e*P		21 07 32.8	
OKH				AMB	AMB	21 07 33.6	
	comp=Z,2µm,5.0s						
OKH				AMB	AMB	21 07 34.1	
	comp=Z,300nm,1.0s						
OKH				*e*S	**Sn**	**21 09 14.1**	**+1.2**
OKH				*e*S	**Sn**	**21 09 14.2**	**+1.3**
OKH				A		21 09 18.2	
	comp=Z,2µm,6.0s						
HABR	**Khabarovsk**	**9.41**	**297**	*ce*PN	**Pn**	**21 07 35.0**	**+1.8**
HABR				*e*S	**Sn**	**21 09 16.4**	**-0.8**
HABR				pmax	pmax		
	comp=Z,68nm,1.7s						
HABR				pmax	pmax		
	comp=E,126nm,2.8s						
HABR				pmax	pmax		
	comp=N,16nm,2.3s						
HABR				MLR	MLR		
	comp=Z,120nm,19.0s						
NKL	**Nikolayevsk**	**9.48**	**334**	*i* P	**Pn**	**21 07 30.0**	**-4.2**
NKL				AMB	AMB	21 07 33.0	
	comp=Z,500nm,6.0s						
NKL				AMB	AMB	21 07 35.3	
	comp=Z,40nm,0.9s						
NKL				AMB	AMB	21 07 35.3	
	comp=Z,80nm,0.9s						
PEA0B	**Petropavlovsk-**	**10.54**	**35**	*e*Pn	**Pn**	**21 07 46.2**	**-2.0**
PETK	**Petropavlovsk-**	**10.54**	**35**	PN	**Pn**	**21 07 45.8**	**-2.5**
PETK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PETK	**Petropavlovsk-**	**10.54**	**35**	P	**Pn**	**21 07 45.8**	**-2.5**
	comp=Z,1.7nm,0.3s,baz=181,slow=6.5,SNR=43						
PET	**Petropavlovsk**	**10.88**	**37**	*e*PN	**Pn**	**21 07 53.9**	**+1.1**
MAJO	**Matsushiro**	**10.99**	**224**	*e*PN	**Pn**	**21 07 52.1**	**-2.2**
MAT	**Matsushiro**	**10.99**	**224**	P	**Pn**	**21 07 51.6**	**-2.7**
MAT				S	**Sn**	**21 09 52.8**	**-2.7**
MJAR	**Matsushiro Arr**	**10.99**	**224**	PN	**Pn**	**21 07 52.2**	**-2.1**
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MJAR	**Matsushiro Arr**	**10.99**	**224**	P	**Pn**	**21 07 52.2**	**-2.1**
	comp=Z,3.1nm,0.3s,baz=28,slow=14,SNR=31						
KLR	**Kul'dur**	**11.72**	**298**	*e*PN	**Pn**	**21 08 01.8**	**-2.0**
KLR				*e*		21 10 16.2	
MDJ	**Mudanjiang**	**12.88**	**275**	P	**Pn**	**21 08 19.3**	**+0.4**
MDJ				S	**Sn**	**21 10 40.2**	**-0.7**
MDJ				PcP	PcP	21 13 42.7	+0.6
MDJ				PcS	PcS	21 17 17.4	+1.1
MDJ				ScS	ScS	21 20 42.2	+3.4
MDJ				pmax	pmax		
	comp=Z,37nm,1.0s						
MDJ				pmax	pmax		
	comp=Z,130nm,4.7s						
MDJ				LR	LR		
	comp=N,150nm,25.7s						
MDJ				LR	LR		
	comp=E,130nm,35.1s						
MDJ				LR	LR		
	comp=Z,170nm,30.7s						
MDJ	**Mudanjiang**	**12.88**	**275**	*e*Pn	**Pn**	**21 08 18.6**	**-0.3**
	comp=Z,27nm,0.8s						
JHJ	**Hachijo jima 2**	**13.23**	**210**	P	**Pn**	**21 08 23.2**	**-0.4**
	comp=Z,19nm,0.3s,baz=84,slow=19,SNR=2.2						
JHJ				S	**Sn**	**21 10 40.0**	**-10**
	comp=Z,52nm,0.3s,baz=250,slow=23,SNR=6.7						
CN2	**Changchun**	**15.95**	**274**	*e*P	**Pn**	**21 08 56.5**	**-1.2**
CN2				*e*sP	sP	21 09 32.4	-6.9
CN2				*e*S	**S**	**21 11 47.7**	**-7.7**
CN2				pmax	pmax		
	comp=Z,80nm,0.6s						
CN2				LR	LR		
	comp=N,200nm,10.0s						
CN2				LR	LR		
	comp=E,200nm,10.0s						
CN2				LR	LR		
	comp=Z,300nm,11.0s						
ZEA	**Zeya**	**15.97**	**311**	*e*P	**Pn**	**21 08 54.9**	**-2.9**
ZEA				AMB	AMB	21 08 56.1	
	comp=Z,49nm,1.0s						
ZEA				AMB	AMB	21 08 56.1	
	comp=Z,43nm,1.2s						
KSRS	**Korea Array**	**16.60**	**250**	P	**Pn**	**21 09 06.8**	**+1.1**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KSRS	**Korea Array**	**16.60**	**250**	P	**Pn**	**21 09 06.8**	**+1.1**
	comp=Z,1.7nm,0.3s,baz=59,slow=11,SNR=52						
INCN	**Inchon**	**17.45**	**252**	*e*P	**Pn**	**21 09 13.3**	**-2.7**
SNY	**Shenyang**	**17.78**	**269**	⇑P	**Pn**	**21 09 20.1**	**+0.2**
SNY				pmax	pmax		
	comp=Z,120nm,0.9s						
SEY	**Seymchan**	**18.31**	**7**	⇑*e*P	**P**	**21 09 22.9**	**-1.4**
FX1	**Attu Island--F**	**18.50**	**55**	P	**P**	**21 09 26.6**	**+0.1**
FX1				S	**S**	**21 12 40.1**	**-10**
FX1				pmax	pmax		
	comp=Z,12nm,0.3s						
FX1				smax			
	comp=N,3.0nm,0.3s						
FX1	**Attu Island--F**	**18.50**	**55**	P	**P**	**21 09 26.6**	**+0.1**
	comp=N,12nm,0.3s,baz=270,slow=6.2,SNR=17						

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FX1                                S     S       21 12 40.1  -10
      comp=N,3.0nm,0.3s,baz=90,slow=20,SNR=4.1
CLNS  Chul'man          18.62 318 eP     P       21 09 27.9 +0.1
CLNS                              eS     S       21 12 54.6 +2.0
CLNS                               pmax  pmax
      comp=Z,64nm,1.0s
CLNS                               pmax  pmax
      comp=N,53nm,1.3s
CLNS                               pmax  pmax
      comp=E,38nm,0.9s
CLNS                               pmax  pmax
      comp=Z,20nm,1.0s
CLNS                               pmax  pmax
      comp=N,18nm,1.0s
CLNS                               pmax  pmax
      comp=E,15nm,1.0s
CLNS                               smax
      comp=N,44nm,11.5s
CLNS                               smax
      comp=E,199nm,15.0s
CLNS                               MLR   MLR
      comp=Z,81nm,13.0s
CLNS                               MLR   MLR
      comp=N,39nm,12.0s
CLNS                               MLR   MLR
      comp=E,96nm,12.0s
HIA   Hailar            19.49 293 eP     P       21 09 34.9 -2.3
HIA                                pmax  pmax
      comp=Z,18nm,0.4s
HIA   Hailar            19.49 293 eP     P       21 09 34.9 -2.3
      comp=Z,18nm,0.4s
YAK   Yakutsk           20.14 335c iP    P       21 09 41.4 -2.8
YAK                               e*PP           21 10 16.3
YAK                               eS     S       21 13 16.2 -6.4
YAK                               e              21 20 55.2
YAK                                pmax  pmax
      comp=Z,299nm,0.9s
YAK                                pmax  pmax
      comp=N,67nm,1.0s
YAK                                pmax  pmax
      comp=E,98nm,1.5s
YAK                                smax
      comp=N,188nm,2.2s
YAK                                smax
      comp=E,68nm,1.4s
YAK   Yakutsk           20.14 335 eP     P       21 09 41.6 -2.5
      comp=E,304nm,0.6s
CIT   Chita             23.59 300 eP     P       21 10 15.7 -3.4
CIT                               e              21 10 52.1
CIT                                pmax  pmax
      comp=Z,73nm,1.1s,mb5.1
BJI   Beijing           23.66 269  P     P       21 10 20.1 +0.2
BJI                                S     S       21 14 25.2 +0.7
BJI                                pmax  pmax
      comp=Z,130nm,0.9s,mb5.5
BJT   Baijiatuau        23.68 269 eP     P       21 10 19.7 -0.3
BJT                                pmax  pmax
      comp=Z,64nm,0.6s
BJT   Baijiatuau        23.68 269 eP     P       21 10 19.7 -0.3
      comp=Z,64nm,0.6s,mb5.3
BOD   Bodaibo           24.42 314⇓iP     P       21 10 23.1 -3.5
BOD                                pmax  pmax
      comp=Z,76nm,0.9s,mb5.2
TIA   Tai'an            24.67 260 ⇑P     P       21 10 29.8 +0.7
TIA                                pmax  pmax
      comp=Z,140nm,0.9s,mb5.5
BILL  Bilibino          25.18  16  P     P       21 10 31.0 -2.4
BILL                              e*PP   pP      21 10 58.8 -3.2
BILL                              e*SP   sP      21 11 16.6 -1.2
BILL                               pmax  pmax
      comp=Z,7.0nm,1.0s,mb4.2
BILL  Bilibino          25.18  16 eP     P       21 10 29.5 -3.9
      comp=Z,6.3nm,0.9s,mb4.2
NJ2   Nanjing           25.80 250 eP     P       21 10 40.0 +0.6
NJ2                                pP    pP      21 11 09.1 +1.1
NJ2                                sP    sP      21 11 21.3 -2.4
NJ2                                pmax  pmax
      comp=Z,20nm,1.0s,mb4.7
HHC   Hu-ho-hao-te      26.64 274 eP     P       21 10 48.2 +1.3
HHC                                PP    PP      21 11 35.5  -14
HHC                                S     S       21 15 12.3 +0.5
HHC                                SS            21 16 29.4
HHC                                PcS   PcS     21 17 51.7 +3.4
HHC                                pmax  pmax
      comp=Z,200nm,0.9s,mb5.8
HHC                                pmax  pmax
      comp=Z,220nm,3.8s
HHC                                LR    LR
      comp=N,210nm,14.9s
HHC                                LR    LR
      comp=E,170nm,12.9s
HHC                                LR    LR
      comp=Z,170nm,9.7s
BTO   Baotou            27.83 275 eP     P       21 10 58.4 +1.0
ULN   Ulaanbaatar       27.98 291 eP     P       21 10 58.4 -0.3
ULN                                pmax  pmax
      comp=Z,35nm,0.9s,mb5.1
ULN   Ulaanbaatar       27.98 291 eP     P       21 10 58.4 -0.3
      comp=Z,35nm,0.9s,mb5.1
ULN   Ulaanbaatar       27.98 291 ⇑P     P       21 10 58.6  0.0
      SNR=12
ULN                               ⇑P             21 10 58.6
      SNR=12
TIXI  Tiksi             28.36 348⇑eP     P       21 10 58.0 -3.7
TIXI                               pmax  pmax
      comp=Z,18nm,0.9s,mb4.8
TIXI  Tiksi             28.36 348 eP     P       21 10 58.2 -3.6
      comp=Z,16nm,0.8s,mb4.8
TIXI                              e              21 11 34.2
SONM  Songino Array     28.42 291  P     P       21 11 03.1 +0.5
SONM                               pmax  pmax
      comp=Z,35nm,1.1s
SONM                               pmax  pmax
      comp=N,1.0nm,0.8s
SONM                               MLR   MLR
      comp=Z,170nm,20.4s
SONM  Songino Array     28.42 291  P     P       21 11 03.1 +0.5
      comp=Z,35nm,1.1s,mb5.0,baz=86,slow=8.0,SNR=153
SONM                               ScP   ScP     21 17 39.6 +0.1
      comp=Z,1.0nm,0.8s,baz=79,slow=2.4,SNR=4.1
SONM                               LR    LR      21 22 28.8
      comp=Z,170nm,20.4s,baz=30,slow=36
IRK   Irkutsk           29.31 300 eP     P       21 11 08.2 -2.2
IRK                               e              21 11 53.5
IRK                                pmax  pmax
      comp=Z,38nm,1.5s,mb4.9
YHNB  Yeheng            29.33 235  P     P       21 11 09.6 -1.3
NACB  Ninganchiao       29.59 234  P     P       21 11 10.0 -3.2
TLY   Talaya            29.73 299 eP     P       21 11 12.5 -1.6
TLY                               e              21 11 35.7
TLY                                pmax  pmax
      comp=Z,18nm,1.1s,mb4.7
TLY                                MLR   MLR
      comp=Z,131nm,19.0s
TLY   Talaya            29.73 299 eP     P       21 11 15.0 +0.9
      comp=Z,17nm,1.1s,mb4.7
WHN   Wuhan             29.77 253 ⇑P     P       21 11 14.8 +0.1
WHN                                pP    pP      21 11 44.7 +1.0
WHN                                S     S       21 16 00.5 -0.5
WHN                                pmax  pmax
      comp=Z,63nm,1.2s,mb5.2
GUMO  Guam              31.26 185 eP     P       21 11 27.1 -0.8
MOY   Mondy             31.37 299 eP     P       21 11 27.6 -1.0
MOY                                pmax  pmax
      comp=Z,22nm,2.4s,mb4.5
XAN   Xi'an             31.55 264  P     P       21 11 30.4  0.0
XAN                                pP    pP      21 12 00.0 +0.5
XAN                                sP    sP      21 12 17.3 +2.2
XAN                                PP    PP      21 12 39.4 -4.8
XAN                                PcP   PcP     21 14 22.0 +2.4
XAN                                S     S       21 16 25.4 -3.5
XAN                                ScP   ScP     21 17 49.8 -0.2
XAN                                PcS   PcS     21 18 04.6 +0.4
XAN                                ScS   ScS     21 21 46.7 -1.5
XAN                                pmax  pmax
      comp=Z,23nm,1.2s,mb4.8
XAN                                pmax  pmax
      comp=Z,100nm,5.7s
TNA   Tin City          31.71  34 eP     P       21 11 30.8 -0.6
      comp=Z,7.7nm,0.8s,mb4.5
TNA                               epP    pP      21 12 00.8 +0.3
TNA                               esP    sP      21 12 15.8 -0.4
LZH   Lanzhou           34.14 271 ⇑P     P       21 11 54.4 +1.6
LZH                                PP    PP      21 13 14.3 +1.6
LZH                                S     S       21 17 07.0 -1.8
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LZH                                SS    SS      21 19 26.5  -16
LZH                                pmax  pmax
      comp=Z,67nm,1.2s,mb5.2
LZH                                pmax  pmax
      comp=Z,250nm,6.3s
GTA   Gaotai            35.51 278⇑iP     P       21 12 06.0 +1.5
GTA                                pP    pP      21 12 37.0 +3.0
GTA                                sP    sP      21 12 53.4 +3.8
GTA                                S     S       21 17 30.5 +0.8
GTA                                sS    sS      21 18 23.3 +2.0
GTA                                SS    SS      21 19 57.9 -8.8
GTA                                ScS   ScS     21 22 09.3 +0.6
GTA                                pmax  pmax
      comp=Z,90nm,1.1s,mb5.3
GTA                                pmax  pmax
      comp=Z,250nm,7.5s
GTA                                LR    LR
      comp=N,160nm,13.2s
GTA                                LR    LR
      comp=E,120nm,12.6s
GTA                                LR    LR
      comp=Z,160nm,13.2s
KRAR  Krasnoyarsk       35.73 308 eP     P       21 12 04.1 -2.1
KRAR                               pmax  pmax
      comp=Z,34nm,1.2s,mb4.8
SVW2  Sparrevohn        36.48  43 eP     P       21 12 13.1 +0.5
CD2   Chengdu           36.91 263  P     P       21 12 17.1 +0.5
CD2                                pP    pP      21 12 48.2 +1.9
CD2                                sP    sP      21 13 04.3 +2.6
CD2                                PP    PP      21 13 47.4 +4.1
CD2                                PcP   PcP     21 14 36.6 +1.5
CD2                                S     S       21 17 50.0 -1.4
CD2                                sS    sS      21 18 44.3 +1.2
CD2                                SS    SS      21 20 27.1  -11
CD2                                pmax  pmax
      comp=Z,170nm,0.7s,mb5.8
CD2                                pmax  pmax
      comp=Z,260nm,5.5s
GYA   Guiyang           37.58 255⇓iP     P       21 12 22.5 +0.2
GYA                                pP    pP      21 12 52.8 +0.8
GYA                                sP    sP      21 13 09.4 +2.0
GYA                                PP    PP      21 13 52.3 +1.6
GYA                                PcP   PcP     21 14 38.9 +1.7
GYA                                S     S       21 18 01.2 -0.3
GYA                                ScP   ScP     21 18 13.6 +1.9
GYA                                PcS   PcS     21 18 27.0 +0.9
GYA                                ScS   ScS     21 22 19.4 -1.3
GYA                                pmax  pmax
      comp=Z,20nm,0.8s,mb4.8
GYA                                pmax  pmax
      comp=Z,120nm,4.8s
GYA                                LR    LR
      comp=N,460nm,17.8s
GYA                                LR    LR
      comp=Z,420nm,18.0s
GYA                                LR    LR
      comp=Z,440nm,17.4s
PPLA  Purkeypile        38.08  40 eP     P       21 12 27.8 +1.8
      comp=Z,54nm,1.6s,mb4.9
PPLA                              ePP    PP      21 13 57.6 +2.1
KDAK  Kodiak Island     38.22  48 eP     P       21 12 26.1 -1.1
KDAK                               pmax  pmax
      comp=Z,49nm,1.0s,mb5.1
KDAK  Kodiak Island     38.22  48 eP     P       21 12 26.1 -1.1
      comp=Z,49nm,1.0s,mb5.1
KTH   Kantishna Hill    38.64  39 eP     P       21 12 31.4 +0.8
      comp=Z,29nm,1.2s,mb4.8
KTH                               epP    pP      21 13 00.9 +0.4
TRF   Thorofare Moun    38.93  39 eP     P       21 12 33.6 +0.5
      comp=Z,2.5nm,0.6s,mb4.0
COLD  Coldfoot          39.01  33 eP     P       21 12 33.2 -0.5
      comp=Z,3.4nm,0.6s,mb4.2
COLD                              epP    pP      21 13 03.2 -0.4
COLD                              esP    sP      21 13 17.4 -1.7
RC01  Rabbit Creek A    39.32  43 eP     P       21 12 35.9 -0.5
      comp=Z,22nm,1.0s,mb4.7
RC01                              epP    pP      21 13 07.1 +0.8
MCK   McKinley          39.52  39 eP     P       21 12 38.0  0.0
MCK                                pmax  pmax
      comp=Z,11nm,0.9s,mb4.5
MCK   McKinley          39.52  39 eP     P       21 12 38.0  0.0
      comp=Z,11nm,0.9s,mb4.5
PMR   Palmer            39.57  42 eP     P       21 12 37.6 -0.8
COLA  College           39.95  37 eP     P       21 12 41.2 -0.3
COLA                              e      pP      21 13 12.5 +1.0
COLA                               pmax  pmax
      comp=Z,13nm,0.7s,mb4.7
COLA  College           39.95  37 eP     P       21 12 41.2 -0.3
      comp=Z,13nm,0.7s,mb4.7
COLA                              e      pP      21 13 12.5 +0.9
ZAA0  Zalesovo Array    40.65 306 eP     P       21 12 45.4 -2.0
ZALV  Zalesovo Beam     40.65 306  P     P       21 12 45.5 -1.9
ZALV                                             21 14 46.4
ZALV                               pmax  pmax
      comp=Z,5.0nm,0.4s,mb4.5
ZALV                               pmax  pmax
      comp=Z,8.0nm,0.6s,mb4.5
ZALV                               pmax  pmax
      comp=N,2.0nm,0.8s
ZALV                               MLR   MLR
      comp=Z,80nm,18.4s
ZALV  Zalesovo Beam     40.65 306  P     P       21 12 45.5 -1.9
      comp=Z,5.4nm,0.4s,mb4.5,baz=56,slow=7.0,SNR=33
ZALV                               PcP   PcP     21 14 46.4 -0.1
      comp=Z,8.1nm,0.6s,baz=84,slow=3.6,SNR=11
ZALV                               ScP   ScP     21 18 22.1 -1.0
      comp=Z,2.0nm,0.8s,baz=72,slow=4.8,SNR=3.7
ZALV                               LR    LR      21 29 38.3
      comp=Z,80nm,18.4s,baz=64,slow=36
KMI   Kunming           41.14 257 ⇑P     P       21 12 52.6 +0.8
KMI                                pP    pP      21 13 22.8 +0.8
KMI                                sP    sP      21 13 38.5 +1.2
KMI                                PP    PP      21 14 32.1 +2.7
KMI                                S     S       21 18 53.2 -1.6
KMI                                SS    SS      21 21 54.6 -8.2
KMI                                pmax  pmax
      comp=Z,49nm,0.8s,mb5.2
KMI                                pmax  pmax
      comp=Z,120nm,3.1s
KMI                                LR    LR
      comp=N,230nm,10.8s
KMI                                LR    LR
      comp=E,220nm,10.0s
KMI                                LR    LR
      comp=Z,140nm,13.0s
NVS   Novosibirsk       41.34 308 eP     P       21 12 50.0 -3.0
NVS                                pmax  pmax
      comp=N,6.0nm,1.3s
NVS                                pmax  pmax
      comp=E,23nm,1.3s
NVS                                pmax  pmax
      comp=Z,24nm,1.3s,mb4.7
WMQ   Urumqi            42.06 291⇑iP     P       21 13 00.1 +1.1
WMQ                                pP    pP      21 13 31.0 +1.7
WMQ                                sP    sP      21 13 46.0 +1.4
WMQ                                PP    PP      21 14 43.0 +4.1
WMQ                               eS     S       21 19 08.0 +0.1
WMQ                                sS    sS      21 20 02.0 +1.5
WMQ                                pmax  pmax
      comp=Z,130nm,0.8s,mb5.6
WMQ                                pmax  pmax
      comp=Z,180nm,4.0s
EGAK  Eagle             42.81  37 eP     P       21 13 04.4 -0.4
      comp=Z,11nm,0.8s,mb4.5
MKAR  Makanchi Array    44.42 297  P     P       21 13 17.7 -0.3
MKAR                                             21 14 58.9
MKAR                               pmax  pmax
      comp=Z,99nm,0.7s
MKAR                               pmax  pmax
      comp=Z,5.0nm,0.6s
MKAR                               pmax  pmax
      comp=N,1.0nm,0.8s
MKAR                               MLR   MLR
      comp=Z,104nm,19.1s
MKAR  Makanchi Array    44.42 297  P     P       21 13 17.7 -0.3
      comp=Z,99nm,0.7s,mb5.6,baz=76,slow=8.0,SNR=775
MKAR                               PcP   PcP     21 14 58.9 -0.3
      comp=Z,4.6nm,0.6s,baz=79,slow=5.2,SNR=3.2
MKAR                               ScP   ScP     21 18 38.1 -0.3
      comp=Z,1.4nm,0.8s,baz=49,slow=5.9,SNR=4.0
MKAR                               LR    LR      21 32 26.9
      comp=Z,104nm,19.1s,baz=64,slow=37
HYT   Haines Junctio    45.24  42 eP     P       21 13 25.4 +1.2
KURK  Kurchatov         45.24 303  P     P       21 13 24.0 -0.4
KURK                                             21 15 02.0
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KURK                               pmax  pmax
      comp=Z,33nm,0.5s,mb5.2
KURK                               pmax  pmax
      comp=Z,4.0nm,0.7s,mb4.2
KURK  Kurchatov         45.24 303  P     P       21 13 24.0 -0.4
      comp=Z,33nm,0.5s,mb5.2,baz=73,slow=8.3,SNR=113
KURK                               PcP   PcP     21 15 02.0  0.0
      comp=Z,4.0nm,0.7s,baz=75,slow=3.7,SNR=3.9
KURK  Kurchatov         45.24 303 eP     P       21 13 23.5 -0.9
      comp=Z,44nm,0.6s,mb5.3
KURK  Kurchatov         45.24 303 ⇓P     P       21 13 23.7 -0.6
      SNR=13
KURK                              ⇓P             21 13 23.7
      SNR=13
LSA   Lhasa             46.55 271  P     P       21 13 37.1 +2.1
LSA   Lhasa             46.55 271 eP     P       21 13 36.7 +1.7
LSA                                pmax  pmax
      comp=Z,12nm,0.6s,mb4.7
LSA   Lhasa             46.55 271 eP     P       21 13 36.7 +1.7
      comp=Z,12nm,0.6s,mb4.7
CHRT  Chiangrai         46.67 254 ⇑P     P       21 13 36.5 +0.5
SIT   Sitka             47.45  46 eP     P       21 13 40.0 -1.5
SIT                                pmax  pmax
      comp=Z,11nm,0.7s,mb4.6
SIT   Sitka             47.45  46 eP     P       21 13 40.0 -1.5
      comp=Z,11nm,0.7s,mb4.6
IMP   Imphal            47.53 264 ePKP   P       21 13 42.0 -0.6
CHG   Chiang Mai        47.97 253 ⇑P     P       21 13 46.8 +0.8
CHTO  Chiang Mai        47.97 253 eP     P       21 13 46.4 +0.4
CHTO                               pmax  pmax
      comp=Z,20nm,0.8s,mb4.8
CHTO  Chiang Mai        47.97 253 eP     P       21 13 46.4 +0.4
      comp=Z,20nm,0.8s,mb4.8
CHTO  Chiang Mai        47.97 253  P     P       21 13 47.3 +1.2
      SNR=5.3
CHTO                               P             21 13 47.3
      SNR=5.3
CMAR  Chiang Mai Arr    48.22 253  P     P       21 13 48.9 +1.0
CMAR                               *SP   sP      21 14 33.6 -0.4
CMAR                               pmax  pmax
      comp=Z,8.0nm,0.7s
CMAR                               pmax  pmax
      comp=Z,3.0nm,0.7s
CMAR                               pmax  pmax
      comp=N,1.0nm,0.8s
CMAR  Chiang Mai Arr    48.22 253  P     P       21 13 48.9 +0.9
      comp=N,8.3nm,0.7s,mb4.5,baz=39,slow=7.2,SNR=82
CMAR                               sP    sP      21 14 33.5 -0.5
      comp=N,3.2nm,0.7s,baz=44,slow=7.1,SNR=4.0
CMAR                               ScP   ScP     21 18 55.5 +0.8
      comp=N,1.2nm,0.8s,baz=22,slow=3.8,SNR=6.0
SHL   Shillong          48.49 266⇑iP     P       21 13 51.0 +1.0
BVAR  Borovoye Array    49.10 309  P     P       21 13 53.1 -1.2
BVAR                                             21 15 15.6
BVAR                               pmax  pmax
      comp=Z,17nm,0.8s
BVAR                               pmax  pmax
      comp=Z,4.0nm,0.7s
BVAR                               pmax  pmax
      comp=N,2.0nm,1.0s
BVAR  Borovoye Array    49.10 309  P     P       21 13 53.1 -1.2
      comp=N,17nm,0.8s,mb4.7,baz=65,slow=10,SNR=77
BVAR                               PcP   PcP     21 15 15.6 -0.1
      comp=N,3.9nm,0.7s,baz=288,slow=1.4,SNR=4.8
BVAR                               ScP   ScP     21 18 57.3 -0.7
      comp=N,1.5nm,0.9s,baz=48,slow=4.3,SNR=3.8
BRVK  Borovoye          49.15 309 eP     P       21 13 53.6 -1.0
BRVK                               pmax  pmax
      comp=Z,30nm,0.9s,mb4.9
BRVK  Borovoye          49.15 309 eP     P       21 13 53.6 -1.0
      comp=Z,30nm,0.9s,mb4.9
BRVK  Borovoye          49.15 309  P     P       21 13 54.0 -0.6
      SNR=7.2
BRVK                               P             21 13 54.0
      SNR=7.2
DLBC  Dease Lake        49.60  43  P     P       21 13 57.2 -0.8
ULHL  Ulahol            50.29 294  P     P       21 14 04.7 +1.3
      SNR=29
TAPN  Taplejung         50.38 271 eP     P       21 14 05.5 +1.2
      comp=Z,91nm,0.8s,mb5.5
TKM2  Tokmak 2          50.39 295 eP     P       21 14 05.2 +1.1
TKM2                               pmax  pmax
      comp=Z,142nm,1.1s,mb5.5
TKM2  Tokmak 2          50.39 295  P     P       21 14 05.5 +1.4
      SNR=42
TKM2  Tokmak 2          50.39 295 eP     P       21 14 05.2 +1.1
      comp=Z,142nm,1.1s,mb5.5
CHMS  Chumysh           50.89 295  P     P       21 14 08.6 +0.7
      SNR=24
ODAN  Odare             50.90 271 eP     P       21 14 08.8 +0.6
      comp=Z,29nm,0.5s,mb5.2
USP   Ospenovka         50.92 296  P     P       21 14 09.1 +1.0
      SNR=164
KBK   Karagaybulak      50.93 295  P     P       21 14 09.4 +1.2
      SNR=170
KZA   Kyzart            51.02 294  P     P       21 14 11.1 +2.2
      SNR=96
AAK   Ala-Archa         51.23 295d iP    P       21 14 11.2 +0.7
AAK                                pmax  pmax
      comp=Z,48nm,1.2s,mb5.0
AAK   Ala-Archa         51.23 295  P     P       21 14 11.6 +1.1
      SNR=7.5
AAK   Ala-Archa         51.23 295 eP     P       21 14 11.2 +0.8
      comp=Z,82nm,1.0s,mb5.3
JIRN  Jiri              51.27 272 eP     P       21 14 12.1 +1.1
      comp=Z,69nm,0.6s,mb5.5
GUN   Gumba             51.34 273 eP     P       21 14 12.6 +1.1
      comp=Z,91nm,0.5s,mb5.7
RAMN  Ramite            51.41 271 eP     P       21 14 12.7 +0.7
      comp=Z,232nm,0.6s,mb6.0
UCH   Uchtor            51.42 295  P     P       21 14 13.3 +1.5
      SNR=34
UCH   Uchtor            51.42 295 eP     P       21 14 12.7 +0.9
      comp=Z,22nm,0.7s,mb4.9
UCH                               epP    pP      21 14 42.4 -0.8
UCH                                sP    sP      21 14 59.9 +1.6
UCH                               ePcP   PcP     21 15 24.1 -0.4
EKS2  Erkin-Say         51.68 295  P     P       21 14 14.9 +1.1
      SNR=105
EKS2  Erkin-Say         51.68 295 eP     P       21 14 14.5 +0.7
      comp=Z,92nm,0.8s,mb5.5
KSH   Kashi             51.82 291  P     P       21 14 19.6 +4.7
KSH                               epP    pP      21 14 52.0 +5.7
KSH                               ePcP   PcP     21 15 28.6 +2.6
KSH                               ePP    PP      21 16 21.3 +7.5
KSH                               eScP   ScP     21 19 11.1 +1.2
KSH                               ePcS   PcS     21 19 25.9 +1.7
KSH                               eS     S       21 21 31.5 +4.9
KSH                               eScS   ScS     21 23 50.9 -0.2
KSH                                pmax  pmax
      comp=Z,330nm,2.2s,mb5.6
KSH                                LR    LR
      comp=N,280nm,5.4s
KSH                                LR    LR
      comp=E,280nm,5.2s
KSH                                LR    LR
      comp=Z,230nm,4.6s
KKN   Kakani            51.84 273 eP     P       21 14 16.0 +0.8
      comp=Z,41nm,0.5s,mb5.3
PKI   Pulchoki          51.88 273 eP     P       21 14 16.3 +0.8
      comp=Z,82nm,0.9s,mb5.3
AML   Almayashu         52.00 295  P     P       21 14 17.9 +1.7
      SNR=74
AML   Almayashu         52.00 295 eP     P       21 14 17.4 +1.2
      comp=Z,73nm,0.8s,mb5.4
DMN   Daman             52.07 273 eP     P       21 14 17.8 +0.9
      comp=Z,80nm,0.6s,mb5.5
GKN   Gorkha            52.17 274 eP     P       21 14 18.4 +0.8
      comp=Z,47nm,0.4s,mb5.4
DANN  Dangsing          52.59 275 eP     P       21 14 21.9 +1.2
      comp=Z,151nm,0.6s,mb5.9
SVE   Sverdlovsk        52.60 316⇓eP     P       21 14 19.2 -1.2
SVE                               ePPP           21 17 32.8
SVE                               eS     S       21 21 26.6  -10
SVE                               eSSS           21 27 07.5
SVE                                pmax  pmax
      comp=Z,98nm,0.8s,mb5.6
KOLN  Koldanda          53.05 274 eP     P       21 14 25.0 +0.9
      comp=Z,98nm,1.0s,mb5.5
SOKR  Solikamsk         53.17 321c iP    P       21 14 22.6 -1.9
SOKR                               pmax  pmax
      comp=Z,60nm,0.9s,mb5.3
RES   Resolute Bay      53.79  17  P     P       21 14 27.3 -1.6
RES                                pmax  pmax
      comp=Z,11nm,0.5s,mb4.8
RES                                pmax  pmax
      comp=N,1.0nm,0.8s
```

RES	Resolute Bay	53.79	17	P	P	21 14 27.2	-1.6
	comp=N,11nm,0.5s,mb4.9,baz=317,slow=7.8,SNR=57						
RES				ScP	ScP	21 19 17.6	-0.3
	comp=N,1.1nm,0.8s,baz=307,slow=6.8,SNR=3.9						
RES	Resolute Bay	53.79	17	*e*P	P	21 14 27.3	-1.5
	comp=N,14nm,0.6s,mb4.9						
ARU	Arti	53.80	317	*c* *i*P	P	21 14 27.5	-1.7
ARU				*PP	pP	21 14 58.0	-2.8
ARU				*e*		21 16 27.6	
ARU				S	S	21 21 51.6	-1.4
ARU				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.5						
ARU	Arti	53.80	317	*e*P	P	21 14 27.7	-1.5
	comp=Z,84nm,0.9s,mb5.5						
JOSI	Joshimath	54.26	279	*e*PKP	P	21 14 33.9	+1.0
KSM	Kuching	54.35	228	P	P	21 14 32.8	-0.9
LGTI	Lohaghat	54.42	278	*e*PKP	P	21 14 33.5	-0.6
YKA	Yellowknife Ar	54.66	34	P	P	21 14 34.9	-0.4
YKA				*PP	pP	21 15 07.2	+0.2
YKA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
YKA	Yellowknife Ar	54.66	34	P	P	21 14 34.9	-0.4
	comp=Z,4.7nm,0.6s,mb4.4,baz=302,slow=7.1,SNR=63						
YKA				pP	pP	21 15 07.2	+0.3
	comp=Z,5.8nm,0.7s,baz=299,slow=6.9,SNR=9.7						
YKA	Yellowknife Ar	54.66	34	P	P	21 14 34.9	-0.4
YKA				pP	pP	21 15 07.2	+0.3
DDI	Dehra Dun	55.45	280	*e*PKP	P	21 14 41.8	+0.4
THN	Thein Dam	55.85	284	*e*PKP	P	21 14 43.3	-1.0
KULM	Kulim	56.84	241	*e*P	P	21 14 50.0	-1.5
	comp=Z,17nm,0.8s,mb4.9						
PRGR	Permogore	56.86	326	⇑*i*P	P	21 14 49.3	-1.7
PRGR				pmax	pmax		
	comp=Z,66nm,0.7s,mb5.6						
LVZ	Lovozero	56.95	335	⇑*e*P	P	21 14 49.9	-1.6
LVZ				pmax	pmax		
	comp=Z,123nm,2.3s,mb5.3						
NDI	New Delhi	57.01	279	*e*PKP	P	21 14 51.0	-1.5
AYAN	Aya Nagar	57.19	279	*e*PKP	P	21 14 53.2	-0.6
SONA	Sohna	57.36	279	*e*PKP	P	21 14 54.8	-0.2
SONA				AMb	AMB	21 14 56.3	
	comp=Z,59nm,1.3s,mb5.3						
AGRA	Agra	57.37	277	*e*PKP	P	21 14 55.4	+0.3
APA	Apatity	57.53	336	⇑*i*P	P	21 14 53.7	-1.9
APA				*i*		21 15 34.0	
APA				*i*		21 15 50.0	
APA				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.2						
KEV	Kevo	57.81	339	*e*P	P	21 14 54.5	-3.0
KEV				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.2						
KEV	Kevo	57.81	339	*e*p	P	21 14 54.5	-3.0
	comp=Z,18nm,0.5s,mb5.2						
KUDL	Kundal	57.84	279	*e*PKP	P	21 14 58.2	-0.2
KUDL				AMb	AMB	21 14 59.7	
	comp=Z,55nm,1.2s,mb5.3						
B04A	Port Angeles	57.91	52	⇑P	P	21 14 58.6	+0.1
	baz=58						
A04A	Legoe Bay, Lum	57.99	51	⇑P	P	21 14 59.2	+0.1
	baz=58						
NLWA	Neilton Lookou	58.06	53	⇓P	P	21 14 59.8	+0.2
	baz=58						
A05A	Maple Falls	58.19	51	⇓P	P	21 15 00.2	-0.3
	baz=58						
ARCES	ARCESS Array B	58.34	340	P	P	21 14 59.8	-1.4
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ARCES	ARCESS Array B	58.34	340	P	P	21 14 59.8	-1.4
	comp=Z,9.3nm,0.5s,mb4.9,baz=46,slow=8.2,SNR=55						
KHET	Khetri	58.37	279	*e*PKP	P	21 15 01.9	-0.1
KHET				AMb	AMB	21 15 02.8	
	comp=Z,24nm,0.8s,mb5.1						
A06A	Chilliwack	58.46	50	⇓P	P	21 15 02.1	-0.3
	baz=58						
B05A	Bryant	58.58	52	⇓P	P	21 15 03.2	0.0
	baz=58						
E03A	Lebam	58.71	54	⇑P	P	21 15 03.8	-0.2
	baz=58						
B06A	Marblemount	58.78	51	⇑P	P	21 15 03.9	-0.7
	baz=59						
F03A	Seaside	59.05	54	⇑P	P	21 15 06.2	-0.2
	baz=59						
KLMR	Klimovskoe	59.71	327	*e*P	P	21 15 09.0	-1.7
KLMR				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.4						
D06A	Cle Elum	59.88	52	⇓P	P	21 15 12.1	0.0
	baz=60						
ETW	Entiat	59.94	51	*e*P	P	21 15 12.6	+0.1
C07A	Waterville	60.04	51	⇓P	P	21 15 12.7	-0.5
	baz=60						
G04A	Mulino	60.09	55	⇑P	P	21 15 13.8	+0.3
	baz=60						
E06A	Yakima	60.18	53	⇑P	P	21 15 14.4	+0.2
	baz=60						
EDM	Edmonton	60.32	43	*e*P	P	21 15 15.1	0.0
EDM				*e**PP	pP	21 15 47.0	-0.3
D07A	Quincy	60.37	52	⇑P	P	21 15 15.2	-0.3
	baz=60						
HOOD	Mount Hood Mea	60.50	54	*e*P	P	21 15 17.5	+1.1
	comp=Z,79nm,1.1s,mb5.5						
C08A	Higginbotham F	60.54	51	⇑P	P	21 15 16.2	-0.4
	baz=60						
B09A	Rice	60.66	50	⇑P	P	21 15 17.4	-0.1
	baz=60						
E07A	Sunnyside	60.80	52	⇑P	P	21 15 18.8	+0.3
	baz=61						
OD2	Odessa Site #2	60.96	51	*e*P	P	21 15 19.3	-0.2
RSW	Rattlesnake Hi	61.05	52	*e*P	P	21 15 19.8	-0.3
HAWA	Hanford	61.08	52	*e*P	P	21 15 20.8	+0.5
JOF	Joensuu	61.29	332	*e*P	P	21 15 18.1	-3.3
JOF				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.4						
JOF	Joensuu	61.29	332	*e*p	P	21 15 18.1	-3.3
	comp=Z,48nm,0.7s,mb5.4						
NEW	Newport	61.31	49	*e*P	P	21 15 21.5	-0.3
NEW				*e**PP	pP	21 15 54.4	+0.2
NEW				pmax	pmax		
	comp=Z,12nm,0.8s						
NEW	Newport	61.31	49	*e*P	P	21 15 21.5	-0.3
	comp=Z,12nm,0.8s,mb4.8						
NEW				*e*pP	pP	21 15 54.4	+0.2
D09A	Jones Farm, Ri	61.37	51	⇑P	P	21 15 22.2	-0.1
	baz=61						
H06A	Lindquist Farm	61.60	54	⇓P	P	21 15 23.6	-0.3
	baz=61						
KHMM	Horse Mountain	61.86	59	*e*P	P	21 15 26.1	+0.4
	comp=Z,22nm,1.0s,mb4.9						
YBH	Yreka Blue Hor	61.97	58	P	P	21 15 27.3	+0.9
YBH				*PP	pP	21 15 59.4	+0.6
YBH				pmax	pmax		
	comp=Z,11nm,1.0s						
YBH				pmax	pmax		
	comp=Z,4.0nm,0.9s						
YBH	Yreka Blue Hor	61.97	58	P	P	21 15 27.3	+0.9
	comp=Z,11nm,1.0s,mb4.7,baz=349,slow=3.7,SNR=18						
YBH				pP	pP	21 15 59.4	+0.6
	comp=Z,3.7nm,0.9s,baz=262,slow=2.1,SNR=2.9						
LNOR	Lincton Mounta	62.09	52	*e*P	P	21 15 27.8	+0.7
H07A	Lands Inn, Kim	62.13	54	⇑P	P	21 15 27.3	0.0
	baz=62						
I06A	Prineville	62.14	55	⇑P	P	21 15 27.7	+0.3
	baz=62						
WALA	Waterton Lakes	62.54	47	*e*P	P	21 15 33.6	+3.6
	comp=Z,4.7nm,2.5s,mb3.9						
WALA				*e*pP	pP	21 16 02.3	-0.2
F10A	Beach Ranch, E	62.62	51	⇓P	P	21 15 30.4	-0.2
	baz=62						
WDC	Whiskeytown Da	62.76	59	*e*P	P	21 15 31.8	+0.2
WDC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
WDC	Whiskeytown Da	62.76	59	*e*P	P	21 15 31.8	+0.2
	comp=Z,9.3nm,0.8s,mb4.7						
SUMG	Summit	62.79	2	*e*P	P	21 15 30.0	-1.3
BSMT	Bassoo Peak	62.81	49	*e*P	P	21 15 31.4	-0.4
I08A	Drewsey	63.11	54	⇑P	P	21 15 34.4	+0.5
	baz=63						
JTMT	Jette	63.15	49	*e*P	P	21 15 33.3	-0.8
HYB	Hyderabad	63.20	268	*i* P	P	21 15 35.5	+0.7
YBMT	Yellow Bay	63.22	48	*e*P	P	21 15 34.0	-0.5
MOD	Modoc	63.31	57	*e*P	P	21 15 34.7	-0.5
MOD				*e*pP	pP	21 16 07.5	-0.2
SWMT	Swartz Lake	63.44	49	*e*P	P	21 15 35.1	-0.9
SWMT				*e*pP	pP	21 16 07.5	-1.0
KAF	Kangasniemi	63.49	333	*e*P	P	21 15 33.1	-3.0
KAF				pmax	pmax		
	comp=Z,42nm,0.5s,mb5.5						
KAF	Kangasniemi	63.49	333	*e*p	P	21 15 33.1	-3.0
	comp=Z,42nm,0.5s,mb5.5						
A16A	West Butte Ran	63.80	46	⇓P	P	21 15 38.4	0.0
	baz=64						
MSO	Missoula	63.90	49	*e*P	P	21 15 39.2	+0.2
MSO				*e*pP	pP	21 16 12.1	+0.5
WVOR	Wild Horse Val	63.97	55	*e*P	P	21 15 39.5	0.0
WVOR				*e**PP	pP	21 16 12.3	+0.2
WVOR				*e**SP	sP	21 16 28.2	+1.3
WVOR				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.7						
WVOR	Wild Horse Val	63.97	55	*e*P	P	21 15 39.5	0.0
	comp=Z,14nm,1.1s,mb4.7						
WVOR				*e*pP	pP	21 16 12.3	+0.2
WVOR				*e*sP	sP	21 16 28.2	+1.3
E13A	Victor	64.00	50	⇓P	P	21 15 39.5	-0.2
	baz=64						
OHCM	Honcut	64.16	59	*e*P	P	21 15 40.7	-0.1
K09A	Rome	64.34	55	⇓P	P	21 15 41.9	0.0
	baz=64						
E14A	Clinton	64.39	49	⇓P	P	21 15 42.4	+0.2
	baz=64						
BEKR	Beckwourth	64.52	58	⇓P	P	21 15 43.4	+0.3
	baz=64						
FFC	Flin Flon	64.58	37	*i* P	P	21 15 44.0	+0.7
FFC	Flin Flon	64.58	37	*e*P	P	21 15 43.1	-0.2
I11A	Placerville	64.60	53	⇑P	P	21 15 43.5	-0.2
	baz=64						
CTAO	Charters Tower	64.64	181	*e*P	P	21 15 43.4	-0.6
CTAO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
CTAO	Charters Tower	64.64	181	*e*P	P	21 15 43.4	-0.6
	comp=Z,2.6nm,0.6s,mb4.2						
OBN	Obninsk	64.65	324	α *i*P	P	21 15 42.3	-1.5
OBN				*e*		21 16 30.4	
OBN						21 18 06.0	
OBN				pmax	pmax		
	comp=Z,37nm,0.7s,mb5.3						
OBN	Obninsk	64.65	324	*e*P	P	21 15 42.5	-1.3
O06A	Flanigan	64.66	58	⇑P	P	21 15 44.4	+0.3
	baz=64						
M08A	Happy Creek Ra	64.73	56	⇓P	P	21 15 45.1	+0.6
	baz=65						
L09A	Wilkinson Ranc	64.79	55	⇓P	P	21 15 45.3	+0.4
	baz=65						
F14A	Wisdom	64.84	50	⇑P	P	21 15 45.2	0.0
	baz=65						
FCC	Fort Churchill	64.87	30	*e*P	P	21 15 44.3	-0.8
FCC				pmax	pmax		
	comp=Z,2.0nm,1.9s,mb3.6						
FCC	Fort Churchill	64.87	30	*e*P	P	21 15 44.3	-0.8
	comp=Z,1.5nm,1.9s,mb3.5						
VRHR	Novokhopersk	65.07	318	*e*P	P	21 15 44.8	-1.8
VRHR				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.2						
VRHR				pmax	pmax		
	comp=N,20nm,0.5s						
HRY	Holter Researc	65.10	48	*e*P	P	21 15 47.3	+0.5
G14A	Jackson	65.15	50	⇓P	P	21 15 47.0	-0.2
	baz=65						
WCN	Washoe City	65.23	59	⇑P	P	21 15 48.2	+0.4
	baz=65						
M09A	Marrel Ranch,	65.29	56	⇑P	P	21 15 48.3	+0.1
	baz=65						
LRM	Limekiln Ridge	65.33	49	*e*P	P	21 15 48.7	+0.4
LRM				*e*pP	pP	21 16 21.0	0.0
EGMT	Eagleton	65.34	46	⇓P	P	21 15 47.6	-0.7
	baz=65,SNR=11						
EGMT	Eagleton	65.34	46	*e*P	P	21 15 48.0	-0.3
EGMT				*e*pP	pP	21 16 20.7	-0.4
DLMT	Dillon	65.55	50	*e*P	P	21 15 50.2	+0.5
WRAB	Tennant Creek	65.62	194	*e*P	P	21 15 49.1	-1.2
WRAB				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
WRAB	Tennant Creek	65.62	194	*e*P	P	21 15 49.1	-1.2
	comp=Z,9.5nm,1.1s,mb4.5						
WRA	Warramunga Arr	65.63	194	P	P	21 15 49.5	-0.9
WRA				*PP	pP	21 16 21.7	-1.5
WRA				*SP	sP	21 16 33.6	-4.2
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA	Warramunga Arr	65.63	194	P	P	21 15 49.5	-0.9
	comp=Z,2.0nm,0.6s,mb4.2,baz=14,slow=6.8,SNR=18						
WRA				pP	pP	21 16 21.7	-1.5
	comp=Z,4.7nm,1.0s,baz=9.7,slow=6.7,SNR=5.6						
WRA				sP	sP	21 16 33.6	-4.2
	comp=Z,4.6nm,0.7s,baz=14,slow=7.0,SNR=6.2						
CMB	Columbia Colle	65.64	60	*e*P	P	21 15 50.4	0.0
CMB				*e**PP	pP	21 16 23.3	+0.1
HLID	Hailey	65.69	52	⇑P	P	21 15 50.6	-0.1
	baz=66,SNR=11						
HLID	Hailey	65.69	52	*e*P	P	21 15 51.1	+0.4
D18A	Linhart Farms,	65.85	47	⇑P	P	21 15 52.0	+0.4
	baz=66						
BOZ	Bozeman (W)	65.89	49	⇑P	P	21 15 51.9	0.0
	baz=66,SNR=23						
BOZ	Bozeman (W)	65.89	49	*e*P	P	21 15 52.3	+0.4
BOZ				*e*pP	pP	21 16 24.6	-0.1
R06C	Coleville	65.91	59	⇑P	P	21 15 52.9	+0.7
	baz=66						
WAKR	Walker	65.93	59	*e*P	P	21 15 52.8	+0.6
H15A	Lima	66.00	50	⇓P	P	21 15 52.8	+0.2
	baz=66						
BMN	Battle Mountai	66.05	56	*e*P	P	21 15 53.6	+0.6
VSU	Vasula	66.06	330	*c* *i*P	P	21 15 51.6	-1.2
VSU				pmax	pmax		
	comp=Z,63nm,0.8s,mb5.5						
VSR	Storozhevoye	66.14	319	*e*P	P	21 15 52.7	-0.7
VSR				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.2						
VSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,20nm,1.4s						
E18A	Harlowton	66.20	47	⇑P	P	21 15 54.4	+0.5
	baz=66						
O09A	Fish Creek Ran	66.23	57	⇓P	P	21 15 54.6	+0.4
	baz=66						
VORD	Divnogorie	66.26	319	*e*P	P	21 15 53.4	-0.7
VORD				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.2						
VORD				pmax	pmax		
	comp=N,30nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
K13A	Stover Farm, H	66.45	53	⇓P	P	21 15 56.4	+0.8
	baz=66						
QLMT	Earthquake Lak	66.52	50	*e*P	P	21 15 56.5	+0.5
O10A	Cortez Mining,	66.56	56	⇑P	P	21 15 56.8	+0.5
	baz=66						
NVAR	Mina Array Bea	66.66	59	P	P	21 15 57.2	+0.3
	comp=E,16nm,0.8s,mb4.9,baz=289,slow=7.0,SNR=36						
NVAR				pP	pP	21 16 29.4	-0.4
	comp=E,7.1nm,0.8s,baz=280,slow=7.2,SNR=5.9						
NVAR	Mina Array Bea	66.66	59	P	P	21 15 57.2	+0.2
NVAR				pP	pP	21 16 29.4	-0.4
MLAC	Mammoth Lakes	66.85	60	⇓P	P	21 15 58.7	+0.5
	baz=67						
ELK	Elko	67.01	55	*e*P	P	21 15 59.5	+0.4
P10A	Eureka	67.01	57	⇓P	P	21 15 59.7	+0.5
	baz=67						
YFT	Old Faithful	67.09	50	*e*P	P	21 16 01.9	+2.3
YFT				*e*pP	pP	21 16 34.7	+2.3
G18A	Lazy EL Ranch,	67.20	48	⇓P	P	21 16 00.7	+0.4
	baz=67						
DCID1	Drake Creek	67.46	51	*e*P	P	21 16 03.4	+1.5
P11A	Circle Ranch,	67.47	56	⇓P	P	21 16 02.7	+0.7
	baz=67						
RLMT	Red Lodge	67.49	48	⇓P	P	21 16 02.3	+0.2
	baz=67,SNR=6.3						
RLMT	Red Lodge	67.49	48	*e*P	P	21 16 02.8	+0.7
N13A	Wendover, West	67.54	54	⇑P	P	21 16 03.1	+0.6
	baz=67						
TPH	Tonopah	67.55	58	*e*P	P	21 16 02.9	+0.4
TPH				*e**PP	pP	21 16 35.2	-0.2
TPH				*e**SP	sP	21 16 50.3	+0.2
RRI2	Red Ridge	67.55	51	*e*P	P	21 16 03.7	+1.2
Q10A	Clear Creek Ra	67.56	57	⇓P	P	21 16 02.9	+0.3
	baz=67						
MOOW	Moose Ponds	67.60	50	*e*P	P	21 16 03.8	+1.0
MOOW				*e*pP	pP	21 16 36.2	+0.5
TPAW	Teton Pass	67.66	50	*e*P	P	21 16 04.3	+1.1
TPAW				*e*pP	pP	21 16 36.0	0.0
HVU	Hansel Valley	67.76	53	*e*P	P	21 16 04.6	+0.8
LOHW	Long Hollow	67.77	50	*e*P	P	21 16 05.2	+1.4
REDW	Red Top Meadow	67.80	51	*e*P	P	21 16 05.0	+0.9
DGMT	Dagmar	67.82	43	⇑P	P	21 16 03.9	-0.1
	baz=68						
DGMT	Dagmar	67.82	43	*e*P	P	21 16 04.0	-0.1
DGMT				*e*pP	pP	21 16 37.1	+0.1
VES	Vestal, Richgr	67.83	61	⇑P	P	21 16 03.5	-0.9
	baz=68						
J17A	Brown Place, J	67.87	50	⇓P	P	21 16 05.3	+0.8
	baz=68						
R10A	Warm Springs	67.96	58	⇑P	P	21 16 05.6	+0.4
	baz=68						
Q11A	Duckwater	67.99	57	⇑P	P	21 16 05.4	0.0
	baz=68						
FRB	Frobisher Bay	68.00	16	P	P	21 16 03.9	-1.1
FRB				pmax	pmax		
	comp=Z,14nm,0.6s						
FRB	Frobisher Bay	68.00	16	P	P	21 16 03.9	-1.1
	comp=Z,14nm,0.6s,mb4.9,baz=330,slow=7.2,SNR=33						
LAO	LASA Array	68.02	46	*e*P	P	21 16 05.5	+0.2
LAO				*e*pP	pP	21 16 38.2	-0.1
CWC	Cottonwood Cre	68.07	60	⇓P	P	21 16 05.3	-0.6
	baz=68,SNR=5.4						
N14A	Grayback Hills	68.13	54	⇑P	P	21 16 06.4	+0.2
	baz=68						
O13A	Hicks Ranch, I	68.14	55	⇓P	P	21 16 06.7	+0.5
	baz=68						
GRAC	Grapevine Rang	68.15	59	⇑P	P	21 16 06.6	+0.3
	baz=68,SNR=17						
SPUT	South Promonto	68.25	53	*e*P	P	21 16 07.7	+0.8
ISA	Isabella	68.33	61	*e*P	P	21 16 06.3	-1.2
ISA				*e**PP	pP	21 16 39.2	-1.3
ISA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
ISA	Isabella	68.33	61	⇓P	P	21 16 06.3	-1.2
	baz=68,SNR=5.7						
ISA	Isabella	68.33	61	*e*P	P	21 16 06.3	-1.2
	comp=Z,4.5nm,0.7s,mb4.3						
ISA				*e*pP	pP	21 16 39.2	-1.3
J18A	Kendall Valley	68.35	50	⇓P	P	21 16 07.8	+0.3
	baz=68						
Q12A	Willow Creek R	68.35	56	⇓P	P	21 16 07.6	0.0
	baz=68						
L17A	Cokeville	68.62	52	⇑P	P	21 16 09.4	+0.2
	baz=68						
PALK	Pallekele	68.64	259	*e*P	P	21 16 09.2	-0.5
PALK				*e*		21 16 29.6	
PALK				*e**PP	pP	21 16 42.2	-0.5
PALK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
PALK	Pallekele	68.64	259	*e*P	P	21 16 09.2	-0.5
	comp=Z,19nm,0.9s,mb4.8						
PALK				*e*PcP	PcP	21 16 29.6	-4.1
PALK				*e*pP	pP	21 16 42.2	-0.5
MPMC	Manual Prospec	68.68	60	⇑P	P	21 16 09.4	-0.3
	baz=68,SNR=14						
NB2	NORSAR Subarra	68.71	339	P	P	21 16 07.9	-1.5
	comp=Z,16nm,0.5s,mb5.0,baz=31,slow=6.5						
NOA	NORSAR Array B	68.71	339	P	P	21 16 08.0	-1.4
NOA				pmax	pmax		
	comp=Z,24nm,0.5s						
NOA	NORSAR Array B	68.71	339	P	P	21 16 08.0	-1.4
	comp=Z,24nm,0.5s,mb5.2,baz=30,slow=6.4,SNR=86						
NOA	NORSAR Array B	68.71	339	P	P	21 16 08.0	-1.4
NACGM	Naroch	68.72	328	*e*P	P	21 16 06.0	-3.6
DUG	Dugway	68.77	54	⇑P	P	21 16 10.1	-0.1
	baz=69,SNR=16						
DUG	Dugway	68.77	54	*e*P	P	21 16 10.6	+0.4
FURC	Furnace Creek,	68.80	59	⇓P	P	21 16 10.3	-0.1
	baz=69,SNR=6.5						
OSI	Osito Adit	68.85	62	*e*P	P	21 16 11.1	+0.4
TPNV	Topopah Spring	68.86	59	P	P	21 16 10.6	-0.2
Q13A	Wheeler Ranch,	68.89	56	⇓P	P	21 16 11.3	+0.4
	baz=69						
BW06	Boulder Array	68.90	50	⇑P	P	21 16 10.1	-0.8
	baz=69,SNR=7.2						
BW06	Boulder Array	68.90	50	*e*P	P	21 16 11.0	+0.1
BW06				*e*pP	pP	21 16 43.9	-0.1
PDAR	Pinedale Array	68.90	50	P	P	21 16 10.9	0.0
	comp=Z,9.3nm,0.7s,mb4.6,baz=275,slow=1.8,SNR=48						
PDAR				pP	pP	21 16 42.8	-1.1
	comp=Z,6.7nm,0.7s,baz=264,slow=2.0,SNR=8.4						
R12A	Pony Springs,	68.95	57	⇑P	P	21 16 11.3	0.0
	baz=69						
N16A	Rees Ranch, Co	69.10	53	⇑P	P	21 16 12.3	+0.1
	baz=69						
EDW2	Edwards Air Fo	69.14	61	⇓P	P	21 16 12.1	-0.4
	baz=69,SNR=11						
U10A	Ash Meadows, A	69.16	59	⇓P	P	21 16 13.1	+0.5
	baz=69						
S12A	Delamar Landin	69.28	57	⇓P	P	21 16 13.7	+0.4
	baz=69						
KIV	Kislovodsk	69.31	312	*e*P	P	21 16 13.3	-0.1
KIV				*e*PPP		21 20 28.8	
KIV				*e*S	S	21 25 09.1	+0.2
KIV				pmax	pmax		
	comp=Z,279nm,1.1s,mb5.9						
KIV				pmax	pmax		
	comp=Z,90nm,4.2s						
KIV	Kislovodsk	69.31	312	*e*P	P	21 16 14.4	+1.0
	comp=Z,185nm,0.8s,mb5.9						
KIV	Kislovodsk	69.31	312	⇓P	P	21 16 13.9	+0.5
	SNR=35						
KIV				⇓P		21 16 13.9	
	SNR=35						
ASAR	Alice Springs	69.35	194	P	P	21 16 13.8	+0.1
ASAR				*PP	pP	21 16 45.7	-1.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ASAR	Alice Springs	69.35	194	P	P	21 16 13.8	+0.1
	comp=Z,1.0nm,0.7s,mb3.7,baz=12,slow=6.9,SNR=11						
ASAR				pP	pP	21 16 45.7	-1.1
	comp=Z,1.5nm,0.8s,baz=13,slow=6.0,SNR=3.9						
NLU	North Lily Min	69.36	54	*e*P	P	21 16 14.5	+0.7
R13A	O'Grain Ranch,	69.42	56	⇓P	P	21 16 14.6	+0.4
	baz=69						
L19A	Farson	69.45	51	⇑P	P	21 16 14.6	+0.3
	baz=69						
M18A	Lyman	69.51	52	⇑P	P	21 16 14.8	+0.1
	baz=69						
DAU	Daniels Canyon	69.52	53	*e*P	P	21 16 15.8	+1.0
SHOC	Shoshone	69.53	60	⇓P	P	21 16 15.0	+0.1
	baz=69						
MPU	Maple Canyon	69.57	54	*e*P	P	21 16 15.9	+0.8
GSC	Goldstone	69.60	60	⇑P	P	21 16 14.9	-0.4
	baz=69,SNR=7.0						
GSC	Goldstone	69.60	60	*e*P	P	21 16 15.2	-0.2
GSC				*e*pP	pP	21 16 48.4	0.0
MTA	Mtatsminda	69.70	309	P	P	21 16 16.7	+0.9
TBLG	Delisi	69.70	309	P	P	21 16 16.9	+1.0
TBLG	Delisi	69.70	309	P	P	21 16 16.9	+1.1
U11A	Corn Creek	69.73	59	⇓P	P	21 16 16.6	+0.5
	baz=70						
BFSC	Mount Baldy St	69.76	62	⇓P	P	21 16 16.1	-0.3
	baz=70						
SHPR	Sheep Range	69.81	58	*e*P	P	21 16 17.1	+0.5
SHPR				*e*pP	pP	21 16 50.0	+0.3
Q15A	Fillmore	69.82	55	⇓P	P	21 16 16.6	0.0
	baz=70						
CIS	Catalina Islan	69.84	63	⇑P	P	21 16 16.2	-0.6
	baz=70						
ONI	Oni	69.84	310	P	P	21 16 17.7	+1.1
GOR	Gori	69.88	309	P	P	21 16 17.1	+0.2
O17A	Robinson Place	69.96	53	⇓P	P	21 16 17.8	+0.3
	baz=70						
TUQ	Turquoise Moun	70.05	60	⇑P	P	21 16 17.7	-0.4
	baz=70,SNR=10.0						
L20A	Wamsutter	70.08	50	⇑P	P	21 16 18.3	+0.2
	baz=70						
V11A	Goodsprings	70.09	59	⇓P	P	21 16 18.4	+0.1
	baz=70						
HEC	Hector,Ludlow	70.20	60	⇓P	P	21 16 18.8	-0.2
	baz=70,SNR=6.6						
BBRC	Big Bear Sol-O	70.21	61	⇓P	P	21 16 18.6	-0.4
	baz=70						
T13A	Saint George	70.23	57	⇓P	P	21 16 19.0	-0.2
	baz=70						
U12A	Valley of Fire	70.24	58	⇑P	P	21 16 19.3	+0.1
	baz=70						

MSU	Marysvale	70.26	55	eP	P	21 16 20.1	+0.8
TMUT	Trail Mountain	70.30	54	eP	P	21 16 20.2	+0.7
N19A	John Jarvie Ra	70.37	52	⇓P	P	21 16 19.9	-0.1
	baz=70						
ULM	Lac du Bonnet	70.38	38	P	P	21 16 19.1	-0.7
	comp=Z,1.5nm,0.4s,mb4.1,baz=330,slow=12,SNR=2.7						
ULM				pP	pP	21 16 51.9	-1.1
	comp=Z,3.6nm,0.6s,baz=319,slow=6.8,SNR=3.7						
MURC	Murrieta	70.47	62	⇑P	P	21 16 20.2	-0.5
	baz=70						
MBWA	Marble Bar	70.48	208	eP	P	21 16 20.4	-0.3
	comp=Z,1.9nm,0.6s,mb4.0						
M20A	Sweetwater, Wa	70.51	51	⇓P	P	21 16 21.1	+0.3
	baz=70						
V12A	Nelson	70.52	59	⇑P	P	21 16 21.1	+0.2
	baz=70						
Q16A	Castle Valley	70.57	54	⇓P	P	21 16 21.7	+0.5
	baz=70						
U13A	Pakoon Wash	70.59	58	⇑P	P	21 16 21.7	+0.3
	baz=70						
L21A	Rawlins	70.64	50	⇑P	P	21 16 21.9	+0.4
	baz=70						
GMRC	Granite Mounta	70.65	60	⇑P	P	21 16 21.5	-0.2
	baz=70,SNR=5.9						
T14A	Hurricane	70.69	57	⇓P	P	21 16 22.1	+0.2
	baz=70						
SUW	Suwalki	70.75	329	eP	P	21 16 21.0	-1.0
SUW	Suwalki	70.75	329	eP	P	21 16 21.0	-1.0
GNI	Garni	70.77	308	eP	P	21 16 22.4	0.0
GNI				e		21 19 00.0	
GNI				pmax	pmax		
	comp=Z,65nm,1.1s						
GNI	Garni	70.77	308	eP	P	21 16 22.4	0.0
	comp=Z,65nm,1.1s,mb5.3						
GNI				ePP	PP	21 19 00.0	-0.4
W12A	Cal Nev Ari	70.79	59	⇑P	P	21 16 22.9	+0.3
	baz=71						
SRU	San Rafael	70.81	54	⇑P	P	21 16 22.5	-0.2
	baz=71,SNR=27						
SRU	San Rafael	70.81	54	eP	P	21 16 22.9	+0.3
RSSD	Black Hills	70.91	46	eP	P	21 16 22.8	-0.3
RSSD				e*PP	pP	21 16 55.2	-1.1
AKASG	Malin Array Be	70.92	324	P	P	21 16 22.3	-0.8
AKASG				pmax	pmax		
	comp=Z,71nm,0.8s						
AKASG	Malin Array Be	70.92	324	P	P	21 16 22.2	-0.8
	comp=Z,71nm,0.8s,mb5.5,baz=36,slow=6.2,SNR=219						
KIEV	Kiev	70.93	324	eP	P	21 16 22.3	-0.8
KIEV				e		21 16 42.9	
KIEV				pmax	pmax		
	comp=Z,74nm,0.8s,mb5.5						
KIEV	Kiev	70.93	324	eP	P	21 16 22.3	-0.8
	comp=Z,74nm,0.8s,mb5.5						
KIEV				ePcP	PcP	21 16 42.9	+0.1
PFO	Pinyon Flat Ob	70.93	61	i P	P	21 16 23.4	0.0
PFO	Pinyon Flat Ob	70.93	61	⇓P	P	21 16 23.0	-0.4
	baz=71						
BELC	Belle Mtn.	70.95	61	⇑P	P	21 16 23.3	-0.3
	baz=71						
V13A	Grand Canyon W	70.96	58	⇓P	P	21 16 23.8	+0.2
	baz=71						
Q18A	Rafter H Ranch	71.04	54	⇓P	P	21 16 23.9	-0.1
	baz=71						
SOC	Sochi	71.13	313	c iP	P	21 16 24.5	0.0
SOC				e		21 16 43.7	
SOC				e		21 18 59.8	
SOC				eS	S	21 25 28.9	-1.1
SOC				pmax	pmax		
	comp=Z,67nm,0.7s,mb5.5						
T15A	Red Dirt Ranch	71.14	56	⇑P	P	21 16 24.9	+0.3
	baz=71						
IRM	Iron Mountain	71.37	60	⇓P	P	21 16 25.8	-0.3
	baz=71,SNR=7.5						
BAR	Barrett	71.41	62	eP	P	21 16 25.8	-0.6
O20A	White River Ci	71.41	52	⇑P	P	21 16 26.2	-0.1
	baz=71						
MONP	Monument Peak	71.43	62	⇑P	P	21 16 26.3	-0.2
	baz=71						
ANN	Anapa	71.44	315	eP	P	21 16 25.2	-1.1
ANN				e*PP	pP	21 16 56.7	-2.8
ANN				eS	S	21 25 31.4	-2.1
ANN				pmax	pmax		
	comp=Z,152nm,1.4s,mb5.5						
BC3	Big Chuckw Mtn	71.52	61	⇓P	P	21 16 26.8	-0.2
	baz=71						
V14A	Boquillas Ranc	71.64	58	⇑P	P	21 16 27.9	+0.2
	baz=72						
T16A	Glen Canyon Da	71.68	56	⇓P	P	21 16 27.4	-0.5
	baz=72						
P20A	De Beque	71.76	52	⇑P	P	21 16 28.1	-0.3
	baz=72						
DVTC	Desert V Tower	71.78	62	⇓P	P	21 16 28.4	-0.1
	baz=72						
SWSC	Sam W. Stewart	71.78	62	⇓P	P	21 16 27.9	-0.7
	baz=72						
X13A	Yucca	71.89	59	⇑P	P	21 16 29.2	0.0
	baz=72						
PDMCI	Parker Dam,Lak	71.90	60	⇓P	P	21 16 29.1	-0.2
	baz=72,SNR=5.2						
W14A	Seligman	71.93	58	⇓P	P	21 16 29.9	+0.5
	baz=72						
V15A	Kaibab Nationa	72.07	57	⇑P	P	21 16 30.4	+0.2
	baz=72						
T17A	Navajo Res., N	72.08	56	⇑P	P	21 16 29.8	-0.5
	baz=72						
PV04	Paradox Valley	72.23	53	eP	P	21 16 31.7	+0.6
U17A	Shonto	72.44	56	⇓P	P	21 16 32.9	+0.5
	baz=72						
X14A	Yava	72.55	59	⇓P	P	21 16 33.6	+0.5
	baz=72						
R20A	Redvale	72.67	53	⇓P	P	21 16 34.0	+0.2
	baz=72						
WUAZ	Wupatki	72.75	57	⇓P	P	21 16 34.3	0.0
	baz=73						
WUAZ	Wupatki	72.75	57	eP	P	21 16 35.1	+0.8
Y14A	Wickenburg	72.84	59	⇑P	P	21 16 34.9	+0.1
	baz=73						
X15A	Humboldt	72.93	58	⇓P	P	21 16 35.7	+0.3
	baz=73						
W16A	Flagstaff	72.94	57	⇓P	P	21 16 36.0	+0.6
	baz=73						
SIM	Simferopol’	72.96	317	eP	P	21 16 36.1	+0.7
SIM				pmax	pmax		
	comp=Z,65nm,0.8s,mb5.4						
Q22A	Crested Butte,	73.03	52	⇓P	P	21 16 36.6	+0.7
	baz=73						
113A	Mohawk Valley,	73.16	61	⇓P	P	21 16 36.8	0.0
	baz=73						
Y15A	Casa Rosa Ranc	73.24	59	⇓P	P	21 16 37.8	+0.6
	baz=73						
Z14A	Wintersburg	73.27	60	⇑P	P	21 16 37.6	+0.2
	baz=73						
MVCO	Mesa Verde	73.28	54	⇓P	P	21 16 37.2	-0.2
	baz=73						
MVCO	Mesa Verde	73.28	54	eP	P	21 16 37.6	+0.3
W17A	Winslow	73.44	57	⇓P	P	21 16 38.9	+0.6
	baz=73						
GKP	Gorka Klasztor	73.45	332	eP	P	21 16 38.0	-0.1
GKP	Gorka Klasztor	73.45	332	eP	P	21 16 38.0	-0.1
X16A	Lo Mia Camp, P	73.46	58	⇑P	P	21 16 39.1	+0.6
	baz=73						
V18A	Ganado	73.47	56	⇓P	P	21 16 39.2	+0.7
	baz=73						
R22A	Saguache, Gunn	73.56	52	⇓P	P	21 16 39.8	+0.8
	baz=73						
RGN	Rugen	73.64	334	eP	P	21 16 39.2	0.0
	comp=Z,89nm,0.9s,mb5.5						
RGN	Rugen	73.64	334	eP	P	21 16 38.8	-0.4
	comp=Z,87nm,0.9s,mb5.5						
LVV	L’vov	73.72	326	eP	P	21 16 39.1	-0.7
Y16A	Circle Bar Ran	73.81	58	⇓P	P	21 16 41.4	+0.8
	baz=74						
X17A	Forest Lakes	73.90	58	⇑P	P	21 16 41.9	+0.8
	baz=74						
HATD	Hatta, Dubai	73.98	289	P	P	21 16 42.4	+0.8
	SNR=6.9						
V19A	Window Rock	73.99	55	⇓P	P	21 16 42.2	+0.7
	baz=74						
115A	Sonoran Desert	74.16	60	⇑P	P	21 16 42.9	+0.4
	baz=74						
OGNE	Ogallala	74.20	48	eP	P	21 16 42.9	+0.2
W19A	Sanders	74.21	56	⇓P	P	21 16 43.7	+0.9
	baz=74						
X18A	Snowflake	74.28	57	⇓P	P	21 16 43.7	+0.4
	baz=74						
IAS	Iasi	74.30	322	P	P	21 16 43.1	0.0
214A	Organ Pipe Nat	74.31	61	⇓P	P	21 16 43.6	+0.1
	baz=74						
Y17A	Roosevelt	74.32	58	⇓P	P	21 16 43.3	-0.2
	baz=74						
KWP	Kalwaria Pacla	74.40	326	eP	P	21 16 44.2	+0.6
KWP	Kalwaria Pacla	74.40	326	⇑iP	P	21 16 44.1	+0.4
KWP	Kalwaria Pacla	74.40	326	eP	P	21 16 44.2	+0.5
116A	Eloy	74.57	59	⇓P	P	21 16 45.3	+0.4
	baz=74						
W20A	Ramah	74.72	56	⇓P	P	21 16 46.2	+0.4
	baz=74						
MVH1	Achvaich	74.94	345	eP	P	21 16 46.0	-0.6
BUR02	Bucovina Ar. S	74.97	324	P	P	21 16 47.4	+0.4
BURAR	Bucovina Array	74.97	324	⇑iP	P	21 16 47.1	+0.1
BURAR	Bucovina Array	74.97	324	⇑P	P	21 16 47.1	+0.1
OJC	Ojcow	75.04	328	i P	P	21 16 47.5	+0.2
BSEG	Bad Segeberg	75.08	336	eP	P	21 16 47.4	-0.1
BSEG				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.1						
BSEG	Bad Segeberg	75.08	336	eP	P	21 16 47.4	-0.1
	comp=Z,52nm,1.1s,mb5.1						
MCD	Coleburn Disti	75.08	344	⇑eP	P	21 16 46.5	-1.0
Y19A	Nutrioso	75.09	57	⇓P	P	21 16 48.6	+0.7
	baz=75						
216A	Three Points,	75.11	60	⇑P	P	21 16 48.5	+0.4
	baz=75						
KOLS	Kolonicke sedl	75.13	326	eP	P	21 16 48.0	+0.1
KOLS				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.9						
KOLS	Kolonicke sedl	75.13	326	eP	P	21 16 48.0	+0.1
KOLS	Kolonicke sedl	75.13	326	eP	P	21 16 48.0	+0.1
	comp=Z,30nm,1.0s,mb4.9						
STHS	Stebnicka Huta	75.14	327	eP	P	21 16 48.7	+0.8
STHS				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.0						
STHS	Stebnicka Huta	75.14	327	eP	P	21 16 48.7	+0.8
	comp=Z,32nm,0.9s,mb4.9						
117A	Oracle	75.16	59	⇓P	P	21 16 48.7	+0.4
	baz=75						
RUE	Ruedersdorf	75.26	333	eP	P	21 16 48.5	0.0
	comp=Z,105nm,1.2s,mb5.3						
RUE	Ruedersdorf	75.26	333	eP	P	21 16 47.8	-0.8
	comp=Z,28nm,0.6s,mb5.1						
UZH	Uzhgorod	75.36	326	⇓iP	P	21 16 48.5	-0.7
UZH				i		21 17 02.3	
UZH				e	pP	21 17 22.5	-0.3
MDO	Dochfour	75.43	345	eP	P	21 16 48.7	-0.7
CRVS	Cervenica-Dubn	75.47	327	eP	P	21 16 50.2	+0.4
CRVS				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
CRVS	Cervenica-Dubn	75.47	327	eP	P	21 16 50.2	+0.4
	comp=Z,18nm,0.8s,mb4.8						
NIE	Niedzica	75.50	328	i P	P	21 16 50.7	+0.7
KAC	Achnashellach	75.54	345	eP	P	21 16 49.6	-0.5
Z19A	T-Link Ranch,	75.55	57	⇑P	P	21 16 51.1	+0.6
	baz=75						
MALT	Malatya	75.56	310	eP	P	21 16 50.9	+0.4
MALT				e		21 17 03.2	
MALT				e		21 19 39.9	
MALT				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
MALT	Malatya	75.56	310	⇑iP	P	21 16 51.9	+1.4
MALT	Malatya	75.56	310	eP	P	21 16 50.9	+0.3
	comp=Z,13nm,0.8s,mb4.6						
MALT				ePcP	PcP	21 17 03.1	+0.3
MALT				ePP	PP	21 19 39.9	-1.2
HLG	Helgoland	75.56	337	eP	P	21 16 50.0	-0.2
	comp=Z,62nm,1.1s,mb5.2						
118A	Homack Ranch,	75.58	58	⇓P	P	21 16 51.1	+0.3
	baz=75						
BMR	Baia Mare	75.64	325	P	P	21 16 51.6	+0.8
217A	Green Valley	75.66	59	⇑P	P	21 16 51.8	+0.6
	baz=76						
TRPA	Tarpa	75.67	326	⇑iP	P	21 16 51.5	+0.5
VRI	Vrincioaia	75.69	322	⇑P	P	21 16 51.9	+0.8
VRI	Vrincioaia	75.69	322	⇑iP	P	21 16 51.8	+0.7
VRI	Vrincioaia	75.69	322	P	P	21 16 52.9	+1.8
PLOR	Plostina	75.73	322	⇑iP	P	21 16 53.0	+1.6
KPL	Plockton	75.76	345	⇑eP	P	21 16 50.9	-0.4
KPL				AMb	AMB	21 16 51.2	
	comp=Z,103nm,1.6s,mb5.2						
KSP	Ksiaz	75.79	331	eP	P	21 16 51.9	+0.2
KSP	Ksiaz	75.79	331	eP	P	21 16 51.5	-0.1
119A	Ashpeak Ranch,	75.89	58	⇓P	P	21 16 53.2	+0.7
	baz=76						
OKC	Ostrava-Krasne	75.96	329	⇑iP	P	21 16 52.5	-0.1
218A	Dragoon	75.99	59	⇑P	P	21 16 53.6	+0.5
	baz=76						
ANMO	Albuquerque	76.03	55	P	P	21 16 54.1	+0.8
ANMO				*PP	pP	21 17 25.7	-1.2
ANMO				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ANMO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ANMO	Albuquerque	76.03	55	P	P	21 16 54.0	+0.8
	comp=Z,3.5nm,1.0s,mb3.9,baz=316,slow=8.1,SNR=8.7						
ANMO				pP	pP	21 17 25.7	-1.2
	comp=Z,5.2nm,1.0s,baz=317,slow=5.5,SNR=3.4						
ANMO	Albuquerque	76.03	55	eP	P	21 16 52.2	-1.1
	comp=Z,4.8nm,0.7s,mb4.2						
ANMO				epP	pP	21 17 26.9	0.0
HARR	Harsova	76.06	320	⇑iP	P	21 16 53.2	-0.1
HARR	Harsova	76.06	320	P	P	21 16 53.5	+0.3
UPC	Upice	76.17	331	⇑iP	P	21 16 53.8	0.0
KAR1	Arisaig	76.19	345	eP	P	21 16 53.2	-0.6
KECS	Kecovo	76.19	327	eP	P	21 16 54.2	+0.3
KECS				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.6						
KECS	Kecovo	76.19	327	eP	P	21 16 54.2	+0.3
	comp=Z,12nm,0.9s,mb4.5						
DPC	Dobruska-Polom	76.19	330	⇑iP	P	21 16 54.3	+0.4
MORC	Moravsky Berou	76.23	329	P	P	21 16 54.5	+0.4
MORC	Moravsky Berou	76.23	329	⇑iP	P	21 16 54.3	+0.2
MORC	Moravsky Berou	76.23	329	eP	P	21 16 53.4	-0.7
	comp=Z,50nm,0.8s,mb5.2						
MIB	Mutribah	76.32	298	eP	P	21 16 54.9	-0.1
MIB				AMb	AMB	21 16 56.0	
	comp=Z,86nm,1.0s,mb5.3						
MLR	Muntele Rosu	76.32	322	P	P	21 16 55.6	+0.9
MLR	Muntele Rosu	76.32	322	⇓iP	P	21 16 55.2	+0.5
MLR	Muntele Rosu	76.32	322	⇑iP	P	21 16 55.5	+0.8
MLR	Muntele Rosu	76.32	322	⇑P	P	21 16 55.5	+0.8
EBH	Black Hill	76.39	344	⇑eP	P	21 16 54.4	-0.5
NRDL	Niedersach Rie	76.39	335	eP	P	21 16 54.6	-0.4
	comp=Z,59nm,1.4s,mb5.0						
318A	Bisbee	76.40	59	⇓P	P	21 16 55.7	+0.2
	baz=76						
120A	U Bar Ranch, L	76.45	58	⇑P	P	21 16 56.0	+0.3
	baz=76						
SCHQ	Schefferville	76.45	20	P	P	21 16 54.9	-0.4
	comp=Z,2.9nm,0.4s,mb4.3,baz=18,slow=6.2,SNR=23						
219A	White Tail Can	76.45	58	⇑P	P	21 16 55.9	+0.2
	baz=76						
CLL	Collm	76.51	333	⇑iP	P	21 16 55.2	-0.5
CLL				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.1						
CLL	Collm	76.51	333	eP	P	21 16 55.1	-0.6
	comp=Z,103nm,0.9s,mb5.5						
CLL	Collm	76.51	333	⇑iP	P	21 16 55.2	-0.5
	comp=Z,102nm,0.9s,mb5.5						
CLL	Collm	76.51	333	⇑iP	P	21 16 55.2	-0.5
	comp=Z,102nm,0.9s,mb5.5						
ESY	Stoneypath	76.52	343	eP	P	21 16 55.2	-0.4
BRG	Berggiesshubel	76.57	332	i P	P	21 16 55.7	-0.3
BRG				e		21 17 03.7	
BRG				e		21 19 47.0	
BRG				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.6						
BRG				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.1						
BRG				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.8						
BRG	Berggiesshubel	76.57	332	eP	P	21 16 55.7	-0.3
	comp=Z,38nm,1.2s,mb4.9						
BRG	Berggiesshubel	76.57	332	i P	P	21 16 55.7	-0.3
	comp=Z,26nm,1.0s,mb4.8						
BRG				e		21 17 03.7	
	comp=Z,10.0nm,1.1s						
BRG				e		21 19 47.0	
	comp=Z,5.3nm,1.2s						
STKA	Stephens Creek	76.57	185	P	P	21 16 54.9	-1.2
	comp=Z,2.1nm,0.8s,mb3.8,baz=343,slow=9.8,SNR=3.7						
EAB	Aberfoyle	76.60	344	eP	P	21 16 55.0	-1.1
PVCC	Panska Ves	76.65	331	⇑iP	P	21 16 56.6	+0.1
DRGR		76.67	325	⇑iP	P	21 16 56.7	+0.1
DRGR		76.67	325	P	P	21 16 57.2	+0.6
QRN	Al-Qurain	76.69	297	eP	P	21 16 57.2	+0.1
QRN				AMb	AMB	21 16 57.8	
	comp=Z,157nm,0.9s,mb5.7						
FBE	Freiberg	76.72	332	eP	P	21 16 56.7	-0.2
	comp=Z,65nm,1.1s,mb5.2						
EBL	Broad Law	76.74	344	eP	P	21 16 56.3	-0.5
EAU	Auchinoon	76.75	344	eP	P	21 16 56.6	-0.3
VOIR		76.76	322	P	P	21 16 57.7	+0.5
NAY	Al-Naaiem	76.76	298	eP	P	21 16 57.3	-0.2
NAY				AMb	AMB	21 16 58.5	
	comp=Z,59nm,1.1s,mb5.1						
RDF	Al-Radifah	76.79	298	eP	P	21 16 57.8	+0.1
RDF				AMb	AMB	21 16 58.6	
	comp=Z,133nm,0.7s,mb5.7						
VYHS	Vyhne	76.81	328	eP	P	21 16 57.8	+0.4
XSO	Sourhope Farm	76.84	343	eP	P	21 16 57.0	-0.4
319A	Douglas	76.88	59	⇓P	P	21 16 58.1	0.0
	baz=77						
CLZ	Clausthal	76.88	334	eP	P	21 16 57.9	+0.2
CLZ				pmax	pmax		
	comp=Z,161nm,1.5s,mb5.4						
CLZ	Clausthal	76.88	334	eP	P	21 16 57.9	+0.2
	comp=Z,161nm,1.5s,mb5.4						
PSZ	Piszkesteto	76.88	327	P	P	21 16 58.4	+0.6
PSZ	Piszkesteto	76.88	327	⇑iP	P	21 16 58.3	+0.5
PSZ	Piszkesteto	76.88	327	⇓ePcP	P	21 16 58.9	+1.1
PSZ	Piszkesteto	76.88	327	eP	P	21 16 57.7	-0.1
	comp=Z,80nm,1.5s,mb5.1						
CBKS	Cedar Bluff	76.96	48	eP	P	21 16 57.7	-0.8
VRAC	Vranov	76.97	330	⇓iP	P	21 16 58.7	+0.4
VRAC	Vranov	76.97	330	P	P	21 16 58.9	+0.6
PGBU	Glenifferbraes	76.98	344	eP	P	21 16 57.9	-0.4
PGBU				AMb	AMB	21 16 58.7	
	comp=Z,98nm,1.2s,mb5.3						
NEUB	Neuenburg	76.99	333	eP	P	21 16 58.0	-0.4
	comp=Z,99nm,1.2s,mb5.3						
BRTR	Keskin Array B	77.06	314	P	P	21 16 59.5	+0.5
BRTR						21 19 51.7	
BRTR				pmax	pmax		
	comp=Z,13nm,0.7s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	Keskin Array B	77.06	314	P	P	21 16 59.5	+0.5
	comp=Z,13nm,0.7s,mb4.7,baz=87,slow=2.8,SNR=46						
BRTR				PP	PP	21 19 51.7	-1.9
	comp=Z,1.8nm,0.9s,baz=77,slow=5.5,SNR=4.0						
WIT	Witteveen	77.11	337	eP	P	21 16 59.5	+0.5
	comp=Z,204nm,0.9s,mb5.8						
PRU	Pruhonice	77.12	331	⇑iP	P	21 16 59.3	+0.2
ESK	Eskdalemuir	77.20	343	⇑eP	P	21 16 59.0	-0.5
ESK				AMb	AMB	21 17 00.1	
	comp=Z,24nm,0.8s,mb4.9						
ESK	Eskdalemuir	77.20	343	i P	P	21 16 59.6	+0.2
ESK	Eskdalemuir	77.20	343	eP	P	21 16 59.2	-0.2
	comp=Z,17nm,0.6s,mb4.8						
IBBN	Ibbenburen	77.25	336	eP	P	21 16 59.5	-0.3
	comp=Z,61nm,0.9s,mb5.2						
ECK	Cauldkaine Hil	77.31	343	⇑eP	P	21 16 59.5	-0.5
SMOL	Smolenice	77.33	329	eP	P	21 17 01.4	+1.1
TREC	Trest	77.37	330	⇑iP	P	21 17 00.7	+0.2
XAL	Allendale	77.42	343	⇑eP	P	21 17 00.1	-0.5
TANN	Tannenbergstha	77.45	333	eP	P	21 17 00.8	-0.2
	comp=Z,14nm,0.9s,mb4.6						
WERD	Werda	77.47	333	eP	P	21 17 01.0	-0.1
	comp=Z,22nm,0.8s,mb4.8						
PLN	Plauen	77.49	333	eP	P	21 17 01.2	0.0
	comp=Z,56nm,1.0s,mb5.2						
MOX	Moxa	77.53	333	⇑iP	P	21 17 01.1	-0.3
	comp=Z,58nm,1.2s,mb5.1						
MOX	Moxa	77.53	333	⇑iP	P	21 17 01.1	-0.3
MOX				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.1						
MOX	Moxa	77.53	333	eP	P	21 17 01.2	-0.2
	comp=Z,49nm,1.2s,mb5.0						
GUNZ	Gunzen	77.54	333	eP	P	21 17 01.4	0.0
	comp=Z,31nm,0.8s,mb5.0						
BUD	Budapest	77.58	327	⇑ePcP	P	21 17 02.4	+0.7
WERN	Wernitzgruen	77.59	332	eP	P	21 17 01.7	0.0
	comp=Z,48nm,1.2s,mb5.0						
NKC	Novy Kostel	77.61	332	⇑iP	P	21 17 01.7	-0.2
ZST	Bratislava	77.71	329	eP	P	21 17 03.4	+1.0
ZST				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.6						
ZST	Bratislava	77.71	329	eP	P	21 17 03.4	+1.0
	comp=Z,15nm,0.9s,mb4.6						
GZR	Gura Zlata	77.76	324	⇑iP	P	21 17 02.5	-0.3
GZR	Gura Zlata	77.76	324	P	P	21 17 02.8	0.0
WTSB	Winterswijk	77.83	336	eP	P	21 17 02.5	-0.5
	comp=Z,64nm,0.8s,mb5.3						
UBBA	Unterbreizbach	77.89	334	eP	P	21 17 03.2	-0.2
	comp=Z,22nm,0.8s,mb4.8						
GAL1	Galloway	77.92	344	⇑eP	P	21 17 02.6	-0.9
GAL1				AMb	AMB	21 17 04.0	
	comp=Z,42nm,0.9s,mb5.1						
MANZ	Manzenberg	77.94	332	eP	P	21 17 03.6	-0.1
	comp=Z,29nm,1.2s,mb4.8						
BZS	Buzias	78.06	325	⇑iP	P	21 17 03.8	-0.6
BZS	Buzias	78.06	325	P	P	21 17 04.8	+0.4
ROTZ	Rotzenmuhle	78.09	332	eP	P	21 17 04.9	+0.4
	comp=Z,30nm,1.0s,mb4.9						
HPK	Haverah Park	78.13	342	⇑eP	P	21 17 04.1	-0.5
HPK				AMb	AMB	21 17 05.7	
	comp=Z,100nm,0.8s,mb5.5						
BUG	Bochum--Univer	78.16	336	eP	P	21 17 04.5	-0.4
	comp=Z,50nm,1.0s,mb5.1						
KHC	Kasperske Hory	78.18	331	⇑iP	P	21 17 05.3	+0.3
KHC				ePCP	PcP	21 17 11.0	-3.0
SOP	Sopron	78.34	329	⇑ePcP	P	21 17 06.8	+0.9
GEC2	GERESS Array S	78.38	331	eP	P	21 17 06.0	-0.1
GEC2				pmax	pmax		
	comp=Z,30nm,1.3s,mb4.8						
GEC2	GERESS Array S	78.38	331	eP	P	21 17 06.0	-0.1
	comp=Z,30nm,1.3s,mb4.8						
GERES	GERESS Array B	78.38	331	P	P	21 17 05.9	-0.2
GERES				pmax	pmax		
	comp=Z,7.0nm,0.4s						
GERES	GERESS Array B	78.38	331	P	P	21 17 05.9	-0.2
	comp=Z,6.9nm,0.4s,mb4.6,baz=38,slow=5.9,SNR=92						
CONA	Conrad Observa	78.39	329	i P	P	21 17 06.9	+0.7
	comp=Z,52nm,1.5s,mb5.0,SNR=18						
CSNA	Conrad Observa	78.39	329	⇑iP	P	21 17 06.8	+0.6
	comp=Z,46nm,1.4s,mb4.9						
WET	Wettzell	78.40	332	eP	P	21 17 06.7	+0.5
WET				pmax	pmax		
	comp=Z,62nm,1.2s,mb5.1						
WET	Wettzell	78.40	332	eP	P	21 17 06.7	+0.5
	comp=Z,62nm,1.2s,mb5.1						
GRA1	Grafenberg Arr	78.48	333	eP	P	21 17 06.9	+0.2
	comp=Z,115nm,0.9s,mb5.5						
GRF	Grafenberg Arr	78.48	333	eP	P	21 17 06.9	+0.2
GRF				pmax	pmax		
	comp=Z,115nm,0.9s,mb5.5						
GRF	Grafenberg Arr	78.48	333	eP	P	21 17 06.9	+0.2
	comp=Z,115nm,0.9s,mb5.5						
AMTX	Amarillo	78.80	52	eP	P	21 17 08.3	-0.4
	comp=Z,21nm,0.9s,mb4.8						
AMTX				epP	pP	21 17 41.6	-0.9
TNS	Taunus Mts	78.89	335	eP	P	21 17 08.8	-0.1
TNS				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.2						
TNS	Taunus Mts	78.89	335	eP	P	21 17 08.8	-0.1
	comp=Z,58nm,1.0s,mb5.2						
MOA	Molln	79.03	330	⇑iP	P	21 17 09.7	0.0
	comp=Z,8.2nm,0.8s,mb4.4						
ARSA	Arzberg	79.08	329	⇑iP	P	21 17 10.1	+0.1
	comp=Z,8.2nm,0.7s,mb4.5						
HGN	Heimansgroeve	79.15	336	eP	P	21 17 09.8	-0.5
	comp=Z,41nm,0.8s,mb5.1						
BEBN	Eben Emael	79.19	337	P	P	21 17 10.2	-0.3
	comp=Z,19nm,1.0s,mb4.7						
CWF	Charnwood Fore	79.20	341	eP	P	21 17 09.7	-0.8
CWF				AMb	AMB	21 17 12.2	
	comp=Z,44nm,1.5s,mb4.9						
GDL2	Guadalupe Moun	79.22	55	eP	P	21 17 11.5	+0.5
DMUB	Kingscourt	79.25	345	⇑iP	P	21 17 10.6	-0.2
MEM	Membach	79.27	336	P	P	21 17 10.5	-0.4
	comp=Z,26nm,1.1s,mb4.8						
TOD	Tromm	79.32	334	eP	P	21 17 11.1	-0.1
SBD1	Bryn Du	79.47	343	⇑iP	P	21 17 11.8	-0.1
UCC	Uccle	79.56	337	P	P	21 17 11.5	-1.0
BCLA	Clavier	79.64	337	P	P	21 17 12.5	-0.4
	comp=Z,13nm,0.8s,mb4.6						
RJOB	Jochberg	79.64	331	eP	P	21 17 13.5	+0.5
	comp=Z,24nm,1.3s,mb4.7						
SOKA	Soboth	79.75	329	⇑iP	P	21 17 13.6	0.0
	comp=Z,35nm,1.3s,mb4.8						

PERS	**Pernice**	79.75	329	*e*P	P	21 17 13.3	-0.3
DLF	**Lyons Farm**	79.76	345	⇑*i*P	P	21 17 13.2	-0.3
RUP	**Ruppelstein**	79.77	335	*e*P	P	21 17 13.3	-0.4
DSB	**Dublin**	79.78	345	*e*P	P	21 17 13.3	-0.3
	comp=Z,26nm,1.2s,mb4.7						
FUR	**Furstenfeldbru**	79.79	332	*e*P	P	21 17 14.1	+0.3
FUR				pmax	pmax		
	comp=Z,79nm,1.2s,mb5.2						
FUR	**Furstenfeldbru**	79.79	332	*e*P	P	21 17 14.1	+0.3
	comp=Z,79nm,1.2s,mb5.2						
SNF	**Seneffe**	79.84	337	P	P	21 17 13.7	-0.3
	comp=Z,14nm,1.5s,mb4.4						
DCN	**Croghan**	79.85	345	⇑*i*P	P	21 17 13.8	-0.2
STU	**Stuttgart**	79.93	334	*e*P	P	21 17 14.0	-0.6
STU				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.8						
STU	**Stuttgart**	79.93	334	*e*P	P	21 17 14.8	+0.2
	comp=Z,41nm,0.9s,mb5.1						
STU	**Stuttgart**	79.93	334	*e*P	P	21 17 14.0	-0.6
	comp=Z,15nm,0.6s,mb4.8						
KBA	**Koelnbreinsper**	80.01	330	⇓*i*P	P	21 17 15.7	+0.6
	comp=Z,31nm,1.2s,mb4.8,SNR=14						
GIVF	**Givet**	80.06	337	⇑*i*P	P	21 17 14.7	-0.5
	comp=Z,21nm,0.7s,mb4.6						
GIVF	**Givet**	80.06	337	⇑*i*P	P	21 17 14.7	-0.5
GIVF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.6						
GIVF	**Givet**	80.06	337	⇑*i*P	P	21 17 14.7	-0.5
	comp=Z,11nm,0.7s,mb4.6						
WLF	**Walferdange**	80.07	336	P	P	21 17 15.6	+0.3
ISP	**Isparta**	80.08	314	*e*P	P	21 17 15.2	-0.4
ISP				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
ISP	**Isparta**	80.08	314	⇑*i*P	P	21 17 16.7	+1.1
ISP	**Isparta**	80.08	314	*e*P	P	21 17 15.2	-0.4
	comp=Z,18nm,0.8s,mb4.8						
ISP				PcP	PcP	21 17 22.1	-0.4
TFO1	**Folkestone**	80.11	339	*e*P	P	21 17 15.2	-0.2
TFO1				AMb	AMB	21 17 16.6	
	comp=Z,131nm,1.1s,mb5.5						
TFO1	**Folkestone**	80.11	339	P	P	21 17 15.2	-0.2
TFO1				AMb	AMB	21 17 16.6	
	comp=Z,131nm,1.1s,mb5.5						
DOU	**Dourbes**	80.12	337	P	P	21 17 15.0	-0.6
	comp=Z,12nm,1.6s,mb4.3						
LANF	**Langenberg**	80.18	334	*e*P	P	21 17 15.7	-0.2
HTR	**Trewern Hill**	80.25	342	⇑*i*P	P	21 17 16.0	-0.2
MCH1	**Michaelchurch**	80.26	342	⇑*e*P	P	21 17 16.0	-0.3
MCH1				AMb	AMB	21 17 17.2	
	comp=Z,58nm,1.2s,mb5.1						
BAIF	**Baives**	80.27	337	⇑*i*P	P	21 17 16.0	-0.3
	comp=Z,32nm,1.0s,mb4.6						
BAIF	**Baives**	80.27	337	⇑*i*P	P	21 17 16.0	-0.3
BAIF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.6						
BAIF	**Baives**	80.27	337	⇑*i*P	P	21 17 16.0	-0.3
	comp=Z,16nm,1.0s,mb4.6						
MENF	**Mencas**	80.36	339	*e*P	P	21 17 16.4	-0.4
WATA	**Walderalm**	80.41	331	⇓*i*P	P	21 17 17.4	+0.2
	comp=Z,16nm,0.5s,mb5.0,SNR=13						
WTTA	**Wattenberg**	80.45	331	⇑*i*P	P	21 17 17.7	+0.4
	comp=Z,16nm,0.5s,mb5.0						
WOL	**Wolverton**	80.50	341	⇑*e*P	P	21 17 16.9	-0.7
WOL				AMb	AMB	21 17 20.0	
	comp=Z,118nm,2.0s,mb5.2						
WMOK	**Wichita Mounta**	80.51	50	P	P	21 17 17.5	-0.4
RETA	**Reutte**	80.55	332	⇑*i*P	P	21 17 17.9	0.0
	comp=Z,17nm,1.0s,mb4.6						
MOTA	**Moosalm**	80.56	332	⇓*i*P	P	21 17 18.0	+0.1
	comp=Z,15nm,0.7s,mb4.7,SNR=12						
HGH	**Gray Hill**	80.56	342	⇑*e*P	P	21 17 17.4	-0.4
VISS	**Visnje**	80.56	329	*e*P	P	21 17 17.5	-0.5
PTCC	**Patocco-Chiusa**	80.59	330	P	P	21 17 17.1	-1.0
BFO	**Black Forest**	80.59	334	*e*P	P	21 17 18.0	-0.1
BFO				pmax	pmax		
	comp=Z,26nm,1.2s,mb4.7						
BFO	**Black Forest**	80.59	334	*e*P	P	21 17 18.0	-0.1
	comp=Z,26nm,1.2s,mb4.7						
SPAK	**Spaichingen-Ko**	80.65	333	*e*P	P	21 17 18.2	-0.2
BOJS	**Bojanci**	80.66	328	*i* P	P	21 17 18.1	-0.4
JAVS	**Javornik**	80.77	329	*e*P	P	21 17 18.1	-1.0
CSS	**Prodhromos**	80.79	311	*e*P	P	21 17 19.6	+0.2
	comp=Z,29nm,0.9s,mb4.9						
CDF	**Champ du Feu**	80.85	335	⇑*i*P	P	21 17 19.3	-0.2
	comp=Z,53nm,1.0s,mb4.8						
CDF	**Champ du Feu**	80.85	335	⇑*i*P	P	21 17 19.3	-0.2
CDF				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.8						
CDF	**Champ du Feu**	80.85	335	⇑*i*P	P	21 17 19.3	-0.2
	comp=Z,26nm,1.0s,mb4.8						
FETA	**Feichten**	80.97	332	⇑*i*P	P	21 17 20.3	+0.2
	comp=Z,12nm,1.2s,mb4.4						
LIBD	**Limburg**	80.98	334	*e*P	P	21 17 20.0	-0.2
DAVA	**Damuels**	81.02	332	⇑*i*P	P	21 17 20.4	0.0
	comp=Z,16nm,0.8s,mb4.7						
ECH	**Echery**	81.06	335	*e*P	P	21 17 20.0	-0.6
ECH				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.6						
ECH	**Echery**	81.06	335	*e*P	P	21 17 19.9	-0.6
	comp=Z,15nm,1.0s,mb4.6						
ECH				*e*PcP	PcP	21 17 26.5	-0.1
SKO	**Skopje**	81.10	323	*e*P	P	21 17 22.0	+1.1
FELD	**Feldberg im Sc**	81.10	334	*e*P	P	21 17 20.4	-0.4
VAY	**Valandovo**	81.13	321	*e*P	P	21 17 21.1	0.0
APPI	**Appiano**	81.27	331	P	P	21 17 21.0	-0.7
	comp=Z,103nm,3.0s						
HEX	**Exmoor**	81.31	342	⇑*e*P	P	21 17 21.6	-0.2
MOF	**Molkenrain**	81.39	334	*e*P	P	21 17 21.7	-0.6
THEF	**They Montfort**	81.40	335	*e*P	P	21 17 21.9	-0.5
MEZF	**Maizieres J’vi**	81.43	336	*e*P	P	21 17 22.5	0.0
	comp=Z,22nm,0.6s,mb4.7						
MEZF	**Maizieres J’vi**	81.43	336	*e*P	P	21 17 22.5	0.0
	comp=Z,22nm,0.6s,mb5.0						
HAU	**Haudompre**	81.49	335	*e*P	P	21 17 22.3	-0.6
	comp=Z,18nm,0.8s,mb4.4						
HAU	**Haudompre**	81.49	335	*e*P	P	21 17 22.3	-0.6
HAU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
HAU	**Haudompre**	81.49	335	*e*P	P	21 17 22.3	-0.6
	comp=Z,8.9nm,0.8s,mb4.5						
HINF	**Hinteralfeld**	81.51	335	⇑*i*P	P	21 17 22.3	-0.7
BBS	**Basel-Blauen**	81.62	334	*e*P	P	21 17 23.4	-0.1
KRUS	**Krusevo**	81.67	322	*e*P	P	21 17 23.6	-0.3
TXAR	**Lajitas Array**	81.71	57	P	P	21 17 24.3	-0.1
TXAR				*PP	pP	21 17 56.5	-1.9
TXAR				pmax	pmax		
	comp=Z,12nm,0.6s						
TXAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
TXAR	**Lajitas Array**	81.71	57	P	P	21 17 24.3	-0.1
	comp=Z,12nm,0.6s,mb4.7,baz=301,slow=4.1,SNR=132						
TXAR				pP	pP	21 17 56.5	-1.9
	comp=Z,10nm,0.6s,baz=280,slow=3.6,SNR=12						
TXAR	**Lajitas Array**	81.71	57	P	P	21 17 24.3	-0.1
TXAR				pP	pP	21 17 56.5	-1.9
TUE	**Stuetta**	81.91	332	*e*P	P	21 17 24.9	-0.2
	comp=Z,9.7nm,0.6s,mb4.6						
TUE				*e*PcP	PcP	21 17 28.8	-1.5
LOMF	**Lomont**	81.93	334	*e*P	P	21 17 25.0	-0.2
DYA	**Yadsworthy**	81.94	342	*e*P	P	21 17 24.1	-1.0
DYA				AMb	AMB	21 17 26.1	
	comp=Z,81nm,1.2s,mb5.2						
DYA	**Yadsworthy**	81.94	342	P	P	21 17 24.1	-1.0
DYA				AMb	AMB	21 17 26.1	
	comp=Z,81nm,1.2s,mb5.2						
OHR	**Ohrid**	82.08	322	*e*P	P	21 17 24.2	-1.8
NWAO	**Narrogin (SRO)**	82.22	205	P	P	21 17 26.2	-0.5
VAI	**Varese**	82.63	332	P	P	21 17 28.1	-0.7
VAI				pmax	pmax		
	comp=Z,49nm,1.3s,mb5.1						
VAI	**Varese**	82.63	332	P	P	21 17 28.1	-0.7
	comp=Z,49nm,1.3s,mb5.1						
FLN	**La Foliniere**	82.69	339	⇑*i*P	P	21 17 28.7	-0.4
	comp=Z,31nm,0.6s,mb4.9						
FLN	**La Foliniere**	82.69	339	⇑*i*P	P	21 17 28.7	-0.4
FLN				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.9						
FLN	**La Foliniere**	82.69	339	⇑*i*P	P	21 17 28.7	-0.4
	comp=Z,15nm,0.6s,mb4.9						
LDF	**La Druitiere**	82.75	339	⇑*i*P	P	21 17 29.0	-0.4
	comp=Z,16nm,0.7s,mb4.5						
LDF	**La Druitiere**	82.75	339	⇑*i*P	P	21 17 29.0	-0.4
LDF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.6						
LDF	**La Druitiere**	82.75	339	⇑*i*P	P	21 17 29.0	-0.4
	comp=Z,7.8nm,0.7s,mb4.5						
CABF	**La Chapelle**	82.82	334	*e*P	P	21 17 29.8	0.0
	comp=Z,9.7nm,0.8s,mb4.3						
CABF	**La Chapelle**	82.82	334	*e*P	P	21 17 29.8	0.0
CABF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
CABF	**La Chapelle**	82.82	334	*e*P	P	21 17 29.8	0.0
	comp=Z,4.8nm,0.8s,mb4.3						
LOR	**Lormes**	82.89	336	⇑*i*P	P	21 17 29.7	-0.5
	comp=Z,14nm,0.5s,mb4.6						
LOR	**Lormes**	82.89	336	⇑*i*P	P	21 17 29.7	-0.5
LOR				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.7						
LOR	**Lormes**	82.89	336	⇑*i*P	P	21 17 29.7	-0.5
	comp=Z,7.2nm,0.5s,mb4.7						
FSSB	**Fossombrone**	83.13	329	P	P	21 17 31.5	0.0
	comp=Z,114nm,1.7s,mb5.3						
GRR	**Gorron**	83.13	339	⇑*i*P	P	21 17 31.3	-0.1
	comp=Z,48nm,0.6s,mb5.1						
GRR	**Gorron**	83.13	339	⇑*i*P	P	21 17 31.3	-0.1
GRR				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.1						
GRR	**Gorron**	83.13	339	⇑*i*P	P	21 17 31.3	-0.1
	comp=Z,24nm,0.6s,mb5.1						
SSF	**Saint Saulge**	83.18	336	⇑*i*P	P	21 17 31.3	-0.4
	comp=Z,21nm,0.9s,mb4.6						
SSF	**Saint Saulge**	83.18	336	⇑*i*P	P	21 17 31.3	-0.4
SSF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
SSF	**Saint Saulge**	83.18	336	⇑*i*P	P	21 17 31.3	-0.4
	comp=Z,10nm,0.9s,mb4.6						
VMG	**Vicchio**	83.34	330	P	P	21 17 33.7	+1.1
MIAR	**Mount Ida**	83.42	47	*e*P	P	21 17 33.1	0.0
SMF	**Signal de Mont**	83.46	336	⇑*i*P	P	21 17 32.9	-0.2
	comp=Z,50nm,1.0s,mb4.9						
SMF	**Signal de Mont**	83.46	336	⇑*i*P	P	21 17 32.9	-0.2
SMF				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.9						
SMF	**Signal de Mont**	83.46	336	⇑*i*P	P	21 17 32.9	-0.2
	comp=Z,25nm,1.0s,mb4.9						
AVF	**Avril sur Loir**	83.47	336	⇑*i*P	P	21 17 33.0	-0.2
	comp=Z,19nm,0.7s,mb4.6						
AVF	**Avril sur Loir**	83.47	336	⇑*i*P	P	21 17 33.0	-0.2
AVF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
AVF	**Avril sur Loir**	83.47	336	⇑*i*P	P	21 17 33.0	-0.2
	comp=Z,9.6nm,0.7s,mb4.6						
LPL	**La Plagne**	83.60	334	⇑*i*P	P	21 17 34.2	+0.4
	comp=Z,13nm,0.7s,mb4.5						
LPL	**La Plagne**	83.60	334	⇑*i*P	P	21 17 34.2	+0.4
LPL				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
LPL	**La Plagne**	83.60	334	⇑*i*P	P	21 17 34.2	+0.4
	comp=Z,6.3nm,0.7s,mb4.5						
LPG	**La Plagne**	83.61	334	⇑*i*P	P	21 17 34.4	+0.5
	comp=Z,18nm,0.7s,mb4.6						
LPG	**La Plagne**	83.61	334	⇑*i*P	P	21 17 34.4	+0.5
LPG				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.6						
LPG	**La Plagne**	83.61	334	⇑*i*P	P	21 17 34.4	+0.5
	comp=Z,9.0nm,0.7s,mb4.6						
SGMF	**Saint Gilles**	83.67	341	⇑*i*P	P	21 17 34.1	0.0
	comp=Z,22nm,0.6s,mb4.8						
SGMF	**Saint Gilles**	83.67	341	⇑*i*P	P	21 17 34.1	0.0
SGMF				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.8						
SGMF	**Saint Gilles**	83.67	341	⇑*i*P	P	21 17 34.1	0.0
	comp=Z,11nm,0.6s,mb4.8						
NRCA	**Norcia**	83.74	328	P	P	21 17 34.8	+0.2
ROSF	**Rostrenen**	83.76	341	*e*P	P	21 17 34.6	0.0
	comp=Z,38nm,0.8s,mb4.9						
ROSF	**Rostrenen**	83.76	341	*e*P	P	21 17 34.6	0.0
ROSF				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.9						
ROSF	**Rostrenen**	83.76	341	*e*P	P	21 17 34.6	0.0
	comp=Z,19nm,0.8s,mb4.9						
BGF	**Bois d’Agland**	83.83	336	*e*P	P	21 17 35.3	+0.3
	comp=Z,12nm,0.6s,mb4.5						
BGF	**Bois d’Agland**	83.83	336	*e*P	P	21 17 35.3	+0.3
BGF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
BGF	**Bois d’Agland**	83.83	336	*e*P	P	21 17 35.3	+0.3
	comp=Z,5.8nm,0.6s,mb4.5						
BNI	**Bardonecchia**	84.03	333	*e*P	P	21 17 35.4	-0.6
BNI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
BNI	**Bardonecchia**	84.03	333	*e*P	P	21 17 35.4	-0.6
	comp=Z,4.3nm,0.6s,mb4.4						
BNI				*e*PcP	PcP	21 17 40.3	+0.6
QUIF	**Quistinic**	84.13	341	⇑*i*P	P	21 17 36.4	-0.1
	comp=Z,16nm,0.5s,mb4.7						
QUIF	**Quistinic**	84.13	341	⇑*i*P	P	21 17 36.4	-0.1
QUIF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.7						
QUIF	**Quistinic**	84.13	341	⇑*i*P	P	21 17 36.4	-0.1
	comp=Z,8.0nm,0.5s,mb4.7						
PLDF	**La Plantade**	84.14	336	*e*P	P	21 17 37.6	+1.0
AGO	**Saint Agoulin**	84.21	336	*e*P	P	21 17 36.9	0.0
TCF	**Toulx Ste Croi**	84.25	337	⇑*i*P	P	21 17 37.2	+0.1
	comp=Z,64nm,1.5s,mb4.8						
TCF	**Toulx Ste Croi**	84.25	337	⇑*i*P	P	21 17 37.2	+0.1
TCF				pmax	pmax		
	comp=Z,32nm,1.5s,mb4.8						
TCF	**Toulx Ste Croi**	84.25	337	⇑*i*P	P	21 17 37.2	+0.1
	comp=Z,32nm,1.5s,mb4.8						
MBDF	**Montbardon**	84.29	333	⇑*i*P	P	21 17 37.1	-0.3
	comp=Z,12nm,0.4s,mb4.6						
MBDF	**Montbardon**	84.29	333	⇑*i*P	P	21 17 37.1	-0.3
MBDF				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.7						
MBDF	**Montbardon**	84.29	333	⇑*i*P	P	21 17 37.1	-0.3
	comp=Z,5.8nm,0.4s,mb4.7						
ORIF	**Oris-en-Rattie**	84.40	334	⇑*i*P	P	21 17 38.2	+0.3
	comp=Z,22nm,0.7s,mb4.7						
ORIF	**Oris-en-Rattie**	84.40	334	⇑*i*P	P	21 17 38.2	+0.3
ORIF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.7						
ORIF	**Oris-en-Rattie**	84.40	334	⇑*i*P	P	21 17 38.2	+0.3
	comp=Z,11nm,0.7s,mb4.7						
MFF	**Saint Martin d**	84.60	338	⇑*i*P	P	21 17 39.2	+0.3
	comp=Z,37nm,0.8s,mb4.8						
MFF	**Saint Martin d**	84.60	338	⇑*i*P	P	21 17 39.2	+0.3
MFF				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.9						
MFF	**Saint Martin d**	84.60	338	⇑*i*P	P	21 17 39.2	+0.3
	comp=Z,18nm,0.8s,mb4.9						
VIVF	**Saint-Julien-l**	84.83	335	⇑*i*P	P	21 17 40.3	+0.2
	comp=Z,21nm,0.8s,mb4.6						
VIVF	**Saint-Julien-l**	84.83	335	⇑*i*P	P	21 17 40.3	+0.2
VIVF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
VIVF	**Saint-Julien-l**	84.83	335	⇑*i*P	P	21 17 40.3	+0.2
	comp=Z,11nm,0.8s,mb4.6						
SBF	**Sospel**	84.84	332	*e*P	P	21 17 39.6	-0.6
	comp=Z,22nm,0.6s,mb4.8						
SBF	**Sospel**	84.84	332	*e*P	P	21 17 39.6	-0.6
SBF				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.8						
SBF	**Sospel**	84.84	332	*e*P	P	21 17 39.6	-0.6
	comp=Z,11nm,0.6s,mb4.8						
LBL	**Lubilhac**	84.92	336	*e*P	P	21 17 40.5	0.0
SMRF	**Simiane la Rot**	85.34	334	*e*P	P	21 17 43.0	+0.4
	comp=Z,14nm,0.9s,mb4.4						
SMRF	**Simiane la Rot**	85.34	334	*e*P	P	21 17 43.0	+0.4
	comp=Z,14nm,0.9s,mb4.7						
RJF	**Les Rejaudoux**	85.35	337	*e*P	P	21 17 43.0	+0.4
	comp=Z,6.1nm,0.7s,mb4.2						
RJF	**Les Rejaudoux**	85.35	337	*e*P	P	21 17 43.0	+0.4
RJF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
RJF	**Les Rejaudoux**	85.35	337	*e*P	P	21 17 43.0	+0.4
	comp=Z,3.0nm,0.7s,mb4.1						
FRF	**La Foret Royal**	85.37	333	*e*P	P	21 17 42.3	-0.5
	comp=Z,13nm,0.8s,mb4.4						
FRF	**La Foret Royal**	85.37	333	*e*P	P	21 17 42.3	-0.5
FRF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
FRF	**La Foret Royal**	85.37	333	*e*P	P	21 17 42.3	-0.5
	comp=Z,6.4nm,0.8s,mb4.4						
PGF	**Pioggiola**	85.48	331	*e*P	P	21 17 42.7	-0.6
	comp=Z,11nm,0.7s,mb4.4						
PGF	**Pioggiola**	85.48	331	*e*P	P	21 17 42.7	-0.6
PGF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
PGF	**Pioggiola**	85.48	331	*e*P	P	21 17 42.7	-0.6
	comp=Z,5.3nm,0.7s,mb4.4						
CAF	**Calviac**	85.54	336	⇑*i*P	P	21 17 44.0	+0.4
	comp=Z,27nm,0.9s,mb4.7						
CAF	**Calviac**	85.54	336	⇑*i*P	P	21 17 44.0	+0.4
CAF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
CAF	**Calviac**	85.54	336	⇑*i*P	P	21 17 44.0	+0.4
	comp=Z,13nm,0.9s,mb4.7						
LMR	**La Mourre**	85.62	333	⇑*i*P	P	21 17 43.6	-0.4
	comp=Z,36nm,0.9s,mb4.8						
LMR	**La Mourre**	85.62	333	⇑*i*P	P	21 17 43.6	-0.4
LMR				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
LMR	**La Mourre**	85.62	333	⇑*i*P	P	21 17 43.6	-0.4
	comp=Z,18nm,0.9s,mb4.8						
LASF	**Ste Croix**	85.79	335	*e*P	P	21 17 44.9	+0.1
	comp=Z,18nm,1.0s,mb4.5						
LFF	**La Frestale**	85.90	337	⇑*i*P	P	21 17 45.7	+0.3
	comp=Z,17nm,0.5s,mb4.7						
LFF	**La Frestale**	85.90	337	⇑*i*P	P	21 17 45.7	+0.3
LFF				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.8						
LFF	**La Frestale**	85.90	337	⇑*i*P	P	21 17 45.7	+0.3
	comp=Z,8.6nm,0.5s,mb4.7						
MTLF	**Montolieu**	86.95	336	*e*P	P	21 17 50.8	+0.3
	comp=Z,12nm,0.8s,mb4.5						
MTLF	**Montolieu**	86.95	336	*e*P	P	21 17 50.8	+0.3
MTLF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
MTLF	**Montolieu**	86.95	336	*e*P	P	21 17 50.8	+0.3
	comp=Z,5.9nm,0.8s,mb4.5						
TKL	**Tuckaleechee C**	87.30	40	P	P	21 17 50.8	-1.6
TKL				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
TKL	**Tuckaleechee C**	87.30	40	P	P	21 17 50.8	-1.6
	comp=Z,3.7nm,0.6s,mb4.4,baz=115,slow=1.9,SNR=4.2						
ETSF	**Etsaut**	88.14	337	⇑*i*P	P	21 17 57.1	+0.9
	comp=Z,9.9nm,0.6s,mb4.5						
ETSF	**Etsaut**	88.14	337	⇑*i*P	P	21 17 57.1	+0.9
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
ETSF	**Etsaut**	88.14	337	⇑*i*P	P	21 17 57.1	+0.9
	comp=Z,4.9nm,0.6s,mb4.5						
KEST	**Kesra**	91.35	327	P	P	21 18 10.8	-0.6
	comp=Z,1.2nm,0.8s,mb4.0,baz=62,slow=6.6,SNR=7.3						
ESDC	**Sonseca Array**	92.07	338	P	P	21 18 13.8	-0.7
	comp=Z,1.0nm,0.6s,mb4.0,baz=8.0,slow=3.3,SNR=5.5						
TORD	**Torodi Ar. Bea**	114.55	323	PKP	PKiKP	21 23 44.0	-1.3
	comp=Z,0.5nm,0.4s,baz=17,slow=2.0,SNR=18						
TORD				PP	PP	21 24 37.3	-5.8
	comp=Z,1.8nm,0.8s,baz=12,slow=8.1,SNR=6.5						
DBIC	**Dimbokro**	123.08	327	PKIKP	PKPdf	21 24 00.0	-1.8
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.7s						
DBIC	**Dimbokro**	123.08	327	PKP	PKPdf	21 23 60.0	-1.8
	comp=Z,2.4nm,0.8s,baz=50,slow=3.3,SNR=4.1						
DBIC				PP	PP	21 25 37.1	-4.8
	comp=Z,3.9nm,0.7s,baz=351,slow=8.8,SNR=5.7						
DBIC	**Dimbokro**	123.08	327	PKP	PKPdf	21 23 60.0	-1.8
DBIC				PP	PP	21 25 37.1	-4.8
VNA2	**Neumayer--Watz**	151.16	197	*e*PKPdf	PKPbc	21 24 57.2	+0.5
	baz=128,slow=1.7						
VNA2				*e*		21 25 03.3	
VNA2				*e*		21 25 32.7	
VNA2				*e*		21 25 44.4	
VNA3	**Neumayer Olymp**	151.35	195	*e*PKPdf	PKPbc	21 24 57.8	+0.7
VNA3				*e*		21 25 03.5	
VNA3				*e*		21 25 32.7	
VNA3				*e*		21 25 44.7	
PLCA	**Paso Flores**	151.81	95	PKIKP	PKPbc	21 24 59.2	0.0
PLCA						21 25 06.4	
PLCA						21 25 34.8	
PLCA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
PLCA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PLCA				pmax	pmax		
	comp=Z,6.0nm,1.0s						
PLCA	**Paso Flores**	151.81	95	PKPbc	PKPbc	21 24 59.2	0.0
	comp=Z,8.2nm,0.9s,baz=250,slow=2.6,SNR=13						
PLCA				PKPab	PKPab	21 25 06.4	-2.4
	comp=Z,5.1nm,0.9s,baz=280,slow=4.4,SNR=7.0						
PLCA				pPKPbc	pPKPbc	21 25 34.8	-0.4
	comp=Z,5.9nm,1.0s,baz=37,slow=1.8,SNR=3.8						
PLCA	**Paso Flores**	151.81	95	PKPbc	PKPbc	21 24 59.2	0.0
PLCA				PKPab	PKPab	21 25 06.4	-2.3
PLCA				pPKPbc	pPKPbc	21 25 34.8	-0.4

IDC 12 21:50:22.4±5.1**, 13.°74N**×**145.°70E, h0**^{km}**, mb3.5**/4**,**
mb1 3.7/4**, mb1mx3.4**/21**, mbtmp3.5**/4**, Error ellipse:**
s-maj=194.2km s-min=29.8km az=78.0, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	35.29	199	P	P	21 57 18.8	-0.4
	0.4nm,0.6s,baz=22,slow=9.7,SNR=4.2						
ASAR	**Alice Springs**	38.93	197	P	P	21 57 50.4	+0.2
	0.4nm,0.7s,baz=27,slow=10,SNR=4.3						
STKA	**Stephens Creek**	45.53	185	P	P	21 58 44.0	+0.2
	1.2nm,0.7s,baz=0.6,slow=4.6,SNR=2.8						
MKAR	**Makanchi Array**	61.94	316	P	P	22 00 44.1	0.0
	0.2nm,0.5s,baz=93,slow=7.8,SNR=5.6						

IDC 12 21:55:26.8±1.3**, 4.°45N**×**125.°31E, h0**^{km}**, mb3.4**/4**,**
mb1 3.6/4**, mb1mx3.5**/19**, mbtmp3.4**/4**, Error ellipse:**
s-maj=152.6km s-min=21.8km az=69.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	25.81	160	P	P	22 01 00.0	+0.2
	0.5nm,0.4s,baz=340,slow=10,SNR=8.1						
ASAR	**Alice Springs**	29.17	164	P	P	22 01 29.9	0.0
	0.3nm,0.7s,baz=349,slow=8.0,SNR=3.2						
SONM	**Songino Array**	46.18	342	P	P	22 03 53.9	+0.7
	0.2nm,0.6s,baz=148,slow=8.4,SNR=2.5						
MKAR	**Makanchi Array**	56.16	326	P	P	22 05 07.6	-0.7
	0.3nm,0.5s,baz=129,slow=7.2,SNR=4.5						
MKAR				PcP	PcP	22 06 06.1	-0.1
	0.2nm,0.6s,baz=125,slow=3.9,SNR=3.8						

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*ISCJB **12** 22:11:07.9±0.6, 37.°47N±0.°04×38.°36E±0.°04, h9^{km}±4^{km},*
Error ellipse: s-maj=7.1km s-min=4.9km az=147.6
*CSEM **12** 22:11:07.8±0.3, 37.°45N×38.°37E, h8^{km}, ML2.9, Error*
ellipse: s-maj=6.5km s-min=4.6km az=144.0
*DDA **12** 22:11:07.7, 37.°50N×38.°35E, h9^{km}±1^{km}, Md2.8, Ml2.9*
*ISK **12** 22:11:07.2, 37.°43N×38.°37E, h4^{km}, MD2.9*
ISC 12 22:11:08.2±0.6**, 37.°46N**±0.°04×**38.°36E**±0.°04**, h8**^{km}±4^{km}**,**
n21, σ**0.^{s}79**/35**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAB	**Bozova**	0.05	285	*i* P	**Pg**	**22 11 09.8**	**-0.2**
ATAB				*i* S	**Sg**	**22 11 11.2**	**0.0**
ATAB	**Bozova**	0.05	285	*i* P	**Pg**	**22 11 09.8**	**-0.2**
ATAB				*i* S	**Sg**	**22 11 11.2**	**0.0**
URFA	**Urfa**	0.37	92	*e*PG	**Pg**	**22 11 14.8**	**-0.6**
URFA				*e*SG	**Sg**	**22 11 20.6**	**+0.3**
URFA	**Urfa**	0.37	92	*e*Pg	**Pg**	**22 11 14.8**	**-0.6**
URFA				*e*Sg	**Sg**	**22 11 20.6**	**+0.3**
MALT	**Malatya**	0.86	4	*e*PG	**Pg**	**22 11 25.1**	**+0.3**
MALT	**Malatya**	0.86	4	*e*Pg	**Pg**	**22 11 25.1**	**+0.4**
MYA	**Malataya**	0.87	3	*e*PG	**Pg**	**22 11 24.9**	**0.0**
MYA				*e*SG	**Sg**	**22 11 38.1**	**+1.8**
MYA	**Malataya**	0.87	3	*e*Pg	**Pg**	**22 11 25.0**	**0.0**
MYA				*e*Sg	**Sg**	**22 11 38.1**	**+1.8**
AKCD	**Akcadag**	0.91	338	*i* P	**Pg**	**22 11 24.4**	**-1.2**
AKCD				*i* S	**Sg**	**22 11 36.5**	**-0.9**
AKCD	**Akcadag**	0.91	338	*i* P	**Pg**	**22 11 24.4**	**-1.3**
AKCD				*i* S	**Sg**	**22 11 36.5**	**-1.0**
GAZ	**Gaziantep**	0.96	253	*e*PG	**Pg**	**22 11 26.5**	**-0.1**
GAZ				*e*SG	**Sg**	**22 11 40.0**	**+0.9**
GAZ	**Gaziantep**	0.96	253	*e*Pg	**Pg**	**22 11 26.5**	**-0.1**
GAZ				*e*Sg	**Sg**	**22 11 40.0**	**+0.9**
KMRS	**Kahramanmaras**	1.16	273	*e*PN	**Pn**	**22 11 29.4**	**-1.4**
KMRS	**Kahramanmaras**	1.16	273	*e*Pn	**Pn**	**22 11 29.4**	**-1.4**
KUZU	**Kuzuini**	1.23	237	*i* P	**Pn**	**22 11 32.0**	**+0.2**
KUZU				*i* S	**Sb**	**22 11 48.2**	**+0.5**
KUZU	**Kuzuini**	1.23	237	*i* P	**Pn**	**22 11 32.0**	**+0.3**
KUZU				*i* S	**Sb**	**22 11 48.2**	**+0.4**
ANDN	**Andirin**	1.61	275	*i* P	**Pn**	**22 11 35.9**	**-1.0**
ANDN				*i* S	**Sn**	**22 11 57.8**	**+0.1**
ANDN	**Andirin**	1.61	275	*i* P	**Pn**	**22 11 35.8**	**-1.1**

ANDN				*i* S	Sn	22 11 57.8	0.0
SARI	SarD1z-Kayseri	1.79	313	*e*PN	Pn	22 11 40.4	+1.0
SARI	SarD1z-Kayseri	1.79	313	*e*Pn	Pn	22 11 40.4	+1.0
KOZT	Kozan	2.02	271	*e*PN	Pn	22 11 43.0	+0.5

IDC 12 22:34:00.6±1.2**, 31°.97N×95°.20E, h0^{km}, mb3.6**/4**, mb1 3.6**/6**, mb1mx3.4**/24**, mbtmp3.4**/6**, ML3.0**/2**, MS3.4**/2**, Ms1 3.4**/2**, ms1mx2.7**/35**, Error ellipse: s-maj=53.4km s-min=22.7km az=58.0, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	17.82	330	P	Pn	22 38 09.9	0.0
	0.1nm,0.3s,baz=130,slow=13,SNR=5.8						
SONM	Songino Array	17.99	25	P	Pn	22 38 11.3	-0.7
	0.1nm,0.3s,baz=224,slow=10,SNR=4.5						
KURK	Kurchatov	22.40	332	P	P	22 39 00.8	+0.4
	0.6nm,0.5s,baz=138,slow=11,SNR=6.0						
MJAR	Matsushiro Arr	35.62	71	LR	LR	22 57 30.7	
	comp=Z,11nm,19.0s,baz=115,slow=40						
WRA	Warramunga Arr	63.80	139	P	P	22 44 36.2	+1.5
	0.7nm,0.8s,baz=318,slow=8.7,SNR=4.8						
ASAR	Alice Springs	66.55	141	P	P	22 44 51.5	-1.1
	0.8nm,0.8s,baz=324,slow=6.4,SNR=5.5						
TORD	Torodi Ar. Bea	86.08	283	P	P	22 46 43.4	-0.4
	0.6nm,0.8s,baz=42,slow=4.2,SNR=4.0						
BOSA	Boshof	89.70	236	LR	LR	23 28 12.6	
	comp=Z,89nm,19.3s,baz=6.3,slow=36						

ISCJB ***12*** *22:42:01.8±0.3, 54°.72N±0°.03×164°.50E±0°.04, h33^{km}, mb3.9/18, MS3.8/2, Error ellipse: s-maj=4.3km s-min=3.1km az=173.9*

MOS ***12*** *22:42:01.6±1.0, 54°.74N×164°.58E, h37^{km}, mb4.2/11, Error ellipse: s-maj=11.9km s-min=9.2km az=77.6*

NEIC ***12*** *22:42:03.7±0.7, 54°.74N×164°.57E, h36^{km}±7^{km}, mb4.3/7, Error ellipse: s-maj=8.1km s-min=5.1km az=156.0*

KRSC ***12*** *22:42:03.8±0.7, 54°.77N×164°.34E, h40^{km}±30^{km}, ML4.8*

IDC ***12*** *22:42:06.3±0.7, 54°.76N×164°.36E, h57^{km}±6^{km}, mb3.5/13, mb1 3.9/14, mb1mx3.7/26, mbtmp3.6/14, MS3.0/2, Ms1 3.0/2, ms1mx2.8/29, Error ellipse: s-maj=21.3km s-min=9.5km az=160.0*

ISC 12 22:42:03.7±0.3**, 54°.75N**±0°.03×**164°.50E**±0°.04**, h35^{km}, (h60^{km}**±2.1^{km}**:pP-P), n69, σ1^{s}08**/90**, mb3.9**/18**, MS3.8**/2**, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	0.97	61	*i* P	Pn	22 42 19.2	-1.5
BKI				*i* S	Sn	22 42 30.6	-2.5
MKZ	Mys Kozlova	1.62	264	S	Sn	22 42 47.6	-1.6
KBTR	Krutoberegovo	1.75	328	*i* P	Pn	22 42 29.4	-2.0
KBTR				*i* S	Sn	22 42 48.5	-3.9
ZLN	Zelenaya	2.46	303	*i* P	Pn	22 42 41.6	+0.4
ZLN				*i* S	Sn	22 43 09.7	-0.3
TUMR	Tumrok	2.56	284	*i* P	Pn	22 42 43.1	+0.5
TUMR				*e*S	Sn	22 43 11.2	-1.3
BZMR	Bezymyannaya	2.58	299	*e*P	Pn	22 42 43.2	+0.4
BZMR				*e*S	Sn	22 43 11.9	-1.0
KMNR	Kamenistaya	2.64	294	*i* P	Pn	22 42 44.1	+0.5
KMNR				*e*S	Sn	22 43 13.8	-0.6
KRSR	Krestovskiy	2.68	305	*e*P	Pn	22 42 44.3	+0.1
KRSR				*e*S	Sn	22 43 14.6	-0.7
SRKR	Sorokina	2.68	317	*e*P	Pn	22 42 45.3	+1.1
SRKR				*e*S	Sn	22 43 15.2	-0.2
KLY	Klyuchi	2.69	307	*i* P	Pn	22 42 43.1	-1.2
KLY				*e*S	Sn	22 43 11.5	-4.1
KPT	Kopyto	2.73	298	*i* P	Pn	22 42 46.3	+1.4
KPT				*e*S	Sn	22 43 17.6	+1.0
KOZR	Kozyr	2.94	299	PN	Pn	22 42 49.2	+1.5
KOZR				S	Sn	22 43 22.5	+0.8
KOZ	Kozyrevsk	2.94	298	*i* P	Pn	22 42 49.2	+1.4
KOZ				*e*S	Sn	22 43 22.5	+0.6
SRDR	Sredinnyy	3.14	302	*e*P	Pn	22 42 51.3	+0.8
SRDR				*e*S	Sn	22 43 26.3	-0.4
NLC	Nalytchevo	3.43	245	*i* P	Pn	22 42 54.4	-0.1
NLC				*i* S	Sn	22 43 31.4	-2.4
AVH	Avacha	3.71	249	*i* P	Pn	22 42 59.4	+1.1
AVH				*i* S	Sn	22 43 39.6	-1.1
PET	Petropavlovsk	3.87	246	*e*PN	Pn	22 43 00.8	+0.3
PET				pmax	pmax		
	comp=Z,112nm,0.8s						
PET				MLR	MLR		
	comp=Z,600nm,20.0s						
PET	Petropavlovsk	3.87	246	*e*P	Pn	22 43 01.0	+0.5
PET				*i* S	Sn	22 43 42.1	-2.5
PET	Petropavlovsk	3.87	246	*e*Pn	Pn	22 43 00.7	+0.2
PET				*e*S	Sn	22 43 41.9	-2.7
INSR	Institute	3.87	247	P	Pn	22 43 01.3	+0.7
INSR				S	Sn	22 43 42.2	-2.5
GNL	Ganaly	3.99	257	*i* P	Pn	22 43 03.8	+1.6
GNL				*e*S	Sn	22 43 47.2	-0.5
RUS	Russkaya	4.25	239	*e*P	Pn	22 43 06.3	+0.5
RUS				*e*S	Sn	22 43 51.1	-3.1
PEA0B	Petropavlovsk-	4.34	251	*e*Pn	Pn	22 43 08.2	+1.2
PEA0B				*e*Sn	Sn	22 43 56.4	+0.1
PETK	Petropavlovsk-	4.34	251	P	Pn	22 43 08.2	+1.2
	comp=Z,32nm,0.3s,baz=70,slow=17,SNR=398						
PETK				S	Sn	22 43 56.4	+0.1
	comp=Z,27nm,0.3s,baz=347,slow=5.9,SNR=13						
PETK				LR	LR	22 44 47.5	
	comp=Z,118nm,21.3s,baz=114,slow=38						
GRL	Gorelyy	4.41	243	P	Pn	22 43 09.9	+1.9
MIPR	Malaya Ipel'ka	5.24	245	*e*P	Pn	22 43 21.1	+1.7
FX1	Attu Island--F	5.47	106	P	Pn	22 43 21.3	-1.2
	comp=Z,49nm,0.3s,baz=345,slow=3.3,SNR=58						
FX1				S	Sn	22 44 18.8	-5.3
	comp=Z,43nm,0.3s,baz=98,slow=19,SNR=18						
SKR	Severo-Kuril's	6.52	235	*e*PN	Pn	22 43 37.0	+0.1
SKR				pmax	pmax		
	comp=E,40nm,0.3s						
SKR				pmax	pmax		
	comp=Z,80nm,0.3s						
BILL	Bilibino	13.36	3	*e*PN	Pn	22 45 10.7	+0.2
BILL	Bilibino	13.36	3	*e*Pn	Pn	22 45 10.7	+0.2
ERM	Erimo	18.96	237	*e*P	Pn	22 46 21.4	-1.1
ERM				pmax	pmax		
	comp=Z,34nm,1.1s						
ERM	Erimo	18.96	237	*e*P	Pn	22 46 21.4	-1.1
	comp=Z,34nm,1.1s						
YAK	Yakutsk	19.45	306	*e*P	Pn	22 46 27.2	-0.9
YAK				pmax	pmax		
	comp=Z,10.0nm,0.6s						
YAK	Yakutsk	19.45	306	*e*P	Pn	22 46 27.2	-0.9
	comp=Z,9.9nm,0.6s						
TIXI	Tiksi	22.77	332	*e*P	P	22 47 02.2	-0.2
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
TIXI	Tiksi	22.77	332	*e*P	P	22 47 02.2	-0.2
	comp=Z,2.6nm,0.6s,mb3.8						
KDAK	Kodiak Island	23.73	65	P	P	22 47 10.6	-1.6
KDAK				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.3						
KDAK	Kodiak Island	23.73	65	P	P	22 47 10.6	-1.6
	comp=Z,7.2nm,0.5s,mb4.3,baz=156,slow=8.8,SNR=18						
TRF	Thorofare Moun	24.30	51	*e*P	P	22 47 16.9	-0.4
	comp=Z,17nm,0.8s,mb4.5						
MAJO	Matsushiro	25.63	236	*e*P	P	22 47 30.0	+0.4
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.4						
MAJO	Matsushiro	25.63	236	*e*P	P	22 47 30.0	+0.4
	comp=Z,7.5nm,0.6s,mb4.4						
MJAR	Matsushiro Arr	25.63	236	P	P	22 47 31.1	+1.5
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJAR	Matsushiro Arr	25.63	236	P	P	22 47 31.1	+1.5
	comp=Z,1.1nm,0.7s,mb3.5,baz=38,slow=6.2,SNR=3.5						
KSRS	Korea Array	30.24	250	LR	LR	22 59 00.5	
	comp=Z,38nm,20.4s,MS3.0,baz=325,slow=34						
SONM	Songino Array	36.05	284	P	P	22 49 01.0	-0.3
	comp=Z,0.4nm,1.0s,mb3.3,baz=58,slow=5.4,SNR=3.1						
YKA	Yellowknife Ar	40.16	45	P	P	22 49 35.4	-0.4
YKA				*PP	pP	22 49 51.6	+5.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	40.16	45	P	P	22 49 35.4	-0.4
	comp=Z,1.0nm,0.7s,mb3.6,baz=297,slow=8.2,SNR=16						
YKA				pP	pP	22 49 51.6	+5.7
	comp=Z,0.5nm,0.6s,baz=299,slow=8.0,SNR=4.6						
GUMO	Guam	43.85	208	P	P	22 50 05.5	-0.8
WALA	Waterton Lakes	47.98	61	*e*P	P	22 50 38.5	0.0
	comp=Z,0.6nm,1.5s,mb3.4						
KURK	Kurchatov	49.05	303	*e*P	P	22 50 47.3	+0.6
KURK				*e*		22 51 01.0	
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
KURK	Kurchatov	49.05	303	P	P	22 50 47.6	+0.9
	comp=Z,0.6nm,0.4s,mb4.0,baz=57,slow=7.8,SNR=6.2						
KURK				pP	pP	22 51 01.9	+4.7
	comp=Z,1.8nm,0.5s,baz=55,slow=7.9,SNR=7.4						
KURK	Kurchatov	49.05	303	*e*P	P	22 50 47.3	+0.6
	comp=Z,2.6nm,0.9s,mb4.3						
KURK				*e*		22 51 01.0	
MKAR	Makanchi Array	49.76	297	P	P	22 50 52.8	+0.6
	comp=Z,0.4nm,0.7s,mb3.6,baz=40,slow=6.2,SNR=6.6						
BVAR	Borovoye Array	51.37	310	P	P	22 51 05.0	+0.7
BVAR				*PP	pP	22 51 19.9	+5.1
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	Borovoye Array	51.37	310	P	P	22 51 05.0	+0.7
	comp=Z,0.3nm,0.6s,mb3.4,baz=34,slow=5.4,SNR=2.6						
BVAR				pP	pP	22 51 19.9	+5.2
	comp=Z,1.1nm,0.6s,baz=48,slow=6.6,SNR=5.3						
NVAR	Mina Array Bea	52.76	74	P	P	22 51 16.3	+1.5
	comp=Z,2.0nm,0.7s,mb4.1,baz=299,slow=7.3,SNR=15						
PDAR	Pinedale Array	54.45	65	P	P	22 51 27.9	+0.8
	comp=Z,1.3nm,0.6s,mb4.0,baz=322,slow=2.9,SNR=12						
PDAR				pP	pP	22 51 43.4	+5.7
	comp=Z,0.9nm,0.9s,baz=299,slow=3.1,SNR=3.4						
CHTO	Chiang Mai	60.76	261	P	P	22 52 11.7	-0.1
CMAR	Chiang Mai Arr	61.04	261	P	P	22 52 13.0	-0.7
CMAR				*PP	pP	22 52 28.8	+4.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CMAR	Chiang Mai Arr	61.04	261	P	P	22 52 12.9	-0.8
	comp=Z,0.6nm,0.3s,mb4.2,baz=20,slow=7.4,SNR=5.8						
CMAR				pP	pP	22 52 28.8	+4.4
	comp=Z,2.3nm,0.7s,baz=25,slow=6.5,SNR=3.1						
NOA	NORSAR Array B	62.63	346	P	P	22 52 23.4	-0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	NORSAR Array B	62.63	346	P	P	22 52 23.4	-0.3
	comp=Z,1.0nm,0.9s,mb4.0,baz=29,slow=11,SNR=2.5						
TXAR	Lajitas Array	67.61	71	P	P	22 52 57.5	+0.9
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TXAR	Lajitas Array	67.61	71	P	P	22 52 57.5	+0.8
	comp=Z,2.8nm,0.6s,mb4.5,baz=300,slow=4.5,SNR=41						
PSI	Prapat	73.80	251	LR	LR	23 27 12.7	
	comp=Z,267nm,19.7s,MS4.5,baz=245,slow=37						
WRA	Warramunga Arr	78.73	209	P	P	22 54 02.4	+0.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	78.73	209	P	P	22 54 02.4	+0.2
	comp=Z,0.5nm,0.7s,mb3.6,baz=22,slow=6.1,SNR=3.8						
ASAR	Alice Springs	82.39	208	P	P	22 54 21.8	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	Alice Springs	82.39	208	P	P	22 54 21.8	+0.1
	comp=Z,1.1nm,1.0s,mb3.7,baz=24,slow=5.3,SNR=4.6						

ISCJB ***12*** *22:48:57.9±0.5, 33°.05N±0°.04×87°.67E±0°.09, h10^{km}, mb3.5/4, MS3.5/5, Error ellipse: s-maj=11.0km s-min=5.3km az=173.4*

BJI ***12*** *22:48:58.1, 33°.05N×87°.34E, h7^{km}, mb4.2/1, Ms3.6/1*

IDC ***12*** *22:48:59.3±1.0, 33°.34N×88°.15E, h0^{km}, mb3.4/5, mb1 3.8/8, mb1mx3.6/24, mbtmp3.6/8, ML3.8/3, MS3.5/6, Ms1 3.5/6, ms1mx3.2/27, Error ellipse: s-maj=43.5km s-min=21.0km az=58.0*

NEIC ***12*** *22:49:01.1±0.5, 33°.41N×88°.05E, h10^{km}, mb3.6/2, Error ellipse: s-maj=14.7km s-min=7.3km az=48.0*

ISC 12 22:49:00.2±0.5**, 33°.05N**±0°.04×**87°.65E**±0°.09**, h10^{km}, n34, σ1^{s}22**/32**, mb3.5**/4**, MS3.5**/5**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	4.48	137	Pn	Pn	22 50 11.7	+3.5
LSA				Sn	Sn	22 51 09.1	+8.6
LSA				LR	LR		
	comp=N,720nm,9.7s						
LSA	Lhasa	4.48	137	*e*Pn	Pn	22 50 10.9	+2.7
GUN	Gumba	5.34	197	*e*P	Pn	22 50 20.0	-0.1
	comp=N,15nm,0.3s						
JIRN	Jiri	5.52	194	*e*P	Pn	22 50 22.3	-0.2
	comp=N,32nm,0.5s						
KKN	Kakani	5.63	202	*e*P	Pn	22 50 23.3	-0.7
	comp=N,25nm,0.5s						
GKN	Gorkha	5.66	208	*e*P	Pn	22 50 24.2	-0.2
	comp=N,27nm,0.5s						
TAPN	Taplejung	5.68	179	*e*P	Pn	22 50 25.4	+0.7
	comp=N,112nm,0.5s						
DANN	Dangsing	5.76	217	*e*P	Pn	22 50 24.9	-0.9
	comp=N,24nm,0.5s						
PKI	Pulchoki	5.79	200	*e*P	Pn	22 50 27.0	+0.7
DMN	Daman	5.85	203	*e*P	Pn	22 50 26.6	-0.4
	comp=N,20nm,0.4s						
RAMN	Ramite	6.15	189	*e*P	Pn	22 50 30.2	-0.9
	comp=N,38nm,0.5s						
ODAN	Odare	6.17	182	*e*P	Pn	22 50 31.2	-0.3
	comp=N,195nm,0.6s						
KOLN	Koldanda	6.32	215	*e*P	Pn	22 50 32.7	-0.8
	comp=N,35nm,0.7s						
SHL	Shillong	8.32	153	*e*PKP	Pn	22 51 02.5	+1.5
TKM2	Tokmak 2	13.68	320	*e*Pn	Pn	22 52 15.4	+1.2
UCH	Uchtor	13.85	315	*e*Pn	Pn	22 52 18.0	+1.4
AML	Almayashu	14.29	313	Pn	Pn	22 52 23.9	+1.3
MKAR	Makanchi Array	14.32	345	Pn	Pn	22 52 20.9	-2.1
	comp=N,0.1nm,0.3s,baz=152,slow=13,SNR=8.5						
MKAR				LR	LR	22 58 45.4	
	comp=N,111nm,19.2s,baz=160,slow=41						
EKS2	Erkin-Say	14.55	315	*e*Pn	Pn	22 52 26.4	+0.3
CMAR	Chiang Mai Arr	17.72	142	P	Pn	22 53 05.6	-1.5
	comp=N,0.8nm,0.3s,baz=328,slow=12,SNR=7.2						
KURK	Kurchatov	18.86	342	P	Pn	22 53 17.0	-3.9
	comp=N,0.1nm,0.3s,baz=155,slow=11,SNR=11						
KURK	Kurchatov	18.86	342	*e*P	Pn	22 53 18.3	-2.7
	comp=N,2.7nm,0.8s						
SONM	Songino Array	20.45	38	P	P	22 53 38.4	+0.7
	comp=N,0.1nm,0.3s,baz=229,slow=11,SNR=12						
ULN	Ulaanbaatar	20.82	39	*e*P	P	22 53 37.1	-4.6
	comp=N,5.0nm,1.0s						
ZALV	Zalesovo Beam	20.99	355	P	P	22 53 41.6	-1.9
	comp=N,1.0nm,0.8s,baz=147,slow=8.1,SNR=6.0						
ZALV				LR	LR	23 02 20.4	
	comp=N,61nm,21.1s,MS3.0,baz=241,slow=39						
AKTO	Aktyubinsk	27.86	317	LR	LR	23 06 45.3	
	comp=N,120nm,18.9s,MS3.5,baz=278,slow=38						
PSI	Prapat	31.89	158	LR	LR	23 11 24.2	
	comp=N,280nm,18.0s,MS4.0,baz=190,slow=42						
KSRS	Korea Array	33.00	71	LR	LR	23 08 42.3	
	comp=N,51nm,19.1s,MS3.2,baz=310,slow=36						
GERES	GERESS Array B	55.88	310	P	P	22 58 39.6	+1.7
	comp=N,0.3nm,0.6s,mb3.5,baz=72,slow=3.2,SNR=2.9						
GERES				LR	LR	23 28 05.9	
	comp=N,76nm,19.2s,MS3.8,baz=66,slow=42						
STU	Stuttgart	58.79	311	*e*P	P	22 58 57.8	-0.7
	comp=N,8.3nm,0.5s						
WRA	Warramunga Arr	69.02	133	P	P	23 00 06.9	+0.7
	comp=N,0.8nm,0.9s,mb3.7,baz=328,slow=6.8,SNR=3.6						
WRA	Warramunga Arr	69.02	133	P	P	23 00 06.9	+0.7
TORD	Torodi Ar. Bea	79.61	279	P	P	23 01 11.0	+2.8
	comp=N,0.2nm,0.6s,mb3.2,baz=41,slow=4.0,SNR=3.3						
YKA	Yellowknife Ar	83.12	10	P	P	23 01 24.4	-1.5
	comp=N,0.3nm,0.7s,mb3.4,baz=338,slow=5.3,SNR=7.9						

ISCJB ***12*** *22:50:03.6±1.2, 6°.90N±0°.09×126°.9E±0°.1, h118^{km}±9^{km}, mb3.9/11, Error ellipse: s-maj=19.7km s-min=12.7km az=154.3*

NEIC ***12*** *22:50:04.6±0.9, 6°.84N×126°.91E, h111^{km}±8^{km}, mb4.2/4, Error ellipse: s-maj=12.8km s-min=8.7km az=68.0*

IDC ***12*** *22:50:05.7±3.9, 6°.82N×126°.84E, h118^{km}±29^{km}, mb3.4/8, mb1 3.5/8, mb1mx3.4/24, mbtmp3.4/8, Error ellipse: s-maj=68.7km s-min=15.1km az=69.0*

ISC 12 22:50:05.0±1.2**, 6°.88N**±0°.09×**126°.9E**±0°.1**, h111^{km}**±10^{km}**, n23, σ0^{s}70**/25**, mb3.9**/11**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	Davao City (W)	1.33	278	P	Pn	22 50 29.7	-0.3
	219nm,0.3s,baz=217,slow=3.1,SNR=11						
DAV				S	Sn	22 50 49.4	+0.5
	173nm,0.3s,baz=78,slow=23,SNR=21						
DAV	Davao City (W)	1.33	278	P	Pn	22 50 29.7	-0.3
DAV				S	Sn	22 50 49.4	+0.5
KCP	Kidapawan	1.81	274	⇑*e*P	Pn	22 50 35.5	-0.1
KCP				*e*S	Sn	22 50 59.0	-0.1
GUMO	Guam	18.88	68	*e*P	P	22 54 16.4	-0.4
	36nm,0.6s						
FITZ	Fitzroy Crossi	24.86	183	P	P	22 55 17.9	+0.6
	2.4nm,0.8s,mb3.7,baz=8.9,slow=10.0,SNR=3.3						
FITZ	Fitzroy Crossi	24.86	183	*e*P	P	22 55 16.5	-0.8
WRA	Warramunga Arr	27.64	165	P	P	22 55 41.8	-0.5
	0.3nm,0.8s,mb2.9,baz=334,slow=9.3,SNR=3.5						
CHTO	Chiang Mai	29.68	296	P	P	22 55 59.0	-1.5
MDJ	Mudanjiang	37.66	3	P	P	22 57 09.3	0.0
NWAO	Narrogin (SRO)	40.64	193	*e*P	P	22 57 33.7	-0.5
	20nm,1.1s,mb4.9						
SONM	Songino Array	44.40	340	P	P	22 58 04.8	+0.4
	0.1nm,0.4s,mb2.9,baz=153,slow=9.6,SNR=4.1						
TAU	Tasmania Unive	52.92	161	P	P	22 59 11.4	+1.8
MKAR	Makanchi Array	55.11	324	P	P	22 59 26.2	+0.7
	1.0nm,0.5s,mb4.1,baz=117,slow=7.4,SNR=22						
ZALV	Zalesovo Beam	57.89	332	P	P	22 59 44.7	-0.5
	0.7nm,0.3s,mb4.1,baz=103,slow=5.7,SNR=4.6						
UCH	Uchtor	58.02	316	*e*P	P	22 59 46.9	+0.7
	1.0nm,0.6s,mb4.0						
EKS2	Erkin-Say	58.68	316	*e*P	P	22 59 51.5	+0.6
	1.1nm,0.6s,mb4.1						
KURK	Kurchatov	59.21	326	P	P	22 59 55.1	+0.8
	1.4nm,0.6s,mb4.1,baz=125,slow=6.5,SNR=9.8						
KURK	Kurchatov	59.21	326	*e*P	P	22 59 54.8	+0.4
	1.5nm,0.5s,mb4.3						
BVAR	Borovoye Array	64.81	326	P	P	23 00 32.4	+0.6
	0.7nm,0.5s,mb3.7,baz=132,slow=8.2,SNR=6.4						
AKTK	Aktyubinsk	71.33	321	P	P	23 01 12.2	-0.4
AKTO	Aktyubinsk	71.33	321	P	P	23 01 12.2	-0.4
	0.9nm,0.6s,mb3.8,baz=86,slow=9.5,SNR=3.7						
ARU	Arti	72.39	327	P	P	23 01 17.8	-1.0
TORD	Torodi Ar. Bea	122.06	290	PKP	PKPdf	23 08 45.6	-1.9
	0.5nm,0.9s,baz=81,slow=0.9,SNR=5.8						

IDC 12 22:50:36.4±3.4**, 31°.64S×178°.44W, h38^{km}**±29^{km}**, mb4.3**/2**, mb1 4.5**/4**, mb1mx4.0**/17**, mbtmp4.2**/4**, ML3.8**/2**, Error ellipse: s-maj=40.6km s-min=22.0km az=114.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	2.42	11	Pn	Pn	22 51 14.1	+0.7
	36nm,0.3s,baz=287,slow=19,SNR=2.7						
RAO				Sn	Sn	22 51 41.9	+0.1
	152nm,0.3s,baz=342,slow=20,SNR=4.0						
URZ	Urewera	7.55	208	Pn	Pn	22 52 22.4	-1.4
	0.8nm,0.3s,baz=142,slow=23,SNR=16						
URZ				Sn	Sn	22 53 48.0	-0.2
	2.1nm,0.3s,baz=285,slow=20,SNR=8.4						
ASAR	Alice Springs	42.68	268	P	P	22 58 29.8	+0.2
	2.0nm,0.4s,baz=107,slow=7.3,SNR=26						
WRA	Warramunga Arr	43.78	274	P	P	22 58 38.7	+0.2
	5.0nm,0.4s,baz=113,slow=7.8,SNR=92						
MKAR	Makanchi Array	118.27	310	PKP	PKPdf	23 09 18.1	-1.1
	0.1nm,0.5s,baz=93,slow=2.9,SNR=4.2						
AKASG	Malin Array Be	152.03	321	PKPbc	PKPbc	23 10 26.3	-0.7
	0.5nm,0.4s,baz=43,slow=3.0,SNR=4.9						
TORD	Torodi Ar. Bea	161.60	180	PKPab	PKPab	23 11 19.1	+0.7
	0.4nm,0.5s,baz=188,slow=3.5,SNR=4.6						

ISCJB ***12*** *23:25:55.4±0.5, 32°.53N±0°.02×115°.34W±0°.04, h10^{km}, Error ellipse: s-maj=4.4km s-min=3.2km az=172.6*

ECX ***12*** *23:25:57.1±0.6, 32°.50N×115°.36W, h10^{km}, MD2.8, ML3.0*

ISC 12 23:25:55.4±0.5**, 32°.52N**±0°.02×**115°.33W**±0°.03**, h10^{km}, n21, σ1^{s}15**/29**, 13C-10D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNR	Schaffner Ranc	0.35	345	*e*P	Pg	23 26 04.3	+2.0
COA	Coachella	0.38	27	⇓*i*P	Pg	23 26 04.6	+1.6
COK	Cook Ranch	0.47	314	⇑*i*P	Pg	23 26 05.6	+1.0
YUH	Yuha Desert	0.52	284	⇑*i*P	Pg	23 26 05.7	+0.2
EMX	El Mayor	0.54	172	*e*S	Sg	23 26 13.7	+0.7
EMX				⇑*e*		23 26 14.3	
	comp=N,555nm,0.3s						
EMX				⇑*e*		23 26 14.4	
	comp=E,503nm,0.7s						
SWSC	Sam W. Stewart	0.57	317	⇓P	Pg	23 26 07.0	+0.4
	baz=0.6,SNR=23						
SWSC				⇓S	Sg	23 26 15.2	+1.1
	baz=0.6						
RMX	La Rumorosa	0.64	277	⇓*e*P	Pg	23 26 08.2	+0.4
CRR	Carrizo Plain	0.65	304	⇑*i*P	Pg	23 26 08.3	+0.3
DVTC	Desert V Tower	0.67	282	⇓P	Pg	23 26 08.6	+0.3
	baz=0.7,SNR=79						
DVTC				⇑S	Sg	23 26 17.8	+0.8
	baz=0.7						
GLA	Glamis	0.68	39	⇓P	Pg	23 26 08.6	+0.1
	baz=0.7,SNR=35						
GLA				⇑S	Sg	23 26 17.8	+0.4
	baz=0.7						
RDX	Rancho Dawling	0.79	221	*e*P	Pg	23 26 10.4	-0.2
RDX				*e*S	Sg	23 26 21.6	+0.7
RDX				⇓*e*		23 26 22.1	
	comp=N,676nm,0.4s						
MONP	Monument Peak	0.99	292	⇓P	Pg	23 26 13.6	-0.9
	baz=1.0,SNR=34						
MONP				⇑S	Sg	23 26 27.2	-0.2
	baz=1.0						
ECBX	El Chinero	1.07	167	*e*P	Pg	23 26 15.6	-0.5
ECBX				*e*S	Sg	23 26 29.4	-0.7
BC3	Big Chuckw Mtn	1.13	355	⇑P	Pb	23 26 15.6	-1.5
	baz=1.2,SNR=22						
BC3				⇑S	Sb	23 26 30.0	-2.0
	baz=1.2						
CBX	Cerro Bola	1.15	260	*e*P	Pb	23 26 16.8	-0.6
ECNX	Esteban Cantu	1.38	232	*e*PN	Pn	23 26 17.7	-3.0
PFO	Pinyon Flat Ob	1.44	319	⇓P	Pn	23 26 19.7	-1.9
	baz=1.5,SNR=18						
PFO				⇓S	Sn	23 26 37.9	-2.6
	baz=1.5						
SPX	San Pedro Mart	1.48	184	*e*PN	Pn	23 26 22.8	+0.7
BELC	Belle Mtn.	1.58	339	⇑S	Sn	23 26 41.3	-2.6
	baz=1.6						
IRM	Iron Mountain	1.64	5	⇑Sb	Sb	23 26 47.7	+1.3
	baz=1.7						
MURC	Murrieta	1.90	305	⇑Sb	Sb	23 26 54.7	+0.6
	baz=1.9						

NIED ***12*** *23:35:00, 38°.80N×141°.60E, h44^{km}, Mw4.0 Best double couple: $M_0$1.10000×10^{15} NP1:ϕ_s162.00000°, δ84.00000°, λ58.00000°. NP2:ϕ_s63.00000°, δ32.00000°, λ169.00000°.*

MOS ***12*** *23:35:42.4±0.9, 38°.73N×141°.61E, h33^{km}, mb4.5/17, Error ellipse: s-maj=12.2km s-min=8.0km az=117.9*

ISCJB ***12*** *23:35:47.5±0.4, 38°.81N±0°.03×141°.65E±0°.05, h77^{km}±2^{km}, mb4.4/42, Error ellipse: s-maj=7.4km s-min=4.3km az=26.5*

JMA ***12*** *23:35:48.5, 38°.79N×141°.62E, h71^{km}±1^{km}, M4.0*

JMA Felt II J1.

BJI ***12*** *23:35:48.9, 38°.74N×141°.57E, h95^{km}, mB4.9/7, mb4.6/19*

IDC ***12*** *23:35:48.3±0.7, 38°.77N×141°.54E, h67^{km}±6^{km}, mb3.8/15, mb1 4.0/16, mb1mx3.9/23, mbtmp3.8/16, MS3.1/2, Ms1 3.1/2, ms1mx2.8/30, Error ellipse: s-maj=16.9km s-min=14.3km az=119.0*

NEIC ***12*** *23:35:50.3±0.8, 38°.84N×141°.53E, h84^{km}±7^{km}, mb4.5/12, MW4.0(NIED), Error ellipse: s-maj=6.6km s-min=5.8km az=82.0*

NEIC Recorded [2 JMA] in Iwate and Miyagi; [1 JMA] in Fukushima.

ISC 12 23:35:48.7±0.4**, 38°.82N**±0°.03×**141°.64E**±0°.05**, h70^{km}**±2^{km}**, h71^{km}**±2.6^{km}**:pP-P, n108, σ0^{s}73**/122**, mb4.4**/42**, 9C-5D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OFUJ	Ofunato	0.26	5	⇑P	Pn	23 35 59.7	0.0
OFUJ				S	Sn	23 36 07.9	+0.2
JMK	Ichinoseki	0.36	292	⇑P	Pn	23 36 00.1	-0.2
JMK				S	Sn	23 36 08.7	-0.1
JIO	Ouri	0.43	212	⇑P	Pn	23 36 00.6	-0.3
JIO				S	Sn	23 36 09.2	-0.6

JOM	Ohasama	0.71	338	⇑P	Pn	23 36 03.9	+0.2
JOM				S	Sn	23 36 15.2	+0.4
JOU	Okura	0.89	240	⇑P	Pn	23 36 05.6	-0.2
JOU				S	Sn	23 36 18.3	-0.2
JYK	Kaneyama	1.01	276	P	Pn	23 36 07.3	0.0
JYK				eS	Sn	23 36 21.3	+0.2
JMM	Marumori	1.16	215	⇑P	Pn	23 36 08.4	-0.8
JMM				eS	Sn	23 36 23.5	-1.0
JYS	Shirataka	1.37	245	⇑P	Pn	23 36 12.2	+0.2
JYS				S	Sn	23 36 29.7	+0.3
JYA	Atsumi	1.52	262	P	Pn	23 36 14.1	+0.1
JYA				S	Sn	23 36 33.3	+0.3
JANG	Nango	1.56	356	⇑P	Pn	23 36 14.4	0.0
JANG				eS	Sn	23 36 34.4	+0.6
JFK	Kawauchi	1.57	203	⇑P	Pn	23 36 14.2	-0.4
JFK				S	Sn	23 36 33.3	-0.8
JAH	Hinai	1.57	331	⇓P	Pn	23 36 15.4	+0.7
ERM	Erimo	3.40	19	d iP	Pn	23 36 38.4	-0.9
MAJO	Matsushiro	3.55	231	eP	Pn	23 36 43.0	+1.7
MAT	Matsushiro	3.55	231	P	Pn	23 36 42.9	+1.6
MAT				eS	Sn	23 37 23.1	+1.1
MJAR	Matsushiro Arr	3.55	231	P	Pn	23 36 43.3	+2.0
MJAR				pmax	pmax		
	comp=Z,8.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,227nm,19.3s						
MJAR	Matsushiro Arr	3.55	231	P	Pn	23 36 43.3	+2.0
	comp=Z,8.2nm,0.3s,baz=41,slow=11,SNR=60						
MJAR				LR	LR	23 38 08.5	
	comp=Z,227nm,19.3s,baz=75,slow=41						
ASAJ	Asahikawa	5.34	7	P	Pn	23 37 05.0	-0.8
ASAJ				pmax	pmax		
	comp=Z,8.0nm,0.3s						
ASAJ	Asahikawa	5.34	7	P	Pn	23 37 05.0	-0.9
	comp=Z,8.0nm,0.3s,baz=201,slow=7.9,SNR=12						
MDJ	Mudanjiang	10.71	307	Pn	Pn	23 38 17.8	-1.2
KSRS	Korea Array	10.89	267	P	Pn	23 38 25.4	+3.7
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,106nm,21.3s						
KSRS	Korea Array	10.89	267	P	Pn	23 38 25.4	+3.7
	comp=Z,0.8nm,0.3s,baz=82,slow=14,SNR=10						
KSRS				LR	LR	23 41 55.6	
	comp=Z,106nm,21.3s,baz=170,slow=34						
HIA	Hailar	18.83	311	P	Pn	23 40 02.5	-1.4
BJT	Baijiatuau	19.70	282	P	Pn	23 40 10.5	-3.8
NJ2	Nanjing	19.73	257	eP	Pn	23 40 14.9	+0.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SSLB	Suanglung	23.09	236	P	P	23 40 43.9	-4.7
SEY	Seymchan	25.01	12	⇓iP	P	23 41 05.4	-0.3
ULN	Ulaanbaatar	26.54	301	eP	P	23 41 19.5	-0.2
ULN				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.8						
ULN	Ulaanbaatar	26.54	301	eP	P	23 41 19.5	-0.2
	comp=Z,4.1nm,1.2s,mb3.8						
SONM	Songino Array	26.98	301	P	P	23 41 23.6	0.0
SONM						23 44 43.0	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM	Songino Array	26.98	301	P	P	23 41 23.6	0.0
	comp=Z,1.6nm,0.7s,mb3.6,baz=98,slow=11,SNR=13						
SONM				PcP	PcP	23 44 43.0	-0.6
	comp=Z,0.3nm,0.6s,baz=136,slow=1.6,SNR=4.3						
LZH	Lanzhou	29.99	277	eP	P	23 41 52.5	+2.0
LZH				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.5						
LZH				pmax	pmax		
	comp=Z,86nm,4.5s						
GTA	Gaotai	32.25	284	eP	P	23 42 10.8	+0.4
GTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
KKM	Kota Kinabalu	39.92	222	P	P	23 43 16.4	+0.4
ZAA0	Zalesovo Array	40.87	311	eP	P	23 43 23.0	-0.5
ZALV	Zalesovo Beam	40.87	311	P	P	23 43 23.3	-0.1
ZALV						23 45 23.0	
ZALV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
ZALV	Zalesovo Beam	40.87	311	P	P	23 43 23.2	-0.2
	comp=Z,10nm,0.7s,mb4.8,baz=83,slow=8.0,SNR=54						
ZALV				PcP	PcP	23 45 23.0	+0.1
	comp=Z,0.5nm,0.4s,baz=130,slow=2.3,SNR=3.5						
NVS	Novosibirsk	41.76	312	eP	P	23 43 29.9	-0.8
NVS				pmax	pmax		
	comp=N,2.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.3s						
NVS				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.4						
CHTO	Chiang Mai	41.93	254	eP	P	23 43 32.5	-0.1
CMAR	Chiang Mai Arr	42.15	254	P	P	23 43 34.1	-0.2
CMAR						23 45 27.8	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CMAR	Chiang Mai Arr	42.15	254	P	P	23 43 34.1	-0.2
	comp=Z,0.7nm,0.5s,mb3.7,baz=43,slow=8.9,SNR=4.3						
CMAR				PcP	PcP	23 45 27.8	+0.2
	comp=Z,1.7nm,0.5s,baz=5.7,slow=4.3,SNR=4.8						
LSA	Lhasa	42.26	273	eP	P	23 43 34.9	-0.2
LSA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
LSA	Lhasa	42.26	273	eP	P	23 43 34.9	-0.2
	comp=Z,1.8nm,0.5s,mb4.1						
MK31	Makanchi Array	43.35	301	eP	P	23 43 43.7	0.0
MKAR	Makanchi Array	43.35	301	P	P	23 43 43.5	-0.2
	comp=Z,15nm,0.7s,mb4.8,baz=86,slow=10.0,SNR=162						
MKAR				ScP	ScP	23 49 14.3	-2.0
	comp=Z,0.3nm,0.8s,baz=66,slow=4.9,SNR=3.1						
KURK	Kurchatov	44.99	307	eP	P	23 43 56.2	-0.6
KURK				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.1						
KURK	Kurchatov	44.99	307	eP	P	23 43 56.2	-0.6
	comp=Z,34nm,0.8s,mb5.1						
KDAK	Kodiak Island	45.66	43	P	P	23 44 02.0	0.0
KDAK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
KDAK	Kodiak Island	45.66	43	P	P	23 44 02.0	0.0
	comp=Z,4.6nm,0.8s,mb4.3,baz=293,slow=7.7,SNR=2.8						
TAPN	Taplejung	46.02	272	eP	P	23 44 05.7	+0.4
	comp=Z,3.7nm,0.3s,mb4.5						
ODAN	Odare	46.51	272	eP	P	23 44 09.0	-0.1
	comp=Z,9.8nm,0.7s,mb4.6						
JIRN	Jiri	47.06	274	eP	P	23 44 14.0	+0.6
	comp=Z,6.5nm,0.3s,mb4.8						
RAMN	Ramite	47.08	273	eP	P	23 44 13.3	-0.2
	comp=Z,14nm,0.7s,mb4.8						
PMR	Palmer	47.10	38	eP	P	23 44 13.0	-0.2
GUN	Gumba	47.18	274	eP	P	23 44 14.7	+0.4
	comp=Z,21nm,0.6s,mb5.1						
KKN	Kakani	47.71	274	eP	P	23 44 18.0	-0.4
	comp=Z,10nm,0.5s,mb4.9						
GKN	Gorkha	48.11	275	eP	P	23 44 21.0	-0.5
	comp=Z,6.8nm,0.3s,mb4.9						
DANN	Dangsing	48.63	276	eP	P	23 44 25.4	-0.1
	comp=Z,26nm,0.5s,mb5.4						
TKM2	Tokmak 2	48.96	297	eP	P	23 44 27.8	0.0
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
TKM2	Tokmak 2	48.96	297	eP	P	23 44 27.8	0.0
	comp=Z,6.5nm,0.7s,mb4.7						
KOLN	Koldanda	49.02	275	eP	P	23 44 28.2	-0.3
	comp=Z,3.2nm,0.3s,mb4.7						
BRVK	Borovoye	49.58	311	eP	P	23 44 31.7	-0.7
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BRVK	Borovoye	49.58	311	eP	P	23 44 31.7	-0.6
	comp=Z,3.3nm,0.7s,mb4.4						
AAK	Ala-Archa	49.82	297	eP	P	23 44 34.2	-0.2
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
AAK	Ala-Archa	49.82	297	eP	P	23 44 34.2	-0.2
	comp=Z,1.8nm,0.7s,mb4.1						
KSH	Kashi	49.86	293	P	P	23 44 38.9	+4.1
KSH				epP	pP	23 44 58.0	+5.5
KSH				esP	sP	23 45 06.1	+5.6
KSH				ePcP	PcP	23 45 57.0	+2.7
KSH				ePP	PP	23 46 36.0	+6.1
KSH				ePcS	PcS	23 49 53.0	+1.8
KSH				eS	S	23 51 43.8	+4.4
KSH				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
KSH				pmax	pmax		
	comp=Z,90nm,7.6s						
KSH				LR	LR		
	comp=N,130nm,6.6s						
KSH				LR	LR		
	comp=E,170nm,5.0s						
KSH				LR	LR		
	comp=Z,170nm,4.6s						
KULM	Kulim	49.88	239	P	P	23 44 34.1	-1.0
UCH	Uchtor	49.95	297	eP	P	23 44 35.8	+0.5
EKS2	Erkin-Say	50.31	297	eP	P	23 44 37.7	-0.4
	comp=Z,2.2nm,0.5s,mb4.3						
AML	Almayashu	50.55	297	eP	P	23 44 40.5	+0.6
	comp=Z,2.2nm,0.4s,mb4.5						
SVE	Sverdlovsk	53.94	318	⇓eP	P	23 45 04.7	-0.1
SVE				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
ARU	Arti	55.15	318	d iP	P	23 45 13.3	-0.3
ARU				e		23 47 12.9	
ARU				S	S	23 52 51.3	+0.2
ARU				SS	SS	23 56 35.2	-0.1
ARU				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.8						
ARU	Arti	55.15	318	eP	P	23 45 13.5	-0.1
	comp=Z,6.3nm,0.5s,mb4.9						
KBL	Kabul	56.96	290	eP	P	23 45 26.5	-0.3
KBL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
KBL	Kabul	56.96	290	eP	P	23 45 26.5	-0.3
	comp=Z,3.2nm,0.8s,mb4.4						
DLBC	Dease Lake	57.12	39	P	P	23 45 28.1	+0.5
CTAO	Charters Tower	58.75	175	P	P	23 45 38.4	-0.9
WRAB	Tennant Creek	58.84	188	eP	P	23 45 39.6	-0.3
WRA	Warramunga Arr	58.85	188	P	P	23 45 38.8	-1.2
WRA				*PP	pP	23 45 55.8	-2.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	58.85	188	P	P	23 45 38.8	-1.2
	comp=Z,0.9nm,0.3s,mb4.2,baz=6.3,slow=7.2,SNR=7.2						
WRA				pP	pP	23 45 55.8	-2.4
	comp=Z,1.3nm,0.5s,baz=4.7,slow=7.3,SNR=3.3						
YKA	Yellowknife Ar	62.18	31	P	P	23 46 02.2	0.0
	comp=Z,0.1nm,0.4s,mb3.2,baz=302,slow=6.5,SNR=5.3						
YKA				pP	pP	23 46 20.2	-0.3
	comp=Z,0.4nm,0.8s,baz=299,slow=6.4,SNR=2.9						
YKA	Yellowknife Ar	62.18	31	P	P	23 46 02.2	0.0
YKA				pP	pP	23 46 20.2	-0.3
ARCES	ARCESS Array B	62.40	339	P	P	23 46 03.8	+0.2
ARCES				pmax	pmax		
	comp=Z,8.0nm,1.0s						
ARCES	ARCESS Array B	62.40	339	P	P	23 46 03.8	+0.2
	comp=Z,7.6nm,1.0s,mb4.7,baz=41,slow=8.1,SNR=3.8						
ASAR	Alice Springs	62.58	188	P	P	23 46 05.0	-0.3
ASAR				*PP	pP	23 46 22.9	-0.7
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	62.58	188	eP	P	23 46 05.8	+0.5
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	62.58	188	P	P	23 46 05.0	-0.3
	comp=Z,0.8nm,0.8s,mb3.7,baz=16,slow=9.6,SNR=6.4						
ASAR				pP	pP	23 46 22.9	-0.8
	comp=Z,0.3nm,0.5s,baz=352,slow=4.1,SNR=2.0						
ASAR				sP	sP	23 46 30.8	-0.6
	comp=Z,1.2nm,0.8s,baz=10,slow=7.5,SNR=4.6						
PALK	Pallekele	62.94	257	P	P	23 46 07.8	-0.2
JOF	Joensuu	64.48	332	ep	P	23 46 16.5	-0.9
KAF	Kangasniemi	66.81	332	ep	P	23 46 30.2	-2.2
VSR	Storozhevoye	67.72	318	eP	P	23 46 38.3	-0.1
VSR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
KIV	Kislovodsk	69.88	311	eP	P	23 46 52.6	+0.6
KIV				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
KIV	Kislovodsk	69.88	311	eP	P	23 46 51.9	0.0
	comp=Z,19nm,1.1s,mb4.8						
STKA	Stephens Creek	70.33	180	P	P	23 46 55.3	+0.7
NOA	NORSAR Array B	72.62	337	eP	P	23 47 08.0	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	72.62	337	P	P	23 47 07.8	-0.3
	comp=Z,1.1nm,0.7s,mb3.8,baz=36,slow=5.9,SNR=3.8						
AKASG	Malin Array Be	73.00	322	P	P	23 47 10.0	-0.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	73.00	322	P	P	23 47 10.0	-0.6
	comp=Z,0.8nm,0.5s,mb3.8,baz=44,slow=5.7,SNR=7.2						
NVAR	Mina Array Bea	73.78	54	P	P	23 47 17.4	+2.0
	comp=Z,1.4nm,0.7s,mb3.8,baz=291,slow=6.6,SNR=6.0						
MALT	Malatya	75.82	308	eP	P	23 47 27.8	+0.6
BW06	Boulder Array	76.29	46	eP	P	23 47 31.2	+1.4
	comp=Z,1.2nm,0.5s,mb3.9						
PDAR	Pinedale Array	76.29	46	P	P	23 47 30.9	+1.1
	comp=Z,1.3nm,0.6s,mb3.9,baz=287,slow=2.0,SNR=13						
BRTR	Keskin Array B	77.81	311	P	P	23 47 38.5	+0.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	Keskin Array B	77.81	311	P	P	23 47 38.5	+0.1
	comp=Z,0.6nm,0.4s,mb3.6,baz=123,slow=1.6,SNR=4.5						
RSSD	Black Hills	78.38	42	P	P	23 47 42.0	+0.5
TXAR	Lajitas Array	88.89	53	P	P	23 48 36.7	+1.3
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	88.89	53	P	P	23 48 36.7	+1.2
	comp=Z,0.8nm,0.7s,mb3.9,baz=292,slow=3.9,SNR=7.9						
TXAR	Lajitas Array	88.89	53	P	P	23 48 36.7	+1.2

KRSC 13 00:14:22.6±0.4, 54°.44N×161°.55E, h31^{km}±31^{km}, ML3.5,
Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	Mys Kozlova	0.16	42	P	Pb	00 14 28.6	+0.1
MKZ				i S	Sb	00 14 33.0	+0.5
TUMR	Tumrok	1.17	317	i P	Pn	00 14 43.4	+0.6
TUMR				eS	Sn	00 14 59.1	+1.4
KMNR	Kamenistaya	1.52	331	i P	Pn	00 14 48.7	+1.1
KMNR				i S	Sn	00 15 08.4	+2.1
BZMR	Bezymyannaya	1.62	338	P	Pn	00 14 49.8	+0.9
BZMR				i S	Sn	00 15 09.3	+0.6
ZLN	Zelenaya	1.64	345	i P	Pn	00 14 50.4	+1.2
ZLN				i S	Sn	00 15 10.0	+0.8
KPT	Kopyto	1.71	334	i P	Pn	00 14 51.4	+1.2
KPT				eS	Sn	00 15 12.7	+1.8
NLC	Nalytchevo	1.82	227	eP	Pn	00 14 52.2	+0.4
NLC				i S	Sn	00 15 13.5	-0.3
KRSR	Krestovskiy	1.87	343	P	Pn	00 14 55.2	+2.8
KRSR				i S	Sn	00 15 18.7	+3.8
KOZ	Kozyrevsk	1.89	330	eP	Pn	00 14 54.1	+1.5
KOZ				eS	Sn	00 15 17.7	+2.4
KBTR	Krutoberegovo	1.92	22	eP	Pn	00 14 53.4	+0.4
KBTR				eS	Sn	00 15 15.4	-0.6
KLY	Klyuchi	1.95	345	eP	Pn	00 14 53.6	+0.2
KLY				i S	Sn	00 15 16.7	-0.1
AVH	Avacha	2.04	236	i P	Pn	00 14 56.9	+2.2
AVH				i S	Sn	00 15 21.3	+2.2
SRDR	Sredinnyy	2.15	332	i P	Pn	00 14 57.2	+0.9
SRDR				eS	Sn	00 15 22.8	+0.9
PET	Petropavlovsk	2.23	232	P	Pn	00 14 57.8	+0.5
PET				i S	Sn	00 15 24.1	+0.3
SRKR	Sorokina	2.23	355	P	Pn	00 14 59.0	+1.7
SRKR				i S	Sn	00 15 25.3	+1.5
GNL	Ganaly	2.25	252	i P	Pn	00 14 59.9	+2.2
GNL				eS	Sn	00 15 27.6	+3.2
RUS	Russkaya	2.71	223	P	Pn	00 15 05.1	+1.2
RUS				i S	Sn	00 15 36.0	+0.4
MIPR	Malaya Ipel’ka	3.60	235	P	Pn	00 15 18.5	+2.4

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*NEIC **13** 00:23:22.4, 38°.61N×26°.56E, h10^{km}, MD3.2(ATH), MD3.3(ISK), ML3.7(THE), After ISK.*
*ISK **13** 00:23:22.7, 38°.62N×26°.58E, h13^{km}, MD3.3*
*DDA **13** 00:23:23.8, 38°.66N×26°.69E, h7^{km}±3^{km}, Md2.9*
*ATH **13** 00:23:23.6, 38°.65N×26°.65E, h28^{km}±1^{km}, MD3.2/3*
*ISCJB **13** 00:23:24.4±0.3, 38°.63N±0°.02×26°.63E±0°.03, h22^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=2.9km az=163.6*
*THE **13** 00:23:24.2, 38°.65N×26°.67E, h5^{km}±2^{km}, ML3.7/2, Error ellipse: s-maj=2.7km s-min=0.4km az=166.0*
*CSEM **13** 00:23:24.5±0.1, 38°.62N×26°.62E, h20^{km}, MD2.9, Error ellipse: s-maj=4.0km s-min=2.7km az=72.0*
ISC 13 00:23:24.4±0.4**, 38°.64N**±0°.02×**26°.65E**±0°.03**, h15**^{km}±3^{km}**,**
n71, σ0°.63/102**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URLA	Izmir	0.28	189	i P	Pg	00 23 30.3	-0.1
URLA				i S	Sg	00 23 35.6	+1.1
URLA	Izmir	0.28	189	i P	Pg	00 23 30.3	-0.2
URLA				i S	Sg	00 23 35.6	+1.1
BLCB	Balcova	0.40	130	ePG	Pg	00 23 32.0	-0.5
BLCB				eSG	Sg	00 23 38.1	+0.1
BLCB	Balcova	0.40	130	P	Pg	00 23 32.0	-0.5
BLCB				S	Sg	00 23 38.0	0.0
BLCB	Balcova	0.40	130	Pg	Pg	00 23 31.6	-0.9
BLCB				Sg	Sg	00 23 38.6	+0.7
BLCB	Balcova	0.40	130	ePg	Pg	00 23 32.0	-0.5
BLCB				Sg	Sg	00 23 38.7	+0.7
CHOS	Chios island	0.53	242	P	Pg	00 23 35.0	+0.1
CHOS				S	Sg	00 23 43.0	+0.9
CHOS	Chios island	0.53	242	ePN	Pg	00 23 35.1	+0.1
CHOS				eSN	Sg	00 23 42.8	+0.7
CHOS	Chios island	0.53	242	ePn	Pg	00 23 35.1	+0.1
CHOS				S	Sg	00 23 43.0	+0.9
IZM	Izmir	0.54	117	ePG	Pg	00 23 34.5	-0.6
AYVA	Ayvalik	0.67	3	i P	Pg	00 23 36.3	-1.2
AYVA				i S	Sg	00 23 45.7	-0.7
AYVA	Ayvalik	0.67	3	i P	Pg	00 23 36.3	-1.2
AYVA				i S	Sg	00 23 45.7	-0.7
PRK	Paraskevi	0.67	334	P	Pg	00 23 36.9	-0.7
PRK				S	Sg	00 23 46.8	+0.3
PRK	Paraskevi	0.67	334	ePN	Pg	00 23 36.9	-0.7
PRK				eSN	Sg	00 23 47.0	+0.5
PRK	Paraskevi	0.67	334	ePn	Pg	00 23 36.9	-0.7
PRK				eSn	Sg	00 23 47.0	+0.5
SIGR	SIGRI	0.84	313	P	Pb	00 23 40.2	-0.5
SIGR				S	Sg	00 23 53.2	+1.3
SIGR	SIGRI	0.84	313	P	Pb	00 23 40.2	-0.5
SIGR				S	Sg	00 23 53.2	+1.3
AKS	Akhisar	0.94	75	ePG	Pg	00 23 42.4	-0.3
AKS	Akhisar	0.94	75	ePg	Pg	00 23 42.4	-0.2
AKHS	Akhisar	0.94	75	i P	Pb	00 23 41.8	-0.6
AKHS				i S	Sb	00 23 54.5	-0.1
AKHS	Akhisar	0.94	75	i P	Pb	00 23 41.8	-0.6
AKHS				i S	Sb	00 23 54.5	-0.1
SMG	Samos	0.94	171	ePN	Pn	00 23 41.8	-1.3
SMG				eSN	Sn	00 23 55.6	-0.6
SMG	Samos	0.94	171	ePn	Pn	00 23 41.8	-1.3
SMG				eSn	Sn	00 23 55.6	-0.6
GCAM	G?zelcaml?	1.04	154	i P	Pb	00 23 43.9	-0.3
GCAM				i S	Sb	00 23 58.1	+0.5
GCAM	G?zelcaml?	1.04	154	i P	Pb	00 23 43.9	-0.3
GCAM				i S	Sb	00 23 58.1	+0.5
EZN	Ezine	1.21	348	ePN	Pn	00 23 46.1	-0.7
EZN				eSN	Sn	00 24 02.6	-0.3
EZN	Ezine	1.21	348	ePn	Pn	00 23 46.1	-0.7
EZN				eSn	Sn	00 24 02.6	-0.3
BOZC	Bozcaada	1.29	339	i P	Pn	00 23 47.8	0.0
BOZC				i S	Sb	00 24 04.1	-0.5
BALY	Balya	1.33	34	i P	Pn	00 23 48.0	-0.4
BALY				i S	Sn	00 24 06.2	+0.4
BALY	Balya	1.33	34	i P	Pn	00 23 48.0	-0.4
BALY				i S	Sn	00 24 06.2	+0.4
BALB	Balikesir	1.38	43	ePN	Pn	00 23 49.3	+0.2
BALB				eSN	Sn	00 24 08.4	+1.3
BALB	Balikesir	1.38	43	ePn	Pn	00 23 49.3	+0.2
BALB				eSn	Sn	00 24 08.4	+1.3
MLSB	Milas	1.61	146	ePN	Pn	00 23 51.8	-0.4
MLSB	Milas	1.61	146	ePn	Pn	00 23 51.8	-0.5
GADA	Gvkgeada	1.65	340	ePN	Pn	00 23 52.5	-0.4
GADA	Gvkgeada	1.65	340	ePn	Pn	00 23 52.5	-0.4
BODT	Bodrum	1.66	161	ePN	Pn	00 23 52.2	-0.7
BODT	Bodrum	1.66	161	ePn	Pn	00 23 52.2	-0.7
BDRM	Kayabasi	1.69	158	i P	Pn	00 23 52.9	-0.5
BDRM				i S	Sn	00 24 15.0	+0.3
BDRM	Kayabasi	1.69	158	i P	Pn	00 23 52.9	-0.5
BDRM				i S	Sn	00 24 15.0	+0.2
LIA	Limnos Island	1.70	318	ePN	Pn	00 23 53.3	-0.1
LIA	Limnos Island	1.70	318	ePn	Pn	00 23 53.3	-0.1
LPK	Lapseki	1.73	3	ePN	Pn	00 23 54.1	+0.2
LPK	Lapseki	1.73	3	ePn	Pn	00 23 54.1	+0.2
DST	Dursunbey	1.81	57	ePN	Pn	00 23 55.3	+0.2
DST	Dursunbey	1.81	57	Pn	Pn	00 23 55.5	+0.5
EDC	Edincik	1.94	28	ePN	Pn	00 23 57.0	+0.1
EDC	Edincik	1.94	28	ePn	Pn	00 23 57.0	+0.1
BNT	Bandirma	1.98	29	ePN	Pn	00 23 57.7	+0.4
BNT	Bandirma	1.98	29	ePn	Pn	00 23 57.7	+0.4
YER	Yerkesik	1.98	139	ePN	Pn	00 23 57.3	0.0
YER	Yerkesik	1.98	139	ePn	Pn	00 23 57.3	-0.1
DAT	Datca	2.04	159	ePN	Pn	00 23 57.8	-0.4
DAT	Datca	2.04	159	ePn	Pn	00 23 57.8	-0.4
KCT	Karacabey	2.09	39	ePN	Pn	00 23 58.7	-0.2
KCT	Karacabey	2.09	39	Pn	Pn	00 23 59.6	+0.8
KCT	Karacabey	2.09	39	ePn	Pn	00 23 58.7	-0.2
ENEZ	Enez	2.13	350	ePN	Pn	00 23 59.4	0.0
ENEZ	Enez	2.13	350	ePn	Pn	00 23 59.4	0.0
KHL	Karahalli	2.28	97	ePN	Pn	00 24 02.3	+0.9
KHL	Karahalli	2.28	97	ePn	Pn	00 24 02.3	+0.9
DALT	Dalyan (Mudla)	2.44	139	ePN	Pn	00 24 04.0	+0.3
DALT	Dalyan (Mudla)	2.44	139	ePn	Pn	00 24 04.0	+0.3
RDO	Rodhopi	2.65	341	ePN	Pn	00 24 06.5	0.0
RDO	Rodhopi	2.65	341	ePn	Pn	00 24 06.5	0.0
FETY	Fethiye	2.78	135	ePN	Pn	00 24 08.7	+0.3
FETY	Fethiye	2.78	135	ePn	Pn	00 24 08.7	+0.3
YLV	Yalova	2.85	47	ePN	Pn	00 24 10.7	+1.4
YLV	Yalova	2.85	47	ePn	Pn	00 24 10.7	+1.4
ADVT	Abdulvahap	2.98	52	ePN	Pn	00 24 12.4	+1.3
ADVT	Abdulvahap	2.98	52	ePn	Pn	00 24 12.4	+1.3

IDC 13 00:26:43.3±2.5**, 7°.41S**×**127°.73E, h0**^{km}**, mb3.4**/1**,**
mb1 3.6/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, ML3.5**/2**, Error ellipse: s-maj=292.7km s-min=33.2km az=64.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.01	153	Pn	Pn	00 30 01.9	-1.3
	0.3nm,0.3s,baz=326,slow=13,SNR=5.8						
WRA				Sn	Sn	00 32 32.3	-7.2
	0.1nm,0.3s,baz=333,slow=22,SNR=2.7						
ASAR	Alice Springs	17.21	161	P	Pn	00 30 46.5	+1.1
	0.1nm,0.3s,baz=347,slow=12,SNR=6.9						
MKAR	Makanchi Array	67.36	328	P	P	00 37 40.4	+0.1
	0.3nm,0.7s,baz=131,slow=7.4,SNR=3.5						

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*NNC **13** 01:05:31.4±3.3, 44°.50N×87°.90E, h20^{km}±16^{km}, mb3.4, mpv3.2, Error ellipse: s-maj=40.1km s-min=20.6km az=34.0*
BJI 13 01:05:29.0, 44°.09N×**87°.71E, h13**^{km}**, ML3.1**/8**, 5C-4D,**
Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	Urumqi	0.27	182	⇓iPg	Pg	01 05 33.1	-1.5
WMQ				Sg	Sg	01 05 37.3	-1.1
WMQ				smax			
	comp=N,5µm,0.5s						
WMQ				smax			
	comp=E,3µm,0.6s						
MK31	Makanchi Array	4.67	307	Pn	Pn	01 06 39.6	+0.4
	comp=E,0.7nm,0.3s,baz=131,slow=13,SNR=139						
MK31				⇑Sn	Sn	01 07 32.7	-0.6
	comp=E,4.9nm,0.5s,baz=127,slow=26,SNR=7.3						
MK31				⇓Lg		01 07 54.1	
	comp=E,15nm,0.7s,baz=118,slow=27,SNR=4.7						
KURBB	Kurchatov Arra	9.02	320	⇑Pn	Pn	01 07 36.7	-2.2
	comp=E,0.2nm,0.5s						
KURBB				⇑Sn	Sn	01 09 16.8	-3.4
	comp=E,0.3nm,0.7s						
KURBB				⇓Lg		01 10 15.4	
	comp=E,1.0nm,0.8s						
KURK	Kurchatov	9.05	320	⇑Pn	Pn	01 07 37.6	-1.5
	comp=E,3.5nm,1.1s						
KURK				⇑Sn	Sn	01 09 16.9	-3.9
	comp=E,2.3nm,0.8s						
KURK				⇓Lg		01 10 15.4	
	comp=E,5.1nm,0.8s						

*NEIC **13** 01:08:25.6±2.2, 55°.68S×122°.68W, h10^{km}, mb4.1/1, Error ellipse: s-maj=91.1km s-min=56.6km az=170.0*

*IDC **13** 01:08:25.1±3.8, 55°.86S×122°.88W, h0^{km}, mb4.1/4, mb1 4.3/4, mb1mx4.0/14, mbtmp4.1/4, MS4.3/12, Ms1 4.2/12, ms1mx4.1/15, Error ellipse: s-maj=149.6km s-min=96.5km az=171.0*

*ISCJB **13** 01:08:33.1±1.6, 56°.1S±0°.3×125°.3W±0°.5, h10^{km}, mb4.0/5, MS4.3/12, Error ellipse: s-maj=51.0km s-min=17.8km az=138.9*

ISC 13 01:08:34.6±1.6, **56°.0S**±0°.2×**125°.2W**±0°.5, **h10**^{km}, **n20**, σ**1ˢ.08**/8, **mb4.0**/5, **MS4.3**/12, **Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	Palmer Station	30.27	132	LR	LR	01 23 27.1	
	comp=Z,449nm,18.2s,MS4.2,baz=154,slow=31						
USHA	Ushuaia	31.48	112	LR	LR	01 24 06.4	
	comp=Z,375nm,21.1s,MS4.0,baz=222,slow=31						
QSPA	South Pole Qui	34.16	180	LR	LR	01 26 48.6	
	comp=Z,326nm,19.6s,MS4.1,baz=280,slow=32						
PLCA	Paso Flores	38.32	90	LR	LR	01 27 21.0	
	comp=Z,328nm,21.8s,MS4.1,baz=228,slow=31						
URZ	Urewera	41.70	270	P	P	01 16 25.9	+2.8
	3.4nm,0.8s,mb4.0,baz=124,slow=11,SNR=3.1						
PPT	Papeete	42.59	324	eS	S	01 22 53.3	+0.1
	176nm,27.5s						
PPT				eLR	LR	01 27 55.7	
	1µm,26.0s						
PPT	Papeete	42.59	324	LR	LR	01 29 13.0	
	comp=Z,480nm,19.2s,MS4.4,baz=178,slow=29						
VNA3	Neumayer Olymp	45.20	156	e	P	01 16 50.8	-0.2
VNA2	Neumayer--Watz	45.95	156	e	P	01 16 57.7	+0.8
	baz=219,slow=8.3						
VNA2				e		01 17 21.5	
CPUP	Villa Florida	56.31	88	LR	LR	01 39 23.1	
	comp=Z,226nm,18.1s,MS4.3,baz=213,slow=34						
MAW	Mawson	56.54	184	LR	LR	01 40 16.9	
	comp=Z,324nm,21.9s,MS4.4,baz=168,slow=34						
STKA	Stephens Creek	65.90	249	P	P	01 19 20.9	+0.7
	2.8nm,1.0s,mb4.2,baz=126,slow=8.7,SNR=3.7						
STKA				LR	LR	01 41 33.0	
	comp=Z,159nm,18.9s,MS4.2,baz=207,slow=30						
ASAR	Alice Springs	76.51	248	P	P	01 20 23.7	-1.0
	0.7nm,0.9s,mb3.6,baz=151,slow=6.8,SNR=5.2						
WRA	Warramunga Arr	79.35	250	P	P	01 20 39.6	-0.8
	0.4nm,0.3s,mb3.8,baz=142,slow=5.2,SNR=4.6						
WRA				LR	LR	01 51 59.7	
	comp=Z,146nm,18.9s,MS4.3,baz=225,slow=32						
WRAB	Tennant Creek	79.35	250	eP	P	01 20 39.4	-1.1
	1.5nm,0.6s,mb4.1						
TXAR	Lajitas Array	86.98	19	LR	LR	01 51 39.8	
	comp=Z,124nm,21.8s,MS4.3,baz=350,slow=30						
BOSA	Boshof	92.02	154	LR	LR	01 59 11.4	
	comp=Z,122nm,18.0s,MS4.4,baz=156,slow=33						
PDAR	Pinedale Array	99.31	12	LR	LR	01 59 00.1	
	comp=Z,197nm,18.4s,MS4.7,baz=126,slow=31						
SONM	Songino Array	147.82	277	PKPbc	PKPbc	01 28 13.5	-5.1
	0.2nm,0.7s,baz=124,slow=2.8,SNR=2.4						
MKAR	Makanchi Array	160.63	253	PKPab	PKPab	01 29 13.8	-1.6
	0.3nm,0.6s,baz=119,slow=5.2,SNR=5.0						

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*NEIC **13** 01:11:02.0, 36°.94N×29°.26E, h5^{km}, MD3.3(ISK), ML3.1(ATH), After ISK.*

*ISCJB **13** 01:11:03.5±0.5, 36°.95N±0°.03×29°.26E±0°.03, h2^{km}±6^{km}, Error ellipse: s-maj=5.5km s-min=3.5km az=155.6*

*CSEM **13** 01:11:03.6±0.1, 36°.95N×29°.27E, h2^{km}, MD3.4, Error ellipse: s-maj=3.5km s-min=2.6km az=156.0*

*DDA **13** 01:11:03.7, 36°.96N×29°.24E, h7^{km}±4^{km}, Md3.2*

*ISK **13** 01:11:03.0, 36°.94N×29°.26E, h6^{km}, MD3.4*

ISC 13 01:11:04.0±0.5, **36°.95N**±0°.03×**29°.25E**±0°.03, **h4**^{km}±5^{km}, **n66**, σ**0ˢ.71**/82, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	204	PG	Pg	01 11 09.8	-0.8
FETY				SG	Sg	01 11 15.3	+0.2
FETY	Fethiye	0.34	204	iPg	Pg	01 11 09.8	-0.8
FETY				iSg	Sg	01 11 15.3	+0.2
GOLH	Golhisar	0.38	41	iP	Pg	01 11 10.7	-0.5
GOLH				iS	Sg	01 11 17.9	+1.8
GOLH	Golhisar	0.38	41	iP	Pg	01 11 10.7	-0.5
GOLH				iS	Sg	01 11 18.0	+1.9
DALT	Dalyan (Mudla)	0.53	250	PG	Pg	01 11 13.7	-0.5
DALT				SG	Sg	01 11 22.3	+1.3
DALT	Dalyan (Mudla)	0.53	250	iPg	Pg	01 11 13.7	-0.4
DALT				iSg	Sg	01 11 22.3	+1.3
TURN	Turunc	0.53	262	iP	Pg	01 11 18.6	+4.5
TURN				iS	Sg	01 11 31.1	+10
TURN	Turunc	0.53	262	iP	Pg	01 11 18.6	+4.5
ELL	Elmali	0.56	111	ePG	Pg	01 11 14.1	-0.7
ELL				eSG	Sg	01 11 22.7	+0.6
ELL	Elmali	0.56	111	ePg	Pg	01 11 14.1	-0.7
ELL				eSg	Sg	01 11 22.7	+0.6
AKAS	Kas	0.77	158	iP	Pg	01 11 18.6	-0.1
AKAS				iS	Sg	01 11 35.0	+6.2
AKAS	Kas	0.77	158	iP	Pg	01 11 18.6	-0.1
YER	Yerkesik	0.80	284	ePG	Pg	01 11 18.9	-0.4
YER	Yerkesik	0.80	284	ePg	Pg	01 11 18.9	-0.4
DENT	Denizli	0.82	348	ePG	Pg	01 11 19.2	-0.5
DENT	Denizli	0.82	348	ePg	Pg	01 11 19.2	-0.5
ANTB	Antalya	1.12	92	ePN	Pg	01 11 24.9	-0.6
ANTB	Antalya	1.12	92	ePn	Pg	01 11 25.0	-0.5
ARG	Arkhangelos	1.17	231	P	Pg	01 11 25.9	-0.5
ARG	Arkhangelos	1.17	231	P	Pg	01 11 25.9	-0.5
BCK	Bucak	1.18	64	ePN	Pn	01 11 26.2	-1.1
BCK	Bucak	1.18	64	ePn	Pn	01 11 26.2	-1.1
MLSB	Milas	1.23	287	ePN	Pn	01 11 27.1	-0.9
MLSB	Milas	1.23	287	ePn	Pn	01 11 27.1	-0.8
AYDN	Tasoluk	1.30	303	iP	Pn	01 11 28.8	-0.2
AYDN				iS	Sg	01 11 46.2	+0.3
AYDN	Tasoluk	1.30	303	iP	Pn	01 11 28.8	-0.2
AYDN				iS	Sg	01 11 46.2	+0.3
ISP	Isparta	1.34	48	ePN	Pn	01 11 28.8	-0.6
ISP	Isparta	1.34	48	P	Pn	01 11 29.7	+0.3
ISP	Isparta	1.34	48	ePn	Pn	01 11 28.8	-0.6
ISP	Isparta	1.34	48	P	Pn	01 11 29.7	+0.3
DAT	Datca	1.36	261	ePN	Pn	01 11 29.3	-0.5
DAT	Datca	1.36	261	ePn	Pn	01 11 29.3	-0.5
KHL	Karahalli	1.39	9	ePN	Pn	01 11 29.7	-0.4
KHL	Karahalli	1.39	9	ePn	Pn	01 11 29.7	-0.4
KHAL	Karahalli	1.43	8	iP	Pn	01 11 30.2	-0.5
KHAL				iS	Sb	01 11 50.4	+0.7
KHAL	Karahalli	1.43	8	iP	Pn	01 11 30.2	-0.5
KHAL				iS	Sb	01 11 50.4	+0.7
BDRM	Kayabasi	1.45	275	iP	Pn	01 11 31.1	0.0
BDRM				iS	Sb	01 11 49.7	-0.7
BDRM	Kayabasi	1.45	275	iP	Pn	01 11 31.0	0.0
BDRM				iS	Sb	01 11 49.7	-0.7
BODT	Bodrum	1.56	275	ePN	Pn	01 11 32.2	-0.3
BODT	Bodrum	1.56	275	ePn	Pn	01 11 32.2	-0.3
SHUT	Suhut-Afyon	1.90	32	ePN	Pn	01 11 37.0	-0.2
SHUT	Suhut-Afyon	1.90	32	ePn	Pn	01 11 37.0	-0.2
SMG	Samos	2.07	292	P	Pn	01 11 39.8	+0.3
SMG	Samos	2.07	292	P	Pn	01 11 39.8	+0.3
IZM	Izmir	2.14	313	ePN	Pn	01 11 40.3	-0.2
IZM	Izmir	2.14	313	ePn	Pn	01 11 40.3	-0.2
ALT	Altintas	2.21	18	ePN	Pn	01 11 41.3	-0.1
ALT	Altintas	2.21	18	ePn	Pn	01 11 41.3	-0.1
AKS	Akhisar	2.24	330	ePN	Pn	01 11 41.5	-0.3
AKS	Akhisar	2.24	330	ePn	Pn	01 11 41.5	-0.3
BLCB	Balcova	2.27	310	ePN	Pn	01 11 42.5	+0.3
BLCB	Balcova	2.27	310	ePn	Pn	01 11 42.5	+0.3
HDMB	Hadim	2.59	89	ePN	Pn	01 11 47.0	+0.4
HDMB	Hadim	2.59	89	ePn	Pn	01 11 47.0	+0.4
KONT	Konya--Tatoy	2.66	67	ePN	Pn	01 11 47.7	0.0
KONT	Konya--Tatoy	2.66	67	ePn	Pn	01 11 47.7	+0.1
KIZT	Kizilcal	2.83	46	ePN	Pn	01 11 50.2	+0.3
KIZT	Kizilcal	2.83	46	ePn	Pn	01 11 50.3	+0.3
ESKT	Eskisehir	2.85	26	ePN	Pn	01 11 50.6	+0.3
ESKT	Eskisehir	2.85	26	ePn	Pn	01 11 50.6	+0.3
ZKR	Zakros	3.07	234	P	Pn	01 11 54.9	+1.7
ZKR	Zakros	3.07	234	P	Pn	01 11 54.9	+1.7
LAST	Lasithi	3.54	241	P	Pn	01 12 01.8	+2.1
LAST	Lasithi	3.54	241	P	Pn	01 12 01.8	+2.1
SIVA	Sivas	4.09	243	P	Pn	01 12 11.8	+4.6
SIVA	Sivas	4.09	243	P	Pn	01 12 11.8	+4.6

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*NEIC **13** 01:33:32.3, 14°.88N×93°.46W, h16^{km}, MD4.0(MEX), After MEX.*

MEX 13 01:33:32.3±0.6, **14°.88N**×**93°.46W**, **h16**^{km}±9^{km}, **MD4.0**, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		0.85	16	iP	Pb	01 33 45.8	-2.9
PCIG				iS	Sb	01 33 56.3	-3.5
CCIG	Comitan	1.89	42	eP	Pn	01 34 00.8	-3.1
CCIG				iS	Sn	01 34 23.1	-4.2
TGIG		1.91	10	eP	Pn	01 34 00.2	-4.0
TGIG				iS	Sn	01 34 22.3	-5.6
CMIG	Matias Romero	2.59	328	iP	Pn	01 34 10.3	-3.2
CMIG				iS	Sn	01 34 41.0	-3.5
HUIG	Huatulco	2.70	289	iP	Pn	01 34 12.3	-2.8
HUIG				iS	Sn	01 34 42.9	-4.5
PNIG	Pinotepa	4.74	289	eP	Pn	01 34 40.9	-2.2
PNIG				iS	Sn	01 35 34.3	-3.4

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*IDC **13** 01:36:06.7±0.9, 31°.36N×86°.51E, h0^{km}, mb3.6/10, mb1 3.8/11, mb1mx3.7/25, mbtmp3.6/11, ML3.9/2, MS4.0/2, Ms1 4.0/2, ms1mx2.8/33, Error ellipse: s-maj=29.2km s-min=18.1km az=65.0*

*ISCJB **13** 01:36:10.0±0.6, 31°.41N±0°.08×86°.4E±0°.1, h33^{km}, mb3.6/11, MS4.1/2, Error ellipse: s-maj=14.8km s-min=9.0km az=136.4*

*NEIC **13** 01:36:10.5±2.8, 31°.41N×86°.36E, h25^{km}±22^{km}, mb3.6/3, Error ellipse: s-maj=13.2km s-min=7.9km az=45.0*

ISC 13 01:36:10.3±3.4, **31°.41N**±0°.09×**86°.4E**±0°.1, **h22**^{km}±26^{km}, **n22**, σ**0ˢ.84**/20, **mb3.6**/11, **MS4.1**/2, **Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	4.46	111	ePn	Pn	01 37 19.5	+2.9
TKM2	Tokmak 2	14.33	326	ePn	Pn	01 39 31.9	+0.2
KBL	Kabul	14.88	287	ePn	Pn	01 39 38.9	-0.4
	2.3nm,0.5s						
MKAR	Makanchi Array	15.68	350	Pn	Pn	01 39 48.9	-0.8
	0.1nm,0.3s,baz=156,slow=11,SNR=3.1						
CMAR	Chiang Mai Arr	17.19	136	P	Pn	01 40 07.5	-1.6
	0.6nm,0.3s,baz=316,slow=10,SNR=2.6						
KURK	Kurchatov	20.13	346	P	P	01 40 42.0	-0.6
	2.5nm,0.9s,baz=164,slow=11,SNR=6.1						
KURK	Kurchatov	20.13	346	eP	P	01 40 42.9	+0.2
	4.8nm,1.2s						
SONM	Songino Array	22.41	37	P	P	01 41 06.8	-0.3
	1.4nm,0.8s,mb3.5,baz=226,slow=9.9,SNR=14						
ZALV	Zalesovo Beam	22.55	358	P	P	01 41 08.9	+0.2
	1.2nm,0.7s,mb3.5,baz=182,slow=10,SNR=8.0						
ZALV	Zalesovo Beam	22.55	358	P	P	01 41 08.8	+0.2
ULN	Ulaanbaatar	22.77	38	eP	P	01 41 11.3	+0.3
	0.9nm,0.6s,mb3.4						
BVAR	Borovoye Array	24.52	336	P	P	01 41 28.3	+0.4
	0.4nm,0.7s,mb3.1,baz=177,slow=8.7,SNR=3.2						
BRVK	Borovoye	24.59	336	eP	P	01 41 27.9	-0.6
	1.4nm,0.7s,mb3.6						
PETK	Petropavlovsk-	54.63	44	LR	LR	02 10 45.1	
	comp=Z,73nm,20.6s,MS3.7,baz=326,slow=38						
GERES	GERESS Array B	56.11	311	P	P	01 45 49.1	+1.3
	1.3nm,0.8s,mb4.0,baz=76,slow=8.2,SNR=4.3						
WRA	Warramunga Arr	68.73	131	P	P	01 47 11.7	-0.8
	0.6nm,0.3s,mb4.0,baz=326,slow=6.7,SNR=6.3						
ASAR	Alice Springs	71.20	134	P	P	01 47 27.2	-0.4
	1.0nm,0.7s,mb3.8,baz=322,slow=7.4,SNR=6.9						
KDAK	Kodiak Island	78.36	28	LR	LR	02 30 38.8	
	comp=Z,191nm,19.9s,MS4.4,baz=86,slow=42						
TORD	Torodi Ar. Bea	78.79	279	P	P	01 48 12.6	+0.8
	0.3nm,0.9s,mb3.2,baz=49,slow=5.0,SNR=2.8						
BOSA	Boshof	83.34	231	P	P	01 48 35.9	+0.3
	1.8nm,0.9s,mb4.1,baz=37,slow=7.3,SNR=2.7						
BOSA	Boshof	83.34	231	P	P	01 48 35.9	+0.3
YKA	Yellowknife Ar	84.91	10	P	P	01 48 42.7	-0.4
	0.1nm,0.4s,mb3.3,baz=347,slow=5.1,SNR=5.1						

IDC 13 01:59:26.1±9.3, **21°.58N**×**143°.11E**, **h269**^{km}±92^{km}, **mb3.1**/6, **mb1 3.3**/6, **mb1mx3.1**/22, **mbtmp3.1**/6, **Error ellipse: s-maj=52.8km s-min=15.5km az=82.0**, **Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	20.57	324	P	P	02 03 45.0	+0.1
	0.7nm,0.5s,baz=137,slow=10,SNR=3.1						
WRA	Warramunga Arr	42.15	192	P	P	02 06 52.6	0.0
	1.1nm,0.4s,baz=16,slow=8.9,SNR=11						
ASAR	Alice Springs	45.86	192	P	P	02 07 21.9	-0.1
	0.5nm,0.5s,baz=16,slow=12,SNR=8.7						
MKAR	Makanchi Array	54.73	313	P	P	02 08 28.0	0.0
	0.1nm,0.5s,baz=92,slow=8.1,SNR=3.4						
YKA	Yellowknife Ar	76.59	28	P	P	02 10 46.9	+0.1
	0.3nm,0.6s,baz=289,slow=5.5,SNR=4.3						
ARCES	ARCESS Array B	79.01	341	P	P	02 11 00.0	0.0
	5.2nm,0.9s,baz=72,slow=8.6,SNR=3.5						

CASC 13 02:00:38.6±1.8, **12°.50N**×**88°.50W**, **h29**^{km}±19^{km}, **MD3.9**, **ML3.3**, **Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VSM	San Miguel	0.95	14	eP	Pn	02 00 56.3	+0.3
BLLM	Bellamira	0.97	15	eP	Pn	02 00 56.0	-0.3
BLLM				eS	Sn	02 01 09.8	+0.7
SNVI	San Vicente	1.15	344	eP	Pn	02 00 59.0	+0.2
SNVI				eS	Sn	02 01 14.3	+0.7
LFRS	El Faro	1.24	334	eP	Pn	02 00 59.4	-0.6
LFRS				eS	Sn	02 01 15.9	+0.1
CAHU	Cacacuatique	1.29	13	eP	Pn	02 01 01.1	+0.3
LBRS	Las Brisas	1.34	337	eP	Pn	02 01 01.8	+0.4
LBRS				eS	Sn	02 01 19.9	+1.7
CRIN	San Cristobal	1.43	82	eP	Pn	02 01 03.7	+1.1
CRIN				eS	Sn	02 01 21.2	+0.7
CRIN				AML	AML	02 01 26.1	
	comp=Z,234nm,0.2s						
MIRN	Miramar	1.75	92	eP	Pn	02 01 07.0	0.0
MIRN				AML	AML	02 01 31.8	
	comp=Z,504nm,0.2s						
COPN	Copaltepe	1.90	99	eP	Pn	02 01 08.1	-0.9
MOMN	Momotombo	1.92	93	eP	Pn	02 01 08.7	-0.6
RBDL	Robledal	1.97	324	eP	Pn	02 01 11.0	+0.9
TICN	Ticuantepe	2.27	102	eP	Pn	02 01 13.8	-0.3
TICN				AML	AML	02 01 43.9	
	comp=Z,262nm,0.1s						

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*IDC **13** 02:15:23.0±1.1, 33°.67S×179°.09E, h261^{km}±10^{km}, mb4.3/14, mb1 4.4/16, mb1mx4.3/21, mbtmp4.3/16, Error ellipse: s-maj=11.7km s-min=9.4km az=143.0*

*NEIC **13** 02:15:25.1±0.7, 34°.19S×179°.16E, h297^{km}±7^{km}, mb4.7/7, Error ellipse: s-maj=10.7km s-min=8.9km az=138.0*

ISC 13 02:15:25.3±0.7, **34°.18S**±0°.07×**179°.20E**±0°.08, **h298**^{km}±7^{km}, **n109**, σ**1ˢ.27**/96, **mb4.5**/21, **1C**, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.46	192	P	Pn	02 16 24.6	-0.8
WIZ	White Island	3.72	205	P	Pn	02 16 29.6	+1.4
PUZ	Puketiti	3.96	191	P	Pn	02 16 30.2	-0.6
WCZ	Waipu Caves	4.35	245	P	Pn	02 16 34.9	-0.3
MWZ	Matawai	4.36	197	P	Pn	02 16 35.2	-0.1
MKAZ	Moumakai	4.40	227	P	Pn	02 16 38.1	+2.4
EDRZ	Edgecumbe	4.40	206	P	Pn	02 16 38.2	+2.5
URZ	Urewera	4.41	202	P	Pn	02 16 36.9	+1.1
	91nm,0.3s,baz=29,slow=5.8,SNR=251						
URZ				S	S	02 17 33.5	+1.1
	97nm,0.3s,baz=87,slow=24,SNR=13						
URZ	Urewera	4.41	202	P	Pn	02 16 35.3	-0.5
KNZ	Kokohu	4.99	194	P	Pn	02 16 41.5	-0.9
WHTZ	Whakaora	5.19	209	P	Pn	02 16 48.4	+3.6
WATZ	Wairara	5.32	211	P	Pn	02 16 48.8	+2.5
HATZ	Hinemaiaia	5.33	207	P	Pn	02 16 46.8	+0.4
BKZ	Black Stump Fm	5.43	203	P	Pn	02 16 47.5	-0.2
RATZ	Rangitukua	5.43	209	P	Pn	02 16 50.3	+2.6
RAO	Raoul Island	5.49	27	P	Pn	02 16 39.7	-8.8
	79nm,0.3s,baz=72,slow=20,SNR=4.7						
RAO				S	S	02 17 33.8	-22
	392nm,0.3s,baz=42,slow=20,SNR=14						
RITZ	Rihia Road	5.49	208	P	Pn	02 16 50.6	+2.2
KATZ	Kakaramea	5.56	209	P	Pn	02 16 51.7	+2.6
HIZ	Hauiti	5.57	218	P	Pn	02 16 52.0	+2.7
WTVZ	West Tongariro	5.72	209	P	Pn	02 16 52.9	+1.8
TWVZ	Taurewa	5.74	211	P	Pn	02 16 53.6	+2.2
NGZ	Ngauruhoe	5.76	209	P	Pn	02 16 52.5	+0.9
TUVZ	Tukino	5.82	208	P	Pn	02 16 54.1	+1.8
DRZ	Dome Shelter	5.87	209	P	Pn	02 16 55.3	+2.5
WNVZ	Wahianoa	5.90	208	P	Pn	02 16 54.6	+1.4
MOVZ	Moawhango	5.91	207	P	Pn	02 16 53.8	+0.5
TSZ	Takapari Road	6.42	203	P	Pn	02 16 58.7	-0.7
WAZ	Wanganui	6.51	210	P	Pn	02 17 01.7	+1.2
BFZ	Birch Farm	6.90	199	P	Pn	02 17 05.0	-0.3
MRZ	Mangatainoka R	7.08	203	P	Pn	02 17 05.8	-1.7
KIW	Kapiti Island	7.49	206	P	Pn	02 17 11.4	-1.1
MTW	Mount Morrison	7.56	202	P	Pn	02 17 12.4	-0.9
CAW	Cannon Point	7.65	204	P	Pn	02 17 13.6	-0.9
PAWZ	Paruwai Farm	7.79	201	P	Pn	02 17 15.3	-0.8
MSWZ	Moikau Station	7.87	202	P	Pn	02 17 16.4	-0.7
MRW	Makara Radio	7.89	206	P	Pn	02 17 16.6	-0.7
WEL	Wellington	7.92	205	P	Pn	02 17 17.2	-0.4
SNZO	South Karori	7.96	205	P	Pn	02 17 17.0	-1.2
BHW	Baring Head	7.99	204	P	Pn	02 17 17.2	-1.4
TCW	Tory Channel	8.03	208	P	Pn	02 17 18.0	-1.1
NNZ	Nelson	8.40	212	P	Pn	02 17 22.5	-1.2
QRZ	Quartz Range	8.49	217	P	Pn	02 17 23.6	-1.1
BSWZ	Blackbirch Sta	8.62	208	P	Pn	02 17 25.9	-0.4
THZ	Tophouse	9.05	211	P	Pn	02 17 31.0	-0.7
KHZ	Kahutara	9.35	207	P	Pn	02 17 34.3	-1.0
DSZ	Denniston Nort	9.54	215	P	Pn	02 17 36.1	-1.6
LTZ	Lake Taylor	10.16	210	P	Pn	02 17 44.2	-1.0
MQZ	McQueen's Vall	10.79	206	P	Pn	02 17 51.8	-1.1
WVZ	Waitaha Valley	11.07	214	P	Pn	02 17 55.3	-1.1
RPZ	Rata Peaks	11.44	211	P	Pn	02 18 00.1	-0.7
	12nm,0.3s,baz=352,slow=1.5,SNR=56						
RPZ				S	S	02 20 02.8	-5.6
	6.6nm,0.3s,baz=173,slow=21,SNR=15						
RPZ	Rata Peaks	11.44	211	P	Pn	02 17 58.2	-2.6
FOZ	Fox Glacier	11.94	215	P	Pn	02 18 04.1	-2.9
LBZ	Lake Benmore	12.35	212	P	Pn	02 18 11.1	-0.8
ODZ	Otahua Downs	12.69	209	P	Pn	02 18 16.3	+0.3
JCZ	Jackson Bay	12.77	216	P	Pn	02 18 15.2	-1.8
WKZ	Wanaka	13.21	213	P	Pn	02 18 21.5	-0.8
EAZ	Earnscleugh	13.40	212	P	Pn	02 18 23.6	-0.9
TUZ	Tuapeka	13.84	209	P	Pn	02 18 31.1	+1.2
MLZ	Mavora Lakes	14.00	214	P	Pn	02 18 32.4	+0.7
WHZ	Wether Hill Ro	14.51	213	P	Pn	02 18 37.9	+0.1
DCZ	Deep Cove	14.57	216	P	Pn	02 18 38.0	-0.6
DZM	Mont Dzumac	16.47	314	eP	P	02 18 55.8	-2.8
DZM	Mont Dzumac	16.47	314	eP	P	02 18 56.5	-2.1
	56nm,0.6s						
NOUC	Port Laguerre	16.53	313	eP	P	02 18 58.4	-0.9
AFI	Afiamalu	21.77	24	P	P	02 19 49.9	-3.6
	92nm,0.5s,mb5.3,baz=34,slow=6.5,SNR=20						
RAR	Rarotonga	22.61	61	P	P	02 19 59.8	-1.2
	13nm,0.6s,mb4.4,baz=195,slow=10,SNR=4.2						
ARMA	Armidale	23.57	272	eP	P	02 20 13.3	+3.6
STKA	Stephens Creek	31.49	264	eP	P	02 21 22.5	+2.5
	4.5nm,0.8s,mb4.0						
STKA	Stephens Creek	31.49	264	P	P	02 21 22.1	+2.2
	4.2nm,0.8s,mb4.0,baz=102,slow=9.9,SNR=5.3						
CTA	Charters Tower	32.34	287⇑	iP	P	02 21 28.1	+0.7
	33nm,0.6s,mb5.0						
CTA	Charters Tower	32.34	287	P	P	02 21 27.6	+0.2
	42nm,0.6s,mb5.1,baz=111,slow=10.0,SNR=61						
CTAO	Charters Tower	32.34	287	eP	P	02 21 28.0	+0.5
	31nm,0.6s,mb5.0						
COEN	Coen	38.28	293	eP	P	02 22 17.3	-0.5
	127nm,0.9s,mb5.3						
ASAR	Alice Springs	40.72	273	P	P	02 22 38.5	+0.7
	31nm,0.7s,mb4.7,baz=111,slow=7.5,SNR=243						
ASAR				S	S	02 28 27.9	+2.5
	2.5nm,0.8s,baz=114,slow=15,SNR=11						
WRAB	Tennant Creek	42.05	278	eP	P	02 22 48.4	-0.1
	28nm,0.8s,mb4.5						
WRA	Warramunga Arr	42.06	278	P	P	02 22 48.6	0.0
	41nm,0.8s,mb4.7,baz=118,slow=7.9,SNR=6.7						
WRA				ScP	ScP	02 28 00.5	+1.6
	2.2nm,0.8s,baz=131,slow=3.5,SNR=6.1						
WRA				S	S	02 28 45.7	+0.6
	3.7nm,1.0s,baz=117,slow=13,SNR=5.4						
VNDA	Vanda	44.12	185	P	P	02 23 10.6	+6.4
	8.6nm,1.3s,mb3.8,baz=33,slow=11,SNR=3.8						
KAKA	Kakadu	47.43	285	eP	P	02 23 29.9	-0.8
	15nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	50.13	274	eP	P	02 23 50.9	-0.2
	18nm,0.8s,mb4.5						
MBWA	Marble Bar	53.57	268	eP	P	02 24 16.1	-0.2
	5.0nm,0.7s,mb4.0						
QSPA	South Pole Qui	55.94	180	P	P	02 24 38.8	+6.4
	20nm,0.6s,mb4.7,baz=26,slow=1.7,SNR=57						
MAW	Mawson	67.94	202	P	P	02 25 54.1	+2.2
	16nm,0.9s,mb4.7,baz=198,slow=3.2,SNR=4.9						
VNA3	Neumayer Olymp	74.69	177	e	P	02 26 35.9	+3.9
VNA3				e		02 27 17.9	
VNA2	Neumayer--Watz	75.09	178	e	P	02 26 38.4	+4.1
	baz=186,slow=5.8						
VNA2				e		02 27 21.9	
PLCA	Paso Flores	81.64	134	P	P	02 27 15.2	+4.7
	5.1nm,0.6s,mb4.4,baz=222,slow=5.3,SNR=25						
PETK	Petropavlovsk-	88.91	347	P	P	02 27 45.3	-0.3
	6.2nm,0.9s,mb4.4,baz=138,slow=7.2,SNR=3.6						
YBH	Yreka Blue Hor	92.45	39	P	P	02 28 02.6	+0.3
	2.8nm,0.8s,mb4.2,baz=256,slow=3.3,SNR=5.2						
NVAR	Mina Array Bea	92.61	44	P	P	02 28 03.8	+0.6
	3.5nm,0.8s,mb4.3,baz=220,slow=7.9,SNR=23						
TUC	Tucson	93.30	53	eP	P	02 28 07.9	+1.4
	3.4nm,0.7s,mb4.4						
MOD	Modoc	93.86	41	eP	P	02 28 08.6	-0.2
	2.8nm,0.6s,mb4.5						
TXAR	Lajitas Array	96.39	59	P	P	02 28 21.9	+1.3
	0.4nm,0.9s,mb3.5,baz=214,slow=8.8,SNR=4.5						
PDAR	Pinedale Array	100.49	45	P	Pdif	02 28 40.3	+1.4
	0.5nm,0.6s,baz=343,slow=1.5,SNR=4.9						
MKAR	Makanchi Array	118.34	309	PKP	PKPdf	02 33 35.9	-1.0
	0.1nm,0.5s,baz=74,slow=2.1,SNR=3.7						
MKAR				PKKPbc	PKKPbc	02 43 59.3	+3.1
	0.5nm,0.4s,baz=280,slow=3.8,SNR=5.5						
RES	Resolute Bay	121.56	18	ePKPdf	PKPdf	02 33 41.4	-0.9
KURK	Kurchatov	121.89	313	PKP	PKPdf	02 33 42.2	-1.4
	0.7nm,0.5s,baz=118,slow=1.8,SNR=5.1						
KURK	Kurchatov	121.89	313	PKP	PKPdf	02 33 42.2	-1.4
KURK				ePKPdf	PKPdf	02 33 42.5	-1.1
FRB	Frobisher Bay	129.83	32	PKP	PKPdf	02 33 57.9	-0.5
	1.3nm,0.7s,baz=193,slow=7.2,SNR=4.2						
JOF	Joensuu	144.94	335	epkp	PKPdf	02 34 25.3	-0.8
KAF	Kangasniemi	147.19	337	epkp	PKPdf	02 34 30.9	+1.0
	baz=36,slow=2.1						
LIC	Lamto	151.91	171	ePKIKP	PKiKP	02 34 48.3	+2.3
	58nm,1.7s						
NB2	NORSAR Subarra	152.02	348	PKP	PKPdf	02 34 43.8	+6.2
	comp=Z,11nm,1.4s,baz=26,slow=3.2						
NOA	NORSAR Array B	152.02	348	PKPbc	PKPbc	02 34 43.7	-0.7
	comp=Z,1.1nm,0.8s,baz=45,slow=2.4,SNR=3.1						
BRTR	Keskin Array B	152.03	292	PKPbc	PKPbc	02 34 44.5	-0.7
	comp=Z,1.1nm,0.5s,baz=123,slow=5.3,SNR=6.6						
KIC	Kosan Boka	152.08	172	ePKIKP	PKiKP	02 34 48.6	+2.3
	comp=Z,176nm,1.8s						
TIC	Toumodi	152.33	171	ePKIKP	PKiKP	02 34 49.0	+2.2
	comp=Z,6.8nm,0.2s						
DBIC	Dimbokro	152.37	171	PKPbc	PKPbc	02 34 49.0	+2.2
	comp=Z,0.8nm,0.4s,baz=304,slow=15,SNR=7.5						
AKASG	Malin Array Be	152.62	316	PKP	PKPdf	02 34 40.6	+1.8
	comp=Z,0.2nm,0.2s,baz=85,slow=2.2,SNR=3.2						
AKASG				PKPbc	PKPbc	02 34 48.8	+2.7
	comp=Z,0.3nm,0.3s,baz=92,slow=1.9,SNR=4.0						
TORD	Torodi Ar. Bea	158.94	187	PKP	PKPdf	02 34 49.1	+0.8
	comp=Z,0.6nm,0.8s,baz=216,slow=1.4,SNR=4.1						
TORD				PKPab	PKPab	02 35 29.2	+3.2
	comp=Z,0.7nm,0.5s,baz=171,slow=4.0,SNR=7.7						
TORD	Torodi Ar. Bea	158.94	187	PKP	PKPdf	02 34 49.1	+0.8
TORD				PKPab	PKPab	02 35 29.2	+3.2

CASC 13 02:16:45.6±2.2, **13°.89N**×**89°.77W**, **h0**^{km}±5^{km}, **MD3.7**, **1D**, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTR	El Retiro	0.12	87	eP	Pg	02 16 49.3	+1.4
RTR				eS	Sg	02 16 52.2	+2.7
SBLS	San Blas	0.15	109	eP	Pg	02 16 49.8	+1.3
SBLS				eS	Sg	02 16 53.2	+2.7
SNJE	San Jose	0.16	98	eP	Pg	02 16 50.1	+1.4
RBDL	Robledal	0.24	20⇓	eP	Pg	02 16 50.7	+0.5
BOQS	Boqueron	0.50	108	eP	Pg	02 16 56.1	+0.9
MTO2	Montecristo 2	0.64	38	eP	Pg	02 16 58.0	0.0
LFRS	El Faro	0.74	111	eP	Pg	02 17 00.4	+0.6
NBG	Las Nubes	0.89	321	eP	Pg	02 17 04.0	+1.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
MRL	Marmol	1.17	4	*e*P	Pg	02 17 08.6	+0.5
MRL				*e*S	Sg	02 17 25.5	+2.2
FUG	Fuego 3	1.18	298	*e*P	Pg	02 17 08.1	-0.1
FUG				*e*S	Sg	02 17 26.6	+3.1
TP2	Tecpan 2	1.50	306	*e*P	Pn	02 17 15.3	+1.5
CAHU	Cacacuatique	1.52	94	*e*P	Pn	02 17 13.6	-0.5
JAT	Jato	1.86	283	*e*P	Pn	02 17 21.1	+2.3
JAT				*e*S	Sn	02 17 45.9	+2.9

ISCJB ***13*** *02:42:51.9±0.5, 33°.85N±0°.08×136°.74E±0°.06, h373^{km}±2^{km}, mb3.5/16, Error ellipse: s-maj=13.3km s-min=7.3km az=159.7*

MOS ***13*** *02:42:51.8±0.8, 33°.81N×136°.69E, h379^{km}, mb3.8/8, Error ellipse: s-maj=19.8km s-min=12.7km az=106.1*

JMA ***13*** *02:42:52.3±0.2, 33°.79N×136°.77E, h372^{km}±2^{km}, M3.5*

NEIC ***13*** *02:42:53.1±1.0, 33°.85N×136°.67E, h373^{km}±9^{km}, mb3.9/3, Error ellipse: s-maj=13.2km s-min=11.8km az=174.0*

IDC ***13*** *02:42:53.0±1.1, 33°.87N×136°.71E, h369^{km}±9^{km}, mb3.2/13, mb1 3.4/14, mb1mx3.3/26, mbtmp3.2/14, Error ellipse: s-maj=16.4km s-min=15.3km az=155.0*

ISC 13 02:42:52.9±0.5**, 33°.85N**±0°.08×**136°.75E**±0°.06**, h367**^{km}±2^{km}**, n54, σ0^{s}.84**/63**, mb3.5**/16**, Near south coast of western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIE	Ise	0.54	356	P	Pn	02 43 39.6	+0.6
JIE				S	S	02 44 16.2	+0.1
JKN2	Miekihoku	0.55	315	P	Pn	02 43 39.4	+0.4
JWZ	Kozaga	0.92	250	P	Pn	02 43 40.0	-0.1
HMMJ	Hamamatsu 2	1.29	38	P	Pn	02 43 42.3	+0.8
HMMJ				S	S	02 44 21.3	+0.6
JEG	Eigenji	1.32	347	P	Pn	02 43 42.6	+1.0
JAO	Obara	1.48	16	P	Pn	02 43 43.2	+0.8
JWT	Wachi	1.81	323	P	Pn	02 43 44.5	+0.1
JWT				S	S	02 44 24.8	-1.1
JAI	Aioi	1.91	269	P	Pn	02 43 45.2	+0.1
JAI				S	S	02 44 25.9	-1.2
JOD2	Odawara 2	2.39	53	P	Pn	02 43 49.6	+1.2
JRY	Ryogami san	2.79	39	P	Pn	02 43 52.2	+0.6
JRY				S	S	02 44 39.7	+0.7
JHU	Hanno	2.89	46	P	Pn	02 43 52.7	+0.3
JHU				S	S	02 44 38.2	-2.2
MJAR	Matsushiro Arr	2.94	24	P	Pn	02 43 53.4	+0.6
MJAR				S	S	02 44 41.8	+0.5
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	2.94	24	P	Pn	02 43 53.4	+0.6
	comp=N,0.8nm,0.3s,baz=185,slow=7.9,SNR=5.1						
MJAR				S	S	02 44 41.8	+0.5
	comp=N,0.5nm,0.3s,baz=215,slow=19,SNR=5.1						
BSO4	Boso 4	3.18	68	P	Pn	02 43 54.4	-0.6
BSO4				S	S	02 44 43.8	-1.3
JHS	Saijyo	3.21	292	P	Pn	02 43 55.7	+0.4
JAG	Ashikaga	3.39	40	P	Pn	02 43 56.0	-0.9
JTO	Tosashimizu	3.45	254	P	Pn	02 43 57.6	+0.1
JHO	Hitachi	4.17	48	P	Pn	02 44 03.4	-1.0
JFK	Kawauchi	4.86	43	P	Pn	02 44 10.3	-1.3
JFK				S	S	02 45 09.7	-5.7
KSRS	Korea Array	8.03	299	P	Pn	02 44 48.1	+0.6
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	Korea Array	8.03	299	P	Pn	02 44 48.0	+0.5
	comp=Z,1.2nm,0.3s,baz=112,slow=12,SNR=33						
YSS	Yuzh-Sakhalins	13.86	17	*e*P	P	02 45 55.0	+1.0
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS	Yuzh-Sakhalins	13.86	17	*e*Pn	Pn	02 45 56.3	+0.4
	comp=Z,44nm,0.8s						
BJT	Baijiatuau	17.55	296	*e*P	P	02 46 32.7	-1.3
BJT				pmax	pmax		
	comp=Z,15nm,0.4s						
BJT	Baijiatuau	17.55	296	*e*P	P	02 46 32.7	-1.4
	comp=Z,15nm,0.4s						
PETK	Petropavlovsk-	24.37	31	P	P	02 47 39.3	+0.4
PETK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.4						
PETK	Petropavlovsk-	24.37	31	P	P	02 47 39.3	+0.4
	comp=Z,2.4nm,0.8s,mb3.5,baz=262,slow=9.9,SNR=3.2						
ULN	Ulaanbaatar	26.27	311	*e*P	P	02 47 57.1	+1.2
ULN				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.6						
ULN	Ulaanbaatar	26.27	311	*e*P	P	02 47 57.1	+1.1
	comp=Z,5.0nm,1.3s,mb3.6						
SONM	Songino Array	26.68	311	P	P	02 48 00.2	+0.7
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM	Songino Array	26.68	311	P	P	02 48 00.2	+0.7
	comp=Z,1.6nm,0.7s,mb3.3,baz=108,slow=6.9,SNR=16						
BILL	Bilibino	38.18	17	*e*P	P	02 49 38.5	+0.5
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb3.9						
BILL	Bilibino	38.18	17	*e*P	P	02 49 38.5	+0.5
	comp=Z,7.5nm,1.0s,mb3.9						
MKAR	Makanchi Array	42.67	304	P	P	02 50 15.0	+0.2
	comp=Z,0.4nm,0.6s,mb2.7,baz=85,slow=10,SNR=6.8						
MKAR				ScP	ScP	02 55 13.0	-1.0
	comp=Z,0.2nm,0.9s,baz=94,slow=5.9,SNR=2.8						
KURK	Kurchatov	44.98	310	P	P	02 50 32.1	-0.7
	comp=Z,0.3nm,0.5s,mb2.7,baz=90,slow=8.2,SNR=2.9						
WRA	Warramunga Arr	53.54	183	P	P	02 51 36.8	-0.4
	comp=Z,0.4nm,0.4s,mb3.1,baz=359,slow=7.6,SNR=5.5						
STKA	Stephens Creek	65.53	175	P	P	02 52 58.7	+0.7
	comp=Z,0.5nm,0.3s,mb3.7,baz=344,slow=7.4,SNR=3.8						
STKA	Stephens Creek	65.53	175	P	P	02 52 58.7	+0.7
RES	Resolute Bay	66.59	13	P	P	02 53 03.8	-0.4
RES				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
RES	Resolute Bay	66.59	13	P	P	02 53 03.8	-0.4
	comp=Z,1.0nm,0.4s,mb3.9,baz=308,slow=3.5,SNR=11						
JOF	Joensuu	66.95	331	*e*p	P	02 53 02.4	-4.2
YKA	Yellowknife Ar	68.44	28	P	P	02 53 16.1	+0.3
	comp=Z,0.4nm,0.5s,mb3.4,baz=294,slow=6.8,SNR=6.5						
YKA	Yellowknife Ar	68.44	28	P	P	02 53 16.1	+0.3
KAF	Kangasniemi	69.35	332	*e*P	P	02 53 20.0	-1.3
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
KAF	Kangasniemi	69.35	332	*e*p	P	02 53 20.0	-1.3
	comp=Z,2.9nm,0.6s,mb4.2,baz=53,slow=5.7						
NOA	NORSAR Array B	75.59	336	P	P	02 53 56.8	-1.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	75.59	336	P	P	02 53 56.8	-0.9
	comp=Z,0.8nm,0.8s,mb3.5,baz=80,slow=4.3,SNR=3.5						
NVAR	Mina Array Bea	79.95	50	P	P	02 54 23.1	+1.0
	comp=Z,0.7nm,0.6s,mb3.6,baz=302,slow=4.8,SNR=7.0						
PDAR	Pinedale Array	82.60	43	P	P	02 54 36.4	+0.6
	comp=Z,1.1nm,0.7s,mb3.8,baz=261,slow=1.9,SNR=11						
GERES	GERESS Array B	83.31	326	P	P	02 54 37.7	-1.6
	comp=Z,0.3nm,0.6s,mb3.3,baz=36,slow=3.7,SNR=4.1						
TXAR	Lajitas Array	95.08	50	P	P	02 55 34.5	-0.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TXAR	Lajitas Array	95.08	50	P	P	02 55 34.5	-0.6
	comp=Z,0.6nm,0.9s,mb3.6,baz=295,slow=3.6,SNR=4.0						
TXAR	Lajitas Array	95.08	50	P	P	02 55 34.5	-0.7
TORD	Torodi Ar. Bea	116.65	310	PKP	PKPdf	03 00 53.1	-1.3
	comp=Z,0.3nm,0.9s,baz=70,slow=1.5,SNR=3.0						

NEIC ***13*** *03:00:44.8, 32°.65S×71°.72W, h31^{km}, ML3.0(GUC), After GUC.*

GUC 13 03:00:44.8±0.8**, 32°.65S**×**71°.72W, h31**^{km}±4^{km}**, MD3.7, ML3.0, 2C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.78	14	*e*P	Pn	03 00 59.6	-0.1
CHNG				*i* S	Sb	03 01 09.9	-0.4
PEL	Peldehue	1.00	120	*e*P	Pn	03 01 02.5	-0.2
PEL				*i* S	Sn	03 01 16.6	+0.9
PEL				AML	AML	03 01 20.0	
	comp=E,2µm,0.2s						
RCDM	Rinconada Maip	1.14	138	*e*P	Pn	03 01 04.0	-0.5
RCDM				*i* S	Sn	03 01 18.7	-0.3
RCDM	Rinconada Maip	1.14	138	*e*P	Pn	03 01 04.0	-0.5
RCDM				*i* S	Sn	03 01 18.7	-0.3
ANTU	Antumapu	1.29	136	*i* P	Pn	03 01 07.6	+0.9
ANTU	Antumapu	1.29	136	*i* P	Pn	03 01 07.6	+0.9
ANTU				AML	AML	03 01 27.7	
	comp=E,322nm,0.5s						
FCH	Farellones	1.38	120	⇓*i*P	Pn	03 01 09.4	+1.5
FCH				*i* S	Sn	03 01 27.8	+2.9
FCH				AML	AML	03 01 30.6	
	comp=E,256nm,0.3s						
CHCH	Chadas Angostu	1.56	146	*e*P	Pn	03 01 11.4	+1.0
CHCH	Chadas Angostu	1.56	146	*e*P	Pn	03 01 11.4	+1.0
CMCH	Combarbala	1.59	23	⇑*i*P	Pn	03 01 11.8	+1.0
CMCH				*i* S	Sn	03 01 32.9	+2.7
CMCH	Combarbala	1.59	23	⇑*i*P	Pn	03 01 11.8	+1.0
CMCH				*i* S	Sn	03 01 32.9	+2.7
CMCH				AML	AML	03 01 39.8	
	comp=E,356nm,0.6s						
CACH	El Canelo	1.74	148	*e*P	Pn	03 01 14.3	+1.5
CACH				*i* S	Sn	03 01 37.4	+3.5
CACH	El Canelo	1.74	148	*e*P	Pn	03 01 14.3	+1.5
CACH				*i* S	Sn	03 01 37.4	+3.5
LMEL	Las Melosas	1.74	134	*e*P	Pn	03 01 14.6	+1.7
LMEL				*i* S	Sn	03 01 37.4	+3.4
LMEL	Las Melosas	1.74	134	*e*P	Pn	03 01 14.6	+1.7
LMEL				*i* S	Sn	03 01 37.4	+3.4
LMEL				AML	AML	03 01 39.8	
	comp=N,237nm,0.1s						
CICH	Cipreses	1.99	147	⇓*i*P	Pn	03 01 17.7	+1.5
CICH				*i* S	Sn	03 01 43.1	+3.0

ISK ***13*** *03:01:24.4, 36°.95N×29°.26E, h3^{km}, ML3.8*

NEIC ***13*** *03:01:24.0, 36°.95N×29°.26E, h5^{km}, mb3.8/6, ML3.7(ISK), After ISK.*

CSEM ***13*** *03:01:25.5±0.1, 36°.90N×29°.29E, h5^{km}, ML3.8, Error ellipse: s-maj=3.1km s-min=2.3km az=60.0*

DDA ***13*** *03:01:26.1, 36°.99N×29°.24E, h7^{km}±5^{km}, Md3.6*

HLW ***13*** *03:01:27.9, 36°.90N×29°.27E, h16^{km}, Mb3.8*

IDC ***13*** *03:01:29.0±2.6, 36°.90N×29°.34E, h34^{km}±25^{km}, mb3.6/7, mb1 3.8/16, mb1mx3.7/30, mbtmp3.6/16, ML3.7/9, MS2.6/1, Ms1 2.6/1, ms1mx2.2/40, Error ellipse: s-maj=15.3km s-min=13.5km az=161.0*

ISC 13 03:01:26.1±0.4**, 36°.91N**±0°.02×**29°.30E**±0°.02**, h9**^{km}±3^{km}**, n195, σ0^{s}.93**/222**, mb3.7**/7**, 19C-16D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.32	212	PG	Pg	03 01 31.7	-0.7
FETY				*e*SG	Sg	03 01 37.4	+0.7
FETY	Fethiye	0.32	212	*i* Pg	Pg	03 01 31.7	-0.7
FETY				*e*Sg	Sg	03 01 37.4	+0.7
GOLH	Golhisar	0.39	33	*i* P	Pg	03 01 32.5	-1.2
GOLH				*i* S	Sg	03 01 39.2	+0.3
GOLH	Golhisar	0.39	33	*i* P	Pg	03 01 32.5	-1.2
GOLH				*i* S	Sg	03 01 39.2	+0.3
ELL	Elmali	0.52	108	*e*PG	Pg	03 01 35.7	-0.3
ELL				*e*SG	Sg	03 01 44.8	+1.9
ELL	Elmali	0.52	108	*e*Pg	Pg	03 01 35.7	-0.4
ELL				*e*Sg	Sg	03 01 44.8	+2.0
DALT	Dalyan (Mudla)	0.55	255	PG	Pg	03 01 35.6	-1.0
DALT				*e*SG	Sg	03 01 43.7	-0.1
DALT	Dalyan (Mudla)	0.55	255	*i* Pg	Pg	03 01 35.6	-1.0
DALT				*e*Sg	Sg	03 01 43.7	-0.1
TURN	Turunc	0.56	267	*i* P	Pg	03 01 40.9	+4.1
TURN				*i* S	Sg	03 01 51.2	+7.1
TURN	Turunc	0.56	267	*i* P	Pg	03 01 40.9	+4.1
AKAS	Kas	0.72	160	*i* P	Pg	03 01 40.0	+0.1
AKAS				*i* S	Sg	03 01 54.2	+5.0
AKAS	Kas	0.72	160	*i* P	Pg	03 01 40.0	+0.1
KSL	Kastellorizon	0.79	163	*e*P	Pg	03 01 41.9	+0.6
YER	Yerkesik	0.84	286	*e*PG	Pg	03 01 41.1	-1.1
YER	Yerkesik	0.84	286	*e*Pg	Pg	03 01 41.1	-1.2
DENT	Denizli	0.87	346	*e*PG	Pg	03 01 40.7	-2.1
DENT	Denizli	0.87	346	*e*Pg	Pg	03 01 40.7	-2.1
ANTB	Antalya	1.09	90	*e*PN	Pn	03 01 46.9	-0.6
ANTB	Antalya	1.09	90	*e*Pn	Pn	03 01 46.9	-0.6
ARG	Arkhangelos	1.17	234	*e*P	Pb	03 01 47.0	-1.4
BCK	Bucak	1.17	62	*e*PN	Pn	03 01 47.9	-0.7
BCK	Bucak	1.17	62	*e*Pn	Pn	03 01 47.9	-0.7
MLSB	Milas	1.27	288	*e*PN	Pn	03 01 48.9	-1.2
MLSB	Milas	1.27	288	*e*Pn	Pn	03 01 48.9	-1.2
ISP	Isparta	1.34	46	*e*PN	Pn	03 01 51.0	0.0
ISP	Isparta	1.34	46	*e*Pn	Pn	03 01 50.2	-0.8
ISP				*e*Sn	Sn	03 02 06.8	-2.2
ISP	Isparta	1.34	46	*e*Pn	Pn	03 01 51.0	0.0
ISP				*e*Sn	Sn	03 02 06.8	-2.2
AYDN	Tasoluk	1.36	304	*i* P	Pn	03 01 51.2	0.0
AYDN				*i* S	Sb	03 02 08.3	-0.9
AYDN	Tasoluk	1.36	304	*i* P	Pn	03 01 51.2	0.0
AYDN				*i* S	Sb	03 02 08.3	-0.8
DAT	Datca	1.39	263	*e*PN	Pn	03 01 51.8	+0.1
DAT	Datca	1.39	263	*e*Pn	Pn	03 01 51.8	+0.1
KHL	Karahalli	1.42	7	*e*PN	Pn	03 01 51.3	-0.8
KHL	Karahalli	1.42	7	*e*Pn	Pn	03 01 51.3	-0.8
KHAL	Karahalli	1.47	6	*i* P	Pn	03 01 51.8	-0.9
KHAL				*i* S	Sn	03 02 12.7	+0.7
KHAL	Karahalli	1.47	6	*i* P	Pn	03 01 51.8	-0.9
KHAL				*i* S	Sn	03 02 12.7	+0.6
BDRM	Kayabasi	1.49	277	*i* P	Pn	03 01 52.7	-0.3
BDRM				*i* S	Sn	03 02 14.7	+2.1
BDRM	Kayabasi	1.49	277	*i* P	Pn	03 01 52.7	-0.4
BDRM				*i* S	Sn	03 02 14.7	+2.0
BODT	Bodrum	1.60	276	*e*PN	Pn	03 01 54.5	-0.1
BODT	Bodrum	1.60	276	*e*Pn	Pn	03 01 54.5	0.0
SHUT	Suhut-Afyon	1.92	31	*e*PN	Pn	03 01 59.0	+0.1
SHUT	Suhut-Afyon	1.92	31	*e*Pn	Pn	03 01 59.1	+0.2
SMG	Samos	2.12	293	*e*P	Pn	03 02 01.3	-0.4
GDZ	Gediz	2.18	4	*i* P	Pn	03 02 02.1	-0.5
GDZ				*i* S	Sn	03 02 38.1	+8.4
GDZ	Gediz	2.18	4	*i* P	Pn	03 02 02.1	-0.4
IZM	Izmir	2.19	313	*e*PN	Pn	03 02 02.1	-0.7
IZM	Izmir	2.19	313	*e*Pn	Pn	03 02 02.1	-0.6
KARP	Karpathos	2.20	232	*e*P	Pn	03 02 03.7	+0.9
ALT	Altintas	2.24	16	*e*PN	Pn	03 02 03.4	+0.1
ALT	Altintas	2.24	16	*e*Pn	Pn	03 02 03.4	+0.1
AKS	Akhisar	2.29	330	*e*PN	Pn	03 02 03.2	-0.9
AKS	Akhisar	2.29	330	*e*Pn	Pn	03 02 03.2	-0.8
BLCB	Balcova	2.32	310	*e*PN	Pn	03 02 04.1	-0.3
BLCB	Balcova	2.32	310	*e*Pn	Pn	03 02 04.1	-0.3
HDMB	Hadim	2.56	88	*e*PN	Pn	03 02 08.7	+1.0
HDMB	Hadim	2.56	88	*e*Pn	Pn	03 02 08.7	+1.0
KONT	Konya--Tatoy	2.65	66	*e*PN	Pn	03 02 09.7	+0.7
KONT	Konya--Tatoy	2.65	66	*e*Pn	Pn	03 02 09.7	+0.7
KIZT	Kizilcal	2.84	45	*e*PN	Pn	03 02 11.8	+0.3
KIZT	Kizilcal	2.84	45	*e*Pn	Pn	03 02 11.8	+0.2
ESKT	Eskisehir	2.88	25	*e*PN	Pn	03 02 12.5	+0.4
ESKT	Eskisehir	2.88	25	*e*Pn	Pn	03 02 12.5	+0.4
BALB	Balikesir	2.95	338	*e*PN	Pn	03 02 12.9	-0.2
BALB	Balikesir	2.95	338	*e*Pn	Pn	03 02 12.9	-0.2
SVRH	Sivrihisar-ESK	3.08	34	*e*PN	Pn	03 02 15.1	+0.1
SVRH	Sivrihisar-ESK	3.08	34	*e*Pn	Pn	03 02 15.1	+0.2
CAVI	Cavuskoy	3.32	7	*e*PN	Pn	03 02 18.5	+0.3
CAVI	Cavuskoy	3.32	7	*e*Pn	Pn	03 02 18.5	+0.4
PRK	Paraskevi	3.34	315	*e*P	Pn	03 02 18.6	+0.2
NPS	Neapolis	3.41	242	*e*P	Pn	03 02 20.4	+1.0
LEF	Lefka	3.42	120	*e*PN	Pn	03 02 21.0	+1.4
LEF	Lefka	3.42	120	*e*Pn	Pn	03 02 21.0	+1.5
ADVT	Abdulvahap	3.54	5	*e*PN	Pn	03 02 21.9	+0.7
ADVT	Abdulvahap	3.54	5	*e*Pn	Pn	03 02 21.9	+0.7
YLV	Yalova	3.65	1	*e*PN	Pn	03 02 23.3	+0.5
YLV	Yalova	3.65	1	*e*Pn	Pn	03 02 23.3	+0.5
ARMT	Armutlu	3.67	355	*e*PN	Pn	03 02 23.4	+0.4
ARMT	Armutlu	3.67	355	*e*Pn	Pn	03 02 23.4	+0.4
EZN	Ezine	3.73	322	*e*PN	Pn	03 02 24.1	+0.2
EZN	Ezine	3.73	322	*e*Pn	Pn	03 02 24.1	+0.2
CSS	Prodhromos	3.81	119	*e*Pn	Pn	03 02 26.6	+1.7
CSS	Prodhromos	3.81	119	*e*Pn	Pn	03 02 26.6	+1.7
IDI	Anoyia	3.92	247	Pn	Pn	03 02 27.5	+1.1
	3.6nm,0.3s,baz=72,slow=11,SNR=21						
IDI				Sn	Sn	03 03 13.0	+0.5
	3.2nm,0.3s,baz=213,slow=3.0,SNR=5.2						
IDI	Anoyia	3.92	247	Pn	Pn	03 02 27.5	+1.1
IDI				Sn	Sn	03 03 13.0	+0.5
LPK	Lapseki	3.99	331	*e*PN	Pn	03 02 27.6	+0.2
LPK	Lapseki	3.99	331	*e*Pn	Pn	03 02 27.6	+0.2
GADA	Gvkgeada	4.22	322	*e*PN	Pn	03 02 30.9	+0.3
GADA	Gvkgeada	4.22	322	*e*Pn	Pn	03 02 30.9	+0.3
BRTR	Keskin Array B	4.42	49	Pn	Pn	03 02 33.7	+0.3
	1.7nm,0.3s,baz=237,slow=13,SNR=48						
BRTR				Sn	Sn	03 03 22.6	-2.4
	0.3nm,0.3s,baz=228,slow=18,SNR=2.6						
BRTR	Keskin Array B	4.42	49	Pn	Pn	03 02 33.7	+0.3
BRTR				Sn	Sn	03 03 22.6	-2.4
MMAI	Mount Meron Ar	6.34	126	Pn	Pn	03 02 59.9	+0.1
	9.3nm,0.3s,baz=314,slow=11,SNR=41						
MMAI				Sn	Sn	03 04 12.0	-0.3
	7.0nm,0.3s,baz=322,slow=23,SNR=6.9						
AMAG	Maghara	7.05	151	P	Pn	03 03 09.1	-0.3
AMAG	Maghara	7.05	151	P	Pn	03 03 09.1	-0.3
HMYD	Mayadein	7.20	170	P	Pn	03 03 11.6	0.0
HMYD	Mayadein	7.20	170	P	Pn	03 03 11.6	0.0
KOT	Kottamia	7.28	162	⇓P	Pn	03 03 12.5	-0.1
KOT	Kottamia	7.28	162	P	Pn	03 03 12.5	-0.1
HHAG	Hagoal	7.32	161	⇓P	Pn	03 03 12.9	-0.3
HHAG	Hagoal	7.32	161	P	Pn	03 03 12.9	-0.3
HNAT	Natroun	7.34	171	P	Pn	03 03 13.4	0.0
HNAT	Natroun	7.34	171	P	Pn	03 03 13.4	0.0
HSAF	As Saff	7.51	165	P	Pn	03 03 16.3	+0.5
HSAF				S	Sn	03 04 35.9	-5.2
HSAF	As Saff	7.51	165	P	Pn	03 03 16.3	+0.5
TIRR	Tirgusor	7.57	355	⇓*i*P	Pn	03 03 17.0	+0.4
TIRR	Tirgusor	7.57	355	⇓P	Pn	03 03 17.0	+0.4
TIRR	Tirgusor	7.57	355	⇓P	Pn	03 03 17.0	+0.4
GLL	Jalalah	7.58	164	P	Pn	03 03 16.9	+0.1
GLL	Jalalah	7.58	164	P	Pn	03 03 17.0	+0.2
SUZ		7.64	156	P	Pn	03 03 17.6	0.0
SUZ		7.64	156	P	Pn	03 03 17.6	0.0
HARR	Harsova	7.84	353	⇑*i*P	Pn	03 03 21.5	+1.2
HARR	Harsova	7.84	353	⇑P	Pn	03 03 21.5	+1.2
ASF	Jabal al Asfar	7.85	125	Pn	Pn	03 03 21.3	+0.8
	0.4nm,0.3s,baz=212,slow=6.4,SNR=4.7						
ASF				LR	LR	03 06 48.7	
	comp=Z,41nm,19.4s,baz=88,slow=41						
TLCR		8.28	358	⇑*i*P	Pn	03 03 27.0	+0.7
TLCR		8.28	358	⇑P	Pn	03 03 26.9	+0.7
TLCR		8.28	358	⇑P	Pn	03 03 27.0	+0.7
SWA2		8.29	204	P	Pn	03 03 26.3	-0.2
AWBH		8.57	182	P	Pn	03 03 29.6	-0.8
AWBH				S	Sn	03 05 00.5	-6.6
AWBH		8.57	182	P	Pn	03 03 29.6	-0.7
EIL	Elat	8.63	145	Pn	Pn	03 03 30.4	-0.7
	1.9nm,0.3s,baz=330,slow=8.6,SNR=19						
EIL				Sn	Sn	03 05 05.2	-3.4
	1.3nm,0.3s,baz=90,slow=20,SNR=4.6						
EIL	Elat	8.63	145	Pn	Pn	03 03 30.4	-0.7
EIL				Sn	Sn	03 05 05.2	-3.4
EIL	Elat	8.63	145	Pn	Pn	03 03 30.4	-0.8
MLR	Muntele Rosu	8.94	345	⇑*i*P	Pn	03 03 36.9	+1.6
MLR	Muntele Rosu	8.94	345	Pn	Pn	03 03 36.7	+1.4
	0.4nm,0.3s,baz=253,slow=2.9,SNR=8.0						
MLR	Muntele Rosu	8.94	345	⇑P	Pn	03 03 36.9	+1.6
MLR	Muntele Rosu	8.94	345	⇑P	Pn	03 03 36.9	+1.6
VOIR		9.10	341	⇓*i*P	Pn	03 03 38.7	+1.2
VOIR		9.10	341	⇓P	Pn	03 03 38.6	+1.1
VOIR		9.10	341	⇓P	Pn	03 03 38.7	+1.2
PLOR	Plostina	9.15	348	⇓*i*P	Pn	03 03 40.1	+1.9
PLOR	Plostina	9.15	348	⇓*i*P	Pn	03 03 40.1	+1.9
VRI	Vrincioaia	9.15	349	⇑*i*P	Pn	03 03 40.9	+2.6
VRI	Vrincioaia	9.15	349	⇑P	Pn	03 03 40.9	+2.6
VRI	Vrincioaia	9.15	349	⇑P	Pn	03 03 40.9	+2.6
HKAT	Jabal Katrina	9.25	153	⇓P	Pn	03 03 39.4	-0.3
HKAT	Jabal Katrina	9.25	153	P	Pn	03 03 39.4	-0.2
HFRF	Wahat Farafira	9.77	185	⇑P	Pn	03 03 45.8	-1.0
HFRF	Wahat Farafira	9.77	185	P	Pn	03 03 45.8	-1.0
GZR	Gura Zlata	9.79	332	⇓*i*P	Pn	03 03 47.6	+0.5
GZR	Gura Zlata	9.79	332	⇓P	Pn	03 03 47.6	+0.5
TIP	Timpagrande	10.15	287	*e*Pn	Pn	03 03 51.1	-0.8
TIP	Timpagrande	10.15	287	*e*Pn	Pn	03 03 51.2	-0.7
BZS	Buzias	10.44	329	⇑*i*P	Pn	03 03 55.4	-0.5
BZS	Buzias	10.44	329	⇑P	Pn	03 03 55.4	-0.5
BZS	Buzias	10.44	329	⇑P	Pn	03 03 55.4	-0.5
DRGR		11.02	336	⇑*i*P	Pn	03 04 02.8	-1.1
DRGR		11.02	336	⇑P	Pn	03 04 02.8	-1.1
BURAR	Bucovina Array	11.12	346	⇓*i*P	Pn	03 04 07.1	+2.0
BURAR	Bucovina Array	11.12	346	⇓P	Pn	03 04 07.1	+2.0
BURAR	Bucovina Array	11.12	346	⇓P	Pn	03 04 07.1	+2.0
BUR02	Bucovina Ar. S	11.12	346	⇑P	Pn	03 04 06.3	+1.2
BUR02	Bucovina Ar. S	11.12	346	⇑P	Pn	03 04 06.3	+1.1
AKASG	Malin Array Be	13.79	360	Pn	Pn	03 04 40.2	-1.4
	0.4nm,0.3s,baz=180,slow=11,SNR=3.4						
AKASG	Malin Array Be	13.79	360	Pn	Pn	03 04 40.2	-1.4
KEST	Kesra	16.13	272	Pn	Pn	03 05 15.1	+2.1
	0.1nm,0.3s,baz=134,slow=3.8,SNR=5.3						
GERES	GERESS Array B	16.48	321	Pn	Pn	03 05 21.5	+4.1
	0.1nm,0.3s,baz=132,slow=11,SNR=8.3						
MBDF	Montbardon	18.71	302	*e*P	Pn	03 05 45.1	0.0
	8.3nm,0.6s						
MBDF	Montbardon	18.71	302	*e*P	Pn	03 05 45.1	0.0
	4.2nm,0.6s						
MBDF	Montbardon	18.71	302	*e*P	Pn	03 05 45.1	0.0
	4.2nm,0.6s						
LPG	La Plagne	18.96	304	*e*P	Pn	03 05 48.7	+0.5
	8.9nm,0.8s						
LPG	La Plagne	18.96	304	*e*P	Pn	03 05 48.7	+0.5
	4.4nm,0.8s						
LPG	La Plagne	18.96	304	*e*P	Pn	03 05 48.7	+0.5
	4.4nm,0.8s						
LPL	La Plagne	18.98	304	*e*P	Pn	03 05 48.9	+0.5
	6.0nm,0.8s						
LPL	La Plagne	18.98	304	*e*P	Pn	03 05 48.9	+0.5
	3.0nm,0.8s						
LPL	La Plagne	18.98	304	*e*P	Pn	03 05 48.9	+0.5
	3.0nm,0.8s						
ORIF	Oris-en-Rattie	19.38	302	*e*P	Pn	03 05 51.4	-1.7
	7.8nm,0.8s						
ORIF	Oris-en-Rattie	19.38	302	*e*P	Pn	03 05 51.4	-1.7
	3.9nm,0.8s						
ORIF	Oris-en-Rattie	19.38	302	*e*P	Pn	03 05 51.4	-1.7
	3.9nm,0.8s						
CABF	La Chapelle	19.78	307	*e*P	Pn	03 05 59.1	+1.2
	9.4nm,0.7s						
CABF	La Chapelle	19.78	307	*e*P	Pn	03 05 59.1	+1.2
	4.7nm,0.7s						
CABF	La Chapelle	19.78	307	*e*P	Pn	03 05 59.1	+1.2
	4.7nm,0.7s						
VIVF	Saint-Julien-l	20.19	301	*e*P	P	03 06 00.0	-0.9
	9.6nm,0.8s						
VIVF	Saint-Julien-l	20.19	301	*e*P	P	03 06 00.0	-0.9
	4.8nm,0.8s						
VIVF	Saint-Julien-l	20.19	301	*e*P	P	03 06 00.0	-0.9
	4.8nm,0.8s						
LOR	Lormes	21.44	307	*e*P	P	03 06 14.7	+0.3
LOR	Lormes	21.44	307	*e*P	P	03 06 14.7	+0.3
SSF	Saint Saulge	21.60	306	*e*P	P	03 06 16.9	+0.8
SSF	Saint Saulge	21.60	306	*e*P	P	03 06 16.9	+0.8
AKTK	Aktyubinsk	24.60	48	P	P	03 06 46.0	-0.4
AKTK	Aktyubinsk	24.60	48	P	P	03 06 46.0	-0.4
AKTO	Aktyubinsk	24.60	48	P	P	03 06 46.0	-0.4
	1.5nm,0.7s,mb3.6,baz=249,slow=8.4,SNR=6.0						
ESDC	Sonseca Array	26.17	286	P	P	03 06 59.8	-0.9
	1.8nm,0.7s,mb3.7,baz=82,slow=10,SNR=7.0						
ESDC	Sonseca Array	26.17	286	P	P	03 06 59.8	-0.9
TOA0	Torodi Ar. Sit	34.20	233	*e*P	P	03 08 11.3	-0.7
TOA0	Torodi Ar. Sit	34.20	233	*e*P	P	03 08 11.3	-0.7
TORD	Torodi Ar. Bea	34.20	233	P	P	03 08 11.3	-0.7
	3.5nm,0.6s,mb4.4,baz=32,slow=8.6,SNR=64						
MKAR	Makanchi Array	40.01	59	P	P	03 08 59.9	-1.2
	0.7nm,0.7s,mb3.5,baz=278,slow=6.3,SNR=8.4						
MKAR	Makanchi Array	40.01	59	P	P	03 08 59.9	-1.2
POO	Poona	43.05	103	*e*x	x	03 09 29.0	
DBIC	Dimbokro	43.29	234	P	P	03 09 27.4	-0.9
	2.6nm,0.9s,mb4.0,baz=34,slow=7.3,SNR=3.2						
DBIC	Dimbokro	43.29	234	P	P	03 09 27.4	-0.9
DBIC	Dimbokro	43.29	234	P	P	03 09 27.4	-0.9
SONM	Songino Array	55.77	53	P	P	03 11 02.6	-0.6
	0.2nm,0.7s,mb3.3,baz=284,slow=5.8,SNR=2.5						
SONM	Songino Array	55.77	53	P	P	03 11 02.6	-0.6
YKA	Yellowknife Ar	76.77	344	P	P	03 13 16.8	-0.7
	0.3nm,0.7s,mb3.4,baz=27,slow=5.8,SNR=3.8						
YKA	Yellowknife Ar	76.77	344	P	P	03 13 16.8	-0.7

CASC 13 03:02:24.2±2.0**, 12°.53N**×**87°.87W, h49**^{km}±41^{km}**, MD4.3, ML3.9, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	Conchagua	0.75	3	*e*P	Pn	03 02 38.5	0.0
CNCH				*e*S	Sn	03 02 50.1	+1.2
CRIN	San Cristobal	0.82	78	*e*P	Pn	03 02 39.8	+0.3
CRIN				AML	AML	03 02 54.0	
	comp=Z,8µm,0.4s						
BLLM	Bellamira	0.98	339	*e*P	Pn	03 02 41.5	-0.1
BLLM				*e*S	Sn	03 02 56.2	+1.8
VSM	San Miguel	0.98	337	*e*P	Pn	03 02 42.0	+0.4
TEL3	Telica 3	1.01	87	*e*P	Pn	03 02 41.6	-0.3
MIRN	Miramar	1.14	94	*e*P	Pn	03 02 43.2	-0.6

CNGN	Cerro Negro	1.15	91	eP	Pn	03 02 43.5	-0.4
CNGN				AML	AML	03 03 04.2	
	comp=Z,2µm,0.2s						
CAHU	Cacacuatique	1.28	345	eP	Pn	03 02 46.2	+0.5
CAHU				eS	Sn	03 03 04.1	+2.3
COPN	Copaltepe	1.30	105	eP	Pn	03 02 45.3	-0.7
MOMN	Momotombo	1.31	95	eP	Pn	03 02 46.1	0.0
SNVI	San Vicente	1.43	319	eP	Pn	03 02 47.7	-0.1
SNVI				eS	Sn	03 03 07.1	+1.6
CSAN		1.46	103	eP	Pn	03 02 48.0	-0.1
XAVN	Gruta Xavier	1.56	104	eP	Pn	03 02 49.2	-0.3
LFRS	El Faro	1.59	313	eP	Pn	03 02 49.7	-0.3
LFRS				eS	Sn	03 03 09.8	+0.4
TISN	Laguna Tiscapa	1.61	103	eP	Pn	03 02 49.9	-0.4
TISN				AML	AML	03 03 12.0	
	comp=Z,2µm,0.5s						
TGUH	Tegucigalpa,Un	1.63	21	eP	Pn	03 02 51.1	+0.6
MGAN	Managua	1.63	103	eP	Pn	03 02 50.0	-0.5
MGAN				eP		03 02 50.0	
LBRS	Las Brisas	1.66	317	eP	Pn	03 02 51.5	+0.7
HUEN		1.67	96	eP	Pn	03 02 50.7	-0.4
TICN	Ticuantepe	1.68	107	eP	Pn	03 02 50.9	-0.2
WILN	Americas 2	1.69	102	eP	Pn	03 02 51.0	-0.3
WILN				AML	AML	03 03 19.9	
	comp=Z,328nm,0.3s						
BOQS	Boqueron	1.82	311	eP	Pn	03 02 53.3	+0.2
BOQS				eS	Sn	03 03 15.4	+0.4
SBLS	San Blas	2.15	308	eP	Pn	03 02 58.3	+0.7
SNJE	San Jose	2.15	309	eP	Pn	03 02 58.2	+0.6
RTR	El Retiro	2.20	309	eP	Pn	03 02 58.9	+0.6
RBDL	Robledal	2.37	312	eP	Pn	03 03 01.1	+0.6
VCR	Vista de Mar	3.24	137	eP	Pn	03 03 12.8	+0.2
JCR	Jicaral	3.80	134	eP	Pn	03 03 20.5	+0.3
CGA2	Cerro Gallo 2	4.17	126	eP	Pn	03 03 27.8	+2.4
LAJ	Bijagual	4.53	125	eP	Pn	03 03 28.2	-2.1
LCR2	La Lucha 2	4.70	126	eP	Pn	03 03 35.3	+2.7
QCR	Quepos	4.77	130	eP	Pn	03 03 34.8	+1.2
URSC	Urasca	4.83	123	eP	Pn	03 03 38.0	+3.7
URSC				eS	Sn	03 04 31.7	+2.7
BUS	Buena Vista	5.00	126	eP	Pn	03 03 39.2	+2.5
BUS				eS	Sn	03 04 34.2	+0.8
BAR1		5.54	126	eP	Pn	03 03 45.6	+1.5
BAR1				eS	Sn	03 04 46.8	+0.2
ACR	Cerro Adams	6.02	129	eP	Pn	03 03 52.2	+1.5

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*ISCJB **13** 03:04:52.0±0.3, 32.°51N±0.°02×115.°34W±0.°02, h8^{km}±4^{km}, Error ellipse: s-maj=3.5km s-min=2.8km az=3.6*

*NEIC **13** 03:04:52.7, 32.°43N×115.°31W, h6^{km}, ML2.9(PAS), ML3.2(ECX), After PAS.*

*ECX **13** 03:04:54.0±0.6, 32.°49N×115.°33W, h6^{km}, MD3.2, ML3.3*

ISC 13 03:04:52.6±0.3**, 32.°51N**±0.°02×**115.°34W**±0.°02**, h13**^{km}±4^{km}**, n35,** σ1.ˢ**12**/66**, 15C-16D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.09	161	⇓iP	Pg	03 04 50.1	-5.4
CPBX				eS	Sg	03 04 51.6	-6.0
CPBX	Cerro Prieto	0.09	161	⇓eP	Pg	03 04 50.1	-5.4
CPBX				eS	Sg	03 04 52.3	-5.3
SGL	Mount Signal	0.35	294	⇑iP	Pg	03 05 00.4	+0.7
COA	Coachella	0.40	27	⇓iP	Pg	03 05 01.8	+1.2
EMX	El Mayor	0.52	171	⇓eP	Pg	03 05 02.8	-0.1
EMX				eS	Sg	03 05 10.0	+0.2
EMX				⇓e		03 05 12.2	
	comp=N,1µm,0.5s						
EMX	El Mayor	0.52	171	eP	Pg	03 05 02.8	-0.1
EMX				eS	Sg	03 05 10.0	+0.2
SWSC	Sam W. Stewart	0.58	319	⇓P	Pg	03 05 04.2	+0.2
	baz=0.7,SNR=289						
SWSC				⇑S	Sg	03 05 13.2	+1.6
	baz=0.7						
RMX	La Rumorosa	0.63	279	⇓eP	Pg	03 05 05.3	+0.4
RMX				eS	Sg	03 05 14.5	+1.2
RMX	La Rumorosa	0.63	279	eP	Pg	03 05 05.2	+0.3
RMX				eS	Sg	03 05 14.5	+1.3
112A	Yuma	0.64	87	⇑P	Pg	03 05 04.9	-0.3
	baz=0.6,SNR=105						
112A				⇓S	Sg	03 05 14.0	+0.4
	baz=0.6						
DVTC	Desert V Tower	0.66	284	⇓P	Pg	03 05 05.8	+0.3
	baz=0.7,SNR=54						
DVTC				⇑S	Sg	03 05 15.1	+0.9
	baz=0.7						
GLA	Glamis	0.69	38	⇓P	Pg	03 05 06.0	-0.1
	baz=0.7,SNR=201						
GLA				⇓S	Sg	03 05 15.4	+0.1
	baz=0.7						
GLA	Glamis	0.69	38	ePg	Pg	03 05 05.7	-0.4
GLA				eSg	Sg	03 05 14.7	-0.6
RDX	Rancho Dawling	0.77	222	⇑eP	Pg	03 05 07.7	+0.1
RDX				eS	Sg	03 05 17.8	+0.2
RDX				⇓e		03 05 19.8	
	comp=N,618nm,0.6s						
RDX	Rancho Dawling	0.77	222	⇑eP	Pg	03 05 07.7	+0.1
RDX				eS	Sg	03 05 19.3	+1.6
MONP	Monument Peak	0.99	293	⇑P	Pg	03 05 10.9	-0.8
	baz=1.0,SNR=132						
MONP				⇑S	Sg	03 05 24.9	+0.4
	baz=1.0						
ECBX	El Chinero	1.06	167	⇑eP	Pg	03 05 12.7	-0.3
ECBX				eS	Sg	03 05 26.7	-0.2
CBX	Cerro Bola	1.14	261	eP	Pg	03 05 14.1	-0.4
CBX				eS	Sg	03 05 28.1	-1.1
BAR	Barrett	1.14	279	ePg	Pg	03 05 13.3	-1.2
BAR				eSg	Sg	03 05 29.0	-0.3
BC3	Big Chuckw Mtn	1.15	355	⇓P	Pb	03 05 13.0	-1.3
	baz=1.2,SNR=32						
113A	Mohawk Valley,	1.35	78	⇑P	Pn	03 05 15.5	-1.7
	baz=1.3,SNR=60						
113A				⇓Sb	Sb	03 05 34.7	-0.2
	baz=1.3						
ECNX	Esteban Cantu	1.36	232	eP	Pn	03 05 17.6	+0.3
ECNX				eP		03 05 16.5	
PBX	Punta Banda	1.40	237	eP	Pn	03 05 18.1	+0.3
PFO	Pinyon Flat Ob	1.44	320	⇑P	Pn	03 05 17.0	-1.4
	baz=1.5,SNR=54						
PFO				⇑S	Sn	03 05 35.6	-1.6
	baz=1.5						
PFO	Pinyon Flat Ob	1.44	320	ePn	Pn	03 05 17.1	-1.3
PFO				ePg	Pg	03 05 19.7	-0.6
PFO				eSn	Sn	03 05 35.1	-2.1
SPX	San Pedro Mart	1.46	184	ePN	Pn	03 05 20.2	+1.6
109C	Camp Elliot, M	1.54	285	⇑P	Pn	03 05 18.7	-1.0
	baz=1.6,SNR=8.3						
109C				⇑Sb	Sb	03 05 41.0	+0.8
	baz=1.6						
Y13A	Salome	1.82	44	⇑Sb	Sb	03 05 49.1	+0.7
	baz=1.9						
214A	Organ Pipe Nat	2.21	104	⇓P	Pn	03 05 26.9	-2.0
	baz=2.2,SNR=19						
Y14A	Wickenburg	2.42	53	⇓Sb	Sb	03 06 06.9	+1.2
	baz=2.4						
LDFC	Landfair	2.57	4	ePn	Pn	03 05 36.9	+3.0
LDFC				ePg	Pg	03 05 44.2	+2.3
LDFC				eSg	Sg	03 06 15.0	-0.2
MWC	Mount Wilson	2.85	308	ePn	Pn	03 05 39.2	+1.5
MWC				ePg	Pg	03 05 43.8	-3.3
MWC				eSg	Sg	03 06 22.5	-1.6
TUC	Tucson	3.86	92	ePn	Pn	03 05 52.6	+1.0
TUC				ePg	Pg	03 06 04.8	-1.7
TUC				eSg	Sg	03 06 52.1	-4.4
ISA	Isabella	4.08	321	ePn	Pn	03 05 58.2	+3.6
ISA				ePg	Pg	03 06 08.7	-2.1
WUAZ	Wupatki	4.46	47	ePn	Pn	03 06 01.4	+1.6
WUAZ				ePg	Pg	03 06 17.5	-0.5
WUAZ				eSg	Sg	03 07 10.6	-5.1

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*ISCJB **13** 03:15:45.1±0.4, 42.°84N±0.°02×20.°22E±0.°02, h1^{km}±4^{km}, Error ellipse: s-maj=3.4km s-min=2.3km az=144.9*

*CSEM **13** 03:15:45.4±0.1, 42.°82N×20.°20E, h2^{km}, ML2.7/9, Error ellipse: s-maj=3.1km s-min=2.5km az=146.0*

*NEIC **13** 03:15:46.0, 42.°83N×20.°15E, h15^{km}, ML2.7(PDG), After PDG.*

*PDG **13** 03:15:46.0±0.4, 42.°83N×20.°15E, h15^{km}±2^{km}, MD2.7/3, ML2.7/9, Error ellipse: s-maj=0.9km s-min=1.2km az=0.0*

*BEO **13** 03:15:48.2±0.3, 42.°91N×20.°22E, h5^{km}±4^{km}, ML2.6/12*

ISC 13 03:15:46.2±0.3**, 42.°84N**±0.°02×**20.°21E**±0.°02**, h7**^{km}±4^{km}**, n63,** σ1.ˢ**06**/114**, 29C-10D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BEY	Berane	0.23	278	⇑iPg	Pg	03 15 50.3	-0.4
BEY				eSg	Sg	03 15 53.6	-0.2
IVA	Berane	0.23	278	⇑iPg	Pg	03 15 50.3	-0.4
IVA				eSg	Sg	03 15 53.6	-0.2
IVA	Berane	0.23	278	⇑iPg	Pg	03 15 50.3	-0.4
IVA				eSg	Sg	03 15 53.6	-0.2
PVY	Plav	0.30	215	⇑iPg	Pg	03 15 50.7	-1.3
PVY				eSg	Sg	03 15 55.4	-0.5
PVY	Plav	0.30	215	⇑iPg	Pg	03 15 50.7	-1.3
PVY				eSg	Sg	03 15 55.4	-0.5
SJES	Sjenica	0.46	338	⇓iPg	Pg	03 15 54.4	-0.6
SJES				eSg	Sg	03 16 01.5	+0.6
PLE	Pljevlja	0.77	310	⇑iPg	Pg	03 16 00.3	-0.7
PLE				eSg	Sg	03 16 11.7	+0.7
PLE	Pljevlja	0.77	310	⇑iPg	Pg	03 16 00.3	-0.7
PLE				eSg	Sg	03 16 11.7	+0.7
PDG	Podgorica	0.81	240	⇑iPg	Pg	03 15 59.7	-2.0
PDG				eSg	Sg	03 16 12.3	+0.1
TTG	Podgorica	0.81	240	⇑iPg	Pg	03 15 59.7	-2.0
TTG				eSg	Sg	03 16 12.3	+0.1
TTG	Podgorica	0.81	240	⇑iPg	Pg	03 15 59.7	-2.0
TTG				eSg	Sg	03 16 12.3	+0.1
NKY	Niksic	0.89	269	⇑iPg	Pg	03 16 01.8	-1.4
NKY				eSg	Sg	03 16 15.4	+0.6
NKY	Niksic	0.89	269	⇑iPg	Pg	03 16 01.8	-1.4
NKY				eSg	Sg	03 16 15.4	+0.6
UPM	Unac-Piva	1.02	291	⇓iPg	Pg	03 16 04.5	-1.2
UPM				eSg	Sg	03 16 20.1	+1.2
UPM	Unac-Piva	1.02	291	⇓iPg	Pg	03 16 04.5	-1.2
UPM				eSg	Sg	03 16 20.1	+1.2
BUM	Brajici-Budva	1.11	241	⇓iPg	Pg	03 16 06.3	-1.1
BUM				eSg	Sg	03 16 23.0	+1.3
BUM	Brajici-Budva	1.11	241	⇓iPg	Pg	03 16 06.3	-1.1
BUM				eSg	Sg	03 16 23.0	+1.3
GRUS	Gruza	1.11	19	ePg	Pg	03 16 07.2	-0.3
GRUS				eSg	Sg	03 16 21.3	-0.6
GRUS	Gruza	1.11	19	ePg	Pg	03 16 07.2	-0.3
GRUS				eSg	Sg	03 16 21.3	-0.6
ULC	Ulcinj	1.13	219	⇓iPg	Pg	03 16 06.6	-1.2
ULC				eSg	Sg	03 16 23.4	+1.0
ULC	Ulcinj	1.13	219	⇓iPg	Pg	03 16 06.6	-1.2
BBLS	Lazići	1.18	331	⇑iPg	Pn	03 16 07.7	-1.4
BBLS				eSg	Sg	03 16 24.5	+0.3
BBLS	Lazići	1.18	331	⇑iPg	Pn	03 16 07.7	-1.4
BBLS				eSg	Sg	03 16 24.5	+0.3
BARS	Barje	1.18	91	⇑iPg	Pn	03 16 09.0	-0.1
BARS				eSg	Sg	03 16 24.7	+0.5
BRY	Bratogost	1.23	273	⇑iPg	Pn	03 16 07.7	-2.0
BRY				eSg	Sg	03 16 26.9	+1.4
BRY	Bratogost	1.23	273	⇑iPg	Pn	03 16 07.7	-2.0
BRY				eSg	Sg	03 16 26.9	+1.4
SKO	Skopje	1.26	133	ePn	Pn	03 16 09.6	-0.6
SKO				eSn	Sn	03 16 26.9	-0.3
SKO	Skopje	1.26	133	ePn	Pn	03 16 09.5	-0.6
SKO				eSn	Sn	03 16 26.9	-0.4
DIVS	Divibare	1.27	353	⇑iPg	Pg	03 16 09.6	-0.9
DIVS				eSg	Sg	03 16 27.4	+0.5
DIVS	Divibare	1.27	353	⇑iPg	Pg	03 16 09.6	-0.9
DIVS				eSg	Sg	03 16 27.4	+0.5
HCY	Herceg Novi	1.32	253	⇑iPg	Pn	03 16 10.2	-0.8
HCY				eSg	Sg	03 16 30.0	+1.4
HCY	Herceg Novi	1.32	253	⇑iPg	Pn	03 16 10.2	-0.8
HCY				eSg	Sg	03 16 30.0	+1.4
TRUS	Trudelj	1.39	6	ePg	Pn	03 16 11.1	-0.9
TRUS				eSg	Sg	03 16 30.7	-0.2
TRUS	Trudelj	1.39	6	ePg	Pn	03 16 11.1	-0.9
TRUS				eSg	Sg	03 16 30.7	-0.2
NISS		1.39	66	ePg	Pg	03 16 13.5	+0.6
NISS				eSg	Sg	03 16 30.4	-0.5
NISS		1.39	66	ePg	Pg	03 16 13.5	+0.6
NISS				eSg	Sg	03 16 30.4	-0.5
TIR	Tirane	1.51	190	ePn	Pg	03 16 16.5	+1.4
TIR				eSg	Sg	03 16 39.8	+5.1
TIR	Tirane	1.51	190	ePn	Pg	03 16 16.5	+1.4
SVIS	Svilajnac	1.60	27	⇑iPg	Pg	03 16 16.2	-0.7
SVIS				eSg	Sg	03 16 38.9	+1.2
BOLS	Boljevac	1.61	52	ePg	Pg	03 16 16.5	-0.6
BOLS				eSg	Sg	03 16 37.2	-0.8
BOLS	Boljevac	1.61	52	ePg	Pg	03 16 16.5	-0.6
BOLS				eSg	Sg	03 16 37.2	-0.8
KRUS	Krusevo	1.66	152	ePn	Pn	03 16 14.4	-1.2
KRUS				eSn	Sn	03 16 36.8	-0.4
KRUS	Krusevo	1.66	152	ePn	Pn	03 16 14.4	-1.3
KRUS				eSn	Sn	03 16 36.8	-0.4
OHR	Ohrid	1.78	165	ePn	Pn	03 16 17.6	+0.3
OHR				eSn	Sn	03 16 42.6	+2.4
OHR	Ohrid	1.78	165	ePn	Pn	03 16 17.5	+0.2
OHR				eSn	Sn	03 16 42.5	+2.3
ZAPS	Zavoj	1.83	75	⇑iPn	Pn	03 16 18.8	+0.8
ZAPS				eSg	Sg	03 16 47.2	+2.2
ZAPS	Zavoj	1.83	75	⇑iPn	Pn	03 16 18.8	+0.8
ZAPS				eSg	Sg	03 16 47.2	+2.2
STON	Ston	1.84	272	ePn	Pn	03 16 19.6	+1.5
STON				Sn	Sg	03 16 46.6	+1.2
STON	Ston	1.84	272	ePn	Pn	03 16 19.6	+1.4
STON				Sn	Sg	03 16 46.6	+1.2
BIA	Bitola	2.00	155	ePn	Pn	03 16 19.3	-1.1
BIA				eSn	Sn	03 16 46.7	+1.1
BIA	Bitola	2.00	155	ePn	Pn	03 16 19.2	-1.1
BIA				eSn	Sn	03 16 46.7	+1.1
VAY	Valandovo	2.32	130	ePn	Pn	03 16 28.7	+3.9
VAY	Valandovo	2.32	130	ePn	Pn	03 16 28.6	+3.9
BZS	Buzias	2.96	20	⇑iP	Pn	03 16 34.5	+1.0
BZS	Buzias	2.96	20	⇑P	Pn	03 16 34.5	+1.0
BZS	Buzias	2.96	20	⇑P	Pn	03 16 34.5	+1.0
GZR	Gura Zlata	3.15	35	⇓iP	Pn	03 16 38.5	+2.3
GZR	Gura Zlata	3.15	35	⇓P	Pn	03 16 38.5	+2.3
GZR	Gura Zlata	3.15	35	⇓P	Pn	03 16 38.5	+2.3
SGO	Sicignano	4.32	240	Pn	Pn	03 16 52.8	+0.6
SGO				Sn	Sn	03 17 41.3	-1.4
SGO	Sicignano	4.32	240	Pn	Pn	03 16 52.8	+0.6
SGO				Sn	Sn	03 17 41.3	-1.4
DRGR		4.33	23	⇑iP	Pg	03 17 00.4	-8.8
DRGR		4.33	23	⇑P	Pg	03 17 00.4	-8.7

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*IDC **13** 03:46:04.4±0.6, 9.°13N×126.°49E, h0^{km}, mb4.4/16, mb1 4.5/16, mb1mx4.4/24, mbtmp4.4/16, MS3.4/2, Ms1 3.4/2, ms1mx2.8/28, Error ellipse: s-maj=26.9km s-min=12.8km az=74.0*

*MOS **13** 03:46:07.2±0.9, 9.°09N×126.°42E, h33^{km}, mb4.7/16, Error ellipse: s-maj=17.3km s-min=8.2km az=123.4*

*MAN **13** 03:46:08, 9.°15N×126.°54E, h1^{km}, mb4.9, ML3.8, MS3.8*

*BJI **13** 03:46:12.2, 9.°55N×127.°17E, h49^{km}, mB5.2/5, mb4.6/10, Ms5.1/1, Ms7 4.7/1*

*NEIC **13** 03:46:14.6±1.2, 9.°08N×126.°43E, h83^{km}±11^{km}, mb4.7/23, Error ellipse: s-maj=9.8km s-min=4.8km az=54.0*

ISC 13 03:46:07.2±1.2**, 9.°13N**±0.°03×**126.°47E**±0.°07**, h18**^{km}±6^{km}**, n97,** σ1.ˢ**01**/104**, mb4.5**/53**, 4C-5D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	0.85	259	eP	Pg	03 46 26.8	+3.0
BUTP				eS	Sg	03 46 41.7	+6.7
SCPH	Surigao	1.16	304	⇓eP	Pg	03 46 31.1	+1.3
SCPH				eS	Sg	03 46 49.4	+4.4
BUKP	Musuan	1.86	228	eP	Pg	03 46 42.8	-0.2
MSLP	Maasin	1.87	302	eP	Pg	03 46 43.3	+0.1
MATI	Mati	2.18	185	eP	Pn	03 46 45.9	+3.3
DAV	Davao City (W)	2.23	203	Pn	Pg	03 46 49.2	-0.8
	93nm,0.3s,baz=20,slow=12,SNR=5.5						
DAV				Sn	Sg	03 47 20.8	+1.9
	94nm,0.3s,baz=324,slow=20,SNR=6.8						
DAV				LR	LR	03 47 58.3	
	comp=Z,2µm,18.5s,baz=217,slow=51						
DMPH	Davao City--Mi	2.24	205	⇑eP	Pg	03 46 49.4	-0.9
DMPH				eS	Sg	03 47 19.7	+0.3
PLP	Palo	2.50	324	⇓eP	Pn	03 46 50.2	+3.2
PLP				eS	Sg	03 47 25.6	-2.0
KCP	Kidapawan	2.51	213	⇓eP	Pg	03 46 54.2	-1.1
KCP				eS	Sg	03 47 25.7	-2.2
OCLP	Ormoc	2.64	316	eP	Pn	03 46 54.0	+5.0
LLP	Lapu-Lapu	2.73	296	⇑eP	Pn	03 46 55.5	+5.3
LLP				eS	Sg	03 47 31.5	-3.6
CTBH	Cotabato--PC H	2.90	229	⇓eP	Pn	03 46 57.4	+4.8
CTBH				eS	Sg	03 47 34.7	-5.8
PAGZ	Pagadian	3.30	248	eP	Pn	03 47 03.9	+5.8
GUIM	Jordan	4.10	292	eP	Pn	03 47 14.3	+5.2
RCP	Roxas	4.39	304	⇓eP	Pn	03 47 18.6	+5.6
PVCP	Virac	4.99	333	eP	Pn	03 47 25.5	+4.3
KAKA	Kakadu	22.49	165	eP	P	03 51 06.1	+0.2
	18nm,0.6s,mb4.7						
KAKA	Kakadu	22.49	165	eP	P	03 51 06.3	+0.4
	58nm,0.7s,mb5.1						
NJ2	Nanjing	23.88	344	eP	P	03 51 18.1	-1.8
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.2						
FITZ	Fitzroy Crossi	27.07	182	eP	P	03 51 50.0	+1.0
	comp=Z,20nm,0.8s,mb4.7						
FITZ	Fitzroy Crossi	27.07	182	P	P	03 51 50.0	+1.0
	comp=Z,7.2nm,0.6s,mb4.4,baz=354,slow=3.4,SNR=14						
PSI	Prapat	28.09	259	P	P	03 51 59.6	+1.4
	comp=Z,5.5nm,0.7s,mb4.3,baz=93,slow=8.4,SNR=6.3						
KSRS	Korea Array	28.23	2	P	P	03 52 00.4	+1.2
	comp=Z,2.1nm,0.6s,mb4.0,baz=189,slow=9.2,SNR=8.4						
KSRS				LR	LR	04 02 55.1	
	comp=Z,41nm,20.0s,baz=185,slow=36						
CMAR	Chiang Mai Arr	28.25	292	P	P	03 52 00.9	+1.2
	comp=Z,1.4nm,0.3s,mb4.0,baz=107,slow=6.7,SNR=7.5						
COEN	Coen	28.30	144	eP	P	03 52 01.0	+0.9
COEN	Coen	28.30	144	eP	P	03 52 01.1	+1.0
	comp=Z,52nm,0.7s,mb5.3						
CHTO	Chiang Mai	28.35	293	eP	P	03 52 00.9	+0.4
CHTO				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
CHTO	Chiang Mai	28.35	293	eP	P	03 52 00.9	+0.4
	comp=Z,1.4nm,0.4s,mb3.9						
WRAB	Tennant Creek	29.90	165	eP	P	03 52 13.5	-0.7
WRAB				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.4						
WRAB	Tennant Creek	29.90	165	eP	P	03 52 13.5	-0.7
	comp=Z,3.6nm,0.5s,mb4.4						
WRA	Warramunga Arr	29.91	165	P	P	03 52 13.5	-0.8
	comp=Z,2.5nm,0.5s,mb4.2,baz=348,slow=9.4,SNR=23						
ASAR	Alice Springs	33.39	168	P	P	03 52 44.5	-0.5
	comp=Z,1.2nm,0.4s,mb4.1,baz=353,slow=6.5,SNR=26						
ASAR				PcP	PcP	03 55 25.9	-0.5
	comp=Z,0.7nm,0.7s,baz=356,slow=2.1,SNR=4.8						
TAPN	Taplejung	40.80	302	eP	P	03 53 48.5	+0.6
	comp=Z,7.8nm,0.4s,mb4.7						
ODAN	Odare	40.91	301	eP	P	03 53 49.5	+0.6
	comp=Z,20nm,0.5s,mb5.0						
RAMN	Ramite	41.61	301	eP	P	03 53 55.9	+1.3
	comp=Z,17nm,0.6s,mb4.8						
ULN	Ulaanbaatar	41.95	340	eP	P	03 53 57.0	0.0
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.6						
ULN	Ulaanbaatar	41.95	340	eP	P	03 53 57.0	-0.1
	comp=Z,1.4nm,0.6s,mb3.8						
SONM	Songino Array	42.15	340	P	P	03 53 58.5	-0.2
	comp=Z,0.4nm,0.4s,mb3.4,baz=158,slow=9.7,SNR=4.2						
JIRN	Jiri	42.18	301	eP	P	03 53 59.9	+0.7
	comp=Z,20nm,0.7s,mb4.9						
GUN	Gumba	42.52	302	eP	P	03 54 02.6	+0.6
BBOO	Buckleboo	42.69	168	eP	P	03 54 02.7	-0.5
	comp=Z,9.2nm,0.8s,mb4.6						
PKI	Pulchoki	42.81	301	eP	P	03 54 04.4	0.0
	comp=Z,7.0nm,0.6s,mb4.6						
PKI	Pulchoki	42.81	301	eP	P	03 54 04.4	0.0
PKI				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
KKN	Kakani	42.99	301	eP	P	03 54 05.7	-0.1
DMN	Daman	43.08	301	eP	P	03 54 07.3	+0.8
STKA	Stephens Creek	43.27	161	eP	P	03 54 07.9	0.0
	comp=Z,7.4nm,1.6s,mb4.2						
STKA	Stephens Creek	43.27	161	P	P	03 54 07.8	-0.1
	comp=Z,2.1nm,0.4s,mb4.2,baz=335,slow=9.0,SNR=7.9						
GKN	Gorkha	43.59	301	eP	P	03 54 10.4	-0.3
	comp=Z,8.5nm,0.5s,mb4.7						
KOLN	Koldanda	44.41	301	eP	P	03 54 17.5	+0.3
	comp=Z,21nm,0.7s,mb5.0						
DANN	Dangsing	44.43	301	eP	P	03 54 17.6	+0.2
	comp=Z,13nm,0.5s,mb4.9						
PETK	Petropavlovsk-	50.59	24	P	P	03 55 05.7	+0.8
	comp=Z,2.0nm,0.5s,mb4.3,baz=155,slow=1.5,SNR=5.0						
MK31	Makanchi Array	53.05	323	eP	P	03 55 23.1	-0.2
MK31				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
MKAR	Makanchi Array	53.05	323	P	P	03 55 23.5	+0.2
	comp=Z,5.0nm,0.6s,mb4.6,baz=123,slow=8.0,SNR=49						
TKM2	Tokmak 2	55.62	316	eP	P	03 55 42.3	+0.2
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
TKM2	Tokmak 2	55.62	316	eP	P	03 55 42.3	+0.2
	comp=Z,1.9nm,0.6s,mb4.3						
ZAA0	Zalesovo Array	55.71	332	eP	P	03 55 41.3	-1.3
ZALV	Zalesovo Beam	55.71	332	P	P	03 55 41.7	-0.9
	comp=Z,1.1nm,0.4s,mb4.2,baz=111,slow=8.1,SNR=9.3						
ZALV	Zalesovo Beam	55.71	332	P	P	03 55 41.7	-0.9
UCH	Uchtor	56.11	315	eP	P	03 55 46.7	+1.0
	comp=Z,6.9nm,0.8s,mb4.7						
AAK	Ala-Archa	56.27	316	eP	P	03 55 47.0	+0.2
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
AAK	Ala-Archa	56.27	316	eP	P	03 55 47.0	+0.3
	comp=Z,1.7nm,0.7s,mb4.2						
AML	Almayashu	56.65	315	eP	P	03 55 50.1	+0.6
	comp=Z,4.4nm,0.7s,mb4.6						
EKS2	Erkin-Say	56.77	315	eP	P	03 55 50.5	+0.1
	comp=Z,2.9nm,0.7s,mb4.4						
SEY	Seymchan	56.88	14	⇑eP	P	03 55 52.5	+1.8
KURK	Kurchatov	57.11	326	eP	P	03 55 51.7	-0.9
KURK				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
KURK	Kurchatov	57.11	326	P	P	03 55 52.2	-0.4
	comp=Z,5.9nm,0.6s,mb4.8,baz=125,slow=6.8,SNR=30						
KURK	Kurchatov	57.11	326	eP	P	03 55 51.7	-0.9
	comp=Z,8.1nm,0.7s,mb4.9						
KBL	Kabul	58.14	305	eP	P	03 55 59.9	-0.3
KBL				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
KBL	Kabul	58.14	305	eP	P	03 55 59.9	-0.3
	comp=Z,2.2nm,0.4s,mb4.5						
KK31	Karatay Array	59.19	315	i P	P	03 56 06.7	-0.6
KK31				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
VOSK	Vostochnaya	62.26	326	P	P	03 56 25.6	-2.5
VOSK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
TIXI	Tiksi	62.48	1	⇑eP	P	03 56 29.1	-0.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
TIXI	Tiksi	62.48	1	eP	P	03 56 29.5	+0.2
	comp=Z,4.5nm,0.8s,mb4.7						
BVA0	Borovoye Array	62.71	326	i P	P	03 56 30.0	-1.1
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb4.0						
BVAR	Borovoye Array	62.71	326	P	P	03 56 30.9	-0.2
	comp=Z,3.2nm,0.6s,mb4.6,baz=120,slow=8.8,SNR=22						
BRVK	Borovoye	62.78	326	eP	P	03 56 31.1	-0.4
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
BRVK	Borovoye	62.78	326	eP	P	03 56 31.1	-0.4
	comp=Z,6.9nm,0.8s,mb4.8						
AB31	Akbulak array	67.86	320	P	P	03 57 03.1	-1.5
AB31				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
ARU	Arti	70.28	327	eP	P	03 57 18.5	-0.9
ARU	Arti	70.28	327	eP	P	03 57 18.5	-0.9
MIB	Mutribah	76.12	298	eP	P	03 57 53.9	-0.7
MIB				AMb	AMB	03 57 54.9	
	comp=Z,23nm,0.7s,mb5.2						
NAY	Al-Naaiem	76.23	298	eP	P	03 57 54.2	-0.9
NAY				AMb	AMB	03 57 56.4	
	comp=Z,8.7nm,0.8s,mb4.7						
KDAK	Kodiak Island	77.51	33	i P	P	03 58 04.5	+2.8
KIV	Kislovodsk	79.26	313	eP	P	03 58 11.8	+0.1
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
MCK	McKinley	79.48	27	eP	P	03 58 12.5	0.0
MCK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MCK	McKinley	79.48	27	eP	P	03 58 12.5	-0.1
	comp=Z,2.8nm,0.6s,mb4.4						
KLMR	Klimovskoe	80.61	330	P	P	03 58 17.2	-1.5
KLMR				pmax	pmax		
	comp=Z,42nm,1.9s,mb5.0						
VSR	Storozhevoye	81.27	321	eP	P	03 58 21.1	-1.3
VSR				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
MALT	Malatya	82.88	308	eP	P	03 58 30.6	-0.6

MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
MALT	Malatya	82.88	308	*e*P	P	03 58 30.6	-0.5
	comp=Z,2.5nm,0.8s,mb4.3						
ANN	Anapa	82.96	314	*e*P	P	03 58 25.9	-5.5
ANN				pmax	pmax		
	comp=Z,72nm,1.5s,mb5.5						
ARCES	ARCESS Array B	85.33	340	P	P	03 58 42.9	0.0
	comp=Z,2.3nm,0.6s,mb4.5,baz=80,slow=6.7,SNR=8.6						
AKASG	Malin Array Be	87.56	321	P	P	03 58 53.8	-0.6
	comp=Z,1.0nm,0.6s,mb4.2,baz=71,slow=4.3,SNR=5.0						
RES	Resolute Bay	92.58	10	*e*P	P	03 59 17.7	+0.4
YKW3	Yellowknife Ar	94.68	24	*e*P	P	03 59 27.5	+0.3
	comp=Z,0.1nm,0.8s,mb3.3						
YKA	Yellowknife Ar	94.72	24	P	P	03 59 27.9	+0.6
	comp=Z,1.8nm,0.7s,mb4.6,baz=302,slow=4.7,SNR=33						
TORD	Torodi Ar. Bea	120.86	291	PKP	PKPdf	04 04 58.5	-1.1
	comp=Z,0.4nm,0.4s,baz=75,slow=1.9,SNR=18						

GUC 13 04:14:52.1±0.9, 21°.89S×68°.33W, h121^{km}±7^{km}, ML3.6, 1C, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.90	217	*e*P	Pn	04 15 14.4	+1.1
LVC				*i* S	Sn	04 15 30.6	+1.3
LVC				AML	AML	04 15 33.1	
	comp=E,709nm,0.4s						
PB04	Plate Boundary	1.14	251	⇑*e*P	Pn	04 15 23.0	+7.4
PB04				*i* S	Sn	04 15 47.1	+14
PB04				AML	AML	04 15 51.5	
	comp=N,517nm,0.2s						
MACH	Maria Elena	1.36	257	*e*P	Pn	04 15 18.7	+0.8
MACH				*i* S	Sn	04 15 39.3	+1.7
PB01	Plate Boundary	1.37	308	*e*P	Pn	04 15 18.8	+0.6
PB01				*i* S	Sn	04 15 39.0	+1.1
PB01				AML	AML	04 15 42.9	
	comp=N,1µm,0.0s						
PECH	Pedro de Valdi	1.43	240	*e*P	Pn	04 15 19.8	+1.0
PECH				*i* S	Sn	04 15 40.9	+1.8
PECH				AML	AML	04 15 42.9	
	comp=E,919nm,0.2s						
TOCH	Tocopilla	1.75	263	*e*P	Pn	04 15 23.0	+0.5
TOCH				*i* S	Sn	04 15 46.4	+0.7
TOCH				AML	AML	04 15 52.2	
	comp=N,799nm,0.1s						
MECH	Mejillones	2.30	238	*e*P	Pn	04 15 30.4	+1.1
PSGC	Pisagua	2.83	323	*e*P	Pn	04 15 35.4	-0.9
PSGC				*i* S	Sn	04 16 09.1	-1.2
PSGC				AML	AML	04 16 10.6	
	comp=E,286nm,0.2s						

CASC 13 04:17:27.1±1.9, 12°.17N×87°.87W, h39^{km}±150^{km}, MD4.0, ML3.4, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRIN	San Cristobal	0.96	57	*e*P	Pn	04 17 44.6	+0.5
CRIN				*e*S	Sn	04 17 57.1	+0.5
CRIN				AML	AML	04 17 57.9	
	comp=E,1µm,0.3s						
CNCH	Conchagua	1.10	2	*e*P	Pn	04 17 45.9	-0.1
MIRN	Miramar	1.17	77	*e*P	Pn	04 17 46.5	-0.4
COPN	Copaltepe	1.25	89	*e*P	Pn	04 17 47.5	-0.6
COPN				AML	AML	04 18 07.5	
	comp=Z,317nm,0.3s						
MOMN	Momotombo	1.32	80	*e*P	Pn	04 17 48.9	-0.2
CSAN		1.42	89	*e*P	Pn	04 17 51.2	+0.8
CSAN				AML	AML	04 18 12.5	
	comp=Z,3µm,0.2s						
MGAN	Managua	1.59	91	*e*P	Pn	04 17 52.7	0.0
MGAN				*e*S	Sn	04 18 12.1	0.0
TICN	Ticuantepe	1.61	95	*e*P	Pn	04 17 53.8	+0.8
CAHU	Cacacuatique	1.62	348	*e*P	Pn	04 17 54.1	+0.9
CAHU				*e*S	Sn	04 18 15.6	+2.7
LFRS	El Faro	1.85	321	*e*P	Pn	04 17 56.4	0.0
LFRS				*e*S	Sn	04 18 18.8	+0.2
TGUH	Tegucigalpa,Un	1.96	17	*e*P	Pn	04 17 58.6	+0.6
TGUH				*e*S	Sn	04 18 21.6	+0.3

IDC 13 04:48:36.0±1.6, 7°.11S×122°.86E, h0^{km}, mb3.4/1, mb1 3.8/4, mb1mx3.6/19, mbtmp3.6/4, ML3.4/3, Error ellipse: s-maj=140.7km s-min=25.3km az=62.0, Flores Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.26	166	Pn	Pn	04 51 19.0	+0.8
	0.2nm,0.3s,baz=351,slow=11,SNR=5.6						
FITZ				Sn	Sn	04 53 14.7	-10
	0.3nm,0.3s,baz=17,slow=2.2,SNR=3.5						
WRA	Warramunga Arr	16.94	140	Pn	Pn	04 52 33.8	-0.7
	0.1nm,0.3s,baz=316,slow=11,SNR=3.6						
WRA				Sn	Sn	04 55 33.2	-10
	0.1nm,0.3s,baz=321,slow=24,SNR=2.5						
ASAR	Alice Springs	19.59	148	P	Pn	04 53 05.8	-1.2
	0.1nm,0.3s,baz=325,slow=12,SNR=12						
MKAR	Makanchi Array	64.62	330	P	P	04 59 15.4	+0.1
	0.2nm,0.4s,baz=143,slow=7.0,SNR=7.2						

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*ISCJB **13** 04:53:21.5±1.0, 15°.17S±0°.05×72°.21W±0°.04, h86^{km}±9^{km}, mb4.9/102, Error ellipse: s-maj=9.3km s-min=4.2km az=29.1*

*BJI **13** 04:53:23.8, 15°.57S×72°.17W, h114^{km}, mB5.4/11*

*MOS **13** 04:53:24.2±0.8, 15°.14S×72°.26W, h111^{km}, mb5.2/40, Error ellipse: s-maj=11.3km s-min=7.6km az=67.6*

*GCMT **13** 04:53:25.5±0.2, 15°.48S×72°.62W, h140^{km}±2^{km}, MW5.2/76, Moment Tensor Solution. s36,c50; s76,c111; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.79±.18; $M_{\theta\theta}$-2.31±.20; $M_{\phi\phi}$-0.48±.25; $M_{r\theta}$0.82±.13; $M_{\theta\phi}$4.79±.16; $M_{\phi r}$-4.69±.16; Best double couple: $M_0$7.18800×10^{16} NP1:ϕ_s271.00000°,δ41.00000°,λ23.00000°. NP2: ϕ_s164.00000°,δ75.00000°,λ129.00000°. Principal axes: T 6.7370, Plg45.0000°, Azm113.0000°; N 0.9030, Plg38.0000°, Azm332.0000°; P -7.6400, Plg21.0000°, Azm226.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **13** 04:53:25.5±0.5, 15°.31S×72°.27W, h116^{km}±5^{km}, mb5.0/76 Error ellipse: s-maj=6.5km s-min=3.9km az=48.0*

NEIC Felt [II] at Cotahuasi.

*IDC **13** 04:53:26.6±0.6, 15°.26S×72°.22W, h123^{km}±5^{km}, mb4.4/16, mb1 4.5/19, mb1mx4.5/22, mbtmp4.4/19, MS4.0/6, Ms1 4.0/6, ms1mx3.5/30, Error ellipse: s-maj=17.7km s-min=11.1km az=64.0*

ISC 13 04:53:24.5±0.8, 15°.21S±0°.05×72°.13W±0°.04, h98^{km}±7^{km}, h127^{km}±2.2^{km}:pP-P, n529, σ0^{s}.60/481, mb4.9/101, 175C-119D, Southern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	Arequipa	1.39	154	⇑*i*P	Pn	04 53 53.0	+3.7
ARE				*e*S	Sn	04 54 14.0	+6.0
NNA	Nana	5.59	304	P	Pn	04 54 43.5	-1.9
	181nm,0.3s,baz=134,slow=12,SNR=363						
NNA				S	Sn	04 55 41.0	-7.2
	180nm,0.3s,baz=211,slow=20,SNR=16						
LVC	Limon Verde	7.97	158	P	Pn	04 55 17.1	-0.4
	9.3nm,0.3s,baz=337,slow=8.4,SNR=90						
LVC				S	Sn	04 56 41.9	-4.1
	59nm,0.3s,baz=96,slow=19,SNR=14						
LVC				LR	LR	04 58 44.9	
	comp=Z,267nm,18.9s,baz=318,slow=40						
LVC	Limon Verde	7.97	158	*e*Pn	Pn	04 55 17.3	-0.3
LVC				*e*Sn	Sn	04 56 41.2	-4.8
ATAH	Atahualpa	10.22	322	P	Pn	04 55 45.4	-2.8
	3.5nm,0.3s,baz=152,slow=10,SNR=12						
ATAH				S	Sn	04 57 34.0	-6.9
	2.8nm,0.3s,baz=338,slow=14,SNR=3.2						
SIV	San Ignacio	10.68	96	P	Pn	04 55 56.8	+2.4
	6.2nm,0.3s,baz=280,slow=11,SNR=106						
SIV				S	Sn	04 57 53.0	+0.9
	1.6nm,0.3s,baz=299,slow=19,SNR=2.1						
LCO	Las Campanas	13.80	175	*e*Pn	Pn	04 56 34.7	-1.1
LCO				*e*Sn	Sn	04 58 58.3	-9.4
OTAV	Otavalo	16.57	337	*e*Pn	Pn	04 57 14.4	+3.3
	26nm,1.1s						
CFAA	Coronel Fontan	16.70	168	P	Pn	04 57 12.7	+0.2
	0.8nm,0.3s,baz=342,slow=12,SNR=67						
CPUP	Villa Florida	17.70	131	P	Pn	04 57 24.4	-0.3
	1.8nm,0.3s,baz=298,slow=11,SNR=16						
ROSC	El Rosal	20.06	354	P	P	04 57 50.2	+0.1
	12nm,0.5s,baz=112,slow=3.4,SNR=8.9						
SDV	Santo Domingo	23.99	4	P	P	04 58 31.0	+0.9
	9.1nm,0.4s,mb4.5,baz=231,slow=9.5,SNR=17						
SDV	Santo Domingo	23.99	4	*e*P	P	04 58 30.8	+0.7
	57nm,0.9s,mb4.9						
PLCA	Paso Flores	25.47	177	P	P	04 58 42.6	-0.7
	33nm,1.0s,mb4.7,baz=350,slow=9.5,SNR=32						
PCRV	Puerto La Cruz	26.29	17	LR	LR	05 10 25.6	
	comp=Z,400nm,21.0s,baz=211,slow=39						
RCBR	Riachuelo	36.76	79	*e*P	P	05 00 23.4	+0.5
	22nm,1.0s,mb5.0						
USHA	Ushuaia	39.64	177	P	P	05 00 45.2	-1.3
	4.3nm,0.5s,mb4.5,baz=353,slow=12,SNR=7.7						
LRAL	Lakeview Retre	50.03	344	*e*P	P	05 02 08.3	-0.8
	32nm,1.4s,mb5.0						
PLAL	Pickwick Lake	52.16	343	*e*P	P	05 02 23.4	-1.6
WVT	Waverly	53.18	344	*e*P	P	05 02 30.4	-2.1
WVT				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
WVT	Waverly	53.18	344	*e*P	P	05 02 30.4	-2.1
	comp=Z,7.8nm,0.8s,mb4.8						
TXAR	Lajitas Array	53.75	325	P	P	05 02 35.9	-0.9
	comp=Z,2.4nm,0.5s,mb4.5,baz=152,slow=9.5,SNR=48						
TXAR				pP	pP	05 03 05.3	+4.7
	comp=Z,3.7nm,1.0s,baz=143,slow=9.0,SNR=6.0						
TXAR	Lajitas Array	53.75	325	P	P	05 02 35.9	-0.9
TXAR				pP	pP	05 03 05.3	+4.7
SDMD	Soldier's Deli	54.51	356	*e*P	P	05 02 42.7	+0.6
	comp=Z,27nm,1.0s,mb5.2						
SSPA	Standing Stone	55.82	355	*e*P	P	05 02 52.0	+0.5
CCM	Cathedral Cave	55.94	342	*e*P	P	05 02 51.0	-1.4
ACSO	Alum Creek Sta	56.07	350	*e*P	P	05 02 52.5	-0.8
	comp=Z,20nm,0.9s,mb5.2						
YLE	Yale	56.24	359	*e*P	P	05 02 55.2	+0.7
ALLY	Alegheny Colle	57.05	353	*e*P	P	05 03 00.2	-0.1
BINY	Binghamton	57.23	357	*e*P	P	05 03 02.1	+0.6
	comp=Z,34nm,0.8s,mb5.4						
ERPA	Erie	57.50	353	*e*P	P	05 03 03.0	-0.4
	comp=Z,20nm,0.7s,mb5.3						
ERPA				*e*pP	pP	05 03 33.0	+5.5
TRY	Troy	57.67	359	*e*P	P	05 03 05.2	+0.6
319A	Douglas	58.46	323	⇑P	P	05 03 10.2	-0.2
	baz=59,SNR=7.3						
318A	Bisbee	58.93	322	⇑P	P	05 03 13.2	-0.3
	baz=59,SNR=9.8						
MDV	Middlebury	58.93	359	*e*P	P	05 03 13.6	+0.4
120A	U Bar Ranch, L	58.95	324	⇑P	P	05 03 13.9	+0.2
	baz=59						
218A	Dragoon	59.35	323	⇑P	P	05 03 16.3	-0.2
	baz=60						
ANMO	Albuquerque	59.59	328	*e*P	P	05 03 17.6	-0.5
217A	Green Valley	59.66	322	⇑P	P	05 03 18.0	-0.6
	baz=60						
118A	Homack Ranch,	59.78	323	⇓P	P	05 03 19.3	-0.1
	baz=60						
TUC	Tucson	60.02	322	*e*P	P	05 03 20.2	-0.9
TUC				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
TUC	Tucson	60.02	322	*e*P	P	05 03 20.2	-0.9
	comp=Z,2.2nm,1.0s,mb4.1						
117A	Oracle	60.18	323	⇑P	P	05 03 21.9	-0.3
	baz=60						
216A	Three Points,	60.20	322	⇓P	P	05 03 21.8	-0.5
	baz=60						
Y19A	Nutrioso	60.34	325	⇑P	P	05 03 23.9	+0.7
	baz=61,SNR=8.6						
Z17A	San Carlos Hig	60.55	323	⇓P	P	05 03 24.9	+0.2
	baz=61						
W20A	Ramah	60.80	326	⇑P	P	05 03 26.5	+0.2
	baz=61						
214A	Organ Pipe Nat	60.99	321	⇑P	P	05 03 27.9	+0.2
	baz=61						
Y17A	Roosevelt	61.05	323	⇑P	P	05 03 28.0	0.0
	baz=61						
X18A	Snowflake	61.15	325	⇑P	P	05 03 28.8	+0.1
	baz=61,SNR=5.2						
SDCO	Great Sand Dun	61.30	330	*e*P	P	05 03 29.6	-0.1
	comp=Z,8.7nm,0.7s,mb4.9						
T22A	Edith	61.42	329	⇑P	P	05 03 30.6	+0.2
	baz=62						
W18A	Petrified Fore	61.47	325	⇓P	P	05 03 31.1	+0.2
	baz=62						
X17A	Forest Lakes	61.49	324	⇓P	P	05 03 31.4	+0.4
	baz=62,SNR=6.7						
Y16A	Circle Bar Ran	61.55	323	⇓P	P	05 03 31.8	+0.3
	baz=62,SNR=5.5						
X16A	Lo Mia Camp, P	61.91	324	⇑P	P	05 03 34.2	+0.4
	baz=62,SNR=8.0						
V18A	Ganado	62.02	326	⇓P	P	05 03 34.2	-0.3
	baz=62						
Y15A	Casa Rosa Ranc	62.10	323	⇑P	P	05 03 34.9	-0.2
	baz=62,SNR=5.9						
113A	Mohawk Valley,	62.13	321	⇑P	P	05 03 35.3	-0.1
	baz=62						
T19A	Beclabito	62.37	327	⇓P	P	05 03 36.9	+0.1
	baz=63						
MVCO	Mesa Verde	62.38	328	⇑P	P	05 03 36.9	0.0
	baz=63						
X15A	Humboldt	62.42	323	⇓P	P	05 03 37.0	-0.3
	baz=63						
W16A	Flagstaff	62.45	324	⇓P	P	05 03 37.8	+0.4
	baz=63						
U18A	Rough Rock, Ch	62.51	326	⇓P	P	05 03 37.8	0.0
	baz=63						
WUAZ	Wupatki	62.67	324	⇑P	P	05 03 39.4	+0.5
	baz=63,SNR=7.3						
WUAZ	Wupatki	62.67	324	*e*P	P	05 03 39.3	+0.5
WUAZ				*e*pP	pP	05 04 10.8	+7.4
X14A	Yava	62.79	323	⇑P	P	05 03 39.9	+0.2
	baz=63						
Q22A	Crested Butte,	62.86	330	⇓P	P	05 03 40.2	+0.1
	baz=63						
W15A	Williams	62.93	324	⇓P	P	05 03 41.0	+0.4
	baz=63						
U16A	Tuba City	62.99	325	⇑P	P	05 03 41.0	+0.1
	baz=63						
T18A	Mexican Hat	63.04	327	⇓P	P	05 03 40.9	-0.5
	baz=63,SNR=5.3						
R20A	Redvale	63.07	328	⇑P	P	05 03 41.5	0.0
	baz=63,SNR=6.1						
U17A	Shonto	63.07	326	⇑P	P	05 03 41.6	+0.1
	baz=63						
S19A	Harvey Farm, M	63.12	328	⇓P	P	05 03 41.5	-0.3
	baz=63						
V15A	Kaibab Nationa	63.34	324	⇓P	P	05 03 43.5	+0.3
	baz=64						
W14A	Seligman	63.43	323	⇓P	P	05 03 44.1	+0.2
	baz=64						
X13A	Yucca	63.43	322	⇑P	P	05 03 43.8	-0.1
	baz=64						
T17A	Navajo Res., N	63.44	326	⇓P	P	05 03 44.5	+0.6
	baz=64						
S18A	Hurst Farm, Bl	63.52	327	⇓P	P	05 03 44.6	+0.2
	baz=64,SNR=6.0						
R19A	Curley Farm, L	63.59	328	⇑P	P	05 03 44.4	-0.5
	baz=64						
Q20A	Ridgley Place,	63.61	329	⇓P	P	05 03 44.7	-0.3
	baz=64						
P21A	Newcastle	63.64	330	⇓P	P	05 03 45.6	+0.4
	baz=64						
V14A	Boquillas Ranc	63.74	323	⇑P	P	05 03 46.1	+0.2
	baz=64,SNR=5.5						
BC3	Big Chuckw Mtn	63.77	320	⇑P	P	05 03 46.2	0.0
	baz=64						
W13A	Hualapai Mount	63.82	323	⇑P	P	05 03 46.6	+0.1
	baz=64						
S17A	Black Ridge (B	63.91	326	⇑P	P	05 03 47.4	+0.4
	baz=64						
IRM	Iron Mountain	63.93	321	⇓P	P	05 03 47.0	-0.2
	baz=64						
R18A	Canyonlands Na	63.99	328	⇓P	P	05 03 47.1	-0.4
	baz=64						
P20A	De Beque	64.08	329	⇑P	P	05 03 47.9	-0.2
	baz=64						
Q19A	Hogan Spring (	64.10	328	⇑P	P	05 03 48.4	+0.1
	baz=64,SNR=5.4						
T15A	Red Dirt Ranch	64.32	325	⇓P	P	05 03 50.1	+0.4
	baz=65,SNR=5.9						
U14A	Mt Trumbull	64.34	324	⇑P	P	05 03 50.1	+0.2
	baz=65,SNR=10						
S16A	Weppner Ranch,	64.40	326	⇑P	P	05 03 50.1	-0.1
	baz=65,SNR=12						
V13A	Grand Canyon W	64.40	323	⇑P	P	05 03 50.2	-0.1
	baz=65,SNR=6.9						
R17A	Hanksville Air	64.44	327	⇓P	P	05 03 50.3	-0.2
	baz=65,SNR=13						
P19A	Cripple Cowboy	64.48	329	⇑P	P	05 03 50.5	-0.2
	baz=65,SNR=6.0						
O20A	White River Ci	64.50	330	⇓P	P	05 03 50.9	+0.1
	baz=65						
N21A	Black Mountain	64.64	331	⇑P	P	05 03 52.4	+0.6
	baz=65						
Q18A	Rafter H Ranch	64.65	328	⇓P	P	05 03 52.2	+0.3
	baz=65						
GMRC	Granite Mounta	64.66	321	⇓P	P	05 03 52.0	+0.1
	baz=65						
T14A	Hurricane	64.74	325	⇑P	P	05 03 52.5	0.0
	baz=65,SNR=6.3						
R16A	Teasdale	64.75	327	⇓P	P	05 03 52.6	+0.1
	baz=65						
S15A	Panguitch	64.78	325	⇓P	P	05 03 53.0	+0.3
	baz=65						
U13A	Pakoon Wash	64.78	324	⇑P	P	05 03 52.8	+0.1
	baz=65						
V12A	Nelson	64.82	322	⇓P	P	05 03 53.1	+0.1
	baz=65						
SRU	San Rafael	64.86	328	⇓P	P	05 03 53.1	0.0
	baz=65						
Q16A	Castle Valley	65.05	327	⇓P	P	05 03 54.7	+0.3
	baz=65						
N20A	Spence Gulch,	65.05	330	⇓P	P	05 03 54.5	+0.1
	baz=65						
O19A	Miners Draw (B	65.06	329	⇑P	P	05 03 54.1	-0.3
	baz=65,SNR=7.8						
HEC	Hector,Ludlow	65.10	321	⇑P	P	05 03 55.3	+0.5
	baz=65						
U12A	Valley of Fire	65.12	323	⇑P	P	05 03 55.1	+0.2
	baz=65						
T13A	Saint George	65.17	324	⇑P	P	05 03 55.7	+0.5
	baz=66						
EYMN	Ely	65.21	346	*e*P	P	05 03 54.1	-1.1
V11A	Goodsprings	65.24	322	⇓P	P	05 03 55.7	0.0
	baz=66						
P17A	Butcher Ranch,	65.24	328	⇓P	P	05 03 55.8	+0.2
	baz=66						
S14A	Cedar City	65.28	325	⇑P	P	05 03 56.2	+0.3
	baz=66						
MSU	Marysvale	65.29	326	*e*P	P	05 03 55.9	-0.1
L21A	Rawlins	65.52	332	⇓P	P	05 03 57.1	-0.3
	baz=66,SNR=5.5						
M20A	Sweetwater, Wa	65.53	331	⇑P	P	05 03 57.3	-0.1
	baz=66						
SHPR	Sheep Range	65.54	323	*e*P	P	05 03 57.8	+0.2
N19A	John Jarvie Ra	65.54	330	⇓P	P	05 03 57.0	-0.6
	baz=66,SNR=7.5						
S13A	Holt Ranch, En	65.54	324	⇓P	P	05 03 58.2	+0.6
	baz=66,SNR=14						
R14A	James Farms, M	65.59	326	⇓P	P	05 03 58.2	+0.3
	baz=66						
Q15A	Fillmore	65.75	326	⇑P	P	05 03 59.7	+0.7
	baz=66						
O17A	Robinson Place	65.78	328	⇓P	P	05 03 59.3	+0.2
	baz=66,SNR=8.1						
RSSD	Black Hills	65.84	335	*e*P	P	05 03 59.1	-0.3
RSSD				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.3						
RSSD	Black Hills	65.84	335	*e*P	P	05 03 59.1	-0.2
	comp=Z,5.4nm,1.1s,mb4.3						
R13A	O'Grain Ranch,	66.03	325	⇑P	P	05 04 01.4	+0.6
	baz=66						
T11A	Corn Creek, Al	66.08	323	⇑P	P	05 04 01.2	+0.2
	baz=66,SNR=9.6						
U10A	Ash Meadows, A	66.17	322	⇑P	P	05 04 02.0	+0.3
	baz=66						
Q14A	Sevier Lake (B	66.22	326	⇓P	P	05 04 02.3	+0.3
	baz=66,SNR=5.3						
N17A	Moffit Pass	66.39	329	⇓P	P	05 04 03.4	+0.4
	baz=67,SNR=7.6						
JLU	Jordanelle	66.45	328	*e*P	P	05 04 03.8	+0.5
R12A	Pony Springs,	66.49	325	⇓P	P	05 04 04.2	+0.5
	baz=67,SNR=8.8						
K20A	Yellowstone Ra	66.51	332	⇓P	P	05 04 03.1	-0.6
	baz=67						
FURC	Furnace Creek,	66.52	322	⇑P	P	05 04 04.3	+0.4
	baz=67						
P14A	Drum Mountains	66.55	326	⇓P	P	05 04 04.5	+0.5
	baz=67,SNR=7.5						
L19A	Farson	66.55	331	⇓P	P	05 04 04.2	+0.2
	baz=67,SNR=5.6						
Q13A	Wheeler Ranch,	66.61	325	⇓P	P	05 04 05.1	+0.7
	baz=67						
MPMC	Manual Prospec	66.62	321	⇑P	P	05 04 04.5	-0.1
	baz=67						
N16A	Rees Ranch, Co	66.65	328	⇓P	P	05 04 04.7	+0.1
	baz=67						
AGMN	Agassiz Refuge	66.67	343	*e*P	P	05 04 03.5	-1.1
	comp=Z,25nm,0.8s,mb5.1						
M17A	Scullys Gap (B	66.71	329	⇓P	P	05 04 04.6	-0.4
	baz=67						
L18A	Fontenelle, Gr	66.74	330	⇓P	P	05 04 05.0	-0.2
	baz=67						
DUG	Dugway	66.85	327	*e*P	P	05 04 06.0	+0.1
DUG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.5						
DUG	Dugway	66.85	327	⇓P	P	05 04 06.1	+0.1
	baz=67,SNR=10.0						
DUG	Dugway	66.85	327	*e*P	P	05 04 06.0	+0.1
	comp=Z,7.4nm,0.9s,mb4.5						
K19A	Absolon Red Bu	66.88	331	⇓P	P	05 04 05.2	-0.9
	baz=67,SNR=5.5						
P13A	Bates Ranch, G	66.96	326	⇓P	P	05 04 07.1	+0.4
	baz=67,SNR=5.1						
ISA	Isabella	66.96	320	⇓P	P	05 04 06.7	0.0
	baz=67						
VNA3	Neumayer Olymp	66.97	162	*e*P	P	05 04 07.3	+1.0
VNA3				*e*		05 04 36.9	
VNA3				*e*		05 04 49.0	
R11A	Troy Canyon, C	67.05	324	⇓P	P	05 04 07.5	+0.2
	baz=67,SNR=6.1						
M16A	Huntsville	67.07	329	⇓P	P	05 04 07.2	0.0
	baz=67						
Q12A	Willow Creek R	67.11	325	⇑P	P	05 04 08.1	+0.5
	baz=67						
PDAR	Pinedale Array	67.16	331	P	P	05 04 06.8	-1.0
	comp=Z,1.0nm,0.7s,mb3.7,baz=131,slow=6.3,SNR=8.4						
PDAR				pP	pP	05 04 36.4	+3.8
	comp=Z,1.1nm,0.9s,baz=125,slow=8.1,SNR=3.2						
BW06	Boulder Array	67.16	331	*e*P	P	05 04 07.0	-0.8
	comp=Z,1.8nm,0.9s,mb3.9						
VNA1	Neumayer--Stat	67.20	161	*e*P	P	05 04 09.3	+1.6
L17A	Cokeville	67.28	330	⇓P	P	05 04 08.1	-0.5
	baz=68						
K18A	Toltan Ranch,	67.29	331	⇓P	P	05 04 08.6	0.0
	baz=68,SNR=6.3						
S10A	Tonopah Range,	67.34	323	⇓P	P	05 04 09.2	+0.1
	baz=68						
R10A	Warm Springs	67.42	324	⇓P	P	05 04 10.6	+1.0
	baz=68						
O13A	Hicks Ranch, I	67.42	326	⇑P	P	05 04 10.1	+0.6
	baz=68						
Q11A	Duckwater	67.44	324	⇓P	P	05 04 10.2	+0.6
	baz=68						
P12A	McGill	67.46	325	⇑P	P	05 04 09.9	+0.1
	baz=68,SNR=6.1						
L16A	Fish Haven	67.49	329	⇑P	P	05 04 09.7	-0.2
	baz=68						
N14A	Grayback Hills	67.52	327	⇓P	P	05 04 09.9	-0.2
	baz=68,SNR=7.2						
VNA2	Neumayer--Watz	67.56	161	*e*P	P	05 04 11.2	+1.2
	baz=291,slow=7.4						
VNA2				*e*	pP	05 04 40.7	+6.0
VNA2				*e*		05 04 50.6	
S09A	Goldfield	67.57	323	⇓P	P	05 04 10.7	+0.1
	baz=68						
M15A	Larsen Ranch,	67.59	328	⇑P	P	05 04 10.1	-0.4
	baz=68						
J18A	Kendall Valley	67.72	331	⇑P	P	05 04 10.8	-0.5
	baz=68,SNR=10						
K17A	Gardner Place,	67.80	330	⇓P	P	05 04 11.6	-0.2
	baz=68						
R09A	Tonopah	67.83	323	⇑P	P	05 04 12.3	+0.1
	baz=68						
Q10A	Clear Creek Ra	67.84	324	⇑P	P	05 04 12.8	+0.6
	baz=68						
O12A	Currie	67.93	326	⇓P	P	05 04 12.9	+0.2
	baz=68						
L15A	Malad City	67.96	329	⇓P	P	05 04 12.2	-0.7
	baz=68,SNR=6.1						
HVU	Hansel Valley	67.99	328	*e*P	P	05 04 13.2	+0.1
I18A	Diamond G Ranc	68.00	331	⇑P	P	05 04 12.7	-0.4
	baz=68,SNR=8.3						
M14A	Sheep Mountain	68.08	328	⇓P	P	05 04 13.3	-0.3
	baz=68,SNR=7.1						

J17A	**Brown Place, J**	**68.16**	**331**	⇓P	**P**	**05 04 14.2**	**+0.1**
	baz=68						
K16A	**Soda Springs**	**68.18**	**330**	⇑P	**P**	**05 04 14.4**	**+0.1**
	baz=68,SNR=6.6						
REDW	**Red Top Meadow**	**68.23**	**331**	*e*P	**P**	**05 04 13.8**	**-0.8**
	comp=Z,2.6nm,0.6s,mb4.2						
LOHW	**Long Hollow**	**68.30**	**331**	*e*P	**P**	**05 04 14.4**	**-0.6**
	comp=Z,3.6nm,0.8s,mb4.2						
O11A	**Cowboy Ranch,**	**68.33**	**325**	⇓P	**P**	**05 04 15.3**	**0.0**
	baz=69,SNR=5.9						
TPAW	**Teton Pass**	**68.37**	**331**	*e*P	**P**	**05 04 14.7**	**-0.7**
	comp=Z,2.6nm,0.7s,mb4.2						
P10A	**Eureka**	**68.42**	**325**	⇓P	**P**	**05 04 16.5**	**+0.7**
	baz=69						
RRI2	**Red Ridge**	**68.44**	**330**	*e*P	**P**	**05 04 16.2**	**+0.4**
ULM	**Lac du Bonnet**	**68.44**	**344**	P	**P**	**05 04 14.3**	**-1.4**
	comp=Z,15nm,0.8s,mb4.9,baz=157,slow=5.9,SNR=20						
MOOW	**Moose Ponds**	**68.47**	**331**	*e*P	**P**	**05 04 15.0**	**-1.1**
	comp=Z,4.0nm,1.1s,mb4.2						
I17A	**Pilgrim Ck.**	**68.52**	**331**	⇑P	**P**	**05 04 16.4**	**+0.1**
	baz=69,SNR=5.4						
J16A	**Bone**	**68.52**	**330**	⇓P	**P**	**05 04 16.3**	**-0.1**
	baz=69						
ELK	**Elko**	**68.53**	**326**	*e*P	**P**	**05 04 15.8**	**-0.7**
ELK				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ELK	**Elko**	**68.53**	**326**	*e*P	**P**	**05 04 15.8**	**-0.7**
	comp=Z,2.6nm,0.8s,mb4.1						
DCID1	**Drake Creek**	**68.56**	**331**	*e*P	**P**	**05 04 17.0**	**+0.4**
NVAR	**Mina Array Bea**	**68.68**	**323**	P	**P**	**05 04 17.7**	**+0.3**
	comp=Z,2.1nm,0.9s,mb4.0,baz=155,slow=7.1,SNR=14						
K14A	**Jones Ranch, D**	**68.75**	**329**	⇑P	**P**	**05 04 17.4**	**-0.4**
	baz=69						
L13A	**Double Diamond**	**68.81**	**328**	⇓P	**P**	**05 04 18.2**	**0.0**
	baz=69,SNR=6.2						
I16A	**Newdale**	**68.92**	**331**	⇓P	**P**	**05 04 19.1**	**+0.3**
	baz=69						
J15A	**Blackfoot**	**69.02**	**330**	⇑P	**P**	**05 04 19.8**	**+0.4**
	baz=69						
G18A	**Lazy EL Ranch,**	**69.14**	**333**	⇓P	**P**	**05 04 20.2**	**0.0**
	baz=70						
O09A	**Fish Creek Ran**	**69.21**	**325**	⇓P	**P**	**05 04 21.4**	**+0.7**
	baz=70						
M11A	**Holland Ranch,**	**69.31**	**326**	⇑P	**P**	**05 04 21.7**	**+0.4**
	baz=70						
P08A	**Dixie Valley**	**69.39**	**324**	⇓P	**P**	**05 04 22.1**	**+0.3**
	baz=70						
L12A	**House Creek Ra**	**69.41**	**327**	⇓P	**P**	**05 04 22.0**	**+0.1**
	baz=70,SNR=5.2						
R06C	**Coleville**	**69.42**	**322**	⇓P	**P**	**05 04 22.1**	**0.0**
	baz=70						
H16A	**Russell Place,**	**69.43**	**331**	⇓P	**P**	**05 04 22.4**	**+0.4**
	baz=70						
I15A	**Monteview**	**69.49**	**330**	⇓P	**P**	**05 04 22.8**	**+0.5**
	baz=70						
J14A	**Carey**	**69.49**	**329**	⇑P	**P**	**05 04 22.7**	**+0.3**
	baz=70,SNR=7.5						
DGMT	**Dagmar**	**69.52**	**338**	⇓P	**P**	**05 04 23.1**	**+0.6**
	baz=70						
DGMT	**Dagmar**	**69.52**	**338**	*e*P	**P**	**05 04 22.9**	**+0.5**
F18A	**Big Timber**	**69.66**	**333**	⇑P	**P**	**05 04 23.8**	**+0.4**
	baz=70						
K12A	**Draper Farm, C**	**69.70**	**328**	⇑P	**P**	**05 04 23.8**	**+0.1**
	baz=70,SNR=8.4						
LIC	**Lamto**	**69.79**	**77**	⇑*i*P	**P**	**05 04 23.9**	**-1.0**
	comp=Z,56nm,0.9s,mb5.1						
LIC				*e*MLR	MLR		
	comp=Z,123nm,22.0s						
LIC	**Lamto**	**69.79**	**77**	*e*P	**P**	**05 04 23.8**	**-1.1**
	comp=Z,80nm,0.9s,mb5.5						
LIC	**Lamto**	**69.79**	**77**	⇑*i*P	**P**	**05 04 23.9**	**-1.0**
	comp=Z,28nm,0.9s,mb5.1						
LIC				LR	LR		
	comp=Z,60nm,22.0s						
L11A	**Cat Creek Ranc**	**69.81**	**327**	⇓P	**P**	**05 04 24.0**	**-0.3**
	baz=70,SNR=5.7						
N09A	**Rock Creek Ran**	**69.86**	**325**	⇑P	**P**	**05 04 24.5**	**-0.2**
	baz=70						
J13A	**Cove Ranch, Pi**	**69.88**	**329**	⇓P	**P**	**05 04 24.8**	**0.0**
	baz=70						
I14A	**Mackay**	**69.91**	**329**	⇓P	**P**	**05 04 25.1**	**+0.2**
	baz=70,SNR=7.3						
SCHQ	**Schefferville**	**69.91**	**3**	P	**P**	**05 04 24.3**	**-0.4**
	comp=Z,9.8nm,0.9s,mb4.6,baz=185,slow=3.8,SNR=9.8						
SCHQ	**Schefferville**	**69.91**	**3**	P	**P**	**05 04 24.3**	**-0.4**
TIC	**Toumodi**	**69.93**	**77**	*e*P	**P**	**05 04 24.6**	**-1.1**
	comp=Z,40nm,0.8s,mb5.3						
H15A	**Lima**	**70.02**	**330**	⇓P	**P**	**05 04 26.0**	**+0.4**
	baz=70						
F17A	**Fitzpatrick Pl**	**70.08**	**332**	⇓P	**P**	**05 04 26.3**	**+0.4**
	baz=70						
DBIC	**Dimbokro**	**70.09**	**77**	P	**P**	**05 04 26.0**	**-0.7**
	comp=Z,22nm,0.7s,mb5.1,baz=231,slow=6.4,SNR=42						
DBIC				LR	LR	05 36 27.6	
	comp=Z,95nm,18.6s,baz=221,slow=37						
KIC	**Kosan Boka**	**70.11**	**77**	*e*P	**P**	**05 04 25.9**	**-0.9**
	comp=Z,225nm,0.9s,mb6.0						
HLID	**Hailey**	**70.12**	**329**	⇓P	**P**	**05 04 26.6**	**+0.4**
	baz=70						
HLID	**Hailey**	**70.12**	**329**	*e*P	**P**	**05 04 25.9**	**-0.2**
L10A	**Juniper Basin**	**70.13**	**326**	⇑P	**P**	**05 04 26.2**	**-0.1**
	baz=70,SNR=5.9						
PAHR	**Pah Rah Range**	**70.15**	**323**	*e*P	**P**	**05 04 27.3**	**+0.8**
O07A	**Toulon**	**70.16**	**324**	⇑P	**P**	**05 04 26.6**	**+0.1**
	baz=70						
M09A	**Marrel Ranch,**	**70.21**	**325**	⇓P	**P**	**05 04 26.9**	**+0.1**
	baz=70						
I13A	**Wildhorse Cree**	**70.22**	**329**	⇓P	**P**	**05 04 27.1**	**+0.3**
	baz=70,SNR=11						
J12A	**Stokes Ranch,**	**70.24**	**328**	⇑P	**P**	**05 04 26.9**	**0.0**
	baz=70						
E18A	**Harlowton**	**70.27**	**333**	⇓P	**P**	**05 04 27.2**	**+0.2**
	baz=71						
G15A	**Dillon**	**70.36**	**331**	⇓P	**P**	**05 04 28.2**	**+0.5**
	baz=71						
E17A	**Martinsdale**	**70.60**	**333**	⇑P	**P**	**05 04 29.1**	**0.0**
	baz=71,SNR=5.0						
I12A	**Atlanta**	**70.64**	**328**	⇑P	**P**	**05 04 29.4**	**0.0**
	baz=71						
D18A	**Linhart Farms,**	**70.71**	**334**	⇓P	**P**	**05 04 30.0**	**+0.3**
	baz=71						
MFID	**Camas Ranch**	**70.73**	**328**	⇑P	**P**	**05 04 30.0**	**+0.1**
	baz=71,SNR=9.3						
L09A	**Wilkinson Ranc**	**70.73**	**326**	⇓P	**P**	**05 04 30.0**	**0.0**
	baz=71						
H13A	**Challis**	**70.76**	**329**	⇓P	**P**	**05 04 30.6**	**+0.4**
	baz=71						
BEKR	**Beckwourth**	**70.82**	**323**	⇑P	**P**	**05 04 30.8**	**+0.2**
	baz=71						
K10A	**MacKenzie Ranc**	**70.83**	**327**	⇓P	**P**	**05 04 31.0**	**+0.4**
	baz=71						
E16A	**East Helena**	**71.02**	**332**	⇑P	**P**	**05 04 31.7**	**+0.1**
	baz=71						
H12A	**Diamond D Ranc**	**71.05**	**329**	⇓P	**P**	**05 04 32.0**	**+0.2**
	baz=71						
D17A	**Six Diamond Ra**	**71.06**	**333**	⇑P	**P**	**05 04 31.8**	**0.0**
	baz=71,SNR=6.4						
N06A	**Buffalo Meadow**	**71.09**	**324**	⇓P	**P**	**05 04 31.9**	**-0.3**
	baz=71,SNR=7.0						
G13A	**Cobalt**	**71.14**	**330**	⇑P	**P**	**05 04 32.4**	**+0.1**
	baz=72,SNR=5.9						
M07A	**Soldier Meadow**	**71.14**	**324**	⇑P	**P**	**05 04 32.4**	**-0.1**
	baz=71						
I11A	**Placerville**	**71.15**	**328**	⇓P	**P**	**05 04 32.4**	**0.0**
	baz=72						
L08A	**Fields**	**71.22**	**325**	⇑P	**P**	**05 04 32.8**	**-0.2**
	baz=72						
K09A	**Rome**	**71.23**	**326**	⇑P	**P**	**05 04 33.1**	**+0.1**
	baz=72,SNR=7.0						
F14A	**Wisdom**	**71.25**	**331**	⇑P	**P**	**05 04 33.4**	**+0.4**
	baz=72						
EGMT	**Eagleton**	**71.33**	**334**	⇑P	**P**	**05 04 32.9**	**-0.6**
	baz=72						
D16A	**Dana Ranch, Ca**	**71.34**	**333**	⇑P	**P**	**05 04 34.0**	**+0.5**
	baz=72						
E15A	**Deer Lodge**	**71.37**	**332**	⇑P	**P**	**05 04 33.8**	**+0.1**
	baz=72						
C17A	**Wharram Farm,**	**71.46**	**334**	⇓P	**P**	**05 04 34.1**	**-0.1**
	baz=72						
J09A	**Fry Pan Ranch,**	**71.69**	**327**	⇓P	**P**	**05 04 35.7**	**0.0**
	baz=72						
F13A	**Darby**	**71.69**	**330**	⇑P	**P**	**05 04 35.9**	**+0.2**
	baz=72						
H11A	**Donnelly**	**71.74**	**329**	⇑P	**P**	**05 04 35.8**	**-0.1**
	baz=72						
E14A	**Clinton**	**71.76**	**331**	⇑P	**P**	**05 04 36.3**	**+0.3**
	baz=72,SNR=6.0						
C16A	**Fuhringer Ranc**	**72.01**	**333**	⇑P	**P**	**05 04 37.8**	**+0.2**
	baz=72						
K07A	**Rock Creek Ran**	**72.05**	**325**	⇓P	**P**	**05 04 37.7**	**-0.2**
	baz=72						
A18A	**Metzger Ranch,**	**72.08**	**335**	⇓P	**P**	**05 04 37.3**	**-0.6**
	baz=72,SNR=5.8						
J08A	**Circle Bar Ran**	**72.08**	**326**	⇓P	**P**	**05 04 38.3**	**+0.2**
	baz=72						
E13A	**Victor**	**72.10**	**331**	⇑P	**P**	**05 04 38.4**	**+0.2**
	baz=72,SNR=5.8						
F12A	**Elk City**	**72.11**	**330**	⇓P	**P**	**05 04 38.1**	**-0.1**
	baz=72						
MOD	**Modoc**	**72.12**	**324**	*e*P	**P**	**05 04 38.7**	**+0.4**
C15A	**Salmond Ranch,**	**72.37**	**333**	⇓P	**P**	**05 04 40.0**	**+0.3**
	baz=73,SNR=6.9						
A17A	**Triple J Farms**	**72.45**	**334**	⇑P	**P**	**05 04 39.8**	**-0.3**
	baz=73,SNR=5.2						
B16A	**M & M Farms, S**	**72.46**	**334**	⇑P	**P**	**05 04 40.0**	**-0.3**
	baz=73						
I08A	**Drewsey**	**72.51**	**327**	⇑P	**P**	**05 04 40.6**	**0.0**
	baz=73						
J07A	**Hines**	**72.54**	**326**	⇑P	**P**	**05 04 40.9**	**+0.1**
	baz=73						
D13A	**Huson**	**72.71**	**331**	⇑P	**P**	**05 04 41.9**	**+0.2**
	baz=73						
G10A	**Bishop Farm, J**	**72.71**	**328**	⇑P	**P**	**05 04 41.6**	**-0.2**
	baz=73,SNR=11						
B15A	**Bradely Ranch,**	**72.76**	**333**	⇓P	**P**	**05 04 41.7**	**-0.3**
	baz=73						
A16A	**West Butte Ran**	**72.83**	**334**	⇑P	**P**	**05 04 42.2**	**-0.1**
	baz=73,SNR=5.1						
J06A	**Christmas Vall**	**72.92**	**325**	⇑P	**P**	**05 04 43.1**	**0.0**
	baz=73						
H08A	**Prairie City**	**72.97**	**327**	⇑P	**P**	**05 04 43.2**	**-0.1**
	baz=73						
K05A	**Summer Lake**	**72.98**	**325**	⇓P	**P**	**05 04 43.8**	**+0.4**
	baz=73						
G09A	**Cove**	**73.03**	**328**	⇑P	**P**	**05 04 44.1**	**+0.4**
	baz=73,SNR=7.4						
I07A	**Izee**	**73.12**	**326**	⇓P	**P**	**05 04 44.7**	**+0.5**
	baz=73						
C13A	**Hot Springs**	**73.19**	**332**	⇓P	**P**	**05 04 44.9**	**+0.4**
	baz=74						
I06A	**Prineville**	**73.41**	**326**	⇓P	**P**	**05 04 46.1**	**+0.2**
	baz=74,SNR=5.3						
D11A	**Klaveano Farm,**	**73.56**	**330**	⇑P	**P**	**05 04 47.3**	**+0.5**
	baz=74						
G08A	**Pilot Rock**	**73.65**	**328**	⇑P	**P**	**05 04 47.6**	**+0.3**
	baz=74						
H06A	**Lindquist Farm**	**74.00**	**326**	⇓P	**P**	**05 04 50.0**	**+0.7**
	baz=74						
FFC	**Flin Flon**	**74.14**	**343**	*i* P	**P**	**05 04 49.5**	**-0.4**
FFC	**Flin Flon**	**74.14**	**343**	*e*P	**P**	**05 04 48.6**	**-1.3**
	comp=Z,4.2nm,0.9s,mb4.2						
B12A	**Libby**	**74.23**	**332**	⇓P	**P**	**05 04 51.0**	**+0.3**
	baz=75						
G06A	**Carlson Farm,**	**74.49**	**327**	⇑P	**P**	**05 04 52.9**	**+0.7**
	baz=75						
D09A	**Jones Farm, Ri**	**74.53**	**329**	⇓P	**P**	**05 04 52.6**	**+0.2**
	baz=75						
A12A	**Yaak River Ran**	**74.60**	**332**	⇓P	**P**	**05 04 53.1**	**+0.3**
	baz=75						
NEW	**Newport**	**74.80**	**331**	*e*P	**P**	**05 04 52.9**	**-1.0**
NEW				pmax	pmax		
	comp=Z,5.0nm,1.2s						
NEW	**Newport**	**74.80**	**331**	*e*P	**P**	**05 04 52.9**	**-1.0**
	comp=Z,4.6nm,1.2s,mb4.1						
G05A	**Wamic**	**74.86**	**326**	⇓P	**P**	**05 04 54.7**	**+0.4**
	baz=75						
B09A	**Rice**	**75.40**	**330**	⇑P	**P**	**05 04 57.5**	**+0.1**
	baz=76						
D07A	**Quincy**	**75.45**	**329**	⇑P	**P**	**05 04 57.6**	**-0.1**
	baz=76						
C07A	**Waterville**	**75.83**	**329**	⇓P	**P**	**05 05 00.2**	**+0.4**
	baz=76						
FCC	**Fort Churchill**	**75.87**	**348**	*e*P	**P**	**05 04 59.2**	**-0.6**
	comp=Z,0.2nm,0.5s						
F04A	**Amboy**	**75.89**	**326**	⇑P	**P**	**05 05 00.1**	**-0.1**
	baz=76						
D06A	**Cle Elum**	**75.89**	**328**	⇓P	**P**	**05 05 00.7**	**+0.5**
	baz=76						
A09A	**Danville**	**75.99**	**331**	⇑P	**P**	**05 05 01.1**	**+0.4**
	baz=76						
A08A	**Turner Farm, O**	**76.31**	**330**	⇑P	**P**	**05 05 02.7**	**+0.2**
	baz=77						
D05A	**Enumclaw**	**76.48**	**328**	⇑P	**P**	**05 05 03.6**	**+0.1**
	baz=77						
EDM	**Edmonton**	**76.80**	**336**	*e*P	**P**	**05 05 04.0**	**-1.2**
NLWA	**Neilton Lookou**	**77.59**	**327**	⇓P	**P**	**05 05 10.0**	**+0.2**
	baz=78						
TORD	**Torodi Ar. Bea**	**78.28**	**73**	P	**P**	**05 05 13.4**	**-0.9**
	comp=Z,48nm,0.9s,mb5.2,baz=261,slow=4.3,SNR=281						
EVO	**Evora**	**80.28**	**46**	*e*P	**P**	**05 05 23.9**	**-0.8**
	comp=Z,32nm,1.0s,mb4.8						
MVO	**Moncorvo**	**82.19**	**44**	*e*P	**P**	**05 05 35.0**	**+0.3**
	comp=Z,24nm,1.5s,mb4.8						
EPLA	**Plasencia**	**82.32**	**45**	P	**P**	**05 05 36.5**	**+1.1**
EPLA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.1						
EPLA	**Plasencia**	**82.32**	**45**	P	**P**	**05 05 36.5**	**+1.1**
	comp=Z,28nm,0.9s,mb5.1						
ELOJ	**Sierra Loja**	**82.38**	**48**	P	**P**	**05 05 37.5**	**+1.7**
ELOJ				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.9						
ELOJ	**Sierra Loja**	**82.38**	**48**	P	**P**	**05 05 37.5**	**+1.7**
	comp=Z,17nm,0.9s,mb4.9						
RAR	**Rarotonga**	**82.49**	**250**	LR	LR	05 33 24.1	
	comp=Z,135nm,20.7s,baz=99,slow=29						
PBRG	**Braganca**	**82.67**	**43**	*e*P	**P**	**05 05 38.5**	**+1.3**
	comp=Z,46nm,1.9s,mb5.0						
ERUA	**La Rua**	**82.69**	**43**	P	**P**	**05 05 36.6**	**-0.7**
ERUA				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
ERUA	**La Rua**	**82.69**	**43**	P	**P**	**05 05 36.6**	**-0.6**
	comp=Z,9.4nm,0.7s,mb4.7						
ECAL	**Calabor**	**82.74**	**43**	P	**P**	**05 05 38.7**	**+1.2**
	comp=Z,22nm,0.9s,mb5.0						
EBAN	**Banos Encina**	**83.08**	**48**	P	**P**	**05 05 40.9**	**+1.5**
EBAN				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.8						
EBAN	**Banos Encina**	**83.08**	**48**	P	**P**	**05 05 40.9**	**+1.5**
	comp=Z,14nm,0.8s,mb4.8						
PAB	**San Pablo**	**83.28**	**46**	*e*P	**P**	**05 05 40.7**	**+0.3**
PAB				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.2						
PAB	**San Pablo**	**83.28**	**46**	*e*P	**P**	**05 05 40.7**	**+0.3**
	comp=Z,34nm,0.9s,mb5.2						
EQES	**Quesada**	**83.44**	**48**	P	**P**	**05 05 41.5**	**+0.3**
	comp=Z,18nm,0.9s,mb4.9						
ESDC	**Sonseca Array**	**83.61**	**46**	P	**P**	**05 05 43.1**	**+1.0**
	comp=Z,17nm,0.8s,mb5.0,baz=255,slow=5.0,SNR=68						
ESDC	**Sonseca Array**	**83.61**	**46**	P	**P**	**05 05 43.1**	**+1.0**
	comp=Z,28nm,0.8s,mb5.1						
ENIJ	**Nijar**	**83.72**	**49**	P	**P**	**05 05 41.4**	**-1.3**
ENIJ				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.1						
ENIJ	**Nijar**	**83.72**	**49**	P	**P**	**05 05 41.4**	**-1.3**
	comp=Z,32nm,1.0s,mb5.1						
EHUE	**Huescar**	**83.79**	**48**	P	**P**	**05 05 42.9**	**-0.1**
EHUE				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
EHUE	**Huescar**	**83.79**	**48**	P	**P**	**05 05 42.9**	**-0.2**
	comp=Z,11nm,0.8s,mb4.8						
GUD	**Guadarrama**	**83.89**	**45**	P	**P**	**05 05 43.3**	**-0.2**
GUD				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.7						
GUD	**Guadarrama**	**83.89**	**45**	P	**P**	**05 05 43.3**	**-0.2**
	comp=Z,8.1nm,0.6s,mb4.7						
EVIA	**Vianos**	**84.20**	**48**	P	**P**	**05 05 46.4**	**+1.3**
EVIA				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.1						
EVIA	**Vianos**	**84.20**	**48**	P	**P**	**05 05 46.4**	**+1.3**
	comp=Z,26nm,0.8s,mb5.1						
YKA	**Yellowknife Ar**	**84.28**	**342**	P	**P**	**05 05 43.8**	**-1.1**
	comp=Z,12nm,0.7s,mb4.8,baz=135,slow=5.1,SNR=228						
YKA	**Yellowknife Ar**	**84.28**	**342**	P	**P**	**05 05 43.8**	**-1.1**
EARI	**Arriondas**	**84.37**	**42**	P	**P**	**05 05 45.8**	**-0.1**
	comp=Z,6.7nm,0.9s,mb4.5						
TAM	**Tamanrasset**	**84.83**	**65**	*e*P	**P**	**05 05 49.3**	**+0.7**
TAM				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
TAM	**Tamanrasset**	**84.83**	**65**	*e*P	**P**	**05 05 49.3**	**+0.7**
	comp=Z,20nm,1.4s,mb4.9						
TSUM	**Tsumeb**	**84.84**	**108**	*e*P	**P**	**05 05 48.7**	**-0.2**
	comp=Z,31nm,0.8s,mb5.3						
ETOB	**Tobarra**	**84.88**	**48**	P	**P**	**05 05 50.4**	**+1.8**
	comp=Z,20nm,0.8s,mb5.1						
ETOR	**Torete**	**85.41**	**46**	P	**P**	**05 05 52.5**	**+1.4**
ETOR				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
ETOR	**Torete**	**85.41**	**46**	P	**P**	**05 05 52.5**	**+1.3**
	comp=Z,5.5nm,0.7s,mb4.6						
ELAN	**Lanestosa**	**85.50**	**43**	P	**P**	**05 05 51.5**	**0.0**
	comp=Z,58nm,1.8s,mb5.2						
ESAC	**San Caprasio**	**86.87**	**45**	P	**P**	**05 05 59.2**	**+0.9**
	comp=Z,23nm,0.6s,mb5.3						
SJPF	**Ste Jean**	**86.92**	**44**	⇑*i*P	**P**	**05 05 58.9**	**+0.4**
	comp=Z,16nm,0.9s,mb4.7						
SJPF	**Ste Jean**	**86.92**	**44**	⇑*i*P	**P**	**05 05 58.9**	**+0.4**
SJPF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SJPF	**Ste Jean**	**86.92**	**44**	⇑*i*P	**P**	**05 05 58.9**	**+0.4**
	comp=Z,8.1nm,0.9s,mb4.7						
ERTA	**Horta de San J**	**87.13**	**46**	P	**P**	**05 06 00.4**	**+0.8**
	comp=Z,15nm,0.8s,mb5.0						
ETSF	**Etsaut**	**87.28**	**44**	⇑*i*P	**P**	**05 06 00.5**	**+0.3**
	comp=Z,11nm,0.8s,mb4.5						
ETSF	**Etsaut**	**87.28**	**44**	⇑*i*P	**P**	**05 06 00.5**	**+0.3**
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ETSF	**Etsaut**	**87.28**	**44**	⇑*i*P	**P**	**05 06 00.5**	**+0.3**
	comp=Z,5.3nm,0.8s,mb4.5						
EBIE	**Bielsa**	**87.67**	**45**	P	**P**	**05 06 03.1**	**+1.0**
	comp=Z,15nm,0.7s,mb5.1						
QUIF	**Quistinic**	**87.69**	**39**	*e*P	**P**	**05 06 00.6**	**-1.5**
	comp=Z,32nm,1.1s,mb5.0						
QUIF	**Quistinic**	**87.69**	**39**	*e*P	**P**	**05 06 00.6**	**-1.5**
QUIF				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
QUIF	**Quistinic**	**87.69**	**39**	*e*P	**P**	**05 06 00.6**	**-1.5**
	comp=Z,16nm,1.1s,mb5.0						
ROSF	**Rostrenen**	**87.81**	**39**	*e*P	**P**	**05 06 02.0**	**-0.6**
	comp=Z,21nm,1.0s,mb4.8						
ROSF	**Rostrenen**	**87.81**	**39**	*e*P	**P**	**05 06 02.0**	**-0.6**
ROSF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
ROSF	**Rostrenen**	**87.81**	**39**	*e*P	**P**	**05 06 02.0**	**-0.6**
	comp=Z,11nm,1.0s,mb4.8						
EPF	**Esparros**	**87.94**	**44**	*e*P	**P**	**05 06 02.5**	**-0.9**
	comp=Z,44nm,1.5s,mb5.0						
EPF	**Esparros**	**87.94**	**44**	*e*P	**P**	**05 06 02.5**	**-0.9**
EPF				pmax	pmax		
	comp=Z,22nm,1.5s,mb5.0						
EPF	**Esparros**	**87.94**	**44**	*e*P	**P**	**05 06 02.5**	**-0.9**
	comp=Z,22nm,1.5s,mb5.0						
SGMF	**Saint Gilles**	**88.21**	**39**	*e*P	**P**	**05 06 03.5**	**-1.0**
	comp=Z,59nm,1.4s,mb5.1						
SGMF	**Saint Gilles**	**88.21**	**39**	*e*P	**P**	**05 06 03.5**	**-1.0**
SGMF				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.1						
SGMF	**Saint Gilles**	**88.21**	**39**	*e*P	**P**	**05 06 03.5**	**-1.0**
	comp=Z,30nm,1.4s,mb5.1						
LFF	**La Frestale**	**88.94**	**43**	⇑*i*P	**P**	**05 06 07.6**	**-0.5**
	comp=Z,50nm,0.8s,mb5.3						
LFF	**La Frestale**	**88.94**	**43**	⇑*i*P	**P**	**05 06 07.6**	**-0.5**
LFF				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
LFF	**La Frestale**	**88.94**	**43**	⇑*i*P	**P**	**05 06 07.6**	**-0.5**
	comp=Z,25nm,0.8s,mb5.3						
MFF	**Saint Martin d**	**89.02**	**41**	⇑*i*P	**P**	**05 06 07.8**	**-0.6**
	comp=Z,21nm,0.7s,mb5.0						
MFF	**Saint Martin d**	**89.02**	**41**	⇑*i*P	**P**	**05 06 07.8**	**-0.6**
MFF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
MFF	**Saint Martin d**	**89.02**	**41**	⇑*i*P	**P**	**05 06 07.8**	**-0.6**
	comp=Z,10nm,0.7s,mb5.0						
BOSA	**Boshof**	**89.13**	**119**	P	**P**	**05 06 09.1**	**-0.4**
	comp=Z,6.4nm,0.8s,mb4.7,baz=228,slow=4.0,SNR=9.5						
BOSA				LR	LR	05 42 40.4	
	comp=Z,103nm,18.1s,baz=346,slow=33						
GRR	**Gorron**	**89.29**	**39**	⇑*i*P	**P**	**05 06 08.8**	**-0.8**
	comp=Z,12nm,0.6s,mb4.8						
GRR	**Gorron**	**89.29**	**39**	⇑*i*P	**P**	**05 06 08.8**	**-0.8**
GRR				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
GRR	**Gorron**	**89.29**	**39**	⇑*i*P	**P**	**05 06 08.8**	**-0.8**
	comp=Z,5.8nm,0.6s,mb4.8						
MTLF	**Montolieu**	**89.33**	**45**	⇑*i*P	**P**	**05 06 09.4**	**-0.5**
	comp=Z,30nm,1.1s,mb4.9						
MTLF	**Montolieu**	**89.33**	**45**	⇑*i*P	**P**	**05 06 09.4**	**-0.5**
MTLF				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
MTLF	**Montolieu**	**89.33**	**45**	⇑*i*P	**P**	**05 06 09.4**	**-0.5**
	comp=Z,15nm,1.1s,mb4.9						
EJON	**La Jonquera**	**89.46**	**46**	P	**P**	**05 06 11.7**	**+1.2**
	comp=Z,4.0nm,0.8s,mb4.5						
RJF	**Les Rejaudoux**	**89.59**	**43**	⇑*i*P	**P**	**05 06 10.4**	**-0.7**
	comp=Z,28nm,0.8s,mb5.1						
RJF	**Les Rejaudoux**	**89.59**	**43**	⇑*i*P	**P**	**05 06 10.4**	**-0.7**
RJF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
RJF	**Les Rejaudoux**	**89.59**	**43**	⇑*i*P	**P**	**05 06 10.4**	**-0.7**
	comp=Z,14nm,0.8s,mb5.2						
FLN	**La Foliniere**	**89.67**	**39**	⇑*i*P	**P**	**05 06 10.7**	**-0.7**
	comp=Z,13nm,0.7s,mb4.9						
FLN	**La Foliniere**	**89.67**	**39**	⇑*i*P	**P**	**05 06 10.7**	**-0.7**
FLN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.8						
FLN	**La Foliniere**	**89.67**	**39**	⇑*i*P	**P**	**05 06 10.7**	**-0.7**
	comp=Z,6.4nm,0.7s,mb4.9						
CAF	**Calviac**	**89.81**	**43**	⇑*i*P	**P**	**05 06 11.6**	**-0.5**
	comp=Z,28nm,0.8s,mb5.1						
CAF	**Calviac**	**89.81**	**43**	⇑*i*P	**P**	**05 06 11.6**	**-0.5**
CAF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
CAF	**Calviac**	**89.81**	**43**	⇑*i*P	**P**	**05 06 11.6**	**-0.5**
	comp=Z,14nm,0.8s,mb5.1						
LDF	**La Druitiere**	**89.83**	**39**	⇑*i*P	**P**	**05 06 11.3**	**-0.8**
	comp=Z,19nm,0.8s,mb5.0						
LDF	**La Druitiere**	**89.83**	**39**	⇑*i*P	**P**	**05 06 11.3**	**-0.8**
LDF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
LDF	**La Druitiere**	**89.83**	**39**	⇑*i*P	**P**	**05 06 11.3**	**-0.8**
	comp=Z,9.6nm,0.8s,mb5.0						
SUMG	**Summit**	**90.38**	**10**	*e*P	**P**	**05 06 14.2**	**0.0**
	comp=Z,31nm,1.1s,mb5.3						
SUMG				*e*pP	pP	05 06 48.6	+8.5
TCF	**Toulx Ste Croi**	**90.41**	**42**	*e*P	**P**	**05 06 14.0**	**-0.9**
	comp=Z,24nm,0.9s,mb5.0						
TCF	**Toulx Ste Croi**	**90.41**	**42**	*e*P	**P**	**05 06 14.0**	**-0.9**
TCF				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
TCF	**Toulx Ste Croi**	**90.41**	**42**	*e*P	**P**	**05 06 14.0**	**-0.9**
	comp=Z,12nm,0.9s,mb5.0						
LASF	**Ste Croix**	**90.70**	**44**	*e*P	**P**	**05 06 16.3**	**0.0**
	comp=Z,14nm,0.9s,mb4.8						
ESK	**Eskdalemuir**	**90.89**	**32**	*e*P	**P**	**05 06 16.1**	**-0.8**
ESK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
ESK	**Eskdalemuir**	**90.89**	**32**	*e*P	**P**	**05 06 16.1**	**-0.8**
	comp=Z,4.1nm,0.8s,mb4.6						
BGF	**Bois d’Agland**	**90.91**	**42**	⇑*i*P	**P**	**05 06 16.6**	**-0.6**
	comp=Z,41nm,0.8s,mb5.3						
BGF	**Bois d’Agland**	**90.91**	**42**	⇑*i*P	**P**	**05 06 16.6**	**-0.6**
BGF				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.3						
BGF	**Bois d’Agland**	**90.91**	**42**	⇑*i*P	**P**	**05 06 16.6**	**-0.6**
	comp=Z,20nm,0.8s,mb5.3						
HYF	**Humbligny**	**91.04**	**41**	*e*P	**P**	**05 06 17.4**	**-0.4**
AVF	**Avril sur Loir**	**91.32**	**42**	⇑*i*P	**P**	**05 06 18.2**	**-0.9**
	comp=Z,15nm,0.8s,mb4.9						
AVF	**Avril sur Loir**	**91.32**	**42**	⇑*i*P	**P**	**05 06 18.2**	**-0.9**
AVF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
AVF	**Avril sur Loir**	**91.32**	**42**	⇑*i*P	**P**	**05 06 18.2**	**-0.9**
	comp=Z,7.4nm,0.8s,mb4.9						
VIVF	**Saint-Julien-l**	**91.52**	**44**	⇑*i*P	**P**	**05 06 20.1**	**0.0**
	comp=Z,25nm,1.1s,mb5.0						
VIVF	**Saint-Julien-l**	**91.52**	**44**	⇑*i*P	**P**	**05 06 20.1**	**0.0**
VIVF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.1						
VIVF	**Saint-Julien-l**	**91.52**	**44**	⇑*i*P	**P**	**05 06 20.1**	**0.0**
	comp=Z,13nm,1.1s,mb5.1						
SSF	**Saint Saulge**	**91.52**	**41**	*e*P	**P**	**05 06 18.9**	**-1.1**
	comp=Z,20nm,1.0s,mb5.0						
SSF	**Saint Saulge**	**91.52**	**41**	*e*P	**P**	**05 06 18.9**	**-1.1**
SSF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.0						
SSF	**Saint Saulge**	**91.52**	**41**	*e*P	**P**	**05 06 18.9**	**-1.1**
	comp=Z,9.8nm,1.0s,mb5.0						
SMF	**Signal de Mont**	**91.59**	**42**	⇑*i*P	**P**	**05 06 19.7**	**-0.6**
	comp=Z,32nm,0.8s,mb5.3						
SMF	**Signal de Mont**	**91.59**	**42**	⇑*i*P	**P**	**05 06 19.7**	**-0.6**
SMF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.3						
SMF	**Signal de Mont**	**91.59**	**42**	⇑*i*P	**P**	**05 06 19.7**	**-0.6**

	comp=Z,16nm,0.8s,mb5.3						
LOR	**Lormes**	**91.82**	**41**	*e*P	**P**	**05 06 20.4**	**-1.0**
	comp=Z,16nm,0.9s,mb4.9						
LOR	**Lormes**	**91.82**	**41**	*e*P	**P**	**05 06 20.4**	**-1.0**
LOR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
LOR	**Lormes**	**91.82**	**41**	*e*P	**P**	**05 06 20.4**	**-1.0**
	comp=Z,7.8nm,0.9s,mb4.9						
SMRF	**Simiane la Rot**	**91.83**	**45**	*e*P	**P**	**05 06 20.8**	**-0.7**
KEST	**Kesra**	**92.01**	**54**	P	**P**	**05 06 23.1**	**+0.5**
	comp=Z,1.5nm,1.0s,mb4.2,baz=277,slow=5.7,SNR=4.4						
LMR	**La Mourre**	**92.26**	**46**	*e*P	**P**	**05 06 23.3**	**-0.2**
	comp=Z,70nm,1.4s,mb5.4						
LMR	**La Mourre**	**92.26**	**46**	*e*P	**P**	**05 06 23.3**	**-0.2**
LMR				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.4						
LMR	**La Mourre**	**92.26**	**46**	*e*P	**P**	**05 06 23.3**	**-0.2**
	comp=Z,35nm,1.4s,mb5.4						
ORIF	**Oris-en-Rattie**	**92.35**	**44**	*e*P	**P**	**05 06 24.3**	**+0.4**
	comp=Z,27nm,0.7s,mb5.3						
ORIF	**Oris-en-Rattie**	**92.35**	**44**	*e*P	**P**	**05 06 24.3**	**+0.4**
ORIF				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.3						
ORIF	**Oris-en-Rattie**	**92.35**	**44**	*e*P	**P**	**05 06 24.3**	**+0.4**
	comp=Z,13nm,0.7s,mb5.3						
FRF	**La Foret Royal**	**92.43**	**46**	⇑*i*P	**P**	**05 06 24.1**	**-0.2**
	comp=Z,18nm,1.0s,mb5.0						
FRF	**La Foret Royal**	**92.43**	**46**	⇑*i*P	**P**	**05 06 24.1**	**-0.2**
FRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
FRF	**La Foret Royal**	**92.43**	**46**	⇑*i*P	**P**	**05 06 24.1**	**-0.2**
	comp=Z,9.0nm,1.0s,mb5.0						
MBDF	**Montbardon**	**92.89**	**44**	⇑*i*P	**P**	**05 06 26.4**	**0.0**
MEZF	**Maizieres J'vi**	**92.99**	**40**	*e*P	**P**	**05 06 25.4**	**-1.4**
BAIF	**Baives**	**93.00**	**39**	*e*P	**P**	**05 06 25.9**	**-0.9**
CABF	**La Chapelle**	**93.03**	**43**	⇑*i*P	**P**	**05 06 26.6**	**-0.4**
	comp=Z,18nm,0.9s,mb5.1						
CABF	**La Chapelle**	**93.03**	**43**	⇑*i*P	**P**	**05 06 26.6**	**-0.4**
CABF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.1						
CABF	**La Chapelle**	**93.03**	**43**	⇑*i*P	**P**	**05 06 26.6**	**-0.4**
	comp=Z,8.9nm,0.9s,mb5.1						
SBF	**Sospel**	**93.07**	**45**	*e*P	**P**	**05 06 26.1**	**-1.2**
LPL	**La Plagne**	**93.11**	**44**	⇑*i*P	**P**	**05 06 28.0**	**+0.6**
	comp=Z,18nm,0.7s,mb5.2						
LPL	**La Plagne**	**93.11**	**44**	⇑*i*P	**P**	**05 06 28.0**	**+0.6**
LPL				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.2						
LPL	**La Plagne**	**93.11**	**44**	⇑*i*P	**P**	**05 06 28.0**	**+0.6**
	comp=Z,9.1nm,0.7s,mb5.2						
LPG	**La Plagne**	**93.11**	**44**	⇑*i*P	**P**	**05 06 28.2**	**+0.8**
	comp=Z,20nm,0.7s,mb5.2						
LPG	**La Plagne**	**93.11**	**44**	⇑*i*P	**P**	**05 06 28.2**	**+0.8**
LPG				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.2						
LPG	**La Plagne**	**93.11**	**44**	⇑*i*P	**P**	**05 06 28.2**	**+0.8**
	comp=Z,10nm,0.7s,mb5.3						
GIVF	**Givet**	**93.39**	**39**	*e*P	**P**	**05 06 28.1**	**-0.5**
HAU	**Haudompre**	**93.65**	**41**	*e*P	**P**	**05 06 29.1**	**-0.7**
PGF	**Pioggiola**	**93.76**	**47**	*e*P	**P**	**05 06 29.4**	**-1.1**
	comp=Z,18nm,1.0s,mb5.1						
PGF	**Pioggiola**	**93.76**	**47**	*e*P	**P**	**05 06 29.4**	**-1.1**
PGF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
PGF	**Pioggiola**	**93.76**	**47**	*e*P	**P**	**05 06 29.4**	**-1.1**
	comp=Z,9.1nm,1.0s,mb5.1						
HINF	**Hinteralfeld**	**93.91**	**42**	*e*P	**P**	**05 06 30.1**	**-0.9**
	comp=Z,7.0nm,0.8s,mb4.8						
HINF	**Hinteralfeld**	**93.91**	**42**	*e*P	**P**	**05 06 30.1**	**-0.9**
HINF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.8						
HINF	**Hinteralfeld**	**93.91**	**42**	*e*P	**P**	**05 06 30.1**	**-0.9**
	comp=Z,3.5nm,0.8s,mb4.7						
CDF	**Champ du Feu**	**94.37**	**41**	⇑*i*P	**P**	**05 06 32.4**	**-0.7**
	comp=Z,14nm,1.0s,mb4.9						
CDF	**Champ du Feu**	**94.37**	**41**	⇑*i*P	**P**	**05 06 32.4**	**-0.7**
CDF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
CDF	**Champ du Feu**	**94.37**	**41**	⇑*i*P	**P**	**05 06 32.4**	**-0.7**
	comp=Z,6.9nm,1.0s,mb4.9						
BFO	**Black Forest**	**95.01**	**41**	*e*Pdiff	**P**	**05 06 35.0**	**-1.1**
AFI	**Afiamalu**	**95.44**	**254**	LR	LR	05 38 18.3	
	comp=Z,89nm,20.5s,baz=103,slow=28						
TNS	**Taunus Mts**	**95.64**	**40**	*e*Pdiff	**P**	**05 06 39.4**	**+0.5**
DAVA	**Damuels**	**95.71**	**43**	⇑*i*P	**P**	**05 06 39.0**	**-0.3**
	comp=Z,11nm,1.1s,mb5.2						
FETA	**Feichten**	**96.20**	**43**	⇑*i*PcP	**P**	**05 06 41.8**	**+0.3**
	comp=Z,6.5nm,1.0s,mb5.0						
MOTA	**Moosalm**	**96.53**	**43**	⇑*i*P	**P**	**05 06 42.8**	**-0.2**
	comp=Z,5.6nm,0.8s,mb5.1						
FUR	**Furstenfeldbru**	**96.86**	**42**	*e*Pdiff	**P**	**05 06 44.7**	**+0.2**
WTTA	**Wattenberg**	**96.86**	**43**	⇑*i*PcP	**P**	**05 06 45.0**	**+0.5**
	comp=Z,20nm,1.2s,mb5.4						
GRA1	**Grafenberg Arr**	**97.22**	**41**	*e*Pdif	**P**	**05 06 45.9**	**-0.1**
GRF	**Grafenberg Arr**	**97.22**	**41**	*e*Pdiff	**P**	**05 06 45.9**	**-0.1**
CLZ	**Clausthal**	**97.25**	**38**	*e*Pdiff	**P**	**05 06 46.8**	**+0.6**
RJOB	**Jochberg**	**97.74**	**43**	*e*Pdiff	**P**	**05 06 48.6**	**+0.1**
BSEG	**Bad Segeberg**	**97.77**	**36**	*e*Pdiff	**P**	**05 06 48.4**	**0.0**
MANZ	**Manzenberg**	**97.85**	**40**	*e*Pdiff	**P**	**05 06 49.3**	**+0.4**
ROTZ	**Rotzenmuhle**	**97.86**	**41**	*e*Pdiff	**P**	**05 06 49.4**	**+0.5**
KBA	**Koelnbreinsper**	**97.94**	**43**	⇑*i*Pdiff	**P**	**05 06 48.6**	**-0.8**
	comp=Z,4.3nm,0.7s,mb5.1						
WERN	**Wernitzgruen**	**98.09**	**40**	*e*Pdiff	**P**	**05 06 50.7**	**+0.8**
NKC	**Novy Kostel**	**98.12**	**40**	*e*Pdiff	**P**	**05 06 50.8**	**+0.7**
WET	**Wettzell**	**98.13**	**41**	*e*Pdiff	**P**	**05 06 50.0**	**-0.2**
TANN	**Tannenbergstha**	**98.17**	**40**	*e*Pdiff	**P**	**05 06 50.2**	**-0.1**
GERES	**GERESS Array B**	**98.59**	**42**	P	**P**	**05 06 52.0**	**-0.2**
	comp=Z,2.0nm,0.7s,mb4.8,baz=242,slow=2.9,SNR=18						
CLL	**Collm**	**98.71**	**39**	*e*Pdiff	**P**	**05 06 52.9**	**+0.2**
CLL	**Collm**	**98.71**	**39**	*e*P	**P**	**05 06 53.0**	**+0.3**
MOA	**Molln**	**98.73**	**43**	⇑*i*Pdiff	**P**	**05 06 52.4**	**-0.4**
	comp=Z,8.5nm,1.3s,mb5.1						
FBE	**Freiberg**	**98.84**	**40**	*e*Pdiff	**P**	**05 06 53.9**	**+0.6**
PRU	**Pruhonice**	**99.38**	**41**	*e*Pdiff	Pdif	05 06 55.8	0.0
NOA	**NORSAR Array B**	**99.98**	**29**	P	Pdif	05 06 56.5	-2.0
	comp=Z,1.1nm,0.8s,baz=251,slow=17,SNR=3.2						
STKA	**Stephens Creek**	**123.10**	**214**	PKP	PKPdf	05 12 07.8	-2.4
	comp=Z,1.4nm,0.5s,baz=339,slow=19,SNR=3.7						
AKTK	**Aktyubinsk**	**126.76**	**38**	PKP	PKPdf	05 12 16.6	+0.1
AKTO	**Aktyubinsk**	**126.76**	**38**	PKP	PKPdf	05 12 16.6	+0.1
	comp=Z,4.4nm,0.8s,baz=332,slow=3.0,SNR=14						
BVAR	**Borovoye Array**	**132.11**	**30**	PKP	PKPdf	05 12 26.4	-0.1
	comp=Z,1.0nm,0.5s,baz=204,slow=3.3,SNR=5.9						
ASAR	**Alice Springs**	**133.74**	**214**	PKP	PKPdf	05 12 29.1	-1.6
	comp=Z,0.9nm,0.6s,baz=122,slow=1.9,SNR=11						
ASAR				pPKP	pPKPdf	05 13 02.9	+5.2
	comp=Z,1.2nm,1.0s,baz=118,slow=2.9,SNR=3.2						
WRA	**Warramunga Arr**	**136.44**	**217**	PKP	PKPdf	05 12 34.4	-1.4
	comp=Z,2.3nm,0.5s,baz=147,slow=2.0,SNR=26						
WRA				pPKP	pPKPdf	05 13 07.6	+4.8
	comp=Z,1.8nm,0.9s,baz=153,slow=1.6,SNR=3.6						
WRAB	**Tennant Creek**	**136.44**	**217**	*e*PKIKP	PKPdf	05 12 34.3	-1.5
ZAA0	**Zalesovo Array**	**137.34**	**20**	*e*PKPdf	PKPdf	05 12 36.0	-0.4
ZALV	**Zalesovo Beam**	**137.34**	**20**	PKP	PKPdf	05 12 36.0	-0.4
	comp=Z,10nm,0.7s,baz=304,slow=2.7,SNR=26						
ZALV				pPKP	pPKPdf	05 13 09.6	+6.2
	comp=Z,7.2nm,0.9s,baz=282,slow=2.9,SNR=3.5						
ZALV	**Zalesovo Beam**	**137.34**	**20**	PKP	PKPdf	05 12 36.0	-0.4
ZALV				pPKP	pPKPdf	05 13 09.6	+6.2
KURK	**Kurchatov**	**137.45**	**27**	*e*PKIKP	PKPdf	05 12 35.0	-1.6
AML	**Almayashu**	**140.21**	**41**	*e*PKPdf	PKPdf	05 12 42.1	+0.1
AAK	**Ala-Archa**	**140.43**	**40**	*e*PKIKP	PKPdf	05 12 41.4	-1.0
UCH	**Uchtor**	**140.67**	**40**	*e*PKPdf	PKPdf	05 12 40.8	-2.0
MK31	**Makanchi Array**	**141.97**	**29**	*e*PKHKP		05 12 38.9	
MK31				*e*		05 12 43.3	
MKAR	**Makanchi Array**	**141.97**	**29**	PKhKP		05 12 40.0	
	comp=Z,2.7nm,0.7s,baz=305,slow=3.2,SNR=13						
KSH	**Kashi**	**143.06**	**43**	*e*PKP	PKPdf	05 12 45.3	-1.9
KSH				*e*PKS		05 16 19.8	
KSH				*e*SKS	SKSdf	05 19 43.8	-4.3
KSH				AMB	AMB		
	comp=Z,560nm,6.3s						
KSH				LR	LR		
	comp=N,190nm,4.5s						
KSH				LR	LR		
	comp=E,110nm,3.9s						
KSH				LR	LR		
	comp=Z,190nm,3.2s						
TLY	**Talaya**	**143.46**	**4**	*e*PKIKP	PKPdf	05 12 45.1	-2.4
TLY				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ZAK	**Zakamensk**	**144.72**	**5**	⇑*i*PKIKP	PKPdf	05 12 48.9	-0.8
ZAK				*e*		05 13 23.8	
ZAK				pmax	pmax		
	comp=Z,17nm,1.0s						
MJAR	**Matsushiro Arr**	**145.65**	**314**	PKPbc	PKPbc	05 12 50.4	-1.8
	comp=Z,14nm,0.9s,baz=99,slow=1.9,SNR=18						
MAJO	**Matsushiro**	**145.65**	**314**	*e*PKP2	PKPab	05 12 50.4	-2.2
MAT	**Matsushiro**	**145.65**	**314**	PKP	PKPdf	05 12 50.7	-1.1
WMQ	**Urumqi**	**146.70**	**27**	PKPbc	PKPbc	05 12 54.0	-1.1
WMQ				PKPab	PKPab	05 13 00.0	+3.6
WMQ				pPKP	pPKPdf	05 13 21.0	+0.6
WMQ				sPKP		05 13 32.0	
WMQ				*e*PP	PP	05 16 24.0	+5.3
WMQ				AMB	AMB		
	comp=Z,220nm,5.6s						
POO	**Poona**	**147.30**	**79**	*e*x	PKPbc	05 12 56.0	-1.5
ULN	**Ulaanbaatar**	**147.43**	**1**	*e*PKP2	PKPbc	05 12 56.8	-0.2
SONM	**Songino Array**	**147.45**	**2**	PKP	PKPdf	05 12 54.8	+0.3
	comp=Z,12nm,0.8s,baz=303,slow=1.6,SNR=63						
SONM				PKPbc	PKPbc	05 12 57.1	0.0
	comp=Z,12nm,0.8s,baz=332,slow=1.8,SNR=64						
SONM				pPKPbc	pPKPbc	05 13 29.2	+5.3
	comp=Z,4.3nm,0.9s,baz=328,slow=1.9,SNR=3.3						
KSRS	**Korea Array**	**151.60**	**325**	PKP	PKPdf	05 13 01.2	-0.1
	comp=Z,0.7nm,0.3s,baz=80,slow=1.4,SNR=4.0						
KSRS				PKPbc	PKPbc	05 13 07.2	-0.4
	comp=Z,12nm,0.8s,baz=16,slow=1.8,SNR=25						
HYB	**Hyderabad**	**151.78**	**81**	*e*PKIKP	PKiKP	05 13 08.5	-0.5
HYB				*e*		05 13 18.0	
HYB	**Hyderabad**	**151.78**	**81**	*i* PKP	PKiKP	05 13 08.5	-0.5
HYB	**Hyderabad**	**151.78**	**81**	*e*P	PKiKP	05 13 08.5	-0.5
HYB				*e*		05 13 18.0	
DANN	**Dangsing**	**154.13**	**56**	*e*P	PKPab	05 13 28.2	+0.7
BJI	**Beijing**	**154.22**	**345**	PKPbc	PKPdf	05 13 02.9	-2.2
KOLN	**Koldanda**	**154.25**	**57**	*e*P	PKPab	05 13 27.6	-0.4
HHC	**Hu-ho-hao-te**	**154.25**	**354**	*e*PKPbc	PKPdf	05 13 00.9	-4.2
HHC				PKPab	PKPab	05 13 26.1	-1.4
HHC				PKS		05 16 34.4	
HHC				PP	PP	05 17 01.6	-0.1
HHC				SKS	SKSdf	05 19 56.6	-6.5
HHC				SKKS	SKKSac	05 23 38.6	-4.9
HHC				AMB	AMB		
	comp=Z,160nm,11.1s						
HHC				LR	LR		
	comp=N,130nm,14.3s						
HHC				LR	LR		
	comp=E,270nm,16.7s						
HHC				LR	LR		
	comp=Z,160nm,18.3s						
GTA	**Gaotai**	**154.88**	**15**	PKP	PKPdf	05 13 06.5	+0.5
GTA				pPKP	pPKPdf	05 13 33.3	+0.1
GTA				sPKP		05 13 43.8	
GKN	**Gorkha**	**154.98**	**56**	*e*P	PKPab	05 13 31.2	0.0
DMN	**Daman**	**155.53**	**56**	*e*P	PKPab	05 13 33.7	+0.2
KKN	**Kakani**	**155.59**	**55**	*e*P	PKPab	05 13 34.1	+0.3
PKI	**Pulchoki**	**155.78**	**56**	*e*P	PKPab	05 13 34.4	-0.2
GUN	**Gumba**	**156.01**	**55**	*e*P	PKPab	05 13 36.2	+0.7
JIRN	**Jiri**	**156.37**	**55**	*e*P	PKPab	05 13 37.1	0.0
RAMN	**Ramite**	**157.01**	**56**	*e*P	PKPab	05 13 39.1	-0.8
ODAN	**Odare**	**157.68**	**55**	*e*P	PKPab	05 13 42.2	-0.6
TAPN	**Taplejung**	**157.70**	**54**	*e*P	PKPab	05 13 42.7	-0.2
LZH	**Lanzhou**	**158.90**	**9**	*e*PKP	PKPdf	05 13 11.0	-0.3
LZH				pPKP	pPKPdf	05 13 43.8	+5.4
LZH				sPKP		05 13 57.0	
NJ2	**Nanjing**	**160.47**	**331**	*e*PKP	PKPdf	05 13 14.3	+1.1
CD2	**Chengdu**	**163.92**	**13**	PKP	PKPdf	05 13 11.5	-5.2
CD2				PKPab	PKPab	05 14 07.5	-2.2
CD2				PKS		05 16 43.5	
CD2				PP	PP	05 17 54.5	+0.2
CD2				SKS	SKSdf	05 20 04.6	-7.9
CD2				SKKS	SKKSac	05 24 30.1	-4.3
CD2				AMB	AMB		
	comp=Z,340nm,7.7s						
CD2				LR	LR		
	comp=N,400nm,6.0s						
CD2				LR	LR		
	comp=N,370nm,7.1s						
GYA	**Guiyang**	**168.75**	**6**	PKP	PKPdf	05 13 16.8	-3.8
GYA				pPKP	pPKPdf	05 13 50.3	+2.5
GYA				PKPab	PKPab	05 14 31.0	-0.1
GYA				PKS		05 16 48.9	
GYA				PP	PP	05 18 21.4	+2.3
GYA				AMB	AMB		
	comp=Z,90nm,7.0s						
KMI	**Kunming**	**169.03**	**25**	PKP	PKPdf	05 13 18.3	-2.5
CMAR	**Chiang Mai Arr**	**170.86**	**68**	PKPab	PKPab	05 14 41.0	+0.1
	comp=Z,5.1nm,0.8s,baz=281,slow=5.6,SNR=16						

BJI ***13*** *05:02:37.6, 40.°40N×78.°70E, h15^{km}, ML2.6/5*

ISC 13 05:02:38.3±2.7**, 40.°6N**±0.°2×**78.°5E**±0.°2**, h10^{km}, n14,**
σ1.^{s}62/15**, 1C-5D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	**Kashi**	**2.23**	**241**	Pn	**Pn**	**05 03 16.1**	**+0.8**
KSH				Sn	**Sg**	**05 03 49.0**	**-1.1**
KSH				smax			
	comp=N,160nm,0.3s						
KSH				smax			
	comp=E,140nm,0.4s						
ULHL	**Ulahol**	**2.35**	**314**	P	**Pn**	**05 03 15.6**	**-1.4**
	SNR=67						
KZA	**Kyzart**	**2.85**	**302**	P	**Pn**	**05 03 24.1**	**+0.3**
	SNR=12						
TKM2	**Tokmak 2**	**3.17**	**318**	⇓Pn	**Pn**	**05 03 26.9**	**-1.2**
	comp=E,5.9nm,0.6s						
TKM2				⇓Lg		05 04 13.0	
	comp=E,19nm,0.8s						
TKM2	**Tokmak 2**	**3.17**	**318**	P	**Pn**	**05 03 31.5**	**+3.3**
	SNR=7.5						
KBK	**Karagaybulak**	**3.35**	**309**	P	**Pn**	**05 03 33.7**	**+2.9**
	SNR=15						
UCH	**Uchtor**	**3.40**	**299**	P	**Pn**	**05 03 29.2**	**-2.3**
	SNR=9.2						
AAK	**Ala-Archa**	**3.62**	**305**	P	**Pn**	**05 03 37.6**	**+3.2**
	SNR=25						
CHMS	**Chumysh**	**3.68**	**312**	P	**Pn**	**05 03 39.2**	**+4.0**
	SNR=13						
AML	**Almayashu**	**3.92**	**294**	P	**Pn**	**05 03 38.2**	**-0.4**
	SNR=7.5						
USP	**Ospenovka**	**3.99**	**313**	P	**Pn**	**05 03 44.6**	**+5.1**
	SNR=24						
EKS2	**Erkin-Say**	**4.09**	**301**	P	**Pn**	**05 03 47.0**	**+6.1**
	SNR=8.6						
KK31	**Karatay Array**	**6.46**	**295**	⇓Pg	**Pb**	**05 04 27.9**	**-2.9**
	comp=E,0.5nm,0.5s,baz=110,slow=15,SNR=5.1						
KK31				⇓Lg		05 05 51.9	
	comp=E,3.4nm,0.8s,baz=106,slow=29,SNR=5.8						
MK31	**Makanchi Array**	**6.75**	**23**	⇑Sn	**Sn**	**05 05 33.4**	**-1.0**
	comp=E,1.2nm,0.9s,baz=200,slow=14,SNR=4.5						
MK31				⇓Lg		05 06 17.2	
	comp=E,0.6nm,0.7s						

ISCJB ***13*** *05:17:42.0±1.6, 6.°6N±0.°1×127.°3E±0.°1, h45^{km}±19^{km}, mb3.7/6, Error ellipse: s-maj=17.8km s-min=16.1km az=35.5*

IDC ***13*** *05:17:45.5±5.0, 6.°64N×127.°07E, h68^{km}±46^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.5/20, mbtmp3.6/6, Error ellipse: s-maj=57.3km s-min=17.2km az=64.0*

MAN ***13*** *05:17:48, 6.°97N×126.°75E, h5^{km}, mb4.8, ML3.7, MS3.7*

ISC 13 05:17:44.4±1.8**, 6.°6N**±0.°1×**127.°2E**±0.°1**, h54^{km}**±20^{km}**, n13,**
σ1.^{s}03/17**, mb3.7**/6**, 1C-2D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	**Mati**	**0.97**	**289**	*e*P	**Pn**	**05 17 58.1**	**-3.7**
MATI				*e*S	**Sn**	**05 18 10.7**	**-4.0**
DAV	**Davao City (W)**	**1.65**	**285**	P	**Pn**	**05 18 10.0**	**-1.0**
	207nm,0.3s,baz=48,slow=1.4,SNR=27						
DAV				S	**Sn**	**05 18 30.4**	**-0.7**
	132nm,0.3s,baz=273,slow=22,SNR=27						
DMPH	**Davao City--Mi**	**1.72**	**285**	⇑*e*P	**Pn**	**05 18 11.1**	**-0.8**
DMPH				*e*S	**Sn**	**05 18 33.6**	**+0.7**
KCP	**Kidapawan**	**2.11**	**280**	⇓*e*P	**Pn**	**05 18 17.7**	**+0.4**
KCP				*i* S	**Sn**	**05 18 45.2**	**+2.9**
BUKP	**Musuan**	**2.44**	**301**	*e*P	**Pn**	**05 18 21.3**	**-0.5**
BUTP	**Butuan**	**2.79**	**326**	*e*P	**Pn**	**05 18 28.6**	**+2.0**
SCPH	**Surigao**	**3.55**	**332**	⇓*e*P	**Pn**	**05 18 37.2**	**+0.2**
FITZ	**Fitzroy Crossi**	**24.62**	**184**	P	**P**	**05 23 00.3**	**+0.5**
	4.3nm,0.8s,mb4.0,baz=31,slow=5.9,SNR=3.4						
WRA	**Warramunga Arr**	**27.33**	**165**	P	**P**	**05 23 23.7**	**-0.6**
	0.4nm,0.3s,mb3.4,baz=341,slow=11,SNR=8.0						
ASAR	**Alice Springs**	**30.82**	**168**	P	**P**	**05 23 56.2**	**+0.9**
	0.3nm,0.5s,mb3.4,baz=350,slow=6.7,SNR=4.8						
STKA	**Stephens Creek**	**40.69**	**161**	P	**P**	**05 25 19.6**	**0.0**
	0.7nm,0.3s,mb3.7,baz=328,slow=13,SNR=2.0						
MKAR	**Makanchi Array**	**55.47**	**324**	P	**P**	**05 27 12.5**	**-1.1**
	1.7nm,0.5s,mb4.3,baz=117,slow=7.8,SNR=50						
YKA	**Yellowknife Ar**	**96.69**	**24**	P	**P**	**05 31 08.7**	**+0.1**
	0.1nm,0.5s,mb3.5,baz=299,slow=4.2,SNR=4.3						

CASC 13 05:21:45.1±1.7**, 12.°41N×87.°92W, h50^{km}**±69^{km}**, MD3.7,**
ML3.5, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNCH	**Conchagua**	**0.86**	**5**	*e*P	Pn	05 22 01.3	+0.3
CNCH				*e*S	Sn	05 22 13.2	+0.6
CRIN	**San Cristobal**	**0.89**	**71**	*e*P	Pn	05 22 01.9	+0.5
CRIN				*e*S	Sn	05 22 14.5	+1.2
CRIN				AML	AML	05 22 16.0	
	comp=E,2μm,0.2s						
VSM	**San Miguel**	**1.07**	**341**	*e*P	Pn	05 22 04.5	+0.8
VSM				*e*S	Sn	05 22 19.2	+1.7
BLLM	**Bellamira**	**1.07**	**343**	*e*P	Pn	05 22 03.9	+0.1
BLLM				*e*S	Sn	05 22 18.1	+0.5
MIRN	**Miramar**	**1.18**	**89**	*e*P	Pn	05 22 04.9	-0.3
MIRN				*e*S	Sn	05 22 19.9	-0.3
COPN	**Copaltepe**	**1.31**	**100**	*e*P	Pn	05 22 06.9	-0.2
CAHU	**Cacacuatique**	**1.38**	**348**	*e*P	Pn	05 22 08.6	+0.6
CAHU				*e*S	Sn	05 22 27.1	+2.0
LFRS	**El Faro**	**1.64**	**317**	*e*P	Pn	05 22 12.2	+0.7
LFRS				*e*S	Sn	05 22 31.5	+0.1
TICN	**Ticuantepe**	**1.69**	**103**	*e*P	Pn	05 22 11.3	-0.9

IDC ***13*** *05:31:49.8±1.6, 12.°73N×91.°03W, h0^{km}, mb3.5/4, mb1 4.0/6, mb1mx3.8/20, mbtmp3.6/6, ML3.5/2, MS3.7/3, Ms1 3.7/3, ms1mx3.3/18, Error ellipse: s-maj=53.9km s-min=24.3km az=64.0*

ISCJB ***13*** *05:31:57.6±3.4, 13.°1N±0.°1×91.°39W±0.°08, h33^{km}±31^{km}, mb3.7/3, MS3.8/2, Error ellipse: s-maj=17.7km s-min=12.2km az=23.1*

CASC ***13*** *05:31:58.6±1.4, 13.°22N×91.°36W, h34^{km}±41^{km}, MD3.9*

ISC 13 05:31:57.1±3.0**, 13.°2N**±0.°1×**91.°35W**±0.°07**, h14^{km}**±23^{km}**,**
n19, σ0.^{s}73/20**, mb3.7**/3**, MS3.8**/2**, 1C, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAT	**Jato**	**1.15**	**346**	⇑*e*P	**Pb**	**05 32 18.6**	**-0.2**
PCG	**Pacaya**	**1.39**	**31**	*e*P	**Pn**	**05 32 22.3**	**+0.2**
FG6		**1.43**	**18**	*e*P	**Pn**	**05 32 22.1**	**-0.6**
TP2	**Tecpan 2**	**1.61**	**11**	*e*P	**Pn**	**05 32 25.1**	**-0.1**
TP2				*e*S	**Sn**	**05 32 46.1**	**+0.3**
NBG	**Las Nubes**	**1.69**	**35**	*e*P	**Pn**	**05 32 26.8**	**+0.6**
SBLS	**San Blas**	**1.79**	**69**	*e*P	**Pn**	**05 32 27.3**	**-0.4**
RTR	**El Retiro**	**1.79**	**67**	*e*P	**Pn**	**05 32 27.5**	**-0.2**
SNJE	**San Jose**	**1.82**	**68**	*e*P	**Pn**	**05 32 27.7**	**-0.4**
RBDL	**Robledal**	**1.85**	**60**	*e*P	**Pn**	**05 32 28.5**	**-0.1**
LFRS	**El Faro**	**2.26**	**79**	*e*P	**Pn**	**05 32 34.6**	**+0.4**
LFRS				*e*S	**Sn**	**05 33 08.3**	**+6.4**
LBRS	**Las Brisas**	**2.30**	**76**	*e*P	**Pn**	**05 32 35.5**	**+0.7**
CMIG	**Matias Romero**	**5.16**	**319**	Pn	**Pn**	**05 33 14.8**	**+0.7**
	0.4nm,0.3s,baz=126,slow=9.8,SNR=8.4						
CMIG				Sn	**Sn**	**05 34 22.1**	**+8.6**
	1.3nm,0.3s,baz=66,slow=3.9,SNR=4.1						
TEIG	**Tepich**	**7.58**	**22**	Pn	**Pn**	**05 33 47.2**	**-0.1**
	1.9nm,0.3s,baz=112,slow=18,SNR=18						
TEIG				LR	LR	05 37 02.5	
	comp=Z,174nm,20.2s,baz=140,slow=40						
TXAR	**Lajitas Array**	**19.71**	**326**	P	**Pn**	**05 36 27.2**	**-0.6**
	0.5nm,0.6s,baz=143,slow=11,SNR=5.4						
TKL	**Tuckaleechee C**	**23.38**	**16**	LR	LR	05 46 47.0	
	comp=Z,160nm,21.1s,MS3.5,baz=125,slow=38						
NVAR	**Mina Array Bea**	**34.69**	**321**	P	**P**	**05 38 48.0**	**+1.4**
	0.8nm,0.7s,mb3.7,baz=134,slow=8.7,SNR=6.1						
SCHQ	**Schefferville**	**45.76**	**20**	LR	LR	05 59 07.1	
	comp=Z,250nm,19.6s,MS4.2,baz=358,slow=36						
YKA	**Yellowknife Ar**	**51.95**	**347**	P	**P**	**05 41 03.1**	**-2.3**
	0.2nm,0.6s,mb3.2,baz=148,slow=7.9,SNR=6.7						
PLCA	**Paso Flores**	**57.01**	**161**	P	**P**	**05 41 33.5**	**-9.0**
	2.2nm,1.0s,mb4.1,baz=314,slow=1.3,SNR=3.2						

IDC ***13*** *05:36:01.8±2.5, 39.°20N×73.°60E, h0^{km}, mb3.5/2, mb1 3.5/4, mb1mx3.3/25, mbtmp3.5/4, ML3.1/2, Error ellipse: s-maj=89.8km s-min=24.4km az=146.0*

ISCJB ***13*** *05:36:02.4±2.1, 39.°13N±0.°05×73.°58E±0.°07, h20^{km}±19^{km}, mb3.8/4, Error ellipse: s-maj=9.9km s-min=7.7km az=28.5*

NEIC ***13*** *05:36:04.0±3.8, 39.°23N×73.°50E, h16^{km}±26^{km}, mb4.0/1, Error ellipse: s-maj=15.6km s-min=8.0km az=125.0*

ISC 13 05:36:03.6±2.2**, 39.°14N**±0.°05×**73.°62E**±0.°08**, h16^{km}**±16^{km}**,**
n26, σ0.^{s}80/32**, mb3.8**/4**, 2C-2D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	**Kashi**	**1.86**	**78**	⇑*i*Pg	**Pn**	**05 36 32.8**	**-2.0**
KSH				Sg	**Sn**	**05 36 58.0**	**0.0**
KSH				smax			
	comp=N,570nm,0.7s						
KSH				smax			
	comp=E,370nm,0.6s						
AML	**Almayashu**	**2.99**	**1**	P	**Pn**	**05 36 49.9**	**-0.4**
	SNR=16						
AML	**Almayashu**	**2.99**	**1**	*e*Pn	**Pn**	**05 36 49.7**	**-0.6**
AML				*e*Sn	**Sn**	**05 37 25.9**	**0.0**
UCH	**Uchtor**	**3.16**	**12**	P	**Pn**	**05 36 52.9**	**+0.3**
	SNR=13						
UCH	**Uchtor**	**3.16**	**12**	*e*Pn	**Pn**	**05 36 52.7**	**0.0**
UCH				*e*Sn	**Sn**	**05 37 29.8**	**-0.3**
KZA	**Kyzart**	**3.19**	**22**	P	**Pn**	**05 36 54.0**	**+1.0**
	SNR=26						
EKS2	**Erkin-Say**	**3.52**	**2**	P	**Pn**	**05 36 57.6**	**-0.1**
	SNR=20						
EKS2	**Erkin-Say**	**3.52**	**2**	*e*Pn	**Pn**	**05 36 57.5**	**-0.2**
EKS2				*e*Sn	**Sn**	**05 37 38.5**	**-0.4**
AAK	**Ala-Archa**	**3.55**	**10**	P	**Pn**	**05 36 58.7**	**+0.6**
	SNR=12						
AAK	**Ala-Archa**	**3.55**	**10**	*e*Pn	**Pn**	**05 36 58.2**	**+0.1**
AAK				*e*S	**Sn**	**05 37 43.4**	**+3.7**
KBK	**Karagaybulak**	**3.66**	**16**	P	**Pn**	**05 37 00.3**	**+0.9**
	SNR=14						
ULHL	**Ulahol**	**3.69**	**32**	P	**Pn**	**05 37 05.8**	**+5.9**
	SNR=8.3						
CHMS	**Chumysh**	**3.95**	**12**	P	**Pn**	**05 37 03.7**	**+0.2**
	SNR=7.8						
TKM2	**Tokmak 2**	**4.06**	**21**	⇓Pn	**Pn**	**05 37 05.5**	**+0.4**
	comp=E,8.9nm,0.5s						
TKM2				⇑Lg		05 37 59.4	
	comp=E,21nm,0.6s						
TKM2	**Tokmak 2**	**4.06**	**21**	P	**Pn**	**05 37 05.7**	**+0.6**
	SNR=11						
TKM2	**Tokmak 2**	**4.06**	**21**	*e*Pn	**Pn**	**05 37 05.2**	**+0.1**
TKM2				*e*Sn	**Sn**	**05 37 52.8**	**+0.5**
KK31	**Karatay Array**	**4.61**	**330**	Pn	**Pn**	**05 37 12.7**	**+0.1**
	comp=E,3.5nm,0.3s,baz=132,slow=12,SNR=28						
KK31				⇓Lg		05 38 17.5	
	comp=E,14nm,0.3s,baz=141,slow=30,SNR=4.3						
KBL	**Kabul**	**5.88**	**220**	Pn	**Pn**	**05 37 30.5**	**+0.5**
MKAR	**Makanchi Array**	**9.94**	**37**	Pn	**Pn**	**05 38 26.8**	**+1.1**
	comp=E,0.1nm,0.3s,baz=218,slow=14,SNR=5.1						
MKAR				Lg		05 41 05.7	
	comp=E,0.1nm,0.3s,baz=227,slow=29,SNR=4.5						
MKAR	**Makanchi Array**	**9.94**	**37**	Pn	**Pn**	**05 38 26.8**	**+1.1**
MKAR				Lg		05 41 05.7	
BRVK	**Borovoye**	**14.11**	**352**	Pn	**Pn**	**05 39 21.4**	**-1.3**
ZALV	**Zalesovo Beam**	**16.66**	**24**	Pn	**Pn**	**05 39 54.9**	**-1.4**
	comp=E,0.2nm,0.3s,baz=215,slow=10,SNR=5.5						
SONM	**Songino Array**	**25.16**	**59**	P	**P**	**05 41 28.6**	**+0.6**
	comp=E,0.3nm,0.8s,mb2.9,baz=270,slow=7.4,SNR=4.2						
PSZ	**Piszkesteto**	**39.23**	**301**	*e*P	**P**	**05 43 30.5**	**-0.5**
	comp=E,1.6nm,0.4s,mb4.1						
WLF	**Walferdange**	**47.82**	**306**	*e*P	**P**	**05 44 39.3**	**-0.9**
	comp=E,4.1nm,0.5s,mb4.7						
TORD	**Torodi Ar. Bea**	**67.85**	**269**	P	**P**	**05 47 02.1**	**+0.8**
	comp=E,0.5nm,0.7s,mb3.7,baz=53,slow=5.1,SNR=5.2						

TAP ***13*** *05:46:58.5, 24.°87N×122.°15E, h22^{km}, ML3.6, C*

IDC ***13*** *05:46:59.7±1.1, 24.°58N×121.°46E, h0^{km}, mb3.8/6, mb1 3.9/6, mb1mx3.7/21, mbtmp3.8/6, MS3.0/1, Ms1 3.0/1, ms1mx2.3/27, Error ellipse: s-maj=66.5km s-min=20.8km az=67.0*

ISCJB ***13*** *05:46:59.6±0.6, 24.°83N±0.°03×122.°15E±0.°03, h4^{km}±5^{km}, mb3.7/6, Error ellipse: s-maj=4.9km s-min=3.7km az=43.9*

JMA ***13*** *05:47:00.4±0.2, 24.°77N×122.°03E, h33km, M3.7*

NIED ***13*** *05:47:00, 24.°80N×122.°00E, h5km, Mw4.1 Best double couple: M$_0$1.69000×10^{15} NP1:φ$_s$65.00000°, δ52.00000°, λ-93.00000°. NP2:φ$_s$250.00000°, δ38.00000°, λ-86.00000°.*

NEIC ***13*** *05:47:01.7±2.8, 24.°80N×121.°97E, h13km±15km, MG3.7(JMA), Error ellipse: s-maj=27.0km s-min=10.2km az=83.0*

ISC 13 05:47:00.2±0.4**, 24.°83N**±0.°02×**122.°14E**±0.°03**, h6**km±3km**,**
n52, σ0ˢ.88/65**, mb3.7**/6**, 3D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.22	322	⇓iP	Pg	05 47 04.2	-0.4
	baz=313						
TWB1				eS	Sg	05 47 08.2	+0.7
	baz=313						
TWC	Suao	0.34	230	⇓iP	Pg	05 47 06.6	-0.3
	baz=223						
TWC				eS	Sg	05 47 12.1	+0.7
	baz=223						
ILA	Ilan	0.36	259	eP	Pg	05 47 07.2	0.0
	baz=254						
NWF	Wu-fen Shan	0.40	306	⇓iP	Pg	05 47 07.9	-0.1
	baz=300						
NWF				eS	Sg	05 47 14.2	+0.9
	baz=300						
TWA	Mucha	0.52	286	P	Pg	05 47 10.0	-0.3
	baz=282						
TWA				S	Sg	05 47 16.6	-0.5
	baz=282						
ENA	Nanau	0.54	222	eP	Pg	05 47 10.3	-0.3
	baz=215						
ENTT	Nioudou	0.55	250	P	Pg	05 47 10.7	-0.2
	baz=246						
ENTT				eS	Sg	05 47 18.9	+0.8
	baz=246						
TAP1	Taipei	0.59	290	i P	Pg	05 47 11.7	0.0
	baz=286						
TAP1				S	Sg	05 47 19.8	+0.4
	baz=286						
TATO	Taipei	0.61	284	ePg	Pg	05 47 10.9	-1.0
TWY	Chenhua	0.66	312	eP	Pg	05 47 10.9	-2.0
	baz=318						
TWS1	Kuangyinshan	0.71	292	eP	Pg	05 47 14.1	+0.3
	baz=289						
YHNB	Yeheng	0.71	257	ePg	Pg	05 47 12.7	-1.2
NSK	Sanguang	0.73	258	P	Pg	05 47 13.2	-1.0
	baz=255						
NSK				eS	Sg	05 47 24.0	+0.4
	baz=255						
PCYT	Pengchaiyu	0.80	356	eP	Pg	05 47 16.0	+0.5
	baz=355						
PCYT				eS	Sg	05 47 26.8	+0.9
	baz=355						
NNS	Nan Shan	0.80	241	eP	Pg	05 47 15.2	-0.4
	baz=231						
NNS				eS	Sg	05 47 26.3	+0.4
	baz=231						
NACB	Ninganchiao	0.82	217	ePg	Pg	05 47 15.5	-0.5
NACB				eSn		05 47 26.4	
NCU	National Centr	0.87	279	eP	Pg	05 47 17.1	+0.1
	baz=277						
YOJ	Yonaguni jima	0.88	115	P	Pg	05 47 17.6	+0.6
YOJ				eS	Sg	05 47 29.8	+1.4
TWD	Chiawan	0.90	214	eP	Pg	05 47 17.1	-0.3
	baz=207						
TWD				eS	Sg	05 47 29.3	+0.2
	baz=207						
WHF	Hehuan Shan	1.05	229	eP	Pg	05 47 19.6	-0.7
	baz=228						
WHF				eS	Sg	05 47 34.1	+0.1
	baz=228						
NSTT	Nanjuang	1.05	259	eP	Pg	05 47 20.9	+0.4
	baz=275						
ESL	Shilin	1.20	213	eP	Pg	05 47 22.3	-1.0
	baz=213						
NSY	Sanyi	1.32	252	eP	Pn	05 47 26.1	+0.9
	baz=267						
TWQ1	Liyutan	1.33	249	eP	Pn	05 47 23.7	-1.7
	baz=265						
SMLT	Sun Moon Lake	1.47	230	eP	Pn	05 47 27.0	-0.3
	baz=230						
TYC	Yuchr	1.49	232	eP	Pn	05 47 27.2	-0.3
	baz=222						
SSLB	Suanglung	1.50	226	ePn	Pn	05 47 28.1	+0.4
EHY	Hungye	1.52	210	eP	Pn	05 47 27.6	-0.3
	baz=210						
YULB	Yu-li	1.63	208	ePn	Pn	05 47 28.9	-0.5
TWF1	Yuli	1.66	208	eP	Pn	05 47 29.3	-0.6
	baz=208						
HATJ	Hateruma jima	1.70	117	P	Pn	05 47 29.8	-0.7
YUS	Yu-Shan	1.72	219	eP	Pn	05 47 30.6	-0.2
	baz=205						
ALS	Alishan	1.79	223	eP	Pn	05 47 32.8	+1.1
	baz=210						
JKRS	Kuro-shima	1.80	109	P	Pn	05 47 31.2	-0.7
JKRS				eS	Sn	05 47 54.3	-0.8
CHN5	Tsauling	1.81	228	eP	Pn	05 47 34.1	+2.1
	baz=245						
JIJ	Ishigaki jima	1.88	104	P	Pn	05 47 32.6	-0.4
JIJ				eS	Sn	05 47 57.4	+0.3
ELDTW	Lidau	1.93	212	eP	Pn	05 47 34.3	+0.7
	baz=200						
CHN4	Tsaushan	2.04	224	eP	Pn	05 47 36.5	+1.4
	baz=225						
TPUB	Ta-pu	2.06	222	ePn	Pn	05 47 35.3	-0.1
WTP	Ta-pu	2.11	222	eP	Pn	05 47 37.0	+1.0
	baz=207						
TWK	Hsinying	2.17	224	eP	Pn	05 47 37.8	+0.9
	baz=226						
CHN1	Nanshi	2.20	222	eP	Pn	05 47 39.7	+2.4
	baz=240						
TWG	Pinlang	2.23	206	ePn	Pn	05 47 34.9	-2.9
SGST	Jiashian	2.25	220	eP	Pn	05 47 38.3	+0.3
	baz=206						
KSRS	Korea Array	13.52	20	Pn	Px	05 50 24.4	
	0.3nm,0.3s,baz=193,slow=10,SNR=6.3						
KSRS				LR	LR	05 55 13.7	
	comp=Z,60nm,19.4s,baz=339,slow=35						
SONM	Songino Array	26.12	335	P	P	05 52 35.3	+0.4
	4.7nm,1.1s,mb4.0,baz=150,slow=6.8,SNR=17						
MKAR	Makanchi Array	38.49	315	P	P	05 54 21.2	-1.9
	0.5nm,0.9s,mb3.2,baz=106,slow=9.7,SNR=4.4						
ZALV	Zalesovo Beam	40.18	326	P	P	05 54 36.4	-0.7
	1.4nm,0.8s,mb3.7,baz=115,slow=10.0,SNR=6.1						
WRA	Warramunga Arr	46.06	164	P	P	05 55 24.2	-0.8
	2.3nm,0.8s,mb4.1,baz=347,slow=8.8,SNR=4.8						
WRA	Warramunga Arr	46.06	164	P	P	05 55 24.2	-0.8
ASAR	Alice Springs	49.54	166	P	P	05 55 52.6	+0.6
	0.5nm,0.8s,mb3.6,baz=339,slow=7.0,SNR=3.3						
YKA	Yellowknife Ar	82.04	23	P	P	05 59 24.0	+3.0
	0.3nm,0.7s,mb3.3,baz=313,slow=4.6,SNR=6.1						

IDC ***13*** *05:53:43.0±9.0, 15.°00N×104.°07W, h0km, mb3.6/3, mb1 4.0/5, mb1mx3.8/18, mbtmp3.6/5, ML3.3/2, MS3.6/8, Ms1 3.6/8, ms1mx3.4/18, Error ellipse: s-maj=163.6km s-min=106.1km az=129.0*

NEIC ***13*** *05:53:46.9±1.7, 15.°19N×104.°62W, h10km, mb3.9/5, Error ellipse: s-maj=29.1km s-min=14.7km az=212.0*

ISC 13 05:53:51.8±6.3**, 15.°4N**±0.°3×**104.°5W**±0.°3**, h39**km±47km**, n25,**
σ0ˢ.77/14**, mb3.6**/5**, MS3.9**/5**, Off coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	9.36	78	LR	LR	05 59 22.6	
	comp=Z,130nm,21.9s,baz=71,slow=37						
TXAR	Lajitas Array	13.94	3	Pn	Pn	05 57 06.5	-0.3
	0.1nm,0.3s,baz=185,slow=14,SNR=12						
TXAR				LR	LR	06 03 41.9	
	comp=Z,68nm,18.7s,baz=320,slow=42						
JCT	Junction City	15.66	15	ePn	Pn	05 57 29.9	+0.2
	2.1nm,0.3s						
TEIG	Tepich	16.16	70	LR	LR	06 04 08.9	
	comp=Z,145nm,19.7s,baz=182,slow=39						
TGUH	Tegucigalpa,Un	16.68	92	P	Pn	05 57 42.8	+0.1
ANMO	Albuquerque	19.60	355	P	Pn	05 58 18.3	0.0
	0.1nm,0.3s,baz=157,slow=18,SNR=1.8						
ANMO	Albuquerque	19.60	355	eP	Pn	05 58 17.4	-0.9
	3.4nm,1.2s						
AMTX	Amarillo	19.61	7	eP	Pn	05 58 18.4	-0.1
	6.7nm,0.7s						
WUAZ	Wupatki	21.02	344	eP	P	05 58 33.4	+1.2
	13nm,1.1s,mb4.2						
ISA	Isabella	23.80	331	P	P	05 58 60.0	-1.1
NVAR	Mina Array Bea	26.03	335	P	P	05 59 22.5	+1.2
	1.0nm,0.9s,mb3.3,baz=158,slow=9.7,SNR=7.5						
NVAR	Mina Array Bea	26.03	335	P	P	05 59 22.5	+1.2
TKL	Tuckaleechee C	27.42	39	LR	LR	06 13 21.8	
	comp=Z,146nm,20.1s,MS3.5,baz=93,slow=43						
PDAR	Pinedale Array	27.67	352	P	P	05 59 36.8	+0.7
	1.2nm,1.0s,mb3.5,baz=165,slow=6.2,SNR=5.1						
HLID	Hailey	29.38	345	eP	P	05 59 50.3	-0.9
	2.2nm,1.3s,mb3.7						
ULM	Lac du Bonnet	35.50	10	LR	LR	06 15 49.6	
	comp=Z,186nm,19.1s,MS3.9,baz=297,slow=37						
TAOE	Nuku Hiva Isla	42.76	238	eLR	LR	06 13 23.7	
	507nm,24.0s						
TAOE				eLR	LR	06 13 23.7	
	507nm,24.0s						
YKA	Yellowknife Ar	47.63	354	P	P	06 02 23.1	-0.7
	0.3nm,0.6s,mb3.5,baz=166,slow=7.1,SNR=6.8						
YKA	Yellowknife Ar	47.63	354	P	P	06 02 23.1	-0.7
RKT	Rikitea	48.51	219	eLR	LR	06 16 05.2	
	215nm,28.0s						
RKT				eLR	LR	06 16 05.2	
	215nm,28.0s						
RKT				eT		06 53 54.5	
	7.4nm,0.3s						
PMOR	Pomariorio Ree	52.45	237	eT		06 58 39.2	
	3.6nm,0.2s						
PPT	Papeete	55.21	235	eLR	LR	06 18 58.9	
	208nm,26.0s						
PPT				eLR	LR	06 18 58.9	
	208nm,26.0s						
PPT	Papeete	55.21	235	LR	LR	06 19 30.0	
	comp=Z,181nm,20.5s,MS4.1,baz=257,slow=28						
CPUP	Villa Florida	61.77	132	LR	LR	06 30 31.9	
	comp=Z,74nm,18.8s,MS3.9,baz=172,slow=36						
PETK	Petropavlovsk-	82.50	323	LR	LR	06 36 33.0	
	comp=Z,40nm,18.5s,MS3.8,baz=236,slow=31						

TIF ***13*** *06:16:56.3, 41.°53N×45.°17E, h10km*

MOS ***13*** *06:16:57.5±1.6, 40.°88N×44.°09E, h23km, mb3.9/1, Error ellipse: s-maj=19.3km s-min=6.1km az=89.9*

ISK ***13*** *06:16:58.9, 40.°87N×44.°09E, h5km, MD2.9*

CSEM 13 06:16:57.8±0.2**, 40.°98N×44.°18E, h2km, MD2.9, 3C-1D,**
Error ellipse: s-maj=4.7km s-min=3.5km az=101.0,
Turkey-Georgia-Armenia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTA	Mtatsminda	0.85	33	ePG	Pg	06 17 12.9	-1.2
MTA	Mtatsminda	0.85	33	P	Pg	06 17 12.9	-1.2
MTA	Mtatsminda	0.85	33	P	Pg	06 17 12.9	-1.2
MTA				S	Sg	06 17 24.0	-1.1
TBLG	Delisi	0.86	29	i PG	Pg	06 17 13.1	-1.2
TBLG	Delisi	0.86	29	P	Pg	06 17 13.1	-1.2
TBLG	Delisi	0.86	29	P	Pg	06 17 13.1	-1.2
TBLG				S	Sg	06 17 24.7	-0.7
KARS	Kars	0.90	246	ePG	Pg	06 17 15.6	+0.5
KARS				eSG	Sg	06 17 27.1	+0.4
KARS	Kars	0.90	246	ePg	Pg	06 17 15.6	+0.5
KARS				eSg	Sg	06 17 27.1	+0.4
GNI	Garni	0.94	152	ePG	Pg	06 17 16.5	+0.7
GNI				eSG	Sg	06 17 29.7	+1.8
GNI	Garni	0.94	152	d iPG	Pg	06 17 16.2	+0.4
GNI				i S	Sg	06 17 30.6	+2.7
GNI				pmax	pmax		
	comp=Z,9.0nm,0.5s						
GNI				smax			
	comp=Z,53nm,0.6s						
GNI	Garni	0.94	152	ePg	Pg	06 17 16.5	+0.7
GNI				eSg	Sg	06 17 29.7	+1.8
GOR	Gori	1.00	357	ePG	Pg	06 17 16.2	-0.8
GOR	Gori	1.00	357	P	Pg	06 17 16.2	-0.9
GOR	Gori	1.00	357	P	Pg	06 17 16.2	-0.8
GOR				S	Sg	06 17 29.7	-0.3
GANJ	Ganja	1.66	101	P	Pn	06 17 27.1	-0.9
	SNR=11						
GANJ				S	Sn	06 17 48.1	-1.8
AGRB	Hanur-Agry	1.67	213	ePN	Pn	06 17 28.3	+0.3
AGRB				eSN	Sn	06 17 50.2	+0.2
AGRB	Hanur-Agry	1.67	213	ePn	Pn	06 17 28.3	+0.2
AGRB				eSn	Sn	06 17 50.2	+0.2
ONI	Oni	1.69	341	P	Pn	06 17 28.0	-0.3
ONI	Oni	1.69	341	P	Pn	06 17 28.0	-0.3
ONI				S	Sn	06 17 50.4	0.0
ZEI	Tsey	1.80	353	⇑iPN	Pn	06 17 30.5	+0.7
ZEI	Tsey	1.80	353	i Pn	Pn	06 17 30.5	+0.7
CLDR	Caldiran	1.85	186	ePN	Pn	06 17 31.0	+0.6
CLDR	Caldiran	1.85	186	ePn	Pn	06 17 31.0	+0.5
DIGR	Digorskoe uzhe	1.97	347	⇑iPN	Pn	06 17 33.7	+1.6
DIGR	Digorskoe uzhe	1.97	347	i Pn	Pn	06 17 33.7	+1.6
NAX	Nakhchivan	2.07	150	P	Pn	06 17 37.1	+3.6
	SNR=5.2						
NAX				S	Sn	06 18 04.5	+4.6
VLKR	Vladikavkaz	2.10	10	ePN	Pn	06 17 34.8	+0.9
VLKR				eS	Sn	06 18 01.5	+1.0
VLKR	Vladikavkaz	2.10	10	ePn	Pn	06 17 34.8	+0.9
VLKR				eSn	Sn	06 18 01.5	+1.0
KORR	Kora	2.10	358	ePN	Pn	06 17 35.1	+1.1
KORR				eS	Sn	06 18 02.2	+1.5
KORR	Kora	2.10	358	ePn	Pn	06 17 35.1	+1.1
KORR				eSn	Sn	06 18 02.2	+1.5
SNJR	Sundja	2.14	13	ePN	Pn	06 17 35.1	+0.6
SNJR				eS	Sn	06 18 02.5	+0.9
SNJR	Sundja	2.14	13	ePn	Pn	06 17 35.1	+0.6
SNJR				eSn	Sn	06 18 02.5	+0.9
ARNR	Ardon	2.21	2	ePN	Pn	06 17 36.5	+1.1
ARNR				eS	Sn	06 18 04.5	+1.2
ARNR	Ardon	2.21	2	ePn	Pn	06 17 36.5	+1.1
ARNR				eSn	Sn	06 18 04.5	+1.2
SEKA	Sheki	2.30	83	P	Pn	06 17 37.9	+1.3
	SNR=12						
SEKA				S	Sn	06 18 07.5	+2.0
LSNR	Lesken	2.31	353	ePN	Pn	06 17 38.2	+1.4
LSNR				eS	Sn	06 18 07.3	+1.6
LSNR	Lesken	2.31	353	ePn	Pn	06 17 38.2	+1.4
LSNR				eSn	Sn	06 18 07.3	+1.6
KMSR	Komsomolskaya	2.39	2	ePN	Pn	06 17 39.0	+1.1
KMSR				eS	Sn	06 18 08.7	+1.0
KMSR	Komsomolskaya	2.39	2	ePn	Pn	06 17 39.0	+1.1
KMSR				eSn	Sn	06 18 08.7	+1.0
TRKR	Terskaya	2.77	8	ePN	Pn	06 17 43.6	+0.4
TRKR				eS	Sn	06 18 17.7	+0.5
TRKR	Terskaya	2.77	8	ePn	Pn	06 17 43.6	+0.4
TRKR				eSn	Sn	06 18 17.7	+0.5
KUBR	Kubataba	2.87	349	i PN	Pn	06 17 43.1	-1.5
KUBR	Kubataba	2.87	349	i Pn	Pn	06 17 43.1	-1.5
SHAR	Shatzhatmas	2.98	338	i PN	Pn	06 17 44.9	-1.1
SHAR	Shatzhatmas	2.98	338	i Pn	Pn	06 17 44.9	-1.1
PQL	Pirkuli	3.35	92	P	Pn	06 17 51.0	-0.2
ANN	Anapa	6.25	310	⇑eP	Pn	06 18 30.4	-0.6
ANN				pmax	pmax		
	comp=Z,24nm,1.3s						
ANN	Anapa	6.25	310	eP	Pn	06 18 30.4	-0.6
	comp=Z,24nm,1.3s						
ISP	Isparta	11.03	258	i P	Pn	06 19 35.8	-0.7
ISP	Isparta	11.03	258	i P	Pn	06 19 35.8	-0.7

DDA 13 06:17:57.3, 39.°89N×41.°42E, h5km±1km**, Md2.8, 1C,**
Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERZM	Erzurum	0.04	288	⇑iP	Pg	06 17 57.8	-0.7
ERZM				i S	Sg	06 17 59.4	+0.1
HOMI	Horasan	0.41	68	eP	Pg	06 18 03.6	-1.5
HOMI				eS	Sg	06 18 13.4	+3.0
KOPT	Kop Dagi	0.72	280	eP	Pg	06 18 12.0	+1.0
KOPT				eS	Sg	06 18 22.5	+2.2
KOPT	Kop Dagi	0.72	280	eS	Sg	06 18 22.5	+2.1

NIED ***13*** *06:46:00, 41.°60N×144.°90E, h11km, Mw3.7 Best double couple: M$_0$3.43000×10^{14} NP1:φ$_s$350.00000°, δ87.00000°, λ27.00000°. NP2:φ$_s$258.00000°, δ63.00000°, λ176.00000°.*

JMA 13 06:46:45.4±0.1**, 41.°64N×144.°91E, h40km, M3.5,**
Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JEM	Erimo	1.36	287	P	Pn	06 47 09.3	+1.4
JAK	Akkeshi	1.36	353	P	Pn	06 47 08.2	+0.3
JAK				eS	Sn	06 47 24.8	0.0
JOB	Onbets	1.49	328	P	Pn	06 47 10.1	+0.4
JCH	Churui	1.51	311	P	Pn	06 47 10.4	+0.5

ISCJB ***13*** *07:00:03.0±0.6, 39.°77N±0.°05×20.°71E±0.°06, h10km, Error ellipse: s-maj=6.9km s-min=6.0km az=41.8*

CSEM ***13*** *07:00:03.9±0.6, 39.°81N×20.°78E, h19km±1km, MD3.2, Error ellipse: s-maj=16.4km s-min=15.6km az=128.0*

NEIC ***13*** *07:00:03.1, 39.°80N×20.°76E, h24km, MD3.2(ATH), After ATH.*

ATH ***13*** *07:00:03.1, 39.°80N×20.°76E, h24km±2km, MD3.2/8*

SKO ***13*** *07:00:05.7, 39.°84N×20.°77E, h0km*

ISC 13 07:00:02.9±1.2**, 39.°86N**±0.°07×**20.°73E**±0.°07**, h15**km±6km**,**
n24, σ1ˢ.02/30**, 2C, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	Janina	0.22	154	⇑iPB	Pg	07 00 07.9	0.0
JAN				eSB	Sg	07 00 11.6	+0.3
JAN	Janina	0.22	154	⇑iPb	Pg	07 00 07.9	0.0
JAN				eSb	Sg	07 00 11.6	+0.3
KEK	Kerkira	0.73	259	ePB	Pb	07 00 16.9	-0.4
KEK				eSN	Sn	07 00 28.9	-0.6
KEK	Kerkira	0.73	259	ePb	Pb	07 00 16.9	-0.4
KEK				eSn	Sn	07 00 28.9	-0.6
KZN	Kozani	0.92	60	ePN	Pn	07 00 21.1	-0.2
KZN	Kozani	0.92	60	ePn	Pn	07 00 21.1	-0.2
THL	Klokotos Trika	1.04	106	ePN	Pn	07 00 22.8	-0.1
THL	Klokotos Trika	1.04	106	ePn	Pn	07 00 22.8	-0.1
EVR	Evrytania	1.26	138	ePN	Pn	07 00 25.7	-0.3
EVR	Evrytania	1.26	138	ePn	Pn	07 00 25.7	-0.3
KRUS	Krusevo	1.56	15	ePn	Pn	07 00 33.9	+3.8
KRUS				eSn	Sn	07 00 55.8	+5.7
KRUS	Krusevo	1.56	15	ePn	Pn	07 00 33.9	+3.8
KRUS				eSn	Sn	07 00 55.8	+5.7
VLS	Valsamata	1.68	184	ePN	Pn	07 00 32.0	+0.2
VLS	Valsamata	1.68	184	ePn	Pn	07 00 32.0	+0.2
EFP	Efpalio	1.70	147	ePN	Pn	07 00 33.2	+1.2
EFP	Efpalio	1.70	147	ePn	Pn	07 00 33.2	+1.2
RLS	Riolos of Patr	1.89	162	ePN	Pn	07 00 36.1	+1.5
RLS	Riolos of Patr	1.89	162	ePn	Pn	07 00 36.1	+1.5
PLG	Polygyros	2.15	75	ePB	Pb	07 00 39.6	-1.9
PLG	Polygyros	2.15	75	ePb	Pb	07 00 39.6	-1.9
GUR	Goura	2.30	146	ePB	Pb	07 00 41.4	-2.6
GUR	Goura	2.30	146	ePb	Pb	07 00 41.4	-2.6
PYL	PYLOS	3.06	165	ePN	Pn	07 00 50.8	0.0
PYL	PYLOS	3.06	165	ePn	Pn	07 00 50.8	0.0

IDC ***13*** *07:14:20.0±3.3, 31.°54N×115.°87W, h0km, mb1 3.6/4, mb1mx3.4/22, mbtmp3.2/4, ML4.4/2, Error ellipse: s-maj=56.6km s-min=13.5km az=37.0*

ISCJB ***13*** *07:14:24.8±0.2, 32.°48N±0.°02×115.°28W±0.°01, h14km±2km, Error ellipse: s-maj=2.7km s-min=2.1km az=5.4*

NEIC ***13*** *07:14:24.9, 32.°42N×115.°39W, h6km, ML4.0(PAS), ML4.1(ECX), After ECX.*

NEIC Felt [IV] at Calexico and [III] at Brawley and El Centro, California. Also felt at Aguanga, Calipatria, Carlsbad, Coronado, Heber, Holtville, Imperial and San Clemente. Felt at Yuma, Arizona.

ECX ***13*** *07:14:27.4±0.5, 32.°47N×115.°33W, h4km, MD4.0, ML4.3*

ISC 13 07:14:25.8±0.2**, 32.°47N**±0.°02×**115.°32W**±0.°01**, h14**km±2km**,**
n109, σ1ˢ.20/152**, 54C-43D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.05	169	⇓iP	Pg	07 14 28.5	0.0
CPBX				eS	Sg	07 14 30.1	-0.3
CPBX	Cerro Prieto	0.05	169	⇓iP	Pg	07 14 28.5	0.0
CPBX				eS	Sg	07 14 30.2	-0.2
SGL	Mount Signal	0.39	298	⇑iP	Pg	07 14 34.2	+0.5
COA	Coachella	0.43	22	⇓iP	Pg	07 14 35.3	+0.9
EMX	El Mayor	0.48	172	i P	Pg	07 14 35.7	+0.3
EMX				eS	Sg	07 14 42.5	+0.7
EMX	El Mayor	0.48	172	⇓eP	Pg	07 14 35.6	+0.2
EMX				eS	Sg	07 14 43.4	+1.5
COK	Cook Ranch	0.51	318	⇑iP	Pg	07 14 36.6	+0.6
YUH	Yuha Desert	0.54	289	⇑iP	Pg	07 14 36.7	+0.2
SWSC	Sam W. Stewart	0.62	319	⇑P	Pg	07 14 37.9	-0.1
	baz=0.7,SNR=391						
SWSC				⇓S	Sg	07 14 46.7	+0.5
	baz=0.7						
112A	Yuma	0.62	84	⇓P	Pg	07 14 37.8	-0.3
	baz=0.6						
112A				⇑S	Sg	07 14 45.9	-0.4
	baz=0.6						
RMX	La Rumorosa	0.66	282	⇓eP	Pg	07 14 39.1	+0.4
RMX				eS	Sg	07 14 48.2	+0.8
DVTC	Desert V Tower	0.69	286	P	Pg	07 14 39.5	+0.2
	baz=0.7,SNR=1000						
DVTC				⇓S	Sg	07 14 48.9	+0.5
	baz=0.7						
CRR	Carrizo Plain	0.69	307	⇑iP	Pg	07 14 39.3	0.0
GLA	Glamis	0.71	35	P	Pg	07 14 39.2	-0.5
	baz=0.7,SNR=423						
GLA				⇓S	Sg	07 14 48.9	-0.2
	baz=0.7						
GLA	Glamis	0.71	35	eP	Pg	07 14 39.3	-0.4
GLA				eS	Sg	07 14 48.9	-0.2
RDX	Rancho Dawling	0.76	225	⇑eP	Pg	07 14 40.8	+0.3
RDX				eS	Sg	07 14 51.1	+0.6
RDX	Rancho Dawling	0.76	225	⇑eP	Pg	07 14 40.8	+0.3
RDX				eS	Sg	07 14 51.9	+1.4
ECBX	El Chinero	1.02	167	⇑eP	Pg	07 14 45.5	0.0
ECBX				eS	Sg	07 14 59.2	+0.3
MONP	Monument Peak	1.02	295	P	Pg	07 14 44.5	-1.1
	baz=1.1,SNR=1000						
MONP				⇑S	Sg	07 14 58.1	-0.9
	baz=1.1						
CBX	Cerro Bola	1.15	263	eP	Pg	07 14 47.1	-1.0
BAR	Barrett	1.16	281	eP	Pn	07 14 46.7	-1.0
BAR				eS	Sb	07 15 00.9	-1.7
BC3	Big Chuckw Mtn	1.19	354	⇑P	Pn	07 14 46.6	-1.4
	baz=1.2,SNR=421						
BC3				⇓S	Sb	07 15 01.2	-2.2
	baz=1.2						
113A	Mohawk Valley,	1.34	77	⇓P	Pn	07 14 48.5	-1.6
	baz=1.3,SNR=1000						
113A				⇑Sb	Sb	07 15 07.4	-0.3
	baz=1.3						
ECNX	Esteban Cantu	1.36	234	⇑eP	Pn	07 14 50.7	+0.4
ECNX				eP		07 14 49.6	
ECNX				eS	Sn	07 15 07.5	-0.6
ECNX				eS	Sn	07 15 09.6	+1.5
PBX	Punta Banda	1.40	239	eP	Pn	07 14 51.2	+0.3
PBX				eS	Sn	07 15 10.8	+1.6
SPX	San Pedro Mart	1.43	185	eP	Pn	07 14 52.6	+1.3
SPX				eS	Sn	07 15 08.5	-1.2
SPX				⇑e		07 15 18.0	
	comp=E,3μm,0.9s						
SPX				⇑e		07 15 22.3	
	comp=N,3μm,0.9s						
PFO	Pinyon Flat Ob	1.49	320	⇓P	Pn	07 14 50.6	-1.5
	baz=1.5,SNR=167						
PFO				⇑S	Sn	07 15 09.2	-2.1
	baz=1.5						
PFO	Pinyon Flat Ob	1.49	320	ePn	Pn	07 14 50.6	-1.5
PFO				eSn	Sn	07 15 09.0	-2.3
109C	Camp Elliot, M	1.57	286	⇑P	Pn	07 14 52.5	-0.7
	baz=1.6,SNR=306						
109C				⇑Sb	Sb	07 15 14.8	+0.6
	baz=1.6						
BELC	Belle Mtn.	1.63	340	⇓P	Pn	07 14 52.5	-1.6
	baz=1.7						
IRM	Iron Mountain	1.69	5	⇑P	Pn	07 14 53.6	-1.4
	baz=1.7,SNR=70						
IRM				⇓S	Sn	07 15 14.8	-1.6
	baz=1.7						
Y13A	Salome	1.83	43	⇓P	Pn	07 14 55.6	-1.3
	baz=1.9						
Y13A				⇑Sb	Sb	07 15 22.5	+0.6
	baz=1.9						
MURC	Murrieta	1.94	306	⇑P	Pn	07 14 57.1	-1.3
	baz=2.0,SNR=16						
MURC				⇓Sb	Sb	07 15 26.4	+1.3
	baz=2.0						
PDMCI	Parker Dam,Lak	2.08	28	⇓Sb	Sb	07 15 29.3	+0.5
	baz=2.1						
214A	Organ Pipe Nat	2.18	103	⇑P	Pn	07 14 59.6	-2.1
	baz=2.1,SNR=405						

Z14A	**Wintersburg**	**2.18**	**65**	⇓P	**Pn**	**07 15 00.5**	**-1.2**
	baz=2.2,SNR=35						
GMRC	**Granite Mounta**	**2.32**	**353**	⇓P	**Pn**	**07 15 02.4**	**-1.2**
	baz=2.4,SNR=80						
Y14A	**Wickenburg**	**2.43**	**52**	⇓P	**Pn**	**07 15 04.1**	**-1.0**
	baz=2.4						
X13A	**Yucca**	**2.46**	**30**	⇑P	**Pn**	**07 15 04.6**	**-0.8**
	baz=2.5						
LDFC	**Landfair**	**2.61**	**4**	*e*Pn	**Pn**	**07 15 08.4**	**+0.9**
LDFC				*e*Pg	**Pg**	**07 15 16.0**	**+0.2**
LDFC				*e*Sg	**Sg**	**07 15 50.6**	**+0.9**
115A	**Sonoran Desert**	**2.62**	**84**	⇓P	**Pn**	**07 15 06.4**	**-1.2**
	baz=2.6,SNR=130						
CIS	**Catalina Islan**	**2.76**	**291**	⇓P	**Pn**	**07 15 08.7**	**-0.9**
	baz=2.8,SNR=11						
CIS				⇑Sb	**Sb**	**07 15 50.5**	**+2.0**
	baz=2.8						
SCI	**San Clemente I**	**2.77**	**281**	⇑P	**Pn**	**07 15 08.8**	**-0.9**
	baz=2.8						
Z15A	**Gila River Ind**	**2.78**	**72**	⇑P	**Pn**	**07 15 08.8**	**-1.1**
	baz=2.8,SNR=22						
FMP	**Fort Macarthur**	**2.79**	**297**	⇑Sb	**Sb**	**07 15 51.9**	**+2.4**
	baz=2.8						
MWC	**Mount Wilson**	**2.89**	**308**	*e*Pn	**Pn**	**07 15 11.2**	**-0.1**
MWC				*e*Pg	**Pg**	**07 15 20.2**	**-0.9**
MWC				*e*Sg	**Sg**	**07 15 56.6**	**-1.9**
Y15A	**Casa Rosa Ranc**	**2.91**	**59**	⇑P	**Pn**	**07 15 10.1**	**-1.5**
	baz=2.9,SNR=38						
PASC	**Pasadena Art C**	**2.94**	**306**	*e*Pn	**Pn**	**07 15 12.6**	**+0.5**
PASC				*e*Pg	**Pg**	**07 15 20.5**	**-1.7**
PASC				*e*Sg	**Sg**	**07 15 56.6**	**-3.8**
TUQ	**Turquoise Moun**	**3.00**	**350**	⇑P	**Pn**	**07 15 11.9**	**-1.1**
	baz=3.1						
116A	**Eloy**	**3.05**	**87**	⇓P	**Pn**	**07 15 12.1**	**-1.6**
	baz=3.0,SNR=24						
X15A	**Humboldt**	**3.27**	**51**	⇓P	**Pn**	**07 15 16.5**	**-0.1**
	baz=3.3						
V12A	**Nelson**	**3.27**	**7**	⇑P	**Pn**	**07 15 17.5**	**+0.9**
	baz=3.3						
Z16A	**Peralta Trail,**	**3.38**	**74**	⇓P	**Pn**	**07 15 16.9**	**-1.3**
	baz=3.4,SNR=14						
Y16A	**Circle Bar Ran**	**3.51**	**65**	⇑P	**Pn**	**07 15 19.0**	**-0.9**
	baz=3.5,SNR=63						
V13A	**Grand Canyon W**	**3.55**	**18**	⇑P	**Pn**	**07 15 21.4**	**+0.9**
	baz=3.6,SNR=65						
OSI	**Osito Adit**	**3.56**	**308**	*e*Pn	**Pn**	**07 15 21.5**	**+0.9**
OSI				*e*Pg	**Pg**	**07 15 31.9**	**-2.1**
OSI				*e*S	**Sn**	**07 16 06.5**	**+4.0**
V14A	**Boquillas Ranc**	**3.65**	**30**	⇑P	**Pn**	**07 15 22.4**	**+0.5**
	baz=3.7						
X16A	**Lo Mia Camp, P**	**3.78**	**58**	⇑P	**Pn**	**07 15 23.6**	**0.0**
	baz=3.8						
TUC	**Tucson**	**3.84**	**91**	*e*Pn	**Pn**	**07 15 22.8**	**-1.6**
TUC				*e*Pg	**Pg**	**07 15 39.0**	**-0.4**
TUC				*e*Sg	**Sg**	**07 16 30.8**	**+1.7**
117A	**Oracle**	**3.87**	**87**	⇑P	**Pn**	**07 15 23.2**	**-1.7**
	baz=3.8,SNR=92						
217A	**Green Valley**	**3.88**	**99**	⇓P	**Pn**	**07 15 23.6**	**-1.4**
	baz=3.8,SNR=22						
Y17A	**Roosevelt**	**3.95**	**71**	⇑P	**Pn**	**07 15 24.7**	**-1.2**
	baz=3.9,SNR=82						
U12A	**Valley of Fire**	**4.01**	**9**	⇓P	**Pn**	**07 15 27.1**	**+0.4**
	baz=4.1,SNR=11						
U13A	**Pakoon Wash**	**4.09**	**15**	⇑P	**Pn**	**07 15 28.6**	**+0.7**
	baz=4.1,SNR=27						
W16A	**Flagstaff**	**4.10**	**49**	⇓P	**Pn**	**07 15 28.9**	**+0.9**
	baz=4.1						
ISA	**Isabella**	**4.12**	**321**	*e*Pn	**Pn**	**07 15 29.0**	**+0.6**
ISA				*e*Pg	**Pg**	**07 15 44.4**	**-0.4**
ISA				*e*Sg	**Sg**	**07 16 37.3**	**-1.0**
Z17A	**San Carlos Hig**	**4.16**	**77**	⇑P	**Pn**	**07 15 27.9**	**-1.0**
	baz=4.1						
X17A	**Forest Lakes**	**4.21**	**62**	⇓P	**Pn**	**07 15 29.9**	**+0.4**
	baz=4.2						
V15A	**Kaibab Nationa**	**4.24**	**37**	⇓P	**Pn**	**07 15 31.3**	**+1.4**
	baz=4.3						
U14A	**Mt Trumbull**	**4.32**	**24**	⇑P	**Pn**	**07 15 32.3**	**+1.3**
	baz=4.4						
WUAZ	**Wupatki**	**4.47**	**46**	⇓P	**Pn**	**07 15 34.6**	**+1.5**
	baz=4.5						
WUAZ	**Wupatki**	**4.47**	**46**	*e*Pn	**Pn**	**07 15 34.5**	**+1.4**
WUAZ				*e*Pg	**Pg**	**07 15 52.3**	**+0.9**
WUAZ				*e*S	**Sg**	**07 16 47.0**	**-2.3**
Z18A	**Geronimo**	**4.49**	**81**	⇑P	**Pn**	**07 15 32.6**	**-0.8**
	baz=4.5						
218A	**Dragoon**	**4.49**	**95**	⇓P	**Pn**	**07 15 32.3**	**-1.1**
	baz=4.5,SNR=12						
118A	**Homack Ranch,**	**4.52**	**86**	⇓P	**Pn**	**07 15 32.6**	**-1.2**
	baz=4.5,SNR=71						
W17A	**Winslow**	**4.63**	**55**	⇑P	**Pn**	**07 15 36.4**	**+1.0**
	baz=4.6						
318A	**Bisbee**	**4.64**	**101**	⇑P	**Pn**	**07 15 34.0**	**-1.4**
	baz=4.6,SNR=122						
T13A	**Saint George**	**4.69**	**14**	⇓P	**Pn**	**07 15 37.0**	**+0.9**
	baz=4.7						
T11A	**Corn Creek, Al**	**4.76**	**1**	⇓P	**Pn**	**07 15 38.1**	**+0.9**
	baz=4.8						
X18A	**Snowflake**	**4.93**	**64**	⇓P	**Pn**	**07 15 40.0**	**+0.5**
	baz=4.9						
U16A	**Tuba City**	**5.04**	**42**	⇑P	**Pn**	**07 15 42.8**	**+1.8**
	baz=5.1						
119A	**Ashpeak Ranch,**	**5.08**	**85**	⇓P	**Pn**	**07 15 40.8**	**-0.7**
	baz=5.1,SNR=18						
S12A	**Delamar Landin**	**5.14**	**4**	⇑P	**Pn**	**07 15 44.1**	**+1.7**
	baz=5.2						
Z19A	**T-Link Ranch,**	**5.16**	**79**	⇓P	**Pn**	**07 15 43.0**	**+0.4**
	baz=5.1						
319A	**Douglas**	**5.25**	**100**	⇓P	**Pn**	**07 15 42.7**	**-1.1**
	baz=5.2,SNR=50						
Y19A	**Nutrioso**	**5.29**	**72**	⇑P	**Pn**	**07 15 45.2**	**+0.8**
	baz=5.3						
W18A	**Petrified Fore**	**5.34**	**59**	⇑P	**Pn**	**07 15 46.6**	**+1.4**
	baz=5.3						
V18A	**Ganado**	**5.51**	**53**	⇑P	**Pn**	**07 15 49.2**	**+1.7**
	baz=5.5						
W19A	**Sanders**	**5.59**	**60**	⇓P	**Pn**	**07 15 50.0**	**+1.4**
	baz=5.6						
U17A	**Shonto**	**5.63**	**42**	⇑P	**Pn**	**07 15 51.3**	**+2.2**
	baz=5.7						
120A	**U Bar Ranch, L**	**5.65**	**87**	⇑P	**Pn**	**07 15 48.5**	**-0.8**
	baz=5.6,SNR=32						
TPH	**Tonopah**	**5.81**	**345**	Pn	**Pn**	**07 15 52.1**	**+0.6**
	comp=N,12nm,0.6s						
T17A	**Navajo Res., N**	**5.85**	**38**	⇑P	**Pn**	**07 15 54.4**	**+2.3**
	baz=5.9						
U18A	**Rough Rock, Ch**	**5.98**	**47**	⇑P	**Pn**	**07 15 56.4**	**+2.6**
	baz=6.0						
V19A	**Window Rock**	**6.13**	**56**	⇓P	**Pn**	**07 15 57.7**	**+1.8**
	baz=6.1						
W20A	**Ramah**	**6.26**	**63**	⇑P	**Pn**	**07 15 59.0**	**+1.3**
	baz=6.3						
NVAR	**Mina Array Bea**	**6.43**	**339**	Pn	**Pn**	**07 16 06.5**	**+6.4**
	comp=N,0.1nm,0.3s,baz=163,slow=14,SNR=2.5						
NVAR				Pg	**Pg**	**07 16 31.6**	**+2.7**
	comp=N,0.5nm,0.3s,baz=159,slow=17,SNR=10.0						
T18A	**Mexican Hat**	**6.46**	**42**	⇓P	**Pn**	**07 16 02.9**	**+2.5**
	baz=6.5						
T19A	**Beclabito**	**6.77**	**48**	⇑P	**Pn**	**07 16 07.2**	**+2.5**
	baz=6.8						
P12A	**McGill**	**7.00**	**3**	⇑P	**Pn**	**07 16 09.3**	**+1.5**
	baz=7.1						
MVCO	**Mesa Verde**	**7.33**	**48**	⇓P	**Pn**	**07 16 15.4**	**+3.0**
	baz=7.3						
MVCO	**Mesa Verde**	**7.33**	**48**	*e*Pn	**Pn**	**07 16 15.1**	**+2.7**
	comp=N,33nm,0.8s						
MVCO				*e*Sg	**Sn**	**07 18 19.9**	**+44**
ANMO	**Albuquerque**	**7.78**	**69**	Pn	**Pn**	**07 16 19.7**	**+1.0**
	comp=N,0.3nm,0.3s,baz=253,slow=11,SNR=7.1						
ANMO				Lg		07 18 34.0	
	comp=N,0.1nm,0.3s,baz=345,slow=12,SNR=2.2						
ANMO	**Albuquerque**	**7.78**	**69**	Pn	**Pn**	**07 16 19.7**	**+1.0**
ANMO				Lg		07 18 34.0	
ELK	**Elko**	**8.26**	**0**	Pn	**Pn**	**07 16 30.8**	**+5.6**
	comp=N,0.1nm,0.3s,baz=172,slow=17,SNR=3.5						
ELK				Pg	Pn	07 17 02.7	+38
	comp=N,0.4nm,0.3s,baz=172,slow=11,SNR=8.4						
ELK				Lg		07 18 51.0	
	comp=N,0.1nm,0.3s,baz=263,slow=17,SNR=2.1						
ELK	**Elko**	**8.26**	**0**	Pn	**Pn**	**07 16 30.8**	**+5.6**
ELK				Pg	Pn	07 17 02.7	+38
ELK				Lg		07 18 51.0	
TXAR	**Lajitas Array**	**10.48**	**104**	Pn	**Pn**	**07 16 56.8**	**+1.2**
	comp=N,1.1nm,0.3s,baz=274,slow=14,SNR=59						
TXAR				Lg		07 19 60.0	
	comp=N,0.2nm,0.3s,baz=282,slow=30,SNR=4.3						
YBH	**Yreka Blue Hor**	**10.96**	**330**	Pn	**Pn**	**07 17 08.9**	**+6.7**
	comp=N,0.1nm,0.3s,baz=150,slow=8.1,SNR=2.6						
PDAR	**Pinedale Array**	**11.24**	**22**	Pn	Px	07 17 20.2	
	baz=207,slow=9.8,SNR=2.2						
PDAR				Lg		07 20 33.6	
	comp=N,0.0nm,0.3s,baz=195,slow=17,SNR=2.5						

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*IDC **13** 07:23:26.6±0.8, 5°.61S×130°.72E, h0^{km}, mb4.2/9, mb1 4.3/12, mb1mx4.2/20, mbtmp4.2/12, ML4.4/3, MS3.0/1, Ms1 3.0/1, ms1mx2.2/23, Error ellipse: s-maj=53.5km s-min=15.7km az=66.0*

*ISCJB **13** 07:23:31.2±2.2, 5°.81S±0°.09×130°.7E±0°.2, h53^{km}±21^{km}, mb4.1/13, Error ellipse: s-maj=32.3km s-min=10.4km az=158.9*

*NEIC **13** 07:23:31.4±0.4, 5°.70S×130°.71E, h35^{km}, mb4.2/7, Error ellipse: s-maj=18.6km s-min=5.6km az=67.0*

ISC 13 07:23:31.9±2.4**, 5°.8S**±0°.1×**130°.6E**±0°.1**, h36**^{km}±25^{km}**, n25,** σ**0^{s}.93**/29**, mb4.1**/13**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**7.13**	**165**	*e*Pn	**Pn**	**07 25 13.7**	**-0.1**
	87nm,0.4s						
KAKA				*e*Sn	**Sn**	**07 26 34.8**	**+1.2**
FITZ	**Fitzroy Crossi**	**13.15**	**201**	Pn	**Pn**	**07 26 38.4**	**+2.2**
	1.1nm,0.3s,baz=40,slow=9.4,SNR=39						
FITZ				Sn	**Sn**	**07 28 57.6**	**-3.7**
	0.9nm,0.3s,baz=77,slow=13,SNR=3.2						
FITZ				LR	LR	07 32 16.6	
	comp=Z,61nm,19.4s,baz=340,slow=40						
FITZ	**Fitzroy Crossi**	**13.15**	**201**	*e*Pn	**Pn**	**07 26 38.8**	**+2.6**
FITZ				Sn	**Sn**	**07 28 57.6**	**-3.7**
FITZ				LR	LR	07 32 16.6	
WRAB	**Tennant Creek**	**14.54**	**166**	*e*Pn	**Pn**	**07 26 54.1**	**-1.1**
	6.5nm,0.6s						
WRA	**Warramunga Arr**	**14.55**	**166**	Pn	**Pn**	**07 26 54.1**	**-1.2**
	1.5nm,0.3s,baz=349,slow=13,SNR=36						
WRA				Sn	**Sn**	**07 29 27.9**	**-7.5**
	2.4nm,0.3s,baz=355,slow=22,SNR=8.9						
ASAR	**Alice Springs**	**18.07**	**170**	P	**Pn**	**07 27 41.1**	**+0.9**
	1.6nm,0.3s,baz=356,slow=14,SNR=42						
ASAR				S	**S**	**07 30 54.0**	**-12**
	0.5nm,0.3s,baz=354,slow=26,SNR=11						
CTA	**Charters Tower**	**20.86**	**134**	P	**P**	**07 28 11.5**	**+0.6**
	7.3nm,0.8s,baz=332,slow=12,SNR=5.8						
CTAO	**Charters Tower**	**20.86**	**134**	*e*P	**P**	**07 28 10.2**	**-0.6**
	4.8nm,0.6s						
TGY	**Tagaytay City**	**21.94**	**334**	P	**P**	**07 28 20.5**	**-2.0**
	198nm,0.5s,baz=224,slow=15,SNR=4.0						
STKA	**Stephens Creek**	**27.94**	**160**	P	**P**	**07 29 19.5**	**+0.6**
	0.9nm,0.3s,mb3.9,baz=319,slow=22,SNR=5.3						
STKA	**Stephens Creek**	**27.94**	**160**	*e*P	**P**	**07 29 18.0**	**-1.0**
	0.2nm,0.4s,mb3.1						
CMAR	**Chiang Mai Arr**	**39.39**	**308**	P	**P**	**07 30 59.5**	**+1.1**
	1.2nm,0.4s,mb4.0,baz=139,slow=8.4,SNR=5.4						
SONM	**Songino Array**	**57.47**	**341**	P	**P**	**07 33 17.6**	**+0.3**
	1.2nm,0.7s,mb4.0,baz=162,slow=6.2,SNR=9.0						
MKAR	**Makanchi Array**	**67.52**	**326**	P	**P**	**07 34 24.9**	**+0.5**
	4.0nm,0.6s,mb4.6,baz=113,slow=8.1,SNR=56						
TKM2	**Tokmak 2**	**69.41**	**320**	*e*P	**P**	**07 34 36.2**	**-0.1**
	1.7nm,0.6s,mb4.2						
UCH	**Uchtor**	**69.77**	**319**	*e*P	**P**	**07 34 39.2**	**+0.6**
	1.4nm,0.5s,mb4.2						
AAK	**Ala-Archa**	**69.98**	**319**	*e*P	**P**	**07 34 39.4**	**-0.4**
	1.2nm,0.6s,mb4.0						
AML	**Almayashu**	**70.26**	**319**	P	**P**	**07 34 42.6**	**+1.0**
	2.5nm,0.7s,mb4.2						
KBL	**Kabul**	**70.41**	**310**	*e*P	**P**	**07 34 42.5**	**-0.1**
	2.1nm,0.5s,mb4.3						
ZALV	**Zalesovo Beam**	**70.75**	**333**	P	**P**	**07 34 43.5**	**-0.8**
	1.8nm,0.6s,mb4.2,baz=120,slow=5.3,SNR=6.9						
KURK	**Kurchatov**	**71.78**	**328**	P	**P**	**07 34 50.4**	**-0.2**
	2.4nm,0.7s,mb4.2,baz=123,slow=5.4,SNR=13						
BVAR	**Borovoye Array**	**77.34**	**328**	P	**P**	**07 35 22.4**	**-0.4**
	0.9nm,0.4s,mb4.0,baz=123,slow=9.4,SNR=8.1						
AKTK	**Aktyubinsk**	**83.45**	**322**	P	**P**	**07 35 55.8**	**0.0**
AKTO	**Aktyubinsk**	**83.45**	**322**	P	**P**	**07 35 55.8**	**0.0**
	0.4nm,0.4s,mb3.8,baz=80,slow=6.1						
TORD	**Torodi Ar. Bea**	**129.10**	**282**	PKP	PKPdf	07 42 36.8	-0.4
	0.3nm,0.7s,baz=64,slow=3.4,SNR=3.0						

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*ISCJB **13** 08:00:55.7±0.5, 36°.96N±0°.03×29°.22E±0°.03, h4^{km}±5^{km}, Error ellipse: s-maj=4.9km s-min=3.4km az=164.8*

*CSEM **13** 08:00:55.8±0.1, 37°.00N×29°.21E, h2^{km}, MD3.2, Error ellipse: s-maj=2.4km s-min=1.6km az=175.0*

*DDA **13** 08:00:55.3, 36°.95N×29°.22E, h7^{km}±4^{km}, Md3.0, Ml3.1*

*ISK **13** 08:00:55.3, 36°.98N×29°.20E, h7^{km}, MD3.2*

ISC 13 08:00:56.3±0.5**, 36°.96N**±0°.03×**29°.21E**±0°.03**, h6**^{km}±4^{km}**, n58,** σ**0^{s}.82**/77**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FETY	**Fethiye**	**0.34**	**197**	PG	**Pg**	**08 01 02.3**	**-0.6**
FETY				*e*SG	**Sg**	**08 01 08.5**	**+1.1**
FETY	**Fethiye**	**0.34**	**197**	*i* Pg	**Pg**	**08 01 02.3**	**-0.6**
FETY				*e*Sg	**Sg**	**08 01 08.5**	**+1.1**
GOLH	**Golhisar**	**0.39**	**46**	*i* P	**Pg**	**08 01 03.1**	**-0.8**
GOLH				*i* S	**Sg**	**08 01 10.3**	**+1.2**
GOLH	**Golhisar**	**0.39**	**46**	*i* P	**Pg**	**08 01 03.2**	**-0.7**
GOLH				*i* S	**Sg**	**08 01 10.3**	**+1.2**
TURN	**Turunc**	**0.49**	**260**	*i* P	**Pg**	**08 01 10.3**	**+4.4**
TURN				*i* S	**Sg**	**08 01 22.2**	**+10**
TURN	**Turunc**	**0.49**	**260**	*i* P	**Pg**	**08 01 10.3**	**+4.5**
DALT	**Dalyan (Mudla)**	**0.50**	**247**	PG	**Pg**	**08 01 05.3**	**-0.6**
DALT				*e*SG	**Sg**	**08 01 13.2**	**+0.8**
DALT	**Dalyan (Mudla)**	**0.50**	**247**	*i* Pg	**Pg**	**08 01 05.3**	**-0.6**
DALT				*e*Sg	**Sg**	**08 01 13.2**	**+0.8**
ELL	**Elmali**	**0.60**	**111**	PG	**Pg**	**08 01 07.6**	**-0.2**
ELL				*e*SG	**Sg**	**08 01 17.0**	**+1.4**
ELL	**Elmali**	**0.60**	**111**	*i* Pg	**Pg**	**08 01 07.6**	**-0.2**
ELL				*e*Sg	**Sg**	**08 01 17.0**	**+1.4**
YER	**Yerkesik**	**0.76**	**283**	*e*PG	**Pg**	**08 01 10.7**	**-0.2**
YER				*e*SG	**Sg**	**08 01 21.0**	**+0.1**
YER	**Yerkesik**	**0.76**	**283**	*e*Pg	**Pg**	**08 01 10.7**	**-0.2**
YER				*e*Sg	**Sg**	**08 01 21.0**	**+0.2**
DENT	**Denizli**	**0.80**	**350**	*e*PG	**Pg**	**08 01 10.7**	**-1.0**
DENT	**Denizli**	**0.80**	**350**	*e*Pg	**Pg**	**08 01 10.7**	**-1.1**
KSL	**Kastellorizon**	**0.86**	**159**	*e*P	**Pg**	**08 01 12.7**	**-0.2**
ARG	**Arkhangelos**	**1.15**	**230**	*e*P	**Pg**	**08 01 17.1**	**-1.2**
ANTB	**Antalya**	**1.16**	**93**	*e*PN	**Pn**	**08 01 18.1**	**-0.9**
ANTB	**Antalya**	**1.16**	**93**	*e*Pn	**Pn**	**08 01 18.1**	**-0.9**
MLSB	**Milas**	**1.19**	**287**	*e*PN	**Pn**	**08 01 18.7**	**-0.8**
MLSB	**Milas**	**1.19**	**287**	*e*Pn	**Pn**	**08 01 18.7**	**-0.8**
BCK	**Bucak**	**1.21**	**65**	*e*PN	**Pn**	**08 01 18.7**	**-1.0**
BCK	**Bucak**	**1.21**	**65**	*e*Pn	**Pn**	**08 01 18.7**	**-1.0**
AYDN	**Tasoluk**	**1.27**	**304**	*i* P	**Pn**	**08 01 19.7**	**-0.8**
AYDN				*i* S	**Sg**	**08 01 37.6**	**+0.4**
AYDN	**Tasoluk**	**1.27**	**304**	*i* P	**Pn**	**08 01 19.7**	**-0.8**
AYDN				*i* S	**Sg**	**08 01 37.6**	**+0.5**
DAT	**Datca**	**1.33**	**260**	*e*PN	**Pn**	**08 01 20.9**	**-0.5**
DAT	**Datca**	**1.33**	**260**	*e*Pn	**Pn**	**08 01 20.9**	**-0.4**
ISP	**Isparta**	**1.36**	**49**	*e*PN	**Pn**	**08 01 21.7**	**0.0**
ISP	**Isparta**	**1.36**	**49**	*e*Pn	**Pn**	**08 01 21.7**	**0.0**
KHL	**Karahalli**	**1.38**	**10**	*e*PN	**Pn**	**08 01 21.0**	**-1.1**
KHL	**Karahalli**	**1.38**	**10**	*e*Pn	**Pn**	**08 01 21.0**	**-1.1**
BDRM	**Kayabasi**	**1.42**	**275**	*i* P	**Pn**	**08 01 23.2**	**+0.7**
BDRM				*i* S	**Sb**	**08 01 42.5**	**+1.1**
BDRM	**Kayabasi**	**1.42**	**275**	*i* P	**Pn**	**08 01 23.2**	**+0.7**
BDRM				*i* S	**Sb**	**08 01 42.5**	**+1.1**
KHAL	**Karahalli**	**1.42**	**9**	*i* P	**Pn**	**08 01 22.2**	**-0.4**
KHAL				*i* S	**Sb**	**08 01 43.3**	**+1.7**
KHAL	**Karahalli**	**1.42**	**9**	*i* P	**Pn**	**08 01 22.2**	**-0.4**
KHAL				*i* S	**Sb**	**08 01 43.3**	**+1.7**
BODT	**Bodrum**	**1.52**	**274**	*e*PN	**Pn**	**08 01 23.9**	**-0.1**
BODT	**Bodrum**	**1.52**	**274**	*e*Pn	**Pn**	**08 01 23.9**	**-0.1**
MANT	**Manisa**	**1.61**	**342**	*i* P	**Pn**	**08 01 24.9**	**-0.4**
MANT				*i* S	**Sn**	**08 01 48.3**	**+2.0**
MANT	**Manisa**	**1.61**	**342**	*i* P	**Pn**	**08 01 24.9**	**-0.3**
MANT				*i* S	**Sn**	**08 01 48.3**	**+2.0**
SHUT	**Suhut-Afyon**	**1.91**	**33**	*e*PN	**Pn**	**08 01 28.7**	**-0.7**
SHUT	**Suhut-Afyon**	**1.91**	**33**	*e*Pn	**Pn**	**08 01 28.7**	**-0.7**
IZM	**Izmir**	**2.11**	**313**	*e*PN	**Pn**	**08 01 31.6**	**-0.4**
KARP	**Karpathos**	**2.17**	**230**	*e*P	**Pn**	**08 01 32.4**	**-0.6**
ALT	**Altintas**	**2.21**	**19**	*e*PN	**Pn**	**08 01 32.9**	**-0.5**
ALT	**Altintas**	**2.21**	**19**	*e*Pn	**Pn**	**08 01 32.9**	**-0.5**
AKS	**Akhisar**	**2.21**	**330**	*e*PN	**Pn**	**08 01 32.7**	**-0.7**
AKS	**Akhisar**	**2.21**	**330**	*e*Pn	**Pn**	**08 01 32.7**	**-0.7**
BLCB	**Balcova**	**2.23**	**310**	*e*PN	**Pn**	**08 01 33.8**	**+0.1**
BLCB	**Balcova**	**2.23**	**310**	*e*Pn	**Pn**	**08 01 33.8**	**+0.1**
HDMB	**Hadim**	**2.62**	**89**	*e*PN	**Pn**	**08 01 39.7**	**+0.5**
HDMB	**Hadim**	**2.62**	**89**	*e*Pn	**Pn**	**08 01 39.7**	**+0.6**
KONT	**Konya--Tatoy**	**2.69**	**68**	*e*PN	**Pn**	**08 01 40.4**	**+0.3**
KONT	**Konya--Tatoy**	**2.69**	**68**	*e*Pn	**Pn**	**08 01 40.4**	**+0.3**
KIZT	**Kizilcal**	**2.85**	**47**	*e*PN	**Pn**	**08 01 42.2**	**0.0**
KIZT	**Kizilcal**	**2.85**	**47**	*e*Pn	**Pn**	**08 01 42.2**	**-0.1**
ZKR	**Zakros**	**3.05**	**234**	*e*P	**Pn**	**08 01 46.2**	**+1.3**
NPS	**Neapolis**	**3.37**	**241**	*e*P	**Pn**	**08 01 49.9**	**+0.5**
SULT	**Sultanhani-AKS**	**3.64**	**69**	*e*PN	**Pn**	**08 01 54.0**	**+0.9**
SULT	**Sultanhani-AKS**	**3.64**	**69**	*e*Pn	**Pn**	**08 01 54.0**	**+0.9**

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*ISK **13** 08:40:34.8, 39°.94N×27°.12E, h10^{km}, MD2.8*

*ISCJB **13** 08:40:35.5±0.5, 39°.98N±0°.03×27°.15E±0°.03, h10^{km}, Error ellipse: s-maj=5.1km s-min=3.3km az=17.6*

*CSEM **13** 08:40:36.0±0.2, 40°.00N×27°.18E, h5^{km}, MD2.9, Error ellipse: s-maj=4.2km s-min=3.2km az=24.0*

*DDA **13** 08:40:36.0, 39°.98N×27°.23E, h11^{km}±1^{km}, Md2.9*

ISC 13 08:40:35.9±0.5**, 40°.00N**±0°.04×**27°.16E**±0°.04**, h4**^{km}±7^{km}**, n26,** σ**0^{s}.85**/40**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BALY	**Balya**	**0.44**	**126**	*i* P	**Pg**	**08 40 44.1**	**-0.1**
BALY				*i* S	**Sg**	**08 40 49.1**	**-0.8**
BALY	**Balya**	**0.44**	**126**	*i* P	**Pg**	**08 40 44.2**	**-0.1**
BALY				*i* S	**Sg**	**08 40 49.2**	**-0.7**
LPK	**Lapseki**	**0.48**	**320**	*e*PG	**Pg**	**08 40 45.2**	**0.0**
LPK				*e*SG	**Sg**	**08 40 53.1**	**+1.6**
LPK	**Lapseki**	**0.48**	**320**	*e*Pg	**Pg**	**08 40 45.2**	**0.0**
LPK				*e*Sg	**Sg**	**08 40 53.1**	**+1.6**
BALB	**Balikesir**	**0.66**	**123**	*e*PG	**Pg**	**08 40 47.7**	**-0.8**
BALB				*e*SG	**Sg**	**08 40 57.5**	**+0.5**
BALB	**Balikesir**	**0.66**	**123**	*e*Pg	**Pg**	**08 40 47.7**	**-0.8**
BALB				*e*Sg	**Sg**	**08 40 57.5**	**+0.4**
EZN	**Ezine**	**0.67**	**255**	*e*PG	**Pg**	**08 40 47.4**	**-1.4**
EZN				*e*SG	**Sg**	**08 40 56.8**	**-0.6**
EZN	**Ezine**	**0.67**	**255**	*e*Pg	**Pg**	**08 40 47.4**	**-1.3**
EZN				*e*Sg	**Sg**	**08 40 56.8**	**-0.6**
AYVA	**Ayvalik**	**0.78**	**208**	*i* P	**Pg**	**08 40 51.6**	**+0.7**
AYVA				*i* S	**Sg**	**08 41 02.6**	**+1.5**
AYVA	**Ayvalik**	**0.78**	**208**	*i* P	**Pg**	**08 40 51.6**	**+0.7**
AYVA				*i* S	**Sg**	**08 41 02.6**	**+1.6**
KCT	**Karacabey**	**0.95**	**73**	*e*PG	**Pg**	**08 40 54.6**	**+0.5**
KCT	**Karacabey**	**0.95**	**73**	*e*Pg	**Pg**	**08 40 54.6**	**+0.4**
ENEZ	**Enez**	**1.07**	**314**	*e*PN	**Pg**	**08 40 55.8**	**-0.5**
ENEZ	**Enez**	**1.07**	**314**	*e*Pn	**Pg**	**08 40 55.8**	**-0.5**
DURS	**Dursunbey**	**1.08**	**111**	*e*P	**Pg**	**08 40 55.4**	**-1.4**
DURS				*i* S	**Sg**	**08 41 12.0**	**+1.2**
DURS	**Dursunbey**	**1.08**	**111**	*e*P	**Pg**	**08 40 55.3**	**-1.4**
DURS				*i* S	**Sg**	**08 41 12.0**	**+1.2**
DST	**Dursunbey**	**1.20**	**109**	*e*PN	**Pn**	**08 40 58.7**	**-0.7**
DST	**Dursunbey**	**1.20**	**109**	*e*Pn	**Pn**	**08 40 58.7**	**-0.7**
ARMT	**Armutlu**	**1.42**	**66**	*e*PN	**Pn**	**08 41 02.0**	**-0.5**
ARMT	**Armutlu**	**1.42**	**66**	*e*Pn	**Pn**	**08 41 02.0**	**-0.5**
ULDT	**Uludag**	**1.52**	**84**	*i* P	**Pn**	**08 41 04.2**	**+0.3**
ULDT				*i* S	**Sn**	**08 41 25.0**	**+0.9**
ULDT	**Uludag**	**1.52**	**84**	*i* P	**Pn**	**08 41 04.2**	**+0.3**
ULDT				*i* S	**Sn**	**08 41 25.0**	**+0.9**
YLV	**Yalova**	**1.78**	**71**	*e*PN	**Pn**	**08 41 07.6**	**+0.1**
YLV	**Yalova**	**1.78**	**71**	*e*Pn	**Pn**	**08 41 07.6**	**+0.1**
EDRB	**Edirne**	**1.87**	**350**	*e*PN	**Pn**	**08 41 08.3**	**-0.4**
EDRB	**Edirne**	**1.87**	**350**	*e*Pn	**Pn**	**08 41 08.3**	**-0.4**

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*BJI **13** 08:43:42.8, 12°.20S×65°.70E, h10^{km}, mB5.3/3, mb4.4/6, Ms7 4.9/1*

*MOS **13** 08:43:43.2±1.3, 12°.18S×65°.68E, h10^{km}, mb4.8/5, Error ellipse: s-maj=14.7km s-min=11.0km az=116.5*

*IDC **13** 08:43:43.8±0.8, 12°.08S×65°.62E, h0^{km}, mb4.1/14, mb1 4.2/15, mb1mx4.1/26, mbtmp4.1/15, ML4.7/1, MS4.2/15, Ms1 4.2/15, ms1mx4.0/26, Error ellipse: s-maj=23.7km s-min=18.7km az=179.0*

*NEIC **13** 08:43:45.8±0.5, 12°.16S×65°.69E, h10^{km}, mb4.5/4, Error ellipse: s-maj=15.4km s-min=12.7km az=174.0*

*GCMT **13** 08:43:45.8±0.3, 12°.02S×65°.57E, h15^{km}±1^{km}, MW5.0/70, Moment Tensor Solution. s22,c24; s70,c91; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.68±.14; $M_{\theta\theta}$-2.27±.12; $M_{\phi\phi}$2.95±.13; $M_{r\theta}$-0.41±.41; $M_{\theta\phi}$1.49±.13; $M_{\phi r}$2.24±.56; Best double couple: $M_0$3.70500×10^{16} NP1:ϕ_s62.00000°, δ53.00000°, λ-3.00000°. NP2: ϕ_s154.00000°, δ87.00000°, λ-143.00000°. Principal axes: T 4.2340, Plg23.0000°, Azm281.0000°; N -1.0550, Plg53.0000°, Azm157.0000°; P -3.1750, Plg27.0000°, Azm24.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 13 08:43:47.3±5.2**, 12°.17S**±0°.09×**65°.67E**±0°.10**, h23**^{km}±37^{km}**, n59,** σ**1^{s}.03**/43**, mb4.3**/23**, MS4.3**/15**, 3D, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSEY	**Mahe Island**	**12.53**	**306**	*e*P	**Pn**	**08 46 44.2**	**-0.1**
MSEY				pmax	pmax		
	comp=Z,32nm,0.4s						
MSEY	**Mahe Island**	**12.53**	**306**	*e*Pn	**Pn**	**08 46 44.2**	**0.0**
	comp=Z,32nm,0.4s						
OPO	**Ambohidratompo**	**18.91**	**248**	P	**Pn**	**08 48 07.5**	**+0.2**
	comp=Z,2.1nm,0.3s,baz=70,slow=13,SNR=15						
ABPO	**Ambohimpanom**	**19.01**	**247**	*e*P	**Pn**	**08 48 08.2**	**-0.3**
ABPO				pmax	pmax		
	comp=Z,12nm,0.7s						
ABPO	**Ambohimpanom**	**19.01**	**247**	*e*P	**Pn**	**08 48 08.2**	**-0.3**
	comp=Z,12nm,0.7s						
PSI	**Prapat**	**36.24**	**68**	LR	LR	09 02 01.4	
	comp=Z,299nm,20.6s,MS4.0,baz=100,slow=30						
LSZ	**Lusaka**	**36.51**	**261**	P	**P**	**08 50 51.1**	**-0.2**
	comp=Z,12nm,1.0s,mb4.7,baz=83,slow=8.0,SNR=7.9						
BOSA	**Boshof**	**41.03**	**240**	LR	LR	09 05 56.2	
	comp=Z,212nm,18.5s,MS4.0,baz=332,slow=32						
CMAR	**Chiang Mai Arr**	**44.76**	**48**	P	**P**	**08 51 58.2**	**-1.1**
	comp=Z,1.4nm,0.4s,mb4.2,baz=237,slow=9.5,SNR=4.2						
AAK	**Ala-Archa**	**55.13**	**8**	⇓*e*P	**P**	**08 53 20.0**	**+2.3**
AAK				pmax	pmax		
	comp=Z,2.0nm,1.8s,mb3.9						
AAK	**Ala-Archa**	**55.13**	**8**	*e*P	**P**	**08 53 19.4**	**+1.7**
	comp=Z,2.0nm,0.8s,mb4.2						
MAW	**Mawson**	**55.41**	**181**	LR	LR	09 10 51.8	
	comp=Z,219nm,19.4s,MS4.2,baz=186,slow=29						
GNI	**Garni**	**55.56**	**341**	⇓*e*P	**P**	**08 53 21.7**	**+0.8**
GNI				pmax	pmax		
	comp=Z,14nm,1.4s						
BRTR	**Keskin Array B**	**59.60**	**332**	P	**P**	**08 53 49.0**	**-0.4**
	comp=Z,0.8nm,0.7s,mb3.9,baz=141,slow=8.0,SNR=4.6						
BRTR				LR	LR	09 20 09.2	
	comp=Z,78nm,18.5s,MS3.9,baz=322,slow=37						
GTA	**Gaotai**	**60.36**	**30**	*e*P	**P**	**08 53 55.6**	**+1.0**
GTA				pP	pP	08 54 01.0	-0.8
GTA				sP	sP	08 54 04.1	-0.5
GTA				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.5						
MKAR	**Makanchi Array**	**60.55**	**13**	P	**P**	**08 53 57.0**	**+1.2**
	comp=Z,0.6nm,0.6s,mb3.9,baz=204,slow=8.5,SNR=7.3						
MKAR				LR	LR	09 18 21.9	
	comp=Z,108nm,18.3s,MS4.0,baz=191,slow=34						
MKAR	**Makanchi Array**	**60.55**	**13**	P	**P**	**08 53 57.0**	**+1.2**
MKAR				LR	LR	09 18 21.9	
ANN	**Anapa**	**62.21**	**338**	*e*P	**P**	**08 54 00.8**	**-6.2**
ANN				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.5						
AKTK	**Aktyubinsk**	**62.69**	**355**	P	**P**	**08 54 09.9**	**-0.1**
AKTO	**Aktyubinsk**	**62.69**	**355**	P	**P**	**08 54 09.9**	**-0.1**
	comp=Z,2.3nm,0.9s,mb4.3,baz=188,slow=5.1,SNR=6.2						
BVAR	**Borovoye Array**	**65.06**	**3**	P	**P**	**08 54 25.3**	**-0.3**
	comp=Z,2.0nm,0.9s,mb4.2,baz=157,slow=9.0,SNR=6.5						
ASAR	**Alice Springs**	**65.42**	**111**	P	**P**	**08 54 28.9**	**+0.3**
	comp=Z,1.7nm,1.0s,mb4.0,baz=264,slow=6.0,SNR=6.8						
WRA	**Warramunga Arr**	**66.07**	**107**	P	**P**	**08 54 32.8**	**-0.1**
	comp=Z,2.8nm,1.0s,mb4.2,baz=273,slow=5.6,SNR=8.0						
WRA				LR	LR	09 22 48.6	
	comp=Z,169nm,18.7s,MS4.3,baz=310,slow=36						
WRAB	**Tennant Creek**	**66.08**	**107**	P	**P**	**08 54 30.7**	**-2.3**
NJ2	**Nanjing**	**67.23**	**47**	*e*P	**P**	**08 54 39.3**	**-0.8**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ZALV	**Zalesovo Beam**	**67.85**	**12**	P	**P**	**08 54 43.7**	**+0.3**
	comp=Z,0.8nm,0.4s,mb4.1,baz=228,slow=3.8,SNR=5.8						
ZALV				LR	LR	09 22 30.8	
	comp=Z,82nm,18.8s,MS4.0,baz=340,slow=34						
TORD	**Torodi Ar. Bea**	**68.25**	**290**	P	**P**	**08 54 45.7**	**-1.1**
	comp=Z,0.7nm,0.8s,mb3.8,baz=64,slow=3.4,SNR=3.8						
TORD				LR	LR	09 22 20.9	
	comp=Z,226nm,20.2s,MS4.4,baz=50,slow=34						
TORD	**Torodi Ar. Bea**	**68.25**	**290**	P	**P**	**08 54 45.7**	**-1.1**

TORD				LR	LR	09 22 20.9	
ARU	Arti	68.60	356	d *i*P	P	08 54 48.5	+0.4
ARU				*e*		08 57 16.8	
ARU				S	S	09 03 52.6	+3.4
ARU				SS	SS	09 08 17.4	+3.3
ARU				pmax	pmax		
	comp=Z,21nm,2.0s,mb4.7						
SHEL	Horse Pasture	69.08	257	*i* P	P	08 54 43.3	-8.7
SONM	Songino Array	69.85	28	P	P	08 54 57.0	+0.9
	comp=Z,1.7nm,0.8s,mb4.0,baz=212,slow=5.2,SNR=11						
SONM				LR	LR	09 24 45.1	
	comp=Z,292nm,18.1s,MS4.6,baz=203,slow=35						
AKASG	Malin Array Be	70.21	336	P	P	08 54 56.6	-1.6
	comp=Z,1.0nm,0.6s,mb3.9,baz=143,slow=5.2,SNR=5.8						
TLY	Talaya	71.58	24	*e*P	P	08 55 14.6	+8.1
TLY				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.3						
STKA	Stephens Creek	71.80	120	LR	LR	09 21 02.6	
	comp=Z,255nm,20.6s,MS4.5,baz=210,slow=31						
DBIC	Dimbokro	72.56	281	LR	LR	09 24 28.0	
	comp=Z,244nm,21.0s,MS4.5,baz=84,slow=34						
VNA2	Neumayer--Watz	73.06	199	*e*P	P	08 55 17.2	+2.1
VNA3	Neumayer Olymp	73.84	199	*e*P	P	08 55 15.3	-4.5
GERES	GERESS Array B	76.07	328	P	P	08 55 31.1	-1.7
	comp=Z,0.6nm,0.7s,mb3.7,baz=142,slow=6.8,SNR=5.6						
KHC	Kasperske Hory	76.31	328	*e*P	P	08 55 33.2	-1.0
PRU	Pruhonice	76.34	329	*e*P	P	08 55 35.8	+1.4
KSRS	Korea Array	76.38	46	LR	LR	09 30 39.6	
	comp=Z,93nm,19.2s,MS4.1,baz=139,slow=37						
BRG	Berggiesshubel	77.19	329	*e*P	P	08 55 40.6	+1.4
BRG				pmax	pmax		
	comp=Z,5.0nm,1.9s,mb4.1						
BRG	Berggiesshubel	77.19	329	*e*P	P	08 55 40.6	+1.4
	comp=Z,36nm,1.9s,mb5.0						
NKC	Novy Kostel	77.56	328	*e*P	P	08 55 41.9	+0.6
GRA1	Grafenberg Arr	77.88	327	*e*P	P	08 55 42.5	-0.6
GRF	Grafenberg Arr	77.88	327	*e*P	P	08 55 42.5	-0.6
QSPA	South Pole Qui	77.90	180	*e*P	P	08 55 43.2	+0.5
	comp=Z,8.1nm,1.1s,mb4.6						
VNDA	Vanda	79.54	167	LR	LR	09 26 59.3	
	comp=Z,191nm,18.3s,MS4.5,baz=280,slow=33						
MDT	Midelt	80.51	307	LR	LR	09 31 20.3	
	comp=Z,197nm,18.4s,MS4.5,baz=78,slow=36						
BBTS	Babate	85.66	286	LR	LR	09 33 18.6	
	comp=Z,220nm,20.7s,MS4.5,baz=88,slow=35						
ARCES	ARCESS Array B	86.17	347	P	P	08 56 24.4	-1.8
	comp=Z,4.0nm,0.8s,mb4.7,baz=139,slow=5.2,SNR=3.3						
TIXI	Tiksi	93.38	16	*i* P	P	08 57 00.3	+0.2
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.7						
YKA	Yellowknife Ar	129.75	0	PKP	PKPdf	09 02 55.4	+1.1
	comp=Z,0.5nm,0.8s,baz=347,slow=2.3,SNR=8.2						
RLMT	Red Lodge	146.88	353	PKPdf	PKPdf	09 03 26.8	+0.7
RSSD	Black Hills	146.95	346	PKP2	PKPdf	09 03 26.8	+0.6
MOOW	Moose Ponds	148.38	355	*e*PKPbc	PKPab	09 03 35.4	+0.2
PDAR	Pinedale Array	149.23	353	PKPbc	PKPbc	09 03 36.2	+2.0
	comp=Z,3.0nm,1.0s,baz=64,slow=1.4,SNR=15						
NVAR	Mina Array Bea	153.61	7	PKPbc	PKPbc	09 03 46.8	+2.3
	comp=Z,1.9nm,0.9s,baz=309,slow=3.3,SNR=8.8						
NVAR				PKPab	PKPab	09 03 54.5	-2.4
	comp=Z,2.2nm,0.9s,baz=347,slow=1.2,SNR=9.7						
TXAR	Lajitas Array	160.25	331	PKPab	PKPab	09 04 25.6	-0.1
	comp=Z,0.3nm,0.7s,baz=96,slow=7.7,SNR=3.6						

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*BJI **13** 08:51:03.5, 0°.30N×122°.10E, h20^{km}, mB5.1/1, mb4.7/6*
*ISCJB **13** 08:51:19.6±2.3, 0°.3N±0°.1×122°.2E±0°.1, h181^{km}±24^{km}, mb4.5/25, Error ellipse: s-maj=25.4km s-min=9.9km az=138.0*
*NEIC **13** 08:51:21.3±2.1, 0°.30N×122°.13E, h184^{km}±21^{km}, mb4.4/1, Error ellipse: s-maj=21.5km s-min=9.1km az=52.0*
*IDC **13** 08:51:25.2±3.8, 0°.28N×122°.15E, h224^{km}±38^{km}, mb3.7/10, mb1 3.8/11, mb1mx3.6/22, mbtmp3.7/11, Error ellipse: s-maj=26.7km s-min=9.9km az=62.0*
ISC 13 08:51:20.6±2.3**, 0°.3N**±0°.1×**122°.2E**±0°.1**, h174**^{km}±24^{km}**, n36, σ0^{s}.73**/34**, mb4.5**/25**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAPI	Kappang	5.81	205	*e*Pn	Pn	08 52 44.8	-0.3
KAKA	Kakadu	16.43	142	*e*P	Pn	08 55 01.7	+0.2
FITZ	Fitzroy Crossi	18.59	170	*e*P	P	08 55 25.4	+0.7
	28nm,1.5s						
FITZ	Fitzroy Crossi	18.59	170	P	P	08 55 25.4	+0.7
	0.9nm,0.3s,baz=340,slow=7.3,SNR=10.0						
WRAB	Tennant Creek	23.36	150	*e*P	P	08 56 13.8	+0.2
	4.8nm,0.5s,mb4.2						
WRA	Warramunga Arr	23.36	150	P	P	08 56 14.2	+0.6
	7.4nm,0.6s,mb4.3,baz=324,slow=11,SNR=54						
WRA				pP		08 56 58.8	
	3.4nm,0.6s,baz=332,slow=10.0,SNR=8.3						
WRA				PcP	PcP	08 59 53.9	-1.6
	0.4nm,0.8s,baz=316,slow=2.2,SNR=7.2						
PSI	Prapat	23.41	276	P	P	08 56 12.8	-1.4
	4.4nm,0.6s,mb4.0,baz=92,slow=10,SNR=5.2						
ASAR	Alice Springs	26.39	155	P	P	08 56 41.1	+0.1
	2.1nm,0.5s,mb4.0,baz=344,slow=14,SNR=44						
ASAR				PcP	PcP	09 00 01.4	-0.8
	0.9nm,0.3s,baz=350,slow=2.2,SNR=19						
CMAR	Chiang Mai Arr	29.12	310	P	P	08 57 06.4	+1.0
	0.7nm,0.4s,mb3.8,baz=136,slow=7.5,SNR=5.7						
FORT	Forrest	31.39	170	*e*P	P	08 57 22.8	-2.5
	18nm,0.8s,mb4.9						
STKA	Stephens Creek	36.88	152	*e*P	P	08 58 13.3	+0.8
	4.9nm,0.8s,mb4.2						
STKA	Stephens Creek	36.88	152	P	P	08 58 13.2	+0.7
	5.9nm,0.7s,mb4.3,baz=329,slow=8.5,SNR=10						
MJAR	Matsushiro Arr	39.00	21	P	P	08 58 28.9	-1.3
	3.7nm,1.1s,mb3.9,baz=277,slow=9.7,SNR=4.2						
LZH	Lanzhou	39.49	336	*e*P	P	08 58 41.5	+7.2
LZH				pP	pP	08 58 46.0	-26
LZH				sP	sP	08 58 49.3	-42
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.5						
LZH				pmax	pmax		
	comp=Z,73nm,4.2s						
ODAN	Odare	42.64	311	*e*P	P	08 59 00.2	0.0
	comp=Z,5.5nm,0.3s,mb4.6						
TAPN	Taplejung	42.66	312	*e*P	P	08 59 00.8	+0.4
	comp=Z,11nm,0.5s,mb4.8						
RAMN	Ramite	43.28	311	*e*P	P	08 59 06.1	+0.8
	comp=Z,25nm,0.6s,mb5.0						
JIRN	Jiri	43.97	311	*e*P	P	08 59 11.3	+0.5
	comp=Z,16nm,0.4s,mb5.0						
GTA	Gaotai	43.99	335	*e*P	P	08 59 11.8	+1.0
GTA				pP	pP	08 59 15.5	-33
GTA				sP	sP	08 59 18.6	-50
GTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
GUN	Gumba	44.33	311	*e*P	P	08 59 14.1	+0.4
	comp=Z,23nm,0.4s,mb5.2						
PKI	Pulchoki	44.51	311	*e*P	P	08 59 15.0	-0.1
	comp=Z,3.2nm,0.3s,mb4.5						
KKN	Kakani	44.72	311	*e*P	P	08 59 16.9	+0.1
	comp=Z,12nm,0.5s,mb4.8						
DMN	Daman	44.76	311	*e*P	P	08 59 17.1	0.0
	comp=Z,16nm,0.7s,mb4.8						
GKN	Gorkha	45.32	311	*e*P	P	08 59 21.4	-0.1
	comp=Z,9.7nm,0.4s,mb4.7						
KOLN	Koldanda	45.99	310	*e*P	P	08 59 26.8	0.0
	comp=Z,36nm,0.8s,mb5.1						
DANN	Dangsing	46.16	311	*e*P	P	08 59 28.2	+0.1
	comp=Z,53nm,0.8s,mb5.2						
HYB	Hyderabad	46.19	294	*i* P	P	08 59 29.0	+0.5
HYB	Hyderabad	46.19	294	*e*P	P	08 59 28.0	-0.5
SONM	Songino Array	49.31	346	P	P	08 59 52.4	+0.5
	comp=Z,3.7nm,0.7s,mb4.1,baz=165,slow=8.8,SNR=31						
SONM				PcP	PcP	09 01 10.3	-1.6
	comp=Z,0.5nm,0.7s,baz=185,slow=4.4,SNR=3.0						
MK31	Makanchi Array	57.95	329	*e*P	P	09 00 54.3	-0.5
MKAR	Makanchi Array	57.95	329	P	P	09 00 54.7	-0.1
	comp=Z,2.5nm,0.4s,mb4.4,baz=126,slow=8.5,SNR=43						
MKAR				PcP	PcP	09 01 42.0	-3.0
	comp=Z,1.0nm,0.6s,baz=138,slow=5.4,SNR=3.8						
MKAR	Makanchi Array	57.95	329	P	P	09 00 54.7	-0.1
MKAR				PcP	PcP	09 01 42.0	-3.0
ZALV	Zalesovo Beam	61.73	336	P	P	09 01 19.4	-0.9
	comp=Z,2.0nm,0.6s,mb4.1,baz=116,slow=6.8,SNR=7.7						
KURK	Kurchatov	62.33	330	P	P	09 01 23.4	-1.0
	comp=Z,1.4nm,0.4s,mb4.2,baz=117,slow=6.1,SNR=16						
TORD	Torodi Ar. Bea	119.57	285	PKP	PKPdf	09 09 48.2	-2.6
	comp=Z,0.6nm,0.7s,baz=116,slow=2.9,SNR=4.1						
TORD	Torodi Ar. Bea	119.57	285	PKP	PKPdf	09 09 48.2	-2.6

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*ISK **13** 09:29:53.4, 36°.97N×29°.20E, h5^{km}, MD3.3*
*ISCJB **13** 09:29:54.5±0.5, 36°.98N±0°.03×29°.20E±0°.02, h3^{km}±5^{km}, Error ellipse: s-maj=4.5km s-min=3.1km az=159.5*
*CSEM **13** 09:29:54.9±0.1, 36°.99N×29°.18E, h2^{km}, MD3.3, Error ellipse: s-maj=2.3km s-min=1.7km az=160.0*
*DDA **13** 09:29:54.3, 36°.99N×29°.18E, h7^{km}±5^{km}, Md3.2*
ISC 13 09:29:55.0±0.4**, 36°.99N**±0°.03×**29°.19E**±0°.02**, h2**^{km}±4^{km}**, n62, σ0^{s}.95**/86**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FETY	Fethiye	0.36	194	*e*PG	Pg	09 30 01.2	-0.8
FETY				*e*SG	Sg	09 30 07.2	+0.5
FETY	Fethiye	0.36	194	*e*Pg	Pg	09 30 01.2	-0.8
FETY				*e*Sg	Sg	09 30 07.2	+0.5
GOLH	Golhisar	0.39	50	*i* P	Pg	09 30 01.5	-0.9
GOLH				*i* S	Sg	09 30 08.7	+1.3
GOLH	Golhisar	0.39	50	*i* P	Pg	09 30 01.5	-0.9
GOLH				*i* S	Sg	09 30 08.7	+1.3
DALT	Dalyan (Mudla)	0.50	244	*e*PG	Pg	09 30 03.8	-0.7
DALT				*e*SG	Sg	09 30 12.5	+1.5
DALT	Dalyan (Mudla)	0.50	244	*e*Pg	Pg	09 30 03.8	-0.7
DALT				*e*Sg	Sg	09 30 12.5	+1.6
ELL	Elmali	0.62	112	*e*PG	Pg	09 30 06.2	-0.7
ELL				*e*SG	Sg	09 30 16.3	+1.3
ELL	Elmali	0.62	112	*e*Pg	Pg	09 30 06.2	-0.7
ELL				*e*Sg	Sg	09 30 16.3	+1.3
YER	Yerkesik	0.74	282	*e*PG	Pg	09 30 08.8	-0.5
YER				*e*SG	Sg	09 30 20.4	+1.5
YER	Yerkesik	0.74	282	*e*Pg	Pg	09 30 08.8	-0.4
YER				*e*Sg	Sg	09 30 20.4	+1.5
DENT	Denizli	0.78	351	*e*PG	Pg	09 30 08.9	-1.0
DENT	Denizli	0.78	351	*e*Pg	Pg	09 30 08.9	-1.0
AKAS	Kas	0.82	156	*i* P	Pg	09 30 11.1	+0.4
AKAS				*i* S	Sg	09 30 25.7	+4.3
AKAS	Kas	0.82	156	*i* P	Pg	09 30 11.1	+0.3
AKAS				*i* S	Sg	09 30 25.7	+4.3
KSL	Kastellorizon	0.89	159	*e*P	Pg	09 30 12.7	+0.6
ARG	Arkhangelos	1.15	228	*e*P	Pg	09 30 15.5	-1.6
MLSB	Milas	1.17	286	*e*PN	Pn	09 30 17.2	-1.2
MLSB	Milas	1.17	286	*e*Pn	Pn	09 30 17.2	-1.2
ANTB	Antalya	1.17	94	*e*PN	Pn	09 30 17.1	-1.4
ANTB	Antalya	1.17	94	*e*Pn	Pn	09 30 17.1	-1.3
BCK	Bucak	1.21	67	*e*PN	Pn	09 30 18.0	-1.0
BCK				*e*SN	Sn	09 30 35.4	-0.6
BCK	Bucak	1.21	67	*e*Pn	Pn	09 30 18.0	-1.0
BCK				*e*Sn	Sn	09 30 35.4	-0.5
AYDN	Tasoluk	1.24	303	*i* P	Pg	09 30 17.6	-1.3
AYDN				*i* S	Sg	09 30 35.0	+0.1
AYDN	Tasoluk	1.24	303	*i* P	Pg	09 30 17.6	-1.3
AYDN				*i* S	Sg	09 30 35.0	0.0
DAT	Datca	1.32	259	*e*PN	Pn	09 30 20.0	-0.5
DAT				*e*SN	Sn	09 30 39.2	+0.6
DAT	Datca	1.32	259	*e*Pn	Pn	09 30 20.0	-0.5
DAT				*e*Sn	Sn	09 30 39.2	+0.6
ISP	Isparta	1.35	50	*e*PN	Pn	09 30 20.7	-0.2
ISP	Isparta	1.35	50	*e*Pn	Pn	09 30 20.7	-0.2
KHAL	Karahalli	1.40	10	*i* P	Pn	09 30 20.9	-0.6
KHAL				*i* S	Sb	09 30 41.6	+1.4
KHAL	Karahalli	1.40	10	*i* P	Pn	09 30 21.0	-0.6
KHAL				*i* S	Sb	09 30 41.6	+1.4
BDRM	Kayabasi	1.40	274	*i* P	Pn	09 30 20.8	-0.8
BDRM				*i* S	Sb	09 30 42.3	+2.1
BDRM	Kayabasi	1.40	274	*i* P	Pn	09 30 20.8	-0.8
BDRM				*i* S	Sb	09 30 42.3	+2.1
BODT	Bodrum	1.51	273	*e*PN	Pn	09 30 23.2	+0.2
BODT	Bodrum	1.51	273	*e*Pn	Pn	09 30 23.2	+0.2
MANT	Manisa	1.58	342	*i* P	Pn	09 30 23.0	-1.0
MANT				*i* S	Sn	09 30 45.7	+0.6
MANT	Manisa	1.58	342	*i* P	Pn	09 30 23.0	-1.1
MANT				*i* S	Sn	09 30 45.7	+0.6
SHUT	Suhut-Afyon	1.90	34	*e*PN	Pn	09 30 28.2	-0.2
SHUT	Suhut-Afyon	1.90	34	*e*Pn	Pn	09 30 28.2	-0.2
SMG	Samos	2.01	292	*e*P	Pn	09 30 27.2	-2.7
KARP	Karpathos	2.18	229	*e*P	Pn	09 30 32.6	+0.3
ALT	Altintas	2.19	19	*e*PN	Pn	09 30 32.3	-0.1
ALT	Altintas	2.19	19	*e*Pn	Pn	09 30 32.3	-0.1
BLCB	Balcova	2.20	310	*e*PN	Pn	09 30 32.5	-0.1
BLCB	Balcova	2.20	310	*e*Pn	Pn	09 30 32.6	0.0
HDMB	Hadim	2.64	90	*e*PN	Pn	09 30 39.0	+0.4
HDMB	Hadim	2.64	90	*e*Pn	Pn	09 30 39.0	+0.4
KIZT	Kizilcal	2.84	48	*e*PN	Pn	09 30 41.7	+0.3
KIZT	Kizilcal	2.84	48	*e*Pn	Pn	09 30 41.7	+0.3
ZKR	Zakros	3.05	233	*e*P	Pn	09 30 45.3	+1.0
SVRH	Sivrihisar-ESK	3.06	36	*e*PN	Pn	09 30 44.6	+0.1
SVRH	Sivrihisar-ESK	3.06	36	*e*Pn	Pn	09 30 44.6	+0.1
NPS	Neapolis	3.37	240	*e*P	Pn	09 30 47.1	-1.6
ADVT	Abdulvahap	3.47	7	*e*PN	Pn	09 30 50.2	+0.2
ADVT	Abdulvahap	3.47	7	*e*Pn	Pn	09 30 50.2	+0.2
LAST	Lasithi	3.52	240	*e*P	Pn	09 30 50.8	+0.1
YLV	Yalova	3.58	2	*e*PN	Pn	09 30 52.5	+1.0
YLV	Yalova	3.58	2	*e*Pn	Pn	09 30 52.5	+1.0
SULT	Sultanhani-AKS	3.64	69	*e*PN	Pn	09 30 53.3	+0.9
SULT	Sultanhani-AKS	3.64	69	*e*Pn	Pn	09 30 53.3	+0.9
IDI	Anoyia	3.87	245	*e*P	Pn	09 30 56.1	+0.5
LOD	Lodumlu	4.03	43	*e*PN	Pn	09 30 58.9	+1.2
LOD	Lodumlu	4.03	43	*e*Pn	Pn	09 30 58.9	+1.2

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*NEIC **13** 09:29:57.7, 31°.38S×68°.94W, h136^{km}, MG3.5(GUC), After GUC.*
GUC 13 09:29:57.7±0.7**, 31°.38S**×**68°.94W, h136**^{km}±31^{km}**, ML3.5, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMCH	Combarbala	1.77	276	*e*P	Pn	09 30 30.0	+0.7
CMCH				*i* S	Sn	09 30 54.2	+0.7
CMCH	Combarbala	1.77	276	*e*P	Pn	09 30 30.0	+0.7
CMCH				*i* S	Sn	09 30 54.2	+0.7
CMCH				AML	AML	09 30 56.8	
	comp=E,2μm,0.5s						
FCH	Farellones	2.25	210	*e*P	Pn	09 30 35.9	+0.8
FCH				*i* S	Sn	09 31 05.8	+2.0
FCH				AML	AML	09 31 12.9	
	comp=N,83nm,0.2s						
PEL	Peldehue	2.30	220	*e*P	Pn	09 30 36.5	+0.9
PEL				*i* S	Sn	09 31 05.3	+0.6
RCDM	Rinconada Maip	2.63	216	*e*P	Pn	09 30 40.4	+0.7
RCDM				*i* S	Sn	09 31 13.0	+0.8
RCDM	Rinconada Maip	2.63	216	*e*P	Pn	09 30 40.4	+0.7
RCDM				*i* S	Sn	09 31 13.0	+0.8
RCDM				AML	AML	09 31 14.3	
	comp=N,144nm,0.4s						
LMEL	Las Melosas	2.68	203	*e*P	Pn	09 30 41.5	+1.1
LMEL				S	Sn	09 31 13.1	-0.2
LMEL	Las Melosas	2.68	203	*e*P	Pn	09 30 41.5	+1.1
LMEL				*i* S	Sn	09 31 13.1	-0.2
LCO	Las Campanas	2.81	327	*e*Pn	Pn	09 30 42.6	+0.5
LCO				*e*Sn	Sn	09 31 16.6	+0.3

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*ISCJB **13** 09:38:04.9±0.7, 45°.0N±0°.1×144°.1E±0°.1, h266^{km}±7^{km}, mb3.1/5, Error ellipse: s-maj=17.5km s-min=14.5km az=177.1*
*JMA **13** 09:38:05.0±0.2, 45°.12N×144°.03E, h266^{km}, M3.2*
*IDC **13** 09:38:05.5±1.5, 45°.41N×143°.94E, h250^{km}±20^{km}, mb2.9/4, mb1 3.1/5, mb1mx2.9/21, mbtmp2.9/5, Error ellipse: s-maj=39.9km s-min=21.4km az=160.0*
ISC 13 09:38:05.7±0.7**, 45°.0N**±0°.1×**144°.1E**±0°.1**, h262**^{km}±7^{km}**, n22, σ1^{s}.05**/24**, mb3.1**/5**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTKR	Abashiri--Toko	1.06	189	P	Pn	09 38 43.1	+0.8
JSE	Soyaes	1.11	267	P	Pn	09 38 41.8	-0.7
JMP	Maruseppu	1.16	209	P	Pn	09 38 43.1	+0.2
JRA	Rausu	1.29	147	P	Pn	09 38 45.1	+1.4
ASAJ	Asahikawa	1.43	231	P	Pn	09 38 45.0	+0.5
	19nm,0.3s,baz=36,slow=2.1,SNR=76						
JKK2	Kamakawa 2	1.52	222	P	Pn	09 38 45.6	+0.3
JAR	Ashorobuto	1.75	189	P	Pn	09 38 47.9	+0.9
NEM2	Nemuro 2	2.02	145	*e*S	S	09 39 22.6	-1.1
JAK	Akkeshi	2.06	169	P	Pn	09 38 49.6	-0.1
JAK				*e*S	S	09 39 24.1	-0.4
JHR	Hokuryu	2.15	234	P	Pn	09 38 50.7	+0.2
JFR	Furan	2.17	212	P	Pn	09 38 51.6	+1.0
JCH	Churui	2.47	194	P	Pn	09 38 53.2	-0.3
JCH				*e*S	S	09 39 29.5	-1.9
JNBK	Urakawa-nobuka	2.92	201	P	Pn	09 38 57.5	-0.6
JEW	Eniwo	2.92	223	P	Pn	09 38 59.4	+1.3
JKB	Kayabe	3.87	217	P	Pn	09 39 07.9	-0.6
JOT	Ohata	4.29	213	P	Pn	09 39 12.2	-1.1
MJAR	Matsushiro Arr	9.59	210	P	Pn	09 40 20.4	+1.5
	0.5nm,0.3s,baz=30,slow=11,SNR=4.4						
SONM	Songino Array	26.00	290	P	P	09 43 13.1	-1.5
	0.6nm,0.5s,mb3.2,baz=88,slow=8.4,SNR=5.9						
MKAR	Makanchi Array	42.09	295	P	P	09 45 30.0	-2.0
	0.4nm,0.6s,mb2.9,baz=79,slow=9.7,SNR=5.3						
CMAR	Chiang Mai Arr	45.88	250	P	P	09 46 04.4	+2.1
	0.5nm,0.3s,mb3.2,baz=63,slow=10,SNR=3.0						
YKA	Yellowknife Ar	55.93	33	P	P	09 47 15.5	-0.8
	0.2nm,0.6s,mb2.7,baz=306,slow=6.5,SNR=5.8						
TXAR	Lajitas Array	83.70	54	P	P	09 50 06.1	+0.8
	0.3nm,0.7s,mb3.2,baz=294,slow=2.7,SNR=4.0						

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*CRAAG **13** 09:55:50.2, 36°.36N×1°.41E, Ml3.9*
*ISCJB **13** 09:55:51.9±0.6, 36°.35N±0°.06×1°.48E±0°.05, h6^{km}±8^{km}, Error ellipse: s-maj=10.4km s-min=5.5km az=153.1*
*CSEM **13** 09:55:52.3±0.2, 36°.26N×1°.51E, h5^{km}, ML3.3/7, Error ellipse: s-maj=5.5km s-min=4.8km az=132.0*
*NEIC **13** 09:55:52.3, 36°.26N×1°.58E, h0^{km}, ML3.9(ALG), After MDD.*
*MDD **13** 09:55:53.0±0.5, 36°.24N×1°.50E, h0^{km}, mb4.1/8, Error ellipse: s-maj=6.2km s-min=4.5km az=123.0, PRIMO*
ISC 13 09:55:52.3±0.8**, 36°.32N**±0°.07×**1°.51E**±0°.07**, h3**^{km}±12^{km}**, n53, σ1^{s}.15**/80**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EBNR	Beni Rached	0.03	151	P	Pg	09 55 54.5	+1.3
EBNR	Beni Rached	0.03	151	P	Pg	09 55 54.5	+1.3
ECHA	Ech Chlef	0.21	214	P	Pg	09 55 55.6	-0.7
ECHA	Ech Chlef	0.21	214	P	Pg	09 55 55.6	-0.7
ECHF	Ech Chlef	0.21	220	P	Pg	09 55 55.6	-0.9
EANR	'Ain N'Sour	0.50	222	P	Pg	09 56 01.0	-0.9
EANR	'Ain N'Sour	0.50	222	P	Pg	09 56 01.0	-0.9
OKGL	Djebel Kef Gue	0.76	248	P	Pg	09 56 07.0	+0.2
OKGL	Djebel Kef Gue	0.76	248	P	Pg	09 56 07.0	+0.2
ETRT	Tiaret	0.94	190	P	Pg	09 56 09.3	-1.1
ETRT	Tiaret	0.94	190	P	Pg	09 56 09.3	-1.1
OJGS	Djebel Guires	1.02	217	P	Pg	09 56 09.0	-2.9
OJGS	Djebel Guires	1.02	217	P	Pg	09 56 09.0	-2.9
EMHD	Djebel Mahouad	1.17	95	P	Pg	09 56 14.2	-0.6
EMHD	Djebel Mahouad	1.17	95	P	Pg	09 56 14.2	-0.6
OJBR	Djebel Berber	1.20	232	P	Pg	09 56 08.0	-7.3
ABA	Alger-Bouzarea	1.32	68	P	Pg	09 56 18.5	+0.9
ABA	Alger-Bouzarea	1.32	68	P	Pg	09 56 18.5	+0.9
ADJB	Djebel Djouab	1.57	95	P	Pn	09 56 25.6	+4.6
ODJA	Bouhanifia	1.67	234	P	Pn	09 56 23.0	+0.6
USTO	Oran	1.77	251	P	Pn	09 56 26.0	+2.2
EMUR	La Murta	2.67	305	Pn	Pn	09 56 35.8	-0.4
	4.4nm,0.2s,SNR=7.9						
EMUR				Sn	Sn	09 57 07.9	-1.2
	6.9nm,0.2s,SNR=7.9						
EMUR	La Murta	2.67	305	Pn	Pn	09 56 35.8	-0.4
	4.4nm,0.2s,SNR=7.9						
EMUR				Sn	Sn	09 57 07.9	-1.2
	6.9nm,0.2s,SNR=7.9						
EIBI	Ibiza	2.71	357	Pn	Pn	09 56 36.9	+0.2
	4.9nm,0.1s,SNR=45						
EIBI				Sn	Sn	09 57 07.0	-2.9
	21nm,0.2s,SNR=7.9						
EIBI	Ibiza	2.71	357	Pn	Pn	09 56 36.9	+0.3
	4.9nm,0.1s,SNR=45						
EIBI				Sn	Sn	09 57 07.0	-2.8
	21nm,0.2s,SNR=7.9						
EBEN	Beniarda	2.75	330	Pn	Pn	09 56 38.1	+0.8
	0.9nm,0.1s,SNR=9.2						
EBEN				Sn	Sn	09 57 10.8	-0.2
	12nm,0.3s,SNR=7.9						
EBEN	Beniarda	2.75	330	Pn	Pn	09 56 38.1	+0.8
	0.9nm,0.1s,SNR=9.2						
EBEN				Sn	Sn	09 57 10.8	-0.2
	12nm,0.3s,SNR=7.9						
EBER	Berja	3.59	281	Pn	Pn	09 56 48.6	-0.2
	6.5nm,0.2s,SNR=23						
EBER				Sn	Sn	09 57 31.2	-0.4
	11nm,0.3s,SNR=7.9						
EBER	Berja	3.59	281	Pn	Pn	09 56 48.6	-0.2
	6.5nm,0.2s,SNR=23						
EBER				Sn	Sn	09 57 31.2	-0.4
	11nm,0.3s,SNR=7.9						
ETOS	Mallorca	3.59	16	Pn	Pn	09 56 48.7	-0.2
	1.0nm,0.2s,SNR=8.3						
ETOS				Sn	Sn	09 57 27.7	-4.0
	3.6nm,0.3s,SNR=8.1						
ETOS	Mallorca	3.59	16	Pn	Pn	09 56 48.7	-0.2
ETOS				Sn	Sn	09 57 29.4	-2.4
ETOS	Mallorca	3.59	16	Pn	Pn	09 56 48.7	-0.1
	1.0nm,0.2s,SNR=8.3						
ETOS				Sn	Sn	09 57 29.4	-2.3
EHUE	Huescar	3.60	296	Pn	Pn	09 56 50.6	+1.6
	0.7nm,0.2s,SNR=7.9						
EHUE				Sn	Sn	09 57 34.4	+2.3
	1.7nm,0.2s,SNR=7.9						
EHUE	Huescar	3.60	296	Pn	Pn	09 56 50.6	+1.6
	0.7nm,0.2s,SNR=7.9						
EHUE				Sn	Sn	09 57 34.4	+2.4
	1.7nm,0.2s,SNR=7.9						
ECHE	Chera	3.81	330	Pn	Pn	09 56 52.6	+0.8
	0.2nm,0.1s,SNR=7.9						
ECHE				Sn	Sn	09 57 36.3	-0.7
	3.4nm,0.2s,SNR=7.9						
ECHE	Chera	3.81	330	Pn	Pn	09 56 52.6	+0.8
	0.2nm,0.1s,SNR=7.9						
ECHE				Sn	Sn	09 57 36.3	-0.7
	3.4nm,0.2s,SNR=7.9						
EVIA	Vianos	3.94	307	Pn	Pn	09 56 53.5	-0.1
	0.7nm,0.1s,SNR=6.0						
EVIA				Sn	Sn	09 57 40.7	+0.3
	14nm,0.5s,SNR=7.9						
EVIA	Vianos	3.94	307	Pn	Pn	09 56 53.5	-0.1
	0.7nm,0.1s,SNR=6.0						
EVIA				Sn	Sn	09 57 40.7	+0.3
	14nm,0.5s,SNR=7.9						
EQES	Quesada	3.95	293	Pn	Pn	09 56 54.7	+1.0
	2.0nm,0.1s,SNR=4.0						
EQES				Sn	Sn	09 57 40.0	-0.6
	7.8nm,0.2s,SNR=7.9						
EQES	Quesada	3.95	293	Pn	Pn	09 56 54.7	+0.9
	2.0nm,0.1s,SNR=4.0						
EQES				Sn	Sn	09 57 40.0	-0.6
	7.8nm,0.2s,SNR=7.9						
EQUE	Quentar	4.07	284	Pn	Pn	09 56 55.7	+0.3
	2.7nm,0.2s,SNR=10						
EQUE				Sn	Sn	09 57 44.3	+0.7
	9.3nm,0.3s,SNR=7.9						
EQUE	Quentar	4.07	284	Pn	Pn	09 56 55.7	+0.3
	2.7nm,0.2s,SNR=10						
EQUE				Sn	Sn	09 57 44.3	+0.7
	9.3nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	4.33	339	Pn	Pn	09 57 00.1	+1.2
	5.3nm,0.1s,SNR=61						
EMOS				Sn	Sn	09 57 48.8	-1.0
	2.9nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	4.33	339	Pn	Pn	09 57 00.1	+1.2
	5.3nm,0.1s,SNR=61						
EMOS				Sn	Sn	09 57 48.8	-1.0
	2.9nm,0.2s,SNR=7.9						
EBAN	Banos Encina	4.61	295	Pn	Pn	09 57 03.5	+0.6
	0.8nm,0.1s,SNR=7.9						
EBAN	Banos Encina	4.61	295	Pn	Pn	09 57 03.5	+0.7
	0.8nm,0.1s,SNR=7.9						
ERTA	Horta de San J	4.72	349	Pn	Pn	09 57 05.5	+1.2
	1.1nm,0.1s,SNR=7.9						
ERTA				Sn	Sn	09 57 55.8	-3.8
	3.8nm,0.2s,SNR=7.9						
ERTA	Horta de San J	4.72	349	Pn	Pn	09 57 05.5	+1.2
	1.1nm,0.1s,SNR=7.9						
EPOB	Poblet	5.04	356	Pn	Pn	09 57 09.6	+0.9
	3.0nm,0.2s,SNR=12						
EPOB				Sn	Sn	09 58 03.6	-3.8
	2.0nm,0.2s,SNR=7.9						
EPOB	Poblet	5.04	356	Pn	Pn	09 57 09.6	+0.9
EPOB				Sn	Sn	09 58 05.4	-1.9
EPOB	Poblet	5.04	356	Pn	Pn	09 57 09.6	+0.9
	3.0nm,0.2s,SNR=12						
EPOB				Sn	Sn	09 58 05.4	-1.9
EMIJ	Mijas	5.07	275	Pn	Pn	09 57 06.5	-2.7
	0.4nm,0.1s,SNR=7.9						
EMIJ	Mijas	5.07	275	Pn	Pn	09 57 06.4	-2.8

ISCJB ***13*** *09:56:26.0±1.2, 8.°43S±0.°06×119.°5E±0.°1, h187^{km}±13^{km}, mb3.9/8, Error ellipse: s-maj=20.9km s-min=8.5km az=161.9*

NEIC ***13*** *09:56:27.9±0.9, 8.°32S×119.°60E, h185^{km}±9^{km}, mb4.4/1, Error ellipse: s-maj=17.3km s-min=6.8km az=63.0*

IDC ***13*** *09:56:30.3±3.2, 8.°36S×119.°63E, h208^{km}±31^{km}, mb3.6/9, mb1 3.7/10, mb1mx3.6/21, mbtmp3.6/10, Error ellipse: s-maj=45.1km s-min=8.6km az=53.0*

ISC 13 09:56:28.1±1.2**, 8.°31S**±0.°10×**119.°7E**±0.°1**, h187**^{km}±11^{km}**, n20, σ0.^{s}62**/23**, mb3.9**/8**, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	3.27	2	*e*Pn	Pn	09 57 20.3	-0.1
FITZ	Fitzroy Crossi	11.34	150	S	Sn	10 01 04.3	-6.9
	2.7nm,0.3s,baz=166,slow=15,SNR=4.1						
MBWA	Marble Bar	12.78	180	*e*Pn	Pn	09 59 23.3	+0.1
MBWA				*e*Sn	Sn	10 01 36.9	-8.6
KAKA	Kakadu	13.31	110	*e*Pn	Pn	09 59 29.7	-0.3
KAKA				*e*Sn	Sn	10 01 47.8	-10
WRA	Warramunga Arr	18.33	131	P	P	10 00 28.1	-0.3
	1.4nm,0.3s,baz=306,slow=13,SNR=17						
WRA				S	S	10 03 47.6	-0.6
	0.8nm,0.3s,baz=113,slow=10,SNR=5.9						
WRAB	Tennant Creek	18.33	131	*e*P	P	10 00 28.4	0.0
	7.0nm,0.5s						
ASAR	Alice Springs	20.48	140	P	P	10 00 52.0	+0.3
	7.6nm,0.4s,baz=315,slow=8.8,SNR=32						
ASAR				S	S	10 04 30.5	0.0
	0.6nm,0.8s,baz=312,slow=22,SNR=3.1						
ASAR	Alice Springs	20.48	140	P	P	10 00 52.0	+0.3
ASAR				S	S	10 04 30.5	0.0
STKA	Stephens Creek	31.08	142	P	P	10 02 30.2	+1.4
	5.6nm,0.3s,mb4.8,baz=314,slow=9.5,SNR=35						
HYB	Hyderabad	47.99	302	*i* P	P	10 04 53.0	+4.5
SONM	Songino Array	57.11	349	P	P	10 05 56.0	+1.1
	1.4nm,0.6s,mb4.0,baz=166,slow=8.4,SNR=9.5						
MKAR	Makanchi Array	64.14	332	P	P	10 06 42.5	+0.1
	0.8nm,0.5s,mb3.8,baz=149,slow=7.2,SNR=16						
ZALV	Zalesovo Beam	68.63	339	P	P	10 07 10.4	-0.3
	2.3nm,0.3s,mb4.3,baz=141,slow=6.4,SNR=8.9						
KURK	Kurchatov	68.67	333	P	P	10 07 10.9	-0.2
	0.5nm,0.5s,mb3.5,baz=141,slow=5.6,SNR=4.3						
PETK	Petropavlovsk-	69.18	23	P	P	10 07 15.1	+0.9
	4.2nm,1.0s,mb4.1,baz=240,slow=2.9,SNR=4.4						
BVAR	Borovoye Array	74.00	332	P	P	10 07 42.8	-0.1
	0.3nm,0.4s,mb3.4,baz=132,slow=6.0,SNR=3.2						
AKTK	Aktyubinsk	79.03	325	P	P	10 08 10.4	-0.8
AKTO	Aktyubinsk	79.03	325	P	P	10 08 10.4	-0.8
	0.7nm,0.6s,mb3.5,baz=141,slow=6.5,SNR=3.8						
TORD	Torodi Ar. Bea	118.98	280	PKP	PKPdf	10 14 55.2	-0.2
	0.6nm,0.5s,baz=38,slow=2.2,SNR=7.9						
TORD	Torodi Ar. Bea	118.98	280	PKP	PKPdf	10 14 55.2	-0.2

DDA ***13*** *10:03:57.9, 39.°33N×33.°12E, h7^{km}±1^{km}, Md3.0*

ISK ***13*** *10:03:57.7, 39.°43N×33.°11E, h10^{km}, ML2.5*

ISCJB ***13*** *10:03:58.5±0.4, 39.°40N±0.°02×33.°07E±0.°04, h10^{km}, Error ellipse: s-maj=4.3km s-min=3.3km az=30.2*

CSEM ***13*** *10:03:58.1±0.2, 39.°40N×33.°07E, h5^{km}, ML2.5, Error ellipse: s-maj=4.1km s-min=3.5km az=138.0*

ISC 13 10:03:59.0±0.5**, 39.°39N**±0.°04×**33.°09E**±0.°04**, h8**^{km}±6^{km}**, n21, σ0.^{s}92**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALAT	Bala	0.17	9	*i* P	Pg	10 04 03.0	+0.4
BALAT				*i* S	Sg	10 04 06.3	+1.2
LOD	Lodumlu	0.56	334	*e*Pg	Pg	10 04 08.2	-1.7
LOD				*e*Sg	Sg	10 04 16.4	-0.8
LOD				*e*SG	Sg	10 04 16.4	-0.8
LOD	Lodumlu	0.56	334	*e*PG	Pg	10 04 08.2	-1.6
CDAG	Cicekdag	1.02	76	*i* P	Pg	10 04 17.2	-1.5
CDAG				*i* S	Sg	10 04 32.0	0.0
CDAG	Cicekdag	1.02	76	*i* P	Pg	10 04 17.2	-1.5
CDAG				*i* S	Sg	10 04 32.0	0.0
KIZT	Kizilcal	1.06	242	*e*PN	Pg	10 04 19.4	-0.1
KIZT				*e*SN	Sg	10 04 34.8	+1.4
KIZT	Kizilcal	1.06	242	*e*Pn	Pg	10 04 19.4	-0.1
KIZT				*e*Sn	Sg	10 04 34.8	+1.5
ELDT	Eldivan	1.13	13	*i* P	Pg	10 04 20.9	+0.1
ELDT				*i* S	Sg	10 04 37.4	+1.9
ELDT	Eldivan	1.13	13	*i* P	Pg	10 04 20.9	+0.1
ELDT				*i* S	Sg	10 04 37.4	+1.9
KDHN	Kadinhani	1.15	221	*i* P	Pg	10 04 20.6	-0.5
KDHN				*i* S	Sg	10 04 35.4	-0.6
KDHN	Kadinhani	1.15	221	*i* P	Pg	10 04 20.5	-0.6
KDHN				*i* S	Sg	10 04 35.4	-0.6
SVRH	Sivrihisar-ESK	1.21	273	*e*PN	Pn	10 04 21.3	-0.9
SVRH	Sivrihisar-ESK	1.21	273	*e*Pn	Pn	10 04 21.3	-0.9
SULT	Sultanhani-AKS	1.23	164	*e*PN	Pn	10 04 22.1	-0.4
SULT				*e*SN	Sn	10 04 39.7	+0.4
SULT	Sultanhani-AKS	1.23	164	*e*Pn	Pn	10 04 22.1	-0.4
SULT				*e*Sn	Sn	10 04 39.7	+0.4
AVNT	Avonos	1.50	113	*i* P	Pn	10 04 27.0	+0.7
AVNT				*i* S	Sn	10 04 46.1	+0.1
AVNT	Avonos	1.50	113	*i* P	Pn	10 04 27.0	+0.8
AVNT				*i* S	Sn	10 04 46.1	+0.1
KONT	Konya--Tatoy	1.55	202	*e*PN	Pn	10 04 27.0	+0.1
KONT				*e*SN	Sn	10 04 48.1	+1.1
KONT	Konya--Tatoy	1.55	202	*e*Pn	Pn	10 04 27.0	+0.2
KONT				*e*Sn	Sn	10 04 48.1	+1.1
YOZ	Yozgat	1.75	81	*e*PN	Pn	10 04 28.6	-0.9
YOZ	Yozgat	1.75	81	*e*Pn	Pn	10 04 28.6	-1.0

CSEM ***13*** *10:17:06.5±0.3, 38.°67N×39.°61E, h5^{km}, MD3.1, Error ellipse: s-maj=5.3km s-min=4.5km az=52.0*

ISK ***13*** *10:17:06.6, 38.°64N×39.°58E, h7^{km}, MD2.7*

ISCJB ***13*** *10:17:07.5±0.5, 38.°65N±0.°03×39.°57E±0.°03, h10^{km}, Error ellipse: s-maj=4.5km s-min=3.6km az=33.0*

DDA ***13*** *10:17:07.9, 38.°53N×39.°54E, h7^{km}±3^{km}, Md3.1*

ISC 13 10:17:07.9±0.7**, 38.°63N**±0.°03×**39.°59E**±0.°04**, h2**^{km}±7^{km}**, n19, σ1.^{s}08**/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.49	255	*i* P	Pg	10 17 16.7	-0.6
ELZG				*i* S	Sg	10 17 24.4	+0.7
ELZG	Elazig	0.49	255	*i* P	Pg	10 17 16.7	-0.6
ELZG				*i* S	Sg	10 17 24.4	+0.8
DIYA	Diyarbakir	0.82	149	*i* P	Pg	10 17 23.0	-0.5
DIYA				*i* S	Sg	10 17 35.3	+1.2
DIYA	Diyarbakir	0.82	149	*i* P	Pg	10 17 23.0	-0.5
DIYA				*i* S	Sg	10 17 35.3	+1.2
MYA	Malataya	0.96	252	*e*PG	Pg	10 17 25.2	-1.1
MYA	Malataya	0.96	252	*e*Pg	Pg	10 17 25.2	-1.1
MALT	Malatya	0.96	251	*e*PG	Pg	10 17 25.0	-1.3
MALT				*e*SG	Sg	10 17 39.5	+0.7
MALT	Malatya	0.96	251	*e*Pg	Pg	10 17 25.0	-1.3
MALT				*e*Sg	Sg	10 17 39.5	+0.7
KEMA	Kemaliye	1.07	307	*i* P	Pg	10 17 27.5	-0.8
KEMA				*i* S	Sg	10 17 44.4	+2.1
KEMA	Kemaliye	1.07	307	*i* P	Pg	10 17 27.5	-0.9
EZC	Erzincan	1.13	9	*e*PN	Pg	10 17 28.7	-0.9
EZC				*e*SN	Sg	10 17 44.4	0.0
URFA	Urfa	1.33	207	*e*PN	Pn	10 17 32.3	-1.0
URFA				*e*SN	Sn	10 17 51.0	-0.6
URFA	Urfa	1.33	207	*e*Pn	Pn	10 17 32.3	-1.1
URFA				*e*Sn	Sn	10 17 51.0	-0.6
AKCD	Akcadag	1.35	256	*i* P	Pn	10 17 31.7	-1.9
AKCD				*i* S	Sg	10 17 52.3	+1.1
AKCD	Akcadag	1.35	256	*i* P	Pn	10 17 31.7	-1.9
AKCD				*i* S	Sg	10 17 52.3	+1.1
DARE	Darende-Malaty	1.43	284	*e*PN	Pn	10 17 37.0	+2.2
DARE	Darende-Malaty	1.43	284	*e*Pn	Pn	10 17 37.0	+2.2
BEST	Besiri	1.51	118	*i* P	Pn	10 17 36.4	+0.5
BEST				*i* S	Sn	10 17 57.1	+1.0
MARD	Mardin	1.61	144	*i* P	Pn	10 17 36.7	-0.6
MARD				*i* S	Sn	10 17 59.0	+0.4

ISK ***13*** *10:27:09.7, 37.°55N×28.°07E, h13^{km}, MD2.6*

ISCJB ***13*** *10:27:12.9±1.2, 37.°38N±0.°05×28.°05E±0.°06, h23^{km}±13^{km}, Error ellipse: s-maj=9.1km s-min=6.9km az=138.9*

CSEM ***13*** *10:27:12.5±0.3, 37.°36N×28.°05E, h20^{km}, MD2.6, Error ellipse: s-maj=8.0km s-min=5.7km az=37.0*

DDA ***13*** *10:27:12.7, 37.°34N×28.°07E, h7^{km}±2^{km}, Md3.1*

ISC 13 10:27:12.9±1.1**, 37.°38N**±0.°05×**28.°05E**±0.°06**, h22**^{km}±13^{km}**, n16, σ0.^{s}93**/25**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLSB	Milas	0.23	248	*e*PG	Pb	10 27 17.1	-1.6
MLSB				*e*SG	Sb	10 27 22.5	-0.2
MLSB	Milas	0.23	248	*e*Pg	Pb	10 27 17.1	-1.6
MLSB				*e*Sg	Sb	10 27 22.5	-0.1
AYDN	Tasoluk	0.31	334	*i* P	Pb	10 27 19.9	0.0
AYDN				*i* S	Sb	10 27 25.2	+0.6
AYDN	Tasoluk	0.31	334	*i* P	Pb	10 27 19.9	+0.1
AYDN				*i* S	Sb	10 27 25.2	+0.7
YER	Yerkesik	0.31	143	*e*PG	Pb	10 27 18.7	-1.1
YER				*e*SG	Sb	10 27 25.8	+1.3
YER	Yerkesik	0.31	143	*e*Pg	Pb	10 27 18.7	-1.1
YER				*e*Sg	Sb	10 27 25.8	+1.3
BDRM	Kayabasi	0.58	237	*i* P	Pb	10 27 23.5	-0.8
BDRM				*i* S	Sb	10 27 32.9	+0.8
BDRM	Kayabasi	0.58	237	*i* P	Pb	10 27 23.5	-0.8
BDRM				*i* S	Sb	10 27 32.9	+0.8
BODT	Bodrum	0.67	242	*e*PG	Pb	10 27 25.2	-0.7
BODT	Bodrum	0.67	242	*e*Pg	Pb	10 27 25.2	-0.7
GCAM	G?zelcaml?	0.72	296	*i* P	Sb	10 27 27.4	-8.8
GCAM	G?zelcaml?	0.72	296	*i* P	Pb	10 27 27.5	+0.7
DAT	Datca	0.75	210	*e*PG	Pb	10 27 27.6	+0.2
DAT				*e*SG	Sb	10 27 40.5	+3.4
DAT	Datca	0.75	210	*e*Pg	Pb	10 27 27.6	+0.3
DALT	Dalyan (Mudla)	0.77	142	*e*PG	Pb	10 27 27.4	-0.2
DALT	Dalyan (Mudla)	0.77	142	*e*Pg	Pb	10 27 27.4	-0.2

BJI ***13*** *10:32:13.3, 23.°70S×179.°90W, h462^{km}, mB5.0/19, mb4.6/27*

ISCJB ***13*** *10:32:14.8±0.8, 23.°70S±0.°06×179.°92W±0.°04, h471^{km}±9^{km}, mb4.7/40, Error ellipse: s-maj=10.3km s-min=5.5km az=159.7*

NEIC ***13*** *10:32:17.4±0.6, 23.°74S×179.°89W, h502^{km}±8^{km}, mb5.2/18, Error ellipse: s-maj=9.9km s-min=5.6km az=165.0*

IDC ***13*** *10:32:18.9±1.1, 23.°93S×179.°93W, h521^{km}±12^{km}, mb3.9/15, mb1 4.0/17, mb1mx4.0/20, mbtmp3.8/17, Error ellipse: s-maj=14.2km s-min=10.4km az=165.0*

DJA ***13*** *10:32:33, 24.°59S×179.°05E, h645^{km}, mb4.9/9*

ISC 13 10:32:16.3±0.7**, 23.°73S**±0.°07×**179.°90W**±0.°04**, h478**^{km}±9^{km}**, h477**^{km}±1.7^{km}**:pP-P, n277, σ0.^{s}48**/270**, mb4.7**/40**, 108C-88D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.78	163	P	P	10 33 51.9	+2.5
	269nm,0.3s,baz=48,slow=13,SNR=16						
RAO				S	S	10 35 06.7	+1.1
	223nm,0.3s,baz=244,slow=20,SNR=4.7						
RAO	Raoul Island	5.78	163	*e*Pn	P	10 33 52.3	+2.9
	726nm,0.3s						
RAO				*e*Sn	S	10 35 03.5	-2.0
AFI	Afiamalu	12.42	40	P	P	10 34 59.4	-0.2
	8.8nm,0.3s,baz=51,slow=6.6,SNR=22						
AFI				S	S	10 37 09.9	-4.3
	4.6nm,0.3s,baz=56,slow=19,SNR=7.2						
AFI	Afiamalu	12.42	40	*e*Pn	P	10 34 59.7	+0.2
	58nm,0.6s						
DZM	Mont Dzumac	12.70	275	*e*Pn	P	10 35 06.6	+4.2
	8.8nm,0.6s						
URZ	Urewera	14.71	189	P	P	10 35 24.7	+1.1
	1.5nm,0.3s,baz=31,slow=5.7,SNR=11						
URZ				S	S	10 37 51.5	-6.8
	0.8nm,0.3s,baz=56,slow=23,SNR=7.0						
FUNA	Funafuti	15.14	357	*e*P	P	10 35 27.9	-0.6
	147nm,0.9s						
RAR	Rarotonga	18.77	86	P	P	10 36 04.1	-0.7
	1.0nm,0.3s,baz=244,slow=9.2,SNR=3.7						
RPZ	Rata Peaks	21.29	198	P	P	10 36 26.9	-0.6
	4.1nm,0.4s,mb4.3,baz=17,slow=7.1,SNR=5.2						
HNR	Honiara	23.93	303	*e*P	P	10 36 52.5	+0.8
	110nm,0.9s,mb5.3						
ARMA	Armidale	26.17	249	*e*P	P	10 37 12.9	+1.5
ARMA				*e*pP		10 38 40.3	
EIDS	Eidsvold	26.43	260	*e*P	P	10 37 14.3	+0.6
	14nm,0.6s,mb4.5						
PAE	Paea	28.96	84	*e*P	P	10 37 35.7	-0.3
	271nm,1.1s,mb5.6						
PPT	Papeete	28.99	84	*e*P	P	10 37 35.9	-0.4
	54nm,1.3s,mb4.8						
PPT	Papeete	28.99	84	P	P	10 37 34.4	-1.9
	22nm,0.8s,mb4.7,baz=239,slow=12,SNR=3.3						
CNB	Canberra Magne	29.02	240	*e*P	P	10 37 37.7	+1.3
TIAR	Tiarei	29.20	84	*e*P	P	10 37 37.9	-0.3
	454nm,1.0s,mb5.9						
TVO	Taravao	29.22	84	*e*P	P	10 37 38.2	-0.1
	368nm,1.0s,mb5.8						
MEH	Mehetia	30.28	85	*e*P	P	10 37 47.2	-0.3
	326nm,0.9s,mb5.7						
PMOR	Pomariorio Ree	31.36	80	*e*P	P	10 37 56.3	-0.5
	95nm,1.1s,mb5.1						
VAH	Vaihoa	31.51	80	*e*P	P	10 37 57.6	-0.6
	35nm,1.0s,mb4.8						
CTA	Charters Tower	31.57	270	⇓*i*P	P	10 37 59.6	+1.0
	30nm,0.4s,mb5.1						
CTA	Charters Tower	31.57	270	P	P	10 37 59.4	+0.8
	36nm,0.3s,mb5.2,baz=97,slow=11,SNR=82						
CTAO	Charters Tower	31.57	270	*e*P	P	10 37 59.6	+1.0
	22nm,0.5s,mb4.8						
TOO	Toolangi	32.62	237	*e*P	P	10 38 07.1	-0.3
STKA	Stephens Creek	34.88	248	⇓*i*P	P	10 38 26.3	-0.2
	3.8nm,0.6s,mb4.0						
STKA	Stephens Creek	34.88	248	P	P	10 38 26.3	-0.2
	4.6nm,0.6s,mb4.1,baz=114,slow=6.3,SNR=11						
STKA	Stephens Creek	34.88	248	*e*P	P	10 38 25.9	-0.6
	0.8nm,0.6s,mb3.3						
ASAR	Alice Springs	42.16	260	P	P	10 39 25.2	-0.8
	13nm,0.7s,mb4.5,baz=96,slow=7.0,SNR=161						
ASAR				ScP	ScP	10 44 09.9	-4.4
	3.4nm,0.9s,baz=118,slow=4.4,SNR=9.6						
ASAR				S	S	10 45 04.7	-6.0
	1.4nm,0.9s,baz=98,slow=17,SNR=4.1						
WRAB	Tennant Creek	42.51	266	P	P	10 39 27.0	-1.8
	352nm,0.5s,mb6.0,SNR=61						
WRAB	Tennant Creek	42.51	266	*e*P	P	10 39 27.9	-0.9
	50nm,1.1s,mb4.9						
WRA	Warramunga Arr	42.51	266	P	P	10 39 27.9	-1.0
	23nm,0.3s,mb5.1,baz=96,slow=8.3,SNR=629						
WRA				ScP	ScP	10 44 12.0	-3.9
	2.8nm,0.9s,baz=94,slow=4.1,SNR=6.7						
WRA				S	S	10 45 09.7	-6.2
	1.1nm,0.9s,baz=104,slow=14,SNR=4.2						
KAKA	Kakadu	46.39	275	*e*P	P	10 39 58.1	-0.9
	24nm,0.4s,mb5.0						
KAKA	Kakadu	46.39	275	*e*P	P	10 39 57.8	-1.1
	36nm,0.4s,mb5.2						
FORT	Forrest	46.46	249	⇑*i*P	P	10 39 57.8	-1.5
	60nm,0.6s,mb5.2						
FORT	Forrest	46.46	249	*e*P	P	10 39 58.0	-1.3
	51nm,0.6s,mb5.1						
FITZ	Fitzroy Crossi	50.94	265	*e*P	P	10 40 33.0	+0.1
	27nm,0.8s,mb4.6						
FITZ	Fitzroy Crossi	50.94	265	P	P	10 40 32.5	-0.3
	16nm,0.7s,mb4.5,baz=134,slow=5.6,SNR=71						
KLBR	Kellerberrin	55.14	247	*e*P	P	10 41 01.0	-1.8
	10nm,0.6s,mb4.3						
KAPI	Kappang	60.90	278	*e*P	P	10 41 40.8	-1.4
	109nm,1.6s,mb5.0						
QSPA	South Pole Qui	66.36	180	P	P	10 42 14.4	-1.7
	7.4nm,1.0s,mb4.3,baz=1.2,slow=1.0,SNR=12						
MJAR	Matsushiro Arr	71.81	326	P	P	10 42 48.8	-0.9
	7.3nm,0.9s,mb4.2,baz=166,slow=5.7,SNR=11						
KSRS	Korea Array	78.17	320	P	P	10 43 25.6	+0.2
	4.0nm,0.7s,mb4.0,baz=147,slow=5.8,SNR=16						
PETK	Petropavlovsk-	78.95	346	P	P	10 43 28.8	-0.4
	8.6nm,0.9s,mb4.3,baz=104,slow=8.6,SNR=6.6						
PETK	Petropavlovsk-	78.95	346	P	P	10 43 28.8	-0.4
MDJ	Mudanjiang	82.17	326	P	P	10 43 46.8	+0.6
MDJ				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,280nm,5.4s						
ARVC	Arvin	82.28	46	⇓P	P	10 43 47.1	+0.1
	baz=82						
VES	Vestal, Richgr	82.53	46	⇓P	P	10 43 47.9	-0.3
	baz=83						
BFSC	Mount Baldy St	82.55	48	⇓P	P	10 43 48.3	-0.1
	baz=83						
MONP	Monument Peak	82.64	49	⇑P	P	10 43 49.2	+0.4
	baz=83						
EDW2	Edwards Air Fo	82.70	47	⇑P	P	10 43 49.2	+0.1
	baz=83						
DVTC	Desert V Tower	82.73	50	⇓P	P	10 43 49.8	+0.5
	baz=83						
ISA	Isabella	82.83	46	⇑P	P	10 43 49.9	+0.1
	baz=83						
ISA	Isabella	82.83	46	*e*P	P	10 43 49.8	0.0
	comp=Z,7.9nm,0.8s,mb4.3						
PFO	Pinyon Flat Ob	83.02	49	⇑P	P	10 43 50.6	-0.2
	baz=83						
SWSC	Sam W. Stewart	83.10	50	⇓P	P	10 43 51.2	0.0
	baz=83						
BELC	Belle Mtn.	83.55	49	⇑P	P	10 43 53.7	+0.2
	baz=84						
MPMC	Manual Prospec	83.71	46	⇑P	P	10 43 54.3	+0.1
	baz=84						
112A	Yuma	83.73	51	⇓P	P	10 43 54.6	+0.2
	baz=84						
BC3	Big Chuckw Mtn	83.74	49	⇓P	P	10 43 54.6	+0.3
	baz=84						
HEC	Hector,Ludlow	83.79	48	⇑P	P	10 43 54.6	0.0
	baz=84						
CN2	Changchun	83.80	324	*e*P	P	10 43 54.4	0.0
CN2				*e*pP	pP	10 45 41.1	+1.0
CN2				*e*S	S	10 53 38.5	+1.3
CN2				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.5						
GLA	Glamis	83.84	50	⇓P	P	10 43 55.1	+0.3
	baz=84						
R06C	Coleville	83.89	43	⇑P	P	10 43 55.4	+0.4
	baz=84						
WCN	Washoe City	84.17	43	⇓P	P	10 43 56.6	+0.2
	baz=84						
GMRC	Granite Mounta	84.22	48	⇓P	P	10 43 56.7	0.0
	baz=84						
IRM	Iron Mountain	84.23	49	⇑P	P	10 43 56.8	+0.1
	baz=84						
FURC	Furnace Creek,	84.36	46	⇓P	P	10 43 57.1	-0.2
	baz=85						
TUQ	Turquoise Moun	84.41	48	⇑P	P	10 43 57.6	-0.1
	baz=85						
SHOC	Shoshone	84.43	47	⇑P	P	10 43 57.4	-0.3
	baz=85						
NVAR	Mina Array Bea	84.56	44	P	P	10 43 57.7	-0.6
	comp=Z,1.7nm,0.7s,mb3.8,baz=228,slow=8.7,SNR=5.6						
O06A	Flanigan	84.64	42	⇑P	P	10 43 58.6	-0.1
	baz=85						
214A	Organ Pipe Nat	84.69	52	⇑P	P	10 43 59.1	0.0
	baz=85						
LDFC	Landfair	84.76	48	*e*P	P	10 43 59.8	+0.4
Y13A	Salome	84.96	50	⇓P	P	10 44 00.5	+0.2
	baz=85						
N06A	Buffalo Meadow	84.99	41	⇑P	P	10 44 00.3	0.0
	baz=85						
PDMCI	Parker Dam,Lak	85.00	49	⇓P	P	10 44 00.6	+0.1
	baz=85						
VNA3	Neumayer Olymp	85.04	177	*e*P	P	10 44 00.8	+0.6
Q08A	Gabbs	85.05	44	⇓P	P	10 44 00.4	-0.3
	baz=85						
O07A	Toulon	85.22	42	⇑P	P	10 44 01.3	-0.2
	baz=85						
R09A	Tonopah	85.24	45	⇑P	P	10 44 01.3	-0.3
	baz=86						
V12A	Nelson	85.30	48	⇑P	P	10 44 01.6	-0.3
	baz=86						
U11A	Corn Creek	85.32	47	⇓P	P	10 44 01.9	-0.2
	baz=86						
Z14A	Wintersburg	85.34	51	⇓P	P	10 44 01.6	-0.6
	baz=86						
S10A	Tonopah Range,	85.37	45	⇑P	P	10 44 02.1	-0.1
	baz=86						
X13A	Yucca	85.38	49	⇓P	P	10 44 02.1	-0.3
	baz=86						
MOD	Modoc	85.41	40	*e*P	P	10 44 02.5	+0.1
	comp=Z,13nm,1.4s,mb4.4						
VNA2	Neumayer--Watz	85.46	178	*e*P	P	10 44 03.4	+1.2
115A	Sonoran Desert	85.50	51	⇑P	P	10 44 02.8	-0.2
	baz=86						
K05A	Summer Lake	85.56	39	⇓P	P	10 44 03.6	+0.5
	baz=86						
Y14A	Wickenburg	85.60	50	⇓P	P	10 44 03.3	-0.2
	baz=86						
W13A	Hualapai Mount	85.61	49	⇑P	P	10 44 03.6	+0.1
	baz=86						
O08A	Rochester Mine	85.75	43	⇓P	P	10 44 04.2	+0.1
	baz=86						
R10A	Warm Springs	85.76	45	⇓P	P	10 44 04.3	+0.1
	baz=86						
116A	Eloy	85.80	52	⇑P	P	10 44 04.5	0.0
	baz=86						
T11A	Corn Creek, Al	85.89	46	⇓P	P	10 44 05.0	+0.2
	baz=86						
U12A	Valley of Fire	85.89	47	⇓P	P	10 44 05.0	+0.1
	baz=86						
V13A	Grand Canyon W	85.95	48	⇑P	P	10 44 04.8	-0.3
	baz=86						
X14A	Yava	85.96	50	⇑P	P	10 44 05.3	0.0
	baz=86						
Q10A	Clear Creek Ra	86.01	44	⇓P	P	10 44 04.9	-0.5
	baz=86						
217A	Green Valley	86.04	53	⇑P	P	10 44 05.9	+0.2
	baz=86,SNR=11						
N08A	GE Springer Mi	86.05	42	⇑P	P	10 44 05.4	-0.1
	baz=86						
L07A	Adell	86.05	41	⇑P	P	10 44 06.0	+0.6
	baz=86						
Y15A	Casa Rosa Ranc	86.08	50	⇓P	P	10 44 05.7	-0.1
	baz=86						
W14A	Seligman	86.23	49	⇑P	P	10 44 06.4	0.0
	baz=86						
U13A	Pakoon Wash	86.27	48	⇓P	P	10 44 06.7	+0.1
	baz=86						
O09A	Fish Creek Ran	86.28	43	⇑P	P	10 44 06.7	+0.1
	baz=86						
M08A	Happy Creek Ra	86.29	41	⇓P	P	10 44 07.0	+0.4
	baz=86						
J06A	Christmas Vall	86.32	39	⇓P	P	10 44 06.9	+0.2
	baz=86						
S12A	Delamar Landin	86.33	46	⇑P	P	10 44 07.2	+0.3
	baz=86						
TUC	Tucson	86.34	52	*e*P	P	10 44 07.3	+0.3
X15A	Humboldt	86.43	50	⇓P	P	10 44 07.5	0.0
	baz=87						
V14A	Boquillas Ranc	86.44	49	⇓P	P	10 44 07.5	0.0
	baz=87						
318A	Bisbee	86.48	54	⇓P	P	10 44 08.2	+0.5
	baz=87,SNR=11						
Q11A	Duckwater	86.50	45	⇑P	P	10 44 07.2	-0.4
	baz=87						
117A	Oracle	86.50	52	⇓P	P	10 44 08.3	+0.4
	baz=87,SNR=6.8						
K07A	Rock Creek Ran	86.51	40	⇑P	P	10 44 07.6	+0.1
	baz=87						
T13A	Saint George	86.64	47	⇑P	P	10 44 08.3	-0.1
	baz=87						
Y16A	Circle Bar Ran	86.65	51	⇓P	P	10 44 08.5	0.0
	baz=87						
I06A	Prineville	86.70	39	⇓P	P	10 44 09.0	+0.5
	baz=87,SNR=5.5						
GYA	Guiyang	86.74	301	⇑*i*P	P	10 44 08.9	-0.2
GYA				pP	pP	10 45 56.8	+1.1
GYA				sP	sP	10 46 44.0	-0.6
GYA				PP	PP	10 47 42.1	+1.8
GYA				SKS		10 53 49.6	
GYA				S	S	10 54 05.9	-0.4
GYA				sS	sS	10 57 14.3	-1.8
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,130nm,5.2s						
HOOD	Mount Hood Mea	86.75	37	*e*P	P	10 44 08.7	0.0
L08A	Fields	86.75	41	⇑P	P	10 44 08.4	-0.3
	baz=87						
U14A	Mt Trumbull	86.81	48	⇑P	P	10 44 09.4	+0.2
	baz=87						
M09A	Marrel Ranch,	86.84	42	⇓P	P	10 44 09.6	+0.4
	baz=87						
J07A	Hines	86.88	40	⇑P	P	10 44 09.8	+0.4
	baz=87						
R12A	Pony Springs,	86.89	46	⇑P	P	10 44 09.4	-0.1
	baz=87						
X16A	Lo Mia Camp, P	86.95	50	⇓P	P	10 44 10.1	+0.2
	baz=87						
319A	Douglas	86.97	54	⇑P	P	10 44 10.7	+0.7
	baz=87,SNR=9.3						
BJI	Beijing	86.97	316	P	P	10 44 10.3	+0.5
BJI				pP	pP	10 45 55.5	-1.0
BJI				sP	sP	10 46 44.3	-1.1
BJI				S	S	10 54 10.8	+3.0

BJI				pmax	pmax		
	comp=Z,12nm,0.4s,mb5.0						
BJI				pmax	pmax		
	comp=Z,240nm,6.1s						
S13A	Holt Ranch, En	86.98	47	⇓P	P	10 44 10.0	+0.1
	baz=87						
K08A	Mann Creek Ran	86.98	40	⇓P	P	10 44 10.0	+0.2
	baz=87,SNR=7.7						
Y17A	Roosevelt	87.00	51	⇑P	P	10 44 10.3	+0.1
	baz=87						
L09A	Wilkinson Ranc	87.06	41	⇑P	P	10 44 10.3	+0.1
	baz=87						
118A	Homack Ranch,	87.10	53	⇓P	P	10 44 11.0	+0.4
	baz=87,SNR=5.8						
H06A	Lindquist Farm	87.12	38	⇓P	P	10 44 10.4	0.0
	baz=87,SNR=5.4						
Q12A	Willow Creek R	87.14	45	⇑P	P	10 44 10.7	0.0
	baz=87						
V15A	Kaibab Nationa	87.18	49	⇑P	P	10 44 10.9	0.0
	baz=87						
I07A	Izee	87.19	39	⇑P	P	10 44 10.8	0.0
	baz=87,SNR=5.3						
O11A	Cowboy Ranch,	87.22	44	⇓P	P	10 44 11.0	0.0
	baz=87						
R13A	O'Grain Ranch,	87.23	46	⇑P	P	10 44 11.2	+0.1
	baz=87						
W16A	Flagstaff	87.24	50	⇑P	P	10 44 11.5	+0.2
	baz=87						
G06A	Carlson Farm,	87.26	37	⇓P	P	10 44 11.4	+0.3
	baz=88						
P12A	McGill	87.33	45	⇑P	P	10 44 11.9	+0.4
	baz=88						
J08A	Circle Bar Ran	87.36	40	⇑P	P	10 44 11.8	+0.2
	baz=88						
X17A	Forest Lakes	87.36	51	⇑P	P	10 44 12.2	+0.3
	baz=88						
K09A	Rome	87.42	41	⇓P	P	10 44 11.8	0.0
	baz=88,SNR=6.3						
M10A	I.L. Ranch, Tu	87.46	42	⇑P	P	10 44 12.4	+0.3
	baz=88						
H07A	Lands Inn, Kim	87.47	38	⇓P	P	10 44 12.1	+0.1
	baz=88,SNR=7.9						
F06A	Goldendale	87.50	37	⇑P	P	10 44 12.7	+0.5
	baz=88						
S14A	Cedar City	87.53	47	⇑P	P	10 44 12.6	0.0
	baz=88						
WUAZ	Wupatki	87.57	49	⇓P	P	10 44 12.9	+0.1
	baz=88						
I08A	Drewsey	87.63	39	⇑P	P	10 44 13.0	+0.1
	baz=88,SNR=6.6						
119A	Ashpeak Ranch,	87.65	53	⇑P	P	10 44 13.8	+0.5
	baz=88						
T15A	Red Dirt Ranch	87.67	48	⇓P	P	10 44 13.1	-0.1
	baz=88						
D05A	Enumclaw	87.73	35	⇓P	P	10 44 13.8	+0.5
	baz=88						
J09A	Fry Pan Ranch,	87.78	40	⇑P	P	10 44 13.6	+0.1
	baz=88						
L10A	Juniper Basin	87.81	42	⇑P	P	10 44 13.8	0.0
	baz=88,SNR=7.9						
G07A	Ruggs Ranch, H	87.82	38	⇑P	P	10 44 13.6	0.0
	baz=88						
M11A	Holland Ranch,	87.87	43	⇑P	P	10 44 14.4	+0.4
	baz=88						
O12A	Currie	87.87	44	⇑P	P	10 44 13.3	-0.7
	baz=88						
P13A	Bates Ranch, G	87.89	45	⇓P	P	10 44 14.5	+0.3
	baz=88						
H08A	Prairie City	87.94	39	⇓P	P	10 44 14.2	-0.1
	baz=88						
K10A	MacKenzie Ranc	87.97	41	⇑P	P	10 44 14.4	-0.1
	baz=88,SNR=5.3						
N12A	Clover Valley,	88.01	43	⇓P	P	10 44 14.2	-0.5
	baz=88						
120A	U Bar Ranch, L	88.03	53	⇑P	P	10 44 15.3	+0.3
	baz=88						
S15A	Panguitch	88.03	47	⇑P	P	10 44 15.5	+0.6
	baz=88						
U16A	Tuba City	88.07	49	⇑P	P	10 44 15.8	+0.7
	baz=88						
X18A	Snowflake	88.07	51	⇑P	P	10 44 15.3	+0.2
	baz=88						
Q14A	Sevier Lake (B	88.12	46	⇑P	P	10 44 15.3	0.0
	baz=88						
I09A	Lost Marbles R	88.15	40	⇓P	P	10 44 15.1	-0.2
	baz=88						
G08A	Pilot Rock	88.23	38	⇑P	P	10 44 15.8	+0.2
	baz=88,SNR=8.7						
T16A	Glen Canyon Da	88.25	48	⇑P	P	10 44 15.8	-0.1
	baz=88						
Y19A	Nutrioso	88.28	52	⇑P	P	10 44 16.3	+0.2
	baz=88						
L11A	Cat Creek Ranc	88.31	42	⇑P	P	10 44 16.0	-0.1
	baz=88,SNR=5.7						
D06A	Cle Elum	88.35	36	⇑P	P	10 44 16.4	+0.3
	baz=89						
K11A	Parker Ranch,	88.48	41	⇓P	P	10 44 16.9	0.0
	baz=89,SNR=7.0						
E07A	Sunnyside	88.50	37	⇓P	P	10 44 16.8	0.0
	baz=89						
W18A	Petrified Fore	88.52	50	⇑P	P	10 44 16.4	-0.8
	baz=89						
N13A	Wendover, West	88.54	44	⇓P	P	10 44 17.5	+0.3
	baz=89						
S16A	Weppner Ranch,	88.57	47	⇓P	P	10 44 17.1	-0.3
	baz=89						
P14A	Drum Mountains	88.58	45	⇑P	P	10 44 17.3	-0.2
	baz=89						
V18A	Ganado	88.68	50	⇓P	P	10 44 18.0	0.0
	baz=89						
XAN	Xi'an	88.71	308	P	P	10 44 18.1	0.0
XAN				pP	pP	10 46 05.8	+0.5
XAN				sP	sP	10 46 53.4	-0.6
XAN				PP	PP	10 47 58.3	+2.6
XAN				SKS		10 54 03.8	
XAN				S	S	10 54 23.3	-1.0
XAN				sS	sS	10 57 32.8	-2.4
XAN				SS	SS	11 00 32.3	+2.0
XAN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
XAN				pmax	pmax		
	comp=Z,160nm,6.1s						
T17A	Navajo Res., N	88.73	48	⇓P	P	10 44 18.3	+0.1
	baz=89						
L12A	House Creek Ra	88.75	42	⇑P	P	10 44 18.2	+0.1
	baz=89,SNR=5.7						
I10A	Payette	88.77	40	⇑P	P	10 44 18.4	+0.3
	baz=89						
M13A	Montello	88.84	43	⇑P	P	10 44 18.6	0.0
	baz=89,SNR=6.9						
G09A	Cove	88.89	39	⇓P	P	10 44 18.8	+0.1
	baz=89						
R16A	Teasdale	88.94	47	⇑P	P	10 44 19.5	+0.4
	baz=89						
MFID	Camas Ranch	88.97	41	⇑P	P	10 44 18.9	-0.1
	baz=89,SNR=5.1						
S17A	Black Ridge (B	89.06	48	⇓P	P	10 44 19.0	-0.7
	baz=89						
U18A	Rough Rock, Ch	89.08	49	⇓P	P	10 44 19.0	-0.8
	baz=89						
P15A	Leamington	89.09	46	⇓P	P	10 44 19.8	0.0
	baz=89						
K12A	Draper Farm, C	89.09	42	⇑P	P	10 44 19.5	-0.2
	baz=89						
H10A	Noah's Angus R	89.09	40	⇓P	P	10 44 19.1	-0.5
	baz=89						
I11A	Placerville	89.17	40	⇓P	P	10 44 19.8	-0.2
	baz=89,SNR=7.9						
KMI	Kunming	89.27	298	P	P	10 44 21.8	+0.9
KMI				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.5						
G10A	Bishop Farm, J	89.28	39	⇑P	P	10 44 20.2	-0.3
	baz=90						
D08A	Wollman Farm,	89.31	37	⇓P	P	10 44 21.4	+0.9
	baz=90						
J12A	Stokes Ranch,	89.31	41	⇑P	P	10 44 20.8	+0.1
	baz=90,SNR=8.0						
O15A	The Old Anders	89.34	45	⇑P	P	10 44 21.4	+0.5
	baz=90						
L13A	Double Diamond	89.38	43	⇓P	P	10 44 21.2	+0.2
	baz=90						
W20A	Ramah	89.40	51	⇑P	P	10 44 21.5	+0.2
	baz=90,SNR=7.1						
M14A	Sheep Mountain	89.44	44	⇑P	P	10 44 21.1	-0.2
	baz=90,SNR=8.1						
T18A	Mexican Hat	89.44	49	⇓P	P	10 44 21.2	-0.3
	baz=90,SNR=5.0						
Q16A	Castle Valley	89.48	47	⇑P	P	10 44 22.2	+0.6
	baz=90						
B07A	Winthrop	89.51	35	⇑P	P	10 44 21.1	-0.4
	baz=90						
R17A	Hanksville Air	89.53	47	⇓P	P	10 44 21.4	-0.5
	baz=90						
CMAR	Chiang Mai Arr	89.55	290	P	P	10 44 22.8	+0.4
	comp=Z,5.5nm,0.9s,mb4.4,baz=134,slow=3.1,SNR=24						
CMAR				PP	PP	10 48 04.4	+1.8
	comp=Z,0.5nm,0.3s,baz=120,slow=5.3,SNR=4.8						
H11A	Donnelly	89.59	40	⇓P	P	10 44 21.7	-0.2
	baz=90,SNR=7.4						
I12A	Atlanta	89.60	41	⇓P	P	10 44 22.3	+0.2
	baz=90						
K13A	Stover Farm, H	89.60	42	⇑P	P	10 44 22.1	0.0
	baz=90,SNR=7.4						
TMUT	Trail Mountain	89.65	46	*e*P	P	10 44 22.9	+0.5
CHTO	Chiang Mai	89.70	291	*e*P	P	10 44 23.2	+0.1
L14A	Malta	89.79	43	⇓P	P	10 44 22.9	-0.1
	baz=90						
B08A	Colville Reser	89.87	36	⇑P	P	10 44 23.2	0.0
	baz=90						
HLID	Hailey	89.90	41	⇓P	P	10 44 23.4	0.0
	baz=90,SNR=5.4						
HLID	Hailey	89.90	41	*e*P	P	10 44 23.4	-0.1
HVU	Hansel Valley	89.95	44	*e*P	P	10 44 23.6	-0.1
J13A	Cove Ranch, Pi	89.96	42	⇑P	P	10 44 23.8	+0.1
	baz=90,SNR=6.9						
M15A	Larsen Ranch,	89.98	44	⇑P	P	10 44 23.5	-0.4
	baz=90,SNR=6.0						
SRU	San Rafael	90.01	47	⇑P	P	10 44 23.9	-0.1
	baz=90,SNR=9.2						
SRU	San Rafael	90.01	47	*e*P	P	10 44 23.9	-0.2
R18A	Canyonlands Na	90.06	48	⇓P	P	10 44 24.2	-0.2
	baz=90,SNR=5.5						
K14A	Jones Ranch, D	90.11	43	⇓P	P	10 44 24.6	+0.1
	baz=90						
H12A	Diamond D Ranc	90.18	40	⇓P	P	10 44 24.8	0.0
	baz=90						
S19A	Harvey Farm, M	90.26	48	⇓P	P	10 44 25.1	-0.1
	baz=90						
TXAR	Lajitas Array	90.26	58	P	P	10 44 25.2	-0.2
	comp=Z,3.6nm,0.7s,mb4.3,baz=215,slow=6.4,SNR=45						
TXAR				PP	PP	10 48 12.8	+4.7
	comp=Z,0.4nm,0.9s,baz=248,slow=6.6,SNR=4.1						
Q18A	Rafter H Ranch	90.27	47	⇑P	P	10 44 25.0	-0.3
	baz=90						
I13A	Wildhorse Cree	90.28	41	⇑P	P	10 44 25.4	+0.2
	baz=90						
L15A	Malad City	90.31	44	⇑P	P	10 44 25.3	-0.1
	baz=90						
J14A	Carey	90.32	42	⇑P	P	10 44 25.9	+0.6
	baz=90,SNR=7.2						
N16A	Rees Ranch, Co	90.33	45	⇓P	P	10 44 25.3	-0.2
	baz=90						
HHC	Hu-ho-hao-te	90.36	315	*e*P	P	10 44 26.3	+0.7
HHC				pP	pP	10 46 13.6	+0.6
HHC				sP	sP	10 47 01.3	-0.4
HHC				PP	PP	10 48 11.4	+2.8
HHC				SKS		10 54 10.8	
HHC				S	S	10 54 38.5	-0.5
HHC				sS	sS	10 57 49.4	-1.4
HHC				SS	SS	11 00 57.3	+3.5
HHC				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.6						
HHC				pmax	pmax		
	comp=Z,200nm,5.2s						
O17A	Robinson Place	90.43	46	⇑P	P	10 44 26.3	+0.4
	baz=91,SNR=17						
M16A	Huntsville	90.43	44	⇓P	P	10 44 26.0	+0.1
	baz=91						
R19A	Curley Farm, L	90.44	48	⇑P	P	10 44 25.8	-0.3
	baz=91						
H13A	Challis	90.55	41	⇑P	P	10 44 26.6	+0.2
	baz=91						
A09A	Danville	90.63	35	⇓P	P	10 44 26.1	-0.6
	baz=91						
I14A	Mackay	90.69	41	⇑P	P	10 44 27.7	+0.6
	baz=91						
N17A	Moffit Pass	90.75	45	⇓P	P	10 44 27.5	0.0
	baz=91						
ANMO	Albuquerque	90.78	52	*e*P	P	10 44 26.7	-1.0
Q19A	Hogan Spring (	90.78	47	⇑P	P	10 44 26.9	-0.7
	baz=91						
L16A	Fish Haven	90.92	44	⇑P	P	10 44 27.9	-0.3
	baz=91,SNR=5.1						
J15A	Blackfoot	91.03	42	⇓P	P	10 44 28.6	-0.1
	baz=91						
CD2	Chengdu	91.06	303	P	P	10 44 29.6	+0.5
CD2				pP	pP	10 46 17.6	+1.0
CD2				sP	sP	10 47 05.4	+0.2
CD2				PP	PP	10 48 17.3	+3.0
CD2				SKS		10 54 15.4	
CD2				S	S	10 54 45.3	-0.4
CD2				SS	SS	11 01 08.0	+3.8
CD2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
CD2				pmax	pmax		
	comp=Z,230nm,4.5s						
M17A	Scullys Gap (B	91.13	45	⇓P	P	10 44 29.2	0.0
	baz=91						
K16A	Soda Springs	91.25	43	⇑P	P	10 44 29.6	-0.1
	baz=92						
J16A	Bone	91.47	43	⇑P	P	10 44 30.6	-0.1
	baz=92						
M18A	Lyman	91.49	45	⇓P	P	10 44 30.7	-0.2
	baz=92						
O19A	Miners Draw (B	91.54	46	⇓P	P	10 44 30.9	-0.3
	baz=92						
K17A	Gardner Place,	91.63	43	⇓P	P	10 44 31.7	+0.3
	baz=92						
P20A	De Beque	91.64	47	⇑P	P	10 44 31.2	-0.4
	baz=92						
G15A	Dillon	91.93	41	⇑P	P	10 44 33.0	+0.2
	baz=92						
K18A	Toltan Ranch,	92.13	44	⇑P	P	10 44 34.4	+0.7
	baz=92						
L19A	Farson	92.29	45	⇑P	P	10 44 34.3	-0.2
	baz=92						
N20A	Spence Gulch,	92.38	46	⇓P	P	10 44 34.9	-0.1
	baz=93						
J18A	Kendall Valley	92.43	43	⇑P	P	10 44 35.1	-0.1
	baz=93						
BW06	Boulder Array	92.50	44	⇑P	P	10 44 35.1	-0.4
	baz=93						
PDAR	Pinedale Array	92.50	44	P	P	10 44 34.9	-0.6
	comp=Z,1.3nm,0.8s,mb3.9,baz=216,slow=3.0,SNR=11						
L20A	Wamsutter	92.90	45	⇓P	P	10 44 37.3	0.0
	baz=93						
LZH	Lanzhou	93.34	308	*e*P	P	10 44 39.5	0.0
LZH				pP	pP	10 46 27.8	+0.7
LZH				sP	sP	10 47 13.5	-2.1
LZH				PP	PP	10 48 34.3	+2.4
LZH				*e*SKS		10 54 27.5	
LZH				*e*S	S	10 55 05.0	-0.4
LZH				SS	SS	11 01 40.0	+3.7
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
LZH				pmax	pmax		
	comp=Z,80nm,5.4s						
SONM	Songino Array	97.03	319	P	P	10 44 55.3	-0.6
	comp=Z,0.5nm,0.8s,mb3.8,baz=111,slow=3.6,SNR=3.2						
SONM				PP	PP	10 49 05.5	+5.7
	comp=Z,1.7nm,1.1s,baz=131,slow=6.7,SNR=6.1						
WMQ	Urumqi	107.69	311	*e*P	PKiKP	10 49 48.0	-0.3
MKAR	Makanchi Array	112.10	313	PKiKP	PKiKP	10 49 53.3	-3.2
	comp=Z,0.1nm,0.4s,baz=199,slow=0.7,SNR=5.0						
MKAR				PP	PP	10 50 49.4	-0.8
	comp=Z,1.4nm,1.0s,baz=108,slow=7.8,SNR=5.1						
ARCES	ARCESS Array B	131.74	348	PKP	PKPdf	10 50 30.4	-3.1
	comp=Z,6.0nm,1.0s,baz=54,slow=2.3,SNR=4.0						
MALT	Malatya	144.35	303	*e*PKPbc	PKPdf	10 50 56.7	-0.7
AKASG	Malin Array Be	144.88	327	PKPbc	PKPdf	10 50 55.9	-2.0
	comp=Z,2.4nm,0.4s,baz=43,slow=4.2,SNR=14						
AKASG				SKPbc	SKPbc	10 53 46.2	-5.5
	comp=Z,2.2nm,0.5s,baz=45,slow=3.2,SNR=8.6						
ASF	Jabal al Asfar	146.55	293	PKPbc	PKPbc	10 51 01.1	-2.7
	comp=Z,1.9nm,0.4s,baz=194,slow=4.2,SNR=3.1						
BRTR	Keskin Array B	147.55	307	PKPbc	PKPbc	10 51 04.2	-1.9
	comp=Z,1.7nm,0.9s,baz=158,slow=4.8,SNR=5.5						
BRTR				PKPab	PKPab	10 51 09.2	-0.7
	comp=Z,3.0nm,0.5s,baz=79,slow=2.7,SNR=12						
MMAI	Mount Meron Ar	147.72	295	PKPbc	PKPbc	10 51 05.7	-1.1
	comp=Z,2.4nm,0.3s,baz=70,slow=8.2,SNR=10						
EIL	Elat	148.39	288	PKP	PKPdf	10 51 02.7	-1.8
	comp=Z,6.4nm,0.9s,baz=106,slow=7.4,SNR=2.6						
EIL				PKPab	PKPab	10 51 13.1	-0.6
	comp=Z,9.6nm,0.9s,baz=336,slow=1.4,SNR=4.8						
CLL	Collm	150.72	343	*e*PKPbc	PKPbc	10 51 12.0	-1.5
CLL				*i* PKPab	PKPab	10 51 21.6	-1.0
BRG	Berggiesshubel	150.85	342	*e*PKP	PKPab	10 51 22.3	-0.8
	comp=Z,7.7nm,1.1s						
GERES	GERESS Array B	152.72	340	PKPab	PKPab	10 51 29.3	-1.8
	comp=Z,0.6nm,0.7s,baz=46,slow=7.0,SNR=4.7						
TORD	Torodi Ar. Bea	169.37	188	PKPab	PKPab	10 52 41.5	-3.1
	comp=Z,0.9nm,0.8s,baz=172,slow=3.8,SNR=5.1						

*NEIC **13** 10:51:50.6, 15°.34N×92°.98W, h100^{km}, MD3.7(MEX), After MEX.*

MEX 13 10:51:50.3±1.2, 15°.32N×93°.00W, h101^{km}±11^{km}, MD3.7, Mexico-Guatemala border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		0.44	331	*e*P	Pn	10 52 03.9	-1.9
PCIG				*i* S	Sn	10 52 16.3	-1.0
CCIG	Comitan	1.27	41	*i* P	Pn	10 52 13.3	-0.5
CCIG				*i* S	Sn	10 52 30.4	-1.1
SCX	San Cristobal	1.45	14	*i* P	Pn	10 52 16.5	+0.5
TGIG		1.46	355	*i* P	Pn	10 52 14.2	-1.9
TGIG				*i* S	Sn	10 52 33.3	-2.3
CMIG	Matias Romero	2.53	314	*i* P	Pn	10 52 29.4	-0.4
CMIG				*i* S	Sn	10 52 59.8	-0.4
TEIG	Tepich	6.64	42	*e*Pn	Pn	10 53 22.6	-2.7

NNC 13 11:29:05.9±4.0, 53°.58N×87°.24E, h24^{km}±25^{km}, mb3.8, mpv3.5, 5C-8D, Error ellipse: s-maj=27.2km s-min=20.7km az=63.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	Kurchatov	6.03	245	⇑Pn	Pn	11 30 33.6	+0.1
	4.8nm,0.6s						
KURK				⇓Sn	Sn	11 31 41.5	-0.3
	8.7nm,0.9s						
KURK				⇑Lg		11 32 18.2	
	62nm,1.0s						
KURBB	Kurchatov Arra	6.13	245	⇓Pn	Pn	11 30 35.4	+0.5
	2.1nm,0.6s						
KURBB				⇓Sn	Sn	11 31 47.2	+3.0
	4.8nm,0.6s						
KURBB				⇓Lg		11 32 22.0	
	16nm,0.9s						
MK31	Makanchi Array	7.50	207	⇓Pn	Pn	11 30 52.5	-1.1
	1.5nm,0.5s,baz=25,slow=12,SNR=34						
MK31				⇓Sn	Sn	11 32 18.8	+0.9
	5.5nm,0.8s,baz=31,slow=18,SNR=3.9						
MK31				⇓Lg		11 32 57.7	
	14nm,0.8s,baz=31,slow=33,SNR=6.5						
VOSK	Vostochnaya	9.81	272	⇓Pn	Pn	11 31 27.4	+2.1
	2.5nm,0.9s						
VOSK				⇑Sn	Sn	11 33 13.6	-1.0
	11nm,0.8s						
BVA0	Borovoye Array	10.11	274	⇑Pn	Pn	11 31 28.6	-0.8
	0.8nm,1.1s,baz=243,slow=38,SNR=9.2						
BVA0				⇑Sn	Sn	11 33 19.7	-2.2
	2.2nm,0.8s,baz=79,slow=25,SNR=6.4						

*CSEM **13** 12:03:00.2, 36°.43N×21°.64E, h36^{km}, MD3.5, After ATH*
*NEIC **13** 12:03:00.2, 36°.43N×21°.64E, h36^{km}, MD3.5(ATH), After ATH.*

ATH 13 12:03:00.2, 36°.43N×21°.64E, h36^{km}±5^{km}, MD3.5/6, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.47	10	*e*PB	Pn	12 03 10.5	0.0
PYL				*e*SB	Sn	12 03 18.5	+0.9
PYL	PYLOS	0.47	10	*e*Pb	Pn	12 03 10.5	0.0
PYL				*e*Sb	Sn	12 03 18.5	+0.9
ITM	Ithomi	0.78	17	*e*PN	Pn	12 03 15.6	+0.9
ITM				*e*SN	Sn	12 03 28.2	+3.0
ITM	Ithomi	0.78	17	*e*Pn	Pn	12 03 15.6	+0.9
ITM				*e*Sn	Sn	12 03 28.2	+3.0
VLX	Vlachokerasia	1.11	32	*e*PN	Pn	12 03 21.0	+1.8
VLX				*e*SN	Sn	12 03 37.6	+4.3
VLX	Vlachokerasia	1.11	32	*e*Pn	Pn	12 03 21.0	+1.8
VLX				*e*Sn	Sn	12 03 37.6	+4.3
KYTH	Kithira	1.14	97	*e*PN	Pn	12 03 21.8	+2.2
KYTH	Kithira	1.14	97	*e*Pn	Pn	12 03 21.8	+2.2
GUR	Goura	1.60	20	*e*PB	Pn	12 03 29.0	+3.0
GUR	Goura	1.60	20	*e*Pb	Pn	12 03 29.0	+3.0
RLS	Riolos of Patr	1.63	355	*e*PN	Pn	12 03 28.0	+1.6
RLS	Riolos of Patr	1.63	355	*e*Pn	Pn	12 03 28.0	+1.6
DID	Didima	1.67	49	*e*PN	Pn	12 03 27.8	+0.9
DID	Didima	1.67	49	*e*Pn	Pn	12 03 27.8	+0.9
LTK	Loutraki	1.91	33	*e*PN	Pn	12 03 32.2	+2.0
LTK	Loutraki	1.91	33	*e*Pn	Pn	12 03 32.2	+2.0
VLS	Valsamata	1.94	335	*e*PB	Pn	12 03 33.1	+2.5
VLS	Valsamata	1.94	335	*e*Pb	Pn	12 03 33.1	+2.5
EFP	Efpalio	2.00	6	*e*PN	Pn	12 03 33.7	+2.2
EFP	Efpalio	2.00	6	*e*Pn	Pn	12 03 33.7	+2.2
LKR	Lokris	2.47	26	*e*PN	Pn	12 03 38.7	+0.8
LKR	Lokris	2.47	26	*e*Pn	Pn	12 03 38.7	+0.8
EVR	Evrytania	2.49	3	*e*PN	Pn	12 03 41.0	+2.9
EVR	Evrytania	2.49	3	*e*Pn	Pn	12 03 41.0	+2.9
THL	Klokotos Trika	3.14	5	*e*PN	Pn	12 03 50.5	+3.3
THL	Klokotos Trika	3.14	5	*e*Pn	Pn	12 03 50.5	+3.3

GUC 13 12:05:18.0±0.5, 22°.92S×68°.26W, h141^{km}±4^{km}, MD3.6, ML3.7, 6C, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.67	297	⇑*i*P	Pn	12 05 40.2	+0.9
LVC				*i* S	Sn	12 05 57.0	+1.6
PB04	Plate Boundary	1.30	300	⇑*i*P	Pn	12 05 51.8	+7.0
PB04				*i* S	Sn	12 06 17.6	+12
PB04				AML	AML	12 06 20.2	
	comp=E,532nm,0.4s						
PECH	Pedro de Valdi	1.34	283	⇑*i*P	Pn	12 05 46.5	+1.4
PECH				*i* S	Sn	12 06 08.0	+2.1
PECH				AML	AML	12 06 09.7	
	comp=N,1μm,0.2s						
MACH	Maria Elena	1.56	297	⇑*i*P	Pn	12 05 48.7	+1.2
MACH				*i* S	Sn	12 06 11.9	+2.0
TOCH	Tocopilla	1.97	294	⇑*i*P	Pn	12 05 52.9	+0.7
TOCH				*i* S	Sn	12 06 19.2	+0.8
TOCH				AML	AML	12 06 20.6	
	comp=N,544nm,0.2s						
CPN1	Cerro Paranal	2.60	229	⇑*i*P	Pn	12 06 01.5	+1.6
CPN1				*i* S	Sn	12 06 34.9	+2.8
CPN1				AML	AML	12 06 36.6	
	comp=N,342nm,0.2s						

*ISCJB **13** 12:17:42.5±0.5, 33°.32N±0°.02×35°.37E±0°.04, h8^{km}±3^{km}, Error ellipse: s-maj=5.5km s-min=3.2km az=26.1*
*CSEM **13** 12:17:43.3, 33°.30N×35°.39E, h3^{km}, ML3.1, After GRAL*
*GII **13** 12:17:43.4±0.5, 33°.23N×35°.41E, h1^{km}, Md2.2/6*
*NSSC **13** 12:17:43, 33°.30N×35°.40E, h10^{km}±3^{km}*
*GRAL **13** 12:17:43.3±0.3, 33°.30N×35°.39E, h4^{km}±3^{km}, MD3.1*

ISC 13 12:17:43.0±0.5, 33°.33N±0°.02×35°.38E±0°.04, h9^{km}±3^{km}, n29, $\sigma 0^{s}.69$/45, 6D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	345	*e*P	Pg	12 17 47.0	+0.4
MATL	Matirih	0.17	345	*e*P	Pg	12 17 47.0	+0.4
KSDI	Kefar Szold	0.27	120	Pg	Pg	12 17 48.0	-0.3
KSDI				Sg	Sg	12 17 52.5	+0.6
HRI	Mount Hermon	0.30	101	Pg	Pg	12 17 49.1	+0.2
MMC3	Mount Meron ar	0.31	175	Pg	Pg	12 17 48.6	-0.4
MMC5	Mount Meron ar	0.32	175	Pg	Pg	12 17 48.8	-0.4
RCY	Rachaya	0.40	66	*e*P	Pg	12 17 51.0	+0.3
RCY				*e*S	Sg	12 17 56.7	+0.6
RCY	Rachaya	0.40	66	*e*P	Pg	12 17 51.0	+0.2
RCY				*e*S	Sg	12 17 56.7	+0.6
BRBR	Barbar	0.48	80	⇑P	Pg	12 17 52.0	-0.4
BRBR				⇑S	Sg	12 17 59.0	+0.3
KSHT	Keshet	0.50	133	Pg	Pg	12 17 52.7	+0.1
BLGI	Bet Lehem HaGe	0.61	195	Pg	Pg	12 17 54.7	-0.1
BHL	Bhannes	0.62	21	*e*P	Pg	12 17 55.0	0.0
BHL	Bhannes	0.62	21	*e*P	Pg	12 17 55.0	0.0
QASN	Qassioun	0.78	74	⇓P	Pg	12 17 58.0	+0.1
QASN				⇓S	Sg	12 18 09.0	+1.0
OFRI	'Ofer	0.78	206	Pg	Pg	12 17 57.8	-0.1

TOTH	TOTAH	0.88	87	⇑P	Pg	12 17 59.0	-0.8
TOTH				⇑S	Sg	12 18 12.0	+0.8
MMLI	Mount Malkishu	0.89	178	Pg	Pg	12 17 59.3	-0.7
MMLI				Sg	Sg	12 18 11.4	-0.1
HWQ	Hawqa	1.06	26	eP	Pg	12 18 02.8	-0.6
HWQ				eS	Sg	12 18 17.2	0.0
HWQ	Hawqa	1.06	26	eP	Pg	12 18 02.8	-0.6
HWQ				eS	Sg	12 18 17.2	0.0
HMDT	Nahal Hemdat	1.07	173	Pg	Pg	12 18 02.6	-1.0
HMDT				Sg	Sg	12 18 17.9	+0.3
SLTI	Sal'it	1.12	195	Pg	Pg	12 18 03.8	-0.7
SLTI				Sg	Sg	12 18 19.3	+0.3
SALA	Sala	1.29	118	⇓P	Pn	12 18 06.0	-1.2
SALA				⇓S	Sb	12 18 22.0	-2.1
ZALF	Zalf	1.69	103	⇓P	Pn	12 18 13.0	+0.4
ZALF				⇓S	Sn	12 18 34.0	-0.4
DSI	Dead Sea	1.75	180	Pn	Pn	12 18 13.6	+0.1
DSI				Sn	Sn	12 18 37.2	+1.3
BIDA	Albida	1.86	25	⇑P	Pn	12 18 15.0	0.0
BIDA				⇑S	Sn	12 18 39.0	+0.4
YTIR	Yattir	1.97	187	Pn	Pn	12 18 17.8	+1.3
MZDA	Masada	2.01	180	Pn	Pn	12 18 17.6	+0.5
WRDH	Warideh	2.34	21	⇑P	Pn	12 18 22.0	+0.4
WRDH				⇑S	Sn	12 18 49.0	-1.5
PRNI	Paran	2.98	186	Pn	Pn	12 18 31.5	+1.1

IDC 13 12:58:32.2±1.0,31°.58N×71°.92E,h0^{km},mb3.7/10, mb1 3.8/12,mb1mx3.7/28,mbtmp3.7/12,ML3.3/2,Error ellipse: s-maj=26.6km s-min=18.6km az=55.0

NEIC 13 12:58:33.4±3.8,31°.54N×72°.08E,h8^{km}±24^{km},mb3.8/1, Error ellipse: s-maj=16.1km s-min=5.2km az=51.0

ISCJB 13 12:58:35.2±1.3,31°.61N±0°.05×72°.19E±0°.06,h33^{km}±10^{km}, mb3.6/11,Error ellipse: s-maj=11.2km s-min=5.0km az=135.3

NDI 13 12:58:51.4±5.6,31°.53N×71°.87E,h10^{km},ML3.7, mb3.8(NEIC)

ISC 13 12:58:34.9±1.0,31°.54N±0°.05×72°.12E±0°.05,h17^{km}±7^{km}, n40,σ1^{s}17/59,mb3.6/11,Pakistan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	3.18	73	ePKP	Pn	12 59 26.6	+2.4
THN				eS	Sn	13 00 02.7	+0.9
KBL	Kabul	3.95	320	ePn	Pn	12 59 35.4	+0.6
KBL				eSn	Sn	13 00 19.8	-0.9
SDNR	Sundarnagar	4.14	89	ex	Pn	12 59 39.8	+2.4
SDNR				eS	Sb	13 00 45.8	+8.6
KUDL	Kundal	5.09	131	ePKP	Pg	13 00 11.1	-1.2
KUDL				eS	Sb	13 01 05.9	+1.6
KUDL				AML	AML	13 01 24.9	
	comp=E,91nm,0.5s						
KUDL				AML	AML	13 01 26.6	
	comp=N,72nm,0.5s						
KLP	Kalpa	5.24	89	ePKP	Pn	12 59 55.7	+3.3
KLP				eS	Sn	13 00 56.8	+4.4
KLP				AML	AML	13 01 33.5	
	comp=E,259nm,0.7s						
KLP				AML	AML	13 01 35.6	
	comp=N,142nm,0.4s						
DDI	Dehra Dun	5.25	102	ePKP	Pg	13 00 13.0	-2.3
NDI	New Delhi	5.26	122	ex	Pn	12 59 54.0	+1.3
NDI				ex	Sg	13 01 24.0	+0.4
SONA	Sohna	5.42	126	ex	Pg	13 00 18.2	-0.5
SONA				eS	Sb	13 01 13.8	-0.1
JOSI	Joshimath	6.46	97	ePKP	Pn	13 00 15.2	+6.0
JOSI				eS	Sn	13 01 29.2	+6.6
JOSI				AML	AML	13 02 10.1	
	comp=N,99nm,0.5s						
JOSI				AML	AML	13 02 10.6	
	comp=E,88nm,0.7s						
KSH	Kashi	8.55	20	Pn	Pn	13 00 36.1	-1.8
KSH				Sn	Sn	13 02 03.4	-11
KSH				smax			
	comp=N,21nm,0.3s						
KSH				smax			
	comp=E,18nm,0.4s						
DANN	Dangsing	10.59	105	ePn	Pn	13 01 06.7	+0.8
DANN				eSn	Sn	13 03 02.5	-1.6
	comp=E,31nm,0.5s						
AML	Almayashu	10.64	6	ePn	Pn	13 01 07.2	+0.7
	comp=E,5.3nm,0.5s						
AML				eSn	Sn	13 02 59.8	-5.5
KOLN	Koldanda	10.67	108	ePn	Pn	13 01 08.7	+1.7
KOLN				eSn	Sn	13 03 05.2	-0.9
	comp=E,28nm,0.8s						
UCH	Uchtor	10.84	10	ePn	Pn	13 01 10.4	+1.2
	comp=E,6.2nm,0.6s						
AAK	Ala-Archa	11.23	9	ePn	Pn	13 01 14.8	+0.2
	comp=E,2.4nm,0.6s						
GKN	Gorkha	11.43	105	ePn	Pn	13 01 17.8	+0.4
GKN				eSn	Sn	13 03 21.5	-3.3
	comp=E,29nm,0.4s						
TKM2	Tokmak 2	11.69	13	ePn	Pn	13 01 21.1	+0.3
	comp=E,2.8nm,0.6s						
TKM2				eSn	Sn	13 03 31.2	+0.3
DMN	Daman	11.96	106	ePn	Pn	13 01 24.2	-0.5
DMN				eSn	Sn	13 03 35.1	-2.7
	comp=E,23nm,0.8s						
KKN	Kakani	12.04	105	ePn	Pn	13 01 25.8	0.0
PKIN	Phulchoki	12.22	106	ePn	Pn	13 01 28.1	0.0
PKIN				eSn	Sn	13 03 40.6	-3.4
	comp=E,15nm,0.4s						
PKI	Pulchoki	12.23	106	ePn	Pn	13 01 29.2	+0.9
GUN	Gumba	12.49	103	ePn	Pn	13 01 31.8	-0.2
JIRN	Jiri	12.84	104	ePn	Pn	13 01 36.3	-0.4
JIRN				eSn	Sn	13 03 54.1	-5.2
	comp=E,23nm,0.6s						
RAMN	Ramite	13.45	106	ePn	Pn	13 01 44.9	0.0
RAMN				eSn	Sn	13 04 10.4	-3.6
	comp=E,18nm,0.4s						
ODAN	Odare	14.13	105	ePn	Pn	13 01 53.6	-0.7
ODAN				eSn	Sn	13 04 26.1	-4.6
	comp=E,11nm,0.5s						
TAPN	Taplejung	14.21	103	ePn	Pn	13 01 54.3	-1.1
MKAR	Makanchi Array	17.13	24	P	Pn	13 02 33.6	+0.3
	comp=E,0.1nm,0.3s,baz=212,slow=14,SNR=10						
KURK	Kurchatov	19.76	12	P	Pn	13 03 01.7	-3.7
	comp=E,0.1nm,0.3s,baz=205,slow=10,SNR=5.5						
BVAR	Borovoye Array	21.50	357	P	P	13 03 21.7	-1.1
	comp=E,2.4nm,0.7s,mb3.8,baz=167,slow=9.1,SNR=13						
BRVK	Borovoye	21.54	357	eP	P	13 03 22.2	-1.0
	comp=E,3.6nm,0.8s,mb3.9						
AKTK	Aktyubinsk	21.60	335	P	P	13 03 23.3	-0.5
AKTO	Aktyubinsk	21.60	335	P	P	13 03 23.3	-0.5
	comp=E,1.5nm,0.5s,mb3.7,baz=147,slow=11,SNR=6.3						
ZALV	Zalesovo Beam	24.18	18	P	P	13 03 50.3	+0.1
	comp=E,1.2nm,0.5s,mb3.6,baz=222,slow=9.7,SNR=7.3						
CMAR	Chiang Mai Arr	27.50	112	P	P	13 04 22.8	+2.3
	comp=E,0.5nm,0.5s,mb3.3,baz=293,slow=10,SNR=3.9						
SONM	Songino Array	30.68	48	P	P	13 04 49.6	+1.1
	comp=E,0.3nm,0.8s,mb3.2,baz=234,slow=6.9,SNR=2.7						
NOA	NORSAR Array B	48.94	326	P	P	13 07 19.5	-0.3
	comp=E,0.7nm,0.6s,mb3.9,baz=103,slow=7.7,SNR=2.4						
TORD	Torodi Ar. Bea	66.65	271	P	P	13 09 23.9	-1.2
	comp=E,0.7nm,0.6s,mb3.9,baz=56,slow=5.8,SNR=4.9						
WRA	Warramunga Arr	78.59	122	P	P	13 10 36.7	+0.8
	comp=E,0.3nm,0.6s,mb3.4,baz=319,slow=5.4,SNR=7.4						
ASAR	Alice Springs	80.66	125	P	P	13 10 47.9	+0.8
	comp=E,0.3nm,0.6s,mb3.4,baz=310,slow=5.6,SNR=4.5						
YKA	Yellowknife Ar	86.14	3	P	P	13 11 14.3	-0.4
	comp=E,0.4nm,0.5s,mb3.9,baz=347,slow=5.1,SNR=9.2						

DDA 13 12:59:11.0,38°.86N×40°.09E,h7^{km}±3^{km},Md2.8,Ml2.8

CSEM 13 12:59:12.9±0.2,38°.81N×40°.05E,h2^{km},ML2.8,Error ellipse: s-maj=5.0km s-min=1.9km az=72.0

ISCJB 13 12:59:13.8±0.8,38°.75N±0°.03×40°.04E±0°.04,h7^{km}±6^{km}, Error ellipse: s-maj=5.6km s-min=5.0km az=174.3

ISK 13 12:59:13.6,38°.83N×39°.95E,h6^{km},MD2.8

ISC 13 12:59:14.7±0.8,38°.75N±0°.03×40°.05E±0°.05,h12^{km}±6^{km}, n13,σ1^{s}16/25,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DIYA	Diyarbakir	0.83	176	i P	Pg	12 59 29.9	-0.7
DIYA				i S	Sg	12 59 42.0	+0.6
DIYA	Diyarbakir	0.83	176	i P	Pg	12 59 29.9	-0.8
DIYA				i S	Sg	12 59 42.0	+0.5
ELZG	Elazig	0.88	254	i P	Pg	12 59 28.1	-3.5
ELZG				i S	Sg	12 59 44.6	+1.6
ELZG	Elazig	0.88	254	i P	Pg	12 59 28.1	-3.5
EZC	Erzincan	1.01	350	ePG	Pg	12 59 33.8	-0.5
EZC				eSG	Sg	12 59 48.3	+0.9
BEST	Besiri	1.28	131	i P	Pn	12 59 36.9	-1.5
BEST				i S	Sb	12 59 54.8	-0.4
KEMA	Kemaliye	1.32	294	i P	Pn	12 59 35.7	-3.2
KEMA				i S	Sb	12 59 54.4	-1.8
KEMA	Kemaliye	1.32	294	i P	Pn	12 59 35.7	-3.2
KEMA				i S	Sb	12 59 54.4	-1.9
MALT	Malatya	1.35	252	ePN	Pn	12 59 39.3	0.0
MALT				eSN	Sn	12 59 57.2	+0.2
MALT	Malatya	1.35	252	ePn	Pn	12 59 39.3	0.0
MALT				eSn	Sn	12 59 57.2	+0.1
EZM	Erzurum	1.54	41	ePN	Pn	12 59 42.6	+0.7
EZM				eSN	Sn	13 00 02.9	+1.2
URFA	Urfa	1.63	217	ePN	Pn	12 59 43.2	+0.1
URFA				eSN	Sn	13 00 05.6	+1.6
URFA	Urfa	1.63	217	ePn	Pn	12 59 43.2	+0.1
URFA				eSn	Sn	13 00 05.6	+1.6

REY 13 13:07:14.7,70°.07N×12°.62W,h7^{km},ML3.3,ML3.6

CSEM 13 13:07:12.6±0.8,70°.43N×13°.23W,h10^{km},ML3.6,Error ellipse: s-maj=20.5km s-min=9.1km az=57.0,Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCO	Scoresbysund	2.93	275	i P	Pn	13 07 58.9	-0.3
SCO				eS	Sn	13 08 33.9	-0.4
SCO	Scoresbysund	2.93	275	eP	Pn	13 07 59.0	-0.2
	SNR=49						
SCO				eS	Sn	13 08 33.9	-0.4
ILEI	Leirhofn	4.21	198	P	Pn	13 08 16.0	-0.7
IGRI	Grimsey	4.28	207	P	Pn	13 08 17.9	+0.3
IGRI				S	Sn	13 09 07.2	-0.3
IGIL	Gilhagi	4.52	196	P	Pn	13 08 20.6	-0.4
IHED	Heoinshofoi	4.62	201	P	Pn	13 08 22.2	-0.1
IHED				S	Sn	13 09 15.7	-0.2
IBRE	Brettingsstaoi	4.66	204	P	Pn	13 08 23.1	+0.3
IGRA	Granastaoir	4.81	202	P	Pn	13 08 25.1	+0.2
IGRA				S	Sn	13 09 20.8	+0.2
IHLA	Hella	4.89	206	P	Pn	13 08 26.7	+0.6
IGRS	Grimsstaoir	4.93	194	P	Pn	13 08 26.7	+0.1
IREN	Reynihlio	5.00	198	P	Pn	13 08 27.5	0.0
IHRN	Hraun	5.03	214	P	Pn	13 08 29.8	+1.8

MAN 13 13:11:58,16°.93N×120°.98E,h8^{km},mb4.6,ML3.6,MS3.6

MAN INTENSITY III - BAGUIO CITY.

ISCJB 13 13:11:59.8±0.9,16°.90N±0°.03×121°.05E±0°.04,h33^{km}±7^{km}, mb4.4/30,MS3.1/2,Error ellipse: s-maj=6.5km s-min=4.1km az=168.8

BJI 13 13:12:00.0,16°.80N×121°.20E,h28^{km},mB5.1/10,mb4.5/15

IDC 13 13:12:03.2±2.9,16°.83N×121°.23E,h60^{km}±29^{km},mb3.8/16, mb1 4.0/16,mb1mx4.0/23,mbtmp3.9/16,ML4.5/1,MS3.2/3, Ms1 3.2/3,ms1mx2.9/43,Error ellipse: s-maj=22.3km s-min=12.8km az=71.0

NEIC 13 13:12:03.0±0.7,16°.83N×121°.22E,h58^{km}±7^{km},mb4.5/6, Error ellipse: s-maj=10.5km s-min=5.1km az=80.0

NEIC Felt [III PIVS] at Baguio.

ISC 13 13:11:58.7±0.7,16°.88N±0°.02×121°.02E±0°.03,h14^{km}±4^{km}, n58,σ1^{s}36/66,mb4.4/30,MS3.1/2,3C-2D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAUP	Cauayan	0.77	85	eP	Pg	13 12 14.2	+0.5
ABRA	Dolores	0.82	339	eP	Pg	13 12 13.1	-1.6
ABRA				eS	Sg	13 12 23.9	-1.4
SIPP	Brgy, Tapao	1.17	333	⇓iP	Pn	13 12 18.7	-1.9
SIPP				i S	Sn	13 12 37.7	+1.3
BOLP	Bolinao	1.17	245	eP	Pn	13 12 19.1	-1.6
BOLP				eS	Sn	13 12 36.9	+0.4
BALP	Baler	1.25	155	eP	Pn	13 12 19.8	-2.0
BALP				eS	Sn	13 12 37.0	-1.5
PCPH	Palayan	1.31	177	⇓eP	Pn	13 12 21.1	-1.5
PCPH				eS	Sb	13 12 37.7	-2.2
PALP	Palanan	1.35	82	eP	Pn	13 12 22.4	-0.8
PALP				eS	Sg	13 12 43.9	+1.4
PIP	Pasuquin	1.49	345	⇑iP	Pn	13 12 24.6	-0.4
PIP				eS	Sg	13 12 46.1	-0.6
SCZP	Santa Cruz	1.53	224	eP	Pn	13 12 26.6	+0.9
SGCP	Mt. Cagua	1.67	36	eP	Pn	13 12 28.1	+0.5
SGCP				eS	Sn	13 12 49.9	+1.1
POLP	Polilio Island	2.32	157	eP	Pn	13 12 38.2	+1.8
TGY	Tagaytay City	2.77	182	P	Pn	13 12 45.3	+2.6
	81nm,0.3s,baz=322,slow=18,SNR=3.8						
TGY				S	Sg	13 13 23.5	-4.2
	121nm,0.3s,baz=173,slow=12,SNR=3.4						
TGY	Tagaytay City	2.77	182	⇑eP	Pg	13 12 51.8	0.0
LUBP	Lubang	3.22	194	eP	Pn	13 12 51.3	+2.5
GQP	Guinayangan	3.26	155	⇑iP	Pn	13 12 51.2	+1.7
GQP				i S	Sn	13 13 32.5	+4.3
PGP	Puerto Galera	3.36	181	eP	Pn	13 12 53.4	+2.6
SJMP	San Jose	4.40	179	eP	Pn	13 13 09.2	+4.1
PVCP	Virac	4.45	137	eP	Pn	13 13 07.8	+2.0
BUSP	Coron	4.92	189	eP	Pn	13 13 12.9	+0.7
YULB	Yu-li	6.48	2	eP	Pn	13 13 36.4	+2.7
	18nm,0.3s						
SSLB	Suanglung	6.87	359	ePn	Pn	13 13 41.1	+2.0
	20nm,0.5s						
JOW	Kunigami	11.97	33	LR	LR	13 19 44.0	
	comp=Z,72nm,20.2s,baz=287,slow=39						
XAN	Xi'an	20.25	330	P	P	13 16 38.6	+5.0
XAN				pP		13 16 44.4	
XAN				sP	sP	13 16 47.3	+7.9
XAN				pmax	pmax		
	comp=Z,11nm,1.0s						
XAN				pmax	pmax		
	comp=Z,68nm,5.7s						
CD2	Chengdu	21.03	315	P	P	13 16 47.0	+4.8
CD2				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.6						
CD2				pmax	pmax		
	comp=Z,170nm,3.9s						
CMAR	Chiang Mai Arr	21.09	278	P	P	13 16 45.2	+2.2
	comp=Z,4.5nm,0.8s,mb3.9,baz=88,slow=8.5,SNR=33						
KSRS	Korea Array	21.38	15	P	P	13 16 44.6	-1.3
	comp=Z,5.2nm,0.6s,mb4.0,baz=198,slow=11,SNR=19						
KSRS				LR	LR	13 25 57.5	
	comp=Z,74nm,19.2s,MS3.1,baz=180,slow=39						
GUMO	Guam	23.24	95	LR	LR	13 25 32.1	
	comp=Z,71nm,18.6s,MS3.1,baz=336,slow=35						
BJT	Baijiatuau	23.44	351	eP	P	13 17 08.6	+0.9
	comp=Z,12nm,0.6s,mb4.5						
MJAR	Matsushiro Arr	24.81	35	P	P	13 17 20.0	-0.4
	comp=Z,1.6nm,0.6s,mb3.7,baz=216,slow=7.2,SNR=4.0						
MDJ	Mudanjiang	28.58	13	eP	P	13 17 53.5	-0.7
	comp=Z,10nm,0.8s,mb4.6						
TAPN	Taplejung	32.48	295	eP	P	13 18 30.1	+1.1
	comp=Z,3.2nm,0.6s,mb4.3						
ODAN	Odare	32.66	294	eP	P	13 18 31.5	+0.9
	comp=Z,11nm,0.6s,mb5.0						
ULN	Ulaanbaatar	32.96	343	eP	P	13 18 34.2	+1.3
	comp=Z,1.8nm,0.6s,mb4.2						
SONM	Songino Array	33.13	342	P	P	13 18 34.7	+0.3
	comp=Z,1.9nm,0.6s,mb4.2,baz=159,slow=9.8,SNR=19						
RAMN	Ramite	33.37	293	eP	P	13 18 36.8	0.0
	comp=Z,12nm,0.6s,mb5.0						
JIRN	Jiri	33.86	295	eP	P	13 18 42.0	+0.9
	comp=Z,10.0nm,0.5s,mb5.0						
GUN	Gumba	34.18	295	eP	P	13 18 44.3	+0.5
	comp=Z,13nm,0.6s,mb5.0						
GKN	Gorkha	35.28	295	eP	P	13 18 53.7	+0.4
	comp=Z,8.3nm,0.6s,mb4.9						
DANN	Dangsing	36.10	295	eP	P	13 19 00.6	+0.2
	comp=Z,12nm,0.7s,mb4.9						
COEN	Coen	37.65	143	P	P	13 19 11.0	-2.6
WRAB	Tennant Creek	38.86	160	eP	P	13 19 21.9	-1.8
	comp=Z,6.5nm,1.0s,mb4.3						
WRA	Warramunga Arr	38.86	160	P	P	13 19 21.2	-2.5
	comp=Z,5.0nm,0.9s,mb4.3,baz=340,slow=9.0,SNR=18						
ASAR	Alice Springs	42.22	162	P	P	13 19 49.7	-1.7
	comp=Z,2.1nm,0.7s,mb3.9,baz=340,slow=7.1,SNR=20						
MKAR	Makanchi Array	43.71	322	P	P	13 20 04.0	+0.7
	comp=Z,1.9nm,0.9s,mb3.8,baz=120,slow=7.9,SNR=13						
MKAR				PcP	PcP	13 21 49.5	-0.7
	comp=Z,1.5nm,0.9s,baz=106,slow=4.3,SNR=4.8						
PETK	Petropavlovsk-	46.12	30	P	P	13 20 20.4	-2.0
	comp=Z,8.4nm,1.0s,mb4.6,baz=191,slow=5.1,SNR=5.4						
PETK	Petropavlovsk-	46.12	30	P	P	13 20 20.4	-2.0
ZALV	Zalesovo Beam	46.41	331	P	P	13 20 24.1	-0.5
	comp=Z,1.1nm,0.8s,mb3.9,baz=120,slow=7.5,SNR=4.9						
KURK	Kurchatov	47.76	325	P	P	13 20 35.1	-0.2
	comp=Z,4.7nm,0.8s,mb4.6,baz=122,slow=8.3,SNR=33						
KURK	Kurchatov	47.76	325	eP	P	13 20 35.4	+0.1
STKA	Stephens Creek	52.34	158	P	P	13 21 07.8	-2.4
	comp=Z,10nm,0.8s,mb4.8,baz=338,slow=6.9,SNR=4.9						
TIXI	Tiksi	54.96	3	eP	P	13 21 28.1	-0.8
	comp=Z,7.3nm,0.9s,mb4.7						
BILL	Bilibino	58.60	18	eP	P	13 21 54.4	-0.5
	comp=Z,3.8nm,0.8s,mb4.5						
AKTK	Aktyubinsk	60.01	319	P	P	13 22 05.3	+0.4
AKTO	Aktyubinsk	60.01	319	P	P	13 22 05.3	+0.4
	comp=Z,0.8nm,0.5s,mb4.0,baz=116,slow=14,SNR=2.5						
BRTR	Keskin Array B	77.44	308	P	P	13 23 53.5	-0.3
	comp=Z,0.4nm,0.4s,mb3.7,baz=106,slow=3.1,SNR=2.6						
AKASG	Malin Array Be	78.25	320	P	P	13 23 56.6	-1.5
	comp=Z,0.5nm,0.3s,mb3.9,baz=68,slow=6.1,SNR=2.7						
NOA	NORSAR Array B	84.59	333	P	P	13 24 30.1	-1.4
	comp=Z,2.4nm,0.9s,mb4.3,baz=64,slow=4.8,SNR=4.0						
YKA	Yellowknife Ar	89.73	23	P	P	13 24 55.6	-0.7
	comp=Z,1.5nm,0.6s,mb4.5,baz=308,slow=4.2,SNR=34						

ISCJB 13 13:25:21.7±0.8,37°.24N±0°.05×28°.24E±0°.05,h14^{km}±8^{km}, Error ellipse: s-maj=9.0km s-min=4.5km az=33.1

CSEM 13 13:25:21.8±0.1,37°.24N×28°.26E,h12^{km},MD2.6,Error ellipse: s-maj=3.0km s-min=1.7km az=30.0

ISK 13 13:25:21.4,37°.22N×28°.23E,h14^{km},MD2.6

DDA 13 13:25:22.1,37°.24N×28°.23E,h7^{km}±4^{km},Md2.8

ISC 13 13:25:22.2±0.8,37°.24N±0°.05×28°.26E±0°.05,h13^{km}±8^{km}, n16,σ0^{s}69/29,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.11	169	ePG	Pg	13 25 24.8	-0.4
YER				eSG	Sg	13 25 27.1	-0.2
YER	Yerkesik	0.11	169	ePg	Pg	13 25 24.8	-0.4
YER				eSg	Sg	13 25 27.2	-0.2
MLSB	Milas	0.39	278	ePG	Pg	13 25 29.2	-0.7
MLSB				eSG	Sg	13 25 35.1	+0.1
MLSB	Milas	0.39	278	ePg	Pg	13 25 29.2	-0.7
MLSB				eSg	Sg	13 25 35.2	+0.1
TURN	Turunc	0.46	143	i P	Pg	13 25 31.1	-0.1
TURN				i S	Sg	13 25 38.7	+1.3
TURN	Turunc	0.46	143	i P	Pg	13 25 31.1	-0.2
AYDN	Tasoluk	0.51	324	i P	Pg	13 25 32.2	-0.1
AYDN				i S	Sg	13 25 38.9	-0.2
AYDN	Tasoluk	0.51	324	i P	Pg	13 25 32.2	-0.1
AYDN				i S	Sg	13 25 38.9	-0.2
BDRM	Kayabasi	0.67	255	i P	Pg	13 25 34.9	-0.4
BDRM				i S	Sg	13 25 44.5	+0.4
BDRM	Kayabasi	0.67	255	i P	Pg	13 25 34.9	-0.4
BDRM				i S	Sg	13 25 44.5	+0.4
BODT	Bodrum	0.78	257	ePG	Pg	13 25 36.5	-0.7
BODT				eSG	Sg	13 25 47.3	-0.1
BODT	Bodrum	0.78	257	ePg	Pg	13 25 36.5	-0.7
BODT				eSg	Sg	13 25 47.3	-0.1
GCAM	G?zelcaml?	0.93	300	i P	Pg	13 25 39.9	-0.3
GCAM				i S	Sg	13 25 54.5	+2.1
GCAM	G?zelcaml?	0.93	300	i P	Pg	13 25 39.9	-0.3
GCAM				i S	Sg	13 25 54.5	+2.1
ELL	Elmali	1.41	110	ePN	Pn	13 25 47.4	-0.2
ELL	Elmali	1.41	110	ePn	Pn	13 25 47.4	-0.2

DDA 13 13:34:36.4,40°.33N×29°.22E,h3^{km}±3^{km},Md2.8,Ml2.9

ISK 13 13:34:36.7,40°.35N×29°.15E,h12^{km},MD2.7

ISCJB 13 13:34:37.0±0.5,40°.33N±0°.03×29°.18E±0°.03,h0^{km}±8^{km}, Error ellipse: s-maj=5.0km s-min=4.2km az=154.5

CSEM 13 13:34:37.2±0.1,40°.34N×29°.17E,h10^{km},ML2.9,Error ellipse: s-maj=2.1km s-min=1.7km az=154.0

ISC 13 13:34:37.4±0.5,40°.34N±0°.03×29°.17E±0°.03,h8^{km}±6^{km}, n25,σ0^{s}75/41,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULDT	Uludag	0.20	188	i P	Pg	13 34 40.3	-1.1
ULDT				i S	Sg	13 34 44.4	+0.3
ULDT	Uludag	0.20	188	i P	Pg	13 34 40.3	-1.1
ULDT				i S	Sg	13 34 44.4	+0.3
YLV	Yalova	0.28	33	ePG	Pg	13 34 43.1	+0.2
YLV				eSG	Sg	13 34 47.5	+0.9
YLV	Yalova	0.28	33	ePg	Pg	13 34 43.1	+0.2
YLV				eSg	Sg	13 34 47.5	+0.9
ARMT	Armutlu	0.33	314	ePG	Pg	13 34 43.5	-0.5
ARMT				eSG	Sg	13 34 48.0	-0.4
ARMT	Armutlu	0.33	314	ePg	Pg	13 34 43.5	-0.4
ARMT				eSg	Sg	13 34 48.0	-0.3
ADVT	Abdulvahap	0.44	77	ePG	Pg	13 34 45.9	-0.1
ADVT				eSG	Sg	13 34 53.1	+1.2
ADVT	Abdulvahap	0.44	77	ePg	Pg	13 34 45.9	-0.1
ADVT				eSg	Sg	13 34 53.1	+1.3
CAVI	Cavuskoy	0.53	104	ePG	Pg	13 34 47.6	0.0
CAVI	Cavuskoy	0.53	104	ePg	Pg	13 34 47.6	-0.1
KCT	Karacabey	0.63	264	ePG	Pg	13 34 49.2	-0.4
KCT	Karacabey	0.63	264	ePg	Pg	13 34 49.2	-0.4
EYL	Eskiyayla	0.79	73	ePG	Pg	13 34 51.8	-0.7
DST	Dursunbey	0.84	210	ePG	Pg	13 34 54.0	+0.4
DST	Dursunbey	0.84	210	ePg	Pg	13 34 54.0	+0.4
DURS	Dursunbey	0.91	216	i P	Pg	13 34 55.2	+0.3
DURS				i S	Sg	13 35 07.1	+0.4
DURS	Dursunbey	0.91	216	i P	Pg	13 34 55.2	+0.3
DURS				i S	Sg	13 35 07.1	+0.4
BORA	Eskisehir	1.08	114	i P	Pg	13 34 56.7	-1.5
BORA				i S	Sg	13 35 12.8	+0.6
BORA	Eskisehir	1.08	114	i P	Pg	13 34 56.7	-1.5
BORA				i S	Sg	13 35 12.8	+0.6
GDZ	Gediz	1.27	169	i P	Pn	13 35 00.8	-0.6
GDZ				i S	Sb	13 35 18.3	+0.3
GDZ	Gediz	1.27	169	i P	Pn	13 35 00.8	-0.6
GDZ				i S	Sb	13 35 18.3	+0.3
BALY	Balya	1.33	244	eP	Pn	13 35 01.8	-0.6
BALY				i S	Sb	13 35 21.7	+1.9
BALY	Balya	1.33	244	eP	Pn	13 35 01.8	-0.5
BALY				i S	Sb	13 35 21.7	+1.8
ALT	Altintas	1.47	150	ePN	Pn	13 35 03.7	-0.5
ALT	Altintas	1.47	150	ePn	Pn	13 35 03.7	-0.5

ISCJB 13 13:35:31.7±2.1,51°.1N±0°.2×178°.94W±0°.10,h61^{km}±14^{km}, mb3.8/7,Error ellipse: s-maj=36.5km s-min=10.4km az=178.5

NEIC 13 13:35:32.9±1.8,51°.12N×178°.90W,h51^{km}±13^{km},mb3.9/3, ML3.7(AEIC),Error ellipse: s-maj=29.8km s-min=9.8km az=178.0

IDC 13 13:35:35.0±4.7,51°.69N×178°.87W,h53^{km}±37^{km},mb3.5/7, mb1 3.8/9,mb1mx3.5/26,mbtmp3.6/9,ML2.7/1,MS3.1/1, Ms1 3.1/1,ms1mx2.9/20,Error ellipse: s-maj=70.2km s-min=18.5km az=178.0

ISC 13 13:35:33.6±1.9,51°.2N±0°.2×178°.9W±0°.1,h58^{km}±13^{km},n18, σ0^{s}92/18,mb3.8/7,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	3.12	69	P	Pn	13 36 19.8	-0.5
ATKA				S	Sn	13 36 57.4	+1.2
FX1	Attu Island--F	5.16	292	P	Pn	13 36 47.6	-0.5
	1.0nm,0.3s,baz=90,slow=2.0,SNR=2.7						
FX1				S	Sn	13 37 52.3	+6.0
	1.4nm,0.3s,baz=300,slow=20,SNR=3.1						
CHGN	Chignik	13.16	59	eP	Pn	13 38 37.8	+0.4
PETK	Petropavlovsk-	14.45	287	LR	LR	13 43 11.6	
	comp=Z,79nm,20.0s,baz=354,slow=32						
KDAK	Kodiak Island	16.60	56	P	Pn	13 39 19.9	-2.2
	0.8nm,0.3s,baz=244,slow=16,SNR=6.9						
KDAK	Kodiak Island	16.60	56	P	Pn	13 39 19.9	-2.2
BILL	Bilibino	18.38	342	P	Pn	13 39 45.1	+1.2
	5.4nm,1.2s						
KTH	Kantishna Hill	19.32	39	eP	Pn	13 39 54.5	-0.7
	7.0nm,0.7s						
PMR	Palmer	19.32	46	eP	Pn	13 39 55.0	-0.2
	7.0nm,1.0s						
MCK	McKinley	20.20	40	eP	P	13 40 03.7	+0.5
YKA	Yellowknife Ar	35.42	46	P	P	13 42 22.8	-0.7
	0.3nm,0.4s,mb3.5,baz=282,slow=8.0,SNR=6.4						
PDAR	Pinedale Array	46.45	72	P	P	13 43 55.2	+0.8
	2.2nm,0.6s,mb4.3,baz=311,slow=3.8,SNR=30						
SONM	Songino Array	46.65	297	P	P	13 43 56.8	+0.9
	0.3nm,0.6s,mb3.4,baz=61,slow=6.1,SNR=4.7						
ULM	Lac du Bonnet	49.86	56	P	P	13 44 20.6	+0.1
	1.1nm,0.4s,mb4.2,baz=326,slow=3.6,SNR=2.4						
TXAR	Lajitas Array	58.77	81	P	P	13 45 26.3	+0.8

	0.4nm,0.7s,mb3.5,baz=302,slow=3.4,SNR=3.8						
MKAR	**Makanchi Array**	60.08	308	P	P	13 45 34.3	0.0
	0.1nm,0.4s,mb3.2,baz=64,slow=3.4,SNR=3.0						
SCHQ	**Schefferville**	60.20	38	P	P	13 45 33.4	-1.6
	3.4nm,1.0s,mb4.3,baz=280,slow=11,SNR=2.6						
BOSA	**Boshof**	151.03	312	PKPbc	PKPbc	13 55 21.1	+1.5
	2.5nm,1.0s,baz=54,slow=8.7,SNR=2.7						

*IDC **13** 13:36:14.4±2.1, 32°.83N×141°.16E, h127^{km}±16^{km}, mb3.2/3, mb1 3.3/4, mb1mx3.0/22, mbtmp3.1/4, Error ellipse: s-maj=38.7km s-min=24.6km az=59.0*

*ISCJB **13** 13:36:18.1±1.0, 32°.72N±0°.06×140°.31E±0°.10, h132^{km}±5^{km}, mb3.3/3, Error ellipse: s-maj=13.7km s-min=9.6km az=10.8*

*JMA **13** 13:36:19.3±0.2, 32°.77N×140°.38E, h123^{km}±2^{km}, M3.8*

ISC 13 13:36:18.8±1.0, **32°.69N**±0°.06×**140°.34E**±0°.10, **h126**^{km}±6^{km}, **n22**, σ**0^{s}.70**/34, **mb3.4**/3, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	0.61	313	P	Pn	13 36 38.3	+0.2
JHJ2				S	Sn	13 36 52.4	-0.3
JHJ	**Hachijo jima 2**	0.63	312	P	Pn	13 36 38.4	+0.1
	152nm,0.3s,baz=52,slow=19,SNR=28						
JHJ				S	Sn	13 36 52.2	-0.8
	659nm,0.3s,baz=18,slow=21,SNR=38						
JMY	**Miyakejima3**	1.54	333	P	Pn	13 36 47.1	0.0
JKO	**Kozu shima**	1.80	326	P	Pn	13 36 50.3	+0.2
JKO				S	Sn	13 37 15.5	+1.5
NJJJ	**Nii jima 2**	1.92	333	P	Pn	13 36 51.8	+0.2
NJJJ				S	Sn	13 37 16.6	-0.1
BSO1	**Boso 1**	2.02	15	P	Pn	13 36 52.8	0.0
BSO1				S	Sn	13 37 19.1	+0.2
BSO3	**Boso 3**	2.11	4	P	Pn	13 36 54.1	+0.2
BSO3				S	Sn	13 37 21.1	+0.3
JIM2	**Oshima 3**	2.16	340	P	Pn	13 36 54.4	-0.1
JIM2				S	Sn	13 37 19.9	-2.0
JIZS	**Izushimoda**	2.36	329	P	Pn	13 36 57.2	+0.2
TK04	**Tokai 4**	2.66	310	P	Pn	13 37 01.4	+0.5
JOD2	**Odawara 2**	2.77	338	P	Pn	13 37 02.5	+0.3
JOD2				S	Sn	13 37 34.6	-1.1
SHZ3	**Shizuoka 3**	2.96	324	P	Pn	13 37 05.5	+0.8
JYN	**Shimob**	3.17	332	P	Pn	13 37 08.3	+0.8
JYN				S	Sn	13 37 46.9	+1.8
JIE	**Ise**	3.48	300	P	Pn	13 37 11.3	-0.2
JRY	**Ryogami san**	3.52	341	P	Pn	13 37 12.8	+0.7
JRY				S	Sn	13 37 53.4	0.0
JAG	**Ashikaga**	3.79	349	P	Pn	13 37 14.8	-0.9
JWZ	**Kozaga**	3.97	283	P	Pn	13 37 17.7	-0.4
MJAR	**Matsushiro Arr**	4.22	336	P	Pn	13 37 20.0	-1.4
	3.1nm,0.3s,baz=146,slow=11,SNR=24						
MJAR				S	Sn	13 38 09.6	-0.4
	1.5nm,0.3s,baz=164,slow=21,SNR=3.9						
MAT	**Matsushiro**	4.22	336	P	Pn	13 37 21.7	+0.3
MAT				S	Sn	13 38 09.7	-0.3
SONM	**Songino Array**	29.71	311	P	P	13 42 12.6	-0.2
	0.5nm,0.7s,mb3.3,baz=100,slow=8.1,SNR=3.4						
MKAR	**Makanchi Array**	45.80	306	P	P	13 44 27.4	-0.3
	0.2nm,0.3s,mb3.3,baz=83,slow=9.2,SNR=5.7						
PDAR	**Pinedale Array**	81.36	44	P	P	13 48 13.6	-7.7
	0.5nm,0.5s,mb3.6,baz=299,slow=3.7,SNR=7.8						

*ISCJB **13** 13:39:51.8±3.8, 5°.6S±0°.2×148°.4E±0°.2, h200^{km}±37^{km}, mb3.8/6, Error ellipse: s-maj=26.9km s-min=25.3km az=21.8*

*NEIC **13** 13:39:53.2±2.6, 5°.67S×148°.37E, h199^{km}±25^{km}, mb4.6/1, Error ellipse: s-maj=18.5km s-min=16.5km az=98.0*

*IDC **13** 13:39:53.7±8.4, 5°.64S×148°.30E, h200^{km}±82^{km}, mb3.5/6, mb1 3.7/7, mb1mx3.5/16, mbtmp3.5/7, Error ellipse: s-maj=50.6km s-min=25.9km az=109.0*

ISC 13 13:39:52.8±3.7, **5°.7S**±0°.2×**148°.4E**±0°.2, **h191**^{km}±36^{km}, **n12**, σ**0^{s}.52**/11, **mb3.8**/6, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	**Coen**	9.70	211	*e*P	Pn	13 42 08.3	0.0
WRAB	**Tennant Creek**	19.68	223	*e*P	P	13 44 07.0	-0.4
	10nm,0.6s						
WRA	**Warramunga Arr**	19.69	223	P	P	13 44 07.5	0.0
	1.8nm,0.3s,baz=51,slow=11,SNR=115						
ASAR	**Alice Springs**	22.68	216	P	P	13 44 38.6	+0.6
	4.6nm,0.7s,mb4.0,baz=54,slow=9.0,SNR=73						
DZM	**Mont Dzumac**	23.91	135	*e*P	P	13 44 49.0	-0.2
FITZ	**Fitzroy Crossi**	25.41	239	P	P	13 45 02.7	-0.1
	11nm,0.4s,mb4.7,baz=58,slow=8.3,SNR=30						
STKA	**Stephens Creek**	26.84	193	P	P	13 45 15.7	+0.2
	2.7nm,1.0s,mb3.8,baz=0.0,slow=8.1,SNR=2.8						
PETK	**Petropavlovsk-**	59.08	7	P	P	13 49 32.7	+0.1
	3.3nm,1.0s,mb4.1,baz=148,slow=6.1,SNR=5.7						
PETK	**Petropavlovsk-**	59.08	7	P	P	13 49 32.7	+0.1
SONM	**Songino Array**	64.78	330	P	P	13 50 11.7	+0.9
	0.2nm,0.5s,mb3.2,baz=141,slow=6.0,SNR=2.8						
MKAR	**Makanchi Array**	78.11	320	P	P	13 51 29.4	-1.1
	0.1nm,0.3s,mb2.9,baz=96,slow=9.8,SNR=4.2						
TORD	**Torodi Ar. Bea**	146.33	285	PKPbc	PKPbc	13 59 11.0	-1.0
	0.3nm,0.3s,baz=76,slow=2.7,SNR=5.6						

*IDC **13** 13:44:11.1±0.9, 31°.56N×71°.90E, h0^{km}, mb3.6/11, mb1 3.7/13, mb1mx3.7/28, mbtmp3.6/13, ML3.5/2, Error ellipse: s-maj=25.4km s-min=18.8km az=48.0*

*NDI **13** 13:44:13.1±1.7, 31°.76N×71°.61E, h35^{km}, ML3.7*

*ISCJB **13** 13:44:16.6±1.0, 31°.62N±0°.05×72°.40E±0°.05, h72^{km}±13^{km}, mb3.4/11, Error ellipse: s-maj=10.4km s-min=5.1km az=40.6*

*NEIC **13** 13:44:16.5±0.6, 31°.62N×71°.95E, h35^{km}, Error ellipse: s-maj=13.6km s-min=8.9km az=74.0*

ISC 13 13:44:17.7±0.8, **31°.65N**±0°.05×**72°.35E**±0°.06, **h51**^{km}±10^{km}, **n40**, σ**1^{s}.20**/51, **mb3.5**/11, **Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	**Thein Dam**	2.97	74	*e*x	Pn	13 45 06.8	+4.6
THN				*e*x	x	13 45 51.2	
BHK	**Bhakra**	3.48	93	*e*S	Sn	13 45 57.3	+8.0
SDNR	**Sundarnagar**	3.95	91	*e*PKP	Pn	13 45 19.6	+3.9
SDNR				*e*x	x	13 46 25.0	
KLP	**Kalpa**	5.04	90	*e*PKP	Pn	13 45 35.2	+4.5
KLP				*e*S	Sn	13 46 35.5	+7.9
KLP				AML	AML	13 47 12.4	
	comp=E,248nm,0.7s						
KLP				AML	AML	13 47 14.5	
	comp=N,155nm,0.6s						
DDI	**Dehra Dun**	5.08	104	*e*x	x	13 45 55.5	
NDI	**New Delhi**	5.15	124	*e*x	Pn	13 45 32.0	-0.2
NDI				*e*S	Sn	13 46 35.0	+4.7
AJM	**Ajmer**	5.53	158	*e*PKP	Pn	13 45 37.4	0.0
AJM				*e*S	Sn	13 46 40.0	+0.4
AJM				AML	AML	13 47 13.0	
	comp=N,62nm,0.2s						
AJM				AML	AML	13 47 13.2	
	comp=E,49nm,0.3s						
KSH	**Kashi**	8.39	20	Pn	Pn	13 46 14.5	-2.0
KSH				Sn	Sn	13 47 39.5	-10
KSH				smax			
	comp=N,37nm,0.3s						
KSH				smax			
	comp=E,24nm,0.2s						
DANN	**Dangsing**	10.43	105	*e*Pn	Pn	13 46 45.9	+1.4
DANN				*e*Sn	Sn	13 48 40.9	+1.0
	comp=E,25nm,0.5s						
AML	**Almayashu**	10.52	6	*e*Pn	Pn	13 46 46.1	+0.4
	comp=E,3.8nm,0.5s						
KOLN	**Koldanda**	10.52	109	*e*Pn	Pn	13 46 45.9	+0.1
KOLN				*e*Sn	Sn	13 48 42.8	+0.6
	comp=E,15nm,0.5s						
UCH	**Uchtor**	10.70	9	*e*Pn	Pn	13 46 48.9	+0.7
	comp=E,4.8nm,0.6s						
EKS2	**Erkin-Say**	11.05	6	*e*P	Pn	13 46 53.8	+0.8
AAK	**Ala-Archa**	11.10	8	*e*P	Pn	13 46 55.0	+1.4
	comp=E,3.5nm,0.9s						
GKN	**Gorkha**	11.27	106	*e*Pn	Pn	13 46 56.0	-0.1
GKN				*e*Sn	Sn	13 48 58.8	-1.8
	comp=E,21nm,0.4s						
DMN	**Daman**	11.81	107	*e*Pn	Pn	13 47 03.0	-0.4
KKN	**Kakani**	11.88	106	*e*Pn	Pn	13 47 03.6	-0.8
PKIN	**Phulchoki**	12.06	106	*e*Pn	Pn	13 47 06.8	0.0
PKIN				*e*Sn	Sn	13 49 17.2	-2.6
	comp=E,12nm,0.3s						
PKI	**Pulchoki**	12.07	106	*e*Pn	Pn	13 47 08.3	+1.3
PKI				*e*Sn	Sn	13 49 18.5	-1.6
	comp=E,23nm,0.5s						
GUN	**Gumba**	12.33	104	*e*Pn	Pn	13 47 11.7	+1.2
GUN				*e*Sn	Sn	13 49 26.8	+0.4
	comp=E,11nm,0.4s						
JIRN	**Jiri**	12.68	105	*e*Pn	Pn	13 47 15.4	+0.1
JIRN				*e*Sn	Sn	13 49 34.5	-0.4
	comp=E,12nm,0.3s						
RAMN	**Ramite**	13.29	107	*e*Pn	Pn	13 47 23.0	-0.6
RAMN				*e*Sn	Sn	13 49 48.0	-1.8
	comp=E,23nm,0.3s						
ODAN	**Odare**	13.97	106	*e*Pn	Pn	13 47 33.6	+0.7
TAPN	**Taplejung**	14.05	104	*e*Pn	Pn	13 47 33.5	-0.4
MKAR	**Makanchi Array**	16.95	24	P	Pn	13 48 11.3	+0.2
	comp=E,0.1nm,0.3s,baz=209,slow=12,SNR=8.6						
MKAR	**Makanchi Array**	16.95	24	P	Pn	13 48 11.3	+0.2
KURK	**Kurchatov**	19.61	12	P	Pn	13 48 41.6	-1.7
	comp=E,0.1nm,0.3s,baz=202,slow=10,SNR=2.5						
BVAR	**Borovoye Array**	21.41	357	P	P	13 49 00.8	-0.2
	comp=E,1.5nm,0.5s,mb3.6,baz=167,slow=11,SNR=9.3						
AKTK	**Aktyubinsk**	21.59	335	P	P	13 49 02.3	-0.7
AKTO	**Aktyubinsk**	21.59	335	P	P	13 49 02.3	-0.7
	comp=E,0.6nm,0.3s,mb3.5,baz=124,slow=11,SNR=4.2						
ZALV	**Zalesovo Beam**	24.02	18	P	P	13 49 29.6	+2.1
	comp=E,0.8nm,0.5s,mb3.4,baz=219,slow=11,SNR=4.7						
CMAR	**Chiang Mai Arr**	27.36	112	P	P	13 50 01.7	+3.6
	comp=E,0.4nm,0.4s,mb3.3,baz=301,slow=10,SNR=3.1						
SONM	**Songino Array**	30.46	48	P	P	13 50 29.1	+3.7
	comp=E,0.3nm,0.7s,mb3.1,baz=235,slow=6.8,SNR=2.1						
BRTR	**Keskin Array B**	32.26	295	P	P	13 50 39.4	-1.9
	comp=E,0.4nm,0.5s,mb3.5,baz=130,slow=7.8,SNR=2.5						
NOA	**NORSAR Array B**	48.96	326	P	P	13 52 57.5	-1.1
	comp=E,0.5nm,0.7s,mb3.6,baz=96,slow=8.1,SNR=2.9						
TORD	**Torodi Ar. Bea**	66.84	272	P	P	13 55 02.6	-2.0
	comp=E,0.5nm,0.6s,mb3.8,baz=55,slow=5.9,SNR=5.0						
WRA	**Warramunga Arr**	78.48	122	P	P	13 56 15.6	+2.1
	comp=E,0.4nm,0.6s,mb3.5,baz=316,slow=5.5,SNR=7.7						
ASAR	**Alice Springs**	80.56	125	P	P	13 56 26.9	+2.1
	comp=E,0.4nm,0.6s,mb3.5,baz=316,slow=5.7,SNR=6.3						
YKA	**Yellowknife Ar**	86.02	3	P	P	13 56 52.9	+0.6
	comp=E,0.3nm,0.5s,mb3.8,baz=344,slow=5.2,SNR=7.9						
YKA	**Yellowknife Ar**	86.02	3	P	P	13 56 52.9	+0.6

*ISCJB **13** 13:56:45.0±0.2, 49°.36N±0°.01×6°.79E±0°.02, h0^{km}, Error ellipse: s-maj=1.8km s-min=1.6km az=172.8*

*NEIC **13** 13:56:46.6, 49°.39N×6°.78E, h1^{km}, ML2.6(SZGRF), ML2.9(STR), ML3.3(LDG), After STR.*

*STR **13** 13:56:46.6±0.3, 49°.39N×6°.78E, h1^{km}, Ml2.9, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*CSEM **13** 13:56:46.0±0.1, 49°.36N×6°.79E, h2^{km}, ML3.3/18, Error ellipse: s-maj=1.9km s-min=1.6km az=96.0*

*BNS **13** 13:56:47.0±0.9, 49°.36N×6°.89E, h1^{km}, ML2.3*

*LDG **13** 13:56:47.0±0.1, 49°.38N×6°.82E, h1^{km}, Md3.4/2, Ml3.3/20, Error ellipse: s-maj=1.1km s-min=0.9km az=107.0, Suspected Mining induced.*

*BGR **13** 13:56:47.2±0.3, 49°.36N×6°.86E, h1^{km}, ML2.7/5, Error ellipse: s-maj=3.3km s-min=3.3km az=146.0*

*PRU **13** 13:56:48.2, 49°.29N×7°.03E, h0^{km}*

ISC 13 13:56:46.0±0.2, **49°.37N**±0°.01×**6°.78E**±0°.02, **h0**^{km}, **n152**, σ**1^{s}.12**/265, **6C-1D**, **Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	**Ruppelstein**	0.38	28	Pg	Pg	13 56 54.1	+0.8
RUP				Sg	Sg	13 56 59.1	+0.9
RUP	**Ruppelstein**	0.38	28	Pg	Pg	13 56 54.1	+0.8
RUP	**Ruppelstein**	0.38	28	Pb	Pg	13 56 54.2	+0.9
RUP				Sg	Sg	13 56 59.1	+0.9
WLF	**Walferdange**	0.51	306	P	Pg	13 56 58.0	+2.3
WLF	**Walferdange**	0.51	306	*e*Pg	Pg	13 56 57.9	+2.2
	SNR=6.8						
WLF				*e*Sg	Sg	13 57 04.0	+1.7
	SNR=5.0						
WLF	**Walferdange**	0.51	306	*e*P	Pg	13 56 57.8	+2.1
WLF	**Walferdange**	0.51	306	Pg	Pg	13 56 57.9	+2.2
	SNR=6.8						
WLF				Sg	Sg	13 57 04.0	+1.8
	SNR=5.0						
ABH	**Alteburg**	0.72	44	Pg	Pg	13 57 00.0	+0.3
ABH				Sg	Sg	13 57 08.7	-0.3
ABH	**Alteburg**	0.72	44	Pg	Pg	13 57 00.0	+0.3
ABH				Sg	Sg	13 57 08.7	-0.3
LANF	**Langenberg**	0.78	120	Pg	Pg	13 57 01.0	+0.1
LANF				Sg	Sg	13 57 13.3	+2.4
LANF	**Langenberg**	0.78	120	Pg	Pg	13 57 01.0	+0.1
LANF				Sg	Sg	13 57 13.3	+2.4
KTD	**Kalmit**	0.85	93	Pg	Pg	13 57 03.3	+1.0
KTD				Sg	Sg	13 57 15.8	+2.4
KTD	**Kalmit**	0.85	93	Pg	Pg	13 57 03.3	+1.0
KTD				Sg	Sg	13 57 15.8	+2.4
BGG	**Burgeitz**	0.91	23	*e*Pg	Pg	13 57 03.9	+0.4
BGG	**Burgeitz**	0.91	23	Pg	Pg	13 57 03.9	+0.4
HILG	**Hillesheim**	0.93	356	*e*Pg	Pg	13 57 04.7	+0.9
HILG	**Hillesheim**	0.93	356	Pg	Pg	13 57 04.7	+0.9
CDF	**Champ du Feu**	1.01	161	*e*Pn	Pn	13 57 06.7	-0.7
	SNR=1.0						
CDF				*e*Sg	Sg	13 57 19.3	+0.9
	167nm,0.4s,SNR=1.0						
CDF	**Champ du Feu**	1.01	161	*e*Pg	Pg	13 57 05.6	+0.2
CDF				*e*Pn	Pn	13 57 06.7	-0.7
CDF				*e*Sg	Sg	13 57 19.3	+0.9
CDF	**Champ du Feu**	1.01	161	*e*Pg	Pg	13 57 05.6	+0.2
	SNR=1.0						
CDF	**Champ du Feu**	1.01	161	*e*Pn	Pn	13 57 06.7	-0.7
	SNR=1.0						
CDF				*e*Sg	Sg	13 57 19.3	+0.9
	83nm,0.4s,SNR=1.0						
RFYF	**Reffroy**	1.14	230	*e*Pg	Pg	13 57 09.5	+1.8
	baz=46						
RFYF				*e*Sg	Sg	13 57 24.2	+1.8
	211nm,0.3s,baz=37						
RFYF	**Reffroy**	1.14	230	*e*Pg	Pg	13 57 09.5	+1.8
	baz=46						
RFYF				*e*Sg	Sg	13 57 24.2	+1.8
	106nm,0.3s,baz=37						
ECH	**Echery**	1.18	168	Pg	Pg	13 57 09.1	+0.5
ECH				Sg	Sg	13 57 26.2	+2.3
ECH	**Echery**	1.18	168	*e*P	Pg	13 57 08.6	0.0
ECH				*e*S	Sg	13 57 25.4	+1.6
ECH	**Echery**	1.18	168	Pg	Pg	13 57 09.1	+0.5
ECH				*e*S	Sg	13 57 25.4	+1.5
ECH				Sg	Sg	13 57 26.2	+2.3
KOE	**Koeppel**	1.22	30	*e*Pg	Pg	13 57 09.0	-0.5
KOE	**Koeppel**	1.22	30	Pg	Pg	13 57 09.0	-0.5
STB	**Steinbach**	1.23	2	*e*Pg	Pg	13 57 09.7	+0.1
STB				*e*Sg	Sg	13 57 26.8	+1.3
	56nm,0.5s						
STB	**Steinbach**	1.23	2	Pg	Pg	13 57 09.7	+0.2
STB				Sg	Sg	13 57 26.8	+1.4
	56nm,0.5s						
THEF	**They Montfort**	1.26	205	Pg	Pg	13 57 10.7	+0.6
THEF				Sg	Sg	13 57 29.1	+2.8
THEF	**They Montfort**	1.26	205	Pg	Pg	13 57 10.7	+0.6
THEF				Sg	Sg	13 57 29.1	+2.8
SWS	**Schriesheim-Wi**	1.26	84	P	Pg	13 57 09.8	-0.3
SWS				S	Sg	13 57 26.0	-0.4
SWS	**Schriesheim-Wi**	1.26	84	P	Pg	13 57 09.8	-0.3
SWS				S	Sg	13 57 26.0	-0.4
KLL	**Kalltalsperre**	1.31	347	*e*Pg	Pg	13 57 10.7	-0.5
KLL	**Kalltalsperre**	1.31	347	Pg	Pg	13 57 10.7	-0.5
LIBD	**Limburg**	1.33	156	Pg	Pg	13 57 12.5	+0.9
LIBD				Sg	Sg	13 57 29.8	+1.0
LIBD	**Limburg**	1.33	156	Pg	Pg	13 57 12.5	+0.9
LIBD				Sg	Sg	13 57 29.8	+1.0
MEM	**Membach**	1.34	338	P	Pg	13 57 12.0	+0.4
MEM	**Membach**	1.34	338	P	Pg	13 57 12.0	+0.3
TOD	**Tromm**	1.34	79	Pg	Pg	13 57 11.4	-0.3
TOD				Sg	Sg	13 57 30.0	+1.0
TOD	**Tromm**	1.34	79	Pg	Pg	13 57 11.4	-0.3
TOD				Sg	Sg	13 57 30.0	+1.0
DREG	**Dreilaegerbach**	1.34	345	*e*Pg	Pg	13 57 12.0	+0.2
DREG	**Dreilaegerbach**	1.34	345	Pg	Pg	13 57 12.0	+0.3
TNS	**Taunus Mts**	1.38	51	*e*Pn	Pn	13 57 11.3	-1.1
	SNR=7.5						
TNS				*e*Sg	Sg	13 57 31.0	+0.8
	SNR=3.2						
TNS	**Taunus Mts**	1.38	51	*e*Pg	Pg	13 57 11.4	-1.0
TNS				*e*Sg	Sg	13 57 32.0	+1.8
TNS	**Taunus Mts**	1.38	51	Pn	Pn	13 57 11.3	-1.1
	SNR=7.5						
TNS				Sg	Sg	13 57 31.0	+0.8
	SNR=3.2						
HAU	**Haudompre**	1.39	192	*e*Pg	Pg	13 57 13.3	+0.6
HAU				*e*Sg	Sg	13 57 31.4	+0.7
	103nm,0.3s,SNR=1.0						
HAU	**Haudompre**	1.39	192	*e*Pn	Pn	13 57 12.2	-0.4
HAU				*e*Pg	Pg	13 57 13.3	+0.6
HAU				*e*Sg	Sg	13 57 31.4	+0.7
HAU	**Haudompre**	1.39	192	*e*Pn	Pn	13 57 12.2	-0.4
	SNR=1.0						
HAU	**Haudompre**	1.39	192	*e*Pg	Pg	13 57 13.3	+0.6
HAU				*e*Sg	Sg	13 57 31.4	+0.7
	52nm,0.3s,SNR=1.0						
BCLA	**Clavier**	1.42	318	P	Pn	13 57 14.2	+1.2
BCLA	**Clavier**	1.42	318	P	Pn	13 57 14.2	+1.1
MEZF	**Maizieres J'vi**	1.43	233	*e*Pg	Pg	13 57 14.1	+0.7
	baz=47,SNR=1.0						
MEZF				*e*Sg	Sg	13 57 33.1	+1.1
	74nm,0.4s,baz=54,SNR=1.0						
MEZF	**Maizieres J'vi**	1.43	233	*e*Pg	Pg	13 57 14.1	+0.7
	baz=47,SNR=1.0						
MEZF				*e*Sg	Sg	13 57 33.1	+1.1
	37nm,0.4s,baz=54,SNR=1.0						
BFO	**Black Forest**	1.46	135	*e*Pn	Pn	13 57 12.9	-0.7
	SNR=13						
BFO				*e*Sg	Sg	13 57 31.5	-1.3
	SNR=8.6						
BFO	**Black Forest**	1.46	135	*e*Pg	Pg	13 57 13.2	-0.7
BFO				*e*Sg	Sg	13 57 33.1	+0.3
BFO	**Black Forest**	1.46	135	Pn	Pn	13 57 12.9	-0.6
	SNR=13						
BFO	**Black Forest**	1.46	135	*e*Pg	Pg	13 57 13.2	-0.7
BFO				*e*Sg	Sg	13 57 33.1	+0.3
GIVF	**Givet**	1.47	301	*e*Pn	Pn	13 57 13.2	-0.5
	SNR=1.0						
GIVF				*e*Sn	Sn	13 57 33.8	+0.2
	61nm,0.3s,SNR=1.0						
GIVF	**Givet**	1.47	301	*e*Pn	Pn	13 57 13.2	-0.5
	SNR=1.0						
GIVF				*e*Sn	Sn	13 57 33.8	+0.2
	30nm,0.3s,SNR=1.0						
HGN	**Heimansgroeve**	1.50	339	*e*Pn	Pn	13 57 13.3	-0.8
	2.0nm,0.6s						
HGN	**Heimansgroeve**	1.50	339	⇑*i*Pg	Pg	13 57 16.0	+1.3
HGN				*e*Sg	Sg	13 57 33.5	-0.7
HGN	**Heimansgroeve**	1.50	339	*e*Rg		13 57 59.0	
	1.6nm,0.3s						
HGN	**Heimansgroeve**	1.50	339	*e*Pn	Pn	13 57 13.3	-0.8
	2.0nm,0.6s						
HGN	**Heimansgroeve**	1.50	339	⇑*i*Pg	Pg	13 57 16.0	+1.2
HGN				*e*Sg	Sg	13 57 33.5	-0.7
LBG	**Lerchenberg**	1.50	117	Pg	Pg	13 57 15.0	+0.2
LBG				S	Sg	13 57 31.8	-2.4
LBG				Sg	Sg	13 57 34.2	0.0
LBG	**Lerchenberg**	1.50	117	Pg	Pg	13 57 15.0	+0.2
LBG				S	Sg	13 57 31.8	-2.4
LBG				Sg	Sg	13 57 34.2	0.0
MOF	**Molkenrain**	1.54	171	Pg	Pg	13 57 16.0	+0.6
MOF				Sg	Sg	13 57 36.6	+1.3
MOF	**Molkenrain**	1.54	171	Pg	Pg	13 57 16.0	+0.6
MOF				Sg	Sg	13 57 36.4	+1.1
HINF	**Hinteralfeld**	1.55	178	*e*Pg	Pg	13 57 16.0	+0.3
	SNR=1.0						
HINF				*e*Sn	Sn	13 57 33.5	-2.2
	SNR=1.0						
HINF				*e*Sg	Sg	13 57 36.8	+0.9
	53nm,0.3s,SNR=1.0						
HINF	**Hinteralfeld**	1.55	178	*e*Pg	Pg	13 57 16.0	+0.3
	SNR=1.0						
HINF				*e*Sn	Sn	13 57 33.5	-2.2
	SNR=1.0						
HINF				*e*Sg	Sg	13 57 36.8	+0.9
	27nm,0.3s,SNR=1.0						
DOU	**Dourbes**	1.59	298	P	Pn	13 57 16.1	+0.6
DOU	**Dourbes**	1.59	298	P	Pn	13 57 16.0	+0.6
KIZ	**Kirchzarten**	1.60	151	Pg	Pg	13 57 16.8	+0.1
KIZ				S	Sn	13 57 33.8	-3.1
KIZ				Sg	Sg	13 57 37.7	+0.2
KIZ	**Kirchzarten**	1.60	151	Pg	Pg	13 57 16.8	+0.1
KIZ				S	Sn	13 57 33.8	-3.1
KIZ				Sg	Sg	13 57 37.7	+0.3
SFTF	**Sexfontaines**	1.64	225	*e*Pn	Pn	13 57 16.0	0.0
SFTF				*e*Sg	Sg	13 57 39.8	+1.2
	46nm,0.3s						
SFTF	**Sexfontaines**	1.64	225	*e*Pn	Pn	13 57 16.0	0.0
SFTF				*e*Sg	Sg	13 57 39.8	+1.2
	23nm,0.3s						
HOBG	**Hohbusch**	1.66	12	*e*Pg	Pg	13 57 17.1	-0.6
HOBG	**Hohbusch**	1.66	12	Pg	Pg	13 57 17.1	-0.6
FELD	**Feldberg im Sc**	1.70	151	Pg	Pg	13 57 18.7	+0.2
FELD				Sg	Sg	13 57 40.7	+0.1
FELD	**Feldberg im Sc**	1.70	151	Pg	Pg	13 57 18.3	-0.2
FELD	**Feldberg im Sc**	1.70	151	Pg	Pg	13 57 18.7	+0.2
FELD				Sg	Sg	13 57 40.7	+0.1
BAIF	**Baives**	1.81	293	*e*Pg	Pg	13 57 21.4	+0.8
BAIF				*e*Sg	Sg	13 57 43.8	-0.2
	30nm,0.3s,SNR=1.0						
BAIF	**Baives**	1.81	293	*e*Pn	Pn	13 57 18.1	-0.2
BAIF				*e*Pg	Pg	13 57 21.4	+0.8
BAIF				*e*Sg	Sg	13 57 43.8	-0.2
BAIF	**Baives**	1.81	293	*e*Pn	Pn	13 57 18.1	-0.2
	SNR=1.0						
BAIF	**Baives**	1.81	293	*e*Pg	Pg	13 57 21.4	+0.8
BAIF				*e*Sg	Sg	13 57 43.8	-0.2
	15nm,0.3s,SNR=1.0						
SPAK	**Spaichingen-Ko**	1.83	133	Pg	Pg	13 57 20.3	-0.8
SPAK				Sg	Sg	13 57 47.7	+2.8
SPAK	**Spaichingen-Ko**	1.83	133	Pg	Pg	13 57 21.5	+0.4
SIND	**Sindeldorf**	1.85	90	P	Pn	13 57 17.6	-1.2
SIND	**Sindeldorf**	1.85	90	P	Pn	13 57 17.6	-1.3
BUCH	**Bad Urach**	1.93	117	Sg	Sg	13 57 47.7	-0.3
BUCH	**Bad Urach**	1.93	117	Sg	Sg	13 57 47.7	-0.3
BBS	**Basel-Blauen**	1.97	165	Pg	Pg	13 57 23.9	+0.2
BBS	**Basel-Blauen**	1.97	165	Pg	Pg	13 57 23.9	+0.2
GUT	**Gutenstein**	2.02	129	Pg	Pg	13 57 24.8	+0.1
GUT				Sg	Sg	13 57 50.6	-0.2
GUT	**Gutenstein**	2.02	129	Pg	Pg	13 57 24.8	+0.1
GUT				Sg	Sg	13 57 50.6	-0.2
LOMF	**Lomont**	2.02	179	Pg	Pg	13 57 24.2	-0.5
LOMF				Sg	Sg	13 57 53.5	+2.7
LOMF	**Lomont**	2.02	179	Pg	Pg	13 57 24.5	-0.2
LOMF				Sg	Sg	13 57 53.5	+2.7
UBR	**Ueberruh**	2.78	126	S	Sn	13 58 07.1	+1.1
UBR	**Ueberruh**	2.78	126	S	Sn	13 58 07.1	+1.1
CABF	**La Chapelle**	2.80	190	*e*Pg	Pg	13 57 39.9	+0.3
	SNR=1.0						
CABF				*e*Sg	Sg	13 58 15.1	-0.7
	31nm,0.5s,SNR=1.0						
CABF	**La Chapelle**	2.80	190	*e*Pn	Pn	13 57 31.7	-0.3
CABF				*e*Pg	Pg	13 57 39.9	+0.3
CABF				*e*Sg	Sg	13 58 15.1	-0.7
CABF	**La Chapelle**	2.80	190	*e*Pn	Pn	13 57 31.7	-0.3
	SNR=1.0						
CABF	**La Chapelle**	2.80	190	*e*Pg	Pg	13 57 39.9	+0.3
	SNR=1.0						
CABF				*e*Sg	Sg	13 58 15.1	-0.7
	16nm,0.5s,SNR=1.0						
LOR	**Lormes**	2.87	224	*e*Pn	Pn	13 57 32.4	-0.5
	baz=50,SNR=1.0						
LOR				*e*Sn	Sn	13 58 06.5	-1.6
	46nm,0.4s,baz=50,SNR=1.0						
LOR	**Lormes**	2.87	224	*e*Pn	Pn	13 57 32.4	-0.5
	baz=50,SNR=1.0						
LOR				*e*Sn	Sn	13 58 06.5	-1.6
	23nm,0.4s,baz=50,SNR=1.0						
SSF	**Saint Saulge**	3.18	225	*e*Pn	Pn	13 57 35.8	-1.4
	SNR=1.0						
SSF				*e*Sn	Sn	13 58 13.5	-2.3
	SNR=1.0						
SSF				*e*Sg	Sg	13 58 28.6	+0.5
	24nm,0.4s						
SSF	**Saint Saulge**	3.18	225	*e*Pn	Pn	13 57 35.8	-1.4
	SNR=1.0						
SSF				*e*Sn	Sn	13 58 13.5	-2.3
	SNR=1.0						
SSF				*e*Sg	Sg	13 58 28.6	+0.5
	12nm,0.4s						
SMF	**Signal de Mont**	3.36	217	*e*Pg	Pg	13 57 49.9	-0.5
	SNR=1.0						
SMF				*e*Sn	Sn	13 58 17.8	-2.5
SMF				*e*Sg	Sg	13 58 33.3	-0.7
	22nm,0.4s						
SMF	**Signal de Mont**	3.36	217	*e*Pn	Pn	13 57 38.8	-0.9
SMF				*e*Pg	Pg	13 57 49.9	-0.5
SMF				*e*Sn	Sn	13 58 17.8	-2.5

SMF				*e*Sg	Sg	13 58 33.3	-0.7
SMF	**Signal de Mont**	3.36	217	*e*Pn	Pn	13 57 38.8	-0.9
	SNR=1.0						
SMF	**Signal de Mont**	3.36	217	*e*Pg	Pg	13 57 49.9	-0.5
	SNR=1.0						
SMF				*e*Sn	Sn	13 58 17.8	-2.5
SMF				*e*Sg	Sg	13 58 33.3	-0.7
	11nm,0.4s						
MOX	**Moxa**	3.37	66	*e*PG	Pg	13 57 48.7	-1.9
MOX				*e*SG	Sg	13 58 33.8	-0.4
MOX	**Moxa**	3.37	66	*e*Pg	Pg	13 57 48.7	-1.9
MOX				*e*Sg	Sg	13 58 33.8	-0.4
MOX	**Moxa**	3.37	66	Pg	Pg	13 57 48.7	-1.9
MOX				Sg	Sg	13 58 33.8	-0.4
AVF	**Avril sur Loir**	3.45	223	*e*Pn	Pn	13 57 40.2	-0.8
	SNR=1.0						
AVF				*e*Sg	Sg	13 58 36.5	-0.4
	24nm,0.6s						
AVF	**Avril sur Loir**	3.45	223	*e*Pn	Pn	13 57 40.2	-0.8
	SNR=1.0						
AVF				*e*Sg	Sg	13 58 36.5	-0.4
	12nm,0.6s						
FETA	**Feichten**	3.53	130	⇑*i*Pn	Pn	13 57 42.7	+0.6
FETA				⇓*i*Sn	Sn	13 58 25.1	+0.6
FETA				⇑*i*Sg	Sg	13 58 39.9	+0.4
	5.1nm,0.4s						
FETA	**Feichten**	3.53	130	Pn	Pn	13 57 42.7	+0.6
FETA				Sn	Sn	13 58 25.1	+0.6
FETA				Sg	Sg	13 58 39.9	+0.4
	5.1nm,0.4s						
GUNZ	**Gunzen**	3.73	72	*e*Sg	Sg	13 58 43.8	-1.9
	SNR=3.0						
GUNZ	**Gunzen**	3.73	72	Sg	Sg	13 58 43.8	-1.9
	SNR=3.0						
WERD	**Werda**	3.73	71	*e*Sg	Sg	13 58 44.4	-1.5
	SNR=3.0						
WERD	**Werda**	3.73	71	Sg	Sg	13 58 44.4	-1.4
	SNR=3.0						
NKC	**Novy Kostel**	3.77	75	*e*PG	Pg	13 57 54.6	-3.7
NKC				*e*SG	Sg	13 58 43.8	-3.3
	comp=Z,14nm,0.7s						
NKC	**Novy Kostel**	3.77	75	Pg	Pg	13 57 54.6	-3.7
NKC				Sg	Sg	13 58 43.8	-3.3
	comp=Z,14nm,0.7s						
TANN	**Tannenbergstha**	3.82	72	*e*Sg	Sg	13 58 45.4	-3.2
	SNR=3.6						
TANN	**Tannenbergstha**	3.82	72	Sg	Sg	13 58 45.4	-3.2
	SNR=3.6						
LPL	**La Plagne**	3.85	181	*e*Pg	Pg	13 57 58.5	-1.3
	SNR=1.0						
LPL	**La Plagne**	3.85	181	*e*Pg	Pg	13 57 58.5	-1.3
	SNR=1.0						
BGF	**Bois d'Agland**	3.86	225	*e*Pn	Pn	13 57 44.6	-1.9
	SNR=1.0						
BGF				*e*Sn	Sn	13 58 28.9	-3.6
BGF				*e*Sg	Sg	13 58 48.3	-1.6
	comp=Z,58nm,0.4s						
BGF	**Bois d'Agland**	3.86	225	*e*Pn	Pn	13 57 44.6	-1.9
	SNR=1.0						
BGF				*e*Sn	Sn	13 58 28.9	-3.6
BGF				*e*Sg	Sg	13 58 48.3	-1.6
	comp=Z,29nm,0.4s						
CLL	**Collm**	4.43	62	*e*Sg	Sg	13 59 09.0	+0.7
CLL	**Collm**	4.43	62	Sg	Sg	13 59 09.0	+0.7
KHC	**Kasperske Hory**	4.46	90	*e*PN	Pn	13 57 54.9	+0.1
KHC				*e*PG	Pg	13 58 12.6	+1.2
KHC				*e*SN	Sn	13 58 44.0	-3.3
KHC				*e*SG	Sg	13 59 04.9	-4.3
KHC	**Kasperske Hory**	4.46	90	Pn	Pn	13 57 54.9	+0.1
KHC				Sn	Sn	13 58 44.0	-3.3
KHC				Sg	Sg	13 59 04.9	-4.3
ORIF	**Oris-en-Rattie**	4.49	188	*e*Sg	Sg	13 59 08.3	-2.0
	comp=Z,13nm,0.6s						
ORIF	**Oris-en-Rattie**	4.49	188	*e*Sg	Sg	13 59 08.3	-2.0
	comp=Z,6.7nm,0.6s						
GEC2	**GERESS Array S**	4.58	94	*e*Pn	Pn	13 57 56.7	+0.3
	SNR=14						
GEC2	**GERESS Array S**	4.58	94	Pn	Pn	13 57 56.7	+0.3
	SNR=14						
VIVF	**Saint-Julien-l**	4.74	198	*e*Sg	Sg	13 59 16.2	-1.9
	comp=Z,10nm,0.6s						
VIVF	**Saint-Julien-l**	4.74	198	*e*Sg	Sg	13 59 16.2	-1.9
	comp=Z,5.2nm,0.6s						
FLN	**La Foliniere**	4.81	266	*e*Pn	Pn	13 57 58.8	-0.8
	baz=91						
FLN				*e*Sn	Sn	13 58 51.9	-4.1
	comp=Z,10nm,0.4s						
FLN	**La Foliniere**	4.81	266	*e*Pn	Pn	13 57 58.8	-0.8
	baz=91						
FLN				*e*Sn	Sn	13 58 51.9	-4.1
	comp=Z,5.2nm,0.4s						
PRU	**Pruhonice**	5.08	80	*e*SG	Sg	13 59 23.9	-5.1
GRR	**Gorron**	5.13	262	*e*Sn	Sn	13 58 59.7	-4.3
	comp=Z,9.2nm,0.3s						
GRR	**Gorron**	5.13	262	*e*Sn	Sn	13 58 59.7	-4.3
	comp=Z,4.6nm,0.3s						
MOA	**Molln**	5.19	104	⇑*i*Pn	Pn	13 58 05.1	+0.2
MOA				⇑*i*Sn	Sn	13 59 04.6	-0.8
MOA	**Molln**	5.19	104	Pn	Pn	13 58 05.1	+0.2
MOA				Sn	Sn	13 59 04.6	-0.8
DPC	**Dobruska-Polom**	6.25	77	*e*SG	Sg	14 00 02.1	-4.5
SGMF	**Saint Gilles**	6.27	263	*e*Pn	Pn	13 58 18.6	-1.0
	SNR=1.0						
SGMF	**Saint Gilles**	6.27	263	*e*Pn	Pn	13 58 18.6	-1.0
	SNR=1.0						

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*BEO **13** 14:11:14.8±0.2, 44°.14N×21°.60E, h0^{km}±3^{km}, ML2.3/8*

CSEM 13 14:11:14.3±0.2**, 44°.11N×21°.59E, h8^{km}, ML2.3, 14C-6D, Error ellipse: s-maj=3.3km s-min=3.2km az=14.0, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SVIS	**Svilajnac**	0.31	300	⇑*i*Pg	Pg	14 11 20.7	+0.3
SVIS				*i* Sg	Sg	14 11 25.0	+0.5
BOLS	**Boljevac**	0.39	137	⇑*i*Pg	Pg	14 11 21.5	-0.3
BOLS				*i* Sg	Sg	14 11 26.8	-0.1
BOLS	**Boljevac**	0.39	137	⇑*i*Pg	Pg	14 11 21.5	-0.3
BOLS				*i* Sg	Sg	14 11 26.8	-0.1
GRUS	**Gruza**	0.67	251	⇓*i*Pg	Pg	14 11 27.5	+0.4
GRUS				*i* Sg	Sg	14 11 36.3	+0.5
GRUS	**Gruza**	0.67	251	⇓*i*Pg	Pg	14 11 27.5	+0.4
GRUS				*i* Sg	Sg	14 11 36.3	+0.5
NISS		0.75	160	⇓*i*Pg	Pg	14 11 29.2	+0.4
NISS				*e*Sg	Sg	14 11 39.9	+1.3
TRUS	**Trudelj**	0.86	278	*e*Pg	Pg	14 11 30.9	+0.1
TRUS				*e*Sg	Sg	14 11 42.3	+0.4
TRUS	**Trudelj**	0.86	278	*e*Pg	Pg	14 11 30.9	+0.1
TRUS				*e*Sg	Sg	14 11 42.3	+0.4
DJES	**Djerdap**	0.87	50	⇑*i*Pg	Pg	14 11 30.5	-0.5
DJES				*e*Sg	Sg	14 11 41.6	-0.7
ZAPS	**Zavoj**	1.13	137	⇓*i*Pg	Pg	14 11 35.9	-0.1
ZAPS				*i* Sg	Sg	14 11 51.7	+1.1
DIVS	**Divibare**	1.15	270	⇑*i*Pg	Pg	14 11 36.8	+0.5
DIVS				⇑*i*Sg	Sg	14 11 52.1	+0.9
BARS	**Barje**	1.30	173	⇑*i*Pg	Pg	14 11 38.7	-0.6
BARS				*i* Sg	Sg	14 11 56.1	-0.1
BARS	**Barje**	1.30	173	⇑*i*Pg	Pg	14 11 38.7	-0.6
BARS				*i* Sg	Sg	14 11 56.1	-0.1
SJES	**Sjenica**	1.45	235	*e*Sg	Sg	14 12 01.8	+1.0
BZS	**Buzias**	1.51	1	*e*Pn	Pn	14 11 41.3	-0.3
BZS				*e*Sg	Sg	14 12 00.7	-2.0
BZS	**Buzias**	1.51	1	⇑*i*P	Pn	14 11 43.3	+1.7
BZS	**Buzias**	1.51	1	*e*Pn	Pn	14 11 41.3	-0.3
BZS	**Buzias**	1.51	1	⇑*i*P	Pn	14 11 43.3	+1.7
BZS				*e*Sg	Sg	14 12 00.7	-2.0
BZS				S	Sn	14 12 03.0	+1.6
GZR	**Gura Zlata**	1.54	33	⇑*i*P	Pn	14 11 43.1	+1.1
GZR	**Gura Zlata**	1.54	33	⇑*i*P	Pn	14 11 43.1	+1.1
GZR				S	Sn	14 12 01.8	-0.3
BBLS	**Lazići**	1.59	262	⇓*i*Pg	Pg	14 11 43.5	-1.3
BBLS				*i* Sg	Sg	14 12 05.3	-0.2
BBLS	**Lazići**	1.59	262	⇓*i*Pg	Pg	14 11 43.5	-1.3
BBLS				*i* Sg	Sg	14 12 05.3	-0.2
DRGR		2.79	16	⇑*i*P	Pn	14 11 59.2	-0.1
DRGR		2.79	16	⇑*i*P	Pn	14 11 59.2	-0.1
DRGR				S	Sn	14 12 32.4	-0.8
BURAR	**Bucovina Array**	4.33	35	S	Sn	14 13 08.6	-2.3
BURAR	**Bucovina Array**	4.33	35	S	Sn	14 13 08.6	-2.3

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*ISCJB **13** 14:13:46.2±0.5, 55°.49N±0°.06×157°.39W±0°.06, h28^{km}, mb3.8/15, MS3.5/3, Error ellipse: s-maj=8.7km s-min=4.6km az=166.4*

*NEIC **13** 14:13:48.1±0.6, 55°.42N×157°.44W, mb3.9/1, ML3.9(AEIC), Error ellipse: s-maj=10.7km s-min=5.9km az=165.0*

*IDC **13** 14:13:48.6±0.8, 55°.60N×157°.60W, h31^{km}±4^{km}, mb3.6/12, mb1 3.7/14, mb1mx3.7/26, mbtmp3.6/14, ML3.4/2, MS3.6/3, Ms1 3.6/3, ms1mx3.1/27, Error ellipse: s-maj=25.2km s-min=12.4km az=178.0*

ISC 13 14:13:48.2±0.6**, 55°.46N**±0°.06×**157°.42W**±0°.06**, h30^{km}, h30^{km}**±3.0^{km}**:pP-P, n40, σ0^{s}.98**/42**, mb3.8**/15**, MS3.5**/3**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHGN	**Chignik**	1.01	327	P	Pn	14 14 05.9	-0.4
CHGN				S	Sn	14 14 19.2	-0.2
SDPT	**Sand Point**	1.75	267	P	Pn	14 14 16.3	-0.1
SDPT				S	Sn	14 14 38.0	+0.4
SII	**Sitkinak Islan**	2.12	58	P	Pn	14 14 21.5	0.0
SII				S	Sn	14 14 45.7	-1.2
OHAK	**Old Harbor**	2.90	51	P	Pn	14 14 32.2	0.0
FALS	**False Pass**	3.50	262	P	Pn	14 14 40.7	+0.2
KDAK	**Kodiak Island**	3.54	47	Pn	Pn	14 14 40.9	-0.2
	3.6nm,0.3s,baz=166,slow=6.8,SNR=48						
KDAK				Lg		14 15 41.5	
	5.9nm,0.3s,baz=66,slow=3.3,SNR=7.7						
KDAK	**Kodiak Island**	3.54	47	P	Pn	14 14 40.8	-0.2
SVW2	**Sparrevohn**	5.73	9	P	Pn	14 15 11.4	+0.2
SEW	**Seward**	6.31	39	P	Pn	14 15 18.1	-0.9
RC01	**Rabbit Creek A**	6.94	33	P	Pn	14 15 27.1	-0.6
TT01	**Tatalina**	7.50	5	P	Pn	14 15 34.4	-0.9
PMR	**Palmer**	7.52	32	P	Pn	14 15 36.6	+1.0
	4.9nm,0.6s						
PPLA	**Purkeypile**	7.92	18	*e*Pn	Pn	14 15 44.2	+3.0
EYAK	**Cordova Ski Ar**	8.02	46	P	Pn	14 15 41.5	-1.0
KTH	**Kantishna Hill**	8.76	19	*e*Pn	Pn	14 15 54.7	+2.2
	5.1nm,0.7s						
COLA	**College**	10.56	23	*e*P	Pn	14 16 18.0	+0.8
	8.0nm,1.0s						
GAMB	**Gambell**	11.01	325	*e*P	Pn	14 16 24.6	+1.2
	5.4nm,0.7s						
TNA	**Tin City**	11.35	337	*e*P	Pn	14 16 29.3	+1.3
	6.8nm,0.7s						
DLBC	**Dease Lake**	15.19	67	Pn	Pn	14 17 20.9	+0.6
	0.1nm,0.3s,baz=153,slow=14,SNR=2.8						
BILL	**Bilibino**	20.89	321	*e*P	P	14 18 28.0	+0.4
	4.2nm,0.8s						
YKA	**Yellowknife Ar**	22.78	55	P	P	14 18 47.9	+0.1
	0.4nm,0.8s,mb2.9,baz=272,slow=10,SNR=5.8						
PETK	**Petropavlovsk-**	25.96	284	P	P	14 19 16.6	-1.1
	2.8nm,0.7s,mb3.9,baz=77,slow=13,SNR=7.8						
YBH	**Yreka Blue Hor**	26.42	107	LR	LR	14 28 15.2	
	comp=Z,94nm,18.1s,MS3.4,baz=109,slow=33						
RES	**Resolute Bay**	30.43	28	P	P	14 19 57.3	-0.1
	0.7nm,0.8s,mb3.5,baz=255,slow=15,SNR=3.6						
RES				LR	LR	14 33 15.6	
	comp=Z,143nm,21.3s,MS3.6,baz=262,slow=38						
PDAR	**Pinedale Array**	33.12	92	P	P	14 20 22.5	+1.2
	0.5nm,0.7s,mb3.6,baz=314,slow=4.7,SNR=4.5						
TXAR	**Lajitas Array**	46.00	102	P	P	14 22 09.8	+1.2
	1.3nm,0.8s,mb3.9,baz=306,slow=5.7,SNR=14						
TXAR				pP	pP	14 22 19.3	+1.9
	1.0nm,0.7s,baz=318,slow=5.0,SNR=7.3						
TXAR				LR	LR	14 41 05.0	
	comp=Z,70nm,20.7s,MS3.6,baz=125,slow=36						
CN2	**Changchun**	48.80	290	*e*P	P	14 22 31.3	+1.1
KSRS	**Korea Array**	51.86	283	P	P	14 22 53.3	-0.1
	0.9nm,0.7s,mb3.8,baz=52,slow=6.3,SNR=3.4						
KSRS				pP	pP	14 23 02.5	+0.2
	1.2nm,0.6s,baz=42,slow=7.9,SNR=3.7						
SONM	**Songino Array**	55.52	306	P	P	14 23 19.8	-0.3
	0.4nm,0.6s,mb3.6,baz=31,slow=6.4,SNR=4.6						
ZALV	**Zalesovo Beam**	59.59	323	P	P	14 23 47.5	-1.1
	0.2nm,0.3s,mb3.7,baz=352,slow=3.0,SNR=3.8						
ZALV				pP	pP	14 23 58.1	+0.4
	0.8nm,0.6s,baz=21,slow=6.3,SNR=3.8						
ZALV	**Zalesovo Beam**	59.59	323	P	P	14 23 47.5	-1.1
ZALV				pP	pP	14 23 58.1	+0.4
GTA	**Gaotai**	65.02	304	*e*P	P	14 24 24.1	-1.1
GTA				pP	pP	14 24 30.0	-4.4
GTA				sP	sP	14 24 33.8	-4.0
GTA				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
LZH	**Lanzhou**	65.67	299	*e*P	P	14 24 34.8	+5.4
LZH				pP	pP	14 24 39.0	+0.4
LZH				sP	sP	14 24 42.3	+0.2
LZH				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.9						
LZH				pmax	pmax		
	comp=Z,86nm,4.2s						
MK31	**Makanchi Array**	66.43	320	*e*P	P	14 24 33.0	-1.1
MKAR	**Makanchi Array**	66.43	320	P	P	14 24 33.2	-0.9
	comp=Z,0.9nm,0.7s,mb3.9,baz=47,slow=6.4,SNR=12						
MKAR				pP	pP	14 24 41.9	-1.4
	comp=Z,0.5nm,0.6s,baz=39,slow=7.0,SNR=5.2						
MKAR	**Makanchi Array**	66.43	320	P	P	14 24 33.2	-0.9
MKAR				pP	pP	14 24 41.9	-1.4
GYA	**Guiyang**	71.84	290	*e*P	P	14 25 11.3	+3.3
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
AKASG	**Malin Array Be**	74.06	356	P	P	14 25 18.4	-2.4
	comp=Z,0.3nm,0.3s,mb3.7,baz=2.1,slow=5.0,SNR=4.4						
CMAR	**Chiang Mai Arr**	82.46	291	P	P	14 26 07.2	-0.4
	comp=Z,0.7nm,0.8s,mb3.7,baz=3.2,slow=5.4,SNR=6.8						
CMAR				pP	pP	14 26 17.1	+0.1
	comp=Z,2.0nm,0.9s,baz=16,slow=5.5,SNR=9.3						
BRTR	**Keskin Array B**	84.71	351	P	P	14 26 19.1	+0.1
	comp=Z,0.3nm,0.4s,mb3.8,baz=336,slow=6.3,SNR=4.0						

IDC 13 14:15:30.4±4.7**, 2°.19S×140°.20E, h0^{km}, mb3.0**/2**, mb1 3.3**/3**, mb1mx3.2**/14**, mbtmp3.1**/3**, ML3.2**/1**, Error ellipse: s-maj=178.5km s-min=31.8km az=88.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	18.55	198	P	Pn	14 19 48.0	-0.9
	0.1nm,0.3s,baz=18,slow=12,SNR=6.9						
ASAR	**Alice Springs**	22.20	195	P	P	14 20 29.1	+0.7
	0.2nm,0.5s,baz=28,slow=11,SNR=5.8						
MKAR	**Makanchi Array**	70.29	322	P	P	14 26 45.7	0.0
	0.4nm,1.0s,baz=117,slow=5.0,SNR=2.5						

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*IDC **13** 14:37:44.7±1.4, 33°.76S×178°.66W, h0^{km}, mb4.2/5, mb1 4.4/6, mb1mx4.1/18, mbtmp4.3/6, ML4.4/1, Error ellipse: s-maj=35.9km s-min=31.8km az=32.0*

*NEIC **13** 14:37:48.8±0.9, 34°.16S×178°.43W, h35^{km}, mb4.5/1, Error ellipse: s-maj=19.7km s-min=9.9km az=107.0*

ISC 13 14:37:47.0±2.9**, 34°.2S**±0°.2×**178°.1W**±0°.3**, h46^{km}**±23^{km}**, n22, σ0^{s}.63**/17**, mb4.3**/6**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	4.45	220	*e*P	Pn	14 38 53.0	+1.1
PUZ	**Puketiti**	4.87	216	*e*P	Pn	14 38 57.4	-0.2
MWZ	**Matawai**	5.44	219	P	Pn	14 39 05.2	-0.2
URZ	**Urewera**	5.61	222	Pn	Pn	14 39 08.1	+0.3
	10.0nm,0.3s,baz=26,slow=4.9,SNR=68						
URZ				Sn	Sn	14 40 10.8	-0.1
	8.7nm,0.3s,baz=308,slow=22,SNR=12						
URZ	**Urewera**	5.61	222	P	Pn	14 39 07.3	-0.5
KNZ	**Kokohu**	5.90	214	P	Pn	14 39 11.3	-0.4
BKZ	**Black Stump Fm**	6.60	220	P	Pn	14 39 21.4	+0.1
OUZ	**Omahuta**	6.92	259	*e*P	Pn	14 39 25.6	-0.2
	10nm,0.7s						
STKA	**Stephens Creek**	33.73	262	P	P	14 44 25.1	+1.2
	3.7nm,1.1s,mb4.2,baz=97,slow=8.1,SNR=2.8						
CTA	**Charters Tower**	34.51	285	P	P	14 44 31.5	+0.6
	2.8nm,0.7s,mb4.3,baz=122,slow=9.8,SNR=4.6						
CTAO	**Charters Tower**	34.51	285	*e*P	P	14 44 31.8	+1.0
ASAR	**Alice Springs**	42.96	271	P	P	14 45 41.5	-0.1
	4.1nm,0.7s,mb4.3,baz=112,slow=7.3,SNR=52						
WRAB	**Tennant Creek**	44.29	276	*e*P	P	14 45 51.5	-0.9
	7.9nm,0.9s,mb4.4						
WRA	**Warramunga Arr**	44.29	276	P	P	14 45 51.5	-0.8
	4.4nm,0.8s,mb4.2,baz=116,slow=7.6,SNR=44						
QSPA	**South Pole Qui**	55.92	180	P	P	14 47 28.3	+8.6
	1.8nm,1.0s,mb4.0,baz=135,slow=1.4,SNR=4.7						
QSPA	**South Pole Qui**	55.92	180	*e*P	P	14 47 27.9	+8.3
MKAR	**Makanchi Array**	120.11	308	PKP	PKPdf	14 56 35.0	+2.8
	0.3nm,0.8s,baz=104,slow=1.3,SNR=4.2						
NOA	**NORSAR Array B**	152.48	350	PKPbc	PKPbc	14 57 41.5	+4.3
	0.2nm,0.4s,baz=28,slow=2.0,SNR=3.3						
NOA	**NORSAR Array B**	152.48	350	PKPbc	PKPbc	14 57 41.5	+4.2
BRTR	**Keskin Array B**	154.13	292	PKPbc	PKPbc	14 57 44.8	+3.3
	0.7nm,0.8s,baz=22,slow=1.6,SNR=2.9						
AKASG	**Malin Array Be**	154.17	318	PKPbc	PKPbc	14 57 43.9	+2.6
	0.3nm,0.3s,baz=70,slow=2.0,SNR=3.3						
AKASG	**Malin Array Be**	154.17	318	PKPbc	PKPbc	14 57 43.9	+2.6

NEIC 13 14:45:17.9, 37°.62S×176°.58E, h193^{km}, MG4.1(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGRZ	**Tauranga**	0.28	246	P	Pn	14 45 43.6	+0.1
URZ	**Urewera**	0.76	147	P	Pn	14 45 45.4	0.0
MWZ	**Matawai**	1.03	134	P	Pn	14 45 47.3	+0.2
MXZ	**Matakaoa Point**	1.37	88	P	Pn	14 45 50.0	+0.2
PUZ	**Puketiti**	1.40	109	P	Pn	14 45 50.1	+0.1
OTAZ	**Otara**	1.48	296	P	Pn	14 45 50.4	-0.4
BKZ	**Black Stump Fm**	1.55	183	P	Pn	14 45 51.4	+0.1
HIZ	**Hauiti**	1.63	236	P	Pn	14 45 52.5	+0.4
KNZ	**Kokohu**	1.64	149	P	Pn	14 45 53.0	+0.8
WTVZ	**West Tongariro**	1.69	207	P	Pn	14 45 52.9	+0.3
TWVZ	**Taurewa**	1.71	211	P	Pn	14 45 53.2	+0.4
NGZ	**Ngauruhoe**	1.73	206	P	Pn	14 45 53.8	+0.7
TUVZ	**Tukino**	1.80	204	P	Pn	14 45 54.1	+0.3
WNVZ	**Wahianoa**	1.87	204	P	Pn	14 45 54.7	+0.2
MOVZ	**Moawhango**	1.90	200	P	Pn	14 45 54.5	-0.3
VRZ	**Vera Road**	2.08	223	P	Pn	14 45 57.3	+0.7
WCZ	**Waipu Caves**	2.46	312	P	Pn	14 45 59.5	-1.3
WAZ	**Wanganui**	2.47	210	P	Pn	14 46 00.7	-0.2
BFZ	**Birch Farm**	3.07	185	P	Pn	14 46 06.6	-1.3
MRZ	**Mangatainoka R**	3.14	194	P	Pn	14 46 07.0	-1.7
KIW	**Kapiti Island**	3.49	201	P	Pn	14 46 10.9	-2.1
MTW	**Mount Morrison**	3.63	193	P	Pn	14 46 12.2	-2.5
CAW	**Cannon Point**	3.68	198	P	Pn	14 46 12.9	-2.4
PAWZ	**Paruwai Farm**	3.86	193	P	Pn	14 46 15.0	-2.6
MRW	**Makara Radio**	3.89	201	P	Pn	14 46 15.4	-2.5
MSWZ	**Moikau Station**	3.93	195	P	Pn	14 46 15.7	-2.7
SNZO	**South Karori**	3.96	201	P	Pn	14 46 16.2	-2.6
TCW	**Tory Channel**	4.01	206	P	Pn	14 46 16.7	-2.7
BHW	**Baring Head**	4.01	199	P	Pn	14 46 16.5	-2.9
NNZ	**Nelson**	4.37	214	P	Pn	14 46 20.5	-3.4
QRZ	**Quartz Range**	4.49	223	P	Pn	14 46 17.6	-7.9
BSWZ	**Blackbirch Sta**	4.59	206	P	Pn	14 46 23.9	-2.9
THZ	**Tophouse**	5.02	213	P	Pn	14 46 29.0	-3.2
KHZ	**Kahutara**	5.33	205	P	Pn	14 46 32.8	-3.4
DSZ	**Denniston Nort**	5.53	220	P	Pn	14 46 34.6	-4.2
LTZ	**Lake Taylor**	6.12	211	P	Pn	14 46 42.4	-4.1
MQZ	**McQueen's Vall**	6.77	205	P	Pn	14 46 49.7	-5.3
WVZ	**Waitaha Valley**	7.04	217	P	Pn	14 46 54.6	-3.9
RPZ	**Rata Peaks**	7.40	213	P	Pn	14 46 58.8	-4.3
FOZ	**Fox Glacier**	7.92	219	P	Pn	14 47 04.1	-5.8
ODZ	**Otahua Downs**	8.66	209	P	Pn	14 47 15.4	-4.1
WKZ	**Wanaka**	9.18	216	P	Pn	14 47 21.2	-5.2
TUZ	**Tuapeka**	9.81	210	P	Pn	14 47 31.0	-3.6

KRSC 13 14:49:56.0±1.0**, 50°.53N×157°.73E, h10^{km}**±10^{km}**, ML3.5, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIPR	**Malaya Ipel'ka**	1.85	341	P	Pn	14 50 27.3	-0.5
RUS	**Russkaya**	1.97	14	P	Pn	14 50 31.4	+2.0
RUS				*e*S	Sn	14 50 56.8	+2.7
PET	**Petropavlovsk**	2.56	13	*e*P	Pn	14 50 40.0	+2.5
PET				*e*S	Sn	14 51 12.6	+3.9
AVH	**Avacha**	2.81	12	*e*P	Pn	14 50 42.7	+1.8
NLC	**Nalytchevo**	2.83	20	*e*S	Sn	14 51 18.5	+3.2
SDLR	**Sedlovina**	2.84	14	*e*P	Pn	14 50 43.4	+2.0
GNL	**Ganaly**	3.17	2	*e*P	Pn	14 50 47.4	+1.5
KBTR	**Krutoberegovo**	6.45	26	P	Pn	14 51 33.1	+2.2

IDC 13 15:06:08.0±2.0**, 0°.48N×126°.75E, h0^{km}, mb3.2**/3**, mb1 3.4**/3**, mb1mx3.2**/17**, mbtmp3.3**/3**, Error ellipse: s-maj=174.5km s-min=25.0km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	21.62	160	P	P	15 11 00.1	+0.3
	0.5nm,0.5s,baz=339,slow=11,SNR=6.0						
ASAR	**Alice Springs**	24.99	164	P	P	15 11 33.5	-0.1
	0.3nm,0.7s,baz=342,slow=11,SNR=6.5						
MKAR	**Makanchi Array**	60.23	326	P	P	15 16 18.1	+0.1
	0.2nm,0.3s,baz=119,slow=6.7,SNR=10						

KRSC 13 15:17:19.9±1.5**, 50°.80N×156°.25E, h10^{km}**±10^{km}**, ML3.8, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIPR	**Malaya Ipel'ka**	1.51	12	P	Pn	15 17 47.2	+0.2
RUS	**Russkaya**	2.16	40	P	Pn	15 17 56.2	+0.3
RUS				*e*S	Sn	15 18 22.7	0.0
PET	**Petropavlovsk**	2.68	33	S	Sn	15 18 34.9	-0.6
SDLR	**Sedlovina**	2.97	32	P	Pn	15 18 09.0	+2.0
NLC	**Nalytchevo**	3.05	38	S	Sn	15 18 43.2	-1.4
GNL	**Ganaly**	3.08	19	P	Pn	15 18 10.4	+1.9

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*ISCJB **13** 15:23:57.6±1.0, 38°.24N±0°.04×26°.62E±0°.06, h1^{km}±8^{km}, Error ellipse: s-maj=8.2km s-min=6.6km az=160.7*

*CSEM **13** 15:23:57.5±0.5, 38°.26N×26°.60E, h5^{km}, MD2.7, Error ellipse: s-maj=10.2km s-min=8.0km az=99.0*

*DDA **13** 15:23:57.7, 38°.27N×26°.66E, h8^{km}±4^{km}, Md2.7*

*ISK **13** 15:23:57.3, 38°.31N×26°.59E, h5^{km}, MD2.4*

ISC 13 15:23:57.7±1.1**, 38°.24N**±0°.04×**26°.60E**±0°.07**, h1^{km}**±8^{km}**, n17, σ0^{s}.79**/30**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URLA	**Izmir**	0.12	359	*i* P	Pg	15 23 59.8	-0.3
URLA				*i* S	Sg	15 24 02.2	+0.5
URLA	**Izmir**	0.12	359	*i* P	Pg	15 23 59.8	-0.3
URLA				*i* S	Sg	15 24 02.2	+0.4
BLCB	**Balcova**	0.38	67	*e*PG	Pg	15 24 04.9	-0.1
BLCB				*e*SG	Sg	15 24 10.6	+0.6
BLCB	**Balcova**	0.38	67	*e*Pg	Pg	15 24 04.9	-0.1
BLCB				*e*Sg	Sg	15 24 10.6	+0.7
IZM	**Izmir**	0.55	73	*e*PG	Pg	15 24 08.2	0.0
IZM				*e*SG	Sg	15 24 16.2	+0.9
GCAM	**G?zelcaml?**	0.73	136	*i* P	Pg	15 24 10.0	-1.8
GCAM				*i* S	Sg	15 24 22.9	+1.6
GCAM	**G?zelcaml?**	0.73	136	*i* P	Pg	15 24 10.0	-1.7
GCAM				*i* S	Sg	15 24 22.9	+1.7
AKS	**Akhisar**	1.15	56	*e*PN	Pg	15 24 19.3	-0.5
AKS				*e*SN	Sg	15 24 34.2	-0.4
AKS	**Akhisar**	1.15	56	*e*Pn	Pg	15 24 19.3	-0.4
AKS				*e*Sn	Sg	15 24 34.3	-0.4
AYDN	**Tasoluk**	1.16	119	*i* P	Pg	15 24 19.8	-0.2
AYDN				*i* S	Sg	15 24 34.0	-1.1
AYDN	**Tasoluk**	1.16	119	*i* P	Pg	15 24 19.8	-0.2
AYDN				*i* S	Sg	15 24 34.0	-1.1
BODT	**Bodrum**	1.30	154	*e*PN	Pn	15 24 23.7	+0.7
BODT	**Bodrum**	1.30	154	*e*Pn	Pn	15 24 23.7	+0.7
MANT	**Manisa**	1.56	80	*i* P	Pn	15 24 26.6	0.0
MANT				*i* S	Sn	15 24 46.8	-0.7
MANT	**Manisa**	1.56	80	*i* P	Pn	15 24 26.6	0.0
MANT				*i* S	Sn	15 24 46.8	-0.7
YER	**Yerkesik**	1.73	129	*e*PN	Pn	15 24 29.6	+0.6
YER	**Yerkesik**	1.73	129	*e*Pn	Pn	15 24 29.6	+0.7

NEIC 13 15:41:54.1, 38°.51S×176°.19E, h133^{km}, MG3.8(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHTZ	**Whakaora**	0.24	229	P	Pn	15 42 12.7	+0.3
UTU	**Utuhina**	0.33	0	P	Pn	15 42 12.8	+0.1
HATZ	**Hinemaiaia**	0.39	191	P	Pn	15 42 12.8	-0.1
WATZ	**Wairara**	0.41	241	P	Pn	15 42 13.1	+0.1
RATZ	**Rangitukua**	0.49	222	P	Pn	15 42 13.4	0.0
KARZ	**Kaharoa**	0.49	5	P	Pn	15 42 13.3	-0.1
RITZ	**Rihia Road**	0.54	209	P	Pn	15 42 14.1	+0.4
KATZ	**Kakaramea**	0.61	220	P	Pn	15 42 14.3	+0.2
BKZ	**Black Stump Fm**	0.70	160	P	Pn	15 42 14.4	-0.3

WTVZ	**West Tongariro**	0.77	218	P	Pn	15 42 15.3	+0.1
TGRZ	**Tauranga**	0.78	4	P	Pn	15 42 15.3	-0.1
NGZ	**Ngauruhoe**	0.81	214	P	Pn	15 42 15.8	+0.2
TWVZ	**Taurewa**	0.81	226	P	Pn	15 42 15.7	+0.1
TUVZ	**Tukino**	0.87	209	P	Pn	15 42 16.4	+0.3
DRZ	**Dome Shelter**	0.91	212	P	Pn	15 42 17.1	+0.7
WNVZ	**Wahianoa**	0.94	209	P	Pn	15 42 17.0	+0.3
MOVZ	**Moawhango**	0.96	201	P	Pn	15 42 16.7	-0.2
HIZ	**Hauiti**	1.05	269	P	Pn	15 42 17.7	0.0
MWZ	**Matawai**	1.06	81	P	Pn	15 42 17.8	0.0
VRZ	**Vera Road**	1.28	241	P	Pn	15 42 20.0	+0.1
TSZ	**Takapari Road**	1.56	186	P	Pn	15 42 22.6	-0.4
WAZ	**Wanganui**	1.56	217	P	Pn	15 42 23.0	0.0
MKAZ	**Moumakai**	1.61	330	P	Pn	15 42 23.7	0.0
PUZ	**Puketiti**	1.68	76	P	Pn	15 42 24.3	-0.2
MXZ	**Matakaoa Point**	1.92	61	P	Pn	15 42 27.4	+0.2
BFZ	**Birch Farm**	2.17	179	P	Pn	15 42 29.3	-0.9
MRZ	**Mangatainoka R**	2.20	192	P	Pn	15 42 29.4	-1.2
KIW	**Kapiti Island**	2.55	202	P	Pn	15 42 33.1	-1.9
MTW	**Mount Morrison**	2.70	191	P	Pn	15 42 34.9	-2.0
CAW	**Cannon Point**	2.74	198	P	Pn	15 42 35.4	-2.0
PAWZ	**Paruwai Farm**	2.93	191	P	Pn	15 42 37.6	-2.2
MRW	**Makara Radio**	2.95	202	P	Pn	15 42 37.8	-2.3
WEL	**Wellington**	2.98	201	P	Pn	15 42 38.4	-2.1
MSWZ	**Moikau Station**	2.99	194	P	Pn	15 42 38.2	-2.4
SNZO	**South Karori**	3.02	202	P	Pn	15 42 38.5	-2.5
BHW	**Baring Head**	3.07	199	P	Pn	15 42 39.1	-2.5
TCW	**Tory Channel**	3.08	208	P	Pn	15 42 39.2	-2.5
NNZ	**Nelson**	3.46	218	P	Pn	15 42 44.0	-2.8
QRZ	**Quartz Range**	3.65	230	P	Pn	15 42 46.7	-2.6
BSWZ	**Blackbirch Sta**	3.66	208	P	Pn	15 42 46.5	-2.9
THZ	**Tophouse**	4.11	217	P	Pn	15 42 52.4	-2.9
KHZ	**Kahutara**	4.40	207	P	Pn	15 42 55.8	-3.3
DSZ	**Denniston Nort**	4.66	225	P	Pn	15 42 59.2	-3.5
CRLZ	**Canterbury Las**	5.74	207	P	Pn	15 43 12.1	-4.9
MQZ	**McQueen's Vall**	5.84	206	P	Pn	15 43 12.9	-5.5
RPZ	**Rata Peaks**	6.49	215	P	Pn	15 43 23.7	-3.4
LBZ	**Lake Benmore**	7.40	216	P	Pn	15 43 35.7	-3.7
ODZ	**Otahua Downs**	7.73	211	P	Pn	15 43 38.8	-5.0
TUZ	**Tuapeka**	8.89	211	P	Pn	15 43 55.5	-3.8

IDC 13 16:05:45.1±4.4**, 2°.91S×131°.41E, h0km, mb3.2**/2**, mb1 3.4**/3**, mb1mx3.3**/17**, mbtmp3.2**/3**, ML2.9**/1**, Error ellipse: s-maj=298.4km s-min=30.7km az=73.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	17.17	171	P	Pn	16 09 46.9	+0.3
	0.0nm,0.3s,baz=351,slow=11,SNR=4.8						
ASAR	**Alice Springs**	20.78	174	P	P	16 10 27.7	-0.2
	0.5nm,0.5s,baz=350,slow=10,SNR=10						
MKAR	**Makanchi Array**	65.64	325	P	P	16 16 31.3	+0.2
	0.3nm,0.8s,baz=124,slow=7.9,SNR=2.6						

TRN 13 16:06:54.2, 15°.18N×61°.11W, h132km, MD3.7, M3.1(FDF)**, 5C-2D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FDF	**Fort de France**	0.45	185	⇓eP	Pn	16 07 13.8	+0.5
FDF				⇓eS	Sn	16 07 29.4	+1.8
MVM	**Montagne Vaucl**	0.66	162	⇑iP	Pn	16 07 14.7	+0.2
BIM	**Bigot**	0.66	177	eP	Pn	16 07 14.7	+0.2
BIM				eS	Sn	16 07 31.8	+1.9
MGG	**Marie-Galante**	0.76	345	⇑iP	Pn	16 07 16.3	+1.1
TBG	**Guadaloupe-3**	0.84	322	⇑iP	Pn	16 07 16.8	+0.9
PHG	**Guadaloupe-2**	0.98	328	eP	Pn	16 07 18.2	+1.2
DOG	**Dongo Capester**	0.98	330	eP	Pn	16 07 17.7	+0.7
SCG	**Saint Claude**	1.01	327	⇑iP	Pn	16 07 18.6	+1.3
DEG	**La Desirade**	1.13	2	eP	Pn	16 07 19.4	+0.9
DEG				eS	Sn	16 07 39.1	+2.1
LZG	**Guadaloupe-1**	1.15	326	eP	Pn	16 07 19.7	+1.0
SEG	**Port Louis**	1.27	343	⇑iP	Pn	16 07 21.0	+1.0
SLPE	**Piton Saint Es**	1.33	175	eP	Pn	16 07 21.6	+1.0
SLPE				eS	Sn	16 07 41.4	+0.6
SLB	**Belfond**	1.35	177	eP	Pn	16 07 22.8	+2.0
SLB				eS	Sn	16 07 42.5	+1.5
SSV	**Crater Summit**	1.84	183	eP	Pn	16 07 28.8	+2.3
SSV				eS	Sn	16 07 52.0	+1.0
SVV	**Soufriere Volc**	1.85	183	eP	Pn	16 07 28.1	+1.5
SVV				eS	Sn	16 07 52.3	+1.0
BPA	**Boggy Peak**	1.99	339	eP	Pn	16 07 29.8	+1.7
BPA				eS	Sn	16 07 53.1	-1.1

IDC 13 16:12:20.7±2.1**, 2°.62S×127°.07E, h0km, mb3.3**/2**, mb1 3.7**/4**, mb1mx3.5**/19**, mbtmp3.5**/4**, ML3.7**/2**, Error ellipse: s-maj=151.0km s-min=26.1km az=68.0, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	15.45	185	Pn	Pn	16 16 00.9	+0.8
	0.4nm,0.3s,baz=7.8,slow=9.8,SNR=7.6						
WRA	**Warramunga Arr**	18.62	158	P	Pn	16 16 40.4	+0.2
	0.2nm,0.3s,baz=331,slow=13,SNR=20						
ASAR	**Alice Springs**	21.94	163	P	P	16 17 15.7	-0.4
	0.8nm,0.5s,baz=346,slow=13,SNR=15						
MKAR	**Makanchi Array**	62.98	327	P	P	16 22 49.4	+0.1
	0.1nm,0.6s,baz=125,slow=8.5,SNR=4.1						

IDC 13 16:26:07.9±2.7**, 3°.26S×130°.59E, h0km, mb3.6**/2**, mb1 3.8**/4**, mb1mx3.6**/18**, mbtmp3.6**/4**, ML3.2**/2**, Error ellipse: s-maj=136.2km s-min=28.3km az=74.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	15.53	198	Pn	Pn	16 29 47.0	-1.3
	0.1nm,0.3s,baz=29,slow=13,SNR=2.6						
WRA	**Warramunga Arr**	16.98	168	Pn	Pn	16 30 05.3	-1.7
	0.1nm,0.3s,baz=352,slow=12,SNR=12						
WRA				Sn	Sn	16 33 06.9	-10
	0.1nm,0.3s,baz=338,slow=22,SNR=4.3						
ASAR	**Alice Springs**	20.54	171	P	P	16 30 49.3	+1.2
	1.4nm,0.3s,baz=350,slow=11,SNR=55						
MKAR	**Makanchi Array**	65.46	326	P	P	16 36 52.8	+0.1
	0.3nm,0.7s,baz=120,slow=7.6,SNR=3.8						

IDC 13 16:33:49.3±3.1**, 4°.57S×152°.66E, h0km, mb3.7**/6**, mb1 3.9**/6**, mb1mx3.7**/18**, mbtmp3.7**/6**, Error ellipse: s-maj=104.4km s-min=26.2km az=110.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	23.50	228	P	P	16 39 01.1	-0.1
	1.1nm,0.5s,baz=51,slow=9.9,SNR=11						
ASAR	**Alice Springs**	26.23	222	P	P	16 39 26.7	+0.5
	0.2nm,0.5s,baz=55,slow=8.9,SNR=4.9						
FITZ	**Fitzroy Crossi**	29.65	241	P	P	16 39 57.1	+0.2
	6.8nm,1.1s,baz=61,slow=12,SNR=2.9						
SONM	**Songino Array**	66.05	328	P	P	16 44 39.3	+1.3
	0.5nm,1.1s,baz=134,slow=4.2,SNR=2.3						
MKAR	**Makanchi Array**	80.06	319	P	P	16 46 01.6	+0.6
	0.1nm,0.4s,baz=96,slow=6.8,SNR=4.3						
BVAR	**Borovoye Array**	88.97	323	P	P	16 46 45.2	-0.8
	1.2nm,0.6s,baz=86,slow=7.6,SNR=8.5						
TORD	**Torodi Ar. Bea**	150.10	288	PKPbc	PKPbc	16 53 41.9	-1.3
	1.4nm,0.7s,baz=68,slow=2.4,SNR=8.9						

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*CSEM **13** 16:38:57.3, 36°.28N×21°.74E, h18km, MD3.7, After ATH*
ATH 13 16:38:57.3, 36°.28N×21°.74E, h18km±5km**, MD3.7**/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	0.61	0	ePN	Pn	16 39 09.5	-1.6
PYL				eSN	Sg	16 39 17.7	0.0
PYL	**PYLOS**	0.61	0	ePn	Pn	16 39 09.5	-1.6
PYL				eSn	Sg	16 39 17.7	0.0
ITM	**Ithomi**	0.91	9	ePN	Pn	16 39 14.7	-0.5
ITM				eSN	Sn	16 39 27.3	-0.6
ITM	**Ithomi**	0.91	9	ePn	Pn	16 39 14.7	-0.5
ITM				eSn	Sn	16 39 27.3	-0.6
VLX	**Vlachokerasia**	1.20	25	ePN	Pn	16 39 19.9	+0.7
VLX	**Vlachokerasia**	1.20	25	ePn	Pn	16 39 19.9	+0.7
DID	**Didima**	1.71	44	ePB	Pb	16 39 27.4	-0.9
DID	**Didima**	1.71	44	ePb	Pb	16 39 27.4	-0.9
GUR	**Goura**	1.72	16	ePN	Pn	16 39 28.1	+1.8
GUR	**Goura**	1.72	16	ePn	Pn	16 39 28.1	+1.8
LTK	**Loutraki**	2.00	29	ePN	Pn	16 39 33.2	+3.1
LTK	**Loutraki**	2.00	29	ePn	Pn	16 39 33.2	+3.1
VLS	**Valsamata**	2.10	334	ePB	Pb	16 39 32.3	-2.6
VLS	**Valsamata**	2.10	334	ePb	Pb	16 39 32.3	-2.6
EFP	**Efpalio**	2.15	3	ePN	Pn	16 39 35.0	+2.8
EFP	**Efpalio**	2.15	3	ePn	Pn	16 39 35.0	+2.8
EVR	**Evrytania**	2.63	1	ePB	Pb	16 39 42.5	-1.4
EVR	**Evrytania**	2.63	1	ePb	Pb	16 39 42.5	-1.4
THL	**Klokotos Trika**	3.29	4	ePN	Pn	16 39 50.7	+2.9
THL	**Klokotos Trika**	3.29	4	ePn	Pn	16 39 50.7	+2.9

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*IDC **13** 16:46:21.8±0.6, 6°.01S×130°.23E, h0km, mb4.3/13, mb1 4.5/15, mb1mx4.5/20, mbtmp4.4/15, ML5.0/3, MS3.7/3, Ms1 3.7/3, ms1mx3.0/21, Error ellipse: s-maj=30.2km s-min=13.4km az=76.0*
*BJI **13** 16:46:23.2, 6°.99S×130°.67E, h90km, mB5.2/2, mb4.4/6*
*MOS **13** 16:46:24.8±1.0, 6°.03S×130°.28E, h33km, mb4.8/4, Error ellipse: s-maj=34.3km s-min=12.9km az=109.8*
*NEIC **13** 16:46:32.7±1.4, 6°.12S×130°.27E, h90km±15km, mb4.6/3, Error ellipse: s-maj=11.4km s-min=8.5km az=58.0*
*ISCJB **13** 16:46:33.3±0.7, 6°.22S±0°.04×130°.30E±0°.07, h120km±8km, mb4.6/30, Error ellipse: s-maj=11.9km s-min=5.7km az=164.4*
*DJA **13** 16:46:37, 5°.77S×130°.35E, h10km, MLv4.7/6*
ISC 13 16:46:34.2±0.6**, 6°.25S**±0°.04**×130°.34E**±0°.07**, h113km**±7km**, n65, σ1^{s}05**/67**, mb4.6**/30**, 3C-2D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSAI	**Masohi**	3.21	334	P	**Pn**	**16 47 24.3**	**+1.2**
AAI	**Ambon**	3.32	320	P	**Pn**	**16 47 24.8**	**+0.1**
KAKA	**Kakadu**	6.75	162	⇓iP	**Pn**	**16 48 11.2**	**+0.4**
	252nm,0.3s						
KAKA				eS	**Sn**	**16 49 24.3**	**-1.9**
KAKA	**Kakadu**	6.75	162	eP	**Pn**	**16 48 11.1**	**+0.3**
	829nm,0.5s						
TNTI	**Ternate**	7.58	337	P	**Pn**	**16 48 21.6**	**-0.5**
	328nm,0.9s,0.8nm						
BAKI	**Biak**	7.63	49	P	**Pn**	**16 48 23.7**	**+0.8**
	184nm,0.7s,0.7nm						
KDI	**Kendari**	8.02	286	P	**Pn**	**16 48 31.7**	**+3.6**
	70nm,1.4s,887nm0.3nm						
FITZ	**Fitzroy Crossi**	12.64	201	eP	**Pn**	**16 49 27.7**	**-2.4**
	27nm,0.3s						
FITZ				eS	**Sn**	**16 51 39.3**	**-10**
FITZ	**Fitzroy Crossi**	12.64	201	Pn	**Pn**	**16 49 27.7**	**-2.4**
	5.1nm,0.3s,baz=37,slow=8.9,SNR=82						
FITZ				Sn	**Sn**	**16 51 40.1**	**-9.3**
	13nm,0.3s,baz=230,slow=22,SNR=12						
FITZ	**Fitzroy Crossi**	12.64	201	eP	**Pn**	**16 49 28.2**	**-1.9**
FITZ				Sn	**Sn**	**16 51 40.1**	**-9.3**
WRAB	**Tennant Creek**	14.15	164	eP	**Pn**	**16 49 46.9**	**-2.7**
WRAB				pmax	pmax		
	comp=Z,62nm,0.6s						
WRAB	**Tennant Creek**	14.15	164	eP	**Pn**	**16 49 46.9**	**-2.8**
	comp=Z,62nm,0.6s						
WRA	**Warramunga Arr**	14.16	164	Pn	**Pn**	**16 49 47.3**	**-2.4**
	comp=Z,6.7nm,0.3s,baz=347,slow=14,SNR=150						
WRA				Sn	**Sn**	**16 52 18.0**	**-7.9**
	comp=Z,8.3nm,0.3s,baz=342,slow=26,SNR=8.2						
COEN	**Coen**	14.77	122	eP	**Pn**	**16 49 59.0**	**+1.5**
	comp=Z,94nm,0.5s						
COEN	**Coen**	14.77	122	P	Px	16 50 09.1	
ASAR	**Alice Springs**	17.66	169	P	**Pn**	**16 50 33.5**	**+0.4**
	comp=Z,7.8nm,0.3s,baz=347,slow=10,SNR=236						
ASAR				S	**S**	**16 53 45.0**	**-4.9**
	comp=Z,2.8nm,0.3s,baz=352,slow=26,SNR=7.2						
MBWA	**Marble Bar**	18.04	214	eP	**P**	**16 50 38.3**	**+1.7**
CTA	**Charters Tower**	20.69	133	eP	**P**	**16 51 09.3**	**+3.8**
	comp=Z,6.1nm,0.8s						
CTA				eS	**S**	**16 54 49.3**	**-1.1**
CTA	**Charters Tower**	20.69	133	P	**P**	**16 51 08.2**	**+2.7**
	comp=Z,8.8nm,1.0s,baz=339,slow=11,SNR=6.0						
KSM	**Kuching**	21.42	290	ePn	**P**	**16 51 13.7**	**+0.4**
FORT	**Forrest**	24.50	185	eP	**P**	**16 51 44.4**	**+1.4**
	comp=Z,23nm,0.6s,mb4.7						
STKA	**Stephens Creek**	27.58	159	⇓iP	**P**	**16 52 12.8**	**+2.0**
	comp=Z,3.0nm,0.6s,mb4.0						
STKA	**Stephens Creek**	27.58	159	P	**P**	**16 52 13.0**	**+2.2**
	comp=Z,3.3nm,0.5s,mb4.1,baz=320,slow=8.6,SNR=12						
STKA				LR	LR	17 02 31.2	
	comp=Z,84nm,20.2s,baz=24,slow=35						
KLBR	**Kellerberrin**	27.83	203	⇑iP	**P**	**16 52 14.5**	**+1.5**
	comp=Z,17nm,0.6s,mb4.8						
MUN	**Mundaring**	28.81	206	eP	**P**	**16 52 22.7**	**+1.0**
NWAO	**Narrogin (SRO)**	29.22	203	P	**P**	**16 52 27.1**	**+1.8**
	comp=Z,7.3nm,0.3s,mb4.7,baz=41,slow=8.0,SNR=30						
CMAR	**Chiang Mai Arr**	39.52	309	P	**P**	**16 53 54.0**	**-0.2**
	comp=Z,2.1nm,0.5s,mb4.2,baz=141,slow=7.3,SNR=21						
CMAR				PcP	PcP	16 56 01.2	+1.5
	comp=Z,0.6nm,0.7s,baz=152,slow=3.5,SNR=4.4						
NJ2	**Nanjing**	39.63	345	eP	**P**	**16 53 55.3**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
CHTO	**Chiang Mai**	39.72	309	eP	**P**	**16 53 55.4**	**-0.5**
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
CHTO	**Chiang Mai**	39.72	309	eP	**P**	**16 53 55.4**	**-0.5**
	comp=Z,4.5nm,0.7s,mb4.4						
MAT	**Matsushiro**	43.20	9	P	**P**	**16 54 22.4**	**-1.6**
MJAR	**Matsushiro Arr**	43.20	9	P	**P**	**16 54 22.4**	**-1.6**
	comp=Z,3.8nm,0.8s,mb4.2,baz=192,slow=9.8,SNR=6.5						
MJAR				LR	LR	17 11 13.9	
	comp=Z,93nm,18.9s,baz=50,slow=35						
KSRS	**Korea Array**	43.53	357	P	**P**	**16 54 26.4**	**-0.3**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
KSRS	**Korea Array**	43.53	357	P	**P**	**16 54 26.4**	**-0.3**
	comp=Z,1.2nm,0.7s,mb3.8,baz=172,slow=9.1,SNR=5.0						
BJT	**Baijiatuau**	47.86	345	eP	**P**	**16 55 00.2**	**-0.4**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BJT	**Baijiatuau**	47.86	345	eP	**P**	**16 55 00.2**	**-0.4**
	comp=Z,10.0nm,0.6s,mb4.8						
LSA	**Lhasa**	51.90	316	eP	**P**	**16 55 32.3**	**+0.9**
ODAN	**Odare**	53.03	310	eP	**P**	**16 55 39.6**	**-0.2**
	comp=Z,9.2nm,0.5s,mb5.1						
TAPN	**Taplejung**	53.05	311	eP	**P**	**16 55 39.3**	**-0.7**
	comp=Z,7.7nm,0.3s,mb5.2						
GTA	**Gaotai**	53.48	331	eP	**P**	**16 55 43.4**	**+0.5**
GTA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
RAMN	**Ramite**	53.67	310	eP	**P**	**16 55 44.4**	**-0.2**
	comp=Z,22nm,0.5s,mb5.4						
JIRN	**Jiri**	54.35	311	eP	**P**	**16 55 49.1**	**-0.4**
	comp=Z,5.0nm,0.3s,mb5.0						
GUN	**Gumba**	54.72	311	eP	**P**	**16 55 51.6**	**-0.5**
	comp=Z,12nm,0.4s,mb5.3						
KKN	**Kakani**	55.11	310	eP	**P**	**16 55 54.6**	**-0.4**
	comp=Z,4.7nm,0.3s,mb4.9						
DMN	**Daman**	55.15	310	eP	**P**	**16 55 54.7**	**-0.5**
	comp=Z,7.9nm,0.6s,mb4.9						
GKN	**Gorkha**	55.71	310	eP	**P**	**16 55 58.5**	**-0.7**
	comp=Z,9.8nm,0.3s,mb5.3						
KOLN	**Koldanda**	56.39	309	eP	**P**	**16 56 03.2**	**-0.9**
	comp=Z,5.6nm,0.5s,mb4.8						
DANN	**Dangsing**	56.55	310	eP	**P**	**16 56 04.3**	**-0.9**
	comp=Z,8.2nm,0.5s,mb5.0						
ULN	**Ulaanbaatar**	57.66	342	eP	**P**	**16 56 13.2**	**+0.6**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
ULN	**Ulaanbaatar**	57.66	342	eP	**P**	**16 56 13.2**	**+0.6**
	comp=Z,4.1nm,0.7s,mb4.6						
SONM	**Songino Array**	57.84	341	P	**P**	**16 56 14.4**	**+0.5**
	comp=Z,1.4nm,0.6s,mb4.2,baz=156,slow=6.7,SNR=12						
PETK	**Petropavlovsk-**	63.51	18	P	**P**	**16 56 52.7**	**+0.5**
	comp=Z,3.5nm,0.7s,mb4.3,baz=197,slow=4.6,SNR=4.0						
PETK	**Petropavlovsk-**	63.51	18	P	**P**	**16 56 52.7**	**+0.5**
MKAR	**Makanchi Array**	67.79	326	P	**P**	**16 57 20.3**	**+0.4**
	comp=Z,1.4nm,0.4s,mb4.2,baz=115,slow=8.4,SNR=78						
SEY	**Seymchan**	71.01	10	⇑eP	**P**	**16 57 40.2**	**+0.8**
ZALV	**Zalesovo Beam**	71.06	334	P	**P**	**16 57 39.4**	**-0.5**
	comp=Z,1.0nm,0.3s,mb4.1,baz=142,slow=6.0,SNR=6.0						
KURK	**Kurchatov**	72.06	328	P	**P**	**16 57 45.8**	**-0.1**
	comp=Z,1.4nm,0.4s,mb4.2,baz=132,slow=5.3,SNR=4.3						
VNDA	**Vanda**	73.15	173	LR	LR	17 26 14.9	
	comp=Z,100nm,19.8s,baz=72,slow=33						
BVAR	**Borovoye Array**	77.61	328	P	**P**	**16 58 17.5**	**-0.4**
	comp=Z,0.5nm,0.3s,mb3.7,baz=111,slow=7.5,SNR=9.2						
AKTK	**Aktyubinsk**	83.69	322	P	**P**	**16 58 50.5**	**+0.2**
AKTO	**Aktyubinsk**	83.69	322	P	**P**	**16 58 50.5**	**+0.2**
	comp=Z,0.7nm,0.4s,mb3.8,baz=134,slow=7.8,SNR=4.4						
ARU	**Arti**	85.25	328	c iP	**P**	**16 58 57.4**	**-0.7**
ARU				e		17 02 10.8	
ARU				S	S	17 09 11.1	-7.7
ARU				SS	SS	17 14 59.3	+3.5
ARU				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
TORD	**Torodi Ar. Bea**	128.99	282	PKP	PKPdf	17 05 30.9	+1.1
	comp=Z,0.5nm,0.7s,baz=81,slow=2.4,SNR=3.6						
CPUP	**Villa Florida**	146.77	167	PKPbc	PKPbc	17 06 05.1	+1.2
	comp=Z,2.4nm,0.7s,baz=173,slow=2.7,SNR=8.0						
CPUP	**Villa Florida**	146.77	167	ePKPbc	PKPbc	17 06 05.0	+1.2

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*IDC **13** 16:51:00.2±2.0, 8°.55S×75°.89W, h0km, mb4.0/2, mb1 4.1/2, mb1mx3.6/18, mbtmp4.0/2, Error ellipse: s-maj=89.9km s-min=47.9km az=106.0*
NEIC 13 16:51:17.3±1.5**, 8°.91S×75°.64W, h132km**±14km**, mb4.3**/1**, Error ellipse: s-maj=40.8km s-min=12.0km az=88.0, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	3.28	201	ePn	Pn	16 52 07.5	-0.1
OTAV	**Otavalo**	9.51	343	eP	Pn	16 53 31.8	+0.6
	5.0nm,0.8s						
PLCA	**Paso Flores**	32.01	173	P	P	16 57 31.9	+0.7
	2.1nm,0.9s,baz=337,slow=7.7,SNR=2.9						
TORD	**Torodi Ar. Bea**	79.85	75	P	P	17 03 12.1	+0.1
	0.7nm,0.9s,baz=261,slow=4.5,SNR=3.8						
TORD	**Torodi Ar. Bea**	79.85	75	P	P	17 03 12.1	+0.1
ZALV	**Zalesovo Beam**	132.42	16	PKP	PKPdf	17 10 15.9	-0.1
	0.4nm,0.5s,baz=14,slow=3.0,SNR=4.1						
ASAR	**Alice Springs**	136.61	221	PKP	PKPdf	17 10 24.8	0.0
	0.6nm,0.9s,baz=117,slow=1.7,SNR=4.9						
WRA	**Warramunga Arr**	138.85	226	PKP	PKPdf	17 10 29.0	0.0
	0.7nm,0.6s,baz=128,slow=2.0,SNR=7.6						

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*CSEM **13** 17:08:43.9±0.2, 38°.30N×26°.50E, h15km, MD2.8, Error ellipse: s-maj=3.6km s-min=2.9km az=74.0*
*DDA **13** 17:08:45.5, 38°.32N×26°.71E, h7km±5km, Md2.8*
ISC 13 17:08:44.5±2.0**, 38°.29N**±0°.08**×26°.5E**±0°.1**, h17km**±8km**, n10, σ0^{s}03**/18**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URLA	**Izmir**	0.09	37	i P	**Pg**	**17 08 47.9**	**0.0**
URLA				i S	**Sg**	**17 08 50.1**	**0.0**
URLA	**Izmir**	0.09	37	i P	**Pg**	**17 08 47.9**	**+0.1**
URLA				i S	**Sg**	**17 08 50.1**	**0.0**
BLCB	**Balcova**	0.42	76	ePG	**Pg**	**17 08 52.9**	**-0.1**
BLCB				eSG	**Sg**	**17 08 58.7**	**0.0**
BLCB	**Balcova**	0.42	76	ePg	**Pg**	**17 08 52.9**	**-0.1**
BLCB				eSg	**Sg**	**17 08 58.7**	**0.0**
IZM	**Izmir**	0.59	79	ePG	**Pg**	**17 08 56.1**	**0.0**
IZM	**Izmir**	0.59	79	ePg	**Pg**	**17 08 56.1**	**0.0**
GCAM	**G?zelcaml?**	0.81	136	i P	**Pg**	**17 09 00.2**	**-0.1**
GCAM				i S	**Sg**	**17 09 10.9**	**0.0**
GCAM	**G?zelcaml?**	0.81	136	i P	**Pg**	**17 09 00.2**	**0.0**
GCAM				i S	**Sg**	**17 09 10.9**	**0.0**
AYDN	**Tasoluk**	1.24	120	i P	**Pn**	**17 09 07.0**	**0.0**
AYDN				i S	**Sb**	**17 09 23.1**	**0.0**
AYDN	**Tasoluk**	1.24	120	i P	**Pn**	**17 09 07.0**	**0.0**
AYDN				i S	**Sb**	**17 09 23.1**	**0.0**

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*ISCJB **13** 17:17:34.4±0.4, 44°.44N±0°.08×28°.20W±0°.05, h10km, mb4.4/52, MS4.1/39, Error ellipse: s-maj=11.8km s-min=4.7km az=2.8*
*MOS **13** 17:17:34.5±0.9, 44°.47N×28°.19W, h10km, mb4.7/26, MS4.0/8, Error ellipse: s-maj=12.1km s-min=6.1km az=150.7*
*BJI **13** 17:17:34.0, 44°.40N×28°.20W, h10km, mb4.5/6*
*IDC **13** 17:17:34.3±0.7, 44°.42N×28°.23W, h0km, mb4.1/18, mb1 4.2/20, mb1mx4.1/32, mbtmp4.1/20, ML4.1/2, MS4.1/32, Ms1 4.1/32, ms1mx4.1/38, Error ellipse: s-maj=22.1km s-min=12.7km az=9.0*
*GCMT **13** 17:17:36.1±0.3, 44°.33N×28°.14W, h12km±1km, MW4.8/64, Moment Tensor Solution. s15,c21; s64,c94; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.22±.17; $M_{\theta\theta}$0.21±.10; $M_{\phi\phi}$2.01±.11; $M_{r\theta}$0.30±.34; $M_{\theta\phi}$0.17±.06; $M_{\phi r}$0.10±.24; Best double couple: $M_0$2.14400×10^{16} NP1:ϕ_s359.00000°,δ44.00000°,λ-100.00000°. NP2: ϕ_s192.00000°,δ47.00000°,λ-81.00000°. Principal axes: T 2.0300, Plg2.0000°, Azm276.0000°; N 0.2290, Plg7.0000°, Azm6.0000°; P -2.2570, Plg83.0000°, Azm171.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*CSEM **13** 17:17:36.0±0.1, 44°.45N×28°.20W, h10km, mb4.6/31, Ms3.9, Mw4.8 Error ellipse: s-maj=8.5km s-min=3.4km az=3.0*
*NEIC **13** 17:17:36.1±0.3, 44°.43N×28°.19W, h10km, mb4.6/24, MS4.1/3, Error ellipse: s-maj=8.7km s-min=3.3km az=182.0*
*SZGRF **13** 17:17:46.8, 45°.55N×28°.56W, h33km, mb4.7, MS4.0, Northern Mid-Atlantic Ridge*
ISC 13 17:17:36.4±0.4**, 44°.45N**±0°.08**×28°.15W**±0°.05**, h10km, n217, σ0^{s}87**/201**, mb4.4**/52**, MS4.1**/39**, 2C-1D, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EVOP	**Sao Brissos**	16.11	105	eP	**Pn**	**17 21 19.1**	**-3.7**
	3.0nm,0.6s						
EVO	**Evora**	16.19	104	eP	**Pn**	**17 21 19.1**	**-4.7**
	6.0nm,0.6s						
EVO				eMLR	MLR		
	comp=Z,926nm,18.2s						
ROSF	**Rostrenen**	17.57	68	eP	**Pn**	**17 21 38.8**	**-2.3**
QUIF	**Quistinic**	17.62	70	eP	**Pn**	**17 21 39.0**	**-2.7**
	comp=Z,8.2nm,0.6s						
QUIF	**Quistinic**	17.62	70	eP	**Pn**	**17 21 39.0**	**-2.7**
QUIF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
QUIF	**Quistinic**	17.62	70	eP	**Pn**	**17 21 39.0**	**-2.7**
	comp=Z,4.1nm,0.6s						
SGMF	**Saint Gilles**	18.04	69	eP	**Pn**	**17 21 46.9**	**0.0**
SGMF	**Saint Gilles**	18.04	69	eP	**Pn**	**17 21 46.9**	**0.0**
ESDC	**Sonseca Array**	18.55	96	P	**Pn**	**17 21 52.6**	**-0.7**
	comp=Z,0.4nm,0.3s,baz=294,slow=12,SNR=4.6						
ESDC				LR	LR	17 27 41.9	
	comp=Z,434nm,18.9s,baz=280,slow=33						
ESDC	**Sonseca Array**	18.55	96	P	**Pn**	**17 21 52.6**	**-0.7**
ESDC				LR	LR	17 27 41.9	
ESDC	**Sonseca Array**	18.55	96	P	**Pn**	**17 21 52.6**	**-0.7**
GRR	**Gorron**	19.18	68	eP	**Pn**	**17 21 59.9**	**-0.9**
GRR	**Gorron**	19.18	68	eP	**Pn**	**17 21 59.9**	**-0.9**
ESK	**Eskdalemuir**	19.29	47	i P	**Pn**	**17 22 05.5**	**+3.4**
EKA	**Eskdalemuir Ar**	19.32	47	P	**Pn**	**17 22 02.3**	**-0.2**
	baz=236,slow=10.0,SNR=9.2						
EKA	**Eskdalemuir Ar**	19.32	47	P	**Pn**	**17 22 02.3**	**-0.2**
FLN	**La Foliniere**	19.44	67	eP	**Pn**	**17 22 03.7**	**-0.2**
FLN				eMLR	MLR		
	comp=Z,490nm,18.0s						
FLN	**La Foliniere**	19.44	67	eP	**Pn**	**17 22 03.7**	**-0.2**
SJPF	**Ste Jean**	19.46	84	eP	**Pn**	**17 22 04.1**	**-0.1**
SJPF	**Ste Jean**	19.46	84	eP	**Pn**	**17 22 04.1**	**-0.1**
LDF	**La Druitiere**	19.67	68	eP	**Pn**	**17 22 05.2**	**-1.5**
LDF	**La Druitiere**	19.67	68	eP	**Pn**	**17 22 05.2**	**-1.5**
MFF	**Saint Martin d**	19.70	74	eP	**Pn**	**17 22 06.1**	**-0.9**
MFF	**Saint Martin d**	19.70	74	eP	**Pn**	**17 22 06.1**	**-0.9**
ETSF	**Etsaut**	19.98	85	eP	**Pn**	**17 22 09.6**	**-0.8**
ETSF	**Etsaut**	19.98	85	eP	**Pn**	**17 22 09.6**	**-0.8**
LFF	**La Frestale**	20.50	78	eP	**P**	**17 22 14.3**	**0.0**
LFF	**La Frestale**	20.50	78	eP	**P**	**17 22 14.3**	**0.0**
EPF	**Esparros**	20.59	84	eP	**P**	**17 22 15.9**	**+0.5**
EPF	**Esparros**	20.59	84	eP	**P**	**17 22 15.9**	**+0.5**
RJF	**Les Rejaudoux**	20.99	77	eP	**P**	**17 22 21.0**	**+1.4**
RJF				eMLR	MLR		
	comp=Z,923nm,22.2s,MS3.8						
RJF	**Les Rejaudoux**	20.99	77	eP	**P**	**17 22 21.0**	**+1.4**
RJF				LR	LR		
	comp=Z,920nm,22.3s,MS4.1						
RJF	**Les Rejaudoux**	20.99	77	eP	**P**	**17 22 21.0**	**+1.4**
TCF	**Toulx Ste Croi**	21.35	74	eP	**P**	**17 22 23.8**	**+0.3**
	comp=Z,84nm,1.3s,mb4.6						
TCF	**Toulx Ste Croi**	21.35	74	eP	**P**	**17 22 23.8**	**+0.3**
TCF				pmax	pmax		
	comp=Z,42nm,1.3s,mb4.6						

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TCF   Toulx Ste Croi   21.35  74 eP      P       17 22 23.8 +0.3
      comp=Z,42nm,1.3s,mb4.6
TCF   Toulx Ste Croi   21.35  74 eP      P       17 22 23.8 +0.3
      comp=Z,42nm,1.3s,mb4.6
CAF   Calviac          21.43  78 eP      P       17 22 24.6 +0.2
CAF   Calviac          21.43  78 eP      P       17 22 24.6 +0.2
MDT   Midelt           21.66 114  LR     LR      17 29 23.9
      comp=Z,179nm,18.7s,MS3.5,baz=330,slow=33
BGF   Bois d'Agland    21.76  73 eP      P       17 22 28.1 +0.2
      comp=Z,42nm,0.9s,mb4.6
BGF   Bois d'Agland    21.76  73 eP      P       17 22 28.1 +0.2
BGF                                pmax  pmax
      comp=Z,21nm,0.9s,mb4.6
BGF   Bois d'Agland    21.76  73 eP      P       17 22 28.1 +0.2
      comp=Z,21nm,0.9s,mb4.6
BGF   Bois d'Agland    21.76  73 eP      P       17 22 28.1 +0.2
      comp=Z,21nm,0.9s,mb4.6
MTLF  Montolieu        21.85  82 eP      P       17 22 28.9  0.0
      comp=Z,26nm,1.1s,mb4.2
MTLF  Montolieu        21.85  82 eP      P       17 22 28.9  0.0
MTLF                               pmax  pmax
      comp=Z,13nm,1.1s,mb4.3
MTLF  Montolieu        21.85  82 eP      P       17 22 28.9  0.0
      comp=Z,13nm,1.1s,mb4.3
MTLF  Montolieu        21.85  82 eP      P       17 22 28.9  0.0
      comp=Z,13nm,1.1s,mb4.2
AVF   Avril sur Loir   22.08  73 eP      P       17 22 31.3 -0.1
      comp=Z,81nm,1.5s,mb4.6
AVF   Avril sur Loir   22.08  73 eP      P       17 22 31.3 -0.1
AVF                                pmax  pmax
      comp=Z,40nm,1.5s,mb4.6
AVF   Avril sur Loir   22.08  73 eP      P       17 22 31.3 -0.1
      comp=Z,40nm,1.5s,mb4.6
AVF   Avril sur Loir   22.08  73 eP      P       17 22 31.3 -0.1
      comp=Z,40nm,1.5s,mb4.6
SSF   Saint Saulge     22.16  72 eP      P       17 22 32.2  0.0
      comp=Z,56nm,1.2s,mb4.6
SSF   Saint Saulge     22.16  72 eP      P       17 22 32.2  0.0
SSF                                pmax  pmax
      comp=Z,28nm,1.2s,mb4.6
SSF   Saint Saulge     22.16  72 eP      P       17 22 32.2  0.0
      comp=Z,28nm,1.2s,mb4.6
SSF   Saint Saulge     22.16  72 eP      P       17 22 32.2  0.0
      comp=Z,28nm,1.2s,mb4.6
LOR   Lormes           22.38  71 eP      P       17 22 34.6  0.0
      comp=Z,25nm,0.8s,mb4.4
LOR                              eMLR    MLR
      comp=Z,924nm,19.8s,MS3.9
LOR   Lormes           22.38  71 eP      P       17 22 34.6  0.0
LOR                                pmax  pmax
      comp=Z,12nm,0.8s,mb4.4
LOR                                MLR   MLR
      comp=Z,920nm,19.8s,MS4.2
LOR   Lormes           22.38  71 eP      P       17 22 34.6  0.0
      comp=Z,12nm,0.8s,mb4.4
LOR                                LR    LR
      comp=Z,920nm,19.8s,MS4.2
LOR   Lormes           22.38  71 eP      P       17 22 34.6  0.0
      comp=Z,12nm,0.8s,mb4.4
SMF   Signal de Mont   22.43  73 eP      P       17 22 34.8 -0.3
      comp=Z,61nm,1.4s,mb4.5
SMF   Signal de Mont   22.43  73 eP      P       17 22 34.8 -0.3
SMF                                pmax  pmax
      comp=Z,30nm,1.4s,mb4.5
SMF   Signal de Mont   22.43  73 eP      P       17 22 34.8 -0.3
      comp=Z,30nm,1.4s,mb4.5
SMF   Signal de Mont   22.43  73 eP      P       17 22 34.8 -0.3
      comp=Z,30nm,1.4s,mb4.5
BAIF  Baives           22.55  64 eP      P       17 22 36.3  0.0
      comp=Z,62nm,1.4s,mb4.5
BAIF  Baives           22.55  64 eP      P       17 22 36.3  0.0
BAIF                               pmax  pmax
      comp=Z,31nm,1.4s,mb4.5
BAIF  Baives           22.55  64 eP      P       17 22 36.3  0.0
      comp=Z,31nm,1.4s,mb4.5
BAIF  Baives           22.55  64 eP      P       17 22 36.3  0.0
      comp=Z,31nm,1.4s,mb4.5
LASF  Ste Croix        22.85  80 eP      P       17 22 40.9 +1.4
      comp=Z,70nm,1.4s,mb4.6
LASF  Ste Croix        22.85  80 eP      P       17 22 40.9 +1.4
      comp=Z,35nm,1.4s,mb4.6
GIVF  Givet            22.95  64 eP      P       17 22 41.2 +0.7
GIVF  Givet            22.95  64 eP      P       17 22 41.2 +0.7
MEZF  Maizieres J'vi   23.11  68 eP      P       17 22 42.8 +0.5
      comp=Z,30nm,0.7s,mb4.5
MEZF  Maizieres J'vi   23.11  68 eP      P       17 22 42.8 +0.5
      comp=Z,30nm,0.7s,mb4.8
MEZF  Maizieres J'vi   23.11  68 eP      P       17 22 42.8 +0.5
      comp=Z,15nm,0.7s,mb4.5
VIVF  Saint-Julien-l   23.27  77 eP      P       17 22 43.6 -0.4
VIVF  Saint-Julien-l   23.27  77 eP      P       17 22 43.6 -0.4
CABF  La Chapelle      23.97  73 eP      P       17 22 49.9 -0.8
      comp=Z,15nm,0.9s,mb4.1
CABF  La Chapelle      23.97  73 eP      P       17 22 49.9 -0.8
CABF                               pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.1
CABF  La Chapelle      23.97  73 eP      P       17 22 49.9 -0.8
      comp=Z,7.4nm,0.9s,mb4.1
CABF  La Chapelle      23.97  73 eP      P       17 22 49.9 -0.8
      comp=Z,7.4nm,0.9s,mb4.1
HAU   Haudompre        24.00  69 eP      P       17 22 50.7 -0.3
HAU                              eMLR    MLR
      comp=Z,603nm,19.8s,MS3.8
HAU   Haudompre        24.00  69 eP      P       17 22 50.7 -0.3
HAU                                LR    LR
      comp=Z,600nm,19.8s,MS4.1
HAU   Haudompre        24.00  69 eP      P       17 22 50.7 -0.3
ORIF  Oris-en-Rattie   24.10  77 eP      P       17 22 51.8 -0.1
      comp=Z,14nm,1.1s,mb4.0
ORIF                             eMLR    MLR
      comp=Z,701nm,21.2s,MS3.8
ORIF  Oris-en-Rattie   24.10  77 eP      P       17 22 51.8 -0.1
ORIF                               pmax  pmax
      comp=Z,7.0nm,1.1s,mb4.0
ORIF  Oris-en-Rattie   24.10  77 eP      P       17 22 51.8 -0.1
      comp=Z,7.2nm,1.1s,mb4.0
ORIF  Oris-en-Rattie   24.10  77 eP      P       17 22 51.8 -0.1
      comp=Z,7.2nm,1.1s,mb4.0
HINF  Hinteralfeld     24.36  70 eP      P       17 22 54.4 +0.1
HINF  Hinteralfeld     24.36  70 eP      P       17 22 54.4 +0.1
ECH   Echery           24.53  69 eP      P       17 22 56.9 +1.1
ECH                                pmax  pmax
      comp=Z,17nm,1.2s,mb4.5
ECH   Echery           24.53  69 eP      P       17 22 56.9 +1.0
      comp=Z,18nm,1.2s,mb4.5
ECH   Echery           24.53  69 eP      P       17 22 56.9 +1.1
      comp=Z,18nm,1.2s,mb4.5
LPL   La Plagne        24.58  75 eP      P       17 22 57.1 +0.8
LPL   La Plagne        24.58  75 eP      P       17 22 57.1 +0.8
CDF   Champ du Feu     24.59  68 eP      P       17 22 56.1 -0.3
      comp=Z,38nm,1.2s,mb4.5
CDF   Champ du Feu     24.59  68 eP      P       17 22 56.1 -0.3
CDF                                pmax  pmax
      comp=Z,19nm,1.2s,mb4.5
CDF   Champ du Feu     24.59  68 eP      P       17 22 56.1 -0.3
      comp=Z,19nm,1.2s,mb4.5
CDF   Champ du Feu     24.59  68 eP      P       17 22 56.1 -0.3
      comp=Z,19nm,1.2s,mb4.5
LPG   La Plagne        24.60  75 eP      P       17 22 57.1 +0.6
LPG   La Plagne        24.60  75 eP      P       17 22 57.1 +0.6
MBDF  Montbardon       24.76  77 eP      P       17 22 58.9 +1.0
      comp=Z,14nm,0.9s,mb4.2
MBDF  Montbardon       24.76  77 eP      P       17 22 58.9 +1.0
MBDF                               pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.2
MBDF  Montbardon       24.76  77 eP      P       17 22 58.9 +1.0
      comp=Z,6.9nm,0.9s,mb4.2
MBDF  Montbardon       24.76  77 eP      P       17 22 58.9 +1.0
      comp=Z,6.9nm,0.9s,mb4.2
BFO   Black Forest     25.30  68 i P     P       17 23 05.4 +2.6
SFJD  Kangerlussuaq    25.60 340  LR     LR      17 31 05.6
      comp=Z,286nm,18.2s,MS3.8,baz=101,slow=32
DAVOX Davos/Dischmat   26.53  71  LR     LR      17 32 38.6
      comp=Z,523nm,19.3s,MS4.1,baz=260,slow=34
SCHQ  Schefferville    26.79 307  P      P       17 23 15.3 -0.9
      comp=Z,9.6nm,1.0s,mb4.3,baz=132,slow=10,SNR=5.0
SCHQ                              LR     LR      17 32 04.5
      comp=Z,562nm,19.9s,MS4.1,baz=286,slow=32
SCHQ  Schefferville    26.79 307  P      P       17 23 15.3 -0.9
SCHQ                              LR     LR      17 32 04.5
SCHQ  Schefferville    26.79 307  P      P       17 23 15.3 -0.9
GRA1  Grafenberg Arr   27.09  65 eP      P       17 23 24.4 +5.4
      comp=Z,32nm,1.9s,mb4.5
GRA1                              LR     LR
      comp=Z,500nm,21.2s,MS4.0
GRF   Grafenberg Arr   27.09  65 eP      P       17 23 24.4 +5.4
GRF                                pmax  pmax
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      comp=Z,32nm,1.9s,mb4.5
GRF                                MLR   MLR
      comp=Z,500nm,21.2s,MS4.0
GRF   Grafenberg Arr   27.09  65 eP      P       17 23 24.4 +5.4
      comp=Z,32nm,1.9s,mb4.5
GRF                              eL              17 32 18.1
      comp=Z,502nm,21.2s
CLL   Collm            28.14  61 eP      P       17 23 28.0 -0.4
NOA   NORSAR Array B   28.46  40  LR     LR      17 32 34.9
      comp=Z,173nm,19.4s,MS3.7,baz=0.0,slow=32
GERES GERESS Array B   28.79  66  P      P       17 23 34.5 +0.3
      comp=Z,0.7nm,0.6s,mb3.5,baz=263,slow=7.5,SNR=6.5
GERES                             LR     LR      17 33 38.1
      comp=Z,484nm,19.3s,MS4.1,baz=262,slow=33
GERES GERESS Array B   28.79  66  P      P       17 23 34.5 +0.3
GERES                             LR     LR      17 33 38.1
GERES GERESS Array B   28.79  66  P      P       17 23 34.5 +0.3
HFS   Hagfors          29.40  43  LR     LR      17 33 41.2
      comp=Z,409nm,20.4s,MS4.0,baz=73,slow=33
KEST  Kesra            29.76  94  LR     LR      17 34 03.3
      comp=Z,78nm,18.6s,MS3.4,baz=249,slow=33
FRB   Frobisher Bay    29.82 325  P      P       17 23 42.0 -1.1
      comp=Z,5.5nm,0.9s,mb4.3,baz=95,slow=10.0,SNR=12
FRB                               LR     LR      17 32 29.9
      comp=Z,439nm,20.2s,MS4.1,baz=105,slow=30
FRB   Frobisher Bay    29.82 325  P      P       17 23 42.0 -1.1
SADO  Sadowa           35.82 289  LR     LR      17 38 48.1
      comp=Z,609nm,19.4s,MS4.4,baz=81,slow=36
ARCES ARCESS Array B   36.62  28  LR     LR      17 36 26.4
      comp=Z,402nm,18.8s,MS4.2,baz=208,slow=31
AKASG Malin Array Be   38.35  60  P      P       17 24 56.6 -0.6
      comp=Z,1.2nm,0.6s,mb3.8,baz=276,slow=8.7,SNR=4.0
AKASG                             LR     LR      17 38 56.3
      comp=Z,257nm,18.9s,MS4.1,baz=285,slow=33
AKASG Malin Array Be   38.35  60  P      P       17 24 56.6 -0.6
TOA0  Torodi Ar. Sit   40.28 131 eP      P       17 25 13.4 -0.3
TOA0  Torodi Ar. Sit   40.28 131 eP      P       17 25 13.4 -0.2
TORD  Torodi Ar. Bea   40.28 131  P      P       17 25 13.1 -0.5
      comp=Z,5.0nm,0.8s,mb4.3,baz=324,slow=7.8,SNR=19
TORD                              LR     LR      17 40 40.1
      comp=Z,453nm,19.3s,MS4.3,baz=325,slow=34
RES   Resolute Bay     41.59 338  P      P       17 25 23.5 -0.3
      comp=Z,6.5nm,1.0s,mb4.2,baz=98,slow=8.1,SNR=15
RES                               LR     LR      17 39 57.1
      comp=Z,124nm,18.3s,MS3.8,baz=295,slow=32
RES   Resolute Bay     41.59 338  P      P       17 25 23.5 -0.3
RES                               LR     LR      17 39 57.1
RES   Resolute Bay     41.59 338  P      P       17 25 23.5 -0.3
OBN   Obninsk          41.67  51 eP      P       17 25 26.1 +1.4
OBN                              i               17 27 01.7
OBN                              e               17 27 28.1
OBN                                pmax  pmax
      comp=Z,35nm,2.5s,mb4.5
OBN                                MLR   MLR
      comp=Z,300nm,23.0s,MS4.1
OBN   Obninsk          41.67  51 eP      P       17 25 26.1 +1.4
      comp=Z,35nm,2.5s,mb4.5
TKL   Tuckaleechee C   42.75 278  LR     LR      17 40 27.7
      comp=Z,248nm,20.8s,MS4.1,baz=104,slow=32
DBIC  Dimbokro         42.78 145  LR     LR      17 41 35.3
      comp=Z,187nm,19.4s,MS4.0,baz=316,slow=34
ULM   Lac du Bonnet    44.82 303  LR     LR      17 42 51.4
      comp=Z,477nm,19.7s,MS4.4,baz=217,slow=34
BRTR  Keskin Array B   45.14  73  P      P       17 25 54.1 +1.2
      comp=Z,1.0nm,0.8s,mb3.7,baz=318,slow=3.5,SNR=4.3
BRTR  Keskin Array B   45.14  73  P      P       17 25 54.1 +1.2
FFC   Flin Flon        46.83 310 i P     P       17 26 06.5 +0.5
FFC   Flin Flon        46.83 310 i P     P       17 26 06.5 +0.5
YKA   Yellowknife Ar   50.31 323  P      P       17 26 31.3 -1.4
YKA                                              17 27 50.3
YKA   Yellowknife Ar   50.31 323  P      P       17 26 31.2 -1.4
      comp=Z,1.5nm,0.8s,mb4.1,baz=68,slow=7.0,SNR=14
YKA                               PcP    PcP     17 27 50.3 -1.0
      comp=Z,0.8nm,0.8s,baz=76,slow=4.1,SNR=7.5
YKA                               LR     LR      17 44 51.7
      comp=Z,188nm,19.6s,MS4.1,baz=110,slow=33
YKA   Yellowknife Ar   50.31 323  P      P       17 26 31.2 -1.4
YKA                               PcP    PcP     17 27 50.3 -1.0
YKA                               LR     LR      17 44 51.7
YKA   Yellowknife Ar   50.31 323  P      P       17 26 31.3 -1.4
YKA   Yellowknife Ar   50.31 323  PcP    PcP     17 27 50.3 -1.0
SDV   Santo Domingo    51.02 239 eP      P       17 26 38.5 -0.2
      comp=Z,35nm,1.7s,mb5.0
SDV   Santo Domingo    51.02 239 eP      P       17 26 38.5 -0.1
      comp=Z,35nm,1.7s,mb5.0
GNI   Garni            52.43  68 i P     P       17 26 53.7 +4.8
GNI                                pmax  pmax
      comp=Z,11nm,1.7s
GNI                                MLR   MLR
      comp=Z,100nm,14.0s
ARU   Arti             52.91  44d iP     P       17 26 52.7 +0.5
ARU                              e               17 28 49.2
ARU                               S      S       17 34 18.8 -2.1
ARU                                pmax  pmax
      comp=Z,11nm,2.0s,mb4.4
ARU   Arti             52.91  44 i P     P       17 26 52.7 +0.5
      comp=Z,11nm,2.0s,mb4.4
ARU                               S      S       17 34 18.8 -2.1
TEIG  Tepich           54.91 264  LR     LR      17 46 12.2
      comp=Z,158nm,21.6s,MS4.0,baz=5.0,slow=31
RLMT  Red Lodge        55.17 302 eP      P       17 27 09.0 +0.1
      comp=Z,10nm,1.3s,mb4.7
RLMT  Red Lodge        55.17 302 eP      P       17 27 09.0 +0.1
      comp=Z,10nm,1.3s,mb4.7
WALA  Waterton Lakes   55.91 308 eP      P       17 27 13.8 -0.4
      comp=Z,0.4nm,1.2s,mb3.3
WALA  Waterton Lakes   55.91 308 eP      P       17 27 13.8 -0.4
      comp=Z,0.4nm,1.2s,mb3.3
PDAR  Pinedale Array   56.57 299  P      P       17 27 17.9 -1.0
      comp=Z,2.6nm,1.1s,mb4.2,baz=64,slow=6.8,SNR=11
PDAR                              LR     LR      17 49 51.1
      comp=Z,301nm,20.0s,MS4.4,baz=68,slow=34
PDAR  Pinedale Array   56.57 299  P      P       17 27 17.9 -1.0
ANMO  Albuquerque      58.86 290  P      P       17 27 34.6 -0.6
      comp=Z,1.8nm,0.6s,mb4.3,baz=72,slow=9.3,SNR=4.5
ANMO                              LR     LR      17 52 08.6
      comp=Z,348nm,19.8s,MS4.5,baz=58,slow=35
ANMO  Albuquerque      58.86 290  P      P       17 27 34.6 -0.6
MVCO  Mesa Verde       58.93 293 eP      P       17 27 36.6 +1.0
      comp=Z,24nm,1.5s,mb5.0
MVCO  Mesa Verde       58.93 293 eP      P       17 27 36.6 +1.0
      comp=Z,24nm,1.5s,mb5.0
DLBC  Dease Lake       58.94 323  P      P       17 27 36.0 +0.6
      comp=Z,0.6nm,0.3s,mb4.0,baz=82,slow=7.1,SNR=2.2
DLBC                              LR     LR      17 50 08.7
      comp=Z,233nm,20.8s,MS4.3,baz=53,slow=33
DLBC  Dease Lake       58.94 323  P      P       17 27 36.0 +0.7
DUG   Dugway           60.02 298 eP      P       17 27 43.1  0.0
DUG                                pmax  pmax
      comp=Z,21nm,1.3s,mb5.0
DUG   Dugway           60.02 298 eP      P       17 27 43.1 -0.1
      comp=Z,21nm,1.3s,mb5.0
DUG   Dugway           60.02 298 eP      P       17 27 43.1  0.0
      comp=Z,21nm,1.3s,mb5.0
TXAR  Lajitas Array    60.23 283  P      P       17 27 44.4 -0.3
      comp=Z,2.4nm,0.8s,mb4.3,baz=76,slow=6.1,SNR=17
TXAR                              LR     LR      17 53 30.3
      comp=Z,276nm,18.5s,MS4.4,baz=10.0,slow=36
TXAR  Lajitas Array    60.23 283  P      P       17 27 44.4 -0.3
TXAR                              LR     LR      17 53 30.4
TXAR  Lajitas Array    60.23 283  P      P       17 27 44.4 -0.3
ELK   Elko             61.23 300  P      P       17 27 52.2 +0.9
      comp=Z,3.8nm,0.9s,mb4.5,baz=49,slow=5.7,SNR=12
ELK                               LR     LR      17 52 53.1
      comp=Z,305nm,20.6s,MS4.4,baz=46,slow=35
ELK   Elko             61.23 300  P      P       17 27 52.2 +0.9
ELK                               LR     LR      17 52 53.1
ELK   Elko             61.23 300  P      P       17 27 52.2 +0.9
BBB   Bella Bella      61.73 316  LR     LR      17 52 20.0
      comp=Z,237nm,19.8s,MS4.3,baz=261,slow=34
TIXI  Tiksi            63.06   8⇑eP      P       17 28 03.8 +0.7
TIXI                               pmax  pmax
      comp=Z,7.0nm,1.3s,mb4.6
TIXI                               MLR   MLR
      comp=Z,100nm,17.0s,MS4.1
TIXI  Tiksi            63.06   8 eP      P       17 28 03.8 +0.7
      comp=Z,100nm,17.0s
NVAR  Mina Array Bea   64.51 300  P      P       17 28 12.6 -0.6
      comp=Z,1.0nm,0.8s,mb3.9,baz=58,slow=6.0,SNR=6.5
NVAR  Mina Array Bea   64.51 300  P      P       17 28 12.6 -0.6
YBH   Yreka Blue Hor   65.16 305  LR     LR      17 55 31.9
      comp=Z,191nm,19.3s,MS4.3,baz=29,slow=35
NVS   Novosibirsk      65.28  36 eP      P       17 28 17.6 -0.3
NVS                              e               17 28 56.5
NVS                                pmax  pmax
      comp=Z,10.0nm,1.5s,mb4.6
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NVS                                pmax  pmax
      comp=E,6.0nm,1.7s
NVS   Novosibirsk      65.28  36 eP      P       17 28 17.6 -0.3
      comp=E,10.0nm,1.5s,mb4.6
GSC   Goldstone        65.47 296 eP      P       17 28 20.2 +0.7
GSC                                pmax  pmax
      comp=Z,8.0nm,1.1s,mb4.7
GSC   Goldstone        65.47 296 eP      P       17 28 20.1 +0.6
      comp=Z,8.2nm,1.1s,mb4.7
GSC   Goldstone        65.47 296 eP      P       17 28 20.1 +0.6
      comp=Z,8.1nm,1.1s,mb4.7
KURK  Kurchatov        65.96  42 eP      P       17 28 22.1 -0.3
KURK                               pmax  pmax
      comp=Z,5.0nm,1.0s,mb4.5
KURK  Kurchatov        65.96  42 eP      P       17 28 22.1 -0.3
      comp=Z,5.1nm,1.0s,mb4.5
KURK  Kurchatov        65.96  42 eP      P       17 28 22.1 -0.3
      comp=Z,5.1nm,1.0s,mb4.5
PFO   Pinyon Flat Ob   66.29 294 i P     P       17 28 26.7 +1.9
PFO   Pinyon Flat Ob   66.29 294 i P     P       17 28 26.7 +1.9
ZALV  Zalesovo Beam    66.56  36  P      P       17 28 25.9 -0.3
      comp=Z,0.8nm,0.3s,mb4.3,baz=303,slow=8.3,SNR=8.3
ZALV                              LR     LR      17 56 21.7
      comp=Z,83nm,19.2s,MS4.0,baz=51,slow=35
BILL  Bilibino         67.31 354 eP      P       17 28 31.0 +0.2
BILL                               pmax  pmax
      comp=Z,7.0nm,1.6s,mb4.4
BILL  Bilibino         67.31 354 eP      P       17 28 31.0 +0.2
      comp=Z,7.0nm,1.6s,mb4.4
KRAR  Krasnoyarsk      68.28  31 i P     P       17 28 37.8 +0.8
KRAR                               pmax  pmax
      comp=Z,17nm,1.1s,mb5.0
KRAR                               MLR   MLR
      comp=Z,100nm,23.0s,MS4.0
KRAR  Krasnoyarsk      68.28  31 i P     P       17 28 37.8 +0.8
      comp=Z,100nm,23.0s
AML   Almayashu        69.08  51 eP      P       17 28 43.7 +1.5
      comp=Z,8.5nm,1.4s,mb4.5
AML   Almayashu        69.08  51 eP      P       17 28 43.7 +1.4
      comp=Z,8.5nm,1.4s,mb4.5
AAK   Ala-Archa        69.19  50 eP      P       17 28 44.1 +1.1
AAK                                pmax  pmax
      comp=Z,4.0nm,1.3s,mb4.2
AAK   Ala-Archa        69.19  50 eP      P       17 28 44.1 +1.1
      comp=Z,4.4nm,1.3s,mb4.2
AAK   Ala-Archa        69.19  50 eP      P       17 28 44.1 +1.1
      comp=Z,4.4nm,1.3s,mb4.2
MKAR  Makanchi Array   70.41  43  P      P       17 28 50.3 -0.1
      comp=Z,3.6nm,1.0s,mb4.2,baz=319,slow=5.3,SNR=24
MKAR                              LR     LR      18 01 12.4
      comp=Z,126nm,19.8s,MS4.2,baz=311,slow=37
MKAR  Makanchi Array   70.41  43  P      P       17 28 50.3 -0.1
MKAR                              LR     LR      18 01 12.4
SEY   Seymchan         72.97 360⇑eP      P       17 29 05.1 -0.4
SEY   Seymchan         72.97 360 eP      P       17 29 05.1 -0.4
BOD   Bodaibo          73.33  20 eP      P       17 29 05.4 -2.3
BOD                                pmax  pmax
      comp=Z,10.0nm,1.3s,mb4.6
BOD   Bodaibo          73.33  20 eP      P       17 29 05.4 -2.3
      comp=Z,10.0nm,1.3s,mb4.6
CPUP  Villa Florida    75.33 207  P      P       17 29 18.8 -0.8
      comp=Z,0.5nm,0.3s,mb3.9,baz=248,slow=5.5,SNR=3.7
CPUP                              LR     LR      17 57 08.2
      comp=Z,71nm,20.4s,MS4.0,baz=106,slow=32
CPUP  Villa Florida    75.33 207  P      P       17 29 18.8 -0.8
ZAK   Zakamensk        76.54  30 eP      P       17 29 26.1 -0.3
ZAK                                pmax  pmax
      comp=Z,2.0nm,1.6s,mb3.8
ZAK   Zakamensk        76.54  30 eP      P       17 29 26.1 -0.3
      comp=Z,2.0nm,1.6s,mb3.8
SONM  Songino Array    79.79  29  P      P       17 29 44.8 +0.3
      comp=Z,1.7nm,0.9s,mb4.0,baz=317,slow=5.8,SNR=16
SONM                              LR     LR      18 07 42.4
      comp=Z,63nm,18.1s,MS4.0,baz=126,slow=38
SONM  Songino Array    79.79  29  P      P       17 29 44.8 +0.3
GTA   Gaotai           84.26  38 eP      P       17 30 08.3 +0.2
GTA                               pP     pP      17 30 12.8 +1.3
GTA                               sP     sP      17 30 15.8 +3.1
GTA                                pmax  pmax
      comp=Z,6.0nm,1.3s,mb4.6
BOSA  Boshof           87.54 135  LR     LR      18 07 04.7
      comp=Z,161nm,18.1s,MS4.5,baz=322,slow=34
NJ2   Nanjing          98.14  28 eP      P       17 31 13.8 +0.4
ASAR  Alice Springs   154.59  41  PKPbc  PKPbc   17 37 37.5 +0.1
      comp=Z,0.6nm,1.1s,baz=330,slow=2.9,SNR=3.1
ASAR                              PKPab  PKPab   17 37 51.7 -0.3
      comp=Z,0.7nm,0.8s,baz=331,slow=3.1,SNR=5.6
ASAR  Alice Springs   154.59  41  PKPbc  PKPbc   17 37 37.5 +0.1
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ISCJB ***13*** *17:17:39.5±0.4, 38°.91N±0°.02×26°.01E±0°.03, h7^{km}±3^{km}, Error ellipse: s-maj=3.4km s-min=2.5km az=161.9*

CSEM ***13*** *17:17:39.6±0.1, 38°.91N×25°.98E, h5^{km}, ML3.8/5, Error ellipse: s-maj=3.6km s-min=3.0km az=73.0*

NEIC ***13*** *17:17:39.0, 38°.97N×26°.06E, h5^{km}, MD3.3(ISK), ML3.0(ATH), After ISK.*

ATH ***13*** *17:17:39.2, 38°.91N×26°.12E, h28^{km}±1^{km}, MD3.6/11, ML3.0*

DDA ***13*** *17:17:40.0, 38°.92N×26°.14E, h30^{km}±4^{km}, Md3.3*

THE ***13*** *17:17:40.1, 38°.90N×26°.03E, h10^{km}±1^{km}, ML3.8/5, Error ellipse: s-maj=1.1km s-min=0.5km az=87.0*

ISK ***13*** *17:17:40.3, 38°.96N×26°.09E, h6^{km}, MD3.3*

ISC 13 17:17:40.1±0.4**, 38°.91N**±0°.02×**26°.01E**±0°.03**, h8**^{km}±3^{km}**,**
n104, σ1^{s}05/145**, 8C, Aegean Sea**

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Code  Station Name      Δ°   AZ°    Phase ID         Time       Res
                                    Op     ISC       h  m  s    ISC
SIGR  SIGRI            0.33 338     P      Pg     17 17 46.9 +0.4
SIGR                                S      Sg     17 17 51.8 +1.0
SIGR  SIGRI            0.33 338     P      Pg     17 17 46.9 +0.4
SIGR                                S      Sg     17 17 51.8 +1.0
PRK   Paraskevi        0.39  31     P      Pg     17 17 47.9 +0.2
PRK                                 S      Sg     17 17 54.2 +1.3
PRK   Paraskevi        0.39  31⇑iPB        Pg     17 17 48.0 +0.3
PRK                                eSB     Sg     17 17 53.4 +0.5
PRK   Paraskevi        0.39  31⇑iPb        Pg     17 17 48.0 +0.3
PRK                                eSb     Sg     17 17 53.4 +0.5
PRK                                 S      Sg     17 17 54.2 +1.3
CHOS  Chios island     0.52 177     P      Pg     17 17 49.7 -0.5
CHOS                                S      Sg     17 17 57.7 +0.6
CHOS  Chios island     0.52 177⇑iPN        Pg     17 17 49.9 -0.3
CHOS  Chios island     0.52 177⇑iPn        Pg     17 17 49.9 -0.3
CHOS                                S      Sg     17 17 57.7 +0.6
AYVA  Ayvalik          0.66  53   i P      Pg     17 17 52.6 -0.2
AYVA                              i S      Sg     17 18 01.9 +0.5
AYVA  Ayvalik          0.66  53   i P      Pg     17 17 52.6 -0.2
AYVA                              i S      Sg     17 18 01.9 +0.5
URLA  Izmir            0.71 140   i P      Pg     17 17 52.8 -1.0
URLA                              i S      Sg     17 18 02.4 -0.7
URLA  Izmir            0.71 140   i P      Pg     17 17 52.8 -1.0
URLA                              i S      Sg     17 18 02.4 -0.7
BOZC  Bozcaada         0.93   2   i P      Pg     17 17 57.5 -0.5
BOZC                              i S      Sg     17 18 09.6 -0.5
EZN   Ezine            0.94  15   ePG      Pg     17 17 57.8 -0.4
EZN                               eSG      Sg     17 18 10.6 +0.1
EZN   Ezine            0.94  15   ePg      Pg     17 17 57.8 -0.5
EZN                               eSg      Sg     17 18 10.6 +0.1
BLCB  Balcova          0.96 123   ePG      Pg     17 17 58.0 -0.5
BLCB  Balcova          0.96 123     P      Pg     17 17 57.7 -0.8
BLCB                                S      Sg     17 18 11.0  0.0
BLCB  Balcova          0.96 123   ePg      Pg     17 17 58.0 -0.5
BLCB                                S      Sg     17 18 11.0  0.0
IZM   Izmir            1.10 117   ePN      Pg     17 18 01.2 -0.1
LIA   Limnos Island    1.18 327     P      Pb     17 18 02.0 -0.7
LIA                                 S      Sg     17 18 18.6 +0.6
LIA   Limnos Island    1.18 327   ePN      Pn     17 18 02.5 -0.3
LIA                               eSN      Sn     17 18 19.1  0.0
LIA   Limnos Island    1.18 327   ePn      Pn     17 18 00.1 -2.8
LIA                               eSn      Sn     17 18 19.1  0.0
LIA   Limnos Island    1.18 327   ePn      Pn     17 18 00.1 -2.8
LIA   Limnos Island    1.18 327     P      Pb     17 18 02.0 -0.7
LIA                               eSn      Sn     17 18 19.1  0.0
GADA  Gvkgeada         1.28 356   ePN      Pn     17 18 04.3  0.0
GADA                              eSN      Sn     17 18 21.5 -0.2
GADA  Gvkgeada         1.28 356   ePn      Pn     17 18 04.3  0.0
GADA                              eSn      Sn     17 18 21.5 -0.1
SMG   Samos            1.36 151   ePB      Pn     17 18 02.7 -2.7
SMG                               eSN      Sn     17 18 22.3 -1.3
SMG   Samos            1.36 151   ePb      Pn     17 18 02.7 -2.7
SMG                               eSn      Sn     17 18 22.3 -1.3
AKS   Akhisar          1.40  91   ePN      Pn     17 18 06.6 +0.6
AKS                               eSN      Sn     17 18 25.0 +0.4
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AKS	Akhisar	1.40	91	*e*Pn	Pn	17 18 06.6	+0.6
AKS				*e*Sn	Sn	17 18 25.0	+0.4
AKHS	Akhisar	1.41	91	*i* P	Pn	17 18 04.4	-1.6
AKHS				*i* S	Sb	17 18 23.4	-1.2
AKHS	Akhisar	1.41	91	*i* P	Pn	17 18 04.4	-1.6
AKHS				*i* S	Sb	17 18 23.4	-1.2
BALY	Balya	1.50	56	*i* P	Pn	17 18 06.2	-1.0
BALY				*i* S	Sn	17 18 24.2	-2.7
BALY	Balya	1.50	56	*i* P	Pn	17 18 06.2	-1.0
BALY				*i* S	Sn	17 18 24.2	-2.7
GCAM	G?zelcaml?	1.54	141	*i* P	Pn	17 18 08.6	+0.8
GCAM				*i* S	Sn	17 18 28.1	0.0
GCAM	G?zelcaml?	1.54	141	*i* P	Pn	17 18 08.6	+0.7
GCAM				*i* S	Sn	17 18 28.1	0.0
LPK	Lapseki	1.57	21	*e*PN	Pn	17 18 08.4	+0.2
LPK	Lapseki	1.57	21	*e*Pn	Pn	17 18 08.5	+0.3
BALB	Balikesir	1.62	63	*e*PN	Pn	17 18 09.1	+0.2
BALB	Balikesir	1.62	63	*e*Pn	Pn	17 18 09.1	+0.2
ENEZ	Enez	1.83	3	*e*PN	Pn	17 18 12.1	+0.3
ENEZ	Enez	1.83	3	*e*Pn	Pn	17 18 12.1	+0.3
PTL	Penteli	1.89	244	*e*PB	Pb	17 18 13.5	-1.4
PTL	Penteli	1.89	244	*e*Pb	Pb	17 18 13.5	-1.4
AYDN	Tasoluk	1.93	130	*e*P	Pn	17 18 11.4	-1.7
AYDN				*i* S	Sn	17 18 40.0	+2.5
AYDN	Tasoluk	1.93	130	*e*P	Pn	17 18 11.4	-1.7
AYDN				*i* S	Sn	17 18 40.0	+2.5
ALN	Alexandroupoli	1.98	1	P	Pn	17 18 13.1	-0.8
ALN				S	Sn	17 18 37.8	-1.2
ALN	Alexandroupoli	1.98	1	*e*PB	Pn	17 18 13.1	-0.8
ALN	Alexandroupoli	1.98	1	P	Pn	17 18 13.1	-0.8
ALN				S	Sn	17 18 37.8	-1.2
RKY	Sarkoy-Tekirda	1.99	26	*e*PN	Pn	17 18 14.0	0.0
RKY				*e*SN	Sn	17 18 39.4	+0.4
RKY	Sarkoy-Tekirda	1.99	26	*e*Pn	Pn	17 18 14.0	0.0
RKY				*e*Sn	Sn	17 18 39.4	+0.3
SART	Tekirdag	1.99	26	*i* P	Pn	17 18 13.5	-0.5
SART				*i* S	Sn	17 18 42.1	+3.0
SART	Tekirdag	1.99	26	*i* P	Pn	17 18 13.5	-0.5
SART				*i* S	Sn	17 18 42.1	+3.0
EDC	Edincik	2.02	44	*e*PN	Pn	17 18 14.7	+0.2
EDC	Edincik	2.02	44	*e*Pn	Pn	17 18 14.7	+0.2
ATH	Athens Observa	2.03	243	⇑*i*PN	Pn	17 18 13.9	-0.7
ATH	Athens Observa	2.03	243	⇑*i*Pn	Pn	17 18 13.9	-0.7
BNT	Bandirma	2.06	45	*e*PN	Pn	17 18 15.3	+0.3
BODT	Bodrum	2.11	151	*e*PN	Pn	17 18 17.7	+2.0
BODT	Bodrum	2.11	151	*e*Pn	Pn	17 18 17.7	+2.0
MLSB	Milas	2.13	139	*e*PN	Pn	17 18 17.9	+2.0
MLSB	Milas	2.13	139	*e*Pn	Pn	17 18 17.9	+2.0
DST	Dursunbey	2.14	70	*e*PN	Pn	17 18 16.9	+0.8
DST	Dursunbey	2.14	70	*e*Pn	Pn	17 18 16.9	+0.8
RDO	Rodhopi	2.26	351	*e*PN	Pn	17 18 16.9	-0.9
RDO	Rodhopi	2.26	351	*e*Pn	Pn	17 18 16.9	-0.9
NAIG	Nisos Aigina	2.29	241	*e*PN	Pn	17 18 18.6	+0.4
NAIG	Nisos Aigina	2.29	241	*e*Pn	Pn	17 18 18.6	+0.4
LKR	Lokris	2.37	265	*e*PN	Pn	17 18 18.5	-0.7
LKR	Lokris	2.37	265	*e*Pn	Pn	17 18 18.5	-0.7
PLG	Polygyros	2.46	307	*e*PN	Pn	17 18 19.7	-0.8
PLG	Polygyros	2.46	307	*e*Pb	Pn	17 18 22.4	+1.9
PLG	Polygyros	2.46	307	*e*Pb	Pn	17 18 22.4	+1.9
YER	Yerkesik	2.52	134	*e*PN	Pn	17 18 23.4	+2.1
YER	Yerkesik	2.52	134	*e*Pn	Pn	17 18 23.4	+2.1
LTK	Loutraki	2.55	251	*e*PB	Pn	17 18 23.7	+2.0
LTK	Loutraki	2.55	251	*e*Pb	Pn	17 18 23.7	+2.0
DID	Didima	2.60	238	*e*PB	Pn	17 18 23.7	+1.3
DID	Didima	2.60	238	*e*Pb	Pn	17 18 23.7	+1.3
ARMT	Armutlu	2.75	52	*e*PN	Pn	17 18 25.2	+0.8
ARMT	Armutlu	2.75	52	*e*Pn	Pn	17 18 25.2	+0.8
SOH	Sokhos	2.80	314	*e*PN	Pn	17 18 25.0	-0.1
SOH	Sokhos	2.80	314	*e*Pn	Pn	17 18 25.0	-0.1
AGG	Agios Georgios	2.87	273	*e*PN	Pn	17 18 25.6	-0.6
AGG	Agios Georgios	2.87	273	*e*Pn	Pn	17 18 25.6	-0.6
NVR	Nevrokopi	2.94	327	*e*PN	Pn	17 18 26.6	-0.5
NVR	Nevrokopi	2.94	327	*e*Pn	Pn	17 18 24.6	-2.5
NVR	Nevrokopi	2.94	327	*e*Pn	Pn	17 18 24.6	-2.5
LIT	Litokhoron	2.97	295	*e*PN	Pn	17 18 27.4	-0.1
LIT	Litokhoron	2.97	295	*e*Pn	Pn	17 18 27.4	-0.1
GUR	Goura	3.04	252	*e*PN	Pn	17 18 29.9	+1.4
GUR	Goura	3.04	252	*e*Pn	Pn	17 18 25.2	-3.3
BGKT	Bogazkoy	3.10	42	*e*PN	Pn	17 18 29.9	+0.6
BGKT	Bogazkoy	3.10	42	*e*Pn	Pn	17 18 29.9	+0.6
ARG	Arkhangelos	3.17	147	⇑*i*Pb	Pn	17 18 31.6	+1.4
ARG	Arkhangelos	3.17	147	⇑*i*Pb	Pn	17 18 31.6	+1.4
ISK	Istanbul-Kandi	3.18	46	*e*PN	Pn	17 18 30.9	+0.5
ISK	Istanbul-Kandi	3.18	46	*e*Pn	Pn	17 18 30.9	+0.6
CAVI	Cavuskoy	3.23	65	*e*PN	Pn	17 18 31.5	+0.5
CAVI	Cavuskoy	3.23	65	*e*Pn	Pn	17 18 31.5	+0.5
VLX	Vlachokerasia	3.25	243	*e*PN	Pn	17 18 32.2	+0.8
VLX	Vlachokerasia	3.25	243	*e*Pn	Pn	17 18 32.2	+0.8
KARP	Karpathos	3.48	164	*e*PN	Pn	17 18 33.1	-1.4
KARP	Karpathos	3.48	164	*e*Pn	Pn	17 18 33.1	-1.4

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*DDA **13** 17:49:18.0, 39°.43N×25°.95E, h22^{km}±2^{km}, Md3.2*

*CSEM **13** 17:49:18.1±0.1, 39°.40N×25°.86E, h2^{km}, ML3.5/5, Error ellipse: s-maj=3.6km s-min=3.2km az=67.0*

*NEIC **13** 17:49:18.1, 39°.43N×25°.93E, h23^{km}, MD3.4(ATH), After ATH.*

*ATH **13** 17:49:18.1, 39°.43N×25°.93E, h23^{km}±1^{km}, MD3.4/5*

*ISK **13** 17:49:18.2, 39°.47N×25°.90E, h2^{km}, MD3.2*

*ISCJB **13** 17:49:18.3±0.4, 39°.41N±0°.02×25°.89E±0°.03, h7^{km}±3^{km}, Error ellipse: s-maj=3.7km s-min=2.6km az=171.3*

*THE **13** 17:49:18.9, 39°.41N×25°.91E, h10^{km}±1^{km}, ML3.5/5, Error ellipse: s-maj=1.6km s-min=0.6km az=226.0*

ISC 13 17:49:18.9±0.4**, 39°.41N**±0°.02×**25°.90E**±0°.03**, h9**^{km}±3^{km}**, n87, σ0^{s}.96**/123**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIGR	SIGRI	0.20	190	P	Pg	17 49 23.2	+0.2
SIGR				S	Sg	17 49 26.5	+0.8
SIGR	SIGRI	0.20	190	P	Pg	17 49 23.2	+0.2
SIGR				S	Sg	17 49 26.5	+0.8
PRK	Paraskevi	0.33	119	P	Pg	17 49 25.3	-0.1
PRK				S	Sg	17 49 30.2	+0.4
PRK	Paraskevi	0.33	119	*e*PB	Pg	17 49 25.4	0.0
PRK				*e*SB	Sg	17 49 30.5	+0.7
PRK	Paraskevi	0.33	119	*e*Pb	Pg	17 49 25.4	0.0
PRK				*e*Sb	Sg	17 49 30.5	+0.7
BOZC	Bozcaada	0.45	15	*i* P	Pg	17 49 26.9	-0.7
BOZC				*i* S	Sg	17 49 32.9	-0.6
EZN	Ezine	0.53	38	*e*PG	Pg	17 49 28.3	-0.8
EZN				*e*SG	Sg	17 49 36.0	-0.2
EZN	Ezine	0.53	38	*e*Pg	Pg	17 49 28.3	-0.9
EZN				*e*Sg	Sg	17 49 36.0	-0.1
AYVA	Ayvalik	0.62	99	*i* P	Pg	17 49 30.2	-0.6
AYVA				*i* S	Sg	17 49 39.2	+0.3
AYVA	Ayvalik	0.62	99	*i* P	Pg	17 49 30.2	-0.6
AYVA				*i* S	Sg	17 49 39.2	+0.2
LIA	Limnos Island	0.74	312	P	Pg	17 49 32.9	-0.2
LIA				S	Sg	17 49 43.2	+0.5
LIA	Limnos Island	0.74	312	*e*PN	Pg	17 49 32.9	-0.2
LIA				*e*SN	Sg	17 49 42.9	+0.2
LIA	Limnos Island	0.74	312	*e*Pn	Pg	17 49 32.9	-0.2
LIA				S	Sg	17 49 43.2	+0.5
GADA	Gvkgeada	0.78	360	*e*PG	Pg	17 49 32.9	-1.0
GADA				*e*SG	Sg	17 49 43.7	-0.4
GADA	Gvkgeada	0.78	360	*e*Pg	Pg	17 49 32.9	-1.0
GADA				*e*Sg	Sg	17 49 43.7	-0.4
CHOS	Chios island	1.03	173	P	Pg	17 49 38.2	-0.4
CHOS				S	Sg	17 49 52.9	+1.0
CHOS	Chios island	1.03	173	*e*PN	Pn	17 49 38.7	-0.7
CHOS				*e*SN	Sn	17 49 53.1	-0.8
CHOS	Chios island	1.03	173	*e*Pn	Pn	17 49 38.7	-0.7
CHOS				*e*Sn	Sn	17 49 53.1	-0.8
LPK	Lapseki	1.17	34	*e*PN	Pn	17 49 40.1	-1.3
LPK				*e*SN	Sn	17 49 56.8	-0.7
LPK	Lapseki	1.17	34	*e*Pn	Pn	17 49 40.1	-1.3
LPK				*e*Sn	Sn	17 49 56.8	-0.7
URLA	Izmir	1.18	152	*i* P	Pb	17 49 40.0	-1.4
URLA				*i* S	Sb	17 49 56.2	-0.5
URLA	Izmir	1.18	152	*i* P	Pb	17 49 40.0	-1.4
URLA				*i* S	Sb	17 49 56.2	-0.5
ENEZ	Enez	1.34	8	*e*PN	Pn	17 49 43.5	-0.2
ENEZ				*e*SN	Sn	17 50 01.9	+0.2
ENEZ	Enez	1.34	8	*e*Pn	Pn	17 49 43.5	-0.3
ENEZ				*e*Sn	Sn	17 50 01.9	+0.2
BLCB	Balcova	1.35	139	*e*PN	Pn	17 49 45.3	+1.4
BLCB	Balcova	1.35	139	P	Pn	17 49 43.3	-0.7
BLCB				S	Sb	17 50 00.6	-1.2
BLCB	Balcova	1.35	139	P	Pn	17 49 43.3	-0.7
BLCB	Balcova	1.35	139	*e*Pn	Pn	17 49 45.3	+1.4
BLCB				S	Sb	17 50 00.6	-1.2
BALY	Balya	1.37	75	*i* P	Pn	17 49 43.3	-0.9
BALY				*i* S	Sb	17 50 00.7	-1.6
BALY	Balya	1.37	75	*i* P	Pn	17 49 43.3	-0.9
BALY				*i* S	Sb	17 50 00.6	-1.7
IZM	Izmir	1.47	133	*e*PN	Pn	17 49 47.0	+1.5
IZM	Izmir	1.47	133	*e*Pn	Pn	17 49 47.0	+1.5
ALN	Alexandroupoli	1.49	4	P	Pn	17 49 44.9	-0.9
ALN				S	Sn	17 50 04.7	-0.7
ALN	Alexandroupoli	1.49	4	*e*PN	Pn	17 49 45.5	-0.3
ALN	Alexandroupoli	1.49	4	P	Pn	17 49 44.9	-0.9
ALN	Alexandroupoli	1.49	4	*e*Pn	Pn	17 49 45.5	-0.3
ALN				S	Sn	17 50 04.7	-0.7
BALB	Balikesir	1.55	81	*e*PN	Pn	17 49 47.0	+0.4
BALB	Balikesir	1.55	81	*e*Pn	Pn	17 49 47.1	+0.5
AKHS	Akhisar	1.58	109	*e*P	Pn	17 49 46.4	-0.7
AKHS				*e*S	Sn	17 50 06.2	-1.3
AKHS	Akhisar	1.58	109	*e*P	Pn	17 49 46.4	-0.6
AKHS				*e*S	Sn	17 50 06.2	-1.4
AKS	Akhisar	1.58	109	*e*PN	Pn	17 49 48.4	+1.4
AKS	Akhisar	1.58	109	*e*Pn	Pn	17 49 48.4	+1.4
SART	Tekirdag	1.61	37	*i* P	Pn	17 49 47.3	-0.2
SART				*i* S	Sn	17 50 07.6	-0.8
SART	Tekirdag	1.61	37	*i* P	Pn	17 49 47.3	-0.2
SART				*i* S	Sn	17 50 07.6	-0.8
RDO	Rodhopi	1.76	351	*e*PB	Pn	17 49 48.5	-1.0
RDO	Rodhopi	1.76	351	*e*Pb	Pn	17 49 48.5	-1.0
EDC	Edincik	1.78	58	*e*PN	Pn	17 49 50.8	+1.1
EDC	Edincik	1.78	58	*e*Pn	Pn	17 49 50.8	+1.0
PAIG	Paliouri	1.79	288	P	Pn	17 49 48.8	-1.1
PAIG	Paliouri	1.79	288	P	Pn	17 49 48.8	-1.1
BNT	Bandirma	1.82	58	*e*PN	Pn	17 49 51.1	+0.7
SMG	Samos	1.85	156	*e*PB	Pb	17 49 50.3	-2.5
SMG				*e*SN	Sn	17 50 14.5	+0.3
SMG	Samos	1.85	156	*e*Pb	Pb	17 49 50.3	-2.5
SMG				*e*Sn	Sn	17 50 14.5	+0.3
TKR	Tekirdag	2.02	38	*e*PN	Pn	17 49 53.9	+0.9
TKR	Tekirdag	2.02	38	*e*Pn	Pn	17 49 53.9	+0.8
KCT	Karacabey	2.08	65	*e*PN	Pn	17 49 55.1	+1.2
KCT	Karacabey	2.08	65	*e*Pn	Pn	17 49 55.1	+1.2
PLG	Polygyros	2.12	298	P	Pn	17 49 54.0	-0.5
PLG	Polygyros	2.12	298	*e*PB	Pn	17 49 55.3	+0.8
PLG	Polygyros	2.12	298	P	Pn	17 49 54.0	-0.5
PLG	Polygyros	2.12	298	*e*Pb	Pn	17 49 55.3	+0.8
CRLT	Corlu	2.22	39	*e*PN	Pn	17 49 56.8	+1.0
CRLT	Corlu	2.22	39	*e*Pn	Pn	17 49 56.8	+1.0
SOH	Sokhos	2.41	307	*e*PB	Pn	17 49 59.8	+1.4
SOH	Sokhos	2.41	307	*e*Pb	Pn	17 49 59.8	+1.4
EDRB	Edirne	2.52	14	*e*PN	Pn	17 50 00.8	+0.8
EDRB	Edirne	2.52	14	*e*Pn	Pn	17 50 00.8	+0.8
SLVT	Silivri	2.54	43	*e*PN	Pn	17 50 01.5	+1.3
SLVT	Silivri	2.54	43	*e*Pn	Pn	17 50 01.5	+1.3
ARMT	Armutlu	2.55	62	*e*PN	Pn	17 50 02.0	+1.6
ARMT	Armutlu	2.55	62	*e*Pn	Pn	17 50 02.0	+1.6
CTT	Catalca	2.60	47	*e*PN	Pn	17 50 02.6	+1.5
CTT	Catalca	2.60	47	*e*Pn	Pn	17 50 02.6	+1.5
CTKS	Kestanelik-??a	2.70	47	*e*PN	Pn	17 50 03.9	+1.4
CTKS	Kestanelik-??a	2.70	47	*e*Pn	Pn	17 50 03.9	+1.4
LIT	Litokhoron	2.72	286	*e*PN	Pn	17 50 02.9	+0.2
LIT	Litokhoron	2.72	286	*e*Pn	Pn	17 50 02.9	+0.2
AGG	Agios Georgios	2.80	263	*e*PN	Pn	17 50 03.8	0.0
AGG	Agios Georgios	2.80	263	*e*Pn	Pn	17 50 03.8	0.0
BGKT	Bogazkoy	2.82	50	*e*PN	Pn	17 50 05.6	+1.5
BGKT	Bogazkoy	2.82	50	*e*Pn	Pn	17 50 05.6	+1.5
DID	Didima	2.82	229	*e*PN	Pn	17 50 03.7	-0.5
DID	Didima	2.82	229	*e*Pn	Pn	17 50 03.7	-0.5
YLV	Yalova	2.91	65	*e*PN	Pn	17 50 07.2	+1.9
YLV	Yalova	2.91	65	*e*Pn	Pn	17 50 07.2	+1.9
GUR	Goura	3.15	243	*e*PN	Pn	17 50 08.2	-0.4
GUR	Goura	3.15	243	*e*Pn	Pn	17 50 08.2	-0.4

IDC 13 17:56:40.5±1.0**, 20°.47N**×**120°.42E, h0**^{km}**, mb3.6**/7**, mb1 3.8**/7**, mb1mx3.6**/20**, mbtmp3.6**/7**, Error ellipse: s-maj=57.4km s-min=18.8km az=67.0, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	29.57	341	P	P	18 02 46.9	0.0
	0.3nm,0.8s,baz=149,slow=8.9,SNR=2.6						
MKAR	Makanchi Array	40.59	319	P	P	18 04 22.8	+0.9
	0.3nm,0.6s,baz=112,slow=8.7,SNR=5.4						
WRA	Warramunga Arr	42.41	160	P	P	18 04 36.7	-0.2
	0.6nm,0.5s,baz=346,slow=8.8,SNR=8.1						
ZALV	Zalesovo Beam	43.03	330	P	P	18 04 42.0	+0.4
	1.6nm,0.7s,baz=119,slow=8.4,SNR=8.7						
ASAR	Alice Springs	45.79	163	P	P	18 05 04.8	+0.7
	0.2nm,0.4s,baz=352,slow=7.2,SNR=12						
KMBO	Kilima Mbogo	83.99	267	P	P	18 09 12.2	-1.1
	1.2nm,0.5s,baz=64,slow=2.2,SNR=3.6						
YKA	Yellowknife Ar	86.66	22	P	P	18 09 25.0	-0.7
	0.3nm,0.7s,baz=314,slow=4.8,SNR=5.1						

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*CSEM **13** 18:12:19.0, 35°.73N×21°.89E, h5^{km}, MD3.7, After ATH*

*NEIC **13** 18:12:19.0, 35°.73N×21°.89E, h5^{km}, MD3.7(ATH), After ATH.*

ATH 13 18:12:19.0, 35°.73N×**21°.89E, h5**^{km}**, MD3.7**/4**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	1.08	59	*e*PN	Pn	18 12 39.7	-1.1
KYTH	Kithira	1.08	59	*e*Pn	Pn	18 12 39.7	-1.1
ITM	Ithomi	1.45	1	*e*PB	Pb	18 12 46.9	+0.5
ITM				*e*SB	Sb	18 13 06.6	+1.5
ITM	Ithomi	1.45	1	*e*Pb	Pb	18 12 46.9	+0.5
ITM				*e*Sb	Sb	18 13 06.6	+1.5
VLX	Vlachokerasia	1.68	13	*e*PB	Pb	18 12 50.8	+0.3
VLX	Vlachokerasia	1.68	13	*e*Pb	Pb	18 12 50.8	+0.3
DID	Didima	2.08	31	*e*PN	Pn	18 12 57.4	+2.9
DID	Didima	2.08	31	*e*Pn	Pn	18 12 57.4	+2.9
GUR	Goura	2.23	9	*e*PG	Pg	18 13 00.7	-1.1
GUR	Goura	2.23	9	*e*Pg	Pg	18 13 00.7	-1.1
LTK	Loutraki	2.45	20	*e*PN	Pn	18 13 02.8	+3.2
LTK	Loutraki	2.45	20	*e*Pn	Pn	18 13 02.8	+3.2
VLS	Valsamata	2.66	337	*e*PN	Pn	18 13 05.0	+2.6
VLS	Valsamata	2.66	337	*e*Pn	Pn	18 13 05.0	+2.6
EFP	Efpalio	2.69	0	*e*PN	Pn	18 13 06.7	+3.8
EFP	Efpalio	2.69	0	*e*Pn	Pn	18 13 06.7	+3.8
AGG	Agios Georgios	3.31	6	*e*PN	Pn	18 13 14.8	+3.4
AGG	Agios Georgios	3.31	6	*e*Pn	Pn	18 13 14.8	+3.4
THL	Klokotos Trika	3.83	1	*e*PN	Pn	18 13 21.0	+2.4
THL	Klokotos Trika	3.83	1	*e*Pn	Pn	18 13 21.0	+2.4

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*IDC **13** 18:15:26.9±1.0, 15°.41S×173°.27W, h0^{km}, mb4.0/7, mb1 4.3/7, mb1mx4.1/19, mbtmp4.0/7, MS3.9/13, Ms1 3.9/13, ms1mx3.7/27, Error ellipse: s-maj=54.0km s-min=21.1km az=142.0*

*NEIC **13** 18:15:28.6±0.5, 15°.20S×173°.43W, h10^{km}, mb4.6/2, Error ellipse: s-maj=24.3km s-min=12.8km az=138.0*

*ISCJB **13** 18:15:30.6±0.7, 15°.2S±0°.2×173°.5W±0°.2, h33^{km}, mb4.1/9, MS4.0/12, Error ellipse: s-maj=30.8km s-min=16.5km az=139.9*

ISC 13 18:15:32.5±0.7**, 15°.2S**±0°.2×**173°.5W**±0°.2**, h35**^{km}**, n21, σ0^{s}.72**/9**, mb4.1**/9**, MS4.0**/12**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	14.31	117	LR	LR	18 23 22.2	
	comp=Z,251nm,18.8s,baz=281,slow=34						
PPT	Papeete	23.03	99	LR	LR	18 26 55.7	
	comp=Z,95nm,20.9s,MS3.2,baz=163,slow=30						
URZ	Urewera	24.43	198	P	P	18 20 46.4	-1.4
	4.6nm,0.7s,mb4.0,baz=288,slow=3.2,SNR=3.2						
HNR	Honiara	26.59	279	LR	LR	18 29 49.6	
	comp=Z,169nm,21.6s,MS3.6,baz=60,slow=32						
STKA	Stephens Creek	44.08	240	P	P	18 23 37.3	-0.1
	1.8nm,0.5s,mb4.1,baz=92,slow=8.2,SNR=6.7						
WRAB	Tennant Creek	49.82	257	*e*P	P	18 24 22.5	+0.1
	1.4nm,0.6s,mb4.2						
WRA	Warramunga Arr	49.83	257	P	P	18 24 22.5	+0.1
	1.0nm,0.5s,mb4.1,baz=90,slow=6.9,SNR=33						
ASAR	Alice Springs	50.12	252	P	P	18 24 24.8	+0.2
	3.7nm,0.6s,mb4.6,baz=87,slow=8.1,SNR=65						
MJAR	Matsushiro Arr	68.75	320	LR	LR	18 51 48.8	
	comp=Z,60nm,18.9s,MS3.9,baz=85,slow=32						
PETK	Petropavlovsk-	72.43	342	LR	LR	18 58 27.6	
	comp=Z,74nm,18.6s,MS4.0,baz=32,slow=36						
QSPA	South Pole Qui	74.84	180	*e*P	P	18 27 10.4	+1.6
	20nm,1.1s,mb5.0						
KSRS	Korea Array	75.98	316	LR	LR	19 00 35.0	
	comp=Z,43nm,18.3s,MS3.8,baz=349,slow=36						
TXAR	Lajitas Array	80.55	56	P	P	18 27 41.3	-0.2
	1.0nm,1.0s,mb3.7,baz=188,slow=7.6,SNR=4.9						
TXAR				LR	LR	18 55 27.5	
	comp=Z,80nm,20.9s,MS4.0,baz=355,slow=30						
PDAR	Pinedale Array	82.16	42	P	P	18 27 50.0	+0.2
	0.4nm,0.7s,mb3.4,baz=205,slow=4.0,SNR=3.5						
PDAR				LR	LR	18 59 17.4	
	comp=Z,64nm,18.3s,MS4.0,baz=150,slow=32						
PLCA	Paso Flores	89.68	132	LR	LR	19 03 04.4	
	comp=Z,119nm,19.0s,MS4.3,baz=188,slow=32						
YKA	Yellowknife Ar	89.94	23	P	P	18 28 27.1	-0.5
	0.3nm,0.7s,mb3.7,baz=254,slow=4.3,SNR=3.6						
YKA				LR	LR	19 02 39.6	
	comp=Z,132nm,18.5s,MS4.4,baz=10.0,slow=32						
CMAR	Chiang Mai Arr	92.50	288	LR	LR	19 10 06.6	
	comp=Z,51nm,19.0s,MS4.0,baz=215,slow=35						
ULM	Lac du Bonnet	93.82	39	LR	LR	19 08 01.4	
	comp=Z,136nm,20.0s,MS4.4,baz=336,slow=34						
SONM	Songino Array	94.66	318	LR	LR	19 10 35.9	
	comp=Z,67nm,19.0s,MS4.1,baz=213,slow=35						
GERES	GERESS Array B	145.94	352	PKPbc	PKPbc	18 35 08.8	+0.5
	0.8nm,0.7s,baz=42,slow=2.2,SNR=5.3						
BRTR	Keskin Array B	145.97	321	PKPbc	PKPbc	18 35 10.8	+2.1
	3.1nm,0.9s,baz=135,slow=2.6,SNR=12						

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*JMA **13** 18:22:04.7±0.4, 25°.53N×122°.21E, h187^{km}, M3.7*

TAP 13 18:22:02.8, 25°.18N×**122°.82E, h212**^{km}±1^{km}**, ML3.6, D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.74	167	*e*S	S	18 22 58.8	+3.4
TWB1	Santiao Chiao	0.78	257	*e*P	Pn	18 22 32.8	+0.3
	baz=249						
TWB1				*e*S	S	18 22 54.4	-1.1
	baz=249						
PCYT	Pengchaiyu	0.81	303	*e*P	Pn	18 22 34.2	+1.5
	baz=303						
PCYT				*e*S	S	18 22 55.3	-0.7
	baz=303						
TWC	Suao	1.05	237	*e*P	Pn	18 22 34.7	+0.5
	baz=239						
TWA	Mucha	1.14	260	*e*P	Pn	18 22 35.1	+0.4
	baz=255						
TWA				*e*S	S	18 23 00.5	+0.9
	baz=255						
TWE	Neicheng	1.15	247	*e*P	Pn	18 22 35.8	+0.9
	baz=248						
TWE				*e*S	S	18 22 59.6	-0.1
	baz=248						
IRIF	Iriomote-Funau	1.18	135	P	Pn	18 22 40.3	+5.2
IRIF				*e*S	S	18 23 08.7	+8.5
ENA	Nanau	1.24	233	*e*P	Pn	18 22 36.9	+1.4
	baz=230						
ENA				*e*S	S	18 23 01.5	+0.6
	baz=230						
ENTT	Nioudou	1.26	245	*e*P	Pn	18 22 36.3	+0.7
	baz=249						
ENTT				*e*S	S	18 23 01.4	+0.2
	baz=249						
NSK	Sanguang	1.42	250	*e*P	Pn	18 22 37.1	+0.1
	baz=244						
NSK				*e*S	S	18 23 01.8	-1.7
	baz=244						
JKRS	Kuro-shima	1.43	131	P	Pn	18 22 43.3	+6.3
JKRS				*e*S	S	18 23 13.0	+9.4
HATJ	Hateruma jima	1.43	141	P	Pn	18 22 43.2	+6.1
HATJ				*e*S	S	18 23 12.5	+8.8
JIJ	Ishigaki jima	1.45	124	P	Pn	18 22 43.1	+5.9
JIJ				*e*S	S	18 23 12.4	+8.5
NNS	Nan Shan	1.51	241	*e*P	Pn	18 22 38.0	+0.3
	baz=247						
NNS				*e*S	S	18 23 04.2	-0.6
	baz=247						
TWD	Chiawan	1.57	226	*e*P	Pn	18 22 38.3	+0.1
	baz=229						
TWD				*e*S	S	18 23 05.1	-0.7
	baz=229						
NSTT	Nanjuang	1.74	252	*e*P	Pn	18 22 39.2	-0.6
	baz=257						
NSTT				*e*S	S	18 23 06.0	-2.5
	baz=257						
WHF	Hehuan Shan	1.75	234	*e*P	Pn	18 22 40.6	+0.8
	baz=231						
WHF				*e*S	S	18 23 08.7	-0.1
	baz=231						
JTJ	Tarama	1.79	107	P	Pn	18 22 47.2	+7.0
JTJ				*e*S	S	18 23 19.8	+11
ESL	Shilin	1.86	223	*e*P	Pn	18 22 39.4	-1.5
	baz=225						
ESL				*e*S	S	18 23 07.8	-2.8
	baz=225						
EHY	Hungye	2.16	220	*e*P	Pn	18 22 44.9	+1.0
	baz=222						
EHY				*e*S	S	18 23 13.0	-2.9
	baz=222						
SMLT	Sun Moon Lake	2.18	234	*e*P	Pn	18 22 43.2	-0.9
	baz=236						
SMLT				*e*S	S	18 23 14.6	-1.6
	baz=236						
TWF1	Yuli	2.29	218	*e*P	Pn	18 22 45.8	+0.5
	baz=225						
ALS	Alishan	2.48	228	*e*P	Pn	18 22 47.8	+0.5
	baz=225						
ALS				*e*S	S	18 23 20.0	-2.0
	baz=225						
CHN5	Tsauling	2.51	232	P	Pn	18 22 47.6	-0.1
	baz=233						
CHN5				S	S	18 23 20.9	-1.8
	baz=233						
ELDTW	Lidau	2.58	220	*e*P	Pn	18 22 48.1	-0.2
	baz=220						
ELDTW				*e*S	S	18 23 21.0	-3.0
	baz=220						
WTP	Ta-pu	2.79	227	*e*P	Pn	18 22 50.1	-0.6
	baz=236						
CHN1	Nanshi	2.89	227	*e*P	Pn	18 22 51.0	-0.8
	baz=235						

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*IDC **13** 18:34:29.5±1.9, 13°.37N×121°.47E, h0^{km}, mb3.1/3, mb1 3.5/3, mb1mx3.1/21, mbtmp3.2/3, Error ellipse: s-maj=82.9km s-min=10.8km az=58.0*

*ISCJB **13** 18:34:33.3±0.8, 13°.61N±0°.06×121°.43E±0°.05, h23^{km}±11^{km}, mb3.2/3, Error ellipse: s-maj=10.9km s-min=7.0km az=152.7*

*MAN **13** 18:34:33, 13°.62N×121°.41E, h22^{km}, mb4.1, ML2.9, MS2.6*

ISC 13 18:34:32.7±1.2**, 13°.58N**±0°.06×**121°.46E**±0°.05**, h16**^{km}±10^{km}**, n12, σ1^{s}.15**/15**, mb3.2**/3**, 1C-1D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGP	Puerto Galera	0.50	261	*e*P	Pg	18 34 42.6	0.0
TGY	Tagaytay City	0.72	316	Pg	Pg	18 34 47.2	+0.3
	183nm,0.3s,baz=187,slow=2.1,SNR=26						
TGY				Lg		18 34 58.1	
	213nm,0.3s,baz=220,slow=8.7,SNR=9.9						
TGY	Tagaytay City	0.72	316	⇓*e*P	Pg	18 34 47.1	+0.3
GQP	Guinayangan	1.01	71	⇑*e*P	Pb	18 34 50.8	-1.0
GQP				*i* S	Sb	18 35 06.8	+1.9
SJMP	San Jose	1.16	197	*e*P	Pn	18 34 53.8	-0.4
LUBP	Lubang	1.19	277	*e*P	Pn	18 34 53.9	-0.7
AUQP	San Andres	1.21	102	*e*P	Pn	18 34 55.9	+1.0
POLP	Polilio Island	1.23	22	*e*P	Pn	18 34 54.5	-0.7
POLP				*e*S	Sb	18 35 11.1	-0.2
BUSP	Coron	1.99	218	*e*P	Pn	18 35 06.3	+0.6
BUSP				*e*S	Sn	18 35 31.4	+1.2
CMAR	Chiang Mai Arr	22.17	286	P	P	18 39 29.3	+1.2
	0.7nm,0.9s,mb3.1,baz=92,slow=8.1,SNR=5.0						
WRA	Warramunga Arr	35.64	159	P	P	18 41 26.9	-3.1
	0.7nm,0.9s,mb3.6,baz=332,slow=11,SNR=3.0						
ASAR	Alice Springs	38.97	162	P	P	18 41 55.6	-2.5
	0.1nm,0.4s,mb2.9,baz=341,slow=8.0,SNR=6.3						

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*BJI **13** 19:09:15.9, 47°.43N×147°.49E, h372^{km}, mB4.7/4, mb4.4/7*

*ISCJB **13** 19:09:16.5±0.4, 47°.47N±0°.05×147°.62E±0°.06,* *h376^{km}±4^{km}, mb4.1/44, Error ellipse: s-maj=7.8km s-min=6.2km az=139.1*

MOS ***13*** *19:09:16.7±1.1, 47°.57N×147°.55E, h375^{km}, mb4.0/16, Error ellipse: s-maj=11.1km s-min=7.2km az=96.2*

JMA ***13*** *19:09:17.7±0.5, 46°.81N×147°.99E, h413^{km}, M4.2*

NEIC ***13*** *19:09:18.8±0.5, 47°.60N×147°.57E, h383^{km}±5^{km}, mb4.3/9, Error ellipse: s-maj=8.4km s-min=6.0km az=152.0*

IDC ***13*** *19:09:18.7±1.3, 47°.55N×147°.52E, h383^{km}±13^{km}, mb3.6/17, mb1 3.8/22, mb1mx3.8/26, mbtmp3.6/22, Error ellipse: s-maj=11.5km s-min=9.3km az=157.0*

ISC 13 19:09:17.2±0.4**, 47°.55N**±0°.05×**147°.54E**±0°.07**, h362**^{km}±4^{km}**, n148,** σ1ˢ.**15**/150**, mb4.1**/44**, 14C-7D, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	Yuzh-Sakhalins	3.31	261	⇑*i*PN	Pn	19 10 23.2	+3.1
YSS				*e*S	S	19 11 14.2	+3.3
YSS				pmax	pmax		
	comp=Z,110nm,0.6s						
YSS				smax			
	comp=N,100nm,1.0s						
YSS	Yuzh-Sakhalins	3.31	261	*e*P	Pn	19 10 23.5	+3.4
YUK	Yuzh-Kuril'sk	3.70	199	*e*PN	Pn	19 10 23.8	-0.1
YUK				*e*S	S	19 11 17.1	-0.7
YUK				pmax	pmax		
	comp=Z,420nm,0.3s						
YUK				pmax	pmax		
	comp=N,200nm,0.5s						
YUK				pmax	pmax		
	comp=E,160nm,0.3s						
YUK				smax			
	comp=N,550nm,0.5s						
YUK				smax			
	comp=E,530nm,0.5s						
JRA	Rausu	3.98	206	P	Pn	19 10 27.0	+0.3
JSE	Soyaes	4.30	235	P	Pn	19 10 32.5	+2.6
NEM2	Nemuro 2	4.37	197	P	Pn	19 10 28.0	-2.6
NEM2				*e*S	S	19 11 24.6	-5.4
JTKR	Abashiri--Toko	4.38	217	P	Pn	19 10 32.1	+1.3
JTKR				*e*S	S	19 11 31.0	+0.7
JWK2	Keihoku	4.49	242	P	Pn	19 10 35.3	+3.4
ASAJ	Asahikawa	4.87	227	PN	Pn	19 10 37.6	+1.7
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ	Asahikawa	4.87	227	P	Pn	19 10 37.5	+1.7
	comp=Z,7.0nm,0.3s,baz=12,slow=4.1,SNR=8.2						
JAK	Akkeshi	4.97	205	P	Pn	19 10 35.1	-1.9
JAK				*e*S	S	19 11 35.9	-5.7
JKK2	Kamakawa 2	4.97	224	P	Pn	19 10 38.6	+1.6
JAR	Ashorobuto	5.01	213	P	Pn	19 10 37.5	+0.1
JAR				*e*S	S	19 11 40.5	-1.9
JFR	Furan	5.60	220	P	Pn	19 10 44.9	+1.0
JCH	Churui	5.75	212	P	Pn	19 10 43.5	-2.1
JCH				*e*S	S	19 11 50.0	-7.2
JNBK	Urakawa-nobuka	6.26	215	P	Pn	19 10 48.8	-2.6
JNBK				*e*S	S	19 12 00.8	-7.1
ERM	Erimo	6.35	211	⇑*e*PN	Pn	19 10 52.0	-0.3
JEW	Eniwo	6.37	225	P	Pn	19 10 52.9	+0.3
JEW				*e*S	S	19 12 07.4	-2.7
JKB	Kayabe	7.31	222	P	Pn	19 11 01.6	-1.8
JOT	Ohata	7.71	219	P	Pn	19 11 05.4	-2.7
JOT				*e*S	S	19 12 29.6	-9.0
HABR	Khabarovsk	8.43	281	*c i*PN	Pn	19 11 19.8	+3.5
HABR				*e*S	S	19 12 52.8	-0.9
HABR				pmax	pmax		
	comp=Z,134nm,0.9s						
HABR				pmax	pmax		
	comp=E,119nm,1.0s						
HABR				pmax	pmax		
	comp=N,19nm,0.8s						
HABR				MLR	MLR		
	comp=Z,50nm,16.0s						
PEA0B	Petropavlovsk-	8.56	46	*e*P	Pn	19 11 18.3	+0.5
PETK	Petropavlovsk-	8.56	46	PN	Pn	19 11 18.9	+1.1
PETK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PETK	Petropavlovsk-	8.56	46	P	Pn	19 11 18.9	+1.1
	comp=Z,1.8nm,0.3s,baz=224,slow=8.8,SNR=39						
PETK	Petropavlovsk-	8.56	46	P	Pn	19 11 18.9	+1.1
JMK	Ichinoseki	9.74	210	P	Pn	19 11 30.6	-1.5
KLR	Kul'dur	10.64	285	*e*PN	Pn	19 11 42.2	-0.3
KLR				pmax	pmax		
	comp=E,56nm,1.2s						
KLR				pmax	pmax		
	comp=Z,47nm,1.2s						
MAJO	Matsushiro	12.98	216	*e*PN	Pn	19 12 10.8	+0.5
MAJO				pmax	pmax		
	comp=Z,48nm,0.4s						
MAJO	Matsushiro	12.98	216	*e*P	P	19 12 10.8	+1.6
	comp=Z,48nm,0.4s						
MAT	Matsushiro	12.98	216	P	P	19 12 10.8	+1.6
MJAR	Matsushiro Arr	12.99	216	PN	Pn	19 12 10.7	+0.4
MJAR				pmax	pmax		
	comp=Z,11nm,0.3s						
MJAR	Matsushiro Arr	12.99	216	P	P	19 12 10.7	+1.5
	comp=Z,11nm,0.3s,baz=23,slow=10,SNR=121						
SEY	Seymchan	15.66	8	⇓*e*P	P	19 12 39.8	+1.8
CN2	Changchun	15.88	264	*e*P	P	19 12 39.9	-0.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
FX1	Attu Island--F	17.20	62	P	P	19 12 56.4	+1.7
FX1				pmax	pmax		
	comp=Z,7.0nm,0.3s						
FX1	Attu Island--F	17.20	62	P	P	19 12 56.4	+1.6
	comp=Z,6.6nm,0.3s,baz=138,slow=3.9,SNR=14						
KSRS	Korea Array	17.59	242	P	P	19 13 00.3	+1.3
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	Korea Array	17.59	242	P	P	19 13 00.2	+1.2
	comp=Z,1.4nm,0.3s,baz=49,slow=11,SNR=32						
YAK	Yakutsk	17.70	332	*d i*P	P	19 12 59.7	-0.2
YAK				*e*S	S	19 16 02.6	-1.8
YAK				pmax	pmax		
	comp=Z,29nm,0.9s						
YAK				pmax	pmax		
	comp=N,11nm,1.2s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.2s						
YAK				smax			
	comp=N,20nm,1.2s						
YAK				smax			
	comp=E,17nm,0.9s						
YAK	Yakutsk	17.70	332	*e*P	P	19 12 59.7	-0.2
	comp=E,74nm,0.3s						
BOD	Bodaibo	22.55	310	*e*P	P	19 13 44.8	-2.3
TIXI	Tiksi	25.71	346	⇑*e*P	P	19 14 14.9	-0.5
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.5						
SONM	Songino Array	27.47	286	P	P	19 14 31.4	+0.2
SONM						19 17 37.9	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	27.47	286	P	P	19 14 31.4	+0.2
	comp=Z,0.8nm,0.6s,mb3.1,baz=85,slow=8.4,SNR=5.0						
SONM				PcP	PcP	19 17 37.9	-0.8
	comp=Z,0.7nm,0.7s,baz=140,slow=2.6,SNR=5.0						
SONM				ScP	ScP	19 20 41.6	-2.5
	comp=Z,0.3nm,1.0s,baz=100,slow=2.5,SNR=3.5						
MCK	McKinley	37.52	41	*e*P	P	19 15 57.4	0.0
ZALV	Zalesovo Beam	39.03	303	P	P	19 16 09.1	-0.8
ZALV						19 18 10.4	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.5						
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.5						
ZALV	Zalesovo Beam	39.03	303	P	P	19 16 09.1	-0.8
	comp=Z,1.4nm,0.3s,mb3.6,baz=67,slow=7.2,SNR=8.3						
ZALV				PcP	PcP	19 18 10.4	-1.1
	comp=Z,1.0nm,0.3s,baz=86,slow=2.1,SNR=11						
MKAR	Makanchi Array	43.17	294	P	P	19 16 43.5	+0.2
MKAR						19 18 24.6	
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	43.17	294	P	P	19 16 43.5	+0.1
	comp=Z,2.6nm,0.7s,mb3.5,baz=70,slow=7.7,SNR=36						
MKAR				PcP	PcP	19 18 24.6	-0.7
	comp=Z,0.8nm,0.7s,baz=69,slow=4.7,SNR=5.6						
KURK	Kurchatov	43.72	301	P	P	19 16 48.4	+0.8
KURK						19 18 26.6	
KURK				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.1						
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.4						
KURK	Kurchatov	43.72	301	P	P	19 16 48.4	+0.7
	comp=Z,7.0nm,0.4s,mb4.2,baz=73,slow=8.7,SNR=23						
KURK				PcP	PcP	19 18 26.6	-0.5
	comp=Z,2.4nm,0.7s,baz=71,slow=3.2,SNR=5.9						
BVAR	Borovoye Array	47.37	307	P	P	19 17 15.9	0.0
BVAR						19 18 38.7	
BVAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	47.37	307	P	P	19 17 15.9	0.0
	comp=Z,2.8nm,0.5s,mb3.8,baz=75,slow=8.7,SNR=14						
BVAR				PcP	PcP	19 18 38.7	-1.2
	comp=Z,1.2nm,0.4s,baz=83,slow=3.7,SNR=5.7						
CMAR	Chiang Mai Arr	48.95	251	PcP	PcP	19 18 46.6	+0.5
	comp=Z,0.1nm,0.4s,baz=12,slow=3.0,SNR=4.8						
ULHL	Ulahol	49.16	292	P	P	19 17 30.6	+1.1
	SNR=6.8						
USP	Ospenovka	49.71	294	P	P	19 17 34.4	+0.8
	SNR=5.7						
KBK	Karagaybulak	49.75	293	P	P	19 17 34.7	+0.7
	SNR=5.5						
AAK	Ala-Archa	50.05	293	⇑*e*P	P	19 17 36.9	+0.8
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.6						
AAK	Ala-Archa	50.05	293	P	P	19 17 37.0	+0.9
	SNR=7.2						
TAPN	Taplejung	50.28	269	*e*P	P	19 17 38.9	+0.8
	comp=Z,2.4nm,0.3s,mb3.9						
EKS2	Erkin-Say	50.48	293	P	P	19 17 40.1	+0.8
	SNR=9.9						
SVE	Sverdlovsk	50.61	315	*e*P	P	19 17 40.2	+0.1
SVE				pmax	pmax		
	comp=Z,19nm,0.6s,mb4.5						
AML	Almayashu	50.81	293	*e*P	P	19 17 43.1	+1.3
	comp=Z,1.6nm,0.5s,mb3.5						
JIRN	Jiri	51.11	270	*e*P	P	19 17 45.1	+0.9
	comp=Z,10.0nm,0.5s,mb4.3						
GUN	Gumba	51.16	270	*e*P	P	19 17 45.1	+0.5
	comp=Z,6.4nm,0.5s,mb4.1						
RES	Resolute Bay	51.26	18	*e*P	P	19 17 43.5	-1.1
RES				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.0						
RES	Resolute Bay	51.26	18	*e*P	P	19 17 43.5	-1.1
	comp=Z,3.7nm,0.4s,mb4.0						
RAMN	Ramite	51.29	269	*e*P	P	19 17 45.8	+0.2
	comp=Z,12nm,0.4s,mb4.5						
KKN	Kakani	51.65	271	*e*P	P	19 17 49.1	+1.0
	comp=Z,4.5nm,0.4s,mb4.1						
PKI	Pulchoki	51.70	270	*e*P	P	19 17 48.7	+0.2
	comp=Z,5.6nm,0.5s,mb4.1						
ARU	Arti	51.81	315	*d i*P	P	19 17 48.5	-0.4
ARU				*e*		19 19 48.0	
ARU				SS	SS	19 28 22.7	-0.9
ARU				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.5						
ARU	Arti	51.81	315	*e*P	P	19 17 48.5	-0.4
	comp=Z,14nm,0.5s,mb4.5						
DMN	Daman	51.88	271	*e*P	P	19 17 50.5	+0.6
	comp=Z,10nm,0.9s,mb4.2						
GKN	Gorkha	51.94	271	*e*P	P	19 17 50.6	+0.3
	comp=Z,8.2nm,0.5s,mb4.3						
DANN	Dangsing	52.32	272	*e*P	P	19 17 54.0	+1.0
	comp=Z,17nm,0.5s,mb4.6						
YKA	Yellowknife Ar	52.52	35	P	P	19 17 53.5	-0.5
YKA						19 18 58.3	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	52.52	35	P	P	19 17 53.5	-0.5
	comp=Z,2.0nm,0.5s,mb3.7,baz=301,slow=7.0,SNR=30						
YKA				PcP	PcP	19 18 58.3	-0.5
	comp=Z,0.5nm,0.5s,baz=311,slow=4.0,SNR=6.9						
YKA	Yellowknife Ar	52.52	35	P	P	19 17 53.5	-0.5
YKA				PcP	PcP	19 18 58.3	-0.5
KOLN	Koldanda	52.80	272	*e*P	P	19 17 56.4	-0.1
	comp=Z,8.4nm,0.7s,mb4.2						
PRGR	Permogore	54.59	325	*e*P	P	19 18 07.5	-1.3
PRGR				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.6						
KEV	Kevo	55.27	339	*e*P	P	19 18 11.0	-2.5
KEV				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.2						
KEV	Kevo	55.27	339	*e*p	P	19 18 11.0	-2.5
	comp=Z,4.4nm,0.3s,mb4.3						
ARCES	ARCESS Array B	55.79	339	P	P	19 18 16.7	-0.5
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ARCES	ARCESS Array B	55.79	339	P	P	19 18 16.6	-0.6
	comp=Z,6.7nm,0.9s,mb4.0,baz=44,slow=8.1,SNR=13						
KBL	Kabul	58.22	288	*e*P	P	19 18 34.2	-0.4
KBL				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.8						
KBL	Kabul	58.22	288	*e*P	P	19 18 34.2	-0.4
	comp=Z,4.4nm,0.9s,mb3.8						
JOF	Joensuu	58.87	331	*e*P	P	19 18 37.5	-1.1
JOF				pmax	pmax		
	comp=Z,11nm,0.3s,mb4.8						
JOF	Joensuu	58.87	331	*e*p	P	19 18 37.5	-1.1
	comp=Z,11nm,0.3s,mb4.8						
KAF	Kangasniemi	61.05	333	*e*P	P	19 18 52.0	-1.3
KAF				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.3						
KAF	Kangasniemi	61.05	333	*e*p	P	19 18 52.0	-1.3
	comp=Z,4.6nm,0.4s,mb4.3,baz=40,slow=6.2						
FINES	FINESS Array B	61.63	332	*e*P	P	19 18 55.0	-2.1
FFC	Flin Flon	62.51	38	*i* P	P	19 19 03.5	+0.5
NVAR	Mina Array Bea	65.38	60	P	P	19 19 22.5	+0.8
	comp=Z,1.0nm,0.5s,mb3.7,baz=282,slow=7.3,SNR=3.8						
NVAR	Mina Array Bea	65.38	60	P	P	19 19 22.5	+0.8
NB2	NORSAR Subarra	66.17	338	P	P	19 19 25.3	-1.1
	comp=Z,4.6nm,0.5s,mb4.5,baz=29,slow=6.5						
NOA	NORSAR Array B	66.17	338	P	P	19 19 25.5	-0.9
NOA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
NOA	NORSAR Array B	66.17	338	P	P	19 19 25.5	-0.9
	comp=Z,6.3nm,0.5s,mb4.6,baz=30,slow=6.5,SNR=33						
PDAR	Pinedale Array	67.28	51	P	P	19 19 34.0	+0.3
	comp=Z,2.5nm,0.6s,mb4.1,baz=41,slow=1.0,SNR=29						
KIV	Kislovodsk	67.46	311	*e*P	P	19 19 35.5	+0.8
KIV				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.7						
KIV	Kislovodsk	67.46	311	*e*P	P	19 19 35.3	+0.5
	comp=Z,9.6nm,0.6s,mb4.7						
WRA	Warramunga Arr	68.21	193	P	P	19 19 38.3	-1.3
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
WRA	Warramunga Arr	68.21	193	P	P	19 19 38.3	-1.2
	comp=Z,2.0nm,0.5s,mb4.1,baz=8.7,slow=6.6,SNR=26						
ULM	Lac du Bonnet	68.33	38	P	P	19 19 38.3	-1.7
	comp=Z,1.0nm,0.3s,mb4.0,baz=295,slow=2.2,SNR=4.3						
AKASG	Malin Array Be	68.70	323	P	P	19 19 41.2	-1.0
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.4s						
AKASG	Malin Array Be	68.70	323	P	P	19 19 41.2	-1.0
	comp=Z,4.8nm,0.4s,mb4.5,baz=34,slow=6.4,SNR=25						
AKASG	Malin Array Be	68.70	323	P	P	19 19 41.2	-1.0
GNI	Garni	69.06	307	*i* P	P	19 19 47.1	+2.5
ANN	Anapa	69.47	314	*e*P	P	19 19 50.2	+3.2
ANN				*e*		19 20 10.1	
ANN				*e**PP	pP	19 21 10.8	+4.1
ANN				*e*		19 22 30.1	
ANN				*e*PPP		19 24 16.5	
ANN				*e*S	S	19 28 29.9	+5.6
ANN				pmax	pmax		
	comp=Z,31nm,1.5s,mb4.8						
ASAR	Alice Springs	71.94	193	P	P	19 20 01.8	-0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAR	Alice Springs	71.94	193	P	P	19 20 01.8	-0.1
	comp=Z,0.6nm,0.3s,mb3.8,baz=9.8,slow=5.9,SNR=34						
BUR08	Bucovina Ar. S	72.73	323	*e*P	P	19 20 06.0	-0.4
BURAR	Bucovina Array	72.75	323	⇑*i*P	P	19 20 06.3	-0.2
BURAR	Bucovina Array	72.75	323	⇑P	P	19 20 06.3	-0.1
TRPA	Tarpa	73.39	325	⇑*i*P	P	19 20 10.3	+0.1
OKC	Ostrava-Krasne	73.61	329	*e*P	P	19 20 05.2	-6.2
MALT	Malatya	73.76	309	⇑*i*P	P	19 20 13.9	+1.4
MALT	Malatya	73.76	309	⇑P	P	19 20 13.9	+1.4
DPC	Dobruska-Polom	73.81	330	*e*P	PcP	19 20 28.1	+2.0
DPC	Dobruska-Polom	73.81	330	*e*PCP	PcP	19 20 28.1	+2.0
MORC	Moravsky Berou	73.88	329	⇑*i*P	P	19 20 13.0	+0.1
MORC	Moravsky Berou	73.88	329	⇑P	P	19 20 13.0	0.0
SCHQ	Schefferville	73.95	20	P	P	19 20 11.8	-1.5
	comp=Z,2.1nm,0.8s,mb3.9,baz=25,slow=2.9,SNR=3.9						
SCHQ	Schefferville	73.95	20	P	P	19 20 11.8	-1.5
CLL	Collm	74.08	332	⇓*i*P	P	19 20 12.8	-1.3
CLL				pmax	pmax		
	comp=Z,102nm,0.7s						
CLL	Collm	74.08	332	⇓*i*P	P	19 20 12.8	-1.3
	comp=Z,7.0nm,0.7s,mb4.5						
VOIR		74.57	322	⇑*i*P	P	19 20 17.4	+0.4
VOIR		74.57	322	⇑P	P	19 20 17.4	+0.4
MIB	Mutribah	74.96	298	*e*P	P	19 20 19.1	-0.4
MIB				AMb	AMB	19 20 19.8	
	comp=Z,23nm,0.7s,mb5.0						
BRTR	Keskin Array B	75.14	313	P	P	19 20 20.3	0.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BRTR	Keskin Array B	75.14	313	P	P	19 20 20.2	-0.1
	comp=Z,1.5nm,0.8s,mb3.8,baz=103,slow=3.9,SNR=8.2						
QRN	Al-Qurain	75.38	297	*e*P	P	19 20 21.9	0.0
NAY	Al-Naaiem	75.42	297	*e*P	P	19 20 21.7	-0.4
NAY				AMb	AMB	19 20 22.3	
	comp=Z,17nm,1.0s,mb4.7						
RDF	Al-Radifah	75.47	297	*e*P	P	19 20 22.5	+0.1
RDF				AMb	AMB	19 20 23.1	
	comp=Z,43nm,0.5s						
KHC	Kasperske Hory	75.78	331	*e*P	P	19 20 23.5	-0.2
BZS	Buzias	75.82	324	⇓*i*P	P	19 20 23.8	-0.2
BZS	Buzias	75.82	324	⇓P	P	19 20 23.8	-0.3
GERES	GERESS Array B	75.98	331	P	P	19 20 24.4	-0.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	75.98	331	P	P	19 20 24.4	-0.5
	comp=Z,1.3nm,0.6s,mb3.9,baz=32,slow=5.3,SNR=15						
BFO	Black Forest	78.14	334	*i* P	P	19 20 37.6	+0.8
TXAR	Lajitas Array	80.33	57	P	P	19 20 49.1	+0.2
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TXAR	Lajitas Array	80.33	57	P	P	19 20 49.1	+0.2
	comp=Z,2.7nm,0.8s,mb4.0,baz=289,slow=3.7,SNR=20						
TORD	Torodi Ar. Bea	112.33	324	PKiKP	PKiKP	19 27 08.5	-2.2
	comp=Z,0.5nm,0.9s,baz=15,slow=2.2,SNR=9.5						
CFAA	Coronel Fontan	148.49	73	PKPbc	PKPbc	19 28 19.7	-1.6
	comp=Z,0.5nm,0.4s,baz=330,slow=3.5,SNR=5.2						
CPUP	Villa Florida	151.18	52	PKIKP	PKPbc	19 28 26.8	-1.1
CPUP				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CPUP	Villa Florida	151.18	52	PKPbc	PKPbc	19 28 26.8	-1.1
	comp=Z,1.5nm,0.5s,baz=94,slow=0.5,SNR=5.0						
PLCA	Paso Flores	152.04	90	PKIKP	PKPbc	19 28 28.8	-0.6
PLCA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
PLCA	Paso Flores	152.04	90	PKPbc	PKPbc	19 28 28.8	-0.7
	comp=Z,1.1nm,0.5s,baz=277,slow=9.8,SNR=3.8						
VNA2	Neumayer--Watz	153.69	198	*e*PKPdf	PKPbc	19 28 31.6	-0.5
	baz=344,slow=6.7						

IDC 13 19:29:04.0±2.9**, 1°.89N**×**98°.99E, h123**^{km}±11^{km}**, mb2.8**/2**, mb1 3.1**/3**, mb1mx2.8**/22**, mbtmp2.8**/3**, Error ellipse: s-maj=102.9km s-min=24.7km az=58.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	0.91	356	P	Pn	19 29 25.1	-0.3
	12nm,0.3s,baz=212,slow=9.5,SNR=18						
PSI				S	Sn	19 29 41.0	-0.6
	1.9nm,0.3s,baz=63,slow=20,SNR=10						
CMAR	Chiang Mai Arr	16.47	360	P	Pn	19 32 48.9	+1.0
	0.1nm,0.3s,baz=189,slow=10,SNR=8.1						
WRA	Warramunga Arr	40.90	124	P	P	19 36 34.4	0.0
	0.5nm,0.5s,baz=304,slow=9.2,SNR=6.5						
MKAR	Makanchi Array	47.04	344	P	P	19 37 22.7	-0.3
	0.1nm,0.5s,baz=141,slow=8.9,SNR=2.8						

FUNV 13 19:47:05.4, 6°.78N×73°.10W, h173^{km}**, MW3.5, 1C, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	1.33	36	⇑*i*P	Pn	19 47 34.7	-0.5
CAPV				*e*S	Sn	19 47 56.2	-2.1
VIGV	El Vigia	2.67	40	*e*P	Pn	19 47 49.1	-0.7
VIGV				*e*S	Sn	19 48 21.1	-3.2
SOCV	Socops	2.68	56	*e*P	Pn	19 47 49.0	-0.8
SOCV				*e*S	Sn	19 48 21.0	-3.4
VIRV	Villa del Rosa	3.76	10	*e*P	Pn	19 48 01.5	-1.8
VIRV				*e*S	Sn	19 48 43.5	-5.0
CURV	Curarigua	4.47	44	*e*P	Pn	19 48 11.5	-0.8
CURV				*e*S	Sn	19 48 59.3	-5.4
BAUV	El Baul	5.45	66	*e*P	Pn	19 48 22.8	-2.3
MONV	Montecano	6.00	31	*e*P	Pn	19 48 30.9	-1.4
CAOV	Caicara del Or	6.75	85	*e*P	Pn	19 48 39.7	-2.5

MAN 13 19:53:59, 8°.21N×125°.97E, h96^{km}**, mb3.5, ML2.2, MS1.7, 2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	0.39	93	⇓*i*P	Pn	19 54 15.9	+2.4
BIPH				*i* S	Sn	19 54 25.7	+1.2
BUTP	Butuan	0.83	335	*e*P	Pn	19 54 19.0	+1.6
BUTP				*e*S	Sn	19 54 30.4	-0.7
MATI	Mati	1.28	167	*e*P	Pn	19 54 34.6	+12
SCPH	Surigao	1.64	343	⇓*e*P	Pn	19 54 27.2	+0.4
PAGZ	Pagadian	2.59	262	*e*P	Pn	19 54 39.8	+0.6

MAN 13 19:56:53, 6°.56N×126°.41E, h62^{km}**, mb4.5, ML3.4, MS3.2, 1C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.41	339	*e*P	Pn	19 57 06.4	+2.1
MATI				*e*S	Sn	19 57 16.3	+3.7
DMPH	Davao City--Mi	1.03	300	⇓*i*P	Pn	19 57 13.6	+2.0
DMPH				*e*S	Sn	19 57 30.1	+4.8
KCP	Kidapawan	1.38	289	⇑*i*P	Pn	19 57 16.9	+0.7
KCP				*i* S	Sn	19 57 35.1	+1.5
GSPH	General Santos	1.52	252	⇓*e*P	Pn	19 57 15.2	-2.8
GSPH				*e*S	Sn	19 57 32.8	-4.2

BJI ***13*** *19:58:38.3, 8°.73S×129°.09E, h19^{km}, mB6.2/47, mb5.8/62, Ms6.0/74, Ms7 5.8/60*

ISCJB ***13*** *19:58:43.4±0.1, 8°.24S±0°.02×128°.66E±0°.03, h16^{km}, mb6.1/165, MS6.0/241, Error ellipse: s-maj=4.7km s-min=3.0km az=151.7*

IDC ***13*** *19:58:45.0±1.2, 8°.14S×128°.69E, h12^{km}±6^{km}, mb5.8/31, mb1 5.7/31, mb1mx5.7/31, mbtmp5.8/31, MS5.9/23, Ms1 5.9/23, ms1mx5.7/35, Error ellipse: s-maj=12.1km s-min=8.7km az=73.0*

GCMT ***13*** *19:58:46.1±0.1, 8°.42S×128°.83E, h22^{km}, MW6.2/115, Moment Tensor Solution. s115,c267; s111,c408; Duration: 3ˢ.0 Moment tensor: Scale 10^{18}Nm; M_{rr}1.96±.02; $M_{\theta\theta}$-1.98±.01; $M_{\phi\phi}$0.02±.01; $M_{r\theta}$0.92±.02; $M_{\theta\phi}$-0.35±.01; $M_{\phi r}$0.37±.03; Best double couple: $M_0$2.23000×10^{18} NP1:ϕ_s266.00000°, δ32.00000°, λ100.00000°. NP2:ϕ_s75.00000°, δ58.00000°, λ84.00000°. Principal axes: T 2.2000, Plg76.0000°, Azm327.0000°; N 0.0660, Plg5.0000°, Azm78.0000°; P -2.2600, Plg13.0000°, Azm169.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC ***13*** *19:58:46.1±0.1, 8°.16S×128°.64E, h19^{km}, mb6.4/79, ME5.8, MS6.1/187, MW6.0, MW6.2 Error ellipse: s-maj=5.1km s-min=3.7km az=44.0, Moment Tensor Solution. s40 Moment tensor: Scale 10^{18}Nm; M_{rr}0.85; $M_{\theta\theta}$-1.07; $M_{\phi\phi}$0.22; $M_{r\theta}$0.46; $M_{\theta\phi}$-0.15; $M_{\phi r}$0.14; Best double couple: $M_0$1.10000×10^{18} NP1:ϕ_s272.00000°, δ32.00000°, λ103.00000°. NP2:ϕ_s77.00000°, δ58.00000°, λ82.00000°. Principal axes: T 0.9700, Plg75.0000°, Azm324.0000°; N 0.2300, Plg6.0000°, Azm81.0000°; P -1.2000, Plg13.0000°, Azm172.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s255.00000°, δ25.00000°, λ90.00000°. NP2: ϕ_s75.00000°, δ65.00000°, λ90.00000°. Principal axes: T Plg70.0000°, Azm345.0000°; N Plg0.0000°, Azm0.0000°; P Plg20.0000°, Azm165.0000°; Depth from synthetics of* *broadband displacement seismograms. Energy computed from BB mechanism.*

MOS ***13*** *19:58:48.6±1.0, 7°.70S×128°.58E, h33^{km}, mb6.2/66, MS6.0/73 Error ellipse: s-maj=9.9km s-min=5.7km az=113.6*

DJA ***13*** *19:58:49, 8°.49S×128°.84E, h41^{km}, Mw6.4/29*

ISC 13 19:58:45.4±0.1**, 8°.25S**±0°.02×**128°.67E**±0°.03**, h17^{km}, h17^{km}**±1.2^{km}**:pP-P, n1190,** σ1^{s}17/468**, mb6.1**/165**, MS6.0**/241**, 194C-173D, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.78	140	*e*P	Pn	20 00 08.5	-1.9
	1µm,0.4s						
KAKA	Kakadu	5.78	140	⇓*i*P	Pn	20 00 08.5	-2.0
	7µm,0.7s						
KAPI	Kappang	9.42	289	⇑*i*P	Pn	20 01 03.8	+3.4
	673nm,1.1s						
FITZ	Fitzroy Crossi	10.23	196	*e*P	Pn	20 01 08.0	-3.5
	699nm,0.4s						
FITZ				*e*S	Sn	20 02 56.0	-10
FITZ	Fitzroy Crossi	10.23	196	Pn	Pn	20 01 08.2	-3.3
	33nm,0.3s,baz=29,slow=12,SNR=319						
FITZ				Sn	Sn	20 02 56.6	-9.2
	105nm,0.3s,baz=97,slow=14,SNR=13						
FITZ				LR	LR	20 06 00.2	
	comp=Z,97µm,19.0s,baz=18,slow=42						
FITZ	Fitzroy Crossi	10.23	196	⇓*i*P	Pn	20 01 08.0	-3.5
	13nm,0.4s						
FITZ				*e*Sn	Sn	20 02 56.7	-9.1
WRAB	Tennant Creek	12.86	155	⇓*e*P	Pn	20 01 40.3	-7.1
WRAB				pmax	pmax		
	comp=Z,3µm,1.1s						
WRAB	Tennant Creek	12.86	155	⇓*e*P	Pn	20 01 40.3	-7.2
	comp=Z,3µm,1.1s						
WRA	Warramunga Arr	12.86	155	Pn	Pn	20 01 41.2	-6.3
	comp=Z,59nm,0.3s,baz=343,slow=12,SNR=311						
WRA				Sn	Sn	20 03 55.8	-14
	comp=Z,90nm,0.3s,baz=334,slow=21,SNR=20						
GSPH	General Santos	14.71	345	⇑*e*P	Pn	20 02 17.2	+4.3
MATI	Mati	15.28	351	*e*P	Pn	20 02 26.8	+6.4
COEN	Coen	15.32	113	⇑*e*P	Pn	20 02 14.6	-6.4
	comp=Z,5µm,0.8s						
MBWA	Marble Bar	15.46	213	*e*P	Pn	20 02 18.0	-4.8
	comp=Z,6.5nm,0.5s						
DAV	Davao City (W)	15.52	348	Pn	Pn	20 02 26.6	+3.0
	comp=Z,49nm,0.3s,baz=17,slow=9.0,SNR=18						
DAV	Davao City (W)	15.52	348	⇑*e*P	Pn	20 02 25.4	+1.8
DAV	Davao City (W)	15.52	348	⇑*e*P	Pn	20 02 26.6	+3.0
	comp=Z,2µm,0.9s						
DMPH	Davao City--Mi	15.55	348	⇑*e*P	Pn	20 02 27.6	+3.6
KCP	Kidapawan	15.57	347	⇓*e*P	Pn	20 02 32.3	+8.1
CTBH	Cotabato--PC H	15.98	344	*e*P	Pn	20 02 34.7	+5.1
ASAR	Alice Springs	16.13	162	Pn	Pn	20 02 24.4	-7.1
	comp=Z,13nm,0.3s,baz=342,slow=14,SNR=340						
ASAR				Sn	Sn	20 05 20.6	-10
	comp=Z,32nm,0.3s,baz=354,slow=25,SNR=7.1						
ASAR				P3KP		20 38 24.2	
	comp=Z,0.0nm,0.3s,baz=173,slow=2.4,SNR=4.3						
BUKP	Musuan	16.42	347	*e*P	Pn	20 02 40.6	+5.4
TSM	Tawau	16.46	319	P	Pn	20 02 42.8	+7.1
ZMPH	Zamboanga City	16.47	336	⇑*e*P	Pn	20 02 41.2	+5.3
BIPH	Bislig	16.48	352	⇑*e*P	Pn	20 02 37.9	+2.0
MYLDM	Lahad Datu	16.75	322	P	Pn	20 02 46.4	+7.0
PAGZ	Pagadian	16.83	342	*e*P	Pn	20 02 46.1	+5.7
IPIL	Ipil	17.05	339	*e*P	Pn	20 02 51.3	+8.2
BUTP	Butuan	17.37	350	*e*P	Pn	20 02 50.8	+3.7
SDKM	Sandakan	17.92	320	P	Pn	20 03 00.3	+6.3
SCPH	Surigao	18.19	350	⇑*e*P	Pn	20 02 59.5	+2.2
MSLP	Maasin	18.65	348	*e*P	Pn	20 03 05.2	+2.4
LLP	Lapu-Lapu	19.03	346	⇓*e*P	Pn	20 03 10.0	+2.5
LLP				*e*S	Sn	20 06 59.0	+19
KDM	Kudat	19.13	322	P	Pn	20 03 12.0	+3.3
BTM	Bintulu	19.26	306	P	Pn	20 03 13.4	+3.1
SBUM	Sibu	19.54	302	P	Pn	20 03 15.6	+1.9
OCLP	Ormoc	19.59	348	*e*P	Pn	20 03 15.8	+1.5
PLP	Palo	19.63	349	⇓*e*P	Pn	20 03 16.5	+1.8
GUIM	Jordan	19.70	342	*e*P	Pn	20 03 18.4	+2.9
BATP	Bataraza	20.10	327	*e*P	P	20 03 22.5	+4.1
CUYO	Cuyo Island	20.44	338	*e*P	P	20 03 25.5	+3.4
PPR	Puerto Princes	20.46	331	*e*P	P	20 03 26.0	+3.7
RCP	Roxas	20.54	343	⇑*e*P	P	20 03 26.0	+2.9
CTA	Charters Tower	20.69	127	P	P	20 03 26.0	+1.2
CTA				S	S	20 07 15.6	+0.1
CTA				pmax	pmax		
	comp=Z,463nm,1.1s						
CTA				smax			
	comp=N,83nm,1.0s						
CTA	Charters Tower	20.69	127	*e*P	P	20 03 25.8	+1.0
	comp=N,801nm,1.3s						
CTA				*e*S	S	20 07 17.3	+1.8
CTA	Charters Tower	20.69	127	P	P	20 03 25.9	+1.1
	comp=N,462nm,1.1s,baz=303,slow=12,SNR=91						
CTA				S	S	20 07 15.6	+0.1
	comp=N,83nm,1.0s,baz=103,slow=23,SNR=2.5						
CTAO	Charters Tower	20.69	127	⇑*e*P	P	20 03 25.5	+0.7
	comp=N,2µm,1.4s						
CTAO				LR	LR		
	comp=Z,80µm,19.0s,MS6.1						
KSM	Kuching	20.70	297	P	P	20 03 27.1	+2.2
KSM	Kuching	20.70	297	⇑*e*P	P	20 03 25.4	+0.4
	comp=Z,690nm,1.0s						
KSM				LR	LR		
	comp=Z,67µm,19.0s,MS6.0						
ENPP	El Nido	21.40	334	*e*P	P	20 03 35.8	+3.3
BUSP	Coron	21.81	337	*e*P	P	20 03 38.0	+1.1
SJMP	San Jose	21.90	340	*e*P	P	20 03 40.0	+2.2
PVCP	Virac	22.16	348	*e*P	P	20 03 42.2	+1.6
AUQP	San Andres	22.24	344	*e*P	P	20 03 45.6	+4.2
FORT	Forrest	22.42	181	*e*P	P	20 03 42.6	-0.7
	comp=Z,1µm,0.7s,mb6.5						
FORT				*e*S	S	20 07 39.0	-10
FORT	Forrest	22.42	181	⇓*i*P	P	20 03 42.9	-0.4
	comp=Z,1µm,0.8s,mb6.5						
XMIS	Christmas Isla	22.81	263	⇑*e*P	P	20 03 46.4	-1.2
	comp=Z,900nm,1.0s,mb6.2						
GQP	Guinayangan	22.86	344	⇓*e*P	P	20 03 49.0	+1.0
PGP	Puerto Galera	22.93	340	⇓*i*P	P	20 03 50.6	+1.9
LUBP	Lubang	23.38	339	*e*P	P	20 03 54.2	+0.7
TGY	Tagaytay City	23.49	341	P	P	20 03 54.3	-0.4
	comp=Z,1µm,0.9s,mb6.3,baz=169,slow=6.3,SNR=28						
TGY	Tagaytay City	23.49	341	*e*P	P	20 03 56.7	+2.0
POLP	Polillo Island	23.78	344	*e*P	P	20 03 57.0	-0.4
PCPH	Palayan	24.82	342	⇓*e*P	P	20 04 06.2	-0.6
BALP	Baler	24.85	344	*e*P	P	20 04 05.1	-2.0
KLBR	Kellerberrin	25.35	202	*e*P	P	20 04 11.7	+0.1
	comp=Z,3µm,1.8s,mb6.5						
KLBR				*e*S	S	20 08 44.3	+7.0
SCZP	Santa Cruz	25.39	340	*e*P	P	20 04 11.5	-0.6
PALP	Palanan	25.89	346	⇓*e*P	P	20 04 13.7	-2.9
CAUP	Cauayan	25.93	345	*e*P	P	20 04 17.5	+0.6
MUN	Mundaring	26.30	204	*e*P	P	20 04 20.1	-0.1
MUN				*e*S	S	20 09 10.0	+18
STKA	Stephens Creek	26.41	155	*e*P	P	20 04 20.5	-0.7
	comp=Z,232nm,0.9s,mb5.7						
STKA				*e*S	S	20 08 54.8	+0.8
STKA	Stephens Creek	26.41	155	P	P	20 04 20.6	-0.5
	comp=Z,94nm,0.6s,mb5.5,baz=328,slow=8.7,SNR=114						
STKA				S	S	20 08 49.0	-4.9
	comp=Z,67nm,0.9s,baz=224,slow=18,SNR=1.9						
MYKOM	Kota Tinggi	26.68	291	P	P	20 04 25.2	+1.4
NWAO	Narrogin (SRO)	26.74	202	P	P	20 04 24.4	+0.2
NWAO				S	S	20 08 58.2	-1.0
NWAO				pmax	pmax		
	comp=Z,171nm,0.6s						
NWAO				smax			
	comp=N,113nm,1.0s						
NWAO				MLR	MLR		
	comp=Z,49µm,20.0s						
NWAO	Narrogin (SRO)	26.74	202	P	P	20 04 24.4	+0.2
	comp=Z,171nm,0.6s,mb5.8,baz=33,slow=8.2,SNR=166						
NWAO				S	S	20 08 58.2	-1.0
	comp=Z,113nm,1.0s,baz=228,slow=15,SNR=1.9						
NWAO				LR	LR	20 16 22.0	
	comp=Z,49µm,19.9s,MS6.1,baz=228,slow=39						
NWAO	Narrogin (SRO)	26.74	202	⇑*e*P	P	20 04 23.5	-0.6
	comp=Z,372nm,1.0s,mb5.9						
NWAO				LR	LR		
	comp=Z,29µm,21.0s,MS5.8						
ABRA	Dolores	26.90	343	*e*P	P	20 04 29.2	+3.5
GUMO	Guam	27.01	37	P	P	20 04 26.0	-0.7
	comp=Z,283nm,0.8s,mb5.8,baz=196,slow=9.6,SNR=13						
GUMO	Guam	27.01	37	⇑*e*P	P	20 04 25.8	-0.9
	comp=Z,804nm,1.3s,mb6.1						
GUMO				LR	LR		
	comp=Z,20µm,19.0s,MS5.7						
KGM	Kluang	27.25	291	P	P	20 04 30.3	+1.3
EIDS	Eidsvold	27.31	131	*e*P	P	20 04 27.2	-2.2
	comp=Z,14nm,0.6s						
KTGM	Kuala Trenggan	28.82	297	P	P	20 04 44.3	+1.3
FRIM	Kepong	29.28	292	P	P	20 04 47.9	+0.8
IPM	Ipoh	30.33	294	P	P	20 04 56.6	+0.2
ARMA	Armidale	30.79	139	*e*P	P	20 05 01.2	+1.0
ARMA				*e*S	S	20 10 02.9	-0.1
ARMA	Armidale	30.79	139	*e*P	P	20 05 00.8	+0.6
	comp=Z,3.3nm,0.6s						
HNR	Honiara	30.93	95	P	P	20 05 01.1	-0.6
HNR				pmax	pmax		
	comp=Z,319nm,0.9s,mb6.2						
HNR				MLR	MLR		
	comp=Z,17µm,18.4s,MS5.7						
HNR	Honiara	30.93	95	P	P	20 05 01.1	-0.6
	comp=Z,319nm,0.9s,mb6.2,baz=204,slow=5.9,SNR=21						
HNR				LR	LR	20 17 46.2	
	comp=Z,17µm,18.4s,MS5.7,baz=271,slow=37						
KULM	Kulim	31.01	295	P	P	20 05 02.3	0.0
KULM	Kulim	31.01	295	*e*P	P	20 05 01.8	-0.5
	comp=Z,142nm,0.8s,mb5.8						
KULM				LR	LR		
	comp=Z,27µm,19.0s,MS5.9						
PSI	Prapat	31.63	289	P	P	20 05 07.0	-0.8
PSI				pmax	pmax		
	comp=Z,609nm,1.1s,mb6.3						
PSI	Prapat	31.63	289	P	P	20 05 07.0	-0.9
	comp=Z,609nm,1.1s,mb6.3,baz=130,slow=5.6,SNR=138						
SNG	Songkhla	31.89	298	P	P	20 05 10.0	-0.1
	comp=Z,520nm,0.9s,mb6.4						
TPUB	Ta-pu	32.32	346	*e*P	P	20 05 12.1	-1.7
	comp=Z,196nm,1.3s,mb5.8						
SSLB	Suanglung	32.72	347	*e*P	P	20 05 15.4	-1.8
	comp=Z,74nm,1.1s,mb5.5						
CAN	Canberra	32.75	148	*e*P	P	20 05 18.2	+0.8
CAN				pmax	pmax		
	comp=Z,661nm,1.4s,mb6.4						
CAN				MLR	MLR		
	comp=Z,49µm,19.0s,MS6.2						
CAN	Canberra	32.75	148	*e*P	P	20 05 18.2	+0.7
	comp=Z,661nm,1.4s,mb6.4						
CAN				LR	LR		
	comp=Z,49µm,19.0s,MS6.2						
RIV	Riverview	32.84	144	*e*P	P	20 05 19.5	+1.3
QIZ	Qiongzhong	32.85	326	⇑P	P	20 05 18.9	+0.5
QIZ				PP	PP	20 06 36.0	+3.1
QIZ				S	S	20 10 38.1	+2.8
QIZ				pmax	pmax		
	comp=Z,64nm,2.1s,mb5.2						
QIZ				LR	LR		
	comp=N,12µm,15.9s,MS5.7						
QIZ				LR	LR		
	comp=E,9µm,19.0s,MS5.7						
QIZ				LR	LR		
	comp=Z,15µm,17.4s,MS5.7						
QIZ	Qiongzhong	32.85	326	*e*P	P	20 05 20.2	+1.8
	comp=Z,132nm,1.3s,mb5.7						
QIZ				LR	LR		
	comp=Z,14µm,19.0s,MS5.7						
TOO	Toolangi	32.93	155	*e*P	P	20 05 19.7	+0.7
TOO				*e*S	S	20 10 39.0	+2.8
CNB	Canberra Magne	32.94	148	*e*P	P	20 05 19.8	+0.7
CNB				*e*S	S	20 10 36.3	-0.1
UBT	Ubonrachathani	33.08	315	⇑P	P	20 05 23.0	+2.5
YHNB	Yeheng	33.48	348	*e*P	P	20 05 22.7	-1.1
	comp=Z,76nm,0.8s,mb5.7						
YHNB				LR	LR		
	comp=Z,18µm,21.0s,MS5.8						
HKC	Hong Kong Obse	33.52	335	*i* P	P	20 05 24.0	-0.2
TATO	Taipei	33.75	348	PFAKE		20 05 40.0	+14
TATO				LR	LR		
	comp=Z,17µm,21.0s,MS5.7						
QZH	Quanzhou	34.42	344	⇑*i*P	P	20 05 32.4	+0.4
QZH				S	S	20 11 00.0	+0.5
QZH				SS	SS	20 13 13.8	-15
QZH				pmax	pmax		
	comp=Z,330nm,1.0s,mb6.2						
QZH				pmax	pmax		
	comp=Z,3µm,4.4s						
QZH				LR	LR		
	comp=N,18µm,19.2s,MS5.9						
QZH				LR	LR		
	comp=E,12µm,19.3s,MS5.9						
QZH				LR	LR		
	comp=Z,16µm,18.9s,MS5.8						
JOW	Kunigami	34.87	359	P	P	20 05 35.5	-0.5
	comp=Z,167nm,0.9s,mb6.0,baz=187,slow=9.4,SNR=13						
JOW				PcP	PcP	20 08 09.7	+0.8
	comp=Z,88nm,1.0s,baz=168,slow=5.3,SNR=4.1						
JOW				LR	LR	20 17 51.0	
	comp=Z,21µm,22.0s,MS5.8,baz=179,slow=33						
KKTK	Khon Kaen	35.37	314	⇓P	P	20 05 41.6	+1.3
	comp=Z,1µm,0.9s,mb6.8						
NST	Nakhon Sawan	36.93	310	P	P	20 05 54.0	+0.3
	comp=Z,108nm,1.0s,mb5.6						
CBIJ	Chichi jima	37.50	20	P	P	20 05 57.8	-0.6
	comp=Z,114nm,0.4s,mb6.0,baz=179,slow=7.1,SNR=4.8						
CBIJ				LR	LR	20 19 18.9	
	comp=Z,23µm,20.7s,MS6.0,baz=199,slow=33						
MOO	Moorlands	37.77	157	*e*P	P	20 06 00.0	-0.5
MOO				*e*S	S	20 11 51.5	+1.1
TAU	Tasmania Unive	38.22	158	*e*P	P	20 06 09.1	+4.8
TAU				pmax	pmax		
	comp=Z,285nm,1.3s,mb5.8						
TAU				MLR	MLR		
	comp=Z,33µm,19.0s,MS6.2						
TAU	Tasmania Unive	38.22	158	*e*P	P	20 06 09.1	+4.8
	comp=Z,285nm,1.3s,mb5.8						
TAU				LR	LR		
	comp=Z,33µm,19.0s,MS6.2						
NOUC	Port Laguerre	38.72	115	*e*P	P	20 06 09.1	+0.3
BDT	Bhumibol Dam	38.75	311	P	P	20 06 08.5	-0.6
	comp=Z,153nm,1.0s,mb5.7						
DZM	Mont Dzumac	38.84	115	*e*P	P	20 06 08.6	-1.3
DZM	Mont Dzumac	38.84	115	*e*P	P	20 06 09.9	+0.1
	comp=Z,286nm,1.1s,mb5.9						
CMAR	Chiang Mai Arr	39.55	312	P	P	20 06 16.0	+0.2
CMAR						20 08 25.3	
CMAR						20 12 13.4	
CMAR				pmax	pmax		
	comp=Z,115nm,0.9s						
CMAR				pmax	pmax		
	comp=Z,107nm,1.1s						
CMAR				pmax	pmax		
	comp=N,20nm,0.9s						
CMAR				MLR	MLR		
	comp=Z,23µm,20.2s						
CMAR	Chiang Mai Arr	39.55	312	P	P	20 06 16.0	+0.2
	comp=Z,115nm,0.9s,mb5.6,baz=142,slow=6.8,SNR=182						
CMAR				PcP	PcP	20 08 25.3	+2.1
	comp=Z,107nm,1.1s,baz=168,slow=2.2,SNR=10						
CMAR				ScP	ScP	20 12 13.4	+2.0
	comp=Z,20nm,0.9s,baz=161,slow=3.3,SNR=15						
CMAR				LR	LR	20 23 28.7	
	comp=Z,23µm,20.2s,MS6.0,baz=347,slow=38						
CMAR				P3KPbc		20 36 18.9	
	comp=Z,0.2nm,0.6s,baz=306,slow=6.2,SNR=5.1						
CMAR	Chiang Mai Arr	39.55	312	P	P	20 06 16.0	+0.2
CMAR				PcP	PcP	20 08 25.3	+2.1
CMAR				ScP	ScP	20 12 13.4	+2.0
CMAR				LR	LR	20 23 28.7	
CMAR				*e*		20 36 18.9	
SSE	Sheshan	39.77	350	P	P	20 06 16.0	-1.4
SSE				S	S	20 12 21.3	+0.5
SSE				pmax	pmax		
	comp=Z,93nm,1.0s,mb5.5						
SSE				pmax	pmax		
	comp=Z,2µm,11.1s						
SSE				LR	LR		
	comp=N,6µm,19.6s,MS5.5						
SSE				LR	LR		
	comp=E,4µm,19.3s,MS5.5						
SSE				LR	LR		
	comp=Z,8µm,22.7s,MS5.5						
CHG	Chiang Mai	39.78	313	⇑P	P	20 06 18.5	+0.8
	comp=Z,154nm,0.8s,mb5.8						
CHTO	Chiang Mai	39.78	313	*e*P	P	20 06 17.6	-0.1
CHTO				pmax	pmax		
	comp=Z,131nm,0.8s,mb5.7						
CHTO				MLR	MLR		
	comp=Z,22µm,20.0s,MS6.0						
CHTO	Chiang Mai	39.78	313	*e*P	P	20 06 17.6	-0.1
	comp=Z,131nm,0.8s,mb5.7						
CHTO				LR	LR		
	comp=Z,22µm,20.0s,MS6.0						
CHTO	Chiang Mai	39.78	313	P	P	20 06 18.3	+0.6
	SNR=45						
CHTO				P		20 06 18.3	
	SNR=45						
GYA	Guiyang	40.58	329	⇑*i*P	P	20 06 25.4	+1.2
GYA				PP	PP	20 08 02.5	+4.6
GYA				ScP	ScP	20 12 14.8	-0.5
GYA				S	S	20 12 34.9	+1.8
GYA				SS	SS	20 15 29.4	-4.0
GYA				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.3						
GYA				pmax	pmax		
	comp=Z,2µm,4.8s						
GYA				LR	LR		
	comp=N,8µm,17.2s,MS5.7						
GYA				LR	LR		
	comp=E,6µm,18.7s,MS5.7						
GYA				LR	LR		
	comp=Z,7µm,17.0s,MS5.6						
WHN	Wuhan	40.94	341	P	P	20 06 27.6	+0.5
WHN				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.5						
WHN				LR	LR		
	comp=Z,26µm,17.8s,MS6.1						
NJ2	Nanjing	41.15	347	*e*P	P	20 06 28.5	-0.3
NJ2				pP	pP	20 06 33.1	-1.1
NJ2				sP	sP	20 06 35.8	-0.5
NJ2				PP	PP	20 08 07.3	+3.2
NJ2				S	S	20 12 45.5	+4.0
NJ2				sS	sS	20 12 53.5	+3.3
NJ2				SS	SS	20 15 41.0	-3.7
NJ2				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.5						
NJ2				pmax	pmax		
	comp=Z,2µm,10.2s						
NJ2				LR	LR		
	comp=N,3µm,27.4s,MS5.3						
NJ2				LR	LR		
	comp=E,5µm,23.7s,MS5.3						
NJ2				LR	LR		
	comp=Z,5µm,23.7s,MS5.3						
KMI	Kunming	41.69	323	P	P	20 06 34.9	+1.5
KMI				pP	pP	20 06 41.5	+2.8
KMI				sP	sP	20 06 44.8	+4.0
KMI				PP	PP	20 08 17.0	+7.0
KMI				S	S	20 12 52.8	+3.2
KMI				SS	SS	20 15 54.3	-1.2
KMI				pmax	pmax		
	comp=Z,160nm,1.8s,mb5.3						
KMI				pmax	pmax		
	comp=Z,2µm,4.8s						
KMI				LR	LR		
	comp=N,7µm,18.7s,MS5.8						
KMI				LR	LR		
	comp=E,11µm,18.7s,MS5.8						
KMI				LR	LR		
	comp=Z,12µm,19.6s,MS5.8						
JHJ	Hachijo jima 2	42.48	14	LR	LR	20 22 37.6	
	comp=Z,28µm,21.2s,MS6.1,baz=271,slow=34						
TARA	Tarawa	45.14	80	*e*P	P	20 07 01.6	+0.1
	comp=Z,869nm,1.4s,mb6.4						
TARA				LR	LR		
	comp=Z,16µm,22.0s,MS5.9						
MAJO	Matsushiro	45.44	11	*e*P	P	20 07 01.2	-2.2
MAJO				*e*		20 08 43.5	
MAJO				pmax	pmax		
	comp=Z,109nm,0.9s,mb5.7						
MAJO				MLR	MLR		
	comp=Z,17µm,21.0s,MS6.0						
MAJO	Matsushiro	45.44	11	*e*P	P	20 07 01.1	-2.3
	comp=Z,109nm,0.9s,mb5.7						
MAJO				*e*PcP	PcP	20 08 43.5	+1.1
MAJO				LR	LR		
	comp=Z,17µm,21.0s,MS6.0						
MAT	Matsushiro	45.44	11	P	P	20 07 01.3	-2.1
MAT				S	S	20 13 33.0	-11
MJAR	Matsushiro Arr	45.44	11	P	P	20 07 01.1	-2.3
MJAR						20 08 42.9	
MJAR				pmax	pmax		
	comp=Z,65nm,1.0s						
MJAR				pmax	pmax		
	comp=Z,74nm,0.9s						
MJAR				pmax	pmax		
	comp=N,9.0nm,1.1s						
MJAR	Matsushiro Arr	45.44	11	P	P	20 07 01.1	-2.3
	comp=N,65nm,1.0s,mb5.4,baz=189,slow=9.2,SNR=66						
MJAR				PcP	PcP	20 08 42.9	+0.4
	comp=N,74nm,0.9s,baz=192,slow=3.2,SNR=13						
MJAR				ScP	ScP	20 12 35.9	+1.2
	comp=N,9.3nm,1.1s,baz=184,slow=5.7,SNR=8.8						
KSRS	Korea Array	45.47	359	P	P	20 07 03.3	-0.3
KSRS						20 08 43.5	
KSRS				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.2						
KSRS				pmax	pmax		
	comp=Z,66nm,0.9s,mb5.5						
KSRS				pmax	pmax		
	comp=N,8.0nm,1.0s						
KSRS				MLR	MLR		
	comp=Z,13µm,21.6s,MS5.8						
KSRS	Korea Array	45.47	359	P	P	20 07 03.2	-0.3
	comp=Z,38nm,0.9s,mb5.2,baz=178,slow=11,SNR=66						
KSRS				PcP	PcP	20 08 43.5	+1.0
	comp=Z,66nm,0.9s,baz=184,slow=3.7,SNR=15						
KSRS				ScP	ScP	20 12 35.4	+0.6
	comp=Z,7.9nm,1.0s,baz=176,slow=4.7,SNR=5.3						
KSRS				LR	LR	20 26 08.4	
	comp=Z,13µm,21.6s,MS5.8,baz=185,slow=36						
INCN	Inchon	45.53	358	*e*P	P	20 07 04.6	+0.5
	comp=Z,96nm,1.2s,mb5.6						
INCN				*e*PcP	PcP	20 08 44.5	+1.8
INCN				LR	LR		
	comp=Z,13µm,20.0s,MS5.9						
TIA	Tai'an	45.53	347	*e*P	P	20 07 03.3	-0.9
TIA				LR	LR		
	comp=N,2µm,13.0s						
CD2	Chengdu	45.67	330	P	P	20 07 04.5	-0.9
CD2				pP	pP	20 07 08.8	-2.0
CD2				sP	sP	20 07 11.3	-1.6
CD2				PcP	PcP	20 08 43.3	-0.1
CD2				PP	PP	20 08 52.1	-0.5
CD2				S	S	20 13 45.0	-2.7
CD2				SS	SS	20 17 03.3	-9.1
CD2				pmax	pmax		
	comp=Z,210nm,1.6s,mb5.8						
CD2				LR	LR		
	comp=N,14µm,16.6s						
CD2				LR	LR		
	comp=Z,10µm,20.2s,MS5.8						
XAN	Xi'an	46.04	337	P	P	20 07 06.9	-1.3
XAN				pP	pP	20 07 13.0	-0.6
XAN				sP	sP	20 07 16.0	+0.3
XAN				S	S	20 13 51.5	-1.4
XAN				pmax	pmax		
	comp=Z,300nm,1.1s,mb6.1						
XAN				LR	LR		
	comp=N,4µm,20.8s,MS5.6						
XAN				LR	LR		
	comp=E,6µm,19.4s,MS5.6						
XAN				LR	LR		
	comp=Z,15µm,21.5s,MS5.9						
IMP	Imphal	47.16	315	*e*PKP	P	20 07 16.0	-1.2
IMP				*e*x	x	20 08 50.0	
DL2	Dalian	47.37	353	P	P	20 07 18.1	-0.4
DL2				S	S	20 14 07.9	-3.8
DL2				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
DL2				pmax	pmax		
	comp=Z,2µm,11.0s						
AGT	Agartala	48.53	312	*e*PKP	P	20 07 26.0	-1.8
AGT				*e*x	x	20 08 36.0	
BJT	Baijiatuau	49.40	347	*e*P	P	20 07 33.1	-1.0
BJT				pmax	pmax		
	comp=Z,285nm,1.1s						
BJT				MLR	MLR		
	comp=Z,10µm,20.0s						
BJT	Baijiatuau	49.40	347	*e*P	P	20 07 33.1	-1.0
	comp=Z,285nm,1.1s,mb6.2						
BJT				LR	LR		
	comp=Z,10µm,20.0s,MS5.8						
BJI	Beijing	49.41	347	P	P	20 07 33.3	-1.0
BJI				PP	PP	20 09 29.0	+0.4
BJI				S	S	20 14 45.8	+5.2

BJI				pmax	pmax		
	comp=Z,230nm,1.1s,mb6.1						
BJI				pmax	pmax		
	comp=Z,3µm,6.3s						
BJI				LR	LR		
	comp=N,5µm,22.8s,MS5.6						
BJI				LR	LR		
	comp=E,5µm,20.8s,MS5.6						
BJI				LR	LR		
	comp=Z,10µm,31.9s						
LZH	**Lanzhou**	**49.90**	**334**	⇓P	**P**	**20 07 38.6**	**+0.5**
LZH				pP	pP	20 07 42.3	-1.2
LZH				PP	PP	20 09 34.3	+1.2
LZH				S	**S**	**20 14 53.0**	**+5.4**
LZH				SS	SS	20 18 16.0	-4.8
LZH				pmax	pmax		
	comp=Z,720nm,1.4s,mb6.5						
LZH				pmax	pmax		
	comp=Z,2µm,4.5s						
LZH				LR	LR		
	comp=E,8µm,16.0s						
LZH				LR	LR		
	comp=Z,12µm,18.4s,MS5.9						
FUNA	**Funafuti**	**49.96**	**94**	*e*P	**P**	**20 07 37.0**	**-2.0**
	comp=Z,702nm,0.9s,mb6.7						
FUNA				LR	LR		
	comp=Z,18µm,22.0s,MS6.0						
CAL	**Calcutta**	**49.97**	**309**	*e*PKP	**P**	**20 07 38.5**	**-0.4**
CAL				*e*x	x	20 14 41.4	
SNY	**Shenyang**	**50.05**	**355**	⇑P	**P**	**20 07 38.0**	**-1.1**
SNY				pmax	pmax		
	comp=Z,3µm,11.6s						
SNY				LR	LR		
	comp=N,10µm,20.4s,MS5.9						
SNY				LR	LR		
	comp=E,4µm,15.7s,MS5.9						
SNY				LR	LR		
	comp=Z,12µm,25.0s						
PALK	**Pallekele**	**50.24**	**287**	*e*P	**P**	**20 07 40.1**	**-1.0**
PALK				*e*		20 09 01.8	
PALK				pmax	pmax		
	comp=Z,176nm,1.4s,mb5.9						
PALK	**Pallekele**	**50.24**	**287**	*e*P	**P**	**20 07 40.1**	**-1.0**
	comp=Z,176nm,1.4s,mb5.9						
PALK				*e*PcP	PcP	20 09 01.8	+1.6
PALK	**Pallekele**	**50.24**	**287**	P	**P**	**20 07 40.3**	**-0.8**
	SNR=11						
PALK				P		20 07 40.3	
	SNR=11						
BWNR	**Bhubaneshwar**	**50.81**	**305**	*e*x	**P**	**20 07 38.0**	**-7.2**
RPZ	**Rata Peaks**	**51.08**	**141**	P	**P**	**20 07 47.3**	**+0.3**
	comp=Z,260nm,0.8s,mb6.2,baz=290,slow=3.1,SNR=51						
HHC	**Hu-ho-hao-te**	**51.33**	**343**	⇑*i*P	**P**	**20 07 48.8**	**0.0**
HHC				pP	pP	20 07 53.3	-0.9
HHC				PcP	PcP	20 09 03.1	-0.4
HHC				PP	PP	20 09 46.4	+0.3
HHC				PcS	PcS	20 13 00.3	-0.9
HHC				S	**S**	**20 15 04.3**	**-3.0**
HHC				ScS	ScS	20 17 35.1	-3.5
HHC				SS	SS	20 18 40.0	-3.4
HHC				pmax	pmax		
	comp=Z,150nm,1.2s,mb5.8						
HHC				pmax	pmax		
	comp=Z,3µm,5.8s						
HHC				LR	LR		
	comp=N,4µm,18.2s,MS5.7						
HHC				LR	LR		
	comp=E,4µm,18.6s,MS5.7						
HHC				LR	LR		
	comp=Z,7µm,21.4s,MS5.7						
BTO	**Baotou**	**51.56**	**342**	*e*P	**P**	**20 07 48.8**	**-1.7**
BTO				S	**S**	**20 15 03.3**	**-7.2**
VIS	**Vishakhapatnam**	**51.68**	**300**	*e*PKP	**P**	**20 07 50.8**	**-1.1**
ERM	**Erimo**	**51.75**	**14**	PFAKE		20 08 00.0	+8.1
ERM				LR	LR		
	comp=Z,15µm,22.0s,MS6.0						
CN2	**Changchun**	**51.88**	**357**	⇑P	**P**	**20 07 51.8**	**-1.1**
CN2				*e*sP	sP	20 08 00.6	+0.2
CN2				*e*PcP	PcP	20 09 05.8	+0.3
CN2				*e*S	**S**	**20 15 14.1**	**-0.7**
CN2				*e*SS	SS	20 18 50.4	-1.6
CN2				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
CN2				pmax	pmax		
	comp=Z,4µm,9.0s						
CN2				LR	LR		
	comp=N,9µm,19.0s,MS5.9						
CN2				LR	LR		
	comp=E,5µm,19.0s,MS5.9						
CN2				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
MCQ	**Macquarie Isla**	**52.10**	**158**	*e*P	**P**	**20 07 54.9**	**+0.5**
MCQ				pmax	pmax		
	comp=Z,2µm,1.0s,mb7.0						
MCQ	**Macquarie Isla**	**52.10**	**158**	*e*P	**P**	**20 07 55.5**	**+1.1**
MCQ	**Macquarie Isla**	**52.10**	**158**	*e*P	**P**	**20 07 54.9**	**+0.5**
	comp=Z,2µm,1.0s,mb7.0						
LSA	**Lhasa**	**52.21**	**318**	P	**P**	**20 07 56.6**	**+1.1**
LSA				pP	pP	20 08 02.1	+1.1
LSA				sP	sP	20 08 05.3	+2.2
LSA				PP	PP	20 09 53.5	-0.7
LSA				ScS	ScS	20 17 45.3	+0.1
LSA				SS	SS	20 18 53.5	-4.1
LSA				pmax	pmax		
	comp=Z,330nm,1.0s,mb6.2						
LSA				LR	LR		
	comp=N,4µm,21.4s,MS5.8						
LSA				LR	LR		
	comp=E,8µm,22.9s,MS5.8						
LSA				LR	LR		
	comp=Z,9µm,20.6s,MS5.8						
LSA	**Lhasa**	**52.21**	**318**	*e*P	**P**	**20 07 56.3**	**+0.8**
LSA				pmax	pmax		
	comp=Z,400nm,1.0s,mb6.3						
LSA				MLR	MLR		
	comp=Z,10µm,21.0s,MS5.8						
LSA	**Lhasa**	**52.21**	**318**	*e*P	**P**	**20 07 56.3**	**+0.8**
	comp=Z,400nm,1.0s,mb6.3						
LSA				LR	LR		
	comp=Z,10µm,21.0s,MS5.8						
SNZO	**South Karori**	**52.31**	**137**	*e*P	**P**	**20 07 56.2**	**0.0**
	comp=Z,365nm,1.3s,mb6.2						
SNZO				LR	LR		
	comp=Z,28µm,21.0s,MS6.3						
BOK	**Bokaro**	**52.53**	**308**	*e*PKP	**P**	**20 07 57.0**	**-1.1**
BOK				*e*x	x	20 15 13.9	
MDJ	**Mudanjiang**	**52.62**	**1**	P	**P**	**20 07 58.6**	**+0.3**
MDJ				pP	pP	20 08 02.8	-1.0
MDJ				sP	sP	20 08 04.0	-1.9
MDJ				PP	PP	20 09 57.6	-0.1
MDJ				ScP	ScP	20 13 05.3	+0.3
MDJ				PcS	PcS	20 13 07.4	+0.8
MDJ				S	**S**	**20 15 25.4**	**+0.5**
MDJ				sS	sS	20 15 33.3	-0.6
MDJ				pmax	pmax		
	comp=Z,68nm,1.2s,mb5.5						
MDJ				pmax	pmax		
	comp=Z,3µm,9.4s						
MDJ				LR	LR		
	comp=N,6µm,17.1s,MS5.8						
MDJ				LR	LR		
	comp=E,6µm,18.0s,MS5.8						
MDJ				LR	LR		
	comp=Z,9µm,25.6s						
MDJ	**Mudanjiang**	**52.62**	**1**	*e*P	**P**	**20 07 57.7**	**-0.6**
	comp=Z,131nm,1.2s,mb5.7						
MDJ				LR	LR		
	comp=Z,9µm,20.0s,MS5.8						
URZ	**Urewera**	**52.79**	**132**	P	**P**	**20 07 59.1**	**-0.7**
	comp=Z,50nm,0.7s,mb5.6,baz=307,slow=2.1,SNR=31						
URZ				LR	LR	20 30 07.3	
	comp=Z,24µm,20.3s,MS6.2,baz=306,slow=36						
ODAN	**Odare**	**53.10**	**313**	*e*P	**P**	**20 08 02.1**	**-0.1**
	comp=Z,822nm,0.9s,mb6.7						
TAPN	**Taplejung**	**53.15**	**313**	*e*P	**P**	**20 08 02.6**	**0.0**
	comp=Z,2µm,1.0s,mb6.9						
ASAJ	**Asahikawa**	**53.62**	**12**	P	**P**	**20 08 05.5**	**-0.2**
ASAJ				pmax	pmax		
	comp=Z,53nm,0.6s						
ASAJ				MLR	MLR		
	comp=Z,3µm,18.9s						
ASAJ	**Asahikawa**	**53.62**	**12**	P	**P**	**20 08 05.5**	**-0.3**
	comp=Z,52nm,0.6s,mb5.6,baz=229,slow=12,SNR=18						
ASAJ				LR	LR	20 31 29.9	
	comp=Z,3µm,18.9s,MS5.4,baz=193,slow=37						
RAMN	**Ramite**	**53.73**	**312**	*e*P	**P**	**20 08 07.1**	**+0.3**
	comp=Z,1µm,0.7s,mb6.9						
TRD	**Trivandrum**	**54.14**	**287**	⇓*e*PKP	Px	20 08 24.0	
TRD				*e*S	**S**	**20 15 54.0**	**+7.3**
RAO	**Raoul Island**	**54.21**	**120**	P	**P**	**20 08 09.3**	**-1.1**
RAO				pmax	pmax		
	comp=Z,159nm,0.6s,mb6.1						
RAO				MLR	MLR		
	comp=Z,21µm,18.7s,MS6.2						
RAO	**Raoul Island**	**54.21**	**120**	P	**P**	**20 08 09.3**	**-1.1**
	comp=Z,159nm,0.6s,mb6.1,baz=233,slow=20,SNR=2.6						
RAO				LR	LR	20 31 05.6	
	comp=Z,21µm,18.7s,MS6.2,baz=107,slow=36						
JIRN	**Jiri**	**54.43**	**313**	*e*P	**P**	**20 08 12.1**	**+0.2**
	comp=Z,1µm,1.0s,mb6.8						
GTA	**Gaotai**	**54.44**	**333**	⇑P	**P**	**20 08 12.0**	**+0.2**
GTA				pP	pP	20 08 16.1	-1.2
GTA				sP	sP	20 08 19.3	-0.1
GTA				PP	PP	20 10 14.3	+0.1
GTA				ScP	ScP	20 13 12.9	-0.2
GTA				S	**S**	**20 15 49.4**	**-0.4**
GTA				ScS	ScS	20 18 00.1	-0.4
GTA				SS	SS	20 19 32.0	-0.6
GTA				pmax	pmax		
	comp=Z,190nm,1.8s,mb5.7						
GTA				pmax	pmax		
	comp=Z,2µm,5.4s						
GTA				LR	LR		
	comp=N,6µm,19.8s,MS5.8						
GTA				LR	LR		
	comp=E,6µm,20.4s,MS5.8						
GTA				LR	LR		
	comp=Z,9µm,19.2s,MS5.8						
GUN	**Gumba**	**54.80**	**313**	*e*P	**P**	**20 08 14.8**	**+0.2**
	comp=Z,1µm,0.9s,mb7.0						
PKI	**Pulchoki**	**54.95**	**312**	*e*P	**P**	**20 08 15.4**	**-0.3**
	comp=Z,1µm,1.3s,mb6.8						
PKI	**Pulchoki**	**54.95**	**312**	*e*P	**P**	**20 08 15.4**	**-0.3**
PKI				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.8						
KKN	**Kakani**	**55.17**	**312**	*e*P	**P**	**20 08 17.1**	**-0.2**
	comp=Z,1µm,1.2s,mb6.8						
KKN	**Kakani**	**55.17**	**312**	*e*P	**P**	**20 08 17.1**	**-0.2**
KKN				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.8						
DMN	**Daman**	**55.19**	**312**	*e*P	**P**	**20 08 17.4**	**-0.1**
	comp=Z,1µm,1.1s,mb6.8						
DGAR	**Diego Garcia**	**55.66**	**267**	*e*P	**P**	**20 08 21.2**	**+0.1**
DGAR				pmax	pmax		
	comp=Z,305nm,0.8s,mb6.4						
DGAR				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.0						
DGAR	**Diego Garcia**	**55.66**	**267**	*e*P	**P**	**20 08 21.2**	**+0.1**
	comp=Z,305nm,0.8s,mb6.4						
DGAR				LR	LR		
	comp=Z,12µm,21.0s,MS6.0						
HYB	**Hyderabad**	**55.70**	**298**	*e*P	**P**	**20 08 19.5**	**-1.8**
HYB				*e*S	**S**	**20 16 10.0**	**+2.7**
HYB				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.1						
HYB	**Hyderabad**	**55.70**	**298**	⇑*i*P	**P**	**20 08 19.5**	**-1.8**
	comp=Z,146nm,0.8s,mb6.1						
HYB				*e*S	**S**	**20 16 08.0**	**+0.7**
HYB	**Hyderabad**	**55.70**	**298**	*e*P	**P**	**20 08 19.5**	**-1.8**
	comp=Z,190nm,1.0s,mb6.1						
HYB				*e*S	**S**	**20 16 10.0**	**+2.7**
GKN	**Gorkha**	**55.76**	**312**	*e*P	**P**	**20 08 21.3**	**-0.2**
	comp=Z,1µm,1.1s,mb6.9						
YSS	**Yuzh-Sakhalins**	**56.37**	**12**	⇑*i*P	**P**	**20 08 24.0**	**-1.5**
YSS				*e*PPP		20 11 50.0	
YSS				*e*S	**S**	**20 16 15.0**	**-0.3**
YSS				*e*PS		20 16 26.0	
YSS				MLR	MLR		
	comp=N,6µm,20.0s,MS5.8						
YSS				MLR	MLR		
	comp=Z,7µm,20.0s,MS5.7						
YSS				MLR	MLR		
	comp=E,3µm,17.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**56.37**	**12**	⇑*i*P	**P**	**20 08 25.0**	**-0.5**
YSS				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
KOLN	**Koldanda**	**56.40**	**311**	*e*P	**P**	**20 08 26.2**	**+0.1**
	comp=Z,2µm,1.1s,mb7.0						
DANN	**Dangsing**	**56.59**	**312**	*e*P	**P**	**20 08 27.4**	**-0.1**
	comp=Z,945nm,1.0s,mb6.8						
HABR	**Khabarovsk**	**56.75**	**5**	*e*P	**P**	**20 08 26.2**	**-2.0**
HABR				*e**SP	sP	20 08 32.9	-2.9
HABR				*e*		20 09 21.0	
HABR				*e*PPP		20 11 48.6	
HABR				*e*S	**S**	**20 16 20.9**	**+0.6**
HABR				*e**SS	sS	20 16 28.6	-0.8
HABR				*e*		20 18 14.9	
HABR				pmax	pmax		
	comp=E,92nm,1.5s						
HABR				pmax	pmax		
	comp=N,77nm,1.5s						
HABR				pmax	pmax		
	comp=Z,267nm,1.5s,mb6.0						
HABR				MLR	MLR		
	comp=E,5µm,19.0s,MS5.8						
HABR				MLR	MLR		
	comp=Z,8µm,18.0s,MS5.9						
HABR				MLR	MLR		
	comp=N,6µm,19.0s,MS5.8						
JBP	**Jabalpur**	**56.93**	**304**	⇑*i*P	**P**	**20 08 29.4**	**-0.6**
JBP				*e*x	x	20 08 32.5	
	comp=Z,679nm,1.2s						
JBP				*e*S	**S**	**20 16 20.6**	**-3.0**
KLR	**Kul'dur**	**57.30**	**2**	⇓*e*P	**P**	**20 08 27.3**	**-4.8**
KLR				pmax	pmax		
	comp=Z,230nm,1.8s,mb5.9						
KLR				pmax	pmax		
	comp=Z,4µm,10.5s						
KLR				MLR	MLR		
	comp=E,1µm,16.0s						
KLR				MLR	MLR		
	comp=Z,5µm,16.0s,MS5.8						
MNGI	**Mangalore**	**57.48**	**291**	*e*PKP	**P**	**20 08 34.5**	**+0.5**
MNGI				*i* x	x	20 16 16.6	
HIA	**Hailar**	**57.80**	**353**	*e*P	**P**	**20 08 35.9**	**+0.3**
HIA				pmax	pmax		
	comp=Z,191nm,1.7s						
HIA				MLR	MLR		
	comp=Z,13µm,21.0s						
HIA	**Hailar**	**57.80**	**353**	*e*P	**P**	**20 08 35.9**	**+0.3**
	comp=Z,191nm,1.7s,mb5.8						
HIA				LR	LR		
	comp=Z,13µm,21.0s,MS6.0						
AFI	**Afiamalu**	**58.60**	**101**	PFAKE		20 09 00.0	+18
AFI				LR	LR		
	comp=Z,10µm,22.0s,MS5.9						
DRV	**Dumont d'Urvil**	**58.85**	**175**	P	**P**	**20 08 45.0**	**+2.3**
DRV				S	**S**	**20 16 45.0**	**-2.4**
DRV				R		20 27 00.0	
ULN	**Ulaanbaatar**	**59.05**	**343**	PFAKE		20 09 00.0	+16
ULN				LR	LR		
	comp=Z,7µm,20.0s,MS5.8						
SONM	**Songino Array**	**59.22**	**343**	P	**P**	**20 08 45.8**	**+0.3**
SONM				pmax	pmax		
	comp=Z,76nm,1.0s						
SONM				MLR	MLR		
	comp=Z,8µm,21.3s						
SONM				pmax	pmax		
	comp=Z,2.0nm,1.1s						
SONM				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SONM	**Songino Array**	**59.22**	**343**	P	**P**	**20 08 45.8**	**+0.3**
	comp=Z,76nm,1.0s,mb5.7,baz=160,slow=5.7,SNR=168						
SONM				LR	LR	20 34 59.0	
	comp=Z,8µm,21.3s,MS5.8,baz=213,slow=37						
SONM				PKPPKP		20 38 09.0	
	comp=Z,1.8nm,1.1s,baz=266,slow=1.7,SNR=4.5						
SONM				PKP2bc		20 38 29.3	
	comp=Z,10nm,1.0s,baz=307,slow=1.8,SNR=15						
SONM	**Songino Array**	**59.22**	**343**	P	**P**	**20 08 45.8**	**+0.3**
SONM				LR	LR	20 34 59.0	
SONM				P'P'		20 38 09.0	
SONM				⇑*e*		20 38 29.3	
CASY	**Casey**	**59.28**	**188**	*e*P	**P**	**20 08 46.1**	**+0.4**
CASY	**Casey**	**59.28**	**188**	*e*P	**P**	**20 08 45.7**	**0.0**
	comp=Z,201nm,1.4s,mb6.0						
CASY				LR	LR		
	comp=Z,20µm,19.0s,MS6.3						
KAD	**Karad**	**59.52**	**296**	*e*PKP	**P**	**20 08 48.4**	**+0.1**
LGTI	**Lohaghat**	**59.79**	**311**	*e*x	**P**	**20 08 47.1**	**-2.8**
LGTI				*e*x	x	20 11 14.1	
PTH	**Pithoragarh**	**59.86**	**311**	*e*PKP	**P**	**20 08 50.0**	**-0.4**
POO	**Poona**	**60.26**	**297**	*e*PKP	**P**	**20 08 52.8**	**-0.5**
CIT	**Chita**	**61.42**	**349**	*e*P	**P**	**20 09 01.0**	**+0.5**
CIT				*e*	pP	20 09 06.4	+0.4
CIT				pmax	pmax		
	comp=Z,277nm,2.9s,mb5.9						
NDI	**New Delhi**	**61.71**	**309**	*i* P	**P**	**20 09 02.0**	**-1.0**
NDI				*e*x	x	20 17 16.0	
DDI	**Dehra Dun**	**61.87**	**311**	*e*PKP	**P**	**20 09 01.6**	**-2.4**
DDI				*e*x	x	20 17 39.3	
ZAK	**Zakamensk**	**62.42**	**342**	⇓*i*P	**P**	**20 09 06.9**	**-0.4**
ZAK				*e*		20 17 34.2	
ZAK				pmax	pmax		
	comp=Z,98nm,1.7s,mb5.7						
AJM	**Ajmer**	**62.74**	**305**	*e*PKP	**P**	**20 09 09.3**	**-0.7**
AJM				AMb	AMB	20 09 11.7	
	comp=Z,348nm,0.9s,mb6.5						
BHV	**Bhavnagar**	**62.93**	**299**	*e*PKP	**P**	**20 09 09.5**	**-1.8**
MIR	**Mirnyy**	**63.10**	**195**	*c* *i*P	**P**	**20 09 20.0**	**+8.4**
MIR				*i* S	**S**	**20 17 44.0**	**+2.4**
MIR				pmax	pmax		
	comp=Z,4µm,6.0s						
MIR				MLR	MLR		
	comp=Z,37µm,18.0s,MS6.6						
SDNR	**Sundarnagar**	**63.26**	**311**	*e*PKP	**P**	**20 09 13.4**	**+0.1**
TLY	**Talaya**	**63.45**	**343**	P	**P**	**20 09 14.7**	**+0.6**
	comp=Z,319nm,1.4s,mb6.3,SNR=25						
TLY	**Talaya**	**63.45**	**343**	*c* *i*P	**P**	**20 09 14.7**	**+0.6**
TLY				*e*		20 11 29.4	
TLY				*e*S	**S**	**20 17 52.5**	**+6.2**
TLY				pmax	pmax		
	comp=Z,186nm,2.0s,mb5.9						
PAF	**Port-aux-Franc**	**63.48**	**219**	PFAKE		20 09 30.0	+16
PAF				LR	LR		
	comp=Z,8µm,20.0s,MS5.9						
BHK	**Bhakra**	**63.63**	**311**	*e*PKP	**P**	**20 09 13.5**	**-2.3**
WMQ	**Urumqi**	**63.73**	**328**	⇑*i*P	**P**	**20 09 16.3**	**+0.2**
WMQ				pP	pP	20 09 21.0	-0.7
WMQ				sP	sP	20 09 23.5	-0.3
WMQ				PcP	PcP	20 09 53.0	+0.9
WMQ				PP	PP	20 11 39.0	+2.5
WMQ				PcS		20 13 55.0	
WMQ				S	**S**	**20 17 48.0**	**-2.1**
WMQ				ScS	ScS	20 19 06.0	-3.0
WMQ				SS	SS	20 21 58.0	-0.3
WMQ				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.1						
WMQ				pmax	pmax		
	comp=Z,1µm,4.7s						
WMQ				LR	LR		
	comp=N,10µm,18.5s,MS6.1						
WMQ				LR	LR		
	comp=E,6µm,19.2s,MS6.1						
WMQ				LR	LR		
	comp=Z,8µm,19.9s,MS5.9						
IRK	**Irkutsk**	**63.77**	**344**	*e*P	**P**	**20 09 16.2**	**0.0**
IRK				*e*S	**S**	**20 18 01.3**	**+11**
IRK				pmax	pmax		
	comp=Z,293nm,2.2s,mb5.9						
MOY	**Mondy**	**64.25**	**341**	*e*P	**P**	**20 09 20.1**	**+0.7**
MOY				pmax	pmax		
	comp=Z,683nm,2.3s,mb6.3						
DLH	**Dalhousie**	**64.51**	**312**	*e*PKP	**P**	**20 09 22.0**	**+0.5**
CLNS	**Chul'man**	**64.93**	**358**	*e*P	**P**	**20 09 22.2**	**-1.5**
CLNS				*e*		20 09 56.7	
CLNS				*e*		20 11 40.8	
CLNS				*e*S	**S**	**20 18 04.1**	**-0.3**
CLNS				*e*		20 19 11.7	
CLNS				*e*SS	SS	20 22 12.0	-4.5
CLNS				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.3						
CLNS				pmax	pmax		
	comp=N,26nm,1.3s						
CLNS				pmax	pmax		
	comp=E,5.0nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
CLNS				pmax	pmax		
	comp=N,26nm,1.2s						
CLNS				pmax	pmax		
	comp=E,14nm,1.0s						
CLNS				smax			
	comp=N,2µm,13.0s						
CLNS				smax			
	comp=E,823nm,13.0s						
CLNS				MLR	MLR		
	comp=Z,11µm,23.0s,MS6.0						
CLNS				MLR	MLR		
	comp=N,8µm,23.0s,MS5.9						
CLNS				MLR	MLR		
	comp=E,2µm,19.0s,MS5.9						
PEA0B	**Petropavlovsk-**	**65.92**	**19**	*e*P	**P**	**20 09 30.7**	**+0.6**
PETK	**Petropavlovsk-**	**65.92**	**19**	P	**P**	**20 09 29.9**	**-0.3**
PETK						20 10 01.3	
PETK				pmax	pmax		
	comp=Z,153nm,0.9s,mb6.0						
PETK				pmax	pmax		
	comp=Z,49nm,0.8s,mb5.6						
PETK				MLR	MLR		
	comp=Z,4µm,18.9s,MS5.6						
PETK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
PETK	**Petropavlovsk-**	**65.92**	**19**	P	**P**	**20 09 29.9**	**-0.3**
	comp=Z,152nm,0.8s,mb6.0,baz=180,slow=2.0,SNR=86						
PETK				PcP	PcP	20 10 01.2	+0.3
	comp=Z,49nm,0.8s,baz=168,slow=4.6,SNR=4.5						
PETK				LR	LR	20 37 01.4	
	comp=Z,4µm,18.9s,MS5.6,baz=203,slow=35						
PETK				PKP2bc		20 38 09.0	
	comp=Z,8.4nm,1.1s,baz=0.0,slow=1.6,SNR=3.6						
PETK	**Petropavlovsk-**	**65.92**	**19**	P	**P**	**20 09 29.9**	**-0.3**
PETK				PcP	PcP	20 10 01.2	+0.3
PETK				LR	LR	20 37 01.4	
PETK				⇑*e*		20 38 09.0	
PET	**Petropavlovsk**	**66.15**	**19**	⇓*i*P	**P**	**20 09 32.3**	**+0.6**
PET				*e*PS		20 18 55.2	
PET				*e*SS	SS	20 22 34.1	-1.6
PET				pmax	pmax		
	comp=Z,2µm,4.4s						
PET				pmax	pmax		
	comp=Z,207nm,1.0s,mb6.1						
PET				pmax	pmax		
	comp=Z,3µm,16.9s						
PET				pmax	pmax		
	comp=Z,2µm,5.7s						
PET				pmax	pmax		
	comp=Z,2µm,17.0s						
PET				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.8						
PET				MLR	MLR		
	comp=Z,4µm,17.0s						
PET	**Petropavlovsk**	**66.15**	**19**	⇓*e*P	**P**	**20 09 32.5**	**+0.8**
PET				LR	LR		
	comp=Z,8µm,22.0s,MS5.9						
BOD	**Bodaibo**	**66.92**	**352**	⇓*i*P	**P**	**20 09 35.8**	**-0.7**
BOD				pmax	pmax		
	comp=Z,77nm,1.7s,mb5.5						
KSH	**Kashi**	**68.05**	**318**	P	**P**	**20 09 44.5**	**+0.4**
KSH				*e*pP	pP	20 09 48.9	-0.8
KSH				*e*sP	sP	20 09 51.1	-0.7
KSH				*e*PcP	PcP	20 10 10.3	+0.1
KSH				*e*PP	PP	20 12 16.1	+1.6
KSH				*e*S	S	20 18 40.9	-2.1
KSH				*e*ScS	ScS	20 19 39.0	-3.6
KSH				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.2						
KSH				pmax	pmax		
	comp=Z,2µm,4.0s						
KSH				LR	LR		
	comp=N,16µm,24.3s						
KSH				LR	LR		
	comp=E,8µm,13.5s						
KSH				LR	LR		
	comp=Z,8µm,15.6s						
MK31	**Makanchi Array**	**68.55**	**328**	*e*P	**P**	**20 09 46.9**	**-0.2**
MKAR	**Makanchi Array**	**68.55**	**328**	P	**P**	**20 09 47.0**	**-0.1**
	comp=Z,134nm,0.9s,mb5.9,baz=119,slow=6.0,SNR=500						
MKAR				PKPPKP		20 37 51.1	
	comp=Z,1.0nm,1.0s,baz=298,slow=2.6,SNR=4.2						
MKAR				LR	LR	20 43 51.8	
	comp=Z,4µm,18.9s,MS5.7,baz=131,slow=40						
MKAR				P4KPbc		20 46 34.8	
	comp=Z,1.2nm,0.9s,baz=123,slow=5.4,SNR=8.2						
MKAR	**Makanchi Array**	**68.55**	**328**	P	**P**	**20 09 47.0**	**-0.1**
MKAR				P'P'		20 37 51.1	
MKAR				LR	LR	20 43 51.8	

ULHL	**Ulahol**	69.35	321	P	P	20 09 54.4	+2.3
	SNR=8.6						
KZA	**Kyzart**	69.88	320	P	P	20 09 56.5	+1.1
	SNR=86						
RAR	**Rarotonga**	69.92	110	*e*P	P	20 09 56.3	+0.2
RAR				pmax	pmax		
	comp=Z,424nm,1.4s						
RAR				MLR	MLR		
	comp=Z,5µm,20.0s						
RAR	**Rarotonga**	69.92	110	*e*P	P	20 09 56.3	+0.1
	comp=Z,424nm,1.4s,mb6.2						
RAR				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
YAK	**Yakutsk**	70.07	1	c *i*P	P	20 09 55.4	-0.7
YAK				e*PP	pP	20 10 20.1	+18
YAK				*e*		20 12 32.5	
YAK				*e*S	S	20 19 01.3	-4.6
YAK				e*SS	sS	20 19 45.1	+30
YAK				*e*		20 19 54.3	
YAK				pmax	pmax		
	comp=Z,250nm,1.0s,mb6.1						
YAK				pmax	pmax		
	comp=N,124nm,1.2s						
YAK				pmax	pmax		
	comp=E,40nm,1.0s						
YAK				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.3						
YAK				smax			
	comp=N,288nm,3.0s						
YAK				smax			
	comp=E,335nm,1.6s						
YAK	**Yakutsk**	70.07	1	⇑*i*P	P	20 09 55.2	-0.9
YAK				LR	LR		
	comp=Z,9µm,21.0s,MS6.0						
TKM2	**Tokmak 2**	70.11	321	*e*P	P	20 09 57.2	+0.4
TKM2				pmax	pmax		
	comp=Z,201nm,1.4s,mb5.9						
TKM2				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.7						
TKM2	**Tokmak 2**	70.11	321	P	P	20 09 57.4	+0.5
	SNR=79						
TKM2	**Tokmak 2**	70.11	321	*e*P	P	20 09 57.1	+0.3
	comp=Z,201nm,1.4s,mb5.9						
TKM2				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
KBK	**Karagaybulak**	70.37	321	P	P	20 09 58.9	+0.5
	SNR=88						
UCH	**Uchtor**	70.42	320	P	P	20 09 59.8	+1.1
	SNR=75						
UCH	**Uchtor**	70.42	320	*e*P	P	20 09 59.5	+0.8
	comp=Z,215nm,1.4s,mb5.9						
UCH				LR	LR		
	comp=Z,10µm,22.0s,MS6.0						
KRAR	**Krasnoyarsk**	70.55	340	c *i*P	P	20 09 59.2	0.0
KRAR				pmax	pmax		
	comp=Z,153nm,1.2s,mb5.8						
KBL	**Kabul**	70.56	311	*e*P	P	20 09 59.1	-0.7
KBL				pmax	pmax		
	comp=Z,69nm,1.0s,mb5.5						
KBL	**Kabul**	70.56	311	*e*P	P	20 09 59.1	-0.7
	comp=Z,70nm,1.0s,mb5.5						
AAK	**Ala-Archa**	70.65	321	c *i*P	P	20 10 00.8	+0.7
AAK				pmax	pmax		
	comp=Z,119nm,1.4s,mb5.6						
AAK	**Ala-Archa**	70.65	321	P	P	20 10 00.9	+0.8
	SNR=108						
FRU	**Bishkek**	70.67	321	*i* P	P	20 10 00.0	-0.3
FRU				pmax	pmax		
	comp=Z,280nm,2.0s,mb5.8						
FRU				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.9						
CHMS	**Chumysh**	70.68	321	P	P	20 10 00.3	0.0
	SNR=22						
AML	**Almayashu**	70.89	320	P	P	20 10 02.5	+1.0
	SNR=148						
AML	**Almayashu**	70.89	320	*e*P	P	20 10 02.4	+0.8
	comp=Z,73nm,1.0s,mb5.6						
AML				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
USP	**Ospenovka**	70.98	321	P	P	20 10 01.9	-0.2
	SNR=221						
EKS2	**Erkin-Say**	71.11	320	P	P	20 10 03.7	+0.8
	SNR=131						
EKS2	**Erkin-Say**	71.11	320	*e*P	P	20 10 03.4	+0.5
	comp=Z,19nm,1.1s,mb4.9						
EKS2				LR	LR		
	comp=Z,7µm,22.0s,MS5.9						
RER	**Riviere de l'E**	71.19	250	*e*P	P	20 10 01.3	-2.6
	comp=Z,181nm,0.9s,mb6.0						
RER				LR	LR		
	comp=Z,7µm,22.0s,MS5.9						
VNDA	**Vanda**	71.38	173	P	P	20 10 04.3	+0.3
VNDA				pmax	pmax		
	comp=Z,62nm,1.3s						
VNDA				MLR	MLR		
	comp=Z,16µm,18.4s						
VNDA	**Vanda**	71.38	173	P	P	20 10 04.2	+0.3
	comp=Z,62nm,1.3s,mb5.4,baz=329,slow=4.3,SNR=15						
VNDA				LR	LR	20 41 03.4	
	comp=Z,16µm,18.4s,MS6.3,baz=344,slow=36						
FX1	**Attu Island--F**	71.67	27	P	P	20 10 06.0	0.0
FX1				pmax	pmax		
	comp=Z,69nm,0.6s						
FX1				MLR	MLR		
	comp=Z,7µm,21.5s						
FX1	**Attu Island--F**	71.67	27	P	P	20 10 06.0	0.0
	comp=Z,68nm,0.6s,mb5.8,baz=238,slow=1.5,SNR=23						
FX1				LR	LR	20 37 43.2	
	comp=Z,7µm,21.5s,MS5.9,baz=246,slow=33						
SMY	**Shemya**	71.98	27	*e*P	P	20 10 09.3	+1.4
SMY				pmax	pmax		
	comp=Z,998nm,1.4s,mb6.5						
SMY	**Shemya**	71.98	27	*e*P	P	20 10 09.3	+1.4
	comp=Z,998nm,1.4s,mb6.5						
ZAA0	**Zalesovo Array**	72.12	335	*e*P	P	20 10 07.6	-1.2
ZALV	**Zalesovo Beam**	72.12	335	P	P	20 10 07.9	-0.8
ZALV				S	S	20 19 26.7	-3.4
ZALV				pmax	pmax		
	comp=Z,272nm,0.9s,mb6.2						
ZALV				smax			
	comp=N,2.0nm,0.9s						
ZALV				MLR	MLR		
	comp=Z,4µm,21.2s,MS5.7						
ZALV	**Zalesovo Beam**	72.12	335	P	P	20 10 07.8	-0.9
	comp=Z,272nm,0.9s,mb6.2,baz=127,slow=3.9,SNR=307						
ZALV				S	S	20 19 26.7	-3.3
	comp=Z,2.0nm,0.8s,baz=274,slow=21,SNR=5.3						
ZALV				PKP2bc		20 37 50.1	
	comp=Z,0.3nm,0.4s,baz=196,slow=1.1,SNR=3.9						
ZALV				LR	LR	20 43 39.7	
	comp=Z,4µm,21.2s,MS5.7,baz=151,slow=37						
ZALV	**Zalesovo Beam**	72.12	335	P	P	20 10 07.8	-0.9
ZALV				S	S	20 19 26.7	-3.3
ZALV				⇑*e*		20 37 50.1	
ZALV				LR	LR	20 43 39.7	
SBA	**Scott Base**	72.28	172	PFAKE		20 10 20.0	+11
SBA				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
MSEY	**Mahe Island**	72.73	268	PFAKE		20 10 30.0	+17
MSEY				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
KURK	**Kurchatov**	72.90	329	P	P	20 10 12.9	-0.5
KURK				pmax	pmax		
	comp=Z,415nm,0.9s,mb6.4						
KURK				pmax	pmax		
	comp=Z,2.0nm,1.1s						
KURK	**Kurchatov**	72.90	329	P	P	20 10 12.9	-0.6
	comp=Z,414nm,0.9s,mb6.3,baz=131,slow=4.8,SNR=147						
KURK				PKP2bc		20 37 45.1	
	comp=Z,2.2nm,1.1s,baz=279,slow=2.8,SNR=5.3						
KURK	**Kurchatov**	72.90	329	P	P	20 10 12.9	-0.6
KURK				⇑*e*		20 37 45.1	
KURK				LR	LR		
	comp=Z,7µm,21.0s,MS5.9						
SEY	**Seymchan**	73.27	11	⇑*e*P	P	20 10 15.8	+0.4
MAW	**Mawson**	73.31	201	P	P	20 10 16.4	+0.7
MAW				pmax	pmax		
	comp=Z,51nm,0.6s						
MAW				MLR	MLR		
	comp=Z,12µm,18.7s						
MAW	**Mawson**	73.31	201	*e*P	P	20 10 17.5	+1.8
	comp=Z,129nm,1.7s,mb5.6						
MAW	**Mawson**	73.31	201	P	P	20 10 16.4	+0.7
	comp=Z,51nm,0.6s,mb5.6,baz=82,slow=7.3,SNR=18						
MAW				LR	LR	20 40 22.6	
	comp=Z,12µm,18.7s,MS6.2,baz=62,slow=34						
NVS	**Novosibirsk**	73.41	335	⇑*i*P	P	20 10 15.4	-1.0
NVS				*e*		20 10 36.2	
NVS				*e*		20 13 05.2	
NVS				*i* S	S	20 19 40.7	-4.0
NVS				*e*PS		20 20 30.4	
NVS				pmax	pmax		
	comp=Z,465nm,1.2s,mb6.3						
NVS				pmax	pmax		
	comp=N,372nm,1.4s						
NVS				pmax	pmax		
	comp=E,356nm,1.4s						
NVS				pmax	pmax		
	comp=Z,77nm,1.5s,mb5.4						
NVS				pmax	pmax		
	comp=N,89nm,1.8s						
NVS				pmax	pmax		
	comp=E,72nm,1.8s						
NVS				smax			
	comp=N,530nm,2.2s						
NVS				smax			
	comp=E,355nm,1.9s						
XMAS	**Kiritimati**	74.37	86	PFAKE		20 10 40.0	+17
XMAS				LR	LR		
	comp=Z,8µm,21.0s,MS6.0						
WBK	**Wadi Bani Khal**	74.76	296	P	P	20 10 25.3	+0.4
	SNR=10.0						
JMDO	**Jabal Madar**	75.47	296	P	P	20 10 29.1	0.0
	SNR=12						
SMDO	**Samad**	75.70	296	P	P	20 10 30.1	-0.3
	SNR=18						
BIDO	**Bidbid**	75.75	297	P	P	20 10 30.6	-0.1
	SNR=22						
BSY	**Bisya**	76.37	296	P	P	20 10 33.3	-0.9
	SNR=20						
HOQ	**Hoqain**	76.49	297	P	P	20 10 34.8	-0.1
	SNR=22						
ARQ	**Araqi**	77.12	296	P	P	20 10 38.5	0.0
	SNR=11						
HON	**Honolulu**	77.69	66	*e*P	P	20 10 44.0	+2.3
KIP	**Kipapa**	77.70	66	⇓*e*P	P	20 10 43.3	+1.5
KIP	**Kipapa**	77.70	66	*e*P	P	20 10 43.5	+1.8
	comp=Z,509nm,1.4s,mb6.3						
KIP				LR	LR		
	comp=Z,6µm,19.0s,MS5.9						
HATD	**Hatta, Dubai**	77.85	298	P	P	20 10 41.8	-0.7
	SNR=21						
BANOM	**Banah**	77.99	299	P	P	20 10 44.1	+0.8
	SNR=9.1						
FAQ	**Al Faqa, Dubai**	78.31	297	P	P	20 10 44.6	-0.4
	SNR=19						
NAZ	**Nazwa, Dubai**	78.31	298	P	P	20 10 44.3	-0.7
	SNR=18						
WHFO	**Wadi Hawf**	78.35	290	P	P	20 10 44.8	-0.6
	SNR=14						
BVAR	**Borovoye Array**	78.42	328	PKKPbc	PKKPbc	20 29 43.4	-1.4
	comp=Z,0.9nm,0.7s,baz=256,slow=2.4,SNR=3.9						
BRVK	**Borovoye**	78.49	328	⇑*i*P	P	20 10 45.2	-0.2
BRVK				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
ABTO	**Aybut**	78.67	290	P	P	20 10 47.2	0.0
	SNR=7.7						
ABPO	**Ambohimpanom**	79.31	252	*e*P	P	20 10 52.4	+1.7
ABPO				pmax	pmax		
	comp=Z,348nm,1.7s,mb6.0						
ABPO				MLR	MLR		
	comp=Z,7µm,22.0s,MS6.0						
ABPO	**Ambohimpanom**	79.31	252	*e*P	P	20 10 52.4	+1.7
	comp=Z,348nm,1.7s,mb6.0						
ABPO				LR	LR		
	comp=Z,7µm,22.0s,MS6.0						
OPO	**Ambohidratompo**	79.38	253	P	P	20 10 52.1	+1.0
	comp=Z,32nm,1.0s,mb5.2,baz=92,slow=6.0,SNR=19						
OPO				S	S	20 20 56.0	+4.2
	comp=Z,2.0nm,0.8s,baz=12,slow=4.0,SNR=3.3						
POHA	**Pohakuloa**	79.58	68	PFAKE		20 11 00.0	+7.9
POHA				LR	LR		
	comp=Z,7µm,21.0s,MS6.0						
TIXI	**Tiksi**	79.73	0	c *i*P	P	20 10 50.3	-1.5
TIXI				pmax	pmax		
	comp=Z,200nm,1.3s,mb5.9						
PAE	**Paea**	79.73	106	*e*P	P	20 10 55.0	+2.0
	comp=Z,2µm,1.3s,mb7.0						
PAE	**Paea**	79.73	106	*e*P	P	20 10 55.0	+2.0
PAE				pmax	pmax		
	comp=Z,2µm,1.3s,mb7.0						
PPT	**Papeete**	79.74	106	*e*P	P	20 10 55.6	+2.5
	comp=Z,140nm,1.3s,mb5.7						
PPT	**Papeete**	79.74	106	*e*PP	PP	20 13 52.8	-1.5
	comp=Z,670nm,24.2s						
PPT				*e*S	S	20 20 49.6	-6.0
	comp=Z,10µm,28.0s						
PPT				*e*SS	SS	20 25 58.2	-6.4
	comp=Z,5µm,24.8s						
PPT				*e*LQ		20 32 11.1	
	comp=Z,12µm,29.2s						
PPT				*e*LR	LR	20 35 32.8	
	comp=Z,16µm,24.0s,baz=256						
PPT	**Papeete**	79.74	106	P	P	20 10 54.9	+1.8
PPT				pmax	pmax		
	comp=Z,33nm,0.3s						
PPT				MLR	MLR		
	comp=Z,5µm,22.0s						
PPT	**Papeete**	79.74	106	P	P	20 10 54.9	+1.8
	comp=Z,33nm,0.3s,mb5.8,baz=173,slow=2.7,SNR=7.8						
PPT				LR	LR	20 42 24.1	
	comp=Z,5µm,21.9s,MS5.8,baz=268,slow=33						
TIAR	**Tiarei**	79.96	106	*e*P	P	20 10 56.8	+2.5
	comp=Z,3µm,1.3s,mb7.0						
ABKT	**Ailbek**	80.01	311	P	P	20 10 54.6	+0.5
	comp=Z,274nm,1.3s,mb6.0,SNR=22						
TVO	**Taravao**	80.03	107	*e*P	P	20 10 57.3	+2.7
	comp=Z,3µm,1.4s,mb7.1						
TVO	**Taravao**	80.03	107	*e*P	P	20 10 57.3	+2.7
TVO				pmax	pmax		
	comp=Z,3µm,1.4s,mb7.1						
BILL	**Bilibino**	80.62	13	*e*P	P	20 10 55.9	-0.8
BILL				*i*		20 11 06.4	
BILL				*e*		20 14 01.1	
BILL				*i* S	S	20 20 57.3	-5.6
BILL				pmax	pmax		
	comp=Z,41nm,1.6s,mb5.1						
BILL				MLR	MLR		
	comp=Z,21µm,19.0s,MS6.5						
MEH	**Mehetia**	81.14	107	*e*P	P	20 11 02.7	+2.1
	comp=Z,3µm,1.3s,mb7.1						
PMOR	**Pomariorio Ree**	81.61	104	*e*P	P	20 11 05.4	+2.3
	comp=Z,456nm,1.3s,mb6.3						
QSPA	**South Pole Qui**	81.74	180	P	P	20 11 03.3	+0.7
	comp=Z,142nm,0.9s,mb5.9,baz=334,slow=2.0,SNR=86						
QSPA				S	S	20 21 10.9	-3.4
	comp=Z,1.3nm,0.7s,baz=206,slow=22,SNR=8.2						
QSPA				PKKPbc	PKKPbc	20 29 35.8	-1.7
	comp=Z,8.2nm,1.0s,baz=230,slow=2.1,SNR=6.4						
QSPA	**South Pole Qui**	81.74	180	P	P	20 11 03.3	+0.7
QSPA				S	S	20 21 10.9	-3.4
QSPA				PKKPbc	PKKPbc	20 29 35.8	-1.7
VAH	**Vaihoa**	81.84	104	*e*P	P	20 11 06.4	+2.1
	comp=Z,296nm,1.3s,mb6.0						
SYO	**Syowa Base**	82.03	201	⇓*i*P	P	20 11 04.0	-0.3
SYO	**Syowa Base**	82.03	201	⇓*i*P	P	20 11 06.4	+2.1
AKUT	**Akutan**	82.78	33	*e*P	P	20 11 08.5	+0.1
	comp=Z,2µm,1.4s,mb7.0						
AKTO	**Aktyubinsk**	84.25	323	S	S	20 21 38.4	-2.3
	comp=Z,3.0nm,0.9s,baz=314,slow=22,SNR=16						
AKTO				PKKPbc	PKKPbc	20 29 30.5	-0.8
	comp=Z,4.2nm,0.9s,baz=322,slow=2.9,SNR=8.4						
GAMB	**Gambell**	84.57	23	*e*P	P	20 11 17.8	+0.5
	comp=Z,536nm,1.3s,mb6.5						
SVE	**Sverdlovsk**	85.15	329	⇓*e*P	P	20 11 19.7	-0.7
SVE				*e*		20 14 38.5	
SVE				*e*S	S	20 21 42.3	-7.1
SVE				pmax	pmax		
	comp=Z,461nm,1.2s,mb6.5						
SVE				pmax	pmax		
	comp=Z,2µm,13.9s						
QRN	**Al-Qurain**	85.90	300	*e*P	P	20 11 23.7	-1.1
QRN				AMb	AMB	20 11 25.8	
	comp=Z,194nm,1.3s,mb6.2						
ARU	**Arti**	86.06	328	P	P	20 11 24.5	-0.5
	comp=Z,2µm,1.1s,mb7.2,SNR=26						
ARU	**Arti**	86.06	328	*e*P	P	20 11 24.3	-0.7
ARU				*e*		20 14 42.2	
ARU				*e*PPP		20 16 37.6	
ARU				*e*S	S	20 21 49.4	-9.0
ARU				SS	SS	20 27 36.1	-0.8
ARU	**Arti**	86.06	328	⇑*i*P	P	20 11 24.5	-0.5
ARU				LR	LR		
	comp=Z,5µm,21.0s,MS5.9						
SDPT	**Sand Point**	86.08	33	*e*P	P	20 11 25.0	-0.1
	comp=Z,1µm,1.0s,mb7.1						
KBD	**Kabd**	86.18	300	*e*P	P	20 11 25.1	-1.1
KBD				AMb	AMB	20 11 27.2	
	comp=Z,69nm,1.8s,mb5.6						
RDF	**Al-Radifah**	86.25	300	*e*P	P	20 11 25.8	-0.8
RDF				AMb	AMB	20 11 31.4	
	comp=Z,170nm,0.9s,mb6.3						
NAY	**Al-Naaiem**	86.58	300	*e*P	P	20 11 27.2	-0.9
NAY				AMb	AMB	20 11 29.7	
	comp=Z,113nm,1.6s,mb5.8						
MIB	**Mutribah**	86.60	301	*e*P	P	20 11 27.5	-0.8
MIB				AMb	AMB	20 11 30.7	
	comp=Z,244nm,1.1s,mb6.3						
TNA	**Tin City**	86.86	22	*e*P	P	20 11 28.2	-0.5
	comp=Z,29nm,0.9s,mb5.5						
CHGN	**Chignik**	87.49	32	*e*P	P	20 11 31.1	-0.9
SOKR	**Solikamsk**	88.05	331	c *i*P	P	20 11 33.4	-1.1
SOKR				S	SKSac	20 22 02.5	+0.4
SOKR				pmax	pmax		
	comp=Z,90nm,1.0s,mb6.0						
SOKR				MLR	MLR		
	comp=Z,6µm,21.0s,MS6.0						
MAK	**Makhachkala**	89.15	313	c *i*P	P	20 11 40.8	+0.7
MAK				*i*		20 11 49.8	
MAK				*e*		20 15 09.4	
MAK				*e*PPP		20 17 05.9	
MAK				*i* S	SKSac	20 22 08.3	-1.1
MAK				pmax	pmax		
	comp=Z,242nm,1.7s,mb6.2						
MAK				pmax	pmax		
	comp=N,157nm,1.5s						
MAK				pmax	pmax		
	comp=E,245nm,1.9s						
MAK				pmax	pmax		
	comp=Z,2µm,4.1s						
MAK				pmax	pmax		
	comp=N,581nm,3.5s						
MAK				pmax	pmax		
	comp=E,382nm,2.7s						
MAK				smax			
	comp=N,2µm,5.6s						
MAK				smax			
	comp=E,5µm,6.8s						
MAK	**Makhachkala**	89.15	313	⇓*i*P	P	20 11 41.2	+1.1
BHD	**Baghdad**	89.73	304	*e*x	x	20 11 43.0	
BHD				*e*x	x	20 15 14.0	
BHD				*e*x	x	20 22 35.0	
TAOE	**Nuku Hiva Isla**	89.91	99	*e*P	P	20 11 47.0	+2.6
	comp=E,754nm,1.3s,mb6.9						
TAOE				*e*S	S	20 22 32.6	-4.3
	comp=E,22µm,29.1s						
TAOE				*e*SS	SS	20 28 26.8	-8.0
	comp=E,7µm,29.1s						
TAOE				*e*LR	LR	20 40 18.5	
	comp=E,16µm,23.5s						
TAOE	**Nuku Hiva Isla**	89.91	99	*e*P	P	20 11 47.0	+2.6
	comp=E,754nm,1.3s,mb6.9						
TAOE				*e*S	S	20 22 32.6	-4.3
TAOE				*e*SS	SS	20 28 26.8	-8.0
SVW2	**Sparrevohn**	90.36	28	*e*P	P	20 11 45.8	+0.5
OHAK	**Old Harbor**	90.46	32	*e*P	P	20 11 46.7	+0.8
	comp=E,416nm,1.3s,mb6.6						
DESE	**Dese**	90.62	281	*e*P	P	20 11 47.4	-0.2
DESE				S	SKSac	20 22 00.7	-18
GNI	**Garni**	90.64	310	c *i*P	P	20 11 47.5	+0.3
GNI				pmax	pmax		
	comp=Z,54nm,1.3s						
GNI	**Garni**	90.64	310	⇑*i*P	P	20 11 47.6	+0.4
GNI				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
NVL	**N'lazarevskaya**	90.78	197	*e*P	P	20 11 49.3	+2.0
NVL				pmax	pmax		
	comp=Z,91nm,1.3s,mb6.0						
NVL				MLR	MLR		
	comp=N,3µm,19.0s,MS6.2						
NVL				MLR	MLR		
	comp=E,8µm,19.0s,MS6.2						
NVL				MLR	MLR		
	comp=Z,13µm,19.0s,MS6.4						
MAIT	**Maitri**	90.80	197	*e*P	P	20 11 47.2	-0.2
MTA	**Mtatsminda**	90.88	312	P	P	20 11 49.5	+1.3
TBLG	**Delisi**	90.92	312	P	P	20 11 48.5	0.0
KDAK	**Kodiak Island**	90.97	32	P	P	20 11 48.5	+0.2
KDAK				pmax	pmax		
	comp=Z,60nm,0.7s,mb6.0						
KDAK				MLR	MLR		
	comp=Z,5µm,20.8s,MS5.9						
KDAK	**Kodiak Island**	90.97	32	P	P	20 11 48.5	+0.3
	comp=Z,60nm,0.7s,mb6.0,baz=218,slow=4.2,SNR=3.7						
KDAK				LR	LR	20 50 38.1	
	comp=Z,5µm,20.8s,MS5.9,baz=253,slow=34						
HAKT	**HAKKARI**	91.00	308	*i* P	P	20 11 52.1	+3.2
KMBO	**Kilima Mbogo**	91.24	269	P	P	20 11 52.1	+1.5
KMBO				pmax	pmax		
	comp=Z,37nm,1.0s						
KMBO				MLR	MLR		
	comp=Z,7µm,20.7s						
KMBO	**Kilima Mbogo**	91.24	269	P	P	20 11 52.0	+1.5
	comp=Z,37nm,1.0s,mb5.7,baz=79,slow=5.3,SNR=50						
KMBO				LR	LR	20 50 51.8	
	comp=Z,7µm,20.7s,MS6.1,baz=98,slow=34						
FURI	**Furi**	91.24	279	*e*P	P	20 11 48.6	-1.9
FURI				S	SKSac	20 22 30.0	+7.2
MSL	**Mosul**	91.28	306	*e*x	x	20 11 55.0	
MSL				*e*x	x	20 11 55.0	
MSL				*e*x	x	20 22 27.0	
DYDN	**Diyadin**	91.34	310	*i* P	P	20 11 51.2	+0.7
TVAN	**Van**	91.39	309	*i* P	P	20 11 45.8	-4.9
GOR	**Gori**	91.43	312	P	P	20 11 51.7	+0.8
ONI	**Oni**	92.01	313	P	P	20 11 53.9	+0.5
PPLA	**Purkeypile**	92.37	27	*e*P	P	20 11 54.3	-0.4
	comp=Z,325nm,1.3s,mb6.5						
CHUM	**Lake Minchumin**	92.54	26	*e*P	P	20 11 55.3	-0.2
	comp=Z,422nm,1.1s,mb6.8						
RKT	**Rikitea**	92.60	114	*e*P	P	20 11 58.9	+2.2
	comp=Z,149nm,1.2s,mb6.3						
RKT				*e*SKSac	SKSac	20 22 26.6	-3.6
	comp=Z,4µm,25.2s						
RKT				*e*SP	SP	20 24 05.2	-6.6
	comp=Z,2µm,27.5s						
RKT				*e*SS	SS	20 29 06.3	-6.8
	comp=Z,2µm,27.2s						
RKT				*e*LR	LR	20 41 29.3	
	comp=Z,12µm,23.8s,baz=271						
RKT	**Rikitea**	92.60	114	*e*P	P	20 11 58.9	+2.2
RKT				*e*		20 22 26.6	
RKT				pmax	pmax		
	comp=Z,149nm,1.2s,mb6.3						
RKT	**Rikitea**	92.60	114	*e*P	P	20 11 58.9	+2.2
	comp=Z,149nm,1.2s,mb6.3						
RKT				*e*SKSac	SKSac	20 22 26.6	-3.6
RKT				*e*SP	SP	20 24 05.2	-6.6
RKT				*e*SS	SS	20 29 06.3	-6.8
KIV	**Kislovodsk**	92.78	314	*e*P	P	20 11 56.8	-0.2
KIV				*e*		20 15 37.7	
KIV				*e*		20 22 30.0	
KIV				*e*SS	SS	20 29 16.8	+1.8
KIV				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.3						
KIV				pmax	pmax		
	comp=Z,331nm,5.2s						
KIV	**Kislovodsk**	92.78	314	⇑*i*P	P	20 11 56.7	-0.3
KIV				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
BEST	**Besiri**	92.96	308	*i* P	P	20 11 54.1	-3.9
SEW	**Seward**	93.06	30	*e*P	P	20 11 58.0	+0.1
	comp=Z,201nm,1.3s,mb6.4						
KTH	**Kantishna Hill**	93.07	26	*e*P	P	20 11 57.0	-0.9
	comp=Z,256nm,1.1s,mb6.6						
RC01	**Rabbit Creek A**	93.11	29	*e*P	P	20 11 57.3	-0.8
	comp=Z,219nm,1.2s,mb6.5						
BPAW	**Bear Paw Mtn.**	93.16	26	*e*P	P	20 11 58.1	-0.2
	comp=Z,114nm,1.1s,mb6.2						
ERZM	**Erzurum**	93.16	310	*i* P	P	20 11 58.9	+0.1
TRF	**Thorofare Moun**	93.33	26	*e*P	P	20 11 58.0	-1.1
	comp=Z,207nm,1.3s,mb6.4						
PMR	**Palmer**	93.49	28	*e*P	P	20 11 58.7	-1.2
PMR				pmax	pmax		
	comp=Z,255nm,1.2s,mb6.5						
PMR	**Palmer**	93.49	28	*e*P	P	20 11 58.7	-1.2
	comp=Z,255nm,1.2s,mb6.5						
KOPT	**Kop Dagi**	93.84	310	*i* P	P	20 12 00.5	-1.5
PRGR	**Permogore**	93.89	332	⇓*i*P	P	20 12 00.2	-1.5
PRGR				*e*S	SKSac	20 22 35.4	-0.1

PRGR				pmax	pmax		
	comp=Z,51nm,1.5s,mb5.7						
MCK	**McKinley**	**93.98**	**26**	*e*P	**P**	**20 12 00.7**	**-1.3**
MCK				pmax	pmax		
	comp=Z,348nm,1.1s,mb6.7						
MCK	**McKinley**	**93.98**	**26**	*e*P	**P**	**20 12 00.7**	**-1.4**
	comp=Z,348nm,1.1s,mb6.7						
COLD	**Coldfoot**	**94.12**	**23**	*e*P	**P**	**20 12 02.3**	**-0.3**
	comp=Z,109nm,1.0s,mb6.2						
VRHR	**Novokhopersk**	**94.50**	**321**	*e*P	**P**	**20 12 03.4**	**-1.3**
VRHR				pmax	pmax		
	comp=Z,120nm,1.3s,mb6.2						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRHR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
VRHR				MLR	MLR		
	comp=N,4µm,28.0s						
COLA	**College**	**94.64**	**25**	*e*P	**P**	**20 12 03.5**	**-1.6**
COLA				pmax	pmax		
	comp=Z,89nm,1.1s,mb6.1						
COLA				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.8						
COLA	**College**	**94.64**	**25**	*e*P	**P**	**20 12 03.5**	**-1.6**
	comp=Z,89nm,1.1s,mb6.1						
COLA				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
ELZG	**Elazig**	**94.82**	**308**	*i* P	**P**	**20 12 06.9**	**+0.4**
SOC	**Sochi**	**94.86**	**313**	*e*P	**P**	**20 12 01.5**	**-5.1**
SOC				*e**PP	pP	20 12 12.1	-0.2
SOC				*e*		20 15 49.9	
SOC				*e*S	SKSac	20 22 39.2	-2.4
SOC				*e*		20 23 19.0	
SOC				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.8						
SOC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.6						
MALT	**Malatya**	**95.23**	**308**	P	**P**	**20 12 08.6**	**+0.2**
MALT				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.8						
MALT	**Malatya**	**95.23**	**308**	⇓*i*P	**P**	**20 12 08.9**	**+0.5**
MALT	**Malatya**	**95.23**	**308**	⇓P	**P**	**20 12 08.9**	**+0.5**
MALT				LR	LR		
	comp=Z,5µm,22.0s,MS5.9						
KEMA	**Kemaliye**	**95.29**	**309**	*i* P	**P**	**20 12 07.3**	**-1.3**
PAX	**Paxson**	**95.40**	**27**	P	**P**	**20 12 08.8**	**+0.2**
PAX				pmax	pmax		
	comp=Z,210nm,1.1s,mb6.5						
PAX	**Paxson**	**95.40**	**27**	*e*P	**P**	**20 12 08.0**	**-0.6**
	comp=Z,206nm,1.2s,mb6.4						
AKCD	**Akcadag**	**95.63**	**308**	*i* P	**P**	**20 12 09.8**	**-0.4**
VNA2	**Neumayer--Watz**	**95.72**	**193**	*e*P	**P**	**20 12 11.8**	**+1.8**
	baz=133,slow=3.9						
GZT	**Gaziantep**	**95.81**	**307**	*i* P	**P**	**20 12 06.9**	**-4.1**
ASF	**Jabal al Asfar**	**95.82**	**302**	LR	LR	21 00 10.7	
	comp=Z,5µm,18.7s,MS6.0,baz=334,slow=38						
VORD	**Divnogorie**	**95.94**	**321**	*e*P	**P**	**20 12 09.5**	**-1.8**
VORD				pmax	pmax		
	comp=Z,100nm,1.2s,mb6.1						
VORD				pmax	pmax		
	comp=N,20nm,0.6s						
VORD				pmax	pmax		
	comp=E,40nm,1.0s						
VORD				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.9						
VORD				MLR	MLR		
	comp=N,3µm,20.0s,MS5.9						
VORD				MLR	MLR		
	comp=E,2µm,21.0s,MS5.9						
VNA3	**Neumayer Olymp**	**95.99**	**192**	*e*P	**P**	**20 12 12.4**	**+1.2**
VSR	**Storozhevoye**	**96.05**	**321**	*e*P	**P**	**20 12 10.7**	**-1.1**
VSR				*e*S	S	20 23 26.6	-3.3
VSR				pmax	pmax		
	comp=N,30nm,1.3s						
VSR				pmax	pmax		
	comp=Z,100nm,1.3s,mb6.1						
VSR				pmax	pmax		
	comp=E,40nm,0.9s						
VSR				smax			
	comp=N,220nm,5.0s						
VSR				smax			
	comp=Z,90nm,4.2s						
VSR				smax			
	comp=E,130nm,4.0s						
VSR				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.9						
VSR				MLR	MLR		
	comp=N,4µm,21.0s,MS5.9						
VSR				MLR	MLR		
	comp=E,2µm,20.0s,MS5.9						
VOR	**Voronezh**	**96.08**	**321**	*e*P	**P**	**20 12 11.0**	**-0.9**
VOR				pmax	pmax		
	comp=Z,200nm,1.2s,mb6.4						
VNA1	**Neumayer--Stat**	**96.12**	**193**	*e*P	**P**	**20 12 13.2**	**+1.4**
MENT	**Mentasta**	**96.19**	**27**	*e*P	**P**	**20 12 11.9**	**-0.3**
KLMR	**Klimovskoe**	**96.72**	**330**	*e*P	**P**	**20 12 13.0**	**-1.6**
KLMR				*i* S	SKSac	20 22 49.8	-0.8
KLMR				pmax	pmax		
	comp=Z,117nm,1.5s,mb6.1						
ANDN	**Andirin**	**96.80**	**307**	*i* P	**P**	**20 12 15.1**	**-0.5**
PINB	**Pinarbasi**	**96.85**	**308**	*i* P	**P**	**20 12 15.1**	**-0.7**
TOKA	**Tokat**	**96.94**	**310**	*i* P	**P**	**20 12 13.1**	**-3.0**
EIL	**Elat**	**97.24**	**299**	S	SKSac	20 22 56.4	+1.7
	comp=Z,2.5nm,0.9s,baz=107,slow=17,SNR=4.7						
EIL				PKKPbc	PKKPbc	20 29 02.0	+4.6
	comp=Z,5.1nm,0.9s,baz=15,slow=7.9,SNR=3.7						
MOS	**Moscow**	**97.34**	**325**	*e*P	**P**	**20 12 12.8**	**-4.7**
MOS				*e*S	SKSac	20 22 47.6	-6.4
MOS				*e*SS	SS	20 30 23.6	+4.5
MOS				pmax	pmax		
	comp=Z,70nm,0.7s,mb6.2						
MOS				MLR	MLR		
	comp=Z,6µm,23.0s,MS6.0						
MOS				MLR	MLR		
	comp=E,4µm,20.0s						
EGAK	**Eagle**	**97.47**	**26**	*e*P	**P**	**20 12 17.3**	**-0.7**
	comp=E,124nm,1.2s,mb6.2						
EGAK				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
BOSA	**Boshof**	**97.70**	**240**	P	**P**	**20 12 20.5**	**+0.6**
BOSA				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.6						
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.7						
BOSA	**Boshof**	**97.70**	**240**	P	**P**	**20 12 20.5**	**+0.6**
	comp=Z,24nm,1.1s,mb5.7,baz=115,slow=5.9,SNR=14						
BOSA				PKKPbc	PKKPbc	20 28 55.8	-0.2
	comp=Z,1.7nm,0.8s,baz=322,slow=6.7,SNR=3.5						
BOSA	**Boshof**	**97.70**	**240**	P	**P**	**20 12 20.5**	**+0.6**
BOSA				PKKPbc	PKKPbc	20 28 55.8	-0.2
BOSA				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
MBAR	**Mbarara**	**97.76**	**268**	PFAKE		20 12 30.0	+10
MBAR				LR	LR		
	comp=Z,559nm,19.0s,MS5.1						
LSZ	**Lusaka**	**97.84**	**253**	*e*P	**P**	**20 12 21.4**	**+0.7**
LSZ				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.7						
LSZ				MLR	MLR		
	comp=Z,6µm,21.0s,MS6.1						
LSZ	**Lusaka**	**97.84**	**253**	*e*P	**P**	**20 12 21.4**	**+0.6**
	comp=Z,27nm,1.0s,mb5.7						
LSZ				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
OBN	**Obninsk**	**97.90**	**325**	*e*P	**P**	**20 12 19.3**	**-0.8**
OBN				*i*		20 12 27.5	
OBN				pmax	pmax		
	comp=Z,125nm,1.5s,mb6.2						
OBN	**Obninsk**	**97.90**	**325**	⇓*e*P	**P**	**20 12 19.4**	**-0.7**
OBN				LR	LR		
	comp=Z,3µm,30.0s,MS5.7						
AVNT	**Avonos**	**98.07**	**308**	*i* P	**P**	**20 12 18.8**	**-2.4**
DAWY	**Dawson**	**98.21**	**26**	*e*P	**P**	**20 12 20.9**	**-0.3**
BOYT	**Boyabat**	**98.21**	**311**	*i* P	**P**	**20 12 15.6**	**-6.3**
LBTB	**Lobatse**	**98.23**	**243**	PKKPbc	PKKPbc	20 28 55.3	+0.9
	comp=Z,2.8nm,0.9s,baz=278,slow=5.0,SNR=3.8						
SIM	**Simferopol’**	**98.98**	**314**	*e*P	**P**	**20 12 34.7**	**+10**
SIM				*e*		20 16 34.0	
SIM				*e*		20 23 04.0	
SIM				*e*PPS		20 25 57.0	
SIM				pmax	pmax		
	comp=Z,360nm,18.8s						
CSS	**Prodhromos**	**99.03**	**304**	PFAKE		20 12 40.0	+14
CSS				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
BRTR	**Keskin Array B**	**99.07**	**309**	P	**P**	**20 12 24.4**	**-1.3**
BRTR				pmax	pmax		
	comp=Z,12nm,1.1s						
BRTR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BRTR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
BRTR				MLR	MLR		
	comp=Z,4µm,21.8s						
BRTR	**Keskin Array B**	**99.07**	**309**	P	**P**	**20 12 24.4**	**-1.4**
	comp=Z,12nm,1.1s,mb5.3,baz=134,slow=3.6,SNR=22						
BRTR				PP	PP	20 16 17.2	-11
	comp=Z,6.5nm,1.0s,baz=157,slow=6.7,SNR=3.7						
BRTR				PKKPbc	PKKPbc	20 28 50.3	-2.4
	comp=Z,0.8nm,1.0s,baz=289,slow=3.8,SNR=3.6						
BRTR				LR	LR	21 04 55.3	
	comp=Z,4µm,21.8s,MS5.9,baz=102,slow=40						
LVZ	**Lovozero**	**99.10**	**338**	PFAKE		20 12 40.0	+15
LVZ				LR	LR		
	comp=Z,8µm,22.0s,MS6.2						
APA	**Apatity**	**99.58**	**337**	⇓*e*P	**P**	**20 12 24.3**	**-3.0**
APA				*e*S	S	20 23 48.0	-11
APA				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.6						
APA				MLR	MLR		
	comp=Z,6µm,22.0s,MS6.1						
SKAG	**Skagway**	**100.10**	**31**	*e*Pdif	Pdif	20 12 30.2	+0.2
KDHN	**Kadinhani**	**100.19**	**308**	*i* P	Pdif	20 12 28.5	-1.9
SUR	**Sutherland**	**100.42**	**235**	P	Pdif	20 12 31.7	+0.3
	comp=Z,30nm,1.1s,baz=120,slow=2.8,SNR=5.2						
SUR	**Sutherland**	**100.42**	**235**	P	Pdif	20 12 31.7	+0.3
SUR				LR	LR		
	comp=Z,9µm,22.0s,MS6.2						
ISP	**Isparta**	**101.43**	**307**	PFAKE		20 12 50.0	+14
ISP				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
KEV	**Kevo**	**101.73**	**340**	PFAKE		20 12 50.0	+13
KEV				LR	LR		
	comp=Z,8µm,20.0s,MS6.2						
ARCES	**ARCESS Array B**	**102.28**	**339**	P	Pdif	20 12 37.3	-2.4
ARCES				pmax	pmax		
	comp=Z,12nm,0.9s						
ARCES				pmax	pmax		
	comp=Z,20nm,1.2s						
ARCES	**ARCESS Array B**	**102.28**	**339**	P	Pdif	20 12 37.3	-2.4
	comp=Z,12nm,0.9s,baz=346,slow=1.5,SNR=11						
ARCES				PKiKP	PKiKP	20 17 03.2	+2.1
	comp=Z,20nm,1.2s,baz=101,slow=0.9,SNR=3.9						
AKASG	**Malin Array Be**	**102.31**	**320**	P	Pdif	20 12 37.9	-1.9
AKASG						20 16 52.2	
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	**Malin Array Be**	**102.31**	**320**	P	Pdif	20 12 37.9	-1.9
	comp=Z,3.7nm,0.6s,baz=74,slow=4.5,SNR=20						
AKASG				PP	PP	20 16 52.2	-0.1
	comp=Z,0.5nm,0.3s,baz=80,slow=6.5,SNR=4.9						
KIEV	**Kiev**	**102.32**	**320**	P	Pdif	20 12 39.4	-0.5
KIEV				pmax	pmax		
	comp=Z,32nm,1.5s						
KIEV	**Kiev**	**102.32**	**320**	*e*Pdif	Pdif	20 12 36.8	-3.1
	comp=Z,7.8nm,0.9s						
KIEV				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
SPB4	**Spitsbergen Ar**	**102.53**	**349**	*e*Pdif	Pdif	20 12 40.7	-0.1
KIS	**Kishinev**	**102.70**	**316**	*e*PKP	PKiKP	20 16 56.0	-6.5
TLCR		**102.74**	**314**	⇓*i*P	Pdif	20 12 40.7	-1.0
TLCR		**102.74**	**314**	⇓P	Pdif	20 12 40.7	-1.0
DLBC	**Dease Lake**	**102.90**	**32**	P	Pdif	20 12 42.9	+0.4
	comp=Z,18nm,1.0s,baz=274,slow=6.0,SNR=17						
MICGM	**Minsk**	**102.93**	**324**	*e*P	Pdif	20 12 40.0	-2.6
MNK	**Minsk**	**102.96**	**324**	⇓*e*P	Pdif	20 12 40.0	-2.7
MNK				*e*		20 17 02.0	
MNK				*e*		20 23 14.0	
MNK				*e*S	Sdif	20 24 22.0	-6.1
MNK				*e*		20 26 05.0	
MNK				pmax	pmax		
	comp=Z,150nm,1.2s						
KBS	**Kingsbay**	**103.05**	**350**	PFAKE		20 12 50.0	+6.9
KBS				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
NACGM	**Naroch**	**103.54**	**324**	*e*	Pdif	20 12 41.0	-4.3
VRI	**Vrincioaia**	**104.18**	**315**	⇑*i*P	Pdif	20 12 49.8	+1.7
VRI	**Vrincioaia**	**104.18**	**315**	⇑P	Pdif	20 12 49.8	+1.6
BBB	**Bella Bella**	**104.58**	**38**	PP	PP	20 17 02.6	-6.5
	comp=Z,46nm,1.1s,baz=262,slow=7.1,SNR=3.5						
BBB				PKKPbc	PKKPbc	20 28 38.7	+1.7
	comp=Z,16nm,1.0s,baz=37,slow=23,SNR=4.7						
MLR	**Muntele Rosu**	**104.75**	**315**	⇓*i*P	Pdif	20 12 54.0	+3.3
MLR	**Muntele Rosu**	**104.75**	**315**	PKiKP	PKiKP	20 17 06.9	+0.6
	comp=Z,90nm,1.1s,baz=52,slow=8.2,SNR=5.8						
MLR				PKKPbc	PKKPbc	20 28 36.7	+0.4
	comp=Z,3.6nm,0.7s,baz=219,slow=17,SNR=4.0						
MLR	**Muntele Rosu**	**104.75**	**315**	⇓P	Pdif	20 12 54.0	+3.3
BURAR	**Bucovina Array**	**105.11**	**317**	⇓*i*P	Pdif	20 12 52.7	+0.4
BURAR	**Bucovina Array**	**105.11**	**317**	⇓P	Pdif	20 12 52.7	+0.4
BUR08	**Bucovina Ar. S**	**105.12**	**317**	*e*Pdif	Pdif	20 12 51.8	-0.5
IDI	**Anoyia**	**105.95**	**304**	PKiKP	PKiKP	20 17 09.4	+0.5
	comp=Z,28nm,0.9s,baz=30,slow=6.4,SNR=4.4						
PMSA	**Palmer Station**	**106.56**	**174**	PFAKE		20 17 20.0	+11
PMSA				LR	LR		
	comp=Z,8µm,20.0s,MS6.2						
KWP	**Kalwaria Pacla**	**106.57**	**319**	PFAKE		20 17 20.0	+10
KWP				LR	LR		
	comp=Z,7µm,21.0s,MS6.2						
UZH	**Uzhgorod**	**106.96**	**318**	*e*P	Pdif	20 13 01.0	+0.5
UZH				*e*		20 17 33.0	
UZH				*e*		20 26 42.0	
UZH				MLR	MLR		
	comp=N,2µm,20.0s,MS6.1						
UZH				MLR	MLR		
	comp=E,5µm,20.0s,MS6.1						
UZH				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.7						
VAY	**Valandovo**	**107.48**	**311**	*e*PKP	PKiKP	20 17 12.8	+1.3
NLWA	**Neilton Lookou**	**107.84**	**43**	⇑P	PKiKP	20 17 12.6	+0.6
	baz=108						
NLWA	**Neilton Lookou**	**107.84**	**43**	PFAKE		20 17 20.0	+8.0
NLWA				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
B04A	**Port Angeles**	**108.00**	**42**	⇑P	PKiKP	20 17 13.5	+1.2
	baz=108						
SKO	**Skopje**	**108.27**	**311**	*e*PKP	PKiKP	20 17 14.2	+1.3
OJC	**Ojcow**	**108.35**	**320**	*e*Pdiff	Pdif	20 13 06.1	-0.6
OJC				*e*PKiKP	PKiKP	20 17 14.7	+1.9
OJC				*e*PP	PP	20 17 37.1	+0.1
OJC				*e*PS	PS	20 27 04.6	+3.1
OJC				L		21 13 38.3	
	comp=Z,3.8nm,20.8s						
KRUS	**Krusevo**	**108.47**	**311**	*e*PKP	PKiKP	20 17 12.2	-1.1
GNW	**Green Mountain**	**108.52**	**43**	*e*PKiKP	PKiKP	20 17 14.6	+1.4
COR	**Corvallis**	**108.58**	**46**	PFAKE		20 17 30.0	+17
COR				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
PSZ	**Piszkesteto**	**108.64**	**318**	PFAKE		20 17 30.0	+17
PSZ				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
A05A	**Maple Falls**	**108.79**	**41**	⇓P	PKiKP	20 17 14.7	+1.0
	baz=109						
B05A	**Bryant**	**108.90**	**42**	⇓P	PKiKP	20 17 14.9	+1.0
	baz=109						
HUMO	**Hull Mountain**	**109.06**	**48**	PFAKE		20 17 30.0	+16
HUMO				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
D05A	**Enumclaw**	**109.14**	**43**	⇑P	PKiKP	20 17 15.5	+1.1
	baz=109						
RES	**Resolute Bay**	**109.15**	**11**	P	Pdif	20 13 09.5	-0.7
RES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
RES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
RES				pmax	pmax		
	comp=Z,8.0nm,1.0s						
RES	**Resolute Bay**	**109.15**	**11**	Pdiff	Pdif	20 13 09.5	-0.7
	comp=Z,5.8nm,0.9s,baz=310,slow=6.2,SNR=17						
RES				PKiKP	PKiKP	20 17 13.9	+0.3
	comp=Z,6.8nm,0.7s,baz=283,slow=2.4,SNR=14						
RES				PKKPbc	PKKPbc	20 28 20.4	-3.0
	comp=Z,7.6nm,1.0s,baz=180,slow=3.3,SNR=8.1						
A06A	**Chilliwack**	**109.17**	**41**	⇑P	PKiKP	20 17 15.9	+1.5
	baz=109						
DAG	**Danmarks Havn**	**109.30**	**352**	*e*P	Pdif	20 13 09.0	-1.9
DAG				pmax	pmax		
	comp=Z,4.0nm,1.1s						
DAG				MLR	MLR		
	comp=Z,4µm,20.0s,MS6.0						
DAG	**Danmarks Havn**	**109.30**	**352**	*i* P	Pdif	20 13 09.0	-1.9
	comp=Z,3.8nm,1.1s						
DAG							
	comp=Z,4µm,20.0s						
HOPS	**Hopland**	**109.33**	**52**	PFAKE		20 17 30.0	+15
HOPS				LR	LR		
	comp=Z,7µm,19.0s,MS6.2						
YBH	**Yreka Blue Hor**	**109.33**	**49**	PFAKE		20 17 30.0	+15
YBH				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
HFS	**Hagfors**	**109.42**	**331**	PKiKP	PKiKP	20 17 14.6	+0.1
	comp=Z,3.4nm,0.6s,baz=106,slow=4.8,SNR=6.0						
YKA	**Yellowknife Ar**	**109.45**	**26**	P	Pdif	20 13 10.4	-1.1
YKA						20 28 20.8	
YKA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,11nm,0.8s						
YKA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
YKA	**Yellowknife Ar**	**109.45**	**26**	Pdiff	Pdif	20 13 10.4	-1.1
	comp=Z,7.2nm,0.9s,baz=292,slow=4.7,SNR=35						
YKA				PKiKP	PKiKP	20 17 12.5	-2.0
	comp=Z,11nm,0.8s,baz=292,slow=1.7,SNR=38						
YKA				PKKPbc	PKKPbc	20 28 20.8	-1.3
	comp=Z,6.6nm,0.9s,baz=105,slow=3.3,SNR=23						
YKA	**Yellowknife Ar**	**109.45**	**26**	Pdif	Pdif	20 13 10.4	-1.1
YKA				PKPdf	PKiKP	20 17 12.5	-2.0
YKA				PKKPbc	PKKPbc	20 28 20.8	-1.3
OKC	**Ostrava-Krasne**	**109.47**	**320**	*e*PKPdf	PKiKP	20 17 17.4	+2.5
OKC				*e*PP	PP	20 17 53.1	+8.0
OKC				*e*x	x	20 27 28.7	
OKC				*e*x	x	20 39 04.7	
OKC				AMS	AMS	21 14 00.0	
	comp=Z,3µm,20.3s						
OKC	**Ostrava-Krasne**	**109.47**	**320**	*e*PKP	PKiKP	20 17 17.4	+2.5
OKC				*e*PP	PP	20 17 53.1	+8.0
OKC				*e*PS	PS	20 27 28.7	+16
OKC				*e*		20 39 04.7	
TIR	**Tirane**	**109.51**	**311**	PFAKE		20 17 30.0	+15
TIR				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
MCCM	**Marconi Confer**	**109.55**	**53**	PFAKE		20 17 30.0	+15
MCCM				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
WDC	**Whiskeytown Da**	**109.58**	**50**	PFAKE		20 17 30.0	+15
WDC				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
MORC	**Moravsky Berou**	**109.86**	**320**	*e*PKiKP	PKiKP	20 17 16.1	+0.4
A07A	**Ashnola River,**	**109.89**	**41**	⇓P	PKiKP	20 17 17.4	+1.6
	baz=110						
B07A	**Winthrop**	**110.17**	**41**	⇓P	PKiKP	20 17 18.3	+2.0
	baz=110						
NB2	**NORSAR Subarra**	**110.28**	**333**	PKPdf	PKiKP	20 17 17.8	+1.7
	comp=Z,2.7nm,0.7s,baz=202,slow=1.9						
NOA	**NORSAR Array B**	**110.28**	**333**	P	Pdif	20 13 13.2	-2.0
NOA						20 17 16.7	
NOA						20 28 17.1	
NOA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	**NORSAR Array B**	**110.28**	**333**	Pdiff	Pdif	20 13 13.2	-2.0
	comp=Z,1.1nm,1.0s,baz=186,slow=8.6,SNR=3.4						
NOA				PKiKP	PKiKP	20 17 16.7	+0.6
	comp=Z,3.7nm,0.8s,baz=263,slow=3.1,SNR=8.3						
NOA				PKKPbc	PKKPbc	20 28 17.1	-2.3
	comp=Z,2.5nm,0.9s,baz=68,slow=3.2,SNR=3.8						
MODS	**Modra-Piesok**	**110.30**	**319**	*e*P	PKiKP	20 17 18.4	+1.8
MODS	**Modra-Piesok**	**110.30**	**319**	*e*	PKiKP	20 17 18.4	+1.8
KSP	**Ksiaz**	**110.43**	**321**	*e*PKPdf	PKiKP	20 17 17.1	+0.4
KSP				*e*PP	PP	20 17 52.0	0.0
KSP				*e*SKS	SKSac	20 23 58.0	+3.3
KSP				*e*PS	PS	20 27 26.0	+3.8
KSP				*e*PKKP	PKKPbc	20 28 39.0	+20
KSP				*e*SS	SS	20 33 30.0	+11
KSP				*e*SSS		20 38 42.0	
NAO01	**NORSAR Array S**	**110.50**	**332**	*e*PKiKP	PKiKP	20 17 17.8	+1.2
DPC	**Dobruska-Polom**	**110.52**	**321**	*e*PKPdf	PKiKP	20 17 17.4	+0.5
DPC				*e*x	x	20 17 43.2	
DPC				*e*PP	PP	20 17 55.0	+2.3
DPC				*e*SKS	SKSac	20 24 01.9	+6.8
DPC				*e*x	x	20 27 33.5	
DPC				*e*x	x	20 33 57.2	
DPC				*e*x	x	20 39 00.3	
DPC				*e*x	x	20 44 30.8	
DPC				AMS	AMS	21 11 40.0	
	comp=Z,3µm,17.9s						
VRAC	**Vranov**	**110.56**	**320**	*i* PKIKP	PKiKP	20 17 19.0	+2.0
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.3s						
VRAC	**Vranov**	**110.56**	**320**	PKiKP	PKiKP	20 17 19.0	+2.0
	comp=Z,2.5nm,0.3s,baz=349,slow=3.6,SNR=3.6						
H06A	**Lindquist Farm**	**110.66**	**45**	⇓P	PKiKP	20 17 18.6	+1.2
	baz=111						
UPC	**Upice**	**110.68**	**321**	*e*PKIKP	PKiKP	20 17 19.0	+1.8
UPC				*e*		20 17 58.0	
UPC	**Upice**	**110.68**	**321**	*e*PKPdf	PKiKP	20 17 19.0	+1.8
UPC				*e*x	x	20 17 41.5	
UPC				*e*PP	PP	20 17 58.0	+4.2
UPC				*e*SKS	SKSac	20 24 04.6	+8.8
F07A	**Phinny Hill Vi**	**110.75**	**44**	⇓P	PKiKP	20 17 19.5	+2.0
	baz=111						
SAO	**San Andreas Ge**	**110.81**	**54**	PFAKE		20 17 30.0	+12
SAO				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
I06A	**Prineville**	**110.87**	**46**	⇓P	PKiKP	20 17 19.5	+1.7
	baz=111						
HAWA	**Hanford**	**110.93**	**43**	*e*PKiKP	PKiKP	20 17 18.4	+0.5
HAWA				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
C08A	**Higginbotham F**	**111.00**	**42**	⇓P	PKiKP	20 17 19.8	+1.9
	baz=111						
J06A	**Christmas Vall**	**111.01**	**47**	⇑P	PKiKP	20 17 19.6	+1.6
	baz=111						
A09A	**Danville**	**111.06**	**41**	⇓P	PKiKP	20 17 19.7	+1.7
	baz=111						
MOD	**Modoc**	**111.10**	**48**	*e*PKiKP	PKiKP	20 17 19.4	+1.2
MOD				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
D08A	**Wollman Farm,**	**111.22**	**43**	⇑P	PKiKP	20 17 19.9	+1.5
	baz=111						
E08A	**Dider Farm, El**	**111.24**	**43**	⇑P	PKiKP	20 17 19.7	+1.3
	baz=111						
TREC	**Trest**	**111.27**	**320**	*e*PKIKP	PKiKP	20 17 15.0	-3.4
TREC				*e*		20 18 00.0	
TREC				MLR	MLR		
	comp=Z,5µm,28.5s,MS5.9						
TREC	**Trest**	**111.27**	**320**	*e*PKPdf	PKiKP	20 17 15.0	-3.4
TREC				*e*PP	PP	20 18 00.0	+1.9
TREC				*e*PS	PS	20 27 39.5	+9.4
TREC				*e*x	x	20 34 06.6	
TREC				*e*x	x	20 39 10.5	
TREC				*e*x	x	20 44 50.2	
TREC				AMS	AMS	21 09 30.0	
	comp=Z,5µm,28.5s						
KOGS	**Kog**	**111.34**	**317**	*i* PKiKP	PKiKP	20 17 19.3	+0.7
KOGS				*e*PP	PP	20 18 01.1	+2.4
I07A	**Izee**	**111.35**	**46**	⇑P	PKiKP	20 17 19.3	+0.6
	baz=112						
B09A	**Rice**	**111.46**	**41**	⇓P	PKiKP	20 17 19.5	+0.7
	baz=112						
CMB	**Columbia Colle**	**111.52**	**52**	PFAKE		20 17 30.0	+11
CMB				LR	LR		
	comp=Z,6µm,22.0s,MS6.1						
G08A	**Pilot Rock**	**111.53**	**45**	⇓P	PKiKP	20 17 20.1	+1.1
	baz=112						
KONO	**Kongsberg**	**111.53**	**332**	PFAKE		20 17 30.0	+11
KONO				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
F08A	**Pendleton**	**111.56**	**44**	⇓P	PKiKP	20 17 20.0	+1.0
	baz=112						
PVCC	**Panska Ves**	**111.57**	**321**	*e*PKIKP	PKiKP	20 17 19.1	+0.2
PVCC				*e*		20 18 05.6	
PVCC				MLR	MLR		
	comp=Z,4µm,17.6s,MS6.1						
PVCC	**Panska Ves**	**111.57**	**321**	*e*PKPdf	PKiKP	20 17 19.1	+0.2
PVCC				*e*x	x	20 17 47.0	
PVCC				*e*PP	PP	20 18 05.6	+5.4
PVCC				*e*SKS	SKSdf	20 24 14.8	-15
PVCC				*e*PS	PS	20 27 39.7	+6.9
PVCC				*e*x	x	20 39 19.4	

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PVCC                                ex        x        20 44 54.1
PVCC                                 AMS      AMS      21 09 30.0
      comp=Z,4µm,17.6s
N06A  Buffalo Meadow    111.61  49 ⇓P        PKiKP    20 17 20.4 +1.1
      baz=112
D09A  Jones Farm, Ri    111.63  43 ⇓P        PKiKP    20 17 20.5 +1.4
      baz=112
ARSA  Arzberg           111.67 318⇑iPKiKP    PKiKP    20 17 20.3 +1.1
      comp=Z,15nm,1.2s
PRU   Pruhonice         111.71 321 ePKIKP    PKiKP    20 17 19.5 +0.3
PRU                                e                  20 18 10.2
PRU                                e                  20 24 03.5
PRU                                ePS       PS       20 27 37.2 +3.1
PRU                                 MLR      MLR
      comp=Z,4µm,21.1s,MS5.9
PRU   Pruhonice         111.71 321 ePKPdf    PKiKP    20 17 19.5 +0.3
PRU                                ePP       PP       20 18 10.2 +8.9
PRU                                eSKS      SKSac    20 24 03.5 +3.5
PRU                                ePS       PS       20 27 37.2 +3.1
PRU                                ex        x        20 34 14.5
PRU                                ex        x        20 39 15.8
PRU                                ex        x        20 45 00.5
PRU                                 AMS      AMS      21 12 30.0
      comp=Z,4µm,21.1s
K07A  Rock Creek Ran    111.76  47 ⇓P        PKiKP    20 17 20.7 +1.2
      baz=112
E09A  Wood Farm, Sta    111.85  43 ⇑P        PKiKP    20 17 21.1 +1.5
      baz=112
BRG   Berggiesshubel    111.87 322 eP        Pdif     20 13 22.8 +0.5
BRG                                i                  20 17 20.7
BRG                                i                  20 18 06.9
BRG                                                   20 24 00.0
BRG                                 pmax     pmax
      comp=Z,11nm,1.5s
BRG                                 pmax     pmax
      comp=Z,6.0nm,1.4s
BRG                                 pmax     pmax
      comp=Z,8.0nm,1.1s
BRG                                 pmax     pmax
      comp=Z,3.0nm,1.3s
BRG                                 pmax     pmax
      comp=Z,18nm,1.3s
BRG                                 pmax     pmax
      comp=Z,11nm,2.3s
BRG                                 MLR      MLR
      comp=N,37µm,15.8s,MS7.0
BRG                                 MLR      MLR
      comp=E,2µm,19.8s,MS7.0
BRG                                 MLR      MLR
      comp=Z,3µm,19.0s,MS5.9
BRG   Berggiesshubel    111.87 322 ePKPdf    PKiKP    20 17 20.6 +1.1
BRG   Berggiesshubel    111.87 322 ePDIF     Pdif     20 13 22.8 +0.5
      comp=Z,10.0nm,1.5s
BRG                                e                  20 13 32.6
      comp=Z,13nm,1.4s
BRG   Berggiesshubel    111.87 322 i PKP     PKiKP    20 17 16.9 -2.5
      comp=Z,4.7nm,1.1s
BRG                                i                  20 17 20.7
      comp=Z,30nm,1.3s
BRG                                i PP      PP       20 18 06.9 +4.5
      comp=Z,18nm,1.2s
BRG                                 SKS      SKSac    20 24 00.0 -0.6
BRG                                 PKKP     PKKPbc   20 27 41.0  -33
BRG                                e                  20 31 12.7
      comp=Z,62nm,2.3s
BRG                                 SS       SS       20 33 59.0  +21
BRG
      comp=N,3µm,15.8s
BRG
      comp=E,5µm,19.8s
BRG
      comp=Z,6µm,19.0s
BRG   Berggiesshubel    111.87 322 ePdif     Pdif     20 13 22.8 +0.5
BRG                                e                  20 13 32.6
BRG                                i PKP     PKiKP    20 17 16.9 -2.5
BRG                                i                  20 17 20.7
BRG                                i PP      PP       20 18 06.9 +4.5
BRG                                 SKS      SKSac    20 24 00.0 -0.6
BRG                                 PKKP     PKKPbc   20 27 41.0  -33
BRG                                e                  20 31 12.7
BRG                                 SS       SS       20 33 59.0  +21
BRG                                 LR       LR
      comp=Z,3µm,19.0s,MS6.0
M07A  Soldier Meadow    112.01  49 ⇑P        PKiKP    20 17 21.4 +1.4
      baz=112
I08A  Drewsey           112.04  46 ⇑P        PKiKP    20 17 21.5 +1.4
      baz=112
PERS  Pernice           112.07 317 i PKiKP   PKiKP    20 17 20.7 +0.8
PERS                               ePP       PP       20 18 07.0 +3.0
SOKA  Soboth            112.12 317⇓iPKiKP    PKiKP    20 17 20.8 +0.7
      comp=Z,27nm,1.0s
TIP   Timpagrande       112.13 309  PFAKE             20 17 30.0  +10
TIP                                 LR       LR
      comp=Z,3µm,21.0s,MS5.9
NEW   Newport           112.16  41  PFAKE             20 17 30.0  +10
NEW                                 LR       LR
      comp=Z,5µm,19.0s,MS6.1
R06C  Coleville         112.19  52 ⇓P        PKiKP    20 17 22.0 +1.5
      baz=112
BOJS  Bojanci           112.20 316 ePKiKP    PKiKP    20 17 21.7 +1.4
J08A  Circle Bar Ran    112.21  47 ⇑P        PKiKP    20 17 22.4 +2.0
      baz=112
N07B  Gerlach           112.25  49 ⇑P        PKiKP    20 17 22.1 +1.6
      baz=112
K08A  Mann Creek Ran    112.30  47 ⇑P        PKiKP    20 17 22.3 +1.8
      baz=112
CLL   Collm             112.33 322⇓eP        Pdif     20 13 28.0 +3.6
CLL                                i                  20 17 20.9
CLL                                e                  20 18 08.0
CLL                                 pmax     pmax
      comp=Z,7.0nm,1.0s
CLL                                 pmax     pmax
      comp=Z,13nm,2.8s
CLL                                 pmax     pmax
      comp=Z,257nm,1.6s
CLL                                 MLR      MLR
      comp=Z,4µm,19.1s,MS6.0
CLL   Collm             112.33 322 ePKPdf    PKiKP    20 17 21.3 +1.0
CLL   Collm             112.33 322 ePdif     Pdif     20 13 28.0 +3.6
CLL                               ⇓iPKiKP    PKiKP    20 17 20.9 +0.6
      comp=Z,13nm,1.0s
CLL                                ePP       PP       20 18 08.0 +2.4
      comp=Z,257nm,2.8s
CLL                                ePPlp              20 18 12.0
      comp=Z,800nm,27.5s
CLL                                 LmV               20 20 00.0
      comp=Z,4µm,19.1s
CLL                                ePPP               20 20 30.0
CLL                                eSKSac    SKSac    20 24 07.0 +4.6
CLL                                eSKKSac   SKKSac   20 25 10.0 +2.6
CLL                                ePS       PS       20 27 38.0 -1.8
CLL                                ePKKPab   PKKPab   20 28 20.0 +1.0
CLL                                i pPKKPab          20 28 25.4
      comp=Z,20nm,1.6s
CLL                                e                  20 29 04.0
CLL                                eSS       SS       20 34 06.0  +22
CLL                                e                  20 39 06.0
CLL                                e                  20 44 52.0
CLL   Collm             112.33 322 ePdif     Pdif     20 13 28.0 +3.6
CLL                               ⇓iPKP      PKiKP    20 17 20.9 +0.6
CLL                                ePP       PP       20 18 08.0 +2.4
CLL                                eSKS      SKSac    20 24 07.0 +4.6
CLL                                eSKKS     SKKSac   20 25 10.0 +2.6
CLL                                i PKKP    PKKPbc   20 28 25.4  +13
CLL                                 LR       LR
      comp=Z,4µm,19.1s,MS6.0
G09A  Cove              112.34  44 ⇓P        PKiKP    20 17 22.4 +1.9
      baz=112
O07A  Toulon            112.41  50 ⇓P        PKiKP    20 17 22.8 +2.0
      baz=112
L08A  Fields            112.50  48 ⇓P        PKiKP    20 17 23.2 +2.3
      baz=113
GEC2  GERESS Array S    112.52 320 ePKPdf    PKiKP    20 17 21.6 +0.8
GEC2  GERESS Array S    112.52 320 ePKiKP    PKiKP    20 17 20.3 -0.5
GEC2                               ePKPdf    PKiKP    20 17 21.6 +0.8
GERES GERESS Array B    112.52 320  P        Pdif     20 13 25.6 +0.4
GERES                                                 20 17 21.8
GERES                               pmax     pmax
      comp=Z,8.0nm,0.6s
GERES                               pmax     pmax
      comp=Z,1.0nm,0.7s
GERES GERESS Array B    112.52 320  Pdiff    Pdif     20 13 25.6 +0.4
      comp=Z,0.1nm,0.3s,baz=25,slow=5.4,SNR=3.3
GERES                               PKiKP    PKiKP    20 17 21.8 +1.0
      comp=Z,7.5nm,0.6s,baz=66,slow=1.9,SNR=66
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GERES                               PKKPbc   PKKPbc   20 28 10.9 -0.7
      comp=Z,1.0nm,0.7s,baz=256,slow=1.1,SNR=5.6
KHC   Kasperske Hory    112.53 320 ePKIKP    PKiKP    20 17 21.0 +0.2
KHC                                e                  20 18 08.0
KHC                                e                  20 24 02.1
KHC                                 MLR      MLR
      comp=Z,4µm,20.9s,MS6.0
KHC   Kasperske Hory    112.53 320 ePKPdf    PKiKP    20 17 21.0 +0.2
KHC                                epPKP              20 17 24.5
KHC                                ex        x        20 17 45.8
KHC                                ePP       PP       20 18 08.0 +0.9
KHC                                ex        x        20 18 49.7
KHC                                eSKS      SKSac    20 24 02.1 -1.2
KHC                                ePS       PS       20 27 47.5 +5.9
KHC                                ePKKP     PKKPbc   20 28 11.5 -0.1
KHC                                ex        x        20 34 23.9
KHC                                ex        x        20 39 20.6
KHC                                ex        x        20 45 03.7
KHC                                 AMS      AMS      21 13 10.0
      comp=Z,4µm,20.9s
H09A  Durkee            112.54  45 ⇓P        PKiKP    20 17 23.4 +2.5
      baz=113
E10A  Myers Farm, Un    112.56  43 ⇓P        PKiKP    20 17 22.8 +1.9
      baz=113
F10A  Beach Ranch, E    112.59  44 ⇓P        PKiKP    20 17 22.9 +1.9
      baz=113
M08A  Happy Creek Ra    112.59  49 ⇑P        PKiKP    20 17 23.1 +2.0
      baz=113
LJU   Ljubljana         112.59 316 ePKiKP    PKiKP    20 17 22.2 +1.2
LJU                                ePP       PP       20 18 10.2 +2.5
B11A  Sandpoint         112.61  41 ⇓P        PKiKP    20 17 22.9 +1.9
      baz=113
I09A  Lost Marbles R    112.62  46 ⇓P        PKiKP    20 17 22.6 +1.4
      baz=113
J09A  Fry Pan Ranch,    112.72  46 ⇑P        PKiKP    20 17 22.8 +1.4
      baz=113
CUC   Castrocucco       112.74 310  PFAKE             20 17 30.0 +8.5
CUC                                 LR       LR
      comp=Z,4µm,20.0s,MS6.0
N08A  GE Springer Mi    112.88  49 ⇑P        PKiKP    20 17 22.9 +1.2
      baz=113
TANN  Tannenbergstha    112.90 321 ePKPdf    PKiKP    20 17 22.4 +1.0
O08A  Rochester Mine    112.94  50 ⇓P        PKiKP    20 17 23.3 +1.5
      baz=113
NKC   Novy Kostel       112.96 321 ePKIKP    PKiKP    20 17 18.9 -2.7
NKC                                e                  20 18 07.5
NKC                                ePS       PS       20 27 48.1 +2.5
NKC                                 MLR      MLR
      comp=Z,6µm,23.0s,MS6.1
NKC   Novy Kostel       112.96 321 ePKPdf    PKiKP    20 17 18.9 -2.7
NKC                                ePP       PP       20 18 07.5 -2.6
NKC                                ePS       PS       20 27 48.1 +2.5
NKC                                ex        x        20 34 29.4
NKC                                ex        x        20 39 29.7
NKC                                ex        x        20 45 17.0
NKC                                 AMS      AMS      21 10 10.0
      comp=Z,6µm,23.0s
NKC   Novy Kostel       112.96 321 ePKP      PKiKP    20 17 18.9 -2.7
NKC                                ePP       PP       20 18 07.5 -2.6
NKC                                ePS       PS       20 27 48.1 +2.5
NKC                                eSS       SS       20 34 29.4  +37
NKC                                e                  20 39 29.7
NKC                                e                  20 45 17.0
WET   Wettzell          112.97 320 ePKPdf    PKiKP    20 17 22.3 +0.7
VOY   Vojsko            113.03 317 ePKPdf    PKiKP    20 17 22.1 +0.3
VOY                                e                  20 18 11.4
VOY                                e                  20 18 42.1
SGO   Sicignano         113.03 311  PKIKP    PKiKP    20 17 22.2 +0.2
VOJS  Vojsko            113.03 317 i PKiKP   PKiKP    20 17 22.4 +0.6
VOJS                               ePP       PP       20 18 12.8 +2.0
VOJS                               eSKSac    SKSac    20 24 06.0 +0.5
CADS  Cadrg             113.09 317 ePKiKP    PKiKP    20 17 22.4 +0.4
NVAR  Mina Array Bea    113.10  52  Pdiff    Pdif     20 13 33.0 +5.3
      comp=Z,4.9nm,1.0s,baz=252,slow=6.2,SNR=7.9
NVAR                                PKiKP    PKiKP    20 17 23.3 +1.1
      comp=Z,10.0nm,1.0s,baz=255,slow=5.3,SNR=9.5
NVAR                                PKKPbc   PKKPbc   20 28 11.4 +2.1
      comp=Z,1.7nm,0.6s,baz=150,slow=3.3,SNR=5.1
NVAR  Mina Array Bea    113.10  52  Pdif     Pdif     20 13 33.0 +5.3
NVAR                                PKPdf    PKiKP    20 17 23.3 +1.1
NVAR                                PKKPbc   PKKPbc   20 28 11.4 +2.1
BSEG  Bad Segeberg      113.13 326 ePKPdf    PKiKP    20 17 23.4 +1.6
TRI   Trieste           113.19 316  PFAKE             20 17 30.0 +7.9
TRI                                 LR       LR
      comp=Z,3µm,21.0s,MS5.9
CSSN  Cassano Irpino    113.20 311  PKP      PKiKP    20 17 22.9 +0.6
M09A  Marrel Ranch,     113.29  48 ⇓P        PKiKP    20 17 23.8 +1.4
      baz=113
PTCC  Patocco-Chiusa    113.31 317  PKP      PKiKP    20 17 24.4 +2.1
ISA   Isabella          113.32  55 ⇓P        PKiKP    20 17 23.4 +0.7
      baz=113
N09A  Rock Creek Ran    113.33  49 ⇓P        PKiKP    20 17 23.9 +1.4
      baz=113
Q08A  Gabbs             113.33  51 ⇓P        PKiKP    20 17 23.4 +0.8
      baz=113
MOX   Moxa              113.36 322 ePKP      PKiKP    20 17 23.1 +0.8
      comp=Z,32nm,1.9s
MOX   Moxa              113.36 322 ePKIKP    PKiKP    20 17 23.1 +0.8
MOX                                 pmax     pmax
      comp=Z,32nm,1.9s
MOX   Moxa              113.36 322 ePKPdf    PKiKP    20 17 23.0 +0.7
C12B  Naegeli Ranch,    113.37  41 ⇓P        PKiKP    20 17 23.7 +1.3
      baz=114
RJOB  Jochberg          113.37 319 ePKPdf    PKiKP    20 17 22.9 +0.5
GMNA  Gemona            113.42 317  PKP      PKiKP    20 17 22.4 -0.2
K10A  MacKenzie Ranc    113.47  47 ⇓P        PKiKP    20 17 24.3 +1.5
      baz=114
CIS   Catalina Islan    113.62  57 ⇑P        PKiKP    20 17 24.2 +0.9
      baz=114
BMN   Battle Mountai    113.62  50 ePKIKP    PKiKP    20 17 25.0 +1.9
BMN                                 MLR      MLR
      comp=Z,4µm,20.0s,MS6.0
H11A  Donnelly          113.69  45 ⇑P        PKiKP    20 17 24.1 +1.0
      baz=114
NRDL  Niedersach Rie    113.71 324 ePKPdf    PKiKP    20 17 23.7 +0.8
PASC  Pasadena Art C    113.72  56 ePKiKP    PKiKP    20 17 24.2 +0.6
RPN   Rapa Nui          113.75 124  PFAKE             20 17 40.0  +16
RPN                                 LR       LR
      comp=Z,6µm,19.0s,MS6.2
CLZ   Clausthal         113.76 323 ePKPdf    PKiKP    20 17 24.4 +1.4
ABTA  Abfaltersbach     113.80 318⇑iPKPdf    PKiKP    20 17 22.8 -0.5
      comp=Z,45nm,1.5s,SNR=11
EDW2  Edwards Air Fo    113.80  56 ⇑P        PKiKP    20 17 24.2 +0.6
      baz=114
MWC   Mount Wilson      113.82  56 ePKIKP    PKiKP    20 17 25.7 +2.0
B13A  Whitefish         113.86  41 ⇑P        PKiKP    20 17 23.9 +0.6
      baz=114
GRA1  Grafenberg Arr    113.87 321 ePKPdf    PKiKP    20 17 24.0 +0.7
GRA1                               ePKKP     PKKPbc   20 28 07.8 +0.7
GRA1                                LR       LR
      comp=Z,6µm,21.5s,MS6.2
GRF   Grafenberg Arr    113.87 321 ePKPdf    PKiKP    20 17 24.0 +0.7
GRF                                ePKKP     PKKPbc   20 28 07.8 +0.7
GRF                                eL                 21 11 35.9
      comp=Z,6µm,21.5s
DAC   Darwin (Calif)    113.95  54 ePKIKP    PKiKP    20 17 20.7 -3.2
DAC                                 MLR      MLR
      comp=Z,7µm,19.0s,MS6.2
SDI   San Donato        113.95 312  PKIKP    PKiKP    20 17 24.3 +0.6
C13A  Hot Springs       113.97  41 ⇑P        PKiKP    20 17 24.1 +0.5
      baz=114
SEST  Monte Rota        113.99 318  PKP      PKiKP    20 17 24.7 +1.1
TPH   Tonopah           113.99  52  PFAKE             20 17 40.0  +16
TPH                                 LR       LR
      comp=Z,4µm,21.0s,MS6.0
S09A  Goldfield         114.04  52 ⇓P        PKiKP    20 17 24.8 +0.8
      baz=114
VVLD  Villa Vallelon    114.06 312  PKP      PKiKP    20 17 24.6 +0.7
MPMC  Manual Prospec    114.06  54 ⇓P        PKiKP    20 17 25.1 +1.0
      baz=114
G12A  Big Creek, Yel    114.07  44 ⇓P        PKiKP    20 17 24.8 +1.0
      baz=114
K11A  Parker Ranch,     114.07  47 ⇓P        PKiKP    20 17 24.8 +0.9
      baz=114
MFID  Camas Ranch       114.09  46 ⇑P        PKiKP    20 17 25.0 +1.0
      baz=114
D13A  Huson             114.19  42 ⇑P        PKiKP    20 17 25.2 +1.1
      baz=114
O10A  Cortez Mining,    114.19  50 ⇑P        PKiKP    20 17 24.9 +0.7
      baz=114
VAE   Valguarnera       114.19 307  PKP      PKiKP    20 17 26.5 +2.1
      comp=Z,7.3nm,0.7s,baz=54,slow=5.8,SNR=4.3
PTQR  Pietraquaria      114.19 312  PKP      PKiKP    20 17 24.8 +0.6
NRCA  Norcia            114.24 313  PKP      PKiKP    20 17 25.1 +0.9
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FUR   Furstenfeldbru    114.25 319 ePKPdf    PKiKP    20 17 24.9 +0.8
WTTA  Wattenberg        114.25 318⇑iPKiKP    PKiKP    20 17 24.6 +0.5
      comp=Z,56nm,0.8s,SNR=15
UBBA  Unterbreizbach    114.29 322 ePKPdf    PKiKP    20 17 25.4 +1.3
FSSB  Fossombrone       114.30 314  PKP      PKiKP    20 17 24.6 +0.3
WDD   Wield Dalam       114.33 306  PFAKE             20 17 40.0  +15
WDD                                 LR       LR
      comp=Z,3µm,20.0s,MS5.9
A14A  Double T Ranch    114.36  40 ⇑P        PKiKP    20 17 25.4 +1.1
      baz=114
L11A  Cat Creek Ranc    114.39  47 ⇓P        PKiKP    20 17 25.7 +1.1
      baz=114
I12A  Atlanta           114.50  46 ⇑P        PKiKP    20 17 25.6 +0.9
      baz=115
S10A  Tonopah Range,    114.51  52 ⇓P        PKiKP    20 17 25.6 +0.6
      baz=115
FURC  Furnace Creek,    114.51  54 ⇓P        PKiKP    20 17 26.3 +1.3
      baz=115
M11A  Holland Ranch,    114.51  48 ⇑P        PKiKP    20 17 26.3 +1.5
      baz=115
Q10A  Clear Creek Ra    114.51  51 ⇓P        PKiKP    20 17 26.2 +1.3
      baz=115
H12A  Diamond D Ranc    114.53  45 ⇑P        PKiKP    20 17 25.8 +1.1
      baz=115
E13A  Victor            114.53  43 ⇑P        PKiKP    20 17 26.2 +1.5
      baz=115
CTI   Castel Tesino     114.55 317  PKIKP    PKiKP    20 17 25.8 +1.1
MOTA  Moosalm           114.58 318⇑iPKiKP    PKiKP    20 17 25.4 +0.7
      comp=Z,16nm,0.6s,SNR=15
F13A  Darby             114.60  43 ⇑P        PKiKP    20 17 26.1 +1.2
      baz=115
MURC  Murrieta          114.60  57 ⇑P        PKiKP    20 17 26.0 +0.8
      baz=115
MSO   Missoula          114.60  42 ePKiKP    PKiKP    20 17 24.6 -0.2
MSO                                ePP       PP       20 18 20.2 -1.7
MSO                                 LR       LR
      comp=Z,3µm,22.0s,MS5.9
J12A  Stokes Ranch,     114.65  46 ⇑P        PKiKP    20 17 26.7 +1.7
      baz=115
MNS   Montasola         114.65 313  PKIKP    PKiKP    20 17 26.1 +1.1
APPI  Appiano           114.72 318  PKP      PKiKP    20 17 23.9 -1.1
RETA  Reutte            114.76 319⇑iPKPdf    PKiKP    20 17 24.9 -0.2
      comp=Z,20nm,1.3s,SNR=5.5
A15A  Johnson Ranch,    114.80  40 ⇓P        PKiKP    20 17 25.3 +0.2
      baz=115
D14A  Greenough         114.82  42 ⇑P        PKiKP    20 17 25.2  0.0
      baz=115
G13A  Cobalt            114.83  44 ⇑P        PKiKP    20 17 25.8 +0.5
      baz=115
O11A  Cowboy Ranch,     114.85  50 ⇓P        PKiKP    20 17 26.2 +0.7
      baz=115
FETA  Feichten          114.91 318⇑iPKiKP    PKiKP    20 17 26.4 +1.0
      comp=Z,34nm,1.3s,SNR=17
SFI   Santa Sofia       114.92 315  PKIKP    PKiKP    20 17 26.8 +1.3
K12A  Draper Farm, C    114.92  47 ⇓P        PKiKP    20 17 27.1 +1.5
      baz=115
H13A  Challis           114.94  45 ⇑P        PKiKP    20 17 26.5 +0.9
      baz=115
E14A  Clinton           115.01  42 ⇓P        PKiKP    20 17 26.6 +1.0
      baz=115
ELK   Elko              115.05  49  PKP      PKiKP    20 17 27.7 +1.8
      comp=Z,12nm,1.1s,baz=246,slow=1.4,SNR=11
ELK   Elko              115.05  49  PKP      PKiKP    20 17 27.7 +1.8
ELK                                 LR       LR
      comp=Z,4µm,19.0s,MS6.0
HLID  Hailey            115.06  46 ⇓P        PKiKP    20 17 26.7 +0.9
      baz=115
HLID  Hailey            115.06  46 ePKiKP    PKiKP    20 17 25.0 -0.8
HLID                                LR       LR
      comp=Z,4µm,20.0s,MS6.0
Q11A  Duckwater         115.08  51 ⇑P        PKiKP    20 17 27.1 +1.2
      baz=115
B15A  Bradely Ranch,    115.10  40 ⇑P        PKiKP    20 17 25.8 +0.1
      baz=115,SNR=7.3
VMG   Vicchio           115.11 315  PKP      PKiKP    20 17 29.3 +3.4
IBBN  Ibbenburen        115.13 324 ePKPdf    PKiKP    20 17 26.5 +0.9
HEC   Hector,Ludlow     115.16  55 ⇓P        PKiKP    20 17 27.1 +0.8
      baz=115
N12A  Clover Valley,    115.18  49 ⇓P        PKiKP    20 17 27.6 +1.5
      baz=115
I13A  Wildhorse Cree    115.19  45 ⇓P        PKiKP    20 17 27.7 +1.7
      baz=115
PFO   Pinyon Flat Ob    115.22  57 ⇓P        PKiKP    20 17 27.3 +0.9
      baz=115
PFO   Pinyon Flat Ob    115.22  57 ePKiKP    PKiKP    20 17 26.5 +0.1
PFO                                 LR       LR
      comp=Z,7µm,21.0s,MS6.2
C15A  Salmond Ranch,    115.22  41 ⇓P        PKiKP    20 17 26.5 +0.5
      baz=115,SNR=6.3
R11A  Troy Canyon, C    115.22  52 ⇓P        PKiKP    20 17 27.3 +1.0
      baz=115
F14A  Wisdom            115.24  43 ⇑P        PKiKP    20 17 26.9 +0.9
      baz=115
J13A  Cove Ranch, Pi    115.27  46 ⇑P        PKiKP    20 17 27.1 +0.9
      baz=115
FNVD  Fontana Vidola    115.36 315  PKP      PKPdf    20 17 27.8 +1.4
TOD   Tromm             115.39 321 ePKIKP    PKPdf    20 17 26.7 +0.5
DAVA  Damuels           115.40 319 i PKiKP   PKiKP    20 17 27.1 +0.8
      comp=Z,40nm,0.7s,SNR=16
STU   Stuttgart         115.41 320 ePKPdf    PKPdf    20 17 27.3 +1.0
STU   Stuttgart         115.41 320 ePKPdf    PKPdf    20 17 25.9 -0.4
TNS   Taunus Mts        115.42 322 ePKPdf    PKPdf    20 17 27.4 +1.1
D15A  Lincoln           115.48  42 ⇓P        PKiKP    20 17 27.2 +0.8
      baz=116
K13A  Stover Farm, H    115.50  47 ⇑P        PKiKP    20 17 27.8 +1.1
      baz=116
O12A  Currie            115.51  49 ⇓P        PKiKP    20 17 27.6 +0.8
      baz=116
A16A  West Butte Ran    115.52  39 ⇑P        PKiKP    20 17 27.7 +1.2
      baz=116
DAVOX Davos/Dischmat    115.54 318  PKP      PKPdf    20 17 27.8 +1.2
      comp=Z,16nm,0.6s,baz=184,slow=3.0,SNR=31
DAVOX                               PKKPbc   PKKPbc   20 28 01.4 +0.2
      comp=Z,6.0nm,0.6s,baz=214,slow=8.2,SNR=8.2
USHA  Ushuaia           115.54 169  PKP      PKPdf    20 17 27.2 +0.8
      comp=Z,23nm,0.8s,baz=66,slow=3.0,SNR=6.2
P12A  McGill            115.54  50 ⇓P        PKiKP    20 17 27.8 +0.9
      baz=116
WIT   Witteveen         115.57 325 i PKiKP   PKiKP    20 17 29.0 +2.5
      comp=Z,157nm,1.5s
E15A  Deer Lodge        115.57  42 ⇓P        PKiKP    20 17 27.7 +1.0
      baz=116
DAVOS Davos             115.58 318  PKIKP    PKPdf    20 17 27.8 +1.1
DAVOS                                                 20 28 01.4
B16A  M & M Farms, S    115.61  40 ⇑P        PKiKP    20 17 27.5 +0.8
      baz=116,SNR=5.6
DVTC  Desert V Tower    115.62  58 ⇓P        PKPdf    20 17 27.7 +0.5
      baz=116
I14A  Mackay            115.66  45 ⇓P        PKiKP    20 17 28.0 +1.0
      baz=116
Q12A  Willow Creek R    115.68  51 ⇑P        PKiKP    20 17 28.4 +1.3
      baz=116
T11A  Corn Creek, Al    115.69  53 ⇓P        PKPdf    20 17 28.7 +1.5
      baz=116
BUG   Bochum--Univer    115.71 324 ePKPdf    PKPdf    20 17 28.0 +1.2
GMRC  Granite Mounta    115.72  55 ⇓P        PKPdf    20 17 28.1 +0.8
      baz=116
L13A  Double Diamond    115.73  47 ⇓P        PKiKP    20 17 28.4 +1.2
      baz=116
J14A  Carey             115.75  46 ⇑P        PKiKP    20 17 27.9 +0.8
      baz=116
C16A  Fuhringer Ranc    115.77  41 ⇑P        PKiKP    20 17 28.0 +1.0
      baz=116
N13A  Wendover, West    115.80  49 ⇓P        PKiKP    20 17 28.4 +1.1
      baz=116
WTSB  Winterswijk       115.80 324 i PKiKP   PKiKP    20 17 28.1 +1.1
      comp=Z,48nm,1.6s
F15A  Butte             115.83  43 ⇑P        PKiKP    20 17 28.5 +1.3
      baz=116
SWSC  Sam W. Stewart    115.84  57 ⇑P        PKPdf    20 17 28.5 +0.9
      baz=116
SPAK  Spaichingen-Ko    115.87 320 eP        PKiKP    20 17 27.2  0.0
VLC   Villacollemand    115.88 315  PFAKE             20 17 40.0  +13
VLC                                 LR       LR
      comp=Z,3µm,20.0s,MS6.0
DLMT  Dillon            115.89  43 ePKPdf    PKPdf    20 17 28.2 +0.8
S12A  Delamar Landin    115.92  52 ⇑P        PKPdf    20 17 29.0 +1.4
      baz=116
TUE   Stuetta           115.97 318  PFAKE             20 17 40.0  +13
TUE                                 LR       LR
      comp=Z,5µm,20.0s,MS6.2
R12A  Pony Springs,     115.98  51 ⇓P        PKPdf    20 17 28.7 +1.0
      baz=116
G15A  Dillon            116.01  44 ⇑P        PKPdf    20 17 28.0 +0.4
      baz=116
BC3   Big Chuckw Mtn    116.04  57 ⇑P        PKPdf    20 17 28.9 +0.9
      baz=116
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H15A  Lima              116.05  44 ⇓P        PKPdf    20 17 28.7 +1.0
      baz=116
A17A  Triple J Farms    116.08  39 ⇑P        PKPdf    20 17 28.3 +0.7
      baz=116,SNR=8.5
BFO   Black Forest      116.09 320 ePKPdf    PKPdf    20 17 27.9 +0.3
BFO   Black Forest      116.09 320 ePKPdf    PKPdf    20 17 27.6 -0.1
BFO                                ePKPdf    PKPdf    20 17 27.9 +0.3
BFO                                 LR       LR
      comp=Z,4µm,22.0s,MS6.0
D16A  Dana Ranch, Ca    116.12  41 ⇓P        PKPdf    20 17 28.3 +0.6
      baz=116,SNR=8.6
E16A  East Helena       116.18  42 ⇓P        PKPdf    20 17 28.7 +0.8
      baz=116
LANF  Langenberg        116.21 321 eP        PKPdf    20 17 28.5 +0.7
IRM   Iron Mountain     116.22  56 ⇓P        PKPdf    20 17 29.3 +1.0
      baz=116
P13A  Bates Ranch, G    116.22  50 ⇓P        PKPdf    20 17 29.3 +1.2
      baz=116
B17A  L&G Farms, Che    116.23  40 ⇑P        PKPdf    20 17 28.0 +0.2
      baz=116,SNR=7.4
V12A  Nelson            116.23  54 ⇑P        PKPdf    20 17 29.5 +1.2
      baz=116
W12A  Cal Nev Ari       116.28  55 ⇑P        PKPdf    20 17 29.7 +1.3
      baz=116
M14A  Sheep Mountain    116.29  48 ⇑P        PKPdf    20 17 29.7 +1.5
      baz=116
I15A  Monteview         116.31  45 ⇓P        PKPdf    20 17 29.1 +0.9
      baz=116
Q13A  Wheeler Ranch,    116.32  51 ⇓P        PKPdf    20 17 29.5 +1.1
      baz=116
U12A  Valley of Fire    116.37  53 ⇓P        PKPdf    20 17 29.6 +1.1
      baz=116
F16A  Kennard Place,    116.43  43 ⇑P        PKPdf    20 17 28.9 +0.6
      baz=116,SNR=7.0
FELD  Feldberg im Sc    116.44 320 eP        PKPdf    20 17 28.2 -0.1
RUP   Ruppelstein       116.44 322 ePKIKP    PKPdf    20 17 28.5 +0.3
C17A  Wharram Farm,     116.45  41 ⇑P        PKPdf    20 17 28.4  0.0
      baz=117,SNR=10
G16A  Moss Hill, Enn    116.46  43 ⇓P        PKPdf    20 17 29.2 +0.8
      baz=117,SNR=9.3
BOZ   Bozeman (W)       116.46  43 ⇓P        PKPdf    20 17 29.1 +0.7
      baz=117,SNR=7.2
BOZ   Bozeman (W)       116.46  43  PFAKE             20 17 40.0  +12
BOZ                                 LR       LR
      comp=Z,4µm,20.0s,MS6.0
J15A  Blackfoot         116.50  45 ⇑P        PKPdf    20 17 30.2 +1.6
      baz=117
R13A  O’Grain Ranch,    116.50  51 ⇑P        PKPdf    20 17 29.6 +0.9
      baz=117
VAI   Varese            116.53 317  PKIKP    PKPdf    20 17 28.8 +0.2
N14A  Grayback Hills    116.56  48 ⇓P        PKPdf    20 17 29.9 +1.2
      baz=117
K15A  Arbon             116.61  46 ⇑P        PKPdf    20 17 30.0 +1.2
      baz=117
A18A  Metzger Ranch,    116.62  39 ⇑P        PKPdf    20 17 28.9 +0.3
      baz=117,SNR=6.8
GLA   Glamis            116.64  57 ⇑P        PKPdf    20 17 29.9 +0.7
      baz=117
D17A  Six Diamond Ra    116.65  41 ⇑P        PKPdf    20 17 29.2 +0.5
      baz=117,SNR=7.6
S13A  Holt Ranch, En    116.70  52 ⇓P        PKPdf    20 17 30.2 +1.1
      baz=117
CDF   Champ du Feu      116.73 320 ePKIKP    PKPdf    20 17 28.3 -0.6
      comp=Z,8.1nm,0.5s
E17A  Martinsdale       116.74  42 ⇑P        PKPdf    20 17 29.7 +0.7
      baz=117,SNR=6.6
HGN   Heimansgroeve     116.74 323 ePdif     Pdif     20 13 54.1  +10
HGN   Heimansgroeve     116.74 323 ePKiKP    PKiKP    20 17 29.1 +0.3
      comp=Z,30nm,1.8s
HGN   Heimansgroeve     116.74 323 ePP       PP       20 18 40.8 +4.0
HGN   Heimansgroeve     116.74 323 eSS       SKKSdf   20 35 28.8 -7.0
MEM   Membach           116.75 323  PKP      PKPdf    20 17 29.9 +1.0
T13A  Saint George      116.77  53 ⇑P        PKPdf    20 17 30.1 +0.8
      baz=117
U13A  Pakoon Wash       116.83  53 ⇑P        PKPdf    20 17 30.5 +1.1
      baz=117
B18A  Beardsley Farm    116.84  40 ⇑P        PKPdf    20 17 29.8 +0.8
      baz=117,SNR=5.8
ECH   Echery            116.87 320 ePKIKP    PKPdf    20 17 28.9 -0.2
ECH                                 MLR      MLR
      comp=Z,3µm,21.0s,MS6.0
L15A  Malad City        116.88  47 ⇓P        PKPdf    20 17 30.3 +1.0
      baz=117
Q14A  Sevier Lake (B    116.88  50 ⇑P        PKPdf    20 17 30.3 +0.9
      baz=117
BBS   Basel-Blauen      116.88 319 ePKIKP    PKPdf    20 17 26.7 -2.5
V13A  Grand Canyon W    116.91  54 ⇑P        PKPdf    20 17 30.8 +1.2
      baz=117
P14A  Drum Mountains    116.91  50 ⇓P        PKPdf    20 17 30.6 +1.1
      baz=117
M15A  Larsen Ranch,     116.96  48 ⇑P        PKPdf    20 17 30.5 +0.9
      baz=117
EGMT  Eagleton          116.97  40 ⇑P        PKPdf    20 17 30.0 +0.6
      baz=117,SNR=7.5
EGMT  Eagleton          116.97  40 ePKPdf    PKPdf    20 17 30.7 +1.3
EGMT                                LR       LR
      comp=Z,4µm,22.0s,MS6.0
DUG   Dugway            116.98  49 ⇑P        PKPdf    20 17 30.5 +0.9
      baz=117
DUG   Dugway            116.98  49 ePKPdf    PKPdf    20 17 31.7 +2.1
DUG                                 LR       LR
      comp=Z,5µm,21.0s,MS6.1
H16A  Russell Place,    116.98  44 ⇓P        PKPdf    20 17 31.0 +1.5
      baz=117
MOF   Molkenrain        117.00 320 eP        PKPdf    20 17 29.4  0.0
WLF   Walferdange       117.00 322  PKP      PKPdf    20 17 29.6 +0.3
WLF   Walferdange       117.00 322 ePKPdf    PKPdf    20 17 28.7 -0.6
WLF                                 LR       LR
      comp=Z,7µm,22.0s,MS6.2
PDMCI Parker Dam,Lak    117.03  56 ⇓P        PKPdf    20 17 30.8 +0.9
      baz=117
N15A  Stansbury Isla    117.04  48 ⇑P        PKPdf    20 17 30.6 +0.9
      baz=117
F17A  Fitzpatrick Pl    117.04  42 ⇑P        PKPdf    20 17 30.5 +0.9
      baz=117,SNR=14
W13A  Hualapai Mount    117.11  55 ⇑P        PKPdf    20 17 31.0 +1.0
      baz=117
J16A  Bone              117.11  45 ⇓P        PKPdf    20 17 30.6 +0.9
      baz=117,SNR=5.9
G17A  Pierce Place,     117.16  43 ⇑P        PKPdf    20 17 31.3 +1.5
      baz=117
HINF  Hinteralfeld      117.19 320 ePKIKP    PKPdf    20 17 29.4 -0.4
      comp=Z,40nm,0.5s
D18A  Linhart Farms,    117.21  41 ⇑P        PKPdf    20 17 31.2 +1.3
      baz=117
X13A  Yucca             117.23  55 ⇑P        PKPdf    20 17 31.3 +1.0
      baz=117
BCLA  Clavier           117.24 323  PKP      PKPdf    20 17 31.0 +1.2
K16A  Soda Springs      117.24  46 ⇑P        PKPdf    20 17 31.1 +1.1
      baz=117,SNR=6.0
PGF   Pioggiola         117.26 314 ePKIKP    PKPdf    20 17 30.2 +0.1
      comp=Z,57nm,0.9s
RRI2  Red Ridge         117.30  45 ePKPdf    PKPdf    20 17 31.2 +1.0
E18A  Harlowton         117.33  42 ⇓P        PKPdf    20 17 31.3 +1.2
      baz=117,SNR=6.4
Y13A  Salome            117.36  56 ⇑P        PKPdf    20 17 31.5 +1.0
      baz=117
LOMF  Lomont            117.36 319 eP        PKPdf    20 17 30.3 +0.2
T14A  Hurricane         117.41  53 ⇑P        PKPdf    20 17 31.2 +0.7
      baz=118
U14A  Mt Trumbull       117.45  53 ⇑P        PKPdf    20 17 31.7 +1.0
      baz=118
HAU   Haudompre         117.45 320 ePKIKP    PKPdf    20 17 30.1 -0.2
      comp=Z,30nm,0.7s
HAU                                eMLR      MLR
      comp=Z,4µm,23.0s,MS5.6
HAU   Haudompre         117.45 320 ePKPdf    PKPdf    20 17 30.1 -0.2
HAU                                 LR       LR
      comp=Z,4µm,23.0s,MS5.9
P15A  Leamington        117.51  50 ⇑P        PKPdf    20 17 31.7 +1.0
      baz=118
H17A  Grant Village     117.53  44 ⇑P        PKPdf    20 17 31.4 +0.9
      baz=118,SNR=6.9
113A  Mohawk Valley,    117.56  57 ⇑P        PKPdf    20 17 31.7 +0.7
      baz=118
Q15A  Fillmore          117.56  50 ⇓P        PKPdf    20 17 31.8 +1.0
      baz=118
L16A  Fish Haven        117.56  47 ⇓P        PKPdf    20 17 31.5 +0.8
      baz=118,SNR=7.4
M16A  Huntsville        117.59  48 ⇓P        PKPdf    20 17 31.7 +0.9
      baz=118
MOOW  Moose Ponds       117.59  45 ePKPdf    PKPdf    20 17 32.4 +1.8
THEF  They Montfort     117.60 321 eP        PKPdf    20 17 30.3 -0.2
AHID  Auburn Hatcher    117.61  46  PFAKE             20 17 40.0 +9.3
AHID                                LR       LR
      comp=Z,3µm,20.0s,MS6.0
REDW  Red Top Meadow    117.62  45 ePKPdf    PKPdf    20 17 31.5 +0.8
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GIVF  Givet             117.65 323 ePKIKP    PKPdf    20 17 31.0 +0.4
V14A  Boquillas Ranc    117.65  54 ⇑P        PKPdf    20 17 32.4 +1.4
      baz=118
UCC   Uccle             117.66 324  PKP      PKPdf    20 17 31.7 +1.2
I17A  Pilgrim Ck.       117.67  45 ⇑P        PKPdf    20 17 32.2 +1.4
      baz=118
F18A  Big Timber        117.67  42 ⇓P        PKPdf    20 17 31.7 +0.9
      baz=118,SNR=11
VSL   Villasalto        117.71 310  PFAKE             20 17 40.0 +9.0
VSL                                 LR       LR
      comp=Z,2µm,19.0s,MS5.8
J17A  Brown Place, J    117.72  45 ⇑P        PKPdf    20 17 32.2 +1.2
      baz=118,SNR=14
LOHW  Long Hollow       117.73  45 ePKPdf    PKPdf    20 17 32.1 +1.1
W14A  Seligman          117.74  55 ⇑P        PKPdf    20 17 32.2 +1.0
      baz=118
K17A  Gardner Place,    117.74  46 ⇑P        PKPdf    20 17 32.6 +1.6
      baz=118
DOU   Dourbes           117.78 323  PKP      PKPdf    20 17 32.2 +1.4
MVU   Marysvale         117.79  51  PFAKE             20 17 40.0 +8.8
MVU                                 LR       LR
      comp=Z,5µm,22.0s,MS6.1
SNF   Seneffe           117.81 323  PKP      PKPdf    20 17 32.3 +1.4
N16A  Rees Ranch, Co    117.84  48 ⇓P        PKPdf    20 17 32.6 +1.4
      baz=118
SAOF  Saorge            117.89 316 eP        PKPdf    20 17 31.6 +0.4
L17A  Cokeville         117.94  47 ⇑P        PKPdf    20 17 32.0 +0.6
      baz=118,SNR=5.7
G18A  Lazy EL Ranch,    117.95  43 ⇑P        PKPdf    20 17 32.7 +1.4
      baz=118
T15A  Red Dirt Ranch    117.96  52 ⇓P        PKPdf    20 17 32.7 +1.1
      baz=118
P16A  Fountain Green    117.97  49 ⇑P        PKPdf    20 17 32.5 +1.0
      baz=118
AUTN  L’Aution          117.98 316 eP        PKPdf    20 17 31.8 +0.4
LPG   La Plagne         117.99 317 ePKIKP    PKPdf    20 17 31.9 +0.5
      comp=Z,71nm,1.0s
LPL   La Plagne         118.00 317 ePKIKP    PKPdf    20 17 31.8 +0.4
      comp=Z,25nm,0.6s
SBF   Sospel            118.01 316 ePKIKP    PKPdf    20 17 31.4 -0.1
      comp=Z,48nm,0.7s
Y14A  Wickenburg        118.01  56 ⇓P        PKPdf    20 17 32.8 +1.0
      baz=118
X14A  Yava              118.02  55 ⇓P        PKPdf    20 17 32.5 +0.7
      baz=118,SNR=6.9
BAIF  Baives            118.03 323 ePKIKP    PKPdf    20 17 31.7 +0.4
      comp=Z,22nm,0.8s
LUCF  Luceram           118.06 316 eP        PKPdf    20 17 32.0 +0.4
CABF  La Chapelle       118.08 319 ePKIKP    PKPdf    20 17 31.9 +0.4
      comp=Z,62nm,0.6s
REVF  Revere            118.09 315 eP        PKPdf    20 17 31.6  0.0
TOUF  Mont Tournerai    118.09 316 eP        PKPdf    20 17 32.2 +0.6
BNI   Bardonecchia      118.18 317  PKIKP    PKPdf    20 17 32.7 +1.0
BNI                                 MLR      MLR
      comp=Z,5µm,21.0s,MS6.1
MVIF  Mont Vial         118.19 316 eP        PKPdf    20 17 32.2 +0.4
RLMT  Red Lodge         118.21  43 ⇓P        PKPdf    20 17 33.2 +1.4
      baz=118,SNR=5.7
RLMT  Red Lodge         118.21  43 ePKPdf    PKPdf    20 17 33.8 +2.0
RLMT                                LR       LR
      comp=Z,5µm,21.0s,MS6.1
MBDF  Montbardon        118.21 317 ePKIKP    PKPdf    20 17 31.7 -0.1
      comp=Z,52nm,0.8s
J18A  Kendall Valley    118.25  45 ⇑P        PKPdf    20 17 33.0 +1.1
      baz=118,SNR=10
M17A  Scullys Gap (B    118.25  47 ⇓P        PKPdf    20 17 32.7 +0.7
      baz=118,SNR=8.2
SURF  Saint Ours        118.26 316 eP        PKPdf    20 17 33.4 +1.5
N17A  Moffit Pass       118.27  48 ⇓P        PKPdf    20 17 33.1 +1.0
      baz=118,SNR=8.7
V15A  Kaibab Nationa    118.36  54 ⇓P        PKPdf    20 17 33.5 +1.1
      baz=118,SNR=16
K18A  Toltan Ranch,     118.39  46 ⇑P        PKPdf    20 17 33.3 +1.1
      baz=118,SNR=14
R16A  Teasdale          118.40  51 ⇑P        PKPdf    20 17 33.5 +1.1
      baz=118
W15A  Williams          118.40  54 ⇓P        PKPdf    20 17 33.6 +1.1
      baz=118,SNR=6.3
CALN  Calern            118.42 316 eP        PKPdf    20 17 32.0 -0.3
S16A  Weppner Ranch,    118.43  52 ⇓P        PKPdf    20 17 33.4 +0.9
      baz=118,SNR=11
214A  Organ Pipe Nat    118.48  58 ⇑P        PKPdf    20 17 33.9 +1.2
      baz=118,SNR=8.8
Q16A  Castle Valley     118.50  50 ⇑P        PKPdf    20 17 33.7 +1.1
      baz=119
KEST  Kesra             118.50 306  PKP      PKPdf    20 17 33.4 +0.7
      comp=Z,7.6nm,0.8s,baz=289,slow=2.8,SNR=19
KEST                                PKKPbc   PKKPbc   20 27 52.9 +2.4
      comp=Z,2.7nm,0.9s,baz=277,slow=6.0,SNR=5.4
GDM   Grand’Maison      118.51 317 eP        PKPdf    20 17 33.5 +1.1
O17A  Robinson Place    118.52  49 ⇑P        PKPdf    20 17 34.0 +1.4
      baz=119,SNR=11
X15A  Humboldt          118.55  55 ⇑P        PKPdf    20 17 33.8 +1.0
      baz=119,SNR=11
Y15A  Casa Rosa Ranc    118.56  56 ⇓P        PKPdf    20 17 33.6 +0.7
      baz=119,SNR=13
L18A  Fontenelle, Gr    118.59  47 ⇑P        PKPdf    20 17 33.7 +1.1
      baz=119,SNR=16
FRF   La Foret Royal    118.64 315 ePKIKP    PKPdf    20 17 32.7  0.0
T16A  Glen Canyon Da    118.66  52 ⇑P        PKPdf    20 17 33.6 +0.7
      baz=119,SNR=5.1
OG05  Jujurieux         118.68 318 eP        PKPdf    20 17 33.1 +0.4
P17A  Butcher Ranch,    118.69  49 ⇓P        PKPdf    20 17 33.8 +0.9
      baz=119,SNR=5.3
FFC   Flin Flon         118.70  31 ePKIKP    PKPdf    20 17 33.4 +1.0
FFC                                 MLR      MLR
      comp=Z,5µm,20.0s,MS6.1
BW06  Boulder Array     118.70  46 ⇑P        PKPdf    20 17 33.7 +0.8
      baz=119,SNR=12
BW06  Boulder Array     118.70  46  PFAKE             20 17 50.0  +17
BW06                                LR       LR
      comp=Z,4µm,20.0s,MS6.1
PDAR  Pinedale Array    118.70  46  PKP      PKPdf    20 17 33.8 +0.9
      comp=Z,9.9nm,0.8s,baz=180,slow=1.5,SNR=13
PDAR                                PKKPbc   PKKPbc   20 27 50.7 +0.8
      comp=Z,4.0nm,0.9s,baz=98,slow=5.7,SNR=8.1
M18A  Lyman             118.70  47 ⇓P        PKPdf    20 17 33.5 +0.7
      baz=119
GRN   Grenoble          118.75 317 eP        PKPdf    20 17 33.9 +1.1
ORIF  Oris-en-Rattie    118.76 317 ePKIKP    PKPdf    20 17 33.0 +0.1
      comp=Z,30nm,0.6s
ORIF                               eMLR      MLR
      comp=Z,8µm,21.8s,MS6.0
LMR   La Mourre         118.81 315 ePKIKP    PKPdf    20 17 33.0  0.0
      comp=Z,137nm,1.4s
115A  Sonoran Desert    118.85  57 ⇓P        PKPdf    20 17 34.2 +0.8
      baz=119,SNR=11
SRU   San Rafael        118.94  50 ⇑P        PKPdf    20 17 34.3 +0.8
      baz=119,SNR=10
R17A  Hanksville Air    118.96  51 ⇑P        PKPdf    20 17 34.3 +0.8
      baz=119,SNR=11
W16A  Flagstaff         119.01  54 ⇓P        PKPdf    20 17 34.4 +0.7
      baz=119
P18A  Preston Nutter    119.03  49 ⇓P        PKPdf    20 17 34.5 +1.0
      baz=119
L19A  Farson            119.03  46 ⇓P        PKPdf    20 17 34.4 +0.9
      baz=119,SNR=8.3
TAVF  Tavernes          119.04 316 eP        PKPdf    20 17 33.5 +0.1
MENF  Mencas            119.04 324 eP        PKPdf    20 17 33.9 +0.7
WUAZ  Wupatki           119.06  54 ⇑P        PKPdf    20 17 34.7 +1.0
      baz=119,SNR=9.7
WUAZ  Wupatki           119.06  54 ePKPdf    PKPdf    20 17 36.0 +2.3
S17A  Black Ridge (B    119.07  51 ⇑P        PKPdf    20 17 34.4 +0.7
      baz=119,SNR=5.5
U16A  Tuba City         119.13  53 ⇑P        PKPdf    20 17 34.8 +0.9
      baz=119,SNR=16
K19A  Absolon Red Bu    119.19  45 ⇑P        PKPdf    20 17 34.1 +0.3
      baz=119,SNR=23
VILF  Villemus          119.20 316 eP        PKPdf    20 17 34.5 +0.7
T17A  Navajo Res., N    119.20  52 ⇑P        PKPdf    20 17 35.1 +1.2
      baz=119,SNR=20
X16A  Lo Mia Camp, P    119.21  55 ⇓P        PKPdf    20 17 35.2 +1.1
      baz=119,SNR=12
Q18A  Rafter H Ranch    119.24  50 ⇑P        PKPdf    20 17 34.6 +0.6
      baz=119,SNR=9.9
SMRF  Simiane la Rot    119.26 316 ePKIKP    PKPdf    20 17 34.4 +0.5
Y16A  Circle Bar Ran    119.28  56 ⇓P        PKPdf    20 17 34.9 +0.7
      baz=119
LOR   Lormes            119.28 320 ePKIKP    PKPdf    20 17 33.8  0.0
      comp=Z,93nm,1.2s
LOR                                eMLR      MLR
      comp=Z,4µm,21.0s,MS5.7
LOR   Lormes            119.28 320 ePKPdf    PKPdf    20 17 33.8  0.0
LOR                                 LR       LR
      comp=Z,4µm,21.0s,MS6.0
116A  Eloy              119.31  57 ⇑P        PKPdf    20 17 35.2 +0.9
      baz=119,SNR=15
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M19A  Rock Springs      119.34  47 ⇓P        PKPdf    20 17 34.9 +0.8
      baz=119,SNR=10.0
BERF  Bertagne          119.38 315 eP        PKPdf    20 17 34.9 +0.8
U17A  Shonto            119.40  53 ⇓P        PKPdf    20 17 35.8 +1.4
      baz=120,SNR=10.0
Z16A  Peralta Trail,    119.41  56 ⇑P        PKPdf    20 17 35.4 +0.9
      baz=120
N19A  John Jarvie Ra    119.49  48 ⇓P        PKPdf    20 17 35.3 +0.9
      baz=120
TREF  Trevaresse        119.50 316 eP        PKPdf    20 17 34.5 +0.2
SMF   Signal de Mont    119.52 319 ePKIKP    PKPdf    20 17 34.1 -0.2
      comp=Z,20nm,0.6s
SSB   Saint Sauveur     119.54 318 eP        PKPdf    20 17 34.9 +0.5
SSB   Saint Sauveur     119.54 318 ePKPdf    PKPdf    20 17 33.2 -1.2
SSB                                 LR       LR
      comp=Z,3µm,20.0s,MS5.9
SSF   Saint Saulge      119.58 320 ePKIKP    PKPdf    20 17 34.5 +0.1
      comp=Z,79nm,0.8s
VIVF  Saint-Julien-l    119.59 317 ePKIKP    PKPdf    20 17 34.6 +0.1
      comp=Z,52nm,1.0s
PRAF  Pradon            119.59 316 eP        PKPdf    20 17 34.9 +0.4
R18A  Canyonlands Na    119.59  50 ⇑P        PKPdf    20 17 35.3 +0.6
      baz=120,SNR=6.7
216A  Three Points,     119.61  58 ⇓P        PKPdf    20 17 35.8 +0.9
      baz=120,SNR=5.5
EKA   Eskdalemuir Ar    119.61 331  PKIKP    PKPdf    20 17 34.1 -0.1
EKA                                 pmax     pmax
      comp=Z,7.0nm,0.5s
EKA                                 pmax     pmax
      comp=Z,2.0nm,1.0s
EKA   Eskdalemuir Ar    119.61 331  PKP      PKPdf    20 17 34.0 -0.1
      comp=Z,6.7nm,0.5s,baz=16,slow=2.1,SNR=34
EKA                                 PKKPbc   PKKPbc   20 27 46.5 -0.4
      comp=Z,1.9nm,0.9s,baz=256,slow=3.4,SNR=3.9
ESK   Eskdalemuir       119.64 331 i PKIKP   PKiKP    20 17 36.5 +2.2
ESK   Eskdalemuir       119.64 331  PFAKE             20 17 50.0  +16
ESK                                 LR       LR
      comp=Z,4µm,20.0s,MS6.1
W17A  Winslow           119.67  54 ⇓P        PKPdf    20 17 35.9 +1.0
      baz=120
S18A  Hurst Farm, Bl    119.68  51 ⇓P        PKPdf    20 17 35.7 +0.8
      baz=120,SNR=14
LAO   LASA Array        119.69  40 ePKPdf    PKPdf    20 17 35.7 +1.1
LAO                                 LR       LR
      comp=Z,4µm,20.0s,MS6.1
O19A  Miners Draw (B    119.69  48 ⇑P        PKPdf    20 17 35.6 +0.7
      baz=120,SNR=10
X17A  Forest Lakes      119.74  55 ⇑P        PKPdf    20 17 36.2 +1.1
      baz=120,SNR=5.4
BORG  Borgarnes         119.76 346  PFAKE             20 17 50.0  +16
BORG                                LR       LR
      comp=Z,3µm,21.0s,MS5.9
AVF   Avril sur Loir    119.78 320 ePKIKP    PKPdf    20 17 34.5 -0.3
      comp=Z,33nm,0.6s
L20A  Wamsutter         119.78  46 ⇓P        PKPdf    20 17 35.7 +0.8
      baz=120,SNR=12
Y17A  Roosevelt         119.83  56 ⇓P        PKPdf    20 17 36.0 +0.7
      baz=120,SNR=14
CMAH  Djebel Manchou    119.85 308  P        PKPdf    20 17 36.1 +0.9
ABSA  Djebel Ababsia    119.88 307  P        PKPdf    20 17 37.1 +1.8
T18A  Mexican Hat       119.90  52 ⇓P        PKPdf    20 17 36.3 +1.0
      baz=120,SNR=17
Q19A  Hogan Spring (    119.93  50 ⇓P        PKPdf    20 17 36.2 +0.8
      baz=120,SNR=8.5
FCC   Fort Churchill    120.03  24 ePKIKP    PKPdf    20 17 34.6 -0.3
EFI   East Falkland     120.04 175  PFAKE             20 17 50.0  +15
EFI                                 LR       LR
      comp=Z,5µm,19.0s,MS6.2
M20A  Sweetwater, Wa    120.04  47 ⇑P        PKPdf    20 17 36.5 +1.0
      baz=120,SNR=8.5
HYF   Humbligny         120.05 320 ePKIKP    PKPdf    20 17 35.7 +0.4
U18A  Rough Rock, Ch    120.06  53 ⇑P        PKPdf    20 17 37.0 +1.4
      baz=120,SNR=9.5
R19A  Curley Farm, L    120.10  50 ⇑P        PKPdf    20 17 36.5 +0.8
      baz=120
117A  Oracle            120.11  57 ⇓P        PKPdf    20 17 37.1 +1.3
      baz=120,SNR=14
TUC   Tucson            120.12  57 ePKIKP    PKPdf    20 17 36.6 +0.7
TUC                                 MLR      MLR
      comp=Z,4µm,22.0s,MS6.0
V18A  Ganado            120.17  53 ⇓P        PKPdf    20 17 37.0 +1.1
      baz=120,SNR=12
N20A  Spence Gulch,     120.17  47 ⇓P        PKPdf    20 17 36.9 +1.1
      baz=120,SNR=19
217A  Green Valley      120.18  58 ⇓P        PKPdf    20 17 37.2 +1.1
      baz=120
BGF   Bois d’Agland     120.19 320 ePKIKP    PKPdf    20 17 35.9 +0.3
      comp=Z,101nm,0.7s
AGO   Saint Agoulin     120.19 319 eP        PKPdf    20 17 37.4 +1.8
Z17A  San Carlos Hig    120.21  56 ⇑P        PKPdf    20 17 36.9 +0.9
      baz=120,SNR=9.8
CAEH  ’Ain El Ouahch    120.26 308  P        PKPdf    20 17 36.7 +0.7
DGMT  Dagmar            120.27  38 ⇑P        PKPdf    20 17 36.2 +0.6
      baz=120
DGMT  Dagmar            120.27  38 ePKPdf    PKPdf    20 17 36.9 +1.3
S19A  Harvey Farm, M    120.33  51 ⇓P        PKPdf    20 17 36.9 +0.8
      baz=120
PYM   Petit Puy Mans    120.38 319 eP        PKPdf    20 17 37.6 +1.6
O20A  White River Ci    120.39  48 ⇑P        PKPdf    20 17 37.4 +1.2
      baz=120,SNR=18
X18A  Snowflake         120.40  55 ⇑P        PKPdf    20 17 37.3 +0.9
      baz=120
LASF  Ste Croix         120.40 317 ePKIKP    PKPdf    20 17 36.3 +0.2
LBL   Lubilhac          120.41 318 eP        PKPdf    20 17 37.9 +1.9
CKFL  Kef-Lekhel        120.45 307  P        PKPdf    20 17 37.5 +1.1
P20A  De Beque          120.45  49 ⇑P        PKPdf    20 17 37.4 +1.1
      baz=120,SNR=16
W18A  Petrified Fore    120.45  54 ⇑P        PKPdf    20 17 37.5 +1.1
      baz=120,SNR=10
L21A  Rawlins           120.49  46 ⇓P        PKPdf    20 17 37.1 +0.8
      baz=121
CASM  Ain Smara         120.66 307  P        PKPdf    20 17 37.1 +0.3
Q20A  Ridgley Place,    120.66  49 ⇑P        PKPdf    20 17 37.8 +1.1
      baz=121,SNR=10
RWWY  Rawlins           120.68  46 ePKPdf    PKPdf    20 17 36.1 -0.6
TCF   Toulx Ste Croi    120.70 320 ePKIKP    PKPdf    20 17 36.9 +0.3
      comp=Z,65nm,0.9s
VERF  Verneugheol       120.72 319 eP        PKPdf    20 17 37.6 +1.0
W19A  Sanders           120.73  54 ⇓P        PKPdf    20 17 37.7 +0.7
      baz=121
N21A  Black Mountain    120.74  47 ⇓P        PKPdf    20 17 37.8 +1.0
      baz=121
118A  Homack Ranch,     120.74  57 ⇓P        PKPdf    20 17 38.2 +1.1
      baz=121
CTEI  Djebel Teioual    120.77 307  P        PKPdf    20 17 37.7 +0.7
218A  Dragoon           120.80  58 ⇑P        PKPdf    20 17 38.5 +1.3
      baz=121
R20A  Redvale           120.80  50 ⇑P        PKPdf    20 17 38.2 +1.2
      baz=121
V19A  Window Rock       120.87  53 ⇑P        PKPdf    20 17 38.6 +1.3
      baz=121
O21A  Pagoda            120.93  48 ⇑P        PKPdf    20 17 38.4 +1.2
      baz=121
318A  Bisbee            120.93  58 ⇓P        PKPdf    20 17 38.5 +1.0
      baz=121
MVCO  Mesa Verde        120.95  51 ⇓P        PKPdf    20 17 38.8 +1.5
      baz=121
MVCO  Mesa Verde        120.95  51 ePKPdf    PKPdf    20 17 39.8 +2.4
MVCO                                LR       LR
      comp=Z,4µm,20.0s,MS6.1
DFRA  Djebel Bou Aff    121.07 308  P        PKPdf    20 17 35.9 -1.7
P21A  Newcastle         121.14  49 ⇓P        PKPdf    20 17 39.1 +1.4
      baz=121
M22A  Cedar Creek Ra    121.21  46 ⇓P        PKPdf    20 17 38.9 +1.2
      baz=121
LDF   La Druitiere      121.21 323 ePKIKP    PKPdf    20 17 37.4 -0.1
Q21A  Lamborn Mesa,     121.24  49 ⇓P        PKPdf    20 17 39.4 +1.5
      baz=121
119A  Ashpeak Ranch,    121.27  57 ⇓P        PKPdf    20 17 39.2 +1.1
      baz=121
CAF   Calviac           121.30 318 ePKIKP    PKPdf    20 17 38.4 +0.6
SFJD  Kangerlussuaq     121.33 360 i P       PKPdf    20 17 38.2 +1.0
      comp=Z,24nm,0.8s
SFJD                               i                  20 24 44.6
SFJD                               e                  20 28 54.8
SFJD  Kangerlussuaq     121.33 360  PKP      PKPdf    20 17 36.7 -0.5
      comp=Z,15nm,0.5s,baz=59,slow=1.7,SNR=10
SFJD  Kangerlussuaq     121.33 360 i P       PKPdf    20 17 38.2 +1.0
SFJD                               i                  20 24 44.6
SFJD                               e                  20 28 54.8
SFJD                                LR       LR
      comp=Z,5µm,20.0s,MS6.2
FLN   La Foliniere      121.35 323 ePKIKP    PKPdf    20 17 38.3 +0.6
FLN                                eMLR      MLR
      comp=Z,7µm,22.2s,MS6.0
FLN   La Foliniere      121.35 323 ePKPdf    PKPdf    20 17 38.3 +0.6
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FLN                                     LR       LR
      comp=Z,7µm,22.3s,MS6.3
W20A  Ramah              121.44  54 ⇓P       PKPdf     20 17 39.5 +1.2
      baz=122
219A  White Tail Can     121.45  58 ⇑P       PKPdf     20 17 39.3 +0.9
      baz=122
N22A  Wattenberg Ran     121.50  47 ⇓P       PKPdf     20 17 39.6 +1.3
      baz=122
RJF   Les Rejaudoux      121.52 319 ePKIKP   PKPdf     20 17 38.6 +0.4
RJF                                 eMLR     MLR
      comp=Z,4µm,21.5s,MS5.8
RJF   Les Rejaudoux      121.52 319 ePKPdf   PKPdf     20 17 38.6 +0.4
RJF                                  LR      LR
      comp=Z,4µm,21.5s,MS6.1
SET   Setif              121.53 307  P       PKPdf     20 17 41.0 +2.5
319A  Douglas            121.54  58 ⇓P       PKPdf     20 17 39.8 +1.1
      baz=122
LRDF  Laroque-de-Fa      121.69 316 eP       PKPdf     20 17 38.9 +0.3
Q22A  Crested Butte,     121.73  49 ⇑P       PKPdf     20 17 40.8 +2.0
      baz=122
GRR   Gorron             121.74 323 ePKIKP   PKPdf     20 17 38.6 +0.1
      comp=Z,32nm,0.7s
MTLF  Montolieu          121.77 316 ePKIKP   PKPdf     20 17 38.8 +0.1
      comp=Z,39nm,0.7s
120A  U Bar Ranch, L     121.87  57 ⇑P       PKPdf     20 17 40.7 +1.5
      baz=122
R22A  Saguache, Gunn     122.02  50 ⇑P       PKPdf     20 17 41.4 +2.0
      baz=122
PHWY  Pilot Hill         122.06  46 ePKPdf   PKPdf     20 17 40.6 +1.3
RSSD  Black Hills        122.06  43 ePKIKP   PKPdf     20 17 40.1 +0.8
RSSD                                 MLR     MLR
      comp=Z,4µm,21.0s,MS6.0
MFF   Saint Martin d     122.07 321 ePKIKP   PKPdf     20 17 39.3 +0.1
      comp=Z,67nm,0.8s
W21A  San Fidel          122.12  54 ⇓P       PKPdf     20 17 41.3 +1.7
      baz=122
LFF   La Frestale        122.17 319 ePKIKP   PKPdf     20 17 40.0 +0.6
      comp=Z,63nm,0.8s
VALF  Valcebollere       122.23 315 eP       PKPdf     20 17 40.7 +1.1
T22A  Edith              122.23  51 ⇑P       PKPdf     20 17 41.8 +2.0
      baz=122
ISCO  Idaho Springs      122.42  48 ePKIKP   PKPdf     20 17 42.3 +2.2
ISCO                                 MLR     MLR
      comp=Z,4µm,20.0s,MS6.0
MLS   Moulis             122.67 316 eP       PKPdf     20 17 41.1 +0.6
W22A  Albuquerque        122.75  54 ⇑P       PKPdf     20 17 42.3 +1.4
      baz=123
SGMF  Saint Gilles       122.81 323 ePKIKP   PKPdf     20 17 40.5  -0.1
ANMO  Albuquerque        123.10  54  PKP     PKPdf     20 17 42.5 +0.9
      comp=Z,31nm,1.0s,baz=248,slow=1.8,SNR=21
ANMO  Albuquerque        123.10  54  PKP     PKPdf     20 17 42.5 +0.9
ANMO                                 LR      LR
      comp=Z,6µm,21.0s,MS6.2
SDCO  Great Sand Dun     123.11  50 ePKPdf   PKPdf     20 17 43.8 +2.3
SDCO                                 LR      LR
      comp=Z,3µm,22.0s,MS6.0
EPF   Esparros           123.16 317 ePKIKP   PKPdf     20 17 41.7 +0.3
122A  Conniff Cattle     123.18  56 ⇓P       PKPdf     20 17 42.6 +0.9
      baz=123
ROSF  Rostrenen          123.20 324 ePKIKP   PKPdf     20 17 41.2  -0.1
RESF  Ens                123.25 316 eP       PKPdf     20 17 43.0 +1.4
EPOB  Poblet             123.25 314  PKP     PKPdf     20 17 41.0  -0.6
QUIF  Quistinic          123.33 323 ePKIKP   PKPdf     20 17 41.5  -0.1
EBIE  Bielsa             123.42 316  PKP     PKPdf     20 17 42.6 +0.7
REYF  Montagne du Re     123.64 317 eP       PKPdf     20 17 43.0 +0.7
TAM   Tamanrasset        123.66 292  PFAKE             20 18 00.0  +17
TAM                                  LR      LR
      comp=Z,4µm,21.0s,MS6.0
ETSF  Etsaut             123.82 317 ePKIKP   PKPdf     20 17 43.8 +1.1
      comp=Z,42nm,0.6s
ATE   Arette             123.84 317 eP       PKPdf     20 17 43.4 +0.7
ERTA  Horta de San J     123.92 314  PKP     PKPdf     20 17 44.2 +1.2
SJPF  Ste Jean           124.19 317 ePKIKP   PKPdf     20 17 44.3 +0.9
      comp=Z,77nm,1.1s
ULM   Lac du Bonnet      124.21  33  PKP     PKPdf     20 17 42.0  -1.2
      comp=Z,42nm,0.9s,baz=307,slow=3.5,SNR=19
ULM                                  PKKPbc  PKKPbc    20 27 28.6  -0.6
      comp=Z,8.5nm,1.1s,baz=147,slow=3.1,SNR=3.7
ULM   Lac du Bonnet      124.21  33  PKP     PKPdf     20 17 42.0  -1.2
ULM                                  PKKPbc  PKKPbc    20 27 28.6  -0.6
OGNE  Ogallala           124.61  45  PFAKE             20 18 00.0  +16
OGNE                                 LR      LR
      comp=Z,4µm,20.0s,MS6.0
EMOS  Mosqueruela        124.70 314  PKP     PKPdf     20 17 44.3  -0.1
ECRI  Cripan             125.25 317  PKIKP   PKPdf     20 17 47.3 +1.9
AGMN  Agassiz Refuge     125.26  35 ePKPdf   PKPdf     20 17 45.4 +0.2
AGMN                                 LR      LR
      comp=Z,4µm,22.0s,MS6.0
ECHE  Chera              125.33 313  PKIKP   PKiKP     20 17 47.9 +1.9
ELAN  Lanestosa          125.61 318  PKP     PKiKP     20 17 48.5 +2.0
ETOR  Torete             125.65 315  PKIKP   PKiKP     20 17 48.6 +2.0
TXAR  Lajitas Array      126.70  60  PKIKP   PKPdf     20 17 48.7 +0.1
TXAR                                 pmax    pmax
      comp=Z,11nm,0.9s
TXAR                                 pmax    pmax
      comp=Z,1.0nm,0.7s
TXAR  Lajitas Array      126.70  60  PKP     PKPdf     20 17 48.7 +0.1
      comp=Z,11nm,0.9s,baz=217,slow=1.3,SNR=22
TXAR                                 PKKPbc            20 27 22.1
      comp=Z,0.9nm,0.7s,baz=111,slow=6.8,SNR=4.8
EARI  Arriondas          126.74 319  PKP     PKiKP     20 17 50.0 +1.2
EVIA  Vianos             126.79 313  PKIKP   PKiKP     20 17 50.0 +1.0
AMTX  Amarillo           126.90  52  PFAKE             20 18 00.0  +11
AMTX                                 LR      LR
      comp=Z,5µm,19.0s,MS6.2
CBKS  Cedar Bluff        127.04  47  PFAKE             20 18 00.0  +11
CBKS                                 LR      LR
      comp=Z,4µm,21.0s,MS6.0
ENIJ  Nijar              127.16 311  PKIKP   PKiKP     20 17 50.0 +0.2
GUD   Guadarrama         127.19 316  PKIKP   PKiKP     20 17 51.4 +1.7
ESDC  Sonseca Array      127.44 314  PKP     PKPdf     20 17 50.1 +0.4
      comp=Z,20nm,1.1s,baz=18,slow=2.0,SNR=11
ESDC  Sonseca Array      127.44 314  PKP     PKPdf     20 17 51.2 +1.4
ESLA  Sonseca Array      127.44 314 ePKPdf   PKiKP     20 17 51.8 +1.6
ESLA                                 LR      LR
      comp=Z,20µm,20.0s,MS6.8
TORD  Torodi Ar. Bea     127.74 280  PKP     PKPdf     20 17 51.6 +0.6
      comp=Z,50nm,0.9s,baz=82,slow=1.6,SNR=32
TORD                                 SKPbc             20 21 08.4
      comp=Z,15nm,1.0s,baz=70,slow=2.6,SNR=5.7
PAB   San Pablo          127.77 314 ePKIKP   PKiKP     20 17 52.5 +1.6
PAB                                  MLR     MLR
      comp=Z,3µm,21.0s,MS5.9
EYMN  Ely                127.88  33 ePKPdf   PKPdf     20 17 49.9  -0.4
EYMN                                 LR      LR
      comp=Z,5µm,22.0s,MS6.1
EBAN  Banos Encina       127.90 313  PKIKP   PKiKP     20 17 52.6 +1.4
EPON  Pontenova          127.98 320  PKP     PKPdf     20 17 50.5  -0.1
PLCA  Paso Flores        128.14 161  PKIKP   PKPdf     20 17 51.9 +0.8
PLCA                                 pmax    pmax
      comp=Z,59nm,1.0s
PLCA  Paso Flores        128.14 161  PKP     PKPdf     20 17 51.9 +0.8
      comp=Z,59nm,1.0s,baz=229,slow=2.2,SNR=23
EGUA  Guajares           128.23 311  PKP     PKPdf     20 17 49.8  -1.5
ERON  Agron              128.34 311  PKP     PKPdf     20 17 50.5  -1.0
ECAL  Calabor            128.37 318  PKP     PKPdf     20 17 52.1 +0.7
ERUA  La Rua             128.42 319  PKIKP   PKPdf     20 17 52.4 +0.9
PBRG  Braganca           128.43 318 ePKPdf   PKPdf     20 17 52.9 +1.4
EADA  Adamuz             128.48 313  PKP     PKPdf     20 17 51.4  -0.3
ELUQ  Luque              128.48 312  PKIKP   PKPdf     20 17 51.2  -0.6
ELOJ  Sierra Loja        128.55 311  PKIKP   PKPdf     20 17 51.5  -0.4
EPLA  Plasencia          128.76 316  PKIKP   PKiKP     20 17 54.5 +1.6
SHEL  Horse Pasture      128.86 242 i PKIKP  PKiKP     20 17 58.2 +4.5
SHEL  Horse Pasture      128.86 242  PFAKE             20 18 10.0  +17
SHEL                                 LR      LR
      comp=Z,5µm,22.0s,MS6.1
MVO   Moncorvo           128.92 317 ePKPdf   PKPdf     20 17 54.3 +1.8
MVO                                 i P                20 21 13.8
STS   Santiago           129.09 320  PKIKP   PKiKP     20 17 54.9 +1.5
KSU1  Kansas State U     129.16  45 ePKPdf   PKPdf     20 17 53.4 +0.4
KSU1                                 LR      LR
      comp=Z,5µm,21.0s,MS6.2
WMOK  Wichita Mounta     129.21  52 ePKIKP   PKPdf     20 17 52.0  -1.2
WMOK                                 MLR     MLR
      comp=Z,4µm,20.0s,MS6.1
ELOB  Lobios             129.28 319  PKP     PKiKP     20 17 56.2 +2.4
PCAB  Cabril             129.33 318 i P      SKPdf     20 21 15.3   -13
PVRL  Vila Real          129.33 318 ePKPdf   PKPdf     20 17 55.4 +2.1
PVRL                                i P                20 21 15.0
EZAM  Zamans             129.55 319  PKIKP   PKPdf     20 17 57.4 +3.8
MTE   Manteigas          129.62 317 ePKPdf   PKPdf     20 17 55.9 +2.1
MTE                                 i P                20 21 16.5
MTE   Manteigas          129.62 317 ePKPdf   PKPdf     20 17 54.7 +0.9
MTE                                 eSKP               20 21 16.0
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MTE                                  LR      LR
      comp=Z,3µm,22.0s,MS5.9
JCT   Junction City      129.68  57 ePKPdf   PKPdf     20 17 54.9 +0.6
JCT                                 eSKP               20 21 16.8
JCT                                  LR      LR
      comp=Z,6µm,21.0s,MS6.2
PVIS  Viseu              129.71 317 ePKPdf   PKiKP     20 17 56.4 +1.6
PVIS                                i P                20 21 16.6
PCBR  Castelo Branco     129.83 316 ePKPdf   PKPdf     20 17 59.0 +4.8
PCBR                                i P                20 21 19.9
ESPR  Espera             129.92 312  PKP     PKiKP     20 17 57.5 +2.2
PMRV  Marv??o            129.95 315 ePKPdf   PKPdf     20 17 55.0 +0.5
PMRV                                i P                20 21 17.2
EBAD  Badajoz            129.98 315  PKP     PKiKP     20 17 58.5 +3.1
SCIA  State Center       130.16  41 ePKPdf   PKPdf     20 17 54.3  -0.5
SCIA                                 LR      LR
      comp=Z,4µm,20.0s,MS6.1
COWI  Conover            130.28  34 ePKPdf   PKPdf     20 17 55.2 +0.3
COWI                                eSKP               20 21 17.4
COWI                                 LR      LR
      comp=Z,4µm,19.0s,MS6.1
SFS   San Fernando       130.34 311  PFAKE             20 18 10.0  +15
SFS                                  LR      LR
      comp=Z,8µm,22.0s,MS6.4
PESTR Estremoz           130.34 315 ePKPdf   PKPdf     20 17 57.8 +2.6
PESTR                               i P                20 21 18.6
MDT   Midelt             130.41 306  PKP     PKPdf     20 17 56.9 +1.3
      comp=Z,7.0nm,0.8s,baz=92,slow=2.2,SNR=9.6
MDT                                  SKPbc   SKPbc     20 21 19.1 +0.8
      comp=Z,14nm,0.9s,baz=72,slow=5.6,SNR=8.2
EVO   Evora              130.78 315 ePKIKP   PKPdf     20 17 55.7  -0.4
      comp=Z,166nm,1.4s
EVO                                 eMLR     MLR
      comp=Z,4µm,21.2s,MS5.8
PBEJ  Beja               130.90 314 ePKPdf   PKPdf     20 17 58.8 +2.5
PBEJ                                i P                20 21 21.6
PVAQ  Vaqueiros          131.06 313 i P                20 21 22.8
PBDV  Barranco-do-Ve     131.28 313 ePKPdf   PKPdf     20 18 00.0 +2.9
PBDV                                i P                20 21 23.9
PMAFR Mafra              131.47 316 i P      SKPbc     20 21 23.2 +1.2
PMAFR                                A                 21 24 22.7
      comp=Z,3µm,17.2s
JFWS  Jewell Farm        131.49  38 ePKPdf   PKPdf     20 17 57.8 +0.5
JFWS                                eSKP               20 21 22.6
JFWS                                 LR      LR
      comp=Z,5µm,19.0s,MS6.3
PTEO  Sao Teotonio       131.72 314 ePKPdf   PKPdf     20 17 58.2 +0.3
RTC   Rabat Centre       131.77 309  PFAKE             20 18 10.0  +12
RTC                                  LR      LR
      comp=Z,3µm,20.0s,MS6.0
MORF  Marmelete          131.77 314 ePKPdf   PKPdf     20 18 00.6 +2.6
MORF                                i P                20 21 23.9
SCHQ  Schefferville      131.92  12  PKhKP             20 17 49.6
      comp=Z,7.1nm,0.9s,baz=272,slow=2.3,SNR=3.6
SCHQ                                 PKP     PKPdf     20 17 58.5 +0.8
      comp=Z,17nm,0.5s,baz=289,slow=1.2,SNR=20
SCHQ                                 SKPbc   SKPbc     20 21 23.2 +0.1
      comp=Z,39nm,0.9s,baz=347,slow=5.8,SNR=14
SCHQ                                 PKKP              20 27 52.7
      comp=Z,8.9nm,1.2s,baz=88,slow=4.7,SNR=4.2
SCHQ  Schefferville      131.92  12  PKP               20 17 49.6
SCHQ                                 PKP     PKPdf     20 17 58.5 +0.8
SCHQ                                 SKPbc   SKPbc     20 21 23.2 +0.1
SCHQ                                 PKKP              20 27 52.7
KVTX  Kingsville         132.06  60  PFAKE             20 18 10.0  +11
KVTX                                 LR      LR
      comp=Z,3µm,20.0s,MS6.0
HKT   Hockley            133.12  56 ePKIKP   PKPdf     20 18 01.6 +0.8
HKT                                  MLR     MLR
      comp=Z,5µm,21.0s,MS6.2
MIAR  Mount Ida          133.26  50 ePKPdf   PKPdf     20 18 01.3 +0.4
MIAR                                eSKP               20 21 29.2
MIAR                                 LR      LR
      comp=Z,8µm,19.0s,MS6.4
CCM   Cathedral Cave     133.38  44 ePKPdf   PKPdf     20 18 01.4 +0.4
CCM                                  LR      LR
      comp=Z,5µm,21.0s,MS6.2
HDIL  Hopedale           133.38  40 ePKPdf   PKPdf     20 18 00.7  -0.3
HDIL                                 LR      LR
      comp=Z,4µm,20.0s,MS6.1
NATX  Nacogdoches        133.47  54  PFAKE             20 18 10.0 +8.6
NATX                                 LR      LR
      comp=Z,4µm,21.0s,MS6.1
GLMI  Grayling           133.55  33  PFAKE             20 18 10.0 +8.9
GLMI                                 LR      LR
      comp=Z,4µm,19.0s,MS6.2
KIC   Kosan Boka         133.77 271 ePKP2    PKPdf     20 18 02.8 +0.4
      comp=Z,216nm,1.0s
DBIC  Dimbokro           133.91 271  PKhKP             20 17 52.7
      comp=Z,4.1nm,0.6s,baz=130,slow=5.6,SNR=5.7
DBIC                                 PKP     PKPdf     20 18 04.0 +1.3
      comp=Z,40nm,1.0s,baz=69,slow=1.8,SNR=15
DBIC                                 SKPbc   SKPbc     20 21 31.2   0.0
      comp=Z,22nm,0.8s,baz=122,slow=2.7,SNR=11
DBIC  Dimbokro           133.91 271  PKP               20 17 52.7
DBIC                                 LR      LR
      comp=Z,4µm,19.0s,MS6.2
FVM   French Village     133.98  44 ePKPdf   PKPdf     20 18 02.5 +0.3
FVM                                 ePP      PP        20 20 25.1  -6.9
FVM                                 eSKP               20 21 31.3
LIC   Lamto              134.04 271 ePKIKP   PKPdf     20 18 02.7  -0.3
      comp=Z,48nm,0.6s
LIC                                 eMLR     MLR
      comp=Z,6µm,22.0s,MS5.9
LIC   Lamto              134.04 271 ePKP2    PKPdf     20 18 02.1  -0.9
      comp=Z,182nm,1.1s
LIC   Lamto              134.04 271 ePKPdf   PKPdf     20 18 02.7  -0.3
LIC                                  LR      LR
      comp=Z,3µm,22.0s,MS5.9
TIC   Toumodi            134.07 271 ePKP2    PKPdf     20 18 03.9 +0.9
      comp=Z,334nm,1.2s
UALR  University of      134.09  49 ePKPdf   PKPdf     20 18 06.3 +3.8
UALR                                eSKP               20 21 33.9
SIUC  Southern Illin     134.94  43 ePKPdf   PKPdf     20 18 02.8  -1.2
OLIL  Olney              135.15  42 ePKPdf   PKPdf     20 18 05.3 +1.0
OLIL                                eSKP               20 21 35.5
AAM   Ann Arbor          135.73  35  PFAKE             20 18 20.0  +15
AAM                                  LR      LR
      comp=Z,4µm,21.0s,MS6.1
USIN  University of      135.85  42 ePKPdf   PKPdf     20 18 07.4 +1.7
USIN                                eSKP               20 21 37.0
BLO   Bloomington        135.93  40 ePKPdf   PKPdf     20 18 07.0 +1.2
SADO  Sadowa             136.36  29  PKhKP             20 17 56.4
      comp=Z,7.1nm,0.8s,baz=42,slow=1.4,SNR=3.5
SADO                                 PKP     PKPdf     20 18 06.8 +0.4
      comp=Z,34nm,1.0s,baz=306,slow=4.4,SNR=8.6
SADO                                 SKPbc   SKPbc     20 21 38.0   0.0
      comp=Z,18nm,0.9s,baz=131,slow=2.2,SNR=5.9
SADO  Sadowa             136.36  29  PKP               20 17 56.4
SADO                                 PKP     PKPdf     20 18 06.8 +0.4
SADO                                 SKPbc   SKPbc     20 21 38.0  -0.1
VBMS  Vicksburg          136.55  51 ePKPdf   PKPdf     20 18 09.4 +2.3
VBMS                                 LR      LR
      comp=Z,5µm,21.0s,MS6.2
WCI   Wyandotte Cave     136.61  41  PFAKE             20 18 20.0  +13
WCI                                  LR      LR
      comp=Z,4µm,22.0s,MS6.1
CMIG  Matias Romero      136.69  74  PKP     PKPdf     20 18 08.4 +0.7
      comp=Z,20nm,1.0s,baz=337,slow=2.9,SNR=13
CMIG                                 SKPbc   SKPbc     20 21 39.5  -0.4
      comp=Z,3.0nm,0.3s,baz=359,slow=14,SNR=4.4
WVT   Waverly            136.70  45 ePKPpre            20 17 57.2
WVT                                  LR      LR
      comp=Z,4µm,22.0s,MS6.1
PLAL  Pickwick Lake      137.11  46 ePKPpre            20 17 59.2
PLAL                                 LR      LR
      comp=Z,8µm,21.0s,MS6.4
CFAA  Coronel Fontan     137.20 159  PKhKP             20 17 57.9
      comp=Z,1.4nm,0.8s,baz=218,slow=2.7,SNR=6.8
CFAA                                 PKP     PKPdf     20 18 09.7 +1.2
      comp=Z,7.7nm,1.0s,baz=235,slow=2.7,SNR=11
CFAA                                 SKPbc   SKPbc     20 21 40.8  -0.3
      comp=Z,0.9nm,0.9s,baz=209,slow=4.1,SNR=5.1
CFAA  Coronel Fontan     137.20 159  PKP               20 17 57.9
CFAA                                 PKP     PKPdf     20 18 09.7 +1.2
CFAA                                 SKPbc   SKPbc     20 21 40.8  -0.3
ACSO  Alum Creek Sta     137.46  36 ePKPdf   PKPdf     20 18 09.2 +0.7
ACSO                                 LR      LR
      comp=Z,5µm,20.0s,MS6.2
ERPA  Erie               137.85  32 ePKPdf   PKPdf     20 18 10.1 +0.9
ERPA                                 LR      LR
      comp=Z,4µm,19.0s,MS6.1
LCO   Las Campanas       138.52 154 ePKPpre            20 18 02.4
LCO                                  LR      LR
      comp=Z,6µm,20.0s,MS6.3
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LONY  Lake Ozonia        138.52  25 ePKPpre            20 18 04.5
LONY                                 LR      LR
      comp=Z,3µm,19.0s,MS6.1
LRAL  Lakeview Retre     138.84  48  PFAKE             20 18 20.0 +8.7
LRAL                                 LR      LR
      comp=Z,5µm,21.0s,MS6.3
NCB   Newcomb            139.20  25  PFAKE             20 18 20.0 +8.4
NCB                                  LR      LR
      comp=Z,4µm,21.0s,MS6.2
TZTN  Tazewell           139.37  41 ePKPdf   PKPdf     20 18 12.3 +0.2
MCWV  Mont Chateau       139.64  35 ePKPpre            20 18 06.4
MCWV                                 LR      LR
      comp=Z,6µm,20.0s,MS6.3
TKL   Tuckaleechee C     139.73  43  PKhKP             20 18 06.6
      comp=Z,13nm,0.9s,baz=228,slow=1.1,SNR=5.8
TKL                                  PKP     PKPdf     20 18 13.8 +0.9
      comp=Z,68nm,1.0s,baz=157,slow=4.5,SNR=12
TKL                                  SKPbc   SKPbc     20 21 47.7  -0.3
      comp=Z,33nm,1.1s,baz=186,slow=1.0,SNR=4.3
TKL   Tuckaleechee C     139.73  43  PKP               20 18 06.6
TKL                                  PKP     PKPdf     20 18 13.8 +0.9
TKL                                  SKPbc   SKPbc     20 21 47.7  -0.3
BRAL  Brewton            139.73  51  PFAKE             20 18 30.0  +17
BRAL                                 LR      LR
      comp=Z,4µm,20.0s,MS6.2
BINY  Binghamton         139.80  29 ePKPpre            20 18 04.9
BINY                                 LR      LR
      comp=Z,4µm,19.0s,MS6.2
SSPA  Standing Stone     140.02  32  PFAKE             20 18 30.0  +17
SSPA                                 LR      LR
      comp=Z,3µm,21.0s,MS6.0
PAYG  Puerto Ayora       140.18 101  PFAKE             20 18 30.0  +16
PAYG                                 LR      LR
      comp=Z,3µm,19.0s,MS6.0
BLA   Blacksburg         140.93  38 ePKPpre            20 18 08.3
BLA                                  LR      LR
      comp=Z,4µm,20.0s,MS6.2
GOGA  Godfrey            141.19  45 ePKPdf             20 18 08.6
GOGA                                 LR      LR
      comp=Z,8µm,21.0s,MS6.4
CBN   Corbin             142.04  34  PFAKE             20 18 30.0  +13
CBN                                  LR      LR
      comp=Z,4µm,21.0s,MS6.2
TEIG  Tepich             142.36  68  PKhKP             20 18 13.0
      comp=Z,42nm,0.9s,baz=161,slow=12,SNR=4.0
TEIG                                 PKP     PKPdf     20 18 18.5 +0.5
      comp=Z,42nm,0.9s,baz=322,slow=3.3,SNR=8.7
TEIG  Tepich             142.36  68  PKP     PKPdf     20 18 13.0  -5.0
TEIG                                 PKP     PKPdf     20 18 18.5 +0.5
TEIG                                 LR      LR
      comp=Z,3µm,20.0s,MS6.0
CMLA  Cha da Macela      142.48 325 eP       PKPdf     20 18 12.9  -4.9
CMLA  Cha da Macela      142.48 325  PFAKE             20 18 30.0  +12
CMLA                                 LR      LR
      comp=Z,4µm,21.0s,MS6.1
NHSC  New Hope           143.63  43 ePKPpre            20 18 18.6
NHSC                                 LR      LR
      comp=Z,5µm,22.0s,MS6.2
CNNC  Cliffs of the      143.76  38 ePKPpre            20 18 18.3
CNNC                                 LR      LR
      comp=Z,6µm,21.0s,MS6.3
TGUH  Tegucigalpa,Un     144.30  77 ePKPdf   PKPdf     20 18 20.8  -0.8
TGUH                                 LR      LR
      comp=Z,3µm,21.0s,MS6.1
LVC   Limon Verde        144.83 151  PKP     PKPdf     20 18 23.0 +0.7
      comp=Z,267nm,0.9s,baz=230,slow=2.4,SNR=119
LVC   Limon Verde        144.83 151  PKP     PKPdf     20 18 23.0 +0.7
LVC                                  LR      LR
      comp=Z,4µm,21.0s,MS6.2
CPUP  Villa Florida      145.14 171  PKIKP   PKPdf     20 18 22.8   0.0
CPUP                                 pmax    pmax
      comp=Z,253nm,0.9s
CPUP  Villa Florida      145.14 171  PKPbc   PKPbc     20 18 22.8 +0.6
      comp=Z,253nm,0.9s,baz=176,slow=2.5,SNR=138
BBTS  Babate             145.33 284  PKPbc   PKPbc     20 18 23.1  -0.1
      comp=Z,657nm,1.0s,baz=146,slow=0.6,SNR=42
DWPF  Disney             145.41  51 ePKPdf   PKPdf     20 18 23.0  -0.2
DWPF                                 LR      LR
      comp=Z,6µm,22.0s,MS6.3
VCR   Vista de Mar       146.10  84 eP       PKPbc     20 18 27.6 +2.0
JCR   Jicaral            146.61  85 eP       PKPbc     20 18 29.2 +2.1
FORC  Fortuna            147.04  84 eP       PKPbc     20 18 30.1 +1.7
CGA2  Cerro Gallo 2      147.25  84 eP       PKPbc     20 18 30.2 +1.3
PRS1  Puriscal           147.40  84 eP       PKPbc     20 18 30.2 +0.8
QCR   Quepos             147.54  85 eP       PKPbc     20 18 29.6  -0.1
LAJ   Bijagual           147.59  85 eP       PKPbc     20 18 29.8  -0.1
NNA   Nana               147.64 128  PKPbc   PKPbc     20 18 28.7  -1.3
      comp=Z,240nm,0.9s,baz=252,slow=5.6,SNR=41
NNA   Nana               147.64 128  PKPbc   PKPbc     20 18 28.7  -1.3
NNA                                  LR      LR
      comp=Z,4µm,19.0s,MS6.2
LCR2  La Lucha 2         147.71  85 eP       PKPbc     20 18 29.3  -0.9
URSC  Urasca             147.93  85 eP       PKPbc     20 18 29.2  -1.6
BUS   Buena Vista        147.95  85 eP       PKPbc     20 18 30.0  -0.9
ARE   Arequipa           148.37 141 eP       PKPbc     20 18 30.0  -1.9
ARE                                 i                  20 18 33.2
ACR   Cerro Adams        148.51  87 eP       PKPbc     20 18 30.5  -1.8
ATAH  Atahualpa          149.06 119  PKP     PKPbc     20 18 30.9  -2.8
      comp=Z,162nm,1.1s,baz=234,slow=2.1,SNR=11
ATAH                                 PKPbc   PKPbc     20 18 36.2 +2.5
      comp=Z,288nm,1.1s,baz=337,slow=2.3,SNR=42
BCIP  Isla Barro Col     151.81  86 ePKPdf   PKPdf     20 18 33.1  -0.8
BCIP                                 LR      LR
      comp=Z,3µm,19.0s,MS6.2
OTAV  Otavalo            151.83 105  PFAKE             20 18 50.0  +16
OTAV                                 LR      LR
      comp=Z,3µm,19.0s,MS6.2
MTDJ  Mount Denham       152.67  66 ePKPbc   PKPbc     20 18 43.0 +0.9
BBSR  BB Station         152.98  25 ePKPbc   PKPbc     20 18 43.7 +1.3
BBSR                                 LR      LR
      comp=Z,3µm,20.0s,MS6.1
SIV   San Ignacio        154.06 158  PKP     PKPdf     20 18 38.6 +1.4
      comp=Z,24nm,1.0s,baz=256,slow=8.2,SNR=9.4
SIV                                  PKPbc   PKPbc     20 18 46.7 +1.5
      comp=Z,53nm,1.0s,baz=184,slow=1.5,SNR=12
SIV                                  PKPab   PKPab     20 19 00.1 +1.7
      comp=Z,74nm,1.2s,baz=217,slow=6.4,SNR=7.0
GTBY  Guantanamo Bay     154.22  61  PFAKE             20 18 50.0  +13
GTBY                                 LR      LR
      comp=Z,3µm,21.0s,MS6.1
ROSC  El Rosal           156.91  97  PKPab   PKPab     20 19 13.1 +2.0
      comp=Z,68nm,1.0s,baz=115,slow=3.8,SNR=6.4
RCBR  Riachuelo          159.21 228  PFAKE             20 19 00.0  +16
RCBR                                 LR      LR
      comp=Z,5µm,21.0s,MS6.3
SDV   Santo Domingo      160.91  87  PKP     PKPdf     20 18 46.3 +0.5
      comp=Z,52nm,1.0s,baz=292,slow=4.3,SNR=6.6
SDV   Santo Domingo      160.91  87  PKP     PKPdf     20 18 46.3 +0.5
SDV                                  LR      LR
      comp=Z,2µm,20.0s
SJG   San Juan           162.57  54  PFAKE             20 19 00.0  +13
SJG                                  LR      LR
      comp=Z,5µm,20.0s
ANWB  Willy Bob          166.17  46  PFAKE             20 19 00.0 +9.4
ANWB                                 LR      LR
      comp=Z,5µm,22.0s
FDF   Fort de France     168.42  55  PFAKE             20 19 00.0 +7.7
FDF                                  LR      LR
      comp=Z,4µm,19.0s
GRGR  Grenville          169.13  68  PFAKE             20 19 00.0 +7.2
GRGR                                 LR      LR
      comp=Z,3µm,20.0s
BBGH  Gun Hill           170.57  58  PFAKE             20 19 00.0 +6.4
BBGH                                 LR      LR
      comp=Z,8µm,20.0s
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*TRN **13** 20:06:40.6, 10.°32N×62.°26W, h5km, MD4.7*

TRN Felt widely in Trinidad III - IV.

*NEIC **13** 20:06:40.7, 10.°32N×62.°26W, h6km, mb5.1/54, MD4.7(TRN), MW4.8(CAR), After TRN.*

NEIC Felt at Ciudad Guayana. Felt [IV] in parts of western Trinidad and [II] at Port-of-Spain.

*LDG **13** 20:06:41.2±0.6, 10.°39N×62.°03W, h10km, Mb5.2/11, Ms4.3/1, Error ellipse: s-maj=32.0km s-min=10.1km az=79.0*

*ISCJB **13** 20:06:41.3±0.4, 10.°33N±0.°02×62.°32W±0.°01, h20km±3km, mb5.0/106, MS5.2/12, Error ellipse: s-maj=3.0km s-min=2.0km az=143.4*

*FUNV **13** 20:06:42.0, 10.°37N×62.°17W, h5km, MW4.8*

*BJI **13** 20:06:43.6, 10.°30N×62.°30W, h16km, mB5.4/3, Ms5.8/6, Ms7 5.4/10*

IDC ***13*** *20:06:43.8±2.2, 10.°40N×62.°37W, h22^{km}±14^{km}, mb4.6/35, mb1 4.7/38, mb1mx4.7/42, mbtmp4.6/38, ML3.9/2, MS4.7/7, Ms1 4.7/7, ms1mx4.2/42, Error ellipse: s-maj=11.0km s-min=9.7km az=116.0*

MOS ***13*** *20:06:43.6±1.2, 10.°42N×62.°34W, h33^{km}, mb5.2/25, Error ellipse: s-maj=7.9km s-min=6.8km az=63.0*

ISC 13 20:06:41.6±0.4, **10.°33N**±0.°02×**62.°29W**±0.°01, **h8**^{km}±2^{km}, **h20**^{km}±1.9^{km}**:pP-P, n314, σ1.^{s}14**/334, **mb5.0**/106, **MS5.2**/12, **13C-10D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.32	11	iP	Pg	20 06 47.0	-0.9
GUIV				eS	Sg	20 06 51.0	-1.2
GUIV	Guiria	0.32	11	eP	Pg	20 06 47.0	-0.9
GUIV				eS	Sg	20 06 51.9	-0.2
ALNG	Atlantic LNG	0.61	104	⇑eP	Pg	20 06 54.7	+1.3
ALNG				eS	Sg	20 07 00.5	-0.8
BUAY	Buenos Aires	0.63	111	⇓eP	Pg	20 06 52.3	-1.5
BUAY				eS	Sg	20 07 00.7	-1.3
TCE	Chacachacare	0.64	55	⇓iP	Pg	20 06 52.0	-1.9
GUNV	Guanoco	0.67	255	eP	Pg	20 06 55.0	+0.5
GUNV				eS	Sg	20 07 07.9	+4.7
TPP	Pointe-a-Pierr	0.82	91	⇑iP	Pg	20 06 56.9	-0.6
TRN	Trinidad (W)	0.92	70	⇑iP	Pg	20 06 57.0	-2.4
CRUV	Carupano	0.99	290	eP	Pg	20 06 59.6	-1.2
CRUV				eS	Sg	20 07 15.5	+1.8
TBH	Brigand Hill	1.21	83	⇑iP	Pb	20 07 03.4	-1.3
TBH				eS	Sb	20 07 21.4	+1.0
ITEV	Isla Los Testi	1.31	321	iP	Pn	20 07 05.5	-0.7
ITEV				eS	Sb	20 07 24.7	+1.2
ITEV	Isla Los Testi	1.31	321	eP	Pn	20 07 05.5	-0.7
ITEV				eS	Sb	20 07 23.3	-0.1
ORIV	Oritupano	1.68	221	eP	Pn	20 07 12.9	+1.7
ORIV				eS	Sn	20 07 35.2	+2.4
ORIV	Oritupano	1.68	221	eP	Pn	20 07 13.0	+1.8
ORIV				eS	Sn	20 07 35.7	+2.9
TPR	Prospect	1.71	60	⇑iP	Pn	20 07 10.6	-1.0
TPR				eS	Sn	20 07 33.5	-0.2
BOT	Bacolet	1.75	62	⇑iP	Pn	20 07 11.0	-1.2
BOT				eS	Sn	20 07 34.9	+0.2
GRGR	Grenville	1.89	19	ePn	Pn	20 07 12.5	-1.7
GRGR				eSn	Sn	20 07 35.0	-3.2
GRW	Mount Saint Ca	1.92	19	eP	Pn	20 07 13.1	-1.4
TOSP	Speyside	1.97	61	eP	Pn	20 07 15.0	-0.3
TOSP				eS	Sn	20 07 40.5	+0.4
GRHS	Sauteurs	1.98	19	⇓iP	Pn	20 07 14.7	-0.7
GRHS				eS	Sn	20 07 40.2	-0.2
GRHS	Sauteurs	1.98	19	⇓iP	Pn	20 07 14.7	-0.7
GRHS				eS	Sn	20 07 39.2	-1.2
GRIC	Isle de Caille	2.06	19	⇑iP	Pn	20 07 17.0	+0.5
GRIC				eS	Sn	20 07 42.8	+0.5
GRSS	Sisters	2.06	19	⇓iP	Pn	20 07 16.3	-0.2
GRSS				eS	Sn	20 07 41.8	-0.6
GRCU	Cariacou	2.27	21	⇑iP	Pn	20 07 19.2	-0.2
GRCU				eS	Sn	20 07 48.1	+0.4
RIOV	Rio Grande	2.30	168	eP	Pn	20 07 20.0	+0.2
PCRV	Puerto La Cruz	2.32	266	eP	Pn	20 07 19.9	-0.2
PCRV	Puerto La Cruz	2.32	266	Pn	Pn	20 07 19.9	-0.2
	38nm,0.3s,baz=61,slow=4.5,SNR=118						
PCRV				Sn	Sn	20 07 49.3	+0.6
	173nm,0.3s,baz=300,slow=15,SNR=5.5						
PCRV				LR	LR	20 08 23.1	
	comp=Z,6µm,18.7s,baz=82,slow=45						
PCRV	Puerto La Cruz	2.32	266	eP	Pn	20 07 20.0	-0.1
GURV	El Guri	2.68	197	eP	Pn	20 07 24.7	-0.3
GURV				eS	Sn	20 07 56.6	-1.0
GURV	El Guri	2.68	197	eP	Pn	20 07 24.8	-0.1
IBAV	Isla La Blanqu	2.69	304	eP	Pn	20 07 24.8	-0.4
PRGV	PARIAGUAN	2.80	236	eP	Pn	20 07 27.9	+1.2
FCV	Fort Charlotte	2.98	20	eP	Pn	20 07 29.5	+0.3
FCV				eS	Sn	20 08 04.8	-0.4
SVB	Belmont	3.09	19	eP	Pn	20 07 31.1	+0.5
SVB				eS	Sn	20 08 07.2	-0.6
SVB	Belmont	3.09	19	eP	Pn	20 07 31.1	+0.5
SVB				eS	Sn	20 08 11.6	+3.8
SVV	Soufriere Volc	3.15	19	eP	Pn	20 07 31.8	+0.4
SVV				eS	Sn	20 08 14.1	+5.0
SVV	Soufriere Volc	3.15	19	eP	Pn	20 07 33.3	+1.9
SVV				eS	Sn	20 08 04.6	-4.6
BHS	Barnard House	3.15	21	eP	Pn	20 07 31.3	-0.3
BHS				eS	Sn	20 08 08.6	-0.8
BHS	Barnard House	3.15	21	eP	Pn	20 07 33.1	+1.6
BHS				eS	Sn	20 08 14.5	+5.1
SSV	Crater Summit	3.16	20	eP	Pn	20 07 31.0	-0.6
SSV				eS	Sn	20 08 12.0	+2.4
SSV	Crater Summit	3.16	20	eP	Pn	20 07 31.0	-0.6
SSV				eS	Sn	20 08 00.6	-9.0
CUPV	Cœpira	3.46	266	eP	Pn	20 07 37.2	+1.4
CUPV				eS	Sn	20 08 17.9	+0.9
CUPV	Cœpira	3.46	266	eP	Pn	20 07 37.2	+1.4
MCLT	Moule a Chique	3.60	21	eP	Pn	20 07 37.8	+0.1
MCLT				eS	Sn	20 08 18.8	-1.7
SLB	Belfond	3.68	19	⇑iP	Pn	20 07 38.3	-0.5
BBGH	Gun Hill	3.86	43	ePn	Pn	20 07 41.7	+0.4
BBSP	Saint Philip	3.91	45	eP	Pn	20 07 43.4	+1.5
BBSP	Saint Philip	3.91	45	eP	Pn	20 07 44.4	+2.5
BIRV	Birongo	3.92	272	eS	Sn	20 08 28.1	-0.3
MERV	Las Mercedes	4.10	255	eP	Pn	20 07 45.6	+1.1
MERV				eS	Sn	20 08 33.1	+0.4
ORCV	Isla La Orchil	4.11	291	eP	Pn	20 07 44.6	-0.1
BIM	Bigot	4.32	16	⇓eP	Pn	20 07 47.6	-0.1
BIM				⇓eS	Sn	20 08 36.8	-1.4
MVM	Montagne Vaucl	4.41	18	eP	Pn	20 07 49.5	+0.6
MVM				eS	Sn	20 08 40.7	+0.3
FUNV	FUNVISIS	4.45	272	eP	Pn	20 07 50.9	+1.5
FUNV				eS	Sn	20 08 41.1	-0.4
FDF	Fort de France	4.51	14	eP	Pn	20 07 50.1	-0.2
FDF				eS	Sn	20 08 42.5	-0.4
FDF	Fort de France	4.51	14	ePn	Pn	20 07 49.4	-0.8
LUEV	Luepa	4.54	170	eP	Pn	20 07 49.0	-1.6
DSHT	Scott’s Head	4.93	10	⇑eP	Pn	20 07 56.6	+0.7
DSHT				eS	Sn	20 08 54.2	+0.9
DFBT	Forest Bistro	4.96	10	eP	Pn	20 07 58.3	+1.9
DFBT				eS	Sn	20 08 53.2	-0.7
DPMT	Pointe Michel	4.98	10	eP	Pn	20 07 58.7	+2.1
DPMT				eS	Sn	20 08 49.1	-5.3
DSTT	Stowe	4.98	11	⇓eP	Pn	20 07 56.6	0.0
DSTT				eS	Sn	20 08 52.5	-1.8
CAOV	Caicara del Or	4.98	233	⇑eP	Pn	20 07 56.8	0.0
CAOV				eS	Sn	20 08 52.8	-1.8
MDN	Morne-Daniel	5.03	10	eP	Pn	20 07 59.4	+2.0
MDN				eS	Sn	20 08 57.1	+1.4
DLPL	La Plaine	5.07	11	eP	Pn	20 07 59.8	+1.9
TURV	Turiamo	5.46	272	eP	Pn	20 08 04.0	+0.6
TURV				eS	Sn	20 09 05.4	-1.1
TBG	Guadaloupe-3	5.52	6	eP	Pn	20 08 06.3	+2.2
HMG	Houelmont	5.64	6	eP	Pn	20 08 06.5	+0.7
PHG	Guadaloupe-2	5.68	6	eP	Pn	20 08 07.3	+1.0
SCG	Saint Claude	5.69	6	eP	Pn	20 08 07.4	+1.0
DOG	Dongo Capester	5.70	6	eP	Pn	20 08 07.3	+0.7
TAG	Tarade	5.71	6	eP	Pn	20 08 07.4	+0.7
ECG	Echelle	5.71	6	eP	Pn	20 08 07.5	+0.9
LKG	Breislack	5.71	6	eP	Pn	20 08 09.6	+2.9
CRG	Carmichael	5.72	6	eP	Pn	20 08 07.5	+0.6
MLG	Mont-d’or	5.72	6	eP	Pn	20 08 07.0	+0.2
LZG	Guadaloupe-1	5.79	5	eP	Pn	20 08 08.2	+0.3
BAUV	El Baul	5.84	257	eP	Pn	20 08 09.0	+0.5
BAUV				eS	Sn	20 09 12.7	-3.1
BAUV	El Baul	5.84	257	eP	Pn	20 08 08.8	+0.3
BAUV				eS	Sn	20 09 12.0	-3.7
SFG	Saint Francois	5.98	10	eP	Pn	20 08 12.1	+1.7
DEG	La Desirade	6.06	11	eP	Pn	20 08 11.3	-0.2
SEG	Port Louis	6.08	7	eP	Pn	20 08 13.1	+1.3
MAPV	Macapo	6.10	266	eP	Pn	20 08 13.4	+1.3
MAPV				eS	Sn	20 09 20.1	-2.0
JACV	Jacura	6.47	277	eP	Pn	20 08 17.7	+0.4
BPA	Boggy Peak	6.69	4	eP	Pn	20 08 19.9	-0.3
BPA				eS	Sn	20 09 38.1	+1.6
TEPV	Terepaima	6.81	268	eP	Pn	20 08 22.6	+0.8
SKI	Saint Kitts	6.97	356	eP	Pn	20 08 26.1	+2.0
SANV	Sanarito	7.19	264	eP	Pn	20 08 27.9	+0.8
PAYV	Puerto Ayacuch	7.22	228	eP	Pn	20 08 27.2	-0.3
PAYV	Puerto Ayacuch	7.22	228	eP	Pn	20 08 27.2	-0.3
ANWB	Willy Bob	7.31	4	eP	Pn	20 08 30.3	+1.6
	395nm,0.7s						
SIQV	Siquisique	7.40	273	eP	Pn	20 08 28.5	-1.6
CURV	Curarigua	7.56	268	eP	Pn	20 08 33.5	+1.4
CURV				eS	Sn	20 09 56.0	-2.1
MONV	Montecano	7.71	283	eP	Pn	20 08 34.1	-0.1
ELOV	Elorza	7.85	246	eP	Pn	20 08 36.8	+0.6
QARV	Quebrada Arrib	8.11	270	eP	Pn	20 08 40.7	+1.0
MTP	Monte Pirata	8.34	338	ePn	Pn	20 08 42.1	-0.7
	58nm,0.6s						
SDV	Santo Domingo	8.36	261	eP	Pn	20 08 42.6	-0.5
SDV	Santo Domingo	8.36	261	Pn	Pn	20 08 42.7	-0.4
	12nm,0.3s,baz=92,slow=7.6,SNR=56						
SDV				Sn	Sn	20 10 24.2	+6.5
	7.2nm,0.3s,baz=312,slow=13,SNR=2.7						
SDV				Lg		20 11 05.2	
	7.7nm,0.3s,baz=240,slow=20,SNR=2.3						
SOCV	Socops	8.70	257	eP	Pn	20 08 47.9	0.0
VIGV	El Vigia	9.07	261	eP	Pn	20 08 54.0	+1.0
AGPR	Aguadilla, PR	9.34	331	ePn	Pn	20 08 59.7	+3.2
VIRV	Villa del Rosa	9.96	272	eP	Pn	20 09 05.0	-0.1
CAPV	Capacho	10.20	257	eP	Pn	20 09 07.8	-0.6
ROSC	El Rosal	13.12	246	Pn	Pn	20 09 49.0	+0.7
	3.2nm,0.3s,baz=105,slow=21,SNR=6.2						
ROSC				Lg		20 13 39.2	
	2.0nm,0.3s,baz=72,slow=20,SNR=3.3						
OTAV	Otavalo	18.95	239	ePn	Pn	20 11 06.3	+2.4
	90nm,1.4s						
ATAH	Atahualpa	23.53	224	P	P	20 11 55.5	+2.8
	27nm,0.8s,mb4.7,baz=52,slow=4.8,SNR=16						
ATAH				LR	LR	20 22 35.9	
	comp=Z,4µm,19.3s,MS4.9,baz=213,slow=40						
SIV	San Ignacio	26.18	177	P	P	20 12 17.3	+0.6
	11nm,0.7s,mb4.5,baz=12,slow=9.2,SNR=35						
NNA	Nana	26.48	213	P	P	20 12 20.9	+1.4
	8.5nm,0.5s,mb4.6,baz=12,slow=10,SNR=5.0						
NNA				LR	LR	20 23 32.6	
	comp=Z,3µm,21.8s,MS4.8,baz=24,slow=38						
TEIG	Tepich	26.89	295	P	P	20 12 23.2	-0.1
	4.8nm,0.5s,mb4.3,baz=117,slow=9.2,SNR=2.1						
TEIG				LR	LR	20 23 29.5	
	comp=Z,1µm,18.6s,MS4.4,baz=296,slow=38						
TKL	Tuckaleechee C	31.89	326	eP	P	20 13 06.9	-0.5
LRAL	Lakeview Retre	32.05	319	eP	P	20 13 07.6	-1.3
	88nm,1.3s,mb5.4						
LVC	Limon Verde	33.38	191	P	P	20 13 20.7	+0.1
	3.0nm,0.5s,mb4.5,baz=1.4,slow=5.7,SNR=7.3						
LVC				LR	LR	20 27 54.1	
	comp=Z,2µm,20.1s,MS4.9,baz=347,slow=38						
LVC	Limon Verde	33.38	191	P	P	20 13 20.7	+0.1
LVC				LR	LR	20 27 54.1	
VBMS	Vicksburg	33.96	314	eP	P	20 13 25.9	+0.2
	153nm,1.2s,mb5.8						
PLAL	Pickwick Lake	33.98	320	eP	P	20 13 25.1	-0.6
	19nm,0.8s,mb5.1						
ACSO	Alum Creek Sta	34.98	332	eP	P	20 13 35.6	+1.3
	40nm,1.0s,mb5.3						
UTMT	University of	35.35	321	eP	P	20 13 38.2	+0.6
	307nm,0.9s,mb6.2						
SIUC	Southern Illin	36.46	323	eP	P	20 13 46.8	-0.3
	109nm,1.1s,mb5.7						
OLIL	Olney	36.50	325	eP	P	20 13 47.1	-0.3
	69nm,0.8s,mb5.6						
UALR	University of	36.65	316	eP	P	20 13 48.9	+0.2
	28nm,1.0s,mb5.0						
NATX	Nacogdoches	36.75	310	eP	P	20 13 49.1	-0.6
CPUP	Villa Florida	36.76	173	P	P	20 13 49.5	-0.2
	4.3nm,0.7s,mb4.4,baz=342,slow=8.3,SNR=7.4						
CPUP	Villa Florida	36.76	173	P	P	20 13 49.5	-0.2
HKT	Hockley	36.84	307	eP	P	20 13 50.2	-0.3
HKT				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.1						
HKT	Hockley	36.84	307	eP	P	20 13 50.2	-0.2
	comp=Z,50nm,1.5s,mb5.1						
SADO	Sadowa	37.26	340	P	P	20 13 52.7	-1.1
	comp=Z,6.0nm,0.8s,mb4.5,baz=166,slow=8.3,SNR=2.7						
FVM	French Village	37.36	322	eP	P	20 13 53.6	-1.1
FVM				pmax	pmax		
	comp=Z,73nm,1.4s,mb5.3						
FVM	French Village	37.36	322	eP	P	20 13 53.6	-1.1
	comp=Z,73nm,1.4s,mb5.3						
CCM	Cathedral Cave	37.90	322	eP	P	20 13 57.7	-1.6
CCM				pmax	pmax		
	comp=Z,71nm,1.4s,mb5.2						
CCM	Cathedral Cave	37.90	322	eP	P	20 13 57.7	-1.6
	comp=Z,71nm,1.4s,mb5.2						
HDIL	Hopedale	38.43	326	eP	P	20 14 02.8	-0.9
	comp=Z,23nm,0.7s,mb5.0						
JCT	Junction City	40.20	305	eP	P	20 14 17.4	-1.3
JCT				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.8						
JCT	Junction City	40.20	305	eP	P	20 14 17.4	-1.4
	comp=Z,13nm,0.6s,mb4.8						
JFWS	Jewell Farm	40.59	328	eP	P	20 14 20.5	-1.2
JFWS				pmax	pmax		
	comp=Z,132nm,1.3s,mb5.4						
JFWS	Jewell Farm	40.59	328	eP	P	20 14 20.5	-1.2
	comp=Z,132nm,1.3s,mb5.4						
SCIA	State Center	41.52	325	eP	P	20 14 28.3	-1.2
	comp=Z,35nm,0.9s,mb5.0						
CFAA	Coronel Fontan	42.09	188	P	P	20 14 33.8	-0.3
	comp=Z,0.8nm,0.8s,baz=359,slow=6.3,SNR=9.6						
CFAA				LR	LR	20 35 14.9	
	comp=Z,247nm,19.7s,baz=302,slow=41						
TXAR	Lajitas Array	42.98	302	P	P	20 14 40.9	-0.7
	comp=Z,1.4nm,0.6s,mb3.9,baz=125,slow=7.9,SNR=18						
TXAR				PcP	PcP	20 16 30.8	-1.3
	comp=Z,2.8nm,0.6s,baz=118,slow=5.5,SNR=8.3						
TXAR	Lajitas Array	42.98	302	P	P	20 14 40.9	-0.7
TXAR				PcP	PcP	20 16 30.8	-1.3
AMTX	Amarillo	43.40	311	eP	P	20 14 44.5	-0.3
	comp=Z,28nm,0.7s,mb5.1						
SCHQ	Schefferville	44.53	356	P	P	20 14 53.2	-0.4
	comp=Z,8.8nm,0.5s,mb4.8,baz=166,slow=7.6,SNR=34						
ANMO	Albuquerque	47.05	309	P	P	20 15 12.9	-0.9
	comp=Z,8.4nm,1.0s,mb4.6,baz=133,slow=7.7,SNR=9.0						
AGMN	Agassiz Refuge	47.15	330	eP	P	20 15 11.8	-2.5
	comp=Z,44nm,1.2s,mb5.3						
SDCO	Great Sand Dun	47.38	312	eP	P	20 15 14.8	-1.5
	comp=Z,23nm,1.3s,mb4.9						
ISCO	Idaho Springs	48.31	315	eP	P	20 15 22.4	-1.2
ISCO				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
ISCO	Idaho Springs	48.31	315	eP	P	20 15 22.4	-1.2
	comp=Z,14nm,1.1s,mb4.9						
ULM	Lac du Bonnet	48.48	332	P	P	20 15 22.1	-2.6
	comp=Z,6.0nm,0.4s,mb5.0,baz=132,slow=7.6,SNR=9.3						
SMCO	Snowmass	49.01	314	eP	P	20 15 31.1	+2.1
	comp=Z,42nm,1.1s,mb5.4						
RSSD	Black Hills	49.28	321	eP	P	20 15 28.9	-2.0
RSSD				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.8						
RSSD	Black Hills	49.28	321	eP	P	20 15 28.9	-2.0
	comp=Z,15nm,1.4s,mb4.8						
TUC	Tucson	49.69	304	eP	P	20 15 33.2	-1.1
TUC				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
TUC	Tucson	49.69	304	eP	P	20 15 33.2	-1.0
	comp=Z,4.5nm,1.0s,mb4.5						
WUAZ	Wupatki	51.04	308	eP	P	20 15 44.6	+0.2
	comp=Z,13nm,1.0s,mb4.8						
PLCA	Paso Flores	51.38	188	P	P	20 15 46.6	-0.2
	comp=Z,6.7nm,1.0s,mb4.5,baz=13,slow=17,SNR=7.1						
PLCA				PKKP		20 38 07.6	
	comp=Z,4.3nm,1.0s,baz=302,slow=3.2,SNR=3.4						
PLCA				LR	LR	20 38 59.0	
	comp=Z,2µm,21.6s,MS5.1,baz=207,slow=38						
PDAR	Pinedale Array	52.25	317	P	P	20 15 51.2	-2.1
	comp=Z,8.7nm,1.0s,mb4.7,baz=114,slow=9.4,SNR=42						
RLMT	Red Lodge	53.05	320	eP	P	20 15 57.9	-1.3
	comp=Z,39nm,1.4s,mb5.1						
REDW	Red Top Meadow	53.36	317	eP	P	20 15 59.9	-1.6
	comp=Z,42nm,1.3s,mb5.2						
DUG	Dugway	53.58	313	eP	P	20 16 02.0	-1.2
DUG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
DUG	Dugway	53.58	313	eP	P	20 16 02.0	-1.2
	comp=Z,6.7nm,0.8s,mb4.6						
RRI2	Red Ridge	53.66	317	eP	P	20 16 01.8	-2.0
	comp=Z,30nm,1.5s,mb5.0						
FCC	Fort Churchill	53.99	340	eP	P	20 16 02.3	-3.6
	comp=Z,0.3nm,0.8s						
FFC	Flin Flon	54.24	333	eP	P	20 16 04.6	-3.2
FFC				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
FFC	Flin Flon	54.24	333	eP	P	20 16 04.6	-3.2
	comp=Z,15nm,1.3s,mb4.8						
DLMT	Dillon	55.29	319	eP	P	20 16 14.0	-1.5
	comp=Z,12nm,1.1s,mb4.8						
ELK	Elko	55.51	313	P	P	20 16 16.5	-0.7
	comp=Z,0.8nm,0.4s,mb4.1,baz=253,slow=6.7,SNR=4.0						
HLID	Hailey	55.84	316	eP	P	20 16 17.9	-1.7
	comp=Z,13nm,1.2s,mb4.8						
EVO	Evora	55.86	50	eP	P	20 16 18.8	-1.0
PESTR	Estremoz	56.27	50	eP	P	20 16 24.1	+1.4
	comp=Z,57nm,1.8s,mb5.3						
PESTR				epP	pP	20 16 31.1	+5.7
PVIS	Viseu	56.54	48	eP	P	20 16 25.8	+1.1
	comp=Z,26nm,1.4s,mb5.1						
PVIS				epP	pP	20 16 31.6	+4.3
PMRV	Marv??o	56.56	49	eP	P	20 16 26.1	+1.3
	comp=Z,44nm,1.7s,mb5.2						
PCBR	Castelo Branco	56.61	49	eP	P	20 16 28.8	+3.7
PCBR				epP	pP	20 16 35.5	+7.7
TIC	Toumodi	56.70	89	eP	P	20 16 25.3	-0.9
	comp=Z,161nm,1.4s,mb5.9						
MTE	Manteigas	56.71	48	eP	P	20 16 26.1	+0.2
	comp=Z,52nm,1.6s,mb5.3						
MTE				epP	pP	20 16 31.6	+3.1
LIC	Lamto	56.75	89	eP	P	20 16 26.5	-0.1
	comp=Z,74nm,1.1s,mb5.3						
LIC	Lamto	56.75	89	eP	P	20 16 26.0	-0.6
	comp=Z,90nm,1.1s,mb5.7						
LIC	Lamto	56.75	89	eP	P	20 16 26.5	-0.1
	comp=Z,37nm,1.1s,mb5.3						
PVRL	Vila Real	56.83	47	eP	P	20 16 27.0	+0.3
	comp=Z,13nm,1.1s,mb4.9						
PVRL				epP	pP	20 16 32.9	+3.5
DBIC	Dimbokro	56.86	89	P	P	20 16 26.9	-0.4
	comp=Z,16nm,0.9s,mb5.1,baz=270,slow=7.2,SNR=18						
KIC	Kosan Boka	57.01	89	eP	P	20 16 27.8	-0.6
	comp=Z,182nm,1.0s,mb6.0						
SFJD	Kangerlussuaq	57.14	5	P	P	20 16 27.4	-1.0
	comp=Z,11nm,0.9s,mb4.9,baz=184,slow=9.8,SNR=4.3						
NVAR	Mina Array Bea	57.16	309	P	P	20 16 28.2	-0.9
	comp=Z,0.7nm,0.4s,mb4.0,baz=124,slow=8.0,SNR=2.6						
MVO	Moncorvo	57.30	47	eP	P	20 16 31.4	+1.4
	comp=Z,36nm,1.5s,mb5.2						
MVO				epP	pP	20 16 37.6	+4.9
MDT	Midelt	57.37	58	P	P	20 16 30.8	+0.1
	comp=Z,10nm,1.0s,mb4.8,baz=266,slow=8.5						
PBRG	Braganca	57.69	47	eP	P	20 16 37.3	+4.6
	comp=Z,30nm,1.6s,mb5.1						
PBRG				epP	pP	20 16 39.4	+4.0
PAB	San Pablo	58.88	50	eP	P	20 16 44.3	+3.2
PAB				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
PAB	San Pablo	58.88	50	eP	P	20 16 44.3	+3.2
	comp=Z,45nm,1.3s,mb5.3						
EDM	Edmonton	59.05	327	eP	P	20 16 39.7	-2.3
ESDC	Sonseca Array	59.19	50	P	P	20 16 44.1	+0.8
	comp=Z,7.8nm,0.7s,mb4.8,baz=262,slow=7.7,SNR=16						
ESLA	Sonseca Array	59.19	50	eP	P	20 16 43.8	+0.5
	comp=Z,12nm,1.2s,mb4.8						
QUIF	Quistinic	61.86	41	eP	P	20 17 01.4	0.0
	comp=Z,41nm,1.1s,mb5.2						
QUIF	Quistinic	61.86	41	eP	P	20 17 01.4	0.0
QUIF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.2						
QUIF	Quistinic	61.86	41	eP	P	20 17 01.4	0.0
	comp=Z,21nm,1.1s,mb5.2						
ROSF	Rostrenen	61.91	40	eP	P	20 17 01.7	0.0
SJPF	Ste Jean	61.96	47	eP	P	20 17 02.8	+0.7
	comp=Z,35nm,1.0s,mb5.1						
SJPF	Ste Jean	61.96	47	eP	P	20 17 02.8	+0.7
SJPF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
SJPF	Ste Jean	61.96	47	eP	P	20 17 02.8	+0.7
	comp=Z,18nm,1.0s,mb5.1						
SGMF	Saint Gilles	62.35	41	eP	P	20 17 04.0	-0.6
ETSF	Etsaut	62.39	47	eP	P	20 17 05.8	+0.8
	comp=Z,14nm,0.9s,mb4.8						
ETSF	Etsaut	62.39	47	eP	P	20 17 05.8	+0.8
ETSF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
ETSF	Etsaut	62.39	47	eP	P	20 17 05.8	+0.8
	comp=Z,6.9nm,0.9s,mb4.8						
TORD	Torodi Ar. Bea	62.56	81	P	P	20 17 05.8	-0.9
	comp=Z,9.3nm,0.8s,mb5.0,baz=285,slow=5.2,SNR=23						
EPF	Esparros	63.07	47	eP	P	20 17 10.2	+0.7
	comp=Z,31nm,0.9s,mb5.2						
EPF	Esparros	63.07	47	eP	P	20 17 10.2	+0.7
EPF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
EPF	Esparros	63.07	47	eP	P	20 17 10.2	+0.7
	comp=Z,16nm,0.9s,mb5.1						
GRR	Gorron	63.48	41	eP	P	20 17 11.9	-0.2
MFF	Saint Martin d	63.50	43	eP	P	20 17 12.4	+0.1
LFF	La Frestale	63.74	45	eP	P	20 17 14.1	+0.2
	comp=Z,28nm,0.9s,mb5.0						
LFF	La Frestale	63.74	45	eP	P	20 17 14.1	+0.2
LFF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
LFF	La Frestale	63.74	45	eP	P	20 17 14.1	+0.2
	comp=Z,14nm,0.9s,mb5.0						
FLN	La Foliniere	63.81	41	eP	P	20 17 14.2	-0.2
	comp=Z,44nm,0.9s,mb5.2						
FLN	La Foliniere	63.81	41	eP	P	20 17 14.2	-0.2
FLN				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
FLN	La Foliniere	63.81	41	eP	P	20 17 14.2	-0.2
	comp=Z,22nm,0.9s,mb5.2						
SUMG	Summit	63.83	8	eP	P	20 17 14.0	0.0
	comp=Z,66nm,1.1s,mb5.6						
LDF	La Druitiere	64.00	41	eP	P	20 17 15.4	-0.2
	comp=Z,30nm,1.0s,mb5.0						
LDF	La Druitiere	64.00	41	eP	P	20 17 15.4	-0.2
LDF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
LDF	La Druitiere	64.00	41	eP	P	20 17 15.4	-0.2
	comp=Z,15nm,1.0s,mb5.0						
YKA	Yellowknife Ar	64.08	336	P	P	20 17 15.3	-0.5
	comp=Z,3.7nm,0.6s,mb4.6,baz=120,slow=6.6,SNR=38						
ESK	Eskdalemuir	64.20	33	iP	P	20 17 15.7	-1.0
EKA	Eskdalemuir Ar	64.23	33	P	P	20 17 15.3	-1.6
	comp=Z,1.8nm,0.8s,mb4.2,baz=285,slow=5.4,SNR=12						
RJF	Les Rejaudoux	64.35	45	eP	P	20 17 18.6	+0.6
MTLF	Montolieu	64.47	47	eP	P	20 17 18.7	-0.1
CAF	Calviac	64.66	45	eP	P	20 17 19.7	-0.3
TCF	Toulx Ste Croi	65.03	44	eP	P	20 17 23.0	+0.7
SCO	Scoresbysund	65.17	14	iP	P	20 17 24.9	+2.1
SCO				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
SCO	Scoresbysund	65.17	14	iP	P	20 17 24.9	+2.1
	comp=Z,9.5nm,1.1s,mb4.7						
SCO	Scoresbysund	65.17	14	iP	P	20 17 24.9	+2.1
BGF	Bois d’Agland	65.51	43	eP	P	20 17 25.3	-0.2
TAM	Tamanrasset	65.69	70	eP	P	20 17 28.4	+1.3
TAM				pmax	pmax		
	comp=Z,82nm,1.5s,mb5.5						
TAM	Tamanrasset	65.69	70	eP	P	20 17 28.4	+1.3
	comp=Z,82nm,1.5s,mb5.5						
SSF	Saint Saulge	66.05	43	eP	P	20 17 28.1	-0.9
SSF	Saint Saulge	66.05	43	eP	P	20 17 28.1	-0.9
BBB	Bella Bella	67.14	322	P	P	20 17 36.3	+0.5
	comp=Z,18nm,0.9s,mb5.1,baz=132,slow=7.4,SNR=6.0						
HGN	Heimansgroeve	68.31	39	ex	PcP	20 18 12.3	+3.5
DLBC	Dease Lake	69.66	329	P	P	20 17 50.7	-0.7
	comp=Z,18nm,1.1s,mb4.9,baz=123,slow=2.5,SNR=4.8						
DAVOS	Davos	70.28	44	P	P	20 17 56.4	+0.9
DAVOX	Davos/Dischmat	70.33	44	P	P	20 17 56.4	+0.6
	comp=Z,7.3nm,0.6s,mb4.8,baz=334,slow=18,SNR=3.2						
MUD	Monsted U’grnd	71.22	34	eP	P	20 18 03.8	+2.8
MUD				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
MUD	Monsted U’grnd	71.22	34	iP	P	20 18 03.8	+2.8
	comp=Z,13nm,1.1s,mb4.8						
MUD	Monsted U’grnd	71.22	34	eP	P	20 18 03.8	+2.8
	comp=Z,13nm,1.1s,mb4.8						
NB2	NORSAR Subarra	73.04	29	P	P	20 18 12.4	+0.6
	comp=Z,66nm,1.2s,mb5.4,baz=260,slow=6.2						
NOA	NORSAR Array B	73.04	29	P	P	20 18 12.1	+0.3
	comp=Z,17nm,1.0s,mb4.9,baz=261,slow=5.9,SNR=11						
HFS	Hagfors	74.12	30	P	P	20 18 19.1	+0.9
	comp=Z,10nm,0.7s,mb4.9,baz=202,slow=3.2,SNR=9.0						
VRAC	Vranov	74.99	42	P	P	20 18 25.3	+1.7
	comp=Z,12nm,0.9s,mb4.8,baz=274,slow=6.6,SNR=5.2						
DAWY	Dawson	75.13	334	eP	P	20 18 22.9	-1.1
ZST	Bratislava	75.30	43	eP	P	20 18 32.3	+7.0
ZST				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
ZST	Bratislava	75.30	43	eP	P	20 18 32.3	+7.0
	comp=Z,13nm,0.9s,mb4.9						
MODS	Modra-Piesok	75.42	43	eP	P	20 18 25.7	-0.3
MODS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MODS	Modra-Piesok	75.42	43	eP	P	20 18 25.7	-0.3
MODS	Modra-Piesok	75.42	43	eP	P	20 18 25.7	-0.3
	comp=Z,9.8nm,1.0s,mb4.7						

EGAK	Eagle	75.97	334	eP	P	20 18 26.7	-2.2
KECS	Kecovo	77.56	43	eP	P	20 18 43.5	+5.4
KECS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
KECS	Kecovo	77.56	43	eP	P	20 18 43.5	+5.4
KECS	Kecovo	77.56	43	eP	P	20 18 43.5	+5.4
	comp=Z,5.8nm,1.0s,mb4.5						
SPITS	Spitsbergen Ar	77.62	12	P	P	20 18 37.3	-0.6
	comp=Z,12nm,0.9s,mb4.8,baz=172,slow=1.4,SNR=9.1						
STHS	Stebnicka Huta	78.03	42	eP	P	20 18 40.0	-0.7
STHS				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.5						
STHS	Stebnicka Huta	78.03	42	eP	P	20 18 40.0	-0.7
	comp=Z,8.6nm,1.4s,mb4.5						
COLA	College	78.83	334	eP	P	20 18 44.8	-0.1
COLA				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
COLA	College	78.83	334	eP	P	20 18 44.8	-0.1
	comp=Z,16nm,1.1s,mb4.9						
ARCES	ARCESS Array B	79.62	21	P	P	20 18 50.2	+1.2
	comp=Z,22nm,0.8s,mb5.1,baz=275,slow=4.4,SNR=7.7						
ARCES	ARCESS Array B	79.62	21	P	P	20 18 50.2	+1.1
TRF	Thorofare Moun	79.94	333	eP	P	20 18 47.7	-3.3
	comp=Z,31nm,1.0s,mb5.2						
KEV	Kevo	80.14	21	eP	P	20 18 54.6	+2.7
KEV				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.4						
KEV	Kevo	80.14	21	ep	P	20 18 54.6	+2.7
	comp=Z,44nm,0.9s,mb5.4						
KTH	Kantishna Hill	80.22	333	eP	P	20 18 50.2	-2.2
	comp=Z,51nm,1.3s,mb5.3						
KAF	Kangasniemi	80.29	28	eP	P	20 18 51.9	-0.9
KAF				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
KAF	Kangasniemi	80.29	28	ep	P	20 18 51.9	-0.9
	comp=Z,24nm,0.9s,mb5.1						
MLR	Muntele Rosu	81.49	45	P	P	20 19 00.2	+0.6
	comp=Z,29nm,1.2s,mb5.1,baz=334,slow=4.5,SNR=3.1						
KDAK	Kodiak Island	81.50	327	iP	P	20 18 59.0	-0.4
KDAK	Kodiak Island	81.50	327	P	P	20 18 58.4	-1.0
	comp=Z,18nm,0.9s,mb5.0,baz=235,slow=13,SNR=5.9						
IDI	Anoyia	81.83	56	P	P	20 19 04.6	+3.0
	comp=Z,40nm,1.1s,mb5.3,baz=308,slow=12,SNR=3.3						
JOF	Joensuu	82.52	27	ep	P	20 19 04.2	-0.4
SVW2	Sparrevohn	82.63	331	eP	P	20 19 03.9	-1.3
APA	Apatity	82.70	23	⇑eP	P	20 19 11.4	+5.9
APA				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
APA				MLR	MLR		
	comp=Z,7µm,24.0s,MS6.0						
AKASG	Malin Array Be	83.05	40	P	P	20 19 08.7	+1.1
	comp=Z,1.2nm,0.6s,mb4.1,baz=279,slow=4.6,SNR=4.3						
KIS	Kishinev	83.28	44	ePPP	P	20 19 10.0	+1.1
KIS				LRM		21 04 00.0	
	comp=Z,5µm,24.0s						
OBN	Obninsk	86.63	35	eP	P	20 19 29.2	+3.6
OBN				i		20 19 40.2	
OBN				pmax	pmax		
	comp=Z,157nm,1.4s,mb6.0						
KLMR	Klimovskoe	86.74	29	P	P	20 19 26.9	+0.9
KLMR				pmax	pmax		
	comp=Z,105nm,1.4s,mb5.9						
TNA	Tin City	87.04	336	eP	P	20 19 26.0	-1.3
	comp=Z,38nm,1.2s,mb5.5						
BRTR	Keskin Array B	87.99	50	P	P	20 19 33.3	+0.8
	comp=Z,8.0nm,0.7s,mb5.0,baz=262,slow=4.8,SNR=13						
VSR	Storozhevoye	89.10	38	⇑eP	P	20 19 40.0	+2.5
VSR				pmax	pmax		
	comp=Z,65nm,1.5s,mb5.7						
PRGR	Permogore	89.31	27	⇓iP	P	20 19 40.6	+2.3
PRGR				pmax	pmax		
	comp=Z,82nm,1.4s,mb5.9						
MALT	Malatya	91.94	51	eP	P	20 19 51.8	+0.7
	comp=Z,15nm,1.1s,mb5.2						
BOSA	Boshof	92.74	118	P	P	20 19 56.2	+1.4
	comp=Z,11nm,0.9s,mb5.3,baz=292,slow=3.9,SNR=10						
BILL	Bilibino	94.58	344	iP	P	20 20 03.8	+1.3
BILL				pmax	pmax		
	comp=Z,11nm,1.5s,mb5.1						
ZALV	Zalesovo Beam	110.16	20	PKiKP	PKiKP	20 25 15.5	+1.5
	comp=Z,1.3nm,0.8s,baz=211,slow=1.7,SNR=4.2						
KURK	Kurchatov	110.36	25	PKKP	PKKPbc	20 36 26.1	+10
	comp=Z,1.0nm,0.7s,baz=144,slow=3.6,SNR=5.5						
MKAR	Makanchi Array	114.92	26	PKP	PKiKP	20 25 24.3	+1.0
	comp=Z,0.7nm,0.9s,baz=314,slow=2.3,SNR=3.6						
MKAR				PKKPbc	PKKPbc	20 35 59.8	-1.3
	comp=Z,0.7nm,0.9s,baz=146,slow=4.7,SNR=4.5						
WMQ	Urumqi	119.59	25	ePKP	PKPdf	20 25 29.0	-3.3
SONM	Songino Array	121.22	9	PKP	PKPdf	20 25 33.3	-2.0
	comp=Z,1.7nm,0.8s,baz=260,slow=1.2,SNR=7.8						
MDJ	Mudanjiang	124.26	350	PKP	PKPdf	20 25 40.6	-0.7
CN2	Changchun	125.67	353	ePKP	PKPdf	20 25 41.6	-2.4
GTA	Gaotai	127.79	18	PKP	PKPdf	20 25 50.0	+1.8
GTA				PP	PP	20 27 54.4	+5.9
GTA				PKS		20 29 26.0	
GTA				SKS	SKSdf	20 32 57.4	-3.0
GTA				SKKS	SKKSac	20 34 41.6	-6.3
GTA				LR	LR		
	comp=N,500nm,18.9s,MS5.5						
GTA				LR	LR		
	comp=E,780nm,18.3s,MS5.5						
GTA				LR	LR		
	comp=Z,450nm,18.9s,MS5.2						
HHC	Hu-ho-hao-te	128.76	6	ePKP	PKPdf	20 25 49.8	-0.2
HHC				PP	PP	20 27 59.3	+4.6
HHC				PKS		20 29 24.8	
HHC				SKS	SKSdf	20 32 55.8	-6.4
HHC				SKKS	SKKSac	20 34 45.9	-8.0
HHC				LR	LR		
	comp=N,1µm,15.1s,MS5.7						
HHC				LR	LR		
	comp=E,600nm,15.5s,MS5.7						
HHC				LR	LR		
	comp=Z,790nm,16.9s,MS5.5						
MJAR	Matsushiro Arr	129.54	339	PKP	PKPdf	20 25 49.2	-2.4
	comp=Z,1.9nm,0.9s,baz=248,slow=2.0,SNR=2.9						
MJAR	Matsushiro Arr	129.54	339	PKP	PKPdf	20 25 49.2	-2.4
BJI	Beijing	129.86	2	PKP	PKPdf	20 25 53.1	+1.0
BJI				LR	LR		
	comp=N,1µm,16.1s,MS5.8						
BJI				LR	LR		
	comp=E,790nm,18.1s,MS5.8						
BJI				LR	LR		
	comp=Z,600nm,20.3s,MS5.3						
KSRS	Korea Array	131.51	349	PKP	PKPdf	20 25 55.8	+0.4
	comp=Z,4.4nm,1.0s,baz=32,slow=1.8,SNR=9.4						
KSRS				SKPbc	SKPbc	20 29 17.6	-3.5
	comp=Z,1.4nm,0.6s,baz=357,slow=5.0,SNR=5.6						
LZH	Lanzhou	132.01	15	ePKP	PKPdf	20 25 52.3	-4.0
LZH				sPKP		20 26 03.0	
LSA	Lhasa	132.68	32	ePKIKP	PKPdf	20 25 58.6	+0.9
CD2	Chengdu	136.86	18	PKP	PKPdf	20 26 01.9	-3.6
CD2				sPKP		20 26 16.3	
CD2				PP	PP	20 28 47.6	+0.8
CD2				PKS		20 29 36.8	
CD2				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
NJ2	Nanjing	137.84	359	ePKP	PKPdf	20 26 05.3	-2.0
PALK	Pallekele	139.21	66	iPKIKP	PKiKP	20 26 14.3	+1.8
KMI	Kunming	141.85	22	PKP	PKPdf	20 26 13.5	-1.3
KMI				LR	LR		
	comp=Z,500nm,28.3s,MS5.1						
GYA	Guiyang	141.88	16	PKP	PKPdf	20 26 12.8	-2.0
GYA				sPKP		20 26 24.8	
GYA				PP	PP	20 29 20.4	+2.6
GYA				PKS		20 29 48.5	
GYA				SKS	SKSdf	20 33 19.3	-6.2
GYA				SKKS	SKKSac	20 36 06.4	-6.9
GYA				AMB	AMB		
	comp=Z,160nm,8.3s						
GYA				LR	LR		
	comp=N,560nm,22.2s,MS5.3						
GYA				LR	LR		
	comp=E,320nm,24.7s,MS5.3						
GYA				LR	LR		
	comp=Z,440nm,22.0s,MS5.2						
CHG	Chiang Mai	145.63	33	⇓P	PKPdf	20 26 22.5	+1.0
	comp=Z,40nm,1.1s						
CHTO	Chiang Mai	145.63	33	ePKP2	PKPab	20 26 20.9	-1.0
CMAR	Chiang Mai Arr	145.92	33	PKPbc	PKPbc	20 26 22.4	-0.2
	comp=Z,19nm,1.0s,baz=308,slow=5.2,SNR=33						
CMAR				SKPbc	SKPbc	20 30 00.2	-2.3
	comp=Z,2.5nm,1.0s,baz=299,slow=3.0,SNR=6.9						
BDT	Bhumibol Dam	146.94	34	P	PKPbc	20 26 26.0	+0.3
NST	Nakhon Sawan	148.84	34	P	PKPbc	20 26 31.0	+0.2
STKA	Stephens Creek	149.22	222	PKPbc	PKPbc	20 26 29.6	-1.8
	comp=Z,5.9nm,0.7s,baz=210,slow=22,SNR=6.8						
KKTK	Khon Kaen	149.68	29	P	PKPbc	20 26 35.0	+2.1
	comp=Z,247nm,1.0s						
CTA	Charters Tower	150.85	247	PKPbc	PKPbc	20 26 34.8	-0.8
	comp=Z,8.1nm,0.7s,baz=113,slow=2.3,SNR=8.7						
ASAR	Alice Springs	159.65	227	PKP	PKPdf	20 26 43.2	+1.4
	comp=Z,0.9nm,1.0s,baz=238,slow=32,SNR=4.6						
ASAR				PKPab	PKPab	20 27 21.8	+1.6
	comp=Z,1.9nm,1.0s,baz=130,slow=3.2,SNR=5.1						
WRA	Warramunga Arr	161.34	237	PKP	PKPdf	20 26 42.3	-1.5
	comp=Z,3.2nm,1.0s,baz=105,slow=0.9,SNR=6.1						
WRA				PKPab	PKPab	20 27 26.8	-0.9
	comp=Z,3.8nm,0.8s,baz=106,slow=4.4,SNR=5.5						

IDC 13 20:21:37.7±1.9,8°.83S×128°.90E,h0^{km},mb3.2/1, mb1 3.7/4,mb1mx3.5/17,mbtmp3.5/4,ML3.5/3,Error ellipse: s-maj=62.5km s-min=23.7km az=77.0,Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.74	199	Pn	Pn	20 24 00.7	+1.5
	0.4nm,0.3s,baz=24,slow=12,SNR=5.4						
FITZ				Sn	Sn	20 25 48.2	-1.2
	0.3nm,0.3s,baz=50,slow=16,SNR=2.2						
WRA	Warramunga Arr	12.23	155	Pn	Pn	20 24 33.8	+0.5
	0.3nm,0.3s,baz=335,slow=9.7,SNR=9.9						
WRA				Sn	Sn	20 26 50.6	+0.2
	0.4nm,0.3s,baz=332,slow=22,SNR=4.8						
ASAR	Alice Springs	15.51	163	Pn	Pn	20 25 17.2	-0.6
	0.1nm,0.3s,baz=342,slow=9.4,SNR=6.8						
MKAR	Makanchi Array	69.17	328	P	P	20 32 46.0	0.0
	0.2nm,0.8s,baz=134,slow=6.2,SNR=2.5						

IDC 13 20:33:28.5±2.2,8°.47S×128°.88E,h0^{km},mb3.4/1, mb1 3.7/4,mb1mx3.5/17,mbtmp3.5/4,ML3.5/2,Error ellipse: s-maj=87.0km s-min=29.3km az=75.0,Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.08	198	Pn	Pn	20 35 54.3	-0.4
	0.4nm,0.3s,baz=20,slow=8.1,SNR=5.7						
FITZ				Sn	Sn	20 37 42.3	-6.3
	0.8nm,0.3s,baz=79,slow=19,SNR=5.3						
WRA	Warramunga Arr	12.57	156	Pn	Pn	20 36 29.0	+0.2
	0.2nm,0.3s,baz=330,slow=14,SNR=7.0						
WRA				Sn	Sn	20 38 42.6	-7.1
	0.7nm,0.3s,baz=331,slow=22,SNR=6.3						
ASAR	Alice Springs	15.86	163	Pn	Pn	20 37 13.7	+0.3
	0.2nm,0.3s,baz=345,slow=10.0,SNR=7.7						
ASAR				Sn	Sn	20 40 03.5	-6.4
	0.2nm,0.3s,baz=318,slow=15,SNR=4.9						
MKAR	Makanchi Array	68.85	328	P	P	20 44 35.0	+0.1
	0.2nm,0.5s,baz=132,slow=8.0,SNR=4.3						

NEIC 13 20:43:05.3,32°.49N×115°.32W,h4^{km},MD3.4(ECX), ML3.4(PAS),After ECX.

ECX 13 20:43:05.5±0.8,32°.49N×115°.33W,h6^{km},MD3.3,ML3.4, 9C-8D,California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.08	165	⇓eP	Pg	20 43 06.9	-0.4
CPBX				eS	Sg	20 43 09.1	+0.6
CPBX				⇑e		20 43 10.4	
	comp=N,67µm,0.4s						
CPBX	Cerro Prieto	0.08	165	⇓eP	Pg	20 43 06.9	-0.4
CPBX				eS	Sg	20 43 09.1	+0.6
SGL	Mount Signal	0.37	295	⇑iP	Pg	20 43 11.8	-0.9
SNR	Schaffner Ranc	0.38	346	⇓iP	Pg	20 43 12.8	-0.1
COA	Coachella	0.41	25	⇓iP	Pg	20 43 13.1	-0.3
COK	Cook Ranch	0.49	317	eP	Pg	20 43 14.2	-0.8
EMX	El Mayor	0.51	172	⇓eP	Pg	20 43 14.0	-1.3
EMX				eS	Sg	20 43 21.4	-0.5
EMX				⇑e		20 43 21.9	
	comp=N,2µm,0.5s						
YUH	Yuha Desert	0.53	287	⇑iP	Pg	20 43 14.3	-1.4
RMX	La Rumorosa	0.64	280	⇓eP	Pg	20 43 16.7	-1.1
YMD	Yuma Desert	0.66	84	⇑iP	Pg	20 43 16.4	-1.9
CRR	Carrizo Plain	0.67	306	⇑iP	Pg	20 43 16.8	-1.6
GLA	Glamis	0.70	37	ePg	Pg	20 43 16.9	-2.0
GLA				eSg	Sg	20 43 25.6	-2.5
RDX	Rancho Dawling	0.77	223	⇑eP	Pg	20 43 18.8	-1.4
RDX				eS	Sg	20 43 29.1	-1.1
ECBX	El Chinero	1.04	167	⇑eP	Pg	20 43 23.9	-1.7
ECBX				eS	Sg	20 43 37.9	-1.2
CBX	Cerro Bola	1.14	261	⇑eP	Pg	20 43 25.2	-2.2
CBX				eS	Sg	20 43 41.0	-1.3
BAR	Barrett	1.15	280	eP	Pg	20 43 24.4	-3.2
BAR				eS	Sg	20 43 39.2	-3.3
ECNX	Esteban Cantu	1.36	233	⇓eP	Pn	20 43 28.0	-3.0
ECNX				eS	Sb	20 43 45.5	-3.6
PBX	Punta Banda	1.40	238	⇓eP	Pn	20 43 30.1	-1.5
PBX				eS	Sb	20 43 48.6	-1.6
PFO	Pinyon Flat Ob	1.46	320	ePn	Pn	20 43 32.0	-0.4
PFO				eSn	Sn	20 43 46.1	-5.8
LDFC	Landfair	2.59	4	Pn	Pn	20 43 49.5	+1.6
LDFC				eS	Sn	20 44 30.8	+11
MWC	Mount Wilson	2.87	308	ePn	Pn	20 43 52.8	+1.1
MWC				eS	Sn	20 44 32.0	+5.5
TUC	Tucson	3.85	91	Pn	Pn	20 44 05.7	+0.5
TUC				ePg	Pg	20 44 15.8	-3.4
ISA	Isabella	4.10	321	ePn	Pn	20 44 06.3	-2.4

IDC 13 20:50:56.7±0.8,8°.10S×128°.80E,h0^{km},mb4.1/10, mb1 4.2/10,mb1mx4.1/18,mbtmp4.2/10,Error ellipse: s-maj=39.7km s-min=19.0km az=54.0

ISCJB 13 20:50:58.0±0.4,8°.38S±0°.06×128°.72E±0°.09,h33^{km}, mb4.2/13,Error ellipse: s-maj=14.4km s-min=6.1km az=149.2

NEIC 13 20:51:00.1±0.5,8°.37S×128°.63E,h25^{km},mb4.4/1,Error ellipse: s-maj=16.3km s-min=9.8km az=59.0

ISC 13 20:51:00.5±0.4,8°.39S±0°.06×128°.70E±0°.09,h35^{km},n39, σ1^{s}20/37,mb4.2/13,Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.65	140	eP	Pn	20 52 22.9	+0.8
	48nm,0.6s						
KAKA				eS	Sn	20 53 25.3	-0.5
KAKA	Kakadu	5.65	140	eP	Pn	20 52 22.2	+0.1
	262nm,0.6s						
FITZ	Fitzroy Crossi	10.10	197	eP	Pn	20 53 22.3	-0.8
	24nm,0.4s						
FITZ				eS	Sx	20 55 00.1	
FITZ	Fitzroy Crossi	10.10	197	Pn	Pn	20 53 22.8	-0.2
	2.2nm,0.3s,baz=22,slow=9.8,SNR=17						
FITZ				Sn	Sx	20 55 09.8	
	4.9nm,0.3s,baz=86,slow=17,SNR=8.8						
WRAB	Tennant Creek	12.71	155	eP	Pn	20 53 56.5	-2.4
	24nm,0.8s						
WRAB				eS	Sx	20 56 02.2	
WRA	Warramunga Arr	12.72	155	Pn	Pn	20 53 55.8	-3.0
	1.7nm,0.3s,baz=318,slow=14,SNR=35						
WRA				Sn	Sx	20 56 09.7	
	2.0nm,0.3s,baz=334,slow=22,SNR=8.5						
MBWA	Marble Bar	15.36	213	eP	Pn	20 54 32.5	-2.2
MBWA				eS	Sx	20 57 13.0	
MBWA	Marble Bar	15.36	213	eP	Pn	20 54 33.8	-0.8
ASAR	Alice Springs	15.99	162	Pn	Pn	20 54 40.4	-2.4
	0.6nm,0.3s,baz=334,slow=9.7,SNR=18						
ASAR				Sn	Sx	20 57 32.5	
	1.4nm,0.3s,baz=324,slow=18,SNR=6.9						
CTA	Charters Tower	20.59	126	eP	P	20 55 41.0	+4.4
	5.4nm,1.0s						
CTA	Charters Tower	20.59	126	P	P	20 55 37.8	+1.3
	3.9nm,0.6s,baz=312,slow=11,SNR=3.9						
CTAO	Charters Tower	20.59	126	eP	P	20 55 38.1	+1.5
FORT	Forrest	22.28	181	eP	P	20 55 56.8	+2.1
	19nm,0.6s,mb4.7						
MORW	Morawa	23.76	208	eP	P	20 56 11.3	+1.5
	1.3nm,0.2s,mb4.0						
KLBR	Kellerberrin	25.23	202	eP	P	20 56 25.6	+2.4
	7.9nm,0.6s,mb4.4						
STKA	Stephens Creek	26.27	155	eP	P	20 56 36.0	+3.4
	4.7nm,0.6s,mb4.2						
STKA	Stephens Creek	26.27	155	P	P	20 56 35.3	+2.8
	2.1nm,0.5s,mb3.9,baz=321,slow=12,SNR=6.5						
PSI	Prapat	31.70	289	P	P	20 57 21.3	+0.1
	2.6nm,0.5s,mb4.3,baz=51,slow=6.5,SNR=3.8						
PSI	Prapat	31.70	289	P	P	20 57 21.3	+0.1
CMAR	Chiang Mai Arr	39.67	312	P	P	20 58 29.4	0.0
	0.9nm,0.6s,mb3.7,baz=148,slow=6.9,SNR=11						
LSA	Lhasa	52.33	318	eP	P	21 00 09.6	+0.5
	3.6nm,0.8s,mb4.3						
ODAN	Odare	53.21	313	eP	P	21 00 14.9	-0.7
TAPN	Taplejung	53.27	313	eP	P	21 00 15.3	-0.7
RAMN	Ramite	53.84	312	eP	P	21 00 20.3	+0.1
JIRN	Jiri	54.55	313	eP	P	21 00 25.0	-0.3
GUN	Gumba	54.91	313	eP	P	21 00 27.7	-0.3
KKN	Kakani	55.28	312	eP	P	21 00 30.3	-0.4
DMN	Daman	55.31	312	eP	P	21 00 30.4	-0.5
GKN	Gorkha	55.88	312	eP	P	21 00 34.0	-0.9
KOLN	Koldanda	56.51	311	eP	P	21 00 39.0	-0.5
SONM	Songino Array	59.36	343	P	P	21 00 59.5	+0.4
	0.5nm,0.7s,mb3.7,baz=168,slow=6.8,SNR=4.5						
PETK	Petropavlovsk-	66.04	19	P	P	21 01 43.4	-0.1
	9.4nm,1.1s,mb4.7,baz=184,slow=4.2,SNR=2.7						
MKAR	Makanchi Array	68.69	328	P	P	21 02 02.3	+1.9
	0.7nm,0.5s,mb3.9,baz=114,slow=8.3,SNR=9.5						
KURK	Kurchatov	73.04	329	P	P	21 02 26.1	-0.6
	2.5nm,0.7s,mb4.2,baz=127,slow=5.1,SNR=11						
BVAR	Borovoye Array	78.55	328	P	P	21 02 58.4	+0.2
	1.4nm,0.8s,mb4.0,baz=126,slow=9.4,SNR=5.4						
KMBO	Kilima Mbogo	91.27	269	P	P	21 04 06.9	+3.8
	1.6nm,0.7s,mb4.5,baz=140,slow=1.3,SNR=4.2						
TORD	Torodi Ar. Bea	127.79	280	PKP	PKiKP	21 10 05.3	+1.4
	0.8nm,0.7s,baz=34,slow=1.4,SNR=5.8						
DBIC	Dimbokro	133.94	271	PKP	PKiKP	21 10 18.4	+2.0
	1.0nm,0.5s,baz=158,slow=4.8,SNR=3.4						
CPUP	Villa Florida	144.99	171	PKPbc	PKiKP	21 10 36.5	-2.1
	2.3nm,0.7s,baz=90,slow=6.1,SNR=4.4						

IDC 13 20:55:29.3±0.8,31°.64N×50°.99E,h0^{km},mb4.1/16, mb1 4.1/22,mb1mx4.1/32,mbtmp4.0/22,ML3.9/5,Error ellipse: s-maj=18.6km s-min=13.4km az=161.0

ISCJB 13 20:55:29.7±0.2,31°.74N±0°.02×50°.94E±0°.02,h10^{km}, mb4.3/51,MS5.0/3,Error ellipse: s-maj=3.1km s-min=2.9km az=144.0

BJI 13 20:55:30.9,32°.13N×50°.54E,h29^{km},mb4.3/7

THR 13 20:55:31.5±1.6,31°.71N×51°.18E,h14^{km}±12^{km},ML4.2

CSEM 13 20:55:31.4±0.1,31°.81N×50°.98E,h10^{km},mb4.3/39,Ms4.4, Error ellipse: s-maj=3.6km s-min=3.3km az=44.0

NEIC 13 20:55:31.5,31°.73N×51°.20E,h14^{km},mb4.5/21, ML4.2(THR),MN4.3(TEH),After THR.

NEIC Ten people injured and 70 buildings damaged at Nasirabad.

TEH 13 20:55:32.5,31°.89N×51°.01E,h5^{km}

MOS 13 20:55:33.1±0.9,31°.77N×50°.88E,h33^{km},mb4.6/33,Error ellipse: s-maj=9.5km s-min=4.5km az=127.6

ISC 13 20:55:31.6±0.2,31°.79N±0°.02×50°.96E±0°.02,h10^{km},n369, σ1^{s}19/380,mb4.3/51,MS5.0/3,25C-10D,Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPIR	Pirpir	0.90	356	Pg	Pg	20 55 46.9	-2.0
IPIR				Sg	Sg	20 55 58.4	-2.2
IPIR	Pirpir	0.90	356	ePg	Pg	20 55 46.9	-2.0
IPIR				eSg	Sg	20 55 58.5	-2.1
IPIR				e		20 56 08.3	
	comp=Z,94µm,0.4s						
IPIR	Pirpir	0.90	356	ePg	Pg	20 55 46.9	-2.0
IPIR				Sg	Sg	20 55 58.4	-2.2
IGAR	Gharneh	1.10	56	e	Sg	20 56 05.7	-1.4
	comp=Z,76µm,0.1s						
IGAR				eSg	Sg	20 56 04.4	-2.7
IZEF	Zefreh	1.60	46	Pn	Pn	20 55 57.6	-2.3
IZEF	Zefreh	1.60	46	e	Sg	20 56 29.9	+6.8
	comp=Z,14µm,0.2s						
IZEF	Zefreh	1.60	46	Pn	Pn	20 55 57.6	-2.3
IKLH	Kolahrood	1.61	19	Pn	Pn	20 55 59.1	-1.0
IKLH				Sg	Sg	20 56 19.6	-3.9
IKLH	Kolahrood	1.61	19	ePn	Pn	20 55 59.2	-0.9
IKLH				eSg	Sg	20 56 19.7	-3.8
IKLH				e		20 56 33.0	
	comp=Z,37µm,0.3s						
IKLH	Kolahrood	1.61	19	ePn	Pn	20 55 59.2	-0.9
NASN	Na’in	1.86	57	ePg	Pn	20 56 03.1	-0.4
NASN	Na’in	1.86	57	ePg	Pn	20 56 03.2	-0.3
SHGR	Shooshtar-Gavs	1.87	280	ePg	Pg	20 56 08.6	+1.2
SHGR				AML	AML	20 56 49.3	
	comp=N,2µm,0.8s						
SHGR				AML	AML	20 56 51.0	
	comp=E,2µm,0.8s						
SHGR	Shooshtar-Gavs	1.87	280	ePn	Pn	20 56 07.7	+4.1
ISAD	Sadrabad	2.32	86	Pn	Pn	20 56 10.4	+0.5
ISAD	Sadrabad	2.32	86	ePn	Pn	20 56 11.1	+1.2
ISAD				e		20 56 48.4	
	comp=Z,26µm,0.4s						
ISAD	Sadrabad	2.32	86	ePn	Pn	20 56 11.1	+1.2
SHI	Shiraz	2.52	148	ePn	Pn	20 56 14.6	+2.0
SHI				e		20 57 02.0	
	comp=Z,15µm,0.4s						
SHI	Shiraz	2.52	148	ePn	Pn	20 56 14.6	+2.0
IPAR	Pars	2.64	137	Pn	Pn	20 56 16.0	+1.7
IPAR	Pars	2.64	137	ePn	Pn	20 56 16.1	+1.8
IPAR				e		20 57 00.8	
	comp=Z,13µm,0.5s						
IPAR	Pars	2.64	137	ePn	Pn	20 56 16.1	+1.8
GHVR	GHOM	2.70	6	ePn	Pn	20 56 18.4	+3.3
GHVR				AML	AML	20 57 11.4	
	comp=E,734nm,0.8s						
GHVR	GHOM	2.70	6	ePn	Pn	20 56 17.5	+2.4
ISFB	Sefidab	2.77	22	Pn	Pn	20 56 16.5	+0.4
ISFB	Sefidab	2.77	22	e	Sg	20 57 05.8	+5.1
	comp=Z,10µm,0.5s						
ISFB	Sefidab	2.77	22	Pn	Pn	20 56 16.5	+0.4
ASAO	Ashtian	2.86	344	ePn	Pn	20 56 20.4	+3.0
ASAO				eSg	Sg	20 57 05.2	+1.6
ASAO				AML	AML	20 57 15.9	
	comp=N,723nm,0.6s						
ASAO	Ashtian	2.86	344	ePn	Pn	20 56 20.4	+3.1
ASAO				eSg	Sg	20 57 04.7	+1.1
ICHK	Chekchek	2.96	80	Pn	Pn	20 56 19.1	+0.4
ICHK	Chekchek	2.96	80	ePn	Pn	20 56 19.1	+0.4
ICHK				e		20 57 15.4	
	comp=Z,8µm,0.5s						
ICHK	Chekchek	2.96	80	ePn	Pn	20 56 19.1	+0.4
ISRV	Sarvestan	3.03	142	Pn	Pn	20 56 21.1	+1.5
ISRV	Sarvestan	3.03	142	ePn	Pn	20 56 21.1	+1.5
ISRV	Sarvestan	3.03	142	ePn	Pn	20 56 21.1	+1.5
IMOK	Mouk	3.12	151	Pn	Pn	20 56 22.4	+1.5
IMOK	Mouk	3.12	151	ePn	Pn	20 56 22.5	+1.6
IMOK				e		20 57 51.0	
	comp=Z,10µm,0.5s						
IMOK	Mouk	3.12	151	ePn	Pn	20 56 22.5	+1.6
IMEH	Mehriz	3.14	96	Pn	Pn	20 56 21.6	+0.5
IMEH				Sn	Sn	20 56 58.4	-0.3
IMEH	Mehriz	3.14	96	ePn	Pn	20 56 21.7	+0.6
IMEH				eSn	Sn	20 56 58.5	-0.2
IMEH				e		20 57 35.2	
	comp=Z,5µm,0.5s						
IMEH	Mehriz	3.14	96	ePn	Pn	20 56 21.7	+0.6
IMEH				eSn	Sn	20 56 58.5	-0.2
IVRN	Varamin	3.26	11	Pn	Pn	20 56 22.6	-0.2
IVRN	Varamin	3.26	11	ePn	Pn	20 56 22.6	-0.2
IVRN				e		20 56 46.3	
	comp=Z,11µm,0.7s						
IVRN	Varamin	3.26	11	ePn	Pn	20 56 22.6	-0.2
IR3	Iran Long-Peri	3.68	1	ePn	Pn	20 56 28.6	+0.1
IR3	Iran Long-Peri	3.68	1	ePn	Pn	20 56 28.6	+0.1
MIB	Mutribah	3.69	239	eP	Pn	20 56 30.6	+1.9
MIB				AML	AML	20 57 20.1	
	comp=Z,163nm,0.7s						
MIB	Mutribah	3.69	239	eP	Pn	20 56 30.6	+1.8
IRAZ	Razeghan	3.71	347	Pn	Pn	20 56 29.4	+0.4
IRAZ	Razeghan	3.71	347	ePn	Pn	20 56 29.4	+0.4
IRAZ				e		20 57 50.4	
	comp=Z,9µm,0.5s						
IRAZ	Razeghan	3.71	347	ePn	Pn	20 56 29.4	+0.4
IKOM	Komasi	3.75	310	Pn	Pn	20 56 30.3	+0.7
IKOM	Komasi	3.75	310	ePn	Pn	20 56 30.3	+0.7
IKOM	Komasi	3.75	310	ePn	Pn	20 56 30.3	+0.7
KBD	Kabd	3.84	228	eP	Pn	20 56 32.8	+2.0
KBD				AML	AML	20 57 26.1	
	comp=Z,104nm,0.5s						
KBD	Kabd	3.84	228	eP	Pn	20 56 32.8	+2.0

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IDMV  Damavand          3.88  13  Pn      Pn      20 56 31.3  0.0
IDMV  Damavand          3.88  13  ePn     Pn      20 56 31.4 +0.1
IDMV                              e               20 58 01.4
      comp=Z,8µm,0.5s
IDMV  Damavand          3.88  13  ePn     Pn      20 56 31.4 +0.1
IMHD  Mahdasht          3.90 356  Pn      Pn      20 56 31.6 +0.1
IMHD  Mahdasht          3.90 356  ePn     Pn      20 56 31.7 +0.2
IMHD                              e               20 57 51.4
      comp=Z,5µm,0.4s
IMHD  Mahdasht          3.90 356  ePn     Pn      20 56 31.7 +0.2
GHIR  Ghir-Karzin       3.91 153  ePn     Pn      20 56 31.7  0.0
GHIR                              AML     AML     20 57 51.3
      comp=N,259nm,0.8s
GHIR  Ghir-Karzin       3.91 153  ePn     Pn      20 56 31.5 -0.2
DAMV  Damavand          3.92  12  ePn     Pn      20 56 33.9 +2.0
DAMV                              AML     AML     20 57 43.3
      comp=N,237nm,0.7s
DAMV  Damavand          3.92  12  ePn     Pn      20 56 34.2 +2.3
IBAF  Bafgh             3.93  92  Pn      Pn      20 56 32.4 +0.4
IBAF  Bafgh             3.93  92  ePn     Pn      20 56 32.4 +0.4
IBAF                              e               20 57 47.3
      comp=Z,12µm,0.9s
IBAF  Bafgh             3.93  92  ePn     Pn      20 56 32.4 +0.4
ILAS  Lasjerd           3.95  24  Pn      Pn      20 56 32.1 -0.2
ILAS  Lasjerd           3.95  24  ePn     Pn      20 56 32.1 -0.2
ILAS                              e               20 57 52.4
      comp=Z,5µm,0.4s
ILAS  Lasjerd           3.95  24  ePn     Pn      20 56 32.1 -0.2
QRN   Al-Qurain         4.02 222  eP      Pn      20 56 34.8 +1.6
QRN                               AML     AML     20 57 25.4
      comp=Z,73nm,0.5s
QRN   Al-Qurain         4.02 222  eP      Pn      20 56 34.8 +1.6
NAY   Al-Naaiem         4.09 233  eP      Pn      20 56 35.8 +1.6
NAY   Al-Naaiem         4.09 233  eP      Pn      20 56 35.8 +1.6
RDF   Al-Radifah        4.10 227  eP      Pn      20 56 36.4 +2.0
RDF                               AML     AML     20 57 27.3
      comp=Z,127nm,0.6s
RDF   Al-Radifah        4.10 227  eP      Pn      20 56 36.4 +2.0
THKV  Tehran--Karaj     4.12 359  ePn     Pn      20 56 37.7 +3.1
THKV                              AML     AML     20 57 51.6
      comp=E,206nm,0.7s
THKV  Tehran--Karaj     4.12 359  ePn     Pn      20 56 37.3 +2.7
IFIR  Firoozkooh        4.12  21  e       Pg      20 56 58.4 +7.8
      comp=Z,886nm,0.2s
IVIS  Veis              4.40 309  Pn      Pn      20 56 39.0 +0.5
IVIS  Veis              4.40 309  ePn     Pn      20 56 39.1 +0.6
IVIS                              e               20 58 10.6
      comp=Z,3µm,0.5s
IVIS  Veis              4.40 309  ePn     Pn      20 56 39.1 +0.6
KFJS                    4.45 217  P       Pn      20 56 39.8 +0.7
KFJS                    4.45 217  P       Pn      20 56 39.8 +0.7
ISHM  Shahmirzad        4.45  25  Pn      Pn      20 56 38.7 -0.5
ISHM  Shahmirzad        4.45  25  ePn     Pn      20 56 38.7 -0.5
ISHM                              e               20 58 09.7
      comp=Z,5µm,0.3s
ISHM  Shahmirzad        4.45  25  ePn     Pn      20 56 38.7 -0.5
IGHG  Ghaleghazi        4.48 306  Pn      Pn      20 56 40.5 +1.0
IGHG  Ghaleghazi        4.48 306  ePn     Pn      20 56 40.5 +1.0
IGHG                              e               20 58 33.2
      comp=Z,7µm,0.6s
IGHG  Ghaleghazi        4.48 306  ePn     Pn      20 56 40.5 +1.0
ZNJK  Zanjan            5.22 339  ePn     Pn      20 56 53.1 +3.4
ZNJK  Zanjan            5.22 339  ePn     Pn      20 56 53.1 +3.3
BHD   Baghdad           5.75 287  ex      x       20 56 59.0
BHD                               ex      x       20 57 24.0
BHD                               ex      x       20 58 06.0
BHD                               ex      x       20 58 28.0
BHD                               ex      x       20 58 45.0
BHD   Baghdad           5.75 287  ePn     Pn      20 56 59.0 +1.9
BOQSS                   6.06 194  P       Pn      20 56 58.0 -3.3
BNDS  Bandar-Abbas      6.30 133  ePn     Pn      20 57 03.7 -0.9
BNDS  Bandar-Abbas      6.30 133  ePn     Pn      20 57 03.7 -0.9
ASYS                    7.17 235  P       Pn      20 57 14.8 -1.7
ASYS                    7.17 235  P       Pn      20 57 14.8 -1.7
BANOM Banah             7.49 140 ⇑P       Pn      20 57 19.6 -1.3
      SNR=34
BANOM                            ⇑P               20 57 19.6
      SNR=34
BANOM                            ⇑P               20 57 19.6
      SNR=34
BANOM                            ⇑P               20 57 19.6
      SNR=34
BANOM Banah             7.49 140  Pn      Pn      20 57 19.8 -1.1
      SNR=10
BTHS                    7.71 181  P       Pn      20 57 23.0 -1.0
BTHS                    7.71 181  P       Pn      20 57 23.0 -1.0
BTHS                              S       Sn      20 58 49.3 -2.2
ISHB  Shabestar         7.82 327  e       Px      20 58 08.7
      comp=Z,261nm,0.3s
ISFR  Sfrayin           7.83  46  Pn      Pn      20 57 26.6 +1.0
ISFR  Sfrayin           7.83  46⇓ePn      Pn      20 57 26.4 +0.8
ISFR  Sfrayin           7.83  46⇓ePn      Pn      20 57 26.4 +0.8
NAZ   Nazwa, Dubai      7.94 147  Pn      Pn      20 57 26.7 -0.4
MSL   Mosul             7.97 307  ex      x       20 57 35.0
MSL                               ex      x       21 00 06.0
FAQ   Al Faqa, Dubai    8.12 149 ⇓P       Pn      20 57 30.1 +0.6
      SNR=9.6
FAQ                              ⇓P               20 57 30.1
      SNR=9.6
FAQ   Al Faqa, Dubai    8.12 149  Pn      Pn      20 57 28.5 -1.0
FAQ   Al Faqa, Dubai    8.12 149  P       Pn      20 57 30.1 +0.6
      SNR=9.6
HATD  Hatta, Dubai      8.30 145  Pn      Pn      20 57 30.6 -1.4
GNI   Garni             9.74 331  i P     Pn      20 57 49.4 -2.4
GNI   Garni             9.74 331  Pn      Pn      20 57 55.4 +3.6
      baz=180,slow=20,SNR=4.0
GNI                               Lg              21 00 46.3
      comp=Z,0.2nm,0.3s,baz=283,slow=22,SNR=1.8
ASF   Jabal al Asfar   11.95 276  P       Pn      20 58 21.6 -0.5
ASF                                               21 00 31.7
ASF                               pmax    pmax
      comp=Z,2.0nm,0.3s
ASF   Jabal al Asfar   11.95 276  Pn      Pn      20 58 21.6 -0.5
      comp=Z,1.5nm,0.3s,baz=326,slow=7.5,SNR=13
ASF                               Sn      Sn      21 00 31.7 -3.8
      comp=Z,0.3nm,0.3s,baz=307,slow=20,SNR=2.7
ASF                               Lg              21 02 20.3
      baz=168,slow=20,SNR=2.7
MALT  Malatya          12.15 306  eP      Pn      20 58 26.7 +1.9
MALT                              pmax    pmax
      comp=Z,5.0nm,0.8s
MALT  Malatya          12.15 306  eP      Pn      20 58 26.7 +1.9
      comp=Z,5.1nm,0.8s
MALT  Malatya          12.15 306  eP      Pn      20 58 26.7 +1.9
      comp=Z,5.0nm,0.8s
MMAI  Mount Meron Ar   13.21 279  Pn      Pn      20 58 39.0 -0.2
      comp=Z,0.5nm,0.3s,baz=91,slow=20,SNR=3.4
KIV   Kislovodsk       13.78 334  eP      Pn      20 58 47.7 +0.7
KIV                               pmax    pmax
      comp=Z,9.0nm,1.0s
KIV   Kislovodsk       13.78 334  eP      Pn      20 58 50.0 +3.0
      comp=Z,12nm,0.9s
KIV   Kislovodsk       13.78 334  eP      Pn      20 58 50.0 +3.0
      comp=Z,12nm,0.9s
EIL   Elat             13.94 265  Pn      Pn      20 58 48.8 -0.4
      comp=Z,0.5nm,0.3s,baz=181,slow=3.1,SNR=2.7
EIL   Elat             13.94 265  Pn      Pn      20 58 48.8 -0.4
WHFO  Wadi Hawf        14.04 169 ⇑P       Pn      20 58 49.1 -1.6
      SNR=10
WHFO                             ⇑P               20 58 49.1
      SNR=10
WHFO  Wadi Hawf        14.04 169  P       Pn      20 58 49.1 -1.6
      SNR=10
BRTR  Keskin Array B   16.12 304  P       Pn      20 59 20.2 +1.9
BRTR                              pmax    pmax
      comp=Z,1.0nm,0.3s
BRTR  Keskin Array B   16.12 304  Pn      Pn      20 59 20.2 +1.9
      comp=Z,0.5nm,0.3s,baz=130,slow=13,SNR=20
BRTR  Keskin Array B   16.12 304  P       Pn      20 59 20.2 +1.9
      comp=Z,1.0nm,0.3s
ISP   Isparta          17.84 295  i P     Pn      20 59 41.9 +2.0
AKTK  Aktyubinsk       19.36  14  P       Pn      20 59 57.5 -0.8
AKTK  Aktyubinsk       19.36  14  P       Pn      20 59 57.5 -0.7
AKTO  Aktyubinsk       19.36  14  P       Pn      20 59 57.5 -0.8
      comp=Z,0.2nm,0.3s,baz=183,slow=12,SNR=5.3
VRHR  Novokhopersk     20.49 343  eP      P       21 00 08.8 -0.7
VRHR                              pmax    pmax
      comp=Z,9.0nm,0.5s
VRHR                              pmax    pmax
      comp=N,40nm,0.8s
VRHR  Novokhopersk     20.49 343  eP      P       21 00 08.8 -0.7
      comp=N,40nm,0.8s
VORD  Divnogorie       21.02 339  eP      P       21 00 15.8 +0.6
VORD                              pmax    pmax
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      comp=N,90nm,0.6s
VORD                              pmax    pmax
      comp=E,90nm,0.6s
VORD                              pmax    pmax
      comp=Z,20nm,0.6s,mb4.6
VORD  Divnogorie       21.02 339  eP      P       21 00 15.8 +0.6
VSR   Storozhevoye     21.28 339  eP      P       21 00 17.8 -0.2
VSR                               pmax    pmax
      comp=Z,5.0nm,0.6s,mb4.0
VSR                               pmax    pmax
      comp=N,10.0nm,0.7s
VSR                               pmax    pmax
      comp=E,10.0nm,1.5s
VSR   Storozhevoye     21.28 339  eP      P       21 00 17.8 -0.2
      comp=E,10.0nm,0.7s,mb4.2
AAK   Ala-Archa        21.57  53  eP      P       21 00 24.5 +3.2
AAK                               pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.1
AAK   Ala-Archa        21.57  53  eP      P       21 00 24.5 +3.2
      comp=Z,9.3nm,1.1s,mb4.1
TIRR  Tirgusor         21.70 312⇑iP       P       21 00 22.5 -0.2
TIRR  Tirgusor         21.70 312 ⇑P       P       21 00 22.5 -0.2
TIRR  Tirgusor         21.70 312  P       P       21 00 22.5 -0.2
IDI   Anoyia           21.99 286  P       P       21 00 26.7 +0.9
      comp=Z,13nm,0.7s,mb4.5,baz=70,slow=10,SNR=8.1
IDI   Anoyia           21.99 286  P       P       21 00 26.7 +0.8
HARR  Harsova          22.12 312⇑iP       P       21 00 26.2 -0.9
HARR  Harsova          22.12 312 ⇑P       P       21 00 26.2 -0.9
HARR  Harsova          22.12 312  P       P       21 00 26.2 -0.9
NDI   New Delhi        22.87  91  ePKP    P       21 00 38.0 +2.7
DDI   Dehra Dun        23.24  86  ex      P       21 00 40.5 +1.4
VRI   Vrincioaia       23.42 314⇓iP       P       21 00 40.3 -0.6
VRI   Vrincioaia       23.42 314 ⇓P       P       21 00 40.3 -0.7
VRI   Vrincioaia       23.42 314  P       P       21 00 40.3 -0.6
PLOR  Plostina         23.46 314⇑iP       P       21 00 41.3  0.0
PLOR  Plostina         23.46 314  P       P       21 00 41.3  0.0
MLR   Muntele Rosu     23.73 312⇑iP       P       21 00 44.6 +0.7
MLR   Muntele Rosu     23.73 312  P       P       21 00 45.9 +2.0
      comp=Z,5.9nm,0.9s,mb4.0,baz=141,slow=6.5,SNR=3.1
MLR   Muntele Rosu     23.73 312 ⇑P       P       21 00 44.6 +0.6
MLR   Muntele Rosu     23.73 312  P       P       21 00 44.6 +0.7
VOIR                   24.28 312⇑iP       P       21 00 54.4 +5.5
VOIR                   24.28 312 ⇑P       P       21 00 54.4 +5.5
AKASG Malin Array Be   24.82 326  P       P       21 00 53.7 -0.1
AKASG                             pmax    pmax
      comp=Z,1.0nm,0.3s
AKASG Malin Array Be   24.82 326  P       P       21 00 53.7 -0.1
      comp=Z,1.2nm,0.3s,mb3.9,baz=133,slow=9.1,SNR=18
AKASG Malin Array Be   24.82 326  P       P       21 00 53.7 -0.1
AKASG Malin Array Be   24.82 326  P       P       21 00 53.7 -0.1
      comp=Z,1.0nm,0.3s,mb3.8
KIEV  Kiev             24.83 326  eP      P       21 00 53.0 -0.9
KIEV                              pmax    pmax
      comp=Z,12nm,0.8s,mb4.5
KIEV  Kiev             24.83 326  eP      P       21 00 53.0 -0.9
      comp=Z,12nm,0.8s,mb4.5
KIEV  Kiev             24.83 326  eP      P       21 00 53.0 -0.9
      comp=Z,12nm,0.8s,mb4.5
BURAR Bucovina Array   25.18 316⇑iP       P       21 00 59.0 +1.9
BURAR Bucovina Array   25.18 316 ⇑P       P       21 00 59.0 +1.9
BURAR Bucovina Array   25.18 316⇑iP       P       21 00 59.0 +1.9
ARU   Arti             25.20  10  eP      P       21 00 58.7 +1.5
ARU                               S       S       21 05 21.3 -0.9
ARU   Arti             25.20  10  eP      P       21 01 04.0 +6.8
ARU   Arti             25.20  10  eP      P       21 00 58.7 +1.5
ARU                               S       S       21 05 21.3 -0.9
OBN   Obninsk          25.45 341  i P     P       21 00 59.3 -0.1
OBN                               pmax    pmax
      comp=Z,7.0nm,1.2s,mb4.1
OBN   Obninsk          25.45 341  i P     P       21 00 59.3 -0.1
      comp=Z,7.0nm,1.2s,mb4.1
BVAR  Borovoye Array   25.46  28  P       P       21 00 59.8 +0.2
BVAR                                              21 04 30.6
BVAR                              pmax    pmax
      comp=Z,1.0nm,0.6s
BVAR  Borovoye Array   25.46  28  P       P       21 00 59.8 +0.3
      comp=Z,1.4nm,0.6s,mb3.7,baz=216,slow=7.3,SNR=10
BVAR                              PcP     PcP     21 04 30.6 -0.6
      comp=Z,0.3nm,0.3s,baz=208,slow=3.9,SNR=5.3
BVAR  Borovoye Array   25.46  28  P       P       21 00 59.8 +0.2
      comp=Z,1.0nm,0.6s,mb3.5
BVAR  Borovoye Array   25.46  28  PcP     PcP     21 04 30.6 -0.6
GZR   Gura Zlata       25.73 310⇓iP       P       21 01 05.7 +3.6
DRGR                   26.32 313⇓iP       P       21 01 10.4 +2.9
DRGR                   26.32 313 ⇓P       P       21 01 10.4 +3.0
TRPA  Tarpa            27.01 315⇓iP       P       21 01 16.6 +2.9
KWP   Kalwaria Pacla   27.62 318⇑iP       P       21 01 19.0 -0.1
KWP   Kalwaria Pacla   27.62 318 ⇑P       P       21 01 19.0 -0.1
KWP   Kalwaria Pacla   27.62 318  P       P       21 01 19.0 -0.1
KURK  Kurchatov        27.85  39  P       P       21 01 21.1  0.0
KURK                              pmax    pmax
      comp=Z,2.0nm,0.9s,mb3.8
KURK  Kurchatov        27.85  39  P       P       21 01 21.1  0.0
      comp=Z,2.1nm,0.9s,mb3.8,baz=243,slow=10.0,SNR=19
KURK  Kurchatov        27.85  39  P       P       21 01 21.1  0.0
      comp=Z,2.0nm,0.9s,mb3.8
MKAR  Makanchi Array   28.27  49  P       P       21 01 25.4 +0.4
MKAR                              pmax    pmax
      comp=Z,2.0nm,0.7s
MKAR  Makanchi Array   28.27  49  P       P       21 01 25.4 +0.4
      comp=Z,1.8nm,0.7s,mb3.8,baz=243,slow=8.1,SNR=22
MKAR  Makanchi Array   28.27  49  P       P       21 01 25.4 +0.4
      comp=Z,2.0nm,0.7s,mb3.9
SUW   Suwalki          29.79 326  P       P       21 01 39.4 +1.0
SUW                               pmax    pmax
      comp=Z,30nm,0.9s,mb5.0
SUW   Suwalki          29.79 326  P       P       21 01 39.4 +1.0
      comp=Z,30nm,0.9s,mb5.0
SUW   Suwalki          29.79 326  P       P       21 01 39.4 +1.0
      comp=Z,30nm,0.9s,mb5.0
KLMR  Klimovskoe       30.04 349  P       P       21 01 36.3 -4.1
KLMR                              pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.4
OKC   Ostrava-Krasne   30.36 316  eP      P       21 01 45.1 +1.7
OKC   Ostrava-Krasne   30.36 316  eP      P       21 01 45.1 +1.7
MORC  Moravsky Berou   30.69 316⇑iP       P       21 01 46.9 +0.5
MORC  Moravsky Berou   30.69 316  P       P       21 01 46.9 +0.5
VSU   Vasula           31.34 335  i P     P       21 01 50.7 -1.2
VSU                               pmax    pmax
      comp=Z,60nm,1.8s,mb5.1
VSU   Vasula           31.34 335  i P     P       21 01 50.7 -1.2
      comp=Z,60nm,1.8s,mb5.1
DPC   Dobruska-Polom   31.64 316  eP      P       21 01 56.3 +1.6
DPC   Dobruska-Polom   31.64 316  eP      P       21 01 56.3 +1.6
UPC   Upice            31.88 316  eP      P       21 01 57.7 +0.8
UPC   Upice            31.88 316  eP      P       21 01 57.7 +0.8
MOA   Molln            32.07 311⇑iP       P       21 01 59.9 +1.3
      comp=Z,3.0nm,0.7s,mb4.2
MOA   Molln            32.07 311  P       P       21 01 59.9 +1.3
      comp=Z,3.0nm,0.7s,mb4.2
GERES GERESS Array B   32.73 312  P       P       21 02 05.3 +1.0
GERES                             pmax    pmax
      comp=Z,1.0nm,0.5s
GERES GERESS Array B   32.73 312  P       P       21 02 05.3 +1.0
      comp=Z,0.6nm,0.5s,mb3.8,baz=106,slow=8.8,SNR=7.7
GERES GERESS Array B   32.73 312  P       P       21 02 05.3 +1.0
      comp=Z,1.0nm,0.5s,mb4.0
ZALV  Zalesovo Beam    32.77  37  P       P       21 02 04.6  0.0
ZALV                              pmax    pmax
      comp=Z,2.0nm,0.7s,mb4.2
ZALV  Zalesovo Beam    32.77  37  P       P       21 02 04.6  0.0
      comp=Z,1.9nm,0.7s,mb4.1,baz=243,slow=9.8,SNR=10
KHC   Kasperske Hory   32.89 313  eP      P       21 02 03.9 -1.8
KHC                               ex      x       21 02 07.0
KHC   Kasperske Hory   32.89 313  eP      P       21 02 03.9 -1.8
CLL   Collm            33.95 316  eP      P       21 02 18.0 +3.1
CLL   Collm            33.95 316  e(pP)   P       21 02 18.0 +3.1
CLL                               esP     sP      21 02 21.0 +1.8
FETA  Feichten         34.20 308⇑iP       P       21 02 16.9 -0.3
      comp=Z,4.7nm,0.7s,mb4.5
FETA  Feichten         34.20 308  P       P       21 02 16.9 -0.2
      comp=Z,4.7nm,0.7s,mb4.5
BSD   Bornholm Skovb   34.45 323  i P     P       21 02 18.2 -1.0
BSD                               pmax    pmax
      comp=Z,25nm,0.8s,mb5.2
BSD                               MLR     MLR
      comp=Z,3µm,20.0s,MS5.0
BSD   Bornholm Skovb   34.45 323  i P     P       21 02 18.2 -1.0
      comp=Z,25nm,0.8s,mb5.2
BSD
      comp=Z,3µm,20.0s
BSD   Bornholm Skovb   34.45 323  i P     P       21 02 18.2 -1.0
      comp=Z,3µm,20.0s
KEST  Kesra            34.64 288  P       P       21 02 25.0 +3.9
      comp=Z,1.3nm,0.8s,mb3.9,baz=356,slow=5.9,SNR=4.1
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DAVA  Damuels          34.82 308⇑iP       P       21 02 21.1 -1.4
      comp=Z,5.1nm,0.4s,mb4.8
DAVA  Damuels          34.82 308  P       P       21 02 21.1 -1.4
      comp=Z,5.1nm,0.4s,mb4.8
COP   Copenhagen       35.97 323  eP      P       21 02 36.2 +3.9
COP                               pmax    pmax
      comp=Z,14nm,0.9s,mb4.9
COP                               MLR     MLR
      comp=Z,2µm,19.0s,MS4.9
COP   Copenhagen       35.97 323  i P     P       21 02 36.2 +3.9
      comp=Z,14nm,0.9s,mb4.9
COP
      comp=Z,2µm,19.0s
COP   Copenhagen       35.97 323  eP      P       21 02 36.2 +3.9
      comp=Z,14nm,0.9s,mb4.9
COP                               LR      LR
      comp=Z,2µm,19.0s,MS4.9
FRF   La Foret Royal   36.59 302  eP      P       21 02 36.7 -1.1
FRF   La Foret Royal   36.59 302  eP      P       21 02 36.7 -1.1
MBDF  Montbardon       36.59 304  eP      P       21 02 37.3 -0.5
      comp=Z,15nm,0.7s,mb4.6
MBDF  Montbardon       36.59 304  eP      P       21 02 37.3 -0.5
MBDF                              pmax    pmax
      comp=Z,7.0nm,0.7s,mb4.6
MBDF  Montbardon       36.59 304  eP      P       21 02 37.3 -0.5
      comp=Z,7.4nm,0.7s,mb4.6
MBDF  Montbardon       36.59 304  eP      P       21 02 37.3 -0.5
      comp=Z,7.4nm,0.7s,mb4.6
LMR   La Mourre        36.68 301  eP      P       21 02 38.4 -0.1
LMR   La Mourre        36.68 301  eP      P       21 02 38.4 -0.1
LPG   La Plagne        36.68 305  eP      P       21 02 38.9 +0.4
      comp=Z,24nm,0.9s,mb4.8
LPG   La Plagne        36.68 305  eP      P       21 02 38.9 +0.4
LPG                               pmax    pmax
      comp=Z,12nm,0.9s,mb4.7
LPG   La Plagne        36.68 305  eP      P       21 02 38.9 +0.4
      comp=Z,12nm,0.9s,mb4.7
LPG   La Plagne        36.68 305  eP      P       21 02 38.9 +0.4
      comp=Z,12nm,0.9s,mb4.8
BNI   Bardonecchia     36.69 304  eP      P       21 02 37.3 -1.3
BNI                               pmax    pmax
      comp=Z,9.0nm,0.7s,mb4.7
BNI   Bardonecchia     36.69 304  eP      P       21 02 37.3 -1.3
      comp=Z,9.2nm,0.7s,mb4.7
BNI   Bardonecchia     36.69 304  eP      P       21 02 37.3 -1.3
      comp=Z,9.0nm,0.7s,mb4.7
LPL   La Plagne        36.70 305  eP      P       21 02 38.8 +0.1
      comp=Z,21nm,0.9s,mb4.7
LPL   La Plagne        36.70 305  eP      P       21 02 38.8 +0.1
LPL                               pmax    pmax
      comp=Z,10.0nm,0.9s,mb4.7
LPL   La Plagne        36.70 305  eP      P       21 02 38.8 +0.1
      comp=Z,10nm,0.9s,mb4.7
LPL   La Plagne        36.70 305  eP      P       21 02 38.8 +0.1
      comp=Z,10nm,0.9s,mb4.7
CDF   Champ du Feu     36.76 310  eP      P       21 02 38.9 -0.2
CDF   Champ du Feu     36.76 310  eP      P       21 02 38.9 -0.2
HINF  Hinteralfeld     36.93 309  eP      P       21 02 40.0 -0.6
HINF  Hinteralfeld     36.93 309  eP      P       21 02 40.0 -0.6
ORIF  Oris-en-Rattie   37.24 304  eP      P       21 02 42.8 -0.5
      comp=Z,10nm,1.0s,mb4.3
ORIF  Oris-en-Rattie   37.24 304  eP      P       21 02 42.8 -0.5
ORIF                              pmax    pmax
      comp=Z,5.0nm,1.0s,mb4.3
ORIF  Oris-en-Rattie   37.24 304  eP      P       21 02 42.8 -0.5
      comp=Z,5.2nm,1.0s,mb4.3
ORIF  Oris-en-Rattie   37.24 304  eP      P       21 02 42.8 -0.5
      comp=Z,5.2nm,1.0s,mb4.3
CABF  La Chapelle      37.27 307  eP      P       21 02 42.5 -1.0
      comp=Z,21nm,0.9s,mb4.7
CABF  La Chapelle      37.27 307  eP      P       21 02 42.5 -1.0
CABF                              pmax    pmax
      comp=Z,10.0nm,0.9s,mb4.7
CABF  La Chapelle      37.27 307  eP      P       21 02 42.5 -1.0
      comp=Z,10nm,0.9s,mb4.7
CABF  La Chapelle      37.27 307  eP      P       21 02 42.5 -1.0
      comp=Z,10nm,0.9s,mb4.7
HAU   Haudompre        37.30 309  eP      P       21 02 42.6 -1.1
      comp=Z,3.9nm,0.6s,mb4.2
HAU   Haudompre        37.30 309  eP      P       21 02 42.6 -1.1
HAU                               pmax    pmax
      comp=Z,2.0nm,0.6s,mb4.1
HAU   Haudompre        37.30 309  eP      P       21 02 42.6 -1.1
      comp=Z,2.0nm,0.6s,mb4.1
HAU   Haudompre        37.30 309  eP      P       21 02 42.6 -1.1
      comp=Z,2.0nm,0.6s,mb4.2
SMRF  Simiane la Rot   37.39 302  eP      P       21 02 44.2 -0.4
SMRF  Simiane la Rot   37.39 302  eP      P       21 02 44.2 -0.4
MUD   Monsted U'grnd   37.95 323  i P     P       21 02 50.5 +1.4
MUD                               pmax    pmax
      comp=Z,12nm,0.8s,mb4.7
MUD                               MLR     MLR
      comp=Z,4µm,22.0s,MS5.2
MUD   Monsted U'grnd   37.95 323  i P     P       21 02 50.5 +1.4
      comp=Z,12nm,0.8s,mb4.7
MUD
      comp=Z,4µm,22.0s
MUD   Monsted U'grnd   37.95 323  i P     P       21 02 50.5 +1.4
      comp=Z,4µm,22.0s
VIVF  Saint-Julien-l   38.09 304  eP      P       21 02 50.0 -0.5
VIVF  Saint-Julien-l   38.09 304  eP      P       21 02 50.0 -0.5
MEZF  Maizieres J'vi   38.23 309  eP      P       21 02 50.9 -0.7
MEZF  Maizieres J'vi   38.23 309  eP      P       21 02 50.9 -0.7
LASF  Ste Croix        38.63 302  eP      P       21 02 54.0 -1.1
LASF  Ste Croix        38.63 302  eP      P       21 02 54.0 -1.1
GIVF  Givet            38.65 312  eP      P       21 02 54.9 -0.2
GIVF  Givet            38.65 312  eP      P       21 02 54.9 -0.2
SMF   Signal de Mont   38.82 306  eP      P       21 02 55.6 -0.9
      comp=Z,11nm,0.7s,mb4.4
SMF   Signal de Mont   38.82 306  eP      P       21 02 55.6 -0.9
SMF                               pmax    pmax
      comp=Z,6.0nm,0.7s,mb4.4
SMF   Signal de Mont   38.82 306  eP      P       21 02 55.6 -0.9
      comp=Z,5.6nm,0.7s,mb4.4
SMF   Signal de Mont   38.82 306  eP      P       21 02 55.6 -0.9
      comp=Z,5.6nm,0.7s,mb4.4
LOR   Lormes           38.87 307  eP      P       21 02 56.3 -0.7
LOR   Lormes           38.87 307  eP      P       21 02 56.3 -0.7
BAIF  Baives           39.03 312  eP      P       21 02 57.5 -0.8
      comp=Z,3.6nm,0.5s,mb4.1
BAIF  Baives           39.03 312  eP      P       21 02 57.5 -0.8
BAIF                              pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.1
BAIF  Baives           39.03 312  eP      P       21 02 57.5 -0.8
      comp=Z,1.8nm,0.5s,mb4.1
BAIF  Baives           39.03 312  eP      P       21 02 57.5 -0.8
      comp=Z,1.8nm,0.5s,mb4.1
NB2   NORSAR Subarra   39.05 330  P       P       21 02 57.3 -1.0
      comp=Z,9.9nm,1.2s,mb4.4,baz=121,slow=8.6
NB2   NORSAR Subarra   39.05 330  P       P       21 02 57.3 -1.0
      comp=Z,9.9nm,1.2s,mb4.4,baz=121,slow=8.3,SNR=8.4
NOA   NORSAR Array B   39.05 330  P       P       21 02 57.8 -0.5
NOA                               pmax    pmax
      comp=Z,2.0nm,0.6s
NOA   NORSAR Array B   39.05 330  P       P       21 02 57.8 -0.5
      comp=Z,1.6nm,0.6s,mb3.9,baz=122,slow=8.3,SNR=6.2
NOA   NORSAR Array B   39.05 330  P       P       21 02 57.8 -0.5
      comp=Z,2.0nm,0.6s,mb4.0
SSF   Saint Saulge     39.09 307  eP      P       21 02 57.8 -1.0
      comp=Z,7.7nm,0.9s,mb4.1
SSF   Saint Saulge     39.09 307  eP      P       21 02 57.8 -1.0
SSF                               pmax    pmax
      comp=Z,4.0nm,0.9s,mb4.2
SSF   Saint Saulge     39.09 307  eP      P       21 02 57.8 -1.0
      comp=Z,3.8nm,0.9s,mb4.1
SSF   Saint Saulge     39.09 307  eP      P       21 02 57.8 -1.0
      comp=Z,3.8nm,0.9s,mb4.1
AVF   Avril sur Loir   39.16 307  eP      P       21 02 58.4 -1.1
      comp=Z,15nm,1.1s,mb4.3
AVF   Avril sur Loir   39.16 307  eP      P       21 02 58.4 -1.1
AVF                               pmax    pmax
      comp=Z,8.0nm,1.1s,mb4.4
AVF   Avril sur Loir   39.16 307  eP      P       21 02 58.4 -1.1
      comp=Z,7.7nm,1.1s,mb4.3
AVF   Avril sur Loir   39.16 307  eP      P       21 02 58.4 -1.1
      comp=Z,7.7nm,1.1s,mb4.3
BGF   Bois d'Agland    39.49 306  eP      P       21 03 01.0 -1.2
BGF   Bois d'Agland    39.49 306  eP      P       21 03 01.0 -1.2
MTLF  Montolieu        39.81 301  eP      P       21 03 03.8 -1.1
MTLF  Montolieu        39.81 301  eP      P       21 03 03.8 -1.1
TCF   Toulx Ste Croi   39.91 306  eP      P       21 03 04.9 -0.8
TCF   Toulx Ste Croi   39.91 306  eP      P       21 03 04.9 -0.8
CAF   Calviac          39.95 304  eP      P       21 03 05.0 -1.0
CAF   Calviac          39.95 304  eP      P       21 03 05.0 -1.0
GTA   Gaotai           40.04  65  eP      P       21 03 08.0 +1.1
GTA                               pP      pP      21 03 12.0 +2.0
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GTA				sP	sP	21 03 15.3	+4.1
GTA				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.8						
RJF	Les Rejaudoux	40.35	304	eP	P	21 03 08.8	-0.5
RJF	Les Rejaudoux	40.35	304	eP	P	21 03 08.8	-0.5
LFF	La Frestale	40.89	304	eP	P	21 03 13.2	-0.6
	comp=Z,12nm,0.8s,mb4.3						
LFF	La Frestale	40.89	304	eP	P	21 03 13.2	-0.6
LFF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.3						
LFF	La Frestale	40.89	304	eP	P	21 03 13.2	-0.6
	comp=Z,6.3nm,0.8s,mb4.3						
LFF	La Frestale	40.89	304	eP	P	21 03 13.2	-0.6
	comp=Z,6.2nm,0.8s,mb4.3						
MFF	Saint Martin d	41.55	306	eP	P	21 03 18.5	-0.8
MFF	Saint Martin d	41.55	306	eP	P	21 03 18.5	-0.8
LDF	La Druitiere	41.66	309	eP	P	21 03 19.1	-1.0
	comp=Z,13nm,0.8s,mb4.3						
LDF	La Druitiere	41.66	309	eP	P	21 03 19.1	-1.0
LDF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.3						
LDF	La Druitiere	41.66	309	eP	P	21 03 19.1	-1.0
	comp=Z,6.4nm,0.8s,mb4.3						
LDF	La Druitiere	41.66	309	eP	P	21 03 19.1	-1.0
	comp=Z,6.4nm,0.8s,mb4.3						
FLN	La Foliniere	41.91	309	eP	P	21 03 21.1	-1.0
	comp=Z,15nm,0.8s,mb4.4						
FLN	La Foliniere	41.91	309	eP	P	21 03 21.1	-1.0
FLN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
FLN	La Foliniere	41.91	309	eP	P	21 03 21.1	-1.0
	comp=Z,7.3nm,0.8s,mb4.4						
FLN	La Foliniere	41.91	309	eP	P	21 03 21.1	-1.0
	comp=Z,7.3nm,0.8s,mb4.4						
GRR	Gorron	42.13	309	eP	P	21 03 23.3	-0.6
GRR	Gorron	42.13	309	eP	P	21 03 23.3	-0.6
SJPF	Ste Jean	42.33	301	eP	P	21 03 24.6	-1.0
	comp=Z,7.0nm,0.8s,mb4.1						
SJPF	Ste Jean	42.33	301	eP	P	21 03 24.6	-1.0
SJPF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
SJPF	Ste Jean	42.33	301	eP	P	21 03 24.6	-1.0
	comp=Z,3.5nm,0.8s,mb4.0						
SJPF	Ste Jean	42.33	301	eP	P	21 03 24.6	-1.0
	comp=Z,3.5nm,0.8s,mb4.1						
ZAK	Zakamensk	42.61	48	eP	P	21 03 27.4	-0.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.6						
ZAK	Zakamensk	42.61	48	eP	P	21 03 27.4	-0.4
	comp=Z,2.0nm,1.4s,mb3.6						
SGMF	Saint Gilles	43.25	308	eP	P	21 03 32.3	-0.8
SGMF	Saint Gilles	43.25	308	eP	P	21 03 32.3	-0.8
QUIF	Quistinic	43.65	308	eP	P	21 03 35.4	-0.9
QUIF	Quistinic	43.65	308	eP	P	21 03 35.4	-0.9
SONM	Songino Array	44.53	52	P	P	21 03 43.3	0.0
SONM				pmax	pmax		
	comp=Z,1.0nm,1.1s						
SONM	Songino Array	44.53	52	P	P	21 03 43.3	0.0
	comp=Z,1.2nm,1.1s,mb3.6,baz=284,slow=5.9,SNR=5.3						
SONM	Songino Array	44.53	52	P	P	21 03 43.3	0.0
	comp=Z,1.0nm,1.1s,mb3.6						
ESDC	Sonseca Array	44.68	296	P	P	21 03 43.3	-1.4
	comp=Z,0.3nm,0.5s,mb3.4,baz=69,slow=7.0,SNR=3.2						
ESDC	Sonseca Array	44.68	296	P	P	21 03 43.3	-1.4
TOA0	Torodi Ar. Sit	48.72	259	eP	P	21 04 15.7	-0.9
TOA0	Torodi Ar. Sit	48.72	259	eP	P	21 04 15.7	-0.9
TORD	Torodi Ar. Bea	48.72	259	P	P	21 04 15.7	-0.9
	comp=Z,3.0nm,0.6s,mb4.5,baz=56,slow=7.3,SNR=25						
BOD	Bodaibo	49.50	39	eP	P	21 04 21.3	-0.7
BOD				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.5						
BOD	Bodaibo	49.50	39	eP	P	21 04 21.3	-0.7
	comp=Z,6.0nm,1.2s,mb4.5						
NJ2	Nanjing	56.70	70	eP	P	21 05 17.4	+1.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
DBIC	Dimbokro	57.61	257	P	P	21 05 21.3	-0.8
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.9s						
DBIC	Dimbokro	57.61	257	P	P	21 05 21.2	-0.9
	comp=Z,2.4nm,0.9s,mb4.2,baz=95,slow=12,SNR=2.3						
DBIC	Dimbokro	57.61	257	P	P	21 05 21.3	-0.8
	comp=Z,2.0nm,0.9s,mb4.2						
BOSA	Boshof	64.86	205	P	P	21 06 09.7	-1.2
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
BOSA	Boshof	64.86	205	P	P	21 06 09.7	-1.2
	comp=Z,3.8nm,0.9s,mb4.4,baz=39,slow=4.1,SNR=7.3						
BOSA	Boshof	64.86	205	P	P	21 06 09.7	-1.2
	comp=Z,4.0nm,0.9s,mb4.5						
SEY	Seymchan	67.11	29	⇑eP	P	21 06 25.2	+0.2
SEY	Seymchan	67.11	29	eP	P	21 06 25.2	+0.2
BILL	Bilibino	69.59	21	eP	P	21 06 41.2	+0.8
BILL				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BILL	Bilibino	69.59	21	eP	P	21 06 41.2	+0.8
	comp=Z,5.0nm,0.9s,mb4.4						
YKA	Yellowknife Ar	85.33	353	P	P	21 08 07.4	-1.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	85.33	353	P	P	21 08 07.4	-1.1
	comp=Z,0.5nm,0.7s,mb3.8,baz=11,slow=5.4,SNR=12						
YKA	Yellowknife Ar	85.33	353	P	P	21 08 07.4	-1.2
	comp=Z,1.0nm,0.7s,mb4.0						
WRA	Warramunga Arr	94.89	110	P	P	21 08 53.4	-0.9
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	94.89	110	P	P	21 08 53.4	-0.9
	comp=Z,0.9nm,0.8s,mb4.2,baz=321,slow=4.0,SNR=4.5						
WRA	Warramunga Arr	94.89	110	P	P	21 08 53.4	-0.9
	comp=Z,1.0nm,0.8s,mb4.3						

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*IDC **13** 20:59:15.8±1.1, 25°.13N×98°.24E, h0^{km}, mb3.8/5, mb1 3.9/6, mb1mx3.6/24, mbtmp3.7/6, ML4.1/1, Error ellipse: s-maj=55.7km s-min=14.9km az=77.0*
*BJI **13** 20:59:16.0, 24°.86N×97°.84E, h15^{km}, mb4.1/2, ML3.8/8, Ms3.7/1, Ms7 3.9/1*
*NEIC **13** 20:59:17.6±0.7, 25°.10N×98°.05E, h10^{km}, mb4.1/2, Error ellipse: s-maj=20.9km s-min=9.2km az=75.0*
ISC 13 20:59:17.1±2.5**, 25°.08N**±0°.06×**98°.04E**±0°.10**, h8**^{km}±16^{km}**, n14, σ0^{s}.77**/20**, mb3.8**/7**, Myanmar-China border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	Kunming	4.26	88	Pg	Pg	21 00 38.5	-0.3
KMI				Sg	Sg	21 01 34.3	+0.2
KMI				smax			
	comp=N,160nm,1.0s						
KMI				smax			
	comp=E,140nm,1.0s						
KMI				LR	LR		
	comp=N,990nm,12.9s						
KMI				LR	LR		
	comp=E,600nm,10.2s						
KMI				LR	LR		
	comp=Z,1µm,8.3s						
CHTO	Chiang Mai	6.29	172	ePn	Pn	21 00 50.0	-0.2
	comp=Z,26nm,0.8s						
CMAR	Chiang Mai Arr	6.64	173	Pn	Pn	21 00 56.0	+0.9
	comp=Z,1.0nm,0.3s,baz=344,slow=13,SNR=14						
CMAR				Pg	Pg	21 01 19.3	-5.1
	comp=Z,1.7nm,0.3s,baz=351,slow=18,SNR=31						
CMAR				Sn	Sn	21 02 11.3	+0.3
	comp=Z,0.4nm,0.3s,baz=352,slow=18,SNR=2.3						
CMAR				Lg		21 02 47.0	
	comp=Z,2.8nm,0.3s,baz=352,slow=27,SNR=9.2						
CMAR	Chiang Mai Arr	6.64	173	Pn	Pn	21 00 56.0	+0.9
CMAR				Pg	Pg	21 01 19.3	-5.1
CMAR				Sn	Sn	21 02 11.3	+0.3
CMAR				Lg		21 02 47.0	
LSA	Lhasa	7.66	308	Pn	Pn	21 01 07.3	-1.7
LSA	Lhasa	7.66	308	eP	Pn	21 01 08.9	-0.1
CD2	Chengdu	7.70	40	Pg	Pg	21 01 49.8	+5.2
CD2				Sg	Sg	21 03 29.0	+4.7
CD2				smax			
	comp=N,20nm,1.4s						
CD2				smax			
	comp=E,20nm,1.5s						
SONM	Songino Array	23.66	14	P	P	21 04 28.7	-0.3
	comp=E,0.6nm,0.8s,mb3.1,baz=192,slow=9.5,SNR=3.3						
MKAR	Makanchi Array	25.05	334	P	P	21 04 42.3	+0.6
	comp=E,2.2nm,0.8s,mb3.7,baz=146,slow=9.4,SNR=8.4						
AAK	Ala-Archa	26.11	318	eP	P	21 04 53.1	+1.6
	comp=E,9.1nm,1.4s,mb4.1						
HIA	Hailar	29.49	29	eP	P	21 05 22.0	+0.4
	comp=E,1.2nm,0.5s,mb3.9						
ZALV	Zalesovo Beam	30.48	345	P	P	21 05 29.5	-0.8
	comp=E,1.3nm,0.5s,mb3.9,baz=174,slow=12,SNR=5.5						
WRA	Warramunga Arr	57.00	138	P	P	21 09 02.6	-1.0
	comp=E,1.3nm,0.5s,mb4.2,baz=328,slow=7.4,SNR=10						
ASAR	Alice Springs	59.63	141	P	P	21 09 21.2	-0.7
	comp=E,0.3nm,0.5s,mb3.6,baz=319,slow=6.8,SNR=4.7						

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*IDC **13** 21:23:31.0±1.4, 31°.88N×94°.95E, h0^{km}, mb3.6/3, mb1 3.5/5, mb1mx3.3/24, mbtmp3.4/5, ML3.0/2, Error ellipse: s-maj=50.6km s-min=27.5km az=61.0*
*NEIC **13** 21:23:33.5±1.0, 31°.59N×94°.69E, h10^{km}, mb3.8/3, Error ellipse: s-maj=19.0km s-min=12.7km az=84.0*
*BJI **13** 21:23:34.7, 32°.00N×95°.11E, h10^{km}, mb3.5/1, ML3.5/2*
ISC 13 21:23:32.6±8.1**, 31°.6N**±0°.1×**94°.7E**±0°.1**, h4**^{km}±51^{km}**, n13, σ0^{s}.80**/14**, mb3.7**/5**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	3.61	239	Pn	Pn	21 24 39.0	+10
LSA	Lhasa	3.61	239	ePn	Pn	21 24 29.9	+0.6
LSA				S	Sn	21 25 12.5	0.0
MK31	Makanchi Array	17.91	331	ePn	Pn	21 27 43.4	+1.0
MKAR	Makanchi Array	17.91	331	P	Pn	21 27 41.5	-0.9
	0.0nm,0.3s,baz=154,slow=11,SNR=4.1						
SONM	Songino Array	18.48	26	P	Pn	21 27 44.4	-5.1
	0.1nm,0.3s,baz=211,slow=12,SNR=5.5						
AAK	Ala-Archa	19.46	310	P	Pn	21 28 00.6	-0.7
KBL	Kabul	21.68	285	eP	P	21 28 24.0	-0.3
	5.4nm,1.0s,mb3.9						
KURK	Kurchatov	22.50	333	P	P	21 28 29.8	-3.2
	0.9nm,0.8s,mb3.2,baz=135,slow=12,SNR=4.4						
KURK	Kurchatov	22.50	333	eP	P	21 28 33.8	+0.9
	1.0nm,0.6s,mb3.4						
BRVK	Borovoye	27.77	328	eP	P	21 29 23.4	+1.2
	1.4nm,0.6s,mb3.8						
ASAR	Alice Springs	66.55	141	P	P	21 34 23.6	-0.2
	0.5nm,0.7s,mb3.7,baz=328,slow=6.6,SNR=4.7						
TORD	Torodi Ar. Bea	85.74	283	P	P	21 36 13.1	-0.3
	0.8nm,1.1s,mb3.8,baz=52,slow=5.7,SNR=3.0						
TORD	Torodi Ar. Bea	85.74	283	P	P	21 36 13.1	-0.3

IDC 13 21:28:12.1±1.3**, 11°.04N×95°.09E, h0**^{km}**, mb3.6**/7**, mb1 3.7**/8**, mb1mx3.5**/25**, mbtmp3.5**/8**, Error ellipse: s-maj=56.9km s-min=20.5km az=59.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.26	26	Pn	Pn	21 30 13.5	+0.3
	baz=216,slow=14,SNR=7.1						
MKAR	Makanchi Array	37.25	345	P	P	21 35 23.4	-2.0
	0.7nm,0.8s,baz=161,slow=7.7,SNR=7.0						
KURK	Kurchatov	41.80	344	P	P	21 36 03.5	+0.1
	0.6nm,0.8s,baz=165,slow=7.2,SNR=6.0						
ZALV	Zalesovo Beam	43.57	351	P	P	21 36 17.9	+0.3
	0.7nm,0.5s,baz=179,slow=12,SNR=5.0						
BVAR	Borovoye Array	46.34	340	P	P	21 36 40.8	+1.1
	0.4nm,0.5s,baz=123,slow=11,SNR=4.1						
WRA	Warramunga Arr	49.41	128	P	P	21 37 03.7	-0.3
	0.5nm,0.6s,baz=306,slow=8.8,SNR=4.6						
ASAR	Alice Springs	51.29	133	P	P	21 37 18.4	+0.2
	0.5nm,0.8s,baz=312,slow=6.2,SNR=4.7						
GERES	GERESS Array B	76.11	318	P	P	21 40 01.9	+0.2
	0.4nm,0.6s,baz=86,slow=5.5,SNR=4.4						

IDC 13 21:35:56.0±1.8**, 9°.43S×126°.97E, h0**^{km}**, mb3.2**/1**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, ML3.6**/2**, Error ellipse: s-maj=233.4km s-min=28.3km az=61.0, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	12.64	147	Pn	Pn	21 38 56.2	-1.1
	0.4nm,0.3s,baz=324,slow=14,SNR=15						
WRA				Sn	Sn	21 41 10.5	-8.4
	0.7nm,0.3s,baz=333,slow=22,SNR=75						
ASAR	Alice Springs	15.63	156	Pn	Pn	21 39 39.3	+1.5
	0.2nm,0.3s,baz=329,slow=9.6,SNR=12						
ASAR				Sn	Sn	21 42 33.1	+1.4
	0.2nm,0.3s,baz=321,slow=20,SNR=3.9						
MKAR	Makanchi Array	68.67	329	P	P	21 47 01.4	+0.1
	0.1nm,0.4s,baz=127,slow=6.9,SNR=8.0						

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*ISCJB **13** 21:57:25.9±1.9, 27°.41S±0°.03×146°.37E±0°.04, h12^{km}±12^{km}, mb4.1/7, Error ellipse: s-maj=6.8km s-min=5.7km az=22.6*
*NEIC **13** 21:57:27.0, 27°.55S×146°.65E, h0^{km}, ML4.2(AUST), After AUST.*
*AUST **13** 21:57:28.0, 27°.55S×146°.65E, h0^{km}, ML4.2*
*IDC **13** 21:57:27.3±1.4, 27°.39S×146°.24E, h0^{km}, mb3.9/6, mb1 4.1/10, mb1mx4.0/16, mbtmp3.9/10, ML3.9/4, Error ellipse: s-maj=31.7km s-min=20.0km az=97.0*
ISC 13 21:57:27.0±1.5**, 27°.41S**±0°.03×**146°.37E**±0°.04**, h6**^{km}±10^{km}**, n23, σ1^{s}.28**/39**, mb4.1**/7**, 1D, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QLP	Quilpie	2.07	293	eP	Pn	21 58 04.6	+2.2
QLP				eS	Sn	21 58 35.4	+6.9
RMQ	Roma	2.32	67	eP	Pn	21 58 06.2	+0.4
RMQ				eS	Sn	21 58 35.2	+0.5
	206nm,0.3s						
CMSA	Cobar Meteorol	4.16	188	eP	Pn	21 58 31.3	+0.3
CMSA				eS	Sn	21 59 20.8	+0.9
EIDS	Eidsvold	4.69	65	eP	Pn	21 58 37.7	-0.7
EIDS				eS	Sn	21 59 30.6	-2.6
EIDS	Eidsvold	4.69	65	ePn	Pn	21 58 37.5	-0.9
EIDS				eS	Sn	21 59 30.4	-2.8
ARMA	Armidale	5.50	124	eP	Pn	21 58 48.2	-1.3
ARMA				eS	Sn	21 59 49.4	-3.7
ARMA	Armidale	5.50	124	ePn	Pn	21 58 47.8	-1.7
	25nm,0.7s						
ARMA				ePg	Pg	21 59 11.7	-0.7
ARMA				eS	Sn	21 59 45.3	-7.9
STKA	Stephens Creek	6.09	222	eP	Pn	21 58 59.4	+1.8
STKA				eS	Sn	22 00 06.8	-0.8
	28nm,0.2s						
STKA	Stephens Creek	6.09	222	Pn	Pn	21 58 59.3	+1.7
	3.9nm,0.3s,baz=42,slow=12,SNR=45						
STKA				Sn	Sn	22 00 06.9	-0.6
	15nm,0.3s,baz=89,slow=19,SNR=9.5						
MGCD	Mangrove Creek	7.09	146	eP	Pn	21 59 11.3	0.0
MGCD				eS	Sn	22 00 32.3	+0.1
	310nm,2.0s						
CTA	Charters Tower	7.29	359	eP	Pn	21 59 15.9	+1.8
CTA				eS	Sn	22 00 37.8	+0.6
	2.8nm,0.4s						
CTA	Charters Tower	7.29	359	Pn	Pn	21 59 15.6	+1.5
	0.5nm,0.3s,baz=163,slow=15,SNR=3.2						
CTA				Lg		22 01 17.3	
	1.6nm,0.3s,baz=89,slow=22,SNR=6.0						
BBOO	Buckleboo	10.42	236	eP	Pn	21 59 57.9	+0.9
BBOO				eS	Sn	22 01 50.9	-3.2
	22nm,1.8s						
ASAR	Alice Springs	11.85	286	Pn	Pn	22 00 16.0	-0.7
	0.7nm,0.3s,baz=108,slow=14,SNR=18						
ASAR				Sn	Sn	22 02 26.7	-2.6
	1.7nm,0.3s,baz=107,slow=24,SNR=6.7						
WRAB	Tennant Creek	13.28	302	ePn	Pn	22 00 34.8	-1.4
WRAB				eSn	Sn	22 02 55.2	-9.2
WRA	Warramunga Arr	13.29	301	Pn	Pn	22 00 34.3	-2.0
	0.7nm,0.3s,baz=127,slow=13,SNR=18						
WRA				Sn	Sn	22 02 55.0	-9.4
	0.6nm,0.3s,baz=138,slow=24,SNR=7.1						
FITZ	Fitzroy Crossi	21.21	292	P	P	22 02 14.0	+0.3
	3.0nm,0.7s,mb3.7,baz=112,slow=5.4,SNR=3.0						
QSPA	South Pole Qui	62.68	180	P	P	22 07 53.1	+1.1
	0.9nm,0.6s,mb4.1,baz=273,slow=1.6,SNR=2.8						
CMAR	Chiang Mai Arr	64.73	309	P	P	22 08 08.2	+1.8
	0.5nm,0.3s,mb4.0,baz=144,slow=5.3,SNR=5.5						
KSRS	Korea Array	66.81	344	P	P	22 08 20.2	+0.8
	0.8nm,0.5s,mb4.0,baz=147,slow=7.1,SNR=2.8						
SONM	Songino Array	83.07	334	P	P	22 09 54.6	+1.4
	0.4nm,0.6s,mb3.6,baz=153,slow=5.5,SNR=4.2						
MKAR	Makanchi Array	93.77	322	P	P	22 10 44.7	0.0
	0.4nm,0.7s,mb3.9,baz=119,slow=5.5,SNR=4.4						
KK31	Karatay Array	98.78	314	⇓P	P	22 11 06.0	-1.5
	1.3nm,0.2s,mb5.0,baz=176,slow=12,SNR=151						

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*ISCJB **13** 22:02:51.4±0.6, 43°.46N±0°.04×105°.27W±0°.05, h0^{km}, Error ellipse: s-maj=6.5km s-min=5.1km az=137.8*
*NEIC **13** 22:02:52.8±0.5, 43°.48N×105°.21W, h0^{km}, ML3.1, Error ellipse: s-maj=8.1km s-min=6.3km az=143.0, Suspected Mining explosion.*
NEIC 80 km [50 miles] N of Douglas.
*IDC **13** 22:02:52.5±2.6, 43°.41N×105°.32W, h0^{km}, mb1 3.7/3, mb1mx3.4/23, mbtmp3.5/3, ML3.5/3, Error ellipse: s-maj=55.4km s-min=7.9km az=152.0*
ISC 13 22:02:52.9±0.6**, 43°.46N**±0°.04×**105°.25W**±0°.05**, h0**^{km}**, n18, σ1^{s}.40**/38**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	1.10	53	eP	Pg	22 03 14.1	+0.2
RWWY	Rawlins	2.29	220	P	Pn	22 03 37.6	+5.7
RWWY				eS	Sn	22 04 09.9	+9.2
BW06	Boulder Array	3.23	259	ePn	Pn	22 03 47.3	+2.4
BW06				eS	Sn	22 04 26.8	+2.8
PDAR	Pinedale Array	3.23	259	Pn	Pn	22 03 47.6	+2.8
	4.8nm,0.3s,baz=75,slow=15,SNR=100						
PDAR				Lg		22 04 31.1	
	21nm,0.3s,baz=315,slow=30,SNR=17						
LAO	LASA Array	3.30	348	ePn	Pn	22 03 46.1	+0.3
LAO				Pg	Pg	22 03 56.3	+0.2
LAO				eS	Sn	22 04 27.6	+2.0
RLMT	Red Lodge	3.33	301	ePn	Pn	22 03 46.0	-0.2
RLMT				ePg	Pg	22 03 56.3	-0.4
RLMT				eS	Sn	22 04 32.9	+6.5
OGNE	Ogallala	3.47	135	ePn	Pn	22 03 48.5	+0.4
OGNE				Pg	Pg	22 03 54.7	-4.7
ISCO	Idaho Springs	3.67	184	ePn	Pn	22 03 50.1	-0.8
ISCO				ePg	Pg	22 03 57.9	-5.4
LOHW	Long Hollow	3.90	274	Pn	Pn	22 03 54.9	+0.9
LOHW				ePg	Pg	22 04 05.6	-2.0
LOHW				eS	Sn	22 04 39.5	-0.9
MOOW	Moose Ponds	4.00	276	Pn	Pn	22 03 54.3	-1.2
MOOW				S	Sn	22 04 46.2	+3.2
REDW	Red Top Meadow	4.08	270	ePn	Pn	22 03 57.6	+1.0
REDW				ePg	Pg	22 04 07.0	-4.1
REDW				eS	Sn	22 04 44.5	-0.5
RRI2	Red Ridge	4.42	271	ePn	Pn	22 04 01.6	+0.3
RRI2				ePg	Pg	22 04 15.5	-2.2
RRI2				eSn	Sn	22 04 47.8	-5.7
BOZ	Bozeman (W)	5.05	298	ePn	Pn	22 04 09.3	-0.6
	4.1nm,0.5s						
BOZ				ePg	Pg	22 04 25.1	-4.6
BOZ				eSn	Sn	22 05 06.8	-2.2
DGMT	Dagmar	5.06	8	ePn	Pn	22 04 09.6	-0.3
	21nm,0.5s						
DGMT				ePg	Pg	22 04 22.5	-7.3
DGMT				eS	Sn	22 05 11.2	+2.1
DUG	Dugway	6.53	243	Pn	Pn	22 04 31.1	+1.0
	3.2nm,0.5s						
WUAZ	Wupatki	9.24	213	ePn	Pn	22 05 07.1	-0.3
ULM	Lac du Bonnet	9.34	40	Pn	Pn	22 05 06.5	-2.1
	2.4nm,0.3s,baz=227,slow=12,SNR=16						
ULM				Sn	Sn	22 06 49.6	-4.7
	0.6nm,0.3s,baz=148,slow=9.9,SNR=5.3						
ULM				Lg		22 07 45.0	
	0.2nm,0.3s,baz=127,slow=22,SNR=3.1						
YKA	Yellowknife Ar	19.84	347	P	Pn	22 07 24.5	-1.9
	0.1nm,0.3s,baz=163,slow=11,SNR=3.6						

IDC 13 22:04:05.0±0.9**, 20°.60S×174°.03W, h0**^{km}**, mb3.9**/6**, mb1 4.1**/7**, mb1mx4.0**/19**, mbtmp3.9**/7**, ML3.9**/1**, Error ellipse: s-maj=38.9km s-min=24.7km az=138.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	19.20	202	P	Pn	22 08 30.4	-0.8
	0.4nm,0.3s,baz=304,slow=7.3,SNR=4.1						
STKA	Stephens Creek	41.10	245	P	P	22 11 51.1	+0.3
	1.7nm,0.7s,baz=90,slow=3.0,SNR=2.7						
ASAR	Alice Springs	48.11	256	P	P	22 12 47.0	+0.1
	2.3nm,0.8s,baz=90,slow=8.6,SNR=15						
WRA	Warramunga Arr	48.27	261	P	P	22 12 47.9	-0.3
	0.4nm,0.5s,baz=96,slow=7.7,SNR=6.4						
WRA				PcP	PcP	22 14 14.9	-0.4
	0.8nm,0.9s,baz=98,slow=4.3,SNR=2.5						
QSPA	South Pole Qui	69.47	180	P	P	22 15 15.1	+0.4
	3.6nm,1.0s,baz=47,slow=3.6,SNR=5.2						
TXAR	Lajitas Array	84.01	56	P	P	22 16 38.0	+0.4
	0.5nm,0.9s,baz=240,slow=7.2,SNR=3.2						
YKA	Yellowknife Ar	95.08	24	P	P	22 17 29.2	-0.2
	0.4nm,0.8s,baz=241,slow=4.5,SNR=4.3						
BVAR	Borovoye Array	121.54	320	PKP	PKPdf	22 23 00.2	-0.1
	0.7nm,0.6s,baz=38,slow=5.9,SNR=4.4						
AKASG	Malin Array Be	144.82	334	PKP	PKPdf	22 23 43.2	-0.6
	1.4nm,0.5s,baz=36,slow=4.3,SNR=5.0						
BRTR	Keskin Array B	149.60	315	PKPbc	PKPbc	22 23 55.6	-1.1
	1.2nm,0.8s,baz=151,slow=3.3,SNR=5.8						
GERES	GERESS Array B	151.15	349	PKPbc	PKPbc	22 24 00.8	+0.7
	1.1nm,0.9s,baz=298,slow=2.9,SNR=6.0						

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*IDC **13** 22:19:33.8±1.3, 3°.17S×100°.15E, h0^{km}, mb4.2/10, mb1 4.3/11, mb1mx4.1/24, mbtmp4.2/11, ML3.3/1, MS3.5/1, Ms1 3.5/1, ms1mx2.8/34, Error ellipse: s-maj=57.0km s-min=15.2km az=55.0*
*BJI **13** 22:19:36.1, 3°.10S×100°.20E, h35^{km}, mB5.1/5, mb4.9/11, Ms4.6/2, Ms7 4.5/2*
*ISCJB **13** 22:19:39.4±1.1, 3°.12S±0°.05×100°.25E±0°.08, h54^{km}±9^{km}, mb4.6/32, Error ellipse: s-maj=15.1km s-min=6.3km az=152.9*
*NEIC **13** 22:19:39.1±0.4, 3°.12S×100°.23E, h35^{km}, mb4.5/11, Error ellipse: s-maj=10.1km s-min=6.3km az=60.0*
*DJA **13** 22:19:39, 2°.98S×100°.37E, h10^{km}, MLv4.5/5*
ISC 13 22:19:40.8±1.0**, 3°.10S**±0°.05×**100°.30E**±0°.08**, h46**^{km}±8^{km}**, h21**^{km}±6.1^{km}**:pP-P, n58, σ1^{s}.02**/58**, mb4.6**/32**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDSI	Padang	2.18	4	P	Pn	22 20 12.9	-1.7
PDSI				S	Sn	22 20 40.7	+0.3
KSI	Kapahiang	2.35	104	P	Pn	22 20 16.7	-0.3
PPI	Padang Panjang	2.63	2	P	Pn	22 20 19.6	-1.2
PPI				S	Sn	22 20 53.3	+1.9
MNAI	Manna	2.93	115	P	Pn	22 20 26.9	+2.0
PMBI	Palembang	4.47	88	P	Pn	22 20 51.7	+5.6
GSI	Gunungsitoli	5.15	328	P	Pn	22 20 55.9	+0.4
	29nm,0.7s,0.2nm						
PSI	Prapat	6.02	347	Pn	Pn	22 21 03.6	-3.7
	0.8nm,0.3s,baz=165,slow=4.4,SNR=6.7						
PSI				LR	LR	22 24 00.2	
	comp=Z,446nm,19.0s,baz=74,slow=45						
KULM	Kulim	8.34	2	ePn	Pn	22 21 37.5	-1.7
XMIS	Christmas Isla	9.05	144	P	Pn	22 21 51.0	+2.0
KSM	Kuching	10.99	66	ePn	Pn	22 22 13.9	-1.6
CMAR	Chiang Mai Arr	21.46	356	P	P	22 24 23.2	-2.3
	3.6nm,0.7s,mb3.8,baz=185,slow=11,SNR=20						
CHTO	Chiang Mai	21.82	357	eP	P	22 24 28.1	-1.1
ODAN	Odare	32.29	338	eP	P	22 26 06.2	+0.8
	12nm,0.4s,mb5.0						
TAPN	Taplejung	32.62	339	eP	P	22 26 09.6	+1.3
	16nm,0.5s,mb5.2						
RAMN	Ramite	32.67	337	eP	P	22 26 10.4	+1.6
	14nm,0.4s,mb5.2						
JIRN	Jiri	33.47	337	eP	P	22 26 16.6	+0.9
	12nm,0.4s,mb5.2						
PKI	Pulchoki	33.70	336	eP	P	22 26 19.1	+1.4
	21nm,1.1s,mb5.0						
LSA	Lhasa	33.77	346	P	P	22 26 19.0	+0.7
LSA	Lhasa	33.77	346	eP	P	22 26 19.8	+1.5
	7.0nm,0.6s,mb4.8						
GUN	Gumba	33.81	337	eP	P	22 26 19.6	+0.9
	32nm,0.4s,mb5.6						
DMN	Daman	33.86	335	eP	P	22 26 20.2	+1.1
	11nm,0.7s,mb4.9						
KKN	Kakani	33.95	336	eP	P	22 26 20.3	+0.4
ENH	Enshi	34.33	14	P	P	22 26 24.3	+1.2
YHNB	Yeheng	34.37	35	P	P	22 26 24.6	+1.1
GKN	Gorkha	34.40	335	eP	P	22 26 24.5	+0.7
	13nm,0.3s,mb5.3						
KOLN	Koldanda	34.65	333	eP	P	22 26 26.3	+0.3
	27nm,0.8s,mb5.2						
DANN	Dangsing	35.08	334	eP	P	22 26 29.1	-0.6
WRA	Warramunga Arr	37.19	119	P	P	22 26 47.1	-0.7

	1.8nm,0.5s,mb4.1,baz=305,slow=9.3,SNR=27						
WRAB	Tennant Creek	37.19	119	eP	P	22 26 48.4	+0.5
	2.7nm,0.4s,mb4.4						
XAN	Xi’an	37.82	12	P	P	22 26 51.8	-1.2
XAN				pP	pP	22 27 00.1	-5.3
XAN				sP	sP	22 27 04.3	-6.5
XAN				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.8						
XAN				pmax	pmax		
	comp=Z,120nm,9.5s						
XAN				LR	LR		
	comp=N,220nm,16.8s						
XAN				LR	LR		
	comp=E,300nm,17.9s						
XAN				LR	LR		
	comp=Z,510nm,19.1s						
ASAR	Alice Springs	38.37	125	P	P	22 26 57.5	-0.3
	comp=Z,1.1nm,0.4s,mb3.9,baz=299,slow=8.0,SNR=14						
LZH	Lanzhou	39.12	5	eP	P	22 27 04.0	+0.1
LZH				pP	pP	22 27 12.0	-4.3
LZH				sP	sP	22 27 15.9	-5.8
LZH				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,89nm,4.7s						
GTA	Gaotai	42.30	359	eP	P	22 27 30.0	0.0
GTA				pP	pP	22 27 34.4	-8.2
GTA				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.0						
BJT	Baijiatuau	45.31	17	eP	P	22 27 54.6	+0.4
	comp=Z,8.9nm,1.1s,mb4.5						
CTAO	Charters Tower	47.87	114	eP	P	22 28 14.3	-0.3
	comp=Z,3.2nm,0.7s,mb4.5						
STKA	Stephens Creek	48.20	131	P	P	22 28 17.2	+0.2
	comp=Z,1.4nm,0.3s,mb4.4,baz=294,slow=9.0,SNR=3.2						
UCH	Uchtor	50.81	335	eP	P	22 28 37.5	+0.8
	comp=Z,1.5nm,0.6s,mb4.1						
TKM2	Tokmak 2	50.95	337	eP	P	22 28 38.0	+0.3
	comp=Z,2.2nm,0.4s,mb4.4						
SONM	Songino Array	51.00	5	P	P	22 28 38.8	+0.8
	comp=Z,4.5nm,0.7s,mb4.5,baz=188,slow=9.2,SNR=46						
SONM				PcP	PcP	22 29 53.9	+0.3
	comp=Z,1.3nm,0.8s,baz=194,slow=3.0,SNR=4.7						
AML	Almayashu	51.08	335	eP	P	22 28 38.4	-0.3
	comp=Z,2.6nm,0.6s,mb4.3						
AAK	Ala-Archa	51.16	336	eP	P	22 28 38.4	-0.9
EKS2	Erkin-Say	51.48	335	eP	P	22 28 42.2	+0.6
	comp=Z,3.8nm,0.5s,mb4.6						
MKAR	Makanchi Array	52.16	344	P	P	22 28 46.8	+0.1
	comp=Z,7.0nm,0.7s,mb4.7,baz=148,slow=8.0,SNR=89						
TLY	Talaya	54.65	3	P	P	22 29 04.1	-0.7
	comp=Z,1.4nm,0.4s,mb4.3						
HIA	Hailar	54.81	15	P	P	22 29 04.6	-1.4
KURK	Kurchatov	56.74	344	P	P	22 29 19.1	-0.7
	comp=Z,3.7nm,0.8s,mb4.5,baz=164,slow=6.8,SNR=24						
KURK	Kurchatov	56.74	344	eP	P	22 29 19.5	-0.3
	comp=Z,4.8nm,0.8s,mb4.6						
ZAA0	Zalesovo Array	58.30	349	eP	P	22 29 30.3	-0.5
ZALV	Zalesovo Beam	58.30	349	P	P	22 29 30.4	-0.3
	comp=Z,7.1nm,0.9s,mb4.7,baz=172,slow=5.7,SNR=29						
ZALV	Zalesovo Beam	58.30	349	P	P	22 29 30.4	-0.3
BVAR	Borovoye Array	61.31	340	P	P	22 29 50.6	-0.9
	comp=Z,1.1nm,0.4s,mb4.3,baz=141,slow=9.0,SNR=8.1						
BRVK	Borovoye	61.38	340	eP	P	22 29 51.6	-0.3
	comp=Z,1.4nm,0.4s,mb4.4						
KMBO	Kilima Mbogo	63.03	270	P	P	22 30 02.7	-1.1
CASY	Casey	63.47	175	P	P	22 30 05.1	-0.6
BRTR	Keskin Array B	74.28	313	P	P	22 31 12.8	-0.6
	comp=Z,1.0nm,0.8s,mb3.8,baz=128,slow=8.0,SNR=6.2						
BOSA	Boshof	75.39	241	eP	P	22 31 18.4	-1.7
TXAR	Lajitas Array	145.38	39	PKPbc	PKPbc	22 39 15.3	+1.0
	comp=Z,3.9nm,0.7s,baz=303,slow=1.0,SNR=38						
TXAR	Lajitas Array	145.38	39	PKPbc	PKPbc	22 39 15.3	+1.0

MOS ***13*** *22:23:31.8±1.1, 14°.65N×92°.83W, h33^{km}, mb4.8/14, Error ellipse: s-maj=15.5km s-min=6.3km az=105.8*

ISCJB ***13*** *22:23:33.6±0.4, 14°.64N±0°.03×93°.14W±0°.03, h38^{km}±3^{km}, mb4.6/40, MS4.5/6, Error ellipse: s-maj=6.0km s-min=2.8km az=36.8*

IDC ***13*** *22:23:34.6±0.8, 14°.75N×92°.97W, h43^{km}±6^{km}, mb4.1/17, mb1 4.3/19, mb1mx4.1/30, mbtmp4.1/19, ML4.8/3, MS3.9/5, Ms1 3.9/5, ms1mx3.6/34, Error ellipse: s-maj=18.4km s-min=8.1km az=52.0*

NEIC ***13*** *22:23:35.0, 14°.59N×93°.28W, h20^{km}, mb4.8/33, MD4.7(MEX), After MEX.*

MEX ***13*** *22:23:35.8±0.5, 14°.64N×93°.35W, h10^{km}±14^{km}, MD4.7*

ISC 13 22:23:35.9±0.3, **14°.73N**±0°.03×**93°.07W**±0°.03, **h36**^{km}±3^{km}, **h49**^{km}±.7^{km}**:pP-P, n259,** σ1^{s}**00**/273, **mb4.6**/40, **MS4.5**/6, **54C-50D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		0.98	352	eP	Pn	22 23 52.4	-0.8
PCIG				i S	Sn	22 24 06.0	+0.1
JAT	Jato	1.45	106	⇑eP	Pn	22 23 59.2	-0.4
CCIG	Comitan	1.79	30	eP	Pn	22 24 06.7	+2.4
CCIG				i S	Sn	22 24 30.7	+4.9
TP2	Tecpan 2	1.99	88	eP	Pn	22 24 07.6	+0.6
TGIG		2.04	359	eP	Pn	22 24 08.7	+1.0
TGIG				i S	Sn	22 24 34.2	+2.3
SCX	San Cristobal	2.04	12	eP	Pn	22 24 10.0	+2.3
SCX				i S	Sn	22 24 35.2	+3.2
FG6		2.13	94	eP	Pn	22 24 09.1	+0.2
FG6				eS	Sn	22 24 35.2	+1.1
PCG	Pacaya	2.41	98	eP	Pn	22 24 12.8	0.0
PCG				eS	Sn	22 24 40.3	-0.8
IXG	Ixpaco	2.60	102	eP	Pn	22 24 14.8	-0.6
NBG	Las Nubes	2.64	93	eP	Pn	22 24 17.9	+1.8
CMIG	Matias Romero	2.92	324	i P	Pn	22 24 19.2	-0.7
CMIG				i S	Sn	22 24 51.2	-2.6
CMIG	Matias Romero	2.92	324	P	Pn	22 24 19.6	-0.4
	78nm,0.3s,baz=149,slow=12,SNR=484						
CMIG				S	Sn	22 24 52.6	-1.2
	403nm,0.3s,baz=86,slow=16,SNR=11						
CMIG				LR	LR	22 25 25.6	
	comp=Z,580nm,19.9s,baz=112,slow=37						
MRL	Marmol	3.29	84	eP	Pn	22 24 25.8	+0.9
RBDL	Robledal	3.34	100	eP	Pn	22 24 25.3	-0.3
RTR	El Retiro	3.42	104	eP	Pn	22 24 26.3	-0.5
SBLS	San Blas	3.46	104	eP	Pn	22 24 26.9	-0.4
SNJE	San Jose	3.47	104	eP	Pn	22 24 27.1	-0.3
TUIG	Tuzandepetl	3.53	339	eP	Pn	22 24 28.0	-0.2
TUIG				i S	Sn	22 25 09.3	+0.5
MTO2	Montecristo 2	3.61	95	eP	Pn	22 24 29.9	+0.6
BOQS	Boqueron	3.81	105	eP	Pn	22 24 31.3	-0.7
LBRS	Las Brisas	4.03	104	eP	Pn	22 24 35.1	0.0
LFRS	El Faro	4.04	105	eP	Pn	22 24 34.6	-0.7
OXX	Oaxaca	4.22	304	i P	Pn	22 24 40.2	+2.5
OXX				i S	Sn	22 25 25.1	-0.7
VHO	Vista Hermosa	4.22	304	i S	Sn	22 25 22.2	-3.7
SNVI	San Vicente	4.25	105	eP	Pn	22 24 38.5	+0.3
CAHU	Cacacuatique	4.81	101	eP	Pn	22 24 45.5	-0.3
PNIG	Pinotepa	5.14	289	eP	Pn	22 24 47.1	-3.3
PNIG				i S	Sn	22 25 43.5	-5.1
UTMO	Huajuapan	5.49	305	eP	Pn	22 24 53.9	-1.3
UTMO				i S	Sn	22 25 53.0	-4.1
TGUH	Tegucigalpa,Un	5.66	96	ePn	Pn	22 24 57.0	-0.5
LVIG	Laguna Verde	5.91	328	i P	Pn	22 24 59.2	-1.7
LVIG				i S	Sn	22 26 06.9	-0.5
PPM	Popocatepetl	6.85	310	i P	Pn	22 25 13.7	-0.1
PPM				i S	Sn	22 26 27.9	-2.6
MEIG	Mezcala	7.04	298	i P	Pn	22 25 15.9	-0.6
MEIG				i S	Sn	22 26 32.6	-2.8
TEIG	Tepich	7.13	39	P	Pn	22 25 17.2	-0.5
	72nm,0.3s,baz=249,slow=1.9,SNR=74						
TEIG				S	Sn	22 26 33.0	-4.5
	28nm,0.3s,baz=318,slow=22,SNR=8.7						
TEIG				LR	LR	22 28 38.6	
	comp=Z,594nm,21.2s,baz=132,slow=43						
TEIG	Tepich	7.13	39	ePn	Pn	22 25 17.3	-0.4
TEIG				eSn	Sn	22 26 30.7	-6.8
PLIG	Platanillo	7.16	301	i P	Pn	22 25 17.0	-1.1
PLIG				i S	Sn	22 26 35.2	-3.0
CAIG	El Cayaco	7.30	289	i P	Pn	22 25 18.1	-1.9
CAIG				i S	Sn	22 26 37.1	-4.5
SZVM	Salazar	7.57	308	eP	Pn	22 25 23.8	+0.1
SZVM				i S	Sn	22 26 46.5	-1.8
VCR	Vista de Mar	8.59	121	eP	Pn	22 25 38.4	+0.7
PRS1	Puriscal	9.77	118	eP	Pn	22 25 55.2	+1.2
LCR2	La Lucha 2	10.15	118	eP	Pn	22 25 58.6	-0.6
URSC	Urasca	10.30	117	eP	Pn	22 26 01.3	0.0
BUS	Buena Vista	10.46	118	eP	Pn	22 26 04.3	+0.9
MMIG	Aquila	10.47	291	i P	Pn	22 26 03.9	+0.4
MMIG				i S	Sn	22 27 58.4	-1.1
R15V		11.33	294	i P	Pn	22 26 18.6	+3.3
LNIG	Linares	11.77	330	i P	Pn	22 26 23.9	+2.6
HKT	Hockley	15.36	351	eP	Pn	22 27 09.7	-0.3
HKT				e		22 29 58.0	
HKT				pmax	pmax		
	comp=Z,23nm,1.2s						
HKT	Hockley	15.36	351	ePn	Pn	22 27 09.7	-0.3
	comp=Z,23nm,1.2s						
HKT				eSn	Sn	22 29 58.0	-1.1
PAYG	Puerto Ayora	15.55	170	Pn	Pn	22 27 14.5	+2.0
JCT	Junction City	16.86	340	eP	Pn	22 27 30.2	+1.1
JCT				e		22 30 34.0	
JCT				pmax	pmax		
	comp=Z,19nm,0.6s						
JCT	Junction City	16.86	340	ePn	Pn	22 27 30.2	+1.1
	comp=Z,19nm,0.6s						
JCT				eSn	Sn	22 30 34.0	-1.3
DWPF	Disney	17.15	37	ePn	Pn	22 27 32.0	-0.8
TXAR	Lajitas Array	17.52	328	P	Pn	22 27 38.0	+0.5
	comp=Z,0.4nm,0.3s,baz=147,slow=13,SNR=78						
VBMS	Vicksburg	17.57	7	P	Pn	22 27 39.5	+1.5
	comp=Z,68nm,0.8s						
MIAR	Mount Ida	19.74	359	eP	Pn	22 28 01.8	-2.4
MIAR				eS	S	22 31 28.7	-14
MIAR				pmax	pmax		
	comp=Z,68nm,1.0s						
MIAR	Mount Ida	19.74	359	eP	Pn	22 28 01.8	-2.4
	comp=Z,68nm,1.0s						
MIAR				eS	S	22 31 28.7	-14
UALR	University of	19.97	2	ePn	Pn	22 28 08.1	+1.1
	comp=Z,90nm,1.7s						
GDL2	Guadalupe Moun	20.22	331	eP	P	22 28 08.4	+0.7
OTAV	Otavalo	20.40	134	eP	P	22 28 08.9	-1.1
	comp=Z,3.7nm,0.8s						
GOGA	Godfrey	20.54	23	eP	P	22 28 10.2	-1.1
GOGA				eS	S	22 31 53.3	-5.8
GOGA				pmax	pmax		
	comp=Z,47nm,0.9s						
GOGA	Godfrey	20.54	23	eP	P	22 28 10.2	-1.1
	comp=Z,47nm,0.9s						
GOGA				eS	S	22 31 53.3	-5.8
WMOK	Wichita Mounta	20.58	347	eP	P	22 28 11.1	-0.5
WMOK				eS	S	22 31 56.5	-3.3
WMOK				pmax	pmax		
	comp=Z,23nm,1.3s						
WMOK	Wichita Mounta	20.58	347	eP	P	22 28 11.1	-0.5
	comp=Z,23nm,1.3s						
WMOK				eS	S	22 31 56.5	-3.3
PLAL	Pickwick Lake	20.66	12	eP	P	22 28 13.4	+0.8
PLAL				eS	S	22 31 58.4	-3.1
ROSC	El Rosal	20.89	116	P	P	22 28 14.9	-0.3
	comp=Z,5.8nm,0.3s,baz=90,slow=21,SNR=5.5						
AMTX	Amarillo	21.52	340	eP	P	22 28 20.8	-1.0
	comp=Z,56nm,0.6s,mb5.2						
NHSC	New Hope	21.73	30	P	P	22 28 21.9	-2.1
WVT	Waverly	21.82	11	eP	P	22 28 23.1	-1.9
WVT				pmax	pmax		
	comp=Z,19nm,0.7s,mb4.6						
WVT	Waverly	21.82	11	eP	P	22 28 23.1	-1.9
	comp=Z,19nm,0.7s,mb4.6						
TKL	Tuckaleechee C	22.45	20	P	P	22 28 29.7	-2.0
	comp=Z,5.0nm,0.5s,mb4.2,baz=225,slow=11,SNR=2.4						
TKL				S	S	22 32 40.4	+4.0
	comp=Z,4.7nm,0.7s,baz=297,slow=14,SNR=4.4						
TKL	Tuckaleechee C	22.45	20	P	P	22 28 29.7	-2.0
TKL				S	S	22 32 40.4	+4.0
219A	White Tail Can	22.67	322	⇓P	P	22 28 34.9	+0.8
	baz=23						
SDV	Santo Domingo	22.71	102	P	P	22 28 32.4	-2.3
	comp=Z,7.8nm,0.7s,mb4.2,baz=308,slow=6.8,SNR=12						
SDV	Santo Domingo	22.71	102	eP	P	22 28 31.5	-3.2
	comp=Z,7.6nm,0.7s,mb4.2						
318A	Bisbee	22.73	320	⇑P	P	22 28 35.8	+1.1
	baz=23						
LPM	Los Pinos Moun	23.03	330	eP	P	22 28 36.8	-1.0
LENM	Lemitar	23.07	329	eP	P	22 28 37.6	-0.7
218A	Dragoon	23.13	321	⇓P	P	22 28 39.7	+0.8
	baz=23						
119A	Ashpeak Ranch,	23.25	323	⇑P	P	22 28 41.1	+0.9
	baz=23						
CCM	Cathedral Cave	23.29	4	eP	P	22 28 36.9	-3.7
CCM				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.3						
CCM	Cathedral Cave	23.29	4	eP	P	22 28 36.9	-3.7
	comp=Z,12nm,1.0s,mb4.3						
CCM				eS	S	22 33 06.2	+16
X22A	Bernardo	23.37	330	⇓P	P	22 28 42.6	+1.2
	baz=23,SNR=6.0						
ANMO	Albuquerque	23.47	331	eP	P	22 28 41.5	-0.8
ANMO				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ANMO	Albuquerque	23.47	331	P	P	22 28 42.1	-0.3
	comp=Z,6.7nm,0.5s,mb4.3,baz=135,slow=16,SNR=3.6						
ANMO	Albuquerque	23.47	331	eP	P	22 28 41.5	-0.8
	comp=Z,7.7nm,0.6s,mb4.3						
217A	Green Valley	23.47	319	⇑P	P	22 28 43.3	+0.9
	baz=24,SNR=5.8						
118A	Homack Ranch,	23.55	322	⇓P	P	22 28 43.8	+0.7
	baz=24						
TUC	Tucson	23.81	320	eP	P	22 28 46.3	+0.8
TUC				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.4						
TUC	Tucson	23.81	320	eP	P	22 28 46.3	+0.7
	comp=Z,26nm,1.5s,mb4.4						
117A	Oracle	23.96	321	⇓P	P	22 28 48.3	+1.4
	baz=24						
KSU1	Kansas State U	24.48	353	eP	P	22 28 50.4	-1.1
W20A	Ramah	24.60	328	⇓P	P	22 28 53.7	+1.1
	baz=25						
Y17A	Roosevelt	24.81	323	⇓P	P	22 28 55.5	+0.9
	baz=25						
BLA	Blacksburg	25.06	24	eP	P	22 28 56.0	-0.9
BLA				pmax	pmax		
	comp=Z,34nm,1.1s,mb4.8						
BLA	Blacksburg	25.06	24	eP	P	22 28 56.0	-0.9
	comp=Z,34nm,1.1s,mb4.8						
T22A	Edith	25.39	333	⇓P	P	22 29 00.7	+0.9
	baz=25						
SDCO	Great Sand Dun	25.44	337	eP	P	22 29 00.8	+0.5
	comp=Z,19nm,1.4s,mb4.4						
Y15A	Casa Rosa Ranc	25.88	321	⇓P	P	22 29 05.3	+1.0
	baz=26						
113A	Mohawk Valley,	26.02	317	⇓P	P	22 29 06.7	+1.1
	baz=26						
SJG	San Juan	26.03	79	P	P	22 29 03.4	-2.5
ATAH	Atahualpa	26.04	145	P	P	22 29 06.3	+0.5
	comp=Z,5.9nm,0.8s,mb4.2,baz=30,slow=4.1,SNR=4.0						
ATAH				LR	LR	22 37 10.7	
	comp=Z,298nm,20.1s,MS3.8,baz=122,slow=31						
MVCO	Mesa Verde	26.26	331	⇑P	P	22 29 08.4	+0.7
	baz=26,SNR=6.2						
MVCO	Mesa Verde	26.26	331	eP	P	22 29 08.6	+0.8
	comp=Z,26nm,0.8s,mb4.8						
MVCO				ePcP	PcP	22 32 34.4	+0.7
GLA	Glamis	26.89	317	eP	P	22 29 14.1	+0.6
GLA				pmax	pmax		
	comp=Z,15nm,0.4s,mb4.9						
GLA	Glamis	26.89	317	eP	P	22 29 14.1	+0.6
	comp=Z,15nm,0.4s,mb4.9						
ACSO	Alum Creek Sta	26.90	17	eP	P	22 29 11.3	-2.1
V15A	Kaibab Nationa	27.09	324	⇓P	P	22 29 16.1	+0.8
	baz=27						
Q21A	Lamborn Mesa,	27.20	335	⇑P	P	22 29 17.1	+0.9
	baz=27						
PDMCI	Parker Dam,Lak	27.23	319	⇑P	P	22 29 17.2	+0.8
	baz=27						
PV04	Paradox Valley	27.41	332	eP	P	22 29 18.0	-0.1
W13A	Hualapai Mount	27.60	321	⇑P	P	22 29 20.6	+0.8
	baz=28						
BC3	Big Chuckw Mtn	27.67	317	⇓P	P	22 29 21.5	+1.0
	baz=28						
S17A	Black Ridge (B	27.71	329	⇓P	P	22 29 21.6	+0.8
	baz=28						
IRM	Iron Mountain	27.79	318	⇑P	P	22 29 22.4	+0.9
	baz=28						
Q19A	Hogan Spring (	28.03	332	⇑P	P	22 29 24.6	+1.0
	baz=28						
R17A	Hanksville Air	28.28	330	⇓P	P	22 29 27.4	+1.6
	baz=28						
GMRC	Granite Mounta	28.50	319	⇓P	P	22 29 28.8	+1.0
	baz=29						
U13A	Pakoon Wash	28.54	323	⇓P	P	22 29 29.5	+1.3
	baz=29						
Q18A	Rafter H Ranch	28.55	331	⇓P	P	22 29 29.1	+0.9
	baz=29						
V12A	Nelson	28.60	321	⇓P	P	22 29 29.8	+1.1
	baz=29						
N21A	Black Mountain	28.83	337	⇑P	P	22 29 31.8	+1.1
	baz=29						
N20A	Spence Gulch,	29.18	336	⇓P	P	22 29 34.7	+0.9
	baz=29						
RWWY	Rawlins	29.53	338	eP	P	22 29 37.2	+0.4
	comp=Z,230nm,2.8s,mb5.4						
M20A	Sweetwater, Wa	29.72	337	⇑P	P	22 29 39.0	+0.5
	baz=30						
L21A	Rawlins	29.82	338	⇓P	P	22 29 39.9	+0.4
	baz=30						
Q13A	Wheeler Ranch,	30.38	327	⇑P	P	22 29 45.5	+1.1
	baz=30						
MPMC	Manual Prospec	30.47	319	⇑P	P	22 29 46.1	+0.8
	baz=30						
RSSD	Black Hills	30.75	344	eP	P	22 29 47.1	-0.5
RSSD				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
RSSD	Black Hills	30.75	344	eP	P	22 29 47.1	-0.5
	comp=Z,3.1nm,0.6s,mb4.3						
BBSR	BB Station	31.24	51	eP	P	22 29 50.8	-1.4
L17A	Cokeville	31.31	334	⇑P	P	22 29 52.8	+0.1
	baz=31						
PDAR	Pinedale Array	31.34	336	P	P	22 29 51.8	-1.1
	comp=Z,1.0nm,0.6s,mb3.9,baz=140,slow=10.0,SNR=9.5						
K18A	Toltan Ranch,	31.42	336	⇑P	P	22 29 54.0	+0.5
	baz=32,SNR=5.5						
L16A	Fish Haven	31.48	333	⇑P	P	22 29 54.1	0.0
	baz=32						
TPH	Tonopah	31.58	322	eP	P	22 29 55.2	+0.2
J18A	Kendall Valley	31.89	336	⇑P	P	22 29 57.8	+0.1
	baz=32						
HVU	Hansel Valley	31.90	331	eP	P	22 29 59.0	+1.2
HVU				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.7						
HVU	Hansel Valley	31.90	331	eP	P	22 29 59.0	+1.2
	comp=Z,15nm,1.1s,mb4.8						
L15A	Malad City	31.90	332	⇓P	P	22 29 57.5	-0.2
	baz=32						
SADO	Sadowa	32.20	19	LR	LR	22 44 14.1	
	comp=Z,275nm,19.7s,MS4.0,baz=86,slow=39						
K16A	Soda Springs	32.22	334	⇓P	P	22 30 01.3	+0.7
	baz=32						
M13A	Montello	32.24	329	⇓P	P	22 30 01.2	+0.4
	baz=32						
J17A	Brown Place, J	32.29	336	⇓P	P	22 30 01.7	+0.5
	baz=32,SNR=8.1						
ELK	Elko	32.32	328	P	P	22 30 01.7	+0.2
	comp=Z,0.6nm,0.3s,mb3.9,baz=103,slow=14,SNR=2.3						
REDW	Red Top Meadow	32.35	335	eP	P	22 30 02.2	+0.5
	comp=Z,27nm,0.8s,mb5.1						
SNOW	Snow King Moun	32.39	336	eP	P	22 30 02.9	+0.8
	comp=Z,34nm,0.8s,mb5.2						
NVAR	Mina Array Bea	32.46	321	P	P	22 30 02.7	0.0
	comp=Z,4.6nm,0.7s,mb4.4,baz=130,slow=8.4,SNR=5.5						
NVAR	Mina Array Bea	32.46	321	P	P	22 30 02.7	0.0
LOHW	Long Hollow	32.46	336	eP	P	22 30 03.0	+0.3
	comp=Z,13nm,0.9s,mb4.8						
RRI2	Red Ridge	32.53	335	eP	P	22 30 04.0	+0.7
	comp=Z,21nm,1.3s,mb4.9						
J16A	Bone	32.59	334	⇓P	P	22 30 04.4	+0.6
	baz=33						
MOOW	Moose Ponds	32.63	336	eP	P	22 30 04.4	+0.2
	comp=Z,9.2nm,1.0s,mb4.7						
DCID1	Drake Creek	32.68	335	eP	P	22 30 09.9	+5.3
	comp=Z,25nm,0.9s,mb5.1						
I17A	Pilgrim Ck.	32.71	336	⇑P	P	22 30 05.4	+0.6
	baz=33						
J15A	Blackfoot	33.04	334	⇑P	P	22 30 08.1	+0.4
	baz=33						
M11A	Holland Ranch,	33.11	328	⇓P	P	22 30 09.3	+0.9
	baz=33						
H17A	Grant Village	33.11	337	⇓P	P	22 30 09.1	+0.7
	baz=33						
L12A	House Creek Ra	33.25	330	⇑P	P	22 30 10.0	+0.4
	baz=33						
J14A	Carey	33.45	332	⇑P	P	22 30 11.7	+0.4
	baz=34,SNR=5.1						
CMB	Columbia Colle	33.50	319	eP	P	22 30 10.9	-1.0
G18A	Lazy EL Ranch,	33.53	339	⇑P	P	22 30 11.7	-0.3
	baz=34						
L11A	Cat Creek Ranc	33.63	329	⇓P	P	22 30 13.0	+0.1
	baz=34						
J13A	Cove Ranch, Pi	33.81	332	⇑P	P	22 30 14.4	0.0
	baz=34						
HLID	Hailey	34.04	332	⇑P	P	22 30 16.8	+0.3
	baz=34						
HLID	Hailey	34.04	332	eP	P	22 30 17.1	+0.6
	comp=Z,8.1nm,1.0s,mb4.6						
F18A	Big Timber	34.09	339	⇑P	P	22 30 16.8	-0.1
	baz=34						
H15A	Lima	34.12	335	⇑P	P	22 30 17.9	+0.8
	baz=34						
J12A	Stokes Ranch,	34.12	331	⇓P	P	22 30 18.1	+1.0
	baz=34						
I13A	Wildhorse Cree	34.19	332	⇑P	P	22 30 18.6	+0.8
	baz=34						
G16A	Moss Hill, Enn	34.28	336	⇑P	P	22 30 19.1	+0.6
	baz=34						
F17A	Fitzpatrick Pl	34.42	338	⇓P	P	22 30 20.1	+0.3
	baz=34,SNR=6.1						
I12A	Atlanta	34.55	331	⇑P	P	22 30 21.1	+0.2
	baz=35						
BOZ	Bozeman (W)	34.56	337	eP	P	22 30 20.9	-0.1
BOZ				pmax	pmax		
	comp=Z,58nm,2.6s,mb5.0						
BOZ	Bozeman (W)	34.56	337	⇑P	P	22 30 21.4	+0.4
	baz=35						
BOZ	Bozeman (W)	34.56	337	eP	P	22 30 20.9	-0.1
	comp=Z,58nm,2.6s,mb5.0						
F16A	Kennard Place,	34.68	337	⇓P	P	22 30 22.0	+0.1
	baz=35						
DLMT	Dillon	34.71	336	eP	P	22 30 22.6	+0.4
	comp=Z,14nm,1.0s,mb4.9						
E18A	Harlowton	34.73	339	⇓P	P	22 30 22.6	+0.2
	baz=35						
N06A	Buffalo Meadow	34.85	323	⇑P	P	22 30 23.8	+0.2
	baz=35,SNR=5.0						
E17A	Martinsdale	34.97	338	⇓P	P	22 30 24.3	-0.2
	baz=35						
L08A	Fields	34.99	326	⇑P	P	22 30 25.0	+0.3
	baz=35						
H12A	Diamond D Ranc	35.01	332	⇑P	P	22 30 25.1	+0.2
	baz=35,SNR=11						
K09A	Rome	35.02	328	⇑P	P	22 30 25.4	+0.4
	baz=35						
LRM	Limekiln Ridge	35.03	336	eP	P	22 30 25.4	+0.4
I11A	Placerville	35.03	331	⇓P	P	22 30 25.2	+0.2
	baz=35						
F15A	Butte	35.06	336	⇓P	P	22 30 25.4	+0.2
	baz=35,SNR=6.3						
G13A	Cobalt	35.17	334	⇓P	P	22 30 26.5	+0.3
	baz=35						
E16A	East Helena	35.33	338	⇑P	P	22 30 27.4	-0.2
	baz=35,SNR=7.2						
J09A	Fry Pan Ranch,	35.50	328	⇓P	P	22 30 29.1	+0.1
	baz=36						
ULM	Lac du Bonnet	35.50	357	P	P	22 30 25.2	-3.8
	comp=Z,2.0nm,0.5s,mb4.3,baz=174,slow=10,SNR=4.7						
D17A	Six Diamond Ra	35.51	339	⇓P	P	22 30 28.6	-0.5
	baz=36,SNR=7.5						
E15A	Deer Lodge	35.60	337	⇓P	P	22 30 29.7	-0.2
	baz=36						
H11A	Donnelly	35.66	332	⇑P	P	22 30 30.3	-0.1
	baz=36						
F13A	Darby	35.76	334	⇑P	P	22 30 30.9	-0.5
	baz=36						
K07A	Rock Creek Ran	35.82	326	⇓P	P	22 30 31.6	-0.2
	baz=36						
J08A	Circle Bar Ran	35.87	328	⇓P	P	22 30 32.1	-0.2
	baz=36,SNR=13						
C17A	Wharram Farm,	35.95	340	⇑P	P	22 30 32.4	-0.5
	baz=36,SNR=5.9						
D15A	Lincoln	36.07	337	⇑P	P	22 30 33.4	-0.5
	baz=36						
E13A	Victor	36.23	335	⇑P	P	22 30 35.4	+0.2
	baz=36						
B18A	Beardsley Farm	36.29	341	⇑P	P	22 30 35.5	-0.3
	baz=36						
C16A	Fuhringer Ranc	36.43	339	⇑P	P	22 30 36.4	-0.6
	baz=36,SNR=5.6						
D14A	Greenough	36.48	336	⇓P	P	22 30 36.8	-0.6
	baz=36						
B17A	L&G Farms, Che	36.53	340	⇓P	P	22 30 37.5	-0.4
	baz=37						

G10A	**Bishop Farm, J**	36.62	331	⇑P	P	22 30 38.4	-0.2
	baz=37						
C15A	**Salmond Ranch,**	36.72	338	⇓P	P	22 30 39.3	-0.1
	baz=37						
K05A	**Summer Lake**	36.74	325	⇑P	P	22 30 39.6	-0.1
	baz=37						
A18A	**Metzger Ranch,**	36.78	341	⇑P	P	22 30 39.4	-0.5
	baz=37						
D13A	**Huson**	36.87	335	⇑P	P	22 30 40.0	-0.7
	baz=37,SNR=6.3						
I07A	**Izee**	36.91	328	⇑P	P	22 30 40.8	-0.3
	baz=37						
E11A	**Bogner Ranch,**	37.02	333	⇑P	P	22 30 41.3	-0.7
	baz=37						
A17A	**Triple J Farms**	37.07	341	⇓P	P	22 30 41.8	-0.6
	baz=37						
B15A	**Bradely Ranch,**	37.16	338	⇓P	P	22 30 42.9	-0.3
	baz=37						
YBH	**Yreka Blue Hor**	37.16	322	P	P	22 30 41.7	-1.6
	comp=Z,0.9nm,0.5s,mb3.9,baz=98,slow=7.1,SNR=3.5						
YBH				pP	pP	22 30 53.8	+0.1
	comp=Z,1.9nm,0.5s,baz=164,slow=3.6,SNR=3.6						
F10A	**Beach Ranch, E**	37.18	332	⇓P	P	22 30 42.8	-0.6
	baz=37,SNR=13						
H07A	**Lands Inn, Kim**	37.30	328	⇑P	P	22 30 44.3	-0.1
	baz=37						
A16A	**West Butte Ran**	37.37	340	⇓P	P	22 30 44.7	-0.3
	baz=37						
B13A	**Whitefish**	37.91	337	⇑P	P	22 30 49.3	-0.3
	baz=38						
A14A	**Double T Ranch**	38.02	338	⇓P	P	22 30 50.3	-0.1
	baz=38						
H04A	**Detroit Lake**	38.73	326	⇓P	P	22 30 56.5	0.0
	baz=39						
HOOD	**Mount Hood Mea**	38.88	327	*e*P	P	22 31 04.7	+7.0
	comp=Z,17nm,0.8s,mb4.8						
NEW	**Newport**	38.89	334	*e*P	P	22 30 57.8	0.0
A11A	**Hall Mountain,**	39.13	336	⇑P	P	22 30 59.3	-0.4
	baz=39						
C08A	**Higginbotham F**	39.36	332	⇑P	P	22 31 01.6	-0.1
	baz=39						
E06A	**Yakima**	39.38	329	⇑P	P	22 31 01.9	0.0
	baz=39						
FFC	**Flin Flon**	40.51	352	*i* P	P	22 31 10.2	-0.9
EDM	**Edmonton**	41.62	342	*e*P	P	22 31 19.0	-1.3
SIV	**San Ignacio**	43.94	133	P	P	22 31 36.1	-3.5
	comp=Z,5.0nm,0.7s,mb4.3,baz=312,slow=8.5,SNR=25						
SIV				pP	pP	22 31 49.1	-1.1
	comp=Z,1.9nm,0.7s,baz=309,slow=7.3,SNR=4.4						
SIV				PcP	PcP	22 33 22.3	-2.9
	comp=Z,0.4nm,0.5s,baz=301,slow=4.1,SNR=3.7						
LVC	**Limon Verde**	44.01	147	*e*P	P	22 31 38.5	-1.6
SCHQ	**Schefferville**	44.91	21	LR	LR	22 51 08.6	
	comp=Z,350nm,19.9s,MS4.3,baz=67,slow=37						
LCO	**Las Campanas**	48.56	154	P	P	22 32 16.4	+0.7
YKA	**Yellowknife Ar**	50.09	347	P	P	22 32 25.0	-1.9
	comp=Z,3.2nm,0.5s,mb4.7,baz=153,slow=7.1,SNR=51						
YKA				pP	pP	22 32 37.9	+0.2
	comp=Z,2.3nm,0.6s,baz=152,slow=7.4,SNR=7.7						
DLBC	**Dease Lake**	51.57	336	P	P	22 32 38.3	+0.1
	comp=Z,4.6nm,0.8s,mb4.4,baz=154,slow=6.6,SNR=5.2						
DLBC				pP	pP	22 32 51.4	+2.4
	comp=Z,6.6nm,0.6s,baz=134,slow=4.1,SNR=6.6						
FRB	**Frobisher Bay**	51.85	14	P	P	22 32 36.8	-3.3
	comp=Z,1.8nm,1.1s,mb3.9,baz=188,slow=8.3,SNR=3.6						
CPUP	**Villa Florida**	53.61	139	P	P	22 32 49.3	-4.4
	comp=Z,2.5nm,0.7s,mb4.3,baz=318,slow=8.6,SNR=7.0						
PLCA	**Paso Flores**	59.00	160	P	P	22 33 28.8	-3.1
	comp=Z,7.0nm,1.0s,mb4.7,baz=302,slow=6.7,SNR=2.9						
RES	**Resolute Bay**	59.96	359	P	P	22 33 35.7	-2.4
	comp=Z,1.5nm,0.6s,mb4.2,baz=197,slow=9.4,SNR=11						
RES	**Resolute Bay**	59.96	359	P	P	22 33 35.7	-2.4
MCK	**McKinley**	62.10	335	*e*P	P	22 33 51.5	-1.3
BILL	**Bilibino**	80.40	338	*i* P	P	22 35 42.6	-0.7
BILL				*i*		22 35 47.9	
BILL				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.6						
BILL	**Bilibino**	80.40	338	*e*P	P	22 35 41.9	-1.4
	comp=Z,9.4nm,0.8s,mb4.8						
DBIC	**Dimbokro**	86.61	84	*e*P	P	22 36 12.9	-3.4
DBIC				pmax	pmax		
	comp=Z,9.0nm,1.3s						
DBIC	**Dimbokro**	86.61	84	*e*P	P	22 36 12.9	-3.4
	comp=Z,9.4nm,1.3s,mb4.9						
TIXI	**Tiksi**	89.33	348	*i* P	P	22 36 25.3	-2.8
TIXI				pmax	pmax		
	comp=Z,6.0nm,2.7s,mb4.5						
VNDA	**Vanda**	107.54	193	PKiKP	PKiKP	22 41 58.0	-0.1
SONM	**Songino Array**	115.34	346	PKP	PKPdf	22 42 12.2	-1.5
	comp=Z,0.5nm,1.1s,baz=32,slow=3.8,SNR=3.0						
MKAR	**Makanchi Array**	118.62	4	PKP	PKPdf	22 42 17.7	-2.4
	comp=Z,0.2nm,0.8s,baz=0.0,slow=1.4,SNR=3.3						
BJI	**Beijing**	119.09	335	PKP	PKPdf	22 42 20.8	-0.4
BJI				LR	LR		
	comp=N,380nm,11.6s,MS5.3						
BJI				LR	LR		
	comp=E,300nm,14.7s,MS5.3						
BJI				LR	LR		
	comp=Z,370nm,18.7s,MS5.0						
HHC	**Hu-ho-hao-te**	120.17	339	*e*PKP	PKPdf	22 42 23.3	0.0
HHC				sPKP		22 42 37.8	
HHC				PP	PP	22 43 50.8	+3.3
HHC				PKS		22 45 58.8	
HHC				SKS	SKSdf	22 49 30.8	-1.9
HHC				SKKS	SKKSac	22 50 39.8	-6.0
HHC				AMB	AMB		
	comp=Z,270nm,5.4s						
HHC				LR	LR		
	comp=N,85nm,14.9s,MS4.7						
HHC				LR	LR		
	comp=E,110nm,13.9s,MS4.7						
HHC				LR	LR		
	comp=Z,150nm,13.1s,MS4.8						
WMQ	**Urumqi**	121.73	359	*e*PKP	PKPdf	22 42 26.5	+0.3
CTAO	**Charters Tower**	123.38	255	PKIKP	PKPdf	22 42 29.4	-0.5
LSZ	**Lusaka**	123.42	99	*e*PKIKP	PKPdf	22 42 31.0	+0.9
NJ2	**Nanjing**	124.33	327	*e*PKP	PKPdf	22 42 32.9	+1.4
CASY	**Casey**	126.14	192	*e*PKPdf	PKPdf	22 42 33.8	-0.1
LZH	**Lanzhou**	126.99	343	*e*PKP	PKPdf	22 42 37.9	+1.4
CD2	**Chengdu**	131.83	340	PKP	PKPdf	22 42 46.6	+0.8
WRA	**Warramunga Arr**	134.56	256	PKP	PKPdf	22 42 48.3	-2.8
	comp=Z,0.3nm,0.3s,baz=92,slow=3.2,SNR=9.2						
GYA	**Guiyang**	134.79	335	*e*Pdif	Pdif	22 39 50.3	-1.5
GYA				PKP	PKPdf	22 42 50.0	-1.5
GYA				PP	PP	22 45 26.9	+2.8
GYA				PKS		22 46 24.8	
GYA				SKS	SKSdf	22 49 54.3	-5.9
GYA				AMB	AMB		
	comp=Z,110nm,7.8s						
GYA				LR	LR		
	comp=N,160nm,22.2s,MS4.8						
GYA				LR	LR		
	comp=E,120nm,20.7s,MS4.8						
GYA				LR	LR		
	comp=Z,140nm,22.0s,MS4.6						
ASAR	**Alice Springs**	134.92	251	PKP	PKPdf	22 42 48.9	-2.9
	comp=Z,0.6nm,0.8s,baz=111,slow=2.1,SNR=4.0						
KMI	**Kunming**	137.50	339	PKP	PKPdf	22 42 53.3	-3.3
CMAR	**Chiang Mai Arr**	144.96	340	PKP	PKPdf	22 43 07.7	-2.5
	comp=Z,1.3nm,0.3s,baz=346,slow=4.2,SNR=9.4						
CMAR				pPKP	pPKPdf	22 43 20.7	-1.3
	comp=Z,5.4nm,0.7s,baz=345,slow=4.1,SNR=3.9						

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*UCC **13** 22:35:01.6±0.2, 50°.85N×6°.24E, h17^{km}±1^{km}, ML0.6*

CSEM 13 22:35:01.0±0.2**, 50°.80N×6°.28E, h16**^{km}**, ML0.6, Error ellipse: s-maj=5.8km s-min=3.9km az=6.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HGN	**Heimansgroeve**	0.23	260	*e*Pg	Pg	22 35 06.3	+0.1
	1.0nm,0.1s,baz=60						
HGN				*i* Sg	Sg	22 35 09.6	0.0
HGN	**Heimansgroeve**	0.23	260	*e*Pg	Pg	22 35 06.3	+0.2
	1.0nm,0.1s						
HGN				*i* Sg	Sg	22 35 09.6	0.0
MEM	**Membach**	0.26	222	P	Pg	22 35 07.4	+0.7
MEM				S	Sg	22 35 11.6	+1.0
	comp=N,10.0nm,0.2s						
MEM	**Membach**	0.26	222	P	Pg	22 35 07.4	+0.7
MEM				S	Sg	22 35 11.6	+1.0
	comp=N,10.0nm,0.2s						
BCLA	**Clavier**	0.73	239	P	Pg	22 35 15.2	0.0
BCLA				S	Sg	22 35 25.1	+0.2
	comp=E,1.0nm,0.1s						
BCLA	**Clavier**	0.73	239	P	Pg	22 35 15.2	-0.1
BCLA				S	Sg	22 35 25.1	+0.2
	comp=E,1.0nm,0.1s						

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*ISCJB **13** 22:38:42.0±0.5, 0°.68S±0°.08×13°.03W±0°.08, h10^{km}, mb4.1/14, MS4.0/6, Error ellipse: s-maj=11.9km s-min=9.9km az=43.8*

*IDC **13** 22:38:42.0±1.0, 0°.80S×13°.15W, h0^{km}, mb4.2/12, mb1 4.3/14, mb1mx4.2/26, mbtmp4.2/14, ML4.6/2, MS4.0/8, Ms1 4.0/8, ms1mx3.8/32, Error ellipse: s-maj=27.8km s-min=19.4km az=76.0*

*NEIC **13** 22:38:43.4±0.5, 0°.74S×13°.14W, h10^{km}, mb4.7/4, Error ellipse: s-maj=11.0km s-min=10.7km az=111.0*

ISC 13 22:38:43.5±0.5**, 0°.73S**±0°.08×**13°.11W**±0°.07**, h10**^{km}**, n31, σ1^{s}00**/30**, mb4.1**/14**, MS4.0**/6**, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LIC	**Lamto**	10.62	49	*e*P	Pn	22 41 16.9	+1.0
	28nm,0.2s						
TIC	**Toumodi**	10.90	48	*e*P	Pn	22 41 18.4	-1.3
	146nm,0.2s						
KIC	**Kosan Boka**	10.93	50	*e*P	Pn	22 41 19.3	-0.8
	184nm,1.0s						
DBIC	**Dimbokro**	11.04	48	Pn	Pn	22 41 20.7	-0.9
	2.0nm,0.3s,baz=202,slow=14,SNR=66						
DBIC				Sn	Sn	22 43 16.4	-8.9
	1.1nm,0.3s,baz=139,slow=20,SNR=3.2						
DBIC				LR	LR	22 45 01.8	
	comp=Z,739nm,18.5s,baz=213,slow=34						
BBTS	**Babate**	15.66	348	Pn	Pn	22 42 23.2	-1.3
	4.9nm,0.3s,baz=247,slow=2.3,SNR=12						
BBTS				Sn	Sn	22 45 06.9	-11
	2.1nm,0.3s,baz=35,slow=23,SNR=7.0						
BBTS				LR	LR	22 47 30.4	
	comp=Z,315nm,18.4s,baz=20,slow=34						
BBTS	**Babate**	15.66	348	Pn	Pn	22 42 23.2	-1.3
BBTS				Sn	Sn	22 45 06.9	-11
BBTS				LR	LR	22 47 30.4	
TORD	**Torodi Ar. Bea**	20.14	46	P	P	22 43 18.3	+0.3
	25nm,0.7s,baz=230,slow=11,SNR=301						
TORD				LR	LR	22 50 29.9	
	comp=Z,523nm,20.7s,MS3.9,baz=235,slow=35						
RCBR	**Riachuelo**	23.30	257	P	P	22 43 51.6	-0.4
ESLA	**Sonseca Array**	41.08	11	*e*P	P	22 46 27.5	+0.1
	0.4nm,0.8s,mb3.1						
ESDC	**Sonseca Array**	41.08	11	PP	PP	22 48 03.4	+1.2
	2.4nm,0.8s,baz=192,slow=11,SNR=5.9						
KEST	**Kesra**	41.88	28	P	P	22 46 35.0	+0.9
	2.4nm,1.0s,mb3.8,baz=344,slow=10,SNR=4.4						
KEST				LR	LR	23 05 41.0	
	comp=Z,122nm,18.6s,MS3.8,baz=210,slow=39						
LSZ	**Lusaka**	43.25	112	P	P	22 46 46.0	+0.5
	8.1nm,0.9s,mb4.4,baz=283,slow=5.8,SNR=12						
LSZ	**Lusaka**	43.25	112	*e*P	P	22 46 45.9	+0.3
	7.8nm,0.9s,mb4.4						
LBTB	**Lobatse**	44.50	126	P	P	22 46 55.5	0.0
	9.2nm,0.8s,mb4.5,baz=309,slow=5.2,SNR=11						
SUR	**Sutherland**	44.86	138	*e*P	P	22 46 58.1	-0.1
	18nm,1.0s,mb4.9						
BOSA	**Boshof**	45.94	131	P	P	22 47 06.3	-0.6
	9.2nm,0.9s,mb4.7,baz=291,slow=7.3,SNR=9.5						
BOSA				LR	LR	23 02 16.5	
	comp=Z,158nm,18.4s,MS4.0,baz=236,slow=31						
BOSA	**Boshof**	45.94	131	*e*P	P	22 47 06.2	-0.7
	11nm,1.0s,mb4.8						
BOSA				LR	LR	23 02 16.5	
KMBO	**Kilima Mbogo**	50.36	91	P	P	22 47 39.2	-2.0
GERES	**GERESS Array B**	54.55	21	P	P	22 48 12.6	+0.8
	1.6nm,0.9s,mb4.1,baz=200,slow=6.5,SNR=13						
GERES				PP	PP	22 50 16.1	+1.9
	1.0nm,0.8s,baz=223,slow=7.3,SNR=3.5						
GERES				LR	LR	23 12 36.4	
	comp=Z,146nm,18.6s,MS4.1,baz=63,slow=37						
SDV	**Santo Domingo**	58.09	281	P	P	22 48 36.8	-0.9
BRTR	**Keskin Array B**	58.65	41	P	P	22 48 43.2	+2.1
	1.8nm,1.1s,mb4.0,baz=267,slow=2.5,SNR=5.1						
PLCA	**Paso Flores**	65.34	225	LR	LR	23 12 53.3	
	comp=Z,164nm,21.1s,MS4.2,baz=266,slow=31						
GNI	**Garni**	66.44	45	P	P	22 49 34.1	+0.8
SADO	**Sadowa**	73.71	317	LR	LR	23 18 08.9	
	comp=Z,103nm,18.9s,MS4.1,baz=349,slow=32						
AAK	**Ala-Archa**	88.72	48	*e*P	P	22 51 38.5	+1.0
	3.7nm,1.0s,mb4.7						
QSPA	**South Pole Qui**	89.34	180	P	P	22 51 40.1	+0.4
	1.3nm,0.9s,mb4.2,baz=139,slow=0.8,SNR=3.0						
TXAR	**Lajitas Array**	90.84	299	P	P	22 51 47.4	-0.3
	0.1nm,0.3s,mb3.7,baz=69,slow=10.0,SNR=2.3						
KURK	**Kurchatov**	91.66	39	P	P	22 51 49.4	-1.7
	0.3nm,0.9s,mb3.6,baz=278,slow=5.2,SNR=2.8						
MKAR	**Makanchi Array**	94.24	43	P	P	22 52 04.0	+1.0
	0.8nm,0.9s,mb4.1,baz=264,slow=3.6,SNR=5.0						
YKA	**Yellowknife Ar**	95.96	333	P	P	22 52 11.9	+1.4
	0.1nm,0.5s,mb3.5,baz=103,slow=5.2,SNR=3.9						
ASAR	**Alice Springs**	139.81	129	PKhKP		22 58 03.0	
	0.4nm,0.9s,baz=213,slow=2.7,SNR=4.6						
ASAR				PKP	PKPdf	22 58 13.2	+0.4
	0.6nm,0.7s,baz=219,slow=2.4,SNR=5.0						

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*ISCJB **13** 22:40:44.1±0.3, 49°.34N±0°.01×6°.78E±0°.03, h0^{km}, Error ellipse: s-maj=2.5km s-min=1.9km az=9.0*

*CSEM **13** 22:40:45.1±0.1, 49°.35N×6°.79E, h2^{km}, ML2.5/13, Error ellipse: s-maj=2.5km s-min=1.8km az=100.0*

*NEIC **13** 22:40:45.8, 49°.35N×6°.85E, h1^{km}, ML2.3(STR), ML2.6(LDG), After STR.*

*BGR **13** 22:40:45.9±0.4, 49°.33N×6°.79E, h1^{km}, ML1.8/3, Error ellipse: s-maj=7.8km s-min=4.4km az=37.0*

*BNS **13** 22:40:46.1±0.4, 49°.35N×6°.84E, h1^{km}, ML1.5*

*LDG **13** 22:40:46.1±0.1, 49°.37N×6°.81E, h1^{km}, Md2.5/2, Ml2.6/13, Error ellipse: s-maj=1.7km s-min=1.3km az=102.0, Suspected Mining induced.*

ISC 13 22:40:45.2±0.2**, 49°.36N**±0°.01×**6°.78E**±0°.03**, h0**^{km}**, n71, σ0^{s}91**/129**, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RUP	**Ruppelstein**	0.39	27	Pg	Pg	22 40 52.9	+0.2
RUP	**Ruppelstein**	0.39	27	Pg	Pg	22 40 52.9	+0.2
WLF	**Walferdange**	0.52	307	P	Pg	22 40 56.4	+1.3
WLF	**Walferdange**	0.52	307	*e*Pg	Pg	22 40 56.5	+1.4
	SNR=4.1						
WLF				*e*Sg	Sg	22 41 02.4	+0.6
WLF	**Walferdange**	0.52	307	Pg	Pg	22 40 56.5	+1.4
	SNR=4.1						
WLF				Sg	Sg	22 41 02.4	+0.7
ABH	**Alteburg**	0.72	43	Pg	Pg	22 40 58.6	-0.5
ABH				Sg	Sg	22 41 09.6	+1.1
ABH	**Alteburg**	0.72	43	Pg	Pg	22 40 58.6	-0.5
ABH				Sg	Sg	22 41 09.6	+1.1
BGG	**Burgeitz**	0.92	23	*e*Pg	Pg	22 41 03.2	+0.3
BGG	**Burgeitz**	0.92	23	Pg	Pg	22 41 03.2	+0.3
HILG	**Hillesheim**	0.94	356	*e*Pg	Pg	22 41 04.0	+0.8
HILG	**Hillesheim**	0.94	356	Pg	Pg	22 41 04.0	+0.8
CDF	**Champ du Feu**	1.00	161	*e*Pn	Pn	22 41 05.5	-0.9
CDF				*e*Sg	Sg	22 41 18.2	+0.9
	18nm,0.2s						
CDF	**Champ du Feu**	1.00	161	*e*Pg	Pg	22 41 04.5	+0.2
CDF				*e*Pn	Pn	22 41 05.5	-0.9
CDF				*e*Sg	Sg	22 41 18.2	+0.9
CDF	**Champ du Feu**	1.00	161	*e*Pg	Pg	22 41 04.5	+0.2
CDF	**Champ du Feu**	1.00	161	*e*Pn	Pn	22 41 05.5	-0.9
CDF				*e*Sg	Sg	22 41 18.2	+0.9
	8.9nm,0.2s						
RFYF	**Reffroy**	1.13	230	*e*Pg	Pg	22 41 07.9	+1.1
	baz=45						
RFYF				*e*Sg	Sg	22 41 23.1	+1.7
	30nm,0.2s,baz=50						
RFYF	**Reffroy**	1.13	230	*e*Pg	Pg	22 41 07.9	+1.1
RFYF				*e*Sg	Sg	22 41 23.1	+1.7
	15nm,0.2s						
ECH	**Echery**	1.17	168	Pg	Pg	22 41 08.3	+0.7
ECH				Sg	Sg	22 41 24.5	+1.8
ECH	**Echery**	1.17	168	Pg	Pg	22 41 08.3	+0.7
ECH				Sg	Sg	22 41 24.5	+1.8
KOE	**Koeppel**	1.23	29	*e*Pg	Pg	22 41 08.8	0.0
KOE	**Koeppel**	1.23	29	Pg	Pg	22 41 08.9	+0.1
STB	**Steinbach**	1.24	2	*e*Pg	Pg	22 41 08.8	-0.1
STB				*e*Sg	Sg	22 41 25.9	+0.8
	8.3nm,0.7s						
STB	**Steinbach**	1.24	2	Pg	Pg	22 41 08.9	-0.1
STB				Sg	Sg	22 41 25.9	+0.9
	8.3nm,0.7s						
THEF	**They Montfort**	1.25	205	Pg	Pg	22 41 09.0	-0.1
THEF				Sg	Sg	22 41 26.9	+1.7
THEF	**They Montfort**	1.25	205	Pg	Pg	22 41 09.0	-0.1
THEF				Sg	Sg	22 41 26.9	+1.7
TOD	**Tromm**	1.34	78	Pg	Pg	22 41 10.2	-0.7
TOD				Sg	Sg	22 41 28.1	-0.2
TOD	**Tromm**	1.34	78	Pg	Pg	22 41 10.2	-0.7
TOD				Sg	Sg	22 41 28.1	-0.2
MEM	**Membach**	1.35	338	P	Pg	22 41 11.4	+0.3
MEM	**Membach**	1.35	338	P	Pg	22 41 11.4	+0.3
HAU	**Haudompre**	1.38	192	*e*Pg	Pg	22 41 12.0	+0.3
HAU				*e*Sg	Sg	22 41 30.5	+0.9
	16nm,0.3s						
HAU	**Haudompre**	1.38	192	*e*Pn	Pn	22 41 11.0	-0.7
HAU				*e*Pg	Pg	22 41 12.0	+0.3
HAU				*e*Sg	Sg	22 41 30.5	+0.9
HAU	**Haudompre**	1.38	192	*e*Pn	Pn	22 41 11.0	-0.7
HAU	**Haudompre**	1.38	192	*e*Pg	Pg	22 41 12.0	+0.3
HAU				*e*Sg	Sg	22 41 30.5	+0.9
	7.8nm,0.3s						
TNS	**Taunus Mts**	1.38	51	*e*Pn	Pn	22 41 10.9	-0.8
	SNR=1.6						
TNS				*e*Pg	Pg	22 41 12.0	+0.3
	SNR=6.8						
TNS				*e*Sg	Sg	22 41 30.2	+0.6
TNS	**Taunus Mts**	1.38	51	Pn	Pn	22 41 10.9	-0.8
	SNR=1.6						
MEZF	**Maizieres J'vi**	1.43	234	*e*Pg	Pg	22 41 12.6	+0.1
	baz=51						
MEZF				*e*Sg	Sg	22 41 32.0	+1.0
	8.6nm,0.3s,baz=54						
MEZF	**Maizieres J'vi**	1.43	234	*e*Pg	Pg	22 41 12.6	+0.1
MEZF				*e*Sg	Sg	22 41 32.0	+1.0
	4.3nm,0.3s						
BFO	**Black Forest**	1.45	135	*e*Pg	Pg	22 41 13.1	+0.1
	SNR=2.9						
BFO				*e*Sg	Sg	22 41 30.2	-1.5
BFO	**Black Forest**	1.45	135	Pg	Pg	22 41 13.1	+0.2
	SNR=2.9						
BFO				Sg	Sg	22 41 30.2	-1.5
GIVF	**Givet**	1.48	301	*e*Pn	Pn	22 41 11.9	-1.1
GIVF				*e*Sn	Sn	22 41 32.4	-0.6
	22nm,0.5s						
GIVF	**Givet**	1.48	301	*e*Pn	Pn	22 41 11.9	-1.1
GIVF				*e*Sn	Sn	22 41 32.4	-0.6
	11nm,0.5s						
HGN	**Heimansgroeve**	1.51	339	*e*Pg	Pg	22 41 13.9	-0.3
HGN				*e*Sg	Sg	22 41 33.6	-0.3
HGN	**Heimansgroeve**	1.51	339	*e*Pg	Pg	22 41 13.9	-0.3
HGN				*e*Sg	Sg	22 41 33.6	-0.2
MOF	**Molkenrain**	1.52	171	Pg	Pg	22 41 14.4	0.0
MOF				Sg	Sg	22 41 34.5	+0.4
MOF	**Molkenrain**	1.52	171	Pg	Pg	22 41 14.4	0.0
MOF				Sg	Sg	22 41 34.5	+0.4
HINF	**Hinteralfeld**	1.54	178	*e*Pg	Pg	22 41 14.8	+0.1
HINF				*e*Sn	Sn	22 41 31.9	-2.7
HINF				*e*Sg	Sg	22 41 35.5	+0.8
	16nm,0.3s						
HINF	**Hinteralfeld**	1.54	178	*e*Pg	Pg	22 41 14.8	+0.1
HINF				*e*Sn	Sn	22 41 31.9	-2.7
HINF				*e*Sg	Sg	22 41 35.5	+0.8
	7.9nm,0.3s						
DOU	**Dourbes**	1.60	298	P	Pn	22 41 15.7	+1.0
DOU	**Dourbes**	1.60	298	P	Pn	22 41 15.7	+1.0
SFTF	**Sexfontaines**	1.63	226	*e*Pn	Pn	22 41 14.8	-0.3
	baz=44						
SFTF				*e*Sg	Sg	22 41 38.4	+0.8
	6.2nm,0.2s						
SFTF	**Sexfontaines**	1.63	226	*e*Pn	Pn	22 41 14.8	-0.3
SFTF				*e*Sg	Sg	22 41 38.4	+0.8
	3.1nm,0.2s						
FELD	**Feldberg im Sc**	1.69	151	Pg	Pg	22 41 17.3	-0.2
FELD				Sg	Sg	22 41 39.8	+0.4
FELD	**Feldberg im Sc**	1.69	151	Pg	Pg	22 41 17.3	-0.2
FELD				Sg	Sg	22 41 39.8	+0.4
BAIF	**Baives**	1.81	294	*e*Pg	Pg	22 41 20.2	+0.2
BAIF				*e*Sg	Sg	22 41 42.9	-0.6
	5.7nm,0.4s						
BAIF	**Baives**	1.81	294	*e*Pn	Pn	22 41 16.9	-0.8
BAIF				*e*Pg	Pg	22 41 20.2	+0.2
BAIF				*e*Sg	Sg	22 41 42.9	-0.6
BAIF	**Baives**	1.81	294	*e*Pn	Pn	22 41 16.9	-0.8
BAIF	**Baives**	1.81	294	*e*Pg	Pg	22 41 20.2	+0.2
BAIF				*e*Sg	Sg	22 41 42.9	-0.6
	2.8nm,0.4s						
CABF	**La Chapelle**	2.79	190	*e*Pg	Pg	22 41 38.9	+0.3
CABF				*e*Sg	Sg	22 42 14.0	-0.7
	1.2nm,0.3s						
CABF	**La Chapelle**	2.79	190	*e*Pn	Pn	22 41 30.7	-0.3
CABF				*e*Pg	Pg	22 41 38.9	+0.3
CABF				*e*Sg	Sg	22 42 14.0	-0.7
CABF	**La Chapelle**	2.79	190	*e*Pn	Pn	22 41 30.7	-0.3
CABF	**La Chapelle**	2.79	190	*e*Pg	Pg	22 41 38.9	+0.3
CABF				*e*Sg	Sg	22 42 14.0	-0.7
	0.6nm,0.3s						
LOR	**Lormes**	2.86	224	*e*Pn	Pn	22 41 31.1	-0.9
	baz=50						
LOR				*e*Sn	Sn	22 42 05.2	-1.9
	3.8nm,0.3s						
LOR	**Lormes**	2.86	224	*e*Pn	Pn	22 41 31.1	-0.9
LOR				*e*Sn	Sn	22 42 05.2	-1.9
	1.9nm,0.3s						
SSF	**Saint Saulge**	3.17	225	*e*Pn	Pn	22 41 34.6	-1.7
SSF				*e*Sg	Sg	22 42 27.7	+0.6
	3.5nm,0.3s						
SSF	**Saint Saulge**	3.17	225	*e*Pn	Pn	22 41 34.6	-1.7
SSF				*e*Sg	Sg	22 42 27.7	+0.6
	1.8nm,0.3s						
SMF	**Signal de Mont**	3.36	217	*e*Pn	Pn	22 41 37.4	-1.4
SMF				*e*Sn	Sn	22 42 16.5	-2.8
SMF				*e*Sg	Sg	22 42 32.1	-0.9
	1.8nm,0.2s						
SMF	**Signal de Mont**	3.36	217	*e*Pn	Pn	22 41 37.4	-1.4
SMF				*e*Sn	Sn	22 42 16.5	-2.8
SMF				*e*Sg	Sg	22 42 32.1	-0.9
	0.9nm,0.2s						
AVF	**Avril sur Loir**	3.45	223	*e*Pn	Pn	22 41 38.7	-1.4
AVF	**Avril sur Loir**	3.45	223	*e*Pn	Pn	22 41 38.7	-1.4
GEC2	**GERESS Array S**	4.57	94	*e*Pn	Pn	22 41 55.8	+0.3
	SNR=3.1						
GEC2	**GERESS Array S**	4.57	94	Pn	Pn	22 41 55.8	+0.2
	SNR=3.1						

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*NEIC **13** 22:41:31.5, 10°.43N×62°.39W, h3^{km}, MD3.2(TRN), After TRN.*

*TRN **13** 22:41:31.1, 10°.36N×62°.33W, h3^{km}, MD3.4*

*ISCJB **13** 22:41:32.4±0.6, 10°.40N±0°.04×62°.33W±0°.02, h3^{km}±5^{km}, Error ellipse: s-maj=6.7km s-min=3.6km az=164.4*

*FUNV **13** 22:41:33.4, 10°.41N×62°.28W, h5^{km}, MW2.9*

ISC 13 22:41:33.1±0.5**, 10°.42N**±0°.04×**62°.32W**±0°.02**, h7**^{km}±5^{km}**, n21, σ0^{s}99**/33**, 3C-1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUIV	**Guiria**	0.24	24	⇑*e*P	Pg	22 41 37.6	-0.3
GUIV				*e*S	Sg	22 41 41.6	+0.3
TCE	**Chacachacare**	0.62	64	*i* P	Pg	22 41 43.8	-1.4
TCE				*e*S	Sg	22 41 53.0	-0.3
TCE	**Chacachacare**	0.62	64	⇑*i*P	Pg	22 41 43.8	-1.4
TCE				*e*S	Sg	22 41 54.3	+0.9
GUNV	**Guanoco**	0.66	247	⇓*e*P	Pg	22 41 45.8	-0.1
GUNV				*e*S	Sg	22 41 56.0	+1.5
TPP	**Pointe-a-Pierr**	0.87	97	*e*P	Pg	22 41 49.8	0.0
TPP				*e*S	Sg	22 42 05.7	+4.6
CRUV	**Carupano**	0.93	286	*e*P	Pg	22 41 50.4	-0.7
CRUV				*e*S	Sg	22 42 03.6	+0.4
TRN	**Trinidad (W)**	0.93	76	*e*P	Pg	22 41 48.8	-2.3
TRN				*e*S	Sg	22 42 05.9	+2.7
TRN	**Trinidad (W)**	0.93	76	⇑*i*P	Pg	22 41 50.1	-1.0
ITEV	**Isla Los Testi**	1.22	319	*e*P	Pg	22 41 56.4	-0.2
ITEV				*e*S	Sn	22 42 14.0	+0.5
TBH	**Brigand Hill**	1.24	87	*e*	Sb	22 42 11.3	-1.8
TBH				*e*S	Sg	22 42 13.7	+0.7
TBH	**Brigand Hill**	1.24	87	*e*P	Pn	22 41 53.2	-3.7
TBH				*e*S	Sn	22 42 16.0	+2.1
TPR	**Prospect**	1.70	63	*e*P	Pn	22 42 02.4	-0.9
TPR	**Prospect**	1.70	63	*e*P	Pn	22 42 04.6	+1.3
ORIV	**Oritupano**	1.72	219	*e*P	Pn	22 42 03.7	+0.2
ORIV				*e*S	Sn	22 42 25.9	+0.1
GRW	**Mount Saint Ca**	1.84	21	*e*P	Pn	22 42 05.3	0.0
TOSP	**Speyside**	1.96	63	*e*P	Pn	22 42 00.6	-6.3

PCRV	Puerto La Cruz	2.29	264	*e*P	Pn	22 42 11.4	+0.1
RIOV	Rio Grande	2.39	168	*e*P	Pn	22 42 12.9	0.0
PRGV	PARIAGUAN	2.82	234	*e*P	Pn	22 42 18.5	-0.2
CAOV	Caicara del Or	5.01	232	*e*P	Pn	22 42 48.1	-0.8
BAUV	El Baul	5.83	256	*e*P	Pn	22 42 59.4	-0.7
BAUV				*e*S	Sn	22 44 02.7	-4.5

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*IDC **13** 22:49:49.6±0.9, 28°.37N×104°.99E, h0km, mb3.6/8, mb1 3.8/10, mb1mx3.7/24, mbtmp3.6/10, ML4.1/2, Error ellipse: s-maj=30.2km s-min=17.9km az=64.0*
*MOS **13** 22:49:51.7±0.5, 28°.37N×104°.96E, h29km, mb3.9/6, Error ellipse: s-maj=18.2km s-min=12.0km az=108.1*
*ISCJB **13** 22:49:52.1±1.4, 28°.36N±0°.06×105°.08E±0°.06, h33km±14km, mb3.6/9, Error ellipse: s-maj=11.0km s-min=9.1km az=161.2*
*BJI **13** 22:49:52.6, 28°.37N×105°.00E, h20km, mb4.0/2, ML3.4/16, Ms3.7/2, Ms7 3.6/2*
*NEIC **13** 22:49:54.6±0.5, 28°.40N×105°.01E, h35km, mb3.8/1, Error ellipse: s-maj=13.0km s-min=9.1km az=77.0*
ISC 13 22:49:51.6±1.0, **28°.34N**±0°.03×**105°.05E**±0°.05, **h14**km±6km, **n28**, σ0s.**98**/33, **mb3.6**/9, **Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	2.80	337	Pn	Pn	22 50 36.8	+0.9
CD2				Pg	Pg	22 50 45.0	-0.3
CD2				Sn	Sn	22 51 10.5	+1.0
CD2				Sg	Sg	22 51 22.0	+0.5
CD2				smax			
	comp=N,700nm,0.6s						
CD2				smax			
	comp=E,620nm,0.7s						
KMI	Kunming	3.81	213	Pg	Pg	22 51 02.3	-2.4
KMI				Sg	Sg	22 51 54.3	+0.2
KMI				smax			
	comp=N,18nm,1.3s						
KMI				smax			
	comp=E,13nm,1.2s						
XAN	Xi'an	6.58	29	Pn	Pn	22 51 29.5	+1.6
XAN				Sn	Sn	22 52 40.6	-2.1
XAN				Sg	Sg	22 53 22.9	+0.1
XAN				smax			
	comp=N,70nm,0.9s						
XAN				smax			
	comp=E,74nm,0.8s						
LZH	Lanzhou	7.79	353	*e*Pg	Px	22 52 11.1	
LZH				smax			
	comp=N,39nm,0.6s						
LZH				smax			
	comp=E,30nm,0.8s						
LZH				LR	LR		
	comp=E,260nm,5.8s						
LZH				LR	LR		
	comp=Z,400nm,6.8s						
WHN	Wuhan	8.40	73	*e*P	Sn	22 53 27.8	+0.2
CMAR	Chiang Mai Arr	11.32	211	P	Pn	22 52 34.7	+1.7
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	11.32	211	Pn	Pn	22 52 34.6	+1.7
	comp=Z,0.5nm,0.3s,baz=16,slow=12,SNR=7.3						
LSA	Lhasa	12.24	280	*e*P	Pn	22 52 46.3	+0.7
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
LSA	Lhasa	12.24	280	*e*P	Pn	22 52 46.3	+0.7
	comp=Z,1.9nm,0.6s						
SONM	Songino Array	19.49	3	P	Pn	22 54 18.8	-0.5
	comp=Z,0.3nm,0.3s,baz=187,slow=12,SNR=16						
KSRS	Korea Array	21.21	59	P	P	22 54 37.9	+1.1
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.3						
KSRS	Korea Array	21.21	59	P	P	22 54 37.9	+1.1
	comp=Z,1.0nm,0.6s,mb3.3,baz=252,slow=11,SNR=3.3						
ZAK	Zakamensk	22.05	357	*e*P	P	22 54 45.5	-0.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.8						
MK31	Makanchi Array	25.63	322	*e*P	P	22 55 19.6	-1.0
MKAR	Makanchi Array	25.63	322	P	P	22 55 21.5	+0.9
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MKAR	Makanchi Array	25.63	322	P	P	22 55 21.5	+0.9
	comp=Z,2.8nm,0.9s,mb3.8,baz=129,slow=9.7,SNR=17						
ZALV	Zalesovo Beam	29.57	336	P	P	22 55 54.4	-1.3
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
ZALV	Zalesovo Beam	29.57	336	P	P	22 55 54.4	-1.4
	comp=Z,1.0nm,0.7s,mb3.6,baz=133,slow=6.5,SNR=4.8						
KURK	Kurchatov	29.96	325	*e*P	P	22 55 58.7	-0.6
KURK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
KURK	Kurchatov	29.96	325	P	P	22 55 59.3	-0.1
	comp=Z,0.9nm,0.5s,mb3.7,baz=130,slow=10,SNR=7.8						
KURK	Kurchatov	29.96	325	*e*P	P	22 55 58.7	-0.7
	comp=Z,1.2nm,0.7s,mb3.7						
MALT	Malatya	55.48	299	P	P	22 59 25.8	-0.2
WRA	Warramunga Arr	55.73	146	P	P	22 59 28.1	+0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	55.73	146	P	P	22 59 28.1	+0.2
	comp=Z,0.5nm,0.5s,mb3.9,baz=336,slow=8.4,SNR=2.3						
ASAR	Alice Springs	58.71	149	P	P	22 59 49.7	+0.8
	comp=Z,0.3nm,0.4s,mb3.7,baz=326,slow=6.7,SNR=4.3						
GERES	GERESS Array B	70.07	315	P	P	23 01 01.9	-1.2
	comp=Z,0.3nm,0.6s,mb3.4,baz=42,slow=4.2,SNR=3.6						
WLF	Walferdange	74.31	318	P	P	23 01 28.0	-0.5
YKA	Yellowknife Ar	84.08	17	P	P	23 02 21.1	-0.5
	comp=Z,0.2nm,0.5s,mb3.5,baz=321,slow=4.8,SNR=4.4						

IDC 13 22:53:21.7±4.0, **3°.68S**×**101°.13E**, **h0**km, **mb3.5**/5, **mb1 3.7**/5, **mb1mx3.5**/20, **mbtmp3.5**/5, **Error ellipse: s-maj=153.5km s-min=21.3km az=58.0**, **Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	22.11	354	P	P	22 58 19.5	+0.8
	0.5nm,0.3s,baz=170,slow=11,SNR=4.4						
WRA	Warramunga Arr	36.18	119	P	P	23 00 24.8	-1.5
	0.4nm,0.6s,baz=300,slow=8.7,SNR=2.6						
ASAR	Alice Springs	37.36	125	P	P	23 00 37.6	+1.3
	0.2nm,0.4s,baz=295,slow=7.5,SNR=3.5						
SONM	Songino Array	51.51	5	P	P	23 02 29.9	+0.8
	0.5nm,0.7s,baz=185,slow=9.0,SNR=6.9						
MKAR	Makanchi Array	52.95	344	P	P	23 02 38.7	-1.0
	0.6nm,0.7s,baz=151,slow=7.5,SNR=6.3						

IDC 13 23:01:11.6±2.3, **11°.75S**×**166°.64E**, **h0**km, **mb4.2**/5, **mb1 4.2**/6, **mb1mx4.0**/18, **mbtmp4.2**/6, **ML5.0**/1, **Error ellipse: s-maj=62.8km s-min=45.6km az=125.0**, **Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.98	289	Pn	Pn	23 02 54.9	-0.3
	24nm,0.3s,baz=164,slow=7.1,SNR=4.1						
ASAR	Alice Springs	33.28	245	P	P	23 07 50.5	-0.5
	0.9nm,0.7s,baz=78,slow=10,SNR=6.2						
ASAR				PcP	PcP	23 10 33.9	+0.3
	0.8nm,0.7s,baz=99,slow=3.3,SNR=5.4						
CMAR	Chiang Mai Arr	73.20	293	P	P	23 12 46.0	+1.0
	2.7nm,0.9s,baz=126,slow=4.8,SNR=9.3						
SONM	Songino Array	79.75	324	P	P	23 13 21.6	+0.1
	0.6nm,0.8s,baz=126,slow=4.8,SNR=4.6						
MKAR	Makanchi Array	94.64	317	P	P	23 14 34.1	-0.4
	1.7nm,0.7s,baz=99,slow=6.1,SNR=21						
ZALV	Zalesovo Beam	94.64	324	P	P	23 14 33.4	-0.9
	0.3nm,0.3s,baz=123,slow=5.3,SNR=3.3						

IDC 13 23:04:13.3±2.4, **5°.59S**×**130°.50E**, **h0**km, **mb3.5**/1, **mb1 3.8**/4, **mb1mx3.6**/16, **mbtmp3.6**/4, **ML3.5**/3, **Error ellipse: s-maj=98.1km s-min=29.6km az=77.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.31	200	Pn	Pn	23 07 24.6	+0.9
	0.1nm,0.3s,baz=33,slow=12,SNR=6.5						
FITZ				Sn	Sn	23 09 40.7	-12
	0.1nm,0.3s,baz=231,slow=14,SNR=3.1						
WRA	Warramunga Arr	14.75	166	Pn	Pn	23 07 42.9	-0.4
	0.2nm,0.3s,baz=348,slow=13,SNR=3.0						
WRA				Sn	Sn	23 10 11.9	-16
	0.5nm,0.3s,baz=1.6,slow=10,SNR=5.0						
ASAR	Alice Springs	18.27	170	P	Pn	23 08 27.9	-0.4
	0.2nm,0.3s,baz=351,slow=10,SNR=12						
ASAR				S	Sn	23 11 37.4	-16
	0.1nm,0.3s,baz=354,slow=28,SNR=3.2						
MKAR	Makanchi Array	67.33	326	P	P	23 15 10.2	+0.1
	0.3nm,0.6s,baz=119,slow=5.1,SNR=4.0						

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*ISCJB **13** 23:40:15.0±0.6, 33°.32N±0°.03×35°.37E±0°.05, h2km±6km, Error ellipse: s-maj=7.9km s-min=3.8km az=17.8*
*GII **13** 23:40:15.8±0.6, 33°.25N×35°.42E, h1km±1km, Md2.3/4*
*CSEM **13** 23:40:16.2, 33°.31N×35°.42E, h0km, ML3.2, After GRAL*
*GRAL **13** 23:40:16.2±0.4, 33°.31N×35°.42E, h0km±143km, MD3.2*
ISC 13 23:40:15.5±0.6, **33°.33N**±0°.03×**35°.38E**±0°.05, **h2**km±6km, **n23**, σ0s.**46**/32, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	345	*e*P	Pg	23 40 19.6	+0.9
MATL	Matirih	0.17	345	*e*P	Pg	23 40 19.6	+0.9
KSDI	Kefar Szold	0.27	120	Pg	Pg	23 40 20.2	-0.5
KSDI				Sg	Sg	23 40 24.9	+0.7
MMC2	Mount Meron ar	0.30	175	Pg	Pg	23 40 20.8	-0.5
MMC3	Mount Meron ar	0.31	175	Pg	Pg	23 40 21.2	-0.3
MMA4	Mount Meron ar	0.31	177	Pg	Pg	23 40 21.4	-0.1
RCY	Rachaya	0.40	67	*e*P	Pg	23 40 23.2	0.0
RCY				*e*S	Sg	23 40 28.4	+0.1
RCY	Rachaya	0.40	67	*e*P	Pg	23 40 23.2	0.0
RCY				*e*S	Sg	23 40 28.5	+0.2
KSHT	Keshet	0.50	134	Pg	Pg	23 40 24.9	-0.2
BLGI	Bet Lehem HaGe	0.61	195	Pg	Pg	23 40 27.5	+0.2
BHL	Bhannes	0.62	22	*e*P	Pg	23 40 27.2	-0.2
BHL				*e*S	Sg	23 40 35.7	+0.3
BHL	Bhannes	0.62	22	*e*P	Pg	23 40 27.2	-0.2
BHL				*e*S	Sg	23 40 35.7	+0.3
OFRI	'Ofer	0.78	205	Pg	Pg	23 40 30.6	+0.1
MMLI	Mount Malkishu	0.89	178	Pg	Pg	23 40 32.2	-0.3
MMLI				Sg	Sg	23 40 44.2	+0.2
HWQ	Hawqa	1.06	26	*e*P	Pg	23 40 35.3	-0.5
HWQ	Hawqa	1.06	26	*e*P	Pg	23 40 35.3	-0.5
HMDT	Nahal Hemdat	1.08	173	Pg	Pg	23 40 35.3	-0.9
HMDT				Sg	Sg	23 40 50.9	+0.7
SLTI	Sal'it	1.12	195	Pg	Pg	23 40 36.4	-0.6
SLTI				Sg	Sg	23 40 52.3	+0.8
DSI	Dead Sea	1.75	180	Pn	Pn	23 40 46.4	-0.5
DSI				Sn	Sn	23 41 10.1	+0.4
YTIR	Yattir	1.97	187	Pn	Pn	23 40 50.3	+0.4
MZDA	Masada	2.01	180	Pn	Pn	23 40 50.0	-0.4
RTMI	Retamim	2.34	195	Pn	Pn	23 40 55.1	+0.1
PRNI	Paran	2.98	186	Pn	Pn	23 41 03.8	0.0

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*IDC **13** 23:56:16.1±0.7, 8°.41S×128°.59E, h0km, mb4.1/9, mb1 4.3/12, mb1mx4.2/21, mbtmp4.2/12, ML4.3/3, MS3.4/2, Ms1 3.4/2, ms1mx2.8/28, Error ellipse: s-maj=33.9km s-min=15.2km az=66.0*
*ISCJB **13** 23:56:17.9±3.5, 8°.54S±0°.06×128°.51E±0°.07, h31km±26km, mb4.5/26, Error ellipse: s-maj=13.7km s-min=8.4km az=147.8*
*NEIC **13** 23:56:22.5±1.3, 8°.57S×128°.64E, h57km±14km, mb4.8/17, Error ellipse: s-maj=17.0km s-min=8.3km az=222.0*
ISC 13 23:56:19.1±3.4, **8°.50S**±0°.06×**128°.52E**±0°.07, **h22**km±25km, **n78**, σ0s.**82**/50, **mb4.5**/26, **Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.69	138	*e*P	Pn	23 57 43.6	+1.2
	636nm,1.9s						
KAKA				*e*S	Sn	23 58 48.6	+1.5
KAKA	Kakadu	5.69	138	*e*Pn	Pn	23 57 42.6	+0.3
	945nm,0.6s						
KAKA				*e*S	Sn	23 58 47.3	+0.2
KAPI	Kappang	9.37	291	Pn	Pn	23 58 40.8	+7.9
	1.3nm,0.3s,baz=131,slow=9.3,SNR=4.4						
FITZ	Fitzroy Crossi	9.95	196	*e*P	Pn	23 58 42.5	+1.7
	22nm,0.4s						
FITZ				*e*S	Sn	00 00 30.5	-1.4
FITZ	Fitzroy Crossi	9.95	196	Pn	Pn	23 58 42.6	+1.8
	2.5nm,0.3s,baz=35,slow=9.8,SNR=45						
FITZ				Sn	Sn	00 00 30.7	-1.1
	4.8nm,0.3s,baz=91,slow=18,SNR=5.2						
FITZ				LR	LR	00 03 25.4	
	comp=Z,163nm,18.1s,baz=213,slow=43						
WRAB	Tennant Creek	12.69	154	*e*Pn	Pn	23 59 16.9	-1.5
	24nm,0.9s						
WRAB				*e*S	Sn	00 01 31.8	-7.3
WRA	Warramunga Arr	12.70	154	Pn	Pn	23 59 16.8	-1.6
	2.1nm,0.3s,baz=341,slow=13,SNR=20						
WRA				Sn	Sx	00 01 30.6	
	4.6nm,0.3s,baz=333,slow=22,SNR=10						
MBWA	Marble Bar	15.18	213	*e*Pn	Pn	23 59 53.0	+0.8
	57nm,1.3s						
MBWA				*e*S	Sx	00 02 33.1	
ASAR	Alice Springs	15.94	162	Pn	Pn	00 00 00.8	-1.3
	0.9nm,0.3s,baz=332,slow=10.0,SNR=30						
ASAR				Sn	Sx	00 02 52.4	
	1.8nm,0.3s,baz=319,slow=20,SNR=7.4						
CTA	Charters Tower	20.66	126	*e*P	P	00 01 00.2	+2.6
CTA	Charters Tower	20.66	126	P	P	00 00 57.3	-0.3
	3.0nm,0.7s,baz=315,slow=10.0,SNR=3.2						
CTA				LR	LR	00 09 30.0	
	comp=Z,139nm,20.9s,baz=41,slow=38						
CTAO	Charters Tower	20.66	126	P	P	00 00 58.0	+0.4
STKA	Stephens Creek	26.25	154	*e*P	P	00 01 56.9	+4.2
STKA	Stephens Creek	26.25	154	P	P	00 01 54.6	+1.9
	7.0nm,1.1s,mb4.1,baz=307,slow=14,SNR=5.6						
NWAO	Narrogin (SRO)	26.46	202	P	P	00 01 54.9	+0.3
	12nm,0.9s,mb4.4,baz=58,slow=1.8,SNR=3.6						
NWAO	Narrogin (SRO)	26.46	202	P	P	00 01 54.9	+0.3
KULM	Kulim	30.98	295	*e*P	P	00 02 35.3	+0.1
	4.3nm,0.5s,mb4.5						
PSI	Prapat	31.57	290	P	P	00 02 41.1	+0.8
	2.3nm,0.5s,mb4.3,baz=135,slow=10.0,SNR=5.7						
CMAR	Chiang Mai Arr	39.61	313	P	P	00 03 50.2	+0.9
	1.0nm,0.4s,mb3.9,baz=144,slow=6.6,SNR=6.4						
CMAR				ScP	ScP	00 09 46.5	+2.5
	0.6nm,0.3s,baz=110,slow=2.5,SNR=4.7						
LZH	Lanzhou	50.06	334	*e*P	P	00 05 08.0	-4.3
LZH				pP	pP	00 05 13.3	-5.9
LZH				sP	sP	00 05 15.8	-6.0
LZH				pmax	pmax		
	comp=Z,21nm,1.5s,mb5.0						
LZH				pmax	pmax		
	comp=Z,85nm,4.2s						
LSA	Lhasa	52.29	318	*e*P	P	00 05 29.6	+0.4
	comp=Z,3.4nm,0.4s,mb4.6						
ODAN	Odare	53.16	313	*e*P	P	00 05 35.5	-0.1
	comp=Z,10nm,0.5s,mb5.0						
TAPN	Taplejung	53.21	313	*e*P	P	00 05 35.9	-0.1
	comp=Z,7.0nm,0.6s,mb4.8						
RAMN	Ramite	53.78	312	*e*P	P	00 05 40.8	+0.6
	comp=Z,25nm,0.5s,mb5.4						
JIRN	Jiri	54.49	313	*e*P	P	00 05 45.3	-0.1
	comp=Z,8.2nm,0.7s,mb4.8						
GTA	Gaotai	54.60	333	*e*P	P	00 05 46.5	+0.6
GTA				pP	pP	00 05 50.8	-2.1
GTA				sP	sP	00 05 54.0	-1.5
GTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
GUN	Gumba	54.86	313	*e*P	P	00 05 48.0	0.0
	comp=Z,24nm,0.7s,mb5.3						
PKI	Pulchoki	55.01	312	*e*P	P	00 05 48.8	-0.3
	comp=Z,9.4nm,0.6s,mb5.0						
KKN	Kakani	55.23	312	*e*P	P	00 05 49.7	-1.0
	comp=Z,8.2nm,0.7s,mb4.9						
DMN	Daman	55.25	312	*e*P	P	00 05 50.7	-0.2
	comp=Z,13nm,0.9s,mb5.0						
GKN	Gorkha	55.82	312	*e*P	P	00 05 54.7	-0.3
KOLN	Koldanda	56.45	311	*e*P	P	00 05 59.4	-0.1
	comp=Z,17nm,0.8s,mb5.2						
DANN	Dangsing	56.65	312	*e*P	P	00 06 00.8	-0.1
	comp=Z,16nm,0.7s,mb5.1						
SONM	Songino Array	59.41	343	P	P	00 06 20.1	+0.2
	comp=Z,0.6nm,0.6s,mb3.8,baz=173,slow=5.5,SNR=5.5						
TLY	Talaya	63.65	343	*e*P	P	00 06 47.7	-0.7
MKAR	Makanchi Array	68.69	328	P	P	00 07 20.6	-0.3
	comp=Z,0.7nm,0.4s,mb3.9,baz=121,slow=7.8,SNR=32						
TKM2	Tokmak 2	70.22	321	*e*P	P	00 07 29.8	-0.6
	comp=Z,1.4nm,0.6s,mb4.1						
UCH	Uchtor	70.52	320	P	P	00 07 33.1	+0.8
AAK	Ala-Archa	70.75	321	*e*P	P	00 07 34.0	+0.3
	comp=Z,1.6nm,0.6s,mb4.1						
EKS2	Erkin-Say	71.21	320	*e*P	P	00 07 37.1	+0.6
	comp=Z,1.1nm,0.6s,mb4.0						
ZAA0	Zalesovo Array	72.28	335	*e*P	P	00 07 41.5	-1.2
ZALV	Zalesovo Beam	72.28	335	P	P	00 07 41.9	-0.8
	comp=Z,2.0nm,0.6s,mb4.2,baz=132,slow=5.0,SNR=13						
KURK	Kurchatov	73.04	329	*e*P	P	00 07 46.9	-0.3
BRVK	Borovoye	78.62	328	*e*P	P	00 08 18.8	-0.3
	comp=Z,2.0nm,0.8s,mb4.1						
QSPA	South Pole Qui	81.49	180	P	P	00 08 35.1	+0.9
	comp=Z,2.3nm,1.1s,mb4.0,baz=279,slow=5.3,SNR=3.6						
YKA	Yellowknife Ar	109.73	26	PKiKP	PKiKP	00 14 48.2	+0.2
	comp=Z,0.2nm,0.3s,baz=297,slow=1.4,SNR=6.5						
YKA	Yellowknife Ar	109.73	26	PKPdf	PKiKP	00 14 48.2	+0.2
GERES	GERESS Array B	112.61	319	PKiKP	PKiKP	00 14 55.2	+1.4
	comp=Z,1.2nm,0.5s,baz=65,slow=2.1,SNR=13						
CDF	Champ du Feu	116.83	320	*e*PKIKP	PKiKP	00 15 02.9	+0.9
HINF	Hinteralfeld	117.29	320	*e*PKIKP	PKiKP	00 15 03.5	+0.6
	comp=Z,5.1nm,0.5s						
PGF	Pioggiola	117.33	314	*e*PKIKP	PKiKP	00 15 04.1	+1.0
HAU	Haudompre	117.55	320	*e*PKIKP	PKiKP	00 15 04.2	+0.8
LPG	La Plagne	118.08	317	*e*PKIKP	PKiKP	00 15 05.9	+1.4
	comp=Z,3.0nm,0.6s						
LPL	La Plagne	118.08	317	*e*PKIKP	PKiKP	00 15 05.8	+1.3
	comp=Z,4.4nm,0.6s						
CABF	La Chapelle	118.17	319	*e*PKIKP	PKiKP	00 15 06.0	+1.4
	comp=Z,9.1nm,0.6s						
MBDF	Montbardon	118.29	316	*e*PKIKP	PKiKP	00 15 05.7	+0.8
ORIF	Oris-en-Rattie	118.84	317	*e*PKIKP	PKiKP	00 15 07.0	+1.0
	comp=Z,3.6nm,0.6s						
LOR	Lormes	119.38	320	*e*PKIKP	PKiKP	00 15 07.9	+0.9
SMF	Signal de Mont	119.61	319	*e*PKIKP	PKiKP	00 15 07.7	+0.2
VIVF	Saint-Julien-l	119.67	317	*e*PKIKP	PKiKP	00 15 08.6	+1.0
SSF	Saint Saulge	119.68	320	*e*PKIKP	PKiKP	00 15 08.6	+1.0
	comp=Z,4.9nm,0.5s						
AVF	Avril sur Loir	119.88	320	*e*PKIKP	PKiKP	00 15 08.5	+0.5
	comp=Z,3.1nm,0.5s						
BGF	Bois d'Agland	120.28	320	*e*PKIKP	PKiKP	00 15 10.0	+1.2
	comp=Z,8.0nm,0.5s						
TCF	Toulx Ste Croi	120.79	319	*e*PKIKP	PKiKP	00 15 10.9	+1.1
	comp=Z,3.1nm,0.7s						
CAF	Calviac	121.39	318	*e*PKIKP	PKiKP	00 15 12.5	+1.5
FLN	La Foliniere	121.47	323	*e*PKIKP	PKiKP	00 15 11.2	+0.2
MTLF	Montolieu	121.85	316	*e*PKIKP	PKiKP	00 15 12.4	+0.5
MFF	Saint Martin d	122.17	321	*e*PKIKP	PKiKP	00 15 13.3	+0.8
	comp=Z,8.0nm,0.6s						
SGMF	Saint Gilles	122.93	323	*e*PKIKP	PKiKP	00 15 14.5	+0.6
EPF	Esparros	123.24	316	*e*PKIKP	PKiKP	00 15 15.2	+0.5
	comp=Z,3.6nm,0.5s						
ROSF	Rostrenen	123.31	323	*e*PKIKP	PKiKP	00 15 15.2	+0.5
FRB	Frobisher Bay	123.51	9	PKP	PKPdf	00 15 14.7	+0.4
	comp=Z,0.7nm,0.6s,baz=352,slow=2.1,SNR=4.2						
TXAR	Lajitas Array	126.95	60	PKP	PKiKP	00 15 25.3	+2.8
	comp=Z,0.1nm,0.5s,baz=329,slow=9.2,SNR=4.4						
TXAR	Lajitas Array	126.95	60	PKP	PKiKP	00 15 25.3	+2.8
TORD	Torodi Ar. Bea	127.64	280	PKP	PKiKP	00 15 25.7	+1.4
	comp=Z,1.9nm,0.6s,baz=67,slow=1.6,SNR=21						
TORD	Torodi Ar. Bea	127.64	280	PKP	PKiKP	00 15 25.7	+1.4
SCHQ	Schefferville	132.19	12	PKP	PKiKP	00 15 33.4	+1.2
	comp=Z,2.9nm,1.0s,baz=72,slow=6.4,SNR=3.2						
CPUP	Villa Florida	144.92	171	PKP	PKiKP	00 15 56.4	-2.7
	comp=Z,1.1nm,0.4s,baz=197,slow=1.8,SNR=6.8						

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*NEIC **14** 00:11:22.3, 36°.57N×25°.54E, h16km, MD3.5(ATH), After ATH.*
*ATH **14** 00:11:22.3, 36°.57N×25°.54E, h16km±1km, MD3.5/4*
*CSEM **14** 00:11:24.8±0.3, 36°.43N×25°.49E, h8km, MD3.5, Error ellipse: s-maj=9.0km s-min=5.4km az=142.0*
*ISCJB **14** 00:11:24.6±0.6, 36°.49N±0°.03×25°.48E±0°.05, h8km±4km, Error ellipse: s-maj=6.8km s-min=5.3km az=27.7*
*DDA **14** 00:11:24.3, 36°.19N×25°.82E, h4km±2km, Md3.2*
*THE **14** 00:11:24.0, 36°.53N×25°.52E, h7km±10km, Error ellipse: s-maj=10.6km s-min=1.1km az=209.0*
ISC 14 00:11:24.7±0.7, **36°.50N**±0°.03×**25°.45E**±0°.05, **h8**km±4km, **n31**, σ0s.**94**/44, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THR5	Thira Island,	0.12	225	P	Pg	00 11 27.7	+0.3
THR5	Thira Island,	0.12	225	P	Pg	00 11 27.7	+0.3
THR1	Thera Island	0.13	177	P	Pg	00 11 27.5	-0.1
THR1				S	Sg	00 11 30.2	+0.7
THR1	Thera Island	0.13	177	P	Pg	00 11 27.5	-0.1
THR1				S	Sg	00 11 30.2	+0.7
THR6	Thira Island,	0.15	197	P	Pg	00 11 28.2	+0.3
THR6	Thira Island,	0.15	197	P	Pg	00 11 28.2	+0.3
NPS	Neapolis	1.24	174	*e*PN	Pn	00 11 46.6	-1.8
NPS	Neapolis	1.24	174	*e*Pn	Pn	00 11 46.6	-1.8
IDI	Anoyia	1.29	201	*e*PN	Pn	00 11 48.3	-0.7
IDI				*e*SN	Sn	00 12 07.0	+0.5
IDI	Anoyia	1.29	201	*e*Pn	Pn	00 11 48.3	-0.7
IDI				*e*Sn	Sn	00 12 07.0	+0.5
LAST	Lasithi	1.34	179	*e*PN	Pn	00 11 49.1	-0.6
LAST				*e*SN	Sn	00 12 08.0	+0.4
LAST	Lasithi	1.34	179	*e*Pn	Pn	00 11 49.1	-0.6
LAST				*e*Sn	Sn	00 12 08.0	+0.4
ZKR	Zakros	1.52	156	*e*PN	Pn	00 11 51.0	-1.1
ZKR	Zakros	1.52	156	*e*Pn	Pn	00 11 51.0	-1.1
SIVA	Sivas	1.57	200	*e*PN	Pn	00 11 53.3	+0.5
SIVA				*e*SN	Sn	00 12 15.2	+1.9
SIVA	Sivas	1.57	200	*e*Pn	Pn	00 11 53.3	+0.5
KARP	Karpathos	1.68	124	*e*PN	Pn	00 11 52.7	-1.7
KARP	Karpathos	1.68	124	*e*Pn	Pn	00 11 52.7	-1.7
BDRM	Kayabasi	1.70	70	*i* P	Pn	00 11 55.2	+0.6
BDRM				*i* S	Sn	00 12 18.5	+2.0
BDRM	Kayabasi	1.70	70	*i* P	Pn	00 11 55.2	+0.6
BDRM				*i* S	Sn	00 12 18.5	+2.0
GCAM	G?zelcaml?	1.86	49	*i* P	Pn	00 11 57.6	+0.7
GCAM				*i* S	Sn	00 12 24.7	+4.1
GCAM	G?zelcaml?	1.86	49	*i* P	Pn	00 11 57.6	+0.7
GCAM				*i* S	Sn	00 12 24.7	+4.1
KYTH	Kithira	1.96	264	*e*PN	Pn	00 11 58.0	-0.2
KYTH	Kithira	1.96	264	*e*Pn	Pn	00 11 58.0	-0.2
PTL	Penteli	2.00	321	*e*PB	Pb	00 12 01.3	0.0
NAIG	Nisos Aigina	2.01	309	*e*PB	Pb	00 12 01.0	-0.5
ATH	Athens Observa	2.02	317	*e*PB	Pb	00 12 02.0	+0.3
ARG	Arkhangelos	2.18	97	*e*PN	Pn	00 11 59.5	-1.7
ARG	Arkhangelos	2.18	97	*e*Pn	Pn	00 11 59.5	-1.7
TURN	Turunc	2.56	81	*i* P	Pn	00 12 06.4	-0.1
TURN				*i* S	Sn	00 12 38.1	+0.2
TURN	Turunc	2.56	81	*i* P	Pn	00 12 06.4	-0.1
TURN				*i* S	Sn	00 12 38.1	+0.3

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*CSEM **14** 00:20:58.1±0.3, 50°.16N×18°.38E, h2km, ML2.8/5, Error ellipse: s-maj=7.2km s-min=3.5km az=4.0*
*IPEC **14** 00:20:58.6±0.1, 50°.12N×18°.41E, h6km±1km, ML1.9/3, Error ellipse: s-maj=1.6km s-min=0.7km az=162.0*
*PRU **14** 00:20:59.9, 50°.05N×18°.33E, h0km*
*VIE **14** 00:21:01.7±1.2, 49°.73N×18°.39E, h0km, Error ellipse: s-maj=8.5km s-min=4.9km az=67.0, Suspected Mining induced. 15 km SE of Ostrava*
WAR 14 00:20:59.3, 50°.09N×18°.44E, ML2.4, 2C-2D, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.16	267	*i* Pg	Pg	00 21 02.5	+0.2
RAC				*e*Sg	Sg	00 21 05.6	+1.2
OKC	Ostrava-Krasne	0.32	217	*e*PG	Pg	00 21 05.2	-0.2
OKC				*e*SG	Sg	00 21 09.9	+0.4
	comp=Z,36nm,0.3s						
OKC	Ostrava-Krasne	0.32	217	Pg	Pg	00 21 05.2	-0.2
OKC				Sg	Sg	00 21 09.9	+0.4
	comp=Z,36nm,0.3s						
MORC	Moravsky Berou	0.66	242	*e*Pg	Pg	00 21 11.0	-1.0
MORC				*e*Sg	Sg	00 21 20.2	-0.3
	comp=Z,25nm,0.2s						
OJC	Ojcow	0.88	81	*e*Pg	Pg	00 21 15.6	-0.6
OJC				*e*Sg	Sg	00 21 28.0	+0.4
OJC	Ojcow	0.88	81	*e*Pg	Pg	00 21 15.2	-1.0
OJC				*e*Sg	Sg	00 21 27.3	-0.3
DPC	Dobruska-Polom	1.39	282	*e*PG	Pg	00 21 24.2	-1.6
DPC				*e*SG	Sg	00 21 41.9	-1.9
	comp=Z,24nm,0.4s						
DPC	Dobruska-Polom	1.39	282	Pg	Pg	00 21 24.2	-1.6
DPC				*e*Sg	Sg	00 21 41.6	-2.2
NIE	Niedzica	1.39	118	*e*Pg	Pg	00 21 25.9	0.0
NIE				*e*Sg	Sg	00 21 45.5	+1.6
NIE	Niedzica	1.39	118	*e*Pg	Pg	00 21 25.9	0.0

NIE				*e*Sg	Sg	00 21 45.5	+1.6
VRAC	Vranov	1.43	238	*e*Pn	Pn	00 21 24.9	-1.6
VRAC				*e*Sg	Sg	00 21 43.2	-2.1
	comp=Z,23nm,0.3s						
KSP	Ksiaz	1.56	300	*e*Pg	Pg	00 21 26.2	-3.1
KSP				*e*Sg	Sg	00 21 47.5	-2.1
UPC	Upice	1.61	286	*e*SG	Sg	00 21 48.8	-2.3
UPC	Upice	1.61	286	Sg	Sg	00 21 48.8	-2.3
VYHS	Vyhne	1.62	171	*e*PN	Pn	00 21 28.2	-0.9
VYHS				*e*SG	Sg	00 21 51.1	-0.2
VYHS	Vyhne	1.62	171	*e*Pn	Pn	00 21 28.1	-1.0
VYHS				*e*Sg	Sg	00 21 51.1	-0.2
KRUC	Moravsky	1.69	233	*e*Pn	Pn	00 21 29.0	-1.0
KRUC				*e*Sg	Sg	00 21 50.8	-2.6
	comp=Z,7.3nm,0.4s						
STHS	Stebnicka Huta	1.94	109	*e*PN	Pn	00 21 35.5	+2.1
STHS				*e*SN	Sn	00 21 57.7	-0.8
STHS	Stebnicka Huta	1.94	109	*e*Pn	Pn	00 21 35.5	+2.1
STHS				*e*Sn	Sn	00 21 57.7	-0.8
ZST	Bratislava	2.09	205	*e*PN	Pn	00 21 31.3	-4.2
ZST				*e*SN	Sn	00 21 54.8	-7.4
ZST	Bratislava	2.09	205	*e*Pn	Pn	00 21 31.3	-4.2
KECS	Kecovo	2.09	139	*e*SN	Sn	00 21 59.7	-2.6
KECS	Kecovo	2.09	139	*e*	Pg	00 21 40.8	+1.4
CRVS	Cervenica-Dubn	2.30	120	*e*PN	Pb	00 21 41.9	+0.3
CRVS				*e*SG	Sg	00 22 13.8	+0.6
CRVS	Cervenica-Dubn	2.30	120	*e*Pn	Pb	00 21 41.9	+0.3
CRVS				*e*Sg	Sg	00 22 13.8	+0.6
PRU	Pruhonice	2.52	269	*e*SG	Sg	00 22 15.6	-4.5
	comp=Z,5.6nm,0.4s						
PVCC	Panska Ves	2.52	281	*e*SG	Sg	00 22 17.6	-2.6
	comp=Z,14nm,0.2s						
PVCC	Panska Ves	2.52	281	Sg	Sg	00 22 17.6	-2.6
	comp=Z,14nm,0.2s						
CONA	Conrad Observa	2.75	219	⇓*i*Pn	Pn	00 21 42.6	-2.0
CSNA	Conrad Observa	2.75	219	⇑*i*Pn	Pn	00 21 42.5	-2.1
CSNA				⇓*i*Sn	Sn	00 22 16.0	-2.5
KOLS	Kolonicke sedl	2.75	113	*e*PN	Pg	00 21 51.6	-0.4
BRG	Berggiesshubel	2.98	287	SG	Sg	00 22 31.8	-3.1
	comp=Z,4.2nm,0.5s						
KHC	Kasperske Hory	3.31	255	*e*PG	Pg	00 22 00.0	-2.6
KHC				*e*SG	Sg	00 22 41.2	-4.3
KHC	Kasperske Hory	3.31	255	Pg	Pg	00 22 00.0	-2.6
MOA	Molln	3.55	232	⇑*i*Sg	Sg	00 22 49.9	-3.4
	comp=Z,4.8nm,0.5s						

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*ISCJB **14** 01:10:53.5±2.1, 56°.1S±0°.1×24°.9W±0°.8, h10^{km}, mb4.5/4, Error ellipse: s-maj=66.5km s-min=15.1km az=178.3*

*NEIC **14** 01:10:59.4±1.2, 56°.09S×24°.83W, h35^{km}, mb4.2/2, Error ellipse: s-maj=38.6km s-min=23.5km az=75.0*

*IDC **14** 01:11:01.7±1.6, 56°.05S×24°.70W, h53^{km}±7^{km}, mb4.2/4, mb1 4.2/4, mb1mx3.8/14, mbtmp4.2/4, MS3.5/1, Ms1 3.5/1, ms1mx3.2/14, Error ellipse: s-maj=58.5km s-min=26.9km az=80.0*

ISC 14 01:10:55.7±2.2, **56°.1S**±0°.1×**24°.8W**±0°.8, **h10**^{km}**, n12, σ0^{s}32**/8, **mb4.5**/4, **South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	Neumayer Olymp	16.53	163	*e*P	Pn	01 14 47.3	0.0
VNA2	Neumayer--Watz	16.67	160	*e*P	Pn	01 14 48.9	-0.2
	baz=321,slow=13						
VNA2				*e*S		01 17 25.3	
CPUP	Villa Florida	37.86	308	LR	LR	01 30 23.6	
	comp=Z,72nm,19.6s,baz=36,slow=31						
MAW	Mawson	39.32	143	P	P	01 18 24.5	+0.2
	14nm,0.5s,mb5.0,baz=221,slow=9.3,SNR=6.3						
BOSA	Boshof	44.70	73	P	P	01 19 08.4	-0.3
	1.5nm,0.8s,mb3.9,baz=216,slow=8.7,SNR=3.9						
BOSA	Boshof	44.70	73	*e*P	P	01 19 08.9	+0.1
	1.7nm,0.8s,mb3.9						
DBIC	Dimbokro	64.68	22	P	P	01 21 33.0	-0.6
	2.8nm,0.6s,mb4.5,baz=166,slow=8.6,SNR=8.8						
DBIC	Dimbokro	64.68	22	*e*P	P	01 21 33.3	-0.3
	2.3nm,0.6s,mb4.4						
TORD	Torodi Ar. Bea	72.46	27	P	P	01 22 22.7	+0.5
	3.8nm,0.6s,mb4.5,baz=198,slow=6.6,SNR=49						
TORD				pP	pP	01 22 36.6	+11
	1.5nm,0.6s,baz=199,slow=6.7,SNR=6.0						
YKA	Yellowknife Ar	137.10	317	PKP	PKPdf	01 30 17.0	-0.4
	0.5nm,0.5s,baz=126,slow=2.2,SNR=7.9						
YKA				pPKP	pPKPdf	01 30 31.4	+11
	0.4nm,0.6s,baz=122,slow=1.7,SNR=4.5						
YKA	Yellowknife Ar	137.10	317	PKP	PKPdf	01 30 17.0	-0.4
YKA				pPKP	pPKPdf	01 30 31.4	+11
SONM	Songino Array	149.41	85	PKPbc	PKPbc	01 30 43.4	-0.4
	0.5nm,0.5s,baz=232,slow=2.7,SNR=5.6						
SONM				pPKPbc	pPKPbc	01 30 60.0	+13
	0.2nm,0.4s,baz=218,slow=3.4,SNR=2.3						

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*NEIC **14** 01:15:44.3, 17°.21N×100°.41W, h35^{km}, MD3.7(MEX), After MEX.*

MEX 14 01:15:44.4±0.8, **17°.20N×100°.41W, h36**^{km}±9^{km}**, MD3.7, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.20	138	*e*P	Pn	01 15 49.5	-1.7
CAIG				*i* S	Sn	01 15 54.4	-1.6
ACX	Acapulco	0.57	125	*i* P	Pn	01 15 54.8	-1.2
ACX				*i* S	Sn	01 16 01.8	-2.5
MEIG	Mezcala	1.04	46	*e*P	Pn	01 16 00.2	-2.3
MEIG				*i* S	Sn	01 16 13.6	-2.3
PLIG	Platanillo	1.47	36	*i* P	Pn	01 16 07.1	-1.2
PLIG				*i* S	Sn	01 16 24.4	-2.0
PNIG	Pinotepa	2.33	110	*i* P	Pn	01 16 18.3	-1.9
PNIG				*i* S	Sn	01 16 45.3	-2.2

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*DDA **14** 01:20:37.7, 37°.00N×29°.18E, h7^{km}±3^{km}, Md2.9*

*ISK **14** 01:20:37.2, 36°.94N×29°.17E, h5^{km}, MD2.9*

*ISCJB **14** 01:20:38.1±0.6, 36°.98N±0°.04×29°.19E±0°.04, h1^{km}±9^{km}, Error ellipse: s-maj=6.7km s-min=4.3km az=156.5*

*CSEM **14** 01:20:38.0±0.2, 36°.97N×29°.22E, h3^{km}±3^{km}, MD2.9, Error ellipse: s-maj=4.5km s-min=3.3km az=146.0*

ISC 14 01:20:38.5±0.5, **36°.97N**±0°.04×**29°.19E**±0°.04, **h8**^{km}±7^{km}**, n20, σ0^{s}79**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.35	195	*e*PG	Pg	01 20 44.2	-1.2
FETY				*e*SG	Sg	01 20 50.1	+0.2
FETY	Fethiye	0.35	195	*e*Pg	Pg	01 20 44.2	-1.1
FETY				*e*Sg	Sg	01 20 50.2	+0.3
GOLH	Golhisar	0.40	48	*i* P	Pg	01 20 45.0	-1.2
GOLH				*i* S	Sg	01 20 51.8	+0.3
GOLH	Golhisar	0.40	48	*i* P	Pg	01 20 45.0	-1.2
GOLH				*i* S	Sg	01 20 51.8	+0.3
DALT	Dalyan (Mudla)	0.49	246	*e*PG	Pg	01 20 47.1	-0.9
DALT				*e*SG	Sg	01 20 54.7	+0.3
DALT	Dalyan (Mudla)	0.49	246	*e*Pg	Pg	01 20 47.1	-0.9
DALT				*e*Sg	Sg	01 20 54.7	+0.2
ELL	Elmali	0.62	111	*e*PG	Pg	01 20 50.1	-0.3
ELL				*e*SG	Sg	01 21 00.5	+2.0
ELL	Elmali	0.62	111	*e*Pg	Pg	01 20 50.1	-0.3
YER	Yerkesik	0.75	283	*e*PG	Pg	01 20 53.2	+0.3
YER				*e*SG	Sg	01 21 03.4	+0.8
YER	Yerkesik	0.75	283	*e*Pg	Pg	01 20 53.2	+0.3
YER				*e*Sg	Sg	01 21 03.4	+0.8
AKAS	Kas	0.81	156	*i* P	Pg	01 20 53.8	-0.3
AKAS				*i* S	Sg	01 21 11.9	+7.3
AKAS	Kas	0.81	156	*i* P	Pg	01 20 53.8	-0.3
MLSB	Milas	1.18	286	*e*PN	Pn	01 21 00.4	-0.9
MLSB	Milas	1.18	286	*e*Pn	Pn	01 21 00.4	-0.9
DAT	Datca	1.32	260	*e*PN	Pn	01 21 03.7	+0.5
DAT	Datca	1.32	260	*e*Pn	Pn	01 21 03.7	+0.5
BDRM	Kayabasi	1.40	274	*i* P	Pn	01 21 04.8	+0.4
BDRM				*i* S	Sb	01 21 23.6	+0.6
BDRM	Kayabasi	1.40	274	*i* P	Pn	01 21 04.8	+0.4
BDRM				*i* S	Sb	01 21 23.6	+0.6
KHAL	Karahalli	1.42	10	*i* P	Pn	01 21 03.8	-0.8
KHAL				*i* S	Sb	01 21 23.7	+0.4
KHAL	Karahalli	1.42	10	*i* P	Pn	01 21 03.8	-0.8
KHAL				*i* S	Sb	01 21 23.7	+0.3

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*ISCJB **14** 01:34:24.8±0.4, 50°.07N±0°.02×18°.43E±0°.02, h0^{km}, Error ellipse: s-maj=3.7km s-min=2.1km az=15.1*

*IPEC **14** 01:34:25.8±0.2, 50°.09N×18°.49E, h5^{km}±1^{km}, ML2.1/3, Error ellipse: s-maj=1.7km s-min=1.1km az=170.0*

*CSEM **14** 01:34:26.1±0.2, 50°.04N×18°.38E, h2^{km}, ML3.1/8, Error ellipse: s-maj=5.9km s-min=3.1km az=13.0*

*NEIC **14** 01:34:26.3±0.6, 50°.10N×18°.33E, h5^{km}, MG2.6(WAR), Error ellipse: s-maj=11.7km s-min=4.8km az=194.0*

*WAR **14** 01:34:26.4, 50°.07N×18°.49E, ML2.5, Mining Induced*

*VIE **14** 01:34:26.7±0.5, 49°.70N×18°.54E, h0^{km}, mb1.8/2, ML2.6/4, Error ellipse: s-maj=3.1km s-min=2.1km az=71.0 26 km SE of Ostrava Suspected Mining induced.*

ISC 14 01:34:26.2±0.3, **50°.03N**±0°.02×**18°.41E**±0°.02, **h0**^{km}**, n59, σ1^{s}30**/110, **6C-4D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	Raciborz	0.15	291	*e*Pg	Pg	01 34 30.4	+1.4
RAC				*e*Sg	Sg	01 34 34.1	+3.2
RAC	Raciborz	0.15	291	*e*Pg	Pg	01 34 30.4	+1.4
RAC				*e*Sg	Sg	01 34 34.1	+3.2
OKC	Ostrava-Krasne	0.26	221	*e*PG	Pg	01 34 32.5	+1.4
OKC				*e*SG	Sg	01 34 36.2	+1.8
	comp=Z,160nm,0.7s						
OKC	Ostrava-Krasne	0.26	221	*e*Pg	Pg	01 34 32.4	+1.3
OKC				Sg	Sg	01 34 36.2	+1.8
	comp=Z,160nm,0.7s						
MORC	Moravsky Berou	0.61	246	⇓*i*P	Pg	01 34 38.7	+0.7
MORC				S	Sg	01 34 48.7	+2.8
MORC	Moravsky Berou	0.61	246	*e*Pg	Pg	01 34 38.3	+0.3
MORC	Moravsky Berou	0.61	246	*e*Pg	Pg	01 34 38.6	+0.6
MORC				*e*Sg	Sg	01 34 48.0	+2.1
	comp=Z,33nm,0.2s						
OJC	Ojcow	0.92	78	*e*Pg	Pg	01 34 44.6	+0.8
OJC				*e*Sg	Sg	01 34 56.3	+0.7
OJC	Ojcow	0.92	78	*e*Pg	Pg	01 34 44.6	+0.8
OJC				*e*Sg	Sg	01 34 56.3	+0.7
JAVC	Velka Javorina	1.27	203	*e*Pn	Pn	01 34 51.7	+0.6
DPC	Dobruska-Polom	1.38	284	*e*PG	Pg	01 34 52.0	-0.6
DPC				*e*SG	Sg	01 35 10.8	+0.4
	comp=Z,61nm,0.6s						
DPC	Dobruska-Polom	1.38	284	*e*Pn	Pn	01 34 51.9	-0.7
DPC	Dobruska-Polom	1.38	284	Pg	Pg	01 34 52.0	-0.6
DPC				Sg	Sg	01 35 10.8	+0.4
	comp=Z,61nm,0.6s						
NIE	Niedzica	1.38	116	*e*Pg	Pg	01 34 52.0	-0.7
NIE				*e*Sg	Sg	01 35 11.6	+1.0
NIE	Niedzica	1.38	116	*e*Pg	Pg	01 34 52.0	-0.7
NIE				*e*Sg	Sg	01 35 11.6	+1.0
VRAC	Vranov	1.38	239	⇑*i*P	Pg	01 34 52.9	+0.2
VRAC	Vranov	1.38	239	S	Sg	01 35 11.9	+1.3
VRAC	Vranov	1.38	239	*e*Pn	Pn	01 34 52.4	-0.3
VRAC				*e*Sg	Sg	01 35 11.7	+1.1
	comp=Z,20nm,0.3s						
VYHS	Vyhne	1.56	169	*e*PG	Pg	01 34 55.1	-1.1
VYHS				*e*SG	Sg	01 35 17.0	+0.6
VYHS	Vyhne	1.56	169	*e*Pg	Pg	01 34 55.1	-1.1
VYHS				*e*Sg	Sg	01 35 17.0	+0.6
KSP	Ksiaz	1.58	302	*e*Pg	Pg	01 34 56.0	-0.4
KSP				*e*Sg	Sg	01 35 17.5	+0.7
UPC	Upice	1.61	288	*e*PG	Pn	01 34 55.6	-0.2
UPC				*e*SG	Sn	01 35 17.9	+0.7
UPC	Upice	1.61	288	Pg	Pn	01 34 55.6	-0.2
UPC				Sg	Sn	01 35 17.9	+0.7
KRUC	Moravsky	1.63	234	*e*Pn	Pn	01 34 56.3	+0.2
KRUC				*e*Sg	Sn	01 35 18.5	+0.7
	comp=Z,19nm,0.3s						
SMOL	Smolenice	1.65	203	*e*SG	Sg	01 35 20.7	+1.6
SMOL	Smolenice	1.65	203	*e*Sg	Sg	01 35 20.7	+1.6
MODS	Modra-Piesok	1.82	204	*e*PN	Pn	01 34 59.1	+0.4
MODS				*e*SN	Sn	01 35 23.8	+1.4
MODS				*e*SG	Sg	01 35 29.1	+4.5
MODS	Modra-Piesok	1.82	204	*e*Pg	Pn	01 34 59.1	+0.4
MODS				*e*Sn	Sn	01 35 23.8	+1.4
MODS				*e*Sg	Sg	01 35 29.1	+4.5
STHS	Stebnicka Huta	1.94	107	*e*PG	Pg	01 35 02.8	-0.6
STHS				*e*SG	Sg	01 35 31.2	+2.6
STHS	Stebnicka Huta	1.94	107	*e*Pg	Pg	01 35 02.9	-0.5
STHS				*e*Sg	Sg	01 35 31.2	+2.6
STHS	Stebnicka Huta	1.94	107	*e*Pg	Pg	01 35 02.9	-0.5
STHS				*e*Sg	Sg	01 35 31.2	+2.6
KECS	Kecovo	2.06	138	*e*PN	Pn	01 35 01.3	-0.8
KECS				*e*PG	Pg	01 35 07.1	+1.4
KECS				*e*SN	Sn	01 35 25.4	-3.1
KECS				*e*SG	Sg	01 35 31.2	-1.3
CRVS	Cervenica-Dubn	2.29	118	*e*PN	Pg	01 35 08.2	-1.9
CRVS				*e*SG	Sg	01 35 40.8	+1.0
CRVS	Cervenica-Dubn	2.29	118	*e*Pn	Pg	01 35 08.2	-1.9
CRVS				*e*Sg	Sg	01 35 40.8	+1.0
PRU	Pruhonice	2.49	270	*e*PG	Pn	01 35 11.3	+3.3
PRU				*e*SG	Sg	01 35 45.0	-1.3
	comp=Z,8.7nm,0.6s						
PRU	Pruhonice	2.49	270	Pg	Pn	01 35 11.3	+3.3
PRU				Sg	Sg	01 35 45.0	-1.3
	comp=Z,8.7nm,0.6s						
PVCC	Panska Ves	2.51	283	*e*PG	Pn	01 35 11.8	+3.6
PVCC				*e*SG	Sg	01 35 46.4	-0.4
	comp=Z,21nm,0.4s						
PVCC	Panska Ves	2.51	283	Pg	Pn	01 35 11.8	+3.6
PVCC				Sg	Sg	01 35 46.4	-0.4
	comp=Z,21nm,0.4s						
CONA	Conrad Observa	2.69	219	⇑*i*Pn	Pn	01 35 08.6	-2.1
CONA				⇑*i*Sn	Sn	01 35 41.4	-2.6
CONA	Conrad Observa	2.69	219	Pn	Pn	01 35 08.6	-2.1
CONA				Sn	Sn	01 35 41.4	-2.5
CSNA	Conrad Observa	2.69	220	⇑*i*Pn	Pn	01 35 09.0	-1.7
CSNA				⇓*i*Sn	Sn	01 35 41.3	-2.6
CSNA	Conrad Observa	2.69	220	Pn	Pn	01 35 09.0	-1.7
CSNA				Sn	Sn	01 35 41.3	-2.7
KOLS	Kolonicke sedl	2.75	112	*e*Pg	Pg	01 35 19.4	+0.5
KOLS	Kolonicke sedl	2.75	112	*e*Pg	Pg	01 35 19.4	+0.5
KOLS	Kolonicke sedl	2.75	112	*e*PG	Pg	01 35 19.4	+0.5
BRG	Berggiesshubel	2.97	288	Pg	Pg	01 35 21.2	-2.0
BRG				Sg	Sg	01 36 01.8	+0.1
BRG	Berggiesshubel	2.97	288	Pg	Pg	01 35 21.2	-2.0
BRG				Sg	Sg	01 36 01.8	+0.1
BRG				SG	Sg	01 36 01.8	+0.1
	comp=Z,5.0nm,0.5s						
BRG	Berggiesshubel	2.97	288	PG	Pg	01 35 21.2	-2.0
KHC	Kasperske Hory	3.27	256	*e*PN	Pn	01 35 18.0	-0.6
KHC				*e*PG	Pg	01 35 25.7	-3.1
KHC				*e*x	x	01 35 52.0	
KHC				*e*SG	Sg	01 36 10.3	-0.9
	comp=Z,11nm,0.5s						
KHC	Kasperske Hory	3.27	256	*e*Pn	Pn	01 35 17.5	-1.1
KHC				*e*Pg	Pg	01 35 25.7	-3.1
KHC				*e*Sg	Sg	01 36 10.3	-0.9
KHC	Kasperske Hory	3.27	256	Pn	Pn	01 35 18.0	-0.6
MOA	Molln	3.50	233	⇑*i*Pn	Pn	01 35 20.0	-1.7
MOA				⇑*i*Sg	Sg	01 36 17.9	-0.6
	comp=Z,14nm,0.6s						
MOA	Molln	3.50	233	Pn	Pn	01 35 20.0	-1.8
MOA				Sg	Sg	01 36 17.9	-0.5
	comp=Z,14nm,0.6s						
CLL	Collm	3.67	292	*e*Pg	Pg	01 35 36.0	-0.4
CLL				*e*Sg	Sg	01 36 27.0	+3.1
	comp=Z,6.0nm,0.6s						
CLL	Collm	3.67	292	*e*Pg	Pg	01 35 36.0	-0.4
DRGR		4.33	137	⇓*i*P	Pn	01 35 33.2	0.0
DRGR				S	Sn	01 36 21.9	-2.4
DRGR		4.33	137	⇓*i*P	Pn	01 35 33.2	0.0
DRGR				S	Sn	01 36 21.9	-2.4
BUR08	Bucovina Ar. S	5.08	115	*e*Pn	Pn	01 35 44.4	+0.8
BUR08	Bucovina Ar. S	5.08	115	*e*Pn	Pn	01 35 44.4	+0.8

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*LDG **14** 01:35:07.9±0.3, 25°.62N×94°.75E, h33^{km}, Mb4.5/14, Error ellipse: s-maj=13.2km s-min=6.5km az=163.0*

*BJI **14** 01:35:08.3, 25°.82N×94°.73E, h22^{km}, mB4.5/1, mb4.5/8, ML3.8/3*

*ISCJB **14** 01:35:12.7±0.8, 25°.62N±0°.06×94°.74E±0°.04, h69^{km}±7^{km}, mb4.3/49, Error ellipse: s-maj=10.0km s-min=5.7km az=19.1*

*NEIC **14** 01:35:13.5±0.7, 25°.73N×94°.87E, h63^{km}±6^{km}, mb4.5/23, Error ellipse: s-maj=11.7km s-min=5.2km az=46.0*

*IDC **14** 01:35:13.3±2.1, 25°.78N×95°.03E, h62^{km}±18^{km}, mb3.9/17, mb1 4.0/18, mb1mx3.9/28, mbtmp3.9/18, Error ellipse: s-maj=29.2km s-min=12.0km az=59.0*

*SZGRF **14** 01:35:25.8, 27°.86N×93°.55E, h33^{km}, mb4.9, Northeastern India*

ISC 14 01:35:14.3±0.7, **25°.68N**±0°.06×**94°.80E**±0°.04, **h68**^{km}±6^{km}**, n110, σ0^{s}97**/121, **mb4.3**/49, **Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	5.16	322	*e*Pn	Pn	01 36 29.3	+0.4
	24nm,0.4s						
LSA				*e*Sn	Sn	01 37 28.8	+1.8
TAPN	Taplejung	6.57	286	*e*Pn	Pn	01 36 48.6	+0.3
TAPN				*e*Sn	Sn	01 38 02.0	+0.2
	75nm,0.4s						
ODAN	Odare	6.76	282	*e*Pn	Pn	01 36 51.6	+0.7
ODAN				*e*Sn	Sn	01 38 08.0	+1.5
	80nm,0.2s						
RAMN	Ramite	7.47	282	*e*Pn	Pn	01 37 01.5	+0.9
RAMN				*e*Sn	Sn	01 38 25.3	+1.4
CHTO	Chiang Mai	7.83	150	*e*Pn	Pn	01 37 07.3	+1.7
	13nm,1.1s						
JIRN	Jiri	7.96	286	*e*Pn	Pn	01 37 07.8	+0.5
JIRN				*e*Sn	Sn	01 38 35.7	-0.1
	70nm,0.3s						
CMAR	Chiang Mai Arr	8.14	151	P	Pn	01 37 08.0	-1.8
	0.9nm,0.3s,baz=331,slow=13,SNR=25						
CMAR				Lg		01 39 25.1	
	1.1nm,0.3s,baz=315,slow=32,SNR=4.8						
GUN	Gumba	8.28	288	*e*Pn	Pn	01 37 12.0	+0.3
GUN				*e*Sn	Sn	01 38 42.2	-1.5
PKI	Pulchoki	8.62	285	*e*Pn	Pn	01 37 15.7	-0.6
PKI				*e*Sn	Sn	01 38 52.0	0.0
PKI	Pulchoki	8.62	285	*e*Pn	Pn	01 37 16.2	-0.1
PKI				*e*Sn	Sn	01 38 51.9	-0.1
PKIN	Phulchoki	8.63	285	*e*Pn	Pn	01 37 16.2	-0.3
PKIN				*e*Sn	Sn	01 38 51.9	-0.4
KKN	Kakani	8.77	286	*e*Pn	Pn	01 37 18.3	-0.1
KKN				*e*Sn	Sn	01 38 54.2	-1.5
DMN	Daman	8.89	285	*e*Pn	Pn	01 37 19.9	-0.1
DMN				*e*Sn	Sn	01 38 57.9	-0.7
	40nm,0.5s						
GKN	Gorkha	9.37	287	*e*Pn	Pn	01 37 26.1	-0.5
GKN				*e*Sn	Sn	01 39 08.8	-1.6
	44nm,0.3s						
DANN	Dangsing	10.20	288	*e*Pn	Pn	01 37 35.6	-2.4
DANN				*e*Sn	Sn	01 39 25.7	-5.0
	50nm,0.5s						
KOLN	Koldanda	10.23	284	*e*Pn	Pn	01 37 37.4	-1.0
KOLN				*e*Sn	Sn	01 39 27.9	-3.6
	35nm,0.5s						
GYA	Guiyang	10.69	83	P	Px	01 37 57.5	
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
GTA	Gaotai	14.33	16	*e*P	Pn	01 38 36.8	+3.1
GTA				pP		01 38 40.8	
GTA				sP		01 38 44.4	
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
XAN	Xi’an	14.80	52	P	Pn	01 38 39.8	-0.1
XAN				pP	pP	01 38 48.0	-10
XAN				sP	sP	01 38 52.3	-14
XAN				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HYB	Hyderabad	17.19	245	*i* P	Pn	01 39 15.0	+4.9
HYB	Hyderabad	17.19	245	*e*P	Pn	01 39 15.0	+4.9
BJI	Beijing	22.89	46	P	pP	01 40 33.5	+6.7
BJI				pmax	pmax		
	comp=Z,12nm,0.5s,mb4.5						
PSI	Prapat	23.09	169	P	P	01 40 16.2	+1.7
	comp=Z,2.1nm,0.4s,mb3.8,baz=336,slow=20,SNR=4.1						
MKAR	Makanchi Array	23.31	338	P	P	01 40 14.8	-1.5
	comp=Z,5.1nm,0.7s,mb4.0,baz=146,slow=11,SNR=52						
MKAR				PcP	PcP	01 44 01.3	-0.1
	comp=Z,0.3nm,0.6s,baz=153,slow=1.6,SNR=6.4						
MKAR				ScP	ScP	01 47 33.0	-0.6
	comp=Z,0.5nm,0.8s,baz=144,slow=3.4,SNR=5.7						
MKAR	Makanchi Array	23.31	338	P	P	01 40 14.8	-1.5
MKAR				PcP	PcP	01 44 01.3	-0.1
MKAR				ScP	ScP	01 47 33.0	-0.6
TKM2	Tokmak 2	23.31	322	P	P	01 40 17.1	+0.7
	SNR=7.0						
TKM2	Tokmak 2	23.31	322	*e*P	P	01 40 16.9	+0.6
	comp=Z,8.9nm,1.1s,mb4.0						
UCH	Uchtor	23.48	320	*e*P	P	01 40 18.7	+0.8
	comp=Z,2.1nm,0.9s,mb3.5						
KBK	Karagaybulak	23.50	321	P	P	01 40 17.6	-0.5
	SNR=5.6						
AAK	Ala-Archa	23.75	321	P	P	01 40 21.6	+1.3
	SNR=6.2						
AML	Almayashu	23.91	319	P	P	01 40 22.9	+1.1
	SNR=6.6						
AML	Almayashu	23.91	319	*e*P	P	01 40 22.9	+1.1
	comp=Z,4.4nm,0.7s,mb3.9						
KBL	Kabul	23.92	298	*e*P	P	01 40 23.1	+1.1
	comp=Z,12nm,0.8s,mb4.3						
SONM	Songino Array	23.93	19	P	P	01 40 20.1	-1.8
	comp=Z,0.8nm,0.5s,mb3.3,baz=196,slow=10,SNR=8.6						
SONM				ScP	ScP	01 47 33.5	-1.8
	comp=Z,0.2nm,0.4s,baz=194,slow=3.1,SNR=3.5						
USP	Ospenovka	24.15	322	P	P	01 40 25.5	+1.5
	SNR=6.0						
EKS2	Erkin-Say	24.18	320	P	P	01 40 25.7	+1.4
	SNR=17						
EKS2	Erkin-Say	24.18	320	*e*P	P	01 40 25.4	+1.1
	comp=Z,11nm,0.8s,mb4.2						
KURK	Kurchatov	27.93	338	P	P	01 40 57.0	-0.9
	comp=Z,3.7nm,0.3s,mb4.3,baz=143,slow=10,SNR=21						
KURK	Kurchatov	27.93	338	*e*P	P	01 40 57.2	-0.7
	comp=Z,4.4nm,0.7s,mb4.1						
ZAA0	Zalesovo Array	29.20	348	*e*P	P	01 41 08.6	-0.6
ZALV	Zalesovo Beam	29.20	348	P	P	01 41 08.7	-0.6
	comp=Z,1.1nm,0.4s,mb3.8,baz=169,slow=8.9,SNR=9.5						
BVAR	Borovoye Array	32.89	333	P	P	01 41 41.1	-0.6
	comp=Z,2.4nm,0.5s,mb4.2,baz=135,slow=11,SNR=18						
BVAR				PcP	PcP	01 44 24.6	-0.2
	comp=Z,0.4nm,0.5s,baz=116,slow=3.4,SNR=2.7						
AKTK	Aktyubinsk	37.49	321	P	P	01 42 21.0	-0.3
AKTO	Aktyubinsk	37.49	321	P	P	01 42 21.0	-0.3
	comp=Z,1.7nm,0.7s,mb4.1,baz=118,slow=8.2,SNR=5.9						
RDF	Al-Radifah	41.90	285	*e*P	P	01 42 59.3	+1.1
RDF				AMb	AMB	01 43 00.3	
	comp=Z,24nm,0.8s,mb5.0						
MIB	Mutribah	41.98	287	*e*P	P	01 43 00.4	+1.4
MIB				AMb	AMB	01 43 01.1	
	comp=Z,15nm,0.8s,mb4.8						
NAY	Al-Naaiem	42.13	286	*e*P	P	01 43 01.5	+1.4
NAY				AMb	AMB	01 43 02.2	
	comp=Z,9.6nm,0.8s,mb4.6						
BRTR	Keskin Array B	52.41	302	P	P	01 44 20.6	+0.7
	comp=Z,1.0nm,0.6s,mb4.0,baz=118,slow=6.6,SNR=5.6						
AKASG	Malin Array Be	55.27	315	P	P	01 44 39.7	-0.8
	comp=Z,1.6nm,0.5s,mb4.3,baz=81,slow=6.6,SNR=10.0						
AKASG	Malin Array Be	55.27	315	P	P	01 44 39.7	-0.8
ARCES	ARCESS Array B	58.97	337	P	P	01 45 06.5	+0.2
	comp=Z,6.2nm,1.0s,mb4.6,baz=47,slow=24,SNR=3.1						
WRA	Warramunga Arr	59.43	136	P	P	01 45 09.2	-0.9
	comp=Z,2.0nm,0.5s,mb4.4,baz=326,slow=7.6,SNR=10.0						
ASAR	Alice Springs	61.96	139	P	P	01 45 26.4	-1.0
	comp=Z,2.7nm,0.9s,mb4.3,baz=323,slow=6.2,SNR=14						
RUE	Ruedersdorf	64.72	318	*e*P	P	01 45 45.5	+0.2
	comp=Z,14nm,0.5s,mb5.0						
NB2	NORSAR Subarra	64.82	328	P	P	01 45 44.9	-0.8
	comp=Z,1.1nm,0.6s,mb3.9,baz=82,slow=6.5						
NOA	NORSAR Array B	64.82	328	P	P	01 45 45.2	-0.6
	comp=Z,1.3nm,0.6s,mb3.9,baz=82,slow=6.5,SNR=4.3						
NOA	NORSAR Array B	64.82	328	P	P	01 45 45.2	-0.6
BRG	Berggiesshubel	64.90	316	*e*P	P	01 45 46.8	+0.3
	comp=Z,3.0nm,0.6s,mb4.3						
BRG	Berggiesshubel	64.90	316	*e*P	P	01 45 46.8	+0.4
	comp=Z,7.5nm,1.4s,mb4.3						
FBE	Freiberg	65.26	316	*e*P	P	01 45 49.1	+0.3
	comp=Z,7.0nm,0.9s,mb4.5						
CLL	Collm	65.41	317	*e*P	P	01 45 49.0	-0.7
GEC2	GERESS Array S	65.44	314	*e*P	P	01 45 50.3	+0.3
	comp=Z,5.0nm,0.7s,mb4.5						
GEC2	GERESS Array S	65.44	314	*e*P	P	01 45 50.3	+0.3
	comp=Z,5.0nm,0.7s,mb4.5						
GERES	GERESS Array B	65.44	314	P	P	01 45 50.2	+0.3
	comp=Z,3.7nm,0.7s,mb4.3,baz=70,slow=5.9,SNR=33						
WET	Wettzell	65.91	315	*e*P	P	01 45 53.4	+0.4
	comp=Z,4.0nm,0.7s,mb4.4						
WET	Wettzell	65.91	315	*e*P	P	01 45 53.4	+0.4
	comp=Z,4.0nm,0.7s,mb4.4						
TANN	Tannenbergstha	65.92	316	*e*P	P	01 45 53.5	+0.5
GUNZ	Gunzen	66.01	316	*e*P	P	01 45 54.1	+0.5
	comp=Z,6.0nm,1.0s,mb4.4						
NEUB	Neuenburg	66.18	317	*e*P	P	01 45 54.9	+0.2
ROTZ	Rotzenmuhle	66.21	315	*e*P	P	01 45 56.0	+1.1
	comp=Z,10.0nm,0.9s,mb4.7						
RJOB	Jochberg	66.26	313	*e*P	P	01 45 56.5	+1.2
	comp=Z,6.0nm,1.0s,mb4.4						
BSEG	Bad Segeberg	66.50	320	*e*P	P	01 45 57.4	+0.7

	comp=Z,12nm,1.0s,mb4.7						
BSEG	Bad Segeberg	66.50	320	eP	P	01 45 57.4	+0.7
GRA1	Grafenberg Arr	66.85	315	eP	P	01 45 59.9	+0.9
	comp=Z,5.0nm,0.8s,mb4.4						
GRF	Grafenberg Arr	66.85	315	eP	P	01 45 59.9	+0.9
	comp=Z,5.0nm,0.8s,mb4.4						
GRF	Grafenberg Arr	66.85	315	eP	P	01 45 59.9	+0.9
	comp=Z,5.0nm,0.8s,mb4.4						
CLZ	Clausthal	66.91	318	eP	P	01 45 59.8	+0.5
	comp=Z,8.0nm,0.8s,mb4.6						
CLZ	Clausthal	66.91	318	eP	P	01 45 59.8	+0.5
	comp=Z,8.0nm,0.8s,mb4.6						
CDF	Champ du Feu	69.68	315	eP	P	01 46 16.0	-0.7
	comp=Z,5.4nm,0.7s,mb4.2						
CDF	Champ du Feu	69.68	315	eP	P	01 46 16.0	-0.7
	comp=Z,2.7nm,0.7s,mb4.2						
WLF	Walferdange	70.04	316	eP	P	01 46 20.0	+1.1
	comp=Z,11nm,0.9s,mb4.7						
LPG	La Plagne	70.86	312	eP	P	01 46 23.8	-0.2
	comp=Z,10.0nm,0.9s,mb4.3						
LPG	La Plagne	70.86	312	eP	P	01 46 23.8	-0.2
	comp=Z,5.0nm,0.9s,mb4.3						
LPL	La Plagne	70.87	312	eP	P	01 46 23.8	-0.2
	comp=Z,9.0nm,0.8s,mb4.3						
LPL	La Plagne	70.87	312	eP	P	01 46 23.8	-0.2
	comp=Z,4.5nm,0.8s,mb4.3						
CABF	La Chapelle	70.97	313	eP	P	01 46 24.0	-0.6
MEZF	Maizieres J'vi	71.07	315	eP	P	01 46 24.8	-0.4
	comp=Z,8.4nm,0.6s,mb4.5						
MEZF	Maizieres J'vi	71.07	315	eP	P	01 46 24.8	-0.4
	comp=Z,8.4nm,0.6s,mb4.8						
MBDF	Montbardon	71.08	311	eP	P	01 46 25.1	-0.2
	comp=Z,9.4nm,0.9s,mb4.3						
MBDF	Montbardon	71.08	311	eP	P	01 46 25.1	-0.2
	comp=Z,4.7nm,0.9s,mb4.3						
ORIF	Oris-en-Rattie	71.62	312	eP	P	01 46 28.2	-0.4
KEST	Kesra	72.02	301	P	P	01 46 31.4	+0.2
	comp=Z,2.3nm,0.9s,mb4.0,baz=24,slow=2.3,SNR=6.2						
SMF	Signal de Mont	72.43	314	eP	P	01 46 32.5	-0.9
	comp=Z,12nm,0.9s,mb4.4						
SMF	Signal de Mont	72.43	314	eP	P	01 46 32.5	-0.9
	comp=Z,6.1nm,0.9s,mb4.4						
VIVF	Saint-Julien-l	72.46	312	eP	P	01 46 31.3	-2.3
SSF	Saint Saulge	72.51	314	eP	P	01 46 33.8	-0.1
	comp=Z,7.1nm,0.9s,mb4.2						
SSF	Saint Saulge	72.51	314	eP	P	01 46 33.8	-0.1
	comp=Z,3.5nm,0.9s,mb4.2						
AVF	Avril sur Loir	72.70	314	eP	P	01 46 34.2	-0.8
	comp=Z,15nm,1.0s,mb4.5						
AVF	Avril sur Loir	72.70	314	eP	P	01 46 34.2	-0.8
	comp=Z,7.7nm,1.0s,mb4.5						
LASF	Ste Croix	73.27	311	eP	P	01 46 37.9	-0.5
	comp=Z,26nm,1.3s,mb4.6						
TCF	Toulx Ste Croi	73.61	314	eP	P	01 46 40.0	-0.4
	comp=Z,8.5nm,0.9s,mb4.2						
TCF	Toulx Ste Croi	73.61	314	eP	P	01 46 40.0	-0.4
	comp=Z,4.3nm,0.9s,mb4.2						
CAF	Calviac	74.18	312	eP	P	01 46 43.5	-0.2
	comp=Z,17nm,1.2s,mb4.3						
CAF	Calviac	74.18	312	eP	P	01 46 43.5	-0.2
	comp=Z,8.3nm,1.2s,mb4.3						
MTLF	Montolieu	74.64	311	eP	P	01 46 44.8	-1.6
	comp=Z,11nm,1.0s,mb4.2						
MTLF	Montolieu	74.64	311	eP	P	01 46 44.8	-1.6
	comp=Z,5.4nm,1.0s,mb4.2						
TORD	Torodi Ar. Bea	87.15	283	P	P	01 47 54.1	+0.6
	comp=Z,1.1nm,0.8s,mb3.9,baz=82,slow=3.3,SNR=7.2						
YKA	Yellowknife Ar	89.05	13	P	P	01 48 00.1	-1.5
	comp=Z,0.1nm,0.4s,mb3.2,baz=326,slow=4.7,SNR=4.0						
YKA	Yellowknife Ar	89.05	13	P	P	01 48 00.1	-1.5
ROSC	El Rosal	147.87	339	PKPbc	PKPbc	01 54 53.0	+0.4
	comp=Z,3.0nm,0.3s,baz=277,slow=23,SNR=4.0						

NIED ***14*** *01:53:00, 24°.10N×122°.10E, h32^{km}, Mw3.6 Best double couple: $M_0$3.28000×10^{14} NP1:ϕ_s347.00000°, δ76.00000°, λ-149.00000°. NP2:ϕ_s249.00000°, δ60.00000°, λ-16.00000°.*

ISCJB ***14*** *01:53:04.1±0.5, 23°.92N±0°.02×122°.25E±0°.02, h8^{km}±3^{km}, Error ellipse: s-maj=3.2km s-min=2.3km az=152.8*

NEIC ***14*** *01:53:05.9±1.1, 23°.88N×122°.22E, h35^{km}, MG3.5(JMA), Error ellipse: s-maj=16.5km s-min=9.6km az=142.0*

TAP ***14*** *01:53:05.2, 23°.95N×122°.18E, h10^{km}, ML3.6, D*

JMA ***14*** *01:53:05.4±0.3, 24°.06N×122°.14E, h54^{km}, M3.5*

ISC 14 01:53:04.7±0.4**, 23°.94N**±0°.02×**122°.24E**±0°.02**, h11**^{km}±2^{km}**, n55,** σ**0^s.62**/92**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HWA	Hwalien	0.58	274	eP	Pg	01 53 17.1	+1.1
	baz=272						
TWD	Chiawan	0.60	284	eP	Pg	01 53 16.7	+0.2
	baz=283						
TWD				eS	Sg	01 53 24.8	+0.4
	baz=283						
NACB	Ninganchiao	0.63	292	ePg	Pg	01 53 17.6	+0.6
ENA	Nanau	0.67	317	eP	Pg	01 53 17.8	+0.1
	baz=320						
ENA				eS	Sg	01 53 27.1	+0.7
	baz=320						
ESL	Shilin	0.74	261	eP	Pg	01 53 19.3	+0.1
	baz=258						
ESL				eS	Sg	01 53 29.1	+0.2
	baz=258						
TWC	Suao	0.76	332	eP	Pg	01 53 19.0	-0.4
	baz=336						
TWC				eS	Sg	01 53 28.2	-1.1
	baz=336						
YOJ	Yonaguni jima	0.88	53	P	Pg	01 53 22.0	+0.3
YOJ				S	Sg	01 53 33.8	+0.6
YOJ	Yonaguni jima	0.88	53	ePg	Pg	01 53 22.3	+0.6
WHF	Hehuan Shan	0.91	283	eP	Pg	01 53 22.4	+0.1
	baz=283						
WHF				eS	Sg	01 53 34.4	+0.1
	baz=283						
ENTT	Nioudou	0.93	319	eP	Pg	01 53 22.5	-0.2
	baz=321						
ENTT				eS	Sg	01 53 35.0	+0.2
	baz=321						
NNS	Nan Shan	0.93	303	P	Pg	01 53 22.7	0.0
	baz=303						
NNS				eS	Sg	01 53 35.3	+0.4
	baz=303						
ILA	Ilan	0.94	332	eS	Sg	01 53 35.7	+0.7
	baz=334						
EHY	Hungye	0.94	243	eP	Pg	01 53 22.7	-0.2
	baz=240						
EHY				eS	Sg	01 53 35.0	-0.2
	baz=240						
YULB	Yu-li	1.02	238	ePg	Pg	01 53 23.1	-1.2
YULB				eSg	Sg	01 53 37.1	-0.5
TWF1	Yuli	1.04	236	eP	Pb	01 53 24.3	-0.5
	baz=233						
TWF1				eS	Sg	01 53 38.8	+0.5
	baz=233						
YHNB	Yeheng	1.07	313	ePg	Pg	01 53 25.1	-0.3
NSK	Sanguang	1.09	313	eP	Pb	01 53 25.2	-0.3
	baz=314						
NSK				eS	Sb	01 53 40.2	+0.5
	baz=314						
CHKT	Chengkung	1.16	224	eP	Pb	01 53 26.8	+0.1
	baz=220						
CHKT				eS	Sb	01 53 40.0	-1.7
	baz=220						
SSLB	Suanglung	1.18	263	ePg	Pg	01 53 26.1	-1.5
TWA	Mucha	1.20	330	eP	Pn	01 53 28.1	+0.7
	baz=332						
NWF	Wu-fen Shan	1.20	340	eP	Pn	01 53 27.4	0.0
	baz=342						
NWF				eS	Sb	01 53 42.9	-0.1
	baz=342						
SMLT	Sun Moon Lake	1.22	268	eP	Pn	01 53 27.4	-0.4
	baz=266						
SMLT				eS	Sb	01 53 43.1	-0.6
	baz=266						
TATO	Taipei	1.24	327	ePn	Pn	01 53 27.7	-0.2
YUS	Yu-Shan	1.26	249	eP	Pn	01 53 27.7	-0.5
	baz=247						
YUS				eS	Sb	01 53 44.2	-0.4
	baz=247						
TYC	Yuchr	1.26	269	eP	Pn	01 53 27.7	-0.5
	baz=267						
TYC				eS	Sb	01 53 44.5	-0.3
	baz=267						
TAP1	Taipei	1.27	329	eP	Pn	01 53 27.8	-0.7
	baz=330						
TAP1				eS	Sb	01 53 46.0	+0.8
	baz=330						
NSTT	Nanjuang	1.32	302	eP	Pn	01 53 29.3	+0.2
	baz=302						
NSTT				eS	Sb	01 53 46.0	-0.4
	baz=302						
ELDTW	Lidau	1.34	237	eP	Pn	01 53 28.7	-0.7
	baz=234						
ELDTW				eS	Sb	01 53 46.9	-0.2
	baz=234						
TWS1	Kuangyinshan	1.38	327	eP	Pn	01 53 30.0	+0.1
	baz=329						
ALS	Alishan	1.38	252	eP	Pn	01 53 30.3	+0.4
	baz=250						
ALS				eS	Sn	01 53 47.5	-0.6
	baz=250						
TWQ1	Liyutan	1.40	287	eP	Pn	01 53 30.4	+0.2
	baz=287						
TWQ1				eS	Sn	01 53 48.4	-0.1
	baz=287						
IRIF	Iriomote-Funau	1.42	74	eS	Sn	01 53 48.9	-0.2
WNT	Mingjian	1.42	268	eS	Sn	01 53 49.3	+0.2
	baz=266						
NSY	Sanyi	1.43	290	eP	Pn	01 53 29.6	-0.9
	baz=289						
NSY				eS	Sn	01 53 49.1	-0.2
	baz=289						
HATJ	Hateruma jima	1.44	85	P	Pn	01 53 30.6	-0.1
HATJ				eS	Sn	01 53 49.6	0.0
TCU	Taichung	1.44	279	eS	Sn	01 53 49.0	-0.6
	baz=278						
TWY	Chenhua	1.45	337	eP	Pn	01 53 30.7	-0.2
	baz=338						
CHN5	Tsauling	1.47	257	eP	Pn	01 53 31.2	+0.1
	baz=255						
CHN5				eS	Sn	01 53 50.3	0.0
	baz=255						
STYT	Tauyuan	1.56	241	eP	Pn	01 53 32.6	+0.2
	baz=238						
STYT				eS	Sn	01 53 52.2	-0.4
	baz=238						
TPUB	Ta-pu	1.60	247	ePn	Pn	01 53 31.3	-1.7
CHN4	Tsaushan	1.62	249	eP	Pn	01 53 33.9	+0.7
	baz=247						
CHN4				eS	Sn	01 53 54.3	+0.3
	baz=247						
WTP	Ta-pu	1.64	245	eP	Pn	01 53 33.5	+0.1
	baz=243						
WTP				eS	Sn	01 53 54.9	+0.4
	baz=243						
JKRS	Kuro-shima	1.65	79	eS	Sn	01 53 56.0	+1.3
CHN1	Nanshi	1.74	245	eP	Pn	01 53 35.3	+0.5
	baz=243						
CHN1				eS	Sn	01 53 57.8	+0.8
	baz=243						
TWK	Hsinying	1.74	248	eP	Pn	01 53 35.4	+0.6
	baz=245						
TWK				eS	Sn	01 53 57.4	+0.4
	baz=245						
SGST	Jiashian	1.74	241	eP	Pn	01 53 35.1	+0.3
	baz=239						
SGST				eS	Sn	01 53 57.5	+0.5
	baz=239						
WTCT	Ta-ch'eng	1.79	268	eS	Sn	01 53 58.1	-0.2
	baz=267						
JIJ	Ishigaki jima	1.79	76	P	Pn	01 53 35.1	-0.5
JIJ				S	Sn	01 53 57.1	-1.2
SSD	Sandimen	1.89	231	eP	Pn	01 53 37.9	+1.0
	baz=229						
SSD				eS	Sn	01 54 01.1	+0.3
	baz=229						
LAY	Lan-yu	1.99	199	eP	Pn	01 53 38.0	-0.3
	baz=196						
TWM1	Shoushan	2.00	237	eP	Pn	01 53 39.0	+0.6
	baz=234						
TWM1				eS	Sn	01 54 05.2	+1.7
	baz=234						
SCZT	Fangliau	2.15	224	P	Pn	01 53 41.3	+0.8
	baz=222						
SCZT				eS	Sn	01 54 07.9	+0.7
	baz=222						
JTJ	Tarama	2.36	72	P	Pn	01 53 43.7	+0.4
JTJ				S	Sn	01 54 11.4	-0.8
TWK1	Hengchun	2.38	214	eP	Pn	01 53 43.5	-0.2
	baz=212						
TWK1				eS	Sn	01 54 14.1	+1.2
	baz=212						
PNG	Penghu	2.48	262	eS	Sn	01 54 14.2	-1.2
	baz=260						

IDC 14 02:03:25.4±2.9**, 2°.15S×100°.20E, h0**^{km}**, mb3.7**/6**, mb1 3.9**/6**, mb1mx3.8**/21**, mbtmp3.8**/6**, Error ellipse: s-maj=123.3km s-min=19.9km az=60.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	20.52	357	P	P	02 08 04.8	-0.5
	0.6nm,0.3s,baz=183,slow=10.0,SNR=2.4						
WRA	Warramunga Arr	37.75	120	P	P	02 10 42.8	-0.5
	0.3nm,0.5s,baz=302,slow=9.1,SNR=5.8						
ASAR	Alice Springs	39.01	126	P	P	02 10 54.0	+0.2
	0.4nm,0.5s,baz=299,slow=8.2,SNR=6.3						
STKA	Stephens Creek	48.90	132	P	P	02 12 13.7	+0.4
	2.5nm,0.9s,baz=304,slow=3.6,SNR=2.9						
SONM	Songino Array	50.08	5	P	P	02 12 22.6	+0.7
	0.3nm,0.4s,baz=190,slow=9.5,SNR=5.4						
MKAR	Makanchi Array	51.23	344	P	P	02 12 30.6	0.0
	0.6nm,0.4s,baz=158,slow=8.8,SNR=17						
TXAR	Lajitas Array	144.70	38	PKP	PKPdf	02 23 03.8	-1.1
	0.3nm,0.4s,baz=177,slow=1.3,SNR=8.6						

SZGRF ***14*** *02:07:41.0, 3°.49S×29°.29E, h33^{km}, mb5.6, MS4.4, Lake Tanganyika region*

BJI ***14*** *02:07:43.7, 2°.40S×28°.90E, h10^{km}, mB5.4/22, mb5.1/33, Ms5.3/26, Ms7 4.9/26*

ISCJB ***14*** *02:07:45.6±0.2, 2°.40S±0°.02×28°.83E±0°.03, h13^{km}, mb5.3/264, MS4.8/147, Error ellipse: s-maj=4.3km s-min=3.3km az=170.4*

IDC ***14*** *02:07:45.5±0.5, 2°.34S×28°.90E, h0^{km}, mb4.9/22, mb1 5.0/23, mb1mx4.9/27, mbtmp4.9/23, ML4.8/1, MS4.6/26, Ms1 4.6/26, ms1mx4.5/37, Error ellipse: s-maj=16.9km s-min=11.9km az=86.0*

MOS ***14*** *02:07:45.4±0.9, 2°.28S×28°.89E, h10^{km}, mb5.6/100, MS4.6/27, Error ellipse: s-maj=8.2km s-min=2.8km az=99.7*

NEIC ***14*** *02:07:46.8±0.2, 2°.40S×28°.92E, h10^{km}, mb5.4/138, MS4.9/106, Error ellipse: s-maj=4.5km s-min=3.5km az=48.0*

NEIC One person killed, 21 injured and homes damaged at Kigali and 5 buildings severely damaged at Ibanda. Felt at Butare and Ruhengeri. Forty-four people injured at Bukavu, Congo. Also felt at Rulenge, Tanzania.

GCMT ***14*** *02:07:46.8±0.2, 2°.37S×28°.84E, h12^{km}, MW5.3/83, Moment Tensor Solution. s64,c93; s83,c154; Duration: 1^s.0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.86±.01; $M_{\theta\theta}$-0.17±.01; $M_{\phi\phi}$1.03±.01; $M_{r\theta}$-0.06±.04; $M_{\theta\phi}$-0.00±.01; $M_{\phi r}$0.00±.04; Best double couple: $M_0$0.94700×10^{17} NP1:ϕ_s5.00000°, δ45.00000°, λ-84.00000°. NP2: ϕ_s175.00000°, δ45.00000°, λ-96.00000°. Principal axes: T 1.0300, Plg0.0000°, Azm270.0000°; N -0.1620, Plg5.0000°, Azm180.0000°; P -0.8640, Plg85.0000°, Azm1.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BGS ***14*** *02:07:48.9±1.6, 2°.21S×28°.44E, h10^{km}, mb5.5, MS4.8*

DJA ***14*** *02:07:49, 2°.48S×29°.18E, h10^{km}, mb5.2/11*

ISC 14 02:07:47.7±0.2**, 2°.41S**±0°.02×**28°.87E**±0°.03**, h14**^{km}**, h14**^{km}±1.3^{km}**:pP-P, n848,** σ**0^s.83**/757**, mb5.3**/264**, MS4.8**/147**, 28C-174D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBAR	Mbarara	2.59	46	Pn	Pn	02 08 27.5	-1.7
	34μm,0.7s						
MBAR	Mbarara	2.59	46	⇓iP	Pn	02 08 26.8	-2.4
MBAR	Mbarara	2.59	46	ePn	Pn	02 08 28.9	-0.3
MBAR	Mbarara	2.59	46	eP	Pn	02 08 28.3	-0.9
KMBO	Kilima Mbogo	8.48	82	Pn	Pn	02 09 47.4	-2.8
	10nm,0.3s,baz=243,slow=15,SNR=69						
KMBO				Sn	Sn	02 11 14.2	-11
	6.1nm,0.3s,baz=228,slow=23,SNR=3.3						
KMBO				Lg		02 12 05.3	
	32nm,0.3s,baz=224,slow=18,SNR=7.1						
KMBO				LR	LR	02 13 21.5	
	comp=Z,5μm,21.6s,baz=245,slow=40						
LSZ	Lusaka	12.80	183	eP	Pn	02 10 47.5	-1.9
LSZ				e		02 13 12.6	
LSZ				pmax	pmax		
	comp=Z,59nm,0.9s						
LSZ	Lusaka	12.80	183	Pn	Pn	02 10 47.5	-1.9
	comp=Z,1.6nm,0.3s,baz=12,slow=13,SNR=30						
LSZ				Sn	Sn	02 13 15.8	+4.0
	comp=Z,2.6nm,0.3s,baz=303,slow=22,SNR=3.5						
LSZ				Lg		02 14 22.3	
	comp=Z,6.8nm,0.3s,baz=117,slow=23,SNR=13						
LSZ				LR	LR	02 16 15.8	
	comp=Z,2μm,18.0s,baz=11,slow=40						
LSZ	Lusaka	12.80	183	ePn	Pn	02 10 47.5	-1.9
	comp=Z,59nm,0.9s						
LSZ				eSn	Sn	02 13 12.6	+0.8
LSZ	Lusaka	12.80	183	P	Pn	02 10 49.4	0.0
	SNR=7.9						
LSZ				P		02 10 49.4	
	SNR=7.9						
LSZ	Lusaka	12.80	183	eP	Pn	02 10 48.4	-1.0
LSZ				AMb	AMB	02 11 11.1	
	comp=Z,490nm,1.1s						
MSNA	Messina	19.85	177	eP	Pn	02 12 18.5	-1.4
MSNA				AMb	AMB	02 12 26.6	
	comp=Z,208nm,1.4s						
LBTB	Lobatse	22.69	188	P	P	02 12 48.7	-0.3
	comp=Z,142nm,1.0s,mb5.4,baz=20,slow=10,SNR=52						
LBTB				S	S	02 17 07.7	+10
	comp=Z,9.2nm,1.0s,baz=342,slow=18,SNR=1.7						
LBTB				Lg		02 19 35.2	
	comp=Z,68nm,1.1s,baz=290,slow=4.9,SNR=7.7						
LBTB				LR	LR	02 21 12.6	
	comp=Z,1μm,18.8s,MS4.3,baz=22,slow=35						
LBTB	Lobatse	22.69	188	P	P	02 12 48.7	-0.3
LBTB				S	S	02 17 07.7	+10
LBTB				Lg		02 19 35.2	
LBTB				LR	LR	02 21 12.6	
SLR	Silverton	23.20	181	eP	P	02 12 53.9	-0.4
SLR				AMb	AMB	02 12 59.4	
	comp=Z,323nm,1.4s,mb5.6						
KSR	Koster	23.38	184	eP	P	02 12 57.1	+0.8
KSR				AMb	AMB	02 13 00.7	
	comp=Z,107nm,1.3s,mb5.1						
OPO	Ambohidratompo	24.09	133	P	P	02 13 04.9	+2.0
	comp=Z,6.1nm,0.9s,mb4.0,baz=302,slow=11,SNR=7.8						
ABPO	Ambohimpanom	24.40	134	eP	P	02 13 07.7	+1.9
ABPO				pmax	pmax		
	comp=Z,128nm,1.5s,mb5.1						
ABPO				MLR	MLR		
	comp=Z,2μm,22.0s,MS4.4						
ABPO	Ambohimpanom	24.40	134	eP	P	02 13 07.7	+1.9
	comp=Z,128nm,1.5s,mb5.1						
ABPO				LR	LR		
	comp=Z,2μm,22.0s,MS4.4						
PRYS	Parys	24.42	183	eP	P	02 13 05.8	-0.1
PRYS				AMb	AMB	02 13 12.2	
	comp=Z,236nm,1.6s,mb5.4						
SEK	Senekal	25.80	183	⇓iP	P	02 13 18.9	+0.5
BOSA	Boshof	26.29	187	P	P	02 13 22.8	0.0
	comp=Z,26nm,0.8s,mb4.8,baz=11,slow=8.3,SNR=27						
BOSA				Lg		02 21 28.8	
	comp=Z,37nm,1.1s,baz=92,slow=9.4,SNR=2.7						
BOSA				LR	LR	02 23 48.3	
	comp=Z,2μm,18.3s,MS4.6,baz=9.8,slow=36						
BOSA	Boshof	26.29	187	eP	P	02 13 21.6	-1.2
BOSA				AMb	AMB	02 13 26.6	
	comp=Z,83nm,1.4s,mb5.1						
MSEY	Mahe Island	26.65	96	P		02 13 40.0	+14
MSEY				MLR	MLR		
	comp=Z,2μm,20.0s,MS4.7						
MSEY	Mahe Island	26.65	96	PFAKE		02 13 40.0	+14
MSEY				LR	LR		
	comp=Z,2μm,20.0s,MS4.7						
UPI	Upington	26.81	195	eP	P	02 13 26.6	-1.0
UPI				AMb	AMB	02 13 31.6	
	comp=Z,63nm,1.4s,mb5.0						
PKA	Prieska	27.73	191	eP	P	02 13 34.3	-1.5
PKA				AMb	AMB	02 13 39.6	
	comp=Z,33nm,1.4s,mb4.8						
KSD	Kokstad	27.98	179	eP	P	02 13 39.0	+0.9
KSD				AMb	AMB	02 13 42.4	
	comp=Z,214nm,1.4s,mb5.6						
HVD	Gariep Dam	28.22	186	eP	P	02 13 40.5	+0.3
CVNA	Calvinia	30.17	196	eP	P	02 13 56.7	-0.8
CVNA				AMb	AMB	02 14 02.6	
	comp=Z,126nm,1.8s,mb5.3						
SOE	Somerset East	30.30	186	eP	P	02 13 58.9	+0.3
SUR	Sutherland	30.76	193	P	P	02 14 04.4	+1.7
	comp=Z,356nm,1.1s,mb6.1,SNR=5.8						
SUR	Sutherland	30.76	193	P	P	02 14 04.3	+1.6
	comp=Z,39nm,0.9s,mb5.2,baz=357,slow=2.6,SNR=9.9						
SUR	Sutherland	30.76	193	eP	P	02 14 02.2	-0.5
	comp=Z,210nm,1.5s,mb5.8						
SUR	Sutherland	30.76	193	eP	P	02 14 01.0	-1.7
SUR				AMb	AMB	02 14 07.5	
	comp=Z,66nm,1.6s,mb5.2						
GRM	Grahamstown	30.82	184	eP	P	02 14 02.3	-0.9
GRM				AMb	AMB	02 14 08.4	
	comp=Z,108nm,1.5s,mb5.5						
TORD	Torodi Ar. Bea	31.08	300	P	P	02 14 05.0	-0.7
	comp=Z,19nm,0.8s,mb5.0,baz=108,slow=6.2,SNR=79						
TORD				Lg		02 24 07.2	
	comp=Z,30nm,1.2s,baz=122,slow=25,SNR=4.5						
TORD				LR	LR	02 26 03.6	
	comp=Z,2μm,19.8s,MS4.7,baz=110,slow=35						
ABTO	Aybut	31.08	50	P	P	02 14 07.6	+1.9
	SNR=5.9						
WHFO	Wadi Hawf	31.78	50	P	P	02 14 13.4	+1.5
	SNR=5.2						
CER	Ceres	32.07	195	eP	P	02 14 12.9	-1.3
CER				AMb	AMB	02 14 19.7	
	comp=Z,31nm,1.5s,mb4.9						
TAM	Tamanrasset	33.85	319	eP	P	02 14 30.9	+1.0
TAM				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
TAM				MLR	MLR		
	comp=Z,2μm,20.0s,MS4.7						
TAM	Tamanrasset	33.85	319	eP	P	02 14 30.9	+1.0
	comp=Z,38nm,1.6s,mb5.1						
TAM				LR	LR		
	comp=Z,2μm,20.0s,MS4.7						
KIC	Kosan Boka	34.67	285	ePKP1	P	02 14 37.6	+0.4
	comp=Z,85nm,0.9s,mb5.7						
DBIC	Dimbokro	34.85	285	eP	P	02 14 38.4	-0.4
DBIC				pmax	pmax		
	comp=Z,11nm,0.7s						
DBIC				MLR	MLR		
	comp=Z,2μm,20.0s						
DBIC	Dimbokro	34.85	285	P	P	02 14 38.0	-0.8
	comp=Z,14nm,0.9s,mb4.9,baz=88,slow=11,SNR=9.9						
DBIC				Lg		02 26 18.6	
	comp=Z,5.1nm,0.9s,baz=172,slow=14,SNR=2.8						
DBIC				LR	LR	02 28 46.7	
	comp=Z,1μm,20.9s,MS4.7,baz=89,slow=36						
DBIC	Dimbokro	34.85	285	eP	P	02 14 38.4	-0.3
	comp=Z,11nm,0.7s,mb4.9						
DBIC				LR	LR		
	comp=Z,2μm,20.0s,MS4.8						
LIC	Lamto	34.91	284	eP	P	02 14 39.8	+0.5
	comp=Z,32nm,0.6s,mb5.1,baz=95						
LIC				eMLR	MLR		
	comp=Z,570nm,20.2s,MS4.0						
LIC	Lamto	34.91	284	ePKP1	P	02 14 38.2	-1.1
	comp=Z,55nm,0.6s,mb5.7						
LIC	Lamto	34.91	284	eP	P	02 14 39.8	+0.5
	comp=Z,16nm,0.6s,mb5.1						
LIC				LR	LR		
	comp=Z,280nm,20.3s,MS4.0						
TIC	Toumodi	35.00	285	ePKP1	P	02 14 38.7	-1.4
	comp=Z,123nm,0.7s,mb5.9						
NAY	Al-Naaiem	36.07	28	eP	P	02 14 48.9	-0.1
NAY				AMb	AMB	02 14 54.9	
	comp=Z,10nm,1.8s,mb4.4						
KBD	Kabd	36.22	29	eP	P	02 14 50.2	0.0
KBD				AMb	AMB	02 14 56.5	
	comp=Z,18nm,1.7s,mb4.7						
MIB	Mutribah	36.58	28	eP	P	02 14 53.5	+0.2
MIB				AMb	AMB	02 14 59.5	
	comp=Z,34nm,1.8s,mb4.9						
SHEL	Horse Pasture	36.64	246	PFAKE		02 15 10.0	+16
SHEL				LR	LR		
	comp=Z,669nm,19.0s,MS4.4						

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BSY   Bisya             37.27  46    P      P      02 15 00.4 +1.1
      SNR=13
CSS   Prodhromos        37.41   6   eP      P      02 15 00.7 +0.4
      comp=Z,30nm,1.0s,mb5.1
CSS                                  LR     LR
      comp=Z,544nm,20.0s,MS4.3
FAQ   Al Faqa, Dubai    37.44  42    P      P      02 15 01.2 +0.5
      SNR=5.7
NAZ   Nazwa, Dubai      37.65  42    P      P      02 15 03.8 +1.3
      SNR=6.4
JMDO  Jabal Madar       37.70  48    P      P      02 15 04.2 +1.2
      SNR=5.1
HATD  Hatta, Dubai      37.85  43    P      P      02 15 05.6 +1.3
      SNR=8.3
HOQ   Hoqain            37.87  45    P      P      02 15 05.4 +1.0
      SNR=8.3
SMDO  Samad             38.08  47    P      P      02 15 07.0 +0.8
      SNR=14
BIDO  Bidbid            38.42  46    P      P      02 15 10.2 +1.1
      SNR=7.9
BDRM  Kayabasi          39.30 358  i P      P      02 15 16.4 +0.2
GOLH  Golhisar          39.45   1  i P      P      02 15 19.3 +1.9
GOLH  Golhisar          39.45   1  i P      P      02 15 18.3 +0.9
PYL   PYLOS             39.66 351    P      P      02 15 19.3 +0.1
PYL   PYLOS             39.66 351    P      P      02 15 19.3 +0.1
KUZU  Kuzuini           39.72  10  i P      P      02 15 18.0 -1.7
AYDN  Tasoluk           39.88 359  i P      P      02 15 21.4 +0.4
GCAM  G?zelcaml?        39.94 358  i P      P      02 15 22.4 +0.9
GCAM  G?zelcaml?        39.94 358  i P      P      02 15 22.0 +0.5
ISP   Isparta           40.08   2    P      P      02 15 23.6 +0.9
ISP   Isparta           40.08   2    P      P      02 15 23.6 +0.9
WDD   Wield Dalam       40.37 342   eP      P      02 15 25.1  0.0
      comp=Z,173nm,1.1s,mb5.7
WDD                                  LR     LR
      comp=Z,1µm,19.0s,MS4.9
GZT   Gaziantep         40.38  11  i P      P      02 15 25.9 +0.7
GZT   Gaziantep         40.38  11  i P      P      02 15 26.4 +1.2
KHAL  Karahalli         40.58   1  i P      P      02 15 27.9 +1.1
KHAL  Karahalli         40.58   1  i P      P      02 15 28.1 +1.3
ATAB  Bozova            40.63  12  i P      P      02 15 27.9 +0.6
MANT  Manisa            40.70 360  i P      P      02 15 29.4 +1.6
KDHN  Kadinhani         40.84   4  i P      P      02 15 29.4 +0.4
KDHN  Kadinhani         40.84   4  i P      P      02 15 29.0  0.0
LAKA  Lakka             40.95 352    P      P      02 15 30.0 +0.1
LAKA  Lakka             40.95 352    P      P      02 15 30.0 +0.1
MARD  Mardin            41.04  15  i P      P      02 15 31.3 +0.6
AKHS  Akhisar           41.09 359  i P      P      02 15 32.1 +1.0
AKHS  Akhisar           41.09 359  i P      P      02 15 32.3 +1.3
LKR   Lokris            41.21 353    P      P      02 15 31.6 -0.5
LKR   Lokris            41.21 353    P      P      02 15 31.6 -0.5
GDZ   Gediz             41.30   1  i P      P      02 15 33.8 +1.1
GDZ   Gediz             41.30   1  i P      P      02 15 33.9 +1.2
AVNT  Avonos            41.35   7  i P      P      02 15 32.9 -0.4
AVNT  Avonos            41.35   7  i P      P      02 15 34.2 +0.9
AKCD  Akcadag           41.36  11  i P      P      02 15 34.0 +0.7
AKCD  Akcadag           41.36  11  i P      P      02 15 34.6 +1.4
DIYA  Diyarbakir        41.46  13  i P      P      02 15 34.8 +0.7
DIYA  Diyarbakir        41.46  13  i P      P      02 15 34.8 +0.7
PINB  Pinarbasi         41.47   9  i P      P      02 15 35.2 +1.1
MALT  Malatya           41.47  11⇓iP      P      02 15 34.8 +0.6
MALT  Malatya           41.47  11  eP      P      02 15 35.2 +1.0
      comp=Z,40nm,1.1s,mb5.0
MALT                                 LR     LR
      comp=Z,575nm,21.0s,MS4.4
HVZN  Vizzini           41.52 343    P      P      02 15 34.3 -0.3
AYVA  Ayvalik           41.56 357  i P      P      02 15 35.1 +0.2
AGG   Agios Georgios    41.66 352    P      P      02 15 35.4 -0.4
AGG   Agios Georgios    41.66 352    P      P      02 15 35.4 -0.4
BEST  Besiri            41.71  15  i P      P      02 15 37.5 +1.4
BEST  Besiri            41.71  15  i P      P      02 15 37.6 +1.5
ELZG  Elazig            41.76  12  i P      P      02 15 37.7 +1.2
ELZG  Elazig            41.76  12  i P      P      02 15 37.6 +1.0
ESKT  Eskisehir         41.76   2  i P      P      02 15 37.0 +0.4
DURS  Dursunbey         41.81 360  i P      P      02 15 38.0 +1.1
DURS  Dursunbey         41.81 360  i P      P      02 15 38.0 +1.0
BALY  Balya             41.96 359  i P      P      02 15 39.3 +1.1
BALY  Balya             41.96 359  i P      P      02 15 39.4 +1.3
PTS   Pantelleria       42.06 340    P      P      02 15 39.3 +0.2
PTS                                  pmax   pmax
      comp=Z,169nm,1.2s,mb5.5
PTS   Pantelleria       42.06 340    P      P      02 15 39.3 +0.2
      comp=Z,169nm,1.2s,mb5.5
KEST  Kesra             42.11 336    P      P      02 15 40.4 +0.9
      comp=Z,12nm,0.9s,mb4.5,baz=93,slow=2.7,SNR=27
KEST                                 LR     LR     02 34 05.5
      comp=Z,408nm,18.8s,MS4.3,baz=3.6,slow=38
CDAG  Cicekdag          42.13   6  i P      P      02 15 40.1 +0.6
CDAG  Cicekdag          42.13   6  i P      P      02 15 40.3 +0.7
BRTR  Keskin Array B    42.16   5    P      P      02 15 40.2 +0.4
      comp=Z,15nm,0.7s,mb4.7,baz=184,slow=9.0,SNR=51
CEL   Celeste           42.21 345   eP      P      02 15 40.7 +0.5
      comp=Z,122nm,1.0s,mb5.5
CEL                                  LR     LR
      comp=Z,1µm,19.0s,MS4.7
THL   Klokotos Trika    42.24 352    P      P      02 15 40.2 -0.3
THL   Klokotos Trika    42.24 352    P      P      02 15 40.2 -0.3
SCLL  Scilla            42.25 345    P      P      02 15 41.6 +1.0
      comp=Z,150nm,1.2s,mb5.5
ULDT  Uludag            42.35   0  i P      P      02 15 42.5 +1.2
ULDT  Uludag            42.35   0  i P      P      02 15 42.3 +1.0
KEMA  Kemaliye          42.41  11  i P      P      02 15 41.7 -0.2
KEMA  Kemaliye          42.41  11  i P      P      02 15 41.8 -0.1
CSLB  Castelbuono       42.42 343    P      P      02 15 43.2 +1.2
      comp=Z,301nm,0.8s,mb6.0
TIP   Timpagrande       42.86 346   eP      P      02 15 44.9 -0.6
      comp=Z,180nm,1.6s,mb5.5
TIP                                  LR     LR
      comp=Z,807nm,20.0s,MS4.6
SGKT  Sivrigoynuk       42.88   4  i P      P      02 15 46.9 +1.3
TVAN  Van               42.89  17  i P      P      02 15 47.1 +1.4
ELDT  Eldivan           42.90   5  i P      P      02 15 45.9 +0.1
SART  Tekirdag          42.92 358  i P      P      02 15 46.6 +0.6
ERC   Erice             42.97 341    P      P      02 15 47.0 +0.6
      comp=Z,190nm,0.9s,mb5.8
HENT  Hendek            43.06   2  i P      P      02 15 48.2 +1.1
TOKA  Tokat             43.09   9  i P      P      02 15 47.5 +0.1
HORT  Hortiatis         43.12 354    P      P      02 15 47.6  0.0
HORT  Hortiatis         43.12 354    P      P      02 15 47.6  0.0
CTKT  Corum             43.17   7  i P      P      02 15 48.7 +0.7
CTKT  Corum             43.17   7  i P      P      02 15 48.4 +0.4
ALN   Alexandroupoli    43.18 357    P      P      02 15 48.2 +0.2
ALN   Alexandroupoli    43.18 357    P      P      02 15 48.2 +0.2
ABSA  Djebel Ababsia    43.35 335    P      P      02 15 54.0 +4.5
ILGA  Ilgaz             43.48   5  i P      P      02 15 50.6 +0.2
ILGA  Ilgaz             43.48   5  i P      P      02 15 50.0 -0.5
FNA   Florina           43.53 352    P      P      02 15 51.0 +0.1
FNA   Florina           43.53 352    P      P      02 15 51.0 +0.1
KOPT  Kop Dagi          43.55  13  i P      P      02 15 52.3 +1.2
KOPT  Kop Dagi          43.55  13  i P      P      02 15 52.3 +1.2
GRG   Griva             43.56 353    P      P      02 15 51.8 +0.7
GRG   Griva             43.56 353    P      P      02 15 51.8 +0.7
SRS   Serrai            43.59 354    P      P      02 15 50.9 -0.4
SRS   Serrai            43.59 354    P      P      02 15 50.9 -0.4
ERZM  Erzurum           43.64  14  i P      P      02 15 53.4 +1.6
ERZM  Erzurum           43.64  14  i P      P      02 15 53.5 +1.7
CMAH  Djebel Manchou    43.67 335    P      P      02 15 53.5 +1.4
DGAR  Diego Garcia      43.69  98    PFAKE         02 16 00.0 +7.3
DGAR                                 LR     LR
      comp=Z,1µm,20.0s,MS4.9
KNT   Kendrikon         43.70 353    P      P      02 15 52.4 +0.1
KNT   Kendrikon         43.70 353    P      P      02 15 52.4 +0.1
BIA   Bitola            43.77 352  i P      P      02 15 52.3 -0.5
CASM  Ain Smara         43.77 334    P      P      02 15 54.0 +1.1
CKFL  Kef-Lekhel        43.78 334    P      P      02 15 52.5 -0.5
CUC   Castrocucco       43.86 346   eP      P      02 15 52.1 -1.5
      comp=Z,71nm,1.3s,mb5.2
CUC                                  LR     LR
      comp=Z,752nm,19.0s,MS4.6
VAY   Valandovo         43.90 353    P      P      02 15 52.6 -1.3
VAY   Valandovo         43.90 353    P      P      02 15 52.6 -1.3
VAY   Valandovo         43.90 353  i P      P      02 15 54.3 +0.5
HOMI  Horasan           43.91  14  i P      P      02 15 55.0 +1.1
HOMI  Horasan           43.91  14  i P      P      02 15 55.7 +1.7
DYDN  Diyadin           43.91  17  i P      P      02 15 55.3 +1.3
BALT  Daday             43.93   5  i P      P      02 15 54.2 +0.1
BALT  Daday             43.93   5  i P      P      02 15 53.8 -0.3
OHR   Ohrid             43.93 351  i P      P      02 15 54.0 -0.1
KDZ   Kurdzhali         43.96 356    P      P      02 15 53.5 -0.9
BOYT  Boyabat           43.97   7  i P      P      02 15 55.1 +0.7
BOYT  Boyabat           43.97   7  i P      P      02 15 53.3 -1.1
GRSN  GIRESUNGRSN       43.97  10  i P      P      02 15 54.9 +0.5
MMB   Musomiste         44.04 354    P      P      02 15 53.3 -1.7
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CAEH  'Ain El Ouahch    44.05 334    P      P      02 15 56.0 +0.9
RZN   Rozhen            44.05 356    P      P      02 15 53.8 -1.3
KRUS  Krusevo           44.12 352  i P      P      02 15 54.8 -0.8
SET   Setif             44.21 332    P      P      02 15 58.0 +1.5
MACK  Trabzon           44.28  12  i P      P      02 15 57.6 +0.7
DFRA  Djebel Bou Aff    44.28 333    P      P      02 15 58.0 +1.0
STIP  Stip              44.31 353    P      P      02 15 58.4 +1.2
STIP  Stip              44.31 353    P      P      02 15 58.4 +1.2
STIP  Stip              44.31 353  i P      P      02 15 52.5 -4.7
TIR   Tirane            44.31 350   eP      P      02 15 57.4 +0.2
TIR                                  pmax   pmax
      comp=Z,54nm,0.8s,mb5.3
TIR                                  MLR    MLR
      comp=Z,557nm,21.0s,MS4.5
TIR   Tirane            44.31 350   eP      P      02 15 57.4 +0.2
      comp=Z,54nm,0.8s,mb5.3
TIR                                  LR     LR
      comp=Z,557nm,21.0s,MS4.5
KKB   Krupnik           44.38 354    P      P      02 15 55.9 -1.8
PLD   Plovdiv           44.47 356    P      P      02 15 58.7 +0.3
PLD   Plovdiv           44.47 356    P      P      02 15 58.7 +0.3
PLD   Plovdiv           44.47 356    P      P      02 15 58.5 +0.1
SKO   Skopje            44.69 352  i P      P      02 16 01.0 +0.8
GNI   Garni             44.78  17⇓eP      P      02 16 01.3 +0.4
GNI                                  pmax   pmax
      comp=Z,30nm,0.9s
GNI                                  MLR    MLR
      comp=Z,900nm,15.0s
GNI   Garni             44.78  17   eP      P      02 16 02.2 +1.3
      comp=Z,26nm,1.0s,mb5.0
GNI                                  LR     LR
      comp=Z,339nm,19.0s,MS4.3
GNI   Garni             44.78  17    P      P      02 16 02.8 +1.9
      SNR=6.0
GNI                                  P             02 16 02.8
      SNR=6.0
ULC   Ulcinj            45.02 350⇓iP      P      02 16 03.5 +0.7
ULC   Ulcinj            45.02 350⇓iP      P      02 16 03.5 +0.7
VTS   Vitosha           45.08 354    P      P      02 16 03.4 +0.1
VTS   Vitosha           45.08 354    P      P      02 16 03.4 +0.1
VTS   Vitosha           45.08 354    P      P      02 16 02.5 -0.8
PSB1  Pescosannita      45.27 345    P      P      02 16 05.0 +0.1
VSL   Villasalto        45.38 339   eP      P      02 16 06.1 +0.3
      comp=Z,104nm,1.2s,mb5.5
VSL                                  LR     LR
      comp=Z,402nm,19.0s,MS4.4
EMHD  Djebel Mahouad    45.39 330    P      P      02 16 15.0 +9.2
BUM   Brajici-Budva     45.41 350⇓iP      P      02 16 06.8 +0.9
PRD   Provadia          45.42 358    P      P      02 16 05.1 -0.9
TTG   Podgorica         45.47 350⇑iP      P      02 16 07.0 +0.6
TTG   Podgorica         45.47 350⇑iP      P      02 16 07.1 +0.7
PVY   Plav              45.51 351⇓iP      P      02 16 07.9 +1.2
HCY   Herceg Novi       45.62 349⇓iP      P      02 16 09.0 +1.4
HCY   Herceg Novi       45.62 349⇓iP      P      02 16 09.1 +1.5
IVA   Berane            45.80 351⇓iP      P      02 16 09.8 +0.9
IVA   Berane            45.80 351⇓iP      P      02 16 09.9 +0.9
NKY   Niksic            45.89 350⇓iP      P      02 16 10.4 +0.7
NKY   Niksic            45.89 350⇓iP      P      02 16 10.4 +0.7
RNI2  Rionero Sannit    45.90 345    P      P      02 16 10.5 +0.7
BRY   Bratogost         46.05 349⇓iP      P      02 16 11.7 +0.7
BRY   Bratogost         46.05 349⇓iP      P      02 16 11.8 +0.8
ECHA  Ech Chlef         46.15 329    P      sP     02 16 25.0 +7.0
EBNR  Beni Rached       46.17 329    P      P      02 16 22.0  +10
UPM   Unac-Piva         46.28 350⇓iP      P      02 16 14.0 +1.2
UPM   Unac-Piva         46.28 350⇓iP      P      02 16 14.1 +1.3
PLE   Pljevlja          46.32 350⇓iP      P      02 16 13.7 +0.6
PLE   Pljevlja          46.32 350⇓iP      P      02 16 13.8 +0.7
CERT  Cerreto           46.45 344    P      P      02 16 13.9 -0.2
AQU   L'Aquila          46.70 344    P      P      02 16 16.5 +0.4
AQU                                  pmax   pmax
      comp=Z,63nm,1.2s,mb5.4
AQU   L'Aquila          46.70 344    P      P      02 16 16.5 +0.4
      comp=Z,63nm,1.2s,mb5.4
CRAR  CRAIOVA           46.75 355    P      P      02 16 17.0 +0.6
SOC   Sochi             46.81  11   eP      P      02 16 16.4 -0.5
SOC                                 e              02 18 05.5
SOC                                 eS      S      02 23 04.4 -2.4
SOC                                 eSS     SS     02 26 16.4  -17
SOC                                 eSSS           02 27 28.0
SOC                                  pmax   pmax
      comp=Z,41nm,0.9s,mb5.4
SOC                                  MLR    MLR
      comp=Z,628nm,11.0s,MS4.8
TOLF  Tolfa             46.83 343    P      P      02 16 17.4 +0.3
HARR  Harsova           46.90 359⇑iP      P      02 16 17.6  0.0
HARR  Harsova           46.90 359    P      P      02 16 18.1 +0.6
OSPF  L'Ospedale        47.37 340   eP      P      02 16 21.3  0.0
ASS   Assisi            47.57 344    P      P      02 16 22.1 -0.7
ASS                                  pmax   pmax
      comp=Z,58nm,1.2s,mb5.5
ASS   Assisi            47.57 344    P      P      02 16 22.1 -0.7
      comp=Z,58nm,1.2s,mb5.5
ANN   Anapa             47.62   8   eP      P      02 16 19.7 -3.5
ANN                                  pmax   pmax
      comp=Z,41nm,1.1s,mb5.4
VOIR                    47.76 356⇑iP      P      02 16 23.9 -0.4
VOIR                    47.76 356    P      P      02 16 24.1 -0.1
MLR   Muntele Rosu      47.76 357⇑iP      P      02 16 24.0 -0.3
MLR   Muntele Rosu      47.76 357    P      P      02 16 24.7 +0.4
KIV   Kislovodsk        47.79  13    P      P      02 16 25.2 +0.6
      comp=Z,124nm,1.2s,mb5.8,SNR=7.3
KIV   Kislovodsk        47.79  13   eP      P      02 16 24.5 -0.1
KIV                                 e              02 17 54.0
KIV                                 eS      S      02 23 17.4 -3.4
KIV                                  pmax   pmax
      comp=Z,28nm,1.1s,mb5.2
KIV   Kislovodsk        47.79  13   eP      P      02 16 24.5 -0.1
      comp=Z,26nm,1.0s,mb5.2
KIV                                  LR     LR
      comp=Z,328nm,19.0s,MS4.3
GZR   Gura Zlata        47.90 354⇑iP      P      02 16 25.4  0.0
GZR   Gura Zlata        47.90 354    P      P      02 16 25.5 +0.1
PLOR  Plostina          48.09 358⇓iP      P      02 16 26.7 -0.1
VRI   Vrincioaia        48.10 358⇓iP      P      02 16 26.3 -0.6
VRI   Vrincioaia        48.10 358    P      P      02 16 27.3 +0.3
PGF   Pioggiola         48.22 340⇓iP      P      02 16 27.3 -0.6
      comp=Z,163nm,1.4s,mb5.6
PGF   Pioggiola         48.22 340⇓iP      P      02 16 27.3 -0.6
PGF                                  pmax   pmax
      comp=Z,82nm,1.4s,mb5.6
PGF   Pioggiola         48.22 340⇓iP      P      02 16 27.3 -0.6
      comp=Z,82nm,1.4s,mb5.6
BZS   Buzias            48.25 353⇑iP      P      02 16 27.4 -0.7
BZS   Buzias            48.25 353    P      P      02 16 28.3 +0.2
TIM   Timisoara         48.41 353    P      P      02 16 31.1 +1.8
PII   Pisa              48.79 342    P      P      02 16 31.2 -1.1
PII                                  pmax   pmax
      comp=Z,108nm,1.0s,mb5.8
PII   Pisa              48.79 342    P      P      02 16 31.2 -1.1
      comp=Z,108nm,1.0s,mb5.8
BOJS  Bojanci           49.22 347  i P      P      02 16 35.6 +0.1
VLC   Villacollemand    49.23 342    PFAKE         02 16 50.0  +14
VLC                                  LR     LR
      comp=Z,523nm,20.0s,MS4.5
DRGR                    49.29 354⇑iP      P      02 16 36.4 +0.3
DRGR                    49.29 354    P      P      02 16 36.7 +0.6
RTC   Rabat Centre      49.40 320    PFAKE         02 16 50.0  +13
RTC                                  LR     LR
      comp=Z,1µm,19.0s,MS4.9
VISS  Visnje            49.59 347  i P      P      02 16 38.2 -0.1
ERON  Agron             49.60 325    P      P      02 16 40.3 +1.7
      comp=Z,8.7nm,0.6s,mb5.0
ECOG  Cogollos-Vega     49.65 326    P      P      02 16 40.7 +1.7
ECOG                                 pmax   pmax
      comp=Z,22nm,1.0s,mb5.1
ECOG  Cogollos-Vega     49.65 326    P      P      02 16 40.7 +1.7
      comp=Z,22nm,1.0s,mb5.1
EQES  Quesada           49.75 327    P      P      02 16 40.8 +1.1
      comp=Z,21nm,0.9s,mb5.2
LMR   La Mourre         49.78 339⇓iP      P      02 16 39.2 -0.7
      comp=Z,156nm,1.2s,mb5.6
LMR   La Mourre         49.78 339⇓iP      P      02 16 39.2 -0.7
LMR                                  pmax   pmax
      comp=Z,78nm,1.2s,mb5.6
LMR   La Mourre         49.78 339⇓iP      P      02 16 39.2 -0.7
      comp=Z,78nm,1.2s,mb5.6
IMI   Imperia           49.80 340    P      P      02 16 39.0 -1.0
REVF  Revere            49.83 340   eP      P      02 16 39.7 -0.6
JAVS  Javornik          49.85 346  i P      P      02 16 40.1 -0.3
JAVS                                ePP     PP     02 18 37.1 +1.8
ELOJ  Sierra Loja       49.89 325    P      P      02 16 42.3 +1.5
ELOJ                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.9
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ELOJ  Sierra Loja       49.89 325    P      P      02 16 42.3 +1.5
      comp=Z,9.6nm,0.8s,mb4.9
LJU   Ljubljana         49.89 347  i P      P      02 16 40.5 -0.1
SBF   Sospel            49.92 340   eP      P      02 16 40.3 -0.6
      comp=Z,196nm,1.1s,mb5.8
SBF   Sospel            49.92 340   eP      P      02 16 40.3 -0.6
SBF                                  pmax   pmax
      comp=Z,98nm,1.1s,mb5.8
SBF   Sospel            49.92 340   eP      P      02 16 40.3 -0.6
      comp=Z,98nm,1.1s,mb5.8
BURAR Bucovina Array    49.92 357⇓iP      P      02 16 40.5 -0.3
BURAR Bucovina Array    49.92 357 ⇓P      P      02 16 40.5 -0.3
BUR02 Bucovina Ar. S    49.92 357    P      P      02 16 42.3 +1.4
FRF   La Foret Royal    49.93 339⇓iP      P      02 16 40.4 -0.6
      comp=Z,164nm,1.3s,mb5.6
FRF   La Foret Royal    49.93 339⇓iP      P      02 16 40.4 -0.6
FRF                                  pmax   pmax
      comp=Z,82nm,1.3s,mb5.6
FRF   La Foret Royal    49.93 339⇓iP      P      02 16 40.4 -0.6
      comp=Z,82nm,1.3s,mb5.6
BUR08 Bucovina Ar. S    49.95 357   eP      P      02 16 42.0 +0.9
ECHE  Chera             49.97 330    P      P      02 16 43.1 +1.7
ECHE                                 pmax   pmax
      comp=Z,21nm,0.7s,mb5.3
ECHE  Chera             49.97 330    P      P      02 16 43.1 +1.8
      comp=Z,21nm,0.7s,mb5.3
SAOF  Saorge            49.98 340   eP      P      02 16 40.3 -1.1
CALN  Calern            50.01 339   eP      P      02 16 40.9 -0.7
AUTN  L'Aution          50.04 340   eP      P      02 16 41.6 -0.2
MVIF  Mont Vial         50.05 340   eP      P      02 16 41.7 -0.2
EVIA  Vianos            50.05 328    P      P      02 16 43.2 +1.2
EVIA                                 pmax   pmax
      comp=Z,15nm,0.8s,mb5.1
EVIA  Vianos            50.05 328    P      P      02 16 43.2 +1.2
      comp=Z,15nm,0.8s,mb5.1
BERF  Bertagne          50.07 338   eP      P      02 16 42.0  0.0
BMR   Baia Mare         50.10 355    P      P      02 16 43.3 +1.1
TOUF  Mont Tournerai    50.11 340   eP      P      02 16 41.9 -0.5
TAVF  Tavernes          50.19 338   eP      P      02 16 42.7 -0.3
EMOS  Mosqueruela       50.31 331    P      P      02 16 42.9 -1.1
      comp=Z,16nm,0.7s,mb5.2
PERS  Pernice           50.32 348  i P      P      02 16 44.4 +0.5
PERS                                ePP     PP     02 18 40.7 +1.1
OBKA  Obir              50.32 347⇓iP      P      02 16 44.2 +0.2
      comp=Z,43nm,1.1s,mb5.4,SNR=13
EPOB  Poblet            50.36 333    P      P      02 16 44.9 +0.6
      comp=Z,18nm,0.9s,mb5.1
SOKA  Soboth            50.38 348⇓iP      P      02 16 44.7 +0.3
      comp=Z,36nm,1.4s,mb5.2
ERTA  Horta de San J    50.39 332    P      P      02 16 45.2 +0.7
      comp=Z,33nm,1.0s,mb5.3
EBAN  Banos Encina      50.40 326    P      P      02 16 44.7  0.0
EBAN                                 pmax   pmax
      comp=Z,19nm,0.9s,mb5.1
EBAN  Banos Encina      50.40 326    P      P      02 16 44.7  0.0
      comp=Z,19nm,0.9s,mb5.1
BUD   Budapest          50.43 351⇑eP      P      02 16 45.5 +0.8
TREF  Trevaresse        50.45 338   eP      P      02 16 45.1 +0.2
VILF  Villemus          50.52 338   eP      P      02 16 45.3 -0.2
STOF  St-Etienne Org    50.58 339   eP      P      02 16 45.8 -0.1
SFS   San Fernando      50.62 323    PFAKE         02 17 00.0  +14
SFS                                  LR     LR
      comp=Z,3µm,19.0s,MS5.3
SMRF  Simiane la Rot    50.68 338⇓iP      P      02 16 46.6 -0.1
      comp=Z,132nm,1.4s,mb5.4
SMRF  Simiane la Rot    50.68 338⇓iP      P      02 16 46.6 -0.1
      comp=Z,132nm,1.4s,mb5.7
ESPR  Espera            50.68 324    P      P      02 16 46.7 -0.1
      comp=Z,14nm,0.7s,mb5.0
PRAF  Pradon            50.68 338   eP      P      02 16 46.2 -0.5
PSZ   Piszkesteto       50.73 352⇑iP      P      02 16 46.6 -0.4
PSZ   Piszkesteto       50.73 352⇓eP      P      02 16 46.9 -0.1
PSZ   Piszkesteto       50.73 352   eP      P      02 16 46.9 -0.1
      comp=Z,102nm,1.2s,mb5.6
FVI   Forni Avoltri     50.82 346    P      P      02 16 47.9 +0.2
ARSA  Arzberg           50.82 348  i P      P      02 16 48.2 +0.5
      comp=Z,45nm,0.9s,mb5.4,SNR=26
EADA  Adamuz            50.84 326    P      P      02 16 47.6 -0.4
      comp=Z,13nm,4.5s
MBDF  Montbardon        50.90 340⇓iP      P      02 16 48.4 +0.1
      comp=Z,184nm,1.1s,mb5.6
MBDF  Montbardon        50.90 340⇓iP      P      02 16 48.4 +0.1
MBDF                                 pmax   pmax
      comp=Z,92nm,1.1s,mb5.6
MBDF  Montbardon        50.90 340⇓iP      P      02 16 48.4 +0.1
      comp=Z,92nm,1.1s,mb5.6
OG22  Abries            50.93 340   eP      P      02 16 49.0 +0.5
ABTA  Abfaltersbach     51.03 346⇓iP      P      02 16 49.6 +0.3
      comp=Z,37nm,1.2s,mb5.2,SNR=24
SOP   Sopron            51.04 349⇓eP      P      02 16 49.3  0.0
KBA   Koelnbreinsper    51.14 346⇓iP      P      02 16 50.4 +0.3
      comp=Z,92nm,1.4s,mb5.5,SNR=34
UZH   Uzhgorod          51.15 354⇑iP      P      02 16 49.7 -0.4
UZH                                 e              02 16 56.7
UZH                                 e              02 18 51.7
KECS  Kecovo            51.21 353   eP      P      02 16 50.4 -0.2
KECS                                e       pP     02 16 56.1 +1.1
KECS                                 pmax   pmax
      comp=Z,44nm,1.2s,mb5.3
KECS  Kecovo            51.21 353   eP      P      02 16 50.4 -0.2
      comp=Z,44nm,1.2s,mb5.3
KECS                                e       pP     02 16 56.1 +1.1
BNI   Bardonecchia      51.22 340   eP      P      02 16 50.9 +0.2
BNI                                  pmax   pmax
      comp=Z,51nm,1.0s,mb5.4
BNI                                  MLR    MLR
      comp=Z,837nm,19.0s,MS4.8
BNI   Bardonecchia      51.22 340   eP      P      02 16 50.9 +0.2
      comp=Z,50nm,1.0s,mb5.4
BNI                                  LR     LR
      comp=Z,837nm,19.0s,MS4.8
EFAM  Famara            51.29 311    P      P      02 16 48.0 -3.6
      comp=Z,13nm,0.6s,mb5.0
CFTV  Fuerteventura     51.36 310    P      P      02 16 51.9 -0.2
      comp=Z,95nm,1.8s,mb5.4
ESAC  San Caprasio      51.37 332    P      P      02 16 51.6 -0.3
      comp=Z,96nm,0.7s,mb5.8
ORIF  Oris-en-Rattie    51.38 339⇓iP      P      02 16 51.5 -0.4
      comp=Z,58nm,1.2s,mb5.1
ORIF                                eMLR    MLR
      comp=Z,687nm,18.2s,MS4.4
ORIF  Oris-en-Rattie    51.38 339⇓iP      P      02 16 51.5 -0.4
ORIF                                 pmax   pmax
      comp=Z,29nm,1.2s,mb5.1
ORIF  Oris-en-Rattie    51.38 339⇓iP      P      02 16 51.5 -0.4
      comp=Z,29nm,1.2s,mb5.1
CONA  Conrad Observa    51.40 349  i P      P      02 16 52.4 +0.3
      comp=Z,57nm,1.2s,mb5.4,SNR=27
CSNA  Conrad Observa    51.41 349⇓iP      P      02 16 52.3 +0.3
      comp=Z,54nm,1.2s,mb5.4
LASF  Ste Croix         51.42 337⇓iP      P      02 16 52.1 -0.1
      comp=Z,156nm,1.2s,mb5.5
ZST   Bratislava        51.43 350   eP      P      02 16 52.2 -0.1
ZST                                  pmax   pmax
      comp=Z,26nm,0.9s,mb5.2
ZST   Bratislava        51.43 350   eP      P      02 16 52.2 -0.1
      comp=Z,26nm,0.9s,mb5.2
SALF  Salau             51.44 334   eP      P      02 16 52.7 +0.3
ETOR  Torete            51.44 330    P      P      02 16 52.9 +0.4
ETOR                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.8
ETOR  Torete            51.44 330    P      P      02 16 52.9 +0.4
      comp=Z,10.0nm,0.8s,mb4.8
VYHS  Vyhne             51.44 351   eP      P      02 16 52.3  0.0
VYHS                                e              02 16 59.5
VYHS                                 pmax   pmax
      comp=Z,67nm,1.4s,mb5.4
VYHS  Vyhne             51.44 351   eP      P      02 16 52.3  0.0
      comp=Z,67nm,1.4s,mb5.4
VYHS                                e              02 16 59.5
KOLS  Kolonicke sedl    51.45 354   eP      P      02 16 52.7 +0.3
KOLS                                e       pP     02 16 57.4 +0.5
KOLS                                 pmax   pmax
      comp=Z,66nm,1.4s,mb5.4
KOLS  Kolonicke sedl    51.45 354   eP      P      02 16 52.7 +0.3
      comp=Z,66nm,1.4s,mb5.4
KOLS                                e       pP     02 16 57.4 +0.5
MTLF  Montolieu         51.47 335⇓iP      P      02 16 52.0 -0.6
      comp=Z,38nm,1.3s,mb4.8
MTLF  Montolieu         51.47 335⇓iP      P      02 16 52.0 -0.6
MTLF                                 pmax   pmax
      comp=Z,19nm,1.3s,mb4.9
MTLF  Montolieu         51.47 335⇓iP      P      02 16 52.0 -0.6
      comp=Z,19nm,1.3s,mb4.9
CRVS  Cervenica-Dubn    51.51 354   eP      P      02 16 53.1 +0.3
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CRVS                               e      pP      02 16 55.6 -1.7
CRVS                               e              02 16 59.9
CRVS                                pmax  pmax
      comp=Z,53nm,1.2s,mb5.3
CRVS  Cervenica-Dubn   51.51 354   eP     P       02 16 53.1 +0.3
      comp=Z,53nm,1.2s,mb5.3
CRVS                               e      pP      02 16 55.6 -1.7
CRVS                               e              02 16 59.9
MODS  Modra-Piesok     51.58 350   eP     P       02 16 53.2 -0.1
MODS                               e      pP      02 16 55.7 -2.1
MODS                               e              02 17 02.1
MODS                                pmax  pmax
      comp=Z,44nm,1.3s,mb5.2
MODS  Modra-Piesok     51.58 350   eP     P       02 16 53.2 -0.1
      comp=Z,44nm,1.3s,mb5.2
MODS                               e      pP      02 16 55.7 -2.1
MODS                               e              02 17 02.1
ESDC  Sonseca Array    51.58 328    P     P       02 16 53.8 +0.3
      comp=Z,14nm,0.9s,mb4.9,baz=137,slow=7.3,SNR=27
ESDC  Sonseca Array    51.58 328    P     P       02 16 53.6 +0.1
      comp=Z,11nm,0.8s,mb4.8
LPG   La Plagne        51.59 340⇓iP     P       02 16 52.7 -0.8
      comp=Z,90nm,1.0s,mb5.4
LPG   La Plagne        51.59 340⇓iP     P       02 16 52.7 -0.8
LPG                                 pmax  pmax
      comp=Z,45nm,1.0s,mb5.3
LPG   La Plagne        51.59 340⇓iP     P       02 16 52.7 -0.8
      comp=Z,45nm,1.0s,mb5.3
LPL   La Plagne        51.61 340⇓iP     P       02 16 52.7 -0.9
      comp=Z,41nm,0.8s,mb5.1
LPL   La Plagne        51.61 340⇓iP     P       02 16 52.7 -0.9
LPL                                 pmax  pmax
      comp=Z,21nm,0.8s,mb5.1
LPL   La Plagne        51.61 340⇓iP     P       02 16 52.7 -0.9
      comp=Z,20nm,0.8s,mb5.1
TUE   Stuetta          51.63 343   eP     P       02 16 53.4 -0.4
      comp=Z,132nm,1.2s,mb5.7
TUE                                 LR    LR
      comp=Z,471nm,21.0s,MS4.5
MOA   Molln            51.66 347   i P    P       02 16 53.9 -0.1
      comp=Z,95nm,1.1s,mb5.6,SNR=76
SMOL  Smolenice        51.69 350   eP     P       02 16 53.8 -0.3
SMOL                               epP    pP      02 16 56.6 -2.0
SMOL  Smolenice        51.69 350   eP     P       02 16 53.9 -0.2
SMOL                               e      pP      02 16 56.6 -2.0
PAB   San Pablo        51.70 327   eP     P       02 16 53.8 -0.6
PAB                                 pmax  pmax
      comp=Z,32nm,1.5s,mb5.0
PAB                                 MLR   MLR
      comp=Z,498nm,20.0s,MS4.5
PAB   San Pablo        51.70 327   eP     P       02 16 53.8 -0.6
      comp=Z,32nm,1.5s,mb5.0
PAB                                 LR    LR
      comp=Z,498nm,20.0s,MS4.5
MELF  Melles           51.72 334   eP     P       02 16 55.1 +0.6
WTTA  Wattenberg       51.73 345⇑iP     P       02 16 54.5 +0.1
      comp=Z,113nm,1.2s,mb5.7,SNR=35
FETA  Feichten         51.74 344⇓iP     P       02 16 54.6  0.0
      comp=Z,42nm,1.0s,mb5.3,SNR=20
VIVF  Saint-Julien-l   51.77 338⇓iP     P       02 16 54.6 -0.2
      comp=Z,184nm,1.5s,mb5.5
VIVF  Saint-Julien-l   51.77 338⇓iP     P       02 16 54.6 -0.2
VIVF                                pmax  pmax
      comp=Z,92nm,1.5s,mb5.5
VIVF  Saint-Julien-l   51.77 338⇓iP     P       02 16 54.6 -0.2
      comp=Z,92nm,1.5s,mb5.5
EMIN  Mina Concepcio   51.77 324    P     P       02 16 54.4 -0.6
      comp=Z,38nm,1.0s,mb5.3
WATA  Walderalm        51.81 345⇓iP     P       02 16 54.8 -0.3
      comp=Z,54nm,1.2s,mb5.4,SNR=8.7
EBIE  Bielsa           51.84 333    P     P       02 16 56.3 +0.9
      comp=Z,30nm,0.8s,mb5.3
RESF  Ens              51.85 333   eP     P       02 16 55.6 +0.1
RJOB  Jochberg         51.88 346   eP     P       02 16 54.3 -1.3
      comp=Z,41nm,1.2s,mb5.2
MOTA  Moosalm          51.94 345⇓iP     P       02 16 55.5 -0.6
      comp=Z,70nm,1.2s,mb5.5,SNR=12
EPF   Esparros         52.03 334⇓iP     P       02 16 56.9 +0.1
      comp=Z,95nm,1.1s,mb5.3
EPF   Esparros         52.03 334⇓iP     P       02 16 56.9 +0.1
EPF                                 pmax  pmax
      comp=Z,48nm,1.1s,mb5.3
EPF   Esparros         52.03 334⇓iP     P       02 16 56.9 +0.1
      comp=Z,48nm,1.1s,mb5.3
STHS  Stebnicka Huta   52.04 354   eP     P       02 16 56.9 +0.1
STHS                               e      pP      02 17 00.1 -1.1
STHS                                pmax  pmax
      comp=Z,20nm,0.8s,mb5.1
STHS  Stebnicka Huta   52.04 354   eP     P       02 16 56.9 +0.1
      comp=Z,20nm,0.8s,mb5.1
STHS                               e      pP      02 17 00.1 -1.1
EGRO  El Granado       52.09 323    P     P       02 16 57.9 +0.5
      comp=Z,26nm,0.8s,mb5.2
KWP   Kalwaria Pacla   52.11 355   eP     P       02 16 57.6 +0.4
KWP   Kalwaria Pacla   52.11 355  ⇑P     P       02 16 57.6 +0.3
KWP   Kalwaria Pacla   52.11 355⇑iP     P       02 16 57.5 +0.2
KWP   Kalwaria Pacla   52.11 355   eP     P       02 16 57.7 +0.4
PVAQ  Vaqueiros        52.15 323   eP     P       02 16 59.0 +1.2
      comp=Z,64nm,1.3s,mb5.4
PVAQ                               eLQ            02 32 13.3
PVAQ                               eLR    LR      02 37 08.9
      comp=Z,587nm,14.8s
NIE   Niedzica         52.15 353   eP     P       02 16 58.2 +0.6
RETA  Reutte           52.16 345   i P    P       02 16 57.1 -0.6
      comp=Z,78nm,1.3s,mb5.5,SNR=31
PBDV  Barranco-do-Ve   52.17 323   eLR    LR      02 36 41.8
      comp=Z,610nm,16.4s
SSB   Saint Sauveur    52.18 338   eP     P       02 16 58.0 +0.1
SSB   Saint Sauveur    52.18 338   eP     P       02 16 57.8 -0.1
SSB                                 pmax  pmax
      comp=Z,160nm,1.5s,mb5.7
SSB                                 MLR   MLR
      comp=Z,781nm,19.0s,MS4.8
SSB   Saint Sauveur    52.18 338   eP     P       02 16 57.8  0.0
      comp=Z,160nm,1.5s,mb5.7
SSB                                 LR    LR
      comp=Z,781nm,19.0s,MS4.8
DAVA  Damuels          52.22 344   i P    P       02 16 57.5 -0.6
      comp=Z,148nm,1.4s,mb5.7,SNR=39
ETSF  Etsaut           52.33 333⇓iP     P       02 16 59.2 +0.2
      comp=Z,136nm,1.1s,mb5.5
ETSF  Etsaut           52.33 333⇓iP     P       02 16 59.2 +0.2
ETSF                                pmax  pmax
      comp=Z,68nm,1.1s,mb5.5
ETSF  Etsaut           52.33 333⇓iP     P       02 16 59.2 +0.2
      comp=Z,68nm,1.1s,mb5.5
GUD   Guadarrama       52.38 328    P     P       02 16 59.6 +0.1
GUD                                 pmax  pmax
      comp=Z,66nm,1.8s,mb5.3
GUD   Guadarrama       52.38 328    P     P       02 16 59.6 +0.1
      comp=Z,66nm,1.8s,mb5.3
REYF  Montagne du Re   52.38 333   eP     P       02 16 59.8 +0.3
OG05  Jujurieux        52.50 340   eP     P       02 16 59.7 -0.6
ATE   Arette           52.54 333   eP     P       02 17 00.8 +0.2
VRAC  Vranov           52.60 350⇓iP     P       02 17 00.4 -0.5
VRAC  Vranov           52.60 350  ⇓P     P       02 17 00.4 -0.5
PALK  Pallekele        52.61  79   i P    P       02 17 03.4 +1.7
EBAD  Badajoz          52.63 325    P     P       02 17 00.6 -0.8
      comp=Z,421nm,7.4s
PBEJ  Beja             52.65 324   eP     P       02 17 02.3 +0.8
      comp=Z,22nm,1.1s,mb5.0
PFVI  Vila Bisbo       52.65 322   eLR    LR      02 36 49.0
      comp=Z,511nm,14.7s
MORF  Marmelete        52.65 322   eLR    LR      02 36 17.1
      comp=Z,399nm,17.3s
FUR   Furstenfeldbru   52.66 345   eP     P       02 17 00.2 -1.2
FUR                                 pmax  pmax
      comp=Z,145nm,1.3s,mb5.8
FUR   Furstenfeldbru   52.66 345   eP     P       02 17 00.2 -1.2
      comp=Z,145nm,1.3s,mb5.8
GEC2  GERESS Array S   52.72 347   eP     P       02 17 01.1 -0.7
GEC2                               e              02 19 02.3
GEC2                                pmax  pmax
      comp=Z,46nm,0.9s,mb5.4
GEC2  GERESS Array S   52.72 347   eP     P       02 17 01.1 -0.7
      comp=Z,46nm,0.9s,mb5.4
GEC2                               ePP    PP      02 19 02.3 +1.0
GERES GERESS Array B   52.72 347    P     P       02 17 01.6 -0.2
      comp=Z,22nm,0.8s,mb5.2,baz=165,slow=7.6,SNR=185
GERES                               LR    LR      02 42 16.9
      comp=Z,488nm,18.3s,MS4.6,baz=159,slow=39
GERES GERESS Array B   52.72 347    P     P       02 17 01.6 -0.2
GERES                               LR    LR      02 42 16.9
CABF  La Chapelle      52.78 340⇓iP     P       02 17 01.2 -1.1
      comp=Z,89nm,1.4s,mb5.2
CABF  La Chapelle      52.78 340⇓iP     P       02 17 01.2 -1.1
CABF                                pmax  pmax
      comp=Z,45nm,1.4s,mb5.2
CABF  La Chapelle      52.78 340⇓iP     P       02 17 01.2 -1.1
      comp=Z,44nm,1.4s,mb5.2
TREC  Trest            52.79 349⇓iP     P       02 17 01.7 -0.6
SJPF  Ste Jean         52.80 333⇓iP     P       02 17 02.7 +0.2
      comp=Z,73nm,0.9s,mb5.3
SJPF  Ste Jean         52.80 333⇓iP     P       02 17 02.7 +0.2
SJPF                                pmax  pmax
      comp=Z,37nm,0.9s,mb5.3
SJPF  Ste Jean         52.80 333⇓iP     P       02 17 02.7 +0.2
      comp=Z,37nm,0.9s,mb5.3
CAF   Calviac          52.83 336⇓iP     P       02 17 02.7  0.0
      comp=Z,89nm,1.2s,mb5.3
CAF   Calviac          52.83 336⇓iP     P       02 17 02.7  0.0
CAF                                 pmax  pmax
      comp=Z,44nm,1.2s,mb5.3
CAF   Calviac          52.83 336⇓iP     P       02 17 02.7  0.0
      comp=Z,44nm,1.2s,mb5.3
OKC   Ostrava-Krasne   52.86 351⇓iP     P       02 17 02.4 -0.4
OKC                                ex     x       02 17 15.0
MORC  Moravsky Berou   52.89 351⇑iP     P       02 17 02.5 -0.6
MORC  Moravsky Berou   52.89 351   eP     P       02 17 02.3 -0.7
      comp=Z,114nm,1.5s,mb5.6
KIEV  Kiev             52.90   0   eP     P       02 17 02.1 -1.0
KIEV                                pmax  pmax
      comp=Z,78nm,1.4s,mb5.5
KIEV  Kiev             52.90   0   eP     P       02 17 02.1 -1.0
      comp=Z,78nm,1.4s,mb5.4
AKASG Malin Array Be   52.91   0    P     P       02 17 02.1 -1.1
      comp=Z,21nm,0.8s,mb5.1,baz=183,slow=6.4,SNR=59
ELIZ  Elizondo         52.98 332    P     P       02 17 05.3 +1.4
ELIZ                                pmax  pmax
      comp=Z,12nm,0.7s,mb4.9
ELIZ  Elizondo         52.98 332    P     P       02 17 05.3 +1.4
      comp=Z,12nm,0.7s,mb4.9
OJC   Ojcow            53.00 353   eP     P       02 17 03.4 -0.5
KHC   Kasperske Hory   53.02 347⇓iP     P       02 17 03.6 -0.4
KHC                                ex     x       02 17 12.5
PESTR Estremoz         53.04 325   eP     P       02 17 05.5 +1.1
      comp=Z,54nm,1.2s,mb5.4
PESTR                              eLQ            02 33 09.2
PESTR                              eLR    LR      02 37 31.5
      comp=Z,583nm,16.5s
EVO   Evora            53.06 324⇓iP     P       02 17 05.5 +0.9
      comp=Z,73nm,1.1s,mb5.2
EVO                                eMLR   MLR
      comp=Z,871nm,17.8s,MS4.5
BBS   Basel-Blauen     53.08 342   eP     P       02 17 03.8 -0.7
WET   Wettzell         53.19 347   eP     P       02 17 04.3 -0.9
WET                                e              02 19 06.0
WET                                 pmax  pmax
      comp=Z,71nm,1.5s,mb5.4
WET   Wettzell         53.19 347   eP     P       02 17 04.3 -0.9
      comp=Z,71nm,1.5s,mb5.4
WET                                ePP    PP      02 19 06.0 +0.6
LOMF  Lomont           53.19 341   eP     P       02 17 04.7 -0.6
SPAK  Spaichingen-Ko   53.27 343   eP     P       02 17 05.2 -0.7
FELD  Feldberg im Sc   53.30 343   eP     P       02 17 05.8 -0.3
PMRV  Marv??o          53.30 325   eP     P       02 17 06.9 +0.6
      comp=Z,55nm,1.4s,mb5.3
PMRV                               eLR    LR      02 37 01.5
      comp=Z,686nm,20.1s
RJF   Les Rejaudoux    53.37 336⇓iP     P       02 17 06.4 -0.3
      comp=Z,171nm,1.4s,mb5.5
RJF                                eMLR   MLR
      comp=Z,908nm,18.5s,MS4.6
RJF   Les Rejaudoux    53.37 336⇓iP     P       02 17 06.4 -0.3
RJF                                 pmax  pmax
      comp=Z,86nm,1.4s,mb5.5
RJF                                 MLR   MLR
      comp=Z,910nm,18.5s,MS4.9
RJF   Les Rejaudoux    53.37 336⇓iP     P       02 17 06.4 -0.3
      comp=Z,86nm,1.4s,mb5.5
RJF                                 LR    LR
      comp=Z,910nm,18.5s,MS4.9
LFF   La Frestale      53.39 335⇓iP     P       02 17 06.7 -0.1
      comp=Z,82nm,0.8s,mb5.4
LFF   La Frestale      53.39 335⇓iP     P       02 17 06.7 -0.1
LFF                                 pmax  pmax
      comp=Z,41nm,0.8s,mb5.4
LFF   La Frestale      53.39 335⇓iP     P       02 17 06.7 -0.1
      comp=Z,41nm,0.8s,mb5.4
MOF   Molkenrain       53.54 342   eP     P       02 17 07.0 -0.9
SMF   Signal de Mont   53.60 339⇓iP     P       02 17 07.7 -0.6
      comp=Z,120nm,1.2s,mb5.4
SMF   Signal de Mont   53.60 339⇓iP     P       02 17 07.7 -0.6
SMF                                 pmax  pmax
      comp=Z,60nm,1.2s,mb5.4
SMF   Signal de Mont   53.60 339⇓iP     P       02 17 07.7 -0.6
      comp=Z,60nm,1.2s,mb5.4
HINF  Hinteralfeld     53.60 342⇓iP     P       02 17 07.5 -0.8
      comp=Z,93nm,1.1s,mb5.3
HINF  Hinteralfeld     53.60 342⇓iP     P       02 17 07.5 -0.8
HINF                                pmax  pmax
      comp=Z,46nm,1.1s,mb5.3
HINF  Hinteralfeld     53.60 342⇓iP     P       02 17 07.5 -0.8
      comp=Z,46nm,1.1s,mb5.3
BFO   Black Forest     53.61 343    P     P       02 17 08.8 +0.4
      comp=Z,236nm,1.2s,mb6.0,SNR=14
BFO   Black Forest     53.61 343   i P    P       02 17 08.3 -0.1
BFO   Black Forest     53.61 343   eP     P       02 17 07.6 -0.8
      comp=Z,95nm,1.4s,mb5.5
PCBR  Castelo Branco   53.63 325   eP     P       02 17 12.2 +3.5
      comp=Z,33nm,1.3s,mb5.1
PRU   Pruhonice        53.63 349⇓eP     P       02 17 07.4 -1.1
PRU                                epP    pP      02 17 12.8 -0.2
DPC   Dobruska-Polom   53.65 350⇓iP     P       02 17 07.5 -1.1
LIBD  Limburg          53.66 342   eP     P       02 17 08.5 -0.3
STU   Stuttgart        53.77 344   eP     P       02 17 09.0 -0.5
      comp=Z,96nm,1.5s,mb5.5
STU   Stuttgart        53.77 344   eP     P       02 17 09.5  0.0
UPC   Upice            53.85 350⇓iP     P       02 17 09.1 -1.0
UPC                                epP    pP      02 17 15.2 +0.6
ECH   Echery           53.86 342   eP     P       02 17 09.1 -1.1
ECH   Echery           53.86 342   eP     P       02 17 09.9 -0.3
ECH                                e              02 19 12.4
ECH                                 pmax  pmax
      comp=Z,62nm,1.4s,mb5.3
ECH   Echery           53.86 342   eP     P       02 17 09.9 -0.3
      comp=Z,62nm,1.4s,mb5.3
ECH                                ePP    PP      02 19 12.4 +0.9
BGF   Bois d’Agland    53.89 338⇓iP     P       02 17 10.1 -0.4
      comp=Z,140nm,1.6s,mb5.3
BGF   Bois d’Agland    53.89 338⇓iP     P       02 17 10.1 -0.4
BGF                                 pmax  pmax
      comp=Z,70nm,1.6s,mb5.3
BGF   Bois d’Agland    53.89 338⇓iP     P       02 17 10.1 -0.4
      comp=Z,70nm,1.6s,mb5.3
AVF   Avril sur Loir   53.90 339⇓iP     P       02 17 09.9 -0.6
      comp=Z,199nm,1.4s,mb5.6
AVF   Avril sur Loir   53.90 339⇓iP     P       02 17 09.9 -0.6
AVF                                 pmax  pmax
      comp=Z,100nm,1.4s,mb5.5
AVF   Avril sur Loir   53.90 339⇓iP     P       02 17 09.9 -0.6
      comp=Z,100nm,1.4s,mb5.5
TCF   Toulx Ste Croi   53.91 337⇓iP     P       02 17 10.8 +0.2
      comp=Z,277nm,1.4s,mb5.7
TCF   Toulx Ste Croi   53.91 337⇓iP     P       02 17 10.8 +0.2
TCF                                 pmax  pmax
      comp=Z,139nm,1.4s,mb5.7
TCF   Toulx Ste Croi   53.91 337⇓iP     P       02 17 10.8 +0.2
      comp=Z,139nm,1.4s,mb5.7
VORD  Divnogorie       53.91   8   eP     P       02 17 09.8 -0.8
VORD                                pmax  pmax
      comp=Z,50nm,1.0s,mb5.4
VORD                                pmax  pmax
      comp=N,70nm,0.9s
VORD                                pmax  pmax
      comp=E,100nm,0.6s
ROTZ  Rotzenmuhle      53.92 347   eP     P       02 17 09.7 -0.9
      comp=Z,37nm,1.0s,mb5.3
HAU   Haudompre        53.92 341⇓iP     P       02 17 09.9 -0.8
      comp=Z,94nm,1.3s,mb5.2
HAU                                eMLR   MLR
      comp=Z,363nm,18.5s,MS4.2
HAU   Haudompre        53.92 341⇓iP     P       02 17 09.9 -0.8
HAU                                 pmax  pmax
      comp=Z,47nm,1.3s,mb5.3
HAU                                 MLR   MLR
      comp=Z,360nm,18.5s,MS4.5
HAU   Haudompre        53.92 341⇓iP     P       02 17 09.9 -0.8
      comp=Z,47nm,1.3s,mb5.3
HAU                                 LR    LR
      comp=Z,360nm,18.5s,MS4.5
ELAN  Lanestosa        53.93 331    P     P       02 17 10.9  0.0
      comp=Z,38nm,1.0s,mb5.3
CDF   Champ du Feu     54.00 342⇓iP     P       02 17 10.3 -0.9
      comp=Z,143nm,1.2s,mb5.5
CDF   Champ du Feu     54.00 342⇓iP     P       02 17 10.3 -0.9
CDF                                 pmax  pmax
      comp=Z,72nm,1.2s,mb5.5
CDF   Champ du Feu     54.00 342⇓iP     P       02 17 10.3 -0.9
      comp=Z,72nm,1.2s,mb5.5
STR   Strasbourg       54.00 343   eP     P       02 17 11.1 -0.2
MTE   Manteigas        54.05 326   eP     P       02 17 12.4 +0.6
      comp=Z,27nm,1.3s,mb5.0
MTE                                eLR    LR      02 36 56.1
      comp=Z,830nm,15.0s
MTE   Manteigas        54.05 326    PFAKE         02 17 20.0 +8.2
MTE                                 LR    LR
      comp=Z,410nm,19.0s,MS4.5
SSF   Saint Saulge     54.07 339⇓iP     P       02 17 10.9 -0.9
      comp=Z,50nm,1.0s,mb5.1
SSF   Saint Saulge     54.07 339⇓iP     P       02 17 10.9 -0.9
SSF                                 pmax  pmax
      comp=Z,25nm,1.0s,mb5.1
SSF   Saint Saulge     54.07 339⇓iP     P       02 17 10.9 -0.9
      comp=Z,25nm,1.0s,mb5.1
GRA1  Grafenberg Arr   54.09 346   eP     P       02 17 10.9 -0.9
      comp=Z,165nm,1.3s,mb5.8
GRA1                               ePP    PP      02 19 14.3 +0.8
GRA1                                LR    LR
      comp=Z,300nm,20.8s,MS4.3
GRF   Grafenberg Arr   54.09 346   eP     P       02 17 10.9 -0.9
GRF                                e              02 19 14.3
GRF                                 pmax  pmax
      comp=Z,165nm,1.3s,mb5.8
GRF                                 MLR   MLR
      comp=Z,300nm,20.8s,MS4.3
GRF   Grafenberg Arr   54.09 346   eP     P       02 17 10.9 -0.9
GRF                                e              02 19 14.3
GRF                                 pmax  pmax
      comp=Z,165nm,1.3s,mb5.8
GRF                                 MLR   MLR
      comp=Z,300nm,20.8s,MS4.3
GRF   Grafenberg Arr   54.09 346   eP     P       02 17 10.9 -0.9
      comp=Z,165nm,1.3s,mb5.8
GRF                                ePP    PP      02 19 14.3 +0.8
GRF                                eL             02 41 38.8
      comp=Z,346nm,20.8s
PMAFR Mafra            54.09 324   eLR    LR      02 36 26.2
      comp=Z,378nm,16.9s
LOR   Lormes           54.12 339⇓iP     P       02 17 11.3 -0.9
      comp=Z,75nm,1.0s,mb5.3
LOR                                eMLR   MLR
      comp=Z,758nm,17.5s,MS4.5
LOR   Lormes           54.12 339⇓iP     P       02 17 11.3 -0.9
LOR                                 pmax  pmax
      comp=Z,38nm,1.0s,mb5.3
LOR                                 MLR   MLR
      comp=Z,760nm,17.5s,MS4.8
LOR   Lormes           54.12 339⇓iP     P       02 17 11.3 -0.9
      comp=Z,38nm,1.0s,mb5.3
LOR                                 LR    LR
      comp=Z,760nm,17.5s,MS4.8
KSP   Ksiaz            54.13 350   eP     P       02 17 11.3 -0.9
KSP   Ksiaz            54.13 350   eP     P       02 17 11.1 -1.0
VSR   Storozhevoye     54.14   8   eP     P       02 17 11.1 -1.1
VSR                                 pmax  pmax
      comp=N,30nm,1.0s
VSR                                 pmax  pmax
      comp=Z,30nm,1.0s,mb5.2
VSR                                 pmax  pmax
      comp=E,10.0nm,1.1s
PVCC  Panska Ves       54.14 349⇓iP     P       02 17 11.2 -1.0
MANZ  Manzenberg       54.15 347   eP     P       02 17 11.4 -0.9
      comp=Z,76nm,1.2s,mb5.5
THEF  They Montfort    54.23 341   eP     P       02 17 12.8 -0.2
MVO   Moncorvo         54.29 327   eP     P       02 17 14.4 +0.9
      comp=Z,59nm,1.4s,mb5.3
MVO                                eLR    LR      02 37 20.9
      comp=Z,1µm,16.8s
NKC   Novy Kostel      54.30 347⇓iP     P       02 17 12.9 -0.5
LANF  Langenberg       54.35 343   eP     P       02 17 13.2 -0.6
WERN  Wernitzgruen     54.37 347   eP     P       02 17 13.7 -0.2
      comp=Z,104nm,1.6s,mb5.5
VRHR  Novokhopersk     54.40  10   eP     P       02 17 13.3 -0.8
VRHR                                pmax  pmax
      comp=Z,30nm,0.7s,mb5.3
VRHR                                pmax  pmax
      comp=N,60nm,0.9s
GUNZ  Gunzen           54.45 347   eP     P       02 17 13.7 -0.8
      comp=Z,60nm,1.3s,mb5.4
PVIS  Viseu            54.46 326   eP     P       02 17 15.5 +0.7
      comp=Z,30nm,1.4s,mb5.0
TANN  Tannenbergstha   54.47 347   eP     P       02 17 14.2 -0.4
      comp=Z,160nm,1.9s,mb5.6
WERD  Werda            54.54 347   eP     P       02 17 14.8 -0.3
      comp=Z,257nm,2.3s,mb5.8
HYF   Humbligny        54.56 338   eP     P       02 17 15.0 -0.4
KTD   Kalmit           54.57 343   eP     P       02 17 15.4  0.0
PBRG  Braganca         54.58 328   eP     P       02 17 16.2 +0.6
      comp=Z,38nm,1.3s,mb5.3
BRG   Berggiesshubel   54.59 348⇑iP     P       02 17 15.0 -0.5
BRG                                e              02 19 20.7
BRG                                 pmax  pmax
      comp=Z,8.0nm,1.5s,mb4.5
BRG                                 pmax  pmax
      comp=Z,32nm,1.5s,mb5.1
BRG   Berggiesshubel   54.59 348   eP     P       02 17 14.3 -1.2
      comp=Z,58nm,1.5s,mb5.4
BRG                                ePP    PP      02 19 20.1 +2.0
BRG   Berggiesshubel   54.59 348⇑iP     P       02 17 15.0 -0.6
      comp=Z,53nm,1.5s,mb5.4
BRG                                ePP    PP      02 19 20.7 +2.6
      comp=Z,16nm,1.4s
TOD   Tromm            54.63 344   eP     P       02 17 15.3 -0.5
VOR   Voronezh         54.65   8   eP     P       02 17 16.0 +0.1
VOR                                 pmax  pmax
      comp=Z,200nm,2.0s,mb5.8
ECAL  Calabor          54.67 328    P     P       02 17 16.4 +0.2
      comp=Z,25nm,0.9s,mb5.2
PVRL  Vila Real        54.74 327   eP     P       02 17 17.8 +1.0
      comp=Z,74nm,1.3s,mb5.6
FBE   Freiberg         54.76 348   eP     P       02 17 15.9 -0.8
      comp=Z,80nm,1.7s,mb5.5
MEZF  Maizieres J’vi   54.78 341⇓iP     P       02 17 16.8 -0.1
      comp=Z,169nm,1.2s,mb5.7
MEZF  Maizieres J’vi   54.78 341⇓iP     P       02 17 16.8 -0.1
      comp=Z,169nm,1.2s,mb6.0
EARI  Arriondas        54.86 330    P     P       02 17 17.0 -0.6
      comp=Z,75nm,3.1s
MOX   Moxa             54.88 347   eP     P       02 17 17.1 -0.5
      comp=Z,109nm,2.0s,mb5.5
MOX   Moxa             54.88 347   eP     P       02 17 17.1 -0.5
MOX                                 pmax  pmax
      comp=Z,1.0nm,2.0s
MOX   Moxa             54.88 347   eP     P       02 17 16.4 -1.2
      comp=Z,30nm,1.1s,mb5.2
NIL   Nilore           55.07  45    PFAKE         02 17 30.0  +11
NIL                                 LR    LR
      comp=Z,59nm,20.0s,MS3.7
MFF   Saint Martin d   55.10 336⇓iP     P       02 17 18.9 -0.4
      comp=Z,154nm,1.3s,mb5.6
MFF   Saint Martin d   55.10 336⇓iP     P       02 17 18.9 -0.4
MFF                                 pmax  pmax
      comp=Z,77nm,1.3s,mb5.6
MFF   Saint Martin d   55.10 336⇓iP     P       02 17 18.9 -0.4
      comp=Z,77nm,1.3s,mb5.6
PTO   Porto            55.14 326   eP     P       02 17 20.8 +1.1
CLL   Collm            55.20 348⇓iP     P       02 17 18.9 -1.0
CLL                                eS     S       02 25 08.0 +5.3
CLL                                 pmax  pmax
      comp=Z,20nm,1.4s,mb5.0
CLL                                 MLR   MLR
      comp=Z,400nm,18.5s,MS4.5
CLL   Collm            55.20 348⇓iP     P       02 17 18.9 -1.0
      comp=Z,49nm,1.4s,mb5.3
CLL                                e              02 17 36.0
CLL                                eS     S       02 25 08.0 +5.3
CLL                                eSS    SS      02 28 54.0 +6.9
CLL                                e              02 30 12.0
CLL                                 Lm            02 43 00.0
      comp=N,600nm,18.0s
CLL                                 Lm            02 43 00.0
      comp=E,200nm,21.4s
CLL                                 Lm            02 43 00.0
      comp=Z,400nm,18.5s
CLL   Collm            55.20 348⇓iP     P       02 17 18.9 -1.0
      comp=Z,49nm,1.4s,mb5.3
CLL                                e              02 17 36.0
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CLL				*e*S	S	02 25 08.0	+5.3
CLL				LR	LR		
	comp=Z,400nm,18.5s,MS4.5						
ERUA	**La Rua**	55.20	328	P	P	02 17 20.5	+0.4
ERUA				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
ERUA	**La Rua**	55.20	328	P	P	02 17 20.5	+0.3
	comp=Z,16nm,1.0s,mb5.0						
PCAB	**Cabril**	55.21	327	*e*P	P	02 17 21.0	+0.8
RUP	**Ruppelstein**	55.21	343	*e*P	P	02 17 19.8	-0.2
TNS	**Taunus Mts**	55.29	344	*e*P	P	02 17 20.3	-0.3
TNS				pmax	pmax		
	comp=Z,137nm,1.1s,mb5.9						
TNS	**Taunus Mts**	55.29	344	*e*P	P	02 17 20.3	-0.3
	comp=Z,137nm,1.1s,mb5.9						
ELOB	**Lobios**	55.33	327	P	P	02 17 21.3	+0.3
	comp=Z,79nm,3.9s						
PMPS	**Porto Santo**	55.35	314	*e*P	P	02 17 23.0	+1.6
	comp=Z,265nm,1.4s,mb6.1						
UBBA	**Unterbreizbach**	55.43	346	*e*P	P	02 17 20.9	-0.7
	comp=Z,48nm,1.2s,mb5.4						
WLF	**Walferdange**	55.45	342	P	P	02 17 21.9	+0.1
	comp=Z,48nm,1.7s,mb5.2						
WLF	**Walferdange**	55.45	342	*e*P	P	02 17 21.6	-0.1
WLF				pmax	pmax		
	comp=Z,103nm,1.4s,mb5.7						
WLF	**Walferdange**	55.45	342	*e*P	P	02 17 21.2	-0.5
	comp=Z,93nm,1.4s,mb5.6						
WLF	**Walferdange**	55.45	342	*e*P	P	02 17 21.6	-0.1
	comp=Z,103nm,1.4s,mb5.7						
PMAR	**Madeira**	55.60	313	*e*P	P	02 17 24.8	+1.6
	comp=Z,140nm,1.4s,mb5.8						
NDI	**New Delhi**	55.70	53	*e*x	x	02 17 24.0	
EPON	**Pontenova**	55.86	329	P	P	02 17 25.3	+0.5
	comp=Z,38nm,2.9s,mb4.9						
EZAM	**Zamans**	55.87	327	P	P	02 17 24.9	0.0
EZAM				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.4						
EZAM	**Zamans**	55.87	327	P	P	02 17 24.9	-0.1
	comp=Z,52nm,1.2s,mb5.4						
RUE	**Ruedersdorf**	56.15	349	*e*P	P	02 17 26.1	-0.6
	comp=Z,118nm,1.3s,mb5.8						
RUE	**Ruedersdorf**	56.15	349	*e*P	P	02 17 26.5	-0.2
	comp=Z,78nm,1.3s,mb5.6						
GIVF	**Givet**	56.25	342⇓	*i*P	P	02 17 26.5	-0.9
	comp=Z,111nm,1.2s,mb5.5						
GIVF	**Givet**	56.25	342⇓	*i*P	P	02 17 26.5	-0.9
GIVF				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.5						
GIVF	**Givet**	56.25	342⇓	*i*P	P	02 17 26.5	-0.9
	comp=Z,55nm,1.2s,mb5.5						
CLZ	**Clausthal**	56.28	346	*e*P	P	02 17 27.2	-0.5
CLZ				pmax	pmax		
	comp=Z,58nm,1.4s,mb5.4						
CLZ	**Clausthal**	56.28	346	*e*P	P	02 17 27.2	-0.5
	comp=Z,58nm,1.4s,mb5.4						
STS	**Santiago**	56.30	328	P	P	02 17 28.9	+1.0
STS				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.3						
STS	**Santiago**	56.30	328	P	P	02 17 28.9	+1.0
	comp=Z,24nm,0.8s,mb5.3						
DOU	**Dourbes**	56.31	341	P	P	02 17 27.6	-0.3
	comp=Z,19nm,1.8s,mb4.8						
DOU				AP	pP	02 17 30.6	-1.8
GKP	**Gorka Klasztor**	56.33	352	*e*P	P	02 17 27.5	-0.5
GKP	**Gorka Klasztor**	56.33	352	*e*P	P	02 17 27.5	-0.5
MEM	**Membach**	56.33	343	P	P	02 17 28.5	+0.5
	comp=Z,23nm,1.9s,mb4.9						
BCLA	**Clavier**	56.38	342	P	P	02 17 28.7	+0.3
	comp=Z,46nm,1.7s,mb5.2						
BAIF	**Baives**	56.41	341⇓	*i*P	P	02 17 27.7	-0.9
	comp=Z,159nm,1.4s,mb5.5						
BAIF	**Baives**	56.41	341⇓	*i*P	P	02 17 27.7	-0.9
BAIF				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.6						
BAIF	**Baives**	56.41	341⇓	*i*P	P	02 17 27.7	-0.9
	comp=Z,80nm,1.4s,mb5.5						
SUW	**Suwalki**	56.42	356	*e*P	P	02 17 28.0	-0.6
HGN	**Heimansgroeve**	56.49	343⇓	*i*P	P	02 17 29.0	-0.2
	comp=Z,44nm,1.9s,mb5.2						
LDF	**La Druitiere**	56.70	337⇓	*i*P	P	02 17 30.0	-0.7
	comp=Z,208nm,1.4s,mb5.7						
LDF	**La Druitiere**	56.70	337⇓	*i*P	P	02 17 30.0	-0.7
LDF				pmax	pmax		
	comp=Z,104nm,1.4s,mb5.7						
LDF	**La Druitiere**	56.70	337⇓	*i*P	P	02 17 30.0	-0.7
	comp=Z,104nm,1.4s,mb5.7						
BUG	**Bochum--Univer**	56.71	344	*e*P	P	02 17 30.5	-0.2
	comp=Z,112nm,1.3s,mb5.7						
SNF	**Seneffe**	56.77	341	P	P	02 17 31.4	+0.3
	comp=Z,27nm,2.4s,mb4.9						
GRR	**Gorron**	56.82	337⇓	*i*P	P	02 17 30.9	-0.7
	comp=Z,96nm,1.1s,mb5.4						
GRR	**Gorron**	56.82	337⇓	*i*P	P	02 17 30.9	-0.7
GRR				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.4						
GRR	**Gorron**	56.82	337⇓	*i*P	P	02 17 30.9	-0.7
	comp=Z,48nm,1.1s,mb5.4						
NRDL	**Niedersach Rie**	56.95	346	*e*P	P	02 17 31.3	-1.1
	comp=Z,229nm,1.3s,mb6.0						
FLN	**La Foliniere**	56.98	337⇓	*i*P	P	02 17 31.8	-0.9
	comp=Z,81nm,1.2s,mb5.3						
FLN				*e*MLR	MLR		
	comp=Z,1µm,18.8s,MS4.7						
FLN	**La Foliniere**	56.98	337⇓	*i*P	P	02 17 31.8	-0.9
FLN				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.3						
FLN				MLR	MLR		
	comp=Z,1µm,18.8s,MS5.0						
FLN	**La Foliniere**	56.98	337⇓	*i*P	P	02 17 31.8	-0.9
	comp=Z,40nm,1.2s,mb5.3						
FLN				LR	LR		
	comp=Z,1µm,18.8s,MS5.0						
UCC	**Uccle**	57.00	342	P	P	02 17 32.6	-0.2
	comp=Z,76nm,1.7s,mb5.5						
DDI	**Dehra Dun**	57.07	51	*e*x	x	02 17 33.8	
NACGM	**Naroch**	57.14	359	*e*P	P	02 17 30.0	-3.7
WTSB	**Winterswijk**	57.31	344⇓	*i*P	P	02 17 35.3	+0.3
	comp=Z,108nm,1.4s,mb5.7						
IBBN	**Ibbenburen**	57.36	345	*e*P	P	02 17 33.8	-1.5
	comp=Z,85nm,1.7s,mb5.5						
QUIF	**Quistinic**	57.39	335⇓	*i*P	P	02 17 35.3	-0.3
	comp=Z,165nm,1.3s,mb5.6						
QUIF	**Quistinic**	57.39	335⇓	*i*P	P	02 17 35.3	-0.3
QUIF				pmax	pmax		
	comp=Z,83nm,1.3s,mb5.6						
QUIF	**Quistinic**	57.39	335⇓	*i*P	P	02 17 35.3	-0.3
	comp=Z,83nm,1.3s,mb5.6						
SGMF	**Saint Gilles**	57.40	336	*e*P	P	02 17 34.9	-0.8
	comp=Z,110nm,1.3s,mb5.4						
SGMF	**Saint Gilles**	57.40	336	*e*P	P	02 17 34.9	-0.8
SGMF				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.4						
SGMF	**Saint Gilles**	57.40	336	*e*P	P	02 17 34.9	-0.8
	comp=Z,55nm,1.3s,mb5.4						
OBN	**Obninsk**	57.68	5⇑	*e*P	P	02 17 36.8	-0.7
OBN				*e*		02 19 47.0	
OBN				*e*S	S	02 25 33.0	-2.5
OBN				pmax	pmax		
	comp=Z,153nm,1.7s,mb5.8						
OBN				MLR	MLR		
	comp=Z,200nm,13.0s,MS4.4						
OBN	**Obninsk**	57.68	5	*e*P	P	02 17 36.8	-0.7
	comp=Z,131nm,1.2s,mb5.8						
ROSF	**Rostrenen**	57.77	335⇓	*i*P	P	02 17 37.4	-0.8
	comp=Z,61nm,1.1s,mb5.2						
ROSF	**Rostrenen**	57.77	335⇓	*i*P	P	02 17 37.4	-0.8
ROSF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
ROSF	**Rostrenen**	57.77	335⇓	*i*P	P	02 17 37.4	-0.8
	comp=Z,30nm,1.1s,mb5.2						
JSA	**Saint Aubin**	57.98	336	*e*P	P	02 17 38.9	-0.8
JSA				AMb	AMB	02 17 41.9	
	comp=Z,88nm,1.9s,mb5.5						
AB31	**Akbulak array**	58.05	23	P	P	02 17 38.9	-1.3
AB31				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
WIT	**Witteveen**	58.11	344⇓	*i*P	P	02 17 41.5	+0.9
	comp=Z,278nm,1.6s,mb6.0						
BSEG	**Bad Segeberg**	58.24	347	*e*P	P	02 17 41.0	-0.4
AKTO	**Aktyubinsk**	58.27	21	P	P	02 17 40.6	-1.1
AKTO				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
AKTO	**Aktyubinsk**	58.27	21	LR	LR	02 43 56.0	
	comp=Z,329nm,18.4s,MS4.5,baz=34,slow=37						
MOS	**Moscow**	58.40	6	*e*P	P	02 17 41.2	-1.3
MOS				pmax	pmax		
	comp=Z,279nm,1.2s,mb6.2						
MOS				pmax	pmax		
	comp=Z,800nm,2.0s,mb6.4						
BSD	**Bornholm Skovb**	58.47	351	*i* P	P	02 17 42.7	-0.4
BSD				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.6						
BSD	**Bornholm Skovb**	58.47	351	*i* P	P	02 17 42.7	-0.4
	comp=Z,52nm,0.9s,mb5.6						
KK31	**Karatay Array**	58.77	35	*i* P	P	02 17 44.7	-0.7
KK31				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
DYA	**Yadsworthy**	59.67	336	AMS	AMS	02 46 52.9	
	comp=Z,742nm,15.5s,MS4.9						
KSH	**Kashi**	60.03	41	*e*P	P	02 17 50.4	-3.8
KSH				*e*pP	pP	02 17 55.1	-3.6
KSH				*e*sP	sP	02 17 57.6	-2.8
KSH				*e*PcP	PcP	02 18 39.9	-0.2
KSH				*e*PP	PP	02 20 02.8	-3.9
KSH				*e*ScP	ScP	02 22 36.9	-4.2
KSH				PcS	PcS	02 22 39.0	-3.4
KSH				*e*S	S	02 25 56.1	-11
KSH				pmax	pmax		
	comp=Z,42nm,2.0s,mb5.1						
KSH				LR	LR		
	comp=N,630nm,5.6s						
KSH				LR	LR		
	comp=E,650nm,7.1s						
KSH				LR	LR		
	comp=Z,670nm,5.3s						
AML	**Almayashu**	60.05	37	P	P	02 17 54.7	+0.4
	SNR=10						
AML	**Almayashu**	60.05	37	*e*P	P	02 17 54.7	+0.4
	comp=Z,30nm,1.4s,mb5.1						
AML				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
HEX	**Exmoor**	60.11	337⇓	*e*P	P	02 17 54.5	0.0
EKS2	**Erkin-Say**	60.41	37	P	P	02 17 56.9	+0.2
	SNR=5.5						
EKS2	**Erkin-Say**	60.41	37	PFAKE		02 18 10.0	+13
EKS2				LR	LR		
	comp=Z,665nm,21.0s,MS4.8						
CWF	**Charnwood Fore**	60.52	339	*e*P	P	02 17 56.9	-0.4
CWF				AMb	AMB	02 17 59.3	
	comp=Z,62nm,1.5s,mb5.5						
CWF				AMS	AMS	02 45 16.6	
	comp=Z,391nm,18.0s,MS4.6						
KOLN	**Koldanda**	60.54	56	*e*P	P	02 17 57.0	-0.9
	comp=Z,207nm,1.5s,mb6.0						
MCH1	**Michaelchurch**	60.54	338⇓	*e*P	P	02 17 57.0	-0.4
MCH1				AMb	AMB	02 17 59.2	
	comp=Z,71nm,1.5s,mb5.6						
MCH1				AMS	AMS	02 47 16.9	
	comp=Z,591nm,17.0s,MS4.8						
UCH	**Uchtor**	60.60	38	P	P	02 17 58.3	+0.3
	SNR=20						
UCH	**Uchtor**	60.60	38	*e*P	P	02 17 58.5	+0.4
	comp=Z,24nm,1.4s,mb5.1						
UCH				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
VSU	**Vasula**	60.71	359⇑	*e*P	P	02 17 58.1	-0.3
VSU				pmax	pmax		
	comp=Z,71nm,0.9s,mb5.8						
VSU				MLR	MLR		
	comp=Z,100nm,6.0s						
MUD	**Monsted U'grnd**	60.82	348⇓	*i*P	P	02 17 59.9	+0.7
MUD				pmax	pmax		
	comp=Z,76nm,0.8s,mb5.9						
MUD	**Monsted U'grnd**	60.82	348⇓	*i*P	P	02 17 59.9	+0.7
	comp=Z,76nm,0.8s,mb5.9						
AAK	**Ala-Archa**	60.83	37	P	P	02 17 59.4	-0.2
	comp=Z,36nm,1.2s,mb5.4,SNR=5.1						
AAK	**Ala-Archa**	60.83	37⇑	*e*P	P	02 17 59.7	+0.1
AAK				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.6						
AAK	**Ala-Archa**	60.83	37	P	P	02 17 59.9	+0.3
	SNR=5.8						
AAK	**Ala-Archa**	60.83	37	*e*P	P	02 17 59.8	+0.2
	comp=Z,17nm,1.5s,mb5.0						
AAK				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
DANN	**Dangsing**	60.87	56	*e*P	P	02 17 59.5	-0.7
	comp=Z,95nm,1.0s,mb5.9						
KWE	**Weaver Farm**	60.94	339⇓	*e*P	P	02 18 00.3	+0.2
KZA	**Kyzart**	60.97	38	P	P	02 18 01.3	+0.7
	SNR=6.7						
FRU	**Bishkek**	61.02	37	*e*P	P	02 18 00.0	-0.8
KBI1	**Birley Grange**	61.02	340⇓	*e*P	P	02 18 00.8	+0.1
KBK	**Karagaybulak**	61.11	37	P	P	02 18 01.8	+0.3
	SNR=8.8						
STNC	**Stoke**	61.13	339	*e*P	P	02 18 02.7	+1.3
STNC				AMb	AMB	02 18 04.1	
	comp=Z,186nm,1.6s,mb6.0						
USP	**Ospenovka**	61.20	37	P	P	02 18 01.5	-0.6
	SNR=14						
SBD1	**Bryn Du**	61.36	338⇓	*e*P	P	02 18 02.9	-0.1
GKN	**Gorkha**	61.48	56	*e*P	P	02 18 03.4	-0.9
	comp=Z,134nm,1.0s,mb6.0						
HPK	**Haverah Park**	61.63	340	*e*P	P	02 18 04.9	+0.1
HPK				AMb	AMB	02 18 07.2	
	comp=Z,220nm,1.5s,mb6.1						
HPK				AMS	AMS	02 48 30.7	
	comp=Z,554nm,16.1s,MS4.8						
TKM2	**Tokmak 2**	61.66	37	*e*P	P	02 18 04.9	-0.3
TKM2				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.1						
TKM2				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.0						
TKM2	**Tokmak 2**	61.66	37	P	P	02 18 05.2	0.0
	SNR=9.7						
TKM2	**Tokmak 2**	61.66	37	*e*P	P	02 18 04.9	-0.3
	comp=Z,23nm,1.4s,mb5.1						
TKM2				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
DMN	**Daman**	61.74	57	*e*P	P	02 18 05.4	-0.7
	comp=Z,95nm,1.2s,mb5.8						
KKN	**Kakani**	61.95	57	*e*P	P	02 18 06.7	-0.7
	comp=Z,185nm,1.3s,mb6.1						
KKN	**Kakani**	61.95	57	*e*P	P	02 18 06.7	-0.7
KKN				pmax	pmax		
	comp=Z,185nm,1.3s,mb6.0						
PKIN	**Phulchoki**	61.97	57	*e*P	P	02 18 06.5	-1.1
PKI	**Pulchoki**	61.98	57	*e*P	P	02 18 06.7	-1.0
	comp=Z,117nm,1.4s,mb5.8						
PKI	**Pulchoki**	61.98	57	*e*P	P	02 18 06.7	-1.0
PKI				pmax	pmax		
	comp=Z,117nm,1.4s,mb5.8						
PUL	**Pulkovo**	62.00	1⇓	*e*P	P	02 18 07.8	+0.6
GUN	**Gumba**	62.49	57	*e*P	P	02 18 10.3	-0.8
	comp=Z,251nm,1.2s,mb6.2						
XAL	**Allendale**	62.57	340⇓	*e*P	P	02 18 10.9	-0.1
JIRN	**Jiri**	62.66	57	*e*P	P	02 18 11.5	-0.8
RAMN	**Ramite**	62.79	58	*e*P	P	02 18 12.1	-1.0
DLF	**Lyons Farm**	62.90	337⇑	*i*P	P	02 18 12.5	-0.8
XSO	**Sourhope Farm**	63.10	341⇓	*e*P	P	02 18 14.7	+0.1
ECK	**Cauldkaine Hil**	63.14	340⇓	*e*P	P	02 18 15.0	+0.2
DCN	**Croghan**	63.23	337⇑	*i*P	P	02 18 14.7	-0.8
EKA	**Eskdalemuir Ar**	63.27	340	P	P	02 18 16.0	+0.3
	comp=Z,15nm,0.9s,mb5.1,baz=128,slow=5.3,SNR=35						
ESK	**Eskdalemuir**	63.27	340	*e*P	P	02 18 16.0	+0.3
ESK				AMb	AMB	02 18 18.1	
	comp=Z,76nm,1.7s,mb5.6						
ESK				AMS	AMS	02 49 54.0	
	comp=Z,463nm,15.9s,MS4.8						
ESK	**Eskdalemuir**	63.27	340	*i* P	P	02 18 16.8	+1.1
ARU	**Arti**	63.42	18	P	P	02 18 16.9	+0.2
	comp=Z,436nm,0.9s,mb6.6,SNR=20						
ARU	**Arti**	63.42	18*d*	*i*P	P	02 18 15.3	-1.4
ARU				*e*		02 20 35.4	
ARU				*e*S	S	02 26 47.0	-1.9
ARU				SS	SS	02 30 48.7	-7.4
ARU				pmax	pmax		
	comp=Z,149nm,1.7s,mb5.8						
ARU	**Arti**	63.42	18	*e*P	P	02 18 16.2	-0.5
	comp=Z,68nm,0.9s,mb5.8						
ODAN	**Odare**	63.43	58	*e*P	P	02 18 16.7	-0.7
GAL1	**Galloway**	63.44	339	*e*P	P	02 18 17.0	+0.2
GAL1				AMb	AMB	02 18 18.6	
	comp=Z,89nm,1.5s,mb5.7						
HFS	**Hagfors**	63.48	352	P	P	02 18 16.3	-0.7
	comp=Z,17nm,1.0s,mb5.1,baz=199,slow=7.2,SNR=12						
DMUB	**Kingscourt**	63.51	337⇓	*i*P	P	02 18 16.5	-0.8
ESY	**Stoneypath**	63.56	341⇓	*e*P	P	02 18 17.9	+0.2
EBL	**Broad Law**	63.59	341⇓	*e*P	P	02 18 17.6	-0.2
KLMR	**Klimovskoe**	63.62	6⇓	*i*P	P	02 18 17.2	-0.7
KLMR				pmax	pmax		
	comp=Z,272nm,1.8s,mb6.0						
KONO	**Kongsberg**	63.70	349⇑	*e*P	P	02 18 18.6	+0.1
EDI	**Edinburgh**	63.76	341	*e*P	P	02 18 19.2	+0.3
EDI				AMb	AMB	02 18 20.9	
	comp=Z,119nm,1.3s,mb5.8						
TAPN	**Taplejung**	63.85	58	*e*P	P	02 18 19.5	-0.6
	comp=Z,142nm,1.3s,mb5.8						
EBH	**Black Hill**	64.13	341⇓	*e*P	P	02 18 21.7	+0.3
CMLA	**Cha da Macela**	64.18	314	*e*P	P	02 18 23.7	+1.6
	comp=Z,376nm,1.5s,mb6.2						
CMLA	**Cha da Macela**	64.18	314	*i* P	P	02 18 24.5	+2.4
CMLA	**Cha da Macela**	64.18	314	*e*P	P	02 18 24.2	+2.1
PSET	**Sete Cidades**	64.34	314	*e*P	P	02 18 24.6	+1.4
	comp=Z,82nm,1.3s,mb5.6						
KAF	**Kangasniemi**	64.38	359	*e*P	P	02 18 21.3	-1.6
KAF				pmax	pmax		
	comp=Z,92nm,0.9s,mb5.8						
KAF	**Kangasniemi**	64.38	359	*e*p	P	02 18 21.3	-1.6
	comp=Z,92nm,0.9s,mb5.8						
SVE	**Sverdlovsk**	64.40	19⇓	*e*P	P	02 18 22.8	-0.3
SVE				pmax	pmax		
	comp=Z,54nm,1.2s,mb5.5						
RCBR	**Riachuelo**	64.66	265	PFAKE		02 18 40.0	+14
RCBR				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
NB2	**NORSAR Subarra**	64.73	351	P	P	02 18 25.0	-0.2
	comp=Z,2.9nm,0.8s,mb4.4,baz=156,slow=6.9						
NOA	**NORSAR Array B**	64.73	351	P	P	02 18 24.9	-0.3
	comp=Z,45nm,0.9s,mb5.5,baz=163,slow=6.2,SNR=42						
NOA				LR	LR	02 48 46.8	
	comp=Z,185nm,18.6s,MS4.3,baz=175,slow=38						
MME1	**Meikle Cairn**	64.82	342	*e*P	P	02 18 26.0	+0.2
MCD	**Coleburn Disti**	65.13	342⇓	*i*P	P	02 18 27.8	0.0
PRGR	**Permogore**	65.15	9⇑	*i*P	P	02 18 27.1	-0.8
PRGR				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.5						
JOF	**Joensuu**	65.18	1	*e*P	P	02 18 26.3	-1.8
JOF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
JOF	**Joensuu**	65.18	1	*e*p	P	02 18 26.3	-1.8
	comp=Z,26nm,0.9s,mb5.3						
BRVK	**Borovoye**	65.23	26	P	P	02 18 27.6	-1.0
	comp=Z,53nm,1.1s,mb5.5,SNR=6.5						
BRVK	**Borovoye**	65.23	26	*e*P	P	02 18 27.5	-1.1
BRVK				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.0						
BRVK	**Borovoye**	65.23	26	*e*P	P	02 18 27.5	-1.1
	comp=Z,20nm,1.4s,mb5.0						
BVA0	**Borovoye Array**	65.25	26	*i* P	P	02 18 25.2	-3.6
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
VOSK	**Vostochnaya**	65.31	27	P	P	02 18 26.6	-2.6
VOSK				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.9						
MDO	**Dochfour**	65.37	341	*e*P	P	02 18 29.1	-0.3
KAR1	**Arisaig**	65.44	340	*e*P	P	02 18 30.1	+0.1
SOKR	**Solikamsk**	65.58	15*c*	*i*P	P	02 18 30.9	+0.2
SOKR				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
KPL	**Plockton**	65.71	340	*e*P	P	02 18 31.7	+0.1
KPL				AMb	AMB	02 18 34.2	
	comp=Z,62nm,1.9s,mb5.3						
SYO	**Syowa Base**	66.88	176⇑	*e*P	P	02 18 34.4	-4.5
LSA	**Lhasa**	67.44	57	*e*P	P	02 18 43.8	+0.5
LSA				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
LSA				MLR	MLR		
	comp=Z,678nm,21.0s,MS4.8						
LSA	**Lhasa**	67.44	57	*e*P	P	02 18 43.8	+0.6
	comp=Z,12nm,0.9s,mb4.9						
LSA				LR	LR		
	comp=Z,678nm,21.0s,MS4.8						
MK31	**Makanchi Array**	67.75	37	*i* P	P	02 18 43.4	-1.4
MK31				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
MKAR	**Makanchi Array**	67.75	37	P	P	02 18 44.0	-0.9
	comp=Z,9.9nm,0.6s,mb5.0,baz=244,slow=5.8,SNR=160						
MKAR				LR	LR	02 49 49.6	
	comp=Z,366nm,19.9s,MS4.6,baz=240,slow=37						
MKAR	**Makanchi Array**	67.75	37	P	P	02 18 44.0	-0.9
MKAR				LR	LR	02 49 49.6	
KURK	**Kurchatov**	67.78	32	P	P	02 18 44.0	-1.0
	comp=Z,95nm,1.2s,mb5.7,SNR=7.7						
KURK	**Kurchatov**	67.78	32	*e*P	P	02 18 44.7	-0.3
KURK				pmax	pmax		
	comp=Z,52nm,1.6s,mb5.3						
KURK				MLR	MLR		
	comp=Z,910nm,20.0s,MS5.0						
KURK	**Kurchatov**	67.78	32	LR	LR	02 49 50.3	
	comp=Z,570nm,21.8s,MS4.8,baz=210,slow=37						
KURK	**Kurchatov**	67.78	32	*e*P	P	02 18 44.7	-0.3
	comp=Z,52nm,1.6s,mb5.3						
KURK				LR	LR		
	comp=Z,910nm,20.0s,MS5.0						
MAW	**Mawson**	69.15	167	LR	LR	02 44 29.1	
	comp=Z,407nm,19.1s,MS4.7,baz=195,slow=32						
WMQ	**Urumqi**	69.79	41	P	P	02 18 57.8	+0.2
WMQ				pP	pP	02 19 03.0	+0.8
WMQ				sP	sP	02 19 05.0	+1.1
WMQ				PcP	PcP	02 19 21.0	+0.7
WMQ				PP	PP	02 21 34.0	+1.9
WMQ				S	S	02 28 05.0	-1.6
WMQ				sS	sS	02 28 13.0	-1.1
WMQ				ScS	ScS	02 28 55.0	-4.3
WMQ				pmax	pmax		
	comp=Z,24nm,1.8s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,370nm,6.0s						
WMQ				LR	LR		
	comp=N,3µm,27.8s,MS5.5						
WMQ				LR	LR		
	comp=E,2µm,24.0s,MS5.5						
WMQ				LR	LR		
	comp=Z,1µm,25.2s,MS5.1						
PSI	**Prapat**	70.22	86	LR	LR	02 46 06.3	
	comp=Z,424nm,18.8s,MS4.7,baz=186,slow=33						
ARCES	**ARCESS Array B**	71.84	359	P	P	02 19 08.7	-0.9
	comp=Z,20nm,0.9s,mb5.0,baz=165,slow=5.0,SNR=13						
ARCES				LR	LR	02 50 19.6	
	comp=Z,367nm,20.6s,MS4.6,baz=212,slow=36						
CMAR	**Chiang Mai Arr**	71.94	70	P	P	02 19 10.8	-0.4
	comp=Z,2.7nm,0.5s,mb4.4,baz=260,slow=7.3,SNR=23						
CMAR				LR	LR	02 48 22.0	
	comp=Z,313nm,21.0s,MS4.6,baz=257,slow=34						
CHTO	**Chiang Mai**	71.99	69	PFAKE		02 19 20.0	+8.4
CHTO				LR	LR		
	comp=Z,354nm,21.0s,MS4.6						
KULM	**Kulim**	72.11	84	PFAKE		02 19 20.0	+7.6
KULM				LR	LR		
	comp=Z,678nm,19.0s,MS4.9						
VNA2	**Neumayer--Watz**	72.28	192	*e*P	P	02 19 14.3	+2.0
VNA2				*e*	pP	02 19 17.0	+0.1
VNA2				*e*		02 19 32.3	
NVS	**Novosibirsk**	72.38	30	*i* P	P	02 19 12.5	-0.7
NVS				pmax	pmax		
	comp=Z,72nm,1.6s,mb5.3						
NVS				pmax	pmax		
	comp=N,53nm,1.8s						
NVS				pmax	pmax		
	comp=E,18nm,1.6s						
ZAA0	**Zalesovo Array**	72.72	31	*e*P	P	02 19 13.8	-1.4
ZALV	**Zalesovo Beam**	72.72	31	P	P	02 19 14.1	-1.1
	comp=E,7.2nm,1.0s,mb4.5,baz=255,slow=5.8,SNR=26						
ZALV				LR	LR	02 52 35.1	
	comp=E,438nm,19.7s,MS4.7,baz=231,slow=37						
VNA3	**Neumayer Olymp**	73.00	192	*e*P	P	02 19 18.8	+2.2
VNA3				*e*	pP	02 19 21.3	+0.1
VNA3				*e*		02 19 34.8	
KMI	**Kunming**	76.47	64	P	P	02 19 38.1	+0.5
KMI				pP	pP	02 19 43.9	+1.7
KMI				sP	sP	02 19 46.1	+2.2
KMI				PP	PP	02 22 30.9	+1.3
KMI				S	S	02 29 25.1	+1.8
KMI				sS	sS	02 29 34.5	+3.6
KMI				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.6						
KMI				pmax	pmax		
	comp=Z,260nm,4.0s						
KMI				LR	LR		
	comp=N,280nm,22.5s,MS4.7						
KMI				LR	LR		
	comp=E,310nm,20.0s,MS4.7						
KMI				LR	LR		
	comp=Z,420nm,24.2s,MS4.7						
GTA	**Gaotai**	76.92	49	*e*P	P	02 19 40.4	+0.5
GTA				pP	pP	02 19 45.0	+0.5

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GTA                                sP       sP       02 19 48.3 +2.1
GTA                                PP       PP       02 22 34.5 +1.4
GTA                                S        S        02 29 27.3 -0.4
GTA                                sS       sS       02 29 33.8 -1.5
GTA                                pmax     pmax
      comp=Z,21nm,1.3s,mb4.9
GTA                                pmax     pmax
      comp=Z,230nm,6.6s
GTA                                LR       LR
      comp=N,390nm,17.7s,MS5.0
GTA                                LR       LR
      comp=E,410nm,15.3s,MS5.0
GTA                                LR       LR
      comp=Z,490nm,17.4s,MS4.9
KRAR  Krasnoyarsk        77.80  31⇑eP       P        02 19 45.2 +0.8
KRAR                               pmax     pmax
      comp=Z,230nm,1.6s,mb5.9
KRAR                               MLR      MLR
      comp=Z,600nm,22.0s,MS4.9
CD2   Chengdu            78.32  58 P        P        02 19 47.8  0.0
CD2                                pP       pP       02 19 53.9 +1.4
CD2                                sP       sP       02 19 56.3 +2.1
CD2                                PP       PP       02 22 47.9 +2.9
CD2                                S        S        02 29 43.4 +0.3
CD2                                sS       sS       02 29 50.0 -0.8
CD2                                SKS               02 29 57.9
CD2                                pmax     pmax
      comp=Z,30nm,0.9s,mb5.2
CD2                                pmax     pmax
      comp=Z,230nm,5.2s
CD2                                LR       LR
      comp=N,690nm,7.1s
CD2                                LR       LR
      comp=Z,330nm,11.3s,MS4.9
LZH   Lanzhou            79.32  53 eP       P        02 19 53.6 +0.4
LZH                                pP       pP       02 19 56.9 -1.0
LZH                                sP       sP       02 19 59.0 -0.6
LZH                                PP       PP       02 22 55.0 +1.7
LZH                                eS       S        02 29 52.0 -1.7
LZH                                sS       sS       02 29 57.0 -4.3
LZH                                pmax     pmax
      comp=Z,42nm,1.5s,mb5.2
LZH                                pmax     pmax
      comp=Z,180nm,4.8s
LZH                                LR       LR
      comp=N,750nm,16.1s
LZH                                LR       LR
      comp=Z,980nm,18.0s,MS5.2
SCO   Scoresbysund       80.05 345 i P      P        02 19 56.0 -0.4
SCO                                pmax     pmax
      comp=Z,7.0nm,0.9s,mb4.6
SCO   Scoresbysund       80.05 345 i P      P        02 19 56.0 -0.4
      comp=Z,6.7nm,0.9s,mb4.6
GYA   Guiyang            80.16  63⇑iP       P        02 19 59.0 +1.0
GYA                                PP       PP       02 23 02.8 +2.3
GYA                                S        S        02 30 03.3 +0.4
GYA                                pmax     pmax
      comp=Z,40nm,1.0s,mb5.3
GYA                                pmax     pmax
      comp=Z,160nm,5.2s
GYA                                LR       LR
      comp=N,760nm,20.2s
GYA                                LR       LR
      comp=Z,840nm,20.0s,MS5.1
SPITS Spitsbergen Ar     80.78 357 P        P        02 20 00.2  0.0
      comp=Z,26nm,1.1s,mb5.1,baz=140,slow=11,SNR=3.4
MOY   Mondy              80.89  37 eP       P        02 20 01.9 +0.5
MOY                                pmax     pmax
      comp=Z,48nm,2.2s,mb5.0
KSM   Kuching            81.51  88 PFAKE             02 20 20.0  +14
KSM                                LR       LR
      comp=Z,298nm,19.0s,MS4.7
ZAK   Zakamensk          81.96  39 i P      P        02 20 07.2 +0.1
ZAK                                pmax     pmax
      comp=Z,12nm,1.5s,mb4.6
QIZ   Qiongzhong         82.26  71 P        P        02 20 13.4 +4.1
QIZ                                S        S        02 30 27.4 +2.5
QIZ                                LR       LR
      comp=Z,590nm,26.5s,MS4.8
QIZ   Qiongzhong         82.26  71 PFAKE             02 20 20.0  +11
QIZ                                LR       LR
      comp=Z,548nm,21.0s,MS4.9
TLY   Talaya             82.49  37 eP       P        02 20 10.2 +0.4
TLY                                pmax     pmax
      comp=Z,26nm,1.9s,mb4.8
TLY                                MLR      MLR
      comp=Z,393nm,22.0s,MS4.7
TLY   Talaya             82.49  37 eP       P        02 20 10.1 +0.3
      comp=Z,24nm,1.4s,mb4.9
TLY                                LR       LR
      comp=Z,390nm,19.0s,MS4.8
TLY   Talaya             82.49  37 P        P        02 20 10.7 +0.9
      SNR=7.3
TLY                                P                 02 20 10.7
      SNR=7.3
IRK   Irkutsk            83.00  37 eP       P        02 20 12.3 -0.1
IRK                                pmax     pmax
      comp=Z,55nm,1.5s,mb5.4
XAN   Xi'an              83.11  55 P        P        02 20 12.3 -1.1
XAN                                pmax     pmax
      comp=Z,8.0nm,1.6s,mb4.5
XAN                                pmax     pmax
      comp=Z,230nm,7.1s
XAN                                LR       LR
      comp=N,140nm,14.0s,MS5.0
XAN                                LR       LR
      comp=E,510nm,16.4s,MS5.0
XAN                                LR       LR
      comp=Z,290nm,17.2s,MS4.7
DAG   Danmarks Havn      83.41 350 eP       P        02 20 13.0 -1.1
DAG                                pmax     pmax
      comp=Z,19nm,1.2s,mb5.0
DAG   Danmarks Havn      83.41 350 i P      P        02 20 13.0 -1.1
      comp=Z,19nm,1.2s,mb5.0
DAG   Danmarks Havn      83.41 350 eP       P        02 20 13.0 -1.1
      comp=Z,19nm,1.2s,mb5.0
SONM  Songino Array      83.42  41 P        P        02 20 15.6 +0.9
      comp=Z,1.4nm,0.6s,mb4.2,baz=250,slow=4.4,SNR=15
SONM                               LR       LR       02 57 49.0
      comp=Z,610nm,21.2s,MS5.0,baz=265,slow=36
ULN   Ulaanbaatar        83.86  42 i P      P        02 20 17.5 +0.5
ULN   Ulaanbaatar        83.86  42 eP       P        02 20 17.6 +0.6
      comp=Z,61nm,1.9s,mb5.4
ULN                                LR       LR
      comp=Z,507nm,21.0s,MS4.9
CASY  Casey              84.45 156 PFAKE             02 20 30.0  +10
CASY                               LR       LR
      comp=Z,502nm,22.0s,MS4.9
CPUP  Villa Florida      85.53 244 P        P        02 20 25.8 -0.1
      comp=Z,0.6nm,0.6s,mb4.0,baz=27,slow=4.5,SNR=1.9
CPUP                               LR       LR       02 52 49.2
      comp=Z,272nm,20.1s,MS4.6,baz=70,slow=32
HHC   Hu-ho-hao-te       86.03  49 eP       P        02 20 27.8 -0.3
HHC                                sP       sP       02 20 34.8 +0.4
HHC                                PP       PP       02 23 48.9 +0.6
HHC                                SKS               02 30 49.6
HHC                                eS       S        02 30 59.3 -2.7
HHC                                sS       sS       02 31 07.6 -2.2
HHC                                LR       LR
      comp=N,320nm,16.1s,MS5.0
HHC                                LR       LR
      comp=E,310nm,15.3s,MS5.0
HHC                                LR       LR
      comp=Z,390nm,16.5s,MS4.9
EFI   East Falkland      86.22 219 PFAKE             02 20 40.0  +11
EFI                                LR       LR
      comp=Z,1µm,20.0s,MS5.3
QSPA  South Pole Qui     87.64 180 P        P        02 20 37.1 +1.9
      comp=Z,7.9nm,0.9s,mb4.9,baz=262,slow=2.4,SNR=13
QSPA  South Pole Qui     87.64 180 P        P        02 20 37.1 +1.9
BOD   Bodaibo            89.42  32 eP       P        02 20 43.0 -0.9
BOD                                pmax     pmax
      comp=Z,15nm,1.6s,mb5.1
BJT   Baijiatuau         89.46  50 PFAKE             02 21 00.0  +15
BJT                                LR       LR
      comp=Z,544nm,21.0s,MS5.0
BJI   Beijing            89.47  50 P        P        02 20 44.9 +0.3
BJI                                pP       pP       02 20 48.3 -1.0
BJI                                sP       sP       02 20 49.5 -1.5
BJI                                PP       PP       02 24 15.8 -0.1
BJI                                S        S        02 31 35.5 +0.6
BJI                                pmax     pmax
      comp=Z,17nm,1.0s,mb5.3
BJI                                LR       LR
      comp=N,460nm,18.5s,MS5.1
BJI                                LR       LR
      comp=E,450nm,18.5s,MS5.1
BJI                                LR       LR
      comp=Z,410nm,22.8s,MS4.8
KAPI  Kappang            90.67  95 PFAKE             02 21 00.0 +9.2
KAPI                               LR       LR
      comp=Z,469nm,21.0s,MS4.9
GRGR  Grenville          91.01 282 PFAKE             02 21 00.0 +7.7
GRGR                               LR       LR
      comp=Z,486nm,20.0s,MS4.9
NJ2   Nanjing            91.25  58 eP       P        02 20 56.0 +2.9
HIA   Hailar             92.38  41 PFAKE             02 21 10.0  +12
HIA                                LR       LR
      comp=Z,378nm,20.0s,MS4.8
PCRV  Puerto La Cruz     93.87 280 LR       LR       03 00 06.8
      comp=Z,223nm,18.6s,MS4.7,baz=115,slow=34
BBSR  BB Station         94.29 302 PFAKE             02 21 20.0  +13
BBSR                               LR       LR
      comp=Z,639nm,21.0s,MS5.1
SCHQ  Schefferville      95.25 325 LR       LR       03 02 32.5
      comp=Z,275nm,18.1s,MS4.8,baz=219,slow=34
TIXI  Tiksi              95.43  18 i P      P        02 21 12.7 +1.3
TIXI                               pmax     pmax
      comp=Z,8.0nm,1.1s,mb5.1
TIXI                               MLR      MLR
      comp=Z,200nm,21.0s,MS4.6
TIXI  Tiksi              95.43  18 i P      P        02 21 12.8 +1.4
TIXI                               LR       LR
      comp=Z,366nm,20.0s,MS4.8
FRB   Frobisher Bay      95.44 334 LR       LR       03 04 12.1
      comp=Z,290nm,18.1s,MS4.8,baz=3.0,slow=36
SJG   San Juan           95.51 288 PFAKE             02 21 20.0 +7.0
SJG                                LR       LR
      comp=Z,923nm,21.0s,MS5.2
PLCA  Paso Flores        95.57 229 LR       LR       02 58 05.4
      comp=Z,335nm,19.1s,MS4.8,baz=112,slow=32
VNDA  Vanda              96.17 171 LR       LR       03 05 40.9
      comp=Z,672nm,18.3s,MS5.2,baz=234,slow=36
VNDA  Vanda              96.17 171 PFAKE             02 21 30.0  +15
VNDA                               LR       LR
      comp=Z,885nm,19.0s,MS5.3
LVC   Limon Verde        96.26 247 PFAKE             02 21 30.0  +14
LVC                                LR       LR
      comp=Z,309nm,19.0s,MS4.8
CN2   Changchun          96.41  46 eP       P        02 21 17.3 +0.8
DAV   Davao City (W)     96.95  83 PFAKE             02 21 30.0  +10
DAV                                LR       LR
      comp=Z,670nm,22.0s,MS5.1
YAK   Yakutsk            97.19  28 PFAKE             02 21 30.0  +10
YAK                                LR       LR
      comp=Z,401nm,20.0s,MS4.9
LCO   Las Campanas       97.20 241 PFAKE             02 21 30.0  +10
LCO                                LR       LR
      comp=Z,318nm,19.0s,MS4.8
INCN  Inchon             97.63  53 PFAKE             02 21 30.0 +7.8
INCN                               LR       LR
      comp=Z,173nm,19.0s,MS4.6
KSRS  Korea Array        98.65  53 LR       LR       03 12 35.5
      comp=Z,171nm,19.0s,MS4.6,baz=110,slow=40
MDJ   Mudanjiang         99.32  45 P        P        02 21 29.4 -0.2
MDJ                                pmax     pmax
      comp=Z,230nm,5.1s
MDJ   Mudanjiang         99.32  45 PFAKE             02 21 40.0  +10
MDJ                                LR       LR
      comp=Z,445nm,21.0s,MS4.9
SDV   Santo Domingo      99.75 279 LR       LR       03 07 55.2
      comp=Z,150nm,18.3s,MS4.5,baz=163,slow=36
SDV   Santo Domingo      99.75 279 PFAKE             02 21 40.0 +8.7
SDV                                LR       LR
      comp=Z,183nm,22.0s,MS4.5
LONY  Lake Ozonia       101.26 315 PFAKE             02 21 50.0  +12
LONY                               LR       LR
      comp=Z,718nm,20.0s,MS5.2
HABR  Khabarovsk        102.50  41 eP       Pdif     02 21 39.9 -3.6
HABR                               e                 02 25 54.4
HABR                               S        SKSac    02 32 18.1 -5.0
HABR                               S        Sdif     02 33 23.7 -3.8
HABR                               PS       PS       02 34 57.9 -5.6
HABR                               eSSS              02 44 23.6
HABR                               MLR      MLR
      comp=Z,358nm,21.0s,MS4.9
ASAR  Alice Springs     102.77 115 P        Pdif     02 21 45.5 +0.8
      comp=Z,0.4nm,0.6s,baz=267,slow=4.6,SNR=3.4
ASAR                               PKKPbc   PKKPbc   02 37 45.0 +0.6
      comp=Z,0.7nm,0.8s,baz=87,slow=3.1,SNR=4.6
WRAB  Tennant Creek     103.70 111 PFAKE             02 22 00.0  +11
WRAB                               LR       LR
      comp=Z,604nm,19.0s,MS5.2
GTBY  Guantanamo Bay    103.96 290 PFAKE             02 22 00.0  +10
GTBY                               LR       LR
      comp=Z,441nm,20.0s,MS5.0
CBN   Corbin            104.23 309 PFAKE             02 22 00.0 +8.8
CBN                                LR       LR
      comp=Z,1µm,21.0s,MS5.4
NNA   Nana              104.84 257 PFAKE             02 22 10.0  +16
NNA                                LR       LR
      comp=Z,282nm,20.0s,MS4.8
ERPA  Erie              105.56 313 PFAKE             02 26 20.0 +9.2
ERPA                               LR       LR
      comp=Z,419nm,20.0s,MS5.0
OTAV  Otavalo           107.31 270 PFAKE             02 26 30.0  +15
OTAV                               LR       LR
      comp=Z,260nm,19.0s,MS4.8
ACSO  Alum Creek Sta    108.15 312 PFAKE             02 26 30.0  +14
ACSO                               LR       LR
      comp=Z,557nm,20.0s,MS5.1
GLMI  Grayling          108.22 317 PFAKE             02 26 30.0  +14
GLMI                               LR       LR
      comp=Z,449nm,19.0s,MS5.0
BILL  Bilibino          108.38  16 PFAKE             02 26 30.0  +15
BILL                               LR       LR
      comp=Z,339nm,19.0s,MS4.9
BCIP  Isla Barro Col    108.84 279 PFAKE             02 26 30.0  +12
BCIP                               LR       LR
      comp=Z,345nm,20.0s,MS4.9
GOGA  Godfrey           109.91 305 PFAKE             02 26 30.0  +11
GOGA                               LR       LR
      comp=Z,675nm,22.0s,MS5.2
COWI  Conover           110.88 319 PFAKE             02 26 30.0 +9.4
COWI                               LR       LR
      comp=Z,646nm,22.0s,MS5.2
EYMN  Ely               111.74 321 PFAKE             02 26 30.0 +7.8
EYMN                               LR       LR
      comp=Z,558nm,19.0s,MS5.2
WVT   Waverly           112.83 308 PFAKE             02 26 40.0  +15
WVT                                LR       LR
      comp=Z,431nm,20.0s,MS5.0
PLAL  Pickwick Lake     113.30 307 PFAKE             02 26 40.0  +14
PLAL                               LR       LR
      comp=Z,438nm,19.0s,MS5.1
BRAL  Brewton           113.36 303 PFAKE             02 26 40.0  +14
BRAL                               LR       LR
      comp=Z,3µm,22.0s,MS5.8
YKA   Yellowknife Ar    114.19 342 PKiKP    PKiKP    02 26 26.6 +0.2
      comp=Z,0.6nm,0.7s,baz=34,slow=2.0,SNR=8.5
YKA                                PP       PP       02 27 19.7 -1.2
      comp=Z,1.1nm,0.9s,baz=28,slow=8.0,SNR=10
YKA   Yellowknife Ar    114.19 342 PKPdf    PKiKP    02 26 26.6 +0.2
YKA                                PP       PP       02 27 19.7 -1.2
AGMN  Agassiz Refuge    114.28 323 PFAKE             02 26 40.0  +13
AGMN                               LR       LR
      comp=Z,471nm,20.0s,MS5.1
CTAO  Charters Tower    114.69 113 PFAKE             02 26 40.0  +11
CTAO                               LR       LR
      comp=Z,439nm,20.0s,MS5.1
PET   Petropavlovsk     114.80  31 i PKIKP  PKiKP    02 26 28.8 +0.9
CCM   Cathedral Cave    114.92 311 PFAKE             02 26 40.0  +11
CCM                                LR       LR
      comp=Z,413nm,19.0s,MS5.1
SCIA  State Center      115.08 316 PFAKE             02 26 40.0  +11
SCIA                               LR       LR
      comp=Z,653nm,21.0s,MS5.2
TGUH  Tegucigalpa,Un    115.93 284 PFAKE             02 26 40.0 +8.9
TGUH                               LR       LR
      comp=Z,292nm,22.0s,MS4.8
NATX  Nacogdoches       119.47 305 PFAKE             02 26 50.0  +12
NATX                               LR       LR
      comp=Z,773nm,19.0s,MS5.4
HKT   Hockley           120.96 304 PFAKE             02 26 50.0  +10
HKT                                LR       LR
      comp=Z,505nm,19.0s,MS5.2
LAO   LASA Array        121.16 325 PFAKE             02 26 50.0  +10
LAO                                LR       LR
      comp=Z,542nm,19.0s,MS5.2
OGNE  Ogallala          121.52 318 PFAKE             02 26 50.0 +8.8
OGNE                               LR       LR
      comp=Z,579nm,21.0s,MS5.2
WMOK  Wichita Mounta    121.75 310 PFAKE             02 26 50.0 +8.2
WMOK                               LR       LR
      comp=Z,460nm,20.0s,MS5.1
KVTX  Kingsville        123.38 302 PFAKE             02 27 00.0  +15
KVTX                               LR       LR
      comp=Z,648nm,21.0s,MS5.3
AMTX  Amarillo          123.90 311 PFAKE             02 27 00.0  +14
AMTX                               LR       LR
      comp=Z,505nm,22.0s,MS5.1
JCT   Junction City     124.06 306 PFAKE             02 27 00.0  +14
JCT                                LR       LR
      comp=Z,440nm,20.0s,MS5.1
ISCO  Idaho Springs     124.47 318 PFAKE             02 27 00.0  +13
ISCO                               LR       LR
      comp=Z,329nm,20.0s,MS5.0
BOZ   Bozeman (W)       124.79 327 PFAKE             02 27 00.0  +13
BOZ                                LR       LR
      comp=Z,416nm,20.0s,MS5.1
MSO   Missoula          125.23 329 PFAKE             02 27 00.0  +12
MSO                                LR       LR
      comp=Z,241nm,19.0s,MS4.9
BW06  Boulder Array     125.36 323 PFAKE             02 27 00.0  +11
BW06                               LR       LR
      comp=Z,520nm,19.0s,MS5.2
PDAR  Pinedale Array    125.36 323 PKP      PKPdf    02 26 48.9 +0.4
      comp=Z,2.0nm,0.8s,baz=106,slow=3.1,SNR=15
AHID  Auburn Hatcher    126.27 324 PFAKE             02 27 00.0  +10
AHID                               LR       LR
      comp=Z,480nm,22.0s,MS5.1
ANMO  Albuquerque       127.41 313 PFAKE             02 27 00.0 +7.3
ANMO                               LR       LR
      comp=Z,394nm,19.0s,MS5.1
TXAR  Lajitas Array     127.60 306 PKP      PKPdf    02 26 54.4 +1.2
      comp=Z,3.6nm,0.8s,baz=111,slow=2.9,SNR=32
MVCO  Mesa Verde        127.73 317 PFAKE             02 27 10.0  +17
MVCO                               LR       LR
      comp=Z,445nm,22.0s,MS5.1
DUG   Dugway            128.85 322 PFAKE             02 27 10.0  +15
DUG                                LR       LR
      comp=Z,292nm,21.0s,MS5.0
MVU   Marysvale         129.48 320 PFAKE             02 27 10.0  +13
MVU                                LR       LR
      comp=Z,532nm,20.0s,MS5.2
ELK   Elko              129.95 324 PFAKE             02 27 10.0  +13
ELK                                LR       LR
      comp=Z,564nm,22.0s,MS5.2
WUAZ  Wupatki           130.60 317 PFAKE             02 27 10.0  +11
WUAZ                               LR       LR
      comp=Z,524nm,19.0s,MS5.2
BMN   Battle Mountai    131.29 325 PFAKE             02 27 10.0  +10
BMN                                LR       LR
      comp=Z,771nm,19.0s,MS5.4
TUC   Tucson            131.84 313 PFAKE             02 27 10.0 +8.8
TUC                                LR       LR
      comp=Z,374nm,19.0s,MS5.1
TPH   Tonopah           132.85 323 PFAKE             02 27 10.0 +7.1
TPH                                LR       LR
      comp=Z,567nm,19.0s,MS5.3
NVAR  Mina Array Bea    133.25 324 PKP      PKPdf    02 27 02.5 -1.2
      comp=Z,1.3nm,0.7s,baz=54,slow=2.3,SNR=5.5
PPT   Papeete           160.09 184 eLR      LR       03 22 37.5
      comp=Z,283nm,23.8s
TAOE  Nuku Hiva Isla    164.34 224 eLR      LR       03 24 38.8
      comp=Z,668nm,22.9s
```

IDC 14 02:35:11.2±1.4**, 12°.12N**×**140°.28E, h0^{km}, mb3.7**/6**, mb1 3.8**/6**, mb1mx3.7**/22**, mbtmp3.7**/6**, Error ellipse: s-maj=56.5km s-min=28.1km az=79.0, Western Caroline Islands**

```
Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                   Op       ISC      h  m  s    ISC
ASAR  Alice Springs      36.11 190 P        P        02 42 15.1 +0.1
      0.4nm,0.6s,baz=14,slow=12,SNR=5.3
SONM  Songino Array      45.48 328 P        P        02 43 33.7 +1.5
      0.5nm,0.8s,baz=126,slow=7.5,SNR=4.1
MKAR  Makanchi Array     59.48 317 P        P        02 45 16.1  0.0
      0.5nm,0.7s,baz=89,slow=8.5,SNR=6.0
KURK  Kurchatov          62.86 321 P        P        02 45 38.9 -0.1
      1.6nm,0.7s,baz=113,slow=6.5,SNR=9.2
BVAR  Borovoye Array     68.32 322 P        P        02 46 13.9 -0.4
      1.5nm,0.7s,baz=107,slow=6.7,SNR=8.1
YKA   Yellowknife Ar     86.19  27 P        P        02 47 54.2 -0.1
      0.7nm,0.7s,baz=289,slow=5.3,SNR=8.8
```

IDC ***14*** *02:36:30.8±3.3, 31°.96N×116°.30W, h0^{km}, mb1 3.6/4, mb1mx3.4/23, mbtmp3.2/4, ML3.5/4, Error ellipse: s-maj=41.4km s-min=14.8km az=56.0*

ISCJB ***14*** *02:36:41.6±0.4, 32°.48N±0°.02×115°.27W±0°.02, h12^{km}±3^{km}, Error ellipse: s-maj=3.3km s-min=2.4km az=174.5*

NEIC ***14*** *02:36:42.1, 32°.51N×115°.27W, h2^{km}, ML3.7(ECX), ML3.9(PAS), After ECX.*

NEIC Felt [IV] at Calexico and [II] at El Centro, California. Also felt at Brawley, Holtville, Imperial and Pauma Valley. Felt [II] at Yuma, Arizona.

ECX ***14*** *02:36:43.6±0.7, 32°.47N×115°.31W, h3^{km}, MD3.8, ML4.0*

ISC 14 02:36:42.2±0.3**, 32°.47N**±0°.02×**115°.30W**±0°.02**, h15^{km}**±2^{km}**, n64, σ0^{s}97**/87**, 22C-30D, California-Baja California border region**

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Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                   Op       ISC      h  m  s    ISC
CPBX  Cerro Prieto        0.05 181⇓eP       Pg       02 36 44.0 -0.9
CPBX                               eS       Sg       02 36 45.7 -1.2
SGL   Mount Signal        0.40 296⇑iP       Pg       02 36 50.6 +0.4
SNR   Schaffner Ranc      0.41 344⇓iP       Pg       02 36 51.5 +1.2
COA   Coachella           0.42  21⇓iP       Pg       02 36 51.7 +1.1
EMX   El Mayor            0.48 174 eP       Pg       02 36 52.5 +0.7
EMX                                eS       Sg       02 36 59.7 +1.4
EMX                               ⇓e                 02 37 00.7
      comp=E,7µm,0.8s
EMX   El Mayor            0.48 174 eP       Pg       02 36 52.5 +0.7
EMX                                eS       Sg       02 36 59.7 +1.4
COK   Cook Ranch          0.52 317⇑iP       Pg       02 36 53.0 +0.5
YUH   Yuha Desert         0.55 289⇑iP       Pg       02 36 53.2 +0.1
112A  Yuma                0.61  84⇓P        Pg       02 36 53.5 -0.7
      baz=0.6,SNR=585
112A                              ⇑S        Sg       02 37 03.4 +1.0
      baz=0.6
SWSC  Sam W. Stewart      0.63 318⇑P        Pg       02 36 53.9 -0.5
      baz=0.6,SNR=24
SWSC                              ⇓S        Sg       02 37 03.3 +0.5
      baz=0.6
YMD   Yuma Desert         0.65  82⇑iP       Pg       02 36 55.0 +0.2
RMX   La Rumorosa         0.67 281 eP       Pg       02 36 55.6 +0.3
RMX                                eS       Sg       02 37 04.8 +0.7
CRR   Carrizo Plain       0.70 307⇑iP       Pg       02 36 55.7 -0.1
DVTC  Desert V Tower      0.70 286⇑P        Pg       02 36 54.8 -1.0
      baz=0.7,SNR=172
DVTC                              ⇓S        Sg       02 37 05.5 +0.4
      baz=0.7
GLA   Glamis              0.70  35⇓P        Pg       02 36 54.8 -1.1
      baz=0.7,SNR=277
GLA                               ⇑S        Sg       02 37 05.2  0.0
      baz=0.7
GLA   Glamis              0.70  35 ePg      Pg       02 36 55.7 -0.2
GLA                                eSg      Sg       02 37 05.2  0.0
RDX   Rancho Dawling      0.77 225⇓eP       Pg       02 36 56.8 -0.3
RDX                                eS       Sg       02 37 07.9 +0.7
ECBX  El Chinero          1.02 168 eP       Pb       02 37 01.5 -0.1
ECBX                               eS       Sb       02 37 15.9 +1.1
MONP  Monument Peak       1.03 294⇓P        Pb       02 37 00.9 -0.9
      baz=1.0,SNR=50
MONP                              ⇓S        Sb       02 37 14.8 -0.3
      baz=1.0
CBX   Cerro Bola          1.16 263⇓eP       Pn       02 37 03.5 -0.5
CBX                                eS       Sb       02 37 19.0 +0.1
BAR   Barrett             1.18 281 ePg      Pg       02 37 03.4 -1.5
BAR                                eSg      Sg       02 37 19.5 -0.7
BC3   Big Chuckw Mtn      1.19 354⇓P        Pn       02 37 03.0 -1.3
      baz=1.2,SNR=23
113A  Mohawk Valley,      1.33  77⇓P        Pn       02 37 05.3 -1.0
      baz=1.3,SNR=318
113A                              ⇑S        Sn       02 37 23.6  0.0
      baz=1.3
ECNX  Esteban Cantu       1.37 234 eP       Pn       02 37 07.6 +0.9
ECNX                               eP                02 37 06.1
ECNX                               eS       Sn       02 37 23.1 -1.6
ECNX                               eS       Sn       02 37 26.0 +1.4
PBX   Punta Banda         1.41 239⇓eP       Pn       02 37 08.0 +0.6
PBX                                eS       Sn       02 37 26.9 +1.2
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PFO	Pinyon Flat Ob	1.49	320	⇑P	Pn	02 37 07.1	-1.4
	baz=1.5,SNR=34						
PFO				⇑S	Sn	02 37 26.3	-1.4
	baz=1.5						
PFO	Pinyon Flat Ob	1.49	320	Pn	Pn	02 37 07.5	-1.0
109C	Camp Elliot, M	1.58	286	⇓P	Pn	02 37 08.8	-0.8
	baz=1.6,SNR=21						
109C				⇓S	Sn	02 37 29.0	-0.8
	baz=1.6						
IRM	Iron Mountain	1.69	4	⇑P	Pn	02 37 10.2	-1.0
	baz=1.7						
Y13A	Salome	1.82	42	⇑P	Pn	02 37 12.1	-0.9
	baz=1.8						
Y13A				⇓Sb	Sb	02 37 39.6	+1.7
	baz=1.8						
MURC	Murrieta	1.95	306	⇑P	Pn	02 37 13.8	-1.0
	baz=2.0						
MURC				⇑Sb	Sb	02 37 43.3	+1.7
	baz=2.0						
Z14A	Wintersburg	2.17	65	⇑P	Pn	02 37 17.1	-0.8
	baz=2.2,SNR=13						
Z14A				⇓Sb	Sb	02 37 50.3	+2.3
	baz=2.2						
214A	Organ Pipe Nat	2.17	103	⇑P	Pn	02 37 16.5	-1.3
	baz=2.2,SNR=71						
GMRC	Granite Mounta	2.32	353	⇑P	Pn	02 37 19.0	-0.9
	baz=2.4						
X13A	Yucca	2.45	30	⇓Sb	Sb	02 37 58.4	+2.5
	baz=2.5						
LDFC	Landfair	2.60	3	*e*Pn	Pn	02 37 23.8	0.0
115A	Sonoran Desert	2.60	84	⇑P	Pn	02 37 23.1	-0.7
	baz=2.6,SNR=16						
CIS	Catalina Islan	2.77	291	⇓Sb	Sb	02 38 07.8	+2.7
	baz=2.8						
W13A	Hualapai Mount	2.87	24	⇓P	Pn	02 37 27.6	+0.1
	baz=2.9						
MWC	Mount Wilson	2.89	308	Pn	Pn	02 37 31.7	+3.9
Y15A	Casa Rosa Ranc	2.89	59	P	Pn	02 37 27.8	0.0
	baz=2.9,SNR=23						
PASC	Pasadena Art C	2.95	306	*e*Pn	Pn	02 37 35.2	+6.7
V12A	Nelson	3.27	6	⇓P	Pn	02 37 33.5	+0.6
	baz=3.3						
216A	Three Points,	3.29	97	⇓P	Pn	02 37 32.4	-0.8
	baz=3.3						
Y16A	Circle Bar Ran	3.50	65	⇓P	Pn	02 37 35.9	-0.2
	baz=3.5,SNR=15						
OSI	Osito Adit	3.57	308	*e*Pn	Pn	02 37 41.3	+4.3
TUC	Tucson	3.83	91	*e*Pn	Pn	02 37 39.8	-0.7
117A	Oracle	3.86	87	⇓P	Pn	02 37 40.3	-0.7
	baz=3.9,SNR=13						
Y17A	Roosevelt	3.94	71	⇓P	Pn	02 37 41.5	-0.6
	baz=3.9						
ISA	Isabella	4.13	321	*e*Pn	Pn	02 37 47.2	+2.5
WUAZ	Wupatki	4.46	46	*e*Pn	Pn	02 37 50.8	+1.5
118A	Homack Ranch,	4.51	86	⇓P	Pn	02 37 49.6	-0.3
	baz=4.5						
318A	Bisbee	4.63	101	⇑P	Pn	02 37 51.2	-0.4
	baz=4.6,SNR=26						
119A	Ashpeak Ranch,	5.07	85	⇑P	Pn	02 37 57.4	-0.2
	baz=5.1						
319A	Douglas	5.24	100	⇓P	Pn	02 37 59.7	-0.2
	baz=5.2						
120A	U Bar Ranch, L	5.63	87	⇓P	Pn	02 38 05.4	0.0
	baz=5.6						
TPH	Tonopah	5.81	345	*e*Pn	Pn	02 38 14.8	+7.0
	comp=E,30nm,0.7s						
NVAR	Mina Array Bea	6.43	338	Pg	Pn	02 38 21.5	+5.2
	comp=E,0.2nm,0.3s,baz=154,slow=17,SNR=2.8						
MVCO	Mesa Verde	7.32	48	*e*Pn	Pn	02 38 33.3	+4.7
	comp=E,24nm,0.5s						
ANMO	Albuquerque	7.77	69	Pn	Pn	02 38 40.4	+5.6
	comp=E,0.2nm,0.3s,baz=253,slow=14,SNR=4.6						
ANMO				Lg		02 40 46.7	
	comp=E,0.4nm,0.3s,baz=357,slow=21,SNR=5.6						
ANMO	Albuquerque	7.77	69	*e*Pn	Pn	02 38 39.4	+4.7
	comp=E,6.9nm,0.8s						
ELK	Elko	8.26	0	Pn	Pn	02 38 41.0	-0.4
	comp=E,0.2nm,0.3s,baz=190,slow=18,SNR=2.2						
ELK				Lg		02 41 04.3	
	comp=E,0.2nm,0.3s,baz=318,slow=11,SNR=3.3						
TXAR	Lajitas Array	10.47	104	Pn	Pn	02 39 13.0	+1.1
	comp=E,0.3nm,0.3s,baz=283,slow=14,SNR=28						
TXAR				Lg		02 42 23.7	
	comp=E,0.2nm,0.3s,baz=304,slow=32,SNR=4.2						
PDAR	Pinedale Array	11.24	22	Pn	Pn	02 39 29.1	+6.9
	comp=E,0.0nm,0.3s,baz=179,slow=13,SNR=3.1						
PDAR				Lg		02 42 49.0	
	comp=E,0.1nm,0.3s,baz=210,slow=31,SNR=4.6						

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*ISCJB **14** 02:46:03.8±0.6, 39°.00N±0°.04×29°.90E±0°.04, h3^{km}±6^{km}, Error ellipse: s-maj=6.7km s-min=3.8km az=152.7*

*DDA **14** 02:46:03.7, 38°.98N×29°.87E, h7^{km}±4^{km}, Md2.9*

*CSEM **14** 02:46:04.2±0.1, 38°.98N×29°.91E, h2^{km}, MD2.9, Error ellipse: s-maj=2.7km s-min=1.8km az=162.0*

*ISK **14** 02:46:04.9, 39°.10N×29°.97E, h3^{km}, MD2.9*

ISC 14 02:46:04.1±0.5**, 39°.01N**±0°.03×**29°.89E**±0°.03**, h2**^{km}±6^{km}**, n34,** $\sigma 0^{s}.81$/47**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALT	Altintas	0.18	75	*e*PG	Pg	02 46 07.7	+0.2
ALT				*e*SG	Sg	02 46 10.0	+0.2
ALT	Altintas	0.18	75	*e*Pg	Pg	02 46 07.7	+0.2
ALT				*e*Sg	Sg	02 46 10.0	+0.2
GDZ	Gediz	0.33	284	*i* P	Pg	02 46 10.1	-0.3
GDZ				*i* S	Sg	02 46 15.1	+0.4
GDZ	Gediz	0.33	284	*i* P	Pg	02 46 10.1	-0.4
SHUT	Suhut-Afyon	0.69	131	*e*PG	Pg	02 46 19.4	+2.1
SHUT	Suhut-Afyon	0.69	131	*e*Pg	Pg	02 46 19.4	+2.1
KHAL	Karahalli	0.71	206	*i* P	Pg	02 46 17.6	-0.1
KHAL				*i* S	Sg	02 46 26.0	-0.9
KHAL	Karahalli	0.71	206	*i* P	Pg	02 46 17.6	-0.1
ESKT	Eskisehir	0.90	55	*e*PG	Pg	02 46 20.6	-0.8
ESKT				*e*SG	Sg	02 46 33.2	+0.1
ESKT	Eskisehir	0.90	55	*e*Pg	Pg	02 46 20.6	-0.8
ESKT				*e*Sg	Sg	02 46 33.2	+0.1
BORA	Eskisehir	0.97	26	*i* P	Pg	02 46 22.0	-0.8
BORA				*i* S	Sg	02 46 35.0	-0.4
BORA	Eskisehir	0.97	26	*i* P	Pg	02 46 22.0	-0.8
DST	Dursunbey	1.15	302	*e*PN	Pn	02 46 28.0	+0.8
DST	Dursunbey	1.15	302	*e*Pn	Pn	02 46 28.0	+0.9
MANT	Manisa	1.17	244	*i* P	Pg	02 46 25.4	-1.0
MANT				*i* S	Sg	02 46 41.1	-0.5
MANT	Manisa	1.17	244	*i* P	Pg	02 46 25.4	-1.0
MANT				*i* S	Sg	02 46 41.1	-0.4
CAVI	Cavuskoy	1.19	358	*e*PN	Pn	02 46 26.5	-1.3
CAVI				*e*SN	Sn	02 46 42.9	-1.6
CAVI	Cavuskoy	1.19	358	*e*Pn	Pn	02 46 26.5	-1.2
CAVI				*e*Sn	Sn	02 46 42.9	-1.6
DURS	Dursunbey	1.25	299	*i* P	Pg	02 46 28.5	+0.5
DURS				*i* S	Sg	02 46 45.2	+1.0
DURS	Dursunbey	1.25	299	*i* P	Pg	02 46 28.5	+0.4
DURS				*i* S	Sg	02 46 45.2	+1.0
SVRH	Sivrihisar-ESK	1.34	70	*e*PN	Pn	02 46 29.3	-0.5
SVRH	Sivrihisar-ESK	1.34	70	*e*Pn	Pn	02 46 29.3	-0.5
ADVT	Abdulvahap	1.43	355	*e*PN	Pn	02 46 31.2	+0.2
ADVT	Abdulvahap	1.43	355	*e*Pn	Pn	02 46 31.2	+0.2
KIZT	Kizilcal	1.56	94	*e*PN	Pn	02 46 33.2	+0.5
KIZT	Kizilcal	1.56	94	*e*Pn	Pn	02 46 33.2	+0.5
EYL	Eskiyayla	1.57	7	*e*PN	Pn	02 46 33.3	+0.4
EYL	Eskiyayla	1.57	7	*e*Pn	Pn	02 46 33.3	+0.4
YLV	Yalova	1.61	346	*e*PN	Pn	02 46 34.6	+1.1
YLV	Yalova	1.61	346	*e*Pn	Pn	02 46 34.6	+1.2
ARMT	Armutlu	1.75	333	*e*PN	Pn	02 46 36.3	+1.0
ARMT	Armutlu	1.75	333	*e*Pn	Pn	02 46 36.3	+0.9
MDU	Mudurnu	1.78	35	*e*PN	Pn	02 46 35.8	0.0
MDU	Mudurnu	1.78	35	*e*Pn	Pn	02 46 35.8	0.0

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*NEIC **14** 02:47:38.1, 32°.44N×115°.38W, h9^{km}, ML3.1(PAS), ML3.5(ECX), After ECX.*

ECX 14 02:47:38.1±0.3**, 32°.44N×115°.38W, h9**^{km}**, MD3.3, ML3.5, 5C-10D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.06	108	⇓*e*P	Pg	02 47 41.6	+1.5
CPBX				*e*S	Sg	02 47 43.9	+2.4
SGL	Mount Signal	0.36	306	⇑*i*P	Pg	02 47 47.1	+1.9
SNR	Schaffner Ranc	0.43	353	⇓*i*P	Pg	02 47 48.1	+1.6
EMX	El Mayor	0.46	166	⇓*e*P	Pg	02 47 49.1	+2.0
EMX				*e*S	Sg	02 47 56.3	+3.1
EMX				*e*		02 47 58.7	
	comp=N,3µm,0.5s						
EMX				⇓*e*		02 47 59.6	
	comp=E,2µm,0.7s						
EMX	El Mayor	0.46	166	⇓*e*P	Pg	02 47 49.1	+2.0
EMX				*e*S	Sg	02 47 56.3	+3.1
COA	Coachella	0.47	27	⇓*i*P	Pg	02 47 48.3	+0.9
COK	Cook Ranch	0.51	324	⇑*i*P	Pg	02 47 49.5	+1.6
YUH	Yuha Desert	0.51	294	⇑*i*P	Pg	02 47 49.7	+1.7
RMX	La Rumorosa	0.62	286	⇓*e*P	Pg	02 47 52.1	+2.1
RMX				*e*S	Sg	02 48 02.4	+4.3
CRR	Carrizo Plain	0.67	312	⇑*i*P	Pg	02 47 52.3	+1.2
RDX	Rancho Dawling	0.70	224	⇓*e*P	Pg	02 47 54.1	+2.5
RDX				*e*S	Sg	02 48 04.5	+3.8
RDX				⇓*e*		02 48 06.6	
	comp=N,948nm,0.4s						
RDX	Rancho Dawling	0.70	224	⇓*e*P	Pg	02 47 54.1	+2.5
RDX				*e*S	Sg	02 48 04.5	+3.8
GLA	Glamis	0.77	37	*e*Pg	Pg	02 47 52.5	-0.4
GLA				*e*Sg	Sg	02 48 02.0	-0.9
ECBX	El Chinero	1.00	164	⇑*e*P	Pg	02 47 59.2	+1.8
ECBX				*e*S	Sg	02 48 13.2	+2.8
CBX	Cerro Bola	1.10	264	*e*PN	Pn	02 48 00.8	+1.2
CBX				*e*S	Sg	02 48 16.1	+2.7
BAR	Barrett	1.12	283	*e*P	Pg	02 48 00.1	+0.4
BAR				*e*S	Sg	02 48 15.8	+1.6
ECNX	Esteban Cantu	1.30	233	*e*PN	Pn	02 48 05.0	+2.6
PBX	Punta Banda	1.34	239	*e*PN	Pn	02 48 05.3	+2.4
PFO	Pinyon Flat Ob	1.48	322	*e*Pn	Pn	02 48 03.7	-1.2
PFO				*e*Pg	Pg	02 48 06.4	-0.1
MWC	Mount Wilson	2.87	309	*e*Pg	Pg	02 48 32.5	-0.5
TUC	Tucson	3.89	91	Pn	Pn	02 48 37.3	-0.7
TUC				*e*Pg	Pg	02 48 52.0	-0.6
TUC				*e*Sg	Sg	02 49 41.7	-1.3

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*SZGRF **14** 02:52:08.8, 2°.59S×13°.25W, h33^{km}, mb5.0, MS4.3, North of Ascension Island*

*ISCJB **14** 02:52:17.3±0.4, 0°.81S±0°.06×13°.11W±0°.07, h10^{km}, mb4.6/72, MS4.1/19, Error ellipse: s-maj=10.3km s-min=8.1km az=38.2*

*IDC **14** 02:52:17.0±0.5, 0°.86S×13°.23W, h0^{km}, mb4.4/25, mb1 4.5/26, mb1mx4.4/33, mbtmp4.4/26, ML4.7/1, MS4.1/15, Ms1 4.1/15, ms1mx4.0/27, Error ellipse: s-maj=14.8km s-min=14.2km az=137.0*

*NEIC **14** 02:52:18.6±0.3, 0°.89S×13°.15W, h10^{km}, mb4.7/38, Error ellipse: s-maj=8.0km s-min=6.2km az=113.0*

*GCMT **14** 02:52:18.6±0.3, 0°.77S×13°.17W, h16^{km}±1^{km}, MW4.9/64, Moment Tensor Solution. s19,c25; s64,c95; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.26±.21; $M_{\theta\theta}$1.81±.15; $M_{\phi\phi}$-0.54±.14; $M_{r\theta}$0.34±.39; $M_{\theta\phi}$-2.45±.09; $M_{\phi r}$-0.63±.43; Best double couple: $M_0$2.82800×10^{16} NP1:ϕ_s78.00000°, δ69.00000°, λ-170.00000°. NP2: ϕ_s344.00000°, δ81.00000°, λ-21.00000°. Principal axes: T 3.4340, Plg8.0000°, Azm33.0000°; N -1.2050, Plg67.0000°, Azm141.0000°; P -2.2220, Plg21.0000°, Azm300.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 14 02:52:19.0±0.4**, 0°.86S**±0°.06×**13°.15W**±0°.06**, h10**^{km}**, n150,** $\sigma 0^{s}.84$/142**, mb4.6**/72**, MS4.1**/19**, 7C-1D, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIC	Lamto	10.74	49	*e*Pn	Pn	02 54 50.5	-2.4
	baz=239						
LIC				*e*Sn	Sn	02 56 42.0	-11
	76nm,0.4s						
LIC				*e*MLR	MLR		
	comp=Z,1µm,17.8s						
LIC	Lamto	10.74	49	*e*P	Pn	02 54 49.6	-3.3
	comp=Z,59nm,0.4s						
TIC	Toumodi	11.02	47	*e*P	Pn	02 54 53.3	-3.5
	comp=Z,128nm,0.2s						
KIC	Kosan Boka	11.04	49	*e*P	Pn	02 54 53.5	-3.6
	comp=Z,227nm,0.9s						
DBIC	Dimbokro	11.16	48	Pn	Pn	02 54 56.0	-2.7
	comp=Z,3.9nm,0.3s,baz=212,slow=15,SNR=67						
DBIC				Sn	Sn	02 57 02.7	-0.9
	comp=Z,6.8nm,0.3s,baz=108,slow=16,SNR=3.7						
DBIC				LR	LR	02 58 37.7	
	comp=Z,1µm,19.3s,baz=205,slow=34						
DBIC	Dimbokro	11.16	48	*e*Pn	Pn	02 54 55.6	-3.1
DBIC				Sn	Sn	02 57 02.7	-0.9
BBTS	Babate	15.78	348	Pn	Pn	02 56 00.1	-1.3
	comp=Z,2.9nm,0.3s,baz=134,slow=4.4,SNR=7.8						
BBTS				Sn	Sn	02 58 41.8	-15
	comp=Z,2.8nm,0.3s,baz=31,slow=23,SNR=11						
BBTS				LR	LR	03 00 57.8	
	comp=Z,768nm,18.8s,baz=172,slow=33						
TORD	Torodi Ar. Bea	20.26	46	P	P	02 56 53.0	-1.8
	comp=Z,49nm,0.8s,baz=231,slow=11,SNR=625						
TORD				S	S	03 00 27.4	-15
	comp=Z,3.6nm,0.4s,baz=239,slow=22,SNR=5.4						
TORD				LR	LR	03 04 04.5	
	comp=Z,1µm,18.7s,MS4.2,baz=230,slow=35						
TAM	Tamanrasset	29.72	37	*e*P	P	02 58 26.7	+1.1
	comp=Z,4.8nm,0.9s,mb4.2						
ESDC	Sonseca Array	41.20	11	P	P	03 00 04.3	+0.4
	comp=Z,0.8nm,0.6s,mb3.5,baz=186,slow=8.2,SNR=5.0						
ESDC				PP	PP	03 01 38.7	-0.5
	comp=Z,4.4nm,1.0s,baz=189,slow=12,SNR=7.8						
ESDC				LR	LR	03 16 44.0	
	comp=Z,197nm,19.0s,MS4.0,baz=205,slow=36						
ESDC	Sonseca Array	41.20	11	P	P	03 00 04.3	+0.4
ESDC				PP	PP	03 01 38.7	-0.5
ESDC				LR	LR	03 16 44.0	
KEST	Kesra	42.01	28	P	P	03 00 11.8	+1.1
	comp=Z,4.0nm,0.9s,mb4.0,baz=183,slow=2.3,SNR=11						
KEST				PP	PP	03 01 48.3	+0.3
	comp=Z,3.8nm,1.1s,baz=329,slow=7.3,SNR=3.9						
KEST				LR	LR	03 18 49.7	
	comp=Z,251nm,18.4s,MS4.1,baz=148,slow=38						
LSZ	Lusaka	43.25	111	P	P	03 00 21.7	+0.8
	comp=Z,12nm,0.6s,mb4.8,baz=290,slow=6.0,SNR=29						
LSZ				PP	PP	03 02 00.6	-1.0
	comp=Z,7.5nm,1.4s,baz=290,slow=23,SNR=1.9						
LSZ	Lusaka	43.25	111	*e*P	P	03 00 21.4	+0.4
	comp=Z,9.5nm,0.7s,mb4.6						
LSZ				PP	PP	03 02 00.6	-1.0
LBTB	Lobatse	44.46	126	P	P	03 00 30.6	-0.1
	comp=Z,24nm,0.8s,mb5.0,baz=302,slow=7.2,SNR=36						
SUR	Sutherland	44.80	138	P	P	03 00 33.6	+0.4
	comp=Z,21nm,1.0s,mb4.9,baz=268,slow=6.2,SNR=7.7						
ETSF	Etsaut	45.01	13	*e*P	P	03 00 35.2	+0.5
	comp=Z,23nm,0.9s,mb4.7						
ETSF	Etsaut	45.01	13	*e*P	P	03 00 35.2	+0.5
	comp=Z,12nm,0.9s,mb4.7						
SJPF	Ste Jean	45.07	12	*e*P	P	03 00 35.7	+0.6
	comp=Z,15nm,0.6s,mb4.7						
SJPF	Ste Jean	45.07	12	*e*P	P	03 00 35.7	+0.6
	comp=Z,7.7nm,0.6s,mb4.7						
EPF	Esparros	45.34	14	*e*P	P	03 00 38.0	+0.7
	comp=Z,24nm,1.1s,mb4.6						
EPF	Esparros	45.34	14	*e*P	P	03 00 38.0	+0.7
	comp=Z,12nm,1.1s,mb4.6						
BOSA	Boshof	45.90	130	P	P	03 00 41.5	-0.5
	comp=Z,23nm,0.8s,mb5.1,baz=303,slow=8.6,SNR=32						
BOSA				LR	LR	03 15 37.3	
	comp=Z,95nm,20.5s,MS3.7,baz=326,slow=30						
BOSA	Boshof	45.90	130	P	P	03 00 41.5	-0.5
BOSA				LR	LR	03 15 37.3	
MTLF	Montolieu	46.11	16	*e*P	P	03 00 43.4	0.0
LFF	La Frestale	47.24	13	*e*P	P	03 00 52.4	+0.2
	comp=Z,10nm,0.7s,mb4.6						
LFF	La Frestale	47.24	13	*e*P	P	03 00 52.4	+0.2
	comp=Z,5.3nm,0.7s,mb4.6						
LASF	Ste Croix	47.25	17	*e*P	P	03 00 52.6	+0.3
	comp=Z,37nm,1.4s,mb4.8						
LMR	La Mourre	47.40	19	*e*P	P	03 00 53.9	+0.4
	comp=Z,9.5nm,0.7s,mb4.5						
LMR	La Mourre	47.40	19	*e*P	P	03 00 53.9	+0.4
	comp=Z,4.8nm,0.7s,mb4.5						
CAF	Calviac	47.55	15	*e*P	P	03 00 54.6	0.0
	comp=Z,27nm,1.1s,mb4.9						
CAF	Calviac	47.55	15	*e*P	P	03 00 54.6	0.0
	comp=Z,14nm,1.1s,mb4.9						
PGF	Pioggiola	47.60	22	*e*P	P	03 00 55.5	+0.4
	comp=Z,14nm,1.1s,mb4.6						
PGF	Pioggiola	47.60	22	*e*P	P	03 00 55.5	+0.4
	comp=Z,6.8nm,1.1s,mb4.6						
FRF	La Foret Royal	47.65	19	*e*P	P	03 00 55.6	+0.2
SMRF	Simiane la Rot	47.67	18	*e*P	P	03 00 55.8	+0.2
	comp=Z,7.4nm,0.9s,mb4.4						
SMRF	Simiane la Rot	47.67	18	*e*P	P	03 00 55.8	+0.2
	comp=Z,7.4nm,0.9s,mb4.7						
RJF	Les Rejaudoux	47.77	14	*e*P	P	03 00 56.2	-0.1
	comp=Z,24nm,1.2s,mb4.8						
RJF				*e*MLR	MLR		
	comp=Z,222nm,20.2s,MS3.8						
RJF	Les Rejaudoux	47.77	14	*e*P	P	03 00 56.2	-0.1
	comp=Z,12nm,1.2s,mb4.8						
RJF				LR	LR		
	comp=Z,220nm,20.3s,MS4.1						
SBF	Sospel	48.18	20	*e*P	P	03 01 00.1	+0.6
	comp=Z,47nm,1.1s,mb5.1						
SBF	Sospel	48.18	20	*e*P	P	03 01 00.1	+0.6
	comp=Z,23nm,1.1s,mb5.1						
VIVF	Saint-Julien-l	48.20	17	*e*P	P	03 01 00.2	+0.5
	comp=Z,16nm,1.1s,mb4.7						
VIVF	Saint-Julien-l	48.20	17	*e*P	P	03 01 00.2	+0.5
	comp=Z,8.1nm,1.1s,mb4.7						
ORIF	Oris-en-Rattie	48.61	18	*e*P	P	03 01 03.9	+1.0
	comp=Z,6.1nm,0.7s,mb4.4						
ORIF				*e*MLR	MLR		
	comp=Z,480nm,18.0s,MS4.2						
ORIF	Oris-en-Rattie	48.61	18	*e*P	P	03 01 03.9	+1.0
	comp=Z,3.0nm,0.7s,mb4.4						
MFF	Saint Martin d	48.62	12	*e*P	P	03 01 02.8	-0.1
	comp=Z,16nm,1.0s,mb4.7						
MFF	Saint Martin d	48.62	12	*e*P	P	03 01 02.8	-0.1
	comp=Z,7.9nm,1.0s,mb4.7						
MBDF	Montbardon	48.73	19	*e*P	P	03 01 05.0	+1.3
	comp=Z,16nm,0.9s,mb4.7						
MBDF	Montbardon	48.73	19	*e*P	P	03 01 05.0	+1.3
	comp=Z,8.1nm,0.9s,mb4.8						
TCF	Toulx Ste Croi	48.86	14	*e*P	P	03 01 05.2	+0.5
	comp=Z,41nm,1.1s,mb5.1						
TCF	Toulx Ste Croi	48.86	14	*e*P	P	03 01 05.2	+0.5
	comp=Z,20nm,1.1s,mb5.1						
BGF	Bois d’Agland	49.27	15	*e*P	P	03 01 08.3	+0.4
	comp=Z,17nm,1.0s,mb4.7						
BGF	Bois d’Agland	49.27	15	*e*P	P	03 01 08.3	+0.4
	comp=Z,8.4nm,1.0s,mb4.7						
QUIF	Quistinic	49.35	9	*e*P	P	03 01 08.4	-0.1
LPG	La Plagne	49.41	18	*e*P	P	03 01 10.3	+1.4
	comp=Z,14nm,0.9s,mb4.7						
LPG	La Plagne	49.41	18	*e*P	P	03 01 10.3	+1.4
	comp=Z,7.1nm,0.9s,mb4.7						
LPL	La Plagne	49.42	18	*e*P	P	03 01 10.2	+1.2
	comp=Z,12nm,0.8s,mb4.7						
LPL	La Plagne	49.42	18	*e*P	P	03 01 10.2	+1.2
	comp=Z,6.2nm,0.8s,mb4.7						
CPUP	Villa Florida	49.45	235	P	P	03 01 07.7	-1.9
	comp=Z,2.9nm,0.9s,mb4.3,baz=37,slow=8.4,SNR=5.8						
CPUP				LR	LR	03 18 51.9	
	comp=Z,161nm,19.6s,MS4.0,baz=47,slow=32						
CPUP	Villa Florida	49.45	235	P	P	03 01 07.7	-1.9
CPUP				LR	LR	03 18 51.9	
SIV	San Ignacio	49.57	250	P	P	03 01 09.9	-0.8
	comp=Z,1.5nm,0.9s,mb4.0,baz=89,slow=9.8,SNR=5.8						
SMF	Signal de Mont	49.61	15	*e*P	P	03 01 10.5	0.0
	comp=Z,13nm,0.9s,mb4.6						
SMF	Signal de Mont	49.61	15	*e*P	P	03 01 10.5	0.0
	comp=Z,6.4nm,0.9s,mb4.7						
AVF	Avril sur Loir	49.61	15	*e*P	P	03 01 10.7	+0.2
	comp=Z,12nm,1.2s,mb4.5						
AVF	Avril sur Loir	49.61	15	*e*P	P	03 01 10.7	+0.2
	comp=Z,6.3nm,1.2s,mb4.5						
ROSF	Rostrenen	49.74	9	*e*P	P	03 01 11.1	-0.4
	comp=Z,33nm,1.1s,mb5.0						
ROSF	Rostrenen	49.74	9	*e*P	P	03 01 11.1	-0.4
	comp=Z,16nm,1.1s,mb5.0						
SGMF	Saint Gilles	49.77	9	*e*P	P	03 01 11.6	-0.1
SSF	Saint Saulge	49.90	15	*e*P	P	03 01 12.9	+0.2
	comp=Z,12nm,0.8s,mb4.7						
SSF	Saint Saulge	49.90	15	*e*P	P	03 01 12.9	+0.2
	comp=Z,5.8nm,0.8s,mb4.7						
LOR	Lormes	50.19	15	*e*P	P	03 01 14.9	0.0
	comp=Z,24nm,1.1s,mb4.8						
LOR				*e*MLR	MLR		
	comp=Z,194nm,18.0s,MS3.9						
LOR	Lormes	50.19	15	*e*P	P	03 01 14.9	0.0
	comp=Z,12nm,1.1s,mb4.8						
LOR				LR	LR		
	comp=Z,190nm,18.0s,MS4.2						
GRR	Gorron	50.20	11	*e*P	P	03 01 14.8	-0.1
	comp=Z,131nm,1.5s,mb5.5						
GRR	Gorron	50.20	11	*e*P	P	03 01 14.8	-0.1
	comp=Z,66nm,1.5s,mb5.4						
CABF	La Chapelle	50.20	17	*e*P	P	03 01 15.1	+0.1
	comp=Z,22nm,1.0s,mb4.8						
CABF	La Chapelle	50.20	17	*e*P	P	03 01 15.1	+0.1
	comp=Z,11nm,1.0s,mb4.8						
LDF	La Druitiere	50.53	11	*e*P	P	03 01 17.8	+0.3
FLN	La Foliniere	50.63	11	*e*P	P	03 01 17.8	-0.4
	comp=Z,7.2nm,0.6s,mb4.5						
FLN				*e*MLR	MLR		
	comp=Z,439nm,19.8s,MS4.2						
FLN	La Foliniere	50.63	11	*e*P	P	03 01 17.8	-0.4
	comp=Z,3.6nm,0.6s,mb4.5						
FLN				LR	LR		
	comp=Z,440nm,19.8s,MS4.5						
HAU	Haudompre	51.54	17	*e*P	P	03 01 24.8	-0.3
	comp=Z,18nm,0.9s,mb4.7						
HAU				*e*MLR	MLR		
	comp=Z,304nm,21.8s,MS4.0						
HAU	Haudompre	51.54	17	*e*P	P	03 01 24.8	-0.3
	comp=Z,9.1nm,0.9s,mb4.7						
HAU				LR	LR		
	comp=Z,300nm,21.8s,MS4.3						
MEZF	Maizieres J’vi	51.64	15	*e*P	P	03 01 25.9	+0.1
DAVA	Damuels	52.01	20	⇑*i*P	P	03 01 27.9	-0.7
	comp=Z,13nm,1.0s,mb4.8						
CDF	Champ du Feu	52.18	17	*e*P	P	03 01 29.4	-0.4
	comp=Z,14nm,1.0s,mb4.5						
CDF	Champ du Feu	52.18	17	*e*P	P	03 01 29.4	-0.4
	comp=Z,7.0nm,1.0s,mb4.5						
MOTA	Moosalm	52.48	21	⇑*i*P	P	03 01 31.3	-0.8
	comp=Z,7.4nm,1.1s,mb4.5						
WTTA	Wattenberg	52.60	21	⇑*i*P	P	03 01 32.9	0.0
	comp=Z,13nm,1.2s,mb4.7						
MYKA	Terra Mystica	52.82	23	⇑*i*P	P	03 01 36.6	+2.0
	comp=Z,6.1nm,0.9s,mb4.5						
BAIF	Baives	52.86	14	*e*P	P	03 01 34.4	-0.4
	comp=Z,12nm,0.7s,mb4.7						
BAIF	Baives	52.86	14	*e*P	P	03 01 34.4	-0.4
	comp=Z,6.2nm,0.7s,mb4.7						
GIVF	Givet	53.05	14	*e*P	P	03 01 35.8	-0.4
SOKA	Soboth	53.41	24	⇑*i*P	P	03 01 39.6	+0.6
	comp=Z,5.9nm,1.0s,mb4.5						
GRA1	Grafenberg Arr	54.54	19	*e*P	P	03 01 47.1	0.0
	comp=Z,46nm,1.9s,mb5.2						
GRA1				LR	LR		
	comp=Z,200nm,21.0s,MS4.2						
GRF	Grafenberg Arr	54.54	19	*e*P	P	03 01 47.1	0.0
	comp=Z,46nm,1.9s,mb5.2						
GRF				*e*L		03 24 37.3	
	comp=Z,234nm,21.0s						
WET	Wettzell	54.63	21	*e*P	P	03 01 47.2	-0.6
	comp=Z,12nm,1.4s,mb4.7						
GEC2	GERESS Array S	54.68	21	*e*P	P	03 01 47.9	-0.3
	comp=Z,21nm,1.4s,mb5.0						
GERES	GERESS Array B	54.68	21	P	P	03 01 47.5	-0.7
	comp=Z,4.8nm,0.9s,mb4.5,baz=193,slow=5.3,SNR=31						
GERES				PP	PP	03 03 48.8	-2.0
	comp=Z,2.6nm,1.0s,baz=207,slow=8.5,SNR=4.5						
GERES				LR	LR	03 24 52.4	
	comp=Z,144nm,19.9s,MS4.0,baz=52,slow=36						
ROTZ	Rotzenmuhle	54.93	20	*e*P	P	03 01 49.7	-0.3
	comp=Z,33nm,2.2s,mb5.0						
EIL	Elat	54.98	52	P	P	03 01 52.3	+1.6
	comp=Z,2.2nm,0.7s,mb4.3,baz=50,slow=14,SNR=2.8						
MANZ	Manzenberg	55.08	20	*e*P	P	03 01 50.8	-0.3
	comp=Z,8.0nm,1.0s,mb4.7						
ZST	Bratislava	55.47	24	*e*P	P	03 01 54.5	+0.6
	comp=Z,4.6nm,0.7s,mb4.6						
GUNZ	Gunzen	55.48	20	*e*P	P	03 01 53.6	-0.3
	comp=Z,34nm,2.0s,mb5.0						
MOX	Moxa	55.49	19	*e*P	P	03 01 53.8	-0.2
	comp=Z,20nm,1.7s,mb4.9						
PLN	Plauen	55.53	19	*e*P	P	03 01 52.6	-1.7
	comp=Z,466nm,3.2s						
TANN	Tannenbergstha	55.57	20	*e*P	P	03 01 54.2	-0.4
	comp=Z,7.0nm,1.3s,mb4.5						
MODS	Modra-Piesok	55.68	24	*e*P	P	03 01 57.8	+2.4
NEUB	Neuenburg	56.02	19	*e*P	P	03 01 58.0	+0.2
	comp=Z,8.0nm,0.8s,mb4.8						
VRAC	Vranov	56.15	23	P	P	03 01 58.5	-0.3
	comp=Z,1.3nm,0.5s,mb4.2,baz=204,slow=5.7,SNR=4.2						
VYHS	Vyhne	56.42	25	*e*P	P	03 02 01.2	+0.5

BRG	Berggiesshubel	56.46	20	*e*P	P	03 02 00.6	-0.4
BRG	Berggiesshubel	56.46	20	*e*P	P	03 02 00.4	-0.6
	comp=Z,9.4nm,1.3s,mb4.7						
CLL	Collm	56.51	19	*e*P	P	03 02 03.0	+1.7
CLL				Lm		03 26 00.0	
	comp=Z,200nm,18.3s						
DRGR		56.91	29	⇑*i*P	P	03 02 04.8	+0.6
KECS	Kecovo	57.13	26	*e*P	P	03 02 05.0	-0.7
MLR	Muntele Rosu	57.64	32	P	P	03 02 09.5	+0.1
	comp=Z,4.1nm,0.7s,mb4.6,baz=305,slow=16,SNR=2.9						
CRVS	Cervenica-Dubn	57.87	26	*e*P	P	03 02 12.3	+1.3
SDV	Santo Domingo	58.07	281	P	P	03 02 11.4	-1.7
	comp=Z,2.3nm,0.8s,mb4.2,baz=107,slow=11,SNR=3.0						
KOLS	Kolonicke sedl	58.26	27	*e*P	P	03 02 14.4	+0.7
VRI	Vrincioaia	58.30	32	⇓*i*P	P	03 02 13.8	-0.2
BRTR	Keskin Array B	58.77	41	P	P	03 02 18.1	+0.6
	comp=Z,1.7nm,0.6s,mb4.2,baz=230,slow=7.1,SNR=9.4						
BRTR				LR	LR	03 31 13.7	
	comp=Z,106nm,19.9s,MS4.0,baz=78,slow=40						
MALT	Malatya	61.34	45	⇑*i*P	P	03 02 36.4	+1.3
ROSC	El Rosal	61.38	276	P	P	03 02 36.4	+0.6
	comp=Z,7.9nm,0.6s,mb5.0,baz=117,slow=22,SNR=7.6						
ROSC				LR	LR	03 25 33.6	
	comp=Z,113nm,18.0s,MS4.1,baz=23,slow=33						
AKASG	Malin Array Be	62.73	29	P	P	03 02 43.3	-0.9
	comp=Z,0.6nm,0.5s,mb4.0,baz=227,slow=8.0,SNR=7.4						
AKASG				LR	LR	03 33 21.8	
	comp=Z,133nm,19.8s,MS4.1,baz=245,slow=39						
HFS	Hagfors	64.30	15	P	P	03 02 53.7	-0.7
	comp=Z,3.0nm,0.5s,mb4.6,baz=193,slow=5.9,SNR=15						
NB2	NORSAR Subarra	64.51	13	P	P	03 02 55.7	-0.1
	comp=Z,1.4nm,0.7s,mb4.1,baz=209,slow=6.9						
NOA	NORSAR Array B	64.51	13	P	P	03 02 55.1	-0.6
	comp=Z,2.8nm,0.8s,mb4.3,baz=208,slow=6.8,SNR=5.4						
NOA				LR	LR	03 29 28.3	
	comp=Z,94nm,19.7s,MS4.0,baz=0.0,slow=35						
PLCA	Paso Flores	65.22	225	LR	LR	03 27 09.9	
	comp=Z,187nm,18.1s,MS4.3,baz=9.2,slow=32						
JOF	Joensuu	71.73	20	*e*p	P	03 03 39.9	-1.2
	comp=Z,2.0nm,0.6s,mb4.2						
SFJD	Kangerlussuaq	72.65	345	P	P	03 03 45.6	-0.8
	comp=Z,5.2nm,0.6s,mb4.6,baz=100,slow=5.8,SNR=3.5						
ARCES	ARCESS Array B	74.89	13	P	P	03 03 59.2	-0.4
	comp=Z,3.6nm,0.8s,mb4.3,baz=215,slow=4.0,SNR=5.8						
ARCES	ARCESS Array B	74.89	13	P	P	03 03 59.2	-0.4
KEV	Kevo	75.40	13	*e*p	P	03 04 01.6	-0.9
AAK	Ala-Archa	88.84	48	*e*P	P	03 05 13.5	-0.1
	comp=Z,5.1nm,0.9s,mb4.8						
TXAR	Lajitas Array	90.86	299	P	P	03 05 22.9	-0.5
	comp=Z,0.4nm,0.8s,mb3.8,baz=114,slow=5.8,SNR=3.8						
ANMO	Albuquerque	93.20	305	P	P	03 05 35.2	+1.2
	comp=Z,0.7nm,0.6s,mb4.2,baz=130,slow=3.7,SNR=3.7						
MKAR	Makanchi Array	94.36	43	P	P	03 05 39.1	0.0
	comp=Z,0.9nm,0.9s,mb4.2,baz=263,slow=4.1,SNR=10.0						
MKAR				LR	LR	03 50 36.0	
	comp=Z,106nm,19.2s,MS4.3,baz=105,slow=37						
ZALV	Zalesovo Beam	95.39	36	LR	LR	03 53 03.6	
	comp=Z,67nm,20.2s,MS4.1,baz=294,slow=38						
YKA	Yellowknife Ar	96.05	333	P	P	03 05 45.9	-0.5
	comp=Z,0.7nm,0.9s,mb4.1,baz=78,slow=4.5,SNR=5.6						
YKA	Yellowknife Ar	96.05	333	P	P	03 05 45.9	-0.5
STKA	Stephens Creek	139.60	146	PKhKP		03 11 36.9	
	comp=Z,1.3nm,0.7s,baz=242,slow=20,SNR=2.9						
STKA				PKP	PKPdf	03 11 47.0	-0.7
	comp=Z,3.4nm,0.8s,baz=18,slow=1.8,SNR=4.2						
STKA	Stephens Creek	139.60	146	PKP	PKPdf	03 11 47.0	-0.7
ASAR	Alice Springs	139.77	129	PKhKP		03 11 38.8	
	comp=Z,2.8nm,0.6s,baz=226,slow=2.7,SNR=25						
ASAR				PKP	PKPdf	03 11 47.2	-1.0
	comp=Z,2.4nm,0.9s,baz=188,slow=1.9,SNR=7.3						
ASAR	Alice Springs	139.77	129	PKP	PKPdf	03 11 47.2	-1.0
WRA	Warramunga Arr	142.02	125	PKhKP		03 11 46.2	
	comp=Z,2.3nm,0.9s,baz=245,slow=2.3,SNR=21						
QLP	Quilpie	145.08	143	*e*P	PKPbc	03 11 56.4	-0.5
RMQ	Roma	147.70	149	*e*P	PKPbc	03 12 04.8	+0.1
	comp=Z,30nm,0.9s						
EIDS	Eidsvold	149.79	151	*e*P	PKPdf	03 12 02.4	-3.0
MTSU	Mount Surprise	150.89	131	*e*P	PKPbc	03 12 12.9	0.0
	comp=Z,51nm,1.3s						
CTA	Charters Tower	151.01	137	*e*P	PKPbc	03 12 12.6	-0.6
	comp=Z,11nm,0.8s						
CTAO	Charters Tower	151.01	137	*e*PKPbc	PKPbc	03 12 12.8	-0.4

MEX 14 02:53:26.7±0.9**, 15.°57N×93.°25W, h94^{km}**±8^{km}**, MD3.9, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		0.14	11	*i* P	Pn	02 53 38.1	-1.9
PCIG				*i* S	Sn	02 53 48.6	-1.2
TGIG		1.21	6	*i* P	Pn	02 53 48.0	-1.1
TGIG				*i* S	Sn	02 54 04.2	-1.7
CCIG	Comitan	1.28	56	*e*P	Pn	02 53 49.6	-0.4
CCIG				*i* S	Sn	02 54 05.9	-1.6
CMIG	Matias Romero	2.18	314	*e*P	Pn	02 54 00.6	-0.8
CMIG				*i* S	Sn	02 54 26.9	-1.1

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*CSEM **14** 03:02:46.5, 34.°98N×25.°44E, h19^{km}, MD3.5, After ATH*
*NEIC **14** 03:02:46.5, 34.°98N×25.°44E, h19^{km}, MD3.5(ATH), After ATH.*
ATH 14 03:02:46.5, 34.°98N×25.°44E, h19^{km}±3^{km}**, MD3.5**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LAST	Lasithi	0.18	10	*e*PB	Pg	03 02 51.2	-0.1
LAST				*e*SB	Sg	03 02 54.9	+0.3
LAST	Lasithi	0.18	10	*e*Pb	Pg	03 02 51.2	-0.1
LAST				*e*Sb	Sg	03 02 54.9	+0.3
NPS	Neapolis	0.32	27	*e*PB	Pg	03 02 53.3	-0.1
NPS				*e*SB	Sg	03 02 57.9	-0.2
NPS	Neapolis	0.32	27	*e*Pb	Pg	03 02 53.3	-0.1
NPS				*e*Sb	Sg	03 02 57.9	-0.2
SIVA	Sivas	0.52	274	*e*PN	Pg	03 02 56.8	-0.2
SIVA				*e*SN	Sg	03 03 05.4	+1.4
SIVA	Sivas	0.52	274	*e*Pn	Pg	03 02 56.8	-0.2
SIVA				*e*Sn	Sg	03 03 05.4	+1.4
IDI	Anoyia	0.55	304	*e*Pg	Pg	03 02 57.1	-0.4
IDI				*e*Sg	Sg	03 03 06.5	+1.6
ZKR	Zakros	0.65	78	*e*PB	Pb	03 02 58.4	-0.9
ZKR				*e*SN	Sb	03 03 08.7	+0.8
ZKR	Zakros	0.65	78	*e*Pb	Pb	03 02 58.4	-0.9
ZKR				*e*Sn	Sb	03 03 08.7	+0.8
VAM	Vamos	1.10	293	*e*PB	Pb	03 03 06.0	-0.9
VAM	Vamos	1.10	293	*e*Pb	Pb	03 03 06.0	-0.9
KARP	Karpathos	1.52	68	*e*PN	Pn	03 03 15.3	+2.7
KARP	Karpathos	1.52	68	*e*Pn	Pn	03 03 15.3	+2.7
KYTH	Kithira	2.35	304	*e*PN	Pn	03 03 26.5	+2.5
KYTH	Kithira	2.35	304	*e*Pn	Pn	03 03 26.5	+2.5
ARG	Arkhangelos	2.51	60	*e*PB	Pb	03 03 29.5	-1.5
ARG	Arkhangelos	2.51	60	*e*Pb	Pb	03 03 29.5	-1.5

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*NSSP **14** 03:08:59.4, 40.°40N×42.°53E, h10^{km}, Ms3.2*
*ISK **14** 03:09:00.5, 40.°43N×42.°44E, h5^{km}, MD3.1*
*ISCJB **14** 03:09:01.8±0.3, 40.°41N±0.°03×42.°44E±0.°02, h10^{km}, Error ellipse: s-maj=4.0km s-min=2.2km az=170.9*
*CSEM **14** 03:09:01.7±0.2, 40.°41N×42.°49E, h2^{km}, MD3.1, Error ellipse: s-maj=7.2km s-min=3.7km az=179.0*
*DDA **14** 03:09:02.4, 40.°36N×42.°45E, h10^{km}±2^{km}, Md3.3*
ISC 14 03:09:02.3±0.3**, 40.°42N**±0.°03×**42.°45E**±0.°02**, h10^{km}, n46, σ1.^{s}08**/75**, 2C-11D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARS	Kars	0.53	68	*e*PG	Pg	03 09 12.1	-0.5
KARS				*e*SG	Sg	03 09 20.3	+0.8
KARS	Kars	0.53	68	*e*Pg	Pg	03 09 12.1	-0.5
KARS				*e*Sg	Sg	03 09 20.3	+0.7
HOMI	Horasan	0.56	229	*i* P	Pg	03 09 12.2	-0.9
HOMI				*i* S	Sg	03 09 20.5	+0.1
AGRB	Hanur-Agry	0.94	153	*e*PG	Pg	03 09 20.0	-0.4
AGRB				*e*SG	Sg	03 09 34.3	+1.8
AGRB	Hanur-Agry	0.94	153	*e*Pg	Pg	03 09 20.0	-0.3
ERZM	Erzurum	0.97	239	*i* P	Pg	03 09 20.9	-0.1
ERZM				*i* S	Sg	03 09 32.9	-0.7
ERZM	Erzurum	0.97	239	*i* P	Pg	03 09 20.9	-0.1
ERZM				*i* S	Sg	03 09 32.9	-0.8
EZM	Erzurum	0.98	239	*e*PG	Pg	03 09 20.7	-0.3
EZM				*e*SG	Sg	03 09 34.2	+0.4
VNNZ	Vanand	1.10	106	⇑*i*P	Pb	03 09 21.1	-2.2
ARUZ	Aruch	1.26	95	⇓*i*P	Pn	03 09 23.8	-2.1
ARUZ				⇓*i*S	Sb	03 09 40.9	-1.6
ARUZ	Aruch	1.26	95	⇓P	Pn	03 09 23.8	-2.2
ARUZ				S	Sb	03 09 40.8	-1.6
DYDN	Diyadin	1.29	132	*i* P	Pn	03 09 25.9	-0.5
DYDN				*i* S	Sb	03 09 44.2	+1.0
DYDN	Diyadin	1.29	132	*i* P	Pn	03 09 25.9	-0.5
DYDN				*i* S	Sb	03 09 44.2	+0.9
AMBZ	Amberd	1.38	91	⇓*i*P	Pn	03 09 26.1	-1.5
AMBZ				⇓*i*S	Sb	03 09 44.7	-1.2
AMBZ	Amberd	1.38	91	⇓P	Pn	03 09 26.1	-1.5
AMBZ				S	Sb	03 09 44.7	-1.2
PZAR	Pazar-Rize	1.40	303	*e*PN	Pn	03 09 27.9	+0.1
PZAR				*e*SN	Sn	03 09 48.3	+1.9
PZAR	Pazar-Rize	1.40	303	*e*Pn	Pn	03 09 28.0	+0.1
PZAR				*e*Sn	Sn	03 09 48.3	+1.9
PAAR	P'arak'ar	1.50	100	⇓*i*P	Pn	03 09 28.5	-0.7
PAAR				⇓*i*S	Sn	03 09 48.8	0.0
PAAR	P'arak'ar	1.50	100	⇓P	Pn	03 09 28.5	-0.8
PAAR				S	Sn	03 09 48.8	-0.1
KOPT	Kop Dagi	1.55	256	*i* P	Pg	03 09 31.5	-0.4
KOPT				*i* S	Sg	03 09 52.7	+0.8
KOPT	Kop Dagi	1.55	256	*i* P	Pg	03 09 31.5	-0.4
KOPT				*i* S	Sg	03 09 52.7	+0.7
ERE	Yerevan	1.57	98	*e*P	Pn	03 09 29.0	-1.1
ERE				⇑S	Sg	03 09 53.6	+1.0
ERE	Yerevan	1.57	98	P	Pn	03 09 29.0	-1.1
ERE				S	Sg	03 09 53.6	+1.0
STE	Stepanavan	1.57	68	P	Pn	03 09 31.0	+0.8
STE				S	Sn	03 09 51.0	+0.3
STEZ	Stepenevan	1.59	68	*e*P	Pn	03 09 31.0	+0.5
STEZ				S	Sn	03 09 51.0	-0.2
CLDR	Caldiran	1.70	138	*e*PN	Pn	03 09 32.5	+0.5
CLDR				*e*SN	Sg	03 09 57.1	+0.1
CLDR	Caldiran	1.70	138	*e*Pn	Pn	03 09 32.5	+0.5
CLDR				*e*Sn	Sg	03 09 57.1	+0.1
GNI	Garni	1.77	98	*e*PN	Pn	03 09 33.7	+0.7
GNI	Garni	1.77	98	⇓*i*P	Pn	03 09 33.7	+0.7
GNI				⇓*i*S	Sn	03 09 57.8	+2.2
GNI	Garni	1.77	98	*e*Pn	Pn	03 09 33.7	+0.7
GNI				S	Sg	03 09 57.8	-1.5
VANB	Van	1.96	158	*e*PN	Pn	03 09 36.1	+0.6
VANB	Van	1.96	158	*e*Pn	Pn	03 09 36.1	+0.6
GOR	Gori	2.01	38	P	Pg	03 09 40.7	-0.1
MACK	Trabzon	2.10	285	*i* P	Pg	03 09 40.8	-1.8
MACK				*i* S	Sg	03 10 08.8	-1.1
MACK	Trabzon	2.10	285	*i* P	Pg	03 09 40.8	-1.8
MACK				*i* S	Sg	03 10 08.8	-1.1
EZC	Erzincan	2.13	253	*e*PN	Pg	03 09 43.4	+0.3
TBLG	Delisi	2.17	52	P	Pn	03 09 39.7	+1.2
MTA	Mtatsminda	2.19	53	P	Pn	03 09 38.9	+0.2
GUMT	Gumushane	2.27	272	*e*PN	Pn	03 09 40.5	+0.7
GUMT	Gumushane	2.27	272	*e*Pn	Pn	03 09 40.5	+0.7
ONI	Oni	2.29	19	P	Pn	03 09 41.8	+1.7
ESPY	Espiye-Giresun	2.87	281	*e*PN	Pn	03 09 49.3	+1.2
ESPY	Espiye-Giresun	2.87	281	*e*Pn	Pn	03 09 49.3	+1.2
KEMA	Kemaliye	3.25	251	*i* P	Pg	03 10 01.6	-3.0
CUKT	Cukurca	3.29	164	*e*PN	Pn	03 09 55.3	+1.5
CUKT	Cukurca	3.29	164	*e*Pn	Pn	03 09 55.3	+1.5

IDC 14 03:28:57.7±9.9**, 5.°25S×126.°95E, h216^{km}**±91^{km}**, mb3.7**/1**, mb1 3.8**/4**, mb1mx3.3**/19**, mbtmp3.6**/4**, Error ellipse: s-maj=95.7km s-min=89.6km az=111.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.84	186	P	Pn	03 31 52.8	+0.2
	0.5nm,0.3s,baz=276,slow=18,SNR=26						
WRA	Warramunga Arr	16.28	154	P	P	03 32 34.2	+0.5
	1.5nm,0.3s,baz=325,slow=12,SNR=77						
WRA				S	S	03 35 34.3	+1.0
	0.1nm,0.3s,baz=338,slow=38,SNR=2.5						
ASAR	Alice Springs	19.50	161	P	P	03 33 08.6	-0.1
	2.4nm,0.3s,baz=337,slow=12,SNR=141						
STKA	Stephens Creek	29.83	154	P	P	03 34 44.9	+0.1
	1.7nm,0.4s,baz=331,slow=9.8,SNR=6.0						

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*ISCJB **14** 03:47:27.9±0.4, 59.°89S±0.°04×58.°6W±0.°1, h10^{km}, mb4.7/13, MS4.1/13, Error ellipse: s-maj=10.8km s-min=6.4km az=172.4*
*IDC **14** 03:47:28.2±0.7, 59.°83S×58.°33W, h0^{km}, mb4.7/11, mb1 4.7/13, mb1mx4.5/21, mbtmp4.7/13, ML4.6/2, MS4.2/14, Ms1 4.2/14, ms1mx4.1/18, Error ellipse: s-maj=25.4km s-min=15.2km az=62.0*
*NEIC **14** 03:47:29.8±0.3, 59.°89S×58.°45W, h10^{km}, mb4.9/7, Error ellipse: s-maj=9.9km s-min=5.6km az=65.0*
*GCMT **14** 03:47:29.8±0.4, 59.°63S×58.°40W, h25^{km}±2^{km}, MW5.1/61, Moment Tensor Solution. s18,c21; s61,c90; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.60±.23; $M_{\theta\theta}$3.51±.20; $M_{\phi\phi}$-4.11±.23; $M_{r\theta}$2.83±.46; $M_{\theta\phi}$1.86±.16; $M_{\phi r}$1.04±.48; Best double couple: $M_0$5.13700×10^{16} NP1:ϕ_s127.00000°, δ65.00000°, λ19.00000°. NP2: ϕ_s28.00000°, δ73.00000°, λ154.00000°. Principal axes: T 5.7000, Plg30.0000°, Azm346.0000°; N -1.1240, Plg59.0000°, Azm178.0000°; P -4.5740, Plg5.0000°, Azm79.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*BJI **14** 03:47:34.7, 59.°90S×58.°40W, h10^{km}*
ISC 14 03:47:29.9±0.4**, 59.°88S**±0.°04×**58.°6W**±0.°1**, h10^{km}, n47, σ0.^{s}88**/33**, mb4.7**/13**, MS4.1**/13**, Scotia Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	Palmer Station	5.52	205	Pn	Pn	03 48 52.3	+0.3
	11nm,0.3s,baz=14,slow=13,SNR=34						
PMSA				Sn	Sn	03 49 54.9	-0.6
	13nm,0.3s,baz=130,slow=22,SNR=6.4						
PMSA				LR	LR	03 50 45.2	
	comp=Z,2µm,19.0s,baz=147,slow=35						
PMSA	Palmer Station	5.52	205	*e*Pn	Pn	03 48 52.0	-0.1
PMSA				*e*Sn	Sn	03 49 55.2	-0.3
PMSA				LR	LR	03 50 45.2	
USHA	Ushuaia	7.33	309	Pn	Pn	03 49 17.7	+0.9
	1.7nm,0.3s,baz=102,slow=12,SNR=45						
USHA				Sn	Sn	03 50 37.6	-2.3
	8.9nm,0.3s,baz=260,slow=12,SNR=9.1						
USHA				LR	LR	03 51 18.9	
	comp=Z,864nm,18.7s,baz=113,slow=31						
EFI	East Falkland	8.23	2	*e*Pn	Pn	03 49 29.5	+0.3
	114nm,0.6s						
EFI				*e*Sn	Sn	03 50 57.9	-4.3
COYC	Coyhaique	16.43	325	*e*P	Pn	03 51 20.9	+0.5
COYC	Coyhaique	16.43	325	*e*P	Pn	03 51 20.9	+0.5
PLCA	Paso Flores	20.56	333	P	P	03 52 08.9	+0.4
	30nm,1.1s,baz=161,slow=10.0,SNR=16						
PLCA				LR	LR	04 00 47.8	
	comp=Z,761nm,18.1s,MS4.1,baz=165,slow=39						
VNA3	Neumayer Olymp	22.45	140	*e*	P	03 52 28.4	-0.2
VNA3				*e*		03 52 35.2	
VNA2	Neumayer--Watz	23.18	139	*e*	P	03 52 37.0	+0.8
	baz=284,slow=9.8						
VNA2				*e*		03 52 43.1	
FCH	Farellones	27.66	339	*e*P	P	03 53 17.2	-0.4
CFAA	Coronel Fontan	29.00	343	P	P	03 53 28.7	-0.9
	1.0nm,0.7s,mb3.6,baz=168,slow=9.2,SNR=29						
CFAA				LR	LR	04 04 30.8	
	comp=Z,37nm,21.2s,MS3.0,baz=167,slow=35						
QSPA	South Pole Qui	30.36	180	P	P	03 53 41.6	+0.4
	33nm,1.0s,mb5.0,baz=160,slow=3.8,SNR=49						
QSPA				LR	LR	04 04 23.8	
	comp=Z,315nm,21.6s,MS3.9,baz=155,slow=33						
LCO	Las Campanas	31.94	340	*e*P	P	03 53 55.6	0.0
	9.7nm,0.6s,mb4.8						
CPUP	Villa Florida	33.55	2	P	P	03 54 08.6	-1.0
	12nm,1.0s,mb4.8,baz=165,slow=11,SNR=18						
CPUP				LR	LR	04 07 29.0	
	comp=Z,204nm,18.7s,MS3.9,baz=163,slow=36						
CPUP	Villa Florida	33.55	2	*e*P	P	03 54 09.0	-0.7
	18nm,0.9s,mb5.0						
CPUP				LR	LR	04 07 29.0	
LVC	Limon Verde	37.94	344	*e*P	P	03 54 48.1	+0.8
	20nm,0.8s,mb4.9						
VNDA	Vanda	40.59	193	LR	LR	04 10 33.8	
	comp=Z,485nm,20.4s,MS4.3,baz=146,slow=34						
ARE	Arequipa	44.36	342	*e*P	P	03 55 41.0	+0.8
MAW	Mawson	45.85	153	P	P	03 55 51.8	+0.3
	45nm,1.1s,mb5.3,baz=343,slow=4.7,SNR=3.7						
MAW				LR	LR	04 13 28.2	
	comp=Z,537nm,21.1s,MS4.5,baz=73,slow=34						
SUR	Sutherland	57.43	99	P	P	03 57 18.0	-0.5
	14nm,1.1s,mb4.9,baz=109,slow=10,SNR=3.6						
SUR	Sutherland	57.43	99	*e*P	P	03 57 18.7	+0.2
	4.6nm,0.8s,mb4.6						
OTAV	Otavalo	61.91	337	*e*P	P	03 57 51.4	+2.0
	8.3nm,0.6s,mb5.0						
BOSA	Boshof	62.70	100	P	P	03 57 53.5	-1.2
	8.4nm,1.0s,mb4.8,baz=265,slow=8.6,SNR=6.8						
BOSA				LR	LR	04 20 40.7	
	comp=Z,135nm,19.3s,MS4.1,baz=25,slow=32						
BOSA	Boshof	62.70	100	P	P	03 57 53.5	-1.3
RKT	Rikitea	63.46	269	*e*S	Sx	04 06 54.6	
	178nm,27.8s						
RKT				*e*LR	LR	04 17 01.3	
	300nm,28.8s						
RKT				*e*T		05 08 45.0	
	0.8nm,0.2s						
ROSC	El Rosal	65.72	343	P	P	03 58 15.6	+1.0
	5.3nm,0.6s,mb4.8,baz=100,slow=19,SNR=5.3						
ROSC				LR	LR	04 26 14.4	
	comp=Z,278nm,19.6s,MS4.5,baz=355,slow=35						
LBTB	Lobatse	65.85	98	P	P	03 58 14.3	-1.1
	11nm,0.9s,mb4.9,baz=209,slow=8.1,SNR=11						
LBTB	Lobatse	65.85	98	*e*P	P	03 58 14.7	-0.7
	4.9nm,0.9s,mb4.5						
MEH	Mehetia	74.44	261	*e*T		05 22 16.6	
	325nm,0.2s						
TVO	Taravao	75.11	260	*e*T		05 23 05.1	
	21nm,0.3s						
LSZ	Lusaka	75.34	95	P	P	03 59 13.1	-0.3
	6.6nm,1.0s,mb4.5,baz=197,slow=6.4,SNR=7.1						
LSZ	Lusaka	75.34	95	*e*P	P	03 59 13.3	0.0
	6.5nm,1.0s,mb4.5						
TAOE	Nuku Hiva Isla	78.14	273	*e*LR	LR	04 24 14.2	
	1µm,31.0s						
DBIC	Dimbokro	78.67	55	LR	LR	04 28 02.3	
	comp=Z,71nm,19.8s,MS4.0,baz=8.2,slow=31						
STKA	Stephens Creek	87.07	197	LR	LR	04 41 01.4	
	comp=Z,129nm,19.7s,MS4.3,baz=23,slow=37						
TORD	Torodi Ar. Bea	87.25	58	P	P	04 00 15.1	-1.2
	0.8nm,0.8s,mb4.0,baz=201,slow=4.6,SNR=6.9						
TXAR	Lajitas Array	96.30	322	LR	LR	04 39 02.2	
	comp=Z,124nm,18.4s,MS4.4,baz=170,slow=32						
TKL	Tuckaleechee C	97.43	340	LR	LR	04 51 33.9	
	comp=Z,108nm,18.2s,MS4.4,baz=274,slow=40						
WRA	Warramunga Arr	99.77	192	LR	LR	04 44 53.5	
	comp=Z,84nm,19.5s,MS4.2,baz=275,slow=34						
YKA	Yellowknife Ar	129.33	330	PKP	PKPdf	04 06 36.8	0.0
	1.0nm,0.7s,baz=146,slow=2.2,SNR=17						
AKASG	Malin Array Be	130.88	57	PKP	PKPdf	04 06 39.9	-0.2
	0.2nm,0.3s,baz=251,slow=3.1,SNR=3.7						
UCH	Uchtor	146.55	101	*e*PKPbc	PKPbc	04 07 11.2	+0.7
AAK	Ala-Archa	146.84	100	*e*PKPbc	PKPbc	04 07 10.8	-0.6
LZH	Lanzhou	153.63	147	*e*P	PKPab	04 07 40.5	-0.2
LZH				pP		04 07 45.0	
LZH				sP		04 07 48.3	
LZH				pmax	pmax		
	comp=Z,19nm,1.5s						
LZH				pmax	pmax		
	comp=Z,84nm,4.2s						
MK31	Makanchi Array	153.69	102	*e*PKPbc	PKPbc	04 07 26.6	-1.2
MKAR	Makanchi Array	153.69	102	PKPbc	PKPbc	04 07 26.9	-1.0
	comp=Z,0.6nm,0.8s,baz=254,slow=4.5,SNR=6.0						
GTA	Gaotai	155.42	137	*e*PKP	PKPdf	04 07 29.4	+6.7
GTA				pPKP	pPKPdf	04 07 33.6	+7.5

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*LJU **14** 04:02:57.0, 46.°35N×13.°18E, h9^{km}*
CSEM 14 04:02:56.5±0.1**, 46.°34N×13.°15E, h12^{km}, 1C-2D, Error ellipse: s-maj=2.3km s-min=1.2km az=61.0, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOO	Bordano	0.04	241	⇓*i*Pg	Pg	04 02 58.9	+0.2
BOO				*i* Sg	Sg	04 03 00.3	+0.1
BOO	Bordano	0.04	241	*i* Pg	Pg	04 02 58.9	+0.2
BOO				*i* Sg	Sg	04 03 00.3	0.0
BAD	Bernadia	0.12	147	⇓*i*Pg	Pg	04 02 59.9	+0.3
BAD				*i* Sg	Sg	04 03 02.2	+0.4
BAD	Bernadia	0.12	147	*i* Pg	Pg	04 02 59.9	+0.3
BAD				*i* Sg	Sg	04 03 02.2	+0.4
PLRO	Paularo	0.21	360	⇑*i*Pg	Pg	04 03 01.3	+0.2
PLRO				*i* Sg	Sg	04 03 04.5	+0.3
PLRO	Paularo	0.21	360	*i* Pg	Pg	04 03 01.3	+0.3
PLRO				*i* Sg	Sg	04 03 04.5	+0.4
ROBS	Robic	0.27	111	*e*Pg	Pg	04 03 02.0	0.0
ROBS				*i* Sg	Sg	04 03 05.7	0.0
ROBS	Robic	0.27	111	Pg	Pg	04 03 02.0	0.0
ROBS				*i* Sg	Sg	04 03 05.7	0.0

GUC 14 04:06:04.2±0.7**, 22.°35S×69.°02W, h87^{km}**±4^{km}**, MD3.5, ML3.9, 4C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.28	159	*i* P	Pn	04 06 17.7	+0.5
LVC				*i* S	Sn	04 06 28.4	+1.6
LVC				AML	AML	04 06 29.4	
	comp=N,6µm,0.8s						
PB04	Plate Boundary	0.44	281	⇑*i*P	Pn	04 06 24.7	+6.6
PB04				*i* S	Sn	04 06 40.4	+12
PB04				AML	AML	04 06 43.9	
	comp=N,4µm,0.1s						
PECH	Pedro de Valdi	0.65	247	⇑*i*P	Pn	04 06 20.8	+0.8
PECH				*i* S	Sn	04 06 33.3	+1.6
PECH				AML	AML	04 06 33.9	
	comp=E,8µm,0.3s						
MACH	Maria Elena	0.70	282	⇑*i*P	Pn	04 06 21.1	+0.7
MACH				*i* S	Sn	04 06 33.8	+1.3
TOCH	Tocopilla	1.12	283	*i* P	Pn	04 06 25.3	+0.2
TOCH				*i* S	Sn	04 06 41.6	+0.7
TOCH				AML	AML	04 06 45.8	
	comp=N,4µm,0.2s						
PB01	Plate Boundary	1.37	341	⇑*i*P	Pn	04 06 28.9	+0.7
PB01				*i* S	Sn	04 06 47.3	+1.1
PB01				AML	AML	04 06 48.3	
	comp=E,3µm,0.2s						
MECH	Mejillones	1.52	240	AML	AML	04 06 58.0	
	comp=E,2µm,0.5s						
HMBC	Humberston	2.21	338	*e*P	Pn	04 06 38.8	-0.4
HMBC				*i* S	Sn	04 07 05.9	+0.1
HMBC				AML	AML	04 07 16.1	
	comp=E,844nm,0.3s						
CPN1	Cerro Paranal	2.60	209	AML	AML	04 07 24.5	
	comp=E,824nm,0.3s						
PSGC	Pisagua	2.92	339	AML	AML	04 07 39.0	
	comp=N,240nm,0.4s						

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*ISCJB **14** 04:07:05.1±0.6, 33.°80N±0.°08×137.°22E±0.°09, h375^{km}±5^{km}, mb3.2/6, Error ellipse: s-maj=14.4km s-min=9.9km az=140.4*
*NEIC **14** 04:07:06.3±0.7, 33.°76N×137.°09E, h365^{km}±9^{km}, mb4.2/2, Error ellipse: s-maj=19.9km s-min=10.5km az=109.0*
*JMA **14** 04:07:06.3±0.3, 33.°87N×137.°12E, h369^{km}±3^{km}, M2.9*
*IDC **14** 04:07:06.3±1.2, 33.°78N×137.°11E, h362^{km}±22^{km}, mb3.1/6, mb1 3.1/8, mb1mx2.9/27, mbtmp3.1/8, Error ellipse: s-maj=48.9km s-min=16.4km az=61.0*
ISC 14 04:07:06.3±0.6**, 33.°81N**±0.°08×**137.°21E**±0.°09**, h367^{km}**±5^{km}**, n28, σ0.^{s}82**/36**, mb3.2**/6**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK02	Tokai 2	0.47	73	P	Pn	04 07 53.3	+1.0
JIE	Ise	0.72	324	P	Pn	04 07 53.2	+0.4
JKN2	Miekihoku	0.89	299	P	Pn	04 07 53.3	-0.1
HMMJ	Hamamatsu 2	1.13	22	P	Pn	04 07 55.0	+0.8
HMMJ				S	S	04 08 33.0	+0.1
JNY	Yasuok	1.64	19	P	Pn	04 07 57.5	+0.7
JGM	Miyama	1.93	348	P	Pn	04 07 58.9	+0.3
JYN	Shimob	2.01	33	P	Pn	04 08 00.2	+1.1
JWT	Wachi	2.10	315	P	Pn	04 07 59.3	-0.4
JRY	Ryogami san	2.61	32	P	Pn	04 08 04.7	+1.2
JRY				*e*S	S	04 08 50.0	+0.3
JHU	Hanno	2.66	39	P	Pn	04 08 04.6	+0.7
JHU				S	S	04 08 48.5	-1.9
MAJO	Matsushiro	2.85	16	*e*Pn	Pn	04 08 06.4	+0.9
MAT	Matsushiro	2.85	16	P	Pn	04 08 06.1	+0.6
MAT				*e*S	S	04 08 51.9	-1.4
MJAR	Matsushiro Arr	2.85	16	P	Pn	04 08 06.1	+0.7
	2.0nm,0.3s,baz=193,slow=9.2,SNR=14						
MJAR				S	S	04 08 53.7	+0.4
	0.6nm,0.3s,baz=189,slow=7.3,SNR=4.9						

JAG	Ashikaga	3.19	34	P	Pn	04 08 08.2	-0.3
JAG				eS	S	04 08 56.2	-2.6
BSO1	Boso 1	3.23	74	P	Pn	04 08 08.2	-0.7
BSO1				eS	S	04 08 58.9	-0.5
JTO	Tosashimizu	3.81	257	P	Pn	04 08 14.0	-0.4
JFK	Kawauchi	4.64	39	P	Pn	04 08 22.5	-0.2
JFK				eS	S	04 09 20.7	-3.9
KSRS	Korea Array	8.39	298	P	Pn	04 09 04.6	-0.5
	0.5nm,0.3s,baz=112,slow=12,SNR=9.7						
YSS	Yuzh-Sakhalins	13.79	16	ePn	Pn	04 10 08.8	+0.4
YHNB	Yeheng	16.54	241	P	P	04 10 35.5	-1.2
	15nm,0.9s						
NACB	Ninganchiao	16.68	239	eP	P	04 10 37.1	-1.2
	4.6nm,0.4s						
SONM	Songino Array	27.00	311	P	P	04 12 16.3	+0.5
	1.1nm,0.6s,mb3.2,baz=128,slow=10.0,SNR=8.7						
ZALV	Zalesovo Beam	41.67	315	P	P	04 14 20.2	+0.2
	0.7nm,0.3s,mb3.3,baz=165,slow=7.4,SNR=2.7						
ZALV	Zalesovo Beam	41.67	315	P	P	04 14 20.2	+0.2
MKAR	Makanchi Array	43.02	304	P	P	04 14 30.6	-0.2
	0.5nm,0.4s,mb3.0,baz=86,slow=9.4,SNR=25						
KURK	Kurchatov	45.30	310	P	P	04 14 48.8	0.0
	1.7nm,0.4s,mb3.5,baz=86,slow=6.7,SNR=7.3						
BVAR	Borovoye Array	50.26	314	P	P	04 15 26.3	0.0
	0.2nm,0.3s,mb2.8,baz=94,slow=7.0,SNR=2.9						
WRA	Warramunga Arr	53.52	183	P	P	04 15 50.6	+0.2
	0.4nm,0.3s,mb3.2,baz=0.3,slow=7.6,SNR=13						

IDC 14 04:37:51.6±7.4**, 9°.32S**×**128°.89E, h220**km±86km**, mb2.6**/1**, mb1 2.9**/4**, mb1mx2.8**/17**, mbtmp2.7**/4**, Error ellipse: s-maj=58.3km s-min=35.6km az=28.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	9.28	200	P	Pn	04 40 00.8	-0.6
	0.1nm,0.3s,baz=57,slow=22,SNR=3.3						
FITZ				S	S	04 41 46.4	+0.6
	0.7nm,0.3s,baz=81,slow=20,SNR=6.8						
WRA	Warramunga Arr	11.80	154	P	Pn	04 40 32.9	-0.6
	0.3nm,0.3s,baz=344,slow=12,SNR=14						
WRA				S	S	04 42 47.3	+2.1
	0.5nm,0.3s,baz=327,slow=23,SNR=10						
ASAR	Alice Springs	15.05	162	P	Pn	04 41 13.4	-0.2
	0.1nm,0.3s,baz=333,slow=10,SNR=4.4						
ASAR				S	S	04 44 02.0	+1.7
	0.0nm,0.3s,baz=328,slow=24,SNR=2.9						
MKAR	Makanchi Array	69.58	328	P	P	04 48 37.1	+0.3
	0.1nm,0.4s,baz=124,slow=7.8,SNR=4.1						

CASC 14 05:01:27.6±2.1**, 8°.45N**×**82°.82W, h15**km±11km**, MD3.8, 5C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACR	Cerro Adams	0.40	301	⇑eP	Pg	05 01 35.7	0.0
BAR1		0.93	329	⇓eP	Pb	05 01 43.7	-1.7
BAR1				eS	Sb	05 01 57.1	-0.4
CNI	Changuinola	1.01	17	⇑iP	Pb	05 01 45.9	-1.0
CNI				eS	Sb	05 02 00.3	+0.3
QCR	Quepos	1.64	306	⇑eP	Pn	05 01 55.5	-0.4
QCR				eS	Sn	05 02 17.4	+0.5
URSC	Urasca	1.67	326	⇑eP	Pn	05 01 55.7	-0.7
URSC				eS	Sn	05 02 17.0	-0.5
LCR2	La Lucha 2	1.74	318	eP	Pn	05 01 56.0	-1.3
LCR2				eS	Sn	05 02 20.9	+1.7
LAJ	Bijagual	1.91	318	eP	Pn	05 02 01.9	+2.3
PRS1	Puriscal	2.12	316	eP	Pn	05 02 01.4	-1.1
PRS1				eS	Sn	05 02 30.0	+1.4
CGA2	Cerro Gallo 2	2.25	314	⇑eP	Pn	05 02 06.4	+2.1
CGA2				eS	Sn	05 02 34.7	+2.8
JCR	Jicaral	2.66	302	eP	Pn	05 02 10.3	+0.4
FORC	Fortuna	2.71	318	eP	Pn	05 02 10.9	+0.3
FORC				eS	Sn	05 02 43.4	+0.1

ISK ***14*** *05:13:07.7, 39°.36N×38°.38E, h4km, MD3.3*
ISCJB ***14*** *05:13:08.8±0.8, 39°.36N±0°.03×38°.32E±0°.06, h7km±7km, Error ellipse: s-maj=7.2km s-min=5.9km az=5.8*
CSEM ***14*** *05:13:09.3±0.1, 39°.36N×38°.40E, h10km, ML3.1, Error ellipse: s-maj=2.6km s-min=2.3km az=97.0*
DDA ***14*** *05:13:12.8, 39°.24N×38°.43E, h16km, Md2.9, Ml3.1*
ISC 14 05:13:08.8±1.3**, 39°.37N**±0°.06×**38°.31E**±0°.06**, h4**km±12km**, n34, σ0ˢ.83**/44**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEMA	Kemaliye	0.17	126	i P	Pg	05 13 13.0	+0.8
KEMA				i S	Sg	05 13 16.3	+1.8
KEMA	Kemaliye	0.17	126	i P	Pg	05 13 13.0	+0.8
KEMA				i S	Sg	05 13 16.3	+1.8
ELZG	Elazig	1.02	149	i P	Pg	05 13 27.8	-0.5
ELZG				i S	Sg	05 13 41.2	-0.3
ELZG	Elazig	1.02	149	i P	Pg	05 13 27.8	-0.5
ELZG				i S	Sg	05 13 41.2	-0.3
MYA	Malataya	1.05	175	ePG	Pg	05 13 28.0	-0.9
MYA	Malataya	1.05	175	ePg	Pg	05 13 28.0	-0.9
MALT	Malatya	1.06	175	ePG	Pg	05 13 28.1	-1.0
MALT				eSG	Sg	05 13 43.3	+0.4
MALT	Malatya	1.06	175	ePg	Pg	05 13 28.2	-1.0
MALT				eSg	Sg	05 13 43.3	+0.4
AKCD	Akcadag	1.12	196	i P	Pg	05 13 29.4	-0.9
AKCD				i S	Sg	05 13 45.0	+0.3
AKCD	Akcadag	1.12	196	i P	Pg	05 13 29.4	-0.8
AKCD				i S	Sg	05 13 45.0	+0.3
EZC	Erzincan	1.22	72	ePG	Pg	05 13 24.8	-7.5
EZC				eSG	Sg	05 13 36.8	-11
RSDY	Resadiye-TOKAT	1.27	324	ePN	Pn	05 13 32.8	-0.6
RSDY	Resadiye-TOKAT	1.27	324	ePn	Pn	05 13 32.8	-0.6
GUMT	Gumushane	1.41	39	ePN	Pn	05 13 34.6	-0.6
GUMT	Gumushane	1.41	39	ePn	Pn	05 13 34.6	-0.6
SARI	SarD1z-Kayseri	1.44	242	ePN	Pn	05 13 40.6	+5.0
SARI	SarD1z-Kayseri	1.44	242	ePn	Pn	05 13 40.6	+5.0
ESPY	Espiye-Giresun	1.57	12	ePN	Pn	05 13 37.1	-0.4
ESPY	Espiye-Giresun	1.57	12	ePn	Pn	05 13 37.1	-0.4
PINB	Pinarbasi	1.64	246	i P	Pn	05 13 37.9	-0.5
PINB	Pinarbasi	1.64	246	i P	Pn	05 13 37.9	-0.5
KOPT	Kop Dagi	1.81	68	i P	Pn	05 13 40.5	-0.1
KOPT				i S	Sn	05 14 07.4	+3.4
KOPT	Kop Dagi	1.81	68	i P	Pn	05 13 40.5	-0.2
URFA	Urfa	1.97	168	ePN	Pn	05 13 42.4	-0.5
URFA	Urfa	1.97	168	ePn	Pn	05 13 42.4	-0.5
BNN	Bunyan	1.99	256	ePN	Pn	05 13 43.9	+0.7
BNN	Bunyan	1.99	256	ePn	Pn	05 13 43.9	+0.7
KMRS	Kahramanmaras	2.17	211	ePN	Pn	05 13 46.1	+0.5
KMRS	Kahramanmaras	2.17	211	ePn	Pn	05 13 46.2	+0.5
YOZ	Yozgat	2.33	278	ePN	Pn	05 13 48.8	+0.9
YOZ	Yozgat	2.33	278	ePn	Pn	05 13 48.8	+0.9
EZM	Erzurum	2.41	76	ePN	Pn	05 13 48.6	-0.4
CORM	Corum	2.95	287	ePN	Pn	05 13 57.7	+1.3
CORM	Corum	2.95	287	ePn	Pn	05 13 57.7	+1.3

IDC 14 05:24:35.0±1.5**, 34°.05S**×**178°.70W, h0**km**, mb4.2**/3**, mb1 4.4**/4**, mb1mx4.2**/16**, mbtmp4.2**/4**, ML4.2**/1**, MS3.6**/1**, Ms1 3.5**/1**, ms1mx2.6**/22**, Error ellipse: s-maj=36.9km s-min=33.9km az=146.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	5.40	218	Pn	Pn	05 25 57.4	+0.6
	7.5nm,0.3s,baz=48,slow=2.4,SNR=41						
URZ				Sn	Sn	05 26 58.3	-1.4
	4.8nm,0.3s,baz=209,slow=18,SNR=11						
STKA	Stephens Creek	33.25	262	LR	LR	05 43 39.8	
	comp=Z,95nm,18.6s,baz=27,slow=34						
CTA	Charters Tower	33.99	285	P	P	05 31 21.6	+1.2
	1.6nm,0.6s,baz=110,slow=9.2,SNR=6.0						
ASAR	Alice Springs	42.46	271	P	P	05 32 31.6	-0.3
	1.8nm,0.7s,baz=112,slow=7.7,SNR=16						
WRA	Warramunga Arr	43.78	276	P	P	05 32 42.0	-0.6
	1.8nm,0.4s,baz=118,slow=7.4,SNR=21						
MKAR	Makanchi Array	119.62	309	PKP	PKPdf	05 43 25.8	-0.6
	0.2nm,0.4s,baz=99,slow=1.1,SNR=6.0						
KURK	Kurchatov	123.10	312	PKP	PKPdf	05 43 32.4	-0.6
	0.5nm,0.5s,baz=118,slow=2.1,SNR=4.4						
BVAR	Borovoye Array	128.55	314	PKP	PKPdf	05 43 43.6	+0.3
	0.4nm,0.4s,baz=132,slow=2.1,SNR=3.1						
JOF	Joensuu	145.54	336	ep	PKPdf	05 44 13.6	-0.6
	3.3nm,0.7s						
KAF	Kangasniemi	147.74	338	ep	PKPdf	05 44 20.2	+2.2
TORD	Torodi Ar. Bea	159.19	181	PKPab	PKPab	05 45 12.5	0.0
	0.3nm,0.6s,baz=161,slow=2.9,SNR=3.3						

NIED ***14*** *05:29:00, 40°.70N×142°.70E, h35km, Mw4.3 Best double couple: $M_0$2.89000×10^{15} NP1:ϕ_s12.00000°, δ79.00000°, λ75.00000°. NP2:ϕ_s247.00000°, δ19.00000°, λ144.00000°.*
JMA ***14*** *05:29:09.1±0.2, 40°.75N×142°.71E, h21km±4km, M4.3*
JMA Felt I J1.
ISCJB ***14*** *05:29:10.9±0.5, 40°.80N±0°.03×142°.63E±0°.05, h48km±3km, mb4.4/47, MS3.9/7, Error ellipse: s-maj=7.6km s-min=3.9km az=37.1*
MOS ***14*** *05:29:10.5±1.0, 40°.82N×142°.62E, h45km, mb4.7/22, Error ellipse: s-maj=10.0km s-min=6.4km az=105.2*
BJI ***14*** *05:29:12.1, 40°.73N×142°.41E, h52km, mB4.9/14, mb4.6/23, Ms4.3/9, Ms7 4.0/9*
NEIC ***14*** *05:29:12.9±0.3, 40°.83N×142°.68E, mb4.5/17, MW4.2(NIED), Error ellipse: s-maj=7.3km s-min=5.0km az=130.0*
NEIC Recorded [1 JMA] in Aomori, Iwate and southwestern Hokkaido.
IDC ***14*** *05:29:13.0±2.5, 40°.77N×142°.68E, h57km±23km, mb3.7/18, mb1 3.9/21, mb1mx3.8/29, mbtmp3.7/21, ML3.9/3, MS3.7/6, Ms1 3.8/6, ms1mx3.4/31, Error ellipse: s-maj=17.8km s-min=15.4km az=123.0*
ISC 14 05:29:12.2±0.5**, 40°.82N**±0°.03×**142°.64E**±0°.05**, h42**km±4km**, h55**km±2.2km**:pP-P, n126, σ0ˢ.89**/143**, mb4.4**/47**, MS3.9**/7**, 3C-5D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JANG	Nango	0.96	243	⇓P	Pn	05 29 27.3	-1.9
JANG				eS	Sn	05 29 39.8	-1.9
JTM	Tenmabayashi	1.19	269	⇓P	Pn	05 29 31.4	-0.9
JTM				eS	Sn	05 29 47.2	-0.1
ERM	Erimo	1.26	18	ePn	Pn	05 29 32.3	-0.9
ERM				eSn	Sn	05 29 49.6	+0.6
JEM	Erimo	1.26	18	P	Pn	05 29 33.1	-0.2
JEM				eS	Sn	05 29 51.0	+2.0
JOT	Ohata	1.33	296	⇓P	Pn	05 29 33.3	-0.9
JOT				eS	Sn	05 29 50.5	-0.1
JNBK	Urakawa-nobuka	1.47	3	P	Pn	05 29 36.2	+0.1
JKB	Kayabe	1.61	312	⇓P	Pn	05 29 37.6	-0.5
JKB				eS	Sn	05 29 57.9	+0.2
JOM	Ohasama	1.69	218	P	Pn	05 29 38.0	-1.2
JCH	Churui	1.88	17	P	Pn	05 29 41.3	-0.4
JCH				eS	Sn	05 30 04.0	-0.2
JMK	Ichinoseki	2.16	211	⇑P	Pn	05 29 45.3	-0.3
ASAJ	Asahikawa	3.30	360	P	Pn	05 30 02.3	+1.1
ASAJ				S	Sn	05 30 47.4	+8.2
ASAJ				pmax	pmax		
	comp=Z,25nm,0.3s						
ASAJ				smax			
	comp=N,23nm,0.3s						
ASAJ	Asahikawa	3.30	360	P	Pn	05 30 02.3	+1.1
	comp=N,25nm,0.3s,baz=216,slow=12,SNR=24						
ASAJ				S	Sn	05 30 47.4	+8.2
	comp=N,23nm,0.3s,baz=142,slow=28,SNR=4.0						
YUK	Yuzh-Kuril'sk	4.00	36	i S	Sn	05 30 52.0	-4.6
YUK				pmax	pmax		
	comp=Z,370nm,0.3s						
YUK				smax			
	comp=N,2μm,0.8s						
YUK				smax			
	comp=E,2μm,0.8s						
MAJO	Matsushiro	5.50	220	eP	Pn	05 30 33.1	+1.7
MAJO				pmax	pmax		
	comp=Z,33nm,0.6s						
MAJO	Matsushiro	5.50	220	ePn	Pn	05 30 33.1	+1.6
	comp=Z,33nm,0.6s						
MAT	Matsushiro	5.50	220	P	Pn	05 30 32.6	+1.2
MAT				eS	Sn	05 31 34.6	+1.2
MJAR	Matsushiro Arr	5.50	220	P	Pn	05 30 32.9	+1.5
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,470nm,21.8s						
MJAR	Matsushiro Arr	5.50	220	P	Pn	05 30 32.9	+1.4
	comp=Z,2.1nm,0.3s,baz=34,slow=13,SNR=18						
MJAR				LR	LR	05 32 55.5	
	comp=Z,470nm,21.8s,baz=15,slow=41						
KUR	Kuril'sk	5.84	39	eP	Pn	05 30 31.5	-4.7
KUR				eS	Sn	05 31 33.9	-8.0
KUR				pmax	pmax		
	comp=Z,170nm,0.5s						
KUR				smax			
	comp=N,190nm,0.7s						
KUR				smax			
	comp=E,150nm,0.7s						
YSS	Yuzh-Sakhalins	6.14	1	eP	Pn	05 30 41.4	+1.2
MDJ	Mudanjiang	10.32	296	ePn	Pn	05 31 36.6	-1.0
KLR	Kul'dur	11.40	321	eP	Pn	05 31 51.3	-0.9
KSRS	Korea Array	11.91	258	P	Pn	05 32 00.3	+1.0
	comp=E,0.1nm,0.3s,baz=52,slow=16,SNR=2.7						
KSRS				S	Sn	05 34 20.6	+10
	comp=E,0.2nm,0.3s,baz=69,slow=25,SNR=4.2						
KSRS				LR	LR	05 36 09.1	
	comp=E,234nm,19.4s,baz=65,slow=35						
HIA	Hailar	18.20	305	eP	Pn	05 33 21.9	+0.5
HIA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HIA	Hailar	18.20	305	eP	Pn	05 33 21.9	+0.6
	comp=Z,5.6nm,0.6s						
BJI	Beijing	20.14	276	P	P	05 33 40.9	-1.6
BJI				pmax	pmax		
	comp=Z,9.0nm,1.2s						
BJT	Baijiatuau	20.15	276	P	P	05 33 43.8	+1.2
BJT				pmax	pmax		
	comp=Z,15nm,0.5s						
BJT	Baijiatuau	20.15	276	P	P	05 33 43.8	+1.2
	comp=Z,15nm,0.5s						
SEY	Seymchan	22.90	11	i P	P	05 34 09.8	-2.1
HHC	Hu-ho-hao-te	23.45	280	eP	P	05 34 17.0	-0.7
HHC				pP		05 34 31.3	
HHC				sP	sP	05 34 38.1	+4.3
HHC				PP		05 34 49.6	
HHC				S	S	05 38 20.3	-7.6
HHC				sS	sS	05 38 43.9	-2.8
HHC				SS		05 39 10.1	
HHC				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
HHC				pmax	pmax		
	comp=Z,110nm,4.7s						
HHC				LR	LR		
	comp=N,210nm,14.9s,MS3.8						
HHC				LR	LR		
	comp=E,150nm,12.9s,MS3.8						
HHC				LR	LR		
	comp=Z,200nm,8.9s						
BOD	Bodaibo	24.97	323	eP	P	05 34 29.7	-1.7
BOD				e		05 34 43.7	
BOD				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.9						
BOD				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.6						
ULN	Ulaanbaatar	26.23	298	eP	P	05 34 43.1	+0.2
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
ULN	Ulaanbaatar	26.23	298	eP	P	05 34 43.1	+0.2
	comp=Z,2.4nm,0.7s,mb3.8						
SONM	Songino Array	26.67	297	P	P	05 34 47.2	+0.3
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				MLR	MLR		
	comp=Z,138nm,18.3s						
SONM	Songino Array	26.67	297	P	P	05 34 47.2	+0.3
	comp=Z,1.4nm,0.5s,mb3.8,baz=84,slow=8.7,SNR=14						
SONM				LR	LR	05 45 26.0	
	comp=Z,138nm,18.3s,MS3.5,baz=179,slow=36						
TLY	Talaya	28.74	305	eP	P	05 35 05.1	-0.2
TLY				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
TLY	Talaya	28.74	305	eP	P	05 35 05.1	-0.3
	comp=Z,2.8nm,0.7s,mb4.1						
ZAK	Zakamensk	28.85	303	eP	P	05 35 05.9	-0.4
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb3.9						
BILL	Bilibino	30.14	17	⇑iP	P	05 35 18.4	+0.9
BILL				e		05 36 15.5	
BILL				eS	S	05 40 10.8	-2.3
BILL				pmax	pmax		
	comp=Z,9.0nm,1.8s,mb4.2						
BILL				MLR	MLR		
	comp=Z,100nm,21.0s,MS3.4						
LZH	Lanzhou	30.57	274	eP	P	05 35 23.6	+1.9
LZH				pP	pP	05 35 39.0	+5.8
LZH				sP	sP	05 35 44.0	+5.7
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
LZH				pmax	pmax		
	comp=Z,68nm,4.5s						
GTA	Gaotai	32.54	282	eP	P	05 35 39.1	+0.1
GTA				pP	pP	05 35 51.4	+0.9
GTA				sP	sP	05 35 56.5	+0.9
GTA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
CD2	Chengdu	32.79	265	P	P	05 35 43.0	+1.7
CD2				pP	pP	05 35 58.0	+5.2
CD2				sP	sP	05 36 05.1	+7.3
CD2				PP	PP	05 36 54.3	-1.5
CD2				PcP	PcP	05 38 27.0	+1.4
CD2				S	S	05 40 54.6	-0.8
CD2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CD2				pmax	pmax		
	comp=Z,180nm,5.3s						
CD2				LR	LR		
	comp=N,260nm,7.1s						
CD2				LR	LR		
	comp=Z,350nm,11.9s,MS4.3						
KRAR	Krasnoyarsk	35.51	312	⇓eP	P	05 36 06.5	+2.0
KRAR				pmax	pmax		
	comp=Z,50nm,0.6s						
KMI	Kunming	36.61	257	P	P	05 36 16.3	+2.0
KMI				pP	pP	05 36 30.4	+4.5
KMI				sP	sP	05 36 36.5	+5.6
KMI				PP	PP	05 37 41.1	+3.0
KMI				S	S	05 41 53.8	-0.4
KMI				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
KMI				pmax	pmax		
	comp=Z,110nm,5.5s						
KMI				LR	LR		
	comp=N,200nm,26.0s						
KMI				LR	LR		
	comp=E,140nm,17.9s						
KMI				LR	LR		
	comp=Z,180nm,16.2s						
WMQ	Urumqi	40.11	293	eP	P	05 36 45.5	+2.0
WMQ				pP	pP	05 36 58.0	+2.8
WMQ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
ZAA0	Zalesovo Array	40.17	309	eP	P	05 36 43.5	-0.3
ZALV	Zalesovo Beam	40.17	309	P	P	05 36 43.7	-0.2
ZALV				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.6						
ZALV	Zalesovo Beam	40.17	309	P	P	05 36 43.7	-0.2
	comp=Z,5.6nm,0.5s,mb4.5,baz=91,slow=8.0,SNR=21						
NVS	Novosibirsk	41.01	311	eP	P	05 36 50.1	-0.7
NVS				pmax	pmax		
	comp=N,6.0nm,1.8s						
NVS				pmax	pmax		
	comp=Z,14nm,1.8s,mb4.3						
MK31	Makanchi Array	43.02	299	eP	P	05 37 07.0	-0.3
MK31				e*PP	pP	05 37 20.1	+1.0
MKAR	Makanchi Array	43.02	299	P	P	05 37 07.2	-0.1
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MKAR				MLR	MLR		
	comp=Z,73nm,19.2s						
MKAR	Makanchi Array	43.02	299	P	P	05 37 07.2	-0.2
	comp=Z,2.0nm,0.5s,mb4.2,baz=84,slow=11,SNR=59						
MKAR				LR	LR	05 55 55.6	
	comp=Z,73nm,19.2s,MS3.6,baz=28,slow=37						
CMAR	Chiang Mai Arr	43.47	252	P	P	05 37 10.9	-0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	43.47	252	P	P	05 37 10.9	-0.3
	comp=Z,1.2nm,0.3s,mb4.0,baz=30,slow=7.3,SNR=2.8						
KDAK	Kodiak Island	43.69	45	P	P	05 37 11.6	-1.0
KDAK				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
KDAK	Kodiak Island	43.69	45	P	P	05 37 11.6	-0.9
	comp=Z,15nm,1.0s,mb4.7,baz=278,slow=7.1,SNR=3.2						
KURK	Kurchatov	44.44	305	eP	P	05 37 17.9	-0.7
KURK				e*PP	pP	05 37 31.0	+0.5
KURK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
KURK	Kurchatov	44.44	305	P	P	05 37 18.5	-0.1
	comp=Z,3.2nm,0.3s,mb4.5,baz=78,slow=8.9,SNR=28						
KURK	Kurchatov	44.44	305	eP	P	05 37 17.9	-0.8
	comp=Z,11nm,0.9s,mb4.6						
KURK				epP	pP	05 37 31.0	+0.5
TAPN	Taplejung	46.73	271	eP	P	05 37 37.6	+0.6
	comp=Z,36nm,1.2s,mb5.2						
ODAN	Odare	47.23	271	eP	P	05 37 41.0	+0.1
JIRN	Jiri	47.72	272	eP	P	05 37 45.1	+0.3
	comp=Z,12nm,0.4s,mb5.3						
RAMN	Ramite	47.78	271	eP	P	05 37 45.2	0.0
	comp=Z,13nm,0.3s,mb5.4						
GUN	Gumba	47.83	273	eP	P	05 37 45.7	+0.1
	comp=Z,31nm,0.4s						
KKN	Kakani	48.34	273	eP	P	05 37 49.7	+0.1
	comp=Z,44nm,0.8s						
KKN	Kakani	48.34	273	eP	P	05 37 49.7	+0.1
KKN				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.5						
DMN	Daman	48.57	273	eP	P	05 37 50.6	-0.7
	comp=Z,7.2nm,0.4s,mb5.1						
GKN	Gorkha	48.72	274	eP	P	05 37 52.3	-0.2
TKM2	Tokmak 2	48.76	296	eP	P	05 37 53.0	+0.5
TKM2				e*PP	pP	05 38 08.3	+3.8
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
TKM2	Tokmak 2	48.76	296	eP	P	05 37 53.0	+0.5
	comp=Z,7.7nm,0.6s,mb4.9						
TKM2				epP	pP	05 38 08.3	+3.8
BVA0	Borovoye Array	48.80	310	i P	P	05 37 52.2	-0.5
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
BVAR	Borovoye Array	48.80	310	P	P	05 37 52.9	+0.2
BVAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
BVAR	Borovoye Array	48.80	310	P	P	05 37 52.9	+0.2
	comp=Z,3.1nm,0.4s,mb4.7,baz=82,slow=9.1,SNR=21						
DANN	Dangsing	49.21	275	eP	P	05 37 56.6	+0.4
	comp=Z,91nm,0.7s						
KOLN	Koldanda	49.62	274	eP	P	05 37 59.4	0.0
	comp=Z,15nm,0.8s,mb5.1						
AML	Almayashu	50.36	296	eP	P	05 38 06.6	+1.8
	comp=Z,1.3nm,0.4s,mb4.3						
AML				epP	pP	05 38 20.7	+4.0
ARU	Arti	54.20	317	eP	P	05 38 33.4	+0.4
ARU				e		05 40 34.0	
ARU				S	S	05 46 08.5	+1.6
ARU				SS	SS	05 49 49.7	+1.2
AB31	Akbulak array	56.28	309	P	P	05 38 47.2	-0.9
AB31				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
AKTK	Aktyubinsk	56.90	311	P	P	05 38 52.5	0.0
AKTO	Aktyubinsk	56.90	311	P	P	05 38 52.6	+0.1
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
AKTO	Aktyubinsk	56.90	311	P	P	05 38 52.5	0.0
	comp=Z,1.0nm,0.7s,mb4.0,baz=54,slow=14,SNR=3.4						
RES	Resolute Bay	58.71	15	eP	P	05 39 04.3	-0.5
RES				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
RES	Resolute Bay	58.71	15	P	P	05 39 04.6	-0.3
	comp=Z,0.8nm,0.5s,mb4.0,baz=314,slow=6.5,SNR=7.1						
RES	Resolute Bay	58.71	15	eP	P	05 39 04.2	-0.6
	comp=Z,2.2nm,0.6s,mb4.4						
YKA	Yellowknife Ar	60.08	32	P	P	05 39 14.5	+0.1
	comp=Z,0.1nm,0.5s,baz=299,slow=6.7,SNR=2.8						
WRA	Warramunga Arr	60.94	189	P	P	05 39 19.5	-1.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	60.94	189	P	P	05 39 19.5	-1.2
	comp=Z,1.0nm,0.8s,mb4.0,baz=6.1,slow=6.9,SNR=7.8						
ASAR	Alice Springs	64.66	189	P	P	05 39 44.5	-1.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	64.66	189	P	P	05 39 44.5	-1.0
	comp=Z,0.6nm,0.6s,mb3.8,baz=6.5,slow=6.5,SNR=3.9						
VSR	Storozhevoye	66.73	318	⇑eP	P	05 39 58.0	-0.6
KIV	Kislovodsk	69.17	310	eP	P	05 40 14.0	0.0
KIV				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						

NB2	NORSAR Subarra	71.07	337	P	P	05 40 24.8	-0.6
	comp=Z,1.4nm,0.9s,mb3.9,baz=35,slow=6.2						
NOA	NORSAR Array B	71.07	337	P	P	05 40 25.1	-0.3
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,100nm,18.1s						
NOA	NORSAR Array B	71.07	337	P	P	05 40 25.1	-0.3
	comp=Z,1.5nm,0.8s,mb4.0,baz=36,slow=6.1,SNR=3.9						
NOA				LR	LR	06 15 07.9	
	comp=Z,100nm,18.1s,MS4.1,baz=0.0,slow=39						
ANN	Anapa	71.61	314	eP	P	05 40 35.7	+6.8
ANN				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.2						
AKASG	Malin Array Be	71.90	322	P	P	05 40 29.8	-0.8
	comp=Z,0.4nm,0.4s,mb3.7,baz=41,slow=6.3,SNR=5.6						
AKASG	Malin Array Be	71.90	322	P	P	05 40 29.8	-0.8
PDAR	Pinedale Array	74.36	47	P	P	05 40 45.4	+0.1
	comp=Z,0.4nm,0.7s,mb3.5,baz=204,slow=3.3,SNR=3.6						
BRTR	Keskin Array B	77.06	312	P	P	05 41 00.1	-0.6
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	77.06	312	P	P	05 41 00.1	-0.6
	comp=Z,0.5nm,0.7s,mb3.5,baz=21,slow=8.4,SNR=2.7						
GERES	GERESS Array B	80.00	329	P	P	05 41 16.8	+0.1
	comp=Z,0.1nm,0.3s,mb3.3,baz=50,slow=6.5,SNR=3.3						
GERES				LR	LR	06 20 14.9	
	comp=Z,105nm,18.9s,MS4.2,baz=331,slow=38						
CDF	Champ du Feu	82.78	332	eP	P	05 41 31.9	+0.4
HINF	Hinteralfeld	83.43	332	eP	P	05 41 34.7	-0.2
HAU	Haudompre	83.45	332	eP	P	05 41 35.2	+0.2
MEZF	Maizieres J'vi	83.48	333	eP	P	05 41 35.1	0.0
LOR	Lormes	84.95	333	eP	P	05 41 43.1	+0.5
	comp=Z,8.2nm,0.9s,mb4.5						
LOR	Lormes	84.95	333	eP	P	05 41 43.1	+0.5
LOR				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
LOR	Lormes	84.95	333	eP	P	05 41 43.1	+0.5
	comp=Z,4.1nm,0.9s,mb4.6						
SSF	Saint Saulge	85.25	333	eP	P	05 41 43.6	-0.5
	comp=Z,3.2nm,0.8s,mb4.2						
SSF	Saint Saulge	85.25	333	eP	P	05 41 43.6	-0.5
SSF				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
SSF	Saint Saulge	85.25	333	eP	P	05 41 43.6	-0.5
	comp=Z,1.6nm,0.8s,mb4.2						
LPL	La Plagne	85.43	331	eP	P	05 41 45.2	+0.2
	comp=Z,5.7nm,0.9s,mb4.4						
LPL	La Plagne	85.43	331	eP	P	05 41 45.2	+0.2
LPL				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
LPL	La Plagne	85.43	331	eP	P	05 41 45.2	+0.2
	comp=Z,2.8nm,0.9s,mb4.4						
LPG	La Plagne	85.44	331	eP	P	05 41 45.4	+0.3
	comp=Z,5.0nm,0.7s,mb4.5						
LPG	La Plagne	85.44	331	eP	P	05 41 45.4	+0.3
LPG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
LPG	La Plagne	85.44	331	eP	P	05 41 45.4	+0.3
	comp=Z,2.5nm,0.7s,mb4.5						
AVF	Avril sur Loir	85.54	333	eP	P	05 41 45.4	-0.1
	comp=Z,12nm,1.0s,mb4.8						
AVF	Avril sur Loir	85.54	333	eP	P	05 41 45.4	-0.1
AVF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.8						
AVF	Avril sur Loir	85.54	333	eP	P	05 41 45.4	-0.1
	comp=Z,6.2nm,1.0s,mb4.8						
ROSF	Rostrenen	86.24	338	eP	P	05 41 49.1	+0.1
ORIF	Oris-en-Rattie	86.25	331	eP	P	05 41 49.2	+0.1
	comp=Z,11nm,1.0s,mb4.8						
ORIF	Oris-en-Rattie	86.25	331	eP	P	05 41 49.2	+0.1
ORIF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.8						
ORIF	Oris-en-Rattie	86.25	331	eP	P	05 41 49.2	+0.1
	comp=Z,5.7nm,1.0s,mb4.8						
TCF	Toulx Ste Croi	86.36	334	eP	P	05 41 50.6	+1.0
TXAR	Lajitas Array	87.08	53	P	P	05 41 52.6	-0.8
	comp=Z,0.2nm,0.7s,mb3.5,baz=287,slow=3.8,SNR=3.6						

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*ISCJB **14** 05:30:43.4±0.7, 10°.35N±0°.04×62°.29W±0°.03, h7^{km}±5^{km}, Error ellipse: s-maj=6.7km s-min=3.8km az=160.3*

*NEIC **14** 05:30:44.9, 10°.39N×62°.19W, h3^{km}, MD3.4(TRN), After TRN.*

*TRN **14** 05:30:45.3, 10°.40N×62°.17W, h3^{km}, MD3.4*

*FUNV **14** 05:30:45.1, 10°.40N×62°.32W, h5^{km}, MW3.4*

ISC 14 05:30:43.5±0.6**, 10°.36N**±0°.04×**62°.29W**±0°.02**, h2**^{km}±6^{km}**, n17, σ0s.98**/30**, 2C-3D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.29	12	eP	Pg	05 30 49.8	+0.6
GUIV				eS	Sg	05 30 54.5	+1.6
TCE	Chacachacare	0.62	57	⇓iP	Pg	05 30 55.0	-0.5
TCE				eS	Sg	05 31 01.7	-1.8
GUNV	Guanoco	0.68	253	eP	Pg	05 30 57.2	+0.7
GUNV				eS	Sg	05 31 07.3	+2.1
TPP	Pointe-a-Pierr	0.82	93	i P	Pg	05 30 59.8	+0.5
TRN	Trinidad (W)	0.92	72	⇑iP	Pg	05 30 59.9	-1.2
TRN				eS	Sg	05 31 12.8	-0.1
TRN	Trinidad (W)	0.92	72	⇑iP	Pg	05 30 59.9	-1.2
TRN				eS	Sg	05 31 13.7	+0.8
CRUV	Carupano	0.99	289	eP	Pg	05 31 01.8	-0.6
CRUV				eS	Sg	05 31 14.0	-1.2
TBH	Brigand Hill	1.21	84	⇓iP	Pg	05 31 06.8	+0.2
TBH				eS	Sg	05 31 21.6	-0.6
TBH	Brigand Hill	1.21	84	⇓iP	Pg	05 31 06.8	+0.2
TBH				eS	Sg	05 31 28.9	+6.7
ITEV	Isla Los Testi	1.29	320	eP	Pg	05 31 07.8	-0.5
ITEV				eS	Sg	05 31 24.9	-0.2
ORIV	Oritupano	1.69	221	eP	Pn	05 31 15.3	+1.1
ORIV				eS	Sn	05 31 36.9	+0.4
TPR	Prospect	1.69	61	eP	Pn	05 31 13.8	-0.4
BOT	Bacolet	1.74	62	eP	Pn	05 31 15.2	+0.4
GRW	Mount Saint Ca	1.89	19	eP	Pn	05 31 17.6	+0.7
GRW				eS	Sn	05 31 42.5	+1.1
PCRV	Puerto La Cruz	2.32	266	eP	Pn	05 31 22.8	+0.1
PCRV				eS	Sn	05 31 49.6	-2.3
CAOV	Caicara del Or	5.00	233	eP	Pn	05 31 58.8	-0.8
BAUV	El Baul	5.85	257	eP	Pn	05 32 10.8	-0.5
BAUV				eS	Sn	05 33 13.0	-6.0

IGQ 14 06:07:11.5, 2°.61S×77°.13W, h10^{km}±2^{km}, Mb4.4, Ms4.2, 3C-30D, Error ellipse: s-maj=4.1km s-min=1.9km az=118.1, Peru-Ecuador border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BPAT	Tungurahua Vol	1.71	310	⇓S	Sn	06 08 06.1	+2.8
BPAT	Tungurahua Vol	1.71	310	⇓P	Pn	06 07 43.8	+2.4
PATA	Patacocha	1.71	310	⇓S	Sn	06 08 06.2	+2.9
PATA	Patacocha	1.71	310	⇓P	Pn	06 07 43.8	+2.4
ARRY	Arrayan	1.73	310	⇓P	Pn	06 07 43.7	+2.1
ARRY	Arrayan	1.73	310	⇓S	Sn	06 08 06.7	+3.0
ULBA	Ulba	1.73	312	⇓P	Pn	06 07 44.0	+2.4
BMAS	Trigal station	1.75	309	⇓S	Sn	06 08 09.8	+5.6
BMAS	Trigal station	1.75	309	⇓P	Pn	06 07 44.2	+2.3
BRUN	Tungurahua Vol	1.75	313	⇓S	Sn	06 08 10.0	+5.8
BRUN	Tungurahua Vol	1.75	313	⇓P	Pn	06 07 44.3	+2.4
RETU	Refugio	1.75	311	S	Sn	06 08 10.7	+6.4
RETU	Refugio	1.75	311	P	Pn	06 07 44.3	+2.4
RUN5	Runtun	1.76	313	⇓S	Sn	06 08 10.6	+6.0
RUN5	Runtun	1.76	313	⇓P	Pn	06 07 44.3	+2.2
JUI6	Juive	1.79	311	⇓P	Pn	06 07 44.5	+2.1
JUI6	Juive	1.79	311	⇓S	Sn	06 08 10.7	+5.4
BIL2	Estacion Bilba	1.79	310	P	Pn	06 07 45.1	+2.6
IGUA	Igualata	1.88	306	⇓P	Pn	06 07 46.8	+3.1
PISA	Pisayambo	1.99	321	⇑S	Sn	06 08 13.7	+3.4
PISA	Pisayambo	1.99	321	⇑P	Pn	06 07 47.6	+2.4
TAMB	Tambo	2.27	327	P	Pn	06 07 51.9	+2.7
COV1	Cotopaxi Volc	2.29	328	P	Pn	06 07 53.4	+4.0
BMOR	Cotopaxi Volca	2.30	325	⇓S	Sn	06 08 14.8	-3.0
BMOR	Cotopaxi Volca	2.30	325	⇓P	Pn	06 07 52.3	+2.9
MOV1	Cotopaxi Vol s	2.30	325	P	Pn	06 07 52.5	+3.0
BTAM	Cotopaxi Volca	2.31	327	⇓P	Pn	06 07 52.5	+2.9
BVC2	Cotopaxi Volca	2.33	326	⇓P	Pn	06 07 53.0	+3.1
BREF	Cotopaxi Volca	2.34	326	⇓P	Pn	06 07 53.2	+3.2
VC1	Cotopaxi 1	2.34	327	⇓S	Sn	06 08 15.2	-3.6
VC1	Cotopaxi 1	2.34	327	⇓P	Pn	06 07 53.1	+3.1
BNAS	Cotopaxi Volca	2.36	325	⇓P	Pn	06 07 53.5	+3.2
CAMI	Rancho Maria	2.37	324	⇑P	Pn	06 07 53.9	+3.5
NAS2	Nasa	2.37	326	P	Pn	06 07 53.9	+3.4
ANTI	Antisana	2.39	334	⇓P	Pn	06 07 52.8	+2.2
PITA	Cotopaxi Volc	2.42	327	⇓S	Sn	06 08 18.4	-2.5
PITA	Cotopaxi Volc	2.42	327	⇓P	Pn	06 07 54.3	+3.1
CHAR	Charly	2.57	348	P	Pn	06 07 54.3	+1.1
CONE	Cono NE Rev Vo	2.58	348	P	Pn	06 07 55.8	+2.5
CAYA	Cayambe	2.80	342	⇓P	Pn	06 07 58.8	+2.4
JUA2	San Juan 2	2.81	328	P	Pn	06 07 59.6	+3.1
GGP	Refugio Guagua	2.83	329	⇓P	Pn	06 07 60.0	+3.1
TERV	Terraza Guagua	2.84	329	P	Pn	06 08 00.4	+3.5
YANA	Yana	2.87	330	⇓P	Pn	06 08 00.6	+3.2
OTAV	Otavalo	3.13	335	P	Pn	06 08 03.7	+2.8
COTA	Cotacachi	3.17	338	P	Pn	06 08 04.8	+3.3

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*ISCJB **14** 06:16:25.8±0.6, 2°.78S±0°.09×36°.5E±0°.2, h10^{km}, mb4.2/9, Error ellipse: s-maj=24.2km s-min=8.2km az=25.0*

*IDC **14** 06:16:26.3±0.8, 2°.83S×36°.44E, h0^{km}, mb4.3/10, mb1 4.3/11, mb1mx4.0/25, mbtmp4.3/11, ML4.0/1, MS3.2/1, Ms1 3.2/1, ms1mx2.8/23, Error ellipse: s-maj=29.6km s-min=11.7km az=116.0*

*NEIC **14** 06:16:27.1±0.6, 2°.75S×36°.36E, h10^{km}, Error ellipse: s-maj=26.7km s-min=9.5km az=118.0*

NEIC Felt at Nairobi, Kenya.

ISC 14 06:16:27.7±0.6**, 2°.84S**±0°.09×**36°.4E**±0°.2**, h10**^{km}**, n16, σ0s.96**/16**, mb4.2**/9**, Tanzania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	1.90	27	Pg	Pg	06 17 00.4	-3.9
	153nm,0.3s,baz=230,slow=22,SNR=975						
KMBO				Lg		06 17 24.2	
	1μm,0.3s,baz=306,slow=21,SNR=36						
LSZ	Lusaka	14.77	213	Pn	Pn	06 19 55.3	-1.6
	0.6nm,0.3s,baz=35,slow=10,SNR=6.0						
LSZ				Sn	Sn	06 22 46.4	+5.6
	0.7nm,0.3s,baz=143,slow=21,SNR=3.4						
LSZ				Lg		06 24 08.0	
	0.8nm,0.3s,baz=95,slow=12,SNR=6.5						
LBTB	Lobatse	24.38	204	P	P	06 21 46.4	+0.2
	2.9nm,0.7s,mb3.8,baz=25,slow=8.6,SNR=4.3						
LBTB				Lg		06 29 17.4	
	7.6nm,1.0s,baz=6.4,slow=12,SNR=2.9						
LBTB	Lobatse	24.38	204	P	P	06 21 46.4	+0.2
LBTB				Lg		06 29 17.4	
BOSA	Boshof	27.75	201	P	P	06 22 16.9	+0.3
	4.8nm,0.9s,mb4.1,baz=8.3,slow=6.0,SNR=5.1						
BOSA	Boshof	27.75	201	P	P	06 22 16.9	+0.3
SUR	Sutherland	32.83	205	P	P	06 23 01.9	+0.2
	6.8nm,1.0s,mb4.5,baz=94,slow=15,SNR=2.3						
TORD	Torodi Ar. Bea	37.93	296	P	P	06 23 45.4	-0.3
	1.2nm,1.0s,baz=99,slow=7.5,SNR=4.6						
TORD	Torodi Ar. Bea	37.93	296	P	P	06 23 45.4	-0.3
IDI	Anoyia	39.43	345	P	P	06 23 57.1	-0.9
	26nm,1.1s,mb4.9,baz=90,slow=2.0,SNR=3.5						
KEST	Kesra	45.96	329	LR	LR	06 47 00.1	
	comp=Z,26nm,18.9s,baz=218,slow=40						
AKASG	Malin Array Be	53.68	354	P	P	06 25 51.4	+1.8
	1.0nm,0.6s,mb3.9,baz=172,slow=6.3,SNR=6.8						
GERES	GERESS Array B	55.12	342	P	P	06 26 01.5	+1.4
	0.4nm,0.3s,mb4.0,baz=142,slow=6.6,SNR=6.6						
MKAR	Makanchi Array	63.77	33	P	P	06 26 59.8	-0.1
	1.8nm,1.0s,mb4.1,baz=228,slow=5.6,SNR=12						
CMAR	Chiang Mai Arr	65.06	68	P	P	06 27 09.7	+0.8
	1.0nm,0.4s,mb4.2,baz=253,slow=8.2,SNR=5.3						
ZALV	Zalesovo Beam	69.38	28	P	P	06 27 35.2	-0.5
	0.8nm,0.3s,mb4.2,baz=232,slow=7.1,SNR=5.4						

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*TRN **14** 06:25:45.0, 10°.92N×63°.16W, h3^{km}, MD3.7*

*ISCJB **14** 06:25:47.0±0.5, 10°.95N±0°.03×63°.17W±0°.03, h21^{km}±5^{km}, Error ellipse: s-maj=5.2km s-min=4.1km az=145.8*

*NEIC **14** 06:25:46.1, 10°.95N×63°.08W, h1^{km}, MD3.6(TRN), After TRN.*

*FUNV **14** 06:25:47.0, 10°.93N×63°.11W, h6^{km}, MW3.7*

ISC 14 06:25:47.4±0.6**, 10°.94N**±0°.03×**63°.15W**±0°.03**, h17**^{km}±4^{km}**, n21, σ0s.94**/33**, 2C-1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRUV	Carupano	0.27	198	⇑iP	Pg	06 25 53.4	0.0
CRUV				eS	Sg	06 25 57.6	+0.2
ITEV	Isla Los Testi	0.42	3	⇓iP	Pg	06 25 55.5	-0.4
ITEV				eS	Sg	06 26 01.7	+0.1
GUNV	Guanoco	0.80	165	eP	Pb	06 26 02.9	+0.1
GUNV				eS	Sb	06 26 13.7	+0.3
GUIV	Guiria	0.96	107	eP	Pb	06 26 03.7	-1.8
GUIV				eS	Sb	06 26 17.0	-0.9
TCE	Chacachacare	1.39	100	⇑iP	Pn	06 26 10.9	-1.2
TCE				eS	Sn	06 26 30.8	+0.6
PCRV	Puerto La Cruz	1.65	243	eP	Pn	06 26 15.2	-0.3
IBAV	Isla La Blanqu	1.65	302	eP	Pn	06 26 15.8	+0.2
TRN	Trinidad (W)	1.74	99	eP	Pn	06 26 16.5	-0.3
TRN				i S	Sn	06 26 40.3	+1.6
TPP	Pointe-a-Pierr	1.78	110	eP	Pn	06 26 17.4	0.0
TPP				eS	Sn	06 26 38.7	-1.0
TPP	Pointe-a-Pierr	1.78	110	eP	Pn	06 26 20.3	+2.9
TPP				eS	Sn	06 26 46.2	+6.5
TBH	Brigand Hill	2.10	102	eP	Pn	06 26 22.0	+0.2
TBH	Brigand Hill	2.10	102	eP	Pn	06 26 22.9	+1.1
CUPV	Cœpira	2.74	252	eP	Pn	06 26 31.6	+1.0
CUPV				eS	Sn	06 27 04.3	+1.0
SVV	Soufriere Volc	3.03	38	eP	Pn	06 26 35.3	+0.7
SVV				eS	Sn	06 27 11.7	+1.1
SSV	Crater Summit	3.05	39	eS	Sn	06 27 11.1	0.0
MERV	Las Mercedes	3.52	242	eP	Pn	06 26 42.3	+0.9
MERV				eS	Sn	06 27 21.5	-1.2
SLB	Belfond	3.54	35	eS	Sn	06 27 21.0	-2.1
BIM	Bigot	4.10	29	eP	Pn	06 26 49.6	+0.3
FDF	Fort de France	4.25	27	eP	Pn	06 26 51.5	+0.1
CAOV	Caicara del Or	4.76	221	eP	Pn	06 26 58.5	+0.1
BAUV	El Baul	5.21	248	eP	Pn	06 27 04.5	-0.1
BAUV				eS	Sn	06 28 01.5	-2.9

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*IDC **14** 06:26:28.8±1.3, 9°.36S×112°.94E, h0^{km}, mb3.8/6, mb1 4.0/8, mb1mx3.9/20, mbtmp3.9/8, ML3.6/2, Error ellipse: s-maj=52.1km s-min=18.2km az=52.0*

*NEIC **14** 06:26:29.8±0.8, 9°.41S×112°.87E, h10^{km}, mb4.5/2, Error ellipse: s-maj=19.4km s-min=9.4km az=60.0*

*ISCJB **14** 06:26:39.9±2.3, 9°.1S±0°.1×113°.4E±0°.2, h99^{km}±18^{km}, mb3.9/8, Error ellipse: s-maj=32.5km s-min=14.6km az=150.0*

*DJA **14** 06:26:41, 9°.32S×113°.56E, h78^{km}, MLv4.3/4*

ISC 14 06:26:40.7±2.3**, 9°.2S**±0°.1×**113°.4E**±0°.2**, h90**^{km}±19^{km}**, n17, σ0s.98**/20**, mb3.9**/8**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBBI	Negara	1.43	56	P	Pn	06 27 05.9	+0.3
NBBI				S	Sn	06 27 25.4	+1.0
IGBI	Denpasar	1.74	79	P	Pn	06 27 09.7	+0.2
IGBI				S	Sn	06 27 30.4	-1.1
DNP	Denpasar	1.84	75	P	Pn	06 27 10.2	-0.6
SJI	Sawahan	2.17	311	P	Px	06 27 14.1	
KHKI	Kahang-Kahang	2.31	70	P	Pn	06 27 17.4	+0.4
KHKI				S	Sn	06 27 44.7	-0.1
UGM	Wanagama	3.12	293	P	Px	06 27 31.4	
KAPI	Kappang	7.52	57	Pn	Pn	06 28 27.9	+0.2
	3.0nm,0.3s,baz=109,slow=22,SNR=9.5						
MBWA	Marble Bar	13.39	154	ePn	Pn	06 29 40.6	-6.4
MBWA				eSn	Sn	06 31 57.1	-17
FITZ	Fitzroy Crossi	14.82	128	Pn	Pn	06 30 03.4	-2.3
	0.1nm,0.3s,baz=326,slow=11,SNR=2.0						
FITZ				Sn	Sn	06 32 35.3	-14
	0.2nm,0.3s,baz=18,slow=20,SNR=3.8						
WRA	Warramunga Arr	22.88	120	P	P	06 31 36.8	-0.2
	1.9nm,0.9s,mb3.4,baz=295,slow=11,SNR=8.6						
WRAB	Tennant Creek	22.89	120	eP	P	06 31 37.8	+0.8
	13nm,1.4s,mb4.1						
ASAR	Alice Springs	24.32	129	P	P	06 31 51.1	+1.0
	1.4nm,0.5s,mb3.5,baz=301,slow=8.4,SNR=21						
ASAR				PcP	PcP	06 35 30.2	+2.4
	0.5nm,0.5s,baz=334,slow=1.5,SNR=5.9						
FORT	Forrest	25.47	150	eP	P	06 32 03.0	+2.5
	17nm,0.9s,mb4.5						
STKA	Stephens Creek	34.55	135	P	P	06 33 20.4	-0.2
	2.3nm,0.5s,mb4.2,baz=310,slow=14,SNR=4.7						
SONM	Songino Array	57.09	354	P	P	06 36 17.7	+0.1
	0.5nm,0.5s,mb3.8,baz=173,slow=8.2,SNR=4.5						
MKAR	Makanchi Array	62.24	336	P	P	06 36 53.0	+0.1
	0.3nm,0.4s,mb3.7,baz=152,slow=7.6,SNR=14						
ZALV	Zalesovo Beam	67.37	342	P	P	06 37 24.3	-1.8
	0.5nm,0.6s,mb3.6,baz=270,slow=0.4,SNR=2.8						

NNC 14 07:07:11.2±0.8**, 46°.50N×81°.50E, h0**^{km}**, mb3.5, mpv2.8, 4C-2D, Error ellipse: s-maj=8.9km s-min=3.3km az=171.0, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK08	Makanchi Array	0.60	64	P	Pg	07 07 23.7	+0.9
MK08				S	Sg	07 07 32.7	+2.2
MK09	Makanchi Array	0.60	62	P	Pg	07 07 23.2	+0.5
MK09				S	Sg	07 07 32.1	+1.5
MK04	Makanchi Array	0.61	63	P	Pg	07 07 23.5	+0.5
MK04				S	Sg	07 07 32.1	+1.2
MK03	Makanchi Array	0.61	64	P	Pg	07 07 23.5	+0.5
MK03				S	Sg	07 07 32.5	+1.5
MK01	Makanchi Array	0.62	63	P	Pg	07 07 23.4	+0.4
MK01				S	Sg	07 07 32.3	+1.3
MK07	Makanchi Array	0.62	65	P	Pg	07 07 23.7	+0.6
MK07				S	Sg	07 07 32.7	+1.6
MK02	Makanchi Array	0.62	64	P	Pg	07 07 23.4	+0.3
MK02				S	Sg	07 07 32.4	+1.2
MK05	Makanchi Array	0.62	61	P	Pg	07 07 22.9	-0.2
MK05				S	Sg	07 07 31.6	+0.5
MK31	Makanchi Array	0.62	61	⇑P	Pg	07 07 23.1	0.0
	3.3nm,0.2s,baz=315,slow=15,SNR=407						
MK31				⇑S	Sg	07 07 31.9	+0.8
	19nm,0.4s,baz=352,slow=28,SNR=26						
MK06	Makanchi Array	0.63	63	P	Pg	07 07 23.2	0.0
MK06				S	Sg	07 07 32.0	+0.7
KURBB	Kurchatov Arra	4.58	336	⇑Pn	Pn	07 08 23.1	+1.6
KURBB				⇑Sn	Sn	07 09 17.8	+2.4
	3.4nm,0.7s						
KURK	Kurchatov	4.63	337	⇓Pn	Pn	07 08 22.8	+0.4
	2.0nm,0.6s						
KURK				⇓Sn	Sn	07 09 16.5	-0.4
	4.2nm,0.5s						

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*ISCJB **14** 07:33:15.7±0.3, 54°.40S±0°.05×5°.2E±0°.1, h10^{km}, mb5.0/29, MS4.5/17, Error ellipse: s-maj=11.6km s-min=7.4km az=15.4*

*IDC **14** 07:33:15.2±0.5, 54°.39S×5°.26E, h0^{km}, mb4.7/17, mb1 4.8/17, mb1mx4.7/20, mbtmp4.7/17, MS4.4/17, Ms1 4.4/17, ms1mx4.4/23, Error ellipse: s-maj=19.1km s-min=14.1km az=115.0*

*NEIC **14** 07:33:16.9±0.3, 54°.42S×5°.35E, h10^{km}, mb5.3/4, Error ellipse: s-maj=13.2km s-min=9.1km az=136.0*

*BJI **14** 07:33:16.8, 54°.40S×5°.40E, h20^{km}*

*GCMT **14** 07:33:16.9±0.2, 54°.47S×5°.42E, h12^{km}, MW5.1/79, Moment Tensor Solution. s30,c39; s79,c120; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.24±.14; $M_{\theta\theta}$4.82±.13; $M_{\phi\phi}$0.41±.13; $M_{r\theta}$-2.54±.46; $M_{\theta\phi}$-1.86±.12; $M_{\phi r}$0.74±.47; Best double couple: $M_0$5.98600×10^{16} NP1:ϕ_s292.00000°, δ32.00000°, λ-87.00000°. NP2: ϕ_s108.00000°, δ58.00000°, λ-92.00000°. Principal axes: T 6.1140, Plg13.0000°, Azm200.0000°; N -0.2570, Plg2.0000°, Azm109.0000°; P -5.8590, Plg77.0000°, Azm12.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 14 07:33:18.9±6.1**, 54°.44S**±0°.06×**5°.3E**±0°.1**, h20**^{km}±38^{km}**, n81, σ1s.04**/43**, mb5.0**/29**, MS4.5**/17**, 1D, Bouvet Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAIT	Maitri	16.64	173	eP	Pn	07 37 05.7	-4.9
MAIT				eE		07 37 11.9	
VNA1	Neumayer--Stat	17.35	195	e	Pn	07 37 20.6	+1.1
VNA2	Neumayer--Watz	17.47	194	e	Pn	07 37 21.3	+0.3
	baz=8.3,slow=15						
VNA3	Neumayer Olymp	18.09	196	e	Pn	07 37 28.3	-0.4
SYO	Syowa Base	21.39	146	⇓eP	P	07 38 03.6	-1.3
SUR	Sutherland	24.65	33	P	P	07 38 38.5	+0.5
	12nm,0.8s,mb4.5,baz=220,slow=6.2,SNR=7.4						
SUR				LR	LR	07 45 40.7	
	comp=Z,1μm,21.6s,MS4.4,baz=128,slow=30						
SUR	Sutherland	24.65	33	P	P	07 38 38.5	+0.5
SUR				LR	LR	07 45 40.7	
MAW	Mawson	29.56	139	LR	LR	07 48 51.0	
	comp=Z,575nm,21.2s,MS4.2,baz=283,slow=32						
BOSA	Boshof	29.60	37	P	P	07 39 22.4	-0.1
	20nm,0.9s,mb4.8,baz=205,slow=8.5,SNR=21						
BOSA				LR	LR	07 48 53.4	
	comp=Z,2μm,19.9s,MS4.6,baz=194,slow=32						
BOSA	Boshof	29.60	37	P	P	07 39 22.4	-0.1
BOSA				LR	LR	07 48 53.4	
PMSA	Palmer Station	34.76	225	LR	LR	07 50 35.7	
	comp=Z,760nm,21.0s,MS4.4,baz=152,slow=30						
QSPA	South Pole Qui	35.80	180	P	P	07 40 17.0	+0.9
	27nm,0.7s,mb5.3,baz=228,slow=4.1,SNR=105						
QSPA	South Pole Qui	35.80	180	P	P	07 40 17.0	+0.9
USHA	Ushuaia	40.84	238	P	P	07 40 58.6	-0.2
	9.2nm,0.8s,mb4.5,baz=122,slow=7.4,SNR=5.3						
LSZ	Lusaka	42.95	33	LR	LR	07 57 04.5	
	comp=Z,1μm,19.9s,MS4.8,baz=201,slow=33						
LSZ	Lusaka	42.95	33	eP	P	07 41 15.9	-0.5
	25nm,1.5s,mb4.7						
VNDA	Vanda	47.49	173	P	P	07 41 52.4	+0.5
	11nm,0.7s,mb4.9,baz=208,slow=7.7,SNR=20						
VNDA				LR	LR	08 01 23.9	
	comp=Z,531nm,20.2s,MS4.5,baz=203,slow=36						
ABPO	Ambohimpanom	47.61	59	eP	P	07 41 55.1	+1.7
	29nm,0.9s,mb5.3						
ABPO				ePP	PP	07 43 46.5	+1.6
PLCA	Paso Flores	50.51	253	P	P	07 42 14.7	-0.7
	4.8nm,0.8s,mb4.5,baz=104,slow=6.5,SNR=6.9						
PLCA				LR	LR	08 00 17.2	
	comp=Z,213nm,21.5s,MS4.1,baz=286,slow=32						
CPUP	Villa Florida	53.21	276	P	P	07 42 34.9	-0.8
	12nm,1.0s,mb4.8,baz=110,slow=7.0,SNR=13						
CPUP				LR	LR	08 01 20.9	
	comp=Z,132nm,20.8s,MS4.0,baz=125,slow=32						
CFAA	Coronel Fontan	55.64	262	P	P	07 42 51.5	-1.8
	2.1nm,1.1s,mb4.1,baz=138,slow=5.6,SNR=16						
KMBO	Kilima Mbogo	59.24	38	P	P	07 43 17.8	-1.0
	1.0nm,0.4s,mb4.2,baz=214,slow=7.3,SNR=2.3						
KMBO				LR	LR	08 06 45.0	
	comp=Z,771nm,19.9s,MS4.8,baz=278,slow=34						
LIC	Lamto	61.06	348	eP	P	07 43 30.9	-0.4
	88nm,1.1s,mb5.8						
KIC	Kosan Boka	61.16	349	eP	P	07 43 31.3	-0.6
	110nm,1.3s,mb5.8						
TIC	Toumodi	61.48	348	eP	P	07 43 33.6	-0.5
	199nm,1.1s,mb6.2						
DBIC	Dimbokro	61.48	348	P	P	07 43 32.4	-1.7
	21nm,0.9s,mb5.3,baz=148,slow=8.4,SNR=17						
DBIC				LR	LR	08 04 02.3	
	comp=Z,343nm,19.5s,MS4.5,baz=88,slow=30						
DBIC	Dimbokro	61.48	348	eP	P	07 43 33.7	-0.4
DBIC				LR	LR	08 04 02.3	
LVC	Limon Verde	62.81	269	eP	P	07 43 44.4	+1.4
	28nm,0.4s,mb5.7						
TORD	Torodi Ar. Bea	67.39	356	P	P	07 44 11.9	-0.7
	9.9nm,0.9s,mb4.8,baz=190,slow=7.3,SNR=51						
TORD				PcP	PcP	07 44 41.0	+0.9
	6.1nm,0.9s,baz=160,slow=3.1,SNR=6.8						
TORD				LR	LR	08 10 15.1	
	comp=Z,209nm,18.2s,MS4.4,baz=170,slow=33						
ARE	Arequipa	69.12	271	eP	P	07 44 25.0	+1.3
BBTS	Babate	71.30	338	LR	LR	08 06 30.2	
	comp=Z,82nm,21.4s,MS4.0,baz=255,slow=28						
MUN	Mundaring	75.47	125	ePKP	P	07 45 01.6	+0.1
YNG	Young	86.06	150	ePKP	P	07 45 58.2	+0.2
	20nm,1.0s,mb5.3						
STKA	Stephens Creek	86.13	144	ePKP	P	07 45 57.7	-0.7
	8.3nm,0.9s,mb5.0						
STKA	Stephens Creek	86.13	144	P	P	07 45 57.6	-0.8
	11nm,1.0s,mb5.0,baz=180,slow=4.0,SNR=8.4						
OTAV	Otavalo	86.56	275	eP	P	07 46 02.0	+1.3
	21nm,1.3s,mb5.2						
MDT	Midelt	87.33	352	P	P	07 46 03.2	-0.6
	9.2nm,1.0s,mb5.0,baz=175,slow=5.4,SNR=7.0						
CMSA	Cobar Meteorol	87.80	147	ePKP	P	07 46 05.7	-0.8
ROSC	El Rosal	87.92	281	LR	LR	08 23 08.8	
	comp=Z,238nm,21.5s,MS4.6,baz=13,slow=34						
KEST	Kesra	89.88	3	P	P	07 46 17.4	+1.6
	1.7nm,0.9s,mb4.4,baz=85,slow=0.1,SNR=4.5						
KEST				LR	LR	08 25 03.9	
	comp=Z,89nm,18.1s,MS4.2,baz=226,slow=35						
ASF	Jabal al Asfar	90.46	26	P	P	07 46 19.8	+1.1
	3.7nm,0.9s,mb4.7,baz=310,slow=9.2,SNR=3.6						

ASAR	Alice Springs	90.57	134	P	P	07 46 19.4	-0.3
	12nm,1.0s,mb5.2,baz=205,slow=4.9,SNR=32						
NAY	Al-Naaiem	90.84	36	*e*P	P	07 46 21.9	+1.4
NAY				AMb	AMB	07 46 23.1	
	comp=Z,19nm,1.0s,mb5.4						
KBD	Kabd	90.93	36	*e*P	P	07 46 22.6	+1.7
KBD				AMb	AMB	07 46 23.7	
	comp=Z,44nm,1.1s,mb5.7						
MIB	Mutribah	91.39	36	*e*P	P	07 46 24.4	+1.4
MIB				AMb	AMB	07 46 25.6	
	comp=Z,45nm,1.0s,mb5.8						
QLP	Quilpie	91.89	144	*e*PKP	P	07 46 25.5	-0.2
WRA	Warramunga Arr	94.06	133	P	P	07 46 33.9	-1.9
	comp=Z,1.0nm,0.9s,mb4.3,baz=210,slow=4.4,SNR=3.9						
ESDC	Sonseca Array	94.08	353	LR	LR	08 27 36.2	
	comp=Z,126nm,19.4s,MS4.4,baz=190,slow=35						
PSI	Prapat	94.36	91	LR	LR	08 20 12.0	
	comp=Z,1μm,18.0s,MS5.4,baz=273,slow=30						
RKT	Rikitea	95.56	216	*e*LR	LR	08 17 39.6	
	comp=Z,276nm,32.2s						
BRTR	Keskin Array B	96.90	22	P	P	07 46 46.0	-2.0
	comp=Z,0.5nm,0.6s,mb4.1,baz=296,slow=43,SNR=2.2						
BRTR				LR	LR	08 29 36.3	
	comp=Z,228nm,21.4s,MS4.6,baz=163,slow=35						
PPT	Papeete	105.13	205	*e*LR	LR	08 22 03.7	
	comp=Z,420nm,26.5s						
TAOE	Nuku Hiva Isla	110.57	217	*e*LR	LR	08 24 36.9	
	comp=Z,716nm,23.5s						
BVAR	Borovoye Array	119.88	39	PKP	PKPdf	07 52 06.1	-0.5
	comp=Z,1.4nm,0.9s,baz=248,slow=6.1,SNR=3.9						
MKAR	Makanchi Array	119.95	51	PKP	PKPdf	07 52 05.2	-1.7
	comp=Z,2.0nm,1.0s,baz=250,slow=3.5,SNR=10						
MKAR	Makanchi Array	119.95	51	PKP	PKPdf	07 52 05.2	-1.7
KURK	Kurchatov	121.32	45	PKP	PKPdf	07 52 08.2	-1.2
	comp=Z,1.2nm,0.5s,baz=225,slow=1.2,SNR=5.6						
GTA	Gaotai	123.28	67	*e*PKP	PKPdf	07 52 13.8	+0.2
GTA				sPKP		07 52 21.6	
SCHQ	Schefferville	123.95	318	PKP	PKPdf	07 52 13.2	-1.1
	comp=Z,5.0nm,1.0s,baz=210,slow=8.1,SNR=3.2						
TXAR	Lajitas Array	124.16	274	PKP	PKPdf	07 52 15.2	-0.4
	comp=Z,3.0nm,1.0s,baz=161,slow=2.7,SNR=14						
XAN	Xi’an	124.49	78	PKP	PKPdf	07 52 15.3	-0.8
XAN				sPKP		07 52 26.5	
ZALV	Zalesovo Beam	126.28	46	PKP	PKPdf	07 52 17.4	-1.4
	comp=Z,0.3nm,0.3s,baz=232,slow=1.7,SNR=4.8						
ZALV	Zalesovo Beam	126.28	46	PKP	PKPdf	07 52 17.4	-1.4
SONM	Songino Array	132.48	64	PKP	PKPdf	07 52 28.9	-1.9
	comp=Z,1.5nm,0.9s,baz=237,slow=0.9,SNR=7.2						
SONM				PP	PP	07 54 57.0	+1.6
	comp=Z,0.8nm,1.1s,baz=249,slow=6.2,SNR=3.5						
PDAR	Pinedale Array	136.89	282	PKP	PKPdf	07 52 39.6	+0.3
	comp=Z,4.2nm,1.0s,baz=116,slow=3.4,SNR=14						
LAO	LASA Array	137.42	289	*e*PKPdf	PKPdf	07 52 40.4	+0.3
AHID	Auburn Hatcher	137.78	281	*e*PKPdf	PKPdf	07 52 40.6	-0.3
RLMT	Red Lodge	138.19	285	*e*PKPdf	PKPdf	07 52 42.2	+0.7
DCID1	Drake Creek	138.34	282	*e*PKPdf	PKPdf	07 52 41.9	0.0
NVAR	Mina Array Bea	139.15	271	PKP	PKPdf	07 52 45.1	+1.5
	comp=Z,1.3nm,0.7s,baz=119,slow=4.2,SNR=6.4						
BOZ	Bozeman (W)	139.83	284	*e*PKPdf	PKPdf	07 52 44.1	-0.4
DLMT	Dillon	140.21	283	*e*PKPdf	PKPdf	07 52 46.4	+1.1
WVOR	Wild Horse Val	141.92	275	*e*PKPdf	PKPdf	07 52 48.3	-0.2
MJAR	Matsushiro Arr	143.26	99	PKhKP		07 52 45.5	
	comp=Z,0.9nm,0.3s,baz=218,slow=6.3,SNR=4.8						
MJAR				PKP	PKPdf	07 52 51.2	+0.2
	comp=Z,0.9nm,0.2s,baz=212,slow=4.3,SNR=4.6						
RES	Resolute Bay	144.10	334	PKP	PKPdf	07 52 50.1	-1.3
	comp=Z,21nm,1.0s,baz=95,slow=3.6,SNR=47						
EDM	Edmonton	144.79	294	*e*PKPdf	PKPdf	07 52 51.7	-1.4
LON	Longmire	146.28	279	*e*PKPbc	PKPbc	07 52 56.6	-0.5
GNW	Green Mountain	147.30	280	*e*PKPbc	PKPbc	07 53 00.0	0.0
YKA	Yellowknife Ar	148.67	309	PKPbc	PKPbc	07 53 01.9	-1.3
	comp=Z,37nm,1.1s,baz=99,slow=2.4,SNR=79						
YKA	Yellowknife Ar	148.67	309	PKPbc	PKPbc	07 53 01.9	-1.3
TIXI	Tiksi	150.71	33	*e*PKPbc	PKPbc	07 53 07.3	-0.6
TIXI				*e*PKPab	PKPab	07 53 14.2	-0.9

CASC 14 07:47:25.4±1.0**,8°.41N×82°.92W,h11**^{km}±6^{km}**,MD3.8,2C,**
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACR	Cerro Adams	0.34	315	*e*P	Pg	07 47 32.6	+0.3
BAR1		0.91	335	⇑*e*P	Pg	07 47 41.8	-1.2
CNI	Changuinola	1.08	22	*i* P	Pb	07 47 44.8	-1.3
URSC	Urasca	1.65	329	⇑*e*P	Pn	07 47 53.9	-0.4
URSC				*e*S	Sn	07 48 15.8	+0.3
LAJ	Bijagual	1.87	321	*e*P	Pn	07 48 00.0	+2.7
PRS1	Puriscal	2.08	319	*e*P	Pn	07 47 59.7	-0.5
CGA2	Cerro Gallo 2	2.21	316	*e*P	Pn	07 48 02.8	+0.8

IDC ***14*** *07:53:29.0±1.7, 6°.53S×130°.37E, h0^{km}, mb3.9/2, mb1 4.2/5, mb1mx3.9/16, mbtmp4.0/5, ML4.1/2, Error ellipse: s-maj=78.2km s-min=24.1km az=72.0*
NEIC ***14*** *07:53:41.8±1.8, 7°.08S×129°.74E, h104^{km}±21^{km}, Error ellipse: s-maj=25.3km s-min=11.6km az=221.0*
ISCJB ***14*** *07:53:42.9±1.6, 7°.32S±0°.08×129°.64E±0°.09, h133^{km}±21^{km}, Error ellipse: s-maj=17.0km s-min=11.3km az=143.3*
ISC 14 07:53:44.1±1.5**,7°.37S**±0°.08×**129°.61E**±0°.09**,h134**^{km}±19^{km}**,**
n9,σ**1**^{s}**.16**/15**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.00	153	Pn	Pn	07 55 10.8	+0.2
	87nm,0.5s						
KAKA				*e*Sn	Sn	07 56 18.4	+0.2
KAPI	Kappang	10.07	283	*e*Pn	Pn	07 56 04.5	-0.9
FITZ	Fitzroy Crossi	11.35	200	Pn	Pn	07 56 25.7	+3.4
	baz=38,slow=12						
FITZ				Sn	Sn	07 58 28.1	+0.6
	1.0nm,0.3s,baz=68,slow=22,SNR=4.4						
WRAB	Tennant Creek	13.31	160	*e*Pn	Pn	07 56 48.1	+0.2
WRAB				*e*Sn	Sn	07 59 09.9	-5.1
WRA	Warramunga Arr	13.31	160	Pn	Pn	07 56 48.4	+0.4
	0.8nm,0.3s,baz=348,slow=13,SNR=24						
WRA				Sn	Sn	07 59 11.9	-3.2
	1.8nm,0.3s,baz=345,slow=17,SNR=12						
COEN	Coen	14.85	117	*e*Pn	Pn	07 57 07.6	+0.1
COEN				*e*Sn	Sn	07 59 35.2	-17
ASAR	Alice Springs	16.72	166	P	Pn	07 57 34.1	+3.6
	0.8nm,0.3s,baz=349,slow=12,SNR=41						
ASAR				S	S	08 00 36.0	-0.9
	0.4nm,0.3s,baz=320,slow=17,SNR=5.4						
STKA	Stephens Creek	26.82	157	P	P	07 59 15.0	+3.0
	1.0nm,0.5s,baz=340,slow=11,SNR=4.2						
MKAR	Makanchi Array	68.32	327	P	P	08 04 30.4	-0.4
	0.5nm,0.5s,baz=120,slow=7.4,SNR=9.8						

ISCJB ***14*** *07:54:16.9±0.6, 33°.32N±0°.03×35°.38E±0°.04, h3^{km}±6^{km}, Error ellipse: s-maj=6.4km s-min=3.8km az=28.0*
GII ***14*** *07:54:16.9±0.6, 33°.27N×35°.41E, h1^{km}±2^{km}, Md2.0/7*
CSEM ***14*** *07:54:17.6, 33°.30N×35°.40E, h0^{km}, ML2.7, After GRAL*
GRAL ***14*** *07:54:17.6±0.4, 33°.30N×35°.40E, h0^{km}±178^{km}, MD2.7*
ISC 14 07:54:17.4±0.6**,33°.33N**±0°.03×**35°.39E**±0°.04**,h2**^{km}±7^{km}**,**
n19,σ**0**^{s}**.67**/29**,Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	343	*e*P	Pg	07 54 21.2	+0.6
MATL	Matirih	0.16	343	*e*P	Pg	07 54 21.2	+0.7
KSDI	Kefar Szold	0.27	122	Pg	Pg	07 54 21.9	-0.6
KSDI				Sg	Sg	07 54 26.4	+0.4
HNTI	Hanita	0.31	216	Pg	Pg	07 54 22.6	-0.7
HNTI				Sg	Sg	07 54 28.3	+1.1
MMA0	Mount Meron ar	0.32	178	Pg	Pg	07 54 22.9	-0.6
MMA0				Sg	Sg	07 54 27.7	+0.1
RCY	Rachaya	0.39	67	*e*P	Pg	07 54 24.9	0.0
RCY				*e*S	Sg	07 54 30.8	+0.8
RCY	Rachaya	0.39	67	*e*P	Pg	07 54 24.9	0.0
RCY				*e*S	Sg	07 54 30.8	+0.8
KSHT	Keshet	0.50	134	Pg	Pg	07 54 26.8	-0.2
KSHT				Sg	Sg	07 54 34.4	+1.0
BHL	Bhannes	0.61	21	*e*P	Pg	07 54 29.3	+0.1
BHL	Bhannes	0.61	21	*e*P	Pg	07 54 29.3	+0.2
BLGI	Bet Lehem HaGe	0.62	195	Sg	Sg	07 54 37.9	+0.6
OFRI	‘Ofer	0.79	206	Pg	Pg	07 54 32.1	-0.4
OFRI				Sg	Sg	07 54 44.2	+1.5
MMLI	Mount Malkishu	0.89	178	Pg	Pg	07 54 33.6	-0.9
MMLI				Sg	Sg	07 54 45.8	-0.3
HWQ	Hawqa	1.05	26	*e*P	Pg	07 54 37.1	-0.4
HWQ	Hawqa	1.05	26	*e*P	Pg	07 54 37.1	-0.5
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	07 54 37.0	-1.2
HMDT				Sg	Sg	07 54 51.8	-0.4
SLTI	Sal’it	1.13	195	Pg	Pg	07 54 38.1	-0.9
SLTI				Sg	Sg	07 54 53.8	+0.2
DSI	Dead Sea	1.76	180	Sn	Sn	07 55 11.6	-0.2
MZDA	Masada	2.02	181	Sn	Sn	07 55 18.6	+0.4

ISCJB ***14*** *07:59:18.2±1.4, 8°.19S±0°.04×128°.70E±0°.05, h1^{km}±8^{km}, mb5.1/77, MS4.4/19, Error ellipse: s-maj=9.7km s-min=5.7km az=152.2*
BJI ***14*** *07:59:19.7, 8°.64S×128°.75E, h30^{km}, mB5.3/28, mb5.0/45, Ms4.9/23, Ms7 4.6/21*
IDC ***14*** *07:59:20.4±0.4, 8°.13S×128°.69E, h0^{km}, mb4.8/17, mb1 4.8/17, mb1mx4.8/21, mbtmp4.8/17, MS4.4/12, Ms1 4.4/12, ms1mx4.0/28, Error ellipse: s-maj=22.5km s-min=12.1km az=63.0*
NEIC ***14*** *07:59:25.0±0.1, 8°.29S×128°.57E, mb5.0/26, Error ellipse: s-maj=7.7km s-min=4.5km az=57.0*
GCMT ***14*** *07:59:25.0±0.3, 8°.46S×128°.60E, h28^{km}, MW5.0/54, Moment Tensor Solution. s33,c38; s54,c78; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.64±.24; M$_{\theta\theta}$-2.45±.14; M$_{\phi\phi}$-1.20±.17; M$_{r\theta}$1.08±.20; M$_{\theta\phi}$-1.55±.11; M$_{\phi r}$0.10±.30; Best double couple: M$_0$3.72700×10^{16} NP1:φ$_s$229.00000°,δ38.00000°,λ78.00000°. NP2: φ$_s$64.00000°,δ53.00000°,λ99.00000°. Principal axes: T 3.8320, Plg80.0000°, Azm11.0000°; N -0.2190, Plg7.0000°, Azm238.0000°; P -3.6220, Plg8.0000°, Azm147.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
MOS ***14*** *07:59:26.4±0.8, 7°.61S×128°.57E, h33^{km}, mb5.2/23 Error ellipse: s-maj=17.5km s-min=8.1km az=118.8*
DJA ***14*** *07:59:28, 8°.56S×128°.83E, h58^{km}, mb5.3/19*
ISC 14 07:59:21.4±1.6**,8°.21S**±0°.04×**128°.68E**±0°.05**,h9**^{km}±10^{km}**,**
h29^{km}±1.3^{km}**:pP-P,n217,**σ**0**^{s}**.98**/162**,mb5.0**/77**,MS4.4**/19**,**
7C-7D,Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	5.80	141	*e*P	Pn	08 00 46.5	-1.2
	843nm,0.7s						
KAKA	Kakadu	5.80	141	*e*Pn	Pn	08 00 46.8	-0.9
KAPI	Kappang	9.42	289	*e*Pn	Pn	08 01 41.4	+4.0
FITZ	Fitzroy Crossi	10.27	196	*e*P	Pn	08 01 46.0	-3.0
	102nm,0.6s						
FITZ				*e*S	Sn	08 03 32.5	-12
FITZ	Fitzroy Crossi	10.27	196	Pn	Pn	08 01 46.8	-2.2
	4.8nm,0.3s,baz=36,slow=10,SNR=22						
FITZ				Sn	Sn	08 03 34.7	-10
	23nm,0.3s,baz=1.4,slow=6.8,SNR=11						
FITZ				LR	LR	08 06 36.5	
	comp=Z,2μm,20.0s,baz=19,slow=42						
FITZ	Fitzroy Crossi	10.27	196	*e*Pn	Pn	08 01 46.7	-2.3
	3.7nm,0.5s						
FITZ				*e*Sn	Sn	08 03 34.7	-10
WRAB	Tennant Creek	12.88	155	Pn	Pn	08 02 19.7	-5.1
	765nm,0.6s,SNR=36						
WRAB	Tennant Creek	12.88	155	*e*Pn	Pn	08 02 19.7	-5.0
WRAB				*e*Sn	Sn	08 04 36.6	-12
WRA	Warramunga Arr	12.89	155	Pn	Pn	08 02 20.1	-4.8
	13nm,0.3s,baz=341,slow=12,SNR=73						
WRA				Sn	Sn	08 04 35.9	-13
	16nm,0.3s,baz=333,slow=22,SNR=13						
COEN	Coen	15.33	113	*e*Pn	Pn	08 02 54.3	-3.7
	2μm,0.8s						
COEN				*e*Sn	Sn	08 05 35.9	-12
MBWA	Marble Bar	15.50	213	*e*Pn	Pn	08 02 58.1	-2.2
	103nm,1.2s						
ASAR	Alice Springs	16.16	163	Pn	Pn	08 03 04.7	-4.2
	4.0nm,0.3s,baz=333,slow=10,SNR=74						
ASAR				Sn	Sn	08 05 56.1	-12
	4.8nm,0.3s,baz=342,slow=24,SNR=6.5						
KKM	Kota Kinabalu	18.84	318	*e*Pn	Pn	08 03 44.5	+2.2
	83nm,1.1s						
KSM	Kuching	20.69	297	*e*P	P	08 04 03.3	+1.3
	53nm,0.9s						
KSM				*e*pP		08 04 11.2	
CTA	Charters Tower	20.71	127	*e*P	P	08 04 04.0	+1.9
	54nm,1.0s						
CTA				*e*S	S	08 08 12.5	+19
CTA	Charters Tower	20.71	127	P	P	08 04 04.0	+1.9
	53nm,0.8s,baz=301,slow=12,SNR=58						
CTA				LR	LR	08 12 44.7	
	comp=Z,1μm,19.6s,MS4.3,baz=312,slow=39						
CTAO	Charters Tower	20.71	127	*e*P	P	08 04 02.6	+0.5
CTAO				*e*S	S	08 07 53.1	-0.5
CTAO				pmax	pmax		
	comp=Z,90nm,1.0s						
CTAO	Charters Tower	20.71	127	*e*P	P	08 04 02.5	+0.4
	comp=Z,90nm,1.0s						
CTAO				*e*S	S	08 07 53.1	-0.5
FORT	Forrest	22.46	181	*e*P	P	08 04 20.8	-0.1
	comp=Z,155nm,0.7s,mb5.5						
FORT				*e*S	S	08 08 21.0	-6.8
FORT	Forrest	22.46	181	*e*P	P	08 04 21.1	+0.2
	comp=Z,264nm,1.0s,mb5.6						
FORT				*e*S	S	08 08 19.4	-8.4
XMIS	Christmas Isla	22.83	263	*e*P	P	08 04 24.7	-0.3
XMIS	Christmas Isla	22.83	263	*e*P	P	08 04 25.2	+0.2
	comp=Z,119nm,1.0s,mb5.3						
KLBR	Kellerberrin	25.39	202	*e*P	P	08 04 48.9	-0.3
	comp=Z,76nm,1.1s,mb5.1						
KLBR				*e*S	S	08 09 29.3	+13
MUN	Mundaring	26.34	204	*e*P	P	08 04 58.0	+0.2
MUN				*e*S	S	08 09 50.3	+19
STKA	Stephens Creek	26.44	155	*e*P	P	08 04 58.8	+0.1
	comp=Z,35nm,0.8s,mb4.9						
STKA	Stephens Creek	26.44	155	P	P	08 04 59.4	+0.8
	comp=Z,26nm,0.8s,mb4.8,baz=322,slow=10.0,SNR=21						
NWAO	Narrogin (SRO)	26.78	202	*e*P	P	08 05 02.0	+0.3
NWAO				pmax	pmax		
	comp=Z,28nm,0.9s						
NWAO	Narrogin (SRO)	26.78	202	P	P	08 05 01.5	-0.2
	comp=Z,20nm,0.7s,mb4.7,baz=27,slow=10,SNR=12						
NWAO				LR	LR	08 17 07.2	
	comp=Z,1μm,18.1s,MS4.5,baz=15,slow=40						
NWAO	Narrogin (SRO)	26.78	202	*e*P	P	08 05 02.0	+0.3
	comp=Z,28nm,0.9s,mb4.8						
ARMA	Armidale	30.81	139	*e*P	P	08 05 38.6	+0.9
HNR	Honiara	30.92	95	LR	LR	08 17 52.8	
	comp=Z,373nm,21.5s,MS4.0,baz=26,slow=36						
KULM	Kulim	31.00	295	*e*P	P	08 05 38.8	-0.8
	comp=Z,17nm,0.9s,mb4.9						
PSI	Prapat	31.63	289	P	P	08 05 44.4	-0.7
	comp=Z,21nm,0.9s,mb5.0,baz=151,slow=5.2,SNR=19						
PSI				PcP	PcP	08 08 37.6	+0.1
	comp=Z,2.8nm,0.3s,baz=342,slow=3.2,SNR=4.3						
CAN	Canberra	32.78	148	*e*P	P	08 05 56.2	+1.3
CAN				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
CAN	Canberra	32.78	148	*e*P	P	08 05 56.2	+1.3
	comp=Z,26nm,1.0s,mb5.1						
TOO	Toolangi	32.96	155	*e*P	P	08 05 58.8	+2.3
CNB	Canberra Magne	32.97	148	*e*P	P	08 05 57.7	+1.2
BDT	Bhumibol Dam	38.73	311	P	P	08 06 46.5	+0.3
DZM	Mont Dzumac	38.84	115	*e*P	P	08 06 48.3	+1.2
	comp=Z,7.5nm,0.5s,mb4.7						
CMAR	Chiang Mai Arr	39.53	312	P	P	08 06 53.9	+1.0
CMAR						08 09 01.4	
CMAR						08 12 50.5	
CMAR	Chiang Mai Arr	39.53	312	P	P	08 06 53.9	+0.9
	comp=Z,6.4nm,0.8s,mb4.4,baz=145,slow=7.2,SNR=30						
CMAR				PcP	PcP	08 09 01.4	+0.8
	comp=Z,5.0nm,0.8s,baz=168,slow=2.7,SNR=8.5						
CMAR				ScP	ScP	08 12 50.5	+0.8
	comp=Z,3.3nm,0.6s,baz=153,slow=3.6,SNR=15						
CMAR				LR	LR	08 25 17.5	
	comp=Z,337nm,18.8s,MS4.2,baz=140,slow=39						
CHG	Chiang Mai	39.76	313	⇓P	P	08 06 55.9	+1.1
	comp=Z,14nm,1.0s,mb4.6						
CHTO	Chiang Mai	39.76	313	*e*P	P	08 06 55.7	+0.9
CHTO				*e*		08 09 02.8	
CHTO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
CHTO	Chiang Mai	39.76	313	*e*P	P	08 06 55.7	+0.9
	comp=Z,9.4nm,0.9s,mb4.5						
CHTO				*e*PcP	PcP	08 09 02.8	+1.5
GYA	Guiyang	40.55	329	⇑*i*P	P	08 07 04.8	+3.5
GYA				pP	pP	08 07 12.6	+8.5
GYA				PP	PP	08 08 42.3	+7.5
GYA				PcP	PcP	08 09 06.4	+2.7
GYA				S	S	08 13 13.3	+2.5
GYA				SS	SS	08 16 05.4	-5.4
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
GYA				pmax	pmax		
	comp=Z,130nm,5.8s						
GYA				LR	LR		
	comp=N,560nm,17.6s						
GYA				LR	LR		
	comp=Z,480nm,18.4s,MS4.4						
WHN	Wuhan	40.91	341	⇓P	P	08 07 05.0	+0.8
WHN				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.2						
NJ2	Nanjing	41.12	347	*e*P	P	08 07 08.0	+2.2
NJ2				pmax	pmax		
	comp=Z,100nm,0.7s,mb5.5						
KMI	Kunming	41.67	323	P	P	08 07 12.6	+2.1
KMI				pP	pP	08 07 19.3	+6.0
KMI				sP	sP	08 07 22.4	+8.0
KMI				PP	PP	08 08 52.3	+5.4
KMI				S	S	08 13 30.0	+2.6
KMI				sS	sS	08 13 43.8	+12
KMI				SS	SS	08 16 32.0	-0.9
KMI				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.4						
KMI				pmax	pmax		
	comp=Z,110nm,3.3s						
KMI				LR	LR		
	comp=N,170nm,22.1s,MS4.2						
KMI				LR	LR		
	comp=E,270nm,18.3s,MS4.2						
KMI				LR	LR		
	comp=Z,230nm,28.2s						
MJAR	Matsushiro Arr	45.41	11	P	P	08 07 38.4	-2.0
	comp=Z,4.5nm,0.8s,mb4.4,baz=189,slow=9.9,SNR=7.9						
MJAR				PcP	PcP	08 09 19.7	0.0
	comp=Z,6.3nm,0.9s,baz=169,slow=3.3,SNR=5.6						
MAT	Matsushiro	45.41	11	P	P	08 07 38.1	-2.3
KSRS	Korea Array	45.43	359	P	P	08 07 39.5	-1.1
	comp=Z,3.0nm,0.8s,mb4.2,baz=175,slow=12,SNR=8.0						
KSRS				PcP	PcP	08 09 20.4	+0.6
	comp=Z,2.8nm,0.8s,baz=188,slow=3.4,SNR=5.5						
KSRS				LR	LR	08 27 16.7	
	comp=Z,154nm,18.7s,MS4.0,baz=180,slow=37						
CD2	Chengdu	45.65	330	P	P	08 07 42.9	+0.5
CD2				pP	pP	08 07 50.4	+5.1
CD2				sP	sP	08 07 53.8	+7.4
CD2				PcP	PcP	08 09 20.8	+0.1
CD2				PP	PP	08 09 30.6	+1.1
CD2				S	S	08 14 25.1	-0.4
CD2				SS	SS	08 17 40.8	-9.2
CD2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
CD2				pmax	pmax		
	comp=Z,250nm,4.3s						
CD2				LR	LR		
	comp=N,410nm,7.1s						
CD2				LR	LR		
	comp=Z,250nm,7.7s						
XAN	Xi’an	46.01	337	P	P	08 07 44.1	-1.1
XAN				pP	pP	08 07 56.8	+8.7
XAN				sP	sP	08 08 03.0	+14
XAN				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
XAN				pmax	pmax		
	comp=Z,89nm,5.9s						
SHL	Shillong	49.08	314	*e*PKP	P	08 08 09.0	-0.3
BJT	Baijiatuau	49.36	347	*e*P	P	08 08 10.6	-0.6
BJT				*e*		08 09 34.0	
BJT				pmax	pmax		
	comp=Z,11nm,0.6s						
BJT	Baijiatuau	49.36	347	*e*P	P	08 08 10.6	-0.6
	comp=Z,11nm,0.6s,mb5.1						
BJT				*e*PcP	PcP	08 09 34.0	+0.3
BJI	Beijing	49.38	347	P	P	08 08 11.0	-0.3
BJI				pP	pP	08 08 20.9	+6.7
BJI				sP	sP	08 08 23.4	+8.1
BJI				PP	PP	08 10 09.3	+3.7
BJI				S	S	08 15 21.6	+3.3
BJI				sS	sS	08 15 33.4	+10
BJI				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
BJI				pmax	pmax		
	comp=Z,270nm,5.1s						
BJI				LR	LR		
	comp=Z,150nm,27.7s,MS3.8						
LZH	Lanzhou	49.87	334	*e*P	P	08 08 16.1	+0.9
LZH				PP	PP	08 10 12.0	+1.9
LZH				*e*S	S	08 15 22.0	-3.3
LZH				SS	SS	08 18 52.0	-6.4
LZH				pmax	pmax		
	comp=Z,69nm,1.6s,mb5.4						
LZH				pmax	pmax		
	comp=Z,230nm,5.8s						
LZH				LR	LR		
	comp=N,620nm,14.1s						
LZH				LR	LR		
	comp=Z,840nm,15.0s,MS4.9						
LZH	Lanzhou	49.87	334	*e*P	P	08 08 22.4	+7.2
LZH				pP	pP	08 08 32.5	+14
LZH				sP	sP	08 08 39.9	+21
LZH				pmax	pmax		
	comp=Z,83nm,1.5s,mb5.5						
LZH				pmax	pmax		
	comp=Z,230nm,5.8s						
PALK	Pallekele	50.24	287	*i* P	P	08 08 18.5	+0.1
RPZ	Rata Peaks	51.10	141	P	P	08 08 24.8	+0.4
	comp=Z,17nm,0.6s,mb5.2,baz=12,slow=4.9,SNR=12						
RPZ				LR	LR	08 30 55.1	
	comp=Z,805nm,19.2s,MS4.8,baz=258,slow=37						
HHC	Hu-ho-hao-te	51.30	343	*e*P	P	08 08 26.3	+0.5
HHC				pP	pP	08 08 33.5	+4.8
HHC				PcP	PcP	08 09 39.4	-1.4
HHC				PP	PP	08 10 24.3	+1.3
HHC				PcS	PcS	08 13 36.4	-2.0
HHC				*e*S	S	08 15 44.8	-0.2
HHC				ScS	ScS	08 18 11.4	-5.3
HHC				SS	SS	08 19 18.8	-2.1
HHC				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
HHC				pmax	pmax		
	comp=Z,150nm,4.4s						
HHC				LR	LR		
	comp=N,320nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=E,200nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=Z,170nm,15.5s,MS4.2						
CN2	Changchun	51.85	357	*e*P	P	08 08 34.3	+4.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
LSA	Lhasa	52.19	318	P	P	08 08 33.6	+0.9
LSA	Lhasa	52.19	318	*e*P	P	08 08 34.1	+1.4
LSA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
LSA	Lhasa	52.19	318	*e*P	P	08 08 34.0	+1.4
	comp=Z,20nm,0.8s,mb5.1						
MDJ	Mudanjiang	52.59	1	P	P	08 08 38.3	+2.9
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.8s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,160nm,4.5s						
URZ	Urewera	52.80	132	P	P	08 08 37.1	-0.1
	comp=Z,5.7nm,0.5s,mb4.8,baz=32,slow=20,SNR=6.5						
ODAN	Odare	53.08	312	*e*P	P	08 08 39.0	-0.4
	comp=Z,48nm,0.7s,mb5.5						
TAPN	Taplejung	53.13	313	*e*P	P	08 08 39.4	-0.3
	comp=Z,97nm,1.0s,mb5.7						
RAMN	Ramite	53.71	312	*e*P	P	08 08 44.2	+0.2
	comp=Z,99nm,0.7s,mb5.8						
JIRN	Jiri	54.41	313	*e*P	P	08 08 49.2	+0.1
	comp=Z,59nm,0.9s,mb5.5						
GTA	Gaotai	54.42	333	*e*P	P	08 08 49.8	+0.9
GTA				pP	pP	08 08 57.1	+5.3
GTA				sP	sP	08 09 00.3	+7.4
GTA				PcS	PcS	08 13 52.8	+0.8
GTA				S	S	08 16 25.8	-1.8
GTA				sS	sS	08 16 39.0	+6.7
GTA				SS	SS	08 20 06.3	-3.9
GTA				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
GTA				pmax	pmax		
	comp=Z,120nm,6.9s						
GTA				LR	LR		
	comp=N,200nm,9.0s						
GTA				LR	LR		

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      comp=E,190nm,8.7s
GTA                              LR      LR
      comp=Z,280nm,12.0s,MS4.5
GUN   Gumba              54.78 313 eP      P        08 08 51.8  0.0
      comp=Z,117nm,0.8s,mb6.0
PKI   Pulchoki           54.93 312 eP      P        08 08 52.6 -0.3
      comp=Z,44nm,0.8s,mb5.5
PKIN  Phulchoki          54.95 312 eP      P        08 08 52.4 -0.6
      comp=Z,32nm,0.8s,mb5.4
KKN   Kakani             55.15 312 eP      P        08 08 54.2 -0.3
      comp=Z,72nm,1.0s,mb5.7
DMN   Daman              55.18 312 eP      P        08 08 54.4 -0.3
      comp=Z,78nm,1.0s,mb5.7
HYB   Hyderabad          55.69 297 i P     P        08 08 57.0 -1.5
HYB   Hyderabad          55.69 297 eP      P        08 08 57.0 -1.5
GKN   Gorkha             55.74 312 eP      P        08 08 58.5 -0.2
      comp=Z,74nm,0.8s,mb5.8
KOLN  Koldanda           56.38 311 eP      P        08 09 03.0 -0.3
      comp=Z,111nm,0.9s,mb5.9
DANN  Dangsing           56.58 312 eP      P        08 09 04.5 -0.2
      comp=Z,78nm,0.9s,mb5.7
HABR  Khabarovsk         56.72   5 eP      P        08 09 04.0 -1.3
HABR                               e*PP    pP       08 09 11.2 +3.0
HABR                                S      S        08 16 58.1 +0.1
HABR                                MLR    MLR
      comp=Z,163nm,16.0s,MS4.2
KLR   Kul'dur            57.26   2 eP      P        08 09 08.2 -0.9
ULN   Ulaanbaatar        59.02 343 eP      P        08 09 22.3 +0.8
ULN                                e*PP    pP       08 09 30.2 +5.8
ULN                                 pmax   pmax
      comp=Z,37nm,1.2s,mb5.3
ULN   Ulaanbaatar        59.02 343 eP      P        08 09 22.3 +0.8
      comp=Z,37nm,1.2s,mb5.3
ULN                                epP     pP       08 09 30.2 +5.8
SONM  Songino Array      59.18 343  P      P        08 09 23.4 +0.8
      comp=Z,4.0nm,0.8s,mb4.5,baz=160,slow=6.3,SNR=20
NDI   New Delhi          61.70 309 ePKP    P        08 09 36.5 -3.7
ZAK   Zakamensk          62.39 342 eP      P        08 09 44.3 -0.1
ZAK                                 pmax   pmax
      comp=Z,12nm,1.5s,mb4.8
TLY   Talaya             63.42 343 eP      P        08 09 58.8 +7.5
TLY                                e                08 18 33.1
TLY                                 pmax   pmax
      comp=Z,24nm,1.7s,mb5.0
WMQ   Urumqi             63.70 328  P      P        08 09 54.1 +0.8
WMQ                                 pP     pP       08 10 02.0 +5.8
WMQ                                 sP     sP       08 10 05.0 +7.7
WMQ                                 PcP    PcP      08 10 30.0 +0.6
WMQ                                eS      S        08 18 26.0 -1.9
WMQ                                 sS     sS       08 18 48.0  +15
WMQ                                 pmax   pmax
      comp=Z,10.0nm,1.3s,mb4.7
WMQ                                 pmax   pmax
      comp=Z,170nm,4.7s
WMQ                                 LR     LR
      comp=N,310nm,17.4s,MS4.6
WMQ                                 LR     LR
      comp=E,220nm,20.2s,MS4.6
WMQ                                 LR     LR
      comp=Z,340nm,19.0s,MS4.5
IRK   Irkutsk            63.74 344 eP      P        08 10 00.5 +7.1
IRK                                 pmax   pmax
      comp=Z,40nm,1.4s,mb5.3
PETK  Petropavlovsk-     65.88  19  P      P        08 10 07.0 -0.2
      comp=Z,5.9nm,0.8s,mb4.7,baz=172,slow=3.7,SNR=4.6
BOD   Bodaibo            66.88 352 eP      P        08 10 13.3 -0.3
BOD                                 pmax   pmax
      comp=Z,8.0nm,1.2s,mb4.6
KSH   Kashi              68.03 318⇓iP      P        08 10 21.9 +0.6
KSH                                epP     pP       08 10 30.3 +6.1
KSH                                esP     sP       08 10 33.3 +8.0
KSH                                ePcP    PcP      08 10 49.3 +1.8
KSH                                ePP     PP       08 12 52.9 +1.3
KSH                                eScP             08 14 49.0
KSH                                ePcS             08 14 50.5
KSH                                eS      S        08 19 16.1 -4.9
KSH                                eScS    ScS      08 20 15.3 -5.5
KSH                                 pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.8
KSH                                 pmax   pmax
      comp=Z,330nm,4.6s
KSH                                 LR     LR
      comp=N,370nm,5.2s
KSH                                 LR     LR
      comp=E,360nm,8.2s
MK31  Makanchi Array     68.53 328  P      P        08 10 23.8 -0.4
MK31                                pmax   pmax
      comp=Z,21nm,1.1s,mb5.0
MKAR  Makanchi Array     68.53 328  P      P        08 10 24.5 +0.2
      comp=Z,3.0nm,0.5s,mb4.5,baz=117,slow=8.4,SNR=70
YAK   Yakutsk            70.03   1 eP      P        08 10 32.0 -1.2
YAK                                 pmax   pmax
      comp=Z,23nm,0.8s,mb5.2
TKM2  Tokmak 2           70.09 321 eP      P        08 10 34.3 +0.3
TKM2                                pmax   pmax
      comp=Z,5.0nm,0.8s,mb4.5
TKM2  Tokmak 2           70.09 321 eP      P        08 10 34.2 +0.2
      comp=Z,5.0nm,0.8s,mb4.5
UCH   Uchtor             70.40 320 eP      P        08 10 36.5 +0.6
      comp=Z,5.0nm,0.8s,mb4.5
KBL   Kabul              70.55 311 eP      P        08 10 36.5 -0.5
KBL                                 pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.6
KBL   Kabul              70.55 311 eP      P        08 10 36.5 -0.5
      comp=Z,5.8nm,0.7s,mb4.6
AAK   Ala-Archa          70.62 321  P      P        08 10 37.2 -0.1
      comp=Z,65nm,1.0s,mb5.5,SNR=6.0
AAK   Ala-Archa          70.62 321 eP      P        08 10 37.8 +0.5
AAK                                 pmax   pmax
      comp=Z,11nm,0.9s,mb4.8
AAK   Ala-Archa          70.62 321 eP      P        08 10 37.8 +0.5
      comp=Z,11nm,0.9s,mb4.8
AML   Almayashu          70.87 320 eP      P        08 10 39.4 +0.6
      comp=Z,11nm,0.9s,mb4.8
EKS2  Erkin-Say          71.09 320 eP      P        08 10 40.6 +0.5
      comp=Z,16nm,1.1s,mb4.8
VNDA  Vanda              71.41 173  P      P        08 10 42.5 +1.0
      comp=Z,2.3nm,0.8s,mb4.2,baz=258,slow=9.1,SNR=4.0
VNDA                                LR     LR       08 40 32.8
      comp=Z,257nm,20.4s,MS4.5,baz=330,slow=35
ZAA0  Zalesovo Array     72.09 335 eP      P        08 10 45.2 -0.7
ZAA0                               epP     pP       08 10 54.5 +5.7
ZALV  Zalesovo Beam      72.09 335  P      P        08 10 45.4 -0.6
      comp=Z,16nm,0.8s,mb5.0,baz=108,slow=4.8,SNR=50
KURK  Kurchatov          72.87 329  P      P        08 10 50.5 -0.1
      comp=Z,201nm,0.9s,mb6.0,SNR=20
KURK  Kurchatov          72.87 329 eP      P        08 10 50.6  0.0
KURK                               e*PP    pP       08 11 00.0 +6.4
KURK                                pmax   pmax
      comp=Z,35nm,1.0s,mb5.2
KURK  Kurchatov          72.87 329 eP      P        08 10 50.5 -0.1
      comp=Z,35nm,1.0s,mb5.2
KURK                               epP     pP       08 11 00.0 +6.4
SEY   Seymchan           73.23  11⇓iP      P        08 10 52.3 -0.2
MAW   Mawson             73.35 201  LR     LR       08 39 27.6
      comp=Z,296nm,18.2s,MS4.6,baz=64,slow=33
BVA0  Borovoye Array     78.39 328  P      P        08 11 21.8 -0.4
BVA0                                pmax   pmax
      comp=Z,6.0nm,1.2s,mb4.4
BVAR  Borovoye Array     78.39 328  P      P        08 11 22.2  0.0
      comp=Z,17nm,0.9s,mb5.0,baz=134,slow=6.4,SNR=55
BRVK  Borovoye           78.46 328  P      P        08 11 22.8 +0.2
      comp=Z,153nm,1.1s,mb5.8,SNR=12
BRVK  Borovoye           78.46 328 eP      P        08 11 22.3 -0.3
BRVK                                pmax   pmax
      comp=Z,41nm,1.2s,mb5.2
BRVK  Borovoye           78.46 328 eP      P        08 11 22.3 -0.3
      comp=Z,41nm,1.2s,mb5.2
TIXI  Tiksi              79.69   0 eP      P        08 11 28.1 -0.9
TIXI                                pmax   pmax
      comp=Z,9.0nm,0.7s,mb4.8
TIXI  Tiksi              79.69   0 eP      P        08 11 28.1 -0.9
      comp=Z,9.2nm,0.7s,mb4.8
PPT   Papeete            79.74 106 eLR     LR       08 35 39.9
      comp=Z,474nm,31.5s
PPT   Papeete            79.74 106  LR     LR       08 40 27.8
      comp=Z,122nm,20.1s,MS4.2,baz=65,slow=31
BILL  Bilibino           80.59  13⇓eP      P        08 11 33.9  0.0
BILL                               eS      S        08 21 44.6 +3.9
BILL                                pmax   pmax
      comp=Z,2.0nm,1.3s,mb3.9
QSPA  South Pole Qui     81.77 180  LR     LR       08 48 37.7
      comp=Z,261nm,18.9s,MS4.6,baz=126,slow=36
QSPA  South Pole Qui     81.77 180 eP      P        08 11 40.8 +0.6
      comp=Z,29nm,1.2s,mb5.1
SYO   Syowa Base         82.06 201⇑eP      P        08 11 42.0 +0.2
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AB31  Akbulak array      82.64 322  P      P        08 11 44.4 -0.7
AB31                                pmax   pmax
      comp=Z,11nm,0.9s,mb4.9
AKTK  Aktyubinsk         84.23 323  P      P        08 11 53.4 +0.1
AKTO  Aktyubinsk         84.23 323  P      P        08 11 53.4 +0.1
      comp=Z,15nm,1.0s,mb5.1,baz=115,slow=5.0,SNR=33
SVE   Sverdlovsk         85.12 329⇑eP      P        08 11 57.8 +0.2
SVE                                eS      S        08 22 16.0  -11
SVE                                 pmax   pmax
      comp=Z,45nm,1.2s,mb5.5
ARU   Arti               86.04 328d iP     P        08 12 01.6 -0.6
ARU                                e                08 15 20.7
ARU                                 S      S        08 22 25.5  -11
ARU                                 SS     SS       08 28 14.8 +0.1
ARU                                 pmax   pmax
      comp=Z,28nm,1.0s,mb5.5
ARU   Arti               86.04 328 eP      P        08 12 02.0 -0.2
      comp=Z,39nm,1.1s,mb5.5
ARU                                epP     pP       08 12 11.6 +6.4
KBD   Kabd               86.17 300 eP      P        08 12 01.9 -1.6
KBD                                 AMb    AMB      08 12 03.7
      comp=Z,22nm,1.7s,mb5.1
NAY   Al-Naaiem          86.57 300 eP      P        08 12 03.8 -1.7
NAY                                 AMb    AMB      08 12 14.3
      comp=Z,9.5nm,1.1s,mb4.9
NAY   Al-Naaiem          86.57 300 eP      P        08 12 04.4 -1.1
NAY                                 AMb    AMB      08 12 06.7
      comp=Z,7.9nm,0.8s,mb5.0
MIB   Mutribah           86.59 301 eP      P        08 12 04.3 -1.2
MIB                                 AMb    AMB      08 12 06.7
      comp=Z,19nm,1.1s,mb5.2
MIB   Mutribah           86.59 301 eP      P        08 12 04.8 -0.8
MIB                                 AMb    AMB      08 12 06.7
      comp=Z,19nm,1.1s,mb5.2
CHGN  Chignik            87.46  32 eP      P        08 12 08.7 -0.5
KMBO  Kilima Mbogo       91.25 269  P      P        08 12 29.1 +1.1
      comp=Z,1.7nm,0.4s,mb4.7,baz=54,slow=5.3,SNR=6.5
RKT   Rikitea            92.60 114 eLR     LR       08 41 39.9
      comp=Z,203nm,25.5s
MCK   McKinley           93.94  26 eP      P        08 12 38.7 -0.5
MCK                                 pmax   pmax
      comp=Z,174nm,2.6s,mb6.0
MCK   McKinley           93.94  26 eP      P        08 12 38.7 -0.5
      comp=Z,174nm,2.6s,mb6.0
VNA2  Neumayer--Watz     95.76 193 eP      P        08 12 47.9 +0.3
      baz=112,slow=4.2
BRTR  Keskin Array B     99.05 309  LR     LR       09 05 06.0
      comp=Z,91nm,18.7s,MS4.3,baz=256,slow=40
RES   Resolute Bay      109.11  11  Pdiff  Pdif     08 13 47.5  0.0
      comp=Z,0.7nm,0.7s,baz=9.1,slow=6.0,SNR=3.6
YKA   Yellowknife Ar    109.41  26  Pdiff  Pdif     08 13 49.1 +0.4
      comp=Z,0.6nm,0.7s,baz=291,slow=5.1,SNR=8.4
YKA                                 PKiKP  PKiKP    08 17 52.6 +0.8
      comp=Z,1.4nm,0.7s,baz=295,slow=1.7,SNR=23
NOA   NORSAR Array B    110.25 333  PKiKP  PKiKP    08 17 54.4 +0.9
      comp=Z,1.2nm,0.8s,baz=262,slow=3.1,SNR=3.7
CLL   Collm             112.31 322 eP      Pdif     08 13 59.0 -2.6
CLL                                e                08 17 59.0
CLL   Collm             112.31 322 ePKiKP  PKiKP    08 17 59.0 +1.3
GERES GERESS Array B    112.50 320  PKiKP  PKiKP    08 17 59.3 +1.2
      comp=Z,3.0nm,0.6s,baz=57,slow=2.1,SNR=26
WTTA  Wattenberg        114.23 318⇑iPKiKP  PKiKP    08 18 02.1 +0.6
      comp=Z,15nm,0.6s
WATA  Walderalm         114.25 318⇑iPKiKP  PKiKP    08 18 02.6 +1.1
      comp=Z,5.3nm,0.5s
MOTA  Moosalm           114.56 318⇑iPKiKP  PKiKP    08 18 03.2 +1.0
      comp=Z,5.5nm,0.5s
FETA  Feichten          114.89 318⇓iPKiKP  PKiKP    08 18 04.0 +1.3
      comp=Z,2.9nm,0.6s
DAVA  Damuels           115.38 319⇑iPKiKP  PKiKP    08 18 04.1 +0.5
      comp=Z,8.9nm,0.6s
HINF  Hinteralfeld      117.17 320 ePKP1   PKPdf    08 18 07.4 +0.3
      comp=Z,23nm,0.7s
PGF   Pioggiola         117.24 314 ePKP1   PKPdf    08 18 08.2 +0.8
HAU   Haudompre         117.43 320 ePKP1   PKPdf    08 18 08.1 +0.5
      comp=Z,12nm,0.7s
REDW  Red Top Meadow    117.59  45 ePKPdf  PKPdf    08 18 11.0 +3.0
GIVF  Givet             117.62 323 ePKP1   PKPdf    08 18 08.9 +1.0
LOHW  Long Hollow       117.70  45 ePKPdf  PKPdf    08 18 10.5 +2.2
LPG   La Plagne         117.97 317 ePKP1   PKPdf    08 18 09.9 +1.2
      comp=Z,8.2nm,0.6s
LPL   La Plagne         117.98 318 ePKP1   PKPdf    08 18 09.8 +1.0
      comp=Z,14nm,0.6s
SBF   Sospel            117.99 316 ePKP1   PKPdf    08 18 09.4 +0.6
      comp=Z,16nm,0.7s
BAIF  Baives            118.01 323 ePKP1   PKPdf    08 18 09.7 +1.0
CABF  La Chapelle       118.06 319 ePKP1   PKPdf    08 18 09.9 +1.0
      comp=Z,26nm,0.6s
MBDF  Montbardon        118.19 317 ePKP1   PKPdf    08 18 09.6 +0.4
      comp=Z,10nm,0.7s
KEST  Kesra             118.49 306  PKP    PKPdf    08 18 10.8 +0.7
      comp=Z,1.1nm,0.6s,baz=290,slow=8.2,SNR=4.6
FRF   La Foret Royal    118.63 315 ePKP1   PKPdf    08 18 09.9 -0.2
      comp=Z,18nm,0.9s
PDAR  Pinedale Array    118.67  46  PKP    PKPdf    08 18 11.6 +1.4
      comp=Z,0.9nm,0.6s,baz=252,slow=0.9,SNR=6.6
ORIF  Oris-en-Rattie    118.74 317 ePKP1   PKPdf    08 18 11.0 +0.8
      comp=Z,9.1nm,0.5s
LMR   La Mourre         118.79 315 ePKP1   PKPdf    08 18 11.0 +0.6
SMRF  Simiane la Rot    119.24 316 ePKP1   PKPdf    08 18 12.5 +1.3
      comp=Z,10nm,0.7s
LOR   Lormes            119.26 320 ePKP1   PKPdf    08 18 11.8 +0.6
      comp=Z,9.0nm,0.6s
SMF   Signal de Mont    119.50 319 ePKP1   PKPdf    08 18 12.1 +0.5
SSF   Saint Saulge      119.56 320 ePKP1   PKPdf    08 18 12.5 +0.8
      comp=Z,20nm,0.7s
VIVF  Saint-Julien-l    119.57 317 ePKP1   PKPdf    08 18 12.6 +0.8
      comp=Z,6.7nm,0.6s
AVF   Avril sur Loir    119.76 320 ePKP1   PKPdf    08 18 12.6 +0.5
      comp=Z,7.6nm,0.5s
BGF   Bois d'Agland     120.17 320 ePKP1   PKPdf    08 18 13.9 +1.0
      comp=Z,38nm,0.7s
PV04  Paradox Valley    120.31  50 ePKPdf  PKPdf    08 18 21.3 +7.8
LASF  Ste Croix         120.38 317 ePKP1   PKPdf    08 18 14.0 +0.6
TCF   Toulx Ste Croi    120.68 320 ePKP1   PKPdf    08 18 14.9 +1.0
      comp=Z,14nm,0.7s
LDF   La Druitiere      121.19 323 ePKP1   PKPdf    08 18 15.4 +0.6
CAF   Calviac           121.28 318 ePKP1   PKPdf    08 18 16.4 +1.3
      comp=Z,24nm,0.9s
RJF   Les Rejaudoux     121.50 319 ePKP1   PKPdf    08 18 16.7 +1.2
MTLF  Montolieu         121.75 316 ePKP1   PKPdf    08 18 16.8 +0.7
RSSD  Black Hills       122.03  43 ePKIKP  PKPdf    08 18 17.1 +0.5
MFF   Saint Martin d    122.05 321 ePKP1   PKPdf    08 18 17.3 +0.8
      comp=Z,25nm,0.7s
LFF   La Frestale       122.15 319 ePKP1   PKPdf    08 18 18.1 +1.3
ANMO  Albuquerque       123.07  54 ePKIKP  PKPdf    08 18 20.9 +2.0
EPF   Esparros          123.14 317 ePKP1   PKPdf    08 18 19.4 +0.6
      comp=Z,7.8nm,0.5s
ROSF  Rostrenen         123.18 324 ePKP1   PKPdf    08 18 19.2 +0.5
ETSF  Etsaut            123.80 317 ePKP1   PKPdf    08 18 21.7 +1.7
      comp=Z,15nm,0.7s
SJPF  Ste Jean          124.17 317 ePKP1   PKPdf    08 18 21.3 +0.6
      comp=Z,9.9nm,0.6s
ULM   Lac du Bonnet     124.17  33  PKP    PKPdf    08 18 20.2 -0.3
      comp=Z,2.9nm,0.7s,baz=300,slow=3.1,SNR=3.6
TXAR  Lajitas Array     126.67  60  PKP    PKPdf    08 18 27.4 +1.5
      comp=Z,0.8nm,0.7s,baz=212,slow=2.9,SNR=8.5
ESDC  Sonseca Array     127.43 314  PKP    PKPdf    08 18 28.3 +1.2
      comp=Z,1.0nm,0.5s,baz=356,slow=4.1,SNR=6.0
ESDC  Sonseca Array     127.43 314  PKP    PKPdf    08 18 28.3 +1.2
TORD  Torodi Ar. Bea    127.75 280  PKP    PKPdf    08 18 29.4 +1.1
      comp=Z,7.0nm,0.8s,baz=59,slow=1.9,SNR=38
TORD  Torodi Ar. Bea    127.75 280  PKP    PKPdf    08 18 29.4 +1.1
PLCA  Paso Flores       128.17 161  PKP    PKPdf    08 18 28.8 +0.2
      comp=Z,2.2nm,0.8s,baz=277,slow=10,SNR=4.8
PLCA  Paso Flores       128.17 161  PKP    PKPdf    08 18 28.8 +0.2
JCT   Junction City     129.65  57 ePKIKP  PKPdf    08 18 33.3 +1.7
SCHQ  Schefferville     131.88  12  PKP    PKPdf    08 18 35.7 +0.6
      comp=Z,3.2nm,0.6s,baz=67,slow=2.7,SNR=11
SCHQ  Schefferville     131.88  12  PKP    PKPdf    08 18 35.7 +0.6
DBIC  Dimbokro          133.92 271  PKP    PKPdf    08 18 40.8 +0.7
      comp=Z,6.3nm,0.9s,baz=62,slow=1.2,SNR=5.9
TKL   Tuckaleechee C    139.69  42 ePKIKP  PKPdf    08 18 46.9 -3.3
LVC   Limon Verde       144.85 151 ePKPdf  PKPdf    08 19 01.1 +1.3
CPUP  Villa Florida     145.17 171  PKPbc  PKPbc    08 19 00.5 +0.7
      comp=Z,2.8nm,0.3s,baz=174,slow=2.1,SNR=32
NNA   Nana              147.65 128 ePKPbc  PKPbc    08 19 07.9 +0.5
ARE   Arequipa          148.39 141 ePKP2   PKPab    08 19 15.0 +2.6
OTAV  Otavalo           151.83 105 ePKPbc  PKPbc    08 19 20.4 +2.5
SDV   Santo Domingo     160.89  87 ePKPdf  PKPdf    08 19 24.1 +0.9
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ISCJB ***14*** *08:03:50.8±0.4, 39°.54N±0°.02×25°.96E±0°.02, h5km±3km,*
Error ellipse: s-maj=3.4km s-min=2.6km az=149.0
NEIC ***14*** *08:03:50.5, 39°.53N×25°.98E, h5km, MD3.6(ATH),*
ML3.5(ISK), After ISK.
ISK ***14*** *08:03:50.6, 39°.53N×25°.99E, h5km, MD3.3, ML3.5*
THE ***14*** *08:03:51.8, 39°.53N×25°.99E, h9km, ML4.2/5, Error ellipse:*
s-maj=1.0km s-min=0.4km az=230.0
SOF ***14*** *08:03:51.1, 39°.69N×26°.07E, h13km, MD2.8*
ATH ***14*** *08:03:51.4, 39°.58N×26°.04E, h3km, MD3.6/7*
DDA ***14*** *08:03:51.3, 39°.56N×26°.07E, h8km±4km, Md3.7, Ml3.7*
CSEM ***14*** *08:03:51.3±0.1, 39°.53N×25°.98E, h5km, ML4.2/5, Error*
ellipse: s-maj=3.9km s-min=2.9km az=66.0
ISC 14 08:03:51.6±0.3**, 39°.55N**±0°.02×**25°.99E**±0°.02**, h6**km±3km**,**
n110, σ1ˢ.06/149**, 7C-9D, Aegean Sea**

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Code  Station Name        Δ°   AZ°     Phase ID           Time      Res
                                     Op      ISC        h  m  s     ISC
BOZC  Bozcaada           0.30  10⇑iP      Pg       08 03 57.6 +0.1
BOZC                              i S     Sg       08 04 01.9 +0.4
SIGR  SIGRI              0.35 197  P      Pg       08 03 58.5 +0.1
SIGR                               S      Sg       08 04 03.4 +0.5
SIGR  SIGRI              0.35 197  P      Pg       08 03 58.5 +0.1
SIGR                               S      Sg       08 04 03.4 +0.5
PRK   Paraskevi          0.37 143  P      Pg       08 03 58.9 +0.1
PRK                                S      Sg       08 04 04.4 +0.7
PRK   Paraskevi          0.37 143 ePG     Pg       08 03 58.5 -0.3
PRK   Paraskevi          0.37 143 ePg     Pg       08 03 58.5 -0.3
PRK   Paraskevi          0.37 143  P      Pg       08 03 58.9 +0.1
PRK                                S      Sg       08 04 04.4 +0.7
EZN   Ezine              0.38  43  PG     Pg       08 03 58.9 -0.2
EZN                               eSG     Sg       08 04 04.6 +0.5
EZN   Ezine              0.38  43  Pg     Pg       08 03 59.0 -0.1
EZN                                Sg     Sg       08 04 05.0 +0.9
EZN   Ezine              0.38  43 i Pg    Pg       08 03 58.9 -0.2
EZN                               eSg     Sg       08 04 04.6 +0.5
AYVA  Ayvalik            0.60 113 eP      Pg       08 04 02.8 -0.2
AYVA                              eS      Sg       08 04 11.0 +0.2
AYVA  Ayvalik            0.60 113 eP      Pg       08 04 02.8 -0.3
AYVA                              eS      Sg       08 04 11.0 +0.2
GADA  Gvkgeada           0.65 354 ePG     Pg       08 04 03.8 -0.3
GADA                              eSG     Sg       08 04 13.4 +0.9
GADA  Gvkgeada           0.65 354 ePg     Pg       08 04 03.8 -0.3
GADA                              eSg     Sg       08 04 13.4 +0.9
LIA   Limnos Island      0.71 300  P      Pg       08 04 05.5 +0.2
LIA                                S      Sg       08 04 16.5 +2.0
LIA   Limnos Island      0.71 300 ePG     Pg       08 04 05.5 +0.2
LIA   Limnos Island      0.71 300 ePg     Pg       08 04 05.5 +0.2
LPK   Lapseki            1.02  36 ePG     Pg       08 04 10.3 -0.8
LPK   Lapseki            1.02  36  Pg     Pg       08 04 10.7 -0.5
LPK                                Sg     Sg       08 04 25.7 +1.3
LPK   Lapseki            1.02  36  Pg     Pg       08 04 10.7 -0.5
LPK                                Sg     Sg       08 04 25.7 +1.3
CHOS  Chios island       1.16 177  P      Pg       08 04 12.6 -1.2
CHOS                               S      Sg       08 04 29.8 +1.0
CHOS  Chios island       1.16 177  P      Pg       08 04 12.6 -1.2
CHOS                               S      Sg       08 04 29.8 +1.0
ENEZ  Enez               1.20   6 ePN     Pn       08 04 13.8 -1.0
ENEZ  Enez               1.20   6 ePn     Pn       08 04 13.8 -1.0
BALY  Balya              1.28  81⇑iP      Pn       08 04 14.8 -1.1
BALY                              i S     Sb       08 04 31.4 -1.2
BALY  Balya              1.28  81 i P     Pn       08 04 14.8 -1.1
BALY                              i S     Sb       08 04 31.5 -1.1
ALN   Alexandroupoli     1.35   2  P      Pn       08 04 15.9 -1.0
ALN                                S      Sb       08 04 34.7 -0.1
ALN   Alexandroupoli     1.35   2 ePN     Pn       08 04 16.5 -0.4
ALN                               eSB     Sb       08 04 33.7 -1.1
ALN   Alexandroupoli     1.35   2  P      Pn       08 04 15.9 -1.0
ALN   Alexandroupoli     1.35   2 ePn     Pn       08 04 16.5 -0.4
ALN                               eSb     Sb       08 04 33.7 -1.1
ALN                                S      Sb       08 04 34.7 -0.1
BLCB  Balcova            1.42 144 ePN     Pn       08 04 18.0 +0.1
BLCB                              eSN     Sn       08 04 36.5 -0.3
BLCB  Balcova            1.42 144  P      Pn       08 04 16.8 -1.1
BLCB  Balcova            1.42 144  P      Pn       08 04 16.8 -1.1
BLCB  Balcova            1.42 144 ePn     Pn       08 04 18.0 +0.1
BLCB                              eSn     Sn       08 04 36.6 -0.3
SART  Tekirdag           1.46  38⇑iP      Pn       08 04 17.4 -1.1
SART                              i S     Sn       08 04 37.3 -0.7
SART  Tekirdag           1.46  38 i P     Pn       08 04 17.4 -1.1
SART                              i S     Sn       08 04 37.3 -0.6
BALB  Balikesir          1.47  86 ePN     Pn       08 04 18.5  0.0
BALB                              eSN     Sn       08 04 38.5 +0.5
BALB  Balikesir          1.47  86 ePn     Pn       08 04 18.5  0.0
BALB                              eSn     Sn       08 04 38.5 +0.5
IZM   Izmir              1.52 139 ePN     Pn       08 04 18.3 -0.9
IZM   Izmir              1.52 139 ePn     Pn       08 04 18.3 -0.9
AKHS  Akhisar            1.57 115 eP      Pn       08 04 18.8 -1.1
AKHS                              eS      Sn       08 04 41.3 +0.8
AKHS  Akhisar            1.57 115 eP      Pn       08 04 18.8 -1.1
AKHS                              eS      Sn       08 04 41.3 +0.8
AKS   Akhisar            1.57 115 ePN     Pn       08 04 19.4 -0.5
AKS   Akhisar            1.57 115 ePn     Pn       08 04 19.4 -0.5
RDO   Rodhopi            1.64 348 ePG     Pg       08 04 21.3 -1.6
RDO                               eSB     Sb       08 04 43.4 +0.5
RDO   Rodhopi            1.64 348 ePg     Pg       08 04 21.3 -1.6
RDO                               eSb     Sb       08 04 43.4 +0.5
EDC   Edincik            1.65  60 ePN     Pn       08 04 21.2 +0.2
EDC   Edincik            1.65  60 ePn     Pn       08 04 21.2 +0.2
AOS   Alonnisos          1.67 258  P      Pn       08 04 20.4 -1.0
AOS   Alonnisos          1.67 258  P      Pn       08 04 20.4 -1.0
BNT   Bandirma           1.69  61 ePN     Pn       08 04 21.3 -0.4
PAIG  Paliouri           1.82 283  P      Pn       08 04 22.1 -1.2
PAIG  Paliouri           1.82 283  P      Pn       08 04 22.1 -1.2
SMG   Samos              1.95 160 ePG     Pg       08 04 28.3 -0.7
SMG   Samos              1.95 160  P      Pn       08 04 24.1 -1.1
SMG                               ePg     Pg       08 04 28.3 -0.7
SMG   Samos              1.95 160  P      Pn       08 04 24.1 -1.1
SMG   Samos              1.95 160 ePg     Pg       08 04 28.3 -0.7
KCT   Karacabey          1.96  68 ePN     Pn       08 04 25.1 -0.2
KCT   Karacabey          1.96  68 ePn     Pn       08 04 25.1 -0.2
DST   Dursunbey          2.04  87 ePN     Pn       08 04 26.3 -0.2
PLG   Polygyros          2.12 294 ePN     Pn       08 04 30.0 +2.5
PLG   Polygyros          2.12 294 ePn     Pn       08 04 30.0 +2.5
EDRB  Edirne             2.37  14 ePN     Pn       08 04 31.8 +0.9
EDRB  Edirne             2.37  14 ePn     Pn       08 04 31.8 +0.9
SLVT  Silivri            2.39  45 ePN     Pn       08 04 31.3 +0.1
SLVT  Silivri            2.39  45 ePn     Pn       08 04 31.3 +0.1
NVR   Nevrokopi          2.42 319 ePB     Pb       08 04 33.8 -1.7
NVR   Nevrokopi          2.42 319 ePb     Pb       08 04 33.8 -1.7
ARMT  Armutlu            2.43  64 ePN     Pn       08 04 32.2 +0.5
ARMT  Armutlu            2.43  64 ePn     Pn       08 04 32.3 +0.5
CTKS  Kestanelik-??a     2.56  48 ePN     Pn       08 04 34.5 +1.0
CTKS  Kestanelik-??a     2.56  48 ePn     Pn       08 04 34.5 +0.9
CTYL  Yal??k??y-??at     2.61  42 ePN     Pn       08 04 34.7 +0.5
CTYL  Yal??k??y-??at     2.61  42 ePn     Pn       08 04 34.7 +0.5
MMB   Musomiste          2.67 321 i P     Pn       08 04 34.1 -0.9
MMB                               eS      Sg       08 05 15.3 -2.0
BGKT  Bogazkoy           2.68  52 ePN     Pn       08 04 35.9 +0.7
BGKT  Bogazkoy           2.68  52 ePn     Pn       08 04 35.9 +0.6
YLV   Yalova             2.79  68 ePN     Pn       08 04 37.7 +0.9
YLV   Yalova             2.79  68 ePn     Pn       08 04 37.7 +1.0
ISK   Istanbul-Kandi     2.80  56 ePN     Pn       08 04 37.8 +0.9
ISK   Istanbul-Kandi     2.80  56 ePn     Pn       08 04 37.8 +1.0
JMB   Yambol             2.95   9 i Sg    Sg       08 05 24.4 -2.0
ADVT  Abdulvahap         3.02  72 ePN     Pn       08 04 40.0 +0.2
ADVT  Abdulvahap         3.02  72 ePn     Pn       08 04 40.0 +0.2
CAVI  Cavuskoy           3.04  76 ePN     Pn       08 04 41.0 +0.8
CAVI  Cavuskoy           3.04  76 ePn     Pn       08 04 41.0 +0.9
HRT   Hereke             3.10  65 ePN     Pn       08 04 42.2 +1.3
HRT   Hereke             3.10  65 ePn     Pn       08 04 42.2 +1.3
VAY   Valandovo          3.15 305 ePn     Pb       08 04 49.6 +1.6
VAY                               eSn     Sb       08 05 28.8 +2.2
VAY   Valandovo          3.15 305 ePn     Pg       08 04 52.7 +0.7
VAY                               eSn     Sg       08 05 32.3 -0.5
KKB   Krupnik            3.20 317 eP      Pg       08 04 51.4 -1.5
KKB                               eS      Sn       08 05 21.2 +0.5
KKB                               i Sg    Sg       08 05 33.8 -0.6
VTS   Vitosha            3.70 326 eP      Pb       08 04 58.6 +1.4
PRD   Provadia           3.80  16 i S     Sn       08 05 33.3 -2.3
MDU   Mudurnu            4.12  75 ePN     Pn       08 04 55.6 +0.6
MDU   Mudurnu            4.12  75 ePn     Pn       08 04 55.6 +0.6
BARS  Barje              4.54 317 ePn     Pn       08 05 01.1 +0.4
NISS                     4.90 323 i Pn    Pn       08 05 06.2 +0.5
TIRR  Tirgusor           5.23  19⇓iP      Pn       08 05 12.6 +2.4
TIRR  Tirgusor           5.23  19⇓iP      Pn       08 05 12.6 +2.4
VOIR                     5.93 354⇑iP      Pn       08 05 21.1 +1.3
VOIR                     5.93 354⇑iP      Pn       08 05 21.1 +1.3
MLR   Muntele Rosu       5.94 360⇓iP      Pn       08 05 17.9 -2.1
MLR   Muntele Rosu       5.94 360⇓iP      Pn       08 05 17.9 -2.1
GZR   Gura Zlata         6.31 339⇑iP      Pn       08 05 24.0 -1.0
GZR   Gura Zlata         6.31 339⇑iP      Pn       08 05 24.0 -1.0
PLOR  Plostina           6.32   4⇓iP      Pn       08 05 28.3 +3.1
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VRI	Vrincioaia	6.34	5	⇓iP	Pn	08 05 28.2	+2.7
VRI	Vrincioaia	6.34	5	⇓iP	Pn	08 05 28.2	+2.7
BZS	Buzias	6.87	333	⇓iP	Pn	08 05 32.0	-0.7
BZS	Buzias	6.87	333	⇓iP	Pn	08 05 32.0	-0.7

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*IDC **14** 08:19:15.8±0.8, 52.°01N×171.°20W, h0^{km}, mb4.0/11, mb1 4.2/13, mb1mx4.0/27, mbtmp4.0/13, ML3.3/2, MS3.5/1, Ms1 3.5/1, ms1mx2.7/49, Error ellipse: s-maj=32.0km s-min=14.0km az=176.0*

*ISCJB **14** 08:19:20.9±1.6, 52.°1N±0.°2×171.°22W±0.°10, h47^{km}±12^{km}, mb4.0/12, Error ellipse: s-maj=30.7km s-min=7.1km az=166.1*

*NEIC **14** 08:19:20.6±3.3, 51.°98N×171.°17W, h30^{km}±23^{km}, ML3.7(AEIC), Error ellipse: s-maj=25.4km s-min=7.2km az=168.0*

ISC 14 08:19:20.6±3.4**, 52.°0N**±0.°1×**171.°18W**±0.°09**, h29**^{km}±24^{km}**, n21, σ0^{s}.90**/21**, mb4.0**/12**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	Atka Island	1.88	278	P	Pn	08 19 51.0	+0.4
ATKA				S	Sn	08 20 13.5	+0.2
OKFG	Magazine Ridge	2.46	53	P	Pn	08 19 58.8	+0.2
OKFG				S	Sn	08 20 27.4	-0.1
FX1	Attu Island--F	9.61	282	Pn	Pn	08 21 37.0	+0.2
	0.5nm,0.3s,baz=90,slow=18,SNR=3.2						
KDAK	Kodiak Island	12.17	54	Pn	Pn	08 22 10.0	-1.7
	0.5nm,0.3s,baz=147,slow=7.4,SNR=7.7						
PETK	Petropavlovsk-	18.89	286	P	Pn	08 23 38.7	-0.4
	0.3nm,0.3s,baz=76,slow=18,SNR=2.7						
DAWY	Dawson	20.47	41	ePn	P	08 23 58.4	+3.0
DLBC	Dease Lake	24.04	58	P	P	08 24 35.0	+2.4
	3.9nm,0.8s,mb3.9,baz=259,slow=10,SNR=9.7						
BBB	Bella Bella	26.18	72	LR	LR	08 33 30.0	
	comp=Z,107nm,20.3s,baz=319,slow=33						
YKA	Yellowknife Ar	31.34	48	P	P	08 25 38.0	+0.1
	0.6nm,0.3s,mb3.9,baz=275,slow=9.2,SNR=17						
YKA				PcP	PcP	08 28 30.4	-0.7
	0.5nm,0.8s,baz=280,slow=2.2,SNR=7.0						
YKA	Yellowknife Ar	31.34	48	P	P	08 25 38.0	+0.1
YKA				PcP	PcP	08 28 30.4	-0.7
PDAR	Pinedale Array	41.58	78	P	P	08 27 04.4	-1.0
	0.8nm,0.6s,mb3.5,baz=313,slow=5.9,SNR=5.2						
KSRS	Korea Array	44.34	276	P	P	08 27 27.6	-0.2
	2.3nm,1.0s,mb3.9,baz=57,slow=7.4,SNR=3.5						
SONM	Songino Array	50.54	300	P	P	08 28 16.0	+0.2
	0.5nm,0.5s,mb3.7,baz=68,slow=6.4,SNR=6.1						
SONM				PcP	PcP	08 29 32.6	-0.8
	0.2nm,0.3s,baz=29,slow=3.3,SNR=3.6						
TXAR	Lajitas Array	53.87	87	P	P	08 28 41.5	+0.6
	0.7nm,0.7s,mb3.7,baz=301,slow=5.7,SNR=7.8						
SCHQ	Schefferville	56.48	42	P	P	08 28 58.9	-0.4
	2.1nm,0.8s,mb4.2,baz=353,slow=8.1,SNR=4.3						
KURK	Kurchatov	61.92	317	P	P	08 29 37.0	0.0
	1.7nm,0.6s,mb4.4,baz=46,slow=6.7,SNR=4.7						
MKAR	Makanchi Array	63.26	312	P	P	08 29 44.6	-1.3
	0.4nm,0.4s,mb3.9,baz=45,slow=6.5,SNR=13						
CMAR	Chiang Mai Arr	75.61	281	P	P	08 31 02.7	0.0
	4.4nm,0.8s,mb4.4,baz=22,slow=7.3,SNR=11						
WRA	Warramunga Arr	85.89	230	P	P	08 31 56.6	-0.8
	0.4nm,0.8s,mb3.7,baz=37,slow=5.8,SNR=6.4						
ASAR	Alice Springs	89.29	229	P	P	08 32 14.2	+0.6
	1.5nm,0.5s,mb4.5,baz=26,slow=4.9,SNR=24						
BOSA	Boshof	153.64	326	PKPbc	PKPbc	08 39 16.8	+0.8
	1.7nm,0.4s,baz=16,slow=2.2,SNR=7.6						

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*BJI **14** 08:27:06.2, 12.°22S×167.°75E, h228^{km}, mB5.4/4, mb4.7/12*

*MOS **14** 08:27:08.0±0.9, 12.°16S×166.°84E, h213^{km}, mb4.8/14, Error ellipse: s-maj=13.3km s-min=11.4km az=75.0*

*NEIC **14** 08:27:09.6±0.2, 12.°21S×166.°90E, mb4.7/32, Error ellipse: s-maj=8.1km s-min=5.4km az=133.0*

*IDC **14** 08:27:10.0±0.8, 12.°28S×166.°83E, h221^{km}±7^{km}, mb4.1/21, mb1 4.2/21, mb1mx4.2/23, mbtmp4.1/21, Error ellipse: s-maj=12.8km s-min=9.7km az=135.0*

*ISCJB **14** 08:27:11.4±2.7, 12.°27S±0.°07×166.°86E±0.°06, h247^{km}±26^{km}, mb4.5/57, Error ellipse: s-maj=10.8km s-min=9.7km az=168.1*

ISC 14 08:27:13.0±2.6**, 12.°26S**±0.°06×**166.°87E**±0.°06**, h248**^{km}±25^{km}**, h222**^{km}±3.4^{km}**:pP-P, n150, σ0^{s}.77**/94**, mb4.5**/57**, 13C-4D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EIDS	Eidsvold	19.80	227	⇓iP	P	08 31 25.5	+0.4
EIDS	Eidsvold	19.80	227	eP	P	08 31 25.2	+0.2
	56nm,0.8s						
CTA	Charters Tower	21.26	246	⇓iP	P	08 31 39.9	-0.5
	24nm,0.8s,mb4.8						
CTA	Charters Tower	21.26	246	P	P	08 31 39.2	-1.2
	32nm,0.7s,mb4.9,baz=75,slow=12,SNR=34						
CTA				pP		08 32 14.1	
	12nm,0.8s,baz=63,slow=11,SNR=3.2						
CTA	Charters Tower	21.26	246	P	P	08 31 39.2	-1.2
CTA				pP		08 32 14.1	
CTAO	Charters Tower	21.26	246	eP	P	08 31 39.9	-0.5
CTAO				e*PP		08 32 14.7	
CTAO				pmax	pmax		
	comp=Z,32nm,0.8s,mb4.9						
CTAO	Charters Tower	21.26	246	eP	P	08 31 39.9	-0.5
	comp=Z,32nm,0.8s,mb4.9						
CTAO				epP		08 32 14.7	
MTSU	Mount Surprise	22.53	252	eP	P	08 31 53.1	+1.1
	comp=Z,81nm,1.1s,mb5.2						
ARMA	Armidale	22.93	216	⇓iP	P	08 31 56.8	+1.2
ARMA	Armidale	22.93	216	eP	P	08 31 57.3	+1.7
COEN	Coen	23.14	263	eP	P	08 31 58.2	+0.5
COEN	Coen	23.14	263	eP	P	08 31 57.4	-0.2
	comp=Z,213nm,1.0s,mb5.6						
OUZ	Omahuta	23.66	166	eP	P	08 32 02.9	+0.8
	comp=Z,95nm,1.5s,mb5.2						
OUZ				epP		08 32 47.2	
URZ	Urewera	27.45	162	P	P	08 32 35.9	-0.2
	comp=Z,6.6nm,0.9s,mb4.3,baz=328,slow=3.9,SNR=6.2						
URZ	Urewera	27.45	162	eP	P	08 32 35.7	-0.4
	comp=Z,14nm,0.9s,mb4.6						
SNZO	South Karori	29.74	168	P	P	08 32 55.0	-1.3
	comp=Z,28nm,1.0s,mb4.8						
STKA	Stephens Creek	30.36	226	P	P	08 33 02.4	+0.5
	comp=Z,5.6nm,0.9s,mb4.2,baz=7.9,slow=2.3,SNR=5.7						
STKA				pP	pP	08 33 45.1	-6.1
	comp=Z,2.1nm,0.7s,baz=73,slow=11,SNR=2.0						
RPZ	Rata Peaks	31.55	174	P	P	08 33 11.6	-0.5
	comp=Z,23nm,0.7s,mb4.8,baz=314,slow=0.9,SNR=14						
WRA	Warramunga Arr	32.13	252	P	P	08 33 16.5	-1.1
	comp=Z,3.9nm,0.8s,mb4.0,baz=74,slow=9.0,SNR=32						
WRA				pP	pP	08 34 01.5	-5.6
	comp=Z,1.8nm,0.9s,baz=85,slow=11,SNR=2.7						
ASAR	Alice Springs	33.27	245	P	P	08 33 26.1	-1.2
	comp=Z,7.4nm,0.8s,mb4.3,baz=72,slow=9.7,SNR=59						
ASAR				pP	pP	08 34 11.6	-5.4
	comp=Z,6.8nm,0.7s,baz=74,slow=9.4,SNR=9.6						
ASAR				S	S	08 38 28.5	-0.5
	comp=Z,0.8nm,0.8s,baz=83,slow=18,SNR=4.8						
KAKA	Kakadu	33.61	265	eP	P	08 33 30.2	-0.2
	comp=Z,9.6nm,0.3s,mb4.8						
FITZ	Fitzroy Crossi	40.15	256	eP	P	08 34 24.9	-0.5
	comp=Z,11nm,1.2s,mb4.2						
FORT	Forrest	40.27	237	eP	P	08 34 26.3	+0.1
	comp=Z,16nm,0.6s,mb4.6						
MBWA	Marble Bar	45.87	252	eP	P	08 35 11.7	+0.6
	comp=Z,89nm,1.9s,mb4.8						
MJAR	Matsushiro Arr	55.55	332	P	P	08 36 22.1	-0.6
	comp=Z,1.3nm,0.4s,mb3.9,baz=230,slow=12,SNR=9.7						
MAJO	Matsushiro	55.56	332	eP	P	08 36 22.2	-0.6
MAJO				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.3						
MAJO	Matsushiro	55.56	332	eP	P	08 36 22.2	-0.6
	comp=Z,4.2nm,0.4s,mb4.3						
KSRS	Korea Array	61.50	325	P	P	08 37 03.9	+0.2
	comp=Z,1.9nm,0.6s,mb3.9,baz=143,slow=8.6,SNR=5.3						
VNDA	Vanda	65.30	181	P	P	08 37 28.0	0.0
	comp=Z,2.4nm,0.7s,mb3.9,baz=304,slow=6.1,SNR=5.4						
PETK	Petropavlovsk-	65.58	354	P	P	08 37 29.4	-0.6
	comp=Z,8.3nm,0.9s,mb4.4,baz=171,slow=10,SNR=4.2						
PETK	Petropavlovsk-	65.58	354	P	P	08 37 29.4	-0.6
CN2	Changchun	67.35	329	eP	P	08 37 41.8	+0.4
CN2				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.9						
KLR	Kul'dur	68.61	336	eP	P	08 37 46.3	-2.8
KLR				pmax	pmax		
	comp=Z,40nm,1.6s,mb4.8						
BJT	Baijiatuau	70.11	321	eP	P	08 37 58.6	+0.1
BJT				pmax	pmax		
	comp=Z,8.0nm,0.4s						
BJT	Baijiatuau	70.11	321	eP	P	08 37 58.6	+0.1
	comp=Z,8.5nm,0.4s,mb4.7						
BJI	Beijing	70.12	321	P	P	08 37 58.4	-0.1
BJI				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
KMI	Kunming	72.69	301	P	P	08 38 16.0	+1.8
KMI				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.3						
CMAR	Chiang Mai Arr	73.61	294	P	P	08 38 20.2	+0.6
	comp=Z,3.1nm,0.7s,mb4.0,baz=121,slow=4.6,SNR=11						
SEY	Seymchan	75.80	353	⇑eP	P	08 38 30.3	-1.0
LZH	Lanzhou	76.39	312	eP	P	08 38 36.5	+1.3
LZH				pmax	pmax		
	comp=Z,31nm,1.5s,mb4.7						
LZH				pmax	pmax		
	comp=Z,130nm,4.2s						
QSPA	South Pole Qui	77.75	180	eP	P	08 38 42.3	+0.3
	comp=Z,10nm,0.9s,mb4.5						
YAK	Yakutsk	79.57	343	eP	P	08 38 51.9	-0.1
YAK				pmax	pmax		
	comp=Z,11nm,0.5s,mb4.7						
YAK	Yakutsk	79.57	343	eP	P	08 38 51.9	-0.1
	comp=Z,11nm,0.5s,mb4.8						
ULN	Ulaanbaatar	79.93	324	eP	P	08 38 54.8	+0.5
ULN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
ULN	Ulaanbaatar	79.93	324	eP	P	08 38 54.8	+0.5
	comp=Z,7.3nm,1.0s,mb4.3						
BILL	Bilibino	80.09	360	⇑eP	P	08 38 54.6	-0.1
BILL				e		08 41 54.9	
BILL				eS	S	08 49 00.3	+23
BILL				pmax	pmax		
	comp=Z,49nm,1.7s,mb4.9						
BILL	Bilibino	80.09	360	eP	P	08 38 54.8	+0.1
	comp=Z,44nm,1.2s,mb5.0						
SONM	Songino Array	80.30	324	P	P	08 38 57.3	+1.0
	comp=Z,1.3nm,0.3s,mb4.0,baz=140,slow=6.0,SNR=17						
GTA	Gaotai	80.69	314	eP	P	08 38 59.8	+1.2
GTA				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.4						
KTH	Kantishna Hill	82.21	18	eP	P	08 39 04.7	-1.3
	comp=Z,6.3nm,0.8s,mb4.3						
MCK	McKinley	82.94	18	eP	P	08 39 09.2	-0.5
MCK				e*PP	pP	08 40 04.5	-4.5
MCK				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
MCK	McKinley	82.94	18	eP	P	08 39 09.2	-0.5
	comp=Z,9.2nm,1.0s,mb4.5						
MCK				epP	pP	08 40 04.5	-4.5
ZAK	Zakamensk	83.33	325	eP	P	08 39 12.0	0.0
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.3						
WDC	Whiskeytown Da	83.64	46	eP	P	08 39 14.2	+0.4
WDC				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.7						
WDC	Whiskeytown Da	83.64	46	eP	P	08 39 14.2	+0.3
	comp=Z,24nm,1.4s,mb4.7						
TLY	Talaya	83.74	326	eP	P	08 39 14.2	+0.2
TLY				pmax	pmax		
	comp=Z,16nm,1.9s,mb4.4						
TLY	Talaya	83.74	326	eP	P	08 39 14.2	+0.1
	comp=Z,24nm,1.5s,mb4.7						
YBH	Yreka Blue Hor	83.96	45	P	P	08 39 16.3	+0.9
	comp=Z,12nm,0.9s,mb4.6,baz=188,slow=3.3,SNR=13						
COLA	College	84.10	18	eP	P	08 39 14.7	-0.8
COLA				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.0						
COLA	College	84.10	18	eP	P	08 39 14.7	-0.8
	comp=Z,30nm,1.0s,mb5.0						
HUMO	Hull Mountain	84.12	44	eP	P	08 39 16.3	+0.2
	comp=Z,20nm,1.1s,mb4.8						
MTUM	Tungsten Hills	85.42	50	eP	P	08 39 23.1	+0.4
PAHR	Pah Rah Range	85.59	48	eP	P	08 39 23.7	+0.1
	comp=Z,18nm,1.1s,mb4.7						
MOD	Modoc	85.69	46	eP	P	08 39 24.3	+0.3
	comp=Z,15nm,1.1s,mb4.6						
NVAR	Mina Array Bea	85.97	49	P	P	08 39 26.0	+0.6
	comp=Z,4.4nm,0.9s,mb4.2,baz=233,slow=7.9,SNR=16						
NVAR				pP	pP	08 40 19.6	-5.5
	comp=Z,3.1nm,1.1s,baz=234,slow=9.1,SNR=3.3						
NVAR	Mina Array Bea	85.97	49	P	P	08 39 26.0	+0.6
NVAR				pP	pP	08 40 19.6	-5.5
EGAK	Eagle	86.14	20	eP	P	08 39 25.5	-0.1
	comp=Z,10nm,0.8s,mb4.6						
TIXI	Tiksi	87.49	349	⇑eP	P	08 39 31.8	-0.2
TIXI				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.4						
TIXI	Tiksi	87.49	349	eP	P	08 39 31.8	-0.2
	comp=Z,30nm,1.8s,mb4.7						
ETW	Entiat	87.69	40	eP	P	08 39 33.6	+0.1
SHPR	Sheep Range	87.75	52	eP	P	08 39 34.7	+0.7
HAWA	Hanford	87.78	42	eP	P	08 39 34.3	+0.3
	comp=Z,13nm,1.1s,mb4.7						
ELK	Elko	88.93	48	P	P	08 39 40.0	+0.5
	comp=Z,6.2nm,1.0s,mb4.4,baz=235,slow=4.1,SNR=14						
HLID	Hailey	90.33	45	eP	P	08 39 46.6	+0.6
	comp=Z,5.5nm,0.9s,mb4.4						
DUG	Dugway	90.56	49	eP	P	08 39 47.0	-0.1
DUG				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
DUG	Dugway	90.56	49	eP	P	08 39 47.0	-0.1
	comp=Z,11nm,1.5s,mb4.6						
MSU	Marysvale	90.59	51	eP	P	08 39 48.3	+1.1
BSMT	Bassoo Peak	91.31	41	eP	P	08 39 49.0	-1.3
DLMT	Dillon	92.08	44	eP	P	08 39 54.5	+0.5
	comp=Z,8.7nm,1.1s,mb4.6						
WALA	Waterton Lakes	92.21	40	eP	P	08 39 53.8	-0.8
	comp=Z,3.9nm,2.9s,mb3.8						
BOZ	Bozeman (W)	92.81	44	eP	P	08 39 57.2	-0.1
BOZ				pmax	pmax		
	comp=Z,81nm,3.0s						
BOZ	Bozeman (W)	92.81	44	eP	P	08 39 57.2	-0.1
	comp=Z,81nm,3.0s						
PV04	Paradox Valley	93.05	52	eP	P	08 39 51.4	-7.2
PDAR	Pinedale Array	93.56	47	P	P	08 40 01.8	+0.9
	comp=Z,0.6nm,0.8s,mb3.6,baz=343,slow=4.6,SNR=3.9						
ANMO	Albuquerque	94.22	55	P	P	08 40 04.0	-0.1
	comp=Z,0.7nm,0.7s,mb3.8,baz=197,slow=4.2,SNR=3.9						
MKAR	Makanchi Array	95.16	317	P	P	08 40 08.2	+0.1
	comp=Z,3.0nm,0.6s,mb4.6,baz=82,slow=6.7,SNR=55						
ZALV	Zalesovo Beam	95.18	324	P	P	08 40 06.4	-1.6
	comp=Z,0.5nm,0.3s,mb4.1,baz=98,slow=3.3,SNR=5.0						
TXAR	Lajitas Array	95.44	61	P	P	08 40 09.8	0.0
	comp=Z,0.7nm,0.8s,mb3.8,baz=226,slow=5.6,SNR=7.0						
TXAR	Lajitas Array	95.44	61	P	P	08 40 09.8	0.0
YKA	Yellowknife Ar	95.54	27	P	P	08 40 07.9	-1.5
	comp=Z,1.4nm,0.5s,mb4.4,baz=259,slow=5.0,SNR=27						
YKA				PKiKP	PKiKP	08 44 46.9	-1.1
	comp=Z,0.2nm,0.4s,baz=260,slow=1.6,SNR=5.3						
YKA	Yellowknife Ar	95.54	27	P	P	08 40 07.9	-1.6
VNA3	Neumayer Olymp	96.66	181	eP	P	08 40 13.6	-0.9
VNA2	Neumayer--Watz	96.92	182	eP	P	08 40 15.1	-0.6
FFC	Flin Flon	100.56	36	i P	Pdif	08 40 32.7	+0.4
FRB	Frobisher Bay	115.83	24	PKP	PKPdf	08 45 24.5	-1.0
	comp=Z,0.5nm,0.3s,baz=294,slow=2.7,SNR=4.3						
ARCES	ARCESS Array B	117.78	346	PKP	PKPdf	08 45 29.1	0.0
	comp=Z,4.4nm,0.4s,baz=81,slow=2.3,SNR=21						
SCHQ	Schefferville	120.46	33	PKP	PKPdf	08 45 34.1	-0.6
	comp=Z,3.1nm,0.6s,baz=59,slow=3.0,SNR=8.8						
JOF	Joensuu	120.47	338	ep	PKPdf	08 45 33.8	-0.6
GNI	Garni	122.28	310	⇑iPKIKP	PKPdf	08 45 39.8	+1.2
GNI				pmax	pmax		
	comp=Z,14nm,1.7s						
CPUP	Villa Florida	122.40	132	PKP	PKPdf	08 45 38.0	-1.3
	comp=Z,0.2nm,0.3s,baz=239,slow=5.9,SNR=3.0						
KAF	Kangasniemi	122.77	339	ep	PKPdf	08 45 37.9	-1.0
ANN	Anapa	126.18	317	i PKIKP	PKPdf	08 45 40.9	-5.0
ANN				pmax	pmax		
	comp=Z,61nm,1.4s						
AKASG	Malin Array Be	128.48	327	PKP	PKPdf	08 45 50.7	+0.6
	comp=Z,2.8nm,0.8s,baz=48,slow=3.1,SNR=6.4						
BRG	Berggiesshubel	135.62	336	ePKIKP	PKPdf	08 46 04.7	+1.1
BRG				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BRG	Berggiesshubel	135.62	336	e(P)	PKPdf	08 46 04.7	+1.1
	comp=Z,4.0nm,1.1s						
CLL	Collm	135.66	337	ePKPdf	PKPdf	08 46 04.0	+0.3
KHC	Kasperske Hory	137.11	334	ePKIKP	PKPdf	08 46 07.2	+0.8
GERES	GERESS Array B	137.28	334	PKP	PKPdf	08 46 07.7	+1.0
	comp=Z,1.2nm,0.7s,baz=17,slow=1.4,SNR=7.2						
FETA	Feichten	139.96	335	⇓iPKiKP	PKiKP	08 46 12.5	-1.7
	comp=Z,9.3nm,1.1s						
CABF	La Chapelle	142.11	338	ePKP1	PKPdf	08 46 14.1	-1.5
LPL	La Plagne	142.79	337	ePKP1	PKPdf	08 46 15.5	-1.3
LPG	La Plagne	142.80	337	ePKP1	PKPdf	08 46 15.5	-1.4
MBDF	Montbardon	143.44	336	⇑iPKP1	PKPdf	08 46 15.9	-2.1
	comp=Z,9.4nm,0.7s						
PLDF	La Plantade	143.52	340	eP	PKPdf	08 46 16.5	-1.6
ORIF	Oris-en-Rattie	143.62	337	⇑iPKP1	PKPdf	08 46 17.0	-1.3
	comp=Z,45nm,0.8s						
TCF	Toulx Ste Croi	143.68	342	ePKP1	PKPdf	08 46 16.8	-1.6
SAOF	Saorge	143.72	334	eP	PKPdf	08 46 16.7	-1.8
TOUF	Mont Tournerai	143.83	335	eP	PKPdf	08 46 17.2	-1.5
SBF	Sospel	143.87	334	⇑iPKP1	PKPdf	08 46 17.1	-1.7
	comp=Z,85nm,0.8s						
LUCF	Luceram	143.89	335	eP	PKPdf	08 46 16.9	-1.9
PYM	Petit Puy Mans	143.91	341	eP	PKPdf	08 46 17.4	-1.4
MFF	Saint Martin d	144.06	345	ePKP1	PKPdf	08 46 17.9	-1.1
	comp=Z,37nm,0.8s						
VIVF	Saint-Julien-l	144.12	338	ePKP1	PKPdf	08 46 18.7	-0.5
	comp=Z,52nm,1.1s						
CALN	Calern	144.19	335	eP	PKPdf	08 46 18.2	-1.1
PGF	Pioggiola	144.22	332	⇑iPKP1	PKPdf	08 46 18.6	-0.8
	comp=Z,90nm,1.0s						
LBL	Lubilhac	144.29	340	eP	PKPdf	08 46 19.4	-0.1
STOF	St-Etienne Org	144.38	336	eP	PKPdf	08 46 19.3	-0.4
FRF	La Foret Royal	144.45	335	⇑iPKP1	PKPdf	08 46 19.2	-0.6
	comp=Z,88nm,0.9s						
SMRF	Simiane la Rot	144.53	336	⇑iPKP1	PKPdf	08 46 20.1	+0.2
	comp=Z,32nm,0.9s						
VILF	Villemus	144.58	336	eP	PKPdf	08 46 20.2	+0.2
TAVF	Tavernes	144.64	336	eP	PKPdf	08 46 20.2	+0.1
LMR	La Mourre	144.69	335	⇑iPKP1	PKPdf	08 46 20.1	-0.1
	comp=Z,104nm,1.1s						
RJF	Les Rejaudoux	144.78	342	⇑iPKP1	PKPdf	08 46 20.6	+0.3
	comp=Z,130nm,1.4s						
PRAF	Pradon	144.84	337	eP	PKPdf	08 46 20.8	+0.3
TREF	Trevaresse	144.91	336	eP	PKPdf	08 46 21.1	+0.5
CAF	Calviac	144.95	341	ePKP1	PKPdf	08 46 21.5	+0.9
	comp=Z,29nm,1.0s						
BERF	Bertagne	145.04	336	eP	PKPbc	08 46 21.5	+0.7
LASF	Ste Croix	145.09	338	ePKP1	PKPbc	08 46 21.8	+0.9
	comp=Z,36nm,1.0s						
LFF	La Frestale	145.34	343	ePKP1	PKPbc	08 46 22.2	+0.5
	comp=Z,13nm,0.6s						
MTLF	Montolieu	146.31	340	⇑iPKP1	PKPbc	08 46 23.4	-1.2
	comp=Z,30nm,0.9s						
EPF	Esparros	147.20	342	ePKP1	PKPbc	08 46 24.2	-2.9
KEST	Kesra	149.05	323	PKPbc	PKPbc	08 46 33.1	+0.9
	comp=Z,6.3nm,0.9s,baz=319,slow=3.7,SNR=13						
PVRL	Vila Real	150.71	352	ePKP	PKPbc	08 46 36.9	+1.0
MVO	Moncorvo	150.72	351	ePKP	PKPbc	08 46 37.0	+1.0
PVIS	Viseu	151.29	352	ePKP	PKPbc	08 46 38.0	+0.7
ESDC	Sonseca Array	151.52	345	PKPbc	PKPbc	08 46 37.3	-0.6
	comp=Z,6.8nm,0.9s,baz=18,slow=2.3,SNR=11						
ESDC				PKPab	PKPab	08 46 48.4	+1.3
	comp=Z,1.5nm,0.4s,baz=17,slow=4.8,SNR=7.3						
ESDC	Sonseca Array	151.52	345	PKPbc	PKPbc	08 46 37.3	-0.6
ESDC				PKPab	PKPab	08 46 48.4	+1.3
MTE	Manteigas	151.54	351	ePKP	PKPbc	08 46 38.6	+0.7
PMRV	Marv??o	152.47	350	ePKP	PKPbc	08 46 40.7	+0.7
TORD	Torodi Ar. Bea	165.51	275	PKP	PKPdf	08 46 48.4	-0.4
	comp=Z,2.1nm,1.1s,baz=0.5,slow=2.1,SNR=5.7						
TORD				PKPab	PKPab	08 47 48.5	-0.1
	comp=Z,3.2nm,1.0s,baz=79,slow=5.0,SNR=11						

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*NEIC **14** 08:40:14.2, 29.°95S×71.°57W, h43^{km}, MD4.1(GUC), After GUC.*

NEIC Felt [II] at Coquimbo and La Serena.

GUC 14 08:40:14.2±0.7**, 29.°95S**×**71.°57W, h43**^{km}±3^{km}**, MD4.1, ML4.0, 4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLL	Tololo Astrono	0.69	108	⇓iP	Pn	08 40 28.9	+1.3
TLL				i S	Sn	08 40 39.4	+2.1
TLL	Tololo Astrono	0.69	108	⇓iP	Pn	08 40 28.9	+1.3
TLL				i S	Sn	08 40 39.4	+2.1
TLL				AML	AML	08 40 43.2	
	comp=E,7μm,0.4s						
OVCH	Ovalle	0.73	154	eP	Pn	08 40 28.4	+0.3
OVCH				i S	Sn	08 40 38.8	+0.7
OVCH	Ovalle	0.73	154	eP	Pn	08 40 28.4	+0.3
OVCH				i S	Sn	08 40 38.8	+0.7
LCO	Las Campanas	1.20	39	⇓iP	Pn	08 40 36.0	+1.5
LCO				i S	Sn	08 40 52.6	+3.0
LCO	Las Campanas	1.20	39	⇓iP	Pn	08 40 36.0	+1.5
LCO				i S	Sn	08 40 52.6	+3.0
LCO				AML	AML	08 40 54.5	
	comp=N,4μm,0.3s						
CMCH	Combarbala	1.31	158	eP	Pn	08 40 37.1	+1.0
CMCH				i S	Sn	08 40 54.6	+2.2
CMCH	Combarbala	1.31	158	eP	Pn	08 40 37.1	+1.0
CMCH				i S	Sn	08 40 54.6	+2.2
CMCH				AML	AML	08 40 56.8	
	comp=E,5μm,0.6s						
CHNG	Los Chungos	1.93	178	eP	Pn	08 40 47.4	+2.9
CPCH	Copiapo	2.79	23	P	Pn	08 40 56.4	0.0
CPCH	Copiapo	2.79	23	eP	Pn	08 40 56.4	0.0
CPCH				AML	AML	08 41 47.9	
	comp=N,1μm,0.1s						
FCH	Farellones	3.54	162	eP	Pn	08 41 08.2	+1.6
FCH				i S	Sn	08 41 49.6	+2.3
FCH				AML	AML	08 42 02.0	
	comp=E,246nm,0.5s						
RCDM	Rinconada Maip	3.59	170	eP	Pn	08 41 08.2	+0.9
RCDM	Rinconada Maip	3.59	170	eP	Pn	08 41 08.2	+0.9
RCDM				AML	AML	08 42 06.3	
	comp=E,185nm,0.3s						
LVC	Limon Verde	7.68	19	ePn	Pn	08 42 04.0	+0.4

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*IDC **14** 08:57:47.2±1.9, 8.°38S×128.°92E, h0^{km}, mb3.4/1, mb1 4.0/4, mb1mx3.7/17, mbtmp3.8/4, ML4.1/3, Error ellipse: s-maj=91.1km s-min=27.5km az=75.0*

*ISCJB **14** 08:57:56.9±2.4, 8.°8S±0.°1×128.°9E±0.°1, h118^{km}±30^{km}, Error ellipse: s-maj=18.3km s-min=18.0km az=35.3*

*NEIC **14** 08:58:00.3±2.8, 8.°98S×128.°84E, h135^{km}±32^{km}, mb4.9/3, Error ellipse: s-maj=26.3km s-min=18.1km az=168.0*

ISC 14 08:57:57.3±2.4**, 8.°8S**±0.°1×**128.°9E**±0.°1**, h105**^{km}±29^{km}**, n9, σ0^{s}.95**/11**, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	5.25	139	ePn	Pn	08 59 15.1	+1.6
	68nm,0.5s						
FITZ	Fitzroy Crossi	9.82	198	Pn	Pn	09 00 14.9	-0.6
	0.9nm,0.3s,baz=33,slow=9.1,SNR=14						
FITZ				Sn	Sn	09 02 05.0	+1.0
	3.1nm,0.3s,baz=327,slow=18,SNR=11						
WRAB	Tennant Creek	12.30	155	ePn	Pn	09 00 48.4	-0.5
	4.8nm,0.6s						
WRA	Warramunga Arr	12.31	155	Pn	Pn	09 00 48.4	-0.6
	1.3nm,0.3s,baz=331,slow=13,SNR=48						
WRA				Sn	Sn	09 03 03.3	-1.0
	1.4nm,0.3s,baz=324,slow=23,SNR=9.2						
WB2	Warramunga Arr	12.31	155	ePn	Pn	09 00 48.0	-1.0
MBWA	Marble Bar	15.18	215	Pn	Pn	09 01 25.1	-1.0
	207nm,2.4s						
ASAR	Alice Springs	15.59	163	Pn	Pn	09 01 31.4	+0.2
	0.5nm,0.3s,baz=342,slow=13,SNR=30						
ASAR				Sn	Sn	09 04 25.0	+1.3
	0.4nm,0.3s,baz=327,slow=22,SNR=5.8						
MKAR	Makanchi Array	69.10	328	P	P	09 08 52.8	+0.8
	0.2nm,0.5s,baz=132,slow=7.0,SNR=7.9						
TORD	Torodi Ar. Bea	128.05	280	PKP	PKPdf	09 16 57.5	+5.5
	0.3nm,0.8s,baz=114,slow=1.5,SNR=2.8						

NEIC 14 09:01:47.3, 39.°65S×**174.°12E, h198**^{km}**, MG4.6**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WAZ	Wanganui	0.68	99	P	Pn	09 02 15.4	+0.5
WAZ				S	Sn	09 02 35.5	-0.7
VRZ	Vera Road	0.72	44	P	Pn	09 02 14.4	-0.8
VRZ				S	Sn	09 02 34.6	-2.0
TWVZ	Taurewa	1.17	61	P	Pn	09 02 17.6	-0.5
DRZ	Dome Shelter	1.18	72	P	Pn	09 02 18.4	+0.3
WNVZ	Wahianoa	1.19	75	P	Pn	09 02 18.3	+0.1
NGZ	Ngauruhoe	1.24	68	P	Pn	09 02 18.5	-0.1
TUVZ	Tukino	1.25	73	P	Pn	09 02 18.9	+0.3
WTVZ	West Tongariro	1.26	65	P	Pn	09 02 18.5	-0.2
HIZ	Hauiti	1.27	27	P	Pn	09 02 18.3	-0.6
MOVZ	Moawhango	1.28	80	P	Pn	09 02 18.5	-0.4

KIW	**Kapiti Island**	1.35	154	P	Pn	09 02 19.4	-0.1
KATZ	**Kakaramea**	1.39	62	P	Pn	09 02 19.8	-0.1
TSZ	**Takapari Road**	1.48	107	P	Pn	09 02 20.4	-0.1
RATZ	**Rangitukua**	1.50	59	P	Pn	09 02 20.7	-0.1
RITZ	**Rihia Road**	1.51	64	P	Pn	09 02 20.8	0.0
MRZ	**Mangatainoka R**	1.51	133	P	Pn	09 02 20.6	-0.2
TCW	**Tory Channel**	1.57	176	P	Pn	09 02 21.8	+0.5
WATZ	**Wairara**	1.57	54	P	Pn	09 02 21.2	-0.2
CAW	**Cannon Point**	1.63	154	P	Pn	09 02 21.8	-0.1
MRW	**Makara Radio**	1.64	165	P	Pn	09 02 22.0	0.0
NNZ	**Nelson**	1.67	200	P	Pn	09 02 22.3	0.0
QRZ	**Quartz Range**	1.69	225	P	Pn	09 02 22.1	-0.4
WEL	**Wellington**	1.71	163	P	Pn	09 02 22.5	-0.1
HATZ	**Hinemaiaia**	1.71	64	P	Pn	09 02 22.0	-0.7
SNZO	**South Karori**	1.72	165	P	Pn	09 02 22.6	-0.1
WHTZ	**Whakaora**	1.73	56	P	Pn	09 02 22.9	-0.1
BHW	**Baring Head**	1.85	162	P	Pn	09 02 23.6	-0.4
BKZ	**Black Stump Fm**	1.90	76	P	Pn	09 02 23.6	-1.0
BFZ	**Birch Farm**	1.93	123	P	Pn	09 02 24.4	-0.4
MSWZ	**Moikau Station**	1.96	154	P	Pn	09 02 24.7	-0.5
BSWZ	**Blackbirch Sta**	2.07	185	P	Pn	09 02 26.5	+0.2
CMWZ	**Cape Campbell**	2.10	178	P	Pn	09 02 26.9	+0.3
THZ	**Tophouse**	2.31	203	P	Pn	09 02 28.6	-0.2
URZ	**Urewera**	2.71	60	P	Pn	09 02 31.7	-1.8
DSZ	**Denniston Nort**	2.74	219	P	Pn	09 02 33.3	-0.4
KHZ	**Kahutara**	2.80	189	P	Pn	09 02 34.0	-0.4
KNZ	**Kokohu**	2.83	78	P	Pn	09 02 33.8	-0.9
MWZ	**Matawai**	2.96	65	P	Pn	09 02 34.9	-1.4
LTZ	**Lake Taylor**	3.43	203	P	Pn	09 02 40.9	-0.9
PUZ	**Puketiti**	3.59	65	P	Pn	09 02 42.1	-1.8
MXZ	**Matakaoa Point**	3.88	59	P	Pn	09 02 45.9	-1.6
CRLZ	**Canterbury Las**	4.08	195	P	Pn	09 02 48.1	-1.8
MQZ	**McQueen's Vall**	4.20	195	P	Pn	09 02 49.2	-2.2
WVZ	**Waitaha Valley**	4.27	216	P	Pn	09 02 50.9	-1.3
RPZ	**Rata Peaks**	4.67	208	P	Pn	09 02 55.6	-1.7
FOZ	**Fox Glacier**	5.13	219	P	Pn	09 03 00.2	-3.0
LBZ	**Lake Benmore**	5.57	210	P	Pn	09 03 06.7	-2.1
JCZ	**Jackson Bay**	5.96	220	P	Pn	09 03 11.9	-2.0
ODZ	**Otahua Downs**	5.97	204	P	Pn	09 03 13.1	-0.9
WKZ	**Wanaka**	6.41	215	P	Pn	09 03 17.2	-2.5
EAZ	**Earnscleugh**	6.62	211	P	Pn	09 03 19.7	-2.7
TUZ	**Tuapeka**	7.11	206	P	Pn	09 03 27.1	-1.7
MLZ	**Mavora Lakes**	7.19	216	P	Pn	09 03 28.3	-1.5
WHZ	**Wether Hill Ro**	7.72	214	P	Pn	09 03 32.5	-4.2

NNC 14 09:14:33.0±2.4,**53°.20N**×**87°.42E,h0^{km},mb3.5,mpv3.1, 8C-2D,Error ellipse: s-maj=18.8km s-min=13.7km az=51.0,Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	5.98	249	⇓Pn	Pn	09 16 01.9	-0.8
	1.3nm,0.5s						
KURK				⇑Sn	Sn	09 17 13.8	+2.1
	1.7nm,0.5s						
KURK				⇑Lg		09 17 43.0	
	17nm,1.2s						
KURBB	**Kurchatov Arra**	6.07	248	⇑Pn	Pn	09 16 05.0	+1.0
	0.6nm,0.3s						
KURBB				⇑Sn	Sn	09 17 16.2	+2.1
	0.4nm,0.3s						
KURBB				⇓Lg		09 17 46.4	
	3.0nm,0.8s						
MK31	**Makanchi Array**	7.21	209	⇑Pn	Pn	09 16 22.5	+2.9
	0.8nm,0.6s,baz=30,slow=13,SNR=48						
MK31				⇑Sn	Sn	09 17 48.2	+6.1
	4.1nm,1.1s,baz=315,slow=61,SNR=6.9						
MK31				Lg		09 18 19.2	
	3.2nm,0.8s,baz=37,slow=27,SNR=4.8						
VOSK	**Vostochnaya**	9.93	274	⇑Pn	Pn	09 16 56.8	0.0
	0.4nm,0.4s						
VOSK				⇑Sn	Sn	09 18 46.4	-2.5
	1.9nm,0.7s						

IDC 14 09:14:47.6±1.9,**8°.36S**×**126°.11E,h0^{km},mb3.3**/1,**mb1 3.8**/4,**mb1mx3.6**/17,**mbtmp3.6**/4,**ML3.5**/3,**MS3.5**/1,**Ms1 3.5**/1,**ms1mx2.6**/16,**Error ellipse: s-maj=87.7km s-min=25.6km az=73.0,Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	9.70	183	Pn	Pn	09 17 08.6	+0.1
	0.4nm,0.3s,baz=165,slow=22,SNR=9.6						
FITZ				Sn	Sn	09 18 58.0	-0.2
	1.3nm,0.3s,baz=257,slow=18,SNR=5.9						
WRA	**Warramunga Arr**	14.00	146	Pn	Pn	09 18 06.0	-1.4
	0.2nm,0.3s,baz=322,slow=13,SNR=10						
WRA				Sn	Sn	09 20 40.3	-3.4
	0.3nm,0.3s,baz=322,slow=21,SNR=5.9						
ASAR	**Alice Springs**	16.95	155	Pn	Pn	09 18 48.1	+1.7
	0.2nm,0.3s,baz=326,slow=11,SNR=10.0						
GUMO	**Guam**	28.68	41	LR	LR	09 31 12.0	
	comp=Z,94nm,19.9s,baz=96,slow=34						
MKAR	**Makanchi Array**	67.32	329	P	P	09 25 44.4	+0.1
	0.1nm,0.5s,baz=126,slow=8.0,SNR=4.7						

ISCJB ***14*** *09:18:05.5±2.7, 8°.3S±0°.1×158°.8E±0°.1, h49^{km}±27^{km}, mb4.2/9, Error ellipse: s-maj=25.4km s-min=17.6km az=31.4*

NEIC ***14*** *09:18:08.2±3.0, 8°.36S×158°.93E, h65^{km}±34^{km}, mb4.4/1, Error ellipse: s-maj=40.0km s-min=14.8km az=138.0*

IDC ***14*** *09:18:09.4±0.7, 8°.38S×158°.88E, h74^{km}±8^{km}, mb3.9/7, mb1 4.1/7, mb1mx3.9/17, mbtmp3.9/7, MS3.1/1, Ms1 3.1/1, ms1mx2.4/25, Error ellipse: s-maj=18.5km s-min=7.7km az=48.0*

ISC 14 09:18:08.2±2.5,**8°.3S**±0°.1×**158°.9E**±0°.2,**h63^{km}**±28^{km},**h76^{km}**±2.5^{km}**:pP-P,n16,σ0^{s}63**/18,**mb4.2**/9,**Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	1.54	137	P	**Pn**	**09 18 32.5**	**-1.1**
	534nm,0.3s,baz=224,slow=2.6,SNR=122						
HNR				S	**Sn**	**09 18 53.2**	**+0.6**
	3µm,0.3s,baz=295,slow=21,SNR=31						
CTA	**Charters Tower**	16.93	225	LR	LR	09 26 27.5	
	comp=Z,75nm,21.5s,baz=229,slow=30						
EIDS	**Eidsvold**	18.54	203	*e*P	**Pn**	**09 22 21.8**	**+1.2**
ARMA	**Armidale**	23.03	196	*e*P	**P**	**09 23 08.4**	**+0.3**
CMSA	**Cobar Meteorol**	26.19	206	*e*P	**P**	**09 23 36.4**	**-0.5**
WRAB	**Tennant Creek**	26.41	241	*e*P	**P**	**09 23 39.4**	**+0.3**
	17nm,1.4s,mb4.4						
WRA	**Warramunga Arr**	26.42	241	P	**P**	**09 23 39.2**	**0.0**
	1.4nm,0.4s,mb3.9,baz=67,slow=9.3,SNR=9.4						
ASAR	**Alice Springs**	28.39	235	P	**P**	**09 23 56.6**	**-0.2**
	2.0nm,0.4s,mb4.1,baz=62,slow=9.8,SNR=31						
ASAR				S	**S**	**09 28 39.1**	**-0.3**
	0.4nm,0.8s,baz=64,slow=15,SNR=3.1						
ASAR	**Alice Springs**	28.39	235	P	**P**	**09 23 56.6**	**-0.2**
ASAR				S	**S**	**09 28 39.1**	**-0.3**
STKA	**Stephens Creek**	28.44	212	*e*P	**P**	**09 23 57.0**	**-0.2**
	6.4nm,0.4s,mb4.6						
STKA	**Stephens Creek**	28.44	212	P	**P**	**09 23 57.1**	**0.0**
	7.5nm,0.4s,mb4.6,baz=42,slow=14,SNR=28						
BBOO	**Buckleboo**	32.28	218	*e*P	**P**	**09 24 30.7**	**-0.3**
	5.3nm,0.4s,mb4.7						
FITZ	**Fitzroy Crossi**	33.74	250	P	**P**	**09 24 43.2**	**-0.8**
	2.8nm,0.8s,mb4.3,baz=54,slow=8.7,SNR=4.6						
SONM	**Songino Array**	72.53	326	P	**P**	**09 29 29.6**	**+1.2**
	1.2nm,0.6s,mb4.0,baz=136,slow=5.7,SNR=11						
SONM				pP	pP	09 29 50.0	+4.4
	1.2nm,0.6s,baz=136,slow=4.3,SNR=5.0						
MKAR	**Makanchi Array**	86.93	318	P	**P**	**09 30 46.5**	**+0.2**
	0.5nm,0.5s,mb4.0,baz=97,slow=5.5,SNR=11						
MKAR				pP	pP	09 31 05.5	+1.5
	0.8nm,0.6s,baz=95,slow=6.3,SNR=6.2						
YKA	**Yellowknife Ar**	95.68	28	P	**P**	**09 31 26.2**	**-0.5**
	0.1nm,0.6s,mb3.5,baz=261,slow=5.0,SNR=3.7						
YKA				pP	pP	09 31 47.6	+3.1
	0.6nm,0.6s,baz=260,slow=4.7,SNR=7.7						

CSEM 14 09:34:04.3±0.6,**47°.38N**×**18°.79E,h2^{km},ML0.9**/1,**2C, Error ellipse: s-maj=16.4km s-min=10.6km az=98.0, Hungary**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKSG		0.27	273	⇑*e*Pg	Pg	09 34 09.3	-0.2
PKSG				⇑*e*Sg	Sg	09 34 13.4	+0.5
VYHS	**Vyhne**	1.11	2	*e*PG	Pg	09 34 26.1	+0.4
VYHS				*e*SG	Sg	09 34 39.5	-0.6
VYHS	**Vyhne**	1.11	2	*e*Pg	Pg	09 34 26.2	+0.5
VYHS				*e*Sg	Sg	09 34 39.5	-0.6
PKSM	**Moragy**	1.17	185	*e*Pn	Pn	09 34 26.9	-0.8
PKSM				*e*Sn	Sn	09 34 46.7	+2.5

ISK ***14*** *09:47:09.7, 36°.96N×29°.21E, h4^{km}, MD2.8*

ISCJB ***14*** *09:47:10.5±0.7, 37°.00N±0°.04×29°.18E±0°.05, h1^{km}±18^{km}, Error ellipse: s-maj=8.5km s-min=5.6km az=140.8*

CSEM ***14*** *09:47:10.5±0.3, 36°.98N×29°.21E, h5^{km}, MD2.8, Error ellipse: s-maj=6.5km s-min=4.8km az=160.0*

DDA ***14*** *09:47:11.2, 37°.04N×29°.19E, h7^{km}±5^{km}, Md2.9*

ISC 14 09:47:10.9±0.7,**36°.98N**±0°.05×**29°.20E**±0°.05,**h7^{km}**±14^{km},**n15,σ0^{s}67**/24,**1C,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	0.35	196	*e*PG	**Pg**	**09 47 16.7**	**-1.1**
FETY				*e*SG	**Sg**	**09 47 22.7**	**+0.3**
FETY	**Fethiye**	0.35	196	*e*Pg	**Pg**	**09 47 16.7**	**-1.1**
FETY				*e*Sg	**Sg**	**09 47 22.7**	**+0.3**
GOLH	**Golhisar**	0.39	48	⇑*i*P	**Pg**	**09 47 17.7**	**-0.7**
GOLH				*i* S	**Sg**	**09 47 24.4**	**+0.9**
GOLH	**Golhisar**	0.39	48	*i* P	**Pg**	**09 47 17.7**	**-0.7**
GOLH				*i* S	**Sg**	**09 47 24.4**	**+0.8**
TURN	**Turunc**	0.49	258	*e*P	**Pg**	**09 47 25.6**	**+5.3**
TURN				*e*S	**Sg**	**09 47 36.3**	**+10**
DALT	**Dalyan (Mudla)**	0.50	246	*e*PG	**Pg**	**09 47 20.1**	**-0.4**
DALT				*e*SG	**Sg**	**09 47 27.5**	**+0.5**
DALT	**Dalyan (Mudla)**	0.50	246	*e*Pg	**Pg**	**09 47 20.1**	**-0.4**
DALT				*e*Sg	**Sg**	**09 47 27.5**	**+0.5**
ELL	**Elmali**	0.61	112	*e*PG	**Pg**	**09 47 22.0**	**-0.6**
ELL	**Elmali**	0.61	112	*e*Pg	**Pg**	**09 47 22.0**	**-0.7**
YER	**Yerkesik**	0.75	282	*e*PG	**Pg**	**09 47 25.3**	**0.0**
YER	**Yerkesik**	0.75	282	*e*Pg	**Pg**	**09 47 25.3**	**0.0**
AKAS	**Kas**	0.81	156	*e*P	**Pg**	**09 47 27.4**	**+0.9**
AKAS				*e*S	**Sg**	**09 47 41.2**	**+4.3**
AKAS	**Kas**	0.81	156	*e*P	**Pg**	**09 47 27.4**	**+1.0**
AKAS				*e*S	**Sg**	**09 47 41.2**	**+4.3**
DAT	**Datca**	1.32	260	*e*PN	**Pn**	**09 47 35.9**	**+0.2**
DAT	**Datca**	1.32	260	*e*Pn	**Pn**	**09 47 35.9**	**+0.1**

SOF ***14*** *10:09:01.7, 35°.18N×21°.25E, h10^{km}, MD7.0*

PRU ***14*** *10:09:13.9, 36°.31N×21°.36E, h0^{km}, M6.2*

SZGRF ***14*** *10:09:13.8, 35°.89N×21°.61E, h10^{km}, mb6.6, Central Mediterranean Sea*

BJI ***14*** *10:09:18.9, 36°.68N×21°.59E, h29^{km}, mB6.9/54, mb6.1/57, Ms6.9/77, Ms7 6.8/62*

ISCJB ***14*** *10:09:21.8±0.1, 36°.60N±0°.01×21°.716E±0°.009, h31^{km}, mb6.2/333, MS6.6/235, Error ellipse: s-maj=1.5km s-min=1.0km az=11.8*

MOS ***14*** *10:09:21.8±1.3, 36°.59N×21°.68E, h33^{km}, mb6.4/86, MS6.5/90, Error ellipse: s-maj=3.2km s-min=1.8km az=101.9*

PDG ***14*** *10:09:21.8±0.7, 36°.46N×21°.62E, h32^{km}±2^{km}, MD6.8/10, ML6.8/10, Error ellipse: s-maj=1.6km s-min=1.3km az=90.0*

IGIL ***14*** *10:09:21.3, 36°.57N×21°.73E, h30^{km}, mb5.9*

NEIC ***14*** *10:09:22.7±0.1, 36°.50N×21°.67E, h29^{km}, mb6.2/237, ME6.6, MS6.6/162, MW6.6, MW6.7, ML6.2(ATH), ML6.7(THE), Error ellipse: s-maj=2.7km s-min=1.7km az=190.0, Moment Tensor Solution. s152 Moment tensor: Scale 10^{18}Nm; M$_{rr}$2.74; M$_{\theta\theta}$-0.34; M$_{\phi\phi}$-2.40; M$_{r\theta}$6.65; M$_{\theta\phi}$-0.38; M$_{\phi r}$-4.67; Best double couple: M$_0$8.50000×10^{18} NP1:φ$_s$128.00000°, δ84.00000°, λ83.00000°. NP2:φ$_s$355.00000°, δ9.00000°, λ137.00000°. Principal axes: T 9.3600, Plg50.0000°, Azm30.0000°; N -2.0300, Plg6.0000°, Azm128.0000°; P -7.3400, Plg38.0000°, Azm224.0000°; Broadband fault plane solution: P waves. NP1:φ$_s$310.00000°, δ10.00000°, λ90.00000°. NP2:φ$_s$130.00000°, δ80.00000°, λ90.00000°. Principal axes: T Plg55.0000°, Azm40.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm220.0000°; Complex earthquake, with at least two events occurring about 4 seconds apart observed on broadband displacement seismograms. Depth from synthetics of broadband displacement seismograms based on first event. Energy computed from BB mechanism.*

NEIC Felt [IV] at Amarousion, Iraklion, Kalamata, Palaion Faliron, Patrai and Piraeus; [III] at Agia Paraskevi, Athens, Chania, Kallithea, Khalandrion and Krionerion; [II] at Kifisia, Nea Ionia, Paiania and Zografos. Also felt at Agios Dimitrios, Aigaleo, Aigion, Akharnai, Ayios Ioannis, Ayios Stefanos, Corinth, Ekali, Epidavros, Galatsion, Gazion, Glifadha, Itea, Kalivai, Kapandrition, Kato Achaia, Kerkyra, Kissamos, Koroni, Kounoupidhiana, Lefkimmi, Markopoulon, Megara, Melissia, Metamorfosis, Methoni, Moskhaton, Nea Liosia, Nea Makri, Nea Smirni, Panteleimon, Peristerion, Pirgos, Psikhikon, Rafina, Skaramangas, Spata, Tripolis, Viron, Voula, Vouliagmeni and Zakynthos. Felt [III] at Cairo, Egypt. Also felt at Alexandria. Felt at Brindisi, Catania and Reggio di Calabria, Italy and in the Valletta area, Malta.

CSEM ***14*** *10:09:22.6±0.1, 36°.50N×21°.63E, h30^{km}, mb6.3/99, Ms6.4, Mw6.9 Error ellipse: s-maj=2.2km s-min=1.5km az=7.0*

GCMT ***14*** *10:09:22.7±0.1, 36°.24N×21°.79E, h20^{km}, MW6.9/110, Moment Tensor Solution. s110,c234; s97,c185; Duration: 7^{s}6 Moment tensor: Scale 10^{19}Nm; M$_{rr}$0.44±.00; M$_{\theta\theta}$-0.21±.00; M$_{\phi\phi}$-0.23±.00; M$_{r\theta}$1.99±.02; M$_{\theta\phi}$0.26±.00; M$_{\phi r}$-1.20±.02; Best double couple: M$_0$2.36900×10^{19} NP1:φ$_s$332.00000°, δ6.00000°, λ120.00000°. NP2:φ$_s$121.00000°, δ85.00000°, λ87.00000°. Principal axes: T 2.3660, Plg50.0000°, Azm28.0000°; N 0.0070, Plg3.0000°, Azm122.0000°; P -2.3730, Plg40.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to mantle waves, cutoff=125s.*

IDC ***14*** *10:09:23.0±1.2, 36°.62N×21°.78E, h33^{km}±8^{km}, mb5.5/26, mb1 5.6/34, mb1mx5.6/34, mbtmp5.5/34, ML4.7/7, MS6.6/36, Ms1 6.6/36, ms1mx6.5/42 Error ellipse: s-maj=8.2km s-min=6.8km az=170.0*

PDA ***14*** *10:09:23.4, 36°.65N×21°.84E, h29^{km}, Mw6.9*

ATH ***14*** *10:09:23.4, 36°.50N×21°.78E, h41^{km}±3^{km}, ML6.2*

IPEC ***14*** *10:09:24.2±3.0, 36°.41N×21°.65E, h170^{km}±97^{km}, Error ellipse: s-maj=26.1km s-min=14.5km az=32.0*

DJA ***14*** *10:09:25, 36°.74N×21°.73E, h45^{km}, Mw7.0/19*

THE ***14*** *10:09:25.1, 36°.58N×21°.87E, h35^{km}±31^{km}, ML6.7/8, Error ellipse: s-maj=31.6km s-min=1.9km az=0.0*

NIC ***14*** *10:09:27.1±0.3, 36°.40N×22°.30E, h31^{km}, mb5.5, ML5.1, MW4.8, Southern Greece, 27km. SW Vasilitsion*

BGS ***14*** *10:09:28.0±2.6, 37°.14N×21°.47E, h33^{km}, mb5.9, MS6.3*

SFS ***14*** *10:09:28.0, 36°.63N×21°.79E, h30^{km}, ML6.7*

BEO ***14*** *10:09:33.2±4.5, 37°.45N×21°.30E, h0^{km}*

HLW ***14*** *10:09:35.4, 35°.74N×22°.89E, h60^{km}, Mb6.4*

VIE ***14*** *10:10:11.1, 39°.83N×19°.83E, h30^{km}, mb5.3/11, Ms5.8/11 167 km S of Durres*

ISC 14 10:09:23.2±0.3,**36°.52N**±0°.01×**21°.670E**±0°.009,**h32^{km}**±1^{km},**h33^{km}**±1.4^{km}**:pP-P,n2915,σ1^{s}20**/3069,**mb6.2**/332,**MS6.6**/235,**709C-288D,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	0.38	9	⇓*i*P	**Pb**	**10 09 32.7**	**+0.8**
PYL				*e*S	**Sb**	**10 09 40.3**	**+2.4**
PYL	**PYLOS**	0.38	9	⇓*i*P	**Pb**	**10 09 32.7**	**+0.8**
PYL				*e*S	**Sb**	**10 09 40.3**	**+2.4**
ITM	**Ithomi**	0.69	17	⇓*i*P	**Pb**	**10 09 37.8**	**+1.0**
ITM				*e*S	**Sb**	**10 09 48.4**	**+2.3**
ITM	**Ithomi**	0.69	17	⇓*i*P	**Pb**	**10 09 37.8**	**+1.0**
ITM				*e*S	**Sb**	**10 09 48.4**	**+2.3**
VLX	**Vlachokerasia**	1.02	34	⇑*i*P	**Pn**	**10 09 43.2**	**+1.9**
VLX				*e*S	**Sn**	**10 09 54.9**	**+0.3**
VLX	**Vlachokerasia**	1.02	34	⇑*i*P	**Pn**	**10 09 43.2**	**+1.9**
VLX				*e*S	**Sn**	**10 09 54.9**	**+0.3**
KYTH	**Kithira**	1.13	102	⇓*i*P	**Pn**	**10 09 43.8**	**+1.0**
KYTH	**Kithira**	1.13	102	⇓*i*P	**Pn**	**10 09 43.8**	**+1.0**
GUR	**Goura**	1.52	21	*e*P	**Pn**	**10 09 50.6**	**+2.5**
GUR	**Goura**	1.52	21	*e*P	**Pn**	**10 09 50.6**	**+2.5**
RLS	**Riolos of Patr**	1.55	354	⇑*i*P	**Pn**	**10 09 51.1**	**+2.6**
RLS	**Riolos of Patr**	1.55	354	⇑*i*P	**Pn**	**10 09 51.1**	**+2.6**
DID	**Didima**	1.60	51	P	**Pn**	**10 09 49.2**	**0.0**
DID	**Didima**	1.60	51	*e*P	**Pn**	**10 09 50.3**	**+1.1**
DID	**Didima**	1.60	51	P	**Pn**	**10 09 49.2**	**0.0**
LAKA	**Lakka**	1.74	8	P	**Pn**	**10 09 52.9**	**+1.8**
LAKA	**Lakka**	1.74	8	P	**Pn**	**10 09 52.9**	**+1.8**
LTK	**Loutraki**	1.82	34	P	**Pn**	**10 09 52.5**	**+0.1**
LTK	**Loutraki**	1.82	34	*e*P	**Pn**	**10 09 53.7**	**+1.4**
LTK	**Loutraki**	1.82	34	P	**Pn**	**10 09 52.5**	**+0.1**
VLS	**Valsamata**	1.87	333	P	**Pn**	**10 09 53.6**	**+0.7**
VLS	**Valsamata**	1.87	333	*e*P	**Pn**	**10 09 54.1**	**+1.2**
VLS	**Valsamata**	1.87	333	P	**Pn**	**10 09 53.6**	**+0.7**
TRIZ	**Trizonia**	1.87	10	P	**Pn**	**10 09 55.9**	**+2.9**
TRIZ	**Trizonia**	1.87	10	P	**Pn**	**10 09 55.9**	**+2.9**
NAIG	**Nisos Aigina**	1.91	49	⇑*i*P	**Pn**	**10 09 54.2**	**+0.7**
NAIG	**Nisos Aigina**	1.91	49	⇑*i*P	**Pn**	**10 09 54.2**	**+0.7**
EFP	**Efpalio**	1.92	6	*e*P	**Pn**	**10 09 56.9**	**+3.3**
EFP	**Efpalio**	1.92	6	*e*P	**Pn**	**10 09 56.9**	**+3.3**
KARN	**Karanos**	2.14	121	P	**Pn**	**10 09 57.3**	**+0.7**
KARN				S	**Sn**	**10 10 23.4**	**+1.3**
KARN	**Karanos**	2.14	121	P	**Pn**	**10 09 57.3**	**+0.7**
KARN				S	**Sn**	**10 10 23.4**	**+1.3**
ATH	**Athens Observa**	2.19	48	⇑*i*P	**Pn**	**10 09 58.0**	**+0.7**
ATH	**Athens Observa**	2.19	48	⇑*i*P	**Pn**	**10 09 58.0**	**+0.7**
ATHU	**Athens Univers**	2.22	49	P	**Pn**	**10 09 57.8**	**0.0**
ATHU	**Athens Univers**	2.22	49	P	**Pn**	**10 09 57.8**	**0.0**
PTL	**Penteli**	2.32	48	⇑*i*P	**Pn**	**10 09 59.9**	**+0.7**
PTL	**Penteli**	2.32	48	⇑*i*P	**Pn**	**10 09 59.9**	**+0.7**
LKR	**Lokris**	2.38	26	P	**Pn**	**10 10 00.6**	**+0.7**
LKR	**Lokris**	2.38	26	⇑*i*P	**Pn**	**10 10 01.0**	**+1.1**
LKR	**Lokris**	2.38	26	P	**Pn**	**10 10 00.6**	**+0.7**
EVR	**Evrytania**	2.40	3	P	**Pn**	**10 10 08.0**	**+7.8**
AGG	**Agios Georgios**	2.56	12	P	**Pn**	**10 10 04.5**	**+2.1**
AGG	**Agios Georgios**	2.56	12	*e*P	**Pn**	**10 10 05.2**	**+2.8**
AGG	**Agios Georgios**	2.56	12	P	**Pn**	**10 10 04.5**	**+2.1**
IDI	**Anoyia**	2.89	114	Pn	**Pn**	**10 10 06.0**	**-0.9**
	134nm,0.3s,baz=306,slow=16,SNR=216						
IDI				LR	LR	10 11 29.7	
	comp=Z,1352µm,21.3s,baz=293,slow=44						
SIVA	**Sivas**	2.96	119	P	**Pn**	**10 10 09.9**	**+1.9**
SIVA	**Sivas**	2.96	119	P	**Pn**	**10 10 09.9**	**+1.9**
THR5	**Thira Island,**	2.97	91	P	**Pn**	**10 10 08.3**	**+0.3**
THR5	**Thira Island,**	2.97	91	P	**Pn**	**10 10 08.3**	**+0.3**
THL	**Klokotos Trika**	3.05	5	P	**Pn**	**10 10 11.7**	**+2.4**
THL	**Klokotos Trika**	3.05	5	⇑*i*P	**Pn**	**10 10 11.9**	**+2.6**
THL	**Klokotos Trika**	3.05	5	P	**Pn**	**10 10 11.7**	**+2.4**
THR1	**Thera Island**	3.06	92	P	**Pn**	**10 10 08.9**	**-0.4**
THR1	**Thera Island**	3.06	92	P	**Pn**	**10 10 08.9**	**-0.4**
XOR	**Xorichti**	3.09	22	P	**Pn**	**10 10 10.5**	**+0.8**
XOR	**Xorichti**	3.09	22	P	**Pn**	**10 10 10.5**	**+0.8**
AOS	**Alonnisos**	3.17	33	P	**Pn**	**10 10 11.2**	**+0.3**
AOS	**Alonnisos**	3.17	33	P	**Pn**	**10 10 11.2**	**+0.3**
IGT	**Igoumenitsa**	3.19	341	P	**Pn**	**10 10 12.3**	**+1.2**
IGT				S	**Sn**	**10 10 51.0**	**+3.0**
IGT	**Igoumenitsa**	3.19	341	P	**Pn**	**10 10 12.3**	**+1.2**
IGT				S	**Sn**	**10 10 51.0**	**+3.0**
JAN	**Janina**	3.20	349	⇑*i*P	**Pn**	**10 10 13.7**	**+2.4**
JAN	**Janina**	3.20	349	⇑*i*P	**Pn**	**10 10 13.7**	**+2.4**
MEV	**Metsovon**	3.28	354	P	**Pn**	**10 10 15.5**	**+3.1**
MEV	**Metsovon**	3.28	354	P	**Pn**	**10 10 15.5**	**+3.1**
LAST	**Lasithi**	3.38	113	P	**Pn**	**10 10 13.2**	**-0.5**
LAST	**Lasithi**	3.38	113	P	**Pn**	**10 10 13.2**	**-0.5**
NPS	**Neapolis**	3.44	110	P	**Pn**	**10 10 15.1**	**+0.6**
NPS	**Neapolis**	3.44	110	P	**Pn**	**10 10 15.1**	**+0.6**
KEK	**Kerkira**	3.52	336	⇑*i*P	**Pn**	**10 10 16.5**	**+0.9**
KEK	**Kerkira**	3.52	336	⇑*i*P	**Pn**	**10 10 16.5**	**+0.9**
LIT	**Litokhoron**	3.63	10	P	**Pn**	**10 10 18.6**	**+1.4**
LIT	**Litokhoron**	3.63	10	*e*P	**Pn**	**10 10 19.0**	**+1.8**
LIT	**Litokhoron**	3.63	10	P	**Pn**	**10 10 18.6**	**+1.4**
PAIG	**Paliouri**	3.75	24	P	**Pn**	**10 10 17.3**	**-1.6**
PAIG	**Paliouri**	3.75	24	P	**Pn**	**10 10 17.3**	**-1.6**
KZN	**Kozani**	3.78	1	⇑*i*P	**Pn**	**10 10 21.5**	**+2.2**
KZN	**Kozani**	3.78	1	⇑*i*P	**Pn**	**10 10 21.5**	**+2.2**
ZKR	**Zakros**	3.95	109	P	**Pn**	**10 10 20.8**	**-0.8**
ZKR	**Zakros**	3.95	109	P	**Pn**	**10 10 20.8**	**-0.8**
CHOS	**Chios island**	3.96	61	P	**Pn**	**10 10 22.2**	**+0.5**
CHOS	**Chios island**	3.96	61	*e*P	**Pn**	**10 10 21.8**	**+0.1**
CHOS	**Chios island**	3.96	61	*e*P	**Pn**	**10 10 21.8**	**+0.1**
PLG	**Polygyros**	4.09	19	P	**Pn**	**10 10 24.9**	**+1.3**
PLG	**Polygyros**	4.09	19	⇑*i*P	**Pn**	**10 10 24.7**	**+1.1**
PLG	**Polygyros**	4.09	19	⇑*i*P	**Pn**	**10 10 24.7**	**+1.1**
HORT	**Hortiatis**	4.22	15	P	**Pn**	**10 10 26.6**	**+1.3**
HORT	**Hortiatis**	4.22	15	P	**Pn**	**10 10 26.6**	**+1.3**
THE	**Thessaloniki**	4.23	13	P	**Pn**	**10 10 26.7**	**+1.3**
THE	**Thessaloniki**	4.23	13	P	**Pn**	**10 10 26.7**	**+1.3**
FNA	**Florina**	4.27	357	P	**Pn**	**10 10 27.7**	**+1.8**
FNA	**Florina**	4.27	357	P	**Pn**	**10 10 27.7**	**+1.8**
SIGR	**SIGRI**	4.27	50	P	**Pn**	**10 10 24.6**	**-1.3**
SIGR	**SIGRI**	4.27	50	P	**Pn**	**10 10 24.6**	**-1.3**
SMG	**Samos**	4.30	72	⇑*i*P	**Pn**	**10 10 26.5**	**+0.2**
SMG	**Samos**	4.30	72	⇑*i*P	**Pn**	**10 10 26.5**	**+0.2**
URLA	**Izmir**	4.33	63	⇑*i*P	**Pn**	**10 10 27.0**	**+0.2**
URLA	**Izmir**	4.33	63	*i* P	**Pn**	**10 10 27.0**	**+0.2**
LIA	**Limnos Island**	4.36	38	P	**Pn**	**10 10 25.5**	**-1.7**
LIA	**Limnos Island**	4.36	38	⇑*i*P	**Pn**	**10 10 27.1**	**-0.1**
LIA	**Limnos Island**	4.36	38	⇑*i*P	**Pn**	**10 10 27.1**	**-0.1**
GRG	**Griva**	4.47	7	P	**Pn**	**10 10 30.2**	**+1.5**
GRG	**Griva**	4.47	7	P	**Pn**	**10 10 30.2**	**+1.5**
SOH	**Sokhos**	4.50	17	P	**Pn**	**10 10 30.6**	**+1.6**
SOH	**Sokhos**	4.50	17	*e*P	**Pn**	**10 10 30.9**	**+1.9**
SOH	**Sokhos**	4.50	17	P	**Pn**	**10 10 30.6**	**+1.6**
BIA	**Bitola**	4.50	357	P	**Pn**	**10 10 30.1**	**+0.9**
BIA	**Bitola**	4.50	357	*i* Pn	**Pn**	**10 10 30.2**	**+1.0**
BIA				*i* Sn	**Sn**	**10 11 19.7**	**-0.8**
BIA	**Bitola**	4.50	357	*i* Pn	**Pn**	**10 10 30.1**	**+0.9**
BIA				*i* Sn	**Sn**	**10 11 19.6**	**-0.8**
PRK	**Paraskevi**	4.55	52	P	**Pn**	**10 10 29.6**	**-0.2**
PRK	**Paraskevi**	4.55	52	⇑*i*P	**Pn**	**10 10 29.8**	**0.0**
PRK	**Paraskevi**	4.55	52	P	**Pn**	**10 10 29.6**	**-0.2**
KARP	**Karpathos**	4.55	101	⇑*i*P	**Pn**	**10 10 29.4**	**-0.5**
KARP	**Karpathos**	4.55	101	⇑*i*P	**Pn**	**10 10 29.4**	**-0.5**
BODT	**Bodrum**	4.56	81	PN	**Pn**	**10 10 31.0**	**+1.1**
BODT	**Bodrum**	4.56	81	Pn	**Pn**	**10 10 31.0**	**+1.1**
BODT	**Bodrum**	4.56	81	*i* Pn	**Pn**	**10 10 31.0**	**+1.1**
GCAM	**G?zelcaml?**	4.60	73	⇑*i*P	**Pn**	**10 10 30.9**	**+0.4**
GCAM	**G?zelcaml?**	4.60	73	*i* P	**Pn**	**10 10 30.9**	**+0.4**
OHR	**Ohrid**	4.64	352	*i* Pn	**Pn**	**10 10 32.2**	**+1.2**
OHR				*e*Sn	**Sn**	**10 11 21.2**	**-2.5**
OHR				*e*Lg		10 12 12.7	
	comp=E,230µm,2.2s						
OHR	**Ohrid**	4.64	352	P	**Pn**	**10 10 31.6**	**+0.6**
OHR	**Ohrid**	4.64	352	*i* Pn	**Pn**	**10 10 32.1**	**+1.1**
OHR				*e*Sn	**Sn**	**10 11 21.1**	**-2.6**
OHR				*e*Lg		10 12 12.6	
	comp=E,30µm,2.2s						
BLCB	**Balcova**	4.66	65	PN	**Pn**	**10 10 31.8**	**+0.4**
BLCB	**Balcova**	4.66	65	P	**Pn**	**10 10 30.9**	**-0.5**
BLCB	**Balcova**	4.66	65	P	**Pn**	**10 10 30.9**	**-0.5**
BLCB	**Balcova**	4.66	65	*i* Pn	**Pn**	**10 10 31.8**	**+0.4**
BDRM	**Kayabasi**	4.67	82	⇑*i*P	**Pn**	**10 10 32.0**	**+0.6**
BDRM	**Kayabasi**	4.67	82	*i* P	**Pn**	**10 10 32.0**	**+0.6**
TIP	**Timpagrande**	4.71	306	*e*Pn	**Pn**	**10 10 31.9**	**-0.1**
TIP				*e*Sn	**Sn**	**10 11 23.0**	**-2.5**
TIP	**Timpagrande**	4.71	306	*e*Pn	**Pn**	**10 10 31.9**	**-0.1**
TIP				*e*Sn	**Sn**	**10 11 23.0**	**-2.5**
KNT	**Kendrikon**	4.74	11	P	**Pn**	**10 10 33.7**	**+1.3**
KNT	**Kendrikon**	4.74	11	P	**Pn**	**10 10 33.7**	**+1.3**
DAT	**Datca**	4.76	86	*e*PN	**Pn**	**10 10 33.5**	**+0.8**
DAT	**Datca**	4.76	86	*e*Pn	**Pn**	**10 10 33.5**	**+0.8**
BOZC	**Bozcaada**	4.79	45	⇑*i*P	**Pn**	**10 10 32.3**	**-0.8**
LTBQ	**Tobruq**	4.83	157	*i* P	**Pn**	**10 10 33.6**	**0.0**
	SNR=48						
LTBQ				*e*S	**Sn**	**10 11 23.8**	**-4.6**
	comp=E,3µm,0.7s,SNR=48						
IZM	**Izmir**	4.83	65	*e*PN	**Pn**	**10 10 34.8**	**+1.1**
IZM	**Izmir**	4.83	65	P	**Pn**	**10 10 34.7**	**+1.1**
SRS	**Serrai**	4.83	18	P	**Pn**	**10 10 35.1**	**+1.4**
SRS	**Serrai**	4.83	18	P	**Pn**	**10 10 35.1**	**+1.4**
VAY	**Valandovo**	4.85	8	*i* Pn	**Pn**	**10 10 34.8**	**+0.9**
VAY				*e*Sn	**Sn**	**10 11 27.2**	**-1.8**
VAY				*e*Lg		10 11 59.7	
	comp=E,26µm,1.3s						
VAY	**Valandovo**	4.85	8	P	**Pn**	**10 10 35.1**	**+1.2**
VAY	**Valandovo**	4.85	8	P	**Pn**	**10 10 35.1**	**+1.2**
VAY	**Valandovo**	4.85	8	P	**Pn**	**10 10 34.7**	**+0.8**
VAY	**Valandovo**	4.85	8	*i* Pn	**Pn**	**10 10 34.8**	**+0.9**
VAY				*e*Sn	**Sn**	**10 11 27.1**	**-1.8**
VAY				*e*Lg		10 11 59.7	
	comp=E,26µm,1.3s						
AYVA	**Ayvalik**	4.85	53	⇑*i*P	**Pn**	**10 10 33.6**	**-0.3**

AYVA	Ayvalik	4.85	53	*i* P	Pn	10 10 33.6	-0.3
KRUS	Krusevo	4.86	356	*i* Pn	Pn	10 10 34.8	+0.8
KRUS				*e*Sn	Sn	10 11 35.2	+6.1
KRUS	Krusevo	4.86	356	*i* Pn	Pn	10 10 34.7	+0.7
KRUS				*e*Sn	Sn	10 11 35.1	+6.0
CEL	Celeste	4.92	292	⇓*i*Pn	Pn	10 10 35.0	+0.2
CEL	Celeste	4.92	292	⇓*i*Pn	Pn	10 10 35.0	+0.1
EZN	Ezine	4.94	47	*e*P	Pn	10 10 35.7	+0.6
EZN	Ezine	4.94	47	P	Pn	10 10 35.6	+0.5
EZN	Ezine	4.94	47	Pn	Pn	10 10 35.6	+0.5
GADA	Gvkgeada	4.95	41	P	Pn	10 10 34.9	-0.4
GADA	Gvkgeada	4.95	41	Pn	Pn	10 10 34.9	-0.4
GADA	Gvkgeada	4.95	41	Pn	Pn	10 10 34.9	-0.4
MLSB	Milas	4.96	79	P	Pn	10 10 36.7	+1.3
MLSB	Milas	4.96	79	Pn	Pn	10 10 36.6	+1.2
MLSB	Milas	4.96	79	Pn	Pn	10 10 36.6	+1.2
TIR	Tirane	5.02	344	*e*P	Pn	10 10 37.3	+1.0
TIR				*e*		10 11 28.7	
TIR	Tirane	5.02	344	⇑*i*P	Pn	10 10 37.4	+1.1
TIR	Tirane	5.02	344	⇑*i*Pn	Pn	10 10 37.4	+1.1
TIR				*e*S	Sn	10 11 28.7	-4.6
AYDN	Tasoluk	5.09	75	⇑*i*P	Pn	10 10 38.4	+1.1
AYDN	Tasoluk	5.09	75	*i* P	Pn	10 10 38.4	+1.1
ARG	Arkhangelos	5.22	91	P	Pn	10 10 39.5	+0.5
ARG	Arkhangelos	5.22	91	P	Pn	10 10 39.5	+0.5
TAR1	Taranto	5.28	321	*i* Pn	Pn	10 10 39.6	-0.2
TAR1				*e*Sn	Sn	10 11 36.6	-2.9
MMB	Musomiste	5.31	17	P	Pn	10 10 41.5	+1.2
MMB				S	Sn	10 11 43.6	+3.3
MMB	Musomiste	5.31	17	P	Pn	10 10 41.5	+1.2
MMB				S	Sn	10 11 43.6	+3.3
YER	Yerkesik	5.34	81	P	Pn	10 10 42.6	+2.0
YER	Yerkesik	5.34	81	P	Pn	10 10 42.6	+1.9
YER	Yerkesik	5.34	81	Pn	Pn	10 10 42.6	+1.9
AKHS	Akhisar	5.41	62	⇑*i*P	Pn	10 10 42.0	+0.4
AKHS	Akhisar	5.41	62	*i* P	Pn	10 10 42.0	+0.3
AKS	Akhisar	5.41	62	P	Pn	10 10 43.0	+1.3
AKS	Akhisar	5.41	62	Pn	Pn	10 10 42.9	+1.3
AKS	Akhisar	5.41	62	Pn	Pn	10 10 42.9	+1.3
PE1	Pezze di Greco	5.42	323	*i* Pn	Pn	10 10 42.2	+0.5
PE1				*e*Sn	Sn	10 11 40.0	-3.0
ORI	Oriolo Calabro	5.42	312	Pn	Pn	10 10 43.2	+1.4
ORI				Sn	Sn	10 11 41.4	-1.7
ORI	Oriolo Calabro	5.42	312	Pn	Pn	10 10 43.2	+1.4
ORI				Sn	Sn	10 11 41.4	-1.7
SKO	Skopje	5.45	358	*i* Pn	Pn	10 10 43.7	+1.5
SKO				*e*Sn	Sn	10 11 35.4	-8.4
SKO				*e*Lg		10 12 53.2	
	comp=N,277µm,3.9s						
SKO	Skopje	5.45	358	P	Pn	10 10 43.6	+1.4
SKO	Skopje	5.45	358	⇑*i*Pn	Pn	10 10 43.7	+1.5
SKO				*e*Sn	Sn	10 11 35.3	-8.4
SKO				*e*Lg		10 12 53.1	
	comp=N,77µm,3.9s						
KKB	Krupnik	5.45	11	P	Pn	10 10 43.4	+1.2
KKB	Krupnik	5.45	11	P	Pn	10 10 43.4	+1.2
ENEZ	Enez	5.48	38	*e*P	Pn	10 10 42.6	-0.1
ENEZ	Enez	5.48	38	*e*P	Pn	10 10 42.6	0.0
RDO	Rodhopi	5.52	32	P	Pn	10 10 43.2	+0.1
RDO	Rodhopi	5.52	32	P	Pn	10 10 43.2	+0.1
LPK	Lapseki	5.55	45	P	Pn	10 10 43.9	+0.4
LPK	Lapseki	5.55	45	Pn	Pn	10 10 43.9	+0.4
LPK	Lapseki	5.55	45	Pn	Pn	10 10 43.9	+0.4
ALN	Alexandroupoli	5.55	37	*e*P	Pn	10 10 43.9	+0.3
ALN	Alexandroupoli	5.55	37	*e*P	Pn	10 10 43.9	+0.3
TURN	Turunc	5.58	84	⇑*i*P	Pn	10 10 41.1	-2.9
DALT	Dalyan (Mudla)	5.61	85	*e*P	Pn	10 10 45.9	+1.5
DALT	Dalyan (Mudla)	5.61	85	Pn	Pn	10 10 45.9	+1.5
DALT	Dalyan (Mudla)	5.61	85	Pn	Pn	10 10 45.9	+1.5
RZN	Rozhen	5.68	24	P	Pn	10 10 46.7	+1.4
RZN	Rozhen	5.68	24	P	Pn	10 10 46.7	+1.4
BALY	Balya	5.69	54	⇑*i*P	Pn	10 10 45.5	+0.1
LJBD	Adjabya	5.72	193	*i* P	Pn	10 10 44.4	-1.6
	SNR=48						
ULC	Ulcinj	5.75	342	⇑*i*Pn	Pn	10 10 46.0	-0.3
ULC				*e*Sn	Sn	10 11 50.1	-1.1
ULC	Ulcinj	5.75	342	⇑*i*Pn	Pn	10 10 46.0	-0.3
ULC				*e*Sn	Sn	10 11 50.1	-1.1
CUC	Castrocucco	5.77	309	*e*Pn	Pn	10 10 46.7	+0.2
	comp=N,8µm,0.7s						
CUC				*e*Sn	Sn	10 11 53.8	+2.2
CUC	Castrocucco	5.77	309	*e*Pn	Pn	10 10 46.7	+0.2
	comp=N,8µm,0.7s						
BALB	Balikesir	5.81	56	*e*P	Pn	10 10 48.2	+1.2
BALB	Balikesir	5.81	56	Pn	Pn	10 10 48.2	+1.1
BALB	Balikesir	5.81	56	Pn	Pn	10 10 48.2	+1.1
WDD	Wield Dalam	5.82	266	⇓*e*Pn	Pn	10 10 45.8	-1.4
WDD				*e*Sn	Sn	10 11 50.3	-2.5
WDD	Wield Dalam	5.82	266	⇓*e*Pn	Pn	10 10 45.8	-1.4
MANT	Manisa	5.82	68	⇑*i*P	Pn	10 10 47.8	+0.5
SG1	Sgolgore (BA)	5.82	319	*e*Sn	Sn	10 11 48.4	-4.5
VAE	Valguarnera	5.89	282	Pn	Pn	10 10 48.9	+0.7
	comp=N,29nm,0.3s,baz=18,slow=2.5,SNR=72						
VAE				Sn	Sn	10 11 52.0	-2.5
	comp=N,374nm,0.3s,baz=278,slow=19,SNR=3.5						
VAE	Valguarnera	5.89	282	Pn	Pn	10 10 48.9	+0.7
VAE				Sn	Sn	10 11 52.0	-2.6
KDZ	Kurdzhali	5.89	28	P	Pn	10 10 48.6	+0.3
KDZ	Kurdzhali	5.89	28	P	Pn	10 10 48.6	+0.3
RAFF	Raffo Rosso	5.90	279	Pn	Pn	10 10 47.7	-0.7
RAFF				Sn	Sn	10 11 49.8	-5.1
RAFF	Raffo Rosso	5.90	279	Pn	Pn	10 10 47.7	-0.7
BAI	Bari	5.92	322	*i* Pn	Pn	10 10 48.3	-0.2
BAI				*e*Sn	Sn	10 11 50.3	-4.9
FETY	Fethiye	5.97	87	P	Pn	10 10 49.9	+0.6
FETY	Fethiye	5.97	87	Pn	Pn	10 10 49.8	+0.5
FETY	Fethiye	5.97	87	Pn	Pn	10 10 49.8	+0.5
RKY	Sarkoy-Tekirda	5.99	44	*e*P	Pn	10 10 50.3	+0.6
RKY	Sarkoy-Tekirda	5.99	44	Pn	Pn	10 10 50.2	+0.6
RKY	Sarkoy-Tekirda	5.99	44	Pn	Pn	10 10 50.2	+0.6
SART	Tekirdag	6.00	44	⇑*i*P	Pn	10 10 49.6	-0.1
DENT	Denizli	6.01	76	P	Pn	10 10 52.3	+2.4
DENT	Denizli	6.01	76	Pn	Pn	10 10 52.2	+2.3
DENT	Denizli	6.01	76	Pn	Pn	10 10 52.2	+2.3
PLD	Plovdiv	6.05	22	⇑*i*Pn	Pn	10 10 53.3	+2.8
PLD	Plovdiv	6.05	22	P	Pn	10 10 51.0	+0.5
PLD	Plovdiv	6.05	22	P	Pn	10 10 51.0	+0.5
BUM	Brajici-Budva	6.16	340	⇑*i*Pn	Pn	10 10 51.4	-0.5
BUM				*e*Sn	Sn	10 12 00.2	-1.1
BUM	Brajici-Budva	6.16	340	⇑*i*Pn	Pn	10 10 51.4	-0.5
BUM				*e*Sn	Sn	10 12 00.2	-1.1
VTS	Vitosha	6.18	11	⇑*i*Pn	Pn	10 10 53.8	+1.6
VTS	Vitosha	6.18	11	⇑*i*P	Pn	10 10 54.6	+2.4
VTS	Vitosha	6.18	11	P	Pn	10 10 53.9	+1.7
VTS				S	Sb	10 12 19.3	-4.1
VTS	Vitosha	6.18	11	P	Pn	10 10 53.9	+1.7
VTS				S	Sb	10 12 19.3	-4.1
VTS	Vitosha	6.18	11	⇑*i*Pn	Pn	10 10 53.8	+1.6
VTS	Vitosha	6.18	11	⇑*i*P	Pn	10 10 54.6	+2.4
EDC	Edincik	6.18	50	*e*P	Pn	10 10 54.4	+2.1
EDC	Edincik	6.18	50	P	Pn	10 10 54.3	+2.0
EDC	Edincik	6.18	50	Pn	Pn	10 10 54.3	+2.0
ACER	Acerenza	6.18	315	Pn	Pn	10 10 53.2	+0.9
	comp=N,8µm,0.8s						
ACER	Acerenza	6.18	315	Pn	Pn	10 10 53.2	+0.9
	comp=N,8µm,0.8s						
DURS	Dursunbey	6.19	58	⇑*i*P	Pn	10 10 52.9	+0.6
PDG	Podgorica	6.19	343	⇑*i*Pn	Pn	10 10 52.0	-0.3
PDG				*e*Sn	Sn	10 12 01.4	-0.6
TTG	Podgorica	6.19	343	⇑*i*Pn	Pn	10 10 52.0	-0.3
TTG				*e*Sn	Sn	10 12 01.4	-0.6
TTG	Podgorica	6.19	343	⇑*i*Pn	Pn	10 10 52.0	-0.3
TTG				*e*Sn	Sn	10 12 01.4	-0.6
PVY	Plav	6.21	348	⇑*i*Pn	Pn	10 10 53.3	+0.7
PVY				*e*Sn	Sn	10 12 02.4	0.0
PVY	Plav	6.21	348	⇑*i*Pn	Pn	10 10 53.3	+0.7
PVY				*e*Sn	Sn	10 12 02.4	0.0
BNT	Bandirma	6.22	50	P	Pn	10 10 54.4	+1.5
BNT	Bandirma	6.22	50	P	Pn	10 10 54.3	+1.5
BARS	Barje	6.29	1	⇑*i*Pn	Pn	10 10 54.5	+0.8
BARS	Barje	6.29	1	⇑*i*Pn	Pn	10 10 54.5	+0.8
GOLH	Golhisar	6.37	81	⇑*i*P	Pn	10 10 57.4	+2.7
GOLH	Golhisar	6.37	81	*i* P	Pn	10 10 57.4	+2.6
KSL	Kastellorizon	6.40	91	⇓*i*P	Pn	10 10 55.4	+0.2
KSL	Kastellorizon	6.40	91	⇓*i*P	Pn	10 10 55.4	+0.2
TKR	Tekirdag	6.40	44	*e*P	Pn	10 10 56.8	+1.6
TKR	Tekirdag	6.40	44	Pn	Pn	10 10 56.7	+1.5
TKR	Tekirdag	6.40	44	Pn	Pn	10 10 56.7	+1.5
AKAS	Kas	6.41	90	⇑*i*P	Pn	10 10 54.7	-0.7
AKAS	Kas	6.41	90	*i* P	Pn	10 10 54.7	-0.6
HCY	Herceg Novi	6.41	338	⇑*i*Pn	Pn	10 10 54.1	-1.2
HCY				*e*Sn	Sn	10 12 06.9	-0.5
HCY	Herceg Novi	6.41	338	⇑*i*Pn	Pn	10 10 54.1	-1.2
HCY				*e*Sn	Sn	10 12 06.9	-0.5
KCT	Karacabey	6.45	53	*e*P	Pn	10 10 58.0	+2.1
KCT	Karacabey	6.45	53	Pn	Pn	10 10 57.9	+2.0
KCT	Karacabey	6.45	53	Pn	Pn	10 10 57.9	+2.0
BEY	Berane	6.49	348	⇑*i*Pn	Pn	10 10 56.9	+0.4
BEY				*e*Sn	Sn	10 12 08.4	-1.0
IVA	Berane	6.49	348	⇑*i*Pn	Pn	10 10 56.9	+0.4
IVA				*e*Sn	Sn	10 12 08.4	-1.0
IVA	Berane	6.49	348	⇑*i*Pn	Pn	10 10 56.9	+0.4
IVA				*e*Sn	Sn	10 12 08.4	-1.0
KHAL	Karahalli	6.49	71	⇑*i*P	Pn	10 10 58.0	+1.5
KHAL	Karahalli	6.49	71	*i* P	Pn	10 10 58.0	+1.5
KHL	Karahalli	6.50	72	P	Pn	10 10 59.2	+2.5
KHL	Karahalli	6.50	72	Pn	Pn	10 10 59.2	+2.5
KHL	Karahalli	6.50	72	Pn	Pn	10 10 59.2	+2.5
CRLT	Corlu	6.60	44	*e*P	Pn	10 10 58.4	+0.4
CRLT	Corlu	6.60	44	Pn	Pn	10 10 58.4	+0.4
CRLT	Corlu	6.60	44	Pn	Pn	10 10 58.4	+0.4
NKY	Niksic	6.62	343	⇑*i*Pn	Pn	10 10 57.6	-0.6
NKY				*e*Sn	Sn	10 12 12.0	-0.5
NKY	Niksic	6.62	343	⇑*i*Pn	Pn	10 10 57.6	-0.6
NKY				*e*Sn	Sn	10 12 12.0	-0.5
EDRB	Edirne	6.62	35	P	Pn	10 10 58.6	+0.3
EDRB	Edirne	6.62	35	Pn	Pn	10 10 58.5	+0.3
EDRB	Edirne	6.62	35	Pn	Pn	10 10 58.5	+0.3
ELL	Elmali	6.63	86	P	Pn	10 10 59.5	+1.1
ELL	Elmali	6.63	86	P	Pn	10 10 59.4	+1.0
ELL	Elmali	6.63	86	Pn	Pn	10 10 59.4	+1.0
GDZ	Gediz	6.70	65	⇑*i*P	Pn	10 11 01.0	+1.7
GDZ	Gediz	6.70	65	*i* P	Pn	10 11 01.0	+1.7
ZAPS	Zavoj	6.79	6	⇑*i*Pn	Pn	10 11 02.3	+1.8
BRY	Bratogost	6.81	340	⇑*i*Pn	Pn	10 10 59.8	-1.1
BRY				*e*Sn	Sn	10 12 15.9	-1.4
BRY	Bratogost	6.81	340	⇑*i*Pn	Pn	10 10 59.8	-1.1
BRY				*e*Sn	Sn	10 12 15.9	-1.4
MS1	Monte Sant'Ang	6.83	321	*i* Pn	Pn	10 11 00.6	-0.5
MS1				*e*Sn	Sn	10 12 15.4	-2.3
LSRT	Sirt	6.84	219	*i* P	Pn	10 10 59.0	-2.3
	SNR=46						
SJES	Sjenica	6.86	350	⇑*i*Pn	Pn	10 11 01.5	0.0
SJES	Sjenica	6.86	350	⇑*i*Pn	Pn	10 11 01.5	0.0
NISS		6.88	2	⇑*i*Pn	Pn	10 11 02.2	+0.4
NISS		6.88	2	⇑*i*Pn	Pn	10 11 02.2	+0.4
ULDT	Uludag	6.89	56	*i* P	Pn	10 11 02.6	+0.6
ULDT	Uludag	6.89	56	*i* P	Pn	10 11 02.6	+0.6
LMSR	Misrath	6.92	235	*i* P	Pn	10 11 00.0	-2.4
	SNR=46						
ARMT	Armutlu	6.94	52	*e*P	Pn	10 11 03.4	+0.8
ARMT	Armutlu	6.94	52	Pn	Pn	10 11 03.3	+0.7
ARMT	Armutlu	6.94	52	Pn	Pn	10 11 03.3	+0.7
SLVT	Silivri	6.94	45	*e*P	Pn	10 11 03.3	+0.7
SLVT	Silivri	6.94	45	Pn	Pn	10 11 03.2	+0.6
SLVT	Silivri	6.94	45	Pn	Pn	10 11 03.2	+0.6
UPM	Unac-Piva	7.01	343	⇑*i*Pn	Pn	10 11 03.3	-0.2
UPM				*e*Sn	Sn	10 12 20.7	-1.3
UPM	Unac-Piva	7.01	343	⇑*i*Pn	Pn	10 11 03.3	-0.2
UPM				*e*Sn	Sn	10 12 20.7	-1.3
CTT	Catalca	7.01	47	*e*P	Pn	10 11 04.9	+1.3
CTT	Catalca	7.01	47	P	Pn	10 11 04.8	+1.2
CTT	Catalca	7.01	47	Pn	Pn	10 11 04.8	+1.2
ELBA	Catalca	7.01	47	⇑*i*P	Pn	10 11 02.8	-0.9
ELBA	Catalca	7.01	47	*i* P	Pn	10 11 02.8	-0.8
PLE	Pljevlja	7.03	346	⇑*i*Pn	Pn	10 11 03.7	-0.1
PLE				*e*Sn	Sn	10 12 22.2	-0.3
PLE	Pljevlja	7.03	346	⇑*i*Pn	Pn	10 11 03.7	-0.1
PLE				*e*Sn	Sn	10 12 22.2	-0.3
STON	Ston	7.04	335	⇑*i*Pn	Pn	10 11 02.7	-1.4
STON				Sn	Sn	10 12 17.9	-5.0
STON	Ston	7.04	335	⇑*i*Pn	Pn	10 11 02.7	-1.3
STON				Sn	Sn	10 12 18.0	-5.0
JMB	Yambol	7.05	31	P	Pn	10 11 05.0	+0.9
JMB	Yambol	7.05	31	P	Pn	10 11 05.0	+0.9
JMB	Yambol	7.05	31	P	Pn	10 11 04.5	+0.4
JMB	Yambol	7.05	31	P	Pn	10 11 04.5	+0.4
CTKS	Kestanelik-??a	7.12	46	*e*P	Pn	10 11 05.7	+0.7
CTKS	Kestanelik-??a	7.12	46	*e*P	Pn	10 11 05.7	+0.7
CTYL	Yal??k??y-??at	7.14	44	*e*P	Pn	10 11 06.5	+1.1
CTYL	Yal??k??y-??at	7.14	44	*e*P	Pn	10 11 06.5	+1.1
ALT	Altintas	7.15	67	P	Pn	10 11 07.5	+2.0
ALT	Altintas	7.15	67	Pn	Pn	10 11 07.5	+2.0
ALT	Altintas	7.15	67	Pn	Pn	10 11 07.5	+2.0
ISP	Isparta	7.18	77	P	Pn	10 11 07.7	+1.7
ISP	Isparta	7.18	77	*e*P	Pn	10 11 08.2	+2.3
ISP	Isparta	7.18	77	⇑*i*P	Pn	10 11 08.5	+2.6
ISP	Isparta	7.18	77	*e*Pn	Pn	10 11 03.2	-2.8
BCK	Bucak	7.20	80	*e*P	Pn	10 11 08.3	+2.1
BCK	Bucak	7.20	80	P	Pn	10 11 08.3	+2.1
BCK	Bucak	7.20	80	Pn	Pn	10 11 08.3	+2.1
ANTB	Antalya	7.23	84	*e*P	Pn	10 11 08.9	+2.4
ANTB	Antalya	7.23	84	*e*P	Pn	10 11 08.9	+2.3
BGKT	Bogazkoy	7.24	48	P	Pn	10 11 07.0	+0.3
BGKT	Bogazkoy	7.24	48	Pn	Pn	10 11 06.9	+0.2
BGKT	Bogazkoy	7.24	48	Pn	Pn	10 11 06.9	+0.2
YLV	Yalova	7.26	54	P	Pn	10 11 07.6	+0.5
YLV	Yalova	7.26	54	P	Pn	10 11 07.6	+0.5
YLV	Yalova	7.26	54	Pn	Pn	10 11 07.6	+0.5
BOLS	Boljevac	7.31	2	⇑*i*Pn	Pn	10 11 07.3	-0.3
BOLS	Boljevac	7.31	2	⇑*i*Pn	Pn	10 11 07.3	-0.3
ISK	Istanbul-Kandi	7.34	50	*e*P	Pn	10 11 08.4	+0.3
ISK	Istanbul-Kandi	7.34	50	P	Pn	10 11 08.4	+0.3
ISK	Istanbul-Kandi	7.34	50	Pn	Pn	10 11 08.4	+0.3
LUJL	Ujela	7.38	183	*i* P	Pn	10 11 07.1	-1.7
	SNR=46						
CAVI	Cavuskoy	7.40	58	*e*P	Pn	10 11 10.1	+1.2
CAVI	Cavuskoy	7.40	58	*e*P	Pn	10 11 10.1	+1.2
GRUS	Gruza	7.40	355	⇑*i*Pn	Pn	10 11 08.0	-0.9
GRUS	Gruza	7.40	355	P	Pn	10 11 07.4	-1.5
GRUS	Gruza	7.40	355	⇑*i*Pn	Pn	10 11 08.0	-0.9
ADVT	Abdulvahap	7.44	56	*e*P	Pn	10 11 10.6	+1.2
ADVT	Abdulvahap	7.44	56	Pn	Pn	10 11 10.6	+1.1
ADVT	Abdulvahap	7.44	56	Pn	Pn	10 11 10.6	+1.1
KLYT	Kilyos	7.44	48	*e*P	Pn	10 11 10.6	+1.1
KLYT	Kilyos	7.44	48	Pn	Pn	10 11 10.5	+1.0
KLYT	Kilyos	7.44	48	Pn	Pn	10 11 10.5	+1.0
SZH	Strazhica	7.49	25	P	Pn	10 11 11.0	+0.8
SZH	Strazhica	7.49	25	P	Pn	10 11 11.0	+0.8
BBLS	Lazići	7.54	347	⇑*i*Pn	Pn	10 11 10.1	-0.8
BBLS	Lazići	7.54	347	P	Pn	10 11 10.0	-0.9
BBLS	Lazići	7.54	347	P	Pn	10 11 10.0	-0.9
HRT	Hereke	7.59	53	*e*P	Pn	10 11 13.5	+1.9
HRT	Hereke	7.59	53	P	Pn	10 11 13.4	+1.9
HRT	Hereke	7.59	53	Pn	Pn	10 11 13.4	+1.9
ZIMR		7.67	21	⇑*i*P	Pn	10 11 22.1	+9.4
DIVS	Divibare	7.68	351	⇑*i*Pn	Pn	10 11 12.0	-0.8
DIVS	Divibare	7.68	351	⇑*i*Pn	Pn	10 11 12.0	-0.8
MIDA	Miranda	7.71	314	Pn	Pn	10 11 13.9	+0.7
	comp=N,11µm,1.4s						
MIDA	Miranda	7.71	314	Pn	Pn	10 11 13.9	+0.7
	comp=N,10µm,1.4s						
SVIS	Svilajnac	7.75	358	⇑*i*Pn	Pn	10 11 12.6	-1.1
SILT	Sile	7.75	51	*e*P	Pn	10 11 14.6	+0.8
SILT	Sile	7.75	51	Pn	Pn	10 11 14.6	+0.8
SILT	Sile	7.75	51	Pn	Pn	10 11 14.6	+0.8
TRUS	Trudelj	7.76	353	⇑*i*Pn	Pn	10 11 11.9	-1.9
TRUS	Trudelj	7.76	353	⇑*i*Pn	Pn	10 11 11.9	-1.9
EYL	Eskiyayla	7.78	56	*e*P	Pn	10 11 17.1	+2.9
EYL	Eskiyayla	7.78	56	Pn	Pn	10 11 17.0	+2.8
ESKT	Eskisehir	7.84	65	*e*P	Pn	10 11 16.2	+1.2
ESKT	Eskisehir	7.84	65	*i* P	Pn	10 11 16.5	+1.5
ESKT	Eskisehir	7.84	65	Pn	Pn	10 11 16.2	+1.2
ESKT	Eskisehir	7.84	65	Pn	Pn	10 11 16.2	+1.2
SEYT	Eskypehyr	7.84	65	*i* P	Pn	10 11 16.5	+1.5
LTRP	Tripoli	7.91	245	*i* P	Pn	10 11 13.2	-2.7
	SNR=46						
SWA2		7.92	155	⇓P	Pn	10 11 13.8	-2.4
SWA2				S	Sn	10 12 26.1	-19
CRAR	CRAIOVA	7.97	11	⇓*i*P	Pn	10 11 18.5	+1.8
CRAR	CRAIOVA	7.97	11	P	Pn	10 11 18.5	+1.8
PRD	Provadia	8.00	32	P	Pn	10 11 17.5	+0.4
PRD	Provadia	8.00	32	P	Pn	10 11 17.5	+0.4
DJES	Djerdap	8.17	4	⇓*i*Pn	Pn	10 11 19.1	-0.3
DJES	Djerdap	8.17	4	P	Pn	10 11 18.8	-0.6
SVRH	Sivrihisar-ESK	8.31	66	P	Pn	10 11 23.9	+2.4
SVRH	Sivrihisar-ESK	8.31	66	*i* P	Pn	10 11 23.9	+2.5
BEO	Beograd	8.33	354	⇓*i*Pn	Pn	10 11 20.9	-0.8
BEO	Beograd	8.33	354	P	Pn	10 11 21.1	-0.6
GHAR	Gharyan	8.34	241	*i* P	Pn	10 11 19.0	-2.9
	SNR=46						
HENT	Hendek	8.40	56	⇑*i*P	Pn	10 11 25.8	+3.1
HENT	Hendek	8.40	56	*i* P	Pn	10 11 25.8	+3.1
KIZT	Kizilcal	8.43	71	P	Pn	10 11 25.2	+2.1
KIZT	Kizilcal	8.43	71	Pn	Pn	10 11 25.1	+2.0
KIZT	Kizilcal	8.43	71	Pn	Pn	10 11 25.1	+2.0
MDU	Mudurnu	8.46	59	*e*P	Pn	10 11 23.5	+0.1
MDU	Mudurnu	8.46	59	Pn	Pn	10 11 23.5	+0.1
MDU	Mudurnu	8.46	59	*e*P	Pn	10 11 23.5	+0.1
BUC1	Bucharest	8.50	22	⇓*i*P	Pn	10 11 26.3	+2.3
BUC1	Bucharest	8.50	22	⇓*i*P	Pn	10 11 26.3	+2.3
KDHN	Kadinhani	8.54	73	⇑*i*P	Pn	10 11 27.4	+2.8
KDHN	Kadinhani	8.54	73	*i* P	Pn	10 11 27.4	+2.8
KONT	Konya--Tatoy	8.65	77	P	Pn	10 11 27.9	+1.8
KONT	Konya--Tatoy	8.65	77	Pn	Pn	10 11 27.8	+1.8
KONT	Konya--Tatoy	8.65	77	*i* P	Pn	10 11 27.9	+1.9
LZLA	Zalla	8.66	205	*i* P	Pn	10 11 23.6	-2.7
	SNR=46						
HDMB	Hadim	8.70	84	P	Pn	10 11 27.2	+0.4
HDMB	Hadim	8.70	84	Pn	Pn	10 11 27.1	+0.4
HDMB	Hadim	8.70	84	*i* P	Pn	10 11 27.2	+0.5
PSN	Preselentsi	8.72	33	P	Pn	10 11 27.1	+0.1
PSN	Preselentsi	8.72	33	P	Pn	10 11 27.1	+0.1
FRGS	Fruska Gora	8.75	351	*e*Pn	Pn	10 11 26.8	-0.6
FIAM	Fiamignano	8.76	314	Pn	Pn	10 11 28.8	+1.2
	comp=N,4µm,1.1s						
FIAM	Fiamignano	8.76	314	Pn	Pn	10 11 28.8	+1.2
	comp=N,4µm,1.1s						
PPCY	Paphos	8.84	97	P	Pn	10 11 24.8	-3.9
PPCY	Paphos	8.84	97	P	Pn	10 11 24.8	-3.9
LJFR	Jufra	8.88	215	*i* P	Pn	10 11 26.2	-3.1
	SNR=46						
BLY	Banja Luka	8.90	339	⇑*i*Pn	Pn	10 11 28.6	-0.9
BLY	Banja Luka	8.90	339	⇑*i*Pn	Pn	10 11 28.6	-0.9
GZR	Gura Zlata	8.91	5	⇓P	Pn	10 11 31.2	+1.6
GZR	Gura Zlata	8.91	5	⇓*i*P	Pn	10 11 31.1	+1.5
GZR	Gura Zlata	8.91	5	P	Pn	10 11 29.6	0.0
GZR	Gura Zlata	8.91	5	P	Pn	10 11 29.6	0.0
ALFC	Alevga	8.98	95	P	Pn	10 11 26.9	-3.7
	comp=N,57nm,0.6s						
ALFC				S	Sn	10 13 01.3	-9.3
ALFC	Alevga	8.98	95	P	Pn	10 11 26.9	-3.7
	comp=N,57nm,0.6s						
ALFC				S	Sn	10 13 01.3	-9.3
KDZE	Karadeniz Ereo	8.99	55	*e*P	Pn	10 11 32.6	+1.8
KDZE	Karadeniz Ereo	8.99	55	*e*P	Pn	10 11 32.6	+1.8
LSHF	Shwairf	9.00	226	*i* P	Pn	10 11 28.6	-2.3
	SNR=46						
ALAS	Alassa	9.06	249	*i* P	Pn	10 11 28.9	-2.8
	SNR=46						
SGKT	Sivrigoynuk	9.09	60	*i* P	Pn	10 11 34.4	+2.4
SGKT	Sivrigoynuk	9.09	60	*i* P	Pn	10 11 34.4	+2.3
BZS	Buzias	9.09	360	⇑*i*Pn	Pn	10 11 30.6	-1.5
BZS	Buzias	9.09	360	⇑*i*P	Pn	10 11 33.0	+0.9
BZS	Buzias	9.09	360	P	Pn	10 11 30.6	-1.5
BZS	Buzias	9.09	360	⇑*i*P	Pn	10 11 33.0	+0.9
LEF	Lefka	9.22	95	*e*P	Pn	10 11 30.0	-3.9
LEF	Lefka	9.22	95	Pn	Pn	10 11 30.0	-3.9
LEF	Lefka	9.22	95	*e*P	Pn	10 11 30.0	-3.9
VOIR		9.27	15	⇓*i*P	Pn	10 11 36.1	+1.6
VOIR		9.27	15	P	Pn	10 11 35.5	+1.0
VOIR		9.27	15	P	Pn	10 11 35.5	+1.0
SZAC	Souni-Zanaja	9.30	98	P	Pn	10 11 31.4	-3.6
	comp=N,29nm,0.2s						
SZAC				S	Sn	10 13 09.5	-8.9
SZAC	Souni-Zanaja	9.30	98	P	Pn	10 11 31.4	-3.6
	comp=N,29nm,0.2s						
SZAC				S	Sn	10 13 09.5	-8.9
ISR	Istrita	9.35	22	⇑*i*P	Pn	10 11 38.3	+2.6
ISR	Istrita	9.35	22	⇑P	Pn	10 11 38.3	+2.7
ISR	Istrita	9.35	22	⇑*i*P	Pn	10 11 38.3	+2.6
DAD	Ankara	9.36	65	⇑*i*P	Pn	10 11 38.5	+2.7
DAD	Ankara	9.36	65	*i* P	Pn	10 11 38.5	+2.7
LOD	Lodumlu	9.36	66	Pn	Pn	10 11 36.5	+0.7
LOD	Lodumlu	9.36	66	*e*P	Pn	10 11 36.5	+0.7
CING	Cingoli	9.44	319	Pn	Pn	10 11 36.7	-0.2
	comp=N,3µm,1.1s						
CING	Cingoli	9.44	319	Pn	Pn	10 11 36.7	-0.2
	comp=N,3µm,1.1s						
TIRR	Tirgusor	9.45	31	⇓*i*P	Pn	10 11 39.7	+2.7
TIRR	Tirgusor	9.45	31	⇑*i*Pn	Pn	10 11 36.4	-0.5
	comp=N,2µm,1.3s						
TIRR	Tirgusor	9.45	31	⇑*i*Pn	Pn	10 11 36.4	-0.6
	comp=N,2µm,1.3s						
TIRR	Tirgusor	9.45	31	⇓*i*P	Pn	10 11 39.7	+2.7
HARR	Harsova	9.45	28	⇑*i*P	Pn	10 11 38.4	+1.4
HARR	Harsova	9.45	28	P	Pn	10 11 38.6	+1.6
HARR	Harsova	9.45	28	⇑*i*P	Pn	10 11 38.4	+1.4
MAMC	Mammari	9.47	95	P	Pn	10 11 34.4	-3.0
MAMC	Mammari	9.47	95	P	Pn	10 11 34.4	-3.0
MLR	Muntele Rosu	9.53	18	P	Pn	10 11 38.3	+0.2
MLR						10 13 33.9	
MLR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MLR	Muntele Rosu	9.53	18	⇓*i*P	Pn	10 11 40.4	+2.3
MLR	Muntele Rosu	9.53	18	Pn	Pn	10 11 38.3	+0.2
	comp=Z,1.6nm,0.3s,baz=204,slow=9.4,SNR=42						
MLR				Sn	Sn	10 13 33.9	+10
	baz=278,slow=8.1,SNR=1.3						
MLR	Muntele Rosu	9.53	18	P	Pn	10 11 39.5	+1.4
MLR	Muntele Rosu	9.53	18	P	Pn	10 11 38.3	+0.2
	comp=Z,2.0nm,0.3s						
BALAT	Bala	9.53	68	⇑*i*P	Pn	10 11 41.5	+3.4
NVLJ	Novalja	9.55	329	*e*Pn	Pn	10 11 38.1	-0.4
NVLJ	Novalja	9.55	329	*e*Pn	Pn	10 11 38.1	-0.4
SULT	Sultanhani-AKS	9.58	76	P	Pn	10 11 40.7	+1.8
SULT	Sultanhani-AKS	9.58	76	*i* P	Pn	10 11 40.7	+1.9
CSS	Prodhromos	9.61	96	P	Pn	10 11 35.4	-3.8
	comp=Z,27nm,0.4s						
CSS				S	Sn	10 13 16.8	-9.2
CSS	Prodhromos	9.61	96	P	Pn	10 11 35.4	-3.8
	comp=Z,27nm,0.4s						
CSS				S	Sn	10 13 16.8	-9.2
IKL	Isikli	9.70	88	*e*P	Pn	10 11 39.8	-0.7
IKL	Isikli	9.70	88	Pn	Pn	10 11 39.7	-0.7
IKL	Isikli	9.70	88	*e*P	Pn	10 11 39.8	-0.6
LFK	Lefkose	9.70	94	*e*P	Pn	10 11 40.6	0.0
LFK	Lefkose	9.70	94	Pn	Pn	10 11 40.5	-0.1
LFK	Lefkose	9.70	94	*e*P	Pn	10 11 40.6	0.0
RHK3	Tenkes	9.71	346	⇓*e*P	Pn	10 11 39.1	-1.5
MURB	Monte Urbino	9.73	317	Pn	Pn	10 11 42.0	+1.1
	comp=Z,11µm,1.6s						
MURB	Monte Urbino	9.73	317	Pn	Pn	10 11 42.0	+1.1
	comp=Z,10µm,1.6s						
SAFT	Safranbolu	9.80	58	*e*P	Pn	10 11 43.8	+2.0
SAFT	Safranbolu	9.80	58	Pn	Pn	10 11 43.8	+2.0
SAFT	Safranbolu	9.80	58	*e*P	Pn	10 11 43.8	+2.0
MDB	Medias	9.83	11	⇓*i*P	Pn	10 11 45.1	+2.9
MDB	Medias	9.83	11	⇓*i*P	Pn	10 11 45.1	+2.9
PKSM	Moragy	9.95	348	⇑*i*Pn	Pn	10 11 41.6	-2.2
PKSM	Moragy	9.95	348	P	Pn	10 11 41.7	-2.1
PKSM	Moragy	9.95	348	⇑*i*Pn	Pn	10 11 41.6	-2.2
BR131	Keskin Array S	9.96	68	*e*Pn	Pn	10 11 46.3	+2.3
BRTR	Keskin Array B	9.96	68	P	Pn	10 11 46.3	+2.3
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
BRTR				MLR	MLR		
	comp=Z,131µm,18.5s						
BRTR	Keskin Array B	9.96	68	Pn	Pn	10 11 46.2	+2.2
	comp=Z,3.3nm,0.3s,baz=246,slow=12,SNR=138						
BRTR				LR	LR	10 16 20.5	
	comp=Z,1131µm,18.5s,baz=244,slow=42						
BRTR	Keskin Array B	9.96	68	Pn	Pn	10 11 46.2	+2.2
KEST	Kesra	10.00	269	Pn	Pn	10 11 43.9	-0.7
	comp=Z,2.0nm,0.3s,baz=42,slow=9.4,SNR=80						
KEST				Sn	Sn	10 13 32.1	-3.6
	comp=Z,4.8nm,0.3s,baz=46,slow=16,SNR=3.3						
KEST				LR	LR	10 16 22.4	
	comp=Z,74µm,19.8s,baz=202,slow=42						
KEST	Kesra	10.00	269	*e*Pn	Pn	10 11 44.4	-0.2
ELDT	Eldivan	10.03	63	⇑*i*P	Pn	10 11 46.9	+1.9
ELDT	Eldivan	10.03	63	*i* P	Pn	10 11 46.9	+1.9
BADI	Badiali	10.05	317	Pn	Pn	10 11 46.8	+1.6
BADI	Badiali	10.05	317	Pn	Pn	10 11 46.8	+1.6
PLOR	Plostina	10.05	20	P	Pn	10 11 47.1	+1.9
PLOR	Plostina	10.05	20	P	Pn	10 11 47.1	+1.9
VRI	Vrincioaia	10.09	21	⇓*i*P	Pn	10 11 48.0	+2.3
VRI	Vrincioaia	10.09	21	P	Pn	10 11 46.6	+0.9
VRI	Vrincioaia	10.09	21	P	Pn	10 11 46.6	+0.9
PKS2	Kecel	10.13	350	⇓*e*P	Pn	10 11 45.1	-1.3
VSL	Villasalto	10.14	291	*e*Pn	Pn	10 11 44.6	-2.0
VSL	Villasalto	10.14	291	*e*Pn	Pn	10 11 44.6	-2.0

PHNC	Paralimni	10.16	95	P	Pn	10 11 43.6	-3.2
PHNC				S	Sn	10 13 30.9	-8.7
PHNC	Paralimni	10.16	95	P	Pn	10 11 43.6	-3.2
PHNC				S	Sn	10 13 30.9	-8.7
HNAT	Natroun	10.17	130	⇓P	Pn	10 11 42.8	-4.2
HNAT	Natroun	10.17	130	P	Pn	10 11 42.8	-4.1
PKS6	Bocsa	10.20	352	⇑eP	Pn	10 11 46.4	-0.8
BOJS	Bojanci	10.20	334	i Pn	Pn	10 11 46.2	-1.0
BOJS				eSn	Sn	10 13 36.9	-3.6
BOJS	Bojanci	10.20	334	i Pn	Pn	10 11 46.2	-1.1
BOJS				eSn	Sn	10 13 36.8	-3.7
AWBH		10.20	141	⇓P	Pn	10 11 43.8	-3.6
AWBH		10.20	141	P	Pn	10 11 43.8	-3.6
TLCR		10.21	30	⇓iP	Pn	10 11 49.3	+1.9
TLCR		10.21	30	⇓P	Pn	10 11 49.4	+2.0
TLCR		10.21	30	⇓iP	Pn	10 11 49.3	+1.9
CANT	Cankiri	10.21	63	eP	Pn	10 11 47.1	-0.4
CANT	Cankiri	10.21	63	Pn	Pn	10 11 47.0	-0.4
DRGR		10.29	4	⇓iP	Pn	10 11 49.5	+0.9
DRGR		10.29	4	P	Pn	10 11 48.9	+0.3
DRGR		10.29	4	P	Pn	10 11 48.9	+0.3
MERS	Mersin	10.33	84	eP	Pn	10 11 49.1	0.0
MERS	Mersin	10.33	84	eP	Pn	10 11 49.1	0.0
SQR		10.36	127	⇓P	Pn	10 11 45.4	-4.2
SQR		10.36	127	P	Pn	10 11 45.4	-4.2
PKS9	Tamasi	10.38	347	eP	Pn	10 11 48.3	-1.4
FYM	Al Fayyum	10.39	128	P	Pn	10 11 45.9	-4.1
FYM	Al Fayyum	10.39	128	P	Pn	10 11 45.6	-4.4
FYM	Al Fayyum	10.39	128	P	Pn	10 11 45.9	-4.1
BALT	Daday	10.40	58	i P	Pn	10 11 50.1	+0.1
BALT	Daday	10.40	58	i P	Pn	10 11 50.2	+0.2
NIG	Nigde	10.43	77	eP	Pn	10 11 51.1	+0.6
NIG	Nigde	10.43	77	Pn	Pn	10 11 51.1	+0.6
NIG	Nigde	10.43	77	eP	Pn	10 11 51.1	+0.6
ILGA	Ilgaz	10.44	61	⇑iP	Pn	10 11 52.6	+2.1
ILGA	Ilgaz	10.44	61	i P	Pn	10 11 52.6	+2.1
AYT	Al ‘Ayyat	10.46	128	⇓eP	Pn	10 11 46.6	-4.3
AYT	Al ‘Ayyat	10.46	128	P	Pn	10 11 46.6	-4.3
SFI	Santa Sofia	10.52	318	P	Pn	10 11 53.1	+1.4
SFI	Santa Sofia	10.52	318	P	Pn	10 11 53.1	+1.4
GULE	Gulek	10.53	82	⇑iP	Px	10 11 21.4	
GULE	Gulek	10.53	82	i P	Px	10 11 21.4	
CSNT	Castellina Chi	10.56	314	Pn	Pn	10 11 53.2	+1.0
	comp=Z,2µm,1.6s						
CSNT	Castellina Chi	10.56	314	Pn	Pn	10 11 53.2	+1.0
	comp=Z,2µm,1.6s						
VISS	Visnje	10.61	333	⇑ePn	Pn	10 11 51.5	-1.4
VISS	Visnje	10.61	333	⇑ePn	Pn	10 11 51.5	-1.3
TOS	Tosya	10.64	61	eP	Pn	10 11 56.0	+2.6
TOS	Tosya	10.64	61	Pn	Pn	10 11 55.9	+2.5
TOS	Tosya	10.64	61	eP	Pn	10 11 56.0	+2.6
AVNT	Avonos	10.70	74	⇑iP	Pn	10 11 55.7	+1.6
AVNT	Avonos	10.70	74	i P	Pn	10 11 55.7	+1.6
CEY	Cerknica	10.71	332	P	Pn	10 11 53.1	-1.1
CEY	Cerknica	10.71	332	P	Pn	10 11 53.1	-1.1
SKDS	Skadanscina	10.71	330	⇑ePn	Pn	10 11 52.1	-2.2
KOT	Kottamia	10.75	125	⇓P	Pn	10 11 50.8	-4.0
KOT				S	Sn	10 13 29.8	-24
KOT	Kottamia	10.75	125	P	Pn	10 11 50.8	-4.0
KOT				S	Sn	10 13 29.8	-24
KARA	Karaisali	10.75	82	P	Pn	10 11 55.0	+0.2
KARA	Karaisali	10.75	82	i P	Pn	10 11 55.0	+0.2
HSAF	As Saff	10.77	127	P	Pn	10 11 51.4	-3.8
HSAF	As Saff	10.77	127	P	Pn	10 11 51.4	-3.8
CORM	Corum	10.81	66	P	Pn	10 11 56.0	+0.3
CORM	Corum	10.81	66	i P	Pn	10 11 56.0	+0.3
GLL	Jalalah	10.90	127	⇑P	Pn	10 11 52.9	-4.0
GLL	Jalalah	10.90	127	P	Pn	10 11 52.8	-4.1
GLL	Jalalah	10.90	127	P	Pn	10 11 52.9	-4.0
HHAG	Hagoal	10.91	124	P	Pn	10 11 52.8	-4.2
HHAG	Hagoal	10.91	124	P	Pn	10 11 52.8	-4.3
HFRF	Wahat Farafira	10.91	147	⇑P	Pn	10 11 53.5	-3.7
HFRF	Wahat Farafira	10.91	147	P	Pn	10 11 53.5	-3.6
LJU	Ljubljana	10.92	333	i Pn	Pn	10 11 56.1	-1.1
LJU				i Sn	Sn	10 13 53.7	-4.6
LJU	Ljubljana	10.92	333	i P	Pn	10 11 56.1	-1.1
LJU				i S	Sn	10 13 53.7	-4.5
TRI	Trieste	10.94	329	eP	Pn	10 11 55.0	-2.4
TRI				e		10 13 54.2	
TRI				pmax	pmax		
	comp=Z,1µm,0.9s						
TRI	Trieste	10.94	329	ePn	Pn	10 11 55.0	-2.4
	comp=Z,1µm,0.9s						
TRI				eSn	Sn	10 13 54.2	-4.5
TRI	Trieste	10.94	329	eP	Pn	10 11 55.0	-2.4
	comp=Z,1µm,0.9s						
TRI				eS	Sn	10 13 54.2	-4.5
OSPF	L’Ospedale	10.97	302	eP	Pn	10 11 59.0	+1.1
OSPF	L’Ospedale	10.97	302	eP	Pn	10 11 59.0	+1.1
JAVS	Javornik	10.97	331	ePn	Pn	10 11 56.3	-1.6
JAVS				i Sn	Sn	10 13 56.8	-2.7
JAVS	Javornik	10.97	331	ePn	Pn	10 11 56.3	-1.6
JAVS				i Sn	Sn	10 13 56.8	-2.6
BZK	Bozkurt	11.00	57	eP	Pn	10 11 58.4	+0.2
BZK	Bozkurt	11.00	57	Pn	Pn	10 11 58.4	+0.2
BZK	Bozkurt	11.00	57	eP	Pn	10 11 58.4	+0.2
KRTS	Karatas	11.03	86	eP	Pn	10 11 59.2	+0.5
KRTS	Karatas	11.03	86	eP	Pn	10 11 59.2	+0.5
CTKT	Corum	11.06	64	⇑iP	Pn	10 12 01.0	+1.9
CTKT	Corum	11.06	64	i P	Pn	10 12 01.0	+1.9
BUD	Budapest	11.13	351	P	Pn	10 11 58.3	-1.7
BUD	Budapest	11.13	351	P	Pn	10 11 58.3	-1.7
PKSG		11.14	348	eP	Pn	10 11 59.0	-1.1
VOY	Vojsko	11.15	331	⇑ePn	Pn	10 11 58.3	-2.1
VOY	Vojsko	11.15	331	⇑ePn	Pn	10 11 58.3	-2.1
YOZ	Yozgat	11.20	70	eP	Pn	10 12 02.5	+1.4
YOZ	Yozgat	11.20	70	Pn	Pn	10 12 02.4	+1.4
YOZ	Yozgat	11.20	70	eP	Pn	10 12 02.5	+1.5
BMR	Baia Mare	11.23	6	⇑iP	Pn	10 12 01.8	+0.4
BMR	Baia Mare	11.23	6	P	Pn	10 12 03.0	+1.6
BMR	Baia Mare	11.23	6	⇑iP	Pn	10 12 01.8	+0.4
PERS	Pernice	11.23	336	i Pn	Pn	10 11 59.5	-1.9
PERS				i Sn	Sn	10 14 00.4	-5.4
PERS	Pernice	11.23	336	i Pn	Pn	10 11 59.5	-1.9
PERS				i Sn	Sn	10 14 00.4	-5.4
BISS	Bistriski jare	11.24	336	⇑iPn	Pn	10 11 59.6	-1.9
BISS	Bistriski jare	11.24	336	⇑iPn	Pn	10 11 59.6	-1.9
AMAG	Maghara	11.26	118	⇓P	Pn	10 11 58.6	-3.3
AMAG	Maghara	11.26	118	P	Pn	10 11 58.6	-3.3
SOKA	Soboth	11.30	336	⇑iPn	Pn	10 12 00.4	-1.9
SOKA				⇑iSn	Sn	10 14 03.0	-4.3
SOKA	Soboth	11.30	336	Pn	Pn	10 12 00.4	-1.9
SOKA				Sn	Sn	10 14 03.0	-4.4
OBKA	Obir	11.31	334	i Pn	Pn	10 12 01.3	-1.2
	SNR=54						
OBKA				⇓iSn	Sn	10 14 04.2	-3.6
OBKA	Obir	11.31	334	i Pn	Pn	10 12 01.3	-1.2
	SNR=54						
OBKA	Obir	11.31	334	Pn	Pn	10 12 01.3	-1.2
	SNR=54						
OBKA				Sn	Sn	10 14 04.2	-3.6
BDI	Bagni Di Lucca	11.32	315	P	Pn	10 12 01.9	-0.7
BDI	Bagni Di Lucca	11.32	315	P	Pn	10 12 01.9	-0.7
BYBT	Boyabat	11.32	60	eP	Pn	10 12 03.3	+0.6
BYBT	Boyabat	11.32	60	Pn	Pn	10 12 03.2	+0.5
BYBT	Boyabat	11.32	60	eP	Pn	10 12 03.3	+0.6
KOZT	Kozan	11.36	81	P	Pn	10 12 04.1	+0.8
BURAR	Bucovina Array	11.40	12	P	Pn	10 12 05.4	+1.8
BURAR	Bucovina Array	11.40	12	P	Pn	10 12 05.4	+1.8
BUR02	Bucovina Ar. S	11.40	12	P	Pn	10 12 05.5	+1.8
BUR02	Bucovina Ar. S	11.40	12	P	Pn	10 12 05.5	+1.8
BOYT	Boyabat	11.40	61	⇑iP	Pn	10 12 05.3	+1.5
BOYT	Boyabat	11.40	61	i P	Pn	10 12 05.3	+1.5
ABSA	Djebel Ababsia	11.44	273	P	Pn	10 12 08.0	+3.6
ABSA	Djebel Ababsia	11.44	273	P	Pn	10 12 08.0	+3.6
RSH		11.46	115	P	Pn	10 12 01.3	-3.3
CMAH	Djebel Manchou	11.46	275	P	Pn	10 12 05.0	+0.4
CMAH	Djebel Manchou	11.46	275	P	Pn	10 12 05.0	+0.4
PSZ	Piszkesteto	11.47	354	⇑iP	Pn	10 12 03.0	-1.6
PSZ	Piszkesteto	11.47	354	ePn	Pn	10 12 02.0	-2.6
PSZ	Piszkesteto	11.47	354	⇑iP	Pn	10 12 03.0	-1.6
BNN	Bunyan	11.47	74	P	Pn	10 12 04.1	-0.7
BNN	Bunyan	11.47	74	i P	Pn	10 12 04.1	-0.7
SUZ		11.47	122	⇓P	Pn	10 12 00.9	-3.9
SUZ		11.47	122	P	Pn	10 12 00.9	-3.9
ROBS	Robic	11.48	330	⇑ePn	Pn	10 12 03.1	-1.7
ROBS	Robic	11.48	330	⇑ePn	Pn	10 12 03.1	-1.7
PGF	Pioggiola	11.48	305	eP	Pn	10 12 05.8	+0.9
	comp=Z,3µm,1.2s						
PGF	Pioggiola	11.48	305	eP	Pn	10 12 05.8	+0.9
PGF				pmax	pmax		
	comp=Z,1µm,1.2s						
PGF	Pioggiola	11.48	305	eP	Pn	10 12 05.8	+0.9
	comp=Z,1µm,1.2s						
PGF	Pioggiola	11.48	305	eP	Pn	10 12 05.8	+0.9
	comp=Z,1µm,1.2s						
VLC	Villacollemand	11.50	315	ePn	Pn	10 12 13.4	+8.3
	comp=Z,861nm,1.1s						
IAS	Iasi	11.53	20	⇑iP	Pn	10 12 07.2	+1.7
IAS	Iasi	11.53	20	⇑P	Pn	10 12 07.2	+1.7
IAS	Iasi	11.53	20	⇑iP	Pn	10 12 07.2	+1.7
ZAF		11.64	125	⇓P	Pn	10 12 03.6	-3.5
ZAF		11.64	125	P	Pn	10 12 03.6	-3.5
ERBM	Eremo	11.64	316	Pn	Pn	10 12 08.2	+1.1
	comp=Z,8µm,2.2s						
ERBM	Eremo	11.64	316	Pn	Pn	10 12 08.2	+1.1
	comp=Z,8µm,2.2s						
ARSA	Arzberg	11.66	339	⇑iPn	Pn	10 12 05.1	-2.1
	SNR=40						
ARSA				⇑iSn	Sn	10 14 12.2	-3.9
ARSA	Arzberg	11.66	339	⇑iPn	Pn	10 12 05.1	-2.1
	SNR=40						
ARSA	Arzberg	11.66	339	ePn	Pn	10 12 05.2	-2.0
ARSA				Sn	Sn	10 14 12.2	-4.0
PTCC	Patocco-Chiusa	11.68	330	Pn	Pn	10 12 05.8	-1.7
PTCC	Patocco-Chiusa	11.68	330	Pn	Pn	10 12 05.8	-1.7
HTY	Hatay	11.68	88	eP	Pn	10 12 07.3	-0.3
BHL	Bhannes	11.73	99	ePn	Pn	10 12 00.9	-7.4
BHL	Bhannes	11.73	99	ePn	Pn	10 12 00.9	-7.4
COBT	Iskenderun	11.74	86	i P	Pn	10 12 06.2	-2.2
COBT	Iskenderun	11.74	86	i P	Pn	10 12 06.2	-2.2
KIS	Kishinev	11.75	25	α iP	Pn	10 12 07.0	-1.4
KIS				i S	Sn	10 14 14.0	-4.4
KIS				pmax	pmax		
	comp=N,8.0nm,4.0s						
KIS				pmax	pmax		
	comp=E,8.0nm,4.0s						
KIS				pmax	pmax		
	comp=Z,8.0nm,4.0s						
KIS				pmax	pmax		
	comp=Z,19µm,9.0s						
KIS				pmax	pmax		
	comp=N,18µm,5.0s						
KIS				pmax	pmax		
	comp=E,10µm,4.0s						
KIS				pmax	pmax		
	comp=Z,33µm,20.0s						
KIS				MLR	MLR		
	comp=Z,198µm,13.0s						
KIS	Kishinev	11.75	25	⇑iP	Pn	10 12 17.7	+9.3
KIS	Kishinev	11.75	25	P	Pn	10 12 10.5	+2.0
KIS	Kishinev	11.75	25	⇑iP	Pn	10 12 17.7	+9.3
MYKA	Terra Mystica	11.75	332	⇓iPn	Pn	10 12 07.2	-1.2
MYKA				⇑iSn	Sn	10 14 14.5	-3.9
MYKA	Terra Mystica	11.75	332	Pn	Pn	10 12 07.2	-1.3
MYKA				Sn	Sn	10 14 14.5	-3.9
ANDN	Andirin	11.78	80	⇑iP	Pn	10 12 07.3	-1.6
ANDN	Andirin	11.78	80	i P	Pn	10 12 07.3	-1.6
ZNM		11.80	124	⇓P	Pn	10 12 05.3	-3.9
ZNM		11.80	124	P	Pn	10 12 05.3	-3.9
MMA0	Mount Meron ar	11.82	103	ePn	Pn	10 12 06.0	-3.5
MMAI	Mount Meron Ar	11.82	103	Pn	Pn	10 12 04.8	-4.8
	comp=Z,13nm,0.3s,baz=303,slow=11,SNR=26						
MMAI				Sn	Sn	10 14 11.3	-9.1
	comp=Z,225nm,0.3s,baz=300,slow=26,SNR=9.6						
HRSH	Kfar Ka’horesh	11.84	105	P	Pn	10 12 01.3	-8.5
HWQ	Hawqa	11.86	97	ePn	Pn	10 12 04.2	-6.0
HWQ	Hawqa	11.86	97	ePn	Pn	10 12 04.2	-5.9
PINB	Pinarbasi	11.89	75	⇑iP	Pn	10 12 11.8	+1.4
PINB	Pinarbasi	11.89	75	i P	Pn	10 12 11.8	+1.4
CAEH	’Ain El Ouahch	11.91	276	P	Pn	10 12 12.0	+1.3
CAEH	’Ain El Ouahch	11.91	276	P	Pn	10 12 12.0	+1.3
LUMB	Murzuk	11.91	212	i P	Pn	10 12 07.1	-3.7
	comp=Z,4µm,1.6s,SNR=46						
KECS	Kecovo	11.99	356	i PN	Pn	10 12 11.0	-0.8
KECS	Kecovo	11.99	356	i P	Pn	10 12 11.0	-0.8
RCY	Rachaya	11.99	100	ePn	Pn	10 12 06.9	-5.0
RCY	Rachaya	11.99	100	ePn	Pn	10 12 06.9	-5.0
CKFL	Kef-Lekhel	12.04	274	P	Pn	10 12 15.0	+2.5
CKFL	Kef-Lekhel	12.04	274	P	Pn	10 12 15.0	+2.5
KVT	Kavak	12.10	64	P	Pn	10 12 14.6	+1.3
KVT	Kavak	12.10	64	P	Pn	10 12 14.6	+1.2
KVT	Kavak	12.10	64	i P	Pn	10 12 14.6	+1.2
LGHD	Ghdames	12.11	241	i P	Pn	10 12 10.1	-3.4
	SNR=46						
SARI	SarD1z-Kayseri	12.12	75	P	Pn	10 12 11.4	-2.1
SARI	SarD1z-Kayseri	12.12	75	i P	Pn	10 12 11.4	-2.1
UZH	Uzhgorod	12.12	2	eP	Pn	10 12 10.0	-3.5
UZH				eS	Sn	10 14 20.0	-7.4
UZH				MLR	MLR		
	comp=N,240µm,18.0s						
UZH				MLR	MLR		
	comp=E,146µm,18.0s						
UZH				MLR	MLR		
	comp=Z,195µm,18.0s						
CTI	Castel Tesino	12.13	325	P	Pn	10 12 12.0	-1.7
CTI				pmax	pmax		
	comp=Z,489nm,0.5s						
CTI	Castel Tesino	12.13	325	Pn	Pn	10 12 12.0	-1.7
	comp=Z,489nm,0.5s						
CTI	Castel Tesino	12.13	325	P	Pn	10 12 12.0	-1.7
	comp=Z,489nm,0.5s						
SC2M	Scurtabo	12.13	314	Pn	Pn	10 12 14.3	+0.5
	comp=Z,5µm,2.8s						
SC2M	Scurtabo	12.13	314	Pn	Pn	10 12 14.3	+0.5
	comp=Z,5µm,2.8s						
VYHS	Vyhne	12.15	351	i P	Pn	10 12 12.0	-1.9
VYHS				e		10 14 23.6	
VYHS				MLR	MLR		
	comp=Z,246µm,22.7s						
VYHS	Vyhne	12.15	351	i PN	Pn	10 12 12.0	-1.9
VYHS				eSN	Sn	10 14 23.6	-4.6
VYHS				e		10 16 23.9	
VYHS	Vyhne	12.15	351	i Pn	Pn	10 12 12.0	-1.9
VYHS				eSn	Sn	10 14 23.6	-4.6
VYHS				e		10 16 23.9	
VYHS	Vyhne	12.15	351	i P	Pn	10 12 12.0	-1.9
VYHS				eSn	Sn	10 14 23.6	-4.6
CONA	Conrad Observa	12.18	341	⇑iPn	Pn	10 12 12.8	-1.6
	SNR=28						
CONA				⇑iSn	Sn	10 14 25.7	-3.4
CONA	Conrad Observa	12.18	341	⇑iPn	Pn	10 12 12.8	-1.6
	SNR=28						
CONA	Conrad Observa	12.18	341	Pn	Pn	10 12 12.8	-1.6
	SNR=28						
CONA				Sn	Sn	10 14 25.7	-3.3
CSNA	Conrad Observa	12.18	341	⇑iPn	Pn	10 12 12.7	-1.8
CSNA				⇑iSn	Sn	10 14 25.7	-3.3
CSNA	Conrad Observa	12.18	341	Pn	Pn	10 12 12.7	-1.7
CSNA				Sn	Sn	10 14 25.7	-3.3
HNKL	Nakhl	12.22	119	P	Pn	10 12 11.6	-3.4
HNKL				S	Sn	10 14 05.6	-24
HNKL	Nakhl	12.22	119	P	Pn	10 12 11.6	-3.4
HNKL				S	Sn	10 14 05.6	-24
KMRS	Kahramanmaras	12.22	81	eP	Pn	10 12 14.6	-0.3
KMRS	Kahramanmaras	12.22	81	eP	Pn	10 12 14.6	-0.3
TOKA	Tokat	12.22	67	⇑iP	Pn	10 12 16.1	+1.2
TOKA	Tokat	12.22	67	i P	Pn	10 12 16.1	+1.2
KBA	Koelnbreinsper	12.24	332	⇑iPn	Pn	10 12 13.4	-1.7
	SNR=128						
KBA				⇓iSn	Sn	10 14 25.5	-4.8
KBA	Koelnbreinsper	12.24	332	⇑iPn	Pn	10 12 13.4	-1.7
	SNR=128						
KBA	Koelnbreinsper	12.24	332	ePn	Pn	10 12 13.7	-1.4
KBA				Sn	Sn	10 14 25.5	-4.8
CASM	Ain Smara	12.24	273	P	Pn	10 12 17.0	+1.8
CASM	Ain Smara	12.24	273	P	Pn	10 12 17.0	+1.8
TOKT	Tokat	12.27	67	eP	Pn	10 12 17.1	+1.5
TOKT	Tokat	12.27	67	Pn	Pn	10 12 17.0	+1.4
TOKT	Tokat	12.27	67	eP	Pn	10 12 17.1	+1.5
MODS	Modra-Piesok	12.28	346	i P	Pn	10 12 12.3	-3.4
MODS				e		10 14 28.4	
MODS	Modra-Piesok	12.28	346	i PN	Pn	10 12 12.3	-3.4
MODS				eSN	Sn	10 14 28.4	-3.0
MODS				e		10 16 32.3	
ABTA	Abfaltersbach	12.29	329	⇑iPn	Pn	10 12 14.7	-1.2
	SNR=64						
ABTA				⇓iSn	Sn	10 14 26.1	-5.6
ABTA	Abfaltersbach	12.29	329	⇑iPn	Pn	10 12 14.7	-1.2
	SNR=64						
ABTA	Abfaltersbach	12.29	329	Pn	Pn	10 12 14.7	-1.2
	SNR=64						
ABTA				Sn	Sn	10 14 26.1	-5.7
CTEI	Djebel Teioual	12.33	272	P	Pn	10 12 18.0	+1.6
CTEI	Djebel Teioual	12.33	272	P	Pn	10 12 18.0	+1.6
CRVS	Cervenica-Dubn	12.38	359	i PN	Pn	10 12 16.0	-1.1
CRVS	Cervenica-Dubn	12.38	359	i P	Pn	10 12 16.0	-1.1
KUZU	Kuzuini	12.38	84	⇑iP	Pn	10 12 13.7	-3.4
KUZU	Kuzuini	12.38	84	i P	Pn	10 12 13.7	-3.5
LKFR	Kufra	12.39	173	i P	Pn	10 12 15.4	-1.9
	SNR=46						
SMOL	Smolenice	12.39	347	i PN	Pn	10 12 15.1	-2.1
SMOL	Smolenice	12.39	347	i Pn	Pn	10 12 15.2	-2.0
SMOL	Smolenice	12.39	347	i P	Pn	10 12 15.2	-2.0
BOB	Bobbio (Coli)	12.40	315	P	Pn	10 12 17.9	+0.5
BOB				pmax	pmax		
	comp=Z,5µm,2.5s						
BOB	Bobbio (Coli)	12.40	315	Pn	Pn	10 12 17.9	+0.5
	comp=Z,5µm,2.5s						
BOB	Bobbio (Coli)	12.40	315	P	Pn	10 12 17.9	+0.5
	comp=Z,5µm,2.5s						
KOLS	Kolonicke sedl	12.42	2	i PN	Pn	10 12 17.5	-0.1
KOLS				e		10 16 28.7	
KOLS				e		10 48 51.0	
KOLS	Kolonicke sedl	12.42	2	i Pn	Pn	10 12 17.5	-0.1
KOLS				e		10 16 28.7	
KOLS	Kolonicke sedl	12.42	2	i P	Pn	10 12 17.5	-0.1
GAZ	Gaziantep	12.47	82	eP	Pn	10 12 17.9	-0.5
GAZ	Gaziantep	12.47	82	eP	Pn	10 12 17.9	-0.5
SVSK	Karacayir	12.52	70	P	Pn	10 12 20.4	+1.2
SVSK	Karacayir	12.52	70	Pn	Pn	10 12 20.3	+1.2
SVSK	Karacayir	12.52	70	i P	Pn	10 12 20.4	+1.3
MOA	Molln	12.58	337	i Pn	Pn	10 12 18.4	-1.4
	SNR=90						
MOA				⇑iSn	Sn	10 14 34.1	-4.5
MOA	Molln	12.58	337	i Pn	Pn	10 12 18.4	-1.4
	SNR=90						
MOA	Molln	12.58	337	ePn	Pn	10 12 18.4	-1.4
MOA				Sn	Sn	10 14 34.1	-4.5
SIM	Simferopol’	12.64	44	c iP	Pn	10 12 20.2	-0.4
SIM				S	Sn	10 14 40.0	-0.2
SIM				pmax	pmax		
	comp=Z,31µm,16.5s						
SIM				MLR	MLR		
	comp=Z,309µm,18.0s						
SIM	Simferopol’	12.64	44	i P	Pn	10 12 20.2	-0.4
	comp=Z,31µm,16.5s						
APPI	Appiano	12.65	325	Pn	Pn	10 12 21.2	+0.4
APPI	Appiano	12.65	325	Pn	Pn	10 12 21.2	+0.4
JAVC	Velka Javorina	12.68	348	ePn	Pn	10 12 20.0	-1.1
MABI	Malga Bissina	12.68	322	Pn	Pn	10 12 21.5	+0.3
	comp=Z,668nm,1.0s						
MABI	Malga Bissina	12.68	322	Pn	Pn	10 12 21.5	+0.3
	comp=Z,668nm,1.0s						
DFRA	Djebel Bou Aff	12.71	275	P	Pn	10 12 23.0	+1.4
DFRA	Djebel Bou Aff	12.71	275	P	Pn	10 12 23.0	+1.4
GZT	Gaziantep	12.75	81	⇑iP	Pn	10 12 21.0	-1.2
QLNO	Quiliano	12.79	312	Pn	Pn	10 12 22.8	+0.1
	comp=Z,5µm,2.6s						
QLNO	Quiliano	12.79	312	Pn	Pn	10 12 22.8	+0.1
	comp=Z,5µm,2.6s						
IMI	Imperia	12.85	309	Pn	Pn	10 12 23.3	-0.2
	comp=Z,1µm,1.6s						
IMI	Imperia	12.85	309	Pn	Pn	10 12 23.3	-0.2
	comp=Z,1µm,1.6s						
RSDY	Resadiye-TOKAT	12.87	68	P	Pn	10 12 23.6	-0.3
RSDY	Resadiye-TOKAT	12.87	68	i P	Pn	10 12 23.6	-0.2
STHS	Stebnicka Huta	12.90	359	i PN	Pn	10 12 23.8	-0.3
STHS	Stebnicka Huta	12.90	359	i P	Pn	10 12 23.8	-0.3
NIE	Niedzica	12.93	356	eP	Pn	10 12 24.8	+0.2
NIE				epP		10 12 30.3	
NIE				eS	Sn	10 15 05.6	+18
NIE	Niedzica	12.93	356	eP	Pn	10 12 24.8	+0.2
RJOB	Jochberg	12.99	332	ePn	Pn	10 12 23.7	-1.7
DARE	Darende-Malaty	13.00	74	P	Pn	10 12 21.9	-3.7
DARE	Darende-Malaty	13.00	74	i P	Pn	10 12 21.9	-3.8
AKCD	Akcadag	13.05	77	⇑iP	Pn	10 12 25.9	-0.3
AKCD	Akcadag	13.05	77	i P	Pn	10 12 25.9	-0.4
CKHR	Kef el Ahmar	13.05	273	P	Pn	10 12 27.0	+0.6
CKHR	Kef el Ahmar	13.05	273	P	Pn	10 12 27.0	+0.6
EIL	Elat	13.05	118	Pn	Pn	10 12 20.5	-5.9
	comp=Z,4.6nm,0.3s,baz=320,slow=8.2,SNR=40						
EIL				Sn	Sn	10 14 37.8	-13
	comp=Z,110nm,0.3s,baz=94,slow=22,SNR=6.6						
EIL	Elat	13.05	118	ePn	Pn	10 12 22.4	-4.0
WTTA	Wattenberg	13.07	328	i Pn	Pn	10 12 26.5	-0.1
	SNR=82						
WTTA				⇑iSn	Sn	10 14 46.0	-4.7
WTTA	Wattenberg	13.07	328	i Pn	Pn	10 12 26.5	-0.1
	SNR=82						
WTTA	Wattenberg	13.07	328	Pn	Pn	10 12 26.5	0.0
	SNR=82						
WTTA				Sn	Sn	10 14 46.0	-4.7
AQBJ	Aqaba	13.09	117	Pn	Pn	10 12 22.8	-4.1
HKAT	Jabal Katrina	13.09	124	⇑eP	Pn	10 12 23.2	-3.7
HKAT	Jabal Katrina	13.09	124	P	Pn	10 12 23.2	-3.7
REVF	Revere	13.10	308	eP	Pn	10 12 28.2	+1.3
REVF	Revere	13.10	308	eP	Pn	10 12 28.2	+1.3
SAOF	Saorge	13.10	309	eP	Pn	10 12 28.0	+1.1
SAOF	Saorge	13.10	309	eP	Pn	10 12 28.0	+1.1
SBF	Sospel	13.11	308	eP	Pn	10 12 26.8	-0.3
	comp=Z,3µm,1.1s						
SBF	Sospel	13.11	308	eP	Pn	10 12 26.8	-0.3
SBF				pmax	pmax		
	comp=Z,2µm,1.1s						
SBF	Sospel	13.11	308	eP	Pn	10 12 26.8	-0.3
	comp=Z,2µm,1.1s						
SBF	Sospel	13.11	308	eP	Pn	10 12 26.8	-0.3
	comp=Z,2µm,1.1s						
KRUC	Moravsky	13.12	345	ePn	Pn	10 12 24.8	-2.3
KWP	Kalwaria Pacla	13.13	3	ePc		10 12 28.6	
	comp=Z,3µm,2.3s						
KWP				eS	Sn	10 15 05.0	+13
KWP				LMZ		10 17 30.8	
	comp=Z,426µm,30.5s						
KWP	Kalwaria Pacla	13.13	3	⇑iP	Pn	10 12 28.5	+1.2
KWP	Kalwaria Pacla	13.13	3	⇑eP	Pn	10 12 28.6	+1.3
KWP				eS	Sn	10 15 05.0	+13
KWP	Kalwaria Pacla	13.13	3	eP	Pn	10 12 28.6	+1.3
	comp=Z,3µm,2.3s						
WATA	Walderalm	13.15	328	⇓iPn	Pn	10 12 26.3	-1.3
	SNR=25						
WATA				⇑iSn	Sn	10 14 49.3	-3.4
WATA	Walderalm	13.15	328	Pn	Pn	10 12 26.3	-1.3
	SNR=25						
WATA				Sn	Sn	10 14 49.3	-3.4
AUTN	L’Aution	13.18	309	eP	Pn	10 12 28.3	+0.2
AUTN	L’Aution	13.18	309	eP	Pn	10 12 28.3	+0.2
LUCF	Luceram	13.19	308	eP	Pn	10 12 30.6	+2.5
LUCF	Luceram	13.19	308	eP	Pn	10 12 30.6	+2.5
FETA	Feichten	13.28	326	⇓iPn	Pn	10 12 29.1	-0.3
	SNR=20						
FETA	Feichten	13.28	326	⇓iPn	Pn	10 12 29.1	-0.3
	SNR=20						
FETA	Feichten	13.28	326	Pn	Pn	10 12 29.1	-0.3
	SNR=20						
TOUF	Mont Tournerai	13.30	309	eP	Pn	10 12 31.3	+1.5
TOUF	Mont Tournerai	13.30	309	eP	Pn	10 12 31.3	+1.5
ASF	Jabal al Asfar	13.31	105	Pn	Pn	10 12 26.7	-3.1
	comp=Z,2.6nm,0.3s,baz=155,slow=10,SNR=26						
ASF				Sn	Sn	10 14 46.5	-10
	comp=Z,8.3nm,0.3s,baz=110,slow=22,SNR=2.4						
ASF				LR	LR	10 19 15.4	
	comp=Z,80µm,18.6s,baz=160,slow=45						
MVIF	Mont Vial	13.31	308	eP	Pn	10 12 32.0	+2.2
MVIF	Mont Vial	13.31	308	eP	Pn	10 12 32.0	+2.2
VRAC	Vranov	13.31	345	P	Pn	10 12 25.2	-4.6
VRAC						10 14 48.4	
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRAC				smax			
	comp=N,2.0nm,0.3s						
VRAC	Vranov	13.31	345	⇓iP	Pn	10 12 29.3	-0.5
VRAC	Vranov	13.31	345	Pn	Pn	10 12 25.2	-4.6
	comp=N,1.4nm,0.3s,baz=173,slow=14,SNR=44						
VRAC				Sn	Sn	10 14 48.4	-8.1
	comp=N,1.8nm,0.3s,baz=142,slow=6.3,SNR=1.7						
VRAC	Vranov	13.31	345	⇓P	Pn	10 12 29.3	-0.5
VRAC	Vranov	13.31	345	⇓iP	Pn	10 12 29.3	-0.5
ATAB	Bozova	13.33	81	⇑iP	Pn	10 12 28.1	-2.0
ATAB	Bozova	13.33	81	i P	Pn	10 12 28.1	-2.0
MOTA	Moosalm	13.36	327	⇑iPn	Pn	10 12 30.3	-0.2
	SNR=47						
MOTA				⇓iSn	Sn	10 14 53.9	-3.9
MOTA	Moosalm	13.36	327	⇑iPn	Pn	10 12 30.3	-0.2
	SNR=47						
MOTA	Moosalm	13.36	327	Pn	Pn	10 12 30.3	-0.2

	SNR=47						
MOTA				Sn	Sn	10 14 53.9	-3.9
LVV	L'vov	13.41	7	eP	Pn	10 12 32.2	+1.1
LVV				eS	Sn	10 15 01.8	+2.9
LVV				MLR	MLR		
	comp=N,57µm,5.5s						
LVV				MLR	MLR		
	comp=E,69µm,6.5s						
LVV				MLR	MLR		
	comp=Z,48µm,6.5s						
LVV	L'vov	13.41	7	eP	Pn	10 12 32.2	+1.1
CALN	Calern	13.41	307	eP	Pn	10 12 33.3	+2.1
CALN	Calern	13.41	307	eP	Pn	10 12 33.3	+2.1
MYA	Malataya	13.44	77	eP	Pn	10 12 33.3	+1.6
MYA	Malataya	13.44	77	P	Pn	10 12 33.2	+1.5
MYA	Malataya	13.44	77	eP	Pn	10 12 33.3	+1.6
MALT	Malatya	13.44	77	P	Pn	10 12 31.1	-0.6
MALT	Malatya	13.44	77	⇑iP	Pn	10 12 34.5	+2.8
MALT	Malatya	13.44	77	ePn	Pn	10 12 31.3	-0.3
	comp=Z,1µm,0.8s						
MALT	Malatya	13.44	77	i P	Pn	10 12 31.1	-0.6
MALT	Malatya	13.44	77	⇑iP	Pn	10 12 34.5	+2.8
LMR	La Mourre	13.47	305	eP	Pn	10 12 33.3	+1.3
	comp=Z,1µm,1.6s						
LMR	La Mourre	13.47	305	eP	Pn	10 12 33.3	+1.3
LMR				pmax	pmax		
	comp=Z,675nm,1.6s						
LMR	La Mourre	13.47	305	eP	Pn	10 12 33.3	+1.3
	comp=Z,674nm,1.6s						
LMR	La Mourre	13.47	305	eP	Pn	10 12 33.3	+1.3
	comp=Z,674nm,1.6s						
FRF	La Foret Royal	13.48	306	eP	Pn	10 12 33.9	+1.8
	comp=Z,968nm,1.2s						
FRF	La Foret Royal	13.48	306	eP	Pn	10 12 33.9	+1.8
FRF				pmax	pmax		
	comp=Z,484nm,1.2s						
FRF	La Foret Royal	13.48	306	eP	Pn	10 12 33.9	+1.8
	comp=Z,484nm,1.2s						
FRF	La Foret Royal	13.48	306	eP	Pn	10 12 33.9	+1.8
	comp=Z,484nm,1.2s						
DAVOX	Davos/Dischmat	13.51	323	Pn	Pn	10 12 32.0	-0.4
	comp=Z,2.0nm,0.3s,baz=110,slow=12,SNR=29						
DAVOX				Sn	Sn	10 14 52.2	-9.1
	comp=Z,16nm,0.3s,baz=132,slow=24,SNR=4.6						
DAVOX	Davos/Dischmat	13.51	323	ePn	Pn	10 12 32.5	0.0
TREC	Trest	13.54	342	eP	Pn	10 12 31.3	-1.7
TREC				ex	x	10 12 38.8	
TREC				AMS	AMS	10 18 30.0	
	comp=Z,475µm,25.7s						
TREC	Trest	13.54	342	eP	Pn	10 12 31.3	-1.7
	comp=Z,75µm,25.7s						
TUE	Stuetta	13.56	321	ePn	Pn	10 12 31.9	-1.2
	comp=Z,4µm,1.6s						
TUE				eSn	Sn	10 14 57.0	-5.6
TUE	Stuetta	13.56	321	ePn	Pn	10 12 31.9	-1.3
	comp=Z,4µm,1.6s						
OKC	Ostrava-Krasne	13.56	350	eP	Pn	10 12 31.4	-1.7
OKC				ex	x	10 12 43.3	
OKC				eS	Sn	10 15 06.7	+4.1
OKC				AMS	AMS	10 18 50.0	
	comp=Z,279µm,14.9s						
OKC	Ostrava-Krasne	13.56	350	eP	Pn	10 12 31.4	-1.7
OKC				e		10 12 43.3	
OKC				eS	Sn	10 15 06.7	+4.1
OKC	Ostrava-Krasne	13.56	350	eP	Pn	10 12 31.4	-1.7
OKC				S	Sn	10 15 06.7	+4.1
KEMA	Kemaliye	13.57	73	⇑iP	Pn	10 12 33.6	+0.2
KEMA	Kemaliye	13.57	73	i P	Pn	10 12 33.6	+0.2
MORC	Moravsky Berou	13.59	349	⇓iP	Pn	10 12 33.0	-0.6
MORC	Moravsky Berou	13.59	349	ePn	Pn	10 12 31.1	-2.4
MORC	Moravsky Berou	13.59	349	ePn	Pn	10 12 31.5	-2.1
MORC	Moravsky Berou	13.59	349	⇓iP	Pn	10 12 33.0	-0.6
DAVOS	Davos	13.59	323	P	Pn	10 12 32.0	-1.6
DAVOS	Davos	13.59	323	P	Pn	10 12 32.0	-1.6
RETA	Reutte	13.62	327	⇑iPn	Pn	10 12 32.8	-1.2
	SNR=46						
RETA	Reutte	13.62	327	Pn	Pn	10 12 32.8	-1.2
	SNR=46						
GEC2	GERESS Array S	13.63	337	P	Pn	10 12 31.8	-2.4
GEC2	GERESS Array S	13.63	337	ePn	Pn	10 12 31.6	-2.6
	comp=Z,34µm,0.5s						
GEC2	GERESS Array S	13.63	337	P	Pn	10 12 31.8	-2.4
GERES	GERESS Array B	13.63	337	P	Pn	10 12 31.5	-2.7
GERES						10 14 56.7	
GERES				pmax	pmax		
	comp=Z,5.0nm,0.3s						
GERES				smax			
	comp=N,22nm,0.3s						
GERES	GERESS Array B	13.63	337	Pn	Pn	10 12 31.5	-2.7
	comp=N,4.6nm,0.3s,baz=152,slow=13,SNR=73						
GERES				Sn	Sn	10 14 56.7	-7.6
	comp=N,22nm,0.3s,baz=151,slow=23,SNR=7.0						
GERES				ScP	ScP	10 21 29.1	-0.2
	comp=N,0.3nm,0.3s,baz=122,slow=4.8,SNR=3.5						
GERES	GERESS Array B	13.63	337	P	Pn	10 12 31.5	-2.7
	comp=N,5.0nm,0.3s						
GRSN	GIRESUNGRSN	13.68	66	i P	Pn	10 12 35.1	+0.2
GRSN	GIRESUNGRSN	13.68	66	i P	Pn	10 12 35.1	+0.2
HHRG	Al Ghardaqah	13.71	129	⇓P	Pn	10 12 32.0	-3.4
HHRG	Al Ghardaqah	13.71	129	P	Pn	10 12 30.9	-4.4
HHRG	Al Ghardaqah	13.71	129	P	Pn	10 12 32.0	-3.3
URFA	Urfa	13.75	81	eP	Pn	10 12 35.7	-0.1
URFA	Urfa	13.75	81	eP	Pn	10 12 35.7	-0.1
OJC	Ojcow	13.76	355	eP	Pn	10 12 34.9	-1.1
OJC				epP		10 12 41.3	
OJC				eS	Sn	10 15 15.6	+8.0
OJC				L		10 18 56.5	
	comp=N,325nm,20.6s						
OJC	Ojcow	13.76	355	eP	Pn	10 12 34.9	-1.1
OJC				epP		10 12 41.3	
OJC				eS	Sn	10 15 15.6	+8.0
OJC	Ojcow	13.76	355	eP	Pn	10 12 34.9	-1.1
RSHS		13.78	123	P	Pn	10 12 43.3	+7.0
RSHS		13.78	123	P	Pn	10 12 43.3	+7.0
RAC	Raciborz	13.79	351	eP	Pn	10 12 35.5	-0.8
RAC				eS	Sn	10 15 15.8	+7.5
RAC				MLR	MLR		
	comp=Z,200µm,14.0s						
RAC	Raciborz	13.79	351	eP	Pn	10 12 35.5	-0.8
RAC				ePP		10 12 44.5	
RAC				eS	Sn	10 15 15.8	+7.5
RAC				eSS		10 15 29.9	
RAC	Raciborz	13.79	351	eP	Pn	10 12 35.5	-0.8
SURF	Saint Ours	13.81	310	eP	Pn	10 12 39.6	+3.0
SURF	Saint Ours	13.81	310	eP	Pn	10 12 39.6	+3.0
DAVA	Damuels	13.87	325	⇑iPn	Pn	10 12 36.9	-0.5
	SNR=33						
DAVA				⇑iSn	Sn	10 15 05.2	-5.0
DAVA	Damuels	13.87	325	Pn	Pn	10 12 36.9	-0.5
	SNR=33						
DAVA				Sn	Sn	10 15 05.2	-5.0
TAVF	Tavernes	13.89	305	eP	Pn	10 12 38.6	+0.9
TAVF	Tavernes	13.89	305	eP	Pn	10 12 38.6	+0.9
ELZG	Elazig	13.89	77	⇑iP	Pn	10 12 38.0	+0.2
ELZG	Elazig	13.89	77	i P	Pn	10 12 38.0	+0.2
BDAS	Al Bad‘	13.90	122	P	Pn	10 12 38.8	+0.8
BDAS	Al Bad‘	13.90	122	P	Pn	10 12 38.8	+0.8
OG22	Abries	13.90	311	eP	Pn	10 12 41.4	+3.5
OG22	Abries	13.90	311	eP	Pn	10 12 41.4	+3.5
KHC	Kasperske Hory	13.92	337	eP	Pn	10 12 35.5	-2.6
KHC				ex	x	10 12 42.0	
KHC				eS	Sn	10 15 10.0	-1.5
KHC				AMS	AMS	10 18 40.0	
	comp=Z,581µm,20.6s						
KHC	Kasperske Hory	13.92	337	P	Pn	10 12 35.5	-2.6
KHC				S	Sn	10 15 10.0	-1.5
FUR	Furstenfeldbru	13.93	330	ePn	Pn	10 12 36.9	-1.4
FUR				eL		10 19 13.4	
	comp=Z,242µm,21.9s						
FUR	Furstenfeldbru	13.93	330	ePn	Pn	10 12 36.9	-1.4
MBDF	Montbardon	13.96	311	eP	Pn	10 12 38.9	+0.2
	comp=Z,3µm,1.3s						
MBDF	Montbardon	13.96	311	eP	Pn	10 12 38.9	+0.2
MBDF				pmax	pmax		
	comp=Z,2µm,1.3s						
MBDF	Montbardon	13.96	311	eP	Pn	10 12 38.9	+0.2
	comp=Z,2µm,1.3s						
MBDF	Montbardon	13.96	311	eP	Pn	10 12 38.9	+0.2
	comp=Z,2µm,1.3s						
JLOS		13.99	120	P	Pn	10 12 36.6	-2.5
JLOS		13.99	120	P	Pn	10 12 36.6	-2.5
BERF	Bertagne	14.01	304	eP	Pn	10 12 40.3	+1.0
BERF	Bertagne	14.01	304	eP	Pn	10 12 40.3	+1.0
ESPY	Espiye-Giresun	14.02	67	eP	Pn	10 12 40.2	+0.7
ESPY	Espiye-Giresun	14.02	67	eP	Pn	10 12 40.2	+0.7
MAHO	Mahon	14.09	289	i P	Pn	10 12 40.7	+0.2
MAHO				i S	Sn	10 15 10.8	-5.0
STOF	St-Etienne Org	14.15	307	eP	Pn	10 12 43.8	+2.5
STOF	St-Etienne Org	14.15	307	eP	Pn	10 12 43.8	+2.5
WET	Wettzell	14.16	336	ePn	Pn	10 12 38.5	-2.8
WET				eL		10 19 11.5	
	comp=Z,546µm,20.0s						
WET	Wettzell	14.16	336	ePn	Pn	10 12 38.5	-2.8
BNI	Bardonecchia	14.18	312	eP	Pn	10 12 43.4	+1.7
BNI	Bardonecchia	14.18	312	ePn	Pn	10 12 43.4	+1.7
GELF	Grande-Etoile	14.21	304	eP	Pn	10 12 44.0	+1.9
GELF	Grande-Etoile	14.21	304	eP	Pn	10 12 44.0	+1.9
VILF	Villemus	14.21	306	eP	Pn	10 12 45.0	+2.9
VILF	Villemus	14.21	306	eP	Pn	10 12 45.0	+2.9
TREF	Trevaresse	14.34	305	eP	Pn	10 12 46.2	+2.4
TREF	Trevaresse	14.34	305	eP	Pn	10 12 46.2	+2.4
DPC	Dobruska-Polom	14.36	346	eP	Pn	10 12 41.6	-2.4
DPC				AMS	AMS	10 19 30.0	
	comp=Z,371µm,14.9s						
DPC	Dobruska-Polom	14.36	346	P	Pn	10 12 41.6	-2.4
SMRF	Simiane la Rot	14.36	306	eP	Pn	10 12 44.9	+0.8
	comp=Z,1µm,1.1s						
SMRF	Simiane la Rot	14.36	306	eP	Pn	10 12 44.9	+0.8
	comp=Z,1µm,1.1s						
SMRF	Simiane la Rot	14.36	306	eP	Pn	10 12 44.9	+0.8
	comp=Z,506nm,1.1s						
LPG	La Plagne	14.38	313	eP	Pn	10 12 46.3	+1.9
	comp=Z,2µm,1.3s						
LPG	La Plagne	14.38	313	eP	Pn	10 12 46.3	+1.9
LPG				pmax	pmax		
	comp=Z,929nm,1.3s						
LPG	La Plagne	14.38	313	eP	Pn	10 12 46.3	+1.9
	comp=Z,929nm,1.3s						
LPG	La Plagne	14.38	313	eP	Pn	10 12 46.3	+1.9
	comp=Z,929nm,1.3s						
HSFG		14.40	130	P	Pn	10 12 40.9	-3.8
HSFG		14.40	130	P	Pn	10 12 40.9	-3.8
LPL	La Plagne	14.40	313	eP	Pn	10 12 47.3	+2.6
	comp=Z,966nm,1.0s						
LPL	La Plagne	14.40	313	eP	Pn	10 12 47.3	+2.6
LPL				pmax	pmax		
	comp=Z,483nm,1.0s						
LPL	La Plagne	14.40	313	eP	Pn	10 12 47.3	+2.6
	comp=Z,483nm,1.0s						
LPL	La Plagne	14.40	313	eP	Pn	10 12 47.3	+2.6
	comp=Z,483nm,1.0s						
PRU	Pruhonice	14.42	341	eP	Pn	10 12 43.0	-1.9
PRU				ex	x	10 12 50.5	
PRU				AMS	AMS	10 19 00.0	
	comp=Z,338µm,13.4s						
PRU	Pruhonice	14.42	341	eP	Pn	10 12 43.0	-1.9
PRU				e		10 12 50.5	
PRU	Pruhonice	14.42	341	P	Pn	10 12 43.0	-1.9
GUMT	Gumushane	14.49	69	eP	Pn	10 12 46.3	+0.3
GUMT	Gumushane	14.49	69	eP	Pn	10 12 46.3	+0.3
ANN	Anapa	14.53	50c	iP	Pn	10 12 43.4	-3.0
ANN				eS	Sn	10 15 21.5	-4.8
ANN				pmax	pmax		
	comp=Z,23µm,9.0s						
ANN				MLR	MLR		
	comp=N,131µm,20.0s						
ANN				MLR	MLR		
	comp=E,137µm,20.0s						
ANN				MLR	MLR		
	comp=Z,140µm,20.0s						
PRAF	Pradon	14.55	305	eP	Pn	10 12 47.8	+1.0
PRAF	Pradon	14.55	305	eP	Pn	10 12 47.8	+1.0
UPC	Upice	14.57	346	eP	Pn	10 12 44.7	-2.2
UPC				ex	x	10 12 54.6	
UPC	Upice	14.57	346	P	Pn	10 12 44.7	-2.2
GDM	Grand'Maison	14.60	311	eP	Pn	10 12 48.1	+0.7
GDM	Grand'Maison	14.60	311	eP	Pn	10 12 48.1	+0.7
ORIF	Oris-en-Rattie	14.60	310	eP	Pn	10 12 47.9	+0.5
	comp=Z,2µm,1.2s						
ORIF				eMLR	MLR		
	comp=Z,134µm,22.8s						
ORIF	Oris-en-Rattie	14.60	310	eP	Pn	10 12 47.9	+0.5
ORIF				pmax	pmax		
	comp=Z,837nm,1.2s						
ORIF	Oris-en-Rattie	14.60	310	eP	Pn	10 12 47.9	+0.5
	comp=Z,837nm,1.2s						
ORIF	Oris-en-Rattie	14.60	310	eP	Pn	10 12 47.9	+0.5
	comp=Z,837nm,1.2s						
EZC	Erzincan	14.64	72	eP	Pn	10 12 43.8	-4.2
DIYA	Diyarbakir	14.77	79	⇑iP	Pn	10 12 49.1	-0.7
DIYA	Diyarbakir	14.77	79	i P	Pn	10 12 49.1	-0.7
OCF	Saint Nazaire	14.80	308	eP	Pn	10 12 51.6	+1.4
OG26	St.-Nazaire-De	14.80	308	eP	Pn	10 12 51.6	+1.4
OG26	St.-Nazaire-De	14.80	308	eP	Pn	10 12 51.6	+1.4
KTUT	Trabzon	14.80	67	eP	Pn	10 12 50.9	+0.7
KTUT	Trabzon	14.80	67	eP	Pn	10 12 50.9	+0.7
KSP	Ksiaz	14.83	347	ePc	Pn	10 12 48.6	-1.9
KSP				epP	pP	10 12 57.2	-7.0
KSP				eS	Sn	10 15 31.3	-2.3
KSP				LMZ		10 19 10.3	
	comp=Z,390µm,24.9s						
KSP	Ksiaz	14.83	347	⇑eP	Pn	10 12 48.5	-2.0
KSP				epP	pP	10 12 57.1	-7.1
KSP				eS	Sn	10 15 37.5	+3.9
GRN	Grenoble	14.85	311	eP	Pn	10 12 51.1	+0.3
GRN	Grenoble	14.85	311	eP	Pn	10 12 51.1	+0.3
DIY	Diyarbakir	14.86	79	eP	Pn	10 12 51.9	+1.0
DIY	Diyarbakir	14.86	79	eP	Pn	10 12 51.9	+1.0
PVCC	Panska Ves	14.91	342	eP	Pn	10 12 49.0	-2.6
PVCC				ex	x	10 12 57.5	
PVCC				AMS	AMS	10 19 20.0	
	comp=Z,283µm,15.0s						
PVCC	Panska Ves	14.91	342	eP	Pn	10 12 49.0	-2.6
PVCC				e		10 12 57.5	
PVCC	Panska Ves	14.91	342	P	Pn	10 12 49.0	-2.6
ROTZ	Rotzenmuhle	14.92	336	ePn	Pn	10 12 49.1	-2.5
SPAK	Spaichingen-Ko	14.97	325	eP	Pn	10 12 52.8	+0.4
SPAK	Spaichingen-Ko	14.97	325	eP	Pn	10 12 52.8	+0.4
TBKS	Tabuk	15.03	119	P	Pn	10 12 52.0	-1.2
TBKS	Tabuk	15.03	119	P	Pn	10 12 52.0	-1.3
HEDF	Idfu	15.07	136	⇓P	Pn	10 12 51.0	-2.8
HEDF	Idfu	15.07	136	P	Pn	10 12 51.0	-2.8
EMHD	Djebel Mahouad	15.09	274	P	Pn	10 12 52.8	-1.2
EMHD	Djebel Mahouad	15.09	274	P	Pn	10 12 52.8	-1.2
BBS	Basel-Blauen	15.16	321	eP	Pn	10 12 56.8	+2.0
BBS	Basel-Blauen	15.16	321	eP	Pn	10 12 56.8	+2.0
KIEV	Kiev	15.17	19	eP	Pn	10 12 52.3	-2.7
KIEV				pmax	pmax		
	comp=Z,570nm,0.8s						
KIEV	Kiev	15.17	19	ePn	Pn	10 12 52.2	-2.8
	comp=Z,570nm,0.8s						
KIEV				eS	Sn	10 15 55.5	+14
KIEV	Kiev	15.17	19	ePn	Pn	10 12 52.2	-2.8
	comp=Z,570nm,0.8s						
KIEV				eS	Sn	10 15 55.5	+14
AKASG	Malin Array Be	15.18	19	P	Pn	10 12 52.0	-3.1
AKASG						10 15 49.1	
AKASG				pmax	pmax		
	comp=Z,18nm,0.3s						
AKASG	Malin Array Be	15.18	19	Pn	Pn	10 12 52.0	-3.2
	comp=Z,18nm,0.3s,baz=208,slow=12,SNR=76						
AKASG				Sn	Sn	10 15 49.1	+6.9
	baz=202,slow=10,SNR=2.3						
AKBB	Malin Array Si	15.18	19	ePn	Pn	10 12 51.9	-3.2
FELD	Feldberg im Sc	15.19	323	eP	Pn	10 12 54.6	-0.6
FELD	Feldberg im Sc	15.19	323	eP	Pn	10 12 54.6	-0.6
ETOS	Mallorca	15.19	288	P	Pn	10 12 55.8	+0.6
	comp=Z,19µm,6.6s						
KOPT	Kop Dagi	15.20	71	⇑iP	Pn	10 12 55.9	+0.5
KOPT	Kop Dagi	15.20	71	i P	Pn	10 12 55.9	+0.5
GRA1	Grafenberg Arr	15.20	333	ePn	Pn	10 12 53.4	-1.9
GRA1	Grafenberg Arr	15.20	333	ePn	Pn	10 12 53.4	-1.9
GRF	Grafenberg Arr	15.20	333	ePn	Pn	10 12 53.4	-1.9
GRF				eL		10 19 56.7	
	comp=Z,530µm,20.0s						
GRF	Grafenberg Arr	15.20	333	ePn	Pn	10 12 53.4	-1.9
NKC	Novy Kostel	15.24	337	eP	Pn	10 12 53.5	-2.4
NKC				ex	x	10 13 02.4	
NKC				eS	Sn	10 15 31.6	-12
NKC				AMS	AMS	10 19 30.0	
	comp=Z,506µm,19.7s						
NKC	Novy Kostel	15.24	337	eP	Pn	10 12 53.5	-2.4
NKC				e		10 13 02.4	
NKC				eS	Sn	10 15 31.6	-12
NKC	Novy Kostel	15.24	337	P	Pn	10 12 53.5	-2.4
NKC				S	Sn	10 15 31.6	-12
STU	Stuttgart	15.28	327	ePn	Pn	10 12 55.4	-1.0
STU	Stuttgart	15.28	327	⇑iPn	Pn	10 12 54.4	-2.0
STU				ePn	Pn	10 12 55.4	-1.0
STU				Sn	Sn	10 15 43.0	-1.5
STU	Stuttgart	15.28	327	ePn	Pn	10 12 55.4	-1.0
MARD	Mardin	15.31	81	⇑iP	Pn	10 12 55.6	-1.3
VIVF	Saint-Julien-l	15.33	308	eP	Pn	10 12 57.1	0.0
	comp=Z,1µm,1.3s						
VIVF	Saint-Julien-l	15.33	308	eP	Pn	10 12 57.1	0.0
VIVF				pmax	pmax		
	comp=Z,508nm,1.3s						
VIVF	Saint-Julien-l	15.33	308	eP	Pn	10 12 57.1	0.0
	comp=Z,508nm,1.3s						
VIVF	Saint-Julien-l	15.33	308	eP	Pn	10 12 57.1	0.0
	comp=Z,508nm,1.3s						
BFO	Black Forest	15.35	324	ePn	Pn	10 12 55.6	-1.7
BFO				eL		10 20 46.1	
	comp=Z,142µm,21.1s						
BFO	Black Forest	15.35	324	⇑iPn	Pn	10 12 56.9	-0.4
BFO				eSn	Sn	10 15 45.2	-1.0
BFO	Black Forest	15.35	324	⇑iPn	Pn	10 12 56.9	-0.4
BFO				eSn	Sn	10 15 45.2	-1.0
BRG	Berggiesshubel	15.39	341	ePn	Pn	10 12 55.8	-2.0
BRG	Berggiesshubel	15.39	341	⇓iP	Pn	10 12 55.7	-2.1
	comp=Z,232nm,1.2s						
BRG				i PP		10 13 03.6	
	comp=Z,695nm,1.4s						
BRG				S	Sn	10 15 42.0	-5.1
BRG				eSCS	ScS	10 25 18.0	+7.7
BRG				e		10 48 41.4	
	comp=Z,3.0nm,0.6s						
BRG							
	comp=N,289µm,26.5s						
BRG							
	comp=E,139µm,23.7s						
BRG							
	comp=Z,354µm,27.6s						
BRG	Berggiesshubel	15.39	341	⇓iP	Pn	10 12 55.7	-2.1
	comp=Z,139nm,1.2s						
BRG				i PP		10 13 03.6	
BRG				S	Sn	10 15 42.0	-5.1
BRG				eScS	ScS	10 25 18.0	+7.7
CABF	La Chapelle	15.39	316	eP	Pn	10 12 56.8	-1.1
	comp=Z,1µm,1.1s						
CABF	La Chapelle	15.39	316	eP	Pn	10 12 56.8	-1.1
CABF				pmax	pmax		
	comp=Z,646nm,1.1s						
CABF	La Chapelle	15.39	316	eP	Pn	10 12 56.8	-1.1
	comp=Z,646nm,1.1s						
CABF	La Chapelle	15.39	316	eP	Pn	10 12 56.8	-1.1
	comp=Z,646nm,1.1s						
TANN	Tannenbergstha	15.40	337	ePn	Pn	10 12 57.7	-0.2
TANN				eL		10 19 46.6	
	comp=Z,518µm,19.6s						
TANN	Tannenbergstha	15.40	337	Pn	Pn	10 12 57.7	-0.2
LOMF	Lomont	15.44	319	eP	Pn	10 12 59.1	+0.6
LOMF	Lomont	15.44	319	eP	Pn	10 12 59.1	+0.6
SOC	Sochi	15.50	57c	iP	Pn	10 12 57.9	-1.4
SOC				e		10 15 45.6	
SOC				pmax	pmax		
	comp=Z,669nm,0.8s						
SOC				MLR	MLR		
	comp=Z,121µm,14.0s						
SOC	Sochi	15.50	57	i P	Pn	10 12 58.0	-1.3
LASF	Ste Croix	15.53	305	eP	Pn	10 12 59.6	-0.1
	comp=Z,1µm,1.3s						
LASF	Ste Croix	15.53	305	eP	Pn	10 12 59.6	-0.1
	comp=Z,604nm,1.3s						
LIBD	Limburg	15.57	323	eP	Pn	10 13 00.5	+0.3
LIBD	Limburg	15.57	323	eP	Pn	10 13 00.5	+0.3
MOF	Molkenrain	15.60	321	eP	Pn	10 12 59.8	-0.8
MOF	Molkenrain	15.60	321	eP	Pn	10 12 59.8	-0.8
SSB	Saint Sauveur	15.61	309	eP	Pn	10 12 59.9	-0.8
SSB	Saint Sauveur	15.61	309	P	Pn	10 13 00.9	+0.2
SSB				pmax	pmax		
	comp=Z,360nm,1.1s						
SSB	Saint Sauveur	15.61	309	ePn	Pn	10 13 00.5	-0.2
	comp=Z,364nm,1.1s						
SSB	Saint Sauveur	15.61	309	eP	Pn	10 12 59.9	-0.8
SSB	Saint Sauveur	15.61	309	ePn	Pn	10 13 00.5	-0.2
	comp=Z,364nm,1.1s						
EJON	La Jonquera	15.65	298	P	Pn	10 12 58.9	-2.5
	comp=Z,6µm,4.5s						
SJAF	Saint Jean de	15.67	298	eP	Pn	10 13 01.1	-0.4
SJAF	Saint Jean de	15.67	298	eP	Pn	10 13 01.1	-0.4
BEST	Besiri	15.68	79	⇑iP	Pn	10 13 00.2	-1.5
PZAR	Pazar-Rize	15.68	67	eP	Pn	10 13 01.7	0.0
PZAR	Pazar-Rize	15.68	67	eP	Pn	10 13 01.7	0.0
HINF	Hinteralfeld	15.72	320	eP	Pn	10 13 00.9	-1.3
	comp=Z,9µm,1.9s						
HINF	Hinteralfeld	15.72	320	eP	Pn	10 13 00.9	-1.3
HINF				pmax	pmax		
	comp=Z,5µm,1.9s						
HINF	Hinteralfeld	15.72	320	eP	Pn	10 13 00.9	-1.3
	comp=Z,5µm,1.9s						
HINF	Hinteralfeld	15.72	320	eP	Pn	10 13 00.9	-1.3
	comp=Z,5µm,1.9s						
WAR	Warsaw	15.73	359	ePc	Pn	10 13 02.0	-0.2
WAR				eS	Sn	10 16 05.2	+10
WAR				LMZ		10 19 03.9	
	comp=Z,336µm,29.0s						
WAR	Warsaw	15.73	359	⇑eP	Pn	10 13 02.0	-0.2
WAR				eS	Sn	10 16 05.2	+10
WAR	Warsaw	15.73	359	eS	Sn	10 16 05.2	+10
STR	Strasbourg	15.79	324	eP	Pn	10 13 02.6	-0.5
STR	Strasbourg	15.79	324	eP	Pn	10 13 02.6	-0.5
ECH	Echery	15.83	322	eP	Pn	10 13 03.1	-0.5
ECH	Echery	15.83	322	eP	Pn	10 13 02.7	-0.9
ECH				e		10 15 47.3	
ECH				pmax	pmax		
	comp=Z,2µm,1.4s						
ECH	Echery	15.83	322	ePn	Pn	10 13 02.7	-0.9
	comp=Z,2µm,1.4s						
ECH				eSn	Sn	10 15 47.3	-11
ECH	Echery	15.83	322	eP	Pn	10 13 03.1	-0.5
EZM	Erzurum	15.84	72	P	Pn	10 13 04.9	+1.1
ERZM	Erzurum	15.85	72	⇑iP	Pn	10 13 03.8	0.0
ERZM	Erzurum	15.85	72	i P	Pn	10 13 03.8	0.0
MOX	Moxa	15.87	336	eP	Pn	10 13 02.6	-1.4
MOX	Moxa	15.87	336	ePn	Pn	10 13 01.7	-2.3
MOX				eL		10 20 02.6	
	comp=Z,442µm,18.4s						
CDF	Champ du Feu	15.91	323	eP	Pn	10 13 04.0	-0.6
	comp=Z,4µm,1.4s						
CDF	Champ du Feu	15.91	323	eP	Pn	10 13 04.0	-0.6
CDF				pmax	pmax		
	comp=Z,2µm,1.4s						
CDF	Champ du Feu	15.91	323	eP	Pn	10 13 04.0	-0.6
	comp=Z,2µm,1.4s						
AKRL	Khor El Raml	15.97	140	P	Pn	10 13 04.8	-0.7
CLL	Collm	16.03	340	eP	Pn	10 13 07.0	+0.9
CLL				pmax	pmax		
	comp=Z,49nm,1.5s						
CLL				MLR	MLR		
	comp=Z,320µm,23.3s						
CLL	Collm	16.03	340	eP	Pn	10 13 07.0	+0.9
	comp=Z,858nm,1.5s						
CLL				i pP	pP	10 13 13.8	-3.8
CLL				i PP		10 13 17.7	
	comp=Z,603nm,1.1s						
CLL				i		10 13 36.7	
CLL				e		10 14 06.0	
CLL				eS	Sn	10 16 12.0	+9.3
CLL				Lmax		10 20 00.0	
CLL	Collm	16.03	340	eP	Pn	10 13 07.0	+0.9
	comp=Z,858nm,1.5s						
CLL				i		10 13 13.8	
CLL				i		10 13 17.7	
CLL				eS	Sn	10 16 12.0	+9.3
CLL	Collm	16.03	340	eP	Pn	10 13 07.0	+0.9
	comp=Z,20µm,23.3s						
LRDF	Laroque-de-Fa	16.04	299	eP	Pn	10 13 06.7	+0.4
LRDF	Laroque-de-Fa	16.04	299	eP	Pn	10 13 06.7	+0.4
LANF	Langenberg	16.05	325	eP	Pn	10 13 07.8	+1.4
LANF	Langenberg	16.05	325	eP	Pn	10 13 07.8	+1.4
TOD	Tromm	16.08	328	eP	Pn	10 13 06.2	-0.5
TOD	Tromm	16.08	328	eP	Pn	10 13 06.2	-0.5
HAU	Haudompre	16.10	320	eP	Pn	10 13 05.7	-1.4
	comp=Z,2µm,0.9s						
HAU				eMLR	MLR		
	comp=Z,150µm,23.0s						
HAU	Haudompre	16.10	320	eP	Pn	10 13 05.7	-1.4
HAU				pmax	pmax		
	comp=Z,1µm,0.9s						

HAU	Haudompre	16.10	320	eP	Pn	10 13 05.7	-1.4
	comp=Z,1µm,0.9s						
HAU	Haudompre	16.10	320	eP	Pn	10 13 05.7	-1.4
	comp=Z,1µm,0.9s						
KTD	Kalmit	16.18	327	eP	Pn	10 13 10.4	+2.4
KTD	Kalmit	16.18	327	eP	Pn	10 13 10.4	+2.4
EBNR	Beni Rached	16.22	275	P	Pn	10 13 08.0	-0.7
EBNR	Beni Rached	16.22	275	P	Pn	10 13 08.0	-0.7
COLF	Collangettes	16.25	309	eP	Pn	10 13 08.8	-0.1
COLF	Collangettes	16.25	309	eP	Pn	10 13 08.8	-0.1
VALF	Valcebollere	16.26	297	eP	Pn	10 13 10.0	+0.8
VALF	Valcebollere	16.26	297	eP	Pn	10 13 10.0	+0.8
EIBI	Ibiza	16.27	285	P	Pn	10 13 09.3	+0.1
	comp=Z,33µm,5.7s						
HOMI	Horasan	16.27	71	⇑iP	Pn	10 13 09.3	0.0
CARF	Carcanieres	16.28	298	eP	Pn	10 13 09.7	+0.3
ECHA	Ech Chlef	16.37	275	P	Pn	10 13 09.5	-1.0
ECHA	Ech Chlef	16.37	275	P	Pn	10 13 09.5	-1.0
MTLF	Montolieu	16.39	301	eP	Pn	10 13 10.4	-0.3
	comp=Z,889nm,1.3s						
MTLF	Montolieu	16.39	301	eP	Pn	10 13 10.4	-0.3
MTLF				pmax	pmax		
	comp=Z,444nm,1.3s						
MTLF	Montolieu	16.39	301	eP	Pn	10 13 10.4	-0.3
	comp=Z,444nm,1.3s						
MTLF	Montolieu	16.39	301	eP	Pn	10 13 10.4	-0.3
	comp=Z,444nm,1.3s						
LBL	Lubilhac	16.40	308	eP	Pn	10 13 11.5	+0.6
LBL	Lubilhac	16.40	308	eP	Pn	10 13 11.5	+0.6
THEF	They Montfort	16.43	320	eP	Pn	10 13 11.4	+0.2
THEF	They Montfort	16.43	320	eP	Pn	10 13 11.4	+0.2
TATV	Tatvan	16.46	77	⇑iP	Pn	10 13 10.9	-0.8
TATV	Tatvan	16.46	77	i P	Pn	10 13 10.9	-0.8
EMIR	Miracle	16.50	295	P	Pn	10 13 10.8	-1.4
	comp=Z,7µm,4.2s						
ETRT	Tiaret	16.54	272	P	Pn	10 13 11.8	-0.9
ETRT	Tiaret	16.54	272	P	Pn	10 13 11.8	-0.9
EANR	’Ain N’Sour	16.61	274	P	Pn	10 13 12.0	-1.6
EANR	’Ain N’Sour	16.61	274	P	Pn	10 13 12.0	-1.6
HAGS	Hagol	16.66	133	P	Pn	10 13 12.8	-1.5
HAGS	Hagol	16.66	133	P	Pn	10 13 12.8	-1.5
TNS	Taunus Mts	16.70	329	ePn	Pn	10 13 14.2	-0.4
TNS				eL		10 20 58.5	
	comp=Z,475µm,22.0s						
TNS	Taunus Mts	16.70	329	eP	Pn	10 13 14.2	-0.4
	comp=Z,75µm,22.0s						
SMF	Signal de Mont	16.71	313	eP	Pn	10 13 12.7	-2.0
	comp=Z,606nm,0.9s						
SMF	Signal de Mont	16.71	313	eP	Pn	10 13 12.7	-2.0
SMF				pmax	pmax		
	comp=Z,303nm,0.9s						
SMF	Signal de Mont	16.71	313	eP	Pn	10 13 12.7	-2.0
	comp=Z,303nm,0.9s						
SMF	Signal de Mont	16.71	313	eP	Pn	10 13 12.7	-2.0
	comp=Z,303nm,0.9s						
EPOB	Poblet	16.72	293	P	Pn	10 13 13.8	-1.2
	comp=Z,14µm,6.5s						
PYM	Petit Puy Mans	16.78	309	eP	Pn	10 13 15.0	-0.7
PYM	Petit Puy Mans	16.78	309	eP	Pn	10 13 15.0	-0.7
ABH	Alteburg	16.82	327	eP	Pn	10 13 17.0	+0.8
ABH	Alteburg	16.82	327	eP	Pn	10 13 17.0	+0.8
AGO	Saint Agoulin	16.84	310	eP	Pn	10 13 15.2	-1.3
AGO	Saint Agoulin	16.84	310	eP	Pn	10 13 15.2	-1.3
FRNF	Fournols	16.91	308	eP	Pn	10 13 20.2	+3.0
FRNF	Fournols	16.91	308	eP	Pn	10 13 20.2	+3.0
RUE	Ruedersdorf	16.91	343	eP	Pn	10 13 18.4	+1.3
	comp=Z,1µm,1.0s						
RUE	Ruedersdorf	16.91	343	eP	Pn	10 13 18.5	+1.3
	comp=Z,1µm,1.0s						
RUP	Ruppelstein	16.91	326	eP	Pn	10 13 18.6	+1.3
RUP	Ruppelstein	16.91	326	eP	Pn	10 13 18.6	+1.3
SFTF	Sexfontaines	16.91	319	eP	Pn	10 13 16.2	-1.1
	comp=Z,6µm,1.5s,baz=134						
SFTF	Sexfontaines	16.91	319	eP	Pn	10 13 16.2	-1.1
	comp=Z,6µm,1.5s						
SFTF	Sexfontaines	16.91	319	eP	Pn	10 13 16.2	-1.1
	comp=Z,3µm,1.5s						
SALF	Salau	16.95	298	eP	Pn	10 13 20.6	+2.8
SALF	Salau	16.95	298	eP	Pn	10 13 20.6	+2.8
RFYF	Reffroy	16.95	321	eP	Pn	10 13 18.6	+0.8
	comp=Z,9µm,1.6s,baz=130						
RFYF	Reffroy	16.95	321	eP	Pn	10 13 18.6	+0.8
	comp=Z,9µm,1.6s						
RFYF	Reffroy	16.95	321	eP	Pn	10 13 18.6	+0.8
	comp=Z,4µm,1.6s						
OJGS	Djebel Guires	16.96	273	P	Pn	10 13 18.0	0.0
OJGS	Djebel Guires	16.96	273	P	Pn	10 13 18.0	0.0
OKGL	Djebel Kef Gue	16.96	275	P	Pn	10 13 17.0	-1.1
OKGL	Djebel Kef Gue	16.96	275	P	Pn	10 13 17.0	-1.1
LOR	Lormes	17.02	315	eP	Pn	10 13 16.1	-2.6
	comp=Z,2µm,1.2s,baz=130						
LOR				eMLR	MLR		
	comp=Z,139µm,20.2s						
LOR	Lormes	17.02	315	eP	Pn	10 13 16.1	-2.6
LOR				pmax	pmax		
	comp=Z,787nm,1.2s						
LOR	Lormes	17.02	315	eP	Pn	10 13 16.1	-2.6
	comp=Z,787nm,1.2s						
LOR	Lormes	17.02	315	eP	Pn	10 13 16.1	-2.6
	comp=Z,787nm,1.2s						
GKP	Gorka Klasztor	17.04	351	ePc	Pn	10 13 17.6	-1.2
GKP				eS	Sn	10 16 36.8	+10
GKP				LMZ		10 19 44.0	
	comp=Z,235µm,29.1s						
GKP	Gorka Klasztor	17.04	351	⇑eP	Pn	10 13 17.6	-1.2
GKP				eS	Sn	10 16 36.8	+10
GKP	Gorka Klasztor	17.04	351	⇑eP	Pn	10 13 17.6	-1.2
CAF	Calviac	17.04	306	eP	Pn	10 13 19.7	+0.8
	comp=Z,2µm,1.2s						
CAF	Calviac	17.04	306	eP	Pn	10 13 19.7	+0.8
CAF				pmax	pmax		
	comp=Z,869nm,1.2s						
CAF	Calviac	17.04	306	eP	Pn	10 13 19.7	+0.8
	comp=Z,869nm,1.2s						
CAF	Calviac	17.04	306	eP	Pn	10 13 19.7	+0.8
	comp=Z,869nm,1.2s						
MLS	Moulis	17.06	298	eP	Pn	10 13 21.4	+2.2
MLS	Moulis	17.06	298	eP	Pn	10 13 21.4	+2.2
AGRB	Hanur-Agry	17.07	73	eP	Pn	10 13 19.3	0.0
AGRB	Hanur-Agry	17.07	73	eP	Pn	10 13 19.3	0.0
AVF	Avril sur Loir	17.07	313	eP	Pn	10 13 16.6	-2.7
	comp=Z,489nm,0.9s						
AVF	Avril sur Loir	17.07	313	eP	Pn	10 13 16.6	-2.7
AVF				pmax	pmax		
	comp=Z,244nm,0.9s						
AVF	Avril sur Loir	17.07	313	eP	Pn	10 13 16.6	-2.7
	comp=Z,244nm,0.9s						
AVF	Avril sur Loir	17.07	313	eP	Pn	10 13 16.6	-2.7
	comp=Z,244nm,0.9s						
MEZF	Maizieres J’vi	17.09	320	eP	Pn	10 13 19.6	+0.1
	comp=Z,14µm,1.9s,baz=131						
MEZF	Maizieres J’vi	17.09	320	eP	Pn	10 13 19.6	+0.1
	comp=Z,14µm,1.9s						
MEZF	Maizieres J’vi	17.09	320	eP	Pn	10 13 19.6	+0.1
	comp=Z,7µm,1.9s						
SSF	Saint Saulge	17.12	314	eP	Pn	10 13 18.2	-1.7
	comp=Z,790nm,1.0s						
SSF	Saint Saulge	17.12	314	eP	Pn	10 13 18.2	-1.7
SSF				pmax	pmax		
	comp=Z,395nm,1.0s						
SSF	Saint Saulge	17.12	314	eP	Pn	10 13 18.2	-1.7
	comp=Z,395nm,1.0s						
SSF	Saint Saulge	17.12	314	eP	Pn	10 13 18.2	-1.7
	comp=Z,395nm,1.0s						
ERTA	Horta de San J	17.22	291	P	Pn	10 13 19.5	-1.6
	comp=Z,9µm,5.3s						
KARS	Kars	17.24	70	P	Pn	10 13 21.7	+0.3
KARS	Kars	17.24	70	i P	Pn	10 13 21.7	+0.3
BGF	Bois d’Agland	17.26	311	eP	Pn	10 13 20.4	-1.2
	comp=Z,2µm,1.3s						
BGF	Bois d’Agland	17.26	311	eP	Pn	10 13 20.4	-1.2
BGF				pmax	pmax		
	comp=Z,1µm,1.3s						
BGF	Bois d’Agland	17.26	311	eP	Pn	10 13 20.4	-1.2
	comp=Z,1µm,1.3s						
BGF	Bois d’Agland	17.26	311	eP	Pn	10 13 20.4	-1.2
	comp=Z,1µm,1.3s						
OJBR	Djebel Berber	17.27	273	P	Pn	10 13 18.0	-3.9
OJBR	Djebel Berber	17.27	273	P	Pn	10 13 18.0	-3.9
MELF	Melles	17.28	298	eP	Pn	10 13 24.6	+2.7
MELF	Melles	17.28	298	eP	Pn	10 13 24.6	+2.7
CLZ	Clausthal	17.30	336	ePn	Pn	10 13 22.0	-0.1
CLZ				eL		10 20 55.9	
	comp=Z,458µm,20.8s						
CLZ	Clausthal	17.30	336	eP	Pn	10 13 22.0	-0.1
	comp=Z,58µm,20.8s						
WLF	Walferdange	17.30	324	P	Pn	10 13 25.3	+3.1
	comp=Z,2µm,2.2s						
WLF	Walferdange	17.30	324	eL		10 22 15.3	
	comp=Z,177µm,21.7s						
WLF	Walferdange	17.30	324	eP	Pn	10 13 23.7	+1.5
WLF	Walferdange	17.30	324	P	Pn	10 13 25.3	+3.1
	comp=Z,2µm,2.2s						
VANB	Van	17.34	77	P	Pn	10 13 22.5	-0.3
VANB	Van	17.34	77	i P	Pn	10 13 22.5	-0.3
TVAN	Van	17.36	77	i P	Pn	10 13 22.4	-0.5
TVAN	Van	17.36	77	i P	Pn	10 13 22.4	-0.5
EBEN	Beniarda	17.48	284	P	Pn	10 13 24.0	-0.5
	comp=Z,10µm,6.0s						
EBEN	Beniarda	17.48	284	P	Pn	10 13 24.0	-0.5
	comp=Z,10µm,6.0s						
TCF	Toulx Ste Croi	17.52	310	eP	Pn	10 13 23.8	-1.1
	comp=Z,3µm,1.4s						
TCF	Toulx Ste Croi	17.52	310	eP	Pn	10 13 23.8	-1.1
TCF				pmax	pmax		
	comp=Z,1µm,1.4s						
TCF	Toulx Ste Croi	17.52	310	eP	Pn	10 13 23.8	-1.1
	comp=Z,1µm,1.4s						
TCF	Toulx Ste Croi	17.52	310	eP	Pn	10 13 23.8	-1.1
	comp=Z,1µm,1.4s						
SUW	Suwalki	17.53	3	ePc	Pn	10 13 23.1	-1.8
	comp=Z,3µm,1.9s						
SUW				eS	Sn	10 16 41.0	+2.1
SUW				LMZ		10 20 11.7	
	comp=Z,275µm,29.4s						
SUW	Suwalki	17.53	3	⇑eP	Pn	10 13 23.1	-1.8
SUW				eS	Sn	10 16 41.0	+2.0
SUW				pmax	pmax		
	comp=Z,3µm,1.9s						
SUW	Suwalki	17.53	3	⇑eP	Pn	10 13 23.1	-1.8
SUW				eS	Sn	10 16 41.0	+2.0
SUW	Suwalki	17.53	3	eP	Pn	10 13 23.1	-1.8
	comp=Z,3µm,1.9s						
RJF	Les Rejaudoux	17.55	306	eP	Pn	10 13 26.4	+1.2
	comp=Z,4µm,1.3s						
RJF				eMLR	MLR		
	comp=Z,67µm,20.5s						
RJF	Les Rejaudoux	17.55	306	eP	Pn	10 13 26.4	+1.2
RJF				pmax	pmax		
	comp=Z,2µm,1.3s						
RJF	Les Rejaudoux	17.55	306	eP	Pn	10 13 26.4	+1.2
	comp=Z,2µm,1.3s						
RJF	Les Rejaudoux	17.55	306	eP	Pn	10 13 26.4	+1.2
	comp=Z,2µm,1.3s						
RESF	Ens	17.56	297	eP	Pn	10 13 28.0	+2.5
RESF	Ens	17.56	297	eP	Pn	10 13 28.0	+2.5
CUKT	Cukurca	17.57	81	P	Pn	10 13 24.7	-0.8
CUKT	Cukurca	17.57	81	i P	Pn	10 13 24.7	-0.8
DYDN	Diyadin	17.60	73	⇑iP	Pn	10 13 25.6	-0.4
DYDN	Diyadin	17.60	73	i P	Pn	10 13 25.5	-0.5
EPF	Esparros	17.62	298	eP	Pn	10 13 27.4	+1.3
	comp=Z,1µm,1.3s						
EPF	Esparros	17.62	298	eP	Pn	10 13 27.4	+1.3
EPF				pmax	pmax		
	comp=Z,612nm,1.3s						
EPF	Esparros	17.62	298	eP	Pn	10 13 27.4	+1.3
	comp=Z,612nm,1.3s						
EPF	Esparros	17.62	298	eP	Pn	10 13 27.4	+1.3
	comp=Z,612nm,1.3s						
HAKT	HAKKARI	17.62	80	⇑iP	Px	10 13 44.1	
HAKT	HAKKARI	17.62	80	i P	Px	10 13 44.1	
KIV	Kislovodsk	17.66	59	P	Pn	10 13 27.6	+1.0
	comp=Z,8µm,0.8s						
KIV	Kislovodsk	17.66	59	d iP	Pn	10 13 25.7	-0.9
KIV				eS	Sn	10 16 38.9	-3.3
KIV				pmax	pmax		
	comp=Z,2µm,1.0s						
KIV				MLR	MLR		
	comp=Z,168µm,13.0s						
KIV	Kislovodsk	17.66	59	⇑iP	Pn	10 13 25.8	-0.8
	comp=Z,839nm,0.7s						
KIV	Kislovodsk	17.66	59	⇓P	Pn	10 13 25.9	-0.7
	SNR=315						
KIV				⇓P		10 13 25.9	
	SNR=315						
KIV	Kislovodsk	17.66	59	⇑iP	Pn	10 13 25.8	-0.8
	comp=Z,839nm,0.7s						
EBIE	Bielsa	17.68	297	P	Pn	10 13 26.9	+0.1
	comp=Z,25µm,4.5s						
EBIE	Bielsa	17.68	297	P	Pn	10 13 26.9	+0.1
	comp=Z,10µm,4.5s						
ODJA	Bouhanifia	17.71	273	P	Pn	10 13 28.0	+0.6
HYF	Humbligny	17.73	313	eP	Pn	10 13 28.1	+0.6
HYF	Humbligny	17.73	313	eP	Pn	10 13 28.1	+0.6
EMOS	Mosqueruela	17.76	289	P	Pn	10 13 28.2	+0.3
	comp=Z,33µm,6.3s						
EMOS	Mosqueruela	17.76	289	P	Pn	10 13 28.2	+0.3
	comp=Z,10µm,6.3s						
CLDR	Caldiran	17.76	75	P	Pn	10 13 27.6	-0.3
CLDR	Caldiran	17.76	75	i P	Pn	10 13 27.6	-0.4
LABF	Labassere	17.81	298	eP	Pn	10 13 31.0	+2.5
LABF	Labassere	17.81	298	eP	Pn	10 13 31.0	+2.5
ONI	Oni	17.83	63	P	Pn	10 13 27.9	-0.9
ONI				S	Sn	10 16 48.9	+2.4
LFF	La Frestale	17.92	304	eP	Pn	10 13 30.6	+0.8
	comp=Z,2µm,1.3s						
LFF	La Frestale	17.92	304	eP	Pn	10 13 30.6	+0.8
LFF				pmax	pmax		
	comp=Z,940nm,1.3s						
LFF	La Frestale	17.92	304	eP	Pn	10 13 30.6	+0.8
	comp=Z,940nm,1.3s						
LFF	La Frestale	17.92	304	eP	Pn	10 13 30.6	+0.8
	comp=Z,940nm,1.3s						
ESAC	San Caprasio	17.93	294	P	Pn	10 13 29.9	-0.1
	comp=Z,6µm,2.9s						
ESAC	San Caprasio	17.93	294	P	Pn	10 13 29.9	-0.1
	comp=Z,6µm,2.9s						
USTO	Oran	17.97	274	P	Pn	10 13 32.0	+1.5
MEM	Membach	18.04	326	P	Pn	10 13 32.9	+1.7
	comp=Z,760nm,2.6s						
MEM	Membach	18.04	326	P	Pn	10 13 32.9	+1.7
	comp=Z,760nm,2.6s						
ECHE	Chera	18.08	287	P	Pn	10 13 33.9	+2.0
ECHE				pmax	pmax		
	comp=Z,21nm,0.7s						
ECHE	Chera	18.08	287	P	Pn	10 13 33.9	+2.0
	comp=Z,21nm,0.7s						
ECHE	Chera	18.08	287	P	Pn	10 13 33.9	+2.0
	comp=Z,21nm,0.7s						
BUG	Bochum--Univer	18.11	330	ePn	Pn	10 13 33.1	+1.0
BUG				eL		10 21 52.0	
	comp=Z,343µm,21.4s						
BUG	Bochum--Univer	18.11	330	eP	Pn	10 13 33.1	+1.0
CART	Cartagena	18.12	280	eP	Pn	10 13 30.5	-1.9
	comp=Z,2µm,1.6s						
CART	Cartagena	18.12	280	i P	Pn	10 13 30.7	-1.7
CART				i S	Sn	10 16 53.9	+0.2
REYF	Montagne du Re	18.15	298	eP	Pn	10 13 34.0	+1.4
REYF	Montagne du Re	18.15	298	eP	Pn	10 13 34.0	+1.4
HGN	Heimansgroeve	18.18	326	⇑iP	Pn	10 13 33.7	+0.8
	comp=Z,1µm,3.0s						
HGN	Heimansgroeve	18.18	326	eS	Sn	10 17 01.2	+6.5
HGN	Heimansgroeve	18.18	326	⇑iP	Pn	10 13 33.7	+0.8
	comp=Z,1µm,3.0s						
GOR	Gori	18.20	66	P	Pn	10 13 34.9	+1.7
BCLA	Clavier	18.22	325	P	Pn	10 13 34.6	+1.2
	comp=Z,785nm,3.1s						
BCLA	Clavier	18.22	325	P	Pn	10 13 34.6	+1.1
	comp=Z,785nm,3.1s						
ETSF	Etsaut	18.23	297	eP	Pn	10 13 33.6	0.0
	comp=Z,3µm,1.2s						
ETSF	Etsaut	18.23	297	eP	Pn	10 13 33.6	0.0
ETSF				pmax	pmax		
	comp=Z,1µm,1.2s						
ETSF	Etsaut	18.23	297	eP	Pn	10 13 33.6	0.0
	comp=Z,1µm,1.2s						
ETSF	Etsaut	18.23	297	eP	Pn	10 13 33.6	0.0
	comp=Z,1µm,1.2s						
GIVF	Givet	18.23	323	eP	Pn	10 13 34.2	+0.6
	comp=Z,3µm,1.0s						
GIVF	Givet	18.23	323	eP	Pn	10 13 34.2	+0.6
GIVF				pmax	pmax		
	comp=Z,1µm,1.0s						
GIVF	Givet	18.23	323	eP	Pn	10 13 34.2	+0.6
	comp=Z,1µm,1.0s						
GIVF	Givet	18.23	323	eP	Pn	10 13 34.2	+0.6
	comp=Z,1µm,1.0s						
EMUR	La Murta	18.30	281	P	Pn	10 13 33.7	-0.9
	comp=Z,32µm,7.0s						
EMUR	La Murta	18.30	281	P	Pn	10 13 33.7	-0.8
	comp=Z,10µm,7.0s						
BEBN	Eben Emael	18.32	326	P	Pn	10 13 36.4	+1.8
	comp=Z,625nm,3.5s						
BEBN	Eben Emael	18.32	326	P	Pn	10 13 36.4	+1.8
	comp=Z,625nm,3.5s						
DOU	Dourbes	18.34	323	P	Pn	10 13 35.6	+0.7
	comp=Z,1µm,2.1s						
DOU	Dourbes	18.34	323	P	Pn	10 13 35.6	+0.7
	comp=Z,1µm,2.1s						
ATE	Arette	18.37	298	eP	Pn	10 13 36.0	+0.6
ATE	Arette	18.37	298	eP	Pn	10 13 36.0	+0.6
GNI	Garni	18.45	72	c iP	Pn	10 13 35.1	-1.2
GNI				pmax	pmax		
	comp=Z,3µm,2.5s						
GNI	Garni	18.45	72	P	Pn	10 13 34.7	-1.6
	comp=Z,14nm,0.3s,baz=294,slow=2.7,SNR=128						
GNI				S	Sn	10 17 00.9	-0.5
	comp=Z,2.5nm,0.3s,baz=218,slow=13,SNR=1.8						
GNI				LR	LR	10 21 40.9	
	comp=Z,362µm,20.0s,baz=268,slow=40						
GNI	Garni	18.45	72	eP	Pn	10 13 35.2	-1.2
	comp=Z,3µm,1.2s						
GNI	Garni	18.45	72	⇓P	Pn	10 13 35.3	-1.0
	SNR=493						
GNI				⇓P		10 13 35.3	
	SNR=493						
GNI	Garni	18.45	72	P	Pn	10 13 35.0	-1.3
	SNR=377						
MNK	Minsk	18.48	11	⇑iP	Pn	10 13 30.0	-6.6
MNK				pmax	pmax		
	comp=Z,96µm,4.0s						
MNK				pmax	pmax		
	comp=N,2µm,1.0s						
MNK				pmax	pmax		
	comp=E,1µm,1.5s						
MNK				MLR	MLR		
	comp=E,164µm,12.0s						
MNK				MLR	MLR		
	comp=Z,256µm,12.0s						
MICGM	Minsk	18.49	11	⇑iP	Pn	10 13 30.0	-6.7
BAIF	Baives	18.50	322	eP	Pn	10 13 37.1	+0.2
	comp=Z,3µm,1.3s						
BAIF	Baives	18.50	322	eP	Pn	10 13 37.1	+0.2
BAIF				pmax	pmax		
	comp=Z,2µm,1.3s						
BAIF	Baives	18.50	322	eP	Pn	10 13 37.1	+0.2
	comp=Z,2µm,1.3s						
BAIF	Baives	18.50	322	eP	Pn	10 13 37.1	+0.2
	comp=Z,2µm,1.3s						
ETOB	Tobarra	18.52	284	P	Pn	10 13 36.8	-0.3
	comp=Z,16µm,6.6s						
ETOB	Tobarra	18.52	284	P	Pn	10 13 36.8	-0.4
	comp=Z,10µm,6.6s						
ORDF	Ordiarp	18.57	298	eP	Pn	10 13 37.6	-0.2
ORDF	Ordiarp	18.57	298	eP	Pn	10 13 37.6	-0.2
IBBN	Ibbenburen	18.60	332	ePn	Pn	10 13 39.5	+1.4
IBBN				eL		10 22 03.8	
	comp=Z,411µm,18.2s						
IBBN	Ibbenburen	18.60	332	ePn	Pn	10 13 39.5	+1.4
TBLG	Delisi	18.62	67	P	Pn	10 13 38.3	-0.1
TBLG	Delisi	18.62	67	P	Pn	10 13 38.3	-0.1
MTA	Mtatsminda	18.65	67	P	Pn	10 13 37.1	-1.7
MTA				S	Sn	10 17 03.7	-2.7
WTSB	Winterswijk	18.70	330	⇑iP	Pn	10 13 40.0	+0.7
	comp=Z,1µm,3.5s						
WTSB	Winterswijk	18.70	330	⇑iP	Pn	10 13 40.0	+0.7
	comp=Z,1µm,3.5s						
NACGM	Naroch	18.72	9	eP	Pn	10 13 34.0	-5.5
SJPF	Ste Jean	18.75	298	eP	Pn	10 13 40.8	+0.8
	comp=Z,6µm,1.5s						
SJPF	Ste Jean	18.75	298	eP	Pn	10 13 40.8	+0.8
SJPF				pmax	pmax		
	comp=Z,3µm,1.5s						
SJPF	Ste Jean	18.75	298	eP	Pn	10 13 40.8	+0.8
	comp=Z,3µm,1.5s						
SJPF	Ste Jean	18.75	298	eP	Pn	10 13 40.8	+0.8
	comp=Z,3µm,1.5s						
SNF	Seneffe	18.76	324	P	Pn	10 13 40.5	+0.4
	comp=Z,1µm,2.3s						
SNF	Seneffe	18.76	324	P	Pn	10 13 40.5	+0.4
	comp=Z,1µm,2.3s						
OSSF	Osses	18.81	298	eP	Pn	10 13 40.2	-0.5
OSSF	Osses	18.81	298	eP	Pn	10 13 40.2	-0.5
UCC	Uccle	18.92	324	P	Pn	10 13 42.2	+0.2
	comp=Z,2µm,2.4s						
UCC	Uccle	18.92	324	P	Pn	10 13 42.1	+0.1
	comp=Z,2µm,2.4s						
RGN	Rugen	18.93	345	eP	Pn	10 13 41.4	-0.7
	comp=Z,1µm,0.9s						
RGN				e		10 13 51.4	
RGN	Rugen	18.93	345	eP	Pn	10 13 41.4	-0.6
EALK	Alkurruntz	18.98	298	P	Pn	10 13 42.1	-0.6
	comp=Z,28µm,4.5s						
EALK	Alkurruntz	18.98	298	P	Pn	10 13 42.1	-0.6
	comp=Z,10µm,4.5s						
ELIZ	Elizondo	18.98	298	P	Pn	10 13 43.0	+0.3
ELIZ				pmax	pmax		
	comp=Z,58nm,0.8s						
ELIZ	Elizondo	18.98	298	P	Pn	10 13 43.0	+0.3
	comp=Z,58nm,0.8s						
ELIZ	Elizondo	18.98	298	P	Pn	10 13 43.0	+0.3
	comp=Z,58nm,0.8s						
ETOR	Torete	19.00	290	P	Pn	10 13 41.7	-1.3
ETOR				pmax	pmax		
	comp=Z,435nm,2.8s						
ETOR	Torete	19.00	290	P	Pn	10 13 41.7	-1.3
	comp=Z,435nm,2.8s						
ETOR	Torete	19.00	290	P	Pn	10 13 41.7	-1.3
	comp=Z,435nm,2.8s						
BSEG	Bad Segeberg	19.12	339	eL		10 21 46.6	
	comp=Z,202µm,19.1s						
MFF	Saint Martin d	19.13	309	eP	Pn	10 13 43.7	-0.8
	comp=Z,4µm,1.4s						
MFF	Saint Martin d	19.13	309	eP	Pn	10 13 43.7	-0.8
MFF				pmax	pmax		
	comp=Z,2µm,1.4s						
MFF	Saint Martin d	19.13	309	eP	Pn	10 13 43.7	-0.8
	comp=Z,2µm,1.4s						
MFF	Saint Martin d	19.13	309	eP	Pn	10 13 43.7	-0.8
	comp=Z,2µm,1.4s						
ENIJ	Nijar	19.13	279	P	Pn	10 13 44.7	+0.1
ENIJ				pmax	pmax		
	comp=Z,291nm,1.0s						
ENIJ	Nijar	19.13	279	P	Pn	10 13 44.7	+0.1
	comp=Z,290nm,1.0s						
ENIJ	Nijar	19.13	279	P	Pn	10 13 44.7	+0.1
	comp=Z,291nm,1.0s						
BSD	Bornholm Skovb	19.17	348	i P	Pn	10 13 43.0	-1.9
BSD				eS	Sn	10 17 13.1	-5.5
BSD				pmax	pmax		
	comp=Z,1µm,0.9s						
BSD				MLR	MLR		
	comp=Z,160µm,18.0s						
BSD	Bornholm Skovb	19.17	348	i P	Pn	10 13 43.0	-1.9
	comp=Z,1µm,0.9s						
BSD				eS	Sn	10 17 13.1	-5.5
BSD							
	comp=Z,159µm,18.0s						
BSD	Bornholm Skovb	19.17	348	i P	Pn	10 13 43.0	-1.9
	comp=Z,1µm,0.9s						
BSD				eS	Sn	10 17 13.1	-5.5
BSD	Bornholm Skovb	19.17	348	i P	Pn	10 13 43.0	-1.9
	comp=Z,1µm,0.9s,SNR=35						
BSD				eS	Sn	10 17 13.1	-5.5
	SNR=47						
VORD	Divnogorie	19.18	36	c iP	Pn	10 13 42.3	-2.8
VORD				eS	Sn	10 17 20.1	+1.1
VORD				pmax	pmax		
	comp=Z,220nm,1.0s						
VORD				pmax	pmax		
	comp=N,190nm,0.9s						
VORD				pmax	pmax		
	comp=E,170nm,0.6s						
VORD				smax			
	comp=E,7µm,2.9s						
VORD				smax			
	comp=Z,6µm,4.1s						
VORD				smax			
	comp=N,3µm,1.0s						
VORD	Divnogorie	19.18	36	i P	Pn	10 13 42.3	-2.8
	comp=N,190nm,0.9s						
EVIA	Vianos	19.27	284	P	Pn	10 13 45.6	-0.6
EVIA				pmax	pmax		
	comp=Z,53nm,0.7s						
EVIA	Vianos	19.27	284	P	Pn	10 13 45.6	-0.6
	comp=Z,53nm,0.7s						
EVIA	Vianos	19.27	284	P	Pn	10 13 45.6	-0.6
	comp=Z,53nm,0.7s						

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VSR   Storozhevoye      19.29  35⇑iP    Pn     10 13 43.8 -2.6
VSR                             eS      Sn     10 17 20.9 -0.7
VSR                              pmax   pmax
      comp=Z,26µm,5.2s
VSR                              pmax   pmax
      comp=N,22µm,5.4s
VSR                              pmax   pmax
      comp=E,21µm,5.4s
VSR                              pmax   pmax
      comp=Z,10µm,2.5s
VSR                              pmax   pmax
      comp=N,7µm,1.3s
VSR                              pmax   pmax
      comp=E,6µm,1.2s
VSR                              smax
      comp=N,7µm,2.8s
VSR                              smax
      comp=Z,7µm,3.5s
VSR                              smax
      comp=E,5µm,2.7s
VSR                              MLR    MLR
      comp=Z,271µm,17.0s
VSR                              MLR    MLR
      comp=N,160µm,18.0s
VSR                              MLR    MLR
      comp=E,124µm,15.0s
VSR   Storozhevoye      19.29  35 i P   Pn     10 13 43.8 -2.6
      comp=E,7µm,2.8s
EHUE  Huescar           19.37 281   P   Pn     10 13 46.8 -0.7
EHUE  Huescar           19.37 281   P   Pn     10 13 46.8 -0.7
WIT   Witteveen         19.41 332⇑iP    Pn     10 13 47.3 -0.5
      comp=E,2µm,3.0s
WIT   Witteveen         19.41 332⇑iP    Pn     10 13 47.3 -0.5
      comp=E,2µm,3.0s
TAM   Tamanrasset       19.56 230⇓iP    Pn     10 13 49.0 -0.8
TAM                              pmax   pmax
      comp=Z,782nm,1.1s
TAM   Tamanrasset       19.56 230⇓iP    Pn     10 13 49.0 -0.8
      comp=Z,782nm,1.1s
TAM                             eS      Sn     10 17 34.2 +5.8
TAM   Tamanrasset       19.56 230 i P   Pn     10 13 49.0 -0.8
      comp=Z,782nm,1.1s
ECRI  Cripan            19.58 296   P   Pn     10 13 49.3 -0.6
ECRI  Cripan            19.58 296   P   Pn     10 13 49.3 -0.6
VOR   Voronezh          19.66  34⇑iP    Pn     10 13 47.0 -3.8
VOR                              pmax   pmax
      comp=Z,4µm,2.0s
VOR   Voronezh          19.66  34 i P   Pn     10 13 47.0 -3.8
      comp=Z,4µm,2.0s
EBER  Berja             19.69 278   P   Pn     10 13 49.0 -2.2
      comp=Z,17µm,3.9s
EBER  Berja             19.69 278   P   Pn     10 13 49.0 -2.2
      comp=Z,10µm,3.9s
EQES  Quesada           19.75 281   P   Pn     10 13 49.3 -2.6
      comp=Z,7µm,2.7s
EQES  Quesada           19.75 281   P   Pn     10 13 49.3 -2.7
      comp=Z,7µm,2.7s
MENF  Mencas            19.84 321 eP    Pn     10 13 51.2 -1.8
MENF  Mencas            19.84 321 eP    Pn     10 13 51.2 -1.8
ZAI   Zaio              19.87 273 i P   Pn     10 13 53.5 +0.1
EALB  Alboran           19.93 276   P   Pn     10 13 51.6 -2.5
      comp=Z,29µm,3.4s
EALB  Alboran           19.93 276   P   Pn     10 13 51.7 -2.4
      comp=Z,10µm,3.4s
LDF   La Druitiere      20.00 314 eP    P      10 13 52.7 -0.3
      comp=Z,3µm,1.3s
LDF   La Druitiere      20.00 314 eP    P      10 13 52.7 -0.3
LDF                              pmax   pmax
      comp=Z,2µm,1.3s
LDF   La Druitiere      20.00 314 eP    P      10 13 52.7 -0.3
      comp=Z,2µm,1.3s
LDF   La Druitiere      20.00 314 eP    P      10 13 52.7 -0.3
      comp=Z,2µm,1.3s
COP   Copenhagen        20.18 345 i P   P      10 13 52.8 -2.0
COP                             eS      S      10 17 36.9 -2.6
COP                              pmax   pmax
      comp=Z,640nm,0.9s
COP                              MLR    MLR
      comp=Z,52µm,21.0s,MS5.9
COP   Copenhagen        20.18 345 i P   P      10 13 52.8 -2.0
      comp=Z,637nm,0.9s
COP                             eS      S      10 17 36.9 -2.6
COP
      comp=Z,52µm,21.0s
COP   Copenhagen        20.18 345 i P   P      10 13 52.8 -2.0
      comp=Z,640nm,0.9s
COP                             eS      S      10 17 36.9 -2.6
      SNR=37
ECOG  Cogollos-Vega     20.18 280   P   P      10 13 58.4 +3.3
ECOG                             pmax   pmax
      comp=Z,166nm,1.0s
ECOG  Cogollos-Vega     20.18 280   P   P      10 13 58.4 +3.3
      comp=Z,166nm,1.0s
EGUA  Guajares          20.23 278   P   P      10 13 56.6 +1.0
EGUA  Guajares          20.23 278   P   P      10 13 56.6 +1.0
EBAN  Banos Encina      20.29 282   P   P      10 13 56.5 +0.3
EBAN                             pmax   pmax
      comp=Z,34nm,0.6s
EBAN  Banos Encina      20.29 282   P   P      10 13 56.5 +0.2
      comp=Z,34nm,0.6s
EBAN  Banos Encina      20.29 282   P   P      10 13 56.5 +0.3
      comp=Z,34nm,0.6s
FLN   La Foliniere      20.29 314 eP    P      10 13 55.8 -0.3
      comp=Z,1µm,0.9s,baz=128
FLN                             eMLR    MLR
      comp=Z,104µm,19.8s,MS5.9
FLN   La Foliniere      20.29 314 eP    P      10 13 55.8 -0.3
FLN                              pmax   pmax
      comp=Z,697nm,0.9s
FLN                              MLR    MLR
      comp=Z,104µm,19.8s,MS6.2
FLN   La Foliniere      20.29 314 eP    P      10 13 55.8 -0.3
      comp=Z,697nm,0.9s
FLN                              LR     LR
      comp=Z,104µm,19.8s,MS6.2
FLN   La Foliniere      20.29 314 eP    P      10 13 55.8 -0.3
      comp=Z,697nm,0.9s
GRR   Gorron            20.34 313 eP    P      10 13 56.4 -0.2
      comp=Z,1µm,1.1s
GRR   Gorron            20.34 313 eP    P      10 13 56.4 -0.2
GRR                              pmax   pmax
      comp=Z,719nm,1.1s
GRR   Gorron            20.34 313 eP    P      10 13 56.4 -0.2
      comp=Z,719nm,1.1s
GRR   Gorron            20.34 313 eP    P      10 13 56.4 -0.2
      comp=Z,719nm,1.1s
ELAN  Lanestosa         20.36 297   P   P      10 13 57.9 +1.0
      comp=Z,8µm,2.9s
ELAN  Lanestosa         20.36 297   P   P      10 13 57.9 +1.0
      comp=Z,8µm,2.9s
VRHR  Novokhopersk      20.39  38⇑iP    P      10 13 56.2 -1.0
VRHR                            e*SP    sP     10 14 05.5 -4.1
VRHR                            e              10 14 23.1
VRHR                            eS      S      10 17 46.6 +2.8
VRHR                            i              10 18 09.3
VRHR                             pmax   pmax
      comp=Z,2µm,1.8s
VRHR                             pmax   pmax
      comp=N,2µm,2.2s
VRHR                             pmax   pmax
      comp=E,120nm,1.0s
VRHR                             smax
      comp=N,7µm,6.8s
VRHR                             smax
      comp=Z,3µm,5.7s
VRHR  Novokhopersk      20.39  38 i P   P      10 13 56.2 -1.0
      comp=Z,2µm,2.2s
ESDC  Sonseca Array     20.40 287   P   P      10 13 57.0 -0.4
      comp=Z,14nm,0.7s,baz=81,slow=11,SNR=52
ESDC                             S      S      10 17 43.5 -0.6
      comp=Z,6.5nm,0.8s,baz=306,slow=45,SNR=2.2
ESDC                             ScP    ScP    10 21 43.7 +0.6
      comp=Z,4.8nm,0.7s,baz=60,slow=2.1,SNR=4.4
ESDC                             LR     LR     10 22 27.8
      comp=Z,31µm,21.5s,MS5.6,baz=95,slow=38
ESDC  Sonseca Array     20.40 287   P   P      10 13 57.2 -0.1
      comp=Z,2µm,1.6s
ESDC  Sonseca Array     20.40 287   P   P      10 13 57.2 -0.2
      comp=Z,2µm,1.6s
ERON  Agron             20.40 279   P   P      10 13 57.5 +0.1
ERON  Agron             20.40 279   P   P      10 13 57.5 +0.1
GUD   Guadarrama        20.58 289   P   P      10 13 59.7 +0.4
GUD   Guadarrama        20.58 289   P   P      10 13 59.7 +0.4
ELOJ  Sierra Loja       20.66 280   P   P      10 14 01.5 +1.2
ELOJ                             pmax   pmax
      comp=Z,11nm,0.6s
ELOJ  Sierra Loja       20.66 280   P   P      10 14 01.5 +1.3
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      comp=Z,11nm,0.6s
ELOJ  Sierra Loja       20.66 280   P   P      10 14 01.5 +1.2
      comp=Z,11nm,0.6s
TOU   Touzarine         20.68 273 i P   P      10 14 08.0 +7.5
PAB   San Pablo         20.69 286 eP    P      10 14 00.6  0.0
PAB                              pmax   pmax
      comp=Z,2µm,1.3s
PAB                              MLR    MLR
      comp=Z,47µm,21.0s,MS5.8
PAB   San Pablo         20.69 286 eP    P      10 14 00.6  0.0
      comp=Z,2µm,1.3s
PAB                              LR     LR
      comp=Z,47µm,21.0s,MS5.8
PAB   San Pablo         20.69 286 eP    P      10 14 00.6  0.0
      comp=Z,47µm,21.0s
ELUQ  Luque             20.71 281   P   P      10 14 00.2 -0.6
ELUQ  Luque             20.71 281   P   P      10 14 00.2 -0.6
MAK   Makhachkala       20.84  64c iP   P      10 14 01.1 -1.0
MAK                             i              10 14 16.3
MAK                             eS      S      10 17 56.7 +3.9
MAK                              pmax   pmax
      comp=Z,7µm,1.4s
MAK                              pmax   pmax
      comp=Z,6µm,1.3s
MAK                              pmax   pmax
      comp=N,3µm,0.7s
MAK                              pmax   pmax
      comp=E,4µm,0.7s
MAK                              smax
      comp=N,5µm,1.8s
MAK                              smax
      comp=E,16µm,1.0s
MAK                              MLR    MLR
      comp=N,265µm,17.0s,MS6.8
MAK                              MLR    MLR
      comp=E,220µm,16.0s,MS6.8
MAK                              MLR    MLR
      comp=Z,171µm,14.0s,MS6.6
MAK   Makhachkala       20.84  64 i P   P      10 14 01.3 -0.8
MAK   Makhachkala       20.84  64 i P   P      10 14 01.3 -0.8
EADA  Adamuz            20.91 282   P   P      10 14 02.6 -0.4
      comp=Z,5µm,2.2s
EADA  Adamuz            20.91 282   P   P      10 14 02.6 -0.4
      comp=Z,5µm,2.2s
EMAL  Malaga-Limoner    20.93 278 i P   P      10 14 02.8 -0.3
EMAL                            eS      S      10 17 53.0 -1.7
OBN   Obninsk           21.22  24   P   P      10 14 04.0 -2.1
      comp=Z,15µm,1.0s,mb7.3,SNR=99
OBN   Obninsk           21.22  24⇑eP    P      10 14 04.2 -1.9
OBN                             i              10 14 20.5
OBN                             i S     S      10 17 56.9 -3.2
OBN                              pmax   pmax
      comp=Z,3µm,1.2s,mb6.5
OBN                              MLR    MLR
      comp=Z,278µm,22.0s,MS6.6
OBN   Obninsk           21.22  24 eP    P      10 14 03.9 -2.2
OBN                              LR     LR
      comp=Z,244µm,22.0s,MS6.5
OBN   Obninsk           21.22  24 eP    P      10 14 04.2 -1.9
      comp=Z,3µm,1.2s,mb6.5
TZK   Tazeka            21.22 271 i P   P      10 14 07.0 +0.7
EMIJ  Mijas             21.23 278   P   P      10 14 04.2 -2.2
      comp=Z,8µm,3.4s
SGMF  Saint Gilles      21.30 311 eP    P      10 14 06.8 -0.2
      comp=Z,3µm,1.5s,mb6.1
SGMF  Saint Gilles      21.30 311 eP    P      10 14 06.8 -0.2
SGMF                             pmax   pmax
      comp=Z,2µm,1.5s,mb6.1
SGMF  Saint Gilles      21.30 311 eP    P      10 14 06.8 -0.2
      comp=Z,2µm,1.5s,mb6.1
SGMF  Saint Gilles      21.30 311 eP    P      10 14 06.8 -0.2
      comp=Z,2µm,1.5s,mb6.1
JSA   Saint Aubin       21.48 314⇑eP    P      10 14 08.3 -0.6
JSA                              AMb    AMB    10 14 20.1
      comp=Z,1µm,1.6s,mb6.0
JSA                             e              10 18 04.5
JSA   Saint Aubin       21.48 314⇑eP    P      10 14 08.3 -0.6
      comp=Z,1µm,1.6s,mb6.0
QUIF  Quistinic         21.54 310 eP    P      10 14 09.0 -0.6
      comp=Z,2µm,1.1s,mb6.2
QUIF  Quistinic         21.54 310 eP    P      10 14 09.0 -0.6
QUIF                             pmax   pmax
      comp=Z,1µm,1.1s,mb6.2
QUIF  Quistinic         21.54 310 eP    P      10 14 09.0 -0.6
      comp=Z,1µm,1.1s,mb6.2
QUIF  Quistinic         21.54 310 eP    P      10 14 09.0 -0.6
      comp=Z,1µm,1.1s,mb6.2
ECAB  El Cabril         21.58 282   P   P      10 14 09.7 -0.4
      comp=Z,6µm,2.3s,mb6.6
ECAB  El Cabril         21.58 282   P   P      10 14 09.7 -0.5
      comp=Z,6µm,2.3s,mb6.6
AEU   East Anglia Un    21.59 325 eP    P      10 14 10.4 +0.4
AEU   East Anglia Un    21.59 325 eP    P      10 14 10.4 +0.3
REAL  Reales            21.59 278 eP    P      10 14 10.6 +0.4
EARI  Arriondas         21.65 297   P   P      10 14 10.7 -0.1
      comp=Z,14µm,4.1s
EARI  Arriondas         21.65 297   P   P      10 14 10.7 -0.1
      comp=Z,10µm,4.1s
MUD   Monsted U'grnd    21.65 341⇑eP    P      10 14 10.1 -0.6
MUD                             eS      S      10 18 05.9 -2.7
MUD                              pmax   pmax
      comp=Z,530nm,1.0s,mb5.9
MUD                              MLR    MLR
      comp=Z,100µm,19.0s,MS6.2
MUD   Monsted U'grnd    21.65 341⇑iP    P      10 14 10.1 -0.6
      comp=Z,528nm,1.0s,mb5.9
MUD                             eS      S      10 18 05.9 -2.7
MUD
      comp=Z,103µm,19.0s
MUD   Monsted U'grnd    21.65 341⇑eP    P      10 14 10.1 -0.6
      comp=Z,528nm,1.0s,mb5.9
MUD                             eS      S      10 18 05.9 -2.7
MUD   Monsted U'grnd    21.65 341⇑eP    P      10 14 10.1 -0.6
      comp=Z,528nm,1.0s,mb5.9
MUD                             eS      S      10 18 05.9 -2.7
LIJA  Lijar             21.69 279 eP    P      10 14 11.1 -0.2
SHMS                    21.71 129   P   P      10 14 12.8 +1.1
SHMS                    21.71 129   P   P      10 14 12.8 +1.1
ROSF  Rostrenen         21.77 311 eP    P      10 14 11.5 -0.6
      comp=Z,2µm,1.0s,mb6.1
ROSF  Rostrenen         21.77 311 eP    P      10 14 11.5 -0.6
ROSF                             pmax   pmax
      comp=Z,841nm,1.0s,mb6.1
ROSF  Rostrenen         21.77 311 eP    P      10 14 11.5 -0.6
      comp=Z,841nm,1.0s,mb6.1
ROSF  Rostrenen         21.77 311 eP    P      10 14 11.5 -0.6
      comp=Z,841nm,1.0s,mb6.1
MDT   Midelt            21.91 268   P   P      10 14 13.2 -0.5
      comp=Z,137nm,1.1s,mb5.3,baz=81,slow=13,SNR=61
MDT                              S      S      10 18 16.7 +2.8
      comp=Z,28nm,1.0s,baz=19,slow=20,SNR=1.6
MDT   Midelt            21.91 268   P   P      10 14 13.2 -0.5
ZFT   Errachidia        21.94 266 i P   P      10 14 13.0 -1.0
MOMI  Momias            22.02 278 eP    P      10 14 15.6 +0.8
WOL   Wolverton         22.02 319⇑eP    P      10 14 12.8 -1.9
WOL                              AMb    AMB    10 14 28.1
      comp=Z,2µm,2.4s,mb6.1
WOL   Wolverton         22.02 319⇑eP    P      10 14 12.8 -1.9
      comp=Z,2µm,2.4s,mb6.1
SKP1  Kophill           22.04 321 eP    P      10 14 14.0 -0.9
SKP1  Kophill           22.04 321 eP    P      10 14 14.0 -0.9
ESPR  Espera            22.05 279   P   P      10 14 12.8 -2.4
      comp=Z,5µm,2.6s,mb6.4
MOS   Moscow            22.08  24α iP   P      10 14 13.7 -1.6
MOS                             e              10 14 39.5
MOS                             e              10 18 06.7
MOS                             i S     S      10 18 17.4 +0.6
MOS                             i SS           10 18 50.8
MOS                             e              10 25 24.6
MOS                              pmax   pmax
      comp=N,3µm,1.1s
MOS                              pmax   pmax
      comp=E,3µm,1.1s
MOS                              pmax   pmax
      comp=Z,6µm,1.1s,mb6.9
MOS                              pmax   pmax
      comp=Z,10µm,1.4s,mb7.1
MOS                              MLR    MLR
      comp=N,222µm,20.0s
MOS   Moscow            22.08  24⇑iP    P      10 14 12.9 -2.4
MOS   Moscow            22.08  24⇑iP    P      10 14 12.9 -2.4
GIBL  Gibalbin          22.14 279 eP    P      10 14 15.4 -0.8
CZD   Col de Zad        22.19 269 i P   P      10 14 16.0 -0.7
VSU   Vasula            22.21   7c iP   P      10 14 14.8 -1.8
VSU                              pmax   pmax
      comp=Z,824nm,0.9s,mb6.2
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VSU   Vasula            22.21   7⇑iP    P      10 14 14.8 -1.8
MIF   Mishlifen         22.24 270 i P   P      10 14 17.0 -0.2
CNIL  Conil             22.28 278 eP    P      10 14 15.9 -1.7
RSA   Sarsar            22.37 274 i P   P      10 14 18.0 -0.6
TSY   Tnine Yamani      22.38 275 i P   P      10 14 20.0 +1.3
SFS   San Fernando      22.39 278 eP    P      10 14 17.9 -0.8
SFS                             e              10 18 20.3
SFS                              pmax   pmax
      comp=Z,5µm,1.4s,mb6.8
SFS                              MLR    MLR
      comp=Z,93µm,21.0s,MS6.2
SFS   San Fernando      22.39 278 eP    P      10 14 17.9 -0.8
      comp=Z,5µm,1.4s,mb6.8
SFS                             ePcP    PcP    10 18 20.3 +7.4
SFS                              LR     LR
      comp=Z,93µm,21.0s,MS6.2
SFS   San Fernando      22.39 278 eP    P      10 14 17.2 -1.5
SWN1  Swindon           22.43 319⇑eP    P      10 14 17.8 -1.3
SWN1                             AMb    AMB    10 14 31.6
      comp=Z,3µm,1.6s,mb6.5
SWN1                            e              10 18 28.7
SWN1                             AMS    AMS    10 25 28.6
      comp=Z,82µm,22.7s,MS6.1
SWN1  Swindon           22.43 319⇑eP    P      10 14 17.8 -1.3
      comp=Z,3µm,1.6s,mb6.5
MIB   Mutribah          22.47 100 eP    P      10 14 17.7 -2.0
MIB                              AMb    AMB    10 14 32.6
      comp=Z,4µm,0.7s,mb7.0
MIB   Mutribah          22.47 100 eP    P      10 14 17.7 -2.0
      comp=Z,4µm,0.7s,mb7.0
EMIN  Mina Concepcio    22.60 282   P   P      10 14 17.8 -3.2
      comp=Z,6µm,3.3s
PBRG  Braganca          22.60 292 eP    P      10 14 22.9 +1.9
      comp=Z,912nm,1.9s,mb5.9
PBRG                            eS      S      10 18 25.4 -1.6
PBRG  Braganca          22.60 292 eP    P      10 14 22.9 +1.9
      comp=Z,912nm,1.9s,mb5.9
PBRG                            eS      S      10 18 25.4 -1.6
ECAL  Calabor           22.61 293   P   P      10 14 19.0 -2.0
      comp=Z,4µm,2.7s,mb6.3
ECAL  Calabor           22.61 293   P   P      10 14 19.0 -2.0
      comp=Z,4µm,2.7s,mb6.3
NAY   Al-Naaiem         22.62 101 eP    P      10 14 19.1 -2.3
NAY                              AMb    AMB    10 14 34.7
      comp=Z,3µm,1.3s,mb6.5
NAY   Al-Naaiem         22.62 101 eP    P      10 14 19.1 -2.2
      comp=Z,3µm,1.3s,mb6.5
MVO   Moncorvo          22.78 291 eP    P      10 14 19.6 -3.3
      comp=Z,1µm,1.8s,mb6.0
MVO                             eS      S      10 18 25.4 -4.5
MVO                             i P            10 18 42.5
MVO   Moncorvo          22.78 291 eP    P      10 14 19.6 -3.3
      comp=Z,1µm,1.8s,mb6.0
MVO                             eS      S      10 18 25.4 -4.5
EBAD  Badajoz           22.79 284   P   P      10 14 19.9 -3.1
      comp=Z,2µm,1.6s,mb6.4
SLAT  Slait             22.80 152 i P   P      10 14 23.0 -0.2
SLAT                             AMb    AMB    10 15 43.8
      comp=Z,523µm,1.9s
SLAT                            i S     S      10 18 30.0 -0.5
UMR   Umm Al-Rimmam     22.87 100 eP    P      10 14 22.1 -1.9
UMR                              AMb    AMB    10 14 32.1
      comp=Z,7µm,1.3s,mb6.9
UMR   Umm Al-Rimmam     22.87 100 eP    P      10 14 22.0 -2.0
      comp=Z,7µm,1.3s,mb6.9
CWF   Charnwood Fore    22.88 322⇑eP    P      10 14 22.5 -1.3
CWF                             e              10 18 15.7
CWF                              AMS    AMS    10 25 12.1
      comp=Z,67µm,20.3s,MS6.1
CWF   Charnwood Fore    22.88 322⇑eP    P      10 14 22.5 -1.3
ERUA  La Rua            22.95 294   P   P      10 14 25.3 +0.7
ERUA  La Rua            22.95 294   P   P      10 14 25.3 +0.7
RDF   Al-Radifah        23.01 102 eP    P      10 14 23.1 -2.3
RDF                              AMb    AMB    10 14 35.9
      comp=Z,2µm,1.6s,mb6.4
RDF   Al-Radifah        23.01 102 eP    P      10 14 23.0 -2.4
      comp=Z,2µm,1.6s,mb6.4
KBD   Kabd              23.01 101 eP    P      10 14 23.2 -2.2
KBD                              AMb    AMB    10 14 33.7
      comp=Z,2µm,1.6s,mb6.3
KBD   Kabd              23.01 101 eP    P      10 14 23.2 -2.2
      comp=Z,2µm,1.6s,mb6.3
HGH   Gray Hill         23.03 319⇑eP    P      10 14 26.1 +0.6
HGH   Gray Hill         23.03 319⇑eP    P      10 14 26.1 +0.7
PMRV  Marv??o           23.05 286 eP    P      10 14 23.3 -2.5
      comp=Z,1µm,1.6s,mb6.1
PMRV                            eS      S      10 18 31.8 -2.6
PMRV  Marv??o           23.05 286 eP    P      10 14 23.3 -2.5
      comp=Z,1µm,1.6s,mb6.1
PMRV                            eS      S      10 18 31.8 -2.6
EPON  Pontenova         23.05 296   P   P      10 14 23.9 -1.9
      comp=Z,7µm,4.3s
EPON  Pontenova         23.05 296   P   P      10 14 23.9 -1.8
      comp=Z,7µm,4.3s
DYA   Yadsworthy        23.06 315⇑eP    P      10 14 23.0 -2.7
DYA                             e              10 18 31.4
DYA                              AMS    AMS    10 26 57.9
      comp=Z,53µm,21.1s,MS6.0
DYA   Yadsworthy        23.06 315⇑eP    P      10 14 23.0 -2.8
PCBR  Castelo Branco    23.11 287 eP    P      10 14 29.2 +2.9
      comp=Z,1µm,1.7s,mb6.0
PCBR                            eS      S      10 18 38.2 +2.9
PCBR  Castelo Branco    23.11 287 eP    P      10 14 29.2 +2.9
      comp=Z,1µm,1.7s,mb6.0
PCBR                            eS      S      10 18 38.2 +2.9
KIB   El Ksiba          23.13 268 i P   P      10 14 26.0 -0.6
MTE   Manteigas         23.15 289 eP    P      10 14 25.7 -1.1
      comp=Z,940nm,1.8s,mb5.9
MTE                             eS      S      10 18 35.8 -0.3
MTE   Manteigas         23.15 289⇓eP    P      10 14 25.2 -1.6
      comp=Z,589nm,1.2s,mb5.9
MTE                              LR     LR
      comp=Z,42µm,20.0s,MS5.9
MTE   Manteigas         23.15 289⇓eP    P      10 14 25.2 -1.6
      comp=Z,589nm,1.2s,mb5.9
MTE                             eS      S      10 18 35.8 -0.3
PESTR Estremoz          23.23 285 eP    P      10 14 25.8 -1.9
      comp=Z,1µm,1.4s,mb6.2
PESTR                           eS      S      10 18 34.4 -3.0
PESTR                           i P            10 18 52.1
PESTR Estremoz          23.23 285 eP    P      10 14 25.8 -1.9
      comp=Z,1µm,1.4s,mb6.2
PESTR                           eS      S      10 18 34.4 -3.0
EGRO  El Granado        23.26 281   P   P      10 14 25.2 -2.8
      comp=Z,2µm,2.0s,mb6.3
KBI1  Birley Grange     23.29 323⇑eP    P      10 14 26.6 -1.6
KBI1  Birley Grange     23.29 323⇑eP    P      10 14 26.5 -1.6
PVRL  Vila Real         23.30 291 eP    P      10 14 29.1 +0.7
      comp=Z,1µm,1.8s,mb6.0
PVRL                            eS      S      10 18 38.8 +0.3
PVRL                            eS      S      10 18 39.2 +0.7
PVRL  Vila Real         23.30 291 eP    P      10 14 29.1 +0.7
      comp=Z,1µm,1.8s,mb6.0
PVRL                            eS      S      10 18 39.2 +0.7
KWE   Weaver Farm       23.30 322⇑eP    P      10 14 26.8 -1.5
KWE   Weaver Farm       23.30 322⇑eP    P      10 14 26.8 -1.5
MCH1  Michaelchurch     23.32 319⇑eP    P      10 14 26.9 -1.6
MCH1                             AMb    AMB    10 14 40.9
      comp=Z,1µm,2.1s,mb5.9
MCH1                             AMS    AMS    10 26 06.7
      comp=Z,70µm,22.0s,MS6.1
MCH1  Michaelchurch     23.32 319⇑eP    P      10 14 26.9 -1.6
      comp=Z,1µm,2.1s,mb5.9
QRN   Al-Qurain         23.38 102 eP    P      10 14 26.8 -2.4
QRN                              AMb    AMB    10 14 37.5
      comp=Z,2µm,1.4s,mb6.4
QRN   Al-Qurain         23.38 102 eP    P      10 14 26.8 -2.5
      comp=Z,2µm,1.4s,mb6.4
RTC   Rabat Centre      23.40 272 eP    P      10 14 28.3 -1.2
      comp=Z,748nm,1.0s,mb6.1
RTC                              LR     LR
      comp=Z,30µm,20.0s,MS5.8
RTC   Rabat Centre      23.40 272 i P   P      10 14 32.0 +2.5
PVIS  Viseu             23.42 289 eP    P      10 14 29.1 -0.5
      comp=Z,1µm,1.5s,mb6.1
PVIS                            eS      S      10 18 41.4 +1.0
PVIS  Viseu             23.42 289 eP    P      10 14 29.1 -0.5
      comp=Z,1µm,1.5s,mb6.1
PVIS                            eS      S      10 18 41.4 +1.0
PVAQ  Vaqueiros         23.46 281 eP    P      10 14 28.3 -1.7
      comp=Z,2µm,1.6s,mb6.2
PVAQ                            eS      S      10 18 38.8 -2.3
PVAQ                            i P            10 18 55.6
PVAQ  Vaqueiros         23.46 281 eP    P      10 14 28.3 -1.7
      comp=Z,2µm,1.6s,mb6.2
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PVAQ				eS	S	10 18 38.8	-2.3
HTR	Trewern Hill	23.51	319⇑	eP	P	10 14 28.3	-2.0
HTR	Trewern Hill	23.51	319⇑	eP	P	10 14 28.3	-2.0
PBEJ	Beja	23.51	283	eP	P	10 14 30.9	+0.4
	comp=Z,2µm,1.5s,mb6.2						
PBEJ				eS	S	10 18 39.1	-2.8
PBEJ	Beja	23.51	283	eP	P	10 14 30.9	+0.4
	comp=Z,2µm,1.5s,mb6.2						
PBEJ				eS	S	10 18 39.1	-2.8
STNC	Stoke	23.53	322⇑	eP	P	10 14 29.2	-1.2
STNC				AMb	AMB	10 14 42.7	
	comp=Z,2µm,1.6s,mb6.2						
STNC				AMS	AMS	10 25 42.0	
	comp=Z,67µm,20.1s,MS6.1						
STNC	Stoke	23.53	322⇑	eP	P	10 14 29.2	-1.3
	comp=Z,2µm,1.6s,mb6.2						
PCAB	Cabril	23.55	292	eP	P	10 14 31.7	+0.9
	comp=Z,1µm,1.9s,mb5.9						
PCAB				eS	S	10 18 39.5	-3.0
PCAB	Cabril	23.55	292	eP	P	10 14 31.7	+0.9
	comp=Z,1µm,1.9s,mb5.9						
PCAB				eS	S	10 18 39.5	-3.0
EVO	Evora	23.58	284⇑	iP	P	10 14 31.4	+0.3
	comp=Z,2µm,1.5s,mb6.0						
EVO				eMLR	MLR		
	comp=Z,50µm,18.8s,MS5.7						
EVO	Evora	23.58	284	eP	P	10 14 29.5	-1.6
	comp=Z,1µm,1.6s,mb6.0						
EVO				eS	S	10 18 41.4	-1.7
EVO	Evora	23.58	284	eP	P	10 14 29.5	-1.6
	comp=Z,1µm,1.6s,mb6.0						
EVO				eS	S	10 18 41.4	-1.7
ELOB	Lobios	23.59	292	P	P	10 14 28.5	-2.6
	comp=Z,14µm,6.0s						
LHO	Holmfirth	23.62	324⇑	eP	P	10 14 28.9	-2.5
LHO	Holmfirth	23.62	324⇑	eP	P	10 14 28.9	-2.4
HTL	Hartland	23.63	316⇑	eP	P	10 14 30.8	-0.6
HTL				AMb	AMB	10 14 41.4	
	comp=Z,228nm,1.5s,mb5.4						
HTL				e		10 18 22.2	
HTL				AMS	AMS	10 27 00.1	
	comp=Z,91µm,21.4s,MS6.2						
HTL	Hartland	23.63	316⇑	eP	P	10 14 30.8	-0.6
	comp=Z,228nm,1.5s,mb5.4						
LDU	Leeds Universi	23.64	324	eP	P	10 14 29.5	-2.0
LDU	Leeds Universi	23.64	324	eP	P	10 14 29.5	-1.9
PBDV	Barranco-do-Ve	23.65	281	eP	P	10 14 29.6	-2.2
	comp=Z,2µm,1.4s,mb6.4						
PBDV				eS	S	10 18 41.4	-2.8
PBDV	Barranco-do-Ve	23.65	281	eP	P	10 14 29.6	-2.2
	comp=Z,2µm,1.4s,mb6.4						
EVOP	Sao Brissos	23.67	284	eP	P	10 14 30.9	-1.1
EVOP				AMb	AMB	10 14 58.5	
	comp=Z,895nm,2.0s,mb5.9						
EVOP				eS	S	10 18 44.4	-0.1
EVOP				eS	S	10 18 44.8	+0.3
EVOP	Sao Brissos	23.67	284	eP	P	10 14 30.9	-1.0
EVOP				eS	S	10 18 44.4	-0.1
EVOP	Sao Brissos	23.67	284⇑	iP	P	10 14 31.4	-0.5
	comp=Z,884nm,1.5s,mb6.0						
HPK	Haverah Park	23.76	325⇑	eP	P	10 14 31.1	-1.5
HPK				AMb	AMB	10 14 43.0	
	comp=Z,666nm,1.7s,mb5.8						
HPK				e		10 18 49.6	
HPK				AMS	AMS	10 26 28.4	
	comp=Z,101µm,21.8s,MS6.2						
HPK	Haverah Park	23.76	325⇑	eP	P	10 14 31.1	-1.5
	comp=Z,666nm,1.7s,mb5.8						
SNART	Snartemo	23.82	341	eP	P	10 14 33.2	+0.1
MOE	Montemor	23.85	284	eP	P	10 14 35.1	+1.5
MOE				eS	S	10 18 48.7	+1.3
PUL	Pulkovo	23.93	11⇑	eP	P	10 14 33.6	-0.5
PUL	Pulkovo	23.93	11⇑	eP	P	10 14 33.6	-0.5
SBD1	Bryn Du	23.95	321⇑	eP	P	10 14 32.5	-1.8
SBD1	Bryn Du	23.95	321⇑	eP	P	10 14 32.5	-1.8
PTO	Porto	23.97	290	eP	P	10 14 36.9	+2.3
	comp=Z,1µm,1.7s,mb6.1						
PTO				eS	S	10 18 51.7	+2.5
ALMR	Almeirim	23.98	286	eP	P	10 14 34.0	-0.7
ALMR	Almeirim	23.98	286	eP	P	10 14 34.0	-0.8
STS	Santiago	24.02	295	P	P	10 14 38.5	+3.4
EZAM	Zamans	24.08	293	P	P	10 14 37.0	+1.4
EZAM	Zamans	24.08	293	P	P	10 14 37.0	+1.4
HFS	Hagfors	24.18	350	P	P	10 14 34.9	-1.5
HFS				S	S	10 18 50.9	-1.5
HFS				pmax	pmax		
	comp=Z,152nm,0.6s						
HFS				smax			
	comp=N,43nm,0.9s						
HFS	Hagfors	24.18	350	P	P	10 14 34.9	-1.4
	comp=N,152nm,0.6s,mb5.6,baz=168,slow=10.0,SNR=236						
HFS				S	S	10 18 50.9	-1.5
	comp=N,43nm,0.9s,baz=124,slow=29,SNR=1.6						
HFS	Hagfors	24.18	350	P	P	10 14 34.9	-1.5
HFS				S	S	10 18 50.9	-1.5
HFA0	Hagfors New Ar	24.19	350	P	P	10 14 34.0	-2.5
HFA0	Hagfors New Ar	24.19	350	P	P	10 14 34.0	-2.5
MORF	Marmelete	24.21	281	eP	P	10 14 35.7	-1.2
	comp=N,842nm,1.7s,mb5.9						
MORF				eS	S	10 18 51.2	-2.1
MORF	Marmelete	24.21	281	eP	P	10 14 34.9	-2.0
MORF				eS	S	10 18 53.1	-0.2
MORF	Marmelete	24.21	281	eP	P	10 14 35.7	-1.2
	comp=N,842nm,1.7s,mb5.9						
MORF				eS	S	10 18 51.2	-2.1
PTEO	Sao Teotonio	24.24	282	eP	P	10 14 36.0	-1.1
	comp=N,3µm,1.6s,mb6.4						
PTEO				eS	S	10 18 52.9	-0.8
PTEO	Sao Teotonio	24.24	282	eP	P	10 14 36.0	-1.1
	comp=N,3µm,1.6s,mb6.4						
PTEO				eS	S	10 18 52.9	-0.8
EMAZ	Mazaricos	24.34	295	P	P	10 14 35.4	-2.7
	comp=N,16µm,6.8s						
PFVI	Vila Bisbo	24.37	281	eP	P	10 14 37.5	-0.9
	comp=N,1µm,1.7s,mb6.1						
PFVI				eS	S	10 18 53.3	-2.6
PFVI				i P		10 19 16.7	
PFVI	Vila Bisbo	24.37	281	eP	P	10 14 37.5	-0.9
	comp=N,1µm,1.7s,mb6.1						
PFVI				eS	S	10 18 53.3	-2.6
KONO	Kongsberg	24.43	345c	iP	P	10 14 37.5	-1.2
KONO				e*SP	sP	10 14 48.4	-3.2
KONO	Kongsberg	24.43	345⇑	iP	P	10 14 36.9	-1.7
KONO				AMS	AMS	10 26 05.3	
	comp=Z,101µm,12.3s,MS6.5						
KONO	Kongsberg	24.43	345	eP	P	10 14 37.0	-1.7
	comp=Z,22nm,0.6s,mb4.8						
KONO				LR	LR		
	comp=Z,105µm,20.0s,MS6.3						
KONO	Kongsberg	24.43	345	eP	P	10 14 37.0	-1.7
	comp=Z,22nm,0.6s,mb4.8						
INMG	Instituto de M	24.43	285	eP	P	10 14 40.1	+1.2
INMG	Instituto de M	24.43	285	eP	P	10 14 40.1	+1.2
LIS	Lisbon	24.46	285	eP	P	10 14 37.8	-1.3
LIS				AMb	AMB	10 14 55.6	
	comp=Z,903nm,1.3s,mb6.0						
LIS				eS	S	10 18 57.8	+0.6
LIS				eS	S	10 18 57.9	+0.7
LIS	Lisbon	24.46	285	eP	P	10 14 37.8	-1.3
	comp=Z,903nm,1.3s,mb6.0						
LIS				eS	S	10 18 57.8	+0.6
LIS	Lisbon	24.46	285	eP	P	10 14 37.8	-1.3
	comp=Z,903nm,1.3s,mb6.0						
LIS				eS	S	10 18 57.8	+0.6
PMAFR	Mafra	24.54	285	eP	P	10 14 39.8	-0.1
	comp=Z,2µm,1.5s,mb6.4						
PMAFR				eS	S	10 18 57.4	-1.2
PMAFR				i P		10 19 15.9	
PMAFR	Mafra	24.54	285	eP	P	10 14 39.8	-0.1
	comp=Z,2µm,1.5s,mb6.4						
PMAFR				eS	S	10 18 57.4	-1.2
XAL	Allendale	24.59	326⇑	eP	P	10 14 38.9	-1.3
XAL	Allendale	24.59	326⇑	eP	P	10 14 38.9	-1.3
STAV	Stavanger	24.74	340	eP	P	10 14 41.0	-0.4
STAV	Stavanger	24.74	340	eP	P	10 14 41.0	-0.5
	SNR=32						
BLS5	Blasjo	24.96	341	eP	P	10 14 44.0	+0.5
BLS5	Blasjo	24.96	341	eP	P	10 14 44.0	+0.6
	SNR=32						
XSO	Sourhope Farm	25.01	327⇑	eP	P	10 14 43.2	-0.7
XSO	Sourhope Farm	25.01	327⇑	eP	P	10 14 43.2	-0.7
FINES	FINESS Array B	25.10	5	P	P	10 14 43.0	-1.7
FINES	FINESS Array B	25.10	5	P	P	10 14 43.0	-1.7
ECK	Cauldkaine Hil	25.20	326⇑	eP	P	10 14 44.6	-1.1
ECK	Cauldkaine Hil	25.20	326⇑	eP	P	10 14 44.7	-1.0
EKA	Eskdalemuir Ar	25.31	326	P	P	10 14 46.2	-0.5
EKA				pmax	pmax		
	comp=Z,471nm,1.2s						
EKA	Eskdalemuir Ar	25.31	326	P	P	10 14 46.1	-0.6
	comp=Z,471nm,1.2s,mb5.9,baz=128,slow=8.7,SNR=100						
EKA	Eskdalemuir Ar	25.31	326	P	P	10 14 46.2	-0.5
ESK	Eskdalemuir	25.32	326⇑	eP	P	10 14 46.2	-0.6
ESK				AMb	AMB	10 14 57.8	
	comp=Z,477nm,1.1s,mb5.9						
ESK				e		10 19 39.9	
ESK				AMS	AMS	10 27 25.1	
	comp=Z,146µm,21.3s,MS6.5						
ESK	Eskdalemuir	25.32	326	i P	P	10 14 46.7	-0.1
ESK	Eskdalemuir	25.32	326	eP	P	10 14 46.3	-0.5
	comp=Z,587nm,0.9s,mb6.1						
ESK				LR	LR		
	comp=Z,162µm,21.0s,MS6.5						
ESK	Eskdalemuir	25.32	326⇑	eP	P	10 14 46.2	-0.6
	comp=Z,477nm,1.1s,mb5.9						
ODD1	Odda	25.34	342	eP	P	10 14 45.3	-1.6
ODD1				AMb	AMB	10 15 08.2	
	comp=Z,650nm,3.3s						
ODD1	Odda	25.34	342	eP	P	10 14 45.3	-1.6
	comp=Z,650nm,3.3s,SNR=32						
GCD	Castle Douglas	25.39	324⇑	eP	P	10 14 46.9	-0.6
GCD	Castle Douglas	25.39	324⇑	eP	P	10 14 46.9	-0.5
NB2	NORSAR Subarra	25.43	348	P	P	10 14 46.6	-1.1
	comp=Z,2µm,1.7s,mb6.3,baz=160,slow=9.3						
NB2	NORSAR Subarra	25.43	348	P	P	10 14 46.6	-1.1
	SNR=32						
NOA	NORSAR Array B	25.43	348	P	P	10 14 46.6	-1.1
NOA				pmax	pmax		
	comp=Z,338nm,0.9s						
NOA				MLR	MLR		
	comp=Z,69µm,21.9s						
NOA	NORSAR Array B	25.43	348	P	P	10 14 46.6	-1.1
	comp=Z,338nm,0.9s,mb5.9,baz=159,slow=9.5,SNR=147						
NOA				LR	LR	10 25 50.1	
	comp=Z,69µm,21.9s,MS6.1,baz=165,slow=39						
NOA	NORSAR Array B	25.43	348	P	P	10 14 46.6	-1.1
ESY	Stoneypath	25.44	327⇑	eP	P	10 14 47.2	-0.6
ESY	Stoneypath	25.44	327⇑	eP	P	10 14 47.2	-0.6
EBL	Broad Law	25.53	327⇑	iP	P	10 14 48.1	-0.6
EBL	Broad Law	25.53	327⇑	iP	P	10 14 48.1	-0.6
CIA	Chichaoua	25.64	268	i P	P	10 14 51.0	+1.1
EDI	Edinburgh	25.69	327⇑	eP	P	10 14 49.8	-0.4
EDI				AMb	AMB	10 14 59.6	
	comp=Z,1µm,0.9s,mb6.4						
EDI				e		10 19 41.4	
EDI				AMS	AMS	10 27 35.0	
	comp=Z,186µm,20.4s,MS6.6						
EDI	Edinburgh	25.69	327⇑	eP	P	10 14 49.8	-0.3
	comp=Z,1µm,0.9s,mb6.4						
DSB	Dublin	25.73	319⇑	eP	P	10 14 50.1	-0.4
DSB	Dublin	25.73	319	eP	P	10 14 50.4	-0.2
	comp=Z,568nm,1.1s,mb6.0						
DSB	Dublin	25.73	319	eP	P	10 14 50.4	-0.1
	comp=Z,568nm,1.1s,mb6.0						
EAU	Auchinoon	25.76	327⇑	eP	P	10 14 50.3	-0.5
EAU	Auchinoon	25.76	327⇑	eP	P	10 14 50.3	-0.4
GAL1	Galloway	25.76	324⇑	eP	P	10 14 49.2	-1.5
GAL1				AMb	AMB	10 15 03.5	
	comp=Z,415nm,1.2s,mb5.8						
GAL1				AMS	AMS	10 27 50.3	
	comp=Z,63µm,21.1s,MS6.1						
GAL1	Galloway	25.76	324⇑	eP	P	10 14 49.2	-1.5
	comp=Z,415nm,1.2s,mb5.8						
KAF	Kangasniemi	25.78	5	eP	P	10 14 49.9	-1.0
KAF				pmax	pmax		
	comp=Z,664nm,0.8s,mb6.2						
KAF	Kangasniemi	25.78	5	ep	P	10 14 49.9	-1.0
	comp=Z,664nm,0.8s,mb6.2						
KAF	Kangasniemi	25.78	5	eP	P	10 14 49.9	-1.0
	comp=Z,664nm,0.8s,mb6.2						
DLF	Lyons Farm	25.84	319	eP	P	10 14 50.7	-0.8
EGD	Espegrend	26.01	341	eP	P	10 14 53.2	+0.2
GMM	Mts of Mourne	26.02	322⇑	eP	P	10 14 53.1	0.0
GMM	Mts of Mourne	26.02	322⇑	eP	P	10 14 53.1	0.0
EBH	Black Hill	26.03	327⇑	eP	P	10 14 52.7	-0.6
EBH	Black Hill	26.03	327⇑	eP	P	10 14 52.7	-0.5
BER	Bergen	26.08	341	eP	P	10 14 52.3	-1.3
BER				eP		10 14 52.7	
BER				AMB	AMB	10 15 22.2	
	comp=Z,47nm,2.1s						
BER				eS	S	10 19 23.8	+1.3
BER				eScP	ScP	10 21 55.8	-2.0
BER				AMS	AMS	10 26 56.8	
	comp=Z,123µm,22.3s						
BER	Bergen	26.08	341	eP	P	10 14 52.3	-1.3
	SNR=32						
BER				eS	S	10 19 23.8	+1.3
	SNR=32						
BER				eScP	ScP	10 21 55.8	-2.0
	SNR=6.0						
ASK	Askoy	26.20	341	eP	P	10 14 52.7	-1.9
PGBU	Glenifferbraes	26.20	326⇑	eP	P	10 14 54.4	-0.4
PGBU				AMb	AMB	10 15 05.6	
	comp=Z,252nm,1.4s,mb5.5						
PGBU				AMS	AMS	10 27 51.2	
	comp=Z,146µm,21.0s,MS6.5						
DCN	Croghan	26.25	319	eP	P	10 14 53.7	-1.6
EAB	Aberfoyle	26.36	326⇑	iP	P	10 14 55.9	-0.3
EAB	Aberfoyle	26.36	326⇑	iP	P	10 14 55.9	-0.3
MME1	Meikle Cairn	26.49	330⇑	eP	P	10 14 56.0	-1.4
MME1	Meikle Cairn	26.49	330⇑	eP	P	10 14 56.0	-1.4
HYA	Hoyanger	26.55	343	eP	P	10 14 57.6	-0.3
HYA	Hoyanger	26.55	343	eP	P	10 14 57.6	-0.2
	SNR=32						
DOMB	Dombas	26.74	347	eP	P	10 14 59.4	-0.2
DOMB	Dombas	26.74	347	eP	P	10 14 59.4	-0.1
	SNR=32						
MCD	Coleburn Disti	26.79	330⇑	eP	P	10 14 58.9	-1.1
MCD	Coleburn Disti	26.79	330⇑	eP	P	10 14 58.9	-1.1
KLMR	Klimovskoe	26.87	19⇑	iP	P	10 14 58.5	-2.2
KLMR				eS	S	10 19 36.6	+1.5
KLMR				pmax	pmax		
	comp=Z,2µm,1.1s,mb6.5						
JOF	Joensuu	27.09	10	eP	P	10 15 01.3	-1.4
JOF				pmax	pmax		
	comp=Z,365nm,0.7s,mb6.0						
JOF	Joensuu	27.09	10	ep	P	10 15 01.3	-1.4
	comp=Z,365nm,0.7s,mb6.0						
JOF	Joensuu	27.09	10	eP	P	10 15 01.3	-1.4
MDO	Dochfour	27.15	329⇑	eP	P	10 15 01.8	-1.5
MDO	Dochfour	27.15	329⇑	eP	P	10 15 01.8	-1.5
FOO	Floro	27.20	343	eP	P	10 15 01.9	-1.7
FOO				eS	S	10 19 42.5	+2.4
FOO				AMS	AMS	10 27 32.3	
	comp=Z,99µm,24.3s,MS6.3						
FOO	Floro	27.20	343	eP	P	10 15 01.9	-1.8
	SNR=32						
VAL	Valentia	27.30	314	eP	P	10 15 09.8	+5.1
MLA1	Latheron	27.31	331⇑	eP	P	10 15 03.5	-1.2
MLA1	Latheron	27.31	331⇑	eP	P	10 15 03.5	-1.2
MVH1	Achvaich	27.39	330⇑	eP	P	10 15 03.5	-1.9
MVH1	Achvaich	27.39	330⇑	eP	P	10 15 03.5	-1.9
KAR1	Arisaig	27.46	327⇑	eP	P	10 15 05.3	-0.7
KAR1	Arisaig	27.46	327⇑	eP	P	10 15 05.3	-0.8
MOL	Molde	27.51	346	eP	P	10 14 59.3	-7.2
MOL				eS	S	10 19 47.4	+2.3
MOL				AMS	AMS	10 27 57.0	
	comp=Z,53µm,20.9s,MS6.1						
KAC	Achnashellach	27.58	328⇑	eP	P	10 15 05.5	-1.7
KAC	Achnashellach	27.58	328⇑	eP	P	10 15 05.5	-1.7
KPL	Plockton	27.64	328⇑	eP	P	10 15 06.8	-0.9
KPL				AMb	AMB	10 15 17.4	
	comp=Z,458nm,1.0s,mb6.0						
KPL				e		10 19 48.3	
KPL				AMS	AMS	10 28 54.4	
	comp=Z,200µm,20.0s,MS6.7						
KPL	Plockton	27.64	328⇑	eP	P	10 15 06.8	-0.8
	comp=Z,458nm,1.0s,mb6.0						
LRW	Lerwick	27.81	335⇑	eP	P	10 15 08.4	-0.8
LRW				AMb	AMB	10 15 17.0	
	comp=Z,493nm,0.9s,mb6.1						
LRW				AMS	AMS	10 29 08.2	
	comp=Z,72µm,20.7s,MS6.2						
LRW	Lerwick	27.81	335⇑	eP	P	10 15 08.4	-0.8
	comp=Z,493nm,0.9s,mb6.1						
WAL1	Walls	28.05	335⇑	eP	P	10 15 09.5	-1.8
WAL1	Walls	28.05	335⇑	eP	P	10 15 09.5	-1.8
KSK	Scoval	28.17	327⇑	eP	P	10 15 12.3	-0.1
KSK	Scoval	28.17	327⇑	eP	P	10 15 12.3	-0.1
NSS	Namsos	28.65	351	eP	P	10 15 16.9	+0.3
NSS				eS	S	10 20 05.8	+2.9
NSS				AMS	AMS	10 28 18.1	
	comp=Z,192µm,25.0s,MS6.6						
NSS	Namsos	28.65	351	eP	P	10 15 16.9	+0.3
	SNR=31						
ABKT	Ailbek	28.95	76	P	P	10 15 18.9	-0.6
	comp=Z,4µm,0.7s,mb7.3						
ASH	Ashkhabad	29.12	76⇑	iP	P	10 15 20.0	-1.1
PRGR	Permogore	29.29	23⇑	iP	P	10 15 20.4	-1.9
PRGR				e*PP	pP	10 15 29.9	-1.6
PRGR				e*SP	sP	10 15 34.1	-1.2
PRGR				e		10 16 11.7	
PRGR				eS	S	10 20 08.6	-4.6
PRGR				pmax	pmax		
	comp=Z,277nm,0.6s,mb6.2						
ZUQR	Zugar Island	29.31	135	eP	P	10 15 24.5	+1.6
ZUQR	Zugar Island	29.31	135	eP	P	10 15 24.5	+1.6
TORD	Torodi Ar. Bea	29.37	223	P	P	10 15 22.7	-0.8
	comp=Z,143nm,0.7s,mb5.8,baz=31,slow=7.7,SNR=284						
TORD				S	S	10 20 09.9	-5.3
	comp=Z,13nm,1.0s,baz=324,slow=28,SNR=2.2						
TORD				LR	LR	10 28 07.8	
	comp=Z,168µm,21.0s,MS6.6,baz=30,slow=38						
AKTK	Aktyubinsk	29.49	50	P	P	10 15 22.3	-1.9
AKTK				S	S	10 20 15.4	-1.0
AKTK				LR	LR	10 30 12.9	
AKTK	Aktyubinsk	29.49	50	P	P	10 15 22.3	-1.9
	comp=Z,282nm,0.8s,mb6.0						
AKTK				S	S	10 20 15.4	-1.1
AKTO	Aktyubinsk	29.49	50	P	P	10 15 22.3	-1.9
AKTO				S	S	10 20 15.5	-1.0
AKTO				pmax	pmax		
	comp=Z,282nm,0.8s,mb6.0						
AKTO				smax			
	comp=N,55nm,0.9s						
AKTO				MLR	MLR		
	comp=Z,187µm,21.3s,MS6.7						
AKTO	Aktyubinsk	29.49	50	P	P	10 15 22.3	-1.9
	comp=Z,282nm,0.8s,mb6.0,baz=256,slow=9.5,SNR=183						
AKTO				S	S	10 20 15.4	-1.0
	comp=Z,55nm,0.9s,baz=341,slow=9.5,SNR=2.5						
AKTO				LR	LR	10 30 13.0	
	comp=Z,187µm,21.3s,MS6.7,baz=260,slow=43						
HNSH	Hunish Island	29.53	135	eP	P	10 15 26.5	+1.6
DHBB	Dhamar BB	29.82	131⇑	eP	P	10 15 29.4	+1.9
DHBB				i S	S	10 20 25.4	+3.2
DHBB	Dhamar BB	29.82	131⇑	eP	P	10 15 29.4	+2.0
MOR8	Moi Rana	30.00	354	eP	P	10 15 28.6	+0.1
MOR8	Moi Rana	30.00	354	eP	P	10 15 28.6	+0.1
	SNR=31						
DESE	Dese	30.05	143	eP	P	10 15 32.1	+2.6
DESE				S	S	10 20 28.2	+2.4
STOK	Stokkvaagen	30.28	353	eP	P	10 15 30.9	-0.1
STOK				AMS	AMS	10 29 08.9	
	comp=Z,194µm,19.5s,MS6.8						
KONS	Konsvik	30.43	353	eP	P	10 15 32.1	-0.3
AB31	Akbulak array	30.46	53	P	P	10 15 30.9	-1.9
AB31				pmax	pmax		
	comp=Z,254nm,0.8s,mb6.0						
TRBA	At Turbah	30.71	133	eP	P	10 15 37.2	+1.9
BDHA	Al Bayda’	31.00	130	eP	P	10 15 39.5	+1.7
BDHA	Al Bayda’	31.00	130	eP	P	10 15 39.5	+1.6
SOFL	Sornfelli, Far	31.17	334	eP	P	10 15 39.5	+0.6
SOFL	Sornfelli, Far	31.17	334	eP	P	10 15 39.5	+0.6
NAZ	Nazwa, Dubai	31.24	102	⇑P	P	10 15 38.9	-1.0
	SNR=133						
NAZ	Nazwa, Dubai	31.24	102	P	P	10 15 39.0	-0.9
	SNR=213						
PMPS	Porto Santo	31.27	275	eP	P	10 15 41.1	+1.0
	comp=Z,1µm,1.4s,mb6.5						
PMPS				eS	S	10 20 46.2	+1.5
PMPS	Porto Santo	31.27	275	eP	P	10 15 41.1	+1.0
	comp=Z,1µm,1.4s,mb6.5						
PMPS				eS	S	10 20 46.2	+1.5
BANOM	Banah	31.29	100	P	P	10 15 39.4	-1.0
	SNR=92						
BANOM	Banah	31.29	100	P	P	10 15 39.1	-1.3
	SNR=124						
FAQ	Al Faqa, Dubai	31.30	102	P	P	10 15 39.4	-1.1
	SNR=113						
FAQ	Al Faqa, Dubai	31.30	102	P	P	10 15 39.4	-1.1
	SNR=113						
FURI	Furi	31.54	146	eP	P	10 15 45.9	+3.2
FURI				S	S	10 20 51.4	+2.1
STEI	Steigen	31.67	355	eP	P	10 15 42.6	-0.7
HATD	Hatta, Dubai	31.69	102	P	P	10 15 42.8	-1.1
	SNR=137						
HATD	Hatta, Dubai	31.69	102	P	P	10 15 42.8	-1.1
	SNR=137						
ARU	Arti	31.73	39	P	P	10 15 42.9	-1.0
	comp=Z,8µm,1.0s,mb7.5						
ARU	Arti	31.73	39	eP	P	10 15 42.0	-1.9
ARU				e		10 16 45.0	
ARU				eS	S	10 20 47.8	-3.6
ARU				pmax	pmax		
	comp=Z,23µm,24.6s						
ARU				MLR	MLR		
	comp=Z,200µm,20.0s,MS6.8						
ARU	Arti	31.73	39	eP	P	10 15 41.6	-2.2
	comp=Z,1µm,0.9s,mb6.8						
ARU				LR	LR		
	comp=Z,187µm,20.0s,MS6.8						
ARU	Arti	31.73	39	eP	P	10 15 41.7	-2.2
	comp=Z,1µm,0.9s,mb6.8						
APA	Apatity	31.81	9⇓	iP	P	10 15 43.7	-0.8
APA				e		10 16 01.0	
APA				i S	S	10 20 50.0	-2.4
APA				i		10 21 03.0	
APA				MLR	MLR		
	comp=Z,315µm,19.0s,MS7.0						
PMAR	Madeira	31.83	275	eP	P	10 15 46.9	+1.8
	comp=Z,1µm,1.3s,mb6.7						
PMAR				eS	S	10 20 56.4	+2.8
PMAR	Madeira	31.83	275	eP	P	10 15 46.9	+1.8
	comp=Z,1µm,1.3s,mb6.7						
PMAR				eS	S	10 20 56.4	+2.8
FUL	Funchal	31.85	275	eP	P	10 15 49.3	+4.0
FUL				eS	S	10 20 57.3	+3.5
FUL	Funchal	31.85	275	eP	P	10 15 49.3	+4.0
FUL				eS	S	10 20 57.3	+3.5
LOF	Lofoten	31.99	354	eP	P	10 15 47.0	+1.0
LOF	Lofoten	31.99	354	eP	P	10 15 47.0	+0.9
	SNR=31						
LVZ	Lovozero	32.28	9	P	P	10 15 48.3	-0.3
	comp=Z,1µm,0.8s,mb6.8,SNR=7.2						
LVZ	Lovozero	32.28	9⇑	eP	P	10 15 47.5	-1.1
LVZ				MLR	MLR		
	comp=Z,325µm,19.0s,MS7.0						
LVZ	Lovozero	32.28	9⇑	eP	P	10 15 47.6	-1.0
LVZ				LR	LR		
	comp=Z,324µm,19.0s,MS7.0						
LVZ	Lovozero	32.28	9⇑	eP	P	10 15 47.6	-1.0
SOKR	Solikamsk	32.29	33c	iP	P	10 15 47.4	-1.4
SOKR				pmax	pmax		
	comp=Z,1µm,0.9s,mb6.8						
SOKR				MLR	MLR		
	comp=Z,149µm,20.0s,MS6.7						
SOKR	Solikamsk	32.29	33	i P	P	10 15 47.4	-1.4
	comp=Z,49µm,20.0s						
KTK1	Kautokeino	32.56	1	eP	P	10 15 51.6	+0.5
KTK1				eS	S	10 21 04.2	0.0
KTK1	Kautokeino	32.56	1	eP	P	10 15 51.6	+0.6
	SNR=31						
KTK1				eS	S	10 21 04.2	+0.1
	SNR=32						
ARQ	Araqi	32.75	104	P	P	10 15 52.3	-0.9
	SNR=249						
ARQ	Araqi	32.75	104	P	P	10 15 52.3	-0.9
	SNR=249						
MUKL	Al Mukalla	32.84	125	eP	P	10 15 55.2	+1.2
MUKL				AMb	AMB	10 15 58.2	
	comp=Z,2µm,2.5s,mb6.6						
SVE	Sverdlovsk	32.94	39⇓	eP	P	10 15 52.9	-1.6
SVE				pmax	pmax		
	comp=Z,2µm,0.9s,mb7.0						
SVE				pmax	pmax		
	comp=Z,17µm,20.9s						
SVE				MLR	MLR		
	comp=Z,160µm,19.0s,MS6.8						
SVE	Sverdlovsk	32.94	39	eP	P	10 15 52.9	-1.6
	comp=Z,60µm,19.0s						
ARCES	ARCESS Array B	33.14	2	P	P	10 15 55.1	-1.0
ARCES				pmax	pmax		
	comp=Z,81nm,0.6s						

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ARCES                                MLR      MLR
       comp=Z,222µm,21.5s
ARCES  ARCESS Array B     33.14   2  P        P        10 15 55.1  -1.0
       comp=Z,81nm,0.6s,mb5.8,baz=187,slow=7.8,SNR=121
ARCES                                LR       LR       10 30 43.9
       comp=Z,222µm,21.5s,MS6.8,baz=182,slow=39
ARCES  ARCESS Array B     33.14   2  P        P        10 15 55.1  -1.0
       comp=Z,22µm,21.5s
TRO    Tromso             33.21 358 eP        P        10 15 55.9  -0.8
TRO                                  AMS      AMS      10 31 02.2
       comp=Z,210µm,22.1s,MS6.8
TRO    Tromso             33.21 358 eP        P        10 15 55.9  -0.8
       SNR=31
HOQ    Hoqain             33.24 103 ⇓P        P        10 15 56.4  -1.1
       SNR=233
HOQ    Hoqain             33.24 103  P        P        10 15 56.4  -1.1
       SNR=233
KEV    Kevo               33.42   3  P        P        10 15 58.1  -0.5
KEV                                  pmax     pmax
       comp=Z,320nm,0.9s,mb6.2
KEV    Kevo               33.42   3 ep        P        10 15 57.2  -1.4
       comp=Z,314nm,0.8s,mb6.3
KEV    Kevo               33.42   3  P        P        10 15 58.1  -0.5
       comp=Z,320nm,0.9s,mb6.2
BSY    Bisya              33.59 104  P        P        10 15 59.4  -1.2
       SNR=170
BSYO   Bisya              33.63 104  P        P        10 15 59.4  -1.5
       SNR=170
WHFO   Wadi Hawf          33.81 115  P        P        10 16 01.9  -0.6
       SNR=40
WHFO   Wadi Hawf          33.81 115  P        P        10 16 01.9  -0.6
       SNR=40
ABTO   Aybut              33.82 116  P        P        10 16 02.1  -0.5
       SNR=71
ABTO   Aybut              33.82 116  P        P        10 16 02.1  -0.5
       SNR=71
BIDO   Bidbid             33.92 102 ⇓P        P        10 16 02.1  -1.3
       SNR=31
BIDO   Bidbid             33.92 102  P        P        10 16 02.1  -1.3
       SNR=31
SMDO   Samad              34.09 103 ⇓P        P        10 16 03.7  -1.2
       SNR=259
SMDO   Samad              34.09 103  P        P        10 16 03.7  -1.2
       SNR=259
RBK    Rabkut             34.39 115  P        P        10 16 06.9  -0.6
       SNR=78
RBK    Rabkut             34.39 115  P        P        10 16 06.9  -0.6
       SNR=78
JMDO   Jabal Madar        34.50 104 ⇓P        P        10 16 07.2  -1.2
       SNR=160
JMDO   Jabal Madar        34.50 104  P        P        10 16 07.2  -1.3
       SNR=160
WBK    Wadi Bani Khal     35.05 103 ⇓P        P        10 16 12.3  -0.9
       SNR=164
PSMA   Santa Maria        37.20 285 eP        P        10 16 33.5  +2.0
       comp=Z,265nm,1.5s,mb5.8
CMLA   Cha da Macela      37.33 286 eP        P        10 16 32.4  -0.2
       comp=Z,358nm,1.3s,mb6.0
CMLA   Cha da Macela      37.33 286 eP        P        10 16 33.0  +0.4
CMLA                                e         pP       10 16 43.2  +1.4
CMLA                                 LR       LR
       comp=Z,19µm,19.0s,MS5.9
CMLA   Cha da Macela      37.33 286 eP        P        10 16 33.0  +0.4
PDA    Ponta Delgada      37.44 287 eP        P        10 16 32.0  -1.5
PDA    Ponta Delgada      37.44 287 eP        P        10 16 32.0  -1.5
BRVK   Borovoye           37.45  48 eP        P        10 16 31.8  -1.6
       comp=Z,405nm,0.7s,mb6.4
BRVK                                 LR       LR
       comp=Z,63µm,22.0s,MS6.4
BRVK   Borovoye           37.45  48 ⇓P        P        10 16 32.3  -1.1
       SNR=201
BRVK                                ⇓P                 10 16 32.3
       SNR=201
BRVK   Borovoye           37.45  48  P        P        10 16 32.3  -1.1
       SNR=201
PSET   Sete Cidades       37.47 287 eP        P        10 16 38.4  +4.7
       comp=Z,31nm,0.7s,mb5.2
PSET   Sete Cidades       37.47 287 eP        P        10 16 38.4  +4.7
       comp=Z,31nm,0.7s,mb5.2
BVA0   Borovoye Array     37.51  48 i P       P        10 16 32.3  -1.6
BVA0                                 pmax     pmax
       comp=Z,61nm,0.8s,mb5.4
BVAR   Borovoye Array     37.51  48  LR       LR       10 34 25.7
       comp=Z,45µm,21.7s,MS6.2,baz=255,slow=40
KK31   Karatay Array      37.65  65 i P       P        10 16 33.8  -1.4
KK31   Karatay Array      37.65  65 i P       P        10 16 33.8  -1.4
VOSK   Vostochnaya        37.84  49  P        P        10 16 34.8  -1.9
VOSK                                 pmax     pmax
       comp=Z,537nm,1.2s,mb6.2
MBAR   Mbarara            37.88 165 eP        P        10 16 37.0  -0.4
MBAR                                 AMb      AMB      10 18 31.7
       comp=Z,364nm,1.6s,mb5.9
JMIC   Jan Mayen          38.00 344 eP        P        10 16 38.3  +0.4
JMIC                                 AMS      AMS      10 33 25.6
       comp=Z,29µm,17.2s,MS6.2
JMIC   Jan Mayen          38.00 344  P        P        10 16 36.0  -1.8
       comp=Z,66nm,0.5s,mb5.6,baz=137,slow=4.0,SNR=5.9
JMIC   Jan Mayen          38.00 344  P        P        10 16 36.0  -1.8
JNW    Jan Mayen West     38.02 345 e         P        10 16 40.0  +2.1
BJO    Bjornoya           38.09 359 eP        P        10 16 40.7  +2.1
BJO                                  AMS      AMS      10 33 53.4
       comp=Z,101µm,17.3s,MS6.7
BJO    Bjornoya           38.09 359 eP        P        10 16 40.7  +2.2
       SNR=29
KBL    Kabul              38.30  79  P        P        10 16 40.1  -0.7
KBL                                  pmax     pmax
       comp=Z,540nm,1.0s,mb6.2
KBL    Kabul              38.30  79⇑iP        P        10 16 40.1  -0.7
       comp=Z,544nm,1.0s,mb6.2
KBL                                 eS        S        10 22 34.8  +1.8
KBL    Kabul              38.30  79⇑iP        P        10 16 40.1  -0.7
       comp=Z,544nm,1.0s,mb6.2
KBL                                 eS        S        10 22 34.8  +1.8
DBIC   Dimbokro           38.34 226⇓iP        P        10 16 40.4  -0.9
DBIC                                 pmax     pmax
       comp=Z,569nm,1.0s
DBIC                                 MLR      MLR
       comp=Z,95µm,21.0s
DBIC   Dimbokro           38.34 226  P        P        10 16 40.6  -0.7
       comp=Z,410nm,1.0s,mb6.1,baz=16,slow=10.0,SNR=184
DBIC                                 S        S        10 22 27.1  -6.7
       comp=Z,23nm,0.9s,baz=165,slow=17,SNR=4.2
DBIC                                 LR       LR       10 33 08.5
       comp=Z,90µm,21.4s,MS6.5,baz=13,slow=37
DBIC   Dimbokro           38.34 226⇓iP        P        10 16 40.4  -0.9
       comp=Z,570nm,1.0s,mb6.3
DBIC                                 LR       LR
       comp=Z,95µm,21.0s,MS6.6
DBIC   Dimbokro           38.34 226⇓iP        P        10 16 40.5  -0.8
DBIC   Dimbokro           38.34 226⇓iP        P        10 16 40.4  -0.9
       comp=Z,570nm,1.0s,mb6.3
TIC    Toumodi            38.46 226 eP        P        10 16 40.4  -1.8
       comp=Z,3µm,1.1s,mb6.9
KIC    Kosan Boka         38.53 225 eP        P        10 16 41.0  -1.8
       comp=Z,2µm,1.0s,mb6.9
LIC    Lamto              38.80 225⇓iP        P        10 16 44.5  -0.6
       comp=Z,2µm,1.1s,mb6.5,baz=42
LIC                                 eMLR      MLR
       comp=Z,163µm,22.8s,MS6.5
LIC    Lamto              38.80 225 eP        P        10 16 43.2  -1.9
       comp=Z,3µm,1.1s,mb6.9
LIC    Lamto              38.80 225⇓iP        P        10 16 44.5  -0.6
       comp=Z,1µm,1.1s,mb6.5
LIC                                  LR       LR
       comp=Z,82µm,22.8s,MS6.5
LIC    Lamto              38.80 225⇓iP        P        10 16 44.5  -0.6
       comp=Z,1µm,1.1s,mb6.5
PMAN   Manadas            39.11 289 eP        P        10 16 50.9  +3.4
       comp=Z,269nm,1.0s,mb5.9
PMAN   Manadas            39.11 289 eP        P        10 16 50.9  +3.4
       comp=Z,269nm,1.0s,mb5.9
EKS2   Erkin-Say          40.09  65  P        P        10 16 54.9  -0.7
       SNR=1111
EKS2   Erkin-Say          40.09  65 eP        P        10 16 55.0  -0.6
       comp=Z,155nm,1.0s,mb5.7
EKS2                                 LR       LR
       comp=Z,89µm,20.0s,MS6.6
EKS2   Erkin-Say          40.09  65 eP        P        10 16 55.0  -0.7
       comp=Z,155nm,1.0s,mb5.7
AML    Almayashu          40.12  66  P        P        10 16 56.4  +0.5
       SNR=30
AML    Almayashu          40.12  66 eP        P        10 16 54.9  -0.9
       comp=Z,266nm,0.7s,mb6.1
AML                                  LR       LR
       comp=Z,140µm,20.0s,MS6.8
AML    Almayashu          40.12  66  P        P        10 16 54.9  -1.0
       SNR=494
KMBO   Kilima Mbogo       40.16 155  P        P        10 16 57.1  +0.7
KMBO                                 S        S        10 23 05.7  +4.6
KMBO                                 pmax     pmax
       comp=Z,63nm,1.2s
KMBO                                 smax
       comp=N,2.0nm,0.6s
KMBO                                 MLR      MLR
       comp=Z,128µm,18.8s
KMBO   Kilima Mbogo       40.16 155  P        P        10 16 57.1  +0.7
       comp=Z,63nm,1.2s,mb5.2,baz=345,slow=7.2,SNR=40
KMBO                                 S        S        10 23 05.7  +4.6
       comp=Z,2.2nm,0.6s,baz=15,slow=11,SNR=3.2
KMBO                                 LR       LR       10 36 12.7
       comp=Z,128µm,18.8s,MS6.8,baz=97,slow=40
KMBO   Kilima Mbogo       40.16 155  P        P        10 16 57.1  +0.7
USP    Ospenovka          40.52  64  P        P        10 16 57.4  -1.8
       SNR=430
AAK    Ala-Archa          40.62  65 eP        P        10 16 59.0  -1.0
AAK                                 eS        S        10 23 15.0  +7.4
AAK                                  pmax     pmax
       comp=Z,1µm,0.9s,mb6.5
AAK                                  MLR      MLR
       comp=Z,92µm,22.0s,MS6.6
AAK    Ala-Archa          40.62  65  P        P        10 16 59.3  -0.8
       SNR=484
AAK    Ala-Archa          40.62  65 eP        P        10 16 59.0  -1.0
       comp=Z,1µm,0.9s,mb6.5
AAK                                 eS        S        10 23 15.0  +7.4
AAK                                  LR       LR
       comp=Z,92µm,22.0s,MS6.6
AAK    Ala-Archa          40.62  65 eP        P        10 16 59.0  -1.0
       comp=Z,1µm,0.9s,mb6.5
FRU    Bishkek            40.67  64αiP        P        10 16 59.0  -1.5
FRU                                 eS        S        10 23 04.0  -4.4
FRU                                 eSS       SS       10 26 07.0  -2.2
FRU                                  smax
       comp=N,18µm,9.0s
HSP    Hornsund           40.68 358 eP        P        10 17 00.7  +0.6
UCH    Uchtor             40.70  65  P        P        10 17 00.8  +0.1
       SNR=30
UCH    Uchtor             40.70  65 eP        P        10 17 00.1  -0.6
       comp=N,427nm,0.8s,mb6.1
UCH                                  LR       LR
       comp=Z,115µm,20.0s,MS6.7
UCH    Uchtor             40.70  65 eP        P        10 17 00.1  -0.6
       comp=Z,427nm,0.8s,mb6.1
CHMS   Chumysh            40.75  64  P        P        10 16 59.8  -1.3
       SNR=564
KBK    Karagaybulak       40.95  64  P        P        10 17 02.2  -0.5
       SNR=264
SCO    Scoresbysund       41.06 339⇑iP        P        10 17 04.9  +1.6
SCO                                 i S       S        10 23 16.4  +2.9
SCO                                  pmax     pmax
       comp=Z,320nm,0.9s,mb6.0
SCO    Scoresbysund       41.06 339⇑iP        P        10 17 04.9  +1.6
       comp=Z,325nm,0.9s,mb6.0
SCO                                 i S       S        10 23 16.4  +2.9
SCO    Scoresbysund       41.06 339⇑iP        P        10 17 04.9  +1.6
       comp=Z,325nm,0.9s,mb6.0
KZA    Kyzart             41.27  65  P        P        10 17 05.6  +0.2
       SNR=30
TKM2   Tokmak 2           41.37  64 eP        P        10 17 05.0  -1.2
       comp=Z,531nm,0.9s,mb6.2
TKM2                                 LR       LR
       comp=Z,53µm,19.0s,MS6.4
TKM2   Tokmak 2           41.37  64 eP        P        10 17 05.0  -1.2
       comp=Z,531nm,0.9s,mb6.2
SPITS  Spitsbergen Ar     41.83 358  P        P        10 17 10.0  +0.5
SPITS                                pmax     pmax
       comp=Z,50nm,0.5s
SPITS                                MLR      MLR
       comp=Z,194µm,21.0s
SPITS  Spitsbergen Ar     41.83 358  P        P        10 17 10.0  +0.4
       comp=Z,50nm,0.5s,mb5.4,baz=305,slow=10,SNR=150
SPITS                                LR       LR       10 36 31.3
       comp=Z,194µm,21.0s,MS7.0,baz=290,slow=39
SPITS  Spitsbergen Ar     41.83 358  P        P        10 17 09.9  +0.4
SPB4   Spitsbergen Ar     41.83 358 eP        P        10 17 09.8  +0.3
SPB4   Spitsbergen Ar     41.83 358 eP        P        10 17 09.8  +0.3
ULHL   Ulahol             41.96  65  P        P        10 17 10.8  -0.2
       SNR=77
AAA    Alma-Ata           42.28  63 i P       P        10 17 13.5  -0.1
AAA                                 i S       S        10 23 30.3  -1.9
AAA                                  pmax     pmax
       comp=Z,13µm,4.0s
AAA                                  MLR      MLR
       comp=Z,85µm,21.0s,MS6.6
KSH    Kashi              42.35  69  P        P        10 17 12.0  -2.2
KSH                                  pP       pP       10 17 21.9  -1.7
KSH                                  sP       sP       10 17 26.0  -1.3
KSH                                 ePP       PP       10 18 52.0  -0.5
KSH                                 ePcP      PcP      10 19 08.1  +0.8
KSH                                 eScP      ScP      10 22 55.0  -0.6
KSH                                 ePcS      PcS      10 22 58.8  -0.3
KSH                                 eS        S        10 23 27.1  -6.2
KSH                                 esS       sS       10 23 43.0  -5.6
KSH                                  ScS      ScS      10 27 10.1  -3.6
KSH                                  pmax     pmax
       comp=Z,110nm,0.7s,mb5.6
KSH                                  pmax     pmax
       comp=Z,18µm,3.5s
KSH                                  LR       LR
       comp=N,68µm,14.2s
KSH                                  LR       LR
       comp=E,77µm,19.4s
KSH                                  LR       LR
       comp=Z,61µm,14.9s,MS6.6
KURK   Kurchatov          42.55  52  LR       LR       10 39 15.8
       comp=Z,92µm,20.9s,MS6.7,baz=270,slow=42
KURK                                 PKPPKP            10 49 15.9
       comp=Z,1.5nm,0.8s,baz=43,slow=2.2,SNR=4.9
KURK   Kurchatov          42.55  52 eP        P        10 17 13.8  -1.9
       comp=Z,530nm,1.0s,mb6.2
KURK                                ePcP      PcP      10 19 09.9  +2.2
KURK                                 LR       LR
       comp=Z,115µm,20.0s,MS6.8
KURK   Kurchatov          42.55  52 ⇓P        P        10 17 14.2  -1.5
       SNR=139
KURK                                ⇓P                 10 17 14.2
       SNR=139
KURK   Kurchatov          42.55  52  P        P        10 17 14.2  -1.5
       SNR=139
KBS    Kingsbay           42.71 357c iP       P        10 17 17.1  +0.4
KBS                                  MLR      MLR
       comp=Z,80µm,22.0s,MS6.6
KBS    Kingsbay           42.71 357⇑iP        P        10 17 16.6   0.0
KBS                                 eS        S        10 23 36.3  -1.4
KBS                                 eSS       SS       10 26 50.7  +2.2
KBS                                  AMS      AMS      10 34 00.8
       comp=Z,69µm,28.5s,MS6.4
KBS    Kingsbay           42.71 357 eP        P        10 17 16.9  +0.2
       comp=Z,436nm,0.9s,mb6.2
KBS                                  LR       LR
       comp=Z,68µm,20.0s,MS6.5
KBS    Kingsbay           42.71 357 eP        P        10 17 16.9  +0.2
       comp=Z,436nm,0.9s,mb6.2
KBS                                 i S       S        10 23 38.3  +0.6
       SNR=26
KBS                                 eSS       SS       10 26 50.7  +2.3
       SNR=42
DAG    Danmarks Havn      44.11 348⇓iP        P        10 17 28.1  +0.1
DAG                                  pmax     pmax
       comp=Z,53nm,0.6s,mb5.5
DAG    Danmarks Havn      44.11 348⇓iP        P        10 17 28.1  +0.1
       comp=Z,53nm,0.6s,mb5.4
THN    Thein Dam          44.26  79 ePKP      P        10 17 27.2  -2.5
THN                                 ex        x        10 23 55.2
DLH    Dalhousie          44.42  79 ePKP      P        10 17 31.0   0.0
DLH                                 ex        x        10 22 18.0
NVS    Novosibirsk        45.16  46⇑iP        P        10 17 35.5  -1.1
NVS                                 e                  10 19 25.4
NVS                                 i S       S        10 24 09.9  -3.9
NVS                                 eSS       SS       10 27 30.1  -6.5
NVS                                  pmax     pmax
       comp=N,310nm,1.4s
NVS                                  pmax     pmax
       comp=Z,1µm,1.4s,mb6.6
NVS                                  pmax     pmax
       comp=E,576nm,1.2s
NVS                                  pmax     pmax
       comp=Z,2µm,2.6s,mb6.5
NVS                                  pmax     pmax
       comp=N,372nm,2.1s
NVS                                  pmax     pmax
       comp=E,720nm,2.3s
NVS                                  smax
       comp=N,1µm,2.1s
NVS                                  smax
       comp=E,765nm,2.4s
BHK    Bhakra             45.18  80 ePKP      P        10 17 35.0  -2.1
BHK                                 ex        x        10 19 33.6
MK31   Makanchi Array     45.41  57 eP        P        10 17 36.8  -1.9
MK31                                 pmax     pmax
       comp=Z,279nm,0.5s,mb6.3
MK31   Makanchi Array     45.41  57 i P       P        10 17 36.8  -1.9
MKAR   Makanchi Array     45.41  57  P        P        10 17 36.8  -1.9
       comp=Z,341nm,0.7s,mb6.3,baz=270,slow=7.5,SNR=1352
MKAR                                 LR       LR       10 41 06.5
       comp=Z,61µm,18.3s,MS6.6,baz=166,slow=42
MKAR                                 PKPPKP            10 49 11.5
       comp=Z,1.2nm,1.0s,baz=64,slow=3.4,SNR=4.1
SDNR   Sundarnagar        45.59  79 ePKP      P        10 17 39.1  -1.2
AJM    Ajmer              45.77  87⇑iP        P        10 17 41.1  -0.8
AJM                                  AMb      AMB      10 17 45.3
       comp=Z,792nm,0.9s,mb6.7
AJM                                 eS        S        10 24 22.8  -0.6
BHV    Bhavnagar          45.98  94 ePKP      P        10 17 42.5  -1.0
ZAA0   Zalesovo Array     46.13  47 eP        P        10 17 42.3  -2.0
ZAA0                                ePcP      PcP      10 19 22.6  +2.7
ZALV   Zalesovo Beam      46.13  47  P        P        10 17 42.3  -2.0
ZALV                                 S        S        10 24 23.5  -4.5
ZALV                                 pmax     pmax
       comp=Z,196nm,0.6s,mb6.2
ZALV                                 smax
       comp=N,23nm,0.9s
ZALV                                 MLR      MLR
       comp=Z,53µm,18.9s,MS6.5
ZALV   Zalesovo Beam      46.13  47  P        P        10 17 42.2  -2.1
       comp=Z,196nm,0.6s,mb6.2,baz=267,slow=9.0,SNR=307
ZALV                                 S        S        10 24 23.5  -4.5
       comp=Z,23nm,0.9s,baz=268,slow=4.5,SNR=2.6
ZALV                                 LR       LR       10 39 57.7
       comp=Z,53µm,18.9s,MS6.5,baz=266,slow=40
ZALV                                 PKP2bc            10 49 31.6
       comp=Z,0.3nm,0.3s,baz=243,slow=0.3,SNR=3.6
ZALV   Zalesovo Beam      46.13  47  P        P        10 17 42.2  -2.1
ZALV                                 S        S        10 24 23.5  -4.5
ZALV                                 LR       LR       10 39 57.7
ZALV                               ⇑e                  10 49 31.6
SUMG   Summit             46.70 339 eP        P        10 17 49.9  +1.4
       comp=Z,584nm,1.1s,mb6.4
SUMG   Summit             46.70 339⇑iP        P        10 17 49.9  +1.4
       comp=Z,372nm,1.0s,mb6.3,SNR=24
SUMG                                i S       S        10 24 37.8  +2.2
       SNR=26
NDI    New Delhi          46.90  83 ePKP      P        10 17 49.0  -1.6
NDI                                 ex        x        10 24 32.0
DDI    Dehra Dun          46.90  80⇑iP        P        10 17 49.6  -1.1
DDI                                 ex        x        10 24 37.0
JOSI   Joshimath          48.00  79⇑iP        P        10 17 58.3  -0.9
JOSI                                ex        x        10 24 51.0
PTH    Pithoragarh        48.93  80 ePKP      P        10 18 04.8  -1.6
PTH                                 ex        x        10 25 02.0
LGTI   Lohaghat           48.99  80 ePKP      P        10 18 02.5  -4.4
LGTI                                ex        x        10 25 03.0
POO    Poona              49.02  97 ePKP      P        10 18 06.8  -0.4
POO                                  AMb      AMB      10 18 11.1
       comp=Z,745nm,1.5s,mb6.5
POO                                 i PCP     PcP      10 19 29.0  -1.8
POO                                 eS        S        10 25 08.7  -1.0
WMQ    Urumqi             49.78  60⇑iP        P        10 18 11.8  -0.9
WMQ                                  pP       pP       10 18 21.0  -1.2
WMQ                                  sP       sP       10 18 25.0  -0.9
WMQ                                  PcP      PcP      10 19 33.0  -0.2
WMQ                                  PP       PP       10 20 06.0  -1.3
WMQ                                  S        S        10 25 15.0  -4.9
WMQ                                  sS       sS       10 25 34.0  -1.5
WMQ                                  ScS      ScS      10 27 57.0  -4.7
WMQ                                  SS       SS       10 28 45.0  -7.3
WMQ                                  pmax     pmax
       comp=Z,360nm,1.4s,mb6.2
WMQ                                  pmax     pmax
       comp=Z,10µm,4.8s
WMQ                                  LR       LR
       comp=N,111µm,20.0s,MS7.1
WMQ                                  LR       LR
       comp=E,175µm,19.6s,MS7.1
WMQ                                  LR       LR
       comp=Z,187µm,20.4s,MS7.1
KAD    Karad              49.95  98⇑iP        P        10 18 13.7  -0.5
KAD                                  AMb      AMB      10 18 22.8
       comp=Z,392nm,1.3s,mb6.3
KAD                                 eS        S        10 25 21.2  -1.6
SFJD   Kangerlussuaq      50.13 331⇑iP        P        10 18 15.3  +0.3
SFJD                                i S       S        10 25 23.5  -0.6
SFJD                                 pmax     pmax
       comp=Z,140nm,1.0s,mb6.0
SFJD                                 MLR      MLR
       comp=Z,69µm,24.0s,MS6.6
SFJD   Kangerlussuaq      50.13 331⇑iP        P        10 18 15.3  +0.3
       comp=Z,140nm,1.0s,mb6.0
SFJD                                i S       S        10 25 23.5  -0.6
SFJD
       comp=Z,69µm,24.0s
SFJD   Kangerlussuaq      50.13 331⇑iP        P        10 18 15.3  +0.3
       comp=Z,140nm,1.0s,mb6.0,SNR=23
SFJD                                i S       S        10 25 23.5  -0.6
       SNR=25
KRAR   Krasnoyarsk        50.51  44⇑iP        P        10 18 17.0  -1.0
KRAR                                 pmax     pmax
       comp=Z,253nm,1.0s,mb6.1
KRAR                                 MLR      MLR
       comp=Z,111µm,22.0s,MS6.8
LATR   Latur              51.25  95 ePKP      P        10 18 22.6  -1.5
JBP    Jabalpur           51.60  88⇑ePKP      P        10 18 26.2  -0.4
JBP                                 ex        x        10 25 37.9
MSEY   Mahe Island        51.74 135 eP        P        10 18 28.0  +0.3
MSEY                                 pmax     pmax
       comp=Z,2µm,1.6s,mb6.7
MSEY                                 MLR      MLR
       comp=Z,36µm,22.0s,MS6.4
MSEY   Mahe Island        51.74 135 eP        P        10 18 28.0  +0.2
       comp=Z,2µm,1.6s,mb6.7
MSEY                                 LR       LR
       comp=Z,36µm,22.0s,MS6.4
MSEY   Mahe Island        51.74 135 eP        P        10 18 28.0  +0.3
       comp=Z,2µm,1.6s,mb6.7
LSZ    Lusaka             51.88 172  P        P        10 18 28.8  +0.2
LSZ                                  pmax     pmax
       comp=Z,250nm,1.0s,mb6.1
LSZ    Lusaka             51.88 172  LR       LR       10 42 31.6
       comp=Z,106µm,20.4s,MS6.9,baz=358,slow=38
LSZ    Lusaka             51.88 172 eP        P        10 18 28.7   0.0
       comp=Z,248nm,1.0s,mb6.1
LSZ                                  LR       LR
       comp=Z,92µm,20.0s,MS6.8
LSZ    Lusaka             51.88 172  P        P        10 18 29.1  +0.5
       SNR=55
LSZ                                  P                 10 18 29.1
       SNR=55
LSZ    Lusaka             51.88 172 eP        P        10 18 28.7  +0.1
       comp=Z,248nm,1.0s,mb6.1
DANN   Dangsing           52.25  80 eP        P        10 18 29.3  -2.2
KOLN   Koldanda           52.38  81 eP        P        10 18 29.5  -2.9
       comp=Z,2µm,0.9s,mb7.0
MNGI   Mangalore          52.93 102 i P       P        10 18 35.2  -1.4
MNGI                                i S       S        10 26 02.4  -1.5
GKN    Gorkha             53.10  80 eP        P        10 18 34.7  -3.0
ALE    Alert              53.25 351  P        P        10 18 38.0  -0.1
       comp=Z,1µm,0.8s,mb6.8,SNR=16
HYB    Hyderabad          53.38  95 eP        P        10 18 37.0  -2.9
HYB                                 eS        S        10 26 08.0  -2.1
HYB                                  pmax     pmax
       comp=Z,190nm,1.0s,mb6.0
HYB    Hyderabad          53.38  95⇑iP        P        10 18 37.0  -2.9
       comp=Z,190nm,1.0s,mb6.0
HYB                                 eS        S        10 26 10.0  -0.1
HYB    Hyderabad          53.38  95 eP        P        10 18 37.0  -2.9
       comp=Z,190nm,1.0s,mb6.0
HYB                                 eS        S        10 26 08.0  -2.1
DMN    Daman              53.64  80 eP        P        10 18 39.1  -2.7
KKN    Kakani             53.70  80 eP        P        10 18 39.2  -3.0
       comp=Z,2µm,0.8s,mb7.0
KKN    Kakani             53.70  80 eP        P        10 18 39.2  -3.0
KKN                                  pmax     pmax
       comp=Z,2µm,0.8s,mb7.0
PKIN   Phulchoki          53.89  80 eP        P        10 18 40.9  -2.6
       comp=Z,2µm,1.1s,mb7.0
PKI    Pulchoki           53.90  80 eP        P        10 18 40.8  -2.8
       comp=Z,2µm,0.8s,mb7.0
PKI    Pulchoki           53.90  80 eP        P        10 18 40.9  -2.7
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PKI				pmax	pmax		
	comp=Z,2µm,1.1s,mb7.0						
PKI	**Pulchoki**	**53.90**	**80**	*e*P	**P**	**10 18 40.9**	**-2.7**
	comp=Z,2µm,1.1s,mb7.0						
GUN	**Gumba**	**54.12**	**80**	*e*P	**P**	**10 18 42.6**	**-2.7**
JIRN	**Jiri**	**54.48**	**80**	*e*P	**P**	**10 18 45.3**	**-2.6**
	comp=Z,1µm,0.7s,mb7.0						
RAMN	**Ramite**	**55.13**	**80**	*e*P	**P**	**10 18 49.4**	**-3.1**
	comp=Z,2µm,0.8s,mb7.1						
ODAN	**Odare**	**55.79**	**80**	*e*P	**P**	**10 18 54.2**	**-3.2**
	comp=Z,1µm,0.8s,mb6.9						
TAPN	**Taplejung**	**55.82**	**79**	*e*P	**P**	**10 18 55.0**	**-2.6**
	comp=Z,2µm,1.0s,mb7.2						
BOK	**Bokaro**	**56.04**	**84**	⇑*i*P	**P**	**10 18 56.3**	**-2.8**
BOK				AMb	AMB	10 19 02.1	
	comp=Z,790nm,1.6s,mb6.5						
BOK				*e*x	x	10 26 31.9	
MOY	**Mondy**	**56.19**	**47**	*e*P	**P**	**10 18 59.4**	**-0.4**
MOY				pmax	pmax		
	comp=Z,1µm,3.4s						
VIS	**Vishakhapatnam**	**57.06**	**92**	⇑*i*P	**P**	**10 19 04.5**	**-1.9**
VIS				AMb	AMB	10 19 09.5	
	comp=Z,544nm,0.8s,mb6.6						
VIS				*e*x	x	10 26 52.8	
TRD	**Trivandrum**	**57.26**	**105**	⇑*e*PKP	**P**	**10 19 05.0**	**-2.9**
TRD				*e*x	x	10 26 59.0	
LSA	**Lhasa**	**57.47**	**75**	P	**P**	**10 19 08.4**	**-0.8**
LSA				pP	pP	10 19 17.8	-1.1
LSA				sP	sP	10 19 21.5	-1.1
LSA				PcP	PcP	10 20 01.3	-1.4
LSA				PP	PP	10 21 16.8	0.0
LSA				S	**S**	**10 26 57.3**	**-7.2**
LSA				sS	sS	10 27 21.8	+1.5
LSA				ScS	ScS	10 28 52.4	-4.1
LSA				SS	SS	10 30 58.0	+3.8
LSA				LR	LR		
	comp=N,46µm,44.3s,MS6.3						
LSA				LR	LR		
	comp=E,30µm,41.0s,MS6.3						
LSA	**Lhasa**	**57.47**	**75**	*e*P	**P**	**10 19 08.8**	**-0.4**
LSA				pmax	pmax		
	comp=Z,544nm,0.8s,mb6.6						
LSA				MLR	MLR		
	comp=Z,48µm,20.0s,MS6.6						
LSA	**Lhasa**	**57.47**	**75**	*e*P	**P**	**10 19 08.8**	**-0.4**
	comp=Z,544nm,0.8s,mb6.6						
LSA				LR	LR		
	comp=Z,48µm,20.0s,MS6.6						
LSA	**Lhasa**	**57.47**	**75**	*e*P	**P**	**10 19 08.8**	**-0.4**
	comp=Z,544nm,0.8s,mb6.6						
BWNR	**Bhubaneshwar**	**57.71**	**88**	*e*x	x	10 19 03.0	
BWNR				*e*x	x	10 20 32.0	
TLY	**Talaya**	**57.75**	**47**	P	**P**	**10 19 10.1**	**-0.7**
	comp=Z,694nm,1.4s,mb6.5,SNR=73						
TLY	**Talaya**	**57.75**	**47**	*c i*P	**P**	**10 19 09.8**	**-1.0**
TLY				*e*		10 21 18.2	
TLY				*e*PPP		10 22 38.6	
TLY				*e*S	**S**	**10 27 03.7**	**-3.8**
TLY				*e*PS		10 27 27.3	
TLY				*e*		10 28 54.1	
TLY				pmax	pmax		
	comp=Z,577nm,1.4s,mb6.4						
TLY				MLR	MLR		
	comp=Z,47µm,22.0s,MS6.6						
TLY	**Talaya**	**57.75**	**47**	⇑*i*P	**P**	**10 19 10.0**	**-0.8**
	comp=Z,927nm,1.6s,mb6.6						
TLY				LR	LR		
	comp=Z,98µm,21.0s,MS6.9						
TLY	**Talaya**	**57.75**	**47**	⇑*i*P	**P**	**10 19 10.0**	**-0.8**
	comp=Z,927nm,1.6s,mb6.6						
IRK	**Irkutsk**	**57.93**	**46**	⇑*i*P	**P**	**10 19 10.0**	**-2.1**
IRK				*e*		10 22 42.4	
IRK				*e*S	**S**	**10 27 09.7**	**-0.1**
IRK				pmax	pmax		
	comp=Z,887nm,2.2s,mb6.4						
ZAK	**Zakamensk**	**57.97**	**48**	*e*P	**P**	**10 19 11.3**	**-1.1**
ZAK				pmax	pmax		
	comp=Z,285nm,1.2s,mb6.2						
SHEL	**Horse Pasture**	**58.26**	**211**	*i* P	**P**	**10 19 16.6**	**+1.8**
SHEL	**Horse Pasture**	**58.26**	**211**	*e*P	**P**	**10 19 15.7**	**+0.9**
	comp=Z,2µm,1.6s,mb6.8						
SHEL				LR	LR		
	comp=Z,36µm,21.0s,MS6.5						
SHEL	**Horse Pasture**	**58.26**	**211**	*e*P	**P**	**10 19 15.7**	**+0.9**
	comp=Z,2µm,1.6s,mb6.8						
CAL	**Calcutta**	**58.61**	**84**	*e*PKP	**P**	**10 19 14.5**	**-2.8**
CAL				*e*x	x	10 27 13.1	
MSNA	**Messina**	**59.07**	**171**	⇑*i*P	**P**	**10 19 21.3**	**+1.0**
MSNA				AMb	AMB	10 19 51.5	
	comp=Z,696nm,1.7s,mb6.4						
GTA	**Gaotai**	**59.81**	**61**	⇑P	**P**	**10 19 24.4**	**-1.0**
GTA				pP	pP	10 19 34.5	-0.6
GTA				sP	sP	10 19 38.8	0.0
GTA				PP	PP	10 21 38.6	+1.3
GTA				S	**S**	**10 27 31.0**	**-3.7**
GTA				sS	sS	10 27 47.8	-2.8
GTA				ScS	ScS	10 29 08.1	-5.3
GTA				SS	SS	10 31 27.1	-3.5
GTA				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.7						
GTA				pmax	pmax		
	comp=Z,7µm,7.2s						
GTA				LR	LR		
	comp=N,65µm,22.8s,MS6.8						
GTA				LR	LR		
	comp=E,46µm,23.4s,MS6.8						
GTA				LR	LR		
	comp=Z,77µm,22.5s,MS6.8						
SHL	**Shillong**	**59.96**	**79**	⇑*i*P	**P**	**10 19 24.5**	**-2.1**
SHL				*e*x	x	10 22 01.5	
SHL				*e*x	x	10 23 33.5	
SHL				*i* x	x	10 27 29.5	
AGT	**Agartala**	**60.28**	**81**	*e*x	**P**	**10 19 24.0**	**-4.8**
AGT				*e*x	x	10 20 12.0	
ABPO	**Ambohimpanom**	**60.28**	**152**	*e*P	**P**	**10 19 29.9**	**+1.2**
ABPO				*e*		10 21 38.3	
ABPO				pmax	pmax		
	comp=Z,109nm,1.0s,mb5.8						
ABPO				MLR	MLR		
	comp=Z,53µm,22.0s,MS6.6						
ABPO	**Ambohimpanom**	**60.28**	**152**	*e*P	**P**	**10 19 29.9**	**+1.1**
	comp=Z,109nm,1.0s,mb5.8						
ABPO				*e*PP	PP	10 21 38.3	-3.8
ABPO				LR	LR		
	comp=Z,53µm,22.0s,MS6.6						
ABPO	**Ambohimpanom**	**60.28**	**152**	*e*P	**P**	**10 19 29.9**	**+1.2**
	comp=Z,109nm,1.0s,mb5.8						
SCHQ	**Schefferville**	**60.30**	**318**	P	**P**	**10 19 28.8**	**+0.3**
	comp=Z,108nm,0.7s,mb6.0,baz=62,slow=6.4,SNR=194						
SCHQ				S	**S**	**10 27 39.2**	**-1.2**
	comp=Z,6.7nm,0.9s,baz=124,slow=6.3,SNR=1.9						
SCHQ				LR	LR	10 46 12.6	
	comp=Z,19µm,19.1s,MS6.2,baz=65,slow=37						
SCHQ				PKP2ab		10 49 08.2	
	comp=Z,11nm,1.1s,baz=205,slow=1.3,SNR=4.3						
SCHQ	**Schefferville**	**60.30**	**318**	*e*P	**P**	**10 19 28.8**	**+0.3**
	comp=Z,140nm,0.6s,mb6.2						
SCHQ				LR	LR		
	comp=Z,32µm,22.0s,MS6.4						
SCHQ	**Schefferville**	**60.30**	**318**	*e*P	**P**	**10 19 28.8**	**+0.3**
	comp=Z,140nm,0.6s,mb6.2						
MOPA	**Mopani**	**60.41**	**170**	⇑*i*P	**P**	**10 19 31.1**	**+1.7**
MOPA				AMb	AMB	10 20 01.4	
	comp=Z,663nm,1.5s,mb6.5						
SONM	**Songino Array**	**60.81**	**50**	P	**P**	**10 19 30.7**	**-1.4**
SONM				S	**S**	**10 27 44.4**	**-2.8**
SONM				pmax	pmax		
	comp=Z,49nm,0.6s						
SONM				smax			
	comp=N,6.0nm,1.2s						
SONM				MLR	MLR		
	comp=Z,45µm,20.5s						
SONM	**Songino Array**	**60.81**	**50**	P	**P**	**10 19 30.7**	**-1.3**
	comp=Z,49nm,0.6s,mb5.8,baz=284,slow=6.2,SNR=138						
SONM				S	**S**	**10 27 44.4**	**-2.8**
	comp=Z,5.7nm,1.2s,baz=309,slow=40,SNR=2.4						
SONM				PKP2ab		10 49 06.9	
	comp=Z,3.0nm,1.1s,baz=128,slow=2.0,SNR=5.7						
SONM				LR	LR	10 51 11.7	
	comp=Z,45µm,20.5s,MS6.6,baz=297,slow=41						
SONM	**Songino Array**	**60.81**	**50**	P	**P**	**10 19 30.7**	**-1.4**
TIXI	**Tiksi**	**60.89**	**20**	*c i*P	**P**	**10 19 31.2**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,279nm,1.9s,mb6.1						
TIXI	**Tiksi**	**60.89**	**20**	*e*P	**P**	**10 19 31.2**	**-1.0**
	comp=Z,348nm,0.8s,mb6.5						
TIXI				LR	LR		
	comp=Z,158µm,19.0s,MS7.2						
TIXI	**Tiksi**	**60.89**	**20**	*e*P	**P**	**10 19 31.2**	**-1.0**
	comp=Z,348nm,0.8s,mb6.5						
PALK	**Pallekele**	**60.94**	**103**	*i* P	**P**	**10 19 33.0**	**-0.4**
PALK	**Pallekele**	**60.94**	**103**	*e*P	**P**	**10 19 32.2**	**-1.2**
	comp=Z,1µm,1.6s,mb6.7						
PALK	**Pallekele**	**60.94**	**103**	⇑P	**P**	**10 19 32.7**	**-0.7**
	SNR=21						
PALK				⇑P		10 19 32.7	
	SNR=21						
PALK	**Pallekele**	**60.94**	**103**	P	**P**	**10 19 32.7**	**-0.7**
	SNR=21						
BOD	**Bodaibo**	**61.12**	**38**	*e*P	**P**	**10 19 31.5**	**-2.5**
BOD				pmax	pmax		
	comp=Z,155nm,1.2s,mb6.0						
ULN	**Ulaanbaatar**	**61.20**	**50**	P	**P**	**10 19 33.6**	**-1.1**
ULN				pmax	pmax		
	comp=Z,250nm,0.9s,mb6.3						
ULN	**Ulaanbaatar**	**61.20**	**50**	⇑*i*P	**P**	**10 19 33.4**	**-1.3**
ULN	**Ulaanbaatar**	**61.20**	**50**	⇑P	**P**	**10 19 33.4**	**-1.4**
	SNR=83						
ULN				⇑P		10 19 33.4	
	SNR=83						
ULN	**Ulaanbaatar**	**61.20**	**50**	⇑*i*P	**P**	**10 19 33.4**	**-1.3**
LBTB	**Lobatse**	**61.31**	**176**	⇓*i*P	**P**	**10 19 35.8**	**+0.2**
LBTB				*e*		10 20 21.3	
LBTB				*e*		10 21 57.6	
LBTB				*e*S	**S**	**10 27 52.1**	**-1.7**
LBTB				pmax	pmax		
	comp=Z,296nm,1.1s,mb6.3						
LBTB	**Lobatse**	**61.31**	**176**	LR	LR	10 48 17.6	
	comp=Z,106µm,20.5s,MS7.0,baz=12,slow=38						
LBTB	**Lobatse**	**61.31**	**176**	⇓*i*P	**P**	**10 19 35.8**	**+0.2**
	comp=Z,296nm,1.1s,mb6.3						
LBTB				*e*PcP	PcP	10 20 21.3	+3.6
LBTB				*e*PP	PP	10 21 57.6	+6.5
LBTB				*e*S	**S**	**10 27 52.1**	**-1.7**
LBTB	**Lobatse**	**61.31**	**176**	⇓*i*P	**P**	**10 19 35.8**	**+0.2**
	comp=Z,296nm,1.1s,mb6.3						
RES	**Resolute Bay**	**61.61**	**344**	P	**P**	**10 19 37.5**	**+0.4**
RES				pmax	pmax		
	comp=Z,120nm,0.9s,mb6.0						
RES	**Resolute Bay**	**61.61**	**344**	⇑*i*P	**P**	**10 19 37.5**	**+0.4**
	comp=Z,63nm,1.5s,mb5.5						
RES				*e*PP	PP	10 21 53.4	+1.0
RES				*e*S	**S**	**10 27 52.9**	**-3.8**
RES	**Resolute Bay**	**61.61**	**344**	⇑*i*P	**P**	**10 19 37.5**	**+0.4**
	comp=Z,63nm,1.5s,mb5.5						
KSR	**Koster**	**62.23**	**175**	*e*P	**P**	**10 19 42.7**	**+1.0**
KSR				*e*P		10 19 42.9	
KSR				AMb	AMB	10 20 42.9	
	comp=Z,269nm,1.3s,mb6.2						
ERPM	**east rand prop**	**62.83**	**173**	*e*P	**P**	**10 19 46.4**	**+0.7**
ERPM				AMb	AMB	10 20 10.6	
	comp=Z,433nm,1.2s,mb6.5						
PRYS	**Parys**	**63.33**	**174**	*e*P	**P**	**10 19 49.2**	**+0.1**
PRYS				AMb	AMB	10 19 58.5	
	comp=Z,327nm,2.1s,mb6.1						
LZH	**Lanzhou**	**64.13**	**63**	⇑P	**P**	**10 19 53.9**	**-0.6**
LZH				pP	pP	10 20 02.8	-1.4
LZH				sP	sP	10 20 06.0	-1.9
LZH				PcP	PcP	10 20 28.1	-1.3
LZH				PP	PP	10 22 16.0	+0.6
LZH				S	**S**	**10 28 26.0**	**-3.3**
LZH				sS	sS	10 28 42.0	-3.4
LZH				pmax	pmax		
	comp=Z,700nm,1.4s,mb6.5						
LZH				pmax	pmax		
	comp=Z,3µm,4.9s						
LZH				LR	LR		
	comp=E,73µm,17.7s						
LZH				LR	LR		
	comp=Z,113µm,18.5s,MS7.1						
POGA	**Pongola**	**64.23**	**170**	*e*P	**P**	**10 19 56.2**	**+1.2**
POGA				AMb	AMB	10 20 27.2	
	comp=Z,595nm,1.8s,mb6.3						
UPI	**Upington**	**64.53**	**180**	⇑*i*P	**P**	**10 19 57.1**	**+0.2**
UPI				AMb	AMB	10 20 45.8	
	comp=Z,495nm,1.5s,mb6.3						
SEK	**Senekal**	**64.74**	**174**	*e*P	**P**	**10 19 59.2**	**+0.9**
SEK				*e*P		10 20 04.9	
BOSA	**Boshof**	**64.87**	**177**	P	**P**	**10 19 58.9**	**-0.2**
	comp=Z,18nm,0.4s,mb5.4,baz=3.5,slow=7.0,SNR=59						
BOSA				S	**S**	**10 28 39.8**	**+1.6**
	comp=Z,12nm,1.2s,baz=151,slow=17,SNR=2.0						
BOSA				LR	LR	10 51 25.9	
	comp=Z,122µm,18.1s,MS7.1,baz=6.8,slow=39						
BOSA	**Boshof**	**64.87**	**177**	⇓*i*P	**P**	**10 19 58.9**	**-0.2**
BOSA				AMb	AMB	10 20 07.9	
	comp=Z,432nm,1.4s,mb6.3						
BOSA	**Boshof**	**64.87**	**177**	P	**P**	**10 19 58.9**	**-0.2**
RER	**Riviere de l’E**	**65.78**	**145**	*e*P	**P**	**10 20 07.2**	**+2.0**
	comp=Z,140nm,0.9s,mb6.0						
RER				LR	LR		
	comp=Z,33µm,20.0s,MS6.5						
PKA	**Prieska**	**65.84**	**179**	*e*P	**P**	**10 20 04.4**	**-1.0**
PKA				AMb	AMB	10 20 13.9	
	comp=Z,85nm,1.4s,mb5.6						
YAK	**Yakutsk**	**66.11**	**29**	*c i*P	**P**	**10 20 05.2**	**-1.6**
YAK				*e*		10 20 34.1	
YAK				*e*		10 22 34.3	
YAK				*e*PPP		10 24 08.9	
YAK				*e*S	S	10 28 47.1	-5.6
YAK				*e**SS	sS	10 29 29.5	+21
YAK				*e*		10 29 52.9	
YAK				*e*SS	SS	10 33 09.9	+2.2
YAK				pmax	pmax		
	comp=Z,601nm,0.9s,mb6.6						
YAK				pmax	pmax		
	comp=E,115nm,1.4s						
YAK				pmax	pmax		
	comp=N,91nm,1.0s						
YAK				pmax	pmax		
	comp=Z,934nm,1.9s,mb6.5						
YAK				pmax	pmax		
	comp=N,649nm,2.0s						
YAK				pmax	pmax		
	comp=E,462nm,1.9s						
YAK				smax			
	comp=E,4µm,5.7s						
YAK				smax			
	comp=N,2µm,4.7s						
YAK	**Yakutsk**	**66.11**	**29**	⇑*i*P	**P**	**10 20 05.2**	**-1.6**
BTO	**Baotou**	**66.31**	**56**	*e*P	**P**	**10 20 07.3**	**-1.2**
BTO				S	S	10 28 55.5	-0.4
CD2	**Chengdu**	**66.54**	**68**	P	**P**	**10 20 08.9**	**-1.2**
CD2				pP	pP	10 20 21.5	+1.6
CD2				sP	sP	10 20 24.4	+0.8
CD2				PcP	PcP	10 20 40.3	+0.9
CD2				PP	PP	10 22 38.3	+1.7
CD2				S	S	10 28 55.8	-3.2
CD2				sS	sS	10 29 09.1	-6.0
CD2				SS	SS	10 33 16.5	+0.6
CD2				pmax	pmax		
	comp=Z,640nm,1.0s,mb6.6						
CD2				pmax	pmax		
	comp=Z,12µm,6.3s						
CD2				LR	LR		
	comp=N,49µm,25.0s						
CD2				LR	LR		
	comp=Z,44µm,21.4s,MS6.6						
CLNS	**Chul’man**	**66.82**	**36**	*e*P	**P**	**10 20 10.6**	**-0.8**
CLNS				*e*		10 20 39.3	
CLNS				*e*		10 22 37.5	
CLNS				*e*PPP		10 24 13.5	
CLNS				*e*S	S	10 29 00.8	-0.7
CLNS				pmax	pmax		
	comp=Z,177nm,1.3s,mb5.9						
CLNS				pmax	pmax		
	comp=E,79nm,1.4s						
CLNS				pmax	pmax		
	comp=N,127nm,1.5s						
CLNS				pmax	pmax		
	comp=E,123nm,1.3s						
CLNS				pmax	pmax		
	comp=Z,184nm,1.3s,mb6.0						
CLNS				pmax	pmax		
	comp=N,61nm,0.8s						
CLNS				smax			
	comp=E,3µm,14.4s						
CLNS				smax			
	comp=N,3µm,12.8s						
CLNS				MLR	MLR		
	comp=Z,27µm,23.0s,MS6.4						
CLNS				MLR	MLR		
	comp=N,19µm,22.0s,MS6.5						
CLNS				MLR	MLR		
	comp=E,32µm,23.0s,MS6.5						
NRGR	**Nerungri**	**66.83**	**36**	*i* P	**P**	**10 20 10.9**	**-0.6**
NRGR				S	S	10 29 01.1	-0.6
NRGR				smax			
	comp=N,166nm,1.3s						
HVD	**Gariep Dam**	**66.86**	**176**	*e*P	**P**	**10 20 12.3**	**+0.3**
KSD	**Kokstad**	**67.10**	**173**	*e*P	**P**	**10 20 14.8**	**+1.4**
KSD				AMb	AMB	10 20 56.0	
	comp=Z,1µm,1.8s,mb6.7						
HHC	**Hu-ho-hao-te**	**67.22**	**55**	⇑*i*P	**P**	**10 20 13.5**	**-0.8**
HHC				pP	pP	10 20 21.3	-2.8
HHC				PcP	PcP	10 20 42.4	+0.3
HHC				PP	PP	10 22 42.3	0.0
HHC				ScP		10 24 42.6	
HHC				S	S	10 29 03.1	-3.8
HHC				sS	sS	10 29 16.1	-7.0
HHC				ScS	ScS	10 30 04.8	-5.1
HHC				SS	SS	10 33 22.9	-3.2
HHC				pmax	pmax		
	comp=Z,380nm,0.7s,mb6.5						
HHC				pmax	pmax		
	comp=Z,9µm,3.8s						
HHC				LR	LR		
	comp=N,53µm,21.0s,MS6.9						
HHC				LR	LR		
	comp=E,39µm,18.2s,MS6.9						
HHC				LR	LR		
	comp=Z,55µm,21.4s,MS6.7						
CVNA	**Calvinia**	**67.67**	**182**	⇓*i*P	**P**	**10 20 16.7**	**-0.3**
CVNA				AMb	AMB	10 21 19.9	
	comp=Z,485nm,1.6s,mb6.3						
HIA	**Hailar**	**68.06**	**44**	⇑*i*P	**P**	**10 20 18.7**	**-0.8**
HIA	**Hailar**	**68.06**	**44**	⇑*i*P	**P**	**10 20 18.7**	**-0.8**
RCBR	**Riachuelo**	**68.28**	**245**	⇓*e*P	**P**	**10 20 21.9**	**+0.6**
	comp=Z,217nm,1.3s,mb6.0						
RCBR				LR	LR		
	comp=Z,115µm,22.0s,MS7.1						
RCBR	**Riachuelo**	**68.28**	**245**	⇓*e*P	**P**	**10 20 21.9**	**+0.6**
	comp=Z,217nm,1.3s,mb6.0						
SUR	**Sutherland**	**68.54**	**181**	⇓*e*P	**P**	**10 20 23.5**	**+1.1**
	comp=Z,194nm,1.2s,mb5.9						
SUR				*e*PcP	PcP	10 20 46.6	-0.8
SUR				*e*PP	PP	10 22 51.8	-2.6
SUR				*e*S	S	10 29 23.1	+0.7
SUR				LR	LR		
	comp=Z,115µm,19.0s,MS7.1						
SUR	**Sutherland**	**68.54**	**181**	⇑*i*P	**P**	**10 20 22.9**	**+0.5**
SUR				AMb	AMB	10 21 20.6	
	comp=Z,278nm,1.8s,mb5.9						
SUR	**Sutherland**	**68.54**	**181**	⇓*e*P	**P**	**10 20 23.5**	**+1.0**
	comp=Z,194nm,1.2s,mb5.9						
KMI	**Kunming**	**68.68**	**74**	P	**P**	**10 20 22.3**	**-1.5**
KMI				pP	pP	10 20 35.8	+2.2
KMI				sP	sP	10 20 40.3	+3.0
KMI				PP	PP	10 22 51.8	-3.6
KMI				S	S	10 29 20.0	-4.9
KMI				sS	sS	10 29 37.0	-4.0
KMI				SS	SS	10 33 47.0	-2.4
KMI				pmax	pmax		
	comp=Z,160nm,1.9s,mb5.6						
KMI				pmax	pmax		
	comp=Z,7µm,5.3s						
KMI				LR	LR		
	comp=N,35µm,25.0s,MS6.6						
KMI				LR	LR		
	comp=E,25µm,22.4s,MS6.6						
KMI				LR	LR		
	comp=Z,48µm,30.3s						
XAN	**Xi’an**	**68.77**	**63**	P	**P**	**10 20 22.8**	**-1.3**
XAN				pP	pP	10 20 32.5	-1.5
XAN				pmax	pmax		
	comp=Z,170nm,0.7s,mb6.1						
XAN				pmax	pmax		
	comp=Z,6µm,5.8s						
XAN				LR	LR		
	comp=N,15µm,22.5s,MS6.7						
XAN				LR	LR		
	comp=E,38µm,19.0s,MS6.7						
XAN				LR	LR		
	comp=Z,62µm,19.6s,MS6.8						
SOE	**Somerset East**	**68.97**	**176**	*e*P	**P**	**10 20 26.8**	**+1.7**
BBSR	**BB Station**	**68.97**	**295**	*e*P	**P**	**10 20 26.0**	**+0.6**
	comp=Z,76nm,0.8s,mb5.7						
BBSR				LR	LR		
	comp=Z,10µm,21.0s,MS6.0						
BBSR	**BB Station**	**68.97**	**295**	*e*P	**P**	**10 20 26.0**	**+0.6**
	comp=Z,76nm,0.8s,mb5.7						
CHG	**Chiang Mai**	**69.02**	**82**	⇑P	**P**	**10 20 24.5**	**-1.4**
	comp=Z,406nm,1.4s,mb6.2						
CHTO	**Chiang Mai**	**69.02**	**82**	⇑*i*P	**P**	**10 20 24.1**	**-1.8**
	comp=Z,308nm,1.0s,mb6.2						
CHTO				PcP	PcP	10 20 49.7	-0.2
CHTO				*e*S	S	10 29 23.1	-5.8
CHTO				LR	LR		
	comp=Z,29µm,22.0s,MS6.5						
CHTO	**Chiang Mai**	**69.02**	**82**	⇓P	**P**	**10 20 24.7**	**-1.3**
	SNR=91						
CHTO				⇓P		10 20 24.7	
	SNR=91						
CHTO	**Chiang Mai**	**69.02**	**82**	P	**P**	**10 20 24.7**	**-1.2**
	SNR=91						
CHTO	**Chiang Mai**	**69.02**	**82**	PcP	PcP	10 20 49.7	-0.3
CMAR	**Chiang Mai Arr**	**69.21**	**82**	P	**P**	**10 20 25.4**	**-1.8**
	comp=Z,57nm,0.8s,mb5.5,baz=298,slow=7.7,SNR=102						
CMAR				S	S	10 29 29.4	-1.8
	comp=Z,1.4nm,0.6s,baz=311,slow=9.0,SNR=3.7						
CMAR				PKP2bc		10 48 41.0	
	comp=Z,1.9nm,0.8s,baz=157,slow=1.3,SNR=6.6						
CMAR				LR	LR	10 57 40.2	
	comp=Z,26µm,20.5s,MS6.5,baz=288,slow=42						
CMAR	**Chiang Mai Arr**	**69.21**	**82**	P	**P**	**10 20 25.4**	**-1.8**
CMAR				S	S	10 29 29.4	-1.8
CMAR				⇑*e*		10 48 41.0	
CMAR				LR	LR	10 57 40.2	
CMAR	**Chiang Mai Arr**	**69.21**	**82**	P	**P**	**10 20 25.4**	**-1.7**
CMAR				S	S	10 29 29.4	-1.8
LONY	**Lake Ozonia**	**69.39**	**311**	⇑*i*P	**P**	**10 20 28.6**	**+0.8**
	comp=Z,501nm,1.5s,mb6.2						
LONY				LR	LR		
	comp=Z,33µm,22.0s,MS6.5						
LONY	**Lake Ozonia**	**69.39**	**311**	⇑*i*P	**P**	**10 20 28.6**	**+0.8**
	comp=Z,501nm,1.5s,mb6.2						
NCB	**Newcomb**	**69.50**	**310**	⇑*e*P	**P**	**10 20 29.9**	**+1.4**
	comp=Z,279nm,1.4s,mb6.0						
NCB				*e*PcP	PcP	10 20 51.1	-0.5
NCB				LR	LR		
	comp=Z,25µm,20.0s,MS6.5						
NCB	**Newcomb**	**69.50**	**310**	⇑*e*P	**P**	**10 20 29.9**	**+1.4**
	comp=Z,279nm,1.4s,mb6.0						
CER	**Ceres**	**69.55**	**182**	*e*P	**P**	**10 20 28.6**	**-0.1**
CER				AMb	AMB	10 20 57.0	
	comp=Z,105nm,1.5s,mb5.5						
GRM	**Grahamstown**	**69.62**	**176**	*e*P	**P**	**10 20 30.0**	**+0.9**
GRM				AMb	AMB	10 20 54.9	
	comp=Z,407nm,1.3s,mb6.2						
BDT	**Bhumibol Dam**	**69.92**	**83**	⇓P	**P**	**10 20 29.8**	**-1.7**
	comp=Z,144nm,0.9s,mb5.9						
BJI	**Beijing**	**70.67**	**54**	P	**P**	**10 20 34.8**	**-0.9**
BJI				pP	pP	10 20 44.1	-1.5
BJI				sP	sP	10 20 47.8	-1.5
BJI				PP	PP	10 23 10.4	-1.7
BJI				S	S	10 29 45.6	-2.1
BJI				sS	sS	10 30 01.4	-2.5
BJI				pmax	pmax		
	comp=Z,170nm,1.2s,mb5.8						
BJI				pmax	pmax		
	comp=Z,9µm,6.8s						
BJI				LR	LR		
	comp=N,84µm,19.3s,MS7.1						
BJI				LR	LR		
	comp=E,74µm,21.3s,MS7.1						
BJI				LR	LR		
	comp=Z,111µm,21.3s,MS7.1						
BJT	**Baijiatuau**	**70.67**	**54**	⇑*i*P	**P**	**10 20 34.3**	**-1.5**
BJT				*e*		10 20 59.2	
BJT				*e*		10 23 08.8	
BJT				*e*S	S	10 29 46.6	-1.2
BJT				pmax	pmax		
	comp=Z,2µm,1.6s						
BJT				MLR	MLR		
	comp=Z,145µm,21.0s						

BJT	**Baijiatuau**	**70.67**	**54**	⇑*i*P	**P**	**10 20 34.3**	**-1.5**
	comp=Z,2μm,1.6s,mb6.8						
BJT				*e*PcP	PcP	10 20 59.2	+2.5
BJT				*e*PP	PP	10 23 08.8	-3.4
BJT				*e*S	S	10 29 46.6	-1.2
BJT				LR	LR		
	comp=Z,145μm,21.0s,MS7.2						
BJT	**Baijiatuau**	**70.67**	**54**	⇑*i*P	**P**	**10 20 34.3**	**-1.5**
	comp=Z,2μm,1.6s,mb6.8						
ELIM	**Elim**	**70.77**	**182**	*e*P	**P**	**10 20 36.5**	**+0.3**
GYA	**Guiyang**	**71.00**	**71**	⇑*i*P	**P**	**10 20 35.3**	**-2.7**
GYA				pP	pP	10 20 46.5	-1.3
GYA				sP	sP	10 20 50.6	-0.9
GYA				PcP	PcP	10 21 01.3	+3.0
GYA				PP	PP	10 23 16.4	+1.0
GYA				S	S	10 29 45.3	-6.7
GYA				sS	sS	10 30 03.8	-4.4
GYA				SKS		10 30 32.3	
GYA				SS	SS	10 34 22.4	-2.6
GYA				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
GYA				pmax	pmax		
	comp=Z,10μm,6.3s						
GYA				LR	LR		
	comp=N,27μm,20.6s,MS6.7						
GYA				LR	LR		
	comp=E,28μm,20.4s,MS6.7						
GYA				LR	LR		
	comp=Z,28μm,20.2s,MS6.5						
FCC	**Fort Churchill**	**71.14**	**330**	⇑*i*P	**P**	**10 20 38.7**	**+0.4**
FCC				*e*		10 20 57.3	
FCC				*e*S	S	10 29 56.9	+4.3
FCC				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
FCC	**Fort Churchill**	**71.14**	**330**	⇑*i*P	**P**	**10 20 38.7**	**+0.4**
	comp=Z,9.9nm,1.1s,mb4.7						
FCC				*e*PcP	PcP	10 20 57.3	-0.9
FCC				*e*S	S	10 29 56.9	+4.2
FCC	**Fort Churchill**	**71.14**	**330**	⇑*i*P	**P**	**10 20 38.7**	**+0.4**
	comp=Z,9.9nm,1.1s,mb4.7						
BINY	**Binghamton**	**71.53**	**309**	*e*P	**P**	**10 20 42.5**	**+1.6**
	comp=Z,155nm,0.9s,mb5.9						
BINY				PP	PP	10 23 19.8	+0.3
BINY				LR	LR		
	comp=Z,38μm,21.0s,MS6.6						
BINY	**Binghamton**	**71.53**	**309**	*e*P	**P**	**10 20 42.5**	**+1.5**
	comp=Z,155nm,0.9s,mb5.9						
NST	**Nakhon Sawan**	**71.68**	**84**	P	**P**	**10 20 41.0**	**-1.2**
	comp=Z,255nm,1.0s,mb6.1						
BILL	**Bilibino**	**72.42**	**13**	⇑*e*P	**P**	**10 20 45.1**	**-0.7**
BILL				*i*		10 23 28.3	
BILL				*i* S	S	10 30 05.4	-1.7
BILL				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
BILL	**Bilibino**	**72.42**	**13**	⇑*i*P	**P**	**10 20 45.2**	**-0.6**
BILL	**Bilibino**	**72.42**	**13**	⇑*i*P	**P**	**10 20 45.2**	**-0.6**
SEY	**Seymchan**	**73.35**	**21**	⇑*i*P	**P**	**10 20 51.4**	**0.0**
SEY	**Seymchan**	**73.35**	**21**	⇑*i*P	**P**	**10 20 51.5**	**+0.1**
SEY	**Seymchan**	**73.35**	**21**	⇑*i*P	**P**	**10 20 51.5**	**+0.1**
KKTK	**Khon Kaen**	**73.47**	**82**	P	**P**	**10 20 51.0**	**-1.9**
	comp=Z,4μm,0.5s,mb7.6						
SSPA	**Standing Stone**	**73.59**	**309**	*e*P	**P**	**10 20 55.3**	**+2.1**
	comp=Z,156nm,0.9s,mb5.9						
SSPA				PP	PP	10 23 37.5	+0.5
SSPA				LR	LR		
	comp=Z,23μm,21.0s,MS6.4						
ERPA	**Erie**	**74.05**	**311**	*e*P	**P**	**10 20 58.0**	**+2.1**
	comp=Z,456nm,0.9s,mb6.4						
ERPA				LR	LR		
	comp=Z,37μm,22.0s,MS6.6						
CN2	**Changchun**	**74.35**	**47**	⇑P	**P**	**10 20 56.3**	**-1.3**
CN2				*e*pP	pP	10 21 06.6	-0.9
CN2				*e*sP	sP	10 21 10.5	-0.7
CN2				PcP	PcP	10 21 11.8	-0.5
CN2				*e*S	S	10 30 21.8	-7.9
CN2				SS	SS	10 35 13.5	-1.7
CN2				LR	LR		
	comp=N,39μm,18.0s,MS6.9						
CN2				LR	LR		
	comp=E,41μm,18.0s,MS6.9						
CN2				LR	LR		
	comp=Z,55μm,18.0s,MS6.9						
SNY	**Shenyang**	**74.37**	**49**	⇑P	**P**	**10 20 56.0**	**-1.8**
SNY				S	S	10 30 25.6	-4.4
SNY				pmax	pmax		
	comp=Z,300nm,1.6s,mb6.0						
SNY				pmax	pmax		
	comp=Z,7μm,4.9s						
SNY				LR	LR		
	comp=N,54μm,22.2s						
SNY				LR	LR		
	comp=Z,55μm,19.8s,MS6.8						
WHN	**Wuhan**	**74.51**	**63**	P	**P**	**10 20 56.9**	**-1.9**
WHN				S	S	10 30 25.3	-6.6
WHN				LR	LR		
	comp=N,70μm,17.6s,MS7.1						
WHN				LR	LR		
	comp=E,55μm,19.2s,MS7.1						
WHN				LR	LR		
	comp=Z,123μm,19.2s,MS7.2						
ANWB	**Willy Bob**	**74.56**	**281**	*e*P	**P**	**10 21 00.4**	**+1.2**
ANWB				*e*S	S	10 30 10.2	-23
ANWB				LR	LR		
	comp=Z,8μm,21.0s,MS6.0						
ANWB	**Willy Bob**	**74.56**	**281**	*e*P	**P**	**10 21 00.4**	**+1.2**
KLR	**Kul'dur**	**74.57**	**40**	⇓*i*P	**P**	**10 20 53.8**	**-5.0**
KLR				*e*		10 25 30.5	
KLR				*e*S	S	10 30 22.5	-9.4
KLR				pmax	pmax		
	comp=E,3μm,7.0s						
KLR				pmax	pmax		
	comp=Z,8μm,7.0s						
KLR				MLR	MLR		
	comp=E,26μm,15.0s						
KLR				MLR	MLR		
	comp=Z,45μm,15.0s,MS6.9						
CBN	**Corbin**	**74.62**	**306**	*e*P	**P**	**10 21 01.2**	**+1.9**
	comp=Z,151nm,0.7s,mb6.0						
CBN				LR	LR		
	comp=Z,20μm,20.0s,MS6.4						
DL2	**Dalian**	**74.82**	**53**	⇑*i*P	**P**	**10 20 59.0**	**-1.4**
DL2				PP	PP	10 23 48.4	+0.9
DL2				S	S	10 30 31.3	-3.8
DL2				SKS		10 30 59.5	
DL2				pmax	pmax		
	comp=Z,190nm,0.7s,mb6.1						
DL2				pmax	pmax		
	comp=Z,3μm,4.1s						
DL2				LR	LR		
	comp=N,20μm,17.8s,MS6.7						
DL2				LR	LR		
	comp=E,31μm,18.8s,MS6.7						
DL2				LR	LR		
	comp=Z,52μm,19.1s,MS6.8						
BPA	**Boggy Peak**	**74.96**	**280**	*e*P	**P**	**10 21 04.4**	**+2.8**
GLMI	**Grayling**	**75.20**	**315**	*e*P	**P**	**10 21 03.8**	**+1.3**
	comp=Z,527nm,1.0s,mb6.4						
GLMI				*e*S	S	10 30 43.4	+4.3
GLMI				LR	LR		
	comp=Z,15μm,20.0s,MS6.3						
GLMI	**Grayling**	**75.20**	**315**	*e*P	**P**	**10 21 03.8**	**+1.3**
	comp=Z,527nm,1.0s,mb6.4						
YKA	**Yellowknife Ar**	**75.26**	**341**	P	**P**	**10 21 02.4**	**-0.1**
	comp=Z,32nm,0.7s,mb5.3,baz=32,slow=5.6,SNR=215						
YKA				PKP2ab		10 48 14.1	
	comp=Z,0.4nm,0.8s,baz=176,slow=2.6,SNR=5.7						
YKA				LR	LR	10 55 48.9	
	comp=Z,9μm,21.8s,MS6.0,baz=85,slow=37						
YKA	**Yellowknife Ar**	**75.26**	**341**	P	**P**	**10 21 02.4**	**-0.1**
YKA				P'P'ab		10 48 14.2	
YKA				LR	LR	10 55 48.9	
YKA	**Yellowknife Ar**	**75.26**	**341**	P	**P**	**10 21 02.4**	**-0.1**
BBGH	**Gun Hill**	**75.31**	**276**	*e*P	**P**	**10 21 10.0**	**+6.4**
BBGH				*e*S	S	10 30 49.0	+7.8
BBGH				LR	LR		
	comp=Z,17μm,22.0s,MS6.3						
MCWV	**Mont Chateau**	**75.38**	**309**	⇑*e*P	**P**	**10 21 04.6**	**+0.9**
	comp=Z,205nm,0.9s,mb6.1						
MCWV				LR	LR		
	comp=Z,39μm,22.0s,MS6.7						
MCWV	**Mont Chateau**	**75.38**	**309**	⇑*e*P	**P**	**10 21 04.6**	**+1.0**
	comp=Z,205nm,0.9s,mb6.1						
FDF	**Fort de France**	**75.69**	**278**	*e*P	**P**	**10 21 10.5**	**+4.7**
FDF				*e*S	S	10 30 51.0	+5.6
FDF				MLR	MLR		
	comp=Z,10μm,22.0s,MS6.1						
SLB	**Belfond**	**76.11**	**277**	*e*	sP	10 21 19.8	-2.0
AAM	**Ann Arbor**	**76.15**	**313**	⇑*e*P	**P**	**10 21 08.4**	**+0.4**
AAM				pmax	pmax		
	comp=Z,316nm,1.4s,mb6.0						
AAM				MLR	MLR		
	comp=Z,42μm,22.0s,MS6.7						
AAM	**Ann Arbor**	**76.15**	**313**	⇑*e*P	**P**	**10 21 08.4**	**+0.4**
	comp=Z,316nm,1.4s,mb6.0						
AAM				LR	LR		
	comp=Z,42μm,22.0s,MS6.7						
AAM	**Ann Arbor**	**76.15**	**313**	⇑*e*P	**P**	**10 21 08.4**	**+0.4**
	comp=Z,316nm,1.4s,mb6.0						
MDJ	**Mudanjiang**	**76.25**	**44**	P	**P**	**10 21 06.9**	**-1.6**
MDJ				pP	pP	10 21 13.3	-5.1
MDJ				sP	sP	10 21 16.3	-5.8
MDJ				PcP	PcP	10 21 18.4	-2.0
MDJ				PP	PP	10 23 57.6	-1.8
MDJ				S	S	10 30 48.6	-2.1
MDJ				pmax	pmax		
	comp=Z,3μm,5.8s						
MDJ				LR	LR		
	comp=N,34μm,21.4s,MS6.7						
MDJ				LR	LR		
	comp=E,29μm,21.4s,MS6.7						
MDJ				LR	LR		
	comp=Z,60μm,20.3s,MS6.9						
MDJ	**Mudanjiang**	**76.25**	**44**	⇑*e*P	**P**	**10 21 06.5**	**-2.1**
	comp=Z,218nm,1.2s,mb6.0						
MDJ				*e*PP	PP	10 23 56.9	-2.6
MDJ				*e*S	S	10 30 46.7	-4.1
MDJ				LR	LR		
	comp=Z,67μm,22.0s,MS6.9						
MDJ	**Mudanjiang**	**76.25**	**44**	⇑*e*P	**P**	**10 21 06.5**	**-2.0**
	comp=Z,218nm,1.2s,mb6.0						
COLD	**Coldfoot**	**76.39**	**357**	⇑*i*P	**P**	**10 21 09.2**	**+0.2**
	comp=Z,196nm,1.0s,mb6.0						
COLD	**Coldfoot**	**76.39**	**357**	⇑*i*P	**P**	**10 21 09.1**	**+0.2**
	comp=Z,196nm,1.0s,mb6.0						
SSV	**Crater Summit**	**76.52**	**277**	*e*	sP	10 21 21.2	-2.9
CNNC	**Cliffs of the**	**76.66**	**304**	*e*P	**P**	**10 21 15.4**	**+4.5**
CNNC				*e*S	S	10 31 19.1	+24
CNNC				LR	LR		
	comp=Z,20μm,20.0s,MS6.4						
HABR	**Khabarovsk**	**76.73**	**39**	*d* *i*P	**P**	**10 21 08.7**	**-2.5**
HABR				*e**PP	pP	10 21 18.8	-2.3
HABR				*e*		10 21 20.6	
HABR				*e**SP	sP	10 21 23.7	-1.1
HABR				*e*		10 24 01.6	
HABR				*e*PPP		10 25 47.6	
HABR				*e*S	S	10 30 52.1	-3.8
HABR				*e**SS	sS	10 31 10.2	-2.1
HABR				*e*		10 31 21.7	
HABR				*e*SS	SS	10 35 48.1	-2.9
HABR				*e*SSS		10 39 11.4	
HABR				pmax	pmax		
	comp=Z,7μm,4.9s						
HABR				pmax	pmax		
	comp=Z,356nm,1.5s,mb6.1						
HABR				pmax	pmax		
	comp=N,107nm,1.6s						
HABR				pmax	pmax		
	comp=E,277nm,3.3s						
HABR				MLR	MLR		
	comp=E,63μm,22.0s,MS6.9						
HABR				MLR	MLR		
	comp=Z,48μm,22.0s,MS6.8						
HABR				MLR	MLR		
	comp=N,28μm,21.0s,MS6.9						
NJ2	**Nanjing**	**76.86**	**60**	*e*P	**P**	**10 21 10.4**	**-1.8**
NJ2				pP	pP	10 21 19.3	-2.8
NJ2				sP	sP	10 21 20.8	-5.0
NJ2				PP	PP	10 24 04.6	-0.4
NJ2				S	S	10 30 53.5	-4.3
NJ2				sS	sS	10 31 08.0	-6.2
NJ2				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.7						
NJ2				pmax	pmax		
	comp=Z,2μm,6.5s						
NJ2				LR	LR		
	comp=N,3μm,18.2s						
NJ2				LR	LR		
	comp=E,6μm,25.1s						
NJ2				LR	LR		
	comp=Z,6μm,18.5s,MS5.9						
SNG	**Songkhla**	**76.89**	**91**	P	**P**	**10 21 10.0**	**-2.6**
	comp=Z,300nm,0.8s,mb6.3						
EYMN	**Ely**	**76.97**	**321**	⇑*i*P	**P**	**10 21 12.7**	**+0.2**
	comp=Z,233nm,1.3s,mb6.0						
EYMN				*e*S	S	10 30 52.8	-5.6
EYMN				LR	LR		
	comp=Z,24μm,21.0s,MS6.5						
EYMN	**Ely**	**76.97**	**321**	⇑*i*P	**P**	**10 21 12.7**	**+0.2**
	comp=Z,233nm,1.3s,mb6.0						
ACSO	**Alum Creek Sta**	**76.99**	**311**	*e*P	**P**	**10 21 13.2**	**+0.4**
	comp=Z,237nm,1.1s,mb6.0						
ACSO				LR	LR		
	comp=Z,31μm,21.0s,MS6.6						
ACSO	**Alum Creek Sta**	**76.99**	**311**	*e*P	**P**	**10 21 13.2**	**+0.4**
	comp=Z,237nm,1.1s,mb6.0						
FFC	**Flin Flon**	**77.08**	**330**	⇑*i*P	**P**	**10 21 13.5**	**+0.5**
	comp=Z,238nm,1.0s,mb6.1						
FFC				*e*PP	PP	10 24 06.3	+0.2
FFC				*e*S	S	10 30 58.8	-0.6
FFC				LR	LR		
	comp=Z,33μm,20.0s,MS6.6						
FFC	**Flin Flon**	**77.08**	**330**	⇑*i*P	**P**	**10 21 13.5**	**+0.5**
	comp=Z,238nm,1.0s,mb6.1						
BLA	**Blacksburg**	**77.17**	**307**	*e*P	**P**	**10 21 14.5**	**+0.6**
BLA				pmax	pmax		
	comp=Z,138nm,1.2s,mb5.8						
BLA				MLR	MLR		
	comp=Z,20μm,22.0s,MS6.4						
BLA	**Blacksburg**	**77.17**	**307**	*e*P	**P**	**10 21 14.5**	**+0.7**
	comp=Z,138nm,1.2s,mb5.8						
BLA				LR	LR		
	comp=Z,20μm,22.0s,MS6.4						
BLA	**Blacksburg**	**77.17**	**307**	*e*P	**P**	**10 21 14.5**	**+0.6**
	comp=Z,138nm,1.2s,mb5.8						
MTP	**Monte Pirata**	**77.29**	**283**	*e*P	**P**	**10 21 16.1**	**+1.3**
	comp=Z,294nm,1.3s,mb6.0						
MTP	**Monte Pirata**	**77.29**	**283**	*e*P	**P**	**10 21 16.1**	**+1.3**
	comp=Z,294nm,1.3s,mb6.0						
CBYP	**Canovanas**	**77.43**	**283**	*e*P	**P**	**10 21 17.3**	**+1.7**
	comp=Z,298nm,1.3s,mb6.1						
GRHS	**Sauteurs**	**77.50**	**276**	*e*	**P**	**10 21 18.7**	**+2.6**
QIZ	**Qiongzhong**	**77.51**	**76**	⇑P	**P**	**10 21 15.3**	**-0.7**
QIZ				pP	pP	10 21 21.3	-4.7
QIZ				sP	sP	10 21 27.0	-2.6
QIZ				S	S	10 31 02.6	-2.6
QIZ				sS	sS	10 31 20.6	-1.0
QIZ				SS	SS	10 36 04.0	-0.3
QIZ				pmax	pmax		
	comp=Z,6μm,7.9s						
QIZ				LR	LR		
	comp=N,20μm,23.3s,MS6.5						
QIZ				LR	LR		
	comp=E,19μm,24.3s,MS6.5						
QIZ				LR	LR		
	comp=Z,22μm,38.7s						
QIZ	**Qiongzhong**	**77.51**	**76**	*e*P	**P**	**10 21 15.8**	**-0.3**
	comp=Z,375nm,1.1s,mb6.2						
QIZ				LR	LR		
	comp=Z,27μm,20.0s,MS6.6						
QIZ	**Qiongzhong**	**77.51**	**76**	*e*P	**P**	**10 21 15.8**	**-0.2**
	comp=Z,375nm,1.1s,mb6.2						
GRW	**Mount Saint Ca**	**77.56**	**276**	*e*	**P**	**10 21 20.0**	**+3.6**
GRGR	**Grenville**	**77.57**	**276**	P	**P**	**10 21 18.0**	**+1.6**
	comp=Z,2μm,1.1s,mb6.8						
GRGR				LR	LR		
	comp=Z,6μm,20.0s,MS5.9						
ULM	**Lac du Bonnet**	**77.58**	**324**	P	**P**	**10 21 15.8**	**-0.1**
	comp=Z,48nm,0.6s,mb5.6,baz=52,slow=4.8,SNR=36						
ULM				S	S	10 31 06.9	+1.9
	comp=Z,2.9nm,0.7s,baz=288,slow=14,SNR=1.7						
ULM				LR	LR	10 55 16.9	
	comp=Z,43μm,21.3s,MS6.7,baz=50,slow=36						
ULM	**Lac du Bonnet**	**77.58**	**324**	P	**P**	**10 21 15.8**	**-0.1**
ULM				S	S	10 31 06.9	+1.9
ULM				LR	LR	10 55 16.9	
ULM	**Lac du Bonnet**	**77.58**	**324**	P	**P**	**10 21 15.8**	**-0.1**
SJG	**San Juan**	**77.75**	**283**	P	**P**	**10 21 17.1**	**-0.3**
SJG				pmax	pmax		
	comp=Z,1μm,1.6s						
SJG				MLR	MLR		
	comp=Z,15μm,22.0s						
SJG	**San Juan**	**77.75**	**283**	P	**P**	**10 21 17.1**	**-0.3**
	comp=Z,1μm,1.6s,mb6.6						
SJG				LR	LR		
	comp=Z,15μm,22.0s,MS6.3						
SJG	**San Juan**	**77.75**	**283**	P	**P**	**10 21 17.1**	**-0.3**
	comp=Z,1μm,1.6s,mb6.6						
TNA	**Tin City**	**77.98**	**4**	⇑*i*P	**P**	**10 21 17.6**	**-0.3**
	comp=Z,125nm,0.4s,mb6.2						
TNA				*e*PP	PP	10 24 14.7	+1.4
TNA	**Tin City**	**77.98**	**4**	⇑*i*P	**P**	**10 21 17.6**	**-0.2**
	comp=Z,125nm,0.4s,mb6.2						
KULM	**Kulim**	**78.02**	**92**	P	**P**	**10 21 17.6**	**-1.3**
KULM	**Kulim**	**78.02**	**92**	⇑*i*P	**P**	**10 21 17.2**	**-1.7**
	comp=Z,461nm,1.1s,mb6.3						
KULM				*e*PP	PP	10 24 13.9	-1.4
KULM				*e*S	S	10 31 05.3	-5.5
KULM				LR	LR		
	comp=Z,26μm,22.0s,MS6.5						
KULM	**Kulim**	**78.02**	**92**	⇑*i*P	**P**	**10 21 17.2**	**-1.7**
	comp=Z,461nm,1.1s,mb6.3						
KULM	**Kulim**	**78.02**	**92**	*e*PP	PP	10 24 13.9	-1.4
PSI	**Prapat**	**78.09**	**95**	S	S	10 31 07.3	-4.4
	comp=Z,15nm,1.0s,baz=160,slow=18,SNR=10.0						
EGAK	**Eagle**	**78.14**	**353**	⇑*i*P	**P**	**10 21 18.7**	**0.0**
	comp=Z,131nm,1.0s,mb5.8						
EGAK				*e*PP	PP	10 24 14.1	-0.6
EGAK				*e*S	S	10 31 23.6	+13
EGAK				LR	LR		
	comp=Z,24μm,22.0s,MS6.5						
EGAK	**Eagle**	**78.14**	**353**	⇑*i*P	**P**	**10 21 18.7**	**0.0**
	comp=Z,131nm,1.0s,mb5.8						
ICM	**Isla Caja Muer**	**78.16**	**283**	*e*P	**P**	**10 21 20.4**	**+0.7**
ICM	**Isla Caja Muer**	**78.16**	**283**	*e*P	**P**	**10 21 20.4**	**+0.7**
CRPR	**Cabo Rojo, PR**	**78.56**	**284**	*e*P	**P**	**10 21 23.3**	**+1.4**
	comp=Z,228nm,1.3s,mb5.9						
CRPR	**Cabo Rojo, PR**	**78.56**	**284**	*e*P	**P**	**10 21 23.3**	**+1.4**
	comp=Z,228nm,1.3s,mb5.9						
COLA	**College**	**78.61**	**355**	⇑*i*P	**P**	**10 21 21.2**	**-0.1**
COLA						10 24 19.1	
COLA				*e*S	S	10 31 21.8	+6.2
COLA				pmax	pmax		
	comp=Z,431nm,1.6s,mb6.1						
COLA				MLR	MLR		
	comp=Z,22μm,20.0s,MS6.5						
COLA	**College**	**78.61**	**355**	⇑*i*P	**P**	**10 21 21.2**	**-0.1**
	comp=Z,431nm,1.6s,mb6.1						
COLA				PP	PP	10 24 19.1	+0.5
COLA				*e*S	S	10 31 21.8	+6.3
COLA				LR	LR		
	comp=Z,22μm,20.0s,MS6.5						
COLA	**College**	**78.61**	**355**	⇑*i*P	**P**	**10 21 21.2**	**-0.1**
	comp=Z,431nm,1.6s,mb6.1						
COLA	**College**	**78.61**	**355**	PP	PP	10 24 19.1	+0.6
DAWY	**Dawson**	**78.64**	**352**	⇑*i*P	**P**	**10 21 21.8**	**+0.4**
DAWY	**Dawson**	**78.64**	**352**	⇑*i*P	**P**	**10 21 21.8**	**+0.3**
IPM	**Ipoh**	**78.80**	**93**	P	**P**	**10 21 21.0**	**-2.3**
INCN	**Inchon**	**78.84**	**52**	⇑*i*P	**P**	**10 21 22.4**	**-0.8**
	comp=Z,295nm,0.9s,mb6.2						
INCN				*e*PP	PP	10 24 21.2	-0.1
INCN				*e*S	S	10 31 22.8	+3.8
INCN	**Inchon**	**78.84**	**52**	P	**P**	**10 21 22.5**	**-0.6**
	SNR=23						
INCN				P		10 21 22.5	
	SNR=23						
INCN	**Inchon**	**78.84**	**52**	P	**P**	**10 21 22.5**	**-0.6**
	SNR=23						
INCN	**Inchon**	**78.84**	**52**	*e*PP	PP	10 24 21.2	-0.2
AGMN	**Agassiz Refuge**	**78.91**	**323**	⇑*i*P	**P**	**10 21 23.0**	**-0.3**
	comp=Z,3.5nm,0.3s,mb4.8						
AGMN				PP	PP	10 24 16.4	-5.2
AGMN				LR	LR		
	comp=Z,39μm,22.0s,MS6.7						
AGMN	**Agassiz Refuge**	**78.91**	**323**	⇑*i*P	**P**	**10 21 23.0**	**-0.3**
	comp=Z,3.5nm,0.3s,mb4.8						
HKC	**Hong Kong Obse**	**78.99**	**70**	*i* P	**P**	**10 21 22.0**	**-2.2**
SSE	**Sheshan**	**79.03**	**60**	P	**P**	**10 21 22.4**	**-1.9**
SSE				S	S	10 31 16.0	-5.3
SSE				sS	sS	10 31 33.1	-4.6
SSE				pmax	pmax		
	comp=Z,64nm,1.4s,mb5.4						
SSE				pmax	pmax		
	comp=Z,3μm,5.8s						
SSE				LR	LR		
	comp=N,34μm,22.0s,MS6.7						
SSE				LR	LR		
	comp=E,24μm,21.9s,MS6.7						
SSE				LR	LR		
	comp=Z,46μm,22.0s,MS6.8						
NHSC	**New Hope**	**79.44**	**303**	*e*P	**P**	**10 21 26.3**	**-0.1**
	comp=Z,528nm,1.4s,mb6.3						
NHSC				*e*PcP	PcP	10 21 33.8	-0.7
NHSC				LR	LR		
	comp=Z,19μm,21.0s,MS6.4						
NHSC	**New Hope**	**79.44**	**303**	*e*P	**P**	**10 21 26.3**	**-0.2**
	comp=Z,528nm,1.4s,mb6.3						
GAMB	**Gambell**	**79.48**	**6**	⇑*e*P	**P**	**10 21 25.3**	**-0.8**
	comp=Z,106nm,1.0s,mb5.7						
GAMB	**Gambell**	**79.48**	**6**	⇑*e*P	**P**	**10 21 25.3**	**-0.8**
	comp=Z,106nm,1.0s,mb5.7						
BPAW	**Bear Paw Mtn.**	**79.55**	**357**	⇑*i*P	**P**	**10 21 25.8**	**-0.7**
	comp=Z,209nm,0.9s,mb6.1						
BPAW				*e*PP	PP	10 24 24.7	-1.7
BPAW	**Bear Paw Mtn.**	**79.55**	**357**	⇑*i*P	**P**	**10 21 25.8**	**-0.7**
	comp=Z,209nm,0.9s,mb6.1						
JFWS	**Jewell Farm**	**79.57**	**316**	⇑*e*P	**P**	**10 21 27.2**	**+0.2**
JFWS				*e*		10 24 27.7	
JFWS				*e*S	S	10 31 25.1	-1.5
JFWS				pmax	pmax		
	comp=Z,320nm,1.3s,mb6.1						
JFWS				MLR	MLR		
	comp=Z,24μm,20.0s,MS6.5						
JFWS	**Jewell Farm**	**79.57**	**316**	⇑*e*P	**P**	**10 21 27.2**	**+0.2**
	comp=Z,320nm,1.3s,mb6.1						
JFWS				*e*PP	PP	10 24 27.7	+0.4
JFWS				*e*S	S	10 31 25.1	-1.5
JFWS				LR	LR		
	comp=Z,24μm,20.0s,MS6.5						
JFWS	**Jewell Farm**	**79.57**	**316**	⇑*e*P	**P**	**10 21 27.2**	**+0.2**
	comp=Z,320nm,1.3s,mb6.1						
TZTN	**Tazewell**	**79.58**	**308**	⇑*e*P	**P**	**10 21 27.3**	**+0.1**
	comp=Z,129nm,1.0s,mb5.8						
TZTN	**Tazewell**	**79.58**	**308**	⇑*e*P	**P**	**10 21 27.3**	**+0.1**
	comp=Z,129nm,1.0s,mb5.8						
KSRS	**Korea Array**	**79.67**	**51**	P	**P**	**10 21 26.6**	**-1.1**
KSRS				S	S	10 31 25.2	-2.6
KSRS				pmax	pmax		
	comp=Z,276nm,0.8s,mb6.2						
KSRS				smax			
	comp=N,8.0nm,1.2s						
KSRS				MLR	MLR		
	comp=Z,57μm,21.9s,MS6.9						
KSRS	**Korea Array**	**79.67**	**51**	P	**P**	**10 21 26.6**	**-1.1**
	comp=Z,276nm,0.8s,mb6.3,baz=310,slow=4.4,SNR=279						
KSRS				S	S	10 31 25.1	-2.7
	comp=Z,7.8nm,1.1s,baz=292,slow=12,SNR=8.1						
KSRS				LR	LR	11 01 27.7	
	comp=Z,57μm,21.9s,MS6.9,baz=304,slow=39						
GRTK	**Grand Turk**	**79.67**	**289**	P	**P**	**10 21 26.8**	**-1.1**
GRTK	**Grand Turk**	**79.67**	**289**	P	**P**	**10 21 26.8**	**-1.1**
BLO	**Bloomington**	**79.79**	**311**	⇑*e*P	**P**	**10 21 28.5**	**+0.2**
BLO				*e*		10 24 29.6	
BLO				pmax	pmax		
	comp=Z,263nm,0.9s,mb6.2						
BLO	**Bloomington**	**79.79**	**311**	⇑*e*P	**P**	**10 21 28.5**	**+0.2**
	comp=Z,262nm,0.9s,mb6.2						
BLO				*e*PP	PP	10 24 29.6	+0.4
BLO	**Bloomington**	**79.79**	**311**	⇑*e*P	**P**	**10 21 28.5**	**+0.2**
	comp=Z,262nm,0.9s,mb6.2						
MCK	**McKinley**	**79.81**	**356**	⇑*e*P	**P**	**10 21 27.6**	**-0.3**
MCK					pP	10 21 36.1	-1.8
MCK						10 24 27.3	
MCK				pmax	pmax		
	comp=Z,371nm,1.1s,mb6.2						
MCK	**McKinley**	**79.81**	**356**	⇑*e*P	**P**	**10 21 27.6**	**-0.3**
	comp=Z,371nm,1.1s,mb6.2						
MCK				PcP	PcP	10 21 36.0	+0.6
MCK				PP	PP	10 24 27.3	-1.3
MCK	**McKinley**	**79.81**	**356**	⇑*e*P	**P**	**10 21 27.6**	**-0.3**
	comp=Z,371nm,1.1s,mb6.2						
MCK	**McKinley**	**79.81**	**356**	PcP	PcP	10 21 36.0	+0.5
CHUM	**Lake Minchumin**	**79.82**	**357**	⇑*i*P	**P**	**10 21 27.8**	**-0.2**
	comp=Z,2μm,1.6s,mb6.7						
CHUM	**Lake Minchumin**	**79.82**	**357**	⇑*i*P	**P**	**10 21 27.8**	**-0.2**
	comp=Z,2μm,1.6s,mb6.7						
KTGM	**Kuala Trenggan**	**80.00**	**91**	P	**P**	**10 21 29.0**	**-0.7**
FRIM	**Kepong**	**80.01**	**93**	P	**P**	**10 21 28.7**	**-1.1**

KTH	**Kantishna Hill**	**80.09**	**357**	⇑*e*P	**P**	**10 21 29.6**	**+0.2**
	comp=Z,481nm,1.5s,mb6.2						
KTH				PcP	PcP	10 21 36.8	+0.1
KTH				PP	PP	10 24 32.8	+1.9
KTH	**Kantishna Hill**	**80.09**	**357**	⇑*e*P	**P**	**10 21 29.6**	**+0.2**
	comp=Z,481nm,1.5s,mb6.2						
TRF	**Thorofare Moun**	**80.16**	**356**	⇑*i*P	**P**	**10 21 29.4**	**-0.4**
	comp=Z,868nm,1.6s,mb6.4						
TRF				PcP	PcP	10 21 36.7	-0.4
TRF	**Thorofare Moun**	**80.16**	**356**	⇑*i*P	**P**	**10 21 29.4**	**-0.4**
	comp=Z,868nm,1.6s,mb6.4						
MENT	**Mentasta**	**80.19**	**353**	*e*P	**P**	**10 21 30.9**	**+0.9**
MENT	**Mentasta**	**80.19**	**353**	*e*P	**P**	**10 21 30.9**	**+0.9**
WCI	**Wyandotte Cave**	**80.25**	**311**	*e*P	**P**	**10 21 31.4**	**+0.6**
WCI				S	S	10 31 50.7	+17
WCI				LR	LR		
	comp=Z,28µm,20.0s,MS6.6						
WCI	**Wyandotte Cave**	**80.25**	**311**	*e*P	**P**	**10 21 31.4**	**+0.6**
TKL	**Tuckaleechee C**	**80.26**	**307**	*e*P	**P**	**10 21 31.7**	**+0.8**
TKL				*e*		10 21 37.6	
TKL						10 24 30.6	
TKL	**Tuckaleechee C**	**80.26**	**307**	*e*P	**P**	**10 21 31.7**	**+0.8**
TKL	**Tuckaleechee C**	**80.26**	**307**	*e*PcP	PcP	10 21 37.6	-0.4
PAX	**Paxson**	**80.32**	**354**	⇑*i*P	**P**	**10 21 30.7**	**0.0**
PAX				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.6						
PAX	**Paxson**	**80.32**	**354**	⇑*i*P	**P**	**10 21 30.7**	**+0.1**
	comp=Z,80nm,1.1s,mb5.6						
PAX	**Paxson**	**80.32**	**354**	⇑*i*P	**P**	**10 21 30.7**	**0.0**
	comp=Z,80nm,1.1s,mb5.6						
HDIL	**Hopedale**	**80.55**	**314**	⇑*e*P	**P**	**10 21 33.9**	**+1.5**
	comp=Z,436nm,1.3s,mb6.2						
HDIL				*e*PcP	PcP	10 21 38.8	-0.4
HDIL				*e*S	S	10 31 37.9	+0.9
HDIL				LR	LR		
	comp=Z,26µm,19.0s,MS6.6						
HDIL	**Hopedale**	**80.55**	**314**	⇑*e*P	**P**	**10 21 33.9**	**+1.5**
	comp=Z,436nm,1.3s,mb6.2						
QZH	**Quanzhou**	**80.77**	**66**	⇑*i*P	**P**	**10 21 33.0**	**-0.8**
QZH				S	S	10 31 33.3	-6.5
QZH				pmax	pmax		
	comp=Z,310nm,1.6s,mb6.0						
QZH				pmax	pmax		
	comp=Z,7µm,4.8s						
QZH				LR	LR		
	comp=N,62µm,18.9s,MS7.0						
QZH				LR	LR		
	comp=E,28µm,18.6s,MS7.0						
QZH				LR	LR		
	comp=Z,44µm,21.6s,MS6.8						
PPLA	**Purkeypile**	**80.81**	**357**	⇑*e*P	**P**	**10 21 33.1**	**-0.1**
	comp=Z,858nm,1.4s,mb6.5						
PPLA				*e*PcP	PcP	10 21 40.8	+0.9
PPLA				*e*PP	PP	10 24 43.5	+6.7
PPLA	**Purkeypile**	**80.81**	**357**	⇑*e*P	**P**	**10 21 33.1**	**-0.2**
	comp=Z,858nm,1.4s,mb6.5						
OLIL	**Olney**	**81.02**	**312**	*e*P	**P**	**10 21 34.8**	**-0.1**
	comp=Z,501nm,1.4s,mb6.2						
OLIL				*e*PcP	PcP	10 21 41.2	-0.1
OLIL	**Olney**	**81.02**	**312**	*e*P	**P**	**10 21 34.8**	**-0.1**
	comp=Z,501nm,1.4s,mb6.2						
USIN	**University of**	**81.25**	**311**	⇑*e*P	**P**	**10 21 35.8**	**-0.4**
	comp=Z,312nm,1.2s,mb6.1						
USIN				*e*PcP	PcP	10 21 42.3	0.0
USIN	**University of**	**81.25**	**311**	⇑*e*P	**P**	**10 21 35.8**	**-0.3**
	comp=Z,312nm,1.2s,mb6.1						
GOGA	**Godfrey**	**81.44**	**305**	*e*P	**P**	**10 21 38.5**	**+1.2**
GOGA				*e*		10 21 43.6	
GOGA						10 24 41.7	
GOGA				pmax	pmax		
	comp=Z,166nm,1.2s,mb5.8						
GOGA				MLR	MLR		
	comp=Z,17µm,21.0s,MS6.4						
GOGA	**Godfrey**	**81.44**	**305**	*e*P	**P**	**10 21 38.5**	**+1.2**
	comp=Z,166nm,1.2s,mb5.8						
GOGA				*e*PcP	PcP	10 21 43.5	+0.3
GOGA				PP	PP	10 24 41.7	-1.3
GOGA				LR	LR		
	comp=Z,17µm,21.0s,MS6.4						
GOGA	**Godfrey**	**81.44**	**305**	*e*P	**P**	**10 21 38.5**	**+1.2**
	comp=Z,166nm,1.2s,mb5.8						
YSS	**Yuzh-Sakhalins**	**81.56**	**36**	α*i*P	**P**	**10 21 37.0**	**-0.6**
YSS				*e**PP	pP	10 21 49.1	+1.5
YSS				*e*S	S	10 31 40.0	-7.3
YSS				*e*PPS		10 32 50.0	
YSS				pmax	pmax		
	comp=Z,630nm,1.1s,mb6.5						
YSS				pmax	pmax		
	comp=N,50nm,0.8s						
YSS				pmax	pmax		
	comp=E,60nm,0.9s						
YSS	**Yuzh-Sakhalins**	**81.56**	**36**	⇑*i*P	**P**	**10 21 37.2**	**-0.4**
YSS	**Yuzh-Sakhalins**	**81.56**	**36**	⇑*i*P	**P**	**10 21 37.2**	**-0.4**
SCIA	**State Center**	**81.88**	**317**	⇑*e*P	**P**	**10 21 39.7**	**+0.3**
	comp=E,168nm,1.0s,mb5.9						
SCIA				*e*PcP	PcP	10 21 45.4	+0.4
SCIA				*e*PP	PP	10 24 54.5	+8.1
SCIA				LR	LR		
	comp=Z,27µm,21.0s,MS6.6						
SCIA	**State Center**	**81.88**	**317**	⇑*e*P	**P**	**10 21 39.7**	**+0.3**
	comp=Z,168nm,1.0s,mb5.9						
PMR	**Palmer**	**81.95**	**356**	P	**P**	**10 21 39.2**	**-0.2**
PMR				pmax	pmax		
	comp=Z,220nm,0.9s,mb6.1						
PMR	**Palmer**	**81.95**	**356**	*e*P	**P**	**10 21 38.8**	**-0.6**
	comp=Z,127nm,1.6s,mb5.6						
PMR	**Palmer**	**81.95**	**356**	*e*P	**P**	**10 21 38.8**	**-0.6**
	comp=Z,127nm,1.6s,mb5.6						
KGM	**Kluang**	**82.09**	**93**	P	**P**	**10 21 40.0**	**-0.9**
SIUC	**Southern Illin**	**82.35**	**312**	*e*P	**P**	**10 21 41.9**	**0.0**
	comp=Z,251nm,0.9s,mb6.2						
SIUC				*e*PcP	PcP	10 21 48.1	+1.0
SIUC				*e*PP	PP	10 24 50.4	+0.1
SIUC	**Southern Illin**	**82.35**	**312**	*e*P	**P**	**10 21 41.9**	**0.0**
	comp=Z,251nm,0.9s,mb6.2						
SLM	**Saint Louis**	**82.36**	**313**	P	**P**	**10 21 42.6**	**+0.7**
SLM				pmax	pmax		
	comp=Z,320nm,1.1s,mb6.2						
SLM	**Saint Louis**	**82.36**	**313**	⇑*e*P	**P**	**10 21 42.5**	**+0.6**
	comp=Z,318nm,1.1s,mb6.2						
SLM				*e*PcP	PcP	10 21 47.9	+0.8
SLM	**Saint Louis**	**82.36**	**313**	⇑*e*P	**P**	**10 21 42.5**	**+0.6**
	comp=Z,318nm,1.1s,mb6.2						
FIB	**Fire Island**	**82.44**	**356**	P	**P**	**10 21 44.3**	**+2.4**
FIB				pmax	pmax		
	comp=Z,840nm,1.0s,mb6.6						
FIB	**Fire Island**	**82.44**	**356**	*e*P	**P**	**10 21 43.9**	**+2.0**
	comp=Z,835nm,1.0s,mb6.6						
FIB	**Fire Island**	**82.44**	**356**	*e*P	**P**	**10 21 43.9**	**+2.0**
	comp=Z,835nm,1.0s,mb6.6						
DLBC	**Dease Lake**	**82.48**	**345**	⇑*i*P	**P**	**10 21 43.5**	**+1.2**
DLBC				*e*PP	PP	10 24 50.3	-0.4
DLBC	**Dease Lake**	**82.48**	**345**	⇑*i*P	**P**	**10 21 43.5**	**+1.3**
EDM	**Edmonton**	**82.49**	**335**	⇑*i*P	**P**	**10 21 42.4**	**+0.1**
EDM				*e*		10 24 49.0	
EDM	**Edmonton**	**82.49**	**335**	⇑*i*P	**P**	**10 21 42.3**	**0.0**
RC01	**Rabbit Creek A**	**82.49**	**356**	⇑*e*P	**P**	**10 21 42.1**	**-0.1**
	comp=Z,338nm,1.0s,mb6.2						
RC01	**Rabbit Creek A**	**82.49**	**356**	⇑*e*P	**P**	**10 21 42.1**	**-0.1**
	comp=Z,338nm,1.0s,mb6.2						
SKAG	**Skagway**	**82.49**	**348**	*e*P	**P**	**10 21 42.9**	**+0.7**
	comp=Z,104nm,1.8s,mb5.5						
SKAG	**Skagway**	**82.49**	**348**	*e*P	**P**	**10 21 42.9**	**+0.7**
	comp=Z,104nm,1.8s,mb5.5						
WVT	**Waverly**	**82.53**	**310**	⇑*e*P	**P**	**10 21 42.7**	**-0.2**
WVT				*e*		10 24 51.7	
WVT				pmax	pmax		
	comp=Z,577nm,1.8s,mb6.3						
WVT				MLR	MLR		
	comp=Z,25µm,20.0s,MS6.6						
WVT	**Waverly**	**82.53**	**310**	⇑*e*P	**P**	**10 21 42.7**	**-0.2**
	comp=Z,577nm,1.8s,mb6.3						
WVT				*e*PP	PP	10 24 51.7	-0.2
WVT				LR	LR		
	comp=Z,25µm,20.0s,MS6.6						
WVT	**Waverly**	**82.53**	**310**	⇑*e*P	**P**	**10 21 42.7**	**-0.2**
	comp=Z,577nm,1.8s,mb6.3						
DGMT	**Dagmar**	**82.64**	**327**	⇓P	**P**	**10 21 44.3**	**+1.1**
	baz=82						
DGMT				⇑S	S	10 31 59.5	+1.2
	baz=82						
DGMT	**Dagmar**	**82.64**	**327**	*e*P	**P**	**10 21 43.6**	**+0.4**
	comp=Z,5µm,2.7s,mb7.1						
DGMT				LR	LR		
	comp=Z,51µm,22.0s,MS6.8						
DGMT	**Dagmar**	**82.64**	**327**	*e*P	**P**	**10 21 43.6**	**+0.4**
	comp=Z,5µm,2.7s,mb7.1						
MYKOM	**Kota Tinggi**	**82.65**	**93**	P	**P**	**10 21 42.7**	**-1.2**
SVW2	**Sparrevohn**	**82.71**	**359**	*e*P	**P**	**10 21 43.9**	**+0.6**
SVW2	**Sparrevohn**	**82.71**	**359**	*e*P	**P**	**10 21 43.9**	**+0.6**
TATO	**Taipei**	**82.87**	**64**	*e*P	**P**	**10 21 44.0**	**-0.9**
	comp=Z,347nm,1.1s,mb6.3						
TATO				LR	LR		
	comp=Z,22µm,22.0s,MS6.5						
TATO	**Taipei**	**82.87**	**64**	*e*P	**P**	**10 21 44.0**	**-0.9**
	comp=Z,347nm,1.1s,mb6.3						
PNL	**Peninsula**	**82.89**	**350**	*e*P	**P**	**10 21 45.1**	**+0.8**
	comp=Z,397nm,1.1s,mb6.4						
PNL	**Peninsula**	**82.89**	**350**	*e*P	**P**	**10 21 45.1**	**+0.8**
	comp=Z,397nm,1.1s,mb6.4						
FVM	**French Village**	**82.90**	**312**	*e*P	**P**	**10 21 45.0**	**+0.2**
FVM				pmax	pmax		
	comp=Z,223nm,1.0s,mb6.2						
FVM	**French Village**	**82.90**	**312**	*e*P	**P**	**10 21 45.0**	**+0.2**
	comp=Z,223nm,1.0s,mb6.2						
FVM				*e*PcP	PcP	10 21 50.0	+0.4
FVM	**French Village**	**82.90**	**312**	*e*P	**P**	**10 21 45.0**	**+0.2**
	comp=Z,223nm,1.0s,mb6.2						
FVM	**French Village**	**82.90**	**312**	*e*PcP	PcP	10 21 50.0	+0.5
PEA0B	**Petropavlovsk-**	**82.93**	**25**	*e*P	**P**	**10 21 44.0**	**-0.6**
PEA0B				*e*PcP	PcP	10 21 49.5	+0.1
PEA0B	**Petropavlovsk-**	**82.93**	**25**	*e*P	**P**	**10 21 44.0**	**-0.6**
PETK	**Petropavlovsk-**	**82.93**	**25**	P	**P**	**10 21 43.6**	**-1.0**
	comp=Z,21nm,0.7s,mb5.3,baz=358,slow=2.9,SNR=15						
PETK				LR	LR	11 05 19.7	
	comp=Z,34µm,18.5s,MS6.8,baz=318,slow=40						
PETK	**Petropavlovsk-**	**82.93**	**25**	P	**P**	**10 21 43.6**	**-1.0**
YHNB	**Yeheng**	**82.97**	**65**	*e*P	**P**	**10 21 45.0**	**-0.4**
	comp=Z,415nm,0.9s,mb6.5						
YHNB				*e*PcP	PcP	10 21 50.5	+0.4
YHNB				LR	LR		
	comp=Z,22µm,21.0s,MS6.5						
YHNB	**Yeheng**	**82.97**	**65**	*e*P	**P**	**10 21 45.0**	**-0.4**
	comp=Z,415nm,0.9s,mb6.5						
UTMT	**University of**	**83.03**	**310**	*e*P	**P**	**10 21 43.0**	**-2.5**
	comp=Z,262nm,1.4s,mb6.1						
SSLB	**Suanglung**	**83.19**	**66**	*e*P	**P**	**10 21 46.6**	**+0.1**
	comp=Z,564nm,1.5s,mb6.4						
SSLB				*e*PcP	PcP	10 21 51.9	+0.8
SSLB	**Suanglung**	**83.19**	**66**	*e*P	**P**	**10 21 46.6**	**+0.1**
	comp=Z,564nm,1.5s,mb6.4						
TPUB	**Ta-pu**	**83.24**	**66**	*e*P	**P**	**10 21 46.7**	**-0.1**
	comp=Z,764nm,1.3s,mb6.6						
TPUB				*e*PcP	PcP	10 21 51.1	-0.1
TPUB	**Ta-pu**	**83.24**	**66**	*e*P	**P**	**10 21 46.7**	**-0.1**
	comp=Z,764nm,1.3s,mb6.6						
DWPF	**Disney**	**83.32**	**300**	*e*P	**P**	**10 21 48.7**	**+1.6**
	comp=Z,312nm,1.3s,mb6.2						
DWPF				LR	LR		
	comp=Z,13µm,21.0s,MS6.3						
DWPF	**Disney**	**83.32**	**300**	*e*P	**P**	**10 21 48.7**	**+1.6**
	comp=Z,312nm,1.3s,mb6.2						
PET	**Petropavlovsk**	**83.32**	**25**	c*i*P	**P**	**10 21 43.7**	**-2.9**
PET				*e*		10 25 00.5	
PET				*e*S	S	10 32 02.2	-2.8
PET				*e*PS		10 33 05.9	
PET				pmax	pmax		
	comp=Z,96nm,2.2s,mb5.4						
PET				pmax	pmax		
	comp=Z,6µm,18.3s						
PET				pmax	pmax		
	comp=Z,139nm,1.9s,mb5.7						
PET	**Petropavlovsk**	**83.32**	**25**	⇑*i*P	**P**	**10 21 45.7**	**-0.9**
PET				LR	LR		
	comp=Z,38µm,20.0s,MS6.8						
PET	**Petropavlovsk**	**83.32**	**25**	⇑*i*P	**P**	**10 21 45.7**	**-0.9**
CCM	**Cathedral Cave**	**83.33**	**313**	P	**P**	**10 21 47.4**	**+0.4**
CCM				pmax	pmax		
	comp=Z,170nm,1.1s,mb6.0						
CCM	**Cathedral Cave**	**83.33**	**313**	*e*P	**P**	**10 21 47.0**	**-0.1**
	comp=Z,171nm,1.1s,mb6.0						
CCM				LR	LR		
	comp=Z,23µm,20.0s,MS6.5						
CCM	**Cathedral Cave**	**83.33**	**313**	*e*P	**P**	**10 21 47.0**	**0.0**
	comp=Z,171nm,1.1s,mb6.0						
PLAL	**Pickwick Lake**	**83.42**	**309**	*e*P	**P**	**10 21 47.8**	**+0.3**
	comp=Z,325nm,1.4s,mb6.2						
PLAL				*e*PcP	PcP	10 21 52.4	+0.5
PLAL				LR	LR		
	comp=Z,43µm,22.0s,MS6.8						
PLAL	**Pickwick Lake**	**83.42**	**309**	*e*P	**P**	**10 21 47.8**	**+0.3**
	comp=Z,325nm,1.4s,mb6.2						
NACB	**Ninganchiao**	**83.43**	**65**	*e*P	**P**	**10 21 46.2**	**-1.5**
	comp=Z,359nm,1.3s,mb6.2						
NACB	**Ninganchiao**	**83.43**	**65**	*e*P	**P**	**10 21 46.2**	**-1.6**
	comp=Z,359nm,1.3s,mb6.2						
SEW	**Seward**	**83.45**	**356**	*e*P	**P**	**10 21 47.3**	**+0.1**
	comp=Z,983nm,1.7s,mb6.6						
SEW	**Seward**	**83.45**	**356**	*e*P	**P**	**10 21 47.3**	**+0.1**
	comp=Z,983nm,1.7s,mb6.6						
ASAJ	**Asahikawa**	**83.52**	**38**	LR	LR	11 03 10.0	
	comp=Z,72µm,20.3s,MS7.0,baz=147,slow=39						
GTBY	**Guantanamo Bay**	**83.61**	**290**	*e*P	**P**	**10 21 49.8**	**+1.1**
	comp=Z,190nm,1.1s,mb6.1						
GTBY				LR	LR		
	comp=Z,10µm,22.0s,MS6.1						
GTBY	**Guantanamo Bay**	**83.61**	**290**	*e*P	**P**	**10 21 49.8**	**+1.0**
	comp=Z,190nm,1.1s,mb6.1						
YULB	**Yu-li**	**83.68**	**66**	*e*P	**P**	**10 21 47.5**	**-1.5**
	comp=Z,326nm,1.1s,mb6.4						
YULB				*e*PP	PP	10 24 55.9	-5.8
YULB	**Yu-li**	**83.68**	**66**	*e*P	**P**	**10 21 47.5**	**-1.5**
	comp=Z,326nm,1.1s,mb6.4						
TWG	**Pinlang**	**83.86**	**66**	*e*P	**P**	**10 21 50.3**	**+0.3**
	comp=Z,420nm,1.1s,mb6.5						
TWG	**Pinlang**	**83.86**	**66**	*e*P	**P**	**10 21 50.3**	**+0.3**
	comp=Z,420nm,1.1s,mb6.5						
LRAL	**Lakeview Retre**	**83.98**	**307**	*e*P	**P**	**10 21 50.8**	**+0.4**
	comp=Z,319nm,1.1s,mb6.4						
LRAL				LR	LR		
	comp=Z,18µm,20.0s,MS6.5						
LRAL	**Lakeview Retre**	**83.98**	**307**	*e*P	**P**	**10 21 50.8**	**+0.4**
	comp=Z,319nm,1.1s,mb6.4						
MET	**Memphis--Engin**	**84.48**	**310**	*e*P	**P**	**10 21 53.2**	**+0.2**
	comp=Z,605nm,1.3s,mb6.6						
MET	**Memphis--Engin**	**84.48**	**310**	*e*P	**P**	**10 21 53.2**	**+0.3**
	comp=Z,605nm,1.3s,mb6.6						
A18A	**Metzger Ranch,**	**84.66**	**330**	⇓P	**P**	**10 21 54.3**	**+0.8**
	baz=84						
A18A				⇓S	S	10 32 19.0	+0.3
	baz=84						
SIT	**Sitka**	**84.78**	**348**	P	**P**	**10 21 56.0**	**+2.0**
SIT				pmax	pmax		
	comp=Z,290nm,1.1s,mb6.3						
SIT	**Sitka**	**84.78**	**348**	*e*P	**P**	**10 21 54.8**	**+0.8**
	comp=Z,287nm,1.1s,mb6.3						
SIT	**Sitka**	**84.78**	**348**	*e*P	**P**	**10 21 54.8**	**+0.8**
	comp=Z,287nm,1.1s,mb6.3						
WRAK	**Wrangell Islan**	**84.83**	**346**	*e*P	**P**	**10 21 54.9**	**+0.7**
	comp=Z,189nm,0.9s,mb6.2						
WRAK				PcP	PcP	10 21 57.3	-0.3
WRAK				LR	LR		
	comp=Z,30µm,20.0s,MS6.7						
WRAK	**Wrangell Islan**	**84.83**	**346**	*e*P	**P**	**10 21 54.9**	**+0.6**
	comp=Z,189nm,0.9s,mb6.2						
LAO	**LASA Array**	**84.89**	**327**	*e*P	**P**	**10 21 55.5**	**+0.7**
	comp=Z,350nm,1.0s,mb6.4						
LAO				*e*PcP	PcP	10 21 57.9	-0.2
LAO				LR	LR		
	comp=Z,68µm,22.0s,MS7.0						
LAO	**LASA Array**	**84.89**	**327**	*e*P	**P**	**10 21 55.5**	**+0.7**
	comp=Z,350nm,1.0s,mb6.4						
A17A	**Triple J Farms**	**84.98**	**331**	⇑P	**P**	**10 21 55.4**	**+0.3**
	baz=85						
A17A				⇓S	S	10 32 22.0	+0.2
	baz=85						
B18A	**Beardsley Farm**	**85.05**	**330**	⇑P	**P**	**10 21 56.2**	**+0.6**
	baz=85						
B18A				⇑S	S	10 32 22.4	-0.1
	baz=85						
YUK	**Yuzh-Kuril'sk**	**85.19**	**37**	⇑*i*P	**P**	**10 21 56.0**	**-0.3**
YUK				*e*SP		10 22 10.0	
YUK				*e*		10 27 18.0	
YUK				pmax	pmax		
	comp=Z,8µm,6.0s						
YUK				pmax	pmax		
	comp=Z,980nm,1.0s,mb6.9						
YUK				pmax	pmax		
	comp=N,370nm,0.8s						
YUK				pmax	pmax		
	comp=E,370nm,0.8s						
BRAL	**Brewton**	**85.31**	**305**	*e*P	**P**	**10 21 58.4**	**+1.1**
	comp=E,654nm,1.5s,mb6.5						
BRAL				LR	LR		
	comp=Z,19µm,22.0s,MS6.4						
BRAL	**Brewton**	**85.31**	**305**	*e*P	**P**	**10 21 58.4**	**+1.2**
	comp=Z,654nm,1.5s,mb6.5						
ERM	**Erimo**	**85.32**	**40**	P	**P**	**10 21 58.7**	**+1.7**
ERM	**Erimo**	**85.32**	**40**	P	**P**	**10 21 58.7**	**+1.7**
A16A	**West Butte Ran**	**85.33**	**331**	⇓P	**P**	**10 21 56.9**	**0.0**
	baz=85,SNR=123						
A16A				⇑S	S	10 32 24.8	-0.5
	baz=85						
EGMT	**Eagleton**	**85.34**	**330**	⇓P	**P**	**10 21 58.1**	**+1.1**
	baz=85						
EGMT				⇓S	S	10 32 25.3	0.0
	baz=85						
EGMT	**Eagleton**	**85.34**	**330**	⇑*i*P	**P**	**10 21 57.8**	**+0.8**
	comp=Z,8µm,0.8s						
EGMT				PP	PP	10 25 10.7	-3.7
EGMT				LR	LR		
	comp=Z,39µm,21.0s						
EGMT	**Eagleton**	**85.34**	**330**	⇑*i*P	**P**	**10 21 57.8**	**+0.8**
	comp=Z,8µm,0.8s						
B17A	**L&G Farms, Che**	**85.54**	**330**	⇓P	**P**	**10 21 58.1**	**+0.1**
	baz=85,SNR=20						
B17A				⇓S	S	10 32 27.1	-0.3
	baz=85						
KSU1	**Kansas State U**	**85.69**	**317**	⇑*i*P	**P**	**10 21 59.4**	**+0.4**
	comp=Z,369nm,1.1s,mb6.5						
KSU1				PP	PP	10 25 14.8	-2.7
KSU1				LR	LR		
	comp=Z,24µm,20.0s,MS6.6						
KSU1	**Kansas State U**	**85.69**	**317**	⇑*i*P	**P**	**10 21 59.3**	**+0.4**
	comp=Z,369nm,1.1s,mb6.5						
A15A	**Johnson Ranch,**	**85.74**	**332**	⇑P	**P**	**10 21 59.3**	**+0.4**
	baz=85,SNR=130						
A15A				⇑S	S	10 32 28.8	-0.5
	baz=85						
B16A	**M & M Farms, S**	**85.80**	**331**	⇓P	**P**	**10 21 59.4**	**+0.1**
	baz=85						
B16A				⇓S	S	10 32 28.9	-1.1
	baz=85						
RSSD	**Black Hills**	**85.85**	**324**	*e*P	**P**	**10 21 59.6**	**0.0**
RSSD				*e*		10 25 18.9	
RSSD				pmax	pmax		
	comp=Z,256nm,1.6s,mb6.2						
RSSD				MLR	MLR		
	comp=Z,32µm,22.0s,MS6.7						
RSSD	**Black Hills**	**85.85**	**324**	*e*P	**P**	**10 21 59.5**	**-0.1**
	comp=Z,256nm,1.6s,mb6.2						
RSSD				*e*PP	PP	10 25 18.9	+0.3
RSSD				LR	LR		
	comp=Z,32µm,22.0s,MS6.7						
RSSD	**Black Hills**	**85.85**	**324**	*e*P	**P**	**10 21 59.5**	**-0.1**
	comp=Z,256nm,1.6s,mb6.2						
CRAG	**Craig**	**85.87**	**346**	*e*P	**P**	**10 21 56.4**	**-3.1**
	comp=Z,638nm,1.3s,mb6.7						
KDAK	**Kodiak Island**	**85.94**	**357**	*e*P	**P**	**10 22 00.4**	**+0.6**
KDAK				*e*		10 25 18.3	
KDAK				pmax	pmax		
	comp=Z,486nm,1.3s,mb6.6						
KDAK				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.6						
KDAK	**Kodiak Island**	**85.94**	**357**	*e*P	**P**	**10 22 00.4**	**+0.6**
	comp=Z,486nm,1.3s,mb6.6						
KDAK				*e*PP	PP	10 25 18.3	-0.5
KDAK				LR	LR		
	comp=Z,24µm,21.0s,MS6.6						
KDAK	**Kodiak Island**	**85.94**	**357**	*e*P	**P**	**10 22 00.4**	**+0.6**
	comp=Z,486nm,1.3s,mb6.6						
A14A	**Double T Ranch**	**86.00**	**332**	⇑P	**P**	**10 22 00.8**	**+0.5**
	baz=86,SNR=100						
A14A				⇑S	S	10 32 31.1	-0.8
	baz=86						
D18A	**Linhart Farms,**	**86.02**	**329**	⇓P	**P**	**10 22 01.3**	**+0.9**
	baz=86,SNR=36						
D18A				⇓S	S	10 32 32.5	+0.4
	baz=86						
C17A	**Wharram Farm,**	**86.06**	**330**	⇑P	**P**	**10 22 00.7**	**+0.1**
	baz=86,SNR=59						
C17A				⇑S	S	10 32 31.9	-0.6
	baz=86						
WALA	**Waterton Lakes**	**86.12**	**333**	*e*P	**P**	**10 22 01.0**	**+0.1**
	comp=Z,67nm,1.4s,mb5.7						
WALA				*e*PP	PP	10 25 21.5	+0.9
WALA	**Waterton Lakes**	**86.12**	**333**	*e*P	**P**	**10 22 01.0**	**+0.2**
	comp=Z,67nm,1.4s,mb5.7						
UALR	**University of**	**86.19**	**311**	*e*P	**P**	**10 22 01.8**	**+0.3**
	comp=Z,169nm,1.1s,mb6.2						
UALR				*e*PP	PP	10 25 22.5	+0.8
UALR	**University of**	**86.19**	**311**	*e*P	**P**	**10 22 01.8**	**+0.3**
	comp=Z,169nm,1.1s,mb6.2						
B15A	**Bradely Ranch,**	**86.22**	**331**	⇓P	**P**	**10 22 01.2**	**-0.1**
	baz=86,SNR=79						
B15A				⇑S	S	10 32 32.6	-1.3
	baz=86						
C16A	**Fuhringer Ranc**	**86.31**	**331**	⇓P	**P**	**10 22 01.8**	**0.0**
	baz=86,SNR=36						
C16A				⇑S	S	10 32 34.1	-0.8
	baz=86						
A13A	**Flathead Natio**	**86.41**	**333**	⇑P	**P**	**10 22 02.6**	**+0.3**
	baz=86						
A13A				⇑S	S	10 32 35.3	-0.5
	baz=86						
D17A	**Six Diamond Ra**	**86.41**	**330**	⇓P	**P**	**10 22 03.0**	**+0.6**
	baz=86,SNR=32						
D17A				⇓S	S	10 32 35.6	-0.3
	baz=86						
MAJO	**Matsushiro**	**86.48**	**46**	*e*P	**P**	**10 22 02.1**	**-0.8**
MAJO				*e*		10 25 20.7	
MAJO				pmax	pmax		
	comp=Z,435nm,1.3s,mb6.5						
MAJO				MLR	MLR		
	comp=Z,35µm,21.0s,MS6.7						
MAJO	**Matsushiro**	**86.48**	**46**	*e*P	**P**	**10 22 02.1**	**-0.8**
	comp=Z,435nm,1.3s,mb6.5						
MAJO				*e*PP	PP	10 25 20.7	-3.3
MAJO				LR	LR		
	comp=Z,35µm,21.0s,MS6.7						
MAJO	**Matsushiro**	**86.48**	**46**	*e*P	**P**	**10 22 02.1**	**-0.8**
	comp=Z,435nm,1.3s,mb6.5						
MAT	**Matsushiro**	**86.48**	**46**	P	**P**	**10 22 00.5**	**-2.4**
MAT				S	S	10 32 25.0	-12
MJAR	**Matsushiro Arr**	**86.48**	**46**	P	**P**	**10 22 02.1**	**-0.8**
	comp=Z,33nm,0.8s,mb5.6,baz=315,slow=5.1,SNR=50						
MJAR				LR	LR	11 04 28.1	
	comp=Z,27µm,20.5s,MS6.6,baz=345,slow=38						
MJAR	**Matsushiro Arr**	**86.48**	**46**	P	**P**	**10 22 02.1**	**-0.8**
OHAK	**Old Harbor**	**86.52**	**357**	*e*PP	PP	10 25 27.6	+4.0
JOW	**Kunigami**	**86.54**	**59**	LR	LR	11 06 04.4	
	comp=Z,56µm,21.8s,MS6.9,baz=315,slow=39						
E18A	**Harlowton**	**86.56**	**329**	⇑P	**P**	**10 22 04.1**	**+1.0**
	baz=86,SNR=44						
E18A				⇑S	S	10 32 37.1	-0.3
	baz=86						
SDV	**Santo Domingo**	**86.62**	**278**	*e*P	**P**	**10 22 04.7**	**+0.8**
	comp=Z,209nm,1.0s,mb6.3						
SDV				*e*S	S	10 32 33.8	-5.2
SDV				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
SDV	**Santo Domingo**	**86.62**	**278**	*e*P	**P**	**10 22 04.7**	**+0.8**
	comp=Z,209nm,1.0s,mb6.3						
C15A	**Salmond Ranch,**	**86.67**	**331**	⇑P	**P**	**10 22 03.6**	**0.0**
	baz=86,SNR=23						
C15A				⇓S	S	10 32 37.1	-1.3
	baz=86						
VBMS	**Vicksburg**	**86.76**	**308**	*e*P	**P**	**10 22 05.1**	**+0.8**
	comp=Z,358nm,0.9s,mb6.6						
VBMS				*e*PcP	PcP	10 22 06.6	0.0
VBMS				*e*PP	PP	10 25 25.9	-0.5
VBMS				LR	LR		
	comp=Z,38µm,21.0s,MS6.8						
VBMS	**Vicksburg**	**86.76**	**308**	*e*P	**P**	**10 22 05.1**	**+0.8**
	comp=Z,358nm,0.9s,mb6.6						
A12A	**Yaak River Ran**	**86.86**	**333**	⇑P	**P**	**10 22 04.9**	**+0.5**
	baz=86,SNR=38						
A12A				⇓S	S	10 32 39.0	-1.2
	baz=86						
D16A	**Dana Ranch, Ca**	**86.86**	**330**	⇑P	**P**	**10 22 05.0**	**+0.5**
	baz=86,SNR=71						
D16A				⇓S	S	10 32 39.1	-1.2
	baz=86						
B13A	**Whitefish**	**86.89**	**332**	⇓P	**P**	**10 22 05.2**	**+0.6**
	baz=86,SNR=39						
B13A				⇑S	S	10 32 39.6	-0.9
	baz=86						
F18A	**Big Timber**	**87.01**	**328**	⇓P	**P**	**10 22 06.0**	**+0.8**
	baz=87,SNR=22						

F18A				⇑S	S	10 32 41.1	-0.7
	baz=87						
E17A	**Martinsdale**	**87.04**	**329**	⇓P	**P**	**10 22 06.2**	**+0.8**
	baz=87,SNR=39						
E17A				⇓S	S	10 32 41.4	-0.6
	baz=87						
MIAR	**Mount Ida**	**87.08**	**312**	*e*P	**P**	**10 22 05.9**	**0.0**
MIAR				*e*		10 25 29.7	
MIAR				pmax	pmax		
	comp=Z,348nm,1.3s,mb6.4						
MIAR				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.6						
MIAR	**Mount Ida**	**87.08**	**312**	*e*P	**P**	**10 22 05.9**	**+0.1**
	comp=Z,348nm,1.3s,mb6.4						
MIAR				*e*PcP	PcP	10 22 07.8	-0.2
MIAR				*e*PP	PP	10 25 29.7	+0.7
MIAR				LR	LR		
	comp=Z,24µm,21.0s,MS6.6						
MIAR	**Mount Ida**	**87.08**	**312**	*e*P	**P**	**10 22 05.9**	**0.0**
	comp=Z,348nm,1.3s,mb6.4						
A11A	**Hall Mountain,**	**87.09**	**334**	⇑P	**P**	**10 22 06.3**	**+0.7**
	baz=87,SNR=39						
A11A				⇑S	S	10 32 41.3	-1.1
	baz=87						
B12A	**Libby**	**87.22**	**333**	⇑P	**P**	**10 22 07.0**	**+0.7**
	baz=87,SNR=11						
B12A				⇑S	S	10 32 42.2	-1.5
	baz=87						
D15A	**Lincoln**	**87.24**	**331**	⇑P	**P**	**10 22 06.5**	**+0.1**
	baz=87,SNR=28						
D15A				⇑S	S	10 32 42.9	-1.1
	baz=87						
OGNE	**Ogallala**	**87.24**	**321**	*e*P	**P**	**10 22 06.6**	**+0.1**
	comp=Z,228nm,1.4s,mb6.2						
OGNE				*e*PP	PP	10 25 30.0	+0.1
OGNE				LR	LR		
	comp=Z,22µm,21.0s,MS6.5						
OGNE	**Ogallala**	**87.24**	**321**	*e*P	**P**	**10 22 06.6**	**+0.1**
	comp=Z,228nm,1.4s,mb6.2						
OGNE	**Ogallala**	**87.24**	**321**	*e*PP	PP	10 25 30.0	+0.1
E16A	**East Helena**	**87.31**	**330**	⇓P	**P**	**10 22 07.4**	**+0.6**
	baz=87,SNR=28						
E16A				⇑S	S	10 32 44.0	-0.7
	baz=87						
F17A	**Fitzpatrick Pl**	**87.40**	**329**	⇑P	**P**	**10 22 08.4**	**+1.3**
	baz=87,SNR=14						
G18A	**Lazy EL Ranch,**	**87.41**	**328**	⇑P	**P**	**10 22 07.6**	**+0.4**
	baz=87,SNR=9.0						
RLMT	**Red Lodge**	**87.44**	**328**	⇓P	**P**	**10 22 08.6**	**+1.3**
	baz=87						
RLMT	**Red Lodge**	**87.44**	**328**	*e*P	**P**	**10 22 07.9**	**+0.5**
	comp=Z,774nm,1.8s,mb6.6						
RLMT				LR	LR		
	comp=Z,49µm,22.0s,MS6.9						
RLMT	**Red Lodge**	**87.44**	**328**	*e*P	**P**	**10 22 07.9**	**+0.5**
	comp=Z,774nm,1.8s,mb6.6						
BSMT	**Bassoo Peak**	**87.44**	**332**	P	**P**	**10 22 06.3**	**-1.0**
BSMT	**Bassoo Peak**	**87.44**	**332**	P	**P**	**10 22 06.3**	**-1.0**
A10A	**Northport**	**87.49**	**334**	⇓P	**P**	**10 22 07.9**	**+0.3**
	baz=87,SNR=15						
C13A	**Hot Springs**	**87.50**	**332**	⇑P	**P**	**10 22 08.4**	**+0.7**
	baz=87,SNR=28						
B11A	**Sandpoint**	**87.53**	**334**	⇑P	**P**	**10 22 08.2**	**+0.5**
	baz=87,SNR=19						
CHGN	**Chignik**	**87.55**	**0**	*e*P	**P**	**10 22 07.4**	**-0.2**
CHGN	**Chignik**	**87.55**	**0**	*e*P	**P**	**10 22 07.4**	**-0.2**
D14A	**Greenough**	**87.59**	**331**	⇑P	**P**	**10 22 08.0**	**0.0**
	baz=87,SNR=39						
CBKS	**Cedar Bluff**	**87.60**	**318**	*e*P	**P**	**10 22 08.7**	**+0.4**
CBKS				*e*		10 25 33.1	
CBKS				pmax	pmax		
	comp=Z,289nm,1.2s,mb6.4						
CBKS				MLR	MLR		
	comp=Z,37µm,22.0s,MS6.8						
CBKS	**Cedar Bluff**	**87.60**	**318**	*e*P	**P**	**10 22 08.7**	**+0.5**
	comp=Z,289nm,1.2s,mb6.4						
CBKS				*e*PP	PP	10 25 33.1	+0.2
CBKS				LR	LR		
	comp=Z,37µm,22.0s,MS6.8						
CBKS	**Cedar Bluff**	**87.60**	**318**	*e*P	**P**	**10 22 08.7**	**+0.4**
	comp=Z,289nm,1.2s,mb6.4						
E15A	**Deer Lodge**	**87.79**	**330**	⇓P	**P**	**10 22 09.6**	**+0.6**
	baz=87,SNR=20						
C12B	**Naegeli Ranch,**	**87.82**	**333**	⇑P	**P**	**10 22 09.3**	**+0.2**
	baz=87,SNR=33						
A09A	**Danville**	**87.85**	**335**	⇑P	**P**	**10 22 09.9**	**+0.7**
	baz=88,SNR=62						
F16A	**Kennard Place,**	**87.90**	**329**	⇓P	**P**	**10 22 10.3**	**+0.8**
	baz=88,SNR=16						
G17A	**Pierce Place,**	**87.91**	**329**	⇑P	**P**	**10 22 10.7**	**+1.1**
	baz=88,SNR=12						
NEW	**Newport**	**87.95**	**334**	P	**P**	**10 22 10.1**	**+0.4**
NEW				pmax	pmax		
	comp=Z,240nm,1.0s						
NEW	**Newport**	**87.95**	**334**	P	**P**	**10 22 10.1**	**+0.4**
D13A	**Huson**	**87.95**	**332**	⇓P	**P**	**10 22 10.0**	**+0.2**
	baz=88,SNR=37						
B10A	**Chitwood Farm,**	**87.95**	**334**	⇑P	**P**	**10 22 10.5**	**+0.7**
	baz=88,SNR=9.0						
MSO	**Missoula**	**87.97**	**331**	*e*P	**P**	**10 22 09.9**	**+0.1**
	comp=Z,208nm,1.3s,mb6.2						
MSO				*e*PcP	PcP	10 22 12.1	+0.4
MSO				*e*PP	PP	10 25 36.3	+0.8
MSO				LR	LR		
	comp=Z,13µm,20.0s,MS6.3						
MSO	**Missoula**	**87.97**	**331**	*e*P	**P**	**10 22 09.9**	**0.0**
	comp=Z,208nm,1.3s,mb6.2						
BOZ	**Bozeman (W)**	**88.01**	**329**	*e*P	**P**	**10 22 10.9**	**+0.8**
BOZ				*e*		10 25 34.1	
BOZ				pmax	pmax		
	comp=Z,123nm,1.3s,mb6.0						
BOZ				MLR	MLR		
	comp=Z,35µm,21.0s,MS6.8						
BOZ	**Bozeman (W)**	**88.01**	**329**	⇑P	**P**	**10 22 11.4**	**+1.3**
	baz=88,SNR=32						
BOZ	**Bozeman (W)**	**88.01**	**329**	*e*P	**P**	**10 22 10.9**	**+0.8**
	comp=Z,123nm,1.3s,mb6.0						
BOZ				*e*PP	PP	10 25 34.0	-1.9
BOZ				LR	LR		
	comp=Z,35µm,21.0s,MS6.8						
BOZ	**Bozeman (W)**	**88.01**	**329**	*e*P	**P**	**10 22 10.9**	**+0.8**
	comp=Z,123nm,1.3s,mb6.0						
KSM	**Kuching**	**88.04**	**90**	P	**P**	**10 22 10.8**	**+0.1**
KSM	**Kuching**	**88.04**	**90**	*e*P	**P**	**10 22 11.2**	**+0.5**
	comp=Z,2µm,1.9s,mb6.9						
KSM				*e*PP	PP	10 25 37.6	0.0
KSM				LR	LR		
	comp=Z,26µm,22.0s,MS6.6						
KSM	**Kuching**	**88.04**	**90**	*e*P	**P**	**10 22 11.2**	**+0.5**
	comp=Z,2µm,1.9s,mb6.9						
KSM	**Kuching**	**88.04**	**90**	*e*PP	PP	10 25 37.6	+0.1
A08A	**Turner Farm, O**	**88.10**	**335**	⇑P	**P**	**10 22 11.2**	**+0.8**
	baz=88,SNR=11						
E14A	**Clinton**	**88.13**	**331**	⇑P	**P**	**10 22 11.1**	**+0.5**
	baz=88,SNR=37						
B09A	**Rice**	**88.17**	**335**	⇑P	**P**	**10 22 11.6**	**+0.8**
	baz=88,SNR=54						
F15A	**Butte**	**88.21**	**330**	⇑P	**P**	**10 22 11.6**	**+0.6**
	baz=88,SNR=19						
LKWY	**Lake**	**88.37**	**328**	*e*P	**P**	**10 22 12.7**	**+0.9**
LKWY				pmax	pmax		
	comp=Z,170nm,1.1s,mb6.2						
LKWY				MLR	MLR		
	comp=Z,77µm,22.0s,MS7.1						
LKWY	**Lake**	**88.37**	**328**	*e*P	**P**	**10 22 12.7**	**+0.9**
	comp=Z,170nm,1.1s,mb6.2						
LKWY				LR	LR		
	comp=Z,77µm,22.0s,MS7.1						
LKWY	**Lake**	**88.37**	**328**	*e*P	**P**	**10 22 12.7**	**+0.9**
	comp=Z,170nm,1.1s,mb6.2						
E13A	**Victor**	**88.38**	**331**	⇓P	**P**	**10 22 11.9**	**+0.1**
	baz=88,SNR=39						
A07A	**Ashnola River,**	**88.39**	**336**	⇑P	**P**	**10 22 12.0**	**+0.2**
	baz=88,SNR=11						
C10A	**Spilker Farm,**	**88.39**	**334**	⇓P	**P**	**10 22 11.8**	**-0.1**
	baz=88,SNR=23						
G16A	**Moss Hill, Enn**	**88.42**	**329**	⇑P	**P**	**10 22 13.2**	**+1.1**
	baz=88,SNR=34						
BALP	**Baler**	**88.50**	**72**	*e*P	**P**	**10 22 13.8**	**+0.9**
H17A	**Grant Village**	**88.58**	**328**	⇓P	**P**	**10 22 15.4**	**+2.6**
	baz=88,SNR=21						
F14A	**Wisdom**	**88.58**	**330**	⇑P	**P**	**10 22 13.4**	**+0.6**
	baz=88,SNR=24						
H16A	**Russell Place,**	**88.62**	**329**	⇑P	**P**	**10 22 14.7**	**+1.8**
	baz=88,SNR=22						
B08A	**Colville Reser**	**88.63**	**335**	⇓P	**P**	**10 22 13.3**	**+0.3**
	baz=88,SNR=20						
DLMT	**Dillon**	**88.64**	**330**	*e*P	**P**	**10 22 13.7**	**+0.6**
	comp=Z,157nm,1.2s,mb6.2						
DLMT				*e*PP	PP	10 25 41.6	+0.7
DLMT	**Dillon**	**88.64**	**330**	*e*P	**P**	**10 22 13.7**	**+0.6**
	comp=Z,157nm,1.2s,mb6.2						
PHWY	**Pilot Hill**	**88.67**	**323**	*e*P	**P**	**10 22 13.8**	**+0.5**
	comp=Z,169nm,1.0s,mb6.3						
PHWY				*e*PP	PP	10 25 39.2	-2.1
PHWY	**Pilot Hill**	**88.67**	**323**	*e*P	**P**	**10 22 13.8**	**+0.5**
	comp=Z,169nm,1.0s,mb6.3						
LUBP	**Lubang**	**88.68**	**74**	*e*P	**P**	**10 22 12.9**	**-0.8**
D11A	**Klaveano Farm,**	**88.69**	**333**	⇑P	**P**	**10 22 12.2**	**-1.0**
	baz=88,SNR=15						
A06A	**Chilliwack**	**88.69**	**337**	⇓P	**P**	**10 22 12.9**	**-0.3**
	baz=88						
C09A	**Chrisman Ranch**	**88.75**	**334**	⇓P	**P**	**10 22 14.2**	**+0.7**
	baz=88,SNR=12						
G15A	**Dillon**	**88.76**	**329**	⇓P	**P**	**10 22 14.7**	**+1.1**
	baz=88,SNR=25						
B07A	**Winthrop**	**88.81**	**336**	⇓P	**P**	**10 22 14.1**	**+0.3**
	baz=88,SNR=20						
I17A	**Pilgrim Ck.**	**88.96**	**328**	⇑P	**P**	**10 22 16.4**	**+1.8**
	baz=89,SNR=11						
A05A	**Maple Falls**	**88.97**	**337**	⇑P	**P**	**10 22 13.6**	**-1.0**
	baz=89						
K20A	**Yellowstone Ra**	**88.97**	**326**	⇑P	**P**	**10 22 14.5**	**-0.2**
	baz=89,SNR=22						
F13A	**Darby**	**88.98**	**331**	⇑P	**P**	**10 22 15.1**	**+0.5**
	baz=89,SNR=58						
TGY	**Tagaytay City**	**88.99**	**73**	LR	LR	11 08 41.9	
	comp=Z,92nm,21.3s,baz=317,slow=40						
SBUM	**Sibu**	**89.00**	**88**	P	**P**	**10 22 15.7**	**+0.4**
C08A	**Higginbotham F**	**89.03**	**335**	⇑P	**P**	**10 22 15.6**	**+0.8**
	baz=89,SNR=51						
L21A	**Rawlins**	**89.07**	**325**	⇓P	**P**	**10 22 15.1**	**-0.1**
	baz=89						
K19A	**Absolon Red Bu**	**89.07**	**326**	⇓P	**P**	**10 22 14.8**	**-0.3**
	baz=89,SNR=34						
G14A	**Jackson**	**89.09**	**330**	⇑P	**P**	**10 22 16.2**	**+1.0**
	baz=89						
M22A	**Cedar Creek Ra**	**89.14**	**324**	⇓P	**P**	**10 22 16.1**	**+0.6**
	baz=89,SNR=22						
MOOW	**Moose Ponds**	**89.17**	**328**	⇑*e*P	**P**	**10 22 16.6**	**+0.9**
	comp=Z,136nm,1.4s,mb6.1						
MOOW				*e*PP	PP	10 25 46.4	+1.2
MOOW	**Moose Ponds**	**89.17**	**328**	⇑*e*P	**P**	**10 22 16.5**	**+0.9**
	comp=Z,136nm,1.4s,mb6.1						
B06A	**Marblemount**	**89.20**	**336**	⇑P	**P**	**10 22 14.9**	**-0.7**
	baz=89						
RWWY	**Rawlins**	**89.21**	**324**	*e*P	**P**	**10 22 16.3**	**+0.5**
	comp=Z,206nm,1.2s,mb6.3						
RWWY	**Rawlins**	**89.21**	**324**	*e*P	**P**	**10 22 16.3**	**+0.5**
	comp=Z,206nm,1.2s,mb6.3						
NLW	**Nelson Butte**	**89.21**	**336**	P	**P**	**10 22 16.6**	**+0.9**
NLW	**Nelson Butte**	**89.21**	**336**	P	**P**	**10 22 16.6**	**+0.9**
LOHW	**Long Hollow**	**89.22**	**327**	*e*P	**P**	**10 22 16.7**	**+0.9**
	comp=Z,95nm,1.2s,mb6.0						
LOHW				*e*PP	PP	10 25 41.5	-4.1
LOHW	**Long Hollow**	**89.22**	**327**	*e*P	**P**	**10 22 16.7**	**+0.9**
	comp=Z,95nm,1.2s,mb6.0						
E11A	**Bogner Ranch,**	**89.23**	**332**	⇓P	**P**	**10 22 15.1**	**-0.7**
	baz=89,SNR=14						
BTM	**Bintulu**	**89.25**	**87**	P	**P**	**10 22 18.3**	**+1.9**
H15A	**Lima**	**89.27**	**329**	⇓P	**P**	**10 22 16.5**	**+0.5**
	baz=89,SNR=22						
J18A	**Kendall Valley**	**89.29**	**327**	⇑P	**P**	**10 22 16.9**	**+0.8**
	baz=89,SNR=36						
I16A	**Newdale**	**89.39**	**328**	⇓P	**P**	**10 22 18.4**	**+1.7**
	baz=89,SNR=22						
D09A	**Jones Farm, Ri**	**89.39**	**334**	⇓P	**P**	**10 22 16.9**	**+0.3**
	baz=89,SNR=15						
A04A	**Legoe Bay, Lum**	**89.41**	**337**	⇓P	**P**	**10 22 16.3**	**-0.4**
	baz=89						
WTV	**Waterville**	**89.41**	**335**	P	**P**	**10 22 16.9**	**+0.2**
WTV	**Waterville**	**89.41**	**335**	P	**P**	**10 22 16.9**	**+0.2**
BW06	**Boulder Array**	**89.44**	**326**	⇓P	**P**	**10 22 16.5**	**-0.3**
	baz=89,SNR=11						
BW06	**Boulder Array**	**89.44**	**326**	⇑*e*P	**P**	**10 22 16.6**	**-0.3**
	comp=Z,164nm,1.2s,mb6.2						
BW06				*e*PP	PP	10 25 47.1	-0.3
BW06				LR	LR		
	comp=Z,67µm,22.0s,MS7.0						
BW06	**Boulder Array**	**89.44**	**326**	⇑*e*P	**P**	**10 22 16.6**	**-0.3**
	comp=Z,164nm,1.2s,mb6.2						
BW06	**Boulder Array**	**89.44**	**326**	*e*PP	PP	10 25 47.1	-0.3
PDAR	**Pinedale Array**	**89.44**	**326**	P	**P**	**10 22 17.1**	**+0.2**
	comp=Z,6.9nm,0.8s,mb5.0,baz=57,slow=5.5,SNR=22						
PDAR				PP	PP	10 25 39.4	-8.0
	comp=Z,11nm,1.0s,baz=39,slow=5.9,SNR=3.5						
PDAR				LR	LR	11 03 55.0	
	comp=Z,25µm,21.2s,MS6.6,baz=38,slow=37						
PDAR	**Pinedale Array**	**89.44**	**326**	P	**P**	**10 22 17.1**	**+0.2**
E10A	**Myers Farm, Un**	**89.45**	**333**	⇓P	**P**	**10 22 16.3**	**-0.6**
	baz=89						
C07A	**Waterville**	**89.46**	**335**	⇓P	**P**	**10 22 17.0**	**+0.2**
	baz=89,SNR=16						
J17A	**Brown Place, J**	**89.47**	**327**	⇓P	**P**	**10 22 17.6**	**+0.6**
	baz=89						
DCID1	**Drake Creek**	**89.48**	**328**	*e*P	**P**	**10 22 18.0**	**+1.0**
	comp=Z,219nm,1.1s,mb6.4						
DCID1	**Drake Creek**	**89.48**	**328**	*e*P	**P**	**10 22 18.0**	**+0.9**
	comp=Z,219nm,1.1s,mb6.4						
L20A	**Wamsutter**	**89.48**	**325**	⇓P	**P**	**10 22 17.8**	**+0.7**
	baz=89,SNR=23						
G13A	**Cobalt**	**89.52**	**330**	⇓P	**P**	**10 22 17.7**	**+0.5**
	baz=89,SNR=32						
REDW	**Red Top Meadow**	**89.53**	**327**	*e*P	**P**	**10 22 18.4**	**+1.1**
	comp=Z,251nm,1.5s,mb6.3						
REDW				*e*PP	PP	10 25 48.5	+0.5
REDW	**Red Top Meadow**	**89.53**	**327**	*e*P	**P**	**10 22 18.4**	**+1.1**
	comp=Z,251nm,1.5s,mb6.3						
C06A	**Tall Timber Ra**	**89.53**	**336**	⇓P	**P**	**10 22 17.0**	**-0.2**
	baz=89						
N22A	**Wattenberg Ran**	**89.54**	**323**	⇑P	**P**	**10 22 18.0**	**+0.6**
	baz=89,SNR=17						
ENPP	**El Nido**	**89.56**	**76**	*e*P	**P**	**10 22 20.2**	**+2.3**
EPH	**Ephrata**	**89.59**	**335**	P	**P**	**10 22 17.9**	**+0.4**
EPH	**Ephrata**	**89.59**	**335**	P	**P**	**10 22 17.9**	**+0.4**
D08A	**Wollman Farm,**	**89.61**	**334**	⇓P	**P**	**10 22 18.1**	**+0.5**
	baz=89,SNR=14						
B05A	**Bryant**	**89.62**	**337**	⇓P	**P**	**10 22 17.1**	**-0.5**
	baz=89,SNR=13						
JCW	**Jim Creek**	**89.63**	**337**	P	**P**	**10 22 17.2**	**-0.5**
JCW	**Jim Creek**	**89.63**	**337**	P	**P**	**10 22 17.2**	**-0.5**
NATX	**Nacogdoches**	**89.66**	**310**	⇑*e*P	**P**	**10 22 19.1**	**+1.0**
	comp=Z,833nm,1.7s,mb6.8						
NATX				*e*PP	PP	10 25 49.5	-0.1
NATX				LR	LR		
	comp=Z,25µm,20.0s,MS6.6						
NATX	**Nacogdoches**	**89.66**	**310**	⇑*e*P	**P**	**10 22 19.1**	**+1.0**
	comp=Z,833nm,1.7s,mb6.8						
PGC	**Sidney**	**89.70**	**338**	*e*P	**P**	**10 22 18.7**	**+0.7**
	comp=Z,20nm,1.6s,mb5.2						
PGC	**Sidney**	**89.70**	**338**	*e*P	**P**	**10 22 18.7**	**+0.7**
	comp=Z,20nm,1.6s,mb5.2						
I15A	**Monteview**	**89.71**	**329**	⇑P	**P**	**10 22 20.0**	**+1.9**
	baz=89						
BATP	**Bataraza**	**89.72**	**79**	*e*P	**P**	**10 22 18.8**	**+0.1**
RRI2	**Red Ridge**	**89.74**	**328**	⇑*i*P	**P**	**10 22 19.1**	**+0.9**
	comp=Z,946nm,1.8s,mb6.8						
RRI2				*e*PP	PP	10 25 50.0	+0.2
K18A	**Toltan Ranch,**	**89.75**	**327**	⇓P	**P**	**10 22 19.0**	**+0.6**
	baz=89,SNR=25						
JHJ	**Hachijo jima 2**	**89.79**	**48**	LR	LR	11 07 12.8	
	comp=Z,20µm,19.6s,MS6.6,baz=118,slow=39						
E09A	**Wood Farm, Sta**	**89.80**	**334**	⇓P	**P**	**10 22 18.6**	**+0.1**
	baz=89						
M20A	**Sweetwater, Wa**	**89.82**	**325**	⇑P	**P**	**10 22 18.9**	**+0.2**
	baz=90,SNR=24						
D07A	**Quincy**	**89.86**	**335**	⇓P	**P**	**10 22 19.8**	**+1.0**
	baz=90,SNR=7.9						
L19A	**Farson**	**89.87**	**326**	⇑P	**P**	**10 22 18.8**	**-0.1**
	baz=90,SNR=15						
ISCO	**Idaho Springs**	**89.90**	**322**	⇑*e*P	**P**	**10 22 19.6**	**+0.5**
ISCO				*e*		10 25 52.9	
ISCO				*e*S	S	10 33 10.3	+1.0
ISCO				pmax	pmax		
	comp=Z,85nm,1.1s,mb6.0						
ISCO				MLR	MLR		
	comp=Z,44µm,22.0s,MS6.8						
ISCO	**Idaho Springs**	**89.90**	**322**	⇑*e*P	**P**	**10 22 19.6**	**+0.5**
	comp=Z,85nm,1.1s,mb6.0						
ISCO				*e*PP	PP	10 25 52.9	+1.7
ISCO				*e*S	S	10 33 10.3	+0.9
ISCO				LR	LR		
	comp=Z,44µm,22.0s,MS6.8						
ISCO	**Idaho Springs**	**89.90**	**322**	⇑*e*P	**P**	**10 22 19.6**	**+0.5**
	comp=Z,85nm,1.1s,mb6.0						
F10A	**Beach Ranch, E**	**89.93**	**333**	⇓P	**P**	**10 22 18.7**	**-0.4**
	baz=90,SNR=20						
C05A	**Tolt Reservoir**	**89.99**	**336**	⇓P	**P**	**10 22 18.9**	**-0.5**
	baz=90,SNR=14						
WMOK	**Wichita Mounta**	**90.01**	**315**	⇑*i*P	**P**	**10 22 20.3**	**+0.6**
WMOK				*e*		10 25 52.5	
WMOK				pmax	pmax		
	comp=Z,113nm,1.1s,mb6.1						
WMOK				MLR	MLR		
	comp=Z,18µm,19.0s,MS6.5						
WMOK	**Wichita Mounta**	**90.01**	**315**	⇑*i*P	**P**	**10 22 20.3**	**+0.6**
	comp=Z,113nm,1.1s,mb6.1						
WMOK				*e*PP	PP	10 25 52.5	+0.2
WMOK				LR	LR		
	comp=Z,18µm,19.0s,MS6.5						
WMOK	**Wichita Mounta**	**90.01**	**315**	⇑*i*P	**P**	**10 22 20.3**	**+0.6**
	comp=Z,113nm,1.1s,mb6.1						
K17A	**Gardner Place,**	**90.05**	**327**	⇑P	**P**	**10 22 20.1**	**+0.4**
	baz=90						
KDM	**Kudat**	**90.06**	**81**	P	**P**	**10 22 21.2**	**+0.9**
N21A	**Black Mountain**	**90.08**	**324**	⇓P	**P**	**10 22 20.7**	**+0.8**
	baz=90,SNR=34						
KKM	**Kota Kinabalu**	**90.09**	**82**	P	**P**	**10 22 17.9**	**-2.5**
KKM	**Kota Kinabalu**	**90.09**	**82**	⇑*i*P	**P**	**10 22 19.1**	**-1.3**
	comp=Z,292nm,1.5s,mb6.4						
KKM				*e*PP	PP	10 25 52.5	-1.3
KKM				*e*S	S	10 33 12.7	+0.8
KKM				LR	LR		
	comp=Z,22µm,20.0s,MS6.6						
KKM	**Kota Kinabalu**	**90.09**	**82**	⇑*i*P	**P**	**10 22 19.1**	**-1.3**
	comp=Z,292nm,1.5s,mb6.4						
KKM	**Kota Kinabalu**	**90.09**	**82**	*e*PP	PP	10 25 52.5	-1.3
AHID	**Auburn Hatcher**	**90.12**	**327**	⇑*i*P	**P**	**10 22 20.3**	**+0.2**
	comp=Z,118nm,1.0s,mb6.2						
AHID				LR	LR		
	comp=Z,51µm,22.0s,MS6.9						
AHID	**Auburn Hatcher**	**90.12**	**327**	⇑*i*P	**P**	**10 22 20.3**	**+0.3**
	comp=Z,118nm,1.0s,mb6.2						
E08A	**Dider Farm, El**	**90.15**	**334**	⇓P	**P**	**10 22 20.6**	**+0.5**
	baz=90						
D06A	**Cle Elum**	**90.15**	**335**	⇑P	**P**	**10 22 19.6**	**-0.5**
	baz=90						
I14A	**Mackay**	**90.16**	**329**	⇓P	**P**	**10 22 21.5**	**+1.2**
	baz=90						
J15A	**Blackfoot**	**90.17**	**328**	⇓P	**P**	**10 22 21.7**	**+1.4**
	baz=90,SNR=13						
H12A	**Diamond D Ranc**	**90.22**	**331**	⇑P	**P**	**10 22 20.6**	**+0.1**
	baz=90						
B04A	**Port Angeles**	**90.25**	**337**	⇑P	**P**	**10 22 20.8**	**+0.2**
	baz=90						
M19A	**Rock Springs**	**90.26**	**325**	⇑P	**P**	**10 22 21.1**	**+0.4**
	baz=90,SNR=29						
K16A	**Soda Springs**	**90.27**	**328**	⇓P	**P**	**10 22 21.4**	**+0.6**
	baz=90						
L18A	**Fontenelle, Gr**	**90.32**	**326**	⇑P	**P**	**10 22 21.0**	**0.0**
	baz=90						
E07A	**Sunnyside**	**90.37**	**335**	⇓P	**P**	**10 22 21.9**	**+0.8**
	baz=90						
N20A	**Spence Gulch,**	**90.37**	**324**	⇑P	**P**	**10 22 21.4**	**+0.2**
	baz=90						
C04A	**Brinnon**	**90.38**	**337**	⇓P	**P**	**10 22 22.2**	**+1.0**
	baz=90,SNR=12						
HAWA	**Hanford**	**90.40**	**334**	*e*P	**P**	**10 22 21.4**	**+0.1**
	comp=Z,313nm,1.4s,mb6.5						
HAWA				LR	LR		
	comp=Z,33µm,22.0s,MS6.7						
HAWA	**Hanford**	**90.40**	**334**	*e*P	**P**	**10 22 21.4**	**+0.1**
	comp=Z,313nm,1.4s,mb6.5						
I13A	**Wildhorse Cree**	**90.45**	**330**	⇓P	**P**	**10 22 22.2**	**+0.6**
	baz=90,SNR=29						
G10A	**Bishop Farm, J**	**90.47**	**332**	⇓P	**P**	**10 22 21.1**	**-0.6**
	baz=90,SNR=20						
GNW	**Green Mountain**	**90.47**	**337**	⇑*i*P	**P**	**10 22 21.7**	**+0.1**
	comp=Z,329nm,1.4s,mb6.5						
GNW				*e*PP	PP	10 25 57.6	+2.2
GNW	**Green Mountain**	**90.47**	**337**	⇑*i*P	**P**	**10 22 21.7**	**+0.1**
	comp=Z,328nm,1.4s,mb6.5						
O21A	**Pagoda**	**90.48**	**324**	⇑P	**P**	**10 22 22.2**	**+0.4**
	baz=90,SNR=15						
D05A	**Enumclaw**	**90.53**	**336**	⇓P	**P**	**10 22 22.1**	**+0.2**
	baz=90						
H11A	**Donnelly**	**90.54**	**331**	⇑P	**P**	**10 22 21.7**	**-0.3**
	baz=90						
L17A	**Cokeville**	**90.55**	**327**	⇑P	**P**	**10 22 21.9**	**-0.2**
	baz=90,SNR=14						
F08A	**Pendleton**	**90.64**	**334**	⇑P	**P**	**10 22 23.0**	**+0.5**
	baz=90						
J14A	**Carey**	**90.69**	**329**	⇓P	**P**	**10 22 24.0**	**+1.3**
	baz=90,SNR=5.6						
G09A	**Cove**	**90.72**	**333**	⇓P	**P**	**10 22 22.4**	**-0.5**
	baz=90,SNR=22						
M18A	**Lyman**	**90.73**	**326**	⇑P	**P**	**10 22 23.0**	**0.0**
	baz=90,SNR=12						
N19A	**John Jarvie Ra**	**90.75**	**325**	⇓P	**P**	**10 22 22.7**	**-0.3**
	baz=90,SNR=15						
E06A	**Yakima**	**90.76**	**335**	⇓P	**P**	**10 22 23.5**	**+0.5**
	baz=90,SNR=9.1						
K15A	**Arbon**	**90.80**	**328**	⇓P	**P**	**10 22 24.1**	**+0.9**
	baz=90,SNR=12						
HLID	**Hailey**	**90.86**	**330**	⇓P	**P**	**10 22 24.2**	**+0.7**
	baz=90						
HLID	**Hailey**	**90.86**	**330**	⇑*e*P	**P**	**10 22 23.8**	**+0.3**
	comp=Z,170nm,1.8s,mb6.1						
HLID				*e*PP	PP	10 25 59.6	+1.0
HLID				LR	LR		
	comp=Z,36µm,20.0s,MS6.8						
HLID	**Hailey**	**90.86**	**330**	⇑*e*P	**P**	**10 22 23.8**	**+0.3**
	comp=Z,170nm,1.8s,mb6.1						
HLID	**Hailey**	**90.86**	**330**	*e*PP	PP	10 25 59.6	+1.0
LON	**Longmire**	**90.86**	**336**	⇑*e*P	**P**	**10 22 23.6**	**+0.2**
LON				*e*		10 25 57.9	
LON				pmax	pmax		
	comp=Z,2µm,0.5s,mb7.6						
LON	**Longmire**	**90.86**	**336**	⇑*e*P	**P**	**10 22 23.6**	**+0.2**
	comp=Z,2µm,0.5s,mb7.6						
LON				*e*PP	PP	10 25 57.9	-0.6
LON	**Longmire**	**90.86**	**336**	⇑*e*P	**P**	**10 22 23.6**	**+0.2**
	comp=Z,2µm,0.5s,mb7.6						
D04A	**Dobbs Creek Ra**	**90.86**	**337**	⇑P	**P**	**10 22 24.4**	**+1.0**
	baz=90						
L16A	**Fish Haven**	**90.87**	**327**	⇑P	**P**	**10 22 23.8**	**+0.2**
	baz=90,SNR=19						
J13A	**Cove Ranch, Pi**	**90.90**	**329**	⇑P	**P**	**10 22 24.4**	**+0.7**
	baz=90,SNR=18						
O20A	**White River Ci**	**90.91**	**324**	⇓P	**P**	**10 22 24.0**	**+0.2**
	baz=91,SNR=26						
NLWA	**Neilton Lookou**	**90.95**	**337**	⇑P	**P**	**10 22 24.9**	**+1.1**
	baz=90						
NLWA	**Neilton Lookou**	**90.95**	**337**	⇓*e*P	**P**	**10 22 23.2**	**-0.6**
	comp=Z,246nm,1.5s,mb6.3						
NLWA				*e*PP	PP	10 26 02.9	+3.7
NLWA				LR	LR		
	comp=Z,64µm,21.0s,MS7.0						
NLWA	**Neilton Lookou**	**90.95**	**337**	⇓*e*P	**P**	**10 22 23.2**	**-0.6**
	comp=Z,246nm,1.5s,mb6.3						
I12A	**Atlanta**	**90.96**	**330**	⇓P	**P**	**10 22 24.4**	**+0.4**
	baz=91,SNR=23						
M17A	**Scullys Gap (B**	**90.96**	**326**	⇓P	**P**	**10 22 23.8**	**-0.2**
	baz=91,SNR=15						
F07A	**Phinny Hill Vi**	**90.97**	**334**	⇑P	**P**	**10 22 25.2**	**+1.3**
	baz=91,SNR=17						
P21A	**Newcastle**	**91.01**	**323**	⇓P	**P**	**10 22 24.6**	**+0.3**
	baz=91,SNR=10						
SDKM	**Sandakan**	**91.11**	**82**	P	**P**	**10 22 22.6**	**-2.6**
G08A	**Pilot Rock**	**91.14**	**333**	⇓P	**P**	**10 22 24.6**	**-0.2**
	baz=91,SNR=9.2						
I11A	**Placerville**	**91.18**	**331**	⇑P	**P**	**10 22 24.8**	**-0.2**
	baz=91,SNR=22						
K14A	**Jones Ranch, D**	**91.19**	**328**	⇓P	**P**	**10 22 25.7**	**+0.7**
	baz=91,SNR=12						
O19A	**Miners Draw (B**	**91.19**	**325**	⇓P	**P**	**10 22 25.0**	**-0.1**
	baz=91						
H09A	**Durkee**	**91.20**	**332**	⇑P	**P**	**10 22 24.8**	**-0.2**
	baz=91						
Q22A	**Crested Butte,**	**91.26**	**322**	⇑P	**P**	**10 22 26.0**	**+0.6**
	baz=91,SNR=39						
L15A	**Malad City**	**91.29**	**328**	⇑P	**P**	**10 22 25.9**	**+0.4**
	baz=91						
I10A	**Payette**	**91.37**	**331**	⇓P	**P**	**10 22 26.3**	**+0.4**
	baz=91,SNR=28						
F06A	**Goldendale**	**91.37**	**335**	⇓P	**P**	**10 22 26.3**	**+0.5**
	baz=91						
XMIS	**Christmas Isla**	**91.38**	**102**	*e*P	**P**	**10 22 27.4**	**+1.1**
	comp=Z,886nm,1.6s,mb6.8						
XMIS	**Christmas Isla**	**91.38**	**102**	*e*P	**P**	**10 22 27.4**	**+1.1**
	comp=Z,886nm,1.6s,mb6.8						
J12A	**Stokes Ranch,**	**91.40**	**330**	⇓P	**P**	**10 22 26.6**	**+0.6**

	baz=91,SNR=19						
SDCO	Great Sand Dun	91.42	321	⇑*e*P	P	10 22 26.2	+0.1
	comp=Z,162nm,1.6s,mb6.1						
SDCO				*e*PP	PP	10 26 03.9	+0.6
SDCO				LR	LR		
	comp=Z,18µm,20.0s,MS6.5						
SDCO	Great Sand Dun	91.42	321	⇑*e*P	P	10 22 26.2	0.0
	comp=Z,162nm,1.6s,mb6.1						
G07A	Ruggs Ranch, H	91.42	334	⇑P	P	10 22 26.7	+0.6
	baz=91,SNR=12						
N17A	Moffit Pass	91.47	326	⇓P	P	10 22 26.2	-0.1
	baz=91						
K13A	Stover Farm, H	91.48	329	⇓P	P	10 22 27.3	+1.0
	baz=91,SNR=18						
M16A	Huntsville	91.52	327	⇑P	P	10 22 26.7	+0.1
	baz=91,SNR=22						
AMTX	Amarillo	91.54	317	*e*P	P	10 22 27.0	+0.2
	comp=Z,32nm,1.0s,mb5.6						
AMTX				LR	LR		
	comp=Z,23µm,21.0s,MS6.6						
AMTX	Amarillo	91.54	317	*e*P	P	10 22 27.0	+0.2
	comp=Z,32nm,1.0s,mb5.6						
MFID	Camas Ranch	91.55	330	⇑P	P	10 22 27.4	+0.7
	baz=91,SNR=35						
Q21A	Lamborn Mesa,	91.61	323	⇑P	P	10 22 27.6	+0.6
	baz=91,SNR=23						
E03A	Lebam	91.61	337	⇓P	P	10 22 26.9	0.0
	baz=91						
L14A	Malta	91.63	328	⇓P	P	10 22 27.9	+0.8
	baz=91,SNR=15						
HKT	Hockley	91.64	310	P	P	10 22 28.9	+1.5
HKT				pmax	pmax		
	comp=Z,240nm,1.5s,mb6.3						
HKT	Hockley	91.64	310	*e*P	P	10 22 28.6	+1.3
	comp=Z,239nm,1.5s,mb6.3						
HKT				LR	LR		
	comp=Z,29µm,22.0s,MS6.7						
HKT	Hockley	91.64	310	*e*P	P	10 22 28.6	+1.2
	comp=Z,239nm,1.5s,mb6.3						
P19A	Cripple Cowboy	91.65	324	⇓P	P	10 22 27.4	+0.2
	baz=91,SNR=31						
R22A	Saguache, Gunn	91.67	322	⇓P	P	10 22 28.7	+1.3
	baz=91,SNR=29						
H08A	Prairie City	91.70	333	⇑P	P	10 22 27.8	+0.4
	baz=91						
M15A	Larsen Ranch,	91.76	327	⇓P	P	10 22 27.9	+0.2
	baz=91						
F04A	Amboy	91.78	336	⇓P	P	10 22 27.9	+0.2
	baz=91						
N16A	Rees Ranch, Co	91.78	326	⇑P	P	10 22 28.3	+0.5
	baz=91						
G06A	Carlson Farm,	91.78	334	⇓P	P	10 22 28.5	+0.7
	baz=91,SNR=18						
I09A	Lost Marbles R	91.82	332	⇓P	P	10 22 27.8	-0.1
	baz=91						
K12A	Draper Farm, C	91.83	330	⇑P	P	10 22 28.8	+0.8
	baz=92						
Q20A	Ridgley Place,	91.86	323	⇓P	P	10 22 28.2	-0.1
	baz=92,SNR=19						
L13A	Double Diamond	91.89	329	⇑P	P	10 22 29.3	+1.1
	baz=92,SNR=22						
J10A	Berg Farm, Mel	91.91	331	⇓P	P	10 22 28.4	0.0
	baz=92						
ROSC	El Rosal	91.95	277	P	P	10 22 30.7	+1.6
	comp=Z,37nm,1.1s,mb5.6,baz=118,slow=16,SNR=5.4						
ROSC	El Rosal	91.95	277	P	P	10 22 30.7	+1.6
H07A	Lands Inn, Kim	91.96	333	⇓P	P	10 22 29.3	+0.8
	baz=92,SNR=28						
G05A	Wamic	92.02	335	⇑P	P	10 22 29.3	+0.5
	baz=92						
O17A	Robinson Place	92.02	326	⇓P	P	10 22 29.4	+0.5
	baz=92,SNR=9.6						
HOOD	Mount Hood Mea	92.06	335	*e*P	P	10 22 29.7	+0.7
	comp=Z,134nm,1.1s,mb6.2						
HOOD	Mount Hood Mea	92.06	335	*e*P	P	10 22 29.7	+0.7
	comp=Z,134nm,1.1s,mb6.2						
M14A	Sheep Mountain	92.11	328	⇓P	P	10 22 29.9	+0.6
	baz=92						
H06A	Lindquist Farm	92.12	334	⇑P	P	10 22 30.3	+1.0
	baz=92,SNR=13						
F03A	Seaside	92.15	337	⇑P	P	10 22 29.9	+0.5
	baz=92						
K11A	Parker Ranch,	92.17	330	⇑P	P	10 22 30.5	+0.9
	baz=92,SNR=24						
I08A	Drewsey	92.19	332	⇓P	P	10 22 29.9	+0.3
	baz=92						
P18A	Preston Nutter	92.25	325	⇑P	P	10 22 29.9	-0.1
	baz=92,SNR=16						
N15A	Stansbury Isla	92.26	327	⇑P	P	10 22 30.0	0.0
	baz=92						
L12A	House Creek Ra	92.28	329	⇑P	P	10 22 31.0	+0.9
	baz=92,SNR=14						
Q19A	Hogan Spring (	92.32	324	⇑P	P	10 22 30.5	+0.1
	baz=92						
J09A	Fry Pan Ranch,	92.36	332	⇑P	P	10 22 30.7	+0.3
	baz=92,SNR=42						
I07A	Izee	92.38	333	⇑P	P	10 22 31.6	+1.1
	baz=92,SNR=13						
MYLDM	Lahad Datu	92.42	82	P	P	10 22 30.7	-0.5
G04A	Mulino	92.44	336	⇓P	P	10 22 31.1	+0.3
	baz=92,SNR=5.1						
TSM	Tawau	92.45	83	P	P	10 22 31.2	-0.1
K10A	MacKenzie Ranc	92.50	331	⇑P	P	10 22 31.5	+0.4
	baz=92						
R20A	Redvale	92.50	323	⇑P	P	10 22 31.9	+0.7
	baz=92,SNR=23						
L11A	Cat Creek Ranc	92.57	330	⇑P	P	10 22 32.8	+1.4
	baz=92,SNR=17						
M13A	Montello	92.58	328	⇑P	P	10 22 31.9	+0.4
	baz=92						
N14A	Grayback Hills	92.58	327	⇑P	P	10 22 32.1	+0.6
	baz=92						
P17A	Butcher Ranch,	92.60	325	⇑P	P	10 22 31.5	-0.1
	baz=92						
Q18A	Rafter H Ranch	92.62	325	⇑P	P	10 22 31.6	-0.1
	baz=92,SNR=25						
J08A	Circle Bar Ran	92.62	332	⇑P	P	10 22 32.0	+0.4
	baz=92,SNR=10						
PV01	Paradox Valley	92.64	323	*e*P	P	10 22 30.3	-1.5
	comp=Z,9µm,1.0s						
PV01	Paradox Valley	92.64	323	*e*P	P	10 22 30.3	-1.5
	comp=Z,9µm,1.0s						
PV10	Paradox Valley	92.67	323	*e*P	P	10 22 32.2	+0.2
	comp=Z,2µm,0.8s,mb7.7						
PV10	Paradox Valley	92.67	323	*e*P	P	10 22 32.2	+0.2
	comp=Z,2µm,0.8s,mb7.7						
T22A	Edith	92.69	321	⇑P	P	10 22 32.4	+0.3
	baz=92,SNR=13						
O15A	The Old Anders	92.73	327	⇑P	P	10 22 32.8	+0.6
	baz=92						
I06A	Prineville	92.76	333	⇓P	P	10 22 34.1	+1.9
	baz=92,SNR=15						
SRU	San Rafael	92.79	325	⇓P	P	10 22 32.0	-0.5
	baz=92,SNR=34						
H04A	Detroit Lake	92.80	335	⇓P	P	10 22 32.4	0.0
	baz=92						
R19A	Curley Farm, L	92.85	323	⇑P	P	10 22 33.3	+0.5
	baz=92,SNR=29						
K09A	Rome	92.90	331	⇑P	P	10 22 33.6	+0.6
	baz=92,SNR=30						
P16A	Fountain Green	92.91	326	⇓P	P	10 22 33.7	+0.6
	baz=93						
J07A	Hines	92.92	333	⇑P	P	10 22 33.6	+0.6
	baz=92						
L10A	Juniper Basin	92.93	330	⇓P	P	10 22 34.0	+0.9
	baz=93,SNR=11						
DUG	Dugway	92.95	327	⇑*e*P	P	10 22 33.5	+0.3
DUG				*e*		10 26 15.2	
DUG				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.9						
DUG				MLR	MLR		
	comp=Z,45µm,22.0s,MS6.9						
DUG	Dugway	92.95	327	⇑P	P	10 22 33.7	+0.5
	baz=93,SNR=19						
DUG	Dugway	92.95	327	⇑*e*P	P	10 22 33.5	+0.2
	comp=Z,58nm,1.1s,mb5.9						
DUG				*e*PP	PP	10 26 15.2	-0.1
DUG				LR	LR		
	comp=Z,45µm,22.0s,MS6.9						
DUG	Dugway	92.95	327	⇑*e*P	P	10 22 33.5	+0.3
	comp=Z,58nm,1.1s,mb5.9						
DUG	Dugway	92.95	327	*e*PP	PP	10 26 15.1	-0.1
N13A	Wendover, West	93.01	328	⇓P	P	10 22 34.1	+0.6
	baz=93						
R18A	Canyonlands Na	93.08	324	⇓P	P	10 22 33.9	0.0
	baz=93,SNR=24						
TEIG	Tepich	93.12	298	*e*P	P	10 22 34.6	+0.2
	comp=Z,99nm,1.5s,mb6.0						
TEIG				*e*PP	PP	10 26 20.0	+2.6
TEIG				LR	LR		
	comp=Z,10µm,20.0s,MS6.3						
TEIG	Tepich	93.12	298	*e*P	P	10 22 34.6	+0.2
	comp=Z,99nm,1.5s,mb6.0						
K08A	Mann Creek Ran	93.16	332	⇑P	P	10 22 34.8	+0.6
	baz=93						
M11A	Holland Ranch,	93.20	329	⇓P	P	10 22 35.1	+0.8
	baz=93						
S19A	Harvey Farm, M	93.22	323	⇓P	P	10 22 34.8	+0.3
	baz=93,SNR=32						
P15A	Leamington	93.22	326	⇓P	P	10 22 35.0	+0.5
	baz=93						
Q16A	Castle Valley	93.25	325	⇑P	P	10 22 34.6	0.0
	baz=93						
COR	Corvallis	93.26	336	*e*P	P	10 22 34.8	+0.2
COR				pmax	pmax		
	comp=Z,203nm,1.4s,mb6.4						
COR				MLR	MLR		
	comp=Z,36µm,21.0s,MS6.8						
COR	Corvallis	93.26	336	*e*P	P	10 22 34.8	+0.3
	comp=Z,203nm,1.4s,mb6.4						
COR				LR	LR		
	comp=Z,36µm,21.0s,MS6.8						
COR	Corvallis	93.26	336	*e*P	P	10 22 34.8	+0.2
	comp=Z,203nm,1.4s,mb6.4						
MVCO	Mesa Verde	93.33	322	⇓P	P	10 22 35.6	+0.5
	baz=93						
MVCO	Mesa Verde	93.33	322	*e*P	P	10 22 34.6	-0.4
	comp=Z,117nm,1.3s,mb6.2						
MVCO				PP	PP	10 26 16.6	-1.7
MVCO				LR	LR		
	comp=Z,33µm,22.0s,MS6.7						
MVCO	Mesa Verde	93.33	322	*e*P	P	10 22 34.6	-0.4
	comp=Z,117nm,1.3s,mb6.2						
MVCO	Mesa Verde	93.33	322	PP	PP	10 26 16.6	-1.7
J06A	Christmas Vall	93.34	333	⇑P	P	10 22 35.5	+0.6
	baz=93,SNR=10						
N12A	Clover Valley,	93.37	329	⇑P	P	10 22 35.9	+0.8
	baz=93						
M10A	I.L. Ranch, Tu	93.43	330	⇑P	P	10 22 36.0	+0.6
	baz=93						
R17A	Hanksville Air	93.44	324	⇑P	P	10 22 35.0	-0.5
	baz=93,SNR=21						
L09A	Wilkinson Ranc	93.45	331	⇑P	P	10 22 37.0	+1.5
	baz=93,SNR=18						
WVOR	Wild Horse Val	93.47	332	*e*P	P	10 22 36.0	+0.4
WVOR				pmax	pmax		
	comp=Z,114nm,1.4s,mb6.1						
WVOR				MLR	MLR		
	comp=Z,36µm,20.0s,MS6.8						
WVOR	Wild Horse Val	93.47	332	*e*P	P	10 22 36.0	+0.4
	comp=Z,114nm,1.4s,mb6.1						
WVOR				*e*PP	PP	10 26 04.4	-15
WVOR				LR	LR		
	comp=Z,36µm,20.0s,MS6.8						
WVOR	Wild Horse Val	93.47	332	*e*P	P	10 22 36.0	+0.4
	comp=Z,114nm,1.4s,mb6.1						
K07A	Rock Creek Ran	93.48	332	⇑P	P	10 22 36.1	+0.5
	baz=93,SNR=17						
O13A	Hicks Ranch, I	93.52	328	⇑P	P	10 22 36.5	+0.7
	baz=93						
ELK	Elko	93.54	329	*e*P	P	10 22 36.9	+1.0
ELK				pmax	pmax		
	comp=Z,120nm,1.4s						
ELK				MLR	MLR		
	comp=Z,59µm,22.0s						
ELK	Elko	93.54	329	*e*P	P	10 22 36.9	+0.9
	comp=Z,120nm,1.4s,mb6.1						
ELK				LR	LR		
	comp=Z,59µm,22.0s,MS7.0						
ELK	Elko	93.54	329	*e*P	P	10 22 36.9	+1.0
	comp=Z,120nm,1.4s,mb6.1						
P14A	Drum Mountains	93.56	327	⇓P	P	10 22 36.5	+0.4
	baz=93,SNR=6.3						
L08A	Fields	93.57	331	⇓P	P	10 22 36.3	+0.2
	baz=93,SNR=12						
JCT	Junction City	93.67	312	⇑*e*P	P	10 22 37.4	+0.6
JCT				*e*		10 26 23.8	
JCT				pmax	pmax		
	comp=Z,84nm,1.1s,mb6.1						
JCT				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.6						
JCT	Junction City	93.67	312	⇑*e*P	P	10 22 37.4	+0.6
	comp=Z,84nm,1.1s,mb6.1						
JCT				*e*PP	PP	10 26 23.8	+2.5
JCT				LR	LR		
	comp=Z,24µm,21.0s,MS6.6						
JCT	Junction City	93.67	312	⇑*e*P	P	10 22 37.4	+0.6
	comp=Z,84nm,1.1s,mb6.1						
S18A	Hurst Farm, Bl	93.68	324	⇑P	P	10 22 36.6	0.0
	baz=93,SNR=7.9						
N11A	Elko Archery C	93.69	329	⇑P	P	10 22 37.3	+0.7
	baz=93						
BCIP	Isla Barro Col	93.72	284	*e*P	P	10 22 44.9	+7.7
BCIP				*e*S	S	10 34 16.1	+31
BCIP				LR	LR		
	comp=Z,5µm,22.0s,MS6.0						
O12A	Currie	93.73	328	⇑P	P	10 22 37.1	+0.3
	baz=93						
Q15A	Fillmore	93.73	326	⇑P	P	10 22 36.9	+0.1
	baz=93						
M09A	Marrel Ranch,	93.87	330	⇓P	P	10 22 38.5	+1.0
	baz=94						
T19A	Beclabito	93.89	322	⇑P	P	10 22 37.6	0.0
	baz=94,SNR=9.4						
R16A	Teasdale	93.90	325	⇓P	P	10 22 37.9	+0.2
	baz=94						
ANMO	Albuquerque	94.06	320	⇑*e*P	P	10 22 38.5	+0.1
ANMO				*e*		10 26 23.8	
ANMO				S	S	10 33 38.5	-8.4
ANMO				pmax	pmax		
	comp=Z,92nm,1.8s						
ANMO				MLR	MLR		
	comp=Z,26µm,22.0s						
ANMO	Albuquerque	94.06	320	⇑*e*P	P	10 22 38.5	+0.1
	comp=Z,92nm,1.8s,mb5.9						
ANMO				*e*PP	PP	10 26 23.8	-0.3
ANMO				S	S	10 33 38.5	-8.4
ANMO				LR	LR		
	comp=Z,26µm,22.0s,MS6.7						
ANMO	Albuquerque	94.06	320	⇑*e*P	P	10 22 38.5	+0.1
	comp=Z,92nm,1.8s,mb5.9						
T18A	Mexican Hat	94.06	323	⇓P	P	10 22 38.8	+0.4
	baz=94,SNR=29						
MVU	Marysvale	94.06	325	PFAKE		10 22 50.0	+12
MVU				LR	LR		
	comp=Z,80µm,22.0s,MS7.1						
K05A	Summer Lake	94.06	333	⇓P	P	10 22 39.5	+1.2
	baz=94,SNR=7.4						
P13A	Bates Ranch, G	94.09	327	⇓P	P	10 22 39.3	+0.8
	baz=94,SNR=12						
N10A	Dunphy	94.09	329	⇓P	P	10 22 39.5	+1.0
	baz=94						
L07A	Adell	94.10	332	⇓P	P	10 22 39.6	+1.1
	baz=94,SNR=18						
S17A	Black Ridge (B	94.11	324	⇓P	P	10 22 38.7	+0.1
	baz=94						
Q14A	Sevier Lake (B	94.15	326	⇓P	P	10 22 38.9	+0.2
	baz=94,SNR=14						
W22A	Albuquerque	94.17	320	⇑P	P	10 22 40.1	+1.2
	baz=94						
M08A	Happy Creek Ra	94.22	331	⇑P	P	10 22 39.8	+0.7
	baz=94,SNR=9.3						
O11A	Cowboy Ranch,	94.23	329	⇓P	P	10 22 40.0	+0.9
	baz=94						
N09A	Rock Creek Ran	94.39	330	⇓P	P	10 22 40.2	+0.4
	baz=94						
S16A	Weppner Ranch,	94.41	325	⇑P	P	10 22 40.3	+0.3
	baz=94,SNR=19						
MSLP	Maasin	94.44	74	*e*P	P	10 22 38.9	-1.6
O10A	Cortez Mining,	94.45	329	⇑P	P	10 22 40.2	+0.1
	baz=94						
P12A	McGill	94.46	328	⇓P	P	10 22 41.1	+0.9
	baz=94						
Q13A	Wheeler Ranch,	94.50	327	⇑P	P	10 22 40.9	+0.5
	baz=94,SNR=13						
W21A	San Fidel	94.54	320	⇓P	P	10 22 41.2	+0.5
	baz=94,SNR=5.8						
MOD	Modoc	94.56	333	*e*P	P	10 22 41.1	+0.5
	comp=Z,163nm,0.5s,mb6.7						
MOD				*e*PP	PP	10 26 29.2	+1.6
MOD				LR	LR		
	comp=Z,48µm,20.0s,MS7.0						
MOD	Modoc	94.56	333	*e*P	P	10 22 41.1	+0.5
	comp=Z,163nm,0.5s,mb6.7						
M07A	Soldier Meadow	94.58	332	⇓P	P	10 22 41.6	+1.0
	baz=94,SNR=9.7						
R14A	James Farms, M	94.59	326	⇓P	P	10 22 41.8	+0.9
	baz=94						
KVTX	Kingsville	94.61	309	PFAKE		10 22 50.0	+8.9
KVTX				LR	LR		
	comp=Z,21µm,20.0s,MS6.6						
T17A	Navajo Res., N	94.62	324	⇑P	P	10 22 41.3	+0.3
	baz=94						
BMN	Battle Mountai	94.62	330	*e*P	P	10 22 41.1	+0.2
BMN				pmax	pmax		
	comp=Z,98nm,1.6s,mb6.0						
BMN				MLR	MLR		
	comp=Z,21µm,21.0s,MS6.6						
BMN	Battle Mountai	94.62	330	*e*P	P	10 22 41.1	+0.2
	comp=Z,98nm,1.6s,mb6.0						
BMN				LR	LR		
	comp=Z,21µm,21.0s,MS6.6						
BMN	Battle Mountai	94.62	330	*e*P	P	10 22 41.1	+0.2
	comp=Z,98nm,1.6s,mb6.0						
U18A	Rough Rock, Ch	94.63	323	⇑P	P	10 22 41.0	0.0
	baz=94,SNR=14						
X22A	Bernardo	94.69	320	⇑P	P	10 22 42.6	+1.3
	baz=94						
N08A	GE Springer Mi	94.69	331	⇑P	P	10 22 42.2	+1.0
	baz=94						
P11A	Circle Ranch,	94.75	328	⇓P	P	10 22 42.3	+0.8
	baz=94						
V19A	Window Rock	94.78	322	⇓P	P	10 22 42.1	+0.4
	baz=94						
Q12A	Willow Creek R	94.78	327	⇑P	P	10 22 42.2	+0.5
	baz=94						
S15A	Panguitch	94.80	325	⇑P	P	10 22 42.5	+0.7
	baz=94						
O09A	Fish Creek Ran	94.83	330	⇓P	P	10 22 42.9	+1.0
	baz=94						
U17A	Shonto	94.87	323	⇓P	P	10 22 42.6	+0.5
	baz=94						
HUMO	Hull Mountain	94.90	335	*e*P	P	10 22 42.7	+0.6
	comp=Z,106nm,1.4s,mb6.1						
HUMO				LR	LR		
	comp=Z,17µm,22.0s,MS6.5						
HUMO	Hull Mountain	94.90	335	*e*P	P	10 22 42.7	+0.6
	comp=Z,106nm,1.4s,mb6.1						
T16A	Glen Canyon Da	94.96	324	⇑P	P	10 22 42.2	-0.3
	baz=95						
W20A	Ramah	94.97	321	⇑P	P	10 22 42.9	+0.3
	baz=95						
Y22D	IRIS PASSCAL I	94.97	319	⇓P	P	10 22 43.5	+0.9
	baz=95						
N07B	Gerlach	95.02	331	⇑P	P	10 22 43.9	+1.2
	baz=95						
S14A	Cedar City	95.10	326	⇓P	P	10 22 43.8	+0.7
	baz=95						
O08A	Rochester Mine	95.12	330	⇓P	P	10 22 43.8	+0.6
	baz=95						
R13A	O’Grain Ranch,	95.12	326	⇓P	P	10 22 43.9	+0.7
	baz=95						
V18A	Ganado	95.22	322	⇑P	P	10 22 44.1	+0.3
	baz=95						
R12A	Pony Springs,	95.28	327	⇓P	P	10 22 45.0	+1.0
	baz=95						
Q11A	Duckwater	95.30	328	⇑P	P	10 22 44.9	+0.9
	baz=95						
P09A	Austin	95.33	329	⇓P	P	10 22 44.5	+0.3
	baz=95						
T15A	Red Dirt Ranch	95.34	325	⇑P	P	10 22 43.7	-0.6
	baz=95,SNR=11						
N06A	Buffalo Meadow	95.38	332	⇑P	P	10 22 44.9	+0.6
	baz=95						
W19A	Sanders	95.43	322	⇑P	P	10 22 45.2	+0.5
	baz=95						
U16A	Tuba City	95.46	323	⇑P	P	10 22 45.5	+0.7
	baz=95,SNR=10						
O07A	Toulon	95.52	331	⇓P	P	10 22 45.4	+0.4
	baz=95,SNR=8.2						
CBIJ	Chichi jima	95.52	50	LR	LR	11 10 16.7	
	comp=Z,27µm,20.4s,MS6.7,baz=129,slow=38						
S13A	Holt Ranch, En	95.56	326	⇑P	P	10 22 46.0	+0.8
	baz=95,SNR=5.7						
YBH	Yreka Blue Hor	95.58	334	PKKPbc	PKKPbc	10 39 35.2	-0.3
	comp=Z,1.6nm,0.8s,baz=39,slow=6.0,SNR=2.9						
YBH	Yreka Blue Hor	95.58	334	*e*P	P	10 22 45.2	0.0
	comp=Z,43nm,1.4s,mb5.7						
YBH				LR	LR		
	comp=Z,21µm,21.0s,MS6.6						
YBH	Yreka Blue Hor	95.58	334	*e*P	P	10 22 45.2	-0.1
	comp=Z,43nm,1.4s,mb5.7						
W18A	Petrified Fore	95.59	322	⇓P	P	10 22 46.1	+0.6
	baz=95						
P08A	Dixie Valley	95.60	330	⇓P	P	10 22 46.3	+0.9
	baz=95						
T14A	Hurricane	95.63	325	⇓P	P	10 22 46.3	+0.7
	baz=95						
Q10A	Clear Creek Ra	95.64	328	⇑P	P	10 22 46.2	+0.6
	baz=95						
R11A	Troy Canyon, C	95.69	328	⇑P	P	10 22 46.2	+0.4
	baz=95						
PAF	Port-aux-Franc	95.71	150	PFAKE		10 23 00.0	+15
PAF				LR	LR		
	comp=Z,29µm,20.0s,MS6.8						
O06A	Flanigan	95.88	331	⇑P	P	10 22 47.0	+0.3
	baz=96						
Q09A	Carvers	95.96	329	⇓P	P	10 22 47.4	+0.3
	baz=96						
S12A	Delamar Landin	95.98	327	⇑P	P	10 22 48.2	+1.0
	baz=96						
T13A	Saint George	96.05	326	⇓P	P	10 22 48.1	+0.6
	baz=96,SNR=15						
R10A	Warm Springs	96.05	328	⇓P	P	10 22 47.9	+0.5
	baz=96						
P07A	Fallon	96.05	330	⇓P	P	10 22 47.8	+0.3
	baz=96						
122A	Conniff Cattle	96.08	319	⇓P	P	10 22 48.0	+0.3
	baz=96						
WUAZ	Wupatki	96.08	323	⇓P	P	10 22 48.2	+0.6
	baz=96						
WUAZ	Wupatki	96.08	323	*e*P	P	10 22 47.8	+0.2
	comp=Z,52nm,1.2s,mb5.8						
WUAZ				*e*PP	PP	10 26 36.7	-3.0
WUAZ				LR	LR		
	comp=Z,17µm,19.0s,MS6.5						
WUAZ	Wupatki	96.08	323	*e*P	P	10 22 47.8	+0.1
	comp=Z,52nm,1.2s,mb5.8						
W17A	Winslow	96.11	322	⇓P	P	10 22 48.5	+0.7
	baz=96						
X18A	Snowflake	96.17	322	⇑P	P	10 22 48.8	+0.7
	baz=96						
U14A	Mt Trumbull	96.20	325	⇑P	P	10 22 49.1	+0.9
	baz=96,SNR=16						
V15A	Kaibab Nationa	96.22	324	⇓P	P	10 22 49.2	+0.9
	baz=96,SNR=13						
Q08A	Gabbs	96.24	329	⇓P	P	10 22 49.0	+0.7
	baz=96						
Y19A	Nutrioso	96.27	321	⇑P	P	10 22 49.6	+1.1
	baz=96						
P06A	Stead Airport,	96.33	331	⇑P	P	10 22 49.7	+1.0
	baz=96						
BEKR	Beckwourth	96.34	332	⇓P	P	10 22 49.5	+0.8
	baz=96						
TGUH	Tegucigalpa,Un	96.36	293	*e*P	P	10 22 49.1	-0.1
	comp=Z,36nm,1.4s,mb5.6						
TGUH				*e*PP	PP	10 26 44.8	+2.0
TGUH				LR	LR		
	comp=Z,11µm,22.0s,MS6.3						
TGUH	Tegucigalpa,Un	96.36	293	*e*P	P	10 22 49.1	-0.2
	comp=Z,36nm,1.4s,mb5.6						
R09A	Tonopah	96.41	328	⇓P	P	10 22 50.2	+1.1
	baz=96						
T11A	Corn Creek, Al	96.45	327	⇑P	P	10 22 50.3	+1.0
	baz=96,SNR=5.8						
S10A	Tonopah Range,	96.48	328	⇑P	P	10 22 49.9	+0.5
	baz=96						
W16A	Flagstaff	96.50	323	⇓P	P	10 22 50.2	+0.7
	baz=96						
Q07A	Schurz	96.53	330	⇑P	P	10 22 50.1	+0.4
	baz=96						
WDC	Whiskeytown Da	96.54	333	PFAKE		10 23 00.0	+10
WDC				LR	LR		
	comp=Z,47µm,21.0s,MS6.9						
U13A	Pakoon Wash	96.57	325	⇓P	P	10 22 51.2	+1.4
	baz=96						
WCN	Washoe City	96.60	331	⇓P	P	10 22 50.8	+0.9
	baz=96						
TPH	Tonopah	96.61	329	*e*P	P	10 22 49.0	-1.0
TPH				*e*		10 26 43.8	
TPH				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.3						
TPH				MLR	MLR		

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      comp=Z,51µm,22.0s,MS7.0
TPH   Tonopah            96.61 329 eP       P        10 22 49.0 -1.0
      comp=Z,13nm,1.0s,mb5.3
TPH                                ePP      PP       10 26 43.8 +0.1
TPH                                 LR      LR
      comp=Z,51µm,22.0s,MS7.0
TPH   Tonopah            96.61 329 eP       P        10 22 49.0 -1.0
      comp=Z,13nm,1.0s,mb5.3
T12A  Moapa              96.65 326 ⇑P       P        10 22 50.8 +0.6
      baz=96
X17A  Forest Lakes       96.75 322 ⇑P       P        10 22 51.6 +0.9
      baz=96
R08A  Mina               96.75 329 ⇓P       P        10 22 50.7  0.0
      baz=96
NVAR  Mina Array Bea     96.76 329  P       P        10 22 51.8 +1.1
      comp=Z,2.8nm,0.8s,mb4.7,baz=61,slow=4.5,SNR=9.4
NVAR                                PP      PP       10 26 47.3 +2.5
      comp=Z,6.2nm,0.9s,baz=50,slow=6.0,SNR=3.8
NVAR                                PKKPbc  PKKPbc   10 39 32.7 +0.4
      comp=Z,1.7nm,0.7s,baz=202,slow=4.6,SNR=5.5
NVAR                                PKPPKP           10 47 46.6
      comp=Z,1.5nm,0.8s,baz=255,slow=0.8,SNR=5.0
NVAR  Mina Array Bea     96.76 329  P       P        10 22 51.8 +1.1
NVAR                                PP      PP       10 26 47.3 +2.5
NVAR                                PKKPbc  PKKPbc   10 39 32.7 +0.4
NVAR                                P'P'             10 47 46.6
NVAR  Mina Array Bea     96.76 329  P       P        10 22 51.8 +1.1
NVAR  Mina Array Bea     96.76 329  PP      PP       10 26 47.3 +2.5
TXAR  Lajitas Array      96.78 314  P       P        10 22 52.2 +1.2
TXAR                                                 10 26 43.6
TXAR  Lajitas Array      96.78 314  P       P        10 22 52.1 +1.2
      comp=Z,3.8nm,0.8s,mb4.9,baz=73,slow=3.6,SNR=43
TXAR                                PP      PP       10 26 43.6 -1.8
      comp=Z,2.3nm,0.8s,baz=29,slow=5.7,SNR=2.6
TXAR                                PKKPbc  PKKPbc   10 39 32.1 +0.1
      comp=Z,1.9nm,1.1s,baz=151,slow=2.1,SNR=3.1
TXAR                                LR      LR       11 08 51.5
      comp=Z,13µm,21.6s,MS6.4,baz=5.0,slow=37
TXAR  Lajitas Array      96.78 314  P       P        10 22 52.2 +1.2
TXAR  Lajitas Array      96.78 314  PP      PP       10 26 43.6 -1.8
W15A  Williams           96.78 324 ⇓P       P        10 22 51.8 +0.9
      baz=96
Z19A  T-Link Ranch,      96.80 320 ⇑P       P        10 22 51.4 +0.5
      baz=96
V14A  Boquillas Ranc     96.81 324 ⇑P       P        10 22 51.5 +0.5
      baz=96,SNR=15
U12A  Valley of Fire     96.81 326 ⇑P       P        10 22 52.0 +1.0
      baz=96
DAV   Davao City (W)     96.88  76  LR      LR       11 16 20.2
      comp=Z,24µm,20.8s,MS6.7,baz=315,slow=42
DAV   Davao City (W)     96.88  76⇓eP       P        10 22 59.8 +8.2
DAV   Davao City (W)     96.88  76  PFAKE            10 23 00.0 +8.4
DAV                                 LR      LR
      comp=Z,23µm,21.0s,MS6.7
S09A  Goldfield          96.91 328 ⇑P       P        10 22 51.9 +0.6
      baz=97
X16A  Lo Mia Camp, P     97.00 323 ⇓P       P        10 22 52.9 +1.0
      baz=97
V13A  Grand Canyon W     97.04 325 ⇑P       P        10 22 52.9 +0.9
      baz=97
120A  U Bar Ranch, L     97.06 320 ⇓P       P        10 22 53.0 +0.8
      baz=97
CPUP  Villa Florida      97.09 243 eP       P        10 22 53.1 +0.9
CPUP                               e                 10 26 44.7
CPUP                                pmax    pmax
      comp=Z,70nm,1.2s
CPUP  Villa Florida      97.09 243  P       P        10 22 52.8 +0.6
      comp=Z,5.4nm,0.8s,mb5.0,baz=41,slow=10,SNR=4.4
CPUP                                PP      PP       10 26 44.3 -4.5
      comp=Z,13nm,1.0s,baz=60,slow=5.3,SNR=3.0
CPUP                                LR      LR       11 07 30.3
      comp=Z,48µm,20.6s,MS7.0,baz=36,slow=36
CPUP  Villa Florida      97.09 243 eP       P        10 22 53.1 +0.9
      comp=Z,70nm,1.2s,mb6.0
CPUP                               ePP      PP       10 26 44.7 -4.1
CPUP                                LR      LR       11 07 30.3
CPUP  Villa Florida      97.09 243 eP       P        10 22 53.1 +0.9
      comp=Z,70nm,1.2s,mb6.0
W14A  Seligman           97.14 324 ⇓P       P        10 22 53.6 +1.1
      baz=97,SNR=13
R06C  Coleville          97.15 330 ⇓P       P        10 22 53.2 +0.8
      baz=97
U11A  Corn Creek         97.20 326 ⇑P       P        10 22 53.8 +1.1
      baz=97
119A  Ashpeak Ranch,     97.23 320 ⇓P       P        10 22 53.6 +0.7
      baz=97,SNR=6.0
Y17A  Roosevelt          97.28 322 ⇑P       P        10 22 53.9 +0.8
      baz=97
Z18A  Geronimo           97.36 321 ⇓P       P        10 22 54.3 +0.8
      baz=97
Z17A  San Carlos Hig     97.41 321 ⇓P       P        10 22 54.0 +0.3
      baz=97
Y16A  Circle Bar Ran     97.45 322 ⇑P       P        10 22 54.2 +0.3
      baz=97
V12A  Nelson             97.54 326 ⇑P       P        10 22 54.7 +0.5
      baz=97
W13A  Hualapai Mount     97.61 325 ⇑P       P        10 22 55.8 +1.2
      baz=97
U10A  Ash Meadows, A     97.62 327 ⇓P       P        10 22 55.9 +1.3
      baz=97
MLAC  Mammoth Lakes      97.66 329 ⇑P       P        10 22 56.3 +1.5
      baz=97
118A  Homack Ranch,      97.68 320 ⇓P       P        10 22 56.0 +1.0
      baz=97
Y15A  Casa Rosa Ranc     97.81 323 ⇑P       P        10 22 56.4 +0.9
      baz=98
FURC  Furnace Creek,     97.81 327 ⇓P       P        10 22 56.6 +1.2
      baz=98
W12A  Cal Nev Ari        97.90 325 ⇑P       P        10 22 56.7 +0.8
      baz=98
TIN   Tinemaha           97.90 329 ⇑P       P        10 22 56.4 +0.5
      baz=98
CMB   Columbia Colle     97.94 331 eP       P        10 22 56.3 +0.3
CMB                                e                 10 26 52.3
CMB                                 pmax    pmax
      comp=Z,37nm,1.4s,mb5.7
CMB                                 MLR     MLR
      comp=Z,29µm,19.0s,MS6.8
CMB   Columbia Colle     97.94 331 eP       P        10 22 56.2 +0.2
      comp=Z,37nm,1.4s,mb5.7
CMB                                ePP      PP       10 26 52.2 -1.6
CMB                                 LR      LR
      comp=Z,29µm,19.0s,MS6.8
CMB   Columbia Colle     97.94 331 eP       P        10 22 56.2 +0.2
      comp=Z,37nm,1.4s,mb5.7
OTAV  Otavalo            98.00 276⇑eP       P        10 22 58.6 +1.9
      comp=Z,62nm,1.4s,mb6.0
OTAV                               ePP      PP       10 26 59.1 +3.4
OTAV                               eS       S        10 34 14.9 -6.7
OTAV                                LR      LR
      comp=Z,11µm,21.0s,MS6.3
OTAV  Otavalo            98.00 276⇑eP       P        10 22 58.6 +1.9
      comp=Z,62nm,1.4s,mb6.0
X13A  Yucca              98.00 324 ⇑P       P        10 22 57.6 +1.2
      baz=98
117A  Oracle             98.12 321 ⇓P       P        10 22 58.0 +1.0
      baz=98
HOPS  Hopland            98.13 333  PFAKE            10 23 10.0  +13
HOPS                                LR      LR
      comp=Z,45µm,22.0s,MS6.9
Y14A  Wickenburg         98.14 323 ⇓P       P        10 22 57.8 +0.7
      baz=98
NEE2  Needles Airpor     98.23 325 ⇑P       P        10 22 57.7 +0.3
      baz=98
218A  Dragoon            98.24 320 ⇓P       P        10 22 58.4 +0.9
      baz=98
Z15A  Gila River Ind     98.26 322 ⇑P       P        10 22 58.3 +0.7
      baz=98
DAC   Darwin (Calif)     98.29 328  PFAKE            10 23 10.0  +12
DAC                                 LR      LR
      comp=Z,19µm,20.0s,MS6.6
319A  Douglas            98.32 319 ⇑P       P        10 22 58.8 +0.9
      baz=98,SNR=7.9
TUC   Tucson             98.36 321⇑eP       P        10 22 58.4 +0.4
TUC                                e                 10 27 03.2
TUC                                 pmax    pmax
      comp=Z,117nm,1.8s,mb6.1
TUC                                 MLR     MLR
      comp=Z,19µm,19.0s,MS6.6
TUC   Tucson             98.36 321⇑eP       P        10 22 58.4 +0.4
      comp=Z,117nm,1.8s,mb6.1
TUC                                ePP      PP       10 27 03.2 +5.9
TUC                                 LR      LR
      comp=Z,19µm,19.0s,MS6.6
TUC   Tucson             98.36 321⇑eP       P        10 22 58.4 +0.4
      comp=Z,117nm,1.8s,mb6.1
PDMCI Parker Dam,Lak     98.39 324 ⇑P       P        10 22 58.3 +0.2
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      baz=98
MPMC  Manual Prospec     98.43 328 ⇓P       P        10 22 59.1 +0.9
      baz=98
Z14A  Wintersburg        98.58 323 ⇓P       P        10 22 59.3 +0.3
      baz=98
116A  Eloy               98.62 322 ⇓P       P        10 22 59.7 +0.5
      baz=98
Y13A  Salome             98.64 324 ⇑P       P        10 22 59.8 +0.6
      baz=98
318A  Bisbee             98.64 320 ⇓P       P        10 22 59.6 +0.3
      baz=98
GMRC  Granite Mounta     98.69 326 ⇑P       P        10 22 60.0 +0.5
      baz=98
115A  Sonoran Desert     98.77 322 ⇓P       P        10 23 00.7 +0.8
      baz=98
217A  Green Valley       98.80 321 ⇑P       P        10 23 00.7 +0.7
      baz=98
MCCM  Marconi Confer     98.80 332  PFAKE            10 23 10.0  +10
MCCM                                LR      LR
      comp=Z,28µm,21.0s,MS6.7
216A  Three Points,      98.94 321 ⇓P       P        10 23 01.7 +1.1
      baz=99
HEC   Hector,Ludlow      98.95 326 ⇑P       P        10 23 00.9 +0.3
      baz=99
RCTC  Rector, Farmer     98.96 329 ⇑P       P        10 23 01.0 +0.4
      baz=99
IRM   Iron Mountain      98.97 325 ⇓P       P        10 23 01.1 +0.4
      baz=99
ISA   Isabella           99.19 328 eP       P        10 23 02.2 +0.5
ISA                                e                 10 27 04.2
ISA                                 pmax    pmax
      comp=Z,28nm,1.1s,mb5.7
ISA   Isabella           99.19 328 ⇑P       P        10 23 02.3 +0.6
      baz=99
ISA   Isabella           99.19 328 eP       P        10 23 02.2 +0.5
      comp=Z,28nm,1.1s,mb5.7
ISA                                ePP      PP       10 27 04.2 +0.7
ISA   Isabella           99.19 328 eP       P        10 23 02.2 +0.5
      comp=Z,28nm,1.1s,mb5.7
ISA   Isabella           99.19 328 ePP      PP       10 27 04.2 +0.7
VES   Vestal, Richgr     99.30 329 ⇑P       P        10 23 02.6 +0.4
      baz=99
KAPI  Kappang            99.45  89  PFAKE            10 23 10.0 +6.8
KAPI                                LR      LR
      comp=Z,20µm,22.0s,MS6.6
SAO   San Andreas Ge     99.46 331  PFAKE            10 23 10.0 +7.2
SAO                                 LR      LR
      comp=Z,22µm,21.0s,MS6.6
113A  Mohawk Valley,     99.46 323 ⇑P       P        10 23 03.5 +0.5
      baz=99
BC3   Big Chuckw Mtn     99.53 325 ⇓P       P        10 23 04.3 +1.0
      baz=99
PFO   Pinyon Flat Ob    100.03 326  P       Pdif     10 23 11.9 +6.6
PFO                                e                 10 23 25.5
PFO                                 pmax    pmax
      comp=Z,130nm,2.2s
PFO   Pinyon Flat Ob    100.03 326 ePdif    Pdif     10 23 11.7 +6.4
      comp=Z,128nm,2.3s
PFO                                 LR      LR
      comp=Z,52µm,22.0s,MS7.0
MONP  Monument Peak     100.62 325 ⇓P       Pdif     10 23 09.3 +1.4
      baz=100
LVC   Limon Verde       103.54 252  PFAKE            10 23 30.0 +9.1
LVC                                 LR      LR
      comp=Z,43µm,22.0s,MS6.9
NNA   Nana              103.82 265  PFAKE            10 23 30.0 +7.8
NNA                                 LR      LR
      comp=Z,14µm,22.0s,MS6.5
GUMO  Guam              106.89  58  PFAKE            10 28 00.0  +14
GUMO                                LR      LR
      comp=Z,16µm,20.0s,MS6.6
PAYG  Puerto Ayora      107.94 283  PFAKE            10 28 00.0  +12
PAYG                                LR      LR
      comp=Z,6µm,21.0s,MS6.1
LCO   Las Campanas      108.36 247  PFAKE            10 28 00.0  +12
LCO                                 LR      LR
      comp=Z,20µm,22.0s,MS6.6
MBWA  Marble Bar        108.55 103  PFAKE            10 28 00.0  +11
MBWA                                LR      LR
      comp=Z,21µm,20.0s,MS6.7
VNA2  Neumayer--Watz    109.15 190 e        PKKPab   10 39 07.4 +2.8
      baz=259,slow=1.1
VNA3  Neumayer Olymp    109.76 190 e        PKKPdf   10 39 10.2 -1.8
MUN   Mundaring         111.50 114 ePKP     PKiKP    10 27 56.6 +2.4
MUN                                esSKS             10 34 51.7
FITZ  Fitzroy Crossi    111.59  97  PKKPab  PKKPab   10 38 57.4  0.0
      comp=Z,7.5nm,1.0s,baz=276,slow=22,SNR=2.8
EFI   East Falkland     111.97 221  PFAKE            10 28 10.0  +16
EFI                                 LR      LR
      comp=Z,41µm,22.0s,MS7.0
NWAO  Narrogin (SRO)    112.72 115  PKIKP   PKiKP    10 27 56.3 -0.2
NWAO                                MLR     MLR
      comp=Z,12µm,20.0s
NWAO  Narrogin (SRO)    112.72 115  PKiKP   PKiKP    10 27 56.3 -0.2
KAKA  Kakadu            114.10  88 ePKPdf   PKiKP    10 27 59.5 -0.2
PLCA  Paso Flores       114.13 236  PKP     PKiKP    10 27 59.9 +0.9
      comp=Z,9.3nm,1.1s,baz=25,slow=5.4,SNR=5.8
PLCA                                PKKPab  PKKPab   10 38 43.5 -0.9
      comp=Z,2.4nm,0.9s,baz=206,slow=8.6,SNR=2.7
WRA   Warramunga Arr    119.54  94  PKIKP   PKPdf    10 28 08.5 -1.5
WRA                                                  10 29 29.6
WRA                                 pmax    pmax
      comp=Z,12nm,0.7s
WRA                                 pmax    pmax
      comp=Z,20nm,1.1s
WRA   Warramunga Arr    119.54  94  PKP     PKPdf    10 28 08.5 -1.4
      comp=Z,12nm,0.7s,baz=314,slow=1.3,SNR=78
WRA                                 PP      PP       10 29 29.6 -3.0
      comp=Z,20nm,1.1s,baz=312,slow=6.2,SNR=8.1
WRA   Warramunga Arr    119.54  94  PKP     PKPdf    10 28 08.5 -1.4
WRA                                 PP      PP       10 29 29.6 -3.0
WRA   Warramunga Arr    119.54  94  PKIKP   PKPdf    10 28 08.5 -1.5
WRAB  Tennant Creek     119.54  94 ePKIKP   PKPdf    10 28 09.7 -0.3
WRAB                                MLR     MLR
      comp=Z,8µm,21.0s,MS6.3
WRAB  Tennant Creek     119.54  94 ePKIKP   PKPdf    10 28 09.7 -0.3
FORT  Forrest           119.82 108 ePKP     PKPdf    10 28 10.0 -0.2
      comp=Z,52nm,0.6s
FORT  Forrest           119.82 108 ePKPdf   PKPdf    10 28 11.0 +0.7
FORT  Forrest           119.82 108 ePKIKP   PKPdf    10 28 11.0 +0.8
PMSA  Palmer Station    120.63 210  PFAKE            10 28 20.0 +9.3
PMSA                                LR      LR
      comp=Z,25µm,22.0s,MS6.8
ASAR  Alice Springs     121.06  98  PKP     PKPdf    10 28 11.9 -1.0
      comp=Z,16nm,0.7s,baz=324,slow=1.5,SNR=49
ASAR                                PKKPab  PKKPab   10 38 16.4 +0.7
      comp=Z,0.8nm,0.6s,baz=121,slow=3.8,SNR=5.3
ASAR  Alice Springs     121.06  98  PKP     PKPdf    10 28 11.9 -1.0
ASAR                                PKKPab  PKKPab   10 38 16.4 +0.7
ASAR  Alice Springs     121.06  98  PKIKP   PKPdf    10 28 11.9 -0.9
CASY  Casey             122.37 151 ePKP     PKPdf    10 28 17.7 +3.7
CASY  Casey             122.37 151  PFAKE            10 28 30.0  +16
CASY                                LR      LR
      comp=Z,26µm,22.0s,MS6.8
KIP   Kipapa            122.37 360 ePKIKP   PKPdf    10 28 18.3 +2.8
KIP                                 MLR     MLR
      comp=Z,12µm,21.0s,MS6.5
COEN  Coen              123.42  83 ePKPdf   PKPdf    10 28 18.0 +0.5
COEN  Coen              123.42  83 ePKIKP   PKPdf    10 28 18.0 +0.4
POHA  Pohakuloa         123.97 357  PFAKE            10 28 30.0  +11
POHA                                LR      LR
      comp=Z,15µm,20.0s,MS6.7
QSPA  South Pole Qui    126.37 180  PKP     PKPdf    10 28 21.9 +0.6
      comp=Z,20nm,0.9s,baz=282,slow=2.3,SNR=24
QSPA  South Pole Qui    126.37 180 ePKPdf   PKPdf    10 28 20.8 -0.5
QSPA                                LR      LR
      comp=Z,91µm,22.0s,MS7.4
CTA   Charters Tower    129.20  87 ePKP     PKPdf    10 28 26.6 -1.9
      comp=Z,41nm,1.0s
CTA                                ePP      PP       10 30 37.9 +0.5
CTAO  Charters Tower    129.20  87 ePKIKP   PKPdf    10 28 28.6 +0.1
CTAO                                MLR     MLR
      comp=Z,10µm,21.0s,MS6.5
CTAO  Charters Tower    129.20  87 ePKIKP   PKPdf    10 28 28.6 +0.1
STKA  Stephens Creek    130.79 103 ePKP     PKPdf    10 28 31.0 -0.2
      comp=Z,54nm,1.1s
STKA                               ePP      PP       10 30 41.0 -6.7
STKA                               ePKS              10 31 54.2
STKA  Stephens Creek    130.79 103  PKP     PKPdf    10 28 30.9 -0.2
      comp=Z,14nm,0.8s,baz=332,slow=4.3,SNR=16
STKA                                SKPab            10 31 54.2
      comp=Z,87nm,1.1s,baz=316,slow=6.3,SNR=5.4
STKA  Stephens Creek    130.79 103  PKIKP   PKPdf    10 28 31.0 -0.2
HNR   Honiara           133.61  65  PFAKE            10 28 50.0  +13
HNR                                 LR      LR
      comp=Z,12µm,20.0s,MS6.6
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TARA  Tarawa            133.80  42  PFAKE            10 28 50.0  +13
TARA                                LR      LR
      comp=Z,27µm,22.0s,MS6.9
DRV   Dumont d'Urvil    134.09 151  PP      PP       10 31 09.0 +1.2
DRV                                 SS      SS       10 49 04.0  +10
DRV                                 R                11 16 00.0
VNDA  Vanda             135.47 169  PKP     PKPdf    10 28 38.5 -0.1
      comp=Z,2.1nm,0.7s,baz=10,slow=2.8,SNR=4.3
VNDA                                SKP              10 32 12.6
      comp=Z,30nm,1.1s,baz=249,slow=5.3,SNR=4.9
VNDA  Vanda             135.47 169  PKP     PKPdf    10 28 38.5 -0.1
VNDA                                PKPdf   PKPdf    10 28 42.8 +4.1
VNDA                                SKP              10 32 12.6
VNDA                                LR      LR
      comp=Z,77µm,20.0s,MS7.4
VNDA  Vanda             135.47 169  PKIKP   PKPdf    10 28 38.5 -0.2
TOO   Toolangi          135.73 109 ePKP     PKPdf    10 28 37.7 -2.6
TOO                                ePP      PP       10 31 15.6 -3.6
SBA   Scott Base        135.97 170  PFAKE            10 28 50.0  +10
SBA                                 LR      LR
      comp=Z,43µm,22.0s,MS7.1
RPN   Rapa Nui          137.71 268  PFAKE            10 29 00.0  +16
RPN                                 LR      LR
      comp=Z,10µm,22.0s,MS6.5
CAN   Canberra          137.77 105  PKIKP   PKPdf    10 28 45.7 +1.5
CAN                                 MLR     MLR
      comp=Z,20µm,22.0s,MS6.8
CAN   Canberra          137.77 105  PKIKP   PKPdf    10 28 45.7 +1.5
CNB   Canberra Magne    138.06 104 ePKP     PKPdf    10 28 44.2 -0.5
ARMA  Armidale          138.19  97 ePKP     PKPdf    10 28 42.2 -2.9
ARMA                               ePP      PP       10 31 35.4 +0.7
ARMA  Armidale          138.19  97 ePKPdf   PKPdf    10 28 45.6 +0.5
ARMA  Armidale          138.19  97 ePKIKP   PKPdf    10 28 45.6 +0.5
TAU   Tasmania Unive    138.32 116 ePKIKP   PKPdf    10 28 46.8 +1.9
TAU                                 MLR     MLR
      comp=Z,20µm,22.0s,MS6.8
TAU   Tasmania Unive    138.32 116 ePKIKP   PKPdf    10 28 46.8 +1.9
XMAS  Kiritimati        141.63 359  PFAKE            10 29 00.0 +8.1
XMAS                                LR      LR
      comp=Z,18µm,20.0s,MS6.8
FUNA  Funafuti          145.44  42 ePKPbc   PKPbc    10 28 58.9 +0.4
FUNA                                LR      LR
      comp=Z,21µm,22.0s,MS6.9
FUNA  Funafuti          145.44  42 ePKPbc   PKPbc    10 28 58.9 +0.4
MCQ   Macquarie Isla    145.74 135 ePKP     PKPab    10 29 00.2 +1.6
MCQ   Macquarie Isla    145.74 135 ePKPdf   PKPab    10 28 59.8 +1.2
MCQ   Macquarie Isla    145.74 135 ePKIKP   PKPab    10 28 59.8 +1.2
NOUC  Port Laguerre     146.19  75 eP       PKPab    10 29 01.6 +0.2
DZM   Mont Dzumac       146.28  75 eP       PKPab    10 29 01.4 -0.3
LASL  Noumea            146.44  75 eP       PKPab    10 29 02.9 +0.7
TAOE  Nuku Hiva Isla    147.88 325 ePKIKP   PKPdf    10 29 02.7 +0.1
      comp=Z,5µm,1.4s
TAOE                               eSS      SS       10 51 38.0 +3.2
      comp=Z,89µm,30.8s
TAOE                               eLR      LR       11 17 58.3
      comp=Z,78µm,31.1s
TAOE  Nuku Hiva Isla    147.88 325 ePKPdf   PKPdf    10 29 03.5 +0.8
TAOE                               ePKPbc   PKPbc    10 29 06.8 +1.2
TAOE                               ePKPab   PKPab    10 29 09.2 +1.2
AFI   Afiamalu          154.47  32 ePKIKP   PKPdf    10 29 14.5 +1.9
AFI                                e                 10 29 20.7
AFI                                 MLR     MLR
      comp=Z,13µm,22.0s,MS6.7
AFI   Afiamalu          154.47  32  PKP     PKPdf    10 29 14.4 +1.8
      comp=Z,28nm,1.0s,baz=91,slow=23,SNR=2.2
AFI   Afiamalu          154.47  32 ePKPdf   PKPdf    10 29 14.5 +1.9
AFI                                ePKPbc   PKPbc    10 29 20.7 -0.3
AFI                                ePKPab   PKPab    10 29 36.3 +1.0
AFI                                 LR      LR
      comp=Z,13µm,22.0s,MS6.7
RKT   Rikitea           155.81 297 ePKIKP   PKPdf    10 29 13.5 -0.7
      comp=Z,94nm,1.1s
RKT   Rikitea           155.81 297 ePP      PP       10 33 19.1 +1.1
      comp=Z,2µm,23.8s
RKT                                eSS      SS       10 52 59.3 -4.4
      comp=Z,18µm,33.0s
RKT                                eLR      LR       11 21 29.6
      comp=Z,23µm,24.2s
RKT   Rikitea           155.81 297 ePKPdf   PKPdf    10 29 13.5 -0.7
RKT                                ePP      PP       10 33 19.1 +1.1
RKT   Rikitea           155.81 297 ePP      PP       10 33 19.1 +1.1
PMOR  Pomariorio Ree    156.64 334 ePKIKP   PKPdf    10 29 14.8 -0.7
      comp=Z,403nm,1.4s
PMOR  Pomariorio Ree    156.64 334 ePKIKP   PKPdf    10 29 14.8 -0.7
VAH   Vaihoa            156.76 333 ePKIKP   PKPdf    10 29 14.8 -0.9
      comp=Z,201nm,1.2s
VAH   Vaihoa            156.76 333 ePKIKP   PKPdf    10 29 14.8 -0.9
SNZO  South Karori      158.52 111  PFAKE            10 29 30.0  +13
SNZO                                LR      LR
      comp=Z,22µm,20.0s,MS7.0
MEH   Mehetia           159.34 331 ePKIKP   PKPdf    10 29 17.8 -1.0
      comp=Z,698nm,1.0s
MEH   Mehetia           159.34 331 ePKIKP   PKPdf    10 29 17.8 -1.0
TIAR  Tiarei            159.51 335 ePKIKP   PKPdf    10 29 18.4 -0.6
      comp=Z,624nm,1.1s
TIAR  Tiarei            159.51 335 ePKIKP   PKPdf    10 29 18.4 -0.6
PPT   Papeete           159.60 335 ePKIKP   PKPdf    10 29 19.1  0.0
      comp=Z,164nm,1.4s
PPT   Papeete           159.60 335 ePP      PP       10 33 37.1 -0.7
      comp=Z,9µm,30.0s
PPT                                eSS      SS       10 53 52.2  +10
      comp=Z,54µm,31.8s
PPT                                eLR      LR       11 23 25.3
      comp=Z,35µm,24.2s
PPT   Papeete           159.60 335  PKIKP   PKPdf    10 29 18.0 -1.1
PPT                                 pmax    pmax
      comp=Z,13nm,0.7s
PPT   Papeete           159.60 335  PKP     PKPdf    10 29 18.0 -1.0
      comp=Z,13nm,0.7s,baz=10,slow=16,SNR=2.6
PPT   Papeete           159.60 335  PKIKP   PKPdf    10 29 18.0 -1.1
TVO   Taravao           159.69 334 ePKIKP   PKPdf    10 29 19.1 -0.1
      comp=Z,2µm,1.3s
TVO   Taravao           159.69 334 ePKIKP   PKPdf    10 29 19.1 -0.1
PAE   Paea              159.69 335 ePKIKP   PKPdf    10 29 18.6 -0.6
      comp=Z,1µm,1.5s
PAE   Paea              159.69 335 ePKIKP   PKPdf    10 29 18.6 -0.6
URZ   Urewera           160.42 103  PKPab   PKPab    10 29 57.3 -3.3
RAR   Rarotonga         164.70   5  PFAKE            10 29 30.0 +5.9
RAR                                 LR      LR
      comp=Z,15µm,22.0s
```

ISCJB ***14*** *10:27:59.9±0.7, 6°.5S±0°.1×71°.4E±0°.1, h10^{km}, mb4.3/10, Error ellipse: s-maj=22.4km s-min=15.2km az=138.9*

IDC ***14*** *10:28:00.3±0.8, 6°.57S×71°.40E, h0^{km}, mb4.2/10, mb1 4.2/10, mb1mx4.0/28, mbtmp4.2/10, Error ellipse: s-maj=26.6km s-min=18.9km az=140.0*

NEIC ***14*** *10:28:01.9±0.5, 6°.56S×71°.39E, h10^{km}, Error ellipse: s-maj=17.6km s-min=11.6km az=142.0*

ISC 14 10:28:02.0±0.7**, 6°.6S**±0°.1×**71°.4E**±0°.1**, h10**^{km}**, n12, σ0^{s}.54**/12**, mb4.3**/10**, Chagos Archipelago region**

```
Code  Station Name         Δ°   AZ°  Phase ID           Time      Res
                                    Op      ISC       h  m  s    ISC
OPO   Ambohidratompo     26.44 241  P       P        10 33 39.8 +0.5
      0.5nm,0.4s,mb3.4,baz=295,slow=19,SNR=2.4
LSZ   Lusaka             43.24 255  P       P        10 36 03.3 -0.6
      8.3nm,0.3s,mb4.9,baz=232,slow=17,SNR=5.9
KAPI  Kappang            48.11  91  P       P        10 36 42.8 +0.3
      11nm,0.3s,mb5.4,baz=103,slow=10,SNR=4.1
BOSA  Boshof             48.76 237  P       P        10 36 47.5 +0.1
      2.2nm,0.9s,mb4.2,baz=82,slow=7.1,SNR=3.2
MKAR  Makanchi Array     54.00   9  P       P        10 37 25.9 -0.2
      1.2nm,0.7s,mb4.0,baz=198,slow=8.1,SNR=11
MKAR  Makanchi Array     54.00   9  P       P        10 37 25.9 -0.3
AKTK  Aktyubinsk         57.94 350  P       P        10 37 54.9 +0.5
AKTO  Aktyubinsk         57.94 350  P       P        10 37 54.9 +0.5
      3.2nm,0.9s,mb4.4,baz=161,slow=7.3,SNR=8.5
BVAR  Borovoye Array     59.37 359  P       P        10 38 03.2 -1.0
      0.8nm,0.7s,mb3.9,baz=163,slow=10,SNR=3.5
ZALV  Zalesovo Beam      61.34   9  P       P        10 38 17.4 -0.4
      0.6nm,0.3s,mb4.2,baz=208,slow=8.4,SNR=3.6
SONM  Songino Array      62.32  26  P       P        10 38 25.3 +0.8
      1.8nm,0.8s,mb4.2,baz=220,slow=6.0,SNR=8.4
WRA   Warramunga Arr     62.36 109  P       P        10 38 24.9 -0.5
      4.3nm,1.0s,mb4.5,baz=280,slow=6.5,SNR=7.2
```

ATH 14 10:33:27.1, 36°.75N×21°.44E, h40^{km}±1^{km}**, MD2.9**/3**, Southern Greece**

```
Code  Station Name         Δ°   AZ°  Phase ID           Time      Res
                                    Op      ISC       h  m  s    ISC
PYL   PYLOS               0.28  59 eP       Pn       10 33 35.6 +0.4
```

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ITM	Ithomi	0.58	42	*e*P	Pn	10 33 39.7	+0.8
ITM				*e*S	Sn	10 33 48.6	+1.3
VLX	Vlachokerasia	0.97	50	*e*P	Pn	10 33 45.2	+0.9
VLX				*e*S	Sn	10 33 59.3	+2.4

*MOS **14** 10:36:14.8±1.4, 36°.24N×21°.85E, h29^{km}, mb4.5/16, Error ellipse: s-maj=8.1km s-min=4.4km az=90.1*
*ATH **14** 10:36:15.4, 36°.17N×21°.79E, h28^{km}±2^{km}, ML3.9*
*PDG **14** 10:36:16.9±0.8, 36°.25N×21°.68E, h39^{km}±8^{km}, ML4.5/9, Error ellipse: s-maj=2.6km s-min=3.0km az=0.0*
*IDC **14** 10:36:17.6±1.9, 36°.28N×21°.96E, h39^{km}±18^{km}, mb3.8/16, mb1 3.9/24, mb1mx3.9/35, mbtmp3.9/24, ML3.5/5, MS4.9/3, Ms1 4.9/3, ms1mx4.5/49, Error ellipse: s-maj=15.6km s-min=12.5km az=171.0*
*CSEM **14** 10:36:17.0±0.2, 36°.23N×21°.81E, h30^{km}, mb4.2/16, Error ellipse: s-maj=5.9km s-min=4.5km az=19.0*
*NEIC **14** 10:36:17.7±0.6, 36°.23N×21°.81E, h30^{km}, ML3.9(ATH), Error ellipse: s-maj=8.9km s-min=5.2km az=192.0*
*ISCJB **14** 10:36:18.6±0.4, 36°.44N±0°.03×21°.73E±0°.03, h76^{km}±3^{km}, mb4.4/29, Error ellipse: s-maj=4.8km s-min=3.4km az=22.8*
*THE **14** 10:36:19.6, 36°.32N×21°.96E, h33^{km}±45^{km}, ML4.4/6, Error ellipse: s-maj=45.5km s-min=3.5km az=322.0*
ISC 14 10:36:19.3±0.4, **36°.37N**±0°.03×**21°.78E**±0°.03, **h61**^{km}±3^{km}, **n281**, σ1^{s}**22**/339, **mb4.4**/29, **17C-22D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.53	357	P	Pn	10 36 30.6	-1.1
PYL				S	Sn	10 36 40.1	-0.5
PYL	PYLOS	0.53	357	*e*PN	Pn	10 36 30.5	-1.2
PYL	PYLOS	0.53	357	*e*Pn	Pn	10 36 30.5	-1.2
PYL				S	Sn	10 36 40.1	-0.5
ITM	Ithomi	0.82	8	*e*PN	Pn	10 36 35.0	-0.1
ITM				*e*SN	Sn	10 36 49.0	+2.3
ITM	Ithomi	0.82	8	*e*Pn	Pn	10 36 35.0	-0.1
ITM				*e*Sn	Sn	10 36 49.0	+2.3
KYTH	Kithira	1.02	95	*e*PN	Pn	10 36 35.0	-2.6
KYTH	Kithira	1.02	95	*e*Pn	Pn	10 36 35.0	-2.6
VLX	Vlachokerasia	1.11	26	*e*PN	Pn	10 36 39.4	+0.6
VLX				*e*SN	Sn	10 36 58.0	+4.7
VLX	Vlachokerasia	1.11	26	*e*Pn	Pn	10 36 39.4	+0.6
VLX				*e*Sn	Sn	10 36 58.0	+4.7
GUR	Goura	1.63	16	*e*PN	Pn	10 36 47.5	+1.7
GUR	Goura	1.63	16	*e*Pn	Pn	10 36 47.5	+1.7
DID	Didima	1.63	45	P	Pn	10 36 45.3	-0.5
DID				S	Sn	10 37 10.2	+4.5
DID	Didima	1.63	45	*e*PB	Pn	10 36 46.0	+0.2
DID	Didima	1.63	45	P	Pn	10 36 45.3	-0.5
DID				S	Sn	10 37 10.2	+4.5
RLS	Riolos of Patr	1.71	352	*e*PN	Pn	10 36 48.6	+1.8
RLS	Riolos of Patr	1.71	352	*e*Pn	Pn	10 36 48.6	+1.8
LAKA	Lakka	1.88	5	P	Pn	10 36 51.6	+2.5
LAKA	Lakka	1.88	5	P	Pn	10 36 51.6	+2.5
LTK	Loutraki	1.91	30	P	Pn	10 36 49.8	+0.3
	2μm,1.0s						
LTK	Loutraki	1.91	30	*e*PB	Pn	10 36 50.8	+1.3
LTK	Loutraki	1.91	30	P	Pn	10 36 49.8	+0.3
	2μm,1.0s						
LTK	Loutraki	1.91	30	*e*Pb	Pn	10 36 50.8	+1.3
NAIG	Nisos Aigina	1.95	44	*e*PN	Pn	10 36 50.2	+0.1
NAIG	Nisos Aigina	1.95	44	*e*Pn	Pn	10 36 50.2	+0.1
KARN	Karanos	1.99	118	*e*PB	Pn	10 36 49.1	-1.5
KARN	Karanos	1.99	118	P	Pn	10 36 49.1	-1.5
TRIZ	Trizonia	2.01	7	P	Pn	10 36 53.2	+2.3
TRIZ	Trizonia	2.01	7	P	Pn	10 36 53.2	+2.3
VLS	Valsamata	2.04	333	P	Pn	10 36 52.0	+0.7
VLS	Valsamata	2.04	333	*e*PN	Pn	10 36 52.7	+1.4
VLS	Valsamata	2.04	333	P	Pn	10 36 52.0	+0.7
VLS	Valsamata	2.04	333	*e*Pn	Pn	10 36 52.7	+1.4
EFP	Efpalio	2.06	3	*e*PN	Pn	10 36 52.7	+1.1
EFP	Efpalio	2.06	3	*e*Pn	Pn	10 36 52.7	+1.1
ATH	Athens Observa	2.23	43	*e*PB	Pn	10 36 55.8	+1.9
ATH	Athens Observa	2.23	43	*e*Pb	Pn	10 36 55.8	+1.9
ATHU	Athens Univers	2.26	45	P	Pn	10 36 54.2	-0.1
ATHU	Athens Univers	2.26	45	P	Pn	10 36 54.2	-0.1
PTL	Penteli	2.36	44	*e*PN	Pn	10 36 55.7	0.0
PTL	Penteli	2.36	44	*e*Pn	Pn	10 36 55.7	0.0
LKR	Lokris	2.48	23	P	Pn	10 36 57.1	-0.2
LKR	Lokris	2.48	23	*e*PN	Pn	10 36 57.9	+0.6
LKR	Lokris	2.48	23	P	Pn	10 36 57.1	-0.2
LKR	Lokris	2.48	23	*e*Pn	Pn	10 36 57.9	+0.6
EVR	Evrytania	2.54	1	P	Pn	10 37 06.8	+8.6
AGG	Agios Georgios	2.69	9	P	Pn	10 37 02.2	+2.1
AGG	Agios Georgios	2.69	9	*e*PN	Pn	10 37 02.5	+2.4
AGG	Agios Georgios	2.69	9	P	Pn	10 37 02.2	+2.1
IDI	Anoyia	2.75	112	*e*PN	Pn	10 36 59.2	-1.8
IDI	Anoyia	2.75	112	Pn	Pn	10 36 58.9	-2.1
	2.9nm,0.3s,baz=299,slow=16,SNR=5.6						
IDI				Sn	Sn	10 37 26.2	-6.8
	29nm,0.3s,baz=337,slow=14,SNR=7.7						
IDI				LR	LR	10 37 41.6	
	comp=Z,14μm,21.1s,baz=168,slow=32						
IDI	Anoyia	2.75	112	*e*Pn	Pn	10 36 59.2	-1.8
XOR	Xorichti	3.19	20	P	Pn	10 37 07.3	+0.2
XOR	Xorichti	3.19	20	P	Pn	10 37 07.3	+0.2
THL	Klokotos Trika	3.20	3	P	Pn	10 37 08.5	+1.4
THL	Klokotos Trika	3.20	3	*e*PN	Pn	10 37 08.9	+1.8
THL	Klokotos Trika	3.20	3	P	Pn	10 37 08.5	+1.4
LAST	Lasithi	3.24	111	*e*PN	Pn	10 37 05.4	-2.3
LAST	Lasithi	3.24	111	*e*Pn	Pn	10 37 05.4	-2.3
AOS	Alonnisos	3.26	30	P	Pn	10 37 06.2	-1.7
AOS	Alonnisos	3.26	30	P	Pn	10 37 06.2	-1.7
IGT	Igoumenitsa	3.36	341	P	Pn	10 37 10.2	+0.9
IGT	Igoumenitsa	3.36	341	P	Pn	10 37 10.2	+0.9
JAN	Janina	3.36	348	*e*PN	Pn	10 37 11.2	+1.8
JAN	Janina	3.36	348	*e*Pn	Pn	10 37 11.2	+1.8
MEV	Metsovon	3.44	353	P	Pn	10 37 13.0	+2.6
KEK	Kerkira	3.69	336	*e*PN	Pn	10 37 14.3	+0.5
KEK	Kerkira	3.69	336	*e*Pn	Pn	10 37 14.3	+0.5
LIT	Litokhoron	3.77	8	P	Pn	10 37 16.0	+1.1
	145nm,1.0s						
LIT	Litokhoron	3.77	8	P	Pn	10 37 16.0	+1.1
	145nm,1.0s						
PAIG	Paliouri	3.86	22	P	Pn	10 37 16.6	+0.5
PAIG	Paliouri	3.86	22	P	Pn	10 37 16.6	+0.5
KZN	Kozani	3.93	360	*e*PN	Pn	10 37 19.3	+2.1
KZN	Kozani	3.93	360	*e*Pn	Pn	10 37 19.3	+2.1
CHOS	Chios island	3.96	58	P	Pn	10 37 16.5	-1.0
CHOS	Chios island	3.96	58	P	Pn	10 37 16.5	-1.0
PLG	Polygyros	4.21	18	*e*PN	Pn	10 37 22.0	+1.1
PLG	Polygyros	4.21	18	*e*Pn	Pn	10 37 22.0	+1.1
SMG	Samos	4.26	70	*e*PN	Pn	10 37 21.4	-0.3
SMG	Samos	4.26	70	*e*Pn	Pn	10 37 21.4	-0.3
SIGR	SIGRI	4.30	47	P	Pn	10 37 21.1	-1.1
SIGR	SIGRI	4.30	47	P	Pn	10 37 21.1	-1.1
HORT	Hortiatis	4.35	13	P	Pn	10 37 23.6	+0.8
HORT	Hortiatis	4.35	13	P	Pn	10 37 23.6	+0.8
FNA	Florina	4.42	356	P	Pn	10 37 25.0	+1.2
FNA	Florina	4.42	356	P	Pn	10 37 25.0	+1.2
KARP	Karpathos	4.44	99	*e*PN	Pn	10 37 21.8	-2.3
KARP	Karpathos	4.44	99	*e*Pn	Pn	10 37 21.8	-2.3
SOH	Sokhos	4.62	15	P	Pn	10 37 27.8	+1.3
SOH	Sokhos	4.62	15	P	Pn	10 37 27.8	+1.3
BIA	Bitola	4.66	356	*e*Pn	Pn	10 37 27.8	+0.7
BIA				*e*Sn	Sn	10 38 17.9	-1.9
BIA	Bitola	4.66	356	*e*Pn	Pn	10 37 27.7	+0.6
BIA				*e*Sn	Sn	10 38 17.9	-1.9
OHR	Ohrid	4.80	351	*e*Pn	Pn	10 37 30.2	+1.2
OHR				*e*Sn	Sn	10 38 18.8	-4.5
OHR	Ohrid	4.80	351	*e*Pn	Pn	10 37 30.1	+1.1
OHR				*e*Sn	Sn	10 38 18.7	-4.5
TIP	Timpagrande	4.87	307	*e*Pn	Pn	10 37 30.3	+0.4
TIP				*e*Sn	Sn	10 38 16.3	-8.6
TIP	Timpagrande	4.87	307	*e*Pn	Pn	10 37 30.3	+0.4
SOI	Samo	4.87	292	*i* P	Pn	10 37 29.8	-0.2
SOI	Samo	4.87	292	*i* Pnu		10 37 29.8	
SOI	Samo	4.87	292	*i* P	Pn	10 37 29.8	-0.2
SRS	Serrai	4.95	16	P	Pn	10 37 32.0	+0.9
SRS	Serrai	4.95	16	P	Pn	10 37 32.0	+0.9
VAY	Valandovo	4.98	7	*i* Pn	Pn	10 37 32.4	+0.9
VAY				*e*Sn	Sn	10 38 26.8	-1.0
VAY	Valandovo	4.98	7	*i* Pn	Pn	10 37 32.4	+0.9
VAY				*e*Sn	Sn	10 38 26.8	-1.0
KRUS	Krusevo	5.01	355	*i* Pn	Pn	10 37 32.2	+0.3
KRUS				*e*Sn	Sn	10 38 26.8	-1.6
KRUS	Krusevo	5.01	355	*i* Pn	Pn	10 37 32.2	+0.3
KRUS				*e*Sn	Sn	10 38 26.8	-1.6
CEL	Celeste	5.06	294	*e*Pn	Pn	10 37 32.3	-0.3
	48nm,0.4s						
CEL				*e*Sn	Sn	10 38 27.7	-1.9
CEL	Celeste	5.06	294	*e*Pn	Pn	10 37 32.3	-0.2
	48nm,0.4s						
CEL				*e*Sn	Sn	10 38 27.7	-1.9
MTTG	Motta San Giov	5.12	290	Pn	Pn	10 37 33.1	-0.4
	50nm,0.4s						
MTTG	Motta San Giov	5.12	290	Pn	Pn	10 37 33.1	-0.4
	50nm,0.4s						
ARG	Arkhangelos	5.13	90	*e*PN	Pn	10 37 32.8	-0.8
ARG	Arkhangelos	5.13	90	*e*Pn	Pn	10 37 32.8	-0.8
NVR	Nevrokopi	5.23	17	P	Pn	10 37 39.2	+4.2
NVR	Nevrokopi	5.23	17	P	Pn	10 37 39.2	+4.2
HAVL	Avola	5.38	278	Pn	Pn	10 37 35.6	-1.4
	249nm,0.4s						
HAVL	Avola	5.38	278	Pn	Pn	10 37 35.6	-1.4
	249nm,0.4s						
ORI	Oriolo Calabro	5.59	313	P	Pn	10 37 41.9	+2.1
SKO	Skopje	5.60	357	*e*Pn	Pn	10 37 41.1	+1.1
LTRZ	Laterza	5.75	319	Pn	Pn	10 37 41.5	-0.5
	564nm,2.2s						
LTRZ	Laterza	5.75	319	Pn	Pn	10 37 41.5	-0.5
	564nm,2.2s						
WDD	Wield Dalam	5.89	267	*e*Pn	Pn	10 37 42.4	-1.7
	71nm,0.5s						
WDD	Wield Dalam	5.89	267	*e*Pn	Pn	10 37 42.4	-1.6
	71nm,0.5s						
ULC	Ulcinj	5.92	341	⇓*i*Pn	Pn	10 37 43.8	-0.6
ULC				*e*Sn	Sn	10 38 50.1	-0.7
ULC	Ulcinj	5.92	341	⇓*i*Pn	Pn	10 37 43.8	-0.6
ULC				*e*Sn	Sn	10 38 50.1	-0.7
CUC	Castrocucco	5.93	309	*e*Pn	Pn	10 37 46.1	+1.7
	28nm,0.5s						
CUC				*e*Sn	Sn	10 38 49.3	-1.7
CUC	Castrocucco	5.93	309	*e*Pn	Pn	10 37 46.2	+1.7
	28nm,0.5s						
CUC				*e*Sn	Sn	10 38 49.3	-1.7
VAE	Valguarnera	6.00	283	Pn	Pn	10 37 46.5	+1.0
	2.0nm,0.3s,baz=324,slow=5.1,SNR=3.1						
VAE				Sn	Sn	10 38 53.4	+0.5
	8.4nm,0.3s,baz=260,slow=1.1,SNR=3.4						
VAE				LR	LR	10 40 11.6	
	comp=Z,15μm,21.7s,baz=354,slow=38						
VAE	Valguarnera	6.00	283	Pn	Pn	10 37 46.5	+1.0
VAE				Sn	Sn	10 38 53.4	+0.5
VAE	Valguarnera	6.00	283	Pn	Pn	10 37 46.5	+1.0
VAE				Sn	Sn	10 38 53.4	+0.5
PTRP	Pietrapertosa	6.11	314	Pn	Pn	10 37 49.8	+2.9
	6μm,6.1s						
BUM	Brajici-Budva	6.33	340	⇓*i*Pn	Pn	10 37 49.0	-1.0
BUM				*e*Sn	Sn	10 38 59.8	-1.0
BUM	Brajici-Budva	6.33	340	⇓*i*Pn	Pn	10 37 49.0	-1.0
BUM				*e*Sn	Sn	10 38 59.8	-1.0
PDG	Podgorica	6.36	343	⇓*i*Pn	Pn	10 37 49.8	-0.6
PDG				*e*Sn	Sn	10 39 00.4	-1.1
TTG	Podgorica	6.36	343	⇓*i*Pn	Pn	10 37 49.8	-0.6
TTG				*e*Sn	Sn	10 39 00.4	-1.1
TTG	Podgorica	6.36	343	⇓*i*Pn	Pn	10 37 49.8	-0.6
TTG				*e*Sn	Sn	10 39 00.4	-1.1
PVY	Plav	6.37	348	⇓*i*Pn	Pn	10 37 51.4	+0.9
PVY				*e*Sn	Sn	10 39 01.2	-0.7
PVY	Plav	6.37	348	⇓*i*Pn	Pn	10 37 51.4	+0.9
PVY				*e*Sn	Sn	10 39 01.2	-0.7
BARS	Barje	6.44	0	⇓*i*Pn	Pn	10 37 51.7	+0.2
SGO	Sicignano	6.58	311	P	Pn	10 37 55.1	+1.7
SGO				pmax	pmax		
	comp=Z,20nm,0.3s						
SGO	Sicignano	6.58	311	Pn	Pn	10 37 55.1	+1.7
	comp=Z,20nm,0.3s						
SGO	Sicignano	6.58	311	Pn	Pn	10 37 55.1	+1.7
	comp=Z,20nm,0.3s						
HCY	Herceg Novi	6.58	338	⇓*i*Pn	Pn	10 37 52.1	-1.3
HCY				*e*Sn	Sn	10 39 05.2	-1.8
HCY	Herceg Novi	6.58	338	⇓*i*Pn	Pn	10 37 52.1	-1.3
HCY				*e*Sn	Sn	10 39 05.2	-1.8
BEY	Berane	6.66	348	⇓*i*Pn	Pn	10 37 54.9	+0.5
BEY				*e*Sn	Sn	10 39 08.1	-0.7
IVA	Berane	6.66	348	⇓*i*Pn	Pn	10 37 54.9	+0.5
IVA				*e*Sn	Sn	10 39 08.1	-0.7
IVA	Berane	6.66	348	⇓*i*Pn	Pn	10 37 54.9	+0.5
IVA				*e*Sn	Sn	10 39 08.1	-0.7
NKY	Niksic	6.79	342	⇓*i*Pn	Pn	10 37 55.7	-0.5
NKY				*e*Sn	Sn	10 39 11.2	-0.8
NKY	Niksic	6.79	342	⇓*i*Pn	Pn	10 37 55.7	-0.5
NKY				*e*Sn	Sn	10 39 11.2	-0.8
CSSN	Cassano Irpino	6.93	312	Pn	Pn	10 37 58.4	+0.2
	comp=Z,19nm,0.3s						
CSSN	Cassano Irpino	6.93	312	Pn	Pn	10 37 58.4	+0.2
	comp=Z,19nm,0.3s						
BRY	Bratogost	6.99	340	⇑*i*Pn	Pn	10 37 58.3	-0.6
BRY				*e*Sn	Sn	10 39 15.7	-1.2
BRY	Bratogost	6.99	340	⇑*i*Pn	Pn	10 37 58.3	-0.6
BRY				*e*Sn	Sn	10 39 15.7	-1.2
NISS		7.03	1	*e*Pn	Pn	10 37 59.7	+0.2
FG5	Orsara di Pugl	7.06	316	P	Pn	10 38 01.4	+1.4
FG5	Orsara di Pugl	7.06	316	Pn	Pn	10 38 01.4	+1.4
RGNG	Rignano Grg	7.16	320	Pn	Pn	10 38 04.2	+2.9
UPM	Unac-Piva	7.17	343	⇑*i*Pn	Pn	10 38 01.6	+0.1
UPM				*e*Sn	Sn	10 39 19.7	-1.8
UPM	Unac-Piva	7.17	343	⇑*i*Pn	Pn	10 38 01.6	+0.1
UPM				*e*Sn	Sn	10 39 19.7	-1.8
PLE	Pljevlja	7.19	346	⇑*i*Pn	Pn	10 38 02.4	+0.7
PLE				*e*Sn	Sn	10 39 20.3	-1.6
PLE	Pljevlja	7.19	346	⇑*i*Pn	Pn	10 38 02.4	+0.7
PLE				*e*Sn	Sn	10 39 20.3	-1.6
GRUS	Gruza	7.56	354	⇓*i*Pn	Pn	10 38 05.6	-1.1
BBLS	Lazići	7.71	347	⇑*i*Pn	Pn	10 38 07.6	-1.2
DIVS	Divibare	7.84	351	⇑*i*Pn	Pn	10 38 09.2	-1.4
GZR	Gura Zlata	9.05	4	⇑*i*P	Pn	10 38 28.1	+1.0
VOIR		9.39	14	⇓*i*P	Pn	10 38 33.0	+1.2
MLR	Muntele Rosu	9.64	18	Pn	Pn	10 38 36.4	+1.1
	baz=226,slow=7.8,SNR=2.7						
MLR	Muntele Rosu	9.64	18	Pn	Pn	10 38 36.3	+1.1
BRTR	Keskin Array B	9.94	67	Pn	Pn	10 38 40.6	+1.4
	comp=Z,0.1nm,0.3s,baz=255,slow=13,SNR=11						
BRTR				LR	LR	10 42 21.1	
	comp=Z,12μm,19.4s,baz=74,slow=37						
BRTR	Keskin Array B	9.94	67	P	Pn	10 38 40.7	+1.4
	comp=Z,12μm,19.4s						
KEST	Kesra	10.09	270	Pn	Pn	10 38 42.3	+0.9
	comp=Z,0.1nm,0.3s,baz=45,slow=16,SNR=2.5						
KEST				Sn	Sn	10 40 29.6	-3.4
	comp=Z,0.1nm,0.3s,baz=228,slow=23,SNR=2.8						
BOJS	Bojanci	10.37	334	*e*Pn	Pn	10 38 44.5	-0.7
BOJS				*i* Sn	Sn	10 40 34.3	-5.5
BOJS	Bojanci	10.37	334	*e*Pn	Pn	10 38 44.5	-0.7
JAVS	Javornik	11.15	331	*i* Pn	Pn	10 38 56.5	+0.7
JAVS				*i* Sn	Sn	10 40 53.3	-5.4
JAVS	Javornik	11.15	331	*i* Pn	Pn	10 38 56.5	+0.7
OBKA	Obir	11.49	334	⇑*i*Pn	Pn	10 38 58.2	-2.2
OBKA				⇓*i*Sn	Sn	10 40 59.9	-7.1
CADS	Cadrg	11.55	331	*e*Pn	Pn	10 39 01.4	+0.1
CADS				*e*Sn	Sn	10 41 03.6	-5.0
CADS	Cadrg	11.55	331	*e*Pn	Pn	10 39 01.4	+0.1
PSZ	Piszkesteto	11.63	354	*e*P	Pn	10 39 01.4	-0.9
PSZ				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PSZ	Piszkesteto	11.63	354	⇓*i*P	Pn	10 39 00.9	-1.4
PSZ	Piszkesteto	11.63	354	*e*Pn	Pn	10 39 01.4	-0.9
	comp=Z,10nm,0.9s						
PSZ	Piszkesteto	11.63	354	*e*P	Pn	10 39 01.4	-0.9
	comp=Z,10.0nm,0.9s						
MMAI	Mount Meron Ar	11.70	103	Pn	Pn	10 38 58.0	-5.4
	comp=Z,1.4nm,0.3s,baz=289,slow=13,SNR=3.8						
MMAI				Sn	Sn	10 40 56.0	-16
	comp=Z,1.1nm,0.3s,baz=141,slow=33,SNR=2.7						
ARSA	Arzberg	11.83	339	⇓*i*Pn	Pn	10 39 02.7	-2.4
KECS	Kecovo	12.14	356	*e*PN	Pn	10 39 09.0	-0.4
VYHS	Vyhne	12.31	351	*e*P	Pn	10 39 11.4	-0.2
VYHS	Vyhne	12.31	351	*e*	Pn	10 39 11.4	-0.2
VYHS	Vyhne	12.31	351	*e*P	Pn	10 39 11.4	-0.2
VYHS	Vyhne	12.31	351	*e*	Pn	10 39 11.4	-0.2
MOA	Molln	12.75	336	⇑*i*Pn	Pn	10 39 15.9	-1.7
MOA				⇑*i*Sn	Sn	10 41 32.5	-5.2
EIL	Elat	12.91	117	Pn	Pn	10 39 15.5	-4.4
	comp=Z,0.4nm,0.3s,baz=236,slow=10,SNR=5.1						
EIL				Sn	Sn	10 41 25.7	-16
	comp=Z,0.8nm,0.3s,baz=318,slow=15,SNR=5.8						
STHS	Stebnicka Huta	13.05	358	*e*PN	Pn	10 39 26.1	+4.4
STHS				*e*		10 48 45.9	
ASF	Jabal al Asfar	13.18	104	Sn	Sn	10 41 39.7	-8.8
	comp=Z,0.3nm,0.3s,baz=274,slow=10,SNR=2.2						
DAVOX	Davos/Dischmat	13.68	323	Sn	Sn	10 41 56.4	-3.9
	comp=Z,0.4nm,0.3s,baz=347,slow=19,SNR=2.4						
GERES	GERESS Array B	13.80	337	Pn	Pn	10 39 30.7	-1.2
	comp=Z,0.3nm,0.3s,baz=154,slow=14,SNR=6.9						
GERES				Sn	Sn	10 41 58.4	-5.0
	comp=Z,0.3nm,0.3s,baz=153,slow=28,SNR=3.5						
GERES	GERESS Array B	13.80	337	Pn	Pn	10 39 30.7	-1.2
DPC	Dobruska-Polom	14.52	346	*e*P	Pn	10 39 48.5	+7.2
DPC	Dobruska-Polom	14.52	346	*e*P	Pn	10 39 48.5	+7.2
ANN	Anapa	14.56	50	*e*P	Pn	10 39 38.8	-3.0
ANN				*e*S	Sn	10 42 16.7	-5.1
ANN				pmax	pmax		
	comp=Z,54nm,1.7s						
AKASG	Malin Array Be	15.30	18	P	Pn	10 39 48.8	-2.6
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKASG	Malin Array Be	15.30	18	Pn	Pn	10 39 48.8	-2.6
	comp=Z,1.8nm,0.3s,baz=209,slow=12,SNR=4.4						
CLL	Collm	16.20	340	*e*sP	Pn	10 40 07.0	+4.2
CLL				*e*(PPP)		10 40 24.0	
CLL				*e*		10 40 36.0	
CLL	Collm	16.20	340	*e*P	Pn	10 40 07.0	+4.2
KIV	Kislovodsk	17.66	58	*e*P	Pn	10 40 22.1	+1.1
KIV				pmax	pmax		
	comp=Z,18nm,1.2s						
KIV	Kislovodsk	17.66	58	*e*P	Pn	10 40 22.1	+1.1
	comp=Z,18nm,1.2s						
GNI	Garni	18.41	71	⇑*e*P	Pn	10 40 29.5	-0.7
GNI				pmax	pmax		
	comp=Z,31nm,2.5s						
GNI	Garni	18.41	71	P	Pn	10 40 28.4	-1.8
	comp=Z,0.7nm,0.3s,baz=30,slow=5.5,SNR=6.3						
GNI	Garni	18.41	71	*e*P	Pn	10 40 29.5	-0.7
	comp=Z,31nm,2.5s						
NACGM	Naroch	18.85	9	*e*	Pn	10 40 31.0	-4.3
VORD	Divnogorie	19.25	35	*e*P	Pn	10 40 38.7	-1.4
VORD				pmax	pmax		
	comp=Z,5.0nm,0.7s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
VORD	Divnogorie	19.25	35	*e*P	Pn	10 40 38.7	-1.4
	comp=E,5.0nm,0.7s						
VSR	Storozhevoye	19.36	35	*e*P	Pn	10 40 41.2	-0.2
VSR				pmax	pmax		
	comp=N,10.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.4s						
VSR	Storozhevoye	19.36	35	*e*P	Pn	10 40 41.2	-0.2
ESDC	Sonseca Array	20.52	287	P	P	10 40 53.0	+0.5
	comp=E,0.8nm,0.6s,baz=141,slow=31,SNR=2.8						
ESDC	Sonseca Array	20.52	287	P	P	10 40 53.0	+0.5
OBN	Obninsk	21.32	24	⇑*e*P	P	10 41 00.8	-0.1
OBN				*e*		10 41 23.5	
OBN				*e*S	S	10 44 55.9	+1.9
OBN				pmax	pmax		
	comp=Z,50nm,1.7s,mb4.6						
OBN				MLR	MLR		
	comp=Z,8μm,23.0s						
OBN	Obninsk	21.32	24	*e*P	P	10 41 00.8	-0.1
	comp=Z,50nm,1.7s,mb4.6						
OBN				*e*S	S	10 44 55.9	+1.9
HFS	Hagfors	24.35	350	P	P	10 41 31.6	+0.4
HFS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
HFS	Hagfors	24.35	350	P	P	10 41 31.6	+0.4
	comp=Z,1.7nm,0.3s,mb3.9,baz=156,slow=11,SNR=15						
HFS	Hagfors	24.35	350	P	P	10 41 31.6	+0.4
	comp=Z,2.0nm,0.3s,mb4.0						
EKA	Eskdalemuir Ar	25.48	326	P	P	10 41 44.6	+3.0
EKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
EKA	Eskdalemuir Ar	25.48	326	P	P	10 41 44.5	+3.0
	comp=Z,0.9nm,0.5s,mb3.5,baz=128,slow=8.6,SNR=4.0						
NB2	NORSAR Subarra	25.59	348	P	P	10 41 42.4	0.0
	comp=Z,3.8nm,1.0s,mb3.9,baz=161,slow=10						
NB2	NORSAR Subarra	25.59	348	P	P	10 41 42.4	0.0
	comp=Z,3.8nm,1.0s,mb3.9,SNR=4.4						
NOA	NORSAR Array B	25.59	348	P	P	10 41 43.5	+1.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	25.59	348	P	P	10 41 43.5	+1.1
	comp=Z,1.1nm,0.7s,mb3.5,baz=150,slow=7.5,SNR=4.9						
NOA	NORSAR Array B	25.59	348	P	P	10 41 43.5	+1.1
	comp=Z,1.0nm,0.7s,mb3.5						
KLMR	Klimovskoe	26.98	19	*e*P	P	10 41 52.1	-2.9
KLMR				pmax	pmax		
	comp=Z,31nm,1.8s,mb4.5						
TORD	Torodi Ar. Bea	29.32	223	P	P	10 42 16.9	+0.6
	comp=Z,1.0nm,0.8s,mb3.6,baz=33,slow=9.6,SNR=4.9						
AKTK	Aktyubinsk	29.52	50	P	P	10 42 17.0	-0.7
AKTK	Aktyubinsk	29.52	50	P	P	10 42 17.0	-0.7
	comp=Z,3.0nm,0.8s,mb4.1						
AKTO	Aktyubinsk	29.52	50	P	P	10 42 17.0	-0.7
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
AKTO	Aktyubinsk	29.52	50	P	P	10 42 17.0	-0.7
	comp=Z,2.5nm,0.8s,mb4.0,baz=265,slow=9.5,SNR=6.3						
ARU	Arti	31.79	39	*e*P	P	10 42 37.6	0.0
ARU				*e*		10 43 38.4	
ARU				S	S	10 47 46.8	+3.5
ARU				SS	SS	10 49 35.7	-26
ARU	Arti	31.79	39	*e*P	P	10 42 37.6	0.0
ARU				S	S	10 47 46.8	+3.5
ARCES	ARCESS Array B	33.29	2	P	P	10 42 51.6	+1.0
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	ARCESS Array B	33.29	2	P	P	10 42 51.6	+1.0
	comp=Z,5.8nm,0.9s,mb4.5,baz=189,slow=10.0,SNR=5.1						
ARCES	ARCESS Array B	33.29	2	P	P	10 42 51.6	+1.0
	comp=Z,6.0nm,1.0s,mb4.5						
BVAR	Borovoye Array	37.55	48	P	P	10 43 28.2	+0.9
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BVAR	Borovoye Array	37.55	48	P	P	10 43 28.2	+0.9
	comp=Z,2.3nm,0.7s,mb4.0,baz=262,slow=6.5,SNR=10						
BVAR	Borovoye Array	37.55	48	P	P	10 43 28.2	+0.9
	comp=Z,2.0nm,0.7s,mb4.0						
DBIC	Dimbokro	38.30	226	P	P	10 43 34.0	-0.1
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
DBIC	Dimbokro	38.30	226	P	P	10 43 34.0	-0.1
	comp=Z,4.8nm,1.0s,mb4.2,baz=333,slow=9.0,SNR=3.3						
DBIC	Dimbokro	38.30	226	P	P	10 43 34.0	-0.1
	comp=Z,5.0nm,1.0s,mb4.2						
AAK	Ala-Archa	40.60	64	⇑*i*P	P	10 43 53.6	+0.6
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
AAK	Ala-Archa	40.60	64	*i* P	P	10 43 53.6	+0.6
	comp=Z,4.0nm,1.0s,mb4.0						
KURK	Kurchatov	42.58	52	P	P	10 44 07.1	-1.9
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
KURK	Kurchatov	42.58	52	P	P	10 44 07.1	-1.9
	comp=Z,2.2nm,0.6s,mb4.0,baz=279,slow=8.7,SNR=4.7						
KURK	Kurchatov	42.58	52	P	P	10 44 07.1	-2.0
MKAR	Makanchi Array	45.42	57	P	P	10 44 31.1	-0.7
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
MKAR	Makanchi Array	45.42	57	P	P	10 44 31.1	-0.8
	comp=Z,1.7nm,0.4s,mb4.2,baz=273,slow=7.9,SNR=16						
ZALV	Zalesovo Beam	46.17	47	P	P	10 44 37.3	-0.4
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
ZALV	Zalesovo Beam	46.17	47	P	P	10 44 37.2	-0.4
	comp=Z,3.4nm,0.6s,mb4.5,baz=267,slow=8.9,SNR=13						
ZALV	Zalesovo Beam	46.17	47	P	P	10 44 37.3	-0.4
	comp=Z,3.0nm,0.6s,mb4.4						
DANN	Dangsing	52.19	80	*e*P	P	10 45 24.5	+0.5
	comp=Z,50nm,0.7s,mb5.5						
KOLN	Koldanda	52.31	81	*e*P	P	10 45 24.8	-0.1
	comp=Z,14nm,0.8s,mb4.9						
GKN	Gorkha	53.04	80	*e*P	P	10 45 30.0	-0.3
	comp=Z,25nm,0.7s,mb5.2						
DMN	Daman	53.58	80	*e*P	P	10 45 34.4	+0.1
	comp=Z,28nm,0.7s,mb5.3						
KKN	Kakani	53.64	80	*e*P	P	10 45 33.9	-0.8
	comp=Z,12nm,0.6s,mb5.0						
PKI	Pulchoki	53.84	80	*e*P	P	10 45 36.0	-0.1
GUN	Gumba	54.06	79	*e*P	P	10 45 37.9	+0.1
	comp=Z,29nm,0.9s,mb5.2						
JIRN	Jiri	54.42	80	*e*P	P	10 45 40.6	+0.2

	comp=Z,14nm,0.7s,mb5.0						
RAMN	Ramite	55.06	80	*e*P	P	10 45 44.8	-0.2
	comp=Z,18nm,0.7s,mb5.2						
ODAN	Odare	55.73	80	*e*P	P	10 45 49.3	-0.6
TAPN	Taplejung	55.77	79	*e*P	P	10 45 50.0	-0.1
SONM	Songino Array	60.84	50	P	P	10 46 25.6	+0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	60.84	50	P	P	10 46 25.6	+0.5
	comp=Z,1.3nm,0.7s,mb4.2,baz=285,slow=7.9,SNR=8.2						
SONM	Songino Array	60.84	50	P	P	10 46 25.6	+0.5
	comp=Z,1.0nm,0.7s,mb4.0						
TIXI	Tiksi	61.00	20⇑	*e*P	P	10 46 26.8	+1.0
TIXI				pmax	pmax		
	comp=Z,15nm,2.5s,mb4.7						
TIXI	Tiksi	61.00	20	*e*P	P	10 46 26.8	+1.0
	comp=Z,15nm,2.5s,mb4.7						
CMAR	Chiang Mai Arr	69.15	82	P	P	10 47 19.9	+0.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	69.15	82	P	P	10 47 19.9	+0.4
	comp=Z,0.7nm,0.3s,mb4.1,baz=310,slow=8.3,SNR=6.8						
CMAR	Chiang Mai Arr	69.15	82	P	P	10 47 19.9	+0.4
	comp=Z,1.0nm,0.3s,mb4.2						
BILL	Bilibino	72.55	13⇑	*e*P	P	10 47 42.5	+3.2
BILL				*e*S	S	10 57 04.4	+5.7
BILL				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.4						
BILL				MLR	MLR		
	comp=Z,6µm,18.0s						
BILL	Bilibino	72.55	13	*e*P	P	10 47 42.5	+3.2
	comp=Z,6µm,18.0s						
YKA	Yellowknife Ar	75.43	341	P	P	10 47 58.4	+2.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	75.43	341	P	P	10 47 58.4	+2.2
	comp=Z,0.6nm,0.7s,mb3.6,baz=37,slow=5.4,SNR=7.7						
YKA	Yellowknife Ar	75.43	341	P	P	10 47 58.4	+2.2
YKA	Yellowknife Ar	75.43	341	P	P	10 47 58.4	+2.2
	comp=Z,1.0nm,0.7s,mb3.9						
KSRS	Korea Array	79.69	51	P	P	10 48 20.7	+0.2
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
KSRS	Korea Array	79.69	51	P	P	10 48 20.7	+0.2
	comp=Z,3.0nm,0.9s,mb4.2,baz=299,slow=5.4,SNR=6.5						
KSRS	Korea Array	79.69	51	P	P	10 48 20.7	+0.2
	comp=Z,3.0nm,0.9s,mb4.2						
WRA	Warramunga Arr	119.44	94	PKP	PKPdf	10 55 03.0	+0.7
	comp=Z,0.4nm,0.9s,baz=318,slow=1.3,SNR=6.5						
ASAR	Alice Springs	120.96	98	PKP	PKPdf	10 55 06.0	+0.9
	comp=Z,0.2nm,0.5s,baz=316,slow=2.6,SNR=4.1						

IDC 14 10:42:55.5±1.8, 6°.72S×129°.44E, h0km, mb3.7/2, mb1 3.9/5, mb1mx3.7/18, mbtmp3.7/5, ML3.6/3, Error ellipse: s-maj=58.8km s-min=27.0km az=64.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.90	198	Pn	Pn	10 45 45.5	-1.1
	0.4nm,0.3s,baz=17,slow=14,SNR=6.4						
WRA	Warramunga Arr	13.97	161	Pn	Pn	10 46 15.2	+0.3
	0.3nm,0.3s,baz=338,slow=14,SNR=8.6						
WRA				Sn	Sn	10 48 42.7	-8.2
	0.2nm,0.3s,baz=346,slow=20,SNR=4.4						
ASAR	Alice Springs	17.38	166	P	Pn	10 47 01.4	+1.8
	0.2nm,0.3s,baz=346,slow=11,SNR=16						
CTA	Charters Tower	21.04	131	P	P	10 47 40.5	-0.6
	2.8nm,0.7s,baz=308,slow=11,SNR=4.0						
MKAR	Makanchi Array	67.69	327	P	P	10 53 54.8	+0.2
	0.4nm,0.6s,baz=110,slow=8.0,SNR=3.5						

ISCJB 14 10:43:13.4±1.2, 36°.38N±0°.06×28°.90E±0°.06, h3km±10km, Error ellipse: s-maj=11.3km s-min=6.0km az=32.7
CSEM 14 10:43:13.4±0.1, 36°.37N×28°.91E, h5km, MD2.8, Error ellipse: s-maj=3.2km s-min=1.7km az=15.0
ISK 14 10:43:13.4, 36°.41N×28°.94E, h12km, MD2.8
DDA 14 10:43:15.2, 36°.66N×29°.13E, h7km±2km, Md2.8
ISC 14 10:43:14.0±1.1, 36°.39N±0°.06×28°.90E±0°.06, h6km±9km, n16, σ0s.64/27, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.29	32	*e*PG	Pg	10 43 19.1	-0.5
FETY				*e*SG	Sg	10 43 23.4	0.0
FETY	Fethiye	0.29	32	*e*Pg	Pg	10 43 19.1	-0.5
FETY				*e*Sg	Sg	10 43 23.4	0.0
DALT	Dalyan (Mudla)	0.43	331	*e*PG	Pg	10 43 22.3	0.0
DALT				*e*SG	Sg	10 43 28.9	+0.9
DALT	Dalyan (Mudla)	0.43	331	*e*Pg	Pg	10 43 22.3	-0.1
DALT				*e*Sg	Sg	10 43 28.9	+0.9
AKAS	Kas	0.59	105	*i* P	Pg	10 43 24.9	-0.5
AKAS				*i* S	Sg	10 43 34.8	+1.7
AKAS	Kas	0.59	105	*i* P	Pg	10 43 25.0	-0.4
ELL	Elmali	0.89	66	*e*PG	Pg	10 43 30.4	-0.7
ELL				*e*SG	Sg	10 43 42.3	-0.4
ELL	Elmali	0.89	66	*e*Pg	Pg	10 43 30.4	-0.7
ELL				*e*Sg	Sg	10 43 42.3	-0.3
YER	Yerkesik	0.89	327	*e*PG	Pg	10 43 30.9	-0.3
YER	Yerkesik	0.89	327	*e*Pg	Pg	10 43 30.9	-0.2
DAT	Datca	1.11	288	*e*PN	Pn	10 43 36.0	-0.1
DAT				*e*SN	Sn	10 43 52.0	+0.2
DAT	Datca	1.11	288	*e*Pn	Pn	10 43 36.0	-0.1
DAT				*e*Sn	Sn	10 43 52.0	+0.2
BODT	Bodrum	1.44	298	*e*PN	Pn	10 43 39.7	-0.9
BODT	Bodrum	1.44	298	*e*Pn	Pn	10 43 39.7	-0.9
AYDN	Tasoluk	1.51	328	*i* P	Pn	10 43 41.7	+0.1
AYDN				*i* S	Sn	10 44 02.0	+0.6
AYDN	Tasoluk	1.51	328	*i* P	Pn	10 43 41.7	+0.2
AYDN				*i* S	Sn	10 44 02.0	+0.6

ISK 14 10:45:27.3, 36°.34N×28°.99E, h10km, MD3.1
ISCJB 14 10:45:28.9±1.0, 36°.41N±0°.06×29°.01E±0°.04, h12km±5km, Error ellipse: s-maj=9.6km s-min=4.6km az=8.0
DDA 14 10:45:28.9, 36°.53N×28°.96E, h7km±3km, Md3.2
CSEM 14 10:45:29.2±0.2, 36°.42N×29°.00E, h15km, MD3.1, Error ellipse: s-maj=5.5km s-min=3.0km az=9.0
ISC 14 10:45:30.1±0.7, 36°.46N±0°.05×29°.01E±0°.04, h17km±4km, n35, σ0s.94/51, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.19	18	*e*PG	Pg	10 45 33.6	-1.1
FETY				*e*SG	Sg	10 45 38.8	+0.9
FETY	Fethiye	0.19	18	*e*Pg	Pg	10 45 33.6	-1.1
FETY				*e*Sg	Sg	10 45 38.8	+0.9
DALT	Dalyan (Mudla)	0.43	316	*e*PG	Pg	10 45 38.1	-0.8
DALT				*e*SG	Sg	10 45 45.2	+0.4
DALT	Dalyan (Mudla)	0.43	316	*e*Pg	Pg	10 45 38.1	-0.8
DALT				*e*Sg	Sg	10 45 45.2	+0.4
AKAS	Kas	0.53	115	*i* P	Pg	10 45 40.1	-0.5
AKAS				*i* S	Sg	10 45 50.0	+2.3
AKAS	Kas	0.53	115	*i* P	Pg	10 45 40.1	-0.5
AKAS				*i* S	Sg	10 45 50.0	+2.3
TURN	Turunc	0.53	322	*i* P	Pg	10 45 42.4	+1.8
TURN	Turunc	0.53	322	*i* P	Pg	10 45 42.4	+1.8
ELL	Elmali	0.78	68	*e*PG	Pg	10 45 43.8	-1.5
ELL				*e*SG	Sg	10 45 56.2	+0.7
ELL	Elmali	0.78	68	*e*Pg	Pg	10 45 43.8	-1.5
ELL				*e*Sg	Sg	10 45 56.2	+0.6
GOLH	Golhisar	0.90	29	*i* P	Pb	10 45 45.7	-1.4
GOLH				*i* S	Sb	10 45 58.0	-0.7
GOLH	Golhisar	0.90	29	*i* P	Pb	10 45 45.7	-1.4
GOLH				*i* S	Sb	10 45 58.0	-0.8
YER	Yerkesik	0.90	319	*e*PG	Pg	10 45 46.4	-1.0
YER	Yerkesik	0.90	319	*e*Pg	Pg	10 45 46.4	-1.1
DAT	Datca	1.19	284	*e*PN	Pn	10 45 50.8	-1.0
DAT				*e*SN	Sn	10 46 08.1	+0.6
DAT	Datca	1.19	284	*e*Pn	Pn	10 45 50.8	-1.0
DAT				*e*Sn	Sn	10 46 08.1	+0.6
DENT	Denizli	1.29	1	*e*PN	Pn	10 45 53.0	-0.3
DENT	Denizli	1.29	1	*e*Pn	Pn	10 45 53.0	-0.3
MLSB	Milas	1.30	311	*e*PN	Pn	10 45 53.6	+0.2
MLSB	Milas	1.30	311	*e*Pn	Pn	10 45 53.6	+0.2
ANTB	Antalya	1.39	71	*e*PN	Pn	10 45 54.2	-0.4
ANTB	Antalya	1.39	71	*e*Pn	Pn	10 45 54.2	-0.5
BDRM	Kayabasi	1.40	296	*i* P	Pn	10 45 54.4	-0.3
BDRM				*i* S	Sn	10 46 13.3	+0.6
BDRM	Kayabasi	1.40	296	*i* P	Pn	10 45 54.4	-0.3
BDRM				*i* S	Sn	10 46 13.3	+0.5
BODT	Bodrum	1.49	294	*e*PN	Pn	10 45 55.1	-0.9
BODT	Bodrum	1.49	294	*e*Pn	Pn	10 45 55.1	-1.0
AYDN	Tasoluk	1.50	323	*i* P	Pn	10 45 56.4	+0.1
AYDN				*i* S	Sn	10 46 16.4	+1.0
AYDN	Tasoluk	1.50	323	*i* P	Pn	10 45 56.3	+0.1
AYDN				*i* S	Sn	10 46 16.4	+1.0
BCK	Bucak	1.61	51	*e*PN	Pn	10 45 57.5	-0.2
BCK	Bucak	1.61	51	*e*Pn	Pn	10 45 57.6	-0.1
ISP	Isparta	1.83	40	*e*PN	Pn	10 46 01.9	+1.2
KHL	Karahalli	1.91	12	*e*PN	Pn	10 46 02.3	+0.6
KHL	Karahalli	1.91	12	*e*Pn	Pn	10 46 02.3	+0.5
ALT	Altintas	2.74	18	*e*PN	Pn	10 46 14.0	+0.8
ALT	Altintas	2.74	18	*e*Pn	Pn	10 46 14.0	+0.8

IDC 14 10:52:58.5±2.5, 2°.92N×128°.24E, h0km, mb3.2/3, mb1 3.4/3, mb1mx3.3/18, mbtmp3.2/3, Error ellipse: s-maj=194.1km s-min=25.8km az=68.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.50	165	P	P	10 58 10.8	+0.5
	0.5nm,0.7s,baz=346,slow=11,SNR=5.1						
ASAR	Alice Springs	27.00	168	P	P	10 58 41.6	-0.7
	0.3nm,0.7s,baz=346,slow=6.8,SNR=4.1						
MKAR	Makanchi Array	59.08	325	P	P	11 03 00.8	+0.2
	0.2nm,0.9s,baz=104,slow=4.6,SNR=2.9						

NEIC 14 10:53:43.2, 10°.26N×62°.24W, h8km, MD2.9(TRN), After TRN.
TRN 14 10:53:43.9, 10°.19N×62°.16W, h3km, MD2.9
ISCJB 14 10:53:44.4±0.7, 10°.31N±0°.04×62°.22W±0°.02, h1km±6km, Error ellipse: s-maj=6.0km s-min=3.7km az=171.9
FUNV 14 10:53:46.5, 10°.38N×62°.24W, h1km, MW2.8
ISC 14 10:53:45.2±0.6, 10°.33N±0°.04×62°.22W±0°.02, h1km±6km, n20, σ1s.20/36, 1C, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.32	360	*e*P	Pg	10 53 51.3	0.0
GUIV				*e*S	Sg	10 53 55.9	+0.4
TCE	Chacachacare	0.59	52	*e*P	Pg	10 53 56.1	-0.4
TCE				*i* S	Sg	10 54 05.4	+1.2
GUNV	Guanoco	0.73	257	*e*P	Pg	10 53 59.9	+0.7
GUNV				*e*S	Sg	10 54 11.2	+2.5
TPP	Pointe-a-Pierr	0.76	91	*e*P	Pg	10 53 57.1	-2.7
TPP				*e*S	Sg	10 54 07.8	-1.9
TPP	Pointe-a-Pierr	0.76	91	*e*P	Pg	10 54 06.0	+6.1
TPP				*e*S	Sg	10 54 19.1	+9.4
TRN	Trinidad (W)	0.87	69	*e*P	Pg	10 54 00.6	-1.3
TRN				*e*S	Sg	10 54 13.8	+0.6
CRUV	Carupano	1.05	289	*e*P	Pg	10 54 04.2	-1.2
CRUV				*e*S	Sg	10 54 18.7	-0.4
TBH	Brigand Hill	1.15	82	*e*P	Pg	10 54 06.2	-1.1
TBH				*e*S	Sg	10 54 21.4	-0.8
TBH	Brigand Hill	1.15	82	*e*P	Pg	10 54 06.2	-1.1
TBH				*e*S	Sg	10 54 23.2	+1.1
ITEV	Isla Los Testi	1.35	319	*e*P	Pn	10 54 10.3	-1.0
ITEV				*e*S	Sg	10 54 28.2	-0.7
TPR	Prospect	1.66	59	*e*P	Pn	10 54 14.9	-0.5
TPR				*e*S	Sn	10 54 38.0	+0.6
TPR	Prospect	1.66	59	*e*P	Pn	10 54 17.0	+1.5
TPR				*e*S	Sn	10 54 39.6	+2.2
ORIV	Oritupano	1.71	223⇑	*e*P	Pn	10 54 17.8	+1.5
ORIV				*e*S	Sn	10 54 40.3	+1.5
GRW	Mount Saint Ca	1.90	17	*e*P	Pn	10 54 21.2	+2.4
GRW	Mount Saint Ca	1.90	17	*e*P	Pn	10 54 22.7	+3.8
PCRV	Puerto La Cruz	2.38	267	*e*P	Pn	10 54 25.8	+0.4
PCRV				*e*S	Sn	10 54 54.0	-1.3
PRGV	PARIAGUAN	2.85	237	*e*P	Pn	10 54 32.7	+0.8
CUPV	Cœpira	3.52	266	*e*P	Pn	10 54 41.4	+0.3
CUPV				*e*S	Sn	10 55 21.4	-2.0
LUEV	Luepa	4.52	170	*e*P	Pn	10 54 55.2	+0.3
LUEV				*e*S	Sn	10 55 46.1	-2.1
BAUV	El Baul	5.90	257	*e*P	Pn	10 55 13.8	-0.1

CSEM 14 10:59:24.9±0.5, 39°.78N×41°.03E, h10km, MD2.7, Error ellipse: s-maj=14.6km s-min=6.8km az=179.0
ISK 14 10:59:24.3, 39°.85N×41°.03E, h5km, MD2.7
ISCJB 14 10:59:25.8±1.0, 39°.85N±0°.09×41°.09E±0°.04, h10km, Error ellipse: s-maj=12.7km s-min=4.4km az=7.5
DDA 14 10:59:25.7, 39°.90N×41°.08E, h7km±6km, Md3.1
ISC 14 10:59:26.6±0.8, 39°.90N±0°.09×41°.09E±0°.04, h5km±8km, n11, σ1s.07/20, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	Erzurum	0.21	89	*e*PG	Pg	10 59 30.2	-0.5
EZM				*e*SG	Sg	10 59 33.8	+0.4
ERZM	Erzurum	0.21	89	*i* P	Pg	10 59 30.3	-0.4
ERZM				*i* S	Sg	10 59 33.8	+0.3
ERZM	Erzurum	0.21	89	*i* P	Pg	10 59 30.3	-0.4
ERZM				*i* S	Sg	10 59 33.8	+0.3
KOPT	Kop Dagi	0.47	284	*i* P	Pg	10 59 34.1	-1.6
KOPT				*i* S	Sg	10 59 42.8	+1.0
KOPT	Kop Dagi	0.47	284	*i* P	Pg	10 59 34.1	-1.6
KOPT				*i* S	Sg	10 59 42.8	+1.0
HOMI	Horasan	0.64	77	*i* P	Pg	10 59 37.7	-1.1
HOMI				*i* S	Sg	10 59 49.0	+1.9
EZC	Erzincan	1.00	261	*e*PN	Pn	10 59 49.1	+1.9
EZC				*e*SN	Sn	11 00 08.0	+6.5
PZAR	Pazar-Rize	1.28	353	*e*PN	Pn	10 59 50.1	-1.0
PZAR				*e*SN	Sn	11 00 08.9	+0.3
PZAR	Pazar-Rize	1.28	353	*e*Pn	Pn	10 59 50.1	-1.0
PZAR				*e*Sn	Sn	11 00 08.9	+0.3
AGRB	Hanur-Agry	1.50	102	*e*PN	Pn	10 59 53.1	-0.9
AGRB	Hanur-Agry	1.50	102	*e*Pn	Pn	10 59 53.2	-0.9

BJI 14 11:02:26.9, 35°.25N×106°.51E, h23km, mb3.9/1, ML3.6/7, Gansu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZH	Lanzhou	2.33	292	Pg	Pn	11 03 07.8	+4.1
LZH				Sg	Sn	11 03 38.9	+7.3
LZH				smax			
	comp=N,540nm,1.1s						
LZH				smax			
	comp=E,200nm,1.0s						
XAN	Xi’an	2.33	121	Pn	Pn	11 03 04.5	+0.8
XAN				Pg	Pn	11 03 06.8	+3.1
XAN				Sg	Sn	11 03 34.8	+3.2
XAN				smax			
	comp=N,160nm,1.2s						
XAN				smax			
	comp=E,120nm,1.1s						
GTA	Gaotai	6.76	310	*e*Pn	Pn	11 04 06.1	+1.5

ISCJB 14 11:03:04.5±0.4, 53°.43S±0°.07×24°.9E±0°.2, h10km, mb4.4/14, Error ellipse: s-maj=13.3km s-min=10.6km az=167.0
IDC 14 11:03:04.8±0.6, 53°.51S×24°.89E, h0km, mb4.4/13, mb1 4.5/13, mb1mx4.4/21, mbtmp4.5/13, Error ellipse: s-maj=23.7km s-min=15.9km az=82.0
NEIC 14 11:03:06.1±0.3, 53°.43S×24°.90E, h10km, mb4.7/4, Error ellipse: s-maj=10.5km s-min=8.3km az=76.0
ISC 14 11:03:06.3±0.4, 53°.44S±0°.07×24°.9E±0°.2, h10km, n31, σ0s.78/26, mb4.4/14, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUR	Sutherland	21.26	350	P	P	11 07 54.5	+2.1
	42nm,1.0s,mb4.7,baz=232,slow=1.8,SNR=9.3						
BOSA	Boshof	24.81	1	P	P	11 08 29.0	+0.7
	5.9nm,0.9s,mb4.1,baz=174,slow=14,SNR=6.2						
BOSA	Boshof	24.81	1	*e*P	P	11 08 28.7	+0.4
	6.0nm,0.9s,mb4.1						
PAF	Port-aux-Franc	28.19	100	P	P	11 08 59.8	+1.1
LBTB	Lobatse	28.39	1	P	P	11 09 01.4	+0.8
	9.5nm,0.9s,mb4.4,baz=191,slow=9.0,SNR=10						
LBTB	Lobatse	28.39	1	*e*P	P	11 09 00.8	+0.2
	9.3nm,0.9s,mb4.4						
QSPA	South Pole Qui	36.78	180	P	P	11 10 13.4	0.0
	4.8nm,0.9s,mb4.3,baz=255,slow=6.5,SNR=22						
LSZ	Lusaka	38.17	5	P	P	11 10 26.4	+0.7
	10nm,0.3s,mb5.0,baz=191,slow=11,SNR=4.6						
LSZ	Lusaka	38.17	5	*e*P	P	11 10 25.4	-0.3
ABPO	Ambohimpanom	38.45	35	*e*P	P	11 10 27.2	-0.9
RER	Riviere de l’E	39.92	48	P	P	11 10 39.5	-0.9
SHEL	Horse Pasture	44.44	316	P	P	11 11 16.1	-1.2
VNDA	Vanda	46.60	168	*e*P	P	11 11 34.4	+0.6
MSEY	Mahe Island	54.68	38	P	P	11 12 34.1	-1.2
PLCA	Paso Flores	61.47	239	P	P	11 13 22.7	0.0
	3.2nm,0.9s,mb4.4,baz=115,slow=8.9,SNR=3.4						
CPUP	Villa Florida	64.78	259	P	P	11 13 45.0	+0.1
	1.7nm,0.6s,mb4.3,baz=110,slow=5.7,SNR=6.7						
DBIC	Dimbokro	64.95	327	P	P	11 13 45.7	-0.3
	5.7nm,0.9s,mb4.6,baz=172,slow=10,SNR=4.3						
DBIC	Dimbokro	64.95	327	*e*P	P	11 13 45.6	-0.4
	8.1nm,0.8s,mb4.8						
NWAO	Narrogin (SRO)	65.60	113	P	P	11 13 49.3	-0.9
TORD	Torodi Ar. Bea	69.24	336	P	P	11 14 13.8	+0.6
	2.9nm,0.9s,mb4.2,baz=169,slow=6.0,SNR=12						
SIV	San Ignacio	74.94	263	P	P	11 14 47.1	-0.4
	1.2nm,0.9s,mb3.8,baz=139,slow=9.6,SNR=5.6						
STKA	Stephens Creek	78.90	129	P	P	11 15 10.3	+0.7
	3.0nm,0.9s,mb4.2,baz=196,slow=3.1,SNR=3.9						
ASAR	Alice Springs	81.88	119	P	P	11 15 25.6	-0.1
	1.8nm,0.9s,mb4.0,baz=202,slow=5.1,SNR=9.7						
WRA	Warramunga Arr	85.16	117	P	P	11 15 42.3	-0.4
	2.8nm,1.0s,mb4.3,baz=210,slow=3.4,SNR=8.2						
WRAB	Tennant Creek	85.17	117	*e*P	P	11 15 43.4	+0.7
	5.1nm,0.9s,mb4.7						
OTAV	Otavalo	98.13	259	*e*P	P	11 16 42.9	-0.5
PDAR	Pinedale Array	148.29	269	PKPbc	PKPbc	11 22 51.0	-0.7
	0.7nm,0.6s,baz=163,slow=5.6,SNR=4.2						
RES	Resolute Bay	148.38	334	PKPbc	PKPbc	11 22 50.7	-0.4
	2.2nm,1.0s,baz=300,slow=3.4,SNR=5.8						
RES	Resolute Bay	148.38	334	PKPbc	PKPbc	11 22 50.7	-0.4
NVAR	Mina Array Bea	150.72	254	PKPbc	PKPbc	11 22 59.0	+1.0
	1.1nm,0.9s,baz=147,slow=2.4,SNR=3.8						
YKA	Yellowknife Ar	157.06	309	PKPab	PKPab	11 23 31.9	+0.6
	1.9nm,1.0s,baz=86,slow=4.8,SNR=11						

IDC 14 11:05:27.0±1.9, 2°.72S×36°.42E, h0km, mb3.7/5, mb1 3.8/5, mb1mx3.6/22, mbtmp3.7/5, Error ellipse: s-maj=53.8km s-min=17.6km az=130.0
ISCJB 14 11:05:27.4±0.8, 2°.6S±0°.1×36°.4E±0°.2, h10km, mb3.7/5, Error ellipse: s-maj=34.2km s-min=9.0km az=32.8
NEIC 14 11:05:30.4±2.3, 2°.38S×36°.32E, h10km, Error ellipse: s-maj=60.1km s-min=18.7km az=150.0
NEIC Felt at Nairobi, Kenya.
ISC 14 11:05:29.7±0.8, 2°.5S±0°.1×36°.4E±0°.2, h10km, n10, σ1s.04/10, mb3.7/5, Tanzania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	1.65	32	Pg	Pg	11 05 59.6	-1.6
	81nm,0.3s,baz=222,slow=18,SNR=282						
KMBO				Lg		11 06 23.3	
	379nm,0.3s,baz=132,slow=23,SNR=33						
KMBO	Kilima Mbogo	1.65	32	Pg	Pg	11 05 59.6	-1.6
KMBO				Lg		11 06 23.3	
LSZ	Lusaka	15.02	212	*e*Sn	Sn	11 11 48.4	-0.4
LSZ				*e*Lg		11 13 04.3	
TORD	Torodi Ar. Bea	37.78	295	P	P	11 12 45.0	-1.4
	0.4nm,0.8s,mb3.2,baz=116,slow=11,SNR=3.0						
GERES	GERESS Array B	54.83	342	P	P	11 15 01.5	+1.6
	0.2nm,0.2s,mb3.7,baz=163,slow=7.2,SNR=3.6						
AKTK	Aktyubinsk	55.93	17	P	P	11 15 08.7	+0.9
AKTO	Aktyubinsk	55.93	17	P	P	11 15 08.7	+0.9
	0.6nm,0.7s,mb3.8,baz=217,slow=5.1,SNR=3.5						
MK31	Makanchi Array	63.53	33	*e*P	P	11 16 01.2	+1.0
MKAR	Makanchi Array	63.53	33	P	P	11 15 59.7	-0.6
	1.3nm,0.9s,mb4.0,baz=234,slow=5.8,SNR=6.9						
ZALV	Zalesovo Beam	69.12	28	P	P	11 16 35.6	-0.3
	0.5nm,0.5s,mb3.7,baz=250,slow=4.3,SNR=3.6						

IDC 14 11:07:49.4±2.2, 3°.41S×129°.38E, h0km, mb3.5/2, mb1 3.7/3, mb1mx3.5/17, mbtmp3.5/3, ML3.5/1, Error ellipse: s-maj=152.4km s-min=27.4km az=69.0, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.13	164	P	Pn	11 11 48.6	-1.8
	0.2nm,0.3s,baz=344,slow=11,SNR=8.9						
ASAR	Alice Springs	20.61	168	P	P	11 12 31.2	+0.9
	2.2nm,0.5s,baz=350,slow=11,SNR=76						
MKAR	Makanchi Array	64.91	326	P	P	11 18 30.7	+0.1
	0.1nm,0.3s,baz=126,slow=6.4,SNR=3.9						

CSEM 14 11:10:34.5, 36°.14N×21°.54E, h26km, MD3.3, After ATH
ATH 14 11:10:34.5, 36°.14N×21°.54E, h26km±3km, MD3.3/4, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.77	12	*e*PN	Pn	11 10 50.0	+0.3
PYL				*e*SN	Sn	11 11 00.7	+0.3
PYL	PYLOS	0.77	12	*e*Pn	Pn	11 10 50.0	+0.3
PYL				*e*Sn	Sn	11 11 00.7	+0.3
ITM	Ithomi	1.08	17	*e*PN	Pn	11 10 54.9	+0.9
ITM				*e*SN	Sn	11 11 10.8	+2.7
ITM	Ithomi	1.08	17	*e*Pn	Pn	11 10 54.9	+0.9
ITM				*e*Sn	Sn	11 11 10.8	+2.7
KYTH	Kithira	1.22	83	*e*PN	Pn	11 10 57.5	+1.7
KYTH	Kithira	1.22	83	*e*Pn	Pn	11 10 57.5	+1.7
VLX	Vlachokerasia	1.40	29	*e*PN	Pn	11 11 00.3	+2.0
VLX	Vlachokerasia	1.40	29	*e*Pn	Pn	11 11 00.3	+2.0

CSEM 14 11:12:20.1, 36°.05N×21°.43E, h3km, MD2.9, After ATH
ATH 14 11:12:20.1, 36°.05N×21°.43E, h3km, MD2.9/3, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.88	17	*e*PG	Pg	11 12 36.5	-0.5
PYL	PYLOS	0.88	17	*e*Pg	Pg	11 12 36.5	-0.5
ITM	Ithomi	1.20	19	*e*PB	Pb	11 12 42.8	-0.6
ITM	Ithomi	1.20	19	*e*Pb	Pb	11 12 42.8	-0.6
KYTH	Kithira	1.32	79	*e*PB	Pb	11 12 44.9	-0.6
KYTH	Kithira	1.32	79	*e*Pb	Pb	11 12 44.9	-0.6
VLX	Vlachokerasia	1.52	30	*e*PB	Pb	11 12 48.9	-0.1
VLX	Vlachokerasia	1.52	30	*e*Pb	Pb	11 12 48.9	-0.1

ISCJB 14 11:12:55.1±0.4, 36°.03N±0°.03×21°.62E±0°.03, h10km, mb4.3/23, Error ellipse: s-maj=4.5km s-min=3.6km az=165.9
ATH 14 11:12:59.5, 36°.20N×21°.65E, h25km±2km, ML3.7
CSEM 14 11:12:59.5±0.3, 36°.22N×21°.63E, h10km, ML4.2/6, Error ellipse: s-maj=7.8km s-min=5.5km az=170.0
NEIC 14 11:13:01.0, 36°.25N×21°.79E, h9km, ML3.7(ATH), ML4.2(THE), After THE.
THE 14 11:13:01.0, 36°.25N×21°.79E, h9km±6km, ML4.2/6, Error ellipse: s-maj=9.2km s-min=3.9km az=238.0
IDC 14 11:13:02.8±2.5, 36°.43N×21°.94E, h39km±22km, mb3.8/14, mb1 3.8/18, mb1mx3.8/30, mbtmp3.8/18, ML3.7/4, Error ellipse: s-maj=17.8km s-min=15.5km az=162.0
ISC 14 11:12:58.0±0.3, 36°.10N±0°.03×21°.68E±0°.03, h10km, n177, σ1s.34/216, mb4.3/23, 5D, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.79	4	P	Pg	11 13 13.9	+0.6
PYL	PYLOS	0.79	4	*e*PN	Pg	11 13 13.8	+0.5
PYL				*e*SN	Sg	11 13 23.0	-0.6
PYL	PYLOS	0.79	4	*e*Pn	Pg	11 13 13.8	+0.5
PYL				*e*Sn	Sg	11 13 23.0	-0.6
ITM	Ithomi	1.09	10	*e*PN	Pg	11 13 19.0	0.0
ITM				*e*SN	Sg	11 13 33.0	-0.2
ITM	Ithomi	1.09	10	*e*Pn	Pg	11 13 19.0	0.0
ITM				*e*Sn	Sg	11 13 33.0	-0.2
VLX	Vlachokerasia	1.38	24	*e*PN	Pn	11 13 23.8	+0.4
VLX				*e*SN	Sn	11 13 42.5	+0.8
DID	Didima	1.88	41	P	Pn	11 13 30.6	+0.5
DID				S	Sn	11 13 53.6	-0.3
DID	Didima	1.88	41	*e*PB	Pn	11 13 30.8	+0.7
DID	Didima	1.88	41	P	Pn	11 13 30.6	+0.5
DID				S	Sn	11 13 53.6	-0.3
GUR	Goura	1.90	16	*e*PN	Pn	11 13 32.2	+1.7
GUR	Goura	1.90	16	*e*Pn	Pn	11 13 32.2	+1.7
KARN	Karanos	1.95	110	P	Pn	11 13 34.5	+3.4
KARN	Karanos	1.95	110	P	Pn	11 13 34.5	+3.4

RLS	**Riolos of Patr**	**1.96**	**355**	*e*PN	**Pn**	**11 13 32.7**	**+1.5**
RLS	**Riolos of Patr**	**1.96**	**355**	*e*Pn	**Pn**	**11 13 32.7**	**+1.5**
LAKA	**Lakka**	**2.15**	**6**	P	**Pn**	**11 13 35.2**	**+1.4**
LAKA	**Lakka**	**2.15**	**6**	P	**Pn**	**11 13 35.2**	**+1.4**
LTK	**Loutraki**	**2.17**	**28**	P	**Pn**	**11 13 34.3**	**+0.1**
LTK				S	**Sn**	**11 14 00.5**	**-0.7**
LTK	**Loutraki**	**2.17**	**28**	*e*PN	**Pn**	**11 13 34.6**	**+0.4**
LTK	**Loutraki**	**2.17**	**28**	*e*Pn	**Pn**	**11 13 34.6**	**+0.4**
LTK				S	**Sn**	**11 14 00.5**	**-0.7**
NAIG	**Nisos Aigina**	**2.20**	**41**	*e*PN	**Pn**	**11 13 35.7**	**+1.2**
NAIG	**Nisos Aigina**	**2.20**	**41**	*e*Pn	**Pn**	**11 13 35.7**	**+1.2**
TRIZ	**Trizonia**	**2.28**	**8**	P	**Pn**	**11 13 37.4**	**+1.7**
TRIZ	**Trizonia**	**2.28**	**8**	P	**Pn**	**11 13 37.4**	**+1.7**
EFP	**Efpalio**	**2.33**	**4**	*e*PB	**Pn**	**11 13 38.8**	**+2.5**
EFP	**Efpalio**	**2.33**	**4**	*e*Pb	**Pn**	**11 13 38.8**	**+2.5**
ATH	**Athens Observa**	**2.48**	**41**	*e*PB	**Pn**	**11 13 40.5**	**+2.1**
PTL	**Penteli**	**2.61**	**41**	*e*PN	**Pn**	**11 13 42.0**	**+1.8**
PTL	**Penteli**	**2.61**	**41**	*e*Pn	**Pn**	**11 13 42.0**	**+1.8**
IDI	**Anoyia**	**2.74**	**106**	*e*PN	**Pn**	**11 13 44.9**	**+2.9**
IDI	**Anoyia**	**2.74**	**106**	Pn	**Pn**	**11 13 43.5**	**+1.5**
	4.1nm,0.3s,baz=296,slow=16,SNR=11						
IDI	**Anoyia**	**2.74**	**106**	Pn	**Pn**	**11 13 43.5**	**+1.5**
LKR	**Lokris**	**2.75**	**22**	P	**Pn**	**11 13 41.4**	**-0.8**
LKR	**Lokris**	**2.75**	**22**	*e*PN	**Pn**	**11 13 41.5**	**-0.7**
LKR	**Lokris**	**2.75**	**22**	*e*Pn	**Pn**	**11 13 41.5**	**-0.7**
EVR	**Evrytania**	**2.81**	**2**	P	**Pg**	**11 13 49.7**	**-2.1**
EVR	**Evrytania**	**2.81**	**2**	P	**Pg**	**11 13 49.7**	**-2.1**
AGG	**Agios Georgios**	**2.96**	**10**	P	**Pn**	**11 13 46.8**	**+1.8**
AGG				S	**Sn**	**11 14 20.7**	**+0.1**
AGG	**Agios Georgios**	**2.96**	**10**	*e*PN	**Pn**	**11 13 47.0**	**+2.0**
AGG	**Agios Georgios**	**2.96**	**10**	*e*Pn	**Pn**	**11 13 47.0**	**+2.0**
AGG				S	**Sn**	**11 14 20.7**	**+0.1**
LAST	**Lasithi**	**3.23**	**106**	*e*PN	**Pn**	**11 13 52.3**	**+3.5**
LAST	**Lasithi**	**3.23**	**106**	*e*Pn	**Pn**	**11 13 52.3**	**+3.5**
THL	**Klokotos Trika**	**3.46**	**4**	*e*PN	**Pn**	**11 13 52.7**	**+0.7**
THL	**Klokotos Trika**	**3.46**	**4**	*e*Pn	**Pn**	**11 13 52.7**	**+0.7**
XOR	**Xorichti**	**3.47**	**20**	P	**Pn**	**11 13 52.1**	**+0.1**
XOR	**Xorichti**	**3.47**	**20**	P	**Pn**	**11 13 52.1**	**+0.1**
AOS	**Alonnisos**	**3.52**	**29**	P	**Pn**	**11 13 54.4**	**+1.6**
AOS	**Alonnisos**	**3.52**	**29**	P	**Pn**	**11 13 54.4**	**+1.6**
JAN	**Janina**	**3.61**	**350**	*e*PN	**Pn**	**11 13 55.1**	**+1.2**
JAN	**Janina**	**3.61**	**350**	*e*Pn	**Pn**	**11 13 55.1**	**+1.2**
MEV	**Metsovon**	**3.69**	**355**	P	**Pn**	**11 13 57.1**	**+2.0**
MEV	**Metsovon**	**3.69**	**355**	P	**Pn**	**11 13 57.1**	**+2.0**
KEK	**Kerkira**	**3.90**	**338**	*e*PN	**Pn**	**11 13 58.0**	**+0.1**
KEK	**Kerkira**	**3.90**	**338**	*e*Pn	**Pn**	**11 13 58.0**	**+0.1**
LIT	**Litokhoron**	**4.04**	**9**	P	**Pn**	**11 14 00.6**	**+0.7**
LIT	**Litokhoron**	**4.04**	**9**	*e*PN	**Pn**	**11 14 01.1**	**+1.2**
LIT	**Litokhoron**	**4.04**	**9**	P	**Pn**	**11 14 00.6**	**+0.7**
LIT	**Litokhoron**	**4.04**	**9**	*e*Pn	**Pn**	**11 14 01.1**	**+1.2**
PAIG	**Paliouri**	**4.13**	**22**	P	**Pn**	**11 13 59.7**	**-1.4**
PAIG	**Paliouri**	**4.13**	**22**	P	**Pn**	**11 13 59.7**	**-1.4**
CHOS	**Chios island**	**4.17**	**56**	P	**Pn**	**11 14 01.3**	**-0.3**
CHOS	**Chios island**	**4.17**	**56**	P	**Pn**	**11 14 01.3**	**-0.3**
KZN	**Kozani**	**4.20**	**1**	*e*PN	**Pn**	**11 14 02.7**	**+0.7**
KZN	**Kozani**	**4.20**	**1**	*e*Pn	**Pn**	**11 14 02.7**	**+0.7**
SMG	**Samos**	**4.43**	**67**	P	**Pn**	**11 14 07.5**	**+2.2**
SMG	**Samos**	**4.43**	**67**	P	**Pn**	**11 14 07.5**	**+2.2**
PLG	**Polygyros**	**4.48**	**18**	*e*PN	**Pn**	**11 14 07.1**	**+1.1**
PLG	**Polygyros**	**4.48**	**18**	*e*Pn	**Pn**	**11 14 07.1**	**+1.1**
HORT	**Hortiatis**	**4.62**	**14**	P	**Pn**	**11 14 08.5**	**+0.6**
HORT	**Hortiatis**	**4.62**	**14**	P	**Pn**	**11 14 08.5**	**+0.6**
FNA	**Florina**	**4.68**	**357**	P	**Pn**	**11 14 08.8**	**+0.2**
FNA	**Florina**	**4.68**	**357**	P	**Pn**	**11 14 08.8**	**+0.2**
GRG	**Griva**	**4.88**	**6**	P	**Pn**	**11 14 11.3**	**-0.1**
GRG	**Griva**	**4.88**	**6**	P	**Pn**	**11 14 11.3**	**-0.1**
SOH	**Sokhos**	**4.89**	**15**	P	**Pn**	**11 14 13.2**	**+1.7**
SOH	**Sokhos**	**4.89**	**15**	*e*PN	**Pn**	**11 14 13.0**	**+1.5**
SOH	**Sokhos**	**4.89**	**15**	*e*Pn	**Pn**	**11 14 13.0**	**+1.5**
SOI	**Samo**	**4.91**	**295**	Pn	**Pn**	**11 14 13.5**	**+1.7**
SOI				Sn	**Sn**	**11 15 03.2**	**-5.4**
SOI	**Samo**	**4.91**	**295**	Pn	**Pn**	**11 14 13.5**	**+1.7**
SOI				Sn	**Sn**	**11 15 03.2**	**-5.4**
BIA	**Bitola**	**4.92**	**357**	*e*Pn	**Pn**	**11 14 11.5**	**-0.4**
BIA				*e*Sn	**Sn**	**11 15 03.6**	**-5.2**
BIA	**Bitola**	**4.92**	**357**	*e*Pn	**Pn**	**11 14 11.4**	**-0.5**
BIA				*e*Sn	**Sn**	**11 15 03.6**	**-5.2**
TIP	**Timpagrande**	**4.97**	**310**	*e*Pn	**Pn**	**11 14 13.7**	**+1.1**
TIP				S	**Sn**	**11 15 06.3**	**-3.8**
TIP	**Timpagrande**	**4.97**	**310**	*e*Pn	**Pn**	**11 14 13.6**	**+1.0**
TIP				S	**Sn**	**11 15 06.3**	**-3.8**
OHR	**Ohrid**	**5.05**	**352**	*e*Pn	**Pn**	**11 14 13.9**	**+0.2**
OHR				*e*Sn	**Sn**	**11 15 05.9**	**-6.1**
OHR	**Ohrid**	**5.05**	**352**	*e*Pn	**Pn**	**11 14 13.9**	**+0.2**
OHR				*e*Sn	**Sn**	**11 15 05.9**	**-6.1**
CEL	**Celeste**	**5.10**	**297**	*e*Pn	**Pn**	**11 14 14.5**	**+0.1**
	49nm,0.6s						
CEL				*e*Sn	**Sn**	**11 15 10.0**	**-3.3**
CEL	**Celeste**	**5.10**	**297**	*e*Pn	**Pn**	**11 14 14.5**	**+0.1**
	49nm,0.6s						
CEL				*e*Sn	**Sn**	**11 15 10.0**	**-3.3**
MTTG	**Motta San Giov**	**5.15**	**293**	Pn	**Pn**	**11 14 16.9**	**+1.8**
	119nm,0.5s						
MTTG	**Motta San Giov**	**5.15**	**293**	Pn	**Pn**	**11 14 16.9**	**+1.8**
	119nm,0.5s						
SRS	**Serrai**	**5.22**	**16**	P	**Pn**	**11 14 16.4**	**+0.3**
SRS	**Serrai**	**5.22**	**16**	P	**Pn**	**11 14 16.4**	**+0.3**
VAY	**Valandovo**	**5.26**	**7**	*e*Pn	**Pn**	**11 14 16.1**	**-0.5**
VAY				*e*Sn	**Sn**	**11 15 12.3**	**-4.9**
VAY	**Valandovo**	**5.26**	**7**	*e*Pn	**Pn**	**11 14 16.0**	**-0.6**
VAY				*e*Sn	**Sn**	**11 15 12.3**	**-4.9**
KRUS	**Krusevo**	**5.27**	**356**	*i* Pn	**Pn**	**11 14 15.9**	**-0.9**
KRUS				*e*Sn	**Sn**	**11 15 10.2**	**-7.3**
KRUS	**Krusevo**	**5.27**	**356**	*i* Pn	**Pn**	**11 14 15.8**	**-0.9**
HAVL	**Avola**	**5.35**	**281**	Pn	**Pn**	**11 14 19.2**	**+1.4**
	259nm,0.3s						
HAVL	**Avola**	**5.35**	**281**	Pn	**Pn**	**11 14 19.2**	**+1.4**
	259nm,0.3s						
TAR1	**Taranto**	**5.61**	**323**	*e*Pn	**Pn**	**11 14 21.2**	**-0.2**
HMDC	**Modica**	**5.62**	**281**	Pn	**Pn**	**11 14 23.6**	**+2.0**
HMDC				Sn	**Sn**	**11 15 21.6**	**-4.6**
HMDC	**Modica**	**5.62**	**281**	Pn	**Pn**	**11 14 23.6**	**+2.0**
HMDC				Sn	**Sn**	**11 15 21.6**	**-4.6**
WDD	**Wield Dalam**	**5.81**	**270**	*e*Pn	**Pn**	**11 14 24.6**	**+0.4**
	48nm,0.4s						
WDD				*e*Sn	**Sn**	**11 15 29.1**	**-1.7**
WDD	**Wield Dalam**	**5.81**	**270**	*e*Pn	**Pn**	**11 14 24.6**	**+0.4**
	48nm,0.4s						
WDD				*e*Sn	**Sn**	**11 15 29.1**	**-1.7**
LTRZ	**Laterza**	**5.89**	**321**	Pn	**Pn**	**11 14 25.0**	**-0.4**
LTRZ				Sn	**Sn**	**11 15 23.9**	**-9.0**
LTRZ	**Laterza**	**5.89**	**321**	Pn	**Pn**	**11 14 25.0**	**-0.4**
LTRZ				Sn	**Sn**	**11 15 23.9**	**-9.0**
VAE	**Valguarnera**	**5.99**	**285**	Pn	**Pn**	**11 14 32.1**	**+5.4**
	2.3nm,0.3s,baz=53,slow=3.0,SNR=3.4						
VAE				Sn	**Sn**	**11 15 36.3**	**+0.9**
	8.0nm,0.3s,baz=34,slow=8.9,SNR=4.3						
VAE	**Valguarnera**	**5.99**	**285**	Pn	**Pn**	**11 14 32.1**	**+5.4**
VAE				Sn	**Sn**	**11 15 36.3**	**+1.0**
CUC	**Castrocucco**	**6.04**	**312**	*e*Pn	**Pn**	**11 14 26.8**	**-0.6**
	29nm,0.6s						
CUC				*e*Sn	**Sn**	**11 15 29.6**	**-6.9**
CUC	**Castrocucco**	**6.04**	**312**	*e*Pn	**Pn**	**11 14 26.8**	**-0.5**
	29nm,0.6s						
CUC				*e*Sn	**Sn**	**11 15 29.6**	**-6.9**
PTRP	**Pietrapertosa**	**6.24**	**317**	Pn	**Pn**	**11 14 32.6**	**+2.5**
	182nm,1.9s						
PTRP	**Pietrapertosa**	**6.24**	**317**	Pn	**Pn**	**11 14 32.6**	**+2.5**
	182nm,1.9s						
MGR	**Morigerati**	**6.29**	**312**	Pn	**Pn**	**11 14 31.9**	**+1.2**
	167nm,2.4s						
MGR	**Morigerati**	**6.29**	**312**	Pn	**Pn**	**11 14 31.9**	**+1.2**
	167nm,2.4s						
VTS	**Vitosha**	**6.59**	**10**	P	**Pn**	**11 14 36.9**	**+2.1**
VTS	**Vitosha**	**6.59**	**10**	P	**Pn**	**11 14 36.9**	**+2.1**
SGO	**Sicignano**	**6.70**	**314**	Pn	**Pn**	**11 14 38.2**	**+1.8**
	15nm,0.2s						
SGO	**Sicignano**	**6.70**	**314**	Pn	**Pn**	**11 14 38.2**	**+1.8**
	15nm,0.2s						
BARS	**Barje**	**6.71**	**1**	⇓*i*Pn	**Pn**	**11 14 35.8**	**-0.7**
NISS		**7.29**	**2**	⇓*i*Pn	**Pn**	**11 14 43.5**	**-1.0**
GRUS	**Gruza**	**7.81**	**355**	⇓*i*Pn	**Pn**	**11 14 49.4**	**-2.2**
BBLS	**Lazići**	**7.95**	**348**	⇓*i*Pn	**Pn**	**11 14 51.6**	**-1.9**
DIVS	**Divibare**	**8.09**	**351**	⇓*i*Pn	**Pn**	**11 14 53.5**	**-1.9**
MLR	**Muntele Rosu**	**9.92**	**18**	Pn	**Pn**	**11 15 21.4**	**+0.9**
	0.1nm,0.3s,baz=205,slow=13,SNR=2.4						
MLR	**Muntele Rosu**	**9.92**	**18**	Pn	**Pn**	**11 15 21.4**	**+0.9**
BOJS	**Bojanci**	**10.57**	**335**	*i* Pn	**Pn**	**11 15 28.1**	**-1.4**
BOJS				*i* Sn	**Sn**	**11 17 18.6**	**-9.3**
BOJS	**Bojanci**	**10.57**	**335**	*i* Pn	**Pn**	**11 15 28.1**	**-1.4**
BOJS				*i* Sn	**Sn**	**11 17 18.6**	**-9.3**
VISS	**Visnje**	**10.98**	**334**	*i* Pn	**Pn**	**11 15 35.3**	**+0.3**
VISS				*i* Sn	**Sn**	**11 17 27.4**	**-10**
VISS	**Visnje**	**10.98**	**334**	*i* Pn	**Pn**	**11 15 35.3**	**+0.3**
VISS				*i* Sn	**Sn**	**11 17 27.4**	**-10**
LJU	**Ljubljana**	**11.30**	**334**	*e*Pn	**Pn**	**11 15 38.0**	**-1.4**
LJU				*e*Sn	**Sn**	**11 17 30.0**	**-16**
JAVS	**Javornik**	**11.34**	**332**	*i* Pn	**Pn**	**11 15 39.5**	**-0.5**
JAVS				*i* Sn	**Sn**	**11 17 34.9**	**-12**
JAVS	**Javornik**	**11.34**	**332**	*i* Pn	**Pn**	**11 15 39.5**	**-0.5**
JAVS				*i* Sn	**Sn**	**11 17 34.9**	**-12**
KECS	**Kecovo**	**12.40**	**356**	*e*PN	**Pn**	**11 15 52.0**	**-2.5**
KECS	**Kecovo**	**12.40**	**356**	*e*Pn	**Pn**	**11 15 52.0**	**-2.5**
VYHS	**Vyhne**	**12.56**	**351**	*e*PN	**Pn**	**11 15 56.8**	**+0.2**
VYHS				*e*SN	**Sn**	**11 18 07.8**	**-8.7**
VYHS	**Vyhne**	**12.56**	**351**	*e*Pn	**Pn**	**11 15 56.8**	**+0.2**
VYHS				*e*Sn	**Sn**	**11 18 07.8**	**-8.7**
GERES	**GERESS Array B**	**14.02**	**338**	Pn	**Pn**	**11 16 15.5**	**-1.0**
	0.2nm,0.3s,baz=164,slow=14,SNR=4.0						
GERES	**GERESS Array B**	**14.02**	**338**	Pn	**Pn**	**11 16 15.5**	**-1.0**
AKASG	**Malin Array Be**	**15.57**	**18**	Pn	**Pn**	**11 16 32.7**	**-4.7**
	0.5nm,0.3s,baz=207,slow=12,SNR=3.1						
AKASG	**Malin Array Be**	**15.57**	**18**	Pn	**Pn**	**11 16 32.7**	**-4.7**
HFS	**Hagfors**	**24.59**	**350**	P	**P**	**11 18 15.7**	**-2.3**
	2.6nm,0.5s,mb4.0,baz=153,slow=9.7,SNR=8.7						
HFS	**Hagfors**	**24.59**	**350**	P	**P**	**11 18 15.7**	**-2.2**
EKA	**Eskdalemuir Ar**	**25.66**	**326**	P	**P**	**11 18 29.2**	**+1.6**
	1.6nm,0.7s,mb3.6,baz=128,slow=7.5,SNR=4.8						
EKA	**Eskdalemuir Ar**	**25.66**	**326**	P	**P**	**11 18 29.2**	**+1.5**
NOA	**NORSAR Array B**	**25.83**	**348**	P	**P**	**11 18 27.5**	**-1.7**
	1.2nm,0.6s,mb3.6,baz=159,slow=9.6,SNR=4.1						
NOA	**NORSAR Array B**	**25.83**	**348**	P	**P**	**11 18 27.5**	**-1.7**
NOA	**NORSAR Array B**	**25.83**	**348**	P	**P**	**11 18 27.5**	**-1.7**
TORD	**Torodi Ar. Bea**	**29.08**	**223**	P	**P**	**11 19 01.8**	**+3.1**
	1.0nm,0.8s,mb3.6,baz=27,slow=8.3,SNR=6.0						
AKTK	**Aktyubinsk**	**29.75**	**50**	P	**P**	**11 19 02.0**	**-2.3**
AKTO	**Aktyubinsk**	**29.75**	**50**	P	**P**	**11 19 02.0**	**-2.3**
	0.8nm,0.4s,mb3.8,baz=252,slow=8.3,SNR=4.1						
ARCES	**ARCESS Array B**	**33.55**	**2**	P	**P**	**11 19 36.0**	**-1.6**
	4.7nm,1.0s,mb4.4,baz=188,slow=12,SNR=3.8						
ARCES	**ARCESS Array B**	**33.55**	**2**	P	**P**	**11 19 36.0**	**-1.6**
DBIC	**Dimbokro**	**38.06**	**226**	P	**P**	**11 20 21.9**	**+5.0**
	6.6nm,1.2s,mb4.3,baz=14,slow=8.3,SNR=3.3						
KURK	**Kurchatov**	**42.80**	**52**	P	**P**	**11 20 52.8**	**-2.9**
	1.0nm,0.6s,mb3.7,baz=277,slow=8.6,SNR=4.2						
MKAR	**Makanchi Array**	**45.63**	**57**	P	**P**	**11 21 16.6**	**-1.9**
	0.9nm,0.4s,mb4.1,baz=274,slow=7.6,SNR=17						
MKAR	**Makanchi Array**	**45.63**	**57**	P	**P**	**11 21 16.5**	**-1.9**
ZALV	**Zalesovo Beam**	**46.41**	**47**	P	**P**	**11 21 22.0**	**-2.5**
	1.4nm,0.3s,mb4.4,baz=283,slow=7.4,SNR=7.4						
DANN	**Dangsing**	**52.31**	**80**	*e*P	**P**	**11 22 09.6**	**-0.4**
	35nm,0.5s						
KOLN	**Koldanda**	**52.44**	**81**	*e*P	**P**	**11 22 09.7**	**-1.2**
	8.9nm,0.6s,mb4.8						
GKN	**Gorkha**	**53.16**	**80**	*e*P	**P**	**11 22 15.1**	**-1.1**
	17nm,0.5s,mb5.2						
DMN	**Daman**	**53.71**	**80**	*e*P	**P**	**11 22 19.6**	**-0.6**
KKN	**Kakani**	**53.77**	**80**	*e*P	**P**	**11 22 19.4**	**-1.3**
	11nm,0.5s,mb5.0						
PKI	**Pulchoki**	**53.97**	**80**	*e*P	**P**	**11 22 20.8**	**-1.3**
	8.3nm,0.5s,mb4.9						
GUN	**Gumba**	**54.19**	**79**	*e*P	**P**	**11 22 22.9**	**-0.9**
	10.0nm,0.5s,mb5.0						
JIRN	**Jiri**	**54.55**	**79**	*e*P	**P**	**11 22 25.5**	**-0.9**
	7.8nm,0.4s,mb5.0						
RAMN	**Ramite**	**55.19**	**80**	*e*P	**P**	**11 22 29.6**	**-1.4**
	8.4nm,0.5s,mb5.0						
ODAN	**Odare**	**55.86**	**80**	*e*P	**P**	**11 22 35.0**	**-0.9**
	6.0nm,0.5s,mb4.8						
TAPN	**Taplejung**	**55.89**	**79**	*e*P	**P**	**11 22 34.9**	**-1.2**
	6.2nm,0.5s,mb4.9						
SCHQ	**Schefferville**	**60.62**	**318**	P	**P**	**11 23 07.9**	**-0.8**
	1.6nm,0.8s,mb4.2,baz=42,slow=12,SNR=3.5						
SCHQ	**Schefferville**	**60.62**	**318**	P	**P**	**11 23 07.9**	**-0.8**
SONM	**Songino Array**	**61.07**	**50**	P	**P**	**11 23 10.2**	**-1.7**
	0.8nm,0.7s,mb4.0,baz=281,slow=7.5,SNR=7.8						
YKA	**Yellowknife Ar**	**75.65**	**341**	P	**P**	**11 24 42.4**	**-0.5**
	0.5nm,0.6s,mb3.6,baz=36,slow=5.5,SNR=8.2						
YKA	**Yellowknife Ar**	**75.65**	**341**	P	**P**	**11 24 42.4**	**-0.5**
YKA	**Yellowknife Ar**	**75.65**	**341**	P	**P**	**11 24 42.4**	**-0.5**
KSRS	**Korea Array**	**79.92**	**51**	P	**P**	**11 25 06.0**	**-1.1**
	1.2nm,0.4s,mb4.1,baz=310,slow=4.4,SNR=5.8						
WRA	**Warramunga Arr**	**119.50**	**94**	PKP	PKPdf	11 31 47.4	-0.8
	0.2nm,0.7s,baz=321,slow=1.2,SNR=5.0						
WRA	**Warramunga Arr**	**119.50**	**94**	PKIKP	PKPdf	11 31 47.4	-0.8
ASAR	**Alice Springs**	**121.00**	**98**	PKP	PKPdf	11 31 50.4	-0.6
	0.2nm,0.4s,baz=315,slow=2.3,SNR=3.7						
ASAR	**Alice Springs**	**121.00**	**98**	PKIKP	PKPdf	11 31 50.5	-0.5

TIR **14** *11:35:32.7, 40°.50N×20°.40E, h40^{km}, ML3.4*

SKO **14** *11:35:34.8, 40°.91N×20°.20E, h2^{km}, M2.9, ML3.3*

PDG **14** *11:35:35.9±0.3, 41°.02N×20°.27E, h0^{km}±11^{km}, MD3.5/1, ML3.4/10, Error ellipse: s-maj=1.4km s-min=1.2km az=90.0*

ISCJB **14** *11:35:36.9±0.3, 40°.96N±0°.02×20°.33E±0°.02, h10^{km}, Error ellipse: s-maj=3.4km s-min=2.4km az=26.7*

CSEM **14** *11:35:36.5±0.2, 41°.02N×20°.31E, h2^{km}, ML3.0, Error ellipse: s-maj=4.8km s-min=3.8km az=36.0*

BEO **14** *11:35:36.7±0.7, 40°.95N×20°.28E, h2^{km}±3^{km}, ML3.0/5*

THE **14** *11:35:36.5, 41°.18N×20°.35E, h1^{km}±4^{km}, ML4.2/3, Error ellipse: s-maj=4.7km s-min=1.2km az=356.0*

ATH **14** *11:35:38.5, 40°.97N×20°.38E, h5^{km}, MD3.5/4*

NEIC **14** *11:35:38.5, 40°.97N×20°.38E, h5^{km}, MD3.5(ATH), After ATH.*

ISC 14 11:35:37.7±0.3**, 40°.96N**±0°.02×**20°.33E**±0°.02**, h10**^{km}**, n94,** σ1^{s}.**34**/140**, 15C-12D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OHR	**Ohrid**	**0.39**	**66**	*e*Pg	**Pg**	**11 35 43.6**	**-1.7**
OHR				*e*Sg	**Sg**	**11 35 51.6**	**+1.1**
OHR	**Ohrid**	**0.39**	**66**	*e*Pg	**Pg**	**11 35 43.6**	**-1.7**
OHR				*e*Sg	**Sg**	**11 35 50.6**	**+0.1**
OHR				*e*Lg		11 35 50.9	
	comp=E,2µm,0.5s						
OHR				*e*Lg		11 35 51.1	
	comp=N,1µm,0.3s						
OHR	**Ohrid**	**0.39**	**66**	*e*Pg	**Pg**	**11 35 43.6**	**-1.7**
OHR				*e*Sg	**Sg**	**11 35 50.6**	**+0.1**
KBN	**Korca**	**0.48**	**134**	*e*PN	**Sg**	**11 36 01.5**	**+8.1**
KBN	**Korca**	**0.48**	**134**	*e*Pn	**Sg**	**11 36 01.5**	**+8.1**
TIR	**Tirane**	**0.53**	**318**	*e*PN	**Sg**	**11 36 01.5**	**+6.6**
TIR	**Tirane**	**0.53**	**318**	P	**Pg**	**11 35 44.0**	**-3.9**
TIR	**Tirane**	**0.53**	**318**	*e*Pg	**Pg**	**11 35 44.4**	**-3.5**
TIR				*e*Sg	**Sg**	**11 35 53.2**	**-1.7**
TIR	**Tirane**	**0.53**	**318**	*e*Pg	**Pg**	**11 35 44.3**	**-3.7**
TIR	**Tirane**	**0.53**	**318**	*e*Pn	**Sg**	**11 36 01.5**	**+6.6**
BIA	**Bitola**	**0.76**	**85**	P	**Pg**	**11 35 50.2**	**-2.1**
BIA				S	**Sg**	**11 36 01.1**	**-1.0**
BIA	**Bitola**	**0.76**	**85**	*e*Pg	**Pg**	**11 35 50.3**	**-2.0**
BIA				*e*Sg	**Sg**	**11 36 02.7**	**+0.6**
BIA	**Bitola**	**0.76**	**85**	*e*Pg	**Pg**	**11 35 50.3**	**-2.0**
BIA				*e*Sg	**Sg**	**11 36 02.3**	**+0.1**
BIA				*e*Lg		11 36 03.0	
	comp=N,768nm,0.3s						
BIA				*e*Lg		11 36 03.1	
	comp=E,743nm,0.3s						
BIA	**Bitola**	**0.76**	**85**	*e*Pg	**Pg**	**11 35 50.3**	**-2.0**
BIA				*e*Sg	**Sg**	**11 36 02.2**	**+0.1**
BIA				*e*Lg		11 36 02.9	
	comp=E,768nm,0.3s						
KRUS	**Krusevo**	**0.81**	**59**	*e*Pg	**Pg**	**11 35 50.8**	**-2.5**
KRUS				*e*Sg	**Sg**	**11 36 03.7**	**-0.1**
KRUS				*e*Lg		11 36 04.1	
	comp=E,183nm,0.3s						
KRUS				*e*Lg		11 36 04.5	
	comp=N,249nm,0.3s						
KRUS	**Krusevo**	**0.81**	**59**	*e*Pg	**Pg**	**11 35 50.8**	**-2.5**
KRUS				*e*Sg	**Sg**	**11 36 03.7**	**-0.1**
KRUS				*e*Lg		11 36 04.1	
	comp=N,183nm,0.3s						
FNA	**Florina**	**0.81**	**102**	P	**Pg**	**11 35 52.4**	**-1.0**
FNA				S	**Sg**	**11 36 05.9**	**+1.9**
FNA	**Florina**	**0.81**	**102**	P	**Pg**	**11 35 52.4**	**-1.0**
KZN	**Kozani**	**1.27**	**120**	*e*PG	**Pn**	**11 36 02.0**	**+0.4**
KZN	**Kozani**	**1.27**	**120**	*e*Pg	**Pn**	**11 36 02.0**	**+0.4**
ULC	**Ulcinj**	**1.29**	**321**	⇓*i*Pg	**Pn**	**11 35 58.0**	**-3.8**
ULC				*e*Sg	**Sn**	**11 36 17.1**	**-2.1**
ULC	**Ulcinj**	**1.29**	**321**	⇓*i*Pg	**Pn**	**11 35 58.0**	**-3.8**
ULC				*e*Sg	**Sn**	**11 36 17.1**	**-2.1**
KEK	**Kerkira**	**1.31**	**198**	*e*PG	**Pg**	**11 36 03.5**	**+0.7**
KEK	**Kerkira**	**1.31**	**198**	*e*Pg	**Pg**	**11 36 03.5**	**+0.7**
SKO	**Skopje**	**1.31**	**39**	P	**Pn**	**11 35 59.1**	**-3.0**
SKO	**Skopje**	**1.31**	**39**	*e*Pg	**Pn**	**11 36 00.3**	**-1.8**
SKO				*e*Sg	**Sn**	**11 36 18.7**	**-1.0**
SKO	**Skopje**	**1.31**	**39**	*e*Pg	**Pn**	**11 36 00.4**	**-1.7**
SKO				*e*Sg	**Sn**	**11 36 19.8**	**+0.1**
SKO				*e*Lg		11 36 21.0	
	comp=E,521nm,0.7s						
SKO				*e*Lg		11 36 21.1	
	comp=N,452nm,0.3s						
SKO	**Skopje**	**1.31**	**39**	P	**Pn**	**11 35 59.1**	**-3.0**
SKO	**Skopje**	**1.31**	**39**	*e*Pg	**Pn**	**11 36 00.4**	**-1.7**
SKO				*e*Sg	**Sn**	**11 36 19.7**	**0.0**
SKO				*e*Lg		11 36 21.0	
	comp=N,521nm,0.7s						
MEV	**Metsovon**	**1.36**	**149**	P	**Pn**	**11 36 04.1**	**+1.4**
MEV	**Metsovon**	**1.36**	**149**	P	**Pn**	**11 36 04.1**	**+1.4**
JAN	**Janina**	**1.36**	**163**	*e*PB	**Pn**	**11 36 04.5**	**+1.8**
JAN	**Janina**	**1.36**	**163**	*e*Pb	**Pn**	**11 36 04.5**	**+1.8**
IGT	**Igoumenitsa**	**1.42**	**180**	P	**Pg**	**11 36 05.9**	**+0.9**
IGT				S	**Sg**	**11 36 28.1**	**+4.6**
IGT	**Igoumenitsa**	**1.42**	**180**	P	**Pg**	**11 36 05.9**	**+0.9**
IGT				S	**Sg**	**11 36 28.1**	**+4.6**
GRG	**Griva**	**1.57**	**89**	P	**Pn**	**11 36 05.3**	**-0.3**
GRG	**Griva**	**1.57**	**89**	P	**Pn**	**11 36 05.3**	**-0.3**
PVY	**Plav**	**1.66**	**351**	⇓*i*Pn	**Pn**	**11 36 05.0**	**-1.9**
PVY				*e*Sn	**Sn**	**11 36 29.9**	**+1.7**
PVY	**Plav**	**1.66**	**351**	⇓*i*Pn	**Pn**	**11 36 05.0**	**-1.9**
PVY				*e*Sn	**Sn**	**11 36 29.9**	**+1.7**
PDG	**Podgorica**	**1.68**	**332**	⇑*i*Pn	**Pn**	**11 36 04.7**	**-2.4**
PDG				*e*Sn	**Sn**	**11 36 30.0**	**+1.4**
TTG	**Podgorica**	**1.68**	**332**	⇑*i*Pn	**Pn**	**11 36 04.7**	**-2.4**
TTG				*e*Sn	**Sn**	**11 36 30.0**	**+1.4**
TTG	**Podgorica**	**1.68**	**332**	⇑*i*Pn	**Pn**	**11 36 04.7**	**-2.4**
TTG				*e*Sn	**Sn**	**11 36 30.0**	**+1.4**
BUM	**Brajici-Budva**	**1.72**	**322**	⇑*i*Pn	**Pn**	**11 36 06.3**	**-1.4**
BUM				*e*Sn	**Sn**	**11 36 31.8**	**+2.1**
BUM	**Brajici-Budva**	**1.72**	**322**	⇑*i*Pn	**Pn**	**11 36 06.3**	**-1.4**
BUM				*e*Sn	**Sn**	**11 36 31.8**	**+2.1**
VAY	**Valandovo**	**1.73**	**77**	P	**Pn**	**11 36 05.4**	**-2.4**
VAY	**Valandovo**	**1.73**	**77**	*e*Pn	**Pn**	**11 36 07.4**	**-0.4**
VAY				*e*Sg	**Sg**	**11 36 32.2**	**-1.2**
VAY	**Valandovo**	**1.73**	**77**	*e*Pg	**Pg**	**11 36 07.4**	**-3.5**
VAY				*e*Sg	**Sg**	**11 36 32.8**	**-0.5**
VAY				*e*Lg		11 36 34.7	
	comp=E,100nm,0.7s						
VAY				*e*Lg		11 36 35.1	
	comp=N,200nm,0.8s						
VAY	**Valandovo**	**1.73**	**77**	P	**Pn**	**11 36 05.4**	**-2.4**
VAY	**Valandovo**	**1.73**	**77**	*e*Pn	**Pn**	**11 36 07.4**	**-0.4**
VAY				*e*Sg	**Sg**	**11 36 32.2**	**-1.2**
VAY				*e*Lg		11 36 34.6	
	comp=N,100nm,0.7s						
LIT	**Litokhoron**	**1.85**	**117**	P	**Pn**	**11 36 10.8**	**+1.2**
LIT	**Litokhoron**	**1.85**	**117**	P	**Pn**	**11 36 10.8**	**+1.2**
THL	**Klokotos Trika**	**1.90**	**137**	P	**Pn**	**11 36 11.3**	**+1.2**
THL	**Klokotos Trika**	**1.90**	**137**	P	**Pn**	**11 36 11.3**	**+1.2**
BEY	**Berane**	**1.94**	**351**	⇓*i*Pn	**Pn**	**11 36 10.7**	**0.0**
BEY				*e*Sn	**Sn**	**11 36 37.4**	**+2.3**
IVA	**Berane**	**1.94**	**351**	⇓*i*Pn	**Pn**	**11 36 10.7**	**0.0**
IVA				*e*Sn	**Sn**	**11 36 37.4**	**+2.3**
IVA	**Berane**	**1.94**	**351**	⇓*i*Pn	**Pn**	**11 36 10.7**	**0.0**
IVA				*e*Sn	**Sn**	**11 36 37.4**	**+2.3**
HCY	**Herceg Novi**	**2.02**	**318**	⇑*i*Pn	**Pn**	**11 36 11.4**	**-0.5**
HCY				*e*Sn	**Sn**	**11 36 38.9**	**+1.7**
HCY	**Herceg Novi**	**2.02**	**318**	⇑*i*Pn	**Pn**	**11 36 11.4**	**-0.5**
HCY				*e*Sn	**Sn**	**11 36 38.9**	**+1.7**
NKY	**Niksic**	**2.10**	**332**	⇑*i*Pn	**Pn**	**11 36 11.8**	**-1.2**
NKY				*e*Sn	**Sn**	**11 36 41.2**	**+2.0**
NKY	**Niksic**	**2.10**	**332**	⇑*i*Pn	**Pn**	**11 36 11.8**	**-1.2**
NKY				*e*Sn	**Sn**	**11 36 41.2**	**+2.0**
BARS	**Barje**	**2.16**	**30**	⇑*i*Pn	**Pn**	**11 36 15.1**	**+1.3**
BARS				*e*Sg	**Sg**	**11 36 46.0**	**-1.3**
BARS	**Barje**	**2.16**	**30**	⇑*i*Pn	**Pn**	**11 36 15.1**	**+1.3**
BARS				*e*Sg	**Sg**	**11 36 46.0**	**-1.3**
PE1	**Pezze di Greco**	**2.21**	**267**	*e*Pn	**Pn**	**11 36 13.5**	**-0.9**
KKB	**Krupnik**	**2.26**	**65**	P	**Pn**	**11 36 16.0**	**+0.9**
EVR	**Evrytania**	**2.33**	**150**	*e*PG	**Pg**	**11 36 21.0**	**-1.4**
EVR	**Evrytania**	**2.33**	**150**	*e*Pg	**Pg**	**11 36 21.0**	**-1.4**
BRY	**Bratogost**	**2.35**	**326**	⇑*i*Pn	**Pn**	**11 36 15.9**	**-0.5**
BRY				*e*Sn	**Sn**	**11 36 47.1**	**+1.7**
BRY	**Bratogost**	**2.35**	**326**	⇑*i*Pn	**Pn**	**11 36 15.9**	**-0.5**
BRY				*e*Sn	**Sn**	**11 36 47.1**	**+1.7**
PLE	**Pljevlja**	**2.47**	**344**	⇓*i*Pn	**Pn**	**11 36 18.3**	**+0.3**
PLE				*e*Sn	**Sn**	**11 36 50.1**	**+1.9**
PLE	**Pljevlja**	**2.47**	**344**	⇓*i*Pn	**Pn**	**11 36 18.3**	**+0.3**
PLE				*e*Sn	**Sn**	**11 36 50.1**	**+1.9**
UPM	**Unac-Piva**	**2.48**	**335**	⇑*i*Pn	**Pn**	**11 36 17.2**	**-1.0**
UPM				*e*Sn	**Sn**	**11 36 49.9**	**+1.4**
UPM	**Unac-Piva**	**2.48**	**335**	⇑*i*Pn	**Pn**	**11 36 17.2**	**-1.0**
UPM				*e*Sn	**Sn**	**11 36 49.9**	**+1.4**
MMB	**Musomiste**	**2.64**	**75**	P	**Pn**	**11 36 26.2**	**+5.9**
LTRZ	**Laterza**	**2.69**	**264**	Pn	**Pn**	**11 36 18.5**	**-2.5**
LTRZ	**Laterza**	**2.69**	**264**	Pn	**Pn**	**11 36 18.5**	**-2.5**
VTS	**Vitosha**	**2.70**	**52**	P	**Pn**	**11 36 21.7**	**+0.5**
XOR	**Xorichti**	**2.71**	**125**	P	**Pn**	**11 36 21.9**	**+0.6**
XOR	**Xorichti**	**2.71**	**125**	P	**Pn**	**11 36 21.9**	**+0.6**
NISS		**2.72**	**26**	*e*Pn	**Pn**	**11 36 22.6**	**+1.1**
ZAPS	**Zavoj**	**2.88**	**36**	*e*Pn	**Pn**	**11 36 23.9**	**+0.3**
ZAPS	**Zavoj**	**2.88**	**36**	*e*Pn	**Pn**	**11 36 23.9**	**+0.3**
GRUS	**Gruza**	**2.94**	**5**	⇓*i*Pn	**Pn**	**11 36 23.8**	**-0.7**
BBLS	**Lazići**	**2.99**	**347**	*e*Pn	**Pn**	**11 36 26.8**	**+1.7**
DIVS	**Divibare**	**3.15**	**356**	*e*Pn	**Pn**	**11 36 27.7**	**+0.4**
CUC	**Castrocucco**	**3.58**	**256**	*e*Pn	**Pn**	**11 36 32.8**	**-0.4**
CUC	**Castrocucco**	**3.58**	**256**	*e*Pn	**Pn**	**11 36 32.8**	**-0.4**
SGO	**Sicignano**	**3.83**	**266**	Pn	**Pn**	**11 36 36.1**	**-0.7**
SGO	**Sicignano**	**3.83**	**266**	Pn	**Pn**	**11 36 36.1**	**-0.7**
SGG	**Gregorio Mates**	**4.51**	**277**	Pn	**Pn**	**11 36 45.7**	**-0.4**
BZS	**Buzias**	**4.75**	**11**	⇓*i*P	**Pn**	**11 36 50.7**	**+1.4**
GZR	**Gura Zlata**	**4.78**	**21**	⇓*i*P	**Pn**	**11 36 51.0**	**+1.2**
BOJS	**Bojanci**	**5.87**	**322**	*i* Pn	**Pn**	**11 37 05.8**	**+1.1**
BOJS				*i* Sn	**Sn**	**11 38 05.5**	**-6.4**
VISS	**Visnje**	**6.28**	**322**	*i* Pn	**Pn**	**11 37 09.9**	**-0.5**
VISS				*i* Sn	**Sn**	**11 38 20.9**	**-1.2**
JAVS	**Javornik**	**6.72**	**319**	*i* Pn	**Pn**	**11 37 15.2**	**-1.1**
JAVS				*i* Sn	**Sn**	**11 38 29.5**	**-3.4**

ISCJB **14** *11:39:50.0±0.4, 40°.75N±0°.02×34°.81E±0°.03, h8^{km}±4^{km}, Error ellipse: s-maj=4.1km s-min=3.7km az=17.2*

DDA **14** *11:39:49.5, 40°.70N×34°.81E, h16^{km}, Md3.2*

ISK **14** *11:39:49.6, 40°.73N×34°.82E, h6^{km}, MD2.9*

CSEM **14** *11:39:50.0±0.1, 40°.73N×34°.81E, h5^{km}, MD3.2, Error ellipse: s-maj=3.0km s-min=2.5km az=16.0*

ISC 14 11:39:50.4±0.4**, 40°.75N**±0°.02×**34°.81E**±0°.03**, h8**^{km}±3^{km}**, n34,** σ0^{s}.**76**/55**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTKT	**Corum**	**0.13**	**189**	*i* P	**Pg**	**11 39 52.6**	**-0.6**
CTKT				*i* S	**Sg**	**11 39 55.4**	**+0.3**
CTKT	**Corum**	**0.13**	**189**	*i* P	**Pg**	**11 39 52.6**	**-0.6**
CTKT				*i* S	**Sg**	**11 39 55.4**	**+0.3**
CORM	**Corum**	**0.59**	**194**	*e*PG	**Pg**	**11 40 01.1**	**-0.7**
CORM				*e*SG	**Sg**	**11 40 09.9**	**+0.5**
CORM	**Corum**	**0.59**	**194**	*e*Pg	**Pg**	**11 40 01.1**	**-0.6**
CORM				*e*Sg	**Sg**	**11 40 09.9**	**+0.5**
TOS	**Tosya**	**0.67**	**296**	*e*PG	**Pg**	**11 40 03.0**	**-0.2**
TOS				*e*SG	**Sg**	**11 40 13.0**	**+1.1**
TOS	**Tosya**	**0.67**	**296**	*e*Pg	**Pg**	**11 40 03.0**	**-0.2**
TOS				*e*Sg	**Sg**	**11 40 13.0**	**+1.1**
BOYT	**Boyabat**	**0.68**	**6**	*i* P	**Pg**	**11 40 03.5**	**0.0**
BOYT				*i* S	**Sg**	**11 40 11.3**	**-1.0**
BOYT	**Boyabat**	**0.68**	**6**	*i* P	**Pg**	**11 40 03.5**	**+0.1**
BOYT				*i* S	**Sg**	**11 40 11.3**	**-0.9**
BYBT	**Boyabat**	**0.72**	**357**	*e*PG	**Pg**	**11 40 04.4**	**+0.1**
BYBT	**Boyabat**	**0.72**	**357**	*e*Pg	**Pg**	**11 40 04.4**	**+0.1**
ILGA	**Ilgaz**	**0.89**	**290**	*i* P	**Pg**	**11 40 07.0**	**-0.4**
ILGA				*i* S	**Sg**	**11 40 19.2**	**+0.2**
ILGA	**Ilgaz**	**0.89**	**290**	*i* P	**Pg**	**11 40 07.0**	**-0.4**
ILGA				*i* S	**Sg**	**11 40 19.2**	**+0.2**
CANT	**Cankiri**	**0.92**	**262**	*e*PG	**Pg**	**11 40 07.7**	**-0.4**
CANT				*e*SG	**Sg**	**11 40 21.1**	**+1.0**
KVT	**Kavak**	**0.99**	**70**	*e*PG	**Pg**	**11 40 09.1**	**-0.3**
KVT				*e*SG	**Sg**	**11 40 23.2**	**+0.9**
KVT	**Kavak**	**0.99**	**70**	*e*Pg	**Pg**	**11 40 09.1**	**-0.3**
KVT				*e*Sg	**Sg**	**11 40 23.3**	**+1.0**
ELDT	**Eldivan**	**1.09**	**257**	*i* P	**Pg**	**11 40 10.6**	**-0.7**
ELDT				*i* S	**Sg**	**11 40 24.9**	**-0.5**
ELDT	**Eldivan**	**1.09**	**257**	*i* P	**Pg**	**11 40 10.6**	**-0.7**
ELDT				*i* S	**Sg**	**11 40 24.9**	**-0.5**

YOZ	Yozgat	1.17	161	*e*PN	Pn	11 40 11.6	-1.5
YOZ	Yozgat	1.17	161	*e*Pn	Pn	11 40 11.6	-1.5
BALT	Daday	1.33	307	*i* P	Pn	11 40 15.2	-0.2
BALT				*i* S	Sb	11 40 34.5	+1.6
BALT	Daday	1.33	307	*i* P	Pn	11 40 15.1	-0.2
BALT				*i* S	Sb	11 40 34.5	+1.6
TOKA	Tokat	1.34	108	*i* P	Pn	11 40 15.0	-0.4
TOKA				*i* S	Sb	11 40 33.0	0.0
TOKA	Tokat	1.34	108	*i* P	Pn	11 40 15.0	-0.4
TOKA				*i* S	Sb	11 40 33.0	0.0
BZK	Bozkurt	1.36	334	*e*PN	Pn	11 40 15.8	+0.2
BZK	Bozkurt	1.36	334	*e*Pn	Pn	11 40 15.8	+0.2
SAFT	Safranbolu	1.68	288	*e*PN	Pn	11 40 20.4	+0.2
SAFT	Safranbolu	1.68	288	*e*Pn	Pn	11 40 20.4	+0.3
SVSK	Karacayir	1.86	116	*e*PN	Pn	11 40 22.8	+0.2
SVSK	Karacayir	1.86	116	*e*Pn	Pn	11 40 22.8	+0.2
AVNT	Avonos	1.97	179	*i* P	Pn	11 40 25.1	+1.1
AVNT				*i* S	Sn	11 40 50.2	+1.4
AVNT	Avonos	1.97	179	*i* P	Pn	11 40 25.1	+1.1
AVNT				*i* S	Sn	11 40 50.2	+1.4
ULDT	Uludag	4.38	264	*i* S	Sn	11 41 47.1	-1.2
GDZ	Gediz	4.42	250	*i* S	Sn	11 41 48.2	-1.3
MANT	Manisa	5.33	247	*i* S	Sn	11 42 12.2	+0.4

ISCJB **14** *11:40:00.4±4.3, 5°.6S±0°.1×151°.8E±0°.1, h98^{km}±39^{km}, mb4.5/19, Error ellipse: s-maj=24.2km s-min=21.4km az=171.9*

BJI **14** *11:40:00.9, 4°.96S×152°.33E, h109^{km}, mB5.0/1, mb4.6/10*

IDC **14** *11:40:00.2±3.8, 5°.56S×151°.69E, h83^{km}±34^{km}, mb4.3/13, mb1 4.4/14, mb1mx4.3/19, mbtmp4.2/14, Error ellipse: s-maj=27.3km s-min=12.7km az=119.0*

NEIC **14** *11:40:04.0±2.6, 5°.60S×151°.61E, h116^{km}±23^{km}, mb4.8/5, Error ellipse: s-maj=15.5km s-min=14.2km az=65.0*

ISC 14 11:40:00.8±2.1**, 5°.61S**±0°.10×**151°.8E**±0°.1**, h89**^{km}±19^{km}**, n42, σ1^{s}.10**/36**, mb4.5**/19**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	Coen	11.87	225	Pn	Pn	11 42 48.0	+0.9
CTA	Charters Tower	15.37	200	P	Pn	11 43 33.5	+0.7
	0.1nm,0.3s,baz=46,slow=15,SNR=7.1						
CTAO	Charters Tower	15.37	200	*e*P	Pn	11 43 35.2	+2.4
EIDS	Eidsvold	19.66	182	*e*P	Pn	11 44 21.7	-3.2
KAKA	Kakadu	20.37	248	*e*P	P	11 44 29.1	-1.4
	34nm,0.5s						
KAKA	Kakadu	20.37	248	*e*P	P	11 44 29.0	-1.5
	66nm,0.5s						
WRAB	Tennant Creek	22.15	228	*e*P	P	11 44 49.0	-0.5
	23nm,0.6s,mb4.7						
WRA	Warramunga Arr	22.17	228	P	P	11 44 48.6	-1.1
	21nm,1.0s,mb4.4,baz=53,slow=9.6,SNR=28						
WRA				S	S	11 48 48.8	+0.3
	9.0nm,1.1s,baz=54,slow=18,SNR=7.1						
KNA	Kununurra	24.75	244	*e*P	P	11 45 16.8	+2.5
	69nm,0.7s,mb5.2						
ASAR	Alice Springs	24.89	222	P	P	11 45 15.4	-0.1
	26nm,0.8s,mb4.7,baz=56,slow=9.1,SNR=97						
STKA	Stephens Creek	27.82	199	*e*P	P	11 45 41.5	-0.3
	6.6nm,0.9s,mb4.2						
STKA	Stephens Creek	27.82	199	P	P	11 45 41.6	-0.2
	2.8nm,0.8s,mb3.9,baz=330,slow=11,SNR=3.2						
FITZ	Fitzroy Crossi	28.41	242	*e*P	P	11 45 46.2	-1.0
	60nm,0.9s,mb5.1						
FITZ	Fitzroy Crossi	28.41	242	P	P	11 45 46.5	-0.7
	42nm,0.9s,mb5.0,baz=78,slow=7.1,SNR=16						
FITZ	Fitzroy Crossi	28.41	242	*e*P	P	11 45 46.5	-0.7
KSRS	Korea Array	48.29	334	P	P	11 48 31.9	-1.3
	0.9nm,0.7s,mb3.7,baz=151,slow=6.7,SNR=3.3						
CMAR	Chiang Mai Arr	57.33	296	P	P	11 49 40.4	+0.3
	1.9nm,0.6s,mb4.3,baz=120,slow=5.2,SNR=12						
LZH	Lanzhou	61.13	317	*e*P	P	11 50 06.3	+0.3
LZH				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.0						
LZH				pmax	pmax		
	comp=Z,87nm,4.5s						
SONM	Songino Array	66.49	328	P	P	11 50 41.0	+0.1
	comp=Z,4.9nm,0.6s,mb4.5,baz=142,slow=4.7,SNR=33						
MKAR	Makanchi Array	80.29	319	P	P	11 52 01.6	-0.5
	comp=Z,5.6nm,1.0s,mb4.3,baz=101,slow=6.3,SNR=24						
ZALV	Zalesovo Beam	81.28	327	P	P	11 52 05.5	-1.6
	comp=Z,2.4nm,0.5s,mb4.2,baz=113,slow=5.8,SNR=13						
COLA	College	82.97	22	*e*P	P	11 52 14.7	-1.0
	comp=Z,6.1nm,0.8s,mb4.5						
KURK	Kurchatov	83.80	322	P	P	11 52 19.4	-0.9
	comp=Z,3.8nm,0.8s,mb4.3,baz=104,slow=4.4,SNR=15						
KURK	Kurchatov	83.80	322	P	P	11 52 19.4	-0.9
KZA	Kyzart	83.83	313	P	P	11 52 22.8	+2.1
	SNR=6.7						
UCH	Uchtor	84.40	313	P	P	11 52 24.8	+1.2
	SNR=8.0						
AAK	Ala-Archa	84.50	314	P	P	11 52 24.6	+0.5
	SNR=6.5						
AAK	Ala-Archa	84.50	314	*e*P	P	11 52 24.2	+0.2
	comp=Z,4.3nm,0.8s,mb4.4						
USP	Ospenovka	84.64	314	P	P	11 52 25.1	+0.3
	SNR=13						
AML	Almayashu	84.98	313	P	P	11 52 27.7	+1.2
	SNR=23						
AML	Almayashu	84.98	313	*e*P	P	11 52 27.4	+0.9
	comp=Z,24nm,1.0s,mb5.1						
EKS2	Erkin-Say	85.03	314	P	P	11 52 27.4	+0.7
	SNR=13						
BVAR	Borovoye Array	89.30	323	P	P	11 52 45.8	-1.3
	comp=Z,5.5nm,0.8s,mb4.6,baz=104,slow=6.3,SNR=28						
NVAR	Mina Array Bea	93.36	52	P	P	11 53 07.5	+1.3
	comp=Z,2.3nm,0.8s,mb4.6,baz=250,slow=6.4,SNR=9.5						
YKA	Yellowknife Ar	96.60	28	P	P	11 53 20.6	+0.1
	comp=Z,1.0nm,0.7s,mb4.4,baz=271,slow=4.7,SNR=24						
PDAR	Pinedale Array	100.12	48	P	Pdif	11 53 35.5	-1.0
	comp=Z,1.2nm,0.9s,baz=264,slow=1.5,SNR=4.7						
GERES	GERESS Array B	124.22	328	PKP	PKPdf	11 58 49.5	+0.2
	comp=Z,1.1nm,0.6s,baz=70,slow=2.0,SNR=7.4						
CPUP	Villa Florida	137.50	140	PKP	PKPdf	11 59 14.8	-0.3
	comp=Z,0.3nm,0.4s,baz=34,slow=3.6,SNR=3.2						
SDV	Santo Domingo	137.79	83	*e*PKPdf	PKPdf	11 59 17.0	+1.0
MDT	Midelt	145.14	324	PKPbc	PKPbc	11 59 29.2	+0.9
	comp=Z,2.2nm,0.6s,baz=113,slow=5.3,SNR=4.4						
TORD	Torodi Ar. Bea	149.60	286	PKPbc	PKPbc	11 59 41.1	-0.1
	comp=Z,23nm,0.8s,baz=73,slow=2.6,SNR=99						
DBIC	Dimbokro	156.77	274	PKPab	PKPab	12 00 15.1	-1.7
	comp=Z,3.5nm,0.8s,baz=157,slow=6.0,SNR=3.4						

IDC **14** *11:41:54.8±1.3, 36°.45N×21°.71E, h0^{km}, mb3.8/8, mb1 3.8/8, mb1mx3.7/25, mbtmp3.8/8, Error ellipse: s-maj=49.3km s-min=22.2km az=151.0*

CSEM **14** *11:41:58.7±0.3, 36°.39N×21°.52E, h15^{km}, ML3.3, Error ellipse: s-maj=6.4km s-min=4.4km az=176.0*

ATH **14** *11:41:59.8, 36°.42N×21°.59E, h35^{km}±3^{km}, MD3.7/9, ML3.3*

NEIC **14** *11:42:00.3±0.7, 36°.37N×21°.51E, h30^{km}, ML3.3(ATH), Error ellipse: s-maj=10.0km s-min=5.3km az=176.0*

THE **14** *11:42:00.6, 36°.40N×21°.63E, h19^{km}±3^{km}, Error ellipse: s-maj=3.8km s-min=1.4km az=261.0*

ISC 14 11:42:00.1±0.8**, 36°.41N**±0°.04×**21°.48E**±0°.03**, h32**^{km}±5^{km}**, n86, σ1^{s}.24**/105**, mb3.7**/8**, 2C-1D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.53	24	P	Pb	11 42 10.5	-0.7
PYL				S	Sb	11 42 18.4	-0.3
PYL	PYLOS	0.53	24	*e*PB	Pb	11 42 10.1	-1.1
PYL				*e*SB	Sb	11 42 18.5	-0.2
PYL	PYLOS	0.53	24	*e*Pb	Pb	11 42 10.1	-1.1
PYL				S	Sb	11 42 18.4	-0.3
ITM	Ithomi	0.85	25	*e*PN	Pn	11 42 16.0	+0.1
ITM	Ithomi	0.85	25	*e*Pn	Pn	11 42 16.0	+0.1
VLX	Vlachokerasia	1.21	37	*e*PN	Pn	11 42 21.8	+1.1
VLX				*e*SN	Sn	11 42 37.0	+1.0
VLX	Vlachokerasia	1.21	37	*e*Pn	Pn	11 42 21.8	+1.1
VLX				*e*Sn	Sn	11 42 37.0	+1.0
KYTH	Kithira	1.27	95	*e*PN	Pn	11 42 21.9	+0.3
KYTH	Kithira	1.27	95	*e*Pn	Pn	11 42 21.9	+0.3
RLS	Riolos of Patr	1.65	360	*e*PB	Pb	11 42 29.0	-0.9
RLS	Riolos of Patr	1.65	360	*e*Pb	Pb	11 42 29.0	-0.9
GUR	Goura	1.68	24	*e*PB	Pb	11 42 29.4	-0.9
GUR	Goura	1.68	24	*e*Pb	Pb	11 42 29.4	-0.9
DID	Didima	1.79	52	P	Pn	11 42 28.5	-0.2
DID				S	Sn	11 42 50.8	+0.4
DID	Didima	1.79	52	*e*PN	Pn	11 42 28.6	-0.1
DID	Didima	1.79	52	*e*Pn	Pn	11 42 28.6	-0.1
DID				S	Sn	11 42 50.8	+0.4
LAKA	Lakka	1.87	12	P	Pn	11 42 31.2	+1.3
LAKA				S	Sn	11 42 54.4	+1.9
LAKA	Lakka	1.87	12	P	Pn	11 42 31.2	+1.3
LAKA				S	Sn	11 42 54.4	+1.9
VLS	Valsamata	1.90	339	P	Pn	11 42 32.1	+1.8
VLS	Valsamata	1.90	339	*e*PN	Pn	11 42 32.0	+1.7
VLS	Valsamata	1.90	339	*e*Pn	Pn	11 42 32.0	+1.7
LTK	Loutraki	2.01	36	P	Pn	11 42 31.4	-0.3
LTK				S	Sn	11 42 56.1	+0.4
LTK	Loutraki	2.01	36	*e*PN	Pn	11 42 31.8	+0.1
LTK	Loutraki	2.01	36	*e*Pn	Pn	11 42 31.8	+0.1
LTK				S	Sn	11 42 56.1	+0.4
TRIZ	Trizonia	2.01	14	P	Pn	11 42 33.7	+1.9
TRIZ	Trizonia	2.01	14	P	Pn	11 42 33.7	+1.9
EFP	Efpalio	2.05	10	*e*PB	Pb	11 42 35.4	-1.2
EFP	Efpalio	2.05	10	*e*Pb	Pb	11 42 35.4	-1.2
NAIG	Nisos Aigina	2.10	49	*e*PN	Pn	11 42 32.7	-0.3
NAIG	Nisos Aigina	2.10	49	*e*Pn	Pn	11 42 32.7	-0.3
KARN	Karanos	2.22	116	P	Pn	11 42 34.4	-0.3
KARN				S	Sn	11 43 01.3	+0.2
KARN	Karanos	2.22	116	P	Pn	11 42 34.4	-0.3
KARN				S	Sn	11 43 01.3	+0.2
ATH	Athens Observa	2.38	48	*e*PN	Pn	11 42 37.4	+0.6
ATH	Athens Observa	2.38	48	*e*Pn	Pn	11 42 37.4	+0.6
ATHU	Athens Univers	2.41	49	P	Pn	11 42 36.5	-0.8
ATHU	Athens Univers	2.41	49	P	Pn	11 42 36.5	-0.8
PTL	Penteli	2.52	49	*e*PN	Pn	11 42 39.1	+0.4
PTL	Penteli	2.52	49	*e*Pn	Pn	11 42 39.1	+0.4
EVR	Evrytania	2.52	6	*e*PN	Pn	11 42 40.0	+1.2
EVR	Evrytania	2.52	6	*e*Pn	Pn	11 42 40.0	+1.2
LKR	Lokris	2.55	28	P	Pn	11 42 39.0	-0.2
LKR	Lokris	2.55	28	*e*PN	Pn	11 42 39.4	+0.2
LKR	Lokris	2.55	28	*e*Pn	Pn	11 42 39.4	+0.2
IDI	Anoyia	2.99	111	P	Pn	11 42 45.1	-0.2
IDI	Anoyia	2.99	111	P	Pn	11 42 45.1	-0.2
JAN	Janina	3.28	352	*e*PN	Pn	11 42 51.0	+1.7
JAN	Janina	3.28	352	*e*Pn	Pn	11 42 51.0	+1.7
SOI	Samo	4.63	293	Pn	Pn	11 43 08.7	+0.9
SOI				Sn	Sn	11 43 56.7	-3.8
SOI	Samo	4.63	293	Pn	Pn	11 43 08.7	+0.9
TIP	Timpagrande	4.65	308	Pn	Pn	11 43 09.6	+1.5
TIP				Sn	Sn	11 43 59.4	-1.5
CEL	Celeste	4.82	294	P	Pn	11 43 11.9	+1.5
CEL	Celeste	4.82	294	P	Pn	11 43 11.9	+1.5
KRUS	Krusevo	4.96	358	*e*Sn	Sn	11 44 06.7	-1.8
KRUS	Krusevo	4.96	358	*e*Pn	Pn	11 43 05.2	-7.1
KRUS	Krusevo	4.96	358	*e*Pn	Pn	11 43 05.3	-7.0
VAY	Valandovo	4.98	10	*e*Pn	Pn	11 43 13.1	+0.5
VAY	Valandovo	4.98	10	*e*Pn	Pn	11 43 13.1	+0.5
HAVL	Avola	5.13	278	Pn	Pn	11 43 14.7	0.0
HAVL				Sn	Sn	11 44 11.0	-1.8
HAVL	Avola	5.13	278	Pn	Pn	11 43 14.7	0.0
HAVL				Sn	Sn	11 44 11.0	-1.8
SSY	Sortino	5.19	280	Pn	Pn	11 43 15.7	+0.2
SSY	Sortino	5.19	280	Pn	Pn	11 43 15.7	+0.2
NVR	Nevrokopi	5.28	20	P	Pn	11 43 19.9	+3.2
NVR	Nevrokopi	5.28	20	P	Pn	11 43 19.9	+3.2
HMDC	Modica	5.41	278	Pn	Pn	11 43 18.9	+0.4
HMDC				Sn	Sn	11 44 16.5	-3.1
HMDC	Modica	5.41	278	Pn	Pn	11 43 18.9	+0.4
HVZN	Vizzini	5.48	280	Pn	Pn	11 43 21.2	+1.7
HVZN	Vizzini	5.48	280	Pn	Pn	11 43 21.2	+1.7
LTRZ	Laterza	5.56	320	Pn	Pn	11 43 20.8	+0.3
LTRZ	Laterza	5.56	320	Pn	Pn	11 43 20.8	+0.3
CUC	Castrocucco	5.72	310	*e*Pn	Pn	11 43 24.4	+1.7
	19nm,0.6s						
CUC				*e*Sn	Sn	11 44 25.7	-1.5
CUC	Castrocucco	5.72	310	*e*Pn	Pn	11 43 24.4	+1.7
	19nm,0.6s						
SGO	Sicignano	6.37	312	Pn	Pn	11 43 34.4	+2.7
	22nm,0.7s						
SGO	Sicignano	6.37	312	Pn	Pn	11 43 34.4	+2.7
	22nm,0.7s						
BARS	Barje	6.41	2	⇑*i*Pn	Pn	11 43 32.0	-0.2
NISS		7.00	3	⇓*i*Pn	Pn	11 43 36.2	-4.1
GRUS	Gruza	7.50	356	*e*Pn	Pn	11 43 45.5	-1.6
BBLS	Lazići	7.62	349	*e*Pn	Pn	11 43 48.3	-0.5
DIVS	Divibare	7.77	352	⇑*i*Pn	Pn	11 43 49.5	-1.3
TORD	Torodi Ar. Bea	29.18	223	P	P	11 47 59.6	+0.9
	0.2nm,0.4s,mb3.2,baz=26,slow=9.6,SNR=4.3						
AKTO	Aktyubinsk	29.68	50	P	P	11 48 02.2	-0.6
	0.5nm,0.4s,mb3.6,baz=194,slow=4.2,SNR=3.3						
BVAR	Borovoye Array	37.70	48	P	P	11 49 10.6	-1.8
	0.8nm,0.7s,mb3.5,baz=291,slow=4.5,SNR=4.3						
KURK	Kurchatov	42.75	52	P	P	11 49 51.3	-2.9
	0.7nm,0.5s,mb3.6,baz=276,slow=8.6,SNR=4.0						
MKAR	Makanchi Array	45.60	57	P	P	11 50 14.9	-2.2
	0.9nm,0.3s,mb4.1,baz=268,slow=7.8,SNR=20						
ZALV	Zalesovo Beam	46.33	47	P	P	11 50 19.8	-2.9
	1.2nm,0.4s,mb4.2,baz=262,slow=8.3,SNR=5.7						
SCHQ	Schefferville	60.28	318	P	P	11 52 05.5	+0.3
	2.0nm,0.9s,mb4.1,baz=72,slow=9.6,SNR=3.3						
SONM	Songino Array	61.00	50	P	P	11 52 08.5	-1.8
	0.3nm,0.6s,mb3.6,baz=291,slow=6.1,SNR=2.3						

NEIC **14** *11:55:16.1, 36°.24N×21°.85E, h23^{km}, MD3.5(ATH), After ATH.*

CSEM **14** *11:55:16.1, 36°.24N×21°.85E, h23^{km}, MD3.5, After ATH*

ATH 14 11:55:16.1, 36°.24N×21°.85E, h23^{km}±1^{km}**, MD3.5**/5**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.66	352	*e*PN	Pn	11 55 29.2	-0.8
PYL				*e*SN	Sn	11 55 39.3	-0.4
PYL	PYLOS	0.66	352	*e*Pn	Pn	11 55 29.2	-0.8
PYL				*e*Sn	Sn	11 55 39.3	-0.4
ITM	Ithomi	0.94	4	*e*PN	Pn	11 55 33.9	0.0
ITM				*e*SN	Sn	11 55 47.7	+1.1
ITM	Ithomi	0.94	4	*e*Pn	Pn	11 55 33.9	0.0
ITM				*e*Sn	Sn	11 55 47.7	+1.1
KYTH	Kithira	0.96	87	*e*PN	Pn	11 55 34.7	+0.6
KYTH	Kithira	0.96	87	*e*Pn	Pn	11 55 34.7	+0.6
VLX	Vlachokerasia	1.21	20	*e*PB	Pb	11 55 38.2	0.0
VLX				*e*SN	Sn	11 55 55.6	+2.4
VLX	Vlachokerasia	1.21	20	*e*Pb	Pb	11 55 38.2	0.0
VLX				*e*Sn	Sn	11 55 55.6	+2.4
DID	Didima	1.68	41	*e*PN	Pn	11 55 46.2	+2.1
DID	Didima	1.68	41	*e*Pn	Pn	11 55 46.2	+2.1
GUR	Goura	1.74	13	*e*PN	Pn	11 55 47.5	+2.6
GUR	Goura	1.74	13	*e*Pn	Pn	11 55 47.5	+2.6
RLS	Riolos of Patr	1.84	351	*e*PB	Pb	11 55 48.1	-0.9
RLS	Riolos of Patr	1.84	351	*e*Pb	Pb	11 55 48.1	-0.9
LTK	Loutraki	1.99	26	*e*PN	Pn	11 55 51.3	+3.0
LTK	Loutraki	1.99	26	*e*Pn	Pn	11 55 51.3	+3.0
LKR	Lokris	2.57	20	*e*PB	Pb	11 55 59.7	-1.9
LKR	Lokris	2.57	20	*e*Pb	Pb	11 55 59.7	-1.9
AGG	Agios Georgios	2.80	8	*e*PN	Pn	11 56 02.1	+2.6
AGG	Agios Georgios	2.80	8	*e*Pn	Pn	11 56 02.1	+2.6

DDA **14** *12:00:24.9, 40°.42N×33°.41E, h3^{km}, Md3.0*

ISK **14** *12:00:24.9, 40°.47N×33°.35E, h7^{km}, MD3.1*

ISCJB **14** *12:00:25.2±0.5, 40°.47N±0°.03×33°.33E±0°.04, h2^{km}±6^{km}, Error ellipse: s-maj=5.2km s-min=4.6km az=153.5*

CSEM **14** *12:00:25.3±0.1, 40°.48N×33°.35E, h2^{km}, MD3.0, Error ellipse: s-maj=2.6km s-min=1.7km az=127.0*

ISC 14 12:00:25.9±0.5**, 40°.48N**±0°.03×**33°.34E**±0°.04**, h4**^{km}±5^{km}**, n35, σ0^{s}.80**/47**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELDT	Eldivan	0.07	79	*i* P	Pg	12 00 26.8	-0.5
ELDT				*i* S	Sg	12 00 28.3	0.0
ELDT	Eldivan	0.07	79	*i* P	Pg	12 00 26.8	-0.5
ELDT				*i* S	Sg	12 00 28.3	0.0
CANT	Cankiri	0.25	59	PG	Pg	12 00 30.3	-0.4
CANT				*e*SG	Sg	12 00 34.5	+0.5
ILGA	Ilgaz	0.64	26	*i* P	Pg	12 00 37.5	-0.6
ILGA				*i* S	Sg	12 00 48.1	+1.7
ILGA	Ilgaz	0.64	26	*i* P	Pg	12 00 37.5	-0.7
ILGA				*i* S	Sg	12 00 48.2	+1.7
LOD	Lodumlu	0.73	217	*e*PG	Pg	12 00 39.3	-0.7
LOD				*e*SG	Sg	12 00 50.2	+0.8
LOD	Lodumlu	0.73	217	*e*Pg	Pg	12 00 39.3	-0.6
LOD				*e*Sg	Sg	12 00 50.2	+0.7
TOS	Tosya	0.76	43	*e*PG	Pg	12 00 40.0	-0.5
TOS	Tosya	0.76	43	*e*Pg	Pg	12 00 40.0	-0.5
SAFT	Safranbolu	0.91	327	*e*PG	Pg	12 00 43.0	-0.2
SAFT				*e*SG	Sg	12 00 56.3	+1.2
SAFT	Safranbolu	0.91	327	*e*Pg	Pg	12 00 43.1	-0.2
SAFT				*e*Sg	Sg	12 00 56.3	+1.2
CORM	Corum	1.03	106	*e*PG	Pg	12 00 44.4	-1.2
CORM				*e*SG	Sg	12 00 59.8	+0.8
CORM	Corum	1.03	106	*e*Pg	Pg	12 00 44.4	-1.2
CORM				*e*Sg	Sg	12 00 59.8	+0.9
BYBT	Boyabat	1.47	47	*e*PN	Pn	12 00 51.8	-1.2
BYBT	Boyabat	1.47	47	*e*Pn	Pn	12 00 51.8	-1.2
BZK	Bozkurt	1.56	18	*e*PN	Pn	12 00 53.9	-0.5
BZK	Bozkurt	1.56	18	*e*Pn	Pn	12 00 53.9	-0.5
MDU	Mudurnu	1.62	270	*e*PN	Pn	12 00 55.0	-0.2
MDU	Mudurnu	1.62	270	*e*Pn	Pn	12 00 55.1	-0.1
YOZ	Yozgat	1.73	118	*e*PN	Pn	12 00 56.1	-0.6
YOZ	Yozgat	1.73	118	*e*Pn	Pn	12 00 56.2	-0.5
SVRH	Sivrihisar-ESK	1.74	234	*e*PN	Pn	12 00 56.3	-0.5
SVRH	Sivrihisar-ESK	1.74	234	*e*Pn	Pn	12 00 56.3	-0.5
KIZT	Kizilcal	1.95	216	*e*PN	Pn	12 00 59.7	-0.1
KIZT	Kizilcal	1.95	216	*e*Pn	Pn	12 00 59.7	-0.1
AVNT	Avonos	2.06	145	*i* P	Pn	12 01 02.0	+0.8
AVNT				*i* S	Sn	12 01 30.2	+2.9
AVNT	Avonos	2.06	145	*i* P	Pn	12 01 02.0	+0.8
SULT	Sultanhani-AKS	2.28	177	*e*PN	Pn	12 01 04.3	0.0
SULT	Sultanhani-AKS	2.28	177	*e*Pn	Pn	12 01 04.3	+0.1
BNN	Bunyan	2.52	129	*e*PN	Pn	12 01 07.4	-0.2
BNN	Bunyan	2.52	129	*e*Pn	Pn	12 01 07.4	-0.2
KONT	Konya--Tatoy	2.64	197	*e*PN	Pn	12 01 09.4	+0.1
KONT	Konya--Tatoy	2.64	197	*e*Pn	Pn	12 01 09.4	+0.2
SVSK	Karacayir	2.86	100	*e*PN	Pn	12 01 12.1	-0.1
SVSK	Karacayir	2.86	100	*e*Pn	Pn	12 01 12.1	-0.1

SOF **14** *12:08:35.7, 35°.05N×21°.52E, h10^{km}, MD7.1*

BJI **14** *12:08:52.4, 36°.54N×21°.78E, h26^{km}, mB6.4/49, mb6.0/64, Ms6.2/75, Ms7 6.0/60*

ISCJB **14** *12:08:52.8±0.3, 36°.40N±0°.01×21°.847E±0°.009, h15^{km}±2^{km}, mb5.9/334, MS6.0/91, Error ellipse: s-maj=2.0km s-min=1.2km az=13.7*

IGIL **14** *12:08:53.9, 36°.34N×21°.86E, h20^{km}, mb5.7*

PRU **14** *12:08:53.6, 36°.56N×21°.11E, h0^{km}, M5.9*

MOS **14** *12:08:54.5±1.2, 36°.38N×21°.86E, h33^{km}, mb6.1/83, MS6.0/50, Error ellipse: s-maj=3.4km s-min=1.7km az=105.6*

HLW **14** *12:08:54.6, 36°.42N×22°.16E, h33^{km}, Mb6.0*

NEIC **14** *12:08:55.8±0.1, 36°.35N×21°.86E, h28^{km}, mb5.9/232, ME6.1, MS6.0/4, MW6.0, ML6.0(ATH), Error ellipse: s-maj=2.5km s-min=1.7km az=15.0 Broadband fault plane solution: P waves. NP1:ϕ_s310.00000°, δ5.00000°, λ90.00000°. NP2:ϕ_s130.00000°, δ85.00000°, λ90.00000°. Principal axes: T Plg50.0000°, Azm40.0000°; N Plg0.0000°, Azm0.0000°; P Plg40.0000°, Azm220.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [III] at Amarousion, Athens and Iraklion. Also felt at Agrinion, Ayios Stefanos, Ilioupoli, Kalamakion, Kalamata, Kallithea, Khalandrion, Khania, Kissamos, Metamorfosis, Nea Ionia, Patrai, Pilos, Piraeus, Sparta, Spata, Vlakhiotis, Voula and Yithion. Felt at Brindisi, Italy.

CSEM **14** *12:08:55.8±0.1, 36°.33N×21°.81E, h28^{km}, mb6.0/99, Ms5.9, Mw6.3 Error ellipse: s-maj=2.4km s-min=1.5km az=12.0*

ATH **14** *12:08:55.2, 36°.22N×21°.75E, h38^{km}±5^{km}, ML6.1*

GCMT **14** *12:08:55.8±0.5, 36°.29N×21°.67E, h15^{km}, MW6.5/58, Moment Tensor Solution. s58,c79; s47,c84; Duration: 4^{s}.0 Moment tensor: Scale 10^{18}Nm; M$_{rr}$1.19±.08; M$_{\theta\theta}$-0.51±.06; M$_{\phi\phi}$-0.68±.06; M$_{r\theta}$6.95±.22; M$_{\theta\phi}$0.76±.04; M$_{\phi r}$-3.95±.21; Best double couple: M$_0$8.09600×10^{18} NP1:ϕ_s337.00000°, δ5.00000°, λ127.00000°. NP2: ϕ_s120.00000°, δ86.00000°, λ87.00000°. Principal axes: T 8.0890, Plg49.0000°, Azm26.0000°; N 0.0150, Plg3.0000°, Azm120.0000°; P -8.1030, Plg41.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s.*

BGS **14** *12:08:55.7±2.0, 36°.23N×21°.60E, h33^{km}, mb5.8, MS5.9*

IDC **14** *12:08:55.9±1.6, 36°.43N×21°.93E, h30^{km}±10^{km}, mb5.5/35, mb1 5.5/45, mb1mx5.5/45, mbtmp5.5/45, ML4.8/9, MS6.0/37, Ms1 6.0/37, ms1mx5.8/49, Error ellipse: s-maj=9.0km s-min=8.8km az=164.0*

THE **14** *12:08:56.7, 36°.44N×22°.03E, h9^{km}±91^{km}, ML6.6/2, Error ellipse: s-maj=91.1km s-min=3.2km az=210.0*

TIR **14** *12:08:56.1, 37°.16N×21°.28E, h0^{km}*

PDA **14** *12:08:56.0, 36°.44N×21°.93E, h28^{km}, Mw6.2*

PDG **14** *12:08:56.4±0.9, 36°.37N×21°.86E, h36^{km}±11^{km}, MD6.4/10, ML6.3/10, Error ellipse: s-maj=5.0km s-min=4.2km az=90.0*

SFS **14** *12:08:56.0, 36°.44N×21°.90E, h30^{km}, ML6.0*

IPEC **14** *12:08:57.8±3.1, 36°.24N×21°.71E, h173^{km}±100^{km}, Error ellipse: s-maj=26.9km s-min=17.7km az=28.0*

BEO **14** *12:08:58.7±0.8, 36°.67N×21°.31E, h0^{km}, ML6.4/9*

NIC **14** *12:09:02.2±0.2, 36°.28N×22°.60E, h30^{km}, mb6.1, ML5.8, Southern Greece, 36 km. S Vasilitsion*

DJA **14** *12:09:04, 36°.35N×22°.34E, h77^{km}, mb5.9/26*

SZGRF **14** *12:09:12.6, 37°.67N×21°.39E, h10^{km}, mb5.9, MS6.1, Southern Greece*

DDA **14** *12:09:25.4, 37°.59N×24°.37E, h29^{km}±12^{km}*

ISC 14 12:08:57.1±0.1**, 36°.38N**±0°.01×**21°.832E**±0°.009**, h35**^{km}±1^{km}**, h32**^{km}±1.5^{km}**:pP-P, n2568, σ1^{s}.13**/2720**, mb5.9**/334**, MS6.0**/91**, 443C-264D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.52	352	⇓*i*PN	Pn	12 09 09.2	+1.2
PYL				*e*SN	Sn	12 09 18.5	+3.0
PYL	PYLOS	0.52	352	⇓*i*Pn	Pn	12 09 09.2	+1.2
PYL				*e*Sn	Sn	12 09 18.5	+3.0
ITM	Ithomi	0.80	5	⇑*i*PN	Pn	12 09 13.7	+1.9
ITM				*e*SN	Sn	12 09 27.6	+5.1
ITM	Ithomi	0.80	5	⇑*i*Pn	Pn	12 09 13.7	+1.9
ITM				*e*Sn	Sn	12 09 27.6	+5.1
KYTH	Kithira	0.98	96	⇓*i*PN	Pn	12 09 15.7	+1.4
KYTH	Kithira	0.98	96	⇓*i*Pn	Pn	12 09 15.7	+1.4
VLX	Vlachokerasia	1.08	24	⇑*i*PN	Pn	12 09 18.4	+2.7
VLX				*e*SN	Sn	12 09 36.2	+6.8
VLX	Vlachokerasia	1.08	24	⇑*i*Pn	Pn	12 09 18.4	+2.7
DID	Didima	1.59	45	⇑*i*PN	Pn	12 09 24.5	+1.8
DID	Didima	1.59	45	⇑*i*Pn	Pn	12 09 24.5	+1.8
GUR	Goura	1.60	15	⇑*i*PB	Pn	12 09 26.2	+3.3
GUR	Goura	1.60	15	⇑*i*Pb	Pn	12 09 26.2	+3.3
RLS	Riolos of Patr	1.70	350	⇑*i*PB	Pn	12 09 27.2	+3.0
RLS	Riolos of Patr	1.70	350	⇑*i*Pb	Pn	12 09 27.2	+3.0
LAKA	Lakka	1.86	4	P	Pn	12 09 29.7	+3.3
LAKA	Lakka	1.86	4	P	Pn	12 09 29.7	+3.3
LTK	Loutraki	1.87	29	P	Pn	12 09 28.5	+1.9
LTK	Loutraki	1.87	29	⇑*i*PN	Pn	12 09 28.6	+2.0
LTK	Loutraki	1.87	29	⇑*i*Pn	Pn	12 09 28.6	+2.0
NAIG	Nisos Aigina	1.91	44	*e*PN	Pn	12 09 28.5	+1.4
NAIG	Nisos Aigina	1.91	44	*e*Pn	Pn	12 09 28.5	+1.4
KARN	Karanos	1.96	119	⇑*i*PB	Pn	12 09 28.2	+0.4
TRIZ	Trizonia	1.99	5	P	Pn	12 09 31.6	+3.4
TRIZ	Trizonia	1.99	5	P	Pn	12 09 31.6	+3.4
EFP	Efpalio	2.04	2	⇑*i*PB	Pn	12 09 32.9	+4.0
EFP	Efpalio	2.04	2	⇑*i*Pb	Pn	12 09 32.9	+4.0
VLS	Valsamata	2.05	331	P	Pn	12 09 30.3	+1.3
VLS	Valsamata	2.05	331	⇑*i*PN	Pn	12 09 30.1	+1.1
VLS	Valsamata	2.05	331	⇑*i*Pn	Pn	12 09 30.1	+1.1
ATH	Athens Observa	2.19	43	*e*PN	Pn	12 09 32.2	+1.3
ATH	Athens Observa	2.19	43	*e*Pn	Pn	12 09 32.2	+1.3
ATHU	Athens Univers	2.22	44	P	Pn	12 09 32.4	+1.0
ATHU	Athens Univers	2.22	44	P	Pn	12 09 32.4	+1.0
PTL	Penteli	2.32	44	⇑*i*PN	Pn	12 09 34.1	+1.3
PTL	Penteli	2.32	44	⇑*i*Pn	Pn	12 09 34.1	+1.3
LKR	Lokris	2.44	22	P	Pn	12 09 36.0	+1.5
LKR	Lokris	2.44	22	P	Pn	12 09 36.0	+1.5
EVR	Evrytania	2.53	360	P	Pn	12 09 44.2	+8.6
AGG	Agios Georgios	2.66	8	P	Pn	12 09 38.3	+0.8
AGG	Agios Georgios	2.66	8	P	Pn	12 09 38.3	+0.8
IDI	Anoyia	2.71	113	*e*PN	Pn	12 09 38.6	+0.4
IDI	Anoyia	2.71	113	Pn	Pn	12 09 37.4	-0.8
	101nm,0.3s,baz=297,slow=14,SNR=235						
IDI				Sn	Sn	12 10 10.2	+0.4
	2μm,0.3s,baz=4.7,slow=20,SNR=8.1						
IDI				LR	LR	12 10 56.9	
	comp=Z,357μm,19.0s,baz=298,slow=46						
IDI	Anoyia	2.71	113	*e*Pn	Pn	12 09 38.6	+0.4
SIVA	Sivas	2.78	118	*e*PB	Pn	12 09 40.8	+1.7

THR4	Thira Island,	2.88	87	P	Pn	12 09 40.2	-0.2
THR4	Thira Island,	2.88	87	P	Pn	12 09 40.2	-0.2
THR6	Thira Island,	2.88	90	P	Pn	12 09 40.4	0.0
THR6	Thira Island,	2.88	90	P	Pn	12 09 40.4	0.0
THR1	Thera Island	2.93	89	P	Pn	12 09 41.4	+0.3
THR1	Thera Island	2.93	89	P	Pn	12 09 41.4	+0.3
XOR	Xorichti	3.17	19	P	Pn	12 09 45.1	+0.7
XOR	Xorichti	3.17	19	P	Pn	12 09 45.1	+0.7
THL	Klokotos Trika	3.18	3	P	Pn	12 09 47.2	+2.6
THL	Klokotos Trika	3.18	3	⇑*i*PN	Pn	12 09 47.4	+2.8
THL	Klokotos Trika	3.18	3	P	Pn	12 09 47.2	+2.6
LAST	Lasithi	3.21	111	*e*PN	Pn	12 09 45.1	+0.1
LAST	Lasithi	3.21	111	*e*Pn	Pn	12 09 45.1	+0.1
AOS	Alonnisos	3.22	30	P	Pn	12 09 45.6	+0.5
AOS	Alonnisos	3.22	30	P	Pn	12 09 45.6	+0.5
NPS	Neapolis	3.27	109	⇑*i*PN	Pn	12 09 45.6	-0.2
NPS	Neapolis	3.27	109	⇑*i*Pn	Pn	12 09 45.6	-0.2
JAN	Janina	3.36	347	P	Pn	12 09 50.3	+3.3
JAN	Janina	3.36	347	P	Pn	12 09 50.3	+3.3
IGT	Igoumenitsa	3.36	340	P	Pn	12 09 48.9	+1.9
IGT	Igoumenitsa	3.36	340	P	Pn	12 09 48.9	+1.9
MEV	Metsovon	3.43	352	P	Pn	12 09 51.5	+3.5
MEV	Metsovon	3.43	352	P	Pn	12 09 51.5	+3.5
KEK	Kerkira	3.69	335	⇑*i*PN	Pn	12 09 52.7	+1.1
KEK	Kerkira	3.69	335	⇑*i*Pn	Pn	12 09 52.7	+1.1
LIT	Litokhoron	3.75	8	P	Pn	12 09 52.4	0.0
LIT	Litokhoron	3.75	8	⇑*i*PN	Pn	12 09 54.4	+2.0
LIT	Litokhoron	3.75	8	⇑*i*Pn	Pn	12 09 54.4	+2.0
SRN	Sarande	3.78	338	*e*PN	Pn	12 09 54.2	+1.4
SRN				*i* SN	Sn	12 10 26.6	-9.4
SRN	Sarande	3.78	338	*e*Pn	Pn	12 09 54.2	+1.4
	SNR=35						
ZKR	Zakros	3.78	108	*e*PN	Pn	12 09 53.4	+0.5
ZKR	Zakros	3.78	108	*e*Pn	Pn	12 09 53.4	+0.5
PAIG	Paliouri	3.83	22	P	Pn	12 09 54.4	+0.9
PAIG	Paliouri	3.83	22	P	Pn	12 09 54.4	+0.9
CHOS	Chios island	3.91	58	P	Pn	12 09 55.0	+0.4
CHOS	Chios island	3.91	58	⇑*i*PN	Pn	12 09 55.3	+0.7
CHOS	Chios island	3.91	58	⇑*i*Pn	Pn	12 09 55.3	+0.7
KZN	Kozani	3.92	359	P	Pn	12 09 58.0	+3.3
KZN	Kozani	3.92	359	P	Pn	12 09 58.0	+3.3
PLG	Polygyros	4.18	17	P	Pn	12 09 58.7	+0.4
PLG	Polygyros	4.18	17	⇑*i*PN	Pn	12 09 59.5	+1.2
PLG	Polygyros	4.18	17	P	Pn	12 09 58.7	+0.4
PLG	Polygyros	4.18	17	⇑*i*Pn	Pn	12 09 59.5	+1.2
SMG	Samos	4.22	70	P	Pn	12 10 00.8	+2.0
SMG	Samos	4.22	70	P	Pn	12 10 00.8	+2.0
SIGR	SIGRI	4.26	47	P	Pn	12 09 57.7	-1.7
	24µm,2.0s						
SIGR	SIGRI	4.26	47	P	Pn	12 09 57.7	-1.7
	24µm,2.0s						
URLA	Izmir	4.28	61	*i* P	Pn	12 10 00.4	+0.7
URLA	Izmir	4.28	61	*i* P	Pn	12 10 00.4	+0.8
OUR	Ouranopolis	4.29	23	P	Pn	12 09 51.9	-7.9
KBN	Korca	4.31	349	*e*PN	Pn	12 10 03.2	+3.1
KBN	Korca	4.31	349	*e*Pn	Pn	12 10 03.2	+3.1
	SNR=35						
HORT	Hortiatis	4.32	13	P	Pn	12 10 01.1	+0.8
HORT	Hortiatis	4.32	13	P	Pn	12 10 01.1	+0.8
THE	Thessaloniki	4.33	11	P	Pn	12 10 01.4	+1.0
THE	Thessaloniki	4.33	11	P	Pn	12 10 01.4	+1.0
LIA	Limnos Island	4.39	36	P	Pn	12 10 01.4	+0.2
LIA	Limnos Island	4.39	36	P	Pn	12 10 01.4	+0.2
KARP	Karpathos	4.40	99	⇑*i*PN	Pn	12 10 01.1	-0.3
KARP	Karpathos	4.40	99	⇑*i*Pn	Pn	12 10 01.1	-0.3
FNA	Florina	4.41	355	P	Pn	12 10 03.5	+2.1
FNA	Florina	4.41	355	P	Pn	12 10 03.5	+2.1
BODT	Bodrum	4.45	80	*e*P	Pn	12 10 03.2	+1.2
BODT	Bodrum	4.45	80	*e*P	Pn	12 10 03.2	+1.1
GCAM	G?zelcaml?	4.52	71	*i* P	Pn	12 10 03.6	+0.7
GCAM	G?zelcaml?	4.52	71	*i* P	Pn	12 10 03.7	+0.8
PRK	Paraskevi	4.53	50	P	Pn	12 10 03.0	-0.1
PRK	Paraskevi	4.53	50	⇑*i*PN	Pn	12 10 03.7	+0.6
PRK	Paraskevi	4.53	50	⇑*i*Pn	Pn	12 10 03.7	+0.6
BDRM	Kayabasi	4.56	80	*i* P	Pn	12 10 04.7	+1.2
BDRM	Kayabasi	4.56	80	*i* P	Pn	12 10 04.7	+1.2
GRG	Griva	4.59	5	P	Pn	12 10 05.4	+1.5
GRG	Griva	4.59	5	P	Pn	12 10 05.4	+1.5
SOH	Sokhos	4.59	15	P	Pn	12 10 05.5	+1.6
SOH	Sokhos	4.59	15	⇑*i*PN	Pn	12 10 06.2	+2.3
SOH	Sokhos	4.59	15	⇑*i*Pn	Pn	12 10 06.2	+2.3
BLCB	Balcova	4.60	63	*e*P	Pn	12 10 07.2	+3.1
BLCB	Balcova	4.60	63	P	Pn	12 10 04.6	+0.4
BLCB	Balcova	4.60	63	P	Pn	12 10 04.6	+0.4
DAT	Datca	4.64	84	*e*P	Pn	12 10 06.4	+1.8
DAT	Datca	4.64	84	*e*P	Pn	12 10 06.4	+1.8
BIA	Bitola	4.64	355	P	Pn	12 10 05.8	+1.1
BIA	Bitola	4.64	355	*i* Pn	Pn	12 10 06.2	+1.5
BIA				*e*Sn	Sn	12 10 57.9	+0.5
BIA	Bitola	4.64	355	*i* Pn	Pn	12 10 06.1	+1.4
BIA				*e*Sn	Sn	12 10 57.8	+0.4
LTBQ	Tobruq	4.65	158	*i* P	Pn	12 10 04.3	-0.5
	6µm,1.4s,SNR=48						
IZM	Izmir	4.77	63	*e*P	Pn	12 10 07.4	+1.0
OHR	Ohrid	4.79	351	⇑*i*Pn	Pn	12 10 08.2	+1.5
OHR	Ohrid	4.79	351	*i* Pn	Pn	12 10 08.1	+1.5
OHR				*e*Sn	Sn	12 11 00.7	-0.2
OHR				*e*Lg		12 11 34.3	
	comp=E,258µm,4.0s						
OHR				*e*Lg		12 11 35.2	
	comp=N,186µm,3.2s						
OHR	Ohrid	4.79	351	P	Pn	12 10 07.7	+1.0
OHR	Ohrid	4.79	351	*i* Pn	Pn	12 10 08.1	+1.4
OHR				*e*Sn	Sn	12 11 00.7	-0.2
BOZC	Bozcaada	4.79	43	*i* P	Pn	12 10 08.0	+1.2
AYVA	Ayvalik	4.83	51	*i* P	Pn	12 10 04.7	-2.5
AYVA	Ayvalik	4.83	51	*i* P	Pn	12 10 04.7	-2.5
KNT	Kendrikon	4.84	10	P	Pn	12 10 08.9	+1.5
KNT	Kendrikon	4.84	10	P	Pn	12 10 08.9	+1.5
MLSB	Milas	4.85	77	*e*P	Pn	12 10 09.3	+1.7
MLSB	Milas	4.85	77	*e*P	Pn	12 10 09.3	+1.7
TIP	Timpagrande	4.89	306	*e*Pn	Pn	12 10 08.1	0.0
TIP				*e*Sn	Sn	12 11 00.4	-3.1
TIP	Timpagrande	4.89	306	*e*Pn	Pn	12 10 08.1	0.0
TIP				*e*Sn	Sn	12 11 00.4	-3.1
SOI	Samo	4.91	292	Pn	Pn	12 10 08.2	-0.1
SOI				Sn	Sn	12 10 58.7	-5.2
SOI	Samo	4.91	292	Pn	Pn	12 10 08.2	-0.1
SRS	Serrai	4.92	16	P	Pn	12 10 07.8	-0.7
SRS	Serrai	4.92	16	P	Pn	12 10 07.8	-0.7
EZN	Ezine	4.94	45	*e*P	Pn	12 10 09.1	+0.4
EZN	Ezine	4.94	45	*e*P	Pn	12 10 09.1	+0.4
GRI	Girifalco	4.94	301	P	Pn	12 10 09.1	+0.3
GRI	Girifalco	4.94	301	Pn	Pn	12 10 09.1	+0.3
VAY	Valandovo	4.96	6	P	Pn	12 10 10.6	+1.5
VAY	Valandovo	4.96	6	⇑*i*Pn	Pn	12 10 10.4	+1.3
VAY	Valandovo	4.96	6	*i* Pn	Pn	12 10 10.2	+1.2
VAY				*e*Sn	Sn	12 11 06.0	+0.8
VAY				*e*Lg		12 12 09.4	
	comp=E,64µm,3.1s						
VAY				*e*Lg		12 12 09.7	
	comp=N,81µm,3.0s						
VAY	Valandovo	4.96	6	P	Pn	12 10 10.5	+1.4
VAY	Valandovo	4.96	6	*i* Pn	Pn	12 10 10.2	+1.1
VAY				*e*Sn	Sn	12 11 05.9	+0.7
GADA	Gvkgeada	4.97	39	*e*P	Pn	12 10 09.4	+0.3
GADA	Gvkgeada	4.97	39	*e*P	Pn	12 10 09.4	+0.3
KRUS	Krusevo	5.00	355	*i* Pn	Pn	12 10 10.6	+1.1
KRUS				*e*Sn	Sn	12 11 05.6	-0.5
KRUS	Krusevo	5.00	355	*i* Pn	Pn	12 10 10.6	+1.0
KRUS				*e*Sn	Sn	12 11 05.5	-0.6
AYDN	Tasoluk	5.00	73	*i* P	Pn	12 10 09.1	-0.5
AYDN				*e*S	Sn	12 11 23.5	+17
AYDN	Tasoluk	5.00	73	*i* P	Pn	12 10 09.1	-0.5
ARG	Arkhangelos	5.09	90	⇑*i*PN	Pn	12 10 11.2	+0.4
ARG	Arkhangelos	5.09	90	⇑*i*Pn	Pn	12 10 11.2	+0.4
CEL	Celeste	5.09	293	*e*Pn	Pn	12 10 10.8	0.0
	comp=N,5µm,0.6s						
CEL				*e*Sn	Sn	12 11 03.2	-5.1
CEL	Celeste	5.09	293	*e*Pn	Pn	12 10 10.8	0.0
	comp=N,5µm,0.6s						
MTTG	Motta San Giov	5.16	290	*i* Pnr	Pn	12 10 11.6	-0.2
MTTG				Sn	Sn	12 11 03.8	-6.3
TIR	Tirane	5.19	343	*e*P	Pn	12 10 13.5	+1.3
TIR				*e*		12 11 12.3	
TIR				smax			
	comp=N,7µm,0.9s						
TIR	Tirane	5.19	343	P	Pn	12 10 13.3	+1.1
TIR	Tirane	5.19	343	⇑*i*Pn	Pn	12 10 13.4	+1.2
TIR	Tirane	5.19	343	⇑*i*Pn	Pn	12 10 13.4	+1.2
TIR				*e*S	Sn	12 11 12.3	+1.5
SCLL	Scilla	5.22	293	Pn	Pn	12 10 12.5	-0.1
SCLL	Scilla	5.22	293	Pn	Pn	12 10 12.5	-0.1
YER	Yerkesik	5.23	80	*e*P	Pn	12 10 15.1	+2.3
YER	Yerkesik	5.23	80	*e*P	Pn	12 10 15.1	+2.3
MSI	Messina ING	5.33	292	P	Pn	12 10 14.5	+0.4
MSI	Messina ING	5.33	292	Pn	Pn	12 10 14.5	+0.4
AKS	Akhisar	5.36	61	*e*P	Pn	12 10 17.8	+3.3
AKS	Akhisar	5.36	61	*e*P	Pn	12 10 17.8	+3.3
AKHS	Akhisar	5.36	61	*i* P	Pn	12 10 15.7	+1.1
AKHS	Akhisar	5.36	61	*i* P	Pn	12 10 15.7	+1.2
MMB	Musomiste	5.40	15	P	Pn	12 10 16.1	+1.0
MMB	Musomiste	5.40	15	Pn	Pn	12 10 15.4	+0.3
MMB	Musomiste	5.40	15	Pn	Pn	12 10 15.4	+0.3
HAVL	Avola	5.42	278	*i* Pnr	Pn	12 10 13.6	-1.8
HAVL				Sn	Sn	12 11 11.4	-5.1
TURN	Turunc	5.47	83	*i* P	Pn	12 10 13.5	-2.5
SSY	Sortino	5.48	280	*i* Pnr	Pn	12 10 13.8	-2.4
SSY				Sn	Sn	12 11 11.2	-6.8
DALT	Dalyan (Mudla)	5.49	84	*e*P	Pn	12 10 17.0	+0.7
DALT	Dalyan (Mudla)	5.49	84	*e*P	Pn	12 10 17.0	+0.7
ENEZ	Enez	5.51	37	*e*P	Pn	12 10 16.8	+0.2
ENEZ	Enez	5.51	37	*e*P	Pn	12 10 16.8	+0.2
LPK	Lapseki	5.55	43	*e*P	Pn	12 10 18.2	+1.0
LPK	Lapseki	5.55	43	*e*P	Pn	12 10 18.2	+1.0
KKB	Krupnik	5.56	10	P	Pn	12 10 18.5	+1.2
KKB	Krupnik	5.56	10	Pn	Pn	12 10 17.1	-0.2
KKB	Krupnik	5.56	10	Pn	Pn	12 10 17.1	-0.2
ALN	Alexandroupoli	5.58	35	P	Pn	12 10 17.4	-0.2
ALN	Alexandroupoli	5.58	35	P	Pn	12 10 17.4	-0.2
SKO	Skopje	5.59	357	P	Pn	12 10 19.4	+1.7
SKO	Skopje	5.59	357	⇑*i*Pn	Pn	12 10 19.6	+1.9
SKO	Skopje	5.59	357	*i* Pn	Pn	12 10 19.7	+2.0
SKO				*e*Sn	Sn	12 11 19.2	-1.4
SKO				*e*Lg		12 12 09.9	
	comp=N,100µm,3.2s						
SKO				*e*Lg		12 12 10.7	
	comp=E,183µm,4.7s						
SKO	Skopje	5.59	357	⇑*i*Pn	Pn	12 10 19.6	+1.9
SKO				*e*Sn	Sn	12 11 19.2	-1.4
ORI	Oriolo Calabro	5.61	313	Pn	Pn	12 10 18.2	+0.3
ORI				Sn	Sn	12 11 18.8	-2.3
ORI	Oriolo Calabro	5.61	313	Pn	Pn	12 10 18.2	+0.3
LJBD	Adjabya	5.62	194	*i* P	Pn	12 10 16.2	-2.0
	comp=E,7µm,1.5s,SNR=48						
BALY	Balya	5.66	52	*i* P	Pn	12 10 19.0	+0.3
BALY	Balya	5.66	52	*i* P	Pn	12 10 19.0	+0.3
HMDC	Modica	5.70	278	*i* Pnr	Pn	12 10 17.5	-1.7
	comp=E,3µm,0.8s						
RZN	Rozhen	5.75	22	P	Pn	12 10 21.5	+1.6
LTRZ	Laterza	5.76	318	*i* Pnu	Pn	12 10 19.9	-0.2
LTRZ				Sn	Sn	12 11 19.8	-5.1
HVZN	Vizzini	5.77	280	*i* Pnr	Pn	12 10 18.3	-1.8
HVZN				Sn	Sn	12 11 18.2	-6.9
BALB	Balikesir	5.78	54	*e*P	Pn	12 10 21.5	+1.2
BALB	Balikesir	5.78	54	*e*P	Pn	12 10 21.5	+1.3
FETY	Fethiye	5.85	85	*e*P	Pn	12 10 21.1	-0.1
FETY	Fethiye	5.85	85	*e*P	Pn	12 10 21.1	-0.1
DENT	Denizli	5.92	75	*e*P	Pn	12 10 20.7	-1.5
DENT	Denizli	5.92	75	*e*P	Pn	12 10 20.7	-1.5
ULC	Ulcinj	5.92	341	⇑*i*Pn	Pn	12 10 22.2	0.0
ULC				*e*Sn	Sn	12 11 28.5	-0.3
ULC	Ulcinj	5.92	341	⇑*i*Pn	Pn	12 10 22.2	0.0
ULC				*e*Sn	Sn	12 11 28.5	-0.3
WDD	Wield Dalam	5.94	267	⇓*i*Pn	Pn	12 10 20.5	-2.0
	comp=E,10µm,1.0s						
WDD				*e*Sn	Sn	12 11 25.2	-4.0
WDD	Wield Dalam	5.94	267	⇓*i*Pn	Pn	12 10 20.5	-2.0
	comp=E,10µm,1.0s						
CUC	Castrocucco	5.95	309	*e*Pn	Pn	12 10 23.1	+0.4
	comp=E,4µm,0.7s						
CUC				*e*Sn	Sn	12 11 28.2	-1.3
CUC	Castrocucco	5.95	309	*e*Pn	Pn	12 10 23.1	+0.4
	comp=E,4µm,0.7s						
CUC				*e*Sn	Sn	12 11 28.2	-1.4
KDZ	Kurdzhali	5.95	27	P	Pn	12 10 22.9	+0.2
KDZ	Kurdzhali	5.95	27	Pn	Pn	12 10 22.5	-0.2
KDZ	Kurdzhali	5.95	27	Pn	Pn	12 10 22.5	-0.2
SART	Tekirdag	6.00	43	*i* P	Pn	12 10 24.4	+1.1
VAE	Valguarnera	6.04	283	Pn	Pn	12 10 24.4	+0.4
	comp=E,25nm,0.3s,baz=17,slow=2.8,SNR=127						
VAE				Sn	Sn	12 11 33.2	+1.4
	comp=E,292nm,0.3s,baz=34,slow=12,SNR=5.6						
VAE				LR	LR	12 12 20.4	
	comp=E,34µm,19.9s,baz=357,slow=33						
VAE	Valguarnera	6.04	283	Pn	Pn	12 10 24.4	+0.5
VAE				Sn	Sn	12 11 33.2	+1.3
RAFF	Raffo Rosso	6.05	280	*i* Pnr	Pn	12 10 22.8	-1.3
	comp=E,3µm,0.7s						
PTRP	Pietrapertosa	6.13	314	Pn	Pn	12 10 26.2	+1.1
	comp=E,8µm,1.1s						
PTRP	Pietrapertosa	6.13	314	Pn	Pn	12 10 26.2	+1.1
	comp=E,8µm,1.1s						
PLD	Plovdiv	6.13	20	P	Pn	12 10 26.6	+1.5
PLD	Plovdiv	6.13	20	P	Pn	12 10 26.6	+1.5
DURS	Dursunbey	6.15	57	*i* P	Pn	12 10 25.5	+0.1
EDC	Edincik	6.17	48	*e*P	Pn	12 10 30.1	+4.4
MGR	Morigerati	6.20	309	Pn	Pn	12 10 25.9	-0.2
	comp=E,3µm,0.7s						
MGR	Morigerati	6.20	309	Pn	Pn	12 10 25.9	-0.2
	comp=E,3µm,0.7s						
BNT	Bandirma	6.21	48	*e*P	Pn	12 10 27.4	+1.2
GOLH	Golhisar	6.26	80	*i* P	Pn	12 10 26.6	-0.3
AKAS	Kas	6.28	89	*i* P	Pn	12 10 27.4	+0.3
AKAS				*i* S	Sn	12 11 38.0	+0.4
VTS	Vitosha	6.29	9	P	Pn	12 10 29.5	+2.2
VTS	Vitosha	6.29	9	⇑*i*Pn	Pn	12 10 29.1	+1.8
VTS	Vitosha	6.29	9	P	Pn	12 10 29.3	+2.0
VTS	Vitosha	6.29	9	⇑*i*Pn	Pn	12 10 29.1	+1.8
BUM	Brajici-Budva	6.33	340	⇑*i*Pn	Pn	12 10 27.5	-0.4
BUM				*e*Sn	Sn	12 11 38.3	-0.6
BUM	Brajici-Budva	6.33	340	⇑*i*Pn	Pn	12 10 27.5	-0.4
BUM				*e*Sn	Sn	12 11 38.3	-0.6
DIM	Dimitrovgrad	6.34	26	P	Pn	12 10 28.9	+0.8
DIM	Dimitrovgrad	6.34	26	Pn	Pn	12 10 28.9	+0.8
PDG	Podgorica	6.36	343	⇑*i*Pn	Pn	12 10 28.2	0.0
PDG				*e*Sn	Sn	12 11 38.4	-1.1
TTG	Podgorica	6.36	343	⇑*i*Pn	Pn	12 10 28.2	0.0
TTG				*e*Sn	Sn	12 11 38.4	-1.1
TTG	Podgorica	6.36	343	⇑*i*Pn	Pn	12 10 28.2	0.0
TTG				*e*Sn	Sn	12 11 38.4	-1.1
PVY	Plav	6.37	348	⇑*i*Pn	Pn	12 10 29.5	+1.1
PVY				*e*Sn	Sn	12 11 38.9	-0.9
PVY	Plav	6.37	348	⇑*i*Pn	Pn	12 10 29.5	+1.1
PVY				*e*Sn	Sn	12 11 38.9	-0.9
ACER	Acerenza	6.37	315	Pn	Pn	12 10 28.4	0.0
	comp=E,11µm,0.6s						
ACER	Acerenza	6.37	315	Pn	Pn	12 10 28.4	0.0
	comp=E,10µm,0.6s						
CSLB	Castelbuono	6.40	286	Pn	Pn	12 10 28.6	-0.2
	comp=E,5µm,1.1s						
CSLB	Castelbuono	6.40	286	Pn	Pn	12 10 28.6	-0.2
	comp=E,5µm,1.1s						
TKR	Tekirdag	6.41	42	*e*P	Pn	12 10 30.9	+2.0
TKR	Tekirdag	6.41	42	*e*P	Pn	12 10 30.9	+2.0
KHAL	Karahalli	6.41	70	*i* P	Pn	12 10 31.0	+2.0
PGB	Panagyurishte	6.42	16	P	Pn	12 10 30.4	+1.4
PGB	Panagyurishte	6.42	16	Pn	Pn	12 10 30.4	+1.4
BARS	Barje	6.42	360	⇑*i*Pn	Pn	12 10 30.4	+1.3
KHL	Karahalli	6.42	70	*e*P	Pn	12 10 32.6	+3.4
KCT	Karacabey	6.43	51	*e*P	Pn	12 10 31.7	+2.5
KCT	Karacabey	6.43	51	*e*P	Pn	12 10 31.7	+2.5
GIB	Gibilmanna	6.43	287	P	Pn	12 10 29.2	-0.1
GIB				pmax	pmax		
	comp=Z,6µm,0.8s						
GIB	Gibilmanna	6.43	287	Pn	Pn	12 10 29.2	-0.1
	comp=Z,6µm,0.8s						
GIB	Gibilmanna	6.43	287	Pn	Pn	12 10 29.2	-0.1
	comp=Z,6µm,0.8s						
ELL	Elmali	6.51	84	*e*P	Pn	12 10 31.6	+1.3
ELL	Elmali	6.51	84	*e*P	Pn	12 10 31.6	+1.3
HCY	Herceg Novi	6.58	338	⇑*i*Pn	Pn	12 10 30.2	-1.1
HCY				*e*Sn	Sn	12 11 43.8	-1.3
HCY	Herceg Novi	6.58	338	⇑*i*Pn	Pn	12 10 30.2	-1.1
HCY				*e*Sn	Sn	12 11 43.8	-1.3
SGO	Sicignano	6.60	311	P	Pn	12 10 32.9	+1.3
SGO	Sicignano	6.60	311	Pn	Pn	12 10 32.9	+1.3
CRLT	Corlu	6.61	42	*e*P	Pn	12 10 31.7	0.0
CRLT	Corlu	6.61	42	*e*P	Pn	12 10 31.7	0.0
GDZ	Gediz	6.63	64	*i* P	Pn	12 10 33.2	+1.1
BEY	Berane	6.65	348	⇑*i*Pn	Pn	12 10 33.3	+1.1
BEY				*e*Sn	Sn	12 11 45.5	-1.2
IVA	Berane	6.65	348	⇑*i*Pn	Pn	12 10 33.3	+1.1
IVA				*e*Sn	Sn	12 11 45.5	-1.2
IVA	Berane	6.65	348	⇑*i*Pn	Pn	12 10 33.3	+1.1
IVA				*e*Sn	Sn	12 11 45.5	-1.2
EDRB	Edirne	6.66	33	*e*P	Pn	12 10 33.6	+1.3
EDRB	Edirne	6.66	33	*e*P	Pn	12 10 33.6	+1.3
NKY	Niksic	6.78	342	⇑*i*Pn	Pn	12 10 33.8	-0.3
NKY				*e*Sn	Sn	12 11 49.1	-0.9
NKY	Niksic	6.78	342	⇑*i*Pn	Pn	12 10 33.8	-0.3
NKY				*e*Sn	Sn	12 11 49.1	-0.9
ZAPS	Zavoj	6.91	5	⇑*i*Pn	Pn	12 10 38.5	+2.7
ARMT	Armutlu	6.92	51	*e*P	Pn	12 10 36.9	+1.1
ARMT	Armutlu	6.92	51	*e*P	Pn	12 10 36.9	+1.0
SLVT	Silivri	6.94	44	*e*P	Pn	12 10 37.4	+1.2
SLVT	Silivri	6.94	44	*e*P	Pn	12 10 37.4	+1.1
CSSN	Cassano Irpino	6.96	312	Pn	Pn	12 10 36.7	+0.3
CSSN	Cassano Irpino	6.96	312	Pn	Pn	12 10 36.7	+0.3
BRY	Bratogost	6.98	340	⇑*i*Pn	Pn	12 10 35.9	-0.9
BRY				*e*Sn	Sn	12 11 53.5	-1.5
BRY	Bratogost	6.98	340	⇑*i*Pn	Pn	12 10 35.9	-0.9
BRY				*e*Sn	Sn	12 11 53.5	-1.5
NISS		7.01	1	⇑*i*Pn	Pn	12 10 38.0	+0.8
NISS		7.01	1	⇑*i*Pn	Pn	12 10 38.0	+0.8
CTT	Catalca	7.01	45	*e*P	Pn	12 10 38.2	+1.0
CTT	Catalca	7.01	45	*e*P	Pn	12 10 38.2	+1.0
ELBA	Catalca	7.01	45	*i* P	Pn	12 10 36.5	-0.8
SJES	Sjenica	7.02	349	⇑*i*Pn	Pn	12 10 37.4	+0.1
SJES				*e*Sn	Sn	12 11 51.0	-4.7
ALT	Altintas	7.08	65	*e*P	Pn	12 10 40.6	+2.4
ALT	Altintas	7.08	65	*e*P	Pn	12 10 40.6	+2.4
FG5	Orsara di Pugl	7.08	316	P	Pn	12 10 38.6	+0.4
FG5	Orsara di Pugl	7.08	316	Pn	Pn	12 10 38.6	+0.4
ISP	Isparta	7.08	76	*e*P	Pn	12 10 40.9	+2.6
ISP	Isparta	7.08	76	*e*P	Pn	12 10 38.1	-0.1
ISP	Isparta	7.08	76	P	Pn	12 10 40.2	+2.0
ISP	Isparta	7.08	76	⇑*i*P	Pn	12 10 41.5	+3.3
ISP	Isparta	7.08	76	*e*Pn	Pn	12 10 37.7	-0.5
ISP	Isparta	7.08	76	*e*Pn	Pn	12 10 37.7	-0.5
BCK	Bucak	7.10	79	*e*P	Pn	12 10 40.7	+2.3
BCK	Bucak	7.10	79	*e*P	Pn	12 10 40.7	+2.3
JMB	Yambol	7.10	30	P	Pn	12 10 38.3	-0.1
JMB	Yambol	7.10	30	P	Pn	12 10 39.6	+1.2
JMB	Yambol	7.10	30	P	Pn	12 10 38.3	-0.1
ANTB	Antalya	7.11	83	*e*P	Pn	12 10 40.7	+2.1
ANTB	Antalya	7.11	83	*e*P	Pn	12 10 40.7	+2.1
CTKS	Kestanelik-??a	7.11	45	*e*P	Pn	12 10 39.5	+0.9
CTKS	Kestanelik-??a	7.11	45	*e*P	Pn	12 10 39.5	+0.9
MRB1	Monte Rocchett	7.15	314	Pn	Pn	12 10 39.8	+0.7
	comp=Z,20µm,1.2s						
MRB1	Monte Rocchett	7.15	314	Pn	Pn	12 10 39.8	+0.7
	comp=Z,10µm,1.2s						
CTYL	Yal??k??y-??at	7.15	43	*e*P	Pn	12 10 40.7	+1.6
CTYL	Yal??k??y-??at	7.15	43	*e*P	Pn	12 10 40.7	+1.6
UPM	Unac-Piva	7.17	343	⇑*i*Pn	Pn	12 10 39.5	+0.1
UPM				*e*Sn	Sn	12 11 58.2	-1.4
UPM	Unac-Piva	7.17	343	⇑*i*Pn	Pn	12 10 39.5	+0.1
UPM				*e*Sn	Sn	12 11 58.2	-1.4
RGNG	Rignano Grg	7.18	319	Pn	Pn	12 10 38.9	-0.6
RGNG	Rignano Grg	7.18	319	Pn	Pn	12 10 38.9	-0.6
PLE	Pljevlja	7.19	346	⇑*i*Pn	Pn	12 10 40.3	+0.7
PLE				*e*Sn	Sn	12 11 58.2	-1.7
PLE	Pljevlja	7.19	346	⇑*i*Pn	Pn	12 10 40.3	+0.7
STON	Ston	7.22	335	⇑*i*Pn	Pn	12 10 38.9	-1.1
STON				Sn	Sn	12 11 55.2	-5.5
STON	Ston	7.22	335	⇑*i*Pn	Pn	12 10 38.9	-1.2
BGKT	Bogazkoy	7.23	46	*e*P	Pn	12 10 41.1	+0.8
BGKT	Bogazkoy	7.23	46	*e*P	Pn	12 10 41.1	+0.9
YLV	Yalova	7.24	52	*e*P	Pn	12 10 40.7	+0.3
YLV	Yalova	7.24	52	*e*P	Pn	12 10 40.7	+0.4
USI	Ustica	7.25	291	Pn	Pn	12 10 39.0	-1.6
	comp=Z,5µm,1.2s						
USI	Ustica	7.25	291	Pn	Pn	12 10 39.0	-1.6
	comp=Z,5µm,1.2s						
PSB1	Pescosannita	7.31	314	Pn	Pn	12 10 41.8	+0.5
	comp=Z,4µm,0.9s						
PSB1	Pescosannita	7.31	314	Pn	Pn	12 10 41.8	+0.5
	comp=Z,4µm,0.9s						
ISK	Istanbul-Kandi	7.33	48	*e*P	Pn	12 10 42.4	+0.8
ISK	Istanbul-Kandi	7.33	48	*e*P	Pn	12 10 42.4	+0.8
CAVI	Cavuskoy	7.36	56	*e*P	Pn	12 10 43.7	+1.6
CAVI	Cavuskoy	7.36	56	*e*P	Pn	12 10 43.7	+1.7
ADVT	Abdulvahap	7.41	55	*e*P	Pn	12 10 44.8	+2.1
ADVT	Abdulvahap	7.41	55	*e*P	Pn	12 10 44.8	+2.2
KLYT	Kilyos	7.43	47	*e*P	Pn	12 10 44.2	+1.2
KLYT	Kilyos	7.43	47	*e*P	Pn	12 10 44.2	+1.2
BOLS	Boljevac	7.44	1	⇑*i*Pn	Pn	12 10 43.1	+0.1
BOLS	Boljevac	7.44	1	⇑*i*Pn	Pn	12 10 43.1	+0.1
FG2	Serracapriola	7.50	318	Pn	Pn	12 10 44.1	+0.3
FG2	Serracapriola	7.50	318	Pn	Pn	12 10 44.1	+0.3
CIGN	Sant'Elia a Pi	7.53	316	Pn	Pn	12 10 45.0	+0.6
	comp=Z,20µm,2.2s						
CIGN	Sant'Elia a Pi	7.53	316	Pn	Pn	12 10 45.0	+0.6
	comp=Z,10µm,2.2s						
GRUS	Gruza	7.54	354	⇑*i*Pn	Pn	12 10 43.9	-0.6
GRUS				*e*Sn	Sn	12 12 04.3	-4.4
GRUS	Gruza	7.54	354	P	Pn	12 10 43.5	-1.0
GRUS	Gruza	7.54	354	⇑*i*Pn	Pn	12 10 43.9	-0.6
ERC	Erice	7.56	285	Pn	Pn	12 10 45.5	+0.8
ERC	Erice	7.56	285	Pn	Pn	12 10 45.5	+0.8
SZH	Strazhica	7.56	23	P	Pn	12 10 45.7	+0.9
HRT	Hereke	7.57	52	*e*P	Pn	12 10 46.7	+1.9
HRT	Hereke	7.57	52	*e*P	Pn	12 10 46.7	+1.9
SGG	Gregorio Mates	7.66	313	Pn	Pn	12 10 46.5	+0.4
	comp=Z,2µm,0.7s						
SGG	Gregorio Mates	7.66	313	Pn	Pn	12 10 46.5	+0.4
	comp=Z,2µm,0.7s						
BBLS	Lazići	7.70	347	⇑*i*Pn	Pn	12 10 46.1	-0.5
BBLS				*e*Sn	Sn	12 12 07.8	-4.8
BBLS	Lazići	7.70	347	P	Pn	12 10 46.0	-0.6
BBLS	Lazići	7.70	347	P	Pn	12 10 46.0	-0.6
SILT	Sile	7.74	50	*e*P	Pn	12 10 48.0	+0.8
SILT	Sile	7.74	50	*e*P	Pn	12 10 48.0	+0.8
SWA2		7.75	156	⇓P	Pn	12 10 44.7	-2.6
SWA2				S	Sn	12 12 05.4	-8.4
EYL	Eskiyayla	7.75	55	*e*P	Pn	12 10 49.6	+2.3
ZIMR		7.75	19	⇑*i*P	Pn	12 10 50.3	+2.9
ESKT	Eskisehir	7.78	64	*e*P	Pn	12 10 51.6	+3.8
DIVS	Divibare	7.83	350	⇑*i*Pn	Pn	12 10 47.9	-0.6
DIVS				*e*Sn	Sn	12 12 10.4	-5.4
DIVS	Divibare	7.83	350	⇑*i*Pn	Pn	12 10 47.9	-0.6
SVIS	Svilajnac	7.89	357	⇑*i*Pn	Pn	12 10 48.3	-0.9
SVIS				*e*Sn	Sn	12 12 14.2	-2.9
MIDA	Miranda	7.89	314	Pn	Pn	12 10 49.7	+0.4
	comp=Z,3µm,0.8s						
MIDA	Miranda	7.89	314	Pn	Pn	12 10 49.7	+0.4
	comp=Z,3µm,0.8s						
TRUS	Trudelj	7.91	353	⇑*i*Pn	Pn	12 10 47.9	-1.6
TRUS	Trudelj	7.91	353	⇑*i*Pn	Pn	12 10 47.9	-1.6
VENT	Ventotene	7.92	306	Pn	Pn	12 10 49.2	-0.5
	comp=Z,1µm,1.0s						
VENT	Ventotene	7.92	306	Pn	Pn	12 10 49.2	-0.5
	comp=Z,1µm,1.0s						
PTS	Pantelleria	7.92	276	P	Pn	12 10 47.5	-2.2
PTS				pmax	pmax		
	comp=Z,1µm,1.4s						
PTS	Pantelleria	7.92	276	Pn	Pn	12 10 47.5	-2.2
	comp=Z,1µm,1.4s						
PTS	Pantelleria	7.92	276	Pn	Pn	12 10 47.5	-2.2
	comp=Z,1µm,1.4s						
RNI2	Rionero Sannit	7.99	314	Pn	Pn	12 10 51.8	+1.1
	comp=Z,7µm,1.2s						
RNI2	Rionero Sannit	7.99	314	Pn	Pn	12 10 51.8	+1.1
	comp=Z,7µm,1.2s						
CRAR	CRAIOVA	8.07	10	P	Pn	12 10 52.8	+1.1
CRAR	CRAIOVA	8.07	10	P	Pn	12 10 52.8	+1.1
SDI	San Donato	8.20	313	P	Pn	12 10 53.2	-0.3
SDI	San Donato	8.20	313	Pn	Pn	12 10 53.2	-0.3
SVRH	Sivrihisar-ESK	8.25	65	*e*P	Pn	12 10 57.2	+3.1
SVRH	Sivrihisar-ESK	8.25	65	*e*P	Pn	12 10 57.2	+3.0
DJES	Djerdap	8.29	3	⇓*i*Pn	Pn	12 10 54.8	+0.1
INTR	Introdacqua	8.33	315	Pn	Pn	12 10 56.0	+0.7
	comp=Z,6µm,1.1s						
INTR	Introdacqua	8.33	315	Pn	Pn	12 10 56.0	+0.7
	comp=Z,6µm,1.1s						
KIZT	Kizilcal	8.35	70	*e*P	Pn	12 10 59.3	+3.7
VVLD	Villa Vallelon	8.41	313	Pn	Pn	12 10 56.3	-0.1
	comp=Z,3µm,0.8s						
VVLD	Villa Vallelon	8.41	313	Pn	Pn	12 10 56.3	-0.1
	comp=Z,3µm,0.8s						
MDU	Mudurnu	8.41	58	*e*P	Pn	12 10 59.7	+3.2
BEO	Beograd	8.48	353	⇓*i*Pn	Pn	12 10 57.0	-0.3
KONT	Konya--Tatoy	8.55	76	*e*P	Pn	12 11 00.1	+1.8

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KONT  Konya--Tatoy      8.55  76  eP    Pn    12 11 00.1 +1.8
BUC1  Bucharest         8.57  21⇑iP     Pn    12 11 01.4 +2.8
BUC1  Bucharest         8.57  21   P    Pn    12 11 00.3 +1.7
BUC1  Bucharest         8.57  21   P    Pn    12 11 00.3 +1.7
HDMB  Hadim             8.58  83  eP    Pn    12 10 59.4 +0.7
HDMB  Hadim             8.58  83  eP    Pn    12 10 59.4 +0.7
PTQR  Pietraquaria      8.63 313   Pn   Pn    12 11 00.1 +0.7
PTQR  Pietraquaria      8.63 313   Pn   Pn    12 11 00.1 +0.7
PPCY  Paphos            8.69  97   P    Pn    12 10 56.7 -3.5
ALFC  Alevga            8.84  95   P    Pn    12 10 58.6 -3.7
      comp=Z,58nm,0.7s
ALFC                               S    Sn    12 12 30.8  -10
CERT  Cerreto           8.84 312   Pn   Pn    12 11 02.0 -0.2
      comp=Z,1μm,0.8s
CERT  Cerreto           8.84 312   Pn   Pn    12 11 02.0 -0.2
      comp=Z,1μm,0.8s
RDP   Rocca di Papa     8.89 310   P    Pn    12 11 02.5 -0.4
RDP                                pmax pmax
      comp=Z,2μm,0.9s
RDP   Rocca di Papa     8.89 310   Pn   Pn    12 11 02.5 -0.4
      comp=Z,2μm,0.9s
RDP   Rocca di Papa     8.89 310   Pn   Pn    12 11 02.5 -0.4
      comp=Z,2μm,0.9s
FRGS  Fruska Gora       8.90 351  ePn   Pn    12 11 01.1 -1.9
FRGS                              eSn   Sn    12 12 33.7 -8.3
TERO  Teramo            8.90 317   Pn   Pn    12 11 03.4 +0.3
      comp=Z,3μm,1.2s
TERO  Teramo            8.90 317   Pn   Pn    12 11 03.4 +0.3
      comp=Z,3μm,1.2s
FIAM  Fiamignano        8.95 314   Pn   Pn    12 11 04.8 +1.0
      comp=Z,2μm,1.0s
FIAM  Fiamignano        8.95 314   Pn   Pn    12 11 04.8 +1.0
      comp=Z,2μm,1.0s
KDZE  Karadeniz Ereo    8.97  54  eP    Pn    12 11 06.5 +2.5
KDZE  Karadeniz Ereo    8.97  54  eP    Pn    12 11 06.5 +2.5
MTCE  Montecelio        9.02 311   Pn   Pn    12 11 04.4 -0.4
      comp=Z,2μm,1.3s
MTCE  Montecelio        9.02 311   Pn   Pn    12 11 04.4 -0.4
      comp=Z,2μm,1.3s
GZR   Gura Zlata        9.03   4⇑iP     Pn    12 11 05.7 +0.9
GZR   Gura Zlata        9.03   4   P    Pn    12 11 05.2 +0.4
GZR   Gura Zlata        9.03   4   P    Pn    12 11 05.2 +0.4
ROM9  Roma              9.05 310   Pn   Pn    12 11 05.8 +0.6
      comp=Z,3μm,1.0s
ROM9  Roma              9.05 310   Pn   Pn    12 11 05.8 +0.6
      comp=Z,3μm,1.0s
BLY   Banja Luka        9.07 339   P    Pn    12 11 04.0 -1.4
BLY   Banja Luka        9.07 339   P    Pn    12 11 04.0 -1.4
LEF   Lefka             9.08  95  eP    Pn    12 11 01.1 -4.5
SZAC  Souni-Zanaja      9.15  97   P    Pn    12 11 03.0 -3.6
SZAC                               S    Sn    12 12 38.4  -10
BZS   Buzias            9.22 359 ⇓P     Pn    12 11 07.0 -0.5
BZS   Buzias            9.22 359⇑iPn    Pn    12 11 06.5 -1.0
BZS   Buzias            9.22 359⇓iP     Pn    12 11 06.9 -0.6
BZS   Buzias            9.22 359   P    Pn    12 11 06.6 -0.9
BZS   Buzias            9.22 359⇑iPn    Pn    12 11 06.5 -1.0
MNS   Montasola         9.28 313   P    Pn    12 11 08.3 +0.1
MNS                                pmax pmax
      comp=Z,3μm,1.8s
MNS   Montasola         9.28 313   Pn   Pn    12 11 08.3 +0.1
      comp=Z,3μm,1.8s
MNS   Montasola         9.28 313   Pn   Pn    12 11 08.3 +0.1
      comp=Z,3μm,1.8s
LOD   Lodumlu           9.29  65  eP    Pn    12 11 11.9 +3.4
MAMC  Mammari           9.33  94   P    Pn    12 11 08.0 -1.1
MAMC  Mammari           9.33  94   P    Pn    12 11 08.0 -1.1
VOIR                    9.37  14⇓iP     Pn    12 11 11.1 +1.6
VOIR                    9.37  14   P    Pn    12 11 11.1 +1.6
VOIR                    9.37  14   P    Pn    12 11 11.1 +1.6
BALAT Bala              9.46  67  i P   Pn    12 11 15.8 +5.1
CSS   Prodhromos        9.46  95   P    Pn    12 11 07.9 -3.0
CSS                                S    Sn    12 12 45.8  -10
SULT  Sultanhani-AKS    9.48  76  eP    Pn    12 11 13.0 +1.8
SULT  Sultanhani-AKS    9.48  76  eP    Pn    12 11 13.0 +1.9
TIRR  Tirgusor          9.49  30⇑iP     Pn    12 11 12.7 +1.5
TIRR  Tirgusor          9.49  30  ePn   Pn    12 11 11.1 -0.1
      comp=Z,1μm,1.1s
TIRR  Tirgusor          9.49  30  ePn   Pn    12 11 11.1 -0.1
      comp=Z,1μm,1.1s
TIRR  Tirgusor          9.49  30   P    Pn    12 11 12.7 +1.5
HARR  Harsova           9.50  27⇑iP     Pn    12 11 12.9 +1.5
HARR  Harsova           9.50  27   P    Pn    12 11 12.3 +1.0
HARR  Harsova           9.50  27   P    Pn    12 11 12.3 +0.9
TOLF  Tolfa             9.50 310   Pn   Pn    12 11 11.0 -0.4
TOLF  Tolfa             9.50 310   Pn   Pn    12 11 11.0 -0.4
AOI   Ancona            9.54 321   Pn   Pn    12 11 10.4 -1.5
      comp=Z,2μm,1.1s
AOI   Ancona            9.54 321   Pn   Pn    12 11 10.4 -1.5
      comp=Z,2μm,1.1s
LFK   Lefkose           9.56  93  eP    Pn    12 11 14.1 +1.9
LFK   Lefkose           9.56  93  eP    Pn    12 11 14.1 +1.8
IKL   Isikli            9.57  87  eP    Pn    12 11 11.3 -1.0
IKL   Isikli            9.57  87  eP    Pn    12 11 11.3 -1.0
MLR   Muntele Rosu      9.61  18⇓iP     Pn    12 11 15.3 +2.4
MLR   Muntele Rosu      9.61  18   Pn   Pn    12 11 14.0 +1.1
      comp=Z,2.1nm,0.3s,baz=205,slow=7.2,SNR=141
MLR                                Lg         12 14 01.2
      comp=Z,2.3nm,0.3s,baz=150,slow=16,SNR=2.0
MLR   Muntele Rosu      9.61  18   P    Pn    12 11 14.3 +1.4
MLR   Muntele Rosu      9.61  18  ePn   Pn    12 11 14.1 +1.2
      baz=201
CING  Cingoli           9.63 319   Pn   Pn    12 11 12.5 -0.6
      comp=Z,593nm,0.8s
CING  Cingoli           9.63 319   Pn   Pn    12 11 12.5 -0.6
      comp=Z,593nm,0.8s
SNTG  Esanatoglia       9.68 318   Pn   Pn    12 11 15.0 +1.2
SNTG  Esanatoglia       9.68 318   Pn   Pn    12 11 15.0 +1.2
NVLJ  Novalja           9.74 329  ePn   Pn    12 11 14.1 -0.4
NVLJ  Novalja           9.74 329  ePn   Pn    12 11 14.1 -0.4
SAFT  Safranbolu        9.76  57  eP    Pn    12 11 17.4 +2.5
SAFT  Safranbolu        9.76  57  eP    Pn    12 11 17.4 +2.5
RHK3  Tenkes            9.87 345⇓eP     Pn    12 11 15.0 -1.4
BR131 Keskin Array S    9.89  67  ePn   Pn    12 11 19.6 +2.9
      baz=254
BRTR  Keskin Array B    9.89  67   Pn   Pn    12 11 19.4 +2.7
      comp=Z,2.6nm,0.3s,baz=251,slow=14,SNR=244
BRTR                               LR   LR    12 15 50.2
      comp=Z,151μm,18.8s,baz=245,slow=42
BRTR  Keskin Array B    9.89  67   Pn   Pn    12 11 19.4 +2.7
MURB  Monte Urbino      9.92 317   Pn   Pn    12 11 17.8 +0.8
      comp=Z,3μm,0.9s
MURB  Monte Urbino      9.92 317   Pn   Pn    12 11 17.8 +0.8
      comp=Z,3μm,0.9s
MDB   Medias            9.94  10   P    Pn    12 11 19.9 +2.6
HNAT  Natroun           9.98 130 ⇑P     Pn    12 11 14.6 -3.4
HNAT  Natroun           9.98 130   P    Pn    12 11 14.6 -3.4
HMYD  Mayadein          9.98 129 ⇓P     Pn    12 11 14.2 -3.8
HMYD  Mayadein          9.98 129   P    Pn    12 11 14.2 -3.8
AWBH                   10.02 141 ⇑P     Pn    12 11 15.6 -2.9
AWBH                   10.02 141   P    Pn    12 11 15.6 -2.9
PHNC  Paralimni        10.02  94   P    Pn    12 11 20.6 +2.1
      comp=Z,74nm,0.8s
PHNC                               S    Sn    12 13 03.3 -6.3
PHNC  Paralimni        10.02  94   P    Pn    12 11 20.6 +2.1
      comp=Z,74nm,0.8s
FSSB  Fossombrone      10.07 319   Pn   Pn    12 11 18.2 -0.9
      comp=Z,972nm,0.5s
FSSB  Fossombrone      10.07 319   Pn   Pn    12 11 18.2 -0.9
      comp=Z,972nm,0.5s
PIEI  Pieia            10.09 318   Pn   Pn    12 11 19.4  0.0
      comp=Z,1μm,0.9s
PIEI  Pieia            10.09 318   Pn   Pn    12 11 19.4  0.0
      comp=Z,1μm,0.9s
PKSM  Moragy           10.11 347⇑iPn    Pn    12 11 17.5 -2.1
PKSM  Moragy           10.11 347   P    Pn    12 11 17.8 -1.8
PKSM  Moragy           10.11 347⇑iPn    Pn    12 11 17.5 -2.1
PLOR  Plostina         10.13  19   P    Pn    12 11 21.6 +1.7
PLOR  Plostina         10.13  19   P    Pn    12 11 21.6 +1.7
KEST  Kesra            10.13 270   Pn   Pn    12 11 18.8 -1.2
      comp=Z,1.7nm,0.3s,baz=40,slow=5.3,SNR=70
KEST                               Sn   Sn    12 13 08.1 -4.3
      comp=Z,1.8nm,0.3s,baz=53,slow=20,SNR=2.8
KEST                               LR   LR    12 16 26.7
      comp=Z,31μm,19.4s,baz=29,slow=44
KEST  Kesra            10.13 270  ePn   Pn    12 11 18.7 -1.3
      baz=84
CANT  Cankiri          10.15  62  eP    Pn    12 11 23.3 +3.1
VRI   Vrincioaia       10.16  20⇓iP     Pn    12 11 22.7 +2.3
VRI   Vrincioaia       10.16  20   P    Pn    12 11 21.7 +1.3
VRI   Vrincioaia       10.16  20   P    Pn    12 11 21.7 +1.3
SQR                    10.18 127 ⇓P     Pn    12 11 16.5 -4.2
SQR                    10.18 127   P    Pn    12 11 16.5 -4.2
CDCA  Citt‘ di Caste   10.21 317   Pn   Pn    12 11 23.8 +2.8
      comp=Z,4μm,1.2s
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MERS  Mersin           10.21  84  eP    Pn    12 11 21.3 +0.2
MERS  Mersin           10.21  84  eP    Pn    12 11 21.3 +0.2
BADI  Badiali          10.23 317   Pn   Pn    12 11 23.2 +1.8
      comp=Z,2μm,1.1s
BADI  Badiali          10.23 317   Pn   Pn    12 11 23.2 +1.8
      comp=Z,2μm,1.1s
MAON  Monte Argentar   10.24 309   Pn   Pn    12 11 21.3 -0.2
      comp=Z,628nm,1.2s
MAON  Monte Argentar   10.24 309   Pn   Pn    12 11 21.3 -0.2
      comp=Z,628nm,1.2s
TLCR                   10.26  29⇓iP     Pn    12 11 22.9 +1.2
TLCR                   10.26  29 ⇓P     Pn    12 11 22.9 +1.2
TLCR                   10.26  29   P    Pn    12 11 22.9 +1.2
AYT   Al ‘Ayyat        10.27 128 ⇓P     Pn    12 11 19.1 -2.8
AYT   Al ‘Ayyat        10.27 128   P    Pn    12 11 19.1 -2.8
PKS2  Kecel            10.29 350⇑eP     Pn    12 11 20.8 -1.3
VSL   Villasalto       10.31 291  ePn   Pn    12 11 20.9 -1.6
VSL                               eSn   Sn    12 13 14.9 -1.9
VSL   Villasalto       10.31 291  ePn   Pn    12 11 20.9 -1.6
VSL                               eSn   Sn    12 13 14.9 -1.9
NIG   Nigde            10.33  77  eP    Pn    12 11 23.9 +1.2
NIG   Nigde            10.33  77  eP    Pn    12 11 23.9 +1.1
PKS6  Bocsa            10.35 351⇑eP     Pn    12 11 22.5 -0.4
BOJS  Bojanci          10.38 333  i Pn  Pn    12 11 22.3 -1.0
BOJS                              i Sn  Sn    12 13 10.0 -8.3
BOJS  Bojanci          10.38 333  i Pn  Pn    12 11 22.3 -1.0
RSM   Repubblica di    10.40 319   P    Pn    12 11 23.6 -0.1
RSM   Repubblica di    10.40 319   Pn   Pn    12 11 23.6 -0.1
DRGR                   10.42   3⇓iP     Pn    12 11 24.8 +0.9
DRGR                   10.42   3   P    Pn    12 11 24.4 +0.5
DRGR                   10.42   3   P    Pn    12 11 24.4 +0.5
PKS9  Tamasi           10.54 346⇑eP     Pn    12 11 23.7 -1.8
KOT   Kottamia         10.56 125   P    Pn    12 11 22.6 -3.3
KOT                                S    Sn    12 13 10.3  -13
KOT   Kottamia         10.56 125   P    Pn    12 11 22.6 -3.3
KOT                                S    Sn    12 13 10.3  -13
HSAF  As Saff          10.59 127 ⇑P     Pn    12 11 22.8 -3.5
HSAF  As Saff          10.59 127   P    Pn    12 11 22.8 -3.4
TOS   Tosya            10.60  60  eP    Pn    12 11 28.0 +1.7
TOS   Tosya            10.60  60  eP    Pn    12 11 28.0 +1.7
AVNT  Avonos           10.61  73  i P   Pn    12 11 29.9 +3.4
KARA  Karaisali        10.64  81  eP    Pn    12 11 27.5 +0.6
KARA  Karaisali        10.64  81  eP    Pn    12 11 27.5 +0.6
SFI   Santa Sofia      10.71 318   P    Pn    12 11 28.3 +0.4
SFI                                pmax pmax
      comp=Z,2μm,1.2s
SFI   Santa Sofia      10.71 318   Pn   Pn    12 11 28.3 +0.4
      comp=Z,2μm,1.2s
GLL   Jalalah          10.71 127 ⇑P     Pn    12 11 24.3 -3.7
GLL   Jalalah          10.71 127   P    Pn    12 11 24.3 -3.7
HFRF  Wahat Farafira   10.73 147 ⇓P     Pn    12 11 25.1 -3.2
HFRF  Wahat Farafira   10.73 147   P    Pn    12 11 25.1 -3.1
CSNT  Castellina Chi   10.75 314   Pn   Pn    12 11 28.7 +0.3
CSNT  Castellina Chi   10.75 314   Pn   Pn    12 11 28.7 +0.3
CORM  Corum            10.75  66  eP    Pn    12 11 29.6 +1.2
CORM  Corum            10.75  66  eP    Pn    12 11 29.6 +1.2
BEHE  Becsehely        10.77 341⇑eP     Pn    12 11 27.6 -1.0
VISS  Visnje           10.78 333  i Pn  Pn    12 11 27.7 -1.2
VISS                              i Sn  Sn    12 13 20.6 -7.6
VISS  Visnje           10.78 333  i Pn  Pn    12 11 27.7 -1.2
CEY   Cerknica         10.88 331   P    Pn    12 11 29.0 -1.2
CEY   Cerknica         10.88 331   P    Pn    12 11 29.0 -1.2
SKDS  Skadanscina      10.89 330  ePn   Pn    12 11 28.4 -1.9
SKDS                              eSn   Sn    12 13 20.3  -10
KRTS  Karatas          10.91  85  eP    Pn    12 11 28.8 -1.8
KRTS  Karatas          10.91  85  eP    Pn    12 11 28.8 -1.8
VMG   Vicchio          10.91 317   Pn   Pn    12 11 33.3 +2.6
      comp=Z,985nm,1.0s
BZK   Bozkurt          10.96  56  eP    Pn    12 11 32.1 +0.7
BZK   Bozkurt          10.96  56  eP    Pn    12 11 32.1 +0.8
SEI   Scarperia        11.08 317   Pn   Pn    12 11 36.0 +3.1
      comp=Z,2μm,0.8s
AMAG  Maghara          11.08 118   P    Pn    12 11 29.1 -4.0
AMAG  Maghara          11.08 118   P    Pn    12 11 29.1 -4.0
TRI   Trieste          11.12 329  eP    Pn    12 11 31.8 -1.7
TRI                               e           12 13 35.3
TRI                                pmax pmax
      comp=Z,430nm,0.8s
TRI   Trieste          11.12 329  ePn   Pn    12 11 31.8 -1.8
      comp=Z,430nm,0.8s
TRI                               eSn   Sn    12 13 35.3 -1.3
TRI   Trieste          11.12 329  ePn   Pn    12 11 31.8 -1.7
      comp=Z,430nm,0.8s
TRI                               eSn   Sn    12 13 35.3 -1.3
YOZ   Yozgat           11.13  69  eP    Pn    12 11 36.1 +2.5
YOZ   Yozgat           11.13  69  eP    Pn    12 11 36.1 +2.5
JAVS  Javornik         11.15 331  i Pn  Pn    12 11 32.4 -1.5
JAVS                              i Sn  Sn    12 13 29.0 -8.3
JAVS  Javornik         11.15 331  i Pn  Pn    12 11 32.4 -1.5
OSPF  L’Ospedale       11.15 302  eP    Pn    12 11 33.5 -0.5
OSPF  L’Ospedale       11.15 302  eP    Pn    12 11 33.5 -0.5
KOZT  Kozan            11.26  80  eP    Pn    12 11 33.7 -1.7
KOZT  Kozan            11.26  80  eP    Pn    12 11 33.7 -1.7
FNVD  Fontana Vidola   11.28 317   Pn   Pn    12 11 35.7 +0.1
      comp=Z,1μm,0.9s
FNVD  Fontana Vidola   11.28 317   Pn   Pn    12 11 35.7 +0.1
      comp=Z,1μm,0.9s
BYBT  Boyabat          11.28  59  eP    Pn    12 11 38.6 +2.9
BYBT  Boyabat          11.28  59  eP    Pn    12 11 38.6 +2.9
BUD   Budapest         11.29 350⇓eP     Pn    12 11 35.4 -0.3
BUD   Budapest         11.29 350⇓eP     Pn    12 11 35.4 -0.3
PKSG                   11.29 348⇑eP     Pn    12 11 33.9 -1.9
SUZ                    11.29 122 ⇑P     Pn    12 11 32.2 -3.7
SUZ                    11.29 122   P    Pn    12 11 32.2 -3.7
VOY   Vojsko           11.34 331  ePn   Pn    12 11 34.2 -2.2
VOY   Vojsko           11.34 331  ePn   Pn    12 11 34.2 -2.2
VOJS  Vojsko           11.34 331  ePn   Pn    12 11 34.8 -1.6
VOJS                              eSn   Sn    12 13 32.0  -10
VOJS  Vojsko           11.34 331  ePn   Pn    12 11 34.8 -1.7
PII   Pisa             11.34 314   P    Pn    12 11 37.3 +0.8
PII                                pmax pmax
      comp=Z,179nm,0.7s
PII   Pisa             11.34 314   Pn   Pn    12 11 37.3 +0.8
      comp=Z,178nm,0.7s
PII   Pisa             11.34 314   Pn   Pn    12 11 37.3 +0.8
      comp=Z,178nm,0.7s
BMR   Baia Mare        11.35   6   P    Pn    12 11 37.9 +1.3
BMR   Baia Mare        11.35   6   P    Pn    12 11 37.8 +1.2
BNN   Bunyan           11.38  73  eP    Pn    12 11 37.0 -0.2
BNN   Bunyan           11.38  73  eP    Pn    12 11 37.0 -0.1
FIU   Minerbio Fiu     11.39 320   Pn   Pn    12 11 39.1 +1.9
      comp=Z,2μm,1.2s
FIU   Minerbio Fiu     11.39 320   Pn   Pn    12 11 39.1 +1.9
      comp=Z,2μm,1.2s
PERS  Pernice          11.41 336  i Pn  Pn    12 11 35.7 -1.7
PERS                              i Sn  Sn    12 13 34.4 -9.1
PERS  Pernice          11.41 336  i Pn  Pn    12 11 35.7 -1.7
BISS  Bistriski jare   11.41 336⇑iPn    Pn    12 11 35.8 -1.7
BISS  Bistriski jare   11.41 336⇑iPn    Pn    12 11 35.8 -1.7
MATL  Matirih          11.45 101  ePn   Pn    12 11 39.0 +1.0
ZAF                    11.46 125 ⇓P     Pn    12 11 34.5 -3.7
ZAF                    11.46 125   P    Pn    12 11 34.5 -3.7
SOKA  Soboth           11.47 336⇑iPn    Pn    12 11 36.6 -1.7
SOKA                            ⇑iSn    Sn    12 13 36.8 -8.2
MAIM  Mastiano         11.48 314   Pn   Pn    12 11 38.3 -0.1
      comp=Z,628nm,1.2s
MAIM  Mastiano         11.48 314   Pn   Pn    12 11 38.3 -0.1
      comp=Z,628nm,1.2s
OBKA  Obir             11.49 334⇓iPn    Pn    12 11 36.8 -1.8
      SNR=94
OBKA                            ⇑iSn    Sn    12 13 39.4 -6.2
OBKA  Obir             11.49 334  ePn   Pn    12 11 36.8 -1.7
      baz=150
BURAR Bucovina Array   11.50  12   P    Pn    12 11 40.6 +1.9
BURAR Bucovina Array   11.50  12   P    Pn    12 11 40.6 +1.9
BUR02 Bucovina Ar. S   11.50  12   P    Pn    12 11 40.6 +1.9
BUR02 Bucovina Ar. S   11.50  12   P    Pn    12 11 40.6 +1.9
BDI   Bagni Di Lucca   11.51 315   P    Pn    12 11 38.4 -0.4
BDI                                pmax pmax
      comp=Z,551nm,1.1s
BDI   Bagni Di Lucca   11.51 315   Pn   Pn    12 11 38.4 -0.4
      comp=Z,551nm,1.1s
BDI   Bagni Di Lucca   11.51 315   Pn   Pn    12 11 38.4 -0.4
      comp=Z,551nm,1.1s
BUR08 Bucovina Ar. S   11.53  11  ePn   Pn    12 11 40.1 +1.1
BUR08 Bucovina Ar. S   11.53  11  ePn   Pn    12 11 40.1 +1.1
DRE   Drenchia         11.55 330⇓iP     Pn    12 11 38.0 -1.4
DRE   Drenchia         11.55 330⇓iP     Pn    12 11 38.0 -1.4
HTY   Hatay            11.56  87  eP    Pn    12 11 36.1 -3.4
BHL   Bhannes          11.58  98  ePn   Pn    12 11 35.9 -4.0
CMAH  Djebel Manchou   11.60 275   P    Pn    12 11 39.4 -0.8
CMAH  Djebel Manchou   11.60 275   P    Pn    12 11 39.4 -0.8
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PSZ   Piszkesteto      11.62 354⇑iP     Pn    12 11 39.8 -0.4
PSZ   Piszkesteto      11.62 354⇓eP     Pn    12 11 41.3 +1.1
PSZ   Piszkesteto      11.62 354  ePn   Pn    12 11 38.4 -1.9
PSZ                               eSn   Sn    12 13 45.1 -3.5
PSZ   Piszkesteto      11.62 354  ePn   Pn    12 11 38.8 -1.4
      baz=173
COLI  Coloredo         11.62 330⇑iP     Pn    12 11 40.0 -0.4
COLI  Coloredo         11.62 330⇑iP     Pn    12 11 40.0 -0.4
MMAI  Mount Meron Ar   11.66 103   Pn   Pn    12 11 35.7 -5.3
      comp=Z,21nm,0.3s,baz=313,slow=11,SNR=32
MMAI                               Sn   Sn    12 13 40.0  -10
      comp=Z,92nm,0.3s,baz=311,slow=26,SNR=8.7
RAVA  Ravarino         11.66 319   Pn   Pn    12 11 42.5 +1.6
      comp=Z,2μm,1.2s
RAVA  Ravarino         11.66 319   Pn   Pn    12 11 42.5 +1.6
      comp=Z,2μm,1.2s
PGF   Pioggiola        11.67 306  eP    Pn    12 11 41.4 +0.4
PGF   Pioggiola        11.67 306  eP    Pn    12 11 41.4 +0.4
ANDN  Andirin          11.67  80  i P   Pn    12 11 37.7 -3.4
VLC   Villacollemand   11.69 315   Pn   Pn    12 11 41.5 +0.3
      comp=Z,768nm,1.6s
VLC   Villacollemand   11.69 315   Pn   Pn    12 11 41.5 +0.3
      comp=Z,768nm,1.6s
HWQ   Hawqa            11.72  96  ePn   Pn    12 11 38.5 -3.3
TRPA  Tarpa            11.75   2⇓iP     Pn    12 11 42.7 +0.6
TRPA  Tarpa            11.75   2⇑eP     Pn    12 11 42.1  0.0
PINB  Pinarbasi        11.79  74  i P   Pn    12 11 44.2 +1.5
GMNA  Gemona           11.80 330   Pn   Pn    12 11 41.4 -1.3
GMNA  Gemona           11.80 330   Pn   Pn    12 11 41.4 -1.3
KIS   Kishinev         11.81  24⇑iP     Pn    12 11 42.0 -1.0
KIS                               i S   Sn    12 13 48.0 -5.4
KIS                                pmax pmax
      comp=E,600nm,1.0s
KIS                                pmax pmax
      comp=Z,700nm,1.0s
KIS                                pmax pmax
      comp=N,800nm,1.5s
KIS                                pmax pmax
      comp=N,8μm,2.0s
KIS                                pmax pmax
      comp=Z,7μm,3.0s
KIS                                pmax pmax
      comp=Z,10μm,18.0s
KIS                                MLR  MLR
      comp=Z,104μm,16.0s
KIS   Kishinev         11.81  24⇑iP     Pn    12 11 42.0 -1.0
      comp=Z,700nm,1.0s
KIS                               i S   Sn    12 13 48.0 -5.4
KIS                               i Li        12 14 18.0
KIS                               i LQ        12 15 25.0
KIS                                LRM        12 16 50.0
      comp=Z,104μm,16.0s
KIS   Kishinev         11.81  24   P    Pn    12 11 43.7 +0.8
KIS   Kishinev         11.81  24   P    Pn    12 11 43.7 +0.7
ARSA  Arzberg          11.83 339  i Pn  Pn    12 11 41.3 -1.8
      SNR=48
ARSA                            ⇓iSn    Sn    12 13 47.1 -6.7
ARSA  Arzberg          11.83 339  ePn   Pn    12 11 41.2 -1.9
      baz=155
ERBM  Eremo            11.83 316   Pn   Pn    12 11 44.7 +1.5
      comp=Z,5μm,2.2s
ERBM  Eremo            11.83 316   Pn   Pn    12 11 44.7 +1.5
      comp=Z,5μm,2.2s
RCY   Rachaya          11.84 100  ePn   Pn    12 11 38.2 -5.1
LSR   Lussari          11.85 331⇑eP     Pn    12 11 42.0 -1.4
LSR   Lussari          11.85 331⇑eP     Pn    12 11 42.0 -1.4
PTCC  Patocco-Chiusa   11.86 330   Pn   Pn    12 11 41.6 -1.9
PTCC  Patocco-Chiusa   11.86 330   Pn   Pn    12 11 41.6 -1.9
MYKA  Terra Mystica    11.93 332⇑iPn    Pn    12 11 42.8 -1.7
MYKA                            ⇑iSn    Sn    12 13 51.1 -5.2
SOP   Sopron           11.95 343⇑eP     Pn    12 11 42.8 -2.0
SOP   Sopron           11.95 343⇑eP     Pn    12 11 42.8 -2.0
SARI  SarD1z-Kayseri   12.02  75  eP    Pn    12 11 44.4 -1.5
SARI  SarD1z-Kayseri   12.02  75  eP    Pn    12 11 44.4 -1.5
HNKL  Nakhl            12.04 119   P    Pn    12 11 42.6 -3.5
HNKL                               S    Sn    12 13 45.2  -14
HNKL  Nakhl            12.04 119   P    Pn    12 11 42.6 -3.5
HNKL                               S    Sn    12 13 45.2  -14
KVT   Kavak            12.05  63  eP    Pn    12 11 48.5 +2.3
KVT   Kavak            12.05  63  eP    Pn    12 11 48.5 +2.3
CAEH  ’Ain El Ouahch   12.05 276   P    Pn    12 11 45.8 -0.5
CAEH  ’Ain El Ouahch   12.05 276   P    Pn    12 11 45.8 -0.5
PLRO  Paularo          12.06 330⇑eP     Pn    12 11 46.0 -0.3
PLRO  Paularo          12.06 330⇑eP     Pn    12 11 46.0 -0.3
FKH   Fakeheh          12.10  96  ePn   Pn    12 11 43.3 -3.6
KMRS  Kahramanmaras    12.11  80  eP    Pn    12 11 45.9 -1.1
KMRS  Kahramanmaras    12.11  80  eP    Pn    12 11 45.9 -1.2
KECS  Kecovo           12.13 356  i PN  Pn    12 11 46.6 -0.7
KECS                              eSN   Sn    12 13 54.9 -6.3
TOKA  Tokat            12.15  67  i P   Pn    12 11 50.8 +3.2
CKFL  Kef-Lekhel       12.18 275   P    Pn    12 11 48.5 +0.4
CKFL  Kef-Lekhel       12.18 275   P    Pn    12 11 48.5 +0.4
TOKT  Tokat            12.20  67  eP    Pn    12 11 49.2 +0.9
TOKT  Tokat            12.20  67  eP    Pn    12 11 49.2 +0.9
UZH   Uzhgorod         12.24   1   P    Pn    12 11 48.0 -0.8
UZH                               eS    Sn    12 14 02.0 -1.9
UZH                                MLR  MLR
      comp=N,74μm,17.0s
UZH                                MLR  MLR
      comp=E,85μm,17.0s
UZH                                MLR  MLR
      comp=Z,70μm,17.0s
UZH   Uzhgorod         12.24   1   P    Pn    12 11 48.0 -0.8
KUZU  Kuzuini          12.26  84  i P   Pn    12 11 44.2 -4.9
VYHS  Vyhne            12.30 351  i PN  Pn    12 11 47.1 -2.5
VYHS                              eSN   Sn    12 13 57.4 -7.9
VYHS  Vyhne            12.30 351  i P   Pn    12 11 47.1 -2.5
CTI   Castel Tesino    12.32 325   P    Pn    12 11 48.2 -1.6
CTI   Castel Tesino    12.32 325   P    Pn    12 11 48.2 -1.6
SC2M  Scurtabo         12.32 314   Pn   Pn    12 11 49.8 -0.1
      comp=Z,532nm,1.2s
SC2M  Scurtabo         12.32 314   Pn   Pn    12 11 49.8 -0.1
      comp=Z,532nm,1.2s
CONA  Conrad Observa   12.35 341⇓iPn    Pn    12 11 48.2 -2.1
      SNR=75
CONA                            ⇓iSn    Sn    12 13 58.9 -7.7
CSNA  Conrad Observa   12.35 341⇑iPn    Pn    12 11 48.4 -1.9
CSNA                            ⇓iSn    Sn    12 13 58.9 -7.7
GAZ   Gaziantep        12.36  82  eP    Pn    12 11 49.2 -1.3
GAZ   Gaziantep        12.36  82  eP    Pn    12 11 49.2 -1.3
CASM  Ain Smara        12.38 274   P    Pn    12 11 51.0 +0.3
CASM  Ain Smara        12.38 274   P    Pn    12 11 51.0 +0.3
KBA   Koelnbreinsper   12.41 332  i Pn  Pn    12 11 49.7 -1.4
      SNR=327
KBA                             ⇑iSn    Sn    12 14 01.3 -6.8
KBA   Koelnbreinsper   12.41 332  ePn   Pn    12 11 49.9 -1.3
      baz=147
MODS  Modra-Piesok     12.44 346  i PN  Pn    12 11 49.5 -2.0
MODS                              e           12 11 58.7
MODS  Modra-Piesok     12.44 346  eSN   Sn    12 13 59.5 -9.3
MODS  Modra-Piesok     12.44 346  i Pn  Pn    12 11 49.5 -2.0
MODS                              eSn   Sn    12 13 59.5 -9.3
MODS  Modra-Piesok     12.44 346  i P   Pn    12 11 49.5 -2.0
AFL   Alpe Faloria     12.45 328⇓eP     Pn    12 11 51.0 -0.6
AFL   Alpe Faloria     12.45 328⇓eP     Pn    12 11 51.0 -0.6
SVSK  Karacayir        12.45  69  eP    Pn    12 11 53.4 +1.7
SVSK  Karacayir        12.45  69  eP    Pn    12 11 53.4 +1.7
CTEI  Djebel Teioual   12.46 273   P    Pn    12 11 52.5 +0.6
CTEI  Djebel Teioual   12.46 273   P    Pn    12 11 52.5 +0.6
ABTA  Abfaltersbach    12.47 329⇑iPn    Pn    12 11 50.7 -1.3
      SNR=206
ABTA                            ⇑iSn    Sn    12 14 01.6 -8.1
CRVS  Cervenica-Dubn   12.51 359  i PN  Pn    12 11 52.2 -0.3
CRVS                              e           12 12 05.1
CRVS  Cervenica-Dubn   12.51 359  i P   Pn    12 11 52.2 -0.3
KOLS  Kolonicke sedl   12.55   1  i PN  Pn    12 11 53.0 +0.1
KOLS  Kolonicke sedl   12.55   1  i P   Pn    12 11 53.0 +0.1
SMOL  Smolenice        12.55 346  i PN  Pn    12 11 51.4 -1.6
SMOL                              eSN   Sn    12 14 03.1 -8.2
SMOL  Smolenice        12.55 346  i P   Pn    12 11 51.4 -1.6
SIM   Simferopol’      12.64  44c iP    Pn    12 11 53.8 -0.5
SIM                                S    Sn    12 14 12.6 -1.1
SIM                                pmax pmax
      comp=Z,8μm,14.7s
SIM                                MLR  MLR
      comp=Z,57μm,18.0s
SIM   Simferopol’      12.64  44  i P   Pn    12 11 53.8 -0.5
      comp=Z,8μm,14.7s
MOA   Molln            12.75 336  i Pn  Pn    12 11 54.4 -1.3
      SNR=133
MOA                             ⇑iSn    Sn    12 14 08.9 -7.4
MOA   Molln            12.75 336   P    Pn    12 11 54.4 -1.4
MOA   Molln            12.75 336   P    Pn    12 11 54.4 -1.4
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RSDY	Resadiye-TOKAT	12.80	67	eP	Pn	12 11 58.3	+1.8
RSDY	Resadiye-TOKAT	12.80	67	eP	Pn	12 11 58.3	+1.8
APPI	Appiano	12.83	325	Pn	Pn	12 11 55.3	-1.6
APPI	Appiano	12.83	325	Pn	Pn	12 11 55.3	-1.6
JAVC	Velka Javorina	12.84	348	ePn	Pn	12 11 55.9	-1.0
	baz=165						
DFRA	Djebel Bou Aff	12.85	275	P	Pn	12 11 57.6	+0.4
DFRA	Djebel Bou Aff	12.85	275	P	Pn	12 11 57.6	+0.4
EIL	Elat	12.88	118	Pn	Pn	12 11 52.7	-4.9
	comp=Z,5.3nm,0.3s,baz=318,slow=8.8,SNR=37						
EIL				Sn	Sn	12 14 06.1	-14
	comp=Z,46nm,0.3s,baz=101,slow=24,SNR=8.2						
HKAT	Jabal Katrina	12.91	124	P	Pn	12 11 55.1	-2.9
HKAT	Jabal Katrina	12.91	124	P	Pn	12 11 55.1	-3.0
DARE	Darende-Malaty	12.91	74	eP	Pn	12 11 55.6	-2.4
AKCD	Akcadag	12.95	77	i P	Pn	12 11 59.6	+1.0
HBST	Basata	12.99	120	P	Pn	12 11 55.0	-4.1
HBST	Basata	12.99	120	P	Pn	12 11 55.0	-4.1
STHS	Stebnicka Huta	13.03	358	i PN	Pn	12 11 59.6	0.0
STHS				e		12 12 12.1	
STHS	Stebnicka Huta	13.03	358	i P	Pn	12 11 59.6	0.0
NIE	Niedzica	13.07	356	eP	Pn	12 12 00.3	+0.1
NIE				i		12 12 03.5	
NIE				ePP		12 12 08.2	
NIE	Niedzica	13.07	356	eP	Pn	12 12 00.3	+0.1
ASF	Jabal al Asfar	13.15	104	Pn	Pn	12 11 57.9	-3.3
	comp=Z,3.3nm,0.3s,baz=153,slow=5.4,SNR=17						
ASF				Sn	Sn	12 14 25.0	-1.1
	comp=Z,10nm,0.3s,baz=254,slow=18,SNR=5.2						
GTR	Jabal at Tayr	13.17	143	⇓P	Pn	12 11 59.3	-2.3
GTR	Jabal at Tayr	13.17	143	P	Pn	12 11 59.3	-2.3
RJOB	Jochberg	13.17	332	eP	Pn	12 12 01.4	-0.1
	comp=Z,536nm,1.0s						
RJOB				eS	Sn	12 14 18.5	-8.1
RJOB				eS	Sn	12 14 19.2	-7.4
RJOB				eL		12 18 30.5	
	comp=Z,218µm,20.9s						
CKHR	Kef el Ahmar	13.19	273	P	Pn	12 12 03.0	+1.2
CKHR	Kef el Ahmar	13.19	273	P	Pn	12 12 03.0	+1.2
ATAB	Bozova	13.22	80	i P	Pn	12 12 01.8	-0.5
TR1		13.22	126	⇓P	Pn	12 11 59.1	-3.2
TR1		13.22	126	P	Pn	12 11 59.1	-3.2
WTTA	Wattenberg	13.25	328	⇓iPn	Pn	12 12 02.0	-0.6
	SNR=158						
WTTA	Wattenberg	13.25	328	P	Pn	12 12 03.3	+0.7
WTTA	Wattenberg	13.25	328	P	Pn	12 12 03.3	+0.7
KWP	Kalwaria Pacla	13.26	2	i Pc	Pn	12 12 04.1	+1.5
	comp=Z,3µm,1.5s						
KWP				eS	Sn	12 14 40.6	+12
KWP				LMZ		12 17 57.3	
	comp=Z,119µm,18.8s						
KWP	Kalwaria Pacla	13.26	2	⇑iP	Pn	12 12 04.1	+1.5
KWP				pmax	pmax		
	comp=Z,3µm,1.5s						
KWP				MLR	MLR		
	comp=Z,119µm,18.8s						
KWP	Kalwaria Pacla	13.26	2	⇓iP	Pn	12 12 03.8	+1.2
KWP	Kalwaria Pacla	13.26	2	⇑iP	Pn	12 12 04.1	+1.5
KWP				eS	Sn	12 14 40.6	+12
KWP	Kalwaria Pacla	13.26	2	i P	Pn	12 12 04.1	+1.5
	comp=Z,19µm,18.8s						
KRUC	Moravsky	13.28	344	ePn	Pn	12 12 01.1	-1.9
	baz=161						
REVF	Revere	13.28	308	eP	Pn	12 12 03.1	+0.1
REVF	Revere	13.28	308	eP	Pn	12 12 03.1	+0.1
SAOF	Saorge	13.29	309	eP	Pn	12 12 02.8	-0.3
SAOF	Saorge	13.29	309	eP	Pn	12 12 02.8	-0.3
SBF	Sospel	13.30	309	eP	Pn	12 12 02.3	-1.0
	comp=Z,975nm,0.9s						
SBF	Sospel	13.30	309	eP	Pn	12 12 02.3	-1.0
SBF				pmax	pmax		
	comp=Z,488nm,0.9s						
SBF	Sospel	13.30	309	eP	Pn	12 12 02.3	-1.0
	comp=Z,488nm,0.9s						
SBF	Sospel	13.30	309	eP	Pn	12 12 02.3	-1.0
	comp=Z,488nm,0.9s						
WATA	Walderalm	13.33	328	⇓iPn	Pn	12 12 02.7	-1.1
	SNR=125						
WATA				⇑iSn	Sn	12 14 23.0	-7.6
WATA	Walderalm	13.33	328	P	Pn	12 12 04.4	+0.7
WATA	Walderalm	13.33	328	P	Pn	12 12 04.4	+0.7
MYA	Malataya	13.35	77	eP	Pn	12 12 04.7	+0.8
MYA	Malataya	13.35	77	eP	Pn	12 12 04.7	+0.8
MALT	Malatya	13.35	77	eP	Pn	12 12 03.5	-0.4
MALT	Malatya	13.35	77	⇓iP	Pn	12 12 05.0	+1.1
MALT	Malatya	13.35	77	ePn	Pn	12 12 03.4	-0.5
	comp=Z,364nm,0.9s						
MALT	Malatya	13.35	77	ePn	Pn	12 12 03.4	-0.5
	comp=Z,364nm,0.9s						
MALT	Malatya	13.35	77	P	Pn	12 12 05.0	+1.1
AUTN	L'Aution	13.37	309	eP	Pn	12 12 04.5	+0.3
AUTN	L'Aution	13.37	309	eP	Pn	12 12 04.5	+0.3
LUCF	Luceram	13.37	309	eP	Pn	12 12 04.9	+0.7
LUCF	Luceram	13.37	309	eP	Pn	12 12 04.9	+0.7
FETA	Feichten	13.47	326	⇓iPn	Pn	12 12 04.5	-1.0
	SNR=12						
VRAC	Vranov	13.47	345	P	Pn	12 12 03.6	-2.0
VRAC						12 14 29.8	
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VRAC				smax			
	comp=N,3.0nm,0.3s						
VRAC	Vranov	13.47	345	⇓iP	Pn	12 12 04.3	-1.3
VRAC	Vranov	13.47	345	Pn	Pn	12 12 03.6	-1.9
	comp=N,1.8nm,0.3s,baz=171,slow=13,SNR=110						
VRAC				Sn	Sn	12 14 29.8	-4.1
	comp=N,2.7nm,0.3s,baz=142,slow=17,SNR=3.0						
VRAC	Vranov	13.47	345	P	Pn	12 12 04.0	-1.6
VRAC	Vranov	13.47	345	P	Pn	12 12 04.0	-1.6
KEMA	Kemaliye	13.48	73	i P	Pn	12 12 06.1	+0.3
TOUF	Mont Tournerai	13.49	309	eP	Pn	12 12 04.6	-1.3
TOUF	Mont Tournerai	13.49	309	eP	Pn	12 12 04.6	-1.3
MVIF	Mont Vial	13.49	308	eP	Pn	12 12 04.8	-1.1
MVIF	Mont Vial	13.49	308	eP	Pn	12 12 04.8	-1.1
LVV	L'vov	13.52	6	eP	Pn	12 12 06.6	+0.3
LVV				eS	Sn	12 14 29.8	-5.4
LVV				MLR	MLR		
	comp=N,43µm,16.0s						
LVV				MLR	MLR		
	comp=Z,58µm,16.0s						
LVV				MLR	MLR		
	comp=E,36µm,15.0s						
LVV	L'vov	13.52	6	eP	Pn	12 12 06.0	-0.3
LVV	L'vov	13.52	6	eP	Pn	12 12 06.0	-0.3
MOTA	Moosalm	13.54	327	⇓iPn	Pn	12 12 05.4	-1.2
	SNR=127						
MOTA				⇓iSn	Sn	12 14 29.5	-6.1
MOTA	Moosalm	13.54	327	P	Pn	12 12 07.4	+0.8
MOTA	Moosalm	13.54	327	P	Pn	12 12 07.4	+0.8
CALN	Calern	13.59	307	eP	Pn	12 12 07.1	-0.2
CALN	Calern	13.59	307	eP	Pn	12 12 07.1	-0.2
RSHS		13.60	123	P	Pn	12 12 05.1	-2.3
URFA	Urfa	13.64	80	eP	Pn	12 12 07.1	-0.8
URFA	Urfa	13.64	80	eP	Pn	12 12 07.1	-0.8
LMR	La Mourre	13.65	305	eP	Pn	12 12 09.4	+1.3
	comp=E,1µm,1.6s						
LMR	La Mourre	13.65	305	eP	Pn	12 12 09.4	+1.3
LMR				pmax	pmax		
	comp=Z,695nm,1.6s						
LMR	La Mourre	13.65	305	eP	Pn	12 12 09.4	+1.3
	comp=Z,695nm,1.6s						
LMR	La Mourre	13.65	305	eP	Pn	12 12 09.4	+1.3
	comp=Z,695nm,1.6s						
FRF	La Foret Royal	13.66	306	eP	Pn	12 12 09.7	+1.5
	comp=Z,431nm,1.0s						
FRF	La Foret Royal	13.66	306	eP	Pn	12 12 09.7	+1.5
FRF				pmax	pmax		
	comp=Z,215nm,1.0s						
FRF	La Foret Royal	13.66	306	eP	Pn	12 12 09.7	+1.5
	comp=Z,215nm,1.0s						
FRF	La Foret Royal	13.66	306	eP	Pn	12 12 09.7	+1.5
	comp=Z,215nm,1.0s						
DAVOX	Davos/Dischmat	13.69	323	Pn	Pn	12 12 08.9	+0.3
	comp=Z,1.5nm,0.3s,baz=142,slow=11,SNR=26						
DAVOX				Sn	Sn	12 14 29.2	-10
	comp=Z,13nm,0.3s,baz=130,slow=23,SNR=4.3						
DAVOX	Davos/Dischmat	13.69	323	Pn	Pn	12 12 08.9	+0.3
TREC	Trest	13.71	342	eP	Pn	12 12 07.5	-1.3
TREC				eS	Sn	12 14 34.8	-4.9
TREC				MLR	MLR		
	comp=Z,185µm,18.9s						
TREC	Trest	13.71	342	eP	Pn	12 12 07.5	-1.3
TREC				ex	x	12 12 18.8	
TREC				eS	Sn	12 14 34.8	-4.9
TREC				AMS	AMS	12 18 20.0	
	comp=Z,185µm,18.9s						
TREC				eSCS	ScS	12 24 38.1	-1.0
TREC	Trest	13.71	342	eP	Pn	12 12 07.5	-1.3
OKC	Ostrava-Krasne	13.71	350	eP	Pn	12 12 07.5	-1.3
OKC				eS	Sn	12 14 36.8	-2.9
OKC				MLR	MLR		
	comp=Z,100µm,19.2s						
OKC	Ostrava-Krasne	13.71	350	eP	Pn	12 12 07.5	-1.3
OKC				ex	x	12 12 19.1	
OKC				eS	Sn	12 14 36.8	-2.9
OKC				AMS	AMS	12 18 20.0	
	comp=Z,100µm,19.2s						
OKC				eSCS	ScS	12 24 38.3	-0.8
OKC	Ostrava-Krasne	13.71	350	eP	Pn	12 12 07.5	-1.3
OKC				eS	Sn	12 14 36.8	-2.9
OKC				eScS	ScS	12 24 38.3	-0.8
OKC	Ostrava-Krasne	13.71	350	eP	Pn	12 12 07.5	-1.3
BDAS	Al Bad'	13.72	122	P	Pn	12 12 05.4	-3.7
TUE	Stuetta	13.74	321	ePn	Pn	12 12 09.3	0.0
	comp=Z,384nm,0.9s						
TUE				eSn	Sn	12 14 28.4	-12
TUE	Stuetta	13.74	321	ePn	Pn	12 12 09.3	0.0
	comp=Z,384nm,0.9s						
MORC	Moravsky Berou	13.74	348	⇓iP	Pn	12 12 08.1	-1.2
MORC	Moravsky Berou	13.74	348	ePn	Pn	12 12 07.1	-2.2
MORC				eSn	Sn	12 14 37.7	-2.9
MORC	Moravsky Berou	13.74	348	eP	Pn	12 12 07.1	-2.2
DAVOS	Davos	13.77	323	P	Pn	12 12 08.9	-0.8
DAVOS	Davos	13.77	323	P	Pn	12 12 08.9	-0.8
ELZG	Elazig	13.79	76	i P	Pn	12 12 12.7	+2.6
RETA	Reutte	13.80	327	⇓iPn	Pn	12 12 09.5	-0.6
	SNR=64						
RETA				⇓iSn	Sn	12 14 37.0	-5.0
GEC2	GERESS Array S	13.80	337	eP	Pn	12 12 08.3	-1.8
GEC2				eL		12 18 42.8	
	comp=Z,250µm,19.7s						
GEC2	GERESS Array S	13.80	337	eP	Pn	12 12 08.3	-1.8
GEC2				eSn	Sn	12 14 29.6	-12
GEC2	GERESS Array S	13.80	337	eP	Pn	12 12 08.3	-1.8
	comp=Z,50µm,19.7s						
GERES	GERESS Array B	13.80	337	Pn	Pn	12 12 07.9	-2.2
	comp=Z,7.8nm,0.3s,baz=156,slow=14,SNR=88						
GERES				Sn	Sn	12 14 33.9	-8.2
	comp=Z,10nm,0.3s,baz=152,slow=21,SNR=5.3						
GERES	GERESS Array B	13.80	337	P	Pn	12 12 07.9	-2.2
JLOS		13.81	120	P	Pn	12 12 06.3	-3.9
OJC	Ojcow	13.91	355	eP	Pn	12 12 10.2	-1.3
OJC				ePP		12 12 20.8	
OJC				eS	Sn	12 14 47.6	+3.1
OJC				L		12 18 31.4	
	comp=Z,120nm,19.4s						
OJC	Ojcow	13.91	355	eP	Pn	12 12 10.2	-1.3
OJC				ePP		12 12 20.8	
OJC				eS	Sn	12 14 47.6	+3.1
OJC	Ojcow	13.91	355	eP	Pn	12 12 10.2	-1.3
RAC	Raciborz	13.94	350	eP	Pn	12 12 11.0	-1.0
RAC				MLR	MLR		
	comp=Z,69µm,16.0s						
RAC	Raciborz	13.94	350	eP	Pn	12 12 11.0	-1.0
RAC				ePP		12 12 21.5	
RAC	Raciborz	13.94	350	eP	Pn	12 12 11.0	-1.0
	comp=Z,69µm,16.0s						
ESPY	Espiye-Giresun	13.96	66	eP	Pn	12 12 13.2	+0.9
ESPY	Espiye-Giresun	13.96	66	eP	Pn	12 12 13.2	+1.0
SURF	Saint Ours	13.99	310	eP	Pn	12 12 14.8	+2.1
SURF	Saint Ours	13.99	310	eP	Pn	12 12 14.8	+2.1
DAVA	Damuels	14.05	325	⇓iPn	Pn	12 12 13.2	-0.3
	SNR=25						
DAVA				⇓iSn	Sn	12 14 39.8	-8.3
DAVA	Damuels	14.05	325	P	Pn	12 12 16.2	+2.7
TAVF	Tavernes	14.07	306	eP	Pn	12 12 15.4	+1.6
TAVF	Tavernes	14.07	306	eP	Pn	12 12 15.4	+1.6
OG22	Abries	14.09	311	eP	Pn	12 12 14.5	+0.5
OG22	Abries	14.09	311	eP	Pn	12 12 14.5	+0.5
KHC	Kasperske Hory	14.10	337	eP	Pn	12 12 11.9	-2.2
KHC				MLR	MLR		
	comp=Z,270µm,20.2s						
KHC	Kasperske Hory	14.10	337	eP	Pn	12 12 11.9	-2.2
KHC				ex	x	12 12 19.5	
KHC				ex	x	12 12 23.2	
KHC				eS	Sn	12 14 39.0	-10
KHC				AMS	AMS	12 18 40.0	
	comp=Z,270µm,20.2s						
KHC				eSCS	ScS	12 24 38.5	-1.5
FUR	Furstenfeldbru	14.11	330	eP	Pn	12 12 14.3	0.0
FUR				eS	Sn	12 14 40.8	-8.8
FUR				eL		12 19 04.8	
	comp=Z,84µm,21.4s						
FUR	Furstenfeldbru	14.11	330	eP	Pn	12 12 14.3	0.0
FUR				eS	Sn	12 14 40.8	-8.8
FUR	Furstenfeldbru	14.11	330	eP	Pn	12 12 14.3	0.0
	comp=Z,84µm,21.4s						
MBDF	Montbardon	14.14	311	eP	Pn	12 12 14.5	-0.3
	comp=Z,2µm,1.3s						
MBDF	Montbardon	14.14	311	eP	Pn	12 12 14.5	-0.3
MBDF				pmax	pmax		
	comp=Z,1µm,1.3s						
MBDF	Montbardon	14.14	311	eP	Pn	12 12 14.5	-0.3
	comp=Z,1µm,1.3s						
MBDF	Montbardon	14.14	311	eP	Pn	12 12 14.5	-0.3
	comp=Z,1µm,1.3s						
BERF	Bertagne	14.19	304	eP	Pn	12 12 14.7	-0.7
UBR	Ueberruh	14.24	326	P	Pn	12 12 16.7	+0.6
MAHO	Mahon	14.26	290	eP	Pn	12 12 19.8	+3.4
WET	Wettzell	14.33	336	eP	Pn	12 12 15.3	-2.0
WET				eS	Sn	12 14 45.6	-9.3
WET				eL		12 19 01.9	
	comp=Z,253µm,20.0s						
WET	Wettzell	14.33	336	eP	Pn	12 12 15.3	-2.0
WET				eS	Sn	12 14 45.6	-9.3
STOF	St-Etienne Org	14.34	307	eP	Pn	12 12 19.4	+2.0
BNI	Bardonecchia	14.37	312	eP	Pn	12 12 19.0	+1.1
BNI	Bardonecchia	14.37	312	ePn	Pn	12 12 19.0	+1.1
GELF	Grande-Etoile	14.39	304	eP	Pn	12 12 20.1	+1.9
VILF	Villemus	14.40	306	eP	Pn	12 12 22.4	+4.1
VILF	Villemus	14.40	306	eP	Pn	12 12 22.4	+4.1
ANN	Anapa	14.51	50c	iP	Pn	12 12 16.4	-3.4
ANN				eS	Sn	12 14 55.7	-3.7
ANN				pmax	pmax		
	comp=Z,5µm,4.9s						
ANN				MLR	MLR		
	comp=Z,19µm,13.0s						
ANN	Anapa	14.51	50	i P	Pn	12 12 16.5	-3.3
DPC	Dobruska-Polom	14.52	346	eP	Pn	12 12 17.5	-2.3
DPC				MLR	MLR		
	comp=Z,126µm,15.2s						
DPC	Dobruska-Polom	14.52	346	eP	Pn	12 12 17.5	-2.3
DPC				ex	x	12 12 27.6	
DPC				AMS	AMS	12 19 10.0	
	comp=Z,126µm,15.2s						
DPC				eSCS	ScS	12 24 40.4	-0.6
DPC	Dobruska-Polom	14.52	346	eP	Pn	12 12 17.5	-2.3
DPC				e		12 12 27.6	
DPC				eScS	ScS	12 24 40.4	-0.6
TREF	Trevaresse	14.52	305	eP	Pn	12 12 19.4	-0.5
SMRF	Simiane la Rot	14.54	306	eP	Pn	12 12 20.7	+0.5
	comp=Z,483nm,1.1s						
SMRF	Simiane la Rot	14.54	306	eP	Pn	12 12 20.7	+0.5
	comp=Z,483nm,1.1s						
LPG	La Plagne	14.57	313	eP	Pn	12 12 20.8	+0.3
	comp=Z,331nm,0.9s						
LPG	La Plagne	14.57	313	eP	Pn	12 12 20.8	+0.3
LPG				pmax	pmax		
	comp=Z,166nm,0.9s						
LPG	La Plagne	14.57	313	eP	Pn	12 12 20.8	+0.3
	comp=Z,166nm,0.9s						
LPL	La Plagne	14.59	313	eP	Pn	12 12 20.8	0.0
	comp=Z,487nm,1.2s						
LPL	La Plagne	14.59	313	eP	Pn	12 12 20.8	0.0
LPL				pmax	pmax		
	comp=Z,244nm,1.2s						
LPL	La Plagne	14.59	313	eP	Pn	12 12 20.8	0.0
	comp=Z,244nm,1.2s						
PRU	Pruhonice	14.59	341	eP	Pn	12 12 19.1	-1.7
PRU				eS	Sn	12 14 58.4	-2.7
PRU				MLR	MLR		
	comp=Z,157µm,18.0s						
PRU	Pruhonice	14.59	341	eP	Pn	12 12 19.1	-1.7
PRU				ex	x	12 12 28.1	
PRU				eS	Sn	12 14 58.4	-2.7
PRU				AMS	AMS	12 18 50.0	
	comp=Z,157µm,18.0s						
PRU				eSCS	ScS	12 24 40.4	-0.8
PRU	Pruhonice	14.59	341	eP	Pn	12 12 19.1	-1.7
PRU				e		12 12 28.1	
PRU				eS	Sn	12 14 58.4	-2.7
PRU				eScS	ScS	12 24 40.4	-0.8
DIYA	Diyarbakir	14.67	79	i P	Pn	12 12 20.3	-1.6
UPC	Upice	14.73	345	eP	Pn	12 12 20.4	-2.3
UPC				ex	x	12 12 30.7	
UPC				eSCS	ScS	12 24 40.3	-1.2
MACK	Trabzon	14.73	67	i P	Pn	12 12 23.6	+0.8
PRAF	Pradon	14.73	305	eP	Pn	12 12 24.8	+1.9
SISB	Singen-Schiene	14.77	324	P	Pn	12 12 24.8	+1.5
GDM	Grand'Maison	14.79	311	eP	Pn	12 12 23.7	+0.1
ORIF	Oris-en-Rattie	14.79	310	eP	Pn	12 12 24.0	+0.4
	comp=Z,1µm,1.4s						
ORIF				eMLR	MLR		
	comp=Z,62µm,22.2s						
ORIF	Oris-en-Rattie	14.79	310	eP	Pn	12 12 24.0	+0.4
ORIF				pmax	pmax		
	comp=Z,643nm,1.4s						
ORIF	Oris-en-Rattie	14.79	310	eP	Pn	12 12 24.0	+0.4
	comp=Z,643nm,1.4s						
TBKS	Tabuk	14.85	119	P	Pn	12 12 29.9	+5.3
TBKS	Tabuk	14.85	119	P	Pn	12 12 29.9	+5.4
HDH	Heidenheim-Cha	14.88	329	P	Pn	12 12 23.7	-1.1
GUT	Gutenstein	14.98	325	P	Pn	12 12 25.8	-0.2
OG26	St.-Nazaire-De	14.99	308	eP	Pn	12 12 27.6	+1.4
OCF	Saint Nazaire	14.99	308	eP	Pn	12 12 27.6	+1.4
KSP	Ksiaz	14.99	346	ePc	Pn	12 12 24.5	-1.7
KSP				epP	pP	12 12 32.4	-7.9
KSP				eS	Sn	12 15 15.6	+4.6
KSP				LMZ		12 19 47.7	
	comp=Z,198µm,17.6s						
KSP	Ksiaz	14.99	346	eP	Pn	12 12 23.0	-3.2
KSP				epP	pP	12 12 32.3	-8.1
KSP				eS	Sn	12 15 14.5	+3.6
GRN	Grenoble	15.03	311	eP	Pn	12 12 26.3	-0.5
PVCC	Panska Ves	15.08	342	eP	Pn	12 12 25.4	-1.9
PVCC				MLR	MLR		
	comp=Z,121µm,17.3s						
PVCC	Panska Ves	15.08	342	eP	Pn	12 12 25.4	-1.9
PVCC				AMS	AMS	12 19 10.0	
	comp=Z,121µm,17.3s						
PVCC				eSCS	ScS	12 24 41.3	-1.1
ROTZ	Rotzenmuhle	15.09	335	eP	Pn	12 12 26.5	-1.0
ROTZ				eL		12 19 35.3	
	comp=Z,238µm,19.5s						
KOPT	Kop Dagi	15.12	70	i P	Pn	12 12 29.5	+1.6
SPAK	Spaichingen-Ko	15.15	325	eP	Pn	12 12 28.0	-0.3
MARD	Mardin	15.20	81	i P	Pn	12 12 26.9	-2.1
EMHD	Djebel Mahouad	15.23	275	P	Pn	12 12 28.0	-1.4
KIEV	Kiev	15.26	18	eP	Pn	12 12 27.1	-2.6
KIEV				pmax	pmax		
	comp=Z,603nm,1.1s						
KIEV	Kiev	15.26	18	ePn	Pn	12 12 27.1	-2.6
	comp=Z,603nm,1.1s						
AKASG	Malin Array Be	15.27	18	Pn	Pn	12 12 27.4	-2.5
	comp=Z,7.5nm,0.3s,baz=207,slow=12,SNR=101						
AKASG				LR	LR	12 19 19.4	
	comp=Z,62µm,18.3s,baz=195,slow=41						
MANZ	Manzenberg	15.31	336	eP	Pn	12 12 28.1	-2.3
MANZ				eL		12 19 41.4	
	comp=Z,223µm,19.5s						
BBS	Basel-Blauen	15.34	321	eP	Pn	12 12 30.6	-0.2
ETOS	Mallorca	15.35	288	P	Pn	12 12 32.7	+1.7
	comp=Z,6µm,5.0s						
FELD	Feldberg im Sc	15.37	323	eP	Pn	12 12 29.4	-1.8
GRA1	Grafenberg Arr	15.38	333	eP	Pn	12 12 30.0	-1.2
GRF	Grafenberg Arr	15.38	333	eP	Pn	12 12 30.0	-1.2
GRF				eL		12 19 47.3	
	comp=Z,277µm,19.4s						
NKC	Novy Kostel	15.42	337	eP	Pn	12 12 28.6	-3.1
NKC				eS	S	12 15 07.9	-28
NKC				AMS	AMS	12 19 20.0	
	comp=Z,198µm,19.4s						
NKC	Novy Kostel	15.42	337	eP	Pn	12 12 28.6	-3.1
NKC				eS	S	12 15 07.9	-28
STU	Stuttgart	15.46	327	eP	Pn	12 12 32.9	+0.6
STU				eL		12 20 14.7	
	comp=Z,67µm,19.3s						
STU	Stuttgart	15.46	327	ePn	Pn	12 12 31.8	-0.6
STU	Stuttgart	15.46	327	ePn	Pn	12 12 31.8	-0.5
SOC	Sochi	15.46	57c	iP	Pn	12 12 31.2	-1.2
SOC				e		12 15 20.9	
SOC				pmax	pmax		
	comp=Z,452nm,1.0s						
SOC				MLR	MLR		
	comp=Z,15µm,18.0s						
KIZ	Kirchzarten	15.47	323	P	Pn	12 12 32.4	0.0
VIVF	Saint-Julien-l	15.52	308	eP	Pn	12 12 32.1	-1.0
	comp=Z,479nm,1.2s						
VIVF	Saint-Julien-l	15.52	308	eP	Pn	12 12 32.1	-1.0
VIVF				pmax	pmax		
	comp=Z,240nm,1.2s						
VIVF	Saint-Julien-l	15.52	308	eP	Pn	12 12 32.1	-1.0
	comp=Z,240nm,1.2s						
BFO	Black Forest	15.53	324	eP	Pn	12 12 33.9	+0.7
BFO				eL		12 20 24.9	
	comp=Z,56µm,19.0s						
BRG	Berggiesshubel	15.55	341	eP	Pn	12 12 32.9	-0.6
BRG				eL		12 19 31.5	
	comp=Z,118µm,19.9s						
BRG	Berggiesshubel	15.55	341	i P	Pn	12 12 31.4	-2.2
	comp=Z,376nm,1.3s						
BRG				i PP		12 12 38.2	
	comp=Z,402nm,1.3s						
BRG				i		12 13 09.0	
	comp=Z,316nm,0.9s						
BRG				S	S	12 15 24.0	-15
BRG				e		12 24 42.8	
	comp=Z,214nm,2.6s						
BRG							
	comp=N,97µm,16.4s						
BRG							
	comp=E,45µm,11.2s						
BRG							
	comp=Z,145µm,17.5s						
BRG	Berggiesshubel	15.55	341	i P	Pn	12 12 31.4	-2.2
	comp=Z,225nm,1.3s						
BRG				i PP		12 12 38.2	
BRG				i		12 13 09.0	
BRG				S	S	12 15 24.0	-15
BRG				e		12 24 42.8	
LBG	Lerchenberg	15.56	326	P	Pn	12 12 33.5	-0.1
TANN	Tannenbergstha	15.57	337	eP	Pn	12 12 33.3	-0.4
TANN				eL		12 19 46.6	
	comp=Z,203µm,19.0s						
CABF	La Chapelle	15.58	316	eP	Pn	12 12 30.9	-3.0
	comp=Z,413nm,1.0s						
CABF	La Chapelle	15.58	316	eP	Pn	12 12 30.9	-3.0
CABF				pmax	pmax		
	comp=Z,206nm,1.0s						
CABF	La Chapelle	15.58	316	eP	Pn	12 12 30.9	-3.0
	comp=Z,206nm,1.0s						
OG05	Jujurieux	15.62	313	eP	Pn	12 12 33.5	-0.9
LOMF	Lomont	15.62	319	eP	Pn	12 12 33.3	-1.1
LASF	Ste Croix	15.71	305	eP	Pn	12 12 34.9	-0.7
	comp=Z,561nm,1.3s						
SIND	Sindeldorf	15.73	329	P	Pn	12 12 34.7	-1.1
LIBD	Limburg	15.75	323	eP	Pn	12 12 35.7	-0.4
MOF	Molkenrain	15.79	321	eP	Pn	12 12 35.9	-0.7
SSB	Saint Sauveur	15.79	310	eP	Pn	12 12 35.1	-1.6
SSB	Saint Sauveur	15.79	310	P	Pn	12 12 36.4	-0.3
SSB				pmax	pmax		
	comp=Z,230nm,1.1s						
SSB	Saint Sauveur	15.79	310	ePn	Pn	12 12 36.2	-0.4
	comp=Z,226nm,1.1s						
SSB	Saint Sauveur	15.79	310	ePn	Pn	12 12 36.2	-0.5
	comp=Z,226nm,1.1s						
EJON	La Jonquera	15.83	298	P	Pn	12 12 36.9	-0.3
	comp=Z,2µm,6.5s						
SJAF	Saint Jean de	15.85	298	eP	Pn	12 12 37.9	+0.5
WAR	Warsaw	15.87	358	eP	Pn	12 12 39.6	+2.1
WAR				eS	Sn	12 15 37.6	+5.5
WAR				LMZ		12 18 50.8	
	comp=Z,58µm,30.1s						
WAR	Warsaw	15.87	358	eP	Pn	12 12 39.6	+2.1
WAR				eS	S	12 15 37.6	-7.9
WAR	Warsaw	15.87	358	eP	Pn	12 12 39.6	+2.1
HINF	Hinteralfeld	15.91	321	eP	Pn	12 12 36.6	-1.5
	comp=Z,572nm,0.9s						
HINF	Hinteralfeld	15.91	321	eP	Pn	12 12 36.6	-1.5
HINF				pmax	pmax		
	comp=Z,286nm,0.9s						

HINF	Hinteralfeld	15.91	321	eP	Pn	12 12 36.6	-1.5
	comp=Z,286nm,0.9s						
STR	Strasbourg	15.98	324	eP	Pn	12 12 39.0	0.0
ECH	Echery	16.02	322	eP	Pn	12 12 37.7	-1.8
ECH	Echery	16.02	322	eP	Pn	12 12 38.9	-0.6
ECH				pmax	pmax		
	comp=Z,754nm,1.3s						
ECH	Echery	16.02	322	ePn	Pn	12 12 38.9	-0.6
	comp=Z,754nm,1.3s						
ECH				eSn	Sn	12 15 22.5	-13
ECH	Echery	16.02	322	ePn	Pn	12 12 38.9	-0.6
	comp=Z,754nm,1.3s						
MOX	Moxa	16.04	336	eP	Pn	12 12 37.7	-2.1
MOX	Moxa	16.04	336	eP	Pn	12 12 38.0	-1.8
MOX				eL		12 20 02.9	
	comp=Z,215µm,19.8s						
CDF	Champ du Feu	16.09	323	eP	Pn	12 12 39.8	-0.7
	comp=Z,973nm,1.1s						
CDF	Champ du Feu	16.09	323	eP	Pn	12 12 39.8	-0.7
CDF				pmax	pmax		
	comp=Z,487nm,1.1s						
CDF	Champ du Feu	16.09	323	eP	Pn	12 12 39.8	-0.7
	comp=Z,487nm,1.1s						
HOMI	Horasan	16.19	71	i P	Pn	12 12 42.7	+0.9
CLL	Collm	16.20	340	eP	Pn	12 12 40.0	-1.8
CLL				MLR	MLR		
	comp=Z,149µm,18.6s						
CLL	Collm	16.20	340	eP	Pn	12 12 40.0	-1.8
CLL				i Pmax		12 12 42.2	
CLL				i pP	pP	12 12 45.6	-8.2
	comp=Z,1µm,1.4s						
CLL				esPP		12 12 59.0	
CLL				e		12 13 10.0	
CLL				eS	S	12 15 52.0	-0.4
CLL				Lmax		12 19 49.0	
CLL	Collm	16.20	340	eP	Pn	12 12 40.0	-1.8
CLL				i		12 12 45.6	
CLL				eS	S	12 15 52.0	-0.4
SWS	Schriesheim-Wi	16.21	328	P	Pn	12 12 42.7	+0.7
SWS	Schriesheim-Wi	16.21	328	P	Pn	12 12 42.7	+0.7
LRDF	Laroque-de-Fa	16.22	300	eP	Pn	12 12 43.1	+1.0
LRDF	Laroque-de-Fa	16.22	300	eP	Pn	12 12 43.1	+1.0
LANF	Langenberg	16.24	325	eP	Pn	12 12 43.3	+1.0
LANF	Langenberg	16.24	325	eP	Pn	12 12 43.3	+1.0
TOD	Tromm	16.26	328	eP	Pn	12 12 42.0	-0.6
HAU	Haudompre	16.29	320	eP	Pn	12 12 42.5	-0.5
	comp=Z,3µm,1.4s						
HAU				eMLR	MLR		
	comp=Z,68µm,18.8s						
HAU	Haudompre	16.29	320	eP	Pn	12 12 42.5	-0.5
HAU				pmax	pmax		
	comp=Z,1µm,1.4s						
HAU	Haudompre	16.29	320	eP	Pn	12 12 42.5	-0.5
	comp=Z,1µm,1.4s						
KTD	Kalmit	16.36	326	eP	Pn	12 12 44.0	+0.1
EBNR	Beni Rached	16.36	276	P	Pn	12 12 44.0	0.0
TATV	Tatvan	16.37	76	i P	Pn	12 12 42.2	-1.9
EIBI	Ibiza	16.43	285	P	Pn	12 12 45.4	+0.6
	comp=Z,12µm,7.2s						
EIBI	Ibiza	16.43	285	P	Pn	12 12 45.4	+0.6
	comp=Z,10µm,7.2s						
COLF	Collangettes	16.43	309	eP	Pn	12 12 43.1	-1.7
VALF	Valcebollere	16.44	297	eP	Pn	12 12 45.7	+0.7
VALF	Valcebollere	16.44	297	eP	Pn	12 12 45.7	+0.7
CARF	Carcanieres	16.46	299	eP	Pn	12 12 48.5	+3.3
ECHA	Ech Chlef	16.51	275	P	Pn	12 12 46.0	+0.1
ECHA	Ech Chlef	16.51	275	P	Pn	12 12 46.0	+0.1
MTLF	Montolieu	16.57	301	eP	Pn	12 12 46.5	0.0
	comp=Z,442nm,1.3s						
MTLF	Montolieu	16.57	301	eP	Pn	12 12 46.5	0.0
MTLF				pmax	pmax		
	comp=Z,221nm,1.3s						
MTLF	Montolieu	16.57	301	eP	Pn	12 12 46.5	0.0
	comp=Z,221nm,1.3s						
LBL	Lubilhac	16.59	308	eP	Pn	12 12 47.2	+0.4
LBL	Lubilhac	16.59	308	eP	Pn	12 12 47.2	+0.4
THEF	They Montfort	16.62	320	eP	Pn	12 12 47.1	0.0
THEF	They Montfort	16.62	320	eP	Pn	12 12 47.1	0.0
ETRT	Tiaret	16.67	273	P	Pn	12 12 45.0	-2.9
EMIR	Miracle	16.68	296	P	Pn	12 12 50.0	+2.1
	comp=Z,522nm,1.6s						
EMIR	Miracle	16.68	296	P	Pn	12 12 50.0	+2.0
	comp=Z,522nm,1.6s						
PLDF	La Plantade	16.69	311	eP	Pn	12 12 46.8	-1.3
UBBA	Unterbreizbach	16.75	333	eP	Pn	12 12 46.9	-1.9
UBBA				eL		12 20 38.8	
	comp=Z,238µm,19.1s						
EANR	’Ain N’Sour	16.75	275	P	Pn	12 12 46.5	-2.4
TNS	Taunus Mts	16.88	329	eP	Pn	12 12 52.3	+1.9
TNS				eS	S	12 15 45.1	-21
TNS				eL		12 20 48.7	
	comp=Z,206µm,19.7s						
TNS	Taunus Mts	16.88	329	eP	Pn	12 12 52.3	+1.9
TNS				eS	S	12 15 45.1	-21
TNS	Taunus Mts	16.88	329	eP	Pn	12 12 52.3	+1.9
	comp=Z,6µm,19.7s						
SMF	Signal de Mont	16.89	313	eP	Pn	12 12 47.9	-2.7
	comp=Z,474nm,1.0s						
SMF	Signal de Mont	16.89	313	eP	Pn	12 12 47.9	-2.7
SMF				pmax	pmax		
	comp=Z,237nm,1.0s						
SMF	Signal de Mont	16.89	313	eP	Pn	12 12 47.9	-2.7
	comp=Z,237nm,1.0s						
EPOB	Poblet	16.90	293	P	Pn	12 12 51.9	+1.2
	comp=Z,1µm,3.0s						
EPOB	Poblet	16.90	293	P	Pn	12 12 51.9	+1.2
	comp=Z,1µm,3.0s						
PYM	Petit Puy Mans	16.97	309	eP	Pn	12 12 51.3	-0.3
PYM	Petit Puy Mans	16.97	309	eP	Pn	12 12 51.3	-0.3
ABH	Alteburg	17.01	327	eP	Pn	12 12 52.5	+0.5
ABH	Alteburg	17.01	327	eP	Pn	12 12 52.5	+0.5
AGO	Saint Agoulin	17.03	310	eP	Pn	12 12 51.4	-0.9
RUE	Ruedersdorf	17.07	343	ePn	Pn	12 12 52.6	-0.2
	comp=Z,935nm,1.0s						
RUE	Ruedersdorf	17.07	343	ePn	Pn	12 12 52.6	-0.2
	comp=Z,935nm,1.0s						
FRNF	Fournols	17.09	308	eP	Pn	12 12 55.5	+2.4
FRNF	Fournols	17.09	308	eP	Pn	12 12 55.5	+2.4
RUP	Ruppelstein	17.10	326	eP	Pn	12 12 53.9	+0.8
RUP	Ruppelstein	17.10	326	eP	Pn	12 12 53.9	+0.8
OJGS	Djebel Guires	17.10	273	P	Pn	12 12 52.0	-1.3
SFTF	Sexfontaines	17.10	319	eP	Pn	12 12 51.9	-1.3
	comp=Z,3µm,1.4s,baz=135						
SFTF	Sexfontaines	17.10	319	eP	Pn	12 12 51.9	-1.3
	comp=Z,3µm,1.4s						
OKGL	Djebel Kef Gue	17.11	275	P	Pn	12 12 53.0	-0.4
OKGL	Djebel Kef Gue	17.11	275	P	Pn	12 12 53.0	-0.4
SALF	Salau	17.12	298	eP	Pn	12 12 56.3	+2.8
SALF	Salau	17.12	298	eP	Pn	12 12 56.3	+2.8
RFYF	Reffroy	17.14	321	eP	Pn	12 12 54.1	+0.5
	comp=Z,2µm,1.4s,baz=130						
RFYF	Reffroy	17.14	321	eP	Pn	12 12 54.1	+0.5
	comp=Z,2µm,1.4s						
RFYF	Reffroy	17.14	321	eP	Pn	12 12 54.1	+0.5
	comp=Z,1µm,1.4s,baz=130						
GKP	Gorka Klasztor	17.19	351	ePc	Pn	12 12 53.9	-0.3
GKP				eS	S	12 16 13.5	+1.0
GKP				LMZ		12 20 56.1	
	comp=Z,91µm,18.8s						
GKP	Gorka Klasztor	17.19	351⇑	eP	Pn	12 12 53.9	-0.4
GKP				eS	S	12 16 13.5	+1.0
GKP	Gorka Klasztor	17.19	351	eP	Pn	12 12 53.9	-0.4
	comp=Z,91µm,18.8s						
LOR	Lormes	17.21	315	eP	Pn	12 12 51.8	-2.8
	comp=Z,933nm,1.3s,baz=127						
LOR				eMLR	MLR		
	comp=Z,53µm,18.8s						
LOR	Lormes	17.21	315	eP	Pn	12 12 51.8	-2.8
LOR				pmax	pmax		
	comp=Z,467nm,1.3s						
LOR	Lormes	17.21	315	eP	Pn	12 12 51.8	-2.8
	comp=Z,467nm,1.3s						
CAF	Calviac	17.23	306	eP	Pn	12 12 54.5	-0.3
	comp=Z,1µm,1.4s						
CAF	Calviac	17.23	306	eP	Pn	12 12 54.5	-0.3
CAF				pmax	pmax		
	comp=Z,532nm,1.4s						
CAF	Calviac	17.23	306	eP	Pn	12 12 54.5	-0.3
	comp=Z,532nm,1.4s						
CAF	Calviac	17.23	306	eP	Pn	12 12 54.5	-0.3
	comp=Z,532nm,1.4s						
MLS	Moulis	17.24	299	eP	Pn	12 12 55.6	+0.6
MLS	Moulis	17.24	299	eP	Pn	12 12 55.6	+0.6
AVF	Avril sur Loir	17.26	313	eP	Pn	12 12 52.4	-2.8
	comp=Z,414nm,1.0s						
AVF	Avril sur Loir	17.26	313	eP	Pn	12 12 52.4	-2.8
AVF				pmax	pmax		
	comp=Z,207nm,1.0s						
AVF	Avril sur Loir	17.26	313	eP	Pn	12 12 52.4	-2.8
	comp=Z,207nm,1.0s						
MEZF	Maizieres J’vi	17.27	320	eP	Pn	12 12 55.7	+0.3
	comp=Z,2µm,1.1s,baz=139						
MEZF	Maizieres J’vi	17.27	320	eP	Pn	12 12 55.7	+0.3
	comp=Z,2µm,1.1s						
MEZF	Maizieres J’vi	17.27	320	eP	Pn	12 12 55.7	+0.3
	comp=Z,789nm,1.1s,baz=139						
SSF	Saint Saulge	17.31	314	eP	Pn	12 12 53.0	-2.8
	comp=Z,344nm,0.9s						
SSF	Saint Saulge	17.31	314	eP	Pn	12 12 53.0	-2.8
SSF				pmax	pmax		
	comp=Z,172nm,0.9s						
SSF	Saint Saulge	17.31	314	eP	Pn	12 12 53.0	-2.8
	comp=Z,172nm,0.9s						
ERTA	Horta de San J	17.39	292	P	Pn	12 12 56.1	-0.7
	comp=Z,1µm,2.7s						
ERTA	Horta de San J	17.39	292	P	Pn	12 12 56.1	-0.7
	comp=Z,1µm,2.7s						
OJBR	Djebel Berber	17.41	274	P	Pn	12 12 53.5	-3.7
BGF	Bois d’Agland	17.44	312	eP	Pn	12 12 55.7	-1.8
	comp=Z,751nm,1.1s						
BGF	Bois d’Agland	17.44	312	eP	Pn	12 12 55.7	-1.8
BGF				pmax	pmax		
	comp=Z,375nm,1.1s						
BGF	Bois d’Agland	17.44	312	eP	Pn	12 12 55.7	-1.8
	comp=Z,375nm,1.1s						
MELF	Melles	17.46	298	eP	Pn	12 13 01.3	+3.6
MELF	Melles	17.46	298	eP	Pn	12 13 01.3	+3.6
CLZ	Clausthal	17.47	336	eP	Pn	12 12 58.9	+1.1
CLZ				eL		12 20 56.5	
	comp=Z,188µm,19.5s						
CLZ	Clausthal	17.47	336	eP	Pn	12 12 58.9	+1.1
	comp=Z,88µm,19.5s						
WLF	Walferdange	17.49	324	P	Pn	12 13 00.3	+2.3
	comp=Z,665nm,1.9s						
WLF	Walferdange	17.49	324	eP	Pn	12 12 58.9	+0.9
WLF				pmax	pmax		
	comp=Z,695nm,1.0s						
WLF	Walferdange	17.49	324	eP	Pn	12 13 00.3	+2.3
	comp=Z,830nm,1.2s						
WLF				eL		12 21 41.1	
	comp=Z,65µm,19.1s						
WLF	Walferdange	17.49	324	ePn	Pn	12 12 58.9	+0.9
	comp=Z,695nm,1.0s						
WLF	Walferdange	17.49	324	eP	Pn	12 12 58.9	+0.9
	comp=Z,695nm,1.0s						
DYDN	Diyadin	17.52	73	i P	Pn	12 12 57.5	-0.9
HAKT	HAKKARI	17.52	80	i P	Px	12 13 16.1	
KIV	Kislovodsk	17.61	58	P	Pn	12 12 59.2	-0.4
	comp=Z,4µm,1.2s,SNR=90						
KIV	Kislovodsk	17.61	58c	iP	Pn	12 12 59.6	0.0
KIV				eS	S	12 16 13.5	-7.8
KIV				pmax	pmax		
	comp=Z,931nm,1.1s						
KIV				MLR	MLR		
	comp=Z,21µm,13.0s						
KIV	Kislovodsk	17.61	58	ePn	Pn	12 12 58.5	-1.1
KIV	Kislovodsk	17.61	58	⇓P	Pn	12 12 59.7	+0.1
	SNR=198						
KIV				⇓P		12 12 59.7	
	SNR=198						
KIV	Kislovodsk	17.61	58	P	Pn	12 12 59.7	+0.1
	SNR=198						
EBEN	Beniarda	17.64	284	P	Pn	12 12 59.5	-0.5
	comp=Z,3µm,8.4s						
EBEN	Beniarda	17.64	284	P	Pn	12 12 59.5	-0.5
	comp=Z,3µm,8.4s						
SUW	Suwalki	17.65	3	ePc	Pn	12 12 58.6	-1.4
SUW				eS	Sn	12 16 13.4	-2.1
SUW				LMZ		12 20 48.9	
	comp=Z,78µm,19.6s						
SUW	Suwalki	17.65	3⇑	eP	Pn	12 12 58.6	-1.4
SUW				eS	S	12 16 13.4	-8.5
TCF	Toulx Ste Croi	17.71	310	eP	Pn	12 12 59.6	-1.1
	comp=Z,856nm,1.2s						
TCF	Toulx Ste Croi	17.71	310	eP	Pn	12 12 59.6	-1.1
TCF				pmax	pmax		
	comp=Z,428nm,1.2s						
TCF	Toulx Ste Croi	17.71	310	eP	Pn	12 12 59.6	-1.1
	comp=Z,428nm,1.2s						
TCF	Toulx Ste Croi	17.71	310	eP	Pn	12 12 59.6	-1.1
	comp=Z,428nm,1.2s						
RJF	Les Rejaudoux	17.73	306	eP	Pn	12 13 00.6	-0.4
	comp=Z,1µm,1.4s						
RJF				eMLR	MLR		
	comp=Z,39µm,18.8s						
RJF	Les Rejaudoux	17.73	306	eP	Pn	12 13 00.6	-0.4
RJF				pmax	pmax		
	comp=Z,713nm,1.4s						
RJF	Les Rejaudoux	17.73	306	eP	Pn	12 13 00.6	-0.4
	comp=Z,713nm,1.4s						
RJF	Les Rejaudoux	17.73	306	eP	Pn	12 13 00.6	-0.4
	comp=Z,713nm,1.4s						
RESF	Ens	17.74	298	eP	Pn	12 13 02.6	+1.4
RESF	Ens	17.74	298	eP	Pn	12 13 02.6	+1.4
ONI	Oni	17.78	63	P	Pn	12 13 01.3	-0.3
ONI				S	S	12 16 19.5	-5.1
EPF	Esparros	17.80	298	eP	Pn	12 13 03.5	+1.6
	comp=Z,839nm,1.5s						
EPF	Esparros	17.80	298	eP	Pn	12 13 03.5	+1.6
EPF				pmax	pmax		
	comp=Z,420nm,1.5s						
EPF	Esparros	17.80	298	eP	Pn	12 13 03.5	+1.6
	comp=Z,420nm,1.5s						
EPF	Esparros	17.80	298	eP	Pn	12 13 03.5	+1.6
	comp=Z,420nm,1.5s						
ODJA	Bouhanifia	17.85	273	P	Pn	12 13 05.0	+2.4
EBIE	Bielsa	17.85	297	P	Pn	12 13 03.1	+0.6
	comp=Z,4µm,3.9s						
EBIE	Bielsa	17.85	297	P	Pn	12 13 03.1	+0.5
	comp=Z,4µm,3.9s						
HYF	Humbligny	17.92	313	eP	Pn	12 13 01.8	-1.5
HYF	Humbligny	17.92	313	eP	Pn	12 13 01.8	-1.5
EMOS	Mosqueruela	17.93	290	P	Pn	12 13 03.6	+0.1
	comp=Z,10µm,6.2s						
EMOS	Mosqueruela	17.93	290	P	Pn	12 13 03.6	+0.1
	comp=Z,10µm,6.2s						
LABF	Labassere	17.99	298	eP	Pn	12 13 07.0	+2.8
LABF	Labassere	17.99	298	eP	Pn	12 13 07.0	+2.8
LFF	La Frestale	18.10	305	eP	Pn	12 13 06.5	+0.9
	comp=Z,511nm,1.0s						
LFF	La Frestale	18.10	305	eP	Pn	12 13 06.5	+0.9
LFF				pmax	pmax		
	comp=Z,256nm,1.0s						
LFF	La Frestale	18.10	305	eP	Pn	12 13 06.5	+0.9
	comp=Z,256nm,1.0s						
LFF	La Frestale	18.10	305	eP	Pn	12 13 06.5	+0.9
	comp=Z,256nm,1.0s						
ESAC	San Caprasio	18.11	294	P	Pn	12 13 06.8	+1.1
	comp=Z,2µm,2.1s						
ESAC	San Caprasio	18.11	294	P	Pn	12 13 06.8	+1.1
	comp=Z,2µm,2.1s						
USTO	Oran	18.11	275	P	Pn	12 13 16.0	+10
NRDL	Niedersach Rie	18.11	336	eP	Pn	12 13 07.5	+1.8
	comp=Z,2µm,1.5s						
NRDL				eL		12 21 15.6	
	comp=Z,164µm,18.5s						
GOR	Gori	18.13	65	P	Pn	12 13 06.7	+0.7
MEM	Membach	18.22	326	P	Pn	12 13 08.3	+1.3
	comp=Z,310nm,1.5s						
ECHE	Chera	18.25	287	P	Pn	12 13 08.8	+1.4
ECHE				pmax	pmax		
	comp=Z,50nm,0.8s						
ECHE	Chera	18.25	287	P	Pn	12 13 08.8	+1.4
	comp=Z,50nm,0.8s						
ECHE	Chera	18.25	287	P	Pn	12 13 08.8	+1.4
	comp=Z,50nm,0.8s						
CART	Cartagena	18.28	281	eP	Pn	12 13 06.7	-1.1
	comp=Z,422nm,1.4s						
CART	Cartagena	18.28	281	eP	Pn	12 13 06.7	-1.1
	comp=Z,422nm,1.4s						
BUG	Bochum--Univer	18.29	330	eP	Pn	12 13 09.6	+1.7
	comp=Z,2µm,1.4s						
BUG				eL		12 21 42.2	
	comp=Z,170µm,18.9s						
REYF	Montagne du Re	18.33	298	eP	Pn	12 13 09.3	+1.0
REYF	Montagne du Re	18.33	298	eP	Pn	12 13 09.3	+1.0
HGN	Heimansgroeve	18.36	326⇑	eP	Pn	12 13 10.1	+1.4
	comp=Z,1µm,1.8s						
HGN	Heimansgroeve	18.36	326	eS	S	12 16 36.4	0.0
HGN	Heimansgroeve	18.36	326⇑	eP	Pn	12 13 10.1	+1.4
	comp=Z,1µm,1.8s						
GNI	Garni	18.37	71⇑	eP	Pn	12 13 07.9	-1.0
GNI				pmax	pmax		
	comp=Z,2µm,1.7s						
GNI				MLR	MLR		
	comp=Z,70µm,16.0s						
GNI	Garni	18.37	71	P	Pn	12 13 07.5	-1.4
	comp=Z,6.9nm,0.3s,baz=256,slow=1.5,SNR=257						
GNI				LR	LR	12 21 10.4	
	comp=Z,59µm,20.1s,baz=47,slow=40						
GNI	Garni	18.37	71	eP	Pn	12 13 07.9	-1.0
	comp=Z,2µm,1.4s						
GNI	Garni	18.37	71	P	Pn	12 13 08.3	-0.6
	SNR=348						
GNI				P		12 13 08.3	
	SNR=348						
GNI	Garni	18.37	71	P	Pn	12 13 08.3	-0.6
	SNR=348						
ETSF	Etsaut	18.41	298	eP	Pn	12 13 09.5	+0.2
	comp=Z,1µm,1.3s						
ETSF	Etsaut	18.41	298	eP	Pn	12 13 09.5	+0.2
ETSF				pmax	pmax		
	comp=Z,507nm,1.3s						
ETSF	Etsaut	18.41	298	eP	Pn	12 13 09.5	+0.2
	comp=Z,507nm,1.3s						
ETSF	Etsaut	18.41	298	eP	Pn	12 13 09.5	+0.2
	comp=Z,507nm,1.3s						
BCLA	Clavier	18.41	325	P	Pn	12 13 10.6	+1.3
	comp=Z,530nm,2.2s						
GIVF	Givet	18.42	323	eP	Pn	12 13 10.0	+0.6
	comp=Z,4µm,1.4s						
GIVF	Givet	18.42	323	eP	Pn	12 13 10.0	+0.6
GIVF				pmax	pmax		
	comp=Z,2µm,1.4s						
GIVF	Givet	18.42	323	eP	Pn	12 13 10.0	+0.6
	comp=Z,2µm,1.4s						
GIVF	Givet	18.42	323	eP	Pn	12 13 10.0	+0.6
	comp=Z,2µm,1.4s						
EMUR	La Murta	18.45	281	P	Pn	12 13 08.8	-1.2
	comp=Z,7µm,5.6s						
EMUR	La Murta	18.45	281	P	Pn	12 13 08.8	-1.2
	comp=Z,7µm,5.6s						
BEBN	Eben Emael	18.50	326	P	Pn	12 13 11.7	+1.3
DOU	Dourbes	18.53	323	P	Pn	12 13 11.0	+0.3
	comp=Z,640nm,1.9s						
ATE	Arette	18.55	298	eP	Pn	12 13 11.5	+0.4
ATE	Arette	18.55	298	eP	Pn	12 13 11.5	+0.4
TBLG	Delisi	18.55	66	P	Pn	12 13 11.3	+0.2
TBLG	Delisi	18.55	66	P	Pn	12 13 11.3	+0.2
MNK	Minsk	18.59	11⇑	iP	Pn	12 13 06.0	-5.4
MNK				eS	S	12 16 25.0	-16
MNK				pmax	pmax		
	comp=N,3µm,1.0s						
MNK				pmax	pmax		
	comp=Z,33µm,4.0s						
MNK				pmax	pmax		
	comp=E,2µm,1.0s						
MNK				MLR	MLR		
	comp=E,89µm,16.0s						
MNK				MLR	MLR		
	comp=Z,94µm,18.0s						
MNK	Minsk	18.59	11⇑	iP	Pn	12 13 07.0	-4.4
MTA	Mtatsminda	18.59	66	P	Pn	12 13 10.2	-1.4
MTA				S	S	12 16 41.5	+0.5
MICGM	Minsk	18.59	11⇑	iP	Pn	12 13 06.0	-5.5
ETOB	Tobarra	18.68	284	P	Pn	12 13 11.3	-1.3
	comp=Z,5µm,5.2s						
ETOB	Tobarra	18.68	284	P	Pn	12 13 11.3	-1.3
	comp=Z,5µm,5.2s						
BAIF	Baives	18.69	322	eP	Pn	12 13 12.7	0.0
	comp=Z,2µm,1.4s						
BAIF	Baives	18.69	322	eP	Pn	12 13 12.7	0.0
BAIF				pmax	pmax		
	comp=Z,976nm,1.4s						
BAIF	Baives	18.69	322	eP	Pn	12 13 12.7	0.0
	comp=Z,976nm,1.4s						
BAIF	Baives	18.69	322	eP	Pn	12 13 12.7	0.0
	comp=Z,976nm,1.4s						
ODZI	Dziouia	18.73	273	P	Pn	12 13 14.0	+0.7
ORDF	Ordiarp	18.75	298	eP	Pn	12 13 12.8	-0.6
ORDF	Ordiarp	18.75	298	eP	Pn	12 13 12.8	-0.6
IBBN	Ibbenburen	18.78	332	eP	Pn	12 13 16.0	+2.3
	comp=Z,1µm,1.3s						
IBBN				eL		12 21 53.3	
	comp=Z,208µm,19.4s						
NACGM	Naroch	18.83	9	eP	Pn	12 13 09.0	-5.3
WTSB	Winterswijk	18.88	330⇑	eP	Pn	12 13 15.5	+0.4
	comp=Z,1µm,1.8s						
WTSB	Winterswijk	18.88	330⇑	eP	Pn	12 13 15.5	+0.5
	comp=Z,1µm,1.8s						
OLHC	Oulhaca	18.89	273	P	Pn	12 13 13.5	-1.7
SJPF	Ste Jean	18.93	298	eP	Pn	12 13 15.8	+0.1
	comp=Z,1µm,1.1s						
SJPF	Ste Jean	18.93	298	eP	Pn	12 13 15.8	+0.1
SJPF				pmax	pmax		
	comp=Z,536nm,1.1s						
SJPF	Ste Jean	18.93	298	eP	Pn	12 13 15.8	+0.1
	comp=Z,536nm,1.1s						
SJPF	Ste Jean	18.93	298	eP	Pn	12 13 15.8	+0.1
	comp=Z,536nm,1.1s						
SNF	Seneffe	18.95	324	P	Pn	12 13 15.7	-0.1
	comp=Z,575nm,2.0s						
OSSF	Osses	18.99	298	eP	Pn	12 13 15.2	-1.2
OSSF	Osses	18.99	298	eP	Pn	12 13 15.2	-1.2
RGN	Rugen	19.09	345	eP	Pn	12 13 17.1	-0.4
	comp=Z,787nm,1.0s						
RGN	Rugen	19.09	345	eP	Pn	12 13 17.1	-0.4
	comp=Z,787nm,1.0s						
UCC	Uccle	19.11	324	P	Pn	12 13 17.8	+0.1
	comp=Z,1µm,1.7s						
EALK	Alkurruntz	19.15	298	P	Pn	12 13 17.5	-0.8
	comp=Z,4µm,2.4s						
EALK	Alkurruntz	19.15	298	P	Pn	12 13 17.5	-0.9
	comp=Z,4µm,2.4s						
ELIZ	Elizondo	19.16	298	P	Pn	12 13 18.8	+0.4
ELIZ				pmax	pmax		
	comp=Z,1µm,1.5s						
ELIZ	Elizondo	19.16	298	P	Pn	12 13 18.8	+0.4
	comp=Z,1µm,1.5s						
ELIZ	Elizondo	19.16	298	P	Pn	12 13 18.8	+0.4
	comp=Z,1µm,1.5s						
ETOR	Torete	19.17	291	P	Pn	12 13 21.3	+2.7
ETOR				pmax	pmax		
	comp=Z,84nm,1.0s						
ETOR	Torete	19.17	291	P	Pn	12 13 21.3	+2.7
	comp=Z,84nm,1.0s						
VORD	Divnogorie	19.21	35c	iP	Pn	12 13 16.1	-2.9
VORD				eS	S	12 16 55.4	+1.9
VORD				pmax	pmax		
	comp=Z,370nm,1.4s						
VORD				pmax	pmax		
	comp=N,290nm,1.2s						
VORD				pmax	pmax		
	comp=E,410nm,1.2s						
VORD				smax			
	comp=E,3µm,2.4s						
VORD				smax			
	comp=Z,2µm,3.7s						
VORD				smax			
	comp=N,3µm,2.1s						
VORD				MLR	MLR		
	comp=Z,44µm,14.0s						
VORD				MLR	MLR		
	comp=N,12µm,12.0s						
VORD				MLR	MLR		
	comp=E,30µm,12.0s						
ENIJ	Nijar	19.28	279	P	Pn	12 13 19.0	-1.0
ENIJ				pmax	pmax		
	comp=Z,479nm,1.2s						
ENIJ	Nijar	19.28	279	P	Pn	12 13 19.0	-1.0
	comp=Z,479nm,1.2s						
ENIJ	Nijar	19.28	279	P	Pn	12 13 19.0	-1.0
	comp=Z,479nm,1.2s						
BSEG	Bad Segeberg	19.29	339	eP	Pn	12 13 18.8	-1.1
BSEG				pmax	pmax		
	comp=Z,770nm,1.2s						
BSEG				MLR	MLR		
	comp=Z,61µm,21.3s						
BSEG	Bad Segeberg	19.29	339	eP	Pn	12 13 18.8	-1.1
	comp=Z,770nm,1.2s						
BSEG				eL		12 21 46.8	
	comp=Z,61µm,21.3s						
BSEG	Bad Segeberg	19.29	339	eP	Pn	12 13 18.8	-1.1
	comp=Z,61µm,21.3s						
MFF	Saint Martin d	19.31	309	eP	Pn	12 13 19.0	-1.2
	comp=Z,1µm,1.5s						
MFF	Saint Martin d	19.31	309	eP	Pn	12 13 19.0	-1.2

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MFF                                  pmax    pmax
      comp=Z,599nm,1.5s
MFF   Saint Martin d   19.31 309  eP    Pn      12 13 19.0 -1.2
      comp=Z,599nm,1.5s
MFF   Saint Martin d   19.31 309  eP    Pn      12 13 19.0 -1.2
      comp=Z,599nm,1.5s
BSD   Bornholm Skovb   19.33 348⇑iP    Pn      12 13 17.9 -2.4
BSD                               i S   S       12 16 49.3 -6.4
BSD                                pmax  pmax
      comp=Z,1µm,1.0s
BSD   Bornholm Skovb   19.33 348⇑iP    Pn      12 13 17.9 -2.4
      comp=Z,1µm,1.0s
BSD                               i S   S       12 16 49.3 -6.4
BSD   Bornholm Skovb   19.33 348⇑iP    Pn      12 13 17.9 -2.4
      comp=Z,1µm,1.0s,SNR=35
VSR   Storozhevoye     19.33  34c iP    Pn      12 13 17.8 -2.5
VSR                               eS    S       12 16 56.2 +0.4
VSR                                pmax  pmax
      comp=Z,420nm,1.2s
VSR                                pmax  pmax
      comp=N,380nm,1.1s
VSR                                pmax  pmax
      comp=E,320nm,1.0s
VSR                                smax
      comp=N,6µm,5.0s
VSR                                smax
      comp=Z,4µm,4.3s
VSR                                smax
      comp=E,4µm,4.4s
VSR                                MLR   MLR
      comp=Z,62µm,13.0s
VSR                                MLR   MLR
      comp=N,24µm,16.0s
VSR                                MLR   MLR
      comp=E,39µm,15.0s
VSR   Storozhevoye     19.33  34  i P   Pn      12 13 17.8 -2.5
      comp=E,6µm,5.0s
EVIA  Vianos           19.43 284   P    Pn      12 13 22.5 +0.9
EVIA                               pmax  pmax
      comp=Z,80nm,0.8s
EVIA  Vianos           19.43 284   P    Pn      12 13 22.5 +0.9
      comp=Z,80nm,0.8s
EVIA  Vianos           19.43 284   P    Pn      12 13 22.5 +0.9
      comp=Z,80nm,0.8s
EHUE  Huescar          19.53 282   P    Pn      12 13 22.4 -0.4
EHUE                               pmax  pmax
      comp=Z,182nm,1.3s
EHUE  Huescar          19.53 282   P    Pn      12 13 22.4 -0.5
      comp=Z,182nm,1.3s
EHUE  Huescar          19.53 282   P    Pn      12 13 22.4 -0.4
      comp=Z,182nm,1.3s
TAM   Tamanrasset      19.57 231  eP    Pn      12 13 22.4 -1.1
TAM                                pmax  pmax
      comp=Z,260nm,1.1s
TAM   Tamanrasset      19.57 231  eP    Pn      12 13 22.4 -1.1
      comp=Z,260nm,1.1s
TAM   Tamanrasset      19.57 231  eP    Pn      12 13 22.4 -1.1
      comp=Z,260nm,1.1s
WIT   Witteveen        19.59 332⇑eP    Pn      12 13 23.2 -0.2
      comp=Z,1µm,2.0s
WIT   Witteveen        19.59 332⇑eP    Pn      12 13 23.2 -0.2
      comp=Z,1µm,2.0s
VOR   Voronezh         19.70  33⇑iP    Pn      12 13 21.0 -3.8
VOR                                pmax  pmax
      comp=Z,4µm,2.0s
ECRI  Cripan           19.75 296   P    Pn      12 13 24.6 -0.9
ECRI                               pmax  pmax
      comp=Z,280nm,1.4s
ECRI  Cripan           19.75 296   P    Pn      12 13 24.6 -0.9
      comp=Z,280nm,1.4s
ECRI  Cripan           19.75 296   P    Pn      12 13 24.6 -0.9
      comp=Z,280nm,1.4s
EBER  Berja            19.84 279   P    Pn      12 13 25.8 -0.7
      comp=Z,1µm,2.0s
EBER  Berja            19.84 279   P    Pn      12 13 25.8 -0.7
      comp=Z,1µm,2.0s
EQES  Quesada          19.91 282   P    Pn      12 13 24.6 -2.7
      comp=Z,4µm,5.1s
EQES  Quesada          19.91 282   P    Pn      12 13 24.6 -2.7
      comp=Z,4µm,5.1s
MENF  Mencas           20.03 321  eP    P       12 13 26.5 -0.2
MENF  Mencas           20.03 321  eP    P       12 13 26.5 -0.2
LDF   La Druitiere     20.19 314  eP    P       12 13 28.0 -0.5
      comp=Z,295nm,0.7s
LDF   La Druitiere     20.19 314  eP    P       12 13 28.0 -0.5
LDF                                pmax  pmax
      comp=Z,148nm,0.7s
LDF   La Druitiere     20.19 314  eP    P       12 13 28.0 -0.5
      comp=Z,148nm,0.7s
LDF   La Druitiere     20.19 314  eP    P       12 13 28.0 -0.5
      comp=Z,148nm,0.7s
ECOG  Cogollos-Vega    20.34 280   P    P       12 13 31.9 +1.7
ECOG                               pmax  pmax
      comp=Z,153nm,1.0s
ECOG  Cogollos-Vega    20.34 280   P    P       12 13 31.9 +1.6
      comp=Z,153nm,1.0s
ECOG  Cogollos-Vega    20.34 280   P    P       12 13 31.9 +1.7
      comp=Z,153nm,1.0s
COP   Copenhagen       20.34 345⇑iP    P       12 13 30.3 +0.2
COP                               i S   S       12 17 12.9 -3.1
COP                               i S   S       12 17 22.8 +6.8
COP                                pmax  pmax
      comp=Z,260nm,0.9s
COP   Copenhagen       20.34 345⇑iP    P       12 13 30.3 +0.2
      comp=Z,265nm,0.9s
COP                               i S   S       12 17 12.9 -3.1
COP                               i S   S       12 17 22.8 +6.8
COP   Copenhagen       20.34 345⇑iP    P       12 13 30.3 +0.2
      comp=Z,265nm,0.9s,SNR=35
EGUA  Guajares         20.38 279   P    P       12 13 30.8 +0.1
EGUA                               pmax  pmax
      comp=Z,1µm,1.1s
EGUA  Guajares         20.38 279   P    P       12 13 30.8 +0.1
      comp=Z,1µm,1.1s
EGUA  Guajares         20.38 279   P    P       12 13 30.8 +0.1
      comp=Z,1µm,1.1s
VRHR  Novokhopersk     20.42  38c iP    P       12 13 30.3 -0.7
VRHR                              eS    S       12 17 19.7 +2.2
VRHR                               pmax  pmax
      comp=Z,1µm,1.1s
VRHR                               pmax  pmax
      comp=N,270nm,1.3s
VRHR                               smax
      comp=N,10µm,3.8s
VRHR                               smax
      comp=Z,7µm,4.1s
VRHR                               MLR   MLR
      comp=Z,40µm,25.0s,MS5.7
VRHR                               MLR   MLR
      comp=N,26µm,20.0s
VRHR  Novokhopersk     20.42  38  i P   P       12 13 30.3 -0.7
      comp=N,10µm,3.8s
EBAN  Banos Encina     20.45 283   P    P       12 13 31.8 +0.4
EBAN                               pmax  pmax
      comp=Z,37nm,0.7s
EBAN  Banos Encina     20.45 283   P    P       12 13 31.8 +0.4
      comp=Z,37nm,0.7s
EBAN  Banos Encina     20.45 283   P    P       12 13 31.8 +0.4
      comp=Z,37nm,0.7s
FLN   La Foliniere     20.48 314  eP    P       12 13 31.5 -0.2
      comp=Z,633nm,0.9s,baz=122
FLN                               eMLR  MLR
      comp=Z,26µm,23.0s,MS5.2
FLN   La Foliniere     20.48 314  eP    P       12 13 31.5 -0.2
FLN                                pmax  pmax
      comp=Z,317nm,0.9s
FLN                                MLR   MLR
      comp=Z,26µm,23.0s,MS5.5
FLN   La Foliniere     20.48 314  eP    P       12 13 31.5 -0.2
      comp=Z,317nm,0.9s
FLN                                LR    LR
      comp=Z,26µm,23.0s,MS5.5
FLN   La Foliniere     20.48 314  eP    P       12 13 31.5 -0.2
      comp=Z,317nm,0.9s,baz=122
GRR   Gorron           20.52 313  eP    P       12 13 32.0 -0.1
      comp=Z,812nm,1.1s
GRR   Gorron           20.52 313  eP    P       12 13 32.0 -0.1
GRR                                pmax  pmax
      comp=Z,406nm,1.1s
GRR   Gorron           20.52 313  eP    P       12 13 32.0 -0.1
      comp=Z,406nm,1.1s
GRR   Gorron           20.52 313  eP    P       12 13 32.0 -0.1
      comp=Z,406nm,1.1s
ERON  Agron            20.55 279   P    P       12 13 33.3 +0.7
      comp=Z,336nm,1.3s
ERON  Agron            20.55 279   P    P       12 13 33.3 +0.7
      comp=Z,336nm,1.3s
ESDC  Sonseca Array    20.56 287   P    P       12 13 32.7 +0.1
      comp=Z,69nm,0.9s,baz=82,slow=10,SNR=37
ESDC                               S    S       12 17 20.1 -0.5
      comp=Z,3.7nm,0.8s,baz=102,slow=17,SNR=2.1
ESDC                               ScP   ScP    12 21 16.5  0.0
      comp=Z,12nm,0.9s,baz=54,slow=2.3,SNR=14
ESDC                               LR    LR     12 22 13.0
      comp=Z,12µm,19.6s,MS5.3,baz=90,slow=39
ESDC  Sonseca Array    20.56 287   P    P       12 13 32.6  0.0
      comp=Z,88nm,1.1s
ESDC  Sonseca Array    20.56 287   P    P       12 13 32.6  0.0
      comp=Z,88nm,1.1s
ESLA  Sonseca Array    20.56 287  eP    P       12 13 32.2 -0.4
      comp=Z,236nm,1.4s
ESLA  Sonseca Array    20.56 287  eP    P       12 13 32.2 -0.4
      comp=Z,236nm,1.4s
GUD   Guadarrama       20.75 290   P    P       12 13 34.8 +0.2
GUD                                pmax  pmax
      comp=Z,222nm,0.9s
GUD   Guadarrama       20.75 290   P    P       12 13 34.8 +0.1
      comp=Z,222nm,0.9s
GUD   Guadarrama       20.75 290   P    P       12 13 34.8 +0.2
      comp=Z,222nm,0.9s
MAK   Makhachkala      20.78  64c iP    P       12 13 34.6 -0.4
MAK                               i             12 13 50.9
MAK                               i S   S       12 17 23.1 -1.8
MAK                               eSS           12 17 45.4
MAK                                pmax  pmax
      comp=Z,6µm,1.9s
MAK                                pmax  pmax
      comp=Z,4µm,1.7s
MAK                                pmax  pmax
      comp=E,3µm,0.9s
MAK                                pmax  pmax
      comp=N,3µm,1.7s
MAK                                smax
      comp=N,2µm,0.6s
MAK                                smax
      comp=E,2µm,0.9s
MAK                                MLR   MLR
      comp=N,47µm,16.0s,MS6.0
MAK                                MLR   MLR
      comp=Z,24µm,15.0s,MS5.7
MAK                                MLR   MLR
      comp=E,31µm,16.0s,MS6.0
MAK   Makhachkala      20.78  64  i P   P       12 13 34.7 -0.3
MAK   Makhachkala      20.78  64  i P   P       12 13 34.7 -0.3
ELOJ  Sierra Loja      20.82 280   P    P       12 13 36.4 +1.0
ELOJ                               pmax  pmax
      comp=Z,164nm,1.2s
ELOJ  Sierra Loja      20.82 280   P    P       12 13 36.4 +1.0
      comp=Z,164nm,1.2s
ELOJ  Sierra Loja      20.82 280   P    P       12 13 36.4 +1.0
      comp=Z,164nm,1.2s
PAB   San Pablo        20.86 287   P    P       12 13 36.4 +0.6
PAB                                pmax  pmax
      comp=Z,960nm,1.5s
PAB   San Pablo        20.86 287  eP    P       12 13 36.1 +0.2
      comp=Z,956nm,1.5s
PAB   San Pablo        20.86 287   P    P       12 13 36.4 +0.6
      comp=Z,960nm,1.5s
ELUQ  Luque            20.87 281   P    P       12 13 35.3 -0.7
ELUQ                               pmax  pmax
      comp=Z,238nm,0.9s
ELUQ  Luque            20.87 281   P    P       12 13 35.3 -0.7
      comp=Z,238nm,0.9s
ELUQ  Luque            20.87 281   P    P       12 13 35.3 -0.7
      comp=Z,238nm,0.9s
EADA  Adamuz           21.07 283   P    P       12 13 37.6 -0.6
      comp=Z,1µm,1.7s,mb5.9
EADA  Adamuz           21.07 283   P    P       12 13 37.6 -0.6
      comp=Z,1µm,1.7s,mb5.9
EMAL  Malaga-Limoner   21.08 279  i P   P       12 13 38.0 -0.2
OBN   Obninsk          21.29  24   P    P       12 13 38.8 -1.5
      comp=Z,10µm,1.0s,mb7.1,SNR=75
OBN   Obninsk          21.29  24⇑iP    P       12 13 38.7 -1.6
OBN                               i S   S       12 17 33.4 -1.2
OBN                                pmax  pmax
      comp=Z,2µm,1.1s,mb6.4
OBN                                MLR   MLR
      comp=Z,55µm,19.0s,MS6.0
OBN   Obninsk          21.29  24  eP    P       12 13 39.0 -1.3
OBN                               eS    S       12 17 35.2 +0.5
OBN   Obninsk          21.29  24  eP    P       12 13 39.0 -1.3
EMIJ  Mijas            21.38 278   P    P       12 13 39.5 -2.0
      comp=Z,411nm,1.2s,mb5.6
EMIJ  Mijas            21.38 278   P    P       12 13 39.5 -2.0
      comp=Z,411nm,1.2s,mb5.6
SGMF  Saint Gilles     21.48 311  eP    P       12 13 41.8 -0.7
      comp=Z,617nm,0.9s,mb5.6
SGMF  Saint Gilles     21.48 311  eP    P       12 13 41.8 -0.7
SGMF                               pmax  pmax
      comp=Z,309nm,0.9s,mb5.6
SGMF  Saint Gilles     21.48 311  eP    P       12 13 41.8 -0.7
      comp=Z,309nm,0.9s,mb5.6
SGMF  Saint Gilles     21.48 311  eP    P       12 13 41.8 -0.7
      comp=Z,309nm,0.9s,mb5.6
JSA   Saint Aubin      21.66 314⇑eP    P       12 13 43.5 -0.9
JSA                                AMb   AMB    12 13 46.5
      comp=Z,513nm,1.8s,mb5.7
QUIF  Quistinic        21.72 310  eP    P       12 13 44.3 -0.8
      comp=Z,1µm,1.2s,mb5.9
QUIF  Quistinic        21.72 310  eP    P       12 13 44.3 -0.8
QUIF                               pmax  pmax
      comp=Z,565nm,1.2s,mb5.9
QUIF  Quistinic        21.72 310  eP    P       12 13 44.3 -0.8
      comp=Z,565nm,1.2s,mb5.9
QUIF  Quistinic        21.72 310  eP    P       12 13 44.3 -0.8
      comp=Z,565nm,1.2s,mb5.9
REAL  Reales           21.73 278  eP    P       12 13 46.0 +0.7
ECAB  El Cabril        21.74 283   P    P       12 13 44.5 -0.9
      comp=Z,3µm,2.0s,mb6.4
ECAB  El Cabril        21.74 283   P    P       12 13 44.5 -0.8
      comp=Z,3µm,2.0s,mb6.4
AEU   East Anglia Un   21.77 325  eP    P       12 13 46.0 +0.5
MUD   Monsted U'grnd   21.82 341⇑iP    P       12 13 45.6 -0.4
MUD                               i S   S       12 17 49.7 +4.6
MUD                                pmax  pmax
      comp=Z,480nm,1.0s,mb5.9
MUD   Monsted U'grnd   21.82 341⇑iP    P       12 13 45.6 -0.4
      comp=Z,483nm,1.0s,mb5.9
MUD                               i S   S       12 17 49.7 +4.6
MUD   Monsted U'grnd   21.82 341⇑iP    P       12 13 45.6 -0.4
      comp=Z,483nm,1.0s,mb5.9,SNR=34
EARI  Arriondas        21.82 297   P    P       12 13 48.8 +2.6
      comp=Z,1µm,2.3s,mb6.0
EARI  Arriondas        21.82 297   P    P       12 13 48.8 +2.6
      comp=Z,1µm,2.3s,mb6.0
LIJA  Lijar            21.84 280  eP    P       12 13 47.2 +0.8
ROSF  Rostrenen        21.95 311  eP    P       12 13 47.6 +0.1
      comp=Z,549nm,1.0s,mb5.6
ROSF  Rostrenen        21.95 311  eP    P       12 13 47.6 +0.1
ROSF                               pmax  pmax
      comp=Z,275nm,1.0s,mb5.6
ROSF  Rostrenen        21.95 311  eP    P       12 13 47.6 +0.1
      comp=Z,275nm,1.0s,mb5.6
ROSF  Rostrenen        21.95 311  eP    P       12 13 47.6 +0.1
      comp=Z,275nm,1.0s,mb5.6
MDT   Midelt           22.03 268   P    P       12 13 47.9 -0.6
      comp=Z,240nm,1.2s,mb5.5,baz=81,slow=12,SNR=84
MDT                                LR    LR     12 24 31.1
      comp=Z,33µm,19.7s,MS5.8,baz=77,slow=42
MDT   Midelt           22.03 268   P    P       12 13 47.9 -0.6
MOS   Moscow           22.14  24αiP    P       12 13 48.5 -1.0
MOS                               i             12 14 12.1
MOS                               ePPP          12 14 23.7
MOS                               i             12 17 44.4
MOS                               i S   S       12 17 54.7 +3.4
MOS                               e             12 18 07.7
MOS                               i             12 25 01.7
MOS                                pmax  pmax
      comp=Z,7µm,1.3s,mb7.0
MOS                                pmax  pmax
      comp=N,3µm,1.2s
MOS                                pmax  pmax
      comp=E,3µm,1.3s
MOS                                pmax  pmax
      comp=Z,6µm,1.3s,mb6.8
MOS                                pmax  pmax
      comp=N,2µm,1.1s
MOS                                pmax  pmax
      comp=E,2µm,1.2s
MOS                                MLR   MLR
      comp=E,28µm,16.0s,MS6.0
MOS                                MLR   MLR
      comp=Z,50µm,16.0s,MS6.0
MOS                                MLR   MLR
      comp=N,48µm,18.0s,MS6.0
MOS   Moscow           22.14  24  i P   P       12 13 48.5 -1.0
      comp=N,2µm,1.1s,mb6.5
ESPR  Espera           22.20 280   P    P       12 13 50.6 +0.3
      comp=N,1µm,1.6s,mb6.0
ESPR  Espera           22.20 280   P    P       12 13 50.6 +0.3
      comp=N,1µm,1.6s,mb6.0
WOL   Wolverton        22.21 319⇑eP    P       12 13 47.8 -2.4
WOL                                AMb   AMB    12 13 53.9
      comp=Z,928nm,1.6s,mb6.0
GIBL  Gibalbin         22.30 279  eP    P       12 13 53.0 +1.7
MIB   Mutribah         22.32 100  eP    P       12 13 49.5 -2.1
MIB                                AMb   AMB    12 13 53.9
      comp=Z,2µm,1.5s,mb6.3
MIB   Mutribah         22.32 100  eP    P       12 13 49.5 -2.1
      comp=Z,2µm,1.5s,mb6.3
VSU   Vasula           22.32   7c iP    P       12 13 49.5 -1.9
VSU                                pmax  pmax
      comp=Z,2µm,1.0s,mb6.5
VSU                                MLR   MLR
      comp=Z,90µm,18.0s,MS6.2
VSU   Vasula           22.32   7⇑iP    P       12 13 49.6 -1.8
CNIL  Conil            22.43 278  eP    P       12 13 51.0 -1.7
NAY   Al-Naaiem        22.47 101  eP    P       12 13 51.3 -1.9
NAY                                AMb   AMB    12 13 55.4
      comp=Z,1µm,2.1s,mb5.9
NAY   Al-Naaiem        22.47 101  eP    P       12 13 51.3 -1.9
      comp=Z,1µm,2.1s,mb5.9
SFS   San Fernando     22.53 279   P    P       12 13 50.8 -3.0
SFS                                pmax  pmax
      comp=Z,1µm,1.2s,mb6.2
SFS   San Fernando     22.53 279   P    P       12 13 50.8 -3.0
      comp=Z,1µm,1.2s,mb6.2
SWN1  Swindon          22.62 319⇑eP    P       12 13 53.4 -1.2
SWN1                               AMb   AMB    12 13 58.2
      comp=Z,2µm,1.5s,mb6.3
SWN1                              e             12 17 57.9
SWN1                               AMS   AMS    12 25 46.1
      comp=Z,31µm,17.8s,MS5.8
UMR   Umm Al-Rimmam    22.72 100  eP    P       12 13 53.4 -2.5
UMR                                AMb   AMB    12 13 56.5
      comp=Z,3µm,1.2s,mb6.5
UMR   Umm Al-Rimmam    22.72 100  eP    P       12 13 53.4 -2.4
      comp=Z,3µm,1.2s,mb6.5
EMIN  Mina Concepcio   22.75 282   P    P       12 13 55.4 -0.7
      comp=Z,2µm,2.4s,mb6.1
EMIN  Mina Concepcio   22.75 282   P    P       12 13 55.4 -0.7
      comp=Z,2µm,2.4s,mb6.1
PBRG  Braganca         22.77 292  eP    P       12 13 57.8 +1.5
      comp=Z,530nm,1.9s,mb5.7
PBRG                              eS    S       12 18 02.7 -0.2
PBRG  Braganca         22.77 292  eP    P       12 13 57.4 +1.1
PBRG  Braganca         22.77 292  eP    P       12 13 57.4 +1.1
ECAL  Calabor          22.78 293   P    P       12 13 57.8 +1.4
      comp=Z,1µm,2.2s,mb6.0
ECAL  Calabor          22.78 293   P    P       12 13 57.8 +1.4
      comp=Z,1µm,2.2s,mb6.0
RDF   Al-Radifah       22.85 102  eP    P       12 13 54.5 -2.8
RDF                                AMb   AMB    12 13 58.6
      comp=Z,915nm,1.9s,mb5.9
RDF   Al-Radifah       22.85 102  eP    P       12 13 54.5 -2.7
      comp=Z,915nm,1.9s,mb5.9
KBD   Kabd             22.86 101  eP    P       12 13 54.9 -2.4
KBD                                AMb   AMB    12 13 58.9
      comp=Z,1µm,1.6s,mb6.1
KBD   Kabd             22.86 101  eP    P       12 13 54.9 -2.4
      comp=Z,1µm,1.6s,mb6.1
EBAD  Badajoz          22.95 285   P    P       12 13 57.8 -0.4
      comp=Z,1µm,1.9s,mb6.0
EBAD  Badajoz          22.95 285   P    P       12 13 57.8 -0.4
      comp=Z,1µm,1.9s,mb6.0
MVO   Moncorvo         22.95 291  eP    P       12 13 57.5 -0.7
      comp=Z,884nm,1.5s,mb6.0
MVO                               eS    S       12 18 03.4 -2.4
MVO   Moncorvo         22.95 291  eP    P       12 13 58.3 +0.1
MVO   Moncorvo         22.95 291  eP    P       12 13 58.3 +0.1
CWF   Charnwood Fore   23.06 322⇑eP    P       12 13 57.7 -1.5
CWF                                AMb   AMB    12 14 07.6
      comp=Z,537nm,1.5s,mb5.8
CWF                               e             12 18 09.9
CWF                                AMS   AMS    12 26 19.6
      comp=Z,19µm,17.7s,MS5.6
ERUA  La Rua           23.12 294   P    P       12 14 00.7 +0.8
ERUA                               pmax  pmax
      comp=Z,114nm,1.3s,mb5.1
ERUA  La Rua           23.12 294   P    P       12 14 00.7 +0.8
      comp=Z,114nm,1.3s,mb5.1
ERUA  La Rua           23.12 294   P    P       12 14 00.7 +0.8
      comp=Z,114nm,1.3s,mb5.1
PMRV  Marv??o          23.21 286  eP    P       12 13 59.6 -1.4
      comp=Z,578nm,1.3s,mb5.8
PMRV                              eS    S       12 18 08.5 -1.7
PMRV  Marv??o          23.21 286  eP    P       12 13 59.9 -1.1
PMRV  Marv??o          23.21 286  eP    P       12 13 59.9 -1.1
HGH   Gray Hill        23.22 319⇑eP    P       12 13 59.7 -1.1
QRN   Al-Qurain        23.22 102  eP    P       12 13 58.7 -2.5
QRN                                AMb   AMB    12 14 03.5
      comp=Z,2µm,2.0s,mb6.1
QRN   Al-Qurain        23.22 102  eP    P       12 13 58.7 -2.4
      comp=Z,2µm,2.0s,mb6.1
EPON  Pontenova        23.23 296   P    P       12 14 02.7 +1.7
      comp=Z,822nm,1.5s,mb5.9
EPON  Pontenova        23.23 296   P    P       12 14 02.7 +1.6
      comp=Z,822nm,1.5s,mb5.9
DYA   Yadsworthy       23.25 315⇑eP    P       12 13 59.4 -1.8
DYA                                AMb   AMB    12 14 04.4
      comp=Z,438nm,2.0s,mb5.5
DYA                               e             12 18 08.6
DYA                                AMS   AMS    12 24 37.0
      comp=Z,19µm,21.0s,MS5.5
PCBR  Castelo Branco   23.27 287  eP    P       12 14 04.5 +2.9
      comp=Z,558nm,1.4s,mb5.8
PCBR                              eS    S       12 18 12.3 +1.2
MTE   Manteigas        23.32 289  eP    P       12 14 02.8 +0.7
      comp=Z,575nm,1.6s,mb5.8
MTE                               eS    S       12 18 10.8 -1.1
MTE                               eS    S       12 18 11.0 -0.9
MTE   Manteigas        23.32 289  eP    P       12 14 01.2 -0.8
      comp=Z,212nm,0.9s,mb5.6
MTE   Manteigas        23.32 289  eP    P       12 14 02.8 +0.7
      comp=Z,575nm,1.6s,mb5.8
PESTR Estremoz         23.39 285  eP    P       12 14 01.8 -1.0
      comp=Z,549nm,1.1s,mb5.9
PESTR                             eS    S       12 18 09.8 -3.3
PESTR Estremoz         23.39 285  eP    P       12 14 01.8 -1.0
      comp=Z,549nm,1.1s,mb5.9
EGRO  El Granado       23.42 282   P    P       12 14 02.9 -0.2
      comp=Z,2µm,2.6s,mb6.1
EGRO  El Granado       23.42 282   P    P       12 14 02.9 -0.2
      comp=Z,2µm,2.6s,mb6.1
PVRL  Vila Real        23.47 291  eP    P       12 14 03.7 +0.2
      comp=Z,368nm,1.4s,mb5.6
PVRL                              eS    S       12 18 12.3 -2.0
PVRL  Vila Real        23.47 291  eP    P       12 14 03.7 +0.2
      comp=Z,368nm,1.4s,mb5.6
KBI1  Birley Grange    23.48 323⇑iP    P       12 14 02.0 -1.4
KWE   Weaver Farm      23.49 323⇑iP    P       12 14 02.1 -1.5
MCH1  Michaelchurch    23.51 319⇑eP    P       12 14 02.3 -1.4
MCH1                               AMb   AMB    12 14 06.8
      comp=Z,640nm,1.7s,mb5.8
MCH1                              e             12 18 17.0
MCH1                               AMS   AMS    12 25 39.6
      comp=Z,29µm,20.8s,MS5.7
PVIS  Viseu            23.59 290  eP    P       12 14 04.4 -0.2
      comp=Z,389nm,1.7s,mb5.6
PVIS                              eS    S       12 18 16.1 -0.2
PVIS  Viseu            23.59 290  eP    P       12 14 04.6  0.0
PVIS  Viseu            23.59 290  eP    P       12 14 04.6  0.0
PVAQ  Vaqueiros        23.61 281  eP    P       12 14 04.0 -0.9
      comp=Z,948nm,1.4s,mb6.0
PVAQ                              eS    S       12 18 12.9 -3.9
PVAQ  Vaqueiros        23.61 281  eP    P       12 14 04.0 -0.9
      comp=Z,948nm,1.4s,mb6.0
PBEJ  Beja             23.67 283  eP    P       12 14 04.3 -1.1
      comp=Z,968nm,1.5s,mb6.0
PBEJ                              eS    S       12 18 14.2 -3.4
PBEJ  Beja             23.67 283  eP    P       12 14 04.3 -1.1
      comp=Z,968nm,1.5s,mb6.0
HTR   Trewern Hill     23.70 319⇑eP    P       12 14 04.0 -1.5
STNC  Stoke            23.71 322⇑eP    P       12 14 04.9 -0.7
STNC                               AMb   AMB    12 14 09.1
      comp=Z,1µm,1.7s,mb6.0
PCAB  Cabril           23.73 292  eP    P       12 14 07.3 +1.4
      comp=Z,508nm,1.5s,mb5.7
PCAB                              eS    S       12 18 17.4 -1.1
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PCAB	Cabril	23.73	292	eP	P	12 14 07.2	+1.3
PCAB	Cabril	23.73	292	eP	P	12 14 07.2	+1.3
EVO	Evora	23.74	284	eP	P	12 14 01.8	-4.2
EVO				eMLR	MLR		
	comp=Z,19µm,21.2s,MS5.2						
EVO	Evora	23.74	284	eP	P	12 14 05.4	-0.6
	comp=Z,514nm,1.4s,mb5.8						
EVO				eS	S	12 18 16.8	-2.0
EVO	Evora	23.74	284	eP	P	12 14 05.5	-0.5
EVO	Evora	23.74	284	eP	P	12 14 05.5	-0.5
ELOB	Lobios	23.76	292	P	P	12 14 07.7	+1.6
	comp=Z,958nm,3.0s						
ELOB	Lobios	23.76	292	P	P	12 14 07.7	+1.5
	comp=Z,958nm,3.0s						
PBDV	Barranco-do-Ve	23.80	281	eP	P	12 14 05.6	-1.0
	comp=Z,1µm,1.2s,mb6.1						
PBDV				eS	S	12 18 17.4	-2.4
PBDV	Barranco-do-Ve	23.80	281	eP	P	12 14 05.6	-1.0
	comp=Z,1µm,1.2s,mb6.1						
HTL	Hartland	23.82	316⇑	eP	P	12 14 05.4	-1.2
HTL				AMb	AMB	12 14 16.3	
	comp=Z,282nm,1.2s,mb5.6						
HTL				e		12 18 18.2	
HTL				AMS	AMS	12 26 34.1	
	comp=Z,41µm,19.1s,MS5.9						
EVOP	Sao Brissos	23.83	284	eP	P	12 14 07.0	+0.2
EVOP				AMb	AMB	12 14 18.9	
	comp=Z,420nm,1.4s,mb5.7						
EVOP				eS	S	12 18 21.0	+0.8
EVOP				eS	S	12 18 21.0	+0.8
EVOP	Sao Brissos	23.83	284	eP	P	12 14 07.0	+0.2
HPK	Haverah Park	23.95	325⇑	eP	P	12 14 06.3	-1.5
HPK				AMb	AMB	12 14 09.6	
	comp=Z,382nm,1.4s,mb5.6						
HPK				e		12 18 16.6	
HPK				AMS	AMS	12 26 11.7	
	comp=Z,45µm,20.1s,MS5.9						
SNART	Snartemo	23.99	341⇑	iP	P	12 14 08.3	+0.2
SNART				AMb	AMB	12 14 11.4	
	comp=Z,1µm,1.5s,mb6.1						
PUL	Pulkovo	24.04	11⇑	eP	P	12 14 07.2	-1.3
PUL	Pulkovo	24.04	11	eP	P	12 14 07.2	-1.3
SBD1	Bryn Du	24.13	321⇑	eP	P	12 14 09.1	-0.3
SBD1				AMb	AMB	12 14 10.3	
	comp=Z,367nm,1.6s,mb5.6						
PTO	Porto	24.14	291	eP	P	12 14 11.1	+1.5
PTO	Porto	24.14	291	eP	P	12 14 11.1	+1.5
STS	Santiago	24.20	295	P	P	12 14 11.2	+1.0
STS				pmax	pmax		
	comp=Z,395nm,2.3s,mb5.4						
STS	Santiago	24.20	295	P	P	12 14 11.2	+1.1
	comp=Z,395nm,2.3s,mb5.4						
STS	Santiago	24.20	295	P	P	12 14 11.2	+1.0
	comp=Z,395nm,2.3s,mb5.4						
EZAM	Zamans	24.25	293	P	P	12 14 13.6	+3.0
EZAM				pmax	pmax		
	comp=Z,436nm,1.4s,mb5.7						
EZAM	Zamans	24.25	293	P	P	12 14 13.6	+3.0
	comp=Z,436nm,1.4s,mb5.7						
EZAM	Zamans	24.25	293	P	P	12 14 13.6	+3.0
	comp=Z,436nm,1.4s,mb5.7						
HFS	Hagfors	24.34	350	P	P	12 14 10.2	-1.0
	comp=Z,553nm,1.1s,mb5.9,baz=140,slow=12,SNR=144						
HFS				LR	LR	12 25 10.8	
	comp=Z,36µm,21.1s,MS5.8,baz=167,slow=40						
HFS	Hagfors	24.34	350	P	P	12 14 10.2	-1.0
HFA0	Hagfors New Ar	24.35	350	P	P	12 14 09.0	-2.3
MORF	Marmelete	24.36	281	eP	P	12 14 12.0	+0.3
	comp=Z,350nm,1.6s,mb5.5						
MORF				eS	S	12 18 31.6	+2.7
MORF				eS	S	12 18 32.7	+3.8
MORF	Marmelete	24.36	281	eP	P	12 14 11.1	-0.6
MORF				eS	S	12 18 29.3	+0.4
MORF	Marmelete	24.36	281	eP	P	12 14 12.0	+0.3
	comp=Z,350nm,1.6s,mb5.5						
PTEO	Sao Teotonio	24.39	282	eP	P	12 14 12.3	+0.3
	comp=Z,1µm,2.2s,mb5.9						
PTEO				eS	S	12 18 36.5	+7.1
PTEO	Sao Teotonio	24.39	282	eP	P	12 14 12.3	+0.3
	comp=Z,1µm,2.2s,mb5.9						
EMAZ	Mazaricos	24.52	295	P	P	12 14 14.4	+1.3
	comp=Z,918nm,2.5s,mb5.9						
EMAZ	Mazaricos	24.52	295	P	P	12 14 14.4	+1.3
	comp=Z,918nm,2.5s,mb5.9						
PFVI	Vila Bisbo	24.53	281	eP	P	12 14 13.2	0.0
	comp=Z,611nm,1.6s,mb5.9						
PFVI				eS	S	12 18 27.0	-4.5
PFVI	Vila Bisbo	24.53	281	eP	P	12 14 13.2	0.0
	comp=Z,611nm,1.6s,mb5.9						
KONO	Kongsberg	24.59	345⇑	eP	P	12 14 12.6	-1.0
KONO	Kongsberg	24.59	345	eP	P	12 14 12.5	-1.0
	comp=Z,1µm,1.3s,mb6.2						
KONO	Kongsberg	24.59	345	eP	P	12 14 12.6	-1.0
LIS	Lisbon	24.62	285	eP	P	12 14 14.5	+0.5
LIS				AMb	AMB	12 14 24.7	
	comp=Z,453nm,1.7s,mb5.7						
LIS				eS	S	12 18 34.1	+1.1
LIS				eS	S	12 18 34.1	+1.1
LIS	Lisbon	24.62	285	eP	P	12 14 14.5	+0.5
	comp=Z,453nm,1.7s,mb5.7						
LIS				eS	S	12 18 34.1	+1.2
LIS	Lisbon	24.62	285	eP	P	12 14 14.5	+0.5
	comp=Z,453nm,1.7s,mb5.7						
PMAFR	Mafra	24.70	285	eP	P	12 14 15.2	+0.4
	comp=Z,1µm,1.5s,mb6.2						
PMAFR				eS	S	12 18 33.3	-1.0
PMAFR	Mafra	24.70	285	eP	P	12 14 15.2	+0.4
	comp=Z,1µm,1.5s,mb6.2						
XAL	Allendale	24.78	326⇑	iP	P	12 14 14.4	-0.9
STAV	Stavanger	24.91	340	eP	P	12 14 16.0	-0.4
STAV				AMb	AMB	12 14 19.2	
	comp=Z,702nm,1.4s,mb6.0						
STAV	Stavanger	24.91	340	eP	P	12 14 16.0	-0.4
	comp=Z,702nm,1.4s,mb6.0,SNR=32						
BLS5	Blasjo	25.13	341⇑	iP	P	12 14 19.0	+0.6
BLS5				AMb	AMB	12 14 22.4	
	comp=Z,506nm,1.2s,mb5.9						
BLS5	Blasjo	25.13	341⇑	iP	P	12 14 19.0	+0.6
	comp=Z,506nm,1.2s,mb5.9,SNR=32						
XSO	Sourhope Farm	25.19	327⇑	eP	P	12 14 18.6	-0.4
FINES	FINESS Array B	25.23	5	P	P	12 14 17.0	-2.3
ECK	Cauldkaine Hil	25.39	326⇑	eP	P	12 14 20.0	-0.9
NAO01	NORSAR Array S	25.45	348	eP	P	12 14 20.8	-0.6
	comp=Z,7.2nm,0.4s,mb4.6						
NAO01	NORSAR Array S	25.45	348	eP	P	12 14 20.8	-0.6
	comp=Z,7.2nm,0.4s,mb4.6						
EKA	Eskdalemuir Ar	25.50	326	P	P	12 14 21.6	-0.3
	comp=Z,328nm,1.1s,mb5.8,baz=131,slow=8.7,SNR=135						
EKA				ScP	ScP	12 21 28.4	-0.8
	comp=Z,8.1nm,0.9s,baz=141,slow=2.8,SNR=5.7						
EKA	Eskdalemuir Ar	25.50	326	P	P	12 14 21.6	-0.2
ESK	Eskdalemuir	25.51	326⇑	eP	P	12 14 21.5	-0.4
ESK				AMb	AMB	12 14 25.0	
	comp=Z,567nm,1.3s,mb5.9						
ESK				AMS	AMS	12 27 08.7	
	comp=Z,60µm,19.8s,MS6.1						
ESK	Eskdalemuir	25.51	326	iP	P	12 14 22.1	+0.2
ESK	Eskdalemuir	25.51	326	eP	P	12 14 21.4	-0.5
	comp=Z,846nm,1.3s,mb6.1						
ESK	Eskdalemuir	25.51	326	iP	P	12 14 22.1	+0.2
ODD1	Odda	25.51	342⇑	iP	P	12 14 20.5	-1.4
ODD1				AMb	AMB	12 14 24.3	
	comp=Z,338nm,1.3s,mb5.7						
ODD1	Odda	25.51	342⇑	iP	P	12 14 20.5	-1.4
	comp=Z,338nm,1.3s,mb5.7,SNR=32						
GCD	Castle Douglas	25.58	324⇑	eP	P	12 14 22.0	-0.6
NB2	NORSAR Subarra	25.58	348	P	P	12 14 21.7	-0.8
	comp=Z,864nm,1.1s,mb6.2,baz=158,slow=10						
NB2	NORSAR Subarra	25.58	348	P	P	12 14 21.7	-0.8
	comp=Z,864nm,1.1s,mb6.2,baz=158,slow=9.8,SNR=88						
NB2	NORSAR Subarra	25.58	348	P	P	12 14 21.7	-0.8
	comp=Z,554nm,1.4s,mb5.9,baz=158,slow=9.8,SNR=32						
NOA	NORSAR Array B	25.58	348	P	P	12 14 21.6	-0.9
	comp=Z,435nm,1.0s,mb5.9,baz=159,slow=9.8,SNR=172						
NOA				LR	LR	12 25 56.7	
	comp=Z,14µm,20.2s,MS5.5,baz=165,slow=40						
NOA	NORSAR Array B	25.58	348	P	P	12 14 21.6	-0.9
NOA				LR	LR	12 25 56.7	
NOA	NORSAR Array B	25.58	348	P	P	12 14 21.7	-0.8
ESY	Stoneypath	25.62	327⇑	eP	P	12 14 22.4	-0.6
EBL	Broad Law	25.72	327⇑	eP	P	12 14 23.1	-0.7
EDI	Edinburgh	25.87	327⇑	eP	P	12 14 25.0	-0.2
EDI				AMb	AMB	12 14 28.4	
	comp=Z,1µm,1.2s,mb6.2						
EDI				AMS	AMS	12 27 39.3	
	comp=Z,90µm,19.3s,MS6.3						
KAF	Kangasniemi	25.91	5	eP	P	12 14 24.1	-1.3
KAF				pmax	pmax		
	comp=Z,649nm,0.9s,mb6.2						
KAF	Kangasniemi	25.91	5	ep	P	12 14 24.1	-1.3
	comp=Z,649nm,0.9s,mb6.2						
KAF	Kangasniemi	25.91	5	eP	P	12 14 24.1	-1.3
	comp=Z,649nm,0.9s,mb6.2						
DSB	Dublin	25.92	319⇑	eP	P	12 14 24.2	-1.5
DSB	Dublin	25.92	319	eP	P	12 14 23.9	-1.7
	comp=Z,330nm,1.1s,mb5.8						
DSB	Dublin	25.92	319	eP	P	12 14 24.0	-1.7
	comp=Z,330nm,1.1s,mb5.8						
EAU	Auchinoon	25.94	327⇑	eP	P	12 14 25.0	-0.8
GAL1	Galloway	25.94	324⇑	eP	P	12 14 25.1	-0.7
GAL1				AMb	AMB	12 14 29.0	
	comp=Z,342nm,1.3s,mb5.7						
GAL1				AMS	AMS	12 27 42.1	
	comp=Z,32µm,19.2s,MS5.9						
DLF	Lyons Farm	26.02	319	eP	P	12 14 24.9	-1.7
EGD	Espegrend	26.18	341	eP	P	12 14 27.5	-0.4
EGD				AMb	AMB	12 14 29.5	
	comp=Z,554nm,1.4s,mb5.9						
GMM	Mts of Mourne	26.20	322⇑	eP	P	12 14 27.4	-0.9
EBH	Black Hill	26.22	327⇑	iP	P	12 14 28.0	-0.3
BER	Bergen	26.24	341	eP	P	12 14 27.0	-1.5
BER				eP		12 14 28.7	
BER				AMb	AMB	12 14 31.3	
	comp=Z,451nm,1.4s,mb5.8						
BER				AMb	AMB	12 14 32.2	
	comp=Z,415nm,0.4s,mb6.3						
BER				eS	S	12 19 00.3	+2.0
BER				AMS	AMS	12 27 32.8	
	comp=Z,79µm,17.1s,MS6.3						
BER	Bergen	26.24	341	eP	P	12 14 28.7	+0.2
	comp=Z,415nm,0.4s,mb6.3,SNR=28						
ASK	Askoy	26.36	341	eP	P	12 14 28.1	-1.5
ASK				AMb	AMB	12 14 31.1	
	comp=Z,504nm,1.5s,mb5.8						
PGBU	Glenifferbraes	26.39	326⇑	eP	P	12 14 29.3	-0.6
PGBU				AMb	AMB	12 14 32.2	
	comp=Z,192nm,1.4s,mb5.4						
PGBU				AMS	AMS	12 27 45.6	
	comp=Z,60µm,20.1s,MS6.1						
DCN	Croghan	26.44	319	eP	P	12 14 29.1	-1.3
DCN	Croghan	26.44	319	eP	P	12 14 29.1	-1.3
EAB	Aberfoyle	26.55	327⇑	iP	P	12 14 30.8	-0.5
MME1	Meikle Cairn	26.67	330⇑	iP	P	12 14 31.4	-1.0
HYA	Hoyanger	26.71	343⇑	iP	P	12 14 33.3	+0.6
HYA				AMb	AMB	12 14 37.7	
	comp=Z,722nm,1.3s,mb6.0						
HYA	Hoyanger	26.71	343⇑	iP	P	12 14 33.3	+0.5
	comp=Z,722nm,1.3s,mb6.0,SNR=32						
DOMB	Dombas	26.90	347⇑	iP	P	12 14 34.6	+0.2
DOMB				AMb	AMB	12 14 56.3	
	comp=Z,1µm,1.0s,mb6.4						
DOMB	Dombas	26.90	347⇑	iP	P	12 14 34.6	+0.2
	comp=Z,1µm,1.0s,mb6.4,SNR=32						
KLMR	Klimovskoe	26.95	19⇑	iP	P	12 14 33.1	-1.8
KLMR				eS	S	12 19 17.4	+7.9
KLMR				pmax	pmax		
	comp=Z,2µm,1.6s,mb6.4						
MCD	Coleburn Disti	26.97	330⇑	iP	P	12 14 34.2	-0.8
JOF	Joensuu	27.20	9	eP	P	12 14 35.2	-1.9
JOF				pmax	pmax		
	comp=Z,333nm,0.8s,mb5.9						
JOF	Joensuu	27.20	9	ep	P	12 14 35.2	-1.9
	comp=Z,333nm,0.8s,mb5.9						
JOF	Joensuu	27.20	9	eP	P	12 14 35.2	-1.9
MDO	Dochfour	27.33	329⇑	iP	P	12 14 37.4	-1.0
FOO	Floro	27.36	343⇑	iP	P	12 14 36.8	-1.8
FOO				AMS	AMS	12 28 06.2	
	comp=Z,64µm,16.8s,MS6.3						
VAL	Valentia	27.49	315⇓	iS	S	12 19 15.0	-3.0
MLA1	Latheron	27.49	331⇑	iP	P	12 14 39.0	-0.7
MVH1	Achvaich	27.57	330⇑	iP	P	12 14 39.4	-1.1
KAR1	Arisaig	27.64	327⇑	iP	P	12 14 40.9	-0.2
MOL	Molde	27.67	346	AMS	AMS	12 28 15.5	
	comp=Z,24µm,19.1s,MS5.8						
KAC	Achnashellach	27.77	328⇑	eP	P	12 14 40.2	-2.1
KPL	Plockton	27.82	328⇑	eP	P	12 14 42.1	-0.6
KPL				AMb	AMB	12 14 47.5	
	comp=Z,528nm,1.4s,mb6.0						
KPL				e		12 19 40.2	
KPL				AMS	AMS	12 28 48.1	
	comp=Z,96µm,18.8s,MS6.4						
LRW	Lerwick	27.99	335⇑	eP	P	12 14 43.2	-1.0
LRW				AMb	AMB	12 14 45.4	
	comp=Z,811nm,1.2s,mb6.2						
LRW				AMS	AMS	12 29 02.0	
	comp=Z,39µm,18.2s,MS6.0						
WAL1	Walls	28.23	335⇑	eP	P	12 14 45.1	-1.2
KSK	Scoval	28.35	327⇑	eP	P	12 14 47.1	-0.3
NSS	Namsos	28.80	351	eS	S	12 19 43.2	+4.7
NSS				AMS	AMS	12 28 34.3	
	comp=Z,63µm,18.9s,MS6.2						
VAN	Vannovskaya	28.84	76⇓	iP	P	12 14 51.0	-1.0
ABKT	Ailbek	28.85	76	P	P	12 14 51.1	-1.0
	comp=Z,1µm,0.6s,mb6.9,SNR=87						
PRGR	Permogore	29.36	23⇑	iP	P	12 14 54.8	-1.6
PRGR				e*PP	pP	12 15 04.3	-2.2
PRGR				e*SP	sP	12 15 08.5	-2.3
PRGR				eS	S	12 19 41.9	-5.5
PRGR				e*SS	sS	12 19 58.2	-5.9
PRGR				pmax	pmax		
	comp=Z,340nm,1.1s,mb6.0						
PRGR				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.1						
TORD	Torodi Ar. Bea	29.36	223	P	P	12 14 55.8	-1.1
	comp=Z,68nm,0.8s,mb5.5,baz=35,slow=8.3,SNR=171						
TORD				ScP	ScP	12 21 40.1	-1.5
	comp=Z,7.8nm,0.9s,baz=53,slow=4.3,SNR=5.0						
TORD				LR	LR	12 28 17.6	
	comp=Z,36µm,18.7s,MS6.0,baz=35,slow=39						
TORD				P3KPbc		12 47 03.8	
	comp=Z,2.1nm,1.1s,baz=256,slow=4.9,SNR=5.6						
TORD	Torodi Ar. Bea	29.36	223	P	P	12 14 55.8	-1.1
TORD				ScP	ScP	12 21 40.1	-1.5
TORD				LR	LR	12 28 17.6	
TORD				e		12 47 03.8	
AKTK	Aktyubinsk	29.48	50	P	P	12 14 56.0	-1.5
AKTK				LR	LR	12 29 43.5	
AKTK	Aktyubinsk	29.48	50	P	P	12 14 56.0	-1.5
AKTO	Aktyubinsk	29.48	50	P	P	12 14 56.0	-1.5
	comp=Z,134nm,0.9s,mb5.7,baz=256,slow=9.3,SNR=244						
AKTO				LR	LR	12 29 43.5	
	comp=Z,29µm,20.1s,MS5.9,baz=262,slow=42						
DHBB	Dhamar BB	29.63	131⇑	eP	P	12 14 59.8	+0.6
DHBB				AMb	AMB	12 15 02.4	
	comp=Z,506nm,1.9s,mb5.9						
DESE	Dese	29.86	143	eP	P	12 15 03.3	+2.0
DESE				S	S	12 19 58.5	+2.5
MOR8	Moi Rana	30.14	354⇑	iP	P	12 15 03.2	0.0
STOK	Stokkvaagen	30.43	353	eP	P	12 15 05.9	+0.1
STOK				AMS	AMS	12 29 27.1	
	comp=Z,67µm,18.7s,MS6.3						
AB31	Akbulak array	30.44	53	P	P	12 15 04.4	-1.6
AB31				pmax	pmax		
	comp=Z,244nm,1.1s,mb5.8						
TRBA	At Turbah	30.52	133⇑	eP	P	12 15 07.6	+0.5
TRBA				AMb	AMB	12 15 09.8	
	comp=Z,117nm,1.6s,mb5.5						
KONS	Konsvik	30.58	353	e	P	12 15 09.6	+2.5
NAZ	Nazwa, Dubai	31.08	102 ⇑	P	P	12 15 11.3	-0.7
	SNR=72						
BANOM	Banah	31.14	100	P	P	12 15 11.7	-0.8
	SNR=36						
FAQ	Al Faqa, Dubai	31.15	102	P	P	12 15 11.8	-0.7
	SNR=53						
FURI	Furi	31.36	147	eP	P	12 15 17.3	+2.8
FURI				S	S	12 20 25.3	+5.8
PMPS	Porto Santo	31.41	275	eP	P	12 15 16.0	+1.2
	comp=Z,367nm,1.1s,mb6.1						
HATD	Hatta, Dubai	31.53	102	P	P	12 15 15.0	-0.9
	SNR=68						
ARU	Arti	31.75	39	P	P	12 15 15.1	-2.4
	comp=Z,3µm,1.2s,mb7.0,SNR=82						
ARU	Arti	31.75	39c	iP	P	12 15 16.3	-1.2
ARU				e		12 16 20.3	
ARU				ePPP		12 16 31.2	
ARU				e		12 18 05.1	
ARU				eS	S	12 20 24.5	-0.3
ARU				eSS	SS	12 22 15.9	-26
ARU				eSSS		12 22 31.4	
ARU				pmax	pmax		
	comp=Z,871nm,1.2s,mb6.5						
ARU				MLR	MLR		
	comp=Z,36µm,16.0s,MS6.1						
ARU	Arti	31.75	39	eP	P	12 15 15.5	-2.0
	comp=Z,1µm,1.3s,mb6.5						
ARU	Arti	31.75	39	eP	P	12 15 15.5	-2.0
	comp=Z,1µm,1.3s,mb6.5						
APA	Apatity	31.92	8⇓	iP	P	12 15 17.8	-1.1
APA				iS	S	12 20 25.0	-2.3
APA				pmax	pmax		
	comp=Z,670nm,1.8s,mb6.2						
APA				MLR	MLR		
	comp=Z,88µm,16.0s,MS6.5						
PMAR	Madeira	31.98	275	eP	P	12 15 21.4	+1.6
	comp=Z,584nm,1.0s,mb6.4						
LOF	Lofoten	32.14	354	eP	P	12 15 23.4	+2.6
LOF				AMb	AMB	12 15 28.9	
	comp=Z,446nm,1.6s,mb6.0						
SOKR	Solikamsk	32.33	33c	iP	P	12 15 21.5	-1.0
SOKR				S	S	12 20 28.5	-5.3
SOKR				pmax	pmax		
	comp=Z,1µm,0.9s,mb6.7						
SOKR				MLR	MLR		
	comp=Z,28µm,16.0s,MS6.0						
LVZ	Lovozero	32.39	9	P	P	12 15 22.2	-0.8
	comp=Z,583nm,0.9s,mb6.4,SNR=6.6						
LVZ	Lovozero	32.39	9	eP	P	12 15 22.9	-0.1
LVZ				pmax	pmax		
	comp=Z,69nm,0.8s,mb5.5						
LVZ				MLR	MLR		
	comp=Z,88µm,17.0s,MS6.5						
LVZ	Lovozero	32.39	9	eP	P	12 15 22.0	-1.0
LVZ	Lovozero	32.39	9	eP	P	12 15 22.0	-1.0
ARQ	Araqi	32.59	104 ⇓	P	P	12 15 24.6	-0.7
	SNR=47						
MUKL	Al Mukalla	32.66	125⇑	eP	P	12 15 26.1	+0.2
MUKL				AMb	AMB	12 15 27.5	
	comp=Z,580nm,1.5s,mb6.3						
SVE	Sverdlovsk	32.96	39⇓	eP	P	12 15 26.9	-1.2
SVE				eS	S	12 20 40.5	-3.2
SVE				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
SVE				MLR	MLR		
	comp=Z,37µm,16.0s,MS6.2						
HOQ	Hoqain	33.09	103 ⇑	P	P	12 15 28.5	-1.1
	SNR=71						
ARCES	ARCESS Array B	33.27	2	P	P	12 15 29.9	-0.8
	comp=Z,284nm,1.0s,mb6.1,baz=190,slow=4.8,SNR=96						
ARCES				LR	LR	12 30 17.2	
	comp=Z,62µm,19.0s,MS6.3,baz=186,slow=39						
ARCES	ARCESS Array B	33.27	2	P	P	12 15 29.9	-0.8
ARE0	ARCESS Array S	33.27	2	eP	P	12 15 29.8	-0.9
ARE0	ARCESS Array S	33.27	2	eP	P	12 15 29.8	-0.9
TRO	Tromso	33.34	358	eP	P	12 15 31.4	+0.1
	comp=Z,52µm,18.7s						
TRO				eS	S	12 20 51.2	+1.8
TRO				AMS	AMS	12 30 57.3	
	comp=Z,51µm,19.2s,MS6.2						
BSY	Bisya	33.43	104	P	P	12 15 31.6	-1.0
	SNR=71						
KEV	Kevo	33.55	3	eP	P	12 15 33.5	+0.4
KEV				pmax	pmax		
	comp=Z,18nm,0.3s,mb5.5						
KEV	Kevo	33.55	3	ep	P	12 15 33.5	+0.4
	comp=Z,18nm,0.3s,mb5.5						
KEV	Kevo	33.55	3	eP	P	12 15 33.5	+0.4
	comp=Z,18nm,0.3s,mb5.5						
WHFO	Wadi Hawf	33.63	115	P	P	12 15 33.4	-1.0
	SNR=16						
ABTO	Aybut	33.65	116 ⇓	P	P	12 15 33.9	-0.6
	SNR=29						
BIDO	Bidbid	33.76	102 ⇑	P	P	12 15 34.5	-1.0
	SNR=19						
SMDO	Samad	33.94	103	P	P	12 15 35.8	-1.2
	SNR=99						
RBK	Rabkut	34.22	115 ⇓	P	P	12 15 38.7	-0.8
	SNR=26						
JMDO	Jabal Madar	34.34	104 ⇑	P	P	12 15 39.5	-1.1
	SNR=53						
WBK	Wadi Bani Khal	34.90	103 ⇓	P	P	12 15 44.5	-0.8
	SNR=77						
BRVK	Borovoye	37.44	48	eP	P	12 16 05.7	-1.0
BRVK				e*PP	pP	12 16 15.1	-1.9
BRVK				e		12 17 30.8	
BRVK				pmax	pmax		
	comp=Z,356nm,1.0s,mb6.2						
BRVK	Borovoye	37.44	48	eP	P	12 16 05.7	-1.0
	comp=Z,356nm,1.0s,mb6.2						
BRVK				epP	pP	12 16 15.1	-1.9
BRVK				ePP	PP	12 17 30.8	-1.6
BRVK	Borovoye	37.44	48 ⇓	P	P	12 16 06.2	-0.5
	SNR=110						
BRVK			⇓	P		12 16 06.2	
	SNR=110						
BRVK	Borovoye	37.44	48	eP	P	12 16 05.7	-1.0
	comp=Z,356nm,1.0s,mb6.2						
BRVK				epP	pP	12 16 15.1	-1.9
CMLA	Cha da Macela	37.49	287	eP	P	12 16 02.4	-5.0
	comp=Z,164nm,1.7s,mb5.6						
CMLA				eLQ		12 24 53.2	
CMLA				eLR	LR	12 27 33.6	
CMLA	Cha da Macela	37.49	287	eP	P	12 16 10.5	+3.1
CMLA				pmax	pmax		
	comp=Z,164nm,1.0s,mb5.8						
CMLA	Cha da Macela	37.49	287	eP	P	12 16 10.5	+3.2
	comp=Z,164nm,1.0s,mb5.8						
CMLA	Cha da Macela	37.49	287	eP	P	12 16 10.5	+3.1
	comp=Z,164nm,1.0s,mb5.8						
BVA0	Borovoye Array	37.50	48	iP	P	12 16 05.5	-1.8
BVA0				pmax	pmax		
	comp=Z,108nm,1.9s,mb5.2						
BVAR	Borovoye Array	37.50	48	P	P	12 16 06.0	-1.2
BVAR						12 17 35.3	
BVAR	Borovoye Array	37.50	48	P	P	12 16 06.0	-1.3
	comp=Z,71nm,0.7s,mb5.5,baz=256,slow=6.0,SNR=233						
BVAR				PP	PP	12 17 35.3	+2.3
	comp=Z,121nm,1.0s,baz=256,slow=12,SNR=5.3						
BVAR				LR	LR	12 33 32.4	
	comp=Z,27µm,21.1s,MS6.0,baz=255,slow=40						
BVAR	Borovoye Array	37.50	48	P	P	12 16 06.0	-1.2
BVAR	Borovoye Array	37.50	48	PP	PP	12 17 35.3	+2.3
KK31	Karatay Array	37.59	64	eP	P	12 16 06.8	-1.3
KK31				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.4						
KK31	Karatay Array	37.59	64	iP	P	12 16 06.8	-1.3
KK31	Karatay Array	37.59	64	iP	P	12 16 06.8	-1.3
MBAR	Mbarara	37.72	165⇓	iP	P	12 16 08.4	-1.0
MBAR	Mbarara	37.72	165	eP	P	12 16 08.4	-1.0
MBAR				AMb	AMB	12 17 13.5	
	comp=Z,166nm,1.7s,mb5.5						
JMIC	Jan Mayen	38.17	344	e	P	12 16 17.8	+5.2
JMIC	Jan Mayen	38.17	344	P	P	12 16 12.6	-0.1
	comp=Z,193nm,0.9s,mb5.8,baz=148,slow=4.5,SNR=7.8						
JMIC	Jan Mayen	38.17	344	P	P	12 16 12.6	0.0
JNW	Jan Mayen West	38.18	345	eP	P	12 16 14.2	+1.5
KBL	Kabul	38.20	78	eP	P	12 16 12.8	-0.6
KBL				e*PP	pP	12 16 21.0	-2.6
KBL				e*SP	sP	12 16 25.7	-2.2
KBL				pmax	pmax		
	comp=Z,268nm,1.1s,mb5.9						
KBL	Kabul	38.20	78	eP	P	12 16 12.8	-0.6
	comp=Z,268nm,1.1s,mb5.9						
KBL				epP	pP	12 16 21.0	-2.7
KBL				esP	sP	12 16 25.7	-2.2
KBL	Kabul	38.20	78	eP	P	12 16 12.8	-0.6
	comp=Z,268nm,1.1s,mb5.9						
KBL				epP	pP	12 16 21.0	-2.6
BJO	Bjornoya	38.23	359	AMS	AMS	12 34 08.4	
	comp=Z,29µm,19.5s,MS6.1						
DBIC	Dimbokro	38.34	226	eP	P	12 16 13.6	-1.1
DBIC				eS	S	12 21 59.7	-7.3
DBIC				pmax	pmax		
	comp=Z,304nm,1.1s						
DBIC	Dimbokro	38.34	226	P	P	12 16 13.7	-1.1
	comp=Z,123nm,0.8s,mb5.7,baz=21,slow=9.7,SNR=80						
DBIC				LR	LR	12 34 12.5	
	comp=Z,18µm,18.0s,MS5.9,baz=8.9,slow=40						
DBIC	Dimbokro	38.34	226	eP	P	12 16 13.6	-1.1
	comp=Z,304nm,1.1s,mb5.9						
DBIC				eS	S	12 21 59.7	-7.3
DBIC	Dimbokro	38.34	226⇓	iP	P	12 16 13.3	-1.4
DBIC	Dimbokro	38.34	226	eP	P	12 16 13.6	-1.1
	comp=Z,304nm,1.1s,mb5.9						
TIC	Toumodi	38.46	226	eP	P	12 16 14.1	-1.6
	comp=Z,1µm,1.2s,mb6.5						
KIC	Kosan Boka	38.53	226	eP	P	12 16 14.8	-1.5

	comp=Z,1µm,0.9s,mb6.6						
LIC	**Lamto**	**38.80**	**226**	⇓*i*P	**P**	**12 16 17.5**	**-1.1**
	comp=Z,1µm,1.3s,mb6.2,baz=40						
LIC				*e*MLR	MLR		
	comp=Z,36µm,22.2s,MS5.8						
LIC	**Lamto**	**38.80**	**226**	*e*P	**P**	**12 16 17.0**	**-1.6**
	comp=Z,1µm,1.3s,mb6.5						
LIC	**Lamto**	**38.80**	**226**	⇓*i*P	**P**	**12 16 17.5**	**-1.1**
	comp=Z,700nm,1.3s,mb6.2						
LIC				LR	LR		
	comp=Z,18µm,22.3s,MS5.8						
KMBO	**Kilima Mbogo**	**39.98**	**156**	P	**P**	**12 16 29.7**	**+1.3**
	comp=Z,27nm,1.2s,mb4.9,baz=326,slow=7.5,SNR=13						
KMBO				LR	LR	12 35 39.7	
	comp=Z,18µm,19.1s,MS5.9,baz=89,slow=40						
KMBO	**Kilima Mbogo**	**39.98**	**156**	P	**P**	**12 16 29.7**	**+1.3**
EKS2	**Erkin-Say**	**40.03**	**65**	P	**P**	**12 16 28.3**	**-0.2**
	SNR=447						
EKS2	**Erkin-Say**	**40.03**	**65**	*e*P	**P**	**12 16 28.2**	**-0.4**
	comp=Z,287nm,2.1s,mb5.6						
EKS2	**Erkin-Say**	**40.03**	**65**	*e*P	**P**	**12 16 28.2**	**-0.4**
	comp=Z,287nm,2.1s,mb5.6						
AML	**Almayashu**	**40.05**	**65**	P	**P**	**12 16 29.4**	**+0.6**
	SNR=10						
AML	**Almayashu**	**40.05**	**65**	*e*P	**P**	**12 16 28.1**	**-0.7**
	comp=Z,287nm,2.1s,mb5.6						
AML	**Almayashu**	**40.05**	**65**	*e*P	**P**	**12 16 28.1**	**-0.7**
	comp=Z,287nm,2.1s,mb5.6						
BBTS	**Babate**	**40.45**	**248**	P	**P**	**12 16 33.0**	**+0.6**
	comp=Z,186nm,1.1s,mb5.7,baz=64,slow=0.6,SNR=11						
BBTS	**Babate**	**40.45**	**248**	P	**P**	**12 16 33.0**	**+0.6**
BBTS	**Babate**	**40.45**	**248**	P	**P**	**12 16 33.0**	**+0.6**
USP	**Ospenovka**	**40.46**	**64**	P	**P**	**12 16 30.6**	**-1.5**
	SNR=254						
AAK	**Ala-Archa**	**40.56**	**64**	*e*P	**P**	**12 16 32.6**	**-0.3**
AAK				pmax	pmax		
	comp=Z,359nm,0.9s,mb6.0						
AAK	**Ala-Archa**	**40.56**	**64**	P	**P**	**12 16 32.4**	**-0.5**
	SNR=337						
AAK	**Ala-Archa**	**40.56**	**64**	*e*P	**P**	**12 16 32.6**	**-0.4**
	comp=Z,359nm,0.9s,mb6.0						
AAK	**Ala-Archa**	**40.56**	**64**	*e*P	**P**	**12 16 32.6**	**-0.3**
	comp=Z,359nm,0.9s,mb6.0						
FRU	**Bishkek**	**40.62**	**64**	α*i*P	**P**	**12 16 33.0**	**-0.4**
FRU				*e*		12 18 04.5	
FRU				*e*S	**S**	**12 22 38.5**	**-2.1**
FRU				*e*SS	SS	12 25 34.0	-7.3
FRU				smax			
	comp=E,6µm,6.5s						
FRU				MLR	MLR		
	comp=E,19µm,18.0s						
FRU				MLR	MLR		
	comp=Z,16µm,18.0s,MS5.9						
UCH	**Uchtor**	**40.64**	**65**	P	**P**	**12 16 34.0**	**+0.4**
	SNR=11						
UCH	**Uchtor**	**40.64**	**65**	*e*P	**P**	**12 16 33.4**	**-0.2**
	comp=Z,287nm,2.1s,mb5.5						
UCH	**Uchtor**	**40.64**	**65**	*e*P	**P**	**12 16 33.4**	**-0.2**
	comp=Z,287nm,2.1s,mb5.5						
CHMS	**Chumysh**	**40.69**	**64**	P	**P**	**12 16 33.2**	**-0.8**
	SNR=274						
HSP	**Hornsund**	**40.82**	**358**	*e*P	**P**	**12 16 35.7**	**+1.0**
KBK	**Karagaybulak**	**40.88**	**64**	P	**P**	**12 16 35.5**	**-0.1**
	SNR=142						
KZA	**Kyzart**	**41.20**	**65**	P	**P**	**12 16 38.7**	**+0.4**
	SNR=194						
SCO	**Scoresbysund**	**41.23**	**339**	⇑*i*P	**P**	**12 16 40.0**	**+1.9**
SCO				*i* S	**S**	**12 22 52.4**	**+3.3**
SCO				pmax	pmax		
	comp=Z,280nm,1.0s,mb5.8						
SCO				MLR	MLR		
	comp=Z,16µm,18.0s,MS5.9						
SCO	**Scoresbysund**	**41.23**	**339**	⇑*i*P	**P**	**12 16 40.0**	**+1.9**
	comp=Z,279nm,1.0s,mb5.8						
SCO				*i* S	**S**	**12 22 52.4**	**+3.3**
SCO							
	comp=Z,16µm,18.0s						
SCO	**Scoresbysund**	**41.23**	**339**	⇑*i*P	**P**	**12 16 40.0**	**+1.9**
	comp=Z,279nm,1.0s,mb5.8						
SCO				*i* S	**S**	**12 22 52.4**	**+3.3**
TKM2	**Tokmak 2**	**41.31**	**64**	*e*P	**P**	**12 16 38.4**	**-0.7**
TKM2				pmax	pmax		
	comp=Z,76nm,1.4s,mb5.1						
TKM2	**Tokmak 2**	**41.31**	**64**	P	**P**	**12 16 38.4**	**-0.7**
	SNR=191						
TKM2	**Tokmak 2**	**41.31**	**64**	*e*P	**P**	**12 16 38.4**	**-0.8**
	comp=Z,76nm,1.4s,mb5.1						
TKM2	**Tokmak 2**	**41.31**	**64**	*e*P	**P**	**12 16 38.4**	**-0.7**
	comp=Z,76nm,1.4s,mb5.1						
ULHL	**Ulahol**	**41.90**	**65**	P	**P**	**12 16 44.1**	**+0.1**
	SNR=48						
SPITS	**Spitsbergen Ar**	**41.97**	**358**	P	**P**	**12 16 44.6**	**+0.5**
	comp=Z,244nm,0.9s,mb5.8,baz=306,slow=11,SNR=89						
SPITS	**Spitsbergen Ar**	**41.97**	**358**	P	**P**	**12 16 44.6**	**+0.6**
SPB4	**Spitsbergen Ar**	**41.97**	**358**	*e*P	**P**	**12 16 44.5**	**+0.4**
SPB4				*e*PP	PP	12 18 20.2	-1.1
SPB4	**Spitsbergen Ar**	**41.97**	**358**	*e*P	**P**	**12 16 44.5**	**+0.4**
AAA	**Alma-Ata**	**42.23**	**63**	*i* P	**P**	**12 16 47.0**	**+0.4**
AAA				*i* S	**S**	**12 23 04.2**	**-0.3**
AAA				pmax	pmax		
	comp=Z,7µm,3.9s						
AAA				smax			
	comp=N,10µm,8.3s						
AAA				MLR	MLR		
	comp=Z,13µm,17.0s,MS5.9						
AAA	**Alma-Ata**	**42.23**	**63**	*e*P	**P**	**12 16 46.9**	**+0.3**
AAA	**Alma-Ata**	**42.23**	**63**	*e*P	**P**	**12 16 46.9**	**+0.3**
KSH	**Kashi**	**42.27**	**69**	⇑*i*P	**P**	**12 16 45.0**	**-2.0**
KSH				pP	pP	12 16 54.8	-2.6
KSH				sP	sP	12 16 59.0	-2.6
KSH				*e*PP	PP	12 18 25.1	-0.1
KSH				*e*PcP	PcP	12 18 41.3	+0.9
KSH				*e*ScP	ScP	12 22 28.1	-0.1
KSH				S	**S**	**12 23 00.0**	**-5.3**
KSH				sS	sS	12 23 16.1	-6.2
KSH				*e*SS	SS	12 26 01.1	-13
KSH				ScS	ScS	12 26 43.0	-3.2
KSH				pmax	pmax		
	comp=Z,67nm,1.0s,mb5.2						
KSH				LR	LR		
	comp=N,13µm,18.4s,MS6.0						
KSH				LR	LR		
	comp=E,12µm,18.3s,MS6.0						
KSH				LR	LR		
	comp=Z,10µm,13.6s,MS5.9						
KURK	**Kurchatov**	**42.53**	**52**	*e*P	**P**	**12 16 47.3**	**-1.7**
KURK				pmax	pmax		
	comp=Z,311nm,1.1s,mb6.0						
KURK	**Kurchatov**	**42.53**	**52**	P	**P**	**12 16 46.9**	**-2.1**
	comp=Z,38nm,0.6s,mb5.3,baz=278,slow=8.6,SNR=89						
KURK				LR	LR	12 39 17.2	
	comp=Z,21µm,18.8s,MS6.0,baz=280,slow=43						
KURK	**Kurchatov**	**42.53**	**52**	*e*P	**P**	**12 16 47.3**	**-1.7**
	comp=Z,311nm,1.1s,mb6.0						
KURK	**Kurchatov**	**42.53**	**52**	⇓P	**P**	**12 16 48.1**	**-0.9**
	SNR=97						
KURK				⇓P		12 16 48.1	
	SNR=97						
KURK	**Kurchatov**	**42.53**	**52**	*e*P	**P**	**12 16 47.3**	**-1.7**
	comp=Z,311nm,1.1s,mb6.0						
KBS	**Kingsbay**	**42.85**	**357**	P	**P**	**12 16 52.0**	**+0.8**
KBS				pmax	pmax		
	comp=Z,400nm,1.1s,mb6.1						
KBS	**Kingsbay**	**42.85**	**357**	*e*S	**S**	**12 23 14.8**	**+1.9**
KBS				*e*SS	SS	12 26 28.1	+3.7
KBS				AMS	AMS	12 37 28.3	
	comp=Z,13µm,18.1s,MS5.9						
KBS	**Kingsbay**	**42.85**	**357**	*e*P	**P**	**12 16 51.7**	**+0.5**
	comp=Z,404nm,1.1s,mb6.1						
KBS	**Kingsbay**	**42.85**	**357**	*e*P	**P**	**12 16 51.7**	**+0.5**
	comp=Z,404nm,1.1s,mb6.1						
BHJ	**Bhuj**	**43.10**	**94**	*e*PKP	**P**	**12 16 54.4**	**+0.5**
BHJ				AMb	AMB	12 16 57.9	
	comp=Z,543nm,1.2s,mb6.1						
BHJ				*i* x	x	12 18 35.5	
BHJ				*e*S	**S**	**12 23 16.8**	**-1.0**
THN	**Thein Dam**	**44.16**	**79**	*e*PKP	**P**	**12 17 00.4**	**-1.9**
THN				*e*x	x	12 23 29.0	
DAG	**Danmarks Havn**	**44.27**	**348**	⇓*i*P	**P**	**12 17 03.1**	**+0.4**
DAG				pmax	pmax		
	comp=Z,170nm,1.1s,mb5.7						
DAG				MLR	MLR		
	comp=N,6µm,18.0s,MS5.9						
DAG				MLR	MLR		
	comp=Z,17µm,18.0s,MS6.0						
DAG				MLR	MLR		
	comp=E,13µm,19.0s,MS5.9						
DAG	**Danmarks Havn**	**44.27**	**348**	⇓*i*P	**P**	**12 17 03.1**	**+0.4**
	comp=E,170nm,1.1s,mb5.7						
DAG							
	comp=Z,17µm,18.0s						
NVS	**Novosibirsk**	**45.16**	**46**	⇑*i*P	**P**	**12 17 09.1**	**-0.9**
NVS				*i*		12 18 56.5	
NVS				*e*S	**S**	**12 23 39.4**	**-7.5**
NVS				*e*		12 27 00.6	
NVS				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.4						
NVS				pmax	pmax		
	comp=N,345nm,1.8s						
NVS				pmax	pmax		
	comp=E,743nm,2.1s						
NVS				smax			
	comp=N,996nm,2.1s						
NVS				smax			
	comp=E,330nm,2.5s						
MK31	**Makanchi Array**	**45.37**	**57**	P	**P**	**12 17 10.4**	**-1.4**
MK31				pmax	pmax		
	comp=Z,85nm,0.5s,mb5.8						
MK31	**Makanchi Array**	**45.37**	**57**	*i* P	**P**	**12 17 10.4**	**-1.4**
MK31	**Makanchi Array**	**45.37**	**57**	*i* P	**P**	**12 17 10.4**	**-1.4**
MKAR	**Makanchi Array**	**45.37**	**57**	P	**P**	**12 17 10.4**	**-1.5**
	comp=Z,85nm,0.4s,mb5.9,baz=273,slow=7.3,SNR=483						
MKAR				ScP	ScP	12 22 40.4	-0.4
	comp=Z,15nm,0.9s,baz=302,slow=2.3,SNR=3.7						
MKAR				LR	LR	12 40 54.4	
	comp=Z,7µm,18.7s,MS5.6,baz=274,slow=42						
SDNR	**Sundarnagar**	**45.48**	**79**	*e*PKP	**P**	**12 17 11.9**	**-1.0**
SDNR				*e*x	x	12 23 46.7	
AJM	**Ajmer**	**45.65**	**87**	⇑*e*PKP	**P**	**12 17 13.8**	**-0.4**
AJM				AMb	AMB	12 17 17.4	
	comp=Z,355nm,2.2s,mb5.9						
AJM				*e*S	**S**	**12 23 53.6**	**-1.1**
ZAA0	**Zalesovo Array**	**46.13**	**47**	*e*P	**P**	**12 17 15.8**	**-2.0**
ZAA0	**Zalesovo Array**	**46.13**	**47**	*e*P	**P**	**12 17 15.8**	**-1.9**
ZALV	**Zalesovo Beam**	**46.13**	**47**	P	**P**	**12 17 15.7**	**-2.0**
	comp=Z,117nm,0.6s,mb6.0,baz=270,slow=8.9,SNR=380						
ZALV				LR	LR	12 41 47.1	
	comp=Z,10µm,19.7s,MS5.8,baz=120,slow=43						
ZALV	**Zalesovo Beam**	**46.13**	**47**	P	**P**	**12 17 15.7**	**-2.0**
NDI	**New Delhi**	**46.78**	**83**	*i* P	**P**	**12 17 21.5**	**-1.7**
	comp=Z,50nm,0.7s,mb5.5						
NDI				*e*x	x	12 24 06.0	
DDI	**Dehra Dun**	**46.80**	**80**	*e*PKP	**P**	**12 17 21.0**	**-2.3**
DDI				*e*x	x	12 24 05.0	
SUMG	**Summit**	**46.87**	**339**	*e*P	**P**	**12 17 24.5**	**+1.2**
	comp=Z,366nm,1.1s,mb6.2						
SUMG	**Summit**	**46.87**	**339**	*e*P	**P**	**12 17 24.5**	**+1.2**
	comp=Z,366nm,1.1s,mb6.2						
PTH	**Pithoragarh**	**48.82**	**80**	*e*PKP	**P**	**12 17 37.2**	**-1.8**
PTH				*e*x	x	12 24 27.8	
POO	**Poona**	**48.87**	**97**	⇑*i*P	**P**	**12 17 37.0**	**-2.5**
	comp=Z,300nm,1.0s,mb6.3						
POO				*i* PCP	PcP	12 19 04.0	+0.4
POO				*i* x	x	12 19 29.5	
POO				*e*PCS	PcS	12 22 58.5	-1.6
POO				*e*SCS	ScS	12 27 28.5	-0.8
LGTI	**Lohaghat**	**48.89**	**80**	*e*x	**P**	**12 17 34.5**	**-5.0**
LGTI				*e*x	x	12 24 31.2	
WMQ	**Urumqi**	**49.73**	**60**	⇑*i*P	**P**	**12 17 45.1**	**-0.6**
WMQ				pP	pP	12 17 55.0	-1.2
WMQ				sP	sP	12 17 59.0	-1.4
WMQ				PcP	PcP	12 19 07.0	+0.6
WMQ				PP	PP	12 19 41.0	+0.7
WMQ				S	**S**	**12 24 50.0**	**-2.3**
WMQ				sS	sS	12 25 07.0	-2.6
WMQ				ScS	ScS	12 27 31.0	-3.4
WMQ				SS	SS	12 28 20.0	-4.6
WMQ				pmax	pmax		
	comp=Z,330nm,1.3s,mb6.2						
WMQ				pmax	pmax		
	comp=Z,4µm,4.4s						
WMQ				LR	LR		
	comp=N,12µm,21.4s,MS6.3						
WMQ				LR	LR		
	comp=E,26µm,19.5s,MS6.3						
WMQ				LR	LR		
	comp=Z,26µm,19.9s,MS6.2						
KAD	**Karad**	**49.80**	**98**	⇑*i*P	**P**	**12 17 46.1**	**-0.4**
KAD				AMb	AMB	12 17 49.4	
	comp=Z,203nm,1.6s,mb5.9						
KAD				*e*S	**S**	**12 24 52.3**	**-1.4**
SFJD	**Kangerlussuaq**	**50.31**	**331**	P	**P**	**12 17 50.1**	**+0.4**
SFJD				pmax	pmax		
	comp=Z,112nm,1.1s,mb5.8						
SFJD	**Kangerlussuaq**	**50.31**	**331**	⇑*i*P	**P**	**12 17 50.0**	**+0.3**
	comp=Z,82nm,1.1s,mb5.7						
SFJD							
	comp=Z,20µm,18.0s						
SFJD	**Kangerlussuaq**	**50.31**	**331**	P	**P**	**12 17 50.1**	**+0.4**
	comp=Z,112nm,1.1s,mb5.8,baz=64,slow=8.5,SNR=38						
SFJD	**Kangerlussuaq**	**50.31**	**331**	⇑*i*P	**P**	**12 17 50.0**	**+0.3**
	comp=Z,82nm,1.1s,mb5.7						
KRAR	**Krasnoyarsk**	**50.51**	**43**	*c* *i*P	**P**	**12 17 50.6**	**-0.8**
KRAR				pmax	pmax		
	comp=Z,128nm,0.9s,mb5.8						
KRAR				MLR	MLR		
	comp=Z,23µm,19.0s,MS6.2						
LATR	**Latur**	**51.11**	**95**	*e*PKP	**P**	**12 17 54.2**	**-2.2**
JBP	**Jabalpur**	**51.47**	**88**	⇑*i*P	**P**	**12 17 56.9**	**-2.2**
JBP				*e*x	x	12 17 59.7	
	comp=Z,332nm,1.5s						
JBP				*e*x	x	12 25 08.3	
MSEY	**Mahe Island**	**51.55**	**135**	*e*P	**P**	**12 18 00.3**	**+0.5**
MSEY				pmax	pmax		
	comp=Z,427nm,1.4s,mb6.2						
MSEY	**Mahe Island**	**51.55**	**135**	*e*P	**P**	**12 18 00.3**	**+0.6**
	comp=Z,427nm,1.4s,mb6.2						
MSEY	**Mahe Island**	**51.55**	**135**	*e*P	**P**	**12 18 00.3**	**+0.5**
	comp=Z,427nm,1.4s,mb6.2						
LSZ	**Lusaka**	**51.73**	**172**	P	**P**	**12 18 01.1**	**+0.2**
LSZ				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.3						
LSZ				MLR	MLR		
	comp=Z,14µm,20.2s,MS6.0						
LSZ	**Lusaka**	**51.73**	**172**	P	**P**	**12 18 01.1**	**+0.2**
	comp=Z,36nm,0.9s,mb5.3,baz=2.7,slow=7.4,SNR=35						
LSZ				LR	LR	12 41 38.1	
	comp=Z,14µm,20.2s,MS6.0,baz=0.6,slow=38						
LSZ	**Lusaka**	**51.73**	**172**	*e*P	**P**	**12 18 00.6**	**-0.3**
	comp=Z,96nm,1.0s,mb5.7						
LSZ	**Lusaka**	**51.73**	**172**	P	**P**	**12 18 01.4**	**+0.4**
	SNR=14						
LSZ				P		12 18 01.4	
	SNR=14						
LSZ	**Lusaka**	**51.73**	**172**	⇓*i*P	**P**	**12 18 00.6**	**-0.3**
LSZ				AMb	AMB	12 18 51.2	
	comp=Z,2µm,1.4s,mb6.8						
LSZ	**Lusaka**	**51.73**	**172**	*e*P	**P**	**12 18 00.6**	**-0.3**
	comp=Z,96nm,1.0s,mb5.7						
DANN	**Dangsing**	**52.14**	**80**	*e*P	**P**	**12 18 03.7**	**-0.4**
	comp=Z,2µm,0.8s,mb7.0						
DANN	**Dangsing**	**52.14**	**80**	*e*P	**P**	**12 18 03.7**	**-0.4**
	comp=Z,2µm,0.8s,mb7.0						
KOLN	**Koldanda**	**52.27**	**81**	*e*P	**P**	**12 18 04.1**	**-0.9**
	comp=Z,2µm,1.3s,mb7.0						
KOLN	**Koldanda**	**52.27**	**81**	*e*P	**P**	**12 18 04.1**	**-0.9**
	comp=Z,2µm,1.3s,mb7.0						
MNGI	**Mangalore**	**52.77**	**102**	*i* P	**P**	**12 18 07.7**	**-1.1**
MNGI				*i* S	**S**	**12 25 33.5**	**-1.4**
GKN	**Gorkha**	**52.99**	**80**	*e*P	**P**	**12 18 09.2**	**-1.2**
	comp=Z,1µm,1.0s,mb6.8						
GKN	**Gorkha**	**52.99**	**80**	*e*P	**P**	**12 18 09.2**	**-1.2**
	comp=Z,1µm,1.0s,mb6.8						
HYB	**Hyderabad**	**53.24**	**95**	*e*P	**P**	**12 18 10.5**	**-1.8**
HYB				*e*S	**S**	**12 25 38.0**	**-3.2**
HYB				pmax	pmax		
	comp=Z,71nm,0.5s,mb5.8						
HYB	**Hyderabad**	**53.24**	**95**	⇑*i*P	**P**	**12 18 10.5**	**-1.8**
	comp=Z,77nm,0.8s,mb5.7						
HYB				*e*S	**S**	**12 25 40.0**	**-1.2**
HYB	**Hyderabad**	**53.24**	**95**	*e*P	**P**	**12 18 10.5**	**-1.8**
	comp=Z,71nm,0.5s,mb5.8						
HYB				*e*S	**S**	**12 25 38.0**	**-3.2**
HYB	**Hyderabad**	**53.24**	**95**	*e*P	**P**	**12 18 10.5**	**-1.8**
	comp=Z,71nm,0.5s,mb5.8						
ALE	**Alert**	**53.40**	**351**	P	**P**	**12 18 12.0**	**-0.6**
	comp=Z,706nm,0.7s,mb6.7,SNR=40						
DMN	**Daman**	**53.54**	**80**	*e*P	**P**	**12 18 13.6**	**-0.8**
	comp=Z,3µm,1.1s,mb7.1						
DMN	**Daman**	**53.54**	**80**	*e*P	**P**	**12 18 13.6**	**-0.8**
	comp=Z,3µm,1.1s,mb7.1						
KKN	**Kakani**	**53.59**	**80**	*e*P	**P**	**12 18 13.7**	**-1.1**
	comp=Z,293nm,0.4s,mb6.5						
PKI	**Pulchoki**	**53.79**	**80**	*e*P	**P**	**12 18 15.2**	**-1.1**
	comp=Z,3µm,1.2s,mb7.0						
PKI	**Pulchoki**	**53.79**	**80**	*e*P	**P**	**12 18 15.2**	**-1.1**
	comp=Z,3µm,1.2s,mb7.0						
GUN	**Gumba**	**54.02**	**80**	*e*P	**P**	**12 18 17.2**	**-0.7**
	comp=Z,3µm,1.1s,mb7.1						
GUN	**Gumba**	**54.02**	**80**	*e*P	**P**	**12 18 17.2**	**-0.7**
	comp=Z,3µm,1.1s,mb7.1						
JIRN	**Jiri**	**54.38**	**80**	*e*P	**P**	**12 18 19.9**	**-0.6**
	comp=Z,1µm,0.9s,mb6.8						
JIRN	**Jiri**	**54.38**	**80**	*e*P	**P**	**12 18 19.9**	**-0.6**
	comp=Z,1µm,0.9s,mb6.8						
RAMN	**Ramite**	**55.02**	**80**	*e*P	**P**	**12 18 23.8**	**-1.4**
	comp=Z,1µm,0.9s,mb7.0						
RAMN	**Ramite**	**55.02**	**80**	*e*P	**P**	**12 18 23.8**	**-1.4**
	comp=Z,1µm,0.9s,mb7.0						
ODAN	**Odare**	**55.69**	**80**	*e*P	**P**	**12 18 28.5**	**-1.5**
	comp=Z,1µm,1.2s,mb6.8						
ODAN	**Odare**	**55.69**	**80**	*e*P	**P**	**12 18 28.5**	**-1.5**
	comp=Z,1µm,1.2s,mb6.8						
TAPN	**Taplejung**	**55.72**	**79**	*e*P	**P**	**12 18 29.2**	**-1.0**
	comp=Z,2µm,1.3s,mb7.1						
TAPN	**Taplejung**	**55.72**	**79**	*e*P	**P**	**12 18 29.2**	**-1.0**
	comp=Z,2µm,1.3s,mb7.1						
BOK	**Bokaro**	**55.92**	**84**	⇑*i*P	**P**	**12 18 29.5**	**-2.2**
BOK				AMb	AMB	12 18 31.9	
	comp=Z,504nm,2.1s,mb6.2						
BOK				*e*x	x	12 26 09.6	
MOY	**Mondy**	**56.18**	**47**	*e*P	**P**	**12 18 33.0**	**-0.1**
MOY				pmax	pmax		
	comp=Z,461nm,3.6s						
SHBG	**Sahibganj**	**56.67**	**82**	*e*x	x	12 18 26.7	
VIS	**Vishakhapatnam**	**56.93**	**92**	⇑*i*P	**P**	**12 18 37.2**	**-1.7**
VIS				AMb	AMB	12 18 39.7	
	comp=Z,353nm,1.4s,mb6.2						
LSA	**Lhasa**	**57.38**	**75**	P	**P**	**12 18 42.0**	**0.0**
LSA				pP	pP	12 18 50.0	-2.7
LSA				sP	sP	12 18 55.0	-1.8
LSA				PcP	PcP	12 19 34.0	-1.7
LSA				PP	PP	12 20 50.3	+0.9
LSA				S	**S**	**12 26 30.1**	**-6.2**
LSA				sS	sS	12 26 55.4	+1.5
LSA				ScS	ScS	12 28 28.8	0.0
LSA				SS	SS	12 30 29.8	+3.9
LSA				pmax	pmax		
	comp=Z,320nm,1.1s,mb6.3						
LSA				LR	LR		
	comp=N,5µm,24.0s						
LSA				LR	LR		
	comp=E,10µm,37.4s						
LSA				LR	LR		
	comp=Z,14µm,34.7s						
LSA	**Lhasa**	**57.38**	**75**	*e*P	**P**	**12 18 41.8**	**-0.2**
LSA				*e*S	**S**	**12 26 34.4**	**-1.9**
LSA				pmax	pmax		
	comp=Z,339nm,0.8s,mb6.4						
LSA	**Lhasa**	**57.38**	**75**	*e*P	**P**	**12 18 41.8**	**-0.2**
	comp=Z,340nm,0.8s,mb6.4						
LSA				*e*S	**S**	**12 26 34.4**	**-2.0**
LSA	**Lhasa**	**57.38**	**75**	*e*P	**P**	**12 18 41.8**	**-0.2**
	comp=Z,340nm,0.8s,mb6.4						
LSA				*e*S	**S**	**12 26 34.4**	**-1.9**
BWNR	**Bhubaneshwar**	**57.59**	**88**	*e*x	x	12 18 36.0	
TLY	**Talaya**	**57.74**	**47**	P	**P**	**12 18 44.1**	**-0.1**
	comp=Z,516nm,1.0s,mb6.5,SNR=34						
TLY	**Talaya**	**57.74**	**47**	*c* *i*P	**P**	**12 18 43.9**	**-0.3**
TLY				*e*		12 20 50.0	
TLY				*e*PPP		12 22 10.9	
TLY				*e*S	**S**	**12 26 40.0**	**-0.5**
TLY				*e*PS		12 26 56.9	
TLY				*e*		12 28 32.2	
TLY				pmax	pmax		
	comp=Z,284nm,1.8s,mb6.0						
TLY				MLR	MLR		
	comp=Z,14µm,16.0s,MS6.2						
TLY	**Talaya**	**57.74**	**47**	*e*P	**P**	**12 18 43.8**	**-0.4**
	comp=Z,487nm,1.8s,mb6.2						
TLY	**Talaya**	**57.74**	**47**	*e*P	**P**	**12 18 43.8**	**-0.4**
	comp=Z,487nm,1.8s,mb6.2						
IRK	**Irkutsk**	**57.92**	**46**	⇑*i*P	**P**	**12 18 43.7**	**-1.8**
IRK				*e*		12 26 40.5	
IRK				*e*		12 26 57.9	
IRK				pmax	pmax		
	comp=Z,482nm,2.5s,mb6.1						
ZAK	**Zakamensk**	**57.96**	**48**	⇓*i*P	**P**	**12 18 45.0**	**-0.7**
ZAK				*e*	pP	12 18 54.4	-2.0
ZAK				pmax	pmax		
	comp=Z,125nm,0.9s,mb5.9						
SHEL	**Horse Pasture**	**58.22**	**212**	*i* P	**P**	**12 18 50.1**	**+2.2**
SHEL	**Horse Pasture**	**58.22**	**212**	*e*P	**P**	**12 18 48.4**	**+0.5**
	comp=Z,232nm,1.2s,mb6.1						
SHEL	**Horse Pasture**	**58.22**	**212**	*e*P	**P**	**12 18 48.4**	**+0.5**
	comp=Z,232nm,1.2s,mb6.1						
CAL	**Calcutta**	**58.49**	**84**	*e*PKP	**P**	**12 18 49.6**	**-0.3**
CAL				*i* x	x	12 21 07.0	
CAL				*e*S	**S**	**12 26 50.0**	**-1.1**
MSNA	**Messina**	**58.92**	**171**	*e*P	**P**	**12 18 53.3**	**+0.7**
MSNA				AMb	AMB	12 19 51.7	
	comp=Z,282nm,1.8s,mb6.0						
GTA	**Gaotai**	**59.76**	**61**	⇑P	**P**	**12 18 57.1**	**-1.3**
GTA				pP	pP	12 19 08.8	-0.4
GTA				sP	sP	12 19 11.3	-2.0
GTA				PP	PP	12 21 08.6	-1.7
GTA				S	**S**	**12 27 05.0**	**-2.1**
GTA				sS	sS	12 27 22.5	-2.2
GTA				ScS	ScS	12 28 40.5	-5.6
GTA				SS	SS	12 31 04.3	+1.4
GTA				pmax	pmax		
	comp=Z,160nm,1.8s,mb5.8						
GTA				pmax	pmax		
	comp=Z,3µm,5.7s						
GTA				LR	LR		
	comp=N,9µm,22.5s,MS6.0						
GTA				LR	LR		
	comp=E,7µm,22.8s,MS6.0						
GTA				LR	LR		
	comp=Z,18µm,22.5s,MS6.1						
SHL	**Shillong**	**59.86**	**79**	⇑*i*P	**P**	**12 18 57.5**	**-1.8**
SHL				*e*x	x	12 27 00.5	
ABPO	**Ambohimpanom**	**60.11**	**152**	*e*P	**P**	**12 19 01.4**	**+0.5**
ABPO				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.4						
ABPO	**Ambohimpanom**	**60.11**	**152**	*e*P	**P**	**12 19 01.4**	**+0.5**
	comp=Z,39nm,1.0s,mb5.4						
ABPO	**Ambohimpanom**	**60.11**	**152**	*e*P	**P**	**12 19 01.4**	**+0.5**
	comp=Z,39nm,1.0s,mb5.4						
AGT	**Agartala**	**60.17**	**81**	*e*x	x	12 18 58.0	
AGT				*e*x	x	12 19 28.0	
MOPA	**Mopani**	**60.26**	**170**	⇑*i*P	**P**	**12 19 02.2**	**+0.3**
MOPA				AMb	AMB	12 20 01.1	
	comp=Z,334nm,1.7s,mb6.1						
SCHQ	**Schefferville**	**60.49**	**318**	P	**P**	**12 19 03.0**	**-0.2**
	comp=Z,59nm,0.9s,mb5.6,baz=67,slow=6.9,SNR=65						
SCHQ	**Schefferville**	**60.49**	**318**	*e*P	**P**	**12 19 03.4**	**+0.2**
	comp=Z,105nm,0.8s,mb5.9						
SCHQ	**Schefferville**	**60.49**	**318**	*e*P	**P**	**12 19 03.4**	**+0.2**
	comp=Z,105nm,0.8s,mb5.9						
PALK	**Pallekele**	**60.78**	**103**	*i* P	**P**	**12 19 05.4**	**-0.3**
PALK	**Pallekele**	**60.78**	**103**	*e*P	**P**	**12 19 04.9**	**-0.9**
	comp=Z,659nm,1.6s,mb6.5						
PALK	**Pallekele**	**60.78**	**103**	P	**P**	**12 19 05.3**	**-0.4**
	SNR=13						
PALK				P		12 19 05.3	
	SNR=13						
PALK	**Pallekele**	**60.78**	**103**	*e*P	**P**	**12 19 04.9**	**-0.8**
	comp=Z,659nm,1.6s,mb6.5						
SONM	**Songino Array**	**60.79**	**50**	P	**P**	**12 19 04.3**	**-1.0**
	comp=Z,86nm,0.9s,mb5.9,baz=286,slow=9.7,SNR=496						
SONM				PKP2bc		12 48 33.7	
	comp=Z,1.0nm,1.0s,baz=153,slow=1.8,SNR=5.7						
SONM				LR	LR	12 50 32.2	
	comp=Z,11µm,19.9s,MS6.0,baz=297,slow=41						
SONM	**Songino Array**	**60.79**	**50**	P	**P**	**12 19 04.3**	**-1.0**
SONM				⇑*e*		12 48 33.7	
SONM				LR	LR	12 50 32.2	
SONM	**Songino Array**	**60.79**	**50**	P	**P**	**12 19 04.3**	**-1.1**
TIXI	**Tiksi**	**60.97**	**20**	⇑*e*P	**P**	**12 19 05.6**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,272nm,1.0s,mb6.3						
TIXI	**Tiksi**	**60.97**	**20**	*e*P	**P**	**12 19 05.5**	**-0.7**
	comp=Z,188nm,0.9s,mb6.2						
TIXI	**Tiksi**	**60.97**	**20**	*e*P	**P**	**12 19 05.5**	**-0.7**
	comp=Z,188nm,0.9s,mb6.2						
BOD	**Bodaibo**	**61.15**	**38**	⇓*i*P	**P**	**12 19 05.4**	**-2.2**

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BOD                                 e                  12 27 19.9
BOD                                  pmax    pmax
     comp=Z,159nm,1.1s,mb6.1
ULN  Ulaanbaatar        61.19  50    P       P         12 19 07.2 -0.8
ULN                                  pmax    pmax
     comp=Z,140nm,0.9s,mb6.1
ULN  Ulaanbaatar        61.19  50   eP       P         12 19 07.0 -1.0
     comp=Z,141nm,0.9s,mb6.1
ULN  Ulaanbaatar        61.19  50    P       P         12 19 07.4 -0.6
     SNR=61
ULN                                  P                 12 19 07.4
     SNR=61
ULN  Ulaanbaatar        61.19  50   eP       P         12 19 07.0 -1.0
     comp=Z,141nm,0.9s,mb6.1
RES  Resolute Bay       61.78 344    P       P         12 19 12.2 +0.6
RES                                  pmax    pmax
     comp=Z,76nm,1.1s,mb5.7
RES  Resolute Bay       61.78 344   eP       P         12 19 11.9 +0.3
     comp=Z,7.9nm,1.4s,mb4.7
RES  Resolute Bay       61.78 344   eP       P         12 19 11.9 +0.3
     comp=Z,7.9nm,1.4s,mb4.7
SLR  Silverton          62.08 173   eP       P         12 19 14.7 +0.5
SLR                                  AMb     AMB       12 19 37.2
     comp=Z,157nm,1.3s,mb6.0
KSR  Koster             62.08 175   eP       P         12 19 15.0 +0.8
KSR                                  AMb     AMB       12 19 51.3
     comp=Z,130nm,1.3s,mb5.9
ERPM east rand prop     62.68 174   eP       P         12 19 18.2  0.0
ERPM                                 AMb     AMB       12 19 54.7
     comp=Z,189nm,1.5s,mb6.0
PRYS Parys              63.19 174   eP       P         12 19 21.1 -0.4
PRYS                                 AMb     AMB       12 20 03.2
     comp=Z,163nm,1.6s,mb5.9
CIT  Chita              63.30  44   eP       P         12 19 20.9 -1.2
CIT                                 e                  12 19 34.5
CIT                                 e                  12 21 41.9
CIT                                  pmax    pmax
     comp=Z,508nm,3.1s
LZH  Lanzhou            64.08  63  ⇑P       P         12 19 27.3 -0.2
LZH                                  pP      pP        12 19 35.4 -2.9
LZH                                  sP      sP        12 19 39.1 -3.3
LZH                                  PP      PP        12 21 49.0 +0.6
LZH                                  S       S         12 27 58.0 -3.7
LZH                                  sS      sS        12 28 14.3 -5.2
LZH                                  SS      SS        12 32 07.0 -3.5
LZH                                  pmax    pmax
     comp=Z,280nm,1.1s,mb6.2
LZH                                  pmax    pmax
     comp=Z,2µm,4.0s
LZH                                  LR      LR
     comp=E,14µm,17.3s
LZH                                  LR      LR
     comp=Z,17µm,18.8s,MS6.3
POGA Pongola            64.08 170   eP       P         12 19 28.1 +0.7
POGA                                 AMb     AMB       12 20 10.3
     comp=Z,241nm,1.7s,mb6.0
UPI  Upington           64.40 181⇓iP       P         12 19 29.2 -0.3
UPI                                  AMb     AMB       12 20 20.7
     comp=Z,237nm,1.7s,mb5.9
SEK  Senekal            64.59 174   eP       P         12 19 30.9 +0.2
BOSA Boshof             64.73 177   eP       P         12 19 31.7 +0.1
BOSA                                 pmax    pmax
     comp=Z,148nm,1.4s,mb5.8
BOSA Boshof             64.73 177    P       P         12 19 31.4 -0.3
     comp=Z,28nm,0.8s,mb5.3,baz=355,slow=6.7,SNR=21
BOSA                                 LR      LR        12 50 34.6
     comp=Z,28µm,18.9s,MS6.5,baz=1.7,slow=39
BOSA Boshof             64.73 177   eP       P         12 19 31.7 +0.1
     comp=Z,148nm,1.4s,mb5.8
BOSA Boshof             64.73 177⇓iP       P         12 19 31.5 -0.2
BOSA                                 AMb     AMB       12 19 52.6
     comp=Z,148nm,1.6s,mb5.8
BOSA Boshof             64.73 177   eP       P         12 19 31.7 +0.1
     comp=Z,148nm,1.4s,mb5.8
RER  Riviere de l'E     65.60 145   eP       P         12 19 38.2 +0.8
     comp=Z,144nm,0.8s,mb6.0
RER  Riviere de l'E     65.60 145   eP       P         12 19 38.2 +0.8
     comp=Z,144nm,0.8s,mb6.0
PKA  Prieska            65.71 179   eP       P         12 19 37.1 -0.8
PKA                                  AMb     AMB       12 20 42.3
     comp=Z,30nm,1.6s,mb5.1
YAK  Yakutsk            66.16  29c iP       P         12 19 39.3 -1.2
YAK                                 e*PP     pP        12 19 53.0 +1.6
YAK                                 e                  12 20 05.8
YAK                                 ePPP               12 23 38.7
YAK                                 eS       S         12 28 24.4 -2.0
YAK                                 e*SS     sS        12 29 06.5  +22
YAK                                 e                  12 29 27.1
YAK                                 eSS      SS        12 32 42.8 +1.1
YAK                                  pmax    pmax
     comp=N,64nm,0.9s
YAK                                  pmax    pmax
     comp=Z,352nm,0.9s,mb6.4
YAK                                  pmax    pmax
     comp=E,141nm,1.1s
YAK                                  smax
     comp=N,371nm,3.3s
YAK                                  smax
     comp=E,2µm,5.3s
YAK  Yakutsk            66.16  29   eP       P         12 19 39.1 -1.4
     comp=E,496nm,0.8s,mb6.6
YAK  Yakutsk            66.16  29   eP       P         12 19 39.1 -1.4
     comp=E,496nm,0.8s,mb6.6
BTO  Baotou             66.28  56   eP       P         12 19 40.5 -1.2
BTO                                  S       S         12 28 25.0 -3.6
CD2  Chengdu            66.47  68    P       P         12 19 42.0 -1.1
CD2                                  pP      pP        12 19 52.9 -1.0
CD2                                  sP      sP        12 19 56.8 -1.2
CD2                                  PcP     PcP       12 20 12.6 +0.1
CD2                                  PP      PP        12 22 10.6 +1.2
CD2                                  S       S         12 28 27.8 -3.3
CD2                                  sS      sS        12 28 44.8 -4.2
CD2                                  SS      SS        12 32 45.3 -2.6
CD2                                  pmax    pmax
     comp=Z,500nm,1.1s,mb6.5
CD2                                  pmax    pmax
     comp=Z,4µm,5.5s
CD2                                  LR      LR
     comp=N,7µm,20.2s
CD2                                  LR      LR
     comp=Z,7µm,20.2s,MS5.9
HVD  Gariep Dam         66.72 177   eP       P         12 19 44.5 +0.1
CLNS Chul'man           66.85  36   eP       P         12 19 44.4 -0.6
CLNS Chul'man           66.85  36   eP       P         12 19 44.4 -0.6
NRGR Nerungri           66.86  36   i P      P         12 19 44.6 -0.5
NRGR                                 S       S         12 28 35.4 +0.3
NRGR                                 smax
     comp=N,115nm,0.8s
KSD  Kokstad            66.95 173   eP       P         12 19 46.8 +0.9
KSD                                  AMb     AMB       12 20 58.0
     comp=Z,476nm,1.8s,mb6.2
HHC  Hu-ho-hao-te       67.19  55⇑iP       P         12 19 47.0 -0.5
HHC                                  pP      pP        12 19 57.5 -0.9
HHC                                  sP      sP        12 20 01.1 -1.4
HHC                                  PcP     PcP       12 20 15.3  0.0
HHC                                  PP      PP        12 22 14.4 -1.1
HHC                                  PcS               12 24 19.4
HHC                                  S       S         12 28 34.3 -5.3
HHC                                  sS      sS        12 28 52.3 -5.2
HHC                                  ScS     ScS       12 29 37.0 -5.6
HHC                                  SS      SS        12 32 55.1 -3.6
HHC                                  pmax    pmax
     comp=Z,290nm,1.0s,mb6.3
HHC                                  pmax    pmax
     comp=Z,3µm,5.0s
HHC                                  LR      LR
     comp=N,10µm,15.5s,MS6.2
HHC                                  LR      LR
     comp=E,2µm,14.0s,MS6.2
HHC                                  LR      LR
     comp=Z,12µm,17.9s,MS6.2
CVNA Calvinia           67.54 182⇓iP       P         12 19 48.5 -1.1
CVNA                                 AMb     AMB       12 20 10.9
     comp=Z,146nm,1.8s,mb5.7
HIA  Hailar             68.07  44   eP       P         12 19 52.4 -0.5
HIA                                 e*PP     pP        12 20 00.9 -2.9
HIA                                 e*SP     sP        12 20 04.6 -3.3
HIA                                  pmax    pmax
     comp=Z,351nm,1.0s
HIA  Hailar             68.07  44   eP       P         12 19 52.4 -0.5
     comp=Z,351nm,1.0s,mb6.3
HIA                                 epP      pP        12 20 00.8 -2.9
HIA                                 esP      sP        12 20 04.6 -3.3
HIA  Hailar             68.07  44   eP       P         12 19 52.4 -0.5
     comp=Z,351nm,1.0s,mb6.3
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HIA                                 epP      pP        12 20 00.9 -2.9
RCBR Riachuelo          68.34 245   eP       P         12 19 56.5 +1.4
     comp=Z,84nm,1.3s,mb5.6
RCBR Riachuelo          68.34 245   eP       P         12 19 56.5 +1.4
     comp=Z,84nm,1.3s,mb5.6
SUR  Sutherland         68.41 181   eP       P         12 19 55.4 +0.3
     comp=Z,175nm,1.5s,mb5.9
SUR  Sutherland         68.41 181   eP       P         12 19 54.8 -0.2
SUR                                  AMb     AMB       12 20 39.2
     comp=Z,115nm,1.5s,mb5.7
SUR  Sutherland         68.41 181   eP       P         12 19 55.4 +0.3
     comp=Z,175nm,1.5s,mb5.9
KMI  Kunming            68.59  74    P       P         12 19 55.4 -1.2
KMI                                  pP      pP        12 20 05.3 -2.2
KMI                                  sP      sP        12 20 09.0 -2.6
KMI                                  PP      PP        12 22 26.1 -2.0
KMI                                  S       S         12 28 53.1 -3.7
KMI                                  sS      sS        12 29 11.1 -3.7
KMI                                  SKS               12 29 49.4
KMI                                  SS      SS        12 33 19.5 -1.7
KMI                                  pmax    pmax
     comp=Z,170nm,1.6s,mb5.7
KMI                                  pmax    pmax
     comp=Z,3µm,4.7s
KMI                                  LR      LR
     comp=N,6µm,24.8s,MS5.8
KMI                                  LR      LR
     comp=E,4µm,26.2s,MS5.8
KMI                                  LR      LR
     comp=Z,6µm,31.7s
XAN  Xi'an              68.71  63    P       P         12 19 56.3 -0.9
XAN                                  pP      pP        12 20 05.6 -2.5
XAN                                  PP      PP        12 22 27.3 -1.5
XAN                                  S       S         12 28 56.5 -1.5
XAN                                  ScS     ScS       12 29 53.5 -1.2
XAN                                  SS      SS        12 33 21.6 -0.9
XAN                                  pmax    pmax
     comp=Z,230nm,1.5s,mb5.9
XAN                                  pmax    pmax
     comp=Z,3µm,5.2s
XAN                                  LR      LR
     comp=N,3µm,22.3s,MS5.9
XAN                                  LR      LR
     comp=E,8µm,23.6s,MS5.9
XAN                                  LR      LR
     comp=Z,12µm,18.9s,MS6.2
SOE  Somerset East      68.83 177   eP       P         12 19 59.3 +1.7
CHG  Chiang Mai         68.91  82  ⇑P       P         12 19 57.4 -1.2
     comp=Z,246nm,1.7s,mb5.9
CHTO Chiang Mai         68.91  82    P       P         12 19 57.2 -1.4
CHTO                                 pmax    pmax
     comp=Z,320nm,1.2s,mb6.1
CHTO Chiang Mai         68.91  82   eP       P         12 19 57.0 -1.6
     comp=Z,325nm,1.2s,mb6.1
CHTO Chiang Mai         68.91  82  ⇑P       P         12 19 57.6 -1.1
     SNR=56
CHTO                               ⇑P                 12 19 57.6
     SNR=56
CHTO Chiang Mai         68.91  82   eP       P         12 19 57.0 -1.6
     comp=Z,325nm,1.2s,mb6.1
CHRT Chiangrai          69.02  80  ⇑P       P         12 19 58.0 -1.3
     comp=Z,1µm,1.0s,mb6.9
CMAR Chiang Mai Arr     69.10  82    P       P         12 19 58.4 -1.4
     comp=Z,54nm,0.8s,mb5.5,baz=302,slow=8.0,SNR=233
CMAR                                 PKP2bc            12 48 11.2
     comp=Z,0.4nm,0.3s,baz=120,slow=0.7,SNR=4.3
CMAR                                 LR      LR        12 56 48.2
     comp=Z,4µm,21.3s,MS5.6,baz=289,slow=42
CMAR Chiang Mai Arr     69.10  82    P       P         12 19 58.4 -1.4
CMAR                               ⇑e                 12 48 11.2
CMAR                                 LR      LR        12 56 48.2
CMAR Chiang Mai Arr     69.10  82    P       P         12 19 58.4 -1.4
BBSR BB Station         69.14 295    P       P         12 19 54.5 -5.4
CER  Ceres              69.42 182   eP       P         12 20 00.9 -0.4
CER                                  AMb     AMB       12 20 44.1
     comp=Z,44nm,1.4s,mb5.2
GRM  Grahamstown        69.47 176   eP       P         12 20 02.6 +0.9
GRM                                  AMb     AMB       12 20 38.5
     comp=Z,214nm,1.6s,mb5.8
LONY Lake Ozonia        69.57 311   eP       P         12 20 02.9 +0.5
     comp=Z,24nm,1.0s,mb5.1
LONY Lake Ozonia        69.57 311   eP       P         12 20 02.9 +0.6
     comp=Z,24nm,1.0s,mb5.1
BDT  Bhumibol Dam       69.80  83    P       P         12 20 02.0 -2.2
     comp=Z,98nm,1.0s,mb5.7
BJI  Beijing            70.64  54    P       P         12 20 07.9 -1.1
BJI                                  pP      pP        12 20 17.3 -2.6
BJI                                  sP      sP        12 20 21.0 -3.0
BJI                                  PP      PP        12 22 42.0 -3.3
BJI                                  S       S         12 29 18.8 -1.6
BJI                                  sS      sS        12 29 34.8 -3.6
BJI                                  pmax    pmax
     comp=Z,310nm,1.1s,mb6.2
BJI                                  LR      LR
     comp=N,12µm,21.5s,MS6.2
BJI                                  LR      LR
     comp=E,8µm,19.6s,MS6.2
BJI                                  LR      LR
     comp=Z,12µm,21.5s,MS6.1
BJT  Baijiatuau         70.64  54   eP       P         12 20 07.7 -1.3
BJT                                  pmax    pmax
     comp=Z,327nm,1.0s
BJT  Baijiatuau         70.64  54   eP       P         12 20 07.7 -1.3
     comp=Z,326nm,1.0s,mb6.2
BJT  Baijiatuau         70.64  54   eP       P         12 20 07.7 -1.3
     comp=Z,326nm,1.0s,mb6.2
GYA  Guiyang            70.92  71⇑iP       P         12 20 08.5 -2.4
GYA                                  pP      pP        12 20 16.5 -5.3
GYA                                  sP      sP        12 20 19.6 -6.3
GYA                                  PP      PP        12 22 46.4 -1.7
GYA                                  S       S         12 29 18.5 -5.6
GYA                                  SKS               12 30 04.1
GYA                                  SS      SS        12 33 51.0 -5.9
GYA                                  pmax    pmax
     comp=Z,190nm,1.0s,mb6.0
GYA                                  pmax    pmax
     comp=Z,2µm,6.9s
GYA                                  LR      LR
     comp=N,7µm,25.4s,MS5.9
GYA                                  LR      LR
     comp=E,6µm,25.5s,MS5.9
GYA                                  LR      LR
     comp=Z,8µm,25.4s,MS5.8
FCC  Fort Churchill     71.32 330    P       P         12 20 13.3 +0.5
FCC  Fort Churchill     71.32 330   eP       P         12 20 13.2 +0.5
     comp=Z,3.0nm,0.9s
FCC  Fort Churchill     71.32 330   eP       P         12 20 13.2 +0.4
     comp=Z,3.0nm,0.9s
NST  Nakhon Sawan       71.57  84    P       P         12 20 13.0 -1.9
     comp=Z,142nm,0.8s,mb6.0
BINY Binghamton         71.72 309   eP       P         12 20 16.8 +1.3
     comp=Z,75nm,0.9s,mb5.6
BINY Binghamton         71.72 309   eP       P         12 20 16.8 +1.3
     comp=Z,75nm,0.9s,mb5.6
BILL Bilibino           72.52  13⇑eP       P         12 20 19.1 -0.7
BILL                                eS       S         12 29 40.4 -0.9
BILL                                 pmax    pmax
     comp=Z,189nm,1.2s,mb5.9
BILL Bilibino           72.52  13   eP       P         12 20 19.1 -0.7
     comp=Z,231nm,1.3s,mb6.0
BILL Bilibino           72.52  13   eP       P         12 20 19.1 -0.7
     comp=Z,231nm,1.3s,mb6.0
TIA  Tai'an             73.31  57  ⇑P       P         12 20 23.8 -1.3
TIA                                  pP      pP        12 20 34.3 -1.7
TIA                                  S       S         12 29 49.0 -2.3
TIA                                  sS      sS        12 30 06.6 -2.7
TIA                                  pmax    pmax
     comp=Z,300nm,1.2s,mb6.1
TIA                                  pmax    pmax
     comp=Z,2µm,5.0s
TIA                                  LR      LR
     comp=N,2µm,17.0s
SEY  Seymchan           73.43  21⇑eP       P         12 20 25.5 +0.2
SEY  Seymchan           73.43  21⇑eP       P         12 20 25.5 +0.2
SSPA Standing Stone     73.77 309   eP       P         12 20 28.3 +0.6
     comp=N,317nm,1.6s,mb6.0
SSPA Standing Stone     73.77 309   eP       P         12 20 28.3 +0.6
     comp=N,317nm,1.6s,mb6.0
ERPA Erie               74.24 311   eP       P         12 20 31.5 +1.1
     comp=N,308nm,1.0s,mb6.2
ERPA Erie               74.24 311   eP       P         12 20 31.5 +1.1
     comp=N,308nm,1.0s,mb6.2
CN2  Changchun          74.35  47  ⇑P       P         12 20 30.0 -1.0
CN2                                 epP      pP        12 20 40.3 -1.7
CN2                                  PcP     PcP       12 20 45.3 -0.3
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CN2                                 eS       S         12 29 57.9 -4.8
CN2                                  SS      SS        12 34 49.8 +1.5
CN2                                  pmax    pmax
     comp=Z,600nm,1.0s,mb6.5
CN2                                  pmax    pmax
     comp=Z,200nm,3.0s
CN2                                  LR      LR
     comp=N,9µm,18.0s,MS6.2
CN2                                  LR      LR
     comp=E,8µm,18.0s,MS6.2
CN2                                  LR      LR
     comp=Z,11µm,17.0s,MS6.2
SNY  Shenyang           74.36  49  ⇑P       P         12 20 29.8 -1.3
SNY                                  S       S         12 29 56.3 -6.6
SNY                                  pmax    pmax
     comp=Z,230nm,1.2s,mb6.0
SNY                                  LR      LR
     comp=N,10µm,18.2s,MS6.3
SNY                                  LR      LR
     comp=E,12µm,17.3s,MS6.3
SNY                                  LR      LR
     comp=Z,13µm,17.6s,MS6.3
WHN  Wuhan              74.45  63  ⇑P       P         12 20 30.6 -1.2
WHN                                  S       S         12 29 59.5 -4.8
WHN                                  LR      LR
     comp=N,11µm,18.8s,MS6.3
WHN                                  LR      LR
     comp=E,8µm,14.4s,MS6.3
WHN                                  LR      LR
     comp=Z,18µm,19.3s,MS6.4
KLR  Kul'dur            74.59  40⇓eP       P         12 20 27.5 -4.8
KLR                                  pmax    pmax
     comp=E,250nm,1.6s
KLR                                  pmax    pmax
     comp=Z,760nm,1.6s,mb6.4
KLR                                  MLR     MLR
     comp=E,7µm,14.0s
KLR                                  MLR     MLR
     comp=Z,14µm,14.0s,MS6.4
DL2  Dalian             74.79  53⇑iP       P         12 20 32.6 -1.1
DL2                                  S       S         12 30 06.1 -1.7
DL2                                  pmax    pmax
     comp=Z,110nm,1.0s,mb5.7
DL2                                  pmax    pmax
     comp=Z,2µm,5.5s
DL2                                  LR      LR
     comp=N,8µm,19.7s,MS6.1
DL2                                  LR      LR
     comp=E,6µm,18.7s,MS6.1
CBN  Corbin             74.81 306   eP       P         12 20 34.4 +0.6
     comp=E,155nm,1.0s,mb5.9
CBN  Corbin             74.81 306   eP       P         12 20 34.4 +0.6
     comp=E,155nm,1.0s,mb5.9
GLMI Grayling           75.39 315   eP       P         12 20 38.4 +1.4
     comp=E,218nm,1.0s,mb6.0
GLMI Grayling           75.39 315   eP       P         12 20 38.4 +1.4
     comp=E,218nm,1.0s,mb6.0
YKA  Yellowknife Ar     75.43 341    P       P         12 20 36.2 -0.6
     comp=E,45nm,0.9s,mb5.4,baz=37,slow=5.5,SNR=268
YKA  Yellowknife Ar     75.43 341    P       P         12 20 36.2 -0.6
YKA  Yellowknife Ar     75.43 341    P       P         12 20 36.2 -0.7
MCWV Mont Chateau       75.56 309   eP       P         12 20 39.0 +0.9
     comp=E,83nm,0.8s,mb5.7
MCWV Mont Chateau       75.56 309   eP       P         12 20 39.0 +0.9
     comp=E,83nm,0.8s,mb5.7
UBT  Ubonrachathani     75.72  82  ⇑P       P         12 20 38.0 -1.3
MDJ  Mudanjiang         76.25  44    P       P         12 20 39.8 -2.1
MDJ                                  pP      pP        12 20 46.3 -6.6
MDJ                                  sP      sP        12 20 48.8 -8.2
MDJ                                  PcP     PcP       12 20 52.4 -1.4
MDJ                                  PP      PP        12 23 29.1 -3.8
MDJ                                  S       S         12 30 20.6 -3.2
MDJ                                  ScS     ScS       12 30 52.5 -1.9
MDJ                                  SS      SS        12 35 16.3 -0.8
MDJ                                  pmax    pmax
     comp=Z,110nm,1.6s,mb5.5
MDJ                                  pmax    pmax
     comp=Z,2µm,10.5s
MDJ                                  LR      LR
     comp=N,5µm,23.2s,MS6.0
MDJ                                  LR      LR
     comp=E,6µm,23.2s,MS6.0
MDJ                                  LR      LR
     comp=Z,12µm,17.1s
MDJ  Mudanjiang         76.25  44   eP       P         12 20 39.7 -2.3
     comp=Z,110nm,1.1s,mb5.7
MDJ  Mudanjiang         76.25  44   eP       P         12 20 39.7 -2.2
     comp=Z,110nm,1.1s,mb5.7
AAM  Ann Arbor          76.34 313   eP       P         12 20 43.0 +0.5
AAM                                  pmax    pmax
     comp=Z,38nm,0.7s,mb5.4
AAM  Ann Arbor          76.34 313   eP       P         12 20 43.0 +0.5
     comp=Z,38nm,0.7s,mb5.4
AAM  Ann Arbor          76.34 313   eP       P         12 20 43.0 +0.5
     comp=Z,38nm,0.7s,mb5.4
COLD Coldfoot           76.53 357   eP       P         12 20 43.5 +0.5
     comp=Z,127nm,1.1s,mb5.8
COLD Coldfoot           76.53 357   eP       P         12 20 43.5 +0.4
     comp=Z,127nm,1.1s,mb5.8
HABR Khabarovsk         76.75  39d iP       P         12 20 42.5 -2.2
HABR                                e*PP     pP        12 20 53.1 -2.6
HABR                                e        pP        12 20 53.8 -1.9
HABR                                e*SP     sP        12 20 57.0 -2.8
HABR                                e                  12 23 34.7
HABR                                 PPP               12 25 22.1
HABR                                eS       S         12 30 27.0 -2.1
HABR                                e*SS     sS        12 30 44.5 -2.8
HABR                                e                  12 30 55.6
HABR                                eSS      SS        12 35 23.3 -1.1
HABR                                 SSS               12 38 47.5
HABR                                 pmax    pmax
     comp=Z,399nm,1.9s,mb6.0
HABR                                 pmax    pmax
     comp=Z,3µm,5.1s
HABR                                 pmax    pmax
     comp=E,137nm,1.8s
HABR                                 pmax    pmax
     comp=N,98nm,1.7s
HABR                                 MLR     MLR
     comp=E,5µm,16.0s,MS6.1
HABR                                 MLR     MLR
     comp=N,5µm,18.0s,MS6.1
HABR                                 MLR     MLR
     comp=Z,7µm,21.0s,MS6.0
SNG  Songkhla           76.76  91    P       P         12 20 43.0 -2.3
     comp=Z,200nm,0.8s,mb6.1
NJ2  Nanjing            76.81  60   eP       P         12 20 43.9 -1.4
NJ2                                  pP      pP        12 20 50.8 -5.5
NJ2                                  sP      sP        12 20 53.3 -7.1
NJ2                                  PP      PP        12 23 34.1 -3.9
NJ2                                  S       S         12 30 26.0 -4.3
NJ2                                  pmax    pmax
     comp=Z,50nm,1.2s,mb5.3
NJ2                                  pmax    pmax
     comp=Z,1µm,6.1s
NJ2                                  LR      LR
     comp=N,2µm,17.2s,MS5.9
NJ2                                  LR      LR
     comp=E,4µm,19.1s,MS5.9
NJ2                                  LR      LR
     comp=Z,4µm,19.1s,MS5.8
EYMN Ely                77.15 321   eP       P         12 20 47.2 +0.3
     comp=Z,169nm,1.4s,mb5.8
EYMN Ely                77.15 321   eP       P         12 20 47.2 +0.3
     comp=Z,169nm,1.4s,mb5.8
ACSO Alum Creek Sta     77.17 311   eP       P         12 20 47.9 +0.7
     comp=Z,149nm,1.0s,mb5.9
ACSO Alum Creek Sta     77.17 311   eP       P         12 20 47.9 +0.7
     comp=Z,149nm,1.0s,mb5.9
FFC  Flin Flon          77.26 330    P       P         12 20 48.1 +0.7
FFC                                  pmax    pmax
     comp=Z,230nm,1.1s,mb6.0
FFC  Flin Flon          77.26 330   eP       P         12 20 47.8 +0.5
     comp=Z,233nm,1.1s,mb6.0
FFC  Flin Flon          77.26 330   eP       P         12 20 47.8 +0.4
     comp=Z,233nm,1.1s,mb6.0
BLA  Blacksburg         77.36 307   eP       P         12 20 48.5 +0.2
BLA                                  pmax    pmax
     comp=Z,78nm,1.3s,mb5.5
BLA  Blacksburg         77.36 307   eP       P         12 20 48.5 +0.2
     comp=Z,78nm,1.3s,mb5.5
BLA  Blacksburg         77.36 307   eP       P         12 20 48.5 +0.2
     comp=Z,78nm,1.3s,mb5.5
QIZ  Qiongzhong         77.41  76    P       P         12 20 46.4 -2.5
QIZ                                  S       S         12 30 33.5 -3.7
QIZ                                  pmax    pmax
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	comp=Z,2µm,11.3s						
QIZ				LR	LR		
	comp=N,3µm,24.2s,MS5.6						
QIZ				LR	LR		
	comp=E,3µm,27.6s,MS5.6						
QIZ				LR	LR		
	comp=Z,4µm,24.5s,MS5.7						
QIZ	**Qiongzhong**	77.41	76	*e*P	P	12 20 47.6	-1.3
	comp=Z,238nm,1.1s,mb6.0						
QIZ	**Qiongzhong**	77.41	76	*e*P	P	12 20 47.6	-1.3
	comp=Z,238nm,1.1s,mb6.0						
MTP	**Monte Pirata**	77.45	283	*e*P	P	12 20 48.5	-0.6
	comp=Z,275nm,1.6s,mb5.9						
GRGR	**Grenville**	77.71	276	*e*P	P	12 20 48.9	-1.7
GRGR	**Grenville**	77.71	276	*e*P	P	12 20 48.9	-1.7
ULM	**Lac du Bonnet**	77.76	324	P	P	12 20 50.2	-0.1
	comp=Z,46nm,1.0s,mb5.4,baz=48,slow=5.4,SNR=34						
ULM				LR	LR	12 56 21.5	
	comp=Z,14µm,20.0s,MS6.3,baz=42,slow=37						
ULM	**Lac du Bonnet**	77.76	324	P	P	12 20 50.2	-0.1
ULM				LR	LR	12 56 21.5	
ULM	**Lac du Bonnet**	77.76	324	P	P	12 20 50.2	-0.1
KULM	**Kulim**	77.88	92	P	P	12 20 50.3	-1.2
KULM	**Kulim**	77.88	92	*e*P	P	12 20 50.3	-1.3
	comp=Z,178nm,1.0s,mb6.0						
KULM	**Kulim**	77.88	92	*e*P	P	12 20 50.3	-1.3
	comp=Z,178nm,1.0s,mb6.0						
PSI	**Prapat**	77.95	95	P	P	12 20 50.5	-1.4
	comp=Z,49nm,0.7s,mb5.5,baz=278,slow=6.6,SNR=31						
PSI				S	S	12 30 37.2	-6.0
	comp=Z,2.0nm,0.4s,baz=113,slow=20,SNR=9.9						
PSI	**Prapat**	77.95	95	P	P	12 20 50.5	-1.4
PSI				S	S	12 30 37.2	-6.0
TNA	**Tin City**	78.10	4	*e*P	P	12 20 51.7	-0.2
	comp=Z,157nm,1.1s,mb5.9						
TNA				*e*PP	PP	12 23 46.0	-1.8
TNA	**Tin City**	78.10	4	*e*P	P	12 20 51.7	-0.2
	comp=Z,157nm,1.1s,mb5.9						
EGAK	**Eagle**	78.29	353	*e*P	P	12 20 52.5	-0.5
	comp=Z,57nm,0.9s,mb5.5						
EGAK	**Eagle**	78.29	353	*e*P	P	12 20 52.5	-0.4
	comp=Z,57nm,0.9s,mb5.5						
ICM	**Isla Caja Muer**	78.32	284	*e*P	P	12 20 54.0	0.0
ICM	**Isla Caja Muer**	78.32	284	*e*P	P	12 20 54.0	+0.1
IPM	**Ipoh**	78.66	93	P	P	12 20 54.0	-1.8
CRPR	**Cabo Rojo, PR**	78.72	284	*e*P	P	12 20 57.5	+1.4
	comp=Z,37nm,0.9s,mb5.3						
CRPR	**Cabo Rojo, PR**	78.72	284	*e*P	P	12 20 57.5	+1.4
	comp=Z,37nm,0.9s,mb5.3						
COLA	**College**	78.75	356	P	P	12 20 55.7	+0.2
COLA				pmax	pmax		
	comp=Z,170nm,1.3s,mb5.8						
COLA	**College**	78.75	356	*e*P	P	12 20 55.3	-0.2
	comp=Z,166nm,1.4s,mb5.8						
COLA	**College**	78.75	356	*e*P	P	12 20 55.3	-0.2
	comp=Z,166nm,1.4s,mb5.8						
DAWY	**Dawson**	78.79	352	*e*P	P	12 20 56.0	+0.3
DAWY	**Dawson**	78.79	352	*e*P	P	12 20 56.0	+0.3
INCN	**Inchon**	78.82	52	*e*P	P	12 20 55.6	-0.8
	comp=Z,382nm,1.1s,mb6.2						
INCN	**Inchon**	78.82	52	⇑P	P	12 20 55.4	-1.0
	SNR=11						
INCN				⇑P		12 20 55.4	
	SNR=11						
INCN	**Inchon**	78.82	52	*e*P	P	12 20 55.6	-0.8
	comp=Z,382nm,1.1s,mb6.2						
SSE	**Sheshan**	78.99	60	P	P	12 20 55.8	-1.6
SSE				S	S	12 30 49.8	-4.0
SSE				sS	sS	12 31 06.1	-6.0
SSE				pmax	pmax		
	comp=Z,71nm,1.2s,mb5.5						
SSE				pmax	pmax		
	comp=Z,2µm,6.9s						
SSE				LR	LR		
	comp=N,6µm,22.7s,MS5.9						
SSE				LR	LR		
	comp=E,3µm,22.9s,MS5.9						
SSE				LR	LR		
	comp=Z,7µm,20.5s,MS6.0						
AGMN	**Agassiz Refuge**	79.09	323	*e*P	P	12 20 57.6	-0.1
	comp=Z,70nm,1.2s,mb5.5						
AGMN	**Agassiz Refuge**	79.09	323	*e*P	P	12 20 57.6	-0.1
	comp=Z,70nm,1.2s,mb5.5						
GAMB	**Gambell**	79.60	6	*e*P	P	12 20 59.3	-0.9
	comp=Z,100nm,1.3s,mb5.6						
GAMB	**Gambell**	79.60	6	*e*P	P	12 20 59.3	-0.8
	comp=Z,100nm,1.3s,mb5.6						
KSRS	**Korea Array**	79.65	51	P	P	12 21 00.2	-0.7
KSRS				pmax	pmax		
	comp=Z,204nm,0.9s,mb6.1						
KSRS				MLR	MLR		
	comp=Z,10µm,18.8s,MS6.2						
KSRS	**Korea Array**	79.65	51	P	P	12 21 00.1	-0.8
	comp=Z,204nm,0.9s,mb6.0,baz=308,slow=4.7,SNR=273						
KSRS				LR	LR	13 00 46.7	
	comp=Z,10µm,18.8s,MS6.2,baz=308,slow=39						
BPAW	**Bear Paw Mtn.**	79.69	357	*e*P	P	12 21 00.3	-0.4
	comp=Z,154nm,1.1s,mb5.8						
BPAW	**Bear Paw Mtn.**	79.69	357	*e*P	P	12 21 00.3	-0.3
	comp=Z,154nm,1.1s,mb5.8						
JFWS	**Jewell Farm**	79.76	316	*e*P	P	12 21 01.5	+0.1
JFWS				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.6						
JFWS	**Jewell Farm**	79.76	316	*e*P	P	12 21 01.5	+0.1
	comp=Z,88nm,1.0s,mb5.7						
JFWS	**Jewell Farm**	79.76	316	*e*P	P	12 21 01.5	+0.1
	comp=Z,88nm,1.0s,mb5.7						
TZTN	**Tazewell**	79.76	308	*e*P	P	12 21 02.4	+0.8
	comp=Z,84nm,1.1s,mb5.6						
TZTN	**Tazewell**	79.76	308	*e*P	P	12 21 02.4	+0.8
	comp=Z,84nm,1.1s,mb5.6						
KTGM	**Kuala Trenggan**	79.86	91	P	P	12 21 01.3	-1.2
FRIM	**Kepong**	79.87	93	P	P	12 21 01.0	-1.5
MCK	**McKinley**	79.95	356	*e*P	P	12 21 01.7	-0.4
MCK				pmax	pmax		
	comp=Z,261nm,1.1s,mb6.1						
MCK	**McKinley**	79.95	356	*e*P	P	12 21 01.7	-0.4
	comp=Z,261nm,1.1s,mb6.1						
MCK	**McKinley**	79.95	356	*e*P	P	12 21 01.7	-0.4
	comp=Z,261nm,1.1s,mb6.1						
CHUM	**Lake Minchumin**	79.96	357	*e*P	P	12 21 02.5	+0.4
	comp=Z,383nm,1.2s,mb6.2						
CHUM	**Lake Minchumin**	79.96	357	*e*P	P	12 21 02.5	+0.4
	comp=Z,383nm,1.2s,mb6.2						
BLO	**Bloomington**	79.98	311	*e*P	P	12 21 02.8	+0.1
BLO				pmax	pmax		
	comp=Z,445nm,1.4s,mb6.2						
BLO	**Bloomington**	79.98	311	*e*P	P	12 21 02.8	+0.1
	comp=Z,445nm,1.4s,mb6.2						
BLO	**Bloomington**	79.98	311	*e*P	P	12 21 02.8	+0.1
	comp=Z,445nm,1.4s,mb6.2						
KTH	**Kantishna Hill**	80.23	357	*e*P	P	12 21 03.4	-0.2
	comp=Z,179nm,1.3s,mb5.8						
KTH	**Kantishna Hill**	80.23	357	*e*P	P	12 21 03.4	-0.2
	comp=Z,179nm,1.3s,mb5.8						
TRF	**Thorofare Moun**	80.31	356	*e*P	P	12 21 03.9	-0.1
	comp=Z,149nm,1.2s,mb5.8						
TRF	**Thorofare Moun**	80.31	356	*e*P	P	12 21 03.9	-0.1
	comp=Z,149nm,1.2s,mb5.8						
MENT	**Mentasta**	80.34	353	*e*P	P	12 21 04.9	+0.7
MENT	**Mentasta**	80.34	353	*e*P	P	12 21 04.9	+0.7
TKL	**Tuckaleechee C**	80.45	307	*e*P	P	12 21 05.4	+0.1
TKL	**Tuckaleechee C**	80.45	307	*e*P	P	12 21 05.4	+0.1
QZH	**Quanzhou**	80.71	66	⇑*i*P	P	12 21 06.3	-0.5
QZH				S	S	12 31 08.3	-3.9
QZH				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
QZH				pmax	pmax		
	comp=Z,3µm,4.5s						
QZH				LR	LR		
	comp=N,6µm,18.0s,MS6.2						
QZH				LR	LR		
	comp=E,9µm,20.4s,MS6.2						
QZH				LR	LR		
	comp=Z,5µm,21.2s,MS5.8						
HDIL	**Hopedale**	80.74	314	*e*P	P	12 21 07.3	+0.5
	comp=Z,189nm,1.1s,mb5.9						
HDIL	**Hopedale**	80.74	314	*e*P	P	12 21 07.3	+0.5
	comp=Z,189nm,1.1s,mb5.9						
PPLA	**Purkeypile**	80.94	357	*e*P	P	12 21 07.8	+0.5
	comp=Z,259nm,1.1s,mb6.1						
PPLA	**Purkeypile**	80.94	357	*e*P	P	12 21 07.8	+0.4
	comp=Z,259nm,1.1s,mb6.1						
OLIL	**Olney**	81.21	312	*e*P	P	12 21 09.2	-0.1
	comp=Z,205nm,1.3s,mb5.9						
OLIL	**Olney**	81.21	312	*e*P	P	12 21 09.2	-0.1
	comp=Z,205nm,1.3s,mb5.9						
USIN	**University of**	81.44	311	*e*P	P	12 21 08.2	-2.3
	comp=Z,70nm,1.0s,mb5.5						
USIN	**University of**	81.44	311	*e*P	P	12 21 08.2	-2.3
	comp=Z,70nm,1.0s,mb5.5						
YSS	**Yuzh-Sakhalins**	81.59	36	α*i*P	P	12 21 10.5	-0.7
YSS				*e*	pP	12 21 23.0	+0.8
YSS				*e*S	S	12 31 19.0	-1.6
YSS	**Yuzh-Sakhalins**	81.59	36	*e*P	P	12 21 10.7	-0.5
	comp=Z,504nm,1.1s,mb6.4						
YSS	**Yuzh-Sakhalins**	81.59	36	*e*P	P	12 21 10.7	-0.5
	comp=Z,504nm,1.1s,mb6.4						
GOGA	**Godfrey**	81.63	305	*e*P	P	12 21 11.9	+0.3
GOGA				pmax	pmax		
	comp=Z,132nm,1.3s,mb5.7						
GOGA	**Godfrey**	81.63	305	*e*P	P	12 21 11.9	+0.3
	comp=Z,132nm,1.3s,mb5.7						
GOGA	**Godfrey**	81.63	305	*e*P	P	12 21 11.9	+0.3
	comp=Z,132nm,1.3s,mb5.7						
CAM3	**Guarapari**	81.80	237	⇓*i*P	P	12 21 12.6	+0.1
CAM3				*i*		12 21 14.1	
CAM3				*i*		12 21 19.7	
CAM3				*i*	pP	12 21 23.2	-0.3
CAM3				*i*		12 21 31.6	
CAM3				*i*		12 21 34.7	
CAM3				*i*		12 21 44.5	
CAM3				*i*		12 21 47.4	
KGM	**Kluang**	81.95	93	P	P	12 21 12.9	-0.7
SCIA	**State Center**	82.07	317	*e*P	P	12 21 14.2	+0.4
	comp=Z,82nm,0.9s,mb5.7						
SCIA	**State Center**	82.07	317	*e*P	P	12 21 14.2	+0.4
	comp=Z,82nm,0.9s,mb5.7						
PMR	**Palmer**	82.09	356	*e*P	P	12 21 13.3	-0.2
PMR				pmax	pmax		
	comp=Z,233nm,1.2s,mb6.0						
PMR	**Palmer**	82.09	356	*e*P	P	12 21 13.3	-0.2
	comp=Z,233nm,1.2s,mb6.0						
PMR	**Palmer**	82.09	356	*e*P	P	12 21 13.3	-0.2
	comp=Z,233nm,1.2s,mb6.0						
MYKOM	**Kota Tinggi**	82.51	93	P	P	12 21 15.7	-0.8
SIUC	**Southern Illin**	82.54	312	*e*P	P	12 21 16.1	-0.1
	comp=Z,261nm,1.2s,mb6.1						
SIUC	**Southern Illin**	82.54	312	*e*P	P	12 21 16.1	-0.2
	comp=Z,261nm,1.2s,mb6.1						
SLM	**Saint Louis**	82.54	313	P	P	12 21 16.4	+0.1
SLM				pmax	pmax		
	comp=Z,173nm,1.3s,mb5.9						
SLM	**Saint Louis**	82.54	313	P	P	12 21 16.4	+0.1
	comp=Z,173nm,1.3s,mb5.9						
SLM	**Saint Louis**	82.54	313	P	P	12 21 16.4	+0.1
	comp=Z,173nm,1.3s,mb5.9						
FIB	**Fire Island**	82.58	356	*e*P	P	12 21 17.2	+1.2
FIB				pmax	pmax		
	comp=Z,369nm,1.1s,mb6.3						
FIB	**Fire Island**	82.58	356	*e*P	P	12 21 17.2	+1.1
	comp=Z,369nm,1.1s,mb6.3						
FIB	**Fire Island**	82.58	356	*e*P	P	12 21 17.2	+1.2
	comp=Z,369nm,1.1s,mb6.3						
RC01	**Rabbit Creek A**	82.63	356	*e*P	P	12 21 16.1	-0.2
	comp=Z,196nm,1.1s,mb6.0						
RC01	**Rabbit Creek A**	82.63	356	*e*P	P	12 21 16.1	-0.2
	comp=Z,196nm,1.1s,mb6.0						
DLBC	**Dease Lake**	82.64	346	*e*P	P	12 21 17.6	+1.2
DLBC	**Dease Lake**	82.64	346	*e*P	P	12 21 17.6	+1.2
SKAG	**Skagway**	82.65	348	*e*P	P	12 21 15.9	-0.5
	comp=Z,151nm,1.0s,mb6.0						
SKAG	**Skagway**	82.65	348	*e*P	P	12 21 15.9	-0.5
	comp=Z,151nm,1.0s,mb6.0						
EDM	**Edmonton**	82.66	335	P	P	12 21 17.0	+0.4
EDM	**Edmonton**	82.66	335	*e*P	P	12 21 16.9	+0.3
EDM	**Edmonton**	82.66	335	*e*P	P	12 21 16.9	+0.3
WVT	**Waverly**	82.71	310	P	P	12 21 16.8	-0.4
WVT				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.5						
WVT	**Waverly**	82.71	310	*e*P	P	12 21 16.6	-0.6
	comp=Z,51nm,0.9s,mb5.5						
WVT	**Waverly**	82.71	310	*e*P	P	12 21 16.6	-0.6
	comp=Z,51nm,0.9s,mb5.5						
TATO	**Taipei**	82.81	64	*e*P	P	12 21 17.6	-0.3
TATO	**Taipei**	82.81	64	*e*P	P	12 21 17.6	-0.3
DGMT	**Dagmar**	82.82	327	⇑P	P	12 21 18.4	+0.8
	baz=82						
DGMT				⇓S	S	12 31 34.1	+0.9
	baz=82						
DGMT	**Dagmar**	82.82	327	*e*P	P	12 21 18.5	+0.9
	comp=Z,226nm,1.5s,mb6.0						
DGMT	**Dagmar**	82.82	327	*e*P	P	12 21 18.5	+0.9
	comp=Z,226nm,1.5s,mb6.0						
SVW2	**Sparrevohn**	82.84	359	*e*P	P	12 21 18.2	+0.8
SVW2	**Sparrevohn**	82.84	359	*e*P	P	12 21 18.2	+0.8
YHNB	**Yeheng**	82.91	65	*e*P	P	12 21 18.0	-0.5
	comp=Z,225nm,1.1s,mb6.1						
YHNB	**Yeheng**	82.91	65	*e*P	P	12 21 18.0	-0.5
	comp=Z,225nm,1.1s,mb6.1						
PETK	**Petropavlovsk-**	82.99	25	P	P	12 21 16.0	-2.3
	comp=Z,23nm,1.0s,mb5.2,baz=28,slow=4.0,SNR=9.4						
PETK				LR	LR	13 04 52.1	
	comp=Z,8µm,18.4s,MS6.2,baz=324,slow=40						
PETK	**Petropavlovsk-**	82.99	25	P	P	12 21 16.0	-2.3
PNL	**Peninsula**	83.04	351	*e*P	P	12 21 19.1	+0.7
	comp=Z,145nm,1.0s,mb6.0						
PNL	**Peninsula**	83.04	351	*e*P	P	12 21 19.1	+0.6
	comp=Z,145nm,1.0s,mb6.0						
FVM	**French Village**	83.08	313	*e*P	P	12 21 19.1	0.0
FVM				pmax	pmax		
	comp=Z,239nm,1.3s,mb6.1						
FVM	**French Village**	83.08	313	*e*P	P	12 21 19.1	0.0
	comp=Z,239nm,1.3s,mb6.1						
FVM	**French Village**	83.08	313	*e*P	P	12 21 19.1	0.0
	comp=Z,239nm,1.3s,mb6.1						
SSLB	**Suanglung**	83.13	66	*e*P	P	12 21 18.3	-1.3
	comp=Z,92nm,1.0s,mb5.8						
SSLB	**Suanglung**	83.13	66	*e*P	P	12 21 18.3	-1.3
	comp=Z,92nm,1.0s,mb5.8						
TPUB	**Ta-pu**	83.18	66	*e*P	P	12 21 19.3	-0.5
	comp=Z,422nm,1.4s,mb6.3						
TPUB	**Ta-pu**	83.18	66	*e*P	P	12 21 19.3	-0.5
	comp=Z,422nm,1.4s,mb6.3						
PET	**Petropavlovsk**	83.39	25	*e*P	P	12 21 28.3	+7.9
PET	**Petropavlovsk**	83.39	25	*e*P	P	12 21 20.4	0.0
PET	**Petropavlovsk**	83.39	25	*e*P	P	12 21 20.4	0.0
CCM	**Cathedral Cave**	83.52	313	P	P	12 21 21.6	+0.2
CCM				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.8						
CCM	**Cathedral Cave**	83.52	313	*e*P	P	12 21 21.5	+0.2
	comp=Z,89nm,1.0s,mb5.8						
CCM	**Cathedral Cave**	83.52	313	*e*P	P	12 21 21.5	+0.1
	comp=Z,89nm,1.0s,mb5.8						
ASAJ	**Asahikawa**	83.55	39	P	P	12 21 19.6	-1.8
ASAJ				pmax	pmax		
	comp=Z,55nm,0.7s						
ASAJ				MLR	MLR		
	comp=Z,13µm,19.1s						
ASAJ	**Asahikawa**	83.55	39	P	P	12 21 19.6	-1.8
	comp=Z,55nm,0.7s,mb5.8,baz=272,slow=8.7,SNR=25						
ASAJ				LR	LR	13 02 40.2	
	comp=Z,13µm,19.1s,MS6.3,baz=148,slow=39						
SEW	**Seward**	83.59	356	*e*P	P	12 21 21.4	+0.1
	comp=Z,179nm,1.2s,mb6.1						
SEW	**Seward**	83.59	356	*e*P	P	12 21 21.4	+0.1
	comp=Z,179nm,1.2s,mb6.1						
PLAL	**Pickwick Lake**	83.60	309	*e*P	P	12 21 21.4	-0.5
	comp=Z,64nm,1.0s,mb5.7						
PLAL	**Pickwick Lake**	83.60	309	*e*P	P	12 21 21.4	-0.4
	comp=Z,64nm,1.0s,mb5.7						
YULB	**Yu-li**	83.61	66	*e*P	P	12 21 21.6	-0.5
	comp=Z,84nm,0.8s,mb5.9						
YULB	**Yu-li**	83.61	66	*e*P	P	12 21 21.6	-0.5
	comp=Z,84nm,0.8s,mb5.9						
GTBY	**Guantanamo Bay**	83.78	290	*e*P	P	12 21 22.3	-0.7
GTBY	**Guantanamo Bay**	83.78	290	*e*P	P	12 21 22.3	-0.7
TWG	**Pinlang**	83.79	66	*e*P	P	12 21 22.2	-0.8
	comp=Z,551nm,1.6s,mb6.4						
TWG	**Pinlang**	83.79	66	*e*P	P	12 21 22.2	-0.8
	comp=Z,550nm,1.6s,mb6.4						
LRAL	**Lakeview Retre**	84.17	307	*e*P	P	12 21 25.0	+0.2
	comp=Z,84nm,0.9s,mb5.9						
LRAL	**Lakeview Retre**	84.17	307	*e*P	P	12 21 25.0	+0.2
	comp=Z,84nm,0.9s,mb5.9						
CAM4	**Nova Friburgo**	84.29	237	*e*P	P	12 21 26.7	+1.4
CAM4				*i*		12 21 27.7	
CAM4				*i*		12 21 33.5	
CAM4				*i*	pP	12 21 40.1	+3.6
CAM4				*i*		12 21 47.4	
CAM4				*i*		12 21 57.7	
CAM4				*i*		12 22 07.0	
CAM4				*i*		12 22 16.8	
SKR	**Severo-Kuril's**	84.42	27	*e*P	sP	12 21 40.0	-0.9
A18A	**Metzger Ranch,**	84.84	330	⇓P	P	12 21 28.8	+0.9
	baz=84,SNR=169						
A18A				⇑S	S	12 31 54.7	+1.3
	baz=84						
SIT	**Sitka**	84.93	348	*e*P	P	12 21 29.6	+1.4
SIT				pmax	pmax		
	comp=Z,133nm,1.0s,mb6.0						
SIT	**Sitka**	84.93	348	*e*P	P	12 21 29.6	+1.4
	comp=Z,133nm,1.0s,mb6.0						
SIT	**Sitka**	84.93	348	*e*P	P	12 21 29.6	+1.4
	comp=Z,133nm,1.0s,mb6.0						
WRAK	**Wrangell Islan**	84.99	346	*e*P	P	12 21 29.8	+1.3
	comp=Z,107nm,0.9s,mb6.0						
WRAK	**Wrangell Islan**	84.99	346	*e*P	P	12 21 29.8	+1.4
	comp=Z,107nm,0.9s,mb6.0						
LAO	**LASA Array**	85.07	327	*e*P	P	12 21 30.1	+1.0
	comp=Z,463nm,1.5s,mb6.4						
LAO	**LASA Array**	85.07	327	*e*P	P	12 21 30.0	+0.9
	comp=Z,463nm,1.5s,mb6.4						
A17A	**Triple J Farms**	85.16	331	⇓P	P	12 21 29.7	+0.2
	baz=85,SNR=46						
A17A				⇓S	S	12 31 57.3	+0.7
	baz=85						
YUK	**Yuzh-Kuril'sk**	85.22	37	*e*P	P	12 21 26.0	-3.9
YUK				*e*		12 21 42.0	
B18A	**Beardsley Farm**	85.23	330	⇑P	P	12 21 30.7	+0.9
	baz=85,SNR=117						
B18A				⇑S	S	12 31 58.4	+1.1
	baz=85						
ERM	**Erimo**	85.34	40	P	P	12 21 31.5	+1.0
ERM				pmax	pmax		
	comp=Z,200nm,1.2s,mb6.1						
ERM	**Erimo**	85.34	40	*e*P	P	12 21 30.4	-0.2
	comp=Z,203nm,1.2s,mb6.1						
ERM	**Erimo**	85.34	40	*e*P	P	12 21 30.4	-0.1
	comp=Z,203nm,1.2s,mb6.1						
A16A	**West Butte Ran**	85.51	331	⇓P	P	12 21 31.4	+0.2
	baz=85,SNR=114						
A16A				⇑S	S	12 31 58.6	-1.4
	baz=85						
EGMT	**Eagleton**	85.52	330	⇓P	P	12 21 32.3	+1.0
	baz=85,SNR=117						
EGMT				⇓S	S	12 32 00.6	+0.5
	baz=85						
EGMT	**Eagleton**	85.52	330	*e*P	P	12 21 32.1	+0.8
	comp=Z,229nm,0.9s,mb6.4						
EGMT	**Eagleton**	85.52	330	*e*P	P	12 21 32.1	+0.8
	comp=Z,229nm,0.9s,mb6.4						
B17A	**L&G Farms, Che**	85.72	330	⇓P	P	12 21 32.4	+0.1
	baz=85,SNR=36						
B17A				⇑S	S	12 32 03.0	+0.8
	baz=85						
KSU1	**Kansas State U**	85.88	317	*e*P	P	12 21 33.5	+0.2
	comp=Z,215nm,0.9s,mb6.4						
KSU1	**Kansas State U**	85.88	317	*e*P	P	12 21 33.5	+0.3
	comp=Z,215nm,0.9s,mb6.4						
A15A	**Johnson Ranch,**	85.92	332	⇓P	P	12 21 33.4	+0.2
	baz=86,SNR=192						
A15A				⇑S	S	12 32 03.4	-0.7
	baz=86						
B16A	**M & M Farms, S**	85.98	331	⇑P	P	12 21 33.7	+0.1
	baz=86,SNR=37						
B16A				⇓S	S	12 32 04.5	-0.2
	baz=86						
RSSD	**Black Hills**	86.03	324	P	P	12 21 34.8	+0.9
RSSD				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.5						
RSSD	**Black Hills**	86.03	324	*e*P	P	12 21 34.6	+0.7
	comp=Z,34nm,1.0s,mb5.5						
RSSD	**Black Hills**	86.03	324	*e*P	P	12 21 34.6	+0.7
	comp=Z,34nm,1.0s,mb5.5						
CRAG	**Craig**	86.03	346	*e*P	P	12 21 33.4	-0.2
CRAG	**Craig**	86.03	346	*e*P	P	12 21 33.4	-0.3
KDAK	**Kodiak Island**	86.07	357	P	P	12 21 34.7	+0.9
KDAK				pmax	pmax		
	comp=Z,310nm,1.4s,mb6.3						
KDAK	**Kodiak Island**	86.07	357	*e*P	P	12 21 34.3	+0.4
	comp=Z,314nm,1.4s,mb6.3						
KDAK	**Kodiak Island**	86.07	357	*e*P	P	12 21 34.3	+0.5
	comp=Z,314nm,1.4s,mb6.3						
A14A	**Double T Ranch**	86.18	332	⇑P	P	12 21 35.0	+0.4
	baz=86,SNR=205						
A14A				⇑S	S	12 32 06.6	-0.1
	baz=86						
D18A	**Linhart Farms,**	86.20	329	⇑P	P	12 21 35.5	+0.8
	baz=86,SNR=54						
D18A				⇓S	S	12 32 08.8	+2.0
	baz=86						
C17A	**Wharram Farm,**	86.24	330	⇑P	P	12 21 35.0	+0.2
	baz=86,SNR=62						
C17A				⇓S	S	12 32 07.7	+0.4
	baz=86						
WALA	**Waterton Lakes**	86.29	333	*e*P	P	12 21 35.1	0.0
	comp=Z,3.4nm,1.0s,mb4.5						
WALA	**Waterton Lakes**	86.29	333	*e*P	P	12 21 35.1	0.0
	comp=Z,3.4nm,1.0s,mb4.5						
UALR	**University of**	86.37	311	*e*P	P	12 21 36.9	+1.2
	comp=Z,84nm,1.0s,mb5.9						
UALR	**University of**	86.37	311	*e*P	P	12 21 36.9	+1.1
	comp=Z,84nm,1.0s,mb5.9						
B15A	**Bradely Ranch,**	86.39	331	⇑P	P	12 21 35.4	-0.2
	baz=86,SNR=98						
B15A				⇑S	S	12 32 07.8	-0.9
	baz=86						
MAJO	**Matsushiro**	86.48	46	*e*P	P	12 21 35.1	-1.1
MAJO				pmax	pmax		
	comp=Z,284nm,1.4s,mb6.3						
MAJO	**Matsushiro**	86.48	46	*e*P	P	12 21 35.1	-1.1
	comp=Z,284nm,1.4s,mb6.3						
MAJO	**Matsushiro**	86.48	46	*e*P	P	12 21 35.1	-1.1
	comp=Z,284nm,1.4s,mb6.3						
MAT	**Matsushiro**	86.48	46	P	P	12 21 34.5	-1.7
MAT				*e*S	S	12 32 16.0	+6.0
MJAR	**Matsushiro Arr**	86.48	46	P	P	12 21 35.6	-0.7
	comp=Z,53nm,0.8s,mb5.8,baz=311,slow=5.2,SNR=83						
MJAR				LR	LR	13 05 29.2	
	comp=Z,6µm,19.1s,MS6.0,baz=355,slow=39						
MJAR	**Matsushiro Arr**	86.48	46	P	P	12 21 35.6	-0.7
C16A	**Fuhringer Ranc**	86.49	331	⇓P	P	12 21 36.1	0.0
	baz=86,SNR=46						
C16A				⇓S	S	12 32 08.3	-1.4
	baz=86						
JOW	**Kunigami**	86.50	59	P	P	12 21 35.4	-1.2
	comp=Z,163nm,1.0s,mb6.2,baz=329,slow=5.3,SNR=16						
JOW				LR	LR	13 06 54.5	
	comp=Z,10µm,20.2s,MS6.2,baz=307,slow=40						
JOW	**Kunigami**	86.50	59	P	P	12 21 35.4	-1.2
JOW				LR	LR	13 06 54.5	
JOW	**Kunigami**	86.50	59	P	P	12 21 35.3	-1.2
D17A	**Six Diamond Ra**	86.59	330	⇓P	P	12 21 37.1	+0.5
	baz=86,SNR=46						
D17A				⇓S	S	12 32 11.0	+0.2
	baz=86						
ABRA	**Dolores**	86.61	71	*e*P	P	12 21 36.7	-0.5
OHAK	**Old Harbor**	86.66	357	*e*P	P	12 21 37.0	+0.3
OHAK	**Old Harbor**	86.66	357	*e*P	P	12 21 37.0	+0.3
E18A	**Harlowton**	86.74	329	⇓P	P	12 21 38.3	+0.9
	baz=86,SNR=43						
E18A				⇓S	S	12 32 12.7	+0.5
	baz=86						
SDV	**Santo Domingo**	86.77	279	*e*P	P	12 21 38.9	+0.8
	comp=Z,119nm,1.1s,mb6.0						
SDV	**Santo Domingo**	86.77	279	*e*P	P	12 21 38.9	+0.9
	comp=Z,119nm,1.1s,mb6.0						
C15A	**Salmond Ranch,**	86.85	331	⇑P	P	12 21 37.5	-0.3
	baz=86,SNR=20						
C15A				⇓S	S	12 32 12.4	-0.8
	baz=86						
VBMS	**Vicksburg**	86.95	308	*e*P	P	12 21 39.5	+0.9
	comp=Z,283nm,1.0s,mb6.5						
VBMS	**Vicksburg**	86.95	308	*e*P	P	12 21 39.5	+0.9
	comp=Z,283nm,1.0s,mb6.5						
A12A	**Yaak River Ran**	87.03	333	⇑P	P	12 21 39.1	+0.4
	baz=87,SNR=31						
A12A				⇑S	S	12 32 14.0	-0.9
	baz=87						
D16A	**Dana Ranch, Ca**	87.04	330	⇑P	P	12 21 39.2	+0.5
	baz=87,SNR=92						
D16A				⇑S	S	12 32 13.9	-1.1
	baz=87						
B13A	**Whitefish**	87.07	333	⇓P	P	12 21 39.6	+0.7
	baz=87,SNR=55						
B13A				⇑S	S	12 32 16.1	+0.8
	baz=87						
F18A	**Big Timber**	87.19	328	⇓P	P	12 21 40.4	+0.8
	baz=87,SNR=30						

F18A				⇑S	S	12 32 17.7	+1.2
	baz=87						
E17A	Martinsdale	87.22	329	⇑P	P	12 21 40.6	+1.0
	baz=87,SNR=50						
E17A				⇓S	S	12 32 17.9	+1.1
	baz=87						
A11A	Hall Mountain,	87.27	334	⇑P	P	12 21 40.6	+0.7
	baz=87,SNR=44						
A11A				⇓S	S	12 32 17.2	+0.1
	baz=87						
MIAR	Mount Ida	87.27	312	eP	P	12 21 40.0	-0.2
MIAR				pmax	pmax		
	comp=Z,69nm,0.9s,mb5.9						
MIAR	Mount Ida	87.27	312	eP	P	12 21 40.0	-0.2
	comp=Z,69nm,0.9s,mb5.9						
MIAR	Mount Ida	87.27	312	eP	P	12 21 40.0	-0.2
	comp=Z,69nm,0.9s,mb5.9						
B12A	Libby	87.40	333	⇓P	P	12 21 40.9	+0.4
	baz=87,SNR=10.0						
D15A	Lincoln	87.42	331	⇓P	P	12 21 40.9	+0.3
	baz=87,SNR=30						
OGNE	Ogallala	87.43	321	eP	P	12 21 41.4	+0.6
	comp=Z,329nm,1.8s,mb6.3						
OGNE	Ogallala	87.43	321	eP	P	12 21 41.4	+0.6
	comp=Z,329nm,1.8s,mb6.3						
E16A	East Helena	87.49	330	⇓P	P	12 21 41.6	+0.6
	baz=87,SNR=25						
F17A	Fitzpatrick Pl	87.58	329	⇓P	P	12 21 42.7	+1.3
	baz=87,SNR=27						
G18A	Lazy EL Ranch,	87.59	328	⇑P	P	12 21 41.7	+0.2
	baz=87,SNR=9.3						
RLMT	Red Lodge	87.62	328	⇑P	P	12 21 42.8	+1.2
	baz=87,SNR=30						
RLMT	Red Lodge	87.62	328	eP	P	12 21 42.1	+0.5
	comp=Z,353nm,1.6s,mb6.3						
RLMT				epP	pP	12 21 50.2	-2.6
RLMT	Red Lodge	87.62	328	eP	P	12 21 42.1	+0.5
	comp=Z,353nm,1.6s,mb6.3						
RLMT				epP	pP	12 21 50.2	-2.6
A10A	Northport	87.67	335	⇓P	P	12 21 42.4	+0.7
	baz=87						
FX1	Attu Island--F	87.67	17	LR	LR	13 05 25.4	
	comp=Z,9µm,19.6s,MS6.2,baz=337,slow=39						
C13A	Hot Springs	87.68	332	⇓P	P	12 21 42.5	+0.6
	baz=87,SNR=48						
B11A	Sandpoint	87.71	334	⇓P	P	12 21 42.3	+0.3
	baz=87,SNR=8.9						
D14A	Greenough	87.77	331	⇓P	P	12 21 42.3	0.0
	baz=87,SNR=31						
CBKS	Cedar Bluff	87.79	318	eP	P	12 21 43.0	+0.5
CBKS				pmax	pmax		
	comp=Z,128nm,1.1s,mb6.1						
CBKS	Cedar Bluff	87.79	318	eP	P	12 21 43.0	+0.5
	comp=Z,128nm,1.1s,mb6.1						
CBKS	Cedar Bluff	87.79	318	eP	P	12 21 43.0	+0.5
	comp=Z,128nm,1.1s,mb6.1						
KSM	Kuching	87.91	90	P	P	12 21 43.9	+0.4
KSM	Kuching	87.91	90	eP	P	12 21 43.7	+0.2
	comp=Z,194nm,1.3s,mb6.2						
KSM	Kuching	87.91	90	eP	P	12 21 43.7	+0.2
	comp=Z,194nm,1.3s,mb6.2						
E15A	Deer Lodge	87.97	330	⇓P	P	12 21 43.9	+0.7
	baz=88,SNR=36						
C12B	Naegeli Ranch,	88.00	333	⇑P	P	12 21 43.8	+0.4
	baz=88,SNR=49						
A09A	Danville	88.02	335	⇑P	P	12 21 44.4	+0.9
	baz=88						
PNT	Penticton	88.08	336	P	P	12 21 44.3	+0.6
PNT	Penticton	88.08	336	P	P	12 21 44.2	+0.5
F16A	Kennard Place,	88.08	329	⇑P	P	12 21 44.6	+0.8
	baz=88,SNR=21						
G17A	Pierce Place,	88.09	329	⇑P	P	12 21 45.3	+1.4
	baz=88,SNR=26						
NEW	Newport	88.12	334	P	P	12 21 44.2	+0.2
NEW				pmax	pmax		
	comp=Z,120nm,1.0s						
NEW	Newport	88.12	334	P	P	12 21 44.5	+0.5
NEW	Newport	88.12	334	P	P	12 21 44.5	+0.5
D13A	Huson	88.13	332	⇓P	P	12 21 44.5	+0.6
	baz=88,SNR=68						
B10A	Chitwood Farm,	88.13	334	⇑P	P	12 21 44.7	+0.7
	baz=88,SNR=10.0						
MSO	Missoula	88.15	331	eP	P	12 21 44.1	0.0
	comp=Z,49nm,1.3s,mb5.6						
MSO	Missoula	88.15	331	eP	P	12 21 44.1	0.0
	comp=Z,49nm,1.3s,mb5.6						
BOZ	Bozeman (W)	88.19	329	eP	P	12 21 45.1	+0.8
BOZ				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.7						
BOZ	Bozeman (W)	88.19	329	⇓P	P	12 21 45.7	+1.3
	baz=88,SNR=49						
BOZ	Bozeman (W)	88.19	329	eP	P	12 21 45.1	+0.8
	comp=Z,61nm,1.2s,mb5.7						
BOZ	Bozeman (W)	88.19	329	eP	P	12 21 45.1	+0.8
	comp=Z,61nm,1.2s,mb5.7						
A08A	Turner Farm, O	88.27	336	⇑P	P	12 21 45.4	+0.8
	baz=88,SNR=14						
E14A	Clinton	88.31	331	⇑P	P	12 21 45.6	+0.7
	baz=88,SNR=45						
B09A	Rice	88.35	335	⇓P	P	12 21 46.0	+0.9
	baz=88						
F15A	Butte	88.39	330	⇓P	P	12 21 45.8	+0.5
	baz=88,SNR=27						
BALP	Baler	88.41	72	eP	P	12 21 45.2	-0.7
LKWY	Lake	88.55	328	P	P	12 21 48.1	+2.1
LKWY				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.8						
LKWY	Lake	88.55	328	eP	P	12 21 47.8	+1.8
	comp=Z,80nm,1.2s,mb5.9						
LKWY	Lake	88.55	328	eP	P	12 21 47.8	+1.8
	comp=Z,80nm,1.2s,mb5.9						
A07A	Ashnola River,	88.56	336	⇓P	P	12 21 46.4	+0.5
	baz=88,SNR=13						
E13A	Victor	88.56	331	⇓P	P	12 21 46.4	+0.4
	baz=88,SNR=55						
C10A	Spilker Farm,	88.57	334	⇓P	P	12 21 46.5	+0.4
	baz=88,SNR=11						
LUBP	Lubang	88.59	74	eP	P	12 21 45.6	-1.1
G16A	Moss Hill, Enn	88.61	329	⇑P	P	12 21 47.5	+1.2
	baz=88,SNR=53						
SDPT	Sand Point	88.61	1	eP	P	12 21 45.3	-0.8
SDPT	Sand Point	88.61	1	eP	P	12 21 45.3	-0.8
H17A	Grant Village	88.76	328	⇑P	P	12 21 49.5	+2.4
	baz=88,SNR=27						
F14A	Wisdom	88.76	330	⇑P	P	12 21 47.5	+0.5
	baz=88,SNR=25						
H16A	Russell Place,	88.80	329	⇓P	P	12 21 48.7	+1.5
	baz=88,SNR=23						
B08A	Colville Reser	88.81	335	⇓P	P	12 21 47.5	+0.3
	baz=88,SNR=22						
DLMT	Dillon	88.82	330	eP	P	12 21 47.9	+0.6
	comp=Z,88nm,1.1s,mb6.0						
DLMT				epP	pP	12 21 55.9	-2.6
DLMT	Dillon	88.82	330	eP	P	12 21 47.9	+0.6
	comp=Z,88nm,1.1s,mb6.0						
DLMT				epP	pP	12 21 55.9	-2.6
PHWY	Pilot Hill	88.86	323	eP	P	12 21 48.0	+0.4
	comp=Z,113nm,1.1s,mb6.1						
PHWY				epP	pP	12 21 56.8	-1.9
PHWY	Pilot Hill	88.86	323	eP	P	12 21 48.0	+0.4
	comp=Z,113nm,1.1s,mb6.1						
PHWY				epP	pP	12 21 56.8	-1.9
A06A	Chilliwack	88.87	337	⇓P	P	12 21 46.9	-0.6
	baz=88,SNR=5.0						
D11A	Klaveano Farm,	88.87	333	⇑P	P	12 21 46.7	-0.8
	baz=88,SNR=18						
SBUM	Sibu	88.88	88	P	P	12 21 48.7	+0.6
C09A	Chrisman Ranch	88.92	334	⇓P	P	12 21 48.4	+0.7
	baz=89						
G15A	Dillon	88.94	330	⇓P	P	12 21 48.6	+0.8
	baz=89,SNR=27						
B07A	Winthrop	88.98	336	⇑P	P	12 21 48.4	+0.5
	baz=89,SNR=35						
BTM	Bintulu	89.13	87	P	P	12 21 50.0	+0.7
I17A	Pilgrim Ck.	89.14	328	⇓P	P	12 21 50.4	+1.5
	baz=89,SNR=18						
A05A	Maple Falls	89.15	337	⇓P	P	12 21 47.9	-0.9
	baz=89						
K20A	Yellowstone Ra	89.16	326	⇑P	P	12 21 48.9	0.0
	baz=89,SNR=38						
F13A	Darby	89.16	331	⇑P	P	12 21 49.3	+0.4
	baz=89,SNR=79						
C08A	Higginbotham F	89.20	335	⇓P	P	12 21 50.0	+0.9
	baz=89						
L21A	Rawlins	89.25	325	⇓P	P	12 21 49.4	0.0
	baz=89,SNR=6.0						
K19A	Absolon Red Bu	89.25	326	⇑P	P	12 21 49.0	-0.4
	baz=89						
G14A	Jackson	89.27	330	⇑P	P	12 21 49.8	+0.4
	baz=89,SNR=12						
M22A	Cedar Creek Ra	89.32	324	⇓P	P	12 21 50.3	+0.5
	baz=89,SNR=25						
MOOW	Moose Ponds	89.35	328	eP	P	12 21 50.6	+0.8
	comp=Z,41nm,1.1s,mb5.7						
MOOW	Moose Ponds	89.35	328	eP	P	12 21 50.6	+0.8
	comp=Z,41nm,1.1s,mb5.7						
B06A	Marblemount	89.38	337	⇓P	P	12 21 49.4	-0.5
	baz=89						
RWWY	Rawlins	89.39	324	eP	P	12 21 50.1	+0.1
	comp=Z,159nm,1.4s,mb6.2						
RWWY	Rawlins	89.39	324	eP	P	12 21 50.2	+0.1
	comp=Z,159nm,1.4s,mb6.2						
LOHW	Long Hollow	89.40	328	eP	P	12 21 50.7	+0.6
	comp=Z,52nm,1.1s,mb5.8						
LOHW	Long Hollow	89.40	328	eP	P	12 21 50.7	+0.6
	comp=Z,52nm,1.1s,mb5.8						
E11A	Bogner Ranch,	89.41	332	⇓P	P	12 21 49.3	-0.7
	baz=89,SNR=16						
H15A	Lima	89.45	329	⇓P	P	12 21 51.7	+1.4
	baz=89,SNR=43						
J18A	Kendall Valley	89.47	327	⇓P	P	12 21 51.1	+0.8
	baz=89,SNR=73						
I16A	Newdale	89.57	328	⇓P	P	12 21 52.5	+1.6
	baz=89,SNR=14						
D09A	Jones Farm, Ri	89.57	334	⇓P	P	12 21 51.2	+0.4
	baz=89,SNR=20						
A04A	Legoe Bay, Lum	89.58	337	⇓P	P	12 21 50.2	-0.6
	baz=89						
BATP	Bataraza	89.61	79	eP	P	12 21 51.4	-0.1
PDAR	Pinedale Array	89.62	326	P	P	12 21 50.9	-0.2
	comp=Z,13nm,0.9s,mb5.2,baz=58,slow=3.7,SNR=56						
PDAR				LR	LR	13 03 05.7	
	comp=Z,16µm,21.5s,MS6.4,baz=30,slow=36						
PDAR	Pinedale Array	89.62	326	P	P	12 21 50.8	-0.3
BW06	Boulder Array	89.62	326	⇑P	P	12 21 51.0	-0.1
	baz=89						
E10A	Myers Farm, Un	89.63	333	⇑P	P	12 21 50.6	-0.5
	baz=89,SNR=9.1						
C07A	Waterville	89.63	335	⇑P	P	12 21 51.3	+0.3
	baz=89,SNR=24						
J17A	Brown Place, J	89.65	327	⇑P	P	12 21 52.0	+0.8
	baz=89,SNR=9.8						
DCID1	Drake Creek	89.67	328	eP	P	12 21 52.0	+0.7
	comp=Z,123nm,1.0s,mb6.2						
DCID1	Drake Creek	89.67	328	eP	P	12 21 52.0	+0.7
	comp=Z,123nm,1.0s,mb6.2						
L20A	Wamsutter	89.67	325	⇓P	P	12 21 51.6	+0.2
	baz=89,SNR=11						
G13A	Cobalt	89.70	331	⇑P	P	12 21 51.7	+0.2
	baz=89,SNR=37						
C06A	Tall Timber Ra	89.71	336	⇑P	P	12 21 51.3	-0.1
	baz=89,SNR=11						
REDW	Red Top Meadow	89.71	328	eP	P	12 21 52.0	+0.4
	comp=Z,99nm,1.3s,mb6.0						
REDW	Red Top Meadow	89.71	328	eP	P	12 21 52.0	+0.5
	comp=Z,99nm,1.3s,mb6.0						
N22A	Wattenberg Ran	89.72	323	⇓P	P	12 21 52.2	+0.6
	baz=89,SNR=16						
PPR	Puerto Princes	89.77	78	⇑eP	P	12 21 52.1	-0.2
JHJ	Hachijo jima 2	89.78	48	LR	LR	13 09 37.0	
	comp=Z,4µm,19.2s,MS5.9,baz=298,slow=41						
D08A	Wollman Farm,	89.79	334	⇑P	P	12 21 52.4	+0.6
	baz=89,SNR=14						
B05A	Bryant	89.80	337	⇓P	P	12 21 51.3	-0.5
	baz=89,SNR=13						
JCW	Jim Creek	89.81	337	P	P	12 21 51.4	-0.5
JCW	Jim Creek	89.81	337	P	P	12 21 51.3	-0.6
NATX	Nacogdoches	89.84	310	eP	P	12 21 53.1	+0.7
	comp=Z,153nm,1.2s,mb6.2						
PGC	Sidney	89.88	338	eP	P	12 21 52.0	-0.2
	comp=Z,2.0nm,0.9s,mb4.5						
PGC	Sidney	89.88	338	eP	P	12 21 52.0	-0.2
	comp=Z,2.0nm,0.9s,mb4.5						
I15A	Monteview	89.89	329	⇑P	P	12 21 54.1	+1.8
	baz=90,SNR=8.0						
K18A	Toltan Ranch,	89.94	327	⇑P	P	12 21 53.0	+0.5
	baz=90,SNR=38						
KDM	Kudat	89.95	82	P	P	12 21 52.6	-0.5
KKM	Kota Kinabalu	89.97	83	P	P	12 21 52.7	-0.6
KKM	Kota Kinabalu	89.97	83	eP	P	12 21 51.2	-2.1
	comp=Z,193nm,1.6s,mb6.2						
KKM	Kota Kinabalu	89.97	83	eP	P	12 21 51.2	-2.0
	comp=Z,193nm,1.6s,mb6.2						
E09A	Wood Farm, Sta	89.98	334	⇑P	P	12 21 53.0	+0.3
	baz=90						
M20A	Sweetwater, Wa	90.00	325	⇑P	P	12 21 53.7	+0.8
	baz=90,SNR=21						
D07A	Quincy	90.03	335	⇓P	P	12 21 53.4	+0.5
	baz=90,SNR=8.2						
L19A	Farson	90.06	326	⇓P	P	12 21 53.2	0.0
	baz=90,SNR=13						
ISCO	Idaho Springs	90.08	322	eP	P	12 21 53.6	+0.3
ISCO				e*PP	pP	12 22 02.9	-1.6
ISCO				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.8						
ISCO	Idaho Springs	90.08	322	eP	P	12 21 53.5	+0.2
	comp=Z,62nm,1.3s,mb5.8						
ISCO				epP	pP	12 22 02.9	-1.6
ISCO	Idaho Springs	90.08	322	eP	P	12 21 53.5	+0.2
	comp=Z,62nm,1.3s,mb5.8						
ISCO				epP	pP	12 22 02.9	-1.6
F10A	Beach Ranch, E	90.11	333	⇓P	P	12 21 53.3	0.0
	baz=90,SNR=25						
C05A	Tolt Reservoir	90.17	336	⇑P	P	12 21 53.1	-0.4
	baz=90,SNR=20						
WMOK	Wichita Mounta	90.20	315	eP	P	12 21 54.4	+0.4
WMOK				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.8						
WMOK	Wichita Mounta	90.20	315	eP	P	12 21 54.4	+0.4
	comp=Z,46nm,0.9s,mb5.8						
WMOK	Wichita Mounta	90.20	315	eP	P	12 21 54.4	+0.4
	comp=Z,46nm,0.9s,mb5.8						
K17A	Gardner Place,	90.23	327	⇑P	P	12 21 54.2	+0.3
	baz=90,SNR=6.4						
N21A	Black Mountain	90.26	324	⇓P	P	12 21 54.9	+0.8
	baz=90,SNR=35						
AHID	Auburn Hatcher	90.30	327	eP	P	12 21 53.4	-0.9
	comp=Z,111nm,1.3s,mb6.0						
AHID	Auburn Hatcher	90.30	327	eP	P	12 21 53.3	-1.0
	comp=Z,111nm,1.3s,mb6.0						
E08A	Dider Farm, El	90.32	334	⇑P	P	12 21 54.9	+0.6
	baz=90,SNR=18						
D06A	Cle Elum	90.33	336	⇑P	P	12 21 54.2	-0.1
	baz=90,SNR=5.7						
I14A	Mackay	90.34	329	⇓P	P	12 21 55.6	+1.1
	baz=90,SNR=11						
J15A	Blackfoot	90.36	329	⇓P	P	12 21 56.0	+1.4
	baz=90,SNR=14						
H12A	Diamond D Ranc	90.40	331	⇓P	P	12 21 54.7	0.0
	baz=90						
B04A	Port Angeles	90.42	338	⇓P	P	12 21 55.5	+0.8
	baz=90						
M19A	Rock Springs	90.44	325	⇑P	P	12 21 55.3	+0.3
	baz=90,SNR=12						
K16A	Soda Springs	90.46	328	⇑P	P	12 21 55.7	+0.7
	baz=90,SNR=8.2						
L18A	Fontenelle, Gr	90.50	326	⇓P	P	12 21 55.5	+0.2
	baz=90,SNR=15						
E07A	Sunnyside	90.54	335	⇑P	P	12 21 56.2	+0.9
	baz=90,SNR=13						
C04A	Brinnon	90.56	337	⇑P	P	12 21 56.2	+0.9
	baz=90,SNR=16						
N20A	Spence Gulch,	90.56	325	⇑P	P	12 21 56.1	+0.6
	baz=90						
HAWA	Hanford	90.57	334	eP	P	12 21 55.4	-0.1
	comp=Z,41nm,1.0s,mb5.7						
HAWA	Hanford	90.57	334	eP	P	12 21 55.4	-0.1
	comp=Z,41nm,1.0s,mb5.7						
I13A	Wildhorse Cree	90.63	330	⇑P	P	12 21 56.7	+0.9
	baz=90,SNR=38						
G10A	Bishop Farm, J	90.64	332	⇑P	P	12 21 55.4	-0.4
	baz=90,SNR=34						
GNW	Green Mountain	90.64	337	P	P	12 21 56.5	+0.8
GNW	Green Mountain	90.64	337	P	P	12 21 56.5	+0.7
O21A	Pagoda	90.66	324	⇑P	P	12 21 56.1	+0.1
	baz=90,SNR=12						
D05A	Enumclaw	90.71	336	⇓P	P	12 21 56.3	+0.2
	baz=90,SNR=7.2						
H11A	Donnelly	90.72	331	⇓P	P	12 21 55.0	-1.1
	baz=90						
L17A	Cokeville	90.73	327	⇑P	P	12 21 56.1	-0.2
	baz=90,SNR=13						
F08A	Pendleton	90.82	334	⇓P	P	12 21 56.8	+0.1
	baz=90,SNR=7.4						
J14A	Carey	90.87	329	⇓P	P	12 21 58.2	+1.2
	baz=90,SNR=8.7						
G09A	Cove	90.90	333	⇓P	P	12 21 56.6	-0.5
	baz=91,SNR=26						
M18A	Lyman	90.92	326	⇑P	P	12 21 56.9	-0.3
	baz=91,SNR=6.2						
N19A	John Jarvie Ra	90.93	325	⇑P	P	12 21 57.0	-0.3
	baz=91,SNR=21						
E06A	Yakima	90.94	335	⇓P	P	12 21 57.7	+0.5
	baz=91						
K15A	Arbon	90.98	328	⇓P	P	12 21 58.2	+0.8
	baz=91,SNR=19						
LON	Longmire	91.03	336	eP	P	12 21 57.5	-0.1
LON				pmax	pmax		
	comp=Z,45nm,1.4s,mb5.6						
LON	Longmire	91.03	336	eP	P	12 21 57.5	-0.1
	comp=Z,45nm,1.4s,mb5.6						
LON	Longmire	91.03	336	eP	P	12 21 57.5	-0.1
	comp=Z,45nm,1.4s,mb5.6						
D04A	Dobbs Creek Ra	91.04	337	⇓P	P	12 21 58.6	+0.9
	baz=91						
HLID	Hailey	91.04	330	⇓P	P	12 21 58.3	+0.6
	baz=91,SNR=9.2						
HLID	Hailey	91.04	330	eP	P	12 21 57.0	-0.7
	comp=Z,116nm,1.1s,mb6.1						
HLID	Hailey	91.04	330	eP	P	12 21 57.0	-0.7
	comp=Z,116nm,1.1s,mb6.1						
L16A	Fish Haven	91.05	327	⇑P	P	12 21 57.9	+0.1
	baz=91,SNR=27						
J13A	Cove Ranch, Pi	91.08	330	⇓P	P	12 21 58.6	+0.8
	baz=91,SNR=22						
O20A	White River Ci	91.09	324	⇓P	P	12 21 58.1	+0.1
	baz=91,SNR=30						
NLWA	Neilton Lookou	91.12	337	⇑P	P	12 21 58.9	+0.9
	baz=91						
I12A	Atlanta	91.14	330	⇑P	P	12 21 58.5	+0.3
	baz=91,SNR=22						
F07A	Phinny Hill Vi	91.14	334	⇑P	P	12 21 59.4	+1.2
	baz=91,SNR=10						
M17A	Scullys Gap (B	91.15	326	⇓P	P	12 21 58.3	0.0
	baz=91,SNR=16						
P21A	Newcastle	91.19	323	⇓P	P	12 21 58.9	+0.4
	baz=91,SNR=8.5						
XMIS	Christmas Isla	91.22	102	eP	P	12 21 58.6	-0.3
	comp=Z,383nm,1.8s,mb6.4						
XMIS	Christmas Isla	91.22	102	eP	P	12 21 58.6	-0.3
	comp=Z,383nm,1.8s,mb6.4						
G08A	Pilot Rock	91.32	333	⇑P	P	12 21 58.9	-0.1
	baz=91,SNR=8.0						
I11A	Placerville	91.36	331	⇓P	P	12 21 59.2	0.0
	baz=91,SNR=21						
K14A	Jones Ranch, D	91.37	328	⇑P	P	12 22 00.1	+0.9
	baz=91,SNR=17						
O19A	Miners Draw (B	91.38	325	⇓P	P	12 21 59.4	+0.1
	baz=91,SNR=9.1						
H09A	Durkee	91.38	332	⇑P	P	12 21 59.0	-0.3
	baz=91,SNR=14						
Q22A	Crested Butte,	91.44	322	⇑P	P	12 22 00.4	+0.7
	baz=91,SNR=25						
L15A	Malad City	91.47	328	⇑P	P	12 22 00.2	+0.4
	baz=91,SNR=6.6						
I10A	Payette	91.55	332	⇑P	P	12 22 00.6	+0.6
	baz=91,SNR=21						
F06A	Goldendale	91.55	335	⇓P	P	12 22 01.0	+0.9
	baz=91						
J12A	Stokes Ranch,	91.58	330	⇑P	P	12 22 00.8	+0.6
	baz=91,SNR=16						
G07A	Ruggs Ranch, H	91.60	334	⇑P	P	12 22 01.0	+0.7
	baz=91,SNR=6.6						
SDCO	Great Sand Dun	91.60	321	eP	P	12 22 00.4	0.0
	comp=Z,61nm,1.4s,mb5.7						
SDCO	Great Sand Dun	91.60	321	eP	P	12 22 00.4	0.0
	comp=Z,61nm,1.4s,mb5.7						
N17A	Moffit Pass	91.65	326	⇑P	P	12 22 00.4	-0.2
	baz=91,SNR=7.0						
K13A	Stover Farm, H	91.66	329	⇓P	P	12 22 01.9	+1.3
	baz=91,SNR=16						
M16A	Huntsville	91.70	327	⇑P	P	12 22 00.8	0.0
	baz=91,SNR=23						
MFID	Camas Ranch	91.73	331	⇑P	P	12 22 01.6	+0.7
	baz=91,SNR=26						
E03A	Lebam	91.78	337	⇑P	P	12 22 01.9	+0.9
	baz=91,SNR=6.2						
Q21A	Lamborn Mesa,	91.79	323	⇑P	P	12 22 01.9	+0.6
	baz=92,SNR=15						
L14A	Malta	91.81	328	⇑P	P	12 22 02.0	+0.7
	baz=92,SNR=14						
HKT	Hockley	91.82	310	eP	P	12 22 01.8	+0.2
HKT				pmax	pmax		
	comp=Z,89nm,1.4s,mb5.9						
HKT	Hockley	91.82	310	eP	P	12 22 01.8	+0.2
	comp=Z,89nm,1.4s,mb5.9						
HKT	Hockley	91.82	310	eP	P	12 22 01.8	+0.2
	comp=Z,89nm,1.4s,mb5.9						
P19A	Cripple Cowboy	91.84	324	⇓P	P	12 22 01.5	0.0
	baz=92,SNR=18						
R22A	Saguache, Gunn	91.86	322	⇑P	P	12 22 02.7	+1.1
	baz=92,SNR=23						
H08A	Prairie City	91.88	333	⇓P	P	12 22 02.1	+0.5
	baz=92,SNR=6.8						
M15A	Larsen Ranch,	91.94	327	⇓P	P	12 22 02.1	+0.2
	baz=92						
F04A	Amboy	91.95	336	⇑P	P	12 22 02.1	+0.2
	baz=92						
G06A	Carlson Farm,	91.96	334	⇓P	P	12 22 02.7	+0.8
	baz=92,SNR=15						
N16A	Rees Ranch, Co	91.96	326	⇓P	P	12 22 02.5	+0.5
	baz=92,SNR=6.2						
I09A	Lost Marbles R	92.00	332	⇓P	P	12 22 02.0	-0.2
	baz=92,SNR=10						
K12A	Draper Farm, C	92.01	330	⇑P	P	12 22 02.9	+0.7
	baz=92,SNR=8.2						
Q20A	Ridgley Place,	92.05	323	⇓P	P	12 22 02.2	-0.3
	baz=92,SNR=20						
L13A	Double Diamond	92.07	329	⇓P	P	12 22 03.7	+1.2
	baz=92,SNR=25						
J10A	Berg Farm, Mel	92.09	331	⇑P	P	12 22 03.0	+0.5
	baz=92						
ROSC	El Rosal	92.10	278	P	P	12 22 03.8	+0.7
	comp=Z,5.8nm,0.4s,mb5.2,baz=124,slow=23,SNR=6.0						
ROSC	El Rosal	92.10	278	P	P	12 22 03.8	+0.7
H07A	Lands Inn, Kim	92.14	334	⇓P	P	12 22 03.8	+1.0
	baz=92,SNR=34						
G05A	Wamic	92.19	335	⇓P	P	12 22 03.8	+0.8
	baz=92						
O17A	Robinson Place	92.21	326	⇓P	P	12 22 03.4	+0.2
	baz=92,SNR=5.9						
HOOD	Mount Hood Mea	92.24	335	eP	P	12 22 03.6	+0.4
	comp=Z,42nm,1.1s,mb5.7						
HOOD	Mount Hood Mea	92.24	335	eP	P	12 22 03.6	+0.4
	comp=Z,42nm,1.1s,mb5.7						
H06A	Lindquist Farm	92.29	334	⇓P	P	12 22 04.3	+0.8
	baz=92,SNR=10						
M14A	Sheep Mountain	92.30	328	⇓P	P	12 22 04.1	+0.6
	baz=92,SNR=5.1						
MYLDM	Lahad Datu	92.31	82	P	P	12 22 04.3	+0.2
F03A	Seaside	92.33	337	⇓P	P	12 22 04.6	+1.0
	baz=92						
TSM	Tawau	92.34	83	P	P	12 22 03.1	-1.1
K11A	Parker Ranch,	92.35	330	⇑P	P	12 22 04.9	+1.1
	baz=92,SNR=26						
I08A	Drewsey	92.36	333	⇓P	P	12 22 03.8	-0.1
	baz=92						
P18A	Preston Nutter	92.43	325	⇓P	P	12 22 04.4	+0.2
	baz=92,SNR=21						
N15A	Stansbury Isla	92.44	327	⇑P	P	12 22 04.5	+0.3
	baz=92						
L12A	House Creek Ra	92.46	329	⇑P	P	12 22 05.5	+1.2
	baz=92,SNR=13						
Q19A	Hogan Spring (	92.51	324	⇑P	P	12 22 04.4	-0.2
	baz=92						
J09A	Fry Pan Ranch,	92.54	332	⇓P	P	12 22 05.6	+0.9
	baz=92,SNR=59						
I07A	Izee	92.56	333	⇓P	P	12 22 05.9	+1.2
	baz=92,SNR=16						
G04A	Mulino	92.61	336	⇓P	P	12 22 05.3	+0.3
	baz=92,SNR=6.5						
K10A	MacKenzie Ranc	92.68	331	⇓P	P	12 22 05.9	+0.7
	baz=92,SNR=8.1						
R20A	Redvale	92.69	323	⇑P	P	12 22 05.7	+0.3
	baz=92,SNR=13						
L11A	Cat Creek Ranc	92.75	330	⇑P	P	12 22 06.8	+1.1
	baz=92,SNR=20						
M13A	Montello	92.76	328	⇓P	P	12 22 06.3	+0.5
	baz=92						
N14A	Grayback Hills	92.76	328	⇓P	P	12 22 06.3	+0.6
	baz=92,SNR=5.7						
P17A	Butcher Ranch,	92.79	325	⇑P	P	12 22 05.8	-0.1
	baz=92						

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J08A  Circle Bar Ran    92.80 332 ⇑P       P        12 22 06.2 +0.3
      baz=92,SNR=14
Q18A  Rafter H Ranch    92.80 325 ⇓P       P        12 22 05.7 -0.2
      baz=92,SNR=28
T22A  Edith             92.88 321 ⇓P       P        12 22 07.1 +0.8
      baz=93,SNR=13
O15A  The Old Anders    92.91 327 ⇓P       P        12 22 07.0 +0.6
      baz=93
I06A  Prineville        92.94 334 ⇓P       P        12 22 08.2 +1.7
      baz=93,SNR=23
H04A  Detroit Lake      92.98 335 ⇑P       P        12 22 06.8 +0.1
      baz=93,SNR=7.2
SRU   San Rafael        92.98 325 ⇑P       P        12 22 06.3 -0.5
      baz=93,SNR=27
R19A  Curley Farm, L    93.03 324 ⇓P       P        12 22 07.5 +0.4
      baz=93,SNR=22
K09A  Rome              93.08 331 ⇑P       P        12 22 08.2 +1.1
      baz=93,SNR=30
P16A  Fountain Green    93.10 326 ⇑P       P        12 22 07.8 +0.5
      baz=93,SNR=8.7
J07A  Hines             93.10 333 ⇑P       P        12 22 08.3 +1.0
      baz=93
L10A  Juniper Basin     93.11 330 ⇓P       P        12 22 08.1 +0.8
      baz=93,SNR=14
DUG   Dugway            93.14 327 eP       P        12 22 07.3 -0.2
DUG                                pmax    pmax
      comp=Z,110nm,1.5s,mb6.1
DUG   Dugway            93.14 327 ⇑P       P        12 22 07.8 +0.3
      baz=93,SNR=8.7
DUG   Dugway            93.14 327 eP       P        12 22 07.3 -0.2
      comp=Z,110nm,1.5s,mb6.1
DUG   Dugway            93.14 327 eP       P        12 22 07.3 -0.2
      comp=Z,110nm,1.5s,mb6.1
N13A  Wendover, West    93.19 328 ⇓P       P        12 22 08.5 +0.8
      baz=93
R18A  Canyonlands Na    93.26 324 ⇓P       P        12 22 08.2 +0.2
      baz=93,SNR=21
TEIG  Tepich            93.30 298 eP       P        12 22 06.5 -2.1
TEIG  Tepich            93.30 298 eP       P        12 22 06.5 -2.1
K08A  Mann Creek Ran    93.34 332 ⇑P       P        12 22 09.0 +0.7
      baz=93,SNR=7.0
M11A  Holland Ranch,    93.38 329 ⇑P       P        12 22 09.8 +1.2
      baz=93,SNR=12
S19A  Harvey Farm, M    93.41 323 ⇑P       P        12 22 08.8  0.0
      baz=93,SNR=32
P15A  Leamington        93.41 326 ⇓P       P        12 22 08.9 +0.2
      baz=93,SNR=15
Q16A  Castle Valley     93.43 325 ⇓P       P        12 22 09.0 +0.2
      baz=93,SNR=12
J06A  Christmas Vall    93.51 333 ⇑P       P        12 22 10.1 +1.0
      baz=93,SNR=19
MVCO  Mesa Verde        93.52 322 ⇓P       P        12 22 09.5 +0.2
      baz=93,SNR=9.3
MVCO  Mesa Verde        93.52 322 eP       P        12 22 09.3  0.0
      comp=Z,63nm,1.3s,mb5.9
MVCO  Mesa Verde        93.52 322 eP       P        12 22 09.3  0.0
      comp=Z,63nm,1.3s,mb5.9
N12A  Clover Valley,    93.55 329 ⇑P       P        12 22 10.4 +1.0
      baz=93,SNR=11
M10A  I.L. Ranch, Tu    93.61 330 ⇓P       P        12 22 10.6 +1.0
      baz=93,SNR=7.8
R17A  Hanksville Air    93.62 325 ⇓P       P        12 22 09.5 -0.3
      baz=93,SNR=14
L09A  Wilkinson Ranc    93.63 331 ⇑P       P        12 22 11.1 +1.4
      baz=93,SNR=16
WVOR  Wild Horse Val    93.65 332 eP       P        12 22 09.6 -0.2
WVOR                               pmax    pmax
      comp=Z,57nm,1.4s,mb5.8
WVOR  Wild Horse Val    93.65 332 eP       P        12 22 09.6 -0.2
      comp=Z,57nm,1.4s,mb5.8
WVOR  Wild Horse Val    93.65 332 eP       P        12 22 09.6 -0.2
      comp=Z,57nm,1.4s,mb5.8
K07A  Rock Creek Ran    93.66 332 ⇓P       P        12 22 10.8 +1.0
      baz=93,SNR=21
ELK   Elko              93.72 329 eP       P        12 22 10.5 +0.3
ELK                                pmax    pmax
      comp=Z,54nm,1.4s
ELK   Elko              93.72 329 eP       P        12 22 10.5 +0.3
      comp=Z,54nm,1.4s,mb5.8
ELK   Elko              93.72 329 eP       P        12 22 10.5 +0.3
      comp=Z,54nm,1.4s,mb5.8
P14A  Drum Mountains    93.74 327 ⇑P       P        12 22 10.9 +0.6
      baz=93
L08A  Fields            93.75 332 ⇓P       P        12 22 11.2 +0.9
      baz=93,SNR=14
JCT   Junction City     93.86 313 eP       P        12 22 11.0  0.0
JCT                                pmax    pmax
      comp=Z,32nm,1.0s,mb5.7
JCT   Junction City     93.86 313 eP       P        12 22 10.9  0.0
      comp=Z,32nm,1.0s,mb5.7
JCT   Junction City     93.86 313 eP       P        12 22 10.9 -0.1
      comp=Z,32nm,1.0s,mb5.7
S18A  Hurst Farm, Bl    93.86 324 ⇑P       P        12 22 10.5 -0.3
      baz=94,SNR=11
N11A  Elko Archery C    93.87 329 ⇑P       P        12 22 11.8 +1.0
      baz=94
O12A  Currie            93.91 328 ⇓P       P        12 22 11.9 +0.9
      baz=94
Q15A  Fillmore          93.92 326 ⇓P       P        12 22 11.5 +0.4
      baz=94,SNR=5.4
M09A  Marrel Ranch,     94.05 331 ⇓P       P        12 22 12.8 +1.1
      baz=94,SNR=5.2
T19A  Beclabito         94.08 323 ⇑P       P        12 22 12.0 +0.1
      baz=94,SNR=6.4
R16A  Teasdale          94.09 325 ⇓P       P        12 22 12.5 +0.6
      baz=94
K05A  Summer Lake       94.24 333 ⇓P       P        12 22 14.1 +1.7
      baz=94,SNR=9.8
ANMO  Albuquerque       94.24 320 eP       P        12 22 12.8 +0.1
ANMO                               pmax    pmax
      comp=Z,14nm,1.2s
ANMO  Albuquerque       94.24 320 eP       P        12 22 12.8 +0.1
      comp=Z,14nm,1.2s,mb5.3
ANMO  Albuquerque       94.24 320 eP       P        12 22 12.8 +0.1
      comp=Z,14nm,1.2s,mb5.3
T18A  Mexican Hat       94.25 323 ⇑P       P        12 22 12.8 +0.2
      baz=94,SNR=24
P13A  Bates Ranch, G    94.27 327 ⇓P       P        12 22 13.5 +0.8
      baz=94,SNR=12
N10A  Dunphy            94.27 330 ⇓P       P        12 22 13.4 +0.7
      baz=94
L07A  Adell             94.28 332 ⇓P       P        12 22 14.1 +1.4
      baz=94,SNR=19
S17A  Black Ridge (B    94.29 324 ⇓P       P        12 22 12.9 +0.1
      baz=94
Q14A  Sevier Lake (B    94.33 327 ⇑P       P        12 22 13.9 +0.9
      baz=94,SNR=13
W22A  Albuquerque       94.36 320 ⇓P       P        12 22 14.3 +1.1
      baz=94
M08A  Happy Creek Ra    94.40 331 ⇓P       P        12 22 14.5 +1.3
      baz=94,SNR=11
O11A  Cowboy Ranch,     94.41 329 ⇓P       P        12 22 14.0 +0.7
      baz=94,SNR=6.8
N09A  Rock Creek Ran    94.57 330 ⇓P       P        12 22 14.9 +0.8
      baz=94,SNR=8.0
S16A  Weppner Ranch,    94.59 325 ⇑P       P        12 22 14.5 +0.2
      baz=94,SNR=9.3
O10A  Cortez Mining,    94.63 329 ⇑P       P        12 22 15.2 +0.8
      baz=94
P12A  McGill            94.64 328 ⇓P       P        12 22 15.3 +0.9
      baz=94,SNR=7.8
Q13A  Wheeler Ranch,    94.69 327 ⇑P       P        12 22 15.2 +0.6
      baz=94,SNR=13
W21A  San Fidel         94.73 321 ⇑P       P        12 22 15.4 +0.5
      baz=94
MOD   Modoc             94.74 333 eP       P        12 22 15.4 +0.6
      comp=Z,37nm,1.1s,mb5.7
MOD   Modoc             94.74 333 eP       P        12 22 15.4 +0.6
      comp=Z,37nm,1.1s,mb5.7
M07A  Soldier Meadow    94.76 332 ⇑P       P        12 22 16.1 +1.2
      baz=94,SNR=10.0
R14A  James Farms, M    94.78 326 ⇓P       P        12 22 15.7 +0.7
      baz=94
T17A  Navajo Res., N    94.80 324 ⇑P       P        12 22 15.3 +0.1
      baz=94
U18A  Rough Rock, Ch    94.81 323 ⇑P       P        12 22 15.4 +0.1
      baz=94,SNR=13
N08A  GE Springer Mi    94.87 331 ⇓P       P        12 22 16.5 +1.1
      baz=94,SNR=6.5
X22A  Bernardo          94.87 320 ⇑P       P        12 22 16.3 +0.7
      baz=95
P11A  Circle Ranch,     94.94 328 ⇑P       P        12 22 16.6 +0.8
      baz=95
Q12A  Willow Creek R    94.97 328 ⇑P       P        12 22 16.8 +0.9
      baz=95,SNR=8.9
S15A  Panguitch         94.99 325 ⇓P       P        12 22 17.0 +0.9
      baz=95
O09A  Fish Creek Ran    95.01 330 ⇓P       P        12 22 17.0 +0.9
      baz=95,SNR=11
U17A  Shonto            95.05 323 ⇓P       P        12 22 16.7 +0.3
      baz=95
T16A  Glen Canyon Da    95.15 324 ⇑P       P        12 22 16.6 -0.1
      baz=95
W20A  Ramah             95.15 321 ⇓P       P        12 22 17.2 +0.4
      baz=95
N07B  Gerlach           95.20 331 ⇑P       P        12 22 17.9 +0.9
      baz=95,SNR=8.6
S14A  Cedar City        95.29 326 ⇓P       P        12 22 18.0 +0.6
      baz=95
O08A  Rochester Mine    95.30 330 ⇓P       P        12 22 18.2 +0.8
      baz=95,SNR=6.4
R13A  O’Grain Ranch,    95.30 327 ⇓P       P        12 22 18.4 +1.0
      baz=95
V18A  Ganado            95.41 322 ⇓P       P        12 22 18.1 +0.1
      baz=95,SNR=6.2
R12A  Pony Springs,     95.46 327 ⇓P       P        12 22 18.9 +0.7
      baz=95
Q11A  Duckwater         95.48 328 ⇓P       P        12 22 18.9 +0.7
      baz=95
CBIJ  Chichi jima       95.51  51  LR      LR       13 09 47.5
      comp=Z,5µm,20.7s,MS5.9,baz=119,slow=38
P09A  Austin            95.51 329 ⇑P       P        12 22 18.9 +0.5
      baz=95
T15A  Red Dirt Ranch    95.53 325 ⇑P       P        12 22 18.1 -0.4
      baz=95,SNR=8.5
N06A  Buffalo Meadow    95.56 332 ⇑P       P        12 22 19.2 +0.7
      baz=95,SNR=5.6
W19A  Sanders           95.61 322 ⇓P       P        12 22 18.9  0.0
      baz=95
U16A  Tuba City         95.64 323 ⇑P       P        12 22 19.5 +0.5
      baz=95,SNR=14
O07A  Toulon            95.69 331 ⇓P       P        12 22 20.2 +1.0
      baz=95,SNR=15
S13A  Holt Ranch, En    95.75 326 ⇑P       P        12 22 20.2 +0.7
      baz=95
YBH   Yreka Blue Hor    95.76 334  LR      LR       13 08 29.0
      comp=Z,11µm,20.0s,MS6.3,baz=10,slow=37
W18A  Petrified Fore    95.78 322 ⇑P       P        12 22 20.1 +0.4
      baz=96
T14A  Hurricane         95.82 325 ⇑P       P        12 22 20.0 +0.2
      baz=96
Q10A  Clear Creek Ra    95.82 328 ⇓P       P        12 22 20.4 +0.6
      baz=96,SNR=7.4
R11A  Troy Canyon, C    95.87 328 ⇑P       P        12 22 20.6 +0.5
      baz=96,SNR=9.4
O06A  Flanigan          96.06 331 ⇑P       P        12 22 21.6 +0.8
      baz=96
Q09A  Carvers           96.14 329 ⇓P       P        12 22 21.6 +0.4
      baz=96
S12A  Delamar Landin    96.16 327 ⇓P       P        12 22 22.6 +1.2
      baz=96
R10A  Warm Springs      96.23 328 ⇑P       P        12 22 22.3 +0.7
      baz=96,SNR=5.6
T13A  Saint George      96.23 326 ⇑P       P        12 22 22.7 +1.0
      baz=96,SNR=12
P07A  Fallon            96.23 330 ⇑P       P        12 22 22.7 +1.1
      baz=96
122A  Conniff Cattle    96.26 319 ⇓P       P        12 22 23.0 +1.1
      baz=96
WUAZ  Wupatki           96.27 323 ⇑P       P        12 22 22.5 +0.6
      baz=96,SNR=5.4
WUAZ  Wupatki           96.27 323 eP       P        12 22 22.3 +0.5
      comp=Z,66nm,1.4s,mb5.9
WUAZ  Wupatki           96.27 323 eP       P        12 22 22.3 +0.4
      comp=Z,66nm,1.4s,mb5.9
W17A  Winslow           96.29 323 ⇑P       P        12 22 22.7 +0.7
      baz=96
X18A  Snowflake         96.36 322 ⇑P       P        12 22 22.5 +0.2
      baz=96
U14A  Mt Trumbull       96.39 325 ⇑P       P        12 22 22.8 +0.4
      baz=96,SNR=12
V15A  Kaibab Nationa    96.40 324 ⇑P       P        12 22 23.3 +0.8
      baz=96,SNR=8.5
Q08A  Gabbs             96.42 330 ⇑P       P        12 22 22.7 +0.2
      baz=96
Y19A  Nutrioso          96.46 321 ⇓P       P        12 22 23.8 +1.0
      baz=96
BEKR  Beckwourth        96.52 332 ⇑P       P        12 22 23.3 +0.3
      baz=96,SNR=7.5
TGUH  Tegucigalpa,Un    96.53 293 eP       P        12 22 23.1 -0.3
TGUH  Tegucigalpa,Un    96.53 293 eP       P        12 22 23.1 -0.3
R09A  Tonopah           96.59 329 ⇑P       P        12 22 23.5 +0.2
      baz=96
T11A  Corn Creek, Al    96.63 327 ⇓P       P        12 22 24.6 +1.1
      baz=96,SNR=8.6
S10A  Tonopah Range,    96.66 328 ⇓P       P        12 22 24.0 +0.4
      baz=96
W16A  Flagstaff         96.68 323 ⇓P       P        12 22 24.0 +0.3
      baz=96
U13A  Pakoon Wash       96.75 326 ⇑P       P        12 22 25.1 +1.0
      baz=96,SNR=7.7
WCN   Washoe City       96.78 331 ⇓P       P        12 22 24.9 +0.7
      baz=96
DAV   Davao City (W)    96.78  76  LR      LR       13 16 00.3
      comp=Z,4µm,19.7s,MS6.0,baz=69,slow=42
R08A  Mina              96.93 329 ⇑P       P        12 22 25.5 +0.6
      baz=97
X17A  Forest Lakes      96.93 322 ⇓P       P        12 22 25.9 +0.9
      baz=97
NVAR  Mina Array Bea    96.94 330  P       P        12 22 24.4 -0.5
      comp=Z,3.2nm,0.8s,mb4.8,baz=55,slow=4.7,SNR=12
NVAR                               PKKPbc  PKKPbc   12 39 05.1 -0.1
      comp=Z,2.3nm,0.7s,baz=204,slow=6.4,SNR=6.5
NVAR  Mina Array Bea    96.94 330  P       P        12 22 24.4 -0.5
W15A  Williams          96.97 324 ⇓P       P        12 22 26.3 +1.2
      baz=97
TXAR  Lajitas Array     96.97 314  P       P        12 22 25.8 +0.6
TXAR                                                12 26 20.7
TXAR  Lajitas Array     96.97 314  P       P        12 22 25.8 +0.6
      comp=Z,7.6nm,0.9s,mb5.1,baz=70,slow=3.3,SNR=32
TXAR                               PP      PP       12 26 20.6 +0.4
      comp=Z,5.5nm,1.0s,baz=58,slow=7.5,SNR=4.0
TXAR                               PKKPbc  PKKPbc   12 39 06.0 +1.1
      comp=Z,0.8nm,0.8s,baz=199,slow=6.8,SNR=5.1
TXAR                               LR      LR       13 09 07.5
      comp=Z,6µm,18.9s,MS6.1,baz=5.0,slow=37
TXAR  Lajitas Array     96.97 314  P       P        12 22 25.8 +0.6
TXAR                               PP      PP       12 26 20.6 +0.4
TXAR                               PKKPbc  PKKPbc   12 39 06.0 +1.1
TXAR                               LR      LR       13 09 07.5
TXAR  Lajitas Array     96.97 314  P       P        12 22 25.8 +0.6
TXAR  Lajitas Array     96.97 314  PP      PP       12 26 20.6 +0.4
Z19A  T-Link Ranch,     96.99 321 ⇓P       P        12 22 26.1 +0.9
      baz=97
V14A  Boquillas Ranc    96.99 324 ⇓P       P        12 22 26.4 +1.2
      baz=97,SNR=12
U12A  Valley of Fire    97.00 326 ⇓P       P        12 22 26.0 +0.8
      baz=97
CPUP  Villa Florida     97.14 243  P       P        12 22 27.2 +1.4
      comp=Z,0.6nm,0.5s,baz=68,slow=19,SNR=2.7
CPUP                               LR      LR       13 07 02.0
      comp=Z,15µm,19.9s,baz=30,slow=36
CPUP  Villa Florida     97.14 243  P       P        12 22 27.2 +1.4
X16A  Lo Mia Camp, P    97.18 323 ⇓P       P        12 22 27.3 +1.2
      baz=97,SNR=5.6
V13A  Grand Canyon W    97.22 325 ⇓P       P        12 22 27.1 +0.9
      baz=97,SNR=8.5
120A  U Bar Ranch, L    97.25 320 ⇓P       P        12 22 27.0 +0.6
      baz=97
W14A  Seligman          97.33 324 ⇑P       P        12 22 27.6 +0.9
      baz=97,SNR=8.8
R06C  Coleville         97.33 330 ⇑P       P        12 22 27.8 +1.2
      baz=97,SNR=6.0
119A  Ashpeak Ranch,    97.42 320 ⇓P       P        12 22 28.1 +0.9
      baz=97
Y17A  Roosevelt         97.47 322 ⇓P       P        12 22 28.1 +0.8
      baz=97,SNR=5.3
Z18A  Geronimo          97.54 321 ⇓P       P        12 22 28.6 +0.8
      baz=97
Z17A  San Carlos Hig    97.60 321 ⇑P       P        12 22 28.8 +0.8
      baz=97
Y16A  Circle Bar Ran    97.63 322 ⇓P       P        12 22 29.1 +1.0
      baz=97
V12A  Nelson            97.72 326 ⇑P       P        12 22 29.3 +0.8
      baz=97,SNR=5.5
W13A  Hualapai Mount    97.80 325 ⇓P       P        12 22 29.2 +0.3
      baz=98
U10A  Ash Meadows, A    97.81 327 ⇓P       P        12 22 29.9 +1.1
      baz=98
X14A  Yava              97.84 324 ⇓P       P        12 22 29.9 +0.9
      baz=98
118A  Homack Ranch,     97.86 321 ⇓P       P        12 22 29.7 +0.5
      baz=98
Y15A  Casa Rosa Ranc    97.99 323 ⇑P       P        12 22 30.1 +0.4
      baz=98
FURC  Furnace Creek,    98.00 327 ⇑P       P        12 22 30.1 +0.4
      baz=98
Z16A  Peralta Trail,    98.04 322 ⇓P       P        12 22 30.7 +0.7
      baz=98
W12A  Cal Nev Ari       98.08 325 ⇑P       P        12 22 30.9 +0.8
      baz=98
OTAV  Otavalo           98.14 276 eP       P        12 22 32.5 +1.8
      comp=Z,35nm,1.4s,mb5.7
OTAV  Otavalo           98.14 276 eP       P        12 22 32.5 +1.8
      comp=Z,35nm,1.4s,mb5.7
X13A  Yucca             98.19 324 ⇓P       P        12 22 31.6 +1.0
      baz=98,SNR=6.1
117A  Oracle            98.31 321 ⇑P       P        12 22 31.8 +0.7
      baz=98
Y14A  Wickenburg        98.33 323 ⇓P       P        12 22 31.7 +0.5
      baz=98
NEE2  Needles Airpor    98.41 325 ⇑P       P        12 22 32.0 +0.5
      baz=98
218A  Dragoon           98.43 320 ⇓P       P        12 22 32.2 +0.5
      baz=98
319A  Douglas           98.50 319 ⇓P       P        12 22 32.7 +0.6
      baz=98
TUC   Tucson            98.54 321 eP       P        12 22 32.6 +0.4
TUC                                pmax    pmax
      comp=Z,32nm,1.5s,mb5.6
TUC   Tucson            98.54 321 eP       P        12 22 32.6 +0.4
      comp=Z,32nm,1.5s,mb5.6
TUC   Tucson            98.54 321 eP       P        12 22 32.6 +0.4
      comp=Z,32nm,1.5s,mb5.6
MPMC  Manual Prospec    98.61 328 ⇑P       P        12 22 33.2 +0.7
      baz=98
Z14A  Wintersburg       98.77 323 ⇑P       P        12 22 33.8 +0.6
      baz=98
Y13A  Salome            98.82 324 ⇑P       P        12 22 34.0 +0.5
      baz=98
318A  Bisbee            98.83 320 ⇓P       P        12 22 34.0 +0.5
      baz=98
GMRC  Granite Mounta    98.88 326 ⇑P       P        12 22 34.3 +0.6
      baz=99
217A  Green Valley      98.98 321 ⇓P       P        12 22 34.5 +0.3
      baz=99
ISA   Isabella          99.37 328 eP       P        12 22 36.2 +0.3
ISA                                pmax    pmax
      comp=Z,17nm,1.1s,mb5.5
ISA   Isabella          99.37 328 ⇓P       P        12 22 36.4 +0.6
      baz=99
ISA   Isabella          99.37 328 eP       P        12 22 36.1 +0.3
      comp=Z,17nm,1.1s,mb5.5
ISA   Isabella          99.37 328 eP       P        12 22 36.2 +0.3
      comp=Z,17nm,1.1s,mb5.5
EDW2  Edwards Air Fo    99.83 327 ⇑P       Pdif     12 22 38.6 +0.9
      baz=100
PFO   Pinyon Flat Ob   100.22 326 i P      Pdif     12 22 41.8 +2.3
PFO   Pinyon Flat Ob   100.22 326 ⇓P       Pdif     12 22 40.3 +0.8
      baz=100
MUN   Mundaring        111.32 115 eP       PKiKP    12 27 35.3 +8.1
FITZ  Fitzroy Crossi   111.44  97 ePKP     PKiKP    12 27 28.1 +0.2
      comp=Z,14nm,0.9s
FITZ  Fitzroy Crossi   111.44  97  PKiKP   PKiKP    12 27 27.8  0.0
      comp=Z,5.0nm,0.9s,baz=204,slow=9.8,SNR=4.1
KAKA  Kakadu           113.97  88 ePKP     PKiKP    12 27 32.6 -0.2
      comp=Z,14nm,0.8s
PLCA  Paso Flores      114.17 236  PKiKP   PKiKP    12 27 32.8 +0.4
      comp=Z,2.1nm,0.9s,baz=135,slow=5.7,SNR=2.6
WRA   Warramunga Arr   119.40  94  PKP     PKPdf    12 27 41.8 -1.3
      comp=Z,13nm,0.8s,baz=314,slow=1.6,SNR=47
WRA                                PP      PP       12 29 01.6 -3.4
      comp=Z,5.8nm,0.8s,baz=317,slow=6.1,SNR=9.2
WRA   Warramunga Arr   119.40  94  PKIKP   PKPdf    12 27 41.8 -1.3
WRA   Warramunga Arr   119.40  94  PP      PP       12 29 01.6 -3.4
WRAB  Tennant Creek    119.40  94 ePKIKP   PKPdf    12 27 41.5 -1.6
WRAB                               MLR     MLR
      comp=Z,2µm,21.0s,MS5.6
WRAB  Tennant Creek    119.40  94 ePKIKP   PKPdf    12 27 41.5 -1.6
WB2   Warramunga Arr   119.41  94 ePKPdf   PKPdf    12 27 41.8 -1.3
WB2   Warramunga Arr   119.41  94 ePKIKP   PKPdf    12 27 41.8 -1.3
FORT  Forrest          119.66 108 eP       PKPdf    12 27 42.6 -0.7
      comp=Z,28nm,0.7s
ASAR  Alice Springs    120.92  98  PKP     PKPdf    12 27 44.9 -1.0
      comp=Z,17nm,0.7s,baz=322,slow=1.5,SNR=79
ASAR                               PKKPbc  PKKPbc   12 37 52.7 +4.3
      comp=Z,0.7nm,0.6s,baz=117,slow=3.7,SNR=4.1
ASAR  Alice Springs    120.92  98  PKIKP   PKPdf    12 27 44.8 -1.1
CASY  Casey            122.19 151 eP       PKPdf    12 27 47.7 +0.7
COEN  Coen             123.30  83 ePKPdf   PKPdf    12 27 50.3 -0.4
COEN  Coen             123.30  83 ePKIKP   PKPdf    12 27 50.3 -0.4
QSPA  South Pole Qui   126.24 180 ePKPdf   PKPdf    12 27 54.4 -0.1
QSPA  South Pole Qui   126.24 180 ePKIKP   PKPdf    12 27 54.4 -0.1
CTA   Charters Tower   129.08  87 ePKP     PKPdf    12 28 01.7 +0.1
      comp=Z,22nm,0.9s
CTA   Charters Tower   129.08  87  PKP     PKPdf    12 28 02.0 +0.4
      comp=Z,20nm,0.8s,baz=273,slow=4.0,SNR=17
CTA   Charters Tower   129.08  87  PKIKP   PKPdf    12 28 02.0 +0.4
CTAO  Charters Tower   129.08  87 ePKIKP   PKPdf    12 28 02.0 +0.4
STKA  Stephens Creek   130.63 103 ePKP     PKPdf    12 28 04.1 -0.1
      comp=Z,15nm,0.8s
STKA                              eSKP              12 31 23.9
STKA  Stephens Creek   130.63 103  PKP     PKPdf    12 28 03.6 -0.7
      comp=Z,20nm,0.9s,baz=338,slow=2.7,SNR=22
STKA                               SKPbc   SKPbc    12 31 23.9 -1.3
      comp=Z,37nm,1.1s,baz=296,slow=5.0,SNR=12
STKA  Stephens Creek   130.63 103  PKIKP   PKPdf    12 28 03.6 -0.6
VNDA  Vanda            135.31 169  PKP     PKPdf    12 28 13.3 +1.6
      comp=Z,2.8nm,0.9s,baz=26,slow=1.7,SNR=3.9
VNDA  Vanda            135.31 169  PKIKP   PKPdf    12 28 13.4 +1.7
TOO   Toolangi         135.56 109 eP       PKPdf    12 28 13.4 +0.1
CNB   Canberra Magne   137.89 105 eP       PKPdf    12 28 15.6 -2.1
ARMA  Armidale         138.05  97 ePKP     PKPdf    12 28 13.6 -4.6
ARMA                              eSKP              12 31 49.7
FUNA  Funafuti         145.45  42 ePKPbc   PKPbc    12 28 31.8 -0.1
FUNA  Funafuti         145.45  42 ePKPbc   PKPbc    12 28 31.8 -0.1
MCQ   Macquarie Isla   145.56 135 eP       PKPdf    12 28 31.9 +1.1
MCQ   Macquarie Isla   145.56 135 ePKPbc   PKPbc    12 28 31.5 +0.5
MCQ   Macquarie Isla   145.56 135 ePKPbc   PKPbc    12 28 31.5 +0.5
NOUC  Port Laguerre    146.10  75 eP       PKPdf    12 28 33.1 +0.4
DZM   Mont Dzumac      146.19  75 eP       PKPdf    12 28 34.2 +1.3
LASL  Noumea           146.35  75 eP       PKPdf    12 28 34.4 +1.3
TAOE  Nuku Hiva Isla   148.07 325 ePKIKP   PKPbc    12 28 39.2 -0.3
      comp=Z,2µm,1.2s
TAOE                              eSS      SS       12 51 11.2 +1.3
      comp=Z,16µm,28.8s
TAOE                              eLR      LR       13 17 42.5
      comp=Z,15µm,29.0s
TAOE  Nuku Hiva Isla   148.07 325 ePKPdf   PKPbc    12 28 39.2 -0.3
TAOE                              ePKPbc   PKPbc    12 28 39.9 +0.4
TAOE  Nuku Hiva Isla   148.07 325 ePKIKP   PKPbc    12 28 39.2 -0.3
TAOE  Nuku Hiva Isla   148.07 325 ePKPbc   PKPbc    12 28 39.9 +0.4
AFI   Afiamalu         154.51  32 ePKIKP   PKPbc    12 28 53.3 -1.2
AFI   Afiamalu         154.51  32 ePKPbc   PKPbc    12 28 53.3 -1.2
RKT   Rikitea          155.99 297 eSS      SS       12 52 47.5 +8.9
      comp=Z,4µm,33.0s
RKT                               eLR      LR       13 21 16.0
      comp=Z,6µm,23.5s
PMOR  Pomariorio Ree   156.81 334 ePKIKP   PKPdf    12 28 51.1 +2.0
      comp=Z,113nm,1.3s
PMOR  Pomariorio Ree   156.81 334 ePKIKP   PKPdf    12 28 51.1 +2.0
VAH   Vaihoa           156.93 333 ePKIKP   PKPdf    12 28 51.2 +2.0
      comp=Z,93nm,1.3s
VAH   Vaihoa           156.93 333 ePKIKP   PKPdf    12 28 51.2 +2.0
MEH   Mehetia          159.51 331 ePKIKP   PKPdf    12 28 54.0 +1.7
      comp=Z,482nm,1.2s
MEH   Mehetia          159.51 331 ePKIKP   PKPdf    12 28 54.0 +1.7
TIAR  Tiarei           159.69 335 ePKIKP   PKPdf    12 28 54.6 +2.1
      comp=Z,278nm,1.1s
TIAR  Tiarei           159.69 335 ePKIKP   PKPdf    12 28 54.6 +2.1
PPT   Papeete          159.77 336 ePKIKP   PKPdf    12 28 55.3 +2.7
      comp=Z,53nm,1.5s
PPT                               eSS      SS       12 53 22.3 +5.2
      comp=Z,7µm,31.8s
PPT                               eLR      LR       13 23 17.5
      comp=Z,5µm,24.0s
PAE   Paea             159.86 336 ePKIKP   PKPdf    12 28 54.7 +2.0
      comp=Z,308nm,1.3s
PAE   Paea             159.86 336 ePKIKP   PKPdf    12 28 54.7 +2.0
TVO   Taravao          159.86 335 ePKIKP   PKPdf    12 28 55.5 +2.8
      comp=Z,561nm,1.2s
```

IDC ***14*** *12:17:23.0±2.6, 3˚.10S×100˚.83E, h0*^{km}*, mb4.1/8, mb1 4.1/8, mb1mx3.9/23, mbtmp4.1/8, Error ellipse: s-maj=126.1km s-min=17.0km az=54.0*

ISCJB ***14*** *12:17:28.8±2.2, 3˚.1S±0˚.1×100˚.6E±0˚.2, h66*^{km}*±17*^{km}*, mb4.1/8, Error ellipse: s-maj=36.1km s-min=6.5km az=144.8*

DJA ***14*** *12:17:31, 2˚.89S×100˚.85E, h107*^{km}*, MLv4.4/5*

ISC 14 12:17:30.0±2.3, 3°.1S±0°.1×100°.6E±0°.2, h55^{km}±17^{km}, n14, σ0^{s}.96/17, mb4.1/8, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSI	Kapahiang	2.09	105	P	Pn	12 18 03.4	+0.7
KSI				S	Sn	12 18 28.4	+0.8
PDSI	Padang	2.19	357	P	Pn	12 18 03.6	-0.4
PDSI				S	Sn	12 18 28.9	-1.0
PPI	Padang Panjang	2.64	356	P	Pn	12 18 10.7	+0.5
PPI				S	Sn	12 18 41.1	+0.1
MNAI	Manna	2.69	118	P	Pn	12 18 10.6	-0.2
MNAI				S	Sn	12 18 42.5	+0.3
RGRI	Rengat	3.26	33	P	Pn	12 18 15.3	-3.4
WRA	Warramunga Arr	36.95	120	P	P	12 24 31.4	-2.7
	1.1nm,0.4s,mb4.0,baz=307,slow=8.9,SNR=25						
ASAR	Alice Springs	38.15	125	P	P	12 24 42.6	-1.6
	0.5nm,0.5s,mb3.5,baz=302,slow=7.0,SNR=10						
STKA	Stephens Creek	47.99	131	P	P	12 26 03.3	-0.4
	3.0nm,0.9s,mb4.3,baz=328,slow=5.8,SNR=3.5						
SONM	Songino Array	50.99	5	P	P	12 26 26.8	+0.7
	2.6nm,0.7s,mb4.3,baz=187,slow=10.0,SNR=5.1						
MKAR	Makanchi Array	52.24	344	P	P	12 26 36.7	+1.2
	1.7nm,0.5s,mb4.2,baz=158,slow=9.3,SNR=16						
KURK	Kurchatov	56.82	344	P	P	12 27 08.9	+0.2
	0.7nm,0.6s,mb3.9,baz=159,slow=7.2,SNR=4.8						
ZALV	Zalesovo Beam	58.36	349	P	P	12 27 19.8	+0.4
	4.7nm,0.6s,mb4.7,baz=164,slow=5.9,SNR=5.6						
BVAR	Borovoye Array	61.41	340	P	P	12 27 41.0	+0.7
	0.5nm,0.3s,mb4.0,baz=145,slow=7.9,SNR=3.5						
TXAR	Lajitas Array	145.22	39	PKPbc	PKPbc	12 37 02.1	+0.2
	0.8nm,0.6s,baz=252,slow=0.6,SNR=14						

CSEM 14 12:32:30.5, 37°.42N×20°.24E, h26^{km}, MD3.5, After ATH

ATH 14 12:32:30.5, 37°.42N×20°.24E, h26^{km}±10^{km}, MD3.5/4, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	1.31	113	ePN	Pn	12 32 55.1	+2.0
PYL				eSN	Sn	12 33 12.9	+3.2
PYL	PYLOS	1.31	113	ePn	Pn	12 32 55.1	+2.0
PYL				eSn	Sn	12 33 12.9	+3.2
ITM	Ithomi	1.37	100	ePN	Pn	12 32 55.9	+2.0
ITM	Ithomi	1.37	100	ePn	Pn	12 32 55.9	+2.0
VLX	Vlachokerasia	1.71	91	ePN	Pn	12 33 00.5	+2.0
VLX	Vlachokerasia	1.71	91	ePn	Pn	12 33 00.5	+2.0
GUR	Goura	1.75	72	ePN	Pn	12 33 01.3	+2.2
GUR	Goura	1.75	72	ePn	Pn	12 33 01.3	+2.2

TAP 14 12:45:03.9, 24°.89N×122°.51E, h17^{km}, ML3.5, 4C-2D, C, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWB1	Santiao Chiao	0.49	284	⇑iP	Pg	12 45 14.4	+0.6
	baz=283						
TWB1				S	Sg	12 45 21.6	+1.2
	baz=283						
TWC	Suao	0.67	245	P	Pg	12 45 17.1	0.0
	baz=254						
TWC				eS	Sg	12 45 26.5	+0.6
	baz=254						
NWF	Wu-fen Shan	0.69	285	⇑iP	Pg	12 45 18.2	+0.8
	baz=286						
ILA	Ilan	0.71	260	eP	Pg	12 45 17.6	-0.2
	baz=260						
TWE	Neicheng	0.79	258	P	Pb	12 45 19.4	+0.1
	baz=258						
PCYT	Pengchaiyu	0.84	332	P	Pb	12 45 20.4	+0.3
	baz=314						
ENA	Nanau	0.84	237	P	Pb	12 45 20.2	+0.1
	baz=237						
TWA	Mucha	0.85	276	⇑iP	Pb	12 45 20.9	+0.6
	baz=276						
ENTT	Nioudou	0.90	254	⇑iP	Pb	12 45 21.3	+0.2
	baz=243						
TAP1	Taipei	0.91	280	eP	Pb	12 45 22.3	+0.9
	baz=280						
TWY	Chenhua	0.91	295	eP	Pb	12 45 21.6	+0.2
	baz=295						
TWS1	Kuangyinshan	1.02	282	eP	Pb	12 45 23.7	+0.5
	baz=283						
NSK	Sanguang	1.07	259	P	Pb	12 45 24.3	+0.3
	baz=274						
NSK				eS	Sb	12 45 39.0	+1.2
	baz=274						
NNS	Nan Shan	1.13	247	⇓iP	Pn	12 45 25.6	+0.5
	baz=247						
TWD	Chiawan	1.16	226	P	Pn	12 45 25.8	+0.4
	baz=226						
NCU	National Centr	1.21	274	eP	Pn	12 45 28.6	+2.5
	baz=292						
WHF	Hehuan Shan	1.36	237	⇓P	Pn	12 45 29.3	+1.1
	baz=252						
NSTT	Nanjuang	1.40	260	eP	Pn	12 45 29.2	+0.5
	baz=261						
ESL	Shilin	1.46	223	i P	Pn	12 45 30.8	+1.3
	baz=224						
NSY	Sanyi	1.66	254	eP	Pn	12 45 34.7	+2.4
	baz=270						
TWQ1	Liyutan	1.67	252	eP	Pn	12 45 35.7	+3.2
	baz=253						
EHY	Hungye	1.75	219	eP	Pn	12 45 34.4	+0.8
	baz=220						
SMLT	Sun Moon Lake	1.78	236	eP	Pn	12 45 36.1	+2.1
	baz=221						
TYC	Yuchr	1.80	237	eP	Pn	12 45 36.6	+2.4
	baz=221						
TCU	Taichung	1.83	247	eP	Pn	12 45 37.0	+2.3
	baz=248						
TWF1	Yuli	1.89	216	eP	Pn	12 45 35.6	+0.1
	baz=217						
WNT	Mingjian	1.95	239	eP	Pn	12 45 39.9	+3.6
	baz=241						
YUS	Yu-Shan	1.99	226	eP	Pn	12 45 38.0	+1.1
	baz=209						
CHKT	Chengkung	2.07	211	eP	Pn	12 45 38.5	+0.5
	baz=194						
ALS	Alishan	2.08	229	eP	Pn	12 45 39.7	+1.6
	baz=213						
CHN5	Tsauling	2.11	233	eP	Pn	12 45 41.4	+2.8
	baz=217						
WGK	Gukeng	2.15	236	eP	Pn	12 45 41.4	+2.4
	baz=238						
ELDTW	Lidau	2.18	219	eP	Pn	12 45 40.4	+1.0
	baz=220						
CHN4	Tsaushan	2.33	229	eP	Pn	12 45 43.8	+2.3
	baz=215						
STYT	Tauyuan	2.35	223	eP	Pn	12 45 43.6	+1.7
	baz=208						
WTP	Ta-pu	2.39	227	eP	Pn	12 45 44.9	+2.6
	baz=213						
TWG	Pinlang	2.45	213	eP	Pn	12 45 43.2	0.0
	baz=214						
TWK	Hsinying	2.46	229	eP	Pn	12 45 44.0	+0.7
	baz=215						
CHN1	Nanshi	2.48	227	eP	Pn	12 45 45.6	+1.9
	baz=229						
SGST	Jiashian	2.52	225	eP	Pn	12 45 46.6	+2.4
	baz=212						
ECL	Taimali	2.69	212	eP	Pn	12 45 46.7	+0.1
	baz=213						
SSD	Sandimen	2.74	219	eP	Pn	12 45 49.9	+2.7
	baz=221						
SCZT	Fangliau	3.05	215	eP	Pn	12 45 52.5	+1.1
	baz=198						
TWK1	Hengchun	3.33	209	eP	Pn	12 45 55.2	0.0
	baz=209						

ATH 14 12:47:00.5, 36°.14N×21°.52E, h23^{km}±1^{km}, MD3.5/5

ISCJB 14 12:47:02.1±1.1, 36°.24N±0°.04×21°.56E±0°.07, h26^{km}±8^{km}, Error ellipse: s-maj=10.3km s-min=6.3km az=149.1

CSEM 14 12:47:02.9±0.7, 36°.23N×21°.57E, h24^{km}±5^{km}, ML3.9/4, Error ellipse: s-maj=10.6km s-min=6.1km az=50.0

THE 14 12:47:04.0, 36°.29N×21°.68E, h19^{km}±2^{km}, ML3.9/4, Error ellipse: s-maj=3.3km s-min=1.4km az=240.0

ISC 14 12:47:02.2±1.5, 36°.22N±0°.06×21°.58E±0°.08, h17^{km}±13^{km}, n46, σ0^{s}.95/78, 3C, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.69	11	P	Pb	12 47 15.7	+0.1
PYL				S	Sb	12 47 23.8	-1.0
PYL	PYLOS	0.69	11	ePN	Pn	12 47 15.8	-1.3
PYL				eSN	Sb	12 47 26.3	+1.5
PYL	PYLOS	0.69	11	ePn	Pn	12 47 15.8	-1.3
PYL				S	Sb	12 47 23.8	-1.0
PYL				eSn	Sb	12 47 26.3	+1.5
ITM	Ithomi	0.99	16	ePN	Pn	12 47 20.7	-0.6
ITM				eSN	Sn	12 47 37.0	+2.0
ITM	Ithomi	0.99	16	ePn	Pn	12 47 20.7	-0.6
ITM				eSn	Sn	12 47 37.0	+2.0
KYTH	Kithira	1.18	87	ePN	Pn	12 47 24.0	+0.2
KYTH	Kithira	1.18	87	ePn	Pn	12 47 24.0	+0.2
VLX	Vlachokerasia	1.31	29	ePN	Pn	12 47 26.6	+0.9
VLX				eSN	Sn	12 47 45.6	+2.8
VLX	Vlachokerasia	1.31	29	ePn	Pn	12 47 26.6	+0.9
VLX				eSn	Sn	12 47 45.6	+2.8
GUR	Goura	1.82	19	ePN	Pn	12 47 34.3	+1.7
GUR				eSN	Sn	12 47 58.4	+3.2
GUR	Goura	1.82	19	ePn	Pn	12 47 34.3	+1.7
GUR				eSn	Sn	12 47 58.4	+3.2
DID	Didima	1.85	46	P	Pn	12 47 31.8	-1.2
DID				S	Sn	12 47 54.9	-1.0
DID	Didima	1.85	46	P	Pn	12 47 31.8	-1.2
DID				S	Sn	12 47 54.9	-1.0
LAKA	Lakka	2.04	9	P	Pn	12 47 36.3	+0.6
LAKA				S	Sn	12 48 00.8	+0.1
LAKA	Lakka	2.04	9	P	Pn	12 47 36.3	+0.6
LAKA				S	Sn	12 48 00.8	+0.1
KARN	Karanos	2.07	113	P	Pn	12 47 36.1	0.0
KARN				S	Sn	12 48 01.9	+0.5
KARN	Karanos	2.07	113	P	Pn	12 47 36.1	0.0
KARN				S	Sn	12 48 01.9	+0.5
VLS	Valsamata	2.11	338	P	Pn	12 47 37.5	+0.9
VLS				S	Sn	12 48 02.3	0.0
VLS	Valsamata	2.11	338	P	Pn	12 47 37.5	+0.9
VLS				S	Sn	12 48 02.3	0.0
LTK	Loutraki	2.11	31	P	Pn	12 47 36.4	-0.3
LTK				S	Sn	12 48 01.5	-1.0
LTK	Loutraki	2.11	31	P	Pn	12 47 36.4	-0.3
LTK				S	Sn	12 48 01.5	-1.0
TRIZ	Trizonia	2.17	10	P	Pn	12 47 37.2	-0.3
TRIZ				S	Sn	12 48 03.8	-0.3
TRIZ	Trizonia	2.17	10	P	Pn	12 47 37.2	-0.3
TRIZ				S	Sn	12 48 03.8	-0.3
ATHU	Athens Univers	2.48	45	P	Pn	12 47 42.0	+0.3
ATHU				S	Sn	12 48 09.8	-1.7
ATHU	Athens Univers	2.48	45	P	Pn	12 47 42.0	+0.3
ATHU				S	Sn	12 48 09.8	-1.7
LKR	Lokris	2.67	25	P	Pn	12 47 45.0	+0.6
LKR				S	Sn	12 48 16.3	-0.1
LKR	Lokris	2.67	25	P	Pn	12 47 45.0	+0.6
LKR				S	Sn	12 48 16.3	-0.1
AGG	Agios Georgios	2.86	12	P	Pn	12 47 47.7	+0.8
AGG				S	Sn	12 48 21.5	+0.6
AGG	Agios Georgios	2.86	12	P	Pn	12 47 47.7	+0.8
AGG				S	Sn	12 48 21.5	+0.6
THL	Klokotos Trika	3.35	6	P	Pn	12 47 53.7	-0.1
THL				S	Sn	12 48 32.1	-1.1
THL	Klokotos Trika	3.35	6	P	Pn	12 47 53.7	-0.1
THL				S	Sn	12 48 32.1	-1.1
XOR	Xorichti	3.39	22	P	Pn	12 47 55.3	+1.1
XOR	Xorichti	3.39	22	P	Pn	12 47 55.3	+1.1
LIT	Litokhoron	3.94	10	P	Pn	12 48 02.2	+0.4
LIT	Litokhoron	3.94	10	P	Pn	12 48 02.2	+0.4
HORT	Hortiatis	4.53	15	P	Pn	12 48 09.7	-0.2
HORT	Hortiatis	4.53	15	P	Pn	12 48 09.7	-0.2
FNA	Florina	4.56	358	P	Pn	12 48 10.2	-0.1
FNA	Florina	4.56	358	P	Pn	12 48 10.2	-0.1
GRG	Griva	4.77	8	P	Pn	12 48 13.2	0.0
GRG	Griva	4.77	8	P	Pn	12 48 13.2	0.0
KRUS	Krusevo	5.15	357	ePn	Pn	12 48 18.0	-0.4
KRUS				eSn	Sn	12 49 12.4	-4.9
KRUS	Krusevo	5.15	357	ePn	Pn	12 48 17.9	-0.5
KRUS				eSn	Sn	12 49 12.3	-5.0
BARS	Barje	6.59	2	⇑iPn	Pn	12 48 37.5	-0.7
BBLS	Lazići	7.81	348	⇑iPn	Pn	12 48 54.1	-0.9
DIVS	Divibare	7.96	352	⇑iPn	Pn	12 48 55.2	-1.8

IDC 14 12:58:50.8±1.5, 35°.72N×25°.91E, h0^{km}, mb3.6/4, mb1 3.6/4, mb1mx3.5/21, mbtmp3.6/4, Error ellipse: s-maj=316.1km s-min=26.5km az=141.0

NEIC 14 12:58:53.9, 34°.91N×26°.53E, h23^{km}, ML3.2(ATH), After ATH.

ATH 14 12:58:53.9, 34°.91N×26°.53E, h23^{km}±2^{km}, MD3.4/3

ISCJB 14 12:58:55.2±0.8, 35°.02N±0°.09×26°.47E±0°.06, h44^{km}±7^{km}, mb3.6/4, Error ellipse: s-maj=15.5km s-min=6.6km az=155.1

CSEM 14 12:58:56.1±0.4, 35°.10N×26°.47E, h25^{km}±3^{km}, MD3.4, Error ellipse: s-maj=16.3km s-min=5.6km az=165.0

ISC 14 12:58:55.9±0.9, 35°.04N±0°.08×26°.48E±0°.06, h30^{km}±6^{km}, n30, σ0^{s}.85/40, mb3.6/4, Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	Zakros	0.22	289	ePB	Pb	12 59 01.7	-0.7
ZKR				eSB	Sb	12 59 06.7	0.0
ZKR	Zakros	0.22	289	ePb	Pb	12 59 01.7	-0.7
ZKR				eSb	Sb	12 59 06.7	0.0
NPS	Neapolis	0.74	288	ePN	Pn	12 59 09.5	-0.8
NPS				eSN	Sn	12 59 21.1	+0.5
NPS	Neapolis	0.74	288	ePn	Pn	12 59 09.5	-0.8
NPS				eSn	Sn	12 59 21.1	+0.5
KARP	Karpathos	0.75	48	ePN	Pn	12 59 09.6	-0.9
KARP				eSN	Sn	12 59 21.4	+0.5
KARP	Karpathos	0.75	48	ePn	Pn	12 59 09.6	-0.9
KARP				eSn	Sn	12 59 21.4	+0.5
IDI	Anoyia	1.32	281	P	Pn	12 59 20.1	+1.8
IDI	Anoyia	1.32	281	P	Pn	12 59 20.1	+1.8
ARG	Arkhangelos	1.78	48	ePN	Pn	12 59 26.4	+1.7
DAT	Datca	1.91	28	ePN	Pn	12 59 26.2	-0.2
DAT				eSN	Sn	12 59 48.8	-0.5
DAT	Datca	1.91	28	ePn	Pn	12 59 26.2	-0.2
DAT				eSn	Sn	12 59 48.8	-0.6
BODT	Bodrum	2.13	18	ePN	Pn	12 59 29.4	+0.1
BODT				eSN	Sn	12 59 54.5	-0.3
BODT	Bodrum	2.13	18	ePn	Pn	12 59 29.4	0.0
BODT				eSn	Sn	12 59 54.5	-0.3
DALT	Dalyan (Mudla)	2.46	45	ePN	Pn	12 59 34.3	+0.3
DALT	Dalyan (Mudla)	2.46	45	ePn	Pn	12 59 34.3	+0.3
TURN	Turunc	2.51	43	i P	Pn	12 59 30.9	-3.8
TURN	Turunc	2.51	43	i P	Pn	12 59 30.9	-3.8
YER	Yerkesik	2.55	35	eP	Pn	12 59 35.8	+0.6
YER	Yerkesik	2.55	35	eP	Pn	12 59 35.8	+0.6
FETY	Fethiye	2.65	52	eP	Pn	12 59 36.7	+0.1
FETY	Fethiye	2.65	52	eP	Pn	12 59 36.7	+0.1
AKAS	Kas	2.81	64	i P	Pn	12 59 39.6	+0.7
AKAS	Kas	2.81	64	i P	Pn	12 59 39.6	+0.8
ELL	Elmali	3.27	58	eP	Pn	12 59 45.9	+0.9
ELL	Elmali	3.27	58	eP	Pn	12 59 45.9	+0.8
TORD	Torodi Ar. Bea	31.25	232	P	P	13 05 12.9	-0.1
	0.5nm,0.5s,mb3.6,baz=38,slow=7.8,SNR=4.4						
MKAR	Makanchi Array	42.94	57	P	P	13 06 51.5	-0.4
	0.6nm,0.5s,mb3.6,baz=271,slow=7.8,SNR=14						
MKAR	Makanchi Array	42.94	57	P	P	13 06 51.5	-0.4
ZALV	Zalesovo Beam	44.31	46	P	P	13 07 01.2	-1.6
	0.9nm,0.5s,mb3.8,baz=265,slow=9.9,SNR=4.9						
SONM	Songino Array	58.73	51	P	P	13 08 49.6	-1.1
	0.2nm,0.6s,mb3.3,baz=297,slow=6.3,SNR=2.7						

ISCJB 14 12:59:36.8±2.2, 5°.61S±0°.09×146°.35E±0°.08, h67^{km}±21^{km}, mb4.2/13, Error ellipse: s-maj=14.7km s-min=13.2km az=12.1

IDC 14 12:59:36.8±2.4, 5°.55S×146°.34E, h50^{km}±22^{km}, mb4.0/12, mb1 4.2/15, mb1mx4.1/20, mbtmp4.1/15, ML4.4/3, Error ellipse: s-maj=23.6km s-min=12.8km az=101.0

NEIC 14 12:59:38.0±1.9, 5°.55S×146°.33E, h64^{km}±18^{km}, mb4.0/1, Error ellipse: s-maj=15.0km s-min=11.6km az=158.0

DJA 14 12:59:49, 6°.01S×145°.64E, h88^{km}, mb5.0/8

ISC 14 12:59:37.6±1.5, 5°.57S±0°.07×146°.35E±0°.08, h57^{km}±15^{km}, n32, σ0^{s}.90/29, mb4.2/13, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	Coen	8.90	200	ePn	Pn	13 01 43.5	-0.1
	140nm,0.7s						
HNR	Honiara	14.01	107	P	Pn	13 02 53.5	+0.2
	3.8nm,0.3s,baz=150,slow=6.7,SNR=3.5						
CTA	Charters Tower	14.43	180	P	Pn	13 02 58.6	-0.2
	1.0nm,0.3s,baz=9.7,slow=14,SNR=9.8						
CTAO	Charters Tower	14.43	180	ePn	Pn	13 03 01.0	+2.2
	11nm,0.7s						
KAKA	Kakadu	15.45	242	eP	Pn	13 03 13.4	+1.2
	70nm,1.0s						
KAKA	Kakadu	15.45	242	ePn	Pn	13 03 11.8	-0.4
MSAI	Masohi	17.51	277	P	Px	13 03 48.9	
AAI	Ambon	18.20	275	P	Pn	13 03 46.7	+0.3
WRAB	Tennant Creek	18.44	218	eP	Pn	13 03 48.5	-0.8
	6.3nm,0.6s						
WRA	Warramunga Arr	18.46	218	P	Pn	13 03 48.5	-1.0
	1.0nm,0.3s,baz=45,slow=12,SNR=13						
WRA				PcP	PcP	13 08 17.5	0.0
	0.1nm,0.3s,baz=21,slow=1.8,SNR=5.9						
WRA				ScP	ScP	13 11 49.2	+0.8
	0.0nm,0.3s,baz=39,slow=2.4,SNR=6.9						
LBMI	Labuha	19.45	284	P	Pn	13 04 01.2	-0.2
ASAR	Alice Springs	21.62	212	P	P	13 04 23.0	-0.1
	3.3nm,0.6s,mb3.9,baz=49,slow=8.3,SNR=9.9						
ASAR				S	S	13 08 21.3	+1.8
	1.6nm,0.8s,baz=30,slow=23,SNR=4.7						
FITZ	Fitzroy Crossi	23.76	237	eP	P	13 04 43.9	-1.1
	60nm,0.9s,mb5.0						
FITZ	Fitzroy Crossi	23.76	237	P	P	13 04 44.0	-1.0
	31nm,0.8s,mb4.8,baz=66,slow=7.2,SNR=29						
KAPI	Kappang	26.49	270	P	P	13 05 10.0	+0.1
	14nm,0.7s,mb4.6,baz=123,slow=3.9,SNR=7.4						
STKA	Stephens Creek	26.55	189	eP	P	13 05 11.7	+1.5
	3.0nm,0.8s,mb3.9						
STKA	Stephens Creek	26.55	189	P	P	13 05 11.6	+1.4
	3.7nm,1.0s,mb3.9,baz=5.5,slow=12,SNR=3.8						
STKA	Stephens Creek	26.55	189	P	P	13 05 11.6	+1.4
PCI	Palu	26.87	279	P	P	13 05 15.2	+1.9
KLBR	Kellerberrin	37.25	222	eP	P	13 06 42.8	-1.1
	46nm,1.5s,mb5.1						
NWAO	Narrogin (SRO)	38.42	221	P	P	13 06 53.2	-0.6
	7.9nm,0.8s,mb4.5,baz=103,slow=2.6,SNR=2.8						
NWAO	Narrogin (SRO)	38.42	221	P	P	13 06 53.2	-0.7
KSRS	Korea Array	46.12	340	P	P	13 07 56.5	+0.1
	2.7nm,0.9s,mb4.2,baz=159,slow=8.8,SNR=5.5						
CMAR	Chiang Mai Arr	52.48	298	P	P	13 08 45.8	+0.6
	1.8nm,0.6s,mb4.2,baz=117,slow=5.7,SNR=12						
SONM	Songino Array	63.72	331	P	P	13 10 04.4	+1.1
	0.9nm,0.9s,mb3.8,baz=153,slow=5.0,SNR=7.2						
VNDA	Vanda	72.38	177	P	P	13 10 57.0	-0.1
	3.3nm,0.9s,mb4.3,baz=29,slow=3.1,SNR=6.5						
MKAR	Makanchi Array	76.76	321	P	P	13 11 22.6	-0.4
	0.4nm,0.4s,mb3.7,baz=99,slow=8.3,SNR=17						
ZALV	Zalesovo Beam	78.31	328	P	P	13 11 30.1	-1.5
	0.7nm,0.4s,mb4.0,baz=101,slow=6.1,SNR=6.4						
YKA	Yellowknife Ar	99.09	28	P	P	13 13 11.8	-0.4
	0.3nm,0.3s,mb4.3,baz=276,slow=4.2,SNR=4.3						
TORD	Torodi Ar. Bea	144.36	285	PKP	PKPdf	13 19 05.8	-2.7
	1.6nm,0.8s,baz=71,slow=3.9,SNR=7.4						
DBIC	Dimbokro	151.35	274	PKPbc	PKPbc	13 19 25.7	-0.4
	2.4nm,0.5s,baz=160,slow=3.4,SNR=5.9						
DBIC	Dimbokro	151.35	274	PKPbc	PKPbc	13 19 25.7	-0.4

IDC 14 13:06:02.7±1.1, 16°.80N×119°.31E, h0^{km}, mb3.7/6, mb1 3.7/7, mb1mx3.6/21, mbtmp3.6/7, Error ellipse: s-maj=64.7km s-min=17.0km az=59.0

ISCJB 14 13:06:06.5±3.5, 16°.7N±0°.1×119°.2E±0°.2, h41^{km}±37^{km}, mb3.8/7, Error ellipse: s-maj=33.1km s-min=17.4km az=145.9

NEIC 14 13:06:08.1±0.7, 16°.64N×119°.13E, h35^{km}, mb4.1/3, Error ellipse: s-maj=20.4km s-min=12.1km az=82.0

ISC 14 13:06:08.0±6.2, 16°.6N±0°.1×119°.1E±0°.1, h34^{km}±48^{km}, n12, σ1^{s}.00/12, mb3.8/7, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	7.86	17	Pn	Pn	13 07 58.5	-1.5
	24nm,0.9s						
YHNB	Yeheng	8.28	15	ePn	Pn	13 08 06.7	+1.1
	16nm,0.8s						
CMAR	Chiang Mai Arr	19.28	278	P	Pn	13 10 31.4	+0.3
	baz=96,slow=7.7,SNR=2.7						
BJT	Baijiatuau	23.43	354	P	P	13 11 16.6	+2.2
	10.0nm,0.3s,mb4.7						
WRA	Warramunga Arr	39.33	157	P	P	13 13 33.3	-0.8
	0.5nm,0.6s,mb3.4,baz=340,slow=9.4,SNR=3.0						
ASAR	Alice Springs	42.60	160	P	P	13 14 01.3	+0.3
	0.2nm,0.4s,mb3.2,baz=335,slow=6.9,SNR=5.0						
MKAR	Makanchi Array	42.75	323	P	P	13 14 01.6	-0.5
	0.9nm,0.8s,mb3.5,baz=139,slow=7.7,SNR=7.1						
ZALV	Zalesovo Beam	45.74	332	P	P	13 14 25.0	-0.8
	0.2nm,0.3s,mb3.5,baz=131,slow=9.8,SNR=3.3						
KURK	Kurchatov	46.89	326	P	P	13 14 34.7	-0.2
	3.0nm,0.7s,mb4.3,baz=121,slow=8.6,SNR=24						
KURK	Kurchatov	46.89	326	eP	P	13 14 34.2	-0.8
	1.5nm,0.7s,mb4.0						
STKA	Stephens Creek	52.85	156	P	P	13 15 21.4	+1.0
	0.8nm,0.7s,mb3.8,baz=320,slow=16,SNR=2.9						
STKA	Stephens Creek	52.85	156	P	P	13 15 20.7	+0.2
	1.6nm,1.3s,mb3.8						

ISCJB 14 13:36:14.9±1.0, 31°.16N±0°.03×103°.77E±0°.07, h1^{km}±7^{km}, mb3.6/6, Error ellipse: s-maj=9.6km s-min=5.2km az=8.1

IDC 14 13:36:16.4±1.1, 31°.08N×103°.42E, h0^{km}, mb3.4/7, mb1 3.6/8, mb1mx3.5/23, mbtmp3.5/8, ML3.2/1, Error ellipse: s-maj=39.4km s-min=19.1km az=58.0

BJI 14 13:36:19.6, 30°.89N×103°.66E, h14^{km}, ML3.6/13

ISC 14 13:36:17.3±0.9, 31°.06N±0°.03×103°.71E±0°.07, h7^{km}±6^{km}, n12, σ1^{s}.12/18, mb3.4/6, Sichuan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CD2	Chengdu	0.15	163	Pg	Pg	13 36 20.3	-0.2
CD2				Sg	Sg	13 36 23.3	+0.6
CD2				smax			
	comp=N,23µm,1.1s						
CD2				smax			
	comp=E,19µm,1.1s						
LZH	Lanzhou	5.02	1	Pg	Pg	13 38 00.9	+7.4
LZH				Sg	Sg	13 38 59.1	+0.6
LZH				smax			
	comp=N,59nm,1.1s						
LZH				smax			
	comp=E,37nm,0.7s						
LZH				LR	LR		
	comp=E,370nm,4.7s						
LZH				LR	LR		
	comp=Z,460nm,5.8s						
LZH				pmax	pmax		
	comp=Z,64nm,4.2s						
GYA	Guiyang	5.27	150	ePn	Pn	13 37 35.8	-0.6
GYA				Sn	Sn	13 38 40.9	+3.6
GYA				Sg	Sg	13 39 05.3	-1.2
GYA				smax			
	comp=N,80nm,0.8s						
GYA				smax			
	comp=E,70nm,0.8s						
XAN	Xi’an	5.31	55	Pg	Pg	13 37 54.9	-4.2
XAN				Sn	Sn	13 38 37.9	-0.6
XAN				Sg	Sg	13 39 07.6	-0.3
XAN				smax			
	comp=N,120nm,1.0s						
XAN				smax			
	comp=E,170nm,1.0s						
SONM	Songino Array	16.88	6	Pn	Pn	13 40 15.3	+1.4
	comp=E,0.1nm,0.3s,baz=183,slow=11,SNR=4.0						
KSRS	Korea Array	20.98	66	P	P	13 41 04.3	+3.2
	comp=E,1.0nm,0.8s,baz=256,slow=11,SNR=3.4						
MKAR	Makanchi Array	22.79	320	P	P	13 41 19.0	-1.3
	comp=E,0.6nm,0.9s,mb3.0,baz=129,slow=9.6,SNR=4.7						
ZALV	Zalesovo Beam	26.62	335	P	P	13 41 55.2	-0.9
	comp=E,0.4nm,0.4s,mb3.3,baz=120,slow=8.5,SNR=3.9						
KURK	Kurchatov	27.08	324	P	P	13 41 59.9	-0.5
	comp=E,1.1nm,0.7s,mb3.5,baz=134,slow=7.9,SNR=5.0						
WRA	Warramunga Arr	58.62	146	P	P	13 46 16.6	+1.4
	comp=E,1.2nm,0.8s,mb4.0,baz=338,slow=8.0,SNR=5.9						
ASAR	Alice Springs	61.63	148	P	P	13 46 37.1	+1.4
	comp=E,0.4nm,0.9s,mb3.5,baz=345,slow=7.0,SNR=2.7						
YKA	Yellowknife Ar	81.84	17	P	P	13 48 35.7	-1.1
	comp=E,0.2nm,0.6s,mb3.3,baz=326,slow=5.3,SNR=3.4						

IDC 14 13:39:45.3±8.9, 39°.62N×118°.09E, h0^{km}, mb3.5/1, mb1 3.5/3, mb1mx3.2/22, mbtmp3.3/3, ML2.6/2, MS3.5/1, Ms1 3.5/1, ms1mx2.8/40, Error ellipse: s-maj=228.1km s-min=36.9km az=31.0, Northeastern China

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BJI	Beijing	1.53	286	Pg	Pg	13 40 16.8	+2.1
BJI				Sg	Sg	13 40 40.3	+5.8
BJI				smax			
	comp=N,19nm,0.6s						
BJI				smax			
	comp=E,82nm,0.6s						
KSRS	Korea Array	8.01	103	Pn	Pn	13 41 42.3	-0.6
	comp=E,0.3nm,0.3s,baz=292,slow=14,SNR=5.7						
KSRS				LR	LR	13 44 27.0	
	comp=E,351nm,21.2s,baz=335,slow=35						
SONM	Songino Array	11.78	318	Pn	Pn	13 42 34.3	-0.2
	comp=E,0.0nm,0.3s,baz=135,slow=14,SNR=2.5						
YKA	Yellowknife Ar	69.81	23	P	P	13 50 57.2	+0.2
	comp=E,0.3nm,0.5s,baz=318,slow=6.0,SNR=6.4						

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*IPEC **14** 13:43:25.8±0.2, 51.°57N×16.°18E, h0^{km}, ML2.1/3, Error ellipse: s-maj=1.7km s-min=1.0km az=36.0*
*ISCJB **14** 13:43:25.7±0.6, 51.°47N±0.°03×16.°07E±0.°03, h0^{km}, Error ellipse: s-maj=4.6km s-min=2.6km az=17.3*
*NEIC **14** 13:43:26.5±0.9, 51.°52N×16.°15E, h5^{km}, ML2.7(SZGRF), Error ellipse: s-maj=11.2km s-min=5.3km az=203.0*
*CSEM **14** 13:43:26.6±0.3, 51.°52N×16.°07E, h2^{km}, ML3.2/10, Error ellipse: s-maj=4.8km s-min=2.8km az=16.0*
*WAR **14** 13:43:27.2, 51.°53N×16.°10E, ML2.5, Mining Induced*
*PRU **14** 13:43:28.0, 51.°47N×16.°07E, h0^{km}*
*VIE **14** 13:43:28.8±0.7, 51.°33N×16.°15E, h0^{km}, mb2.3/4, ML2.7/4, Error ellipse: s-maj=4.8km s-min=4.6km az=105.0 65 km WNW of Wroclaw Suspected Mining induced.*
ISC 14 13:43:26.6±0.6**, 51.°53N**±0.°03×**16.°08E**±0.°03**, h0^{km}, n46, σ0.^{s}87**/87**, 3C-4D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.70	169	*e*Pg	Pg	13 43 40.0	+0.1
KSP				*e*Sg	Sg	13 43 49.4	+0.5
KSP	Ksiaz	0.70	169	*i* Pg	Pg	13 43 40.0	+0.1
KSP				*e*Sg	Sg	13 43 49.2	+0.3
KSP	Ksiaz	0.70	169	⇓*i*Pg	Pg	13 43 40.0	+0.1
KSP				*e*Sg	Sg	13 43 49.2	+0.3
KSP	Ksiaz	0.70	169	*e*Pg	Pg	13 43 39.9	0.0
	baz=354						
KSP				*e*Sg	Sg	13 43 49.1	+0.2
	baz=354						
UPC	Upice	1.02	182	*e*PG	Pg	13 43 46.2	+0.1
UPC	Upice	1.02	182	*e*Pg	Pg	13 43 46.1	0.0
	baz=5.7						
DPC	Dobruska-Polom	1.19	172	*e*PG	Pg	13 43 48.8	-0.5
DPC				*e*SG	Sg	13 44 04.4	-0.2
	comp=Z,28nm,0.2s						
DPC	Dobruska-Polom	1.19	172	Pg	Pg	13 43 48.8	-0.5
DPC				Sg	Sg	13 44 04.4	-0.2
	comp=Z,28nm,0.2s						
PVCC	Panska Ves	1.38	224	*e*PG	Pg	13 43 53.1	+0.1
PVCC				*e*SG	Sg	13 44 11.7	+0.9
	comp=Z,140nm,0.4s						
PVCC	Panska Ves	1.38	224	Pg	Pg	13 43 53.1	+0.1
PVCC				*e*Sg	Sg	13 44 11.6	+0.8
	baz=44						
BRG	Berggiesshubel	1.49	245	PN	Pn	13 43 54.5	-0.1
BRG				PG	Pg	13 43 54.9	-0.2
BRG				SG	Sg	13 44 15.4	+0.9
	comp=Z,80nm,0.5s						
BRG	Berggiesshubel	1.49	245	Pn	Pn	13 43 54.5	-0.1
BRG				Pg	Pg	13 43 54.9	-0.2
BRG				Sg	Sg	13 44 15.4	+0.9
BRG	Berggiesshubel	1.49	245	Pg	Pg	13 43 54.9	-0.2
BRG				*e*Sg	Sg	13 44 14.9	+0.4
	baz=63						
PRU	Pruhonice	1.82	213	*e*PN	Pn	13 43 58.9	-0.2
PRU				*e*PG	Pg	13 44 01.1	-0.3
PRU				*e*SG	Sg	13 44 24.9	-0.1
	comp=Z,28nm,0.5s						
PRU	Pruhonice	1.82	213	Pn	Pn	13 43 58.9	-0.2
CLL	Collm	1.94	265	*e*Pn	Pn	13 44 00.0	-0.7
CLL				*e*Pg	Pg	13 44 03.0	-0.7
CLL				*i*		13 44 06.5	
CLL				*i* Sg	Sg	13 44 28.7	0.0
	comp=Z,28nm,0.3s						
CLL	Collm	1.94	265	*e*Pn	Pn	13 44 00.0	-0.7
CLL				*e*Pg	Pg	13 44 03.0	-0.7
CLL				*i* Sg	Sg	13 44 28.7	0.0
CLL	Collm	1.94	265	*e*Pn	Pn	13 44 00.0	-0.7
MORC	Moravsky Berou	1.98	151	*e*Pn	Pn	13 43 59.6	-1.7
MORC				*e*Sn	Sn	13 44 28.3	+1.5
MORC	Moravsky Berou	1.98	151	*e*Pn	Pn	13 44 00.3	-1.0
	baz=335						
MORC				*e*Sn	Sn	13 44 28.3	+1.4
OKC	Ostrava-Krasne	2.14	141	*e*PG	Pg	13 44 05.9	-1.7
OKC				*e*SG	Sg	13 44 34.8	-0.6
	comp=Z,19nm,0.7s						
OKC	Ostrava-Krasne	2.14	141	Pg	Pg	13 44 05.9	-1.7
OKC				Sg	Sg	13 44 34.8	-0.6
	comp=Z,19nm,0.7s						
VRAC	Vranov	2.24	171	*e*Pn	Pn	13 44 05.3	+0.4
	baz=354						
VRAC				*e*Sg	Sg	13 44 36.0	-2.6
	comp=Z,11nm,0.3s,baz=354						
TREC	Trest	2.26	190	*e*Pn	Pn	13 44 05.5	+0.3
	baz=11						
KRUC	Moravsky	2.47	175	*e*Pn	Pn	13 44 08.9	+0.8
	baz=357						
KRUC				*e*Sg	Sg	13 44 44.4	-1.6
	comp=Z,6.7nm,0.2s,baz=357						
NKC	Novy Kostel	2.64	242	*e*PN	Pn	13 44 10.5	+0.2
NKC				*e*PG	Pg	13 44 16.5	-0.6
NKC				*e*SG	Sg	13 44 51.9	+0.7
	comp=Z,74nm,0.3s						
NKC	Novy Kostel	2.64	242	*e*Pn	Pn	13 44 10.4	+0.1
	baz=59						
OJC	Ojcow	2.70	118	*e*Pg	Pg	13 44 18.3	+0.1
OJC				*e*Sg	Sg	13 44 53.5	+0.3
OJC	Ojcow	2.70	118	*e*Pg	Pg	13 44 18.3	+0.1
OJC				*e*Sg	Sg	13 44 53.5	+0.3
KHC	Kasperske Hory	2.88	215	*e*PN	Pn	13 44 13.4	-0.3
KHC				*e*PG	Pg	13 44 19.6	-2.2
KHC				*e*SN	Sn	13 44 50.5	+1.5
KHC				*e*SG	Sg	13 44 58.9	-0.2
	comp=Z,10nm,0.7s						
KHC	Kasperske Hory	2.88	215	Pn	Pn	13 44 13.4	-0.3
MOX	Moxa	2.95	254	*e*PG	Pg	13 44 22.2	-0.8
MOX				*e*SG	Sg	13 45 02.2	+1.0
GEC2	GERESS Array S	3.09	211	*e*Pn	Pn	13 44 17.3	+0.8
GEC2	GERESS Array S	3.09	211	*e*Pn	Pn	13 44 17.3	+0.8
MODS	Modra-Piesok	3.25	166	*e*SG	Sg	13 45 12.3	+1.4
MODS	Modra-Piesok	3.25	166	*e*Sg	Sg	13 45 12.3	+1.4
CLZ	Clausthal	3.56	277	*e*Pn	Pn	13 44 23.0	-0.1
CLZ	Clausthal	3.56	277	*e*Pn	Pn	13 44 23.0	-0.1
CONA	Conrad Observa	3.60	182	⇓*i*Pn	Pn	13 44 24.4	+0.8
CONA				⇑*i*Sg	Sg	13 45 22.4	+0.2
	comp=Z,10nm,0.4s						
CONA	Conrad Observa	3.60	182	Pn	Pn	13 44 24.4	+0.8
CONA				Sg	Sg	13 45 22.4	+0.1
	comp=Z,10nm,0.4s						
CSNA	Conrad Observa	3.60	182	⇑*i*Pn	Pn	13 44 24.2	+0.6
CSNA				⇓*i*Sg	Sg	13 45 21.7	-0.5
	comp=Z,14nm,0.5s						
CSNA	Conrad Observa	3.60	182	Pn	Pn	13 44 24.2	+0.6
CSNA				Sg	Sg	13 45 21.7	-0.6
	comp=Z,14nm,0.5s						
MOA	Molln	3.86	198	⇑*i*Pn	Pn	13 44 27.3	+0.1
MOA				⇓*i*Sg	Sg	13 45 30.5	-0.1
	comp=Z,10nm,0.5s						
MOA	Molln	3.86	198	Pn	Pn	13 44 27.3	+0.1
MOA				Sg	Sg	13 45 30.5	-0.1
	comp=Z,10nm,0.5s						
STHS	Stebnicka Huta	3.92	121	*e*PG	Pg	13 44 41.4	-0.2
STHS				*e*SG	Sg	13 45 34.8	+2.4
STHS	Stebnicka Huta	3.92	121	*e*Pg	Pg	13 44 41.4	-0.2
STHS				*e*Sg	Sg	13 45 34.8	+2.4

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*TAP **14** 13:49:56.7, 23.°88N×122.°78E, h81^{km}±2^{km}, ML3.1, D*
*ISCJB **14** 13:49:57.4±0.4, 23.°79N±0.°03×122.°77E±0.°02, h33^{km}, Error ellipse: s-maj=5.0km s-min=2.9km az=158.2*
*JMA **14** 13:49:59.2±0.3, 23.°96N×122.°87E, h10^{km}, M2.1*
ISC 14 13:49:57.9±0.4**, 23.°80N**±0.°03×**122.°78E**±0.°03**, h35^{km}, n30, σ0.^{s}71**/50**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.69	18	P	Pn	13 50 09.5	-1.8
YOJ				*e*S	Sn	13 50 16.2	-4.6
HATJ	Hateruma jima	0.97	74	P	Pn	13 50 15.2	+0.1
HATJ				*e*S	Sn	13 50 27.7	0.0
IRIF	Iriomote-Funau	1.02	58	P	Pn	13 50 15.7	0.0
IRIF				*e*S	Sn	13 50 28.2	-0.6
TWD	Chiawan	1.12	285	*e*P	Pn	13 50 16.7	-0.4
	baz=287						
ENA	Nanau	1.14	304	P	Pn	13 50 17.1	-0.2
	baz=304						
TWC	Suao	1.17	314	P	Pn	13 50 17.0	-0.8
	baz=310						
TWC				S	Sn	13 50 32.1	-0.5
	baz=310						
JKRS	Kuro-shima	1.21	68	P	Pn	13 50 19.3	+1.0
ESL	Shilin	1.23	271	P	Pn	13 50 18.2	-0.5
	baz=267						
ESL				*e*S	Sn	13 50 34.0	-0.1
	baz=267						
JIJ	Ishigaki jima	1.37	65	P	Pn	13 50 21.5	+1.0
JIJ				*e*S	Sn	13 50 38.0	+0.6
EHY	Hungye	1.37	258	P	Pn	13 50 20.3	-0.2
	baz=255						
EHY				*e*S	Sn	13 50 37.2	-0.2
	baz=255						
TWE	Neicheng	1.37	312	*e*P	Pn	13 50 20.8	+0.3
	baz=317						
TWE				*e*S	Sn	13 50 37.5	0.0
	baz=317						
ENTT	Nioudou	1.39	307	*e*P	Pn	13 50 21.1	+0.2
	baz=310						
ENTT				*e*S	Sn	13 50 38.0	0.0
	baz=310						
WHF	Hehuan Shan	1.43	284	*e*P	Pn	13 50 21.2	-0.2
	baz=281						
TWF1	Yuli	1.43	252	*e*P	Pn	13 50 21.6	+0.2
	baz=243						
TWF1				*e*S	Sn	13 50 39.1	+0.1
	baz=243						
NNS	Nan Shan	1.44	297	*e*P	Pn	13 50 21.3	-0.2
	baz=300						
NNS				*e*S	Sn	13 50 39.0	-0.1
	baz=300						
CHKT	Chengkung	1.47	242	P	Pn	13 50 21.8	-0.2
	baz=235						
CHKT				S	Sn	13 50 39.5	-0.5
	baz=235						
NWF	Wu-fen Shan	1.56	325	*e*P	Pn	13 50 22.6	-0.6
	baz=322						
NSK	Sanguang	1.57	304	*e*P	Pn	13 50 23.3	0.0
	baz=295						
NSK				*e*S	Sn	13 50 43.4	+1.1
	baz=295						
SMLT	Sun Moon Lake	1.72	273	*e*P	Pn	13 50 25.6	+0.2
	baz=270						
ELDTW	Lidau	1.73	250	P	Pn	13 50 25.4	0.0
	baz=241						
ELDTW				*e*S	Sn	13 50 46.1	-0.2
	baz=241						
TYC	Yuchr	1.76	274	*e*P	Pn	13 50 25.5	-0.4
	baz=271						
ALS	Alishan	1.83	261	*e*P	Pn	13 50 27.4	+0.4
	baz=264						
ALS				*e*S	Sn	13 50 48.9	-0.1
	baz=264						
CHN5	Tsauling	1.94	265	*e*P	Pn	13 50 28.7	+0.3
	baz=271						
STYT	Tauyuan	1.96	252	*e*P	Pn	13 50 27.0	-1.7
	baz=246						
STYT				*e*S	Sn	13 50 51.8	-0.3
	baz=246						
CHN4	Tsaushan	2.06	258	*e*P	Pn	13 50 30.9	+0.9
	baz=256						
CHN4				*e*S	Sn	13 50 57.3	+2.9
	baz=256						
ECL	Taimali	2.06	235	*e*P	Pn	13 50 30.1	+0.1
	baz=233						
ECL				*e*S	Sn	13 50 54.0	-0.5
	baz=233						
WTP	Ta-pu	2.06	255	*e*P	Pn	13 50 31.4	+1.3
	baz=253						
WTP				*e*S	Sn	13 50 56.4	+1.9
	baz=253						
LAY	Lan-yu	2.08	213	*e*P	Pn	13 50 30.2	-0.2
	baz=212						
LAY				*e*S	Sn	13 50 53.9	-1.3
	baz=212						
SGST	Jiashian	2.14	251	*e*P	Pn	13 50 31.5	+0.3
	baz=249						
CHN1	Nanshi	2.16	254	*e*P	Pn	13 50 31.8	+0.5
	baz=252						

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*ISCJB **14** 13:55:56.3±0.6, 33.°22N±0.°05×139.°53E±0.°06, h180^{km}±4^{km}, mb3.2/5, Error ellipse: s-maj=9.1km s-min=7.5km az=143.8*
*NEIC **14** 13:55:57.9, 33.°27N×139.°55E, h172^{km}, MG3.3(JMA), After JMA.*
*JMA **14** 13:55:57.9±0.1, 33.°27N×139.°55E, h172^{km}±2^{km}, M3.3*
*IDC **14** 13:55:57.2±1.0, 33.°27N×139.°81E, h179^{km}±4^{km}, mb2.9/5, mb1 3.1/7, mb1mx3.0/23, mbtmp3.0/7, MS3.1/1, Ms1 3.1/1, ms1mx2.6/9, Error ellipse: s-maj=47.0km s-min=9.7km az=74.0*
ISC 14 13:55:57.6±0.6**, 33.°24N**±0.°05×**139.°53E**±0.°06**, h175^{km}**±4^{km}**, n22, σ0.^{s}73**/33**, mb3.2**/5**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	0.24	120	P	Pn	13 56 20.6	-0.3
	41nm,0.3s,baz=65,slow=22,SNR=14						
JHJ				S	Sn	13 56 40.0	+1.1
	89nm,0.3s,baz=88,slow=23,SNR=12						
JHJ2	Mitsune	0.27	118	P	Pn	13 56 20.9	-0.1
JHJ2				*e*S	Sn	13 56 38.3	-0.7
JIM2	Oshima 3	1.48	357	P	Pn	13 56 29.1	+0.2
JIZS	Izushimoda	1.57	340	P	Pn	13 56 29.8	0.0
TK01	Tokai 1	1.71	288	P	Pn	13 56 31.2	0.0
TK01				S	Sn	13 56 56.6	-0.5
BSO3	Boso 3	1.76	27	P	Pn	13 56 31.9	+0.2
BSO3				*e*S	Sn	13 56 58.4	+0.3
TK04	Tokai 4	1.79	310	P	Pn	13 56 32.2	+0.2
TK04				S	Sn	13 56 59.6	+0.9
BSO1	Boso 1	1.85	40	P	Pn	13 56 32.5	-0.2
BSO1				S	Sn	13 56 59.4	-0.5
JOD2	Odawara 2	2.05	350	P	Pn	13 56 35.2	+0.4
SHZ3	Shizuoka 3	2.13	329	P	Pn	13 56 36.1	+0.4
SHZ3				S	Sn	13 57 05.7	+0.5
JYN	Shimob	2.40	340	P	Pn	13 56 39.4	+0.7
JIE	Ise	2.62	297	P	Pn	13 56 41.1	-0.3
JIE				S	Sn	13 57 13.9	-1.4
JRY	Ryogami san	2.82	350	P	Pn	13 56 44.2	+0.5
JRY				*e*S	Sn	13 57 18.9	-0.8
MJAR	Matsushiro Arr	3.47	342	P	Pn	13 56 51.7	0.0
	1.4nm,0.3s,baz=157,slow=12,SNR=10						
MJAR				S	Sn	13 57 36.0	+1.9
	0.9nm,0.3s,baz=161,slow=14,SNR=3.5						
MJAR				LR	LR	13 57 57.2	
	comp=Z,312nm,20.7s,baz=5.0,slow=34						
MAJO	Matsushiro	3.47	342	*e*Pn	Pn	13 56 50.0	-1.7
MAT	Matsushiro	3.47	342	P	Pn	13 56 51.6	-0.2
MAT				*e*S	Sn	13 57 33.8	-0.3
ASAJ	Asahikawa	11.12	12	P	Pn	13 58 30.2	-1.3
	1.4nm,0.3s,baz=149,slow=16,SNR=12						
SONM	Songino Array	28.84	310	P	P	14 01 40.1	+0.8
	0.2nm,0.4s,mb3.2,baz=118,slow=7.8,SNR=2.4						
ZALV	Zalesovo Beam	43.43	315	P	P	14 03 42.0	-0.8
	0.3nm,0.3s,mb3.4,baz=99,slow=8.9,SNR=2.7						
MKAR	Makanchi Array	44.93	305	P	P	14 03 55.5	+0.7
	0.4nm,0.5s,mb3.3,baz=89,slow=9.4,SNR=7.1						
WRA	Warramunga Arr	53.12	186	P	P	14 04 56.8	-0.4
	0.2nm,0.5s,mb3.1,baz=0.7,slow=7.6,SNR=5.8						
ASAR	Alice Springs	56.84	186	P	P	14 05 24.6	+0.8
	0.3nm,0.9s,mb3.1,baz=22,slow=10,SNR=4.7						

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*CSEM **14** 14:04:28.6, 46.°26N×7.°00E, h-0^{km}, ML0.4, Suspected Mining explosion. After ZUR*
ZUR 14 14:04:28.6, 46.°26N×7.°00E, h-0^{km}±2^{km}**, ML0.4**/4**, 6C, Suspected Mining explosion., Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRYON	Gryon	0.07	96	⇑*i*Pg		14 04 30.4	
	13nm,0.1s						
GRYON				*i* Sg		14 04 31.6	
	13nm,0.1s						
GRYON	Gryon	0.07	96	⇑*i*Pg		14 04 30.4	
	13nm,0.1s						
GRYON				*i* Sg		14 04 31.6	
	13nm,0.1s						
AIGLE	Aigle	0.09	337	⇑*i*Pg		14 04 30.7	
	27nm,0.6s						
AIGLE	Aigle	0.09	337	⇑*i*Pg		14 04 30.7	
	27nm,0.6s						
SALAN	Lac Salanfe	0.12	191	*i* Pg		14 04 31.4	
	4.5nm,0.4s						
SALAN				*i* Sg		14 04 33.2	
	4.5nm,0.4s						
SALAN	Lac Salanfe	0.12	191	*i* Pg		14 04 31.4	
	4.5nm,0.4s						
SALAN				*i* Sg		14 04 33.2	
	4.5nm,0.4s						
EMV	Vieux Emosson	0.21	201	*e*Pg		14 04 33.2	
	13nm,0.3s						
EMV	Vieux Emosson	0.21	201	*e*Pg		14 04 33.2	
	13nm,0.3s						
SENIN	Lac Senin/Sane	0.23	63	⇑*i*Pg		14 04 33.4	
	18nm,0.2s						
SENIN				*e*Sg		14 04 37.3	
	18nm,0.2s						
SENIN	Lac Senin/Sane	0.23	63	⇑*i*Pg		14 04 33.4	
	18nm,0.2s						
SENIN				*e*Sg		14 04 37.3	
	18nm,0.2s						

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*ISCJB **14** 14:05:11.8±1.4, 36.°37N±0.°08×21.°65E±0.°09, h12^{km}±13^{km}, Error ellipse: s-maj=15.4km s-min=8.8km az=37.3*
*CSEM **14** 14:05:12.2±0.5, 36.°37N×21.°66E, h10^{km}, MD3.6, Error ellipse: s-maj=11.7km s-min=6.2km az=55.0*
*THE **14** 14:05:13.6, 36.°39N×21.°72E, h13^{km}±1^{km}, ML3.8/3, Error ellipse: s-maj=2.9km s-min=1.8km az=241.0*
*ATH **14** 14:05:13.7, 36.°52N×21.°63E, h41^{km}±2^{km}, MD3.6/6*
ISC 14 14:05:12.1±1.2**, 36.°35N**±0.°05×**21.°67E**±0.°08**, h11^{km}**±5^{km}**, n43, σ0.^{s}83**/62**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.55	6	P	Pg	14 05 22.6	-0.2
PYL				S	Sg	14 05 30.8	+0.8
PYL	PYLOS	0.55	6	*e*P	Pg	14 05 22.7	-0.1
PYL				*e*S	Sg	14 05 31.1	+1.1
PYL	PYLOS	0.55	6	P	Pg	14 05 22.6	-0.2
PYL				S	Sg	14 05 30.8	+0.8
ITM	Ithomi	0.85	14	*e*P	Pg	14 05 28.0	-0.6
ITM	Ithomi	0.85	14	*e*P	Pg	14 05 28.0	-0.6
KYTH	Kithira	1.10	93	*e*P	Pb	14 05 34.9	+1.7
KYTH	Kithira	1.10	93	*e*P	Pb	14 05 34.9	+1.7
VLX	Vlachokerasia	1.17	29	*e*P	Pb	14 05 33.2	-1.1
VLX	Vlachokerasia	1.17	29	*e*P	Pb	14 05 33.2	-1.1
DID	Didima	1.70	47	P	Pn	14 05 41.0	-0.7
DID				S	Sn	14 06 03.1	-0.4
DID	Didima	1.70	47	*e*P	Pn	14 05 41.1	-0.6
DID	Didima	1.70	47	*e*P	Pn	14 05 41.1	-0.6
DID				S	Sn	14 06 03.1	-0.4
RLS	Riolos of Patr	1.71	355	*e*P	Pn	14 05 40.7	-1.2
RLS	Riolos of Patr	1.71	355	*e*P	Pn	14 05 40.7	-1.2
LAKA	Lakka	1.90	7	P	Pn	14 05 45.7	+1.2
LAKA				S	Sn	14 06 07.4	-1.0
LAKA	Lakka	1.90	7	P	Pn	14 05 45.7	+1.2
LAKA				S	Sn	14 06 07.4	-1.0
LTK	Loutraki	1.96	31	P	Pn	14 05 45.5	+0.2
LTK				S	Sn	14 06 10.2	+0.3
LTK	Loutraki	1.96	31	*e*P	Pn	14 05 45.2	-0.1
LTK	Loutraki	1.96	31	*e*P	Pn	14 05 45.2	-0.1
LTK				S	Sn	14 06 10.2	+0.3
VLS	Valsamata	2.02	335	P	Pn	14 05 45.9	-0.2
VLS				S	Sn	14 06 12.1	+0.8
VLS	Valsamata	2.02	335	*e*P	Pn	14 05 44.6	-1.5
VLS	Valsamata	2.02	335	P	Pn	14 05 45.9	-0.2
VLS				S	Sn	14 06 12.1	+0.8
TRIZ	Trizonia	2.04	9	P	Pn	14 05 47.2	+0.9
TRIZ				S	Sn	14 06 12.0	+0.3
TRIZ	Trizonia	2.04	9	P	Pn	14 05 47.2	+0.9
TRIZ				S	Sn	14 06 12.0	+0.3
KARN	Karanos	2.05	117	P	Pn	14 05 46.6	0.0
KARN	Karanos	2.05	117	P	Pn	14 05 46.6	0.0
EFP	Efpalio	2.08	5	*e*P	Pn	14 05 45.4	-1.5
EFP	Efpalio	2.08	5	*e*P	Pn	14 05 45.4	-1.5
LKR	Lokris	2.53	24	P	Pn	14 05 52.0	-1.1
LKR	Lokris	2.53	24	*e*P	Pn	14 05 51.2	-1.9
LKR	Lokris	2.53	24	P	Pn	14 05 52.0	-1.1
AGG	Agios Georgios	2.72	11	P	Pn	14 05 56.3	+0.6
AGG				S	Sn	14 06 28.2	-0.3
AGG	Agios Georgios	2.72	11	*e*P	Pn	14 05 54.5	-1.2
AGG	Agios Georgios	2.72	11	P	Pn	14 05 56.3	+0.6
AGG				S	Sn	14 06 28.2	-0.3
THL	Klokotos Trika	3.22	5	P	Pn	14 06 02.5	-0.1
THL				S	Sn	14 06 41.6	+0.7
THL	Klokotos Trika	3.22	5	*e*P	Pn	14 06 02.1	-0.5
THL	Klokotos Trika	3.22	5	P	Pn	14 06 02.5	-0.1
THL				S	Sn	14 06 41.6	+0.7
XOR	Xorichti	3.24	21	P	Pn	14 06 03.9	+1.0
XOR	Xorichti	3.24	21	P	Pn	14 06 03.9	+1.0
MEV	Metsovon	3.45	354	P	Pn	14 06 06.2	+0.5
MEV				S	Sn	14 06 47.0	+0.5
MEV	Metsovon	3.45	354	P	Pn	14 06 06.2	+0.5
MEV				S	Sn	14 06 47.0	+0.5
LIT	Litokhoron	3.80	10	*e*P	Pn	14 06 10.9	+0.3
LIT	Litokhoron	3.80	10	*e*P	Pn	14 06 10.9	+0.3

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*NEIC **14** 14:11:36.5±1.3, 8.°89S×128.°17E, h35^{km}, Error ellipse: s-maj=32.8km s-min=15.2km az=65.0*
*ISCJB **14** 14:11:38.1±3.7, 8.°8S±0.°1×128.°7E±0.°1, h78^{km}±41^{km}, Error ellipse: s-maj=23.9km s-min=16.6km az=145.3*
*IDC **14** 14:11:40.5±8.2, 8.°86S×128.°58E, h80^{km}±93^{km}, mb3.0/1, mb1 3.4/4, mb1mx3.2/17, mbtmp3.2/4, ML3.5/3, Error ellipse: s-maj=58.0km s-min=47.5km az=11.0*
ISC 14 14:11:38.5±3.2**, 8.°7S**±0.°1×**128.°8E**±0.°1**, h60^{km}**±38^{km}**, n7, σ0.^{s}66**/12**, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.81	198	P	Pn	14 13 58.0	+1.0
	0.3nm,0.3s,baz=11,slow=11,SNR=6.2						
FITZ				S	Sn	14 15 43.8	-1.8
	0.2nm,0.3s,baz=341,slow=18,SNR=3.1						
FITZ	Fitzroy Crossi	9.81	198	*e*Pn	Pn	14 13 50.5	-6.5
	3.6nm,0.8s						
FITZ				*e*Sn	Sn	14 15 46.6	+1.0
WRAB	Tennant Creek	12.38	155	*e*Pn	Pn	14 14 31.9	-0.1
	0.8nm,0.4s						
WRAB				*e*Sn	Sn	14 16 48.4	+0.1
WRA	Warramunga Arr	12.38	155	P	Pn	14 14 31.5	-0.5
	0.2nm,0.3s,baz=324,slow=14,SNR=9.6						
WRA				S	Sn	14 16 48.4	0.0
	0.3nm,0.3s,baz=326,slow=25,SNR=5.5						
WRA	Warramunga Arr	12.38	155	P	Pn	14 14 31.5	-0.5
WRA				S	Sn	14 16 48.4	0.0
ASAR	Alice Springs	15.65	162	P	Pn	14 15 15.9	+0.6
	0.2nm,0.3s,baz=331,slow=9.5,SNR=15						
MKAR	Makanchi Array	69.02	328	P	P	14 22 37.5	-0.2
	0.1nm,0.3s,baz=120,slow=6.4,SNR=6.1						

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*NEIC **14** 14:16:58.9, 35.°57N×21.°09E, h3^{km}, ML4.1(ATH), After ATH.*
*ATH **14** 14:16:58.9, 35.°57N×21.°09E, h3^{km}, MD3.9/10, ML4.1*
*CSEM **14** 14:17:09.8±0.3, 36.°22N×21.°65E, h20^{km}, ML4.2/5, Error ellipse: s-maj=8.2km s-min=5.5km az=27.0*
*ISCJB **14** 14:17:10.1±0.6, 36.°21N±0.°04×21.°63E±0.°04, h59^{km}±5^{km}, mb4.2/20, Error ellipse: s-maj=6.4km s-min=4.9km az=33.3*
*THE **14** 14:17:10.9, 36.°28N×21.°73E, h15^{km}±1^{km}, ML4.2/5, Error ellipse: s-maj=2.2km s-min=1.4km az=226.0*
*IDC **14** 14:17:12.9±1.5, 36.°40N×21.°80E, h57^{km}±16^{km}, mb3.5/12, mb1 3.6/15, mb1mx3.5/28, mbtmp3.6/15, MS2.9/1, Ms1 2.9/1, ms1mx2.6/43, Error ellipse: s-maj=21.7km s-min=10.1km az=19.0*
ISC 14 14:17:11.9±0.5**, 36.°24N**±0.°04×**21.°66E**±0.°04**, h55^{km}**±5^{km}**, n113, σ1.^{s}10**/142**, mb4.2**/20**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.65	6	P	Pn	14 17 22.5	-2.7
PYL				S	Sn	14 17 31.9	-3.1
PYL	PYLOS	0.65	6	P	Pn	14 17 22.5	-2.7
PYL				S	Sn	14 17 31.9	-3.1
ITM	Ithomi	0.96	13	P	Pn	14 17 28.5	-0.6
ITM	Ithomi	0.96	13	P	Pn	14 17 28.5	-0.6
KYTH	Kithira	1.11	88	*e*PB	Pn	14 17 31.5	+0.3
KYTH	Kithira	1.11	88	*e*Pb	Pn	14 17 31.5	+0.3
DID	Didima	1.78	45	P	Pn	14 17 39.5	-0.8
DID				S	Sn	14 18 01.7	-0.1
DID	Didima	1.78	45	P	Pn	14 17 39.5	-0.8
DID				S	Sn	14 18 01.7	-0.1
LAKA	Lakka	2.01	7	P	Pn	14 17 43.8	+0.5
LAKA				S	Sn	14 18 08.4	+1.1
LAKA	Lakka	2.01	7	P	Pn	14 17 43.8	+0.5
LAKA				S	Sn	14 18 08.4	+1.1
LTK	Loutraki	2.06	30	P	Pn	14 17 43.3	-0.7
LTK				S	Sn	14 18 09.1	+0.6
LTK	Loutraki	2.06	30	P	Pn	14 17 43.3	-0.7
LTK				S	Sn	14 18 09.1	+0.6
NAIG	Nisos Aigina	2.10	44	*e*PB	Pn	14 17 49.0	+4.4
NAIG	Nisos Aigina	2.10	44	*e*Pb	Pn	14 17 49.0	+4.4
VLS	Valsamata	2.11	336	P	Pn	14 17 44.4	-0.3
VLS				S	Sn	14 18 11.7	+1.9
VLS	Valsamata	2.11	336	*e*PN	Pn	14 17 45.0	+0.3
VLS	Valsamata	2.11	336	P	Pn	14 17 47.2	+2.5
VLS	Valsamata	2.11	336	P	Pn	14 17 44.4	-0.3
VLS	Valsamata	2.11	336	*e*Pn	Pn	14 17 45.0	+0.3
VLS				S	Sn	14 18 11.7	+1.9
TRIZ	Trizonia	2.14	9	P	Pn	14 17 45.7	+0.5
TRIZ				S	Sn	14 18 11.7	+1.1
TRIZ	Trizonia	2.14	9	P	Pn	14 17 45.7	+0.5
TRIZ				S	Sn	14 18 11.7	+1.1
VAM	Vamos	2.23	111	*e*PN	Pn	14 17 43.5	-2.8
VAM	Vamos	2.23	111	*e*Pn	Pn	14 17 43.5	-2.8
ATH	Athens Observa	2.38	43	*e*PN	Pn	14 17 52.5	+4.1
ATH	Athens Observa	2.38	43	*e*Pn	Pn	14 17 52.5	+4.1
ATHU	Athens Univers	2.42	44	P	Pn	14 17 48.2	-0.7
ATHU				S	Sn	14 18 18.3	+1.0
ATHU	Athens Univers	2.42	44	P	Pn	14 17 48.2	-0.7
ATHU				S	Sn	14 18 18.3	+1.0
PTL	Penteli	2.52	44	*e*PN	Pn	14 17 54.0	+3.7
PTL	Penteli	2.52	44	*e*Pn	Pn	14 17 54.0	+3.7
LKR	Lokris	2.63	24	P	Pn	14 17 50.5	-1.3
LKR				S	Sn	14 18 22.5	0.0
LKR	Lokris	2.63	24	P	Pn	14 17 50.5	-1.3
LKR				S	Sn	14 18 22.5	0.0
EVR	Evrytania	2.67	2	*e*PN	Pn	14 17 55.0	+2.6
EVR	Evrytania	2.67	2	*e*Pn	Pn	14 17 55.0	+2.6
IDI	Anoyia	2.79	109	P	Pn	14 17 53.6	-0.5
	4.8nm,0.3s,baz=298,slow=20,SNR=18						
IDI				S	Sn	14 18 27.6	+1.1
	15nm,0.3s,baz=288,slow=16,SNR=5.9						
IDI				LR	LR	14 18 41.9	
	comp=Z,250nm,21.0s,baz=280,slow=32						
IDI	Anoyia	2.79	109	P	Pn	14 17 53.6	-0.5
IDI				S	Sn	14 18 27.6	+1.0
AGG	Agios Georgios	2.82	11	P	Pn	14 17 54.3	-0.2
AGG				S	Sn	14 18 28.4	+1.1
AGG	Agios Georgios	2.82	11	P	Pn	14 17 54.3	-0.2
AGG				S	Sn	14 18 28.4	+1.1
LAST	Lasithi	3.29	108	P	Pn	14 18 01.2	+0.3
LAST	Lasithi	3.29	108	P	Pn	14 18 01.2	+0.3
NEO	Neokhori	3.30	22	*e*PN	Pn	14 18 05.5	+4.5
NEO	Neokhori	3.30	22	*e*Pn	Pn	14 18 05.5	+4.5
THL	Klokotos Trika	3.33	5	P	Pn	14 18 01.3	-0.1
THL				S	Sn	14 18 40.5	+0.9
THL	Klokotos Trika	3.33	5	P	Pn	14 18 01.3	-0.1
THL				S	Sn	14 18 40.5	+0.9
XOR	Xorichti	3.34	21	P	Pn	14 18 01.6	0.0
XOR				S	Sn	14 18 40.7	+0.7
XOR	Xorichti	3.34	21	P	Pn	14 18 01.6	0.0
XOR				S	Sn	14 18 40.7	+0.7
AOS	Alonnisos	3.41	30	P	Pn	14 18 02.8	+0.3
AOS	Alonnisos	3.41	30	P	Pn	14 18 02.8	+0.3
JAN	Janina	3.47	350	*e*PN	Pn	14 18 04.5	+1.2
JAN	Janina	3.47	350	*e*Pn	Pn	14 18 04.5	+1.2
MEV	Metsovon	3.55	355	P	Pn	14 18 05.4	+1.0
MEV	Metsovon	3.55	355	P	Pn	14 18 05.4	+1.0
KEK	Kerkira	3.76	338	*e*PN	Pn	14 18 08.0	+0.7
KEK	Kerkira	3.76	338	*e*Pn	Pn	14 18 08.0	+0.7
LIT	Litokhoron	3.91	9	P	Pn	14 18 09.4	+0.1
LIT	Litokhoron	3.91	9	P	Pn	14 18 09.4	+0.1
SMG	Samos	4.39	69	P	Pn	14 18 16.7	+0.7
SMG	Samos	4.39	69	P	Pn	14 18 16.7	+0.7
BIA	Bitola	4.78	357	*e*Pn	Pn	14 18 20.6	-0.5
BIA				*e*Sn	Sn	14 19 11.3	-3.9
BIA	Bitola	4.78	357	*e*Pn	Pn	14 18 20.6	-0.6
BIA				*e*Sn	Sn	14 19 11.3	-3.9
SOI	Samo	4.83	294	Pn	Pn	14 18 21.3	-0.7
SOI	Samo	4.83	294	Pn	Pn	14 18 21.3	-0.7
TIP	Timpagrande	4.87	308	Pn	Pn	14 18 22.3	-0.2
TIP	Timpagrande	4.87	308	Pn	Pn	14 18 22.3	-0.2
OHR	Ohrid	4.91	352	*e*Pn	Pn	14 18 21.8	-1.2
OHR				*e*Sn	Sn	14 19 13.4	-5.0
OHR	Ohrid	4.91	352	*e*Pn	Pn	14 18 21.7	-1.3
VAY	Valandovo	5.12	8	*e*Pn	Pn	14 18 24.5	-1.4
VAY				*e*Sn	Sn	14 19 19.4	-4.2
VAY	Valandovo	5.12	8	*e*Pn	Pn	14 18 24.5	-1.4
VAY				*e*Sn	Sn	14 19 19.4	-4.2
KRUS	Krusevo	5.13	357	*e*Pn	Pn	14 18 24.1	-1.9
KRUS				*e*Sn	Sn	14 19 17.0	-6.8
KRUS	Krusevo	5.13	357	*e*Pn	Pn	14 18 24.1	-1.9
LTRZ	Laterza	5.78	320	Pn	Pn	14 18 33.4	-1.5
LTRZ	Laterza	5.78	320	Pn	Pn	14 18 33.4	-1.5
CUC	Castrocucco	5.94	311	*e*Pn	Pn	14 18 37.1	0.0
	18nm,0.6s						
CUC	Castrocucco	5.94	311	*e*Pn	Pn	14 18 37.1	0.0
	18nm,0.6s						
VAE	Valguarnera	5.94	284	P	Pn	14 18 40.5	+3.3
	1.4nm,0.3s,baz=85,slow=8.6,SNR=2.3						
VAE				S	Sn	14 19 48.6	+4.7
	3.2nm,0.3s,baz=133,slow=5.8,SNR=5.0						
PTRP	Pietrapertosa	6.13	316	Pn	Pn	14 18 41.2	+1.4
	72nm,1.2s						
PTRP	Pietrapertosa	6.13	316	Pn	Pn	14 18 41.2	+1.4
	72nm,1.2s						
BARS	Barje	6.56	1	⇑*i*Pn	Pn	14 18 44.4	-1.3
SGO	Sicignano	6.59	313	Pn	Pn	14 18 46.2	+0.1
	12nm,0.4s						
SGO	Sicignano	6.59	313	Pn	Pn	14 18 46.2	+0.1
	12nm,0.4s						
NISS		7.15	2	*e*Pn	Pn	14 18 51.5	-2.3
BBLS	Lazići	7.81	348	*e*Pn	Pn	14 19 00.4	-2.3
BRTR	Keskin Array B	10.07	66	P	Pn	14 19 36.0	+2.3
	0.1nm,0.3s,baz=240,slow=13,SNR=3.2						
BRTR	Keskin Array B	10.07	66	P	Pn	14 19 36.0	+2.3
BRTR	Keskin Array B	10.07	66	P	Pn	14 19 36.0	+2.3
AKASG	Malin Array Be	15.45	18	P	Pn	14 20 46.2	+0.1
	1.6nm,0.3s,baz=215,slow=12,SNR=4.1						
AKASG	Malin Array Be	15.45	18	P	Pn	14 20 46.2	+0.1
HFS	Hagfors	24.45	350	P	P	14 22 24.5	-0.7
	1.6nm,0.6s,mb3.6,baz=178,slow=10,SNR=4.9						
EKA	Eskdalemuir Ar	25.53	326	P	P	14 22 35.5	+0.5
	0.6nm,0.4s,mb3.5,baz=131,slow=8.9,SNR=3.9						
NOA	NORSAR Array B	25.69	348	P	P	14 22 36.3	-0.1
	0.7nm,0.6s,mb3.4,baz=160,slow=9.5,SNR=2.4						
TORD	Torodi Ar. Bea	29.17	223	P	P	14 23 09.9	+1.9
	0.4nm,0.8s,mb3.2,baz=22,slow=9.3,SNR=2.4						
AKTK	Aktyubinsk	29.67	50	P	P	14 23 10.2	-2.0
AKTO	Aktyubinsk	29.67	50	P	P	14 23 10.2	-2.0
	0.4nm,0.3s,mb3.6,baz=248,slow=11,SNR=2.8						
ARCES	ARCESS Array B	33.41	2	P	P	14 23 44.2	-0.6
	6.4nm,1.1s,mb4.5,baz=203,slow=9.0,SNR=3.7						
MKAR	Makanchi Array	45.56	57	P	P	14 25 25.3	-0.8
	1.1nm,0.3s,mb4.2,baz=272,slow=7.7,SNR=32						
MKAR	Makanchi Array	45.56	57	P	P	14 25 25.3	-0.8
ZALV	Zalesovo Beam	46.33	47	P	P	14 25 30.7	-1.3
	2.1nm,0.5s,mb4.3,baz=267,slow=9.3,SNR=12						
DANN	Dangsing	52.30	80	*e*P	P	14 26 18.9	+0.9
	23nm,0.5s,mb5.4						
KOLN	Koldanda	52.43	81	*e*P	P	14 26 19.1	+0.2
	4.6nm,0.5s,mb4.6						
GKN	Gorkha	53.15	80	*e*P	P	14 26 24.1	-0.2
	10nm,0.4s,mb5.1						
DMN	Daman	53.70	80	*e*P	P	14 26 28.6	+0.3
	12nm,0.5s,mb5.1						
PKI	Pulchoki	53.95	80	*e*P	P	14 26 30.4	+0.3
GUN	Gumba	54.18	79	*e*P	P	14 26 32.3	+0.5
	6.2nm,0.3s,mb5.0						
JIRN	Jiri	54.54	79	*e*P	P	14 26 34.6	+0.2
	4.0nm,0.3s,mb5.0						
RAMN	Ramite	55.18	80	*e*P	P	14 26 38.6	-0.4
	4.4nm,0.4s,mb4.8						
ODAN	Odare	55.85	80	*e*P	P	14 26 44.0	+0.2
TAPN	Taplejung	55.88	79	*e*P	P	14 26 44.1	0.0
	2.6nm,0.3s,mb4.7						
SONM	Songino Array	60.99	50	P	P	14 27 19.1	-0.3
	0.5nm,0.6s,mb3.8,baz=285,slow=6.9,SNR=7.0						
CMAR	Chiang Mai Arr	69.26	82	P	P	14 28 13.6	+0.2
	0.3nm,0.4s,mb3.5,baz=306,slow=7.7,SNR=3.0						
YKA	Yellowknife Ar	75.52	341	P	P	14 28 51.0	+1.1
	0.3nm,0.5s,mb3.5,baz=33,slow=5.2,SNR=5.1						
YKA	Yellowknife Ar	75.52	341	P	P	14 28 51.0	+1.1
KSRS	Korea Array	79.85	51	P	P	14 29 14.9	+0.4
	1.0nm,0.5s,mb4.0,baz=308,slow=4.5,SNR=7.7						
WRA	Warramunga Arr	119.52	94	PKP	PKPdf	14 35 55.9	+0.2
	0.6nm,1.0s,baz=310,slow=1.5,SNR=5.1						
ASAR	Alice Springs	121.03	98	PKP	PKPdf	14 35 59.6	+1.2
	0.1nm,0.3s,baz=310,slow=1.7,SNR=3.2						

DDA ***14*** *14:33:24.2, 38°.56N×26°.59E, h26km±1km, Md3.5*
ISK ***14*** *14:33:24.4, 38°.56N×26°.56E, h12km, MD3.2*
ISCJB ***14*** *14:33:25.1±0.4, 38°.58N±0°.02×26°.57E±0°.03, h12km±3km, Error ellipse: s-maj=4.1km s-min=3.0km az=140.2*
CSEM ***14*** *14:33:25.2±0.1, 38°.56N×26°.57E, h12km, MD3.5, Error ellipse: s-maj=2.8km s-min=2.0km az=61.0*
THE ***14*** *14:33:25.4, 38°.58N×26°.60E, h14km±3km, ML3.9/5, Error ellipse: s-maj=3.6km s-min=1.2km az=177.0*
ISC 14 14:33:25.5±0.4**, 38°.57N**±0°.02×**26°.56E**±0°.03**, h15**km±3km**, n68, σ0s.75**/107**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URLA	Izmir	0.21	173	*i* P	Pg	14 33 29.8	-0.6
URLA				*i* S	Sg	14 33 34.2	+0.6
URLA	Izmir	0.21	173	*i* P	Pg	14 33 29.8	-0.6
URLA				*i* S	Sg	14 33 34.2	+0.6
BLCB	Balcova	0.42	116	PG	Pg	14 33 33.4	-0.6
BLCB				*e*SG	Sg	14 33 39.5	-0.2
BLCB	Balcova	0.42	116	P	Pg	14 33 33.4	-0.6
BLCB				S	Sg	14 33 39.0	-0.7
BLCB	Balcova	0.42	116	*i* Pg	Pg	14 33 33.4	-0.6
BLCB				*e*Sg	Sg	14 33 39.5	-0.2
CHOS	Chios island	0.44	245	P	Pg	14 33 34.9	+0.6
CHOS				S	Sg	14 33 41.3	+1.1
CHOS	Chios island	0.44	245	P	Pg	14 33 34.9	+0.6
CHOS				S	Sg	14 33 41.3	+1.1
IZM	Izmir	0.58	107	PG	Pg	14 33 36.3	-0.6
PRK	Paraskevi	0.71	342	P	Pg	14 33 39.2	-0.2
PRK				S	Sg	14 33 49.3	+0.5
PRK	Paraskevi	0.71	342	P	Pg	14 33 39.2	-0.2
PRK				S	Sg	14 33 49.3	+0.5
AYVA	Ayvalik	0.74	8	*i* P	Pg	14 33 39.2	-0.8
AYVA				*i* S	Sg	14 33 50.5	+0.6
AYVA	Ayvalik	0.74	8	*i* P	Pg	14 33 39.2	-0.8
AYVA				*i* S	Sg	14 33 50.5	+0.7
SIGR	SIGRI	0.84	319	P	Pb	14 33 41.5	-0.4
SIGR				S	Sb	14 33 53.6	+0.6
SIGR	SIGRI	0.84	319	P	Pb	14 33 41.5	-0.4
SIGR				S	Sb	14 33 53.6	+0.6
GCAM	G?zelcaml?	1.02	148	*i* P	Pb	14 33 44.1	-0.7
GCAM				*i* S	Sb	14 33 57.9	-0.2
GCAM	G?zelcaml?	1.02	148	*i* P	Pb	14 33 44.1	-0.8
GCAM				*i* S	Sb	14 33 57.9	-0.2
AKHS	Akhisar	1.03	72	*i* P	Pb	14 33 44.4	-0.6
AKHS				*i* S	Sb	14 33 57.9	-0.4
AKHS	Akhisar	1.03	72	*i* P	Pb	14 33 44.4	-0.6
AKHS				*i* S	Sb	14 33 57.9	-0.4
AKS	Akhisar	1.03	72	PG	Pg	14 33 44.8	-0.6
AKS				*e*SG	Sg	14 33 59.2	+0.4
AKS	Akhisar	1.03	72	*i* Pg	Pg	14 33 44.8	-0.6
AKS				*e*Sg	Sg	14 33 59.2	+0.4
EZN	Ezine	1.27	352	*e*PN	Pn	14 33 48.4	-0.2
EZN				*e*SN	Sn	14 34 05.9	+0.5
EZN	Ezine	1.27	352	*e*Pn	Pn	14 33 48.4	-0.3
EZN				*e*Sn	Sn	14 34 05.9	+0.5
BOZC	Bozcaada	1.33	343	*i* P	Pn	14 33 48.9	-0.6
BOZC				*i* S	Sn	14 34 04.8	-2.1
AYDN	Tasoluk	1.38	131	*i* P	Pn	14 33 49.9	-0.3
AYDN				*i* S	Sn	14 34 07.6	-0.7
AYDN	Tasoluk	1.38	131	*i* P	Pn	14 33 49.9	-0.4
AYDN				*i* S	Sn	14 34 07.6	-0.7
BALY	Balya	1.43	35	*i* P	Pn	14 33 50.4	-0.5
BALY				*i* S	Sn	14 34 10.4	+1.0
BALY	Balya	1.43	35	*i* P	Pn	14 33 50.4	-0.5
BALY				*i* S	Sn	14 34 10.4	+1.0
BALB	Balikesir	1.48	43	*e*PN	Pn	14 33 51.8	+0.1
BALB				*e*SN	Sn	14 34 11.7	+1.0
BALB	Balikesir	1.48	43	*e*Pn	Pn	14 33 51.8	+0.2
BALB				*e*Sn	Sn	14 34 11.7	+1.0
MANT	Manisa	1.57	92	*i* P	Pn	14 33 52.1	-0.7
MANT				*i* S	Sn	14 34 13.8	+0.9
MANT	Manisa	1.57	92	*i* P	Pn	14 33 52.2	-0.6
MANT				*i* S	Sn	14 34 13.8	+0.9
MLSB	Milas	1.60	143	*e*PN	Pn	14 33 53.0	-0.2
MLSB	Milas	1.60	143	*e*Pn	Pn	14 33 53.0	-0.2
BODT	Bodrum	1.62	158	*e*PN	Pn	14 33 53.6	0.0
BODT	Bodrum	1.62	158	*e*Pn	Pn	14 33 53.6	+0.1
KULA	Kula-Manisa	1.65	91	*e*PN	Pn	14 33 53.9	-0.1
KULA	Kula-Manisa	1.65	91	*e*Pn	Pn	14 33 53.9	0.0
BDRM	Kayabasi	1.66	155	*i* P	Pn	14 33 53.4	-0.7
BDRM				*i* S	Sn	14 34 17.9	+2.8
BDRM	Kayabasi	1.66	155	*i* P	Pn	14 33 53.4	-0.7
GADA	Gvkgeada	1.70	343	*e*PN	Pn	14 33 54.7	+0.1
GADA	Gvkgeada	1.70	343	*e*Pn	Pn	14 33 54.7	+0.1
LIA	Limnos Island	1.70	322	P	Pn	14 33 55.0	+0.3
LIA				S	Sn	14 34 15.1	-1.1
LIA	Limnos Island	1.70	322	P	Pn	14 33 55.0	+0.3
LIA				S	Sn	14 34 15.1	-1.1
LPK	Lapseki	1.81	5	*e*PN	Pn	14 33 56.3	+0.2
LPK	Lapseki	1.81	5	*e*Pn	Pn	14 33 56.3	+0.2
DURS	Dursunbey	1.81	55	*i* P	Pn	14 33 54.8	-1.4
DURS				*i* S	Sn	14 34 18.9	+0.1
DURS	Dursunbey	1.81	55	*i* P	Pn	14 33 54.8	-1.4
DURS				*i* S	Sn	14 34 19.0	+0.2
DST	Dursunbey	1.91	57	*e*PN	Pn	14 33 58.2	+0.7
DST	Dursunbey	1.91	57	*e*Pn	Pn	14 33 58.2	+0.6
YER	Yerkesik	1.98	136	*e*PN	Pn	14 33 58.5	0.0
YER	Yerkesik	1.98	136	*e*Pn	Pn	14 33 58.5	0.0
DAT	Datca	2.01	156	*e*PN	Pn	14 33 58.9	0.0
DAT	Datca	2.01	156	*e*Pn	Pn	14 33 58.9	0.0
EDC	Edincik	2.04	29	*e*PN	Pn	14 34 00.1	+0.8
EDC	Edincik	2.04	29	*e*Pn	Pn	14 34 00.1	+0.8
BNT	Bandirma	2.07	30	*e*PN	Pn	14 34 00.7	+1.0
SART	Tekirdag	2.17	13	*i* P	Pn	14 34 01.0	-0.1
SART				*i* S	Sn	14 34 28.1	+0.4
SART	Tekirdag	2.17	13	*i* P	Pn	14 34 01.0	-0.1
SART				*i* S	Sn	14 34 28.1	+0.4
KCT	Karacabey	2.19	39	*e*PN	Pn	14 34 02.1	+0.7
KCT	Karacabey	2.19	39	*e*Pn	Pn	14 34 02.1	+0.7
KHL	Karahalli	2.34	95	*e*PN	Pn	14 34 04.0	+0.5
KHL	Karahalli	2.34	95	*e*Pn	Pn	14 34 04.0	+0.6
ALN	Alexandroupoli	2.36	350	P	Pn	14 34 03.7	0.0
ALN				S	Sn	14 34 30.7	-1.6
ALN	Alexandroupoli	2.36	350	P	Pn	14 34 03.7	0.0
ALN				S	Sn	14 34 30.7	-1.6
FETY	Fethiye	2.78	133	*e*PN	Pn	14 34 09.7	+0.1
FETY	Fethiye	2.78	133	*e*Pn	Pn	14 34 09.7	+0.1
CAVI	Cavuskoy	3.02	56	*e*PN	Pn	14 34 14.3	+1.6
CAVI	Cavuskoy	3.02	56	*e*Pn	Pn	14 34 14.3	+1.5

IDC ***14*** *14:48:17.2±1.1, 19°.59N×146°.05E, h0km, mb3.6/8, mb1 3.9/8, mb1mx3.7/21, mbtmp3.6/8, Error ellipse: s-maj=36.2km s-min=22.1km az=84.0*
ISCJB ***14*** *14:48:20.7±0.8, 19°.5N±0°.1×145°.9E±0°.2, h33km, mb3.6/9, Error ellipse: s-maj=30.9km s-min=15.5km az=174.3*
NEIC ***14*** *14:48:22.6±0.7, 19°.55N×145°.98E, h35km, mb3.8/1, Error ellipse: s-maj=27.6km s-min=14.3km az=91.0*
ISC 14 14:48:22.7±0.8**, 19°.6N**±0°.1×**145°.9E**±0°.2**, h35**km**, n9, σ0s.77**/9**, mb3.6**/9**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	23.78	322	P	P	14 53 31.6	-0.5
	2.0nm,0.9s,mb3.6,baz=142,slow=8.6,SNR=4.8						
WRAB	Tennant Creek	40.85	197	P	P	14 56 01.0	-0.3
	1.6nm,0.8s,mb3.7						
WRA	Warramunga Arr	40.86	197	P	P	14 56 01.9	+0.5
	0.9nm,0.8s,mb3.5,baz=14,slow=8.8,SNR=5.3						
SONM	Songino Array	42.63	321	P	P	14 56 16.5	+0.9
	0.3nm,0.4s,mb3.4,baz=135,slow=6.7,SNR=4.9						
ASAR	Alice Springs	44.53	196	P	P	14 56 30.7	-0.4
	0.3nm,0.7s,mb3.3,baz=14,slow=8.9,SNR=4.8						
ZALV	Zalesovo Beam	57.49	322	P	P	14 58 07.5	-0.7
	0.4nm,0.5s,mb3.7,baz=98,slow=10,SNR=3.1						
MKAR	Makanchi Array	58.05	313	P	P	14 58 12.8	+0.5
	0.6nm,0.8s,mb3.7,baz=95,slow=7.7,SNR=5.6						
YKA	Yellowknife Ar	77.13	28	P	P	15 00 11.1	-1.3
	0.4nm,0.6s,mb3.5,baz=289,slow=5.5,SNR=6.2						
NVAR	Mina Array Bea	82.44	52	P	P	15 00 42.8	+1.2
	0.7nm,0.7s,mb3.7,baz=256,slow=3.6,SNR=2.4						

NEIC ***14*** *14:54:10.6, 14°.57N×94°.38W, h17km, MD3.9(MEX), After MEX.*
MEX 14 14:54:10.6±1.0**, 14°.57N**×**94°.38W, h17**km±118km**, MD3.9, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.59	45	*i* P	Pn	14 54 33.8	-4.1
PCIG				*i* S	Sn	14 54 53.5	-4.6
TGIG		2.51	29	*i* P	Pn	14 54 48.6	-1.9
TGIG				*i* S	Sn	14 55 17.2	-3.6
CMIG	Matias Romero	2.55	349	*i* P	Pn	14 54 48.5	-2.6
CMIG				*i* S	Sn	14 55 17.7	-4.1
CCIG	Comitan	2.75	52	*i* P	Pn	14 54 52.5	-1.5
CCIG				*i* S	Sn	14 55 22.6	-4.3
PNIG	Pinotepa	4.04	297	*i* P	Pn	14 55 10.1	-1.5
PNIG				*i* S	Sn	14 55 54.6	-4.0
TEIG	Tepich	8.10	45	*e*Pn	Pn	14 56 07.2	-0.2
	4.7nm,0.6s						

IDC 14 14:54:52.6±6.2**, 6°.92S**×**154°.68E, h0**km**, mb3.3**/3**, mb1 3.5**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, Error ellipse: s-maj=187.9km s-min=41.8km az=113.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.60	235	P	P	15 00 04.8	-0.8
	0.4nm,0.5s,baz=58,slow=9.1,SNR=6.2						
ASAR	Alice Springs	25.99	228	P	P	15 00 27.5	+0.1
	0.3nm,0.7s,baz=58,slow=8.8,SNR=3.3						
MKAR	Makanchi Array	83.14	319	P	P	15 07 21.1	+0.6
	0.3nm,0.7s,baz=101,slow=4.9,SNR=4.6						

ISK ***14*** *15:25:47.4, 39°.37N×40°.89E, h5km, MD2.8*
DDA ***14*** *15:25:48.1, 39°.37N×40°.93E, h7km±4km, Md3.0*
ISCJB ***14*** *15:25:49.4±0.5, 39°.40N±0°.03×40°.96E±0°.04, h10km, Error ellipse: s-maj=4.5km s-min=3.3km az=41.9*
CSEM ***14*** *15:25:49.0±0.2, 39°.39N×40°.92E, h5km, MD2.8, Error ellipse: s-maj=6.3km s-min=4.7km az=129.0*
ISC 14 15:25:49.8±0.7**, 39°.39N**±0°.04×**40°.95E**±0°.04**, h8**km±7km**, n18, σ0s.88**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	Erzurum	0.60	32	*e*PG	Pg	15 26 00.9	-0.5
EZM				*e*SG	Sg	15 26 11.2	+1.9
ERZM	Erzurum	0.60	32	*i* P	Pg	15 26 00.7	-0.8
ERZM				*i* S	Sg	15 26 08.5	-0.9
ERZM	Erzurum	0.60	32	*i* P	Pg	15 26 00.7	-0.8
ERZM				*i* S	Sg	15 26 08.5	-0.9
KOPT	Kop Dagi	0.71	331	*i* P	Pg	15 26 02.9	-0.7
KOPT				*i* S	Sg	15 26 13.4	+0.6
KOPT	Kop Dagi	0.71	331	*i* P	Pg	15 26 02.8	-0.7
KOPT				*i* S	Sg	15 26 13.4	+0.6
EZC	Erzincan	0.94	292	*e*PN	Pg	15 26 12.1	+4.2
EZC				*e*SN	Sg	15 26 30.5	+10
HOMI	Horasan	0.99	48	*i* P	Pg	15 26 07.3	-1.4
HOMI				*i* S	Sg	15 26 22.4	+0.8
BEST	Besiri	1.52	170	*i* P	Pn	15 26 17.2	-0.1
BEST				*i* S	Sn	15 26 37.6	+0.3
GUMT	Gumushane	1.55	314	*e*PN	Pn	15 26 17.2	-0.6
GUMT				*e*SN	Sn	15 26 39.0	+0.9
GUMT	Gumushane	1.55	314	*e*Pn	Pn	15 26 17.2	-0.5
GUMT				*e*Sn	Sn	15 26 39.0	+0.9
AGRB	Hanur-Agry	1.59	83	*e*PN	Pn	15 26 18.5	+0.2
AGRB				*e*SN	Sg	15 26 41.6	+0.6
AGRB	Hanur-Agry	1.59	83	*e*Pn	Pn	15 26 18.5	+0.2
DIYA	Diyarbakir	1.60	204	*e*P	Pn	15 26 18.2	-0.2
DIYA				*i* S	Sn	15 26 39.0	-0.3
DIYA	Diyarbakir	1.60	204	*e*P	Pn	15 26 18.2	-0.3
DIYA				*i* S	Sn	15 26 39.0	-0.4
ELZG	Elazig	1.77	240	*i* P	Pn	15 26 20.6	-0.2
ELZG				*i* S	Sg	15 26 48.7	+2.0
ELZG	Elazig	1.77	240	*i* P	Pn	15 26 20.6	-0.2
KEMA	Kemaliye	1.91	267	*i* P	Pn	15 26 22.4	-0.2
KEMA				*i* S	Sg	15 26 50.0	-1.1
KEMA	Kemaliye	1.91	267	*i* P	Pn	15 26 22.4	-0.2
KEMA				*i* S	Sg	15 26 50.0	-1.0

IDC 14 15:26:28.4±10.0**, 24°.80S**×**179°.59W, h519**km±394km**, mb2.9**/3**, mb1 3.2**/4**, mb1mx3.0**/16**, mbtmp3.1**/4**, Error ellipse: s-maj=467.9km s-min=91.2km az=95.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	13.71	191	P	P	15 29 25.2	+0.6
	1.2nm,0.3s,baz=31,slow=13,SNR=10.0						
URZ				S	S	15 31 47.8	-2.0
	0.4nm,0.3s,baz=241,slow=23,SNR=5.8						
STKA	Stephens Creek	34.75	249	P	P	15 32 34.9	-0.1
	0.8nm,0.7s,baz=90,slow=4.0,SNR=3.1						
ASAR	Alice Springs	42.27	261	P	P	15 33 36.2	+0.1
	0.4nm,0.4s,baz=92,slow=7.5,SNR=32						
WRA	Warramunga Arr	42.73	267	P	P	15 33 39.6	-0.2
	1.3nm,0.3s,baz=103,slow=8.1,SNR=46						

ISCJB ***14*** *15:31:00.4±0.5, 4°.77S±0°.07×39°.34E±0°.09, h10km, mb3.9/12, Error ellipse: s-maj=13.6km s-min=10.2km az=5.1*
IDC ***14*** *15:31:00.8±0.9, 4°.77S×39°.32E, h0km, mb3.9/9, mb1 4.0/12, mb1mx3.9/26, mbtmp3.9/12, ML3.8/3, MS3.8/2, Ms1 3.8/2, ms1mx3.1/40, Error ellipse: s-maj=23.5km s-min=20.8km az=73.0*
NEIC ***14*** *15:31:02.2±0.4, 4°.80S×39°.31E, h10km, mb4.5/3, Error ellipse: s-maj=10.3km s-min=7.8km az=95.0*
ISC 14 15:31:02.2±0.5**, 4°.81S**±0°.07×**39°.31E**±0°.09**, h10**km**, n22, σ0s.64**/22**, mb3.9**/12**, Kenya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	4.19	331	Pn	Pn	15 32 06.0	-0.3
	4.3nm,0.3s,baz=134,slow=13,SNR=58						
KMBO				Pg	Pg	15 32 15.4	-7.3
	11nm,0.3s,baz=141,slow=18,SNR=32						
KMBO				Lg		15 33 04.5	
	114nm,0.3s,baz=48,slow=23,SNR=20						
KMBO	Kilima Mbogo	4.19	331	Pn	Pn	15 32 06.0	-0.3
KMBO				Pg	Pg	15 32 15.4	-7.2
KMBO				Lg		15 33 04.5	
LSZ	Lusaka	15.10	226	Pn	Pn	15 34 36.7	+0.9
	0.5nm,0.3s,baz=21,slow=8.6,SNR=2.7						
LSZ				Lg		15 38 51.2	
	0.7nm,0.3s,baz=115,slow=23,SNR=5.6						
LSZ				LR	LR	15 40 39.7	
	comp=Z,434nm,19.1s,baz=68,slow=38						
OPO	Ambohidratompo	15.70	151	Pn	Pn	15 34 43.0	-0.6
	0.3nm,0.3s,baz=340,slow=12,SNR=2.3						
LBTB	Lobatse	24.03	212	P	P	15 36 17.3	-0.2
	1.6nm,0.7s,mb3.6,baz=21,slow=11,SNR=3.0						
LBTB	Lobatse	24.03	212	P	P	15 36 17.3	-0.2
TORD	Torodi Ar. Bea	41.40	296	P	P	15 38 48.5	-0.6
	0.5nm,0.9s,mb3.1,baz=108,slow=9.4,SNR=2.9						
TORD				PcP	PcP	15 40 48.5	+1.1
	0.5nm,0.6s,baz=89,slow=1.4,SNR=4.2						
BRTR	Keskin Array B	44.62	354	P	P	15 39 15.7	+0.9
	1.2nm,0.9s,mb3.7,baz=181,slow=15,SNR=4.5						
SHEL	Horse Pasture	45.58	252	P	P	15 39 22.4	-0.5
KEST	Kesra	49.15	328	LR	LR	16 01 52.6	
	comp=Z,62nm,18.5s,baz=286,slow=38						
KECS	Kecovo	55.57	345	*e*P	P	15 40 38.7	+0.9
CRVS	Cervenica-Dubn	55.71	346	*e*P	P	15 40 37.8	-1.0

MORC	**Moravsky Berou**	57.55	343	eP	P	15 40 52.1	+0.3
	8.3nm,0.9s,mb4.8						
MORC				e		15 41 01.4	
GERES	**GERESS Array B**	57.91	340	P	P	15 40 54.8	+0.3
	2.1nm,0.9s,mb4.2,baz=134,slow=5.8,SNR=12						
CMAR	**Chiang Mai Arr**	63.13	67	P	P	15 41 31.1	+0.5
	0.4nm,0.3s,mb4.0,baz=257,slow=7.3,SNR=5.5						
BRVK	**Borovoye**	63.30	20	eP	P	15 41 30.9	-0.3
	0.6nm,0.5s,mb4.0						
MKAR	**Makanchi Array**	63.87	31	P	P	15 41 34.4	-0.6
	2.2nm,0.9s,mb4.2,baz=223,slow=5.7,SNR=13						
KURK	**Kurchatov**	64.79	26	eP	P	15 41 41.0	0.0
	5.0nm,1.1s,mb4.5						
ZALV	**Zalesovo Beam**	69.78	27	P	P	15 42 11.6	-0.9
	0.7nm,0.6s,mb3.8,baz=220,slow=5.8,SNR=6.2						
SONM	**Songino Array**	78.47	39	P	P	15 43 04.4	+0.9
	0.3nm,0.6s,mb3.4,baz=243,slow=6.3,SNR=4.0						
ASAR	**Alice Springs**	92.29	114	P	P	15 44 13.8	+0.5
	0.4nm,0.9s,mb3.8,baz=276,slow=3.6,SNR=4.4						
TXAR	**Lajitas Array**	137.33	309	PKP	PKPdf	15 50 28.0	+1.2
	0.7nm,1.0s,baz=153,slow=3.0,SNR=3.3						

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*ISCJB **14** 15:31:12.8±1.2, 36°.32N±0°.06×21°.8E±0°.1, h8^{km}±6^{km}, Error ellipse: s-maj=14.4km s-min=8.3km az=157.6*

*CSEM **14** 15:31:12.9±0.4, 36°.31N×21°.83E, h5^{km}, MD3.3, Error ellipse: s-maj=8.8km s-min=5.2km az=60.0*

*THE **14** 15:31:14.4, 36°.34N×21°.86E, h9^{km}±1^{km}, ML3.5/2, Error ellipse: s-maj=3.3km s-min=1.5km az=250.0*

*NEIC **14** 15:31:18.1, 36°.57N×21°.92E, h3^{km}, MD3.3(ATH), After ATH.*

*ATH **14** 15:31:18.1, 36°.57N×21°.92E, h3^{km}, MD3.3/7*

ISC 14 15:31:13.5±1.3, 36°.32N±0°.06×21°.9E±0°.1, h7^{km}±6^{km}, n34, σ0^{s}74/47, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.58	351	P	Pg	15 31 24.8	+0.1
PYL				S	Sg	15 31 33.8	+1.6
PYL	**PYLOS**	0.58	351	ePG	Pg	15 31 24.9	+0.2
PYL	**PYLOS**	0.58	351	ePg	Pg	15 31 24.9	+0.2
PYL				S	Sg	15 31 33.8	+1.6
ITM	**Ithomi**	0.86	4	ePB	Pb	15 31 30.2	-0.5
ITM	**Ithomi**	0.86	4	ePb	Pb	15 31 30.2	-0.5
KYTH	**Kithira**	0.96	92	ePG	Pg	15 31 36.0	+4.1
VLX	**Vlachokerasia**	1.13	22	ePG	Pg	15 31 35.3	+0.2
VLX	**Vlachokerasia**	1.13	22	ePg	Pg	15 31 35.3	+0.2
DID	**Didima**	1.62	43	P	Pn	15 31 42.4	0.0
DID				S	Sn	15 32 03.7	+0.2
DID	**Didima**	1.62	43	P	Pn	15 31 42.4	0.0
DID				S	Sn	15 32 03.7	+0.2
GUR	**Goura**	1.66	13	ePG	Pg	15 31 44.4	-0.9
GUR				eSB	Sb	15 32 03.7	-1.7
GUR	**Goura**	1.66	13	ePg	Pg	15 31 44.4	-0.9
RLS	**Riolos of Patr**	1.76	350	ePG	Pg	15 31 46.3	-0.9
RLS	**Riolos of Patr**	1.76	350	ePg	Pg	15 31 46.3	-0.9
KARN	**Karanos**	1.91	118	P	Pn	15 31 46.9	+0.5
KARN	**Karanos**	1.91	118	P	Pn	15 31 46.9	+0.5
LTK	**Loutraki**	1.92	27	P	Pn	15 31 46.4	-0.1
LTK				S	Sn	15 32 10.3	-0.5
LTK	**Loutraki**	1.92	27	P	Pn	15 31 46.4	-0.1
LTK				S	Sn	15 32 10.3	-0.5
LAKA	**Lakka**	1.92	3	P	Pn	15 31 46.7	+0.2
LAKA				S	Sn	15 32 11.6	+0.7
LAKA	**Lakka**	1.92	3	P	Pn	15 31 46.7	+0.2
LAKA				S	Sn	15 32 11.6	+0.7
TRIZ	**Trizonia**	2.05	5	P	Pn	15 31 48.5	+0.2
TRIZ				S	Sn	15 32 15.2	+1.1
TRIZ	**Trizonia**	2.05	5	P	Pn	15 31 48.5	+0.2
TRIZ				S	Sn	15 32 15.2	+1.1
VLS	**Valsamata**	2.11	332	P	Pn	15 31 48.4	-0.7
VLS	**Valsamata**	2.11	332	ePN	Pn	15 31 55.0	+5.9
VLS	**Valsamata**	2.11	332	P	Pn	15 31 48.4	-0.7
VAM	**Vamos**	2.11	115	ePN	Pn	15 31 57.5	+8.3
LKR	**Lokris**	2.50	21	P	Pn	15 31 53.6	-0.9
LKR	**Lokris**	2.50	21	P	Pn	15 31 53.6	-0.9
AGG	**Agios Georgios**	2.72	8	P	Pn	15 31 58.1	+0.5
AGG				S	Sn	15 32 31.2	+0.5
AGG	**Agios Georgios**	2.72	8	P	Pn	15 31 58.1	+0.5
AGG				S	Sn	15 32 31.2	+0.5
THL	**Klokotos Trika**	3.24	2	P	Pn	15 32 04.3	-0.4
THL	**Klokotos Trika**	3.24	2	P	Pn	15 32 04.3	-0.4
MEV	**Metsovon**	3.49	352	P	Pn	15 32 08.1	-0.1
MEV	**Metsovon**	3.49	352	P	Pn	15 32 08.1	-0.1

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*NEIC **14** 15:32:18.1, 32°.49N×115°.31W, h2^{km}, ML3.0(PAS), ML3.0(ECX), After ECX.*

ECX 14 15:32:15.6±0.3, 32°.43N×115°.39W, h4^{km}, MD3.1, ML2.9, 4C-6D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	0.08	97	⇓eP	Pg	15 32 19.0	+1.8
CPBX				eS	Sg	15 32 21.7	+3.4
CPBX				⇓e		15 32 22.5	
	comp=N,20μm,0.5s						
CPBX	**Cerro Prieto**	0.08	97	⇓eP	Pg	15 32 19.0	+1.8
CPBX				eS	Sg	15 32 21.7	+3.4
SGL	**Mount Signal**	0.36	308	⇑iP	Pg	15 32 25.3	+2.8
EMX	**El Mayor**	0.46	164	⇓eP	Pg	15 32 27.5	+3.2
EMX				eS	Sg	15 32 34.8	+4.6
COA	**Coachella**	0.49	28	⇓iP	Pg	15 32 26.5	+1.5
YUH	**Yuha Desert**	0.50	296	⇑iP	Pg	15 32 27.8	+2.6
COK	**Cook Ranch**	0.51	326	⇑iP	Pg	15 32 27.7	+2.3
RMX	**La Rumorosa**	0.60	287	⇓eP	Pg	15 32 30.2	+3.0
CRR	**Carrizo Plain**	0.67	313	eP	Pg	15 32 30.3	+1.9
RDX	**Rancho Dawling**	0.68	223	eP	Pg	15 32 32.3	+3.6
RDX				eS	Sg	15 32 43.3	+5.8
RDX				e		15 32 43.9	
	comp=N,423nm,0.6s						
GLA	**Glamis**	0.79	37	ePg	Pg	15 32 30.7	0.0
GLA				eSg	Sg	15 32 40.2	-0.7
ECBX	**El Chinero**	0.99	163	⇑eP	Pg	15 32 37.5	+2.9
ECBX				eS	Sg	15 32 52.1	+4.5
CBX	**Cerro Bola**	1.08	264	ePN	Pn	15 32 38.6	+1.1
CBX				eS	Sg	15 32 53.2	+2.8
BAR	**Barrett**	1.11	283	ePn	Pn	15 32 38.1	+0.2
BAR				eSg	Sg	15 32 53.8	+2.6
ECNX	**Esteban Cantu**	1.28	233	eS	Sg	15 33 01.5	+4.8
PFO	**Pinyon Flat Ob**	1.48	323	ePn	Pn	15 32 41.6	-1.4
LDFC	**Landfair**	2.66	5	ePn	Pn	15 33 02.6	+3.4
MWC	**Mount Wilson**	2.86	309	ePn	Pn	15 33 06.7	+4.7
TUC	**Tucson**	3.90	90	eP	Pn	15 33 23.4	+7.1
TUC				eSg	Sg	15 34 15.1	-5.9
WUAZ	**Wupatki**	4.54	46	ePn	Pn	15 33 27.4	+2.3
WUAZ				eSg	Sg	15 34 40.5	-1.1

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*ISCJB **14** 15:45:06.0±0.7, 36°.16N±0°.03×141°.12E±0°.07, h43^{km}±6^{km}, mb3.6/8, Error ellipse: s-maj=9.1km s-min=5.3km az=179.8*

*NEIC **14** 15:45:07.1±1.1, 36°.05N×141°.05E, h35^{km}, mb4.4/3, Error ellipse: s-maj=22.4km s-min=13.3km az=59.0*

*JMA **14** 15:45:07.2±0.1, 36°.12N×141°.01E, h42^{km}±1^{km}, M3.4 Broadband fault plane solution: P waves. NP1: ϕ_s177.00000°, δ14.00000°, λ90.00000°. NP2: ϕ_s357.00000°, δ76.00000°, λ90.00000°. Principal axes: T Plg59.0000°, Azm267.0000°; N Plg0.0000°, Azm177.0000°; P Plg31.0000°, Azm87.0000°;*

*IDC **14** 15:45:07.6±3.2, 36°.15N×141°.16E, h40^{km}±26^{km}, mb3.4/7, mb1 3.6/10, mb1mx3.4/27, mbtmp3.5/10, ML3.5/2 Error ellipse: s-maj=35.3km s-min=18.4km az=77.0*

ISC 14 15:45:06.4±0.8, 36°.18N±0°.03×141°.11E±0°.06, h27^{km}±5^{km}, n22, σ0^{s}80/31, mb3.6/8, 4D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOJ	**Chosi**	0.51	203	⇓P	Pb	15 45 17.0	+0.1
CHOJ				S	Sb	15 45 23.7	-0.3
JHO	**Hitachi**	0.61	315	⇓P	Pb	15 45 19.1	+0.5
JHO				S	Sb	15 45 27.5	+0.7
JYT	**Yasato**	0.74	274	⇓P	Pb	15 45 20.4	-0.3
JYT				S	Sb	15 45 29.2	-1.2
ONAJ	**Iwakimizuishiy**	0.96	345	P	Pn	15 45 24.2	+0.2
ONAJ				S	Sb	15 45 36.3	-0.3
JFK	**Kawauchi**	1.20	351	P	Pn	15 45 27.5	+0.1
JFK				S	Sn	15 45 42.0	-0.8
JAG	**Ashikaga**	1.36	281	⇓P	Pn	15 45 29.3	-0.2
JAG				S	Sn	15 45 45.3	-1.3
BSO3	**Boso 3**	1.46	200	P	Pn	15 45 31.5	+0.6
MJAR	**Matsushiro Arr**	2.37	280	Pn	Pn	15 45 43.2	-0.2
	9.2nm,0.3s,baz=97,slow=8.1,SNR=57						
MJAR				Sn	Sn	15 46 13.0	+1.5
	7.7nm,0.3s,baz=87,slow=33,SNR=5.9						
MAJO	**Matsushiro**	2.37	280	ePn	Pn	15 45 44.2	+0.8
MAT	**Matsushiro**	2.37	280	P	Pn	15 45 44.3	+0.9
MAT				S	Sn	15 46 12.0	+0.5
JHJ	**Hachijo jima 2**	3.24	200	Pn	Pn	15 45 56.7	+1.3
	20nm,0.3s,baz=308,slow=18,SNR=11						
JHJ				Sn	Sn	15 46 33.5	+0.5
	33nm,0.3s,baz=261,slow=23,SNR=5.4						
ASAJ	**Asahikawa**	8.01	8	Pn	Pn	15 47 01.2	+0.3
	0.6nm,0.3s,baz=284,slow=19,SNR=4.9						
YHNB	**Yeheng**	20.48	241	eP	P	15 49 39.5	-2.5
	33nm,1.2s						
SONM	**Songino Array**	28.07	305	P	P	15 50 55.7	+0.4
	0.6nm,0.8s,mb3.3,baz=101,slow=7.6,SNR=3.5						
CMAR	**Chiang Mai Arr**	41.05	256	P	P	15 52 47.1	-0.5
	0.6nm,0.3s,mb3.6,baz=64,slow=7.1,SNR=4.4						
ZALV	**Zalesovo Beam**	42.31	313	P	P	15 52 57.5	0.0
	0.4nm,0.5s,mb3.3,baz=79,slow=7.5,SNR=2.5						
MKAR	**Makanchi Array**	44.37	303	P	P	15 53 14.2	0.0
	0.3nm,0.7s,mb3.1,baz=92,slow=8.5,SNR=4.2						
KURK	**Kurchatov**	46.27	309	P	P	15 53 29.9	+0.7
	0.5nm,0.4s,mb3.8,baz=82,slow=7.6,SNR=8.2						
KURK	**Kurchatov**	46.27	309	eP	P	15 53 27.8	-1.4
	3.6nm,1.2s,mb4.2						
BVAR	**Borovoye Array**	50.97	313	P	P	15 54 06.0	+0.7
	0.3nm,0.6s,mb3.4,baz=64,slow=13,SNR=3.4						
WRAB	**Tennant Creek**	56.17	188	P	P	15 54 42.8	-0.9
	3.5nm,0.8s,mb4.4						
WRA	**Warramunga Arr**	56.18	188	P	P	15 54 42.9	-0.9
	0.6nm,0.5s,mb3.9,baz=3.1,slow=7.8,SNR=13						

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*IDC **14** 15:48:01.3±1.3, 4°.64S×102°.52E, h0^{km}, mb4.1/11, mb1 4.2/11, mb1mx4.0/23, mbtmp4.1/11, Error ellipse: s-maj=60.9km s-min=14.0km az=52.0*

*ISCJB **14** 15:48:04.3±1.1, 4°.6S±0°.2×102°.6E±0°.3, h33^{km}, mb4.1/13, Error ellipse: s-maj=46.6km s-min=11.1km az=141.6*

*NEIC **14** 15:48:06.6±0.7, 4°.61S×102°.59E, h35^{km}, mb4.3/3, Error ellipse: s-maj=31.6km s-min=7.6km az=52.0*

ISC 14 15:48:06.8±1.1, 4°.6S±0°.2×102°.6E±0°.3, h35^{km}, n19, σ0^{s}55/17, mb4.1/13, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	23.20	351	P	P	15 53 10.6	-0.2
	1.2nm,0.6s,mb3.5,baz=186,slow=8.5,SNR=9.5						
FITZ	**Fitzroy Crossi**	26.22	123	P	P	15 53 37.9	-0.7
	4.0nm,1.1s,mb3.9,baz=325,slow=12,SNR=2.8						
WRA	**Warramunga Arr**	34.45	119	P	P	15 54 51.4	-0.1
	0.9nm,0.5s,mb4.0,baz=299,slow=9.2,SNR=17						
WRA	**Warramunga Arr**	34.45	119	P	P	15 54 51.4	-0.1
ASAR	**Alice Springs**	35.63	125	P	P	15 55 01.6	0.0
	0.6nm,0.3s,mb4.0,baz=299,slow=7.9,SNR=58						
STKA	**Stephens Creek**	45.49	131	P	P	15 56 23.6	+0.7
	2.5nm,0.7s,mb4.2,baz=284,slow=17,SNR=7.7						
SONM	**Songino Array**	52.33	3	P	P	15 57 15.8	+0.8
	3.3nm,0.6s,mb4.5,baz=182,slow=8.9,SNR=26						
SONM				PcP	PcP	15 58 26.2	+0.3
	0.5nm,0.5s,baz=188,slow=4.8,SNR=3.2						
ULN	**Ulaanbaatar**	52.40	4	eP	P	15 57 16.2	+0.7
	1.8nm,0.8s,mb4.0						
EKS2	**Erkin-Say**	53.82	334	eP	P	15 57 26.8	+0.6
	2.1nm,0.6s,mb4.2						
MKAR	**Makanchi Array**	54.25	343	P	P	15 57 29.0	-0.1
	1.2nm,0.4s,mb4.2,baz=154,slow=8.9,SNR=48						
HNR	**Honiara**	57.07	98	P	P	15 57 50.1	0.0
KURK	**Kurchatov**	58.84	342	P	P	15 58 00.9	-0.9
	1.2nm,0.6s,mb4.1,baz=160,slow=6.8,SNR=7.3						
KURK	**Kurchatov**	58.84	342	eP	P	15 58 00.7	-1.1
	1.5nm,0.6s,mb4.2						
ZALV	**Zalesovo Beam**	60.22	348	P	P	15 58 10.6	-0.6
	3.2nm,0.4s,mb4.7,baz=158,slow=4.8,SNR=18						
ZALV	**Zalesovo Beam**	60.22	348	P	P	15 58 10.6	-0.6
BVAR	**Borovoye Array**	63.52	339	P	P	15 58 33.0	-0.5
	2.1nm,0.6s,mb4.3,baz=143,slow=9.3,SNR=12						
BRTR	**Keskin Array B**	76.99	312	P	P	15 59 56.5	+0.4
	1.0nm,0.8s,mb3.8,baz=130,slow=4.3,SNR=3.0						
TXAR	**Lajitas Array**	145.03	42	PKPbc	PKPbc	16 07 40.2	-0.3
	0.8nm,0.6s,baz=277,slow=1.4,SNR=9.7						
TXAR	**Lajitas Array**	145.03	42	PKPbc	PKPbc	16 07 40.2	-0.3

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*ISCJB **14** 15:49:13.2±0.5, 50°.26N±0°.04×19°.19E±0°.03, h0^{km}, Error ellipse: s-maj=5.5km s-min=2.4km az=16.1*

*CSEM **14** 15:49:13.8±0.2, 50°.30N×19°.21E, h2^{km}, ML2.4/3, Error ellipse: s-maj=5.8km s-min=2.5km az=16.0*

*NEIC **14** 15:49:14.3±0.8, 50°.29N×19°.16E, h5^{km}, ML3.1(CLL), Error ellipse: s-maj=14.2km s-min=5.7km az=194.0*

*IPEC **14** 15:49:14.0±0.1, 50°.23N×19°.19E, h0^{km}, ML2.4/3, Error ellipse: s-maj=1.6km s-min=0.7km az=173.0*

*MOS **14** 15:49:14.3±1.4, 50°.23N×19°.26E, h10^{km}, mb3.7/1, Error ellipse: s-maj=11.5km s-min=8.9km az=130.2*

*WAR **14** 15:49:14.1, 50°.19N×19°.24E, ML3.0, Mining Induced*

*VIE **14** 15:49:17.0±1.1, 50°.00N×19°.08E, h0^{km}, mb2.3/3, ML2.6/4, Error ellipse: s-maj=11.0km s-min=5.8km az=169.0 29 km SSE of Katowice Suspected Mining induced.*

*PRU **14** 15:49:16.8, 50°.12N×19°.00E, h0^{km}*

ISC 14 15:49:14.0±0.4, 50°.21N±0°.03×19°.20E±0°.03, h0^{km}, n59, σ1^{s}28/104, 3C-1D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	0.38	88	i Pg	Pg	15 49 21.3	0.0
OJC				i Sg	Sg	15 49 26.6	+0.3
OJC	**Ojcow**	0.38	88	ePg	Pg	15 49 21.1	-0.2
	baz=272						
OJC				eSg	Sg	15 49 26.3	0.0
	baz=272						
RAC	**Raciborz**	0.66	259	ePg	Pg	15 49 27.6	+1.0
RAC				eSg	Sg	15 49 37.4	+2.3
RAC	**Raciborz**	0.66	259	ePg	Pg	15 49 27.6	+1.0
RAC				eSg	Sg	15 49 37.4	+2.3
OKC	**Ostrava-Krasne**	0.78	242	eP	Pg	15 49 30.4	+1.6
OKC				e		15 49 41.3	
OKC				smax			
	comp=N,71nm,0.8s						
OKC	**Ostrava-Krasne**	0.78	242	ePG	Pg	15 49 30.4	+1.6
OKC				eSG	Sg	15 49 41.3	+2.5
	comp=Z,71nm,0.8s						
OKC	**Ostrava-Krasne**	0.78	242	Pg	Pg	15 49 30.4	+1.6
OKC				Sg	Sg	15 49 41.3	+2.5
	comp=Z,71nm,0.8s						
NIE	**Niedzica**	1.07	137	ePg	Pg	15 49 35.2	+0.8
NIE				eSg	Sg	15 49 50.0	+1.7
NIE	**Niedzica**	1.07	137	ePg	Pg	15 49 35.2	+0.8
NIE				eSg	Sg	15 49 50.0	+1.7
MORC	**Moravsky Berou**	1.15	249	ePg	Pg	15 49 35.4	-0.6
MORC				eSg	Sg	15 49 52.6	+1.6
MORC	**Moravsky Berou**	1.15	249	ePg	Pg	15 49 36.0	-0.1
	baz=66						
MORC				eSg	Sg	15 49 52.6	+1.6
STHS	**Stebnicka Huta**	1.54	120	eP	Pn	15 49 43.1	+0.4
STHS				e		15 50 07.1	
STHS				pmax	pmax		
	comp=N,119nm,1.1s						
STHS	**Stebnicka Huta**	1.54	120	ePN	Pn	15 49 43.1	+0.4
STHS				eSN	Sg	15 50 07.1	+3.6
STHS	**Stebnicka Huta**	1.54	120	ePn	Pn	15 49 43.1	+0.4
STHS				eSn	Sg	15 50 07.1	+3.6
JAVC	**Velka Javorina**	1.68	217	ePn	Pn	15 49 45.4	+0.9
	baz=35						
VYHS	**Vyhne**	1.73	188	eP	Pn	15 49 45.4	+0.1
VYHS				e		15 50 08.3	
VYHS				pmax	pmax		
	comp=N,14nm,0.4s						
VYHS	**Vyhne**	1.73	188	ePN	Pn	15 49 45.4	+0.1
VYHS				eSN	Sn	15 50 08.3	+0.2
VYHS	**Vyhne**	1.73	188	ePn	Pn	15 49 45.4	+0.1
VYHS				eSg	Sn	15 50 08.3	+0.2
DPC	**Dobruska-Polom**	1.85	275	eP	Pn	15 49 46.4	-0.5
DPC				e		15 50 11.4	
DPC				smax			
	comp=N,61nm,0.6s						
DPC	**Dobruska-Polom**	1.85	275	ePG	Pn	15 49 46.4	-0.5
DPC				eSG	Sn	15 50 11.4	+0.4
	comp=Z,60nm,0.6s						
DPC	**Dobruska-Polom**	1.85	275	ePn	Pn	15 49 46.3	-0.6
	baz=93						
DPC	**Dobruska-Polom**	1.85	275	Pg	Pn	15 49 46.4	-0.5
DPC				eSg	Sn	15 50 10.8	-0.2
	baz=93						
VRAC	**Vranov**	1.92	243	ePn	Pn	15 49 49.1	+1.3
	baz=60						
VRAC				eSg	Sg	15 50 13.7	-1.8
KECS	**Kecovo**	1.92	154	ePN	Pn	15 49 47.9	0.0
KECS				eSN	Sn	15 50 12.9	+0.2
KSP	**Ksiaz**	1.96	290	ePn	Pn	15 49 48.9	+0.5
KSP				ePg	Pg	15 49 51.1	-0.4
KSP				eSn	Sn	15 50 16.4	+2.6
KSP				eSg	Sg	15 50 19.7	+2.7
KSP	**Ksiaz**	1.96	290	ePn	Pn	15 49 48.3	-0.1
KSP				ePg	Pg	15 49 51.0	-0.6
KSP				eSg	Sg	15 50 16.7	-0.3
KSP	**Ksiaz**	1.96	290	ePn	Pn	15 49 48.3	-0.1
CRVS	**Cervenica-Dubn**	1.97	131	ePN	Pn	15 49 49.0	+0.5
CRVS				eSN	Sg	15 50 16.5	-0.7
CRVS	**Cervenica-Dubn**	1.97	131	ePn	Pn	15 49 49.0	+0.5
CRVS				eSn	Sg	15 50 16.5	-0.7
KRUC	**Moravsky**	2.15	239	ePn	Pn	15 49 51.1	0.0
	baz=56						
MODS	**Modra-Piesok**	2.23	215	ePN	Pg	15 49 54.3	-2.3
MODS				eSN	Sg	15 50 22.8	-2.7
MODS	**Modra-Piesok**	2.23	215	ePn	Pg	15 49 54.3	-2.3
MODS				eSn	Sg	15 50 22.8	-2.7
PSZ	**Piszkesteto**	2.34	168	ePn	Pn	15 49 56.0	+2.4
PSZ	**Piszkesteto**	2.34	168	ePn	Pn	15 49 56.0	+2.4
KWP	**Kalwaria Pacla**	2.34	103	ePn	Pg	15 49 56.6	-2.2
KWP				eSn	Sg	15 50 28.0	-1.0
KWP	**Kalwaria Pacla**	2.34	103	ePn	Pg	15 49 56.6	-2.2
KWP				eSn	Sg	15 50 28.0	-1.1
KWP	**Kalwaria Pacla**	2.34	103	ePn	Pg	15 49 56.6	-2.2
KOLS	**Kolonicke sedl**	2.37	121	ePN	Pn	15 49 53.7	-0.4
KOLS	**Kolonicke sedl**	2.37	121	ePn	Pn	15 49 53.7	-0.4
UZH	**Uzhgorod**	2.56	127	eP	Pn	15 49 54.0	-2.7
UZH				eS	Sn	15 50 24.0	-4.5
UZH				i S	Sn	15 50 38.0	+9.5
UZH				smax			
	comp=N,42nm,0.8s						
UZH				smax			
	comp=E,72nm,0.8s						
PRU	**Pruhonice**	3.01	268	eP	Pg	15 50 07.6	-4.0
PRU				e		15 50 48.9	
PRU				smax			
	comp=N,38nm,1.2s						
PRU	**Pruhonice**	3.01	268	ePG	Pg	15 50 07.6	-4.0
PRU				eSG	Sg	15 50 48.9	-1.7
	comp=Z,38nm,1.2s						
PRU	**Pruhonice**	3.01	268	Pg	Pg	15 50 07.6	-4.0
PRU				Sg	Sg	15 50 48.9	-1.7
	comp=Z,38nm,1.2s						
LVV	**L'vov**	3.14	95	eP	Pn	15 49 59.2	-5.4
CONA	**Conrad Observa**	3.17	225	⇓iPn	Pn	15 50 05.0	0.0
CONA				⇑iSn	Sn	15 50 43.3	-0.2
CONA	**Conrad Observa**	3.17	225	Pn	Pn	15 50 05.0	0.0
CONA				Sn	Sn	15 50 43.3	-0.1
CSNA	**Conrad Observa**	3.17	225	⇑iPn	Pn	15 50 05.0	0.0
CSNA	**Conrad Observa**	3.17	225	Pn	Pn	15 50 05.0	0.0
BRG	**Berggiesshubel**	3.42	283	Pg	Pg	15 50 18.2	-1.3
BRG				Sg	Sg	15 51 01.6	-2.2
BRG	**Berggiesshubel**	3.42	283	PG	Pg	15 50 18.2	-1.3
BRG				SG	Sg	15 51 01.6	-2.2
	comp=Z,12nm,0.6s						
BRG	**Berggiesshubel**	3.42	283	Pg	Pg	15 50 18.2	-1.3
BRG				Sg	Sg	15 51 01.6	-2.2
KHC	**Kasperske Hory**	3.81	256	ePN	Pn	15 50 13.9	+0.1
KHC				ePG	Pg	15 50 21.2	-5.7
KHC				eSG	Sg	15 51 15.1	-1.1
	comp=Z,15nm,0.5s						
KHC	**Kasperske Hory**	3.81	256	Pn	Pn	15 50 13.9	+0.1
KHC				Sg	Sg	15 51 15.1	-1.1
	comp=Z,15nm,0.5s						
MOA	**Molln**	4.01	236	⇑iSg	Sg	15 51 22.1	-0.8
	comp=Z,5.3nm,0.4s						
MOA	**Molln**	4.01	236	Sg	Sg	15 51 22.1	-0.8
	comp=Z,5.3nm,0.4s						
CLL	**Collm**	4.09	288	ePg	Pg	15 50 33.0	+0.8
CLL				eSn	Sn	15 51 07.0	+0.9
CLL				eSg	Sg	15 51 26.0	+0.8
	comp=Z,25nm,0.9s						
CLL	**Collm**	4.09	288	ePg	Pg	15 50 33.0	+0.8
CLL				eSg	Sg	15 51 26.0	+0.8
NKC	**Novy Kostel**	4.34	273	ePG	Pg	15 50 30.5	-6.5
NKC				eSG	Sg	15 51 30.9	-2.3
	comp=Z,18nm,0.9s						
MOX	**Moxa**	4.87	278	(SG)	Sg	15 51 55.7	+5.4

IDC 14 16:02:12.0±13.0, 6°.48S×129°.71E, h104^{km}±140^{km}, mb3.2/1, mb1 3.6/4, mb1mx3.3/17, mbtmp3.4/4, ML3.8/3, Error ellipse: s-maj=84.3km s-min=58.8km az=33.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	12.21	199	P	Pn	16 05 03.8	+1.4
	0.3nm,0.3s,baz=21,slow=9.9,SNR=16						
FITZ				S	Sn	16 07 13.1	-3.6
	1.6nm,0.3s,baz=108,slow=23,SNR=7.4						
WRA	**Warramunga Arr**	14.11	162	P	Pn	16 05 26.3	-1.0
	0.7nm,0.3s,baz=348,slow=13,SNR=38						
WRA				S	Sn	16 07 53.5	-9.3
	0.8nm,0.3s,baz=333,slow=24,SNR=7.8						
ASAR	**Alice Springs**	17.55	167	P	Pn	16 06 11.2	+1.0
	0.3nm,0.3s,baz=345,slow=10,SNR=29						
ASAR				S	S	16 09 18.2	-7.8
	0.3nm,0.3s,baz=350,slow=26,SNR=8.7						
MKAR	**Makanchi Array**	67.64	327	P	P	16 12 57.7	0.0
	0.4nm,0.6s,baz=130,slow=5.8,SNR=8.3						

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*NEIC **14** 16:13:18.8±1.8, 22°.94S×178°.58W, h504^{km}±67^{km}, mb4.2/3, Error ellipse: s-maj=61.2km s-min=17.1km az=106.0*

IDC 14 16:13:17.9±2.2, 22°.91S×178°.76W, h471^{km}±27^{km}, mb3.6/5, mb1 3.6/7, mb1mx3.4/19, mbtmp3.5/7, Error ellipse: s-maj=43.3km s-min=28.1km az=135.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	11.13	38	P	P	16 15 47.4	0.0
	1.4nm,0.3s,baz=206,slow=20,SNR=5.7						
URZ	**Urewera**	15.71	192	P	P	16 16 36.4	+0.5
	0.4nm,0.3s,baz=55,slow=19,SNR=3.5						
URZ				S	S	16 19 10.9	-8.6
	0.3nm,0.3s,baz=186,slow=19,SNR=5.0						
EIDS	**Eidsvold**	27.60	259	eP	P	16 18 26.0	-0.2
	3.5nm,0.6s						
CTA	**Charters Tower**	32.62	268	P	P	16 19 10.7	+0.9
	8.5nm,0.3s,baz=98,slow=9.1,SNR=33						
CTAO	**Charters Tower**	32.62	268	eP	P	16 19 10.6	+0.8
	10nm,0.4s						
STKA	**Stephens Creek**	36.15	247	P	P	16 19 38.2	-1.1
	1.5nm,0.6s,baz=87,slow=11,SNR=3.4						
ASAR	**Alice Springs**	43.33	259	P	P	16 20 37.1	-0.3
	1.9nm,0.6s,baz=94,slow=7.5,SNR=65						
ASAR				ScP	ScP	16 25 21.8	-0.4
	0.6nm,0.7s,baz=105,slow=3.9,SNR=5.4						
WRAB	**Tennant Creek**	43.61	265	eP	P	16 20 39.1	-0.6
	5.4nm,0.7s						
WRA	**Warramunga Arr**	43.62	265	P	P	16 20 39.3	-0.5
	1.8nm,0.3s,baz=95,slow=8.3,SNR=127						
FITZ	**Fitzroy Crossi**	52.05	264	P	P	16 21 43.6	+0.5
	5.1nm,0.9s,baz=90,slow=4.0,SNR=4.7						

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*MOS **14** 16:13:42.7±0.8, 51°.30N×177°.31W, h33^{km}, mb4.9/42, Error ellipse: s-maj=12.7km s-min=6.5km az=93.6*

*ISCJB **14** 16:13:44.7±1.1, 51°.11N±0°.08×177°.26W±0°.06, h57^{km}±7^{km}, mb4.6/88, MS3.8/5, Error ellipse: s-maj=13.5km s-min=5.3km az=169.4*

*SZGRF **14** 16:13:45.4, 51°.20N×177°.70W, h33^{km}, mb4.7, Andreanof Islands, Aleutian Islands, United States*

*NEIC **14** 16:13:46.2±1.0, 51°.13N×177°.25W, h59^{km}±7^{km}, mb4.6/55, Error ellipse: s-maj=11.2km s-min=4.9km az=174.0*

*BJI **14** 16:13:47.1, 51°.56N×177°.78W, h62^{km}, mB5.1/18, mb4.7/25, Ms4.9/11, Ms7 4.6/9*

*IDC **14** 16:13:48.2±3.3, 51°.12N×177°.23W, h80^{km}±27^{km}, mb3.8/13, mb1 4.0/15, mb1mx3.9/25, mbtmp3.8/15, MS3.7/4,* *Ms1 3.7/4, ms1mx3.3/38, Error ellipse: s-maj=30.9km s-min=13.4km az=176.0*

ISC 14 16:13:47.3±1.0**, 51°.18N**±0°.08×**177°.23W**±0°.06**, h64**km±7km**,**
h63km±2.3km**:pP-P, n214,** σ**0s.86**/218**, mb4.6**/87**, 10C-2D,**
Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSTR	Great Sitkin T	1.17	38	ePn	Pn	16 14 05.2	-2.4
GSTR				eSn	Sn	16 14 22.6	-0.2
FX1	Attu Island--F	6.17	290	P	Pn	16 15 15.3	-0.3
FX1				S	Sn	16 16 29.1	+4.4
FX1				pmax	pmax		
	comp=Z,3.0nm,0.3s						
FX1				smax			
	comp=N,1.0nm,0.3s						
FX1	Attu Island--F	6.17	290	P	Pn	16 15 15.3	-0.4
	comp=N,2.9nm,0.3s,baz=81,slow=19,SNR=5.8						
FX1				S	Sn	16 16 29.1	+4.4
	comp=N,1.3nm,0.3s,baz=252,slow=19,SNR=2.7						
FX1	Attu Island--F	6.17	290	P	Pn	16 15 14.3	-1.4
SPIA	Saint Paul Isl	7.27	32	P	Pn	16 15 31.5	+0.9
CHGN	Chignik	12.24	58	Pn	Pn	16 16 42.5	+4.0
GAMB	Gambell	12.97	11	ePn	Pn	16 16 49.4	+1.1
	comp=N,23nm,1.1s						
TNA	Tin City	15.20	15	Pn	Pn	16 17 19.0	+1.3
	comp=N,4.4nm,0.9s						
PETK	Petropavlovsk-	15.49	287	P	Pn	16 17 22.1	+0.5
	comp=N,0.4nm,0.3s,baz=95,slow=17,SNR=6.7						
SVW2	Sparrevohn	15.54	42	ePn	Pn	16 17 24.8	+2.7
KDAK	Kodiak Island	15.71	56	P	Pn	16 17 21.3	-3.1
	comp=N,0.9nm,0.3s,baz=253,slow=17,SNR=7.5						
KDAK				S	S	16 20 19.4	-9.4
	comp=N,0.1nm,0.3s,baz=162,slow=20,SNR=3.7						
KDAK	Kodiak Island	15.71	56	P	Pn	16 17 21.3	-3.1
KDAK				ePn	Pn	16 17 24.5	+0.1
KDAK				S	S	16 20 19.4	-9.4
RC01	Rabbit Creek A	18.11	46	P	Pn	16 17 50.9	-3.0
CHUM	Lake Minchumin	18.29	36	eP	Pn	16 17 57.7	+1.5
	comp=N,9.6nm,0.8s						
KTH	Kantishna Hill	18.66	38	eP	Pn	16 17 59.5	-1.0
	comp=N,27nm,0.9s						
BILL	Bilibino	18.74	341	⇑eP	Pn	16 18 02.0	+0.5
BILL				pmax	pmax		
	comp=Z,16nm,1.7s						
BILL	Bilibino	18.74	341	eP	Pn	16 18 01.4	-0.1
	comp=Z,14nm,1.3s						
BPAW	Bear Paw Mtn.	18.91	37	eP	Pn	16 18 02.7	-0.8
	comp=Z,7.4nm,0.7s						
MCK	McKinley	19.52	39	eP	Pn	16 18 07.3	-3.5
MCK				pmax	pmax		
	comp=Z,16nm,0.9s						
MCK	McKinley	19.52	39	eP	Pn	16 18 07.3	-3.5
	comp=Z,16nm,0.9s						
SEY	Seymchan	20.06	318	⇑eP	P	16 18 15.5	+0.7
COLA	College	20.47	37	eP	P	16 18 18.4	-0.9
COLA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
COLA	College	20.47	37	eP	P	16 18 18.4	-0.9
	comp=Z,4.9nm,0.8s						
PAX	Paxson	20.65	43	eP	P	16 18 23.1	+1.8
PAX				pmax	pmax		
	comp=Z,6.0nm,0.7s						
PAX	Paxson	20.65	43	eP	P	16 18 23.1	+1.8
	comp=Z,5.8nm,0.7s						
COLD	Coldfoot	20.93	30	eP	P	16 18 24.4	+0.2
	comp=Z,11nm,0.9s						
EGAK	Eagle	23.06	40	eP	P	16 18 46.0	-0.8
	comp=Z,14nm,0.9s,mb4.4						
DAWY	Dawson	23.58	42	eP	P	16 18 50.6	-1.1
TIXI	Tiksi	31.30	330	⇑eP	P	16 20 01.4	+0.7
TIXI				pmax	pmax		
	comp=Z,8.0nm,2.5s,mb4.1						
TIXI	Tiksi	31.30	330	eP	P	16 19 58.4	-2.3
	comp=Z,5.2nm,1.2s,mb4.2						
KLR	Kul'dur	32.18	287	eP	P	16 20 03.8	-4.9
YKA	Yellowknife Ar	34.65	46	P	P	16 20 28.9	-1.1
	comp=Z,2.3nm,0.8s,mb4.2,baz=282,slow=8.0,SNR=21						
YKA				PcP	PcP	16 23 04.9	+2.2
	comp=Z,0.3nm,0.6s,baz=288,slow=3.4,SNR=3.5						
YKA	Yellowknife Ar	34.65	46	P	P	16 20 28.9	-1.1
YKA				PcP	PcP	16 23 04.9	+2.2
MJAR	Matsushiro Arr	34.73	263	LR	LR	16 34 36.3	
	comp=Z,33nm,19.7s,baz=10.0,slow=36						
MAJO	Matsushiro	34.73	263	P	P	16 20 32.1	+1.1
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
MAJO	Matsushiro	34.73	263	P	P	16 20 32.1	+1.1
	comp=Z,8.9nm,0.9s,mb4.7						
MDJ	Mudanjiang	35.58	281	P	P	16 20 36.5	-1.7
	comp=Z,5.1nm,0.9s,mb4.5						
NEW	Newport	38.02	70	eP	P	16 20 59.4	+0.5
NEW				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NEW	Newport	38.02	70	eP	P	16 20 59.4	+0.5
	comp=Z,5.5nm,0.7s,mb4.4						
EDM	Edmonton	38.05	61	eP	P	16 20 59.6	+0.6
CN2	Changchun	38.56	282	eP	P	16 21 04.3	+0.9
BOD	Bodaibo	38.89	307	eP	P	16 21 02.8	-3.2
BOD				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.7						
HIA	Hailar	39.28	293	eP	P	16 21 07.8	-1.6
HIA				pmax	pmax		
	comp=Z,20nm,0.9s						
HIA	Hailar	39.28	293	eP	P	16 21 07.8	-1.6
	comp=Z,20nm,0.9s,mb4.8						
RES	Resolute Bay	39.52	24	P	P	16 21 08.3	-2.8
RES				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.3						
RES	Resolute Bay	39.52	24	P	P	16 21 08.3	-2.8
	comp=Z,11nm,1.6s,mb4.3						
WVOR	Wild Horse Val	40.07	79	eP	P	16 21 17.0	+0.9
WVOR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
WVOR	Wild Horse Val	40.07	79	eP	P	16 21 16.9	+0.9
	comp=Z,9.6nm,1.0s,mb4.5						
MSO	Missoula	40.60	70	eP	P	16 21 20.1	-0.3
	comp=Z,4.1nm,0.9s,mb4.1						
KSRS	Korea Array	40.63	272	P	P	16 21 20.1	-0.6
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.5						
KSRS				MLR	MLR		
	comp=Z,71nm,19.7s						
KSRS	Korea Array	40.63	272	P	P	16 21 20.1	-0.6
	comp=Z,1.1nm,0.7s,mb3.6,baz=62,slow=8.0,SNR=3.5						
KSRS				LR	LR	16 39 08.6	
	comp=Z,71nm,19.6s,baz=356,slow=37						
EGMT	Eagleton	42.45	67	eP	P	16 21 35.3	-0.2
BOZ	Bozeman (W)	42.59	71	eP	P	16 21 37.3	+0.7
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
BOZ	Bozeman (W)	42.59	71	eP	P	16 21 37.3	+0.6
	comp=Z,3.4nm,0.8s,mb4.1						
LKWY	Lake	43.91	71	eP	P	16 21 48.7	+1.4
LKWY				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
LKWY	Lake	43.91	71	eP	P	16 21 48.7	+1.4
	comp=Z,4.7nm,0.7s,mb4.3						
RLMT	Red Lodge	44.27	70	eP	P	16 21 50.9	+0.7
	comp=Z,8.1nm,0.9s,mb4.5						
DUG	Dugway	44.95	78	P	P	16 21 53.3	-2.3
DUG				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
DUG	Dugway	44.95	78	P	P	16 21 53.3	-2.4
	comp=Z,9.6nm,1.0s,mb4.6						
PDAR	Pinedale Array	45.43	73	P	P	16 21 59.9	+0.5
	comp=Z,6.0nm,0.7s,mb4.5,baz=304,slow=3.9,SNR=57						
PFO	Pinyon Flat Ob	46.80	88	PcP	PcP	16 23 43.9	+1.5
	comp=Z,3.8nm,0.6s,baz=332,slow=4.7,SNR=5.0						
TLY	Talaya	47.00	303	eP	P	16 22 11.2	-0.4
TLY				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
ULN	Ulaanbaatar	47.23	297	eP	P	16 22 12.9	-0.6
ULN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
ULN	Ulaanbaatar	47.23	297	eP	P	16 22 12.9	-0.5
	comp=Z,6.7nm,0.9s,mb4.6						
SONM	Songino Array	47.62	298	P	P	16 22 16.5	+0.1
	comp=Z,5.3nm,0.8s,mb4.6,baz=58,slow=8.7,SNR=38						
SONM				LR	LR	16 44 36.7	
	comp=Z,110nm,18.6s,baz=185,slow=39						
ZAK	Zakamensk	47.90	302	eP	P	16 22 18.4	-0.2
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
HHC	Hu-ho-hao-te	48.69	287	eP	P	16 22 25.0	+0.2
HHC				pP	pP	16 22 40.8	-0.4
HHC				sP	sP	16 22 47.3	-1.2
HHC				PP	PP	16 24 18.3	+0.2
HHC				PcS	PcS	16 27 43.6	-1.6
HHC				eS	S	16 29 22.3	0.0
HHC				sS	sS	16 29 49.9	-0.1
HHC				ScS	ScS	16 32 08.9	-2.1
HHC				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
HHC				pmax	pmax		
	comp=Z,230nm,5.4s						
HHC				LR	LR		
	comp=N,160nm,17.8s						
HHC				LR	LR		
	comp=E,250nm,15.5s						
HHC				LR	LR		
	comp=Z,170nm,16.7s						
ULM	Lac du Bonnet	48.96	57	P	P	16 22 26.4	-0.4
	comp=Z,2.8nm,0.8s,mb4.4,baz=264,slow=7.2,SNR=4.7						
KRAR	Krasnoyarsk	49.94	313	eP	P	16 22 33.9	-0.2
KRAR				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
SDCO	Great Sand Dun	50.94	76	eP	P	16 22 41.6	-0.3
	comp=Z,10nm,1.0s,mb4.7						
ZALV	Zalesovo Beam	54.88	314	PcP	PcP	16 24 12.3	+0.3
	comp=Z,3.0nm,0.7s,baz=40,slow=4.8,SNR=12						
GTA	Gaotai	56.56	293	eP	P	16 23 23.0	+0.1
GTA				pP	pP	16 23 38.6	-1.0
GTA				sP	sP	16 23 45.6	-1.2
GTA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
TXAR	Lajitas Array	57.70	82	P	P	16 23 30.6	-0.5
	comp=Z,0.7nm,0.8s,mb3.8,baz=319,slow=5.5,SNR=5.8						
KURK	Kurchatov	59.87	315	eP	P	16 23 43.6	-2.2
KURK				e		16 24 31.2	
KURK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
KURK	Kurchatov	59.87	315	eP	P	16 23 43.6	-2.2
	comp=Z,5.7nm,1.0s,mb4.6						
KURK				ePcP	PcP	16 24 31.2	-0.5
CD2	Chengdu	59.98	283	P	P	16 23 47.3	+0.4
CD2				pP	pP	16 24 03.4	-0.4
CD2				sP	sP	16 24 10.3	-0.7
CD2				PcP	PcP	16 24 33.1	+0.6
CD2				PP	PP	16 26 01.3	+1.8
CD2				S	S	16 31 52.3	-2.1
CD2				sS	sS	16 32 19.8	-3.1
CD2				SS	SS	16 35 50.3	-1.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
CD2				pmax	pmax		
	comp=Z,140nm,5.2s						
CD2				LR	LR		
	comp=N,320nm,7.1s						
CD2				LR	LR		
	comp=Z,220nm,7.7s						
WMQ	Urumqi	60.28	304	eP	P	16 23 49.5	+0.8
MKAR	Makanchi Array	60.93	309	P	P	16 23 51.0	-2.1
	comp=Z,0.6nm,0.5s,mb4.0,baz=43,slow=6.1,SNR=18						
MKAR	Makanchi Array	60.93	309	P	P	16 23 51.0	-2.1
GYA	Guiyang	61.33	277	P	P	16 23 56.8	+0.7
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
BRVK	Borovoye	61.69	321	eP	P	16 23 57.4	-0.8
BRVK				e		16 24 39.1	
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
BRVK	Borovoye	61.69	321	eP	P	16 23 57.4	-0.8
	comp=Z,8.2nm,0.9s,mb4.9						
BRVK				ePcP	PcP	16 24 39.1	+0.1
SVE	Sverdlovsk	62.29	328	eP	P	16 24 03.0	+0.9
ARU	Arti	63.29	329	d iP	P	16 24 08.7	-0.1
ARU				e		16 26 26.7	
ARU				eS	S	16 32 41.8	+6.3
ARU				SS	SS	16 36 45.7	+3.9
ARU				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.9						
KMI	Kunming	64.73	279	P	P	16 24 18.3	-0.4
KMI				pP	pP	16 24 37.0	+1.2
KMI				sP	sP	16 24 43.5	+0.6
KMI				PP	PP	16 26 44.1	+2.6
KMI				S	S	16 32 52.1	-2.1
KMI				sS	sS	16 33 20.1	-3.0
KMI				SS	SS	16 37 03.6	-2.2
KMI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
KMI				pmax	pmax		
	comp=Z,120nm,5.0s						
AAK	Ala-Archa	67.75	311	eP	P	16 24 37.7	0.0
AAK				pmax	pmax		
	comp=Z,5.0nm,2.5s,mb4.1						
NB2	NORSAR Subarra	67.93	356	P	P	16 24 38.6	0.0
	comp=Z,1.8nm,0.9s,mb4.1,baz=6.6,slow=6.5						
NOA	NORSAR Array B	67.93	356	P	P	16 24 38.4	-0.1
	comp=Z,3.7nm,1.0s,mb4.4,baz=4.2,slow=6.3,SNR=5.3						
NOA	NORSAR Array B	67.93	356	P	P	16 24 38.4	-0.1
LSA	Lhasa	68.44	291	eP	P	16 24 43.5	+1.2
LSA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
LSA	Lhasa	68.44	291	eP	P	16 24 43.5	+1.2
	comp=Z,5.9nm,0.7s,mb4.7						
KSH	Kashi	69.41	308	P	P	16 24 51.6	+3.5
KSH				epP	pP	16 25 07.3	+1.9
KSH				esP	sP	16 25 14.0	+1.5
KSH				ePcP	PcP	16 25 14.6	+3.4
KSH				eScP		16 29 11.0	
KSH				ePcS		16 29 18.3	
KSH				eS	S	16 33 52.6	+2.5
KSH				esS	sS	16 34 20.1	+0.9
KSH				eScS	ScS	16 34 43.1	-0.5
KSH				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
KSH				pmax	pmax		
	comp=Z,78nm,3.4s						
KSH				LR	LR		
	comp=N,100nm,4.4s						
KSH				LR	LR		
	comp=E,160nm,3.8s						
KSH				LR	LR		
	comp=Z,160nm,4.8s						
OBN	Obninsk	70.40	340	⇓eP	P	16 24 53.7	-0.2
OBN				e		16 27 28.6	
OBN				eS	S	16 34 04.3	+3.1
OBN				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
CMAR	Chiang Mai Arr	72.02	277	P	P	16 25 03.5	-0.8
	comp=Z,2.0nm,0.9s,mb4.0,baz=25,slow=6.6,SNR=16						
TAPN	Taplejung	72.20	291	eP	P	16 25 05.9	+0.6
	comp=Z,20nm,0.9s,mb5.0						
ODAN	Odare	72.76	291	eP	P	16 25 09.0	+0.4
	comp=Z,16nm,1.0s,mb4.9						
GUN	Gumba	72.84	293	eP	P	16 25 09.9	+0.8
	comp=Z,32nm,0.7s,mb5.4						
JIRN	Jiri	72.85	293	eP	P	16 25 10.3	+1.1
	comp=Z,19nm,0.8s,mb5.1						
VRHR	Novokhopersk	72.90	336	eP	P	16 25 09.1	0.0
VRHR				pmax	pmax		
	comp=N,20nm,0.5s						
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
RAMN	Ramite	73.15	292	eP	P	16 25 11.2	+0.3
	comp=Z,12nm,0.6s,mb5.0						
KKN	Kakani	73.28	293	eP	P	16 25 12.2	+0.5
	comp=Z,8.4nm,0.6s,mb4.8						
PKI	Pulchoki	73.37	293	eP	P	16 25 12.8	+0.6
VSR	Storozhevoye	73.42	337	eP	P	16 25 12.2	+0.1
VSR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
VSR				pmax	pmax		
	comp=N,5.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,5.0nm,0.6s						
GKN	Gorkha	73.49	294	eP	P	16 25 13.1	+0.2
	comp=E,26nm,1.0s,mb5.1						
DMN	Daman	73.52	293	eP	P	16 25 14.1	+1.0
	comp=E,10nm,0.9s,mb4.8						
VORD	Divnogorie	73.61	337	eP	P	16 25 12.8	-0.4
VORD				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
VORD				pmax	pmax		
	comp=N,8.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
RAR	Rarotonga	73.69	163	LR	LR	16 52 41.6	
	comp=E,162nm,20.3s,baz=95,slow=32						
DANN	Dangsing	73.73	295	eP	P	16 25 15.3	+1.0
KOLN	Koldanda	74.26	295	eP	P	16 25 17.9	+0.5
	comp=E,17nm,1.1s,mb4.9						
AKASG	Malin Array Be	76.03	343	P	P	16 25 26.6	-0.6
	comp=E,2.5nm,0.6s,mb4.4,baz=16,slow=5.6,SNR=10						
KBL	Kabul	76.73	309	eP	P	16 25 30.2	-1.3
KBL				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
KBL	Kabul	76.73	309	eP	P	16 25 30.2	-1.3
	comp=Z,5.7nm,0.8s,mb4.5						
CLL	Collm	77.52	353	eP	P	16 25 35.0	-0.6
CLL				pmax	pmax		
	comp=Z,858nm,0.7s						
CLL	Collm	77.52	353	eP	P	16 25 35.0	-0.6
	comp=Z,5.0nm,0.7s,mb4.5						
CLL				esP	sP	16 26 01.0	+0.9
BRG	Berggiesshubel	77.88	353	eP	P	16 25 38.0	+0.4
BRG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BRG	Berggiesshubel	77.88	353	eP	P	16 25 38.0	+0.4
	comp=Z,4.2nm,0.8s,mb4.4						
STHS	Stebnicka Huta	78.55	348	eP	P	16 25 41.9	+0.6
STHS				pmax	pmax		
	comp=Z,19nm,2.6s,mb4.6						
STHS	Stebnicka Huta	78.55	348	eP	P	16 25 41.9	+0.6
	comp=Z,19nm,2.6s,mb4.6						
KOLS	Kolonicke sedl	78.88	347	eP	P	16 25 43.2	+0.1
CRVS	Cervenica-Dubn	79.02	348	eP	P	16 25 43.8	-0.1
GIVF	Givet	79.08	359	eP	P	16 25 44.2	0.0
KIV	Kislovodsk	79.12	332	eP	P	16 25 44.7	+0.2
KIV				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BAIF	Baives	79.13	359	eP	P	16 25 44.6	+0.1
	comp=Z,20nm,0.8s,mb4.8						
BAIF	Baives	79.13	359	eP	P	16 25 44.6	+0.1
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
BAIF	Baives	79.13	359	eP	P	16 25 44.6	+0.1
	comp=Z,10nm,0.8s,mb4.8						
GRA1	Grafenberg Arr	79.25	354	eP	P	16 25 45.5	+0.4
	comp=Z,9.0nm,1.1s,mb4.6						
GRF	Grafenberg Arr	79.25	354	eP	P	16 25 45.5	+0.4
GRF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
GRF	Grafenberg Arr	79.25	354	eP	P	16 25 45.5	+0.4
GRF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
GRF	Grafenberg Arr	79.25	354	eP	P	16 25 45.5	+0.4
	comp=Z,9.0nm,1.1s,mb4.6						
KECS	Kecovo	79.56	348	eP	P	16 25 47.2	+0.3
KECS				pmax	pmax		
	comp=Z,15nm,2.5s,mb4.5						
KECS	Kecovo	79.56	348	eP	P	16 25 47.2	+0.3
	comp=Z,15nm,2.5s,mb4.5						
BURAR	Bucovina Array	79.71	345	⇑iP	P	16 25 48.3	+0.6
VYHS	Vyhne	79.76	349	eP	P	16 25 47.2	-0.7
GERES	GERESS Array B	79.92	353	P	P	16 25 48.5	-0.3
	comp=Z,1.5nm,0.8s,mb4.0,baz=18,slow=4.6,SNR=9.7						
MODS	Modra-Piesok	80.05	350	eP	P	16 25 50.0	+0.5
FLN	La Foliniere	80.40	2	eP	P	16 25 51.1	-0.3
LDF	La Druitiere	80.58	2	eP	P	16 25 51.8	-0.5
	comp=Z,8.5nm,0.5s,mb4.6						
LDF	La Druitiere	80.58	2	eP	P	16 25 51.8	-0.5
LDF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
LDF	La Druitiere	80.58	2	eP	P	16 25 51.8	-0.5
	comp=Z,4.3nm,0.5s,mb4.6						
MEZF	Maizieres J'vi	80.68	358	eP	P	16 25 53.2	+0.3
CDF	Champ du Feu	80.71	357	eP	P	16 25 52.8	-0.2
	comp=Z,7.3nm,0.7s,mb4.4						
CDF	Champ du Feu	80.71	357	eP	P	16 25 52.8	-0.2
CDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
CDF	Champ du Feu	80.71	357	eP	P	16 25 52.8	-0.2
	comp=Z,3.7nm,0.7s,mb4.4						
ROSF	Rostrenen	80.73	4	eP	P	16 25 52.9	-0.2
GRR	Gorron	80.76	2	eP	P	16 25 53.8	+0.5
	comp=Z,48nm,1.1s,mb5.0						
GRR	Gorron	80.76	2	eP	P	16 25 53.8	+0.5
GRR				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
GRR	Gorron	80.76	2	eP	P	16 25 53.8	+0.5
	comp=Z,24nm,1.1s,mb5.0						
SGMF	Saint Gilles	80.84	4	eP	P	16 25 53.6	-0.1
	comp=Z,26nm,0.9s,mb4.9						
SGMF	Saint Gilles	80.84	4	eP	P	16 25 53.6	-0.1
SGMF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
SGMF	Saint Gilles	80.84	4	eP	P	16 25 53.6	-0.1
	comp=Z,13nm,0.9s,mb4.9						
HAU	Haudompre	81.15	358	eP	P	16 25 55.2	-0.2
HINF	Hinteralfeld	81.32	357	eP	P	16 25 55.9	-0.4
	comp=Z,4.9nm,0.6s,mb4.3						
HINF	Hinteralfeld	81.32	357	eP	P	16 25 55.9	-0.4
HINF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
HINF	Hinteralfeld	81.32	357	eP	P	16 25 55.9	-0.4
	comp=Z,2.5nm,0.6s,mb4.3						
KBA	Koelnbreinsper	81.70	353	⇑iP	P	16 25 59.1	+0.8
	comp=Z,18nm,0.9s,mb5.0						
VOIR		81.85	344	⇑iP	P	16 26 00.0	+0.8
LOR	Lormes	81.93	359	eP	P	16 25 59.4	-0.1
	comp=Z,16nm,0.9s,mb4.6						
LOR	Lormes	81.93	359	eP	P	16 25 59.4	-0.1
LOR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
LOR	Lormes	81.93	359	eP	P	16 25 59.4	-0.1
	comp=Z,8.0nm,0.9s,mb4.7						
GNI	Garni	81.93	329	⇑eP	P	16 25 59.3	-0.4
GNI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SOKA	Soboth	81.95	352	⇑iP	P	16 26 00.0	+0.4
	comp=Z,6.7nm,0.8s,mb4.6						
GROS	Grobnik	82.12	351	i P	P	16 26 00.1	-0.4
SSF	Saint Saulge	82.14	359	eP	P	16 26 00.6	0.0
	comp=Z,7.0nm,0.7s,mb4.4						
SSF	Saint Saulge	82.14	359	eP	P	16 26 00.6	0.0
SSF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
SSF	Saint Saulge	82.14	359	eP	P	16 26 00.6	0.0
	comp=Z,3.5nm,0.7s,mb4.4						
BZS	Buzias	82.22	347	⇑iP	P	16 26 01.0	-0.1
GZR	Gura Zlata	82.26	346	⇑iP	P	16 26 02.0	+0.7
AVF	Avril sur Loir	82.41	360	eP	P	16 26 01.9	-0.1
	comp=Z,5.3nm,0.6s,mb4.3						
AVF	Avril sur Loir	82.41	360	eP	P	16 26 01.9	-0.1
AVF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
AVF	Avril sur Loir	82.41	360	eP	P	16 26 01.9	-0.1
	comp=Z,2.7nm,0.6s,mb4.3						
CABF	La Chapelle	82.55	358	eP	P	16 26 03.1	+0.3
	comp=Z,20nm,0.9s,mb4.9						
CABF	La Chapelle	82.55	358	eP	P	16 26 03.1	+0.3
CABF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CABF	La Chapelle	82.55	358	eP	P	16 26 03.1	+0.3
	comp=Z,10nm,0.9s,mb4.8						
SMF	Signal de Mont	82.55	359	eP	P	16 26 02.9	+0.1
	comp=Z,20nm,0.8s,mb4.9						
SMF	Signal de Mont	82.55	359	eP	P	16 26 02.9	+0.1
SMF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
SMF	Signal de Mont	82.55	359	eP	P	16 26 02.9	+0.1
	comp=Z,10nm,0.8s,mb4.9						
MFF	Saint Martin d	82.57	2	eP	P	16 26 02.9	+0.1
	comp=Z,21nm,0.9s,mb4.8						
MFF	Saint Martin d	82.57	2	eP	P	16 26 02.9	+0.1
MFF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
MFF	Saint Martin d	82.57	2	eP	P	16 26 02.9	+0.1
	comp=Z,11nm,0.9s,mb4.9						
BGF	Bois d'Agland	82.64	360	eP	P	16 26 03.1	-0.2
	comp=Z,9.4nm,0.8s,mb4.6						
BGF	Bois d'Agland	82.64	360	eP	P	16 26 03.1	-0.2
BGF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BGF	Bois d'Agland	82.64	360	eP	P	16 26 03.1	-0.2
	comp=Z,4.7nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	82.91	0	eP	P	16 26 04.4	-0.2
	comp=Z,7.8nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	82.91	0	eP	P	16 26 04.4	-0.2
TCF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	82.91	0	eP	P	16 26 04.4	-0.2
	comp=Z,3.9nm,0.8s,mb4.5						
LFF	La Frestale	84.25	1	eP	P	16 26 11.7	+0.2
	comp=Z,18nm,0.7s,mb5.0						

LFF	La Frestale	84.25	1	eP	P	16 26 11.7	+0.2
LFF				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.1						
LFF	La Frestale	84.25	1	eP	P	16 26 11.7	+0.2
	comp=Z,8.8nm,0.6s,mb5.1						
ORIF	Oris-en-Rattie	84.25	358	eP	P	16 26 11.3	-0.2
CAF	Calviac	84.27	1	eP	P	16 26 12.0	+0.4
	comp=Z,15nm,0.9s,mb4.8						
CAF	Calviac	84.27	1	eP	P	16 26 12.0	+0.4
CAF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
CAF	Calviac	84.27	1	eP	P	16 26 12.0	+0.4
	comp=Z,7.3nm,0.9s,mb4.8						
VIVF	Saint-Julien-l	84.33	359	eP	P	16 26 12.4	+0.5
MBDF	Montbardon	84.41	357	eP	P	16 26 13.1	+0.8
	comp=Z,6.3nm,0.8s,mb4.5						
MBDF	Montbardon	84.41	357	eP	P	16 26 13.1	+0.8
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
MBDF	Montbardon	84.41	357	eP	P	16 26 13.1	+0.8
	comp=Z,3.2nm,0.8s,mb4.5						
LASF	Ste Croix	85.12	359	eP	P	16 26 15.7	-0.2
	comp=Z,17nm,1.1s,mb4.8						
SMRF	Simiane la Rot	85.19	358	eP	P	16 26 17.2	+0.9
	comp=Z,8.4nm,0.8s,mb4.6						
SMRF	Simiane la Rot	85.19	358	eP	P	16 26 17.2	+0.9
	comp=Z,8.4nm,0.8s,mb4.9						
SBF	Sospel	85.25	357	eP	P	16 26 16.4	-0.2
BRTR	Keskin Array B	85.53	337	P	P	16 26 18.3	+0.3
	comp=Z,5.8nm,0.8s,mb4.9,baz=52,slow=1.6,SNR=24						
FRF	La Foret Royal	85.58	357	eP	P	16 26 18.1	-0.1
LMR	La Mourre	85.81	357	eP	P	16 26 19.4	0.0
	comp=Z,6.6nm,0.7s,mb4.7						
LMR	La Mourre	85.81	357	eP	P	16 26 19.4	0.0
LMR				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.7						
LMR	La Mourre	85.81	357	eP	P	16 26 19.4	0.0
	comp=Z,3.3nm,0.6s,mb4.7						
MTLF	Montolieu	85.86	0	eP	P	16 26 20.0	+0.4
	comp=Z,9.2nm,0.7s,mb4.8						
MTLF	Montolieu	85.86	0	eP	P	16 26 20.0	+0.4
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
MTLF	Montolieu	85.86	0	eP	P	16 26 20.0	+0.4
	comp=Z,4.6nm,0.7s,mb4.8						
ASAR	Alice Springs	86.02	224	P	P	16 26 19.2	-1.3
	comp=Z,0.7nm,0.9s,mb3.9,baz=30,slow=5.7,SNR=4.0						
PGF	Pioggiola	86.50	355	eP	P	16 26 22.6	-0.2
	comp=Z,20nm,0.8s,mb5.1						
PGF	Pioggiola	86.50	355	eP	P	16 26 22.6	-0.2
PGF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.1						
PGF	Pioggiola	86.50	355	eP	P	16 26 22.6	-0.2
	comp=Z,9.8nm,0.8s,mb5.1						
BOSA	Boshof	151.83	315	PKIKP	PKPbc	16 33 33.2	-1.2
BOSA						16 33 43.9	
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BOSA	Boshof	151.83	315	PKPbc	PKPbc	16 33 33.2	-1.2
	comp=Z,1.1nm,0.6s,baz=18,slow=1.3,SNR=3.1						
BOSA				PKPab	PKPab	16 33 43.9	+0.3
	comp=Z,3.0nm,0.8s,baz=8.7,slow=6.0,SNR=3.5						

MAN 14 16:18:58, 18°.06N×122°.55E, h31km, mb4.7, ML3.6, MS3.6, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	0.51	291	eP	Pb	16 19 09.6	+1.0
SGCP				eS	Sb	16 19 16.7	+0.8
PALP	Palanan	0.99	187	eP	Pn	16 19 16.1	+0.3
PALP				eS	Sn	16 19 29.3	+0.5
CAUP	Cauayan	1.30	212	eP	Pn	16 19 20.6	+0.5
CAUP				eS	Sn	16 19 33.7	-2.7
ABRA	Dolores	1.79	257	eP	Pn	16 19 27.2	+0.4
ABRA				eS	Sn	16 19 49.1	+0.6
BALP	Baler	2.48	202	eP	Pn	16 19 37.0	+0.7

IDC 14 16:20:08.7±10.0, 8°.48S×129°.22E, h75km±111km, mb3.2/3, mb1 3.5/6, mb1mx3.4/17, mbtmp3.4/6, ML3.2/3, Error ellipse: s-maj=99.8km s-min=49.6km az=36.0, Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.18	200	P	Pn	16 22 32.4	+0.4
	0.1nm,0.3s,baz=12,slow=14,SNR=2.8						
FITZ				S	Sn	16 24 19.4	-5.1
	0.4nm,0.3s,baz=280,slow=18,SNR=5.0						
WRA	Warramunga Arr	12.42	157	P	Pn	16 23 02.4	-0.2
	0.2nm,0.3s,baz=332,slow=14,SNR=7.6						
WRA				S	Sn	16 25 20.2	+1.0
	0.3nm,0.3s,baz=333,slow=22,SNR=6.5						
ASAR	Alice Springs	15.75	164	P	Pn	16 23 46.2	+0.1
	0.1nm,0.3s,baz=338,slow=11,SNR=9.5						
MKAR	Makanchi Array	69.05	327	P	P	16 31 07.5	+1.1
	0.2nm,0.7s,baz=123,slow=7.1,SNR=4.3						
ZALV	Zalesovo Beam	72.57	334	P	P	16 31 27.8	+0.2
	0.6nm,0.7s,baz=122,slow=7.0,SNR=3.3						
BVAR	Borovoye Array	78.90	328	P	P	16 32 02.7	-1.1
	0.5nm,0.7s,baz=133,slow=6.3,SNR=3.5						

GII ***14*** *16:55:59.9±0.7, 33°.28N×35°.39E, h2km±1km, Md3.4/9, Mm2.7/2*
ISCJB ***14*** *16:55:59.7±0.3, 33°.34N±0°.02×35°.42E±0°.03, h9km±2km, Error ellipse: s-maj=4.5km s-min=2.1km az=28.2*
CSEM ***14*** *16:56:00.2±0.1, 33°.34N×35°.39E, h2km, ML3.8, Error ellipse: s-maj=4.7km s-min=2.4km az=109.0*
GRAL ***14*** *16:56:01.3±0.4, 33°.33N×35°.42E, h0km±5km, MD3.7*
NSSC ***14*** *16:56:01, 33°.32N×35°.47E, h12km±2km*
HLW ***14*** *16:56:04.8, 33°.29N×35°.23E, h25km, Mb3.6*
ISC 14 16:56:00.3±0.4, 33°.35N±0°.02×35°.42E±0°.03, h8km±2km, n58, σ0s66/86, 6D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATL	Matirih	0.16	331	eP	Pg	16 56 04.5	+0.7
MATL	Matirih	0.16	331	eP	Pg	16 56 04.5	+0.7
KSDI	Kefar Szold	0.25	128	Pg	Pg	16 56 05.1	-0.2
KSDI				Sg	Sg	16 56 10.1	+1.4
MMA1	Mount Meron ar	0.33	183	Pg	Pg	16 56 06.2	-0.5
MMA1				Sg	Sg	16 56 11.1	0.0
HNTI	Hanita	0.34	219	Pg	Pg	16 56 06.2	-0.7
HNTI				Sg	Sg	16 56 11.1	-0.2
RCY	Rachaya	0.36	67	eP	Pg	16 56 08.2	+0.8
RCY				eS	Sg	16 56 13.3	+1.2
RCY	Rachaya	0.36	67	eP	Pg	16 56 08.2	+0.8
RCY				eS	Sg	16 56 13.3	+1.2
BRBR	Barbar	0.45	81	⇓P	Pg	16 56 09.0	0.0
BRBR				⇓S	Sg	16 56 15.0	+0.1
BEYL	Beyrouth	0.53	6	eP	Pg	16 56 11.1	+0.5
BEYL	Beyrouth	0.53	6	eP	Pg	16 56 11.1	+0.5
BHL	Bhannes	0.59	19	eP	Pg	16 56 12.0	+0.3
BHL	Bhannes	0.59	19	eP	Pg	16 56 12.0	+0.3
BLGI	Bet Lehem HaGe	0.64	198	Pg	Pg	16 56 12.0	-0.7
BLGI				Sg	Sg	16 56 21.4	+0.4
QASN	Qassioun	0.74	75	⇑P	Pg	16 56 15.0	+0.5
QASN				⇑S	Sg	16 56 24.0	-0.2
OFRI	‘Ofer	0.81	207	Pg	Pg	16 56 15.5	-0.4
TCHB	Talchebab	0.81	146	⇑P	Pg	16 56 15.0	-1.0
TCHB				⇑S	Sg	16 56 26.0	-0.6
TOTH	TOTAH	0.84	89	⇓P	Pg	16 56 16.0	-0.5
TOTH				⇓S	Sg	16 56 27.0	-0.5
MMLI	Mount Malkishu	0.91	180	Pg	Pg	16 56 16.5	-1.2
MMLI				Sg	Sg	16 56 29.2	-0.3
HWQ	Hawqa	1.03	25	eP	Pg	16 56 20.0	-0.1
HWQ				eS	Sg	16 56 33.7	+0.2
HWQ	Hawqa	1.03	25	eP	Pg	16 56 20.0	-0.1
HWQ				eS	Sg	16 56 33.7	+0.2
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	16 56 20.2	-1.1
HMDT				Sg	Sg	16 56 34.8	-0.7
MARH	Ras Al Marh	1.11	52	⇑P	Pg	16 56 22.0	+0.3
MARH				⇑S	Sg	16 56 37.0	+0.8
SLTI	Sal’it	1.15	196	Pg	Pg	16 56 21.2	-1.2
SLTI				Sg	Sg	16 56 37.2	-0.1
FKH	Fakeheh	1.21	42	eP	Pb	16 56 23.6	+0.2
FKH	Fakeheh	1.21	42	eP	Pb	16 56 23.6	+0.2
HAWK	Haweek	1.43	35	⇑P	Pn	16 56 27.0	+0.4
HAWK				⇑S	Sn	16 56 45.0	-0.5
ROOS	tl_alroos	1.76	62	⇑P	Pn	16 56 32.0	+0.9
ROOS				⇑S	Sn	16 56 52.0	-1.6
DSI	Dead Sea	1.77	181	Pn	Pn	16 56 30.9	-0.3
DSI				Sn	Sn	16 56 54.3	+0.4
BIDA	Albida	1.82	24	⇑P	Pn	16 56 32.0	0.0
BIDA				⇑S	Sn	16 56 55.0	-0.2
RABH	Abou Rabah	1.84	53	⇓P	Pn	16 56 33.0	+0.8
RABH				⇓S	Sn	16 56 55.0	-0.6
YTIR	Yattir	1.99	188	Pn	Pn	16 56 35.0	+0.7
MZDA	Masada	2.03	181	Pn	Pn	16 56 34.9	+0.1
MZDA				Sn	Sn	16 57 01.6	+1.3
KFRA	Kufra	2.18	31	⇑P	Pn	16 56 37.0	+0.1
KFRA				⇑S	Sn	16 57 03.0	-1.1
WRDH	Warideh	2.31	20	⇑P	Pn	16 56 39.0	+0.4
WRDH				⇑S	Sn	16 57 06.0	-1.2
SLNF	Slenfeh	2.34	16	⇑P	Pn	16 56 39.0	-0.1
SLNF				⇑S	Sn	16 57 08.0	0.0
RTMI	Retamim	2.37	195	Pn	Pn	16 56 39.9	+0.5
CSS	Prodhromos	2.37	313	Pn	Pn	16 56 39.8	+0.3
KZIT	Kziot	2.58	200	Pn	Pn	16 56 42.3	-0.1
KZIT				Sn	Sn	16 57 14.9	+0.9
ZFRI	Zfri	2.79	184	Pn	Pn	16 56 45.5	+0.2
BTCH	Batrach	2.82	17	⇑P	Pn	16 56 46.0	+0.3
BTCH				⇑S	Sn	16 57 18.0	-1.8
PRNI	Paran	3.00	187	Pn	Pn	16 56 48.6	+0.4
KRMI	Paran Flat	3.27	191	Pn	Pn	16 56 52.3	+0.4
AMAG	Maghara	3.29	216	P	Pn	16 56 52.1	0.0
AMAG	Maghara	3.29	216	P	Pn	16 56 52.1	0.0
MBRI	Mt Berech	3.57	187	Pn	Pn	16 56 56.6	+0.7
HNKL	Nakhl	3.62	200	P	Pn	16 56 57.0	+0.3
HNKL	Nakhl	3.62	200	P	Pn	16 56 57.0	+0.3
EIL	Elat	3.69	186	Pn	Pn	16 56 57.4	-0.2
SUZ		4.13	213	P	Pn	16 57 03.9	+0.1
SUZ		4.13	213	P	Pn	16 57 03.9	+0.2
KOT	Kottamia	4.58	223	P	Pn	16 57 09.8	-0.1
KOT	Kottamia	4.58	223	P	Pn	16 57 09.8	-0.1
HDHB	Dhahab	4.66	189	P	Pn	16 57 11.9	+0.9
HDHB	Dhahab	4.66	189	P	Pn	16 57 11.9	+0.9
GLL	Jalalah	4.92	221	P	Pn	16 57 14.2	-0.3
GLL				S	Sn	16 58 05.4	-6.2
GLL	Jalalah	4.92	221	P	Pn	16 57 14.2	-0.3
HKAT	Jabal Katrina	4.96	195	P	Pn	16 57 15.7	+0.6
HKAT	Jabal Katrina	4.96	195	P	Pn	16 57 15.7	+0.6

NEIC ***14*** *17:22:21.0, 35°.43N×27°.67E, h10km, MD3.4(ATH), After ATH.*
ATH ***14*** *17:22:21.9, 35°.94N×27°.21E, h24km±1km, MD3.4/4*
CSEM ***14*** *17:22:23.9±0.2, 35°.89N×27°.17E, h20km, MD3.4, Error ellipse: s-maj=8.9km s-min=4.6km az=125.0*
DDA ***14*** *17:22:29.0, 36°.32N×27°.82E, h7km±6km, Md3.2*
ISC 14 17:22:23.0±1.2, 35°.93N±0°.04×27°.13E±0°.06, h9km±9km, n18, σ0s72/31, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	Karpathos	0.39	176	ePB	Pg	17 22 30.5	0.0
KARP				eSB	Sg	17 22 36.5	+0.8
KARP	Karpathos	0.39	176	ePb	Pg	17 22 30.5	0.0
KARP				eSb	Sg	17 22 36.5	+0.8
ARG	Arkhangelos	0.85	70	ePN	Pn	17 22 37.5	-3.7
ZKR	Zakros	1.11	223	ePN	Pn	17 22 44.3	-0.3
ZKR				eSN	Sn	17 23 00.2	+0.2
ZKR	Zakros	1.11	223	ePn	Pn	17 22 44.3	-0.3
ZKR				eSn	Sn	17 23 00.2	+0.2
BDRM	Kayabasi	1.16	13	i P	Pb	17 22 44.1	-1.0
BDRM				i S	Sb	17 23 00.7	+0.5
BDRM	Kayabasi	1.16	13	i P	Pb	17 22 44.2	-0.9
BDRM				i S	Sb	17 23 00.7	+0.4
NPS	Neapolis	1.41	242	ePN	Pn	17 22 48.2	-0.6
NPS	Neapolis	1.41	242	ePn	Pn	17 22 48.2	-0.6
TURN	Turunc	1.51	51	i P	Pn	17 22 43.7	-6.6
TURN				i S	Sn	17 22 57.4	-13
LAST	Lasithi	1.55	241	P	Pn	17 22 51.2	+0.4
LAST	Lasithi	1.55	241	P	Pn	17 22 51.2	+0.4
AYDN	Tasoluk	1.82	19	i P	Pn	17 22 54.8	+0.3
AYDN				i S	Sn	17 23 18.4	+0.6
AYDN	Tasoluk	1.82	19	i P	Pn	17 22 54.8	+0.3
AYDN				i S	Sn	17 23 18.4	+0.6
AKAS	Kas	2.03	81	i P	Pn	17 22 56.5	-0.8
AKAS				i S	Sn	17 23 22.1	-0.6
AKAS	Kas	2.03	81	i P	Pn	17 22 56.5	-0.8
AKAS				i S	Sn	17 23 22.1	-0.6
GOLH	Golhisar	2.35	56	i P	Pn	17 23 01.5	-0.2
GOLH				i S	Sn	17 23 32.0	+1.3
GOLH	Golhisar	2.35	56	i P	Pn	17 23 01.5	-0.2
GOLH				i S	Sn	17 23 32.0	+1.3

ISCJB ***14*** *17:24:09.2±0.3, 49°.33N±0°.02×6°.78E±0°.03, h0km, Error ellipse: s-maj=3.1km s-min=2.3km az=4.3*
CSEM ***14*** *17:24:10.2±0.1, 49°.34N×6°.78E, h2km, ML2.5/12, Error ellipse: s-maj=3.2km s-min=2.3km az=91.0*
NEIC ***14*** *17:24:11.0, 49°.36N×6°.81E, h1km, ML2.5(LDG), After LDG.*
LDG ***14*** *17:24:11.0±0.1, 49°.36N×6°.81E, h1km, Md2.6/1, Ml2.5/12, Error ellipse: s-maj=2.1km s-min=1.4km az=104.0, Suspected Mining induced.*
BNS ***14*** *17:24:11.7±0.5, 49°.38N×6°.78E, h1km, ML1.6*
BGR ***14*** *17:24:11.4±0.4, 49°.37N×6°.80E, h1km, ML1.9/3, Error ellipse: s-maj=7.8km s-min=4.4km az=34.0*
ISC 14 17:24:10.3±0.3, 49°.35N±0°.02×6°.78E±0°.03, h0km, n57, σ0s90/95, Germany

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WLF	Walferdange	0.52	308	P	Pg	17 24 21.6	+1.5
WLF	Walferdange	0.52	308	ePg	Pg	17 24 21.6	+1.4
	SNR=3.3						
WLF				eSg	Sg	17 24 27.4	+0.5
	SNR=5.0						
WLF	Walferdange	0.52	308	eP	Pg	17 24 20.9	+0.8
WLF	Walferdange	0.52	308	eP	Pg	17 24 20.9	+0.7
WLF	Walferdange	0.52	308	Pg	Pg	17 24 21.6	+1.4
	SNR=3.3						
WLF				Sg	Sg	17 24 27.4	+0.5
	SNR=5.0						
BGG	Burgeitz	0.93	23	ePg	Pg	17 24 28.8	+0.7
BGG	Burgeitz	0.93	23	Pg	Pg	17 24 28.8	+0.7
HILG	Hillesheim	0.95	356	ePg	Pg	17 24 29.1	+0.7
HILG				eSg	Sg	17 24 41.6	+0.9
HILG	Hillesheim	0.95	356	Pg	Pg	17 24 29.1	+0.7
HILG				Sg	Sg	17 24 41.6	+0.9
CDF	Champ du Feu	0.99	161	ePn	Pn	17 24 30.3	-1.1
CDF				eSg	Sg	17 24 43.1	+1.0
	15nm,0.3s						
CDF	Champ du Feu	0.99	161	ePg	Pg	17 24 29.3	0.0
CDF				ePn	Pn	17 24 30.3	-1.1
CDF				eSg	Sg	17 24 43.1	+1.0
CDF	Champ du Feu	0.99	161	ePg	Pg	17 24 29.3	0.0
CDF	Champ du Feu	0.99	161	ePn	Pn	17 24 30.3	-1.1
CDF				eSg	Sg	17 24 43.1	+1.0
	7.6nm,0.3s						
RFYF	Reffroy	1.12	231	ePg	Pg	17 24 32.8	+1.1
	baz=45						
RFYF				eSg	Sg	17 24 48.1	+1.8
	12nm,0.2s						
RFYF	Reffroy	1.12	231	ePg	Pg	17 24 32.8	+1.1
	baz=45						
RFYF				eSg	Sg	17 24 48.1	+1.8
	6.2nm,0.2s						
KOE	Koeppel	1.24	29	ePg	Pg	17 24 33.9	-0.2
KOE	Koeppel	1.24	29	Pg	Pg	17 24 33.9	-0.2
STB	Steinbach	1.25	2	ePg	Pg	17 24 33.9	-0.3
STB				eSg	Sg	17 24 51.0	+0.6
	14nm,0.9s						
STB	Steinbach	1.25	2	Pg	Pg	17 24 33.9	-0.3
STB				Sg	Sg	17 24 51.0	+0.7
	14nm,0.9s						
MEM	Membach	1.36	339	P	Pg	17 24 36.4	+0.2
MEM	Membach	1.36	339	P	Pg	17 24 36.4	+0.1
HAU	Haudompre	1.37	192	ePg	Pg	17 24 36.8	+0.2
HAU				eSg	Sg	17 24 55.0	+0.6
	12nm,0.3s						
HAU	Haudompre	1.37	192	ePg	Pg	17 24 36.8	+0.2
HAU				eSg	Sg	17 24 55.0	+0.6
	5.9nm,0.3s						
TNS	Taunus Mts	1.39	50	ePg	Pg	17 24 37.0	+0.1
	SNR=6.6						
TNS				eSg	Sg	17 24 54.6	-0.4
	SNR=4.0						
TNS	Taunus Mts	1.39	50	Pg	Pg	17 24 37.0	+0.1
	SNR=6.6						
TNS				Sg	Sg	17 24 54.6	-0.3
	SNR=4.0						
MEZF	Maizieres J’vi	1.42	234	ePg	Pg	17 24 37.2	-0.3
	baz=55						
MEZF				eSg	Sg	17 24 56.7	+0.9
	9.2nm,0.4s						
MEZF	Maizieres J’vi	1.42	234	ePg	Pg	17 24 37.2	-0.3
	baz=55						
MEZF				eSg	Sg	17 24 56.7	+0.9
	4.6nm,0.4s						
BCLA	Clavier	1.44	319	P	Pn	17 24 38.5	+1.0
BCLA	Clavier	1.44	319	P	Pn	17 24 38.5	+1.0
BFO	Black Forest	1.44	134	ePg	Pg	17 24 39.2	+1.2
	SNR=2.8						
BFO				eSg	Sg	17 24 56.3	-0.3
	SNR=5.8						
BFO	Black Forest	1.44	134	Pg	Pg	17 24 39.2	+1.3
	SNR=2.8						
BFO				Sg	Sg	17 24 56.3	-0.3
	SNR=5.8						
GIVF	Givet	1.48	301	ePn	Pn	17 24 36.5	-1.6
GIVF				eSn	Sn	17 24 57.2	-0.9
	9.1nm,0.3s						
GIVF	Givet	1.48	301	ePn	Pn	17 24 36.5	-1.6
GIVF				eSn	Sn	17 24 57.2	-0.9
	4.6nm,0.3s						
HINF	Hinteralfeld	1.53	178	ePg	Pg	17 24 39.8	+0.2
HINF				eSg	Sg	17 25 00.2	+0.7
	21nm,0.3s						
HINF	Hinteralfeld	1.53	178	ePn	Pn	17 24 37.6	-1.2
HINF				ePg	Pg	17 24 39.8	+0.2
HINF				eSg	Sg	17 25 00.2	+0.7
HINF	Hinteralfeld	1.53	178	ePn	Pn	17 24 37.6	-1.2
HINF	Hinteralfeld	1.53	178	ePg	Pg	17 24 39.8	+0.2
HINF				eSg	Sg	17 25 00.2	+0.7
	11nm,0.3s						
DOU	Dourbes	1.60	299	P	Pn	17 24 39.7	-0.1
DOU	Dourbes	1.60	299	P	Pn	17 24 39.6	-0.2
SFTF	Sexfontaines	1.62	226	ePn	Pn	17 24 39.6	-0.5
SFTF				eSg	Sg	17 25 03.5	+1.1
	8.9nm,0.3s,baz=50						
SFTF	Sexfontaines	1.62	226	ePn	Pn	17 24 39.6	-0.5
SFTF				eSg	Sg	17 25 03.5	+1.1
	4.4nm,0.3s,baz=50						
BAIF	Baives	1.81	294	ePg	Pg	17 24 45.1	+0.1
BAIF				eSg	Sg	17 25 08.0	-0.5
	5.6nm,0.3s						
BAIF	Baives	1.81	294	ePn	Pn	17 24 41.7	-1.0
BAIF				ePg	Pg	17 24 45.1	+0.1
BAIF				eSg	Sg	17 25 08.0	-0.5
BAIF	Baives	1.81	294	ePn	Pn	17 24 41.7	-1.0
BAIF	Baives	1.81	294	ePg	Pg	17 24 45.1	+0.1
BAIF				eSg	Sg	17 25 08.0	-0.5
	2.8nm,0.3s						
CABF	La Chapelle	2.78	190	ePg	Pg	17 25 03.7	+0.2
CABF				eSg	Sg	17 25 39.0	-0.5
	3.6nm,0.4s						
CABF	La Chapelle	2.78	190	ePg	Pg	17 25 03.7	+0.2
CABF				eSg	Sg	17 25 39.0	-0.5
	1.8nm,0.4s						
LOR	Lormes	2.85	224	ePn	Pn	17 24 56.0	-1.0
	baz=42						
LOR				eSn	Sn	17 25 30.0	-2.0
	3.9nm,0.3s,baz=49						
LOR	Lormes	2.85	224	ePn	Pn	17 24 56.0	-1.0
	baz=42						
LOR				eSn	Sn	17 25 30.0	-2.0
	2.0nm,0.3s,baz=49						
SSF	Saint Saulge	3.17	225	ePn	Pn	17 24 59.8	-1.5
SSF				eSg	Sg	17 25 52.7	+0.8
	3.1nm,0.4s						
SSF	Saint Saulge	3.17	225	ePn	Pn	17 24 59.8	-1.5
SSF				eSg	Sg	17 25 52.7	+0.8
	1.5nm,0.4s						
SMF	Signal de Mont	3.35	217	ePn	Pn	17 25 02.2	-1.6
SMF	Signal de Mont	3.35	217	ePn	Pn	17 25 02.2	-1.6
AVF	Avril sur Loir	3.44	223	ePn	Pn	17 25 03.4	-1.6
AVF	Avril sur Loir	3.44	223	ePn	Pn	17 25 03.4	-1.6
GEC2	GERESS Array S	4.58	94	ePn	Pn	17 25 20.8	+0.2
	SNR=3.3						
GEC2	GERESS Array S	4.58	94	Pn	Pn	17 25 20.8	+0.1
	SNR=3.3						

IDC 14 17:26:38.6±2.9, 4°.51S×152°.89E, h0km, mb3.8/4, mb1 4.0/5, mb1mx3.8/18, mbtmp3.8/5, ML3.4/1, MS2.9/1, Ms1 2.9/1, ms1mx2.4/32, Error ellipse: s-maj=91.4km s-min=30.6km az=110.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	8.54	125	LR	LR	17 31 40.7	
	comp=Z,83nm,21.4s,baz=236,slow=35						
CTA	Charters Tower	16.78	202	Pn	Pn	17 30 35.1	-0.1
	0.1nm,0.3s,baz=323,slow=8.5,SNR=3.1						
WRA	Warramunga Arr	23.71	228	P	P	17 31 53.7	+1.2
	1.8nm,0.4s,baz=51,slow=9.8,SNR=15						
ASAR	Alice Springs	26.43	222	P	P	17 32 16.4	-0.8
	0.8nm,0.5s,baz=54,slow=8.8,SNR=7.1						
FITZ	Fitzroy Crossi	29.88	241	P	P	17 32 48.5	+0.4
	3.5nm,0.9s,baz=77,slow=16,SNR=7.1						
MKAR	Makanchi Array	80.17	319	P	P	17 38 51.9	+1.1
	0.5nm,0.8s,baz=90,slow=5.8,SNR=5.0						
TORD	Torodi Ar. Bea	150.30	289	PKPbc	PKPbc	17 46 31.0	-1.9
	0.3nm,0.4s,baz=92,slow=1.4,SNR=7.5						

PRU ***14*** *17:26:41.7, 36°.57N×20°.93E, h0km, M4.4*
MOS ***14*** *17:26:41.7±1.2, 36°.34N×21°.71E, h33km, mb4.9/29, Error ellipse: s-maj=4.1km s-min=2.2km az=100.9*
BJI ***14*** *17:26:42.7, 36°.62N×21°.69E, h47km, mB5.2/25, mb4.7/35, Ms5.0/12, Ms7 4.8/12*
ISCJB ***14*** *17:26:43.9±0.3, 36°.45N±0°.02×21°.70E±0°.02, h58km±2km, mb4.8/79, MS3.9/16, Error ellipse: s-maj=3.3km s-min=2.2km az=17.0*
ATH ***14*** *17:26:43.0, 36°.30N×21°.72E, h78km±2km, ML4.6*
CSEM ***14*** *17:26:44.8±0.2, 36°.37N×21°.74E, h52km±1km, mb4.9/36, Ms3.5, Error ellipse: s-maj=4.2km s-min=2.8km az=16.0*
PDG ***14*** *17:26:44.5±0.6, 36°.38N×21°.63E, h39km±3km, MD4.8/2, ML4.8/10, Error ellipse: s-maj=1.9km s-min=1.5km az=90.0*
NEIC ***14*** *17:26:45.2±0.2, 36°.39N×21°.73E, mb4.4/49, Error ellipse: s-maj=3.9km s-min=2.4km az=191.0*
NEIC Felt [II] at Athens. Also felt at Nafpaktos and Rafina.
THE ***14*** *17:26:45.1, 36°.37N×21°.86E, h31km±86km, ML5.0/8, Error ellipse: s-maj=86.2km s-min=2.5km az=64.0*
IDC ***14*** *17:26:45.3±1.1, 36°.35N×21°.83E, h49km±11km, mb4.2/21, mb1 4.3/27, mb1mx4.2/34, mbtmp4.2/27, ML4.1/5, MS3.8/14, Ms1 3.8/14, ms1mx3.5/48, Error ellipse: s-maj=12.6km s-min=8.1km az=15.0*
HLW ***14*** *17:26:47.6, 36°.15N×22°.47E, h33km, Mb4.3*
GII ***14*** *17:26:51.9±0.0, 35°.57N×22°.92E, h1km, Mb4.7/6, Md4.7/6*
ISC 14 17:26:44.2±0.2, 36°.34N±0°.02×21°.74E±0°.02, h44km±2km, h54km±1.9km:pP-P, n783, σ1s32/892, mb4.8/79, MS3.9/16, 61C-44D, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.56	1	eP	Pn	17 26 57.7	+1.8
PYL	PYLOS	0.56	1	eP	Pn	17 26 57.7	+1.8
ITM	Ithomi	0.85	10	eP	Pn	17 27 00.8	+0.9
ITM				eS	Sn	17 27 15.3	+4.1
ITM	Ithomi	0.85	10	eP	Pn	17 27 00.8	+0.9
ITM				eS	Sn	17 27 15.3	+4.1
KYTH	Kithira	1.05	93	eP	Pn	17 27 04.0	+1.5
KYTH	Kithira	1.05	93	eP	Pn	17 27 04.0	+1.5
VLX	Vlachokerasia	1.15	26	eP	Pn	17 27 05.5	+1.6
VLX				eS	Sn	17 27 20.9	+2.4
VLX	Vlachokerasia	1.15	26	eP	Pn	17 27 05.5	+1.6
VLX				eS	Sn	17 27 20.9	+2.4
GUR	Goura	1.67	17	eP	Pn	17 27 12.7	+1.7
GUR	Goura	1.67	17	eP	Pn	17 27 12.7	+1.7
DID	Didima	1.68	45	P	Pn	17 27 11.8	+0.7
DID	Didima	1.68	45	P	Pn	17 27 11.8	+0.7
RLS	Riolos of Patr	1.73	353	P	Pn	17 27 15.2	+3.4
RLS	Riolos of Patr	1.73	353	P	Pn	17 27 15.2	+3.4
LAKA	Lakka	1.91	6	P	Pn	17 27 16.7	+2.4

LAKA				S	Sn	17 27 37.2	+0.1
LAKA	Lakka	1.91	6	P	Pn	17 27 16.7	+2.4
LAKA				S	Sn	17 27 37.2	+0.1
LTK	Loutraki	1.95	30	P	Pn	17 27 15.5	+0.7
LTK	Loutraki	1.95	30	P	Pn	17 27 15.5	+0.7
NAIG	Nisos Aigina	2.00	44	*e*P	Pn	17 27 16.5	+1.1
NAIG	Nisos Aigina	2.00	44	*e*P	Pn	17 27 16.5	+1.1
KARN	Karanos	2.00	117	P	Pn	17 27 15.2	-0.3
KARN	Karanos	2.00	117	P	Pn	17 27 15.2	-0.3
TRIZ	Trizonia	2.04	7	P	Pn	17 27 18.6	+2.5
TRIZ				S	Sn	17 27 42.0	+1.6
TRIZ	Trizonia	2.04	7	P	Pn	17 27 18.6	+2.5
TRIZ				S	Sn	17 27 42.0	+1.6
VLS	Valsamata	2.05	334	P	Pn	17 27 17.4	+1.2
VLS				S	Sn	17 27 41.0	+0.4
VLS	Valsamata	2.05	334	*e*P	Pn	17 27 17.0	+0.8
VLS	Valsamata	2.05	334	*e*P	Pn	17 27 17.0	+0.8
VLS				S	Sn	17 27 41.0	+0.4
EFP	Efpalio	2.09	4	*e*P	Pn	17 27 18.6	+1.8
EFP	Efpalio	2.09	4	*e*P	Pn	17 27 18.6	+1.8
VAM	Vamos	2.21	114	*e*P	Pn	17 27 18.8	+0.5
ATH	Athens Observa	2.27	44	*e*P	Pn	17 27 20.5	+1.2
ATH	Athens Observa	2.27	44	*e*P	Pn	17 27 20.5	+1.2
ATHU	Athens Univers	2.31	45	P	Pn	17 27 20.0	+0.3
ATHU				S	Sn	17 27 45.0	-1.9
ATHU	Athens Univers	2.31	45	P	Pn	17 27 20.0	+0.3
ATHU				S	Sn	17 27 45.0	-1.9
PTL	Penteli	2.41	44	*e*P	Pn	17 27 21.5	+0.4
PTL	Penteli	2.41	44	*e*P	Pn	17 27 21.5	+0.4
LKR	Lokris	2.52	23	P	Pn	17 27 23.2	+0.6
LKR	Lokris	2.52	23	P	Pn	17 27 23.2	+0.6
EVR	Evrytania	2.58	1	*e*P	Pn	17 27 25.0	+1.6
EVR	Evrytania	2.58	1	*e*P	Pn	17 27 25.0	+1.6
AGG	Agios Georgios	2.72	10	P	Pn	17 27 27.4	+2.0
AGG	Agios Georgios	2.72	10	P	Pn	17 27 27.4	+2.0
IDI	Anoyia	2.77	111	P	Pn	17 27 26.3	+0.3
	9.4nm,0.3s,baz=292,slow=14,SNR=33						
IDI				S	Sn	17 27 59.2	+0.9
	92nm,0.3s,baz=55,slow=16,SNR=7.3						
IDI				LR	LR	17 28 45.0	
	comp=Z,2µm,19.0s,baz=300,slow=44						
IDI	Anoyia	2.77	111	P	Pn	17 27 26.3	+0.2
IDI				S	Sn	17 27 59.2	+0.9
THR5	Thira Island,	2.92	87	P	Pn	17 27 28.1	0.0
THR5	Thira Island,	2.92	87	P	Pn	17 27 28.1	0.0
THR4	Thira Island,	2.96	87	P	Pn	17 27 28.5	-0.1
THR4	Thira Island,	2.96	87	P	Pn	17 27 28.5	-0.1
THR6	Thira Island,	2.96	89	P	Pn	17 27 28.4	-0.2
THR6	Thira Island,	2.96	89	P	Pn	17 27 28.4	-0.2
NEO	Neokhori	3.19	21	*e*P	Pn	17 27 32.8	+1.0
NEO	Neokhori	3.19	21	*e*P	Pn	17 27 32.8	+1.0
THL	Klokotos Trika	3.23	4	P	Pn	17 27 34.4	+2.0
THL	Klokotos Trika	3.23	4	P	Pn	17 27 34.4	+2.0
XOR	Xorichti	3.24	20	P	Pn	17 27 33.1	+0.6
XOR	Xorichti	3.24	20	P	Pn	17 27 33.1	+0.6
AOS	Alonnisos	3.30	30	P	Pn	17 27 33.5	+0.1
AOS	Alonnisos	3.30	30	P	Pn	17 27 33.5	+0.1
NPS	Neapolis	3.33	108	P	Pn	17 27 37.2	+3.4
NPS	Neapolis	3.33	108	P	Pn	17 27 37.2	+3.4
IGT	Igoumenitsa	3.38	341	P	Pn	17 27 35.9	+1.5
IGT	Igoumenitsa	3.38	341	P	Pn	17 27 35.9	+1.5
JAN	Janina	3.39	348	*e*P	Pn	17 27 36.0	+1.4
JAN	Janina	3.39	348	*e*P	Pn	17 27 36.0	+1.4
MEV	Metsovon	3.47	354	P	Pn	17 27 38.0	+2.4
KEK	Kerkira	3.70	336	*e*P	Pn	17 27 40.0	+1.1
KEK				*e*S	Sn	17 28 22.5	+1.3
KEK	Kerkira	3.70	336	*e*P	Pn	17 27 40.0	+1.1
LIT	Litokhoron	3.81	9	P	Pn	17 27 41.4	+1.1
PAIG	Paliouri	3.90	23	P	Pn	17 27 41.7	+0.1
PAIG	Paliouri	3.90	23	P	Pn	17 27 41.7	+0.1
KZN	Kozani	3.96	0	*e*P	Pn	17 27 45.0	+2.5
KZN	Kozani	3.96	0	*e*P	Pn	17 27 45.0	+2.5
PLG	Polygyros	4.25	18	P	Pn	17 27 46.2	-0.2
PLG	Polygyros	4.25	18	*e*P	Pn	17 27 47.0	+0.6
PLG	Polygyros	4.25	18	*e*P	Pn	17 27 47.0	+0.6
SMG	Samos	4.31	70	*e*P	Pn	17 27 48.0	+0.8
SMG	Samos	4.31	70	*e*P	Pn	17 27 48.0	+0.8
SIGR	SIGRI	4.35	47	P	Pn	17 27 46.7	-1.0
SIGR	SIGRI	4.35	47	P	Pn	17 27 46.7	-1.0
HORT	Hortiatis	4.39	14	P	Pn	17 27 48.9	+0.6
HORT	Hortiatis	4.39	14	P	Pn	17 27 48.9	+0.6
FNA	Florina	4.45	356	P	Pn	17 27 50.6	+1.5
FNA	Florina	4.45	356	P	Pn	17 27 50.6	+1.5
KARP	Karpathos	4.47	99	*e*P	Pn	17 27 50.5	+1.0
KARP	Karpathos	4.47	99	*e*P	Pn	17 27 50.5	+1.0
LIA	Limnos Island	4.47	36	P	Pn	17 27 48.3	-1.2
LIA	Limnos Island	4.47	36	P	Pn	17 27 48.3	-1.2
PRK	Paraskevi	4.62	50	P	Pn	17 27 51.7	+0.2
PRK	Paraskevi	4.62	50	*e*P	Pn	17 27 53.1	+1.6
PRK	Paraskevi	4.62	50	*e*P	Pn	17 27 53.1	+1.6
GRG	Griva	4.64	6	P	Pn	17 27 52.8	+1.0
GRG	Griva	4.64	6	P	Pn	17 27 52.8	+1.0
SOH	Sokhos	4.65	15	P	Pn	17 27 52.6	+0.7
SOH	Sokhos	4.65	15	P	Pn	17 27 52.6	+0.7
BIA	Bitola	4.69	356	*i* Pn	Pn	17 27 54.0	+1.6
BIA				*e*Sn	Sn	17 28 45.0	-0.4
BIA	Bitola	4.69	356	*i* Pn	Pn	17 27 53.9	+1.5
BIA				*e*Sn	Sn	17 28 45.0	-0.4
OHR	Ohrid	4.82	352	P	Pn	17 27 53.5	-0.8
OHR	Ohrid	4.82	352	*e*Pn	Pn	17 27 55.2	+1.0
OHR				*e*Sn	Sn	17 28 47.8	-1.1
OHR	Ohrid	4.82	352	P	Pn	17 27 53.5	-0.8
OHR	Ohrid	4.82	352	*e*Pn	Pn	17 27 55.2	+0.9
OHR				*e*Sn	Sn	17 28 47.7	-1.1
SOI	Samo	4.85	293	P	Pn	17 27 55.5	+0.8
SOI	Samo	4.85	293	Pn	Pn	17 27 55.5	+0.8
TIP	Timpagrande	4.86	307	*e*Pn	Pn	17 27 54.9	+0.2
TIP				*e*Sn	Sn	17 28 47.4	-2.3
TIP	Timpagrande	4.86	307	*e*Pn	Pn	17 27 54.9	+0.2
TIP				*e*Sn	Sn	17 28 47.3	-2.4
GRI	Girifalco	4.90	302	Pn	Pn	17 27 57.1	+1.8
GRI				Sn	Sn	17 28 47.7	-2.9
GRI	Girifalco	4.90	302	Pn	Pn	17 27 57.1	+1.8
GRI				Sn	Sn	17 28 47.7	-2.9
KNT	Kendrikon	4.90	10	P	Pn	17 27 56.4	+1.1
KNT	Kendrikon	4.90	10	P	Pn	17 27 56.4	+1.1
SRS	Serrai	4.99	16	P	Pn	17 27 57.2	+0.7
SRS	Serrai	4.99	16	P	Pn	17 27 57.2	+0.7
VAY	Valandovo	5.02	7	P	Pn	17 27 56.9	0.0
VAY	Valandovo	5.02	7	*e*Pn	Pn	17 27 58.0	+1.0
VAY				*e*Sn	Sn	17 28 53.0	-0.6
VAY	Valandovo	5.02	7	*e*Pn	Pn	17 27 57.9	+1.0
VAY				*e*Sn	Sn	17 28 53.0	-0.6
CEL	Celeste	5.04	294	*e*Pn	Pn	17 27 57.8	+0.6
	249nm,0.8s						
CEL				*e*Sn	Sn	17 28 48.4	-5.7
CEL	Celeste	5.04	294	*e*Pn	Pn	17 27 57.8	+0.6
	249nm,0.8s						
KRUS	Krusevo	5.04	356	*i* Pn	Pn	17 27 58.0	+0.8
KRUS				*e*Sn	Sn	17 28 52.8	-1.4
KRUS	Krusevo	5.04	356	*i* Pn	Pn	17 27 58.0	+0.8
KRUS				*e*Sn	Sn	17 28 52.7	-1.4
MTTG	Motta San Giov	5.10	291	Pn	Pn	17 27 59.1	+1.0
MTTG				Sn	Sn	17 28 50.8	-4.9
MTTG	Motta San Giov	5.10	291	Pn	Pn	17 27 59.1	+1.0
MTTG				Sn	Sn	17 28 50.8	-4.9
ARG	Arkhangelos	5.17	89	*e*P	Pn	17 28 01.0	+2.0
ARG	Arkhangelos	5.17	89	*e*P	Pn	17 28 01.0	+2.0
SCLL	Scilla	5.17	294	Pn	Pn	17 28 00.0	+1.0
	57nm,0.3s						
SCLL	Scilla	5.17	294	Pn	Pn	17 28 00.0	+1.0
	57nm,0.3s						
TIR	Tirane	5.21	344	P	Pn	17 28 00.0	+0.4
TIR	Tirane	5.21	344	P	Pn	17 28 00.0	+0.4
MSI	Messina ING	5.27	293	P	Pn	17 28 01.6	+1.2
MSI				pmax	pmax		
	comp=Z,1µm,0.6s						
MSI	Messina ING	5.27	293	Pn	Pn	17 28 01.6	+1.2
	comp=Z,1µm,0.6s						
MSI	Messina ING	5.27	293	Pn	Pn	17 28 01.6	+1.2
	comp=Z,1µm,0.6s						
NVR	Nevrokopi	5.27	18	P	Pn	17 28 03.1	+2.7
NVR	Nevrokopi	5.27	18	P	Pn	17 28 03.1	+2.7
HAVL	Avola	5.35	279	Pn	Pn	17 28 01.4	-0.1
	comp=Z,313nm,0.6s						
HAVL	Avola	5.35	279	Pn	Pn	17 28 01.4	-0.1
	comp=Z,313nm,0.6s						
SSY	Sortino	5.41	281	Pn	Pn	17 28 01.8	-0.6
SSY				Sn	Sn	17 28 58.8	-4.6
SSY	Sortino	5.41	281	Pn	Pn	17 28 01.8	-0.6
SSY				Sn	Sn	17 28 58.8	-4.6
TAR1	Taranto	5.45	321	*e*Pn	Pn	17 28 03.3	+0.4
MMB	Musomiste	5.47	16	P	Pn	17 28 04.7	+1.6
ORI	Oriolo Calabro	5.58	313	P	Pn	17 28 06.4	+1.7
ORI				pmax	pmax		
	comp=Z,238nm,0.4s						
ORI	Oriolo Calabro	5.58	313	Pn	Pn	17 28 06.4	+1.7
	comp=Z,238nm,0.4s						
ORI	Oriolo Calabro	5.58	313	Pn	Pn	17 28 06.4	+1.7
	comp=Z,238nm,0.4s						
PE1	Pezze di Greco	5.60	324	*e*Pn	Pn	17 28 05.1	+0.2
KKB	Krupnik	5.62	10	P	Pn	17 28 06.6	+1.4
HMDC	Modica	5.62	278	Pn	Pn	17 28 05.2	-0.1
	comp=Z,213nm,0.7s						
HMDC	Modica	5.62	278	Pn	Pn	17 28 05.2	-0.1
	comp=Z,213nm,0.7s						
SKO	Skopje	5.63	358	P	Pn	17 28 06.6	+1.2
SKO	Skopje	5.63	358	*i* Pn	Pn	17 28 06.9	+1.5
SKO				*e*Sn	Sn	17 29 06.1	-2.6
SKO	Skopje	5.63	358	*i* Pn	Pn	17 28 06.9	+1.5
SKO				*e*Sn	Sn	17 29 06.0	-2.7
RDO	Rodhopi	5.65	31	*e*P	Pn	17 28 06.5	+0.9
RDO	Rodhopi	5.65	31	*e*P	Pn	17 28 06.5	+0.9
ALN	Alexandroupoli	5.67	35	P	Pn	17 28 05.5	-0.3
ALN	Alexandroupoli	5.67	35	P	Pn	17 28 05.5	-0.3
HVZN	Vizzini	5.70	281	Pn	Pn	17 28 06.7	+0.4
	comp=Z,395nm,0.9s						
HVZN	Vizzini	5.70	281	Pn	Pn	17 28 06.7	+0.4
	comp=Z,395nm,0.9s						
LTRZ	Laterza	5.75	319	Pn	Pn	17 28 06.9	0.0
	comp=Z,128nm,0.5s						
LTRZ	Laterza	5.75	319	Pn	Pn	17 28 06.9	0.0
	comp=Z,128nm,0.5s						
RZN	Rozhen	5.83	23	P	Pn	17 28 10.6	+2.6
WDD	Wield Dalam	5.86	268	*e*Pn	Pn	17 28 08.3	-0.2
	comp=Z,257nm,0.6s						
WDD				*e*Sn	Sn	17 29 10.4	-3.9
WDD	Wield Dalam	5.86	268	*e*Pn	Pn	17 28 08.3	-0.2
	comp=Z,257nm,0.6s						
CUC	Castrocucco	5.92	310	*e*Pn	Pn	17 28 10.4	+1.0
	comp=Z,155nm,0.6s						
CUC	Castrocucco	5.92	310	*e*Pn	Pn	17 28 10.4	+1.1
	comp=Z,155nm,0.6s						
ULC	Ulcinj	5.94	342	⇓*i*Pn	Pn	17 28 09.3	-0.3
ULC				*e*Sn	Sn	17 29 14.0	-2.3
ULC	Ulcinj	5.94	342	⇓*i*Pn	Pn	17 28 09.3	-0.3
ULC				*e*Sn	Sn	17 29 14.0	-2.3
VAE	Valguarnera	5.98	283	P	Pn	17 28 13.7	+3.6
	comp=Z,6.5nm,0.3s,baz=330,slow=2.7,SNR=15						
VAE				S	Sn	17 29 19.7	+2.4
	comp=Z,16nm,0.3s,baz=44,slow=1.2,SNR=7.3						
VAE	Valguarnera	5.98	283	P	Pn	17 28 13.7	+3.6
VAE				S	Sn	17 29 19.7	+2.4
RAFF	Raffo Rosso	5.98	281	Pn	Pn	17 28 10.5	+0.3
RAFF	Raffo Rosso	5.98	281	Pn	Pn	17 28 10.5	+0.3
SG1	Sgolgore (BA)	5.99	320	*e*Pn	Pn	17 28 11.1	+0.8
BAI	Bari	6.09	323	*e*Pn	Pn	17 28 11.9	+0.3
PTRP	Pietrapertosa	6.11	315	Pn	Pn	17 28 14.5	+2.6
	comp=Z,136nm,0.5s						
PTRP	Pietrapertosa	6.11	315	Pn	Pn	17 28 14.5	+2.6
	comp=Z,136nm,0.5s						
MGR	Morigerati	6.17	310	Pn	Pn	17 28 13.7	+1.0
	comp=Z,94nm,0.7s						
MGR	Morigerati	6.17	310	Pn	Pn	17 28 13.7	+1.0
	comp=Z,94nm,0.7s						
CSLB	Castelbuono	6.34	287	Pn	Pn	17 28 16.3	+1.2
	comp=Z,32nm,0.3s						
CSLB	Castelbuono	6.34	287	Pn	Pn	17 28 16.3	+1.2
	comp=Z,32nm,0.3s						
KSL	Kastellorizon	6.34	89	*e*P	Pn	17 28 16.0	+0.8
KSL	Kastellorizon	6.34	89	*e*P	Pn	17 28 16.0	+0.8
BUM	Brajici-Budva	6.35	341	⇑*i*Pn	Pn	17 28 14.9	-0.3
BUM				*e*Sn	Sn	17 29 24.5	-1.8
BUM	Brajici-Budva	6.35	341	⇑*i*Pn	Pn	17 28 14.9	-0.3
BUM				*e*Sn	Sn	17 29 24.5	-1.8
ACER	Acerenza	6.35	316	Pn	Pn	17 28 16.8	+1.6
	comp=Z,326nm,0.4s						
ACER	Acerenza	6.35	316	Pn	Pn	17 28 16.8	+1.6
	comp=Z,326nm,0.4s						
VTS	Vitosha	6.35	10	P	Pn	17 28 16.7	+1.5
VTS	Vitosha	6.35	10	P	Pn	17 28 17.5	+2.3
VTS	Vitosha	6.35	10	P	Pn	17 28 16.7	+1.5
GIB	Gibilmanna	6.37	287	P	Pn	17 28 18.0	+2.5
GIB				pmax	pmax		
	comp=Z,164nm,0.8s						
GIB	Gibilmanna	6.37	287	Pn	Pn	17 28 18.0	+2.5
	comp=Z,164nm,0.8s						
GIB	Gibilmanna	6.37	287	Pn	Pn	17 28 18.0	+2.5
	comp=Z,164nm,0.8s						
PDG	Podgorica	6.38	343	⇑*i*Pn	Pn	17 28 15.5	-0.1
PDG				*e*Sn	Sn	17 29 25.3	-1.8
TTG	Podgorica	6.38	343	⇑*i*Pn	Pn	17 28 15.5	-0.1
TTG				*e*Sn	Sn	17 29 25.3	-1.8
TTG	Podgorica	6.38	343	⇑*i*Pn	Pn	17 28 15.5	-0.1
TTG				*e*Sn	Sn	17 29 25.3	-1.8
PVY	Plav	6.40	348	⇑*i*Pn	Pn	17 28 16.8	+1.0
PVY				*e*Sn	Sn	17 29 25.4	-2.1
PVY	Plav	6.40	348	⇑*i*Pn	Pn	17 28 16.8	+1.0
PVY				*e*Sn	Sn	17 29 25.4	-2.1
BARS	Barje	6.47	1	⇑*i*Pn	Pn	17 28 17.6	+0.7
SGO	Sicignano	6.57	312	P	Pn	17 28 20.0	+1.7
SGO				pmax	pmax		
	comp=Z,106nm,0.4s						
SGO	Sicignano	6.57	312	Pn	Pn	17 28 20.0	+1.7
	comp=Z,106nm,0.4s						
SGO	Sicignano	6.57	312	Pn	Pn	17 28 20.0	+1.7
	comp=Z,106nm,0.4s						
HCY	Herceg Novi	6.60	339	⇑*i*Pn	Pn	17 28 17.6	-1.0
HCY				*e*Sn	Sn	17 29 29.1	-3.3
HCY	Herceg Novi	6.60	339	⇑*i*Pn	Pn	17 28 17.6	-1.0
HCY				*e*Sn	Sn	17 29 29.1	-3.3
BEY	Berane	6.68	348	⇑*i*Pn	Pn	17 28 20.5	+0.8
BEY				*e*Sn	Sn	17 29 32.3	-2.1
IVA	Berane	6.68	348	⇑*i*Pn	Pn	17 28 20.5	+0.8
IVA				*e*Sn	Sn	17 29 32.3	-2.1
IVA	Berane	6.68	348	⇑*i*Pn	Pn	17 28 20.5	+0.8
IVA				*e*Sn	Sn	17 29 32.3	-2.1
NKY	Niksic	6.80	343	⇓*i*Pn	Pn	17 28 21.4	0.0
NKY				*e*Sn	Sn	17 29 35.8	-1.7
NKY	Niksic	6.80	343	⇓*i*Pn	Pn	17 28 21.4	0.0
NKY				*e*Sn	Sn	17 29 35.8	-1.7
CSSN	Cassano Irpino	6.93	313	Pn	Pn	17 28 25.2	+2.1
	comp=Z,61nm,0.4s						
CSSN	Cassano Irpino	6.93	313	Pn	Pn	17 28 25.2	+2.1
	comp=Z,61nm,0.4s						
BRY	Bratogost	7.00	340	⇓*i*Pn	Pn	17 28 23.5	-0.6
BRY				*e*Sn	Sn	17 29 39.3	-3.1
BRY	Bratogost	7.00	340	⇓*i*Pn	Pn	17 28 23.5	-0.6
BRY				*e*Sn	Sn	17 29 39.3	-3.1
SJES	Sjenica	7.05	349	⇑*i*Pn	Pn	17 28 24.6	-0.2
SJES				*e*Sn	Sn	17 29 41.1	-2.4
NISS		7.06	1	⇑*i*Pn	Pn	17 28 25.4	+0.5
MRB1	Monte Rocchett	7.13	314	Pn	Pn	17 28 27.7	+1.8
	comp=Z,251nm,0.6s						
MRB1	Monte Rocchett	7.13	314	Pn	Pn	17 28 27.7	+1.8
	comp=Z,251nm,0.6s						
RGNG	Rignano Grg	7.16	320	Pn	Pn	17 28 26.2	-0.1
RGNG	Rignano Grg	7.16	320	Pn	Pn	17 28 26.2	-0.1
ISP	Isparta	7.17	75	*d i*P	Pn	17 28 29.4	+2.9
ISP	Isparta	7.17	75	*e*Pn	Pn	17 28 28.9	+2.4
	comp=Z,36nm,0.6s						
ISP	Isparta	7.17	75	Pn	Pn	17 28 29.1	+2.6
ISP	Isparta	7.17	75	*e*Pn	Pn	17 28 28.9	+2.4
	comp=Z,36nm,0.6s						
ISP	Isparta	7.17	75	*i* P	Pn	17 28 29.4	+2.9
UPM	Unac-Piva	7.19	343	⇑*i*Pn	Pn	17 28 26.9	+0.1
UPM				*e*Sn	Sn	17 29 44.5	-2.6
UPM	Unac-Piva	7.19	343	⇑*i*Pn	Pn	17 28 26.9	+0.1
UPM				*e*Sn	Sn	17 29 44.5	-2.6
PLE	Pljevlja	7.21	346	⇑*i*Pn	Pn	17 28 27.4	+0.4
PLE				*e*Sn	Sn	17 29 44.5	-3.1
PLE	Pljevlja	7.21	346	⇑*i*Pn	Pn	17 28 27.4	+0.4
PLE				*e*Sn	Sn	17 29 44.5	-3.1
STON	Ston	7.23	336	*e*Pn	Pn	17 28 25.9	-1.3
STON				Sn	Sn	17 29 41.8	-6.2
STON	Ston	7.23	336	*e*Pn	Pn	17 28 26.0	-1.3
FG2	Serracapriola	7.48	319	Pn	Pn	17 28 31.3	+0.6
	comp=Z,18nm,0.2s						
FG2	Serracapriola	7.48	319	Pn	Pn	17 28 31.3	+0.6
	comp=Z,18nm,0.2s						
BOLS	Boljevac	7.49	1	⇑*i*Pn	Pn	17 28 30.6	-0.2
CIGN	Sant'Elia a Pi	7.51	317	Pn	Pn	17 28 33.0	+1.8
CIGN	Sant'Elia a Pi	7.51	317	Pn	Pn	17 28 33.0	+1.8
GRUS	Gruza	7.58	354	⇑*i*Pn	Pn	17 28 31.1	-1.0
SGG	Gregorio Mates	7.64	314	Pn	Pn	17 28 34.3	+1.4
	comp=Z,73nm,0.5s						
SGG	Gregorio Mates	7.64	314	Pn	Pn	17 28 34.3	+1.4
	comp=Z,73nm,0.5s						
BBLS	Lazići	7.73	347	⇑*i*Pn	Pn	17 28 33.2	-0.9
SWA2		7.74	155	⇓P	Pn	17 28 32.9	-1.3
SWA2				S	Sn	17 29 50.1	-10
DIVS	Divibare	7.87	351	⇑*i*Pn	Pn	17 28 35.1	-0.9
TRUS	Trudelj	7.94	353	⇑*i*Pn	Pn	17 28 35.1	-1.9
RNI2	Rionero Sannit	7.97	315	Pn	Pn	17 28 39.5	+2.1
	comp=Z,111nm,0.8s						
RNI2	Rionero Sannit	7.97	315	Pn	Pn	17 28 39.5	+2.1
	comp=Z,111nm,0.8s						
GZR	Gura Zlata	9.08	5	⇑*i*P	Pn	17 28 52.4	-0.2
GZR	Gura Zlata	9.08	5	P	Pn	17 28 53.1	+0.4
GZR	Gura Zlata	9.08	5	P	Pn	17 28 53.1	+0.5
BZS	Buzias	9.27	359	⇓*i*P	Pn	17 28 53.7	-1.5
BZS	Buzias	9.27	359	P	Pn	17 28 54.0	-1.2
BZS	Buzias	9.27	359	P	Pn	17 28 54.0	-1.2
VOIR		9.43	14	⇓*i*P	Pn	17 28 58.9	+1.5
VOIR		9.43	14	P	Pn	17 28 59.5	+2.1
VOIR		9.43	14	P	Pn	17 28 59.5	+2.1
CSS	Prodhromos	9.54	95	Pn	Pn	17 28 56.3	-2.6
CSS				Sn	Sn	17 30 34.5	-10
TIRR	Tirgusor	9.57	30	⇓*i*P	Pn	17 29 00.1	+0.7
TIRR	Tirgusor	9.57	30	⇓P	Pn	17 29 00.1	+0.7
TIRR	Tirgusor	9.57	30	P	Pn	17 29 00.1	+0.7
HARR	Harsova	9.58	28	⇓*i*P	Pn	17 29 00.4	+0.9
HARR	Harsova	9.58	28	⇓P	Pn	17 29 00.4	+0.9
HARR	Harsova	9.58	28	P	Pn	17 29 00.4	+0.9
MLR	Muntele Rosu	9.68	18	⇓*i*P	Pn	17 29 04.0	+3.2
MLR	Muntele Rosu	9.68	18	P	Pn	17 29 01.6	+0.8
	comp=Z,1.3nm,0.3s,baz=236,slow=11,SNR=3.3						
MLR				LR	LR	17 32 53.9	
	comp=Z,348nm,21.6s,baz=138,slow=38						
MLR	Muntele Rosu	9.68	18	P	Pn	17 29 01.6	+0.8
NVLJ	Novalja	9.74	330	*e*Pn	Pn	17 29 00.9	-0.7
NVLJ				Sn	Sn	17 30 41.1	-8.4
NVLJ	Novalja	9.74	330	*e*Pn	Pn	17 29 00.9	-0.7
RHK3	Tenkes	9.90	346	⇓*e*P	Pn	17 29 02.2	-1.6
BRTR	Keskin Array B	9.98	67	P	Pn	17 29 07.5	+2.6
	comp=Z,0.3nm,0.3s,baz=259,slow=13,SNR=18						
BRTR				LR	LR	17 33 37.4	
	comp=Z,696nm,18.5s,baz=307,slow=42						
BRTR	Keskin Array B	9.98	67	P	Pn	17 29 07.6	+2.6
AWBH		10.03	141	⇓P	Pn	17 29 03.3	-2.4
AWBH		10.03	141	P	Pn	17 29 03.3	-2.4
KEST	Kesra	10.05	270	P	Pn	17 29 05.7	-0.3
	comp=Z,0.2nm,0.3s,baz=71,slow=6.1,SNR=9.1						
KEST				S	Sn	17 30 55.4	-2.0
	comp=Z,0.2nm,0.3s,baz=23,slow=22,SNR=3.6						
KEST				LR	LR	17 34 12.5	
	comp=Z,177nm,19.0s,baz=40,slow=44						
PKSM	Moragy	10.14	348	⇑*i*P	Pn	17 29 04.9	-2.1
PKSM	Moragy	10.14	348	P	Pn	17 29 05.4	-1.6
PKSM	Moragy	10.14	348	P	Pn	17 29 05.4	-1.6
PLOR	Plostina	10.20	20	⇑*i*P	Pn	17 29 13.9	+6.0
VRI	Vrincioaia	10.24	20	⇓*i*P	Pn	17 29 10.8	+2.4
VRI	Vrincioaia	10.24	20	⇓P	Pn	17 29 10.8	+2.4
VRI	Vrincioaia	10.24	20	P	Pn	17 29 10.8	+2.4
VSL	Villasalto	10.26	292	*e*Pn	Pn	17 29 08.8	+0.1
VSL				*e*Sn	Sn	17 30 57.2	-5.2
VSL	Villasalto	10.26	292	*e*Pn	Pn	17 29 08.9	+0.1
AYT	Al 'Ayyat	10.30	127	P	Pn	17 29 06.3	-3.1
AYT	Al 'Ayyat	10.30	127	P	Pn	17 29 06.3	-3.1
PKS6	Bocsa	10.38	352	⇑*e*P	Pn	17 29 08.9	-1.5
DRGR		10.47	4	⇓*i*P	Pn	17 29 11.6	0.0
DRGR		10.47	4	P	Pn	17 29 11.8	+0.1
DRGR		10.47	4	P	Pn	17 29 11.8	+0.2
PKS9	Tamasi	10.56	347	⇓*e*P	Pn	17 29 11.2	-1.7
GCIS	Gornji Cirnik	10.57	336	*i* Pn	Pn	17 29 11.5	-1.5
GCIS				*i* Sn	Sn	17 31 01.2	-8.8
GCIS	Gornji Cirnik	10.57	336	*i* Pn	Pn	17 29 11.5	-1.5
KOT	Kottamia	10.60	124	⇑P	Pn	17 29 10.3	-3.2
KOT				S	Sn	17 30 54.1	-17
KOT	Kottamia	10.60	124	P	Pn	17 29 10.3	-3.2
KOT				S	Sn	17 30 54.1	-17
HSAF	As Saff	10.62	126	⇓P	Pn	17 29 10.5	-3.2
HSAF	As Saff	10.62	126	P	Pn	17 29 10.5	-3.3
HFRF	Wahat Farafira	10.73	147	⇓P	Pn	17 29 13.2	-2.1
HFRF	Wahat Farafira	10.73	147	P	Pn	17 29 13.2	-2.1
GLL	Jalalah	10.75	126	⇓P	Pn	17 29 12.2	-3.3
GLL	Jalalah	10.75	126	P	Pn	17 29 12.2	-3.3
BEHE	Becsehely	10.79	341	⇓*e*P	Pn	17 29 15.2	-0.7
BUD	Budapest	11.32	351	⇑*e*P	Pn	17 29 22.8	-0.4
BUD	Budapest	11.32	351	⇑*e*P	Pn	17 29 22.8	-0.4
PKSG		11.32	348	⇓*e*P	Pn	17 29 22.3	-1.0
SUZ		11.33	122	⇓P	Pn	17 29 20.2	-3.3
SUZ		11.33	122	P	Pn	17 29 20.2	-3.3
VOY	Vojsko	11.34	331	*e*Pn	Pn	17 29 22.9	-0.6
VOY				*e*Sn	Sn	17 31 19.8	-8.9
VOY	Vojsko	11.34	331	*e*Pn	Pn	17 29 22.9	-0.6
SOKA	Soboth	11.48	336	⇑*i*Pn	Pn	17 29 23.8	-1.7
SOKA				⇓*i*Sn	Sn	17 31 23.5	-8.8
SOKA	Soboth	11.48	336	Pn	Pn	17 29 23.8	-1.7
ZAF		11.49	125	⇓P	Pn	17 29 24.0	-1.7
ZAF		11.49	125	P	Pn	17 29 24.0	-1.7
OBKA	Obir	11.50	334	⇑*i*Pn	Pn	17 29 23.9	-1.8
OBKA				⇑*i*Sn	Sn	17 31 25.4	-7.2
OBKA	Obir	11.50	334	Pn	Pn	17 29 23.9	-1.8
HNTI	Hanita	11.53	102	Sn	Sn	17 31 22.1	-11
BURAR	Bucovina Array	11.56	12	⇑*i*P	Pn	17 29 28.5	+2.0
BURAR	Bucovina Array	11.56	12	⇑P	Pn	17 29 28.5	+2.0
BURAR	Bucovina Array	11.56	12	⇑P	Pn	17 29 28.5	+2.0
PGF	Pioggiola	11.63	306	*e*P	Pn	17 29 27.6	+0.1
	comp=Z,22nm,0.9s						
PGF	Pioggiola	11.63	306	*e*P	Pn	17 29 27.6	+0.1
PGF				pmax	pmax		
	comp=Z,11nm,0.9s						
PGF	Pioggiola	11.63	306	*e*P	Pn	17 29 27.6	+0.1
	comp=Z,11nm,0.9s						
PGF	Pioggiola	11.63	306	*e*P	Pn	17 29 27.6	+0.1
	comp=Z,11nm,0.9s						
PSZ	Piszkesteto	11.65	354	*e*P	Pn	17 29 26.5	-1.3
PSZ				pmax	pmax		
	comp=Z,39nm,0.8s						
PSZ	Piszkesteto	11.65	354	⇓*i*P	Pn	17 29 26.9	-0.9
PSZ	Piszkesteto	11.65	354	⇑*e*P	Pn	17 29 27.2	-0.6
PSZ	Piszkesteto	11.65	354	*e*Pn	Pn	17 29 26.5	-1.3
	comp=Z,39nm,0.8s						
PSZ				*e*Sn	Sn	17 31 24.1	-12
PSZ	Piszkesteto	11.65	354	*e*P	Pn	17 29 26.5	-1.3
	comp=Z,39nm,0.8s						
VLC	Villacollemand	11.66	316	*e*Pn	Pn	17 29 25.6	-2.3
VLC	Villacollemand	11.66	316	*e*Pn	Pn	17 29 25.6	-2.3
MMAI	Mount Meron Ar	11.73	102	P	Pn	17 29 24.6	-4.4
	comp=Z,1.6nm,0.3s,baz=316,slow=11,SNR=13						
MMAI				S	Sn	17 31 27.6	-11
	comp=Z,4.7nm,0.3s,baz=312,slow=21,SNR=6.4						
MMB1	Mount Meron ar	11.74	102	Sn	Sn	17 31 27.3	-11
MMB1	Mount Meron ar	11.74	102	Sn	Sn	17 31 27.3	-11
SLTI	Sal'it	11.74	107	Pn	Pn	17 29 25.0	-4.0
SLTI				Sn	Sn	17 31 25.0	-14
SLTI	Sal'it	11.74	107	Pn	Pn	17 29 25.0	-4.0
SLTI				Sn	Sn	17 31 25.0	-14
TRPA	Tarpa	11.80	3	⇓*e*P	Pn	17 29 31.1	+1.3
ARSA	Arzberg	11.84	339	⇓*i*Pn	Pn	17 29 29.0	-1.4
	SNR=7.6						
ARSA				⇓*i*Sn	Sn	17 31 33.9	-7.2
ARSA	Arzberg	11.84	339	Pn	Pn	17 29 29.0	-1.4
	SNR=7.6						
KZIT	Kziot	11.86	114	Pn	Pn	17 29 25.8	-4.9
KZIT				Sn	Sn	17 31 27.8	-14
KZIT	Kziot	11.86	114	Pn	Pn	17 29 26.3	-4.4
KZIT				Sn	Sn	17 31 27.8	-14
KSDI	Kefar Szold	11.87	101	Pn	Pn	17 29 26.9	-4.0
KSDI				Sn	Sn	17 31 30.1	-12
KSDI	Kefar Szold	11.87	101	Pn	Pn	17 29 26.9	-4.0
KSDI				Sn	Sn	17 31 30.1	-12
KIS	Kishinev	11.89	24	*e*P	Pn	17 29 39.0	+8.0
KIS	Kishinev	11.89	24	*e*P	Pn	17 29 29.0	-2.0
KIS	Kishinev	11.89	24	*e*P	Pn	17 29 29.0	-2.0
MYKA	Terra Mystica	11.93	332	⇑*i*Pn	Pn	17 29 30.3	-1.3
MYKA				⇑*i*Sn	Sn	17 31 36.1	-7.1
MYKA	Terra Mystica	11.93	332	Pn	Pn	17 29 30.3	-1.3
MMLI	Mount Malkishu	11.96	105	Sn	Sn	17 31 31.0	-13
MMLI	Mount Malkishu	11.96	105	Sn	Sn	17 31 31.0	-13
SOP	Sopron	11.97	343	⇓*e*P	Pn	17 29 27.9	-4.2
HNKL	Nakhl	12.08	118	⇑P	Pn	17 29 30.5	-3.3
HNKL				S	Sn	17 31 29.9	-17
HNKL	Nakhl	12.08	118	P	Pn	17 29 30.5	-3.3

HNKL				S	Sn	17 31 29.9	-17
HMDT	**Nahal Hemdat**	12.11	106	Pn	Pn	17 29 30.8	-3.3
HMDT				Sn	Sn	17 31 35.4	-12
HMDT	**Nahal Hemdat**	12.11	106	Pn	Pn	17 29 32.2	-1.9
HMDT				Sn	Sn	17 31 35.4	-12
KECS	**Kecovo**	12.17	356	*e*PN	Pn	17 29 34.6	-0.3
KECS				*e*		17 29 42.5	
KECS	**Kecovo**	12.17	356	*e*SN	Sn	17 31 40.3	-8.8
KECS	**Kecovo**	12.17	356	*e*Pn	Pn	17 29 34.6	-0.3
KECS				*e*		17 29 42.5	
KECS				*e*Sn	Sn	17 31 40.3	-8.8
YTIR	**Yattir**	12.18	110	Pn	Pn	17 29 30.3	-4.7
YTIR				Sn	Sn	17 31 34.6	-15
YTIR	**Yattir**	12.18	110	Pn	Pn	17 29 30.3	-4.7
YTIR				Sn	Sn	17 31 34.6	-15
DSI	**Dead Sea**	12.28	109	Pn	Pn	17 29 32.4	-4.1
DSI				Sn	Sn	17 31 39.1	-13
DSI	**Dead Sea**	12.28	109	Pn	Pn	17 29 32.4	-4.1
DSI				Sn	Sn	17 31 39.1	-13
UZH	**Uzhgorod**	12.29	2	*e*P	Pn	17 29 37.6	+1.1
UZH	**Uzhgorod**	12.29	2	*e*P	Pn	17 29 37.6	+1.1
VYHS	**Vyhne**	12.34	351	*e*PN	Pn	17 29 34.2	-2.9
VYHS				*e*SN	Sn	17 31 43.6	-9.4
CONA	**Conrad Observa**	12.37	341	⇑*i*Pn	Pn	17 29 36.3	-1.2
CONA	**Conrad Observa**	12.37	341	Pn	Pn	17 29 36.3	-1.3
CSNA	**Conrad Observa**	12.37	341	⇑*i*Pn	Pn	17 29 36.2	-1.4
CSNA				⇑*i*Sn	Sn	17 31 46.6	-7.3
CSNA	**Conrad Observa**	12.37	341	Pn	Pn	17 29 36.2	-1.4
MZDA	**Masada**	12.39	110	Pn	Pn	17 29 32.9	-5.0
MZDA				Sn	Sn	17 31 41.4	-13
MZDA	**Masada**	12.39	110	Pn	Pn	17 29 33.1	-4.8
MZDA				Sn	Sn	17 31 41.4	-13
KBA	**Koelnbreinsper**	12.42	332	⇑*i*Pn	Pn	17 29 37.6	-0.6
	SNR=8.8						
KBA				⇑*i*Sn	Sn	17 31 47.8	-7.3
KBA	**Koelnbreinsper**	12.42	332	Pn	Pn	17 29 37.6	-0.6
	SNR=8.8						
MODS	**Modra-Piesok**	12.47	346	*e*PN	Pn	17 29 37.6	-1.3
MODS				*e*SN	Sn	17 31 48.1	-8.2
MODS	**Modra-Piesok**	12.47	346	*e*P	Pn	17 29 37.6	-1.3
ABTA	**Abfaltersbach**	12.48	329	⇓*i*Pn	Pn	17 29 38.7	-0.3
ABTA	**Abfaltersbach**	12.48	329	Pn	Pn	17 29 38.7	-0.3
KRMI	**Paran Flat**	12.51	116	Sn	Sn	17 31 43.7	-14
KRMI	**Paran Flat**	12.51	116	Sn	Sn	17 31 43.7	-14
CRVS	**Cervenica-Dubn**	12.56	359	*e*PN	Pn	17 29 39.7	-0.4
CRVS				*e*		17 29 53.1	
CRVS	**Cervenica-Dubn**	12.56	359	*e*P	Pn	17 29 39.7	-0.4
PRNI	**Paran**	12.59	114	Pn	Pn	17 29 36.1	-4.6
PRNI				Sn	Sn	17 31 45.5	-14
PRNI	**Paran**	12.59	114	Pn	Pn	17 29 36.1	-4.6
PRNI				Sn	Sn	17 31 45.5	-14
KOLS	**Kolonicke sedl**	12.60	2	*e*PN	Pn	17 29 40.6	0.0
KOLS				*e*SN	Sn	17 31 57.1	-2.3
KOLS	**Kolonicke sedl**	12.60	2	*e*P	Pn	17 29 40.6	0.0
KOLS				*e*S	Sn	17 31 57.1	-2.3
HDK1	**Dakhla**	12.61	146	P	Pn	17 29 39.0	-1.9
HDK1	**Dakhla**	12.61	146	P	Pn	17 29 39.0	-1.9
ZFRI	**Zfri**	12.62	113	Sn	Sn	17 31 45.7	-14
ZFRI	**Zfri**	12.62	113	Sn	Sn	17 31 45.7	-14
MOA	**Molln**	12.76	337	⇑*i*Pn	Pn	17 29 41.3	-1.6
	SNR=11						
MOA				⇑*i*Sn	Sn	17 31 57.7	-5.8
MOA	**Molln**	12.76	337	Pn	Pn	17 29 41.3	-1.6
	SNR=11						
MBRI	**Mt Berech**	12.83	117	Pn	Pn	17 29 39.0	-4.9
MBRI				Sn	Sn	17 31 50.8	-15
MBRI	**Mt Berech**	12.83	117	Pn	Pn	17 29 39.0	-4.9
MBRI				Sn	Sn	17 31 50.8	-15
EIL	**Elat**	12.93	117	P	Pn	17 29 41.2	-4.0
	comp=Z,0.6nm,0.3s,baz=313,slow=13,SNR=9.6						
EIL				S	Sn	17 31 55.4	-12
	comp=Z,2.5nm,0.3s,baz=356,slow=19,SNR=5.5						
EIL	**Elat**	12.93	117	Pn	Pn	17 29 41.1	-4.2
EIL				Sn	Sn	17 31 53.3	-14
EIL	**Elat**	12.93	117	Pn	Pn	17 29 41.0	-4.3
EIL				Sn	Sn	17 31 53.3	-14
STHS	**Stebnicka Huta**	13.08	359	*e*PN	Pn	17 29 47.7	+0.5
STHS				*e*		17 29 59.6	
STHS	**Stebnicka Huta**	13.08	359	*e*P	Pn	17 29 47.7	+0.5
ASF	**Jabal al Asfar**	13.21	104	P	Pn	17 29 47.6	-1.5
	comp=Z,0.3nm,0.3s,baz=147,slow=8.4,SNR=3.3						
ASF				S	Sn	17 32 05.4	-9.2
	comp=Z,0.5nm,0.3s,baz=23,slow=19,SNR=3.1						
HDHB	**Dhahab**	13.25	121	P	Pn	17 29 46.5	-3.2
HDHB	**Dhahab**	13.25	121	P	Pn	17 29 46.5	-3.2
WTTA	**Wattenberg**	13.25	329	⇓*i*Pn	Pn	17 29 48.7	-0.9
WTTA				⇑*i*Sn	Sn	17 32 06.7	-8.7
WTTA	**Wattenberg**	13.25	329	Pn	Pn	17 29 48.7	-0.9
SBF	**Sospel**	13.27	309	*e*P	Pn	17 29 49.7	-0.1
SBF	**Sospel**	13.27	309	*e*P	Pn	17 29 49.7	-0.1
MALT	**Malatya**	13.43	77	⇓*i*P	Pn	17 29 55.0	+2.9
MALT	**Malatya**	13.43	77	*e*Pn	Pn	17 29 53.5	+1.3
	comp=Z,14nm,0.8s						
MALT	**Malatya**	13.43	77	*e*Pn	Pn	17 29 53.5	+1.4
	comp=Z,14nm,0.8s						
HDK2	**Wahat Dakhilah**	13.49	151	⇑P	Pn	17 29 52.3	-0.7
HDK2	**Wahat Dakhilah**	13.49	151	P	Pn	17 29 52.3	-0.8
VRAC	**Vranov**	13.50	345	⇑*i*P	Pn	17 29 52.0	-0.9
VRAC	**Vranov**	13.50	345	P	Pn	17 29 50.9	-2.0
	comp=Z,0.4nm,0.3s,baz=186,slow=11,SNR=6.0						
VRAC	**Vranov**	13.50	345	⇑P	Pn	17 29 52.0	-0.9
VRAC	**Vranov**	13.50	345	*e*Pn	Pn	17 29 51.8	-1.1
MOTA	**Moosalm**	13.54	328	⇑*i*Pn	Pn	17 29 53.6	+0.1
MOTA				⇓*i*Sn	Sn	17 32 16.9	-5.6
MOTA	**Moosalm**	13.54	328	Pn	Pn	17 29 53.6	+0.1
LVV	**L’vov**	13.58	6	*e*P	Pn	17 29 55.8	+1.8
LVV	**L’vov**	13.58	6	*e*P	Pn	17 29 55.8	+1.8
FRF	**La Foret Royal**	13.63	307	*e*P	Pn	17 29 53.8	-1.0
	comp=Z,12nm,0.8s						
FRF	**La Foret Royal**	13.63	307	*e*P	Pn	17 29 53.8	-1.0
FRF				pmax	pmax		
	comp=Z,6.0nm,0.8s						
FRF	**La Foret Royal**	13.63	307	*e*P	Pn	17 29 53.8	-1.0
	comp=Z,6.1nm,0.8s						
DAVOX	**Davos/Dischmat**	13.68	323	P	Pn	17 29 58.5	+3.0
	comp=Z,0.5nm,0.3s,baz=162,slow=19,SNR=4.9						
DAVOX				S	Sn	17 32 21.7	-4.2
	comp=Z,1.4nm,0.3s,baz=321,slow=23,SNR=6.0						
TUE	**Stuetta**	13.73	321	*e*Pn	Pn	17 29 51.1	-5.0
	comp=Z,14nm,0.8s						
TUE				*e*Sn	Sn	17 32 10.6	-16
TREC	**Trest**	13.73	343	AMS	AMS	17 36 10.0	
	comp=Z,1µm,16.3s						
OKC	**Ostrava-Krasne**	13.74	350	*e*P	Pn	17 30 05.8	+10
OKC				*e*S	Sn	17 32 24.1	-3.3
OKC				AMS	AMS	17 36 30.0	
	comp=Z,2µm,6.2s						
OKC	**Ostrava-Krasne**	13.74	350	*e*P	Pn	17 30 05.8	+10
OKC				*e*S	Sn	17 32 24.1	-3.3
DAVOS	**Davos**	13.77	323	P	Pn	17 29 58.5	+1.9
DAVOS				S	Sn	17 32 21.7	-6.2
MORC	**Moravsky Berou**	13.78	349	⇓*i*P	Pn	17 29 56.2	-0.5
MORC	**Moravsky Berou**	13.78	349	*e*Pn	Pn	17 29 54.5	-2.2
	comp=Z,12nm,0.8s						
MORC	**Moravsky Berou**	13.78	349	*e*Pn	Pn	17 29 54.5	-2.2
	comp=Z,12nm,0.8s						
GERES	**GERESS Array B**	13.82	337	P	Pn	17 29 55.1	-2.2
	comp=Z,0.9nm,0.3s,baz=150,slow=14,SNR=22						
GERES				S	Sn	17 32 21.6	-7.6
	comp=Z,1.0nm,0.3s,baz=151,slow=23,SNR=8.1						
KHC	**Kasperske Hory**	14.11	338	*e*P	Pn	17 29 59.2	-2.1
KHC				*e*x	x	17 30 12.5	
KHC				*e*S	Sn	17 32 26.0	-10
KHC				*e*x	x	17 32 54.5	
KHC				AMS	AMS	17 36 10.0	
	comp=Z,1µm,18.4s						
MBDF	**Montbardon**	14.12	311	*e*P	Pn	17 29 59.6	-1.8
	comp=Z,18nm,0.6s						
MBDF	**Montbardon**	14.12	311	*e*P	Pn	17 29 59.6	-1.8
MBDF				pmax	pmax		
	comp=Z,9.0nm,0.6s						
MBDF	**Montbardon**	14.12	311	*e*P	Pn	17 29 59.6	-1.8
	comp=Z,9.1nm,0.6s						
HSFG		14.24	130	P	Pn	17 30 00.9	-2.4
HSFG		14.24	130	P	Pn	17 30 00.9	-2.3
BNI	**Bardonecchia**	14.34	312	*e*P	Pn	17 30 05.6	+1.1
BNI				pmax	pmax		
	comp=Z,30nm,1.6s						
BNI	**Bardonecchia**	14.34	312	*e*Pn	Pn	17 30 05.6	+1.1
	comp=Z,30nm,1.6s						
BNI	**Bardonecchia**	14.34	312	*e*Pn	Pn	17 30 05.6	+1.1
	comp=Z,30nm,1.6s						
SMRF	**Simiane la Rot**	14.51	307	*e*P	Pn	17 30 04.7	-2.0
LPG	**La Plagne**	14.54	314	*e*P	Pn	17 30 05.4	-1.7
	comp=Z,9.4nm,0.8s						
LPG	**La Plagne**	14.54	314	*e*P	Pn	17 30 05.4	-1.7
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
LPG	**La Plagne**	14.54	314	*e*P	Pn	17 30 05.4	-1.7
	comp=Z,4.7nm,0.8s						
DPC	**Dobruska-Polom**	14.54	346	*e*P	Pn	17 30 06.8	-0.3
DPC				AMS	AMS	17 37 00.0	
	comp=Z,900nm,16.1s						
LPL	**La Plagne**	14.56	314	*e*P	Pn	17 30 06.2	-1.2
ANN	**Anapa**	14.60	50	*e*P	Pn	17 30 11.4	+3.5
ANN				pmax	pmax		
	comp=Z,87nm,0.9s						
ANN	**Anapa**	14.60	50	*e*P	Pn	17 30 11.4	+3.5
	comp=Z,87nm,0.9s						
PRU	**Pruhonice**	14.61	341	*e*P	Pn	17 30 07.9	-0.1
PRU				AMS	AMS	17 36 40.0	
	comp=Z,1µm,18.6s						
UPC	**Upice**	14.76	346	*e*P	Pn	17 30 15.3	+5.4
UPC				*e*S	Sn	17 32 29.9	-22
UPC	**Upice**	14.76	346	*e*P	Pn	17 30 15.3	+5.4
ORIF	**Oris-en-Rattie**	14.76	310	*e*P	Pn	17 30 08.1	-1.9
	comp=Z,14nm,0.8s						
ORIF				*e*MLR	MLR		
	comp=Z,390nm,22.8s						
ORIF	**Oris-en-Rattie**	14.76	310	*e*P	Pn	17 30 08.1	-1.9
ORIF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ORIF	**Oris-en-Rattie**	14.76	310	*e*P	Pn	17 30 08.1	-1.9
	comp=Z,7.1nm,0.8s						
KSP	**Ksiaz**	15.02	347	*e*P	Pn	17 30 19.8	+6.4
KSP	**Ksiaz**	15.02	347	*e*P	Pn	17 30 19.8	+6.4
PVCC	**Panska Ves**	15.10	342	AMS	AMS	17 37 00.0	
	comp=Z,1µm,7.5s						
SPAK	**Spaichingen-Ko**	15.15	325	*e*P	Pn	17 30 21.0	+5.9
SPAK	**Spaichingen-Ko**	15.15	325	*e*P	Pn	17 30 21.0	+5.9
BBS	**Basel-Blauen**	15.33	321	*e*P	Pn	17 30 18.9	+1.5
BBS	**Basel-Blauen**	15.33	321	*e*P	Pn	17 30 18.9	+1.5
KIEV	**Kiev**	15.33	18	*e*P	Pn	17 30 14.9	-2.5
KIEV				pmax	pmax		
	comp=Z,11nm,0.8s						
KIEV	**Kiev**	15.33	18	*e*Pn	Pn	17 30 14.9	-2.5
	comp=Z,10nm,0.8s						
KIEV	**Kiev**	15.33	18	*e*Pn	Pn	17 30 14.9	-2.5
	comp=Z,10nm,0.8s						
AKASG	**Malin Array Be**	15.34	18	P	Pn	17 30 15.3	-2.2
	comp=Z,2.2nm,0.3s,baz=208,slow=12,SNR=13						
AKASG	**Malin Array Be**	15.34	18	P	Pn	17 30 15.3	-2.2
FELD	**Feldberg im Sc**	15.36	323	*e*P	Pn	17 30 21.0	+3.2
FELD	**Feldberg im Sc**	15.36	323	*e*P	Pn	17 30 21.0	+3.2
NKC	**Novy Kostel**	15.43	337	*e*P	Pn	17 30 18.0	-0.7
NKC				MLR	MLR		
	comp=N,800nm,19.2s						
STU	**Stuttgart**	15.46	327	P	Pn	17 30 19.1	0.0
STU	**Stuttgart**	15.46	327	Pn	Pn	17 30 19.1	0.0
VIVF	**Saint-Julien-l**	15.48	309	*e*P	Pn	17 30 18.0	-1.4
BFO	**Black Forest**	15.52	325	*e*P	Pn	17 30 15.5	-4.4
BFO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BFO	**Black Forest**	15.52	325	*e*Pn	Pn	17 30 15.5	-4.5
	comp=Z,5.0nm,0.8s						
CABF	**La Chapelle**	15.56	316	*e*P	Pn	17 30 18.4	-2.0
	comp=Z,16nm,0.9s						
CABF	**La Chapelle**	15.56	316	*e*P	Pn	17 30 18.4	-2.0
CABF				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CABF	**La Chapelle**	15.56	316	*e*P	Pn	17 30 18.4	-2.0
	comp=Z,7.8nm,0.9s						
BRG	**Berggiesshubel**	15.57	341	*e*P	Pn	17 30 20.6	+0.1
BRG				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BRG				pmax	pmax		
	comp=Z,6.0nm,1.3s						
BRG	**Berggiesshubel**	15.57	341	*e*P	Pn	17 30 20.6	+0.1
	comp=Z,9.2nm,1.1s						
BRG				*e*		17 30 26.2	
	comp=Z,12nm,1.2s						
LOMF	**Lomont**	15.61	319	*e*P	Pn	17 30 22.8	+1.8
LOMF	**Lomont**	15.61	319	*e*P	Pn	17 30 22.8	+1.8
LASF	**Ste Croix**	15.68	305	*e*P	Pn	17 30 20.3	-1.6
MOF	**Molkenrain**	15.78	321	*e*P	Pn	17 30 28.0	+4.8
MOF	**Molkenrain**	15.78	321	*e*P	Pn	17 30 28.0	+4.8
HINF	**Hinteralfeld**	15.89	321	*e*P	Pn	17 30 22.5	-2.2
	comp=Z,18nm,0.7s						
HINF	**Hinteralfeld**	15.89	321	*e*P	Pn	17 30 22.5	-2.2
HINF				pmax	pmax		
	comp=Z,9.0nm,0.7s						
HINF	**Hinteralfeld**	15.89	321	*e*P	Pn	17 30 22.5	-2.2
	comp=Z,9.1nm,0.7s						
ECH	**Echery**	16.01	322	*e*P	Pn	17 30 26.2	+0.1
ECH	**Echery**	16.01	322	*e*P	Pn	17 30 26.2	+0.1
MOX	**Moxa**	16.05	336	*e*P	Pn	17 30 27.7	+1.0
MOX							
	comp=Z,800nm,19.0s						
MOX	**Moxa**	16.05	336	*e*P	Pn	17 30 27.7	+1.0
	comp=Z,9µm,19.0s						
CDF	**Champ du Feu**	16.08	323	*e*P	Pn	17 30 25.2	-1.9
	comp=Z,17nm,0.7s						
CDF	**Champ du Feu**	16.08	323	*e*P	Pn	17 30 25.2	-1.9
CDF				pmax	pmax		
	comp=Z,8.0nm,0.7s						
CDF	**Champ du Feu**	16.08	323	*e*P	Pn	17 30 25.2	-1.9
	comp=Z,8.4nm,0.7s						
CLL	**Collm**	16.22	340	*e*P	Pn	17 30 28.0	-0.8
CLL				MLR	MLR		
	comp=Z,700nm,18.8s						
CLL	**Collm**	16.22	340	*e*P	Pn	17 30 28.0	-0.8
CLL				*i* pP	pP	17 30 32.9	-8.9
	comp=Z,48nm,1.9s						
CLL				*e*(PP)		17 30 51.0	
CLL	**Collm**	16.22	340	*e*P	Pn	17 30 28.0	-0.8
CLL				*i*		17 30 32.9	
LANF	**Langenberg**	16.23	325	*e*P	Pn	17 30 34.0	+5.0
TOD	**Tromm**	16.26	329	*e*P	Pn	17 30 29.9	+0.6
TOD	**Tromm**	16.26	329	*e*P	Pn	17 30 29.9	+0.6
HAU	**Haudompre**	16.28	321	*e*P	Pn	17 30 27.5	-2.0
	comp=Z,23nm,0.7s						
HAU				*e*MLR	MLR		
	comp=Z,356nm,17.8s						
HAU	**Haudompre**	16.28	321	*e*P	Pn	17 30 27.5	-2.0
HAU				pmax	pmax		
	comp=Z,12nm,0.7s						
HAU	**Haudompre**	16.28	321	*e*P	Pn	17 30 27.5	-2.0
	comp=Z,12nm,0.7s						
MTLF	**Montolieu**	16.52	301	*e*P	Pn	17 30 31.4	-1.3
THEF	**They Montfort**	16.60	321	*e*P	Pn	17 30 37.5	+3.8
THEF	**They Montfort**	16.60	321	*e*P	Pn	17 30 37.5	+3.8
SMF	**Signal de Mont**	16.87	313	*e*P	Pn	17 30 35.4	-1.6
	comp=Z,13nm,0.8s						
SMF	**Signal de Mont**	16.87	313	*e*P	Pn	17 30 35.4	-1.6
SMF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SMF	**Signal de Mont**	16.87	313	*e*P	Pn	17 30 35.4	-1.6
	comp=Z,6.7nm,0.8s						
RUP	**Ruppelstein**	17.09	326	*e*P	Pn	17 30 42.9	+3.2
RUP	**Ruppelstein**	17.09	326	*e*P	Pn	17 30 42.9	+3.2
CAF	**Calviac**	17.19	306	*e*P	Pn	17 30 38.9	-2.1
LOR	**Lormes**	17.19	315	*e*P	Pn	17 30 39.6	-1.4
	comp=Z,9.9nm,0.7s						
LOR				*e*MLR	MLR		
	comp=Z,266nm,19.0s						
LOR	**Lormes**	17.19	315	*e*P	Pn	17 30 39.6	-1.4
LOR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LOR	**Lormes**	17.19	315	*e*P	Pn	17 30 39.6	-1.4
	comp=Z,4.9nm,0.7s						
LOR	**Lormes**	17.19	315	*e*P	Pn	17 30 39.6	-1.4
	comp=Z,4.9nm,0.7s						
AVF	**Avril sur Loir**	17.23	313	*e*P	Pn	17 30 40.1	-1.4
	comp=Z,16nm,0.8s						
AVF	**Avril sur Loir**	17.23	313	*e*P	Pn	17 30 40.1	-1.4
AVF				pmax	pmax		
	comp=Z,8.0nm,0.8s						
AVF	**Avril sur Loir**	17.23	313	*e*P	Pn	17 30 40.1	-1.4
	comp=Z,7.9nm,0.8s						
AVF	**Avril sur Loir**	17.23	313	*e*P	Pn	17 30 40.1	-1.4
	comp=Z,7.9nm,0.8s						
MEZF	**Maizieres J’vi**	17.26	320	*e*P	Pn	17 30 40.0	-1.9
	comp=Z,28nm,0.8s						
MEZF	**Maizieres J’vi**	17.26	320	*e*P	Pn	17 30 40.0	-1.9
	comp=Z,28nm,0.8s						
MEZF	**Maizieres J’vi**	17.26	320	*e*P	Pn	17 30 40.0	-1.9
	comp=Z,14nm,0.8s						
SSF	**Saint Saulge**	17.28	314	*e*P	Pn	17 30 40.9	-1.2
	comp=Z,10nm,0.6s						
SSF	**Saint Saulge**	17.28	314	*e*P	Pn	17 30 40.9	-1.2
SSF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SSF	**Saint Saulge**	17.28	314	*e*P	Pn	17 30 40.9	-1.2
	comp=Z,5.3nm,0.6s						
SSF	**Saint Saulge**	17.28	314	*e*P	Pn	17 30 40.9	-1.2
	comp=Z,5.2nm,0.6s						
BGF	**Bois d’Agland**	17.42	312	*e*P	Pn	17 30 42.9	-0.9
BGF	**Bois d’Agland**	17.42	312	*e*P	Pn	17 30 42.9	-0.9
WLF	**Walferdange**	17.48	324	P	Pn	17 30 47.6	+3.1
	comp=Z,13nm,1.3s						
WLF	**Walferdange**	17.48	324	*e*P	Pn	17 30 41.5	-3.1
WLF				pmax	pmax		
	comp=Z,18nm,0.9s						
WLF	**Walferdange**	17.48	324	*e*Pn	Pn	17 30 41.5	-3.1
	comp=Z,18nm,0.9s						
TCF	**Toulx Ste Croi**	17.68	310	*e*P	Pn	17 30 46.4	-0.6
	comp=Z,14nm,0.9s						
TCF	**Toulx Ste Croi**	17.68	310	*e*P	Pn	17 30 46.4	-0.6
TCF				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TCF	**Toulx Ste Croi**	17.68	310	*e*P	Pn	17 30 46.4	-0.6
	comp=Z,6.8nm,0.9s						
TCF	**Toulx Ste Croi**	17.68	310	*e*P	Pn	17 30 46.4	-0.6
	comp=Z,6.8nm,0.9s						
RJF	**Les Rejaudoux**	17.70	307	*e*P	Pn	17 30 46.4	-0.8
	comp=Z,43nm,1.3s						
RJF				*e*MLR	MLR		
	comp=Z,196nm,19.5s						
RJF	**Les Rejaudoux**	17.70	307	*e*P	Pn	17 30 46.4	-0.8
RJF				pmax	pmax		
	comp=Z,21nm,1.3s						
RJF	**Les Rejaudoux**	17.70	307	*e*P	Pn	17 30 46.4	-0.8
	comp=Z,21nm,1.3s						
RJF	**Les Rejaudoux**	17.70	307	*e*P	Pn	17 30 46.4	-0.8
	comp=Z,21nm,1.3s						
KIV	**Kislovodsk**	17.70	58	*e*P	Pn	17 30 48.0	+0.6
KIV				pmax	pmax		
	comp=Z,43nm,1.2s						
KIV				MLR	MLR		
	comp=Z,76nm,10.0s						
KIV	**Kislovodsk**	17.70	58	*e*Pn	Pn	17 30 48.1	+0.7
	comp=Z,41nm,1.0s						
KIV	**Kislovodsk**	17.70	58	*e*P	Pn	17 30 48.0	+0.6
	comp=Z,76nm,10.0s						
SUW	**Suwalki**	17.70	3	*e*P	Pn	17 30 47.1	-0.2
SUW	**Suwalki**	17.70	3	*e*P	Pn	17 30 47.1	-0.2
SUW	**Suwalki**	17.70	3	*e*P	Pn	17 30 47.1	-0.2
EPF	**Esparros**	17.75	299	*e*P	Pn	17 30 47.1	-0.8
EPF	**Esparros**	17.75	299	*e*P	Pn	17 30 47.1	-0.8
LFF	**La Frestale**	18.07	305	*e*P	Pn	17 30 50.7	-1.1
LFF	**La Frestale**	18.07	305	*e*P	Pn	17 30 50.7	-1.1
MEM	**Membach**	18.21	326	P	Pn	17 30 55.8	+2.3
ETSF	**Etsaut**	18.36	298	*e*P	Pn	17 30 56.5	+1.1
	comp=Z,65nm,1.4s						
ETSF	**Etsaut**	18.36	298	*e*P	Pn	17 30 56.5	+1.1
ETSF				pmax	pmax		
	comp=Z,32nm,1.4s						
ETSF	**Etsaut**	18.36	298	*e*P	Pn	17 30 56.5	+1.1
	comp=Z,32nm,1.4s						
ETSF	**Etsaut**	18.36	298	*e*P	Pn	17 30 56.5	+1.1
	comp=Z,32nm,1.4s						
HGN	**Heimansgroeve**	18.36	327	⇑*e*P	Pn	17 30 58.0	+2.7
	comp=Z,14nm,1.5s						
BCLA	**Clavier**	18.40	325	P	Pn	17 30 58.5	+2.7
	comp=Z,11nm,2.2s						
GIVF	**Givet**	18.41	324	*e*P	Pn	17 30 57.8	+1.9
	comp=Z,58nm,1.0s						
GIVF	**Givet**	18.41	324	*e*P	Pn	17 30 57.8	+1.9
GIVF				pmax	pmax		
	comp=Z,29nm,1.0s						
GIVF	**Givet**	18.41	324	*e*P	Pn	17 30 57.8	+1.9
	comp=Z,29nm,1.0s						
GNI	**Garni**	18.46	71	⇑*e*P	Pn	17 30 57.2	+0.6
GNI				pmax	pmax		
	comp=Z,32nm,1.0s						
GNI	**Garni**	18.46	71	P	Pn	17 30 55.0	-1.6
	comp=Z,1.6nm,0.3s,baz=275,slow=2.9,SNR=17						
GNI				LR	LR	17 39 07.9	
	comp=Z,258nm,20.2s,baz=57,slow=40						
GNI	**Garni**	18.46	71	*e*Pn	Pn	17 30 56.8	+0.2
	comp=Z,27nm,0.9s						
GNI	**Garni**	18.46	71	*e*P	Pn	17 30 57.2	+0.6
	comp=Z,32nm,1.0s						
DOU	**Dourbes**	18.52	323	P	Pn	17 30 58.4	+1.2
DOU	**Dourbes**	18.52	323	P	Pn	17 30 58.4	+1.2
BAIF	**Baives**	18.68	323	*e*P	Pn	17 31 00.4	+1.2
BAIF	**Baives**	18.68	323	*e*P	Pn	17 31 00.4	+1.2
SJPF	**Ste Jean**	18.88	298	*e*P	Pn	17 31 01.4	-0.3
	comp=Z,26nm,0.8s						
SJPF	**Ste Jean**	18.88	298	*e*P	Pn	17 31 01.4	-0.3
SJPF				pmax	pmax		
	comp=Z,13nm,0.8s						
SJPF	**Ste Jean**	18.88	298	*e*P	Pn	17 31 01.4	-0.3
	comp=Z,13nm,0.8s						
SJPF	**Ste Jean**	18.88	298	*e*P	Pn	17 31 01.4	-0.3
	comp=Z,13nm,0.8s						
WTSB	**Winterswijk**	18.89	330	⇑*e*P	Pn	17 31 04.1	+2.4
	comp=Z,33nm,1.7s						
NACGM	**Naroch**	18.89	9	*e*	Pn	17 30 57.0	-4.6
UCC	**Uccle**	19.10	325	P	Pn	17 31 04.6	+0.4
	comp=Z,32nm,2.1s						
UCC	**Uccle**	19.10	325	P	Pn	17 31 04.6	+0.4
	comp=Z,32nm,2.1s						
MFF	**Saint Martin d**	19.28	309	*e*P	Pn	17 31 06.2	-0.2
	comp=Z,12nm,0.7s						
MFF	**Saint Martin d**	19.28	309	*e*P	Pn	17 31 06.2	-0.2
MFF				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MFF	**Saint Martin d**	19.28	309	*e*P	Pn	17 31 06.2	-0.2
	comp=Z,5.9nm,0.7s						
MFF	**Saint Martin d**	19.28	309	*e*P	Pn	17 31 06.2	-0.2
	comp=Z,5.9nm,0.7s						
BSD	**Bornholm Skovb**	19.36	348	*i* P	Pn	17 31 05.3	-1.9
BSD				pmax	pmax		
	comp=Z,39nm,0.8s						
BSD	**Bornholm Skovb**	19.36	348	*i* P	Pn	17 31 05.3	-1.9
	comp=Z,39nm,0.8s						
BSD	**Bornholm Skovb**	19.36	348	*i* P	Pn	17 31 05.3	-1.9
	comp=Z,39nm,0.8s						
VSR	**Storozhevoye**	19.41	35	*e*P	Pn	17 31 05.7	-2.2
VSR				pmax	pmax		
	comp=N,6.0nm,0.4s						
VSR				pmax	pmax		
	comp=Z,10.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,6.0nm,0.5s						
VSR	**Storozhevoye**	19.41	35	*e*P	Pn	17 31 05.7	-2.2
TAM	**Tamanrasset**	19.48	231	*e*P	Pn	17 31 10.3	+1.3
TAM				pmax	pmax		
	comp=Z,6.0nm,1.0s						
TAM	**Tamanrasset**	19.48	231	*e*P	Pn	17 31 10.3	+1.3
	comp=Z,6.4nm,1.0s						
TAM	**Tamanrasset**	19.48	231	*e*P	Pn	17 31 10.3	+1.3
	comp=Z,6.4nm,1.0s						
LDF	**La Druitiere**	20.17	314	*e*P	P	17 31 16.1	+1.4
	comp=Z,21nm,0.8s						
LDF	**La Druitiere**	20.17	314	*e*P	P	17 31 16.1	+1.4
LDF				pmax	pmax		
	comp=Z,11nm,0.8s						
LDF	**La Druitiere**	20.17	314	*e*P	P	17 31 16.1	+1.4
	comp=Z,11nm,0.8s						
LDF	**La Druitiere**	20.17	314	*e*P	P	17 31 16.1	+1.4
	comp=Z,11nm,0.8s						
COP	**Copenhagen**	20.37	345	*e*P	pP	17 31 29.5	+2.1
COP	**Copenhagen**	20.37	345	*i* P	pP	17 31 29.5	+2.1
FLN	**La Foliniere**	20.46	314	*e*P	P	17 31 19.2	+1.3
	comp=Z,19nm,0.7s						
FLN				*e*MLR	MLR		
	comp=Z,220nm,20.5s,MS3.2						
FLN	**La Foliniere**	20.46	314	*e*P	P	17 31 19.2	+1.3
FLN				pmax	pmax		
	comp=Z,10.0nm,0.7s						
FLN				MLR	MLR		
	comp=Z,220nm,20.5s,MS3.5						
FLN	**La Foliniere**	20.46	314	*e*P	P	17 31 19.2	+1.3
	comp=Z,9.5nm,0.7s						
FLN				LR	LR		
	comp=Z,220nm,20.5s,MS3.5						
FLN	**La Foliniere**	20.46	314	*e*P	P	17 31 19.2	+1.3
	comp=Z,9.5nm,0.7s						
GRR	**Gorron**	20.50	313	*e*P	P	17 31 18.8	+0.5
	comp=Z,53nm,1.2s						
GRR	**Gorron**	20.50	313	*e*P	P	17 31 18.8	+0.5

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GRR                                pmax    pmax
      comp=Z,26nm,1.2s
GRR   Gorron            20.50 313  eP      P          17 31 18.8 +0.5
      comp=Z,26nm,1.2s
GRR   Gorron            20.50 313  eP      P          17 31 18.8 +0.5
      comp=Z,26nm,1.2s
ESDC  Sonseca Array     20.50 287  P       P          17 31 20.3 +1.8
      comp=Z,2.0nm,0.5s,baz=75,slow=11,SNR=5.2
ESDC  Sonseca Array     20.50 287  P       P          17 31 20.3 +1.8
ESDC  Sonseca Array     20.50 287  P       P          17 31 20.3 +1.9
VRHR  Novokhopersk      20.50  38  eP      P          17 31 18.1 -0.2
VRHR                               pmax    pmax
      comp=Z,30nm,0.8s
VRHR                               pmax    pmax
      comp=N,40nm,0.6s
VRHR  Novokhopersk      20.50  38  eP      P          17 31 18.1 -0.2
      comp=N,40nm,0.6s
OBN   Obninsk           21.36  24⇓ eP      P          17 31 26.5 -1.1
OBN                                pmax    pmax
      comp=Z,78nm,1.2s,mb4.9
OBN                                MLR     MLR
      comp=Z,300nm,17.0s,MS3.8
OBN   Obninsk           21.36  24  eP      P          17 31 25.8 -1.7
      comp=Z,54nm,0.8s,mb4.9
OBN   Obninsk           21.36  24  eP      P          17 31 26.5 -1.1
      comp=Z,300nm,17.0s
SGMF  Saint Gilles      21.46 311  eP      P          17 31 27.9 -0.8
      comp=Z,41nm,0.9s,mb4.4
SGMF  Saint Gilles      21.46 311  eP      P          17 31 27.9 -0.8
SGMF                               pmax    pmax
      comp=Z,20nm,0.9s,mb4.5
SGMF  Saint Gilles      21.46 311  eP      P          17 31 27.9 -0.8
      comp=Z,20nm,0.9s,mb4.5
SGMF  Saint Gilles      21.46 311  eP      P          17 31 27.9 -0.8
      comp=Z,20nm,0.9s,mb4.4
MUD   Monsted U'grnd    21.84 341  i P     P          17 31 36.3 +3.6
MUD                                pmax    pmax
      comp=Z,15nm,0.8s,mb4.5
MUD   Monsted U'grnd    21.84 341  i P     P          17 31 36.3 +3.6
      comp=Z,15nm,0.8s,mb4.5
ROSF  Rostrenen         21.93 311  eP      P          17 31 32.4 -1.3
      comp=Z,28nm,0.8s,mb4.4
ROSF  Rostrenen         21.93 311  eP      P          17 31 32.4 -1.3
ROSF                               pmax    pmax
      comp=Z,14nm,0.8s,mb4.4
ROSF  Rostrenen         21.93 311  eP      P          17 31 32.4 -1.3
      comp=Z,14nm,0.8s,mb4.4
ROSF  Rostrenen         21.93 311  eP      P          17 31 32.4 -1.3
      comp=Z,14nm,0.8s,mb4.4
MDT   Midelt            21.95 269  P       P          17 31 35.9 +1.8
      comp=Z,3.9nm,0.8s,mb3.9,baz=88,slow=11,SNR=6.9
MDT                                LR      LR         17 42 06.9
      comp=Z,231nm,18.7s,MS3.6,baz=77,slow=42
MDT   Midelt            21.95 269  P       P          17 31 35.9 +1.8
MOS   Moscow            22.22  24  eP      P          17 31 35.9 -0.8
MOS                                pmax    pmax
      comp=Z,114nm,1.1s,mb5.2
MOS   Moscow            22.22  24  eP      P          17 31 35.9 -0.8
      comp=Z,114nm,1.1s,mb5.2
VSU   Vasula            22.38   7d iP      P          17 31 37.7 -0.7
VSU                                pmax    pmax
      comp=Z,58nm,1.0s,mb5.0
VSU   Vasula            22.38   7  i P     P          17 31 37.7 -0.7
      comp=Z,58nm,1.0s,mb5.0
MIB   Mutribah          22.39 100  eP      P          17 31 37.4 -1.3
MIB                                AMb     AMB        17 31 39.1
      comp=Z,69nm,0.8s,mb5.2
MIB   Mutribah          22.39 100  eP      P          17 31 37.4 -1.4
      comp=Z,69nm,0.8s,mb5.1
NAY   Al-Naaiem         22.54 101  eP      P          17 31 39.1 -1.2
NAY                                AMb     AMB        17 31 40.6
      comp=Z,27nm,0.6s,mb4.8
NAY   Al-Naaiem         22.54 101  eP      P          17 31 39.1 -1.3
      comp=Z,27nm,0.6s,mb4.8
QRN   Al-Qurain         23.29 101  eP      P          17 31 46.8 -1.5
QRN                                AMb     AMB        17 31 54.0
      comp=Z,32nm,0.9s,mb4.7
QRN   Al-Qurain         23.29 101  eP      P          17 31 46.8 -1.5
      comp=Z,32nm,0.9s,mb4.8
HFS   Hagfors           24.37 350  P       P          17 31 58.0 +0.1
      comp=Z,9.9nm,0.5s,mb4.5,baz=155,slow=11,SNR=52
HFS                                LR      LR         17 42 30.8
      comp=Z,269nm,18.2s,MS3.8,baz=168,slow=39
HFS   Hagfors           24.37 350  P       P          17 31 58.0 +0.1
KONO  Kongsberg         24.62 345  eP      pP         17 32 12.4 +0.6
EKA   Eskdalemuir Ar    25.49 326  P       P          17 32 09.2 +1.1
      comp=Z,4.2nm,0.6s,mb4.1,baz=133,slow=9.0,SNR=16
EKA                                PcP     PcP        17 35 39.6 +1.0
      comp=Z,1.4nm,0.7s,baz=103,slow=2.5,SNR=3.5
EKA   Eskdalemuir Ar    25.49 326  P       P          17 32 09.2 +1.1
EKA   Eskdalemuir Ar    25.49 326  PcP     PcP        17 35 39.7 +1.0
ESK   Eskdalemuir       25.50 326  eP      P          17 32 07.3 -0.9
ESK                                pmax    pmax
      comp=Z,11nm,0.7s,mb4.5
ESK   Eskdalemuir       25.50 326  eP      P          17 32 07.3 -0.8
      comp=Z,11nm,0.7s,mb4.5
ESK   Eskdalemuir       25.50 326  eP      P          17 32 07.3 -0.9
      comp=Z,11nm,0.7s,mb4.5
NB2   NORSAR Subarra    25.61 348  P       P          17 32 09.4 +0.3
      comp=Z,10nm,0.7s,mb4.5,baz=159,slow=10
NB2   NORSAR Subarra    25.61 348  P       P          17 32 09.4 +0.3
      comp=Z,10nm,0.7s,mb4.5,SNR=9.4
NOA   NORSAR Array B    25.61 348  P       P          17 32 09.4 +0.3
      comp=Z,7.4nm,0.7s,mb4.3,baz=160,slow=9.6,SNR=22
NOA                                LR      LR         17 43 28.8
      comp=Z,130nm,18.5s,MS3.5,baz=175,slow=39
NOA   NORSAR Array B    25.61 348  P       P          17 32 09.4 +0.3
KAF   Kangasniemi       25.96   5  ep      P          17 32 11.3 -0.9
KAF   Kangasniemi       25.96   5  eP      P          17 32 11.3 -0.9
KLMR  Klimovskoe        27.02  19  eP      P          17 32 23.3 +1.4
KLMR                               pmax    pmax
      comp=Z,52nm,1.6s,mb4.8
KLMR  Klimovskoe        27.02  19  eP      P          17 32 23.3 +1.4
      comp=Z,52nm,1.6s,mb4.8
JOF   Joensuu           27.26  10  eP      P          17 32 23.5 -0.5
JOF                                pmax    pmax
      comp=Z,7.0nm,0.6s,mb4.4
JOF   Joensuu           27.26  10  ep      P          17 32 23.5 -0.5
      comp=Z,7.4nm,0.6s,mb4.4
JOF   Joensuu           27.26  10  eP      P          17 32 23.5 -0.5
      comp=Z,7.0nm,0.6s,mb4.4
TORD  Torodi Ar. Bea    29.28 223  P       P          17 32 43.5 +1.1
      comp=Z,5.1nm,0.8s,mb4.3,baz=29,slow=8.1,SNR=4.6
TORD                               LR      LR         17 45 55.6
      comp=Z,224nm,20.9s,MS3.8,baz=35,slow=39
AKTK  Aktyubinsk        29.57  50  P       P          17 32 44.2 -0.5
AKTK                               LR      LR         17 47 52.8
AKTK  Aktyubinsk        29.57  50  P       P          17 32 44.2 -0.4
AKTO  Aktyubinsk        29.57  50  P       P          17 32 44.2 -0.5
      comp=Z,6.4nm,0.7s,mb4.5,baz=264,slow=9.3,SNR=22
AKTO                               LR      LR         17 47 52.7
      comp=Z,172nm,19.8s,MS3.7,baz=274,slow=43
ARU   Arti              31.83  39d iP      P          17 33 04.5 -0.1
ARU                                e                  17 34 05.4
ARU                                eS      S          17 38 13.6 +1.8
ARU                                SS      SS         17 40 00.0  -29
ARU                                pmax    pmax
      comp=Z,23nm,1.0s,mb5.0
ARU   Arti              31.83  39  eP      P          17 33 03.2 -1.3
      comp=Z,9.0nm,0.5s,mb4.9
ARU   Arti              31.83  39  i P     P          17 33 04.5 -0.1
      comp=Z,23nm,1.0s,mb5.0
SOKR  Solikamsk         32.41  33  eP      P          17 33 09.6  0.0
SOKR                               pmax    pmax
      comp=Z,20nm,1.0s,mb4.9
SOKR  Solikamsk         32.41  33  eP      P          17 33 09.6  0.0
      comp=Z,20nm,1.0s,mb4.9
SVE   Sverdlovsk        33.05  39⇓ eP      P          17 33 15.3 +0.1
SVE                                pmax    pmax
      comp=Z,62nm,1.0s,mb5.5
SVE   Sverdlovsk        33.05  39  eP      P          17 33 15.3 +0.1
      comp=Z,62nm,1.0s,mb5.5
ARCES ARCESS Array B    33.32   2  P       P          17 33 17.5 +0.1
      comp=Z,3.3nm,0.5s,mb4.5,baz=185,slow=11,SNR=13
ARCES                              LR      LR         17 48 04.8
      comp=Z,405nm,18.4s,MS4.2,baz=187,slow=38
ARCES ARCESS Array B    33.32   2  P       P          17 33 17.5 +0.1
KEV   Kevo              33.60   3  eP      P          17 33 19.7 -0.1
KEV                                pmax    pmax
      comp=Z,33nm,1.2s,mb5.1
KEV   Kevo              33.60   3  ep      P          17 33 19.7 -0.1
      comp=Z,33nm,1.2s,mb5.1
KEV   Kevo              33.60   3  eP      P          17 33 19.7 -0.1
      comp=Z,33nm,1.2s,mb5.1
BRVK  Borovoye          37.53  48  eP      P          17 33 52.6 -1.2
BRVK                               pmax    pmax
      comp=Z,16nm,1.1s,mb4.7
BRVK  Borovoye          37.53  48  eP      P          17 33 52.6 -1.1
      comp=Z,16nm,1.1s,mb4.7
BRVK  Borovoye          37.53  48  eP      P          17 33 52.6 -1.2
      comp=Z,16nm,1.1s,mb4.7
BVAR  Borovoye Array    37.59  48  P       P          17 33 54.4 +0.1
      comp=Z,3.2nm,0.5s,mb4.3,baz=259,slow=6.9,SNR=16
BVAR                               PP      PP         17 35 19.6 -0.9
      comp=Z,1.8nm,0.6s,baz=235,slow=5.2,SNR=3.6
BVAR  Borovoye Array    37.59  48  P       P          17 33 54.4 +0.1
BVAR  Borovoye Array    37.59  48  PP      PP         17 35 19.6 -0.9
KK31  Karatay Array     37.69  64  i P     P          17 33 55.1 -0.1
KK31                               pmax    pmax
      comp=Z,7.0nm,0.5s,mb4.7
KK31  Karatay Array     37.69  64  i P     P          17 33 55.1 -0.1
      comp=Z,7.0nm,0.5s,mb4.7
VOSK  Vostochnaya       37.92  49  P       P          17 33 55.2 -1.8
VOSK                               pmax    pmax
      comp=Z,11nm,1.4s,mb4.4
VOSK  Vostochnaya       37.92  49  P       P          17 33 55.2 -1.8
      comp=Z,11nm,1.4s,mb4.4
DBIC  Dimbokro          38.25 226  P       P          17 34 01.6 +1.3
      comp=Z,9.0nm,0.8s,mb4.5,baz=15,slow=8.6,SNR=9.4
DBIC                               LR      LR         17 50 13.5
      comp=Z,150nm,19.6s,MS3.8,baz=10,slow=37
DBIC  Dimbokro          38.25 226  P       P          17 34 01.5 +1.2
KBL   Kabul             38.29  78  eP      P          17 34 01.2 +0.8
KBL                                pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.5
KBL   Kabul             38.29  78  eP      P          17 34 01.2 +0.8
      comp=Z,5.9nm,0.6s,mb4.5
KBL   Kabul             38.29  78  eP      P          17 34 01.2 +0.8
      comp=Z,5.9nm,0.6s,mb4.5
TIC   Toumodi           38.37 226  eP      P          17 34 02.6 +1.4
      comp=Z,13nm,0.2s,mb5.2
KIC   Kosan Boka        38.44 225  eP      P          17 34 03.2 +1.4
      comp=Z,70nm,1.0s,mb5.3
LIC   Lamto             38.71 226  eP      P          17 34 05.4 +1.3
      comp=Z,18nm,0.7s,mb4.6
LIC                                eMLR    MLR
      comp=Z,197nm,22.5s,MS3.6
LIC   Lamto             38.71 226  eP      P          17 34 05.5 +1.4
      comp=Z,45nm,0.9s,mb5.2
LIC   Lamto             38.71 226  eP      P          17 34 05.4 +1.3
      comp=Z,9.1nm,0.7s,mb4.6
LIC                                LR      LR
      comp=Z,100nm,22.5s,MS3.6
LIC   Lamto             38.71 226  eP      P          17 34 05.4 +1.3
      comp=Z,9.1nm,0.7s,mb4.6
EKS2  Erkin-Say         40.12  64  P       P          17 34 16.2 +0.6
      SNR=19
AML   Almayashu         40.15  65  eP      P          17 34 15.1 -0.7
      comp=Z,5.6nm,0.6s,mb4.5
AML   Almayashu         40.15  65  eP      P          17 34 15.1 -0.7
      comp=Z,5.6nm,0.6s,mb4.5
USP   Ospenovka         40.55  63  P       P          17 34 19.7 +0.5
      SNR=8.8
AAK   Ala-Archa         40.65  64  P       P          17 34 20.9 +0.9
      SNR=5.2
FRU   Bishkek           40.71  64  eP      P          17 34 20.0 -0.4
FRU   Bishkek           40.71  64  eP      P          17 34 20.0 -0.4
UCH   Uchtor            40.73  65  P       P          17 34 21.5 +0.9
      SNR=6.3
UCH   Uchtor            40.73  65  eP      P          17 34 21.2 +0.5
      comp=Z,6.7nm,0.8s,mb4.3
UCH   Uchtor            40.73  65  eP      P          17 34 21.2 +0.6
      comp=Z,6.7nm,0.8s,mb4.3
CHMS  Chumysh           40.78  64  P       P          17 34 21.5 +0.5
      SNR=19
KBK   Karagaybulak      40.98  64  P       P          17 34 23.6 +1.0
      SNR=13
KZA   Kyzart            41.30  65  P       P          17 34 26.5 +1.3
      SNR=6.7
TKM2  Tokmak 2          41.40  64  eP      P          17 34 25.5 -0.6
TKM2                               pmax    pmax
      comp=Z,17nm,1.1s,mb4.6
TKM2  Tokmak 2          41.40  64  eP      P          17 34 25.5 -0.6
      comp=Z,17nm,1.1s,mb4.6
TKM2  Tokmak 2          41.40  64  eP      P          17 34 25.5 -0.6
      comp=Z,17nm,1.1s,mb4.6
ULHL  Ulahol            41.99  65  P       P          17 34 32.4 +1.4
      SNR=6.1
SPITS Spitsbergen Ar    42.01 358  P       P          17 34 32.2 +1.6
      comp=Z,6.5nm,0.5s,mb4.5,baz=238,slow=11,SNR=32
SPITS Spitsbergen Ar    42.01 358  P       P          17 34 32.2 +1.5
KSH   Kashi             42.36  69  eP      P          17 34 33.0 -1.0
KSH                                epP     pP         17 34 48.0 +1.9
KSH                                esP     sP         17 34 55.1 +3.8
KSH                                ePP     PP         17 36 14.0 +1.4
KSH                                ePcP    PcP        17 36 28.1 +1.3
KSH                                eScP    ScP        17 40 12.1 -1.7
KSH                                ePcS    PcS        17 40 18.0 -0.7
KSH                                eS      S          17 40 47.3 -4.9
KSH                                esS     sS         17 41 14.0 +1.7
KSH                                eSS     SS         17 43 50.1  -12
KSH                                eScS    ScS        17 44 28.0 -4.0
KSH                                pmax    pmax
      comp=Z,4.0nm,1.0s,mb4.0
KSH                                pmax    pmax
      comp=Z,310nm,4.2s
KSH                                LR      LR
      comp=N,270nm,5.8s
KSH                                LR      LR
      comp=E,300nm,5.5s
KSH                                LR      LR
      comp=Z,430nm,5.7s
KURK  Kurchatov         42.62  52  eP      P          17 34 34.9 -1.1
KURK                               pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.3
KURK  Kurchatov         42.62  52  LR      LR         17 54 40.4
      comp=Z,89nm,20.3s,MS3.6,baz=300,slow=39
KURK  Kurchatov         42.62  52  eP      P          17 34 34.9 -1.1
      comp=Z,3.6nm,0.6s,mb4.3
KURK  Kurchatov         42.62  52  eP      P          17 34 34.9 -1.1
      comp=Z,3.6nm,0.6s,mb4.3
NVS   Novosibirsk       45.24  46  eP      P          17 34 56.8 -0.1
NVS                                pmax    pmax
      comp=E,13nm,1.0s
NVS                                pmax    pmax
      comp=Z,22nm,1.0s,mb4.9
NVS   Novosibirsk       45.24  46  eP      P          17 34 56.8 -0.1
MK31  Makanchi Array    45.46  57  eP      P          17 34 58.0 -0.8
MK31                               pmax    pmax
      comp=Z,3.0nm,0.4s,mb4.5
MK31  Makanchi Array    45.46  57  eP      P          17 34 58.0 -0.8
      comp=Z,3.0nm,0.4s,mb4.5
MKAR  Makanchi Array    45.46  57  P       P          17 34 58.3 -0.5
      comp=Z,4.9nm,0.5s,mb4.6,baz=270,slow=7.5,SNR=83
MKAR  Makanchi Array    45.46  57  P       P          17 34 58.3 -0.5
ZAA0  Zalesovo Array    46.22  47  eP      P          17 35 03.4 -1.2
ZAA0  Zalesovo Array    46.22  47  eP      P          17 35 03.4 -1.3
ZALV  Zalesovo Beam     46.22  47  P       P          17 35 03.9 -0.7
      comp=Z,11nm,0.4s,mb5.1,baz=268,slow=8.9,SNR=56
ZALV  Zalesovo Beam     46.22  47  P       P          17 35 03.9 -0.7
ZALV  Zalesovo Beam     46.22  47  P       P          17 35 03.9 -0.8
SUMG  Summit            46.88 339  eP      P          17 35 11.6 +2.0
      comp=Z,8.3nm,1.0s,mb4.6
POO   Poona             48.94  97  ePKP    P          17 35 28.0 +1.7
LGTI  Lohaghat          48.97  80  ePKP    P          17 35 23.5 -2.9
WMQ   Urumqi            49.82  60  eP      P          17 35 35.0 +2.3
WMQ                                LR      LR
      comp=Z,310nm,20.6s,MS4.3
LSZ   Lusaka            51.69 172  eP      P          17 35 49.7 +2.8
LSZ   Lusaka            51.69 172  eP      P          17 35 49.7 +2.8
DANN  Dangsing          52.23  80  eP      P          17 35 51.5 +0.6
      comp=Z,188nm,0.6s
DANN  Dangsing          52.23  80  eP      P          17 35 51.5 +0.6
      comp=Z,188nm,0.6s
KOLN  Koldanda          52.35  81  eP      P          17 35 51.9  0.0
      comp=Z,67nm,0.9s,mb5.6
KOLN  Koldanda          52.35  81  eP      P          17 35 51.9  0.0
      comp=Z,67nm,0.9s,mb5.6
GKN   Gorkha            53.08  80  eP      P          17 35 57.1 -0.1
      comp=Z,87nm,0.6s,mb5.9
GKN   Gorkha            53.08  80  eP      P          17 35 57.1 -0.1
      comp=Z,87nm,0.6s,mb5.9
DMN   Daman             53.62  80  eP      P          17 36 01.5 +0.3
      comp=Z,100nm,0.6s,mb5.9
DMN   Daman             53.62  80  eP      P          17 36 01.5 +0.3
      comp=Z,100nm,0.6s,mb5.9
KKN   Kakani            53.68  80  eP      P          17 36 01.5 -0.2
      comp=Z,49nm,0.6s,mb5.6
KKN   Kakani            53.68  80  eP      P          17 36 01.5 -0.2
KKN                                pmax    pmax
      comp=Z,49nm,0.6s,mb5.6
KKN   Kakani            53.68  80  eP      P          17 36 01.5 -0.2
      comp=Z,49nm,0.6s,mb5.6
PKI   Pulchoki          53.88  80  eP      P          17 36 03.1  0.0
PKI   Pulchoki          53.88  80  eP      P          17 36 03.1  0.0
GUN   Gumba             54.10  79  eP      P          17 36 04.9 +0.2
      comp=Z,49nm,0.5s,mb5.7
GUN   Gumba             54.10  79  eP      P          17 36 04.9 +0.2
      comp=Z,49nm,0.5s,mb5.7
JIRN  Jiri              54.46  80  eP      P          17 36 07.5 +0.1
      comp=Z,39nm,0.5s,mb5.6
JIRN  Jiri              54.46  80  eP      P          17 36 07.5 +0.1
      comp=Z,39nm,0.5s,mb5.6
RAMN  Ramite            55.10  80  eP      P          17 36 11.7 -0.3
      comp=Z,51nm,0.7s,mb5.7
RAMN  Ramite            55.10  80  eP      P          17 36 11.7 -0.3
      comp=Z,51nm,0.7s,mb5.7
ODAN  Odare             55.77  80  eP      P          17 36 16.4 -0.4
      comp=Z,19nm,0.7s,mb5.2
ODAN  Odare             55.77  80  eP      P          17 36 16.4 -0.4
      comp=Z,19nm,0.7s,mb5.2
TAPN  Taplejung         55.81  79  eP      P          17 36 17.1  0.0
      comp=Z,16nm,0.4s,mb5.4
LSA   Lhasa             57.47  75  eP      P          17 36 29.9 +1.1
LSA                                e*PP    pP         17 36 46.2 +4.9
LSA                                pmax    pmax
      comp=Z,13nm,0.6s,mb5.1
LSA   Lhasa             57.47  75  eP      P          17 36 29.9 +1.1
      comp=Z,13nm,0.6s,mb5.1
LSA                                epP     pP         17 36 46.2 +4.9
LSA   Lhasa             57.47  75  eP      P          17 36 29.9 +1.1
      comp=Z,13nm,0.6s,mb5.1
TLY   Talaya            57.83  47  eP      P          17 36 31.3 +0.3
TLY                                pmax    pmax
      comp=Z,6.0nm,1.2s,mb4.5
TLY                                MLR     MLR
      comp=Z,123nm,16.0s,MS4.1
TLY   Talaya            57.83  47  eP      P          17 36 31.3 +0.3
      comp=Z,123nm,16.0s
ZAK   Zakamensk         58.05  48⇑ iP      P          17 36 32.9 +0.3
ZAK                                e                  17 37 30.3
ZAK                                e                  17 38 47.3
ZAK                                pmax    pmax
      comp=Z,6.0nm,0.9s,mb4.6
ZAK   Zakamensk         58.05  48  i P     P          17 36 32.9 +0.3
      comp=Z,6.0nm,0.9s,mb4.6
GTA   Gaotai            59.85  61  eP      P          17 36 45.1 -0.2
GTA                                pP      pP         17 36 58.4 +0.6
GTA                                sP      sP         17 37 04.6 +1.7
GTA                                pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.7
SCHQ  Schefferville     60.47 318  P       P          17 36 51.1 +1.8
      comp=Z,3.5nm,0.6s,mb4.6,baz=50,slow=6.9,SNR=11
SONM  Songino Array     60.88  50  P       P          17 36 52.3 +0.1
      comp=Z,6.8nm,0.9s,mb4.8,baz=282,slow=8.3,SNR=46
TIXI  Tiksi             61.04  20⇑ eP      P          17 36 52.4 -0.4
TIXI                               pmax    pmax
      comp=Z,12nm,0.8s,mb5.1
TIXI  Tiksi             61.04  20  eP      P          17 36 53.1 +0.2
      comp=Z,10nm,0.8s,mb5.0
TIXI                               epP     pP         17 37 07.2 +1.8
BOD   Bodaibo           61.23  38⇑ iP      P          17 36 53.6 -0.8
BOD                                pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.8
ULN   Ulaanbaatar       61.28  50  eP      P          17 36 54.7 -0.2
ULN                                pmax    pmax
      comp=Z,7.0nm,0.8s,mb4.8
ULN   Ulaanbaatar       61.28  50  eP      P          17 36 54.7 -0.1
      comp=Z,7.2nm,0.8s,mb4.8
LZH   Lanzhou           64.17  63  eP      P          17 37 14.8 +0.5
LZH                                pP      pP         17 37 29.5 +2.5
LZH                                sP      sP         17 37 38.0 +6.0
LZH                                pmax    pmax
      comp=Z,22nm,1.0s,mb5.1
LZH                                pmax    pmax
      comp=Z,76nm,4.0s
BOSA  Boshof            64.69 177  P       P          17 37 17.6 +0.1
      comp=Z,1.0nm,0.6s,mb4.0,baz=14,slow=8.3,SNR=2.5
BOSA                               LR      LR         18 05 20.3
      comp=Z,147nm,21.8s,MS4.1,baz=356,slow=36
YAK   Yakutsk           66.24  29  eP      P          17 37 26.4 -0.8
YAK                                pmax    pmax
      comp=Z,21nm,0.8s,mb5.2
YAK   Yakutsk           66.24  29  eP      P          17 37 26.1 -1.2
      comp=Z,29nm,0.7s,mb5.4
CD2   Chengdu           66.56  68  P       P          17 37 30.3 +0.5
CD2                                pP      pP         17 37 43.6 +1.0
CD2                                sP      sP         17 37 48.5 +0.9
CD2                                PP      PP         17 39 58.6 +2.1
CD2                                S       S          17 46 14.8 -2.9
CD2                                sS      sS         17 46 36.8 -2.1
CD2                                SS      SS         17 50 33.3 -1.7
CD2                                pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.9
CD2                                pmax    pmax
      comp=Z,210nm,6.7s
CD2                                LR      LR
      comp=N,370nm,5.9s
CD2                                LR      LR
      comp=Z,220nm,6.5s
HHC   Hu-ho-hao-te      67.28  55  eP      P          17 37 34.5 +0.2
HHC                                pP      pP         17 37 50.6 +3.6
HHC                                sP      sP         17 37 57.8 +5.7
HHC                                PP      PP         17 40 02.6  0.0
HHC                                PcS                17 42 06.1
HHC                                eS      S          17 46 21.9 -4.2
HHC                                sS      sS         17 46 49.1 +1.7
HHC                                ScS     ScS        17 47 22.4 -6.2
HHC                                SS      SS         17 50 41.0 -4.7
HHC                                pmax    pmax
      comp=Z,15nm,1.0s,mb5.0
HHC                                pmax    pmax
      comp=Z,220nm,5.4s
HHC                                LR      LR
      comp=N,190nm,16.6s,MS4.6
HHC                                LR      LR
      comp=E,230nm,15.5s,MS4.6
HHC                                LR      LR
      comp=Z,130nm,17.8s,MS4.2
HIA   Hailar            68.16  44  eP      P          17 37 39.9 +0.3
HIA                                pmax    pmax
      comp=Z,8.0nm,0.9s
HIA   Hailar            68.16  44  eP      P          17 37 39.9 +0.2
      comp=Z,8.0nm,0.9s,mb4.8
KMI   Kunming           68.68  74  P       P          17 37 43.8 +0.5
KMI                                pP      pP         17 37 59.1 +3.0
KMI                                sP      sP         17 38 05.8 +4.7
KMI                                PP      PP         17 40 18.6 +3.5
KMI                                S       S          17 46 40.0 -3.3
KMI                                sS      sS         17 47 04.0 -0.7
KMI                                SS      SS         17 51 06.8 -1.3
KMI                                pmax    pmax
      comp=Z,7.0nm,1.3s,mb4.4
KMI                                pmax    pmax
      comp=Z,100nm,6.7s
KMI                                LR      LR
      comp=N,140nm,15.4s,MS4.5
KMI                                LR      LR
      comp=E,200nm,16.2s,MS4.5
KMI                                LR      LR
      comp=Z,98nm,20.3s,MS4.0
XAN   Xi'an             68.80  63  P       P          17 37 43.9  0.0
XAN                                pmax    pmax
      comp=Z,7.0nm,0.9s,mb4.6
XAN                                pmax    pmax
      comp=Z,34nm,4.1s
CHTO  Chiang Mai        69.00  82  eP      P          17 37 44.9 -0.4
CHTO                               e*PP    pP         17 37 58.8 +0.7
CHTO                               pmax    pmax
      comp=Z,2.0nm,0.7s,mb4.2
CHTO  Chiang Mai        69.00  82  eP      P          17 37 44.9 -0.4
      comp=Z,2.0nm,0.7s,mb4.2
CHTO                               epP     pP         17 37 58.8 +0.6
CMAR  Chiang Mai Arr    69.19  82  P       P          17 37 46.6 +0.1
      comp=Z,2.0nm,0.6s,mb4.2,baz=302,slow=8.4,SNR=21
BJI   Beijing           70.73  54  P       P          17 37 55.3 -0.4
BJI                                pmax    pmax
      comp=Z,20nm,0.8s,mb5.1
GYA   Guiyang           71.01  71  P       P          17 37 57.9 +0.3
GYA                                pmax    pmax
      comp=Z,10.0nm,1.0s,mb4.7
BILL  Bilibino          72.59  13⇑ eP      P          17 38 06.9 +0.5
BILL                               e                  17 40 43.9
BILL                               pmax    pmax
      comp=Z,7.0nm,1.2s,mb4.5
BILL  Bilibino          72.59  13  eP      P          17 38 06.4  0.0
      comp=Z,3.5nm,0.8s,mb4.3
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BILL				epP	pP	17 38 20.5	+1.2
SEY	**Seymchan**	**73.50**	**21**	⇑eP	**P**	**17 38 12.2**	**+0.4**
CN2	**Changchun**	**74.44**	**47**	⇓P	**P**	**17 38 18.3**	**+0.6**
CN2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
KLR	**Kul'dur**	**74.67**	**40**	eP	**P**	**17 38 14.8**	**-4.1**
YKA	**Yellowknife Ar**	**75.45**	**341**	P	**P**	**17 38 24.5**	**+1.4**
	comp=Z,1.9nm,0.5s,mb4.2,baz=32,slow=5.4,SNR=41						
FFC	**Flin Flon**	**77.26**	**330**	i P	**P**	**17 38 36.8**	**+3.3**
ULM	**Lac du Bonnet**	**77.76**	**324**	P	**P**	**17 38 37.6**	**+1.2**
	comp=Z,1.9nm,0.5s,mb4.2,baz=177,slow=3.0,SNR=3.2						
KSRS	**Korea Array**	**79.74**	**51**	P	**P**	**17 38 48.1**	**+0.5**
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
KSRS	**Korea Array**	**79.74**	**51**	P	**P**	**17 38 48.0**	**+0.5**
	comp=Z,6.2nm,0.6s,mb4.7,baz=310,slow=4.2,SNR=29						
YSS	**Yuzh-Sakhalins**	**81.68**	**36**	eP	**P**	**17 38 57.4**	**-0.3**
MJAR	**Matsushiro Arr**	**86.57**	**46**	P	**P**	**17 39 23.0**	**+0.2**
	comp=Z,2.7nm,0.7s,mb4.6,baz=316,slow=5.0,SNR=5.6						
WRA	**Warramunga Arr**	**119.47**	**94**	PKP	PKPdf	17 45 29.1	-0.2
	comp=Z,0.6nm,0.6s,baz=315,slow=1.4,SNR=7.2						
ASAR	**Alice Springs**	**120.99**	**98**	PKP	PKPdf	17 45 32.3	+0.2
	comp=Z,0.8nm,0.6s,baz=302,slow=1.1,SNR=7.3						

ISCJB ***14*** *17:28:21.6±0.9, 22°.07S±0°.06×179°.59W±0°.04, h544^{km}±11^{km}, mb5.0/63, Error ellipse: s-maj=9.0km s-min=5.8km az=159.4*
NEIC ***14*** *17:28:23.8±0.7, 22°.02S×179°.57W, h562^{km}±8^{km}, mb5.3/33, Error ellipse: s-maj=8.2km s-min=4.7km az=172.0*
MOS ***14*** *17:28:23.7±3.1, 21°.97S×179°.62W, h540^{km}, mb5.3/8, Error ellipse: s-maj=11.1km s-min=9.1km az=4.6*
BGS ***14*** *17:28:23.8±4.1, 22°.02S×179°.57W, h562^{km}, mb5.3(NEIC)*
DJA ***14*** *17:28:24, 22°.12S×179°.66W, h569^{km}, mb5.4/16*
IDC ***14*** *17:28:25.3±0.9, 22°.13S×179°.64W, h577^{km}±8^{km}, mb4.2/23, mb1 4.3/23, mb1mx4.2/26, mbtmp4.2/23, Error ellipse: s-maj=11.1km s-min=8.8km az=162.0*
SZGRF ***14*** *17:28:28.3, 21°.90S×179°.02W, h610^{km}, Fiji Islands region*
ISC 14 17:28:22.7±0.8**, 22°.02S**±0°.06×**179°.56W**±0°.04**,**
h544^{km}±10^{km}**, h558**^{km}±5.4^{km}**:pP-P, n303,** σ**0**^{s}**.91**/129**,**
mb5.0/63**, 28C-23D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**10.94**	**44**	P	**P**	**17 30 50.5**	**+0.2**
	2.5nm,0.3s,baz=245,slow=22,SNR=4.6						
AFI				S	**S**	**17 32 50.3**	**-1.5**
	3.9nm,0.3s,baz=158,slow=14,SNR=5.5						
AFI	**Afiamalu**	**10.94**	**44**	eP	**P**	**17 30 50.0**	**-0.4**
DZM	**Mont Dzumac**	**12.98**	**267**	eP	**P**	**17 31 13.7**	**+2.3**
	40nm,0.7s						
URZ	**Urewera**	**16.44**	**189**	P	**P**	**17 31 43.6**	**-2.8**
	5.9nm,0.3s,baz=293,slow=2.4,SNR=26						
URZ				S	**S**	**17 34 22.5**	**-10**
	2.9nm,0.3s,baz=219,slow=23,SNR=11						
RAR	**Rarotonga**	**18.41**	**91**	eP	**P**	**17 32 04.2**	**-0.5**
RAR				pmax	pmax		
	comp=Z,186nm,1.6s						
RAR	**Rarotonga**	**18.41**	**91**	P	**P**	**17 32 02.8**	**-2.0**
	comp=Z,1.3nm,0.3s,baz=230,slow=6.9,SNR=6.2						
RAR	**Rarotonga**	**18.41**	**91**	eP	**P**	**17 32 04.2**	**-0.5**
	comp=Z,186nm,1.6s						
RPZ	**Rata Peaks**	**23.00**	**198**	P	**P**	**17 32 43.5**	**-2.3**
	comp=Z,14nm,1.0s,mb4.5,baz=347,slow=14,SNR=2.4						
HNR	**Honiara**	**23.32**	**299**	P	**P**	**17 32 48.2**	**-0.8**
	comp=Z,39nm,0.6s,mb5.2,baz=163,slow=14,SNR=2.9						
TARA	**Tarawa**	**24.36**	**342**	eP	**P**	**17 32 59.2**	**+0.9**
	comp=Z,267nm,1.0s,mb5.8						
EIDS	**Eidsvold**	**27.07**	**257**	eP	**P**	**17 33 22.7**	**+0.7**
	comp=Z,20nm,0.6s,mb4.9						
ARMA	**Armidale**	**27.11**	**246**	eP	**P**	**17 33 24.1**	**+1.7**
ARMA	**Armidale**	**27.11**	**246**	eP	**P**	**17 33 24.0**	**+1.7**
	comp=Z,18nm,0.8s,mb4.7						
PAE	**Paea**	**28.50**	**87**	eP	**P**	**17 33 34.5**	**-0.2**
	comp=Z,206nm,1.1s,mb5.7						
PAE	**Paea**	**28.50**	**87**	eP	**P**	**17 33 34.5**	**-0.2**
PAE				pmax	pmax		
	comp=Z,206nm,1.1s,mb5.7						
PPT	**Papeete**	**28.53**	**86**	eP	**P**	**17 33 35.2**	**+0.3**
	comp=Z,60nm,1.2s,mb5.1						
PPT	**Papeete**	**28.53**	**86**	P	**P**	**17 33 35.5**	**+0.6**
	comp=Z,21nm,0.4s,mb5.2,baz=216,slow=14,SNR=5.8						
TIAR	**Tiarei**	**28.75**	**87**	eP	**P**	**17 33 37.2**	**+0.4**
	comp=Z,493nm,0.9s,mb6.1						
TVO	**Taravao**	**28.78**	**87**	eP	**P**	**17 33 37.3**	**+0.2**
	comp=Z,423nm,0.7s						
TVO	**Taravao**	**28.78**	**87**	eP	**P**	**17 33 37.3**	**+0.2**
TVO				pmax	pmax		
	comp=Z,423nm,0.7s						
MEH	**Mehetia**	**29.86**	**88**	eP	**P**	**17 33 46.4**	**0.0**
	comp=Z,532nm,1.0s,mb6.0						
CNB	**Canberra Magne**	**30.18**	**237**	⇓iP	**P**	**17 33 50.1**	**+1.1**
CNB				eSCP	ScP	17 39 22.3	-1.6
CAN	**Canberra**	**30.47**	**237**	eP	**P**	**17 33 52.6**	**+1.2**
CAN				pmax	pmax		
	comp=Z,138nm,1.4s,mb5.3						
CAN	**Canberra**	**30.47**	**237**	eP	**P**	**17 33 52.6**	**+1.1**
	comp=Z,138nm,1.4s,mb5.3						
PMOR	**Pomariorio Ree**	**30.78**	**82**	eP	**P**	**17 33 54.7**	**+0.3**
	comp=Z,154nm,1.0s,mb5.5						
VAH	**Vaihoa**	**30.96**	**83**	eP	**P**	**17 33 55.9**	**0.0**
	comp=Z,106nm,0.9s,mb5.4						
CTA	**Charters Tower**	**31.93**	**267**	P	**P**	**17 34 05.1**	**+1.0**
CTA						17 36 37.3	
CTA	**Charters Tower**	**31.93**	**267**	⇓iP	**P**	**17 34 05.0**	**+0.9**
	comp=Z,37nm,0.4s,mb5.3						
CTA				eSCP	ScP	17 39 28.6	-1.5
CTA	**Charters Tower**	**31.93**	**267**	P	**P**	**17 34 05.1**	**+1.0**
	comp=Z,54nm,0.5s,mb5.4,baz=95,slow=11,SNR=75						
CTA				PcP	PcP	17 36 37.2	-0.7
	comp=Z,6.0nm,0.5s,baz=99,slow=4.8,SNR=3.6						
CTA				ScP	ScP	17 39 28.3	-1.8
	comp=Z,14nm,0.9s,baz=100,slow=3.2,SNR=8.0						
CTA	**Charters Tower**	**31.93**	**267**	P	**P**	**17 34 05.1**	**+1.0**
CTA				PcP	PcP	17 36 37.2	-0.7
CTA				ScP	ScP	17 39 28.3	-1.8
CTAO	**Charters Tower**	**31.93**	**267**	eP	**P**	**17 34 04.7**	**+0.6**
CTAO				e		17 36 37.3	
CTAO				pmax	pmax		
	comp=Z,72nm,0.7s,mb5.3						
CTAO	**Charters Tower**	**31.93**	**267**	eP	**P**	**17 34 04.7**	**+0.5**
	comp=Z,72nm,0.7s,mb5.3						
CTAO				ePcP	PcP	17 36 37.3	-0.7
TOO	**Toolangi**	**33.84**	**235**	eP	**P**	**17 34 20.7**	**+0.7**
TOO				eSCP	ScP	17 39 43.7	+7.2
STKA	**Stephens Creek**	**35.83**	**246**	⇓iP	**P**	**17 34 37.4**	**+0.6**
	comp=Z,23nm,0.4s,mb5.1						
STKA				eSCP	ScP	17 39 40.1	-3.8
STKA	**Stephens Creek**	**35.83**	**246**	P	**P**	**17 34 37.5**	**+0.8**
	comp=Z,34nm,0.5s,mb5.1,baz=90,slow=9.8,SNR=109						
STKA				ScP	ScP	17 39 39.8	-4.1
	comp=Z,7.3nm,0.9s,baz=28,slow=6.4,SNR=5.8						
COEN	**Coen**	**36.27**	**276**	eP	**P**	**17 34 41.5**	**+0.9**
	comp=Z,235nm,0.8s,mb5.8						
TAOE	**Nuku Hiva Isla**	**40.05**	**77**	eP	**P**	**17 35 11.8**	**+0.5**
	comp=Z,615nm,1.0s,mb6.1						
TAOE	**Nuku Hiva Isla**	**40.05**	**77**	eP	**P**	**17 35 11.5**	**+0.2**
RKT	**Rikitea**	**41.07**	**100**	eP	**P**	**17 35 19.5**	**+0.2**
	comp=Z,107nm,1.3s,mb5.2						
RKT	**Rikitea**	**41.07**	**100**	eP	**P**	**17 35 19.5**	**+0.2**
RKT				pmax	pmax		
	comp=Z,107nm,1.3s,mb5.2						
ASAR	**Alice Springs**	**42.78**	**259**	P	**P**	**17 35 32.8**	**0.0**
ASAR					pP	17 37 11.0	+0.7
ASAR				S	**S**	**17 41 13.4**	**-4.3**
ASAR	**Alice Springs**	**42.78**	**259**	P	**P**	**17 35 32.8**	**0.0**
	comp=Z,75nm,0.8s,mb5.3,baz=96,slow=7.9,SNR=571						
ASAR				PcP	PcP	17 37 11.0	-0.8
	comp=Z,6.3nm,0.6s,baz=106,slow=4.3,SNR=6.2						
ASAR				ScP	ScP	17 40 07.4	-3.7
	comp=Z,2.9nm,0.7s,baz=107,slow=4.2,SNR=7.9						
ASAR				S	**S**	**17 41 13.4**	**-4.3**
	comp=Z,2.7nm,0.6s,baz=95,slow=15,SNR=9.5						
WRAB	**Tennant Creek**	**42.97**	**264**	P	**P**	**17 35 33.0**	**-1.3**
	comp=Z,428nm,0.8s,mb6.0,SNR=52						
WRAB	**Tennant Creek**	**42.97**	**264**	eP	**P**	**17 35 33.6**	**-0.7**
WRAB				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.2						
WRAB	**Tennant Creek**	**42.97**	**264**	eP	**P**	**17 35 33.6**	**-0.7**
	comp=Z,56nm,0.8s,mb5.2						
WRAB				eScP	ScP	17 40 09.9	-2.0
WRA	**Warramunga Arr**	**42.97**	**264**	P	**P**	**17 35 33.9**	**-0.5**
	comp=Z,43nm,0.6s,mb5.2,baz=96,slow=7.9,SNR=312						
WRA				ScP	ScP	17 40 10.6	-1.3
	comp=Z,11nm,0.9s,baz=97,slow=4.1,SNR=17						
WRA				S	**S**	**17 41 15.4**	**-5.1**
	comp=Z,2.9nm,0.8s,baz=104,slow=20,SNR=5.3						
KAKA	**Kakadu**	**46.58**	**273**	⇓iP	**P**	**17 36 01.5**	**-0.6**
	comp=Z,36nm,0.4s,mb5.2						
KAKA	**Kakadu**	**46.58**	**273**	eP	**P**	**17 36 01.4**	**-0.7**
	comp=Z,181nm,0.7s,mb5.7						
FORT	**Forrest**	**47.37**	**248**	eP	**P**	**17 36 06.9**	**-1.0**
	comp=Z,107nm,0.6s,mb5.5						
FORT	**Forrest**	**47.37**	**248**	eP	**P**	**17 36 06.8**	**-1.1**
	comp=Z,122nm,0.8s,mb5.5						
FORT				eScP	ScP	17 40 27.2	-2.9
FORT				eS	**S**	**17 42 15.2**	**-6.9**
GUMO	**Guam**	**49.69**	**312**	P	**P**	**17 36 25.5**	**+0.2**
	comp=Z,71nm,0.7s,mb5.2,baz=202,slow=19,SNR=3.6						
GUMO	**Guam**	**49.69**	**312**	eP	**P**	**17 36 25.3**	**+0.1**
FITZ	**Fitzroy Crossi**	**51.41**	**264**	eP	**P**	**17 36 37.6**	**-0.2**
	comp=Z,54nm,0.9s,mb4.9						
FITZ	**Fitzroy Crossi**	**51.41**	**264**	P	**P**	**17 36 37.8**	**0.0**
	comp=Z,15nm,0.4s,mb4.7,baz=97,slow=4.2,SNR=88						
FITZ	**Fitzroy Crossi**	**51.41**	**264**	eP	**P**	**17 36 37.6**	**-0.2**
	comp=Z,28nm,0.7s,mb4.7						
KLBR	**Kellerberrin**	**56.11**	**246**	eP	**P**	**17 37 10.0**	**-0.8**
	comp=Z,38nm,0.8s,mb4.7						
MBWA	**Marble Bar**	**56.12**	**259**	eP	**P**	**17 37 10.0**	**-1.1**
	comp=Z,92nm,0.7s,mb5.1						
SBA	**Scott Base**	**56.27**	**183**	eP	**P**	**17 37 12.6**	**+1.4**
VNDA	**Vanda**	**56.28**	**185**	P	**P**	**17 37 11.8**	**+0.6**
	comp=Z,6.4nm,0.7s,mb4.0,baz=2.4,slow=7.3,SNR=18						
VNDA	**Vanda**	**56.28**	**185**	P	**P**	**17 37 11.8**	**+0.6**
NWAO	**Narrogin (SRO)**	**56.40**	**244**	eP	**P**	**17 37 12.3**	**-0.5**
MUN	**Mundaring**	**57.37**	**245**	eP	**P**	**17 37 18.7**	**-0.8**
KAPI	**Kappang**	**60.99**	**277**	P	**P**	**17 37 42.9**	**-1.1**
	comp=Z,12nm,0.5s,mb4.5,baz=208,slow=9.3,SNR=4.8						
QSPA	**South Pole Qui**	**68.06**	**180**	⇑iP	**P**	**17 38 27.5**	**0.0**
	comp=Z,35nm,0.8s,mb4.9						
QSPA				epP	pP	17 40 25.4	+6.6
JOW	**Kunigami**	**70.05**	**311**	P	**P**	**17 38 41.2**	**+0.9**
	comp=Z,29nm,0.5s,mb5.1,baz=134,slow=7.4,SNR=9.0						
MJAR	**Matsushiro Arr**	**70.58**	**325**	P	**P**	**17 38 43.5**	**+0.2**
	comp=Z,15nm,0.7s,mb4.6,baz=148,slow=5.3,SNR=26						
MAJO	**Matsushiro**	**70.59**	**325**	eP	**P**	**17 38 43.1**	**-0.2**
MAJO				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.6						
MAJO	**Matsushiro**	**70.59**	**325**	eP	**P**	**17 38 43.1**	**-0.2**
	comp=Z,16nm,0.8s,mb4.6						
MAT	**Matsushiro**	**70.59**	**325**	P	**P**	**17 38 43.0**	**-0.3**
XMIS	**Christmas Isla**	**72.13**	**266**	eP	**P**	**17 38 52.3**	**-0.6**
KSM	**Kuching**	**72.20**	**279**	eP	**P**	**17 38 52.9**	**-0.4**
	comp=Z,60nm,0.8s,mb5.1						
TWG	**Pinlang**	**72.99**	**304**	eP	**P**	**17 38 55.9**	**-1.6**
	comp=Z,62nm,0.5s,mb5.3						
YULB	**Yu-li**	**73.13**	**304**	eP	**P**	**17 38 56.5**	**-1.9**
	comp=Z,22nm,0.8s,mb4.6						
NACB	**Ninganchiao**	**73.34**	**305**	eP	**P**	**17 38 58.7**	**-0.9**
	comp=Z,94nm,1.0s,mb5.2						
TPUB	**Ta-pu**	**73.59**	**304**	eP	**P**	**17 38 59.9**	**-1.1**
	comp=Z,130nm,0.9s,mb5.4						
SSLB	**Suanglung**	**73.61**	**305**	eP	**P**	**17 38 59.9**	**-1.2**
	comp=Z,47nm,0.5s,mb5.2						
TATO	**Taipei**	**73.87**	**306**	eP	**P**	**17 39 01.4**	**-1.1**
YSS	**Yuzh-Sakhalins**	**76.61**	**335**	eP	**P**	**17 39 18.5**	**+1.2**
KSRS	**Korea Array**	**77.07**	**320**	P	**P**	**17 39 20.9**	**+0.8**
	comp=Z,6.5nm,0.9s,mb4.1,baz=144,slow=4.8,SNR=10						
PETK	**Petropavlovsk-**	**77.37**	**346**	P	**P**	**17 39 21.7**	**+0.4**
PETK	**Petropavlovsk-**	**77.37**	**346**	P	**P**	**17 39 21.7**	**+0.4**
	comp=Z,30nm,0.7s,mb4.8,baz=123,slow=6.7,SNR=22						
MDJ	**Mudanjiang**	**80.94**	**326**	P	**P**	**17 39 41.1**	**+0.7**
MDJ				pP	pP	17 41 40.9	+4.0
MDJ				sP	sP	17 42 35.9	+3.5
MDJ				PP	PP	17 42 54.4	-0.9
MDJ				S	S	17 49 05.0	+0.6
MDJ				sS	sS	17 52 38.0	+5.8
MDJ				SS	SS	17 54 39.3	+4.3
MDJ				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,100nm,4.6s						
HABR	**Khabarovsk**	**81.05**	**331**	eP	**P**	**17 39 39.7**	**-1.2**
HABR				e		17 42 53.9	
HABR				i		17 45 00.1	
HABR				e		17 49 12.3	
HABR				MLR	MLR		
	comp=Z,59nm,17.0s						
ISA	**Isabella**	**81.43**	**46**	eP	**P**	**17 39 44.2**	**+1.1**
CMB	**Columbia Colle**	**81.56**	**43**	eP	**P**	**17 39 44.2**	**+0.5**
WHN	**Wuhan**	**82.18**	**307**	eP	**P**	**17 39 47.0**	**-0.1**
YBH	**Yreka Blue Hor**	**82.38**	**39**	P	**P**	**17 39 49.2**	**+1.4**
	comp=Z,3.6nm,0.8s,baz=278,slow=2.5,SNR=5.2						
KULM	**Kulim**	**82.55**	**279**	eP	**P**	**17 39 48.7**	**-0.6**
CN2	**Changchun**	**82.62**	**323**	⇓P	**P**	**17 39 49.4**	**+0.4**
CN2				eS	S	17 49 18.3	-3.0
CN2				pmax	pmax		
	comp=Z,30nm,0.7s,mb4.9						
NVAR	**Mina Array Bea**	**83.12**	**44**	P	**P**	**17 39 52.3**	**+0.7**
	comp=Z,4.1nm,0.9s,mb4.0,baz=220,slow=8.2						
PSI	**Prapat**	**83.19**	**276**	P	**P**	**17 39 50.9**	**-1.7**
	comp=Z,15nm,0.8s,mb4.6,baz=138,slow=5.2,SNR=9.6						
TPH	**Tonopah**	**83.62**	**45**	P	**P**	**17 39 55.0**	**+0.9**
GAMB	**Gambell**	**85.73**	**3**	eP	**P**	**17 40 03.5**	**-0.2**
	comp=Z,6.3nm,0.5s,mb4.5						
BJT	**Baijiatuau**	**85.95**	**316**	eP	**P**	**17 40 05.5**	**+0.1**
BJT				pmax	pmax		
	comp=Z,29nm,0.7s						
BJT	**Baijiatuau**	**85.95**	**316**	eP	**P**	**17 40 05.5**	**+0.1**
	comp=Z,29nm,0.7s,mb5.0						
BJI	**Beijing**	**85.96**	**316**	P	**P**	**17 40 05.8**	**+0.4**
BJI				pP	pP	17 42 07.3	+3.4
BJI				sP	sP	17 43 04.1	+5.2
BJI				PP	PP	17 43 36.8	+1.0
BJI				S	S	17 49 54.4	+0.5
BJI				sS	sS	17 53 30.8	+5.9
BJI				SS	SS	17 55 52.8	+4.2
BJI				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.1						
BJI				pmax	pmax		
	comp=Z,290nm,5.5s						
GYA	**Guiyang**	**86.14**	**300**	⇑iP	**P**	**17 40 06.8**	**+0.1**
GYA				pP	pP	17 42 09.5	+4.4
GYA				sP	sP	17 43 06.4	+6.2
GYA				PP	PP	17 43 40.0	+2.4
GYA				SKS		17 49 41.3	
GYA				S	S	17 49 53.8	-2.4
GYA				sS	sS	17 53 30.6	+3.2
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,150nm,5.3s						
ELK	**Elko**	**86.37**	**43**	P	**P**	**17 40 08.0**	**+0.6**
	comp=Z,0.8nm,0.6s,baz=198,slow=6.5,SNR=4.6						
ELK	**Elko**	**86.37**	**43**	P	**P**	**17 40 08.0**	**+0.6**
SEY	**Seymchan**	**87.52**	**348**	eP	**P**	**17 40 11.9**	**-0.3**
XAN	**Xi'an**	**87.90**	**308**	P	**P**	**17 40 15.5**	**+0.8**
XAN				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.0						
XAN				pmax	pmax		
	comp=Z,30nm,4.5s						
KMI	**Kunming**	**88.75**	**298**	P	**P**	**17 40 19.4**	**+0.5**
KMI				S	S	17 50 19.0	-1.5
KMI				SS	SS	17 56 29.8	+0.5
KMI				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.6						
KMI				pmax	pmax		
	comp=Z,130nm,5.6s						
MCK	**McKinley**	**88.76**	**13**	eP	**P**	**17 40 17.2**	**-0.8**
TXAR	**Lajitas Array**	**89.09**	**58**	P	**P**	**17 40 21.2**	**+0.8**
	comp=Z,5.1nm,0.9s,mb4.4,baz=214,slow=5.6,SNR=33						
CHRT	**Chiangrai**	**89.09**	**292**	⇓P	**P**	**17 40 22.0**	**+1.4**
	comp=Z,158nm,0.9s,mb5.8						
CMAR	**Chiang Mai Arr**	**89.26**	**290**	P	**P**	**17 40 22.6**	**+1.3**
	comp=Z,20nm,0.8s,mb5.0,baz=136,slow=3.3,SNR=99						
CMAR				PP	PP	17 44 04.1	+1.9
	comp=Z,0.9nm,0.7s,baz=122,slow=6.2,SNR=7.3						
PLCA	**Paso Flores**	**89.28**	**134**	P	**P**	**17 40 21.3**	**+0.1**
	comp=Z,8.0nm,0.8s,mb4.6,baz=225,slow=6.7,SNR=13						
HHC	**Hu-ho-hao-te**	**89.38**	**315**	eP	**P**	**17 40 21.9**	**+0.5**
HHC				PP	PP	17 44 06.0	+3.2
HHC				SKS		17 49 53.8	
HHC				eS	S	17 50 21.6	-3.9
HHC				SS	SS	17 56 38.3	+0.5
HHC				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.1						
HHC				pmax	pmax		
	comp=Z,130nm,7.0s						
CHG	**Chiang Mai**	**89.40**	**290**	⇓P	**P**	**17 40 22.9**	**+0.9**
	comp=Z,40nm,0.9s,mb5.2						
CHTO	**Chiang Mai**	**89.40**	**290**	eP	**P**	**17 40 22.8**	**+0.8**
CHTO				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.2						
CHTO	**Chiang Mai**	**89.40**	**290**	eP	**P**	**17 40 22.8**	**+0.8**
	comp=Z,29nm,0.8s,mb5.2						
ANMO	**Albuquerque**	**89.48**	**52**	eP	**P**	**17 40 21.7**	**-0.4**
COLA	**College**	**90.00**	**13**	eP	**P**	**17 40 22.3**	**-1.4**
CD2	**Chengdu**	**90.39**	**303**	P	**P**	**17 40 28.0**	**+1.6**
CD2				pP	pP	17 42 27.9	+1.9
CD2				sP	sP	17 43 21.0	+0.3
CD2				PP	PP	17 44 15.0	+4.1
CD2				SKS		17 50 07.5	
CD2				S	S	17 50 35.5	+0.4
CD2				sS	sS	17 54 08.3	-0.6
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.2						
CD2				pmax	pmax		
	comp=Z,300nm,5.4s						
BILL	**Bilibino**	**90.39**	**355**	⇑eP	**P**	**17 40 25.2**	**-0.3**
BILL				e		17 44 10.4	
BILL				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.6						
BILL	**Bilibino**	**90.39**	**355**	eP	**P**	**17 40 25.1**	**-0.4**
	comp=Z,8.3nm,0.9s,mb4.6						
BILL				epP	pP	17 42 35.7	+11
EFI	**East Falkland**	**90.59**	**148**	eP	**P**	**17 40 25.7**	**-1.3**
SDCO	**Great Sand Dun**	**91.44**	**50**	eP	**P**	**17 40 31.1**	**+0.1**
LZH	**Lanzhou**	**92.54**	**308**	eP	**P**	**17 40 37.0**	**+0.8**
LZH				pP	pP	17 42 45.4	+9.4
LZH				PP	PP	17 44 31.0	+3.5
LZH				eS	S	17 50 53.5	-0.3
LZH				sS	sS	17 54 25.8	-3.1
LZH				SS	SS	17 57 26.0	+3.0
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
LZH				pmax	pmax		
	comp=Z,130nm,6.1s						
YAK	**Yakutsk**	**92.98**	**339**	i P	**P**	**17 40 36.5**	**-1.0**
YAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
YAK	**Yakutsk**	**92.98**	**339**	eP	**P**	**17 40 36.6**	**-0.9**
	comp=Z,24nm,0.8s,mb5.3						
SONM	**Songino Array**	**95.94**	**319**	P	**P**	**17 40 50.6**	**-0.7**
	comp=Z,0.6nm,0.4s,mb4.1,baz=131,slow=4.3,SNR=6.5						
GTA	**Gaotai**	**96.81**	**310**	eP	**P**	**17 40 55.6**	**+0.2**
GTA				pP	pP	17 42 56.3	+0.7
GTA				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.6						
ZAK	**Zakamensk**	**98.88**	**321**	eP	Pdif	17 41 06.2	+1.6
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.3						
PALK	**Pallekele**	**101.69**	**273**	i P	Pdif	17 41 14.9	-2.2
ZALV	**Zalesovo Beam**	**110.75**	**321**	PKiKP	PKiKP	17 45 51.2	-2.3
	comp=Z,1.4nm,0.6s,baz=202,slow=2.7,SNR=8.0						
ZALV				SKP		17 48 33.4	
	comp=Z,1.0nm,0.7s,baz=151,slow=3.4,SNR=3.6						
MKAR	**Makanchi Array**	**111.17**	**313**	P	Pdif	17 42 00.9	+1.7
MKAR						17 45 52.7	
MKAR	**Makanchi Array**	**111.17**	**313**	Pdiff	Pdif	17 42 00.9	+1.6
	comp=Z,0.4nm,0.6s,baz=81,slow=5.8,SNR=6.4						
MKAR				PKiKP	PKiKP	17 45 52.6	-1.9
	comp=Z,1.0nm,0.5s,baz=175,slow=1.0,SNR=33						
MKAR				PKKPbc	PKKPbc	17 56 51.1	-2.1
	comp=Z,1.0nm,0.7s,baz=277,slow=4.3,SNR=11						
MKAR				PKKPab	PKKPab	17 57 02.6	-0.5
	comp=Z,1.1nm,0.7s,baz=285,slow=3.3,SNR=10.0						
KURK	**Kurchatov**	**114.11**	**317**	PKP	PKiKP	17 45 58.1	-2.0
	comp=Z,1.9nm,0.6s,baz=111,slow=1.8,SNR=20						
KURK				SKP		17 48 39.6	
	comp=Z,0.9nm,0.7s,baz=99,slow=1.9,SNR=5.9						
KURK				PKKPbc	PKKPbc	17 56 41.1	-2.5
	comp=Z,0.6nm,0.9s,baz=275,slow=4.1,SNR=4.2						
KURK				PKKPab	PKKPab	17 56 49.4	-0.6
	comp=Z,1.3nm,0.8s,baz=273,slow=5.1,SNR=7.8						
BVAR	**Borovoye Array**	**119.29**	**319**	PKP	PKPdf	17 46 08.3	-1.6
	comp=Z,4.3nm,0.4s,baz=119,slow=2.0,SNR=51						
BVAR				SKP		17 48 50.6	
	comp=Z,1.9nm,0.8s,baz=70,slow=1.7,SNR=6.1						
KBL	**Kabul**	**119.33**	**298**	ePKIKP	PKPdf	17 46 09.9	-0.7
ARU	**Arti**	**125.60**	**325**	i PKIKP	PKPdf	17 46 20.5	-1.4
ARU						17 48 21.1	
ARU	**Arti**	**125.60**	**325**	eP	PKPdf	17 46 20.5	-1.4
AKTK	**Aktyubinsk**	**127.21**	**317**	PKP	PKPdf	17 46 24.1	-1.1
AKTO	**Aktyubinsk**	**127.21**	**317**	PKP	PKPdf	17 46 24.1	-1.1
	comp=Z,2.5nm,0.6s,baz=80,slow=4.0,SNR=11						
ARCES	**ARCESS Array B**	**130.13**	**349**	PKP	PKPdf	17 46 28.4	-1.8
	comp=Z,5.3nm,0.6s,baz=48,slow=1.8,SNR=12						
ARCES				SKPbc	SKPbc	17 48 59.5	-3.1
	comp=Z,14nm,0.9s,baz=33,slow=2.9,SNR=7.6						
JOF	**Joensuu**	**134.10**	**341**	ePKIKP	PKPdf	17 46 37.3	-0.5
JOF				pmax	pmax		
	comp=Z,5.0nm,0.5s						
JOF	**Joensuu**	**134.10**	**341**	epkp	PKPdf	17 46 37.3	-0.5
	comp=Z,4.8nm,0.5s						
KAF	**Kangasniemi**	**136.18**	**343**	epkp	PKPdf	17 46 41.5	-0.2
QRN	**Al-Qurain**	**136.81**	**289**	eP		17 46 32.1	
MIB	**Mutribah**	**137.34**	**291**	eP		17 46 32.6	
MIB				AMb	AMB	17 46 36.2	
	comp=Z,7.2nm,0.5s						
NAY	**Al-Naaiem**	**137.42**	**290**	eP		17 46 33.1	
NAY				AMb	AMB	17 46 39.3	
	comp=Z,3.3nm,1.3s						
NB2	**NORSAR Subarra**	**140.29**	**352**	PKP		17 46 41.6	
	comp=Z,2.1nm,0.7s,baz=17,slow=2.6						
NOA	**NORSAR Array B**	**140.29**	**352**	PKhKP		17 46 41.8	
	comp=Z,1.5nm,0.7s,baz=351,slow=2.2,SNR=6.6						
NOA				PKP	PKPdf	17 46 50.4	+1.1
	comp=Z,1.2nm,0.6s,baz=13,slow=4.0,SNR=4.6						
NOA				SKPbc	SKPbc	17 49 31.3	-3.0
	comp=Z,7.6nm,0.9s,baz=14,slow=4.3,SNR=12						
NOA	**NORSAR Array B**	**140.29**	**352**	PKP	PKPdf	17 46 50.4	+1.1
NOA				SKPbc	SKPbc	17 49 31.3	-3.0
HFS	**Hagfors**	**140.78**	**350**	PKhKP		17 46 43.0	
	comp=Z,4.4nm,0.3s,baz=62,slow=3.4,SNR=58						
HFS				SKPbc	SKPbc	17 49 31.5	-4.1
	comp=Z,7.5nm,0.7s,baz=222,slow=2.0,SNR=7.1						
AKASG	**Malin Array Be**	**143.59**	**329**	PKP	PKPdf	17 46 52.7	-2.8
	comp=Z,14nm,0.3s,baz=41,slow=4.4,SNR=95						
AKASG				SKPbc	SKPdf	17 49 39.2	+0.8
	comp=Z,7.3nm,0.8s,baz=46,slow=2.5,SNR=15						
KIEV	**Kiev**	**143.60**	**329**	ePKHKP	PKPdf	17 46 52.5	-3.0
MLA1	**Latheron**	**143.64**	**3**	eP	PKPdf	17 46 53.2	-2.1
MALT	**Malatya**	**143.65**	**305**	⇓iP	PKPdf	17 46 54.7	-1.3
MALT	**Malatya**	**143.65**	**305**	eP	PKPdf	17 46 54.4	-1.6
SUW	**Suwalki**	**143.70**	**337**	ePKPd	PKPdf	17 46 53.6	-1.9
MVH1	**Achvaich**	**143.97**	**4**	eP	PKPdf	17 46 54.8	-1.1
SIM	**Simferopol'**	**144.17**	**318**	ePKIKP	PKPdf	17 46 56.2	-0.5
SIM				pmax	pmax		
	comp=Z,22nm,0.5s						
KAC	**Achnashellach**	**144.31**	**5**	eP	PKPdf	17 46 55.2	-1.3
MCD	**Coleburn Disti**	**144.37**	**3**	eP	PKPdf	17 46 55.0	-1.6
KPL	**Plockton**	**144.44**	**6**	eP	PKPdf	17 46 55.7	-1.0
MDO	**Dochfour**	**144.44**	**4**	eP	PKPdf	17 46 56.3	-0.4
KAR1	**Arisaig**	**144.84**	**6**	eP	PKPdf	17 46 56.5	-0.9
EBH	**Black Hill**	**145.69**	**4**	eP	PKPdf	17 46 59.4	+0.5
EAB	**Aberfoyle**	**145.69**	**5**	eP	PKPdf	17 46 59.0	+0.1
ESY	**Stoneypath**	**146.07**	**3**	eP	PKPdf	17 47 00.4	+0.9
EAU	**Auchinoon**	**146.09**	**4**	eP	PKPdf	17 47 00.0	+0.4
EBL	**Broad Law**	**146.19**	**4**	eP	PKPdf	17 47 00.6	+0.8
XSO	**Sourhope Farm**	**146.51**	**3**	eP	PKPdf	17 47 01.6	+1.4
EKA	**Eskdalemuir Ar**	**146.62**	**4**	PKPbc	PKPbc	17 47 01.4	-1.7
	comp=Z,4.7nm,0.7s,baz=352,slow=2.2,SNR=15						
BRTR	**Keskin Array B**	**146.73**	**310**	PKPbc	PKPbc	17 47 02.9	-1.1
	comp=Z,8.8nm,0.7s,baz=152,slow=4.5,SNR=41						
ECK	**Cauldkaine Hil**	**146.77**	**4**	eP	PKPdf	17 47 01.9	+1.1
GAL1	**Galloway**	**146.97**	**5**	eP	PKPbc	17 47 03.0	-1.1
XAL	**Allendale**	**147.14**	**3**	eP	PKPbc	17 47 03.1	-1.4
TLCR		**147.24**	**322**	⇓iP	PKPbc	17 47 03.9	-1.2
TLCR		**147.24**	**322**	⇓P	PKPbc	17 47 03.9	-1.2
BSEG	**Bad Segeberg**	**147.26**	**349**	ePKPbc	PKPbc	17 47 04.1	-0.7
BSEG				ePKPab	PKPab	17 47 08.1	-0.3
KWP	**Kalwaria Pacla**	**147.30**	**333**	ePKP	PKPbc	17 47 04.6	-0.4
KWP	**Kalwaria Pacla**	**147.30**	**333**	ePKP	PKPbc	17 47 04.6	-0.5
BURAR	**Bucovina Array**	**147.62**	**328**	⇑iP	PKPbc	17 47 05.9	-0.1
BURAR	**Bucovina Array**	**147.62**	**328**	⇑P	PKPbc	17 47 05.9	0.0
VRI	**Vrincioaia**	**147.99**	**324**	⇓iP	PKPbc	17 47 06.2	-0.8
VRI	**Vrincioaia**	**147.99**	**324**	⇓P	PKPbc	17 47 06.2	-0.7
OJC	**Ojcow**	**148.00**	**336**	ePKP	PKPbc	17 47 06.1	-0.7
KOLS	**Kolonicke sedl**	**148.02**	**332**	ePKP	PKPbc	17 47 06.6	-0.3
KOLS				e		17 47 12.4	
HARR	**Harsova**	**148.03**	**322**	⇓iP	PKPbc	17 47 06.4	-0.7
HARR	**Harsova**	**148.03**	**322**	⇓P	PKPbc	17 47 06.5	-0.7
PLOR	**Plostina**	**148.04**	**324**	⇓iP	PKPbc	17 47 06.8	-0.3

HPK	Haverah Park	148.07	2	eP	PKPbc	17 47 06.0	-0.9
STHS	Stebnicka Huta	148.08	334	ePKP	PKPbc	17 47 06.6	-0.5
STHS				e		17 47 12.4	
UZH	Uzhgorod	148.24	332	⇓iPKHKP	PKPbc	17 47 07.2	-0.3
UZH				i		17 47 16.0	
CRVS	Cervenica-Dubn	148.39	333	ePKP	PKPbc	17 47 07.2	-0.7
NIE	Niedzica	148.45	335	ePKP	PKPbc	17 47 08.3	+0.3
MLR	Muntele Rosu	148.65	324	⇓iP	PKPbc	17 47 07.3	-1.3
MLR	Muntele Rosu	148.65	324	⇓P	PKPbc	17 47 07.3	-1.3
KSP	Ksiaz	148.67	341	ePKP	PKPbc	17 47 08.2	-0.2
KSP	Ksiaz	148.67	341	ePKP2	PKPab	17 47 14.2	-0.1
KSP				ePKPab	PKPab	17 47 14.2	-0.1
KSP	Ksiaz	148.67	341	ePKPbc	PKPbc	17 47 08.2	-0.3
NRDL	Niedersach Rie	148.67	349	ePKPbc	PKPbc	17 47 06.4	-2.0
KBI1	Birley Grange	148.78	2	eP	PKPbc	17 47 07.3	-1.3
OKC	Ostrava-Krasne	148.91	338	ePKHKP	PKPbc	17 47 08.6	-0.5
OKC				e		17 47 15.5	
OKC	Ostrava-Krasne	148.91	338	⇑ePKP	PKPbc	17 47 08.6	-0.5
OKC				ePKPAB	PKPab	17 47 15.5	+0.2
OKC				epPKP	pPKPab	17 49 29.7	+12
KWE	Weaver Farm	149.00	3	eP	PKPbc	17 47 07.6	-1.6
SBD1	Bryn Du	149.03	4	eP	PKPbc	17 47 07.9	-1.4
UPC	Upice	149.05	341	ePKHKP	PKPbc	17 47 09.1	-0.3
UPC				e		17 47 16.3	
UPC	Upice	149.05	341	⇑ePKP	PKPbc	17 47 09.1	-0.3
UPC				ePKPAB	PKPab	17 47 16.3	+0.4
UPC				epPKP	pPKPdf	17 49 29.7	+17
DPC	Dobruska-Polom	149.09	340	ePKHKP	PKPbc	17 47 08.8	-0.7
DPC				e		17 47 16.7	
DPC	Dobruska-Polom	149.09	340	⇑ePKP	PKPbc	17 47 08.8	-0.7
DPC				ePKPAB	PKPab	17 47 16.7	+0.7
DPC				epPKP	pPKPdf	17 49 27.1	+15
KECS	Kecovo	149.12	334	ePKHKP	PKPbc	17 47 09.4	-0.3
KECS				e		17 47 16.1	
KECS	Kecovo	149.12	334	ePKP	PKPbc	17 47 09.4	-0.3
KECS				e		17 47 16.1	
KECS				e		17 49 29.2	
CLL	Collm	149.17	345	⇓iPKHKP	PKPbc	17 47 08.9	-0.8
CLL				i		17 47 15.9	
CLL				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CLL				pmax	pmax		
	comp=Z,34nm,0.8s						
CLL	Collm	149.17	345	⇓iPKPbc	PKPbc	17 47 08.9	-0.8
	comp=Z,34nm,0.6s						
CLL				⇑iPKPab	PKPab	17 47 15.9	-0.4
	comp=Z,21nm,0.8s						
CLL				epPKPbc	pPKPab	17 49 26.0	+7.7
VOIR		149.17	325	⇑iP	PKPbc	17 47 08.9	-1.0
VOIR		149.17	325	⇑P	PKPbc	17 47 08.9	-0.9
MORC	Moravsky Berou	149.18	338	⇑iP	PKPbc	17 47 09.3	-0.5
IBBN	Ibbenburen	149.24	351	ePKPbc	PKPbc	17 47 09.3	-0.5
CLZ	Clausthal	149.25	348	ePKPbc	PKPbc	17 47 09.3	-0.5
CLZ				ePKPab	PKPab	17 47 15.9	-0.7
BRG	Berggiesshubel	149.32	343	i PKHKP	PKPbc	17 47 09.5	-0.6
BRG				i		17 47 17.0	
BRG				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BRG				pmax	pmax		
	comp=Z,17nm,0.8s						
BRG				pmax	pmax		
	comp=Z,11nm,1.2s						
BRG	Berggiesshubel	149.32	343	ePKPbc	PKPbc	17 47 09.4	-0.7
BRG				ePKPab	PKPab	17 47 16.5	-0.5
BRG	Berggiesshubel	149.32	343	i PKP	PKPbc	17 47 09.5	-0.6
	comp=Z,29nm,0.6s						
BRG				i		17 47 17.0	
	comp=Z,18nm,0.8s						
BRG				epPKP	pPKPdf	17 49 23.7	+11
	comp=Z,14nm,1.2s						
PVCC	Panska Ves	149.46	342	ePKHKP	PKPbc	17 47 10.0	-0.4
PVCC				e		17 47 17.6	
PVCC	Panska Ves	149.46	342	⇑ePKP	PKPbc	17 47 10.0	-0.4
PVCC				ePKPAB	PKPab	17 47 17.6	0.0
PVCC				epPKP	pPKPab	17 49 31.6	+12
ISP	Isparta	149.71	308	⇑iP	PKPbc	17 47 09.6	-1.8
ISP	Isparta	149.71	308	⇑P	PKPbc	17 47 09.6	-1.8
VYHS	Vyhne	149.77	335	ePKHKP	PKPbc	17 47 10.5	-0.7
VYHS				e		17 47 18.8	
VYHS	Vyhne	149.77	335	ePKP	PKPbc	17 47 10.5	-0.7
VYHS				e		17 47 18.8	
VYHS				e		17 49 28.5	
PSZ	Piszkesteto	149.81	334	⇓iP	PKPbc	17 47 10.1	-1.2
PSZ	Piszkesteto	149.81	334	⇓P	PKPbc	17 47 10.1	-1.2
HTR	Trewern Hill	149.85	5	eP	PKPbc	17 47 09.2	-2.0
VRAC	Vranov	149.90	339	⇓iP	PKPbc	17 47 10.4	-1.1
PRU	Pruhonice	149.95	342	ePKHKP	PKPbc	17 47 11.0	-0.6
PRU				e		17 47 19.9	
PRU	Pruhonice	149.95	342	⇑ePKP	PKPbc	17 47 11.0	-0.6
PRU				ePKPAB	PKPab	17 47 19.9	+0.3
PRU				epPKP	pPKPdf	17 49 29.3	+15
MCH1	Michaelchurch	149.95	4	eP	PKPbc	17 47 10.2	-1.3
MOX	Moxa	150.11	346	ePKP	PKPbc	17 47 11.1	-0.8
	comp=Z,19nm,0.9s						
MOX	Moxa	150.11	346	ePKIKP	PKPbc	17 47 11.1	-0.8
MOX				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MOX	Moxa	150.11	346	ePKPbc	PKPbc	17 47 11.0	-0.9
MOX				ePKPab	PKPab	17 47 19.7	-0.6
TANN	Tannenbergstha	150.12	344	ePKPbc	PKPbc	17 47 11.3	-0.7
TREC	Trest	150.28	340	ePKIKP	PKPbc	17 47 11.6	-0.8
TREC				e		17 47 21.2	
TREC	Trest	150.28	340	⇑ePKP	PKPbc	17 47 11.6	-0.8
TREC				ePKPAB	PKPab	17 47 21.2	+0.2
UBBA	Unterbreizbach	150.29	348	ePKPbc	PKPbc	17 47 11.3	-1.1
UBBA				epPKPbc	pPKPab	17 49 31.1	+8.3
NKC	Novy Kostel	150.29	344	ePKIKP	PKPbc	17 47 11.8	-0.6
NKC				e		17 47 21.1	
NKC	Novy Kostel	150.29	344	⇑ePKP	PKPbc	17 47 11.8	-0.6
NKC				ePKPAB	PKPab	17 47 21.1	+0.1
GZR	Gura Zlata	150.37	327	⇑iP	PKPbc	17 47 12.0	-0.7
MODS	Modra-Piesok	150.45	337	ePKIKP	PKPbc	17 47 12.2	-0.6
MODS				e		17 47 22.4	
MODS	Modra-Piesok	150.45	337	ePKP	PKPbc	17 47 12.2	-0.6
MODS				e		17 47 22.4	
MODS				e		17 49 30.4	
MANZ	Manzenberg	150.61	345	ePKPbc	PKPbc	17 47 12.4	-0.7
BZS	Buzias	150.78	329	⇑iP	PKPbc	17 47 12.5	-1.2
ROTZ	Rotzenmuhle	150.78	344	ePKPbc	PKPbc	17 47 12.8	-0.7
ROTZ				ePKPab	PKPab	17 47 22.9	-0.2
KHC	Kasperske Hory	151.00	342	ePKIKP	PKPbc	17 47 13.2	-0.8
KHC				e		17 47 24.3	
KHC	Kasperske Hory	151.00	342	⇑ePKP	PKPbc	17 47 13.2	-0.8
KHC				ePKPAB	PKPab	17 47 24.3	+0.3
KHC				epPKP	pPKPdf	17 49 31.4	+16
GRF	Grafenberg Arr	151.09	345	ePKIKP	PKPbc	17 47 13.1	-1.1
GRF				e		17 47 24.1	
GRF	Grafenberg Arr	151.09	345	ePKPbc	PKPbc	17 47 13.1	-1.1
GRF				ePKPab	PKPab	17 47 24.1	-0.3
GRF				epPKPbc	pPKPab	17 49 32.3	+6.2
TNS	Taunus Mts	151.15	349	ePKPbc	PKPbc	17 47 13.4	-0.9
TNS				ePKPab	PKPab	17 47 23.8	-0.8
WET	Wettzell	151.18	343	ePKPab	PKPab	17 47 24.6	-0.2
WET				epPKPbc	pPKPab	17 49 33.1	+6.6
GEC2	GERESS Array S	151.22	342	ePKIKP	PKPbc	17 47 13.6	-0.9
GEC2				e		17 47 24.2	
GEC2	GERESS Array S	151.22	342	ePKPbc	PKPbc	17 47 13.6	-0.9
GEC2				ePKPab	PKPab	17 47 24.2	-0.8
GEC2				epPKPbc	pPKPab	17 49 32.6	+5.9
GERES	GERESS Array B	151.22	342	PKPbc	PKPbc	17 47 13.7	-0.9
	comp=Z,3.4nm,0.5s,baz=18,slow=2.0,SNR=36						
GERES				PKPab	PKPab	17 47 25.0	0.0
	comp=Z,3.0nm,0.6s,baz=31,slow=3.4,SNR=14						
CONA	Conrad Observa	151.34	338	⇑iPKPbc	PKPbc	17 47 14.0	-0.9
	comp=Z,7.8nm,0.6s						
CSNA	Conrad Observa	151.34	338	⇑iPKPbc	PKPbc	17 47 14.0	-0.9
	comp=Z,7.2nm,0.6s						
BCLA	Clavier	151.40	353	PKPab	PKPab	17 47 24.9	-0.8
PKSM	Moragy	151.68	333	⇑iP	PKPbc	17 47 14.2	-1.5
GIVF	Givet	151.76	354	ePKP2	PKPab	17 47 25.9	-1.3
BAIF	Baives	151.85	355	ePKP2	PKPab	17 47 26.5	-1.1
WLF	Walferdange	152.04	352	PKPbc	PKPbc	17 47 14.9	-1.4
RJOB	Jochberg	152.48	342	ePKPab	PKPab	17 47 30.1	-0.2
FUR	Furstenfeldbru	152.50	344	ePKPab	PKPab	17 47 30.0	-0.4
BFO	Black Forest	152.99	348	ePKPab	PKPab	17 47 31.5	-1.0
CDF	Champ du Feu	153.10	350	ePKP2	PKPab	17 47 31.9	-1.0
	comp=Z,7.9nm,0.8s						
WTTA	Wattenberg	153.24	343	⇑iPKPbc	PKPbc	17 47 17.6	-1.4
	comp=Z,4.4nm,0.5s						
WTTA				⇑iPKPab	PKPab	17 47 34.1	+0.5
	comp=Z,16nm,0.5s						
FLN	La Foliniere	153.30	1	ePKP2	PKPab	17 47 32.1	-1.7
MEZF	Maizieres J'vi	153.31	353	ePKP2	PKPab	17 47 32.9	-1.0
	comp=Z,18nm,0.8s						
ABTA	Abfaltersbach	153.46	341	⇑iPKPbc	PKPbc	17 47 17.6	-1.9
	comp=Z,3.2nm,0.5s						
ABTA				⇑iPKPab	PKPab	17 47 34.1	-0.5
	comp=Z,10nm,0.6s						
LDF	La Druitiere	153.47	1	ePKP2	PKPab	17 47 32.7	-1.8
	comp=Z,49nm,1.2s						
HAU	Haudompre	153.64	351	ePKP2	PKPab	17 47 34.1	-1.1
	comp=Z,15nm,0.8s						
GRR	Gorron	153.66	2	ePKP2	PKPab	17 47 33.8	-1.5
SGMF	Saint Gilles	153.71	5	ePKP2	PKPab	17 47 34.8	-0.7
HINF	Hinteralfeld	153.75	350	ePKP2	PKPab	17 47 35.1	-0.6
QUIF	Quistinic	154.00	6	ePKP2	PKPab	17 47 34.8	-2.0
TUE	Stuetta	154.55	346	ePKPbc	PKPbc	17 47 20.7	-1.2
TUE				ePKPab	PKPab	17 47 39.3	+0.1
LOR	Lormes	154.66	355	ePKP2	PKPab	17 47 38.3	-1.3
	comp=Z,4.4nm,0.5s						
SSF	Saint Saulge	154.89	355	ePKP2	PKPab	17 47 39.6	-1.0
	comp=Z,22nm,0.7s						
CABF	La Chapelle	155.04	351	ePKP2	PKPab	17 47 40.7	-0.6
AVF	Avril sur Loir	155.17	355	ePKP2	PKPab	17 47 40.5	-1.4
	comp=Z,8.1nm,0.9s						
SMF	Signal de Mont	155.27	354	ePKP2	PKPab	17 47 41.2	-1.1
	comp=Z,23nm,0.8s						
BGF	Bois d'Agland	155.44	356	ePKP2	PKPab	17 47 41.8	-1.2
	comp=Z,9.3nm,0.7s						
MFF	Saint Martin d	155.47	1	ePKP2	PKPab	17 47 41.8	-1.3
	comp=Z,12nm,0.8s						
TCF	Toulx Ste Croi	155.74	357	ePKP2	PKPab	17 47 43.1	-1.2
	comp=Z,17nm,1.1s						
LPL	La Plagne	156.00	349	ePKP2	PKPab	17 47 45.3	-0.2
	comp=Z,11nm,0.8s						
LPG	La Plagne	156.01	349	ePKP2	PKPab	17 47 45.6	+0.1
	comp=Z,9.6nm,0.7s						
ORIF	Oris-en-Rattie	156.72	350	ePKP2	PKPab	17 47 48.2	-0.4
	comp=Z,9.8nm,0.8s						
RJF	Les Rejaudoux	156.75	358	ePKP2	PKPab	17 47 47.6	-1.1
MBDF	Montbardon	156.75	349	ePKP2	PKPab	17 47 48.0	-0.8
	comp=Z,5.9nm,0.7s						
VIVF	Saint-Julien-l	156.95	352	ePKP2	PKPab	17 47 49.0	-0.6
CAF	Calviac	157.11	357	ePKP2	PKPab	17 47 48.7	-1.6
	comp=Z,8.4nm,0.9s						
LFF	La Frestale	157.13	359	ePKP2	PKPab	17 47 49.3	-1.1
	comp=Z,18nm,0.8s						
SBF	Sospel	157.45	347	ePKP2	PKPab	17 47 50.6	-1.2
FRF	La Foret Royal	157.90	348	ePKP2	PKPab	17 47 52.5	-1.3
LMR	La Mourre	158.15	348	ePKP2	PKPab	17 47 53.8	-1.1
	comp=Z,6.5nm,0.8s						
PGF	Pioggiola	158.31	343	ePKP2	PKPab	17 47 54.6	-1.0
	comp=Z,27nm,1.0s						
MTLF	Montolieu	158.68	356	ePKP2	PKPab	17 47 56.3	-0.9
	comp=Z,3.8nm,0.6s						
SJPF	Ste Jean	158.91	3	ePKP2	PKPab	17 47 56.8	-1.4
	comp=Z,6.9nm,0.7s						
EPF	Esparros	159.04	0	ePKP2	PKPab	17 47 57.2	-1.6
ETSF	Etsaut	159.16	2	ePKP2	PKPab	17 47 58.4	-0.9
ESDC	Sonseca Array	162.00	11	PKPab	PKPab	17 48 10.7	-1.2
	comp=Z,0.2nm,0.3s,baz=144,slow=31,SNR=4.6						
DBIC	Dimbokro	163.91	161	PKPab	PKPab	17 48 18.4	-2.4
	comp=Z,6.6nm,0.7s,baz=190,slow=5.6,SNR=7.8						
KEST	Kesra	164.28	332	PKPab	PKPab	17 48 22.1	+0.1
	comp=Z,2.0nm,0.9s,baz=355,slow=19,SNR=4.1						
TORD	Torodi Ar. Bea	171.10	188	PKPab	PKPab	17 48 50.6	-1.9
	comp=Z,2.7nm,0.7s,baz=178,slow=3.7,SNR=15						
TORD				PP	PP	17 52 41.2	-1.4
	comp=Z,1.9nm,1.1s,baz=179,slow=4.8,SNR=4.0						

IDC 14 17:44:43.9±1.2**, 22°.97N**×**142°.60E, h0**^{km}**, mb3.5**/6**, mb1 3.7**/6**, mb1mx3.5**/22**, mbtmp3.5**/6**, Error ellipse: s-maj=45.1km s-min=22.8km az=82.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.41	191	P	P	17 52 48.3	-0.2
	0.9nm,0.7s,baz=12,slow=8.4,SNR=6.4						
ASAR	Alice Springs	47.12	191	P	P	17 53 18.0	0.0
	0.3nm,0.6s,baz=18,slow=12,SNR=5.2						
MKAR	Makanchi Array	53.44	312	P	P	17 54 06.4	+0.7
	0.2nm,0.7s,baz=93,slow=8.1,SNR=2.8						
KURK	Kurchatov	56.18	317	P	P	17 54 25.9	+0.4
	0.4nm,0.6s,baz=93,slow=7.5,SNR=3.0						
BVAR	Borovoye Array	61.36	319	P	P	17 55 00.6	-0.8
	1.0nm,0.7s,baz=91,slow=8.0,SNR=6.5						
YKA	Yellowknife Ar	75.58	28	P	P	17 56 30.5	+0.2
	0.2nm,0.5s,baz=289,slow=6.3,SNR=2.9						

ISCJB ***14*** *18:01:50.1±1.0, 6°.89N±0°.08×73°.00W±0°.09, h172^{km}±11^{km}, Error ellipse: s-maj=15.9km s-min=11.0km az=31.7*

IDC ***14*** *18:01:50.1±4.8, 7°.01N×73°.18W, h162^{km}±54^{km}, mb1 3.1/2, mb1mx2.8/20, mbtmp3.2/2, Error ellipse: s-maj=337.0km s-min=14.9km az=133.0*

FUNV ***14*** *18:01:50.1, 6°.71N×73°.13W, h164^{km}, MW3.2*

ISC 14 18:01:50.8±1.0**, 6°.88N**±0°.08×**73°.01W**±0°.09**, h170**^{km}±11^{km}**, n19,** σ0^{s}73/22**, 3C, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CAPV	Capacho	1.20	35	⇑iP	Pn	18 02 19.6	+0.5
CAPV				eS	Sn	18 02 40.6	-0.2
ROSC	El Rosal	2.40	213	P	Pn	18 02 31.5	-0.3
	20nm,0.3s,baz=106,slow=22,SNR=20						
ROSC				S	Sn	18 02 58.1	-5.4
	8.8nm,0.3s,baz=85,slow=21,SNR=7.4						
VIGV	El Vigia	2.54	40	⇑iP	Pn	18 02 34.1	+0.7
VIGV				eS	Sn	18 03 06.5	+0.1
SOCV	Socops	2.55	57	⇑eP	Pn	18 02 34.2	+0.7
SOCV				eS	Sn	18 03 05.9	-0.7
SDV	Santo Domingo	3.08	50	P	Pn	18 02 41.3	+1.3
	2.6nm,0.3s,baz=254,slow=14,SNR=11						
SDV				S	Sn	18 03 18.4	+0.1
	15nm,0.3s,baz=60,slow=23,SNR=30						
ELOV	Elorza	3.50	88	eP	Pn	18 02 44.9	-0.3
VIRV	Villa del Rosa	3.65	9	eP	Pn	18 02 46.3	-0.8
VIRV				eS	Sn	18 03 29.9	-1.1
QARV	Quebrada Arrib	4.12	36	eP	Pn	18 02 54.0	+0.9
SANV	Sanarito	4.31	53	eP	Pn	18 02 56.7	+1.1
CURV	Curarigua	4.33	44	eP	Pn	18 02 56.1	+0.2
TEPV	Terepaima	4.86	51	eP	Pn	18 03 03.0	+0.3
SIQV	Siquisique	4.90	40	eP	Pn	18 03 03.8	+0.5
BAUV	El Baul	5.33	67	eP	Pn	18 03 07.8	-1.0
MONV	Montecano	5.87	31	eP	Pn	18 03 15.4	-0.5
TURV	Turiamo	6.22	55	eP	Pn	18 03 20.5	-0.1
CAOV	Caicara del Or	6.65	86	eP	Pn	18 03 24.9	-1.4
MKAR	Makanchi Array	122.23	20	PKP	PKPdf	18 20 26.5	+0.9
	0.5nm,1.0s,baz=298,slow=3.1,SNR=3.5						
ASAR	Alice Springs	149.24	234	PKPbc	PKPbc	18 21 19.7	-0.4
	0.5nm,0.7s,baz=122,slow=3.6,SNR=7.4						
WRA	Warramunga Arr	150.46	241	PKPbc	PKPbc	18 21 22.4	-0.7
	0.3nm,0.4s,baz=110,slow=2.4,SNR=9.5						

ISCJB ***14*** *18:04:43.4±0.7, 20°.31N±0°.04×122°.3E±0°.1, h161^{km}±5^{km}, mb4.0/10, Error ellipse: s-maj=16.9km s-min=6.2km az=179.1*

NEIC ***14*** *18:04:43.5±1.4, 20°.19N×122°.37E, h162^{km}±12^{km}, Error ellipse: s-maj=26.8km s-min=18.7km az=73.0*

MAN ***14*** *18:04:44, 20°.21N×122°.20E, h162^{km}, mb4.4, ML3.2, MS3.1*

IDC ***14*** *18:04:45.6±3.1, 20°.17N×122°.33E, h181^{km}±29^{km}, mb3.3/5, mb1 3.4/6, mb1mx3.2/21, mbtmp3.2/6, Error ellipse: s-maj=27.0km s-min=17.5km az=72.0*

ISC 14 18:04:44.1±0.7**, 20°.29N**±0°.04×**122°.3E**±0°.1**, h155**^{km}±5^{km}**, n27,** σ0^{s}91/32**, mb4.0**/10**, 1C, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	2.05	187	eP	Pn	18 05 20.4	+0.1
TWG	Pinlang	2.77	335	eP	Pn	18 05 28.9	+0.1
TWG				eS	Sn	18 06 01.2	+0.3
SIPP	Brgy, Tapao	2.94	217	⇑iP	Pn	18 05 31.2	+0.2
SIPP				i S	Sn	18 06 06.8	+1.9
ABRA	Dolores	3.04	210	eP	Pn	18 05 31.5	-0.7
YULB	Yu-li	3.23	343	eP	Pn	18 05 36.0	+1.4
YULB				eS	Sn	18 06 06.0	-5.9
CAUP	Cauayan	3.36	188	eP	Pn	18 05 37.5	+1.2
TPUB	Ta-pu	3.38	333	eP	Pn	18 05 37.4	+0.9
TPUB				eS	Sn	18 06 15.8	+0.3
SSLB	Suanglung	3.70	340	eP	Pn	18 05 42.6	+2.0
SSLB				eS	Sn	18 06 19.9	-3.3
BOLP	Bolinao	4.51	211	eP	Pn	18 05 50.8	-0.4
BALP	Baler	4.58	189	eP	Pn	18 05 51.9	-0.2
KSRS	Korea Array	17.78	15	P	Pn	18 08 42.1	+0.2
	0.3nm,0.3s,baz=194,slow=10,SNR=6.3						
KMI	Kunming	18.69	289	P	P	18 08 56.9	+6.3
KMI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KMI				LR	LR		
	comp=Z,57nm,18.8s						
CMAR	Chiang Mai Arr	22.13	269	P	P	18 09 26.9	-0.5
	comp=Z,1.8nm,0.5s,mb3.7,baz=74,slow=8.6,SNR=18						
CMAR				ScP	ScP	18 16 36.9	-4.8
	comp=Z,0.8nm,1.0s,baz=114,slow=1.1,SNR=4.2						
SONM	Songino Array	30.35	339	P	P	18 10 40.0	-1.1
	comp=Z,0.5nm,0.5s,mb3.5,baz=163,slow=11,SNR=5.4						
TAPN	Taplejung	32.36	289	eP	P	18 10 59.6	+0.6
ODAN	Odare	32.60	288	eP	P	18 11 01.6	+0.5
	comp=Z,6.5nm,0.8s,mb4.4						
RAMN	Ramite	33.31	288	eP	P	18 11 08.1	+0.8
	comp=Z,4.4nm,0.3s,mb4.7						
JIRN	Jiri	33.73	290	eP	P	18 11 11.6	+0.7
	comp=Z,5.6nm,0.5s,mb4.5						
GUN	Gumba	34.02	290	eP	P	18 11 14.1	+0.7
	comp=Z,5.9nm,0.4s,mb4.7						
DMN	Daman	34.68	289	eP	P	18 11 18.8	-0.3
GKN	Gorkha	35.12	290	eP	P	18 11 22.4	-0.5
	comp=Z,4.7nm,0.4s,mb4.5						
KOLN	Koldanda	36.03	290	eP	P	18 11 30.7	+0.1
MKAR	Makanchi Array	41.90	319	P	P	18 12 19.4	+0.3
	comp=Z,0.8nm,0.4s,mb3.7,baz=109,slow=8.5,SNR=22						
MKAR	Makanchi Array	41.90	319	P	P	18 12 19.4	+0.3
ASAR	Alice Springs	45.13	165	P	P	18 12 43.0	-2.1
	comp=Z,0.3nm,0.3s,mb3.4,baz=345,slow=7.1,SNR=14						
YKA	Yellowknife Ar	86.13	23	P	P	18 17 06.6	-0.8
	comp=Z,0.5nm,0.6s,mb3.4,baz=310,slow=4.6,SNR=10.0						
YKA	Yellowknife Ar	86.13	23	P	P	18 17 06.6	-0.8

IDC ***14*** *18:06:19.5±1.2, 36°.45N×21°.62E, h0^{km}, mb3.8/6, mb1 3.6/9, mb1mx3.5/27, mbtmp3.6/9, ML3.5/3, Error ellipse: s-maj=24.8km s-min=22.0km az=27.0*

NEIC ***14*** *18:06:22.5, 36°.33N×21°.51E, h22^{km}, ML3.5(ATH), After ATH.*

ATH ***14*** *18:06:22.5, 36°.33N×21°.51E, h22^{km}±2^{km}, MD3.8/10, ML3.5*

ISCJB ***14*** *18:06:24.7±0.5, 36°.39N±0°.03×21°.55E±0°.04, h64^{km}±7^{km}, mb3.7/6, Error ellipse: s-maj=6.6km s-min=4.8km az=135.9*

CSEM ***14*** *18:06:25.6±0.3, 36°.37N×21°.55E, h50^{km}±6^{km}, ML3.5, Error ellipse: s-maj=7.4km s-min=5.0km az=37.0*

THE ***14*** *18:06:27.0, 36°.44N×21°.71E, h32^{km}±45^{km}, ML3.9/4, Error ellipse: s-maj=45.7km s-min=1.2km az=126.0*

ISC 14 18:06:26.0±0.5**, 36°.40N**±0°.03×**21°.59E**±0°.04**, h54**^{km}±8^{km}**, n90,** σ1^{s}01/122**, mb3.7**/6**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ITM	Ithomi	0.83	19	ePN	Pn	18 06 40.6	-0.9
ITM				eSN	Sn	18 06 52.3	-0.6
ITM	Ithomi	0.83	19	ePn	Pn	18 06 40.6	-0.9
ITM				eSn	Sn	18 06 52.3	-0.6
KYTH	Kithira	1.18	95	ePN	Pn	18 06 46.0	-0.1
KYTH	Kithira	1.18	95	ePn	Pn	18 06 46.0	-0.1
GUR	Goura	1.65	21	ePB	Pn	18 06 52.9	+0.3
RLS	Riolos of Patr	1.66	357	ePN	Pn	18 06 54.0	+1.3
RLS	Riolos of Patr	1.66	357	ePn	Pn	18 06 54.0	+1.3
DID	Didima	1.73	50	P	Pn	18 06 53.1	-0.4
DID				S	Sn	18 07 13.7	-0.7
DID	Didima	1.73	50	P	Pn	18 06 53.1	-0.4
DID				S	Sn	18 07 13.7	-0.7
LAKA	Lakka	1.87	10	P	Pn	18 06 56.5	+1.0
LAKA				S	Sn	18 07 17.4	-0.5
LAKA	Lakka	1.87	10	P	Pn	18 06 56.5	+1.0
LAKA				S	Sn	18 07 17.4	-0.5
VLS	Valsamata	1.95	336	P	Pn	18 06 57.3	+0.7
VLS				S	Sn	18 07 20.6	+0.7
VLS	Valsamata	1.95	336	ePB	Pn	18 06 56.7	+0.1
VLS	Valsamata	1.95	336	P	Pn	18 06 57.3	+0.7
VLS				S	Sn	18 07 20.6	+0.7
LTK	Loutraki	1.96	34	P	Pn	18 06 57.0	+0.2
LTK				S	Sn	18 07 19.2	-1.0
LTK	Loutraki	1.96	34	ePB	Pn	18 06 57.3	+0.5
LTK	Loutraki	1.96	34	P	Pn	18 06 57.0	+0.2
LTK				S	Sn	18 07 19.2	-1.0
TRIZ	Trizonia	2.00	11	P	Pn	18 06 57.6	+0.2
TRIZ				S	Sn	18 07 21.1	-0.1
TRIZ	Trizonia	2.00	11	P	Pn	18 06 57.6	+0.2
TRIZ				S	Sn	18 07 21.1	-0.1
NAIG	Nisos Aigina	2.04	48	ePN	Pn	18 06 59.0	+1.2
NAIG	Nisos Aigina	2.04	48	ePn	Pn	18 06 59.0	+1.2
EFP	Efpalio	2.04	7	ePN	Pn	18 06 59.0	+1.1
EFP	Efpalio	2.04	7	ePn	Pn	18 06 59.0	+1.1
KARN	Karanos	2.14	117	P	Pn	18 06 58.8	-0.4
KARN				S	Sn	18 07 24.6	+0.1
KARN	Karanos	2.14	117	P	Pn	18 06 58.8	-0.4
KARN				S	Sn	18 07 24.6	+0.1
ATH	Athens Observa	2.32	47	ePN	Pn	18 07 03.0	+1.4
ATH	Athens Observa	2.32	47	ePn	Pn	18 07 03.0	+1.4
VAM	Vamos	2.34	114	ePN	Pn	18 07 02.0	+0.1
VAM	Vamos	2.34	114	ePn	Pn	18 07 02.0	+0.1
ATHU	Athens Univers	2.35	48	P	Pn	18 07 01.7	-0.4
ATHU				S	Sn	18 07 28.7	-1.1
ATHU	Athens Univers	2.35	48	P	Pn	18 07 01.7	-0.4
ATHU				S	Sn	18 07 28.7	-1.1
PTL	Penteli	2.46	47	ePN	Pn	18 07 05.0	+1.5
PTL	Penteli	2.46	47	ePn	Pn	18 07 05.0	+1.5
LKR	Lokris	2.52	26	P	Pn	18 07 04.5	+0.2
LKR				S	Sn	18 07 32.7	-1.1
LKR	Lokris	2.52	26	P	Pn	18 07 04.5	+0.2
LKR				S	Sn	18 07 32.7	-1.1
EVR	Evrytania	2.52	4	ePN	Pn	18 07 06.0	+1.6
EVR	Evrytania	2.52	4	ePn	Pn	18 07 06.0	+1.6
AGG	Agios Georgios	2.69	12	P	Pn	18 07 07.8	+1.1
AGG				S	Sn	18 07 38.0	0.0
AGG	Agios Georgios	2.69	12	P	Pn	18 07 07.8	+1.1
AGG				S	Sn	18 07 38.0	0.0
IDI	Anoyia	2.90	111	Pn	Pn	18 07 09.0	-0.6
	1.1nm,0.3s,baz=18,slow=9.4,SNR=10						
IDI				Sn	Sn	18 07 39.2	-4.1
	4.5nm,0.3s,baz=142,slow=23,SNR=6.2						
IDI	Anoyia	2.90	111	Pn	Pn	18 07 09.0	-0.6
IDI				Sn	Sn	18 07 39.2	-4.1
THL	Klokotos Trika	3.18	6	P	Pn	18 07 14.2	+0.7
THL				S	Sn	18 07 51.0	+0.9
THL	Klokotos Trika	3.18	6	P	Pn	18 07 14.2	+0.7
THL				S	Sn	18 07 51.0	+0.9
XOR	Xorichti	3.23	23	P	Pn	18 07 13.4	-0.7
XOR	Xorichti	3.23	23	P	Pn	18 07 13.4	-0.7
JAN	Janina	3.31	350	ePN	Pn	18 07 16.0	+0.8
JAN	Janina	3.31	350	ePn	Pn	18 07 16.0	+0.8
AOS	Alonnisos	3.31	33	P	Pn	18 07 14.7	-0.6
AOS	Alonnisos	3.31	33	P	Pn	18 07 14.7	-0.6
MEV	Metsovon	3.40	355	P	Pn	18 07 18.2	+1.8
MEV				S	Sn	18 07 57.1	+1.7
MEV	Metsovon	3.40	355	P	Pn	18 07 18.2	+1.8
MEV				S	Sn	18 07 57.1	+1.7
LIT	Litokhoron	3.77	11	P	Pn	18 07 22.6	+1.1
LIT				S	Sn	18 08 05.9	+1.4
LIT	Litokhoron	3.77	11	P	Pn	18 07 22.6	+1.1
LIT				S	Sn	18 08 05.9	+1.4
KZN	Kozani	3.91	2	ePN	Pn	18 07 25.0	+1.6
KZN	Kozani	3.91	2	ePn	Pn	18 07 25.0	+1.6
GRG	Griva	4.60	8	P	Pn	18 07 33.1	+0.2
GRG	Griva	4.60	8	P	Pn	18 07 33.1	+0.2
SOH	Sokhos	4.63	17	P	Pn	18 07 34.2	+0.9
SOH	Sokhos	4.63	17	P	Pn	18 07 34.2	+0.9
TIP	Timpagrande	4.73	307	eP	Pn	18 07 34.1	-0.6
TIP				eS	Sn	18 08 21.1	-7.0
TIP	Timpagrande	4.73	307	eP	Pn	18 07 34.1	-0.5
CEL	Celeste	4.90	294	eP	Pn	18 07 36.3	-0.7
CEL				eS	Sn	18 08 25.1	-7.4
CEL	Celeste	4.90	294	eP	Pn	18 07 36.3	-0.8
SRS	Serrai	4.97	18	P	Pn	18 07 38.2	+0.3
SRS	Serrai	4.97	18	P	Pn	18 07 38.2	+0.3
KRUS	Krusevo	4.97	357	ePKP	Pn	18 07 37.4	-0.6
KRUS	Krusevo	4.97	357	ePKIKP	Pn	18 07 37.3	-0.7
TAR1	Taranto	5.33	322	ePn	Pn	18 07 42.1	-0.8
PE1	Pezze di Greco	5.48	325	ePn	Pn	18 07 44.6	-0.3
PE1				eSn	Sn	18 08 44.8	-1.8

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CUC	Castrocucco	5.79	310	*e*P	Pn	18 07 49.5	+0.2
	14nm,0.5s						
CUC	Castrocucco	5.79	310	*e*P	Pn	18 07 49.5	+0.3
	14nm,0.5s						
SG1	Sgolgore (BA)	5.87	321	*e*Pn	Pn	18 07 49.4	-0.9
MGR	Morigerati	6.04	310	Pn	Pn	18 07 52.7	+0.1
MGR	Morigerati	6.04	310	Pn	Pn	18 07 52.7	+0.1
BARS	Barje	6.42	2	*e*Pn	Pn	18 07 57.2	-0.6
BARS				*e*Sn	Sn	18 09 07.0	-2.6
GRUS	Gruza	7.51	355	*e*Pn	Pn	18 08 10.6	-2.2
BBLS	Lazići	7.65	348	*e*Pn	Pn	18 08 13.5	-1.1
DIVS	Divibare	7.79	351	⇑*i*Pn	Pn	18 08 14.6	-2.0
GERES	GERESS Array B	13.72	338	Pn	Pn	18 09 35.4	-2.1
	0.2nm,0.3s,baz=152,slow=8.9,SNR=3.3						
GERES	GERESS Array B	13.72	338	Pn	Pn	18 09 35.4	-2.1
AKASG	Malin Array Be	15.32	19	Pn	Pn	18 09 55.3	-3.2
	0.3nm,0.3s,baz=208,slow=12,SNR=3.5						
HFS	Hagfors	24.29	350	P	P	18 11 37.8	-0.1
	1.0nm,0.5s,mb3.5,baz=165,slow=7.3,SNR=5.8						
HFS	Hagfors	24.29	350	P	P	18 11 37.8	-0.1
EKA	Eskdalemuir Ar	25.38	326	P	P	18 11 48.9	+1.1
	0.6nm,0.6s,mb3.3,baz=128,slow=9.2,SNR=4.1						
EKA	Eskdalemuir Ar	25.38	326	P	P	18 11 48.9	+1.1
TORD	Torodi Ar. Bea	29.24	223	P	P	18 12 23.1	+0.3
	0.6nm,0.8s,mb3.4,baz=31,slow=9.1,SNR=3.5						
MKAR	Makanchi Array	45.53	57	P	P	18 14 39.8	-0.3
	0.5nm,0.3s,mb3.9,baz=269,slow=7.7,SNR=14						
ZALV	Zalesovo Beam	46.27	47	P	P	18 14 44.8	-0.9
	0.9nm,0.4s,mb4.0,baz=271,slow=9.4,SNR=5.0						
SCHQ	Schefferville	60.35	318	P	P	18 16 29.9	+0.9
	1.2nm,0.7s,mb4.0,baz=76,slow=4.2,SNR=2.6						
SCHQ	Schefferville	60.35	318	P	P	18 16 29.9	+0.9

IDC 14 18:10:02.0±2.1**, 8°.62S×119°.07E, h0^{km}, mb3.6**/3**, mb1 3.8**/5**, mb1mx3.7**/19**, mbtmp3.7**/5**, ML3.8**/2**, Error ellipse: s-maj=145.7km s-min=21.1km az=56.0, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.38	147	Pn	Pn	18 12 48.1	+2.1
	0.3nm,0.3s,baz=331,slow=16,SNR=5.5						
FITZ				Sn	Sn	18 14 44.5	-10
	1.0nm,0.3s,baz=183,slow=18,SNR=10						
WRA	Warramunga Arr	18.57	129	P	Pn	18 14 19.7	-1.1
	0.4nm,0.3s,baz=303,slow=13,SNR=11						
WRA				S	Sn	18 17 35.8	-13
	0.1nm,0.3s,baz=282,slow=17,SNR=4.8						
ASAR	Alice Springs	20.63	138	P	P	18 14 42.9	-0.3
	1.2nm,0.5s,baz=324,slow=12,SNR=16						
SONM	Songino Array	57.32	350	P	P	18 19 52.7	+1.1
	0.7nm,0.5s,baz=170,slow=8.9,SNR=7.2						
MKAR	Makanchi Array	64.15	333	P	P	18 20 37.6	-0.7
	0.3nm,0.5s,baz=151,slow=6.5,SNR=10.0						

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*ISCJB **14** 18:11:03.9±0.4, 33°.33N±0°.02×35°.41E±0°.03, h7^{km}±3^{km}, Error ellipse: s-maj=4.5km s-min=2.4km az=25.6*

*CSEM **14** 18:11:04.6±0.2, 33°.35N×35°.41E, h5^{km}, ML3.3, Error ellipse: s-maj=4.8km s-min=2.2km az=93.0*

*GII **14** 18:11:04.1±0.7, 33°.22N×35°.42E, h1^{km}±2^{km}, Md3.3/13, Mm2.3/3*

*NSSC **14** 18:11:05, 33°.30N×35°.42E, h11^{km}±2^{km}*

*GRAL **14** 18:11:05.0±0.4, 33°.32N×35°.40E, h0^{km}±6^{km}, MD3.6*

ISC 14 18:11:04.4±0.4**, 33°.34N**±0°.02×**35°.41E**±0°.03**, h6^{km}**±3^{km}**, n40, σ0^s.86**/66**, 6D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	335	*e*P	Pg	18 11 08.2	+0.6
MATL	Matirih	0.16	335	*e*P	Pg	18 11 08.2	+0.5
KSDI	Kefar Szold	0.26	125	Pg	Pg	18 11 09.3	0.0
KSDI				Sg	Sg	18 11 13.6	+0.9
HNTI	Hanita	0.32	218	Pg	Pg	18 11 09.9	-0.7
HNTI				Sg	Sg	18 11 15.3	+0.4
MMA4	Mount Meron ar	0.33	182	Pg	Pg	18 11 10.0	-0.7
MMA4				Sg	Sg	18 11 15.1	+0.2
RCY	Rachaya	0.37	67	*e*P	Pg	18 11 12.2	+0.6
RCY				*e*S	Sg	18 11 17.6	+1.2
RCY	Rachaya	0.37	67	*e*P	Pg	18 11 12.1	+0.6
RCY				*e*S	Sg	18 11 17.6	+1.2
BRBR	Barbar	0.46	81	⇑P	Pg	18 11 13.0	-0.2
BRBR				⇑S	Sg	18 11 20.0	+0.8
BEYL	Beyrouth	0.54	7	*e*P	Pg	18 11 15.1	+0.5
BEYL	Beyrouth	0.54	7	*e*P	Pg	18 11 15.1	+0.4
BHL	Bhannes	0.60	20	*e*P	Pg	18 11 15.9	0.0
BHL	Bhannes	0.60	20	*e*P	Pg	18 11 15.9	0.0
BLGI	Bet Lehem HaGe	0.63	197	Pg	Pg	18 11 15.8	-0.7
BLGI				Sg	Sg	18 11 24.8	+0.1
QASN	Qassioun	0.75	75	⇑P	Pg	18 11 19.0	+0.3
QASN				⇑S	Sg	18 11 30.0	+1.5
TOTH	TOTAH	0.85	88	⇓P	Pg	18 11 20.0	-0.7
TOTH				⇓S	Sg	18 11 33.0	+1.2
MMLI	Mount Malkishu	0.90	179	Pg	Pg	18 11 20.6	-1.0
MMLI				Sg	Sg	18 11 32.8	-0.5
HWQ	Hawqa	1.04	25	*e*P	Pg	18 11 24.0	-0.2
HWQ				*e*S	Sg	18 11 37.9	+0.1
HWQ	Hawqa	1.04	25	*e*P	Pg	18 11 24.0	-0.3
HWQ				*e*S	Sg	18 11 37.8	+0.1
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	18 11 24.0	-1.2
HMDT				Sg	Sg	18 11 38.6	-0.7
MARH	Ras Al Marh	1.12	52	⇑P	Pg	18 11 26.0	+0.1
SLTI	Sal’it	1.14	196	Pg	Pg	18 11 24.9	-1.3
SLTI				Sg	Sg	18 11 41.1	+0.1
FKH	Fakeheh	1.22	42	*e*P	Pg	18 11 27.5	-0.2
FKH	Fakeheh	1.22	42	*e*P	Pg	18 11 27.5	-0.2
SALA	Sala	1.27	119	⇓P	Pn	18 11 27.0	-1.7
SALA				⇓S	Sg	18 11 43.0	-2.4
ZALF	Zalf	1.67	104	⇑P	Pn	18 11 34.0	-0.1
ZALF				⇑S	Sn	18 11 54.0	-1.8
DSI	Dead Sea	1.77	181	Pn	Pn	18 11 34.7	-0.8
ROOS	tl_alroos	1.77	62	⇑P	Pn	18 11 37.0	+1.5
ROOS				⇑S	Sn	18 11 57.0	-1.4
BIDA	Albida	1.83	24	⇑P	Pn	18 11 36.0	-0.4
BIDA				⇑S	Sn	18 11 59.0	-0.9
YTIR	Yattir	1.99	187	Pn	Pn	18 11 38.7	+0.2
YTIR				Sn	Sn	18 12 04.9	+1.2
MZDA	Masada	2.02	181	Pn	Pn	18 11 38.9	-0.1
MZDA				Sn	Sn	18 12 05.8	+1.1
KFRA	Kufra	2.19	31	⇑P	Pn	18 11 42.0	+0.6
KFRA				⇑S	Sn	18 12 09.0	+0.2
WRDH	Warideh	2.32	21	⇑P	Pn	18 11 43.0	-0.1
WRDH				⇑S	Sn	18 12 12.0	+0.1
SLNF	Slenfeh	2.35	16	⇑P	Pn	18 11 43.0	-0.5
SLNF				⇑S	Sn	18 12 12.0	-0.7
KZIT	Kziot	2.57	200	Pn	Pn	18 11 47.1	+0.5
KZIT				Sn	Sn	18 12 19.7	+1.5
ZFRI	Zfri	2.79	184	Pn	Pn	18 11 49.2	-0.3
ZFRI				Sn	Sn	18 12 24.3	+0.9
RMNI	Mount Ramon	2.79	192	Pn	Pn	18 11 50.4	+0.8
BTCH	Batrach	2.83	18	⇓P	Pn	18 11 51.0	+0.9
BTCH				⇓S	Sn	18 12 23.0	-1.5
KRMI	Paran Flat	3.27	190	Pn	Pn	18 11 57.1	+1.0
MBRI	Mt Berech	3.56	187	Pn	Pn	18 12 00.7	+0.5
EIL	Elat	3.68	186	Pn	Pn	18 12 02.5	+0.7

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*CSEM **14** 18:25:57.3, 36°.47N×22°.62E, h5^{km}, MD3.5, After ATH*

*NEIC **14** 18:25:57.3, 36°.47N×22°.62E, h5^{km}, MD3.5(ATH), After ATH.*

ATH 14 18:25:57.3, 36°.47N×22°.62E, h5^{km}±5^{km}**, MD3.5**/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	0.39	119	*e*PG	Pg	18 26 04.5	-0.2
KYTH				*e*SB	Sg	18 26 10.0	+0.2
KYTH	Kithira	0.39	119	*e*Pg	Pg	18 26 04.5	-0.2
KYTH				*e*Sb	Sg	18 26 10.0	+0.2
PYL	PYLOS	0.82	301	*e*PB	Pb	18 26 12.9	-1.2
PYL	PYLOS	0.82	301	*e*Pb	Pb	18 26 12.9	-1.2
ITM	Ithomi	0.90	322	*e*PG	Pg	18 26 14.0	-0.6
ITM	Ithomi	0.90	322	*e*Pg	Pg	18 26 14.0	-0.6
VLX	Vlachokerasia	0.92	348	*e*PB	Pb	18 26 15.0	-0.7
VLX	Vlachokerasia	0.92	348	*e*Pb	Pb	18 26 15.0	-0.7
VAM	Vamos	1.66	129	*e*PB	Pb	18 26 29.0	+0.6
VAM	Vamos	1.66	129	*e*Pb	Pb	18 26 29.0	+0.6
EVR	Evrytania	2.53	345	*e*PN	Pn	18 26 41.0	+2.0
EVR	Evrytania	2.53	345	*e*Pn	Pn	18 26 41.0	+2.0

IDC 14 18:54:15.0±3.4**, 60°.01S×29°.38W, h0^{km}, mb4.2**/1**, mb1 4.2**/1**, mb1mx3.7**/13**, mbtmp4.2**/1**, Error ellipse: s-maj=191.2km s-min=76.8km az=98.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	77.07	31	P	P	19 06 09.8	+0.1
	1.1nm,0.5s,baz=195,slow=6.5,SNR=22						
YKA	Yellowknife Ar	138.28	316	PKP	PKPdf	19 13 40.7	+0.4
	0.1nm,0.4s,baz=154,slow=2.0,SNR=3.6						
ZALV	Zalesovo Beam	145.00	70	PKPbc	PKPdf	19 13 50.7	-2.0
	0.8nm,0.4s,baz=217,slow=3.6,SNR=5.3						
SONM	Songino Array	151.82	96	PKPbc	PKPbc	19 14 10.7	+0.3
	0.7nm,0.6s,baz=216,slow=3.5,SNR=7.7						

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*IDC **14** 19:05:39.5±0.9, 17°.66S×176°.90W, h0^{km}, mb4.2/10, mb1 4.5/10, mb1mx4.3/18, mbtmp4.2/10, MS4.3/17, Ms1 4.3/17, ms1mx4.1/29, Error ellipse: s-maj=43.6km s-min=19.2km az=153.0*

*ISCJB **14** 19:05:43.5±0.6, 17°.6S±0°.1×176°.8W±0°.1, h33^{km}, mb4.4/15, MS4.4/15, Error ellipse: s-maj=23.9km s-min=12.9km az=146.8*

*GCMT **14** 19:05:47.6±0.3, 18°.00S×176°.33W, h15^{km}±1^{km}, MW5.0/70, Moment Tensor Solution. s23,c27; s70,c98; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.02±.19; $M_{\theta\theta}$-2.99±.14; $M_{\phi\phi}$4.01±.16; $M_{r\theta}$1.02±.34; $M_{\theta\phi}$0.74±.12; $M_{\phi r}$1.32±.33; Best double couple: $M_0$3.94400×10^{16} NP1:ϕ_s321.00000°,δ63.00000°,λ-174.00000°. NP2: ϕ_s229.00000°,δ85.00000°,λ-27.00000°. Principal axes: T 4.4620, Plg15.0000°, Azm278.0000°; N -1.0350, Plg63.0000°, Azm39.0000°; P -3.4270, Plg22.0000°, Azm182.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **14** 19:05:47.6±4.3, 17°.73S×176°.80W, h65^{km}±36^{km}, mb4.8/5 Error ellipse: s-maj=38.4km s-min=17.7km az=147.0*

*BJI **14** 19:05:48.6, 17°.70S×176°.80W, h64^{km}, mB5.4/5, mb4.4/6*

*MOS **14** 19:05:48.0±1.9, 17°.16S×177°.73W, h33^{km}, mb5.0/3, Error ellipse: s-maj=24.9km s-min=18.4km az=0.6*

ISC 14 19:05:45.2±0.6**, 17°.6S**±0°.1×**176°.8W**±0°.1**, h35^{km}, n97, σ1^s.34**/26**, mb4.4**/15**, MS4.4**/15**, 11C-7D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	6.08	53	Pn	Pn	19 07 05.1	-7.5
	2.0nm,0.3s,baz=248,slow=19,SNR=3.3						
AFI				LR	LR	19 08 25.7	
	comp=Z,394nm,21.5s,baz=225,slow=27						
DZM	Mont Dzumac	16.37	252	*e*P	Pn	19 09 34.1	+1.7
	97nm,1.7s						
RAR	Rarotonga	16.46	105	LR	LR	19 13 56.0	
	comp=Z,1µm,20.9s,baz=303,slow=30						
URZ	Urewera	21.25	193	LR	LR	19 17 58.7	
	comp=Z,1µm,18.3s,MS4.4,baz=33,slow=35						
HNR	Honiara	24.00	287	LR	LR	19 19 02.3	
	comp=Z,738nm,19.0s,MS4.2,baz=66,slow=34						
PPT	Papeete	25.95	94	*e*LR	LR	19 17 24.8	
	3µm,27.2s,baz=256						
PPT	Papeete	25.95	94	LR	LR	19 18 28.8	
	comp=Z,784nm,18.9s,MS4.3,baz=243,slow=30						
CTA	Charters Tower	35.00	260	P	P	19 12 33.3	-1.3
	11nm,1.0s,mb4.7,baz=101,slow=9.5,SNR=5.3						
CTA				LR	LR	19 24 50.7	
	comp=Z,619nm,21.7s,MS4.3,baz=92,slow=33						
CTAO	Charters Tower	35.00	260	*e*P	P	19 12 34.5	-0.1
CTAO				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.1						
CTAO	Charters Tower	35.00	260	*e*P	P	19 12 34.5	-0.1
	comp=Z,37nm,1.4s,mb5.1						
TAOE	Nuku Hiva Isla	36.67	81	*e*LR	LR	19 22 18.8	
	comp=Z,3µm,29.5s						
RKT	Rikitea	39.50	105	*e*LR	LR	19 23 43.1	
	comp=Z,1µm,27.8s,baz=276						
STKA	Stephens Creek	40.11	241	P	P	19 13 17.4	-0.3
	comp=Z,8.4nm,1.3s,mb4.3,baz=98,slow=7.1,SNR=3.2						
STKA				LR	LR	19 29 07.9	
	comp=Z,86nm,18.2s,MS3.6,baz=40,slow=35						
WRA	Warramunga Arr	46.19	259	P	P	19 14 04.2	-2.8
	comp=Z,4.3nm,0.8s,mb4.4,baz=95,slow=7.5,SNR=18						
WRA				LR	LR	19 33 19.7	
	comp=Z,536nm,18.2s,MS4.5,baz=90,slow=36						
ASAR	Alice Springs	46.34	254	P	P	19 14 05.8	-2.3
	comp=Z,5.1nm,0.7s,mb4.6,baz=88,slow=8.2,SNR=41						
FITZ	Fitzroy Crossi	54.58	260	LR	LR	19 38 07.7	
	comp=Z,433nm,18.6s,MS4.5,baz=112,slow=36						
VNDA	Vanda	60.87	185	LR	LR	19 40 01.1	
	comp=Z,146nm,18.6s,MS4.2,baz=172,slow=34						
MJAR	Matsushiro Arr	68.59	322	P	P	19 16 44.5	-0.1
	comp=Z,2.8nm,0.8s,mb4.2,baz=160,slow=6.2,SNR=3.6						
PETK	Petropavlovsk-	73.80	344	LR	LR	19 41 47.8	
	comp=Z,168nm,21.4s,MS4.3,baz=33,slow=29						
NVAR	Mina Array Bea	78.16	43	P	P	19 17 41.0	0.0
	comp=Z,0.5nm,0.3s,mb3.9,baz=224,slow=6.3,SNR=3.0						
NVAR	Mina Array Bea	78.16	43	P	P	19 17 41.0	0.0
HLID	Hailey	83.41	40	*e*P	P	19 18 12.2	+3.3
	comp=Z,3.5nm,1.0s,mb4.3						
SEY	Seymchan	83.84	346	*e*P	P	19 18 12.6	+2.0
TXAR	Lajitas Array	84.55	57	P	P	19 18 14.0	-1.1
	comp=Z,0.7nm,1.0s,mb3.8,baz=236,slow=6.8,SNR=3.5						
TXAR				LR	LR	19 48 49.2	
	comp=Z,178nm,18.3s,MS4.5,baz=0.0,slow=31						
MAW	Mawson	84.65	199	LR	LR	19 52 08.7	
	comp=Z,339nm,21.9s,MS4.7,baz=232,slow=33						
COLA	College	85.16	12	*e*P	P	19 18 15.7	-1.6
COLA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
COLA	College	85.16	12	*e*P	P	19 18 15.7	-1.6
	comp=Z,10nm,0.8s,mb5.0						
PDAR	Pinedale Array	86.09	43	P	P	19 18 24.4	+2.0
	comp=Z,0.8nm,0.8s,mb4.0,baz=210,slow=2.9,SNR=3.3						
PDAR				LR	LR	19 52 53.2	
	comp=Z,103nm,18.3s,MS4.3,baz=327,slow=33						
BILL	Bilibino	86.30	354	⇑*e*P	P	19 18 22.9	0.0
BILL				*e*		19 21 41.4	
BILL				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
BILL	Bilibino	86.30	354	*e*P	P	19 18 21.7	-1.1
	comp=Z,6.8nm,0.9s,mb4.9						
XAN	Xi’an	87.30	307	P	P	19 18 29.3	+0.7
XAN				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.4						
XAN				pmax	pmax		
	comp=Z,120nm,7.1s						
CMAR	Chiang Mai Arr	90.23	289	P	P	19 18 43.8	+1.0
	comp=Z,0.7nm,0.9s,mb4.0,baz=105,slow=2.4,SNR=3.6						
PLCA	Paso Flores	90.42	133	LR	LR	19 49 14.2	
	comp=Z,161nm,18.9s,MS4.5,baz=8.9,slow=29						
VNA3	Neumayer Olymp	90.93	176	*e*P	P	19 18 45.3	+0.3
VNA2	Neumayer--Watz	91.39	177	*e*P	P	19 18 47.6	+0.4
	baz=251,slow=5.6						
LZH	Lanzhou	91.92	307	*e*P	P	19 18 54.4	+4.2
LZH				pP	pP	19 19 10.0	+8.6
LZH				sP	sP	19 19 16.6	+11
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.3						
LZH				pmax	pmax		
	comp=Z,78nm,5.0s						
YKA	Yellowknife Ar	93.43	24	P	P	19 18 55.2	-1.3
	comp=Z,0.9nm,0.7s,mb4.3,baz=246,slow=4.5,SNR=11						
YKA				LR	LR	19 51 44.2	
	comp=Z,232nm,21.9s,MS4.6,baz=345,slow=30						
YKA	Yellowknife Ar	93.43	24	P	P	19 18 55.2	-1.3
YKA				LR	LR	19 51 44.2	
ULM	Lac du Bonnet	97.70	40	LR	LR	19 57 12.2	
	comp=Z,240nm,19.6s,MS4.7,baz=268,slow=32						
BVAR	Borovoye Array	117.58	321	PKP	PKPdf	19 24 22.9	-4.3
	comp=Z,0.6nm,0.7s,baz=117,slow=5.0,SNR=2.6						
AKTK	Aktyubinsk	125.63	320	PKP	PKPdf	19 24 42.0	-0.8
AKTO	Aktyubinsk	125.63	320	PKP	PKPdf	19 24 42.0	-0.8
	comp=Z,2.2nm,1.0s,baz=0.0,slow=4.0,SNR=3.3						
BURAR	Bucovina Array	145.05	334	⇓PKIKP	PKPdf	19 25 19.2	+0.4
BURAR	Bucovina Array	145.05	334	⇓*i*P	PKPab	19 25 25.3	+7.1
BURAR	Bucovina Array	145.05	334	⇓P	PKPab	19 25 25.3	+7.1
STHS	Stebnicka Huta	145.08	339	*e*PKP	PKPbc	19 25 23.0	+4.7
KOLS	Kolonicke sedl	145.13	338	*e*PKP	PKPdf	19 25 18.6	-0.3
KSP	Ksiaz	145.23	345	*e*PKIKP	PKPdf	19 25 18.7	-0.3
UZH	Uzhgorod	145.38	338	*e*PKHKP		19 25 14.8	
UZH				*e*		19 25 21.8	
UZH				*i*		19 25 30.0	
CRVS	Cervenica-Dubn	145.44	339	*e*PKP	PKPdf	19 25 19.1	-0.3
CLL	Collm	145.49	349	*i* PKPbc	PKPbc	19 25 19.2	-0.3
CLL				*i* PKiKP	PKiKP	19 25 22.3	-1.1
CLL				*e*pPKPbc	pPKPbc	19 25 38.0	+7.1
CLL	Collm	145.49	349	*i* PKP	PKPdf	19 25 19.2	-0.2
CLL				*i*		19 25 22.3	
UPC	Upice	145.61	345	*e*PKP	PKPdf	19 25 21.2	+1.5
BRTR	Keskin Array B	145.64	316	PKPbc	PKPbc	19 25 19.4	-1.0
	comp=Z,7.5nm,0.9s,baz=128,slow=2.0,SNR=13						
OKC	Ostrava-Krasne	145.67	343	*e*PKP	PKPbc	19 25 22.4	+2.3
DPC	Dobruska-Polom	145.68	345	*e*PKP	PKPbc	19 25 24.1	+3.9
BRG	Berggiesshubel	145.72	348	*e*PKIKP	PKPbc	19 25 24.0	+3.7
BRG				pmax	pmax		
	comp=Z,8.0nm,1.1s						
BRG	Berggiesshubel	145.72	348	*e*PKP	PKPbc	19 25 24.0	+3.7
	comp=Z,12nm,1.1s						
BRG				*e*		19 25 26.8	
	comp=Z,9.5nm,1.2s						
BRG				*e*		20 39 00.0	
BRG				*e*		20 39 35.0	
BRG	Berggiesshubel	145.72	348	*e*PKP	PKPbc	19 25 24.0	+3.7
BRG				*e*		19 25 26.8	
PLOR	Plostina	145.75	330	⇑*i*P	PKPbc	19 25 28.0	+7.5
MORC	Moravsky Berou	145.89	343	⇑*i*P	PKPbc	19 25 24.9	+4.1
MORC	Moravsky Berou	145.89	343	⇑P	PKPbc	19 25 24.9	+4.0
PVCC	Panska Ves	145.92	347	*e*PKP	PKPbc	19 25 24.9	+4.0
KECS	Kecovo	146.14	339	*e*PKP	PKPdf	19 25 21.0	+0.4
MLR	Muntele Rosu	146.35	331	⇑*i*P	PKPab	19 25 29.0	+5.8
MLR	Muntele Rosu	146.35	331	PKPbc	PKPbc	19 25 24.0	+1.7
	comp=Z,1.4nm,0.4s,baz=153,slow=4.5,SNR=2.2						
MOX	Moxa	146.36	350	*e*PKP	PKPab	19 25 26.8	+3.8
	comp=Z,32nm,2.0s						
MOX	Moxa	146.36	350	*e*PKP2	PKPab	19 25 26.8	+3.8
MOX				pmax	pmax		
	comp=Z,19nm,2.0s						
PRU	Pruhonice	146.43	347	*e*PKP	PKPdf	19 25 22.6	+1.5
NKC	Novy Kostel	146.62	349	*e*PKP	PKPdf	19 25 20.3	-1.1
VYHS	Vyhne	146.66	341	*e*PKP	PKPbc	19 25 23.8	+0.6
DRGR		146.73	335	⇓*i*P	PKPab	19 25 29.7	+5.1
VOIR		146.80	331	⇓*i*P	PKPbc	19 25 24.3	+0.6
GRA1	Grafenberg Arr	147.35	350	*e*PKP	PKPbc	19 25 25.7	+0.6
GRF	Grafenberg Arr	147.35	350	*e*PKP	PKPbc	19 25 25.7	+0.6
KHC	Kasperske Hory	147.45	347	*e*PKP	PKPbc	19 25 26.2	+0.8
BAIF	Baives	147.62	359	*e*PKP1	PKPbc	19 25 25.6	-0.2
	comp=Z,11nm,0.9s						
GERES	GERESS Array B	147.70	347	PKPbc	PKPbc	19 25 26.1	0.0
	comp=Z,3.1nm,0.9s,baz=14,slow=2.8,SNR=12						
CONA	Conrad Observa	148.03	344	⇓*i*PKPdf	PKPdf	19 25 22.4	-1.4
	comp=Z,12nm,1.2s						
CSNA	Conrad Observa	148.03	344	⇑*i*PKPdf	PKPdf	19 25 22.3	-1.5
	comp=Z,11nm,1.1s						
BZS	Buzias	148.13	335	⇑*i*P	PKPbc	19 25 27.5	+0.2
BZS	Buzias	148.13	335	⇑P	PKPbc	19 25 27.5	+0.2
BFO	Black Forest	149.08	353	*i* PKP2	PKPab	19 25 34.2	+0.3
CDF	Champ du Feu	149.10	355	*e*PKP1	PKPbc	19 25 30.2	+0.5
	comp=Z,25nm,1.2s						
HAU	Haudompre	149.58	356	*e*PKP1	PKPbc	19 25 31.3	+0.4
	comp=Z,14nm,1.0s						
WTTA	Wattenberg	149.62	349	⇑*i*PKiKP	PKPbc	19 25 30.5	-0.6
	comp=Z,11nm,1.0s						
MOTA	Moosalm	149.64	349	⇓*i*PKPab	PKPbc	19 25 33.2	+2.1
	comp=Z,6.6nm,0.9s						
HINF	Hinteralfeld	149.73	355	*e*PKP1	PKPbc	19 25 31.5	+0.2
	comp=Z,11nm,1.0s						
ABTA	Abfaltersbach	149.94	347	⇑*i*PKPdf	PKPdf	19 25 26.6	-0.4
	comp=Z,12nm,0.9s						
FETA	Feichten	150.02	350	⇑*i*PKiKP	PKPbc	19 25 32.7	+0.7
	comp=Z,9.0nm,1.0s						
LOR	Lormes	150.42	359	*e*PKP1	PKPbc	19 25 33.4	+0.4
	comp=Z,17nm,1.0s						
SSF	Saint Saulge	150.63	360	*e*PKP1	PKPbc	19 25 34.0	+0.5
	comp=Z,12nm,1.0s						
AVF	Avril sur Loir	150.90	360	*e*PKP1	PKPbc	19 25 35.1	+1.0
CABF	La Chapelle	150.98	356	*e*PKP1	PKPbc	19 25 35.4	+1.1
	comp=Z,23nm,0.9s						
TCF	Toulx Ste Croi	151.39	1	*e*PKP1	PKPbc	19 25 35.5	+0.2
MBDF	Montbardon	152.80	354	*e*PKP1	PKPbc	19 25 38.9	+0.4
	comp=Z,6.2nm,1.0s						
TORD	Torodi Ar. Bea	175.33	162	PKP	PKPdf	19 25 51.1	-1.3
	comp=Z,1.8nm,1.1s,baz=289,slow=1.8,SNR=4.5						
TORD				PKPab	PKPab	19 27 28.9	+0.3
	comp=Z,1.3nm,0.9s,baz=158,slow=2.9,SNR=4.8						

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*IDC **14** 19:14:52.8±2.5, 4°.73S×102°.29E, h0^{km}, mb3.7/7, mb1 3.7/7, mb1mx3.6/22, mbtmp3.7/7, Error ellipse: s-maj=111.9km s-min=23.8km az=55.0*

*NEIC **14** 19:14:58.0±1.9, 4°.75S×102°.10E, h35^{km}, Error ellipse: s-maj=80.4km s-min=13.8km az=54.0*

ISC 14 19:14:58.1±2.3**, 4°.8S**±0°.4×**102°.1E**±0°.5**, h35^{km}, n8, σ0^s.68**/8**, mb3.7**/7**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	23.28	352	P	P	19 20 03.1	+0.1
	0.3nm,0.5s,mb3.0,baz=178,slow=8.5,SNR=3.4						
WRAB	Tennant Creek	34.83	118	*e*P	P	19 21 47.2	+1.2
ASAR	Alice Springs	35.96	125	P	P	19 21 54.6	-1.1
	0.7nm,0.6s,mb3.8,baz=298,slow=7.7,SNR=10.0						
SONM	Songino Array	52.51	4	P	P	19 24 07.0	-0.7
	0.5nm,0.6s,mb3.6,baz=179,slow=7.6,SNR=5.4						
MKAR	Makanchi Array	54.24	343	P	P	19 24 21.1	+0.8
	0.7nm,0.4s,mb3.9,baz=151,slow=8.7,SNR=32						
KURK	Kurchatov	58.84	343	P	P	19 24 53.1	+0.1
	0.5nm,0.7s,mb3.6,baz=158,slow=7.0,SNR=3.9						
ZALV	Zalesovo Beam	60.26	348	P	P	19 25 02.5	-0.2
	1.2nm,0.5s,mb4.2,baz=173,slow=6.3,SNR=7.5						
BVAR	Borovoye Array	63.48	339	P	P	19 25 24.2	-0.3
	0.3nm,0.3s,mb3.9,baz=137,slow=8.5,SNR=5.1						

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*ISCJB **14** 19:46:16.6±0.7, 74°.13N±0°.05×94°.1W±0°.2, h10^{km}, mb3.7/4, Error ellipse: s-maj=8.0km s-min=4.8km az=44.5*

*NEIC **14** 19:46:20.3, 74°.36N×94°.53W, h18^{km}, mb3.9/3, MN4.6(OTT), After OTT.*

NEIC Felt in the Resolute area.

*OTT **14** 19:46:20.3±0.2, 74°.36N×94°.53W, h18^{km}, MN4.6/5*

OTT 40km south from Resolute, Nu. Felt. Event heard in Resolute, Nu Boothia Ungava Seismic Zone.

*IDC **14** 19:46:20.9±1.2, 74°.38N×95°.48W, h0^{km}, mb3.7/4, mb1 3.9/5, mb1mx3.6/24, mbtmp3.8/5, ML3.8/1, Error ellipse: s-maj=32.2km s-min=7.3km az=113.0*

ISC 14 19:46:17.7±0.5**, 74°.24N**±0°.04×**94°.2W**±0°.2**, h10^{km}, n46, σ1^s.35**/72**, mb3.7**/4**, Queen Elizabeth Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RES	Resolute Bay	0.49	337	PG	Pg	19 46 27.9	+0.6
RES				SG	Sg	19 46 32.2	-1.5
RES				Trac		19 46 33.5	
	comp=Z,5µm,0.1s						
RES	Resolute Bay	0.49	337	Pg	Pg	19 46 27.8	+0.5
	272nm,0.3s,baz=167,slow=11,SNR=6403						
RES				Lg		19 46 32.2	
	3µm,0.3s,baz=109,slow=22,SNR=296						
RES	Resolute Bay	0.49	337	Pg	Pg	19 46 27.8	+0.5
RES				Lg		19 46 32.2	
GIFN	Gifford Fjord,	5.74	132	PN	Pn	19 47 45.7	+2.9
GIFN				SN	Sn	19 48 48.2	-0.4
GIFN				LG		19 49 20.0	
GIFN				Trac		19 49 30.3	
	comp=Z,346nm,0.5s						
LAIN	Lailor River,	6.14	142	PN	Pn	19 47 51.8	+3.6
LAIN				SN	Sn	19 48 57.0	-1.4
LAIN				LG		19 49 33.5	
ILON	Igloolik, Nuna	6.22	136	PN	Pn	19 47 52.8	+3.4
ILON				SN	Sn	19 48 59.7	-0.6
ILON				LG		19 49 36.9	
ILON				Trac		19 49 43.6	
	comp=Z,388nm,0.4s						
KUGN	Kugaaruk Camp,	6.32	166	PN	Pn	19 47 54.6	+3.8
KUGN				SN	Sn	19 49 03.1	+0.2
KUGN				LG		19 49 38.4	
KUGN				Trac		19 49 48.5	
	comp=Z,1µm,0.6s						
SRLN	Sarcpa Lake, N	6.67	143	PN	Pn	19 47 59.0	+3.5
SRLN				SN	Sn	19 49 11.2	-0.3
BULN	Bullion Camp,	7.89	177	PN	Pn	19 48 15.5	+3.2
BULN				SN	Sn	19 49 40.3	-1.2
BULN				LG		19 50 26.0	
BULN				Trac		19 50 30.8	
	comp=Z,574nm,0.7s						
QILN	Qililugaq Expl	8.05	157	SN	Sn	19 49 44.5	-0.8
QILN				LG		19 50 32.0	
QILN				Trac		19 50 40.6	

	comp=Z,503nm,0.8s						
NUNN	**Nunuq Camp, NU**	**9.13**	**172**	PN	**Pn**	**19 48 31.6**	**+2.3**
NUNN				SN	**Sn**	**19 50 13.1**	**+1.2**
NUNN				LG		19 51 01.5	
NUNN				Trac		19 51 12.0	
	comp=Z,490nm,0.5s						
YBKN	**Baker Lake, Hu**	**9.99**	**185**	PN	**Pn**	**19 48 40.3**	**-0.8**
YBKN				SN	**Sn**	**19 50 28.1**	**-4.8**
YBKN				LG		19 51 29.7	
YBKN				Trac		19 51 43.1	
	comp=Z,539nm,1.0s						
SEDN	**First Sedna Si**	**11.09**	**173**	PN	**Pn**	**19 48 58.0**	**+1.9**
SEDN				SN	**Sn**	**19 50 56.9**	**-3.1**
SEDN				LG		19 52 04.3	
SEDN				Trac		19 52 12.6	
	comp=Z,254nm,0.8s						
JOSN	**Second Sedna S**	**11.17**	**174**	PN	**Pn**	**19 48 58.8**	**+1.7**
JOSN				SN	**Sn**	**19 51 01.6**	**-0.2**
JOSN				LG		19 52 09.9	
CTLN	**Castor Lake**	**12.39**	**229**	PN	**Pn**	**19 49 13.8**	**0.0**
CTLN				SN	**Sn**	**19 51 21.2**	**-11**
CTLN				LG		19 52 39.2	
CTLN				Trac		19 52 46.6	
	comp=Z,134nm,1.1s						
ARVN	**Arviat, NU**	**13.21**	**180**	LG		19 53 13.3	
ARVN				Trac		19 53 19.6	
	comp=Z,218nm,0.5s						
IVKQ	**Ivujivik**	**13.22**	**145**	PN	**Pn**	**19 49 24.6**	**-0.6**
IVKQ				SN	**Sn**	**19 51 46.5**	**-5.4**
IVKQ				LG		19 53 14.7	
IVKQ				Trac		19 53 21.1	
	comp=Z,141nm,0.7s						
FRB	**Frobisher Bay**	**13.79**	**126**	PN	**Pn**	**19 49 31.7**	**-1.2**
FRB				SN	**Sn**	**19 51 57.6**	**-8.3**
FRB				LG		19 53 29.4	
FRB				Trac		19 53 40.5	
	comp=Z,195nm,1.0s						
FRB	**Frobisher Bay**	**13.79**	**126**	Pn	**Pn**	**19 49 31.4**	**-1.6**
	1.0nm,0.3s,baz=334,slow=12,SNR=7.4						
FRB				Sn	**Sn**	**19 51 58.4**	**-7.5**
	2.5nm,0.3s,baz=53,slow=20,SNR=3.4						
FRB				Lg		19 53 29.1	
	6.4nm,0.3s,baz=72,slow=22,SNR=5.7						
YKW3	**Yellowknife Ar**	**13.80**	**223**	PN	**Pn**	**19 49 31.8**	**-1.3**
YKW3				SN	**Sn**	**19 51 56.5**	**-10**
YKW3				LG		19 53 21.6	
YKW3				Trac		19 53 40.5	
	comp=Z,148nm,1.0s						
YKW3				Trac		19 53 43.2	
	comp=Z,47nm,0.5s						
YKA	**Yellowknife Ar**	**13.87**	**223**	Pn	**Pn**	**19 49 33.1**	**-0.8**
	0.7nm,0.3s,baz=17,slow=12,SNR=23						
YKA				Sn	**Sn**	**19 51 57.2**	**-10**
	1.0nm,0.3s,baz=11,slow=21,SNR=4.3						
YKA				Lg		19 53 23.1	
	1.4nm,0.3s,baz=20,slow=28,SNR=8.5						
YKA	**Yellowknife Ar**	**13.87**	**223**	Pn	**Pn**	**19 49 33.1**	**-0.8**
YKA				Sn	**Sn**	**19 51 57.2**	**-10**
YKA				Lg		19 53 23.1	
AKVQ	**Akulivik**	**14.71**	**148**	PN	**Pn**	**19 49 44.6**	**-0.8**
AKVQ				SN	**Sn**	**19 52 17.4**	**-11**
AKVQ				LG		19 53 57.3	
AKVQ				Trac		19 54 03.4	
	comp=Z,133nm,1.4s						
FCC	**Fort Churchill**	**15.55**	**180**	PN	**Pn**	**19 49 55.4**	**-1.2**
FCC				SN	**Sn**	**19 52 49.1**	**+0.5**
FCC				LG		19 54 23.6	
FCC				Trac		19 54 44.9	
	comp=Z,130nm,0.7s						
FCC	**Fort Churchill**	**15.55**	**180**	*e*P	**Pn**	**19 49 55.9**	**-0.7**
	0.2nm,0.5s						
FCC				*e*S	**Sn**	**19 52 37.4**	**-11**
INUQ	**Inukjuak**	**16.99**	**150**	SN	**Sn**	**19 53 17.6**	**-6.1**
INUQ				LG		19 55 07.8	
INUQ				Trac		19 55 21.8	
	comp=Z,320nm,2.0s						
DAG	**Danmarks Havn**	**17.86**	**47**	*i* P	**Pn**	**19 50 22.0**	**-3.7**
	2.8nm,0.2s						
DAG	**Danmarks Havn**	**17.86**	**47**	*e*P	**Pn**	**19 50 22.0**	**-3.7**
	2.8nm,0.2s						
EGAK	**Eagle**	**18.37**	**264**	*e*P	**Pn**	**19 50 28.2**	**-3.9**
	6.5nm,0.8s						
DAWY	**Dawson**	**18.45**	**260**	PN	**Pn**	**19 50 33.5**	**+0.4**
DAWY				SN	**Sn**	**19 53 47.2**	**-12**
DAWY	**Dawson**	**18.45**	**260**	*e*P	**Pn**	**19 50 31.4**	**-1.7**
SNQN	**Sanikiluaq**	**18.71**	**154**	SN	**Sn**	**19 54 22.3**	**+17**
SNQN				LG		19 55 59.5	
SNQN				Trac		19 56 10.1	
	comp=Z,355nm,1.9s						
FNBB	**Fort Nelson**	**18.84**	**231**	PN	**Pn**	**19 50 38.4**	**+0.6**
KUQ	**Kuujjuuaa**	**18.94**	**135**	SN	**Sn**	**19 53 56.4**	**-14**
KUQ				LG		19 55 57.6	
KUQ				Trac		19 56 19.9	
	comp=Z,60nm,0.6s						
FFC	**Flin Flon**	**19.84**	**193**	PN	**Pn**	**19 50 50.1**	**+0.2**
FFC				SN	**Sn**	**19 54 16.9**	**-16**
FFC				LG		19 56 35.0	
FFC				Trac		19 56 55.4	
	comp=Z,169nm,1.2s						
FFC				Trac		19 57 07.6	
	comp=Z,71nm,0.7s						
FFC	**Flin Flon**	**19.84**	**193**	*e*P	**Pn**	**19 50 50.0**	**+0.1**
	3.9nm,0.6s						
SILO	**Sutton Inlier**	**20.19**	**164**	PN	**P**	**19 50 52.9**	**+0.8**
SILO				SN	**S**	**19 54 32.6**	**-5.6**
SILO				LG		19 56 52.4	
DLBC	**Dease Lake**	**20.83**	**240**	P	**P**	**19 51 01.1**	**+2.1**
	1.6nm,0.3s,baz=3.2,slow=18,SNR=3.0						
LG4Q	**La Grande 4**	**22.24**	**147**	PN	**P**	**19 51 15.7**	**+1.5**
LG4Q				SN	**S**	**19 55 25.8**	**+7.2**
LG4Q				LG		19 57 52.9	
WEMQ	**Wemindji, Queb**	**22.28**	**154**	PN	**P**	**19 51 23.5**	**+8.9**
WEMQ				SN	**S**	**19 55 24.4**	**+5.0**
SCHQ	**Schefferville**	**22.32**	**136**	PN	**P**	**19 51 25.0**	**+10**
SCHQ				SN	**S**	**19 55 12.7**	**-7.5**
SCHQ	**Schefferville**	**22.32**	**136**	P	**P**	**19 51 22.9**	**+7.9**
	1.5nm,0.4s,mb3.8,baz=324,slow=9.1,SNR=7.3						
ULM	**Lac du Bonnet**	**24.09**	**183**	P	**P**	**19 51 37.2**	**+4.3**
	0.9nm,0.5s,mb3.5,baz=352,slow=7.1,SNR=3.1						
ULM	**Lac du Bonnet**	**24.09**	**183**	P	**P**	**19 51 37.2**	**+4.3**
ESDC	**Sonseca Array**	**52.34**	**77**	P	**P**	**19 55 37.9**	**+8.6**
	0.3nm,0.4s,mb3.6,baz=340,slow=7.5,SNR=2.7						
SONM	**Songino Array**	**57.43**	**344**	P	**P**	**19 56 15.2**	**+9.3**
	0.9nm,0.8s,mb3.8,baz=359,slow=6.8,SNR=6.0						

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*MOS **14** 19:50:51.0±1.2, 5°.52N×125°.97E, h33^{km}, mb5.3/21, Error ellipse: s-maj=13.7km s-min=6.7km az=109.2*

*DJA **14** 19:50:53, 5°.74N×126°.61E, h10^{km}, mb5.2/7*

*MAN **14** 19:50:57, 5°.33N×126°.13E, h98^{km}, mb5.6, ML4.6, MS5.0*

*NEIC **14** 19:50:60.0±1.0, 5°.43N×125°.92E, h100^{km}±8^{km}, mb5.0/22, Error ellipse: s-maj=9.9km s-min=5.6km az=72.0*

*ISCJB **14** 19:50:59.0±0.4, 5°.43N±0°.03×126°.01E±0°.04, h105^{km}±3^{km}, mb4.9/90, Error ellipse: s-maj=6.1km s-min=4.6km az=163.3*

*IDC **14** 19:51:00.1±1.1, 5°.42N×125°.94E, h99^{km}±8^{km}, mb4.4/20, mb1 4.5/20, mb1mx4.5/24, mbtmp4.4/20, MS3.6/5, Ms1 3.6/5, ms1mx3.3/30, Error ellipse: s-maj=18.8km s-min=9.5km az=79.0*

ISC 14 19:51:00.4±0.4**, 5°.46N**±0°.03×**126°.04E**±0°.04**, h101**^{km}±3^{km}**, h100**^{km}±2.8^{km}**:pP-P, n199,** σ1^{s}.**15**/213**, mb4.9**/90**, 12C-9D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.25**	**300**	⇑*i*P	**Pn**	**19 51 21.3**	**-2.6**
GSPH				*e*S	**Sn**	**19 51 37.6**	**-3.9**
MATI	**Mati**	**1.49**	**8**	*e*P	**Pn**	**19 51 25.1**	**-1.6**
DAV	**Davao City (W)**	**1.67**	**344**	P	**Pn**	**19 51 28.3**	**-0.6**
	548nm,0.3s,baz=193,slow=2.2,SNR=132						
DAV				S	**Sn**	**19 51 50.4**	**0.0**
	840nm,0.3s,baz=80,slow=11,SNR=8.4						
DAV				LR	LR	19 52 11.1	
	comp=Z,1µm,20.8s,baz=88,slow=42						
DAV	**Davao City (W)**	**1.67**	**344**	*e*P	**Pn**	**19 51 28.2**	**-0.7**
DMPH	**Davao City--Mi**	**1.70**	**342**	⇑*e*P	**Pn**	**19 51 28.7**	**-0.6**
DMPH				*e*S	**Sn**	**19 51 51.6**	**+0.4**
KCP	**Kidapawan**	**1.81**	**329**	⇓*i*P	**Pn**	**19 51 30.6**	**-0.1**
KCP				*i* S	**Sn**	**19 51 54.7**	**+1.0**
CTBH	**Cotabato--PC H**	**2.50**	**315**	⇑*e*P	**Pn**	**19 51 38.5**	**-1.2**
CTBH				*e*S	**Sn**	**19 52 07.9**	**-1.8**
BUKP	**Musuan**	**2.59**	**338**	*e*P	**Pn**	**19 51 41.0**	**+0.1**
BIPH	**Bislig**	**2.73**	**7**	⇑*e*P	**Pn**	**19 51 42.0**	**-0.6**
BIPH				*i* S	**Sn**	**19 52 15.6**	**+0.5**
BUTP	**Butuan**	**3.51**	**353**	*e*P	**Pn**	**19 51 53.8**	**+0.7**
PAGZ	**Pagadian**	**3.55**	**312**	*e*P	**Pn**	**19 51 53.2**	**-0.5**
IPIL	**Ipil**	**4.15**	**304**	*e*P	**Pn**	**19 52 01.9**	**+0.1**
ZMPH	**Zamboanga City**	**4.22**	**291**	⇓*i*P	**Pn**	**19 52 01.6**	**-1.1**
ZMPH				*i* S	**Sn**	**19 52 48.9**	**-2.2**
SCPH	**Surigao**	**4.33**	**353**	⇓*e*P	**Pn**	**19 52 02.6**	**-1.6**
TBP	**Tagbilaran**	**4.73**	**333**	*e*P	**Pn**	**19 52 10.3**	**+0.8**
MSLP	**Maasin**	**4.79**	**346**	*e*P	**Pn**	**19 52 10.0**	**-0.4**
LLP	**Lapu-Lapu**	**5.25**	**337**	⇓*e*P	**Pn**	**19 52 17.2**	**+0.6**
LLP				*e*S	**Sn**	**19 53 25.6**	**+10**
OCLP	**Ormoc**	**5.74**	**346**	*e*P	**Pn**	**19 52 23.3**	**+0.1**
PLP	**Palo**	**5.77**	**350**	⇓*e*P	**Pn**	**19 52 23.6**	**-0.1**
GUIM	**Jordan**	**6.17**	**327**	*e*P	**Pn**	**19 52 29.8**	**+0.8**
RCP	**Roxas**	**6.88**	**332**	⇑*e*P	**Pn**	**19 52 39.6**	**+0.8**
CUYO	**Cuyo Island**	**7.31**	**317**	*e*P	**Pn**	**19 52 45.8**	**+1.2**
MYLDM	**Lahad Datu**	**7.51**	**268**	P	**Pn**	**19 52 50.1**	**+2.7**
TSM	**Tawau**	**8.22**	**262**	P	**Pn**	**19 52 57.9**	**+0.9**
PVCP	**Virac**	**8.30**	**347**	*e*P	**Pn**	**19 52 59.1**	**+1.1**
SJMP	**San Jose**	**8.49**	**325**	*e*P	**Pn**	**19 53 01.9**	**+1.3**
ENPP	**El Nido**	**8.69**	**312**	*e*P	**Pn**	**19 53 01.7**	**-1.6**
BUSP	**Coron**	**8.70**	**319**	*e*P	**Pn**	**19 53 02.2**	**-1.2**
SDKM	**Sandakan**	**8.81**	**272**	P	**Pn**	**19 53 06.1**	**+1.1**
BALP	**Baler**	**11.12**	**337**	*e*P	**Pn**	**19 53 41.5**	**+5.1**
SCZP	**Santa Cruz**	**11.89**	**330**	*e*P	**Pn**	**19 53 55.1**	**+8.4**
CAUP	**Cauayan**	**12.14**	**340**	*e*P	**Pn**	**19 53 45.0**	**-5.0**
BTM	**Bintulu**	**13.11**	**261**	P	**Pn**	**19 54 05.0**	**+2.1**
SBUM	**Sibu**	**14.11**	**258**	P	**Pn**	**19 54 18.7**	**+2.9**
KSM	**Kuching**	**16.19**	**256**	P	**Pn**	**19 54 44.7**	**+2.6**
KSM	**Kuching**	**16.19**	**256**	*e*P	**Pn**	**19 54 45.5**	**+3.3**
	111nm,1.3s						
KAKA	**Kakadu**	**19.14**	**161**	*e*P	**P**	**19 55 14.9**	**-0.9**
	30nm,0.6s						
KAKA	**Kakadu**	**19.14**	**161**	*e*P	**P**	**19 55 14.5**	**-1.3**
	80nm,0.6s						
GUMO	**Guam**	**20.23**	**65**	LR	LR	20 01 48.0	
	comp=Z,268nm,19.5s,baz=145,slow=32						
QZH	**Quanzhou**	**20.65**	**341**	P	**P**	**19 55 34.9**	**+2.8**
KNA	**Kununurra**	**21.24**	**173**	*e*P	**P**	**19 55 37.8**	**-0.7**
	50nm,0.7s,mb5.0						
JOW	**Kunigami**	**21.36**	**5**	P	**P**	**19 55 41.0**	**+1.4**
	80nm,0.7s,mb5.2,baz=199,slow=9.2,SNR=15						
JOW				LR	LR	20 02 50.8	
	comp=Z,123nm,19.4s,baz=125,slow=33						
MYKOM	**Kota Tinggi**	**22.44**	**261**	P	**P**	**19 55 54.5**	**+3.2**
KTGM	**Kuala Trenggan**	**22.81**	**271**	P	**P**	**19 55 57.9**	**+2.8**
KGM	**Kluang**	**22.93**	**262**	P	**P**	**19 55 59.1**	**+2.9**
FITZ	**Fitzroy Crossi**	**23.41**	**181**	*e*P	**P**	**19 56 00.2**	**-0.3**
	23nm,0.4s,mb4.8						
FITZ	**Fitzroy Crossi**	**23.41**	**181**	P	**P**	**19 55 59.5**	**-1.0**
	19nm,0.8s,mb4.5,baz=17,slow=1.2,SNR=24						
FITZ	**Fitzroy Crossi**	**23.41**	**181**	*e*P	**P**	**19 56 00.0**	**-0.5**
	30nm,1.0s,mb4.6						
FRIM	**Kepong**	**24.45**	**266**	P	**P**	**19 56 12.8**	**+2.8**
IPM	**Ipoh**	**24.94**	**269**	P	**P**	**19 56 17.4**	**+2.8**
KULM	**Kulim**	**25.28**	**271**	P	**P**	**19 56 20.4**	**+2.8**
COEN	**Coen**	**25.71**	**139**	*e*P	**P**	**19 56 22.0**	**+0.5**
	368nm,1.5s,mb5.6						
SSE	**Sheshan**	**25.91**	**350**	P	**P**	**19 56 26.3**	**+3.2**
SSE				pmax	pmax		
	comp=Z,48nm,1.4s,mb4.7						
SSE				pmax	pmax		
	comp=Z,49nm,4.0s						
WRAB	**Tennant Creek**	**26.52**	**162**	P	**P**	**19 56 30.0**	**+1.3**
	comp=Z,89nm,0.7s,mb5.4,SNR=6.0						
WRAB	**Tennant Creek**	**26.52**	**162**	*e*P	**P**	**19 56 28.8**	**+0.1**
WRAB				pmax	pmax		
	comp=Z,28nm,0.8s,mb4.8						
WRAB	**Tennant Creek**	**26.52**	**162**	*e*P	**P**	**19 56 28.8**	**+0.1**
	comp=Z,28nm,0.8s,mb4.8						
WRA	**Warramunga Arr**	**26.53**	**162**	P	**P**	**19 56 28.4**	**-0.3**
	comp=Z,4.3nm,0.5s,mb4.3,baz=339,slow=10,SNR=47						
PSI	**Prapat**	**27.17**	**266**	P	**P**	**19 56 34.6**	**-0.1**
	comp=Z,18nm,0.9s,mb4.6,baz=82,slow=3.9,SNR=14						
NJ2	**Nanjing**	**27.30**	**347**	*e*P	**P**	**19 56 38.0**	**+2.4**
NJ2				pmax	pmax		
	comp=Z,100nm,0.6s,mb5.5						
NST	**Nakhon Sawan**	**27.38**	**294**	P	**P**	**19 56 37.0**	**+0.5**
GYA	**Guiyang**	**27.90**	**321**	⇓*i*P	**P**	**19 56 42.1**	**+1.1**
GYA				pP	pP	19 57 03.8	+0.2
GYA				sP	sP	19 57 15.5	+0.1
GYA				PP	PP	19 57 35.3	-11
GYA				PcP	PcP	19 59 55.5	+1.1
GYA				S	**S**	**20 01 18.3**	**+0.9**
GYA				sS	sS	20 01 56.3	-0.4
GYA				ScP	ScP	20 03 26.8	+0.6
GYA				PcS	PcS	20 03 36.3	-0.3
GYA				ScS	ScS	20 07 16.8	-1.9
GYA				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
GYA				pmax	pmax		
	comp=Z,90nm,4.8s						
CHRT	**Chiangrai**	**29.28**	**302**	P	**P**	**19 56 53.5**	**+0.1**
CMAR	**Chiang Mai Arr**	**29.43**	**298**	P	**P**	**19 56 55.1**	**+0.4**
	comp=Z,1.6nm,0.8s,baz=122,slow=7.1,SNR=14						
CMAR				PcP	PcP	19 59 59.2	+0.9
	comp=Z,0.8nm,0.7s,baz=130,slow=1.4,SNR=4.4						
CHTO	**Chiang Mai**	**29.57**	**299**	*e*P	**P**	**19 56 55.8**	**-0.1**
CHTO				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
CHTO	**Chiang Mai**	**29.57**	**299**	*e*P	**P**	**19 56 55.8**	**-0.2**
	comp=Z,2.3nm,0.5s,mb4.1						
KMI	**Kunming**	**29.69**	**314**	P	**P**	**19 56 58.6**	**+1.7**
KMI				pP	pP	19 57 21.8	+2.2
KMI				sP	sP	19 57 32.5	+1.1
KMI				PP	PP	19 58 00.0	-5.8
KMI				S	**S**	**20 01 44.8**	**-0.7**
KMI				sS	sS	20 02 27.0	+2.0
KMI				SS	SS	20 03 31.0	-25
KMI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.5						
KMI				pmax	pmax		
	comp=Z,140nm,4.6s						
KMI				LR	LR		
	comp=N,210nm,19.0s						
KMI				LR	LR		
	comp=E,140nm,17.8s						
KMI				LR	LR		
	comp=Z,170nm,17.7s						
ASAR	**Alice Springs**	**29.95**	**165**	P	**P**	**19 56 58.4**	**-0.8**
	comp=Z,2.6nm,0.5s,mb4.1,baz=344,slow=7.0,SNR=42						
ASAR				ScP	ScP	20 03 33.9	+1.3
	comp=Z,2.3nm,0.7s,baz=340,slow=2.8,SNR=12						
KSRS	**Korea Array**	**31.89**	**3**	P	**P**	**19 57 16.7**	**+0.6**
	comp=Z,14nm,0.8s,mb4.7,baz=184,slow=10,SNR=30						
KSRS				PcP	PcP	20 00 05.5	+1.0
	comp=Z,0.8nm,0.6s,baz=182,slow=2.9,SNR=4.3						
KSRS				LR	LR	20 08 33.4	
	comp=Z,58nm,20.2s,baz=339,slow=33						
CTA	**Charters Tower**	**32.24**	**143**	*e*P	**P**	**19 57 21.0**	**+1.6**
	comp=Z,3.8nm,0.6s,mb4.3						
XAN	**Xi'an**	**32.58**	**333**	P	**P**	**19 57 21.1**	**-1.1**
XAN				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.1						
XAN				pmax	pmax		
	comp=Z,130nm,6.8s						
MEEK	**Meekatharra**	**32.71**	**192**	*e*P	**P**	**19 57 22.0**	**-1.4**
	comp=Z,44nm,1.3s,mb5.1						
CD2	**Chengdu**	**32.86**	**323**	P	**P**	**19 57 24.8**	**+0.1**
CD2				pP	pP	19 57 46.8	-0.7
CD2				sP	sP	19 57 58.5	-0.8
CD2				PP	PP	19 58 35.3	-5.6
CD2				PcP	PcP	20 00 06.5	-0.8
CD2				S	**S**	**20 02 35.0**	**+0.2**
CD2				SS	SS	20 04 40.8	-20
CD2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.1						
CD2				pmax	pmax		
	comp=Z,160nm,5.9s						
CD2				LR	LR		
	comp=N,410nm,8.3s						
CD2				LR	LR		
	comp=Z,230nm,7.1s						
MJAR	**Matsushiro Arr**	**32.89**	**18**	P	**P**	**19 57 23.4**	**-1.5**
	comp=Z,7.1nm,0.8s,mb4.5,baz=198,slow=9.3,SNR=13						
MJAR				LR	LR	20 08 32.5	
	comp=Z,82nm,19.4s,baz=190,slow=32						
MAT	**Matsushiro**	**32.89**	**18**	P	**P**	**19 57 23.3**	**-1.6**
MAT				*e*S	**S**	**20 02 41.0**	**+5.8**
BJI	**Beijing**	**35.56**	**347**	P	**P**	**19 57 47.5**	**-0.4**
BJI				pP	pP	19 58 10.4	-0.5
BJI				sP	sP	19 58 23.1	+0.5
BJI				PP	PP	19 59 11.6	+1.0
BJI				PcP	PcP	20 00 14.5	-0.3
BJI				S	**S**	**20 03 18.3**	**+2.1**
BJI				pmax	pmax		
	comp=Z,87nm,0.8s,mb5.7						
BJI				pmax	pmax		
	comp=Z,68nm,4.2s						
FORT	**Forrest**	**36.08**	**177**	*e*P	**P**	**19 57 51.7**	**-0.7**
	comp=Z,16nm,0.5s,mb5.2						
LZH	**Lanzhou**	**36.68**	**329**	*e*P	**P**	**19 57 58.4**	**+0.9**
LZH				pP	pP	19 58 19.1	-1.5
LZH				sP	sP	19 58 32.5	+0.2
LZH				PP	PP	19 59 26.8	+3.8
LZH				PcP	PcP	20 00 19.6	+1.3
LZH				*e*S	**S**	**20 03 32.0**	**-1.4**
LZH				sS	sS	20 04 12.8	-0.6
LZH				SS	SS	20 06 07.9	-8.5
LZH				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.3						
LZH				pmax	pmax		
	comp=Z,140nm,4.0s						
KMBL	**Kambalda**	**36.83**	**186**	*e*P	**P**	**19 57 57.9**	**-0.9**
	comp=Z,40nm,0.3s,mb5.8						
HHC	**Hu-ho-hao-te**	**37.55**	**342**	*e*P	**P**	**19 58 05.1**	**+0.3**
HHC				pP	pP	19 58 30.3	+2.3
HHC				sP	sP	19 58 43.3	+3.6
HHC				PP	PP	19 59 36.8	+4.3
HHC				S	**S**	**20 03 45.1**	**-1.5**
HHC				PcS	PcS	20 04 07.9	-1.5
HHC				sS	sS	20 04 29.3	+2.6
HHC				SS	SS	20 06 26.6	-8.9
HHC				ScS	ScS	20 08 04.1	-3.5
HHC				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.8						
HHC				pmax	pmax		
	comp=Z,130nm,5.8s						
HHC				LR	LR		
	comp=N,130nm,14.3s						
HHC				LR	LR		
	comp=E,310nm,15.5s						
HHC				LR	LR		
	comp=Z,170nm,11.8s						
CN2	**Changchun**	**38.19**	**359**	⇓P	**P**	**19 58 10.9**	**+0.8**
CN2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.1						
SHL	**Shillong**	**38.32**	**305**	*e*PKP	**P**	**19 58 11.0**	**-0.5**
MUN	**Mundaring**	**38.39**	**194**	*e*P	**P**	**19 58 11.2**	**-0.7**
NWAO	**Narrogin (SRO)**	**39.08**	**192**	*e*P	**P**	**19 58 17.3**	**-0.4**
	comp=Z,64nm,0.6s,mb5.6						
MDJ	**Mudanjiang**	**39.13**	**4**	P	**P**	**19 58 18.6**	**+0.7**
MDJ				pmax	pmax		
	comp=Z,52nm,1.3s,mb5.2						
MDJ				pmax	pmax		
	comp=Z,99nm,4.1s						
EIDS	**Eidsvold**	**39.13**	**143**	*e*P	**P**	**19 58 17.4**	**-0.8**
STKA	**Stephens Creek**	**39.98**	**159**	*e*P	**P**	**19 58 25.3**	**+0.1**
	comp=Z,9.5nm,0.8s,mb4.7						
STKA	**Stephens Creek**	**39.98**	**159**	P	**P**	**19 58 25.3**	**+0.2**
	comp=Z,7.8nm,0.7s,mb4.6,baz=335,slow=8.1,SNR=17						
GTA	**Gaotai**	**41.27**	**329**	*e*P	**P**	**19 58 35.6**	**-0.2**
GTA				pP	pP	19 59 00.9	+1.6
GTA				sP	sP	19 59 13.6	+2.7
GTA				PP	PP	20 00 17.0	+4.0
GTA				PcP	PcP	20 00 33.6	+0.9
GTA				ScP	ScP	20 04 15.3	+1.7
GTA				S	**S**	**20 04 41.6**	**-0.7**
GTA				sS	sS	20 05 25.9	+3.0
GTA				SS	SS	20 07 45.0	-4.7
GTA				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
GTA				pmax	pmax		
	comp=Z,250nm,8.1s						
GTA				LR	LR		
	comp=N,160nm,14.4s						
GTA				LR	LR		
	comp=E,180nm,14.4s						
GTA				LR	LR		
	comp=Z,180nm,13.2s						
TAPN	**Taplejung**	**42.46**	**305**	*e*P	**P**	**19 58 45.9**	**+0.3**
	comp=Z,16nm,0.5s,mb5.0						
TAPN	**Taplejung**	**42.46**	**305**	*e*P	**P**	**19 58 45.9**	**+0.3**
ODAN	**Odare**	**42.52**	**304**	*e*P	**P**	**19 58 46.6**	**+0.4**
	comp=Z,50nm,0.7s,mb5.3						
ODAN	**Odare**	**42.52**	**304**	*e*P	**P**	**19 58 46.6**	**+0.4**
RAMN	**Ramite**	**43.21**	**304**	*e*P	**P**	**19 58 52.6**	**+0.9**
	comp=Z,39nm,0.6s,mb5.3						
RAMN	**Ramite**	**43.21**	**304**	*e*P	**P**	**19 58 52.6**	**+0.9**
ARMA	**Armidale**	**43.28**	**147**	*e*P	**P**	**19 58 53.4**	**+1.3**
HABR	**Khabarovsk**	**43.54**	**9**	*e*P	**P**	**19 58 54.0**	**0.0**
HABR				*e*		20 00 37.2	
HABR				*e*		20 00 39.4	
HABR				*e*		20 08 42.9	
HABR				*e*SSS		20 09 20.0	
HABR				pmax	pmax		
	comp=Z,68nm,1.1s,mb5.3						
HABR				pmax	pmax		
	comp=N,25nm,1.0s						
HABR				pmax	pmax		
	comp=E,34nm,1.0s						
HABR				MLR	MLR		
	comp=Z,39nm,17.0s						
YSS	**Yuzh-Sakhalins**	**43.78**	**17**	*e*P	**P**	**19 58 56.8**	**+0.9**
JIRN	**Jiri**	**43.82**	**305**	*e*P	**P**	**19 58 56.9**	**+0.3**
	comp=Z,32nm,0.5s,mb5.3						
JIRN	**Jiri**	**43.82**	**305**	*e*P	**P**	**19 58 56.9**	**+0.3**
KLR	**Kul'dur**	**43.89**	**5**	*e*P	**P**	**19 58 53.2**	**-3.5**
KLR				pmax	pmax		
	comp=Z,70nm,1.8s,mb5.1						
GUN	**Gumba**	**44.17**	**305**	*e*P	**P**	**19 58 59.5**	**+0.1**
	comp=Z,55nm,0.7s,mb5.4						
GUN	**Gumba**	**44.17**	**305**	*e*P	**P**	**19 58 59.5**	**+0.1**
PKI	**Pulchoki**	**44.42**	**304**	*e*P	**P**	**19 59 01.8**	**+0.4**
	comp=Z,13nm,0.6s,mb4.8						
PKI	**Pulchoki**	**44.42**	**304**	*e*P	**P**	**19 59 01.8**	**+0.4**
PKI	**Pulchoki**	**44.42**	**304**	*e*P	**P**	**19 59 01.8**	**+0.4**
KKN	**Kakani**	**44.61**	**305**	*e*P	**P**	**19 59 03.0**	**+0.1**
KKN	**Kakani**	**44.61**	**305**	*e*P	**P**	**19 59 03.0**	**+0.1**
KKN	**Kakani**	**44.61**	**305**	*e*P	**P**	**19 59 03.0**	**+0.1**
DMN	**Daman**	**44.69**	**304**	*e*P	**P**	**19 59 04.1**	**+0.6**
	comp=Z,27nm,0.9s,mb5.0						
DMN	**Daman**	**44.69**	**304**	*e*P	**P**	**19 59 04.1**	**+0.6**
GKN	**Gorkha**	**45.22**	**305**	*e*P	**P**	**19 59 07.5**	**-0.2**
	comp=Z,12nm,0.7s,mb4.8						
ULN	**Ulaanbaatar**	**45.27**	**342**	*e*P	**P**	**19 59 07.8**	**0.0**
ULN				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
ULN	**Ulaanbaatar**	**45.27**	**342**	*e*P	**P**	**19 59 07.8**	**-0.1**
	comp=Z,11nm,0.9s,mb4.6						
SONM	**Songino Array**	**45.45**	**341**	P	**P**	**19 59 08.9**	**-0.3**
	comp=Z,5.5nm,0.9s,mb4.3,baz=154,slow=8.3,SNR=34						
SONM				PcP	PcP	20 00 46.7	0.0
	comp=Z,5.1nm,0.8s,baz=166,slow=3.0,SNR=9.3						
KOLN	**Koldanda**	**45.99**	**304**	*e*P	**P**	**19 59 14.6**	**+0.8**
DANN	**Dangsing**	**46.07**	**305**	*e*P	**P**	**19 59 14.8**	**+0.4**
	comp=Z,44nm,0.5s,mb5.4						
CIT	**Chita**	**47.55**	**350**	*e*P	**P**	**19 59 25.9**	**+0.3**
HYB	**Hyderabad**	**47.91**	**288**	*i* P	**P**	**19 59 28.0**	**-0.9**
HYB	**Hyderabad**	**47.91**	**288**	*e*P	**P**	**19 59 29.0**	**+0.1**
ZAK	**Zakamensk**	**48.68**	**341**	*e*P	**P**	**19 59 32.2**	**-2.0**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
TLY	**Talaya**	**49.69**	**342**	*e*P	**P**	**19 59 42.0**	**+0.1**
TLY				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
MOY	**Mondy**	**50.53**	**340**	*e*P	**P**	**19 59 48.3**	**0.0**
WMQ	**Urumqi**	**50.93**	**325**	⇓*i*P	**P**	**19 59 51.8**	**+0.4**
WMQ				pP	pP	20 00 15.0	-0.7
WMQ				sP	sP	20 00 26.5	-0.6
WMQ				PcP	PcP	20 01 07.0	+0.6
WMQ				*e*S	**S**	**20 06 59.0**	**-1.4**
WMQ				sS	sS	20 07 39.0	-3.2
WMQ				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,220nm,5.6s						
WMQ				LR	LR		
	comp=N,490nm,18.5s						
WMQ				LR	LR		
	comp=E,290nm,18.5s						
WMQ				LR	LR		
	comp=Z,300nm,18.6s						
CLNS	**Chul'man**	**51.25**	**359**	*e*P	**P**	**19 59 55.0**	**+1.5**
CLNS				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.5						
CLNS				pmax	pmax		
	comp=N,21nm,0.9s						

CLNS				pmax	pmax		
	comp=E,13nm,0.9s						
BOD	**Bodaibo**	53.07	352	*e*P	P	20 00 07.3	+0.3
BOD				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.3						
PETK	**Petropavlovsk-**	54.11	23	P	P	20 00 15.6	+0.9
	comp=Z,7.7nm,0.7s,mb4.8,baz=193,slow=2.3,SNR=11						
PETK	**Petropavlovsk-**	54.11	23	P	P	20 00 15.6	+0.9
MKAR	**Makanchi Array**	55.76	325	P	P	20 00 26.1	-0.6
	comp=Z,20nm,0.7s,mb5.3,baz=128,slow=8.0,SNR=224						
MKAR				ScP	ScP	20 05 15.4	+0.7
	comp=Z,2.8nm,0.9s,baz=121,slow=5.8,SNR=8.7						
MKAR				LR	LR	20 28 52.2	
	comp=Z,70nm,18.9s,baz=233,slow=41						
KSH	**Kashi**	56.35	315	P	P	20 00 32.3	+1.2
KSH				*e*pP	pP	20 00 54.0	-1.8
KSH				*e*sP	sP	20 01 07.1	0.0
KSH				*e*PcP	PcP	20 01 29.0	+1.8
KSH				*e*PP	PP	20 02 40.1	+2.5
KSH				*e*ScP	ScP	20 05 17.3	-0.1
KSH				*e*PcS	PcS	20 05 28.0	+0.2
KSH				*e*S	S	20 08 11.3	-2.5
KSH				*e*sS	sS	20 08 52.1	-4.1
KSH				*e*ScS	ScS	20 10 08.3	-2.4
KSH				*e*SS	SS	20 11 58.1	-4.2
KSH				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
KSH				pmax	pmax		
	comp=Z,180nm,4.6s						
KSH				LR	LR		
	comp=N,370nm,5.2s						
KSH				LR	LR		
	comp=E,410nm,4.8s						
KSH				LR	LR		
	comp=Z,470nm,5.2s						
YAK	**Yakutsk**	56.52	2	*c i*P	P	20 00 32.6	+0.8
YAK				*e**PP	pP	20 00 45.0	-12
YAK				*e*		20 01 23.6	
YAK				*e*		20 02 37.3	
YAK				*e*PPP		20 03 58.0	
YAK				*e*S	S	20 08 17.0	+1.8
YAK				*e*		20 10 20.7	
YAK				pmax	pmax		
	comp=Z,103nm,0.9s,mb5.9						
YAK				pmax	pmax		
	comp=N,22nm,1.0s						
YAK				pmax	pmax		
	comp=Z,233nm,5.0s						
YAK				pmax	pmax		
	comp=N,284nm,5.2s						
YAK				pmax	pmax		
	comp=E,141nm,3.5s						
YAK				smax			
	comp=N,74nm,2.8s						
YAK				smax			
	comp=E,63nm,3.5s						
YAK	**Yakutsk**	56.52	2	*e*P	P	20 00 32.0	+0.2
	comp=E,120nm,0.8s,mb6.0						
KRAR	**Krasnoyarsk**	56.90	338	*e*P	P	20 00 34.3	-0.3
KRAR				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
TKM2	**Tokmak 2**	58.01	318	*e*P	P	20 00 42.6	-0.1
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
TKM2	**Tokmak 2**	58.01	318	P	P	20 00 42.9	+0.2
	SNR=5.3						
TKM2	**Tokmak 2**	58.01	318	*e*P	P	20 00 42.5	-0.1
	comp=Z,7.1nm,0.7s,mb4.8						
KBK	**Karagaybulak**	58.33	318	P	P	20 00 45.5	+0.5
	SNR=6.9						
UCH	**Uchtor**	58.45	317	P	P	20 00 46.9	+1.1
	SNR=18						
UCH	**Uchtor**	58.45	317	*e*P	P	20 00 45.6	-0.2
	comp=Z,16nm,0.9s,mb5.0						
ZAA0	**Zalesovo Array**	58.75	333	*e*P	P	20 00 46.0	-1.7
ZALV	**Zalesovo Beam**	58.75	333	P	P	20 00 46.0	-1.6
	comp=Z,8.3nm,0.6s,mb4.9,baz=128,slow=6.8,SNR=37						
USP	**Ospenovka**	58.88	318	P	P	20 00 48.4	-0.4
	SNR=14						
AML	**Almayashu**	58.97	317	P	P	20 00 50.0	+0.6
	SNR=11						
EKS2	**Erkin-Say**	59.12	317	P	P	20 00 50.9	+0.5
	SNR=8.7						
EKS2	**Erkin-Say**	59.12	317	*e*P	P	20 00 50.3	-0.1
	comp=Z,12nm,0.9s,mb4.9						
KURK	**Kurchatov**	59.92	327	P	P	20 00 54.1	-1.7
	comp=Z,236nm,0.6s,SNR=23						
KURK	**Kurchatov**	59.92	327	*e*P	P	20 00 54.7	-1.1
KURK				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.4						
KURK	**Kurchatov**	59.92	327	*e*P	P	20 00 54.7	-1.1
	comp=Z,38nm,0.9s,mb5.4						
NVS	**Novosibirsk**	60.03	333	⇑*i*P	P	20 00 54.3	-2.1
NVS				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.9						
NVS				pmax	pmax		
	comp=N,12nm,1.4s						
NVS				pmax	pmax		
	comp=E,16nm,1.4s						
SEY	**Seymchan**	60.52	13	⇑*e*P	P	20 01 01.3	+1.7
BRVK	**Borovoye**	65.58	327	P	P	20 01 32.5	-0.8
	comp=E,110nm,1.0s,mb5.6,SNR=11						
BRVK	**Borovoye**	65.58	327	*e*P	P	20 01 32.2	-1.1
BRVK				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.9						
BRVK	**Borovoye**	65.58	327	*e*P	P	20 01 32.2	-1.1
	comp=Z,21nm,1.0s,mb4.9						
TIXI	**Tiksi**	66.14	1	⇑*e*P	P	20 01 36.1	-0.4
TIXI				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.9						
TIXI	**Tiksi**	66.14	1	*e*P	P	20 01 36.1	-0.4
	comp=Z,12nm,0.6s,mb4.9						
BILL	**Bilibino**	68.07	15	⇑*e*P	P	20 01 49.4	+0.6
BILL				*e**PP	pP	20 02 05.4	-9.0
BILL				*e*		20 04 24.6	
BILL				*e*S	S	20 10 44.7	+4.6
BILL				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
SVE	**Sverdlovsk**	72.14	328	⇑*e*P	P	20 02 13.2	-0.7
SVE				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.2						
ARU	**Arti**	73.12	328	P	P	20 02 18.0	-1.7
	comp=Z,225nm,0.5s,SNR=10						
ARU	**Arti**	73.12	328	*c i*P	P	20 02 18.2	-1.5
ARU				*e*		20 04 59.9	
ARU				S	S	20 11 35.1	-4.0
ARU				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.0						
TNA	**Tin City**	75.28	23	*e*P	P	20 02 33.0	+1.0
	comp=Z,7.7nm,0.9s,mb4.4						
QRN	**Al-Qurain**	76.99	298	*e*P	P	20 02 40.6	-1.9
QRN				AMb	AMB	20 02 42.6	
	comp=Z,20nm,0.8s,mb4.9						
MIB	**Mutribah**	77.51	299	*e*P	P	20 02 44.2	-1.2
MIB				AMb	AMB	20 02 45.5	
	comp=Z,12nm,0.8s,mb4.7						
NAY	**Al-Naaiem**	77.59	299	*e*P	P	20 02 44.0	-1.8
NAY				AMb	AMB	20 02 52.5	
	comp=Z,3.2nm,1.0s,mb4.0						
PRGR	**Permogore**	80.67	331	*e*P	P	20 02 57.0	-5.0
PRGR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
KDAK	**Kodiak Island**	80.81	32	*i* P	P	20 03 03.9	+1.1
KDAK	**Kodiak Island**	80.81	32	P	P	20 03 04.5	+1.8
	comp=Z,30nm,0.8s,mb5.2,baz=42,slow=0.8,SNR=10						
CHUM	**Lake Minchumin**	81.45	26	*e*P	P	20 03 07.6	+1.5
	comp=Z,25nm,0.8s,mb5.1						
KTH	**Kantishna Hill**	82.04	27	*e*P	P	20 03 10.3	+1.1
	comp=Z,32nm,1.1s,mb5.1						
BPAW	**Bear Paw Mtn.**	82.05	26	*e*P	P	20 03 10.3	+1.1
	comp=Z,60nm,1.1s,mb5.3						
VRHR	**Novokhopersk**	82.28	321	*e*P	P	20 03 07.4	-3.3
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.9						
VRHR				pmax	pmax		
	comp=N,20nm,0.7s						
RC01	**Rabbit Creek A**	82.46	29	*e*P	P	20 03 11.3	-0.1
SEW	**Seward**	82.56	30	*e*P	P	20 03 12.1	+0.2
	comp=N,681nm,2.4s,mb6.0						
COLD	**Coldfoot**	82.58	23	*e*P	P	20 03 13.6	+1.7
	comp=N,36nm,1.0s,mb5.2						
MCK	**McKinley**	82.93	27	*e*P	P	20 03 13.5	-0.3
MCK				pmax	pmax		
	comp=Z,108nm,1.3s,mb5.5						
MCK	**McKinley**	82.93	27	*e*P	P	20 03 13.5	-0.3
	comp=Z,108nm,1.3s,mb5.5						
COLA	**College**	83.44	25	*e*P	P	20 03 16.7	+0.3
COLA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
COLA	**College**	83.44	25	*e*P	P	20 03 16.7	+0.3
	comp=Z,11nm,0.8s,mb4.8						
KLMR	**Klimovskoe**	83.57	331	*e*P	P	20 03 15.6	-1.5
KLMR				pmax	pmax		
	comp=Z,24nm,1.3s,mb4.9						
VORD	**Divnogorie**	83.75	321	*e*P	P	20 03 16.7	-1.6
VORD				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.6						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,2.0nm,0.5s						
VSR	**Storozhevoye**	83.83	321	*e*P	P	20 03 17.4	-1.2
VSR				pmax	pmax		
	comp=N,5.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.8						
VSR				pmax	pmax		
	comp=E,2.0nm,0.4s						
VNDA	**Vanda**	85.22	173	P	P	20 03 25.4	+0.3
	comp=E,2.7nm,0.9s,mb4.2,baz=32,slow=4.2,SNR=6.6						
VNDA	**Vanda**	85.22	173	P	P	20 03 25.4	+0.3
OBN	**Obninsk**	85.26	325	⇓*i*P	P	20 03 24.8	-1.0
OBN				*e*		20 06 39.8	
OBN				*e*SS	SS	20 19 32.0	+8.1
OBN				pmax	pmax		
	comp=Z,23nm,1.7s,mb4.8						
EGAK	**Eagle**	86.30	25	*e*P	P	20 03 30.9	+0.2
	comp=Z,3.7nm,0.8s,mb4.4						
JOF	**Joensuu**	87.34	333	*e*P	P	20 03 33.6	-2.2
JOF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
JOF	**Joensuu**	87.34	333	*e*p	P	20 03 33.6	-2.2
	comp=Z,14nm,0.7s,mb5.0						
BRTR	**Keskin Array B**	88.40	310	P	P	20 03 39.4	-2.0
	comp=Z,1.3nm,0.9s,mb4.0,baz=94,slow=4.1,SNR=4.9						
ARCES	**ARCESS Array B**	88.60	340	P	P	20 03 40.7	-0.9
	comp=Z,8.5nm,0.8s,mb4.8,baz=69,slow=6.6,SNR=7.7						
ARCES	**ARCESS Array B**	88.60	340	P	P	20 03 40.7	-0.9
SPITS	**Spitsbergen Ar**	88.66	349	P	P	20 03 41.2	-0.7
	comp=Z,5.3nm,0.6s,mb4.8,baz=6.7,slow=6.7,SNR=18						
KAF	**Kangasniemi**	89.76	332	*e*P	P	20 03 45.5	-1.7
KAF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb5.0						
KAF	**Kangasniemi**	89.76	332	*e*p	P	20 03 45.5	-1.7
	comp=Z,7.2nm,0.6s,mb5.0						
NB2	**NORSAR Subarra**	96.94	334	P	P	20 04 18.5	-1.8
	comp=Z,3.5nm,0.8s,mb4.8,baz=67,slow=4.6						
NOA	**NORSAR Array B**	96.94	334	P	P	20 04 18.8	-1.5
	comp=Z,2.7nm,0.7s,mb4.8,baz=65,slow=4.7,SNR=8.8						
NOA	**NORSAR Array B**	96.94	334	P	P	20 04 18.8	-1.5
YKA	**Yellowknife Ar**	98.22	24	P	P	20 04 26.1	+0.2
	comp=Z,1.8nm,0.8s,mb4.7,baz=300,slow=4.8,SNR=7.1						
TXAR	**Lajitas Array**	121.07	51	PKP	PKPdf	20 09 42.9	+0.9
	comp=Z,0.3nm,0.5s,baz=270,slow=0.6,SNR=3.6						
TORD	**Torodi Ar. Bea**	121.72	289	PKP	PKPdf	20 09 43.0	-0.5
	comp=Z,3.4nm,0.7s,baz=43,slow=1.4,SNR=4.6						
DBIC	**Dimbokro**	129.53	283	PKP	PKPdf	20 09 58.9	+0.3
	comp=Z,2.8nm,0.9s,baz=82,slow=2.2,SNR=5.4						
PLCA	**Paso Flores**	141.85	159	PKP	PKPdf	20 10 21.1	+0.4
	comp=Z,1.9nm,1.0s,baz=282,slow=9.2,SNR=3.1						

TAP 14 19:53:12.3, 21°.25N×120°.17E, h71^{km}±1^{km}, ML3.5, 1D, D, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWK1	**Hengchun**	0.91	41	⇓*i*P	Pn	19 53 30.2	+0.4
	baz=41						
TWK1				*i* S	Sn	19 53 42.6	-0.1
	baz=41						
HEN	**Hengchun**	0.92	35	*i* P	Pn	19 53 30.4	+0.5
	baz=35						
HEN				*i* S	Sn	19 53 43.3	+0.4
	baz=35						
TSEB	**Hengchuen, Pin**	0.94	46	P	Pn	19 53 30.1	0.0
	baz=44						
TSEB				*i* S	Sn	19 53 43.2	-0.2
	baz=44						
TWP	**Hsiaoliuchiu**	1.11	9	*e*P	Pn	19 53 32.7	+0.5
	baz=9.0						
TWP				*e*S	Sn	19 53 48.1	+1.0
	baz=9.0						
SCZT	**Fangliau**	1.19	21	P	Pn	19 53 33.6	+0.2
	baz=20						
SCZT				*e*S	Sn	19 53 47.8	-1.2
	baz=20						
TAW	**Tawu**	1.29	31	*e*P	Pn	19 53 35.6	+1.0
	baz=31						
KAU	**Kaohsiung**	1.32	6	*e*P	Pn	19 53 34.5	-0.5
	baz=5.0						
SGLT	**Jiouru**	1.50	11	*e*P	Pn	19 53 37.6	+0.3
	baz=11						
LAY	**Lan-yu**	1.51	58	*e*P	Pn	19 53 37.3	-0.1
	baz=58						
ECL	**Taimali**	1.53	28	P	Pn	19 53 38.3	+0.6
	baz=28						
ECL				*e*S	Sn	19 53 56.1	-0.7
	baz=28						
SSD	**Sandimen**	1.55	16	P	Pn	19 53 38.4	+0.4
	baz=16						
SSD				*e*S	Sn	19 53 56.1	-1.2
	baz=16						
TWM1	**Shoushan**	1.58	9	*e*P	Pn	19 53 39.6	+1.2
	baz=8.0						
TWM1				*e*S	Sn	19 53 59.7	+1.6
	baz=8.0						
TWG	**Pinlang**	1.77	28	*e*P	Pn	19 53 41.6	+0.6
	baz=28						
TWG				*e*S	Sn	19 54 03.3	+0.6
	baz=28						
CHN3	**Shinhua**	1.83	6	*e*P	Pn	19 53 41.6	-0.1
	baz=5.0						
CHN3				*e*S	Sn	19 54 05.0	+1.1
	baz=5.0						
SGST	**Jiashian**	1.86	12	*e*P	Pn	19 53 42.8	+0.6
	baz=12						
CHN1	**Nanshi**	1.95	10	*e*P	Pn	19 53 43.5	+0.1
	baz=9.0						
CHN1				*e*S	Sn	19 54 06.2	-0.8
	baz=9.0						
STYT	**Tauyuan**	1.98	16	*e*P	Pn	19 53 44.3	+0.6
	baz=16						
STYT				*e*S	Sn	19 54 07.2	-0.4
	baz=16						
TWK	**Hsinying**	2.03	8	*e*P	Pn	19 53 44.8	+0.4
	baz=8.0						
TWK				*e*S	Sn	19 54 07.7	-1.1
	baz=8.0						
WTP	**Ta-pu**	2.03	12	*e*P	Pn	19 53 44.9	+0.5
	baz=11						
WTP				*e*S	Sn	19 54 07.9	-0.9
	baz=11						
ELDTW	**Lidau**	2.08	22	P	Pn	19 53 46.0	+0.9
	baz=22						
ELDTW				*e*S	Sn	19 54 11.1	+0.9
	baz=22						
CHN4	**Tsaushan**	2.13	11	*e*P	Pn	19 53 45.7	0.0
	baz=10.0						
CHKT	**Chengkung**	2.15	31	P	Pn	19 53 46.3	+0.3
	baz=31						
CHKT				*e*S	Sn	19 54 12.4	+0.8
	baz=31						
ALS	**Alishan**	2.33	15	*e*P	Pn	19 53 49.5	+1.1
	baz=14						
ALS				*e*S	Sn	19 54 15.6	-0.3
	baz=14						
TWF1	**Yuli**	2.34	26	P	Pn	19 53 49.7	+1.1
	baz=26						
TWF1				S	Sn	19 54 16.9	+0.7
	baz=26						
YUS	**Yu-Shan**	2.34	18	*e*P	Pn	19 53 49.7	+1.1
	baz=18						
CHN5	**Tsauling**	2.38	11	*e*P	Pn	19 53 49.7	+0.6
	baz=11						
CHN5				*e*S	Sn	19 54 17.5	+0.2
	baz=11						
EHY	**Hungye**	2.49	25	*e*P	Pn	19 53 52.3	+1.7
	baz=25						
EHY				*e*S	Sn	19 54 20.5	+0.6
	baz=25						
SMLT	**Sun Moon Lake**	2.71	14	*e*P	Pn	19 53 53.9	+0.4
	baz=14						
SMLT				*e*S	Sn	19 54 25.8	+0.6
	baz=14						
TYC	**Yuchr**	2.72	13	*e*P	Pn	19 53 54.8	+1.1
	baz=13						
TYC				*e*S	Sn	19 54 26.2	+0.8
	baz=13						
ESL	**Shilin**	2.81	24	*e*P	Pn	19 53 56.7	+1.8
	baz=24						
NNS	**Nan Shan**	3.36	19	*e*P	Pn	19 54 04.4	+1.9
	baz=19						

*ISCJB **14** 19:59:47.0±0.4, 32°.49N±0°.03×115°.29W±0°.04, h11^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=4.3km az=6.0*

*NEIC **14** 19:59:47.0, 32°.42N×115°.27W, h6^{km}, ML2.9(PAS), ML3.2(ECX), After PAS.*

*ECX **14** 19:59:46.1±0.2, 32°.44N×115°.36W, h10^{km}, MD3.1, ML3.2*

ISC 14 19:59:47.6±0.4, 32°.49N±0°.03×115°.34W±0°.03, h1^{km}±8^{km}, n21, σ1ˢ.08/33, 5C-4D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	0.08	161	*e*P	Pg	19 59 49.2	+0.1
CPBX				*e*S	Sg	19 59 51.8	+1.6
CPBX	**Cerro Prieto**	0.08	161	*e*P	Pg	19 59 49.2	+0.1
CPBX				*e*S	Sg	19 59 51.8	+1.6
SGL	**Mount Signal**	0.36	295	⇑*i*P	Pg	19 59 55.1	+0.5
SNR	**Schaffner Ranc**	0.38	347	*e*P	Pg	19 59 56.1	+1.2
COA	**Coachella**	0.41	26	⇓*i*P	Pg	19 59 55.9	+0.4
COK	**Cook Ranch**	0.48	317	⇑*i*P	Pg	19 59 57.5	+0.6
EMX	**El Mayor**	0.51	171	⇓*e*P	Pg	19 59 56.6	-0.8
EMX				*e*S	Sg	20 00 04.6	+0.6
EMX				⇑*e*		20 00 05.2	
	comp=N,1μm,0.1s						
EMX	**El Mayor**	0.51	171	⇓*e*P	Pg	19 59 56.6	-0.8
EMX				*e*S	Sg	20 00 04.6	+0.6
YUH	**Yuha Desert**	0.52	287	⇑*i*P	Pg	19 59 57.7	+0.1
RMX	**La Rumorosa**	0.64	280	⇓*e*P	Pg	20 00 00.0	+0.2
CRR	**Carrizo Plain**	0.66	306	*e*P	Pg	20 00 00.2	-0.1
GLA	**Glamis**	0.70	37	*e*P	Pg	19 59 59.9	-1.2
GLA				*e*S	Sg	20 00 08.7	-1.5
RDX	**Rancho Dawling**	0.76	223	*e*P	Pg	20 00 01.8	-0.4
RDX				*e*S	Sg	20 00 13.7	+1.6
RDX				⇑*e*		20 00 15.6	
	comp=N,700nm,0.5s						
RDX	**Rancho Dawling**	0.76	223	*e*P	Pg	20 00 01.8	-0.4
RDX				*e*S	Sg	20 00 13.7	+1.6
ECBX	**El Chinero**	1.05	167	*e*P	Pg	20 00 06.3	-1.4
ECBX				*e*S	Sg	20 00 20.6	-0.7
CBX	**Cerro Bola**	1.14	261	*e*P	Pg	20 00 07.5	-1.9
BAR	**Barrett**	1.14	280	*e*P	Pg	20 00 08.0	-1.6
BAR				*e*S	Sg	20 00 24.1	-0.3
PFO	**Pinyon Flat Ob**	1.46	320	*e*Pn	Pn	20 00 14.5	-0.5
LDFC	**Landfair**	2.58	4	Pn	Pn	20 00 31.8	+1.3
LDFC				*e*Pg	Pg	20 00 38.0	+0.8
TUC	**Tucson**	3.85	92	*e*Pb	Pb	20 00 53.1	-3.2
TUC				*e*Pg	Pg	20 01 01.7	+0.2
TUC				*e*S	Sn	20 01 43.5	+10
WUAZ	**Wupatki**	4.46	46	P	Pn	20 00 58.3	+2.0

IDC 14 20:13:43.6±2.0, 0°.60N×126°.85E, h0^{km}, mb3.2/3, mb1 3.4/3, mb1mx3.2/17, mbtmp3.3/3, Error ellipse: s-maj=178.3km s-min=24.7km az=66.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	21.70	161	P	P	20 18 35.7	-0.6
	0.4nm,0.6s,baz=340,slow=12,SNR=5.6						
ASAR	**Alice Springs**	25.08	165	P	P	20 19 10.7	+0.7
	0.3nm,0.6s,baz=351,slow=15,SNR=4.6						
MKAR	**Makanchi Array**	60.19	326	P	P	20 23 53.4	0.0
	0.4nm,0.5s,baz=119,slow=8.3,SNR=13						

MAN 14 20:20:11, 11°.20N×125°.54E, h66^{km}, mb4.3, ML3.1, MS2.9, Samar

GUC 14 20:30:23.9±0.6, 20°.36S×69°.06W, h113^{km}±4^{km}, ML3.8, 4C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB01	**Plate Boundary**	0.79	210	⇑*i*P	Pn	20 30 43.7	+0.4
PB01				*i* S	Sn	20 30 58.8	+0.9
PB01				AML	AML	20 30 59.7	
	comp=E,3μm,0.3s						
PSGC	**Pisagua**	1.25	307	⇑*i*P	Pn	20 30 48.5	+0.5
PSGC				*i* S	Sn	20 31 06.9	+0.6
MNMC	**Miæe Miæ**	1.32	337	⇓*i*P	Pn	20 30 49.8	+1.0
MNMC				*i* S	Sn	20 31 09.1	+1.4
MNMC				AML	AML	20 31 14.8	
	comp=N,1μm,0.2s						
PB04	**Plate Boundary**	1.94	192	*i* P	Pn	20 31 00.3	+4.0
PB04				*i* S	Sn	20 31 27.5	+6.5
PB04				AML	AML	20 31 39.9	
	comp=E,228nm,0.3s						
TOCH	**Tocopilla**	2.03	211	*e*P	Pn	20 30 58.2	+0.8
TOCH				*i* S	Sn	20 31 24.1	+1.1
TOCH				AML	AML	20 31 30.4	
	comp=N,455nm,0.0s						
LVC	**Limon Verde**	2.25	176	⇑*i*P	Pn	20 31 01.7	+1.5
LVC				*i* S	Sn	20 31 30.3	+2.3
LVC				AML	AML	20 31 36.0	
	comp=E,2μm,0.5s						
PECH	**Pedro de Valdi**	2.30	194	⇑*i*P	Pn	20 31 01.9	+1.1
PECH				*i* S	Sn	20 31 30.9	+1.7
PECH				AML	AML	20 31 36.3	
	comp=E,597nm,0.2s						
CPN1	**Cerro Paranal**	4.43	196	AML	AML	20 32 37.6	
	comp=E,78nm,0.6s						

*ISCJB **14** 20:37:40.0±0.2, 46°.74N±0°.01×13°.11E±0°.02, h10^{km}, Error ellipse: s-maj=1.6km s-min=1.4km az=44.5*

*IPEC **14** 20:37:40.9±0.1, 46°.68N×13°.10E, h0^{km}, ML2.2/1, Error ellipse: s-maj=1.5km s-min=0.7km az=7.0*

*CSEM **14** 20:37:40.8±0.1, 46°.74N×13°.12E, h2^{km}, ML3.0/20, Error ellipse: s-maj=2.0km s-min=1.9km az=60.0*

*VIE **14** 20:37:40.4±0.1, 46°.72N×13°.11E, h12^{km}±1^{km}, mb1.9/10, ML2.6/12, Error ellipse: s-maj=1.1km s-min=0.6km az=18.0 3 km SE of Dellach im Drautal felt 4EMS98 at Dellach im Drautal / CARINTHIA*

*ROM **14** 20:37:41.5±0.4, 46°.62N×13°.35E, h10^{km}, Md2.7/3, Ml2.4/3, Error ellipse: s-maj=4.5km s-min=2.9km az=62.0*

*LDG **14** 20:37:42.2±0.1, 46°.62N×13°.13E, h10^{km}, Ml2.4/4, Error ellipse: s-maj=3.1km s-min=2.3km az=14.0*

*PRU **14** 20:37:44.1, 46°.79N×13°.27E, h0^{km}*

ISC 14 20:37:41.1±0.2, 46°.73N±0°.01×13°.11E±0°.02, h2^{km}±2^{km}, n126, σ1ˢ.01/234, 18C-27D, Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLRO	**Paularo**	0.18	172	*e*Pg	Pg	20 37 44.5	0.0
PLRO				*e*Sg	Sg	20 37 46.6	-0.2
PLRO	**Paularo**	0.18	172	*e*Pg	Pg	20 37 44.5	0.0
PLRO				*e*Sg	Sg	20 37 46.7	-0.2
ZOU	**Zoufplan**	0.20	209	⇓*i*Pg	Pg	20 37 44.8	0.0
ZOU				*i* Sg	Sg	20 37 47.4	0.0
ZOU	**Zoufplan**	0.20	209	*i* Pg	Pg	20 37 44.8	0.0
ZOU				*i* Sg	Sg	20 37 47.4	0.0
FUSE	**Fusea**	0.32	194	⇓*i*Pg	Pg	20 37 47.0	-0.3
FUSE				*i* Sg	Sg	20 37 51.0	-0.5
FUSE	**Fusea**	0.32	194	*i* Pg	Pg	20 37 47.0	-0.3
FUSE				*i* Sg	Sg	20 37 51.0	-0.4
ACOM	**Acomizza, Ital**	0.33	123	⇑*i*Pg	Pg	20 37 47.5	+0.1
ACOM				*i* Sg	Sg	20 37 51.7	+0.1
ACOM	**Acomizza, Ital**	0.33	123	*i* Pg	Pg	20 37 47.5	+0.1
ACOM				*i* Sg	Sg	20 37 51.7	+0.1
MYKA	**Terra Mystica**	0.38	105	⇓*i*Pg	Pg	20 37 48.2	0.0
	5.8nm,0.0s						
MYKA				⇑*i*Sg	Sg	20 37 53.4	+0.2
	46nm,0.0s						
MYKA	**Terra Mystica**	0.38	105	Pg	Pg	20 37 48.2	-0.1
	5.8nm,0.0s						
MYKA				Sg	Sg	20 37 53.3	+0.2
	46nm,0.0s						
LSR	**Lussari**	0.38	131	⇑*i*Pg	Pg	20 37 48.3	0.0
LSR				*i* Sg	Sg	20 37 53.4	+0.1

LSR	Lussari	0.38	131	*i* Pg	Pg	20 37 48.3	-0.1
LSR				*i* Sg	Sg	20 37 53.4	+0.1
KBA	Koelnbreinsper	0.38	24	*e*Pg	Pg	20 37 49.6	+1.2
	21nm,0.1s,SNR=80						
KBA				⇑*i*Sg	Sg	20 37 54.8	+1.4
	45nm,0.1s						
KBA	Koelnbreinsper	0.38	24	*e*Pg	Pg	20 37 49.5	+1.1
	baz=203						
KBA				Sg	Sg	20 37 54.8	+1.4
	45nm,0.1s						
CSMI	Casera Mimoias	0.39	236	⇓*e*Pg	Pg	20 37 48.3	-0.1
CSMI				*e*Sg	Sg	20 37 53.5	+0.1
CSMI	Casera Mimoias	0.39	236	*e*Pg	Pg	20 37 48.3	-0.1
CSMI				*e*Sg	Sg	20 37 53.5	+0.1
BOO	Bordano	0.41	181	⇓*i*Pg	Pg	20 37 48.5	-0.4
BOO				*i* Sg	Sg	20 37 54.3	+0.1
BOO	Bordano	0.41	181	*i* Pg	Pg	20 37 48.5	-0.4
BOO				*i* Sg	Sg	20 37 54.3	+0.1
ABTA	Abfaltersbach	0.41	273	⇓*e*Pg	Pg	20 37 49.2	+0.2
	6.3nm,0.1s,SNR=39						
ABTA				⇑*i*Sg	Sg	20 37 54.8	+0.4
	63nm,0.1s						
ABTA	Abfaltersbach	0.41	273	Pg	Pg	20 37 49.2	+0.2
	6.3nm,0.1s,SNR=39						
ABTA				Sg	Sg	20 37 54.8	+0.4
	63nm,0.1s						
GMNA	Gemona	0.46	169	⇓*i*Pg	Pg	20 37 49.3	-0.6
GMNA				Sg	Sg	20 37 55.3	-0.6
	154nm,0.2s						
GMNA	Gemona	0.46	169	⇓*i*Pg	Pg	20 37 49.3	-0.6
GMNA				Sg	Sg	20 37 55.3	-0.6
	154nm,0.2s						
VINO	Villanova	0.49	166	⇓*i*Pg	Pg	20 37 49.9	-0.4
VINO				*i* Sg	Sg	20 37 56.8	+0.1
VINO	Villanova	0.49	166	*i* Pg	Pg	20 37 49.9	-0.5
VINO				*i* Sg	Sg	20 37 56.8	+0.1
MPRI	Monte Prat	0.49	190	⇓*i*Pg	Pg	20 37 49.9	-0.7
MPRI				*i* Sg	Sg	20 37 57.1	+0.2
MPRI	Monte Prat	0.49	190	*i* Pg	Pg	20 37 49.8	-0.7
MPRI				*i* Sg	Sg	20 37 57.1	+0.2
BAD	Bernadia	0.50	170	⇓*i*Pg	Pg	20 37 50.1	-0.5
BAD				*i* Sg	Sg	20 37 57.0	-0.1
BAD	Bernadia	0.50	170	*i* Pg	Pg	20 37 50.1	-0.5
BAD				*i* Sg	Sg	20 37 57.0	-0.1
BUA	Buia	0.51	179	⇑*i*Pg	Pg	20 37 50.5	-0.3
BUA				*i* Sg	Sg	20 37 57.8	+0.3
BUA	Buia	0.51	179	*i* Pg	Pg	20 37 50.5	-0.3
BUA				*i* Sg	Sg	20 37 57.8	+0.4
CADS	Cadrg	0.66	139	*i* Pg	Pg	20 37 53.2	-0.5
CADS				*e*Sg	Sg	20 38 02.7	+0.4
CADS							
	comp=Z,69nm,0.1s						
CADS	Cadrg	0.66	139	Pg	Pg	20 37 53.2	-0.5
CADS				*e*Sg	Sg	20 38 02.7	+0.5
	comp=Z,69nm,0.1s						
DRE	Drenchia	0.67	146	⇓*i*Pg	Pg	20 37 53.5	-0.2
DRE				*i* Sg	Sg	20 38 03.3	+0.9
DRE	Drenchia	0.67	146	*i* Pg	Pg	20 37 53.5	-0.3
DRE				*i* Sg	Sg	20 38 03.3	+0.9
AFL	Alpe Faloria	0.67	253	⇓*i*Pg	Pg	20 37 54.0	+0.1
AFL	Alpe Faloria	0.67	253	*i* Pg	Pg	20 37 54.0	+0.1
MLNI	Malnisio	0.68	211	⇓*i*Pg	Pg	20 37 53.6	-0.3
MLNI				*i* Sg	Sg	20 38 03.5	+0.8
MLNI	Malnisio	0.68	211	*i* Pg	Pg	20 37 53.6	-0.4
MLNI				*i* Sg	Sg	20 38 03.5	+0.8
CSO	Casso	0.71	230	*e*Pg	Pg	20 37 54.1	-0.6
CSO				*e*Sg	Sg	20 38 03.8	-0.1
CSO	Casso	0.71	230	*e*Pg	Pg	20 37 54.1	-0.6
CSO				*e*Sg	Sg	20 38 03.8	-0.1
GORS	Gorjuse	0.73	124	⇑*i*Pg	Pg	20 37 54.6	-0.5
GORS				*i* Sg	Sg	20 38 04.6	-0.1
GORS							
	comp=Z,36nm,0.1s						
GORS	Gorjuse	0.73	124	⇑*i*Pg	Pg	20 37 54.7	-0.4
GORS				*i* Sg	Sg	20 38 04.6	0.0
	comp=Z,36nm,0.1s						
CAE	Caneva	0.86	213	*e*Pg	Pg	20 37 57.2	-0.3
CAE	Caneva	0.86	213	*e*Pg	Pg	20 37 57.2	-0.3
VOY	Vojsko	0.88	142	*e*Pg	Pg	20 37 56.9	-1.0
VOY				*e*Sg	Sg	20 38 09.5	+0.1
VOY	Vojsko	0.88	142	*e*Pg	Pg	20 37 56.9	-1.0
VOY				*e*Sg	Sg	20 38 09.5	+0.1
OBKA	Obir	1.01	102	⇑*e*Pg	Pg	20 37 59.8	-0.6
	comp=Z,11nm,0.1s,SNR=12						
OBKA				⇑*i*Sg	Sg	20 38 13.4	-0.2
	comp=Z,35nm,0.2s						
OBKA	Obir	1.01	102	Pg	Pg	20 37 59.8	-0.7
	comp=Z,11nm,0.1s,SNR=12						
OBKA				Sg	Sg	20 38 13.4	-0.2
	comp=Z,35nm,0.2s						
VARN	Col Varnada, M	1.01	224	⇑*i*Pg	Pg	20 38 00.4	-0.1
VARN				*i* Sg	Sg	20 38 17.0	+3.4
VARN	Col Varnada, M	1.01	224	*i* Pg	Pg	20 38 00.4	-0.1
VARN				*i* Sg	Sg	20 38 17.0	+3.4
MOZS	Mozjanca	1.02	115	*i* Pg	Pg	20 38 00.3	-0.2
MOZS				*e*Sg	Sg	20 38 14.6	+0.9
JAVS	Javornik	1.06	141	*i* Pg	Pg	20 38 01.2	-0.2
JAVS				*e*Sg	Sg	20 38 16.6	+1.4
JAVS	Javornik	1.06	141	*i* Pg	Pg	20 38 01.2	-0.2
JAVS				*e*Sg	Sg	20 38 16.6	+1.4
TRI	Trieste	1.12	156	⇑*e*Pg	Pg	20 38 03.8	+1.4
TRI				*e*Sg	Sg	20 38 17.4	+0.6
TRI	Trieste	1.12	156	*e*Pg	Pg	20 38 03.8	+1.4
TRI				*e*Sg	Sg	20 38 17.4	+0.5
WTTA	Wattenberg	1.14	298	⇓*e*Pg	Pg	20 38 02.9	-0.1
	comp=Z,7.8nm,0.2s,SNR=22						
WTTA				⇓*i*Sg	Sg	20 38 18.2	+0.4
	comp=Z,24nm,0.3s						
WTTA	Wattenberg	1.14	298	Pg	Pg	20 38 02.9	-0.1
	comp=Z,7.8nm,0.2s,SNR=22						
WTTA				*e*Sg	Sg	20 38 17.5	-0.3
	baz=120						
LJU	Ljubljana	1.20	124	*i* Pg	Pn	20 38 04.4	-0.3
LJU	Ljubljana	1.20	124	*i* Pg	Pn	20 38 04.4	-0.3
WATA	Walderalm	1.21	301	⇑*e*Pg	Pn	20 38 04.2	-0.8
	comp=Z,9.5nm,0.2s,SNR=16						
WATA				⇓*i*Sg	Sg	20 38 20.8	+0.7
	comp=Z,16nm,0.2s						
WATA	Walderalm	1.21	301	Pg	Pn	20 38 04.2	-0.8
	comp=Z,9.5nm,0.2s,SNR=16						
CTI	Castel Tesino	1.22	237	Pn	Pn	20 38 04.7	-0.4
CTI				Sn	Sn	20 38 23.0	+0.9
	comp=Z,44nm,0.4s						
CTI	Castel Tesino	1.22	237	Pn	Pn	20 38 04.7	-0.4
CTI				Sn	Sn	20 38 23.0	+0.9
	comp=Z,44nm,0.4s						
CGRP	Cima Grappa	1.25	227	*e*Pg	Pg	20 38 05.6	+0.7
CGRP				*e*Sg	Sg	20 38 22.8	+1.8
CGRP	Cima Grappa	1.25	227	*e*Pg	Pg	20 38 05.6	+0.7
CGRP				*e*Sg	Sg	20 38 22.8	+1.8
IESO	Jesolo	1.27	198	⇑*i*Pg	Pg	20 38 06.2	+0.8
IESO	Jesolo	1.27	198	*i* Pg	Pg	20 38 06.2	+0.8
SOKA	Soboth	1.32	92	⇓*i*Pg	Pn	20 38 05.3	-1.1
	comp=Z,2.8nm,0.1s						
SOKA				⇓*i*Sn	Sn	20 38 22.9	-1.7
SOKA				⇓*i*Sg	Sg	20 38 23.6	+0.1
	comp=Z,13nm,0.3s						
SOKA	Soboth	1.32	92	Pg	Pn	20 38 05.3	-1.2
	comp=Z,2.8nm,0.1s						
SOKA				Sn	Sn	20 38 22.9	-1.7
SOKA				Sg	Sg	20 38 23.6	+0.1
	comp=Z,13nm,0.3s						
MOA	Molln	1.37	35	⇑*e*Pn	Pn	20 38 07.8	+0.7
	comp=Z,10nm,0.1s,SNR=39						
MOA				⇑*i*Sn	Sn	20 38 24.4	-1.4
MOA	Molln	1.37	35	Pn	Pn	20 38 07.8	+0.7
	comp=Z,10nm,0.1s,SNR=39						
MOA				Sn	Sn	20 38 24.4	-1.4
SQTA	Sankt Quirin	1.39	291	*e*Pn	Pn	20 38 07.4	-0.1
	baz=112						
MOTA	Moosalm	1.51	295	⇑*e*Pg	Pg	20 38 09.4	-0.5
	comp=Z,4.2nm,0.2s,SNR=10						
MOTA				⇓*i*Sg	Sg	20 38 30.3	+0.9
	comp=Z,9.2nm,0.2s						
MOTA	Moosalm	1.51	295	Pg	Pn	20 38 09.4	+0.4
	comp=Z,4.2nm,0.2s,SNR=10						
MOTA				Sg	Sg	20 38 30.3	+0.9
	comp=Z,9.2nm,0.2s						
FETA	Feichten	1.66	281	*e*Pg	Pn	20 38 12.2	+1.1
	comp=Z,1.4nm,0.2s,SNR=9.4						
FETA				⇓*i*Sn	Sn	20 38 30.6	-2.4
FETA				⇓*i*Sg	Sg	20 38 35.6	+1.2
	comp=Z,5.0nm,0.3s						
FETA	Feichten	1.66	281	Pg	Pg	20 38 12.2	-0.7
	comp=Z,1.4nm,0.2s,SNR=9.4						
FETA				Sn	Sn	20 38 30.6	-2.4
FETA				Sg	Sg	20 38 35.6	+1.2
	comp=Z,5.0nm,0.3s						
TEOL	Teolo	1.70	217	⇓*e*Pg	Pg	20 38 12.9	-0.7
TEOL				*e*Sg	Sg	20 38 35.8	+0.2
TEOL	Teolo	1.70	217	*e*Pg	Pg	20 38 12.9	-0.7
TEOL				*e*Sg	Sg	20 38 35.8	+0.2
ARSA	Arzberg	1.73	72	⇓*e*Pg	Pg	20 38 13.1	-1.1
	comp=Z,3.6nm,0.2s,SNR=12						
ARSA				⇓*i*Sg	Sg	20 38 36.1	-0.5
	comp=Z,6.3nm,0.2s						
ARSA	Arzberg	1.73	72	*e*Pn	Pn	20 38 12.9	+0.8
	baz=252						
ARSA	Arzberg	1.73	72	Pg	Pg	20 38 13.1	-1.1
	comp=Z,3.6nm,0.2s,SNR=12						
ARSA				Sg	Sg	20 38 36.1	-0.5
	comp=Z,6.3nm,0.2s						
RETA	Reutte	1.78	296	⇓*i*Sn	Sn	20 38 34.0	-1.8
RETA	Reutte	1.78	296	Pg	Pg	20 38 16.6	+1.5
	comp=Z,5.5nm,0.3s						
RETA	Reutte	1.78	296	Sn	Sn	20 38 34.0	-1.8
BRMO	Bormio	1.91	263	Pn	Pg	20 38 16.8	-0.8
BRMO				Sn	Sg	20 38 42.4	+0.1
	comp=Z,14nm,0.6s						
BRMO	Bormio	1.91	263	Pn	Pg	20 38 16.8	-0.8
BALD	Monte Baldo	1.91	238	⇑*e*Pn	Pg	20 38 16.7	-0.9
BALD				*e*Sn	Sg	20 38 42.6	+0.3
BALD	Monte Baldo	1.91	238	*e*Pn	Pg	20 38 16.7	-0.9
BALD				*e*Sn	Sg	20 38 42.6	+0.3
MABI	Malga Bissina	1.92	250	Pn	Pg	20 38 16.8	-1.1
MABI				Sn	Sg	20 38 42.1	-0.6
	comp=Z,16nm,0.5s						
MABI	Malga Bissina	1.92	250	Pn	Pg	20 38 16.8	-1.1
MAGA	Magasa	1.97	242	Pn	Pn	20 38 17.5	+2.1
MAGA				Sg	Sg	20 38 42.8	-1.5
	comp=Z,83nm,0.5s						
MAGA	Magasa	1.97	242	Pn	Pn	20 38 17.5	+2.1
MAGA				Sg	Sg	20 38 42.8	-1.5
	comp=Z,83nm,0.5s						
KHC	Kasperske Hory	2.42	7	*e*PN	Pn	20 38 23.2	+1.6
KHC				*e*PG	Pg	20 38 26.7	-0.8
KHC				*e*x	x	20 38 32.0	
KHC				*e*SG	Sg	20 38 59.2	+0.3
	comp=Z,14nm,0.6s						
KHC	Kasperske Hory	2.42	7	Pn	Pn	20 38 23.2	+1.6
NVLJ	Novalja	2.49	150	*e*Pn	Pn	20 38 22.7	+0.1
NVLJ				Sn	Sn	20 38 54.1	+0.6
NVLJ	Novalja	2.49	150	*e*Pn	Pn	20 38 22.6	0.0
NVLJ				Sn	Sn	20 38 54.1	+0.6
KRUC	Moravsky	3.21	42	*e*Sg	Sg	20 39 21.7	-2.5
	comp=Z,6.7nm,0.5s,baz=224						
PRU	Pruhonice	3.40	16	*e*PN	Pn	20 38 38.1	+3.1
PRU				*e*PG	Pg	20 38 44.6	-1.5
PRU				*e*SN	Sn	20 39 18.2	+2.4
PRU				*e*SG	Sg	20 39 30.6	+0.4
	comp=Z,12nm,0.4s						
PRU	Pruhonice	3.40	16	Pn	Pn	20 38 38.1	+3.1
NKC	Novy Kostel	3.54	353	*e*PN	Pn	20 38 38.8	+1.9
NKC				*e*PG	Pg	20 38 46.7	-2.1
NKC				*e*SN	Sn	20 39 20.5	+1.3
NKC				*e*SG	Sg	20 39 34.7	+0.2
	comp=Z,7.9nm,0.6s						
NKC	Novy Kostel	3.54	353	Pn	Pn	20 38 38.8	+1.9
PVCC	Panska Ves	3.92	14	*e*PG	Pg	20 38 53.7	-2.5
PVCC				*e*SG	Sg	20 39 48.0	+1.0
	comp=Z,17nm,0.8s						
PVCC	Panska Ves	3.92	14	Pg	Pg	20 38 53.7	-2.5
PVCC				Sg	Sg	20 39 48.0	+1.0
	comp=Z,17nm,0.8s						
MOX	Moxa	4.04	346	*e*PN	Pn	20 38 45.3	+1.4
MOX				*e*SN	Sn	20 39 31.0	-0.7
MOX				*e*SG	Sg	20 39 51.5	+0.7
BRG	Berggiesshubel	4.18	7	SG	Sg	20 39 55.2	-0.2
	comp=Z,2.0nm,0.5s						
DPC	Dobruska-Polom	4.20	29	*e*PN	Pn	20 38 49.2	+3.1
DPC				*e*PG	Pg	20 38 58.0	-3.6
DPC				*e*SN	Sn	20 39 35.1	-0.6
DPC				*e*SG	Sg	20 39 55.4	-0.6
	comp=Z,6.8nm,0.5s						
DPC	Dobruska-Polom	4.20	29	Pn	Pn	20 38 49.2	+3.1
CDF	Champ du Feu	4.29	295	*e*Pn	Pn	20 38 46.5	-0.8
CDF	Champ du Feu	4.29	295	*e*P	Pn	20 38 50.3	+3.0
CDF				*e*Sn	Sn	20 39 34.9	-3.1
CDF				*e*Sg	Sg	20 39 58.3	-0.7
	comp=Z,1.9nm,0.4s						
CDF	Champ du Feu	4.29	295	*e*Pn	Pn	20 38 46.5	-0.8
CDF				*e*Sn	Sn	20 39 34.9	-3.1
CDF				*e*Sg	Sg	20 39 58.3	-0.7
	comp=Z,0.9nm,0.4s						
HINF	Hinteralfeld	4.40	287	*e*Pn	Pn	20 38 47.9	-0.9
HINF	Hinteralfeld	4.40	287	*e*P	Pn	20 38 51.0	+2.2
HINF				*e*Sn	Sn	20 39 37.5	-3.0
	comp=Z,2.4nm,0.4s						
HINF	Hinteralfeld	4.40	287	*e*Pn	Pn	20 38 47.9	-0.9
HINF	Hinteralfeld	4.40	287	*e*P	Pn	20 38 51.0	+2.2
HINF				*e*Sn	Sn	20 39 37.5	-3.0
	comp=Z,1.2nm,0.4s						
CLL	Collm	4.58	359	*e*Pn	Pn	20 38 53.0	+1.7
CLL				*e*Sg	Sg	20 40 09.0	+0.8
LPG	La Plagne	4.59	257	*e*Pn	Pn	20 38 50.4	-1.0
LPG	La Plagne	4.59	257	*e*Pn	Pn	20 38 50.4	-1.0
HAU	Haudompre	4.77	288	*e*Pn	Pn	20 38 53.1	-0.8
HAU	Haudompre	4.77	288	*e*P	Pn	20 38 56.8	+2.9
HAU				*e*Sn	Sn	20 39 45.8	-3.9
	comp=Z,3.6nm,0.4s						
HAU	Haudompre	4.77	288	*e*Pn	Pn	20 38 53.1	-0.8
HAU				*e*Sn	Sn	20 39 45.8	-3.9
	comp=Z,1.8nm,0.4s						
CABF	La Chapelle	4.84	271	*e*Pn	Pn	20 38 54.3	-0.5
CABF				*e*Sn	Sn	20 39 47.0	-4.3
	comp=Z,0.4nm,0.3s						
CABF	La Chapelle	4.84	271	*e*Pn	Pn	20 38 54.3	-0.5
CABF				*e*Sn	Sn	20 39 47.0	-4.3
	comp=Z,0.2nm,0.3s						
MBDF	Montbardon	4.87	248	*e*P	Pn	20 38 57.8	+2.5
MBDF	Montbardon	4.87	248	*e*P	Pn	20 38 57.8	+2.5
ORIF	Oris-en-Rattie	5.37	253	*e*P	Pn	20 39 05.5	+3.4
ORIF	Oris-en-Rattie	5.37	253	*e*P	Pn	20 39 05.5	+3.4

ATH ***14*** *21:04:35.8, 40°.01N×25°.44E, h22^{km}, MD3.1/3*
NEIC ***14*** *21:04:35.8, 40°.01N×25°.44E, h22^{km}, MD3.1(ISK), MD3.1(ATH), After ATH.*
ISK ***14*** *21:04:36.5, 39°.99N×25°.60E, h5^{km}, MD3.0*
CSEM ***14*** *21:04:36.0±0.2, 40°.01N×25°.41E, h10^{km}, ML2.9/5, Error ellipse: s-maj=5.1km s-min=3.9km az=177.0*
ISCJB ***14*** *21:04:36.5±0.4, 40°.01N±0°.03×25°.42E±0°.03, h15^{km}±6^{km}, Error ellipse: s-maj=4.4km s-min=3.3km az=0.4*
DDA ***14*** *21:04:36.2, 40°.07N×25°.57E, h1^{km}±2^{km}, Md3.2*
THE ***14*** *21:04:36.6, 40°.00N×25°.46E, h17^{km}±1^{km}, ML2.9/5, Error ellipse: s-maj=1.4km s-min=0.8km az=212.0*
ISC 14 21:04:36.1±0.4**, 40°.01N**±0°.02×**25°.43E**±0°.03**, h11**^{km}±3^{km}**,**
n49, σ0^{s}.92/78**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIA	Limnos Island	0.22	238	P	Pg	21 04 41.6	+0.9
LIA				S	Sg	21 04 45.8	+2.0
LIA	Limnos Island	0.22	238	*e*PB	Pg	21 04 41.6	+0.9
LIA	Limnos Island	0.22	238	*e*Pb	Pg	21 04 41.6	+0.9
GADA	Gvkgeada	0.40	64	PG	Pg	21 04 43.9	-0.2
GADA				*e*SG	Sg	21 04 49.6	0.0
GADA	Gvkgeada	0.40	64	Pg	Pg	21 04 43.5	-0.6
GADA				Pg	Pg	21 04 49.9	+5.8
GADA	Gvkgeada	0.40	64	*i* Pg	Pg	21 04 43.9	-0.2
GADA				*e*Sg	Sg	21 04 49.6	+0.1
BOZC	Bozcaada	0.51	109	*i* P	Pg	21 04 45.5	-0.6
BOZC				*i* S	Sg	21 04 52.6	-0.3
EZN	Ezine	0.72	105	*e*PG	Pg	21 04 49.1	-1.0
EZN				*e*SG	Sg	21 04 58.2	-1.2
EZN	Ezine	0.72	105	Pg	Pg	21 04 49.9	-0.1
EZN				Sg	Sg	21 04 58.9	-0.5
EZN	Ezine	0.72	105	Pg	Pg	21 04 49.9	-0.1
EZN				Sg	Sg	21 04 58.9	-0.5
SIGR	SIGRI	0.87	157	P	Pg	21 04 52.3	-0.6
SIGR				S	Sg	21 05 04.2	0.0
SIGR	SIGRI	0.87	157	P	Pg	21 04 52.3	-0.6
SIGR				S	Sg	21 05 04.2	0.0
ENEZ	Enez	0.91	37	*e*PG	Pg	21 04 53.6	-0.1
ENEZ				*e*SG	Sg	21 05 07.0	+1.4
ENEZ	Enez	0.91	37	*e*Pg	Pg	21 04 53.6	-0.1
ENEZ				*e*Sg	Sg	21 05 07.0	+1.4
ALN	Alexandroupoli	1.00	28	P	Pb	21 04 54.9	-0.6
ALN				S	Sg	21 05 08.4	-0.1
ALN	Alexandroupoli	1.00	28	*e*PN	Pn	21 04 54.7	-1.4
ALN	Alexandroupoli	1.00	28	*e*Pn	Pn	21 04 54.7	-1.4
PRK	Paraskevi	1.01	139	P	Pb	21 04 55.1	-0.5
PRK				S	Sg	21 05 08.1	-0.5
PRK	Paraskevi	1.01	139	*e*PN	Pn	21 04 54.9	-1.3
PRK	Paraskevi	1.01	139	*e*Pn	Pn	21 04 54.9	-1.3
PRK				S	Sg	21 05 08.1	-0.5
LPK	Lapseki	1.08	70	*e*PG	Pg	21 04 56.1	-0.8
LPK				*e*SG	Sg	21 05 10.5	-0.6
LPK	Lapseki	1.08	70	*e*Pg	Pg	21 04 56.1	-0.9
LPK				*e*Sg	Sg	21 05 10.5	-0.6
RDO	Rodhopi	1.14	4	*e*PN	Pn	21 04 57.4	-0.5
RDO	Rodhopi	1.14	4	*e*Pn	Pn	21 04 57.4	-0.5
AYVA	Ayvalik	1.20	125	*i* P	Pn	21 04 58.2	-0.7
AYVA				*i* S	Sb	21 05 14.9	+0.5
AYVA	Ayvalik	1.20	125	*i* P	Pn	21 04 58.2	-0.7
AYVA				*i* S	Sb	21 05 14.9	+0.5
PAIG	Paliouri	1.34	267	P	Pn	21 05 00.7	-0.1
PAIG				S	Sb	21 05 18.2	-0.3
PAIG	Paliouri	1.34	267	P	Pn	21 05 00.7	-0.1
PAIG				S	Sb	21 05 18.2	-0.3
AOS	Alonnisos	1.46	235	P	Pn	21 05 01.9	-0.5
AOS	Alonnisos	1.46	235	P	Pn	21 05 01.9	-0.5
SART	Tekirdag	1.50	63	*i* P	Pn	21 05 02.1	-0.8
SART				*i* S	Sn	21 05 23.0	+0.5
SART	Tekirdag	1.50	63	*i* P	Pn	21 05 02.1	-0.9
SART				*i* S	Sn	21 05 23.0	+0.5
PLG	Polygyros	1.56	284	P	Pn	21 05 03.6	-0.1
PLG				S	Sn	21 05 23.6	-0.3
PLG	Polygyros	1.56	284	*e*PN	Pn	21 05 04.1	+0.4
PLG	Polygyros	1.56	284	P	Pn	21 05 03.6	-0.1
PLG				S	Sn	21 05 23.6	-0.3
BALY	Balya	1.71	98	*i* P	Pn	21 05 07.0	+1.2
BALY				*i* S	Sn	21 05 29.8	+2.1
BALY	Balya	1.71	98	*i* P	Pn	21 05 07.1	+1.3
BALY				*i* S	Sn	21 05 29.8	+2.1
SRS	Serrai	1.78	309	P	Pn	21 05 06.7	-0.1
SRS				S	Sn	21 05 28.3	-1.1
SRS	Serrai	1.78	309	P	Pn	21 05 06.7	-0.1
SRS				S	Sn	21 05 28.3	-1.1
EDC	Edincik	1.90	79	*e*PN	Pn	21 05 09.6	+1.1
EDC	Edincik	1.90	79	Pn	Pn	21 05 10.2	+1.8
EDC	Edincik	1.90	79	*e*Pn	Pn	21 05 09.6	+1.2
BALB	Balikesir	1.93	100	*e*PN	Pn	21 05 10.1	+1.3
BALB	Balikesir	1.93	100	Pn	Pn	21 05 10.7	+1.9
BALB	Balikesir	1.93	100	*e*Pn	Pn	21 05 10.1	+1.3
BNT	Bandirma	1.94	79	*e*PN	Pn	21 05 10.0	+1.0
EDRB	Edirne	2.09	28	*e*PN	Pn	21 05 13.7	+2.7
EDRB	Edirne	2.09	28	Pn	Pn	21 05 14.0	+3.0
EDRB	Edirne	2.09	28	*e*Pn	Pn	21 05 13.7	+2.7

ISCJB ***14*** *21:12:26.3±1.4, 34°.87N±0°.05×27°.77E±0°.05, h8^{km}±9^{km}, mb3.6/7, Error ellipse: s-maj=8.4km s-min=6.4km az=172.3*
CSEM ***14*** *21:12:29.5±0.4, 35°.06N×27°.76E, h10^{km}, MD3.7, Error ellipse: s-maj=14.5km s-min=6.9km az=170.0*
IDC ***14*** *21:12:31.5±6.2, 34°.92N×27°.83E, h28^{km}±47^{km}, mb3.6/7, mb1 3.6/12, mb1mx3.5/25, mbtmp3.5/12, ML3.2/5, Error ellipse: s-maj=24.0km s-min=14.4km az=178.0*
NEIC ***14*** *21:12:36.5, 35°.74N×27°.18E, h23^{km}, ML3.7(ATH), After ATH.*
ATH ***14*** *21:12:36.5, 35°.74N×27°.18E, h23^{km}±17^{km}, MD3.7/4*
DDA ***14*** *21:12:41.4, 35°.30N×28°.17E, h9^{km}, Md3.6*
ISC 14 21:12:28.6±1.2**, 34°.92N**±0°.05×**27°.67E**±0°.04**, h14**^{km}±8^{km}**,**
n53, σ1^{s}.22/67**, mb3.6**/7**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.76	326	*e*PB	Pg	21 12 42.5	-0.8
KARP	Karpathos	0.76	326	*e*Pb	Pg	21 12 42.5	-0.8
ZKR	Zakros	1.21	280	*e*PB	Pg	21 12 55.0	+3.1
ZKR	Zakros	1.21	280	*e*Pb	Pg	21 12 55.0	+3.1
ARG	Arkhangelos	1.35	16	*e*PN	Pn	21 12 54.0	+1.0
ARG	Arkhangelos	1.35	16	*e*Pn	Pn	21 12 54.0	+1.0
NPS	Neapolis	1.72	282	*e*Pb	Pb	21 13 01.0	+1.0
NPS				P		21 13 04.5	
NPS	Neapolis	1.72	282	*e*Pb	Pb	21 13 01.0	+1.0
AKAS	Kas	2.05	50	*i* P	Pn	21 13 02.3	-0.3
AKAS				*i* S	Sn	21 13 28.3	+0.3
AKAS	Kas	2.05	50	*i* P	Pn	21 13 02.3	-0.3
AKAS				*i* S	Sn	21 13 28.3	+0.3
TURN	Turunc	2.09	21	*i* P	Pn	21 13 00.7	-2.5
TURN				*i* S	Sg	21 13 31.6	-4.2
TURN	Turunc	2.09	21	*i* P	Pn	21 13 00.7	-2.5
TURN				*i* S	Sg	21 13 31.6	-4.3
BDRM	Kayabasi	2.15	355	*i* P	Pn	21 13 03.2	-0.8
BDRM				*i* S	Sg	21 13 38.8	+1.0
BDRM	Kayabasi	2.15	355	*i* P	Pn	21 13 03.2	-0.8
BDRM				*i* S	Sg	21 13 38.8	+1.0
IDI	Anoyia	2.31	280	*e*PN	Pg	21 13 10.6	-2.3
IDI	Anoyia	2.31	280	Pn	Pg	21 13 09.7	-3.2
	6.1nm,0.3s,baz=97,slow=12,SNR=42						
IDI	Anoyia	2.31	280	*e*Pn	Pg	21 13 09.9	-3.0
IDI				*e*Pn	Pg	21 13 10.6	-2.3
IDI	Anoyia	2.31	280	*e*Pn	Pg	21 13 10.6	-2.3
AYDN	Tasoluk	2.74	3	*i* P	Pn	21 13 11.4	-0.7
AYDN	Tasoluk	2.74	3	*i* P	Pn	21 13 11.4	-0.7
VAM	Vamos	2.89	281	*e*PB	Pb	21 13 18.0	-1.8
VAM	Vamos	2.89	281	*e*Pb	Pb	21 13 18.0	-1.8
ISP	Isparta	3.71	37	*e*Pn	Pn	21 13 25.9	+0.5
CSS	Prodhromos	4.65	88	*e*Pn	Pn	21 13 38.7	+0.4
CSS				*e*Sn	Sn	21 14 31.9	-0.1
CSS	Prodhromos	4.65	88	*e*Pn	Pn	21 13 38.7	+0.4
CSS				*e*Sn	Sn	21 14 31.9	-0.1
ITM	Ithomi	5.17	298	P	Pn	21 13 48.9	+3.4
ITM	Ithomi	5.17	298	P	Pn	21 13 48.9	+3.4
MMAI	Mount Meron Ar	6.70	104	Pn	Pn	21 14 06.2	-0.2
	1.7nm,0.3s,baz=304,slow=14,SNR=12						
MMAI				Sn	Sn	21 15 21.5	-1.1
	2.4nm,0.3s,baz=308,slow=31,SNR=4.8						
BRTR	Keskin Array B	6.75	43	Pn	Pn	21 14 07.5	+0.3
	0.7nm,0.3s,baz=220,slow=15,SNR=25						
BRTR	Keskin Array B	6.75	43	Pn	Pn	21 14 07.5	+0.3
EIL	Elat	8.08	128	Pn	Pn	21 14 25.8	+0.3
	0.1nm,0.3s,baz=30,slow=20,SNR=5.6						
EIL				Sn	Sn	21 15 53.3	-3.4
	0.6nm,0.3s,baz=330,slow=20,SNR=3.2						
EIL	Elat	8.08	128	Pn	Pn	21 14 25.8	+0.3
TIP	Timpagrande	9.70	299	*e*Pn	Pn	21 14 46.5	-1.2
TIP				*e*Sn	Sn	21 16 28.5	-7.9
TIP	Timpagrande	9.70	299	*e*Pn	Pn	21 14 46.5	-1.2
CEL	Celeste	10.04	293	*e*Pn	Pn	21 14 51.7	-0.6
CEL				*e*Sn	Sn	21 16 41.2	-3.5
CEL	Celeste	10.04	293	*e*Pn	Pn	21 14 51.7	-0.6
CUC	Castrocucco	10.70	302	*e*Pn	Pn	21 15 01.4	+0.1
CUC				*e*Sn	Sn	21 16 57.3	-3.5
CUC	Castrocucco	10.70	302	*e*Pn	Pn	21 15 01.4	+0.1
GERES	GERESS Array B	17.33	328	P	Pn	21 16 31.6	+1.7
	0.0nm,0.3s,baz=133,slow=7.0,SNR=3.2						
GERES	GERESS Array B	17.33	328	P	Pn	21 16 31.6	+1.6
ESDC	Sonseca Array	25.54	290	P	P	21 17 58.5	+1.8
	0.6nm,0.6s,mb3.3,baz=96,slow=11,SNR=3.1						
ESDC	Sonseca Array	25.54	290	P	P	21 17 58.5	+1.7
ESDC	Sonseca Array	25.54	290	P	P	21 17 58.5	+1.8
AKTK	Aktyubinsk	26.93	46	P	P	21 18 08.8	-0.3
AKTK	Aktyubinsk	26.93	46	P	P	21 18 08.8	-0.4
AKTO	Aktyubinsk	26.93	46	P	P	21 18 08.8	-0.3
	1.1nm,0.6s,mb3.6,baz=286,slow=7.4,SNR=2.1						
TORD	Torodi Ar. Bea	31.96	234	P	P	21 18 55.9	+1.7
	0.7nm,0.8s,mb3.6,baz=42,slow=8.2,SNR=10.0						
MKAR	Makanchi Array	42.19	57	P	P	21 20 21.4	+0.7
	1.1nm,0.8s,mb3.5,baz=278,slow=6.5,SNR=12						
ZALV	Zalesovo Beam	43.69	46	P	P	21 20 32.3	-0.5
	0.3nm,0.3s,mb3.5,baz=266,slow=6.8,SNR=3.2						
SONM	Songino Array	58.04	51	P	P	21 22 21.5	+0.6
	0.4nm,0.8s,mb3.5,baz=284,slow=7.1,SNR=4.6						
SONM	Songino Array	58.04	51	P	P	21 22 21.5	+0.6
SCHQ	Schefferville	64.70	320	P	P	21 23 07.5	+1.6
	2.5nm,0.6s,mb4.4,baz=279,slow=17,SNR=5.5						
SCHQ	Schefferville	64.70	320	P	P	21 23 07.5	+1.6

IDC 14 21:35:52.9±3.5**, 25°.45S×111°.18W, h0**^{km}**, mb4.1**/4**,**
mb1 4.4/4**, mb1mx4.1**/13**, mbtmp4.1**/4**, Error ellipse:**
s-maj=229.1km s-min=49.6km az=110.0, Easter Island

region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVAR	**Mina Array Bea**	**63.89**	**354**	P	P	21 46 28.1	+0.8
	0.8nm,0.6s,baz=181,slow=8.1,SNR=6.9						
PDAR	**Pinedale Array**	**67.89**	**1**	P	P	21 46 52.6	-0.4
	1.2nm,1.0s,baz=172,slow=5.5,SNR=6.6						
ULM	**Lac du Bonnet**	**76.57**	**10**	P	P	21 47 45.5	+0.7
	0.9nm,0.5s,baz=168,slow=9.6,SNR=3.3						
YKA	**Yellowknife Ar**	**87.67**	**358**	P	P	21 48 42.6	-0.1
	1.3nm,0.9s,baz=173,slow=4.8,SNR=15						
ZALV	**Zalesovo Beam**	**149.14**	**341**	PKPbc	PKPbc	21 55 42.2	-0.6
	0.7nm,0.7s,baz=18,slow=5.0,SNR=2.7						
CMAR	**Chiang Mai Arr**	**151.26**	**262**	PKPbc	PKPbc	21 55 48.9	-0.2
	1.9nm,1.0s,baz=157,slow=1.2,SNR=9.3						

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*ISCJB **14** 21:43:09.9±0.8, 11.°14N±0.°05×61.°84W±0.°04, h76^{km}±8^{km}, Error ellipse: s-maj=7.8km s-min=6.4km az=166.6*
*FUNV **14** 21:43:11.8, 11.°18N×61.°82W, h32^{km}, MW2.5*
*NEIC **14** 21:43:12.9, 11.°26N×61.°67W, h23^{km}, MD3.1(TRN), After TRN.*
*TRN **14** 21:43:12.9, 11.°26N×61.°67W, h20^{km}, MD3.1*
ISC 14 21:43:11.0±0.8, 11.°16N±0.°05×61.°84W±0.°04, h67^{km}±10^{km}, n15, σ0^{s}92/27, 1C, Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	**Chacachacare**	**0.47**	**169**	*e*P	**Pn**	**21 43 25.1**	**+1.8**
TCE				*e*S	**Sn**	**21 43 32.2**	**0.0**
GUIV	**Guiria**	**0.63**	**217**	*e*P	**Pn**	**21 43 24.7**	**-0.3**
GUIV				*e*S	**Sn**	**21 43 34.7**	**-0.4**
TRN	**Trinidad (W)**	**0.66**	**139**	⇑*i*P	**Pn**	**21 43 26.1**	**+0.8**
TRN				*e*S	**Sn**	**21 43 36.0**	**+0.2**
TPP	**Pointe-a-Pierr**	**0.92**	**155**	*e*P	**Pn**	**21 43 25.9**	**-2.4**
TPP				*e*S	**Sn**	**21 43 39.7**	**-1.5**
TPP				*e*S	**Sn**	**21 43 44.6**	**+3.5**
TPP	**Pointe-a-Pierr**	**0.92**	**155**	*e*P	**Pn**	**21 43 25.9**	**-2.4**
TPP				*e*S	**Sn**	**21 43 39.7**	**-1.5**
GRW	**Mount Saint Ca**	**1.01**	**10**	*e*P	**Pn**	**21 43 29.3**	**-0.2**
GRW				*e*S	**Sn**	**21 43 43.5**	**+0.2**
TBH	**Brigand Hill**	**1.01**	**131**	*e*P	**Pn**	**21 43 32.3**	**+2.8**
TBH				*e*S	**Sn**	**21 43 47.2**	**+4.0**
TPR	**Prospect**	**1.04**	**88**	*e*P	**Pn**	**21 43 30.1**	**+0.2**
TPR				*e*S	**Sn**	**21 43 42.3**	**-1.7**
ITEV	**Isla Los Testi**	**1.28**	**279**	*e*P	**Pn**	**21 43 33.1**	**+0.1**
ITEV				*e*S	**Sn**	**21 43 49.6**	**+0.1**
CRUV	**Carupano**	**1.45**	**251**	*e*P	**Pn**	**21 43 35.0**	**-0.2**
CRUV				*e*S	**Sn**	**21 43 53.3**	**-0.2**
GUNV	**Guanoco**	**1.47**	**228**	*e*P	**Pn**	**21 43 35.7**	**+0.3**
GUNV				*e*S	**Sn**	**21 43 53.8**	**0.0**
PCRV	**Puerto La Cruz**	**2.91**	**251**	*e*P	**Pn**	**21 43 54.9**	**-0.1**
LUEV	**Luepa**	**5.29**	**176**	*e*P	**Pn**	**21 44 27.9**	**+0.3**
CAOV	**Caicara del Or**	**5.83**	**230**	*e*P	**Pn**	**21 44 34.4**	**-0.6**
BAUV	**El Baul**	**6.49**	**251**	*e*P	**Pn**	**21 44 43.8**	**-0.1**

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*IDC **14** 21:44:39.3±1.0, 3.°70N×126.°94E, h0^{km}, mb3.9/10, mb1 4.0/10, mb1mx4.0/22, mbtmp3.9/10, Error ellipse: s-maj=69.1km s-min=14.2km az=68.0*
*ISCJB **14** 21:44:44.8±6.7, 3.°7N±0.°2×126.°9E±0.°3, h56^{km}±64^{km}, mb4.0/12, Error ellipse: s-maj=61.3km s-min=16.4km az=152.8*
*NEIC **14** 21:44:44.6±0.5, 3.°67N×126.°92E, h35^{km}, mb4.2/2, Error ellipse: s-maj=30.5km s-min=6.1km az=66.0*
ISC 14 21:44:46.3±6.0, 3.°6N±0.°2×126.°9E±0.°3, h52^{km}±59^{km}, n14, σ0^{s}33/13, mb4.0/12, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**17.14**	**161**	*e*Pn	**Pn**	**21 48 42.2**	**-0.1**
FITZ	**Fitzroy Crossi**	**21.63**	**183**	P	**P**	**21 49 32.3**	**0.0**
	1.7nm,0.6s,mb3.7,baz=344,slow=7.4,SNR=7.8						
WRAB	**Tennant Creek**	**24.53**	**163**	*e*P	**P**	**21 50 01.0**	**-0.2**
	3.5nm,0.5s,mb4.2						
WRA	**Warramunga Arr**	**24.54**	**163**	P	**P**	**21 50 01.6**	**+0.4**
	6.9nm,0.7s,mb4.3,baz=344,slow=10,SNR=23						
ASAR	**Alice Springs**	**27.97**	**166**	P	**P**	**21 50 32.0**	**-0.2**
	0.4nm,0.3s,mb3.5,baz=347,slow=11,SNR=7.2						
CMAR	**Chiang Mai Arr**	**31.08**	**300**	P	**P**	**21 50 59.6**	**-0.3**
	0.5nm,0.8s,mb3.4,baz=109,slow=6.5,SNR=5.0						
STKA	**Stephens Creek**	**37.97**	**159**	P	**P**	**21 51 59.3**	**+0.1**
	1.6nm,0.3s,mb4.2,baz=338,slow=12,SNR=6.7						
LSA	**Lhasa**	**42.64**	**311**	*e*P	**P**	**21 52 38.6**	**+0.7**
	2.8nm,0.6s,mb4.2						
SONM	**Songino Array**	**47.45**	**341**	P	**P**	**21 53 16.2**	**+0.4**
	0.6nm,0.6s,mb3.7,baz=156,slow=8.0,SNR=6.6						
MKAR	**Makanchi Array**	**57.74**	**325**	P	**P**	**21 54 31.6**	**-0.3**
	1.9nm,0.5s,mb4.4,baz=118,slow=7.8,SNR=28						
ZALV	**Zalesovo Beam**	**60.76**	**333**	P	**P**	**21 54 52.1**	**-0.6**
	0.3nm,0.4s,mb3.8,baz=89,slow=7.9,SNR=2.7						
KURK	**Kurchatov**	**61.92**	**327**	P	**P**	**21 55 00.4**	**-0.2**
	1.8nm,0.6s,mb4.4,baz=130,slow=6.4,SNR=12						
BVAR	**Borovoye Array**	**67.50**	**327**	P	**P**	**21 55 37.0**	**+0.1**
	1.3nm,0.8s,mb4.0,baz=120,slow=9.0,SNR=6.1						
TORD	**Torodi Ar. Bea**	**123.12**	**288**	PKP	PKPdf	22 03 38.2	0.0
	0.5nm,0.9s,baz=52,slow=1.5,SNR=3.4						

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*BJI **14** 22:00:17.1, 57.°00N×119.°30E, h16^{km}, mb3.8/4*
*MOS **14** 22:00:19.8±1.7, 56.°55N×118.°67E, h14^{km}, mb4.6/4, Error ellipse: s-maj=9.2km s-min=7.7km az=59.3*
*ISCJB **14** 22:00:19.5±0.3, 56.°52N±0.°03×118.°58E±0.°04, h10^{km}, mb3.9/12, MS4.0/2, Error ellipse: s-maj=4.1km s-min=2.7km az=12.9*
*IDC **14** 22:00:19.6±1.0, 56.°55N×118.°81E, h0^{km}, mb3.8/7, mb1 4.0/9, mb1mx3.8/27, mbtmp3.9/9, ML3.3/2, MS3.9/2, Ms1 3.9/2, ms1mx2.9/37, Error ellipse: s-maj=25.1km s-min=19.7km az=157.0*
*NEIC **14** 22:00:20.6±0.8, 56.°46N×119.°06E, h10^{km}, mb4.3/2, Error ellipse: s-maj=15.1km s-min=10.4km az=130.0*
*BYKL **14** 22:00:20.9±0.4, 56.°64N×118.°63E*
ISC 14 22:00:21.2±0.3, 56.°57N±0.°03×118.°56E±0.°03, h10^{km}, n93, σ1^{s}27/128, mb3.9/12, MS4.0/2, 12C-11D, East of Lake Baykal

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRS	**Chara**	**0.37**	**335**	*e*PG	**Pg**	**22 00 27.2**	**-1.2**
CRS				*e*		22 00 31.3	
CRS				pmax	pmax		
	comp=Z,5µm,0.9s						
CRS				smax			
	comp=E,10µm,0.9s						
CRS	**Chara**	**0.37**	**335**	⇑*i*Pg	**Pg**	**22 00 27.4**	**-1.0**
CRS				Pmax		22 00 28.6	
	comp=E,6µm,1.0s						
CRS				*i* Sg	**Sg**	**22 00 32.2**	**-1.1**
CRS				Smax		22 00 36.0	
	comp=E,17µm,1.2s						
NLYR	**Nelyaty**	**1.58**	**268**	*e*PN	**Pn**	**22 00 48.8**	**-0.4**
NLYR				*e*		22 01 11.2	
NLYR				pmax	pmax		
	comp=Z,2µm,0.8s						
NLYR				smax			
	comp=E,5µm,1.3s						
NLYR	**Nelyaty**	**1.58**	**268**	⇑*i*Pn	**Pn**	**22 00 49.1**	**-0.1**
NLYR				⇓*i*Pg	**Pg**	**22 00 50.5**	**-1.0**
NLYR				Pmax		22 00 52.1	
	comp=E,2µm,0.8s						
NLYR				*e*Sg	**Sg**	**22 01 12.3**	**+0.3**
NLYR				Smax		22 01 16.6	
	comp=E,5µm,1.2s						
TUP	**Tupik**	**2.29**	**159**	*e*PN	**Pn**	**22 00 59.6**	**+0.6**
TUP				*e*		22 01 02.2	
TUP				*e*S	**Sn**	**22 01 28.2**	**+1.0**
TUP				*e*		22 01 32.6	
TUP				pmax	pmax		
	comp=Z,498nm,0.6s						
TUP				smax			
	comp=N,1µm,0.7s						
TUP	**Tupik**	**2.29**	**159**	⇓*i*Pn	**Pn**	**22 00 59.6**	**+0.6**
TUP				*e*Pg	**Pg**	**22 01 02.3**	**-2.7**
TUP				Pmax		22 01 04.3	
	comp=N,497nm,0.8s						
TUP				*e*Sn	**Sn**	**22 01 27.2**	**0.0**
TUP				*e*Sg	**Sg**	**22 01 32.7**	**-2.0**
TUP				Smax		22 01 34.5	
	comp=N,2µm,0.7s						
BOD	**Bodaibo**	**2.78**	**299**	*e*PN	**Pn**	**22 01 05.3**	**-0.3**
BOD				*e*		22 01 09.9	
BOD				*e*		22 01 44.9	
BOD				pmax	pmax		
	comp=Z,308nm,0.6s						
BOD				smax			
	comp=N,2µm,0.6s						
BOD	**Bodaibo**	**2.78**	**299**	*e*Pn	**Pn**	**22 01 05.4**	**-0.2**
BOD				*e*Pg	**Pb**	**22 01 10.0**	**-0.8**
BOD				Pmax		22 01 14.8	
	comp=N,299nm,0.7s						
BOD				*e*Sn	**Sn**	**22 01 38.0**	**-1.1**
BOD				*e*Sg	**Sb**	**22 01 45.1**	**+0.3**
BOD				Smax		22 01 54.7	
	comp=N,2µm,1.2s						
SVKR	**Severomuysk**	**2.82**	**263**	*e*Pg	**Pb**	**22 01 11.1**	**-0.4**
SVKR				Pmax		22 01 12.6	
	comp=N,680nm,0.4s						
SVKR				*e*Sg	**Sg**	**22 01 49.8**	**-1.8**
SVKR				Smax		22 01 52.8	
	comp=N,2µm,1.3s						
UKT	**Uakit**	**2.97**	**251**	*e*PN	**Pn**	**22 01 08.7**	**+0.4**
UKT				*e*	**Pb**	**22 01 13.5**	**-0.6**
UKT				*e*		22 01 50.7	
UKT				pmax	pmax		
	comp=Z,323nm,0.5s						
UKT				smax			
	comp=N,751nm,0.8s						
UKT	**Uakit**	**2.97**	**251**	⇑*i*Pn	**Pn**	**22 01 09.1**	**+0.8**
UKT				*e*Pg	**Pb**	**22 01 13.8**	**-0.3**
UKT				⇓*i*		22 01 14.1	
UKT				max		22 01 14.5	
	comp=N,328nm,0.6s						
UKT				*e*Sn	**Sn**	**22 01 44.6**	**+0.7**
UKT				*e*Sg	**Sg**	**22 01 53.0**	**-3.5**
UKT				Smax		22 02 01.9	
	comp=N,847nm,2.2s						
UKT	**Uakit**	**2.97**	**251**	⇑*i*Pn	**Pn**	**22 01 09.1**	**+0.8**
UKT				*e*Pg	**Pb**	**22 01 13.8**	**-0.3**
UKT				⇓*i*		22 01 14.1	
UKT				max		22 01 14.5	
	comp=N,328nm,0.6s						
UKT				*e*Sn	**Sn**	**22 01 44.6**	**+0.7**
UKT				*e*Sg	**Sg**	**22 01 53.0**	**-3.5**
UKT				Smax		22 02 01.9	
	comp=N,847nm,2.2s						
NRGR	**Nerungri**	**3.41**	**86**	*e*PN	**Pn**	**22 01 15.4**	**+1.1**
NRGR				S	**Sn**	**22 01 54.3**	**-0.4**
NRGR				smax			
	comp=N,1µm,0.8s						
CLNS	**Chul'man**	**3.50**	**83**	*e*PN	**Pn**	**22 01 16.5**	**+0.9**
CLNS				*e*		22 01 25.1	
CLNS				*e*S	**Sn**	**22 02 04.2**	**+7.1**
CLNS				pmax	pmax		
	comp=Z,10.0nm,0.3s						
CLNS				pmax	pmax		
	comp=N,7.0nm,0.3s						
CLNS				pmax	pmax		
	comp=E,9.0nm,0.3s						
CLNS				pmax	pmax		
	comp=Z,49nm,0.3s						
CLNS				pmax	pmax		
	comp=E,51nm,0.3s						
CLNS				pmax	pmax		
	comp=N,40nm,0.3s						
CLNS				smax			
	comp=N,165nm,0.4s						
CLNS				smax			
	comp=E,101nm,0.3s						
CLNS				smax			
	comp=Z,578nm,0.4s						
CLNS	**Chul'man**	**3.50**	**83**	*e*Pn	**Pn**	**22 01 16.5**	**+0.9**
CLNS				*e*Pg	**Pg**	**22 01 23.3**	**-4.9**
CLNS				*e*Sn	**Sn**	**22 01 51.0**	**-6.1**
CLNS				*e*Sg	**Sg**	**22 02 07.8**	**-5.8**
IENR	**Iengra**	**3.52**	**93**	*e*Pn	**Pn**	**22 01 16.2**	**+0.4**
IENR				*e*Pg	**Pg**	**22 01 23.7**	**-4.8**
IENR				*e*		22 01 58.9	
IENR				*e*Sg	**Sg**	**22 02 09.3**	**-4.8**
TNDR	**Tynda**	**3.76**	**110**	⇑*i*Pn	**Pn**	**22 01 19.9**	**+0.8**
TNDR				*e*Pg	**Pg**	**22 01 28.3**	**-4.7**
TNDR				*e*Sn	**Sn**	**22 02 03.5**	**+0.2**
TNDR				*e*Sg	**Sg**	**22 02 17.7**	**-4.0**
YOA	**Uoyan**	**3.83**	**266**	⇑*i*PN	**Pb**	**22 01 29.4**	**+0.7**
YOA	**Uoyan**	**3.83**	**266**	*e*Pn	**Pn**	**22 01 18.2**	**-1.8**
YOA				*e*Pg	**Pg**	**22 01 29.3**	**-5.1**
YOA				Pmax		22 01 44.0	
	comp=Z,466nm,1.0s						
YOA				*e*Sg	**Sg**	**22 02 21.6**	**-2.3**
YOA				Smax		22 02 26.2	
	comp=Z,3µm,1.4s						
KMO	**Kumora**	**4.16**	**264**	⇑*i*Pn	**Pn**	**22 01 25.6**	**+1.0**
KMO				*e*Pg	**Pg**	**22 01 36.7**	**-4.1**
KMO				Pmax		22 01 39.4	
	comp=Z,284nm,1.5s						
KMO				*e*Sn	**Sn**	**22 02 10.6**	**-2.7**
KMO				*e*Sg	**Sg**	**22 02 31.3**	**-3.4**
KMO				Smax		22 02 37.5	
	comp=Z,1µm,1.3s						
YLYR	**Ulyunkhan**	**4.51**	**251**	⇑*i*PN	**Pn**	**22 01 30.5**	**+1.1**
YLYR				*e*		22 01 41.0	
YLYR				*e*		22 02 41.1	
YLYR				pmax	pmax		
	comp=Z,73nm,0.6s						
YLYR				smax			
	comp=N,375nm,1.2s						
YLYR	**Ulyunkhan**	**4.51**	**251**	⇑*i*Pn	**Pn**	**22 01 30.4**	**+1.0**
YLYR				*e*Pg	**Pg**	**22 01 41.3**	**-6.2**
YLYR				Pmax		22 01 45.9	
	comp=N,84nm,1.4s						
YLYR				*e*Sn	**Sn**	**22 02 21.7**	**-0.2**
YLYR				*e*Sg	**Sg**	**22 02 42.0**	**-3.9**
YLYR				Smax		22 02 51.5	
	comp=N,395nm,1.2s						
NIZ	**Nizh Angarsk**	**5.10**	**265**	*e*PN	**Pn**	**22 01 38.6**	**+1.1**
NIZ				*e*		22 01 53.7	
NIZ				*e*		22 03 00.8	
NIZ				pmax	pmax		
	comp=Z,130nm,1.7s						
NIZ				smax			
	comp=N,492nm,1.4s						
NIZ	**Nizh Angarsk**	**5.10**	**265**	*e*Pn	**Pn**	**22 01 38.5**	**+1.0**
NIZ				*e*Pg	**Pg**	**22 01 53.7**	**-5.1**
NIZ				Pmax		22 01 56.0	
	comp=N,130nm,1.6s						
NIZ				*e*Sg	**Sg**	**22 03 00.3**	**-4.5**
NIZ				Smax		22 03 09.5	
	comp=N,491nm,1.1s						
CIT	**Chita**	**5.42**	**215**	*e*PN	**Pg**	**22 01 58.1**	**-6.7**
CIT				*e*		22 03 07.7	
CIT				pmax	pmax		
	comp=Z,86nm,1.0s						
CIT				smax			
	comp=N,1µm,1.4s						
CIT	**Chita**	**5.42**	**215**	*e*Sg	**Sg**	**22 03 10.5**	**-4.4**
CIT				Smax		22 03 31.6	
	comp=N,1µm,1.3s						
SYVR	**Suvo**	**5.71**	**243**	*e*PN	**Pn**	**22 01 46.7**	**+0.8**
SYVR				*e*		22 02 03.2	
SYVR				*e*		22 03 18.0	
SYVR				pmax	pmax		
	comp=Z,88nm,0.9s						
SYVR				smax			
	comp=N,658nm,1.4s						
SYVR	**Suvo**	**5.71**	**243**	⇑*i*Pn	**Pn**	**22 01 46.8**	**+0.9**
SYVR				*e*Pg	**Pg**	**22 02 03.2**	**-7.2**
SYVR				Pmax		22 02 08.3	
	comp=N,87nm,0.9s						
SYVR				*e*Sg	**Sg**	**22 03 18.2**	**-6.1**
SYVR				Smax		22 03 26.8	
	comp=N,639nm,1.4s						
MXMB	**Maximikha**	**6.55**	**244**	⇓*i*Pn	**Pn**	**22 01 58.4**	**+0.9**
MXMB				*e*Pg	**Pg**	**22 02 19.7**	**-6.8**
MXMB				Pmax		22 02 23.3	
	comp=N,34nm,0.8s						
MXMB				*e*Sg	**Sg**	**22 03 46.8**	**-4.5**
MXMB				Smax		22 03 55.8	
	comp=N,1µm,1.2s						
OGRR	**Ongureny**	**6.94**	**250**	*e*PN	**Pn**	**22 02 03.5**	**+0.8**
OGRR				*e*		22 02 26.8	
OGRR	**Ongureny**	**6.94**	**250**	⇓*i*Pn	**Pn**	**22 02 03.5**	**+0.8**
OGRR				*e*Pg	**Pg**	**22 02 27.5**	**-6.4**
OGRR				Pmax		22 02 28.6	
	comp=N,34nm,1.3s						
OGRR				*e*		22 03 23.7	
OGRR				*e*Sg	**Sg**	**22 03 59.3**	**-4.3**
OGRR				Smax		22 04 09.3	
	comp=N,251nm,1.5s						
HIA	**Hailar**	**7.35**	**174**	*e*PN	**Pn**	**22 02 06.5**	**-1.9**
HIA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HIA	**Hailar**	**7.35**	**174**	*e*Sg	Sx	22 04 09.6	
HIA	**Hailar**	**7.35**	**174**	*e*Pn	**Pn**	**22 02 06.5**	**-2.0**
	comp=Z,5.4nm,0.5s						
TRTB	**Turuntaevo**	**7.71**	**240**	⇓*i*Pn	**Pn**	**22 02 14.1**	**+0.7**
TRTB				*e*		22 02 38.4	
TRTB				max		22 02 44.8	
	comp=Z,19nm,0.8s						
TRTB				*e*Sg	**Sg**	**22 04 22.9**	**-5.6**
TRTB				Smax		22 04 40.8	
	comp=Z,398nm,1.3s						
ZRHB	**Zarechye**	**7.75**	**244**	*e*	Px	22 02 41.1	
ZRHB				*e*Sg	Sx	22 04 24.2	
ZRHB				Smax		22 04 54.9	
	comp=Z,877nm,1.8s						
ZRHB	**Zarechye**	**7.75**	**244**	*e*	Px	22 02 41.1	
ZRHB				*e*Sg	Sx	22 04 24.2	
ZRHB				Smax		22 04 54.9	
	comp=Z,877nm,1.8s						
KPC	**Khapcheranga**	**7.81**	**211**	*e*PG	Px	22 02 41.7	
KPC				*e*		22 04 24.9	
KPC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
KPC				smax			
	comp=E,282nm,1.5s						
KPC	**Khapcheranga**	**7.81**	**211**	*e*Pn	**Pn**	**22 02 14.4**	**-0.4**
KPC				*e*Pg	Pn	22 02 41.6	+27
KPC				Pmax		22 02 46.5	
	comp=E,9.0nm,0.6s						
KPC				*e*Sn	**Sn**	**22 03 52.9**	**+10**
KPC				*e*Sg	Sn	22 04 24.3	+41
KPC				Smax		22 04 54.0	
	comp=E,283nm,1.5s						
YAK	**Yakutsk**	**7.89**	**41**	*e*PN	**Pn**	**22 02 13.5**	**-2.3**
YAK				*e*		22 03 42.8	
YAK				*e*		22 04 21.4	
YAK				pmax	pmax		
	comp=Z,19nm,0.5s						
YAK				smax			
	comp=N,51nm,0.6s						
YAK				smax			
	comp=E,23nm,0.4s						
YAK				smax			
	comp=N,527nm,0.7s						
YAK				smax			
	comp=E,244nm,0.6s						
YAK				MLR	MLR		
	comp=Z,222nm,9.0s						
YAK	**Yakutsk**	**7.89**	**41**	*e*Pn	**Pn**	**22 02 13.3**	**-2.5**
	comp=Z,32nm,0.6s						
UUDB	**Ulan-Yde**	**7.93**	**238**	*e*Pn	Px	22 02 39.3	
UUDB				max		22 02 46.7	
	comp=Z,21nm,1.0s						
UUDB				*e*Sg	Sx	22 04 29.6	
UUDB				Smax		22 04 35.6	
	comp=Z,660nm,1.4s						
TRG	**Tyrgan**	**8.04**	**247**	*e*PN	**Pn**	**22 02 18.2**	**+0.4**
TRG				*e*		22 02 46.9	
TRG	**Tyrgan**	**8.04**	**247**	*e*Pn	**Pn**	**22 02 18.3**	**+0.5**
TRG				*e*Pg	Pn	22 02 46.2	+28
TRG				Pmax		22 02 58.0	
	comp=Z,5.0nm,0.6s						
TRG				*e*		22 03 52.3	
TRG				*e*Sg	Sn	22 04 31.1	+42
TRG				Smax		22 04 41.4	
	comp=Z,117nm,1.4s						
FFNB	**Fofonovo**	**8.25**	**242**	*e*Sg	Sx	22 04 39.1	
FFNB				Smax		22 04 53.4	
	comp=Z,528nm,1.6s						
KAB	**Kabansk**	**8.30**	**242**	*e*Sg	Sx	22 04 41.3	
KAB				Smax		22 05 02.6	
	comp=Z,1µm,1.4s						
HRMR	**Khuramsha**	**8.42**	**239**	*e*Pn	**Pn**	**22 02 23.8**	**+0.7**
HRMR				*e*		22 02 52.3	
HRMR				max		22 02 57.1	
	comp=Z,47nm,1.1s						
HRMR				*e*Sn	**Sn**	**22 03 54.6**	**-3.5**
HRMR				*e*Sg	Sn	22 04 44.6	+47
HRMR				Smax		22 04 59.0	
	comp=Z,1µm,1.6s						
LSTR	**Listvyanka**	**9.31**	**245**	*e*Sg	Sx	22 05 09.6	
LSTR				Smax		22 05 29.2	
	comp=Z,317nm,1.9s						
IRK	**Irkutsk**	**9.38**	**248**	*e*Sg	Sx	22 05 12.5	
IRK				Smax		22 05 27.4	
	comp=Z,60nm,2.0s						
TLY	**Talaya**	**10.02**	**247**	*e*Sg	Sx	22 05 32.5	
TLY				Smax		22 05 54.2	
	comp=Z,192nm,1.8s						
ARS	**Arshan**	**10.52**	**251**	*e*Sg	Sx	22 05 48.7	
ARS				Smax		22 06 06.6	
	comp=Z,256nm,1.0s						
KLR	**Kul'dur**	**10.83**	**127**	*e*P	**Pn**	**22 02 54.0**	**-2.0**
ZAK	**Zakamensk**	**11.00**	**242**	*e*P	**Pn**	**22 03 00.4**	**+2.0**
ZAK	**Zakamensk**	**11.00**	**242**	*e*Sg	Sx	22 06 03.1	
ZAK				Smax		22 06 20.1	
	comp=Z,77nm,1.7s						
ULN	**Ulaanbaatar**	**11.20**	**224**	*e*P	**Pn**	**22 03 01.7**	**+0.6**
ULN				*e*		22 05 00.8	
ULN				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ULN	**Ulaanbaatar**	**11.20**	**224**	*e*Sg	Sx	22 06 12.6	
ULN	**Ulaanbaatar**	**11.20**	**224**	*e*Pn	**Pn**	**22 03 01.7**	**+0.5**
	comp=Z,1.5nm,0.4s						
ULN				*e*Sn	**Sn**	**22 05 00.8**	**-5.5**
MOY	**Mondy**	**11.40**	**252**	*e*P	**Pn**	**22 03 05.9**	**+2.0**
MOY				pmax	pmax		
	comp=Z,1.0nm,0.1s						
MOY	**Mondy**	**11.40**	**252**	*e*Sg	Sx	22 06 16.5	
MOY				Smax		22 06 42.1	
	comp=Z,155nm,1.5s						
SONM	**Songino Array**	**11.48**	**225**	Pn	**Pn**	**22 03 05.8**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=32,slow=14,SNR=15						
SONM				Sn	**Sn**	**22 05 17.5**	**+4.4**
	comp=Z,0.4nm,0.3s,baz=33,slow=17,SNR=3.8						
ORL	**Orlik**	**11.60**	**258**	⇑*i*Pn	**Pn**	**22 03 07.3**	**+0.7**
ORL				max		22 03 45.6	
	comp=Z,5.0nm,1.2s						
ORL				*e*		22 03 47.3	
ORL				*e*Sg	Sn	22 06 20.4	+64
ORL				Smax		22 06 40.2	
	comp=Z,150nm,1.3s						
HABR	**Khabarovsk**	**12.88**	**122**	*e*P	**Pn**	**22 03 22.3**	**-1.8**
HABR				*e*		22 05 47.9	
HABR				pmax	pmax		
	comp=E,54nm,2.3s						
HABR				pmax	pmax		
	comp=Z,111nm,3.6s						
HABR				pmax	pmax		
	comp=N,31nm,2.2s						
HABR				MLR	MLR		
	comp=Z,63nm,12.0s						
ORY	**Orie**	**13.27**	**273**	⇓*e*P	**Pn**	**22 03 26.2**	**-3.2**
TDJR	**Todzha**	**13.68**	**262**	*e*Sg	Sx	22 07 25.9	
KRAR	**Krasnoyarsk**	**14.25**	**279**	⇓*e*P	**Pn**	**22 03 42.0**	**-0.7**
KRAR				*e*		22 06 16.8	
KZLR	**Kyzyl**	**14.90**	**261**	⇓*e*P	**Pn**	**22 03 51.6**	**-0.1**
KZLR				*i*		22 06 37.0	
HVS	**Khovu-Aksy**	**15.59**	**260**	⇓*e*P	**Pn**	**22 03 56.8**	**-4.0**
HVS				*e*		22 06 54.2	
TIXI	**Tiksi**	**15.75**	**12**	*e*P	**Pn**	**22 03 57.4**	**-5.3**
TIXI				pmax	pmax		
	comp=Z,11nm,0.6s						
TIXI	**Tiksi**	**15.75**	**12**	*e*Pn	**Pn**	**22 03 57.4**	**-5.3**
	comp=Z,11nm,0.6s						
TIXI				*e*Sn	**Sn**	**22 06 45.5**	**-11**
SEY	**Seymchan**	**18.02**	**55**	*e*P	**Pn**	**22 04 30.2**	**-1.2**
ZAA0	**Zalesovo Array**	**19.29**	**276**	*e*P	**Pn**	**22 04 47.7**	**+0.9**
ZALV	**Zalesovo Beam**	**19.29**	**276**	P	**Pn**	**22 04 48.0**	**+1.2**
	comp=Z,0.1nm,0.3s,baz=69,slow=9.7,SNR=25						
NVS	**Novosibirsk**	**19.85**	**280**	*e*P	**Pn**	**22 04 53.4**	**0.0**
NVS				*e*S	**Sn**	**22 08 37.7**	**+1.5**
NVS				pmax	pmax		
	comp=E,15nm,1.3s						
NVS				pmax	pmax		
	comp=Z,18nm,1.3s						
NVS				pmax	pmax		
	comp=N,9.0nm,1.6s						
NVS				smax			
	comp=N,25nm,2.5s						
KSRS	**Korea Array**	**20.13**	**158**	*e*P	**P**	**22 04 58.5**	**+3.5**

KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KSRS	**Korea Array**	**20.13**	**158**	P	**P**	**22 04 54.9**	**-0.1**
	comp=Z,3.3nm,0.9s,baz=343,slow=9.4,SNR=5.7						
GTA	**Gaotai**	**21.14**	**224**	*e*P	**P**	**22 05 08.0**	**+2.0**
GTA				pP		22 05 12.0	
GTA				sP	sP	22 05 15.5	+5.4
GTA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.6						
KURK	**Kurchatov**	**24.12**	**273**	P	**P**	**22 05 39.0**	**+2.2**
	comp=Z,7.1nm,0.8s,mb4.1,baz=63,slow=9.7,SNR=29						
MKAR	**Makanchi Array**	**24.25**	**262**	P	**P**	**22 05 39.4**	**+1.4**
	comp=Z,1.3nm,0.7s,mb3.5,baz=57,slow=8.4,SNR=16						
BILL	**Bilibino**	**24.25**	**43**	⇑*e*P	**P**	**22 05 37.2**	**-0.6**
BILL				*e*S	**S**	**22 09 50.2**	**-5.8**
BILL				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.4						
BVAR	**Borovoye Array**	**27.54**	**283**	P	**P**	**22 06 11.8**	**+4.2**
	comp=Z,0.8nm,0.6s,mb3.5,baz=48,slow=8.7,SNR=4.8						
TKM2	**Tokmak 2**	**30.38**	**262**	*e*P	**P**	**22 06 36.7**	**+3.7**
TKM2				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.4						
TKM2	**Tokmak 2**	**30.38**	**262**	*e*P	**P**	**22 06 36.7**	**+3.7**
	comp=Z,11nm,1.5s,mb4.4						
AAK	**Ala-Archa**	**31.18**	**262**	*e*P	**P**	**22 06 41.5**	**+1.5**
AAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.9						
AKTK	**Aktyubinsk**	**35.48**	**286**	P	**P**	**22 07 18.1**	**+0.7**
AKTO	**Aktyubinsk**	**35.48**	**286**	P	**P**	**22 07 18.1**	**+0.7**
	comp=Z,0.8nm,0.5s,mb3.9,baz=58,slow=10,SNR=4.4						
KIV	**Kislovodsk**	**47.65**	**289**	*e*P	**P**	**22 08 59.4**	**+2.2**
KIV				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
NOA	**NORSAR Array B**	**49.67**	**322**	LR	LR	22 30 24.2	
	comp=Z,68nm,20.5s,MS3.6,baz=325,slow=36						
YKA	**Yellowknife Ar**	**54.30**	**27**	P	**P**	**22 09 46.5**	**-0.4**
	comp=Z,0.9nm,0.6s,mb3.9,baz=330,slow=7.0,SNR=13						
YKA	**Yellowknife Ar**	**54.30**	**27**	P	**P**	**22 09 46.5**	**-0.4**
ULM	**Lac du Bonnet**	**69.79**	**23**	LR	LR	22 40 22.4	
	comp=Z,172nm,19.6s,MS4.3,baz=268,slow=34						
PDAR	**Pinedale Array**	**73.06**	**35**	P	**P**	**22 11 51.3**	**+0.3**
	comp=Z,0.7nm,0.7s,mb3.7,baz=346,slow=3.6,SNR=3.6						
ASAR	**Alice Springs**	**80.97**	**166**	*e*P	**P**	**22 12 39.4**	**+3.9**
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	**Alice Springs**	**80.97**	**166**	P	**P**	**22 12 35.1**	**-0.4**
	comp=Z,0.9nm,1.0s,mb3.7,baz=0.0,slow=4.9,SNR=4.7						

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*IDC **14** 22:10:02.9±1.9, 6°.89S×129°.46E, h0^{km}, mb3.8/1, mb1 4.2/3, mb1mx3.7/16, mbtmp4.0/3, ML4.3/2, Error ellipse: s-maj=105.6km s-min=30.5km az=68.0*

*ISCJB **14** 22:10:14.5±4.9, 7°.2S±0°.2×130°.0E±0°.2, h134^{km}±54^{km}, Error ellipse: s-maj=40.8km s-min=28.5km az=6.7*

*NEIC **14** 22:10:15.2±3.7, 7°.17S×129°.94E, h124^{km}±39^{km}, mb4.3/3, Error ellipse: s-maj=30.7km s-min=28.5km az=168.0*

ISC 14 22:10:15.3±4.1, **7°.2S**±0°.2×**130°.0E**±0°.2, **h123**^{km}±44^{km}, **n8**, σ**0^s.77**/9, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.01**	**156**	*e*Pn	**Pn**	**22 11 42.8**	**+0.8**
	53nm,0.3s						
KAKA				*e*Sn	**Sn**	**22 12 49.2**	**-0.4**
FITZ	**Fitzroy Crossi**	**11.63**	**201**	*e*Pn	**Pn**	**22 12 56.9**	**-0.6**
FITZ				*e*Sn	Sx	22 14 57.8	
WRAB	**Tennant Creek**	**13.37**	**162**	*e*Pn	**Pn**	**22 13 20.0**	**-0.3**
	10nm,1.0s						
WRAB				*e*Sn	Sx	22 15 43.9	
WRA	**Warramunga Arr**	**13.38**	**162**	Pn	**Pn**	**22 13 19.9**	**-0.4**
	1.8nm,0.3s,baz=339,slow=14,SNR=22						
WRA				Sn	Sx	22 15 42.9	
	2.0nm,0.3s,baz=336,slow=21,SNR=8.3						
WB2	**Warramunga Arr**	**13.38**	**162**	*e*Pn	**Pn**	**22 13 19.4**	**-0.9**
WB2				*e*Sn	Sx	22 15 44.9	
ASAR	**Alice Springs**	**16.82**	**167**	P	**Pn**	**22 14 05.2**	**+1.7**
	0.6nm,0.3s,baz=337,slow=9.5,SNR=26						
MBWA	**Marble Bar**	**17.05**	**214**	*e*P	**Pn**	**22 14 06.7**	**+0.4**
	1.5nm,0.4s						
MKAR	**Makanchi Array**	**68.35**	**327**	P	**P**	**22 21 03.0**	**-0.3**
	0.4nm,0.4s,baz=116,slow=8.2,SNR=19						

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*IDC **14** 22:16:39.0±1.0, 10°.39N×145°.93E, h0^{km}, mb4.0/11, mb1 4.2/12, mb1mx4.1/21, mbtmp4.0/12, ML4.3/1, Error ellipse: s-maj=32.6km s-min=18.9km az=88.0*

*NEIC **14** 22:16:40.6±0.7, 10°.42N×145°.94E, h10^{km}, mb4.4/4, Error ellipse: s-maj=23.5km s-min=10.2km az=88.0*

*ISCJB **14** 22:16:42.7±0.8, 10°.45N±0°.07×145°.8E±0°.2, h33^{km}, mb4.1/15, Error ellipse: s-maj=27.1km s-min=9.0km az=174.0*

ISC 14 22:16:44.8±0.8, **10°.48N**±0°.07×**145°.9E**±0°.2, **h35**^{km}, **n19**, σ**1^s.05**/19, **mb4.1**/15, **South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**3.24**	**343**	Pn	**Pn**	**22 17 31.4**	**-1.8**
	28nm,0.3s,baz=178,slow=9.5,SNR=7.0						
GUMO				Sn	**Sn**	**22 18 09.4**	**-1.1**
	64nm,0.3s,baz=7.9,slow=20,SNR=6.7						
MJAR	**Matsushiro Arr**	**26.86**	**346**	P	**P**	**22 22 20.8**	**-1.3**
	5.9nm,1.0s,mb4.1,baz=175,slow=9.7,SNR=7.2						
KSRS	**Korea Array**	**31.34**	**332**	P	**P**	**22 23 01.9**	**-0.1**
	4.6nm,0.8s,mb4.3,baz=140,slow=10,SNR=8.7						
WRAB	**Tennant Creek**	**32.27**	**201**	*e*P	**P**	**22 23 10.2**	**-0.1**
	0.7nm,0.6s,mb3.7						
WRA	**Warramunga Arr**	**32.28**	**201**	P	**P**	**22 23 09.2**	**-1.2**
	0.6nm,0.6s,mb3.6,baz=32,slow=9.5,SNR=3.1						
WRA	**Warramunga Arr**	**32.28**	**201**	P	**P**	**22 23 09.2**	**-1.3**
ASAR	**Alice Springs**	**35.89**	**199**	P	**P**	**22 23 39.4**	**-2.3**
	0.8nm,1.0s,mb3.6,baz=28,slow=8.6,SNR=4.1						
CMAR	**Chiang Mai Arr**	**46.00**	**286**	P	**P**	**22 25 06.2**	**+1.1**
	1.2nm,0.7s,mb4.0,baz=92,slow=5.9,SNR=7.5						
ULN	**Ulaanbaatar**	**49.48**	**326**	*e*P	**P**	**22 25 33.0**	**+1.4**
	5.9nm,1.2s,mb4.5						
SONM	**Songino Array**	**49.82**	**326**	P	**P**	**22 25 35.3**	**+1.1**
	0.9nm,0.5s,mb4.1,baz=141,slow=7.1,SNR=13						
SONM				PcP	PcP	22 26 55.4	+0.8
	0.6nm,0.8s,baz=137,slow=2.8,SNR=4.2						
MKAR	**Makanchi Array**	**64.40**	**317**	P	**P**	**22 27 18.1**	**+0.8**
	1.0nm,0.7s,mb4.0,baz=94,slow=8.3,SNR=11						
ZALV	**Zalesovo Beam**	**64.70**	**325**	P	**P**	**22 27 19.0**	**-0.2**
	1.0nm,0.5s,mb4.1,baz=105,slow=7.5,SNR=7.5						
KURK	**Kurchatov**	**67.58**	**321**	*e*P	**P**	**22 27 38.3**	**+0.5**
	7.3nm,1.1s,mb4.6						
BVAR	**Borovoye Array**	**72.96**	**322**	P	**P**	**22 28 11.1**	**+0.5**
	3.8nm,0.7s,mb4.4,baz=105,slow=7.0,SNR=17						
BRVK	**Borovoye**	**73.02**	**322**	*e*P	**P**	**22 28 12.1**	**+1.2**
	1.8nm,0.6s,mb4.2						
YKA	**Yellowknife Ar**	**85.16**	**27**	P	**P**	**22 29 17.3**	**+0.2**
	0.5nm,0.6s,mb3.8,baz=284,slow=5.6,SNR=7.3						
YKA	**Yellowknife Ar**	**85.16**	**27**	P	**P**	**22 29 17.3**	**+0.2**
NVAR	**Mina Array Bea**	**88.10**	**51**	P	**P**	**22 29 32.8**	**+0.7**
	0.7nm,0.6s,mb4.1,baz=270,slow=4.5,SNR=3.3						
DBIC	**Dimbokro**	**146.22**	**299**	PKPbc	PKPbc	22 36 22.1	-0.5
	2.4nm,0.7s,baz=130,slow=3.9,SNR=5.2						

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*ISCJB **14** 22:17:14.3±0.4, 24°.15N±0°.06×122°.87E±0°.02, h40^{km}±17^{km}, Error ellipse: s-maj=9.3km s-min=3.4km az=178.1*

*JMA **14** 22:17:14.3±0.2, 24°.37N×122°.90E, h56^{km}±2^{km}, M1.9*

*TAP **14** 22:17:15.0, 24°.19N×122°.78E, h44^{km}±2^{km}, ML2.9, C*

ISC 14 22:17:14.8±0.4, **24°.16N**±0°.05×**122°.88E**±0°.02, **h37**^{km}±17^{km}, **n28**, σ**0^s.88**/44, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.32**	**23**	P	**Pn**	**22 17 23.0**	**-0.2**
YOJ				S	**Sn**	**22 17 29.2**	**+0.3**
IRIF	**Iriomote-Funau**	**0.80**	**77**	P	**Pn**	**22 17 28.8**	**-0.8**
IRIF				S	**Sn**	**22 17 40.2**	**-0.1**
HATJ	**Hateruma jima**	**0.86**	**97**	P	**Pn**	**22 17 30.7**	**+0.3**
HATJ				S	**Sn**	**22 17 43.2**	**+1.5**
TWC	**Suao**	**1.04**	**296**	P	**Pn**	**22 17 32.2**	**-0.6**
	baz=306						
TWC				S	**Sn**	**22 17 45.4**	**-0.8**
	baz=306						
JKRS	**Kuro-shima**	**1.04**	**86**	P	**Pn**	**22 17 32.9**	**0.0**
JKRS				S	**Sn**	**22 17 47.2**	**+1.0**
ENA	**Nanau**	**1.07**	**285**	*e*P	**Pn**	**22 17 32.3**	**-1.0**
	baz=284						
TWD	**Chiawan**	**1.17**	**266**	*e*P	**Pn**	**22 17 34.0**	**-0.8**
	baz=252						
TWD				*e*S	**Sn**	**22 17 48.5**	**-1.0**
	baz=252						
JIJ	**Ishigaki jima**	**1.17**	**80**	P	**Pn**	**22 17 34.1**	**-0.7**
JIJ				S	**Sn**	**22 17 48.5**	**-1.1**
TWE	**Neicheng**	**1.23**	**297**	P	**Pn**	**22 17 35.9**	**+0.3**
	baz=306						
TWE				*e*S	**Sn**	**22 17 51.4**	**+0.3**
	baz=306						
ENTT	**Nioudou**	**1.28**	**292**	P	**Pn**	**22 17 36.8**	**+0.5**
	baz=281						
ENTT				*e*S	**Sn**	**22 17 53.2**	**+0.9**
	baz=281						
ESL	**Shilin**	**1.36**	**256**	*e*P	**Pn**	**22 17 36.0**	**-1.4**
	baz=245						
NNS	**Nan Shan**	**1.40**	**282**	*e*P	**Pn**	**22 17 38.0**	**+0.1**
	baz=280						
WHF	**Hehuan Shan**	**1.47**	**270**	P	**Pn**	**22 17 38.6**	**-0.2**
	baz=267						
WHF				S	**Sn**	**22 17 56.6**	**-0.3**
	baz=267						
NSK	**Sanguang**	**1.47**	**291**	*e*P	**Pn**	**22 17 39.3**	**+0.4**
	baz=277						
NSK				*e*S	**Sn**	**22 17 57.2**	**+0.3**
	baz=277						
EHY	**Hungye**	**1.56**	**246**	P	**Pn**	**22 17 39.4**	**-0.7**
	baz=243						
EHY				*e*S	**Sn**	**22 17 57.5**	**-1.7**
	baz=243						
TWF1	**Yuli**	**1.66**	**241**	*i* P	**Pn**	**22 17 40.9**	**-0.5**
	baz=238						
TWF1				*e*S	**Sn**	**22 18 00.5**	**-0.9**
	baz=238						
JTJ	**Tarama**	**1.73**	**74**	*e*S	**Sn**	**22 18 02.4**	**-0.9**
SMLT	**Sun Moon Lake**	**1.83**	**262**	P	**Pn**	**22 17 43.9**	**+0.2**
	baz=259						
TYC	**Yuchr**	**1.86**	**262**	*e*P	**Pn**	**22 17 44.2**	**-0.1**
	baz=260						
YUS	**Yu-Shan**	**1.88**	**250**	*e*P	**Pn**	**22 17 44.9**	**+0.3**
	baz=239						
TWQ1	**Liyutan**	**1.93**	**276**	*e*P	**Pn**	**22 17 46.1**	**+1.0**
	baz=274						
ELDTW	**Lidau**	**1.96**	**241**	*e*P	**Pn**	**22 17 44.9**	**-0.7**
	baz=238						
ELDTW				*e*S	**Sn**	**22 18 07.4**	**-1.6**
	baz=238						
CHN5	**Tsauling**	**2.09**	**255**	*e*P	**Pn**	**22 17 48.3**	**+0.9**
	baz=252						
CHN4	**Tsaushan**	**2.24**	**249**	*e*P	**Pn**	**22 17 51.1**	**+1.7**
	baz=247						
WTP	**Ta-pu**	**2.27**	**247**	*e*P	**Pn**	**22 17 50.5**	**+0.7**
	baz=244						
WTP				*e*S	**Sn**	**22 18 18.6**	**+2.1**
	baz=244						
ECL	**Taimali**	**2.35**	**229**	*e*P	**Pn**	**22 17 50.8**	**-0.3**
	baz=235						
SGST	**Jiashian**	**2.36**	**243**	*e*P	**Pn**	**22 17 52.0**	**+0.9**
	baz=233						
CHN1	**Nanshi**	**2.36**	**246**	*e*P	**Pn**	**22 17 52.3**	**+1.2**
	baz=244						
CHN1				*e*S	**Sn**	**22 18 20.3**	**+1.4**
	baz=244						

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*ISCJB **14** 22:58:09.6±0.6, 37°.79N±0°.04×15°.18E±0°.04, h10^{km}, Error ellipse: s-maj=6.4km s-min=3.4km az=141.7*

*NEIC **14** 22:58:09.2, 37°.81N×15°.16E, h2^{km}, ML2.5(ROM), After ROM.*

*CSEM **14** 22:58:09.2, 37°.81N×15°.16E, h2^{km}, MD2.9/9, After ROM*

*ROM **14** 22:58:09.2±0.2, 37°.81N×15°.16E, h2^{km}, Md2.9/9, Ml2.5/11, Error ellipse: s-maj=3.0km s-min=1.5km az=138.0*

ISC 14 22:58:10.0±0.6, **37°.78N**±0°.04×**15°.18E**±0°.04, **h10**^{km}, **n33**, σ**1^s.05**/45, **2C-2D**, **Sicily**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMME	**Mongiuffi-Meli**	**0.16**	**20**	Pg	**Pg**	**22 58 12.6**	**-1.0**
MMME				Sg	**Sg**	**22 58 14.4**	**-1.6**
	279nm,0.6s						
MMME	**Mongiuffi-Meli**	**0.16**	**20**	Pg	**Pg**	**22 58 12.6**	**-1.0**
MMME				Sg	**Sg**	**22 58 14.4**	**-1.6**
	279nm,0.6s						
ESLN	**Serra La Nave**	**0.19**	**241**	Pg	**Pg**	**22 58 12.6**	**-1.4**
ESLN				Sg	**Sg**	**22 58 16.2**	**-0.5**
	8μm,1.2s						
ESLN	**Serra La Nave**	**0.19**	**241**	Pg	**Pg**	**22 58 12.6**	**-1.4**
ESLN				Sg	**Sg**	**22 58 16.2**	**-0.5**
	8μm,1.2s						
ECNV	**Catenanuova**	**0.42**	**243**	Pg	**Pg**	**22 58 19.6**	**+1.4**
	1μm,1.0s						
ECNV	**Catenanuova**	**0.42**	**243**	Pg	**Pg**	**22 58 19.6**	**+1.4**
	1μm,1.0s						
MTTG	**Motta San Giov**	**0.46**	**62**	Pg	**Pg**	**22 58 20.1**	**+1.1**
	52nm,0.7s						
MTTG	**Motta San Giov**	**0.46**	**62**	Pg	**Pg**	**22 58 20.1**	**+1.1**
	52nm,0.7s						
MILZ	**Milazzo**	**0.49**	**4**	Pg	**Pg**	**22 58 18.7**	**-0.9**
MILZ				Sg	**Sg**	**22 58 27.2**	**+1.2**
	211nm,1.0s						
MILZ	**Milazzo**	**0.49**	**4**	Pg	**Pg**	**22 58 18.7**	**-0.9**
MILZ				Sg	**Sg**	**22 58 27.2**	**+1.2**
	211nm,1.0s						
GALF	**Gagliano Caste**	**0.49**	**262**	Pg	**Pg**	**22 58 19.2**	**-0.5**
GALF				Sg	**Sg**	**22 58 28.5**	**+2.3**
	1μm,0.7s						
GALF	**Gagliano Caste**	**0.49**	**262**	Pg	**Pg**	**22 58 19.2**	**-0.5**
GALF				Sg	**Sg**	**22 58 28.5**	**+2.3**
	1μm,0.7s						
MSRU	**Castanea**	**0.54**	**28**	⇓*i*Pg	**Pg**	**22 58 20.2**	**-0.4**
MSRU				Sg	**Sg**	**22 58 29.7**	**+1.9**
	428nm,1.4s						
MSRU	**Castanea**	**0.54**	**28**	⇓*i*Pg	**Pg**	**22 58 20.2**	**-0.4**
MSRU				Sg	**Sg**	**22 58 29.7**	**+1.9**
	428nm,1.4s						
VPL	**Vulcano Piano**	**0.61**	**345**	⇑*i*Pg	**Pg**	**22 58 21.2**	**-0.8**
VPL				Sg	**Sg**	**22 58 31.3**	**+1.3**
	508nm,1.1s						
VPL	**Vulcano Piano**	**0.61**	**345**	⇑*i*Pg	**Pg**	**22 58 21.2**	**-0.8**
VPL				Sg	**Sg**	**22 58 31.3**	**+1.3**
	508nm,1.1s						
SCLL	**Scilla**	**0.63**	**41**	Pg	**Pg**	**22 58 21.5**	**-0.8**
	43nm,1.2s						
SCLL	**Scilla**	**0.63**	**41**	Pg	**Pg**	**22 58 21.5**	**-0.8**
	43nm,1.2s						
MPAZ	**Palizzi**	**0.67**	**75**	Pg	**Pg**	**22 58 23.9**	**+0.8**
MPAZ	**Palizzi**	**0.67**	**75**	Pg	**Pg**	**22 58 23.9**	**+0.8**
LLI	**Lipari**	**0.69**	**344**	Pg	**Pg**	**22 58 22.8**	**-0.5**
	966nm,0.8s						
LLI	**Lipari**	**0.69**	**344**	Pg	**Pg**	**22 58 22.8**	**-0.5**
	966nm,0.8s						
CEL	**Celeste**	**0.73**	**50**	Pg	**Pg**	**22 58 24.1**	**-0.1**
	130nm,1.2s						
CEL	**Celeste**	**0.73**	**50**	Pg	**Pg**	**22 58 24.1**	**-0.1**
	130nm,1.2s						
SOI	**Samo**	**0.75**	**67**	Pg	**Pg**	**22 58 24.9**	**+0.4**
	33nm,0.7s						
SOI	**Samo**	**0.75**	**67**	Pg	**Pg**	**22 58 24.9**	**+0.4**
	33nm,0.7s						
SLNA	**Salina**	**0.83**	**341**	Pg	**Pg**	**22 58 25.7**	**-0.3**
	76nm,0.4s						
SLNA	**Salina**	**0.83**	**341**	Pg	**Pg**	**22 58 25.7**	**-0.3**
	76nm,0.4s						
CSLB	**Castelbuono**	**0.90**	**280**	Pg	**Pg**	**22 58 27.6**	**+0.2**
	65nm,0.8s						
IFIL	**Filicudi I Eol**	**0.92**	**328**	Pg	**Pg**	**22 58 26.3**	**-1.4**
	256nm,0.7s						
IFIL	**Filicudi I Eol**	**0.92**	**328**	Pg	**Pg**	**22 58 26.3**	**-1.4**
	256nm,0.7s						
GIB	**Gibilmanna**	**0.94**	**283**	Pg	**Pg**	**22 58 28.4**	**+0.3**
	745nm,1.4s						
GIB	**Gibilmanna**	**0.94**	**283**	Pg	**Pg**	**22 58 28.4**	**+0.3**
	745nm,1.4s						

IDC 14 23:05:46.0±3.5, **3°.21S**×**99°.91E**, **h0**^{km}, **mb3.6**/6, **mb1 3.7**/6, **mb1mx3.6**/22, **mbtmp3.6**/6, **Error ellipse: s-maj=154.0km s-min=20.2km az=54.0**, **Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**37.47**	**119**	P	P	23 13 00.3	-1.3
	0.5nm,0.8s,baz=290,slow=9.0,SNR=4.2						
ASAR	**Alice Springs**	**38.63**	**125**	P	P	23 13 12.6	+1.2
	0.3nm,0.3s,baz=302,slow=7.6,SNR=4.2						
SONM	**Songino Array**	**51.15**	**6**	P	P	23 14 51.3	+0.7
	0.7nm,0.7s,baz=187,slow=9.7,SNR=7.8						
MKAR	**Makanchi Array**	**52.16**	**345**	P	P	23 14 59.3	+1.1
	1.1nm,0.6s,baz=153,slow=9.0,SNR=15						
KURK	**Kurchatov**	**56.73**	**344**	P	P	23 15 30.5	-1.0
	0.2nm,0.3s,baz=164,slow=7.2,SNR=2.4						
ZALV	**Zalesovo Beam**	**58.33**	**350**	P	P	23 15 41.2	-1.4
	0.7nm,0.6s,baz=188,slow=5.4,SNR=4.0						
TXAR	**Lajitas Array**	**145.70**	**38**	PKPbc	PKPbc	23 25 26.9	-0.6
	1.0nm,0.8s,baz=291,slow=0.6,SNR=8.8						

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*ISCJB **14** 23:32:04.8±0.2, 39°.75N±0°.01×3°.51W±0°.01, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.5km az=150.3*

*CSEM **14** 23:32:06.1±0.1, 39°.72N×3°.49W, h5^{km}, ML3.6/22, Error ellipse: s-maj=1.7km s-min=1.4km az=141.0*

*IGIL **14** 23:32:07.6, 39°.71N×3°.49W, h2^{km}, ML2.8*

*LDG **14** 23:32:07.7±0.1, 39°.70N×3°.49W, h2^{km}, Ml3.2/13, Error ellipse: s-maj=1.7km s-min=1.3km az=130.0*

*INMG **14** 23:32:07.5±1.3, 39°.70N×3°.47W, h5^{km}±2^{km}, ML3.0, Error ellipse: s-maj=1.4km s-min=1.1km az=96.0*

*MDD **14** 23:32:07.8±0.3, 39°.70N×3°.48W, h6^{km}±2^{km}, mbLg2.8/45, Error ellipse: s-maj=2.2km s-min=1.6km az=89.0, PRIMO*

MDD EMS: IV INTENSIDAD MIMA.

*NEIC **14** 23:32:08.2, 39°.70N×3°.51W, h10^{km}, ML3.2(LDG), MN2.9(MDD), After MDD.*

NEIC Felt [IV] at La Guardia and Tembleque; [III] at El Romeral and Villacanas; [II] at Huerto de Valdecarabanos and Lilo.

ISC 14 23:32:06.0±0.2, **39°.73N**±0°.01×**3°.51W**±0°.01, **h7**^{km}±1^{km}, **n243**, σ**1^s.10**/427, **3C-2D**, **Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESDC	**Sonseca Array**	**0.35**	**261**	⇓Pg	**Pg**	**23 32 14.7**	**+1.8**
	220nm,0.1s,baz=84,slow=19,SNR=18						
ESDC				Lg		23 32 20.0	
	514nm,0.1s,baz=86,slow=32,SNR=7.9						
ESDC	**Sonseca Array**	**0.35**	**261**	Pg	**Pg**	**23 32 14.3**	**+1.4**
ESDC				Lg		23 32 19.7	
ESDC	**Sonseca Array**	**0.35**	**261**	Pg	**Pg**	**23 32 14.3**	**+1.4**
ESDC				Lg		23 32 19.7	
ESLA	**Sonseca Array**	**0.35**	**261**	*e*Pg	**Pg**	**23 32 14.7**	**+1.8**
ESLA				*e*Sg	**Sg**	**23 32 20.2**	**+2.6**
ESLA	**Sonseca Array**	**0.35**	**261**	*e*Pg	**Pg**	**23 32 14.7**	**+1.8**
ESLA				*e*Sg	**Sg**	**23 32 20.2**	**+2.6**
PAB	**San Pablo**	**0.67**	**254**	*e*Pg	**Pg**	**23 32 20.3**	**+1.3**
PAB				*e*Sg	**Sg**	**23 32 29.8**	**+2.1**
PAB	**San Pablo**	**0.67**	**254**	*e*Pg	**Pg**	**23 32 20.3**	**+1.3**
PAB				*e*Sg	**Sg**	**23 32 29.8**	**+2.0**
GUD	**Guadarrama**	**1.03**	**332**	⇑Pg	**Pg**	**23 32 27.3**	**+1.4**
	16nm,0.2s,SNR=18						
GUD				Lg		23 32 41.2	
	97nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**1.03**	**332**	Pg	**Pg**	**23 32 27.2**	**+1.3**
GUD				Lg		23 32 41.2	
GUD	**Guadarrama**	**1.03**	**332**	Pg	**Pg**	**23 32 27.2**	**+1.3**
EVIA	**Vianos**	**1.34**	**144**	⇑Pg	**Pg**	**23 32 30.7**	**-1.1**
	6.3nm,0.2s,SNR=18						
EVIA				Lg		23 32 48.9	
	196nm,0.3s,SNR=15						
EVIA	**Vianos**	**1.34**	**144**	Pg	**Pg**	**23 32 30.7**	**-1.1**
	6.3nm,0.2s,SNR=18						
ETOR	**Torete**	**1.56**	**45**	Pn	**Pn**	**23 32 34.6**	**+0.4**
	6.3nm,0.2s,SNR=7.9						
ETOR				Pg	**Pg**	**23 32 36.6**	**+0.8**
	52nm,0.2s,SNR=7.9						
ETOR				Lg		23 32 55.1	
	416nm,0.2s,SNR=7.9						
ETOR	**Torete**	**1.56**	**45**	Pg	**Pg**	**23 32 36.6**	**+0.8**
ETOR				Sn	**Sn**	**23 32 52.6**	**-2.0**
ETOR				Lg		23 32 55.7	
ETOR	**Torete**	**1.56**	**45**	Pn	**Pn**	**23 32 34.6**	**+0.4**
	6.3nm,0.2s,SNR=7.9						
ETOR	**Torete**	**1.56**	**45**	Pg	**Pg**	**23 32 36.6**	**+0.8**
	52nm,0.2s,SNR=7.9						
ETOR				Sn	**Sn**	**23 32 52.6**	**-2.0**
EBAN	**Banos Encina**	**1.58**	**188**	⇑Pn	**Pn**	**23 32 34.4**	**-0.1**
	2.1nm,0.1s,SNR=18						
EBAN				Pg	**Pg**	**23 32 36.5**	**+0.1**
	76nm,0.2s,SNR=7.9						
EBAN				Lg		23 32 56.8	
	170nm,0.4s,SNR=20						
EBAN	**Banos Encina**	**1.58**	**188**	P	**Pn**	**23 32 34.4**	**-0.1**
EBAN				Lg		23 32 56.8	
EBAN	**Banos Encina**	**1.58**	**188**	Pn	**Pn**	**23 32 34.4**	**-0.1**
	2.1nm,0.1s,SNR=18						
EADA	**Adamuz**	**1.77**	**208**	Pn	**Pn**	**23 32 37.4**	**+0.3**
	1.3nm,0.1s,SNR=27						
EADA				Pg	**Pg**	**23 32 40.1**	**+0.1**
	17nm,0.2s,SNR=7.9						
EADA				Lg		23 33 03.3	
	154nm,0.1s,SNR=43						
EADA	**Adamuz**	**1.77**	**208**	P	**Pn**	**23 32 37.6**	**+0.5**
EADA				Pg	**Pg**	**23 32 40.2**	**+0.3**
EADA				Lg		23 33 03.3	
EADA	**Adamuz**	**1.77**	**208**	Pn	**Pn**	**23 32 37.4**	**+0.3**
	1.3nm,0.1s,SNR=27						
ETOB	**Tobarra**	**1.87**	**125**	Pn	**Pn**	**23 32 38.1**	**-0.4**
	0.6nm,0.1s,SNR=51						
ETOB				Pg	**Pg**	**23 32 41.2**	**-0.7**
	7.1nm,0.1s,SNR=7.9						
ETOB				Sn	**Sn**	**23 33 01.8**	**-0.6**
	SNR=7.9						
ETOB				Lg		23 33 04.8	
	92nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	**1.87**	**125**	P	**Pn**	**23 32 39.2**	**+0.7**
ETOB				Pg	**Pg**	**23 32 42.0**	**+0.1**
ETOB				Sn	**Sn**	**23 33 01.8**	**-0.6**
ETOB				Lg		23 33 04.2	
ETOB	**Tobarra**	**1.87**	**125**	Pn	**Pn**	**23 32 38.1**	**-0.4**
	0.6nm,0.1s,SNR=51						
EQES	**Quesada**	**1.96**	**170**	Pn	**Pn**	**23 32 40.6**	**+0.9**
	1.6nm,0.2s,SNR=167						
EQES				Pg	**Pg**	**23 32 42.9**	**-0.7**
	18nm,0.1s,SNR=7.9						
EQES				Lg		23 33 08.4	
	17nm,0.2s,SNR=6.6						
EQES	**Quesada**	**1.96**	**170**	P	**Pn**	**23 32 40.6**	**+0.9**
EQES				Pg	**Pg**	**23 32 42.7**	**-0.8**
EQES				Lg		23 33 08.4	
EQES	**Quesada**	**1.96**	**170**	Pn	**Pn**	**23 32 40.6**	**+0.9**
	1.6nm,0.2s,SNR=167						
ECHE	**Chera**	**1.97**	**93**	Pn	**Pn**	**23 32 39.7**	**-0.1**
	0.6nm,0.1s,SNR=7.9						
ECHE				Pg	**Pg**	**23 32 43.8**	**+0.1**
	12nm,0.2s,SNR=7.9						
ECHE				Sn	**Sn**	**23 33 07.2**	**+2.4**
	12nm,0.3s,SNR=7.9						
ECHE	**Chera**	**1.97**	**93**	Pn	**Pn**	**23 32 39.6**	**-0.2**
ECHE				Pg	**Pg**	**23 32 43.8**	**+0.1**
ECHE				Sn	**Sn**	**23 33 08.0**	**+3.2**
ECHE	**Chera**	**1.97**	**93**	Pn	**Pn**	**23 32 39.7**	**-0.1**
	0.6nm,0.1s,SNR=7.9						
EPLA	**Plasencia**	**2.01**	**280**	Pn	**Pn**	**23 32 41.7**	**+1.4**
	2.8nm,0.1s,SNR=7.9						
EPLA				Pg	**Pg**	**23 32 44.3**	**-0.2**
	29nm,0.1s,SNR=7.9						
EPLA				Lg		23 33 10.9	
	65nm,0.1s,SNR=7.9						
EPLA	**Plasencia**	**2.01**	**280**	Pn	**Pn**	**23 32 41.7**	**+1.4**
	2.8nm,0.1s,SNR=7.9						
EHUE	**Huescar**	**2.04**	**159**	Pn	**Pn**	**23 32 39.8**	**-1.1**
	0.3nm,0.2s,SNR=7.9						
EHUE				Pg	**Pg**	**23 32 44.0**	**-1.2**
	5.9nm,0.2s,SNR=7.9						
EHUE				Lg		23 33 11.6	
	9.8nm,0.2s,SNR=7.9						
EHUE	**Huescar**	**2.04**	**159**	Pg	**Pg**	**23 32 43.9**	**-1.4**
EHUE				Lg		23 33 10.2	
EHUE	**Huescar**	**2.04**	**159**	Pn	**Pn**	**23 32 39.8**	**-1.1**
	0.3nm,0.2s,SNR=7.9						
EHUE	**Huescar**	**2.04**	**159**	Pg	**Pg**	**23 32 44.0**	**-1.2**
	5.9nm,0.2s,SNR=7.9						
EHUE				Lg		23 33 10.2	
ECAB	**El Cabril**	**2.23**	**223**	Pn	**Pn**	**23 32 45.4**	**+2.0**
	3.2nm,0.3s,SNR=21						
ECAB				Sn	**Sn**	**23 33 10.9**	**-0.2**
	SNR=7.9						
ECAB				Lg		23 33 17.6	
	SNR=7.9						
ECAB	**El Cabril**	**2.23**	**223**	Pn	**Pn**	**23 32 45.3**	**+1.9**
	3.2nm,0.3s,SNR=21						
ECAB				Sn	**Sn**	**23 33 10.9**	**-0.2**
	SNR=7.9						
ELUQ	**Luque**	**2.25**	**196**	Pg	**Pg**	**23 32 48.9**	**-0.2**
	12nm,0.2s,SNR=7.9						

ELUQ				Lg		23 33 17.7	
	13nm,0.2s,SNR=7.9						
ELUQ	Luque	2.25	196	Pg	Pg	23 32 49.3	+0.2
ELUQ				Lg		23 33 17.7	
ELUQ	Luque	2.25	196	Pg	Pg	23 32 48.9	-0.2
	12nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	2.42	74	Pn	Pn	23 32 47.3	+1.3
	0.5nm,0.1s,SNR=10						
EMOS				Pg	Pg	23 32 52.6	+0.3
	8.7nm,0.3s,SNR=7.9						
EMOS				Lg		23 33 22.6	
	14nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	2.42	74	Pn	Pn	23 32 46.7	+0.7
EMOS				Pg	Pg	23 32 52.9	+0.5
EMOS				Lg		23 33 22.6	
EMOS	Mosqueruela	2.42	74	Pn	Pn	23 32 46.7	+0.7
ECOG	Cogollos-Vega	2.45	181	Pn	Pn	23 32 47.6	+1.2
	0.5nm,0.1s,SNR=7.9						
ECOG				Pg	Pg	23 32 53.0	0.0
	5.7nm,0.2s,SNR=7.9						
ECOG				Lg		23 33 25.3	
	8.5nm,0.2s,SNR=7.9						
ECOG	Cogollos-Vega	2.45	181	Pg	Pg	23 32 53.0	0.0
ECOG	Cogollos-Vega	2.45	181	Pn	Pn	23 32 47.6	+1.1
	0.5nm,0.1s,SNR=7.9						
EQUE	Quentar	2.52	179	Pn	Pn	23 32 48.9	+1.5
	SNR=7.9						
EQUE				Pg	Pg	23 32 53.7	-0.7
	6.9nm,0.2s,SNR=7.9						
EQUE				Lg		23 33 28.0	
	16nm,0.2s,SNR=7.9						
EQUE	Quentar	2.52	179	Pn	Pn	23 32 48.9	+1.4
	SNR=7.9						
EMUR	La Murta	2.59	136	Pn	Pn	23 32 48.5	+0.2
	1.2nm,0.2s,SNR=7.9						
EMUR				Pg	Pg	23 32 55.1	-0.6
	24nm,0.4s,SNR=7.9						
EMUR				Sn	Sn	23 33 19.5	-0.6
	SNR=7.9						
EMUR				Lg		23 33 28.8	
	43nm,0.4s,SNR=7.9						
EMUR	La Murta	2.59	136	Pn	Pn	23 32 50.5	+2.2
EMUR				Pg	Pg	23 32 55.0	-0.6
EMUR				Lg		23 33 27.9	
EMUR	La Murta	2.59	136	Pn	Pn	23 32 48.5	+0.1
	1.2nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	2.63	191	Pg	Pg	23 32 56.3	-0.1
	1.3nm,0.1s,SNR=7.9						
ELOJ				Lg		23 33 30.0	
	5.9nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	2.63	191	Pg	Pg	23 32 56.3	-0.1
ELOJ				Lg		23 33 30.0	
ELOJ	Sierra Loja	2.63	191	Pg	Pg	23 32 56.3	-0.1
	1.3nm,0.1s,SNR=7.9						
ERON	Agron	2.72	185	Pg	Pg	23 32 58.1	0.0
	SNR=7.9						
ERON				Lg		23 33 32.2	
	18nm,0.6s,SNR=7.9						
ERON	Agron	2.72	185	Pg	Pg	23 32 59.8	+1.7
ERON	Agron	2.72	185	Pg	Pg	23 32 58.1	0.0
	SNR=7.9						
EBEN	Beniarda	2.75	111	Pn	Pn	23 32 50.5	-0.1
	8.7nm,0.8s,SNR=8.1						
EBEN				Pg	Pg	23 32 58.5	-0.2
	0.5nm,0.2s,SNR=7.9						
EBEN				Sn	Sn	23 33 22.2	-1.9
	6.5nm,0.3s,SNR=7.9						
EBEN				Lg		23 33 33.5	
	5.4nm,0.2s,SNR=11						
EBEN	Beniarda	2.75	111	P	Pn	23 32 52.1	+1.5
EBEN				Pg	Pg	23 32 58.5	-0.2
EBEN				Lg		23 33 33.5	
EBEN	Beniarda	2.75	111	Pn	Pn	23 32 50.5	-0.1
	8.7nm,0.8s,SNR=8.1						
EBEN	Beniarda	2.75	111	P	Pn	23 32 52.1	+1.5
EBER	Berja	2.87	170	Pn	Pn	23 32 54.0	+1.7
	0.5nm,0.1s,SNR=7.9						
EBER				Pg	Pg	23 33 00.0	-1.0
	1.0nm,0.3s,SNR=7.9						
EBER				Lg		23 33 39.4	
	24nm,0.4s,SNR=7.9						
EBER	Berja	2.87	170	Pg	Pg	23 33 01.4	+0.3
EBER				Lg		23 33 41.5	
EBER	Berja	2.87	170	Pn	Pn	23 32 54.0	+1.7
	0.5nm,0.1s,SNR=7.9						
EBER	Berja	2.87	170	Pg	Pg	23 33 01.4	+0.4
EBER				Lg		23 33 41.5	
EBAD	Badajoz	2.89	251	⇓Pn	Pn	23 32 53.0	+0.5
	4.8nm,0.2s,SNR=18						
EBAD				Pg	Pg	23 33 00.0	-1.4
	5.7nm,0.1s,SNR=7.9						
EBAD				Sn	Sn	23 33 27.3	-0.2
	22nm,0.1s,SNR=7.9						
EBAD				Lg		23 33 37.5	
	38nm,0.2s,SNR=24						
EBAD	Badajoz	2.89	251	P	Pn	23 32 53.0	+0.5
EBAD				Pg	Pg	23 33 00.1	-1.3
EBAD				Sn	Sn	23 33 27.3	-0.2
EBAD				Lg		23 33 37.5	
EBAD	Badajoz	2.89	251	Pn	Pn	23 32 53.0	+0.5
	4.8nm,0.2s,SNR=18						
EGUA	Guajares	2.89	181	Pg	Pg	23 33 00.9	-0.6
	SNR=7.9						
EGUA				Lg		23 33 41.7	
	18nm,0.2s,SNR=7.9						
EGUA	Guajares	2.89	181	Pg	Pg	23 33 01.9	+0.4
EGUA				Lg		23 33 42.9	
EGUA	Guajares	2.89	181	Pg	Pg	23 33 00.9	-0.6
	SNR=7.9						
EGUA				Lg		23 33 42.9	
ENIJ	Nijar	2.94	159	Pg	Pg	23 33 01.3	-1.1
	10nm,0.3s,SNR=7.9						
ENIJ				Lg		23 33 39.4	
	7.6nm,0.2s,SNR=7.9						
ENIJ	Nijar	2.94	159	Pg	Pg	23 33 03.5	+1.2
ENIJ				Lg		23 33 41.7	
ENIJ	Nijar	2.94	159	Pg	Pg	23 33 01.3	-1.1
	10nm,0.3s,SNR=7.9						
ENIJ				Lg		23 33 41.7	
ECRI	Cripan	2.97	14	Pn	Pn	23 32 54.5	+0.9
	1.7nm,0.2s,SNR=7.9						
ECRI				Pg	Pg	23 33 03.3	+0.3
	5.9nm,0.3s,SNR=7.9						
ECRI				Lg		23 33 43.0	
	9.5nm,0.2s,SNR=7.9						
ECRI	Cripan	2.97	14	Pn	Pn	23 32 54.4	+0.8
ECRI				Pg	Pg	23 33 03.7	+0.7
ECRI				Lg		23 33 43.0	
ECRI	Cripan	2.97	14	Pn	Pn	23 32 54.4	+0.8
PMRV	Marv??o	3.02	265	*e*Pn	Pn	23 32 55.1	+0.9
PMRV	Marv??o	3.02	265	*e*Pg	Pg	23 33 01.9	-1.9
PMRV				*e*Sg	Sg	23 33 41.8	-1.1
PMRV				A		23 33 47.0	
	37nm,0.7s						
PMRV	Marv??o	3.02	265	Pn	Pn	23 32 55.1	+0.9
PMRV				Pg	Pg	23 33 01.9	-1.9
PMRV				Lg		23 33 41.8	
	19nm,0.7s						
PMRV	Marv??o	3.02	265	*e*Pn	Pn	23 32 55.1	+0.9
PMRV	Marv??o	3.02	265	*e*Pg	Pg	23 33 01.9	-1.9
PMRV				*e*Sg	Sg	23 33 41.8	-1.1
	37nm,0.7s						
MVO	Moncorvo	3.04	299	*e*Pn	Pn	23 32 55.8	+1.2
MVO				*e*Sg	Sg	23 33 44.9	+1.1
MVO				A		23 33 50.9	
	61nm,0.8s						
MVO	Moncorvo	3.04	299	Pn	Pn	23 32 55.8	+1.2
MVO				Lg		23 33 44.9	
	31nm,0.8s						
MVO	Moncorvo	3.04	299	*e*Pn	Pn	23 32 55.8	+1.2
MVO				*e*Sg	Sg	23 33 44.9	+1.1
	61nm,0.8s						
ESAC	San Caprasio	3.05	48	Pn	Pn	23 32 55.2	+0.5
	4.1nm,0.3s,SNR=7.9						
ESAC				Pg	Pg	23 33 04.8	+0.4
	8.7nm,0.3s,SNR=7.9						
ESAC				Sn	Sn	23 33 31.4	0.0
	SNR=7.9						
ESAC				Lg		23 33 44.6	
	35nm,0.2s,SNR=7.9						
ESAC	San Caprasio	3.05	48	Pn	Pn	23 32 55.2	+0.5
	4.1nm,0.3s,SNR=7.9						
PCBR	Castelo Branco	3.06	273	*e*Pn	Pn	23 32 55.2	+0.4
PCBR				*e*Sn	Sn	23 33 31.5	-0.2
PCBR				*e*Sg	Sg	23 33 42.0	-2.3
PCBR				A		23 33 46.5	
	28nm,0.4s						
PCBR	Castelo Branco	3.06	273	Pn	Pn	23 32 55.2	+0.4
PCBR				Sn	Sn	23 33 31.5	-0.2
PCBR				Lg		23 33 42.0	
	14nm,0.4s						
PCBR	Castelo Branco	3.06	273	*e*Pn	Pn	23 32 55.2	+0.4
PCBR				*e*Sn	Sn	23 33 31.5	-0.2
PCBR				*e*Sg	Sg	23 33 42.0	-2.3
	28nm,0.4s						
EMIN	Mina Concepcio	3.16	233	Pn	Pn	23 32 57.2	+1.0
	0.6nm,0.3s,SNR=9.7						
EMIN				Sn	Sn	23 33 31.8	-2.3
	SNR=7.9						
EMIN				Lg		23 33 47.6	
	4.8nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	3.16	233	P	Pn	23 32 57.6	+1.4
EMIN				Lg		23 33 44.0	
EMIN	Mina Concepcio	3.16	233	Pn	Pn	23 32 57.2	+1.0
	0.6nm,0.3s,SNR=9.7						
EMIN				Lg		23 33 44.0	
MTE	Manteigas	3.17	283	*e*Pn	Pn	23 32 57.5	+1.2
MTE				*e*Sg	Sg	23 33 49.3	+1.5
MTE				A		23 33 51.2	
	38nm,0.3s						
MTE	Manteigas	3.17	283	*e*Pn	Pn	23 32 57.5	+1.2
MTE				*e*Sg	Sg	23 33 49.3	+1.5
	38nm,0.3s						
ERTA	Horta de San J	3.18	66	Pn	Pn	23 32 57.6	+1.1
	2.5nm,0.5s,SNR=8.3						
ERTA				Pg	Pg	23 33 07.0	0.0
	1.7nm,0.1s,SNR=7.9						
ERTA				Sn	Sn	23 33 35.2	+0.5
	SNR=7.9						
ERTA				Lg		23 33 50.4	
	12nm,0.2s,SNR=6.1						
ERTA	Horta de San J	3.18	66	P	Pn	23 32 57.1	+0.6
ERTA				Sn	Sn	23 33 35.2	+0.5
ERTA				Lg		23 33 50.7	
ERTA	Horta de San J	3.18	66	P	Pn	23 32 57.1	+0.6
ERTA	Horta de San J	3.18	66	Pn	Pn	23 32 57.6	+1.1
	2.5nm,0.5s,SNR=8.3						
PBRG	Braganca	3.21	311	*e*Pn	Pn	23 32 58.3	+1.4
PBRG				*e*Sg	Sg	23 33 48.6	-0.6
PBRG				A		23 33 54.0	
	36nm,0.4s						
PBRG	Braganca	3.21	311	Pn	Pn	23 32 58.3	+1.4
PBRG				Lg		23 33 48.6	
	18nm,0.4s						
PBRG	Braganca	3.21	311	*e*Pn	Pn	23 32 58.3	+1.4
PBRG				*e*Sg	Sg	23 33 48.6	-0.6
	36nm,0.4s						
PESTR	Estremoz	3.28	256	*e*Pn	Pn	23 32 58.9	+1.0
PESTR				*e*Sn	Sn	23 33 39.1	+1.9
PESTR				*e*Sg	Sg	23 33 49.8	-1.6
PESTR				A		23 33 58.4	
	47nm,0.4s						
PESTR	Estremoz	3.28	256	Pn	Pn	23 32 58.9	+1.0
PESTR				Sn	Sn	23 33 39.1	+1.9
PESTR				Lg		23 33 49.8	
	23nm,0.4s						
PESTR	Estremoz	3.28	256	*e*Pn	Pn	23 32 58.9	+1.0
PESTR				*e*Sn	Sn	23 33 39.1	+1.9
PESTR				*e*Sg	Sg	23 33 49.8	-1.6
	47nm,0.4s						
ECAL	Calabor	3.30	313	Pn	Pn	23 32 59.7	+1.6
	1.1nm,0.2s,SNR=7.3						
ECAL				Pg	Pg	23 33 10.8	+1.6
	10nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	23 33 36.8	-0.8
	SNR=7.9						
ECAL				Lg		23 33 52.8	
	12nm,0.2s,SNR=7.9						
ECAL	Calabor	3.30	313	P	Pn	23 32 59.7	+1.6
ECAL				Sn	Sn	23 33 39.0	+1.4
ECAL				Lg		23 33 52.8	
ECAL	Calabor	3.30	313	Pn	Pn	23 32 59.7	+1.6
	1.1nm,0.2s,SNR=7.3						
ECAL	Calabor	3.30	313	Pg	Pg	23 33 10.8	+1.6
	10nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	23 33 39.0	+1.4
EMIJ	Mijas	3.31	198	Pn	Pn	23 32 59.7	+1.4
	2.0nm,0.5s,SNR=7.9						
EMIJ				Lg		23 33 53.0	
	4.6nm,0.2s,SNR=7.9						
EMIJ	Mijas	3.31	198	Pn	Pn	23 32 59.7	+1.3
EMIJ				Lg		23 33 53.0	
EMIJ	Mijas	3.31	198	Pn	Pn	23 32 59.7	+1.3
	2.0nm,0.5s,SNR=7.9						
EARA	Aranguren	3.37	25	Pg	Pg	23 33 09.9	-0.7
	4.9nm,0.3s,SNR=7.9						
EARA				Sn	Sn	23 33 38.9	-0.4
	SNR=7.9						
EARA				Lg		23 33 55.2	
	11nm,0.2s,SNR=7.9						
EARA	Aranguren	3.37	25	Pg	Pg	23 33 09.9	-0.7
	4.9nm,0.3s,SNR=7.9						
EARA				Sn	Sn	23 33 38.9	-0.4
	SNR=7.9						
IUNC	Unciti	3.38	26	Pg	Pg	23 33 12.0	+1.2
	2.6nm,0.2s,SNR=7.9						
IUNC				Sn	Sn	23 33 40.5	+0.9
	SNR=7.9						
IUNC				Lg		23 33 55.7	
	8.6nm,0.1s,SNR=7.9						
IUNC	Unciti	3.38	26	Pg	Pg	23 33 12.0	+1.2
	2.6nm,0.2s,SNR=7.9						
IUNC				Sn	Sn	23 33 40.5	+0.9
	SNR=7.9						
ESPR	Espera	3.40	214	Lg		23 33 56.9	
	5.3nm,0.2s,SNR=7.9						
IPRE	Itoiz	3.47	27	Lg		23 33 58.6	
	3.2nm,0.3s,SNR=7.9						
ELAN	Lanestosa	3.50	1	Pg	Pg	23 33 13.0	0.0
	7.0nm,0.3s,SNR=7.9						
ELAN				Lg		23 33 59.6	
	5.3nm,0.1s,SNR=7.9						
ELAN	Lanestosa	3.50	1	Pg	Pg	23 33 13.0	0.0
	7.0nm,0.3s,SNR=7.9						
PVIS	Viseu	3.50	288	*e*Pn	Pn	23 33 01.8	+0.9
PVIS				*e*Sn	Sn	23 33 42.0	-0.5
PVIS				*e*Sg	Sg	23 33 57.8	-0.6
PVIS				A		23 34 01.0	
	28nm,0.7s						
PVIS	Viseu	3.50	288	Pn	Pn	23 33 01.8	+0.9
PVIS				Sn	Sn	23 33 42.0	-0.5
PVIS				Lg		23 33 57.8	
	14nm,0.7s						
PVIS	Viseu	3.50	288	*e*Pn	Pn	23 33 01.8	+0.9
PVIS				*e*Sn	Sn	23 33 42.0	-0.5
PVIS				*e*Sg	Sg	23 33 57.8	-0.6
	28nm,0.7s						
IUSE	Utxeti	3.54	24	Pg	Pg	23 33 14.4	+0.6
	3.4nm,0.2s,SNR=7.9						
IUSE				Lg		23 33 59.8	
	0.6nm,0.1s,SNR=7.9						
IUSE	Utxeti	3.54	24	Pg	Pg	23 33 14.4	+0.6
	3.4nm,0.2s,SNR=7.9						
PVRL	Vila Real	3.56	297	*e*Pn	Pn	23 33 02.8	+1.1
PVRL				*e*Sn	Sn	23 33 44.0	0.0
PVRL				*e*Sg	Sg	23 33 59.3	-1.0
PVRL				A		23 34 07.0	
	31nm,0.6s						
PVRL	Vila Real	3.56	297	Pn	Pn	23 33 02.8	+1.1
PVRL				Sn	Sn	23 33 44.0	0.0
PVRL				Lg		23 33 59.3	
	16nm,0.6s						
PVRL	Vila Real	3.56	297	*e*Pn	Pn	23 33 02.8	+1.1
PVRL				*e*Sn	Sn	23 33 44.0	0.0
PVRL				*e*Sg	Sg	23 33 59.3	-1.0
	31nm,0.6s						
EORO	Oroz-Betelu	3.57	27	Pn	Pn	23 33 02.6	+0.8
	0.8nm,0.4s,SNR=8.7						
EORO				Pg	Pg	23 33 15.1	+0.7
	2.8nm,0.3s,SNR=7.9						
EORO				Sn	Sn	23 33 43.9	-0.3
	SNR=7.9						
EORO				Lg		23 34 02.1	
	SNR=7.9						
EORO	Oroz-Betelu	3.57	27	Pn	Pn	23 33 02.6	+0.8
	0.8nm,0.4s,SNR=8.7						
EJIF	Jimena Fronter	3.62	206	Lg		23 34 03.3	
	12nm,0.6s,SNR=7.9						
EVO	Evora	3.70	253	*e*Pn	Pn	23 33 04.8	+1.1
EVO	Evora	3.70	253	*e*Pg	Pg	23 33 16.7	-0.3
EVO				*e*Sn	Sn	23 33 46.9	-0.7
EVO				*e*Sg	Sg	23 34 04.4	-0.5
	90nm,0.4s						
EVO	Evora	3.70	253	*e*Pn	Pn	23 33 04.0	+0.3
EVO				*e*Sn	Sn	23 33 47.6	0.0
EVO				A		23 34 08.3	
	31nm,0.2s						
EVO	Evora	3.70	253	Pn	Pn	23 33 04.0	+0.3
EVO				Sn	Sn	23 33 47.6	0.0
	31nm,0.2s						
EVO	Evora	3.70	253	*e*Pn	Pn	23 33 04.0	+0.3
EVO				*e*Sn	Sn	23 33 47.6	0.0
	31nm,0.2s						
ELIZ	Elizondo	3.74	23	Pn	Pn	23 33 05.2	+1.0
	3.0nm,0.3s,SNR=7.9						
ELIZ				Pg	Pg	23 33 17.3	-0.3
	1.7nm,0.3s,SNR=7.9						
ELIZ	Elizondo	3.74	23	Pn	Pn	23 33 05.0	+0.8
ELIZ				Pg	Pg	23 33 17.3	-0.3
ELIZ	Elizondo	3.74	23	Pn	Pn	23 33 05.0	+0.8
PTOM	Tomar	3.78	270	*e*Pn	Pn	23 33 05.8	+1.0
PTOM				*e*Sg	Sg	23 34 06.6	-1.0
PTOM				A		23 34 10.8	
	27nm,0.5s						
PTOM	Tomar	3.78	270	Pn	Pn	23 33 05.8	+1.0
PTOM				Lg		23 34 06.6	
	14nm,0.5s						
PTOM	Tomar	3.78	270	*e*Pn	Pn	23 33 05.8	+1.0
PTOM				*e*Sg	Sg	23 34 06.6	-1.0
	27nm,0.5s						
EVOP	Sao Brissos	3.79	253	*e*Pn	Pn	23 33 04.8	0.0
EVOP	Sao Brissos	3.79	253	*e*Pg	Pg	23 33 16.7	-1.8
EVOP				*e*Sn	Sn	23 33 46.9	-2.7
EVOP				*e*Sg	Sg	23 34 04.4	-3.2
	45nm,0.4s						
EARI	Arriondas	3.79	341	Pn	Pn	23 33 06.7	+1.8
	0.4nm,0.4s,SNR=9.1						
EARI				Pg	Pg	23 33 18.5	-0.1
	5.2nm,0.3s,SNR=7.9						
EARI				Lg		23 34 07.6	
	12nm,0.3s,SNR=7.9						
EARI	Arriondas	3.79	341	Pn	Pn	23 33 08.8	+3.9
EARI				Pg	Pg	23 33 18.5	-0.1
EARI				Lg		23 34 07.6	
EARI	Arriondas	3.79	341	Pn	Pn	23 33 06.7	+1.9
	0.4nm,0.4s,SNR=9.1						
SJPF	Ste Jean	3.79	26	*e*Pg	Pg	23 33 18.3	-0.3
SJPF				*e*Sn	Sn	23 33 47.8	-1.9
SJPF				*e*Sg	Sg	23 34 06.9	-0.8
	35nm,0.5s						
SJPF	Ste Jean	3.79	26	Pn	Pn	23 33 05.4	+0.5
SJPF				Pg	Pg	23 33 18.3	-0.3
SJPF				Sn	Sn	23 33 47.8	-1.9
SJPF				Lg		23 34 06.9	
	17nm,0.5s						
SJPF	Ste Jean	3.79	26	*e*Pn	Pn	23 33 05.4	+0.5
SJPF				*e*Pg	Pg	23 33 18.3	-0.3
SJPF				*e*Sn	Sn	23 33 47.8	-1.9
SJPF				*e*Sg	Sg	23 34 06.9	-0.8
SJPF	Ste Jean	3.79	26	*e*Pn	Pn	23 33 05.4	+0.5
SJPF	Ste Jean	3.79	26	*e*Pg	Pg	23 33 18.3	-0.3
SJPF				*e*Sn	Sn	23 33 47.8	-1.9
SJPF				*e*Sg	Sg	23 34 06.9	-0.8
	17nm,0.5s						
EALK	Alkurruntz	3.79	23	Pn	Pn	23 33 05.7	+0.8
	5.7nm,0.4s,SNR=7.7						
EALK				Sn	Sn	23 33 49.6	-0.2
	SNR=7.9						
EALK				Lg		23 34 07.3	
	6.0nm,0.2s,SNR=7.9						
EALK	Alkurruntz	3.79	23	P	Pn	23 33 05.9	+0.9
EALK				Sn	Sn	23 33 49.6	-0.2
EALK				Lg		23 34 07.3	
EALK	Alkurruntz	3.79	23	Pn	Pn	23 33 05.7	+0.7
	5.7nm,0.4s,SNR=7.7						
EALK				Sn	Sn	23 33 49.7	-0.2
PBEJ	Beja	3.80	245	*e*Sn	Sn	23 33 49.4	-0.7
PBEJ				*e*Sg	Sg	23 34 06.0	-2.2
PBEJ				A		23 34 12.9	
	27nm,0.4s						
PBEJ	Beja	3.80	245	Sn	Sn	23 33 49.4	-0.7
PBEJ				Lg		23 34 06.0	
	14nm,0.4s						
PBEJ	Beja	3.80	245	*e*Sn	Sn	23 33 49.4	-0.7
PBEJ				*e*Sg	Sg	23 34 06.0	-2.2
	27nm,0.4s						
EGRO	El Granado	3.81	236	Pn	Pn	23 33 05.7	+0.6
	2.7nm,0.2s,SNR=7.9						
EGRO				Sn	Sn	23 33 48.2	-1.9
	SNR=7.9						
EGRO				Lg		23 34 06.9	
	19nm,0.3s,SNR=7.9						
EGRO	El Granado	3.81	236	Pn	Pn	23 33 05.2	+0.1
EGRO				Sn	Sn	23 33 48.2	-1.9
EGRO				Lg		23 34 09.0	
EGRO	El Granado	3.81	236	Pn	Pn	23 33 05.7	+0.6
	2.7nm,0.2s,SNR=7.9						
EPOB	Poblet	3.85	64	Pn	Pn	23 33 05.5	-0.3
	1.1nm,0.4s,SNR=7.1						
EPOB				Sn	Sn	23 33 49.4	-1.9
	SNR=7.9						
EPOB				Lg		23 34 08.0	
	1.2nm,0.2s,SNR=7.9						
EPOB	Poblet	3.85	64	P	Pn	23 33 05.5	-0.3
EPOB				Sn	Sn	23 33 49.4	-1.9
EPOB				Lg		23 34 06.5	
EPOB	Poblet	3.85	64	Pn	Pn	23 33 05.5	-0.2
	1.1nm,0.4s,SNR=7.1						
EPOB				Sn	Sn	23 33 49.4	-1.9
	SNR=7.9						
ETSF	Etsaut	3.87	34	*e*Pn	Pn	23 33 06.5	+0.6
ETSF				*e*Sn	Sn	23 33 49.6	-2.0
ETSF				*e*Sg	Sg	23 34 09.1	-1.1
	15nm,0.4s						
ETSF	Etsaut	3.87	34	Pn	Pn	23 33 06.5	+0.6
ETSF				Sn	Sn	23 33 49.6	-2.0
ETSF				Lg		23 34 09.1	
	7.4nm,0.4s						
ETSF	Etsaut	3.87	34	*e*Pn	Pn	23 33 06.5	+0.6
ETSF				*e*Sn	Sn	23 33 49.6	-2.0
ETSF				*e*Sg	Sg	23 34 09.1	-1.1
	7.4nm,0.4s						
MOE	Montemor	3.95	254	*e*Pn	Pn	23 33 08.3	+1.2
MOE				*e*Sn	Sn	23 33 53.1	-0.7
MOE	Montemor	3.95	254	*e*Pn	Pn	23 33 08.3	+1.2
MOE				*e*Sn	Sn	23 33 53.1	-0.7
PCAB	Cabril	3.96	301	*e*Pn	Pn	23 33 08.5	+1.3
PCAB				*e*Sn	Sn	23 33 53.8	-0.1
PCAB				*e*Sg	Sg	23 34 12.0	-1.2
PCAB				A		23 34 16.7	
	30nm,0.4s						
PCAB	Cabril	3.96	301	Pn	Pn	23 33 08.5	+1.3
PCAB				Sn	Sn	23 33 53.8	-0.1
PCAB				Lg		23 34 12.0	
	15nm,0.4s						
PCAB	Cabril	3.96	301	*e*Pn	Pn	23 33 08.5	+1.3
PCAB				*e*Sn	Sn	23 33 53.8	-0.1
PCAB				*e*Sg	Sg	23 34 12.0	-1.2
	30nm,0.4s						
ALMR	Almeirim	3.97	263	*e*P	Pn	23 33 08.1	+0.8
ALMR				*e*S	Sn	23 33 51.9	-2.2
ALMR				*e*S	Sn	23 33 51.9	-2.1
ALMR				AML	AML	23 33 53.0	
	comp=N,14nm,0.3s						
ALMR	Almeirim	3.97	263	*e*P	Pn	23 33 08.1	+0.8
ALMR				*e*Sg	Sg	23 33 51.9	-21
ALMR	Almeirim	3.97	263	*e*P	Pn	23 33 08.1	+0.8
PVAQ	Vaqueiros	4.04	236	*e*Pn	Pn	23 33 09.2	+0.9
PVAQ				*e*Sn	Sn	23 33 55.5	-0.3
PVAQ				*e*Sg	Sg	23 34 13.0	-2.6
PVAQ				A		23 34 15.4	
	comp=N,27nm,0.4s						
PVAQ	Vaqueiros	4.04	236	Pn	Pn	23 33 09.2	+0.9
PVAQ				Sn	Sn	23 33 55.5	-0.3
PVAQ				Lg		23 34 13.0	
	comp=N,27nm,0.4s						
PVAQ	Vaqueiros	4.04	236	*e*Pn	Pn	23 33 09.2	+0.9
PVAQ				*e*Sn	Sn	23 33 55.5	-0.3
PVAQ				*e*Sg	Sg	23 34 13.0	-2.6
	comp=N,27nm,0.4s						
EBIE	Bielsa	4.04	42	Pn	Pn	23 33 08.9	+0.6
	comp=N,0.9nm,0.2s,SNR=16						
EBIE				Sn	Sn	23 33 55.6	-0.2
	SNR=7.9						
EBIE				Lg		23 34 15.2	
	comp=N,3.7nm,0.2s,SNR=7.9						

EBIE	Bielsa	4.04	42	P	Pn	23 33 09.9	+1.6
EBIE				Sn	Sn	23 33 54.7	-1.1
EBIE				Lg		23 34 15.2	
EBIE	Bielsa	4.04	42	Pn	Pn	23 33 08.9	+0.6
	comp=N,0.9nm,0.2s,SNR=16						
EBIE	Bielsa	4.04	42	P	Pn	23 33 09.9	+1.6
EBIE				Sn	Sn	23 33 55.6	-0.2
	SNR=7.9						
ELOB	Lobios	4.06	303	Pn	Pn	23 33 09.7	+1.1
	comp=N,3.4nm,0.2s,SNR=20						
ELOB				Sn	Sn	23 33 55.7	-0.7
	SNR=7.9						
ELOB				Lg		23 34 15.9	
	comp=N,7.6nm,0.2s,SNR=7.9						
ELOB	Lobios	4.06	303	P	Pn	23 33 09.7	+1.1
ELOB				Sn	Sn	23 33 56.5	+0.2
ELOB				Lg		23 34 15.9	
ELOB	Lobios	4.06	303	Pn	Pn	23 33 09.7	+1.1
	comp=N,3.4nm,0.2s,SNR=20						
ELOB				Sn	Sn	23 33 56.5	+0.1
PBDV	Barranco-do-Ve	4.27	236	*e*Pn	Pn	23 33 11.8	+0.4
PBDV				*e*Sg	Sg	23 34 22.5	-0.6
PBDV	Barranco-do-Ve	4.27	236	*e*Pn	Pn	23 33 11.8	+0.4
PBDV				*e*Sg	Sg	23 34 22.5	-0.6
EPF	Esparros	4.39	40	*e*Pg	Pg	23 33 29.2	-0.9
EPF				*e*Sn	Sn	23 34 01.8	-2.6
EPF				*e*Sg	Sg	23 34 25.7	-1.2
	comp=N,34nm,0.6s						
EPF	Esparros	4.39	40	Pn	Pn	23 33 14.1	+1.0
EPF				Pg	Pg	23 33 29.2	-0.9
EPF				Sn	Sn	23 34 01.8	-2.6
EPF				Lg		23 34 25.7	
	comp=N,17nm,0.6s						
EPF	Esparros	4.39	40	*e*Pn	Pn	23 33 14.1	+1.0
EPF				*e*Pg	Pg	23 33 29.2	-0.9
EPF				*e*Sn	Sn	23 34 01.8	-2.6
EPF				*e*Sg	Sg	23 34 25.7	-1.2
EPF	Esparros	4.39	40	*e*Pn	Pn	23 33 14.1	+1.0
EPF	Esparros	4.39	40	*e*Pg	Pg	23 33 29.2	-0.9
EPF				*e*Sn	Sn	23 34 01.8	-2.6
EPF				*e*Sg	Sg	23 34 25.7	-1.2
	comp=N,17nm,0.6s						
EMIR	Miracle	4.40	59	Lg		23 34 23.2	
	comp=N,68nm,0.6s,SNR=7.9						
EPON	Pontenova	4.51	324	Pn	Pn	23 33 16.6	+1.8
	SNR=7.9						
EPON				Pg	Pg	23 33 32.1	-0.4
	SNR=7.9						
EPON				Sn	Sn	23 34 06.4	-1.2
	comp=N,4.3nm,0.2s,SNR=7.9						
EPON				Lg		23 34 29.4	
	comp=N,27nm,0.3s,SNR=7.9						
EPON	Pontenova	4.51	324	Pn	Pn	23 33 16.6	+1.8
	SNR=7.9						
PMAFR	Mafra	4.54	262	*e*Pn	Pn	23 33 16.3	+1.1
PMAFR				*e*Sn	Sn	23 34 07.5	-0.8
PMAFR				*e*Sg	Sg	23 34 30.3	-1.6
PMAFR				A		23 34 35.8	
	comp=N,25nm,0.6s						
PMAFR	Mafra	4.54	262	Pn	Pn	23 33 16.3	+1.1
PMAFR				Sn	Sn	23 34 07.5	-0.8
PMAFR				Lg		23 34 30.3	
	comp=N,25nm,0.6s						
PMAFR	Mafra	4.54	262	*e*Pn	Pn	23 33 16.3	+1.1
PMAFR				*e*Sn	Sn	23 34 07.5	-0.8
PMAFR				*e*Sg	Sg	23 34 30.3	-1.6
	comp=N,25nm,0.6s						
EZAM	Zamans	4.61	303	Lg		23 34 32.1	
	comp=N,22nm,0.4s,SNR=7.9						
PTEO	Sao Teotonio	4.63	244	*e*Pn	Pn	23 33 17.1	+0.7
PTEO				*e*Sn	Sn	23 34 09.7	-0.7
PTEO				*e*Sg	Sg	23 34 34.1	-0.6
PTEO				A		23 34 47.5	
	comp=N,20nm,0.6s						
PTEO	Sao Teotonio	4.63	244	Pn	Pn	23 33 17.1	+0.7
PTEO				Sn	Sn	23 34 09.7	-0.7
PTEO				Lg		23 34 34.1	
	comp=N,9.9nm,0.6s						
PTEO	Sao Teotonio	4.63	244	*e*Pn	Pn	23 33 17.1	+0.7
PTEO				*e*Sn	Sn	23 34 09.7	-0.7
PTEO				*e*Sg	Sg	23 34 34.1	-0.6
	comp=N,20nm,0.6s						
MORF	Marmelete	4.70	241	*e*Pn	Pn	23 33 18.5	+1.1
MORF				*e*Sn	Sn	23 34 11.8	-0.5
MORF				A		23 34 54.7	
	comp=N,9.4nm,0.5s						
MORF	Marmelete	4.70	241	Pn	Pn	23 33 18.5	+1.1
MORF				Sn	Sn	23 34 11.8	-0.5
	comp=N,9.4nm,0.5s						
MORF	Marmelete	4.70	241	*e*Pn	Pn	23 33 18.5	+1.1
MORF				*e*Sn	Sn	23 34 11.8	-0.5
	comp=N,9.4nm,0.5s						
PFVI	Vila Bisbo	4.92	240	*e*Pn	Pn	23 33 21.1	+0.7
PFVI				*e*Sn	Sn	23 34 16.3	-1.2
PFVI				A		23 34 52.6	
	comp=N,18nm,0.5s						
PFVI	Vila Bisbo	4.92	240	Pn	Pn	23 33 21.1	+0.7
PFVI				Sn	Sn	23 34 16.3	-1.2
	comp=N,9.0nm,0.5s						
PFVI	Vila Bisbo	4.92	240	*e*Pn	Pn	23 33 21.1	+0.7
PFVI				*e*Sn	Sn	23 34 16.3	-1.2
	comp=N,18nm,0.5s						
STS	Santiago	4.93	311	Lg		23 34 44.2	
	comp=N,6.6nm,0.3s,SNR=7.9						
EMAZ	Mazaricos	5.22	310	Pn	Pn	23 33 24.9	+0.4
	SNR=7.9						
EMAZ				Sn	Sn	23 34 23.7	-1.3
	comp=N,1.8nm,0.2s,SNR=7.9						
EMAZ				Lg		23 34 52.0	
	comp=N,16nm,0.5s,SNR=7.9						
EMAZ	Mazaricos	5.22	310	Pn	Pn	23 33 24.9	+0.4
EMAZ				Sn	Sn	23 34 23.6	-1.3
EMAZ				Lg		23 34 52.0	
EMAZ	Mazaricos	5.22	310	Pn	Pn	23 33 24.9	+0.4
	SNR=7.9						
EMAZ				Sn	Sn	23 34 23.7	-1.3
	comp=N,1.8nm,0.2s,SNR=7.9						
EJON	La Jonquera	5.54	59	Lg		23 35 01.0	
	comp=N,11nm,0.5s,SNR=7.9						
MTLF	Montolieu	5.61	48	*e*Pn	Pn	23 33 29.7	-0.2
MTLF				*e*Sg	Sg	23 35 03.1	-3.0
	comp=N,4.0nm,0.3s						
MTLF	Montolieu	5.61	48	Pn	Pn	23 33 29.7	-0.2
MTLF				Lg		23 35 03.1	
	comp=N,2.0nm,0.3s						
MTLF	Montolieu	5.61	48	*e*Pn	Pn	23 33 29.7	-0.2
LFF	La Frestale	6.08	30	*e*Pn	Pn	23 33 36.0	-0.3
LFF				*e*Sn	Sn	23 34 42.8	-3.4
	comp=N,4.9nm,0.3s						
LFF	La Frestale	6.08	30	Pn	Pn	23 33 36.0	-0.3
LFF				Sn	Sn	23 34 42.8	-3.4
	comp=N,2.5nm,0.3s						
LFF	La Frestale	6.08	30	*e*Pn	Pn	23 33 36.0	-0.3
CAF	Calviac	6.63	37	*e*Pn	Pn	23 33 43.1	-0.8
CAF				*e*Sn	Sn	23 34 55.6	-4.1
	comp=N,1.9nm,0.3s						
CAF	Calviac	6.63	37	Pn	Pn	23 33 43.1	-0.8
CAF				Sn	Sn	23 34 55.6	-4.1
	comp=N,0.9nm,0.3s						
CAF	Calviac	6.63	37	*e*Pn	Pn	23 33 43.1	-0.8
RJF	Les Rejaudoux	6.69	32	*e*Pn	Pn	23 33 44.1	-0.6
RJF				*e*Sn	Sn	23 34 56.5	-4.7
	comp=N,2.3nm,0.3s						
RJF	Les Rejaudoux	6.69	32	Pn	Pn	23 33 44.1	-0.6
RJF				Sn	Sn	23 34 56.5	-4.7
	comp=N,1.2nm,0.3s						
RJF	Les Rejaudoux	6.69	32	*e*Pn	Pn	23 33 44.1	-0.6
LASF	Ste Croix	7.00	49	*e*Pn	Pn	23 33 49.5	+0.5
LASF				*e*Sn	Sn	23 35 04.7	-4.1
LASF				*e*Sg	Sg	23 35 47.6	-3.1
	comp=N,5.7nm,0.5s						
LASF	Ste Croix	7.00	49	Pn	Pn	23 33 49.5	+0.5
LASF				Sn	Sn	23 35 04.7	-4.1
LASF				Lg		23 35 47.6	
	comp=N,2.8nm,0.5s						
LASF	Ste Croix	7.00	49	*e*Pn	Pn	23 33 49.5	+0.5
MFF	Saint Martin d	7.29	19	*e*Pn	Pn	23 33 53.0	0.0
MFF				*e*Sn	Sn	23 35 11.9	-4.1
	comp=N,0.9nm,0.3s						
MFF	Saint Martin d	7.29	19	Pn	Pn	23 33 53.0	0.0
MFF				Sn	Sn	23 35 11.9	-4.1
	comp=N,0.4nm,0.3s						
MFF	Saint Martin d	7.29	19	*e*Pn	Pn	23 33 53.0	0.0
TCF	Toulx Ste Croi	7.78	31	*e*Pn	Pn	23 33 59.6	0.0
TCF				*e*Sn	Sn	23 35 23.6	-4.3
	comp=N,0.7nm,0.3s						
TCF	Toulx Ste Croi	7.78	31	Pn	Pn	23 33 59.6	0.0
TCF				Sn	Sn	23 35 23.6	-4.3
	comp=N,0.3nm,0.3s						
TCF	Toulx Ste Croi	7.78	31	*e*Pn	Pn	23 33 59.6	0.0
QUIF	Quistinic	8.19	2	*e*Pn	Pn	23 34 04.6	-0.6
QUIF	Quistinic	8.19	2	*e*Pn	Pn	23 34 04.6	-0.6
SGMF	Saint Gilles	8.55	4	*e*Pn	Pn	23 34 10.0	-0.2
SGMF	Saint Gilles	8.55	4	*e*Pn	Pn	23 34 10.0	-0.2
ROSF	Rostrenen	8.60	1	*e*Pn	Pn	23 34 10.4	-0.5
ROSF				*e*Sn	Sn	23 35 43.0	-5.2
	comp=N,1.8nm,0.3s						
ROSF	Rostrenen	8.60	1	Pn	Pn	23 34 10.4	-0.5
ROSF				Sn	Sn	23 35 43.0	-5.2
	comp=N,0.9nm,0.3s						
ROSF	Rostrenen	8.60	1	*e*Pn	Pn	23 34 10.4	-0.5

*ISCJB **14** 23:49:09.2±0.8, 10°.82N±0°.06×86°.87W±0°.06, h42^{km}±7^{km}, mb4.1/13, Error ellipse: s-maj=13.6km s-min=4.6km az=138.3*

*NEIC **14** 23:49:10.9±1.1, 10°.87N×86°.78W, h44^{km}±13^{km}, mb4.2/6, Error ellipse: s-maj=27.1km s-min=9.0km az=218.0*

*CASC **14** 23:49:11.5±1.9, 10°.97N×86°.84W, h38^{km}±553^{km}, MD4.2, ML3.7, mb4.2(NEIC)*

*IDC **14** 23:49:15.1±4.0, 11°.69N×86°.39W, h42^{km}±32^{km}, mb3.8/8, mb1 4.1/10, mb1mx3.8/22, mbtmp3.9/10, ML3.8/2, MS3.4/2, Ms1 3.4/2, ms1mx2.8/29, Error ellipse: s-maj=43.9km s-min=19.9km az=28.0*

ISC 14 23:49:10.9±0.7**, 10°.89N**±0°.06×**86°.79W**±0°.06**, h37**^{km}±7^{km}**, n61, σ0^{s}.93**/58**, mb4.1**/13**, 2C, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSN	San Juan del S	1.00	66	*e*P	Pn	23 49 27.8	-0.7
CRUN	El Crucero	1.18	24	*e*P	Pn	23 49 31.9	+0.9
APON	Apoyo	1.24	35	*e*P	Pn	23 49 32.1	+0.4
MASN	Masaya	1.25	30	*e*P	Pn	23 49 32.7	+0.8
TICN	Ticuantepe	1.26	26	*e*P	Pn	23 49 32.3	+0.3
COPN	Copaltepe	1.29	9	*e*P	Pn	23 49 32.3	-0.2
CONN	Concepcion	1.32	60	*e*P	Pn	23 49 32.9	0.0
XAVN	Gruta Xavier	1.33	20	*e*P	Pn	23 49 33.0	0.0
CSAN		1.33	16	*e*P	Pn	23 49 32.7	-0.4
TISN	Laguna Tiscapa	1.34	22	*e*P	Pn	23 49 33.1	-0.1
MGAN	Managua	1.35	23	*e*P	Pn	23 49 33.1	-0.2
MGAN				*e*S	Sn	23 50 14.9	+25
VCR	Vista de Mar	1.37	124	*e*P	Pn	23 49 30.4	-3.1
WILN	Americas 2	1.39	25	*e*P	Pn	23 49 33.6	-0.2
MOMN	Momotombo	1.52	9	*e*P	Pn	23 49 35.9	+0.2
MIRN	Miramar	1.54	3	*e*P	Pn	23 49 35.9	0.0
HUEN		1.56	23	*e*P	Pn	23 49 36.1	-0.1
CNGN	Cerro Negro	1.60	3	⇑*e*P	Pn	23 49 36.4	-0.4
CNGN				AML	AML	23 50 00.7	
	comp=E,855nm,0.2s						
TELN	Telica	1.70	359	*e*P	Pn	23 49 38.6	+0.4
CRIN	San Cristobal	1.81	352	⇑*e*P	Pn	23 49 39.6	-0.1
CRIN				AML	AML	23 50 11.7	
	comp=N,1µm,0.5s						
BOAB	BOACO BROADBAN	1.90	35	*e*P	Pn	23 49 40.1	-0.7
JCR	Jicaral	1.95	122	*e*P	Pn	23 49 40.2	-1.4
FORC	Fortuna	2.13	101	*e*P	Pn	23 49 44.4	+0.4
CGA2	Cerro Gallo 2	2.45	111	*e*P	Pn	23 49 50.6	+2.2
CNCH	Conchagua	2.58	337	*e*P	Pn	23 49 50.6	+0.4
CNCH				*e*S	Sn	23 50 20.5	+0.2
PRS1	Puriscal	2.60	110	*e*P	Pn	23 49 50.3	-0.2
LAJ	Bijagual	2.82	111	*e*P	Pn	23 49 48.5	-5.0
BLLM	Bellamira	2.90	331	*e*P	Pn	23 49 54.7	+0.1
BLLM				*e*S	Sn	23 50 28.0	-0.3
QCR	Quepos	2.97	119	*e*P	Pn	23 49 54.5	-1.1
LCR2	La Lucha 2	2.97	112	*e*P	Pn	23 49 56.2	+0.6
URSC	Urasca	3.15	109	*e*P	Pn	23 49 58.0	0.0
CAHU	Cacacuatique	3.18	334	*e*P	Pn	23 49 59.1	+0.6
TGUH	Tegucigalpa,Un	3.18	352	*e*Pn	Pn	23 49 59.0	+0.6
TGUH	Tegucigalpa,Un	3.18	352	*e*P	Pn	23 49 58.8	+0.4
BUS	Buena Vista	3.27	114	*e*P	Pn	23 49 59.5	-0.2
LFRS	El Faro	3.50	321	*e*P	Pn	23 50 02.7	-0.3
LFRS				*e*S	Sn	23 50 40.4	-2.8
ACR	Cerro Adams	4.21	122	*e*P	Pn	23 50 13.0	+0.4
CMIG	Matias Romero	9.98	309	P	Pn	23 51 31.9	0.0
	comp=N,0.9nm,0.3s,baz=124,slow=11,SNR=11						
ROSC	El Rosal	13.72	115	LR	LR	23 56 41.1	
	comp=N,128nm,21.6s,baz=200,slow=32						
SDV	Santo Domingo	16.04	96	P	Pn	23 52 55.8	+1.8
	comp=N,0.4nm,0.3s,baz=274,slow=5.4,SNR=20						
SDV	Santo Domingo	16.04	96	*e*Pn	Pn	23 52 54.8	+0.8
	comp=N,18nm,0.9s						
ATAH	Atahualpa	19.64	154	LR	LR	00 00 28.7	
	comp=N,107nm,18.4s,baz=169,slow=33						
HKT	Hockley	20.75	337	*e*Pn	P	23 53 49.8	+1.3
	comp=N,9.5nm,1.1s						
PCRV	Puerto La Cruz	21.79	90	P	P	23 54 00.1	+0.1
	comp=N,16nm,0.8s,mb4.5,baz=244,slow=4.6,SNR=4.2						
GOGA	Godfrey	22.62	7	*e*P	P	23 54 08.7	+0.1
	comp=N,5.2nm,0.7s,mb4.1						
TXAR	Lajitas Array	24.18	322	P	P	23 54 24.6	+0.7
	comp=N,2.6nm,0.7s,mb3.8,baz=133,slow=9.4,SNR=29						
TXAR				PcP	PcP	23 58 08.6	+4.4
	comp=N,1.2nm,0.8s,baz=141,slow=5.4,SNR=8.0						
TKL	Tuckaleechee C	24.80	6	P	P	23 54 29.0	-0.5
	comp=N,5.3nm,0.6s,mb4.3,baz=179,slow=12,SNR=12						
WMOK	Wichita Mounta	26.13	337	*e*P	P	23 54 43.1	+1.5
	comp=N,15nm,1.0s,mb4.5						
CCM	Cathedral Cave	27.34	352	*e*P	P	23 54 51.5	-1.0
	comp=N,40nm,2.1s,mb4.6						
ANMO	Albuquerque	29.91	326	P	P	23 55 16.8	+1.4
	comp=N,0.8nm,0.6s,mb3.7,baz=166,slow=10,SNR=3.3						
SDCO	Great Sand Dun	31.58	331	*e*P	P	23 55 29.7	-0.3
	comp=N,2.1nm,0.6s,mb4.1						
PDAR	Pinedale Array	37.44	332	P	P	23 56 20.9	+0.2
	comp=N,1.4nm,0.6s,mb3.9,baz=132,slow=8.7,SNR=13						
NVAR	Mina Array Bea	39.30	320	P	P	23 56 37.9	+1.5
	comp=N,0.5nm,0.7s,mb3.4,baz=125,slow=7.8,SNR=2.4						
NVAR				PcP	PcP	23 58 48.7	+4.0
	comp=N,1.0nm,0.6s,baz=136,slow=4.1,SNR=4.6						
NVAR	Mina Array Bea	39.30	320	P	P	23 56 37.9	+1.5
NVAR				PcP	PcP	23 58 48.7	+4.0
ULM	Lac du Bonnet	39.95	351	P	P	23 56 38.7	-2.9
	comp=N,5.9nm,0.9s,mb4.3,baz=186,slow=7.8,SNR=6.9						
SCHQ	Schefferville	46.58	16	P	P	23 57 32.3	-2.8
	comp=N,1.8nm,0.5s,mb4.2,baz=230,slow=10,SNR=7.2						
YKA	Yellowknife Ar	55.27	345	P	P	23 58 37.9	-2.4
	comp=N,0.7nm,0.8s,mb3.8,baz=141,slow=7.1,SNR=11						
YKA				PcP	PcP	23 59 41.2	+0.5
	comp=N,0.3nm,0.6s,baz=147,slow=4.0,SNR=5.0						
YKA	Yellowknife Ar	55.27	345	P	P	23 58 37.9	-2.4
YKA				PcP	PcP	23 59 41.2	+0.5
SONM	Songino Array	120.37	350	PKP	PKPdf	00 07 58.5	0.0
	comp=N,0.2nm,0.6s,baz=15,slow=6.0,SNR=2.4						
KSRS	Korea Array	121.93	328	PKP	PKPdf	00 08 02.9	+1.1
	comp=N,1.4nm,0.6s,baz=10.0,slow=1.4,SNR=3.8						
WRA	Warramunga Arr	139.44	252	PKP	PKPdf	00 08 40.1	+4.8
	comp=N,0.4nm,0.5s,baz=102,slow=1.8,SNR=2.9						
CMAR	Chiang Mai Arr	150.29	349	PKPbc	PKPbc	00 09 00.3	+1.2
	comp=N,1.5nm,0.5s,baz=319,slow=2.6,SNR=11						

*ISK **15** 00:09:58.8, 38°.39N×27°.06E, h2^{km}, MD2.7*

*ISCJB **15** 00:09:59.3±0.6, 38°.38N±0°.03×27°.05E±0°.04, h6^{km}±6^{km}, Error ellipse: s-maj=6.1km s-min=5.0km az=148.9*

*CSEM **15** 00:09:59.6±0.1, 38°.37N×27°.03E, h5^{km}, MD2.7, Error ellipse: s-maj=2.3km s-min=1.6km az=119.0*

*DDA **15** 00:09:59.0, 38°.38N×27°.05E, h7^{km}±3^{km}, Md2.8*

ISC 15 00:09:59.7±0.6**, 38°.38N**±0°.03×**27°.04E**±0°.04**, h5**^{km}±8^{km}**, n17, σ0^{s}.74**/29**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	Balcova	0.01	5	*e*PG	Pg	00 09 59.4	-1.1
BLCB	Balcova	0.01	5	*e*Pg	Pg	00 09 59.4	-1.2
IZM	Izmir	0.18	82	*e*PG	Pg	00 10 02.6	-0.5
IZM				*e*SG	Sg	00 10 05.8	+0.3
URLA	Izmir	0.35	268	*i* P	Pg	00 10 06.3	-0.2
URLA				*i* S	Sg	00 10 12.4	+1.4
URLA	Izmir	0.35	268	*i* P	Pg	00 10 06.3	-0.1
URLA				*i* S	Sg	00 10 12.4	+1.4
GCAM	G?zelcaml?	0.69	167	*i* P	Pg	00 10 12.7	-0.2
GCAM				*i* S	Sg	00 10 22.4	+0.5
GCAM	G?zelcaml?	0.69	167	*i* P	Pg	00 10 12.7	-0.2
GCAM				*i* S	Sg	00 10 22.4	+0.5
AKHS	Akhisar	0.79	50	*i* P	Pg	00 10 15.0	+0.2
AKHS				*i* S	Sg	00 10 25.7	+0.7
AKHS				*i* S	Sg	00 10 25.8	+0.8
AKHS	Akhisar	0.79	50	*i* P	Pg	00 10 15.0	+0.2
AKHS				*i* S	Sg	00 10 25.7	+0.7
AKS	Akhisar	0.79	50	*e*PG	Pg	00 10 14.8	0.0
AKS				*e*SG	Sg	00 10 25.9	+0.9
AKS	Akhisar	0.79	50	*e*Pg	Pg	00 10 14.8	0.0
AKS				*e*Sg	Sg	00 10 25.9	+0.9
AYVA	Ayvalik	0.97	344	*i* P	Pg	00 10 16.8	-1.5
AYVA				*i* S	Sg	00 10 31.2	+0.2
AYVA	Ayvalik	0.97	344	*i* P	Pg	00 10 16.8	-1.5
AYVA				*i* S	Sg	00 10 31.2	+0.3
MLSB	Milas	1.23	151	*e*PN	Pn	00 10 23.3	-0.1
MLSB	Milas	1.23	151	*e*Pn	Pn	00 10 23.3	-0.1
KULA	Kula-Manisa	1.28	83	*e*PN	Pn	00 10 23.4	-0.8
KULA	Kula-Manisa	1.28	83	*e*Pn	Pn	00 10 23.4	-0.8

*NEIC **15** 00:19:05.4, 15°.36N×61°.12W, h123^{km}, MD3.8(TRN), After TRN.*

TRN 15 00:19:05.7, 15°.39N×60°.97W, h112^{km}**, MD3.8, M3.2**(FDF)**, 9C-3D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DFBT	Forest Bistro	0.40	249	⇓*i*P	Pn	00 19 23.8	+1.7
DFBT				*e*S	Sn	00 19 36.9	+2.5
MGG	Marie-Galante	0.62	328	⇑*i*P	Pn	00 19 25.1	+1.5
FDF	Fort de France	0.67	195	⇓*e*P	Pn	00 19 24.8	+0.8
FDF				⇓*e*S	Sn	00 19 38.7	+1.0
FDF	Fort de France	0.67	195	*e*Pn	Pn	00 19 24.9	+0.9
FDF				*e*Sn	Sn	00 19 38.3	+0.6
TBG	Guadaloupe-3	0.80	306	*e*P	Pn	00 19 25.8	+0.8
MVM	Montagne Vaucl	0.83	175	⇑*i*P	Pn	00 19 26.4	+1.0
MVM				⇑*e*S	Sn	00 19 41.2	+1.0
BIM	Bigot	0.87	186	*e*P	Pn	00 19 26.6	+0.8
SFG	Saint Francois	0.89	346	*e*P	Pn	00 19 28.0	+2.1
DOG	Dongo Capester	0.90	316	⇑*i*P	Pn	00 19 27.1	+1.1
PHG	Guadaloupe-2	0.90	314	⇑*i*P	Pn	00 19 27.2	+1.2
HMG	Houelmont	0.92	310	⇑*i*P	Pn	00 19 27.3	+1.1
HMG				⇑*e*S	Sn	00 19 42.7	+1.1
BCG	Bois Riant Cap	0.94	318	*e*P	Pn	00 19 27.4	+1.0
SCG	Saint Claude	0.94	313	*e*P	Pn	00 19 27.6	+1.2
LZG	Guadaloupe-1	1.08	314	⇑*i*P	Pn	00 19 28.9	+1.1
SEG	Port Louis	1.14	333	⇑*i*P	Pn	00 19 30.0	+1.6
SLPE	Piton Saint Es	1.53	181	*e*P	Pn	00 19 33.5	+0.5
SLPE				*e*S	Sn	00 19 55.7	+2.0
SLPE	Piton Saint Es	1.53	181	*e*P	Pn	00 19 36.3	+3.3
SLPE				*e*S	Sn	00 19 55.7	+2.0
SLB	Belfond	1.55	182	*e*P	Pn	00 19 34.3	+1.1
SLB				*e*S	Sn	00 19 56.3	+2.2
SSV	Crater Summit	2.06	186	*e*P	Pn	00 19 41.7	+2.2
SSV				*e*S	Sn	00 20 05.3	0.0
SSV	Crater Summit	2.06	186	*e*P	Pn	00 19 38.5	-1.0
SSV				*e*S	Sn	00 20 05.3	0.0
SVV	Soufriere Volc	2.07	187	*e*P	Pn	00 19 40.9	+1.3
SVV				*e*S	Sn	00 20 07.5	+1.9
FCV	Fort Charlotte	2.23	187	*e*S	Sn	00 20 02.3	-7.0

*IDC **15** 00:24:44.4±7.7, 36°.21N×70°.06E, h159^{km}±67^{km}, mb3.2/6, mb1 3.2/9, mb1mx3.0/26, mbtmp3.0/9, Error ellipse: s-maj=48.3km s-min=26.6km az=173.0*

*ISCJB **15** 00:24:50.2±0.6, 36°.51N±0°.03×70°.38E±0°.08, h212^{km}±7^{km}, mb3.1/5, Error ellipse: s-maj=11.4km s-min=5.1km az=165.9*

*NEIC **15** 00:24:50.6±0.8, 36°.53N×70°.15E, h210^{km}±9^{km}, Error ellipse: s-maj=26.2km s-min=10.0km az=127.0*

*NNC **15** 00:24:55.5±16.0, 36°.92N×70°.22E, h176^{km}±199^{km}, mb2.7, mpv3.6, Error ellipse: s-maj=148.7km s-min=75.6km az=6.0*

ISC 15 00:24:51.2±0.6**, 36°.51N**±0°.04×**70°.38E**±0°.09**, h201**^{km}±6^{km}**, n34, σ1^{s}.04**/41**, mb3.1**/5**, 4C-4D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.25	209	*e*Pn	Pn	00 25 32.2	-0.1
CEP	Cherat	2.96	154	⇑P	Pn	00 25 41.6	+1.2
CEP				S	Sn	00 26 19.0	+0.2
KSH	Kashi	5.34	54	*e*Pn	Pn	00 26 06.3	-3.5
KSH				Sn	Sn	00 27 01.4	-11
KSH				smax			
	comp=N,55nm,0.3s						
KSH				smax			
	comp=E,57nm,0.4s						
THN	Thein Dam	6.00	131	*e*PKP	Pn	00 26 17.6	-0.8
THN				*e*S	Sn	00 27 25.6	-1.7
AML	Almayashu	6.17	24	*e*Pn	Pn	00 26 21.1	+0.6
	comp=E,16nm,0.5s						
AML				*e*S	Sn	00 27 30.6	-0.8
UCH	Uchtor	6.55	28	*e*Pn	Pn	00 26 25.9	+0.5
KK31	Karatay Array	6.59	1	⇓P	Pn	00 26 25.4	-0.5
	comp=E,1.7nm,0.3s,baz=176,slow=12						
KK31				⇓S	Sn	00 27 36.6	-4.5
	comp=E,4.0nm,0.5s,baz=190,slow=23						
EKS2	Erkin-Say	6.68	22	*e*Pn	Pn	00 26 27.8	+0.7
EKS2				*e*Sn	Sn	00 27 42.9	-0.4
AAK	Ala-Archa	6.89	26	*e*Pn	Pn	00 26 30.8	+0.9
	comp=E,2.8nm,0.6s						
TKM2	Tokmak 2	7.56	31	⇑P	Pn	00 26 39.4	+0.8
	comp=E,6.0nm,1.3s						
TKM2				⇓S	Sn	00 27 59.9	-4.1
	comp=E,4.9nm,1.1s						
TKM2	Tokmak 2	7.56	31	*e*Pn	Pn	00 26 39.2	+0.7
MK31	Makanchi Array	13.58	37	⇓P	Pn	00 27 56.8	+1.1
	comp=E,0.4nm,0.5s,baz=205,slow=11,SNR=16						
MKAR	Makanchi Array	13.58	37	P	Pn	00 27 55.4	-0.3
	comp=E,0.1nm,0.3s,baz=224,slow=14,SNR=8.8						
DANN	Dangsing	13.91	122	*e*P	Pn	00 27 59.7	-0.3
	comp=E,7.6nm,0.2s						
KOLN	Koldanda	14.18	124	*e*P	Pn	00 28 01.5	-1.7
	comp=E,2.9nm,0.2s						
GKN	Gorkha	14.73	121	*e*P	Pn	00 28 10.0	-0.1
	comp=E,26nm,0.5s						
AB09	Akbulak array	14.85	332	⇑P	Pn	00 28 12.4	+1.1
	comp=E,1.8nm,0.3s						
DMN	Daman	15.30	121	*e*P	Pn	00 28 16.4	-0.6
	comp=E,8.5nm,0.3s						
KKN	Kakani	15.31	120	*e*P	Pn	00 28 16.6	-0.5
	comp=E,7.4nm,0.2s						
KURK	Kurchatov	15.39	20	P	Pn	00 28 15.6	-2.2
	comp=E,0.1nm,0.3s,baz=209,slow=10,SNR=6.8						
PKI	Pulchoki	15.54	121	*e*P	Pn	00 28 20.1	+0.3
	comp=E,26nm,0.6s						
GUN	Gumba	15.66	119	*e*P	Pn	00 28 21.5	+0.2
	comp=E,8.7nm,0.3s						
JIRN	Jiri	16.03	119	*e*P	P	00 28 25.9	+0.6
	comp=E,37nm,0.6s						
BVA0	Borovoye Array	16.52	0	⇑P	P	00 28 32.2	+1.9
	comp=E,0.2nm,0.6s,baz=183,slow=13,SNR=4.5						
BVAR	Borovoye Array	16.52	0	P	P	00 28 29.9	-0.5
	comp=E,0.2nm,0.3s,baz=178,slow=12,SNR=4.5						
RAMN	Ramite	16.75	120	*e*P	P	00 28 33.7	+0.5
	comp=E,14nm,0.5s						
TAPN	Taplejung	17.29	117	*e*P	P	00 28 41.0	+1.8
	comp=E,7.2nm,0.3s						
ODAN	Odare	17.36	119	*e*P	P	00 28 41.5	+1.6
	comp=E,18nm,0.6s						
ZALV	Zalesovo Beam	20.12	25	P	P	00 29 09.1	-0.3
	comp=E,1.4nm,0.4s,baz=215,slow=10,SNR=9.7						
SONM	Songino Array	28.74	55	P	P	00 30 31.0	+1.3
	comp=E,0.2nm,0.5s,mb3.0,baz=273,slow=8.1,SNR=3.3						
ARCES	ARCESS Array B	40.95	338	P	P	00 32 12.1	-1.5
	comp=E,4.4nm,1.0s,mb3.8,baz=114,slow=10.0,SNR=5.3						
NOA	NORSAR Array B	44.07	323	P	P	00 32 37.6	-1.2
	comp=E,0.5nm,0.8s,mb2.9,baz=102,slow=8.0,SNR=2.7						
TORD	Torodi Ar. Bea	65.22	268	P	P	00 35 07.0	-4.3
	comp=E,0.2nm,0.4s,mb3.1,baz=71,slow=6.2,SNR=6.0						
YKA	Yellowknife Ar	81.26	2	P	P	00 36 43.1	-1.2
	comp=E,0.1nm,0.4s,mb2.8,baz=354,slow=5.2,SNR=4.8						

*NEIC **15** 00:32:10.2, 32°.50N×115°.34W, h5^{km}, ML3.1(ECX), ML3.1(PAS), After ECX.*

ECX 15 00:32:10.3±0.7**, 32°.50N×115°.34W, h6**^{km}**, MD3.5, ML3.5, 5C-7D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	Mount Signal	0.36	295	⇑*i*P	Pg	00 32 16.4	-0.9
SNR	Schaffner Ranc	0.37	347	*e*P	Pg	00 32 17.3	-0.3
COA	Coachella	0.41	26	⇓*i*P	Pg	00 32 17.9	-0.4
COK	Cook Ranch	0.48	317	⇓*i*P	Pg	00 32 18.9	-0.7
EMX	El Mayor	0.51	171	⇓*e*P	Pg	00 32 18.6	-1.6

EMX				*e*S	Sg	00 32 25.7	-1.2
YUH	**Yuha Desert**	**0.52**	**287**	⇑*i*P	Pg	00 32 18.9	-1.3
RMX	**La Rumorosa**	**0.63**	**280**	⇓*e*P	Pg	00 32 21.4	-1.1
RMX				*e*S	Sg	00 32 30.3	-0.4
YMD	**Yuma Desert**	**0.67**	**85**	*e*P	Pg	00 32 21.3	-2.0
GLA	**Glamis**	**0.70**	**38**	*e*Pg	Pg	00 32 22.0	-1.8
GLA				*e*Sg	Sg	00 32 31.5	-1.4
RDX	**Rancho Dawling**	**0.76**	**223**	⇑*e*P	Pg	00 32 23.5	-1.5
RDX				*e*S	Sg	00 32 33.5	-1.4
RDX				⇓*e*		00 32 36.5	
	comp=N,1µm,0.6s						
RDX	**Rancho Dawling**	**0.76**	**223**	⇑*e*P	Pg	00 32 23.5	-1.5
RDX				*e*S	Sg	00 32 33.5	-1.4
ECBX	**El Chinero**	**1.05**	**166**	⇓*e*P	Pg	00 32 28.3	-2.1
ECBX				*e*S	Sg	00 32 42.8	-1.3
CBX	**Cerro Bola**	**1.14**	**261**	⇑*e*P	Pg	00 32 30.1	-2.0
CBX				*e*S	Sg	00 32 45.3	-1.5
BAR	**Barrett**	**1.14**	**280**	*e*Pg	Pg	00 32 29.8	-2.4
BAR				*e*Sg	Sg	00 32 45.4	-1.6
ECNX	**Esteban Cantu**	**1.36**	**232**	*e*P	Pn	00 32 33.2	-2.5
ECNX				*e*S	Sb	00 32 50.1	-3.6
PBX	**Punta Banda**	**1.40**	**238**	⇓*e*P	Pn	00 32 34.9	-1.4
PBX				*e*S	Sb	00 32 53.6	-1.2
PFO	**Pinyon Flat Ob**	**1.45**	**320**	*e*Pn	Pn	00 32 33.2	-3.9
LDFC	**Landfair**	**2.58**	**4**	Pg	Pg	00 33 00.1	+0.3
MWC	**Mount Wilson**	**2.85**	**308**	*e*Pn	Pn	00 32 59.4	+3.0
MWC				*e*Sg	Sg	00 33 37.9	-4.1
GSC	**Goldstone**	**3.05**	**337**	*e*Pg	Pg	00 33 09.3	+0.5
TUC	**Tucson**	**3.86**	**92**	*e*Pn	Pn	00 33 11.2	+1.1
TUC				*e*Sg	Sg	00 34 10.3	-3.9

*DDA **15** 01:08:20.5, 40°.56N×33°.09E, h6^{km}±1^{km}, Md2.8*
*ISCJB **15** 01:08:21.3±0.7, 40°.60N±0°.04×33°.03E±0°.04, h1^{km}±8^{km}, Error ellipse: s-maj=6.2km s-min=4.7km az=161.2*
*CSEM **15** 01:08:21.6±0.1, 40°.62N×33°.04E, h5^{km}, MD3.1, Error ellipse: s-maj=3.4km s-min=2.7km az=154.0*
*ISK **15** 01:08:21.2, 40°.63N×33°.04E, h7^{km}, MD3.1*
ISC 15 01:08:21.8±0.7**, 40°.60N**±0°.04×**33°.04E**±0°.04**, h2**^{km}±7^{km}**, n28, σ0^{s}.83**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CANT	**Cankiri**	**0.44**	**88**	*e*PG	**Pg**	**01 08 30.2**	**-0.1**
CANT				*e*SG	**Sg**	**01 08 37.0**	**+0.9**
SAFT	**Safranbolu**	**0.70**	**338**	*e*PG	**Pg**	**01 08 34.4**	**-0.8**
SAFT				*e*SG	**Sg**	**01 08 44.3**	**+0.1**
SAFT	**Safranbolu**	**0.70**	**338**	*e*Pg	**Pg**	**01 08 34.4**	**-0.8**
SAFT				*e*Sg	**Sg**	**01 08 44.3**	**+0.1**
LOD	**Lodumlu**	**0.74**	**197**	*e*PG	**Pg**	**01 08 36.4**	**+0.5**
LOD	**Lodumlu**	**0.74**	**197**	*e*Pg	**Pg**	**01 08 36.4**	**+0.5**
SGKT	**Sivrigoynuk**	**0.75**	**269**	*i* P	**Pg**	**01 08 35.5**	**-0.6**
SGKT				*i* S	**Sg**	**01 08 47.2**	**+1.4**
SGKT	**Sivrigoynuk**	**0.75**	**269**	*i* P	**Pg**	**01 08 35.5**	**-0.6**
SGKT				*i* S	**Sg**	**01 08 47.2**	**+1.4**
TOS	**Tosya**	**0.87**	**59**	*e*PG	**Pg**	**01 08 37.7**	**-0.7**
TOS	**Tosya**	**0.87**	**59**	*e*Pg	**Pg**	**01 08 37.7**	**-0.8**
BALT	**Daday**	**0.97**	**16**	*i* P	**Pg**	**01 08 39.8**	**-0.7**
BALT				*i* S	**Sg**	**01 08 54.0**	**+0.9**
BALT	**Daday**	**0.97**	**16**	*i* P	**Pg**	**01 08 39.8**	**-0.7**
BALT				*i* S	**Sg**	**01 08 54.0**	**+0.9**
CORM	**Corum**	**1.29**	**108**	*e*PN	**Pn**	**01 08 45.6**	**-1.1**
CORM	**Corum**	**1.29**	**108**	*e*Pn	**Pn**	**01 08 45.6**	**-1.2**
MDU	**Mudurnu**	**1.40**	**265**	*e*PN	**Pn**	**01 08 47.8**	**-0.5**
MDU	**Mudurnu**	**1.40**	**265**	*e*Pn	**Pn**	**01 08 47.8**	**-0.5**
BYBT	**Boyabat**	**1.57**	**56**	*e*PN	**Pn**	**01 08 50.0**	**-0.8**
BYBT	**Boyabat**	**1.57**	**56**	*e*Pn	**Pn**	**01 08 50.0**	**-0.7**
SVRH	**Sivrihisar-ESK**	**1.63**	**226**	*e*PN	**Pn**	**01 08 51.5**	**0.0**
SVRH	**Sivrihisar-ESK**	**1.63**	**226**	*e*Pn	**Pn**	**01 08 51.5**	**0.0**
BOYT	**Boyabat**	**1.64**	**59**	*i* P	**Pn**	**01 08 51.1**	**-0.4**
BOYT				*i* S	**Sn**	**01 09 15.6**	**+2.4**
BOYT	**Boyabat**	**1.64**	**59**	*i* P	**Pn**	**01 08 51.1**	**-0.5**
BOYT				*i* S	**Sn**	**01 09 15.6**	**+2.4**
ESKT	**Eskisehir**	**1.99**	**238**	*e*PN	**Pn**	**01 08 56.6**	**+0.1**
ESKT	**Eskisehir**	**1.99**	**238**	*e*Pn	**Pn**	**01 08 56.6**	**+0.1**
YOZ	**Yozgat**	**1.99**	**118**	*e*PN	**Pn**	**01 08 56.2**	**-0.3**
YOZ	**Yozgat**	**1.99**	**118**	*e*Pn	**Pn**	**01 08 56.2**	**-0.3**
AVNT	**Avonos**	**2.29**	**142**	*i* P	**Pn**	**01 09 05.3**	**+4.6**
AVNT				*i* S	**Sn**	**01 09 35.8**	**+6.4**
SULT	**Sultanhani-AKS**	**2.42**	**171**	*e*PN	**Pn**	**01 09 02.9**	**+0.5**
SULT	**Sultanhani-AKS**	**2.42**	**171**	*e*Pn	**Pn**	**01 09 02.9**	**+0.5**

MEX 15 01:15:55.7±0.4**, 17°.01N×100°.08W, h39**^{km}±3^{km}**, MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.19**	**280**	*i* P	Pn	01 16 01.2	-1.6
CAIG				*i* S	Sn	01 16 06.0	-1.7
ACX	**Acapulco**	**0.21**	**134**	*e*P	Pn	01 16 01.8	-1.2
ACX				*i* S	Sn	01 16 06.2	-1.9
MEIG	**Mezcala**	**1.01**	**26**	*e*P	Pn	01 16 11.8	-1.5
MEIG				*i* S	Sn	01 16 24.2	-2.1
PNIG	**Pinotepa**	**1.97**	**108**	*i* P	Pn	01 16 25.1	-1.5
PNIG				*i* S	Sn	01 16 48.0	-2.0
UTMO	**Huajuapan**	**2.32**	**69**	*i* P	Pn	01 16 30.2	-1.2
UTMO				*i* S	Sn	01 16 56.5	-2.1

KISR 15 01:23:58.4±0.5**, 29°.88N×47°.79E, h5**^{km}±999^{km}**, ML1.2, Eastern Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIB	**Mutribah**	**0.40**	**259**	*e*P	Pg	01 24 08.7	+2.7
MIB				*e*S	Sg	01 24 16.1	+4.9
MIB				AML	AML	01 24 16.8	
	comp=Z,82nm,0.4s						
MIB	**Mutribah**	**0.40**	**259**	*e*P	Pg	01 24 08.7	+2.6
MIB				*e*S	Sg	01 24 16.0	+4.8
NAY	**Al-Naaiem**	**0.79**	**217**	*e*P	Pg	01 24 15.8	+2.3
NAY				*e*S	Sg	01 24 29.2	+5.5
NAY				AML	AML	01 24 30.8	
	comp=Z,2.7nm,0.5s						
NAY	**Al-Naaiem**	**0.79**	**217**	*e*P	Pg	01 24 18.4	+4.9
NAY				*e*S	Sg	01 24 29.2	+5.5

*IDC **15** 02:01:08.4±1.3, 6°.25N×92°.66E, h0^{km}, mb3.7/8, mb1 3.9/9, mb1mx3.7/24, mbtmp3.7/9, ML3.7/1, Error ellipse: s-maj=53.0km s-min=18.6km az=52.0*
*ISCJB **15** 02:01:10.7±0.9, 6°.2N±0°.1×92°.6E±0°.2, h33^{km}, mb3.9/12, Error ellipse: s-maj=30.0km s-min=11.1km az=141.3*
*NEIC **15** 02:01:12.8±3.8, 6°.08N×92°.55E, h36^{km}±32^{km}, mb3.9/1, Error ellipse: s-maj=47.0km s-min=14.5km az=63.0*
ISC 15 02:01:13.5±1.0**, 6°.3N**±0°.2×**92°.7E**±0°.2**, h35**^{km}**, n19, σ0^{s}.96**/19**, mb3.9**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**7.10**	**119**	Pn	**Pn**	**02 02 54.2**	**-0.7**
	1.4nm,0.3s,baz=308,slow=16,SNR=3.7						
PSI	**Prapat**	**7.10**	**119**	Pn	**Pn**	**02 02 54.2**	**-0.7**
CMAR	**Chiang Mai Arr**	**13.52**	**26**	Pn	**Pn**	**02 04 27.6**	**+4.6**
	0.6nm,0.3s,baz=229,slow=14,SNR=5.6						
ODAN	**Odare**	**21.07**	**347**	*e*P	**P**	**02 05 50.0**	**-4.7**
	5.3nm,0.5s,mb4.1						
RAMN	**Ramite**	**21.35**	**345**	*e*P	**P**	**02 05 59.2**	**+1.5**
	12nm,0.5s,mb4.5						
JIRN	**Jiri**	**22.13**	**344**	*e*P	**P**	**02 06 04.3**	**-1.8**
	6.2nm,0.6s,mb4.2						
PKI	**Pulchoki**	**22.27**	**343**	*e*P	**P**	**02 06 13.2**	**+5.7**
	6.6nm,0.5s,mb4.3						
DMN	**Daman**	**22.39**	**342**	*e*P	**P**	**02 06 15.7**	**+6.8**
GUN	**Gumba**	**22.45**	**344**	*e*P	**P**	**02 06 07.8**	**-1.7**
MKAR	**Makanchi Array**	**41.33**	**349**	P	**P**	**02 08 56.1**	**+0.3**
	0.7nm,0.5s,mb3.6,baz=168,slow=8.8,SNR=23						
SONM	**Songino Array**	**43.01**	**14**	P	**P**	**02 09 09.4**	**0.0**
	0.5nm,0.6s,mb3.4,baz=196,slow=8.6,SNR=5.7						
SONM				PcP	PcP	02 11 00.6	+1.3
	0.2nm,0.5s,baz=187,slow=4.3,SNR=2.4						
KURK	**Kurchatov**	**45.81**	**348**	P	**P**	**02 09 31.8**	**0.0**
	0.6nm,0.5s,mb3.8,baz=167,slow=7.2,SNR=3.9						
KURK	**Kurchatov**	**45.81**	**348**	*e*P	**P**	**02 09 31.4**	**-0.4**
	0.7nm,0.5s,mb3.9						
ZALV	**Zalesovo Beam**	**47.94**	**354**	P	**P**	**02 09 49.2**	**+0.8**
	1.4nm,0.5s,mb4.3,baz=166,slow=6.8,SNR=10						
ZALV	**Zalesovo Beam**	**47.94**	**354**	P	**P**	**02 09 49.2**	**+0.8**
WRA	**Warramunga Arr**	**48.54**	**124**	P	**P**	**02 09 53.7**	**+0.1**
	0.3nm,0.3s,mb3.8,baz=304,slow=9.0,SNR=5.0						
ASAR	**Alice Springs**	**50.03**	**128**	P	**P**	**02 10 05.4**	**+0.5**
	0.5nm,0.4s,mb3.9,baz=300,slow=7.8,SNR=6.7						
BRTR	**Keskin Array B**	**62.40**	**312**	P	**P**	**02 11 33.9**	**+0.9**
	0.8nm,0.9s,mb3.8,baz=126,slow=7.3,SNR=3.7						
GERES	**GERESS Array B**	**78.06**	**318**	P	**P**	**02 13 08.0**	**-0.7**
	0.2nm,0.4s,mb3.4,baz=76,slow=7.0,SNR=3.5						

*VIE **15** 02:13:58.9, 14°.84S×173°.83W, h0^{km}, mb4.0 252 km WSW of Apia*
IDC 15 02:13:56.9±2.2**, 15°.32S×173°.47W, h0**^{km}**, mb4.0**/6**, mb1 4.4**/6**, mb1mx4.1**/17**, mbtmp4.0**/6**, MS3.6**/4**, Ms1 3.6**/4**, ms1mx3.4**/23**, 3C, Error ellipse: s-maj=145.7km s-min=22.2km az=151.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**2.15**	**50**	Pn	Pn	02 14 27.2	-6.8
	80nm,0.3s,baz=190,slow=1.7,SNR=66						
AFI				Sn	Sn	02 14 46.9	-15
	141nm,0.3s,baz=55,slow=22,SNR=14						
RAR	**Rarotonga**	**14.26**	**116**	LR	LR	02 20 50.6	
	comp=Z,88nm,19.5s,baz=256,slow=29						
HNR	**Honiara**	**26.61**	**280**	LR	LR	02 27 19.1	
	comp=Z,174nm,21.0s,baz=88,slow=30						
RPZ	**Rata Peaks**	**31.23**	**202**	LR	LR	02 30 44.5	
	comp=Z,210nm,18.4s,baz=8.1,slow=32						
WRA	**Warramunga Arr**	**49.80**	**257**	P	P	02 22 51.4	-0.5
	0.6nm,0.5s,baz=90,slow=7.3,SNR=14						
ASAR	**Alice Springs**	**50.08**	**252**	P	P	02 22 53.7	-0.2
	4.8nm,0.7s,baz=88,slow=7.8,SNR=41						
GUMO	**Guam**	**50.24**	**303**	LR	LR	02 40 43.7	
	comp=Z,98nm,20.8s,baz=98,slow=32						
NVAR	**Mina Array Bea**	**74.31**	**42**	P	P	02 25 36.1	-0.1
	1.5nm,0.8s,baz=230,slow=8.6,SNR=5.3						
TXAR	**Lajitas Array**	**80.62**	**56**	P	P	02 26 13.1	+1.2
	0.8nm,1.0s,baz=219,slow=5.8,SNR=4.4						
PDAR	**Pinedale Array**	**82.25**	**42**	P	P	02 26 19.6	-0.5
	0.8nm,0.9s,baz=241,slow=1.5,SNR=4.7						
YKA	**Yellowknife Ar**	**90.05**	**23**	P	P	02 26 57.4	-0.7
	1.2nm,0.9s,baz=239,slow=4.5,SNR=15						
BAIF	**Baives**	**145.30**	**3**	*e*PKP1	PKPbc	02 33 36.0	-0.3
KHC	**Kasperske Hory**	**145.79**	**352**	*e*P	PKPdf	02 33 38.0	+0.5
GERES	**GERESS Array B**	**146.06**	**352**	PKPbc	PKPbc	02 33 38.7	-0.1
	1.4nm,0.8s,baz=46,slow=3.9,SNR=8.8						
BRTR	**Keskin Array B**	**146.06**	**321**	PKPbc	PKPbc	02 33 39.9	+0.8
	2.8nm,0.9s,baz=48,slow=1.8,SNR=8.2						
CONA	**Conrad Observa**	**146.58**	**349**	⇑*i*PKPab	PKPab	02 33 41.2	-0.2
	16nm,1.9s						
CSNA	**Conrad Observa**	**146.58**	**349**	⇑*i*PKPab	PKPab	02 33 41.2	-0.2
	14nm,1.8s						
CDF	**Champ du Feu**	**147.00**	**359**	*e*PKP1	PKPbc	02 33 42.3	+0.8
	15nm,0.9s						
HAU	**Haudompre**	**147.41**	**0**	*e*PKP1	PKPbc	02 33 42.8	+0.1
	19nm,1.1s						
RETA	**Reutte**	**147.74**	**355**	⇑*i*PKPab	PKPab	02 33 44.6	-1.3
	8.7nm,1.4s						
SSF	**Saint Saulge**	**148.25**	**4**	*e*PKP1	PKPbc	02 33 45.1	+0.1
AVF	**Avril sur Loir**	**148.51**	**4**	*e*PKP1	PKPbc	02 33 45.6	-0.1
SMF	**Signal de Mont**	**148.69**	**4**	*e*PKP1	PKPbc	02 33 46.3	+0.1
CABF	**La Chapelle**	**148.80**	**1**	*e*PKP1	PKPbc	02 33 47.3	+0.9
	32nm,1.2s						
LPL	**La Plagne**	**149.90**	**360**	*e*PKP1	PKPbc	02 33 50.5	+1.3
LPG	**La Plagne**	**149.92**	**360**	*e*PKP1	PKPbc	02 33 50.8	+1.5

IDC 15 02:24:43.0±56.0**, 22°.12S×175°.72W, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.8**/16**, mbtmp3.8**/3**, Error ellipse: s-maj=1050.0km s-min=175.2km az=86.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**39.04**	**246**	P	P	02 32 11.9	+0.2
	0.5nm,0.4s,baz=98,slow=7.1,SNR=3.6						
ASAR	**Alice Springs**	**46.24**	**258**	P	P	02 33 10.2	-0.2
	0.6nm,0.4s,baz=97,slow=7.2,SNR=9.3						
WRA	**Warramunga Arr**	**46.50**	**263**	P	P	02 33 12.3	-0.1
	0.8nm,0.4s,baz=102,slow=8.3,SNR=27						

*FUNV **15** 02:47:28.3, 10°.48N×62°.30W, h5^{km}, MW2.9*
*NEIC **15** 02:47:31.4, 10°.38N×61°.93W, h6^{km}, MD3.2(TRN), After TRN.*
*TRN **15** 02:47:31.4, 10°.38N×61°.93W, h3^{km}, MD3.2*
ISC 15 02:47:26.4±0.6**, 10°.43N**±0°.05×**62°.23W**±0°.03**, h3**^{km}±7^{km}**, n16, σ1^{s}.09**/25**, 2C, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	**Guiria**	**0.22**	**3**	⇑*e*P	**Pg**	**02 47 31.8**	**+1.2**
GUIV				*e*S	**Sg**	**02 47 34.9**	**+1.4**
TCE	**Chacachacare**	**0.54**	**60**	*e*P	**Pg**	**02 47 37.7**	**+0.8**
TCE				*e*S	**Sg**	**02 47 43.7**	**-0.2**
GUNV	**Guanoco**	**0.74**	**249**	⇑*e*P	**Pg**	**02 47 40.4**	**-0.2**
GUNV				*e*S	**Sg**	**02 47 51.9**	**+1.5**
TPP	**Pointe-a-Pierr**	**0.78**	**98**	*e*P	**Pg**	**02 47 40.5**	**-0.8**
TPP				*e*S	**Sg**	**02 47 47.3**	**-4.1**
TRN	**Trinidad (W)**	**0.85**	**75**	*e*P	**Pg**	**02 47 42.6**	**0.0**
TRN				*e*S	**Sg**	**02 47 51.2**	**-2.4**
CRUV	**Carupano**	**1.02**	**284**	*e*P	**Pg**	**02 47 44.9**	**-1.0**
CRUV				*e*S	**Sg**	**02 47 57.6**	**-1.4**
TBH	**Brigand Hill**	**1.15**	**87**	*e*P	**Pg**	**02 47 48.5**	**+0.1**
TBH	**Brigand Hill**	**1.15**	**87**	*e*P	**Pg**	**02 47 49.9**	**+1.4**
ITEV	**Isla Los Testi**	**1.28**	**316**	*e*P	**Pn**	**02 47 50.5**	**-0.7**
ITEV				*e*S	**Sg**	**02 48 06.6**	**-0.8**
TPR	**Prospect**	**1.62**	**62**	*e*P	**Pn**	**02 47 58.5**	**+2.6**
ORIV	**Oritupano**	**1.78**	**221**	*e*P	**Pn**	**02 47 59.2**	**+1.1**
ORIV				*e*S	**Sn**	**02 48 22.1**	**+0.9**
PCRV	**Puerto La Cruz**	**2.38**	**264**	*e*P	**Pn**	**02 48 06.5**	**+0.2**
PRGV	**PARIAGUAN**	**2.90**	**235**	*e*S	**Sn**	**02 48 48.4**	**-0.5**
CUPV	**Cœpira**	**3.52**	**264**	*e*P	**Pn**	**02 48 22.5**	**+0.5**
CAOV	**Caicara del Or**	**5.08**	**233**	*e*P	**Pn**	**02 48 43.1**	**-0.4**
CAOV				*e*S	**Sn**	**02 49 38.8**	**-3.9**
BAUV	**El Baul**	**5.91**	**256**	*e*P	**Pn**	**02 48 54.1**	**-0.9**

*ISCJB **15** 02:47:48.5±0.7, 37°.99N±0°.03×29°.30E±0°.05, h8^{km}±6^{km}, Error ellipse: s-maj=7.1km s-min=4.5km az=4.7*
*CSEM **15** 02:47:48.2±0.1, 38°.01N×29°.34E, h8^{km}, MD2.9, Error ellipse: s-maj=2.3km s-min=1.9km az=109.0*
*ISK **15** 02:47:48.1, 38°.00N×29°.31E, h7^{km}, MD2.9*
*DDA **15** 02:47:48.4, 38°.01N×29°.30E, h12^{km}±1^{km}, Md3.1*
ISC 15 02:47:48.8±0.6**, 38°.00N**±0°.03×**29°.31E**±0°.06**, h12**^{km}±7^{km}**, n20, σ0^{s}.62**/32**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DENT	**Denizli**	**0.33**	**222**	*e*PG	**Pg**	**02 47 55.2**	**-0.1**
DENT				*e*SG	**Sg**	**02 47 59.8**	**0.0**
DENT	**Denizli**	**0.33**	**222**	*e*Pg	**Pg**	**02 47 55.2**	**-0.1**
DENT				*e*Sg	**Sg**	**02 47 59.8**	**+0.1**
KHAL	**Karahalli**	**0.40**	**21**	*i* P	**Pg**	**02 47 56.0**	**-0.6**
KHAL				*i* S	**Sg**	**02 48 02.7**	**+0.6**
KHAL	**Karahalli**	**0.40**	**21**	*i* P	**Pg**	**02 47 56.0**	**-0.7**
KHAL				*i* S	**Sg**	**02 48 02.7**	**+0.6**
KULA	**Kula-Manisa**	**0.73**	**316**	*e*PG	**Pg**	**02 48 02.6**	**-0.2**
KULA				*e*SG	**Sg**	**02 48 13.1**	**+0.7**
KULA	**Kula-Manisa**	**0.73**	**316**	*e*Pg	**Pg**	**02 48 02.6**	**-0.2**
KULA				*e*Sg	**Sg**	**02 48 13.1**	**+0.7**
MANT	**Manisa**	**0.77**	**310**	*i* P	**Pg**	**02 48 03.6**	**-0.1**
MANT				*i* S	**Sg**	**02 48 13.4**	**-0.3**
MANT	**Manisa**	**0.77**	**310**	*i* P	**Pg**	**02 48 03.6**	**-0.1**
MANT				*i* S	**Sg**	**02 48 13.4**	**-0.3**
GOLH	**Golhisar**	**0.78**	**165**	*i* P	**Pg**	**02 48 02.5**	**-1.4**
GOLH				*i* S	**Sg**	**02 48 15.4**	**+1.3**
GOLH	**Golhisar**	**0.78**	**165**	*i* P	**Pg**	**02 48 02.5**	**-1.4**
GOLH				*i* S	**Sg**	**02 48 15.4**	**+1.2**
GDZ	**Gediz**	**1.10**	**7**	*i* P	**Pb**	**02 48 09.2**	**-0.5**
GDZ				*i* S	**Sb**	**02 48 24.7**	**+0.7**
GDZ	**Gediz**	**1.10**	**7**	*i* P	**Pb**	**02 48 09.2**	**-0.5**
GDZ				*i* S	**Sb**	**02 48 24.7**	**+0.7**
SHUT	**Suhut-Afyon**	**1.12**	**60**	*e*PN	**Pn**	**02 48 09.9**	**-0.5**
SHUT	**Suhut-Afyon**	**1.12**	**60**	*e*Pn	**Pn**	**02 48 09.9**	**-0.4**
YER	**Yerkesik**	**1.19**	**224**	*e*PN	**Pn**	**02 48 11.1**	**0.0**
YER	**Yerkesik**	**1.19**	**224**	*e*Pn	**Pn**	**02 48 11.1**	**-0.1**
ALT	**Altintas**	**1.23**	**31**	*e*PN	**Pn**	**02 48 11.7**	**-0.1**
ALT	**Altintas**	**1.23**	**31**	*e*Pn	**Pn**	**02 48 11.7**	**-0.1**
ELL	**Elmali**	**1.33**	**159**	*e*PN	**Pn**	**02 48 13.7**	**+0.5**
ELL	**Elmali**	**1.33**	**159**	*e*Pn	**Pn**	**02 48 13.7**	**+0.5**

IDC 15 02:53:15.3±12.0**, 9°.31S×127°.72E, h77**^{km}±137^{km}**, mb2.7**/1**, mb1 3.3**/3**, mb1mx3.1**/16**, mbtmp3.1**/3**, ML3.7**/2**, Error ellipse: s-maj=134.1km s-min=68.5km az=69.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**12.36**	**150**	P	Pn	02 56 07.7	-0.7
	0.5nm,0.3s,baz=329,slow=13,SNR=10						
WRA				S	Sn	02 58 22.9	-1.3
	0.6nm,0.3s,baz=330,slow=22,SNR=6.4						
ASAR	**Alice Springs**	**15.45**	**158**	P	Pn	02 56 50.5	+1.6
	0.2nm,0.3s,baz=334,slow=9.7,SNR=9.1						
ASAR				S	S	02 59 42.0	-8.7
	0.2nm,0.3s,baz=326,slow=23,SNR=5.0						
MKAR	**Makanchi Array**	**68.95**	**328**	P	P	03 04 12.3	+0.1
	0.1nm,0.4s,baz=145,slow=5.3,SNR=2.9						

*NEIC **15** 03:11:35.8±0.3, 7°.47S×128°.85E, h10^{km}, mb4.5/10, Error ellipse: s-maj=11.2km s-min=5.4km az=62.0*
*IDC **15** 03:11:39.6±5.8, 7°.47S×128°.84E, h35^{km}±48^{km}, mb4.0/12, mb1 4.2/14, mb1mx4.2/22, mbtmp4.1/14, ML5.0/3, MS3.7/5, Ms1 3.7/5, ms1mx3.2/29, Error ellipse: s-maj=32.2km s-min=17.5km az=62.0*
*ISCJB **15** 03:11:41.9±0.9, 7°.68S±0°.04×128°.91E±0°.09, h80^{km}±10^{km}, mb4.1/18, Error ellipse: s-maj=14.6km s-min=6.3km az=163.2*
*DJA **15** 03:11:45, 7°.79S×128°.87E, h59^{km}, mb5.0/8*
ISC 15 03:11:43.0±0.8**, 7°.67S**±0°.04×**128°.90E**±0°.08**, h72**^{km}±9^{km}**, n51, σ1^{s}.21**/57**, mb4.1**/18**, 2C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	**Ambon**	**4.01**	**350**	P	**Pn**	**03 12 44.1**	**+2.0**
AAI				S	**Sn**	**03 13 26.9**	**-1.0**
KAKA	**Kakadu**	**6.11**	**145**	⇑*i*P	**Pn**	**03 13 12.0**	**+1.3**
	493nm,0.4s						
KAKA				*e*S	**Sn**	**03 14 18.3**	**-0.9**
KAKA	**Kakadu**	**6.11**	**145**	*e*Pn	**Pn**	**03 13 11.7**	**+1.0**
	868nm,0.6s						
KAKA				*e*Sn	**Sn**	**03 14 16.8**	**-2.4**
KAKA	**Kakadu**	**6.11**	**145**	P	**Pn**	**03 13 12.1**	**+1.4**
	735nm,0.6s,2.9nm						
LBMI	**Labuha**	**7.12**	**349**	P	**Pn**	**03 13 29.9**	**+5.3**
	253nm,1.3s,3µm0.9nm						
SWI	**Sorong**	**7.16**	**19**	P	**Pn**	**03 13 27.7**	**+2.6**
	65nm,0.8s,0.5nm						
FITZ	**Fitzroy Crossi**	**10.85**	**197**	⇑*i*P	**Pn**	**03 14 14.8**	**-0.7**
	36nm,0.4s						
FITZ				*e*S	**Sn**	**03 16 05.1**	**-10**
FITZ	**Fitzroy Crossi**	**10.85**	**197**	Pn	**Pn**	**03 14 14.7**	**-0.8**
	6.5nm,0.3s,baz=31,slow=9.7,SNR=94						
FITZ				Sn	**Sn**	**03 16 04.3**	**-11**
	3.3nm,0.3s,baz=353,slow=4.1,SNR=4.7						
FITZ	**Fitzroy Crossi**	**10.85**	**197**	P	**Pn**	**03 14 15.1**	**-0.4**
	86nm,2.2s						
WRAB	**Tennant Creek**	**13.29**	**157**	*e*Pn	**Pn**	**03 14 46.9**	**-1.8**
	127nm,0.8s						
WRAB				*e*Sn	**Sn**	**03 17 04.8**	**-10**
WRAB	**Tennant Creek**	**13.29**	**157**	P	**Pn**	**03 14 47.2**	**-1.5**
	170nm,0.9s						
WRA	**Warramunga Arr**	**13.29**	**157**	Pn	**Pn**	**03 14 46.9**	**-1.8**
	16nm,0.3s,baz=346,slow=13,SNR=213						
WRA				Sn	**Sn**	**03 17 06.1**	**-8.8**
	7.2nm,0.3s,baz=328,slow=24,SNR=16						
BBKI	**Banjar Baru**	**14.60**	**286**	P	**Pn**	**03 15 18.0**	**+12**
COEN	**Coen**	**15.35**	**115**	*e*Pn	**Pn**	**03 15 15.4**	**-0.1**
	163nm,0.6s						
COEN				*e*Sn	**Sn**	**03 17 52.1**	**-13**
COEN	**Coen**	**15.35**	**115**	P	**Pn**	**03 15 16.6**	**+1.1**
	166nm,1.3s						
MBWA	**Marble Bar**	**16.07**	**212**	*e*Pn	**Pn**	**03 15 23.7**	**-1.0**
	39nm,0.9s						
MBWA	**Marble Bar**	**16.07**	**212**	P	**Pn**	**03 15 24.3**	**-0.4**
	68nm,1.8s						
ASAR	**Alice Springs**	**16.62**	**164**	Pn	**Pn**	**03 15 31.1**	**-0.3**
	2.5nm,0.3s,baz=331,slow=9.5,SNR=75						
ASAR				Sn	**Sn**	**03 18 25.7**	**-10**
	2.1nm,0.3s,baz=320,slow=17,SNR=9.8						
SBUM	**Sibu**	**19.44**	**300**	P	**Pn**	**03 16 06.9**	**+1.2**
CTA	**Charters Tower**	**20.86**	**128**	*e*P	**P**	**03 16 23.0**	**+3.8**
	6.0nm,0.6s						
CTA				*e*S	S	03 20 31.1	+23
CTA	**Charters Tower**	**20.86**	**128**	P	**P**	**03 16 21.6**	**+2.4**
	11nm,0.9s,baz=311,slow=11,SNR=4.4						
CTA				LR	LR	03 23 58.0	
	comp=Z,68nm,20.7s,baz=41,slow=35						
CTA	**Charters Tower**	**20.86**	**128**	P	**P**	**03 16 21.6**	**+2.4**
CTA				LR	LR	03 23 58.0	
CTAO	**Charters Tower**	**20.86**	**128**	*e*P	**P**	**03 16 19.1**	**-0.1**
	27nm,1.2s						
FORT	**Forrest**	**23.01**	**182**	*e*P	**P**	**03 16 44.5**	**+2.6**
	18nm,0.8s,mb4.5						
FORT				*e*S	**S**	**03 20 52.1**	**+5.2**
FORT	**Forrest**	**23.01**	**182**	*e*P	**P**	**03 16 43.0**	**+1.0**
	19nm,0.7s,mb4.5						
KLBR	**Kellerberrin**	**25.98**	**202**	*e*P	**P**	**03 17 10.9**	**+1.9**
	13nm,0.6s,mb4.5						
KLBR				*e*S	S	03 22 03.3	+29
STKA	**Stephens Creek**	**26.84**	**156**	*e*P	**P**	**03 17 18.1**	**+1.4**
	3.7nm,0.9s,mb3.9						
STKA				*e*	pP	03 17 39.0	+5.2
STKA				*e*S	S	03 22 26.1	+38
STKA	**Stephens Creek**	**26.84**	**156**	P	**P**	**03 17 18.5**	**+1.8**
	2.4nm,0.7s,mb3.9,baz=326,slow=16,SNR=5.8						
STKA				LR	LR	03 29 27.6	
	comp=Z,158nm,18.1s,baz=203,slow=40						
NWAO	**Narrogin (SRO)**	**27.37**	**202**	P	**P**	**03 17 23.4**	**+1.9**
	12nm,0.8s,mb4.5,baz=29,slow=8.7,SNR=6.9						
NWAO	**Narrogin (SRO)**	**27.37**	**202**	P	**P**	**03 17 23.4**	**+1.9**
PSI	**Prapat**	**31.66**	**288**	P	**P**	**03 17 59.2**	**-0.6**
	6.5nm,0.7s,mb4.5,baz=123,slow=9.3,SNR=9.0						
CMAR	**Chiang Mai Arr**	**39.34**	**312**	P	**P**	**03 19 04.8**	**-0.7**
	1.3nm,0.5s,mb4.0,baz=145,slow=6.7,SNR=5.3						
CHTO	**Chiang Mai**	**39.56**	**312**	*e*P	**P**	**03 19 07.0**	**-0.3**
	2.2nm,0.6s,mb4.2						
JHJ	**Hachijo jima 2**	**41.86**	**14**	LR	LR	03 35 29.9	
	comp=Z,211nm,19.7s,baz=75,slow=34						
KSRS	**Korea Array**	**44.89**	**359**	P	**P**	**03 19 49.8**	**-0.6**
	1.0nm,0.7s,mb3.7,baz=176,slow=10,SNR=3.3						
KSRS				LR	LR	03 37 14.4	
	comp=Z,30nm,21.0s,baz=235,slow=34						
SONM	**Songino Array**	**58.73**	**342**	P	**P**	**03 21 33.0**	**-0.3**
	0.5nm,0.6s,mb3.7,baz=170,slow=7.3,SNR=5.3						
MKAR	**Makanchi Array**	**68.19**	**327**	P	**P**	**03 22 35.2**	**-0.4**
	2.1nm,0.5s,mb4.2,baz=117,slow=7.8,SNR=61						
TKM2	**Tokmak 2**	**69.81**	**321**	*e*P	**P**	**03 22 44.5**	**-1.3**
	1.2nm,0.4s,mb4.1						
AAK	**Ala-Archa**	**70.35**	**320**	*e*P	**P**	**03 22 49.1**	**0.0**
	3.2nm,1.0s,mb4.1						
AML	**Almayashu**	**70.60**	**320**	*e*P	**P**	**03 22 52.5**	**+1.8**
	3.3nm,0.9s,mb4.2						
EKS2	**Erkin-Say**	**70.81**	**320**	*e*P	**P**	**03 22 51.3**	**-0.7**
	4.6nm,1.0s,mb4.3						
ZAA0	**Zalesovo Array**	**71.70**	**334**	*e*P	**P**	**03 22 56.4**	**-0.6**
ZALV	**Zalesovo Beam**	**71.70**	**334**	P	**P**	**03 22 55.4**	**-1.6**
	1.7nm,0.6s,mb4.1,baz=123,slow=5.5,SNR=7.3						
VNDA	**Vanda**	**71.92**	**173**	LR	LR	03 54 36.0	
	comp=Z,108nm,18.1s,baz=34,slow=36						
KURK	**Kurchatov**	**72.52**	**329**	P	**P**	**03 23 01.3**	**-0.7**
	3.8nm,0.7s,mb4.3,baz=129,slow=5.0,SNR=14						
KURK	**Kurchatov**	**72.52**	**329**	*e*P	**P**	**03 23 01.6**	**-0.4**
	5.4nm,0.8s,mb4.4						
BVAR	**Borovoye Array**	**78.05**	**328**	P	**P**	**03 23 33.4**	**-0.3**
	1.0nm,0.8s,mb3.6,baz=131,slow=10,SNR=5.5						
AKTK	**Aktyubinsk**	**83.93**	**323**	P	**P**	**03 24 05.5**	**+0.4**
AKTO	**Aktyubinsk**	**83.93**	**323**	P	**P**	**03 24 05.5**	**+0.4**
	1.0nm,0.7s,mb3.8,baz=121,slow=5.4,SNR=4.2						
TORD	**Torodi Ar. Bea**	**127.86**	**281**	PKP	PKPdf	03 30 41.5	+0.1
	0.5nm,0.8s,baz=52,slow=2.4,SNR=3.1						
CPUP	**Villa Florida**	**145.67**	**170**	PKPbc	PKPbc	03 31 15.4	+1.1
	1.3nm,0.7s,baz=192,slow=2.6,SNR=5.4						

*ISCJB **15** 03:23:19.8±1.0, 35°.88N±0°.09×21°.35E±0°.05, h10^{km}, Error ellipse: s-maj=12.9km s-min=5.2km az=172.6*
*CSEM **15** 03:23:19.9±0.4, 35°.96N×21°.41E, h2^{km}, MD3.7, Error ellipse: s-maj=10.7km s-min=6.2km az=174.0*
*NEIC **15** 03:23:21.0, 35°.84N×21°.38E, h32^{km}, MD3.7(ATH), After ATH.*
*ATH **15** 03:23:21.0, 35°.84N×21°.38E, h32^{km}, MD3.7/4*
ISC 15 03:23:21.4±1.0**, 35°.96N**±0°.09×**21°.42E**±0°.05**, h10**^{km}**, n28, σ1^{s}.25**/35**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	1.28	18	ePN	Pn	03 23 44.5	-0.9
ITM	Ithomi	1.28	18	ePn	Pn	03 23 44.5	-0.9
KYTH	Kithira	1.35	76	ePN	Pn	03 23 46.6	+0.3
KYTH	Kithira	1.35	76	ePn	Pn	03 23 46.6	+0.3
VLX	Vlachokerasia	1.60	29	ePN	Pn	03 23 49.2	-0.6
VLX	Vlachokerasia	1.60	29	ePn	Pn	03 23 49.2	-0.6
RLS	Riolos of Patr	2.09	1	ePB	Pb	03 23 58.9	-0.6
RLS	Riolos of Patr	2.09	1	ePb	Pb	03 23 58.9	-0.6
GUR	Goura	2.11	20	ePB	Pb	03 23 58.7	-1.0
GUR	Goura	2.11	20	ePb	Pb	03 23 58.7	-1.0
DID	Didima	2.12	43	ePB	Pb	03 23 58.9	-1.1
DID	Didima	2.12	43	ePb	Pb	03 23 58.9	-1.1
LTK	Loutraki	2.40	31	ePN	Pn	03 24 02.6	+1.8
EFP	Efpalio	2.49	9	ePB	Pb	03 24 06.3	0.0
EFP	Efpalio	2.49	9	ePb	Pb	03 24 06.3	0.0
IDI	Anoyia	2.91	102	ePN	Pn	03 24 07.3	-0.4
IDI	Anoyia	2.91	102	ePn	Pn	03 24 07.3	-0.4
LKR	Lokris	2.97	25	ePN	Pn	03 24 09.8	+1.3
AGG	Agios Georgios	3.14	13	ePN	Pn	03 24 12.7	+1.8
THL	Klokotos Trika	3.63	7	ePN	Pn	03 24 17.2	-0.4
THL	Klokotos Trika	3.63	7	ePn	Pn	03 24 17.2	-0.4
AGST	Augusta-Monte	5.14	286	Pn	Pn	03 24 38.7	+0.2
AGST				Sn	Sn	03 25 36.6	-1.3
AGST	Augusta-Monte	5.14	286	Pn	Pn	03 24 38.7	+0.2
AGST				Sn	Sn	03 25 36.6	-1.3
HAVL	Avola	5.17	283	Pn	Pn	03 24 42.4	+3.6
HAVL				Sn	Sn	03 25 40.9	+2.4
HAVL	Avola	5.17	283	Pn	Pn	03 24 42.4	+3.6
HAVL				Sn	Sn	03 25 40.9	+2.4
SSY	Sortino	5.25	285	Pn	Pn	03 24 38.0	-1.8
SSY				Sn	Sn	03 25 39.8	-0.6
SSY	Sortino	5.25	285	Pn	Pn	03 24 38.0	-1.8
SSY				Sn	Sn	03 25 39.8	-0.6
MGR	Morigerati	6.23	314	Pn	Pn	03 24 56.4	+3.1
MGR				Sn	Sn	03 26 00.2	-4.4

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*ISCJB **15** 03:29:02.1±0.5, 38°.52N±0°.03×31°.31E±0°.03, h10^{km}, Error ellipse: s-maj=4.3km s-min=3.2km az=169.3*
*CSEM **15** 03:29:02.5±0.1, 38°.50N×31°.32E, h2^{km}, MD2.9, Error ellipse: s-maj=2.1km s-min=1.7km az=167.0*
*ISK **15** 03:29:02.0, 38°.52N×31°.31E, h6^{km}, MD2.9*
*DDA **15** 03:29:02.2, 38°.51N×31°.33E, h7^{km}±1^{km}, Md3.0*
ISC 15 03:29:03.0±0.5, **38°.52N**±0°.03×**31°.32E**±0°.03, **h10**^{km}**, n20,** σ**0^{s}.51**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIZT	Kizilcal	0.57	51	ePG	Pg	03 29 14.0	0.0
KIZT				eSG	Sg	03 29 21.5	0.0
KIZT	Kizilcal	0.57	51	ePg	Pg	03 29 14.0	0.0
KIZT				eSg	Sg	03 29 21.5	0.0
SHUT	Suhut-Afyon	0.60	273	ePG	Pg	03 29 14.0	-0.6
SHUT				eSG	Sg	03 29 22.7	+0.2
SHUT	Suhut-Afyon	0.60	273	ePg	Pg	03 29 14.0	-0.6
SHUT				eSg	Sg	03 29 22.7	+0.2
KDHN	Kadinhani	0.63	90	iP	Pg	03 29 14.6	-0.5
KDHN				iS	Sg	03 29 23.3	-0.1
KDHN	Kadinhani	0.63	90	iP	Pg	03 29 14.6	-0.5
KDHN				iS	Sg	03 29 23.3	0.0
ISP	Isparta	0.93	224	ePG	Pg	03 29 20.1	-0.7
ISP				eSG	Sg	03 29 33.2	+0.3
ISP	Isparta	0.93	224	ePg	Pg	03 29 20.1	-0.7
ISP				eSg	Sg	03 29 33.3	+0.4
SVRH	Sivrihisar-ESK	0.94	10	ePG	Pg	03 29 20.8	-0.2
SVRH				eSG	Sg	03 29 33.7	+0.4
SVRH	Sivrihisar-ESK	0.94	10	ePg	Pg	03 29 20.8	-0.3
SVRH				eSg	Sg	03 29 33.7	+0.4
KONT	Konya--Tatoy	1.00	125	ePG	Pg	03 29 21.9	-0.3
KONT				eSG	Sg	03 29 36.4	+1.1
KONT	Konya--Tatoy	1.00	125	ePg	Pg	03 29 21.9	-0.3
KONT				eSg	Sg	03 29 36.4	+1.1
ESKT	Eskisehir	1.06	340	ePG	Pg	03 29 22.7	-0.7
ESKT				eSG	Sg	03 29 37.9	+0.6
ESKT	Eskisehir	1.06	340	iP	Pg	03 29 22.8	-0.6
ESKT				iS	Sg	03 29 38.2	+1.0
ESKT	Eskisehir	1.06	340	ePg	Pg	03 29 22.7	-0.7
ESKT				eSg	Sg	03 29 37.9	+0.7
SEYT	Eskypehyr	1.06	340	iP	Pg	03 29 22.8	-0.6
SEYT				iS	Sg	03 29 38.2	+1.0
ALT	Altintas	1.08	300	ePG	Pg	03 29 23.6	-0.2
ALT	Altintas	1.08	300	ePg	Pg	03 29 23.6	-0.2
KHAL	Karahalli	1.44	265	iP	Pg	03 29 30.4	-0.2
KHAL				iS	Sg	03 29 50.0	+0.7
KHAL	Karahalli	1.44	265	iP	Pg	03 29 30.5	-0.1
KHAL				iS	Sg	03 29 50.0	+0.7

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*CSEM **15** 03:53:43.8±0.4, 38°.27N×26°.48E, h2^{km}, MD2.9, Error ellipse: s-maj=8.0km s-min=4.5km az=73.0*
*ISCJB **15** 03:53:44.7±0.9, 38°.27N±0°.04×26°.53E±0°.07, h10^{km}, Error ellipse: s-maj=8.1km s-min=5.3km az=162.8*
*DDA **15** 03:53:44.7, 38°.31N×26°.59E, h7^{km}±2^{km}, Md3.1*
*ISK **15** 03:53:44.5, 38°.25N×26°.56E, h9^{km}, MD2.9*
ISC 15 03:53:43.7±1.4, **38°.26N**±0°.04×**26°.45E**±0°.09, **h1**^{km}±8^{km}, **n20,** σ**0^{s}.65**/30**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	Balcova	0.48	75	ePG	Pg	03 53 52.9	0.0
BLCB				eSG	Sg	03 53 58.8	-0.4
BLCB	Balcova	0.48	75	ePg	Pg	03 53 52.9	0.0
BLCB				eSg	Sg	03 53 58.8	-0.3
IZM	Izmir	0.65	78	ePG	Pg	03 53 56.0	-0.2
IZM				eSG	Sg	03 54 04.7	0.0
IZM	Izmir	0.65	78	ePg	Pg	03 53 56.0	-0.2
IZM				eSg	Sg	03 54 04.7	+0.1
GCAM	G?zelcaml?	0.84	132	iP	Pg	03 54 00.0	+0.4
GCAM				iS	Sg	03 54 11.3	+0.8
GCAM	G?zelcaml?	0.84	132	iP	Pg	03 54 00.0	+0.3
GCAM				iS	Sg	03 54 11.3	+0.8
AYVA	Ayvalik	1.06	10	iP	Pg	03 54 03.8	-0.2
AYVA				iS	Sg	03 54 17.9	+0.1
AYVA	Ayvalik	1.06	10	iP	Pg	03 54 03.8	-0.2
AYVA				iS	Sg	03 54 17.9	+0.1
AKS	Akhisar	1.23	60	ePN	Pn	03 54 06.9	-1.1
AKS	Akhisar	1.23	60	ePn	Pn	03 54 06.9	-1.1
BODT	Bodrum	1.38	150	ePN	Pn	03 54 09.9	0.0
BODT	Bodrum	1.38	150	ePn	Pn	03 54 10.0	0.0
MLSB	Milas	1.43	132	ePN	Pn	03 54 10.1	-0.6
MLSB	Milas	1.43	132	ePn	Pn	03 54 10.1	-0.6
EZN	Ezine	1.56	356	ePN	Pn	03 54 13.5	+1.0
EZN	Ezine	1.56	356	ePn	Pn	03 54 13.5	+0.9
BALY	Balya	1.73	31	iP	Pn	03 54 13.7	-1.2
BALY				iS	Sn	03 54 38.9	+1.3
BALY	Balya	1.73	31	iP	Pn	03 54 13.7	-1.2
BALY				iS	Sn	03 54 38.9	+1.3
DST	Dursunbey	2.16	51	ePN	Pn	03 54 20.8	0.0
DST	Dursunbey	2.16	51	ePn	Pn	03 54 20.8	0.0

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*SZGRF **15** 04:04:48.9, 3°.38S×28°.42E, h33^{km}, mb4.9, Lake Tanganyika region*
*ISCJB **15** 04:04:50.4±0.4, 2°.49S±0°.05×28°.88E±0°.05, h10^{km}, mb4.6/68, MS3.8/6, Error ellipse: s-maj=8.0km s-min=7.0km az=150.7*
*IDC **15** 04:04:51.6±0.7, 2°.40S×28°.86E, h0^{km}, mb4.3/14, mb1 4.4/16, mb1mx4.3/23, mbtmp4.3/16, ML3.9/2, MS3.8/8, Ms1 3.8/8, ms1mx3.4/34, Error ellipse: s-maj=19.0km s-min=15.5km az=97.0*
*NEIC **15** 04:04:53.0±0.2, 2°.42S×28°.82E, h10^{km}, mb4.7/40, Error ellipse: s-maj=6.8km s-min=4.8km az=82.0*
ISC 15 04:04:52.9±0.3, **2°.47S**±0°.04×**28°.86E**±0°.05, **h10**^{km}**, n141,** σ**0^{s}.67**/140**, mb4.6**/68**, MS3.8**/6**, 15C-9D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	8.50	81	Pn	Pn	04 06 56.6	+0.5
	2.5nm,0.3s,baz=232,slow=21,SNR=13						
KMBO				Pg	Pn	04 07 28.1	+32
	3.4nm,0.3s,baz=226,slow=19,SNR=5.9						
KMBO				Sn	Sn	04 08 31.2	-1.0
	4.2nm,0.3s,baz=169,slow=22,SNR=3.8						
KMBO				Lg		04 09 13.6	
	12nm,0.3s,baz=351,slow=22,SNR=14						
KMBO				LR	LR	04 10 09.0	
	comp=Z,585nm,21.4s,baz=232,slow=37						
KMBO	Kilima Mbogo	8.50	81	Pn	Pn	04 06 56.6	+0.5
KMBO				Pg	Pn	04 07 28.1	+32
KMBO				Sn	Sn	04 08 31.2	-1.0
KMBO				Lg		04 09 13.6	
KMBO				LR	LR	04 10 09.0	
LSZ	Lusaka	12.74	183	Pn	Pn	04 07 54.8	+0.5
	0.5nm,0.3s,baz=23,slow=14,SNR=5.0						
LSZ				Sn	Sn	04 10 14.7	-1.7
	0.8nm,0.3s,baz=66,slow=17,SNR=3.6						
LSZ				Lg		04 11 30.1	
	1.5nm,0.3s,baz=314,slow=21,SNR=6.7						
LSZ				LR	LR	04 12 48.9	
	comp=Z,216nm,19.0s,baz=122,slow=37						
LSZ	Lusaka	12.74	183	Pn	Pn	04 07 54.8	+0.5
LSZ				Sn	Sn	04 10 14.7	-1.7
LSZ				Lg		04 11 30.1	
LSZ				LR	LR	04 12 48.9	
LBTB	Lobatse	22.63	188	P	P	04 09 56.4	+2.3
	13nm,0.8s,mb4.4,baz=22,slow=10,SNR=20						
LBTB	Lobatse	22.63	188	eP	P	04 09 56.0	+1.9
	19nm,0.9s,mb4.5						
BOSA	Boshof	26.23	187	P	P	04 10 28.8	+0.7
	3.6nm,0.8s,mb4.0,baz=43,slow=7.9,SNR=11						
BOSA				LR	LR	04 20 52.7	
	comp=Z,184nm,19.6s,MS3.6,baz=256,slow=37						
SUR	Sutherland	30.70	193	LR	LR	04 24 37.8	
	comp=Z,117nm,19.2s,MS3.5,baz=218,slow=39						
TORD	Torodi Ar. Bea	31.10	301	P	P	04 11 11.2	-0.6
	3.4nm,0.8s,mb4.2,baz=104,slow=6.8,SNR=36						
TORD				LR	LR	04 23 59.0	
	comp=Z,222nm,18.5s,MS3.9,baz=95,slow=37						
TAM	Tamanrasset	33.89	319	eP	P	04 11 36.9	+0.9
	3.3nm,1.3s,mb4.1						
DBIC	Dimbokro	34.86	285	P	P	04 11 44.3	-0.3
	1.9nm,0.6s,mb4.2,baz=100,slow=12,SNR=7.1						
DBIC				LR	LR	04 25 50.0	
	comp=Z,146nm,19.0s,MS3.8,baz=29,slow=36						
MALT	Malatya	41.53	11	eP	P	04 12 41.9	+1.4
	5.5nm,0.9s,mb4.2						
KEST	Kesra	42.16	336	P	P	04 12 46.8	+1.2
	2.5nm,1.0s,mb3.8,baz=270,slow=3.0,SNR=5.2						
BRTR	Keskin Array B	42.22	5	P	P	04 12 47.2	+1.1
	5.2nm,0.8s,mb4.2,baz=179,slow=9.3,SNR=23						
BRTR				PcP	PcP	04 14 39.9	-0.3
	1.9nm,0.9s,baz=202,slow=6.4,SNR=3.8						
VOIR		47.82	356	⇑iP	P	04 13 30.6	+0.1
VOIR		47.82	356	⇑P	P	04 13 30.6	+0.1
GZR	Gura Zlata	47.96	354	⇑iP	P	04 13 32.1	+0.5
GZR	Gura Zlata	47.96	354	⇑P	P	04 13 32.1	+0.5
BBTS	Babate	48.06	292	LR	LR	04 35 19.9	
	comp=Z,101nm,18.1s,MS3.8,baz=185,slow=38						
PLOR	Plostina	48.15	358	⇓iP	P	04 13 33.2	+0.1
VRI	Vrincioaia	48.16	358	⇓iP	P	04 13 33.3	+0.1
VRI	Vrincioaia	48.16	358	⇓P	P	04 13 33.3	+0.1
PGF	Pioggiola	48.27	340	eP	P	04 13 33.7	-0.4
	10nm,0.9s,mb4.6						
PGF	Pioggiola	48.27	340	eP	P	04 13 33.7	-0.4
	5.1nm,0.9s,mb4.5						
BZS	Buzias	48.30	353	⇑iP	P	04 13 34.7	+0.4
BZS	Buzias	48.30	353	⇑P	P	04 13 34.7	+0.4
DRGR		49.35	354	⇓iP	P	04 13 43.1	+0.8
DRGR		49.35	354	⇓P	P	04 13 43.1	+0.8
LMR	La Mourre	49.83	339	eP	P	04 13 45.5	-0.6
	34nm,1.3s,mb4.9						
LMR	La Mourre	49.83	339	eP	P	04 13 45.5	-0.6
	17nm,1.3s,mb4.9						
SBF	Sospel	49.97	340	eP	P	04 13 46.7	-0.4
	30nm,0.9s,mb5.0						
SBF	Sospel	49.97	340	eP	P	04 13 46.7	-0.4
	15nm,0.9s,mb5.0						
FRF	La Foret Royal	49.98	339	eP	P	04 13 46.7	-0.5
	15nm,1.0s,mb4.7						
FRF	La Foret Royal	49.98	339	eP	P	04 13 46.7	-0.5
	7.7nm,1.0s,mb4.7						
BUR08	Bucovina Ar. S	50.01	357	eP	P	04 13 48.7	+1.4
SOKA	Soboth	50.43	348	⇑iP	P	04 13 50.8	+0.2
	4.6nm,0.9s,mb4.5						
PSZ	Piszkesteto	50.79	352	⇑iP	P	04 13 53.8	+0.6
PSZ	Piszkesteto	50.79	352	eP	P	04 13 53.2	0.0
	8.0nm,1.0s,mb4.6						
MBDF	Montbardon	50.95	340	eP	P	04 13 54.8	+0.2
	25nm,0.9s,mb4.8						
MBDF	Montbardon	50.95	340	eP	P	04 13 54.8	+0.2
	12nm,0.9s,mb4.8						
KECS	Kecovo	51.27	353	eP	P	04 13 57.3	+0.5
BNI	Bardonecchia	51.27	340	eP	P	04 13 57.6	+0.7
	5.3nm,0.9s,mb4.5						
ORIF	Oris-en-Rattie	51.43	339	eP	P	04 13 57.9	-0.2
	9.4nm,0.9s,mb4.4						
ORIF	Oris-en-Rattie	51.43	339	eP	P	04 13 57.9	-0.2
	4.7nm,0.9s,mb4.4						
CSNA	Conrad Observa	51.46	349	⇑iP	P	04 13 59.2	+0.9
	7.4nm,1.0s,mb4.5						
VYHS	Vyhne	51.50	351	eP	P	04 13 58.9	+0.3
KOLS	Kolonicke sedl	51.51	354	eP	P	04 13 59.3	+0.7
	159nm,3.4s						
CRVS	Cervenica-Dubn	51.56	354	eP	P	04 13 59.7	+0.7
ESDC	Sonseca Array	51.62	328	P	P	04 14 00.3	+0.7
	2.2nm,0.9s,mb4.1,baz=132,slow=7.7,SNR=5.6						
MODS	Modra-Piesok	51.63	350	eP	P	04 13 59.9	+0.4
LPG	La Plagne	51.64	340	eP	P	04 13 59.0	-0.7
	11nm,0.9s,mb4.5						
LPG	La Plagne	51.64	340	eP	P	04 13 59.0	-0.7
	5.6nm,0.9s,mb4.5						
LPL	La Plagne	51.66	340	eP	P	04 13 59.3	-0.5
	21nm,1.2s,mb4.6						
LPL	La Plagne	51.66	340	eP	P	04 13 59.3	-0.5
	11nm,1.2s,mb4.7						
TUE	Stuetta	51.69	343	eP	P	04 13 59.9	-0.2
	19nm,1.1s,mb4.9						
MOA	Molln	51.71	348	⇓iP	P	04 14 00.3	+0.2
	14nm,0.9s,mb4.9						
WTTA	Wattenberg	51.78	345	⇓iP	P	04 14 00.8	+0.1
	14nm,1.1s,mb4.8						
RJOB	Jochberg	51.94	346	eP	P	04 14 00.3	-1.6
	comp=Z,10.0nm,0.9s,mb4.8						
MOTA	Moosalm	52.00	345	⇑iP	P	04 14 02.0	-0.3
	comp=Z,5.9nm,0.7s,mb4.6						
EPF	Esparros	52.07	334	eP	P	04 14 03.3	+0.3
	comp=Z,17nm,1.0s,mb4.6						
EPF	Esparros	52.07	334	eP	P	04 14 03.3	+0.3
	comp=Z,8.3nm,1.0s,mb4.6						
STHS	Stebnicka Huta	52.10	354	eP	P	04 14 03.7	+0.7
	comp=Z,4.8nm,0.7s,mb4.5						
KWP	Kalwaria Pacla	52.16	355	⇓iP	P	04 14 04.2	+0.7
KWP	Kalwaria Pacla	52.16	355	⇓P	P	04 14 04.2	+0.7
RETA	Reutte	52.22	345	⇑iP	P	04 14 03.7	-0.2
	comp=Z,13nm,1.2s,mb4.7						
DAVA	Damuels	52.27	344	⇑iP	P	04 14 04.4	0.0
	comp=Z,11nm,0.8s,mb4.8						
ETSF	Etsaut	52.37	333	eP	P	04 14 05.5	+0.3
	comp=Z,29nm,1.1s,mb4.8						
ETSF	Etsaut	52.37	333	eP	P	04 14 05.5	+0.3
	comp=Z,14nm,1.1s,mb4.8						
VRAC	Vranov	52.65	350	⇑iP	P	04 14 06.4	-0.7
VRAC	Vranov	52.65	350	⇑P	P	04 14 06.5	-0.7
FUR	Furstenfeldbru	52.71	345	eP	P	04 14 06.3	-1.3
	comp=Z,17nm,1.0s,mb4.9						
GEC2	GERESS Array S	52.77	347	eP	P	04 14 08.4	+0.3
	comp=Z,11nm,1.1s,mb4.7						
GERES	GERESS Array B	52.77	347	P	P	04 14 08.0	0.0
	comp=Z,3.9nm,0.8s,mb4.4,baz=165,slow=6.9,SNR=20						
TREC	Trest	52.84	349	eP	P	04 14 08.4	-0.1
SJPF	Ste Jean	52.85	333	eP	P	04 14 09.1	+0.4
	comp=Z,13nm,0.9s,mb4.6						
SJPF	Ste Jean	52.85	333	eP	P	04 14 09.1	+0.4
	comp=Z,6.7nm,0.9s,mb4.6						
CAF	Calviac	52.88	336	eP	P	04 14 08.9	0.0
	comp=Z,5.6nm,0.6s,mb4.4						
CAF	Calviac	52.88	336	eP	P	04 14 08.9	0.0
	comp=Z,2.8nm,0.6s,mb4.4						
MORC	Moravsky Berou	52.95	351	⇑iP	P	04 14 09.6	+0.3
KIEV	Kiev	52.96	0	eP	P	04 14 08.5	-0.9
	comp=Z,4.8nm,0.9s,mb4.4						
AKASG	Malin Array Be	52.96	0	P	P	04 14 08.8	-0.6
	comp=Z,4.3nm,0.6s,mb4.5,baz=184,slow=7.0,SNR=22						
AKASG	Malin Array Be	52.96	0	P	P	04 14 08.8	-0.6
KHC	Kasperske Hory	53.07	347	eP	P	04 14 10.0	-0.2
EVO	Evora	53.11	324	eP	P	04 14 11.8	+1.1
	comp=Z,12nm,1.0s,mb4.5						
WET	Wettzell	53.24	347	eP	P	04 14 11.3	-0.2
	comp=Z,6.0nm,1.1s,mb4.4						
RJF	Les Rejaudoux	53.41	336	eP	P	04 14 12.7	-0.1
	comp=Z,25nm,1.3s,mb4.7						
RJF	Les Rejaudoux	53.41	336	eP	P	04 14 12.7	-0.1
	comp=Z,13nm,1.3s,mb4.7						
LFF	La Frestale	53.44	335	eP	P	04 14 13.0	0.0
	comp=Z,21nm,0.8s,mb4.8						
LFF	La Frestale	53.44	335	eP	P	04 14 13.0	0.0
	comp=Z,10nm,0.8s,mb4.8						
SMF	Signal de Mont	53.65	339	eP	P	04 14 14.1	-0.4
	comp=Z,18nm,1.1s,mb4.6						
SMF	Signal de Mont	53.65	339	eP	P	04 14 14.1	-0.4
	comp=Z,9.2nm,1.1s,mb4.6						
HINF	Hinteralfeld	53.65	342	eP	P	04 14 13.9	-0.6
	comp=Z,6.6nm,0.8s,mb4.3						
HINF	Hinteralfeld	53.65	342	eP	P	04 14 13.9	-0.6
	comp=Z,3.3nm,0.8s,mb4.3						
DPC	Dobruska-Polom	53.70	350	eP	P	04 14 14.9	0.0
UPC	Upice	53.91	350	eP	P	04 14 11.6	-4.8
BGF	Bois d’Agland	53.94	338	eP	P	04 14 16.5	-0.2
	comp=Z,26nm,1.2s,mb4.7						
BGF	Bois d’Agland	53.94	338	eP	P	04 14 16.5	-0.2
	comp=Z,13nm,1.2s,mb4.7						
AVF	Avril sur Loir	53.95	339	eP	P	04 14 16.4	-0.3
TCF	Toulx Ste Croi	53.95	337	eP	P	04 14 17.2	+0.4
	comp=Z,30nm,1.4s,mb4.7						
TCF	Toulx Ste Croi	53.95	337	eP	P	04 14 17.2	+0.4
	comp=Z,15nm,1.4s,mb4.7						
HAU	Haudompre	53.98	341	eP	P	04 14 16.3	-0.6
ROTZ	Rotzenmuhle	53.98	347	eP	P	04 14 17.0	+0.1
	comp=Z,5.0nm,1.0s,mb4.4						
CDF	Champ du Feu	54.05	342	eP	P	04 14 16.6	-0.8
	comp=Z,16nm,1.0s,mb4.6						
CDF	Champ du Feu	54.05	342	eP	P	04 14 16.6	-0.8
	comp=Z,8.1nm,1.0s,mb4.6						
SSF	Saint Saulge	54.12	339	eP	P	04 14 17.3	-0.7
GRA1	Grafenberg Arr	54.14	346	eP	P	04 14 18.2	+0.1
	comp=Z,23nm,1.1s,mb5.0						
GRF	Grafenberg Arr	54.14	346	eP	P	04 14 18.2	+0.1
	comp=Z,23nm,1.1s,mb5.0						
LOR	Lormes	54.17	339	eP	P	04 14 17.7	-0.7
	comp=Z,7.9nm,0.8s,mb4.4						
LOR	Lormes	54.17	339	eP	P	04 14 17.7	-0.7
	comp=Z,4.0nm,0.8s,mb4.4						
MANZ	Manzenberg	54.20	347	eP	P	04 14 18.5	0.0
	comp=Z,18nm,1.4s,mb4.8						
TANN	Tannenbergstha	54.53	347	eP	P	04 14 21.1	+0.2
	comp=Z,31nm,1.9s,mb5.0						
BRG	Berggiesshubel	54.65	348	eP	P	04 14 21.4	-0.3
	comp=Z,12nm,1.5s,mb4.7						
MEZF	Maizieres J’vi	54.83	341	eP	P	04 14 23.2	+0.1
MOX	Moxa	54.93	347	eP	P	04 14 23.9	+0.1
	comp=Z,10.0nm,1.3s,mb4.7						
MFF	Saint Martin d	55.14	336	eP	P	04 14 25.3	-0.1
TNS	Taunus Mts	55.34	344	eP	P	04 14 27.1	+0.3
	comp=Z,17nm,1.0s,mb5.0						
BAIF	Baives	56.46	341	eP	P	04 14 34.1	-0.7
LDF	La Druitiere	56.75	337	eP	P	04 14 36.3	-0.6
	comp=Z,34nm,1.1s,mb5.0						
LDF	La Druitiere	56.75	337	eP	P	04 14 36.3	-0.6
	comp=Z,17nm,1.1s,mb5.0						
GRR	Gorron	56.87	337	eP	P	04 14 37.3	-0.5
	comp=Z,22nm,0.9s,mb4.9						
GRR	Gorron	56.87	337	eP	P	04 14 37.3	-0.5
	comp=Z,11nm,0.9s,mb4.9						
NRDL	Niedersach Rie	57.00	346	eP	P	04 14 39.8	+1.2
	comp=Z,32nm,1.2s,mb5.2						
FLN	La Foliniere	57.03	337	eP	P	04 14 38.1	-0.8
QUIF	Quistinic	57.44	335	eP	P	04 14 41.7	-0.1
SGMF	Saint Gilles	57.45	336	eP	P	04 14 41.2	-0.7
ROSF	Rostrenen	57.81	335	eP	P	04 14 43.8	-0.6
ARU	Arti	63.48	18	eP	P	04 15 22.5	-0.4
	comp=Z,22nm,0.9s,mb5.3						
KAF	Kangasniemi	64.43	359	ep	P	04 15 28.0	-1.1
	comp=Z,8.7nm,0.7s,mb4.9						
NAO01	NORSAR Array S	64.65	350	eP	P	04 15 30.5	0.0
	comp=Z,14nm,1.0s,mb5.0						
NB2	NORSAR Subarra	64.78	351	P	P	04 15 31.3	-0.1
	comp=Z,3.0nm,0.8s,mb4.4,baz=161,slow=6.2						
NOA	NORSAR Array B	64.78	351	P	P	04 15 31.4	0.0
	comp=Z,6.9nm,0.9s,mb4.7,baz=163,slow=6.3,SNR=9.9						
JOF	Joensuu	65.24	1	ep	P	04 15 33.2	-1.1
	comp=Z,3.0nm,0.8s,mb4.4						
MKAR	Makanchi Array	67.80	37	P	P	04 15 50.9	-0.2
	comp=Z,2.7nm,0.6s,mb4.5,baz=243,slow=5.9,SNR=36						
KURK	Kurchatov	67.84	32	eP	P	04 15 50.7	-0.5
	comp=Z,1.8nm,1.0s,mb4.1						
ARCES	ARCESS Array B	71.90	359	P	P	04 16 15.4	-0.3
	comp=Z,8.4nm,1.0s,mb4.6,baz=116,slow=5.5,SNR=6.4						
CMAR	Chiang Mai Arr	71.97	70	LR	LR	04 47 01.4	
	comp=Z,70nm,18.8s,MS4.0,baz=90,slow=35						
ZALV	Zalesovo Beam	72.78	31	P	P	04 16 20.3	-1.0
	comp=Z,1.5nm,0.7s,mb4.0,baz=227,slow=7.9,SNR=5.7						
GTA	Gaotai	76.97	49	eP	P	04 16 47.3	+1.3
GTA				pP	pP	04 16 50.8	+1.5
GTA				sP	sP	04 16 52.3	+1.8
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
GTA				smax			
	comp=N,41nm,0.4s						
GTA				smax			
	comp=E,9.0nm,0.2s						
SONM	Songino Array	83.47	41	P	P	04 17 22.4	+1.5
	comp=E,0.1nm,0.3s,mb3.3,baz=217,slow=5.1,SNR=3.9						
PDAR	Pinedale Array	125.40	323	PKP	PKPdf	04 23 54.2	-0.2
	comp=E,0.6nm,1.0s,baz=96,slow=4.5,SNR=3.5						
TXAR	Lajitas Array	127.62	306	PKP	PKPdf	04 24 00.1	+1.0
	comp=E,0.8nm,0.8s,baz=109,slow=2.9,SNR=8.8						

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*ISCJB **15** 04:11:26.1±0.5, 50°.26N±0°.04×18°.65E±0°.03, h0^{km}, Error ellipse: s-maj=5.4km s-min=2.9km az=8.3*
*IPEC **15** 04:11:26.2±0.2, 50°.28N×18°.67E, h2^{km}±1^{km}, ML1.8/3, Error ellipse: s-maj=2.1km s-min=0.8km az=165.0*
*CSEM **15** 04:11:26.2±0.2, 50°.30N×18°.64E, h2^{km}, ML2.8/4, Error ellipse: s-maj=3.9km s-min=2.0km az=6.0*
*WAR **15** 04:11:26.7, 50°.23N×18°.70E, ML2.4, Mining Induced*
*PRU **15** 04:11:27.0, 50°.29N×18°.61E, h0^{km}*
ISC 15 04:11:26.4±0.5, **50°.27N**±0°.04×**18°.64E**±0°.03, **h0**^{km}**, n25,** σ**0^{s}.90**/44**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.34	238	ePg	Pg	04 11 34.5	+1.6
RAC				eSg	Sg	04 11 39.9	+2.5
OKC	Ostrava-Krasne	0.54	217	ePG	Pg	04 11 37.3	+0.7
OKC				eSG	Sg	04 11 42.7	-0.9
	comp=Z,21nm,0.5s						
OKC	Ostrava-Krasne	0.54	217	ePg	Pg	04 11 37.1	+0.5
	baz=37						
OKC				eSg	Sg	04 11 44.0	+0.4
	baz=37						
OJC	Ojcow	0.74	93	ePg	Pg	04 11 40.6	0.0
OJC				eSg	Sg	04 11 50.3	0.0
OJC	Ojcow	0.74	93	ePg	Pg	04 11 40.3	-0.3
	baz=275						
OJC				eSg	Sg	04 11 49.2	-1.1
	baz=275						
MORC	Moravsky Berou	0.86	236	ePg	Pg	04 11 42.9	0.0
	baz=55						
MORC				eSg	Sg	04 11 53.9	-0.2
	comp=Z,14nm,0.3s,baz=55						
NIE	Niedzica	1.37	127	ePg	Pn	04 11 53.6	+0.8
NIE				eSg	Sb	04 12 11.9	+0.9
NIE	Niedzica	1.37	127	ePg	Pn	04 11 53.6	+0.8
NIE				eSg	Sb	04 12 11.9	+0.9
DPC	Dobruska-Polom	1.49	274	ePG	Pn	04 11 53.9	-0.5
DPC				eSG	Sb	04 12 13.8	-0.6
	comp=Z,17nm,0.5s						
DPC	Dobruska-Polom	1.49	274	Pg	Pn	04 11 53.9	-0.5
DPC	Dobruska-Polom	1.49	274	ePn	Pn	04 11 54.2	-0.2
	baz=92						
DPC				Sg	Sb	04 12 13.8	-0.6
	comp=Z,17nm,0.5s						
KSP	Ksiaz	1.61	292	ePn	Pn	04 11 57.6	+1.6
KSP				eSn	Sn	04 12 17.9	+0.4
KSP	Ksiaz	1.61	292	ePg	Pg	04 11 57.4	+0.2
KSP				eSg	Sg	04 12 18.1	+0.1
KSP	Ksiaz	1.61	292	ePg	Pg	04 11 57.4	+0.2
KSP				eSg	Sg	04 12 18.1	+0.1
VRAC	Vranov	1.64	235	ePn	Pn	04 11 56.3	-0.1
VRAC				eSg	Sg	04 12 18.4	-0.6
	comp=Z,8.2nm,0.3s,baz=53						
UPC	Upice	1.70	279	eSG	Sb	04 12 19.6	-0.8
UPC	Upice	1.70	279	Sg	Sb	04 12 19.6	-0.8
VYHS	Vyhne	1.78	176	ePN	Pn	04 11 57.1	-1.3
VYHS				eSN	Sn	04 12 20.5	-1.1
STHS	Stebnicka Huta	1.89	116	ePN	Pn	04 11 59.8	0.0
STHS				eSN	Sn	04 12 24.3	0.0
STHS	Stebnicka Huta	1.89	116	ePn	Pn	04 11 59.8	0.0

STHS				*e*Sn	**Sn**	**04 12 24.3**	**0.0**
KRUC	**Moravsky**	**1.89**	**231**	*e*Pn	**Pn**	**04 11 59.7**	**-0.2**
	baz=50						
KRUC				*e*Sn	**Sn**	**04 12 25.5**	**+1.0**
	comp=Z,10nm,0.6s,baz=50						
KECS	**Kecovo**	**2.15**	**145**	*e*PN	**Pb**	**04 12 05.6**	**-0.6**
PRU	**Pruhonice**	**2.65**	**266**	*e*SG	**Sb**	**04 12 48.5**	**+0.6**
	comp=Z,4.1nm,0.4s						
BRG	**Berggiesshubel**	**3.06**	**283**	SG	**Sg**	**04 13 03.5**	**-1.1**
	comp=Z,5.2nm,0.6s						
KHC	**Kasperske Hory**	**3.48**	**253**	*e*PG	**Pb**	**04 12 29.0**	**+0.2**
KHC				*e*SG	**Sg**	**04 13 15.3**	**-2.8**
	comp=Z,5.5nm,0.5s						

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*ISCJB **15** 04:57:39.9±0.5, 40°.35N±0°.02×27°.64E±0°.03, h4km±4km, Error ellipse: s-maj=3.8km s-min=3.3km az=139.3*

*THE **15** 04:57:39.6, 40°.37N×27°.97E, h28km±23km, ML3.6/4, Error ellipse: s-maj=25.2km s-min=2.1km az=81.0*

*ISK **15** 04:57:39.8, 40°.35N×27°.64E, h7km, MD3.1*

*CSEM **15** 04:57:40.2±0.1, 40°.35N×27°.61E, h5km, MD3.1, Error ellipse: s-maj=1.1km s-min=1.1km az=139.0*

*DDA **15** 04:57:40.0, 40°.30N×27°.63E, h6km±3km, Md3.1*

ISC 15 04:57:40.4±0.5**, 40°.35N**±0°.02×**27°.63E**±0°.03**, h6**km±4km**, n83, σ0s.72**/103**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EDC	**Edincik**	**0.18**	**92**	PG	**Pg**	**04 57 44.3**	**+0.3**
EDC	**Edincik**	**0.18**	**92**	*i* Pg	**Pg**	**04 57 44.3**	**+0.4**
BNT	**Bandirma**	**0.22**	**89**	*e*PG	**Pg**	**04 57 44.7**	**0.0**
BNT				*e*SG	**Sg**	**04 57 47.8**	**+0.1**
KCT	**Karacabey**	**0.56**	**99**	*e*PG	**Pg**	**04 57 50.4**	**-0.8**
KCT				*e*SG	**Sg**	**04 57 58.7**	**+0.2**
KCT	**Karacabey**	**0.56**	**99**	*e*Pg	**Pg**	**04 57 50.4**	**-0.8**
KCT				*e*Sg	**Sg**	**04 57 58.7**	**+0.2**
BALY	**Balya**	**0.61**	**181**	*i* P	**Pg**	**04 57 51.5**	**-0.6**
BALY				*i* S	**Sg**	**04 57 59.9**	**-0.1**
BALY	**Balya**	**0.61**	**181**	*i* P	**Pg**	**04 57 51.5**	**-0.6**
BALY				*i* S	**Sg**	**04 57 59.9**	**-0.1**
TKR	**Tekirdag**	**0.64**	**354**	*e*PG	**Pg**	**04 57 52.8**	**+0.1**
TKR	**Tekirdag**	**0.64**	**354**	*e*Pg	**Pg**	**04 57 52.8**	**+0.1**
LPK	**Lapseki**	**0.66**	**272**	*e*PG	**Pg**	**04 57 53.5**	**+0.4**
LPK	**Lapseki**	**0.66**	**272**	*e*Pg	**Pg**	**04 57 53.5**	**+0.4**
BALB	**Balikesir**	**0.74**	**165**	*e*PG	**Pg**	**04 57 54.5**	**0.0**
BALB				*e*SG	**Sg**	**04 58 05.0**	**+1.0**
BALB	**Balikesir**	**0.74**	**165**	*e*Pg	**Pg**	**04 57 54.5**	**0.0**
BALB				*e*Sg	**Sg**	**04 58 05.1**	**+1.0**
CRLT	**Corlu**	**0.78**	**6**	*e*PG	**Pg**	**04 57 56.3**	**+0.9**
CRLT	**Corlu**	**0.78**	**6**	*e*Pg	**Pg**	**04 57 56.3**	**+1.0**
SLVT	**Silivri**	**0.98**	**27**	*e*PG	**Pg**	**04 57 59.2**	**0.0**
SLVT	**Silivri**	**0.98**	**27**	*e*Pg	**Pg**	**04 57 59.2**	**0.0**
CTT	**Catalca**	**1.00**	**37**	*e*PG	**Pg**	**04 57 59.7**	**+0.1**
CTT	**Catalca**	**1.00**	**37**	*e*Pg	**Pg**	**04 57 59.7**	**+0.2**
DST	**Dursunbey**	**1.07**	**134**	*e*PG	**Pg**	**04 57 59.9**	**-0.9**
DST	**Dursunbey**	**1.07**	**134**	*e*Pg	**Pg**	**04 57 59.9**	**-1.0**
CTKS	**Kestanelik-??a**	**1.11**	**37**	*e*PN	**Pn**	**04 58 01.1**	**-1.2**
CTKS	**Kestanelik-??a**	**1.11**	**37**	*e*Pn	**Pn**	**04 58 01.1**	**-1.2**
EZN	**Ezine**	**1.13**	**243**	*e*PN	**Pn**	**04 58 01.8**	**-0.8**
EZN	**Ezine**	**1.13**	**243**	*e*Pn	**Pn**	**04 58 01.8**	**-0.9**
ENEZ	**Enez**	**1.19**	**289**	*e*PN	**Pn**	**04 58 03.0**	**-0.5**
ENEZ	**Enez**	**1.19**	**289**	*e*Pn	**Pn**	**04 58 03.0**	**-0.5**
BGKT	**Bogazkoy**	**1.20**	**46**	*e*PN	**Pn**	**04 58 02.6**	**-1.0**
BGKT	**Bogazkoy**	**1.20**	**46**	*e*Pn	**Pn**	**04 58 02.6**	**-1.0**
CTYL	**Yal??k??y-??at**	**1.23**	**24**	*e*PN	**Pn**	**04 58 03.3**	**-0.7**
CTYL	**Yal??k??y-??at**	**1.23**	**24**	*e*Pn	**Pn**	**04 58 03.3**	**-0.7**
AYVA	**Ayvalik**	**1.27**	**215**	*i* P	**Pn**	**04 58 03.5**	**-1.0**
AYVA				*i* S	**Sg**	**04 58 20.8**	**-0.3**
AYVA	**Ayvalik**	**1.27**	**215**	*i* P	**Pn**	**04 58 03.5**	**-1.1**
AYVA				*i* S	**Sg**	**04 58 20.8**	**-0.3**
ISK	**Istanbul-Kandi**	**1.30**	**56**	*e*PN	**Pn**	**04 58 04.1**	**-0.9**
ISK	**Istanbul-Kandi**	**1.30**	**56**	*e*Pn	**Pn**	**04 58 04.1**	**-0.9**
BOZC	**Bozcaada**	**1.31**	**248**	*i* P	**Pn**	**04 58 04.5**	**-0.6**
BOZC				*i* S	**Sb**	**04 58 23.4**	**+1.0**
ALN	**Alexandroupoli**	**1.32**	**295**	P	**Pn**	**04 58 04.6**	**-0.7**
ALN				S	**Sb**	**04 58 23.4**	**+0.7**
ALN	**Alexandroupoli**	**1.32**	**295**	P	**Pn**	**04 58 04.6**	**-0.7**
ALN				S	**Sb**	**04 58 23.4**	**+0.7**
GADA	**Gvkgeada**	**1.33**	**264**	*e*PN	**Pn**	**04 58 05.5**	**0.0**
GADA	**Gvkgeada**	**1.33**	**264**	*e*Pn	**Pn**	**04 58 05.5**	**0.0**
YLV	**Yalova**	**1.35**	**80**	*e*PN	**Pn**	**04 58 05.2**	**-0.5**
YLV	**Yalova**	**1.35**	**80**	*e*Pn	**Pn**	**04 58 05.2**	**-0.5**
KLYT	**Kilyos**	**1.40**	**50**	*e*PN	**Pn**	**04 58 06.1**	**-0.3**
KLYT	**Kilyos**	**1.40**	**50**	*e*Pn	**Pn**	**04 58 06.1**	**-0.3**
AKHS	**Akhisar**	**1.48**	**174**	*i* P	**Pn**	**04 58 07.6**	**+0.2**
AKHS				*i* S	**Sn**	**04 58 25.8**	**-1.3**
AKHS	**Akhisar**	**1.48**	**174**	*i* P	**Pn**	**04 58 07.6**	**+0.2**
AKHS				*i* S	**Sn**	**04 58 25.8**	**-1.3**
AKS	**Akhisar**	**1.48**	**174**	*e*PN	**Pn**	**04 58 07.4**	**-0.1**
AKS	**Akhisar**	**1.48**	**174**	*e*Pn	**Pn**	**04 58 07.4**	**0.0**
PRK	**Paraskevi**	**1.52**	**224**	P	**Pn**	**04 58 07.1**	**-0.9**
PRK				S	**Sn**	**04 58 27.5**	**-0.6**
PRK	**Paraskevi**	**1.52**	**224**	P	**Pn**	**04 58 07.1**	**-0.9**
PRK				S	**Sn**	**04 58 27.5**	**-0.6**
ADVT	**Abdulvahap**	**1.61**	**86**	*e*PN	**Pn**	**04 58 09.6**	**+0.3**
ADVT	**Abdulvahap**	**1.61**	**86**	*e*Pn	**Pn**	**04 58 09.6**	**+0.3**
HRT	**Hereke**	**1.62**	**73**	*e*PN	**Pn**	**04 58 09.5**	**+0.1**
HRT	**Hereke**	**1.62**	**73**	*e*Pn	**Pn**	**04 58 09.5**	**+0.1**
EDRB	**Edirne**	**1.64**	**336**	*e*PN	**Pn**	**04 58 09.8**	**+0.2**
EDRB	**Edirne**	**1.64**	**336**	*e*Pn	**Pn**	**04 58 09.8**	**+0.2**
CAVI	**Cavuskoy**	**1.70**	**94**	*e*PN	**Pn**	**04 58 10.9**	**+0.4**
CAVI	**Cavuskoy**	**1.70**	**94**	*e*Pn	**Pn**	**04 58 10.9**	**+0.4**
SILT	**Sile**	**1.73**	**62**	*e*PN	**Pn**	**04 58 11.2**	**+0.3**
SILT	**Sile**	**1.73**	**62**	*e*Pn	**Pn**	**04 58 11.2**	**+0.3**
SIGR	**SIGRI**	**1.78**	**231**	P	**Pn**	**04 58 10.3**	**-1.3**
SIGR				S	**Sn**	**04 58 35.5**	**+1.0**
SIGR	**SIGRI**	**1.78**	**231**	P	**Pn**	**04 58 10.3**	**-1.3**
SIGR				S	**Sn**	**04 58 35.5**	**+1.0**
LIA	**Limnos Island**	**1.93**	**257**	P	**Pn**	**04 58 13.5**	**-0.2**
LIA				S	**Sn**	**04 58 40.1**	**+1.9**
LIA	**Limnos Island**	**1.93**	**257**	P	**Pn**	**04 58 13.5**	**-0.2**
LIA				S	**Sn**	**04 58 40.1**	**+1.9**
EYL	**Eskiyayla**	**1.94**	**83**	*e*PN	**Pn**	**04 58 14.0**	**+0.2**
IZM	**Izmir**	**1.97**	**188**	*e*PN	**Pn**	**04 58 14.6**	**+0.4**
IZM	**Izmir**	**1.97**	**188**	*e*Pn	**Pn**	**04 58 14.6**	**+0.4**
KULA	**Kula-Manisa**	**2.00**	**156**	*e*PN	**Pn**	**04 58 14.5**	**-0.2**
KULA	**Kula-Manisa**	**2.00**	**156**	*e*Pn	**Pn**	**04 58 14.5**	**-0.1**
BLCB	**Balcova**	**2.02**	**193**	*e*PN	**Pn**	**04 58 15.4**	**+0.5**
BLCB	**Balcova**	**2.02**	**193**	*e*Pn	**Pn**	**04 58 15.4**	**+0.6**
ALT	**Altintas**	**2.31**	**123**	*e*PN	**Pn**	**04 58 19.1**	**+0.2**
ALT	**Altintas**	**2.31**	**123**	*e*Pn	**Pn**	**04 58 19.1**	**+0.2**
KHL	**Karahalli**	**2.50**	**143**	*e*PN	**Pn**	**04 58 22.5**	**+1.0**
KHL	**Karahalli**	**2.50**	**143**	*e*Pn	**Pn**	**04 58 22.5**	**+1.0**
ESKT	**Eskisehir**	**2.61**	**108**	*e*PN	**Pn**	**04 58 23.9**	**+0.9**
ESKT	**Eskisehir**	**2.61**	**108**	*e*Pn	**Pn**	**04 58 24.0**	**+1.0**
MDU	**Mudurnu**	**2.74**	**86**	*e*PN	**Pn**	**04 58 25.7**	**+0.9**
MDU	**Mudurnu**	**2.74**	**86**	*e*Pn	**Pn**	**04 58 25.7**	**+0.9**
SHUT	**Suhut-Afyon**	**2.89**	**128**	*e*PN	**Pn**	**04 58 28.0**	**+1.1**
SHUT	**Suhut-Afyon**	**2.89**	**128**	*e*Pn	**Pn**	**04 58 28.0**	**+1.2**
SVRH	**Sivrihisar-ESK**	**3.13**	**106**	*e*PN	**Pn**	**04 58 31.4**	**+1.2**
SVRH	**Sivrihisar-ESK**	**3.13**	**106**	*e*Pn	**Pn**	**04 58 31.4**	**+1.3**

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*ISK **15** 05:07:38.8, 38°.15N×27°.44E, h6km, MD2.5*

*DDA **15** 05:07:39.0, 38°.14N×27°.41E, h7km±3km, Md2.6*

*ISCJB **15** 05:07:39.2±0.8, 38°.16N±0°.04×27°.46E±0°.06, h10km, Error ellipse: s-maj=8.0km s-min=4.6km az=142.3*

*CSEM **15** 05:07:39.2±0.2, 38°.16N×27°.45E, h15km, MD2.5, Error ellipse: s-maj=4.3km s-min=2.6km az=48.0*

ISC 15 05:07:39.7±0.8**, 38°.16N**±0°.04×**27°.44E**±0°.06**, h10**km**, n10, σ0s.46**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IZM	**Izmir**	**0.28**	**330**	*e*PG	**Pg**	**05 07 45.1**	**-0.2**
IZM				*e*SG	**Sg**	**05 07 49.2**	**0.0**
IZM	**Izmir**	**0.28**	**330**	*e*Pg	**Pg**	**05 07 45.1**	**-0.2**
IZM				*e*Sg	**Sg**	**05 07 49.2**	**+0.1**
BLCB	**Balcova**	**0.39**	**306**	*e*PG	**Pg**	**05 07 47.0**	**-0.4**
BLCB				*e*SG	**Sg**	**05 07 53.0**	**+0.4**
BLCB	**Balcova**	**0.39**	**306**	*e*Pg	**Pg**	**05 07 47.0**	**-0.4**
BLCB				*e*Sg	**Sg**	**05 07 53.0**	**+0.4**
AYDN	**Tasoluk**	**0.60**	**145**	*e*P	**Pg**	**05 07 51.3**	**-0.1**
AYDN				*e*S	**Sg**	**05 07 59.8**	**+0.5**
AYDN	**Tasoluk**	**0.60**	**145**	*e*P	**Pg**	**05 07 51.3**	**-0.1**
AYDN				*e*S	**Sg**	**05 07 59.8**	**+0.5**
AKS	**Akhisar**	**0.78**	**22**	*e*PG	**Pg**	**05 07 54.3**	**-0.4**
AKS				*e*SG	**Sg**	**05 08 05.7**	**+0.8**
AKS	**Akhisar**	**0.78**	**22**	*e*Pg	**Pg**	**05 07 54.3**	**-0.4**
AKS				*e*Sg	**Sg**	**05 08 05.7**	**+0.8**
KULA	**Kula-Manisa**	**1.02**	**69**	*e*PG	**Pg**	**05 07 58.6**	**-0.7**
KULA	**Kula-Manisa**	**1.02**	**69**	*e*Pg	**Pg**	**05 07 58.7**	**-0.7**

IDC 15 05:18:40.5±5.6**, 3°.16S**×**139°.64E, h0**km**, mb3.2**/2**, mb1 3.6**/3**, mb1mx3.4**/13**, mbtmp3.4**/3**, ML3.4**/1**, Error ellipse: s-maj=221.1km s-min=29.9km az=87.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**17.47**	**197**	P	Pn	05 22 44.4	-1.3
	0.1nm,0.3s,baz=18,slow=12,SNR=4.9						
WRA				S	Sn	05 25 44.9	-16
	0.1nm,0.3s,baz=10,slow=21,SNR=4.3						
ASAR	**Alice Springs**	**21.13**	**195**	P	P	05 23 27.6	+0.5
	0.9nm,0.6s,baz=19,slow=11,SNR=11						
MKAR	**Makanchi Array**	**70.70**	**322**	P	P	05 29 58.5	+0.2
	0.1nm,0.6s,baz=111,slow=7.9,SNR=3.9						

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*ISCJB **15** 05:32:25.5±1.5, 44°.26S±0°.05×167°.43E±0°.08, h13km±10km, mb4.0/7, Error ellipse: s-maj=10.1km s-min=7.1km az=28.6*

*IDC **15** 05:32:25.1±1.1, 44°.31S×167°.48E, h0km, mb4.1/6, mb1 4.3/7, mb1mx4.2/16, mbtmp4.1/7, ML4.2/1, MS3.4/1, Ms1 3.3/1, ms1mx2.8/22, Error ellipse: s-maj=38.6km s-min=22.2km az=31.0*

*NEIC **15** 05:32:27.3, 44°.43S×167°.33E, h5km, mb4.1/1, After WEL.*

NEIC Felt [IV] at Queenstown. Also felt at Te Anau.

ISC 15 05:32:25.7±1.4**, 44°.27S**±0°.06×**167°.43E**±0°.07**, h5**km±10km**, n29, σ0s.88**/30**, mb4.0**/7**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	**Milford Sound**	**0.54**	**139**	P	**Pg**	**05 32 37.3**	**+1.3**
MSZ				S	**Sg**	**05 32 43.5**	**+0.5**
JCZ	**Jackson Bay**	**0.97**	**79**	P	**Pg**	**05 32 45.6**	**+1.2**
MLZ	**Mavora Lakes**	**1.20**	**154**	P	**Pg**	**05 32 48.4**	**-0.3**
DCZ	**Deep Cove**	**1.23**	**189**	P	**Pg**	**05 32 46.5**	**-2.7**
DCZ				S	**Sg**	**05 33 00.7**	**-4.4**
WKZ	**Wanaka**	**1.26**	**117**	P	**Pg**	**05 32 50.4**	**+0.5**
EAZ	**Earnscleugh**	**1.65**	**126**	P	**Pn**	**05 32 56.2**	**+0.9**
WHZ	**Wether Hill Ro**	**1.67**	**168**	P	**Pn**	**05 32 54.8**	**-0.8**
FOZ	**Fox Glacier**	**1.78**	**67**	P	**Pn**	**05 32 57.3**	**+0.2**
LBZ	**Lake Benmore**	**1.98**	**94**	P	**Pn**	**05 33 01.0**	**+1.1**
TUZ	**Tuapeka**	**2.29**	**138**	P	**Pn**	**05 33 04.3**	**+0.1**
ODZ	**Otahua Downs**	**2.42**	**110**	P	**Pn**	**05 33 06.4**	**+0.5**
RPZ	**Rata Peaks**	**2.67**	**79**	Pn	**Pn**	**05 33 09.4**	**0.0**
	41nm,0.3s,baz=257,slow=3.3,SNR=147						
RPZ				Sn	**Sn**	**05 33 48.2**	**+6.1**
	99nm,0.3s,baz=359,slow=17,SNR=8.2						
RPZ	**Rata Peaks**	**2.67**	**79**	P	**Pn**	**05 33 09.4**	**0.0**
WVZ	**Waitaha Valley**	**2.68**	**65**	P	**Pn**	**05 33 08.1**	**-1.4**
MQZ	**McQueen's Vall**	**3.81**	**83**	P	**Pn**	**05 33 23.5**	**-1.5**
LTZ	**Lake Taylor**	**3.82**	**69**	P	**Pn**	**05 33 24.3**	**-0.9**
DSZ	**Denniston Nort**	**4.08**	**53**	P	**Pn**	**05 33 27.9**	**-0.8**
THZ	**Tophouse**	**4.73**	**60**	P	**Pn**	**05 33 37.8**	**+0.1**
KHZ	**Kahutara**	**4.82**	**70**	P	**Pn**	**05 33 38.5**	**-0.5**
QRZ	**Quartz Range**	**5.10**	**49**	P	**Pn**	**05 33 41.9**	**-0.9**
STKA	**Stephens Creek**	**23.70**	**293**	P	**P**	**05 37 40.1**	**+1.6**
	6.1nm,1.0s,mb4.0,baz=138,slow=9.3,SNR=6.4						
STKA				LR	LR	05 46 31.0	
	comp=Z,79nm,19.4s,baz=203,slow=36						
ASAR	**Alice Springs**	**34.23**	**296**	P	**P**	**05 39 13.0**	**+0.5**
	0.7nm,0.5s,mb3.8,baz=138,slow=8.1,SNR=7.8						
WRA	**Warramunga Arr**	**36.67**	**301**	P	**P**	**05 39 33.5**	**0.0**
	0.7nm,0.5s,mb3.7,baz=138,slow=8.1,SNR=7.2						
WRAB	**Tennant Creek**	**36.67**	**301**	*e*P	**P**	**05 39 33.6**	**+0.1**
	3.5nm,0.9s,mb4.2						
FITZ	**Fitzroy Crossi**	**43.59**	**293**	P	**P**	**05 40 31.1**	**+0.2**
	3.9nm,0.7s,mb4.2,baz=183,slow=9.7,SNR=7.0						
QSPA	**South Pole Qui**	**45.86**	**180**	P	**P**	**05 40 48.7**	**+0.4**
	2.8nm,1.0s,mb4.2,baz=130,slow=3.0,SNR=6.6						
CMAR	**Chiang Mai Arr**	**88.22**	**298**	P	**P**	**05 45 18.4**	**+0.4**
	0.7nm,0.4s,mb4.3,baz=142,slow=4.9,SNR=4.3						
BRTR	**Keskin Array B**	**145.72**	**279**	PKPbc	PKPbc	05 52 04.9	-0.4
	1.2nm,1.0s,baz=270,slow=7.4,SNR=2.9						
TORD	**Torodi Ar. Bea**	**146.66**	**206**	PKPbc	PKPbc	05 52 07.6	-1.2
	0.2nm,0.4s,baz=130,slow=1.9,SNR=5.5						

IDC 15 05:40:51.4±3.3**, 6°.21S**×**127°.69E, h407**km±37km**, mb2.3**/1**, mb1 3.2**/4**, mb1mx2.9**/17**, mbtmp3.0**/4**, Error ellipse: s-maj=78.4km s-min=15.2km az=68.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**11.99**	**189**	P	P	05 43 30.5	-0.3
	0.3nm,0.3s,baz=5.1,slow=7.7,SNR=5.9						
WRA	**Warramunga Arr**	**15.11**	**155**	P	P	05 44 05.0	+0.2
	2.2nm,0.3s,baz=333,slow=11,SNR=147						
WRA				S	S	05 46 43.2	-1.6
	0.3nm,0.3s,baz=337,slow=21,SNR=10						
ASAR	**Alice Springs**	**18.36**	**162**	P	P	05 44 39.7	+0.3
	1.1nm,0.3s,baz=345,slow=12,SNR=29						
ASAR				S	S	05 47 48.5	+0.6
	0.2nm,0.3s,baz=350,slow=22,SNR=5.7						
MKAR	**Makanchi Array**	**66.32**	**328**	P	P	05 50 57.9	+0.1
	0.1nm,0.4s,baz=134,slow=8.3,SNR=2.2						

IDC 15 06:01:48.6±3.6**, 2°.31S**×**99°.92E, h0**km**, mb3.6**/6**, mb1 3.7**/6**, mb1mx3.6**/22**, mbtmp3.6**/6**, Error ellipse: s-maj=162.2km s-min=20.8km az=55.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**37.91**	**120**	P	P	06 09 06.8	-1.1
	0.2nm,0.3s,baz=301,slow=9.9,SNR=5.6						
ASAR	**Alice Springs**	**39.14**	**126**	P	P	06 09 19.2	+0.9
	0.2nm,0.3s,baz=303,slow=7.3,SNR=3.2						
SONM	**Songino Array**	**50.26**	**6**	P	P	06 10 46.7	+0.1
	0.3nm,0.4s,baz=187,slow=9.3,SNR=5.4						
MKAR	**Makanchi Array**	**51.31**	**345**	P	P	06 10 54.4	-0.1
	0.3nm,0.3s,baz=159,slow=9.0,SNR=16						
KURK	**Kurchatov**	**55.88**	**344**	P	P	06 11 27.9	-0.1
	0.7nm,0.4s,baz=153,slow=6.4,SNR=3.6						
ZALV	**Zalesovo Beam**	**57.46**	**349**	P	P	06 11 38.9	-0.2
	0.2nm,0.3s,baz=164,slow=9.8,SNR=3.9						
TXAR	**Lajitas Array**	**145.00**	**38**	PKPbc	PKPbc	06 21 27.5	-0.4
	0.2nm,0.4s,baz=285,slow=1.7,SNR=4.3						

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*ISCJB **15** 06:07:02.6±0.5, 39°.17N±0°.02×28°.16E±0°.04, h9km±5km, Error ellipse: s-maj=5.4km s-min=3.9km az=18.6*

*CSEM **15** 06:07:02.8±0.1, 39°.17N×28°.16E, h12km, MD2.7, Error ellipse: s-maj=2.3km s-min=1.8km az=106.0*

*ISK **15** 06:07:02.4, 39°.17N×28°.17E, h5km, MD2.7*

*DDA **15** 06:07:02.4, 39°.16N×28°.19E, h7km±4km, Md2.8*

ISC 15 06:07:02.9±0.4**, 39°.17N**±0°.02×**28°.17E**±0°.04**, h12**km±5km**, n30, σ0s.45**/46**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKHS	**Akhisar**	**0.40**	**224**	*i* P	**Pg**	**06 07 10.8**	**-0.1**
AKHS				*i* S	**Sg**	**06 07 17.0**	**+0.8**
AKHS	**Akhisar**	**0.40**	**224**	*i* P	**Pg**	**06 07 10.8**	**-0.1**
AKHS				*i* S	**Sg**	**06 07 17.0**	**+0.7**
AKS	**Akhisar**	**0.40**	**224**	PG	**Pg**	**06 07 10.8**	**-0.1**
AKS	**Akhisar**	**0.40**	**224**	*i* Pg	**Pg**	**06 07 10.8**	**-0.1**
DURS	**Dursunbey**	**0.49**	**29**	*i* P	**Pg**	**06 07 12.3**	**-0.3**
DURS				*i* S	**Sg**	**06 07 19.6**	**+0.4**
DURS	**Dursunbey**	**0.49**	**29**	*i* P	**Pg**	**06 07 12.3**	**-0.3**
DURS				*i* S	**Sg**	**06 07 19.6**	**+0.4**
BALB	**Balikesir**	**0.52**	**335**	*e*PG	**Pg**	**06 07 13.0**	**-0.2**
BALB				*e*SG	**Sg**	**06 07 20.5**	**+0.4**
BALB	**Balikesir**	**0.52**	**335**	*e*Pg	**Pg**	**06 07 13.0**	**-0.2**
BALB				*e*Sg	**Sg**	**06 07 20.5**	**+0.4**
DST	**Dursunbey**	**0.56**	**39**	*e*PG	**Pg**	**06 07 13.5**	**-0.4**
DST				*e*SG	**Sg**	**06 07 21.8**	**+0.4**
DST	**Dursunbey**	**0.56**	**39**	*e*Pg	**Pg**	**06 07 13.5**	**-0.4**
DST				*e*Sg	**Sg**	**06 07 21.8**	**+0.4**
BALY	**Balya**	**0.71**	**323**	*i* P	**Pg**	**06 07 16.5**	**-0.2**
BALY				*i* S	**Sg**	**06 07 26.4**	**+0.2**
BALY	**Balya**	**0.71**	**323**	*i* P	**Pg**	**06 07 16.5**	**-0.3**
BALY				*i* S	**Sg**	**06 07 26.4**	**+0.3**
MANT	**Manisa**	**0.74**	**156**	*i* P	**Pg**	**06 07 17.2**	**-0.1**
MANT				*i* S	**Sg**	**06 07 26.4**	**-0.6**
MANT	**Manisa**	**0.74**	**156**	*i* P	**Pg**	**06 07 17.2**	**-0.1**
MANT				*i* S	**Sg**	**06 07 26.5**	**-0.5**
KULA	**Kula-Manisa**	**0.76**	**149**	*e*PG	**Pg**	**06 07 17.6**	**0.0**
KULA	**Kula-Manisa**	**0.76**	**149**	*e*Pg	**Pg**	**06 07 17.6**	**0.0**
GDZ	**Gediz**	**1.02**	**94**	*i* P	**Pb**	**06 07 22.5**	**0.0**
GDZ				*i* S	**Sb**	**06 07 36.2**	**+0.3**
GDZ	**Gediz**	**1.02**	**94**	*i* P	**Pb**	**06 07 22.5**	**0.0**
GDZ				*i* S	**Sb**	**06 07 36.2**	**+0.3**
IZM	**Izmir**	**1.05**	**223**	*e*PG	**Pg**	**06 07 22.5**	**-0.6**
IZM	**Izmir**	**1.05**	**223**	*e*Pg	**Pg**	**06 07 22.5**	**-0.6**
KCT	**Karacabey**	**1.10**	**7**	*e*PN	**Pn**	**06 07 23.7**	**-0.5**
KCT	**Karacabey**	**1.10**	**7**	*e*Pn	**Pn**	**06 07 23.7**	**-0.5**
BLCB	**Balcova**	**1.18**	**229**	*e*PN	**Pn**	**06 07 25.1**	**-0.1**
BLCB	**Balcova**	**1.18**	**229**	*e*Pn	**Pn**	**06 07 25.1**	**-0.1**
ULDT	**Uludag**	**1.23**	**37**	*i* P	**Pn**	**06 07 25.5**	**-0.4**
ULDT				*i* S	**Sb**	**06 07 41.1**	**-0.6**
ULDT	**Uludag**	**1.23**	**37**	*i* P	**Pn**	**06 07 25.5**	**-0.3**
ULDT				*i* S	**Sb**	**06 07 41.1**	**-0.7**
KHL	**Karahalli**	**1.35**	**128**	*e*PN	**Pn**	**06 07 28.6**	**+1.0**
KHL	**Karahalli**	**1.35**	**128**	*e*Pn	**Pn**	**06 07 28.6**	**+1.0**
ALT	**Altintas**	**1.51**	**94**	*e*PN	**Pn**	**06 07 30.6**	**+0.8**
ALT	**Altintas**	**1.51**	**94**	*e*Pn	**Pn**	**06 07 30.6**	**+0.8**

CASC 15 06:09:20.0±1.3**, 12°.24N**×**87°.03W, h124**km±6km**, MD3.7, ML3.5, 2C, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIRN	**Miramar**	**0.37**	**58**	*e*P	Pn	06 09 37.5	-0.1
CNGN	**Cerro Negro**	**0.41**	**52**	*e*P	Pn	06 09 37.6	-0.3
CNGN				*e*S	Sn	06 09 52.6	+1.2
COPN	**Copaltepe**	**0.43**	**98**⇑	*e*P	Pn	06 09 38.0	0.0
COPN				*e*P		06 09 38.1	
COPN				*e*S	Sn	06 09 51.6	+0.1
CRIN	**San Cristobal**	**0.46**	**358**⇑	*e*P	Pn	06 09 38.4	+0.2
CRIN				*e*S	Sn	06 09 52.3	+0.4
CRIN				AML	AML	06 09 53.6	
	comp=N,1µm,0.3s						
MOMN	**Momotombo**	**0.51**	**71**	*e*P	Pn	06 09 38.3	-0.1
TICN	**Ticuantepe**	**0.81**	**105**	*e*P	Pn	06 09 41.0	+0.4
HUEN		**0.84**	**83**	*e*P	Pn	06 09 40.9	0.0
APON	**Apoyo**	**1.00**	**109**	*e*P	Pn	06 09 42.9	+0.6
APON				*e*S	Sn	06 10 00.9	+1.7
CNCH	**Conchagua**	**1.29**	**323**	*e*P	Pn	06 09 46.0	+0.6
CNCH				*e*S	Sn	06 10 06.1	+1.4
BOAB	**BOACO BROADBAN**	**1.35**	**81**	*e*P	Pn	06 09 45.6	-0.4
BLLM	**Bellamira**	**1.68**	**315**	*e*P	Pn	06 09 51.1	+1.4
TGUH	**Tegucigalpa,Un**	**1.82**	**353**	*e*P	Pn	06 09 51.9	+0.4
LFRS	**El Faro**	**2.41**	**305**	*e*P	Pn	06 09 59.8	+1.0
LFRS				*e*S	Sn	06 10 29.4	+0.8

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*ISCJB **15** 06:31:41.1±1.6, 71°.79N±0°.09×0°.6W±0°.5, h10km, Error ellipse: s-maj=21.9km s-min=12.4km az=4.4*

*IDC **15** 06:31:43.4±2.6, 71°.66N×0°.43W, h0km, mb3.7/1, mb1 3.8/5, mb1mx3.4/26, mbtmp3.8/5, ML3.6/4, MS3.2/3, Ms1 3.2/3, ms1mx2.8/40, Error ellipse: s-maj=43.3km s-min=26.3km az=106.0*

*BER **15** 06:31:44.3±3.6, 71°.82N×1°.42W, h5km±501km, MD2.5, ML2.5*

ISC 15 06:31:43.7±1.7**, 71°.79N**±0°.09×**0°.8W**±0°.5**, h10**km**, n15, σ0s.97**/14**, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMIC	**Jan Mayen**	**2.61**	**256**	LR	LR	06 33 02.2	
	comp=Z,568nm,20.8s,baz=161,slow=29						
LOF	**Lofoten**	**6.13**	**120**	*e*P	**Pn**	**06 33 16.9**	**+2.8**
TRO	**Tromso**	**6.86**	**99**	*e*P	**Pn**	**06 33 23.3**	**-0.9**
SCO	**Scoresbysund**	**6.98**	**269**	*i* P	**Pn**	**06 33 19.6**	**-6.1**
	1.1nm,1.1s						
KONS	**Konsvik**	**7.25**	**130**	*e*P	**Pn**	**06 33 28.3**	**-1.2**
KONS				AML	AML	06 34 50.1	
	comp=Z,8.3nm,0.8s						
STOK	**Stokkvaagen**	**7.36**	**131**	*e*P	**Pn**	**06 33 30.4**	**-0.6**
SPITS	**Spitsbergen Ar**	**7.76**	**27**	Pn	**Pn**	**06 33 36.3**	**-0.2**
	baz=229,slow=12,SNR=59						
MOR8	**Moi Rana**	**7.83**	**129**	*e*P	**Pn**	**06 33 38.2**	**+0.7**
MOR8				*e*S	**Sn**	**06 35 01.2**	**-4.8**
MOR8				AML	AML	06 35 05.9	
	comp=Z,4.7nm,0.6s						
KTK1	**Kautokeino**	**8.50**	**97**	*e*P	**Pn**	**06 33 48.2**	**+1.6**
NSS	**Namsos**	**8.67**	**141**	*e*P	**Pn**	**06 33 49.1**	**+0.1**
ARCES	**ARCESS Array B**	**8.96**	**92**	Pn	**Pn**	**06 33 52.1**	**-0.8**
	comp=Z,0.7nm,0.3s,baz=297,slow=11,SNR=18						
ARCES				LR	LR	06 37 15.7	
	comp=Z,65nm,21.1s,baz=199,slow=38						
NOA	**NORSAR Array B**	**11.77**	**150**	Pn	**Pn**	**06 34 31.1**	**-0.3**
	comp=Z,0.3nm,0.3s,baz=338,slow=14,SNR=3.6						
HFS	**Hagfors**	**13.04**	**146**	Pn	**Pn**	**06 34 48.3**	**-0.4**
	comp=Z,0.5nm,0.3s,baz=336,slow=10,SNR=11						
ZALV	**Zalesovo Beam**	**38.74**	**70**	LR	LR	06 58 37.9	
	comp=Z,61nm,18.4s,baz=40,slow=42						
TORD	**Torodi Ar. Bea**	**58.63**	**177**	P	**P**	**06 41 41.1**	**+0.5**
	comp=Z,0.7nm,0.8s,baz=1.2,slow=7.7,SNR=3.8						

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*ISCJB **15** 06:34:27.8±0.3, 49°.33N±0°.02×6°.76E±0°.03, h0km, Error ellipse: s-maj=3.2km s-min=2.4km az=178.1*

*CSEM **15** 06:34:28.7±0.1, 49°.34N×6°.77E, h2km, ML2.5/11, Error ellipse: s-maj=3.4km s-min=2.4km az=89.0*

*NEIC **15** 06:34:29.2, 49°.37N×6°.82E, h1km, ML2.5(LDG), After LDG.*

*LDG **15** 06:34:29.2±0.1, 49°.37N×6°.82E, h1km, Md2.4/1, Ml2.5/11, Error ellipse: s-maj=2.4km s-min=1.8km az=97.0, Suspected Mining induced.*

*BGR **15** 06:34:30.5±0.5, 49°.35N×6°.79E, h1km, ML1.8, Error ellipse: s-maj=8.9km s-min=5.6km az=35.0*

*BNS **15** 06:34:31.0±0.3, 49°.41N×6°.83E, h0km±10km, ML1.5*

ISC 15 06:34:28.9±0.3**, 49°.35N**±0°.02×**6°.77E**±0°.03**, h0**km**, n45, σ0s.89**/81**, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLF	**Walferdange**	**0.51**	**309**	P	**Pg**	**06 34 40.2**	**+1.5**
WLF	**Walferdange**	**0.51**	**309**	*e*Pg	**Pg**	**06 34 39.6**	**+0.9**
WLF				*e*Sg	**Sg**	**06 34 47.0**	**+1.6**
WLF	**Walferdange**	**0.51**	**309**	Pg	**Pg**	**06 34 39.6**	**+0.9**
WLF				Sg	**Sg**	**06 34 47.0**	**+1.6**
BGG	**Burgeitz**	**0.94**	**23**	*e*Pg	**Pg**	**06 34 47.3**	**+0.5**
BGG	**Burgeitz**	**0.94**	**23**	Pg	**Pg**	**06 34 47.3**	**+0.5**
HILG	**Hillesheim**	**0.95**	**356**	*e*Pg	**Pg**	**06 34 47.8**	**+0.7**
HILG	**Hillesheim**	**0.95**	**356**	Pg	**Pg**	**06 34 47.8**	**+0.7**
CDF	**Champ du Feu**	**0.99**	**160**	*e*Pn	**Pn**	**06 34 48.6**	**-1.4**
CDF				*e*Sg	**Sg**	**06 35 01.3**	**+0.6**
	13nm,0.2s						
CDF	**Champ du Feu**	**0.99**	**160**	*e*Pg	**Pg**	**06 34 47.5**	**-0.4**
CDF				*e*Pn	**Pn**	**06 34 48.6**	**-1.4**
CDF				*e*Sg	**Sg**	**06 35 01.3**	**+0.6**
CDF	**Champ du Feu**	**0.99**	**160**	*e*Pg	**Pg**	**06 34 47.5**	**-0.4**
CDF	**Champ du Feu**	**0.99**	**160**	*e*Pn	**Pn**	**06 34 48.6**	**-1.4**
CDF				*e*Sg	**Sg**	**06 35 01.3**	**+0.6**
	6.3nm,0.2s						
RFYF	**Reffroy**	**1.11**	**230**	*e*Pg	**Pg**	**06 34 51.3**	**+1.1**
	baz=43						
RFYF				*e*Sg	**Sg**	**06 35 06.2**	**+1.5**
	19nm,0.3s						
RFYF	**Reffroy**	**1.11**	**230**	*e*Pg	**Pg**	**06 34 51.3**	**+1.1**
	baz=43						
RFYF				*e*Sg	**Sg**	**06 35 06.2**	**+1.5**
	9.6nm,0.3s						
ECH	**Echery**	**1.16**	**167**	*e*Pg	**Pg**	**06 34 51.4**	**+0.3**
ECH				*e*Sg	**Sg**	**06 35 06.7**	**+0.6**
ECH	**Echery**	**1.16**	**167**	*e*Pg	**Pg**	**06 34 51.4**	**+0.3**
ECH				*e*Sg	**Sg**	**06 35 06.7**	**+0.6**
STB	**Steinbach**	**1.25**	**2**	*e*Pg	**Pg**	**06 34 53.0**	**+0.2**
STB				*e*Sg	**Sg**	**06 35 09.2**	**+0.2**
	7.9nm,0.4s						
STB	**Steinbach**	**1.25**	**2**	Pg	**Pg**	**06 34 53.0**	**+0.2**
STB				Sg	**Sg**	**06 35 09.2**	**+0.1**
	7.9nm,0.4s						
MEM	**Membach**	**1.36**	**339**	P	**Pg**	**06 34 54.4**	**-0.5**
MEM	**Membach**	**1.36**	**339**	P	**Pg**	**06 34 54.4**	**-0.5**
HAU	**Haudompre**	**1.37**	**192**	*e*Pg	**Pg**	**06 34 55.3**	**+0.2**
HAU				*e*Sg	**Sg**	**06 35 13.3**	**+0.4**
	10nm,0.3s						
HAU	**Haudompre**	**1.37**	**192**	*e*Pg	**Pg**	**06 34 55.3**	**+0.2**
HAU				*e*Sg	**Sg**	**06 35 13.3**	**+0.4**
	5.2nm,0.3s						
TNS	**Taunus Mts**	**1.40**	**50**	*e*Pg	**Pg**	**06 34 55.1**	**-0.6**
TNS				*e*Sg	**Sg**	**06 35 14.5**	**+0.7**
TNS	**Taunus Mts**	**1.40**	**50**	*e*Pg	**Pg**	**06 34 55.1**	**-0.6**

TNS				*e*Sg	Sg	06 35 14.5	+0.8
TNS	Taunus Mts	1.40	50	Pg	Pg	06 34 55.1	-0.6
TNS				Sg	Sg	06 35 14.5	+0.8
MEZF	Maizieres J'vi	1.41	234	*e*Pg	Pg	06 34 56.0	0.0
	baz=55						
MEZF				*e*Sg	Sg	06 35 15.1	+0.8
	6.5nm,0.3s						
MEZF	Maizieres J'vi	1.41	234	*e*Pg	Pg	06 34 56.0	0.0
	baz=55						
MEZF				*e*Sg	Sg	06 35 15.1	+0.8
	3.2nm,0.3s						
BFO	Black Forest	1.45	134	*e*Pg	Pg	06 34 57.9	+1.3
BFO				*e*Sg	Sg	06 35 15.2	-0.2
BFO	Black Forest	1.45	134	*e*Pg	Pg	06 34 57.9	+1.3
BFO				*e*Sg	Sg	06 35 15.2	-0.1
BFO	Black Forest	1.45	134	Pg	Pg	06 34 57.9	+1.3
BFO				Sg	Sg	06 35 15.2	-0.1
GIVF	Givet	1.47	302	*e*Pn	Pn	06 34 55.2	-1.4
GIVF				*e*Sn	Sn	06 35 15.6	-1.0
	9.4nm,0.2s						
GIVF	Givet	1.47	302	*e*Pn	Pn	06 34 55.2	-1.4
GIVF				*e*Sn	Sn	06 35 15.6	-1.0
	4.7nm,0.2s						
HINF	Hinteralfeld	1.53	178	*e*Pg	Pg	06 34 58.0	-0.2
HINF				*e*Sg	Sg	06 35 18.4	+0.4
	20nm,0.3s						
HINF	Hinteralfeld	1.53	178	*e*Pg	Pg	06 34 58.0	-0.2
HINF				*e*Sg	Sg	06 35 18.4	+0.4
	9.9nm,0.3s						
SFTF	Sexfontaines	1.62	226	*e*Pn	Pn	06 34 57.9	-0.7
SFTF				*e*Sg	Sg	06 35 21.7	+0.9
	5.3nm,0.3s						
SFTF	Sexfontaines	1.62	226	*e*Pn	Pn	06 34 57.9	-0.7
SFTF				*e*Sg	Sg	06 35 21.7	+0.9
	2.7nm,0.3s						
BAIF	Baives	1.81	294	*e*Pg	Pg	06 35 03.3	-0.3
BAIF				*e*Sg	Sg	06 35 26.7	-0.3
	6.2nm,0.3s						
BAIF	Baives	1.81	294	*e*Pg	Pg	06 35 03.3	-0.3
BAIF				*e*Sg	Sg	06 35 26.7	-0.3
	3.1nm,0.3s						
CABF	La Chapelle	2.77	190	*e*Pg	Pg	06 35 21.9	-0.1
CABF				*e*Sg	Sg	06 35 57.3	-0.7
	1.7nm,0.3s						
CABF	La Chapelle	2.77	190	*e*Pg	Pg	06 35 21.9	-0.1
CABF				*e*Sg	Sg	06 35 57.3	-0.7
	0.9nm,0.3s						
LOR	Lormes	2.85	224	*e*Pn	Pn	06 35 14.5	-1.0
	baz=45						
LOR				*e*Sn	Sn	06 35 48.2	-2.2
LOR	Lormes	2.85	224	*e*Pn	Pn	06 35 14.5	-1.0
	baz=45						
LOR				*e*Sn	Sn	06 35 48.2	-2.2
SSF	Saint Saulge	3.16	225	*e*Pn	Pn	06 35 18.4	-1.4
SSF				*e*Sg	Sg	06 36 10.9	+0.5
	2.1nm,0.3s						
SSF	Saint Saulge	3.16	225	*e*Pn	Pn	06 35 18.4	-1.4
SSF				*e*Sg	Sg	06 36 10.9	+0.5
	1.0nm,0.3s						
SMF	Signal de Mont	3.34	217	*e*Pn	Pn	06 35 20.7	-1.6
SMF	Signal de Mont	3.34	217	*e*Pn	Pn	06 35 20.7	-1.6

IDC 15 06:34:36.8±2.8**, 13°.83S×167°.93E, h0^{km}, mb3.9**/4**, mb1 4.0**/4**, mb1mx3.8**/17**, mbtmp3.9**/4**, MS4.0**/1**, Ms1 4.0**/1**, ms1mx2.9**/28**, Error ellipse: s-maj=93.8km s-min=40.2km az=129.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	32.67	255	P	P	06 41 10.8	-0.2
	0.8nm,0.6s,baz=85,slow=9.5,SNR=8.3						
WRA				PcP	PcP	06 43 56.8	-0.3
	0.5nm,0.7s,baz=87,slow=3.6,SNR=3.4						
ASAR	Alice Springs	33.59	248	P	P	06 41 19.2	+0.3
	1.4nm,0.5s,baz=75,slow=9.2,SNR=35						
ASAR				PcP	PcP	06 43 59.0	-0.6
	0.6nm,0.8s,baz=102,slow=1.5,SNR=4.5						
CBIJ	Chichi jima	47.75	328	LR	LR	06 58 34.7	
	comp=Z,175nm,20.4s,baz=70,slow=30						
SONM	Songino Array	82.16	323	P	P	06 46 59.9	+0.4
	0.2nm,0.4s,baz=142,slow=7.3,SNR=2.8						
MKAR	Makanchi Array	97.00	316	P	P	06 48 10.3	-0.1
	0.4nm,0.6s,baz=93,slow=6.3,SNR=6.0						

IDC 15 06:50:50.1±2.5**, 4°.27N×123°.62E, h0^{km}, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/20**, mbtmp3.4**/3**, Error ellipse: s-maj=332.7km s-min=27.5km az=63.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	26.27	157	P	P	06 56 27.6	+0.2
	0.3nm,0.3s,baz=337,slow=9.5,SNR=10.0						
ASAR	Alice Springs	29.52	161	P	P	06 56 56.2	-0.2
	0.3nm,0.3s,baz=333,slow=7.2,SNR=4.2						
MKAR	Makanchi Array	55.37	327	P	P	07 00 26.0	0.0
	0.1nm,0.3s,baz=129,slow=7.2,SNR=4.4						

IDC 15 06:57:09.1±11.0**, 8°.97S×128°.66E, h132^{km}**±130^{km}**, mb2.8**/1**, mb1 3.1**/4**, mb1mx2.9**/17**, mbtmp2.9**/4**, ML3.5**/3**, Error ellipse: s-maj=82.5km s-min=49.1km az=13.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.54	198	P	Pn	06 59 24.1	+0.7
	0.2nm,0.3s,baz=32,slow=13,SNR=5.1						
FITZ				S	Sn	07 01 10.4	+1.5
	0.6nm,0.3s,baz=288,slow=22,SNR=8.1						
WRA	Warramunga Arr	12.21	154	P	Pn	06 59 57.0	-1.8
	0.4nm,0.3s,baz=330,slow=13,SNR=22						
WRA				S	Sn	07 02 10.3	-3.3
	0.2nm,0.3s,baz=346,slow=40,SNR=3.9						
ASAR	Alice Springs	15.45	162	P	Pn	07 00 39.8	-0.3
	0.2nm,0.3s,baz=331,slow=10.0,SNR=5.5						
ASAR				S	S	07 03 34.5	-3.2
	0.1nm,0.3s,baz=327,slow=23,SNR=4.3						
MKAR	Makanchi Array	69.15	328	P	P	07 08 01.3	+0.2
	0.1nm,0.4s,baz=115,slow=8.0,SNR=2.4						

IDC 15 07:02:45.8±1.4**, 22°.89N×142°.59E, h0^{km}, mb3.3**/4**, mb1 3.6**/4**, mb1mx3.4**/20**, mbtmp3.3**/4**, Error ellipse: s-maj=62.2km s-min=28.3km az=93.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.33	191	P	P	07 10 49.6	-0.1
	0.9nm,0.8s,baz=13,slow=8.3,SNR=4.8						
ASAR	Alice Springs	47.04	191	P	P	07 11 19.1	0.0
	0.3nm,0.7s,baz=18,slow=8.8,SNR=4.9						
MKAR	Makanchi Array	53.49	312	P	P	07 12 07.9	-0.1
	0.1nm,0.5s,baz=110,slow=7.9,SNR=3.5						
YKA	Yellowknife Ar	75.66	28	P	P	07 14 32.7	+0.1
	0.1nm,0.6s,baz=292,slow=5.3,SNR=3.9						

CASC 15 07:10:47.9±1.7**, 8°.68N×82°.45W, h7^{km}**±5^{km}**, MD3.7, 2C, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRU2	Volcan	0.27	295	⇑*i*P	Pg	07 10 53.8	+0.6
BRU2				*e*S	Sg	07 10 58.4	+1.7
ACR	Cerro Adams	0.71	268	*e*P	Pg	07 11 01.4	-0.2
ACR				⇑*e*P		07 11 01.5	
ACR				*e*S	Sg	07 11 12.0	+1.1
CNI	Changuinola	0.73	355	*i* P	Pg	07 11 00.6	-1.4
BAR1		1.02	303	*e*P	Pg	07 11 05.9	-1.6
BAR1				*e*S	Sg	07 11 22.6	+1.9
BUS	Buena Vista	1.56	304	*e*P	Pn	07 11 15.9	-0.2
BUS				*e*S	Sn	07 11 37.6	+1.2
URSC	Urasca	1.74	311	*e*P	Pn	07 11 18.3	-0.3
URSC				*e*S	Sn	07 11 41.7	+0.6
QCR	Quepos	1.85	294	*e*P	Pn	07 11 19.2	-0.8
QCR				*e*S	Sn	07 11 44.2	+0.5
LCR2	La Lucha 2	1.86	305	*e*P	Pn	07 11 20.1	-0.1
LCR2				*e*S	Sn	07 11 44.6	+0.6
LAJ	Bijagual	2.03	306	*e*P	Pn	07 11 27.4	+4.9
PRS1	Puriscal	2.25	305	*e*P	Pn	07 11 25.4	-0.1
PRS1				*e*S	Sn	07 11 54.8	+1.3
CGA2	Cerro Gallo 2	2.39	304	*e*P	Pn	07 11 27.9	+0.4

IGQ 15 07:20:54.1, 2°.75S×78°.24W, h12^{km}±3^{km}, Mb4.3, Ms4.1, 5C-1D, Error ellipse: s-maj=8.4km s-min=2.5km az=166.9, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BPAT	Tungurahua Vol	1.25	351	⇓P	Pn	07 21 17.5	+0.1
PATA	Patacocha	1.25	351	⇑S	Sb	07 21 36.2	+2.5
PATA	Patacocha	1.25	351	⇑P	Pn	07 21 17.3	-0.1
ARRY	Arrayan	1.25	350	S	Sb	07 21 35.7	+2.0
ARRY	Arrayan	1.25	350	P	Pn	07 21 17.1	-0.3
BMAS	Trigal station	1.26	349	⇑P	Pn	07 21 17.6	+0.1
BMAS	Trigal station	1.26	349	⇑S	Sb	07 21 37.9	+4.0
ULBA	Ulba	1.30	353	P	Pn	07 21 18.3	+0.2
BIL2	Estacion Bilba	1.31	348	S	Sb	07 21 40.6	+5.2
BIL2	Estacion Bilba	1.31	348	P	Pn	07 21 19.9	+1.6
IGUA	Igualata	1.31	342	S	Sb	07 21 40.7	+5.3
IGUA	Igualata	1.31	342	P	Pn	07 21 19.5	+1.3
BRUN	Tungurahua Vol	1.33	353	S	Sb	07 21 40.4	+4.5
BRUN	Tungurahua Vol	1.33	353	P	Pn	07 21 18.7	+0.2
JUI6	Juive	1.33	350	S	Sb	07 21 39.9	+3.8
JUI6	Juive	1.33	350	P	Pn	07 21 18.9	+0.4
RUN5	Runtun	1.33	352	P	Pn	07 21 18.8	+0.2
RUN5	Runtun	1.33	352	S	Sb	07 21 40.1	+3.9
PISA	Pisayambo	1.68	355	⇑P	Pn	07 21 24.9	+1.6
BMOR	Cotopaxi Volca	2.01	354	P	Pn	07 21 31.2	+3.3
MOV1	Cotopaxi Vol s	2.03	354	S	Sn	07 22 03.2	+10
MOV1	Cotopaxi Vol s	2.03	354	P	Pn	07 21 32.0	+3.9
TAMB	Tambo	2.04	356	S	Sn	07 22 02.1	+8.4
TAMB	Tambo	2.04	356	P	Pn	07 21 31.5	+3.2
BTAM	Cotopaxi Volca	2.06	356	P	Pn	07 21 32.5	+3.9
BTAM	Cotopaxi Volca	2.06	356	P	Pn	07 21 31.9	+3.3
BREF	Cotopaxi Volca	2.07	354	P	Pn	07 21 29.8	+1.0
CAMI	Rancho Maria	2.07	353	S	Sn	07 22 04.9	+10
CAMI	Rancho Maria	2.07	353	P	Pn	07 21 32.4	+3.6
COV1	Cotopaxi Volc	2.07	357	S	Sn	07 22 03.8	+9.3
COV1	Cotopaxi Volc	2.07	357	P	Pn	07 21 32.1	+3.3
BNAS	Cotopaxi Volca	2.07	353	S	Sn	07 22 05.0	+10
BNAS	Cotopaxi Volca	2.07	353	P	Pn	07 21 32.2	+3.4
BVC2	Cotopaxi Volca	2.08	355	P	Pn	07 21 32.7	+3.8
VC1	Cotopaxi 1	2.10	356	P	Pn	07 21 32.3	+3.3
VC1	Cotopaxi 1	2.10	356	S	Sn	07 22 05.1	+10
NAS2	Nasa	2.10	354	S	Sn	07 22 05.5	+10
NAS2	Nasa	2.10	354	P	Pn	07 21 33.1	+4.0
PITA	Cotopaxi Volc	2.18	355	P	Pn	07 21 33.8	+3.5
ANTI	Antisana	2.28	2	P	Pn	07 21 34.0	+2.3
ANTI	Antisana	2.28	2	S	Sn	07 22 07.0	+7.3
JUA2	San Juan 2	2.54	352	P	Pn	07 21 40.8	+5.6
GGP	Refugio Guagua	2.58	352	P	Pn	07 21 41.3	+5.6
TERV	Terraza Guagua	2.58	352	P	Pn	07 21 42.6	+6.9
PINO	Pino	2.59	352	P	Pn	07 21 42.7	+6.8
YANA	Yana	2.63	353	P	Pn	07 21 42.7	+6.3
LAV3	Lava3-Reventad	2.70	13	S	Sn	07 22 19.5	+9.5
LAV3	Lava3-Reventad	2.70	13	P	Pn	07 21 40.7	+3.3
CHAR	Charly	2.70	12	S	Sn	07 22 19.2	+9.2
CHAR	Charly	2.70	12	P	Pn	07 21 40.3	+2.9
CONE	Cono NE Rev Vo	2.72	13	P	Pn	07 21 42.4	+4.7
CAYA	Cayambe	2.81	5	S	Sn	07 22 26.4	+14
CAYA	Cayambe	2.81	5	P	Pn	07 21 44.5	+5.7
OTAV	Otavalo	2.97	356	P	Pn	07 21 47.0	+5.9
CHIS	Cerro-Chispas-	3.00	304	P	Pn	07 21 45.9	+4.4
COTA	Cotacachi	3.06	358	P	Pn	07 21 49.8	+7.4

ISCJB ***15*** *07:21:36.0±0.8, 56°.3S±0°.1×25°.6W±0°.4, h10^{km}, mb4.4/6, Error ellipse: s-maj=29.6km s-min=12.7km az=161.0*

IDC ***15*** *07:21:36.0±1.0, 56°.39S×25°.52W, h0^{km}, mb4.2/4, mb1 4.3/4, mb1mx4.0/14, mbtmp4.2/4, Error ellipse: s-maj=41.0km s-min=28.5km az=90.0*

NEIC ***15*** *07:21:37.4±0.5, 56°.41S×25°.48W, h10^{km}, mb4.8/2, Error ellipse: s-maj=21.4km s-min=13.6km az=80.0*

ISC 15 07:21:38.0±0.8**, 56°.4S**±0°.1×**25°.6W**±0°.4**, h10^{km}, n12, σ0^{s}.49**/10**, mb4.4**/6**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	Neumayer Olymp	16.41	162	*e*	Pn	07 25 28.3	+0.4
VNA2	Neumayer--Watz	16.57	159	*e*	Pn	07 25 30.7	+0.6
	baz=332,slow=16						
QSPA	South Pole Qui	33.89	180	*e*P	P	07 28 19.4	-0.8
	6.1nm,0.5s,mb4.8						
CPUP	Villa Florida	37.69	309	P	P	07 28 53.2	-0.1
	0.9nm,0.5s,mb3.8,baz=134,slow=7.0,SNR=7.3						
CPUP	Villa Florida	37.69	309	P	P	07 28 53.2	-0.1
LVC	Limon Verde	46.22	299	*e*P	P	07 30 03.7	+0.6
	8.5nm,0.8s,mb4.7						
VNDA	Vanda	46.30	182	P	P	07 30 02.5	-0.5
	1.5nm,0.6s,mb4.1,baz=175,slow=7.9,SNR=6.5						
DBIC	Dimbokro	65.10	23	P	P	07 32 18.5	-0.1
	3.3nm,0.7s,mb4.5,baz=143,slow=6.9,SNR=4.1						
DBIC	Dimbokro	65.10	23	P	P	07 32 18.5	-0.1
TORD	Torodi Ar. Bea	72.91	28	P	P	07 33 06.9	-0.2
	3.4nm,0.7s,mb4.4,baz=200,slow=6.7,SNR=23						
YKA	Yellowknife Ar	137.00	317	PKP	PKPdf	07 40 58.6	-0.8
	1.1nm,0.8s,baz=128,slow=2.0,SNR=10						
SONM	Songino Array	149.87	86	PKPbc	PKPbc	07 41 26.3	-0.9
	1.5nm,0.6s,baz=215,slow=3.0,SNR=14						

NIED ***15*** *07:23:00, 25°.20N×123°.40E, h155^{km}, Mw4.0 Best double couple: M₀1.13000×10^{15} NP1:φ$_s$7.00000°, δ82.00000°, λ-65.00000°. NP2:φ$_s$113.00000°, δ27.00000°, λ-162.00000°.*

IDC ***15*** *07:23:23.8±3.4, 25°.30N×123°.39E, h138^{km}±33^{km}, mb3.4/7, mb1 3.5/8, mb1mx3.4/24, mbtmp3.4/8, Error ellipse: s-maj=30.9km s-min=19.7km az=49.0*

ISCJB ***15*** *07:23:24.0±0.5, 25°.23N±0°.08×123°.38E±0°.06, h155^{km}±7^{km}, mb3.4/7, Error ellipse: s-maj=15.1km s-min=6.7km az=150.1*

JMA ***15*** *07:23:26.5±0.2, 25°.16N×123°.36E, h143^{km}±4^{km}, M4.1*

ISC 15 07:23:25.0±0.5**, 25°.25N**±0°.08×**123°.37E**±0°.07**, h150^{km}**±7^{km}**, n25, σ0^{s}.98**/37**, mb3.4**/7**, Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.85	203	P	Pn	07 23 48.8	+0.3
YOJ				S	Sn	07 24 06.2	-0.2
IRIF	Iriomote-Funau	0.96	160	P	Pn	07 23 49.3	-0.2
IRIF				S	Sn	07 24 07.0	-1.1
JIJ	Ishigaki jima	1.12	141	P	Pn	07 23 51.0	+0.1
JIJ				S	Sn	07 24 09.4	-1.1
JKRS	Kuro-shima	1.16	150	P	Pn	07 23 51.7	+0.5
JKRS				S	Sn	07 24 10.6	-0.5
HATJ	Hateruma jima	1.25	161	P	Pn	07 23 52.3	+0.3
HATJ				S	Sn	07 24 12.1	-0.5
JTJ	Tarama	1.35	116	P	Pn	07 23 53.9	+0.9
JTJ				S	Sn	07 24 14.8	+0.4
JMJ	Miyako jima 2	1.80	103	P	Pn	07 23 59.3	+1.5
JMJ				S	Sn	07 24 23.7	+0.8
JOGS	Gusukube	1.91	104	S	Sn	07 24 26.3	+1.1
JKE	Kume jima 2	3.26	70	P	Pn	07 24 16.9	+1.2
JAGN	Aguni-jima	3.73	68	P	Pn	07 24 22.8	+1.0
JAGN				*e*S	Sn	07 25 05.8	0.0
NAH1	Naha	4.01	75	P	Pn	07 24 26.4	+1.0
JJT2	Tamagusuku 2	4.05	76	P	Pn	07 24 26.9	+1.0
JOW	Kunigami	4.69	69	P	Pn	07 24 33.9	-0.3
JOW				*e*S	Sn	07 25 26.4	-1.8
JOW	Kunigami	4.69	69	P	Pn	07 24 34.0	-0.2
	17nm,0.3s,baz=238,slow=6.4,SNR=77						
JOW				S	Sn	07 25 25.3	-2.9
	11nm,0.3s,baz=130,slow=27,SNR=5.8						
JTK	Tokunoshima	5.60	62	P	Pn	07 24 45.5	-0.9
JTK				*e*S	Sn	07 25 48.2	-1.8
JAM	Amami Oshima	6.40	59	P	Pn	07 24 55.7	-1.3
JMZ	Minamidaito 2	7.11	84	P	Pn	07 25 04.7	-1.9
JMZ				*e*S	Sn	07 26 18.4	-7.8
KSRS	Korea Array	12.77	17	P	Pn	07 26 23.8	+2.6
	0.2nm,0.3s,baz=70,slow=35,SNR=3.8						
SONM	Songino Array	26.23	334	P	P	07 28 46.4	+0.5
	0.6nm,0.6s,mb3.4,baz=148,slow=8.7,SNR=6.0						
MKAR	Makanchi Array	38.99	314	P	P	07 30 36.5	-0.1
	1.2nm,0.5s,mb3.8,baz=100,slow=9.3,SNR=24						
ZALV	Zalesovo Beam	40.47	325	P	P	07 30 47.5	-1.2
	0.7nm,0.5s,mb3.5,baz=101,slow=7.7,SNR=4.4						
KURK	Kurchatov	42.59	319	P	P	07 31 05.5	-0.6
	0.8nm,0.7s,mb3.5,baz=112,slow=9.2,SNR=6.5						
WRA	Warramunga Arr	46.16	166	P	P	07 31 34.9	+0.2
	0.5nm,0.4s,mb3.5,baz=348,slow=8.8,SNR=5.4						
NOA	NORSAR Array B	78.21	333	P	P	07 35 07.3	-0.4
	0.3nm,0.4s,mb3.3,baz=58,slow=6.1,SNR=2.7						
YKA	Yellowknife Ar	81.22	23	P	P	07 35 24.2	+0.4
	0.4nm,0.7s,mb3.2,baz=310,slow=5.0,SNR=11						

ISCJB ***15*** *07:23:48.7±1.2, 36°.10N±0°.05×21°.37E±0°.06, h25^{km}±9^{km}, Error ellipse: s-maj=9.6km s-min=8.1km az=35.2*

CSEM ***15*** *07:23:48.4±0.6, 36°.12N×21°.49E, h10^{km}, ML3.6/2, Error ellipse: s-maj=13.3km s-min=8.6km az=23.0*

NEIC ***15*** *07:23:49.1, 36°.13N×21°.47E, h28^{km}, MD3.8(ATH), After ATH.*

ATH ***15*** *07:23:49.1, 36°.13N×21°.47E, h28^{km}±2^{km}, MD3.8/9*

THE ***15*** *07:23:51.2, 36°.18N×21°.54E, h16^{km}±3^{km}, ML3.6/2, Error ellipse: s-maj=4.5km s-min=1.4km az=239.0*

ISC 15 07:23:48.9±1.3**, 36°.11N**±0°.05×**21°.45E**±0°.06**, h13^{km}**±7^{km}**, n48, σ1^{s}.00**/63**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.82	17	P	Pg	07 24 04.6	-0.2
PYL				S	Sg	07 24 16.3	+0.8
PYL	PYLOS	0.82	17	*e*PN	Pg	07 24 04.9	+0.1
PYL				*e*SN	Sg	07 24 16.1	+0.6
PYL	PYLOS	0.82	17	*e*Pn	Pg	07 24 04.9	+0.1
PYL				*e*Sn	Sg	07 24 16.1	+0.6
ITM	Ithomi	1.13	20	*e*PN	Pg	07 24 09.8	-1.0
ITM				*e*SN	Sg	07 24 26.1	+0.6
ITM	Ithomi	1.13	20	*e*Pn	Pg	07 24 09.8	-1.0
ITM				*e*Sn	Sg	07 24 26.1	+0.6
KYTH	Kithira	1.30	82	*e*PN	Pn	07 24 12.8	+0.1
KYTH	Kithira	1.30	82	*e*Pn	Pn	07 24 12.8	+0.1
VLX	Vlachokerasia	1.46	31	*e*PN	Pn	07 24 15.0	+0.1
VLX	Vlachokerasia	1.46	31	*e*Pn	Pn	07 24 15.0	+0.1
GUR	Goura	1.96	21	*e*PB	Pb	07 24 22.7	-1.7
GUR	Goura	1.96	21	*e*Pb	Pb	07 24 22.7	-1.7
DID	Didima	2.00	45	P	Pn	07 24 22.2	-0.1
DID	Didima	2.00	45	*e*PN	Pn	07 24 22.5	+0.2
DID	Didima	2.00	45	*e*Pn	Pn	07 24 22.5	+0.2
KARN	Karanos	2.13	109	P	Pn	07 24 25.1	+1.0
KARN	Karanos	2.13	109	*e*PB	Pb	07 24 25.2	-2.1
KARN	Karanos	2.13	109	*e*Pb	Pb	07 24 25.2	-2.1
LAKA	Lakka	2.17	11	P	Pn	07 24 25.6	+1.0
LAKA	Lakka	2.17	11	P	Pn	07 24 25.6	+1.0
VLS	Valsamata	2.17	342	P	Pn	07 24 25.8	+1.1
VLS	Valsamata	2.17	342	*e*PN	Pn	07 24 25.5	+0.8
VLS	Valsamata	2.17	342	*e*Pn	Pn	07 24 25.5	+0.8
NAIG	Nisos Aigina	2.32	44	*e*PN	Pn	07 24 27.6	+0.9
NAIG	Nisos Aigina	2.32	44	*e*Pn	Pn	07 24 27.6	+0.9
AGG	Agios Georgios	2.99	13	P	Pn	07 24 36.8	+0.9
AGG				S	Sn	07 25 11.4	-0.2
AGG	Agios Georgios	2.99	13	P	Pn	07 24 36.8	+0.9
AGG				S	Sn	07 25 11.4	-0.2
THL	Klokotos Trika	3.48	7	P	Pn	07 24 43.2	+0.6
THL	Klokotos Trika	3.48	7	P	Pn	07 24 43.2	+0.6
XOR	Xorichti	3.53	23	P	Pn	07 24 44.3	+0.9
XOR				S	Sn	07 25 25.4	+0.5
XOR	Xorichti	3.53	23	P	Pn	07 24 44.3	+0.9
XOR				S	Sn	07 25 25.4	+0.5
FNA	Florina	4.66	359	P	Pn	07 24 59.4	+0.4
FNA	Florina	4.66	359	P	Pn	07 24 59.4	+0.4
TIP	Timpagrande	4.82	311	Pn	Pn	07 25 01.8	+0.7
TIP				Sn	Sn	07 25 56.2	-0.5
TIP	Timpagrande	4.82	311	Pn	Pn	07 25 01.8	+0.7
TIP				Sn	Sn	07 25 56.2	-0.5
BIA	Bitola	4.90	359	*e*Pn	Pn	07 25 01.7	-0.5
BIA				*e*Sg	Sn	07 25 52.8	-5.9
BIA	Bitola	4.90	359	*e*Pn	Pn	07 25 01.6	-0.6
CEL	Celeste	4.92	297	Pn	Pn	07 25 03.9	+1.4
CEL				Sn	Sn	07 25 54.4	-4.9
CEL	Celeste	4.92	297	Pn	Pn	07 25 03.9	+1.4
SOH	Sokhos	4.93	17	P	Pn	07 25 03.5	+0.8
SOH	Sokhos	4.93	17	P	Pn	07 25 03.5	+0.8
OHR	Ohrid	5.02	354	*e*Pn	Pn	07 25 03.7	-0.1
OHR				*e*Sg	Sn	07 25 57.1	-4.5
OHR	Ohrid	5.02	354	*e*Pn	Pn	07 25 03.7	-0.1
KRUS	Krusevo	5.25	358	*e*Pn	Pn	07 25 06.1	-0.9
KRUS				*e*Sg	Sn	07 26 03.1	-4.2
KRUS	Krusevo	5.25	358	*e*Pn	Pn	07 25 06.1	-0.9
VAY	Valandovo	5.27	9	*e*Pn	Pn	07 25 05.2	-2.2
VAY	Valandovo	5.27	9	*e*Pn	Pn	07 25 05.1	-2.2
BARS	Barje	6.70	2	*e*Pn	Pn	07 25 25.2	-1.7
BBLS	Lazići	7.90	349	*e*Pn	Pn	07 25 41.7	-1.7

IDC ***15*** *07:24:37.9±0.8, 1°.59S×122°.67E, h0^{km}, mb4.0/9, mb1 4.2/10, mb1mx4.1/20, mbtmp4.0/10, ML3.5/1, Error ellipse: s-maj=47.4km s-min=15.2km az=72.0*

NEIC ***15*** *07:24:42.9±0.5, 1°.30S×123°.47E, h35^{km}, mb4.1/4, Error ellipse: s-maj=18.2km s-min=8.7km az=72.0*

ISCJB ***15*** *07:24:45.4±1.2, 1°.50S±0°.07×123°.20E±0°.10, h76^{km}±13^{km}, mb4.1/12, Error ellipse: s-maj=16.6km s-min=11.5km az=0.8*

DJA ***15*** *07:24:48, 1°.84S×123°.70E, h50^{km}, MLv4.6/4*

ISC 15 07:24:47.5±1.0**, 1°.55S**±0°.06×**123°.2E**±0°.1**, h78^{km}**±11^{km}**, n21, σ1^{s}.25**/21**, mb4.1**/12**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDI	Kendari	2.46	193	P	Pn	07 25 24.9	-0.6
MNI	Manado	3.40	29	P	Pn	07 25 40.3	+1.9
PCI	Palu	3.41	281	P	Pn	07 25 46.5	+8.0
LBMI	Labuha	4.40	78	P	Pn	07 25 50.0	-2.0
LBMI				S	Sn	07 26 33.0	-9.1
KAPI	Kappang	4.86	225	*e*Pn	Pn	07 25 59.3	+1.1
	32nm,0.5s						
FITZ	Fitzroy Crossi	16.62	172	Pn	Pn	07 28 34.8	-0.9
	0.1nm,0.3s,baz=221,slow=23,SNR=2.4						
WRAB	Tennant Creek	21.28	150	*e*P	P	07 29 27.2	-0.6
	4.2nm,0.7s,mb3.9						
WRA	Warramunga Arr	21.28	150	P	P	07 29 27.5	-0.3
	5.1nm,0.8s,mb3.9,baz=325,slow=11,SNR=35						
ASAR	Alice Springs	24.31	156	P	P	07 29 58.9	+0.9
	3.0nm,0.5s,mb3.9,baz=343,slow=14,SNR=63						
ASAR				PcP	PcP	07 33 38.3	+2.2
	1.0nm,0.6s,baz=345,slow=1.7,SNR=11						
FORT	Forrest	29.43	171	*e*P	P	07 30 45.2	+1.3
	15nm,0.7s,mb4.7						
STKA	Stephens Creek	34.80	152	P	P	07 31 31.7	+0.8
	1.4nm,0.5s,mb4.0,baz=334,slow=9.0,SNR=3.6						
KSRS	Korea Array	39.06	6	P	P	07 32 06.4	-0.4
	0.8nm,0.3s,mb4.0,baz=181,slow=9.3,SNR=4.0						
MJAR	Matsushiro Arr	40.40	19	P	P	07 32 19.8	+1.8
	2.1nm,0.8s,mb4.0,baz=196,slow=9.2,SNR=3.8						
ULN	Ulaanbaatar	51.19	346	*e*P	P	07 33 42.1	-0.8
	1.5nm,0.7s,mb4.1						
SONM	Songino Array	51.33	346	P	P	07 33 43.3	-0.5
	1.9nm,0.7s,mb4.2,baz=162,slow=8.7,SNR=17						
MKAR	Makanchi Array	60.03	329	P	P	07 34 44.9	-1.2
	0.3nm,0.3s,mb3.8,baz=127,slow=8.8,SNR=11						
MKAR				PcP	PcP	07 35 31.1	-0.4
	0.6nm,0.6s,baz=121,slow=5.4,SNR=4.7						
MKAR	Makanchi Array	60.03	329	P	P	07 34 44.9	-1.2
MKAR				PcP	PcP	07 35 31.1	-0.4
PETK	Petropavlovsk-	61.63	23	P	P	07 34 59.6	+2.7
	5.1nm,1.0s,mb4.5,baz=246,slow=11,SNR=3.7						
KURK	Kurchatov	64.41	330	P	P	07 35 13.6	-1.8
	0.6nm,0.7s,mb3.5,baz=122,slow=6.4,SNR=3.8						
KURK	Kurchatov	64.41	330	*e*P	P	07 35 13.7	-1.6
	1.7nm,0.8s,mb3.9						
CPUP	Villa Florida	152.28	179	PKPbc	PKPbc	07 44 37.3	+2.1
	0.4nm,0.4s,baz=198,slow=3.0,SNR=3.4						

ISCJB ***15*** *07:34:03.6±0.2, 42°.34N±0°.01×0°.48E±0°.01, h23^{km}±2^{km}, Error ellipse: s-maj=2.3km s-min=1.8km az=162.2*

MRB ***15*** *07:34:03.9, 42°.34N×0°.55E, h0^{km}±2^{km}, ML3.5/13, Error ellipse: s-maj=0.9km s-min=0.3km az=211.0*

CSEM ***15*** *07:34:03.3±0.1, 42°.33N×0°.56E, h5^{km}, ML3.9/18, Error ellipse: s-maj=1.8km s-min=1.4km az=147.0*

STR ***15*** *07:34:03.9±0.4, 42°.33N×0°.55E, h5^{km}, Ml3.9, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

BGS ***15*** *07:34:03.9±1.0, 42°.51N×1°.32E, h5^{km}, ML4.0*

INMG ***15*** *07:34:04.1±1.6, 42°.41N×0°.62E, h15^{km}±4^{km}, ML3.3, Error ellipse: s-maj=4.4km s-min=3.0km az=49.0*

MDD ***15*** *07:34:04.6±0.2, 42°.35N×0°.59E, h10^{km}, mbLg3.2/48, Error ellipse: s-maj=1.7km s-min=1.4km az=9.0, PRIMO*

MDD EMS: IV INTENSIDAD MIMA.

LDG ***15*** *07:34:04.7±0.1, 42°.35N×0°.60E, h4^{km}, Md3.6/7, Ml3.8/45, Error ellipse: s-maj=1.0km s-min=0.8km az=154.0*

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NEIC **15** *07:34:04.7, 42°.35N×0°.60E, h4km, ML3.8(LDG), ML3.9(STR), MN3.5(MDD), After LDG.*

ISC 15 07:34:03.8±0.2**, 42°.398N**±0°.009×**0°.58E**±0°.01**, h16**km±1km**,**
n412, σ1s.46/711**, 1C-1D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTRE	Tremp	0.16	117	Pg	Pg	07 34 06.8	-1.1
CTRE				Lg		07 34 09.8	
	8µm,0.4s						
CTRE	Tremp	0.16	117	P	Pg	07 34 06.9	-1.0
CTRE				S	Sg	07 34 09.8	-1.0
	8µm,0.4s						
CSOR	Sort	0.41	93	P	Pg	07 34 12.1	-0.1
CSOR				S	Sg	07 34 18.7	+0.9
	2µm,0.4s						
EBIE	Bielsa	0.43	312	⇓Pg	Pg	07 34 12.6	+0.1
	15nm,0.2s,SNR=18						
EBIE				Lg		07 34 19.6	
	983nm,0.5s,SNR=87						
EBIE	Bielsa	0.43	312	Pg	Pg	07 34 12.7	+0.2
EBIE				Lg		07 34 19.6	
EBIE	Bielsa	0.43	312	Pg	Pg	07 34 12.7	+0.2
EBIE				S	Sg	07 34 19.6	+1.2
EBIE				Lg		07 34 19.6	
	983nm,0.5s,SNR=87						
RESF	Ens	0.45	337	Pg	Pg	07 34 13.2	+0.4
RESF				Sg	Sg	07 34 20.2	+1.4
RESF	Ens	0.45	337	Pg	Pg	07 34 13.3	+0.5
RESF				Lg		07 34 20.8	
RESF	Ens	0.45	337	Pg	Pg	07 34 13.2	+0.4
RESF				Sg	Sg	07 34 20.2	+1.4
MELF	Melles	0.49	16	Pg	Pg	07 34 14.5	+0.9
MELF				Sg	Sg	07 34 23.4	+3.1
MELF	Melles	0.49	16	Pg	Pg	07 34 14.5	+0.9
MELF				Lg		07 34 22.2	
MELF	Melles	0.49	16	Pg	Pg	07 34 14.5	+0.9
MELF				Sg	Sg	07 34 23.4	+3.1
CAVN	Les Avellanes	0.53	166	Pg	Pg	07 34 12.9	-1.4
CAVN				Lg		07 34 19.9	
	2µm,0.4s						
CAVN	Les Avellanes	0.53	166	P	Pg	07 34 13.0	-1.3
CAVN				S	Sg	07 34 19.9	-1.5
	3µm,0.4s						
CEST	Esterri de Car	0.54	68	Pg	Pg	07 34 14.7	+0.2
CEST				Lg		07 34 22.5	
	559nm,0.3s						
CEST	Esterri de Car	0.54	68	P	Pg	07 34 14.7	+0.2
CEST				S	Sg	07 34 22.6	+0.8
	559nm,0.3s						
CORG	Organya	0.57	107	Pg	Pg	07 34 14.4	-0.7
CORG				Lg		07 34 23.1	
	332nm,0.5s						
CORG	Organya	0.57	107	P	Pg	07 34 14.5	-0.6
CORG				S	Sg	07 34 23.1	+0.3
	665nm,0.5s						
SALF	Salau	0.58	51	Pg	Pg	07 34 15.4	+0.2
SALF				Sg	Sg	07 34 26.2	+3.2
SALF	Salau	0.58	51	Pg	Pg	07 34 15.6	+0.3
SALF				Lg		07 34 23.9	
SALF	Salau	0.58	51	Pg	Pg	07 34 15.4	+0.2
SALF				Sg	Sg	07 34 26.2	+3.2
VIEF	Viey	0.63	320	Pg	Pg	07 34 16.5	+0.3
VIEF				Sg	Sg	07 34 26.0	+1.3
VIEF	Viey	0.63	320	Pg	Pg	07 34 16.3	+0.1
VIEF				Lg		07 34 26.0	
VIEF	Viey	0.63	320	Pg	Pg	07 34 16.5	+0.3
VIEF				Sg	Sg	07 34 26.0	+1.3
EPF	Esparros	0.66	345	*e*P	Pg	07 34 19.4	+2.7
EPF				*e*Sg	Sg	07 34 26.5	+1.1
	959nm,0.3s,SNR=1.0						
EPF	Esparros	0.66	345	Pg	Pg	07 34 17.2	+0.5
EPF				Lg		07 34 26.5	
	480nm,0.3s						
EPF	Esparros	0.66	345	*e*Pg	Pg	07 34 17.2	+0.5
EPF				*e*P		07 34 19.4	
EPF				*e*Sg	Sg	07 34 26.5	+1.1
EPF	Esparros	0.66	345	*e*Pg	Pg	07 34 17.2	+0.5
	SNR=1.0						
EPF	Esparros	0.66	345	*e*P	Pg	07 34 19.4	+2.7
EPF				*e*Sg	Sg	07 34 26.5	+1.1
	480nm,0.3s,SNR=1.0						
MLS	Moulis	0.68	34	Pg	Pg	07 34 17.6	+0.5
MLS				Sg	Sg	07 34 27.4	+1.3
MLS	Moulis	0.68	34	Pg	Pg	07 34 17.6	+0.5
MLS				Lg		07 34 27.5	
MLS	Moulis	0.68	34	Pg	Pg	07 34 17.6	+0.5
MLS				Sg	Sg	07 34 27.4	+1.3
PAND	Andorre	0.73	80	Pg	Pg	07 34 18.1	+0.1
PAND				Lg		07 34 28.2	
LABF	Labassere	0.75	330	Pg	Pg	07 34 18.9	+0.5
LABF				Sg	Sg	07 34 29.8	+1.5
LABF	Labassere	0.75	330	Pg	Pg	07 34 18.6	+0.2
LABF				Lg		07 34 29.8	
LABF	Labassere	0.75	330	Pg	Pg	07 34 18.9	+0.5
LABF				Sg	Sg	07 34 29.8	+1.5
GRBF	Gourbit	0.84	58	Pg	Pg	07 34 20.2	+0.2
GRBF				Lg		07 34 32.3	
EMIR	Miracle	0.85	124	Pg	Pg	07 34 19.4	-1.0
	16nm,0.1s,SNR=7.9						
EMIR				Lg		07 34 31.8	
	1µm,0.3s,SNR=7.9						
EMIR	Miracle	0.85	124	Pg	Pg	07 34 19.7	-0.7
EMIR				Lg		07 34 32.1	
EMIR	Miracle	0.85	124	Pg	Pg	07 34 19.4	-1.0
	16nm,0.1s,SNR=7.9						
EMIR				Lg		07 34 31.8	
	1µm,0.3s,SNR=7.9						
FDAF	Les Forges d'A	0.94	297	Pg	Pg	07 34 21.5	-0.6
FDAF				Lg		07 34 36.4	
ETSF	Etsaut	0.98	301	*e*P	Pg	07 34 25.6	+2.9
ETSF				*e*Sg	Sn	07 34 36.4	+0.1
ETSF				*e*Sn	Sn	07 34 38.0	+1.7
	500nm,0.2s,SNR=1.0						
ETSF	Etsaut	0.98	301	Pn	Pg	07 34 22.1	-0.6
ETSF				Pg	Pn	07 34 23.4	+0.6
ETSF				Sn	Sn	07 34 36.4	+0.1
ETSF				Lg		07 34 38.0	
	250nm,0.2s						
ETSF	Etsaut	0.98	301	*e*Pg	Pg	07 34 22.1	-0.6
ETSF				*e*Pn	Pn	07 34 23.4	+0.6
ETSF				*e*P		07 34 25.6	
ETSF				*e*Sg	Sn	07 34 36.4	+0.1
ETSF				*e*Sn	Sn	07 34 38.0	+1.7
ETSF	Etsaut	0.98	301	*e*Pg	Pg	07 34 22.1	-0.6
	SNR=1.0						
ETSF	Etsaut	0.98	301	*e*P	Pg	07 34 25.6	+2.9
ETSF				*e*Sg	Sn	07 34 36.4	+0.1
ETSF				*e*Sn	Sn	07 34 38.0	+1.7
	250nm,0.2s,SNR=1.0						
REYF	Montagne du Re	0.98	314	Pg	Pg	07 34 22.7	-0.1
REYF				Sg	Sg	07 34 36.6	+1.0
REYF	Montagne du Re	0.98	314	Pg	Pg	07 34 22.7	-0.1
REYF				Lg		07 34 36.6	
REYF	Montagne du Re	0.98	314	Pg	Pg	07 34 22.7	-0.1
REYF				Sg	Sg	07 34 36.6	+1.0
ESAC	San Caprasio	1.03	229	⇑Pg	Pg	07 34 22.8	-0.9
	105nm,0.3s,SNR=18						
ESAC				Lg		07 34 38.5	
	15µm,0.3s,SNR=5.0						
ESAC	San Caprasio	1.03	229	Pg	Pg	07 34 22.8	-0.9
	105nm,0.3s,SNR=18						
ESAC				Lg		07 34 38.5	
	15µm,0.3s,SNR=5.0						
CLLI	Llivia	1.04	85	P	Pg	07 34 23.1	-0.7
CLLI				S	Sg	07 34 39.8	+2.4
	345nm,0.2s						
VALF	Valcebollere	1.07	89	Pg	Pg	07 34 23.9	-0.5
VALF				Lg		07 34 39.5	
EPOB	Poblet	1.11	160	Pg	Pg	07 34 23.7	-1.5
	40nm,0.2s,SNR=190						
EPOB				Lg		07 34 37.6	
	334nm,0.2s,SNR=13						
EPOB	Poblet	1.11	160	Pg	Pg	07 34 23.7	-1.5
EPOB				Lg		07 34 39.8	
EPOB	Poblet	1.11	160	Pg	Pg	07 34 23.7	-1.5
	40nm,0.2s,SNR=190						
EPOB				Lg		07 34 37.6	
	334nm,0.2s,SNR=13						
LPEF	Le Peyrat	1.12	60	Pg	Pg	07 34 26.1	+0.5
LPEF				Lg		07 34 41.5	
ATE	Arette	1.17	307	Pg	Pg	07 34 25.7	-0.6
ATE				Sg	Sg	07 34 43.6	+2.1
ATE	Arette	1.17	307	Pg	Pg	07 34 25.7	-0.6
ATE				Sg	Sg	07 34 43.6	+2.1
CARF	Carcanieres	1.17	74	Pg	Pg	07 34 26.4	0.0
CARF				Sg	Sg	07 34 42.8	+1.1
CARF	Carcanieres	1.17	74	Pg	Pg	07 34 26.2	-0.2
CARF				Lg		07 34 41.4	
CARF	Carcanieres	1.17	74	Pg	Pg	07 34 26.4	0.0
CARF				Sg	Sg	07 34 42.8	+1.1
CGAR	Garraf	1.18	159	Pg	Pg	07 34 30.6	+4.1
CGAR				Lg		07 34 50.1	
	190nm,0.4s						
CBRU	Bruguera	1.19	95	Pg	Pn	07 34 26.2	+0.4
CBRU				Lg		07 34 44.1	
	383nm,0.3s						
CBRU	Bruguera	1.19	95	P	Pn	07 34 26.2	+0.4
CBRU				S	Sb	07 34 44.2	+3.0
	766nm,0.3s						
FNEB	N^'bias	1.24	65	Pg	Pg	07 34 28.2	+0.6
FNEB				Lg		07 34 44.5	
FNEB	N^'bias	1.24	65	P	Pg	07 34 28.2	+0.6
FNEB				S	Sb	07 34 44.5	+2.1
ORDF	Ordiarp	1.38	307	Pg	Pg	07 34 29.7	-0.6
ORDF				Sg	Sg	07 34 51.4	+3.1
ORDF	Ordiarp	1.38	307	Pg	Pg	07 34 29.8	-0.6
ORDF				Lg		07 34 49.6	
ORDF	Ordiarp	1.38	307	Pg	Pg	07 34 29.7	-0.6
ORDF				Sg	Sg	07 34 51.4	+3.1
ERTA	Horta de San J	1.45	187	Pg	Pg	07 34 29.3	-2.4
	673nm,0.4s,SNR=10						
ERTA				Lg		07 34 48.5	
	571nm,0.3s,SNR=16						
ERTA	Horta de San J	1.45	187	Pg	Pg	07 34 30.0	-1.7
ERTA				Lg		07 34 48.8	
ERTA	Horta de San J	1.45	187	Pg	Pg	07 34 30.0	-1.7
ERTA				Lg		07 34 48.5	
	571nm,0.3s,SNR=16						
EORO	Oroz-Betelu	1.48	290	Pg	Pg	07 34 31.7	-0.5
	4.3nm,0.1s,SNR=286						
EORO				Lg		07 34 54.1	
	903nm,0.5s,SNR=16						
EORO	Oroz-Betelu	1.48	290	Pg	Pg	07 34 31.7	-0.5
	4.3nm,0.1s,SNR=286						
EORO				Lg		07 34 54.1	
	903nm,0.5s,SNR=16						
IPRE	Itoiz	1.48	287	Pg	Pg	07 34 32.3	0.0
	3.4nm,0.1s,SNR=36						
IPRE				Lg		07 34 54.0	
	154nm,0.3s,SNR=15						
IPRE	Itoiz	1.48	287	Pg	Pg	07 34 32.3	0.0
	3.4nm,0.1s,SNR=36						
IPRE				Lg		07 34 54.0	
	154nm,0.3s,SNR=15						
SJPF	Ste Jean	1.51	299	*e*Pg	Pg	07 34 33.0	+0.2
SJPF				*e*Sg	Sg	07 34 52.9	+0.5
	659nm,0.3s,SNR=1.0						
SJPF	Ste Jean	1.51	299	Pn	Pn	07 34 31.2	+1.1
SJPF				Pg	Pg	07 34 33.0	+0.2
SJPF				Lg		07 34 52.9	
	330nm,0.3s						
SJPF	Ste Jean	1.51	299	*e*Pn	Pn	07 34 31.2	+1.1
SJPF				*e*Pg	Pg	07 34 33.0	+0.2
SJPF				*e*Sg	Sg	07 34 52.9	+0.5
SJPF	Ste Jean	1.51	299	*e*Pn	Pn	07 34 31.2	+1.1
	SNR=1.0						
SJPF	Ste Jean	1.51	299	*e*Pg	Pg	07 34 33.0	+0.2
SJPF				*e*Sg	Sg	07 34 52.9	+0.5
	330nm,0.3s,SNR=1.0						
CFON	Fontmartina	1.52	114	P	Pn	07 34 31.8	+1.5
CFON				S	Sn	07 34 52.0	+2.3
	2µm,0.3s						
MTLF	Montolieu	1.53	51	*e*Pg	Pg	07 34 33.2	0.0
	SNR=1.0						
MTLF				*e*Sn	Sn	07 34 50.9	+0.9
	SNR=1.0						
MTLF				*e*Sg	Sg	07 34 53.5	+0.4
	327nm,0.3s						
MTLF	Montolieu	1.53	51	Pg	Pg	07 34 33.2	0.0
MTLF				Sn	Sn	07 34 50.9	+0.9
MTLF				Lg		07 34 53.5	
	164nm,0.3s						
MTLF	Montolieu	1.53	51	*e*Pg	Pg	07 34 33.2	0.0
	SNR=1.0						
MTLF				*e*Sn	Sn	07 34 50.9	+0.9
	SNR=1.0						
MTLF				*e*Sg	Sg	07 34 53.5	+0.4
	164nm,0.3s						
LRDF	Laroque-de-Fa	1.54	69	Pg	Pg	07 34 33.9	+0.4
LRDF				Sg	Sg	07 34 55.6	+2.0
LRDF	Laroque-de-Fa	1.54	69	Pg	Pg	07 34 33.8	+0.3
LRDF				Lg		07 34 55.8	
LRDF	Laroque-de-Fa	1.54	69	Pg	Pg	07 34 33.9	+0.4
LRDF				Sg	Sg	07 34 55.6	+2.0
CBEU	Beuda	1.56	94	Pg	Pg	07 34 33.1	-0.7
CBEU				Lg		07 34 54.3	
	584nm,0.4s						
CBEU	Beuda	1.56	94	P	Pn	07 34 33.2	+2.4
CBEU				S	Sn	07 34 54.4	+3.7
	584nm,0.4s						
IUNC	Unciti	1.57	284	Pg	Pg	07 34 33.4	-0.7
	8.2nm,0.1s,SNR=70						
IUNC				Lg		07 34 56.1	
	487nm,0.4s,SNR=17						
IUNC	Unciti	1.57	284	Pg	Pg	07 34 33.4	-0.6
	8.2nm,0.1s,SNR=70						
IUNC				Lg		07 34 56.1	
	487nm,0.4s,SNR=17						
OSSF	Osses	1.60	303	Pg	Pg	07 34 34.6	0.0
OSSF				Sg	Sg	07 34 57.2	+1.8
OSSF	Osses	1.60	303	Pg	Pg	07 34 33.5	-1.1
OSSF				Lg		07 34 57.2	
OSSF	Osses	1.60	303	Pg	Pg	07 34 34.6	0.0
OSSF				Sg	Sg	07 34 57.2	+1.8
EARA	Aranguren	1.64	284	Pg	Pg	07 34 34.6	-0.7
	35nm,0.2s,SNR=15						
EARA				Lg		07 34 58.8	
	1µm,0.5s,SNR=10						
EARA	Aranguren	1.64	284	Pg	Pg	07 34 34.6	-0.6
	35nm,0.2s,SNR=15						
EARA				Lg		07 34 58.8	
	1µm,0.5s,SNR=10						
IUSE	Utxeti	1.66	290	Pg	Pg	07 34 34.9	-0.7
	2.1nm,0.1s,SNR=36						
IUSE				Lg		07 34 59.6	
	181nm,0.3s,SNR=22						
IUSE	Utxeti	1.66	290	Pg	Pg	07 34 34.9	-0.8
	2.1nm,0.1s,SNR=36						
IUSE				Lg		07 34 59.6	
	181nm,0.3s,SNR=22						
CMAS	Mas de Barbera	1.68	187	Pg	Pn	07 34 33.4	+0.9
CMAS				Lg		07 34 55.1	
	507nm,0.2s						
CMAS	Mas de Barbera	1.68	187	P	Pn	07 34 33.4	+0.9
CMAS				S	Sn	07 34 55.2	+1.6
	507nm,0.2s						
SJAF	Saint Jean de	1.71	86	Pg	Pg	07 34 36.0	-0.6
SJAF				Sg	Sg	07 34 59.3	+0.5
SJAF	Saint Jean de	1.71	86	Pg	Pg	07 34 35.9	-0.7
SJAF				Lg		07 34 59.2	
SJAF	Saint Jean de	1.71	86	Pg	Pg	07 34 36.0	-0.6
SJAF				Sg	Sg	07 34 59.3	+0.5
EJON	La Jonquera	1.71	88	Pg	Pg	07 34 36.1	-0.6
	12nm,0.2s,SNR=58						
EJON				Lg		07 34 59.6	
	340nm,0.3s,SNR=22						
EJON	La Jonquera	1.71	88	Pg	Pg	07 34 36.1	-0.6
	12nm,0.2s,SNR=58						
EJON				Lg		07 34 59.6	
	340nm,0.3s,SNR=22						
ELIZ	Elizondo	1.73	297	Pg	Pg	07 34 35.7	-1.3
	7.3nm,0.2s,SNR=186						
ELIZ				Lg		07 35 02.6	
	311nm,0.2s,SNR=5.0						
ELIZ	Elizondo	1.73	297	Pg	Pg	07 34 36.3	-0.7
ELIZ				Lg		07 35 02.7	
ELIZ	Elizondo	1.73	297	Pg	Pg	07 34 36.3	-0.7
ELIZ				Lg		07 35 02.6	
	311nm,0.2s,SNR=5.0						
EALK	Alkurruntz	1.74	299	Pg	Pg	07 34 36.4	-0.8
	8.0nm,0.1s,SNR=207						
EALK				Lg		07 35 01.9	
	528nm,0.2s,SNR=5.0						
EALK	Alkurruntz	1.74	299	Pg	Pg	07 34 36.4	-0.8
EALK				Lg		07 35 02.0	
EALK	Alkurruntz	1.74	299	Pg	Pg	07 34 36.4	-0.8
	8.0nm,0.1s,SNR=207						
EALK				Lg		07 35 01.9	
	528nm,0.2s,SNR=5.0						
CCAS	Cassa de la Se	1.81	106	Pn	Pn	07 34 35.5	+1.3
CCAS	Cassa de la Se	1.81	106	P	Pn	07 34 35.5	+1.3
CPAL	Palau Saverder	1.92	92	Pn	Pn	07 34 37.8	+2.1
CPAL				Sn	Sn	07 35 03.2	+3.7
	158nm,0.3s						
CPAL	Palau Saverder	1.92	92	P	Pn	07 34 37.9	+2.2
CPAL				S	Sn	07 35 03.3	+3.8
	158nm,0.3s						
EMOS	Mosqueruela	2.18	202	Pg	Pg	07 34 42.2	-3.4
	58nm,0.3s,SNR=98						
EMOS				Sn	Sn	07 35 08.8	+2.8
	224nm,0.4s,SNR=9.9						
EMOS	Mosqueruela	2.18	202	Pg	Pg	07 34 42.2	-3.4
EMOS				Lg		07 35 10.0	
EMOS	Mosqueruela	2.18	202	P	Pn	07 34 40.5	+1.2
EMOS	Mosqueruela	2.18	202	Pg	Pg	07 34 42.2	-3.4
	58nm,0.3s,SNR=98						
EMOS				S	Sn	07 35 07.4	+1.4
EMOS				Lg		07 35 10.0	
	224nm,0.4s,SNR=9.9						
ECRI	Cripan	2.29	276	Pn	Pn	07 34 42.6	+1.7
	4.4nm,0.1s,SNR=7.9						
ECRI				Lg		07 35 18.3	
	143nm,0.4s,SNR=7.9						
ECRI	Cripan	2.29	276	Pn	Pn	07 34 42.6	+1.7
	4.4nm,0.1s,SNR=7.9						
ECRI				Lg		07 35 18.3	
	143nm,0.4s,SNR=7.9						
ETOR	Torete	2.53	232	Pn	Pn	07 34 45.1	+1.0
	18nm,0.2s,SNR=7.9						
ETOR				Pg	Pg	07 34 51.9	-0.3
	188nm,0.3s,SNR=7.9						
ETOR				Lg		07 35 22.7	
	518nm,0.3s,SNR=7.9						
ETOR	Torete	2.53	232	Pn	Pn	07 34 45.1	+1.0
	18nm,0.2s,SNR=7.9						
LFF	La Frestale	2.54	3	*e*Pg	Pg	07 34 52.2	-0.3
LFF				*e*Sn	Sn	07 35 15.6	+0.7
	SNR=1.0						
LFF				*e*Sg	Sg	07 35 25.3	-0.2
	238nm,0.3s						
LFF	La Frestale	2.54	3	Pn	Pn	07 34 46.3	+2.0
LFF				Pg	Pg	07 34 52.2	-0.3
LFF				Sn	Sn	07 35 15.6	+0.7
LFF				Lg		07 35 25.3	
	119nm,0.3s						
LFF	La Frestale	2.54	3	*e*Pn	Pn	07 34 46.3	+2.0
LFF				*e*P		07 34 48.1	
LFF				*e*Pg	Pg	07 34 52.2	-0.3
LFF				*e*Sn	Sn	07 35 15.6	+0.7
LFF				*e*Sg	Sg	07 35 25.3	-0.2
LFF	La Frestale	2.54	3	*e*Pn	Pn	07 34 46.3	+2.0
	SNR=1.0						
LFF	La Frestale	2.54	3	*e*Pg	Pg	07 34 52.2	-0.3
LFF				*e*Sn	Sn	07 35 15.6	+0.7
	SNR=1.0						
LFF				*e*Sg	Sg	07 35 25.3	-0.2
	119nm,0.3s						
CAF	Calviac	2.75	23	*e*Pg	Pg	07 34 55.9	-0.5
CAF				*e*Sn	Sn	07 35 20.3	+0.3
	SNR=1.0						
CAF				*e*Sg	Sg	07 35 32.0	-0.1
	140nm,0.2s						
CAF	Calviac	2.75	23	Pn	Pn	07 34 48.8	+1.7
CAF				Pg	Pg	07 34 55.9	-0.5
CAF				Sn	Sn	07 35 20.3	+0.3
CAF				Lg		07 35 32.0	
	70nm,0.2s						
CAF	Calviac	2.75	23	*e*Pn	Pn	07 34 48.8	+1.7
CAF				*e*P		07 34 50.9	
CAF				*e*Pg	Pg	07 34 55.9	-0.5
CAF				*e*Sn	Sn	07 35 20.3	+0.3
CAF				*e*Sg	Sg	07 35 32.0	-0.1
CAF	Calviac	2.75	23	*e*Pn	Pn	07 34 48.8	+1.7
	SNR=1.0						
CAF	Calviac	2.75	23	*e*Pg	Pg	07 34 55.9	-0.5
CAF				*e*Sn	Sn	07 35 20.3	+0.3
	SNR=1.0						
CAF				*e*Sg	Sg	07 35 32.0	-0.1
	70nm,0.2s						
LASF	Ste Croix	2.93	54	*e*P	Pn	07 34 53.0	+3.4
LASF				*e*Sn	Sn	07 35 24.2	-0.1
LASF				*e*Sg	Sg	07 35 37.0	-0.7
	141nm,0.4s,SNR=1.0						
LASF	Ste Croix	2.93	54	Pn	Pn	07 34 50.8	+1.2
LASF				Sn	Sn	07 35 24.2	-0.1
LASF				Lg		07 35 37.0	
	70nm,0.4s						
LASF	Ste Croix	2.93	54	*e*Pn	Pn	07 34 50.8	+1.2
LASF				*e*P		07 34 53.0	
LASF				*e*Sn	Sn	07 35 24.2	-0.1
LASF				*e*Sg	Sg	07 35 37.0	-0.7
LASF	Ste Croix	2.93	54	*e*Pn	Pn	07 34 50.8	+1.2
	SNR=1.0						
LASF	Ste Croix	2.93	54	*e*P	Pn	07 34 53.0	+3.4
LASF				*e*Sn	Sn	07 35 24.2	-0.1
LASF				*e*Sg	Sg	07 35 37.0	-0.7
	70nm,0.4s,SNR=1.0						
RJF	Les Rejaudoux	2.98	13	*e*Pg	Pg	07 35 00.4	-0.6
RJF				*e*Sn	Sn	07 35 25.5	-0.3
RJF				*e*Sg	Sg	07 35 39.6	0.0
	204nm,0.3s,SNR=1.0						
RJF	Les Rejaudoux	2.98	13	Pn	Pn	07 34 52.1	+1.7
RJF				Pg	Pg	07 35 00.4	-0.6
RJF				Sn	Sn	07 35 25.5	-0.3
RJF				Lg		07 35 39.6	
	0.1nm,0.3s						
RJF	Les Rejaudoux	2.98	13	*e*Pn	Pn	07 34 52.1	+1.7
RJF				*e*P		07 34 54.2	
RJF				*e*Pg	Pg	07 35 00.4	-0.6
RJF				*e*Sn	Sn	07 35 25.5	-0.3
RJF				*e*Sg	Sg	07 35 39.6	0.0
RJF	Les Rejaudoux	2.98	13	*e*Pn	Pn	07 34 52.1	+1.7
	SNR=1.0						
RJF	Les Rejaudoux	2.98	13	*e*Pg	Pg	07 35 00.4	-0.6
RJF				*e*Sn	Sn	07 35 25.5	-0.3
RJF				*e*Sg	Sg	07 35 39.6	0.0
	102nm,0.3s,SNR=1.0						
ECHE	Chera	3.04	203	Pn	Pn	07 34 52.5	+1.4
	2.7nm,0.3s,SNR=7.9						
ECHE				Pg	Pg	07 35 00.3	-1.7
	3.7nm,0.4s,SNR=30						
ECHE				Lg		07 35 40.2	
	113nm,0.7s,SNR=6.3						
ECHE	Chera	3.04	203	Pn	Pn	07 34 52.5	+1.4
	2.7nm,0.3s,SNR=7.9						
ELAN	Lanestosa	3.07	287	Pn	Pn	07 34 53.9	+2.4
	3.0nm,0.1s,SNR=25						
ELAN				Sn	Sn	07 35 29.1	+1.3
	22nm,0.3s,SNR=5.5						
ELAN				Lg		07 35 41.8	
	27nm,0.2s,SNR=5.0						
ELAN	Lanestosa	3.07	287	Pn	Pn	07 34 53.9	+2.4
	3.0nm,0.1s,SNR=25						
ELAN				Sn	Sn	07 35 29.1	+1.3
	22nm,0.3s,SNR=5.5						
ELAN				Lg		07 35 41.8	
	27nm,0.2s,SNR=5.0						
ETOS	Mallorca	3.12	146	Pn	Pn	07 34 52.3	0.0
	1.1nm,0.1s,SNR=10						
ETOS				Sn	Sn	07 35 27.5	-1.8
	10nm,0.2s,SNR=5.0						
ETOS				Lg		07 35 41.8	
	49nm,0.6s,SNR=7.9						
ETOS	Mallorca	3.12	146	Pn	Pn	07 34 52.8	+0.5
ETOS				Sn	Sn	07 35 27.5	-1.8
ETOS	Mallorca	3.12	146	Pn	Pn	07 34 52.3	0.0
	1.1nm,0.1s,SNR=10						
ETOS				Sn	Sn	07 35 27.5	-1.8
	10nm,0.2s,SNR=5.0						
ETOS				Lg		07 35 41.8	
	49nm,0.6s,SNR=7.9						
EIBI	Ibiza	3.42	170	Pn	Pn	07 34 56.1	-0.2
	3.3nm,0.1s,SNR=5.6						
EIBI				Sn	Sn	07 35 33.9	-2.6
	18nm,0.2s,SNR=6.4						
EIBI				Lg		07 35 50.6	
	30nm,0.4s,SNR=7.9						
EIBI	Ibiza	3.42	170	Pn	Pn	07 34 59.3	+3.0
EIBI				Sn	Sn	07 35 35.2	-1.3
EIBI	Ibiza	3.42	170	Pn	Pn	07 34 56.1	-0.2
	3.3nm,0.1s,SNR=5.6						
EIBI				Sn	Sn	07 35 35.2	-1.3

EIBI				Lg		07 35 50.6	
	30nm,0.4s,SNR=7.9						
LBL	**Lubilhac**	**3.43**	**33**	Pn	**Pn**	**07 34 59.1**	**+2.6**
LBL	**Lubilhac**	**3.43**	**33**	Pn	**Pn**	**07 34 59.1**	**+2.6**
VERF	**Verneugheol**	**3.62**	**22**	Pn	**Pn**	**07 35 00.7**	**+1.6**
VERF	**Verneugheol**	**3.62**	**22**	Pn	**Pn**	**07 35 00.7**	**+1.6**
EBEN	**Beniarda**	**3.74**	**190**	Pn	**Pn**	**07 35 01.0**	**+0.2**
	0.4nm,0.2s,SNR=7.9						
EBEN				Pg	**Pg**	**07 35 11.9**	**-3.5**
	1.9nm,0.3s,SNR=7.9						
EBEN	**Beniarda**	**3.74**	**190**	Pn	**Pn**	**07 35 01.0**	**+0.2**
	0.4nm,0.2s,SNR=7.9						
PYM	**Petit Puy Mans**	**3.78**	**27**	Pn	**Pn**	**07 35 04.0**	**+2.7**
PYM	**Petit Puy Mans**	**3.78**	**27**	Pn	**Pn**	**07 35 04.0**	**+2.7**
COLF	**Collangettes**	**3.85**	**35**	Pn	**Pn**	**07 35 05.2**	**+3.0**
COLF	**Collangettes**	**3.85**	**35**	Pn	**Pn**	**07 35 05.2**	**+3.0**
VIVF	**Saint-Julien-l**	**3.86**	**49**	*e*Pg	**Pg**	**07 35 15.4**	**-2.2**
VIVF				*e*Sn	**Sn**	**07 35 46.0**	**-1.3**
	SNR=1.0						
VIVF				*e*Sg	**Sg**	**07 36 05.7**	**-1.9**
	43nm,0.3s						
VIVF	**Saint-Julien-l**	**3.86**	**49**	Pn	**Pn**	**07 35 03.5**	**+1.1**
VIVF				Pg	**Pg**	**07 35 15.4**	**-2.2**
VIVF				Sn	**Sn**	**07 35 46.0**	**-1.3**
VIVF				Lg		07 36 05.7	
	22nm,0.3s						
VIVF	**Saint-Julien-l**	**3.86**	**49**	*e*Pn	**Pn**	**07 35 03.5**	**+1.1**
VIVF				*e*P		07 35 05.9	
VIVF				*e*Pg	**Pg**	**07 35 15.4**	**-2.2**
VIVF				*e*Sn	**Sn**	**07 35 46.0**	**-1.3**
VIVF				*e*Sg	**Sg**	**07 36 05.7**	**-1.9**
VIVF	**Saint-Julien-l**	**3.86**	**49**	*e*Pn	**Pn**	**07 35 03.5**	**+1.1**
	SNR=1.0						
VIVF	**Saint-Julien-l**	**3.86**	**49**	*e*Pg	**Pg**	**07 35 15.4**	**-2.2**
VIVF				*e*Sn	**Sn**	**07 35 46.0**	**-1.3**
	SNR=1.0						
VIVF				*e*Sg	**Sg**	**07 36 05.7**	**-1.9**
	22nm,0.3s						
GUD	**Guadarrama**	**3.96**	**245**	Pn	**Pn**	**07 35 04.8**	**+1.0**
	3.0nm,0.2s,SNR=7.9						
GUD				Pg	**Pg**	**07 35 15.6**	**-4.0**
	26nm,0.5s,SNR=7.9						
GUD				Sn	**Sn**	**07 35 49.3**	**-0.6**
	10nm,0.2s,SNR=7.9						
GUD				Lg		07 36 09.6	
	35nm,0.4s,SNR=7.9						
GUD	**Guadarrama**	**3.96**	**245**	Pn	**Pn**	**07 35 04.8**	**+1.0**
	3.0nm,0.2s,SNR=7.9						
SMRF	**Simiane la Rot**	**3.98**	**65**	*e*Pg	**Pg**	**07 35 18.2**	**-1.8**
	SNR=1.0						
SMRF				*e*Sn	**Sn**	**07 35 49.4**	**-1.0**
	SNR=1.0						
SMRF				*e*Sg	**Sg**	**07 36 09.3**	**-2.3**
	55nm,0.6s,SNR=1.0						
SMRF	**Simiane la Rot**	**3.98**	**65**	Pn	**Pn**	**07 35 05.1**	**+1.0**
SMRF				Pg	**Pg**	**07 35 18.2**	**-1.8**
SMRF				Sn	**Sn**	**07 35 49.4**	**-1.0**
SMRF				Lg		07 36 09.3	
	0.1nm,0.6s						
SMRF	**Simiane la Rot**	**3.98**	**65**	*e*Pn	**Pn**	**07 35 05.1**	**+1.0**
SMRF				*e*P		07 35 07.8	
SMRF				*e*Pg	**Pg**	**07 35 18.2**	**-1.8**
SMRF				*e*Sn	**Sn**	**07 35 49.4**	**-1.0**
SMRF				*e*Sg	**Sg**	**07 36 09.3**	**-2.3**
SMRF	**Simiane la Rot**	**3.98**	**65**	*e*Pn	**Pn**	**07 35 05.1**	**+1.0**
	SNR=1.0						
SMRF	**Simiane la Rot**	**3.98**	**65**	*e*Pg	**Pg**	**07 35 18.2**	**-1.8**
	SNR=1.0						
SMRF				*e*Sn	**Sn**	**07 35 49.4**	**-1.0**
	SNR=1.0						
SMRF				*e*Sg	**Sg**	**07 36 09.3**	**-2.3**
	28nm,0.6s,SNR=1.0						
TCF	**Toulx Ste Croi**	**4.06**	**16**	*e*Pn	**Pn**	**07 35 04.8**	**-0.4**
	SNR=1.0						
TCF				*e*Sn	**Sn**	**07 35 51.7**	**-0.7**
TCF				*e*Sg	**Sg**	**07 36 13.2**	**-0.9**
	76nm,0.4s						
TCF	**Toulx Ste Croi**	**4.06**	**16**	Pn	**Pn**	**07 35 04.8**	**-0.4**
TCF				Sn	**Sn**	**07 35 51.7**	**-0.7**
TCF				Lg		07 36 13.2	
	38nm,0.4s						
TCF	**Toulx Ste Croi**	**4.06**	**16**	*e*Pn	**Pn**	**07 35 04.8**	**-0.4**
	SNR=1.0						
TCF				*e*Sn	**Sn**	**07 35 51.7**	**-0.7**
TCF				*e*Sg	**Sg**	**07 36 13.2**	**-0.9**
	38nm,0.4s						
SSB	**Saint Sauveur**	**4.07**	**44**	*e*Pn	**Pn**	**07 35 09.7**	**+4.4**
SSB				*e*Sn	**Sn**	**07 35 56.0**	**+3.5**
SSB	**Saint Sauveur**	**4.07**	**44**	*e*Pn	**Pn**	**07 35 09.7**	**+4.5**
SSB				*e*Sn	**Sn**	**07 35 56.0**	**+3.6**
ETOB	**Tobarra**	**4.08**	**204**	Pn	**Pn**	**07 35 07.4**	**+1.9**
	3.8nm,0.4s,SNR=4.5						
ETOB				Pg	**Pg**	**07 35 19.0**	**-3.0**
	4.3nm,0.3s,SNR=6.6						
ETOB				Lg		07 36 12.7	
	22nm,0.5s,SNR=5.0						
ETOB	**Tobarra**	**4.08**	**204**	Pn	**Pn**	**07 35 07.4**	**+1.9**
	3.8nm,0.4s,SNR=4.5						
AGO	**Saint Agoulin**	**4.09**	**26**	Pn	**Pn**	**07 35 07.8**	**+2.2**
AGO	**Saint Agoulin**	**4.09**	**26**	Pn	**Pn**	**07 35 07.8**	**+2.2**
MFF	**Saint Martin d**	**4.24**	**353**	*e*Pn	**Pn**	**07 35 09.4**	**+1.8**
	SNR=1.0						
MFF				*e*Sn	**Sn**	**07 35 55.9**	**-0.7**
	SNR=1.0						
MFF				*e*Sg	**Sg**	**07 36 18.2**	**-1.5**
	119nm,0.7s						
MFF	**Saint Martin d**	**4.24**	**353**	Pn	**Pn**	**07 35 09.4**	**+1.8**
MFF				Sn	**Sn**	**07 35 55.9**	**-0.7**
MFF				Lg		07 36 18.2	
	59nm,0.7s						
MFF	**Saint Martin d**	**4.24**	**353**	*e*Pn	**Pn**	**07 35 09.4**	**+1.8**
	SNR=1.0						
MFF				*e*Sn	**Sn**	**07 35 55.9**	**-0.7**
	SNR=1.0						
MFF				*e*Sg	**Sg**	**07 36 18.2**	**-1.5**
	59nm,0.7s						
EARI	**Arriondas**	**4.35**	**284**	Pn	**Pn**	**07 35 10.8**	**+1.6**
	2.7nm,0.2s,SNR=20						
EARI				Sn	**Sn**	**07 36 00.5**	**+1.1**
	13nm,0.4s,SNR=5.0						
EARI	**Arriondas**	**4.35**	**284**	Pn	**Pn**	**07 35 10.8**	**+1.7**
	2.7nm,0.2s,SNR=20						
EARI				Sn	**Sn**	**07 36 00.5**	**+1.0**
	13nm,0.4s,SNR=5.0						
ESDC	**Sonseca Array**	**4.38**	**233**	Pn	**Pn**	**07 35 09.4**	**-0.2**
	4.3nm,0.2s,baz=51,slow=14,SNR=14						
ESDC				Sn	**Sn**	**07 35 58.3**	**-1.9**
	20nm,0.3s,baz=50,slow=24,SNR=6.3						
ESDC				Lg		07 36 19.7	
	9.3nm,0.3s,baz=51,slow=30,SNR=8.2						
ESDC	**Sonseca Array**	**4.38**	**233**	Pn	**Pn**	**07 35 09.4**	**-0.2**
ESDC				Sn	**Sn**	**07 35 57.8**	**-2.4**
ESDC				Lg		07 36 21.7	
ESDC	**Sonseca Array**	**4.38**	**233**	Pn	**Pn**	**07 35 09.4**	**-0.2**
	4.3nm,0.2s,baz=51,slow=14,SNR=14						
ESDC				Sn	**Sn**	**07 35 58.3**	**-1.9**
	20nm,0.3s,baz=50,slow=24,SNR=6.3						
ESDC				Lg		07 36 19.7	
	9.3nm,0.3s,baz=51,SNR=8.2						
ESLA	**Sonseca Array**	**4.38**	**233**	*e*Pn	**Pn**	**07 35 09.3**	**-0.2**
ESLA				*e*Sg	**Sg**	**07 36 23.9**	**-0.5**
ESLA	**Sonseca Array**	**4.38**	**233**	*e*Pn	**Pn**	**07 35 09.4**	**-0.2**
ESLA				*e*Sg	**Sg**	**07 36 23.9**	**-0.5**
EVIA	**Vianos**	**4.43**	**213**	Pn	**Pn**	**07 35 11.1**	**+0.9**
	1.5nm,0.2s,SNR=7.9						
EVIA				Pg	**Pg**	**07 35 25.4**	**-3.1**
	5.0nm,0.3s,SNR=7.9						
EVIA				Lg		07 36 24.2	
	31nm,0.4s,SNR=5.5						
EVIA	**Vianos**	**4.43**	**213**	Pn	**Pn**	**07 35 11.1**	**+0.9**
	1.5nm,0.2s,SNR=7.9						
LMR	**La Mourre**	**4.46**	**76**	*e*P	**Pn**	**07 35 14.5**	**+3.8**
LMR				*e*Sn	**Sn**	**07 36 00.8**	**-1.4**
	21nm,0.3s,SNR=1.0						
LMR	**La Mourre**	**4.46**	**76**	Pn	**Pn**	**07 35 10.9**	**+0.2**
LMR				Sn	**Sn**	**07 36 00.8**	**-1.4**
	10nm,0.3s						
LMR	**La Mourre**	**4.46**	**76**	*e*Pn	**Pn**	**07 35 10.9**	**+0.2**
LMR				*e*P		07 35 14.5	
LMR				*e*Sn	**Sn**	**07 36 00.8**	**-1.4**
LMR	**La Mourre**	**4.46**	**76**	*e*Pn	**Pn**	**07 35 10.9**	**+0.2**
	SNR=1.0						
LMR	**La Mourre**	**4.46**	**76**	*e*P	**Pn**	**07 35 14.5**	**+3.8**
LMR				*e*Sn	**Sn**	**07 36 00.8**	**-1.4**
	10nm,0.3s,SNR=1.0						
BGF	**Bois d’Agland**	**4.46**	**21**	*e*Pg	**Pg**	**07 35 27.6**	**-1.7**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**07 36 01.0**	**-1.3**
BGF				*e*Sg	**Sg**	**07 36 25.3**	**-1.8**
	282nm,0.4s,SNR=1.0						
BGF	**Bois d’Agland**	**4.46**	**21**	Pn	**Pn**	**07 35 12.2**	**+1.5**
BGF				Pg	**Pg**	**07 35 27.6**	**-1.7**
BGF				Sn	**Sn**	**07 36 01.0**	**-1.3**
BGF				Lg		07 36 25.3	
	141nm,0.4s						
BGF	**Bois d’Agland**	**4.46**	**21**	*e*Pn	**Pn**	**07 35 12.2**	**+1.5**
BGF				*e*Pg	**Pg**	**07 35 27.6**	**-1.7**
BGF				*e*Sn	**Sn**	**07 36 01.0**	**-1.3**
BGF				*e*Sg	**Sg**	**07 36 25.3**	**-1.8**
BGF	**Bois d’Agland**	**4.46**	**21**	*e*Pn	**Pn**	**07 35 12.2**	**+1.5**
	SNR=1.0						
BGF	**Bois d’Agland**	**4.46**	**21**	*e*Pg	**Pg**	**07 35 27.6**	**-1.7**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**07 36 01.0**	**-1.3**
BGF				*e*Sg	**Sg**	**07 36 25.3**	**-1.8**
	141nm,0.4s,SNR=1.0						
ORIF	**Oris-en-Rattie**	**4.60**	**55**	*e*P	**Pn**	**07 35 17.0**	**+4.4**
ORIF				*e*Sn	**Sn**	**07 36 04.2**	**-1.4**
	SNR=1.0						
ORIF				*e*Sg	**Sg**	**07 36 30.1**	**-1.3**
	15nm,0.5s,SNR=1.0						
ORIF	**Oris-en-Rattie**	**4.60**	**55**	Pn	**Pn**	**07 35 13.2**	**+0.6**
ORIF				Sn	**Sn**	**07 36 04.2**	**-1.4**
ORIF				Lg		07 36 30.1	
	7.3nm,0.5s						
ORIF	**Oris-en-Rattie**	**4.60**	**55**	*e*Pn	**Pn**	**07 35 13.2**	**+0.6**
ORIF				*e*P		07 35 17.0	
ORIF				*e*Sn	**Sn**	**07 36 04.2**	**-1.4**
ORIF				*e*Sg	**Sg**	**07 36 30.1**	**-1.3**
ORIF	**Oris-en-Rattie**	**4.60**	**55**	*e*Pn	**Pn**	**07 35 13.2**	**+0.6**
	SNR=1.0						
ORIF	**Oris-en-Rattie**	**4.60**	**55**	*e*P	**Pn**	**07 35 17.0**	**+4.4**
ORIF				*e*Sn	**Sn**	**07 36 04.2**	**-1.4**
	SNR=1.0						
ORIF				*e*Sg	**Sg**	**07 36 30.1**	**-1.3**
	7.3nm,0.5s,SNR=1.0						
FRF	**La Foret Royal**	**4.60**	**73**	*e*P	**Pn**	**07 35 16.9**	**+4.3**
FRF				*e*Sn	**Sn**	**07 36 04.1**	**-1.6**
	SNR=1.0						
FRF				*e*Sg	**Sg**	**07 36 29.6**	**-1.9**
	29nm,0.6s,SNR=1.0						
FRF	**La Foret Royal**	**4.60**	**73**	Pn	**Pn**	**07 35 13.8**	**+1.2**
FRF				Sn	**Sn**	**07 36 04.1**	**-1.6**
FRF				Lg		07 36 29.6	
	14nm,0.6s						
FRF	**La Foret Royal**	**4.60**	**73**	*e*Pn	**Pn**	**07 35 13.8**	**+1.2**
FRF				*e*P		07 35 16.9	
FRF				*e*Sn	**Sn**	**07 36 04.1**	**-1.6**
FRF				*e*Sg	**Sg**	**07 36 29.6**	**-1.9**
FRF	**La Foret Royal**	**4.60**	**73**	*e*Pn	**Pn**	**07 35 13.8**	**+1.2**
	SNR=1.0						
FRF	**La Foret Royal**	**4.60**	**73**	*e*P	**Pn**	**07 35 16.9**	**+4.3**
FRF				*e*Sn	**Sn**	**07 36 04.1**	**-1.6**
	SNR=1.0						
FRF				*e*Sg	**Sg**	**07 36 29.6**	**-1.9**
	14nm,0.6s,SNR=1.0						
PAB	**San Pablo**	**4.69**	**234**	*e*Pn	**Pn**	**07 35 13.6**	**-0.3**
PAB				*e*Sn	**Sn**	**07 36 06.1**	**-1.8**
PAB				*e*Sg	**Sg**	**07 36 32.4**	**-2.0**
PAB	**San Pablo**	**4.69**	**234**	*e*Pn	**Pn**	**07 35 13.6**	**-0.3**
PAB				*e*Sn	**Sn**	**07 36 06.1**	**-1.8**
AVF	**Avril sur Loir**	**4.82**	**23**	*e*Pn	**Pn**	**07 35 17.1**	**+1.5**
	SNR=1.0						
AVF				*e*Sn	**Sn**	**07 36 09.7**	**-1.3**
	SNR=1.0						
AVF				*e*Sg	**Sg**	**07 36 36.7**	**-1.7**
	37nm,0.4s,SNR=1.0						
AVF	**Avril sur Loir**	**4.82**	**23**	Pn	**Pn**	**07 35 17.1**	**+1.5**
AVF				Sn	**Sn**	**07 36 09.7**	**-1.3**
AVF				Lg		07 36 36.7	
	18nm,0.4s						
AVF	**Avril sur Loir**	**4.82**	**23**	*e*Pn	**Pn**	**07 35 17.1**	**+1.5**
	SNR=1.0						
AVF				*e*Sn	**Sn**	**07 36 09.7**	**-1.3**
	SNR=1.0						
AVF				*e*Sg	**Sg**	**07 36 36.7**	**-1.7**
	18nm,0.4s,SNR=1.0						
SMF	**Signal de Mont**	**4.85**	**28**	*e*Pn	**Pn**	**07 35 17.9**	**+2.0**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**07 36 10.0**	**-1.7**
	SNR=1.0						
SMF				*e*Sg	**Sg**	**07 36 37.8**	**-1.4**
	29nm,0.4s,SNR=1.0						
SMF	**Signal de Mont**	**4.85**	**28**	Pn	**Pn**	**07 35 17.9**	**+2.0**
SMF				Sn	**Sn**	**07 36 10.0**	**-1.7**
SMF				Lg		07 36 37.8	
	14nm,0.4s						
SMF	**Signal de Mont**	**4.85**	**28**	*e*Pn	**Pn**	**07 35 17.9**	**+2.0**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**07 36 10.0**	**-1.7**
	SNR=1.0						
SMF				*e*Sg	**Sg**	**07 36 37.8**	**-1.4**
	14nm,0.4s,SNR=1.0						
MBDF	**Montbardon**	**5.07**	**61**	*e*P	**Pn**	**07 35 23.1**	**+4.1**
MBDF				*e*Sn	**Sn**	**07 36 15.9**	**-1.2**
	13nm,0.5s,SNR=1.0						
MBDF	**Montbardon**	**5.07**	**61**	Pn	**Pn**	**07 35 19.6**	**+0.6**
MBDF				Sn	**Sn**	**07 36 15.9**	**-1.2**
	6.3nm,0.5s						
MBDF	**Montbardon**	**5.07**	**61**	*e*Pn	**Pn**	**07 35 19.6**	**+0.6**
MBDF				*e*P		07 35 23.1	
MBDF				*e*Sn	**Sn**	**07 36 15.9**	**-1.2**
MBDF	**Montbardon**	**5.07**	**61**	*e*Pn	**Pn**	**07 35 19.6**	**+0.6**
	SNR=1.0						
MBDF	**Montbardon**	**5.07**	**61**	*e*P	**Pn**	**07 35 23.1**	**+4.1**
MBDF				*e*Sn	**Sn**	**07 36 15.9**	**-1.2**
	6.3nm,0.5s,SNR=1.0						
HYF	**Humbligny**	**5.09**	**16**	*e*Pn	**Pn**	**07 35 21.0**	**+1.8**
HYF				*e*Sn	**Sn**	**07 36 15.5**	**-2.1**
HYF				*e*Sg	**Sg**	**07 36 44.9**	**-2.1**
HYF	**Humbligny**	**5.09**	**16**	*e*Pn	**Pn**	**07 35 21.0**	**+1.8**
HYF				*e*Sg	**Sg**	**07 36 44.9**	**-2.1**
SSF	**Saint Saulge**	**5.11**	**23**	*e*Pg	**Pg**	**07 35 38.6**	**-3.0**
	SNR=1.0						
SSF				*e*Sn	**Sn**	**07 36 16.4**	**-1.7**
SSF				*e*Sg	**Sg**	**07 36 44.2**	**-3.5**
	25nm,0.3s,SNR=1.0						
SSF	**Saint Saulge**	**5.11**	**23**	Pn	**Pn**	**07 35 20.4**	**+0.8**
SSF				Pg	**Pg**	**07 35 38.6**	**-3.0**
SSF				Sn	**Sn**	**07 36 16.4**	**-1.7**
SSF				Lg		07 36 44.2	
	12nm,0.3s						
SSF	**Saint Saulge**	**5.11**	**23**	*e*Pn	**Pn**	**07 35 20.4**	**+0.8**
SSF				*e*Pg	**Pg**	**07 35 38.6**	**-3.0**
SSF				*e*Sn	**Sn**	**07 36 16.4**	**-1.7**
SSF				*e*Sg	**Sg**	**07 36 44.2**	**-3.5**
SSF	**Saint Saulge**	**5.11**	**23**	*e*Pn	**Pn**	**07 35 20.4**	**+0.8**
	SNR=1.0						
BNI	**Bardonecchia**	**5.16**	**57**	*e*Pn	**Pn**	**07 35 25.2**	**+5.0**
	5.1nm,0.6s						
BNI				*e*Sn	**Sn**	**07 36 25.7**	**+6.3**
BNI	**Bardonecchia**	**5.16**	**57**	*e*Pn	**Pn**	**07 35 25.2**	**+5.0**
	5.1nm,0.6s						
BNI				*e*Sn	**Sn**	**07 36 25.7**	**+6.4**
EHUE	**Huescar**	**5.18**	**209**	Pn	**Pn**	**07 35 21.8**	**+1.2**
	1.7nm,0.2s,SNR=7.9						
EHUE	**Huescar**	**5.18**	**209**	Pn	**Pn**	**07 35 21.8**	**+1.2**
	1.7nm,0.2s,SNR=7.9						
PZZ	**Stroppo**	**5.21**	**64**	P	**Pn**	**07 35 25.6**	**+4.7**
SBF	**Sospel**	**5.23**	**71**	*e*P	**Pn**	**07 35 25.6**	**+4.4**
SBF				*e*Sn	**Sn**	**07 36 19.1**	**-2.0**
	17nm,0.3s						
SBF	**Sospel**	**5.23**	**71**	Pn	**Pn**	**07 35 22.0**	**+0.8**
SBF				Sn	**Sn**	**07 36 19.1**	**-2.0**
	8.4nm,0.3s						
SBF	**Sospel**	**5.23**	**71**	*e*Pn	**Pn**	**07 35 22.0**	**+0.8**
SBF				*e*P		07 35 25.6	
SBF				*e*Sn	**Sn**	**07 36 19.1**	**-2.0**
SBF	**Sospel**	**5.23**	**71**	*e*Pn	**Pn**	**07 35 22.0**	**+0.8**
	SNR=1.0						
SBF	**Sospel**	**5.23**	**71**	*e*P	**Pn**	**07 35 25.6**	**+4.4**
SBF				*e*Sn	**Sn**	**07 36 19.1**	**-2.0**
	8.4nm,0.3s						
STV	**Sant Anna di V**	**5.26**	**67**	P	**Pn**	**07 35 26.1**	**+4.5**
EQES	**Quesada**	**5.37**	**213**	Pn	**Pn**	**07 35 24.4**	**+1.2**
	3.0nm,0.3s,SNR=7.9						
EQES				Sn	**Sn**	**07 36 21.9**	**-2.9**
	0.9nm,0.1s,SNR=12						
EQES	**Quesada**	**5.37**	**213**	Pn	**Pn**	**07 35 24.4**	**+1.2**
	3.0nm,0.3s,SNR=7.9						
EQES				Sn	**Sn**	**07 36 21.9**	**-2.8**
	0.9nm,0.1s,SNR=12						
EBAN	**Banos Encina**	**5.38**	**220**	Pn	**Pn**	**07 35 24.3**	**+0.9**
	0.9nm,0.2s,SNR=7.9						
EBAN				Sn	**Sn**	**07 36 22.7**	**-2.3**
	6.2nm,0.4s,SNR=7.9						
EBAN				Lg		07 36 55.1	
	18nm,0.5s,SNR=7.9						
EBAN	**Banos Encina**	**5.38**	**220**	Pn	**Pn**	**07 35 24.3**	**+0.9**
	0.9nm,0.2s,SNR=7.9						
EBAN				Sn	**Sn**	**07 36 22.7**	**-2.3**
	6.2nm,0.4s,SNR=7.9						
EBAN				Lg		07 36 55.1	
	18nm,0.5s,SNR=7.9						
LOR	**Lormes**	**5.40**	**24**	*e*Pn	**Pn**	**07 35 24.9**	**+1.3**
	baz=210,SNR=1.0						
LOR	**Lormes**	**5.40**	**24**	*e*Pg	**Pg**	**07 35 45.1**	**-2.0**
	baz=201,SNR=1.0						
LOR				*e*Sn	**Sn**	**07 36 23.3**	**-2.0**
	SNR=1.0						
LOR				*e*Sg	**Sg**	**07 36 54.2**	**-2.8**
	25nm,0.4s,baz=200,SNR=1.0						
LOR	**Lormes**	**5.40**	**24**	Pn	**Pn**	**07 35 24.9**	**+1.3**
LOR				Pg	**Pg**	**07 35 45.1**	**-2.0**
LOR				Sn	**Sn**	**07 36 23.3**	**-2.0**
LOR				Lg		07 36 54.2	
	12nm,0.4s						
LOR	**Lormes**	**5.40**	**24**	*e*Pn	**Pn**	**07 35 24.9**	**+1.3**
LOR				*e*Pg	**Pg**	**07 35 45.1**	**-2.0**
LOR				*e*Sn	**Sn**	**07 36 23.3**	**-2.0**
LOR				*e*Sg	**Sg**	**07 36 54.2**	**-2.8**
LOR	**Lormes**	**5.40**	**24**	*e*Pn	**Pn**	**07 35 24.9**	**+1.3**
	SNR=1.0						
LPL	**La Plagne**	**5.43**	**53**	*e*P	**Pn**	**07 35 28.9**	**+5.0**
LPL				*e*Sn	**Sn**	**07 36 24.4**	**-1.6**
	SNR=1.0						
LPL				*e*Sg	**Sg**	**07 36 55.5**	**-2.4**
	8.1nm,0.5s						
LPL	**La Plagne**	**5.43**	**53**	Pn	**Pn**	**07 35 25.1**	**+1.2**
LPL				Sn	**Sn**	**07 36 24.4**	**-1.6**
LPL				Lg		07 36 55.5	
	4.1nm,0.5s						
LPL	**La Plagne**	**5.43**	**53**	*e*Pn	**Pn**	**07 35 25.1**	**+1.2**
LPL				*e*P		07 35 28.9	
LPL				*e*Sn	**Sn**	**07 36 24.4**	**-1.6**
LPL				*e*Sg	**Sg**	**07 36 55.5**	**-2.4**
LPL	**La Plagne**	**5.43**	**53**	*e*Pn	**Pn**	**07 35 25.1**	**+1.2**
	SNR=1.0						
LPG	**La Plagne**	**5.43**	**53**	*e*P	**Pn**	**07 35 29.0**	**+5.0**
LPG				*e*Sn	**Sn**	**07 36 24.2**	**-1.8**
LPG				*e*Sg	**Sg**	**07 36 56.0**	**-1.9**
	14nm,0.6s						
LPG	**La Plagne**	**5.43**	**53**	Pn	**Pn**	**07 35 25.0**	**+1.0**
LPG				Sn	**Sn**	**07 36 24.2**	**-1.8**
LPG				Lg		07 36 56.0	
	6.9nm,0.6s						
LPG	**La Plagne**	**5.43**	**53**	*e*Pn	**Pn**	**07 35 25.0**	**+1.0**
LPG				*e*P		07 35 29.0	
LPG				*e*Sn	**Sn**	**07 36 24.2**	**-1.8**
LPG				*e*Sg	**Sg**	**07 36 56.0**	**-1.9**
LPG	**La Plagne**	**5.43**	**53**	*e*Pn	**Pn**	**07 35 25.0**	**+1.0**
	SNR=1.0						
ECAL	**Calabor**	**5.46**	**268**	Pn	**Pn**	**07 35 24.9**	**+0.6**
	1.2nm,0.1s,SNR=11						
ECAL				Sn	**Sn**	**07 36 26.0**	**-0.7**
	30nm,0.4s,SNR=5.0						
ECAL	**Calabor**	**5.46**	**268**	P	**Pn**	**07 35 25.3**	**+1.0**
ECAL	**Calabor**	**5.46**	**268**	Pn	**Pn**	**07 35 24.9**	**+0.6**
	1.2nm,0.1s,SNR=11						
ECAL	**Calabor**	**5.46**	**268**	P	**Pn**	**07 35 25.3**	**+1.0**
ECAL				Sn	**Sn**	**07 36 26.0**	**-0.7**
	30nm,0.4s,SNR=5.0						
PBRG	**Braganca**	**5.48**	**266**	*e*Pn	**Pn**	**07 35 25.6**	**+1.0**
PBRG				*e*Sn	**Sn**	**07 36 25.9**	**-1.3**
PBRG				A		07 37 12.8	
	17nm,0.6s						
PBRG	**Braganca**	**5.48**	**266**	Pn	**Pn**	**07 35 25.6**	**+1.0**
PBRG				Sn	**Sn**	**07 36 25.9**	**-1.3**
	8.3nm,0.6s						
PBRG	**Braganca**	**5.48**	**266**	*e*Pn	**Pn**	**07 35 25.6**	**+1.0**
EPLA	**Plasencia**	**5.53**	**247**	Pn	**Pn**	**07 35 25.9**	**+0.4**
	3.2nm,0.1s,SNR=6.4						
EPLA				Sn	**Sn**	**07 36 27.2**	**-1.4**
	7.5nm,0.2s,SNR=5.0						
EPLA				Lg		07 37 01.7	
	13nm,0.3s,SNR=7.9						
EPLA	**Plasencia**	**5.53**	**247**	P	**Pn**	**07 35 26.0**	**+0.6**
EPLA	**Plasencia**	**5.53**	**247**	Pn	**Pn**	**07 35 25.9**	**+0.5**
	3.2nm,0.1s,SNR=6.4						
EPLA				Sn	**Sn**	**07 36 27.2**	**-1.5**
	7.5nm,0.2s,SNR=5.0						
EPON	**Pontenova**	**5.75**	**282**	Pn	**Pn**	**07 35 29.7**	**+1.3**
	3.0nm,0.1s,SNR=7.9						
EPON				Sn	**Sn**	**07 36 32.9**	**-1.2**
	4.5nm,0.2s,SNR=7.9						
EPON	**Pontenova**	**5.75**	**282**	Pn	**Pn**	**07 35 29.7**	**+1.3**
	3.0nm,0.1s,SNR=7.9						
CABF	**La Chapelle**	**5.77**	**41**	*e*Pg	**Pg**	**07 35 51.5**	**-2.6**
	SNR=1.0						
CABF				*e*Sn	**Sn**	**07 36 32.9**	**-1.5**
	SNR=1.0						
CABF				*e*Sg	**Sg**	**07 37 06.6**	**-2.2**
	30nm,0.5s,SNR=1.0						
CABF	**La Chapelle**	**5.77**	**41**	Pn	**Pn**	**07 35 29.9**	**+1.3**
CABF				Pg	**Pg**	**07 35 51.5**	**-2.6**
CABF				Sn	**Sn**	**07 36 32.9**	**-1.5**
CABF				Lg		07 37 06.6	
	15nm,0.5s						
CABF	**La Chapelle**	**5.77**	**41**	*e*Pn	**Pn**	**07 35 29.9**	**+1.3**
CABF				*e*Pg	**Pg**	**07 35 51.5**	**-2.6**
CABF				*e*Sn	**Sn**	**07 36 32.9**	**-1.5**
CABF				*e*Sg	**Sg**	**07 37 06.6**	**-2.2**
CABF	**La Chapelle**	**5.77**	**41**	*e*Pn	**Pn**	**07 35 29.9**	**+1.3**
	SNR=1.0						
EADA	**Adamuz**	**5.78**	**225**	Pn	**Pn**	**07 35 29.0**	**+0.2**
	1.4nm,0.1s,SNR=11						
EADA				Sn	**Sn**	**07 36 31.9**	**-2.7**
	5.0nm,0.4s,SNR=5.0						
EADA				Lg		07 37 06.6	
	10nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**5.78**	**225**	Pn	**Pn**	**07 35 29.0**	**+0.2**
	1.4nm,0.1s,SNR=11						
MVO	**Moncorvo**	**5.82**	**260**	*e*Pn	**Pn**	**07 35 29.8**	**+0.5**
MVO				*e*Sn	**Sn**	**07 36 34.3**	**-1.4**
MVO				A		07 37 30.5	
	33nm,0.6s						
MVO	**Moncorvo**	**5.82**	**260**	Pn	**Pn**	**07 35 29.8**	**+0.5**
MVO				Sn	**Sn**	**07 36 34.3**	**-1.4**
	16nm,0.6s						
MVO	**Moncorvo**	**5.82**	**260**	*e*Pn	**Pn**	**07 35 29.8**	**+0.5**
MVO				*e*Sn	**Sn**	**07 36 34.3**	**-1.4**
	33nm,0.6s						
EQUE	**Quentar**	**6.04**	**212**	Pn	**Pn**	**07 35 34.0**	**+1.6**
	1.6nm,0.3s,SNR=4.7						
EQUE				Lg		07 37 14.3	
	4.6nm,0.3s,SNR=7.9						
EQUE	**Quentar**	**6.04**	**212**	Pn	**Pn**	**07 35 34.0**	**+1.6**
	1.6nm,0.3s,SNR=4.7						
GRR	**Gorron**	**6.08**	**351**	*e*Pn	**Pn**	**07 35 34.5**	**+1.7**
	SNR=1.0						
GRR				*e*Sn	**Sn**	**07 36 40.7**	**-1.3**
	13nm,0.2s,SNR=1.0						
GRR				*e*Sg	**Sg**	**07 37 16.0**	**-2.6**
	20nm,0.4s						
GRR	**Gorron**	**6.08**	**351**	Pn	**Pn**	**07 35 34.5**	**+1.7**
GRR				Sn	**Sn**	**07 36 40.7**	**-1.3**
	6.7nm,0.2s						
GRR				Lg		07 37 16.0	
	10nm,0.4s						
GRR	**Gorron**	**6.08**	**351**	*e*Pn	**Pn**	**07 35 34.5**	**+1.7**
	SNR=1.0						
EBER	**Berja**	**6.11**	**207**	Pn	**Pn**	**07 35 35.0**	**+1.6**
	2.6nm,0.4s,SNR=7.9						
EBER				Lg		07 37 19.6	
	5.9nm,0.4s,SNR=7.9						
EBER	**Berja**	**6.11**	**207**	Pn	**Pn**	**07 35 35.0**	**+1.7**
	2.6nm,0.4s,SNR=7.9						
QUIF	**Quistinic**	**6.12**	**336**	*e*Pn	**Pn**	**07 35 36.0**	**+2.6**
	SNR=1.0						
QUIF				*e*Sn	**Sn**	**07 36 40.9**	**-2.1**
	26nm,0.3s						
QUIF	**Quistinic**	**6.12**	**336**	Pn	**Pn**	**07 35 36.0**	**+2.6**
QUIF				Sn	**Sn**	**07 36 40.9**	**-2.1**
	13nm,0.3s						
QUIF	**Quistinic**	**6.12**	**336**	*e*Pn	**Pn**	**07 35 36.0**	**+2.6**
	SNR=1.0						

```
PCP   Piancastagn       6.18  67  P     Pn    07 35 37.5 +3.2
LDF   La Druitiere      6.22 356 ePg    Pg    07 35 59.4 -3.3
      SNR=1.0
LDF                              eSn    Sn    07 36 43.9 -1.5
      20nm,0.4s,SNR=1.0
LDF                              eSg    Sg    07 37 20.6 -2.5
      14nm,0.4s
LDF   La Druitiere      6.22 356 ePn    Pn    07 35 36.1 +1.3
LDF                              ePg    Pg    07 35 59.4 -3.3
LDF                              eSn    Sn    07 36 43.9 -1.5
LDF                              eSg    Sg    07 37 20.6 -2.5
LDF   La Druitiere      6.22 356 ePn    Pn    07 35 36.1 +1.3
      SNR=1.0
PGF   Pioggiola         6.23  86 eP     Pn    07 35 39.7 +4.7
PGF                              eSn    Sn    07 36 43.0 -2.8
      20nm,0.4s,SNR=1.0
PGF   Pioggiola         6.23  86  Pn    Pn    07 35 35.3 +0.3
PGF                               Sn    Sn    07 36 43.0 -2.8
      10nm,0.4s
PGF   Pioggiola         6.23  86 ePn    Pn    07 35 35.3 +0.3
PGF                              eP           07 35 39.7
PGF                              eSn    Sn    07 36 43.0 -2.8
PGF   Pioggiola         6.23  86 ePn    Pn    07 35 35.3 +0.3
      SNR=1.0
SGMF  Saint Gilles      6.26 340 ePn    Pn    07 35 37.7 +2.4
      SNR=1.0
SGMF                             eSn    Sn    07 36 44.6 -1.9
      SNR=1.0
SGMF                             eSg    Sg    07 37 22.2 -2.3
      32nm,0.5s
SGMF  Saint Gilles      6.26 340  Pn    Pn    07 35 37.7 +2.4
SGMF                              Sn    Sn    07 36 44.6 -1.9
SGMF                              Lg          07 37 22.2
      16nm,0.5s
SGMF  Saint Gilles      6.26 340 ePn    Pn    07 35 37.7 +2.4
      SNR=1.0
PVRL  Vila Real         6.29 263 ePn    Pn    07 35 36.1 +0.2
PVRL                             eSn    Sn    07 36 44.4 -3.0
PVRL                              A           07 37 18.9
      26nm,0.3s
PVRL  Vila Real         6.29 263  Pn    Pn    07 35 36.1 +0.2
PVRL                              Sn    Sn    07 36 44.4 -3.0
      13nm,0.3s
PVRL  Vila Real         6.29 263 ePn    Pn    07 35 36.1 +0.2
ECAB  El Cabril         6.30 229  Pn    Pn    07 35 35.9  0.0
      1.2nm,0.2s,SNR=12
ECAB                              Sn    Sn    07 36 43.6 -3.9
      5.2nm,0.3s,SNR=7.9
ECAB                              Lg          07 37 23.8
      8.1nm,0.3s,SNR=5.0
ECAB  El Cabril         6.30 229  P     Pn    07 35 36.6 +0.7
ECAB  El Cabril         6.30 229  Pn    Pn    07 35 35.9  0.0
      1.2nm,0.2s,SNR=12
ECAB  El Cabril         6.30 229  P     Pn    07 35 36.6 +0.7
FLN   La Foliniere      6.41 354 ePn    Pn    07 35 39.6 +2.2
      baz=173,SNR=1.0
FLN                              eSn    Sn    07 36 48.4 -1.8
      19nm,0.3s,baz=166,SNR=1.0
FLN                              eSg    Sg    07 37 26.4 -2.9
      31nm,0.5s
FLN   La Foliniere      6.41 354  Pn    Pn    07 35 39.6 +2.2
FLN                               Sn    Sn    07 36 48.4 -1.8
      9.4nm,0.3s
FLN                               Lg          07 37 26.4
      16nm,0.5s
FLN   La Foliniere      6.41 354 ePn    Pn    07 35 39.6 +2.2
      SNR=1.0
MTE   Manteigas         6.42 255 ePn    Pn    07 35 38.3 +0.6
MTE                              eSn    Sn    07 36 48.6 -2.0
MTE                               A           07 37 38.8
      24nm,0.6s
MTE   Manteigas         6.42 255 ePn    Pn    07 35 38.3 +0.6
PCAB  Cabril            6.44 267 eSn    Sn    07 36 48.8 -2.2
PCAB                              A           07 37 40.3
      20nm,0.6s
PCAB  Cabril            6.44 267  Sn    Sn    07 36 48.8 -2.2
      9.9nm,0.6s
ELOB  Lobios            6.44 268  Pn    Pn    07 35 38.0 +0.1
      0.5nm,0.1s,SNR=5.2
ELOB                              Sn    Sn    07 36 47.0 -4.1
      6.8nm,0.3s,SNR=7.9
ELOB                              Lg          07 37 28.7
      6.0nm,0.3s,SNR=5.0
ELOB  Lobios            6.44 268  P     Pn    07 35 38.7 +0.8
ELOB  Lobios            6.44 268  Pn    Pn    07 35 38.0 +0.1
      0.5nm,0.1s,SNR=5.2
ELOB  Lobios            6.44 268  P     Pn    07 35 38.7 +0.8
ROSF  Rostrenen         6.53 337 ePn    Pn    07 35 41.5 +2.5
      SNR=1.0
ROSF                             eSn    Sn    07 36 51.8 -1.3
      40nm,0.5s,SNR=1.0
ROSF  Rostrenen         6.53 337  Pn    Pn    07 35 41.5 +2.5
ROSF                              Sn    Sn    07 36 51.8 -1.3
      20nm,0.5s
ROSF  Rostrenen         6.53 337 ePn    Pn    07 35 41.5 +2.5
      SNR=1.0
PVIS  Viseu             6.57 258 ePn    Pn    07 35 40.0 +0.3
PVIS                             eSn    Sn    07 36 52.1 -2.2
PVIS                              A           07 37 52.1
      15nm,0.6s
PVIS  Viseu             6.57 258  Pn    Pn    07 35 40.0 +0.3
PVIS                              Sn    Sn    07 36 52.1 -2.2
      7.3nm,0.6s
PVIS  Viseu             6.57 258 ePn    Pn    07 35 40.0 +0.3
SFTF  Sexfontaines      6.60  27 ePn    Pn    07 35 40.7 +0.6
      baz=212
SFTF                             eSg          07 37 31.9
      38nm,0.6s
SFTF  Sexfontaines      6.60  27  Pn    Pn    07 35 40.7 +0.6
SFTF                              Lg          07 37 31.9
      38nm,0.6s
SFTF  Sexfontaines      6.60  27 ePn    Pn    07 35 40.7 +0.6
PMRV  Marv??o           6.72 246 ePn    Pn    07 35 41.8  0.0
PMRV                             eSn    Sn    07 36 54.8 -3.2
PMRV                              A           07 37 53.5
      24nm,0.5s
PMRV  Marv??o           6.72 246  Pn    Pn    07 35 41.8  0.0
PMRV                              Sn    Sn    07 36 54.8 -3.2
      12nm,0.5s
PMRV  Marv??o           6.72 246 ePn    Pn    07 35 41.8  0.0
EBAD  Badajoz           6.83 240  Pn    Pn    07 35 42.8 -0.4
      1.1nm,0.2s,SNR=7.9
EBAD                              Sn    Sn    07 36 56.0 -4.6
      2.7nm,0.3s,SNR=7.9
EBAD  Badajoz           6.83 240  Pn    Pn    07 35 42.8 -0.4
      1.1nm,0.2s,SNR=7.9
MEZF  Maizieres J'vi    6.87  26 ePn    Pn    07 35 44.3 +0.6
MEZF                             eSg    Sn    07 37 39.9  +38
      32nm,0.5s
MEZF  Maizieres J'vi    6.87  26  Pn    Pn    07 35 44.3 +0.6
MEZF                              Lg          07 37 39.9
      32nm,0.5s
MEZF  Maizieres J'vi    6.87  26 ePn    Pn    07 35 44.3 +0.6
HAU   Haudompre         6.93  34 ePn    Pn    07 35 45.4 +0.8
HAU                              eSn    Sn    07 37 00.6 -2.4
      6.9nm,0.4s,SNR=1.0
HAU                              eSg    Sn    07 37 42.3  +39
      16nm,0.6s
HAU   Haudompre         6.93  34  Pn    Pn    07 35 45.4 +0.8
HAU                               Sn    Sn    07 37 00.6 -2.4
      3.5nm,0.4s
HAU                               Lg          07 37 42.3
      7.8nm,0.6s
HAU   Haudompre         6.93  34 ePn    Pn    07 35 45.4 +0.8
HINF  Hinteralfeld      7.00  37 ePn    Pn    07 35 46.3 +0.7
      SNR=1.0
HINF                             eSn    Sn    07 37 01.7 -3.1
HINF                             eSg    Sn    07 37 44.0  +39
      14nm,0.6s
HINF  Hinteralfeld      7.00  37  Pn    Pn    07 35 46.3 +0.7
HINF                              Sn    Sn    07 37 01.7 -3.1
HINF                              Lg          07 37 44.0
      6.8nm,0.6s
HINF  Hinteralfeld      7.00  37 ePn    Pn    07 35 46.3 +0.7
      SNR=1.0
JQE   Queens East       7.04 346 eP     Pn    07 35 48.0 +1.9
JQE   Queens East       7.04 346 eP     Pn    07 35 48.0 +1.9
      18nm,0.5s
JRS   Jersey            7.05 346 eP     Pn    07 35 48.3 +2.2
JRS                               AML   AML   07 37 13.8
      comp=E,18nm,0.5s
JRS   Jersey            7.05 346  P     Pn    07 35 48.3 +2.2
JRS                               AML   AML   07 37 13.8
      comp=E,18nm,0.5s
JRS   Jersey            7.05 346 eP     Pn    07 35 48.3 +2.1
JSA   Saint Aubin       7.06 345 eP     Pn    07 35 48.4 +2.1
JSA                              eP           07 35 48.6
JSA                              eS     Sn    07 37 03.9 -2.2
JSA                               AML   AML   07 37 11.7
      comp=N,20nm,0.5s
JSA                               AML   AML   07 37 14.4
      comp=E,18nm,0.7s
JSA   Saint Aubin       7.06 345  P     Pn    07 35 48.6 +2.3
JSA                               S     Sn    07 37 03.9 -2.2
JSA                               AML   AML   07 37 11.7
      comp=E,20nm,0.5s
JSA                               AML   AML   07 37 14.4
      comp=E,18nm,0.7s
JSA   Saint Aubin       7.06 345 eP     Pn    07 35 48.3 +2.0
EMAZ  Mazaricos         7.06 278  Pn    Pn    07 35 46.8 +0.4
      comp=E,2.4nm,0.1s,SNR=14
EMAZ                              Sn    Sn    07 37 04.6 -1.7
      comp=E,6.9nm,0.3s,SNR=7.9
EMAZ  Mazaricos         7.06 278  Pn    Pn    07 35 46.8 +0.4
      comp=E,2.4nm,0.1s,SNR=14
RFYF  Reffroy           7.12  27 ePn    Pn    07 35 47.8 +0.7
RFYF                             eSg    Sn    07 37 48.6  +41
      comp=E,21nm,0.4s
RFYF  Reffroy           7.12  27  Pn    Pn    07 35 47.8 +0.7
RFYF                              Lg          07 37 48.6
      comp=E,21nm,0.4s
RFYF  Reffroy           7.12  27 ePn    Pn    07 35 47.8 +0.7
PESTR Estremoz          7.14 243 ePn    Pn    07 35 47.5  0.0
PESTR                            eSn    Sn    07 37 05.9 -2.4
PESTR                             A           07 38 06.9
      comp=E,8.9nm,0.5s
PESTR Estremoz          7.14 243  Pn    Pn    07 35 47.5  0.0
PESTR                             Sn    Sn    07 37 05.9 -2.4
      comp=E,4.4nm,0.5s
PESTR Estremoz          7.14 243 ePn    Pn    07 35 47.5  0.0
EMIN  Mina Concepcio    7.23 233  Pn    Pn    07 35 48.1 -0.6
      comp=E,0.6nm,0.2s,SNR=7.9
EMIN                              Sn    Sn    07 37 05.6 -4.8
      comp=E,1.5nm,0.3s,SNR=7.9
EMIN                              Lg          07 37 55.7
      comp=E,4.6nm,0.4s,SNR=7.9
EMIN  Mina Concepcio    7.23 233  Pn    Pn    07 35 48.2 -0.5
      comp=E,0.6nm,0.2s,SNR=7.9
PTOM  Tomar             7.34 251 eSn    Sn    07 37 10.9 -2.3
PTOM                              A           07 38 15.8
      comp=E,26nm,0.7s
PTOM  Tomar             7.34 251  Sn    Sn    07 37 10.9 -2.3
      comp=E,13nm,0.7s
ESPR  Espera            7.42 224  Lg          07 38 02.5
      comp=E,2.6nm,0.2s,SNR=4.0
EVO   Evora             7.60 242 ePn    Pn    07 35 54.1 +0.3
EVO   Evora             7.60 242 ePg    Pn    07 36 26.2  +32
EVO                              eSn    Sn    07 37 16.9 -2.7
EVO                              eSg    Sn    07 38 04.3  +45
      comp=E,17nm,0.5s
EVO   Evora             7.60 242 ePn    Pn    07 35 53.9 +0.1
EVO                              eSn    Sn    07 37 15.7 -3.9
EVO                               A           07 38 30.7
      comp=E,13nm,0.5s
EVO   Evora             7.60 242  Pn    Pn    07 35 53.9 +0.1
EVO                               Sn    Sn    07 37 15.7 -3.9
      comp=E,13nm,0.5s
EVO   Evora             7.60 242 ePn    Pn    07 35 53.9 +0.1
CDF   Champ du Feu      7.64  36 eSg    Sx    07 38 04.6
      comp=E,5.0nm,0.4s
CDF   Champ du Feu      7.64  36  Lg          07 38 04.6
      comp=E,2.5nm,0.4s
EVOP  Sao Brissos       7.68 243 ePn    Pn    07 35 54.1 -0.7
MOE   Montemor          7.83 243 eSn    Sn    07 37 20.8 -4.4
EGRO  El Granado        7.87 235  Pn    Pn    07 35 58.5 +1.1
      comp=E,1.0nm,0.2s,SNR=7.9
EGRO                              Lg          07 38 19.9
      SNR=7.9
EGRO  El Granado        7.87 235  Pn    Pn    07 35 58.5 +1.1
      comp=E,1.0nm,0.2s,SNR=7.9
BAIF  Baives            8.06  17 ePn    Pn    07 36 01.0 +0.9
      SNR=1.0
BAIF                             eSn    Sn    07 37 27.6 -3.3
      comp=E,19nm,0.6s
BAIF  Baives            8.06  17  Pn    Pn    07 36 01.0 +0.9
BAIF                              Sn    Sn    07 37 27.6 -3.3
      comp=E,9.4nm,0.6s
BAIF  Baives            8.06  17 ePn    Pn    07 36 01.0 +0.9
      SNR=1.0
PVAQ  Vaqueiros         8.09 235 ePn    Pn    07 36 00.8 +0.3
PVAQ                             eSn    Sn    07 37 27.4 -4.3
PVAQ  Vaqueiros         8.09 235  Pn    Pn    07 36 00.8 +0.3
PVAQ                              Sn    Sn    07 37 27.4 -4.3
PVAQ  Vaqueiros         8.09 235 ePn    Pn    07 36 00.8 +0.3
GIVF  Givet             8.25  19 ePn    Pn    07 36 02.6  0.0
GIVF                             eSn    Sn    07 37 32.2 -3.2
      comp=E,5.8nm,0.3s
GIVF  Givet             8.25  19  Pn    Pn    07 36 02.6  0.0
GIVF                              Sn    Sn    07 37 32.2 -3.2
      comp=E,2.9nm,0.3s
GIVF  Givet             8.25  19 ePn    Pn    07 36 02.6  0.0
DYA   Yadsworthy        8.62 340 eP     Pn    07 36 10.2 +2.5
DYA   Yadsworthy        8.62 340 eP     Pn    07 36 10.2 +2.5
PTEO  Sao Teotonio      8.63 239 ePn    Pn    07 36 08.0 +0.1
PTEO                             eSn    Sn    07 37 41.6 -3.2
PTEO                              A           07 38 56.6
      comp=E,16nm,0.1s
PTEO  Sao Teotonio      8.63 239  Pn    Pn    07 36 08.0 +0.1
PTEO                              Sn    Sn    07 37 41.6 -3.2
      comp=E,8.1nm,0.1s
PTEO  Sao Teotonio      8.63 239 ePn    Pn    07 36 08.0 +0.1
HTL   Hartland          9.27 340 eP     Pn    07 36 20.1 +3.4
HTL                              eS     Sn    07 37 59.0 -1.5
HTL                               AML   AML   07 38 03.7
      comp=E,6.5nm,0.6s
HTL                               AML   AML   07 38 06.5
      comp=N,7.6nm,0.5s
HTL   Hartland          9.27 340 eP     Pn    07 36 20.1 +3.4
HGH   Gray Hill         9.53 347 eP     Pn    07 36 22.6 +2.5
HGH   Gray Hill         9.53 347 eP     Pn    07 36 22.6 +2.5
MCH1  Michaelchurch     9.91 347 eP     Pn    07 36 27.5 +2.2
MCH1                             eS     Sn    07 38 12.8 -3.3
MCH1                              AML   AML   07 38 20.7
      comp=N,4.4nm,0.5s
MCH1                              AML   AML   07 38 30.5
      comp=E,4.2nm,0.5s
MCH1  Michaelchurch     9.91 347 eP     Pn    07 36 27.5 +2.2
HTR   Trewern Hill     10.03 346 eP     Pn    07 36 28.6 +1.6
HTR   Trewern Hill     10.03 346 eP     Pn    07 36 28.6 +1.6
CWF   Charnwood Fore   10.42 354 eP     Pn    07 36 34.4 +2.0
CWF   Charnwood Fore   10.42 354 eP     Pn    07 36 34.4 +2.0
HPK   Haverah Park     11.66 354 eP     Pn    07 36 50.9 +1.5
HPK   Haverah Park     11.66 354 eP     Pn    07 36 50.9 +1.6
XAL   Allendale        12.61 353 eP     Pn    07 37 03.5 +1.2
XAL   Allendale        12.61 353 eP     Pn    07 37 03.5 +1.2
GAL1  Galloway         12.95 346 eP     Pn    07 37 09.3 +2.3
GAL1  Galloway         12.95 346 eP     Pn    07 37 09.3 +2.3
ESK   Eskdalemuir      13.16 350 eP     Pn    07 37 11.9 +2.0
ESK   Eskdalemuir      13.16 350 eP     Pn    07 37 11.9 +2.0
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*CSEM **15** 07:37:07.3, 36°.04N×10°.25W, h10^{km}, ML2.3, After INMG*

INMG 15 07:37:07.3±0.8**, 36°.04N×10°.25W, h10^{km}, ML2.3, Error ellipse: s-maj=9.1km s-min=5.4km az=101.0, Azores-Cape St. Vincent Ridge**

```
Code  Station Name       Δ°  AZ°    Phase ID        Time     Res
                                    Op    ISC     h  m  s    ISC
PFVI  Vila Bisbo        1.58  46 eP     Pn    07 37 33.6 -1.8
PFVI                             eS     Sn    07 37 53.3 -2.5
PFVI                              A           07 37 54.3
      21nm,0.1s
PFVI  Vila Bisbo        1.58  46 eP     Pn    07 37 33.6 -1.8
PFVI                             eS     Sn    07 37 53.3 -2.5
      21nm,0.1s
MORF  Marmelete         1.80  45 ePn    Pn    07 37 36.7 -1.7
MORF                             eSn    Sn    07 37 58.6 -2.7
MORF                              A           07 38 00.7
      27nm,0.1s
MORF  Marmelete         1.80  45 ePn    Pn    07 37 36.7 -1.7
MORF                             eSn    Sn    07 37 58.6 -2.7
      27nm,0.1s
PTEO  Sao Teotonio      1.94  39 ePn    Pn    07 37 38.4 -1.9
PTEO                             eSn    Sn    07 38 02.4 -2.2
PTEO                              A           07 38 03.2
      11nm,0.6s
PTEO  Sao Teotonio      1.94  39 ePn    Pn    07 37 38.4 -1.9
PTEO                             eSn    Sn    07 38 02.4 -2.2
      11nm,0.6s
PBDV  Barranco-do-Ve    2.22  57 ePn    Pn    07 37 42.6 -1.5
PBDV                             eSn    Sn    07 38 07.5 -4.1
PBDV                              A           07 38 13.4
      9.4nm,0.1s
PBDV  Barranco-do-Ve    2.22  57 ePn    Pn    07 37 42.6 -1.5
PBDV                             eSn    Sn    07 38 07.5 -4.1
      9.4nm,0.1s
PVAQ  Vaqueiros         2.45  56 ePn    Pn    07 37 45.7 -1.6
PVAQ                             eSn    Sn    07 38 14.5 -2.7
PVAQ                              A           07 38 16.0
      17nm,0.1s
PVAQ  Vaqueiros         2.45  56 ePn    Pn    07 37 45.7 -1.6
PVAQ                             eSn    Sn    07 38 14.5 -2.7
      17nm,0.1s
PVAQ  Vaqueiros         2.45  56  Lg          07 38 14.7
      17nm,0.1s
PVAQ  Vaqueiros         2.45  56  A           07 38 15.8
      17nm,0.1s
PVAQ  Vaqueiros         2.45  56 eSg    Sn    07 38 14.7 -2.5
PBEJ  Beja              2.75  43 eSn    Sn    07 38 21.3 -3.4
PBEJ  Beja              2.75  43  Lg          07 38 21.3
PBEJ  Beja              2.75  43 eSn    Sn    07 38 21.3 -3.4
MOE   Montemor          2.90  31 eSn    Sn    07 38 24.9 -3.6
MOE   Montemor          2.90  31 eSn    Sn    07 38 24.9 -3.6
PMAFR Mafra             3.01  15 eSn    Sn    07 38 27.8 -3.2
PMAFR Mafra             3.01  15 eSn    Sn    07 38 27.8 -3.2
EVO   Evora             3.06  35 eSn    Sn    07 38 28.3 -4.0
EVO   Evora             3.06  35 eSn    Sn    07 38 28.3 -4.0
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*NEIC **15** 08:01:48.3, 32°.66S×71°.67W, h33^{km}, ML3.4(GUC), After GUC.*

GUC 15 08:01:48.3±0.5**, 32°.66S×71°.67W, h33^{km}**±2^{km}**, MD3.8, ML3.4, 2C-4D, Near coast of central Chile**

```
Code  Station Name       Δ°  AZ°    Phase ID        Time     Res
                                    Op    ISC     h  m  s    ISC
PACH  Papudo            0.23  58  eP    Pb    08 01 55.6 +0.3
PACH                              i S   Sb    08 02 00.5 +0.5
PACH  Papudo            0.23  58  eP    Pb    08 01 55.6 +0.3
PACH                              i S   Sb    08 02 00.5 +0.5
ROCH  El Roble          0.64 119⇑iP     Pn    08 02 01.2 +0.2
ROCH                               S    Sb    08 02 10.3 +0.5
ROCH  El Roble          0.64 119⇑iP     Pn    08 02 01.2 +0.2
ROCH                              i S   Sb    08 02 10.3 +0.5
CHNG  Los Chungos       0.79  11  eP    Pn    08 02 03.2  0.0
CHNG                              i S   Sn    08 02 13.9 +0.1
JACH  Jahuel            0.91  91  eP    Pn    08 02 05.2 +0.4
JACH                              i S   Sn    08 02 18.0 +1.3
JACH  Jahuel            0.91  91  eP    Pn    08 02 05.2 +0.4
JACH                              i S   Sn    08 02 18.0 +1.3
TACH  Talagante         1.16 148⇓iP     Pn    08 02 08.7 +0.4
TACH                              i S   Sn    08 02 24.0 +1.0
TACH  Talagante         1.16 148⇓iP     Pn    08 02 08.7 +0.4
TACH                              i S   Sn    08 02 24.0 +1.0
CLCH  Cerro Calan       1.20 128⇓eP     Pn    08 02 10.4 +1.7
CLCH                              i S   Sn    08 02 26.6 +2.6
CLCH  Cerro Calan       1.20 128⇓eP     Pn    08 02 10.4 +1.7
CLCH                              i S   Sn    08 02 26.6 +2.6
CLCH                               AML  AML   08 02 27.5
      comp=N,1µm,0.5s
ANTU  Antumapu          1.25 136  eP    Pn    08 02 10.7 +1.2
ANTU                              i S   Sn    08 02 27.4 +2.2
ANTU  Antumapu          1.25 136  eP    Pn    08 02 10.7 +1.2
ANTU                              i S   Sn    08 02 27.4 +2.2
PCH   Pirque            1.36 135  eP    Pn    08 02 12.2 +1.3
PCH                                S    Sn    08 02 30.7 +2.8
PCH   Pirque            1.36 135  eP    Pn    08 02 12.2 +1.3
PCH                               i S   Sn    08 02 30.7 +2.8
SJCH  San Jose de Ma    1.47 132  eP    Pn    08 02 14.0 +1.5
SJCH                              i S   Sn    08 02 33.3 +2.6
SJCH  San Jose de Ma    1.47 132  eP    Pn    08 02 14.0 +1.5
SJCH                              i S   Sn    08 02 33.3 +2.6
CHCH  Chadas Angostu    1.53 146  eP    Pn    08 02 15.1 +1.8
CHCH                              i S   Sn    08 02 35.0 +3.0
CHCH  Chadas Angostu    1.53 146  eP    Pn    08 02 15.1 +1.8
CHCH                              i S   Sn    08 02 35.0 +3.0
CMCH  Combarbala        1.59  21  eP    Pn    08 02 15.6 +1.4
CMCH                              i S   Sn    08 02 36.2 +2.7
CMCH  Combarbala        1.59  21  eP    Pn    08 02 15.6 +1.4
CMCH                              i S   Sn    08 02 36.2 +2.7
CMCH                               AML  AML   08 02 41.2
      comp=N,1µm,0.6s
CACH  El Canelo         1.71 149  eP    Pn    08 02 18.2 +2.5
CACH                              i S   Sn    08 02 40.6 +4.2
CACH  El Canelo         1.71 149  eP    Pn    08 02 18.2 +2.5
CACH                              i S   Sn    08 02 40.6 +4.2
LMEL  Las Melosas       1.71 134  eP    Pn    08 02 17.8 +2.0
LMEL                              i S   Sn    08 02 39.7 +3.3
LMEL  Las Melosas       1.71 134  eP    Pn    08 02 17.8 +2.0
LMEL                              i S   Sn    08 02 39.7 +3.3
LMEL                               AML  AML   08 02 44.5
      comp=N,397nm,0.1s
TLL   Tololo Astrono    2.60  17  eP    Pn    08 02 29.8 +1.9
TLL   Tololo Astrono    2.60  17  eP    Pn    08 02 29.8 +1.9
```

IDC 15 08:30:47.5±10.0**, 20°.68N×146°.25E, h117^{km}**±98^{km}**, mb3.2**/8**, mb1 3.3**/9**, mb1mx3.3**/25**, mbtmp3.2**/9**, ML3.7**/1**, Error ellipse: s-maj=44.9km s-min=18.5km az=83.0, Mariana Islands region**

```
Code  Station Name       Δ°  AZ°    Phase ID        Time     Res
                                    Op    ISC     h  m  s    ISC
MJAR  Matsushiro Arr   17.30 338  P     Pn    08 34 41.3 -0.4
      0.3nm,0.3s,baz=152,slow=11,SNR=4.0
KSRS  Korea Array      23.08 320  P     P     08 35 43.4 +0.4
      2.1nm,0.8s,baz=141,slow=7.9,SNR=4.0
SONM  Songino Array    41.95 320  P     P     08 38 26.4 -0.3
      0.2nm,0.4s,baz=117,slow=8.0,SNR=4.0
WRA   Warramunga Arr   42.02 197  P     P     08 38 27.6  0.0
      0.5nm,0.6s,baz=16,slow=8.7,SNR=6.8
ASAR  Alice Springs    45.69 196  P     P     08 38 56.7 -0.2
      0.1nm,0.6s,baz=19,slow=8.7,SNR=3.9
MKAR  Makanchi Array   57.49 313  P     P     08 40 25.4 +1.0
      0.3nm,0.6s,baz=81,slow=10,SNR=2.9
KURK  Kurchatov        60.16 317  P     P     08 40 42.4 -0.4
      0.5nm,0.6s,baz=96,slow=7.4,SNR=2.4
BVAR  Borovoye Array   65.30 320  P     P     08 41 16.9  0.0
      0.7nm,0.4s,baz=76,slow=6.4,SNR=4.7
YKA   Yellowknife Ar   76.00  28  P     P     08 42 21.7 +0.1
      0.3nm,0.6s,baz=288,slow=5.9,SNR=6.7
```

GUC 15 08:34:54.3±0.7**, 30°.93S×71°.65W, h15^{km}**±4^{km}**, MD3.9, ML2.9, 1C, Near coast of central Chile**

```
Code  Station Name       Δ°  AZ°    Phase ID        Time     Res
                                    Op    ISC     h  m  s    ISC
CMCH  Combarbala        0.61 113⇑iP     Pg    08 35 05.9 -0.3
CMCH                              i S   Sg    08 35 14.6 +0.4
CMCH                               AML  AML   08 35 15.0
      comp=N,3µm,0.3s
CHNG  Los Chungos       0.95 172  i P   Pb    08 35 10.8 -1.7
CHNG                              i S   Sb    08 35 23.0 -2.0
TLL   Tololo Astrono    1.06  44  eP    Pb    08 35 13.6 -0.7
TLL                               i S   Sb    08 35 27.8 -0.1
LCO   Las Campanas      2.09  23  eP    Pn    08 35 28.2 -0.5
LCO                               i S   Sn    08 35 55.4 +1.0
LCO                                AML  AML   08 36 06.9
      comp=E,63nm,0.3s
PEL   Peldehue          2.35 160  eP    Pn    08 35 31.6 -0.7
PEL                               i S   Sn    08 36 03.4 +2.5
PEL                                AML  AML   08 36 07.5
      comp=E,125nm,0.3s
FCH   Farellones        2.65 155  eP    Pn    08 35 38.4 +1.9
FCH                               i S   Sn    08 36 11.5 +3.1
FCH                                AML  AML   08 36 22.0
      comp=N,44nm,0.3s
```

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*ISCJB **15** 08:35:03.5±1.3, 36°.29N±0°.06×22°.14E±0°.07, h19^{km}±10^{km}, Error ellipse: s-maj=10.9km s-min=7.7km az=34.4*

*CSEM **15** 08:35:03.3±0.5, 36°.37N×22°.23E, h4^{km}±1^{km}, ML3.8/1, Error ellipse: s-maj=13.1km s-min=7.6km az=34.0*

*ATH **15** 08:35:03.9, 36°.37N×22°.23E, h24^{km}, MD3.4/5*

*THE **15** 08:35:05.0, 36°.36N×22°.13E, h13^{km}±2^{km}, ML3.8/1, Error ellipse: s-maj=3.1km s-min=0.9km az=244.0*

ISC 15 08:35:03.1±1.4**, 36°.29N**±0°.07×**22°.2E**±0°.1**, h12^{km}**±10^{km}**, n28, σ1^{s}13**/40**, Southern Greece**

```
Code  Station Name       Δ°  AZ°    Phase ID        Time     Res
                                    Op    ISC     h  m  s    ISC
KYTH  Kithira           0.69  91 ePN    Pn    08 35 17.0 -1.7
```

KYTH	**Kithira**	0.69	91	*e*Pn	Pn	08 35 17.0	-1.7
PYL	**PYLOS**	0.70	330	P	Pg	08 35 16.8	+0.1
PYL				S	Sg	08 35 25.9	0.0
PYL	**PYLOS**	0.70	330	*e*PN	Pn	08 35 17.0	-1.8
PYL				*e*SN	Sg	08 35 27.2	+1.3
PYL	**PYLOS**	0.70	330	*e*Pn	Pn	08 35 17.0	-1.8
PYL				S	Sg	08 35 25.9	0.0
PYL				*e*Sn	Sg	08 35 27.2	+1.3
ITM	**Ithomi**	0.91	347	*e*PN	Pn	08 35 20.1	-1.6
ITM	**Ithomi**	0.91	347	*e*Pn	Pn	08 35 20.1	-1.6
VLX	**Vlachokerasia**	1.09	8	*e*PN	Pn	08 35 23.3	-0.9
VLX	**Vlachokerasia**	1.09	8	*e*Pn	Pn	08 35 23.3	-0.9
DID	**Didima**	1.48	35	P	Pn	08 35 29.9	+0.4
DID				S	Sn	08 35 49.8	+1.0
DID	**Didima**	1.48	35	*e*PN	Pn	08 35 29.9	+0.4
DID				*e*SN	Sn	08 35 49.0	+0.2
DID	**Didima**	1.48	35	*e*Pn	Pn	08 35 29.9	+0.4
DID				*e*Sn	Sn	08 35 49.0	+0.2
DID				S	Sn	08 35 49.8	+1.0
GUR	**Goura**	1.65	4	*e*PN	Pn	08 35 32.8	+0.9
GUR	**Goura**	1.65	4	*e*Pn	Pn	08 35 32.8	+0.9
KARN	**Karanos**	1.67	122	*e*PN	Pn	08 35 33.9	+1.8
KARN	**Karanos**	1.67	122	*e*Pn	Pn	08 35 33.9	+1.8
NAIG	**Nisos Aigina**	1.80	35	*e*PB	Pb	08 35 33.9	-2.1
NAIG	**Nisos Aigina**	1.80	35	*e*Pb	Pb	08 35 33.9	-2.1
LTK	**Loutraki**	1.84	20	P	Pn	08 35 35.0	+0.5
LTK	**Loutraki**	1.84	20	P	Pn	08 35 35.0	+0.5
LAKA	**Lakka**	1.95	355	P	Pn	08 35 36.8	+0.8
LAKA				S	Sn	08 35 59.9	-0.6
LAKA	**Lakka**	1.95	355	P	Pn	08 35 36.8	+0.8
LAKA				S	Sn	08 35 59.9	-0.6
VLS	**Valsamata**	2.27	326	P	Pn	08 35 40.8	+0.4
VLS	**Valsamata**	2.27	326	*e*PN	Pn	08 35 42.0	+1.6
VLS	**Valsamata**	2.27	326	P	Pn	08 35 40.8	+0.4
VLS	**Valsamata**	2.27	326	*e*Pn	Pn	08 35 42.0	+1.6
LKR	**Lokris**	2.44	15	P	Pn	08 35 43.4	+0.6
LKR				S	Sn	08 36 13.3	+0.7
LKR	**Lokris**	2.44	15	P	Pn	08 35 43.4	+0.6
LKR				S	Sn	08 36 13.3	+0.7

CASC 15 08:56:36.2±2.4**, 8°.74N**×**83°.09W, h44**^{km}±12^{km}**, MD3.6, 2C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	**Cerro Adams**	0.12	222	⇑*e*P	Pn	08 56 42.8	-0.6
ACR				*e*S	Sn	08 56 49.4	+1.0
BAR1		0.54	336	⇓*e*P	Pn	08 56 46.8	-0.9
BAR1				*e*S	Sn	08 56 56.4	+0.6
CNI	**Changuinola**	0.87	40	⇑*i*P	Pn	08 56 51.6	-0.5
CNI				*e*S	Sn	08 57 05.4	+1.8
BUS	**Buena Vista**	1.04	321	*e*P	Pn	08 56 53.6	-0.8
QCR	**Quepos**	1.26	302	*e*P	Pn	08 56 57.1	-0.3
QCR				*e*S	Sn	08 57 15.0	+1.8
URSC	**Urasca**	1.28	328	⇓*e*P	Pn	08 56 57.4	-0.3
URSC				*e*S	Sn	08 57 14.2	+0.5
LCR2	**La Lucha 2**	1.34	318	⇓*e*P	Pn	08 56 58.1	-0.4
LCR2				*e*S	Sn	08 57 16.4	+1.2
LAJ	**Bijagual**	1.51	318	*e*P	Pn	08 57 05.0	+4.2
CGA2	**Cerro Gallo 2**	1.86	313	*e*P	Pn	08 57 06.0	+0.5
CGA2				*e*S	Sn	08 57 30.2	+2.3
FORC	**Fortuna**	2.32	318	⇓*e*P	Pn	08 57 13.9	+2.0

ISCJB ***15*** *09:01:51.8±0.2, 24°.24N±0°.01×121°.34E±0°.02, h0^{km}±3^{km}, Error ellipse: s-maj=2.9km s-min=1.8km az=25.4*
TAP ***15*** *09:01:51.2, 24°.25N×121°.30E, h5^{km}, ML3.8, C*
NEIC ***15*** *09:01:51.3±0.7, 24°.24N×121°.28E, h10^{km}, Error ellipse: s-maj=12.4km s-min=5.9km az=106.0*
ISC 15 09:01:52.3±0.2**, 24°.24N**±0°.01×**121°.34E**±0°.02**, h4**^{km}±3^{km}**, n61, σ0ˢ.89**/105**, 2C-16D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNS	**Nan Shan** baz=12	0.20	9	⇓*i*P	Pg	09 01 55.7	-0.6
NNS	baz=12			*e*S	Sg	09 01 58.4	-0.6
NACB	**Ninganchiao**	0.24	105	*e*Pg	Pg	09 01 57.0	0.0
NACB				*e*Sn	Sg	09 02 01.8	+1.5
TWD	**Chiawan** baz=123	0.28	124	⇓*i*P	Pg	09 01 58.5	+0.7
TWD	baz=123			*i* S	Sg	09 02 03.1	+1.6
HWA	**Hwalien** baz=135	0.36	137	*e*P	Pg	09 02 00.0	+0.8
ESF	**Shoufeng Towns** baz=163	0.40	157	*e*P	Pg	09 02 00.2	+0.3
ENA	**Nanau** baz=66	0.41	63	P	Pg	09 02 00.1	-0.2
YHNB	**Yeheng**	0.43	5	*e*Pg	Pg	09 01 59.6	-1.0
YHNB				*e*Sn	Sg	09 02 05.4	-0.8
ESL	**Shilin** baz=165	0.43	168	*e*P	Pg	09 02 00.7	+0.1
ESL	baz=165			*e*S	Sg	09 02 07.2	+0.9
NSK	**Sanguang** baz=8.0	0.44	2	⇓*i*P	Pg	09 02 00.1	-0.6
NSK	baz=8.0			*e*S	Sg	09 02 05.2	-1.2
ENTT	**Nioudou** baz=33	0.45	28	⇓*i*P	Pg	09 02 00.4	-0.6
ENTT	baz=33			*e*S	Sg	09 02 07.1	+0.3
NSTT	**Nanjuang** baz=324	0.50	322	⇑*i*P	Pg	09 02 01.4	-0.4
NSTT	baz=324			*i* S	Sg	09 02 07.7	-0.7
TWQ1	**Liyutan** baz=280	0.53	282	⇓*i*P	Pg	09 02 02.3	-0.2
TWQ1	baz=280			S	Sg	09 02 09.2	-0.1
SMLT	**Sun Moon Lake** baz=214	0.53	229	⇓*i*P	Pg	09 02 01.9	-0.7
SMLT	baz=214			S	Sg	09 02 08.6	-0.9
TYC	**Yuchr** baz=218	0.55	233	⇓*i*P	Pg	09 02 02.1	-0.8
TYC	baz=218			*e*S	Sg	09 02 08.5	-1.5
NSY	**Sanyi** baz=287	0.55	289	*i* P	Pg	09 02 03.2	+0.2
NSY	baz=287			*e*S	Sg	09 02 10.8	+0.6
TWE	**Neicheng** baz=49	0.57	32	⇓*i*P	Pg	09 02 02.7	-0.5
TWE	baz=49			*e*S	Sg	09 02 11.9	+1.3
SSLB	**Suanglung**	0.57	218	*e*Pg	Pg	09 02 01.6	-1.6
SSLB				*e*Sn	Sg	09 02 08.8	-1.9
TWC	**Suao** baz=55	0.59	52	⇓*i*P	Pg	09 02 03.2	-0.5
TWC	baz=55			*e*S	Sg	09 02 12.1	+0.7
TCU	**Taichung** baz=259	0.61	262	*e*P	Pg	09 02 04.4	+0.4
TCU	baz=259			*e*S	Sg	09 02 12.8	+0.9
ILA	**Ilan** baz=51	0.64	35	*e*P	Pg	09 02 02.6	-2.1
ILA	baz=51			*e*S	Sg	09 02 14.2	+1.2
HSN	**Hsinchu** baz=335	0.65	329	*e*P	Pg	09 02 05.6	+0.8
HSN	baz=335			*e*S	Sg	09 02 15.1	+1.7
WNT	**Mingjian** baz=227	0.70	239	*e*P	Pg	09 02 06.0	+0.3
WNT	baz=227			*e*S	Sg	09 02 16.2	+1.5
EHY	**Hungye** baz=179	0.73	181	P	Pg	09 02 05.9	-0.4
EHY	baz=179			*e*S	Sg	09 02 16.5	+0.7
NCU	**National Centr** baz=352	0.74	349	P	Pg	09 02 07.4	+0.9
NCU	baz=352			*e*S	Sg	09 02 17.9	+1.7
TATO	**Taipei**	0.75	11	*i* Pg	Pg	09 02 06.2	-0.4
TATO				*e*Sn	Sg	09 02 15.3	-1.0
TWA	**Mucha** baz=28	0.77	17	⇓P	Pg	09 02 06.8	-0.3
TAP1	**Taipei** baz=15	0.81	12	⇓P	Pg	09 02 07.8	-0.1
TAP1	baz=15			*e*S	Sg	09 02 17.8	-0.8
YUS	**Yu-Shan** baz=191	0.82	205	*e*P	Pg	09 02 06.9	-1.2
YULB	**Yu-li**	0.84	182	*e*Pg	Pg	09 02 07.5	-1.0
YULB				*e*Sn	Sg	09 02 19.6	+0.1
TWS1	**Kuangyinshan** baz=8.0	0.86	5	⇓*i*P	Pg	09 02 09.6	+0.7
TWS1	baz=8.0			*e*S	Sg	09 02 20.8	+0.8
ALS	**Alishan** baz=211	0.87	214	⇓P	Pg	09 02 08.2	-0.9
ALS	baz=211			*e*S	Sg	09 02 19.1	-1.3
CHN5	**Tsauling** baz=212	0.88	223	⇓*i*P	Pg	09 02 08.9	-0.3
CHN5	baz=212			*e*S	Sg	09 02 21.8	+1.2
TWF1	**Yuli** baz=180	0.88	182	P	Pg	09 02 08.6	-0.7
TWF1	baz=180			*e*S	Sg	09 02 19.9	-0.8
WGK	**Gukeng** baz=230	0.90	232	*e*P	Pg	09 02 09.6	+0.1
NWF	**Wu-fen Shan** baz=42	0.92	26	P	Pg	09 02 09.4	-0.6
NWF	baz=42			*e*S	Sg	09 02 23.3	+1.3
TWB1	**Santiao Chiao** baz=49	0.97	38	P	Pg	09 02 10.1	-0.8
TWB1	baz=49			*e*S	Sg	09 02 23.9	+0.4
WTCT	**Ta-ch’eng** baz=246	1.03	249	*e*P	Pg	09 02 12.4	+0.2
WTCT	baz=246			*e*S	Sg	09 02 26.7	+1.1
CHN2	**Minshiung** baz=226	1.06	228	*e*P	Pg	09 02 11.8	-0.8
CHN2	baz=226			*e*S	Sg	09 02 28.2	+1.9
TWY	**Chenhua** baz=15	1.06	13	*e*P	Pg	09 02 13.0	+0.4
ELDTW	**Lidau** baz=180	1.08	196	*e*P	Pg	09 02 11.9	-1.2
CHY	**Chiayi** baz=226	1.11	229	*e*P	Pg	09 02 13.5	-0.1
CHY	baz=226			*e*S	Sg	09 02 28.4	+0.3
CHN4	**Tsaushan** baz=215	1.12	218	⇓*i*P	Pg	09 02 13.4	-0.3
CHN4	baz=215			*e*S	Sg	09 02 29.8	+1.6
TPUB	**Ta-pu**	1.14	215	*e*Pn	Pn	09 02 09.3	-5.7
TPUB				*e*Sn	Sn	09 02 29.2	-1.8
WSF	**Szhu** baz=237	1.18	240	*e*P	Pg	09 02 14.2	-0.8
WSF	baz=237			*e*S	Sg	09 02 31.5	+1.1
WTP	**Ta-pu** baz=212	1.19	214	P	Pg	09 02 14.3	-0.8
WTP	baz=212			*e*S	Sg	09 02 31.2	+0.6
STYT	**Tauyuan** baz=204	1.20	207	*e*P	Pg	09 02 14.0	-1.2
STYT	baz=204			*e*S	Sg	09 02 30.4	-0.3
TWK	**Hsinying** baz=216	1.24	219	P	Pg	09 02 15.7	-0.5
TWK	baz=216			*e*S	Sg	09 02 33.0	+0.7
CHN1	**Nanshi** baz=213	1.28	215	⇑*e*P	Pg	09 02 16.4	-0.5
CHN1	baz=213			S	Sg	09 02 33.9	+0.3
SGST	**Jiashian** baz=209	1.34	211	⇓*i*P	Pn	09 02 17.4	-0.4
SGST	baz=209			*e*S	Sg	09 02 36.1	+0.6
CHN8	**Yiju** baz=241	1.36	229	*e*P	Pn	09 02 18.1	+0.1
CHN8	baz=241			*e*S	Sg	09 02 37.0	+0.9
TWG	**Pinlang**	1.43	190	*e*Pn	Pn	09 02 17.6	-1.4
TWG	**Pinlang** baz=187	1.43	190	*e*P	Pn	09 02 18.4	-0.6
CHN3	**Shinhua** baz=215	1.46	218	*e*P	Pn	09 02 20.5	+1.0
PCYT	**Pengchaiyu** baz=26	1.54	26	*e*P	Pn	09 02 19.5	-1.0
SSD	**Sandimen** baz=201	1.62	204	*e*P	Pn	09 02 22.3	+0.7
TWM1	**Shoushan** baz=208	1.64	211	*e*P	Pn	09 02 22.2	+0.3
ECL	**Taimali** baz=177	1.67	192	*e*P	Pn	09 02 23.7	+1.4
PNG	**Penghu** baz=245	1.76	248	*e*P	Pn	09 02 23.2	-0.3
PNG	baz=245			*e*S	Sn	09 02 46.4	0.0
WDGT	**Dungji** baz=236	1.82	238	*e*P	Pn	09 02 24.0	-0.4
WDGT	baz=236			*e*S	Sn	09 02 48.3	+0.4
SCZT	**Fangliau** baz=217	1.97	200	*e*P	Pn	09 02 27.2	+0.8
KNM	**Kinmen** baz=275	2.66	274	*e*P	Pn	09 02 37.2	+1.3

IDC 15 09:12:28.2±1.8**, 12°.81N**×**92°.89E, h0**^{km}**, mb3.9**/4**, mb1 4.1**/5**, mb1mx3.7**/23**, mbtmp3.9**/5**, ML4.1**/1**, Error ellipse: s-maj=65.4km s-min=21.9km az=64.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr** 0.7nm,0.3s,baz=236,slow=14,SNR=4.2	8.10	45	Pn	Pn	09 14 25.6	-1.5
MKAR	**Makanchi Array** 0.7nm,0.8s,baz=153,slow=8.2,SNR=6.4	35.03	347	P	P	09 19 23.1	+0.6
ZALV	**Zalesovo Beam** 0.9nm,0.6s,baz=181,slow=10,SNR=5.2	41.54	353	P	P	09 20 16.6	-0.6
WRA	**Warramunga Arr** 1.5nm,0.4s,baz=298,slow=9.5,SNR=52	52.18	128	P	P	09 21 40.9	-0.2
ASAR	**Alice Springs** 1.1nm,0.4s,baz=309,slow=7.0,SNR=26	54.06	132	P	P	09 21 55.2	+0.4

NIED ***15*** *09:30:00, 43°.20N×147°.10E, h26^{km}, Mw3.8 Best double couple: M₀6.00000×10^{14} NP1:φₛ41.00000°, δ69.00000°, λ88.00000°. NP2:φₛ226.00000°, δ21.00000°, λ95.00000°.*
NEIC ***15*** *09:30:34.3, 43°.21N×147°.10E, h35^{km}, MG3.7(JMA), After JMA.*
ISCJB ***15*** *09:30:34.8±1.4, 43°.3N±0°.1×147°.1E±0°.1, h41^{km}±10^{km}, mb4.1/9, Error ellipse: s-maj=23.5km s-min=10.5km az=160.5*
JMA ***15*** *09:30:34.3±0.3, 43°.21N×147°.10E, h35^{km}±5^{km}, M3.7*
MOS ***15*** *09:30:39.5±0.7, 43°.81N×146°.83E, h59^{km}, mb4.6/1, Error ellipse: s-maj=23.7km s-min=20.3km az=42.5*
IDC ***15*** *09:30:40.1±5.4, 43°.57N×146°.90E, h55^{km}±43^{km}, mb3.6/6, mb1 3.7/7, mb1mx3.5/23, mbtmp3.6/7, MS3.6/1, Ms1 3.6/1, ms1mx2.7/39, Error ellipse: s-maj=106.0km s-min=29.9km az=177.0*
ISC 15 09:30:35.9±2.4**, 43°.3N**±0°.1×**147°.09E**±0°.08**, h34**^{km}±17^{km}**, n26, σ0ˢ.85**/28**, mb4.1**/9**, 1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	0.98	275	P	Pn	09 30 52.2	-1.1
NEM2				*e*S	Sn	09 31 05.2	-0.8
YUK	**Yuzh-Kuril’sk**	1.16	310	⇑*i*PN	Pn	09 30 55.5	-0.2
YUK				*i*		09 31 04.4	
YUK	comp=N,190nm,0.3s			pmax	pmax		
YUK	comp=E,350nm,0.3s			pmax	pmax		
YUK	comp=Z,960nm,0.3s			pmax	pmax		
YUK	comp=N,7μm,0.5s			smax			
YUK	comp=E,2μm,0.5s			smax			
YUK	comp=N,14μm,0.8s			smax			
YUK	comp=E,6μm,1.0s			smax			
JRA	**Rausu**	1.57	295	P	Pn	09 31 01.4	+0.1
JNK	**Nakash**	1.75	281	P	Pn	09 31 03.3	-0.5
JNK				*e*S	Sn	09 31 24.6	-0.3
JAK	**Akkeshi**	1.77	261	P	Pn	09 31 03.6	-0.6
KUR	**Kuril’sk**	2.02	16	*e*PN	Pn	09 31 06.5	-1.1
KUR	comp=E,190nm,1.0s			pmax	pmax		
KUR	comp=Z,210nm,1.0s			pmax	pmax		
JTKR	**Abashiri--Toko**	2.41	288	P	Pn	09 31 13.6	+0.7
JOB	**Onbets**	2.41	262	P	Pn	09 31 12.5	-0.5
JAR	**Ashorobuto**	2.42	271	P	Pn	09 31 13.0	-0.1
JAR				*e*S	Sn	09 31 41.8	+0.3
JMP	**Maruseppu**	2.80	286	P	Pn	09 31 19.3	+1.0
JCH	**Churui**	2.82	257	P	Pn	09 31 18.4	-0.1
JKK2	**Kamakawa 2**	3.21	282	P	Pn	09 31 25.1	+1.2
ASAJ	**Asahikawa**	3.36	286	PN	Pn	09 31 27.2	+1.2
ASAJ	comp=Z,7.0nm,0.3s			pmax	pmax		
ASAJ	**Asahikawa** comp=Z,7.2nm,0.3s,baz=100,slow=14,SNR=25	3.36	286	P	Pn	09 31 27.2	+1.2
SONM	**Songino Array** comp=Z,1.2nm,0.6s,mb3.8,baz=87,slow=8.4,SNR=7.3	28.61	293	P	P	09 36 29.0	+0.2
MKAR	**Makanchi Array** comp=Z,2.9nm,0.7s,mb4.2,baz=82,slow=9.1,SNR=23	44.76	298	P	P	09 38 45.7	-0.2
KURK	**Kurchatov** comp=Z,0.8nm,0.3s,mb4.1,baz=75,slow=7.7,SNR=12	45.75	304	P	P	09 38 54.0	+0.4
TKM2	**Tokmak 2**	50.67	296	*e*P	P	09 39 31.7	0.0
TKM2	comp=Z,5.0nm,1.2s,mb4.3			pmax	pmax		
TKM2	**Tokmak 2** comp=Z,5.5nm,1.2s,mb4.4	50.67	296	*e*P	P	09 39 31.7	0.0
YKA	**Yellowknife Ar** comp=Z,0.1nm,0.4s,mb3.2,baz=300,slow=6.9,SNR=3.2	56.21	34	P	P	09 40 13.4	+1.3
AKTO	**Aktyubinsk** comp=Z,54nm,20.8s,baz=172,slow=37	57.80	311	LR	LR	10 05 53.5	
TPAW	**Teton Pass** comp=Z,4.1nm,0.5s,mb4.6	69.00	50	*e*P	P	09 41 35.2	-2.4
REDW	**Red Top Meadow** comp=Z,3.4nm,0.3s,mb4.8	69.14	50	*e*P	P	09 41 34.7	-3.8
NB2	**NORSAR Subarra** comp=Z,1.4nm,0.5s,mb4.2,baz=32,slow=6.5	70.02	339	P	P	09 41 43.5	-0.2
NOA	**NORSAR Array B** comp=Z,1.2nm,0.5s,mb4.1,baz=31,slow=6.2,SNR=11	70.02	339	P	P	09 41 43.9	+0.2
TXAR	**Lajitas Array** comp=Z,0.2nm,0.5s,mb3.4,baz=306,slow=4.1,SNR=3.7	82.94	56	P	P	09 42 58.5	+1.1

IDC ***15*** *09:32:17.4±0.8, 33°.81S×178°.62W, h0^{km}, mb4.6/7, mb1 4.7/8, mb1mx4.4/19, mbtmp4.6/8, ML4.6/1, MS3.6/3, Ms1 3.6/3, ms1mx3.3/21, Error ellipse: s-maj=25.5km s-min=23.6km az=128.0*
ISCJB ***15*** *09:32:23.9±3.6, 34°.0S±0°.1×178°.7W±0°.2, h59^{km}±27^{km}, mb4.6/8, MS3.5/3, Error ellipse: s-maj=33.6km s-min=18.2km az=176.1*
NEIC ***15*** *09:32:24.1±2.8, 34°.05S×178°.72W, h45^{km}±22^{km}, mb4.6/1, Error ellipse: s-maj=26.6km s-min=15.4km az=60.0*
ISC 15 09:32:25.0±3.4**, 33°.9S**±0°.1×**178°.7W**±0°.2**, h53**^{km}±26^{km}**, n25, σ0ˢ.83**/13**, mb4.6**/8**, MS3.5**/3**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera** 20nm,0.3s,baz=27,slow=5.9,SNR=85	5.50	217	Pn	Pn	09 33 43.2	-1.1
URZ	27nm,0.3s,baz=132,slow=23,SNR=16			Sn	Sn	09 34 46.5	+0.4
RPZ	**Rata Peaks** 0.9nm,0.3s,baz=16,slow=6.7,SNR=5.2	12.62	216	Pn	Pn	09 35 17.0	-4.6
RPZ	2.5nm,0.3s,baz=6.4,slow=22,SNR=11			Sn	Sn	09 37 30.3	-10
DZM	**Mont Dzumac** 216nm,1.3s	17.64	308	*e*Pn	Pn	09 36 28.4	+1.4
STKA	**Stephens Creek** 2.0nm,0.8s,mb4.1,baz=357,slow=10,SNR=3.6	33.27	262	P	P	09 38 57.9	+0.6
STKA	comp=Z,226nm,18.2s,MS3.9,baz=27,slow=37			LR	LR	09 52 37.4	
CTA	**Charters Tower** 6.5nm,0.8s,mb4.6,baz=96,slow=12,SNR=4.1	33.96	285	P	P	09 39 03.8	+0.4
CTA	comp=Z,54nm,21.1s,MS3.2,baz=50,slow=30			LR	LR	09 49 13.4	
ASAR	**Alice Springs** 8.8nm,0.8s,mb4.5,baz=112,slow=7.4,SNR=82	42.46	271	P	P	09 40 14.4	-0.4
WRAB	**Tennant Creek** 11nm,0.8s,mb4.6	43.77	276	*e*P	P	09 40 24.9	-0.5
WRA	**Warramunga Arr** 11nm,0.8s,mb4.7,baz=117,slow=7.6,SNR=60	43.77	276	P	P	09 40 24.6	-0.8
WRA	comp=Z,47nm,18.6s,MS3.4,baz=245,slow=37			LR	LR	09 59 14.1	
FITZ	**Fitzroy Crossi** 6.6nm,0.8s,mb4.6,baz=121,slow=4.7,SNR=5.4	51.86	273	P	P	09 41 27.7	-0.4
QSPA	**South Pole Qui** 6.8nm,1.0s,mb4.7,baz=27,slow=3.1,SNR=13	56.19	180	P	P	09 42 00.1	+1.4
PETK	**Petropavlovsk-** 6.5nm,1.0s,mb4.9,baz=120,slow=8.5,SNR=3.1	89.08	346	P	P	09 45 13.1	-0.7
MKAR	**Makanchi Array** 0.5nm,0.7s,baz=64,slow=2.3,SNR=4.7	119.56	309	PKP	PKPdf	09 51 08.3	+0.1
MKAR	**Makanchi Array**	119.56	309	PKP	PKPdf	09 51 08.3	+0.1
ZALV	**Zalesovo Beam** 0.6nm,0.5s,baz=150,slow=1.2,SNR=3.7	120.25	317	PKP	PKPdf	09 51 09.1	-0.3
KURK	**Kurchatov** 1.7nm,0.6s,baz=107,slow=2.0,SNR=6.1	123.03	312	PKP	PKPdf	09 51 14.8	0.0
KURK	**Kurchatov**	123.03	312	PKP	PKPdf	09 51 14.8	0.0
BVAR	**Borovoye Array** 1.5nm,0.7s,baz=79,slow=3.2,SNR=6.5	128.47	314	PKP	PKPdf	09 51 26.1	+0.9
AKTK	**Aktyubinsk**	135.97	310	PKP	PKPdf	09 51 40.3	+0.9
AKTO	**Aktyubinsk** 1.0nm,0.6s,baz=86,slow=7.8,SNR=4.9	135.97	310	PKP	PKPdf	09 51 40.3	+0.9
NB2	**NORSAR Subarra** comp=Z,3.4nm,1.0s,baz=15,slow=4.0	152.13	350	PKP	PKPdf	09 52 13.4	+6.5
NOA	**NORSAR Array B** comp=Z,1.8nm,0.9s,baz=17,slow=4.6,SNR=6.0	152.13	350	PKPbc	PKPbc	09 52 13.8	+0.2
HFS	**Hagfors** comp=Z,3.5nm,0.8s,baz=72,slow=4.8,SNR=4.1	152.56	347	PKPbc	PKPbc	09 52 15.4	+0.8
BRTR	**Keskin Array B** comp=Z,2.5nm,0.9s,baz=126,slow=2.5,SNR=6.9	153.58	292	PKPbc	PKPbc	09 52 17.3	-0.2
AKASG	**Malin Array Be** comp=Z,2.3nm,0.7s,baz=72,slow=1.3,SNR=6.9	153.64	318	PKPbc	PKPbc	09 52 17.4	+0.1
TORD	**Torodi Ar. Bea** comp=Z,0.4nm,0.7s,baz=204,slow=3.2,SNR=3.2	159.31	181	PKPab	PKPab	09 52 54.7	-0.5

MOS ***15*** *09:43:14.3±2.9, 81°.00N×5°.88W, h10^{km}, mb4.0/5, Error ellipse: s-maj=74.1km s-min=17.8km az=91.0*
IDC ***15*** *09:43:14.5±1.0, 81°.18N×7°.27W, h0^{km}, mb3.6/8, mb1 3.8/9, mb1mx3.6/27, mbtmp3.7/9, ML4.5/1, MS3.6/1, Ms1 3.6/1, ms1mx2.8/30, Error ellipse: s-maj=29.3km s-min=18.1km az=174.0*
CSEM ***15*** *09:43:14.3, 81°.00N×5°.88W, h10^{km}, mb4.0, After OBN*
ISCJB ***15*** *09:43:15.7±0.9, 80°.7N±0°.2×4°.6W±0°.5, h10^{km}, mb3.7/8, Error ellipse: s-maj=23.6km s-min=9.3km az=20.2*
ISC 15 09:43:16.9±4.8**, 80°.7N**±0°.2×**5°.5W**±0°.4**, h14**^{km}±31^{km}**, n34, σ1ˢ.89**/38**, mb3.7**/8**, 2C, North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBS	**Kingsbay**	3.54	110	*e*P	Pn	09 44 10.0	-1.4
KBS				*e*S	Sn	09 44 50.1	-2.9
KBS	comp=Z,16nm,0.4s			AML	AML	09 44 54.4	
DAG	**Danmarks Havn**	4.66	220	⇑*i*P	Pn	09 44 34.7	+7.9
DAG	comp=Z,3.0nm,0.2s			pmax	pmax		
DAG	**Danmarks Havn** comp=Z,2.8nm,0.2s	4.66	220	⇑*i*P	Pn	09 44 34.7	+7.9
SPITS	**Spitsbergen Ar** baz=106,slow=12,SNR=223	4.70	111	Pn	Pn	09 44 25.0	-2.3
SPITS	baz=142,slow=19,SNR=2.1			Sn	Sn	09 45 19.3	-2.3
SPITS	**Spitsbergen Ar**	4.70	111	P	Pn	09 44 25.0	-2.3
SPITS				S	Sn	09 45 19.3	-2.3
HSP	**Hornsund**	5.45	121	*e*P	Pn	09 44 38.3	+0.8
HOPEN	**Hopen**	7.23	109	*e*P	Pn	09 44 57.4	-4.6
HOPEN				*e*S	Sn	09 46 15.2	-8.6
ARCES	**ARCESS Array B** comp=Z,0.2nm,0.3s,baz=340,slow=9.7,SNR=5.2	13.39	129	Pn	Pn	09 46 28.4	+2.2
ARCES	**ARCESS Array B**	13.39	129	P	Pn	09 46 28.4	+2.2
SFJD	**Kangerlussuaq**	17.73	246	P	Pn	09 47 21.2	-1.8
SFJD	comp=Z,2.0nm,0.3s			pmax	pmax		
SFJD	**Kangerlussuaq** comp=Z,1.5nm,0.3s,baz=342,slow=12,SNR=6.2	17.73	246	P	Pn	09 47 21.2	-1.7
SFJD	**Kangerlussuaq**	17.73	246	P	Pn	09 47 21.2	-1.8

	comp=Z,2.0nm,0.3s						
NOA	**NORSAR Array B**	20.28	156	P	P	09 47 58.3	+6.7
NOA				pmax	pmax		
	comp=Z,1.0nm,1.1s						
NOA	**NORSAR Array B**	20.28	156	P	P	09 47 58.3	+6.7
	comp=Z,1.4nm,1.1s,baz=350,slow=11,SNR=3.4						
NOA	**NORSAR Array B**	20.28	156	P	P	09 47 58.3	+6.7
	comp=Z,1.0nm,1.1s						
FRB	**Frobisher Bay**	23.57	262	P	P	09 48 25.6	-1.1
FRB				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FRB	**Frobisher Bay**	23.57	262	P	P	09 48 25.6	-1.1
	comp=Z,3.1nm,1.0s,mb3.7,baz=19,slow=11,SNR=4.7						
FRB	**Frobisher Bay**	23.57	262	P	P	09 48 25.6	-1.1
	comp=Z,3.0nm,1.0s,mb3.7						
YKA	**Yellowknife Ar**	31.91	304	P	P	09 49 36.2	-5.1
	comp=Z,0.3nm,1.0s,mb3.1,baz=19,slow=9.0,SNR=4.3						
YKA	**Yellowknife Ar**	31.91	304	P	P	09 49 36.2	-5.1
BVAR	**Borovoye Array**	35.87	91	P	P	09 50 18.7	+2.9
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	**Borovoye Array**	35.87	91	P	P	09 50 18.7	+2.9
	comp=Z,0.7nm,0.6s,mb3.8,baz=352,slow=7.3,SNR=3.4						
BVAR	**Borovoye Array**	35.87	91	P	P	09 50 18.7	+2.9
	comp=Z,1.0nm,0.6s,mb3.9						
AKTK	**Aktyubinsk**	36.38	105	P	P	09 50 24.5	+4.4
	comp=Z,1.0nm,0.6s,mb3.9						
AKTO	**Aktyubinsk**	36.38	105	P	P	09 50 24.5	+4.4
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
AKTO	**Aktyubinsk**	36.38	105	P	P	09 50 24.4	+4.3
	comp=Z,0.9nm,0.6s,mb3.9,baz=14,slow=12,SNR=4.4						
KURK	**Kurchatov**	39.45	84	P	P	09 50 48.0	+2.0
KURK				pmax	pmax		
	comp=Z,1.0nm,0.2s,mb4.2						
KURK	**Kurchatov**	39.45	84	P	P	09 50 48.0	+1.9
	comp=Z,0.7nm,0.2s,mb4.0,baz=354,slow=7.9,SNR=5.4						
KURK	**Kurchatov**	39.45	84	P	P	09 50 48.0	+2.0
	comp=Z,1.0nm,0.2s,mb4.2						
MKAR	**Makanchi Array**	43.85	82	P	P	09 51 23.3	+1.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR				MLR	MLR		
	comp=Z,72nm,18.2s						
MKAR	**Makanchi Array**	43.85	82	P	P	09 51 23.3	+1.2
	comp=Z,1.0nm,0.7s,baz=352,slow=5.9,SNR=7.7						
MKAR				LR	LR	10 14 28.3	
	comp=Z,72nm,18.2s,baz=150,slow=42						
SONM	**Songino Array**	46.53	59	P	P	09 51 41.7	-1.7
	comp=Z,0.3nm,0.7s,mb3.3,baz=15,slow=6.2,SNR=4.1						
SONM	**Songino Array**	46.53	59	P	P	09 51 41.7	-1.7
TORD	**Torodi Ar. Bea**	67.60	172	P	P	09 54 14.9	+2.2
	comp=Z,1.0nm,0.6s,mb4.0,baz=359,slow=6.3,SNR=7.0						

CASC 15 09:51:59.4±2.4**,8°.59N×83°.19W,h6^{km}**±13^{km}**,MD3.9, 1C-1D,Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	**Cerro Adams**	0.06	15	⇓*i*P	Pg	09 52 02.4	+1.3
BAR1		0.66	349	*e*P	Pg	09 52 11.8	-0.3
BAR1				*e*S	Sg	09 52 21.5	+0.8
CNI	**Changuinola**	1.05	39	⇑*i*P	Pg	09 52 18.9	-0.8
CNI				*e*S	Sg	09 52 34.2	+0.9
QCR	**Quepos**	1.27	311	*e*S	Sg	09 52 40.2	-0.2
URSC	**Urasca**	1.37	335	*e*P	Pn	09 52 23.3	-1.8
URSC				*e*S	Sb	09 52 42.8	-0.3
LCR2	**La Lucha 2**	1.40	325	*e*P	Pn	09 52 24.1	-1.4
LCR2				*e*S	Sb	09 52 44.2	+0.2
LAJ	**Bijagual**	1.57	324	*e*P	Pn	09 52 31.9	+4.2
LAJ				*e*S	Sn	09 52 57.0	+8.7
FORC	**Fortuna**	2.37	322	*e*P	Pn	09 52 41.6	+2.8
FORC				*e*S	Sn	09 53 13.5	+5.3

NNC 15 10:00:17.5±4.4**,53°.32N×87°.56E,h0^{km},mb3.7,mpv3.5, 10C-5D,Error ellipse: s-maj=34.8km s-min=23.1km az=60.0,Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	**Kurchatov**	6.11	248	⇓Pn	Pn	10 01 50.5	+1.7
	3.5nm,0.6s						
KURK				⇑Sn	Sn	10 03 03.3	+4.0
	2.2nm,0.5s						
KURK				⇑Lg		10 03 35.6	
	10nm,0.7s						
KURBB	**Kurchatov Arra**	6.20	248	⇑Pn	Pn	10 01 51.9	+1.7
	1.4nm,0.6s,baz=64,slow=14						
KURBB				⇑Sn	Sn	10 03 03.8	+2.1
	1.3nm,0.6s						
KURBB				⇑Lg		10 03 35.9	
	2.9nm,0.6s						
MK31	**Makanchi Array**	7.36	210	⇓Pn	Pn	10 02 08.8	+2.7
	2.0nm,0.6s,baz=28,slow=11,SNR=21						
MK31				⇓Sn	Sn	10 03 35.9	+5.6
	3.3nm,0.9s,baz=34,slow=27,SNR=4.1						
MK31				⇑Lg		10 04 15.0	
	3.2nm,0.6s,baz=30,slow=34,SNR=4.3						
VOSK	**Vostochnaya**	10.01	273	⇑Pn	Pn	10 02 41.5	-0.9
	4.1nm,1.4s						
VOSK				⇑Sn	Sn	10 04 29.8	-5.6
	2.1nm,0.7s						
BVA0	**Borovoye Array**	10.32	275	⇑Pn	Pn	10 02 47.7	+1.1
	0.2nm,0.6s,baz=75,slow=15,SNR=3.7						
BVA0				⇓Sn	Sn	10 04 39.6	-3.3
	0.5nm,0.8s,baz=93,slow=21,SNR=6.5						
TKM2	**Tokmak 2**	13.10	222	⇓Pg	Pn	10 03 22.3	-2.3
	1.8nm,0.7s						
TKM2				⇑Lg		10 04 18.8	
	7.9nm,0.9s						

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*NEIC **15** 10:14:57.9,17°.76N×99°.27W,h56^{km},MD3.7(MEX),After MEX.*

MEX 15 10:14:57.9±0.7**,17°.76N×99°.27W,h56^{km}**±8^{km}**,MD3.7, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	**Mezcala**	0.37	296	*e*P	Pn	10 15 07.0	-1.3
MEIG				*i*S	Sn	10 15 14.6	-1.1
PLIG	**Platanillo**	0.67	340	*e*P	Pn	10 15 09.9	-1.6
PLIG				*i*S	Sn	10 15 19.1	-2.3
ACX	**Acapulco**	1.08	215	*i*P	Pn	10 15 14.8	-2.1
ACX				*i*S	Sn	10 15 28.3	-2.7
CAIG	**El Cayaco**	1.19	234	*i*P	Pn	10 15 17.1	-1.3
CAIG				*i*S	Sn	10 15 31.8	-1.7
UTMO	**Huajuapan**	1.40	87	*i*P	Pn	10 15 19.8	-1.3
UTMO				*i*S	Sn	10 15 36.4	-2.0
MZVM		1.42	1	*i*P	Pn	10 15 20.4	-1.1
MZVM				*i*S	Sn	10 15 36.7	-2.4
PNIG	**Pinotepa**	1.74	141	*i*P	Pn	10 15 24.9	-0.9
PNIG				*i*S	Sn	10 15 45.2	-1.8
TPIG	**Tehuac#an**	1.93	70	*i*P	Pn	10 15 27.2	-1.1
TPIG				*i*S	Sn	10 15 49.0	-2.4
VHO	**Vista Hermosa**	2.51	105	*i*P	Pn	10 15 35.6	-0.7
VHO				*i*S	Sn	10 16 04.0	-1.8
HUIG	**Huatulco**	3.62	123	*i*P	Pn	10 15 51.0	-0.4
HUIG				*i*S	Sn	10 16 30.8	-2.1

KRSC 15 10:26:22.7±1.0**,55°.62N×160°.44E,h184^{km}**±33^{km}**,ML3.5, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMNR	**Kamenistaya**	0.18	320	*i*P	Pn	10 26 48.4	+1.4
BZMR	**Bezymyannaya**	0.32	5	*i*P	Pn	10 26 48.6	+1.4
KPT	**Kopyto**	0.37	341	*i*P	Pn	10 26 48.4	+1.0
KPT				*e*S	Sn	10 27 06.8	+0.2
TUMR	**Tumrok**	0.38	206	*i*P	Pn	10 26 49.3	+1.8
ZLN	**Zelenaya**	0.45	27	*i*P	Pn	10 26 49.5	+1.9
KOZ	**Kozyrevsk**	0.54	324	*i*P	Pn	10 26 48.8	+0.8
KOZ				S	Sn	10 27 07.7	0.0
KRSR	**Krestovskiy**	0.60	7	*i*P	Pn	10 26 49.2	+0.9
KLY	**Klyuchi**	0.70	10	*i*P	Pn	10 26 50.0	+1.2
KLY				*i*S	Sn	10 27 09.9	+0.8
SRDR	**Sredinnyy**	0.81	330	*e*P	Pn	10 26 49.9	+0.5
SRDR				*e*S	Sn	10 27 09.6	-0.6
SRKR	**Sorokina**	1.11	21	*i*P	Pn	10 26 52.8	+1.2
SRKR				*e*S	Sn	10 27 14.6	+0.6
KBTR	**Krutoberegovo**	1.46	65	*i*P	Pn	10 26 55.5	+0.9
KBTR				*e*S	Sn	10 27 19.5	+0.3
GNL	**Ganaly**	2.41	218	*e*P	Pn	10 27 05.9	+1.3
NLC	**Nalytchevo**	2.54	195	*e*S	Sn	10 27 38.7	-0.9
BKI	**Bering**	3.18	95	*i*P	Pn	10 27 15.4	+1.8
BKI				*i*S	Sn	10 27 54.0	+0.7

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*HLW **15** 10:36:16.6,33°.53N×35°.39E,h15^{km},Mb5.1*

*BJI **15** 10:36:17.5,33°.45N×34°.78E,h30^{km},mB5.2/27,mb4.7/34, Ms5.0/32,Ms7 4.8/30*

*CSEM **15** 10:36:17.7±0.1,33°.32N×35°.31E,h2^{km},mb5.0/99,Ms4.1, Mw4.8,Error ellipse: s-maj=2.1km s-min=1.7km az=58.0*

*IDC **15** 10:36:17.2±0.4,33°.37N×35°.38E,h0^{km},mb4.5/29, mb1 4.6/35,mb1mx4.6/38,mbtmp4.6/35,ML4.7/6,MS4.4/31, Ms1 4.4/31,ms1mx4.3/40,Error ellipse: s-maj=9.5km s-min=4.9km az=81.0*

*DDA **15** 10:36:17.9,33°.54N×35°.25E,h7^{km}±2^{km},Ml5.8*

*ISCJB **15** 10:36:17.3±0.1,33°.340N±0°.009×35°.30E±0°.01,h10^{km}, mb4.8/176,MS4.5/51,Error ellipse: s-maj=1.5km s-min=1.3km az=165.6*

*GII **15** 10:36:17.2±0.6,33°.33N×35°.41E,h3^{km}±2^{km},Mb5.1/5, Md4.9/9,Mm4.4/3*

*NSSC **15** 10:36:18,33°.31N×35°.43E,h9^{km}±2^{km}*

*GRAL **15** 10:36:18.7±0.4,33°.32N×35°.42E,h1^{km}±5^{km},MD5.0*

*NIC **15** 10:36:18.6±0.3,33°.53N×35°.45E,h5^{km},mb4.8,ML4.6, MW4.5*

NIC Felt earthquake; Maximum Intensity 2; Lebanon - Syria Region, 11 km. NE Sur. Felt I=II MM at Larnaca.

*NEIC **15** 10:36:19.1±0.2,33°.33N×35°.31E,h10^{km},mb5.0/110, MD5.0(GRAL),ML4.6(NIC),ML5.1(HLW),ML5.3(GII),Error ellipse: s-maj=4.0km s-min=2.7km az=204.0*

NEIC Ten people injured in Lebanon. Buildings damaged [IV] and power outages occurred in the Beirut area, Lebanon. Felt at Baabda, Jounie, Nabatiye et Tahta, Tripoli and Tyre. Felt [V] at Rishon LeZiyyon; [IV] at Haifa and Netanya; [III] at Qiryat Shemona, Ramat Gan, Rehovot, Tel Aviv-Yafo and Zefat, Israel. Also felt at ‘Akko, Bat Yam, Beersheba, Bene Beraq, Bet She‘an, Bet Shemesh, Ganne Tiqwa, Hadera, Hazor, Kafr Qasim, Karmi‘el, Kefar Sava, Nahariyya, Nazareth, Petah Tiqwa, Qadima, Qiryat Bialik, Qiryat Motzkin, Qiryat Ono, Qiryat Tiv‘on, Ra‘ananna, Tiberias, Yamma, Yoqne‘am ‘Illit and Zikhron Ya‘aqov. Felt [III] at Jerusalem. Felt [III] at Amman and [II] at Al Jubayhah, Jordan. Also felt at Irbid, Tila‘ al ‘Ali and Wadi as Sir. Felt [II] at Larnaca, Cyprus. Felt at Darayya and Qatana, Syria and at Jericho, West Bank.

*GCMT **15** 10:36:19.1±0.2,33°.27N×35°.32E,h12^{km}±1^{km},MW5.2/84, Moment Tensor Solution. s39,c54; s84,c148; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.72±.12; $M_{\theta\theta}$4.39±.13; $M_{\phi\phi}$-3.67±.11; $M_{r\theta}$-0.38±.32; $M_{\theta\phi}$-4.36±.12; $M_{\phi r}$-2.70±.45; Best double couple: $M_0$6.55600×10^{16} NP1:ϕ_s71.00000°,δ69.00000°,λ-167.00000°. NP2: ϕ_s336.00000°,δ78.00000°,λ-22.00000°. Principal axes: T 6.3810, Plg6.0000°, Azm25.0000°; N 0.3480, Plg65.0000°, Azm129.0000°; P -6.7320, Plg24.0000°, Azm292.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **15** 10:36:21.6±1.0,33°.48N×35°.32E,h35^{km},mb5.0/64, MS4.2/26 Error ellipse: s-maj=5.0km s-min=2.6km az=119.1*

*SZGRF **15** 10:36:23.3,33°.66N×35°.45E,h33^{km},mb5.2,MS4.3, Jordan - Syria region*

ISC 15 10:36:18.9±0.1**,33°.322N**±0°.009×**35°.33E**±0°.01**,h10^{km}, (h15^{km}**±.4^{km}**:pP-P),n1176,**σ**1^{s}.16**/1295**,mb4.8**/176**, MS4.5**/51**,39C-57D,Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	**Matirih**	0.17	360	*e*P	Pg	10 36 22.1	-0.4
MATL	**Matirih**	0.17	360	*e*P	Pg	10 36 22.1	-0.4
MATL	**Matirih**	0.17	360	Pg	Pg	10 36 22.1	-0.4
MATL	**Matirih**	0.17	360	*e*P	Pg	10 36 22.1	-0.4
HNTI	**Hanita**	0.27	209	Pg	Pg	10 36 24.1	-0.3
HNTI				Sg	Sg	10 36 29.6	+1.6
HNTI	**Hanita**	0.27	209	Pg	Pg	10 36 23.9	-0.5
HNTI				Sg	Sg	10 36 29.3	+1.3
HNTI	**Hanita**	0.27	209	Pg	Pg	10 36 24.1	-0.3
HNTI				Sg	Sg	10 36 29.6	+1.6
KSDI	**Kefar Szold**	0.30	115	Pg	Pg	10 36 22.5	-2.4
KSDI				Sg	Sg	10 36 27.5	-1.5
KSDI	**Kefar Szold**	0.30	115	Pg	Pg	10 36 23.1	-1.8
KSDI				Sg	Sg	10 36 27.5	-1.5
KSDI	**Kefar Szold**	0.30	115	Pg	Pg	10 36 22.5	-2.4
KSDI				Sg	Sg	10 36 27.5	-1.5
MMA0	**Mount Meron ar**	0.31	169	Pg	Pg	10 36 23.8	-1.3
MMA0				Sg	Sg	10 36 29.2	-0.1
MMAI	**Mount Meron Ar**	0.31	169	Pg	Pg	10 36 23.6	-1.5
	14µm,0.3s,baz=11,slow=19						
MMAI				Lg		10 36 28.9	
	79µm,0.3s,baz=10,slow=34,SNR=136						
RCY	**Rachaya**	0.44	68	*e*P	Pg	10 36 25.8	-1.6
RCY				*e*S	Sg	10 36 30.9	-2.4
RCY	**Rachaya**	0.44	68	*e*P	Pg	10 36 25.8	-1.7
RCY				*e*S	Sg	10 36 30.9	-2.4
KSHT	**Keshet**	0.53	130	Pg	Pg	10 36 27.5	-1.6
BEYL	**Beyrouth**	0.56	14	*e*P	Pg	10 36 28.7	-1.1
BEYL	**Beyrouth**	0.56	14	*e*P	Pg	10 36 28.7	-1.1
BLGI	**Bet Lehem HaGe**	0.60	191	Pg	Pg	10 36 29.6	-0.9
BHL	**Bhannes**	0.64	25	*e*P	Pg	10 36 29.7	-1.6
BHL				*e*S	Sg	10 36 38.0	-1.6
BHL	**Bhannes**	0.64	25	*e*P	Pg	10 36 29.6	-1.6
BHL				*e*S	Sg	10 36 38.5	-1.2
BHL	**Bhannes**	0.64	25	Pg	Pg	10 36 29.6	-1.7
BHL				Sg	Sg	10 36 38.5	-1.2
BHL	**Bhannes**	0.64	25	*e*P	Pg	10 36 29.6	-1.7
BHL				*e*S	Sg	10 36 38.5	-1.2
OFRI	**‘Ofer**	0.76	203	Pg	Pg	10 36 33.0	-0.5
OFRI				Sg	Sg	10 36 44.8	+1.4
QASN	**Qassioun**	0.82	75	⇑P	Pg	10 36 32.0	-2.6
TCHB	**Talchebab**	0.84	140	⇓P	Pg	10 36 33.0	-2.1
MMLI	**Mount Malkishu**	0.89	175	P	Pg	10 36 33.8	-2.1
MMLI	**Mount Malkishu**	0.89	175	Pg	Pg	10 36 34.6	-1.3
MMLI				Sg	Sg	10 36 47.1	-0.3
MMLI	**Mount Malkishu**	0.89	175	P	Pg	10 36 33.8	-2.1
TOTH	**TOTAH**	0.92	87	⇓P	Pg	10 36 34.0	-2.6
HMDT	**Nahal Hemdat**	1.08	171	Pg	Pg	10 36 37.9	-1.7
HMDT				Sg	Sg	10 36 53.6	0.0
HWQ	**Hawqa**	1.08	28	*e*P	Pg	10 36 37.6	-2.1
HWQ				*e*S	Sg	10 36 51.7	-2.1
HWQ	**Hawqa**	1.08	28	*e*P	Pg	10 36 37.3	-2.4
HWQ	**Hawqa**	1.08	28	Pg	Pg	10 36 37.3	-2.4
HWQ	**Hawqa**	1.08	28	*e*P	Pg	10 36 37.3	-2.4
HWQ				*e*S	Sg	10 36 51.7	-2.1
SLTI	**Sal’it**	1.11	193	Pg	Pg	10 36 38.5	-1.6
SLTI				Sg	Sg	10 36 55.2	+0.7
FKH	**Fakeheh**	1.27	44	*e*P	Pn	10 36 40.9	-1.9
FKH	**Fakeheh**	1.27	44	*e*P	Pn	10 36 40.9	-1.8
SALA	**Sala**	1.33	117	⇓P	Pn	10 36 41.0	-2.4
HAWK	**Haweek**	1.49	36	⇑P	Pn	10 36 44.0	-1.7
HAWK				⇑S	Sn	10 37 05.0	-0.3
ZALF	**Zalf**	1.73	103	⇓P	Pn	10 36 48.0	-1.0
ZALF				⇑S	Sn	10 37 09.0	-2.1
DSI	**Dead Sea**	1.75	179	Pn	Pn	10 36 48.2	-1.0
DSI				Sn	Sn	10 37 12.4	+0.9
ASF	**Jabal al Asfar**	1.75	131	Pg	Pn	10 36 48.8	-0.4
	5µm,0.3s,baz=191,slow=6.1						
ASF				Lg		10 37 12.1	
	7µm,0.3s,baz=7.6,slow=18,SNR=57						
BIDA	**Albida**	1.88	26	⇑P	Pn	10 36 50.0	-1.0
YTIR	**Yattir**	1.96	185	Pn	Pn	10 36 52.6	+0.4
PHNC	**Paralimni**	1.99	328	P	Pn	10 36 50.9	-1.7
	69nm,0.7s						
PHNC				S	Sn	10 37 15.8	-1.8
PHNC	**Paralimni**	1.99	328	P	Pn	10 36 50.9	-1.7
	69nm,0.7s						
PHNC				S	Sn	10 37 15.8	-1.8
MZDA	**Masada**	2.01	179	Pn	Pn	10 36 52.9	+0.1
MZDA				Sn	Sn	10 37 18.9	+1.0
KFRA	**Kufra**	2.24	32	⇑P	Pn	10 36 56.0	-0.1
KFRA				⇓S	Sn	10 37 23.0	-0.8
RTMI	**Retamim**	2.33	194	Pn	Pn	10 36 57.6	+0.4
CSS	**Prodhromos**	2.33	315	P	Pn	10 36 56.1	-1.1
CSS				S	Sn	10 37 25.1	-0.8
CSS	**Prodhromos**	2.33	315	*e*Pn	Pn	10 36 54.8	-2.5
CSS				*e*Sn	Sn	10 37 24.6	-1.3
CSS				S	Sn	10 37 25.1	-0.8
CSS	**Prodhromos**	2.33	315	Pn	Pn	10 36 56.0	-1.2
CSS				Sn	Sn	10 37 25.9	0.0
CSS	**Prodhromos**	2.33	315	*e*Pn	Pn	10 36 54.8	-2.4
CSS	**Prodhromos**	2.33	315	P	Pn	10 36 56.1	-1.1
CSS				*e*Sn	Sn	10 37 24.6	-1.3
CSS				S	Sn	10 37 25.1	-0.8
WRDH	**Warideh**	2.36	22	⇑P	Pn	10 36 57.0	-0.6
SLNF	**Slenfeh**	2.38	18	⇑P	Pn	10 36 57.0	-1.0
LFK	**Lefkose**	2.46	323	*e*PN	Pn	10 36 56.8	-2.2
LFK	**Lefkose**	2.46	323	*e*Pn	Pn	10 36 56.8	-2.2
SZAC	**Souni-Zanaja**	2.48	306	P	Pn	10 36 58.8	-0.6
SZAC	**Souni-Zanaja**	2.48	306	P	Pn	10 36 58.8	-0.6
KZIT	**Kziot**	2.54	198	P	Pn	10 37 00.0	-0.1
KZIT	**Kziot**	2.54	198	Pn	Pn	10 37 00.5	+0.4
KZIT	**Kziot**	2.54	198	P	Pn	10 37 00.0	-0.1
MAMC	**Mammari**	2.54	317	P	Pn	10 36 59.7	-0.5
MAMC	**Mammari**	2.54	317	P	Pn	10 36 59.7	-0.5
LEF	**Lefka**	2.70	312	*e*PN	Pn	10 37 01.9	-0.5
LEF	**Lefka**	2.70	312	*e*Pn	Pn	10 37 01.9	-0.5
RSH		2.72	211	P	Pn	10 37 02.3	-0.3
RMNI	**Mount Ramon**	2.76	190	Pn	Pn	10 37 03.3	+0.1
ZFRI	**Zfri**	2.76	183	Pn	Pn	10 37 03.2	0.0
BTCH	**Batrach**	2.86	19	⇑P	Pn	10 37 04.0	-0.6
HTY	**Hatay**	2.87	13	*e*PN	Pn	10 37 04.3	-0.3
HTY	**Hatay**	2.87	13	*e*Pn	Pn	10 37 04.3	-0.4
ALFC	**Alevga**	2.91	310	P	Pn	10 37 04.9	-0.3
	60nm,0.7s						
ALFC				S	Sn	10 37 40.8	+0.6
ALFC	**Alevga**	2.91	310	P	Pn	10 37 04.9	-0.3
	60nm,0.7s						
ALFC				S	Sn	10 37 40.8	+0.6
PPCY	**Paphos**	2.93	303	P	Pn	10 37 05.1	-0.3
	38nm,0.3s						
PPCY				S	Sn	10 37 39.1	-1.5
PPCY	**Paphos**	2.93	303	P	Pn	10 37 05.1	-0.3
	38nm,0.3s						
PPCY				S	Sn	10 37 39.1	-1.5
PRNI	**Paran**	2.97	185	Pn	Pn	10 37 05.9	-0.2
AMAG	**Maghara**	3.22	215	P	Pn	10 37 09.0	-0.5
AMAG	**Maghara**	3.22	215	P	Pn	10 37 09.0	-0.5
	94µm,0.3s						
KRMI	**Paran Flat**	3.24	189	Pn	Pn	10 37 09.5	-0.2
KRMI				Sn	Sn	10 37 49.6	+1.3
KRTS	**Karatas**	3.24	1	*e*PN	Pn	10 37 10.8	+1.0
KRTS	**Karatas**	3.24	1	*e*Pn	Pn	10 37 10.8	+1.0
COBT	**Iskenderun**	3.28	13	*i*P	Pn	10 37 10.2	-0.1
COBT				*i*S	Sg	10 37 57.6	-6.6
COBT	**Iskenderun**	3.28	13	*i*P	Pn	10 37 10.2	-0.1
DRWC	**Darouich**	3.47	18	⇓P	Pn	10 37 12.0	-0.9
JHLN	**Al Jahlan**	3.48	47	⇑P	Pn	10 37 12.0	-1.0
JHLN				⇑S	Sn	10 37 54.0	-0.2
MBRI	**Mt Berech**	3.54	186	Pn	Pn	10 37 13.5	-0.3
HNKL	**Nakhl**	3.57	199	P	Pn	10 37 14.4	0.0
HNKL	**Nakhl**	3.57	199	P	Pn	10 37 14.4	+0.1
AQBJ	**Aqaba**	3.59	184	Pn	Pn	10 37 14.5	-0.1
MERS	**Mersin**	3.60	350	*e*PN	Pn	10 37 14.3	-0.4
MERS	**Mersin**	3.60	350	*e*Pn	Pn	10 37 14.3	-0.4
EIL	**Elat**	3.66	185	Pn	Pn	10 37 15.0	-0.4
	32nm,0.3s,baz=360,slow=9.3,SNR=127						
EIL				Pg	Pg	10 37 24.2	-4.7
	231nm,0.3s,baz=9.7,slow=9.8,SNR=130						
EIL				Lg		10 38 11.3	
	335nm,0.3s,baz=360,slow=16,SNR=5.9						
EIL				LR	LR	10 38 47.6	
	comp=Z,10µm,20.5s,baz=13,slow=41						
EIL	**Elat**	3.66	185	Pn	Pn	10 37 15.0	-0.5
EIL				Pg	Pg	10 37 24.2	-4.7
EIL				Lg		10 38 11.3	
EIL				LR	LR	10 38 47.6	
EIL	**Elat**	3.66	185	Pn	Pn	10 37 15.0	-0.5
EIL	**Elat**	3.66	185	Pn	Pn	10 37 15.0	-0.5
EIL	**Elat**	3.66	185	Pg	Pg	10 37 24.2	-4.7
KUZU	**Kuzuini**	3.73	22	*e*P	Pn	10 37 16.0	-0.5
KUZU				*i*S	Sg	10 38 13.0	-5.7
KUZU	**Kuzuini**	3.73	22	*e*P	Pn	10 37 16.0	-0.5
KARA	**Karaisali**	3.94	357	*e*PN	Pn	10 37 19.5	+0.2
KARA	**Karaisali**	3.94	357	*e*Pn	Pn	10 37 19.5	+0.2
HQLS		4.02	183	S	Sg	10 38 20.0	-7.8
HQLS		4.02	183	P	Pn	10 37 19.9	-0.6
HQLS		4.02	183	P	Pn	10 37 19.9	-0.5
HBST	**Basata**	4.12	187	P	Pn	10 37 21.9	0.0
HBST	**Basata**	4.12	187	P	Pn	10 37 21.9	0.0
GAZ	**Gaziantep**	4.14	21	*e*P	Pn	10 37 24.4	+2.3
GAZ	**Gaziantep**	4.14	21	*e*P	Pn	10 37 24.4	+2.3
KOZT	**Kozan**	4.17	5	*e*PN	Pn	10 37 21.2	-1.4
HDMB	**Hadim**	4.32	328	*e*PN	Pn	10 37 23.7	-0.9
HDMB	**Hadim**	4.32	328	*e*Pn	Pn	10 37 23.7	-0.8
ANDN	**Andirin**	4.33	11	*i*P	Pn	10 37 24.8	+0.1
ANDN				*i*S	Sn	10 38 14.6	-0.6
ANDN	**Andirin**	4.33	11	*i*P	Pn	10 37 24.8	+0.1
ANDN				*i*S	Sn	10 38 14.6	-0.6
KMRS	**Kahramanmaras**	4.37	17	*e*P	Pn	10 37 26.3	+1.0
KMRS	**Kahramanmaras**	4.37	17	*e*P	Pn	10 37 26.3	+1.1
GZT	**Gaziantep**	4.42	24	*i*P	Pn	10 37 26.1	+0.1
ZNM		4.46	209	P	Pn	10 37 26.4	-0.2
ZNM		4.46	209	P	Pn	10 37 26.4	-0.1
KOT	**Kottamia**	4.51	222	P	Pn	10 37 26.6	-0.7
KOT				S	Sn	10 38 17.7	-2.1
KOT	**Kottamia**	4.51	222	P	Pn	10 37 26.6	-0.7
KOT				S	Sn	10 38 17.7	-2.1
JLOS		4.58	178	P	Pn	10 37 28.1	0.0
JLOS		4.58	178	P	Pn	10 37 28.1	0.0
ZAF		4.68	211	P	Pn	10 37 29.2	-0.3
ZAF		4.68	211	P	Pn	10 37 29.2	-0.3
NIG	**Nigde**	4.81	353	*e*P	Pn	10 37 32.9	+1.5
NIG	**Nigde**	4.81	353	*e*P	Pn	10 37 32.9	+1.5
HLW	**Helwan**	4.85	226	P	Pn	10 37 31.7	-0.2
HLW	**Helwan**	4.85	226	P	Pn	10 37 31.7	-0.2
GLL	**Jalalah**	4.85	221	P	Pn	10 37 31.3	-0.6
GLL	**Jalalah**	4.85	221	P	Pn	10 37 31.3	-0.6
BDAS	**Al Bad‘**	4.88	182	P	Pn	10 37 31.4	-1.0
BDAS	**Al Bad‘**	4.88	182	P	Pn	10 37 31.4	-0.9
HSAF	**As Saff**	4.90	222	P	Pn	10 37 31.9	-0.8
HSAF				S	Sn	10 38 27.5	-2.0
HSAF	**As Saff**	4.90	222	P	Pn	10 37 31.9	-0.7
HSAF				S	Sn	10 38 27.5	-1.9
SQR		4.92	227	P	Pn	10 37 32.1	-0.7
SQR				S	Sn	10 38 27.9	-1.9
SQR		4.92	227	P	Pn	10 37 32.1	-0.8
SQR				S	Sn	10 38 27.9	-1.9
SFNV	**Sufian**	5.00	51	⇑P	Pn	10 37 34.0	+0.1
RSHS		5.03	185	P	Pn	10 37 32.3	-2.0
RSHS		5.03	185	P	Pn	10 37 32.3	-2.0
AYT	**Al ‘Ayyat**	5.07	226	P	Pn	10 37 34.6	-0.4
AYT	**Al ‘Ayyat**	5.07	226	P	Pn	10 37 34.6	-0.4
SULT	**Sultanhani-AKS**	5.08	344	*e*P	Pn	10 37 36.6	+1.5
SULT	**Sultanhani-AKS**	5.08	344	*e*P	Pn	10 37 36.6	+1.5
TBKS	**Tabuk**	5.19	168	S	Sg	10 38 58.5	-7.1
TBKS	**Tabuk**	5.19	168	P	Pn	10 37 35.7	-0.9
TBKS	**Tabuk**	5.19	168	P	Pn	10 37 35.7	-0.9
KONT	**Konya--Tatoy**	5.21	333	*e*P	Pn	10 37 37.2	+0.4
KONT	**Konya--Tatoy**	5.21	333	*e*P	Pn	10 37 37.2	+0.4
ANTB	**Antalya**	5.24	314	*e*P	Pn	10 37 36.0	-1.2
ANTB	**Antalya**	5.24	314	*e*P	Pn	10 37 36.0	-1.2
AKCD	**Akcadag**	5.39	22	*i*P	Pn	10 37 40.8	+1.5
AKCD				*i*S	Sn	10 38 50.9	+10
AKCD	**Akcadag**	5.39	22	*i*P	Pn	10 37 40.8	+1.5
AVNT	**Avonos**	5.46	356	*i*P	Pn	10 37 40.8	+0.5
AVNT				*i*S	Sn	10 38 37.1	-6.0
AVNT	**Avonos**	5.46	356	*i*P	Pn	10 37 40.8	+0.6
SARI	**SarD1z-Kayseri**	5.46	11	*e*P	Pn	10 37 37.2	-3.0
KSL	**Kastellorizon**	5.51	302	*e*P	Pn	10 37 40.4	-0.5
SHRM		5.51	191	P	Pn	10 37 40.3	-0.7
SHRM		5.51	191	P	Pn	10 37 40.3	-0.7
BNN	**Bunyan**	5.53	4	*e*P	Pn	10 37 41.1	-0.2
BNN	**Bunyan**	5.53	4	*e*P	Pn	10 37 41.1	-0.2
AKAS	**Kas**	5.54	303	*i*P	Pn	10 37 40.4	-0.9
AKAS				*i*S	Sn	10 38 42.8	-2.2
AKAS	**Kas**	5.54	303	*i*P	Pn	10 37 40.4	-0.9
AKAS				*i*S	Sn	10 38 42.8	-2.2
MALT	**Malatya**	5.58	26	*e*P	Pn	10 37 42.0	+0.1
MALT	**Malatya**	5.58	26	*e*P	Pn	10 37 41.7	-0.2
MALT				pmax	pmax		
	comp=Z,2µm,0.9s						
MALT	**Malatya**	5.58	26	*e*Pn	Pn	10 37 41.7	-0.2
	comp=Z,2µm,0.9s						
MALT				*e*Sg	Sg	10 39 17.1	-0.9
MALT	**Malatya**	5.58	26	*e*Pn	Pn	10 37 41.7	-0.2
	comp=Z,2µm,0.9s						

MALT				*e*Sg	Sg	10 39 17.0	-1.0
MYA	Malataya	5.59	26	*e*P	Pn	10 37 44.7	+2.6
ELL	Elmali	5.61	309	*e*P	Pn	10 37 42.4	+0.1
ELL	Elmali	5.61	309	*e*P	Pn	10 37 42.4	+0.1
KBSD	Kabsdagh	5.63	48	⇑P	Pn	10 37 42.0	-0.6
BCK	Bucak	5.66	318	*e*P	Pn	10 37 44.0	+1.0
BCK	Bucak	5.66	318	*e*P	Pn	10 37 44.0	+1.0
KDHN	Kadinhani	5.81	334	*i* P	Pn	10 37 44.8	-0.2
KDHN				*i* S	Sn	10 38 48.4	-3.3
KDHN	Kadinhani	5.81	334	*i* P	Pn	10 37 44.8	-0.2
DARE	Darende-Malaty	5.96	19	*e*P	Pn	10 37 43.6	-3.5
ISP	Isparta	5.98	320	*e*P	Pn	10 37 50.3	+2.9
ISP	Isparta	5.98	320	*e*Pn	Pn	10 37 47.2	-0.2
ISP				*e*Sn	Sn	10 38 47.0	-8.9
ISP	Isparta	5.98	320	Pn	Pn	10 37 46.5	-0.9
ISP				Sn	Sn	10 38 59.2	+3.3
DIY	Diyarbakir	6.06	40	*e*P	Pn	10 37 52.8	+4.3
FETY	Fethiye	6.10	305	*e*P	Pn	10 37 48.0	-1.0
FETY	Fethiye	6.10	305	*e*P	Pn	10 37 48.0	-1.1
GOLH	Golhisar	6.12	311	*i* P	Pn	10 37 50.6	+1.2
GOLH				*i* S	Sn	10 38 57.0	-2.5
GOLH	Golhisar	6.12	311	*i* P	Pn	10 37 50.6	+1.2
KIZT	Kizilcal	6.21	334	*e*P	Pn	10 37 50.6	0.0
KIZT	Kizilcal	6.21	334	*e*P	Pn	10 37 50.6	+0.1
YOZ	Yozgat	6.30	360	*e*P	Pn	10 37 53.9	+2.1
YOZ	Yozgat	6.30	360	*e*P	Pn	10 37 53.9	+2.0
KEMA	Kemaliye	6.46	22	*i* P	Pn	10 37 54.2	+0.2
KEMA				*i* S	Sg	10 39 36.1	-10
KEMA	Kemaliye	6.46	22	*i* P	Pn	10 37 54.2	+0.2
DALT	Dalyan (Mudla)	6.48	304	*e*P	Pn	10 37 53.1	-1.1
DALT	Dalyan (Mudla)	6.48	304	*e*P	Pn	10 37 53.1	-1.1
SHUT	Suhut-Afyon	6.50	325	*e*P	Pn	10 37 55.4	+0.9
SHUT	Suhut-Afyon	6.50	325	*e*P	Pn	10 37 55.4	+0.8
BRTR	Keskin Array B	6.53	348	Pn	Pn	10 37 55.6	+0.7
	comp=Z,18nm,0.3s,baz=171,slow=14,SNR=235						
BRTR				LR	LR	10 40 55.3	
	comp=Z,2µm,18.8s,baz=342,slow=43						
BRTR	Keskin Array B	6.53	348	Pn	Pn	10 37 55.7	+0.7
BR131	Keskin Array S	6.53	348	*e*Pn	Pn	10 37 55.5	+0.5
	comp=Z,45nm,0.5s						
BR131				*e*Sn	Sn	10 39 12.4	+2.9
BR131	Keskin Array S	6.53	348	*e*Pn	Pn	10 37 55.5	+0.5
	comp=Z,45nm,0.5s						
BR131				*e*Sn	Sn	10 39 12.4	+2.8
ARG	Arkhangelos	6.59	298	*e*P	Pn	10 37 54.3	-1.5
ARG	Arkhangelos	6.59	298	P	Pn	10 37 54.7	-1.1
ARG	Arkhangelos	6.59	298	P	Pn	10 37 54.7	-1.1
SVSK	Karacayir	6.72	11	*e*P	Pn	10 38 00.9	+3.4
DENT	Denizli	6.77	313	*e*P	Pn	10 37 57.1	-1.2
DENT	Denizli	6.77	313	*e*P	Pn	10 37 57.1	-1.2
SVRH	Sivrihisar-ESK	6.84	334	*e*P	Pn	10 37 55.9	-3.3
CORM	Corum	6.87	356	*e*P	Pn	10 38 01.3	+1.7
CORM	Corum	6.87	356	*e*P	Pn	10 38 01.3	+1.7
KHL	Karahalli	6.87	318	*e*P	Pn	10 37 59.0	-0.5
KHL	Karahalli	6.87	318	*e*P	Pn	10 37 59.1	-0.5
LOD	Lodumlu	6.87	343	*e*P	Pn	10 37 59.7	+0.1
LOD	Lodumlu	6.87	343	*e*P	Pn	10 37 59.7	+0.1
YER	Yerkesik	6.91	305	*e*P	Pn	10 37 59.7	-0.4
YER	Yerkesik	6.91	305	*e*P	Pn	10 37 59.7	-0.4
KHAL	Karahalli	6.92	318	*i* P	Pn	10 37 59.7	-0.5
KHAL				*i* S	Sn	10 39 14.5	-4.5
KHAL	Karahalli	6.92	318	*i* P	Pn	10 37 59.7	-0.6
TOKT	Tokat	7.05	8	*e*P	Pn	10 38 02.3	+0.1
TOKT	Tokat	7.05	8	*e*P	Pn	10 38 02.3	+0.2
MSL	Mosul	7.09	62	*e*x	x	10 38 09.0	
MSL				*e*x	x	10 39 39.0	
KARP	Karpathos	7.11	290	*e*P	Pn	10 38 00.7	-2.2
ALT	Altintas	7.11	325	*e*P	Pn	10 38 02.9	0.0
ALT	Altintas	7.11	325	*e*P	Pn	10 38 02.9	0.0
ESKT	Eskisehir	7.16	331	*e*P	Pn	10 38 03.5	-0.1
ESKT	Eskisehir	7.16	331	*e*P	Pn	10 38 03.6	0.0
DAT	Datca	7.21	300	*e*P	Pn	10 38 03.7	-0.6
DAT	Datca	7.21	300	*e*P	Pn	10 38 03.7	-0.6
RSDY	Resadiye-TOKAT	7.24	12	*e*P	Pn	10 38 06.8	+2.1
RSDY	Resadiye-TOKAT	7.24	12	*e*P	Pn	10 38 06.8	+2.1
MLSB	Milas	7.34	305	*e*P	Pn	10 38 05.7	-0.4
MLSB	Milas	7.34	305	*e*P	Pn	10 38 05.7	-0.3
EZC	Erzincan	7.36	28	*e*P	Pn	10 38 06.1	-0.2
CANT	Cankiri	7.40	350	*e*P	Pn	10 38 08.7	+1.8
KULA	Kula-Manisa	7.49	316	*e*P	Pn	10 38 07.2	-0.9
KULA	Kula-Manisa	7.49	316	*e*P	Pn	10 38 07.2	-0.9
BODT	Bodrum	7.55	302	*e*P	Pn	10 38 08.3	-0.7
BODT	Bodrum	7.55	302	*e*P	Pn	10 38 08.3	-0.7
KVT	Kavak	7.76	4	*e*P	Pn	10 38 13.2	+1.3
KVT	Kavak	7.76	4	*e*P	Pn	10 38 13.2	+1.3
TOS	Tosya	7.77	353	*e*P	Pn	10 38 12.8	+0.8
TOS	Tosya	7.77	353	*e*P	Pn	10 38 12.8	+0.8
CUKT	Cukurca	7.82	58	*e*P	Pn	10 38 17.7	+5.0
MDU	Mudurnu	7.85	336	*e*P	Pn	10 38 12.6	-0.5
MDU	Mudurnu	7.85	336	*e*P	Pn	10 38 12.6	-0.5
GUMT	Gumushane	7.86	24	*e*P	Pn	10 38 13.8	+0.6
GUMT	Gumushane	7.86	24	*e*P	Pn	10 38 13.8	+0.6
ESPY	Espiye-Giresun	8.05	19	*e*P	Pn	10 38 17.7	+1.9
ESPY	Espiye-Giresun	8.05	19	*e*P	Pn	10 38 17.7	+1.9
HKR	Hakkari	8.07	56	*e*P	Pn	10 38 17.7	+1.6
HKR	Hakkari	8.07	56	*e*P	Pn	10 38 17.7	+1.6
BYBT	Boyabat	8.14	357	*e*P	Pn	10 38 18.2	+1.1
BYBT	Boyabat	8.14	357	*e*P	Pn	10 38 18.2	+1.1
CAVI	Cavuskoy	8.15	329	*e*P	Pn	10 38 17.1	-0.1
CAVI	Cavuskoy	8.15	329	*e*P	Pn	10 38 17.2	-0.1
EZM	Erzurum	8.16	35	*e*P	Pn	10 38 21.6	+4.2
SAFT	Safranbolu	8.18	346	*e*P	Pn	10 38 17.9	+0.3
SAFT	Safranbolu	8.18	346	*e*P	Pn	10 38 17.9	+0.3
AKS	Akhisar	8.23	314	*e*P	Pn	10 38 18.3	0.0
AKS	Akhisar	8.23	314	*e*P	Pn	10 38 18.3	0.0
DST	Dursunbey	8.27	321	*e*P	Pn	10 38 16.6	-2.3
DST	Dursunbey	8.27	321	*e*P	Pn	10 38 16.6	-2.3
NPS	Neapolis	8.27	286	*e*P	Pn	10 38 18.0	-0.9
IZM	Izmir	8.28	310	*e*P	Pn	10 38 17.1	-1.8
VANB	Van	8.39	49	*e*P	Pn	10 38 23.4	+3.0
ADVT	Abdulvahap	8.39	329	*e*P	Pn	10 38 19.6	-0.9
ADVT	Abdulvahap	8.39	329	*e*P	Pn	10 38 19.6	-0.9
BLCB	Balcova	8.41	309	*e*P	Pn	10 38 19.6	-1.2
BLCB	Balcova	8.41	309	*e*P	Pn	10 38 19.6	-1.2
KTUT	Trabzon	8.43	24	*e*P	Pn	10 38 23.4	+2.4
HFRF	Wahat Farafira	8.64	226	P	Pn	10 38 22.6	-1.4
HFRF	Wahat Farafira	8.64	226	P	Pn	10 38 22.6	-1.4
YLV	Yalova	8.66	328	*e*P	Pn	10 38 23.7	-0.5
YLV	Yalova	8.66	328	*e*P	Pn	10 38 23.7	-0.5
BALB	Balikesir	8.70	319	*e*P	Pn	10 38 23.5	-1.2
BALB	Balikesir	8.70	319	*e*P	Pn	10 38 23.5	-1.2
AGRB	Hanur-Agry	8.77	42	*e*P	Pn	10 38 29.3	+3.5
IDI	Anoyia	8.86	286	Pn	Pn	10 38 24.9	-2.1
	comp=Z,19nm,0.3s,baz=105,slow=12,SNR=55						
IDI				Sn	Sn	10 40 01.9	-4.9
	comp=Z,66nm,0.3s,baz=350,slow=19,SNR=11						
IDI	Anoyia	8.86	286	Pn	Pn	10 38 24.9	-2.0
SILT	Sile	9.03	332	*e*P	Pn	10 38 29.2	-0.1
SILT	Sile	9.03	332	*e*P	Pn	10 38 29.2	-0.1
CLDR	Caldiran	9.04	48	*e*P	Pn	10 38 34.4	+4.9
BNT	Bandirma	9.19	322	*e*P	Pn	10 38 31.1	-0.3
BNT	Bandirma	9.19	322	*e*P	Pn	10 38 31.1	-0.4
ISK	Istanbul-Kandi	9.20	329	*e*P	Pn	10 38 30.2	-1.4
ISK	Istanbul-Kandi	9.20	329	*e*P	Pn	10 38 30.2	-1.4
SWA2		9.38	247	P	Pn	10 38 33.3	-0.8
SWA2				S	Sn	10 40 13.5	-6.0
BGKT	Bogazkoy	9.42	328	*e*P	Pn	10 38 32.4	-2.2
BGKT	Bogazkoy	9.42	328	*e*P	Pn	10 38 32.4	-2.2
CTKS	Kestanelik-??a	9.59	327	*e*P	Pn	10 38 36.3	-0.6
CTKS	Kestanelik-??a	9.59	327	*e*P	Pn	10 38 36.3	-0.6
LTBQ	Tobruq	9.70	266	*i* P	Pn	10 38 36.5	-2.0
	SNR=22						
SLVT	Silivri	9.72	326	*e*P	Pn	10 38 36.9	-1.7
SLVT	Silivri	9.72	326	*e*P	Pn	10 38 36.9	-1.8
EZN	Ezine	9.72	314	*e*P	Pn	10 38 37.6	-1.2
EZN	Ezine	9.72	314	*e*P	Pn	10 38 37.6	-1.1
LPK	Lapseki	9.83	318	*e*P	Pn	10 38 40.4	+0.3
LPK	Lapseki	9.83	318	*e*P	Pn	10 38 40.4	+0.2
CRLT	Corlu	9.86	324	*e*P	Pn	10 38 40.1	-0.5
CRLT	Corlu	9.86	324	*e*P	Pn	10 38 40.1	-0.6
CTYL	Yal??k??y-??at	9.88	328	*e*P	Pn	10 38 39.7	-1.2
CTYL	Yal??k??y-??at	9.88	328	*e*P	Pn	10 38 39.7	-1.1
GADA	Gvkgeada	10.21	315	*e*P	Pn	10 38 42.7	-2.7
GADA	Gvkgeada	10.21	315	*e*P	Pn	10 38 42.7	-2.7
ENEZ	Enez	10.41	318	*e*P	Pn	10 38 46.6	-1.7
ENEZ	Enez	10.41	318	*e*P	Pn	10 38 46.6	-1.6
LIA	Limnos Island	10.46	312	P	Pn	10 38 47.3	-1.6
LIA	Limnos Island	10.46	312	P	Pn	10 38 47.3	-1.6
LIA	Limnos Island	10.46	312	P	Pn	10 38 47.3	-1.6
SOC	Sochi	10.80	17	*e*P	Pn	10 38 52.5	-1.0
SOC				*e*		10 40 56.6	
SOC				pmax	pmax		
	comp=Z,56nm,1.0s						
SOC				MLR	MLR		
	comp=Z,993nm,11.0s						
SOC	Sochi	10.80	17	*e*P	Pn	10 38 52.5	-1.0
	comp=Z,56nm,1.0s						
SOC				*e*S	Sn	10 40 56.6	+2.1
	comp=Z,993nm,11.0s						
MIB	Mutribah	10.83	106	*e*P	Pn	10 38 51.7	-2.2
MIB				AML	AML	10 41 51.0	
	comp=Z,162nm,0.6s						
MIB	Mutribah	10.83	106	*e*P	Pn	10 38 51.7	-2.2
EDRB	Edirne	10.89	324	*e*P	Pn	10 38 53.0	-1.8
EDRB	Edirne	10.89	324	*e*P	Pn	10 38 53.0	-1.8
NAY	Al-Naaiem	10.97	109	*e*P	Pn	10 38 54.0	-1.9
NAY				AML	AML	10 41 50.1	
	comp=Z,65nm,0.6s						
NAY	Al-Naaiem	10.97	109	*e*P	Pn	10 38 54.0	-1.8
RDO	Rodhopi	11.04	318	P	Pn	10 38 56.5	-0.2
RDO	Rodhopi	11.04	318	P	Pn	10 38 56.5	-0.2
GOR	Gori	11.09	36	P	Pn	10 39 02.1	+4.6
LTK	Loutraki	11.09	298	P	Pn	10 38 56.2	-1.3
LTK	Loutraki	11.09	298	P	Pn	10 38 56.2	-1.3
LTK	Loutraki	11.09	298	P	Pn	10 38 56.2	-1.3
TBLG	Delisi	11.23	39	P	Pn	10 39 03.3	+4.0
MTA	Mtatsminda	11.23	39	P	Pn	10 39 03.2	+3.8
ONI	Oni	11.24	32	P	Pn	10 39 03.2	+3.7
RDF	Al-Radifah	11.35	109	*e*P	Pn	10 38 60.0	-1.1
RDF	Al-Radifah	11.35	109	*e*P	Pn	10 39 00.0	-1.1
JMB	Yambol	11.44	325	*e*P	Pn	10 39 03.3	+1.0
JMB	Yambol	11.44	325	*e*P	Pn	10 39 03.3	+1.0
ANN	Anapa	11.58	7	*e*P	Pn	10 39 07.1	+3.0
ANN				*e*S	Sn	10 41 20.7	+7.3
ANN				pmax	pmax		
	comp=Z,126nm,1.7s						
ANN				MLR	MLR		
	comp=N,742nm,10.0s						
ANN				MLR	MLR		
	comp=Z,746nm,10.0s						
ITM	Ithomi	11.61	293	P	Pn	10 39 03.2	-1.4
ITM	Ithomi	11.61	293	P	Pn	10 39 03.2	-1.4
PRD	Provadia	11.66	330	*e*P	Pn	10 39 06.9	+1.7
PRD	Provadia	11.66	330	*e*P	Pn	10 39 06.9	+1.7
DIM	Dimitrovgrad	11.66	321	*e*P	Pn	10 39 04.6	-0.7
DIM	Dimitrovgrad	11.66	321	*e*P	Pn	10 39 04.6	-0.7
LAKA	Lakka	11.90	298	P	Pn	10 39 07.7	-0.8
LAKA	Lakka	11.90	298	P	Pn	10 39 07.7	-0.8
LAKA	Lakka	11.90	298	P	Pn	10 39 07.7	-0.8
AGG	Agios Georgios	11.94	302	P	Pn	10 39 08.5	-0.6
AGG	Agios Georgios	11.94	302	P	Pn	10 39 08.5	-0.6
AGG	Agios Georgios	11.94	302	P	Pn	10 39 08.5	-0.6
KIV	Kislovodsk	12.07	26*c*	*i*P	Pn	10 39 13.3	+2.5
KIV				pmax	pmax		
	comp=Z,62nm,1.2s						
KIV				MLR	MLR		
	comp=Z,1µm,19.0s						
KIV	Kislovodsk	12.07	26	*e*Pn	Pn	10 39 13.4	+2.6
KIV				*e*Sn	Sn	10 41 25.8	+0.4
KIV	Kislovodsk	12.07	26	⇓P	Pn	10 39 14.4	+3.5
	SNR=8.3						
KIV				⇓P		10 39 14.4	
	SNR=8.3						
KIV	Kislovodsk	12.07	26	*e*Sn	Sn	10 41 25.8	+0.4
SOH	Sokhos	12.14	311	P	Pn	10 39 13.1	+1.3
SOH	Sokhos	12.14	311	P	Pn	10 39 13.1	+1.3
LIT	Litokhoron	12.32	307	P	Pn	10 39 13.2	-1.1
LIT	Litokhoron	12.32	307	P	Pn	10 39 13.2	-1.1
LIT	Litokhoron	12.32	307	P	Pn	10 39 13.2	-1.1
TIRR	Tirgusor	12.35	336	*e*P	Pn	10 39 14.9	+0.2
TIRR				pmax	pmax		
	comp=Z,26nm,1.0s						
TIRR	Tirgusor	12.35	336	⇑*i*P	Pn	10 39 15.5	+0.8
TIRR	Tirgusor	12.35	336	*e*Pn	Pn	10 39 14.9	+0.2
	comp=Z,26nm,1.0s						
TIRR	Tirgusor	12.35	336	*e*P	Pn	10 39 14.9	+0.2
	comp=Z,26nm,1.0s						
MMB	Musomiste	12.36	315	*e*P	Pn	10 39 13.8	-1.1
MMB	Musomiste	12.36	315	*e*P	Pn	10 39 13.8	-1.1
THL	Klokotos Trika	12.39	304	P	Pn	10 39 15.3	0.0
THL	Klokotos Trika	12.39	304	P	Pn	10 39 15.3	0.0
THL	Klokotos Trika	12.39	304	P	Pn	10 39 15.3	0.0
GRG	Griva	12.81	310	P	Pn	10 39 20.5	-0.6
GRG	Griva	12.81	310	P	Pn	10 39 20.5	-0.6
GRG	Griva	12.81	310	P	Pn	10 39 20.5	-0.6
VAY	Valandovo	12.91	312	*e*P	Pn	10 39 21.5	-0.8
VAY	Valandovo	12.91	312	*e*P	Pn	10 39 21.5	-0.8
KKB	Krupnik	12.91	315	*e*P	Pn	10 39 21.8	-0.6
KKB	Krupnik	12.91	315	*e*P	Pn	10 39 21.8	-0.6
VTS	Vitosha	13.29	318	*e*P	Pn	10 39 26.4	-1.2
VTS	Vitosha	13.29	318	*e*P	Pn	10 39 26.4	-1.2
VTS	Vitosha	13.29	318	P	Pn	10 39 27.4	-0.2
VTS	Vitosha	13.29	318	P	Pn	10 39 27.4	-0.2
FNA	Florina	13.39	308	P	Pn	10 39 28.7	-0.3
FNA	Florina	13.39	308	P	Pn	10 39 28.7	-0.3
FNA	Florina	13.39	308	P	Pn	10 39 28.7	-0.3
MPEP	Malo Peshtene	13.52	321	*e*P	Pn	10 39 29.7	-0.9
MPEP	Malo Peshtene	13.52	321	*e*P	Pn	10 39 29.7	-0.9
BIA	Bitola	13.54	309	*e*P	Pn	10 39 30.5	-0.5
BIA	Bitola	13.54	309	*e*P	Pn	10 39 30.5	-0.5
MAK	Makhachkala	13.56	41	*e*P	Pn	10 39 36.2	+4.9
MAK				*e*S	Sn	10 42 07.8	+5.8
MAK				MLR	MLR		
	comp=Z,4µm,16.0s						
KRUS	Krusevo	13.77	310	*e*P	Pn	10 39 34.9	+0.8
KRUS	Krusevo	13.77	310	*e*P	Pn	10 39 34.8	+0.7
OHR	Ohrid	13.94	308	*e*P	Pn	10 39 33.8	-2.5
OHR	Ohrid	13.94	308	*e*P	Pn	10 39 33.8	-2.5
SKO	Skopje	13.97	312	*e*P	Pn	10 39 37.4	+0.5
SKO	Skopje	13.97	312	*e*P	Pn	10 39 37.3	+0.4
KEK	Kerkira	14.02	301	P	Pn	10 39 38.4	+0.9
KEK	Kerkira	14.02	301	P	Pn	10 39 38.4	+0.9
MLR	Muntele Rosu	14.14	332	⇓*i*P	Pn	10 39 42.2	+3.1
MLR	Muntele Rosu	14.14	332	Pn	Pn	10 39 40.0	+0.9
	comp=Z,0.4nm,0.3s,baz=111,slow=2.7,SNR=14						
MLR				LR	LR	10 45 45.4	
	comp=Z,1µm,18.9s,baz=158,slow=40						
MLR	Muntele Rosu	14.14	332	⇓P	Pn	10 39 42.2	+3.1
MLR	Muntele Rosu	14.14	332	P	Pn	10 39 40.0	+0.9
	comp=Z,1µm,18.9s						
VRI	Vrincioaia	14.16	335	⇑*i*P	Pn	10 39 42.8	+3.4
VRI	Vrincioaia	14.16	335	⇑P	Pn	10 39 42.8	+3.4
VRI	Vrincioaia	14.16	335	P	Pn	10 39 42.8	+3.4
PLOR	Plostina	14.18	334	P	Pn	10 39 45.9	+6.3
PLOR	Plostina	14.18	334	⇑*i*P	Pn	10 39 41.1	+1.5
PLOR	Plostina	14.18	334	⇑*i*P	Pn	10 39 41.1	+1.5
VOIR		14.46	330	⇓*i*P	Pn	10 39 45.5	+2.0
VOIR		14.46	330	⇓P	Pn	10 39 45.5	+2.1
KIS	Kishinev	14.53	342	*e*P	Pn	10 39 44.0	-0.4
KIS	Kishinev	14.53	342	*e*PP		10 39 57.0	
KIS				*e*S	Sn	10 42 30.0	+4.5
KIS				LRM		10 47 05.0	
	comp=Z,2µm,15.0s						
TIR	Tirane	14.67	308	*e*P	Pn	10 39 45.9	-0.4
TIR				pmax	pmax		
	comp=Z,155nm,1.1s						
TIR	Tirane	14.67	308	*e*Pn	Pn	10 39 45.9	-0.4
	comp=Z,155nm,1.1s						
TIR	Tirane	14.67	308	*e*Pn	Pn	10 39 45.9	-0.4
	comp=Z,155nm,1.1s						
PVY	Plav	15.23	312	⇓*i*P	Pn	10 39 52.8	-1.0
PVY	Plav	15.23	312	⇓*i*P	Pn	10 39 52.9	-1.0
MDB	Medias	15.30	330	P	Pn	10 39 58.3	+3.5
MDB	Medias	15.30	330	P	Pn	10 39 58.2	+3.4
ULC	Ulcinj	15.37	309	⇓*i*P	Pn	10 39 55.0	-0.7
ULC	Ulcinj	15.37	309	⇓*i*P	Pn	10 39 55.0	-0.7
IVA	Berane	15.42	313	⇓*i*P	Pn	10 39 56.5	+0.1
IVA	Berane	15.42	313	⇓*i*P	Pn	10 39 56.5	+0.1
GZR	Gura Zlata	15.46	325	⇑*i*P	Pn	10 39 56.2	-0.6
GZR	Gura Zlata	15.46	325	⇑P	Pn	10 39 56.2	-0.6
TTG	Podgorica	15.59	310	⇓*i*P	Pn	10 39 58.0	-0.6
TTG	Podgorica	15.59	310	⇓*i*P	Pn	10 39 58.0	-0.6
BUM	Brajici-Budva	15.76	309	⇓*i*P	Pn	10 40 00.1	-0.7
BUM	Brajici-Budva	15.76	309	⇓*i*P	Pn	10 40 00.1	-0.6
NKY	Niksic	15.95	311	⇓*i*P	Pn	10 40 01.8	-1.5
NKY	Niksic	15.95	311	⇓*i*P	Pn	10 40 01.8	-1.5
PLE	Pljevlja	15.98	313	⇓*i*P	Pn	10 40 05.7	+2.0
PLE	Pljevlja	15.98	313	⇓*i*P	Pn	10 40 05.7	+2.0
PLE	Pljevlja	15.98	313	⇓*i*P	Pn	10 40 05.7	+2.0
TIP	Timpagrande	16.07	297	*e*Pn	Pn	10 39 59.1	-5.8
	comp=Z,185nm,1.0s						
TIP				*e*Sn	Sn	10 42 43.4	-20
HCY	Herceg Novi	16.09	309	⇓*i*P	Pn	10 40 03.1	-2.0
HCY	Herceg Novi	16.09	309	⇓*i*P	Pn	10 40 03.2	-1.9
BZS	Buzias	16.18	323	⇓*i*P	Pn	10 40 05.5	-0.8
BZS	Buzias	16.18	323	P	Pn	10 40 06.7	+0.5
BURAR	Bucovina Array	16.20	335	⇑*i*P	Pn	10 40 11.0	+4.6
BURAR	Bucovina Array	16.20	335	⇑P	Pn	10 40 11.0	+4.6
BURAR	Bucovina Array	16.20	335	⇑*i*P	Pn	10 40 11.0	+4.6
UPM	Unac-Piva	16.21	312	⇓*i*P	Pn	10 40 05.9	-0.7
UPM	Unac-Piva	16.21	312	⇓*i*P	Pn	10 40 06.0	-0.7
BUR08	Bucovina Ar. S	16.23	335	*e*P	Pn	10 40 09.5	+2.7
BUR08	Bucovina Ar. S	16.23	335	*e*P	Pn	10 40 09.5	+2.7
BBLS	Lazići	16.28	315	P	Pn	10 40 09.9	+2.4
BBLS	Lazići	16.28	315	P	Pn	10 40 09.9	+2.4
BRY	Bratogost	16.28	311	⇓*i*P	Pn	10 40 05.1	-2.5
CEL	Celeste	16.52	293	*e*Pn	Pn	10 40 05.9	-4.7
	comp=Z,91nm,1.0s						
CEL				*e*Sn	Sn	10 43 06.1	-7.8
DRGR		16.53	328	⇑*i*P	Pn	10 40 12.5	+1.8
DRGR		16.53	328	P	Pn	10 40 12.5	+1.8
DRGR		16.53	328	P	Pn	10 40 12.5	+1.8
CUC	Castrocucco	17.00	299	*e*P	Pn	10 40 12.6	-4.1
	comp=Z,199nm,0.9s						
CUC				*e*S	Sn	10 43 35.2	+10
LMSR	Misrath	17.11	272	*i* P	Pn	10 40 18.9	+0.7
	comp=Z,213nm,1.2s,SNR=139						
VAE	Valguarnera	17.55	290	P	Pn	10 40 23.3	-0.2
	comp=Z,1.8nm,0.3s,baz=50,slow=5.0,SNR=8.1						
VAE				S	Sn	10 43 27.7	-11
	comp=Z,2.9nm,0.3s,baz=216,slow=16,SNR=3.6						
VAE	Valguarnera	17.55	290	P	Pn	10 40 23.3	-0.2
VORD	Divnogorie	17.87	8	*e*P	Pn	10 40 27.6	+0.2
VORD				*e*S	Sn	10 43 50.6	+4.1
VORD				pmax	pmax		
	comp=Z,20nm,0.8s						
VORD				pmax	pmax		
	comp=N,70nm,1.0s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.7s						
VORD				smax			
	comp=E,870nm,3.7s						
VORD				smax			
	comp=Z,290nm,2.5s						
VORD				smax			
	comp=N,520nm,4.2s						
VORD				MLR	MLR		
	comp=N,450nm,14.0s						
VORD				MLR	MLR		
	comp=Z,420nm,14.0s						
VORD				MLR	MLR		
	comp=E,570nm,17.0s						
VORD	Divnogorie	17.87	8	*e*P	Pn	10 40 27.6	+0.2
	comp=E,70nm,1.0s						
KIEV	Kiev	17.93	347	*e*P	Pn	10 40 28.1	-0.1
KIEV				pmax	pmax		
	comp=Z,68nm,0.8s						
KIEV	Kiev	17.93	347	*e*P	Pn	10 40 28.1	-0.1
	comp=Z,68nm,0.8s						
KIEV	Kiev	17.93	347	*e*P	Pn	10 40 28.1	-0.1
	comp=Z,68nm,0.8s						
AKASG	Malin Array Be	17.94	347	P	Pn	10 40 26.3	-1.9
	comp=Z,4.8nm,0.3s,baz=163,slow=11,SNR=31						
AKASG				S	Sn	10 43 52.7	+4.6
	baz=166,slow=22,SNR=5.4						
AKASG				LR	LR	10 48 58.0	
	comp=Z,654nm,18.9s,baz=165,slow=42						
AKASG	Malin Array Be	17.94	347	P	Pn	10 40 26.3	-1.9
AKASG				S	Sn	10 43 52.7	+4.5
VSR	Storozhevoye	18.10	8	*e*P	Pn	10 40 30.1	-0.1
VSR				*e*S	Sn	10 43 55.6	+3.5
VSR				pmax	pmax		
	comp=Z,30nm,0.7s						
VSR				pmax	pmax		
	comp=N,60nm,0.8s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.6s						
VSR				smax			
	comp=E,790nm,3.0s						
VSR				smax			
	comp=Z,320nm,4.0s						
VSR				smax			
	comp=N,320nm,4.2s						
VSR				MLR	MLR		
	comp=Z,950nm,18.0s						
VSR				MLR	MLR		
	comp=N,520nm,17.0s						
VSR				MLR	MLR		
	comp=E,1µm,20.0s						
VSR	Storozhevoye	18.10	8	*e*P	Pn	10 40 30.1	-0.1
	comp=E,60nm,0.8s						
PKSM	Moragy	18.13	320	⇑*i*P	Pn	10 40 29.7	-0.9
PKSM	Moragy	18.13	320	P	Pn	10 40 29.7	-0.9
PKSM	Moragy	18.13	320	P	Pn	10 40 29.7	-0.9
RHK3	Tenkes	18.14	319	⇑*e*P	Pn	10 40 30.7	0.0
UZH	Uzhgorod	18.15	331	⇑*i*P	Pn	10 40 31.4	+0.6
UZH				*e*S	Sn	10 43 54.0	+0.7
UZH				MLR	MLR		
	comp=N,1µm,16.0s						
UZH				MLR	MLR		
	comp=E,800nm,16.0s						
UZH				MLR	MLR		
	comp=Z,600nm,16.0s						
UZH	Uzhgorod	18.15	331	*i* P	Pn	10 40 31.4	+0.6
VRHR	Novokhopersk	18.35	13	*e*P	Pn	10 40 32.1	-1.2
VRHR				pmax	pmax		
	comp=N,30nm,0.9s						
VRHR				pmax	pmax		
	comp=Z,30nm,0.9s						
VRHR	Novokhopersk	18.35	13	*e*P	Pn	10 40 32.1	-1.2
KOLS	Kolonicke sedl	18.39	332	*e*P	Pn	10 40 35.7	+1.8
KOLS				pmax	pmax		
	comp=Z,99nm,1.3s						
KOLS	Kolonicke sedl	18.39	332	*e*P	Pn	10 40 35.7	+1.8
	comp=Z,99nm,1.3s						
KOLS	Kolonicke sedl	18.39	332	*e*P	Pn	10 40 35.7	+1.8
	comp=Z,99nm,1.3s						
LVV	L’vov	18.49	336	*e*P	Pn	10 40 34.8	-0.2
LVV				*e*S	Sn	10 43 59.6	-1.9
LVV				MLR	MLR		
	comp=N,350nm,10.0s						
LVV				MLR	MLR		
	comp=E,380nm,10.0s						
LVV				MLR	MLR		
	comp=Z,520nm,10.0s						
LVV	L’vov	18.49	336	*e*P	Pn	10 40 34.8	-0.2
PKS9	Tamasi	18.56	321	⇓*e*P	Pn	10 40 37.6	+1.7
VOR	Voronezh	18.61	8	*e*P	Pn	10 40 36.0	-0.5
VOR				pmax	pmax		
	comp=Z,280nm,2.0s						
VOR	Voronezh	18.61	8	*e*P	Pn	10 40 36.0	-0.5
	comp=Z,280nm,2.0s						
PSZ	Piszkesteto	18.65	326	*e*P	Pn	10 40 36.8	-0.2
PSZ				pmax	pmax		
	comp=Z,54nm,1.1s						
PSZ	Piszkesteto	18.65	326	⇑*i*P	Pn	10 40 37.4	+0.4
PSZ	Piszkesteto	18.65	326	*e*P	Pn	10 40 36.8	-0.2
	comp=Z,54nm,1.1s						
PSZ	Piszkesteto	18.65	326	*e*P	Pn	10 40 36.8	-0.2
	comp=Z,54nm,1.1s						
CRVS	Cervenica-Dubn	18.70	330	*e*P	Pn	10 40 39.1	+1.5
CRVS				pmax	pmax		
	comp=Z,138nm,1.3s						
CRVS	Cervenica-Dubn	18.70	330	*e*P	Pn	10 40 39.1	+1.5
	comp=Z,138nm,1.3s						
CRVS	Cervenica-Dubn	18.70	330	*e*P	Pn	10 40 39.1	+1.5
	comp=Z,138nm,1.3s						
GHAR	Gharyan	18.75	272	*i* P	Pn	10 40 39.4	+1.0
	SNR=141						
KECS	Kecovo	18.80	328	*e*P	Pn	10 40 40.4	+1.6
KECS				pmax	pmax		
	comp=Z,23nm,1.4s						
KECS	Kecovo	18.80	328	*e*P	Pn	10 40 40.4	+1.6
	comp=Z,22nm,1.4s						
KWP	Kalwaria Pacla	18.80	334	*e*P	Pn	10 40 40.7	+2.0
KWP	Kalwaria Pacla	18.80	334	⇑*i*P	Pn	10 40 41.4	+2.6
KWP	Kalwaria Pacla	18.80	334	*e*P	Pn	10 40 40.5	+1.7
	comp=Z,126nm,1.0s						
KWP	Kalwaria Pacla	18.80	334	*e*P	Pn	10 40 40.5	+1.7
	comp=Z,126nm,1.0s						
PKSG		19.02	323	⇑*e*P	Pn	10 40 40.9	-0.6
ABKT	Ailbek	19.07	70	Pn	Pn	10 40 43.1	+0.9
	comp=Z,122nm,1.1s,SNR=8.4						
STHS	Stebnicka Huta	19.19	331	*e*P	Pn	10 40 45.0	+1.5
STHS				pmax	pmax		
	comp=Z,16nm,1.3s						
STHS	Stebnicka Huta	19.19	331	*e*P	Pn	10 40 45.0	+1.5
	comp=Z,16nm,1.3s						

STHS	Stebnicka Huta	19.19	331	*e*P	Pn	10 40 45.0	+1.5
	comp=Z,16nm,1.3s						
VYHS	Vyhne	19.56	326	*e*P	Pn	10 40 47.9	0.0
VYHS				pmax	pmax		
	comp=Z,31nm,1.1s						
VYHS	Vyhne	19.56	326	*e*P	Pn	10 40 47.9	0.0
VYHS				*e*		11 28 15.0	
VYHS	Vyhne	19.56	326	*e*P	Pn	10 40 47.9	0.0
	comp=Z,31nm,1.1s						
VYHS	Vyhne	19.56	326	*e*P	Pn	10 40 47.9	0.0
	comp=Z,31nm,1.1s						
NIE	Niedzica	19.58	330	*e*P	Pn	10 40 48.6	+0.5
NIE	Niedzica	19.58	330	*e*P	Pn	10 40 48.6	+0.5
NAZ	Nazwa, Dubai	19.58	110	⇑P	Pn	10 40 47.1	-1.3
	SNR=40						
NAZ	Nazwa, Dubai	19.58	110	P	Pn	10 40 47.1	-1.3
	SNR=40						
KOGS	Kog	19.59	318	*e*P	Pn	10 40 47.2	-1.1
KOGS	Kog	19.59	318	*e*P	Pn	10 40 47.2	-1.1
GCIS	Gornji Cirnik	19.62	315	*e*P	Pn	10 40 48.0	-0.7
GCIS				*e*S	Sn	10 44 32.4	+3.5
BANOM	Banah	19.64	107	P	Pn	10 40 47.5	-1.7
	SNR=33						
BANOM	Banah	19.64	107	P	Pn	10 40 47.5	-1.6
	SNR=33						
FAQ	Al Faqa, Dubai	19.65	111	⇓P	Pn	10 40 47.8	-1.4
	SNR=44						
FAQ	Al Faqa, Dubai	19.65	111	P	Pn	10 40 47.8	-1.4
	SNR=44						
BOJS	Bojanci	19.65	314	*e*P	Pn	10 40 48.0	-1.1
BOJS				*e*S	Sn	10 44 28.2	-1.5
BOJS	Bojanci	19.65	314	*e*P	Pn	10 40 48.0	-1.1
BOJS				*e*S	Sn	10 44 28.2	-1.5
ALAS	Alassa	19.88	275	*i* P	Pn	10 40 51.6	-0.2
	comp=Z,278nm,1.3s,SNR=38						
HATD	Hatta, Dubai	20.03	110	⇑P	P	10 40 52.0	+0.1
	SNR=46						
HATD	Hatta, Dubai	20.03	110	P	P	10 40 52.0	0.0
	SNR=46						
MODS	Modra-Piesok	20.24	323	*e*P	P	10 40 54.8	+0.8
MODS				pmax	pmax		
	comp=Z,57nm,1.1s						
MODS	Modra-Piesok	20.24	323	*e*P	P	10 40 54.8	+0.8
	comp=Z,57nm,1.1s						
MODS	Modra-Piesok	20.24	323	*e*P	P	10 40 54.8	+0.8
	comp=Z,57nm,1.1s						
PERS	Pernice	20.34	317	*e*P	P	10 40 55.9	+0.7
PERS	Pernice	20.34	317	*e*P	P	10 40 55.9	+0.7
LJU	Ljubljana	20.36	315	*e*P	P	10 40 55.6	+0.2
LJU				*e*S	S	10 44 46.6	+3.1
LJU	Ljubljana	20.36	315	*e*P	P	10 40 55.6	+0.1
LJU				*e*S	S	10 44 46.6	+3.1
OJC	Ojcow	20.41	330	*i* P	P	10 40 55.2	-0.6
OJC				*e*PP		10 41 11.6	
OJC				*e*S	S	10 44 39.1	-5.2
OJC				L		10 50 48.1	
	comp=Z,0.9nm,20.6s						
OJC	Ojcow	20.41	330	*i* P	P	10 40 55.2	-0.6
SOKA	Soboth	20.41	317	⇓*i*P	P	10 40 56.6	+0.7
	comp=Z,75nm,1.2s						
SOKA	Soboth	20.41	317	P	P	10 40 56.6	+0.7
	comp=Z,75nm,1.2s						
SKDS	Skadanscina	20.43	313	*e*P	P	10 40 55.6	-0.5
SKDS				*e*S	S	10 44 42.1	-2.6
SKDS	Skadanscina	20.43	313	*e*P	P	10 40 55.6	-0.5
ARSA	Arzberg	20.46	319	⇑*i*P	P	10 40 57.2	+0.7
	comp=Z,168nm,1.7s,SNR=35						
ARSA	Arzberg	20.46	319	P	P	10 40 57.3	+0.8
ARSA	Arzberg	20.46	319	P	P	10 40 57.2	+0.7
	comp=Z,168nm,1.7s,SNR=35						
OBKA	Obir	20.60	316	⇓*i*P	P	10 40 58.6	+0.6
	comp=Z,173nm,1.1s,SNR=46						
OBKA	Obir	20.60	316	P	P	10 40 59.2	+1.2
OBKA	Obir	20.60	316	P	P	10 40 58.6	+0.6
	comp=Z,173nm,1.1s,SNR=46						
TRI	Trieste	20.66	313	*e*P	P	10 40 58.6	0.0
TRI				pmax	pmax		
	comp=Z,92nm,1.0s						
TRI	Trieste	20.66	313	*e*P	P	10 40 58.6	0.0
	comp=Z,92nm,1.0s						
TRI	Trieste	20.66	313	*e*P	P	10 40 58.6	0.0
	comp=Z,92nm,1.0s						
CONA	Conrad Observa	20.68	321	⇑*i*P	P	10 40 59.2	+0.3
	comp=Z,65nm,1.6s,SNR=20						
CONA	Conrad Observa	20.68	321	P	P	10 40 59.2	+0.3
	comp=Z,65nm,1.6s,SNR=20						
CSNA	Conrad Observa	20.68	321	⇓*i*P	P	10 40 59.4	+0.5
	comp=Z,66nm,1.6s						
CSNA	Conrad Observa	20.68	321	P	P	10 40 59.4	+0.5
	comp=Z,66nm,1.6s						
VOY	Vojsko	20.74	314	*e*P	P	10 41 00.3	+0.8
VOY				*e*		10 41 18.4	
VOY				*e*		10 41 46.3	
VOY	Vojsko	20.74	314	*e*P	P	10 41 00.3	+0.8
VOY				*e*		10 41 18.4	
VOY	Vojsko	20.74	314	*e*P	P	10 41 00.3	+0.8
OKC	Ostrava-Krasne	20.84	327	*e*P	P	10 41 00.6	+0.1
OKC				*e*pP		10 41 06.1	
OKC				AMS	AMS	10 53 00.0	
	comp=Z,900nm,13.2s						
OKC	Ostrava-Krasne	20.84	327	*e*P	P	10 41 00.6	+0.1
OKC				*e*		10 41 06.1	
OKC	Ostrava-Krasne	20.84	327	*e*P	P	10 41 00.6	+0.1
	comp=Z,900nm,13.2s						
MORC	Moravsky Berou	21.07	327	⇑*i*P	P	10 41 03.5	+0.5
MORC	Moravsky Berou	21.07	327	*e*P	P	10 41 02.8	-0.2
	comp=Z,64nm,1.1s,mb4.9						
MORC	Moravsky Berou	21.07	327	*e*P	P	10 41 02.8	-0.2
	comp=Z,64nm,1.1s,mb4.9						
ARQ	Araqi	21.11	113	⇓P	P	10 41 03.7	0.0
	SNR=46						
ARQ	Araqi	21.11	113	P	P	10 41 03.7	+0.1
	SNR=46						
KRUC	Moravsky	21.13	324	P	P	10 41 04.2	+0.5
KRUC	Moravsky	21.13	324	P	P	10 41 04.2	+0.5
MYKA	Terra Mystica	21.19	315	⇓*i*P	P	10 41 05.0	+0.6
	comp=Z,247nm,1.2s,mb5.4						
MYKA	Terra Mystica	21.19	315	P	P	10 41 05.0	+0.6
	comp=Z,247nm,1.2s,mb5.4						
VRAC	Vranov	21.20	324	⇑*i*P	P	10 41 05.1	+0.7
VRAC	Vranov	21.20	324	P	P	10 41 04.1	-0.3
	comp=Z,54nm,1.0s,mb4.8,baz=135,slow=8.7,SNR=41						
VRAC				LR	LR	10 50 09.2	
	comp=Z,743nm,21.4s,MS4.0,baz=132,slow=39						
VRAC	Vranov	21.20	324	*e*P	P	10 41 04.4	0.0
PTCC	Patocco-Chiusa	21.25	314	P	P	10 41 04.7	-0.3
PTCC	Patocco-Chiusa	21.25	314	P	P	10 41 04.7	-0.3
GMNA	Gemona	21.26	314	P	P	10 41 05.9	+0.8
GMNA	Gemona	21.26	314	P	P	10 41 05.9	+0.8
MOA	Molln	21.50	319	⇑*i*pP	pP	10 41 09.5	-1.0
	comp=Z,164nm,1.1s,SNR=47						
KEST	Kesra	21.52	284	P	P	10 41 10.1	+2.0
	comp=Z,44nm,1.0s,baz=47,slow=5.5,SNR=24						
KEST				LR	LR	10 51 52.5	
	comp=Z,133nm,20.7s,baz=189,slow=43						
WAR	Warsaw	21.55	336	*e*P	P	10 41 02.4	-5.8
WAR	Warsaw	21.55	336	*e*P	P	10 41 02.4	-5.8
HOQ	Hoqain	21.59	111	P	P	10 41 08.4	-0.4
	SNR=58						
HOQ	Hoqain	21.59	111	P	P	10 41 08.4	-0.4
	SNR=58						
KBA	Koelnbreinsper	21.60	316	⇓*i*P	P	10 41 09.2	+0.4
	comp=Z,54nm,0.9s,mb5.0,SNR=15						
KBA	Koelnbreinsper	21.60	316	P	P	10 41 09.2	+0.4
	comp=Z,54nm,0.9s,mb5.0,SNR=15						
FVI	Forni Avoltri	21.69	314	P	P	10 41 12.5	+2.8
TREC	Trest	21.73	323	AMS	AMS	10 53 40.0	
	comp=Z,800nm,14.1s						
VSL	Villasalto	21.74	294	*e*P	P	10 41 11.7	+1.3
	comp=Z,205nm,1.1s,mb5.5						
VSL	Villasalto	21.74	294	*e*P	P	10 41 11.6	+1.3
	comp=Z,205nm,1.1s,mb5.5						
OBN	Obninsk	21.80	2	P	P	10 41 10.5	-0.4
	comp=Z,1µm,1.3s,mb6.2,SNR=6.6						
OBN	Obninsk	21.80	2	*d* *i*P	P	10 41 10.2	-0.7
OBN				*e*		10 41 31.9	
OBN				*i* S	S	10 45 18.1	+6.4
OBN				pmax	pmax		
	comp=Z,450nm,1.3s,mb5.7						
OBN				MLR	MLR		
	comp=Z,500nm,18.0s,MS4.0						
OBN	Obninsk	21.80	2	*e*P	P	10 41 10.3	-0.6
	comp=Z,468nm,1.3s,mb5.8						
OBN	Obninsk	21.80	2	*i* P	P	10 41 10.2	-0.7
	comp=Z,450nm,1.3s,mb5.7						
MICGM	Minsk	21.82	348	*e*P	P	10 41 08.0	-3.0
MNK	Minsk	21.82	348	*e*P	P	10 41 08.0	-3.1
MNK				pmax	pmax		
	comp=Z,60nm,1.5s,mb4.8						
MNK				pmax	pmax		
	comp=N,330nm,1.8s						
MNK				pmax	pmax		
	comp=E,310nm,1.8s						
ABTA	Abfaltersbach	21.92	314	⇑*i*P	P	10 41 12.6	+0.3
	comp=E,73nm,1.2s,mb5.0,SNR=15						
ABTA	Abfaltersbach	21.92	314	P	P	10 41 12.6	+0.3
	comp=E,73nm,1.2s,mb5.0,SNR=15						
BSY	Bisya	21.95	113	⇓P	P	10 41 12.6	-0.1
	SNR=85						
BSYO	Bisya	21.99	113	P	P	10 41 12.6	-0.5
	SNR=85						
DPC	Dobruska-Polom	22.03	326	*e*P	P	10 41 13.1	-0.3
DPC				*e*pP		10 41 17.7	
DPC				*e*S	S	10 45 18.1	+1.8
DPC				AMS	AMS	10 53 00.0	
	comp=E,1µm,14.7s						
DPC	Dobruska-Polom	22.03	326	*e*P	P	10 41 13.1	-0.3
DPC				S	S	10 45 18.1	+1.8
CTI	Castel Tesino	22.12	312	P	P	10 41 14.5	+0.1
CTI	Castel Tesino	22.12	312	P	P	10 41 14.5	+0.1
ERBM	Eremo	22.25	307	P	P	10 41 17.7	+1.9
ERBM	Eremo	22.25	307	P	P	10 41 17.7	+1.9
BIDO	Bidbid	22.26	110	⇓P	P	10 41 15.9	-0.2
	SNR=16						
BIDO	Bidbid	22.26	110	P	P	10 41 15.9	-0.1
	SNR=16						
LGHD	Ghdames	22.26	269	*i* P	P	10 41 16.3	+0.3
	comp=E,254nm,1.3s,mb5.5,SNR=146						
UPC	Upice	22.28	326	*e*P	P	10 41 15.7	-0.3
UPC	Upice	22.28	326	*e*P	P	10 41 15.7	-0.3
GEC2	GERESS Array S	22.39	320	*e*P	P	10 41 17.5	+0.4
GEC2				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.0						
GEC2	GERESS Array S	22.39	320	*e*P	P	10 41 17.5	+0.4
	comp=Z,254nm,1.6s,mb5.4						
GEC2	GERESS Array S	22.39	320	*e*P	P	10 41 17.5	+0.4
	comp=Z,11nm,1.6s,mb4.0						
GERES	GERESS Array B	22.39	320	P	P	10 41 17.4	+0.2
	comp=Z,25nm,0.9s,mb4.6,baz=118,slow=11,SNR=34						
GERES				LR	LR	10 51 44.1	
	comp=Z,662nm,18.6s,MS4.1,baz=126,slow=41						
GERES	GERESS Array B	22.39	320	P	P	10 41 17.4	+0.3
KSP	Ksiaz	22.39	327	*e*P	P	10 41 17.2	+0.1
KSP	Ksiaz	22.39	327	⇑*e*P	P	10 41 17.3	+0.2
KSP				*e*S	S	10 45 24.5	+1.4
KSP	Ksiaz	22.39	327	*e*P	P	10 41 17.3	+0.2
KSP				*e*S	S	10 45 24.5	+1.4
NACGM	Naroch	22.40	347	*e*P	P	10 41 15.0	-2.2
NACGM	Naroch	22.40	347	*e*P	P	10 41 15.5	-1.7
SUW	Suwalki	22.41	341	*e*P	P	10 41 16.9	-0.4
SUW	Suwalki	22.41	341	*e*P	P	10 41 17.2	-0.2
SUW				pmax	pmax		
	comp=Z,223nm,0.9s,mb5.6						
SUW	Suwalki	22.41	341	*e*P	P	10 41 17.1	-0.2
	comp=Z,223nm,0.9s,mb5.6						
SUW	Suwalki	22.41	341	*e*P	P	10 41 16.9	-0.5
SMDO	Samad	22.44	111	⇓P	P	10 41 17.8	-0.1
	SNR=46						
SMDO	Samad	22.44	111	P	P	10 41 17.8	-0.2
	SNR=46						
DESE	Dese	22.45	169	*e*P	P	10 41 20.9	+2.8
DESE				S	S	10 45 38.2	+13
MOS	Moscow	22.47	3	*e*P	P	10 41 16.3	-1.7
MOS				*e*		10 41 39.3	
MOS				*e*S	S	10 45 24.7	0.0
MOS				*e*		10 45 53.2	
MOS				pmax	pmax		
	comp=Z,700nm,1.7s,mb5.8						
MOS				pmax	pmax		
	comp=Z,339nm,1.2s,mb5.7						
MOS				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.3						
MOS	Moscow	22.47	3	*e*P	P	10 41 16.3	-1.7
	comp=Z,339nm,1.2s,mb5.7						
MOS				*e*S	S	10 45 24.7	0.0
	comp=Z,1µm,16.0s						
WHFO	Wadi Hawf	22.57	128	⇑P	P	10 41 19.1	-0.2
	SNR=18						
WHFO	Wadi Hawf	22.57	128	P	P	10 41 19.1	-0.2
	SNR=18						
KHC	Kasperske Hory	22.62	321	*e*P	P	10 41 18.7	-0.9
KHC				*e*pP		10 41 21.7	
KHC				*e*S	S	10 45 26.2	-1.5
KHC				AMS	AMS	10 52 20.0	
	comp=Z,900nm,14.9s						
KHC	Kasperske Hory	22.62	321	*e*P	P	10 41 18.7	-0.9
KHC				*e*S	S	10 45 26.2	-1.5
	comp=Z,900nm,14.9s						
MAGA	Magasa	22.64	311	P	P	10 41 22.9	+3.0
PGF	Pioggiola	22.64	302	*e*P	P	10 41 19.5	-0.5
	comp=Z,166nm,1.2s,mb5.0						
PGF	Pioggiola	22.64	302	*e*P	P	10 41 19.5	-0.5
PGF				pmax	pmax		
	comp=Z,83nm,1.2s,mb5.0						
PGF	Pioggiola	22.64	302	*e*P	P	10 41 19.5	-0.5
	comp=Z,83nm,1.2s,mb5.0						
PGF	Pioggiola	22.64	302	*e*P	P	10 41 19.5	-0.5
	comp=Z,83nm,1.2s,mb5.0						
PRU	Pruhonice	22.65	323	*e*P	P	10 41 19.4	-0.6
PRU				*e*pP		10 41 23.8	
PRU				*e*S	S	10 45 26.9	-1.4
PRU				AMS	AMS	10 52 10.0	
	comp=Z,800nm,10.4s						
PRU	Pruhonice	22.65	323	*e*P	P	10 41 19.4	-0.6
PRU				*e*S	S	10 45 26.9	-1.4
	comp=Z,800nm,10.4s						
ABTO	Aybut	22.67	130	⇓P	P	10 41 20.6	+0.2
	SNR=21						
ABTO	Aybut	22.67	130	P	P	10 41 20.6	+0.2
	SNR=21						
WTTA	Wattenberg	22.70	315	⇓*i*P	P	10 41 20.5	0.0
	comp=Z,136nm,1.3s,mb5.2,SNR=30						
WTTA	Wattenberg	22.70	315	P	P	10 41 20.5	0.0
	comp=Z,136nm,1.3s,mb5.2,SNR=30						
WATA	Walderalm	22.77	315	⇑*i*P	P	10 41 20.9	-0.4
	comp=Z,104nm,1.1s,mb5.2,SNR=14						
WATA	Walderalm	22.77	315	P	P	10 41 20.9	-0.4
	comp=Z,104nm,1.1s,mb5.2,SNR=14						
MABI	Malga Bissina	22.84	311	P	P	10 41 22.4	+0.4
MABI	Malga Bissina	22.84	311	P	P	10 41 22.4	+0.4
JMDO	Jabal Madar	22.85	113	⇓P	P	10 41 22.3	0.0
	SNR=41						
JMDO	Jabal Madar	22.85	113	P	P	10 41 22.3	0.0
	SNR=41						
PVCC	Panska Ves	22.98	325	*e*P	P	10 41 23.1	-0.4
PVCC				AMS	AMS	10 52 40.0	
	comp=Z,1µm,13.0s						
PVCC	Panska Ves	22.98	325	*e*P	P	10 41 23.1	-0.4
	comp=Z,1µm,13.0s						
WET	Wettzell	23.00	320	*e*P	P	10 41 24.3	+0.6
WET				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.0						
WET	Wettzell	23.00	320	*e*P	P	10 41 24.3	+0.6
	comp=Z,48nm,0.9s,mb4.9						
WET	Wettzell	23.00	320	*e*P	P	10 41 24.3	+0.6
	comp=Z,6.0nm,0.9s,mb4.0						
ABSA	Djebel Ababsia	23.03	285	P	P	10 41 28.0	+3.9
MOTA	Moosalm	23.06	315	⇓*i*P	P	10 41 23.3	-1.0
	comp=Z,56nm,1.0s,mb5.0,SNR=17						
MOTA	Moosalm	23.06	315	P	P	10 41 23.3	-1.0
	comp=Z,56nm,1.0s,mb5.0,SNR=17						
CMAH	Djebel Manchou	23.07	286	P	P	10 41 26.9	+2.3
CMAH	Djebel Manchou	23.07	286	P	P	10 41 26.9	+2.3
BRMO	Bormio	23.10	312	P	P	10 41 26.2	+1.4
BRMO	Bormio	23.10	312	P	P	10 41 26.2	+1.4
FETA	Feichten	23.13	314	⇓*i*P	P	10 41 24.8	-0.2
	comp=Z,94nm,1.1s,mb5.1,SNR=21						
FETA	Feichten	23.13	314	P	P	10 41 24.8	-0.3
	comp=Z,94nm,1.1s,mb5.1,SNR=21						
RBK	Rabkut	23.15	128	⇑P	P	10 41 25.7	+0.2
	SNR=11						
RBK	Rabkut	23.15	128	P	P	10 41 25.7	+0.2
	SNR=11						
RETA	Reutte	23.33	315	⇓*i*P	P	10 41 25.4	-1.8
	comp=Z,53nm,0.9s,mb5.0,SNR=22						
RETA	Reutte	23.33	315	P	P	10 41 25.4	-1.7
	comp=Z,53nm,0.9s,mb5.0,SNR=22						
WBK	Wadi Bani Khal	23.40	111	⇓P	P	10 41 28.0	0.0
	SNR=40						
BRG	Berggiesshubel	23.51	325	*i* P	P	10 41 28.1	-0.9
BRG				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
BRG				pmax	pmax		
	comp=Z,29nm,1.2s,mb4.6						
BRG				MLR	MLR		
	comp=N,632nm,15.6s,MS4.4						
BRG				MLR	MLR		
	comp=E,662nm,12.4s,MS4.4						
BRG				MLR	MLR		
	comp=Z,706nm,16.6s,MS4.2						
BRG	Berggiesshubel	23.51	325	*e*P	P	10 41 28.4	-0.6
	comp=Z,48nm,1.2s,mb4.8						
BRG	Berggiesshubel	23.51	325	*i* P	P	10 41 28.1	-0.9
	comp=Z,16nm,1.0s,mb4.4						
BRG				*i*		10 41 30.5	
	comp=Z,49nm,1.2s						
BRG							
	comp=N,1µm,15.6s						
BRG							
	comp=E,1µm,12.4s						
BRG							
	comp=Z,1µm,16.6s						
BRG	Berggiesshubel	23.51	325	*i* P	P	10 41 28.1	-0.9
	comp=Z,706nm,16.6s						
CAEH	’Ain El Ouahch	23.53	286	P	P	10 41 32.3	+2.9
DAVOX	Davos/Dischmat	23.54	312	P	P	10 41 28.9	-0.5
	comp=Z,14nm,0.8s,mb4.4,baz=145,slow=12,SNR=12						
DAVOX				LR	LR	10 52 27.0	
	comp=Z,525nm,18.1s,MS4.0,baz=110,slow=41						
DAVOX	Davos/Dischmat	23.54	312	P	P	10 41 28.9	-0.5
DAVOS	Davos	23.62	312	P	P	10 41 28.9	-1.2
DAVOS	Davos	23.62	312	P	P	10 41 28.9	-1.2
CKFL	Kef-Lekhel	23.64	286	P	P	10 41 33.0	+2.6
ROTZ	Rotzenmuhle	23.72	321	*e*P	P	10 41 30.7	-0.3
	comp=Z,117nm,1.3s,mb5.2						
TUE	Stuetta	23.75	311	*e*P	P	10 41 32.9	+1.6
	comp=Z,40nm,1.0s,mb4.8						
TUE	Stuetta	23.75	311	*e*P	P	10 41 32.9	+1.6
	comp=Z,40nm,1.0s,mb4.8						
DAVA	Damuels	23.77	313	⇑*i*P	P	10 41 30.4	-1.1
	comp=Z,94nm,1.2s,mb5.1,SNR=21						
DAVA	Damuels	23.77	313	P	P	10 41 30.4	-1.0
	comp=Z,94nm,1.2s,mb5.1,SNR=21						
GKP	Gorka Klasztor	23.77	332	*e*P	P	10 41 30.5	-0.9
GKP	Gorka Klasztor	23.77	332	*e*P	P	10 41 30.5	-0.9
GKP	Gorka Klasztor	23.77	332	*e*P	P	10 41 30.5	-0.9
IMI	Imperia	23.80	304	P	P	10 41 32.0	+0.2
IMI	Imperia	23.80	304	P	P	10 41 32.0	+0.2
CASM	Ain Smara	23.83	285	P	P	10 41 34.8	+2.7
FBE	Freiberg	23.83	324	*e*P	P	10 41 31.7	-0.3
	comp=Z,81nm,1.3s,mb5.0						
NKC	Novy Kostel	23.86	322	*e*P	P	10 41 31.4	-0.9
NKC				*e*pP		10 41 34.4	
NKC				*e*S	S	10 45 50.7	+2.6
NKC				AMS	AMS	10 52 30.0	
	comp=Z,800nm,13.5s						
NKC	Novy Kostel	23.86	322	*e*P	P	10 41 31.4	-0.9
NKC				*e*		10 41 34.4	
NKC				*e*S	S	10 45 50.7	+2.6
NKC	Novy Kostel	23.86	322	*e*P	P	10 41 31.4	-0.9
	comp=Z,800nm,13.5s						
NKC				S	S	10 45 50.7	+2.6
VAI	Varese	23.88	309	P	P	10 41 32.4	0.0
VAI	Varese	23.88	309	P	P	10 41 32.4	0.0
AKTK	Aktyubinsk	23.88	38	P	P	10 41 31.5	-1.0
AKTK				LR	LR	10 53 17.7	
AKTK	Aktyubinsk	23.88	38	P	P	10 41 31.5	-1.0
AKTO	Aktyubinsk	23.88	38	P	P	10 41 31.5	-1.0
	comp=Z,16nm,0.7s,mb4.6,baz=230,slow=9.1,SNR=42						
AKTO				LR	LR	10 53 17.7	
	comp=Z,871nm,18.6s,MS4.3,baz=226,slow=43						
MANZ	Manzenberg	23.90	321	*e*P	P	10 41 32.4	-0.2
	comp=Z,97nm,1.3s,mb5.1						
CTEI	Djebel Teioual	23.90	285	P	P	10 41 35.0	+2.2
CTEI	Djebel Teioual	23.90	285	P	P	10 41 35.0	+2.2
WERN	Wernitzgruen	23.93	322	*e*P	P	10 41 33.0	+0.1
	comp=Z,92nm,1.6s,mb5.0						
TANN	Tannenbergstha	23.97	322	*e*P	P	10 41 33.2	0.0
	comp=Z,77nm,1.3s,mb5.0						
GUNZ	Gunzen	24.00	322	*e*P	P	10 41 33.8	+0.2
	comp=Z,110nm,1.6s,mb5.0						
WERD	Werda	24.07	322	*e*P	P	10 41 34.4	+0.3
	comp=Z,119nm,1.6s,mb5.1						
SBF	Sospel	24.10	304	*e*P	P	10 41 33.2	-1.4
	comp=Z,189nm,1.2s,mb5.1						
SBF	Sospel	24.10	304	*e*P	P	10 41 33.2	-1.4
SBF				pmax	pmax		
	comp=Z,95nm,1.2s,mb5.1						
SBF	Sospel	24.10	304	*e*P	P	10 41 33.2	-1.4
	comp=Z,95nm,1.2s,mb5.1						
SBF	Sospel	24.10	304	*e*P	P	10 41 33.2	-1.4
	comp=Z,95nm,1.2s,mb5.1						
AUTN	L’Aution	24.15	304	*e*P	P	10 41 36.6	+1.6
AUTN	L’Aution	24.15	304	*e*P	P	10 41 36.6	+1.6
GRA1	Grafenberg Arr	24.20	320	*e*P	P	10 41 34.9	-0.5
	comp=Z,146nm,1.6s,mb5.2						
GRA1				*e*S	S	10 45 54.7	+1.1
GRA1				LR	LR		
	comp=Z,1µm,21.1s,MS4.3						
GRA1	Grafenberg Arr	24.20	320	*e*P	P	10 41 34.9	-0.5
	comp=Z,23nm,1.6s,mb4.4						
GRA1				*e*S	S	10 45 54.7	+1.1
	comp=Z,46µm,21.1s						
GRF	Grafenberg Arr	24.20	320	*e*P	P	10 41 34.9	-0.5
GRF				*e*S	S	10 45 54.7	+1.1
GRF				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.4						
GRF				MLR	MLR		
	comp=Z,146µm,21.1s						
GRF	Grafenberg Arr	24.20	320	*e*P	P	10 41 34.9	-0.5
GRF				*e*S	S	10 45 54.7	+1.1
GRF				pmax	pmax		
	comp=Z,146nm,1.6s,mb5.2						
GRF				MLR	MLR		
	comp=Z,1µm,21.1s,MS4.3						
GRF	Grafenberg Arr	24.20	320	*e*P	P	10 41 34.9	-0.5
	comp=Z,146nm,1.6s,mb5.2						
GRF				*e*S	S	10 45 54.7	+1.1
GRF				*e*L		10 52 39.6	
	comp=Z,1µm,21.1s						
GRF	Grafenberg Arr	24.20	320	*e*P	P	10 41 34.9	-0.5
	comp=Z,146nm,1.6s,mb5.2						
GRF				*e*S	S	10 45 54.7	+1.1
	comp=Z,1µm,21.1s						
GRFO	Grafenberg	24.20	320	P	P	10 41 36.0	+0.6
GRFO	Grafenberg	24.20	320	P	P	10 41 36.0	+0.6
AB31	Akbulak array	24.24	42	P	P	10 41 34.7	-1.1
AB31				pmax	pmax		
	comp=Z,38nm,1.3s,mb4.7						
AB31	Akbulak array	24.24	42	P	P	10 41 34.7	-1.1
	comp=Z,38nm,1.3s,mb4.7						
CLL	Collm	24.25	324	⇓*i*P	P	10 41 35.0	-0.8
CLL				*i*		10 41 47.9	
CLL				*e*S	S	10 45 56.0	+1.8
CLL				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.4						
CLL				MLR	MLR		
	comp=Z,800nm,17.9s,MS4.2						
CLL	Collm	24.25	324	⇓*i*P	P	10 41 35.0	-0.8
	comp=Z,108nm,1.3s,mb5.1						
CLL				*i*		10 41 47.9	
CLL				*e*S	S	10 45 56.0	+1.8
	comp=N,800nm,20.1s						
CLL				*e*S	S	10 45 56.0	+1.8
	comp=E,400nm,21.9s						
CLL				LmH		10 51 00.0	
	comp=N,800nm,19.9s						
CLL				LmH		10 51 00.0	
	comp=E,1µm,21.7s						
CLL	Collm	24.25	324	⇓*i*P	P	10 41 35.0	-0.8
	comp=E,108nm,1.3s,mb5.1						
CLL				*i*		10 41 47.9	
CLL				*e*S	S	10 45 56.0	+1.8
CLL				LR	LR		
	comp=Z,800nm,17.9s,MS4.2						
CLL	Collm	24.25	324	*i* P	P	10 41 35.0	-0.8
	comp=Z,21nm,1.3s,mb4.4						
CLL				*e*S	S	10 45 56.0	+1.8
TOUF	Mont Tournerai	24.28	304	*e*P	P	10 41 36.3	+0.2
TOUF	Mont Tournerai	24.28	304	*e*P	P	10 41 36.3	+0.2
STV	Sant Anna di V	24.29	305	P	P	10 41 33.3	-3.0
ORO	Oropa	24.30	308	P	P	10 41 36.2	-0.1
ORO	Oropa	24.30	308	P	P	10 41 36.2	-0.1
MVIF	Mont Vial	24.31	304	*e*P	P	10 41 36.5	+0.1
MVIF	Mont Vial	24.31	304	*e*P	P	10 41 36.5	+0.1

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DFRA  Djebel Bou Aff   24.32 286   P     P      10 41 39.6 +3.0
DOI   San Damiano      24.42 305   P     P      10 41 37.5  0.0
DOI   San Damiano      24.42 305   P     P      10 41 37.5  0.0
CALN  Calern           24.45 304  eP     P      10 41 37.9 +0.1
CALN  Calern           24.45 304  eP     P      10 41 37.9 +0.1
MOX   Moxa             24.54 322  eP     P      10 41 38.9 +0.5
      comp=Z,419nm,2.0s,mb5.6
MOX                               eS     S      10 46 09.0  +10
MOX
      comp=Z,500nm,21.0s
MOX   Moxa             24.54 322  eP     P      10 41 38.9 +0.5
MOX                                pmax  pmax
      comp=Z,32nm,2.0s,mb4.5
MOX                                MLR   MLR
      comp=Z,419μm,21.0s
MOX   Moxa             24.54 322  eP     P      10 41 39.1 +0.7
      comp=Z,251nm,1.5s,mb5.5
MOX   Moxa             24.54 322  eP     P      10 41 38.9 +0.5
      comp=Z,19μm,21.0s
FRF   La Foret Royal   24.57 303  eP     P      10 41 38.0 -0.8
FRF   La Foret Royal   24.57 303  eP     P      10 41 38.0 -0.8
LMR   La Mourre        24.61 302  eP     P      10 41 38.3 -0.9
LMR   La Mourre        24.61 302  eP     P      10 41 38.3 -0.9
CKHR  Kef el Ahmar     24.63 285   P     P      10 41 42.3 +2.9
RUE   Ruedersdorf      24.65 327  eP     P      10 41 39.3 -0.1
      comp=Z,160nm,1.5s,mb5.3
RUE   Ruedersdorf      24.65 327  eP     P      10 41 39.4 -0.1
      comp=Z,61nm,0.8s,mb5.2
RUE   Ruedersdorf      24.65 327  eP     P      10 41 39.4  0.0
      comp=Z,61nm,0.8s,mb5.2
OG22  Abries           24.72 306  eP     P      10 41 40.5 +0.3
OG22  Abries           24.72 306  eP     P      10 41 40.5 +0.3
SPAK  Spaichingen-Ko   24.80 314  eP     P      10 41 40.8  0.0
SPAK  Spaichingen-Ko   24.80 314  eP     P      10 41 40.8  0.0
MBDF  Montbardon       24.81 306  eP     P      10 41 41.8 +0.8
      comp=Z,150nm,1.0s,mb5.2
MBDF  Montbardon       24.81 306  eP     P      10 41 41.8 +0.8
MBDF                               pmax  pmax
      comp=Z,75nm,1.0s,mb5.2
MBDF  Montbardon       24.81 306  eP     P      10 41 41.8 +0.8
      comp=Z,75nm,1.0s,mb5.2
MBDF  Montbardon       24.81 306  eP     P      10 41 41.8 +0.8
      comp=Z,75nm,1.0s,mb5.2
STU   Stuttgart        24.87 316  eP     P      10 41 42.4 +0.9
STU                                pmax  pmax
      comp=Z,61nm,0.9s,mb5.1
STU   Stuttgart        24.87 316  eP     P      10 41 42.0 +0.5
      comp=Z,74nm,1.0s,mb5.2
STU   Stuttgart        24.87 316  eP     P      10 41 42.4 +0.9
      comp=Z,61nm,0.9s,mb5.1
STU   Stuttgart        24.87 316  eP     P      10 41 42.4 +0.9
      comp=Z,61nm,0.9s,mb5.1
BNI   Bardonecchia     24.97 306  eP     P      10 41 42.9 +0.4
BNI                                pmax  pmax
      comp=Z,823nm,2.9s,mb5.8
BNI   Bardonecchia     24.97 306  eP     P      10 41 42.9 +0.4
      comp=Z,823nm,2.9s,mb5.8
BNI   Bardonecchia     24.97 306  eP     P      10 41 42.9 +0.4
      comp=Z,823nm,2.9s,mb5.8
TAVF  Tavernes         25.00 303  eP     P      10 41 43.0 +0.2
TAVF  Tavernes         25.00 303  eP     P      10 41 43.0 +0.2
LPG   La Plagne        25.07 307  eP     P      10 41 43.9 +0.6
      comp=Z,57nm,0.8s,mb4.8
LPG   La Plagne        25.07 307  eP     P      10 41 43.9 +0.6
LPG                                pmax  pmax
      comp=Z,29nm,0.8s,mb4.9
LPG   La Plagne        25.07 307  eP     P      10 41 43.9 +0.6
      comp=Z,29nm,0.8s,mb4.8
LPG   La Plagne        25.07 307  eP     P      10 41 43.9 +0.6
      comp=Z,29nm,0.8s,mb4.8
LPL   La Plagne        25.09 307  eP     P      10 41 43.9 +0.4
      comp=Z,92nm,1.0s,mb5.0
LPL   La Plagne        25.09 307  eP     P      10 41 43.9 +0.4
LPL                                pmax  pmax
      comp=Z,46nm,1.0s,mb5.0
LPL   La Plagne        25.09 307  eP     P      10 41 43.9 +0.4
      comp=Z,46nm,1.0s,mb5.0
LPL   La Plagne        25.09 307  eP     P      10 41 43.9 +0.4
      comp=Z,46nm,1.0s,mb5.0
FELD  Feldberg im Sc   25.17 313  eP     P      10 41 43.8 -0.4
FELD  Feldberg im Sc   25.17 313  eP     P      10 41 43.8 -0.4
BFO   Black Forest     25.17 315  eP     P      10 41 44.8 +0.6
BFO                                pmax  pmax
      comp=Z,3.0nm,1.5s,mb3.6
BFO   Black Forest     25.17 315  eP     P      10 41 44.8 +0.6
      comp=Z,241nm,1.5s,mb5.5
BFO   Black Forest     25.17 315  eP     P      10 41 44.8 +0.6
      comp=Z,3.0nm,1.5s,mb3.6
BERF  Bertagne         25.19 302  eP     P      10 41 44.5  0.0
BERF  Bertagne         25.19 302  eP     P      10 41 44.5  0.0
RSL   Roselend         25.21 308  eP     P      10 41 44.2 -0.4
RSL   Roselend         25.21 308  eP     P      10 41 44.2 -0.4
BBS   Basel-Blauen     25.30 312  eP     P      10 41 43.0 -2.4
BBS   Basel-Blauen     25.30 312  eP     P      10 41 43.0 -2.4
VILF  Villemus         25.30 303  eP     P      10 41 41.9 -3.6
AKF   Akfadou          25.37 286   P     P      10 41 48.4 +2.2
AKF   Akfadou          25.37 286   P     P      10 41 48.4 +2.2
GELF  Grande-Etoile    25.39 302  eP     P      10 41 46.9 +0.6
GELF  Grande-Etoile    25.39 302  eP     P      10 41 46.9 +0.6
SMRF  Simiane la Rot   25.43 303  eP     P      10 41 47.6 +1.0
      comp=Z,189nm,1.5s,mb5.1
SMRF  Simiane la Rot   25.43 303  eP     P      10 41 47.6 +1.0
      comp=Z,189nm,1.5s,mb5.4
SMRF  Simiane la Rot   25.43 303  eP     P      10 41 47.6 +1.0
      comp=Z,94nm,1.5s,mb5.1
ORIF  Oris-en-Rattie   25.48 306  eP     P      10 41 48.7 +1.7
      comp=Z,152nm,1.3s,mb5.1
ORIF                              eMLR   MLR
      comp=Z,1μm,22.2s,MS4.1
ORIF  Oris-en-Rattie   25.48 306  eP     P      10 41 48.7 +1.7
ORIF                               pmax  pmax
      comp=Z,76nm,1.3s,mb5.1
ORIF  Oris-en-Rattie   25.48 306  eP     P      10 41 48.7 +1.7
      comp=Z,76nm,1.3s,mb5.1
ORIF  Oris-en-Rattie   25.48 306  eP     P      10 41 48.7 +1.7
      comp=Z,76nm,1.3s,mb5.1
UBBA  Unterbreizbach   25.48 321  eP     P      10 41 47.9 +0.9
      comp=Z,94nm,1.6s,mb5.1
TOD   Tromm            25.50 318  eP     P      10 41 46.4 -0.8
TOD   Tromm            25.50 318  eP     P      10 41 46.4 -0.8
LIBD  Limburg          25.53 314  eP     P      10 41 48.2 +0.7
LIBD  Limburg          25.53 314  eP     P      10 41 48.2 +0.7
LOMF  Lomont           25.68 312  eP     P      10 41 48.4 -0.5
LOMF  Lomont           25.68 312  eP     P      10 41 48.4 -0.5
MOF   Molkenrain       25.69 313  eP     P      10 41 48.8 -0.1
MOF   Molkenrain       25.69 313  eP     P      10 41 48.8 -0.1
LANF  Langenberg       25.77 316  eP     P      10 41 48.8 -0.9
LANF  Langenberg       25.77 316  eP     P      10 41 48.8 -0.9
ECH   Echery           25.82 314  eP     P      10 41 49.9 -0.3
ECH   Echery           25.82 314  eP     P      10 41 49.9 -0.3
CDF   Champ du Feu     25.84 314  eP     P      10 41 50.2 -0.1
      comp=Z,183nm,1.1s,mb5.2
CDF   Champ du Feu     25.84 314  eP     P      10 41 50.2 -0.1
CDF                                pmax  pmax
      comp=Z,92nm,1.1s,mb5.2
CDF   Champ du Feu     25.84 314  eP     P      10 41 50.2 -0.1
      comp=Z,92nm,1.1s,mb5.2
CDF   Champ du Feu     25.84 314  eP     P      10 41 50.2 -0.1
      comp=Z,92nm,1.1s,mb5.2
HINF  Hinteralfeld     25.85 313  eP     P      10 41 49.9 -0.5
      comp=Z,156nm,1.4s,mb5.0
HINF  Hinteralfeld     25.85 313  eP     P      10 41 49.9 -0.5
HINF                               pmax  pmax
      comp=Z,78nm,1.4s,mb5.0
HINF  Hinteralfeld     25.85 313  eP     P      10 41 49.9 -0.5
      comp=Z,78nm,1.4s,mb5.0
HINF  Hinteralfeld     25.85 313  eP     P      10 41 49.9 -0.5
      comp=Z,78nm,1.4s,mb5.0
CLZ   Clausthal        25.87 323  eP     P      10 41 50.6  0.0
CLZ                                pmax  pmax
      comp=Z,30nm,0.8s,mb4.9
CLZ   Clausthal        25.87 323  eP     P      10 41 50.6  0.0
      comp=Z,24nm,0.8s,mb4.8
CLZ   Clausthal        25.87 323  eP     P      10 41 50.6  0.0
      comp=Z,30nm,0.8s,mb4.9
CABF  La Chapelle      25.88 310  eP     P      10 41 50.2 -0.5
      comp=Z,250nm,1.4s,mb5.2
CABF  La Chapelle      25.88 310  eP     P      10 41 50.2 -0.5
CABF                               pmax  pmax
      comp=Z,125nm,1.4s,mb5.2
CABF  La Chapelle      25.88 310  eP     P      10 41 50.2 -0.5
      comp=Z,125nm,1.4s,mb5.2
CABF  La Chapelle      25.88 310  eP     P      10 41 50.2 -0.5
      comp=Z,125nm,1.4s,mb5.2
AKET  Djebel Ketaf     25.95 285   P     P      10 41 53.5 +2.1
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AKET  Djebel Ketaf     25.95 285   P     P      10 41 53.5 +2.1
TNS   Taunus Mts       26.00 319  eP     P      10 41 51.6 -0.2
TNS                                pmax  pmax
      comp=Z,17nm,1.1s,mb4.5
TNS   Taunus Mts       26.00 319  eP     P      10 41 51.6 -0.2
      comp=Z,55nm,1.1s,mb5.0
TNS   Taunus Mts       26.00 319  eP     P      10 41 51.6 -0.2
      comp=Z,17nm,1.1s,mb4.5
HAU   Haudompre        26.23 313  eP     P      10 41 53.3 -0.6
      comp=Z,70nm,1.0s,mb4.9
HAU                               eMLR   MLR
      comp=Z,928nm,21.8s,MS4.0
HAU   Haudompre        26.23 313  eP     P      10 41 53.3 -0.6
HAU                                pmax  pmax
      comp=Z,35nm,1.0s,mb4.8
HAU                                MLR   MLR
      comp=Z,930nm,21.8s,MS4.3
HAU   Haudompre        26.23 313  eP     P      10 41 53.3 -0.6
      comp=Z,35nm,1.0s,mb4.8
HAU                                LR    LR
      comp=Z,930nm,21.8s,MS4.3
HAU   Haudompre        26.23 313  eP     P      10 41 53.3 -0.6
      comp=Z,35nm,1.0s,mb4.9
VIVF  Saint-Julien-l   26.28 305  eP     P      10 41 54.2 -0.1
VIVF  Saint-Julien-l   26.28 305  eP     P      10 41 54.2 -0.1
NRDL  Niedersach Rie   26.39 324  eP     P      10 41 55.4 +0.2
      comp=Z,21nm,1.4s,mb4.5
SSB   Saint Sauveur    26.49 306  eP     P      10 41 56.5 +0.3
SSB                                pmax  pmax
      comp=Z,32nm,1.3s,mb4.7
SSB   Saint Sauveur    26.49 306  eP     P      10 41 56.5 +0.3
      comp=Z,32nm,1.3s,mb4.7
SSB   Saint Sauveur    26.49 306  eP     P      10 41 56.5 +0.3
      comp=Z,32nm,1.3s,mb4.7
RUP   Ruppelstein      26.54 317  eP     P      10 41 55.5 -1.1
RUP   Ruppelstein      26.54 317  eP     P      10 41 55.5 -1.1
LASF  Ste Croix        26.66 303  eP     P      10 41 58.0 +0.3
      comp=Z,98nm,1.2s,mb4.9
LASF  Ste Croix        26.66 303  eP     P      10 41 58.0 +0.3
      comp=Z,49nm,1.2s,mb4.9
EMHD  Djebel Mahouad   26.69 285   P     P      10 42 00.0 +1.9
EMHD  Djebel Mahouad   26.69 285   P     P      10 42 00.0 +1.9
WLF   Walferdange      27.05 316   P     P      10 42 01.1 -0.1
      comp=Z,14nm,1.0s,mb4.5
WLF   Walferdange      27.05 316  eP     P      10 42 01.2  0.0
WLF                                pmax  pmax
      comp=Z,27nm,0.8s,mb4.8
WLF   Walferdange      27.05 316  eP     P      10 42 01.4 +0.2
      comp=Z,42nm,1.1s,mb4.9
WLF   Walferdange      27.05 316  eP     P      10 42 01.2  0.0
      comp=Z,27nm,0.8s,mb4.8
WLF   Walferdange      27.05 316   P     P      10 42 01.0 -0.2
      comp=Z,14nm,1.0s,mb4.5
COLF  Collangettes     27.12 306  eP     P      10 42 02.6 +0.7
COLF  Collangettes     27.12 306  eP     P      10 42 02.6 +0.7
BSEG  Bad Segeberg     27.18 327  eP     P      10 42 02.4 +0.1
BSEG                               pmax  pmax
      comp=Z,14nm,1.1s,mb4.4
BSEG  Bad Segeberg     27.18 327  eP     P      10 42 02.4 +0.1
      comp=Z,32nm,1.1s,mb4.8
BSEG  Bad Segeberg     27.18 327  eP     P      10 42 02.4 +0.1
      comp=Z,14nm,1.1s,mb4.4
MEZF  Maizieres J'vi   27.23 313  eP     P      10 42 02.5 -0.3
      comp=Z,54nm,0.7s,mb4.9
MEZF  Maizieres J'vi   27.23 313  eP     P      10 42 02.5 -0.3
      comp=Z,54nm,0.7s,mb5.2
MEZF  Maizieres J'vi   27.23 313  eP     P      10 42 02.5 -0.3
      comp=Z,27nm,0.7s,mb4.9
SMF   Signal de Mont   27.35 308  eP     P      10 42 04.5 +0.5
      comp=Z,62nm,0.9s,mb4.8
SMF   Signal de Mont   27.35 308  eP     P      10 42 04.5 +0.5
SMF                                pmax  pmax
      comp=Z,31nm,0.9s,mb4.8
SMF   Signal de Mont   27.35 308  eP     P      10 42 04.5 +0.5
      comp=Z,31nm,0.9s,mb4.8
SMF   Signal de Mont   27.35 308  eP     P      10 42 04.5 +0.5
      comp=Z,31nm,0.9s,mb4.8
LBL   Lubilhac         27.36 305  eP     P      10 42 05.2 +1.2
LBL   Lubilhac         27.36 305  eP     P      10 42 05.2 +1.2
LOR   Lormes           27.54 310  eP     P      10 42 04.8 -0.8
      comp=Z,35nm,1.0s,mb4.6
LOR                               eMLR   MLR
      comp=Z,970nm,18.5s,MS4.1
LOR   Lormes           27.54 310  eP     P      10 42 04.8 -0.8
LOR                                pmax  pmax
      comp=Z,17nm,1.0s,mb4.6
LOR                                MLR   MLR
      comp=Z,970nm,18.5s,MS4.4
LOR   Lormes           27.54 310  eP     P      10 42 04.8 -0.8
      comp=Z,18nm,1.0s,mb4.6
LOR                                LR    LR
      comp=Z,970nm,18.5s,MS4.4
LOR   Lormes           27.54 310  eP     P      10 42 04.8 -0.8
      comp=Z,18nm,1.0s,mb4.6
MEM   Membach          27.56 318   P     P      10 42 08.7 +2.9
      comp=Z,14nm,1.4s,mb4.4
PYM   Petit Puy Mans   27.65 306  eP     P      10 42 06.4 -0.3
PYM   Petit Puy Mans   27.65 306  eP     P      10 42 06.4 -0.3
MTLF  Montolieu        27.68 301  eP     P      10 42 07.5 +0.6
      comp=Z,79nm,1.2s,mb4.9
MTLF  Montolieu        27.68 301  eP     P      10 42 07.5 +0.6
MTLF                               pmax  pmax
      comp=Z,40nm,1.2s,mb4.9
MTLF  Montolieu        27.68 301  eP     P      10 42 07.5 +0.6
      comp=Z,40nm,1.2s,mb4.9
MTLF  Montolieu        27.68 301  eP     P      10 42 07.5 +0.6
      comp=Z,40nm,1.2s,mb4.9
KLMR  Klimovskoe       27.68   4⇓ iP     P      10 42 06.1 -0.6
KLMR                              eS     S      10 46 48.5  0.0
KLMR                               pmax  pmax
      comp=Z,85nm,1.3s,mb5.2
KLMR  Klimovskoe       27.68   4  i P    P      10 42 06.1 -0.6
      comp=Z,85nm,1.3s,mb5.2
KLMR                              eS     S      10 46 48.5  0.0
SSF   Saint Saulge     27.70 309  eP     P      10 42 06.3 -0.8
      comp=Z,41nm,1.0s,mb4.7
SSF   Saint Saulge     27.70 309  eP     P      10 42 06.3 -0.8
SSF                                pmax  pmax
      comp=Z,21nm,1.0s,mb4.7
SSF   Saint Saulge     27.70 309  eP     P      10 42 06.3 -0.8
      comp=Z,21nm,1.0s,mb4.7
SSF   Saint Saulge     27.70 309  eP     P      10 42 06.3 -0.8
      comp=Z,21nm,1.0s,mb4.7
AVF   Avril sur Loir   27.72 309  eP     P      10 42 06.2 -1.0
      comp=Z,51nm,1.2s,mb4.7
AVF   Avril sur Loir   27.72 309  eP     P      10 42 06.2 -1.0
AVF                                pmax  pmax
      comp=Z,25nm,1.2s,mb4.7
AVF   Avril sur Loir   27.72 309  eP     P      10 42 06.2 -1.0
      comp=Z,25nm,1.2s,mb4.7
AVF   Avril sur Loir   27.72 309  eP     P      10 42 06.2 -1.0
      comp=Z,25nm,1.2s,mb4.7
BCLA  Clavier          27.87 317   P     P      10 42 09.7 +1.1
      comp=Z,32nm,2.2s,mb4.6
BCLA  Clavier          27.87 317   P     P      10 42 09.7 +1.1
      comp=Z,32nm,2.2s,mb4.6
BGF   Bois d'Agland    27.98 308  eP     P      10 42 10.6 +1.0
      comp=Z,54nm,1.2s,mb4.8
BGF   Bois d'Agland    27.98 308  eP     P      10 42 10.6 +1.0
BGF                                pmax  pmax
      comp=Z,27nm,1.2s,mb4.8
BGF   Bois d'Agland    27.98 308  eP     P      10 42 10.6 +1.0
      comp=Z,27nm,1.2s,mb4.8
BGF   Bois d'Agland    27.98 308  eP     P      10 42 10.6 +1.0
      comp=Z,27nm,1.2s,mb4.8
GIVF  Givet            28.01 316  eP     P      10 42 09.4 -0.4
GIVF  Givet            28.01 316  eP     P      10 42 09.4 -0.4
CAF   Calviac          28.10 304  eP     P      10 42 11.2 +0.5
CAF   Calviac          28.10 304  eP     P      10 42 11.2 +0.5
ARU   Arti             28.11  28   P     P      10 42 10.6  0.0
      comp=Z,158nm,1.0s,mb5.6,SNR=6.7
ARU   Arti             28.11  28c iP     P      10 42 10.4 -0.2
ARU                               e             10 42 56.7
ARU                                S     S      10 46 56.2 +0.8
ARU                                pmax  pmax
      comp=Z,64nm,1.7s,mb5.0
ARU   Arti             28.11  28  eP     P      10 42 10.5 -0.1
ARU                                pmax  pmax
      comp=Z,63nm,1.4s,mb5.0
ARU   Arti             28.11  28  eP     P      10 42 10.5 -0.1
      comp=Z,63nm,1.4s,mb5.0
ARU   Arti             28.11  28  i P    P      10 42 10.4 -0.2
      comp=Z,64nm,1.7s,mb5.0
ARU                                S     S      10 46 56.2 +0.8
DOU   Dourbes          28.14 316   P     P      10 42 10.3 -0.7
      comp=Z,16nm,2.1s,mb4.3
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DOU   Dourbes          28.14 316   P     P      10 42 10.3 -0.7
      comp=Z,16nm,2.1s,mb4.3
TAM   Tamanrasset      28.23 256  eP     P      10 42 14.7 +2.7
TAM                                pmax  pmax
      comp=Z,27nm,1.2s,mb4.8
TAM   Tamanrasset      28.23 256  eP     P      10 42 14.7 +2.7
      comp=Z,27nm,1.2s,mb4.8
TCF   Toulx Ste Croi   28.33 307  eP     P      10 42 12.7  0.0
      comp=Z,52nm,1.4s,mb4.7
TCF   Toulx Ste Croi   28.33 307  eP     P      10 42 12.7  0.0
TCF                                pmax  pmax
      comp=Z,26nm,1.4s,mb4.7
TCF   Toulx Ste Croi   28.33 307  eP     P      10 42 12.7  0.0
      comp=Z,26nm,1.4s,mb4.7
TCF   Toulx Ste Croi   28.33 307  eP     P      10 42 12.7  0.0
      comp=Z,26nm,1.4s,mb4.7
BAIF  Baives           28.36 315  eP     P      10 42 12.7 -0.2
      comp=Z,39nm,1.0s,mb4.7
BAIF  Baives           28.36 315  eP     P      10 42 12.7 -0.2
BAIF                               pmax  pmax
      comp=Z,20nm,1.0s,mb4.7
BAIF  Baives           28.36 315  eP     P      10 42 12.7 -0.2
      comp=Z,20nm,1.0s,mb4.7
BAIF  Baives           28.36 315  eP     P      10 42 12.7 -0.2
      comp=Z,20nm,1.0s,mb4.7
RJF   Les Rejaudoux    28.56 305  eP     P      10 42 15.2 +0.4
RJF                               eMLR   MLR
      comp=Z,759nm,20.5s,MS4.0
RJF   Les Rejaudoux    28.56 305  eP     P      10 42 15.2 +0.4
RJF                                LR    LR
      comp=Z,760nm,20.5s,MS4.3
RJF   Les Rejaudoux    28.56 305  eP     P      10 42 15.2 +0.4
LFF   La Frestale      29.02 304  eP     P      10 42 19.4 +0.5
LFF   La Frestale      29.02 304  eP     P      10 42 19.4 +0.5
PRGR  Permogore        29.10  10  eP     P      10 42 17.3 -2.0
PRGR                              eS     S      10 47 08.3 -2.5
PRGR                               pmax  pmax
      comp=Z,9.0nm,0.4s,mb4.8
PRGR  Permogore        29.10  10  eP     P      10 42 17.3 -2.0
      comp=Z,9.0nm,0.4s,mb4.8
KK31  Karatay Array    29.13  60   P     P      10 42 20.2 +0.3
KK31                               pmax  pmax
      comp=Z,2.0nm,0.4s,mb4.2
KK31  Karatay Array    29.13  60   P     P      10 42 20.2 +0.3
      comp=Z,2.0nm,0.4s,mb4.2
SVE   Sverdlovsk       29.21  29⇑ eP     P      10 42 20.9 +0.5
SVE                                pmax  pmax
      comp=Z,46nm,1.5s,mb5.0
SVE                                MLR   MLR
      comp=Z,844nm,16.0s,MS4.5
SVE   Sverdlovsk       29.21  29  eP     P      10 42 20.9 +0.5
      comp=Z,844nm,16.0s
MUD   Monsted U'grnd   29.31 330  i P    P      10 42 22.6 +1.3
MUD                                pmax  pmax
      comp=Z,17nm,1.0s,mb4.7
MUD   Monsted U'grnd   29.31 330  i P    P      10 42 22.6 +1.3
      comp=Z,17nm,1.0s,mb4.7
MUD   Monsted U'grnd   29.31 330  i P    P      10 42 22.6 +1.3
      comp=Z,17nm,1.0s,mb4.7
KAF   Kangasniemi      29.38 351  eP     P      10 42 20.9 -1.0
KAF                                pmax  pmax
      comp=Z,4.0nm,0.7s,mb4.3
KAF   Kangasniemi      29.38 351  ep     P      10 42 20.9 -1.0
      comp=Z,4.3nm,0.7s,mb4.3
KAF   Kangasniemi      29.38 351  eP     P      10 42 20.9 -1.0
      comp=Z,4.0nm,0.7s,mb4.3
ECHE  Chera            29.72 293   P     P      10 42 27.3 +2.2
ECHE                               pmax  pmax
      comp=Z,9.0nm,0.9s,mb4.5
ECHE  Chera            29.72 293   P     P      10 42 27.3 +2.2
      comp=Z,8.6nm,0.9s,mb4.5
ECHE  Chera            29.72 293   P     P      10 42 27.3 +2.2
      comp=Z,9.0nm,0.9s,mb4.5
JOF   Joensuu          29.73 356  eP     P      10 42 23.7 -1.2
JOF                                pmax  pmax
      comp=Z,2.0nm,0.5s,mb4.1
JOF   Joensuu          29.73 356  ep     P      10 42 23.7 -1.2
      comp=Z,1.8nm,0.5s,mb4.1
JOF   Joensuu          29.73 356  eP     P      10 42 23.7 -1.2
      comp=Z,2.0nm,0.5s,mb4.1
SOKR  Solikamsk        29.86  22  eP     P      10 42 22.0 -4.1
SOKR                               pmax  pmax
      comp=Z,20nm,1.2s,mb4.7
HFS   Hagfors          30.36 339   P     P      10 42 30.0 -0.5
      comp=Z,5.8nm,0.8s,mb4.4,baz=128,slow=9.6,SNR=5.8
HFS                                LR    LR     10 56 10.0
      comp=Z,768nm,20.4s,MS4.3,baz=146,slow=39
HFS   Hagfors          30.36 339   P     P      10 42 30.0 -0.5
LDF   La Druitiere     30.49 311  eP     P      10 42 31.6 -0.3
LDF   La Druitiere     30.49 311  eP     P      10 42 31.6 -0.3
GRR   Gorron           30.91 310  eP     P      10 42 34.0 -1.5
GRR   Gorron           30.91 310  eP     P      10 42 34.0 -1.5
EVIA  Vianos           30.92 291   P     P      10 42 37.7 +1.9
EVIA                               pmax  pmax
      comp=Z,6.0nm,0.6s,mb4.6
EVIA  Vianos           30.92 291   P     P      10 42 37.7 +1.9
      comp=Z,6.4nm,0.6s,mb4.6
EVIA  Vianos           30.92 291   P     P      10 42 37.7 +1.9
      comp=Z,6.0nm,0.6s,mb4.6
EHUE  Huescar          31.03 289   P     P      10 42 38.9 +2.2
EHUE                               pmax  pmax
      comp=Z,2.0nm,0.6s,mb4.1
EHUE  Huescar          31.03 289   P     P      10 42 38.9 +2.2
      comp=Z,1.7nm,0.6s,mb4.0
EHUE  Huescar          31.03 289   P     P      10 42 38.9 +2.2
      comp=Z,2.0nm,0.6s,mb4.1
AML   Almayashu        31.38  62  eP     P      10 42 41.3 +1.6
      comp=Z,16nm,1.4s,mb4.6
AML   Almayashu        31.38  62  eP     P      10 42 41.3 +1.6
      comp=Z,16nm,1.4s,mb4.6
EKS2  Erkin-Say        31.47  61  eP     P      10 42 42.6 +2.0
      comp=Z,24nm,1.8s,mb4.7
EKS2  Erkin-Say        31.47  61  eP     P      10 42 42.6 +2.0
      comp=Z,24nm,1.8s,mb4.7
BRVK  Borovoye         31.77  41   P     P      10 42 43.9 +0.8
      comp=Z,74nm,1.3s,mb5.3,SNR=8.1
BRVK  Borovoye         31.77  41  eP     P      10 42 43.1  0.0
BRVK                               pmax  pmax
      comp=Z,16nm,1.1s,mb4.8
BRVK  Borovoye         31.77  41  eP     P      10 42 43.1  0.0
      comp=Z,16nm,1.1s,mb4.8
BRVK  Borovoye         31.77  41  eP     P      10 42 43.1  0.0
      comp=Z,16nm,1.1s,mb4.8
NAO01 NORSAR Array S   31.79 337  eP     P      10 42 44.2 +1.0
      comp=Z,7.6nm,0.8s,mb4.6
NAO01 NORSAR Array S   31.79 337  eP     P      10 42 44.2 +1.1
      comp=Z,7.6nm,0.8s,mb4.6
BVA0  Borovoye Array   31.82  41   P     P      10 42 43.1 -0.4
BVA0                               pmax  pmax
      comp=Z,4.0nm,1.4s,mb4.1
BVA0  Borovoye Array   31.82  41   P     P      10 42 43.1 -0.4
      comp=Z,4.0nm,1.4s,mb4.1
BVAR  Borovoye Array   31.82  41   P     P      10 42 43.6 +0.1
      comp=Z,5.8nm,0.8s,mb4.5,baz=223,slow=7.9,SNR=26
BVAR                               LR    LR     10 57 28.3
      comp=Z,1μm,19.8s,MS4.6,baz=244,slow=40
BVAR  Borovoye Array   31.82  41   P     P      10 42 43.6 +0.1
NB2   NORSAR Subarra   31.83 338   P     P      10 42 42.4 -1.1
      comp=Z,8.7nm,1.4s,mb4.4,baz=160,slow=9.3
NOA   NORSAR Array B   31.83 338   P     P      10 42 42.2 -1.4
      comp=Z,0.9nm,0.6s,mb3.8,baz=142,slow=9.5,SNR=5.1
NOA                                LR    LR     10 57 42.3
      comp=Z,362nm,18.2s,MS4.1,baz=155,slow=40
NOA   NORSAR Array B   31.83 338   P     P      10 42 42.2 -1.4
NOA                                LR    LR     10 57 42.3
NOA   NORSAR Array B   31.83 338   P     P      10 42 42.2 -1.3
EGUA  Guajares         31.88 287   P     P      10 42 45.7 +1.5
EGUA                               pmax  pmax
      comp=Z,81nm,1.1s,mb5.5
EGUA  Guajares         31.88 287   P     P      10 42 45.7 +1.5
      comp=Z,81nm,1.1s,mb5.5
EGUA  Guajares         31.88 287   P     P      10 42 45.7 +1.5
      comp=Z,81nm,1.1s,mb5.5
EBAN  Banos Encina     31.95 290   P     P      10 42 46.2 +1.4
EBAN                               pmax  pmax
      comp=Z,5.0nm,0.4s,mb4.7
EBAN  Banos Encina     31.95 290   P     P      10 42 46.2 +1.3
      comp=Z,4.6nm,0.4s,mb4.7
EBAN  Banos Encina     31.95 290   P     P      10 42 46.2 +1.4
      comp=Z,5.0nm,0.4s,mb4.7
SGMF  Saint Gilles     31.97 309  eP     P      10 42 44.9  0.0
SGMF  Saint Gilles     31.97 309  eP     P      10 42 44.9  0.0
UCH   Uchtor           31.99  62  eP     P      10 42 47.4 +2.2
      comp=Z,3.1nm,1.0s,mb4.1
UCH   Uchtor           31.99  62  eP     P      10 42 47.4 +2.3
      comp=Z,3.1nm,1.0s,mb4.1
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AAK	**Ala-Archa**	**32.00**	**62**	*e*P	**P**	**10 42 46.5**	**+1.3**
AAK				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.6						
AAK	**Ala-Archa**	**32.00**	**62**	*e*P	**P**	**10 42 46.5**	**+1.3**
	comp=Z,16nm,1.5s,mb4.6						
AAK	**Ala-Archa**	**32.00**	**62**	*e*P	**P**	**10 42 46.5**	**+1.3**
	comp=Z,16nm,1.5s,mb4.6						
VOSK	**Vostochnaya**	**32.02**	**42**	P	**P**	**10 42 44.4**	**-0.9**
VOSK				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.5						
VOSK	**Vostochnaya**	**32.02**	**42**	P	**P**	**10 42 44.4**	**-0.9**
	comp=Z,11nm,1.3s,mb4.5						
ESDC	**Sonseca Array**	**32.03**	**293**	P	**P**	**10 42 46.7**	**+1.2**
	comp=Z,7.9nm,0.8s,mb4.6,baz=81,slow=8.7,SNR=22						
ESDC				LR	LR	10 57 43.2	
	comp=Z,451nm,19.1s,MS4.2,baz=65,slow=40						
ESDC	**Sonseca Array**	**32.03**	**293**	P	**P**	**10 42 46.5**	**+1.0**
	comp=Z,8.2nm,1.3s,mb4.4						
ESDC	**Sonseca Array**	**32.03**	**293**	P	**P**	**10 42 46.5**	**+1.0**
	comp=Z,8.2nm,1.3s,mb4.4						
ESLA	**Sonseca Array**	**32.03**	**293**	*e*P	**P**	**10 42 46.7**	**+1.2**
	comp=Z,7.7nm,1.2s,mb4.4						
ESLA	**Sonseca Array**	**32.03**	**293**	*e*P	**P**	**10 42 46.7**	**+1.2**
	comp=Z,7.7nm,1.2s,mb4.4						
FRU	**Bishkek**	**32.10**	**61**	*e*P	**P**	**10 42 46.0**	**-0.1**
FRU	**Bishkek**	**32.10**	**61**	*e*P	**P**	**10 42 46.0**	**-0.1**
GUD	**Guadarrama**	**32.17**	**295**	P	**P**	**10 42 48.2**	**+1.5**
GUD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
GUD	**Guadarrama**	**32.17**	**295**	P	**P**	**10 42 48.2**	**+1.5**
	comp=Z,7.9nm,0.9s,mb4.5						
GUD	**Guadarrama**	**32.17**	**295**	P	**P**	**10 42 48.2**	**+1.5**
	comp=Z,8.0nm,0.9s,mb4.5						
PAB	**San Pablo**	**32.33**	**293**	*e*P	**P**	**10 42 49.3**	**+1.1**
PAB				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.8						
PAB	**San Pablo**	**32.33**	**293**	*e*P	**P**	**10 42 49.3**	**+1.1**
	comp=Z,18nm,1.2s,mb4.8						
PAB	**San Pablo**	**32.33**	**293**	*e*P	**P**	**10 42 49.3**	**+1.1**
	comp=Z,18nm,1.2s,mb4.8						
EADA	**Adamuz**	**32.57**	**290**	P	**P**	**10 42 50.9**	**+0.6**
	comp=Z,8.7nm,0.8s,mb4.7						
EADA	**Adamuz**	**32.57**	**290**	P	**P**	**10 42 50.9**	**+0.6**
	comp=Z,8.7nm,0.8s,mb4.7						
TZK	**Tazeka**	**32.74**	**282**	*i* P	**P**	**10 42 54.0**	**+2.2**
TKM2	**Tokmak 2**	**32.83**	**61**	*e*P	**P**	**10 42 54.4**	**+1.9**
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
TKM2	**Tokmak 2**	**32.83**	**61**	*e*P	**P**	**10 42 54.4**	**+1.9**
	comp=Z,4.2nm,0.8s,mb4.4						
TKM2	**Tokmak 2**	**32.83**	**61**	*e*P	**P**	**10 42 54.4**	**+1.9**
	comp=Z,4.0nm,0.8s,mb4.4						
EMIJ	**Mijas**	**32.87**	**287**	P	**P**	**10 42 53.5**	**+0.6**
	comp=Z,39nm,1.1s,mb5.2						
EMIJ	**Mijas**	**32.87**	**287**	P	**P**	**10 42 53.5**	**+0.6**
	comp=Z,39nm,1.1s,mb5.2						
KSH	**Kashi**	**33.08**	**67**	P	**P**	**10 42 54.3**	**-0.4**
KSH				*e*PP	PP	10 44 05.0	-4.4
KSH				*e*PcP	PcP	10 45 37.3	-0.7
KSH				*e*S	**S**	**10 48 12.3**	**-1.2**
KSH				*e*ScP	ScP	10 49 19.8	-2.5
KSH				*e*PcS	PcS	10 49 21.4	-2.0
KSH				*e*SS	SS	10 50 13.8	-22
KSH				*e*ScS	ScS	10 53 18.1	-4.5
KSH				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
KSH				LR	LR		
	comp=N,1µm,9.9s						
KSH				LR	LR		
	comp=E,1µm,8.0s						
KSH				LR	LR		
	comp=Z,1µm,12.1s,MS4.8						
ECAB	**El Cabril**	**33.24**	**290**	P	**P**	**10 42 57.1**	**+0.9**
	comp=Z,23nm,0.8s,mb5.2						
ECAB	**El Cabril**	**33.24**	**290**	P	**P**	**10 42 57.1**	**+1.0**
	comp=Z,23nm,0.8s,mb5.2						
ZFT	**Errachidia**	**33.29**	**279**	*i* P	**P**	**10 42 58.0**	**+1.3**
MDT	**Midelt**	**33.34**	**280**	P	**P**	**10 42 58.4**	**+1.4**
	comp=Z,9.5nm,0.9s,mb4.7,baz=88,slow=11,SNR=19						
MDT	**Midelt**	**33.34**	**280**	P	**P**	**10 42 58.4**	**+1.3**
ESPR	**Espera**	**33.70**	**288**	P	**P**	**10 43 00.2**	**0.0**
	comp=Z,5.6nm,0.8s,mb4.5						
ESPR	**Espera**	**33.70**	**288**	P	**P**	**10 43 00.2**	**0.0**
	comp=Z,5.6nm,0.8s,mb4.5						
RSA	**Sarsar**	**33.95**	**284**	*i* P	**P**	**10 43 04.0**	**+1.6**
PBRG	**Braganca**	**34.13**	**297**	*e*P	**P**	**10 43 04.7**	**+0.9**
	comp=Z,30nm,1.7s,mb5.0						
PBRG	**Braganca**	**34.13**	**297**	*e*P	**P**	**10 43 04.7**	**+0.9**
	comp=Z,30nm,1.7s,mb5.0						
EMIN	**Mina Concepcio**	**34.25**	**290**	P	**P**	**10 43 05.7**	**+0.7**
	comp=Z,25nm,0.9s,mb5.2						
EMIN	**Mina Concepcio**	**34.25**	**290**	P	**P**	**10 43 05.7**	**+0.7**
	comp=Z,25nm,0.9s,mb5.2						
MVO	**Moncorvo**	**34.35**	**296**	*e*P	**P**	**10 43 06.3**	**+0.6**
	comp=Z,28nm,1.2s,mb5.1						
MVO				*e*LR	LR	10 59 28.4	
	comp=Z,276nm,18.0s						
MVO	**Moncorvo**	**34.35**	**296**	*e*P	**P**	**10 43 06.3**	**+0.6**
	comp=Z,28nm,1.2s,mb5.1						
EBAD	**Badajoz**	**34.44**	**291**	P	**P**	**10 43 07.1**	**+0.5**
	comp=Z,3.7nm,0.4s,mb4.7						
EBAD	**Badajoz**	**34.44**	**291**	P	**P**	**10 43 07.1**	**+0.5**
	comp=Z,3.7nm,0.4s,mb4.7						
EKA	**Eskdalemuir Ar**	**34.59**	**321**	P	**P**	**10 43 07.3**	**-0.4**
	comp=Z,6.8nm,0.8s,mb4.6,baz=103,slow=7.2,SNR=14						
EKA	**Eskdalemuir Ar**	**34.59**	**321**	P	**P**	**10 43 07.3**	**-0.4**
PMRV	**Marv??o**	**34.69**	**293**	*e*P	**P**	**10 43 09.6**	**+0.9**
	comp=Z,35nm,1.6s,mb5.0						
PMRV				*e*LR	LR	10 58 37.6	
	comp=Z,304nm,18.0s						
PMRV	**Marv??o**	**34.69**	**293**	*e*P	**P**	**10 43 09.6**	**+0.9**
	comp=Z,35nm,1.6s,mb5.0						
MTE	**Manteigas**	**34.76**	**294**	*e*LR	LR	10 58 43.7	
	comp=Z,379nm,18.0s						
PESTR	**Estremoz**	**34.88**	**292**	*e*P	**P**	**10 43 10.3**	**-0.1**
	comp=Z,28nm,1.9s,mb4.9						
PESTR				*e*LR	LR	10 58 38.7	
	comp=Z,244nm,16.0s						
PESTR	**Estremoz**	**34.88**	**292**	*e*P	**P**	**10 43 10.3**	**-0.1**
	comp=Z,28nm,1.9s,mb4.9						
EGRO	**El Granado**	**34.92**	**289**	P	**P**	**10 43 11.1**	**+0.4**
	comp=Z,11nm,0.9s,mb4.8						
EGRO	**El Granado**	**34.92**	**289**	P	**P**	**10 43 11.1**	**+0.4**
	comp=Z,11nm,0.9s,mb4.8						
PVAQ	**Vaqueiros**	**35.12**	**289**	*e*P	**P**	**10 43 13.0**	**+0.6**
	comp=Z,70nm,1.6s,mb5.3						
PVAQ	**Vaqueiros**	**35.12**	**289**	*e*P	**P**	**10 43 13.0**	**+0.6**
	comp=Z,70nm,1.6s,mb5.3						
PBEJ	**Beja**	**35.17**	**290**	*e*P	**P**	**10 43 14.2**	**+1.3**
	comp=Z,42nm,1.8s,mb5.1						
PBEJ	**Beja**	**35.17**	**290**	*e*P	**P**	**10 43 14.2**	**+1.3**
	comp=Z,42nm,1.8s,mb5.1						
EVO	**Evora**	**35.24**	**291**	*e*P	**P**	**10 43 15.2**	**+1.7**
EVO				*e*MLR	MLR		
	comp=Z,391nm,21.5s,MS3.8						
EVOP	**Sao Brissos**	**35.32**	**291**	*e*P	**P**	**10 43 15.2**	**+1.0**
KURK	**Kurchatov**	**35.95**	**48**	P	**P**	**10 43 19.9**	**+0.5**
	comp=Z,80nm,1.0s,mb5.6,SNR=11						
KURK	**Kurchatov**	**35.95**	**48**	*e*P	**P**	**10 43 19.7**	**+0.3**
KURK				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
KURK	**Kurchatov**	**35.95**	**48**	P	**P**	**10 43 18.6**	**-0.8**
	comp=Z,9.0nm,0.6s,mb4.9,baz=264,slow=8.7,SNR=28						
KURK				LR	LR	10 59 41.2	
	comp=Z,508nm,18.6s,MS4.3,baz=260,slow=39						
KURK	**Kurchatov**	**35.95**	**48**	*e*P	**P**	**10 43 19.7**	**+0.2**
	comp=Z,20nm,1.1s,mb5.0						
KURK	**Kurchatov**	**35.95**	**48**	P	**P**	**10 43 20.2**	**+0.8**
	SNR=7.7						
KURK				P		10 43 20.2	
	SNR=7.7						
KURK	**Kurchatov**	**35.95**	**48**	*e*P	**P**	**10 43 19.7**	**+0.3**
	comp=Z,20nm,1.1s,mb5.0						
TOA0	**Torodi Ar. Sit**	**36.62**	**245**	*e*P	**P**	**10 43 26.0**	**+0.5**
TOA0	**Torodi Ar. Sit**	**36.62**	**245**	*e*P	**P**	**10 43 26.0**	**+0.5**
TORD	**Torodi Ar. Bea**	**36.62**	**245**	P	**P**	**10 43 26.4**	**+0.9**
	comp=Z,7.4nm,0.6s,mb4.7,baz=75,slow=6.3,SNR=61						
TORD				LR	LR	11 00 56.6	
	comp=Z,734nm,19.8s,MS4.5,baz=55,slow=40						
ARCES	**ARCESS Array B**	**36.68**	**354**	P	**P**	**10 43 24.1**	**-1.3**
	comp=Z,6.9nm,0.8s,mb4.5,baz=156,slow=6.4,SNR=13						
ARCES				LR	LR	11 00 58.7	
	comp=Z,1µm,18.0s,MS4.7,baz=166,slow=40						
ARCES	**ARCESS Array B**	**36.68**	**354**	P	**P**	**10 43 24.1**	**-1.3**
KEV	**Kevo**	**36.78**	**355**	*e*p	**P**	**10 43 32.1**	**+5.8**
MKAR	**Makanchi Array**	**37.82**	**55**	P	**P**	**10 43 35.5**	**+0.1**
	comp=Z,1.8nm,0.6s,mb4.0,baz=260,slow=6.9,SNR=24						
MKAR				LR	LR	11 01 18.4	
	comp=Z,1µm,19.8s,MS4.6,baz=154,slow=40						
MKAR	**Makanchi Array**	**37.82**	**55**	P	**P**	**10 43 35.5**	**+0.1**
MKAR				LR	LR	11 01 18.4	
MKAR	**Makanchi Array**	**37.82**	**55**	P	**P**	**10 43 35.5**	**+0.1**
MK31	**Makanchi Array**	**37.82**	**55**	*e*P	**P**	**10 43 35.7**	**+0.3**
MK31	**Makanchi Array**	**37.82**	**55**	*e*P	**P**	**10 43 35.7**	**+0.3**
ZAA0	**Zalesovo Array**	**40.31**	**44**	*e*P	**P**	**10 43 55.5**	**-0.6**
ZAA0	**Zalesovo Array**	**40.31**	**44**	*e*P	**P**	**10 43 55.5**	**-0.6**
ZALV	**Zalesovo Beam**	**40.31**	**44**	P	**P**	**10 43 55.3**	**-0.8**
	comp=Z,4.0nm,0.6s,mb4.3,baz=267,slow=9.6,SNR=16						
ZALV				LR	LR	11 03 00.7	
	comp=Z,849nm,18.9s,MS4.6,baz=252,slow=40						
DANN	**Dangsing**	**41.59**	**83**	*e*P	**P**	**10 44 09.1**	**+2.1**
	comp=Z,56nm,0.9s,mb5.2						
DANN	**Dangsing**	**41.59**	**83**	*e*P	**P**	**10 44 09.1**	**+2.1**
	comp=Z,56nm,0.9s,mb5.2						
WMQ	**Urumqi**	**41.64**	**60**	P	**P**	**10 44 08.0**	**+0.8**
WMQ				pP	pP	10 44 12.0	+1.7
WMQ				PP	PP	10 45 48.0	+4.7
WMQ				S	**S**	**10 50 24.0**	**+0.4**
WMQ				SS	SS	10 53 25.0	-3.6
WMQ				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.2						
WMQ				pmax	pmax		
	comp=Z,360nm,5.0s						
WMQ				LR	LR		
	comp=N,2µm,13.5s,MS5.1						
WMQ				LR	LR		
	comp=E,1µm,16.3s,MS5.1						
WMQ				LR	LR		
	comp=Z,1µm,19.9s,MS4.8						
KOLN	**Koldanda**	**41.65**	**84**	*e*P	**P**	**10 44 09.0**	**+1.5**
	comp=Z,124nm,1.5s,mb5.3						
KOLN	**Koldanda**	**41.65**	**84**	*e*P	**P**	**10 44 09.0**	**+1.5**
	comp=Z,124nm,1.5s,mb5.3						
HYB	**Hyderabad**	**41.83**	**101**	*i* P	**P**	**10 44 11.5**	**+2.5**
HYB	**Hyderabad**	**41.83**	**101**	*e*P	**P**	**10 44 11.5**	**+2.5**
GKN	**Gorkha**	**42.43**	**84**	*e*P	**P**	**10 44 15.6**	**+1.7**
	comp=Z,99nm,1.2s,mb5.3						
GKN	**Gorkha**	**42.43**	**84**	*e*P	**P**	**10 44 15.6**	**+1.7**
	comp=Z,99nm,1.2s,mb5.3						
DMN	**Daman**	**42.96**	**84**	*e*P	**P**	**10 44 20.1**	**+1.9**
	comp=Z,87nm,1.4s,mb5.3						
DMN	**Daman**	**42.96**	**84**	*e*P	**P**	**10 44 20.1**	**+1.9**
	comp=Z,87nm,1.4s,mb5.3						
KKN	**Kakani**	**43.04**	**84**	*e*P	**P**	**10 44 20.3**	**+1.5**
	comp=Z,60nm,0.9s,mb5.3						
KKN	**Kakani**	**43.04**	**84**	*e*P	**P**	**10 44 20.3**	**+1.5**
KKN				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.3						
KKN	**Kakani**	**43.04**	**84**	*e*P	**P**	**10 44 20.3**	**+1.5**
	comp=Z,60nm,0.9s,mb5.3						
PKI	**Pulchoki**	**43.22**	**84**	*e*P	**P**	**10 44 22.1**	**+1.8**
	comp=Z,132nm,1.5s,mb5.4						
PKI	**Pulchoki**	**43.22**	**84**	*e*P	**P**	**10 44 22.1**	**+1.8**
PKI				pmax	pmax		
	comp=Z,132nm,1.5s,mb5.4						
PKI	**Pulchoki**	**43.22**	**84**	*e*P	**P**	**10 44 22.1**	**+1.8**
	comp=Z,132nm,1.5s,mb5.4						
GUN	**Gumba**	**43.50**	**83**	*e*P	**P**	**10 44 24.4**	**+1.9**
	comp=Z,230nm,1.3s,mb5.7						
GUN	**Gumba**	**43.50**	**83**	*e*P	**P**	**10 44 24.4**	**+1.9**
	comp=Z,230nm,1.3s,mb5.8						
JIRN	**Jiri**	**43.84**	**83**	*e*P	**P**	**10 44 27.2**	**+1.9**
	comp=Z,84nm,1.0s,mb5.4						
JIRN	**Jiri**	**43.84**	**83**	*e*P	**P**	**10 44 27.2**	**+1.9**
	comp=Z,84nm,1.0s,mb5.4						
RAMN	**Ramite**	**44.43**	**84**	*e*P	**P**	**10 44 32.0**	**+1.9**
	comp=Z,13nm,0.7s,mb4.8						
RAMN	**Ramite**	**44.43**	**84**	*e*P	**P**	**10 44 32.0**	**+1.9**
	comp=Z,13nm,0.7s,mb4.8						
ODAN	**Odare**	**45.12**	**84**	*e*P	**P**	**10 44 37.7**	**+2.1**
ODAN	**Odare**	**45.12**	**84**	*e*P	**P**	**10 44 37.7**	**+2.1**
TAPN	**Taplejung**	**45.21**	**83**	*e*P	**P**	**10 44 37.8**	**+1.5**
	comp=Z,73nm,0.9s,mb5.5						
TAPN	**Taplejung**	**45.21**	**83**	*e*P	**P**	**10 44 37.8**	**+1.5**
	comp=Z,73nm,0.9s,mb5.5						
DBIC	**Dimbokro**	**45.70**	**244**	*e*P	**P**	**10 44 40.6**	**+0.4**
DBIC				pmax	pmax		
	comp=Z,32nm,1.3s						
DBIC	**Dimbokro**	**45.70**	**244**	P	**P**	**10 44 40.5**	**+0.3**
	comp=Z,9.4nm,0.9s,mb4.7,baz=44,slow=8.2,SNR=9.6						
DBIC				LR	LR	11 06 18.2	
	comp=Z,437nm,18.4s,MS4.4,baz=26,slow=39						
DBIC	**Dimbokro**	**45.70**	**244**	*e*P	**P**	**10 44 40.6**	**+0.4**
	comp=Z,32nm,1.3s,mb5.1						
DBIC				LR	LR	11 06 18.2	
DBIC	**Dimbokro**	**45.70**	**244**	*e*P	**P**	**10 44 40.6**	**+0.4**
	comp=Z,32nm,1.3s,mb5.1						
SPITS	**Spitsbergen Ar**	**45.71**	**355**	P	**P**	**10 44 39.1**	**-0.5**
	comp=Z,17nm,1.0s,mb4.9,baz=317,slow=8.0,SNR=6.9						
SPITS	**Spitsbergen Ar**	**45.71**	**355**	P	**P**	**10 44 39.0**	**-0.5**
KIC	**Kosan Boka**	**45.81**	**243**	*e*P	**P**	**10 44 41.5**	**+0.4**
	comp=Z,67nm,0.8s,mb5.6						
TIC	**Toumodi**	**45.84**	**244**	*e*P	**P**	**10 44 41.6**	**+0.3**
	comp=Z,92nm,1.0s,mb5.7						
LIC	**Lamto**	**46.12**	**243**	*e*P	**P**	**10 44 43.8**	**+0.3**
	comp=Z,46nm,1.1s,mb5.0						
LIC				*e*MLR	MLR		
	comp=Z,446nm,17.0s,MS4.2						
LIC	**Lamto**	**46.12**	**243**	*e*P	**P**	**10 44 43.8**	**+0.3**
	comp=Z,23nm,1.1s,mb5.0						
LIC				LR	LR		
	comp=Z,220nm,17.0s,MS4.2						
LIC	**Lamto**	**46.12**	**243**	*e*P	**P**	**10 44 43.8**	**+0.3**
	comp=Z,23nm,1.1s,mb5.0						
LSA	**Lhasa**	**47.25**	**79**	*e*P	**P**	**10 44 54.6**	**+2.3**
LSA				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
LSA	**Lhasa**	**47.25**	**79**	*e*P	**P**	**10 44 54.6**	**+2.3**
	comp=Z,14nm,1.2s,mb4.8						
LSA	**Lhasa**	**47.25**	**79**	*e*P	**P**	**10 44 54.6**	**+2.3**
	comp=Z,14nm,1.2s,mb4.8						
SCO	**Scoresbysund**	**48.16**	**338**	*e*P	**P**	**10 44 59.1**	**+0.3**
SCO				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.5						
SCO	**Scoresbysund**	**48.16**	**338**	*i* P	**P**	**10 44 54.9**	**-3.9**
SCO	**Scoresbysund**	**48.16**	**338**	*i* P	**P**	**10 44 59.1**	**+0.3**
	comp=Z,6.1nm,1.3s,mb4.5						
SCO	**Scoresbysund**	**48.16**	**338**	*e*P	**P**	**10 44 59.1**	**+0.3**
	comp=Z,6.1nm,1.3s,mb4.5						
SCO	**Scoresbysund**	**48.16**	**338**	*e*P	**P**	**10 44 59.1**	**+0.3**
	comp=Z,6.0nm,1.3s,mb4.5						
LSZ	**Lusaka**	**48.80**	**189**	*e*P	**P**	**10 45 05.4**	**+1.1**
LSZ				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
LSZ	**Lusaka**	**48.80**	**189**	LR	LR	11 05 35.1	
	comp=Z,612nm,18.4s,MS4.6,baz=143,slow=36						
LSZ	**Lusaka**	**48.80**	**189**	*e*P	**P**	**10 45 05.4**	**+1.2**
	comp=Z,18nm,1.1s,mb5.0						
LSZ	**Lusaka**	**48.80**	**189**	*e*P	**P**	**10 45 05.4**	**+1.1**
	comp=Z,18nm,1.1s,mb5.0						
SHL	**Shillong**	**49.35**	**83**	*e*PKP	**P**	**10 45 10.0**	**+1.5**
DAG	**Danmarks Havn**	**49.80**	**346**	⇑*e*P	**P**	**10 45 10.5**	**-0.8**
DAG				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
DAG	**Danmarks Havn**	**49.80**	**346**	⇑*i*P	**P**	**10 45 10.5**	**-0.8**
	comp=Z,2.2nm,0.8s,mb4.2						
DAG	**Danmarks Havn**	**49.80**	**346**	⇑*e*P	**P**	**10 45 10.5**	**-0.8**
	comp=Z,2.2nm,0.8s,mb4.2						
MOY	**Mondy**	**50.01**	**48**	*e*P	**P**	**10 45 15.0**	**+1.8**
MOY	**Mondy**	**50.01**	**48**	*e*P	**P**	**10 45 15.0**	**+1.8**
GTA	**Gaotai**	**51.31**	**64**	P	**P**	**10 45 23.8**	**+0.6**
GTA				pP	pP	10 45 28.5	+2.1
GTA				S	**S**	**10 52 42.8**	**+0.6**
GTA				SS	SS	10 56 17.5	0.0
GTA				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
GTA				pmax	pmax		
	comp=Z,110nm,4.5s						
GTA				LR	LR		
	comp=N,680nm,22.2s,MS4.7						
GTA				LR	LR		
	comp=E,340nm,20.1s,MS4.7						
GTA				LR	LR		
	comp=Z,360nm,21.0s,MS4.4						
ZAK	**Zakamensk**	**51.59**	**49**	*e*P	**P**	**10 45 25.6**	**+0.5**
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.9s,mb4.2						
ZAK	**Zakamensk**	**51.59**	**49**	*e*P	**P**	**10 45 25.6**	**+0.5**
	comp=Z,6.0nm,1.9s,mb4.2						
TLY	**Talaya**	**51.65**	**48**	*e*P	**P**	**10 45 26.2**	**+0.7**
TLY				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.4						
TLY				MLR	MLR		
	comp=Z,300nm,15.0s,MS4.4						
TLY	**Talaya**	**51.65**	**48**	*e*P	**P**	**10 45 26.9**	**+1.3**
	comp=Z,10nm,1.4s,mb4.6						
TLY	**Talaya**	**51.65**	**48**	*e*P	**P**	**10 45 26.2**	**+0.7**
	comp=Z,300nm,15.0s						
IRK	**Irkutsk**	**51.96**	**47**	*e*P	**P**	**10 45 24.6**	**-3.3**
IRK				pmax	pmax		
	comp=Z,39nm,1.7s,mb5.1						
SUMG	**Summit**	**53.72**	**339**	*e*P	**P**	**10 45 41.7**	**+1.2**
	comp=Z,46nm,1.6s,mb5.2						
SUMG	**Summit**	**53.72**	**339**	*i* P	**P**	**10 45 41.1**	**+0.6**
	comp=Z,5.0nm,0.9s,mb4.4,SNR=5.0						
SONM	**Songino Array**	**54.05**	**52**	P	**P**	**10 45 43.1**	**-0.2**
	comp=Z,1.5nm,0.6s,mb4.1,baz=278,slow=7.1,SNR=13						
SONM				LR	LR	11 11 40.2	
	comp=Z,1µm,18.8s,MS4.9,baz=301,slow=39						
SONM	**Songino Array**	**54.05**	**52**	P	**P**	**10 45 43.1**	**-0.2**
ULN	**Ulaanbaatar**	**54.48**	**52**	*e*P	**P**	**10 45 46.8**	**+0.3**
ULN				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
ULN	**Ulaanbaatar**	**54.48**	**52**	*e*P	**P**	**10 45 46.8**	**+0.4**
	comp=Z,8.9nm,1.1s,mb4.6						
ULN	**Ulaanbaatar**	**54.48**	**52**	⇑P	**P**	**10 45 47.4**	**+0.9**
	SNR=5.3						
ULN				⇑P		10 45 47.4	
	SNR=5.3						
ULN	**Ulaanbaatar**	**54.48**	**52**	*e*P	**P**	**10 45 46.8**	**+0.3**
	comp=Z,9.0nm,1.1s,mb4.6						
LZH	**Lanzhou**	**55.32**	**66**	*e*P	**P**	**10 45 54.1**	**+1.4**
LZH				PP	PP	10 47 59.0	+2.8
LZH				S	**S**	**10 53 36.1**	**-0.7**
LZH				SS	SS	10 57 18.3	-2.6
LZH				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
LZH				pmax	pmax		
	comp=Z,80nm,5.4s						
LZH				LR	LR		
	comp=E,660nm,15.7s						
LZH				LR	LR		
	comp=Z,840nm,16.4s,MS4.9						
BOD	**Bodaibo**	**56.64**	**39**	⇓*i*P	**P**	**10 46 00.6**	**-1.3**
BOD				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
BOD	**Bodaibo**	**56.64**	**39**	*i* P	**P**	**10 46 00.6**	**-1.3**
	comp=Z,16nm,1.4s,mb4.9						
CD2	**Chengdu**	**57.04**	**72**	P	**P**	**10 46 06.5**	**+1.4**
CD2				pP	pP	10 46 11.1	+2.8
CD2				PcP	PcP	10 47 02.0	+1.9
CD2				PP	PP	10 48 14.3	+2.6
CD2				S	**S**	**10 53 57.9**	**-2.0**
CD2				SS	SS	10 57 47.5	-0.8
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
CD2				pmax	pmax		
	comp=Z,260nm,5.5s						
CD2				LR	LR		
	comp=N,310nm,5.0s						
CD2				LR	LR		
	comp=Z,230nm,5.9s						
CHTO	**Chiang Mai**	**58.15**	**87**	*e*P	**P**	**10 46 14.9**	**+1.8**
CHTO				pmax	pmax		
	comp=Z,25nm,1.5s,mb5.0						
CHTO	**Chiang Mai**	**58.15**	**87**	*e*P	**P**	**10 46 14.9**	**+1.8**
	comp=Z,25nm,1.5s,mb5.0						
CHTO	**Chiang Mai**	**58.15**	**87**	*e*P	**P**	**10 46 14.9**	**+1.8**
	comp=Z,25nm,1.5s,mb5.0						
CMAR	**Chiang Mai Arr**	**58.31**	**88**	P	**P**	**10 46 14.9**	**+0.7**
	comp=Z,3.2nm,0.9s,mb4.4,baz=295,slow=7.9,SNR=24						
CMAR				LR	LR	11 15 33.7	
	comp=Z,362nm,18.8s,MS4.5,baz=286,slow=40						
CMAR	**Chiang Mai Arr**	**58.31**	**88**	P	**P**	**10 46 14.9**	**+0.7**
KMI	**Kunming**	**58.51**	**79**	P	**P**	**10 46 17.6**	**+2.1**
KMI				pP	pP	10 46 21.9	+3.2
KMI				PP	PP	10 48 27.6	+2.7
KMI				S	**S**	**10 54 20.0**	**+0.8**
KMI				SS	SS	10 58 15.1	+3.6
KMI				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
KMI				pmax	pmax		
	comp=Z,43nm,3.1s						
KMI				LR	LR		
	comp=N,610nm,23.3s,MS4.7						
KMI				LR	LR		
	comp=E,320nm,24.2s,MS4.7						
KMI				LR	LR		
	comp=Z,390nm,20.6s,MS4.5						
HHC	**Hu-ho-hao-te**	**59.51**	**59**	*e*P	**P**	**10 46 22.8**	**+0.5**
HHC				PcP	PcP	10 47 10.8	+1.1
HHC				PP	PP	10 48 35.3	+1.9
HHC				PcS	PcS	10 51 11.1	-0.6
HHC				*e*S	**S**	**10 54 28.0**	**-3.8**
HHC				ScS	ScS	10 56 07.8	-4.8
HHC				SS	SS	10 58 23.9	-2.8
HHC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
HHC				pmax	pmax		
	comp=Z,140nm,4.8s						
HHC				LR	LR		
	comp=N,410nm,16.9s,MS4.8						
HHC				LR	LR		
	comp=E,430nm,12.9s,MS4.8						
HHC				LR	LR		
	comp=Z,320nm,17.8s,MS4.5						
TIXI	**Tiksi**	**59.85**	**21**	*e*P	**P**	**10 46 23.9**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
TIXI	**Tiksi**	**59.85**	**21**	*e*P	**P**	**10 46 23.9**	**-0.2**
	comp=Z,6.4nm,0.8s,mb4.7						
TIXI	**Tiksi**	**59.85**	**21**	*e*P	**P**	**10 46 23.9**	**-0.2**
	comp=Z,6.0nm,0.8s,mb4.7						
XAN	**Xi’an**	**59.93**	**67**	P	**P**	**10 46 25.1**	**-0.2**
XAN				PP	PP	10 48 37.1	-0.2
XAN				S	**S**	**10 54 37.1**	**-0.4**
XAN				SS	SS	10 58 34.5	+1.0
XAN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
XAN				pmax	pmax		
	comp=Z,63nm,5.1s						
XAN				LR	LR		
	comp=N,590nm,25.8s,MS4.7						
XAN				LR	LR		
	comp=E,540nm,25.8s,MS4.7						
XAN				LR	LR		
	comp=Z,310nm,21.1s,MS4.4						
GYA	**Guiyang**	**61.15**	**76**	P	**P**	**10 46 32.9**	**-0.8**
GYA				PcP	PcP	10 47 17.8	+1.2
GYA				PP	PP	10 48 49.3	+1.1
GYA				ScP	ScP	10 51 17.0	-1.2
GYA				S	**S**	**10 54 49.8**	**-3.5**
GYA				SS	SS	10 58 50.0	-3.0
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
GYA				pmax	pmax		
	comp=Z,70nm,5.4s						
GYA				LR	LR		
	comp=N,400nm,14.0s,MS4.8						
GYA				LR	LR		
	comp=E,340nm,14.3s,MS4.8						
GYA				LR	LR		
	comp=Z,500nm,14.7s,MS4.8						
HIA	**Hailar**	**62.19**	**47**	P	**P**	**10 46 41.3**	**+1.0**
HIA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HIA	**Hailar**	**62.19**	**47**	P	**P**	**10 46 41.3**	**+1.0**
	comp=Z,2.7nm,0.5s,mb4.6						
HIA	**Hailar**	**62.19**	**47**	P	**P**	**10 46 41.3**	**+1.0**
	comp=Z,3.0nm,0.5s,mb4.7						
BOSA	**Boshof**	**62.33**	**190**	*e*P	**P**	**10 46 43.6**	**+2.2**
BOSA				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.1						
BOSA	**Boshof**	**62.33**	**190**	P	**P**	**10 46 42.9**	**+1.5**
	comp=Z,7.7nm,0.9s,mb4.8,baz=350,slow=7.5,SNR=7.2						
BOSA				LR	LR	11 12 17.3	
	comp=Z,591nm,21.3s,MS4.7,baz=11,slow=35						
BOSA	**Boshof**	**62.33**	**190**	*e*P	**P**	**10 46 43.6**	**+2.2**
	comp=Z,18nm,1.2s,mb5.1						
BOSA				LR	LR	11 12 17.3	
BOSA	**Boshof**	**62.33**	**190**	*e*P	**P**	**10 46 43.6**	**+2.2**
	comp=Z,18nm,1.2s,mb5.1						
BJI	**Beijing**	**63.09**	**58**	P	**P**	**10 46 46.5**	**0.0**
BJI				PP	PP	10 49 06.5	+1.5
BJI				S	**S**	**10 55 19.3**	**+2.0**
BJI				SS	SS	10 59 27.8	+5.1
BJI				pmax	pmax		
	comp=Z,17nm,0.4s,mb5.5						
BJI				LR	LR		

	comp=N,470nm,22.9s,MS4.7						
BJI				LR	LR		
	comp=E,210nm,21.9s,MS4.7						
BJI				LR	LR		
	comp=Z,280nm,22.1s,MS4.4						
WHN	Wuhan	65.54	69	P	P	10 47 03.0	+0.3
WHN				S	S	10 55 43.9	-4.1
WHN				LR	LR		
	comp=N,1μm,16.1s,MS5.3						
WHN				LR	LR		
	comp=E,740nm,15.1s,MS5.3						
WHN				LR	LR		
	comp=Z,910nm,10.9s,MS5.2						
FRB	Frobisher Bay	66.40	332	P	P	10 47 07.0	-0.7
	comp=Z,17nm,1.0s,mb5.0,baz=63,slow=8.0,SNR=7.2						
FRB	Frobisher Bay	66.40	332	P	P	10 47 07.0	-0.7
PSI	Prapat	66.52	103	P	P	10 47 09.3	+0.1
	comp=Z,4.7nm,0.8s,mb4.6,baz=279,slow=9.0,SNR=4.4						
PSI	Prapat	66.52	103	P	P	10 47 09.3	+0.1
RES	Resolute Bay	67.46	347	eP	P	10 47 14.9	+0.6
RES				pmax	pmax		
	comp=Z,25nm,2.1s,mb4.9						
RES	Resolute Bay	67.46	347	P	P	10 47 13.2	-1.0
	comp=Z,0.8nm,0.8s,mb3.8,baz=339,slow=6.9,SNR=4.8						
RES	Resolute Bay	67.46	347	eP	P	10 47 14.9	+0.6
	comp=Z,25nm,2.1s,mb4.9						
RES	Resolute Bay	67.46	347	eP	P	10 47 14.9	+0.6
	comp=Z,25nm,2.1s,mb4.9						
CN2	Changchun	67.92	51	eP	P	10 47 22.5	+4.8
CN2				esP	sP	10 47 29.6	+7.4
CN2				eS	S	10 56 17.8	+1.4
CN2				SS	SS	11 00 40.8	+3.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,700nm,20.0s,MS5.0						
CN2				LR	LR		
	comp=E,500nm,20.0s,MS5.0						
CN2				LR	LR		
	comp=Z,800nm,17.0s,MS5.0						
NJ2	Nanjing	68.35	65	eP	P	10 47 23.4	+2.8
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
KLR	Kul'dur	69.42	44	eP	P	10 47 22.8	-4.1
SCHQ	Schefferville	69.89	323	P	P	10 47 28.6	-1.1
	comp=Z,5.8nm,0.5s,mb4.8,baz=58,slow=5.5,SNR=40						
SCHQ				LR	LR	11 13 21.9	
	comp=Z,222nm,21.9s,MS4.4,baz=172,slow=32						
SCHQ	Schefferville	69.89	323	P	P	10 47 28.6	-1.1
MDJ	Mudanjiang	70.23	49	P	P	10 47 31.8	-0.2
MDJ				PP	PP	10 50 06.4	-0.6
MDJ				S	S	10 56 42.9	-0.8
MDJ				SS	SS	11 01 13.3	+0.2
MDJ				pmax	pmax		
	comp=Z,9.0nm,1.8s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,140nm,4.6s						
MDJ				LR	LR		
	comp=N,570nm,24.5s,MS4.9						
MDJ				LR	LR		
	comp=E,440nm,20.0s,MS4.9						
MDJ				LR	LR		
	comp=Z,610nm,13.6s						
SEY	Seymchan	71.82	25⇑	eP	P	10 47 41.9	+0.6
SEY	Seymchan	71.82	25	eP	P	10 47 41.9	+0.6
KSRS	Korea Array	72.49	56	P	P	10 47 45.6	-0.2
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
KSRS				MLR	MLR		
	comp=Z,414nm,19.7s,MS4.7						
KSRS	Korea Array	72.49	56	P	P	10 47 45.6	-0.2
	comp=Z,1.6nm,0.9s,mb4.0,baz=292,slow=5.4,SNR=4.1						
KSRS				LR	LR	11 23 33.1	
	comp=Z,414nm,19.6s,MS4.7,baz=36,slow=39						
KSRS	Korea Array	72.49	56	P	P	10 47 45.6	-0.2
	comp=Z,414nm,19.7s						
BILL	Bilibino	72.53	17	eP	P	10 47 45.3	-0.2
BILL				pmax	pmax		
	comp=Z,14nm,1.6s,mb4.6						
BILL	Bilibino	72.53	17	eP	P	10 47 50.9	+5.4
	comp=Z,12nm,0.9s,mb4.8						
BILL	Bilibino	72.53	17	eP	P	10 47 45.3	-0.2
	comp=Z,14nm,1.6s,mb4.6						
JOW	Kunigami	78.05	66	LR	LR	11 27 11.6	
	comp=Z,320nm,20.0s,MS4.6,baz=34,slow=39						
ASAJ	Asahikawa	78.45	45	LR	LR	11 28 10.1	
	comp=Z,326nm,19.1s,MS4.7,baz=194,slow=40						
FCC	Fort Churchill	79.07	336	eP	P	10 48 23.8	+0.7
	comp=Z,0.3nm,1.4s						
FCC	Fort Churchill	79.07	336	eP	P	10 48 23.8	+0.8
MJAR	Matsushiro Arr	79.99	53	P	P	10 48 27.4	-1.1
	comp=Z,0.8nm,0.9s,mb3.7,baz=4.8,slow=16,SNR=2.6						
MJAR				LR	LR	11 27 05.3	
	comp=Z,408nm,18.3s,MS4.8,baz=285,slow=38						
MJAR	Matsushiro Arr	79.99	53	P	P	10 48 27.4	-1.1
PETK	Petropavlovsk-	80.45	31	LR	LR	11 26 53.6	
	comp=Z,322nm,19.3s,MS4.7,baz=143,slow=38						
GAMB	Gambell	80.88	12	eP	P	10 48 36.6	+3.9
	comp=Z,55nm,2.3s,mb5.1						
YKA	Yellowknife Ar	81.50	346	P	P	10 48 35.9	-0.1
	comp=Z,1.9nm,0.8s,baz=28,slow=5.1,SNR=22						
YKA				LR	LR	11 24 30.5	
	comp=Z,12nm,18.5s,baz=5.0,slow=36						
YKA	Yellowknife Ar	81.50	346	P	P	10 48 35.9	-0.1
YKA				LR	LR	11 24 30.5	
YKA	Yellowknife Ar	81.50	346	P	P	10 48 35.9	-0.2
COLA	College	82.10	1	eP	P	10 48 39.5	+0.3
COLA				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
COLA	College	82.10	1	eP	P	10 48 39.5	+0.3
	comp=Z,6.5nm,1.0s,mb4.5						
COLA	College	82.10	1	eP	P	10 48 39.5	+0.3
	comp=Z,6.0nm,1.0s,mb4.5						
MCK	McKinley	83.22	2	eP	P	10 48 49.2	+4.2
MCK				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.8						
MCK	McKinley	83.22	2	eP	P	10 48 49.2	+4.2
	comp=Z,12nm,1.3s,mb4.8						
FFC	Flin Flon	84.93	337	i P	P	10 48 55.2	+1.3
FFC	Flin Flon	84.93	337	eP	P	10 48 57.3	+3.4
	comp=Z,20nm,1.4s,mb5.1						
FFC	Flin Flon	84.93	337	i P	P	10 48 55.2	+1.3
ULM	Lac du Bonnet	86.27	331	P	P	10 49 02.1	+1.5
	comp=Z,1.3nm,0.6s,mb4.4,baz=0.0,slow=6.1,SNR=2.9						
ULM	Lac du Bonnet	86.27	331	P	P	10 49 02.2	+1.5
FX1	Attu Island--F	86.63	24	LR	LR	11 34 32.1	
	comp=Z,183nm,18.7s,MS4.5,baz=340,slow=40						
GUMO	Guam	98.32	68	LR	LR	11 35 26.5	
	comp=Z,155nm,21.9s,MS4.5,baz=270,slow=36						

ISCJB ***15*** *10:41:59.0±1.5, 36°.27N±0°.07×21°.41E±0°.06, h22^{km}±12^{km}, Error ellipse: s-maj=12.2km s-min=6.2km az=155.5*

CSEM ***15*** *10:42:00.7±0.8, 36°.28N×21°.52E, h27^{km}±3^{km}, ML3.7/1, Error ellipse: s-maj=13.2km s-min=8.4km az=177.0*

NEIC ***15*** *10:42:00.1, 36°.29N×21°.53E, h36^{km}, MD3.3(ATH), After ATH.*

ATH ***15*** *10:42:00.1, 36°.29N×21°.53E, h36^{km}±2^{km}, MD3.3/6*

THE ***15*** *10:42:03.2, 36°.39N×21°.89E, h12^{km}±2^{km}, ML3.7/1, Error ellipse: s-maj=5.9km s-min=2.0km az=253.0*

SKO ***15*** *10:42:23.2, 38°.10N×21°.82E, h0^{km}*

ISC 15 10:42:00.6±1.4**, 36°.28N**±0°.07×**21°.52E**±0°.06**, h22**^{km}±10^{km}**, n44, σ1^{s}.03**/63**, 2C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.64	16	P	Pb	10 42 13.2	+0.1
PYL				S	Sb	10 42 20.8	-0.8
PYL	PYLOS	0.64	16	ePN	Pb	10 42 13.2	+0.1
PYL				eSN	Sn	10 42 22.3	-1.5
PYL	PYLOS	0.64	16	ePn	Pb	10 42 13.2	+0.1
PYL				S	Sb	10 42 20.8	-0.8
PYL				eSn	Sn	10 42 22.3	-1.5
ITM	Ithomi	0.95	20	ePN	Pn	10 42 18.2	-0.5
ITM				eSN	Sn	10 42 32.0	+0.4
ITM	Ithomi	0.95	20	ePn	Pn	10 42 18.2	-0.5
ITM				eSn	Sn	10 42 32.0	+0.4
KYTH	Kithira	1.23	90	ePN	Pn	10 42 22.4	0.0
KYTH	Kithira	1.23	90	ePn	Pn	10 42 22.4	0.0
VLX	Vlachokerasia	1.29	32	ePN	Pn	10 42 23.2	0.0
VLX				eSN	Sn	10 42 40.1	+0.3
VLX	Vlachokerasia	1.29	32	ePn	Pn	10 42 23.2	0.0
VLX				eSn	Sn	10 42 40.1	+0.3
GUR	Goura	1.78	21	ePN	Pn	10 42 30.1	+0.1
GUR	Goura	1.78	21	ePn	Pn	10 42 30.1	+0.1
DID	Didima	1.84	48	P	Pn	10 42 30.2	-0.7
DID	Didima	1.84	48	ePN	Pn	10 42 30.3	-0.6
DID	Didima	1.84	48	ePn	Pn	10 42 30.3	-0.6
LAKA	Lakka	1.99	10	P	Pn	10 42 34.4	+1.5
LAKA				S	Sn	10 42 57.9	+0.8
LAKA	Lakka	1.99	10	P	Pn	10 42 34.4	+1.5
LAKA				S	Sn	10 42 57.9	+0.8
LTK	Loutraki	2.09	33	P	Pn	10 42 33.9	-0.3
LTK				S	Sn	10 42 57.6	-2.0
LTK	Loutraki	2.09	33	P	Pn	10 42 33.9	-0.3
LTK				S	Sn	10 42 57.6	-2.0
LKR	Lokris	2.64	26	P	Pn	10 42 41.2	-0.7
LKR	Lokris	2.64	26	P	Pn	10 42 41.2	-0.7
AGG	Agios Georgios	2.81	13	P	Pn	10 42 46.4	+2.2
AGG				S	Sn	10 43 18.4	+1.0
THL	Klokotos Trika	3.30	7	P	Pn	10 42 52.2	+1.3
THL	Klokotos Trika	3.30	7	P	Pn	10 42 52.2	+1.3
MEV	Metsovon	3.51	356	P	Pn	10 42 56.4	+2.7
FNA	Florina	4.50	359	P	Pn	10 43 08.3	+1.0
FNA	Florina	4.50	359	P	Pn	10 43 08.3	+1.0
GRG	Griva	4.72	8	P	Pn	10 43 10.8	+0.4
GRG	Griva	4.72	8	P	Pn	10 43 10.8	+0.4
BIA	Bitola	4.73	358	ePn	Pn	10 43 11.2	+0.6
BIA				eSg	Sn	10 43 55.5	-9.3
BIA	Bitola	4.73	358	ePn	Pn	10 43 11.2	+0.6
KRUS	Krusevo	5.08	358	ePn	Pn	10 43 15.5	+0.1
KRUS				eSg	Sn	10 44 08.7	-4.8
KRUS	Krusevo	5.08	358	ePn	Pn	10 43 15.4	0.0
VAY	Valandovo	5.10	9	ePn	Pn	10 43 15.6	0.0
VAY	Valandovo	5.10	9	ePn	Pn	10 43 15.5	-0.1
HAVL	Avola	5.19	279	Pn	Pn	10 43 07.5	-9.3
HAVL				Sn	Sn	10 44 14.7	-1.3
HMDC	Modica	5.46	279	Pn	Pn	10 43 11.0	-10
HMDC				Sn	Sn	10 44 22.9	+0.2
LTRZ	Laterza	5.68	321	Pn	Pn	10 43 24.5	+1.0
LTRZ				Sn	Sn	10 44 22.8	-5.2
LTRZ	Laterza	5.68	321	Pn	Pn	10 43 24.5	+1.0
BARS	Barje	6.53	2⇑	iPn	Pn	10 43 34.9	-0.4
STON	Ston	7.21	337	ePn	Pn	10 43 43.8	-0.8
STON				Sn	Sn	10 44 59.1	-6.6
STON	Ston	7.21	337	ePn	Pn	10 43 43.8	-0.8
GRUS	Gruza	7.62	356	ePn	Pn	10 43 47.4	-2.9
BBLS	Lazići	7.75	349	ePn	Pn	10 43 51.4	-0.6
DIVS	Divibare	7.89	352⇑	iPn	Pn	10 43 52.6	-1.4

IDC ***15*** *10:50:08.1±5.4, 38°.96N×110°.48E, h0^{km}, mb3.3/3, mb1 3.5/4, mb1mx3.4/24, mbtmp3.4/4, ML2.9/1, Error ellipse: s-maj=114.2km s-min=24.2km az=85.0*

ISC 15 10:50:10.9±4.9**, 39°.0N**±0°.1×**110°.1E**±0°.3**, h5**^{km}±27^{km}**, n5, σ1^{s}.45**/6**, mb3.1**/3**, Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZH	Lanzhou	5.73	242	ePg	Pg	10 52 01.6	+0.9
LZH				Sg	Sg	10 53 14.3	-0.7
LZH				smax			
	comp=N,61nm,1.1s						
LZH				smax			
	comp=E,36nm,0.7s						
LZH				LR	LR		
	comp=N,200nm,6.0s						
LZH				LR	LR		
	comp=Z,230nm,6.8s						
SONM	Songino Array	9.26	344	Pn	Pn	10 52 23.8	-1.1
	comp=Z,0.1nm,0.3s,baz=158,slow=13,SNR=11						
SONM				Lg		10 55 06.2	
	comp=Z,0.1nm,0.3s,baz=160,slow=28,SNR=11						
MKAR	Makanchi Array	21.73	300	P	P	10 55 03.1	+0.2
	comp=Z,0.4nm,0.9s,mb2.9,baz=102,slow=11,SNR=4.1						
CMAR	Chiang Mai Arr	22.62	208	P	P	10 55 12.0	-0.5
	comp=Z,2.4nm,0.8s,mb3.7,baz=12,slow=9.4,SNR=12						
KURK	Kurchatov	25.01	308	P	P	10 55 36.7	+1.2
	comp=Z,0.1nm,0.3s,mb2.8,baz=106,slow=9.8,SNR=2.5						

IDC 15 10:53:20.6±4.2**, 49°.67S**×**115°.30E, h0**^{km}**, mb3.8**/2**, mb1 4.0**/2**, mb1mx3.8**/13**, mbtmp3.8**/2**, Error ellipse: s-maj=553.3km s-min=66.8km az=121.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	29.77	36	P	P	10 59 28.4	-0.3
	0.5nm,0.7s,baz=206,slow=8.2,SNR=8.2						
WRA	Warramunga Arr	33.33	34	P	P	11 00 00.5	+0.4
	0.8nm,0.4s,baz=200,slow=11,SNR=15						
YKA	Yellowknife Ar	150.18	46	PKPbc	PKPbc	11 13 11.6	-0.4
	0.3nm,0.7s,baz=286,slow=2.5,SNR=6.0						

IDC ***15*** *10:53:30.0±2.9, 51°.68N×179°.37W, h0^{km}, mb3.5/4, mb1 3.9/4, mb1mx3.5/24, mbtmp3.5/4, Error ellipse: s-maj=98.1km s-min=30.2km az=8.0*

NEIC ***15*** *10:53:33.3, 51°.16N×179°.26W, h26^{km}, ML3.4(AEIC), After AEIC.*

ISCJB ***15*** *10:53:34.2±1.2, 51°.6N±0°.3×179°.3W±0°.1, h44^{km}±13^{km}, mb3.8/5, Error ellipse: s-maj=43.9km s-min=11.2km az=175.1*

ISC 15 10:53:35.4±1.5**, 51°.5N**±0°.3×**179°.3W**±0°.1**, h38**^{km}±13^{km}**, n10, σ0^{s}.95**/10**, mb3.8**/5**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMKA	Amchitka	0.88	264	eP	Pn	10 53 49.9	-1.3
ATKA	Atka Island	3.25	75	P	Pn	10 54 24.1	+0.2
SMY	Shemya	4.25	290	eP	Pn	10 54 37.2	-0.4
FX1	Attu Island--F	4.84	290	P	Pn	10 54 47.5	+1.8
SDPT	Sand Point	11.88	64	eP	Pn	10 56 22.0	0.0
	65nm,1.1s						
YKA	Yellowknife Ar	35.39	46	P	P	11 00 26.0	-1.0
	0.2nm,0.4s,mb3.4,baz=282,slow=9.4,SNR=7.1						
PDAR	Pinedale Array	46.58	72	P	P	11 01 58.8	-0.5
	1.0nm,0.6s,mb4.0,baz=314,slow=3.2,SNR=16						
TXAR	Lajitas Array	58.95	81	P	P	11 03 31.9	+1.1
	0.2nm,0.6s,mb3.3,baz=305,slow=5.5,SNR=5.1						
MKAR	Makanchi Array	59.72	308	P	P	11 03 34.9	-0.9
	0.1nm,0.3s,mb3.4,baz=57,slow=6.1,SNR=5.8						
GYA	Guiyang	59.99	276	eP	P	11 03 38.9	+0.9
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						

GUC 15 10:55:10.6±0.8**, 22°.89S**×**70°.16W, h46**^{km}±5^{km}**, ML3.7, 1C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MECH	Mejillones	0.34	231	eP	Pn	10 55 19.4	-0.3
MECH				i S	Sn	10 55 26.6	+0.4
MECH				AML	AML	10 55 27.2	
	comp=E,10μm,0.3s						
PECH	Pedro de Valdi	0.54	57⇓	eP	Pn	10 55 22.8	+0.7
PECH				i S	Sn	10 55 31.6	+1.4
PECH				AML	AML	10 55 32.9	
	comp=N,14μm,0.3s						
MACH	Maria Elena	0.79	29	eP	Pn	10 55 26.1	+0.7
MACH				i S	Sn	10 55 37.7	+1.6
TOCH	Tocopilla	0.79	358	eP	Pn	10 55 25.9	+0.5
TOCH				i S	Sn	10 55 37.5	+1.3
TOCH				AML	AML	10 55 39.0	
	comp=E,10μm,0.4s						
PB04	Plate Boundary	0.88	45⇑	iP	Pn	10 55 22.9	-3.7
PB04				i S	Sn	10 55 31.6	-6.7
PB04				AML	AML	10 55 36.3	
	comp=E,6μm,0.2s						
LVC	Limon Verde	1.19	77	eP	Pn	10 55 32.2	+1.4
LVC				i S	Sn	10 55 48.4	+2.6
CPN1	Cerro Paranal	1.74	187	eP	Pn	10 55 38.3	-0.1
CPN1				AML	AML	10 56 15.1	
	comp=E,554nm,0.5s						
HMBC	Humberston	2.61	6⇓	eP	Pn	10 55 51.3	+0.9
HMBC				AML	AML	10 56 35.4	
	comp=N,609nm,0.7s						

PRE 15 11:02:35.2±0.9**, 26°.85S**×**26°.75E, h2**^{km}**, ML3.6, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERPM	east rand prop	1.43	69	eP	Pn	11 03 03.2	+1.1
ERPM				eS	Sg	11 03 23.9	+2.8
ERPM				AML	AML	11 03 25.9	
	comp=Z,178nm,0.2s						
SEK	Senekal	1.66	152	eP	Pn	11 03 05.3	+0.1
SEK				eS	Sn	11 03 28.1	+0.9
SEK				AML	AML	11 03 31.3	
	comp=Z,406nm,0.2s						
SLR	Silverton	1.77	51	eP	Pn	11 03 07.8	+0.9
SLR				eS	Sn	11 03 30.7	+0.8
SLR				AML	AML	11 03 35.0	
	comp=Z,780nm,0.3s						
HVD	Gariep Dam	3.90	196	eP	Pn	11 03 36.7	+0.6
HVD				eS	Sn	11 04 22.3	-0.1
HVD				AML	AML	11 04 59.2	
	comp=Z,44nm,0.5s						
KSD	Kokstad	4.36	148	eP	Pn	11 03 43.1	+0.7
KSD				eS	Sn	11 04 32.6	-1.2
KSD				AML	AML	11 04 52.7	
	comp=Z,176nm,0.6s						
POGA	Pongola	4.36	98	eP	Pn	11 03 43.8	+1.3
POGA				eS	Sn	11 04 35.1	+1.2
POGA				AML	AML	11 04 58.4	
	comp=Z,82nm,0.5s						
PKA	Prieska	4.50	231	eP	Pn	11 03 44.7	+0.3
PKA				eS	Sn	11 04 36.1	-1.3
PKA				AML	AML	11 04 58.3	
	comp=Z,67nm,0.8s						
UPI	Upington	5.11	252	eP	Pn	11 03 54.1	+1.4
UPI				eS	Sn	11 04 50.7	-1.6
UPI				AML	AML	11 05 23.2	
	comp=Z,43nm,0.5s						
MOPA	Mopani	5.36	53	eP	Pn	11 03 57.0	+0.8
MOPA				eS	Sn	11 04 56.6	-2.0
MOPA				AML	AML	11 05 29.2	
	comp=Z,154nm,0.5s						
SUR	Sutherland	7.55	222	eP	Pn	11 04 27.2	+0.9
SUR				eS	Sn	11 05 49.8	-2.7

MAN 15 11:09:29, 9°.14N×**125°.66E, h6**^{km}**, mb3.5, ML2.2, MS1.6, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	0.18	193	eP	Pg	11 09 34.4	+1.8
BUTP				eS	Sg	11 09 42.9	+8.0
SCPH	Surigao	0.66	345⇑	eP	Pg	11 09 42.5	+0.8
BUKP	Musuan	1.39	205	eP	Pn	11 09 55.1	+0.2

IDC 15 11:11:21.3±12.0**, 21°.90N**×**145°.85E, h0**^{km}**, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.4**/22**, mbtmp3.4**/3**, Error ellipse: s-maj=465.5km s-min=35.5km az=76.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.08	196	P	P	11 19 23.1	-0.1
	1.2nm,1.0s,baz=17,slow=8.7,SNR=6.1						
ASAR	Alice Springs	46.76	195	P	P	11 19 52.4	-0.1
	0.2nm,0.6s,baz=20,slow=7.2,SNR=5.9						
MKAR	Makanchi Array	56.39	312	P	P	11 21 04.4	0.0
	0.3nm,0.8s,baz=102,slow=6.6,SNR=2.5						

DJA 15 11:34:22, 1°.11S×**124°.38E, h10**^{km}**, MLv4.0**/4**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	2.58	10	P	Pn	11 35 13.2	+9.4
MNI				S	Sn	11 35 34.2	-1.1
LBMI	Labuha	3.15	81	P	Pn	11 35 14.8	+3.0
LBMI				S	Sn	11 35 51.5	+2.0
TNTI	Ternate	3.52	58	P	Pn	11 35 12.8	-4.0
TNTI				S	Sn	11 35 33.2	-25
PCI	Palu	4.55	273	P	Pn	11 35 29.5	-1.4

IDC 15 11:39:52.0±1.1**, 13°.40N**×**146°.50E, h0**^{km}**, mb3.8**/6**, mb1 3.9**/6**, mb1mx3.7**/23**, mbtmp3.8**/6**, Error ellipse: s-maj=26.9km s-min=22.7km az=83.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.60	277	Pn	Pn	11 40 22.1	+0.6
	42nm,0.3s,baz=170,slow=12,SNR=11						
GUMO				Sn	Sn	11 40 44.1	+1.3
	59nm,0.3s,baz=8.2,slow=17,SNR=6.1						
WRA	Warramunga Arr	35.22	200	P	P	11 46 48.3	+0.1
	1.0nm,0.9s,baz=21,slow=9.6,SNR=4.2						
ASAR	Alice Springs	38.84	199	P	P	11 47 18.8	-0.2
	0.4nm,0.9s,baz=40,slow=7.7,SNR=4.8						
MKAR	Makanchi Array	62.73	316	P	P	11 50 19.1	+0.1
	0.5nm,0.3s,baz=90,slow=8.5,SNR=14						
KURK	Kurchatov	65.75	320	P	P	11 50 38.7	0.0
	1.6nm,0.5s,baz=101,slow=7.1,SNR=10						
BVAR	Borovoye Array	71.06	322	P	P	11 51 11.4	-0.4
	0.6nm,0.4s,baz=97,slow=7.2,SNR=4.2						
YKA	Yellowknife Ar	82.30	28	P	P	11 52 16.0	+0.8
	0.2nm,0.5s,baz=284,slow=5.2,SNR=5.7						

ISCJB ***15*** *12:15:15.7±0.4, 33°.34N±0°.02×35°.34E±0°.05, h11^{km}±4^{km}, Error ellipse: s-maj=6.8km s-min=3.2km az=18.5*

GII ***15*** *12:15:15.8±0.5, 33°.25N×35°.43E, h1^{km}±2^{km}, Md3.8/4, Mm3.3/3*

CSEM ***15*** *12:15:16.1±0.1, 33°.37N×35°.37E, h5^{km}, ML4.0, Error ellipse: s-maj=4.1km s-min=2.2km az=90.0*

GRAL ***15*** *12:15:16.9±0.4, 33°.31N×35°.42E, h0^{km}±5^{km}, MD4.0*

HLW ***15*** *12:15:18.9, 33°.01N×35°.66E, h15^{km}, Mb3.9*

ISC 15 12:15:16.3±0.4**, 33°.35N**±0°.02×**35°.40E**±0°.05**, h8**^{km}±4^{km}**, n69, σ0^{s}.91**/79**, 1C, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.15	336	eP	Pg	12 15 20.4	+0.8
MATL	Matirih	0.15	336	eP	Pg	12 15 20.4	+0.9
KSDI	Kefar Szold	0.27	126	Pg	Pg	12 15 21.1	-0.5
KSDI				Sg	Sg	12 15 25.2	+0.1
HNTI	Hanita	0.33	216	Pg	Pg	12 15 22.7	0.0
HNTI				Sg	Sg	12 15 27.6	+0.6
MMA0	Mount Meron ar	0.33	180	Pg	Pg	12 15 22.2	-0.6
MMA0				Sg	Sg	12 15 27.4	+0.2
RCY	Rachaya	0.37	69	eP	Pg	12 15 23.9	+0.3
RCY	Rachaya	0.37	69	eP	Pg	12 15 23.9	+0.3
KSHT	Keshet	0.50	137	Pg	Pg	12 15 25.6	-0.4
BEYL	Beyrouth	0.53	8	eP	Pg	12 15 27.1	+0.6
BEYL	Beyrouth	0.53	8	eP	Pg	12 15 27.1	+0.6
BHL	Bhannes	0.59	21	eP	Pg	12 15 28.0	+0.3
BHL	Bhannes	0.59	21	eP	Pg	12 15 28.0	+0.2
MMLI	Mount Malkishu	0.91	179	Pg	Pg	12 15 32.8	-1.0
HWQ	Hawqa	1.03	26	eP	Pg	12 15 35.7	-0.4
HWQ				eS	Sg	12 15 50.0	+0.5
HWQ	Hawqa	1.03	26	eP	Pg	12 15 35.7	-0.4
HWQ				eS	Sg	12 15 50.0	+0.5
SLTI	Sal'it	1.15	196	Pg	Pg	12 15 37.2	-1.1
SLTI				Sg	Sg	12 15 53.5	+0.3
FKH	Fakeheh	1.21	43	eP	Pb	12 15 39.4	-0.2
FKH	Fakeheh	1.21	43	eP	Pb	12 15 39.4	-0.2
YTIR	Yattir	2.00	187	Pn	Pn	12 15 50.9	+0.5
RTMI	Retamim	2.37	195	Pn	Pn	12 15 55.9	+0.4
RTMI				Sn	Sn	12 16 26.8	+2.1
LFK	Lefkose	2.47	322	ePN	Pn	12 15 57.0	+0.1
LFK	Lefkose	2.47	322	ePn	Pn	12 15 57.0	+0.1
KZIT	Kziot	2.58	200	Pn	Pn	12 15 58.9	+0.5
LEF	Lefka	2.73	311	ePN	Pn	12 16 03.1	+2.6
LEF	Lefka	2.73	311	ePn	Pn	12 16 03.1	+2.6
RSH		2.77	211	P	Pn	12 16 00.7	-0.4
RSH				S	Sn	12 16 31.5	-3.3
ZFRI	Zfri	2.79	184	Pn	Pn	12 16 01.3	0.0
HTY	Hatay	2.83	12	ePN	Pn	12 16 02.1	+0.3
HTY	Hatay	2.83	12	ePn	Pn	12 16 02.1	+0.2
IKL	Isikli	3.21	334	ePN	Pn	12 16 05.8	-1.3
IKL	Isikli	3.21	334	ePn	Pn	12 16 05.8	-1.3
KRTS	Karatas	3.22	360	ePN	Pn	12 16 07.0	-0.2
KRTS	Karatas	3.22	360	ePn	Pn	12 16 07.0	-0.2
AMAG	Maghara	3.28	215	P	Pn	12 16 07.6	-0.4
AMAG	Maghara	3.28	215	P	Pn	12 16 07.6	-0.4

MERS	Mersin	3.58	349	*e*PN	Pn	12 16 11.5	-0.7
MERS	Mersin	3.58	349	*e*Pn	Pn	12 16 11.5	-0.7
EIL	Elat	3.69	186	Pn	Pn	12 16 14.5	+0.9
KARA	Karaisali	3.91	356	*e*PN	Pn	12 16 15.7	-1.1
KARA	Karaisali	3.91	356	*e*Pn	Pn	12 16 15.7	-1.0
GAZ	Gaziantep	4.09	21	*e*PN	Pn	12 16 22.0	+2.8
GAZ	Gaziantep	4.09	21	*e*Pn	Pn	12 16 22.0	+2.8
KOZT	Kozan	4.14	5	*e*PN	Pn	12 16 19.4	-0.4
KMRS	Kahramanmaras	4.32	16	*e*PN	Pn	12 16 23.7	+1.3
KMRS	Kahramanmaras	4.32	16	*e*Pn	Pn	12 16 23.7	+1.3
HDMB	Hadim	4.33	327	*e*PN	Pn	12 16 22.7	+0.3
HDMB	Hadim	4.33	327	*e*Pn	Pn	12 16 22.7	+0.3
KOT	Kottamia	4.57	223	P	Pn	12 16 26.1	+0.3
KOT				S	Sn	12 17 15.7	-3.5
KOT	Kottamia	4.57	223	P	Pn	12 16 26.1	+0.3
KOT				S	Sn	12 17 15.7	-3.5
GLL	Jalalah	4.91	221	P	Pn	12 16 29.9	-0.6
GLL	Jalalah	4.91	221	P	Pn	12 16 29.9	-0.5
URFA	Urfa	4.95	33	*e*P	Pn	12 16 36.3	+5.3
HSAF	As Saff	4.96	223	P	Pn	12 16 31.1	0.0
HSAF	As Saff	4.96	223	P	Pn	12 16 31.1	-0.1
SULT	Sultanhani-AKS	5.08	343	*e*P	Pn	12 16 31.1	-1.6
SULT	Sultanhani-AKS	5.08	343	*e*P	Pn	12 16 31.2	-1.5
AYT	Al ‘Ayyat	5.13	226	P	Pn	12 16 33.7	+0.1
AYT	Al ‘Ayyat	5.13	226	P	Pn	12 16 33.7	+0.2
KONT	Konya--Tatoy	5.21	332	*e*P	Pn	12 16 34.9	+0.3
KONT	Konya--Tatoy	5.21	332	*e*P	Pn	12 16 34.9	+0.3
SARI	SarD1z-Kayseri	5.42	11	*e*P	Pn	12 16 34.9	-2.6
HNAT	Natroun	5.51	229	⇑*i*P	Pn	12 16 39.2	+0.4
HNAT	Natroun	5.51	229	P	Pn	12 16 39.2	+0.4
MALT	Malatya	5.53	26	*e*P	Pn	12 16 43.6	+4.7
MYA	Malataya	5.54	25	*e*P	Pn	12 16 43.1	+4.0
KIZT	Kizilcal	6.21	334	*e*P	Pn	12 16 47.9	-0.5
KIZT	Kizilcal	6.21	334	*e*P	Pn	12 16 47.9	-0.4
AWBH		7.50	230	P	Pn	12 17 06.1	0.0
AWBH		7.50	230	P	Pn	12 17 06.1	0.0

*ISCJB **15** 12:28:03.9±0.4, 39°.23N±0°.01×28°.08E±0°.02, h6^{km}±3^{km}, Error ellipse: s-maj=2.9km s-min=2.4km az=27.6*
*DDA **15** 12:28:03.4, 39°.22N×28°.10E, h7^{km}±4^{km}, Md3.5*
*ISK **15** 12:28:03.5, 39°.23N×28°.08E, h6^{km}, MD3.1*
*ATH **15** 12:28:04.6, 39°.28N×27°.99E, h20^{km}, MD3.4/3*
*CSEM **15** 12:28:04.3±0.1, 39°.22N×28°.08E, h8^{km}, MD3.5, Error ellipse: s-maj=2.3km s-min=1.8km az=116.0*
*THE **15** 12:28:05.2, 39°.19N×28°.19E, h18^{km}±6^{km}, ML3.8/4, Error ellipse: s-maj=8.5km s-min=1.6km az=92.0*
ISC 15 12:28:04.5±0.3, **39°.22N**±0°.02×**28°.09E**±0°.02, **h9**^{km}±2^{km}, **n103, σ0^{s}.68**/149, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKHS	Akhisar	0.40	212	*i* P	Pg	12 28 11.8	-0.5
AKHS				*i* S	Sg	12 28 18.1	+0.5
AKHS	Akhisar	0.40	212	*i* P	Pg	12 28 11.8	-0.5
AKHS				*i* S	Sg	12 28 18.1	+0.5
AKS	Akhisar	0.40	212	*e*PG	Pg	12 28 11.9	-0.4
AKS				*e*SG	Sg	12 28 18.4	+0.8
AKS	Akhisar	0.40	212	*e*Pg	Pg	12 28 11.9	-0.4
AKS				*e*Sg	Sg	12 28 18.4	+0.8
BALB	Balikesir	0.45	339	*e*PG	Pg	12 28 13.1	-0.1
BALB				*e*SG	Sg	12 28 19.3	+0.2
BALB	Balikesir	0.45	339	*e*Pg	Pg	12 28 13.1	-0.1
BALB				*e*Sg	Sg	12 28 19.3	+0.2
DURS	Dursunbey	0.48	38	*i* P	Pg	12 28 13.2	-0.7
DURS				*i* S	Sg	12 28 20.4	+0.1
DURS	Dursunbey	0.48	38	*i* P	Pg	12 28 13.2	-0.7
DURS				*i* S	Sg	12 28 20.4	+0.1
BALY	Balya	0.63	325	*i* P	Pg	12 28 16.1	-0.6
BALY				*i* S	Sg	12 28 25.5	+0.6
BALY	Balya	0.63	325	*i* P	Pg	12 28 16.1	-0.6
BALY				*i* S	Sg	12 28 25.5	+0.6
KULA	Kula-Manisa	0.84	147	*e*PG	Pg	12 28 20.1	-0.5
KULA	Kula-Manisa	0.84	147	*e*Pg	Pg	12 28 20.1	-0.4
IZM	Izmir	1.04	218	*e*PG	Pg	12 28 24.1	-0.4
IZM				*e*SG	Sg	12 28 38.5	+0.4
IZM	Izmir	1.04	218	*e*Pg	Pg	12 28 24.1	-0.4
IZM				*e*Sg	Sg	12 28 38.5	+0.5
KCT	Karacabey	1.06	11	*e*PG	Pg	12 28 24.0	-0.9
KCT				*e*SG	Sg	12 28 38.5	-0.3
KCT	Karacabey	1.06	11	*e*Pg	Pg	12 28 24.0	-0.9
KCT				*e*Sg	Sg	12 28 38.5	-0.3
AYVA	Ayvalik	1.09	275	*i* P	Pg	12 28 25.1	-0.2
AYVA				*i* S	Sg	12 28 40.5	+1.0
AYVA	Ayvalik	1.09	275	*i* P	Pg	12 28 25.1	-0.2
AYVA				*i* S	Sg	12 28 40.5	+1.1
GDZ	Gediz	1.09	96	*i* P	Pg	12 28 25.0	-0.4
GDZ				*i* S	Sg	12 28 39.7	+0.1
GDZ	Gediz	1.09	96	*i* P	Pg	12 28 25.0	-0.5
GDZ				*i* S	Sg	12 28 39.7	0.0
EDC	Edincik	1.14	351	*e*PN	Pn	12 28 25.4	-1.1
EDC				*e*SN	Sn	12 28 41.7	-0.6
EDC	Edincik	1.14	351	*e*Pn	Pn	12 28 25.4	-1.2
BNT	Bandirma	1.14	354	*e*PN	Pn	12 28 25.5	-1.1
BNT				*e*SN	Sn	12 28 41.7	-0.7
BNT	Bandirma	1.14	354	*e*Pn	Pn	12 28 25.5	-1.1
BLCB	Balcova	1.17	225	*e*PN	Pn	12 28 26.2	-0.8
BLCB				*e*SN	Sn	12 28 42.8	-0.2
BLCB	Balcova	1.17	225	P	Pb	12 28 25.9	-0.9
BLCB				S	Sb	12 28 42.0	0.0
BLCB	Balcova	1.17	225	P	Pb	12 28 25.9	-0.9
BLCB	Balcova	1.17	225	*e*Pn	Pn	12 28 26.2	-0.7
BLCB				S	Sb	12 28 42.0	0.0
BLCB				*e*Sn	Sn	12 28 42.8	-0.2
ULDT	Uludag	1.23	41	*i* P	Pn	12 28 26.7	-1.1
ULDT				*i* S	Sb	12 28 44.1	+0.3
ULDT	Uludag	1.23	41	*i* P	Pn	12 28 26.7	-1.1
ULDT				*i* S	Sb	12 28 44.1	+0.3
KHAL	Karahalli	1.39	127	*i* P	Pn	12 28 29.8	-0.3
KHAL				*i* S	Sb	12 28 48.8	+0.4
KHAL	Karahalli	1.39	127	*i* P	Pn	12 28 29.8	-0.2
KHAL				*i* S	Sb	12 28 48.8	+0.4
PRK	Paraskevi	1.41	272	P	Pn	12 28 29.7	-0.6
PRK				S	Sn	12 28 50.0	+1.0
PRK	Paraskevi	1.41	272	*e*PN	Pn	12 28 29.8	-0.5
PRK				*e*SN	Sn	12 28 48.2	-0.8
PRK	Paraskevi	1.41	272	*e*Pn	Pn	12 28 29.8	-0.5
PRK				*e*Sn	Sn	12 28 48.2	-0.8
KHL	Karahalli	1.44	128	*e*PN	Pn	12 28 30.3	-0.3
KHL	Karahalli	1.44	128	*e*Pn	Pn	12 28 30.3	-0.4
URLA	Izmir	1.45	234	*i* P	Pn	12 28 29.5	-1.3
URLA				*i* S	Sn	12 28 51.5	+1.6
URLA	Izmir	1.45	234	*i* P	Pn	12 28 29.5	-1.3
URLA				*i* S	Sn	12 28 51.5	+1.6
LPK	Lapseki	1.54	319	*e*PN	Pn	12 28 31.9	-0.2
LPK				*e*SN	Sn	12 28 52.7	+0.6
LPK	Lapseki	1.54	319	*e*Pn	Pn	12 28 31.9	-0.2
LPK				*e*Sn	Sn	12 28 52.7	+0.5
AYDN	Tasoluk	1.56	186	*i* P	Pn	12 28 31.6	-0.9
AYDN				*i* S	Sn	12 28 50.3	-2.6
AYDN	Tasoluk	1.56	186	*i* P	Pn	12 28 31.6	-0.8
AYDN				*i* S	Sn	12 28 50.3	-2.5
ALT	Altintas	1.58	95	*e*PN	Pn	12 28 32.4	-0.3
ALT	Altintas	1.58	95	*e*Pn	Pn	12 28 32.4	-0.3
SART	Tekirdag	1.62	335	*i* P	Pn	12 28 32.5	-0.8
SART				*i* S	Sn	12 28 54.0	-0.3
SART	Tekirdag	1.62	335	*i* P	Pn	12 28 32.5	-0.7
SART				*i* S	Sn	12 28 54.0	-0.3
GCAM	G?zelcaml?	1.66	204	*e*P	Pn	12 28 34.6	+0.9
GCAM	G?zelcaml?	1.66	204	*e*P	Pn	12 28 34.6	+0.9
YLV	Yalova	1.67	36	*e*PN	Pn	12 28 34.1	+0.3
YLV	Yalova	1.67	36	*e*Pn	Pn	12 28 34.2	+0.3
CAVI	Cavuskoy	1.67	54	*e*PN	Pn	12 28 34.6	+0.7
CAVI	Cavuskoy	1.67	54	*e*Pn	Pn	12 28 34.7	+0.8
BOZC	Bozcaada	1.69	292	*i* P	Pn	12 28 33.9	-0.3
BOZC				*i* S	Sn	12 28 55.2	-0.7
SIGR	SIGRI	1.73	270	P	Pn	12 28 34.1	-0.6
SIGR				S	Sn	12 28 57.0	+0.1
SIGR	SIGRI	1.73	270	P	Pn	12 28 34.1	-0.6
SIGR				S	Sn	12 28 57.0	+0.1
ADVT	Abdulvahap	1.76	46	*e*PN	Pn	12 28 34.8	-0.3
ADVT	Abdulvahap	1.76	46	*e*Pn	Pn	12 28 34.8	-0.3
SMG	Samos	1.80	213	*e*PN	Pn	12 28 36.9	+1.2
SMG	Samos	1.80	213	*e*Pn	Pn	12 28 36.9	+1.2
TKR	Tekirdag	1.82	347	*e*PN	Pn	12 28 36.3	+0.4
TKR	Tekirdag	1.82	347	*e*Pn	Pn	12 28 36.3	+0.4
MLSB	Milas	1.94	187	*e*PN	Pn	12 28 37.7	+0.1
MLSB	Milas	1.94	187	*e*Pn	Pn	12 28 37.7	+0.1
GADA	Gvkgeada	1.94	301	*e*PN	Pn	12 28 38.6	+1.0
GADA	Gvkgeada	1.94	301	*e*Pn	Pn	12 28 38.6	+0.9
ISK	Istanbul-Kandi	1.99	22	*e*PN	Pn	12 28 39.1	+0.8
ISK	Istanbul-Kandi	1.99	22	*e*Pn	Pn	12 28 39.1	+0.8
HRT	Hereke	2.01	37	*e*PN	Pn	12 28 38.7	+0.1
HRT	Hereke	2.01	37	*e*Pn	Pn	12 28 38.7	+0.1
SLVT	Silivri	2.01	3	*e*PN	Pn	12 28 39.1	+0.5
SLVT	Silivri	2.01	3	*e*Pn	Pn	12 28 39.1	+0.5
BGKT	Bogazkoy	2.03	15	*e*PN	Pn	12 28 39.5	+0.6
BGKT	Bogazkoy	2.03	15	*e*Pn	Pn	12 28 39.5	+0.7
SHUT	Suhut-Afyon	2.04	108	*e*PN	Pn	12 28 39.5	+0.6
SHUT	Suhut-Afyon	2.04	108	*e*Pn	Pn	12 28 39.5	+0.6
CTKS	Kestanelik-??a	2.04	9	*e*PN	Pn	12 28 39.5	+0.6
CTKS	Kestanelik-??a	2.04	9	*e*Pn	Pn	12 28 39.5	+0.5
EYL	Eskiyayla	2.08	49	*e*PN	Pn	12 28 40.5	+0.9
YER	Yerkesik	2.09	176	*e*PN	Pn	12 28 39.8	+0.2
YER	Yerkesik	2.09	176	*e*Pn	Pn	12 28 39.8	+0.2
ENEZ	Enez	2.12	316	*e*PN	Pn	12 28 40.5	+0.4
ENEZ	Enez	2.12	316	*e*Pn	Pn	12 28 40.5	+0.4
KLYT	Kilyos	2.16	20	*e*PN	Pn	12 28 41.4	+0.8
KLYT	Kilyos	2.16	20	*e*Pn	Pn	12 28 41.4	+0.8
ESKT	Eskisehir	2.16	81	*e*PN	Pn	12 28 40.7	0.0
ESKT	Eskisehir	2.16	81	*e*Pn	Pn	12 28 40.7	0.0
BODT	Bodrum	2.24	196	*e*PN	Pn	12 28 42.3	+0.6
BODT	Bodrum	2.24	196	*e*Pn	Pn	12 28 42.3	+0.6
CTYL	Yal??k??y-??at	2.26	4	*e*PN	Pn	12 28 42.3	+0.3
CTYL	Yal??k??y-??at	2.26	4	*e*Pn	Pn	12 28 42.3	+0.3
SILT	Sile	2.27	31	*e*PN	Pn	12 28 42.9	+0.8
SILT	Sile	2.27	31	*e*Pn	Pn	12 28 42.9	+0.8
ALN	Alexandroupoli	2.29	318	P	Pn	12 28 42.1	-0.3
ALN				S	Sn	12 29 10.8	0.0
ALN	Alexandroupoli	2.29	318	P	Pn	12 28 42.1	-0.3
ALN				S	Sn	12 29 10.8	0.0
LIA	Limnos Island	2.34	288	P	Pn	12 28 43.4	+0.3
LIA				S	Sn	12 29 11.7	-0.3
LIA	Limnos Island	2.34	288	P	Pn	12 28 43.4	+0.3
LIA				S	Sn	12 29 11.7	-0.3
MDU	Mudurnu	2.71	62	*e*PN	Pn	12 28 49.2	+1.0
MDU	Mudurnu	2.71	62	*e*Pn	Pn	12 28 49.2	+1.0
RDO	Rodhopi	2.74	315	*e*PN	Pn	12 28 48.6	0.0
RDO	Rodhopi	2.74	315	*e*Pn	Pn	12 28 48.6	0.0
EDRB	Edirne	2.82	339	*e*PN	Pn	12 28 50.6	+0.9
EDRB	Edirne	2.82	339	*e*Pn	Pn	12 28 50.6	+1.0

*ISCJB **15** 12:34:43.5±0.8, 13°.99N±0°.05×43°.18E±0°.03, h4^{km}±8^{km}, Error ellipse: s-maj=8.9km s-min=5.4km az=0.2*
*CSEM **15** 12:34:43.5, 13°.99N×43°.18E, h22^{km}, ML3.6, After DHMR*
*DHMR **15** 12:34:43.5±1.2, 13°.99N×43°.18E, h22^{km}±5^{km}, ML3.6*
ISC 15 12:34:44.0±0.7, **13°.96N**±0°.06×**43°.18E**±0°.03, **h11**^{km}±8^{km}, **n12, σ0^{s}.82**/22, **2C-4D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZUQR	Zugar Island	0.42	273	⇓*i*P	Pg	12 34 52.0	-0.2
ZUQR				*i* S	Sg	12 34 57.6	-0.2
ZUQR				AML	AML	12 34 58.4	
	comp=E,5μm,0.3s						
ZUQR	Zugar Island	0.42	273	⇓*i*P	Pg	12 34 52.0	-0.2
ZUQR				*i* S	Sg	12 34 57.6	-0.2
	comp=E,3μm,0.3s						
HNSH	Hunish Island	0.52	239	⇓*i*P	Pg	12 34 54.0	-0.2
HNSH				*i* S	Sg	12 35 01.7	+0.5
HNSH	Hunish Island	0.52	239	⇓*i*P	Pg	12 34 54.0	-0.2
HNSH				*i* S	Sg	12 35 01.7	+0.5
UDYN	Al ‘Udayn	0.77	90	⇑*i*P	Pg	12 34 58.7	-0.1
UDYN				*i* S	Sg	12 35 09.5	+0.7
TRBA	At Turbah	1.16	128	⇑*i*P	Pb	12 35 05.2	-0.9
TRBA				*i* S	Sb	12 35 21.0	-0.2
TRBA				AML	AML	12 35 21.4	
	comp=N,1μm,0.3s						
DHBB	Dhamar BB	1.32	63	*i* P	Pn	12 35 07.3	-1.0
DHBB				*i* S	Sb	12 35 24.6	-1.0
DHBB	Dhamar BB	1.32	63	*i* P	Pn	12 35 07.3	-1.0
DHBB				*i* S	Sb	12 35 24.6	-1.1
HAJJ	Hajjah	1.77	13	*i* S	Sn	12 35 37.7	+0.6
HAJJ				AML	AML	12 35 38.8	
	comp=Z,641nm,0.2s						
HAJJ	Hajjah	1.77	13	*i* S	Sn	12 35 37.7	+0.6
	comp=Z,321nm,0.2s						
BDHA	Al Bayda’	2.32	89	*i* P	Pn	12 35 23.5	+1.5
BDHA				*i* S	Sn	12 35 54.1	+3.6
BDHA				AML	AML	12 36 00.6	
	comp=E,321nm,0.6s						
BDHA	Al Bayda’	2.32	89	*i* P	Pn	12 35 23.5	+1.5
BDHA				*i* S	Sn	12 35 54.1	+3.6
	comp=E,160nm,0.6s						

*THE **15** 13:09:48.2, 35°.45N×26°.73E, h0^{km}±10^{km}, Error ellipse: s-maj=27.8km s-min=1.6km az=105.0*
*ATH **15** 13:09:48.9, 35°.50N×26°.66E, h29^{km}±14^{km}, MD3.0/3*
*ISCJB **15** 13:09:49.5±0.8, 35°.54N±0°.07×26°.60E±0°.04, h5^{km}±9^{km}, Error ellipse: s-maj=11.9km s-min=4.1km az=160.4*
*CSEM **15** 13:09:51.6±0.2, 35°.51N×26°.45E, h20^{km}, MD3.0, Error ellipse: s-maj=9.0km s-min=4.4km az=142.0*
*ISK **15** 13:09:52.1, 35°.79N×26°.63E, h5^{km}, MD3.3*
ISC 15 13:09:49.9±0.7, **35°.56N**±0°.06×**26°.60E**±0°.04, **h5**^{km}±7^{km}, **n30, σ1^{s}.23**/39, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.46	91	*e*PB	Pg	13 09 58.2	-0.5
KARP				*e*SB	Sg	13 10 04.7	0.0
ZKR	Zakros	0.54	215	P	Pg	13 09 59.6	-0.6
ZKR				S	Sg	13 10 07.2	0.0
ZKR	Zakros	0.54	215	P	Pg	13 09 59.6	-0.6
ZKR				S	Sg	13 10 07.2	0.0
NPS	Neapolis	0.85	250	*e*PN	Pg	13 10 06.4	+0.1
NPS				*e*SN	Sg	13 10 17.9	+0.5
NPS	Neapolis	0.85	250	*e*Pn	Pg	13 10 06.4	+0.1
NPS				*e*Sn	Sg	13 10 17.9	+0.5
THR6	Thira Island,	1.26	310	P	Pg	13 10 13.7	-0.3
THR6	Thira Island,	1.26	310	P	Pg	13 10 13.7	-0.3
THR5	Thira Island,	1.33	311	P	Pn	13 10 14.2	-0.9
THR5	Thira Island,	1.33	311	P	Pn	13 10 14.2	-0.9
ARG	Arkhangelos	1.41	62	*e*PN	Pn	13 10 14.3	-1.9
ARG				*e*SN	Sn	13 10 32.9	-2.2
DAT	Datca	1.42	34	*e*PN	Pn	13 10 14.6	-1.7
DAT				*e*SN	Sn	13 10 34.5	-0.9
DAT	Datca	1.42	34	*e*Pn	Pn	13 10 14.6	-1.7
SIVA	Sivas	1.56	250	P	Pn	13 10 17.3	-0.9
SIVA				S	Sn	13 10 39.7	+0.9
SIVA	Sivas	1.56	250	P	Pn	13 10 17.3	-0.9
SIVA				S	Sn	13 10 39.7	+0.9
BODT	Bodrum	1.61	21	*e*PN	Pn	13 10 20.3	+1.3
BODT	Bodrum	1.61	21	*e*Pn	Pn	13 10 20.3	+1.3
MLSB	Milas	1.98	28	*e*PN	Pn	13 10 24.6	+0.5
MLSB	Milas	1.98	28	*e*Pn	Pn	13 10 24.6	+0.5
DALT	Dalyan (Mudla)	2.05	53	*e*PN	Pn	13 10 27.1	+2.1
DALT	Dalyan (Mudla)	2.05	53	*e*Pn	Pn	13 10 27.1	+2.1
YER	Yerkesik	2.08	40	*e*PN	Pn	13 10 26.7	+1.3
YER	Yerkesik	2.08	40	*e*Pn	Pn	13 10 26.7	+1.2
KARN	Karanos	2.19	267	P	Pn	13 10 25.7	-1.3
KARN	Karanos	2.19	267	P	Pn	13 10 25.7	-1.3
FETY	Fethiye	2.29	61	*e*PN	Pn	13 10 30.7	+2.5
FETY	Fethiye	2.29	61	*e*Pn	Pn	13 10 30.7	+2.5
ELL	Elmali	2.93	65	*e*PN	Pn	13 10 40.0	+2.8
ELL	Elmali	2.93	65	*e*Pn	Pn	13 10 40.0	+2.8
KULA	Kula-Manisa	3.38	29	*e*PN	Pn	13 10 44.0	+0.7
KULA	Kula-Manisa	3.38	29	*e*Pn	Pn	13 10 44.0	+0.6

DDA 15 13:09:49.9, 36°.34N×40°.84E, h4^{km}±4^{km}, Md3.1, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARD	Mardin	0.97	357	*i* P	Pg	13 10 09.0	+0.5
MARD				*i* S	Sg	13 10 23.6	+2.6
BEST	Besiri	1.58	13	*i* P	Pn	13 10 19.4	+0.7
BEST				*i* S	Sg	13 10 42.0	+1.3
DIYA	Diyarbakir	1.68	340	*i* P	Pn	13 10 21.8	+1.8
DIYA				*i* S	Sg	13 10 44.7	+0.9
URFA	Urfa	1.95	305	*e*PN	Pg	13 10 26.1	-1.2
MALT	Malatya	2.75	316	*e*PN	Pg	13 10 41.9	-0.7
MYA	Malataya	2.76	317	*e*PN	Pg	13 10 42.8	0.0
GZT	Gaziantep	2.81	292	*e*P	Pg	13 10 43.5	-0.2
SARI	SarD1z-Kayseri	4.03	307	*e*PN	Pn	13 10 59.4	+7.0

*GII **15** 13:26:50.3±0.5, 33°.25N×35°.43E, h1^{km}±1^{km}, Md3.6/11*
*CSEM **15** 13:26:50.8±0.2, 33°.33N×35°.38E, h2^{km}, ML3.7, Error ellipse: s-maj=6.7km s-min=3.6km az=103.0*
*ISCJB **15** 13:26:50.2±0.4, 33°.33N±0°.02×35°.41E±0°.03, h9^{km}±3^{km}, Error ellipse: s-maj=4.6km s-min=2.8km az=25.9*
*HLW **15** 13:26:51.7, 33°.44N×35°.52E, h25^{km}, Mb3.9*
*GRAL **15** 13:26:51.5±0.3, 33°.31N×35°.42E, h0^{km}±106^{km}, MD3.7*
*NSSC **15** 13:26:52, 33°.28N×35°.53E, h20^{km}±4^{km}*
ISC 15 13:26:50.9±0.4, **33°.32N**±0°.02×**35°.42E**±0°.03, **h4**^{km}±4^{km}, **n57, σ0^{s}.96**/76, **6D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.18	337	*e*P	Pg	13 26 54.8	+0.4
MATL	Matirih	0.18	337	*e*P	Pg	13 26 54.8	+0.3
KSDI	Kefar Szold	0.24	122	Pg	Pg	13 26 55.5	0.0
KSDI				Sg	Sg	13 27 00.3	+1.7
HRI	Mount Hermon	0.27	101	Pg	Pg	13 26 56.6	+0.5
HRI				Sg	Sg	13 27 02.2	+2.6
MMA0B	Mount Meron ar	0.30	182	Pg	Pg	13 26 56.2	-0.5
MMA0B				Sg	Sg	13 27 01.9	+1.2
MMB1	Mount Meron ar	0.30	181	Pg	Pg	13 26 56.7	0.0
MMC5	Mount Meron ar	0.31	181	Pg	Pg	13 26 56.7	-0.1
RCY	Rachaya	0.37	64	*e*P	Pg	13 26 58.5	+0.4
RCY	Rachaya	0.37	64	*e*P	Pg	13 26 58.5	+0.4
BRBR	Barbar	0.46	78	⇓P	Pg	13 26 59.0	-0.6
BRBR				⇓S	Sg	13 27 06.0	+0.4
KSHT	Keshet	0.47	135	Pg	Pg	13 27 00.2	+0.3
BEYL	Beyrouth	0.55	7	*e*P	Pg	13 27 01.6	+0.1
BEYL	Beyrouth	0.55	7	*e*P	Pg	13 27 01.6	+0.1
BHL	Bhannes	0.61	19	*e*P	Pg	13 27 02.5	-0.2
BHL	Bhannes	0.61	19	*e*P	Pg	13 27 02.5	-0.2
BLGI	Bet Lehem HaGe	0.61	198	Pg	Pg	13 27 02.6	-0.1
BLGI				Sg	Sg	13 27 12.1	+1.5
QASN	Qassioun	0.75	73	⇓P	Pg	13 27 04.0	-1.2
QASN				⇑S	Sg	13 27 15.0	0.0
OFRI	‘Ofer	0.79	208	Pg	Pg	13 27 05.8	-0.1
TCHB	Talchebab	0.80	144	⇑P	Pg	13 27 05.0	-1.2
TCHB				⇑S	Sg	13 27 16.0	-0.5
TOTH	TOTAH	0.85	87	⇓P	Pg	13 27 07.0	-0.1
TOTH				⇑S	Sg	13 27 17.0	-1.1
MMLI	Mount Malkishu	0.88	180	Pg	Pg	13 27 07.0	-0.7
MMLI				Sg	Sg	13 27 19.6	+0.5
HWQ	Hawqa	1.05	25	*e*P	Pg	13 27 10.5	-0.6
HWQ				*e*S	Sg	13 27 24.4	-0.4
HWQ	Hawqa	1.05	25	*e*P	Pg	13 27 10.5	-0.6
HWQ				*e*S	Sg	13 27 24.4	-0.3
HMDT	Nahal Hemdat	1.07	175	Pg	Pg	13 27 10.5	-0.8
HMDT				Sg	Sg	13 27 26.4	+1.2
SLTI	Sal’it	1.12	197	Pg	Pg	13 27 11.6	-0.8
SLTI				Sg	Sg	13 27 27.9	+1.0
SALA	Sala	1.26	118	⇓P	Pg	13 27 13.0	-2.0
SALA				⇓S	Sg	13 27 29.0	-2.4
DSI	Dead Sea	1.75	181	Pn	Pn	13 27 21.2	-0.7
DSI				Sn	Sn	13 27 45.6	+1.0
YTIR	Yattir	1.97	188	Pn	Pn	13 27 25.4	+0.4
MZDA	Masada	2.00	181	Pn	Pn	13 27 25.6	+0.1
MZDA				Sn	Sn	13 27 52.5	+1.4
RTMI	Retamim	2.34	195	Pn	Pn	13 27 30.7	+0.6
RSH		2.76	212	P	Pn	13 27 35.4	-0.5
RSH				S	Sn	13 28 07.6	-2.0
ZFRI	Zfri	2.77	184	Pn	Pn	13 27 35.8	-0.2
HTY	Hatay	2.86	12	*e*PN	Pn	13 27 47.1	+10
PRNI	Paran	2.98	187	Pn	Pn	13 27 38.9	0.0
KRMI	Paran Flat	3.25	191	Pn	Pn	13 27 42.6	0.0
AMAG	Maghara	3.26	216	P	Pn	13 27 42.4	-0.4
AMAG				S	Sn	13 28 19.4	-2.8
AMAG	Maghara	3.26	216	P	Pn	13 27 42.4	-0.4
AMAG				S	Sn	13 28 19.4	-2.7
HNKL	Nakhl	3.59	200	P	Pn	13 27 47.2	-0.1
HNKL	Nakhl	3.59	200	P	Pn	13 27 47.2	-0.2
SUZ		4.11	213	P	Pn	13 27 54.5	+0.1
SUZ		4.11	213	P	Pn	13 27 54.5	0.0
GAZ	Gaziantep	4.12	20	*e*PN	Pn	13 27 56.2	+1.6
KOZT	Kozan	4.17	4	*e*PN	Pn	13 28 05.3	+10
KMRS	Kahramanmaras	4.35	16	*e*PN	Pn	13 27 59.4	+1.6
HHAG	Hagoal	4.39	221	P	Pn	13 27 58.5	+0.2
HHAG	Hagoal	4.39	221	P	Pn	13 27 58.5	+0.2
GLL	Jalalah	4.89	221	P	Pn	13 28 05.0	-0.3
GLL	Jalalah	4.89	221	P	Pn	13 28 04.9	-0.4
HKAT	Jabal Katrina	4.94	195	P	Pn	13 28 05.4	-0.4
HKAT	Jabal Katrina	4.94	195	P	Pn	13 28 05.4	-0.4
HSAF	As Saff	4.95	223	P	Pn	13 28 05.7	-0.3
HSAF	As Saff	4.95	223	P	Pn	13 28 05.7	-0.3
URFA	Urfa	4.96	33	*e*PN	Pn	13 27 56.6	-10
SARI	SarD1z-Kayseri	5.45	11	*e*PN	Pn	13 28 14.9	+2.1
MALT	Malatya	5.55	25	*e*PN	Pn	13 28 07.9	-6.3
MYA	Malataya	5.56	25	*e*PN	Pn	13 28 08.1	-6.3
DARE	Darende-Malaty	5.94	18	*e*PN	Pn	13 28 12.7	-7.0

*ISCJB **15** 13:29:06.0±1.3, 36°.16N±0°.06×21°.50E±0°.07, h5^{km}±7^{km}, Error ellipse: s-maj=10.6km s-min=8.5km az=141.4*
*CSEM **15** 13:29:06.6±0.4, 36°.16N×21°.58E, h2^{km}, MD3.3, Error ellipse: s-maj=10.0km s-min=6.8km az=37.0*
*NEIC **15** 13:29:08.7, 36°.28N×21°.60E, h34^{km}, MD3.3(ATH), After ATH.*
*ATH **15** 13:29:08.7, 36°.28N×21°.60E, h34^{km}±1^{km}, MD3.3/5*
*THE **15** 13:29:08.2, 36°.20N×21°.56E, h7^{km}±2^{km}, ML3.4/1, Error ellipse: s-maj=2.9km s-min=1.9km az=63.0*
ISC 15 13:29:06.8±1.4, **36°.15N**±0°.06×**21°.56E**±0°.08, **h4**^{km}±7^{km}, **n38, σ0^{s}.60**/51, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.76	11	P	Pg	13 29 21.8	+0.5
PYL				S	Sg	13 29 31.3	+0.1
PYL	PYLOS	0.76	11	*e*PN	Pg	13 29 21.7	+0.4
PYL				*e*SN	Sg	13 29 31.2	0.0
PYL	PYLOS	0.76	11	*e*Pn	Pg	13 29 21.7	+0.4
PYL				S	Sg	13 29 31.3	+0.1
ITM	Ithomi	1.07	16	*e*PN	Pg	13 29 26.7	-0.6
ITM	Ithomi	1.07	16	*e*Pn	Pg	13 29 26.7	-0.6
KYTH	Kithira	1.20	83	*e*PN	Pn	13 29 30.4	0.0
KYTH	Kithira	1.20	83	*e*Pn	Pn	13 29 30.4	0.0
VLX	Vlachokerasia	1.39	28	*e*PN	Pn	13 29 31.9	-1.0
VLX	Vlachokerasia	1.39	28	*e*Pn	Pn	13 29 31.9	-1.0
DID	Didima	1.91	44	P	Pn	13 29 39.2	-0.9
DID				S	Sn	13 30 04.5	-0.1
DID	Didima	1.91	44	*e*PN	Pn	13 29 39.1	-1.0
DID	Didima	1.91	44	*e*Pn	Pn	13 29 39.1	-1.0
DID				S	Sn	13 30 04.5	-0.1
KARN	Karanos	2.06	111	P	Pn	13 29 42.2	+0.1
KARN	Karanos	2.06	111	P	Pn	13 29 42.2	+0.1
LAKA	Lakka	2.11	9	P	Pn	13 29 43.2	+0.3
LAKA	Lakka	2.11	9	P	Pn	13 29 43.2	+0.3
VLS	Valsamata	2.17	339	P	Pn	13 29 43.4	-0.2
VLS				S	Sn	13 30 09.9	-1.0
VLS	Valsamata	2.17	339	P	Pn	13 29 43.4	-0.2
VLS				S	Sn	13 30 09.9	-1.0
LTK	Loutraki	2.18	31	P	Pn	13 29 43.9	0.0
LTK	Loutraki	2.18	31	P	Pn	13 29 43.9	0.0
LKR	Lokris	2.75	24	P	Pn	13 29 52.5	+0.9
LKR	Lokris	2.75	24	P	Pn	13 29 52.5	+0.9
AGG	Agios Georgios	2.93	12	P	Pn	13 29 54.9	+0.7
AGG				S	Sn	13 30 30.8	+1.0
AGG	Agios Georgios	2.93	12	P	Pn	13 29 54.9	+0.7
AGG				S	Sn	13 30 30.8	+1.0
THL	Klokotos Trika	3.43	6	P	Pn	13 30 00.6	-0.4
THL	Klokotos Trika	3.43	6	P	Pn	13 30 00.6	-0.4
XOR	Xorichti	3.46	21	P	Pn	13 30 02.1	+0.7
XOR	Xorichti	3.46	21	P	Pn	13 30 02.1	+0.7
MEV	Metsovon	3.64	356	P	Pn	13 30 04.3	+0.4
MEV				S	Sn	13 30 47.3	0.0
MEV	Metsovon	3.64	356	P	Pn	13 30 04.3	+0.4
MEV				S	Sn	13 30 47.3	0.0
LIT	Litokhoron	4.01	10	P	Pn	13 30 08.9	-0.1
LIT	Litokhoron	4.01	10	P	Pn	13 30 08.9	-0.1
HORT	Hortiatis	4.60	15	P	Pn	13 30 16.7	-0.4
FNA	Florina	4.63	358	P	Pn	13 30 17.2	-0.3
TIP	Timpagrande	4.86	310	Pn	Pn	13 30 21.8	+1.1
TIP				Sn	Sn	13 31 09.0	-8.4
TIP	Timpagrande	4.86	310	Pn	Pn	13 30 21.8	+1.1
LTRZ	Laterza	5.80	321	Pn	Pn	13 30 32.9	-0.6
LTRZ				Sn	Sn	13 31 31.5	-9.0
LTRZ	Laterza	5.80	321	Pn	Pn	13 30 32.9	-0.6

*NEIC **15** 13:31:20.2, 30°.57S×71°.05W, h19^{km}, ML4.1(GUC), After GUC.*

GUC 15 13:31:20.2±0.6**, 30°.57S×71°.05W, h19**^{km}±8^{km}**, MD4.0, ML4.1, 8C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	1.37	196	⇑iP	Pn	13 31 43.7	-0.6
CHNG				i S	Sn	13 32 01.3	-0.6
LCO	Las Campanas	1.58	11	⇑iPn	Pn	13 31 45.4	-1.9
LCO				eSn	Sn	13 32 04.3	-2.8
PEL	Peldehue	2.59	173	⇑iP	Pn	13 32 02.3	+1.2
PEL				i S	Sn	13 32 34.2	+2.2
PEL				AML	AML	13 32 40.8	
	comp=E,1μm,0.2s						
FCH	Farellones	2.83	167	⇑iP	Pn	13 32 06.0	+1.6
FCH				i S	Sn	13 32 41.0	+3.1
FCH				AML	AML	13 32 59.8	
	comp=E,354nm,0.4s						
RCDM	Rinconada Maip	2.92	176	⇑iP	Pn	13 32 06.2	+0.6
RCDM				i S	Sn	13 32 41.8	+1.6
RCDM	Rinconada Maip	2.92	176	⇑iP	Pn	13 32 06.2	+0.6
RCDM				i S	Sn	13 32 41.8	+1.6
RCDM				AML	AML	13 32 58.2	
	comp=E,483nm,0.6s						
LMEL	Las Melosas	3.35	168	⇑iP	Pn	13 32 13.3	+1.7
LMEL				i S	Sn	13 32 53.3	+2.5
LMEL	Las Melosas	3.35	168	⇑iP	Pn	13 32 13.3	+1.7
LMEL				i S	Sn	13 32 53.3	+2.5
LMEL				AML	AML	13 33 03.5	
	comp=N,422nm,0.6s						
LVC	Limon Verde	8.15	14	ePn	Pn	13 33 17.2	-0.4
	comp=N,34nm,0.8s						
LVC				eSn	Sn	13 34 45.7	-3.5

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*GII **15** 14:05:57.5±0.0, 33°.43N×35°.57E, h1^{km}, Md2.5/8, Mining explosion.*
*ISCJB **15** 14:05:58.3±0.6, 33°.48N±0°.03×35°.55E±0°.04, h0^{km}, Error ellipse: s-maj=5.7km s-min=3.7km az=25.8*
*CSEM **15** 14:05:59.2, 33°.44N×35°.57E, h6^{km}, ML3.1, After GRAL*
*GRAL **15** 14:05:59.2±0.4, 33°.44N×35°.57E, h6^{km}±9^{km}, MD3.1*

ISC 15 14:05:58.7±0.6**, 33°.49N**±0°.03×**35°.56E**±0°.04**, h0**^{km}**, n18, σ0ˢ.94**/28**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.19	269	eP	Pg	14 06 03.0	+0.7
MATL	Matirih	0.19	269	eP	Pg	14 06 03.0	+0.7
RCY	Rachaya	0.22	92	eP	Pg	14 06 03.2	+0.2
RCY				eS	Sg	14 06 06.7	+0.9
RCY	Rachaya	0.22	92	eP	Pg	14 06 03.2	+0.2
RCY				eS	Sg	14 06 06.7	+0.9
KSDI	Kefar Szold	0.31	164	Pg	Pg	14 06 03.9	-0.8
KSDI				Sg	Sg	14 06 09.1	+0.4
BHL	Bhannes	0.42	11	eP	Pg	14 06 07.6	+0.8
BHL	Bhannes	0.42	11	eP	Pg	14 06 07.6	+0.8
MMA0	Mount Meron ar	0.49	195	Pg	Pg	14 06 07.1	-1.1
MMA0				Sg	Sg	14 06 15.3	+0.8
MMA3	Mount Meron ar	0.50	195	Pg	Pg	14 06 08.5	+0.3
MMA3				Sg	Sg	14 06 16.4	+1.8
HNTI	Hanita	0.52	218	Sg	Sg	14 06 16.9	+1.5
KSHT	Keshet	0.55	157	Pg	Pg	14 06 08.9	-0.4
KSHT				Sg	Sg	14 06 17.0	+0.5
HWQ	Hawqa	0.85	22	eP	Pg	14 06 15.3	+0.3
HWQ	Hawqa	0.85	22	eP	Pg	14 06 15.3	+0.3
OFRI	‘Ofer	0.99	209	Pg	Pg	14 06 16.9	-0.8
MMLI	Mount Malkishu	1.06	186	Pg	Pg	14 06 17.8	-1.2
MMLI				Sg	Sg	14 06 33.3	+0.6
HMDT	Nahal Hemdat	1.24	181	Pg	Pg	14 06 20.7	-1.7
HMDT				Sg	Sg	14 06 39.1	+0.7
SLTI	Sal’it	1.32	199	Pg	Pg	14 06 22.8	-1.3
SLTI				Sg	Sg	14 06 41.3	+0.1
DSI	Dead Sea	1.92	184	Pn	Pn	14 06 31.2	-1.5
DSI				Sn	Sn	14 06 56.8	-0.8

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*ISCJB **15** 14:11:50.7±0.7, 33°.33N±0°.03×35°.41E±0°.05, h12^{km}±7^{km}, Error ellipse: s-maj=6.9km s-min=4.1km az=26.5*
*CSEM **15** 14:11:51.7, 33°.31N×35°.42E, h0^{km}, ML2.8, After GRAL*
*GRAL **15** 14:11:51.7±0.3, 33°.31N×35°.42E, h0^{km}±126^{km}, MD2.8*
*GII **15** 14:11:51.1±0.6, 33°.24N×35°.44E, h1^{km}±1^{km}, Md2.1/5*

ISC 15 14:11:51.2±0.6**, 33°.34N**±0°.03×**35°.41E**±0°.05**, h10**^{km}±8^{km}**, n19, σ0ˢ.66**/28**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	336	eP	Pg	14 11 55.2	+0.2
MATL	Matirih	0.17	336	eP	Pg	14 11 55.2	+0.2
KSDI	Kefar Szold	0.25	124	Pg	Pg	14 11 55.9	-0.5
KSDI				Sg	Sg	14 12 00.1	+0.3
MMA0B	Mount Meron ar	0.32	181	Pg	Pg	14 11 56.9	-0.7
MMA0B				Sg	Sg	14 12 02.0	+0.1
HNTI	Hanita	0.32	218	Sg	Sg	14 12 02.7	+0.8
RCY	Rachaya	0.37	66	eP	Pg	14 11 58.8	+0.2
RCY				eS	Sg	14 12 04.2	+0.6
RCY	Rachaya	0.37	66	eP	Pg	14 11 58.8	+0.2
RCY				eS	Sg	14 12 04.2	+0.6
KSHT	Keshet	0.49	136	Pg	Pg	14 12 00.6	-0.1
KSHT				Sg	Sg	14 12 07.9	+0.8
BHL	Bhannes	0.60	20	eP	Pg	14 12 03.1	+0.1
BHL	Bhannes	0.60	20	eP	Pg	14 12 03.1	+0.1
BLGI	Bet Lehem HaGe	0.63	197	Pg	Pg	14 12 03.1	-0.3
OFRI	‘Ofer	0.80	207	Pg	Pg	14 12 06.3	-0.3
OFRI				Sg	Sg	14 12 18.9	+1.9
MMLI	Mount Malkishu	0.89	179	Pg	Pg	14 12 07.5	-1.0
MMLI				Sg	Sg	14 12 19.7	-0.4
HWQ	Hawqa	1.04	25	eP	Pg	14 12 10.9	-0.4
HWQ	Hawqa	1.04	25	eP	Pg	14 12 10.9	-0.4
HMDT	Nahal Hemdat	1.08	175	Pg	Pg	14 12 10.9	-1.2
HMDT				Sg	Sg	14 12 26.4	+0.3
SLTI	Sal’it	1.14	196	Pg	Pg	14 12 12.2	-0.9
SLTI				Sg	Sg	14 12 27.7	-0.1
DSI	Dead Sea	1.76	181	Pn	Pn	14 12 21.8	+0.1
MZDA	Masada	2.02	181	Pn	Pn	14 12 26.1	+0.8

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*NEIC **15** 14:15:12.7±0.6, 7°.65S×156°.13E, h35^{km}, mb4.8/5, Error ellipse: s-maj=14.1km s-min=13.1km az=73.0*
*IDC **15** 14:15:12.7±1.1, 7°.41S×156°.10E, h29^{km}±4^{km}, mb4.0/6, mb1 4.0/7, mb1mx3.8/18, mbtmp4.0/7, ML3.9/1, MS3.6/5, Ms1 3.5/5, ms1mx3.1/19, Error ellipse: s-maj=33.2km s-min=21.6km az=104.0*
*ISCJB **15** 14:15:13.2±2.5, 7°.7S±0°.1×156°.2E±0°.1, h56^{km}±24^{km}, mb4.4/10, MS3.7/3, Error ellipse: s-maj=22.9km s-min=17.1km az=44.4*

ISC 15 14:15:13.5±2.2**, 7°.7S**±0°.1×**156°.2E**±0°.1**, h43**^{km}±22^{km}**, h28**^{km}±1.6^{km}**:pP-P, n21, σ1ˢ.02**/18**, mb4.4**/10**, MS3.7**/3**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.13	115	Pn	Pn	14 16 14.8	+0.6
	5.8nm,0.3s,baz=231,slow=6.8,SNR=4.3						
HNR				Sn	Sn	14 17 11.9	+11
	52nm,0.3s,baz=18,slow=23,SNR=10						
HNR				LR	LR	14 17 50.3	
	comp=Z,329nm,20.6s,baz=107,slow=37						
CTA	Charters Tower	15.63	217	LR	LR	14 23 22.8	
	comp=Z,131nm,20.0s,baz=45,slow=31						
CTAO	Charters Tower	15.63	217	Pn	Pn	14 18 48.8	-2.2
	36nm,1.5s						
KAKA	Kakadu	23.86	256	eP	P	14 20 24.2	+1.0
WRAB	Tennant Creek	24.39	238	eP	P	14 20 27.9	-0.1
	8.0nm,1.0s,mb4.1						
WRA	Warramunga Arr	24.41	238	P	P	14 20 30.0	+1.9
	3.4nm,0.7s,mb3.9,baz=61,slow=9.7,SNR=29						
WRA				PcP	PcP	14 24 07.5	+0.8
	0.7nm,0.5s,baz=59,slow=2.6,SNR=12						
ASAR	Alice Springs	26.61	231	P	P	14 20 49.1	+1.0
	0.7nm,0.8s,mb3.3,baz=61,slow=8.9,SNR=8.7						
ASAR				sP	sP	14 21 03.3	-1.5
	0.4nm,0.4s,baz=57,slow=9.9,SNR=3.9						
ASAR				PcP	PcP	14 24 12.4	+0.8
	0.4nm,0.7s,baz=52,slow=2.9,SNR=5.0						
STKA	Stephens Creek	27.64	207	LR	LR	14 32 12.0	
	comp=Z,111nm,18.3s,MS3.5,baz=23,slow=37						
FITZ	Fitzroy Crossi	31.45	248	LR	LR	14 33 55.0	
	comp=Z,101nm,20.5s,MS3.5,baz=149,slow=36						
TAU	Tasmania Unive	35.95	191	eP	P	14 22 08.6	-1.3
PETK	Petropavlovsk-	60.56	1	LR	LR	14 48 36.9	
	comp=Z,109nm,18.6s,MS4.0,baz=300,slow=33						
CASY	Casey	66.31	198	P	P	14 25 57.1	-0.2
	91nm,1.6s,mb5.5						
SBA	Scott Base	70.36	178	P	P	14 26 22.4	-0.1
	53nm,1.1s,mb5.4						
SONM	Songino Array	70.53	327	P	P	14 26 24.8	+0.9
	2.2nm,0.9s,mb4.1,baz=135,slow=6.0,SNR=14						
SONM				pP	pP	14 26 33.1	-3.5
	2.0nm,0.9s,baz=135,slow=5.4,SNR=7.7						
QSPA	South Pole Qui	82.31	180	eP	P	14 27 31.1	+1.0
	6.9nm,1.1s,mb4.5						
MK31	Makanchi Array	84.67	318	eP	P	14 27 42.9	+0.1
MK31				e		14 27 51.4	
MKAR	Makanchi Array	84.67	318	P	P	14 27 43.1	+0.3
	4.9nm,0.8s,mb4.7,baz=102,slow=5.9,SNR=44						
MKAR				pP	pP	14 27 51.7	-4.1
	6.7nm,0.8s,baz=103,slow=5.7,SNR=20						
MKAR	Makanchi Array	84.67	318	P	P	14 27 43.1	+0.3
MKAR				pP	pP	14 27 51.7	-4.1
ZAA0	Zalesovo Array	85.39	326	eP	P	14 27 44.9	-1.3
ZAA0				e		14 27 54.4	
ZALV	Zalesovo Beam	85.39	326	P	P	14 27 45.2	-1.1
	2.9nm,0.8s,mb4.4,baz=104,slow=5.4,SNR=11						
ZALV				pP	pP	14 27 54.8	-4.4
	2.4nm,0.8s,baz=97,slow=6.1,SNR=7.3						
BVAR	Borovoye Array	93.53	323	P	P	14 28 24.0	-0.8
	0.6nm,0.6s,mb4.2,baz=103,slow=4.6,SNR=3.4						

IDC 15 14:28:24.4±27.0**, 23°.15S×68°.85E, h0**^{km}**, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.4**/22**, mbtmp3.5**/3**, Error ellipse: s-maj=888.7km s-min=41.1km az=53.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	59.20	105	P	P	14 38 28.4	+0.7
	0.4nm,0.8s,baz=248,slow=4.9,SNR=3.1						
WRA	Warramunga Arr	60.54	101	P	P	14 38 36.3	-0.6
	0.9nm,0.9s,baz=257,slow=6.6,SNR=4.7						
MKAR	Makanchi Array	70.67	10	P	P	14 39 41.9	+0.2
	0.4nm,0.8s,baz=186,slow=4.3,SNR=3.2						

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*ISCJB **15** 14:33:00.8±0.6, 33°.33N±0°.03×35°.41E±0°.04, h5^{km}±5^{km}, Error ellipse: s-maj=6.2km s-min=3.8km az=28.6*
*CSEM **15** 14:33:01.8, 33°.32N×35°.43E, h0^{km}, ML2.9, After GRAL*
*GRAL **15** 14:33:01.8±0.4, 33°.32N×35°.43E, h0^{km}±142^{km}, MD2.9*
*GII **15** 14:33:01.3±0.6, 33°.25N×35°.43E, h2^{km}±2^{km}, Md2.2/10*

ISC 15 14:33:01.3±0.6**, 33°.34N**±0°.03×**35°.41E**±0°.04**, h5**^{km}±5^{km}**, n20, σ0ˢ.54**/33**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	335	eP	Pg	14 33 05.2	+0.6
MATL	Matirih	0.17	335	eP	Pg	14 33 05.2	+0.6
KSDI	Kefar Szold	0.25	125	Pg	Pg	14 33 05.9	-0.3
KSDI				Sg	Sg	14 33 09.4	-0.2
MMA0	Mount Meron ar	0.32	181	Pg	Pg	14 33 07.2	-0.3
MMA0				Sg	Sg	14 33 12.0	+0.3
HNTI	Hanita	0.32	218	Pg	Pg	14 33 07.6	0.0
HNTI				Sg	Sg	14 33 12.6	+0.8
RCY	Rachaya	0.37	67	eP	Pg	14 33 08.5	+0.1
RCY				eS	Sg	14 33 13.8	+0.5
RCY	Rachaya	0.37	67	eP	Pg	14 33 08.5	+0.1
RCY				eS	Sg	14 33 13.8	+0.5
KSHT	Keshet	0.49	137	Pg	Pg	14 33 10.5	-0.2
KSHT				Sg	Sg	14 33 18.2	+1.2
BHL	Bhannes	0.60	20	eP	Pg	14 33 12.9	+0.1
BHL	Bhannes	0.60	20	eP	Pg	14 33 12.9	+0.1
BLGI	Bet Lehem HaGe	0.63	197	Pg	Pg	14 33 13.9	+0.5
BLGI				Sg	Sg	14 33 21.6	0.0
OFRI	‘Ofer	0.80	207	Pg	Pg	14 33 16.4	-0.2
OFRI				Sg	Sg	14 33 27.4	+0.4
MMLI	Mount Malkishu	0.90	180	Pg	Pg	14 33 17.6	-0.9
MMLI				Sg	Sg	14 33 29.6	-0.6
HWQ	Hawqa	1.04	25	eP	Pg	14 33 20.7	-0.5
HWQ	Hawqa	1.04	25	eP	Pg	14 33 20.7	-0.5
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	14 33 20.9	-1.2
HMDT				Sg	Sg	14 33 36.4	+0.2
SLTI	Sal’it	1.14	196	Pg	Pg	14 33 22.4	-0.7
SLTI				Sg	Sg	14 33 38.1	+0.2
DSI	Dead Sea	1.76	181	Pn	Pn	14 33 31.9	-0.5
DSI				Sn	Sn	14 33 55.2	0.0
YTIR	Yattir	1.99	187	Pn	Pn	14 33 35.7	+0.2
MZDA	Masada	2.02	181	Pn	Pn	14 33 35.6	-0.4
MZDA				Sn	Sn	14 34 02.6	+1.0

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*ISK **15** 14:33:30.4, 39°.53N×33°.18E, h5^{km}, MD3.0*
*CSEM **15** 14:33:31.8±0.2, 39°.46N×33°.07E, h2^{km}, MD2.9, Error ellipse: s-maj=5.4km s-min=3.7km az=111.0*
*DDA **15** 14:33:31.6, 39°.47N×33°.12E, h9^{km}±1^{km}, Md2.8*
*ISCJB **15** 14:33:32.2±0.6, 39°.50N±0°.04×33°.08E±0°.05, h7^{km}±5^{km}, Error ellipse: s-maj=7.1km s-min=5.3km az=42.1*

ISC 15 14:33:32.1±0.8**, 39°.47N**±0°.03×**33°.08E**±0°.06**, h0**^{km}±6^{km}**, n27, σ0ˢ.99**/46**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALAT	Bala	0.10	20	i P	Pg	14 33 34.0	+0.1
BALAT				i S	Sg	14 33 35.9	+0.8
LOD	Lodumlu	0.49	330	ePG	Pg	14 33 40.2	-1.2
LOD	Lodumlu	0.49	330	ePG	Pg	14 33 40.3	-1.1
LOD	Lodumlu	0.49	330	ePg	Pg	14 33 40.2	-1.2
ELDT	Eldivan	1.06	15	eP	Pg	14 33 52.6	+0.2
ELDT				eS	Sg	14 34 06.4	+0.4
ELDT	Eldivan	1.06	15	eP	Pg	14 33 52.6	+0.3
ELDT				eS	Sg	14 34 06.4	+0.4
KIZT	Kizilcal	1.10	238	ePN	Pn	14 33 53.6	-1.1
KIZT				ePN	Pn	14 33 53.8	-1.0
KIZT				eSN	Sn	14 34 09.8	-0.8
KIZT				eSN	Sn	14 34 10.4	-0.2
KIZT	Kizilcal	1.10	238	ePn	Pn	14 33 53.8	-0.9
KIZT				eSn	Sn	14 34 10.4	-0.2
SVRH	Sivrihisar-ESK	1.20	270	ePN	Pn	14 33 55.9	-0.2
SVRH	Sivrihisar-ESK	1.20	270	ePn	Pn	14 33 55.9	-0.2
KDHN	Kadinhani	1.21	219	eP	Pg	14 33 54.8	-0.4
KDHN				eS	Sg	14 34 12.3	+1.5
KDHN	Kadinhani	1.21	219	eP	Pg	14 33 54.8	-0.4
KDHN				eS	Sg	14 34 12.3	+1.5
SULT	Sultanhani-AKS	1.31	165	ePN	Pn	14 33 56.5	-1.1
SULT	Sultanhani-AKS	1.31	165	ePN	Pn	14 33 58.5	+0.9
SULT				eSN	Sn	14 34 18.3	+2.5
SULT	Sultanhani-AKS	1.31	165	ePn	Pn	14 33 56.5	-1.1
SULT				eSn	Sn	14 34 18.3	+2.5
CORM	Corum	1.39	59	ePN	Pn	14 33 55.1	-3.6
AVNT	Avonos	1.54	116	i P	Pn	14 34 00.3	-0.5
AVNT				i S	Sn	14 34 21.6	+0.1
AVNT	Avonos	1.54	116	i P	Pn	14 34 00.3	-0.5
AVNT				i S	Sn	14 34 21.6	+0.1
KONT	Konya--Tatoy	1.62	201	ePN	Pn	14 34 01.7	-0.2
KONT				ePN	Pn	14 34 01.8	0.0
KONT				eSN	Sn	14 34 24.0	+0.6
KONT	Konya--Tatoy	1.62	201	ePn	Pn	14 34 01.8	-0.1
KONT				eSn	Sn	14 34 24.0	+0.6
ILGA	Ilgaz	1.66	17	eP	Pn	14 34 03.0	+0.6
ILGA				eS	Sn	14 34 25.3	+1.0
ILGA	Ilgaz	1.66	17	eP	Pn	14 34 03.0	+0.6
ILGA				eS	Sn	14 34 25.3	+0.9
YOZ	Yozgat	1.74	84	ePN	Pn	14 34 00.5	-3.1
CTKT	Corum	1.75	48	eP	Pn	14 34 03.9	+0.2
CTKT				eS	Sn	14 34 21.2	-5.4
CTKT	Corum	1.75	48	eP	Pn	14 34 03.9	+0.3
NIG	Nigde	1.81	138	ePN	Pn	14 34 03.4	-1.1
NIG	Nigde	1.81	138	ePn	Pn	14 34 03.4	-1.0

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*ISCJB **15** 15:03:26.9±0.5, 35°.03N±0°.04×33°.96E±0°.06, h55^{km}±9^{km}, Error ellipse: s-maj=9.4km s-min=5.7km az=29.3*
*ISK **15** 15:03:26.1, 35°.01N×33°.96E, h54^{km}, MD3.2*
*CSEM **15** 15:03:28.0±0.2, 35°.06N×33°.91E, h40^{km}, MD3.2, Error ellipse: s-maj=5.0km s-min=3.8km az=115.0*
*HLW **15** 15:03:29.1, 35°.04N×33°.65E, h30^{km}, Mb3.2*

ISC 15 15:03:28.1±0.5**, 35°.05N**±0°.04×**33°.95E**±0°.06**, h46**^{km}±12^{km}**, n41, σ0ˢ.71**/51**, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LFK	Lefkose	0.41	304	PG	Pn	15 03 37.1	-0.9
LFK				eSG	Sn	15 03 45.4	+0.3
LFK	Lefkose	0.41	304	i Pg	Pn	15 03 37.1	-1.0
LFK				eSg	Sn	15 03 45.4	+0.3
EREN	Erenkoy	0.51	20	PG	Pn	15 03 39.1	-0.2
EREN				eSG	Sn	15 03 48.2	+1.0
EREN	Erenkoy	0.51	20	i Pg	Pn	15 03 39.1	-0.2
EREN				eSg	Sn	15 03 48.2	+1.0
CSS	Prodhromos	0.52	261	PG	Pn	15 03 38.6	-0.7
CSS				eSG	Sn	15 03 47.1	-0.2
CSS	Prodhromos	0.52	261	i Pg	Pn	15 03 38.6	-0.7
CSS				eSg	Sn	15 03 47.1	-0.2
LEF	Lefka	0.87	275	PG	Pn	15 03 43.8	-0.3
LEF				eSG	Sn	15 03 56.1	+0.5
LEF	Lefka	0.87	275	i Pg	Pn	15 03 43.8	-0.2
LEF				eSg	Sn	15 03 56.1	+0.5
IKL	Isikli	1.21	350	ePN	Pn	15 03 47.8	-0.8
IKL	Isikli	1.21	350	ePn	Pn	15 03 47.8	-0.8
MERS	Mersin	1.87	14	ePN	Pn	15 03 57.6	-0.1
MERS	Mersin	1.87	14	ePn	Pn	15 03 57.6	-0.1
KRTS	Karatas	1.91	37	ePN	Pn	15 03 57.6	-0.5
KRTS	Karatas	1.91	37	ePn	Pn	15 03 57.6	-0.6
HTY	Hatay	2.08	58	ePN	Pn	15 03 59.3	-1.2
HTY	Hatay	2.08	58	ePn	Pn	15 03 59.3	-1.2
RCY	Rachaya	2.20	135	ePn	Pn	15 04 02.7	+0.6
RCY	Rachaya	2.20	135	ePn	Pn	15 04 02.7	+0.6
HDMB	Hadim	2.25	329	ePN	Pn	15 04 03.2	+0.3
HDMB	Hadim	2.25	329	ePn	Pn	15 04 03.2	+0.3
KARA	Karaisali	2.38	22	ePN	Pn	15 04 04.0	-0.7
KARA	Karaisali	2.38	22	ePn	Pn	15 04 04.0	-0.6
KOZT	Kozan	2.86	31	ePN	Pn	15 04 11.3	+0.1
KONT	Konya--Tatoy	3.16	337	ePN	Pn	15 04 16.4	+1.0
KONT	Konya--Tatoy	3.16	337	ePn	Pn	15 04 16.4	+1.0
SULT	Sultanhani-AKS	3.16	354	ePN	Pn	15 04 15.9	+0.5
SULT	Sultanhani-AKS	3.16	354	ePn	Pn	15 04 15.9	+0.5
KMRS	Kahramanmaras	3.42	43	ePN	Pn	15 04 18.3	-0.6
KMRS	Kahramanmaras	3.42	43	ePn	Pn	15 04 18.3	-0.6
RSH		4.08	183	P	Pn	15 04 28.5	+0.5
SARI	SarD1z-Kayseri	4.24	30	ePN	Pn	15 04 25.4	-4.8
AMAG	Maghara	4.44	188	P	Pn	15 04 33.3	+0.4
AMAG				S	Sn	15 05 20.0	-3.3
AMAG	Maghara	4.44	188	P	Pn	15 04 33.3	+0.4
AMAG				S	Sn	15 05 20.0	-3.2
MALT	Malatya	4.85	47	ePN	Pn	15 04 39.5	+1.0
MALT	Malatya	4.85	47	ePn	Pn	15 04 39.5	+1.0
HNKL	Nakhl	5.10	180	P	Pn	15 04 42.7	+0.7
HNKL	Nakhl	5.10	180	P	Pn	15 04 42.7	+0.7
SUZ		5.28	191	P	Pn	15 04 44.7	+0.2
SUZ		5.28	191	P	Pn	15 04 44.7	+0.3
HHAG	Hagoal	5.32	198	P	Pn	15 04 44.6	-0.3
HHAG	Hagoal	5.32	198	P	Pn	15 04 44.7	-0.2

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*MAN **15** 15:04:53, 9°.57N×126°.11E, h16^{km}, mb4.6, ML3.5, MS3.4*
*IDC **15** 15:04:55.8±2.6, 8°.37N×126°.24E, h0^{km}, mb3.5/4, mb1 3.7/4, mb1mx3.4/20, mbtmp3.5/4, Error ellipse: s-maj=219.8km s-min=26.8km az=65.0*

ISC 15 15:04:51.7±1.4**, 9°.49N**±0°.05×**126°.24E**±0°.07**, h26**^{km}±8^{km}**, n12, σ1ˢ.09**/17**, mb3.5**/3**, 2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	0.79	291	⇓eP	Pb	15 05 05.4	-1.5
SCPH				eS	Sb	15 05 15.9	-1.2
BUTP	Butuan	0.80	230	eP	Pb	15 05 07.6	+0.6
BUTP				eS	Sb	15 05 17.9	+0.4
MSLP	Maasin	1.50	295	eP	Pn	15 05 16.9	0.0
MSLP				eS	Sn	15 05 35.4	-0.3
BUKP	Musuan	1.98	216	eP	Pn	15 05 26.0	+2.4
BUKP				eS	Sn	15 05 47.5	-0.1
TBP	Tagbilaran	2.35	275	eP	Pn	15 05 29.1	+0.5
TBP				eS	Sn	15 05 56.0	-0.7
LLP	Lapu-Lapu	2.38	290	⇓eP	Pn	15 05 30.1	+1.0
LLP				eS	Sn	15 05 57.4	-0.1
GUIM	Jordan	3.77	288	eP	Pn	15 05 49.3	+1.2
PVCP	Virac	4.56	334	eP	Pn	15 06 01.0	+2.0
WRA	Warramunga Arr	30.32	165	P	P	15 10 59.5	-1.6
	0.3nm,0.6s,mb3.2,baz=344,slow=8.2,SNR=7.4						
ASAR	Alice Springs	33.80	167	P	P	15 11 30.3	-1.4
	0.3nm,0.4s,mb3.5,baz=350,slow=7.5,SNR=22						
STKA	Stephens Creek	43.68	161	P	P	15 12 54.1	-0.4
	0.9nm,0.6s,mb3.6,baz=8.1,slow=7.1,SNR=3.3						
MKAR	Makanchi Array	52.62	323	P	Px	15 14 18.3	
	0.4nm,0.8s,baz=121,slow=7.1,SNR=3.9						

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*ISCJB **15** 15:19:33.0±0.5, 38°.75N±0°.04×35°.74E±0°.04, h10^{km}, Error ellipse: s-maj=6.0km s-min=4.0km az=13.6*
*CSEM **15** 15:19:32.9±0.3, 38°.74N×35°.75E, h8^{km}, MD2.9, Error ellipse: s-maj=8.5km s-min=6.7km az=4.0*
*ISK **15** 15:19:33.1, 38°.75N×35°.70E, h7^{km}, MD2.9*
*DDA **15** 15:19:33.2, 38°.79N×35°.70E, h7^{km}±5^{km}, Md3.1*

ISC 15 15:19:33.3±0.6**, 38°.73N**±0°.04×**35°.74E**±0°.04**, h3**^{km}±8^{km}**, n25, σ1ˢ.18**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNN	Bunyan	0.15	34	ePG	Pg	15 19 36.7	+0.4
BNN	Bunyan	0.15	34	ePg	Pg	15 19 36.7	+0.4
PINB	Pinarbasi	0.52	95	i P	Pg	15 19 43.6	+0.2
PINB				i S	Sg	15 19 52.7	+2.6
PINB	Pinarbasi	0.52	95	i P	Pg	15 19 43.6	+0.3
PINB				i S	Sg	15 19 52.7	+2.6
AVNT	Avonos	0.69	275	eP	Pg	15 19 45.0	-1.5
AVNT				eS	Sg	15 19 56.7	+1.2
AVNT	Avonos	0.69	275	eP	Pg	15 19 45.0	-1.5
AVNT				eS	Sg	15 19 56.7	+1.2
SARI	SarD1z-Kayseri	0.75	93	ePG	Pg	15 19 45.8	-1.9
SARI				eSG	Sg	15 19 56.7	-0.8
SARI	SarD1z-Kayseri	0.75	93	ePg	Pg	15 19 45.8	-1.9
SARI				eSg	Sg	15 19 56.7	-0.8
YOZ	Yozgat	0.97	341	ePG	Pg	15 19 51.3	-0.5
YOZ				eSG	Sg	15 20 04.9	+0.5
YOZ	Yozgat	0.97	341	ePg	Pg	15 19 51.3	-0.6
YOZ				eSg	Sg	15 20 04.9	+0.5
NIG	Nigde	1.08	236	ePG	Pg	15 19 54.3	+0.4
NIG	Nigde	1.08	236	ePg	Pg	15 19 54.3	+0.3
KOZT	Kozan	1.25	177	ePN	Pn	15 19 57.3	-0.2
KMRS	Kahramanmaras	1.53	143	ePN	Pn	15 20 02.1	+0.7
KMRS	Kahramanmaras	1.53	143	ePn	Pn	15 20 02.1	+0.7
SVSK	Karacayir	1.54	39	ePN	Pn	15 20 01.2	-0.4
SVSK	Karacayir	1.54	39	ePn	Pn	15 20 01.2	-0.4
KARA	Karaisali	1.56	200	ePN	Pn	15 20 01.3	-0.6
KARA	Karaisali	1.56	200	ePn	Pn	15 20 01.3	-0.6
DARE	Darende-Malaty	1.63	81	ePN	Pn	15 19 59.8	-3.0
DARE	Darende-Malaty	1.63	81	ePn	Pn	15 19 59.8	-3.1
CORM	Corum	1.68	330	ePN	Pn	15 20 03.7	+0.1
CORM	Corum	1.68	330	ePn	Pn	15 20 03.7	+0.1
AKCD	Akcadag	1.77	103	eP	Pn	15 20 07.5	+2.7
AKCD				eS	Sn	15 20 34.0	+6.3
AKCD	Akcadag	1.77	103	eP	Pn	15 20 07.5	+2.7

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*NEIC **15** 15:22:41.0±0.8, 11°.56S×166°.30E, h35^{km}, mb4.8/5, Error ellipse: s-maj=17.0km s-min=16.9km az=111.0*
*ISCJB **15** 15:22:43.5±3.6, 11°.6S±0°.1×166°.1E±0°.1, h67^{km}±28^{km}, mb4.2/14, Error ellipse: s-maj=24.8km s-min=17.3km az=164.1*
*IDC **15** 15:22:44.3±4.9, 11°.56S×166°.19E, h62^{km}±39^{km}, mb3.9/10, mb1 4.0/11, mb1mx3.8/20, mbtmp3.9/11, ML4.8/1, MS3.4/5, Ms1 3.5/5, ms1mx3.2/22, Error ellipse: s-maj=32.1km s-min=19.7km az=68.0*

ISC 15 15:22:45.2±3.1**, 11°.6S**±0°.1×**166°.2E**±0°.1**, h69**^{km}±24^{km}**, n22, σ0ˢ.74**/21**, mb4.2**/14**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.46	289	P	Pn	15 24 17.1	-0.6
	22nm,0.3s,baz=148,slow=3.2,SNR=15						
HNR				S	Sn	15 25 30.4	+0.4
	3.0nm,0.3s,baz=249,slow=17,SNR=1.9						
CTA	Charters Tower	20.91	244	LR	LR	15 34 40.3	
	comp=Z,162nm,18.7s,baz=48,slow=34						
CTAO	Charters Tower	20.91	244	P	P	15 27 22.5	+0.3
	4.1nm,0.7s						
AFI	Afiamalu	21.66	99	LR	LR	15 33 14.5	
	comp=Z,26nm,20.1s,baz=187,slow=29						
STKA	Stephens Creek	30.34	224	P	P	15 28 51.4	+1.0
	2.0nm,0.9s,mb3.7,baz=12,slow=22,SNR=2.8						
STKA				LR	LR	15 40 10.5	
	comp=Z,137nm,19.3s,baz=24,slow=34						
STKA	Stephens Creek	30.34	224	P	P	15 28 51.4	+1.0

STKA				LR	LR	15 40 10.5	
WRAB	Tennant Creek	31.67	251	eP	P	15 29 02.4	+0.2
	11nm,1.3s,mb4.4						
WRA	Warramunga Arr	31.68	251	P	P	15 29 02.2	-0.1
	1.2nm,0.9s,mb3.6,baz=83,slow=9.3,SNR=7.0						
WRA				pP	pP	15 29 12.8	-6.1
	3.4nm,1.0s,baz=81,slow=9.4,SNR=8.9						
WRA				LR	LR	15 40 38.4	
	comp=Z,59nm,19.3s,baz=170,slow=34						
WRA	Warramunga Arr	31.68	251	P	P	15 29 02.2	-0.1
WRA				pP	pP	15 29 12.8	-6.1
WRA				LR	LR	15 40 38.4	
RPZ	Rata Peaks	32.31	173	P	P	15 29 08.0	+0.4
	9.1nm,0.6s,mb4.7,baz=77,slow=20,SNR=7.0						
ASAR	Alice Springs	32.92	244	P	P	15 29 13.0	-0.2
	1.0nm,0.7s,mb3.8,baz=70,slow=9.4,SNR=13						
ASAR				PcP	PcP	15 31 56.2	-0.1
	1.1nm,0.8s,baz=79,slow=2.6,SNR=8.8						
TAU	Tasmania Unive	35.25	204	eP	P	15 29 28.8	-4.3
	109nm,2.1s,mb5.3						
NWAO	Narrogin (SRO)	49.50	236	P	P	15 31 27.3	-1.7
	32nm,1.4s,mb5.1						
CMAR	Chiang Mai Arr	72.68	294	P	P	15 34 07.5	+1.3
	1.3nm,0.8s,mb3.8,baz=120,slow=4.0,SNR=9.6						
CMAR				LR	LR	16 08 28.8	
	comp=Z,31nm,18.3s,baz=310,slow=38						
QSPA	South Pole Qui	78.44	180	P	P	15 34 37.6	-0.4
	6.2nm,0.9s,mb4.4,baz=8.3,slow=3.1,SNR=14						
QSPA	South Pole Qui	78.44	180	eP	P	15 34 37.7	-0.4
	6.9nm,1.0s,mb4.3						
SONM	Songino Array	79.32	324	P	P	15 34 43.3	0.0
	0.5nm,0.8s,mb3.4,baz=130,slow=6.3,SNR=3.8						
GTA	Gaotai	79.70	314	eP	P	15 34 46.1	+0.5
GTA				pP	pP	15 34 49.6	-15
GTA				sP	sP	15 34 51.1	-21
GTA				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.9						
NVAR	Mina Array Bea	86.06	50	P	P	15 35 19.2	+0.7
	comp=Z,0.3nm,0.6s,mb3.4,baz=274,slow=7.1,SNR=3.0						
MKAR	Makanchi Array	94.17	317	P	P	15 35 55.9	-0.5
	comp=Z,1.7nm,0.8s,mb4.4,baz=99,slow=6.2,SNR=17						
MKAR				pP	pP	15 36 10.2	-5.3
	comp=Z,0.6nm,0.7s,baz=86,slow=7.1,SNR=3.2						
MKAR	Makanchi Array	94.17	317	P	P	15 35 55.9	-0.5
MKAR				pP	pP	15 36 10.2	-5.3
ZALV	Zalesovo Beam	94.21	324	P	P	15 35 55.3	-1.2
	comp=Z,1.0nm,0.8s,mb4.2,baz=108,slow=4.8,SNR=4.5						

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*ISCJB **15** 15:53:29.8±0.6, 33°.32N±0°.03×35°.35E±0°.05, h3^{km}±6^{km}, Error ellipse: s-maj=7.4km s-min=4.1km az=24.3*
*GII **15** 15:53:29.6±0.5, 33°.24N×35°.39E, h1^{km}, Md2.1/6*
*CSEM **15** 15:53:30.7, 33°.29N×35°.37E, h0^{km}, ML2.9, After GRAL*
*GRAL **15** 15:53:30.7±0.3, 33°.29N×35°.37E, h0^{km}±148^{km}, MD2.9*
ISC 15 15:53:30.3±0.6, 33°.32N±0°.03×35°.35E±0°.05, h4^{km}±6^{km}, n20, σ0^{s}.60/30, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.17	353	eP	Pg	15 53 34.2	+0.6
MATL	Matirih	0.17	353	eP	Pg	15 53 34.2	+0.6
HNTI	Hanita	0.28	212	Pg	Pg	15 53 35.8	+0.1
HNTI				Sg	Sg	15 53 40.7	+1.3
KSDI	Kefar Szold	0.29	117	Pg	Pg	15 53 35.4	-0.4
KSDI				Sg	Sg	15 53 40.5	+0.9
MMA0	Mount Meron ar	0.31	172	Pg	Pg	15 53 35.8	-0.4
MMA0				Sg	Sg	15 53 40.6	+0.4
MMB2	Mount Meron ar	0.31	173	Pg	Pg	15 53 35.9	-0.4
RCY	Rachaya	0.42	67	eP	Pg	15 53 38.5	+0.2
RCY				eS	Sg	15 53 44.3	+0.5
RCY	Rachaya	0.42	67	eP	Pg	15 53 38.5	+0.1
RCY				eS	Sg	15 53 44.3	+0.4
BLGI	Bet Lehem HaGe	0.60	193	Pg	Pg	15 53 41.9	+0.1
BHL	Bhannes	0.63	23	eP	Pg	15 53 42.6	+0.1
BHL	Bhannes	0.63	23	eP	Pg	15 53 42.6	+0.2
OFRI	‘Ofer	0.76	204	Pg	Pg	15 53 44.8	-0.1
MMLI	Mount Malkishu	0.88	176	Pg	Pg	15 53 46.4	-0.8
MMLI				Sg	Sg	15 53 58.6	-0.1
HWQ	Hawqa	1.07	27	eP	Pg	15 53 50.4	-0.5
HWQ	Hawqa	1.07	27	eP	Pg	15 53 50.4	-0.5
HMDT	Nahal Hemdat	1.08	172	Pg	Pg	15 53 49.8	-1.1
HMDT				Sg	Sg	15 54 04.5	-0.3
SLTI	Sal’it	1.11	194	Pg	Pg	15 53 50.8	-0.8
SLTI				Sg	Sg	15 54 06.6	+0.7
DSI	Dead Sea	1.75	179	Pn	Pn	15 54 00.3	-1.1
DSI				Sn	Sn	15 54 24.5	+0.4
MZDA	Masada	2.01	180	Pn	Pn	15 54 04.8	-0.2
MZDA				Sn	Sn	15 54 31.2	+0.7
PRNI	Paran	2.98	186	Pn	Pn	15 54 18.6	+0.3

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*IDC **15** 16:05:12.0±56.0, 19°.18S×179°.30W, h0^{km}, mb4.0/3, mb1 4.2/3, mb1mx3.8/16, mbtmp4.0/3, Error ellipse: s-maj=1025.0km s-min=151.3km az=80.0*
*ISCJB **15** 16:05:30.8±3.1, 19°.2S±0°.8×179°.5W±0°.4, h174^{km}±32^{km}, mb3.7/4, Error ellipse: s-maj=148.5km s-min=15.4km az=152.9*
*NEIC **15** 16:05:30.9±2.6, 19°.37S×179°.47W, h159^{km}±26^{km}, mb3.7/3, Error ellipse: s-maj=111.4km s-min=15.6km az=156.0*
ISC 15 16:05:31.3±3.2, 19°.2S±0°.8×179°.5W±0°.4, h162^{km}±34^{km}, n7, σ0^{s}.55/8, mb3.7/4, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	9.08	56	ePn	Pn	16 07 39.7	+0.7
AFI				eSn	Sn	16 09 19.4	-0.5
DZM	Mont Dzumac	13.45	255	Pn	Pn	16 08 35.7	-0.1
	16nm,1.2s						
STKA	Stephens Creek	37.11	242	P	P	16 12 26.0	-0.2
	1.0nm,0.4s,mb3.8,baz=86,slow=12,SNR=4.8						
STKA	Stephens Creek	37.11	242	eP	P	16 12 25.7	-0.5
	0.2nm,0.4s,mb3.1						
WRAB	Tennant Creek	43.37	261	eP	P	16 13 17.7	-0.1
	0.7nm,0.4s,mb3.6						
WRA	Warramunga Arr	43.37	261	P	P	16 13 18.2	+0.3
	0.8nm,0.4s,mb3.7,baz=97,slow=7.6,SNR=40						
ASAR	Alice Springs	43.44	256	P	P	16 13 18.4	0.0
	2.8nm,0.8s,mb4.0,baz=91,slow=7.6,SNR=52						

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*ISCJB **15** 16:20:09.4±0.9, 59°.4S±0°.1×26°.7W±0°.3, h10^{km}, mb4.1/5, Error ellipse: s-maj=26.7km s-min=12.9km az=138.9*
*IDC **15** 16:20:11.8±1.2, 59°.50S×25°.77W, h0^{km}, mb3.9/3, mb1 4.0/3, mb1mx3.9/14, mbtmp3.9/3, Error ellipse: s-maj=49.9km s-min=39.5km az=8.0*
*NEIC **15** 16:20:16.2±0.9, 59°.15S×26°.88W, h35^{km}, mb4.5/4, Error ellipse: s-maj=30.0km s-min=21.6km az=163.0*
ISC 15 16:20:11.3±0.9, 59°.4S±0°.1×26°.8W±0°.3, h10^{km}, n14, σ1^{s}.18/11, mb4.1/5, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	Neumayer Olymp	13.76	156	eP	Pn	16 23 26.2	+0.1
VNA3				eS	Sn	16 25 39.3	-19
VNA2	Neumayer--Watz	14.02	153	eP	Pn	16 23 28.6	-1.0
	baz=327,slow=14						
PMSA	Palmer Station	18.04	237	eP	Pn	16 24 25.3	+3.7
	114nm,1.2s						
EFI	East Falkland	19.18	280	eP	Pn	16 24 35.9	+0.3
	40nm,1.0s						
PLCA	Paso Flores	32.95	285	P	P	16 26 52.4	+6.7
	1.2nm,0.5s,mb4.1,baz=127,slow=9.7,SNR=5.3						
PLCA	Paso Flores	32.95	285	P	P	16 26 52.4	+6.7
LVC	Limon Verde	47.25	302	eP	P	16 28 43.8	-0.6
	3.8nm,0.9s,mb4.3						
TORD	Torodi Ar. Bea	75.91	29	P	P	16 31 59.0	+1.2
	0.6nm,0.5s,mb3.8,baz=192,slow=5.5,SNR=6.0						
SDV	Santo Domingo	76.56	315	eP	P	16 31 59.1	-2.5
	1.4nm,0.3s,mb4.4						
ASAR	Alice Springs	95.70	162	P	P	16 33 38.1	+1.0
	0.2nm,0.6s,mb3.7,baz=180,slow=4.9,SNR=3.5						
CBN	Corbin	105.89	321	ePKPdf	PKiKP	16 38 36.2	+1.9
YKA	Yellowknife Ar	138.78	315	PKP	PKPdf	16 39 37.7	+1.8
	0.4nm,0.6s,baz=127,slow=2.3,SNR=10.0						
YKA	Yellowknife Ar	138.78	315	PKP	PKPdf	16 39 37.7	+1.7
SONM	Songino Array	150.54	92	PKPbc	PKPbc	16 40 03.1	+1.1
	0.3nm,0.6s,baz=236,slow=2.5,SNR=3.6						

IDC 15 16:21:03.1±1.4, 9°.18S×122°.37E, h0^{km}, mb3.4/3, mb1 3.5/6, mb1mx3.5/18, mbtmp3.4/6, ML3.0/3, Error ellipse: s-maj=124.2km s-min=22.9km az=62.0, Savu Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	9.43	161	Pn	Pn	16 23 20.5	+0.2
	0.1nm,0.3s,baz=351,slow=13,SNR=2.4						
FITZ				Sn	Sn	16 24 56.6	-10
	0.1nm,0.3s,baz=270,slow=20,SNR=2.9						
WRA	Warramunga Arr	15.76	134	Pn	Pn	16 24 44.6	-2.0
	0.1nm,0.3s,baz=308,slow=14,SNR=6.5						
ASAR	Alice Springs	18.15	144	P	Pn	16 25 18.1	+1.4
	0.1nm,0.3s,baz=326,slow=14,SNR=5.8						
SONM	Songino Array	58.50	347	P	P	16 31 02.2	+1.2
	0.2nm,0.6s,baz=149,slow=8.0,SNR=2.6						
MKAR	Makanchi Array	66.17	331	P	P	16 31 53.2	+0.7
	0.2nm,0.5s,baz=146,slow=7.2,SNR=5.0						
ZALV	Zalesovo Beam	70.43	338	P	P	16 32 17.6	-1.4
	0.3nm,0.4s,baz=131,slow=6.3,SNR=2.5						

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*IDC **15** 16:35:32.2±2.0, 48°.93N×156°.17E, h0^{km}, mb3.4/5, mb1 3.6/6, mb1mx3.4/23, mbtmp3.4/6, ML2.9/1, Error ellipse: s-maj=47.0km s-min=29.7km az=167.0*
*MOS **15** 16:35:35.4±2.1, 49°.07N×156°.20E, h40^{km}, mb4.3/1, Error ellipse: s-maj=32.9km s-min=11.0km az=77.8*
*ISCJB **15** 16:35:36.3±3.5, 49°.21N±0°.10×156°.4E±0°.2, h32^{km}±25^{km}, mb3.5/5, Error ellipse: s-maj=21.7km s-min=16.2km az=5.2*
*NEIC **15** 16:35:37.5±1.1, 49°.03N×156°.14E, h35^{km}, Error ellipse: s-maj=27.5km s-min=11.2km az=135.0*
*KRSC **15** 16:35:38.3±1.0, 49°.44N×156°.89E, h10^{km}±10^{km}, ML4.1*
ISC 15 16:35:36.5±3.0, 49°.21N±0°.09×156°.2E±0°.2, h21^{km}±23^{km}, n17, σ1^{s}.24/22, mb3.5/5, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril’s	1.48	359	ePN	Pn	16 36 02.9	+1.0
SKR				i S	Sn	16 36 20.1	-0.5
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=E,50nm,0.5s						
SKR				pmax	pmax		
	comp=Z,90nm,0.5s						
SKR				smax			
	comp=E,340nm,0.4s						
SKR				smax			
	comp=N,1μm,0.3s						
SKR				smax			
	comp=Z,340nm,0.4s						
MIPR	Malaya Ipel’ka	3.10	7	P	Pn	16 36 23.1	-1.0
RUS	Russkaya	3.56	24	eP	Pn	16 36 28.1	-2.4
RUS				eS	Sn	16 37 05.3	-6.6
PETK	Petropavlovsk-	4.03	13	Pn	Pn	16 36 39.5	+2.6
	comp=Z,0.7nm,0.3s,baz=201,slow=13,SNR=22						
PETK				Sn	Sn	16 37 29.9	+6.6
	comp=Z,1.0nm,0.3s,baz=4.0,slow=30,SNR=3.8						
PET	Petropavlovsk	4.14	21	P	Pn	16 36 38.3	-0.1
PET				S	Sn	16 37 21.1	-5.0
PET	Petropavlovsk	4.14	21	ePn	Pn	16 36 38.9	+0.6
PET				eSn	Sn	16 37 24.0	-2.1
NLC	Nalytchevo	4.45	26	S	Sn	16 37 26.7	-7.1
GNL	Ganaly	4.63	13	P	Pn	16 36 47.3	+2.1
TUMR	Tumrok	6.56	20	P	Pn	16 37 11.9	+0.2
KBTR	Krutoberegovo	8.10	27	P	Pn	16 37 32.2	-0.5
ERM	Erimo	11.59	237	PN	Pn	16 38 18.1	-2.5
ERM				pmax	pmax		
	comp=Z,13nm,0.8s						
ERM	Erimo	11.59	237	Pn	Pn	16 38 18.1	-2.4
	comp=Z,13nm,0.8s						
ZALV	Zalesovo Beam	42.86	305	P	P	16 43 32.6	-0.2
	comp=Z,0.3nm,0.3s,mb3.5,baz=49,slow=6.1,SNR=2.8						
MKAR	Makanchi Array	47.64	297	P	P	16 44 11.2	+0.4
	comp=Z,0.4nm,0.8s,mb3.5,baz=57,slow=7.6,SNR=5.4						
YKA	Yellowknife Ar	47.73	39	P	P	16 44 11.4	+0.1
	comp=Z,0.1nm,0.4s,mb3.2,baz=299,slow=7.7,SNR=3.1						
YKA				pP	pP	16 44 25.7	+7.9
	comp=Z,0.2nm,0.6s,baz=296,slow=7.5,SNR=3.7						
TXAR	Lajitas Array	74.53	63	P	P	16 47 13.7	+0.1
	comp=Z,0.5nm,0.8s,mb3.5,baz=291,slow=4.0,SNR=4.3						
GERES	GERESS Array B	77.10	336	P	P	16 47 28.7	+0.8
	comp=Z,0.4nm,0.5s,mb3.6,baz=46,slow=4.2,SNR=3.3						

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*ISCJB **15** 16:52:38.0±0.7, 43°.32N±0°.05×101°.0E±0°.1, h10^{km}, Error ellipse: s-maj=10.7km s-min=6.6km az=11.3*
*IDC **15** 16:52:42.7±5.4, 43°.75N×100°.74E, h0^{km}, mb3.5/1, mb1 3.4/4, mb1mx3.2/27, mbtmp3.4/4, ML3.0/3, MS2.6/1, Ms1 2.6/1, ms1mx2.3/26, Error ellipse: s-maj=75.8km s-min=21.1km az=162.0*
*NEIC **15** 16:52:43.0±1.5, 43°.34N×100°.92E, h35^{km}, mb3.1/1, Error ellipse: s-maj=28.5km s-min=11.7km az=186.0*
ISC 15 16:52:40.8±0.7, 43°.42N±0°.05×101°.01E±0°.09, h10^{km}, n9, σ1^{s}.53/14, Mongolia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTA	Gaotai	4.11	193	Pn	Pn	16 53 46.6	+3.0
GTA				Pg	Pg	16 53 56.8	-2.7
GTA				Sn	Sn	16 54 36.5	+4.8
GTA				Sg	Sg	16 54 51.8	-0.9
GTA				smax			
	comp=N,40nm,1.2s						
GTA				smax			
	comp=E,65nm,0.9s						
SONM	Songino Array	5.80	39	Pn	Pn	16 54 08.5	+1.6
	comp=E,0.5nm,0.3s,baz=224,slow=15,SNR=7.4						
SONM				Pg	Pg	16 54 25.6	-6.2
	comp=E,1.5nm,0.3s,baz=225,slow=16,SNR=14						
SONM				Lg		16 55 43.0	
	comp=E,4.0nm,0.3s,baz=228,slow=31,SNR=6.4						
SONM				LR	LR	16 56 47.2	
	comp=E,63nm,21.4s,baz=328,slow=43						
ULN	Ulaanbaatar	6.13	42	ePn	Pn	16 54 12.8	+1.4
	comp=E,5.7nm,0.6s						
ULN				eSn	Sg	16 55 53.9	-3.8
BJT	Baijiatuau	11.82	102	Pn	Pn	16 55 29.6	+0.2
	comp=E,7.2nm,0.3s						
MKAR	Makanchi Array	13.64	291	Pn	Pn	16 55 55.2	+1.1
	comp=E,0.0nm,0.3s,baz=97,slow=11,SNR=3.3						
MKAR				Lg		16 59 44.0	
	comp=E,0.1nm,0.3s,baz=102,slow=27,SNR=6.0						
MKAR	Makanchi Array	13.64	291	Pn	Pn	16 55 55.2	+1.0
MKAR				Lg		16 59 44.0	
ZALV	Zalesovo Beam	14.97	320	Pn	Pn	16 56 12.2	0.0
	comp=E,0.1nm,0.3s,baz=128,slow=12,SNR=6.4						
KURK	Kurchatov	16.87	303	Pn	Pn	16 56 33.6	-3.2
	comp=E,1.7nm,1.1s						
BVAR	Borovoye Array	22.39	306	P	P	16 57 38.2	-0.9
	comp=E,2.0nm,0.8s,baz=110,slow=13,SNR=6.7						

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*ISCJB **15** 16:54:05.6±0.4, 22°.91S±0°.03×70°.28W±0°.06, h59^{km}±3^{km}, mb4.5/15, Error ellipse: s-maj=8.9km s-min=4.2km az=7.9*
*IDC **15** 16:54:06.0±0.6, 23°.02S×70°.23W, h49^{km}±4^{km}, mb4.1/10, mb1 4.3/12, mb1mx4.2/19, mbtmp4.1/12, MS3.3/4, Ms1 3.3/4, ms1mx3.3/21, Error ellipse: s-maj=17.4km s-min=6.7km az=169.0*
*NEIC **15** 16:54:06.4, 22°.91S×70°.17W, h46^{km}, mb4.8/5, MD4.5(GUC), After GUC.*
NEIC Felt [III] at Mejillones and Tocopilla; [II] at Antofagasta, Chanaral and Maria Elena.
*GUC **15** 16:54:06.4±0.8, 22°.91S×70°.17W, h46^{km}±2^{km}, MD4.5, ML4.7*
ISC 15 16:54:06.3±0.4, 22°.93S±0°.03×70°.24W±0°.06, h51^{km}±4^{km}, h52^{km}±3.8^{km}:pP-P, n54, σ1^{s}.01/47, mb4.5/15, 6C-4D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MECH	Mejillones	0.26	229	⇓iP	Pn	16 54 14.9	-0.3
MECH				i S	Sn	16 54 22.2	+0.7
MECH				AML	AML	16 54 30.5	
	comp=N,78μm,0.7s						
TOCH	Tocopilla	0.84	2	⇑iP	Pn	16 54 21.9	0.0
TOCH				i S	Sn	16 54 33.7	+0.4
TOCH				AML	AML	16 54 34.7	
	comp=E,55μm,0.1s						
MACH	Maria Elena	0.86	31	⇑iP	Pn	16 54 22.2	+0.1
MACH				i S	Sn	16 54 34.3	+0.6
PB04	Plate Boundary	0.96	46	⇓iP	Pn	16 54 19.0	-4.5
PB04				i S	Sn	16 54 28.8	-7.3
PB04				AML	AML	16 54 29.8	
	comp=E,101μm,0.3s						
LVC	Limon Verde	1.26	76	P	Pn	16 54 28.3	+0.7
	comp=E,2μm,0.3s,baz=253,slow=10						
LVC				S	Sn	16 54 44.1	+0.6
	comp=E,8μm,0.3s,baz=62,slow=17,SNR=125						
LVC				LR	LR	16 55 02.6	
	comp=E,3μm,20.7s,baz=185,slow=44						
LVC	Limon Verde	1.26	76	⇑iPn	Pn	16 54 28.2	+0.6
LVC				eSn	Sn	16 54 44.2	+0.8
LVC	Limon Verde	1.26	76	i P	Pn	16 54 28.3	+0.7
LVC				i S	Sn	16 54 44.5	+1.0
LVC				AML	AML	16 54 45.1	
	comp=E,28μm,0.3s						
CPN1	Cerro Paranal	1.69	185	⇑iP	Pn	16 54 32.7	-0.7
CPN1				i S	Sn	16 54 54.8	+0.9
CPN1				AML	AML	16 55 02.5	
	comp=E,8μm,0.1s						
PB01	Plate Boundary	2.00	20	⇓iP	Pn	16 54 38.4	+0.7
PB01				i S	Sn	16 55 02.5	+0.9
PB01				AML	AML	16 55 07.0	
	comp=N,6μm,0.4s						
PB01				AML	AML	16 55 12.5	
	comp=E,7μm,0.4s						
HMBC	Humberston	2.66	7	⇑iP	Pn	16 54 46.5	-0.3
HMBC				i S	Sn	16 55 17.8	0.0
HMBC				AML	AML	16 55 41.5	
	comp=N,8μm,0.6s						
PSGC	Pisagua	3.32	2	⇑iP	Pn	16 54 54.9	-0.9
PSGC				i S	Sn	16 55 33.7	-0.3
PSGC				AML	AML	16 55 55.9	
	comp=E,2μm,0.4s						
LCO	Las Campanas	6.07	184	ePn	Pn	16 55 31.1	-2.3
	comp=E,83nm,0.4s						
LCO				eSn	Sn	16 56 44.6	+3.1
ARE	Arequipa	6.55	349	⇓iP	Pn	16 55 39.6	-0.4
ARE				i S	Sn	16 56 50.5	-2.9
CFAA	Coronel Fontan	8.82	169	P	Pn	16 56 08.8	-2.3
	comp=E,0.2nm,0.3s,baz=354,slow=10,SNR=11						
CFAA				S	Sn	16 57 54.3	+5.2
	comp=E,0.6nm,0.3s,baz=14,slow=19,SNR=2.6						
CFAA				LR	LR	16 59 58.4	
	comp=E,33nm,21.9s,baz=322,slow=40						
CPUP	Villa Florida	12.21	109	P	Pn	16 56 56.1	-1.5
	comp=E,0.8nm,0.3s,baz=274,slow=12,SNR=12						
CPUP				LR	LR	17 02 17.0	
	comp=E,399nm,19.2s,baz=266,slow=40						
CPUP	Villa Florida	12.21	109	ePn	Pn	16 56 55.6	-2.0
	comp=E,40nm,0.6s						
CPUP				LR	LR	17 02 17.0	
NNA	Nana	12.57	329	ePn	Pn	16 56 57.1	-5.4
PLCA	Paso Flores	17.75	181	P	Pn	16 58 09.9	+0.3
	comp=E,0.1nm,0.3s,baz=356,slow=13,SNR=11						
PLCA				LR	LR	17 05 20.6	
	comp=E,148nm,18.9s,baz=131,slow=38						
OTAV	Otavalo	24.38	340	eP	P	16 59 18.6	-1.2
	comp=E,1.8nm,0.3s,mb4.0						
ROSC	El Rosal	27.91	351	LR	LR	17 11 37.7	
	comp=E,91nm,20.8s,baz=154,slow=38						
RCBR	Riachuelo	37.21	68	eP	P	17 01 12.1	-0.8
	comp=E,53nm,1.3s,mb5.2						
TEIG	Tepich	46.37	336	eP	P	17 02 27.0	-0.6
	comp=E,5.0nm,0.4s,mb4.8						
JCT	Junction City	60.22	331	eP	P	17 04 09.9	+0.7
	comp=E,6.9nm,0.8s,mb4.7						
TXAR	Lajitas Array	61.12	327	P	P	17 04 15.8	+0.4
	comp=E,0.8nm,0.7s,mb4.0,baz=154,slow=8.9,SNR=9.0						
TXAR				pP	pP	17 04 29.2	-0.4
	comp=E,0.7nm,0.8s,baz=141,slow=6.4,SNR=4.8						
ANMO	Albuquerque	67.05	328	P	P	17 04 55.9	+1.7
	comp=E,2.0nm,0.6s,mb4.3,baz=147,slow=7.1,SNR=4.9						
QSPA	South Pole Qui	67.26	180	eP	P	17 04 55.6	+0.6
	comp=E,14nm,1.2s,mb4.9						
DBIC	Dimbokro	70.32	74	P	P	17 05 14.1	-0.9
	comp=E,8.9nm,0.7s,mb4.8,baz=223,slow=3.0,SNR=11						
PDAR	Pinedale Array	74.75	331	P	P	17 05 41.8	+1.1
	comp=E,0.5nm,0.5s,mb3.7,baz=137,slow=8.5,SNR=8.2						
NVAR	Mina Array Bea	75.88	323	P	P	17 05 48.5	+1.2
	comp=E,0.9nm,0.6s,mb3.9,baz=150,slow=6.7,SNR=4.5						
ULM	Lac du Bonnet	76.32	343	P	P	17 05 49.0	-0.5
	comp=E,1.9nm,0.4s,mb4.3,baz=143,slow=4.7,SNR=4.6						
TORD	Torodi Ar. Bea	78.99	71	P	P	17 06 04.5	-0.7
	comp=E,15nm,0.7s,mb5.0,baz=253,slow=5.2,SNR=59						
TORD				pP	pP	17 06 20.9	+1.0
	comp=E,4.5nm,0.5s,baz=253,slow=5.5,SNR=6.0						
MDT	Midelt	83.60	51	P	P	17 06 30.7	+1.4
	comp=E,2.2nm,0.9s,mb4.3,baz=279,slow=8.1,SNR=4.1						
BOSA	Boshof	83.86	118	P	P	17 06 30.6	-0.3
	comp=E,8.5nm,0.8s,mb4.9,baz=258,slow=5.6,SNR=15						
YKA	Yellowknife Ar	92.13	341	P	P	17 07 09.8	+0.2
	comp=E,1.8nm,0.6s,mb4.6,baz=140,slow=4.2,SNR=43						
YKA				pP	pP	17 07 23.0	-1.5
	comp=E,1.0nm,0.7s,baz=136,slow=4.9,SNR=6.3						
ASAR	Alice Springs	128.08	208	PKP	PKPdf	17 13 07.3	-0.1
	comp=E,0.7nm,0.6s,baz=135,slow=2.1,SNR=16						
ASAR				pPKP	pPKPdf	17 13 20.9	-1.9
	comp=E,1.3nm,0.7s,baz=138,slow=2.0,SNR=8.4						
WRA	Warramunga Arr	131.10	211	PKP	PKPdf	17 13 13.5	+0.3
	comp=E,0.8nm,0.6s,baz=151,slow=1.6,SNR=21						
WRA				pPKP	pPKPdf	17 13 28.6	0.0
	comp=E,1.1nm,0.8s,baz=145,slow=1.6,SNR=4.5						
ZALV	Zalesovo Beam	143.77	25	PKP	PKPdf	17 13 33.9	-1.4
	comp=E,1.9nm,0.7s,baz=291,slow=3.5,SNR=6.7						
ZALV	Zalesovo Beam	143.77	25	PKP	PKPdf	17 13 33.9	-1.4
AML	Almayashu	144.41	49	P	PKPdf	17 13 37.4	+0.5
	SNR=9.1						
AML	Almayashu	144.41	49	ePKPdf	PKPdf	17 13 37.1	+0.2
AAK	Ala-Archa	144.78	48	P	PKPdf	17 13 38.3	+0.8
	SNR=11						
AAK	Ala-Archa	144.78	48	ePKPdf	PKPdf	17 13 37.5	+0.1
AAK				pPKPdf	pPKPdf	17 13 52.0	-1.0
AAK				esPKPdf		17 13 57.6	
UCH	Uchtor	144.94	48	P	PKPdf	17 13 39.4	+1.6
	SNR=13						
UCH	Uchtor	144.94	48	ePKPdf	PKPdf	17 13 38.9	+1.1
UCH				pPKPdf	pPKPdf	17 13 52.0	-1.2
UCH				esPKPdf		17 13 58.2	
KBK	Karagaybulak	145.07	47	P	PKPbc	17 13 39.3	+1.8
	SNR=9.4						
TKM2	Tokmak 2	145.41	47	P	PKPdf	17 13 39.9	+1.3
	SNR=7.8						
TKM2	Tokmak 2	145.41	47	ePKPbc	PKPbc	17 13 39.6	+1.0
TKM2				epPKPdf	pPKPdf	17 13 53.4	-0.6
TKM2				esPKPdf		17 13 58.9	
MKAR	Makanchi Array	147.51	36	PKP	PKPdf	17 13 42.1	+0.1
	comp=E,3.5nm,0.7s,baz=329,slow=2.6,SNR=30						
MKAR				PKPbc	PKPbc	17 13 45.1	+0.4
	comp=E,3.5nm,0.7s,baz=314,slow=1.3,SNR=26						
MKAR				pPKPbc	pPKPbc	17 13 58.8	-1.1
	comp=E,5.4nm,0.7s,baz=324,slow=2.6,SNR=16						
MKAR	Makanchi Array	147.51	36	PKP	PKPdf	17 13 42.1	+0.1
MKAR				PKPbc	PKPbc	17 13 45.1	+0.4
MKAR				pPKPbc	pPKPbc	17 13 58.8	-1.2
HYB	Hyderabad	150.23	95	i PKP	PKPbc	17 13 53.0	+0.6
WMQ	Urumqi	152.34	36	ePKPbc	PKPdf	17 13 51.0	+1.3
CN2	Changchun	155.49	332	ePKP	PKPdf	17 13 55.8	+1.6
HHC	Hu-ho-hao-te	162.07	356	ePKP	PKPdf	17 14 01.0	-1.1
HHC				pPKP	pPKPdf	17 14 11.4	-6.1
HHC				PKPab	PKPab	17 14 49.6	+1.1
HHC				PKS		17 17 33.3	
HHC				PP	PP	17 18 34.5	+2.9
HHC				SKS	SKSdf	17 21 01.3	-1.4
HHC				SKKS	SKKSac	17 25 17.3	+0.9
HHC				SS	SS	17 38 48.4	+1.7
HHC				AMB	AMB		
	comp=Z,110nm,6.5s						
HHC				LR	LR		
	comp=N,140nm,14.2s						
HHC				LR	LR		
	comp=E,120nm,13.7s						
HHC				LR	LR		
	comp=Z,200nm,17.3s						
GYA	Guiyang	175.50	38	ePKP	PKPdf	17 14 09.4	-1.7
GYA				pPKP	pPKPdf	17 14 24.3	-2.3
GYA				sPKP		17 14 30.5	
GYA				PKPab	PKPab	17 15 48.8	+0.4
GYA				PKS		17 17 40.6	
GYA				PP	PP	17 19 41.3	+0.9
GYA				SKS	SKSdf	17 21 07.3	-2.8
GYA				SKKS	SKKSac	17 26 22.3	-0.9
GYA				SS	SS	17 41 01.0	-1.2
GYA				AMB	AMB		
	comp=Z,80nm,8.5s						
GYA				LR	LR		
	comp=N,140nm,25.0s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
GYA				LR	LR		
	comp=E,120nm,22.3s						
GYA				LR	LR		
	comp=Z,120nm,24.7s						

CASC 15 16:57:43.2±2.0, 8.°66N×83.°15W, h6^{km}±5^{km}, MD3.8, 1C-1D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	**Cerro Adams**	0.02	245	⇓iP	Pg	16 57 45.0	+0.7
BRU2	**Volcan**	0.47	74	eS	Sg	16 58 01.1	+2.7
BAR1		0.60	344	⇑iP	Pg	16 57 54.6	-0.1
BAR1				eS	Sg	16 58 04.9	+2.4
CNI	**Changuinola**	0.97	40	eP	Pg	16 58 01.0	-0.9
CNI				eS	Sg	16 58 16.6	+2.0
BUS	**Buena Vista**	1.07	326	eP	Pg	16 58 02.4	-1.5
BUS				eS	Sg	16 58 19.7	+1.9
URSC	**Urasca**	1.32	332	eP	Pn	16 58 06.1	-2.1
LCR2	**La Lucha 2**	1.36	322	eP	Pn	16 58 07.9	-1.0
LCR2				eS	Sb	16 58 27.5	+0.6
LAJ	**Bijagual**	1.53	321	eP	Pn	16 58 14.4	+3.3
CGA2	**Cerro Gallo 2**	1.87	316	eP	Pn	16 58 16.2	+0.3

PRU 15 17:02:59.4, 43.°62N×20.°21E, h0^{km}, M4.0

ISCJB 15 17:03:01.8±0.2, 43.°911N±0.°009×20.°39E±0.°01, h15^{km}±1^{km}, mb4.0/22, MS3.8/10, Error ellipse: s-maj=1.6km s-min=1.4km az=143.2

IDC 15 17:03:01.0±0.6, 43.°82N×20.°27E, h0^{km}, mb3.9/14, mb1 4.0/24, mb1mx4.0/34, mbtmp3.9/24, ML4.0/10, MS3.6/19, Ms1 3.6/19, ms1mx3.5/36, Error ellipse: s-maj=12.2km s-min=8.5km az=18.0

LDG 15 17:03:01.4±0.1, 43.°90N×20.°41E, h10^{km}, Ml4.3/7, ms3.4/7, Error ellipse: s-maj=1.8km s-min=1.5km az=37.0

NEIC 15 17:03:02.3, 43.°88N×20.°43E, h14^{km}, mb4.0/8, ML4.4(PDG), ML4.5(BUC), After PDG.

NEIC Felt at Belgrade.

PDG 15 17:03:02.3±0.7, 43.°88N×20.°43E, h14^{km}±1^{km}, MD4.3/10, ML4.4/10, Error ellipse: s-maj=0.6km s-min=0.9km az=0.0

BEO 15 17:03:02.9±0.2, 43.°86N×20.°38E, h6^{km}±2^{km}, ML4.6/14

CSEM 15 17:03:02.4±0.1, 43.°89N×20.°42E, h5^{km}, mb4.2/7, ML4.6, Error ellipse: s-maj=1.6km s-min=1.4km az=44.0

MOS 15 17:03:03.8±0.9, 43.°90N×20.°35E, h33^{km}, mb4.4/9, Error ellipse: s-maj=3.7km s-min=2.4km az=104.7

THE 15 17:03:03.3, 43.°83N×20.°63E, h0^{km}±5^{km}, ML4.8/1, Error ellipse: s-maj=10.0km s-min=2.0km az=333.0

SZGRF 15 17:03:04.9, 43.°95N×20.°39E, h10^{km}, mb3.0, MS4.4, Northwestern Balkan Peninsula

STR 15 17:03:07.6±7.5, 43.°95N×19.°95E, h10^{km}, Ml4.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0

ISC 15 17:03:03.1±0.2, 43.°902N±0.°008×20.°41E±0.°01, h9^{km}±1^{km}, n696, σ1.^{s}09/842, mb4.0/22, MS3.8/10, 66C-67D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRUS	**Gruza**	0.22	93	⇑iPg	Pg	17 03 07.5	0.0
GRUS				eSg	Sg	17 03 12.6	+2.1
GRUS	**Gruza**	0.22	93	P	Pg	17 03 07.0	-0.5
GRUS	**Gruza**	0.22	93	P	Pg	17 03 07.0	-0.5
GRUS	**Gruza**	0.22	93	⇑iPg	Pg	17 03 07.5	0.0
GRUS				eSg	Sg	17 03 12.6	+2.1
TRUS	**Trudelj**	0.32	359	⇓iPg	Pg	17 03 08.9	-0.5
TRUS				eSg	Sg	17 03 14.7	+1.0
TRUS	**Trudelj**	0.32	359	⇓iPg	Pg	17 03 08.9	-0.5
TRUS				eSg	Sg	17 03 14.7	+1.0
DIVS	**Divibare**	0.36	303	⇑iPg	Pg	17 03 09.5	-0.7
DIVS				eSg	Sg	17 03 15.6	+0.6
DIVS	**Divibare**	0.36	303	⇑iPg	Pg	17 03 09.5	-0.7
SVIS	**Svilajnac**	0.68	58	⇓iPg	Pg	17 03 16.6	+0.3
SVIS				eSg	Sg	17 03 27.4	+2.2
SVIS	**Svilajnac**	0.68	58	P	Pg	17 03 16.7	+0.4
SJES	**Sjenica**	0.72	207	⇓iPg	Pg	17 03 15.0	-1.9
SJES				eSg	Sg	17 03 24.9	-1.3
SJES	**Sjenica**	0.72	207	⇓iPg	Pg	17 03 15.0	-1.9
SJES				eSg	Sg	17 03 24.9	-1.3
BBLS	**Lazići**	0.73	268	⇑iPg	Pg	17 03 15.9	-1.3
BBLS				eSg	Sg	17 03 25.4	-1.3
BBLS	**Lazići**	0.73	268	P	Pg	17 03 15.5	-1.7
BBLS	**Lazići**	0.73	268	⇑iPg	Pg	17 03 15.9	-1.3
BBLS				eSg	Sg	17 03 25.4	-1.3
BEO	**Beograd**	0.91	3	⇑iPg	Pg	17 03 21.2	+0.6
BEO				eSg	Sg	17 03 34.0	+1.6
BEO	**Beograd**	0.91	3	P	Pg	17 03 21.0	+0.4
BEO	**Beograd**	0.91	3	⇑iPg	Pg	17 03 21.2	+0.6
PLE	**Pljevlja**	0.94	233	⇓iPg	Pg	17 03 19.5	-1.6
PLE				eSg	Sg	17 03 34.5	+1.3
PLE	**Pljevlja**	0.94	233	⇓iPg	Pg	17 03 19.5	-1.6
PLE				eSg	Sg	17 03 34.5	+1.3
BEY	**Berane**	1.10	200	⇓iPg	Pg	17 03 22.6	-1.5
BEY				eSg	Sg	17 03 38.6	+0.2
IVA	**Berane**	1.10	200	⇓iPg	Pg	17 03 22.6	-1.5
IVA				eSg	Sg	17 03 38.6	+0.2
IVA	**Berane**	1.10	200	⇓iPg	Pg	17 03 22.6	-1.5
IVA				eSg	Sg	17 03 38.6	+0.2
BOLS	**Boljevac**	1.12	93	⇑iPg	Pg	17 03 23.8	-0.7
BOLS				i Sg	Sg	17 03 39.6	+0.6
BOLS	**Boljevac**	1.12	93	⇑iPg	Pg	17 03 23.8	-0.7
BOLS				i Sg	Sg	17 03 39.6	+0.6
NISS		1.22	114	⇑iPg	Pg	17 03 25.4	-1.1
NISS				eSg	Sg	17 03 42.5	+0.2
NISS		1.22	114	⇑iPg	Pg	17 03 25.4	-1.1
NISS				eSg	Sg	17 03 42.5	+0.2
UPM	**Unac-Piva**	1.30	238	⇓iPg	Pg	17 03 26.2	-1.8
UPM				eSg	Sg	17 03 46.6	+1.8
UPM	**Unac-Piva**	1.30	238	⇓iPg	Pg	17 03 26.2	-1.8
UPM				eSg	Sg	17 03 46.6	+1.8
FGSL	**Fruska Gora**	1.33	341	ePg	Pg	17 03 27.8	-0.8
FGSL				eSg	Sg	17 03 46.1	+0.3
FRGS	**Fruska Gora**	1.33	341	ePg	Pg	17 03 27.8	-0.8
FRGS				eSg	Sg	17 03 46.1	+0.3
PVY	**Plav**	1.34	194	⇓iPg	Pg	17 03 26.9	-2.0
PVY				eSg	Sg	17 03 47.4	+1.1
PVY	**Plav**	1.34	194	⇓iPg	Pg	17 03 26.9	-2.0
PVY				eSg	Sg	17 03 47.4	+1.1
BARS	**Barje**	1.49	136	⇑iPg	Pg	17 03 29.0	-2.7
BARS				eSg	Sg	17 03 49.9	-1.1
BARS	**Barje**	1.49	136	⇑iPg	Pg	17 03 29.0	-2.7
BARS				eSg	Sg	17 03 49.9	-1.1
NKY	**Niksic**	1.50	224	⇑iPg	Pg	17 03 29.7	-2.2
NKY				eSg	Sg	17 03 51.7	+0.4
NKY	**Niksic**	1.50	224	⇑iPg	Pg	17 03 29.7	-2.2
NKY				eSg	Sg	17 03 51.7	+0.4
BRY	**Bratogost**	1.69	234	⇑iPn	Pn	17 03 31.9	-0.9
BRY				eSn	Sn	17 03 56.0	+1.4
BRY	**Bratogost**	1.69	234	⇑iPn	Pn	17 03 31.9	-0.9
BRY				eSn	Sn	17 03 56.0	+1.4
DJES	**Djerdap**	1.69	62	⇑iPg	Pg	17 03 32.2	-3.4
DJES				eSg	Sg	17 03 57.5	-0.1
DJES	**Djerdap**	1.69	62	P	Pn	17 03 30.9	-2.0
PDG	**Podgorica**	1.70	210	⇑iPn	Pn	17 03 31.9	-1.0
PDG				eSn	Sn	17 03 56.4	+1.7
TTG	**Podgorica**	1.70	210	⇑iPn	Pn	17 03 31.9	-1.0
TTG				eSn	Sn	17 03 56.4	+1.7
TTG	**Podgorica**	1.70	210	⇑iPn	Pn	17 03 31.9	-1.0
TTG				eSn	Sn	17 03 56.4	+1.7
ZAPS	**Zavoj**	1.73	111	⇑iPg	Pg	17 03 33.4	-2.9
ZAPS				eSn	Sn	17 03 56.2	+0.6
BZS	**Buzias**	1.92	26	⇑iP	Pn	17 03 35.6	-0.3
BZS	**Buzias**	1.92	26	S	Sn	17 04 06.4	+6.2
BZS	**Buzias**	1.92	26	P	Pn	17 03 35.0	-0.9
BZS	**Buzias**	1.92	26	P	Pn	17 03 35.6	-0.3
TIM	**Timisoara**	1.92	17	⇓iP	Pn	17 03 39.7	+3.7
TIM	**Timisoara**	1.92	17	S	Sn	17 04 07.1	+6.8
TIM	**Timisoara**	1.92	17	⇓iP	Pn	17 03 39.7	+3.7
BUM	**Brajici-Budva**	1.95	215	⇓iPn	Pn	17 03 35.9	-0.5
BUM				eSn	Sn	17 04 02.3	+1.4
BUM	**Brajici-Budva**	1.95	215	⇓iPn	Pn	17 03 35.9	-0.5
BUM				eSn	Sn	17 04 02.3	+1.4
HCY	**Herceg Novi**	2.02	225	⇓iPn	Pn	17 03 37.0	-0.3
HCY				eSn	Sn	17 04 04.2	+1.5
HCY	**Herceg Novi**	2.02	225	⇓iPn	Pn	17 03 37.0	-0.3
HCY				eSn	Sn	17 04 04.2	+1.5
SKO	**Skopje**	2.07	158	P	Pn	17 03 37.5	-0.6
SKO				S	Sn	17 04 03.2	-0.8
SKO	**Skopje**	2.07	158	i Pn	Pn	17 03 37.7	-0.3
SKO				eLg		17 04 11.1	
	comp=E,2µm,0.9s						
SKO				eLg		17 04 11.3	
	comp=N,1µm,0.8s						
SKO	**Skopje**	2.07	158	i Pn	Pn	17 03 37.7	-0.4
SKO				S	Sn	17 04 03.2	-0.8
SKO				eLg		17 04 11.1	
	comp=N,2µm,0.9s						
ULC	**Ulcinj**	2.12	204	⇓iPn	Pn	17 03 38.7	0.0
ULC				eSn	Sn	17 04 06.3	+1.2
ULC	**Ulcinj**	2.12	204	⇓iPn	Pn	17 03 38.7	0.0
ULC				eSn	Sn	17 04 06.3	+1.2
STON	**Ston**	2.23	243	ePn	Pn	17 03 40.7	+0.5
STON				Sn	Sn	17 04 09.2	+1.3
STON	**Ston**	2.23	243	ePn	Pn	17 03 40.7	+0.5
STON				Sn	Sn	17 04 09.2	+1.3
GZR	**Gura Zlata**	2.25	48	⇓iP	Pn	17 03 40.4	-0.1
GZR	**Gura Zlata**	2.25	48	P	Pn	17 03 40.4	-0.2
GZR	**Gura Zlata**	2.25	48	P	Pn	17 03 40.4	-0.1
VTS	**Vitosha**	2.43	122	P	Pn	17 03 42.1	-0.8
VTS				S	Sn	17 04 12.4	-0.3
VTS	**Vitosha**	2.43	122	P	Pn	17 03 42.1	-0.8
VTS				S	Sn	17 04 12.4	-0.3
BLY	**Banja Luka**	2.47	291	⇓iPn	Pn	17 03 43.6	+0.1
BLY	**Banja Luka**	2.47	291	P	Pn	17 03 43.0	-0.5
BLY	**Banja Luka**	2.47	291	⇓iPn	Pn	17 03 43.6	+0.1
CRAR	**CRAIOVA**	2.48	79	⇓iP	Pn	17 03 47.6	+4.0
CRAR	**CRAIOVA**	2.48	79	⇓iP	Pn	17 03 47.6	+4.0
RHK3	**Tenkes**	2.51	323	⇑ePn	Pn	17 03 43.2	-0.9
TIR	**Tirane**	2.58	189	P	Pn	17 03 46.7	+1.6
TIR				S	Sn	17 04 18.8	+2.1
TIR	**Tirane**	2.58	189	eP	Pn	17 03 47.6	+2.5
TIR	**Tirane**	2.58	189	P	Pn	17 03 46.7	+1.6
TIR				S	Sn	17 04 18.8	+2.1
KRUS	**Krusevo**	2.61	166	i Pn	Pn	17 03 44.8	-0.6
KRUS	**Krusevo**	2.61	166	i Pn	Pn	17 03 44.7	-0.7
PKSM	**Moragy**	2.63	332	⇓iP	Pn	17 03 44.7	-1.0
PKSM	**Moragy**	2.63	332	P	Pn	17 03 44.7	-1.1
PKSM	**Moragy**	2.63	332	⇑ePn	Pn	17 03 44.9	-0.8
PKSM	**Moragy**	2.63	332	ePg	Pg	17 03 53.0	-0.5
DEV	**Deva**	2.66	41	⇑iP	Pn	17 03 53.3	+7.2
DEV	**Deva**	2.66	41	S	Sg	17 04 30.1	+1.7
OHR	**Ohrid**	2.80	174	i Pn	Pn	17 03 48.2	+0.1
OHR				eLg		17 04 33.0	
	comp=N,218nm,0.8s						
OHR				eLg		17 04 34.6	
	comp=E,6µm,1.1s						
OHR	**Ohrid**	2.80	174	P	Pn	17 03 48.0	-0.1
OHR	**Ohrid**	2.80	174	i Pn	Pn	17 03 48.2	+0.1
OHR				eLg		17 04 32.9	
	comp=E,218nm,0.8s						
BIA	**Bitola**	2.96	167	P	Pn	17 03 49.6	-0.7
BIA	**Bitola**	2.96	167	i Pn	Pn	17 03 50.8	+0.5
BIA				i Sn	Sg	17 04 37.7	-0.4
BIA	**Bitola**	2.96	167	i Pn	Pn	17 03 50.7	+0.4
VAY	**Valandovo**	3.03	148	P	Pn	17 03 49.8	-1.5
VAY	**Valandovo**	3.03	148	i Pn	Pn	17 03 50.0	-1.3
VAY				i Sn	Sg	17 04 41.8	+1.3
VAY				eLg		17 04 44.1	
	comp=N,3µm,1.1s						
VAY				eLg		17 04 44.3	
	comp=E,914nm,0.8s						
VAY	**Valandovo**	3.03	148	i Pn	Pn	17 03 49.9	-1.4
VAY				eLg		17 04 44.1	
	comp=E,3µm,1.1s						
PKS9	**Tamasi**	3.08	331	⇓Pn	Pn	17 03 51.4	-0.5
FNA	**Florina**	3.20	167	P	Pn	17 03 53.6	+0.1
FNA	**Florina**	3.20	167	P	Pn	17 03 53.6	+0.1
GRG	**Griva**	3.29	153	P	Pn	17 03 54.3	-0.5
GRG				S	Sn	17 04 33.8	-0.3
GRG	**Griva**	3.29	153	P	Pn	17 03 54.3	-0.5
GRG				S	Sn	17 04 33.8	-0.3
KNT	**Kendrikon**	3.30	145	P	Pn	17 03 53.9	-1.0
KNT	**Kendrikon**	3.30	145	P	Pn	17 03 53.9	-1.0
DRGR		3.31	28	⇑iP	Pn	17 03 55.1	0.0
DRGR		3.31	28	P	Pn	17 03 54.4	-0.8
DRGR		3.31	28	P	Pn	17 03 55.1	0.0
ZIMR		3.59	92	S	Sg	17 04 59.9	+1.4
MDB	**Medias**	3.59	50	⇑iP	Pn	17 04 00.6	+1.6
MDB	**Medias**	3.59	50	⇑P	Pn	17 04 00.6	+1.6
MDB	**Medias**	3.59	50	⇑P	Pn	17 04 00.6	+1.6
NVR	**Nevrokopi**	3.60	134	eP	Pn	17 03 58.6	-0.5
PLD	**Plovdiv**	3.62	118	P	Pn	17 03 58.8	-0.6
PLD	**Plovdiv**	3.62	118	P	Pn	17 03 58.8	-0.6
BEHE	**Becsehely**	3.63	316	⇓ePn	Pn	17 03 59.4	-0.1
BEHE				eSn	Sn	17 04 42.6	+0.1
SRS	**Serrai**	3.64	139	P	Pn	17 03 58.8	-0.9
SRS	**Serrai**	3.64	139	P	Pn	17 03 58.8	-0.9
VOIR		3.65	63	⇑iP	Pn	17 04 01.1	+1.4
VOIR		3.65	63	S	Sg	17 05 00.3	+0.2
VOIR		3.65	63	P	Pn	17 04 01.0	+1.3
VOIR		3.65	63	P	Pn	17 04 01.0	+1.3
BUD	**Budapest**	3.71	345	⇓ePn	Pn	17 04 00.3	-0.3
BUD				eSn	Sn	17 04 44.6	+0.1
BUD	**Budapest**	3.71	345	P	Pn	17 04 00.8	+0.2
BUD	**Budapest**	3.71	345	⇓ePn	Pn	17 04 00.3	-0.3
BUD				eSn	Sn	17 04 44.6	+0.1
KZN	**Kozani**	3.73	164	eP	Pn	17 04 00.7	-0.2
PKSG		3.77	339	⇓ePn	Pn	17 04 01.3	-0.1
PKSG				eSn	Sn	17 04 45.7	-0.1
SOH	**Sokhos**	3.77	144	P	Pn	17 04 00.6	-0.8
SOH	**Sokhos**	3.77	144	eP	Pn	17 04 00.4	-1.0
SOH	**Sokhos**	3.77	144	P	Pn	17 04 00.6	-0.8
THE	**Thessaloniki**	3.78	149	P	Pn	17 04 00.3	-1.2
THE	**Thessaloniki**	3.78	149	P	Pn	17 04 00.3	-1.2
PE1	**Pezze di Greco**	3.81	217	ePn	Pn	17 04 01.4	-0.5
BAI	**Bari**	3.83	224	ePn	Pn	17 04 01.0	-1.2
HORT	**Hortiatis**	3.86	148	P	Pn	17 04 01.9	-0.7
HORT	**Hortiatis**	3.86	148	P	Pn	17 04 01.9	-0.7
KOGS	**Kog**	3.89	312	i Pn	Pn	17 04 02.3	-0.8
KOGS				eSn	Sg	17 05 06.2	-1.8
KOGS	**Kog**	3.89	312	i Pn	Pn	17 04 02.3	-0.8
MSAG	**Monte S. Angel**	3.97	238	P	Pn	17 04 05.0	+0.8
MSAG	**Monte S. Angel**	3.97	238	P	Pn	17 04 05.0	+0.8
BOJS	**Bojanci**	4.01	295	i Pn	Pn	17 04 04.8	0.0
BOJS				eSn	Sg	17 05 06.6	-5.3
BOJS	**Bojanci**	4.01	295	i Pn	Pn	17 04 04.8	0.0
PSZ	**Piszkesteto**	4.03	355	⇓iP	Pn	17 04 04.2	-0.8
PSZ	**Piszkesteto**	4.03	355	⇓ePn	Pn	17 04 04.2	-0.8
PSZ				eSn	Sn	17 04 50.8	-1.6
PSZ	**Piszkesteto**	4.03	355	ePn	Pn	17 04 03.9	-1.1
PSZ				⇓P		17 04 04.2	
PSZ				eSn	Sn	17 04 52.8	+0.4
PSZ	**Piszkesteto**	4.03	355	ePn	Pn	17 04 03.9	-1.1
PSZ	**Piszkesteto**	4.03	355	⇓P	Pn	17 04 04.2	-0.8
PSZ				eSn	Sn	17 04 50.8	-1.6
PSZ				eS	Sn	17 04 52.8	+0.4
NVLJ	**Novalja**	4.04	281	ePn	Pn	17 04 04.9	-0.2
NVLJ				Sn	Sn	17 04 52.9	+0.4
NVLJ	**Novalja**	4.04	281	ePn	Pn	17 04 04.9	-0.2
NVLJ				Sn	Sn	17 04 52.9	+0.4
SGRT	**San Giovanni R**	4.05	240	P	Pn	17 04 05.8	+0.5
SGRT	**San Giovanni R**	4.05	240	P	Pn	17 04 05.8	+0.5
BUC1	**Bucharest**	4.07	82	⇓iP	Pn	17 04 09.8	+4.3
BUC1	**Bucharest**	4.07	82	⇓iP	Pn	17 04 09.8	+4.3
TAR1	**Taranto**	4.10	216	ePn	Pn	17 04 07.4	+1.5
LIT	**Litokhoron**	4.10	157	P	Pn	17 04 05.0	-1.0
LIT	**Litokhoron**	4.10	157	P	Pn	17 04 05.0	-1.0
SG1	**Sgolgore (BA)**	4.12	223	ePn	Pn	17 04 05.1	-1.2
MEV	**Metsovon**	4.16	171	P	Pn	17 04 08.7	+1.9
MEV	**Metsovon**	4.16	171	P	Pn	17 04 08.7	+1.9
PLG	**Polygyros**	4.18	146	P	Pn	17 04 06.6	-0.5
PLG	**Polygyros**	4.18	146	eP	Pn	17 04 06.5	-0.6
PLG	**Polygyros**	4.18	146	P	Pn	17 04 06.6	-0.5
RGNG	**Rignano Grg**	4.19	240	P	Pn	17 04 06.0	-1.2
RGNG	**Rignano Grg**	4.19	240	P	Pn	17 04 06.0	-1.2
KEK	**Kerkira**	4.21	186	eP	Pn	17 04 07.2	-0.3
LTRZ	**Laterza**	4.24	220	P	Pn	17 04 06.5	-1.4
LTRZ	**Laterza**	4.24	220	P	Pn	17 04 06.5	-1.4
MLR	**Muntele Rosu**	4.25	66	⇑iP	Pn	17 04 09.6	+1.6
MLR	**Muntele Rosu**	4.25	66	S	Sg	17 05 18.2	-1.4
MLR	**Muntele Rosu**	4.25	66	Pn	Pn	17 04 09.9	+1.8
	comp=E,11nm,0.3s,baz=255,slow=4.1,SNR=54						
MLR				Lg		17 05 20.6	
	comp=E,32nm,0.3s,baz=291,slow=15,SNR=9.7						
MLR				LR	LR	17 06 02.0	
	comp=E,702nm,19.6s,baz=273,slow=41						
MLR	**Muntele Rosu**	4.25	66	P	Pn	17 04 09.7	+1.6
MLR	**Muntele Rosu**	4.25	66	P	Pn	17 04 09.7	+1.7
JAN	**Janina**	4.25	175	eP	Pn	17 04 10.2	+2.1
IGT	**Igoumenitsa**	4.37	181	P	Pn	17 04 10.7	+1.1
IGT	**Igoumenitsa**	4.37	181	P	Pn	17 04 10.7	+1.1
FG2	**Serracapriola**	4.39	243	P	Pn	17 04 10.8	+0.8
FG2	**Serracapriola**	4.39	243	P	Pn	17 04 10.8	+0.8
OUR	**Ouranopolis**	4.44	142	P	Pn	17 04 09.0	-1.7
OUR	**Ouranopolis**	4.44	142	P	Pn	17 04 09.0	-1.7
TRPA	**Tarpa**	4.48	19	⇑iP	Pn	17 04 11.1	-0.1
TRPA	**Tarpa**	4.48	19	⇑ePn	Pn	17 04 11.1	-0.1
TRPA				eSn	Sn	17 04 59.4	-4.0
THL	**Klokotos Trika**	4.50	164	P	Pn	17 04 11.0	-0.4
THL	**Klokotos Trika**	4.50	164	P	Pn	17 04 11.0	-0.4
ACER	**Acerenza**	4.55	228	P	Pn	17 04 11.5	-0.6
ACER	**Acerenza**	4.55	228	P	Pn	17 04 11.5	-0.6
KECS	**Kecovo**	4.58	1	eP	Pn	17 04 12.8	+0.2
KECS				e		17 05 04.0	
KECS				pmax	pmax		
	comp=N,163nm,1.3s						
KECS	**Kecovo**	4.58	1	ePN	Pn	17 04 12.8	+0.2
KECS				e		17 04 21.8	
KECS	**Kecovo**	4.58	1	eSN	Sn	17 05 04.0	-1.9
KECS				eSG	Sg	17 05 38.8	+8.6
KECS	**Kecovo**	4.58	1	ePn	Pn	17 04 12.8	+0.2
KECS				e		17 04 21.8	
KECS				eSn	Sn	17 05 04.0	-1.9
KECS				eSg	Sg	17 05 38.8	+8.6
KECS	**Kecovo**	4.58	1	ePn	Pn	17 04 12.8	+0.2
KECS				eSn	Sn	17 05 04.0	-1.9
FG5	**Orsara di Pugl**	4.61	237	P	Pn	17 04 13.0	0.0
FG5	**Orsara di Pugl**	4.61	237	P	Pn	17 04 13.0	0.0
CIGN	**Sant'Elia a Pi**	4.63	243	P	Pn	17 04 14.0	+0.7
CIGN	**Sant'Elia a Pi**	4.63	243	P	Pn	17 04 14.0	+0.7
SOP	**Sopron**	4.64	326	⇓ePn	Pn	17 04 12.8	-0.6
SOP				eSn	Sn	17 05 06.3	-1.1
SOP	**Sopron**	4.64	326	P	Pn	17 04 12.9	-0.5
SOP	**Sopron**	4.64	326	⇓ePn	Pn	17 04 12.8	-0.6
SOP				eSn	Sn	17 05 06.3	-1.1
PAIG	**Paliouri**	4.66	147	P	Pn	17 04 12.8	-0.8
PAIG	**Paliouri**	4.66	147	P	Pn	17 04 12.8	-0.8
PTRP	**Pietrapertosa**	4.67	225	P	Pn	17 04 15.2	+1.3
PTRP	**Pietrapertosa**	4.67	225	P	Pn	17 04 15.2	+1.3
RDO	**Rodhopi**	4.68	124	eP	Pn	17 04 13.2	-0.7
RDO	**Rodhopi**	4.68	124	P	Pn	17 04 13.3	-0.6
RDO	**Rodhopi**	4.68	124	P	Pn	17 04 13.3	-0.6
SOKA	**Soboth**	4.70	308	⇑iPn	Pn	17 04 13.4	-0.8
SOKA				⇓iSn	Sn	17 05 09.0	+0.1
SOKA				⇓iSg	Sg	17 05 35.9	+1.9
	comp=N,52nm,0.6s						
SOKA	**Soboth**	4.70	308	Pn	Pn	17 04 13.4	-0.8
SOKA				Sn	Sn	17 05 09.0	+0.1
SOKA				Sg	Sg	17 05 35.9	+1.9
	comp=N,52nm,0.6s						
VYHS	**Vyhne**	4.72	347	eP	Pn	17 04 14.2	-0.3
VYHS				e		17 05 09.3	
VYHS				pmax	pmax		
	comp=N,207nm,1.4s						
VYHS	**Vyhne**	4.72	347	ePN	Pn	17 04 14.2	-0.3
VYHS				e		17 04 23.7	
VYHS	**Vyhne**	4.72	347	ePn	Pn	17 04 14.2	-0.3
VYHS				e		17 04 23.7	
VYHS				eSn	Sn	17 05 09.3	0.0
VYHS	**Vyhne**	4.72	347	ePn	Pn	17 04 14.2	-0.3
VYHS				eSn	Sn	17 05 09.3	0.0
JMB	**Yambol**	4.73	106	P	Pn	17 04 14.3	-0.4
JMB	**Yambol**	4.73	106	P	Pn	17 04 14.3	-0.4
ARSA	**Arzberg**	4.79	316	i Pn	Pn	17 04 15.1	-0.4
	SNR=132						
ARSA				⇑iSn	Sn	17 05 10.0	-1.1
ARSA	**Arzberg**	4.79	316	P	Pn	17 04 14.8	-0.7
ARSA	**Arzberg**	4.79	316	Pn	Pn	17 04 15.1	-0.4
	SNR=132						
ARSA				Sn	Sn	17 05 10.0	-1.2
ORI	**Oriolo Calabro**	4.84	219	P	Pn	17 04 18.5	+2.4
ORI	**Oriolo Calabro**	4.84	219	P	Pn	17 04 18.5	+2.4
PLOR	**Plostina**	4.84	64	P	Pn	17 04 16.6	+0.5
PLOR	**Plostina**	4.84	64	P	Pn	17 04 16.6	+0.5
SKDS	**Skadanscina**	4.85	292	ePn	Pn	17 04 16.4	+0.2
SKDS	**Skadanscina**	4.85	292	ePn	Pn	17 04 16.5	+0.3
ZST	**Bratislava**	4.87	333	ePN	Pn	17 04 16.8	+0.2
ZST				e		17 04 27.1	
ZST	**Bratislava**	4.87	333	ePn	Pn	17 04 16.8	+0.2
ZST				e		17 04 27.1	
ZST				eSn	Sn	17 05 08.9	-4.2
ZST	**Bratislava**	4.87	333	ePn	Pn	17 04 16.8	+0.2
ZST				eSn	Sn	17 05 08.9	-4.2
MRB1	**Monte Rocchett**	4.88	237	P	Pn	17 04 17.2	+0.5
MRB1	**Monte Rocchett**	4.88	237	P	Pn	17 04 17.2	+0.5
OBKA	**Obir**	4.90	304	⇑iPn	Pn	17 04 16.5	-0.4
	SNR=34						
OBKA				⇑iSn	Sn	17 05 11.8	-1.9
OBKA	**Obir**	4.90	304	P	Pn	17 04 17.6	+0.7
OBKA	**Obir**	4.90	304	Pn	Pn	17 04 16.5	-0.4
	SNR=34						
OBKA	**Obir**	4.90	304	P	Pn	17 04 17.6	+0.7
OBKA				Sn	Sn	17 05 11.8	-1.8
VRI	**Vrincioaia**	4.90	64	⇑iP	Pn	17 04 18.0	+1.1
VRI	**Vrincioaia**	4.90	64	P	Pn	17 04 17.9	+1.0
VRI	**Vrincioaia**	4.90	64	P	Pn	17 04 18.0	+1.1
UZH	**Uzhgorod**	4.91	15	eP	Pn	17 04 16.6	-0.4
UZH				eS	Sn	17 05 12.6	-1.3
UZH				MLR	MLR		
	comp=N,2µm,10.0s						
UZH				MLR	MLR		
	comp=E,3µm,10.0s						
UZH				MLR	MLR		
	comp=Z,1µm,10.0s						
UZH	**Uzhgorod**	4.91	15	eP	Pn	17 04 16.6	-0.4
UZH				eS	Sn	17 05 12.6	-1.3
PSB1	**Pescosannita**	4.93	239	P	Pn	17 04 17.3	0.0
PSB1	**Pescosannita**	4.93	239	P	Pn	17 04 17.3	0.0
MODS	**Modra-Piesok**	4.97	335	eP	Pn	17 04 18.2	+0.2
MODS				e		17 05 11.6	
MODS				pmax	pmax		
	comp=N,334nm,1.8s						
MODS	**Modra-Piesok**	4.97	335	ePN	Pn	17 04 18.2	+0.2
MODS				eSN	Sn	17 05 11.6	-4.0
MODS	**Modra-Piesok**	4.97	335	ePn	Pn	17 04 18.2	+0.2
MODS				eSn	Sn	17 05 11.6	-4.0
XOR	**Xorichti**	4.99	154	P	Pn	17 04 17.1	-1.0
XOR	**Xorichti**	4.99	154	P	Pn	17 04 17.1	-1.0
BURAR	**Bucovina Array**	5.01	40	⇓iP	Pn	17 04 19.3	+0.9
BURAR	**Bucovina Array**	5.01	40	P	Pn	17 04 20.0	+1.6
BURAR	**Bucovina Array**	5.01	40	P	Pn	17 04 20.0	+1.6
CSSN	**Cassano Irpino**	5.02	235	P	Pn	17 04 17.1	-1.4
CSSN	**Cassano Irpino**	5.02	235	P	Pn	17 04 17.1	-1.4
BUR08	**Bucovina Ar. S**	5.02	40	ePn	Pn	17 04 18.9	+0.3
BUR08				eSg	Sg	17 05 40.4	-3.9
BUR08	**Bucovina Ar. S**	5.02	40	ePn	Pn	17 04 18.9	+0.3
SGO	**Sicignano**	5.05	230	P	Pn	17 04 18.1	-0.9
SGO	**Sicignano**	5.05	230	P	Pn	17 04 18.1	-0.9
CRVS	**Cervenica-Dubn**	5.05	8	eP	Pn	17 04 19.4	+0.4
CRVS				pmax	pmax		
	comp=N,576nm,1.6s						
CRVS	**Cervenica-Dubn**	5.05	8	ePN	Pn	17 04 19.4	+0.4
CRVS				e		17 04 50.7	
CRVS	**Cervenica-Dubn**	5.05	8	ePn	Pn	17 04 19.4	+0.4
	comp=N,576nm,1.6s						
CRVS				e		17 04 50.7	
CRVS	**Cervenica-Dubn**	5.05	8	ePn	Pn	17 04 19.4	+0.4
SMOL	**Smolenice**	5.06	337	ePN	Pn	17 04 19.4	+0.3
SMOL				eSN	Sn	17 05 14.1	-3.5
SMOL	**Smolenice**	5.06	337	ePn	Pn	17 04 19.4	+0.3
SMOL				eSn	Sn	17 05 14.1	-3.5
MIDA	**Miranda**	5.07	246	P	Pn	17 04 19.3	+0.1
MIDA	**Miranda**	5.07	246	P	Pn	17 04 19.3	+0.1
TRI	**Trieste**	5.07	293	eP	Pn	17 04 19.1	-0.1
TRI				pmax	pmax		
	comp=Z,75nm,0.6s						
TRI	**Trieste**	5.07	293	ePn	Pn	17 04 19.1	-0.1
	comp=Z,75nm,0.6s						
TRI	**Trieste**	5.07	293	ePn	Pn	17 04 19.1	-0.1
	comp=Z,75nm,0.6s						
AGG	**Agios Georgios**	5.08	163	P	Pn	17 04 19.3	-0.2
AGG	**Agios Georgios**	5.08	163	P	Pn	17 04 19.3	-0.2
EVR	**Evrytania**	5.09	168	eP	Pn	17 04 24.0	+4.4
VOY	**Vojsko**	5.09	297	ePn	Pn	17 04 19.2	-0.4
VOY	**Vojsko**	5.09	297	ePn	Pn	17 04 19.2	-0.4
RNI2	**Rionero Sannit**	5.10	247	P	Pn	17 04 21.7	+2.0
RNI2				S	Sn	17 05 20.3	+1.5
RNI2	**Rionero Sannit**	5.10	247	P	Pn	17 04 21.7	+2.0
RNI2				S	Sn	17 05 20.3	+1.5

SGG	Gregorio Mates	5.11	243	P	Pn	17 04 19.7	-0.1
SGG	Gregorio Mates	5.11	243	P	Pn	17 04 19.7	-0.1
CONA	Conrad Observa	5.13	323	⇑iPn	Pn	17 04 19.1	-0.9
	SNR=42						
CONA				⇓iSn	Sn	17 05 18.7	-0.7
CONA	Conrad Observa	5.13	323	Pn	Pn	17 04 19.1	-1.0
	SNR=42						
CONA				Sn	Sn	17 05 18.7	-0.6
CSNA	Conrad Observa	5.13	323	⇓iPn	Pn	17 04 19.2	-0.9
CSNA				⇑iSn	Sn	17 05 18.8	-0.5
CSNA	Conrad Observa	5.13	323	Pn	Pn	17 04 19.2	-0.9
CSNA				Sn	Sn	17 05 18.8	-0.6
TERO	Teramo	5.13	258	P	Pn	17 04 20.5	+0.3
TERO	Teramo	5.13	258	P	Pn	17 04 20.5	+0.3
INTR	Introdacqua	5.14	251	P	Pn	17 04 21.8	+1.6
INTR	Introdacqua	5.14	251	P	Pn	17 04 21.8	+1.6
ALN	Alexandroupoli	5.14	124	P	Pn	17 04 19.6	-0.6
ALN	Alexandroupoli	5.14	124	eP	Pn	17 04 19.5	-0.7
ALN	Alexandroupoli	5.14	124	P	Pn	17 04 19.6	-0.6
KOLS	Kolonicke sedl	5.19	14	eP	Pn	17 04 22.3	+1.3
KOLS				pmax	pmax		
	comp=N,885nm,1.6s						
KOLS	Kolonicke sedl	5.19	14	ePN	Pn	17 04 22.2	+1.2
KOLS				ePG	Pg	17 04 47.7	+5.2
KOLS				eSG	Sg	17 06 07.2	+17
KOLS	Kolonicke sedl	5.19	14	ePn	Pn	17 04 22.3	+1.3
	comp=N,885nm,1.6s						
KOLS				ePg	Pg	17 04 47.7	+5.2
KOLS				eSg	Sg	17 06 07.2	+17
KOLS	Kolonicke sedl	5.19	14	ePn	Pn	17 04 22.3	+1.3
	comp=N,885nm,1.6s						
CUC	Castrocucco	5.20	223	ePn	Pn	17 04 19.6	-1.4
	comp=N,58nm,0.4s						
CUC	Castrocucco	5.20	223	ePn	Pn	17 04 19.6	-1.4
	comp=N,58nm,0.4s						
MGR	Morigerati	5.22	226	P	Pn	17 04 20.4	-0.9
MGR	Morigerati	5.22	226	P	Pn	17 04 20.4	-0.9
CING	Cingoli	5.26	267	P	Pn	17 04 22.1	+0.1
CING	Cingoli	5.26	267	P	Pn	17 04 22.1	+0.1
DRE	Drenchia	5.31	298	⇑eP	Pn	17 04 23.0	+0.5
DRE	Drenchia	5.31	298	⇑eP	Pn	17 04 23.0	+0.5
SDI	San Donato	5.33	248	P	Pn	17 04 22.8	0.0
SDI	San Donato	5.33	248	P	Pn	17 04 22.8	0.0
LIA	Limnos Island	5.35	137	P	Pn	17 04 21.9	-1.3
LIA	Limnos Island	5.35	137	eP	Pn	17 04 22.2	-1.0
LIA	Limnos Island	5.35	137	P	Pn	17 04 21.9	-1.3
AQU	L'Aquila	5.36	256	P	Pn	17 04 24.1	+0.8
AQU	L'Aquila	5.36	256	P	Pn	17 04 24.1	+0.8
VVLD	Villa Vallelon	5.39	250	P	Pn	17 04 23.7	+0.1
VVLD	Villa Vallelon	5.39	250	P	Pn	17 04 23.7	+0.1
AOS	Alonnisos	5.39	150	P	Pn	17 04 22.8	-1.0
AOS	Alonnisos	5.39	150	P	Pn	17 04 22.8	-1.0
HARR	Harsova	5.45	79	⇓iP	Pn	17 04 24.6	+0.1
HARR	Harsova	5.45	79	P	Pn	17 04 24.7	+0.1
HARR	Harsova	5.45	79	P	Pn	17 04 24.7	+0.2
TIP	Timpagrande	5.46	211	ePn	Pn	17 04 22.8	-1.8
	comp=N,40nm,0.4s						
TIP	Timpagrande	5.46	211	ePn	Pn	17 04 22.8	-1.8
	comp=N,40nm,0.4s						
COLI	Coloredo	5.46	297	⇓eP	Pn	17 04 25.0	+0.3
COLI	Coloredo	5.46	297	⇓eP	Pn	17 04 25.0	+0.3
PTQR	Pietraquaria	5.48	252	P	Pn	17 04 25.9	+1.0
PTQR	Pietraquaria	5.48	252	P	Pn	17 04 25.9	+1.0
MYKA	Terra Mystica	5.50	302	⇓iPn	Pn	17 04 25.6	+0.4
MYKA				⇓iSn	Sn	17 05 26.5	-2.1
LSR	Lussari	5.50	300	⇓eP	Pn	17 04 26.0	+0.8
LSR	Lussari	5.50	300	⇓eP	Pn	17 04 26.0	+0.8
NIE	Niedzica	5.52	359	ePn	Pn	17 04 26.8	+1.4
NIE				eSn	Sn	17 05 33.5	+4.5
NIE	Niedzica	5.52	359	ePn	Pn	17 04 26.8	+1.4
FSSB	Fossombrone	5.53	270	P	Pn	17 04 26.5	+0.9
FSSB	Fossombrone	5.53	270	P	Pn	17 04 26.5	+0.9
STHS	Stebnicka Huta	5.55	6	eP	Pn	17 04 27.0	+1.2
STHS				e		17 05 23.8	
STHS				pmax	pmax		
	comp=N,148nm,1.0s						
STHS	Stebnicka Huta	5.55	6	ePn	Pn	17 04 27.0	+1.2
	comp=N,148nm,1.0s						
STHS				eSn	Sn	17 05 23.8	-5.8
STHS				eSg	Sg	17 06 09.6	+8.5
STHS	Stebnicka Huta	5.55	6	ePn	Pn	17 04 27.0	+1.2
	comp=N,148nm,1.0s						
EFP	Efpalio	5.58	168	eP	Pn	17 04 27.9	+1.5
PTCC	Patocco-Chiusa	5.58	299	P	Pn	17 04 26.4	+0.1
PTCC	Patocco-Chiusa	5.58	299	P	Pn	17 04 26.4	+0.1
FIAM	Fiamignano	5.59	256	P	Pn	17 04 27.6	+1.2
FIAM	Fiamignano	5.59	256	P	Pn	17 04 27.6	+1.2
BAD	Bernadia	5.59	297	⇓iP	Pn	17 04 27.0	+0.6
BAD	Bernadia	5.59	297	⇓iP	Pn	17 04 27.0	+0.6
LKR	Lokris	5.60	159	P	Pn	17 04 26.7	+0.2
LKR	Lokris	5.60	159	P	Pn	17 04 26.7	+0.2
GMNA	Gemona	5.61	298	P	Pn	17 04 28.5	+1.9
GMNA	Gemona	5.61	298	P	Pn	17 04 28.5	+1.9
BUA	Buia	5.66	297	⇓eP	Pn	17 04 29.0	+1.6
BUA	Buia	5.66	297	⇓eP	Pn	17 04 29.0	+1.6
ASS	Assisi	5.71	264	P	Pn	17 04 28.1	0.0
ASS	Assisi	5.71	264	P	Pn	17 04 28.1	0.0
PIEI	Pieia	5.72	269	P	Pn	17 04 28.5	+0.3
PIEI	Pieia	5.72	269	P	Pn	17 04 28.5	+0.3
MPRI	Monte Prat	5.75	297	⇓eP	Pn	17 04 29.0	+0.3
MPRI	Monte Prat	5.75	297	⇓eP	Pn	17 04 29.0	+0.3
MURB	Monte Urbino	5.77	266	P	Pn	17 04 30.3	+1.5
MURB	Monte Urbino	5.77	266	P	Pn	17 04 30.3	+1.5
LAKA	Lakka	5.78	168	P	Pn	17 04 29.8	+0.8
LAKA	Lakka	5.78	168	P	Pn	17 04 29.8	+0.8
TIRR	Tirgusor	5.78	82	⇑iP	Pn	17 04 28.9	-0.1
TIRR	Tirgusor	5.78	82	ePn	Pn	17 04 28.0	-1.1
TIRR				⇑P		17 04 28.9	
TIRR	Tirgusor	5.78	82	ePn	Pn	17 04 28.0	-1.0
TIRR	Tirgusor	5.78	82	⇑P	Pn	17 04 28.9	-0.1
CERT	Cerreto	5.79	253	P	Pn	17 04 30.2	+1.0
CERT	Cerreto	5.79	253	P	Pn	17 04 30.2	+1.0
MOA	Molln	5.83	315	⇑iPn	Pn	17 04 29.8	+0.1
	SNR=57						
MOA				⇑iSn	Sn	17 05 33.7	-2.9
MOA	Molln	5.83	315	P	Pn	17 04 30.7	+1.0
MOA	Molln	5.83	315	P	Pn	17 04 30.7	+1.0
MNS	Montasola	5.86	258	P	Pn	17 04 30.2	+0.1
MNS	Montasola	5.86	258	P	Pn	17 04 30.2	+0.1
GRI	Girifalco	5.90	212	P	Pn	17 04 32.0	+1.4
GRI	Girifalco	5.90	212	P	Pn	17 04 32.0	+1.4
KBA	Koelnbreinsper	5.90	305	⇓iPn	Pn	17 04 30.6	-0.1
	SNR=16						
KBA				⇓iSn	Sn	17 05 35.3	-3.0
KBA	Koelnbreinsper	5.90	305	P	Pn	17 04 31.1	+0.5
KBA	Koelnbreinsper	5.90	305	P	Pn	17 04 31.1	+0.5
BADI	Badiali	5.94	269	P	Pn	17 04 34.7	+3.5
KWP	Kalwaria Pacla	5.94	15	ePn	Pn	17 04 33.9	+2.6
KWP				e		17 04 37.0	
KWP	Kalwaria Pacla	5.94	15	ePn	Pn	17 04 33.9	+2.6
KWP				e		17 04 36.9	
VRAC	Vranov	6.01	335	Pn	Pn	17 04 31.5	-0.8
	comp=N,2.3nm,0.3s,baz=155,slow=13,SNR=14						
VRAC				Sn	Sn	17 05 37.4	-3.8
	comp=N,4.6nm,0.3s,baz=113,slow=8.3,SNR=3.2						
VRAC	Vranov	6.01	335	Pn	Pn	17 04 31.5	-0.7
VRAC				eSn	Sn	17 05 39.7	-1.4
FVI	Forni Avoltri	6.02	299	P	Pn	17 04 32.8	+0.4
FVI	Forni Avoltri	6.02	299	P	Pn	17 04 32.8	+0.4
CSMI	Casera Mimoias	6.07	298	⇑iP	Pn	17 04 33.0	0.0
CSMI	Casera Mimoias	6.07	298	⇑iP	Pn	17 04 33.0	0.0
CRE	Caprese Michel	6.14	270	P	Pn	17 04 35.0	+1.1
CRE	Caprese Michel	6.14	270	P	Pn	17 04 35.0	+1.1
OKC	Ostrava-Krasne	6.14	346	ePN	Pn	17 04 33.9	0.0
OKC				AMS	AMS	17 07 40.0	
	comp=N,1µm,7.1s						
OKC	Ostrava-Krasne	6.14	346	Pn	Pn	17 04 33.9	0.0
TLCR		6.14	75	⇑iP	Pn	17 04 34.4	+0.4
TLCR		6.14	75	⇑P	Pn	17 04 34.4	+0.5
TLCR		6.14	75	⇑P	Pn	17 04 34.4	+0.4
TLCR				S	Sn	17 05 43.2	-1.1
SFI	Santa Sofia	6.19	273	P	Pn	17 04 35.7	+1.1
SFI	Santa Sofia	6.19	273	P	Pn	17 04 35.7	+1.1
MORC	Moravsky Berou	6.20	342	eP	Pn	17 04 33.5	-1.2
MORC				pmax	pmax		
	comp=Z,24nm,0.6s						
MORC	Moravsky Berou	6.20	342	ePn	Pn	17 04 33.5	-1.2
	comp=Z,24nm,0.6s						
MORC	Moravsky Berou	6.20	342	ePn	Pn	17 04 33.5	-1.2
	comp=Z,24nm,0.6s						
SIGR	SIGRI	6.21	137	P	Pn	17 04 34.4	-0.6
SIGR	SIGRI	6.21	137	P	Pn	17 04 34.4	-0.6
ABTA	Abfaltersbach	6.25	300	⇓iPn	Pn	17 04 36.3	+0.8
	SNR=64						
ABTA				⇑iSn	Sn	17 05 45.5	-1.6
OJC	Ojcow	6.33	356	ePn	Pn	17 04 38.1	+1.5
OJC				eSn	Sn	17 05 51.6	+2.6
OJC	Ojcow	6.33	356	ePn	Pn	17 04 38.2	+1.6
OJC				eSn	Sn	17 05 51.6	+2.6
OJC	Ojcow	6.33	356	ePn	Pn	17 04 38.2	+1.6
OJC				eSn	Sn	17 05 51.6	+2.6
TREC	Trest	6.37	330	ePN	Pn	17 04 37.6	+0.5
TREC				eSN	Sn	17 05 49.1	-0.9
TREC				AMS	AMS	17 07 40.0	
	comp=Z,2µm,7.2s						
TREC	Trest	6.37	330	Pn	Pn	17 04 37.6	+0.5
TREC				Sn	Sn	17 05 49.1	-0.9
BGLD	Berchtesgaden	6.39	309	⇓iPn	Pn	17 04 37.7	+0.3
BGLD	Berchtesgaden	6.39	309	⇓iPn	Pn	17 04 37.7	+0.3
PRK	Paraskevi	6.40	135	P	Pn	17 04 37.1	-0.4
PRK	Paraskevi	6.40	135	eP	Pn	17 04 37.1	-0.4
PRK	Paraskevi	6.40	135	P	Pn	17 04 37.1	-0.4
VMG	Vicchio	6.41	274	P	Pn	17 04 39.1	+1.5
VMG	Vicchio	6.41	274	P	Pn	17 04 39.1	+1.5
SEI	Scarperia	6.54	274	Pn	Pn	17 04 42.0	+2.6
NAIG	Nisos Aigina	6.56	158	eP	Pn	17 04 39.8	0.0
CTI	Castel Tesino	6.58	292	P	Pn	17 04 40.2	+0.3
CTI	Castel Tesino	6.58	292	P	Pn	17 04 40.2	+0.3
CEL	Celeste	6.59	213	ePn	Pn	17 04 38.7	-1.4
	comp=Z,23nm,0.6s						
CEL	Celeste	6.59	213	ePn	Pn	17 04 38.7	-1.5
	comp=Z,23nm,0.6s						
CSNT	Castellina Chi	6.63	269	P	Pn	17 04 43.2	+2.5
SCLL	Scilla	6.66	214	P	Pn	17 04 38.7	-2.5
SCLL	Scilla	6.66	214	P	Pn	17 04 38.7	-2.5
KIS	Kishinev	6.67	59	eP	Pn	17 04 45.0	+3.7
SOI	Samo	6.69	211	P	Pn	17 04 43.5	+1.9
SOI	Samo	6.69	211	P	Pn	17 04 43.5	+1.9
DID	Didima	6.74	160	P	Pn	17 04 41.9	-0.3
DID	Didima	6.74	160	P	Pn	17 04 41.9	-0.3
GEC2	GERESS Array S	6.78	319	ePn	Pn	17 04 41.9	-0.8
GEC2	GERESS Array S	6.78	319	ePn	Pn	17 04 41.9	-0.8
GERES	GERESS Array B	6.78	319	P	Pn	17 04 42.8	+0.1
GERES						17 05 58.4	
GERES	GERESS Array B	6.78	319	Pn	Pn	17 04 42.8	0.0
	comp=Z,2.6nm,0.3s,baz=134,slow=14,SNR=42						
GERES				Sn	Sn	17 05 58.4	-1.6
	comp=Z,1.3nm,0.3s,baz=136,slow=19,SNR=2.0						
GERES				LR	LR	17 07 28.6	
	comp=Z,349nm,18.5s,baz=136,slow=40						
GERES	GERESS Array B	6.78	319	Pn	Pn	17 04 42.8	+0.1
GERES				Sn	Sn	17 05 58.4	-1.6
MTTG	Motta San Giov	6.89	213	P	Pn	17 04 47.5	+3.2
CHOS	Chios island	6.96	140	P	Pn	17 04 44.8	-0.5
CHOS	Chios island	6.96	140	eP	Pn	17 04 45.3	0.0
CHOS	Chios island	6.96	140	P	Pn	17 04 44.8	-0.5
APPI	Appiano	6.98	295	P	Pn	17 04 47.1	+1.6
APPI	Appiano	6.98	295	P	Pn	17 04 47.1	+1.6
WTTA	Wattenberg	7.02	302	⇓iPn	Pn	17 04 46.9	+1.0
	SNR=75						
WTTA				⇑iSn	Sn	17 06 04.2	-1.6
WTTA	Wattenberg	7.02	302	P	Pn	17 04 47.2	+1.2
WTTA	Wattenberg	7.02	302	P	Pn	17 04 47.2	+1.2
WTTA				Sn	Sn	17 06 04.2	-1.6
DPC	Dobruska-Polom	7.03	338	ePN	Pn	17 04 46.2	+0.1
DPC				eSN	Sn	17 06 05.5	-0.6
DPC				AMS	AMS	17 07 50.0	
	comp=Z,800nm,8.4s						
DPC	Dobruska-Polom	7.03	338	ePn	Pn	17 04 46.2	+0.1
DPC				eSn	Sn	17 06 05.5	-0.6
DPC	Dobruska-Polom	7.03	338	Pn	Pn	17 04 46.2	+0.1
DPC				Sn	Sn	17 06 05.5	-0.6
KHC	Kasperske Hory	7.04	320	ePN	Pn	17 04 46.6	+0.3
KHC				ex	x	17 05 03.0	
KHC				ex	x	17 05 09.0	
KHC				eSN	Sn	17 06 04.7	-1.7
KHC				AMS	AMS	17 07 40.0	
	comp=Z,2µm,9.4s						
KHC	Kasperske Hory	7.04	320	ePn	Pn	17 04 46.6	+0.3
KHC				e		17 05 03.0	
KHC				e		17 05 09.0	
KHC				eSn	Sn	17 06 04.7	-1.7
KHC	Kasperske Hory	7.04	320	Pn	Pn	17 04 46.6	+0.3
KHC				Sn	Sn	17 06 04.7	-1.7
PYL	PYLOS	7.07	171	P	Pn	17 04 45.3	-1.5
PYL	PYLOS	7.07	171	P	Pn	17 04 45.3	-1.5
WATA	Walderalm	7.08	302	⇑iPn	Pn	17 04 48.3	+1.4
	SNR=30						
WATA				⇑iSn	Sn	17 06 07.7	+0.2
BDI	Bagni Di Lucca	7.08	275	P	Pn	17 04 50.8	+3.9
PII	Pisa	7.16	272	P	Pn	17 04 48.0	+0.1
PII	Pisa	7.16	272	P	Pn	17 04 48.0	+0.1
MAGA	Magasa	7.20	288	P	Pn	17 04 49.3	+0.7
MAGA	Magasa	7.20	288	P	Pn	17 04 49.3	+0.7
VLC	Villacollemand	7.23	276	ePn	Pn	17 04 48.8	-0.1
	comp=Z,18nm,0.6s						
VLC	Villacollemand	7.23	276	ePn	Pn	17 04 48.8	-0.2
	comp=Z,18nm,0.6s						
UPC	Upice	7.25	337	ePN	Pn	17 04 50.1	+0.9
UPC	Upice	7.25	337	Pn	Pn	17 04 50.1	+0.9
PRU	Pruhonice	7.29	329	ePN	Pn	17 04 49.1	-0.7
PRU				eSN	Sn	17 06 09.0	-3.6
PRU				AMS	AMS	17 08 10.0	
	comp=Z,1µm,7.8s						
PRU	Pruhonice	7.29	329	ePn	Pn	17 04 49.1	-0.7
PRU				eSn	Sn	17 06 09.0	-3.6
PRU	Pruhonice	7.29	329	Pn	Pn	17 04 49.1	-0.7
MABI	Malga Bissina	7.34	290	P	Pn	17 04 50.9	+0.4
MABI	Malga Bissina	7.34	290	P	Pn	17 04 50.9	+0.4
MOTA	Moosalm	7.38	301	⇑iPn	Pn	17 04 51.7	+0.7
	SNR=71						
MOTA				⇑iSn	Sn	17 06 16.1	+1.4
MOTA	Moosalm	7.38	301	P	Pn	17 04 51.9	+1.0
MOTA	Moosalm	7.38	301	P	Pn	17 04 51.9	+1.0
MOTA				Sn	Sn	17 06 16.1	+1.3
WET	Wettzell	7.38	318	ePn	Pn	17 04 51.0	0.0
WET	Wettzell	7.38	318	ePn	Pn	17 04 51.0	0.0
KSP	Ksiaz	7.49	340	ePn	Pn	17 04 58.3	+5.9
KSP	Ksiaz	7.49	340	ePn	Pn	17 04 58.0	+5.6
FETA	Feichten	7.49	298	i Pn	Pn	17 04 54.0	+1.5
	SNR=176						
FETA				⇑iSn	Sn	17 06 18.1	+0.6
BRMO	Bormio	7.55	293	P	Pn	17 04 57.1	+3.9
FUR	Furstenfeldbru	7.65	307	ePn	Pn	17 04 54.2	-0.5
FUR	Furstenfeldbru	7.65	307	ePn	Pn	17 04 54.2	-0.5
PVCC	Panska Ves	7.73	331	ePN	Pn	17 04 56.8	+1.1
PVCC				AMS	AMS	17 08 30.0	
	comp=Z,1µm,7.3s						
PVCC	Panska Ves	7.73	331	Pn	Pn	17 04 56.8	+1.1
BOB	Bobbio (Coli)	7.91	280	P	Pn	17 04 57.7	-0.6
BOB	Bobbio (Coli)	7.91	280	Pn	Pn	17 04 57.7	-0.6
DAVOX	Davos/Dischmat	7.96	295	Pn	Pn	17 04 58.9	0.0
	comp=Z,6.1nm,0.3s,baz=116,slow=16,SNR=28						
DAVOX				Lg		17 07 02.4	
	baz=313,slow=19,SNR=2.2						
DAVOX				LR	LR	17 08 33.4	
	comp=Z,574nm,21.0s,baz=107,slow=42						
DAVOX	Davos/Dischmat	7.96	295	Pn	Pn	17 04 58.9	0.0
DAVOS	Davos	8.03	295	P	Pn	17 04 58.9	-1.0
DAVOS	Davos	8.03	295	P	Pn	17 04 58.9	-1.0
DAVA	Damuels	8.12	298	⇑iPn	Pn	17 05 01.0	-0.2
	SNR=38						
DAVA				⇑iSn	Sn	17 06 33.0	-0.1
DAVA	Damuels	8.12	298	P	Pn	17 05 02.2	+1.0
DAVA	Damuels	8.12	298	P	Pn	17 05 02.2	+1.0
DAVA				Sn	Sn	17 06 33.0	-0.1
ROTZ	Rotzenmuhle	8.12	319	ePn	Pn	17 05 01.3	+0.1
UBR	Ueberruh	8.13	301	P	Pn	17 05 02.6	+1.3
UBR	Ueberruh	8.13	301	P	Pn	17 05 02.6	+1.3
TUE	Stuetta	8.23	292	ePn	Pn	17 05 03.2	+0.5
	comp=Z,39nm,0.6s						
TUE	Stuetta	8.23	292	ePn	Pn	17 05 03.2	+0.6
	comp=Z,39nm,0.6s						
BRG	Berggiesshubel	8.24	330	P	Pn	17 05 03.0	+0.3
BRG				i		17 06 34.9	
BRG				pmax	pmax		
	comp=Z,91nm,2.0s						
BRG				MLR	MLR		
	comp=N,626nm,12.9s						
BRG				MLR	MLR		
	comp=E,385nm,10.3s						
BRG				MLR	MLR		
	comp=Z,339nm,14.6s						
BRG	Berggiesshubel	8.24	330	PN	Pn	17 05 03.0	+0.3
BRG				PG	Pn	17 05 12.0	+9.3
BRG				i		17 06 34.9	
	comp=Z,151nm,2.0s						
BRG							
	comp=N,1µm,12.9s						
BRG							
	comp=E,643nm,10.3s						
BRG							
	comp=Z,566nm,14.6s						
BRG	Berggiesshubel	8.24	330	P	Pn	17 05 03.0	+0.3
BRG				i S	Sn	17 06 34.9	-1.0
	comp=Z,339nm,14.6s						
MANZ	Manzenberg	8.32	320	ePn	Pn	17 05 03.4	-0.5
NKC	Novy Kostel	8.34	322	ePN	Pn	17 05 03.9	-0.3
NKC				AMS	AMS	17 08 30.0	
	comp=Z,1µm,8.9s						
NKC	Novy Kostel	8.34	322	Pn	Pn	17 05 03.9	-0.3
PGF	Pioggiola	8.45	265	ePn	Pn	17 05 01.6	-4.0
PGF				eP		17 05 06.4	
TANN	Tannenbergstha	8.47	323	ePn	Pn	17 05 05.2	-0.7
HDH	Heidenheim-Cha	8.48	307	P	Pn	17 05 07.7	+1.6
HDH	Heidenheim-Cha	8.48	307	P	Pn	17 05 07.7	+1.6
VAI	Varese	8.50	287	P	Pn	17 05 05.5	-0.8
VAI	Varese	8.50	287	P	Pn	17 05 05.5	-0.8
GRA1	Grafenberg Arr	8.56	316	ePn	Pn	17 05 06.8	-0.3
GRA1	Grafenberg Arr	8.56	316	ePn	Pn	17 05 06.8	-0.3
GRF	Grafenberg Arr	8.56	316	ePn	Pn	17 05 06.8	-0.3
GRF				eL		17 08 12.9	
	comp=Z,276nm,19.6s						
GRF	Grafenberg Arr	8.56	316	ePn	Pn	17 05 06.8	-0.3
SISB	Singen-Schiene	8.85	299	P	Pn	17 05 11.7	+0.6
SISB	Singen-Schiene	8.85	299	P	Pn	17 05 11.7	+0.6
GUT	Gutenstein	8.90	302	P	Pn	17 05 11.6	-0.2
GUT	Gutenstein	8.90	302	P	Pn	17 05 11.6	-0.2
BUCH	Bad Urach	8.92	305	P	Pn	17 05 12.4	+0.3
BUCH	Bad Urach	8.92	305	P	Pn	17 05 12.4	+0.3
CLL	Collm	8.94	329	ePn	Pn	17 05 12.0	-0.3
CLL				eSn	Sn	17 06 42.0	-11
CLL				eSb	Sn	17 07 17.0	+24
CLL				Sglp		17 07 30.0	
	comp=N,400nm,24.1s						
CLL				Sglp		17 07 30.0	
	comp=E,1µm,18.3s						
CLL				eSg	Sn	17 07 48.0	+55
CLL	Collm	8.94	329	ePn	Pn	17 05 12.0	-0.3
CLL				eSn	Sn	17 06 42.0	-11
CLL				eSg	Sn	17 07 48.0	+55
CLL	Collm	8.94	329	ePn	Pn	17 05 12.0	-0.3
MOX	Moxa	9.01	322	ePN	Pn	17 05 14.2	+0.9
MOX							
	comp=Z,500nm,14.0s						
MOX	Moxa	9.01	322	ePn	Pn	17 05 14.1	+0.8
MOX	Moxa	9.01	322	ePn	Pn	17 05 14.2	+0.9
ORO	Oropa	9.01	285	P	Pn	17 05 13.0	-0.4
ORO	Oropa	9.01	285	P	Pn	17 05 13.0	-0.4
AKASG	Malin Array Be	9.06	38	Pn	Pn	17 05 14.8	+0.8
	comp=Z,0.7nm,0.3s,baz=233,slow=13,SNR=4.5						
AKASG				Lg		17 07 49.5	
	comp=Z,0.5nm,0.3s,baz=219,slow=29,SNR=4.8						
AKASG	Malin Array Be	9.06	38	Pn	Pn	17 05 14.8	+0.8
AKASG				Lg		17 07 49.5	
AKASG	Malin Array Be	9.06	38	Pn	Pn	17 05 14.8	+0.9
SPAK	Spaichingen-Ko	9.12	301	eP	Pn	17 05 14.3	-0.5
SPAK	Spaichingen-Ko	9.12	301	P	Pn	17 05 14.3	-0.5
STU	Stuttgart	9.16	306	eP	Pn	17 05 15.3	-0.1
STU				pmax	pmax		
	comp=Z,24nm,0.6s						
STU	Stuttgart	9.16	306	ePn	Pn	17 05 15.3	-0.1
	comp=Z,24nm,0.6s						
STU	Stuttgart	9.16	306	ePn	Pn	17 05 15.3	-0.1
	comp=Z,24nm,0.6s						
SIND	Sindeldorf	9.21	310	P	Pn	17 05 15.6	-0.5
SIND	Sindeldorf	9.21	310	P	Pn	17 05 15.6	-0.5
IDI	Anoyia	9.27	157	Pn	Pn	17 05 13.9	-3.0
	comp=Z,0.2nm,0.3s,baz=356,slow=16,SNR=2.3						
IDI				Sn	Sn	17 07 01.1	-0.2
	comp=Z,0.8nm,0.3s,baz=10,slow=11,SNR=3.1						
IDI	Anoyia	9.27	157	Sn	Sn	17 07 01.1	-0.2
SAOF	Saorge	9.28	275	P	Pn	17 05 15.3	-1.7
SAOF	Saorge	9.28	275	eP	Pn	17 05 15.3	-1.7
SAOF	Saorge	9.28	275	P	Pn	17 05 15.3	-1.7
LBG	Lerchenberg	9.35	305	P	Pn	17 05 20.2	+2.3
LBG	Lerchenberg	9.35	305	P	Pn	17 05 20.2	+2.3
VSL	Villasalto	9.35	246	ePn	Pn	17 05 17.6	-0.4
VSL				eSn	Sn	17 06 59.8	-3.5
VSL	Villasalto	9.35	246	ePn	Pn	17 05 17.6	-0.5
AUTN	L'Aution	9.37	275	P	Pn	17 05 18.3	0.0
AUTN	L'Aution	9.37	275	eP	Pn	17 05 18.3	0.0
AUTN	L'Aution	9.37	275	P	Pn	17 05 18.3	0.0
SBF	Sospel	9.38	274	ePn	Pn	17 05 14.5	-3.8
	SNR=1.0						
SBF				eSn	Sn	17 06 53.9	-10
	comp=Z,28nm,0.7s,SNR=1.0						
LUCF	Luceram	9.44	274	P	Pn	17 05 18.0	-1.2
LUCF	Luceram	9.44	274	P	Pn	17 05 18.0	-1.2
BFO	Black Forest	9.49	302	ePn	Pn	17 05 20.1	+0.3
BFO				eSn	Sn	17 07 00.8	-5.7
BFO	Black Forest	9.49	302	ePn	Pn	17 05 20.1	+0.3
TOUF	Mont Tournerai	9.50	275	P	Pn	17 05 19.4	-0.6
TOUF	Mont Tournerai	9.50	275	eP	Pn	17 05 20.1	+0.1
TOUF	Mont Tournerai	9.50	275	eP	Pn	17 05 20.1	+0.1
FELD	Feldberg im Sc	9.52	299	eP	Pn	17 05 19.5	-0.8
FELD	Feldberg im Sc	9.52	299	P	Pn	17 05 19.5	-0.8
KIZ	Kirchzarten	9.60	299	P	Pn	17 05 22.2	+0.8
KIZ	Kirchzarten	9.60	299	P	Pn	17 05 22.2	+0.8
BBS	Basel-Blauen	9.71	296	eP	Pn	17 05 22.3	-0.6
BBS	Basel-Blauen	9.71	296	P	Pn	17 05 22.4	-0.5
ISP	Isparta	9.75	125	⇑iP	Pn	17 05 23.7	+0.2
CALN	Calern	9.78	274	P	Pn	17 05 23.5	-0.4
CALN	Calern	9.78	274	eP	Pn	17 05 23.5	-0.4
CALN	Calern	9.78	274	P	Pn	17 05 23.5	-0.4
SWS	Schriesheim-Wi	9.79	309	P	Pn	17 05 24.4	+0.4
SWS	Schriesheim-Wi	9.79	309	P	Pn	17 05 24.4	+0.4
TOD	Tromm	9.79	310	eP	Pn	17 05 22.8	-1.3
TOD	Tromm	9.79	310	P	Pn	17 05 23.6	-0.5
MBDF	Montbardon	9.82	280	ePn	Pn	17 05 20.1	-4.3
	SNR=1.0						
MBDF				eSn	Sn	17 07 04.9	-10
	comp=Z,17nm,0.7s						
LPG	La Plagne	9.86	284	eP	Pn	17 05 27.3	+2.3
LPG				eSn	Sn	17 07 06.0	-10
	comp=Z,115nm,1.4s						
LPG	La Plagne	9.86	284	ePn	Pn	17 05 21.1	-3.9
LPG				eP		17 05 27.3	
LPG				eSn	Sn	17 07 06.0	-10
SIM	Simferopol'	9.86	79	P	Pn	17 05 25.7	+0.7
SIM				pmax	pmax		
	comp=Z,12nm,0.9s						
SIM				MLR	MLR		
	comp=Z,320nm,20.0s						
SIM	Simferopol'	9.86	79	P	Pn	17 05 25.7	+0.7
	comp=Z,320nm,20.0s						
LPL	La Plagne	9.88	284	ePn	Pn	17 05 21.5	-3.7
	SNR=1.0						
LPL				eSn	Sn	17 07 06.3	-10
	comp=Z,157nm,1.4s						
BNI	Bardonecchia	9.89	281	eP	Pn	17 05 22.9	-2.5
BNI				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BNI	Bardonecchia	9.89	281	ePn	Pn	17 05 22.9	-2.4
	comp=Z,10nm,0.8s						
BNI	Bardonecchia	9.89	281	ePn	Pn	17 05 22.9	-2.5
	comp=Z,10nm,0.8s						
FRF	La Foret Royal	9.97	273	ePn	Pn	17 05 22.3	-4.2
	SNR=1.0						
MOF	Molkenrain	10.07	298	P	Pn	17 05 27.3	-0.5
MOF	Molkenrain	10.07	298	eP	Pn	17 05 27.1	-0.7
MOF	Molkenrain	10.07	298	P	Pn	17 05 27.3	-0.5
LANF	Langenberg	10.07	305	P	Pn	17 05 31.4	+3.5
LMR	La Mourre	10.10	272	ePn	Pn	17 05 23.9	-4.4
	SNR=1.0						
LMR				eSn	Sn	17 07 11.0	-11
	comp=Z,13nm,0.9s						
LOMF	Lomont	10.12	295	P	Pn	17 05 28.9	+0.3
LOMF	Lomont	10.12	295	eP	Pn	17 05 28.4	-0.2
LOMF	Lomont	10.12	295	eP	Pn	17 05 28.4	-0.2
CDF	Champ du Feu	10.17	301	ePn	Pn	17 05 25.1	-4.1
ECH	Echery	10.17	300	P	Pn	17 05 28.1	-1.1
ECH	Echery	10.17	300	eP	Pn	17 05 28.1	-1.1
ECH				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ECH	Echery	10.17	300	ePn	Pn	17 05 28.1	-1.1

	comp=Z,5.5nm,0.6s						
ECH	Echery	10.17	300	P	Pn	17 05 28.1	-1.1
HINF	Hinteralfeld	10.24	297	*e*Pn	Pn	17 05 26.2	-3.9
SUW	Suwalki	10.28	9	*e*P	Pn	17 05 30.8	+0.1
SUW				pmax	pmax		
	comp=Z,32nm,0.9s						
SUW	Suwalki	10.28	9	*e*Pn	Pn	17 05 30.8	+0.1
	comp=Z,32nm,0.9s						
SUW	Suwalki	10.28	9	*e*P	Pn	17 05 30.8	+0.1
	comp=Z,32nm,0.9s						
TNS	Taunus Mts	10.32	312	*e*Pn	Pn	17 05 32.1	+0.9
TNS				*e*Sn	Sn	17 07 21.5	-5.5
TNS	Taunus Mts	10.32	312	*e*P	Pn	17 05 32.1	+0.9
ORIF	Oris-en-Rattie	10.45	281	*e*Pn	Pn	17 05 29.2	-3.9
	SNR=1.0						
ORIF				*e*Sn	Sn	17 07 20.0	-10
	comp=Z,18nm,0.6s,SNR=1.0						
ORIF				*e*MLR	MLR		
	comp=Z,517nm,18.0s						
CABF	La Chapelle	10.46	290	*e*Pn	Pn	17 05 29.0	-4.2
HAU	Haudompre	10.62	298	*e*Pn	Pn	17 05 31.0	-4.3
HAU				*e*MLR	MLR		
	comp=Z,350nm,19.3s						
ABH	Alteburg	10.64	309	P	Pn	17 05 36.4	+0.8
ABH	Alteburg	10.64	309	P	Pn	17 05 35.8	+0.2
SMRF	Simiane la Rot	10.71	276	*e*Pn	Pn	17 05 32.4	-4.2
BR131	Keskin Array S	10.72	108	*e*Pn	Pn	17 05 37.1	+0.4
	comp=Z,2.0nm,0.6s						
BR131	Keskin Array S	10.72	108	*e*Pn	Pn	17 05 37.1	+0.4
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	10.72	108	Pn	Pn	17 05 36.9	+0.1
	comp=Z,0.3nm,0.3s,baz=287,slow=14,SNR=8.9						
BRTR				LR	LR	17 10 22.1	
	comp=Z,351nm,21.0s,baz=288,slow=41						
BRTR	Keskin Array B	10.72	108	P	Pn	17 05 36.9	+0.2
RUP	Ruppelstein	10.83	307	*e*P	Pn	17 05 38.0	-0.2
RUP	Ruppelstein	10.83	307	P	Pn	17 05 38.5	+0.3
THEF	They Montfort	10.91	298	P	Pn	17 05 38.6	-0.8
THEF	They Montfort	10.91	298	*e*P	Pn	17 05 38.8	-0.6
THEF	They Montfort	10.91	298	*e*P	Pn	17 05 38.8	-0.6
VIVF	Saint-Julien-l	11.31	280	*e*Pn	Pn	17 05 40.6	-4.2
	SNR=1.0						
VIVF				*e*Sn	Sn	17 07 39.5	-12
	comp=Z,24nm,1.1s						
WLF	Walferdange	11.34	306	*e*P	Pn	17 05 46.2	+1.0
WLF	Walferdange	11.34	306	*e*P	Pn	17 05 46.2	+1.0
SSB	Saint Sauveur	11.40	282	*e*P	Pn	17 05 45.5	-0.6
SSB				pmax	pmax		
	comp=Z,8.0nm,0.8s						
SSB	Saint Sauveur	11.40	282	*e*Pn	Pn	17 05 45.5	-0.6
	comp=Z,8.0nm,0.8s						
SSB	Saint Sauveur	11.40	282	*e*P	Pn	17 05 45.5	-0.6
	comp=Z,8.0nm,0.8s						
SFTF	Sexfontaines	11.52	297	*e*P	Pn	17 05 48.8	+1.2
	baz=122						
SFTF	Sexfontaines	11.52	297	*e*P	Pn	17 05 48.8	+1.2
	baz=122						
MEZF	Maizieres J'vi	11.59	299	*e*Pn	Pn	17 05 44.1	-4.6
KEST	Kesra	11.78	230	LR	LR	17 09 47.4	
	comp=Z,51nm,21.6s,baz=106,slow=35						
LASF	Ste Croix	11.93	277	*e*Pn	Pn	17 05 48.8	-4.5
SMF	Signal de Mont	11.99	289	*e*Pn	Pn	17 05 49.4	-4.8
	SNR=1.0						
LOR	Lormes	12.08	292	*e*Pn	Pn	17 05 50.8	-4.5
	baz=112						
LOR				*e*MLR	MLR		
	comp=Z,466nm,16.0s						
ANN	Anapa	12.22	80	*e*P	Pn	17 05 57.0	-0.3
ANN				MLR	MLR		
	comp=Z,295nm,12.0s						
ANN	Anapa	12.22	80	*e*P	Pn	17 05 57.0	-0.3
	comp=Z,295nm,12.0s						
SSF	Saint Saulge	12.28	291	*e*Pn	Pn	17 05 53.6	-4.5
AVF	Avril sur Loir	12.35	289	*e*Pn	Pn	17 05 54.1	-4.9
	SNR=1.0						
BAIF	Baives	12.65	305	*e*Pn	Pn	17 05 58.9	-4.2
BGF	Bois d'Agland	12.67	288	*e*Pn	Pn	17 05 59.0	-4.3
VSR	Storozhevoye	14.60	53	*e*P	Pn	17 06 30.3	+0.6
VSR				pmax	pmax		
	comp=Z,8.0nm,0.5s						
VSR				pmax	pmax		
	comp=N,6.0nm,0.7s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.5s						
MALT	Malatya	14.67	106	P	Pn	17 06 32.2	+1.4
MALT	Malatya	14.67	106	Pn	Pn	17 06 32.2	+1.4
VSU	Vasula	15.10	13⇓	*i*P	Pn	17 06 37.3	+0.9
VSU				pmax	pmax		
	comp=Z,68nm,2.5s						
OBN	Obninsk	15.32	37⇑	*i*P	Pn	17 06 39.5	+0.2
OBN				pmax	pmax		
	comp=Z,9.0nm,0.7s						
OBN				MLR	MLR		
	comp=Z,200nm,14.0s						
MMAI	Mount Meron Ar	15.97	128	Pn	Pn	17 06 50.3	+2.3
	baz=342,slow=9.7,SNR=6.3						
MMAI				LR	LR	17 13 58.0	
	comp=Z,109nm,19.9s,baz=325,slow=41						
KIV	Kislovodsk	16.04	82⇑	*i*P	Pn	17 06 49.6	+0.8
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,200nm,18.0s						
MOS	Moscow	16.18	37	*e*P	Pn	17 06 48.3	-2.2
HFS	Hagfors	16.76	348	Pn	Pn	17 06 59.1	+1.2
	comp=Z,0.2nm,0.3s,baz=160,slow=14,SNR=5.9						
HFS				LR	LR	17 13 41.4	
	comp=Z,211nm,18.6s,baz=89,slow=38						
HFS	Hagfors	16.76	348	P	Pn	17 06 59.1	+1.3
ASF	Jabal al Asfar	17.45	127	LR	LR	17 14 54.2	
	comp=Z,151nm,18.7s,baz=292,slow=41						
NB2	NORSAR Subarra	18.02	345	P	Pn	17 07 13.6	0.0
	comp=Z,11nm,1.4s,baz=158,slow=11						
NB2	NORSAR Subarra	18.02	345	P	Pn	17 07 13.6	0.0
	comp=Z,11nm,1.4s,baz=158,slow=11,SNR=5.1						
NOA	NORSAR Array B	18.02	345	P	Pn	17 07 13.7	+0.1
	comp=Z,0.3nm,0.3s,baz=157,slow=11,SNR=5.8						
NOA				LR	LR	17 15 23.9	
	comp=Z,138nm,18.3s,baz=180,slow=41						
NOA	NORSAR Array B	18.02	345	P	Pn	17 07 13.7	+0.1
EIL	Elat	18.33	136	P	Pn	17 07 17.4	-0.2
	comp=Z,0.2nm,0.3s,baz=12,slow=6.2,SNR=3.9						
EIL	Elat	18.33	136	P	Pn	17 07 17.4	-0.1
KAF	Kangasniemi	18.57	9	*e*P	Pn	17 07 20.4	+0.1
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KAF	Kangasniemi	18.57	9	*e*p	Pn	17 07 20.4	+0.1
	comp=Z,5.8nm,0.8s						
KAF	Kangasniemi	18.57	9	*e*P	Pn	17 07 20.4	+0.1
	comp=Z,6.0nm,0.8s						
ESLA	Sonseca Array	18.64	265	P	Pn	17 07 24.1	+2.8
	comp=Z,1.6nm,1.0s						
EKA	Eskdalemuir Ar	18.98	315	P	Pn	17 07 24.2	-1.0
	baz=111,slow=12,SNR=6.0						
EKA	Eskdalemuir Ar	18.98	315	P	Pn	17 07 24.3	-0.9
ESK	Eskdalemuir	18.99	315	P	Pn	17 07 26.0	+0.6
ESK	Eskdalemuir	18.99	315	P	Pn	17 07 26.0	+0.6
JOF	Joensuu	20.07	15	*e*P	P	17 07 39.4	+2.9
JOF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
JOF	Joensuu	20.07	15	*e*p	P	17 07 39.4	+2.9
	comp=Z,3.2nm,0.6s						
KLMR	Klimovskoe	20.46	27	*e*P	P	17 07 39.1	-1.6
KLMR				pmax	pmax		
	comp=Z,28nm,1.2s						
KLMR	Klimovskoe	20.46	27	*e*P	P	17 07 39.1	-1.6
	comp=Z,28nm,1.2s						
MDT	Midelt	22.45	249	P	P	17 07 58.9	-3.4
	comp=Z,2.0nm,1.0s,mb3.5,baz=60,slow=8.1,SNR=2.4						
MDT				LR	LR	17 16 07.7	
	comp=Z,73nm,20.4s,MS3.1,baz=214,slow=35						
PRGR	Permogore	23.16	31	*e*P	P	17 08 07.8	-1.8
PRGR				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.6						
PRGR	Permogore	23.16	31	*e*P	P	17 08 07.8	-1.8
	comp=Z,24nm,0.9s,mb4.6						
TAM	Tamanrasset	24.38	215	*e*P	P	17 08 23.3	+1.7
TAM				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.8						
TAM	Tamanrasset	24.38	215	*e*P	P	17 08 23.3	+1.7
	comp=Z,3.7nm,1.0s,mb3.8						
TAM	Tamanrasset	24.38	215	*e*P	P	17 08 23.3	+1.7
	comp=Z,4.0nm,1.0s,mb3.8						
ARCES	ARCESS Array B	25.83	4	P	P	17 08 33.1	-1.3
	comp=Z,3.6nm,0.9s,mb3.9,baz=200,slow=10,SNR=3.9						
ARCES				LR	LR	17 19 04.9	
	comp=Z,153nm,19.6s,MS3.5,baz=188,slow=37						
ARCES	ARCESS Array B	25.83	4	P	P	17 08 33.1	-1.3
AKTK	Aktyubinsk	26.17	62	P	P	17 08 36.2	-1.5
AKTK				LR	LR	17 19 50.6	
AKTK	Aktyubinsk	26.17	62	P	P	17 08 36.2	-1.5
AKTO	Aktyubinsk	26.17	62	P	P	17 08 36.2	-1.5
	comp=Z,0.4nm,0.4s,mb3.4,baz=294,slow=10.0,SNR=2.3						
AKTO				LR	LR	17 19 50.6	
	comp=Z,80nm,18.6s,MS3.3,baz=64,slow=38						
ARU	Arti	27.08	49*d*	*i*P	P	17 08 44.9	-0.9
ARU				S	S	17 13 25.0	+1.3
ARU				SS		17 14 35.1	
ARU				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
ARU	Arti	27.08	49	*e*P	P	17 08 45.0	-0.8
	comp=Z,5.0nm,0.6s,mb4.2						
ARU	Arti	27.08	49	*e*P	P	17 08 45.0	-0.8
	comp=Z,5.0nm,0.6s,mb4.2						
ARU				S	S	17 13 25.0	+1.3
BVAR	Borovoye Array	33.75	56	P	P	17 09 45.9	+1.2
	comp=Z,1.7nm,0.9s,mb4.0,baz=260,slow=8.9,SNR=5.8						
BVAR	Borovoye Array	33.75	56	P	P	17 09 45.9	+1.2
TORD	Torodi Ar. Bea	34.61	213	P	P	17 09 52.0	-0.4
	comp=Z,0.8nm,0.6s,mb3.8,baz=18,slow=8.5,SNR=3.2						
TORD				LR	LR	17 25 12.8	
	comp=Z,68nm,18.4s,MS3.4,baz=145,slow=39						
EKS2	Erkin-Say	38.30	73	*e*P	P	17 10 25.2	+1.3
	comp=Z,3.9nm,0.8s,mb4.2						
EKS2	Erkin-Say	38.30	73	*e*P	P	17 10 25.2	+1.3
	comp=Z,3.9nm,0.8s,mb4.2						
AAK	Ala-Archa	38.81	72	*e*P	P	17 10 30.5	+2.4
AAK				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.1						
AAK	Ala-Archa	38.81	72	*e*P	P	17 10 30.5	+2.4
	comp=Z,4.6nm,1.2s,mb4.1						
AAK	Ala-Archa	38.81	72	*e*P	P	17 10 30.5	+2.4
	comp=Z,5.0nm,1.2s,mb4.1						
KURK	Kurchatov	39.15	59	P	P	17 10 29.7	-1.1
KURK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
KURK	Kurchatov	39.15	59	P	P	17 10 30.1	-0.7
	comp=Z,0.8nm,0.5s,mb3.7,baz=285,slow=9.3,SNR=2.5						
KURK	Kurchatov	39.15	59	P	P	17 10 29.7	-1.1
	comp=Z,1.4nm,0.6s,mb3.9						
KURK	Kurchatov	39.15	59	P	P	17 10 29.7	-1.1
	comp=Z,1.0nm,0.6s,mb3.7						
NVS	Novosibirsk	41.01	52	*e*P	P	17 10 46.9	+0.7
NVS				pmax	pmax		
	comp=N,8.0nm,1.4s						
NVS				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.2						
NVS				pmax	pmax		
	comp=E,3.0nm,0.9s						
NVS	Novosibirsk	41.01	52	*e*P	P	17 10 46.9	+0.7
ZAA0	Zalesovo Array	42.10	53	*e*P	P	17 10 55.0	-0.2
ZAA0	Zalesovo Array	42.10	53	*e*P	P	17 10 55.0	-0.2
ZALV	Zalesovo Beam	42.10	53	P	P	17 10 55.8	+0.5
	comp=E,3.2nm,0.7s,mb4.0,baz=281,slow=7.0,SNR=11						
ZALV				LR	LR	17 28 44.9	
	comp=E,49nm,19.9s,MS3.4,baz=59,slow=37						
ZALV	Zalesovo Beam	42.10	53	P	P	17 10 55.8	+0.6
MKAR	Makanchi Array	42.59	64	P	P	17 10 59.5	+0.2
MKAR						17 12 50.5	
MKAR	Makanchi Array	42.59	64	P	P	17 10 59.5	+0.2
	comp=E,0.4nm,0.4s,mb3.5,baz=286,slow=7.4,SNR=8.2						
MKAR				PcP	PcP	17 12 50.5	-1.0
	comp=E,0.3nm,0.7s,baz=343,slow=4.5,SNR=2.5						
MKAR				LR	LR	17 31 24.2	
	comp=E,104nm,18.3s,MS3.8,baz=289,slow=40						
SCHQ	Schefferville	54.29	315	P	P	17 12 28.4	-0.9
	comp=E,1.4nm,0.6s,mb4.0,baz=63,slow=8.2,SNR=5.8						
SCHQ	Schefferville	54.29	315	P	P	17 12 28.4	-0.9
LSA	Lhasa	56.76	79	*e*P	P	17 12 49.2	+1.7
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
LSA	Lhasa	56.76	79	*e*P	P	17 12 49.2	+1.7
	comp=Z,2.9nm,0.6s,mb4.5						
LSA	Lhasa	56.76	79	*e*P	P	17 12 49.2	+1.7
	comp=Z,3.0nm,0.6s,mb4.5						
SONM	Songino Array	56.99	53	P	P	17 12 48.9	+0.1
	comp=Z,1.2nm,0.9s,mb3.9,baz=295,slow=9.5,SNR=8.0						
SONM	Songino Array	56.99	53	P	P	17 12 48.9	+0.1
YKA	Yellowknife Ar	68.00	339	P	P	17 14 02.2	0.0
	comp=Z,0.9nm,0.8s,mb3.9,baz=32,slow=6.2,SNR=13						
YKA	Yellowknife Ar	68.00	339	P	P	17 14 02.2	0.0
YKA	Yellowknife Ar	68.00	339	P	P	17 14 02.2	0.0
CMAR	Chiang Mai Arr	69.27	84	P	P	17 14 10.9	+0.1
	comp=Z,0.5nm,0.3s,mb3.9,baz=307,slow=7.5,SNR=4.6						
CMAR	Chiang Mai Arr	69.27	84	P	P	17 14 10.9	+0.1
ULM	Lac du Bonnet	71.08	323	P	P	17 14 20.1	-1.2
	comp=Z,0.8nm,0.4s,mb4.0,baz=117,slow=4.5,SNR=2.3						
ULM	Lac du Bonnet	71.08	323	P	P	17 14 20.1	-1.3
NJ2	Nanjing	74.05	61	*e*P	P	17 14 38.3	-1.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
PETK	Petropavlovsk-	76.64	25	LR	LR	17 49 46.1	
	comp=Z,105nm,20.4s,MS4.1,baz=145,slow=36						
MJAR	Matsushiro Arr	82.06	46	LR	LR	17 55 16.2	
	comp=Z,123nm,18.5s,MS4.3,baz=70,slow=38						
PDAR	Pinedale Array	82.79	325	P	P	17 15 28.1	+0.6
	comp=Z,0.6nm,0.7s,mb3.8,baz=94,slow=9.1,SNR=3.3						
PDAR				LR	LR	17 49 34.3	
	comp=Z,178nm,21.9s,MS4.4,baz=161,slow=34						
PDAR	Pinedale Array	82.79	325	P	P	17 15 28.1	+0.6
TXAR	Lajitas Array	90.97	314	LR	LR	17 59 58.4	
	comp=Z,91nm,18.1s,MS4.2,baz=180,slow=38						
ASAR	Alice Springs	122.68	92	PKP	PKPdf	17 21 58.0	-1.3
	comp=Z,0.2nm,0.7s,baz=297,slow=1.8,SNR=3.0						
ASAR	Alice Springs	122.68	92	PKIKP	PKPdf	17 21 58.0	-1.3
RKT	Rikitea	151.02	308	*e*LR	LR	17 21 55.9	
	comp=Z,239nm,28.8s						

ATH ***15*** *17:15:09.4, 36°.23N×21°.47E, h28^{km}, MD3.5/6*
ISCJB ***15*** *17:15:10.9±1.3, 36°.25N±0°.05×21°.5E±0°.1, h29^{km}±8^{km}, Error ellipse: s-maj=14.7km s-min=8.1km az=160.9*
CSEM ***15*** *17:15:11.3±0.5, 36°.27N×21°.62E, h15^{km}, ML3.1/2, Error ellipse: s-maj=11.9km s-min=5.7km az=56.0*
THE ***15*** *17:15:13.1, 36°.31N×21°.72E, h24^{km}±1^{km}, ML3.1/2, Error ellipse: s-maj=2.9km s-min=1.2km az=248.0*
ISC 15 17:15:11.4±1.8**, 36°.25N**±0°.08×**21°.6E**±0°.1**, h19**^{km}±17^{km}**, n43, σ0^{s}.79**/58**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.66	12	P	Pb	17 15 23.6	-0.7
PYL				S	Sb	17 15 33.6	+0.5
PYL	PYLOS	0.66	12	*e*PN	Pn	17 15 23.5	-2.2
PYL				*e*SN	Sb	17 15 33.7	+0.6
PYL	PYLOS	0.66	12	*e*Pn	Pn	17 15 23.5	-2.2
PYL				S	Sb	17 15 33.6	+0.5
ITM	Ithomi	0.97	17	*e*PN	Pn	17 15 28.6	-1.4
ITM				*e*SN	Sn	17 15 43.4	+0.1
ITM	Ithomi	0.97	17	*e*Pn	Pn	17 15 28.6	-1.4
ITM				*e*Sn	Sn	17 15 43.4	+0.1
KYTH	Kithira	1.19	88	*e*PN	Pn	17 15 33.0	0.0
KYTH	Kithira	1.19	88	*e*Pn	Pn	17 15 33.0	0.0
VLX	Vlachokerasia	1.29	30	*e*PN	Pn	17 15 34.6	+0.1
VLX				*e*SN	Sn	17 15 52.5	+1.2
VLX	Vlachokerasia	1.29	30	*e*Pn	Pn	17 15 34.6	+0.1
VLX				*e*Sn	Sn	17 15 52.5	+1.2
GUR	Goura	1.79	20	*e*PN	Pn	17 15 41.3	0.0
GUR	Goura	1.79	20	*e*Pn	Pn	17 15 41.3	0.0
DID	Didima	1.83	46	P	Pn	17 15 40.7	-1.2
DID	Didima	1.83	46	*e*PN	Pn	17 15 42.0	+0.1
DID	Didima	1.83	46	P	Pn	17 15 40.7	-1.2
DID	Didima	1.83	46	*e*Pn	Pn	17 15 42.0	+0.1
LAKA	Lakka	2.01	9	P	Pn	17 15 45.4	+1.0
LAKA	Lakka	2.01	9	P	Pn	17 15 45.4	+1.0
VLS	Valsamata	2.08	338	P	Pn	17 15 45.5	+0.3
VLS	Valsamata	2.08	338	P	Pn	17 15 45.5	+0.3
KARN	Karanos	2.09	113	P	Pn	17 15 45.3	-0.1
KARN	Karanos	2.09	113	P	Pn	17 15 45.3	-0.1
LTK	Loutraki	2.09	32	P	Pn	17 15 46.2	+0.8
LTK	Loutraki	2.09	32	P	Pn	17 15 46.2	+0.8
AGG	Agios Georgios	2.83	12	P	Pn	17 15 55.5	-0.1
AGG				S	Sn	17 16 28.4	-0.8
AGG	Agios Georgios	2.83	12	P	Pn	17 15 55.5	-0.1
AGG				S	Sn	17 16 28.4	-0.8
THL	Klokotos Trika	3.33	6	P	Pn	17 16 02.6	+0.2
THL				S	Sn	17 16 40.8	-0.7
THL	Klokotos Trika	3.33	6	P	Pn	17 16 02.6	+0.2
THL				S	Sn	17 16 40.8	-0.7
MEV	Metsovon	3.54	356	P	Pn	17 16 06.7	+1.4
MEV				S	Sn	17 16 47.4	+0.7
MEV	Metsovon	3.54	356	P	Pn	17 16 06.7	+1.4
MEV				S	Sn	17 16 47.4	+0.7
LIT	Litokhoron	3.91	10	P	Pn	17 16 11.1	+0.6
LIT	Litokhoron	3.91	10	P	Pn	17 16 11.1	+0.6
PAIG	Paliouri	4.03	24	P	Pn	17 16 11.9	-0.2
PAIG	Paliouri	4.03	24	P	Pn	17 16 11.9	-0.2
CHOS	Chios island	4.16	58	P	Pn	17 16 13.6	-0.3
CHOS	Chios island	4.16	58	P	Pn	17 16 13.6	-0.3
HORT	Hortiatis	4.50	15	P	Pn	17 16 18.7	+0.1
HORT	Hortiatis	4.50	15	P	Pn	17 16 18.7	+0.1
FNA	Florina	4.53	358	P	Pn	17 16 18.2	-0.7
FNA				S	Sn	17 17 10.0	-1.1
FNA	Florina	4.53	358	P	Pn	17 16 18.2	-0.7
FNA				S	Sn	17 17 10.0	-1.1
GRG	Griva	4.75	8	P	Pn	17 16 22.8	+0.9
GRG	Griva	4.75	8	P	Pn	17 16 22.8	+0.9
KNT	Kendrikon	5.01	12	P	Pn	17 16 26.1	+0.5
KNT	Kendrikon	5.01	12	P	Pn	17 16 26.1	+0.5

ISCJB ***15*** *17:31:53.6±1.3, 17°.9S±0°.3×178°.2W±0°.2, h550^{km}, mb3.8/9, Error ellipse: s-maj=48.4km s-min=17.6km az=145.8*
IDC ***15*** *17:31:53.6±7.6, 18°.10S×177°.96W, h551^{km}±81^{km}, mb3.1/7, mb1 3.3/7, mb1mx3.1/17, mbtmp3.1/7, Error ellipse: s-maj=56.1km s-min=30.9km az=131.0*
NEIC ***15*** *17:31:56.5±5.6, 18°.05S×178°.13W, h580^{km}±66^{km}, mb4.6/2, Error ellipse: s-maj=42.4km s-min=26.5km az=153.0*
ISC 15 17:31:54.5±1.3**, 18°.0S**±0°.3×**178°.1W**±0°.2**, h550**^{km}**, n13, σ0^{s}.52**/11**, mb3.8**/9**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.82	241	P	P	17 38 33.2	+0.6
	1.3nm,0.8s,mb3.5,baz=100,slow=6.1,SNR=2.7						
STKA	Stephens Creek	38.82	241	P	P	17 38 33.2	+0.6
WRAB	Tennant Creek	44.86	260	*e*P	P	17 39 19.8	-0.6
	2.4nm,0.6s,mb3.9						
WRA	Warramunga Arr	44.87	260	P	P	17 39 20.0	-0.4
	1.4nm,0.5s,mb3.8,baz=93,slow=7.1,SNR=48						
ASAR	Alice Springs	45.02	254	P	P	17 39 21.4	-0.1
	3.9nm,0.6s,mb4.1,baz=89,slow=8.1,SNR=81						
ASAR				PcP	PcP	17 40 49.6	-1.2
	0.3nm,0.4s,baz=101,slow=4.0,SNR=5.2						
MJAR	Matsushiro Arr	68.11	323	P	P	17 41 59.9	+0.1
	0.6nm,0.4s,mb3.4,baz=148,slow=6.0,SNR=3.3						
PETK	Petropavlovsk-	73.81	345	P	P	17 42 32.9	+0.1
	1.2nm,0.6s,mb3.5,baz=78,slow=9.0,SNR=4.4						
PETK	Petropavlovsk-	73.81	345	P	P	17 42 32.9	+0.1
PV10	Paradox Valley	85.57	47	P	P	17 43 35.6	+0.6
	42nm,0.6s,mb5.2						
PDAR	Pinedale Array	87.23	43	P	P	17 43 41.7	-0.9
	0.2nm,0.4s,mb3.1,baz=236,slow=6.4,SNR=3.0						
CMAR	Chiang Mai Arr	89.14	290	P	P	17 43 52.8	+0.6
	0.4nm,0.7s,mb3.4,baz=113,slow=6.0,SNR=3.6						
BRTR	Keskin Array B	145.01	315	PKPbc	PKPbc	17 50 29.5	-0.8
	0.9nm,0.9s,baz=64,slow=3.4,SNR=3.7						
GERES	GERESS Array B	147.74	345	PKPbc	PKPbc	17 50 36.3	-1.2
	0.5nm,0.7s,baz=337,slow=2.2,SNR=4.5						

DDA ***15*** *17:35:23.0, 38°.89N×26°.00E, h7^{km}±2^{km}, Md2.8*
ISCJB ***15*** *17:35:23.3±0.6, 38°.87N±0°.03×26°.01E±0°.06, h6^{km}±7^{km}, Error ellipse: s-maj=8.5km s-min=4.3km az=172.1*
CSEM ***15*** *17:35:23.4±0.2, 38°.86N×25°.97E, h8^{km}, ML2.5/4, Error ellipse: s-maj=5.2km s-min=2.5km az=74.0*
THE ***15*** *17:35:23.4, 38°.86N×25°.98E, h2^{km}±2^{km}, ML2.5/4, Error ellipse: s-maj=2.0km s-min=0.6km az=209.0*
ISC 15 17:35:23.7±0.6**, 38°.87N**±0°.03×**25°.99E**±0°.06**, h9**^{km}±8^{km}**, n14, σ0^{s}.64**/28**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIGR	SIGRI	0.36	343	P	Pg	17 35 30.9	+0.2
SIGR				S	Sg	17 35 36.2	+0.7
SIGR	SIGRI	0.36	343	P	Pg	17 35 30.9	+0.2
SIGR				S	Sg	17 35 36.2	+0.7
PRK	Paraskevi	0.44	30	P	Pg	17 35 32.1	-0.1
PRK				S	Sg	17 35 38.6	+0.6
PRK	Paraskevi	0.44	30	P	Pg	17 35 32.1	-0.1
PRK				S	Sg	17 35 38.6	+0.6
CHOS	Chios island	0.48	174	P	Pg	17 35 33.0	-0.1
CHOS				S	Sg	17 35 39.5	+0.1
CHOS	Chios island	0.48	174	P	Pg	17 35 33.0	-0.1
CHOS				S	Sg	17 35 39.5	+0.1
URLA	Izmir	0.69	137	*e*P	Pg	17 35 36.6	-0.5
URLA				*e*S	Sg	17 35 47.3	+1.1
URLA	Izmir	0.69	137	*e*P	Pg	17 35 36.6	-0.5
URLA				*e*S	Sg	17 35 47.3	+1.1
AYVA	Ayvalik	0.70	51	*e*P	Pg	17 35 36.0	-1.3
AYVA				*e*S	Sg	17 35 46.4	0.0
BOZC	Bozcaada	0.97	3	*i* P	Pg	17 35 41.8	-0.6
BOZC				*i* S	Sg	17 35 54.8	-0.3
LIA	Limnos Island	1.20	329	P	Pb	17 35 46.1	-0.6
LIA				S	Sg	17 36 02.8	+0.4
LIA	Limnos Island	1.20	329	P	Pb	17 35 46.1	-0.6
LIA				S	Sg	17 36 02.8	+0.4
ALN	Alexandroupoli	2.03	1	P	Pn	17 35 57.4	-0.7
ALN				S	Sn	17 36 24.6	+1.0
ALN	Alexandroupoli	2.03	1	P	Pn	17 35 57.4	-0.7
ALN				S	Sn	17 36 24.6	+1.0

NEIC ***15*** *17:38:26.6, 16°.80N×95°.04W, h109^{km}, MD3.7(MEX), After MEX.*
MEX 15 17:38:26.6±0.9**, 16°.80N×95°.04W, h109**^{km}±8^{km}**, MD3.7, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.33	28	*i* P	Pn	17 38 41.1	-1.2
CMIG				*i* S	Sn	17 38 52.3	-1.8
HUIG	Huatulco	1.45	225	*i* P	Pn	17 38 50.8	-1.9
HUIG				*i* S	Sn	17 39 11.7	-0.9
OXX	Oaxaca	1.63	280	*e*P	Pn	17 38 53.9	-1.0
OXX				*i* S	Sn	17 39 14.5	-2.0
VHO	Vista Hermosa	1.64	280	*i* P	Pn	17 38 55.1	+0.1
VHO				*i* S	Sn	17 39 15.0	-1.7
TGIG		1.84	90	*e*P	Pn	17 38 57.2	-0.3
TGIG				*i* S	Sn	17 39 19.1	-2.0
PCIG		2.06	122	*e*P	Pn	17 38 59.0	-1.4
PCIG				*i* S	Sn	17 39 26.0	-0.1
UTMO	Huajuapan	2.83	292	*e*P	Pn	17 39 08.6	-1.7
UTMO				*i* S	Sn	17 39 42.4	-1.6
CCIG	Comitan	2.83	100	*e*P	Pn	17 39 09.7	-0.7
CCIG				*i* S	Sn	17 39 41.8	-2.3
PNIG	Pinotepa	2.98	263	*e*P	Pn	17 39 10.7	-1.7
PNIG				*i* S	Sn	17 39 46.0	-1.6

ISK ***15*** *17:55:10.8, 39°.53N×25°.99E, h6^{km}, MD3.2*
NEIC ***15*** *17:55:10.9, 39°.54N×26°.03E, h27^{km}, MD3.1(ISK), MD3.2(ATH), After ATH.*
ATH ***15*** *17:55:10.9, 39°.54N×26°.03E, h27^{km}, MD3.2/6*
ISCJB ***15*** *17:55:11.4±0.4, 39°.53N±0°.02×25°.97E±0°.03, h10^{km}±3^{km}, Error ellipse: s-maj=4.1km s-min=3.1km az=166.6*
DDA ***15*** *17:55:11.6, 39°.56N×26°.07E, h7^{km}±3^{km}, Md3.3*
THE ***15*** *17:55:12.1, 39°.53N×25°.99E, h10^{km}, ML3.4/5, Error ellipse: s-maj=0.9km s-min=0.4km az=233.0*
CSEM ***15*** *17:55:12.2±0.2, 39°.52N×25°.96E, h19^{km}, ML3.4/5, Error ellipse: s-maj=5.2km s-min=4.4km az=84.0*
ISC 15 17:55:11.9±0.4**, 39°.54N**±0°.02×**25°.98E**±0°.03**, h11**^{km}±3^{km}**, n56, σ0^{s}.76**/94**, 1C, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	Bozcaada	0.31	11⇑	*i*P	Pg	17 55 17.9	-0.3
BOZC				*i* S	Sg	17 55 22.2	-0.2
SIGR	SIGRI	0.34	196	P	Pg	17 55 18.7	+0.1
SIGR				S	Sg	17 55 23.8	+0.6
SIGR	SIGRI	0.34	196	P	Pg	17 55 18.7	+0.1
SIGR				S	Sg	17 55 23.8	+0.6
PRK	Paraskevi	0.37	142	P	Pg	17 55 19.1	-0.1
PRK				S	Sg	17 55 24.6	+0.4
PRK	Paraskevi	0.37	142	*e*PB	Pg	17 55 19.1	-0.1
PRK				*e*SB	Sg	17 55 24.6	+0.4
PRK	Paraskevi	0.37	142	*e*Pb	Pg	17 55 19.1	-0.1
PRK				*e*Sb	Sg	17 55 24.6	+0.4
EZN	Ezine	0.40	43	*e*PG	Pg	17 55 19.1	-0.6
EZN				*e*SG	Sg	17 55 24.9	-0.1

EZN	Ezine	0.40	43	ePg	Pg	17 55 19.1	-0.6
EZN				eSg	Sg	17 55 24.9	-0.1
AYVA	Ayvalik	0.60	112	eP	Pg	17 55 22.7	-0.8
AYVA				eS	Sg	17 55 34.1	+2.7
AYVA	Ayvalik	0.60	112	eP	Pg	17 55 22.7	-0.9
AYVA				eS	Sg	17 55 34.1	+2.7
GADA	Gvkgeada	0.66	355	ePG	Pg	17 55 23.9	-0.7
GADA				eSG	Sg	17 55 33.4	+0.2
GADA	Gvkgeada	0.66	355	ePg	Pg	17 55 23.9	-0.7
GADA				eSg	Sg	17 55 33.4	+0.2
LIA	Limnos Island	0.71	301	P	Pg	17 55 25.9	+0.3
LIA				S	Sg	17 55 36.3	+1.4
LIA	Limnos Island	0.71	301	ePN	Pg	17 55 25.9	+0.3
LIA				eSN	Sg	17 55 36.5	+1.6
LIA	Limnos Island	0.71	301	ePn	Pg	17 55 25.9	+0.3
LIA				eSn	Sg	17 55 36.5	+1.6
LPK	Lapseki	1.03	36	ePG	Pg	17 55 30.7	-1.0
LPK				eSG	Sg	17 55 45.7	+0.6
LPK	Lapseki	1.03	36	ePg	Pg	17 55 30.7	-1.0
LPK				eSg	Sg	17 55 45.7	+0.5
CHOS	Chios island	1.15	177	P	Pg	17 55 33.0	-1.0
CHOS				S	Sg	17 55 49.2	+0.2
CHOS	Chios island	1.15	177	ePN	Pg	17 55 32.8	-1.2
CHOS				eSN	Sg	17 55 48.7	-0.3
CHOS	Chios island	1.15	177	ePn	Pg	17 55 32.8	-1.2
CHOS				eSn	Sg	17 55 48.7	-0.3
CHOS				S	Sg	17 55 49.2	+0.2
ENEZ	Enez	1.21	6	ePN	Pn	17 55 34.4	-0.3
ENEZ				eSN	Sn	17 55 51.5	+0.4
ENEZ	Enez	1.21	6	ePn	Pn	17 55 34.4	-0.3
ENEZ				eSn	Sn	17 55 51.5	+0.4
BALY	Balya	1.29	80	eP	Pn	17 55 35.1	-0.7
BALY				eS	Sb	17 55 52.2	-0.4
BALY	Balya	1.29	80	eP	Pn	17 55 35.1	-0.7
BALY				eS	Sb	17 55 52.2	-0.5
ALN	Alexandroupoli	1.36	2	P	Pn	17 55 36.4	-0.4
ALN				S	Sb	17 55 54.3	-0.5
ALN	Alexandroupoli	1.36	2	ePN	Pn	17 55 36.4	-0.4
ALN				eSN	Sn	17 55 54.0	-0.9
ALN	Alexandroupoli	1.36	2	ePn	Pn	17 55 36.4	-0.4
ALN				eSn	Sn	17 55 54.0	-0.9
BALB	Balikesir	1.48	85	ePN	Pn	17 55 37.8	-0.6
BALB				eSN	Sn	17 55 58.1	+0.4
BALB	Balikesir	1.48	85	ePn	Pn	17 55 37.8	-0.6
BALB				eSn	Sn	17 55 58.1	+0.4
SART	Tekirdag	1.48	38	eP	Pn	17 55 38.0	-0.4
SART				eS	Sn	17 55 57.9	+0.2
SART	Tekirdag	1.48	38	eP	Pn	17 55 38.0	-0.4
SART				eS	Sn	17 55 57.9	+0.2
AKHS	Akhisar	1.57	114	eP	Pn	17 55 39.0	-0.7
AKHS				eS	Sn	17 56 00.1	0.0
AKHS	Akhisar	1.57	114	eP	Pn	17 55 39.0	-0.8
AKHS				eS	Sn	17 56 00.1	0.0
RDO	Rodhopi	1.64	348	ePN	Pn	17 55 40.2	-0.5
RDO				eSN	Sn	17 56 01.3	-0.5
RDO	Rodhopi	1.64	348	ePn	Pn	17 55 40.2	-0.5
RDO				eSn	Sn	17 56 01.3	-0.5
EDC	Edincik	1.66	60	ePN	Pn	17 55 41.4	+0.4
EDC				eSN	Sn	17 56 03.4	+1.1
EDC	Edincik	1.66	60	ePn	Pn	17 55 41.4	+0.4
EDC				eSn	Sn	17 56 03.4	+1.1
AOS	Alonnisos	1.67	258	P	Pn	17 55 40.5	-0.5
AOS	Alonnisos	1.67	258	P	Pn	17 55 40.5	-0.5
BNT	Bandirma	1.71	61	ePN	Pn	17 55 41.6	0.0
PAIG	Paliouri	1.81	283	P	Pn	17 55 43.8	+0.8
PAIG	Paliouri	1.81	283	P	Pn	17 55 43.8	+0.8
TKR	Tekirdag	1.88	39	ePN	Pn	17 55 45.1	+1.1
TKR	Tekirdag	1.88	39	ePn	Pn	17 55 45.1	+1.1
SMG	Samos	1.95	159	ePB	Pb	17 55 44.1	-3.3
SMG	Samos	1.95	159	ePb	Pb	17 55 44.1	-3.3
KCT	Karacabey	1.97	68	ePN	Pn	17 55 44.9	-0.3
KCT	Karacabey	1.97	68	ePn	Pn	17 55 44.9	-0.3
EDRB	Edirne	2.38	14	ePN	Pn	17 55 52.0	+1.1
EDRB	Edirne	2.38	14	ePn	Pn	17 55 52.0	+1.1
SLVT	Silivri	2.40	45	ePN	Pn	17 55 51.9	+0.8
SLVT	Silivri	2.40	45	ePn	Pn	17 55 51.9	+0.7
CTKS	Kestanelik-??a	2.57	48	ePN	Pn	17 55 54.0	+0.5
CTKS	Kestanelik-??a	2.57	48	ePn	Pn	17 55 54.0	+0.5
BGKT	Bogazkoy	2.70	52	ePN	Pn	17 55 56.4	+1.2
BGKT	Bogazkoy	2.70	52	ePn	Pn	17 55 56.4	+1.2

ISCJB **15** *18:15:00.3±0.6, 39°.41N±0°.03×33°.03E±0°.04, h5^{km}±6^{km}, Error ellipse: s-maj=5.6km s-min=4.9km az=138.5*

CSEM **15** *18:15:00.6±0.1, 39°.41N×33°.04E, h5^{km}, MD2.9, Error ellipse: s-maj=3.8km s-min=2.7km az=100.0*

DDA **15** *18:15:00.0, 39°.39N×33°.12E, h7^{km}±4^{km}, Md3.2*

ISK **15** *18:15:00.5, 39°.42N×33°.01E, h10^{km}, MD2.9*

ISC 15 18:15:00.9±0.6**, 39°.42N**±0°.03×**33°.04E**±0°.04**, h7**^{km}±5^{km}**, n26, σ0^{s}91**/38**, 1C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BALAT	Bala	0.15	23	⇓iP	Pg	18 15 03.4	-0.7
BALAT				iS	Sg	18 15 06.2	-0.2
LOD	Lodumlu	0.52	336	ePG	Pg	18 15 10.6	-0.4
LOD				eSG	Sg	18 15 18.6	+0.8
LOD	Lodumlu	0.52	336	ePg	Pg	18 15 10.6	-0.4
LOD				eSg	Sg	18 15 18.6	+0.8
KAMT	Kaman	0.52	95	ePG	Pg	18 15 12.3	+1.2
KAMT				eSG	Sg	18 15 19.4	+1.5
KAMT	Kaman	0.52	95	ePg	Pg	18 15 12.3	+1.3
CDAG	Cicekdag	1.05	78	⇑iP	Pg	18 15 18.9	-2.2
CDAG				iS	Sg	18 15 32.8	-2.0
CDAG	Cicekdag	1.05	78	iP	Pg	18 15 18.9	-2.2
CDAG				iS	Sg	18 15 32.8	-1.9
ELDT	Eldivan	1.11	15	eP	Pg	18 15 22.3	0.0
ELDT				eS	Sg	18 15 38.1	+1.3
ELDT	Eldivan	1.11	15	eP	Pg	18 15 22.3	0.0
ELDT				eS	Sg	18 15 38.1	+1.3
KDHN	Kadinhani	1.15	219	eP	Pg	18 15 22.2	-0.8
KDHN				eS	Sg	18 15 38.6	+0.8
KDHN	Kadinhani	1.15	219	eP	Pg	18 15 22.2	-0.8
KDHN				eS	Sg	18 15 38.6	+0.7
SVRH	Sivrihisar-ESK	1.18	272	ePN	Pn	18 15 22.7	-1.1
SVRH	Sivrihisar-ESK	1.18	272	ePn	Pn	18 15 22.7	-1.0
CANT	Cankiri	1.27	20	ePN	Pn	18 15 24.8	-0.2
SULT	Sultanhani-AKS	1.27	163	ePN	Pn	18 15 25.1	+0.1
SULT	Sultanhani-AKS	1.27	163	ePn	Pn	18 15 25.1	+0.1
CORM	Corum	1.44	58	ePN	Pn	18 15 27.5	+0.1
CORM	Corum	1.44	58	ePn	Pn	18 15 27.5	+0.1
AVNT	Avonos	1.55	114	eP	Pn	18 15 28.6	-0.2
AVNT				eS	Sn	18 15 49.4	+0.2
AVNT	Avonos	1.55	114	eP	Pn	18 15 28.6	-0.2
AVNT				eS	Sn	18 15 49.3	+0.2
KONT	Konya--Tatoy	1.56	200	ePN	Pn	18 15 29.3	+0.2
KONT	Konya--Tatoy	1.56	200	ePn	Pn	18 15 29.3	+0.3
BNN	Bunyan	2.25	104	ePN	Pn	18 15 39.1	+0.5
BNN	Bunyan	2.25	104	ePn	Pn	18 15 39.1	+0.6
SVSK	Karacayir	3.10	79	ePN	Pn	18 15 50.5	+0.4
SVSK	Karacayir	3.10	79	ePn	Pn	18 15 50.5	+0.4

MOS **15** *18:27:06.7±0.9, 9°.79N×93°.06E, h33^{km}, mb4.7/19, Error ellipse: s-maj=11.0km s-min=6.0km az=107.8*

IDC **15** *18:27:09.1±3.0, 9°.80N×93°.00E, h33^{km}±21^{km}, mb4.1/19, mb1 4.2/19, mb1mx4.2/25, mbtmp4.1/19, MS3.5/6, Ms1 3.6/6, ms1mx3.2/45, Error ellipse: s-maj=21.5km s-min=12.4km az=52.0*

DJA **15** *18:27:13, 9°.58N×92°.70E, h83^{km}, mb4.3/7*

ISCJB **15** *18:27:14.4±1.3, 9°.88N±0°.05×93°.07E±0°.05, h97^{km}±11^{km}, mb4.5/60, Error ellipse: s-maj=10.3km s-min=6.5km az=41.8*

BJI **15** *18:27:14.2, 9°.92N×93°.06E, h95^{km}, mB5.0/8, mb4.8/27*

NEIC **15** *18:27:15.9±0.9, 9°.88N×93°.14E, h97^{km}±8^{km}, mb4.4/21, Error ellipse: s-maj=8.2km s-min=5.6km az=57.0*

ISC 15 18:27:14.6±1.0**, 9°.86N**±0°.05×**93°.02E**±0°.05**, h82**^{km}±8^{km}**, h68**^{km}±6.7^{km}**:pP-P, n155, σ0^{s}96**/153**, mb4.5**/60**, 6C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NST	Nakhon Sawan	9.02	49	P	Pn	18 29 22.0	-0.2
PSI	Prapat	9.14	140	Pn	Pn	18 29 24.9	+1.1
	0.9nm,0.3s,baz=325,slow=12,SNR=7.2						
PSI				LR	LR	18 33 49.7	
	comp=Z,154nm,18.2s,baz=52,slow=44						
PSI	Prapat	9.14	140	Pn	Pn	18 29 24.9	+1.1
PSI				LR	LR	18 33 49.7	
CMAR	Chiang Mai Arr	10.29	33	Pn	Pn	18 29 39.8	+0.3
	1.9nm,0.3s,baz=224,slow=15,SNR=64						
CMAR				LR	LR	18 34 34.9	
	comp=Z,115nm,18.5s,baz=140,slow=43						
CMAR				ScP	ScP	18 39 10.1	+4.4
	baz=277,slow=1.8,SNR=7.2						
CHG	Chiang Mai	10.59	32	⇓P	Pn	18 29 44.7	+1.2
	12nm,0.9s						
CHTO	Chiang Mai	10.59	32	eP	Pn	18 29 44.5	+1.0
CHRT	Chiangrai	11.90	32	P	Pn	18 30 02.0	+0.6
VIS	Vishakhapatnam	12.23	311	ePKP	Pn	18 29 57.7	-8.1
VIS				eS	Sn	18 32 06.4	-14
VIS				AML	AML	18 32 12.1	
	comp=E,71nm,0.3s						
VIS				AML	AML	18 32 12.6	
	comp=N,47nm,0.3s						
PALK	Pallekele	12.45	259	ePn	Pn	18 30 03.1	-5.8
PALK				eSn	Sn	18 32 01.8	-24
BOK	Bokaro	15.44	335	ePKP	Pn	18 30 43.7	-4.2
BOK				eS	S	18 33 40.4	-8.8
SHL	Shillong	15.66	356	ePKP	Pn	18 30 53.0	+2.4
SHL				eS	S	18 33 33.0	-21
HYB	Hyderabad	15.94	300	iP	Pn	18 30 57.5	+3.4
HYB				eS	S	18 33 54.0	-5.3
HYB	Hyderabad	15.94	300	eP	Pn	18 30 57.5	+3.4
HYB				e		18 33 41.0	
ODAN	Odare	17.73	343	eP	Pn	18 31 15.6	-0.5
	comp=N,14nm,0.5s						
KMI	Kunming	17.77	30	P	Pn	18 31 18.1	+1.4
KMI				pmax	pmax		
	comp=Z,9.0nm,0.9s						
RAMN	Ramite	18.05	341	eP	Pn	18 31 20.0	0.0
	comp=Z,26nm,0.4s						
TAPN	Taplejung	18.11	345	eP	Pn	18 31 20.6	-0.1
	comp=Z,20nm,0.3s						
QIZ	Qiongzhong	18.65	59	eP	Pn	18 31 20.9	-6.4
JIRN	Jiri	18.84	341	eP	Pn	18 31 29.0	-0.5
	comp=Z,35nm,0.4s						
PKI	Pulchoki	19.02	339	eP	Pn	18 31 30.9	-0.8
	comp=Z,17nm,0.3s						
DMN	Daman	19.17	338	eP	Pn	18 31 32.0	-1.4
	comp=Z,14nm,0.6s						
GUN	Gumba	19.17	340	eP	Pn	18 31 32.5	-1.0
	comp=Z,54nm,0.5s						
KKN	Kakani	19.27	339	eP	Pn	18 31 32.9	-1.7
	comp=Z,34nm,0.5s						
GKN	Gorkha	19.70	338	eP	Pn	18 31 38.1	-1.5
	comp=Z,25nm,0.4s						
KAD	Karad	19.74	294	eS	S	18 35 10.7	-5.5
LSA	Lhasa	19.82	355	P	Pn	18 31 39.1	-1.9
LSA	Lhasa	19.82	355	eP	Pn	18 31 38.3	-2.7
LSA				eS	S	18 35 09.3	-8.2
LSA				pmax	pmax		
	comp=Z,14nm,0.6s						
LSA	Lhasa	19.82	355	eP	Pn	18 31 38.3	-2.7
	comp=Z,14nm,0.6s						
LSA				eS	S	18 35 09.3	-8.2
KOLN	Koldanda	19.90	335	eP	Pn	18 31 40.4	-1.6
	comp=Z,34nm,0.8s						
DANN	Dangsing	20.35	336	eP	P	18 31 45.2	+0.7
	comp=Z,49nm,0.5s						
POO	Poona	20.47	297	eS	S	18 35 23.4	-7.3
GYA	Guiyang	20.96	36	⇑iP	P	18 31 50.8	-0.2
GYA				pmax	pmax		
	comp=Z,10.0nm,0.7s						
LZH	Lanzhou	27.90	19	eP	P	18 32 57.0	+0.1
LZH				pP	pP	18 33 16.5	+0.7
LZH				sP	sP	18 33 25.6	+0.2
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.7						
LZH				pmax	pmax		
	comp=Z,140nm,4.5s						
WHN	Wuhan	28.60	41	P	P	18 33 04.3	+1.1
GTA	Gaotai	30.05	11	eP	P	18 33 16.5	+0.6
GTA				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.5						
NJ2	Nanjing	32.54	43	eP	P	18 33 38.4	+0.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
KBL	Kabul	32.94	322	P	P	18 33 41.2	-0.2
KBL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
KBL	Kabul	32.94	322	P	P	18 33 41.2	-0.2
	comp=Z,1.5nm,0.6s,mb4.0						
KZA	Kyzart	35.69	337	P	P	18 34 06.3	+1.3
	SNR=6.7						
UCH	Uchtor	36.10	336	P	P	18 34 10.2	+1.6
	SNR=7.6						
UCH	Uchtor	36.10	336	eP	P	18 34 09.9	+1.3
	comp=Z,3.6nm,0.6s,mb4.5						
TKM2	Tokmak 2	36.28	338	P	P	18 34 11.4	+1.3
	SNR=8.2						
KBK	Karagaybulak	36.30	337	P	P	18 34 12.4	+2.1
	SNR=6.1						
AML	Almayashu	36.35	335	P	P	18 34 12.6	+1.9
	SNR=25						
BJT	Baijiatuau	36.41	31	P	P	18 34 10.4	-0.8
BJT				pmax	pmax		
	comp=Z,17nm,0.5s						
BJT	Baijiatuau	36.41	31	P	P	18 34 10.4	-0.8
	comp=Z,18nm,0.5s,mb5.2						
BJI	Beijing	36.43	31	P	P	18 34 12.8	+1.4
BJI				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.3						
BJI				LR	LR		
	comp=Z,120nm,23.6s						
AAK	Ala-Archa	36.45	337	P	P	18 34 13.2	+1.7
	SNR=8.6						
AAK	Ala-Archa	36.45	337	eP	P	18 34 12.4	+0.8
AAK				ePcP	PcP	18 36 35.8	+1.8
CHMS	Chumysh	36.67	337	P	P	18 34 14.7	+1.3
	SNR=7.2						
EKS2	Erkin-Say	36.76	336	P	P	18 34 15.9	+1.7
	SNR=16						
USP	Ospenovka	36.99	337	P	P	18 34 17.2	+1.0
	SNR=22						
JOW	Kunigami	37.30	58	LR	LR	18 50 46.3	
	comp=Z,99nm,21.3s,baz=256,slow=38						
MK31	Makanchi Array	37.92	348	P	P	18 34 23.4	-0.6
MK31				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
MKAR	Makanchi Array	37.92	348	P	P	18 34 23.7	-0.3
	comp=Z,4.4nm,0.5s,mb4.5,baz=174,slow=8.1,SNR=96						
MKAR				PcP	PcP	18 36 39.2	+0.8
	comp=Z,0.8nm,0.5s,baz=195,slow=3.9,SNR=4.5						
KK31	Karatay Array	38.50	333	eP	P	18 34 29.4	+0.5
KK31				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.6						
SONM	Songino Array	39.50	14	P	P	18 34 37.3	+0.2
	comp=Z,2.6nm,0.4s,mb4.4,baz=203,slow=7.8,SNR=72						
SONM				PcP	PcP	18 36 44.8	+1.5
	comp=Z,0.6nm,0.3s,baz=203,slow=3.7,SNR=6.0						
ULN	Ulaanbaatar	39.69	15	eP	P	18 34 38.6	-0.1
ULN				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
ULN	Ulaanbaatar	39.69	15	eP	P	18 34 38.6	-0.1
	comp=Z,7.7nm,1.1s,mb4.5						
ZAK	Zakamensk	41.28	10	eP	P	18 34 51.9	+0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.8						
KSRS	Korea Array	41.74	43	P	P	18 34 55.5	-0.2
	comp=Z,1.7nm,0.4s,mb4.1,baz=240,slow=8.6,SNR=15						
KSRS				LR	LR	18 55 25.9	
	comp=Z,50nm,18.0s,baz=243,slow=41						
KURK	Kurchatov	42.43	346	P	P	18 35 00.9	-0.2
KURK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
KURK	Kurchatov	42.43	346	eP	P	18 35 00.9	-0.3
	comp=Z,4.8nm,0.9s,mb4.2						
KURK				ePcP	PcP	18 36 53.5	+0.7
FITZ	Fitzroy Crossi	42.53	131	P	P	18 35 00.4	-2.0
	comp=Z,3.5nm,0.9s,mb4.1,baz=332,slow=10,SNR=6.7						
FITZ				PcP	PcP	18 36 54.9	+1.1
	comp=Z,4.1nm,0.4s,baz=357,slow=5.2,SNR=15						
CN2	Changchun	43.98	34	eP	P	18 35 13.8	+0.1
CN2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.3						
ZAA0	Zalesovo Array	44.46	353	eP	P	18 35 16.7	-0.7
ZALV	Zalesovo Beam	44.46	353	P	P	18 35 17.1	-0.2
	comp=Z,2.9nm,0.4s,mb4.4,baz=173,slow=7.8,SNR=22						
HIA	Hailar	45.16	25	eP	P	18 35 23.2	+0.1
HIA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HIA	Hailar	45.16	25	eP	P	18 35 23.2	+0.1
	comp=Z,4.9nm,0.7s,mb4.3						
KRAR	Krasnoyarsk	46.04	360	⇓iP	P	18 35 30.5	+0.6
KRAR				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.8						
VOSK	Vostochnaya	46.32	342	P	P	18 35 31.7	-0.4
VOSK				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.8						
BVA0	Borovoye Array	46.77	341	iP	P	18 35 35.1	-0.5
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
BRVK	Borovoye	46.83	341	eP	P	18 35 35.3	-0.8
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.5						
BRVK	Borovoye	46.83	341	eP	P	18 35 35.3	-0.8
	comp=Z,4.6nm,0.5s,mb4.5						
AB31	Akbulak array	47.97	331	P	P	18 35 45.6	+0.6
AB31				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.7						
MJAR	Matsushiro Arr	48.69	50	P	P	18 35 50.3	-0.5
MJAR						18 37 15.9	
MJAR	Matsushiro Arr	48.69	50	P	P	18 35 50.3	-0.5
	comp=Z,1.3nm,0.6s,mb4.0,baz=256,slow=6.9,SNR=3.9						
MJAR				PcP	PcP	18 37 15.9	+1.0
	comp=Z,1.1nm,0.4s,baz=236,slow=2.6,SNR=4.7						
MJAR				LR	LR	18 58 25.6	
	comp=Z,71nm,19.1s,baz=50,slow=38						
AKTO	Aktyubinsk	49.69	331	P	P	18 35 58.1	0.0
WRA	Warramunga Arr	50.31	126	P	P	18 36 02.2	-1.1
	comp=Z,18nm,0.5s,mb5.3,baz=306,slow=8.5,SNR=439						
WRAB	Tennant Creek	50.32	126	eP	P	18 36 02.2	-1.2
WRAB				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.3						
WRAB	Tennant Creek	50.32	126	eP	P	18 36 02.2	-1.1
	comp=Z,23nm,0.6s,mb5.3						
BOD	Bodaibo	50.50	14	⇑eP	P	18 36 03.8	-0.3
BOD				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
ASAR	Alice Springs	52.03	130	P	P	18 36 14.8	-1.3
	comp=Z,5.6nm,0.5s,mb4.9,baz=304,slow=7.2,SNR=106						
ASAR				PcP	PcP	18 37 28.4	+1.0
	comp=Z,1.8nm,0.7s,baz=304,slow=3.3,SNR=9.0						
HABR	Khabarovsk	52.11	34	eP	P	18 36 13.8	-2.6
HABR				e*PP	pP	18 36 29.2	-7.5
HABR				e		18 37 24.7	
HABR				SSS		18 48 58.9	
HABR				MLR	MLR		
	comp=Z,76nm,22.0s						
SVE	Sverdlovsk	53.16	338	⇓eP	P	18 36 24.2	+0.2
SVE				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
ARU	Arti	53.64	337	c iP	P	18 36 27.4	-0.1
ARU				e		18 38 23.8	
ARU				S	S	18 43 56.9	+2.1
ARU				SS	SS	18 47 35.1	-1.3
ARU				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
ARU	Arti	53.64	337	eP	P	18 36 27.0	-0.5
	comp=Z,5.8nm,0.4s,mb5.0						
ASAJ	Asahikawa	54.67	42	P	P	18 36 35.8	+0.5
	comp=Z,6.8nm,0.5s,mb4.9,baz=44,slow=9.1,SNR=9.7						
KIV	Kislovodsk	55.12	317	eP	P	18 36 37.2	-1.2
KIV				e		18 37 36.4	
KIV				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
YSS	Yuzh-Sakhalins	55.92	39	eP	P	18 36 42.6	-1.6
YSS				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
YSS	Yuzh-Sakhalins	55.92	39	eP	P	18 36 42.6	-1.6
	comp=Z,12nm,0.8s,mb5.0						
YAK	Yakutsk	58.48	19	eP	P	18 37 01.1	-0.8
YAK				pmax	pmax		
	comp=Z,21nm,0.5s,mb5.4						
YAK	Yakutsk	58.48	19	eP	P	18 37 01.1	-0.8
	comp=Z,21nm,0.5s,mb5.4						
VSR	Storozhevoye	60.14	324	eP	P	18 37 13.1	-0.5
VSR				pmax	pmax		
	comp=N,7.0nm,0.5s						
VSR				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
VSR				pmax	pmax		
	comp=E,2.0nm,0.4s						
BRTR	Keskin Array B	60.31	310	P	P	18 37 14.2	-0.7
	comp=E,0.8nm,0.5s,mb4.0,baz=139,slow=7.7,SNR=5.4						
PRGR	Permogore	62.09	337	eP	P	18 37 25.4	-1.2
PRGR				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb5.2						
STKA	Stephens Creek	62.27	134	eP	P	18 37 27.8	-0.4
	comp=Z,3.6nm,0.6s,mb4.6						
STKA	Stephens Creek	62.27	134	P	P	18 37 27.6	-0.6
	comp=Z,3.5nm,0.5s,mb4.6,baz=300,slow=6.1,SNR=9.3						
STKA	Stephens Creek	62.27	134	eP	P	18 37 27.4	-0.8
	comp=Z,0.8nm,0.6s,mb3.9						
OBN	Obninsk	63.12	328	⇓eP	P	18 37 33.6	+0.1
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TIXI	Tiksi	65.52	12	⇑eP	P	18 37 48.3	-0.6
TIXI				i *PP	pP	18 38 05.5	-4.5
TIXI				pmax	pmax		
	comp=Z,11nm,0.4s,mb5.0						
TIXI	Tiksi	65.52	12	⇑iP	P	18 37 48.2	-0.7
	comp=Z,45nm,0.5s,mb5.6						
AKASG	Malin Array Be	65.92	321	P	P	18 37 50.2	-1.6
	comp=Z,0.4nm,0.4s,mb3.6,baz=92,slow=6.3,SNR=4.4						
SEY	Seymchan	67.60	25	⇑eP	P	18 38 02.3	0.0
TOO	Toolangi	68.06	137	eP	P	18 38 06.4	+0.8
JOF	Joensuu	68.59	334	eP	P	18 38 07.2	-1.3
JOF				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
JOF	Joensuu	68.59	334	ep	P	18 38 07.2	-1.3
	comp=Z,7.0nm,0.5s,mb4.8						
ARMA	Armidale	69.04	128	eP	P	18 38 13.3	+1.4
KAF	Kangasniemi	70.53	333	eP	P	18 38 19.8	-0.7
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
KAF	Kangasniemi	70.53	333	ep	P	18 38 19.8	-0.7
	comp=Z,3.0nm,0.5s,mb4.4						
KEV	Kevo	72.61	341	eP	P	18 38 32.1	-0.7
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
KEV	Kevo	72.61	341	ep	P	18 38 32.1	-0.7
	comp=Z,0.7nm,0.4s,mb3.8						
ARCES	ARCESS Array B	73.03	340	P	P	18 38 35.7	+0.4
	comp=Z,1.5nm,0.4s,mb4.2,baz=88,slow=6.3,SNR=19						
LBTB	Lobatse	74.24	241	eP	P	18 38 44.8	+1.6
LBTB				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
LBTB	Lobatse	74.24	241	eP	P	18 38 44.8	+1.6
	comp=Z,1.9nm,0.7s,mb3.9						
BILL	Bilibino	74.66	22	eP	P	18 38 43.7	-1.2
BILL				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb3.9						
BILL	Bilibino	74.66	22	eP	P	18 38 44.8	0.0
	comp=Z,6.0nm,1.1s,mb4.2						
GERES	GERESS Array B	75.62	318	P	P	18 38 51.3	+0.5
	comp=Z,1.6nm,0.5s,mb4.0,baz=87,slow=5.6,SNR=19						
BOSA	Boshof	75.71	237	LR	LR	19 11 32.6	
	comp=Z,82nm,18.5s,baz=338,slow=35						
NB2	NORSAR Subarra	77.47	330	P	P	18 39 00.3	-0.6
	comp=Z,1.1nm,0.6s,mb3.8,baz=94,slow=5.3						
NOA	NORSAR Array B	77.47	330	P	P	18 39 00.6	-0.4
	comp=Z,1.1nm,0.5s,mb3.8,baz=92,slow=5.6,SNR=5.0						
PGF	Pioggiola	79.02	312	eP	P	18 39 09.9	0.0
BFO	Black Forest	79.19	317	iP	P	18 39 12.2	+1.5
KEST	Kesra	79.21	305	P	P	18 39 11.9	+0.9
	comp=Z,0.5nm,0.7s,mb3.5,baz=136,slow=7.3,SNR=4.2						
CDF	Champ du Feu	79.89	318	eP	P	18 39 14.3	-0.2
LPG	La Plagne	80.44	315	eP	P	18 39 18.2	+0.7
	comp=Z,7.9nm,0.6s,mb4.4						
LPG	La Plagne	80.44	315	eP	P	18 39 18.2	+0.7
LPG				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
LPG	La Plagne	80.44	315	eP	P	18 39 18.2	+0.7
	comp=Z,4.0nm,0.6s,mb4.4						
LPL	La Plagne	80.46	315	eP	P	18 39 18.3	+0.7
	comp=Z,8.4nm,0.6s,mb4.5						
LPL	La Plagne	80.46	315	eP	P	18 39 18.3	+0.7
LPL				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
LPL	La Plagne	80.46	315	eP	P	18 39 18.3	+0.7
	comp=Z,4.2nm,0.6s,mb4.5						
MBDF	Montbardon	80.49	314	eP	P	18 39 17.4	-0.4
	comp=Z,1.8nm,0.4s,mb3.9						
MBDF	Montbardon	80.49	314	eP	P	18 39 17.4	-0.4
MBDF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
MBDF	Montbardon	80.49	314	eP	P	18 39 17.4	-0.4
	comp=Z,0.9nm,0.4s,mb4.0						

HAU	**Haudompre**	**80.53**	**317**	*e*P	**P**	**18 39 17.8**	**-0.2**
	comp=Z,3.1nm,0.4s,mb4.2						
HAU	**Haudompre**	**80.53**	**317**	*e*P	**P**	**18 39 17.8**	**-0.2**
HAU				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.3						
HAU	**Haudompre**	**80.53**	**317**	*e*P	**P**	**18 39 17.8**	**-0.2**
	comp=Z,1.5nm,0.4s,mb4.2						
FRF	**La Foret Royal**	**80.67**	**313**	*e*P	**P**	**18 39 18.9**	**+0.1**
LMR	**La Mourre**	**80.79**	**312**	*e*P	**P**	**18 39 19.5**	**+0.1**
ORIF	**Oris-en-Rattie**	**81.11**	**314**	*e*P	**P**	**18 39 20.9**	**-0.2**
LOR	**Lormes**	**82.28**	**317**	*e*P	**P**	**18 39 27.1**	**-0.1**
SMF	**Signal de Mont**	**82.36**	**316**	*e*P	**P**	**18 39 27.4**	**-0.2**
	comp=Z,3.3nm,0.5s,mb4.2						
SMF	**Signal de Mont**	**82.36**	**316**	*e*P	**P**	**18 39 27.4**	**-0.2**
SMF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
SMF	**Signal de Mont**	**82.36**	**316**	*e*P	**P**	**18 39 27.4**	**-0.2**
	comp=Z,1.6nm,0.5s,mb4.1						
RJF	**Les Rejaudoux**	**84.13**	**315**	*e*P	**P**	**18 39 37.2**	**+0.4**
TORD	**Torodi Ar. Bea**	**89.07**	**283**	P	**P**	**18 40 02.4**	**+0.9**
	comp=Z,0.4nm,0.5s,mb3.7,baz=90,slow=5.2,SNR=4.0						
ESDC	**Sonseca Array**	**89.10**	**310**	P	**P**	**18 40 01.2**	**0.0**
	comp=Z,0.2nm,0.3s,mb3.6,baz=60,slow=4.0,SNR=3.1						
KDAK	**Kodiak Island**	**94.27**	**29**	P	**P**	**18 40 25.9**	**+1.3**
	comp=Z,13nm,1.0s,mb5.2,baz=62,slow=6.7,SNR=6.5						
RES	**Resolute Bay**	**95.47**	**2**	P	**P**	**18 40 29.7**	**-0.2**
	comp=Z,1.7nm,0.9s,mb4.5,baz=352,slow=7.1,SNR=5.3						
YKA	**Yellowknife Ar**	**104.75**	**13**	PP	PP	18 45 28.8	-2.5
	comp=Z,0.5nm,0.7s,baz=333,slow=7.9,SNR=9.1						
PDAR	**Pinedale Array**	**123.71**	**20**	PKP	PKPdf	18 46 04.1	+0.9
	comp=Z,0.6nm,0.4s,baz=79,slow=2.5,SNR=6.5						
NVAR	**Mina Array Bea**	**123.77**	**29**	PKP	PKPdf	18 46 05.1	+1.7
	comp=Z,0.9nm,0.5s,baz=326,slow=2.5,SNR=7.7						
TXAR	**Lajitas Array**	**137.84**	**22**	PKP	PKPdf	18 46 33.1	+2.8
	comp=Z,0.7nm,0.4s,baz=326,slow=0.2,SNR=13						
TXAR				SKPbc	SKPbc	18 50 00.8	+3.7
	comp=Z,0.9nm,0.8s,baz=248,slow=1.3,SNR=7.2						
TXAR	**Lajitas Array**	**137.84**	**22**	PKP	PKPdf	18 46 33.1	+2.8
TXAR				SKPbc	SKPdf	18 50 00.8	+2.6
PLCA	**Paso Flores**	**145.98**	**203**	PKPbc	PKPbc	18 46 46.4	+1.1
	comp=Z,0.6nm,0.3s,baz=117,slow=6.8,SNR=5.5						

MAN 15 18:49:02,9°.56N×124°.84E,h103^{km},mb4.0,ML2.8,MS2.5, 1D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSLP	**Maasin**	**0.57**	**2**	*e*P	Pn	18 49 14.9	-3.8
SCPH	**Surigao**	**0.68**	**71**	⇓*e*P	Pn	18 49 21.2	+1.8
SCPH				*e*S	Sn	18 49 32.5	-0.1
BUTP	**Butuan**	**0.97**	**127**	*e*P	Pn	18 49 24.5	+2.1
OCLP	**Ormoc**	**1.50**	**351**	*e*P	Pn	18 49 06.8	-22
BUKP	**Musuan**	**1.69**	**172**	*e*P	Pn	18 49 31.9	+1.1

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*NEIC **15** 19:11:19.9,36°.26N×21°.56E,h35^{km},ML3.8(ATH),After ATH.*
*ATH **15** 19:11:19.9,36°.26N×21°.56E,h35^{km}±2^{km},ML3.8*
*ISCJB **15** 19:11:20.4±0.4,36°.25N±0°.03×21°.55E±0°.03,h63^{km}±4^{km}, mb4.2/19,Error ellipse: s-maj=5.3km s-min=3.6km az=12.3*
*CSEM **15** 19:11:21.2±0.2,36°.21N×21°.59E,h40^{km},ML4.2/1,Error ellipse: s-maj=5.5km s-min=4.2km az=35.0*
*THE **15** 19:11:22.8,36°.38N×21°.75E,h28^{km}±2^{km},ML4.2/1,Error ellipse: s-maj=3.2km s-min=1.3km az=55.0*
*IDC **15** 19:11:22.2±2.2,36°.40N×21°.77E,h41^{km}±22^{km},mb3.6/10, mb1 3.7/14,mb1mx3.5/28,mbtmp3.6/14,ML3.5/4,Error ellipse: s-maj=21.7km s-min=15.1km az=10.0*
*HLW **15** 19:11:34.4,35°.55N×23°.02E,h30^{km},Mb3.5*
ISC 15 19:11:21.6±0.4,**36°.23N**±0°.03×**21°.59E**±0°.03,**h51**^{km}±4^{km}, **n182,**σ**1^{s}.04**/211,**mb4.2**/19,**2C-4D,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.68**	**10**	P	**Pn**	**19 11 33.2**	**-1.9**
PYL				S	**Sn**	**19 11 40.6**	**-4.3**
PYL	**PYLOS**	**0.68**	**10**	*e*PN	**Pn**	**19 11 33.3**	**-1.8**
PYL				*e*SN	**Sn**	**19 11 43.5**	**-1.4**
PYL	**PYLOS**	**0.68**	**10**	*e*Pn	**Pn**	**19 11 33.3**	**-1.8**
PYL				*e*Sn	**Sn**	**19 11 43.5**	**-1.4**
ITM	**Ithomi**	**0.99**	**16**	⇑*i*PN	**Pn**	**19 11 38.4**	**-0.8**
ITM				*e*SN	**Sn**	**19 11 51.8**	**-0.3**
ITM	**Ithomi**	**0.99**	**16**	⇑*i*Pn	**Pn**	**19 11 38.4**	**-0.8**
ITM				*e*Sn	**Sn**	**19 11 51.8**	**-0.3**
KYTH	**Kithira**	**1.17**	**87**	*e*PN	**Pn**	**19 11 42.5**	**+0.9**
KYTH	**Kithira**	**1.17**	**87**	*e*Pn	**Pn**	**19 11 42.5**	**+0.9**
VLI	**Veliai**	**1.19**	**65**	*e*PN	**Pn**	**19 11 42.5**	**+0.6**
VLI	**Veliai**	**1.19**	**65**	*e*Pn	**Pn**	**19 11 42.5**	**+0.6**
VLX	**Vlachokerasia**	**1.30**	**29**	*e*PN	**Pn**	**19 11 43.3**	**-0.1**
VLX				*e*SN	**Sn**	**19 12 00.9**	**+1.2**
VLX	**Vlachokerasia**	**1.30**	**29**	*e*Pn	**Pn**	**19 11 43.3**	**-0.1**
VLX				*e*Sn	**Sn**	**19 12 00.9**	**+1.2**
GUR	**Goura**	**1.81**	**19**	*e*PB	**Pn**	**19 11 51.0**	**+0.7**
GUR	**Goura**	**1.81**	**19**	*e*Pb	**Pn**	**19 11 51.0**	**+0.7**
RLS	**Riolos of Patr**	**1.83**	**357**	*e*PB	**Pn**	**19 11 51.1**	**+0.5**
RLS	**Riolos of Patr**	**1.83**	**357**	*e*Pb	**Pn**	**19 11 51.1**	**+0.5**
DID	**Didima**	**1.83**	**45**	P	**Pn**	**19 11 49.5**	**-1.2**
DID	**Didima**	**1.83**	**45**	*e*PN	**Pn**	**19 11 50.4**	**-0.3**
DID	**Didima**	**1.83**	**45**	P	**Pn**	**19 11 49.5**	**-1.2**
DID	**Didima**	**1.83**	**45**	*e*Pn	**Pn**	**19 11 50.4**	**-0.3**
LAKA	**Lakka**	**2.03**	**9**	P	**Pn**	**19 11 54.9**	**+1.5**
LAKA	**Lakka**	**2.03**	**9**	P	**Pn**	**19 11 54.9**	**+1.5**
KARN	**Karanos**	**2.06**	**113**	*e*PN	**Pn**	**19 11 54.8**	**+1.0**
KARN	**Karanos**	**2.06**	**113**	*e*Pn	**Pn**	**19 11 54.8**	**+1.0**
LTK	**Loutraki**	**2.10**	**31**	P	**Pn**	**19 11 52.2**	**-2.1**
LTK	**Loutraki**	**2.10**	**31**	*e*PN	**Pn**	**19 11 54.1**	**-0.2**
LTK	**Loutraki**	**2.10**	**31**	P	**Pn**	**19 11 52.2**	**-2.1**
LTK	**Loutraki**	**2.10**	**31**	*e*Pn	**Pn**	**19 11 54.1**	**-0.2**
VLS	**Valsamata**	**2.10**	**338**	P	**Pn**	**19 11 54.7**	**+0.4**
VLS				S	**Sn**	**19 12 18.4**	**-0.9**
VLS	**Valsamata**	**2.10**	**338**	*e*PN	**Pn**	**19 11 54.7**	**+0.4**
VLS				*e*SN	**Sn**	**19 12 19.5**	**+0.2**
VLS	**Valsamata**	**2.10**	**338**	*e*Pn	**Pn**	**19 11 54.7**	**+0.4**
VLS				S	**Sn**	**19 12 18.4**	**-0.9**
VLS				*e*Sn	**Sn**	**19 12 19.5**	**+0.2**
NAIG	**Nisos Aigina**	**2.15**	**44**	*e*PN	**Pn**	**19 11 55.7**	**+0.7**
NAIG	**Nisos Aigina**	**2.15**	**44**	*e*Pn	**Pn**	**19 11 55.7**	**+0.7**
TRIZ	**Trizonia**	**2.17**	**10**	P	**Pn**	**19 11 56.9**	**+1.7**
TRIZ	**Trizonia**	**2.17**	**10**	P	**Pn**	**19 11 56.9**	**+1.7**
EFP	**Efpalio**	**2.21**	**6**	*e*PB	**Pn**	**19 11 57.3**	**+1.5**
EFP	**Efpalio**	**2.21**	**6**	*e*Pb	**Pn**	**19 11 57.3**	**+1.5**
ATH	**Athens Observa**	**2.43**	**44**	*e*PN	**Pn**	**19 11 59.5**	**+0.7**
ATH	**Athens Observa**	**2.43**	**44**	*e*Pn	**Pn**	**19 11 59.5**	**+0.7**
PTL	**Penteli**	**2.57**	**44**	*e*PN	**Pn**	**19 12 00.5**	**-0.2**
PTL	**Penteli**	**2.57**	**44**	*e*Pn	**Pn**	**19 12 00.5**	**-0.2**
LKR	**Lokris**	**2.67**	**24**	P	**Pn**	**19 12 01.2**	**-0.8**
LKR	**Lokris**	**2.67**	**24**	*e*PN	**Pn**	**19 12 01.7**	**-0.3**
LKR	**Lokris**	**2.67**	**24**	*e*Pn	**Pn**	**19 12 01.7**	**-0.3**
IDI	**Anoyia**	**2.84**	**108**	P	**Pn**	**19 12 04.8**	**+0.3**
	1.2nm,0.3s,baz=318,slow=15,SNR=10						
IDI	**Anoyia**	**2.84**	**108**	P	**Pn**	**19 12 04.8**	**+0.4**
AGG	**Agios Georgios**	**2.85**	**12**	P	**Pn**	**19 12 05.1**	**+0.5**
AGG				S	**Sn**	**19 12 36.4**	**-1.2**
AGG	**Agios Georgios**	**2.85**	**12**	*e*PN	**Pn**	**19 12 05.4**	**+0.8**
AGG	**Agios Georgios**	**2.85**	**12**	*e*Pn	**Pn**	**19 12 05.4**	**+0.8**
AGG				S	**Sn**	**19 12 36.4**	**-1.2**
SIVA	**Sivas**	**2.89**	**114**	P	**Pn**	**19 12 05.8**	**+0.7**
SIVA	**Sivas**	**2.89**	**114**	P	**Pn**	**19 12 05.8**	**+0.7**
THR6	**Thira Island,**	**3.08**	**86**	P	**Pn**	**19 12 07.6**	**-0.1**
THR6	**Thira Island,**	**3.08**	**86**	P	**Pn**	**19 12 07.6**	**-0.1**
THL	**Klokotos Trika**	**3.35**	**6**	P	**Pn**	**19 12 12.1**	**+0.7**
THL	**Klokotos Trika**	**3.35**	**6**	*e*PN	**Pn**	**19 12 12.0**	**+0.6**
THL	**Klokotos Trika**	**3.35**	**6**	*e*Pn	**Pn**	**19 12 12.0**	**+0.6**
XOR	**Xorichti**	**3.38**	**22**	P	**Pn**	**19 12 11.2**	**-0.6**
XOR	**Xorichti**	**3.38**	**22**	P	**Pn**	**19 12 11.2**	**-0.6**
NPS	**Neapolis**	**3.41**	**105**	*e*PN	**Pn**	**19 12 12.8**	**+0.6**
NPS	**Neapolis**	**3.41**	**105**	*e*Pn	**Pn**	**19 12 12.8**	**+0.6**
IGT	**Igoumenitsa**	**3.45**	**344**	P	**Pn**	**19 12 13.1**	**+0.4**
IGT	**Igoumenitsa**	**3.45**	**344**	P	**Pn**	**19 12 13.1**	**+0.4**
AOS	**Alonnisos**	**3.45**	**31**	P	**Pn**	**19 12 11.9**	**-0.9**
AOS	**Alonnisos**	**3.45**	**31**	P	**Pn**	**19 12 11.9**	**-0.9**
JAN	**Janina**	**3.47**	**351**	*e*PN	**Pn**	**19 12 13.8**	**+0.7**
JAN	**Janina**	**3.47**	**351**	*e*Pn	**Pn**	**19 12 13.8**	**+0.7**
MEV	**Metsovon**	**3.56**	**355**	P	**Pn**	**19 12 16.3**	**+2.0**
MEV	**Metsovon**	**3.56**	**355**	P	**Pn**	**19 12 16.3**	**+2.0**
KEK	**Kerkira**	**3.76**	**338**	*e*PN	**Pn**	**19 12 17.2**	**+0.2**
KEK	**Kerkira**	**3.76**	**338**	*e*Pn	**Pn**	**19 12 17.2**	**+0.2**
ZKR	**Zakros**	**3.92**	**105**	P	**Pn**	**19 12 19.7**	**+0.4**
ZKR	**Zakros**	**3.92**	**105**	P	**Pn**	**19 12 19.7**	**+0.4**
LIT	**Litokhoron**	**3.93**	**10**	*e*PN	**Pn**	**19 12 19.6**	**+0.2**
LIT	**Litokhoron**	**3.93**	**10**	*e*Pn	**Pn**	**19 12 19.6**	**+0.2**
PAIG	**Paliouri**	**4.04**	**23**	P	**Pn**	**19 12 19.7**	**-1.2**
PAIG	**Paliouri**	**4.04**	**23**	P	**Pn**	**19 12 19.7**	**-1.2**
KZN	**Kozani**	**4.08**	**2**	*e*PN	**Pn**	**19 12 22.3**	**+1.0**
KZN	**Kozani**	**4.08**	**2**	*e*Pn	**Pn**	**19 12 22.3**	**+1.0**
CHOS	**Chios island**	**4.16**	**57**	P	**Pn**	**19 12 21.1**	**-1.4**
CHOS	**Chios island**	**4.16**	**57**	*e*PN	**Pn**	**19 12 23.1**	**+0.6**
CHOS	**Chios island**	**4.16**	**57**	P	**Pn**	**19 12 21.1**	**-1.4**
CHOS	**Chios island**	**4.16**	**57**	*e*Pn	**Pn**	**19 12 23.1**	**+0.6**
PLG	**Polygyros**	**4.39**	**19**	*e*PN	**Pn**	**19 12 25.4**	**-0.2**
PLG	**Polygyros**	**4.39**	**19**	*e*Pn	**Pn**	**19 12 25.4**	**-0.2**
SMG	**Samos**	**4.45**	**69**	P	**Pn**	**19 12 27.6**	**+1.1**
SMG	**Samos**	**4.45**	**69**	P	**Pn**	**19 12 27.6**	**+1.1**
HORT	**Hortiatis**	**4.52**	**15**	P	**Pn**	**19 12 27.2**	**-0.3**
HORT	**Hortiatis**	**4.52**	**15**	P	**Pn**	**19 12 27.2**	**-0.3**
FNA	**Florina**	**4.55**	**358**	P	**Pn**	**19 12 28.1**	**+0.2**
FNA				S	**Sn**	**19 13 18.2**	**-1.3**
FNA	**Florina**	**4.55**	**358**	P	**Pn**	**19 12 28.1**	**+0.2**
FNA				S	**Sn**	**19 13 18.2**	**-1.3**
GRG	**Griva**	**4.76**	**7**	P	**Pn**	**19 12 30.7**	**-0.1**
GRG	**Griva**	**4.76**	**7**	P	**Pn**	**19 12 30.7**	**-0.1**
BIA	**Bitola**	**4.79**	**358**	P	**Pn**	**19 12 30.9**	**-0.2**
BIA				S	**Sn**	**19 13 24.6**	**-0.7**
BIA	**Bitola**	**4.79**	**358**	*e*Pn	**Pn**	**19 12 31.0**	**-0.1**
BIA				*e*Sg	**Sn**	**19 13 22.9**	**-2.4**
BIA	**Bitola**	**4.79**	**358**	*e*Pn	**Pn**	**19 12 31.0**	**-0.1**
BIA				S	**Sn**	**19 13 24.6**	**-0.7**
SOH	**Sokhos**	**4.79**	**16**	P	**Pn**	**19 12 31.6**	**+0.4**
SOH	**Sokhos**	**4.79**	**16**	*e*PN	**Pn**	**19 12 32.7**	**+1.5**
SOH	**Sokhos**	**4.79**	**16**	*e*Pn	**Pn**	**19 12 32.7**	**+1.5**
TIP	**Timpagrande**	**4.83**	**309**	*e*Pn	**Pn**	**19 12 32.8**	**+1.0**
OHR	**Ohrid**	**4.92**	**353**	*e*Pn	**Pn**	**19 12 32.8**	**0.0**
OHR	**Ohrid**	**4.92**	**353**	*e*Pn	**Pn**	**19 12 32.8**	**-0.1**
CEL	**Celeste**	**4.98**	**296**	*e*Pn	**Pn**	**19 12 34.7**	**+0.9**
SRS	**Serrai**	**5.13**	**17**	P	**Pn**	**19 12 36.1**	**+0.3**
SRS	**Serrai**	**5.13**	**17**	P	**Pn**	**19 12 36.1**	**+0.3**
KRUS	**Krusevo**	**5.14**	**357**	*e*Pn	**Pn**	**19 12 35.2**	**-0.7**
KRUS				*e*Sg	**Sn**	**19 13 33.5**	**-0.4**
KRUS	**Krusevo**	**5.14**	**357**	*e*Pn	**Pn**	**19 12 35.2**	**-0.8**
VAY	**Valandovo**	**5.14**	**8**	*e*Pn	**Pn**	**19 12 35.4**	**-0.6**
VAY	**Valandovo**	**5.14**	**8**	*e*Pn	**Pn**	**19 12 35.4**	**-0.6**
HAVL	**Avola**	**5.25**	**280**	Pn	**Pn**	**19 12 37.9**	**+0.4**
HAVL				Sn	**Sn**	**19 13 35.8**	**-1.0**
HAVL	**Avola**	**5.25**	**280**	Pn	**Pn**	**19 12 37.9**	**+0.4**
HAVL				Sn	**Sn**	**19 13 35.8**	**-1.0**
TIR	**Tirane**	**5.29**	**346**	*e*Pn	**Pn**	**19 12 38.1**	**+0.1**
	28nm,0.4s						
SSY	**Sortino**	**5.32**	**282**	Pn	**Pn**	**19 12 39.0**	**+0.6**
SSY				Sn	**Sn**	**19 13 37.4**	**-1.0**
SSY	**Sortino**	**5.32**	**282**	Pn	**Pn**	**19 12 39.0**	**+0.6**
SSY				Sn	**Sn**	**19 13 37.4**	**-1.0**
TAR1	**Taranto**	**5.46**	**323**	*e*Pn	**Pn**	**19 12 40.3**	**-0.1**
HMDC	**Modica**	**5.53**	**280**	Pn	**Pn**	**19 12 42.3**	**+1.0**
HMDC				Sn	**Sn**	**19 13 41.5**	**-2.0**
HVZN	**Vizzini**	**5.61**	**282**	Pn	**Pn**	**19 12 43.5**	**+1.1**
HVZN				Sn	**Sn**	**19 13 44.0**	**-1.4**
HVZN	**Vizzini**	**5.61**	**282**	Pn	**Pn**	**19 12 43.5**	**+1.1**
HVZN				Sn	**Sn**	**19 13 44.0**	**-1.4**
MMB	**Musomiste**	**5.61**	**17**	*i*P	**Pn**	**19 12 42.4**	**+0.1**
KKB	**Krupnik**	**5.75**	**11**	*i*P	**Pn**	**19 12 43.7**	**-0.6**
ALN	**Alexandroupoli**	**5.82**	**35**	P	**Pn**	**19 12 45.7**	**+0.4**
ALN	**Alexandroupoli**	**5.82**	**35**	P	**Pn**	**19 12 45.7**	**+0.4**
VAE	**Valguarnera**	**5.89**	**284**	P	**Pn**	**19 12 50.9**	**+4.6**
	1.0nm,0.3s,baz=39,slow=6.7,SNR=7.7						
VAE				S	**Sn**	**19 13 55.7**	**+3.3**
	5.0nm,0.3s,baz=101,slow=8.8,SNR=4.6						
CUC	**Castrocucco**	**5.91**	**311**	*e*Pn	**Pn**	**19 12 47.7**	**+1.2**
	22nm,0.6s						
CUC	**Castrocucco**	**5.91**	**311**	*e*Pn	**Pn**	**19 12 47.7**	**+1.3**
	22nm,0.6s						
SG1	**Sgolgore (BA)**	**6.00**	**322**	*e*Pn	**Pn**	**19 12 47.1**	**-0.7**
ACER	**Acerenza**	**6.35**	**317**	Pn	**Pn**	**19 12 53.1**	**+0.6**
ACER				Sn	**Sn**	**19 13 54.7**	**-9.0**
ACER	**Acerenza**	**6.35**	**317**	Pn	**Pn**	**19 12 53.1**	**+0.6**
VTS	**Vitosha**	**6.48**	**11**	P	**Pn**	**19 12 54.4**	**+0.1**
VTS	**Vitosha**	**6.48**	**11**	*i*P	**Pn**	**19 12 55.3**	**+1.0**
VTS	**Vitosha**	**6.48**	**11**	P	**Pn**	**19 12 56.2**	**+1.9**
VTS	**Vitosha**	**6.48**	**11**	P	**Pn**	**19 12 54.4**	**+0.1**
STON	**Ston**	**7.28**	**337**	*e*Pn	**Pn**	**19 13 03.1**	**-2.2**
STON				Sn	**Sn**	**19 14 17.4**	**-9.2**
STON	**Ston**	**7.28**	**337**	*e*Pn	**Pn**	**19 13 03.1**	**-2.2**
SWA2		**7.69**	**154**	P	**Pn**	**19 13 09.2**	**-1.7**
SWA2				S	**Sn**	**19 14 18.6**	**-18**
NVLJ	**Novalja**	**9.77**	**330**	*e*Pn	**Pn**	**19 13 39.0**	**-0.4**
NVLJ				Sn	**Sn**	**19 15 18.9**	**-8.8**
NVLJ	**Novalja**	**9.77**	**330**	*e*Pn	**Pn**	**19 13 39.0**	**-0.4**
AWBH		**10.02**	**140**	⇓P	**Pn**	**19 13 39.0**	**-3.8**
AWBH		**10.02**	**140**	P	**Pn**	**19 13 39.0**	**-3.8**
HFRF	**Wahat Farafira**	**10.70**	**146**	⇓P	**Pn**	**19 13 49.7**	**-2.5**
HFRF	**Wahat Farafira**	**10.70**	**146**	P	**Pn**	**19 13 49.7**	**-2.5**
AMAG	**Maghara**	**11.19**	**117**	P	**Pn**	**19 13 54.1**	**-4.7**
AMAG	**Maghara**	**11.19**	**117**	P	**Pn**	**19 13 54.1**	**-4.7**
	119nm,0.2s						
SUZ		**11.38**	**121**	⇓P	**Pn**	**19 13 56.8**	**-4.6**
SUZ		**11.38**	**121**	P	**Pn**	**19 13 56.8**	**-4.6**
HDK1	**Dakhla**	**12.58**	**146**	⇓P	**Pn**	**19 14 15.5**	**-2.3**
HDK1	**Dakhla**	**12.58**	**146**	P	**Pn**	**19 14 15.5**	**-2.3**
GERES	**GERESS Array B**	**13.88**	**338**	P	**Pn**	**19 14 34.5**	**-0.9**
	0.2nm,0.3s,baz=148,slow=14,SNR=4.8						
AKASG	**Malin Array Be**	**15.48**	**18**	P	**Pn**	**19 14 53.2**	**-3.2**
	0.4nm,0.3s,baz=207,slow=13,SNR=3.7						
AKASG	**Malin Array Be**	**15.48**	**18**	P	**Pn**	**19 14 53.2**	**-3.2**
HFS	**Hagfors**	**24.46**	**350**	P	**P**	**19 16 35.4**	**0.0**
	1.8nm,0.5s,mb3.8,baz=149,slow=10,SNR=9.2						
HFS	**Hagfors**	**24.46**	**350**	P	**P**	**19 16 35.4**	**0.0**
EKA	**Eskdalemuir Ar**	**25.52**	**326**	P	**P**	**19 16 46.4**	**+1.3**
	0.8nm,0.5s,mb3.5,baz=128,slow=9.9,SNR=6.8						
EKA	**Eskdalemuir Ar**	**25.52**	**326**	P	**P**	**19 16 46.3**	**+1.3**
NOA	**NORSAR Array B**	**25.70**	**348**	P	**P**	**19 16 47.6**	**+1.0**
	0.6nm,0.5s,mb3.4,baz=160,slow=9.5,SNR=3.9						
NOA	**NORSAR Array B**	**25.70**	**348**	P	**P**	**19 16 47.6**	**+1.0**
KAF	**Kangasniemi**	**26.08**	**5**	*e*p	**P**	**19 16 50.4**	**+0.4**
KAF	**Kangasniemi**	**26.08**	**5**	*e*P	**P**	**19 16 50.4**	**+0.4**
TORD	**Torodi Ar. Bea**	**29.12**	**223**	P	**P**	**19 17 20.8**	**+3.1**
	0.6nm,0.7s,mb3.4,baz=31,slow=9.4,SNR=4.5						
ARCES	**ARCESS Array B**	**33.43**	**2**	P	**P**	**19 17 55.3**	**+0.2**
	3.0nm,0.9s,mb4.2,baz=182,slow=8.5,SNR=7.5						
ARCES	**ARCESS Array B**	**33.43**	**2**	P	**P**	**19 17 55.3**	**+0.2**
MKAR	**Makanchi Array**	**45.62**	**57**	P	**P**	**19 19 36.2**	**-0.5**
	0.6nm,0.4s,mb3.8,baz=271,slow=7.7,SNR=21						
MKAR	**Makanchi Array**	**45.62**	**57**	P	**P**	**19 19 36.2**	**-0.5**
MKAR	**Makanchi Array**	**45.62**	**57**	P	**P**	**19 19 36.2**	**-0.5**
ZALV	**Zalesovo Beam**	**46.38**	**47**	P	**P**	**19 19 41.8**	**-0.7**
	1.6nm,0.4s,mb4.3,baz=268,slow=8.7,SNR=8.4						
ZALV	**Zalesovo Beam**	**46.38**	**47**	P	**P**	**19 19 41.8**	**-0.7**
DANN	**Dangsing**	**52.36**	**80**	*e*P	**P**	**19 20 29.6**	**+1.0**
	18nm,0.5s,mb5.2						
KOLN	**Koldanda**	**52.48**	**81**	*e*P	**P**	**19 20 27.1**	**-2.4**
	2.6nm,0.5s,mb4.4						
GKN	**Gorkha**	**53.21**	**80**	*e*P	**P**	**19 20 34.8**	**0.0**
	7.1nm,0.5s,mb4.9						
DMN	**Daman**	**53.75**	**80**	*e*P	**P**	**19 20 37.0**	**-1.8**
	7.9nm,0.5s,mb4.9						
KKN	**Kakani**	**53.81**	**80**	*e*P	**P**	**19 20 38.9**	**-0.4**
	5.6nm,0.6s,mb4.7						
PKI	**Pulchoki**	**54.01**	**80**	*e*P	**P**	**19 20 39.8**	**-0.9**
	2.5nm,0.3s,mb4.6						
GUN	**Gumba**	**54.24**	**79**	*e*P	**P**	**19 20 43.0**	**+0.7**
	5.0nm,0.4s,mb4.8						
JIRN	**Jiri**	**54.59**	**79**	*e*P	**P**	**19 20 44.6**	**-0.3**
	7.2nm,0.6s,mb4.9						
RAMN	**Ramite**	**55.24**	**80**	*e*P	**P**	**19 20 45.6**	**-4.0**
	6.2nm,0.8s,mb4.7						
ODAN	**Odare**	**55.91**	**80**	*e*P	**P**	**19 20 51.1**	**-3.3**
TAPN	**Taplejung**	**55.94**	**79**	*e*P	**P**	**19 20 54.7**	**+0.1**
SONM	**Songino Array**	**61.04**	**50**	P	**P**	**19 21 29.9**	**+0.1**
	0.5nm,0.7s,mb3.8,baz=281,slow=7.4,SNR=5.6						
SONM	**Songino Array**	**61.04**	**50**	P	**P**	**19 21 29.9**	**0.0**
YKA	**Yellowknife Ar**	**75.51**	**341**	P	**P**	**19 23 02.1**	**+2.0**
	0.3nm,0.6s,mb3.4,baz=35,slow=5.3,SNR=7.0						
YKA	**Yellowknife Ar**	**75.51**	**341**	P	**P**	**19 23 02.1**	**+2.0**
KSRS	**Korea Array**	**79.90**	**51**	P	**P**	**19 23 25.5**	**+0.5**
	0.7nm,0.4s,mb3.9,baz=310,slow=4.1,SNR=5.4						
ASAR	**Alice Springs**	**121.08**	**98**	PKP	PKPdf	19 30 10.3	+1.5
	0.2nm,0.8s,baz=308,slow=2.1,SNR=3.3						
ASAR	**Alice Springs**	**121.08**	**98**	PKIKP	PKPdf	19 30 10.3	+1.5

GUC 15 19:22:35.9±0.5,**23°.01S**×**70°.19W,h50**^{km}±4^{km}**,MD3.6, ML3.2,1C-2D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MECH	**Mejillones**	**0.25**	**249**	AML	AML	19 22 54.0	
	comp=N,2µm,0.3s						
CEN1	**Los Morros**	**0.37**	**181**	⇓*i*P	Pn	19 22 48.4	+2.6
CEN1				*i*S	Sn	19 22 57.6	+4.8
PECH	**Pedro de Valdi**	**0.63**	**49**	⇑*i*P	Pn	19 22 49.6	+0.8
PECH				*i*S	Sn	19 22 59.3	+1.2
PECH				AML	AML	19 23 00.1	
	comp=E,3µm,0.2s						
TOCH	**Tocopilla**	**0.92**	**360**	*i*P	Pn	19 22 52.8	+0.3
TOCH				*i*S	Sn	19 23 05.5	+0.8
TOCH				AML	AML	19 23 06.4	
	comp=E,2µm,0.1s						
PB04	**Plate Boundary**	**0.99**	**41**	AML	AML	19 23 00.6	
	comp=E,2µm,0.2s						
LVC	**Limon Verde**	**1.25**	**72**	*e*P	Pn	19 22 58.3	+1.3
LVC				*i*S	Sn	19 23 14.9	+2.2
LVC				AML	AML	19 23 16.0	
	comp=N,376nm,0.2s						
CPN1	**Cerro Paranal**	**1.62**	**187**	⇓*i*P	Pn	19 23 03.3	+1.3
CPN1				*i*S	Sn	19 23 24.4	+2.7
PB01	**Plate Boundary**	**2.07**	**19**	*e*P	Pn	19 23 09.2	+1.0
PB01				*i*S	Sn	19 23 34.2	+1.5
PB01				AML	AML	19 23 47.2	
	comp=E,145nm,0.4s						
HMBC	**Humberston**	**2.74**	**6**	AML	AML	19 24 10.8	
	comp=N,95nm,0.6s						
PSGC	**Pisagua**	**3.40**	**1**	AML	AML	19 24 34.2	
	comp=N,28nm,0.2s						
MNMC	**Miæe Miæ**	**3.90**	**8**	AML	AML	19 24 51.5	
	comp=E,60nm,0.7s						

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*ISCJB **15** 19:26:02.3±0.4,36°.51N±0°.03×27°.12E±0°.03,h123^{km}±5^{km}, Error ellipse: s-maj=5.2km s-min=4.2km az=158.1*
*CSEM **15** 19:26:03.2±0.2,36°.49N×27°.13E,h119^{km}±3^{km},MD3.2, Error ellipse: s-maj=4.6km s-min=4.0km az=156.0*
*NEIC **15** 19:26:03.2,36°.55N×27°.07E,h112^{km},After ATH.*
*ATH **15** 19:26:03.2,36°.55N×27°.07E,h112^{km}±2^{km}*
*ISK **15** 19:26:03.8,36°.62N×27°.06E,h117^{km},MD3.2*
*DDA **15** 19:26:04.1,36°.49N×27°.37E,h7^{km}±5^{km},Md3.4*
*HLW **15** 19:26:12.0,35°.66N×27°.35E,h33^{km},Mb3.7*
ISC 15 19:26:03.3±0.5,**36°.51N**±0°.03×**27°.11E**±0°.03,**h118**^{km}±5^{km}, **n76,**σ**0^{s}.96**/106,**4C-8D,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BODT	**Bodrum**	**0.57**	**16**	*e*PG	**Pn**	**19 26 21.7**	**+0.2**
BODT				*e*SG	**Sn**	**19 26 35.0**	**-0.3**
BODT	**Bodrum**	**0.57**	**16**	*e*Pg	**Pn**	**19 26 21.7**	**+0.2**
BODT				*e*Sg	**Sn**	**19 26 35.0**	**-0.2**
BDRM	**Kayabasi**	**0.61**	**25**	⇑*i*P	**Pn**	**19 26 22.0**	**+0.2**
BDRM				*i*S	**Sn**	**19 26 34.7**	**-1.1**
BDRM	**Kayabasi**	**0.61**	**25**	*i*P	**Pn**	**19 26 22.0**	**+0.2**
BDRM				*i*S	**Sn**	**19 26 34.7**	**-1.1**
ARG	**Arkhangelos**	**0.87**	**109**	*e*P	**Pn**	**19 26 24.8**	**+1.0**
ARG				*e*S	**Sn**	**19 26 39.9**	**+0.5**
ARG	**Arkhangelos**	**0.87**	**109**	*e*P	**Pn**	**19 26 24.8**	**+1.0**
ARG				*e*S	**Sn**	**19 26 39.9**	**+0.5**
MLSB	**Milas**	**0.95**	**34**	*e*PG	**Pn**	**19 26 25.0**	**+0.4**
MLSB				*e*SG	**Sn**	**19 26 40.3**	**-0.4**
MLSB	**Milas**	**0.95**	**34**	*e*Pg	**Pn**	**19 26 25.0**	**+0.4**
KARP	**Karpathos**	**0.96**	**178**	*e*P	**Pn**	**19 26 25.3**	**+0.5**
KARP				*e*S	**Sn**	**19 26 41.3**	**+0.3**
KARP	**Karpathos**	**0.96**	**178**	*e*P	**Pn**	**19 26 25.3**	**+0.5**
KARP				*e*S	**Sn**	**19 26 41.3**	**+0.3**
YER	**Yerkesik**	**1.13**	**56**	*e*PN	**Pn**	**19 26 27.3**	**+1.0**
YER	**Yerkesik**	**1.13**	**56**	*e*Pn	**Pn**	**19 26 27.3**	**+0.9**
GCAM	**G?zelcaml?**	**1.19**	**5**	⇓*i*P	**Pn**	**19 26 27.2**	**+0.1**
GCAM				*i*S	**Sn**	**19 26 43.8**	**-1.4**
GCAM	**G?zelcaml?**	**1.19**	**5**	*i*P	**Pn**	**19 26 27.2**	**+0.1**
GCAM				*i*S	**Sn**	**19 26 43.8**	**-1.4**
SMG	**Samos**	**1.22**	**350**	*e*P	**Pn**	**19 26 27.1**	**-0.3**
SMG				*e*S	**Sn**	**19 26 44.6**	**-1.1**
SMG	**Samos**	**1.22**	**350**	*e*P	**Pn**	**19 26 27.1**	**-0.3**
SMG				*e*S	**Sn**	**19 26 44.6**	**-1.1**
TURN	**Turunc**	**1.25**	**73**	⇑*i*P	**Pn**	**19 26 25.0**	**-2.7**
TURN				*i*S	**Sn**	**19 26 39.6**	**-6.6**
TURN	**Turunc**	**1.25**	**73**	*i*P	**Pn**	**19 26 25.0**	**-2.7**
DALT	**Dalyan (Mudla)**	**1.25**	**78**	PN	**Pn**	**19 26 29.2**	**+1.5**
DALT	**Dalyan (Mudla)**	**1.25**	**78**	*i*Pn	**Pn**	**19 26 29.2**	**+1.5**
AYDN	**Tasoluk**	**1.30**	**28**	*e*P	**Pn**	**19 26 28.6**	**+0.3**
AYDN				*e*S	**Sn**	**19 26 46.0**	**-1.3**
AYDN	**Tasoluk**	**1.30**	**28**	*e*P	**Pn**	**19 26 28.6**	**+0.3**
AYDN				*e*S	**Sn**	**19 26 46.0**	**-1.3**
ZKR	**Zakros**	**1.57**	**208**	*e*P	**Pn**	**19 26 32.8**	**+1.4**
ZKR	**Zakros**	**1.57**	**208**	*e*P	**Pn**	**19 26 32.8**	**+1.4**
FETY	**Fethiye**	**1.59**	**85**	*e*PN	**Pn**	**19 26 32.4**	**+0.8**
FETY	**Fethiye**	**1.59**	**85**	*e*Pn	**Pn**	**19 26 32.4**	**+0.8**
NPS	**Neapolis**	**1.74**	**225**	*e*P	**Pn**	**19 26 33.8**	**+0.4**
NPS				*e*S	**Sn**	**19 26 55.7**	**-0.7**
NPS	**Neapolis**	**1.74**	**225**	*e*P	**Pn**	**19 26 33.8**	**+0.4**
NPS				*e*S	**Sn**	**19 26 55.7**	**-0.7**
BLCB	**Balcova**	**1.87**	**358**	*e*PN	**Pn**	**19 26 35.0**	**-0.1**
BLCB	**Balcova**	**1.87**	**358**	*e*Pn	**Pn**	**19 26 35.0**	**0.0**
LAST	**Lasithi**	**1.89**	**225**	*e*P	**Pn**	**19 26 35.7**	**+0.4**
LAST	**Lasithi**	**1.89**	**225**	*e*P	**Pn**	**19 26 35.7**	**+0.4**
KSL	**Kastellorizon**	**2.03**	**99**	*e*P	**Pn**	**19 26 37.8**	**+0.9**
KSL	**Kastellorizon**	**2.03**	**99**	*e*P	**Pn**	**19 26 37.8**	**+0.9**
AKAS	**Kas**	**2.03**	**97**	⇓*i*P	**Pn**	**19 26 38.0**	**+1.0**
AKAS				*i*S	**Sn**	**19 27 02.4**	**-0.3**
AKAS	**Kas**	**2.03**	**97**	*i*P	**Pn**	**19 26 38.0**	**+1.1**
AKAS				*i*S	**Sn**	**19 27 02.4**	**-0.3**
CHOS	**Chios island**	**2.06**	**336**	*e*P	**Pn**	**19 26 37.3**	**0.0**
CHOS	**Chios island**	**2.06**	**336**	*e*P	**Pn**	**19 26 37.3**	**0.0**
GOLH	**Golhisar**	**2.09**	**69**	⇑*i*P	**Pn**	**19 26 38.9**	**+1.2**
GOLH				*i*S	**Sn**	**19 27 04.9**	**+0.8**
GOLH	**Golhisar**	**2.09**	**69**	*i*P	**Pn**	**19 26 38.9**	**+1.2**
GOLH				*i*S	**Sn**	**19 27 04.9**	**+0.8**
IDI	**Anoyia**	**2.18**	**237**	*e*P	**Pn**	**19 26 39.6**	**+0.8**
IDI				*e*S	**Sn**	**19 27 05.6**	**-0.5**
IDI	**Anoyia**	**2.18**	**237**	*e*P	**Pn**	**19 26 39.6**	**+0.8**
IDI				*e*S	**Sn**	**19 27 05.6**	**-0.5**
SIVA	**Sivas**	**2.39**	**232**	*e*P	**Pn**	**19 26 42.9**	**+1.3**
SIVA	**Sivas**	**2.39**	**232**	*e*P	**Pn**	**19 26 42.9**	**+1.3**
PRK	**Paraskevi**	**2.81**	**347**	*e*P	**Pn**	**19 26 47.2**	**+0.2**
PRK	**Paraskevi**	**2.81**	**347**	*e*P	**Pn**	**19 26 47.2**	**+0.2**
KARN	**Karanos**	**2.82**	**248**	*e*P	**Pn**	**19 26 48.9**	**+1.8**
KARN				*e*S	**Sn**	**19 27 19.9**	**-0.9**
KARN	**Karanos**	**2.82**	**248**	*e*P	**Pn**	**19 26 48.9**	**+1.8**
KARN				*e*S	**Sn**	**19 27 19.9**	**-0.9**
ISP	**Isparta**	**3.02**	**63**	*e*Pn	**Pn**	**19 26 50.0**	**+0.3**
ISP	**Isparta**	**3.02**	**63**	*e*Pn	**Pn**	**19 26 50.0**	**+0.3**
DID	**Didima**	**3.26**	**289**	*e*P	**Pn**	**19 26 53.5**	**+0.6**
DID	**Didima**	**3.26**	**289**	*e*P	**Pn**	**19 26 53.5**	**+0.6**
KYTH	**Kithira**	**3.30**	**267**	*e*P	**Pn**	**19 26 54.3**	**+0.9**
KYTH	**Kithira**	**3.30**	**267**	*e*P	**Pn**	**19 26 54.3**	**+0.9**
VLX	**Vlachokerasia**	**3.89**	**284**	*e*P	**Pn**	**19 27 02.7**	**+1.5**
VLX	**Vlachokerasia**	**3.89**	**284**	*e*P	**Pn**	**19 27 02.7**	**+1.5**
CSS	**Prodhromos**	**5.29**	**105**	*e*Pn	**Pn**	**19 27 19.5**	**-0.5**
CSS				*e*Sn	**Sn**	**19 28 12.9**	**-6.8**
CSS	**Prodhromos**	**5.29**	**105**	*e*Pn	**Pn**	**19 27 19.5**	**-0.5**
SWA2		**7.38**	**191**	P	**Pn**	**19 27 47.3**	**-1.0**
SWA2				S	**Sn**	**19 28 56.5**	**-14**
HRSH	**Kfar Ka'horesh**	**7.73**	**117**	⇑P	**Pn**	**19 27 53.8**	**+0.7**
AMAG	**Maghara**	**7.75**	**137**	P	**Pn**	**19 27 52.8**	**-0.5**
AMAG	**Maghara**	**7.75**	**137**	P	**Pn**	**19 27 52.8**	**-0.6**
HHAG	**Hagoal**	**7.76**	**146**	⇓P	**Pn**	**19 27 52.2**	**-1.2**
HHAG	**Hagoal**	**7.76**	**146**	P	**Pn**	**19 27 52.2**	**-1.3**
RSH		**7.80**	**133**	P	**Pn**	**19 27 53.8**	**-0.3**
GLL	**Jalalah**	**7.91**	**150**	⇓P	**Pn**	**19 27 53.8**	**-1.8**
GLL	**Jalalah**	**7.91**	**150**	P	**Pn**	**19 27 53.8**	**-1.8**
SUZ		**8.20**	**143**	⇓P	**Pn**	**19 27 58.7**	**-0.7**
SUZ		**8.20**	**143**	P	**Pn**	**19 27 58.7**	**-0.7**
AWBH		**8.30**	**169**	⇓P	**Pn**	**19 27 59.0**	**-1.9**
AWBH		**8.30**	**169**	P	**Pn**	**19 27 59.0**	**-1.9**
TIP	**Timpagrande**	**8.62**	**291**	*e*Pn	**Pn**	**19 28 03.1**	**-1.9**
TIP				*e*Sn	**Sn**	**19 29 30.0**	**-10**
HNKL	**Nakhl**	**8.72**	**137**	⇓P	**Pn**	**19 28 06.6**	**+0.1**
HNKL				S	**Sn**	**19 29 30.4**	**-13**
HNKL	**Nakhl**	**8.72**	**137**	P	**Pn**	**19 28 06.6**	**+0.1**
HFRF	**Wahat Farafira**	**9.39**	**173**	⇓P	**Pn**	**19 28 14.0**	**-1.6**
HFRF	**Wahat Farafira**	**9.39**	**173**	P	**Pn**	**19 28 14.0**	**-1.6**

IDC 15 19:34:11.6±6.3,**5°.53N**×**94°.77E,h0**^{km}**,mb3.4**/5,**mb1 3.6**/5, **mb1mx3.4**/23,**mbtmp3.4**/5,**Error ellipse: s-maj=323.2km s-min=22.0km az=57.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	42.49	347	P	P	19 42 08.4	-0.2
	0.3nm,0.5s,baz=165,slow=8.2,SNR=9.0						
WRA	Warramunga Arr	46.42	124	P	P	19 42 40.5	+0.1
	0.5nm,0.7s,baz=301,slow=9.6,SNR=6.1						
KURK	Kurchatov	47.02	346	P	P	19 42 44.1	-0.5
	0.3nm,0.5s,baz=164,slow=7.6,SNR=5.8						
ASAR	Alice Springs	47.96	129	P	P	19 42 52.3	-0.1
	0.2nm,0.4s,baz=306,slow=7.8,SNR=6.0						
ZALV	Zalesovo Beam	48.94	352	P	P	19 42 59.5	0.0
	0.4nm,0.5s,baz=116,slow=5.6,SNR=2.9						

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*ISCJB **15** 19:37:24.3±0.6, 33.°32N±0.°03×35.°38E±0.°06, h5km±7km, Error ellipse: s-maj=7.9km s-min=4.8km az=15.0*
*CSEM **15** 19:37:24.3±0.2, 33.°34N×35.°32E, h8km, ML3.1, Error ellipse: s-maj=7.3km s-min=2.8km az=97.0*
*GII **15** 19:37:24.4±0.6, 33.°23N×35.°41E, h1km±3km, Md2.0/7*
*GRAL **15** 19:37:25.3±0.4, 33.°30N×35.°38E, h3km±28km, MD3.0*
ISC 15 19:37:24.8±0.6**, 33.°32N**±0.°03×**35.°38E**±0.°06**, h6**km±7km**, n18, σ0.s56**/24**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	345	eP	Pg	19 37 28.7	+0.5
MATL	Matirih	0.17	345	eP	Pg	19 37 28.7	+0.5
KSDI	Kefar Szold	0.27	119	Pg	Pg	19 37 29.7	-0.3
KSDI				Sg	Sg	19 37 34.4	+0.9
HNTI	Hanita	0.30	216	Pg	Pg	19 37 30.6	+0.1
HNTI				Sg	Sg	19 37 35.8	+1.4
MMA0	Mount Meron ar	0.31	177	Pg	Pg	19 37 30.5	-0.2
MMA0				Sg	Sg	19 37 35.1	+0.3
RCY	Rachaya	0.40	66	eP	Pg	19 37 32.8	+0.3
RCY	Rachaya	0.40	66	eP	Pg	19 37 32.8	+0.3
BLGI	Bet Lehem HaGe	0.61	195	Pg	Pg	19 37 36.4	-0.1
BHL	Bhannes	0.62	21	eP	Pg	19 37 36.9	+0.1
BHL	Bhannes	0.62	21	eP	Pg	19 37 36.9	+0.1
OFRI	‘Ofer	0.78	206	Pg	Pg	19 37 39.4	-0.3
MMLI	Mount Malkishu	0.88	178	Pg	Pg	19 37 41.0	-0.7
MMLI				Sg	Sg	19 37 53.2	0.0
HWQ	Hawqa	1.06	26	eP	Pg	19 37 44.8	-0.4
HWQ	Hawqa	1.06	26	eP	Pg	19 37 44.8	-0.4
HMDT	Nahal Hemdat	1.07	174	Pg	Pg	19 37 44.3	-1.1
HMDT				Sg	Sg	19 37 59.1	-0.2
SLTI	Sal’it	1.12	195	Pg	Pg	19 37 45.4	-0.8
DSI	Dead Sea	1.75	180	Pn	Pn	19 37 55.6	-0.1
DSI				Sn	Sn	19 38 19.0	+0.7
MZDA	Masada	2.01	180	Pn	Pn	19 37 59.2	-0.1

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*CSEM **15** 19:56:43.1, 63.°66N×26.°07E, h0km, ML0.9, Mining explosion. After HEL*
HEL 15 19:56:43.1±0.1**, 63.°66N×26.°07E, h0**km**, ML0.9, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KJN	Kajaani	0.85	59	eP	Pg	19 56 58.1	-1.2
KJN				eS	Sg	19 57 08.9	-1.3
KJN	Kajaani	0.85	59	P	Pg	19 56 58.0	-1.3
KJN				S	Sg	19 57 08.9	-1.3
SUF	Sumiainen	0.94	178	eP	Pg	19 56 59.7	-1.4
SUF				eS	Sg	19 57 12.5	-0.8
SUF	Sumiainen	0.94	178	P	Pg	19 56 59.7	-1.4
SUF				S	Sg	19 57 12.4	-0.9
OUL	Oulu	1.44	357	SG	Sg	19 57 27.0	-2.2
OUL				MSG		19 57 27.0	
	comp=Z,0.6nm,0.2s						
OUL	Oulu	1.44	357	eP	Pn	19 57 09.3	-1.1
OUL				eS	Sg	19 57 26.9	-2.3
OUL	Oulu	1.44	357	Sg	Sg	19 57 27.0	-2.2
OUL	Oulu	1.44	357	P	Pn	19 57 09.2	-1.1
OUL				S	Sg	19 57 26.9	-2.3
KAF	Kangasniemi	1.55	176	eP	Pn	19 57 10.7	-1.2
KAF				eS	Sn	19 57 30.9	-1.8
KAF	Kangasniemi	1.55	176	P	Pn	19 57 10.7	-1.2
KAF				S	Sn	19 57 30.8	-1.9
KEF	Keuruu	1.59	201	eP	Pn	19 57 11.0	-1.4
KEF				eS	Sn	19 57 31.9	-1.8
KEF	Keuruu	1.59	201	P	Pn	19 57 11.0	-1.5
KEF				S	Sn	19 57 31.9	-1.8
VAF	Ylistaro	1.65	250	eP	Pn	19 57 12.5	-0.8
VAF				eS	Sn	19 57 33.6	-1.5
VAF	Ylistaro	1.65	250	P	Pn	19 57 12.5	-0.8
VAF				S	Sn	19 57 33.6	-1.5
JOF	Joensuu	2.48	105	eSB	Sb	19 57 58.0	-1.5
JOF				MSG		19 57 59.5	
	comp=Z,0.4nm,0.1s						
JOF	Joensuu	2.48	105	Sb	Sb	19 57 58.0	-1.5
	comp=Z,0.4nm,0.1s						

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*ISCJB **15** 20:00:54.5±0.5, 43.°64N±0.°05×105.°12W±0.°07, h0km, Error ellipse: s-maj=7.2km s-min=6.7km az=149.8*
*NEIC **15** 20:00:55.8±0.5, 43.°59N×105.°11W, h0km, Error ellipse: s-maj=6.4km s-min=5.9km az=142.0, Suspected Mining explosion.*
NEIC 80 km [50 miles] WSW of Newcastle.
*IDC **15** 20:00:56.4±2.2, 44.°00N×105.°95W, h0km, mb4.4/1, mb1 4.1/3, mb1mx3.5/22, mbtmp3.9/3, ML3.2/2, MS3.2/2, Ms1 3.2/2, ms1mx2.7/33, Error ellipse: s-maj=81.5km s-min=9.0km az=147.0*
ISC 15 20:00:55.8±0.5**, 43.°60N**±0.°05×**105.°11W**±0.°06**, h0**km**, n24, σ0.s94**/22**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.93	56	ePg	Pg	20 01 14.3	+0.6
PHWY	Pilot Hill	2.31	187	ePn	Pn	20 01 35.1	0.0
RWWY	Rawlins	2.46	220	ePn	Pn	20 01 37.6	+0.4
LAO	LASA Array	3.19	346	ePn	Pn	20 01 46.8	-0.3
RLMT	Red Lodge	3.35	298	ePn	Pn	20 01 47.7	-1.6
BW06	Boulder Array	3.36	257	ePn	Pn	20 01 49.1	-0.4
PDAR	Pinedale Array	3.36	257	Pn	Pn	20 01 48.6	-0.9
	2.9nm,0.3s,baz=72,slow=15,SNR=16						
PDAR				Lg		20 02 25.4	
	6.9nm,0.3s,baz=75,slow=21,SNR=9.0						
OGNE	Ogallala	3.50	138	ePn	Pn	20 01 52.4	+0.9
ISCO	Idaho Springs	3.82	186	ePn	Pn	20 01 56.5	+0.7
LKWY	Lake	3.93	286	ePn	Pn	20 01 58.8	+1.4
LOHW	Long Hollow	3.99	272	ePn	Pn	20 01 57.5	-0.7
MOOW	Moose Ponds	4.09	274	ePn	Pn	20 01 59.7	+0.1
REDW	Red Top Meadow	4.19	269	ePn	Pn	20 02 02.5	+1.7
IMW	Indian Meadow	4.24	276	ePn	Pn	20 02 00.5	-1.0
RRI2	Red Ridge	4.53	269	ePn	Pn	20 02 06.1	+0.5
DGMT	Dagmar	4.91	7	ePn	Pn	20 02 11.3	+0.5
BOZ	Bozeman (W)	5.08	296	ePn	Pn	20 02 13.1	-0.1
	4.9nm,0.5s						
EGMT	Eagleton	5.49	325	ePn	Pn	20 02 18.7	0.0
	13nm,0.5s						
DLMT	Dillon	5.64	291	ePn	Pn	20 02 22.7	+1.8
	3.6nm,0.7s						
SDCO	Great Sand Dun	5.86	183	ePn	Pn	20 02 22.1	-1.8
	4.6nm,0.5s						
ANMO	Albuquerque	8.70	187	LR	LR	20 06 18.1	
	comp=Z,29nm,21.8s,baz=318,slow=36						
ULM	Lac du Bonnet	9.17	40	Pn	Pn	20 03 08.3	-0.9
	0.6nm,0.3s,baz=227,slow=14,SNR=4.4						
ULM				Pg	Pn	20 03 42.1	+33
	1.6nm,0.3s,baz=223,slow=12,SNR=8.3						
ULM				Lg		20 05 43.3	
	0.7nm,0.3s,baz=337,slow=7.7,SNR=2.3						
ARCES	ARCESS Array B	61.51	18	P	P	20 11 13.2	-0.7
	4.3nm,0.9s,baz=330,slow=8.3,SNR=3.0						
GERES	GERESS Array B	73.46	37	LR	LR	20 45 00.2	
	comp=Z,84nm,18.2s,baz=28,slow=36						

IDC 15 20:03:13.7±1.7**, 2.°57N×126.°48E, h0**km**, mb3.6**/5**, mb1 3.8**/5**, mb1mx3.6**/19**, mbtmp3.7**/5**, Error ellipse: s-maj=106.5km s-min=23.0km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	16.30	159	eP	Pn	20 07 09.0	+4.9
	21nm,1.5s						
FITZ	Fitzroy Crossi	20.56	182	eP	P	20 07 56.7	+2.6
	11nm,1.2s						
FITZ	Fitzroy Crossi	20.56	182	P	P	20 07 54.7	+0.6
	5.7nm,1.0s,baz=359,slow=8.6,SNR=4.7						
WRA	Warramunga Arr	23.67	161	P	P	20 08 26.7	-0.5
	0.9nm,0.4s,baz=339,slow=11,SNR=24						
ASAR	Alice Springs	27.06	165	P	P	20 08 58.1	+0.1
	0.4nm,0.3s,baz=349,slow=13,SNR=13						
STKA	Stephens Creek	37.15	158	P	P	20 10 26.6	+0.2
	1.2nm,0.5s,baz=352,slow=9.7,SNR=7.9						
MKAR	Makanchi Array	58.36	326	P	P	20 13 10.6	-0.2
	0.2nm,0.5s,baz=112,slow=7.7,SNR=6.1						

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*IDC **15** 20:05:15.2±5.2, 15.°43S×167.°81E, h0km, mb3.9/5, mb1 4.1/5, mb1mx3.8/18, mbtmp3.9/5, Error ellipse: s-maj=133.6km s-min=43.8km az=120.0*
*ISCJB **15** 20:05:29.0±2.5, 15.°5S±0.°1×167.°3E±0.°3, h100km, mb3.7/5, Error ellipse: s-maj=48.6km s-min=12.8km az=170.2*
ISC 15 20:05:30.2±2.5**, 15.°5S**±0.°1×**167.°3E**±0.°4**, h100**km**, n6, σ0.s69**/7**, mb3.7**/5**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.61	187	eP	Pn	20 07 06.0	+1.1
DZM				eS	Sn	20 08 18.2	-0.6
STKA	Stephens Creek	28.57	231	P	P	20 11 16.0	-0.8
	2.0nm,1.1s,mb3.7,baz=49,slow=11,SNR=3.7						
WRA	Warramunga Arr	31.72	257	P	P	20 11 44.6	-0.1
	0.6nm,0.6s,mb3.5,baz=86,slow=8.9,SNR=7.1						
ASAR	Alice Springs	32.48	250	P	P	20 11 51.5	+0.2
	1.2nm,0.3s,mb4.0,baz=79,slow=9.0,SNR=22						
FITZ	Fitzroy Crossi	39.95	260	P	P	20 12 56.0	+0.9
	4.4nm,0.9s,mb4.3,baz=85,slow=12,SNR=6.4						
SONM	Songino Array	83.14	324	P	P	20 17 44.4	-0.6
	0.1nm,0.4s,mb3.0,baz=137,slow=6.3,SNR=5.1						

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*ISCJB **15** 20:13:49.9±1.0, 13.°37N±0.°02×125.°76E±0.°03, h22km±7km, mb4.8/92, MS4.0/20, Error ellipse: s-maj=5.7km s-min=4.1km az=0.9*
*MOS **15** 20:13:51.2±1.0, 13.°38N×125.°76E, h33km, mb5.1/24, Error ellipse: s-maj=11.8km s-min=6.0km az=122.9*
*MAN **15** 20:13:51, 13.°45N×125.°66E, h46km, mb5.5, ML4.5, MS4.8*
*BJI **15** 20:13:52.0, 13.°30N×125.°81E, h45km, mB5.1/34, mb4.7/49, Ms4.3/32, Ms7 4.1/30*
*NEIC **15** 20:13:53.1±0.2, 13.°37N×125.°80E, h35km, mb4.9/30, Error ellipse: s-maj=7.2km s-min=5.6km az=81.0*
*IDC **15** 20:13:53.3±5.6, 13.°35N×125.°71E, h33km±42km, mb4.4/18, mb1 4.5/19, mb1mx4.5/24, mbtmp4.4/19, ML4.7/1, MS3.9/10, Ms1 3.9/10, ms1mx3.5/32, Error ellipse: s-maj=22.8km s-min=11.0km az=74.0*
*DJA **15** 20:14:07, 13.°47N×125.°82E, h155km, mb4.7/14*
ISC 15 20:13:52.6±1.0**, 13.°37N**±0.°02×**125.°73E**±0.°04**, h28**km±7km**, h34**km±1.3km**:pP-P, n200, σ1.s06**/207**, mb4.8**/92**, MS4.0**/20**, 13C-10D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNP	Catarman	1.35	231	eP	Pn	20 14 15.9	+0.3
PVCP	Virac	1.55	279	eP	Pn	20 14 16.5	-2.0
PVCP				eS	Sn	20 14 34.4	-3.3
OCLP	Ormoc	2.55	206	eP	Pn	20 14 33.2	+1.0
OCLP				eS	Sn	20 15 04.2	+1.9
AUQP	San Andres	2.98	269	eP	Pn	20 14 39.1	+1.1
GQP	Guinayangan	3.24	280	⇑eP	Pn	20 14 40.3	-1.4
GQP				eS	Sn	20 15 17.4	-1.9
MSLP	Maasin	3.33	195	eP	Pn	20 14 44.4	+1.5
RCP	Roxas	3.43	239	⇑eP	Pn	20 14 44.6	+0.4
RCP				eS	Sn	20 15 24.0	0.0
LLP	Lapu-Lapu	3.49	210	⇑eP	Pn	20 14 45.1	-0.1
LLP				eS	Sn	20 15 24.9	-0.6
SCPH	Surigao	3.57	184	⇑eP	Pn	20 14 44.5	-1.7
POLP	Polilio Island	3.92	291	eP	Pn	20 14 50.0	-1.1
TBP	Tagbilaran	4.09	207	eP	Pn	20 14 53.3	-0.1
TBP				eS	Sn	20 15 39.6	-0.7
GUIM	Jordan	4.11	229	eP	Pn	20 14 54.0	+0.4
BUTP	Butuan	4.37	181	eP	Pn	20 15 03.2	+6.0
SJMP	San Jose	4.59	259	eP	Pn	20 15 01.5	+1.3
BALP	Baler	4.67	301	eP	Pn	20 14 58.0	-3.3
TGY	Tagaytay City	4.72	279	Pn	Pn	20 15 03.0	+1.0
	37nm,0.3s,baz=184,slow=1.3,SNR=4.8						
TGY	Tagaytay City	4.72	279	⇓eP	Pn	20 15 05.4	+3.4
PALP	Palanan	4.87	319	eP	Pn	20 15 01.6	-2.4
PCPH	Palayan	4.99	296	⇓eP	Pn	20 15 02.4	-3.4
PCPH				eS	Sn	20 15 55.1	-7.5
CAUP	Cauayan	5.18	314	eP	Pn	20 15 07.2	-1.2
LUBP	Lubang	5.35	275	eP	Pn	20 15 10.1	-0.6
BUKP	Musuan	5.50	187	eP	Pn	20 15 19.8	+7.1
BUSP	Coron	5.57	257	eP	Pn	20 15 14.1	+0.4
PAGZ	Pagadian	5.95	203	eP	Pn	20 15 20.3	+1.3
ABRA	Dolores	6.44	312	eP	Pn	20 15 25.2	-0.5
QZH	Quanzhou	13.34	331	⇑iP	Pn	20 17 03.3	+3.1
JOW	Kunigami	13.60	10	LR	LR	20 21 25.1	
	comp=Z,252nm,19.5s,baz=227,slow=33						
QIZ	Qiongzhong	16.26	292	P	Pn	20 17 36.1	-3.1
QIZ				S	Sn	20 20 30.0	-8.9
QIZ				pmax	pmax		
	comp=Z,18nm,2.4s						
QIZ				LR	LR		
	comp=Z,370nm,16.4s						
SSE	Sheshan	18.13	347	P	Pn	20 18 04.8	+2.3
SSE				sP	sP	20 18 20.0	+6.2
SSE				S	Sn	20 21 23.8	-0.3
SSE				pmax	pmax		
	comp=Z,29nm,0.9s						
SSE				pmax	pmax		
	comp=Z,110nm,7.4s						
SSE				LR	LR		
	comp=N,40nm,12.5s						
SSE				LR	LR		
	comp=E,210nm,12.5s						
SSE				LR	LR		
	comp=Z,85nm,14.7s						
GUMO	Guam	18.61	87	LR	LR	20 23 23.9	
	comp=Z,313nm,20.0s,baz=268,slow=31						
KSM	Kuching	19.31	234	eP	Pn	20 18 16.1	-0.8
	comp=Z,22nm,1.0s						
WHN	Wuhan	20.06	330	⇑P	P	20 18 26.0	+2.2
WHN				S	S	20 22 07.5	-0.4
WHN				LR	LR		
	comp=N,810nm,11.2s						
WHN				LR	LR		
	comp=E,670nm,8.2s						
WHN				LR	LR		
	comp=Z,540nm,12.0s,MS4.1						
CBIJ	Chichi jima	20.57	46	LR	LR	20 24 30.8	
	comp=Z,380nm,21.0s,MS3.7,baz=224,slow=31						
GYA	Guiyang	22.12	309	P	P	20 18 47.8	+1.8
GYA				pP		20 18 57.0	
GYA				sP	sP	20 19 01.3	+4.1
GYA				PP		20 19 16.5	
GYA				S	S	20 22 48.8	+0.3
GYA				sS	sS	20 23 03.8	+3.0
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
GYA				pmax	pmax		
	comp=Z,90nm,4.5s						
GYA				LR	LR		
	comp=N,570nm,14.7s,MS4.2						
GYA				LR	LR		
	comp=E,490nm,15.4s,MS4.2						
GYA				LR	LR		
	comp=Z,740nm,15.9s,MS4.2						
INCN	Inchon	24.03	2	P	P	20 19 05.1	-0.1
	comp=Z,40nm,1.0s,mb4.8						
KSRS	Korea Array	24.07	4	P	P	20 19 05.5	-0.1
	comp=Z,18nm,0.9s,mb4.5,baz=184,slow=11,SNR=39						
KSRS				LR	LR	20 27 11.7	
	comp=Z,161nm,20.7s,MS3.5,baz=40,slow=33						
KMI	Kunming	24.61	302	P	P	20 19 11.9	+1.2
KMI				pP		20 19 21.0	
KMI				sP	sP	20 19 24.5	+2.2
KMI				PP		20 19 49.3	
KMI				S	S	20 23 30.0	-0.4
KMI				sS	sS	20 23 46.8	+2.9
KMI				SS		20 24 25.5	
KMI				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.2						
KMI				pmax	pmax		
	comp=Z,100nm,3.5s						
KMI				LR	LR		
	comp=N,160nm,15.2s,MS3.9						
KMI				LR	LR		
	comp=E,230nm,16.0s,MS3.9						
KMI				LR	LR		
	comp=Z,220nm,14.5s,MS3.8						
XAN	Xi’an	25.62	326	P	P	20 19 19.3	-0.5
XAN				pmax	pmax		
	comp=Z,37nm,0.9s,mb4.9						
XAN				pmax	pmax		
	comp=Z,120nm,5.8s						
MJAR	Matsushiro Arr	25.64	24	LR	LR	20 27 17.0	
	comp=Z,269nm,21.2s,MS3.7,baz=205,slow=31						
KULM	Kulim	26.00	254	eP	P	20 19 24.7	+1.3
CMAR	Chiang Mai Arr	26.24	285	P	P	20 19 25.8	+0.2
CMAR						20 22 52.8	
CMAR	Chiang Mai Arr	26.24	285	P	P	20 19 25.8	+0.2
	comp=Z,10nm,1.0s,mb4.3,baz=94,slow=7.4,SNR=40						
CMAR				PcP	PcP	20 22 52.8	+0.8
	comp=Z,1.2nm,0.7s,baz=68,slow=0.2,SNR=7.7						
CMAR				LR	LR	20 31 40.5	
	comp=Z,78nm,18.4s,MS3.3,baz=90,slow=41						
CHTO	Chiang Mai	26.29	285	eP	P	20 19 25.7	-0.3
CHTO				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.0						
CHTO	Chiang Mai	26.29	285	eP	P	20 19 25.7	-0.3
	comp=Z,5.9nm,1.1s,mb4.0						
CD2	Chengdu	26.73	314	P	P	20 19 30.3	+0.5
CD2				pP	pP	20 19 39.3	+1.3
CD2				sP	sP	20 19 44.8	+3.3
CD2				PP		20 20 15.6	
CD2				S	S	20 24 02.3	-1.6
CD2				sS	sS	20 24 18.0	+0.6
CD2				SS		20 25 15.5	
CD2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.0						
CD2				pmax	pmax		
	comp=Z,230nm,5.5s						
CD2				LR	LR		
	comp=N,440nm,11.3s						
CD2				LR	LR		
	comp=Z,260nm,7.1s						
KAKA	Kakadu	26.75	165	eP	P	20 19 28.9	-1.2
	comp=Z,14nm,0.5s,mb4.7						
KAKA	Kakadu	26.75	165	eP	P	20 19 28.0	-2.1
	comp=Z,39nm,0.5s,mb5.2						
BJT	Baijiatuau	27.85	344	eP	P	20 19 37.6	-2.2
BJI	Beijing	27.87	344	P	P	20 19 39.4	-0.5
BJI				pP	pP	20 19 49.5	+1.3
BJI				sP	sP	20 19 53.6	+2.0
BJI				S	S	20 24 23.3	+1.7
BJI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
BJI				LR	LR		
	comp=N,250nm,14.2s,MS4.1						
BJI				LR	LR		
	comp=E,280nm,14.0s,MS4.1						
BJI				LR	LR		
	comp=Z,66nm,22.4s						
PSI	Prapat	28.51	251	P	P	20 19 46.0	+0.1
	comp=Z,12nm,0.8s,mb4.7,baz=89,slow=4.7,SNR=6.7						
PSI				LR	LR	20 30 41.2	
	comp=Z,310nm,18.2s,MS4.0,baz=232,slow=35						
LZH	Lanzhou	29.98	323	eP	P	20 20 00.1	+1.4
LZH				pP	pP	20 20 10.5	+3.5
LZH				sP	sP	20 20 14.9	+4.5
LZH				PP	PP	20 20 58.3	-8.4
LZH				eS	S	20 24 55.0	+0.1
LZH				sS	sS	20 25 10.3	+1.8
LZH				SS	SS	20 26 33.0	-30
LZH				pmax	pmax		
	comp=Z,30nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,170nm,6.3s						
LZH				LR	LR		
	comp=E,660nm,14.7s						
LZH				LR	LR		
	comp=Z,940nm,15.4s,MS4.5						
HHC	Hu-ho-hao-te	30.05	338	eP	P	20 20 01.4	+2.0
HHC				pP	pP	20 20 11.0	+3.4
HHC				sP	sP	20 20 15.0	+4.0
HHC				PP	PP	20 20 59.8	-7.7
HHC				eS	S	20 24 56.0	0.0
HHC				sS	sS	20 25 11.5	+1.9
HHC				SS	SS	20 26 33.5	-31
HHC				PcS	PcS	20 26 45.8	+1.6
HHC				ScS	ScS	20 30 35.6	-1.1
HHC				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
HHC				pmax	pmax		
	comp=Z,160nm,4.5s						
HHC				LR	LR		
	comp=N,190nm,11.9s,MS4.1						
HHC				LR	LR		
	comp=E,150nm,11.9s,MS4.1						
HHC				LR	LR		
	comp=Z,150nm,10.9s,MS3.9						
CN2	Changchun	30.33	360	eP	P	20 20 03.3	+1.6
CN2				eS	S	20 25 00.4	+0.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,200nm,14.0s,MS4.1						
CN2				LR	LR		
	comp=E,200nm,14.0s,MS4.1						
CN2				LR	LR		
	comp=Z,200nm,15.0s,MS3.9						
FITZ	Fitzroy Crossi	31.27	180	eP	P	20 20 09.5	-0.8
	comp=Z,10.0nm,0.3s,mb5.1						
FITZ	Fitzroy Crossi	31.27	180	P	P	20 20 09.8	-0.5
	comp=Z,4.8nm,0.3s,mb4.7,baz=355,slow=9.8,SNR=22						
MDJ	Mudanjiang	31.32	5	P	P	20 20 10.3	-0.1
MDJ				pP	pP	20 20 20.0	+1.3
MDJ				sP	sP	20 20 23.9	+1.8
MDJ				S	S	20 25 17.8	+2.2
MDJ				sS	sS	20 25 32.8	+3.6
MDJ				ScP	ScP	20 26 44.8	-0.6
MDJ				pmax	pmax		
	comp=Z,14nm,2.8s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,270nm,4.9s						
MDJ				LR	LR		
	comp=N,83nm,23.1s						
MDJ				LR	LR		
	comp=E,38nm,14.7s						
MDJ				LR	LR		
	comp=Z,97nm,20.9s,MS3.5						
MDJ	Mudanjiang	31.32	5	P	P	20 20 08.5	-2.0
	comp=Z,14nm,1.2s,mb4.7						
SHL	Shillong	34.04	296	ePKP	P	20 20 36.0	+1.4
SHL				eS	Px	20 23 15.0	
WRAB	Tennant Creek	34.16	165	eP	P	20 20 34.1	-1.5
WRAB				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
WRAB	Tennant Creek	34.16	165	eP	P	20 20 34.0	-1.5
	comp=Z,18nm,1.2s,mb4.9						
WRA	Warramunga Arr	34.17	165	P	P	20 20 34.2	-1.4
	comp=Z,4.6nm,0.8s,mb4.4,baz=343,slow=9.7,SNR=16						
WRA				PcP	PcP	20 23 12.3	-0.1
	comp=Z,2.2nm,0.8s,baz=336,slow=3.0,SNR=6.5						
GTA	Gaotai	34.57	323	P	P	20 20 39.6	+0.6
GTA				pP	pP	20 20 49.4	+2.1
GTA				sP	sP	20 20 53.1	+2.4
GTA				PcP	PcP	20 23 14.8	+1.5
GTA				S	S	20 26 06.8	+0.4
GTA				sS	sS	20 26 23.1	+3.0
GTA				SS	SS	20 28 21.5	-15
GTA				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
GTA				pmax	pmax		
	comp=Z,160nm,6.8s						
GTA				LR	LR		
	comp=N,130nm,18.7s,MS3.9						
GTA				LR	LR		
	comp=E,140nm,19.6s,MS3.9						
GTA				LR	LR		
	comp=Z,170nm,17.5s,MS3.8						
HABR	Khabarovsk	35.84	11	eP	pP	20 20 59.8	+1.7
HABR						20 22 09.4	
HABR						20 23 12.0	
HABR				eS	S	20 26 22.3	-3.4
HABR				eSS	SS	20 28 50.7	-12
HABR				e		20 31 00.6	
HABR				MLR	MLR		
	comp=Z,49nm,18.0s,MS3.3						
LSA	Lhasa	35.86	303	P	P	20 20 51.5	+1.2
LSA	Lhasa	35.86	303	eP	P	20 20 51.9	+1.6
LSA				e		20 23 18.9	

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LSA                                   pmax    pmax
         comp=Z,41nm,1.1s,mb5.3
LSA   Lhasa              35.86 303  ePcP    P        20 20 51.9 +1.6
         comp=Z,41nm,1.1s,mb5.3
LSA                                 ePcP    PcP      20 23 18.9 +1.6
ASAR  Alice Springs      37.66 168   P      P        20 21 05.2 -0.3
         comp=Z,5.4nm,0.7s,mb4.4,baz=342,slow=6.9,SNR=42
ASAR                                 PcP    PcP      20 23 22.7  0.0
         comp=Z,2.2nm,0.8s,baz=355,slow=2.7,SNR=6.7
ULN   Ulaanbaatar        37.75 339  eP      P        20 21 06.2 +0.2
ULN                                 e                20 23 22.1
ULN                                  pmax   pmax
         comp=Z,32nm,1.1s,mb5.0
ULN   Ulaanbaatar        37.75 339  eP      P        20 21 06.2 +0.1
         comp=Z,32nm,1.1s,mb5.0
ULN                                 ePcP    PcP      20 23 22.1 -0.6
SONM  Songino Array      37.95 339   P      P        20 21 08.1 +0.3
         comp=Z,12nm,0.9s,mb4.6,baz=150,slow=8.2,SNR=88
SONM                                 PcP    PcP      20 23 23.2  0.0
         comp=Z,2.1nm,1.0s,baz=152,slow=3.5,SNR=3.6
TAPN  Taplejung          38.10 297  eP      P        20 21 10.1 +0.8
         comp=Z,46nm,1.0s,mb5.2
ODAN  Odare              38.27 297  eP      P        20 21 11.3 +0.6
         comp=Z,81nm,1.0s,mb5.4
RAMN  Ramite             38.97 296  eP      P        20 21 17.4 +0.7
         comp=Z,40nm,0.8s,mb5.2
JIRN  Jiri               39.48 297  eP      P        20 21 21.6 +0.7
         comp=Z,33nm,0.6s,mb5.2
GUN   Gumba              39.81 298  eP      P        20 21 24.3 +0.7
         comp=Z,65nm,0.8s,mb5.4
PKI   Pulchoki           40.14 297  eP      P        20 21 26.5 +0.1
         comp=Z,18nm,0.7s,mb4.9
KKN   Kakani             40.30 297  eP      P        20 21 27.7  0.0
         comp=Z,38nm,1.0s,mb5.1
DMN   Daman              40.41 297  eP      P        20 21 28.8 +0.2
         comp=Z,48nm,1.1s,mb5.1
GKN   Gorkha             40.90 297  eP      P        20 21 32.5 -0.2
         comp=Z,45nm,1.0s,mb5.0
ZAK   Zakamensk          41.21 338  eP      P        20 21 34.4 -0.4
ZAK                                 e                20 23 34.0
ZAK                                  pmax   pmax
         comp=Z,3.0nm,1.2s,mb3.8
DANN  Dangsing           41.73 298  eP      P        20 21 39.7 +0.2
         comp=Z,41nm,0.8s,mb5.1
KOLN  Koldanda           41.75 297  eP      P        20 21 39.9 +0.2
         comp=Z,44nm,0.8s,mb5.1
TLY   Talaya             42.16 340  eP      P        20 21 42.7 +0.1
TLY                                  pmax   pmax
         comp=Z,13nm,1.1s,mb4.5
TLY   Talaya             42.16 340  eP      P        20 21 39.8 -2.8
         comp=Z,2.8nm,0.6s,mb4.1
MOY   Mondy              43.09 338  eP      P        20 21 49.4 -0.8
FORT  Forrest            43.95 177  eP      P        20 21 57.4 +0.1
         comp=Z,25nm,0.5s,mb5.2
WMQ   Urumqi             44.49 320   P      P        20 22 02.8 +1.2
WMQ                                  pP     pP       20 22 13.0 +3.0
WMQ                                  sP     sP       20 22 17.0 +3.6
WMQ                                  PP     PP       20 23 48.0 +2.4
WMQ                                 eS      S        20 28 35.0 -0.1
WMQ                                  sS     sS       20 28 51.0 +2.0
WMQ                                  pmax   pmax
         comp=Z,9.0nm,0.8s,mb4.5
WMQ                                  pmax   pmax
         comp=Z,170nm,4.5s
WMQ                                  LR     LR
         comp=N,150nm,17.7s,MS4.2
WMQ                                  LR     LR
         comp=E,170nm,17.0s,MS4.2
WMQ                                  LR     LR
         comp=Z,150nm,16.2s,MS4.0
BOD   Bodaibo            45.25 351⇓iP      P        20 22 06.7 -0.6
BOD                                  pmax   pmax
         comp=Z,5.0nm,1.1s,mb4.3
KLBR  Kellerberrin       45.35 190  eP      P        20 22 07.7 -0.8
         comp=Z,3.9nm,0.3s,mb4.7
HYB   Hyderabad          45.58 281  i P     P        20 22 12.0 +1.4
HYB   Hyderabad          45.58 281  eP      P        20 22 11.0 +0.4
MUN   Mundaring          46.00 191  eP      P        20 22 14.4 +0.8
NWAO  Narrogin (SRO)     46.74 190  eP      P        20 22 19.4  0.0
NWAO                                 pmax   pmax
         comp=Z,49nm,1.3s
NWAO  Narrogin (SRO)     46.74 190   P      P        20 22 19.2 -0.2
         comp=Z,6.2nm,0.4s,mb4.8,baz=28,slow=9.0,SNR=16
NWAO  Narrogin (SRO)     46.74 190  eP      P        20 22 19.4 -0.1
         comp=Z,50nm,1.3s,mb5.3
DDI   Dehra Dun          47.00 299  ex      P        20 22 21.3 -0.3
PETK  Petropavlovsk-     47.07  26   P      P        20 22 22.4 +0.7
         comp=Z,5.6nm,0.7s,mb4.6,baz=201,slow=2.8,SNR=9.4
PETK                                 LR     LR       20 38 58.2
         comp=Z,154nm,21.8s,MS3.9,baz=215,slow=32
PETK  Petropavlovsk-     47.07  26   P      P        20 22 22.4 +0.7
PETK                                 LR     LR       20 38 58.2
STKA  Stephens Creek     47.49 162  eP      P        20 22 25.7 +0.4
         comp=Z,21nm,0.9s,mb5.1
STKA  Stephens Creek     47.49 162   P      P        20 22 25.7 +0.4
         comp=Z,25nm,0.8s,mb5.2,baz=339,slow=8.1,SNR=38
YAK   Yakutsk            48.67   2  eP      P        20 22 32.4 -1.6
YAK                                  pmax   pmax
         comp=Z,16nm,1.0s,mb5.0
YAK                                  pmax   pmax
         comp=N,10.0nm,1.4s
YAK                                  pmax   pmax
         comp=E,2.0nm,1.4s
YAK   Yakutsk            48.67   2  eP      P        20 22 33.2 -0.8
         comp=E,11nm,0.8s,mb4.9
MK31  Makanchi Array     49.27 321  i P     P        20 22 39.0 +0.1
MK31                                 pmax   pmax
         comp=Z,31nm,1.0s,mb5.3
MKAR  Makanchi Array     49.27 321   P      P        20 22 39.5 +0.6
         comp=Z,15nm,0.8s,mb5.1,baz=115,slow=8.6,SNR=157
MKAR                                 PcP    PcP      20 24 01.5  0.0
         comp=Z,3.0nm,0.8s,baz=91,slow=12,SNR=5.3
MKAR  Makanchi Array     49.27 321   P      P        20 22 39.5 +0.6
MKAR                                 PcP    PcP      20 24 01.5  0.0
KRAR  Krasnoyarsk        49.52 336⇑iP      P        20 22 40.8 +0.2
KRAR                                 pmax   pmax
         comp=Z,8.0nm,0.6s,mb4.9
KSH   Kashi              50.81 310   P      P        20 22 53.3 +2.6
KSH                                 epP     pP       20 23 03.0 +3.8
KSH                                 esP     sP       20 23 06.8 +4.2
KSH                                 ePcP    PcP      20 24 09.1 +1.8
KSH                                 ePP     PP       20 24 50.0 +3.0
KSH                                 eScP    ScP      20 28 01.0 -0.8
KSH                                 ePcS    PcS      20 28 05.3 +0.6
KSH                                 eS      S        20 30 05.8 +0.9
KSH                                 esS     sS       20 30 23.3 +4.3
KSH                                 eScS    ScS      20 32 37.8 -1.9
KSH                                 eSS     SS       20 33 39.3 -0.4
KSH                                  pmax   pmax
         comp=Z,7.0nm,0.4s,mb4.9
KSH                                  LR     LR
         comp=N,280nm,5.5s
KSH                                  LR     LR
         comp=E,230nm,5.4s
KSH                                  LR     LR
         comp=Z,310nm,5.4s
ULHL  Ulahol             51.44 314   P      P        20 22 56.8 +1.4
         SNR=10
ZAA0  Zalesovo Array     51.68 330  eP      P        20 22 56.1 -0.9
ZALV  Zalesovo Beam      51.68 330   P      P        20 22 56.8 -0.2
         comp=Z,4.4nm,0.7s,mb4.5,baz=111,slow=8.1,SNR=24
ZALV                                 PcP    PcP      20 24 09.2 -1.1
         comp=Z,1.8nm,0.8s,baz=101,slow=4.7,SNR=3.7
KZA   Kyzart             52.09 313   P      P        20 23 02.4 +2.1
         SNR=16
TKM2  Tokmak 2           52.11 314   P      P        20 23 01.7 +1.3
         SNR=6.8
KBK   Karagaybulak       52.48 314   P      P        20 23 04.3 +1.2
         SNR=12
UCH   Uchtor             52.66 313   P      P        20 23 06.5 +2.1
         SNR=28
UCH   Uchtor             52.66 313  eP      P        20 23 06.1 +1.6
         comp=Z,595nm,0.7s
CHMS  Chumysh            52.73 314   P      P        20 23 05.7 +0.8
         SNR=9.5
AAK   Ala-Archa          52.79 314  eP      P        20 23 06.3 +0.9
AAK                                 e                20 24 15.1
AAK                                  pmax   pmax
         comp=Z,4.0nm,0.7s,mb4.5
AAK   Ala-Archa          52.79 314   P      P        20 23 07.0 +1.5
         SNR=5.8
AAK   Ala-Archa          52.79 314  eP      P        20 23 06.3 +0.9
         comp=Z,3.8nm,0.7s,mb4.4
AAK                                 ePcP    PcP      20 24 15.1 +0.4
NVS   Novosibirsk        52.95 331⇓iP      P        20 23 05.7 -0.7
NVS                                  pmax   pmax
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         comp=N,14nm,1.4s
NVS                                  pmax   pmax
         comp=E,17nm,1.4s
NVS                                  pmax   pmax
         comp=Z,21nm,1.4s,mb4.9
SEY   Seymchan           52.97  15⇑eP      P        20 23 07.6 +1.2
USP   Ospenovka          52.98 314   P      P        20 23 07.6 +0.8
         SNR=15
AML   Almayashu          53.21 313   P      P        20 23 10.3 +1.7
         SNR=17
AML   Almayashu          53.21 313  eP      P        20 23 09.9 +1.4
         comp=Z,12nm,0.7s,mb4.9
AML                                 ePcP    PcP      20 24 16.5 +0.2
KURK  Kurchatov          53.24 324  eP      P        20 23 08.6  0.0
KURK                                 pmax   pmax
         comp=Z,48nm,0.8s,mb5.5
KURK  Kurchatov          53.24 324  eP      P        20 23 08.6  0.0
         comp=Z,48nm,0.8s,mb5.5
EKS2  Erkin-Say          53.31 314   P      P        20 23 10.3 +1.1
         SNR=15
EKS2  Erkin-Say          53.31 314  eP      P        20 23 10.0 +0.8
         comp=Z,8.0nm,0.9s,mb4.7
EKS2                                ePcP    PcP      20 24 17.1 +0.5
TOO   Toolangi           53.96 161  eP      P        20 23 15.4 +1.4
KBL   Kabul              55.19 303  eP      P        20 23 23.1  0.0
KBL                                 e                20 25 25.1
KBL                                  pmax   pmax
         comp=Z,10.0nm,0.7s,mb5.0
KBL   Kabul              55.19 303  eP      P        20 23 23.1  0.0
         comp=Z,10nm,0.7s,mb5.0
KBL                                 ePP     PP       20 25 25.1 -1.6
KK31  Karatay Array      55.73 313   P      P        20 23 26.8 -0.1
KK31                                 pmax   pmax
         comp=Z,12nm,0.7s,mb5.0
TIXI  Tiksi              58.28   1⇑eP      P        20 23 43.1 -1.3
TIXI                                 pmax   pmax
         comp=Z,11nm,0.8s,mb4.9
TIXI  Tiksi              58.28   1  ePKPdf  P        20 23 42.6 -1.8
         comp=Z,9.4nm,0.4s,mb5.2
VOSK  Vostochnaya        58.40 324   P      P        20 23 44.9 -0.6
VOSK                                 pmax   pmax
         comp=Z,9.0nm,0.7s,mb4.9
BVA0  Borovoye Array     58.84 325  i P     P        20 23 48.4 -0.2
BVA0                                 pmax   pmax
         comp=Z,3.0nm,0.9s,mb4.3
BRVK  Borovoye           58.91 325  eP      P        20 23 48.9 -0.2
BRVK                                 pmax   pmax
         comp=Z,23nm,0.8s,mb5.3
BRVK  Borovoye           58.91 325  eP      P        20 23 48.9 -0.2
         comp=Z,23nm,0.8s,mb5.3
AB31  Akbulak array      64.21 318   P      P        20 24 23.6 -1.4
AB31                                 pmax   pmax
         comp=Z,12nm,1.0s,mb4.9
SVE   Sverdlovsk         65.34 327⇓eP      P        20 24 32.4 +0.2
SVE                                  pmax   pmax
         comp=Z,19nm,1.1s,mb5.0
AKTO  Aktyubinsk         65.63 319   P      P        20 24 33.6 -0.6
AKTO                                 pmax   pmax
         comp=Z,1.0nm,1.1s,mb3.8
GAMB  Gambell            66.11  26  eP      P        20 24 37.3 +0.3
         comp=Z,11nm,1.3s,mb4.7
ARU   Arti               66.37 326d iP      P        20 24 38.0 -0.8
ARU                                  S      S        20 33 24.1 -2.7
ARU                                  SS     SS       20 37 36.5 -6.9
ARU                                  pmax   pmax
         comp=Z,7.0nm,0.6s,mb4.9
ARU   Arti               66.37 326  eP      P        20 24 37.6 -1.2
         comp=Z,4.0nm,0.6s,mb4.6
RDF   Al-Radifah         73.43 296  eP      P        20 25 22.0 -0.8
RDF                                  AMb    AMB      20 25 23.2
         comp=Z,21nm,0.8s,mb5.1
MIB   Mutribah           73.51 297  eP      P        20 25 22.0 -1.3
MIB                                  AMb    AMB      20 25 23.3
         comp=Z,30nm,0.8s,mb5.3
PRGR  Permogore          73.64 331  eP      P        20 25 21.9 -1.4
PRGR                                 pmax   pmax
         comp=Z,14nm,0.9s,mb4.9
NAY   Al-Naaiem          73.66 297  eP      P        20 25 23.0 -1.1
NAY                                  AMb    AMB      20 25 24.9
         comp=Z,18nm,0.8s,mb5.0
IMA2  Indian Mountai     74.05  25  eP      P        20 25 26.3 +0.6
COLD  Coldfoot           75.47  24  eP      P        20 25 34.6 +0.8
         comp=Z,13nm,1.0s,mb4.8
KIV   Kislovodsk         75.88 312c iP      P        20 25 37.4 +0.7
KIV                                 e       pP       20 25 44.5 -1.1
KIV                                 e                20 28 28.7
KIV                                  pmax   pmax
         comp=Z,16nm,0.8s,mb5.0
KIV   Kislovodsk         75.88 312  eP      P        20 25 36.9 +0.3
         comp=Z,21nm,1.1s,mb5.0
VRHR  Novokhopersk       76.04 320  eP      P        20 25 36.8 -0.6
VRHR                                 pmax   pmax
         comp=Z,10.0nm,0.6s,mb4.9
VRHR                                 pmax   pmax
         comp=N,8.0nm,0.4s
PMR   Palmer             76.04  29  eP      P        20 25 36.5 -0.7
MCK   McKinley           76.05  27  eP      P        20 25 36.3 -1.0
MCK                                  pmax   pmax
         comp=Z,20nm,1.0s,mb5.0
MCK   McKinley           76.05  27  eP      P        20 25 36.3 -1.0
         comp=Z,20nm,1.0s,mb5.0
COLA  College            76.48  26  eP      P        20 25 39.0 -0.7
COLA                                 pmax   pmax
         comp=Z,3.0nm,0.6s,mb4.4
COLA  College            76.48  26  eP      P        20 25 39.0 -0.7
         comp=Z,3.2nm,0.6s,mb4.4
KLMR  Klimovskoe         76.60 330  eP      P        20 25 37.6 -2.8
KLMR                                 pmax   pmax
         comp=Z,30nm,1.8s,mb4.9
VORD  Divnogorie         77.51 320  eP      P        20 25 44.3 -1.5
VORD                                 pmax   pmax
         comp=N,8.0nm,0.6s
VORD                                 pmax   pmax
         comp=E,20nm,0.6s
VORD                                 pmax   pmax
         comp=Z,10.0nm,0.6s,mb4.9
VSR   Storozhevoye       77.57 320  eP      P        20 25 45.2 -0.9
VSR                                  pmax   pmax
         comp=Z,20nm,0.9s,mb5.0
VSR                                  pmax   pmax
         comp=N,10.0nm,1.3s
VSR                                  pmax   pmax
         comp=E,10.0nm,1.0s
OBN   Obninsk            78.69 324⇑iP      P        20 25 51.4 -0.8
OBN                                  pmax   pmax
         comp=Z,26nm,1.2s,mb5.0
OBN   Obninsk            78.69 324  eP      P        20 25 51.2 -1.0
MALT  Malatya            79.76 307  eP      P        20 25 59.6 +1.2
MALT                                 pmax   pmax
         comp=Z,5.0nm,1.0s,mb4.4
MALT  Malatya            79.76 307⇓iP      P        20 25 59.4 +1.0
MALT  Malatya            79.76 307  eP      P        20 25 59.6 +1.2
         comp=Z,5.2nm,1.0s,mb4.4
JOF   Joensuu            80.22 332  eP      P        20 25 59.6 -0.7
JOF                                  pmax   pmax
         comp=Z,1.0nm,0.3s,mb4.2
JOF   Joensuu            80.22 332  ep      P        20 25 59.6 -0.7
         comp=Z,0.8nm,0.3s,mb4.1
ARCES ARCESS Array B     81.12 339   P      P        20 26 05.0 -0.1
         comp=Z,4.4nm,0.7s,mb4.5,baz=69,slow=6.6,SNR=10
KAF   Kangasniemi        82.66 332  eP      P        20 26 11.8 -1.5
KAF                                  pmax   pmax
         comp=Z,3.0nm,0.6s,mb4.5
KAF   Kangasniemi        82.66 332  ep      P        20 26 11.8 -1.5
         comp=Z,2.8nm,0.6s,mb4.5
BRTR  Keskin Array B     83.18 309   P      P        20 26 15.8 -0.7
         comp=Z,1.2nm,0.9s,mb3.9,baz=140,slow=4.0,SNR=3.9
VSU   Vasula             83.37 328⇑iP      P        20 26 16.8 -0.3
VSU                                  pmax   pmax
         comp=Z,23nm,0.8s,mb5.3
AKASG Malin Array Be     83.85 321   P      P        20 26 18.6 -1.0
         comp=Z,3.7nm,0.7s,mb4.6,baz=64,slow=4.7,SNR=16
TLCR                     85.44 315⇓iP      P        20 26 27.6 -0.2
WRAK  Wrangell Islan     85.45  33   P      P        20 26 28.4 +0.8
         comp=Z,24nm,0.9s,mb5.3
VRI   Vrincioaia         86.68 316⇓iP      P        20 26 34.3 +0.3
BUR08 Bucovina Ar. S     87.19 318  eP      P        20 26 36.5 +0.1
UZH   Uzhgorod           88.75 320⇓iP      P        20 26 44.0 +0.2
DRGR                     89.07 318⇑iP      P        20 26 45.1 -0.2
NB2   NORSAR Subarra     89.76 334   P      P        20 26 46.6 -1.7
         comp=Z,2.1nm,0.7s,mb4.6,baz=62,slow=4.6
NOA   NORSAR Array B     89.76 334   P      P        20 26 46.8 -1.5
         comp=Z,1.8nm,0.7s,mb4.5,baz=62,slow=4.6,SNR=7.5
NOA                                  LR     LR       21 10 03.5
         comp=Z,48nm,19.6s,MS3.9,baz=205,slow=38
YKA   Yellowknife Ar     91.15  24   P      P        20 26 54.5 -0.2
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         comp=Z,1.2nm,0.7s,mb4.4,baz=303,slow=4.8,SNR=26
YKA                                  LR     LR       21 08 24.1
         comp=Z,184nm,18.0s,MS4.6,baz=125,slow=36
YKA   Yellowknife Ar     91.15  24   P      P        20 26 54.5 -0.2
YKA                                  LR     LR       21 08 24.1
BRG   Berggiesshubel     92.93 324  eP      P        20 27 02.9 -0.3
         comp=Z,4.7nm,1.0s,mb4.9
BRG                                 e                20 44 54.0
BRG                                 e                20 46 27.0
BRG
         comp=N,456nm,21.7s
BRG
         comp=E,227nm,23.0s
BRG
         comp=Z,878nm,24.8s
BRG   Berggiesshubel     92.93 324  eP      P        20 27 02.9 -0.3
         comp=Z,2.8nm,1.0s,mb4.7
BRG                                 e                20 44 54.0
BRG                                 e                20 46 27.0
BRG                                  LR     LR
         comp=Z,530nm,24.8s,MS4.9
CLL   Collm              93.28 325  eP      P        20 27 04.0 -0.8
CLL                                  pmax   pmax
         comp=Z,108nm,1.0s
CLL   Collm              93.28 325  eP      P        20 27 04.0 -0.8
         comp=Z,6.0nm,1.0s,mb5.0
SUMG  Summit             93.61 355   P      P        20 27 06.0 +0.1
         comp=Z,7.1nm,1.1s,mb5.0
GERES GERESS Array B     93.94 322   P      P        20 27 07.7 -0.2
         comp=Z,0.4nm,0.7s,mb4.0,baz=73,slow=4.6,SNR=4.4
NVAR  Mina Array Bea    101.09  46   P      Pdif     20 27 42.9 +2.9
         comp=Z,0.5nm,0.3s,baz=278,slow=8.1,SNR=6.5
NVAR  Mina Array Bea    101.09  46   P      Pdif     20 27 42.9 +2.9
TXAR  Lajitas Array     116.17  48   PKP    PKPdf    20 32 34.3 +0.3
         comp=Z,0.6nm,0.7s,baz=346,slow=1.2,SNR=6.3
JCT   Junction City     118.20  44  ePKIKP  PKPdf    20 32 37.9 +0.1
TORD  Torodi Ar. Bea    118.61 293   PKP    PKPdf    20 32 38.2 -0.7
         comp=Z,0.9nm,0.8s,baz=32,slow=1.9,SNR=5.9
TORD  Torodi Ar. Bea    118.61 293   PKP    PKPdf    20 32 38.2 -0.7
WVT   Waverly           121.44  32  ePKIKP  PKPdf    20 32 43.3 -0.6
PLCA  Paso Flores       149.24 155   PKPbc  PKPbc    20 33 39.4 +0.5
         comp=Z,4.3nm,1.1s,baz=160,slow=9.1,SNR=3.0
SDV   Santo Domingo     152.56  37  ePKPdf  PKPdf    20 33 41.0 +0.4
SDV                                 ePKPbc  PKPbc    20 33 47.9 +0.4
SDV                                 ePKPab  PKPab    20 33 57.5 -0.4
CPUP  Villa Florida     166.79 168   PKPab  PKPab    20 34 58.9 -0.2
         comp=Z,0.6nm,0.5s,baz=139,slow=5.2,SNR=2.8
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ISCJB ***15*** *20:22:51.4±1.0, 5°.1S±0°.1×152°.0E±0°.2, h67^{km}, mb4.1/12, Error ellipse: s-maj=29.6km s-min=14.3km az=22.7*

NEIC ***15*** *20:22:52.7±0.7, 5°.06S×152°.07E, mb4.9/2, Error ellipse: s-maj=23.8km s-min=11.6km az=118.0*

IDC ***15*** *20:22:52.7±1.2, 5°.05S×152°.14E, h70^{km}±8^{km}, mb3.8/9, mb1 4.0/9, mb1mx3.9/16, mbtmp3.8/9, MS3.2/3, Ms1 3.2/3, ms1mx2.8/30, Error ellipse: s-maj=34.7km s-min=17.4km az=118.0*

ISC 15 20:22:53.2±1.0**, 5°.1S**±0°.1×**152°.0E**±0°.2**, h69^{km}, h69^{km}**±3.0^{km}**:pP-P, n22, σ0^{s}.62**/16**, mb4.1**/12**, New Britain region**

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Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                     Op      ISC       h  m  s    ISC
HNR   Honiara             8.96 119   LR      LR       20 27 40.1
         comp=Z,78nm,21.3s,baz=328,slow=32
CTA   Charters Tower     15.93 200   LR      LR       20 31 39.9
         comp=Z,82nm,21.9s,baz=38,slow=33
KAKA  Kakadu             20.77 247  eP       P        20 27 28.6 -0.1
         23nm,0.6s
KAKA  Kakadu             20.77 247  eP       P        20 27 28.4 -0.2
         48nm,0.6s
WRAB  Tennant Creek      22.67 228  eP       P        20 27 49.0 +0.2
         15nm,0.5s,mb4.6
WRAB                                e                 20 28 05.7
WRA   Warramunga Arr     22.68 228   P       P        20 27 49.4 +0.3
         11nm,0.4s,mb4.5,baz=54,slow=10,SNR=108
WRA                                  pP               20 28 05.0
         14nm,0.8s,baz=52,slow=9.8,SNR=11
ASAR  Alice Springs      25.42 222   P       P        20 28 15.8 +1.2
         5.8nm,0.5s,mb4.2,baz=55,slow=9.1,SNR=41
ASAR                                 pP      pP       20 28 32.2 +1.3
         10.0nm,0.8s,baz=56,slow=9.2,SNR=15
STKA  Stephens Creek     28.39 199  eP       P        20 28 40.8 -0.3
         1.6nm,0.4s,mb3.9
STKA  Stephens Creek     28.39 199   P       P        20 28 41.0  0.0
         1.6nm,0.4s,mb3.9,baz=10,slow=8.9,SNR=11
STKA                                 LR      LR       20 38 15.5
         comp=Z,107nm,20.2s,baz=23,slow=32
FITZ  Fitzroy Crossi     28.85 241  eP       P        20 28 45.0 -0.3
         24nm,0.9s,mb4.8
FITZ  Fitzroy Crossi     28.85 241   P       P        20 28 45.0 -0.4
         4.3nm,0.3s,mb4.5,baz=66,slow=8.6,SNR=14
FITZ                                 pP      pP       20 29 02.1 +0.2
         7.5nm,0.7s,baz=76,slow=6.1,SNR=4.8
FORT  Forrest            34.08 219  eP       P        20 29 31.2  0.0
         14nm,0.5s,mb5.0
KLBR  Kellerberrin       41.55 226  eP       P        20 30 32.8 -1.3
         61nm,1.9s,mb5.0
CMAR  Chiang Mai Arr     57.31 296   P       P        20 32 34.8 +0.4
         0.5nm,0.7s,mb3.6,baz=119,slow=5.0,SNR=4.9
SONM  Songino Array      66.16 328   P       P        20 33 34.0 +0.7
         0.2nm,0.5s,mb3.2,baz=133,slow=6.0,SNR=3.8
MKAR  Makanchi Array     80.04 319   P       P        20 34 54.3 -1.0
         0.3nm,0.8s,mb3.2,baz=127,slow=4.3,SNR=3.0
ZALV  Zalesovo Beam      80.97 327   P       P        20 35 00.1  0.0
         0.6nm,0.5s,mb3.6,baz=100,slow=4.8,SNR=2.9
NVAR  Mina Array Bea     92.87  52   P       P        20 35 58.7 +0.1
         0.5nm,0.6s,mb4.0,baz=270,slow=7.2,SNR=2.6
NVAR                                 pP      pP       20 36 16.5 -1.4
         0.8nm,0.7s,baz=258,slow=7.4,SNR=3.5
YKA   Yellowknife Ar     96.04  28   pP      pP       20 36 28.7 -3.1
         0.3nm,0.7s,baz=273,slow=4.8,SNR=4.4
GERES GERESS Array B    123.89 328   PKP     PKPdf    20 41 42.4 -1.1
         0.2nm,0.4s,baz=0.0,slow=0.4,SNR=2.7
TORD  Torodi Ar. Bea    149.66 287   PKPbc   PKPbc    20 42 34.7 -1.3
         1.2nm,0.5s,baz=88,slow=2.5,SNR=25
TORD  Torodi Ar. Bea    149.66 287   PKPbc   PKPbc    20 42 34.7 -1.3
```

IDC 15 20:27:36.4±42.0**, 15°.80S**×**173°.05W, h0^{km}, mb4.2**/3**, mb1 4.4**/3**, mb1mx3.9**/18**, mbtmp4.2**/3**, Error ellipse: s-maj=812.5km s-min=168.3km az=79.0, Tonga Islands**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                     Op      ISC       h  m  s    ISC
STKA  Stephens Creek     44.13 240   P       P        20 35 47.7 +0.9
         0.9nm,0.4s,baz=87,slow=10,SNR=8.3
WRA   Warramunga Arr     50.08 257   P       P        20 36 33.1 -0.4
         0.8nm,0.5s,baz=96,slow=7.4,SNR=25
ASAR  Alice Springs      50.30 252   P       P        20 36 34.6 -0.5
         6.0nm,0.5s,baz=89,slow=8.0,SNR=58
```

IDC ***15*** *20:33:36.1±6.5, 6°.98S×129°.43E, h118^{km}±62^{km}, mb3.7/6, mb1 3.9/9, mb1mx3.8/18, mbtmp3.8/9, Error ellipse: s-maj=56.9km s-min=20.4km az=52.0*

NEIC ***15*** *20:33:38.7±2.4, 7°.13S×129°.30E, h145^{km}±25^{km}, mb4.0/4, Error ellipse: s-maj=30.0km s-min=15.0km az=54.0*

ISC 15 20:33:40.2±1.4**, 7°.35S**±0°.08×**129°.3E**±0°.1**, h167^{km}**±15^{km}**, n27, σ0^{s}.86**/31**, mb4.2**/18**, Banda Sea**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                     Op      ISC       h  m  s    ISC
KAKA  Kakadu              6.16 150  ePn      Pn       20 35 11.1 +1.9
KAKA                                eSn      Sn       20 36 17.0 -2.0
FITZ  Fitzroy Crossi     11.26 198   P       Pn       20 36 17.4 +1.0
         1.9nm,0.3s,baz=35,slow=8.8,SNR=61
FITZ                                 S       Sn       20 38 18.4 -2.9
         1.3nm,0.3s,baz=73,slow=19,SNR=4.2
WRAB  Tennant Creek      13.43 159  ePn      Pn       20 36 44.4 +0.1
         6.4nm,0.5s
WRAB                                eSn      Sn       20 39 06.6 -6.9
WRA   Warramunga Arr     13.44 159   P       Pn       20 36 44.9 +0.6
         0.3nm,0.3s,baz=335,slow=13,SNR=15
WRA                                  S       Sn       20 39 07.6 -5.9
         2.9nm,0.3s,baz=331,slow=23,SNR=6.7
ASAR  Alice Springs      16.81 165   P       Pn       20 37 29.6 +3.7
         1.2nm,0.3s,baz=341,slow=9.9,SNR=34
ASAR                                 S       S        20 40 32.6 +0.4
         1.1nm,0.3s,baz=344,slow=27,SNR=5.8
STKA  Stephens Creek     26.96 156   P       P        20 39 10.1 +3.9
         1.5nm,0.5s,mb3.9,baz=331,slow=9.7,SNR=6.3
STKA  Stephens Creek     26.96 156  eP       P        20 39 09.8 +3.7
PSI   Prapat             31.94 287   P       P        20 39 51.2 +0.8
         3.1nm,0.4s,mb4.4,baz=0.0,slow=20,SNR=5.5
```

CMAR	Chiang Mai Arr	39.43	311	P	P	20 40 54.4	+0.2
	1.0nm,0.7s,mb3.6,baz=139,slow=6.9,SNR=10						
CHTO	Chiang Mai	39.64	311	eP	P	20 40 55.8	-0.1
	1.9nm,0.8s,mb3.8						
LSA	Lhasa	51.97	317	eP	P	20 42 32.8	+0.4
	1.4nm,0.6s,mb3.8						
ODAN	Odare	52.96	312	eP	P	20 42 40.3	+0.6
	4.4nm,0.4s,mb4.5						
TAPN	Taplejung	53.00	312	eP	P	20 42 39.9	0.0
	5.4nm,0.3s,mb4.7						
RAMN	Ramite	53.60	311	eP	P	20 42 44.3	0.0
	12nm,0.5s,mb4.9						
JIRN	Jiri	54.29	312	eP	P	20 42 49.3	0.0
	2.3nm,0.3s,mb4.5						
GUN	Gumba	54.66	312	eP	P	20 42 51.9	-0.1
	7.4nm,0.4s,mb4.8						
PKI	Pulchoki	54.83	311	eP	P	20 42 52.9	-0.3
	2.9nm,0.3s,mb4.5						
KKN	Kakani	55.04	311	eP	P	20 42 54.8	+0.1
	4.5nm,0.6s,mb4.4						
DMN	Daman	55.07	311	eP	P	20 42 55.0	0.0
	3.3nm,0.5s,mb4.3						
GKN	Gorkha	55.63	311	eP	P	20 42 58.7	-0.3
	9.7nm,0.3s,mb5.1						
KOLN	Koldanda	56.29	310	eP	P	20 43 03.5	-0.1
SONM	Songino Array	58.56	342	P	P	20 43 19.0	0.0
	0.2nm,0.4s,mb3.3,baz=140,slow=5.0,SNR=3.8						
SONM				PcP	PcP	20 44 07.2	-0.3
	0.1nm,0.4s,baz=127,slow=2.7,SNR=2.4						
MKAR	Makanchi Array	68.14	327	P	P	20 44 21.9	-0.1
	0.9nm,0.4s,mb3.9,baz=114,slow=8.6,SNR=42						
ZAA0	Zalesovo Array	71.59	334	eP	P	20 44 42.5	-0.5
ZALV	Zalesovo Beam	71.59	334	P	P	20 44 41.8	-1.2
	0.8nm,0.4s,mb3.8,baz=132,slow=6.7,SNR=4.3						
ARU	Arti	85.64	328	eP	P	20 45 58.8	-0.9
	3.5nm,1.0s,mb4.0						
TORD	Torodi Ar. Bea	128.19	281	PKP	PKPdf	20 52 28.7	+1.2
	0.2nm,0.7s,baz=64,slow=3.4,SNR=2.7						

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*ISK **15** 20:35:54.6, 39°.41N×33°.06E, h5^{km}, MD3.0*
*ISCJB **15** 20:35:55.9±0.5, 39°.44N±0°.03×33°.04E±0°.04, h10^{km}, Error ellipse: s-maj=5.6km s-min=3.9km az=137.0*
*CSEM **15** 20:35:55.7±0.3, 39°.43N×33°.02E, h2^{km}, MD2.9, Error ellipse: s-maj=8.3km s-min=5.6km az=141.0*
*DDA **15** 20:35:55.4, 39°.40N×33°.08E, h7^{km}±3^{km}, Md2.9*
ISC 15 20:35:56.0±0.7, 39°.42N±0°.04×33°.04E±0°.05, h2^{km}±7^{km}, n20, σ0s.76/31, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALAT	Bala	0.15	25	eP	Pg	20 35 58.9	0.0
BALAT				eS	Sg	20 36 01.1	+0.1
CDAG	Cicekdag	1.05	78	eP	Pg	20 36 15.5	-0.7
CDAG				eS	Sg	20 36 29.6	-0.3
CDAG	Cicekdag	1.05	78	eP	Pg	20 36 15.5	-0.7
CDAG				eS	Sg	20 36 29.6	-0.2
ELDT	Eldivan	1.11	15	eP	Pg	20 36 17.4	+0.1
ELDT				eS	Sg	20 36 32.2	+0.5
ELDT	Eldivan	1.11	15	eP	Pg	20 36 17.4	+0.1
ELDT				eS	Sg	20 36 32.2	+0.4
KDHN	Kadinhani	1.15	219	eP	Pg	20 36 17.8	-0.2
KDHN				eS	Sg	20 36 33.6	+0.6
KDHN	Kadinhani	1.15	219	eP	Pg	20 36 17.8	-0.3
KDHN				eS	Sg	20 36 33.6	+0.7
SVRH	Sivrihisar-ESK	1.17	272	ePN	Pn	20 36 18.0	-1.4
SVRH				eSN	Sn	20 36 36.3	+0.3
SVRH	Sivrihisar-ESK	1.17	272	ePn	Pn	20 36 18.0	-1.4
SVRH				eSn	Sn	20 36 36.3	+0.3
SULT	Sultanhani-AKS	1.27	163	ePN	Pn	20 36 18.9	-2.0
SULT	Sultanhani-AKS	1.27	163	ePn	Pn	20 36 18.9	-1.9
CORM	Corum	1.44	58	ePN	Pn	20 36 22.6	-0.5
CORM	Corum	1.44	58	ePn	Pn	20 36 22.6	-0.5
AVNT	Avonos	1.55	114	eP	Pn	20 36 25.6	+1.0
AVNT				eS	Sn	20 36 45.2	-0.1
AVNT	Avonos	1.55	114	eP	Pn	20 36 25.6	+1.0
AVNT				eS	Sn	20 36 45.2	-0.1
KONT	Konya--Tatoy	1.56	200	ePN	Pn	20 36 25.4	+0.6
KONT	Konya--Tatoy	1.56	200	ePn	Pn	20 36 25.4	+0.6
KOZT	Kozan	2.92	131	ePN	Pn	20 36 44.6	+1.1
SVSK	Karacayir	3.10	80	ePN	Pn	20 36 46.6	+0.7
SVSK	Karacayir	3.10	80	ePn	Pn	20 36 46.6	+0.7

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*GII **15** 20:36:11.6±1.0, 33°.27N×35°.42E, h1^{km}, Md2.0/3*
*ISCJB **15** 20:36:12.4±0.8, 33°.33N±0°.04×35°.41E±0°.05, h3^{km}±8^{km}, Error ellipse: s-maj=8.0km s-min=4.6km az=36.0*
*GRAL **15** 20:36:13.0±0.3, 33°.32N×35°.41E, h5^{km}±16^{km}, MD2.5*
ISC 15 20:36:12.7±0.8, 33°.34N±0°.04×35°.41E±0°.05, h3^{km}±8^{km}, n13, σ0s.84/20, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	336	eP	Pg	20 36 16.4	+0.5
KSDI	Kefar Szold	0.26	125	Pg	Pg	20 36 17.1	-0.6
KSDI				Sg	Sg	20 36 21.5	+0.4
HNTI	Hanita	0.32	217	Sg	Sg	20 36 23.8	+0.6
MMA0	Mount Meron ar	0.33	181	Pg	Pg	20 36 18.1	-0.9
MMA0				Sg	Sg	20 36 23.5	+0.3
MMB1	Mount Meron ar	0.33	179	Pg	Pg	20 36 18.2	-0.8
MMA4	Mount Meron ar	0.33	181	Pg	Pg	20 36 18.2	-0.8
RCY	Rachaya	0.37	67	eP	Pg	20 36 20.2	+0.4
RCY				eS	Sg	20 36 25.7	+0.9
BLGI	Bet Lehem HaGe	0.63	197	Sg	Sg	20 36 33.6	+0.5
OFRI	‘Ofer	0.80	206	Pg	Pg	20 36 27.5	-0.6
OFRI				Sg	Sg	20 36 40.3	+1.8
MMLI	Mount Malkishu	0.90	179	Pg	Pg	20 36 28.6	-1.4
MMLI				Sg	Sg	20 36 42.3	+0.6
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	20 36 32.2	-1.4
HMDT				Sg	Sg	20 36 48.6	+0.8
SLTI	Sal’it	1.14	196	Sg	Sg	20 36 49.0	-0.4
DSI	Dead Sea	1.77	181	Pn	Pn	20 36 43.4	-0.7
DSI				Sn	Sn	20 37 07.8	+0.7

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*IDC **15** 20:45:40.0±2.6, 27°.89N×57°.44E, h0^{km}, mb3.6/5, mb1 3.6/5, mb1mx3.4/25, mbtmp3.6/5, Error ellipse: s-maj=76.0km s-min=24.8km az=160.0*
*ISCJB **15** 20:45:40.4±2.4, 28°.05N±0°.07×57°.6E±0°.1, h5^{km}±15^{km}, mb3.5/4, Error ellipse: s-maj=21.7km s-min=8.4km az=25.5*
*THR **15** 20:45:42.6±1.0, 28°.00N×57°.61E, h14^{km}±13^{km}, ML3.5*
ISC 15 20:45:42.5±2.4, 28°.04N±0°.07×57°.6E±0°.1, h9^{km}±15^{km}, n8, σ1s.14/10, mb3.5/4, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDS	Bandar-Abbas	1.39	243	ePg	Pg	20 46 08.9	-0.2
BNDS				eSg	Sg	20 46 27.6	+0.4
BNDS				AML	AML	20 46 34.1	
	comp=N,730nm,0.3s						
KRBR	Kerman	2.06	340	ePg	Pg	20 46 20.6	-1.4
KRBR				eSg	Sg	20 46 49.5	+0.7
KRBR				AML	AML	20 46 56.5	
	comp=N,436nm,0.3s						
KRBR				AML	AML	20 46 56.6	
	comp=E,286nm,0.2s						
GHIR	Ghir-Karzin	4.05	275	ePn	Pn	20 46 47.3	+2.7
BRTR	Keskin Array B	22.96	307	P	P	20 50 46.2	-0.8
	comp=E,1.2nm,0.9s,mb3.3,baz=108,slow=10,SNR=4.8						
MKAR	Makanchi Array	26.95	39	P	P	20 51 25.1	+0.9
	comp=E,0.1nm,0.5s,baz=220,slow=8.7,SNR=6.7						
ZALV	Zalesovo Beam	32.69	30	P	P	20 52 14.9	0.0
	comp=E,1.0nm,0.4s,mb4.1,baz=240,slow=11,SNR=6.2						
SONM	Songino Array	42.48	49	P	P	20 53 38.4	+0.6
	comp=E,0.2nm,0.6s,mb3.0,baz=245,slow=9.4,SNR=3.5						
TORD	Torodi Ar. Bea	53.93	266	P	P	20 55 04.7	-2.1
	comp=E,0.6nm,0.6s,mb3.7,baz=61,slow=6.4,SNR=6.1						

MDD 15 20:52:44.3±4.2, 32°.96N×12°.07W, h0^{km}, mb3.6/3, Error ellipse: s-maj=201.0km s-min=16.3km az=119.0, PRIMO SIN SOLUCI, Madeira Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFUE	Fuerteventura	4.59	201	S	Sn	20 54 44.6	-4.5
	5.1nm,0.1s,SNR=7.9						
EGRO	El Granado	5.91	38	P	Pn	20 54 12.5	-0.5
	0.4nm,0.1s,SNR=7.9						
EGRO				S	Sn	20 55 16.0	-5.4
	1.4nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	6.51	41	P	Pn	20 54 21.1	-0.2
	0.3nm,0.1s,SNR=7.9						
EMIN				S	Sn	20 55 29.2	-7.1
	0.5nm,0.1s,SNR=7.9						
EBAD	Badajoz	7.09	34	P	Pn	20 54 27.1	-2.2
	0.1nm,0.1s,SNR=7.9						
EBAD				S	Sn	20 55 43.6	-6.9
	0.7nm,0.1s,SNR=7.9						

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*ISCJB **15** 21:08:55.4±0.5, 43°.76N±0°.04×105°.21W±0°.06, h0^{km}, mb4.0/2, Error ellipse: s-maj=5.8km s-min=5.7km az=145.1*
*IDC **15** 21:08:56.9±0.9, 44°.04N×105°.72W, h0^{km}, mb4.0/2, mb1 3.8/7, mb1mx3.6/25, mbtmp3.5/7, ML3.3/5, Error ellipse: s-maj=23.4km s-min=8.1km az=147.0*
*NEIC **15** 21:08:56.9±0.4, 43°.74N×105°.21W, h0^{km}, ML3.3, Error ellipse: s-maj=6.0km s-min=5.0km az=157.0, Suspected Mining explosion.*
NEIC 65 km [40 miles] SSE of Gillette.
ISC 15 21:08:56.8±0.4, 43°.76N±0°.04×105°.19W±0°.05, h0^{km}, n32, σ0s.90/33, mb4.0/2, 1C, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSSD	Black Hills	0.91	66	⇑iPg	Pg	21 09 15.0	+0.8
PHWY	Pilot Hill	2.47	185	ePn	Pn	21 09 37.4	-0.8
PHWY				eS	Sn	21 10 09.4	+0.3
RWWY	Rawlins	2.55	216	ePn	Pn	21 09 38.9	-0.5
LAO	LASA Array	3.02	346	ePn	Pn	21 09 46.7	+0.9
RLMT	Red Lodge	3.22	296	ePn	Pn	21 09 47.9	-0.7
BW06	Boulder Array	3.34	254	ePn	Pn	21 09 49.0	-1.2
PDAR	Pinedale Array	3.34	254	Pn	Pn	21 09 48.8	-1.4
	3.0nm,0.3s,baz=71,slow=16,SNR=100						
PDAR				Lg		21 10 33.4	
	15nm,0.3s,baz=68,slow=28,SNR=16						
OGNE	Ogallala	3.66	139	ePn	Pn	21 09 55.3	+0.6
LKWY	Lake	3.83	284	ePn	Pn	21 10 00.7	+3.7
LOHW	Long Hollow	3.93	270	ePn	Pn	21 09 59.3	+1.0
ISCO	Idaho Springs	3.97	185	ePn	Pn	21 09 59.0	+0.1
MOOW	Moose Ponds	4.02	272	ePn	Pn	21 09 59.8	+0.2
REDW	Red Top Meadow	4.13	266	ePn	Pn	21 10 05.9	+4.8
IMW	Indian Meadow	4.16	274	ePn	Pn	21 10 02.6	+1.1
TPAW	Teton Pass	4.19	268	ePn	Pn	21 10 02.5	+0.5
DCID1	Drake Creek	4.35	270	ePn	Pn	21 10 04.5	+0.4
AHID	Auburn Hatcher	4.43	259	ePn	Pn	21 10 06.7	+1.4
RRI2	Red Ridge	4.47	267	ePn	Pn	21 10 06.0	+0.2
DGMT	Dagmar	4.76	8	ePn	Pn	21 10 12.9	+3.2
BOZ	Bozeman (W)	4.96	295	ePn	Pn	21 10 11.2	-1.3
EGMT	Eagleton	5.32	325	ePn	Pn	21 10 17.7	+0.3
	13nm,0.5s						
SDCO	Great Sand Dun	6.01	182	ePn	Pn	21 10 27.4	+0.4
	3.9nm,0.8s						
CBKS	Cedar Bluff	6.43	138	Pn	Pn	21 10 33.1	+0.4
	30nm,0.8s						
DUG	Dugway	6.70	240	ePn	Pn	21 10 35.6	-0.9
	5.7nm,0.8s						
AGMN	Agassiz Refuge	7.92	52	ePn	Pn	21 10 52.5	-0.7
	3.3nm,0.3s						
ELK	Elko	8.04	251	Pn	Pn	21 10 55.1	+0.3
	0.3nm,0.3s,baz=68,slow=11,SNR=4.1						
ELK				Lg		21 13 04.5	
	0.1nm,0.3s,baz=141,slow=16,SNR=2.3						
ULM	Lac du Bonnet	9.09	41	Pn	Pn	21 11 07.7	-1.4
	1.7nm,0.3s,baz=231,slow=12,SNR=11						
ULM				Lg		21 13 43.6	
	0.3nm,0.3s,baz=117,slow=18,SNR=2.7						
NVAR	Mina Array Bea	11.23	246	Pn	Pn	21 11 38.3	-0.2
	0.1nm,0.3s,baz=51,slow=14,SNR=3.0						
TXAR	Lajitas Array	14.45	175	Pn	Pn	21 12 28.7	+6.1
TXAR				Pg	Pn	21 13 25.4	+63
TXAR				Lg		21 16 35.5	
TXAR	Lajitas Array	14.45	175	Pn	Pn	21 12 28.7	+6.1
	0.0nm,0.3s,baz=5.7,slow=12,SNR=2.5						
TXAR				Pg	Pn	21 13 25.4	+63
	0.1nm,0.3s,baz=19,slow=13,SNR=4.7						
TXAR				Lg		21 16 35.5	
	0.0nm,0.3s,baz=0.4,slow=29,SNR=6.2						
ARCES	ARCESS Array B	61.38	18	P	P	21 19 12.8	-1.2
	3.3nm,0.9s,mb4.4,baz=327,slow=7.8,SNR=3.8						
MKAR	Makanchi Array	89.59	355	P	P	21 21 55.9	-0.2
	0.2nm,0.6s,mb3.5,baz=29,slow=6.5,SNR=4.2						

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*IDC **15** 21:10:27.4±5.8, 29°.65S×178°.69W, h168^{km}±50^{km}, mb3.3/3, mb1 3.7/4, mb1mx3.5/15, mbtmp3.4/4, Error ellipse: s-maj=39.8km s-min=28.9km az=20.0*
*NEIC **15** 21:10:41.8±2.2, 30°.67S×178°.62W, h311^{km}±19^{km}, mb3.6/2, Error ellipse: s-maj=26.0km s-min=16.2km az=59.0*
ISC 15 21:10:41.0±2.4, 30°.5S±0°.1×178°.5W±0°.2, h314^{km}±25^{km}, n31, σ1s.36/13, mb3.3/3, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUZ	Omahuta	8.15	233	Pn	Pn	21 12 37.8	+1.3
MWZ	Matawai	8.48	202	P	Pn	21 12 37.7	-2.7
MWZ				S	S	21 14 22.5	+5.0
URZ	Urewera	8.55	204	P	Pn	21 12 36.7	-4.5
	0.6nm,0.3s,baz=204,slow=3.0,SNR=18						
URZ				S	S	21 14 20.9	+1.8
	4.8nm,0.3s,baz=318,slow=21,SNR=9.8						
URZ	Urewera	8.55	204	P	Pn	21 12 39.1	-2.1
KNZ	Kokohu	9.06	199	P	Pn	21 12 46.8	-0.7
MRZ	Mangatainoka R	11.22	204	P	Px	21 13 12.5	
MTW	Mount Morrison	11.69	203	P	Px	21 13 16.7	
CAW	Cannon Point	11.80	204	P	Px	21 13 18.4	
TCW	Tory Channel	12.19	207	P	Px	21 13 23.2	
QRZ	Quartz Range	12.62	213	P	Px	21 13 29.2	
THZ	Tophouse	13.21	209	P	Px	21 13 37.3	
KHZ	Kahutara	13.50	206	P	Px	21 13 40.6	
LTZ	Lake Taylor	14.31	209	P	Px	21 13 47.6	
DZM	Mont Dzumac	15.90	298	Pn	Pn	21 14 09.9	+0.4
	2.5nm,0.5s						
ASAR	Alice Springs	42.68	267	P	P	21 18 07.2	-0.7
	0.3nm,0.6s,baz=104,slow=7.2,SNR=6.1						
WRAB	Tennant Creek	43.67	273	eP	P	21 18 16.1	+0.3
	1.1nm,0.6s,mb3.3						
WRA	Warramunga Arr	43.68	273	P	P	21 18 14.5	-1.3
	1.4nm,0.6s,mb3.4,baz=110,slow=7.7,SNR=14						
NVAR	Mina Array Bea	88.60	43	P	P	21 23 00.2	+1.6
	0.4nm,0.7s,mb3.4,baz=231,slow=13,SNR=3.7						
NVAR	Mina Array Bea	88.60	43	P	P	21 23 00.2	+1.6
MKAR	Makanchi Array	117.52	310	PKP	PKPdf	21 28 50.4	+1.2
	0.4nm,0.6s,baz=174,slow=1.4,SNR=6.0						
MKAR	Makanchi Array	117.52	310	PKP	PKPdf	21 28 50.4	+1.2
KURK	Kurchatov	120.81	314	PKP	PKPdf	21 28 56.6	+1.1
	0.5nm,0.3s,baz=100,slow=1.9,SNR=3.7						
BVAR	Borovoye Array	126.18	316	PKP	PKPdf	21 29 07.4	+1.7
	2.1nm,0.7s,baz=125,slow=2.4,SNR=9.8						
ARCES	ARCESS Array B	138.60	348	PKP	PKPdf	21 29 32.1	+3.5
	1.6nm,0.7s,baz=22,slow=5.1,SNR=2.4						
NB2	NORSAR Subarra	148.79	351	PKP	PKPbc	21 29 51.2	+0.4
	comp=Z,2.0nm,1.1s,baz=18,slow=2.9						
NOA	NORSAR Array B	148.79	351	PKPbc	PKPbc	21 29 51.6	+0.9
	comp=Z,2.3nm,0.9s,baz=9.4,slow=3.1,SNR=4.1						
ASF	Jabal al Asfar	149.81	282	PKPbc	PKPbc	21 29 57.0	+2.8
	comp=Z,3.9nm,0.9s,baz=19,slow=5.0,SNR=4.7						
AKASG	Malin Array Be	151.12	322	PKPbc	PKPbc	21 29 57.8	+1.1
	comp=Z,3.6nm,0.6s,baz=47,slow=2.8,SNR=12						
AKASG				PKPab	PKPab	21 30 04.5	-1.2
	comp=Z,0.3nm,0.3s,baz=49,slow=4.7,SNR=5.3						
BRTR	Keskin Array B	152.28	298	PKPbc	PKPbc	21 30 01.5	+1.9
	comp=Z,1.0nm,0.5s,baz=145,slow=5.4,SNR=6.1						
GERES	GERESS Array B	159.47	337	PKPab	PKPab	21 30 40.7	-0.8
	comp=Z,0.6nm,0.6s,baz=40,slow=4.4,SNR=5.3						
TORD	Torodi Ar. Bea	162.73	181	PKPab	PKPab	21 31 03.5	+7.1
	comp=Z,0.6nm,0.8s,baz=196,slow=1.8,SNR=2.9						

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*ISCJB **15** 21:16:04.4±0.8, 28°.76S±0°.05×67°.27W±0°.09, h135^{km}±10^{km}, mb4.1/6, Error ellipse: s-maj=12.9km s-min=8.4km az=173.4*
*NEIC **15** 21:16:05.7±0.6, 28°.78S×67°.24W, h134^{km}±6^{km}, Error ellipse: s-maj=10.1km s-min=8.5km az=108.0*
*IDC **15** 21:16:05.2±0.8, 28°.78S×67°.26W, h126^{km}±7^{km}, mb4.1/6, mb1 4.0/9, mb1mx3.9/18, mbtmp3.9/9, Error ellipse: s-maj=19.1km s-min=10.7km az=93.0*
ISC 15 21:16:05.4±0.7, 28°.77S±0°.05×67°.26W±0°.09, h130^{km}±9^{km}, n25, σ0s.65/24, mb4.1/6, La Rioja Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	2.95	197	P	Pn	21 16 52.4	+1.0
	3.0nm,0.3s,baz=9.9,slow=13,SNR=116						
CFAA				S	Sn	21 17 25.9	-1.0
	22nm,0.3s,baz=236,slow=16,SNR=3.9						
LCO	Las Campanas	3.03	265	ePn	Pn	21 16 53.2	+0.8
LCO				eSn	Sn	21 17 28.3	-0.4
LVC	Limon Verde	6.31	346	P	Pn	21 17 36.9	+0.7
	3.4nm,0.3s,baz=175,slow=7.5,SNR=19						
LVC				S	Sn	21 18 46.3	-0.7
	3.9nm,0.3s,baz=259,slow=21,SNR=8.5						
LVC	Limon Verde	6.31	346	P	Pn	21 17 36.9	+0.7
LVC				S	Sn	21 18 46.3	-0.7
CPUP	Villa Florida	9.14	77	P	Pn	21 18 14.2	-0.1
	1.3nm,0.3s,baz=233,slow=8.1,SNR=6.5						
CPUP				S	Sn	21 20 06.0	+11
	1.1nm,0.3s,baz=115,slow=18,SNR=1.7						
CPUP	Villa Florida	9.14	77	P	Pn	21 18 14.2	-0.1
CPUP				S	Sn	21 20 06.0	+11
PLCA	Paso Flores	12.24	192	P	Pn	21 18 55.8	+0.5
	0.1nm,0.3s,baz=0.0,slow=9.1,SNR=3.1						
PLCA	Paso Flores	12.24	192	ePn	Pn	21 18 54.8	-0.4
PLCA				P		21 18 55.8	
TXAR	Lajitas Array	67.44	326	P	P	21 26 47.4	+0.4
	0.5nm,0.8s,mb3.4,baz=140,slow=6.7,SNR=6.2						
TXAR	Lajitas Array	67.44	326	P	P	21 26 47.4	+0.4
DBIC	Dimbokro	69.59	70	P	P	21 27 00.2	-0.5
	4.7nm,0.5s,mb4.5,baz=220,slow=7.9,SNR=14						
DBIC	Dimbokro	69.59	70	P	P	21 27 00.2	-0.5
TORD	Torodi Ar. Bea	78.52	68	P	P	21 27 52.7	0.0
	14nm,0.7s,mb4.7,baz=275,slow=6.4,SNR=108						
BOSA	Boshof	78.80	116	P	P	21 27 54.3	+0.2
BOSA	Boshof	78.80	116	P	P	21 27 54.3	+0.2
	3.2nm,0.6s,mb4.1,baz=263,slow=2.9,SNR=10						
PDAR	Pinedale Array	81.13	330	P	P	21 28 06.7	+0.6
	0.8nm,0.5s,mb3.6,baz=112,slow=8.9,SNR=8.5						
YKA	Yellowknife Ar	98.50	340	P	P	21 29 27.3	-1.0
	0.4nm,0.6s,mb4.0,baz=137,slow=4.0,SNR=7.6						
YKA				pP	pP	21 30 01.0	-1.0
	0.1nm,0.4s,baz=82,slow=5.3,SNR=2.1						
YKA	Yellowknife Ar	98.50	340	P	P	21 29 27.3	-1.0
YKA				pP	pP	21 30 01.0	-1.0
ASAR	Alice Springs	124.03	204	PKP	PKPdf	21 34 48.3	-0.5
	0.2nm,0.3s,baz=126,slow=1.9,SNR=3.9						
ASAR				pPKP	pPKPdf	21 35 23.5	-0.3
	0.3nm,0.6s,baz=118,slow=1.7,SNR=2.6						
WRA	Warramunga Arr	127.27	206	PKP	PKPdf	21 34 55.0	-0.1
	0.4nm,0.4s,baz=154,slow=2.0,SNR=13						
WRA				pPKP	pPKPdf	21 35 29.0	-1.1
	0.3nm,0.3s,baz=90,slow=6.0,SNR=2.5						
KURK	Kurchatov	146.27	40	PKPbc	PKPbc	21 35 31.0	+0.7
	2.9nm,0.5s,baz=296,slow=3.5,SNR=8.5						
KURK	Kurchatov	146.27	40	PKPbc	PKPbc	21 35 31.0	+0.7
ZALV	Zalesovo Beam	147.64	31	PKPbc	PKPbc	21 35 34.8	+0.7
	4.8nm,0.4s,baz=305,slow=3.2,SNR=31						
MKAR	Makanchi Array	150.21	45	PKPbc	PKPbc	21 35 41.1	+0.4
	3.2nm,0.8s,baz=300,slow=2.4,SNR=29						
MKAR				PKPab	PKPab	21 35 48.0	+0.7
	1.5nm,0.5s,baz=310,slow=2.9,SNR=26						
MKAR				pPKPab	pPKPab	21 36 19.8	-1.4
	0.8nm,0.8s,baz=279,slow=2.8,SNR=2.1						
SONM	Songino Array	160.34	13	PKPab	PKPab	21 36 30.9	+0.5
	0.2nm,0.4s,baz=321,slow=3.4,SNR=3.7						

MAN 15 21:19:46, 14°.21N×122°.00E, h1^{km}, mb4.3, ML3.1, MS2.9, 1C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
POLP	Polilio Island	0.52	353	eP	Pg	21 19 56.9	+0.9
POLP				eS	Sg	21 20 05.0	+2.3
GQP	Guinayangan	0.53	125	⇑iP	Pg	21 19 56.9	+0.7
GQP				i S	Sg	21 20 04.5	+1.5
BALP	Baler	1.58	345	eP	Pn	21 20 15.5	+0.4
BALP				eS	Sn	21 20 38.7	+2.5
LUBP	Lubang	1.77	255	eP	Pn	21 20 18.4	+0.6
SJMP	San Jose	1.94	206	eP	Pn	21 20 22.0	+1.9
SJMP				eS	Sn	21 20 44.5	-0.6

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*ISCJB **15** 21:24:05.8±0.9, 37°.35N±0°.07×72°.2E±0°.1, h190^{km}±11^{km}, mb3.6/5, Error ellipse: s-maj=17.5km s-min=8.4km az=155.0*
*NEIC **15** 21:24:07.9±3.6, 37°.39N×72°.22E, h192^{km}±25^{km}, mb3.7/1, Error ellipse: s-maj=39.0km s-min=21.9km az=169.0*
*IDC **15** 21:24:09.2±6.4, 37°.37N×72°.25E, h206^{km}±55^{km}, mb3.3/4, mb1 3.4/9, mb1mx3.1/27, mbtmp3.2/9, Error ellipse: s-maj=52.2km s-min=32.1km az=149.0*
*NNC **15** 21:24:12.0±7.5, 38°.24N×71°.94E, h0^{km}, mb3.8, mpv3.5, Error ellipse: s-maj=58.3km s-min=45.6km az=7.0*
ISC 15 21:24:06.6±0.9, 37°.33N±0°.06×72°.2E±0°.1, h181^{km}±11^{km}, n28, σ0s.69/37, mb3.6/5, 7C-2D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	3.68	52	⇑iPn	Pn	21 24 59.4	-4.2
KSH				Sn	Sn	21 25 36.0	-12
KSH				smax			
	comp=N,140nm,0.6s						
KSH				smax			
	comp=E,140nm,0.3s						
AML	Almayashu	4.93	13	P	Pn	21 25 19.4	-0.1
	SNR=81						
UCH	Uchtor	5.20	19	P	Pn	21 25 23.1	0.0
	SNR=23						
EKS2	Erkin-Say	5.46	12	P	Pn	21 25 26.4	0.0
	SNR=12						
AAK	Ala-Archa	5.58	18	P	Pn	21 25 28.1	+0.1
	SNR=25						
AAK	Ala-Archa	5.58	18	ePn	Pn	21 25 28.2	+0.2
	comp=E,16nm,0.4s						
AAK				eSn	Sn	21 26 21.5	-11
THN	Thein Dam	5.68	148	ePKP	Pn	21 25 23.8	-5.6
THN				eS	Sn	21 26 34.4	-0.1
KBK	Karagaybulak	5.72	21	P	Pn	21 25 30.7	+0.9
	SNR=6.0						
KK31	Karatay Array	5.91	348	⇑Pn	Pn	21 25 31.7	-0.6
	comp=E,2.7nm,0.3s,baz=159,slow=12						
KK31				⇑Sn	Sn	21 26 33.4	-6.4
	comp=E,38nm,0.3s,baz=161,slow=22						
CHMS	Chumysh	5.99	18	P	Pn	21 25 33.2	-0.1
	SNR=6.2						
TKM2	Tokmak 2	6.16	24	⇑Pn	Pn	21 25 35.0	-0.5
	comp=E,5.9nm,1.0s						
TKM2				⇓Sn	Sn	21 26 39.1	-6.5
	comp=E,5.1nm,1.0s						
TKM2	Tokmak 2	6.16	24	P	Pn	21 25 35.2	-0.4
	SNR=5.1						
MKAR	Makanchi Array	12.05	35	P	Pn	21 26 55.2	+2.7
	comp=E,0.1nm,0.3s,baz=219,slow=13,SNR=6.5						
KURK	Kurchatov	14.14	17	P	Pn	21 27 18.9	0.0
	comp=E,0.2nm,0.3s,baz=206,slow=11,SNR=3.7						
AB09	Akbulak array	14.88	327	⇑Pn	Pn	21 27 26.9	-1.0
	comp=E,1.8nm,0.5s						
AB09				⇑Sn	Sn	21 30 01.4	-12
	comp=E,1.2nm,0.4s						
BVAR	Borovoye Array	15.74	356	P	Pn	21 27 37.6	-0.8
	comp=E,0.3nm,0.3s,baz=156,slow=9.6,SNR=8.7						
AKTK	Aktyubinsk	16.58	327	P	Pn	21 27 49.4	+0.8
AKTK				S	S	21 30 45.6	-6.1
AKTO	Aktyubinsk	16.58	327	⇓Pn	Pn	21 27 48.9	+0.3
	comp=E,0.3nm,0.4s						
AKTO				⇑Sn	Sn	21 30 44.5	-10
	comp=E,0.5nm,1.0s						
AKTO	Aktyubinsk	16.58	327	P	Pn	21 27 49.4	+0.8
	comp=E,1.0nm,0.3s,baz=118,slow=11,SNR=17						
AKTO				S	S	21 30 45.6	-6.1
	comp=E,0.2nm,0.3s,baz=162,slow=16,SNR=4.7						
ZAA0	Zalesovo Array	18.76	24	eP	P	21 28 10.9	-0.8
ZALV	Zalesovo Beam	18.76	24	P	P	21 28 11.0	-0.7
	comp=E,0.9nm,0.3s,baz=224,slow=10,SNR=24						
ARU	Arti	21.18	339	eP	P	21 28 38.0	+0.5
	comp=E,1.4nm,0.5s,mb3.5						
ARCES	ARCESS Array B	40.75	337	P	P	21 31 29.7	+0.4
	comp=E,9.5nm,1.1s,mb4.3,baz=116,slow=8.4,SNR=9.9						
NB2	NORSAR Subarra	44.30	322	P	P	21 31 57.7	-0.3
	comp=Z,0.6nm,0.4s,mb3.6,baz=94,slow=7.9						
NOA	NORSAR Array B	44.30	322	P	P	21 31 58.0	0.0
	comp=Z,0.7nm,0.8s,mb3.4,baz=94,slow=8.5,SNR=3.9						
TORD	Torodi Ar. Bea	66.70	269	P	P	21 34 38.4	+0.1
	comp=Z,0.5nm,1.1s,mb3.3,baz=48,slow=6.4,SNR=3.2						
YKA	Yellowknife Ar	80.37	3	P	P	21 35 57.2	0.0
	comp=Z,0.3nm,0.5s,mb3.2,baz=348,slow=5.3,SNR=4.5						
YKA	Yellowknife Ar	80.37	3	P	P	21 35 57.2	0.0

NEIC 15 21:30:54.0, 19°.33N×155°.12W, h9^{km}, ML3.6(HVO), After

HVO.,Hawaiian Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STCH	**Steam Cracks**	**0.06**	**356**	*e*Pg	Pg	21 30 56.5	+0.5
KHU	**Kahuku**	**0.47**	**261**	*e*Pg	Pg	21 31 03.4	+0.1
KHU				*e*Sg	Sg	21 31 10.2	+0.7
POHA	**Pohakuloa**	**0.58**	**318**	*e*Pg	Pg	21 31 05.4	+0.2
POHA				*e*Sg	Sg	21 31 13.4	+0.6

IDC 15 21:47:29.4±1.8**, 9°.18S×127°.47E, h0^{km}, mb3.3**/1**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, ML3.4**/2**, Error ellipse: s-maj=193.7km s-min=28.1km az=62.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**12.60**	**149**	Pn	Pn	21 50 29.2	-0.8
	0.4nm,0.3s,baz=329,slow=13,SNR=23						
WRA				Sn	Sn	21 52 45.2	-6.0
	0.6nm,0.3s,baz=327,slow=23,SNR=7.0						
ASAR	**Alice Springs**	**15.67**	**158**	Pn	Pn	21 51 13.5	+1.8
	0.1nm,0.3s,baz=332,slow=10,SNR=5.9						
ASAR				Sn	Sn	21 54 06.1	-0.1
	0.2nm,0.3s,baz=316,slow=18,SNR=4.2						
MKAR	**Makanchi Array**	**68.71**	**328**	P	P	21 58 35.0	+0.1
	0.2nm,0.5s,baz=121,slow=7.8,SNR=9.7						

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*IDC **15** 21:50:24.2±0.7, 40°.26S×75°.04W, h0^{km}, mb4.2/7, mb1 4.4/11, mb1mx4.3/18, mbtmp4.2/11, ML4.2/4, MS3.8/5, Ms1 3.8/5, ms1mx3.5/19, Error ellipse: s-maj=22.6km s-min=19.6km az=69.0*

*NEIC **15** 21:50:26.3±0.5, 40°.20S×75°.02W, h10^{km}, mb4.7/5, Error ellipse: s-maj=15.8km s-min=10.6km az=88.0*

*ISCJB **15** 21:50:29.0±0.6, 39°.99S±0°.06×74°.86W±0°.08, h33^{km}, mb4.5/11, MS3.5/2, Error ellipse: s-maj=9.1km s-min=8.3km az=167.4*

ISC 15 21:50:30.6±0.6**, 40°.10S**±0°.05×**74°.92W**±0°.08**, h35^{km}, n34, σ1^{s}.11**/25**, mb4.5**/11**, MS3.5**/3**, Off coast of southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLCA	**Paso Flores**	**3.40**	**102**	Pn	**Pn**	**21 51 20.9**	**-0.1**
	9.6nm,0.3s,baz=274,slow=10,SNR=196						
PLCA				Sn	**Sn**	**21 52 01.4**	**+1.4**
	4.9nm,0.3s,baz=281,slow=12,SNR=4.0						
PLCA				LR	LR	21 52 50.6	
	comp=Z,2µm,20.6s,baz=282,slow=42						
PLCA	**Paso Flores**	**3.40**	**102**	Pn	**Pn**	**21 51 20.9**	**-0.1**
PLCA				Sn	**Sn**	**21 52 01.4**	**+1.4**
PLCA				LR	LR	21 52 50.6	
CFAA	**Coronel Fontan**	**10.06**	**35**	Pn	**Pn**	**21 52 50.8**	**-1.7**
	0.8nm,0.3s,baz=208,slow=14,SNR=29						
CFAA				Sn	**Sn**	**21 54 43.0**	**-1.1**
	0.3nm,0.3s,baz=316,slow=18,SNR=5.3						
LCO	**Las Campanas**	**11.60**	**19**	*e*Pn	**Pn**	**21 53 12.8**	**-0.7**
LCO				*e*Sn	**Sn**	**21 55 21.3**	**-0.4**
USHA	**Ushuaia**	**15.36**	**166**	Pn	**Pn**	**21 54 01.9**	**-2.6**
	0.2nm,0.3s,baz=349,slow=10,SNR=3.5						
USHA				LR	LR	21 59 53.8	
	comp=Z,561nm,18.9s,baz=139,slow=37						
LVC	**Limon Verde**	**18.17**	**18**	P	**Pn**	**21 54 41.6**	**+1.6**
	0.2nm,0.3s,baz=113,slow=9.8,SNR=2.3						
CPUP	**Villa Florida**	**20.08**	**52**	P	**P**	**21 55 02.6**	**+1.7**
	3.8nm,0.7s,baz=212,slow=11,SNR=13						
CPUP				LR	LR	22 03 30.5	
	comp=Z,167nm,19.6s,MS3.4,baz=203,slow=39						
PMSA	**Palmer Station**	**25.51**	**169**	LR	LR	22 05 18.7	
	comp=Z,290nm,19.6s,MS3.8,baz=104,slow=35						
NNA	**Nana**	**28.05**	**356**	LR	LR	22 03 52.7	
	comp=Z,83nm,21.1s,MS3.3,baz=172,slow=29						
OTAV	**Otavalo**	**40.28**	**355**	*e*P	**P**	**21 58 05.0**	**+0.8**
	16nm,1.4s,mb4.6						
VNA3	**Neumayer Olymp**	**44.68**	**155**	*e*	**P**	**21 58 44.5**	**+5.0**
VNA2	**Neumayer--Watz**	**45.38**	**155**	*e*	**P**	**21 58 50.6**	**+5.6**
	baz=267,slow=8.4						
QSPA	**South Pole Qui**	**50.14**	**180**	P	**P**	**21 59 20.8**	**-0.9**
	6.3nm,0.9s,mb4.7,baz=149,slow=5.1,SNR=10						
QSPA	**South Pole Qui**	**50.14**	**180**	P	**P**	**21 59 20.8**	**-1.0**
LRAL	**Lakeview Retre**	**73.62**	**349**	*e*P	**P**	**22 02 00.5**	**+0.4**
	5.6nm,0.8s,mb4.5						
TXAR	**Lajitas Array**	**74.07**	**334**	P	**P**	**22 02 03.4**	**+0.6**
	2.4nm,0.8s,mb4.2,baz=156,slow=8.4,SNR=22						
WVT	**Waverly**	**76.78**	**349**	*e*P	**P**	**22 02 17.7**	**-0.5**
	9.6nm,1.3s,mb4.6						
CCM	**Cathedral Cave**	**79.21**	**347**	*e*P	**P**	**22 02 31.6**	**+0.1**
	18nm,1.0s,mb5.0						
BOSA	**Boshof**	**79.25**	**118**	P	**P**	**22 02 32.1**	**-0.2**
	4.0nm,0.8s,mb4.4,baz=222,slow=7.5,SNR=6.5						
DUG	**Dugway**	**87.06**	**332**	*e*P	**P**	**22 03 13.2**	**+1.1**
	7.5nm,1.1s,mb4.8						
NVAR	**Mina Array Bea**	**87.67**	**327**	P	**P**	**22 03 16.5**	**+1.5**
	1.3nm,0.8s,mb4.2,baz=159,slow=4.6,SNR=7.4						
TORD	**Torodi Ar. Bea**	**88.40**	**71**	P	**P**	**22 03 17.8**	**-1.3**
	0.5nm,0.7s,mb3.9,baz=215,slow=4.8,SNR=3.0						
ULM	**Lac du Bonnet**	**91.84**	**347**	P	**P**	**22 03 33.5**	**-0.8**
	2.3nm,0.8s,mb4.6,baz=138,slow=3.2,SNR=3.8						
GERES	**GERESS Array B**	**118.00**	**48**	PKP	PKPdf	22 09 11.1	-1.7
	0.9nm,0.9s,baz=160,slow=4.3,SNR=4.4						
BRTR	**Keskin Array B**	**126.64**	**66**	PKP	PKPdf	22 09 28.9	-0.8
	0.5nm,0.3s,baz=196,slow=8.6,SNR=4.2						
ARU	**Arti**	**145.76**	**46**	*e*PKPbc	PKPbc	22 10 04.8	-0.1
HYB	**Hyderabad**	**147.79**	**127**	*i* PKP	PKPbc	22 10 11.5	-0.4
HYB	**Hyderabad**	**147.79**	**127**	*e*P	PKPbc	22 10 11.5	-0.4
YAK	**Yakutsk**	**153.46**	**334**	*e*PKPbc	PKPbc	22 10 23.4	-0.8
MJAR	**Matsushiro Arr**	**153.85**	**273**	PKPab	PKPab	22 10 36.4	-2.7
	2.1nm,0.8s,baz=136,slow=3.7,SNR=4.1						
CMAR	**Chiang Mai Arr**	**157.79**	**164**	PKPab	PKPab	22 10 53.8	-2.3
	0.4nm,0.3s,baz=47,slow=7.7,SNR=4.4						
ZALV	**Zalesovo Beam**	**160.54**	**38**	PKPab	PKPab	22 11 06.1	-1.2
	0.8nm,0.8s,baz=297,slow=6.5,SNR=5.7						
MKAR	**Makanchi Array**	**162.19**	**60**	PKPab	PKPab	22 11 14.6	-0.2
	0.0nm,0.3s,baz=293,slow=3.7,SNR=5.2						
SONM	**Songino Array**	**172.21**	**353**	PKP	PKPdf	22 10 32.9	-2.1
	0.5nm,0.8s,baz=180,slow=0.3,SNR=4.2						
SONM				PKPab	PKPab	22 11 58.9	0.0
	0.7nm,1.0s,baz=323,slow=3.7,SNR=6.6						

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*ISCJB **15** 22:00:54.1±0.5, 61°.28S±0°.07×154°.3E±0°.2, h10^{km}, mb4.7/17, MS5.2/160, Error ellipse: s-maj=12.0km s-min=9.9km az=165.0*

*IDC **15** 22:00:54.3±0.6, 61°.32S×154°.16E, h0^{km}, mb4.7/11, mb1 4.8/11, mb1mx4.8/11, mbtmp4.7/11, MS5.0/11, Ms1 5.0/11, ms1mx5.0/13, Error ellipse: s-maj=25.2km s-min=16.0km az=75.0*

*NEIC **15** 22:00:55.7±0.4, 61°.29S×154°.25E, h10^{km}, mb4.9/8, MS5.3/147, Error ellipse: s-maj=14.4km s-min=9.8km az=97.0*

*GCMT **15** 22:00:55.7±0.1, 61°.40S×154°.14E, h18^{km}, MW5.8/98, Moment Tensor Solution. s89,c175; s98,c255; Duration: 1^{s}.8 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.27±.05; $M_{\theta\theta}$4.11±.05; $M_{\phi\phi}$-3.85±.05; $M_{r\theta}$0.99±.13; $M_{\theta\phi}$-3.04±.05; $M_{\phi r}$0.99±.14; Best double couple: $M_0$5.20400×10^{17} NP1:ϕ_s153.00000°, δ75.00000°, λ-6.00000°. NP2:ϕ_s244.00000°, δ85.00000°, λ-165.00000°. Principal axes: T 5.2100, Plg7.0000°, Azm18.0000°; N -0.0170, Plg74.0000°, Azm264.0000°; P -5.1990, Plg14.0000°, Azm110.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISC 15 22:00:55.8±0.5**, 61°.28S**±0°.07×**154°.3E**±0°.2**, h10^{km}, n212, σ0^{s}.96**/33**, mb4.7**/17**, MS5.2**/160**, 6C-7D, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCQ	**Macquarie Isla**	**7.23**	**22**	*e*Pn	**Pn**	**22 02 39.5**	**-1.8**
	2µm,0.8s						
DRV	**Dumont d'Urvil**	**8.29**	**223**	L		22 04 00.0	
VNDA	**Vanda**	**16.50**	**174**	Pn	**Pn**	**22 04 40.6**	**-6.2**
	5.5nm,0.3s,baz=341,slow=12,SNR=96						
VNDA				LR	LR	22 10 15.8	
	comp=Z,16µm,19.7s,baz=353,slow=34						
VNDA	**Vanda**	**16.50**	**174**	*e*Pn	**Pn**	**22 04 40.4**	**-6.5**
	56nm,0.9s						
SBA	**Scott Base**	**17.13**	**171**	*e*Pn	**Pn**	**22 04 50.1**	**-4.6**
	117nm,1.0s						
TAU	**Tasmania Unive**	**18.88**	**344**	*e*P	**Pn**	**22 05 16.2**	**-0.2**
	42nm,1.0s						
ODZ	**Otahua Downs**	**18.88**	**38**	*e*P	**Pn**	**22 05 15.8**	**-0.7**
	1.7nm,0.3s						
MOO	**Moorlands**	**19.35**	**344**	*e*P	**Pn**	**22 05 22.4**	**+0.2**
RPZ	**Rata Peaks**	**20.21**	**37**	P	**P**	**22 05 32.9**	**+2.5**
	68nm,1.1s,baz=167,slow=11,SNR=5.4						
RPZ				LR	LR	22 12 08.9	
	comp=Z,8µm,19.4s,MS5.1,baz=187,slow=33						
TOO	**Toolangi**	**24.37**	**343**	*e*P	**P**	**22 06 14.2**	**+0.5**
CNB	**Canberra Magne**	**26.18**	**351**	*e*P	**P**	**22 06 30.9**	**+0.8**
CAN	**Canberra**	**26.20**	**350**	P	**P**	**22 06 31.4**	**+1.1**
	109nm,1.7s,mb5.1						
CAN				LR	LR		
	comp=Z,4µm,20.0s,MS4.9						
URZ	**Urewera**	**27.05**	**42**	P	**P**	**22 06 39.5**	**+1.5**
	comp=Z,28nm,0.8s,mb4.9,baz=247,slow=5.2,SNR=9.1						
URZ				LR	LR	22 15 25.8	
	comp=Z,2µm,21.5s,MS4.7,baz=90,slow=32						
QSPA	**South Pole Qui**	**28.81**	**180**	P	**P**	**22 06 53.3**	**0.0**
	comp=Z,15nm,1.1s,mb4.7,baz=357,slow=3.5,SNR=13						
STKA	**Stephens Creek**	**30.57**	**338**	*e*P	**P**	**22 07 09.6**	**+0.3**
	comp=Z,11nm,0.9s,mb4.7						
STKA	**Stephens Creek**	**30.57**	**338**	P	**P**	**22 07 09.9**	**+0.6**
	comp=Z,11nm,0.8s,mb4.7,baz=162,slow=7.4,SNR=15						
STKA				LR	LR	22 16 34.9	
	comp=Z,4µm,21.4s,MS5.0,baz=160,slow=31						
MAW	**Mawson**	**36.49**	**220**	LR	LR	22 23 05.0	
	comp=Z,8µm,18.2s,MS5.5,baz=113,slow=37						
NWAO	**Narrogin (SRO)**	**37.09**	**303**	P	**P**	**22 08 06.5**	**+0.6**
	comp=Z,14nm,0.9s,mb4.8,baz=156,slow=4.4,SNR=4.8						
NWAO				LR	LR	22 17 49.9	
	comp=Z,301nm,21.4s,MS4.0,baz=147,slow=27						
NWAO	**Narrogin (SRO)**	**37.09**	**303**	P	**P**	**22 08 06.5**	**+0.5**
NWAO				LR	LR	22 17 49.9	
DZM	**Mont Dzumac**	**40.07**	**18**	P	**P**	**22 08 31.1**	**0.0**
	comp=Z,25nm,0.9s,mb4.9						
ASAR	**Alice Springs**	**40.14**	**330**	P	**P**	**22 08 30.9**	**-0.7**
	comp=Z,8.0nm,0.9s,mb4.5,baz=166,slow=8.5,SNR=43						
ASAR				PcP	PcP	22 10 35.0	-0.8
	comp=Z,1.4nm,0.8s,baz=153,slow=4.4,SNR=4.0						
CTAO	**Charters Tower**	**41.54**	**348**	PFAKE		22 08 50.0	+6.8
CTAO				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
WRA	**Warramunga Arr**	**43.62**	**332**	P	**P**	**22 08 58.2**	**-1.9**
	comp=Z,10nm,1.0s,mb4.5,baz=165,slow=6.9,SNR=32						
WRA				PcP	PcP	22 10 46.7	-0.6
	comp=Z,3.3nm,1.0s,baz=170,slow=3.0,SNR=3.9						
WRA				LR	LR	22 24 29.1	
	comp=Z,2µm,19.6s,MS5.0,baz=150,slow=32						
WRAB	**Tennant Creek**	**43.63**	**332**	P	**P**	**22 08 59.5**	**-0.7**
	comp=Z,14nm,1.1s,mb4.6						
WRAB				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
MBWA	**Marble Bar**	**46.74**	**313**	PFAKE		22 09 40.0	+15
MBWA				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
FITZ	**Fitzroy Crossi**	**47.67**	**322**	*e*P	**P**	**22 09 32.3**	**+0.2**
	comp=Z,26nm,1.0s,mb5.2						
PMSA	**Palmer Station**	**51.03**	**160**	PFAKE		22 10 10.0	+13
PMSA				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
KAKA	**Kakadu**	**51.04**	**332**	*e*P	**P**	**22 09 57.3**	**-0.6**
	comp=Z,25nm,0.8s,mb5.2						
HNR	**Honiara**	**51.91**	**7**	PFAKE		22 10 20.0	+16
HNR				LR	LR		
	comp=Z,4µm,22.0s,MS5.4						
AFI	**Afiamalu**	**53.23**	**43**	PFAKE		22 10 30.0	+16
AFI				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
FUNA	**Funafuti**	**55.77**	**30**	PFAKE		22 10 40.0	+7.4
FUNA				LR	LR		
	comp=Z,7µm,19.0s,MS5.8						
PPT	**Papeete**	**58.68**	**68**	*e*S	**S**	**22 18 55.3**	**-2.3**
	comp=Z,1µm,27.5s						
PPT				*e*SS	SS	22 22 51.8	+1.5
	comp=Z,208nm,23.0s						
PPT				*e*LQ		22 25 30.8	
	comp=Z,5µm,25.5s						
PPT				*e*LR	LR	22 28 03.2	
	comp=Z,2µm,27.0s,baz=203						
PPT	**Papeete**	**58.68**	**68**	LR	LR	22 32 57.7	
	comp=Z,1µm,18.9s,MS5.0,baz=214,slow=33						
RKT	**Rikitea**	**60.73**	**85**	*e*S	**S**	**22 19 25.1**	**+1.2**
	comp=Z,2µm,29.2s						
RKT				*e*LQ		22 26 39.5	
	comp=Z,2µm,40.2s						
RKT				*e*LR	LR	22 28 52.7	
	comp=Z,3µm,28.5s,baz=207						
KAPI	**Kappang**	**61.83**	**320**	PFAKE		22 11 30.0	+15
KAPI				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
TARA	**Tarawa**	**64.08**	**21**	PFAKE		22 11 40.0	+10
TARA				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
TAOE	**Nuku Hiva Isla**	**70.62**	**72**	*e*LR	LR	22 33 21.0	
	comp=Z,4µm,26.8s						
KSM	**Kuching**	**71.05**	**313**	PFAKE		22 12 30.0	+16
KSM				LR	LR		
	comp=Z,523nm,22.0s,MS4.8						
DAV	**Davao City (W)**	**71.75**	**330**	PFAKE		22 12 30.0	+12
DAV				LR	LR		
	comp=Z,462nm,22.0s,MS4.7						
PLCA	**Paso Flores**	**72.00**	**146**	P	**P**	**22 12 18.8**	**-0.4**
	comp=Z,5.7nm,0.9s,mb4.5,baz=192,slow=5.9,SNR=11						
PLCA	**Paso Flores**	**72.00**	**146**	P	**P**	**22 12 18.8**	**-0.4**
PLCA				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
XMAS	**Kiritimati**	**73.10**	**51**	PFAKE		22 12 40.0	+14
XMAS				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
KULM	**Kulim**	**78.19**	**305**	PFAKE		22 13 10.0	+15
KULM				LR	LR		
	comp=Z,813nm,22.0s,MS5.0						
SUR	**Sutherland**	**79.33**	**219**	PFAKE		22 13 10.0	+8.7
SUR				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BOSA	**Boshof**	**81.41**	**224**	P	**P**	**22 13 13.2**	**+0.7**
	comp=Z,5.0nm,1.0s,mb4.4,baz=184,slow=1.0,SNR=3.2						
BOSA				LR	LR	22 47 42.6	
	comp=Z,1µm,18.6s,MS5.3,baz=158,slow=34						
LCO	**Las Campanas**	**82.91**	**141**	PFAKE		22 13 30.0	+10
LCO				LR	LR		
	comp=Z,929nm,19.0s,MS5.2						
LBTB	**Lobatse**	**84.61**	**225**	PFAKE		22 13 40.0	+11
LBTB				LR	LR		
	comp=Z,737nm,19.0s,MS5.1						
QIZ	**Qiongzhong**	**87.58**	**318**	PFAKE		22 13 50.0	+6.3
QIZ				LR	LR		
	comp=Z,485nm,21.0s,MS4.9						
CPUP	**Villa Florida**	**89.01**	**152**	P	**P**	**22 13 49.8**	**-0.8**
	comp=Z,0.6nm,0.4s,mb4.3,baz=167,slow=4.8,SNR=4.1						
CPUP	**Villa Florida**	**89.01**	**152**	P	**P**	**22 13 49.8**	**-0.8**
CPUP				LR	LR		
	comp=Z,277nm,19.0s,MS4.7						
LVC	**Limon Verde**	**89.45**	**141**	PFAKE		22 14 00.0	+7.3
LVC				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
YHNB	**Yeheng**	**89.70**	**330**	PFAKE		22 14 00.0	+6.5
YHNB				LR	LR		
	comp=Z,674nm,19.0s,MS5.1						
MSEY	**Mahe Island**	**90.19**	**260**	PFAKE		22 14 10.0	+14
MSEY				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
CMAR	**Chiang Mai Arr**	**90.87**	**309**	P	**P**	**22 13 58.6**	**-0.5**
	comp=Z,0.3nm,0.3s,mb4.0,baz=141,slow=4.6,SNR=3.5						
CMAR				LR	LR	22 51 04.4	
	comp=Z,484nm,22.0s,MS4.9,baz=152,slow=33						
CHTO	**Chiang Mai**	**91.19**	**309**	*e*P	**P**	**22 14 01.2**	**+0.6**
	comp=Z,13nm,1.5s,mb5.0						
CHTO				LR	LR		
	comp=Z,526nm,22.0s,MS4.9						
LSZ	**Lusaka**	**92.62**	**231**	PFAKE		22 14 20.0	+12
LSZ				LR	LR		
	comp=Z,681nm,19.0s,MS5.1						
TSUM	**Tsumeb**	**92.65**	**220**	PFAKE		22 14 20.0	+12
TSUM				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
KMI	**Kunming**	**95.61**	**314**	P	**P**	**22 14 29.4**	**+8.6**
KMI				PP	PP	22 18 08.9	-3.6
KMI				SKS		22 25 01.3	
KMI				S	S	22 25 37.1	-0.4
KMI				SS	SS	22 31 54.6	-12
KMI				pmax	pmax		
	comp=Z,7.0nm,2.0s,mb4.7						
KMI				pmax	pmax		
	comp=Z,270nm,5.5s						
KMI				LR	LR		
	comp=N,340nm,23.5s,MS5.0						
KMI				LR	LR		
	comp=E,480nm,19.6s,MS5.0						
KMI				LR	LR		
	comp=Z,750nm,29.3s						
NNA	**Nana**	**96.64**	**130**	PFAKE		22 14 40.0	+14
NNA				LR	LR		
	comp=Z,921nm,20.0s,MS5.3						
MJAR	**Matsushiro Arr**	**98.36**	**347**	LR	LR	22 56 22.5	
	comp=Z,346nm,21.1s,MS4.8,baz=165,slow=34						
MAJO	**Matsushiro**	**98.36**	**347**	PFAKE		22 14 40.0	+7.0
MAJO				LR	LR		
	comp=Z,645nm,22.0s,MS5.1						
INCN	**Inchon**	**100.97**	**338**	PFAKE		22 15 00.0	+15
INCN				LR	LR		
	comp=Z,551nm,21.0s,MS5.0						
PAYG	**Puerto Ayora**	**101.35**	**113**	PFAKE		22 15 00.0	+13
PAYG				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
SHEL	**Horse Pasture**	**101.40**	**200**	PFAKE		22 15 00.0	+13
SHEL				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
ERM	**Erimo**	**103.34**	**351**	PFAKE		22 15 10.0	+14
ERM				LR	LR		
	comp=Z,921nm,21.0s,MS5.3						
LSA	**Lhasa**	**104.01**	**307**	PFAKE		22 15 10.0	+11
LSA				LR	LR		
	comp=Z,327nm,20.0s,MS4.9						
BJT	**Baijiatuau**	**105.62**	**330**	PFAKE		22 19 30.0	+12
BJT				LR	LR		
	comp=Z,578nm,21.0s,MS5.1						
OTAV	**Otavalo**	**107.20**	**124**	PFAKE		22 19 30.0	+8.0
OTAV				LR	LR		
	comp=Z,458nm,22.0s,MS5.0						
MDJ	**Mudanjiang**	**107.43**	**342**	PFAKE		22 19 30.0	+8.6
MDJ				LR	LR		
	comp=Z,410nm,20.0s,MS5.0						
HHC	**Hu-ho-hao-te**	**107.55**	**327**	Pdif	Pdif	22 15 10.8	-3.9
HHC				PP	PP	22 19 42.4	0.0
HHC				SKS	SKSdf	22 26 23.3	-10
HHC				SS	SS	22 34 49.4	-2.9
HHC				AMB	AMB		
	comp=Z,120nm,5.6s						
HHC				LR	LR		
	comp=N,200nm,12.9s,MS5.0						
HHC				LR	LR		
	comp=E,170nm,15.1s,MS5.0						
HHC				LR	LR		
	comp=Z,310nm,17.8s,MS4.9						
RCBR	**Riachuelo**	**112.62**	**169**	PFAKE		22 19 40.0	+7.7
RCBR				LR	LR		
	comp=Z,639nm,22.0s,MS5.2						
JTS	**JuntasAbangare**	**113.46**	**113**	PFAKE		22 19 50.0	+16
JTS				LR	LR		
	comp=Z,726nm,20.0s,MS5.3						
HIA	**Hailar**	**113.65**	**336**	PFAKE		22 19 40.0	+7.0
HIA				LR	LR		
	comp=Z,578nm,21.0s,MS5.2						
BCIP	**Isla Barro Col**	**114.69**	**118**	PFAKE		22 19 50.0	+14
BCIP				LR	LR		
	comp=Z,912nm,19.0s,MS5.4						
NIL	**Nilore**	**114.87**	**295**	PFAKE		22 19 50.0	+14
NIL				LR	LR		
	comp=Z,100nm,21.0s,MS4.4						
ULN	**Ulaanbaatar**	**115.26**	**327**	PFAKE		22 19 50.0	+14
ULN				LR	LR		
	comp=Z,369nm,22.0s,MS5.0						
TGUH	**Tegucigalpa,Un**	**115.73**	**109**	PFAKE		22 19 50.0	+12
TGUH				LR	LR		
	comp=Z,465nm,21.0s,MS5.1						
SDV	**Santo Domingo**	**118.17**	**128**	PFAKE		22 19 50.0	+7.2
SDV				LR	LR		
	comp=Z,431nm,22.0s,MS5.0						
PFO	**Pinyon Flat Ob**	**118.48**	**72**	PFAKE		22 19 50.0	+7.2
PFO				LR	LR		
	comp=Z,947nm,19.0s,MS5.4						
TLY	**Talaya**	**119.65**	**326**	PFAKE		22 20 00.0	+16
TLY				LR	LR		
	comp=Z,468nm,22.0s,MS5.1						
HOPS	**Hopland**	**120.01**	**63**	PFAKE		22 20 00.0	+14
HOPS				LR	LR		
	comp=Z,714nm,19.0s,MS5.3						
TUC	**Tucson**	**120.03**	**77**	PFAKE		22 20 00.0	+14
TUC				LR	LR		
	comp=Z,487nm,19.0s,MS5.2						
DAC	**Darwin (Calif)**	**120.17**	**69**	PFAKE		22 20 00.0	+14
DAC				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
CMB	**Columbia Colle**	**120.38**	**66**	PFAKE		22 20 00.0	+14
CMB				LR	LR		
	comp=Z,500nm,19.0s,MS5.2						
TEIG	**Tepich**	**120.63**	**104**	PFAKE		22 20 00.0	+13
TEIG				LR	LR		
	comp=Z,343nm,20.0s,MS5.0						
UCH	**Uchtor**	**121.53**	**301**	PFAKE		22 20 00.0	+12
UCH				LR	LR		
	comp=Z,326nm,21.0s,MS5.0						
WDC	**Whiskeytown Da**	**121.55**	**63**	PFAKE		22 20 00.0	+12
WDC				LR	LR		
	comp=Z,932nm,20.0s,MS5.4						
NVAR	**Mina Array Bea**	**121.63**	**67**	PKP	PKPdf	22 19 49.5	+0.8
	comp=Z,1.2nm,0.8s,baz=204,slow=4.5,SNR=4.6						
TKM2	**Tokmak 2**	**121.66**	**302**	PFAKE		22 20 00.0	+11
TKM2				LR	LR		
	comp=Z,313nm,21.0s,MS4.9						
AML	**Almayashu**	**121.79**	**300**	*e*PKPdf	PKPdf	22 19 49.1	+0.2
AML				LR	LR		
	comp=Z,335nm,20.0s,MS5.0						
TPH	**Tonopah**	**121.82**	**68**	PFAKE		22 20 00.0	+11
TPH				LR	LR		
	comp=Z,810nm,19.0s,MS5.4						
AAK	**Ala-Archa**	**121.87**	**301**	PFAKE		22 20 00.0	+11
AAK				LR	LR		
	comp=Z,326nm,22.0s,MS4.9						
EKS2	**Erkin-Say**	**122.19**	**301**	PFAKE		22 20 00.0	+10
EKS2				LR	LR		
	comp=Z,435nm,22.0s,MS5.1						
KVTX	**Kingsville**	**122.25**	**91**	PFAKE		22 20 00.0	+10
KVTX				LR	LR		
	comp=Z,880nm,20.0s,MS5.4						
MKAR	**Makanchi Array**	**122.27**	**309**	PKP	PKPdf	22 19 49.7	0.0
	comp=Z,0.8nm,1.0s,baz=132,slow=3.4,SNR=4.5						
MKAR	**Makanchi Array**	**122.27**	**309**	PKP	PKPdf	22 19 49.7	0.0
WUAZ	**Wupatki**	**122.40**	**74**	PFAKE		22 20 00.0	+10
WUAZ				LR	LR		
	comp=Z,607nm,20.0s,MS5.2						
YBH	**Yreka Blue Hor**	**122.43**	**62**	PFAKE		22 20 00.0	+10
YBH				LR	LR		
	comp=Z,460nm,20.0s,MS5.1						
BMN	**Battle Mountai**	**123.75**	**67**	PFAKE		22 20 00.0	+7.3
BMN				LR	LR		
	comp=Z,911nm,19.0s,MS5.5						
JCT	**Junction City**	**123.77**	**87**	PFAKE		22 20 00.0	+6.9
JCT				LR	LR		
	comp=Z,531nm,21.0s,MS5.2						
ANMO	**Albuquerque**	**124.25**	**79**	PFAKE		22 20 10.0	+16
ANMO				LR	LR		
	comp=Z,489nm,21.0s,MS5.1						
GRGR	**Grenville**	**124.40**	**136**	PFAKE		22 20 10.0	+15
GRGR				LR	LR		
	comp=Z,537nm,19.0s,MS5.2						
YAK	**Yakutsk**	**124.42**	**346**	PFAKE		22 20 00.0	+6.7
YAK				LR	LR		
	comp=Z,500nm,20.0s,MS5.2						
MVU	**Marysvale**	**124.45**	**72**	PFAKE		22 20 10.0	+16
MVU				LR	LR		
	comp=Z,776nm,20.0s,MS5.4						
WVOR	**Wild Horse Val**	**124.75**	**64**	PFAKE		22 20 10.0	+15
WVOR				LR	LR		
	comp=Z,804nm,20.0s,MS5.4						
ELK	**Elko**	**124.89**	**68**	PFAKE		22 20 10.0	+15
ELK				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MVCO	**Mesa Verde**	**125.12**	**76**	PFAKE		22 20 10.0	+15
MVCO				LR	LR		
	comp=Z,430nm,20.0s,MS5.1						
HKT	**Hockley**	**125.25**	**91**	PFAKE		22 20 10.0	+14
HKT				LR	LR		
	comp=Z,532nm,21.0s,MS5.2						
DUG	**Dugway**	**125.54**	**70**	PFAKE		22 20 10.0	+14
DUG				LR	LR		
	comp=Z,607nm,20.0s,MS5.3						
AMTX	**Amarillo**	**126.47**	**83**	PFAKE		22 20 10.0	+12
AMTX				LR	LR		
	comp=Z,821nm,21.0s,MS5.4						
NLWA	**Neilton Lookou**	**126.55**	**57**	PFAKE		22 20 10.0	+12
NLWA				LR	LR		

	comp=Z,807nm,19.0s,MS5.4						
KURK	**Kurchatov**	**126.88**	**310**	PFAKE		22 20 10.0	+12
KURK				LR	LR		
	comp=Z,312nm,20.0s,MS5.0						
SDCO	**Great Sand Dun**	**126.96**	**78**	PFAKE		22 20 10.0	+11
SDCO				LR	LR		
	comp=Z,531nm,21.0s,MS5.2						
FDF	**Fort de France**	**127.00**	**135**	PFAKE		22 20 10.0	+10
FDF				LR	LR		
	comp=Z,442nm,21.0s,MS5.1						
BMO	**Blue Mountains**	**127.27**	**63**	PFAKE		22 20 10.0	+11
BMO				LR	LR		
	comp=Z,703nm,21.0s,MS5.3						
NATX	**Nacogdoches**	**127.31**	**91**	PFAKE		22 20 10.0	+10
NATX				LR	LR		
	comp=Z,472nm,21.0s,MS5.2						
ZALV	**Zalesovo Beam**	**127.33**	**316**	PKP	PKPdf	22 20 00.9	+1.8
	comp=Z,0.3nm,0.3s,baz=104,slow=6.1,SNR=2.7						
WMOK	**Wichita Mounta**	**127.75**	**85**	PFAKE		22 20 10.0	+9.5
WMOK				LR	LR		
	comp=Z,797nm,21.0s,MS5.4						
TORD	**Torodi Ar. Bea**	**128.01**	**215**	PKP	PKPdf	22 20 00.0	-1.6
	comp=Z,2.0nm,1.0s,baz=188,slow=1.0,SNR=5.3						
AHID	**Auburn Hatcher**	**128.36**	**69**	PFAKE		22 20 10.0	+8.6
AHID				LR	LR		
	comp=Z,959nm,19.0s,MS5.5						
ISCO	**Idaho Springs**	**128.55**	**76**	PFAKE		22 20 10.0	+8.1
ISCO				LR	LR		
	comp=Z,531nm,20.0s,MS5.2						
BW06	**Boulder Array**	**129.06**	**71**	PFAKE		22 20 10.0	+7.2
BW06				LR	LR		
	comp=Z,496nm,19.0s,MS5.2						
PDAR	**Pinedale Array**	**129.06**	**71**	PKP	PKPdf	22 20 03.6	+0.9
	comp=Z,0.3nm,0.5s,baz=243,slow=1.3,SNR=4.2						
VBMS	**Vicksburg**	**129.68**	**94**	PFAKE		22 20 20.0	+16
VBMS				LR	LR		
	comp=Z,410nm,20.0s,MS5.1						
NEW	**Newport**	**130.03**	**61**	PFAKE		22 20 20.0	+16
NEW				LR	LR		
	comp=Z,836nm,19.0s,MS5.5						
LKWY	**Lake**	**130.09**	**68**	PFAKE		22 20 20.0	+15
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MSO	**Missoula**	**130.28**	**64**	PFAKE		22 20 20.0	+15
MSO				LR	LR		
	comp=Z,400nm,19.0s,MS5.1						
BRAL	**Brewton**	**130.35**	**98**	PFAKE		22 20 20.0	+14
BRAL				LR	LR		
	comp=Z,437nm,19.0s,MS5.2						
BOZ	**Bozeman (W)**	**130.38**	**67**	PFAKE		22 20 20.0	+15
BOZ				LR	LR		
	comp=Z,708nm,20.0s,MS5.4						
CBKS	**Cedar Bluff**	**130.55**	**81**	PFAKE		22 20 20.0	+14
CBKS				LR	LR		
	comp=Z,756nm,19.0s,MS5.4						
RLMT	**Red Lodge**	**131.03**	**69**	PFAKE		22 20 20.0	+14
RLMT				LR	LR		
	comp=Z,672nm,19.0s,MS5.4						
OGNE	**Ogallala**	**131.13**	**78**	PFAKE		22 20 20.0	+13
OGNE				LR	LR		
	comp=Z,531nm,21.0s,MS5.2						
BRVK	**Borovoye**	**131.91**	**306**	PFAKE		22 20 20.0	+12
BRVK				LR	LR		
	comp=Z,328nm,22.0s,MS5.0						
LRAL	**Lakeview Retre**	**132.04**	**97**	PFAKE		22 20 20.0	+11
LRAL				LR	LR		
	comp=Z,473nm,20.0s,MS5.2						
KSU1	**Kansas State U**	**132.27**	**84**	PFAKE		22 20 20.0	+11
KSU1				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
COLA	**College**	**132.99**	**30**	PFAKE		22 20 20.0	+11
COLA				LR	LR		
	comp=Z,838nm,22.0s,MS5.4						
EGMT	**Eagleton**	**133.03**	**66**	PFAKE		22 20 20.0	+10
EGMT				LR	LR		
	comp=Z,745nm,19.0s,MS5.4						
PLAL	**Pickwick Lake**	**133.11**	**94**	PFAKE		22 20 20.0	+9.3
PLAL				LR	LR		
	comp=Z,482nm,21.0s,MS5.2						
LAO	**LASA Array**	**133.60**	**70**	PFAKE		22 20 20.0	+8.8
LAO				LR	LR		
	comp=Z,562nm,19.0s,MS5.3						
WVT	**Waverly**	**134.15**	**94**	PFAKE		22 20 20.0	+7.4
WVT				LR	LR		
	comp=Z,449nm,19.0s,MS5.2						
EGAK	**Eagle**	**134.59**	**33**	PFAKE		22 20 20.0	+7.5
EGAK				LR	LR		
	comp=Z,389nm,19.0s,MS5.2						
CSS	**Prodhromos**	**134.74**	**262**	PFAKE		22 20 30.0	+16
CSS				LR	LR		
	comp=Z,310nm,20.0s,MS5.0						
MALT	**Malatya**	**134.96**	**270**	PFAKE		22 20 30.0	+16
MALT				LR	LR		
	comp=Z,500nm,20.0s,MS5.2						
DGMT	**Dagmar**	**135.84**	**69**	PFAKE		22 20 30.0	+15
DGMT				LR	LR		
	comp=Z,740nm,19.0s,MS5.4						
TAM	**Tamanrasset**	**135.94**	**223**	PFAKE		22 20 30.0	+14
TAM				LR	LR		
	comp=Z,623nm,19.0s,MS5.4						
SCIA	**State Center**	**136.08**	**84**	PFAKE		22 20 30.0	+14
SCIA				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
WCI	**Wyandotte Cave**	**136.56**	**93**	*e*PKPdf	PKPdf	22 20 12.6	-4.5
KIV	**Kislovodsk**	**137.25**	**279**	PFAKE		22 20 30.0	+12
KIV				LR	LR		
	comp=Z,258nm,21.0s,MS4.9						
CNNC	**Cliffs of the**	**138.17**	**104**	PFAKE		22 20 30.0	+10
CNNC				LR	LR		
	comp=Z,600nm,21.0s,MS5.3						
JFWS	**Jewell Farm**	**138.27**	**86**	PFAKE		22 20 30.0	+10
JFWS				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
BR131	**Keskin Array S**	**138.38**	**267**	PFAKE		22 20 30.0	+10
BR131				LR	LR		
	comp=Z,441nm,21.0s,MS5.2						
ISP	**Isparta**	**138.40**	**262**	PFAKE		22 20 30.0	+10
ISP				LR	LR		
	comp=Z,304nm,20.0s,MS5.0						
BLA	**Blacksburg**	**138.57**	**100**	PFAKE		22 20 30.0	+9.2
BLA				LR	LR		
	comp=Z,529nm,19.0s,MS5.3						
ARU	**Arti**	**139.03**	**303**	PFAKE		22 20 30.0	+9.0
ARU				LR	LR		
	comp=Z,431nm,21.0s,MS5.2						
AGMN	**Agassiz Refuge**	**139.55**	**76**	PFAKE		22 20 30.0	+7.8
AGMN				LR	LR		
	comp=Z,739nm,20.0s,MS5.4						
ACSO	**Alum Creek Sta**	**139.73**	**95**	PFAKE		22 20 30.0	+7.2
ACSO				LR	LR		
	comp=Z,562nm,19.0s,MS5.3						
CBN	**Corbin**	**140.81**	**102**	PFAKE		22 20 40.0	+15
CBN				LR	LR		
	comp=Z,530nm,21.0s,MS5.3						
ULM	**Lac du Bonnet**	**140.92**	**73**	PKP	PKPdf	22 20 23.4	-1.2
	comp=Z,1.2nm,0.6s,baz=158,slow=5.4,SNR=3.1						
AAM	**Ann Arbor**	**140.99**	**92**	PFAKE		22 20 40.0	+15
AAM				LR	LR		
	comp=Z,562nm,19.0s,MS5.3						
COWI	**Conover**	**141.16**	**83**	PFAKE		22 20 40.0	+15
COWI				LR	LR		
	comp=Z,937nm,19.0s,MS5.6						
FFC	**Flin Flon**	**141.21**	**64**	PFAKE		22 20 40.0	+15
FFC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
YKA	**Yellowknife Ar**	**141.23**	**48**	PKhKP		22 20 19.4	
	comp=Z,0.4nm,0.7s,baz=230,slow=2.7,SNR=6.5						
YKA	**Yellowknife Ar**	**141.23**	**48**	PKP		22 20 19.4	
SSPA	**Standing Stone**	**142.48**	**99**	PFAKE		22 20 40.0	+12
SSPA				LR	LR		
	comp=Z,563nm,19.0s,MS5.3						
ERPA	**Erie**	**142.62**	**95**	PFAKE		22 20 40.0	+12
ERPA				LR	LR		
	comp=Z,662nm,19.0s,MS5.4						
WDD	**Wield Dalam**	**144.15**	**243**	PFAKE		22 20 40.0	+9.1
WDD				LR	LR		
	comp=Z,720nm,21.0s,MS5.4						
TIRR	**Tirgusor**	**144.50**	**267**	⇑*i*P	PKPdf	22 20 29.7	-1.5
CEL	**Celeste**	**145.54**	**247**	*e*PKP	PKPdf	22 20 33.9	+0.7
CEL				LR	LR		
	comp=Z,428nm,21.0s,MS5.2						
TIP	**Timpagrande**	**145.90**	**249**	PFAKE		22 20 50.0	+16
TIP				LR	LR		
	comp=Z,583nm,21.0s,MS5.3						
KEST	**Kesra**	**146.20**	**237**	PKPbc	PKPbc	22 20 36.4	+0.9
	comp=Z,2.9nm,0.9s,baz=258,slow=2.7,SNR=5.8						
TIR	**Tirane**	**146.21**	**255**	PFAKE		22 20 50.0	+16
TIR				LR	LR		
	comp=Z,419nm,20.0s,MS5.2						
VRI	**Vrincioaia**	**146.34**	**267**	⇓*i*P	PKPab	22 20 43.3	+6.9
PLOR	**Plostina**	**146.37**	**267**	⇓*i*P	PKPab	22 20 41.2	+4.7
MLR	**Muntele Rosu**	**146.45**	**266**	⇑*i*P	PKPdf	22 20 35.5	+1.0
MLR	**Muntele Rosu**	**146.45**	**266**	⇑P	PKPdf	22 20 35.5	+1.1
NCB	**Newcomb**	**146.78**	**99**	PFAKE		22 20 50.0	+15
NCB				LR	LR		
	comp=Z,473nm,19.0s,MS5.3						
VOIR		**146.84**	**265**	⇑*i*P	PKPab	22 20 44.4	+6.0
CUC	**Castrocucco**	**146.99**	**249**	PFAKE		22 20 50.0	+14
CUC				LR	LR		
	comp=Z,504nm,20.0s,MS5.3						
LONY	**Lake Ozonia**	**147.09**	**98**	PFAKE		22 20 50.0	+14
LONY				LR	LR		
	comp=Z,685nm,22.0s,MS5.4						
OBN	**Obninsk**	**147.78**	**288**	PFAKE		22 20 50.0	+14
OBN				LR	LR		
	comp=Z,668nm,22.0s,MS5.4						
LBNH	**Lisbon**	**148.08**	**101**	PFAKE		22 20 50.0	+13
LBNH				LR	LR		
	comp=Z,599nm,19.0s,MS5.4						
BURAR	**Bucovina Array**	**148.32**	**268**	⇓*i*P	PKPab	22 20 48.8	+4.6
AKASG	**Malin Array Be**	**148.48**	**276**	PKPbc	PKPbc	22 20 39.9	-1.4
	comp=Z,0.3nm,0.4s,baz=134,slow=4.1,SNR=4.2						
KIEV	**Kiev**	**148.48**	**276**	PFAKE		22 20 50.0	+12
KIEV				LR	LR		
	comp=Z,527nm,21.0s,MS5.3						
BZS	**Buzias**	**148.62**	**262**	⇑*i*P	PKPbc	22 20 41.2	-0.6
BZS	**Buzias**	**148.62**	**262**	⇑P	PKPbc	22 20 41.2	-0.6
DRGR		**148.94**	**265**	⇓*i*P	PKPbc	22 20 41.9	-0.7
VSL	**Villasalto**	**149.40**	**241**	PFAKE		22 20 50.0	+10
VSL				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
RTC	**Rabat Centre**	**150.13**	**213**	PFAKE		22 20 50.0	+9.1
RTC				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
PKSM	**Moragy**	**150.47**	**260**	⇓*i*P	PKPdf	22 20 42.7	+1.7
PKSM	**Moragy**	**150.47**	**260**	⇓P	PKPdf	22 20 42.7	+1.7
KWP	**Kalwaria Pacla**	**150.91**	**269**	⇓*i*P	PKPbc	22 20 51.5	+4.2
KWP	**Kalwaria Pacla**	**150.91**	**269**	PKPbc	PKPbc	22 20 50.2	+2.9
KWP				LR	LR		
	comp=Z,471nm,22.0s,MS5.2						
PSZ	**Piszkesteto**	**151.09**	**263**	PFAKE		22 20 50.0	+8.1
PSZ				LR	LR		
	comp=Z,611nm,21.0s,MS5.4						
SFS	**San Fernando**	**152.29**	**215**	PFAKE		22 21 00.0	+16
SFS				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
TRI	**Trieste**	**152.39**	**254**	PFAKE		22 21 00.0	+16
TRI				LR	LR		
	comp=Z,496nm,20.0s,MS5.3						
VLC	**Villacollemand**	**152.75**	**248**	PFAKE		22 21 00.0	+15
VLC				LR	LR		
	comp=Z,675nm,21.0s,MS5.4						
LVZ	**Lovozero**	**154.29**	**311**	PFAKE		22 21 00.0	+14
LVZ				LR	LR		
	comp=Z,426nm,20.0s,MS5.3						
ESDC	**Sonseca Array**	**154.58**	**222**	PKPbc	PKPbc	22 20 57.1	+1.4
	comp=Z,0.6nm,0.6s,baz=106,slow=0.4,SNR=4.3						
ESLA	**Sonseca Array**	**154.58**	**222**	PFAKE		22 21 00.0	+13
ESLA				LR	LR		
	comp=Z,4µm,19.0s,MS6.3						
PAB	**San Pablo**	**154.58**	**221**	PFAKE		22 21 00.0	+13
PAB				LR	LR		
	comp=Z,824nm,20.0s,MS5.5						
GERES	**GERESS Array B**	**154.70**	**259**	PKPbc	PKPbc	22 20 58.3	+2.6
	comp=Z,0.9nm,0.7s,baz=186,slow=2.5,SNR=6.4						
TUE	**Stuetta**	**154.99**	**250**	PFAKE		22 21 00.0	+12
TUE				LR	LR		
	comp=Z,696nm,21.0s,MS5.5						
BNI	**Bardonecchia**	**155.08**	**244**	PFAKE		22 21 00.0	+12
BNI				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
SSB	**Saint Sauveur**	**156.18**	**242**	PFAKE		22 21 00.0	+11
SSB				LR	LR		
	comp=Z,641nm,20.0s,MS5.5						
MTE	**Manteigas**	**156.33**	**216**	PFAKE		22 21 00.0	+10
MTE				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
BFO	**Black Forest**	**156.84**	**252**	PFAKE		22 21 00.0	+10
BFO				LR	LR		
	comp=Z,701nm,20.0s,MS5.5						
MOX	**Moxa**	**156.91**	**260**	*e*P	PKPab	22 21 25.9	+5.7
	comp=Z,14nm,1.6s						
ECH	**Echery**	**157.29**	**250**	PFAKE		22 21 00.0	+9.4
ECH				LR	LR		
	comp=Z,547nm,19.0s,MS5.4						
WLF	**Walferdange**	**158.79**	**251**	PFAKE		22 21 00.0	+7.6
WLF				LR	LR		
	comp=Z,968nm,20.0s,MS5.6						
KONO	**Kongsberg**	**162.67**	**280**	PFAKE		22 21 10.0	+14
KONO				LR	LR		
	comp=Z,893nm,19.0s						
ESK	**Eskdalemuir**	**166.81**	**253**	PFAKE		22 21 10.0	+10
ESK				LR	LR		
	comp=Z,1µm,22.0s						

IDC 15 22:04:14.6±8.6**, 31°.40S**×**179°.87W, h277**^{km}±59^{km}**,**
mb3.5/4**, mb1 3.6**/5**, mb1mx3.4**/16**, mbtmp3.5**/5**, Error**
ellipse: s-maj=86.6km s-min=20.4km az=45.0,
Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**7.29**	**199**	P	Pn	22 05 59.8	+0.8
	0.8nm,0.3s,baz=319,slow=15,SNR=13						
URZ				S	S	22 07 22.0	-1.3
	5.2nm,0.3s,baz=235,slow=21,SNR=16						
STKA	**Stephens Creek**	**32.70**	**259**	P	P	22 10 22.8	+1.3
	4.6nm,0.9s,baz=75,slow=12,SNR=3.4						
ASAR	**Alice Springs**	**41.47**	**269**	P	P	22 11 35.1	+0.1
	0.3nm,0.3s,baz=107,slow=7.5,SNR=6.1						
WRA	**Warramunga Arr**	**42.55**	**274**	P	P	22 11 43.1	-0.6
	0.6nm,0.3s,baz=111,slow=8.1,SNR=26						
QSPA	**South Pole Qui**	**58.72**	**180**	P	P	22 13 43.8	+0.9
	7.6nm,0.7s,baz=56,slow=2.8,SNR=11						
TORD	**Torodi Ar. Bea**	**161.78**	**185**	PKPab	PKPab	22 24 28.6	-1.4
	0.6nm,0.5s,baz=165,slow=4.2,SNR=7.7						

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*MOS **15** 22:48:54.3±1.4, 48°.10N×102°.80E, h8^{km}, mb4.4/1, Error*
ellipse: s-maj=84.6km s-min=20.6km az=83.2
BYKL 15 22:48:55.1±0.7**, 48°.11N**×**102°.84E, h1**^{km}±22^{km}**, 3C,**
Mongolia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAK	**Zakamensk**	**2.29**	**7**	*e*PN	Pn	22 49 35.8	+1.8
ZAK				*e*S	Sn	22 50 05.4	+2.6
ZAK				pmax	pmax		
	comp=Z,49nm,0.2s						
ZAK				smax			
	comp=E,392nm,0.7s						
ZAK	**Zakamensk**	**2.29**	**7**	*e*Pg	Pg	22 49 36.1	-2.9
ZAK				*e*		22 49 37.5	
ZAK				*e*Sn	Sn	22 50 03.0	+0.2
ZAK				*e*Sg	Sg	22 50 07.3	-1.4
ZAK				max			
	comp=E,48nm,0.1s						
ZAK				Smax			
	comp=E,388nm,0.7s						
ULN	**Ulaanbaatar**	**2.84**	**93**	⇑*i*Pn	Pn	22 49 41.6	+0.1
ULN				*e*Pg	Pg	22 49 46.1	-3.4
ULN				*e*		22 50 17.4	
ULN				*e*Sg	Sg	22 50 22.4	-3.9
TLY	**Talaya**	**3.61**	**8**	*e*PN	Pn	22 49 50.8	-1.3
TLY				*e*		22 49 59.4	
TLY				*e*		22 50 46.6	
TLY				pmax	pmax		
	comp=Z,20nm,0.4s						
TLY				smax			
	comp=N,180nm,1.8s						
TLY	**Talaya**	**3.61**	**8**	*e*Pn	Pn	22 49 52.7	+0.6
TLY				*e*Pg	Pg	22 49 59.4	-4.9
TLY				*e*Sg	Sg	22 50 46.1	-5.0
TLY				Pmax			
	comp=N,19nm,0.6s						
TLY				Smax			
	comp=N,174nm,1.5s						
MOY	**Mondy**	**3.75**	**342**	*e*PN	Pn	22 50 02.2	+8.1
MOY				*e*S	Sn	22 50 37.2	-1.7
MOY				*e*		22 50 52.0	
MOY				pmax	pmax		
	comp=Z,21nm,0.5s						
MOY				smax			
	comp=E,184nm,0.9s						
MOY	**Mondy**	**3.75**	**342**	⇑*i*Pn	Pn	22 49 55.3	+1.2
MOY				*e*		22 49 57.1	
MOY				*e*Pg	Pg	22 50 02.2	-4.8
MOY				*e*Sg	Sg	22 50 51.6	-4.1
MOY				Pmax			
	comp=E,21nm,0.4s						
MOY				Smax			
	comp=E,190nm,1.0s						
ARS	**Arshan**	**3.82**	**356**	*e*PN	Pg	22 50 06.2	-2.1
ARS				*e*		22 50 55.0	
ARS				pmax	pmax		
	comp=Z,18nm,0.5s						
ARS				smax			
	comp=E,238nm,0.8s						
ARS	**Arshan**	**3.82**	**356**	*e*Pn	Pn	22 49 57.2	+2.2
ARS				*e*		22 50 07.0	
ARS				*e*Sg	Sg	22 50 53.6	-4.3
ARS				max			
	comp=E,18nm,0.5s						
ARS				Smax			
	comp=E,238nm,0.8s						
LSTR	**Listvyanka**	**3.98**	**18**	*e*Pn	Pn	22 49 55.9	-1.2
LSTR				*e*Pg	Pg	22 50 07.4	-3.8
LSTR				*e*Sg	Sg	22 50 58.8	-3.9
LSTR				Pmax			
	comp=E,9.0nm,0.4s						
LSTR				Smax			
	comp=E,241nm,1.3s						
IRK	**Irkutsk**	**4.24**	**12**	*e*Sg	Sg	22 51 06.2	-5.0
IRK				Smax			
	comp=E,325nm,0.5s						
HRMR	**Khuramsha**	**4.41**	**36**	⇑*i*Pn	Pn	22 50 03.3	+0.2
HRMR				*e*		22 50 12.1	
HRMR				*e*Pg	Pg	22 50 14.4	-5.2
HRMR				*e*Sg	Sg	22 51 11.4	-5.4
HRMR				Pmax			
	comp=E,36nm,0.3s						
HRMR				Smax			
	comp=E,405nm,1.0s						
KAB	**Kabansk**	**4.65**	**30**	*e*PN	Pg	22 50 17.5	-6.6
KAB				*e*		22 51 21.3	
KAB				pmax	pmax		
	comp=Z,133nm,0.7s						
KAB				smax			
	comp=E,669nm,1.1s						
KAB	**Kabansk**	**4.65**	**30**	*e*Sg	Sg	22 51 19.8	-4.4
KAB				Smax			
	comp=E,570nm,1.3s						
FFNB	**Fofonovo**	**4.68**	**31**	*e*Sg	Sg	22 51 20.1	-5.3
FFNB				Smax			
	comp=E,249nm,0.6s						
ORL	**Orlik**	**4.84**	**338**	*e*PN	Pg	22 50 21.6	-6.2
ORL				*e*		22 51 24.3	
ORL				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ORL				smax			
	comp=N,86nm,1.1s						
ORL	**Orlik**	**4.84**	**338**	*e*Pn	Pn	22 50 10.0	+1.0
ORL				*e*Pg	Pg	22 50 21.4	-6.4
ORL				*e*Sg	Sg	22 51 25.5	-5.0
ORL				Pmax			
	comp=N,3.0nm,0.4s						
ORL				Smax			
	comp=N,86nm,1.0s						
UUDB	**Ulan-Yde**	**4.88**	**38**	*e*Pn	Pn	22 50 09.4	-0.1
UUDB				*e*Pg	Pg	22 50 21.8	-6.8
UUDB				*e*Sg	Sg	22 51 26.2	-5.6
UUDB				Pmax			
	comp=N,29nm,0.8s						
UUDB				Smax			
	comp=N,153nm,1.3s						
TRTB	**Turuntaevo**	**5.15**	**35**	*e*Pn	Pn	22 50 13.3	+0.1
TRTB				*e*Pg	Pg	22 50 26.5	-7.1
TRTB				*e*Sg	Sg	22 51 33.9	-6.4
TRTB				Pmax			
	comp=N,10.0nm,0.4s						
TRTB				Smax			
	comp=N,95nm,0.8s						
TRG	**Tyrgan**	**5.17**	**24**	*e*PN	Pg	22 50 25.9	-8.1
TRG				*e*S	Sn	22 51 11.3	-2.4
TRG				*e*		22 51 35.9	
TRG				pmax	pmax		
	comp=Z,5.0nm,0.2s						
TRG				smax			
	comp=E,72nm,0.9s						
TRG	**Tyrgan**	**5.17**	**24**	*e*Pn	Pn	22 50 13.7	+0.2
TRG				*e*Pg	Pg	22 50 27.1	-6.9
TRG				*e*		22 51 14.4	
TRG				*e*Sg	Sg	22 51 35.0	-5.9
TRG				Pmax			
	comp=E,4.0nm,0.2s						
TRG				Smax			
	comp=E,72nm,0.9s						
ZRHB	**Zarechye**	**5.24**	**30**	*e*Pn	Pn	22 50 16.8	+2.4
ZRHB				*e*Pg	Pg	22 50 29.1	-6.3
ZRHB				*e*Sg	Sg	22 51 37.0	-6.2
ZRHB				Pmax			
	comp=E,30nm,1.2s						
ZRHB				Smax			
	comp=E,362nm,1.1s						
TDJR	**Todzha**	**6.09**	**317**	*e*Sg	Sg	22 52 04.7	-5.9
OGRR	**Ongureny**	**6.30**	**27**	*e*PN	Pn	22 50 29.9	+0.8
OGRR				*e*		22 50 49.7	
OGRR				*e*		22 52 10.3	
OGRR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
OGRR				smax			
	comp=E,39nm,1.0s						
OGRR	**Ongureny**	**6.30**	**27**	*e*Pn	Pn	22 50 29.8	+0.7
OGRR				*e*		22 50 31.7	
OGRR				*e*Pg	Pg	22 50 49.1	-6.7
OGRR				*e*Sg	Sg	22 52 10.0	-7.4
OGRR				Pmax			
	comp=E,3.0nm,0.7s						
OGRR				Smax			
	comp=E,40nm,0.7s						
MXMB	**Maximikha**	**6.38**	**34**	*e*Pn	Pn	22 50 28.7	-1.4
MXMB				*e*Pg	Pg	22 50 48.3	-8.9
MXMB				*e*		22 50 50.9	
MXMB				*i* Sg	Sg	22 52 12.0	-7.8
MXMB				max			
	comp=E,7.0nm,0.5s						
MXMB				Smax			
	comp=E,108nm,1.2s						
SYVR	**Suvo**	**7.16**	**36**	*e*PN	Pn	22 50 40.9	0.0
SYVR				*e*		22 51 03.6	
SYVR				*e*		22 52 37.8	
SYVR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
SYVR				smax			
	comp=E,47nm,1.7s						
SYVR	**Suvo**	**7.16**	**36**	*e*Pn	Pn	22 50 41.5	+0.6
SYVR				*e*Pg	Pg	22 51 04.8	-7.4
SYVR				*e*Sg	Sg	22 52 37.1	-7.9
SYVR				Pmax			
	comp=E,3.0nm,0.6s						
SYVR				Smax			
	comp=E,46nm,2.0s						
YLYR	**Ulyunkhan**	**8.53**	**34**	*e*Sg	Sg	22 53 19.1	-10
YLYR				Smax			
	comp=E,30nm,2.2s						
NIZ	**Nizh Angarsk**	**8.72**	**26**	*e*Sg	Sg	22 53 26.9	-7.8
NIZ				Smax			
	comp=E,30nm,2.0s						
KMO	**Kumora**	**9.33**	**30**	*e*Sg	Sn	22 53 45.0	+49
KMO				Smax			
	comp=E,19nm,1.1s						
UKT	**Uakit**	**9.95**	**38**	*e*Sg	Sn	22 54 02.3	+51
UKT				Smax			
	comp=E,38nm,1.3s						
NLYR	**Nelyaty**	**11.49**	**38**	*e*Sg	Sn	22 54 50.9	+62
NLYR				Smax			
	comp=E,45nm,1.3s						
BOD	**Bodaibo**	**11.81**	**30**	*e*Sg	Sn	22 55 00.7	+64
BOD				Smax			
	comp=E,5.0nm,1.5s						
TUP	**Tupik**	**12.43**	**53**	*e*Sg	Sn	22 55 19.5	+68
TUP				Smax			
	comp=E,7.0nm,1.2s						

CRS	Chara	12.85	41	eSg	Sn	22 55 33.3	+71
CRS				Smax			
	comp=E,11nm,1.7s						

IDC ***15*** *23:07:08.2±1.9, 7°.75N×126°.88E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/22, mbtmp3.7/5, Error ellipse: s-maj=134.3km s-min=21.2km az=73.0*
NEIC ***15*** *23:07:14.8±6.0, 7°.75N×126°.98E, h51^{km}±54^{km}, mb4.3/1, Error ellipse: s-maj=72.2km s-min=13.0km az=65.0*
ISCJB ***15*** *23:07:16.3±1.3, 7°.52N±0°.09×126°.7E±0°.2, h82^{km}±13^{km}, mb3.5/5, Error ellipse: s-maj=26.6km s-min=12.0km az=159.7*
MAN ***15*** *23:07:16, 7°.51N×126°.63E, h17^{km}, mb4.5, ML3.4, MS3.3*
ISC 15 23:07:18.1±1.4**, 7°.56N**±0°.08×**126°.6E**±0°.1**, h79**^{km}±14^{km}**, n13, σ1^{s}06**/16**, mb3.5**/5**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	0.71	210	eP	Pn	23 07 29.8	-4.1
MATI				eS	Sn	23 07 36.7	-8.7
DAV	Davao City (W)	1.14	245	ePn	Pn	23 07 39.9	+1.1
BUKP	Musuan	1.57	282	eP	Pn	23 07 43.7	-0.7
BUKP				eS	Sn	23 08 05.0	+0.8
BUTP	Butuan	1.71	325	eP	Pn	23 07 46.3	+0.1
SCPH	Surigao	2.47	333	⇑eP	Pn	23 07 57.9	+1.6
TBP	Tagbilaran	3.45	308	eP	Pn	23 08 09.6	0.0
TBP				eS	Sn	23 08 46.8	-2.6
KAKA	Kakadu	20.95	164	eP	P	23 11 54.1	-0.7
	8.8nm,0.6s						
FITZ	Fitzroy Crossi	25.52	182	P	P	23 12 41.4	+2.0
	7.8nm,1.2s,mb4.0,baz=346,slow=8.3,SNR=3.3						
WRA	Warramunga Arr	28.37	165	P	P	23 13 04.6	-0.3
	0.6nm,0.9s,mb3.1,baz=345,slow=10,SNR=5.7						
SONM	Songino Array	43.67	340	P	P	23 15 15.2	+0.2
	0.2nm,0.6s,mb3.0,baz=160,slow=9.0,SNR=4.6						
MKAR	Makanchi Array	54.39	324	P	P	23 16 36.8	-0.1
	0.3nm,0.4s,mb3.6,baz=112,slow=7.0,SNR=11						
KURK	Kurchatov	58.49	326	P	P	23 17 05.2	-0.8
	0.4nm,0.4s,mb3.8,baz=122,slow=7.7,SNR=5.6						
KURK	Kurchatov	58.49	326	P	P	23 17 05.2	-0.8

ISCJB ***15*** *23:10:40.9±0.5, 33°.33N±0°.03×35°.41E±0°.05, h2^{km}±5^{km}, Error ellipse: s-maj=6.8km s-min=3.8km az=22.0*
CSEM ***15*** *23:10:40.1±0.3, 33°.31N×35°.32E, h5^{km}, ML3.0, Error ellipse: s-maj=11.7km s-min=4.4km az=97.0*
GII ***15*** *23:10:40.8±0.8, 33°.25N×35°.44E, h1^{km}±3^{km}, Md2.3/7*
GRAL ***15*** *23:10:41.7±0.4, 33°.31N×35°.41E, h4^{km}±4^{km}, MD3.0*
ISC 15 23:10:41.4±0.5**, 33°.34N**±0°.03×**35°.41E**±0°.05**, h3**^{km}±5^{km}**, n25, σ0^{s}63**/35**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	334	eP	Pg	23 10 45.2	+0.6
MATL	Matirih	0.16	334	eP	Pg	23 10 45.2	+0.6
KSDI	Kefar Szold	0.25	126	Pg	Pg	23 10 46.1	-0.2
KSDI				Sg	Sg	23 10 49.6	0.0
MMA0	Mount Meron ar	0.33	182	Pg	Pg	23 10 47.0	-0.6
MMA0				Sg	Sg	23 10 52.5	+0.6
HNTI	Hanita	0.33	218	Sg	Sg	23 10 52.6	+0.7
RCY	Rachaya	0.37	67	eP	Pg	23 10 48.7	+0.2
RCY				eS	Sg	23 10 54.5	+1.2
RCY	Rachaya	0.37	67	eP	Pg	23 10 48.7	+0.2
RCY				eS	Sg	23 10 54.5	+1.2
BEYL	Beyrouth	0.53	7	eP	Pg	23 10 51.8	+0.1
BEYL	Beyrouth	0.53	7	eP	Pg	23 10 51.8	+0.1
BHL	Bhannes	0.60	19	eP	Pg	23 10 52.8	0.0
BHL	Bhannes	0.60	19	eP	Pg	23 10 52.8	-0.1
BLGI	Bet Lehem HaGe	0.63	197	Pg	Pg	23 10 53.2	-0.4
OFRI	‘Ofer	0.80	207	Pg	Pg	23 10 56.2	-0.6
OFRI				Sg	Sg	23 11 08.7	+1.5
MMLI	Mount Malkishu	0.90	180	Pg	Pg	23 10 57.7	-1.0
MMLI				Sg	Sg	23 11 10.4	+0.1
HWQ	Hawqa	1.03	25	eP	Pg	23 11 00.8	-0.5
HWQ	Hawqa	1.03	25	eP	Pg	23 11 00.8	-0.5
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	23 11 01.1	-1.2
HMDT				Sg	Sg	23 11 16.6	+0.2
SLTI	Sal’it	1.14	196	Pg	Pg	23 11 02.3	-1.0
SLTI				Sg	Sg	23 11 18.5	+0.4
DSI	Dead Sea	1.77	181	Pn	Pn	23 11 12.0	-0.9
DSI				Sn	Sn	23 11 36.1	+0.2
YTIR	Yattir	1.99	187	Pn	Pn	23 11 15.8	-0.2
MZDA	Masada	2.02	181	Pn	Pn	23 11 16.4	-0.1
MZDA				Sn	Sn	23 11 43.2	+0.9
RTMI	Retamim	2.36	195	Pn	Pn	23 11 21.2	+0.1
KZIT	Kziot	2.58	200	Pn	Pn	23 11 24.4	+0.4
ZFRI	Zfri	2.79	184	Pn	Pn	23 11 26.7	-0.2
PRNI	Paran	3.00	187	Pn	Pn	23 11 29.5	-0.4

NEIC ***15*** *23:11:05.4, 31°.68S×71°.58W, h59^{km}, MD3.7(GUC), After GUC.*
GUC 15 23:11:05.4±0.6**, 31°.68S**×**71°.58W, h59**^{km}±3^{km}**, MD3.7, ML3.8, 10C-12D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.21	161	⇓iP	Pn	23 11 15.0	+0.2
CHNG				i S	Sn	23 11 21.9	+0.3
CHNG				AML	AML	23 11 22.4	
	comp=E,5µm,0.2s						
CMCH	Combarbala	0.71	45	⇑iP	Pn	23 11 20.3	+0.6
CMCH				i S	Sn	23 11 31.2	+1.0
CMCH	Combarbala	0.71	45	⇑iP	Pn	23 11 20.3	+0.6
CMCH				i S	Sn	23 11 31.2	+1.0
CMCH				AML	AML	23 11 32.4	
	comp=E,22µm,0.3s						
OVCH	Ovalle	1.12	17	⇑iP	Pn	23 11 25.5	+0.5
OVCH				i S	Sn	23 11 40.5	+1.0
OVCH	Ovalle	1.12	17	⇑iP	Pn	23 11 25.5	+0.5
OVCH				i S	Sn	23 11 40.5	+1.0
OVCH				AML	AML	23 11 44.5	
	comp=N,3µm,0.4s						
JACH	Jahuel	1.30	140	eP	Pn	23 11 28.1	+0.7
JACH				i S	Sn	23 11 45.4	+1.5
JACH	Jahuel	1.30	140	eP	Pn	23 11 28.1	+0.7
JACH				i S	Sn	23 11 45.4	+1.5
IHA	Instituto Hidr	1.34	182	⇑iP	Pn	23 11 27.5	-0.5
IHA				i S	Sn	23 11 44.6	-0.2
IHA	Instituto Hidr	1.34	182	⇑iP	Pn	23 11 27.5	-0.5
IHA				i S	Sn	23 11 44.6	-0.2
PEL	Peldehue	1.64	153	⇓iP	Pn	23 11 32.5	+0.5
PEL				i S	Sn	23 11 53.4	+1.3
PEL				AML	AML	23 11 59.2	
	comp=E,3µm,0.2s						
TLL	Tololo Astrono	1.65	24	⇓iP	Pn	23 11 32.9	+0.8
TLL				i S	Sn	23 11 54.0	+1.8
TLL	Tololo Astrono	1.65	24	⇓iP	Pn	23 11 32.9	+0.8
TLL				i S	Sn	23 11 54.0	+1.8
TLL				AML	AML	23 11 59.0	
	comp=E,828nm,0.6s						
RCDM	Rinconada Maip	1.92	160	⇑iP	Pn	23 11 36.0	+0.3
RCDM				i S	Sn	23 11 59.5	+0.7
RCDM	Rinconada Maip	1.92	160	⇑iP	Pn	23 11 36.0	+0.3
RCDM				i S	Sn	23 11 59.5	+0.7
RCDM				AML	AML	23 12 02.8	
	comp=N,1µm,0.1s						
CLCH	Cerro Calan	1.93	153	eP	Pn	23 11 36.2	+0.4
CLCH				i S	Sn	23 11 59.7	+0.8
CLCH	Cerro Calan	1.93	153	eP	Pn	23 11 36.2	+0.4
CLCH				i S	Sn	23 11 59.7	+0.8
CLCH				AML	AML	23 12 04.5	
	comp=E,1µm,0.3s						
FCH	Farellones	1.97	147	⇑iP	Pn	23 11 39.0	+2.6
FCH				i S	Sn	23 12 03.8	+3.7
FCH				AML	AML	23 12 07.0	
	comp=N,756nm,0.2s						
TACH	Talagante	2.04	165	⇓iP	Pn	23 11 37.9	+0.5
TACH	Talagante	2.04	165	⇓iP	Pn	23 11 37.9	+0.5
ANTU	Antumapu	2.05	157	P	Pn	23 11 37.4	0.0
ANTU				S	Sn	23 12 02.0	+0.2
ANTU	Antumapu	2.05	157	⇑iP	Pn	23 11 37.4	0.0
ANTU				i S	Sn	23 12 02.0	+0.2
ANTU				AML	AML	23 12 03.6	
	comp=N,993nm,0.2s						
PCH	Pirque	2.13	155	⇓iP	Pn	23 11 39.1	+0.4
PCH				i S	Sn	23 12 04.9	+0.9
PCH	Pirque	2.13	155	⇓iP	Pn	23 11 39.1	+0.4
PCH				i S	Sn	23 12 04.9	+0.9
SJCH	San Jose de Ma	2.21	152	⇓iP	Pn	23 11 40.4	+0.7
SJCH				i S	Sn	23 12 07.0	+1.0
SJCH	San Jose de Ma	2.21	152	⇓iP	Pn	23 11 40.4	+0.7
SJCH				i S	Sn	23 12 07.0	+1.0
SJCH				AML	AML	23 12 08.0	
	comp=E,627nm,0.5s						
CHCH	Chadas Angostu	2.38	161	⇓iP	Pn	23 11 42.7	+0.7
CHCH				i S	Sn	23 12 11.2	+1.2
CHCH	Chadas Angostu	2.38	161	⇓iP	Pn	23 11 42.7	+0.7
CHCH				i S	Sn	23 12 11.2	+1.2
LMEL	Las Melosas	2.45	152	i P	Pn	23 11 44.2	+1.2
LMEL				i S	Sn	23 12 13.2	+1.3
LMEL	Las Melosas	2.45	152	i P	Pn	23 11 44.2	+1.2
LMEL				i S	Sn	23 12 13.2	+1.3
LMEL				AML	AML	23 12 17.8	
	comp=N,1µm,0.1s						
LCO	Las Campanas	2.77	16	ePn	Pn	23 11 47.9	+0.6
LCO				eSn	Sn	23 12 21.2	+1.7

ISK ***15*** *23:33:01.1, 37°.83N×30°.73E, h12^{km}, MD2.8*
CSEM ***15*** *23:33:01.9±0.4, 37°.84N×30°.73E, h5^{km}, MD2.8, Error ellipse: s-maj=8.1km s-min=3.7km az=94.0*
ISCJB ***15*** *23:33:02.2±0.6, 37°.83N±0°.03×30°.73E±0°.05, h10^{km}, Error ellipse: s-maj=5.7km s-min=4.5km az=18.8*
DDA ***15*** *23:33:03.2, 37°.84N×30°.73E, h7^{km}±6^{km}, Md3.0*
ISC 15 23:33:02.7±0.7**, 37°.81N**±0°.03×**30°.73E**±0°.05**, h0**^{km}±10^{km}**, n17, σ1^{s}43**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ISP	Isparta	0.18	280	PG	Pg	23 33 04.8	-1.3
ISP				eSG	Sg	23 33 08.2	-0.2
BCK	Bucak	0.37	198	ePG	Pg	23 33 09.6	-0.2
BCK				eSG	Sg	23 33 15.5	+1.0
BCK	Bucak	0.37	198	ePg	Pg	23 33 09.6	-0.1
BCK				eSg	Sg	23 33 15.5	+1.0
SHUT	Suhut-Afyon	0.75	349	ePG	Pg	23 33 15.9	-1.2
SHUT				eSG	Sg	23 33 26.7	-0.2
SHUT	Suhut-Afyon	0.75	349	ePg	Pg	23 33 15.9	-1.2
SHUT				eSg	Sg	23 33 26.7	-0.2
GOLH	Golhisar	1.09	239	eP	Pg	23 33 23.4	-0.2
GOLH				eS	Sg	23 33 41.2	+3.4
GOLH	Golhisar	1.09	239	eP	Pg	23 33 23.4	-0.2
GOLH				eS	Sg	23 33 41.2	+3.4
KHAL	Karahalli	1.12	300	eP	Pg	23 33 23.4	-0.9
KHAL				eS	Sg	23 33 40.9	+2.1
KHAL	Karahalli	1.12	300	eP	Pg	23 33 23.4	-0.9
KHAL				eS	Sg	23 33 40.9	+2.1
KONT	Konya--Tatoy	1.30	84	ePN	Pn	23 33 25.3	-2.7
KONT	Konya--Tatoy	1.30	84	ePn	Pn	23 33 25.3	-2.7
KDHN	Kadinhani	1.30	57	eP	Pg	23 33 27.3	-0.3
KDHN				eS	Sg	23 33 46.8	+2.3
KDHN	Kadinhani	1.30	57	eP	Pg	23 33 27.3	-0.3
KDHN				eS	Sg	23 33 46.8	+2.3
ALT	Altintas	1.33	339	ePN	Pn	23 33 25.8	-2.7
ALT	Altintas	1.33	339	ePn	Pn	23 33 25.8	-2.7
ESKT	Eskisehir	1.71	3	eP	Pn	23 33 34.2	+0.5
ESKT				eS	Sn	23 33 58.5	+2.4
SEYT	Eskypehyr	1.71	3	eP	Pn	23 33 34.2	+0.6
SEYT				eS	Sn	23 33 58.5	+2.4

IDC 15 23:36:35.2±1.8**, 8°.13S**×**68°.13E, h0**^{km}**, mb3.7**/7**, mb1 3.9**/7**, mb1mx3.6**/23**, mbtmp3.7**/7**, MS3.8**/2**, Ms1 3.9**/2**, ms1mx3.2**/34**, Error ellipse: s-maj=57.0km s-min=29.5km az=55.0, Chagos Archipelago region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	32.58	72	LR	LR	23 53 04.3	
	comp=Z,244nm,18.1s,baz=356,slow=30						
CMAR	Chiang Mai Arr	40.28	49	P	P	23 44 14.9	+0.6
	0.5nm,0.3s,baz=237,slow=9.1,SNR=4.9						
CMAR				LR	LR	23 58 25.7	
	comp=Z,69nm,19.4s,baz=205,slow=32						
MKAR	Makanchi Array	56.12	12	P	P	23 46 15.6	-0.7
	0.3nm,0.5s,baz=203,slow=12,SNR=7.1						
MKAR				PcP	PcP	23 47 13.7	-0.6
	0.3nm,0.7s,baz=203,slow=4.3,SNR=2.9						
ZALV	Zalesovo Beam	63.43	11	P	P	23 47 07.2	+0.7
	0.7nm,0.9s,baz=225,slow=1.8,SNR=2.2						
ASAR	Alice Springs	64.62	112	P	P	23 47 14.8	-0.3
	0.5nm,0.7s,baz=274,slow=5.6,SNR=4.2						
WRA	Warramunga Arr	64.95	108	P	P	23 47 17.4	+0.1
	0.4nm,0.6s,baz=283,slow=4.8,SNR=4.3						
SONM	Songino Array	65.17	27	P	P	23 47 17.9	-0.2
	2.2nm,1.1s,baz=214,slow=6.3,SNR=3.5						
ARCES	ARCESS Array B	82.84	346	P	P	23 49 01.1	0.0
	5.8nm,1.0s,baz=93,slow=2.0,SNR=5.3						
PDAR	Pinedale Array	145.45	357	PKPbc	PKPbc	23 56 15.2	-0.2
	0.4nm,0.5s,baz=100,slow=1.2,SNR=5.0						
NVAR	Mina Array Bea	149.28	10	PKPbc	PKPbc	23 56 26.8	+0.5
	0.2nm,0.3s,baz=308,slow=3.0,SNR=3.6						

IDC 15 23:42:24.3±4.8**, 24°.48N**×**141°.71E, h231**^{km}±159^{km}**, mb2.8**/3**, mb1 3.0**/4**, mb1mx2.8**/22**, mbtmp2.9**/4**, Error ellipse: s-maj=399.6km s-min=23.7km az=72.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.65	9	P	Pn	23 43 13.3	+1.7
	12nm,0.3s,baz=270,slow=20,SNR=3.0						
CBIJ				S	S	23 43 49.1	0.0
	23nm,0.3s,baz=269,slow=22,SNR=7.7						
WRA	Warramunga Arr	44.73	190	P	P	23 50 14.4	-0.4
	1.1nm,0.5s,baz=7.5,slow=8.6,SNR=18						
ASAR	Alice Springs	48.45	190	P	P	23 50 44.1	+0.5
	0.2nm,0.6s,baz=11,slow=11,SNR=2.7						
MKAR	Makanchi Array	51.84	311	P	P	23 51 08.8	+0.1
	0.3nm,1.0s,baz=84,slow=8.8,SNR=4.4						

IDC ***16*** *00:17:27.4±2.0, 43°.42N×105°.28W, h0^{km}, mb3.7/1, mb1 3.4/4, mb1mx3.3/23, mbtmp3.3/4, ML2.4/2, Error ellipse: s-maj=44.7km s-min=8.4km az=153.0*
ISCJB ***16*** *00:17:28.2±0.7, 43°.74N±0°.04×105°.12W±0°.09, h0^{km}, Error ellipse: s-maj=9.1km s-min=5.5km az=6.1*
NEIC ***16*** *00:17:29.7±0.7, 43°.79N×105°.28W, h0^{km}, ML2.9, Error ellipse: s-maj=10.3km s-min=7.9km az=138.0, Suspected Mining explosion.*
NEIC 60 km [35 miles] SSE of Gillette.
ISC 16 00:17:29.8±0.6**, 43°.73N**±0°.04×**105°.17W**±0°.08**, h0**^{km}**, n12, σ1^{s}02**/18**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.91	64	ePg	Pg	00 17 48.6	+1.5
PHWY	Pilot Hill	2.44	185	ePg	Pg	00 18 11.1	-5.4
PHWY				eSn	Sn	00 18 41.0	-0.3
RWWY	Rawlins	2.54	217	ePn	Pn	00 18 12.6	+0.5
RWWY				eSn	Sn	00 18 44.3	+0.6
LAO	LASA Array	3.05	346	ePn	Pn	00 18 18.6	-0.5
LAO				eSn	Sn	00 18 57.7	+1.3
RLMT	Red Lodge	3.25	297	ePn	Pn	00 18 21.3	-0.6
RLMT				eSn	Sn	00 19 02.9	+1.7
PDAR	Pinedale Array	3.35	255	Pn	Pn	00 18 22.6	-0.7
	2.2nm,0.3s,baz=75,slow=16,SNR=47						
PDAR				Pg	Pg	00 18 28.1	-5.9
	3.7nm,0.3s,baz=68,slow=20,SNR=35						
PDAR				Lg		00 19 07.6	
	5.2nm,0.3s,baz=81,slow=33,SNR=21						
ISCO	Idaho Springs	3.94	185	ePn	Pn	00 18 31.9	+0.4
ISCO				eSg	Sg	00 19 31.1	-5.3
DGMT	Dagmar	4.79	8	ePg	Pg	00 18 56.5	-4.9
EGMT	Eagleton	5.35	325	ePn	Pn	00 18 48.1	-2.7
	10nm,0.6s						
ULM	Lac du Bonnet	9.10	41	Pn	Pn	00 19 41.6	-0.6
	0.3nm,0.3s,baz=228,slow=13,SNR=3.1						
ULM				Pg	Pn	00 20 15.5	+33
	0.5nm,0.3s,baz=226,slow=17,SNR=3.1						
ULM				Lg		00 22 16.1	
	0.1nm,0.3s,baz=198,slow=20,SNR=2.7						
YKA	Yellowknife Ar	19.59	347	P	Pn	00 21 59.5	-0.8
	0.0nm,0.3s,baz=155,slow=12,SNR=3.4						
MKAR	Makanchi Array	89.62	355	P	P	00 30 28.6	-0.5
	0.4nm,0.8s,baz=15,slow=5.2,SNR=4.4						

IDC ***16*** *00:27:01.5±1.8, 8°.35S×110°.40E, h0^{km}, mb3.5/7, mb1 3.6/7, mb1mx3.5/20, mbtmp3.5/7, Error ellipse: s-maj=99.7km s-min=17.6km az=51.0*
NEIC ***16*** *00:27:04.4±1.2, 8°.98S×109°.65E, h35^{km}, Error ellipse: s-maj=32.2km s-min=17.5km az=57.0*
ISCJB ***16*** *00:27:06.0±1.0, 9°.11S±0°.08×109°.75E±0°.06, h65^{km}±11^{km}, mb3.4/7, Error ellipse: s-maj=13.9km s-min=9.5km az=0.5*
DJA ***16*** *00:27:06, 9°.12S×109°.82E, h30^{km}, MLv4.1/5*
ISC 16 00:27:07.2±1.0**, 9°.09S**±0°.08×**109°.77E**±0°.06**, h57**^{km}±11^{km}**, n18, σ1^{s}08**/23**, mb3.5**/7**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UGM	Wanagama	1.39	33	ePg	Pn	00 27 27.6	-2.7
UGM				eSg	Sn	00 27 43.5	-4.1
UGM	Wanagama	1.39	33	P	Pn	00 27 27.5	-2.8
UGM				S	Sn	00 27 45.4	-2.2
UGM	Wanagama	1.39	33	P	Sn	00 27 48.0	+0.4
CLJI	Cilicap	1.55	331	P	Pn	00 27 32.7	+0.2
CLJI				S	Sn	00 27 52.2	+0.7
SMRI	Semarang	2.13	18	P	Pn	00 27 41.3	+0.9
SMRI				S	Sn	00 28 09.0	+3.2
SMRI	Semarang	2.13	18	P	Pn	00 27 41.2	+0.8
PWJI	Pagerwojo	2.28	62	P	Pn	00 27 41.8	-0.6
SJI	Sawahan	2.39	56	P	Pn	00 27 42.9	-1.1
SJI				S	Sn	00 28 13.2	+1.0
SJI	Sawahan	2.39	56	P	Pn	00 27 43.0	-1.0
XMIS	Christmas Isla	4.28	251	P	Pn	00 28 09.9	0.0
WRA	Warramunga Arr	26.08	117	P	P	00 32 35.5	-0.2
	0.6nm,0.6s,mb3.3,baz=291,slow=11,SNR=7.1						
ASAR	Alice Springs	27.26	125	P	P	00 32 47.9	+1.6
	0.3nm,0.6s,mb3.0,baz=299,slow=9.0,SNR=3.4						
STKA	Stephens Creek	37.22	132	P	P	00 34 13.8	+0.6
	1.2nm,0.5s,mb4.0,baz=311,slow=8.1,SNR=4.0						
SONM	Songino Array	56.75	357	P	P	00 36 41.0	-4.2
	0.2nm,0.7s,mb3.3,baz=179,slow=8.0,SNR=2.5						
MKAR	Makanchi Array	60.79	339	P	P	00 37 12.8	-0.4
	0.3nm,0.4s,mb3.8,baz=152,slow=7.7,SNR=16						
MKAR	Makanchi Array	60.79	339	P	P	00 37 12.8	-0.4
KURK	Kurchatov	65.40	339	P	P	00 37 42.9	-0.9
	0.2nm,0.4s,mb3.5,baz=154,slow=5.9,SNR=3.2						
BVAR	Borovoye Array	70.36	336	P	P	00 38 14.6	-0.2
	0.3nm,0.4s,mb3.5,baz=140,slow=5.6,SNR=4.0						

ISCJB ***16*** *00:47:02.5±0.5, 33°.32N±0°.02×35°.39E±0°.04, h6^{km}±4^{km}, Error ellipse: s-maj=6.0km s-min=3.5km az=28.8*
CSEM ***16*** *00:47:02.6±0.2, 33°.32N×35°.37E, h2^{km}, ML3.0, Error ellipse: s-maj=5.6km s-min=2.3km az=95.0*
GRAL ***16*** *00:47:03.4±0.3, 33°.31N×35°.40E, h0^{km}±123^{km}, MD3.0*
GII ***16*** *00:47:03.0±0.5, 33°.24N×35°.44E, h2^{km}±1^{km}, Md2.6/7*
ISC 16 00:47:03.0±0.5**, 33°.33N**±0°.02×**35°.40E**±0°.04**, h5**^{km}±4^{km}**, n29, σ0^{s}56**/42**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	340	eP	Pg	00 47 06.8	+0.3
MATL	Matirih	0.17	340	eP	Pg	00 47 06.8	+0.4
KSDI	Kefar Szold	0.26	122	Pg	Pg	00 47 07.7	-0.3
KSDI				Sg	Sg	00 47 11.8	+0.4
HRI	Mount Hermon	0.29	102	Pg	Pg	00 47 08.6	0.0
HRI				Sg	Sg	00 47 13.3	+0.9
HNTI	Hanita	0.31	218	Pg	Pg	00 47 09.4	+0.4
HNTI				Sg	Sg	00 47 13.8	+0.8
MMA0B	Mount Meron ar	0.31	179	Pg	Pg	00 47 08.7	-0.4
MMA0B				Sg	Sg	00 47 13.2	+0.1
MMA4	Mount Meron ar	0.31	180	Pg	Pg	00 47 08.7	-0.4
RCY	Rachaya	0.39	66	eP	Pg	00 47 10.8	+0.3
RCY				eS	Sg	00 47 16.1	+0.5
RCY	Rachaya	0.39	66	eP	Pg	00 47 10.8	+0.3
RCY				eS	Sg	00 47 16.1	+0.6
BEYL	Beyrouth	0.55	8	eP	Pg	00 47 13.7	+0.1
BEYL	Beyrouth	0.55	8	eP	Pg	00 47 13.7	+0.1
BHL	Bhannes	0.61	20	eP	Pg	00 47 14.6	-0.3
BHL	Bhannes	0.61	20	eP	Pg	00 47 14.6	-0.2
BLGI	Bet Lehem HaGe	0.62	196	Pg	Pg	00 47 14.6	-0.3
BLGI				Sg	Sg	00 47 23.9	+1.0
OFRI	‘Ofer	0.79	206	Pg	Pg	00 47 17.6	-0.5
OFRI				Sg	Sg	00 47 29.6	+1.3
MMLI	Mount Malkishu	0.89	179	Pg	Pg	00 47 19.2	-0.9
MMLI				Sg	Sg	00 47 31.1	-0.5
HWQ	Hawqa	1.05	26	eP	Pg	00 47 22.6	-0.7
HWQ	Hawqa	1.05	26	eP	Pg	00 47 22.5	-0.7
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	00 47 22.4	-1.3
HMDT				Sg	Sg	00 47 37.3	-0.4
SLTI	Sal’it	1.12	196	Pg	Pg	00 47 23.8	-0.8
SLTI				Sg	Sg	00 47 39.1	-0.1
DSI	Dead Sea	1.75	180	Pn	Pn	00 47 33.3	-0.8
DSI				Sn	Sn	00 47 56.8	0.0
YTIR	Yattir	1.97	187	Pn	Pn	00 47 37.2	+0.1
MZDA	Masada	2.01	181	Pn	Pn	00 47 37.6	-0.1
MZDA				Sn	Sn	00 48 03.6	+0.4
RTMI	Retamim	2.34	195	Pn	Pn	00 47 42.3	+0.1
KZIT	Kziot	2.56	200	Pn	Pn	00 47 45.6	+0.4
ZFRI	Zfri	2.77	184	Pn	Pn	00 47 47.8	-0.3
RMNI	Mount Ramon	2.78	191	Pn	Pn	00 47 48.6	+0.4
PRNI	Paran	2.99	187	Pn	Pn	00 47 50.8	-0.2
KRMI	Paran Flat	3.25	190	Pn	Pn	00 47 55.3	+0.6

ISCJB ***16*** *00:51:18.9±0.5, 33°.32N±0°.03×35°.40E±0°.05, h6^{km}±6^{km}, Error ellipse: s-maj=7.0km s-min=3.8km az=22.0*
CSEM ***16*** *00:51:19.7, 33°.31N×35°.40E, h9^{km}, ML2.9, After GRAL*
GII ***16*** *00:51:19.6±0.6, 33°.24N×35°.42E, h2^{km}±1^{km}, Md2.1/5*
GRAL ***16*** *00:51:19.7±0.3, 33°.31N×35°.40E, h9^{km}±2^{km}, MD2.9*
ISC 16 00:51:19.4±0.5**, 33°.33N**±0°.03×**35°.40E**±0°.05**, h6**^{km}±6^{km}**, n22, σ0^{s}53**/32**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	340	eP	Pg	00 51 23.3	+0.5
MATL	Matirih	0.17	340	eP	Pg	00 51 23.3	+0.5
KSDI	Kefar Szold	0.26	122	Pg	Pg	00 51 24.2	-0.2
KSDI				Sg	Sg	00 51 28.3	+0.5
MMC1	Mount Meron ar	0.30	179	Pg	Pg	00 51 24.9	-0.2
HNTI	Hanita	0.31	218	Pg	Pg	00 51 25.5	+0.2
HNTI				Sg	Sg	00 51 30.6	+1.2
MMA0B	Mount Meron ar	0.31	179	Pg	Pg	00 51 25.2	-0.2
MMA0B				Sg	Sg	00 51 29.6	+0.1
RCY	Rachaya	0.39	66	eP	Pg	00 51 27.3	+0.4
RCY				eS	Sg	00 51 32.6	+0.7
RCY	Rachaya	0.39	66	eP	Pg	00 51 27.3	+0.5
RCY				eS	Sg	00 51 32.6	+0.7
BEYL	Beyrouth	0.55	8	eP	Pg	00 51 29.9	0.0
BEYL	Beyrouth	0.55	8	eP	Pg	00 51 29.9	0.0
BHL	Bhannes	0.61	20	eP	Pg	00 51 31.1	0.0
BHL	Bhannes	0.61	20	eP	Pg	00 51 31.1	-0.1
BLGI	Bet Lehem HaGe	0.62	196	Pg	Pg	00 51 31.1	-0.1
BLGI				Sg	Sg	00 51 39.5	+0.2
OFRI	‘Ofer	0.79	206	Pg	Pg	00 51 34.2	-0.2
MMLI	Mount Malkishu	0.89	179	Pg	Pg	00 51 35.7	-0.7
MMLI				Sg	Sg	00 51 47.8	-0.1
HWQ	Hawqa	1.05	26	eP	Pg	00 51 38.4	-1.1
HWQ	Hawqa	1.05	26	eP	Pg	00 51 38.4	-1.1
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	00 51 38.9	-1.1
HMDT				Sg	Sg	00 51 54.0	0.0
SLTI	Sal’it	1.13	196	Pg	Pg	00 51 40.3	-0.6
SLTI				Sg	Sg	00 51 55.7	+0.2
DSI	Dead Sea	1.75	180	Pn	Pn	00 51 49.8	-0.5
DSI				Sn	Sn	00 52 13.3	+0.4
MZDA	Masada	2.01	181	Pn	Pn	00 51 53.9	+0.1
RTMI	Retamim	2.34	195	Pn	Pn	00 51 59.1	+0.7

NEIC ***16*** *01:03:43.7, 31°.19S×67°.50W, h150^{km}, MD4.2(GUC), After GUC.*
GUC 16 01:03:43.7±0.5**, 31°.19S**×**67°.50W, h150**^{km}**, MD4.0, ML4.5, 4C, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	3.00	269	i P	Pn	01 04 29.2	-1.8
CMCH				i S	Sn	01 05 05.9	-1.7
CMCH	Combarbala	3.00	269	i P	Pn	01 04 29.2	-1.8
CMCH				i S	Sn	01 05 05.9	-1.7
CMCH				AML	AML	01 05 10.4	
	comp=E,4µm,0.6s						
JACH	Jahuel	3.02	240	i P	Pn	01 04 32.3	+1.0
JACH				i S	Sn	01 05 09.2	+1.1
JACH	Jahuel	3.02	240	i P	Pn	01 04 32.3	+1.0
JACH				i S	Sn	01 05 09.2	+1.1
TLL	Tololo Astrono	3.02	289	i P	Pn	01 04 32.5	+1.1

TLL				iS	Sn	01 05 09.3	+1.2
TLL	Tololo Astrono	3.02	289	iP	Pn	01 04 32.5	+1.1
TLL				iS	Sn	01 05 09.3	+1.2
TLL				AML	AML	01 05 17.5	
	comp=N,295nm,0.5s						
PEL	Peldehue	3.33	233	⇑iP	Pn	01 04 36.0	+0.8
PEL				iS	Sn	01 05 15.7	+0.5
PEL				AML	AML	01 05 21.8	
	comp=E,645nm,0.4s						
CLCH	Cerro Calan	3.38	229	AML	AML	01 05 25.7	
	comp=N,793nm,0.5s						
CHNG	Los Chungos	3.48	257	⇑iP	Pn	01 04 36.5	-0.7
CHNG				iS	Sn	01 05 17.8	-0.9
CHNG				AML	AML	01 05 23.1	
	comp=N,482nm,0.7s						
PCH	Pirque	3.52	226	⇑iP	Pn	01 04 38.7	+1.0
PCH				iS	Sn	01 05 20.2	+0.7
PCH	Pirque	3.52	226	⇑iP	Pn	01 04 38.7	+1.0
PCH				iS	Sn	01 05 20.2	+0.7
LCO	Las Campanas	3.52	307	iP	Pn	01 04 39.0	+1.3
LCO				eS	Sn	01 05 21.4	+1.8
LCO	Las Campanas	3.52	307	iP	Pn	01 04 39.0	+1.3
LCO				eS	Sn	01 05 21.4	+1.8
LCO				AML	AML	01 05 26.7	
	comp=E,413nm,0.2s						
RCDM	Rinconada Maip	3.62	230	eP	Pn	01 04 40.1	+1.2
RCDM				iS	Sn	01 05 22.6	+0.8
RCDM	Rinconada Maip	3.62	230	eP	Pn	01 04 40.1	+1.2
RCDM				iS	Sn	01 05 22.6	+0.8
RCDM				AML	AML	01 05 31.0	
	comp=E,249nm,0.7s						
TACH	Talagante	3.81	229	iP	Pn	01 04 42.3	+0.9
TACH				iS	Sn	01 05 26.7	+0.5
TACH	Talagante	3.81	229	iP	Pn	01 04 42.3	+0.9
TACH				iS	Sn	01 05 26.7	+0.5

*ISCJB **16** 01:06:16.6±0.5, 33°.32N±0°.03×35°.38E±0°.05, h4^{km}±4^{km}, Error ellipse: s-maj=6.7km s-min=3.7km az=22.9*
*CSEM **16** 01:06:16.7±0.2, 33°.32N×35°.38E, h5^{km}, ML3.1, Error ellipse: s-maj=6.0km s-min=2.2km az=94.0*
*GII **16** 01:06:16.9±0.6, 33°.24N×35°.42E, h1^{km}±1^{km}, Md2.5/12*
*GRAL **16** 01:06:17.5±0.3, 33°.30N×35°.40E, h0^{km}±84^{km}, MD3.1*
ISC 16 01:06:17.1±0.5, 33°.33N±0°.03×35°.39E±0°.05, h4^{km}±4^{km}, n27, σ0^{s}.52/38, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	344	eP	Pg	01 06 21.0	+0.6
MATL	Matirih	0.17	344	eP	Pg	01 06 21.0	+0.6
KSDI	Kefar Szold	0.27	121	Pg	Pg	01 06 21.9	-0.3
KSDI				Sg	Sg	01 06 26.1	+0.4
HRI	Mount Hermon	0.30	102	Pg	Pg	01 06 23.4	+0.5
HNTI	Hanita	0.30	216	Pg	Pg	01 06 23.0	+0.1
HNTI				Sg	Sg	01 06 28.0	+1.1
MMA0B	Mount Meron ar	0.31	177	Pg	Pg	01 06 22.7	-0.4
MMA0B				Sg	Sg	01 06 27.4	+0.2
RCY	Rachaya	0.39	67	eP	Pg	01 06 24.9	+0.2
RCY				eS	Sg	01 06 30.3	+0.5
RCY	Rachaya	0.39	67	eP	Pg	01 06 24.9	+0.2
RCY				eS	Sg	01 06 30.3	+0.5
BEYL	Beyrouth	0.55	9	eP	Pg	01 06 27.8	+0.1
BEYL	Beyrouth	0.55	9	eP	Pg	01 06 27.8	+0.1
BHL	Bhannes	0.61	21	eP	Pg	01 06 28.8	-0.1
BHL	Bhannes	0.61	21	eP	Pg	01 06 28.8	-0.1
BLGI	Bet Lehem HaGe	0.62	195	Pg	Pg	01 06 28.8	-0.1
BLGI				Sg	Sg	01 06 37.3	+0.4
OFRI	‘Ofer	0.78	206	Pg	Pg	01 06 31.8	-0.3
MMLI	Mount Malkishu	0.89	178	Pg	Pg	01 06 33.2	-0.9
MMLI				Sg	Sg	01 06 45.0	-0.7
HWQ	Hawqa	1.06	26	eP	Pg	01 06 36.8	-0.6
HWQ	Hawqa	1.06	26	eP	Pg	01 06 36.8	-0.6
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	01 06 36.6	-1.2
HMDT				Sg	Sg	01 06 52.5	+0.7
SLTI	Sal’it	1.12	195	Pg	Pg	01 06 38.1	-0.5
SLTI				Sg	Sg	01 06 53.4	+0.2
DSI	Dead Sea	1.75	180	Pn	Pn	01 06 47.4	-0.9
DSI				Sn	Sn	01 07 11.4	+0.4
YTIR	Yattir	1.97	187	Pn	Pn	01 06 51.3	0.0
MZDA	Masada	2.01	181	Pn	Pn	01 06 51.6	-0.2
MZDA				Sn	Sn	01 07 18.2	+0.8
RTMI	Retamim	2.34	195	Pn	Pn	01 06 56.5	+0.1
ZFRI	Zfri	2.77	184	Pn	Pn	01 07 02.0	-0.3
RMNI	Mount Ramon	2.77	191	Pn	Pn	01 07 02.2	-0.1
PRNI	Paran	2.99	186	Pn	Pn	01 07 05.0	-0.2
KRMI	Paran Flat	3.25	190	Pn	Pn	01 07 09.3	+0.4

*IDC **16** 01:09:09.1±2.6, 9°.00S×113°.78E, h0^{km}, mb3.4/5, mb1 3.5/5, mb1mx3.4/18, mbtmp3.4/5, Error ellipse: s-maj=132.3km s-min=21.2km az=51.0*
*ISCJB **16** 01:09:17.5±1.1, 9°.3S±0°.1×113°.53E±0°.05, h95^{km}±10^{km}, mb3.3/5, Error ellipse: s-maj=21.9km s-min=7.5km az=9.9*
*DJA **16** 01:09:18, 9°.18S×113°.56E, h101^{km}, MLv3.8/5*
ISC 16 01:09:17.7±1.1, 9°.4S±0°.1×113°.52E±0°.05, h81^{km}±11^{km}, n12, σ0^{s}.90/16, mb3.3/5, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBBI	Negara	1.46	48	P	Pn	01 09 42.8	+0.3
NBBI				S	Sn	01 10 02.5	+1.2
KRKI	Karangkates	1.59	318	P	Pn	01 09 43.9	-0.3
KRKI				S	Sn	01 10 04.0	-0.3
DNP	Denpasar	1.80	68	P	Pn	01 09 46.8	-0.1
DNP				S	Sn	01 10 10.5	+1.3
KHKI	Kahang-Kahang	2.29	65	P	Pn	01 09 52.2	-1.2
KHKI				S	Sn	01 10 19.5	-1.2
KMMI	Kalianget	2.33	11	P	Pn	01 09 52.7	-1.4
SJI	Sawahan	2.37	313	P	Pn	01 09 55.9	+1.4
UGM	Wanagama	3.29	296	P	Pn	01 10 06.9	-0.1
WRA	Warramunga Arr	22.70	120	P	P	01 14 11.6	-1.1
	0.4nm,0.6s,mb2.9,baz=299,slow=11,SNR=3.5						
ASAR	Alice Springs	24.12	129	P	P	01 14 27.3	+1.2
	0.3nm,0.6s,mb2.8,baz=300,slow=8.8,SNR=3.3						
SONM	Songino Array	57.29	354	P	P	01 18 57.3	+0.5
	0.5nm,0.4s,mb3.9,baz=171,slow=8.3,SNR=6.8						
MKAR	Makanchi Array	62.46	336	P	P	01 19 32.3	0.0
	0.4nm,0.6s,mb3.6,baz=156,slow=6.8,SNR=6.8						
ZALV	Zalesovo Beam	67.58	342	P	P	01 20 05.3	-0.1
	0.2nm,0.4s,mb3.3,baz=167,slow=7.1,SNR=2.4						

*ISCJB **16** 01:20:13.6±0.6, 33°.33N±0°.03×35°.41E±0°.05, h10^{km}, Error ellipse: s-maj=6.7km s-min=3.8km az=18.2*
*CSEM **16** 01:20:14.9, 33°.32N×35°.43E, h0^{km}, ML2.8, After GRAL*
*GRAL **16** 01:20:14.9±0.4, 33°.32N×35°.43E, h0^{km}±160^{km}, MD2.8*
*GII **16** 01:20:14.1±0.5, 33°.28N×35°.42E, h5^{km}±1^{km}, Md2.0/7*
ISC 16 01:20:13.9±0.7, 33°.34N±0°.03×35°.42E±0°.06, h15^{km}±8^{km}, n18, σ0^{s}.46/25, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	334	eP	Pg	01 20 18.2	+0.2
MATL	Matirih	0.17	334	eP	Pg	01 20 18.2	+0.2
KSDI	Kefar Szold	0.25	126	Pg	Pg	01 20 18.9	-0.4
KSDI				Sg	Sg	01 20 23.5	+0.5
MMA0B	Mount Meron ar	0.32	182	Pg	Pg	01 20 20.5	-0.1
MMA0B				Sg	Sg	01 20 25.2	+0.2
MMA4	Mount Meron ar	0.32	183	Pg	Pg	01 20 20.2	-0.4
HNTI	Hanita	0.33	219	Pg	Pg	01 20 20.3	-0.3
HNTI				Sg	Sg	01 20 25.8	+0.6
RCY	Rachaya	0.37	66	eP	Pg	01 20 21.6	+0.2
RCY	Rachaya	0.37	66	eP	Pg	01 20 21.6	+0.2
BHL	Bhannes	0.60	19	eP	Pg	01 20 25.8	+0.1
BHL	Bhannes	0.60	19	eP	Pg	01 20 25.8	+0.2
BLGI	Bet Lehem HaGe	0.63	198	Pg	Pg	01 20 26.1	-0.2
BLGI				Sg	Sg	01 20 35.3	+0.6
OFRI	‘Ofer	0.80	207	Pg	Pg	01 20 29.3	-0.2
MMLI	Mount Malkishu	0.90	180	Pg	Pg	01 20 30.7	-0.6
MMLI				Sg	Sg	01 20 42.8	-0.3
HWQ	Hawqa	1.03	25	eP	Pg	01 20 33.8	-0.1
HWQ	Hawqa	1.03	25	eP	Pg	01 20 33.8	-0.1
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	01 20 34.0	-0.9
HMDT				Sg	Sg	01 20 49.5	+0.4
SLTI	Sal’it	1.14	196	Pg	Pg	01 20 35.3	-0.6
SLTI				Sg	Sg	01 20 50.8	0.0
DSI	Dead Sea	1.76	181	Pn	Pn	01 20 44.9	+1.0

*CSEM **16** 01:28:42.5±0.7, 36°.34N×21°.69E, h8^{km}, MD3.4, Error ellipse: s-maj=15.7km s-min=8.4km az=33.0*
*THE **16** 01:28:43.1, 36°.39N×21°.68E, h0^{km}±5^{km}, ML3.5/2, Error ellipse: s-maj=7.7km s-min=3.0km az=225.0*
*ISCJB **16** 01:28:44.5±1.4, 36°.51N±0°.05×21°.78E±0°.07, h10^{km}±7^{km}, Error ellipse: s-maj=11.4km s-min=7.3km az=139.8*
*NEIC **16** 01:28:44.8, 36°.53N×21°.77E, h27^{km}, MD3.4(ATH), After ATH.*
*ATH **16** 01:28:44.7, 36°.53N×21°.76E, h27^{km}, MD3.4/3*
ISC 16 01:28:44.6±1.6, 36°.48N±0°.06×21°.75E±0°.08, h9^{km}±8^{km}, n44, σ0^{s}.73/55, 3C, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.42	359	P	Pg	01 28 53.4	+0.6
PYL				S	Sg	01 28 59.5	+1.2
PYL	PYLOS	0.42	359	⇑iPB	Pg	01 28 53.4	+0.6
PYL				eSB	Sg	01 28 59.0	+0.7
PYL	PYLOS	0.42	359	⇑iPb	Pg	01 28 53.4	+0.6
PYL				eSb	Sg	01 28 59.0	+0.7
ITM	Ithomi	0.71	12	⇑iPN	Pg	01 28 57.9	-0.5
ITM				eSN	Sg	01 29 08.1	+0.3
VLI	Veliai	0.99	76	ePN	Pg	01 29 03.8	+0.2
VLI	Veliai	0.99	76	ePn	Pg	01 29 03.8	+0.2
VLX	Vlachokerasia	1.02	29	ePN	Pg	01 29 03.3	-1.0
VLX				eSN	Sg	01 29 17.3	-0.3
VLX	Vlachokerasia	1.02	29	ePn	Pg	01 29 03.3	-1.0
KYTH	Kithira	1.06	100	ePN	Pg	01 29 05.0	+0.1
KYTH	Kithira	1.06	100	ePn	Pg	01 29 05.0	+0.1
GUR	Goura	1.53	18	ePN	Pn	01 29 12.3	+0.2
GUR	Goura	1.53	18	ePn	Pn	01 29 12.3	+0.2
DID	Didima	1.57	49	P	Pn	01 29 12.0	-0.7
DID				S	Sg	01 29 35.9	+0.7
DID	Didima	1.57	49	ePN	Pn	01 29 12.3	-0.4
DID	Didima	1.57	49	ePn	Pn	01 29 12.3	-0.4
DID				S	Sg	01 29 35.9	+0.7
RLS	Riolos of Patr	1.59	352	ePN	Pn	01 29 13.2	+0.3
RLS	Riolos of Patr	1.59	352	ePn	Pn	01 29 13.2	+0.3
LAKA	Lakka	1.77	6	P	Pn	01 29 16.2	+0.8
LAKA				S	Sg	01 29 41.2	-0.3
LAKA	Lakka	1.77	6	P	Pn	01 29 16.2	+0.8
LAKA				S	Sg	01 29 41.2	-0.3
LTK	Loutraki	1.82	32	ePN	Pn	01 29 15.6	-0.5
LTK	Loutraki	1.82	32	ePn	Pn	01 29 15.6	-0.5
NAIG	Nisos Aigina	1.89	47	ePN	Pn	01 29 16.7	-0.3
NAIG	Nisos Aigina	1.89	47	ePn	Pn	01 29 16.7	-0.3
TRIZ	Trizonia	1.90	8	P	Pn	01 29 18.6	+1.4
TRIZ				S	Sg	01 29 44.7	-1.0
TRIZ	Trizonia	1.90	8	P	Pn	01 29 18.6	+1.4
TRIZ				S	Sg	01 29 44.7	-1.0
VLS	Valsamata	1.93	332	ePB	Pn	01 29 17.3	-0.3
VLS	Valsamata	1.93	332	P	Pn	01 29 17.3	-0.3
EFP	Efpalio	1.95	4	ePN	Pn	01 29 18.2	+0.3
EFP	Efpalio	1.95	4	ePn	Pn	01 29 18.2	+0.3
LKR	Lokris	2.39	24	ePN	Pn	01 29 22.8	-1.0
LKR	Lokris	2.39	24	ePn	Pn	01 29 22.8	-1.0
AGG	Agios Georgios	2.58	10	P	Pn	01 29 28.1	+1.6
AGG	Agios Georgios	2.58	10	P	Pn	01 29 28.1	+1.6
THL	Klokotos Trika	3.09	4	ePN	Pn	01 29 33.3	-0.2
THL	Klokotos Trika	3.09	4	ePn	Pn	01 29 33.3	-0.2
IGT	Igoumenitsa	3.25	340	P	Pn	01 29 34.8	-0.9
	30nm,0.4s						
IGT	Igoumenitsa	3.25	340	P	Pn	01 29 34.8	-0.9
	30nm,0.4s						
MEV	Metsovon	3.33	353	P	Pn	01 29 37.8	+1.0
MEV	Metsovon	3.33	353	P	Pn	01 29 37.8	+1.0
KEK	Kerkira	3.58	335	ePN	Pn	01 29 40.3	+0.1
KEK	Kerkira	3.58	335	ePn	Pn	01 29 39.3	-0.9
KEK	Kerkira	3.58	335	ePn	Pn	01 29 39.3	-0.9
FNA	Florina	4.31	356	P	Pn	01 29 49.5	-0.8
FNA	Florina	4.31	356	P	Pn	01 29 49.5	-0.8

IDC 16 01:39:39.4±1.9, 1°.05N×125°.79E, h0^{km}, mb3.0/3, mb1 3.3/3, mb1mx3.2/18, mbtmp3.1/3, Error ellipse: s-maj=184.2km s-min=24.8km az=65.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.48	159	P	P	01 44 40.5	0.0
	0.4nm,0.5s,baz=337,slow=11,SNR=8.7						
ASAR	Alice Springs	25.80	163	P	P	01 45 12.4	+0.1
	0.2nm,0.3s,baz=342,slow=11,SNR=3.2						
MKAR	Makanchi Array	59.24	327	P	P	01 49 42.6	+0.1
	0.1nm,0.4s,baz=114,slow=7.9,SNR=2.9						

*ISCJB **16** 01:42:30.2±0.6, 33°.32N±0°.03×35°.42E±0°.05, h4^{km}±6^{km}, Error ellipse: s-maj=7.1km s-min=4.1km az=31.4*
*GRAL **16** 01:42:30.7±0.3, 33°.31N×35°.40E, h5^{km}±12^{km}, MD2.6*
*CSEM **16** 01:42:30.7, 33°.31N×35°.40E, h5^{km}, ML2.6*
*GII **16** 01:42:30.2±0.6, 33°.24N×35°.44E, h1^{km}±1^{km}, Md2.0/6*
ISC 16 01:42:30.5±0.6, 33°.33N±0°.03×35°.42E±0°.05, h4^{km}±6^{km}, n18, σ0^{s}.65/30, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	335	eP	Pg	01 42 34.2	+0.2
MATL	Matirih	0.17	335	eP	Pg	01 42 34.2	+0.2
KSDI	Kefar Szold	0.24	124	Pg	Pg	01 42 34.9	-0.4
KSDI				Sg	Sg	01 42 38.7	+0.2
MMC1	Mount Meron ar	0.30	182	Pg	Pg	01 42 35.7	-0.6
MMA0B	Mount Meron ar	0.32	182	Pg	Pg	01 42 36.1	-0.5
MMA0B				Sg	Sg	01 42 41.1	+0.4
MMA4	Mount Meron ar	0.32	183	Pg	Pg	01 42 36.1	-0.5
HNTI	Hanita	0.32	220	Pg	Pg	01 42 37.0	+0.3
HNTI				Sg	Sg	01 42 41.3	+0.4
RCY	Rachaya	0.37	65	eP	Pg	01 42 38.0	+0.3
RCY				eS	Sg	01 42 43.5	+1.0
RCY	Rachaya	0.37	65	eP	Pg	01 42 38.0	+0.3
RCY				eS	Sg	01 42 43.5	+1.0
BHL	Bhannes	0.60	19	eP	Pg	01 42 42.1	0.0
BHL	Bhannes	0.60	19	eP	Pg	01 42 42.1	-0.1
BLGI	Bet Lehem HaGe	0.62	198	Pg	Pg	01 42 42.3	-0.2
BLGI				Sg	Sg	01 42 52.0	+1.3
OFRI	‘Ofer	0.80	207	Pg	Pg	01 42 45.4	-0.4
OFRI				Sg	Sg	01 42 57.5	+1.4
MMLI	Mount Malkishu	0.89	180	Pg	Pg	01 42 46.7	-0.9
MMLI				Sg	Sg	01 42 58.9	-0.3
HMDT	Nahal Hemdat	1.08	175	Pg	Pg	01 42 50.0	-1.2
HMDT				Sg	Sg	01 43 05.8	+0.6
SLTI	Sal’it	1.13	196	Pg	Pg	01 42 51.4	-0.9
SLTI				Sg	Sg	01 43 06.8	-0.1
DSI	Dead Sea	1.76	181	Pn	Pn	01 43 01.0	-0.7
DSI				Sn	Sn	01 43 25.1	+0.6
MZDA	Masada	2.02	181	Pn	Pn	01 43 05.4	+0.1
MZDA				Sn	Sn	01 43 31.1	+0.1

*ISCJB **16** 01:46:55.8±0.3, 51°.53N±0°.02×6°.93E±0°.04, h0^{km}, Error ellipse: s-maj=3.5km s-min=2.8km az=5.9*
*LDG **16** 01:46:56.5±0.2, 51°.66N×7°.01E, h1^{km}, Md3.7/1, Ml2.5/15, Error ellipse: s-maj=3.1km s-min=2.0km az=28.0, Suspected Mining induced.*
*CSEM **16** 01:46:56.6±0.2, 51°.58N×6°.95E, h2^{km}, ML2.4/7, Error ellipse: s-maj=5.0km s-min=4.6km az=104.0*
*NEIC **16** 01:46:56.5, 51°.66N×7°.01E, h1^{km}, ML2.5(LDG), After LDG.*
*BUG **16** 01:46:56.6, 51°.61N×7°.02E, h1^{km}, ML1.3*
*BNS **16** 01:46:56.5±0.6, 51°.66N×6°.98E, h1^{km}, ML1.8*
*BGR **16** 01:46:59.0±0.5, 51°.57N×7°.13E, h1^{km}, ML2.1/5, Error ellipse: s-maj=5.6km s-min=4.4km az=112.0*
ISC 16 01:46:56.5±0.3, 51°.56N±0°.02×6°.96E±0°.03, h0^{km}, n84, σ1^{s}.27/128, 2C, Germany

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BZER	Hlnxe	0.08	316	Pg	Pg	01 46 58.8	+0.8
BZER				Sg	Sg	01 47 00.9	+1.9
BZER	Hlnxe	0.08	316	Pg	Pg	01 46 58.8	+0.8
BZER				Sg	Sg	01 47 00.9	+1.9
LAUG	Laupendahl	0.21	182	ePg	Pg	01 47 02.5	+1.9
LAUG	Laupendahl	0.21	182	Pg	Pg	01 47 02.5	+1.9
BUG	Bochum--Univer	0.23	122	ePg	Pg	01 47 02.5	+1.5
	SNR=21						
BUG				eSg	Sg	01 47 04.7	+0.8
	SNR=27						
WTSB	Winterswijk	0.41	346	ePg	Pg	01 47 03.9	-0.6
	12nm,0.4s						
WTSB				iSg	Sg	01 47 09.1	-0.7
BNS	Bensberg	0.62	167	ePg	Pg	01 47 09.6	+1.3
BNS	Bensberg	0.62	167	Pg	Pg	01 47 09.6	+1.3
HOBG	Hohbusch	0.63	158	ePg	Pg	01 47 10.3	+1.8
HOBG	Hohbusch	0.63	158	Pg	Pg	01 47 10.3	+1.8
IBBN	Ibbenburen	0.89	33	ePg	Pg	01 47 14.3	+0.7
	SNR=4.0						
IBBN				eSg	Sg	01 47 26.2	+0.9
	SNR=1.6						
IBBN	Ibbenburen	0.89	33	Pg	Pg	01 47 14.3	+0.7
	SNR=4.0						
IBBN				Sg	Sg	01 47 26.2	+1.0
	SNR=1.6						
STB	Steinbach	0.97	184	ePg	Pg	01 47 16.9	+1.7
STB				eSg	Sg	01 47 31.7	+3.9
	26nm,0.4s						
STB	Steinbach	0.97	184	Pg	Pg	01 47 16.9	+1.7
STB				Sg	Sg	01 47 31.7	+3.9
	26nm,0.4s						
KLL	Kalltalsperre	1.00	204	ePg	Pg	01 47 17.1	+1.4
KLL	Kalltalsperre	1.00	204	Pg	Pg	01 47 17.1	+1.4
DREG	Dreilaegerbach	1.01	207	ePg	Pg	01 47 17.1	+1.3
DREG	Dreilaegerbach	1.01	207	Pg	Pg	01 47 17.1	+1.2
HGN	Heimansgroeve	1.03	219	ePn	Pg	01 47 17.6	+1.3
	5.4nm,0.3s						
HGN	Heimansgroeve	1.03	219	⇑iPg	Pg	01 47 18.0	+1.8
	10.0nm,0.1s						
HGN				eSg	Sg	01 47 34.1	+4.6
HGN	Heimansgroeve	1.03	219	⇑iPg	Pg	01 47 18.0	+1.8
	10.0nm,0.1s						
HGN				eSg	Sg	01 47 34.1	+4.6
BEBN	Eben Emael	1.11	227	P	Pn	01 47 19.1	-0.2
BEBN	Eben Emael	1.11	227	P	Pn	01 47 19.1	-0.2
MEM	Membach	1.13	212	P	Pn	01 47 19.1	-0.4
MEM	Membach	1.13	212	P	Pn	01 47 19.0	-0.5
KOE	Koeppel	1.24	156	ePg	Pn	01 47 20.5	-0.6
KOE	Koeppel	1.24	156	Pg	Pn	01 47 20.5	-0.6
HILG	Hillesheim	1.29	188	ePg	Pn	01 47 21.5	-0.2
HILG	Hillesheim	1.29	188	Pg	Pn	01 47 21.5	-0.2
BGG	Burgeitz	1.38	170	ePg	Pn	01 47 22.9	-0.1
BGG	Burgeitz	1.38	170	Pg	Pn	01 47 22.9	-0.1
BCLA	Clavier	1.55	223	P	Pn	01 47 25.3	0.0
BCLA	Clavier	1.55	223	P	Pn	01 47 25.3	0.0
TNS	Taunus Mts	1.64	144	ePn	Pn	01 47 27.9	+1.3
	SNR=1.9						
TNS				eSg	Sg	01 47 49.8	+0.6
	SNR=3.1						
TNS	Taunus Mts	1.64	144	Pn	Pn	01 47 27.9	+1.3
	SNR=1.9						
TNS				Sg	Sg	01 47 49.8	+0.6
	SNR=3.1						
WLF	Walferdange	1.97	195	P	Pn	01 47 33.6	+2.5
WLF	Walferdange	1.97	195	ePg	Pg	01 47 36.3	+2.1
	SNR=1.8						
WLF				eSg	Sg	01 48 02.4	+2.7
	SNR=2.0						
WLF	Walferdange	1.97	195	P	Pn	01 47 33.5	+2.4
WLF	Walferdange	1.97	195	Pg	Pg	01 47 36.3	+2.1
	SNR=1.8						
WLF				Sg	Sg	01 48 02.4	+2.7
	SNR=2.0						
SNF	Seneffe	1.99	239	P	Pn	01 47 31.4	+0.1
SNF	Seneffe	1.99	239	P	Pn	01 47 31.4	0.0
GIVF	Givet	1.99	224	ePn	Pn	01 47 31.2	-0.2
GIVF				eSg	Sg	01 48 01.9	+1.4
	14nm,0.5s						
GIVF	Givet	1.99	224	ePn	Pn	01 47 31.2	-0.2
GIVF				eSg	Sg	01 48 01.9	+1.4
	7.1nm,0.5s						
UBBA	Unterbreizbach	2.06	110	eSg	Sg	01 48 01.8	-0.7
	SNR=2.1						
UBBA	Unterbreizbach	2.06	110	Sg	Sg	01 48 01.8	-0.7
	SNR=2.1						
DOU	Dourbes	2.10	226	P	Pn	01 47 33.5	+0.6
DOU	Dourbes	2.10	226	P	Pn	01 47 33.5	+0.6
CLZ	Clausthal	2.14	81	eSg	Sg	01 48 03.7	-1.6
	SNR=3.2						
CLZ	Clausthal	2.14	81	Sg	Sg	01 48 03.7	-1.6
	SNR=3.2						
BAIF	Baives	2.30	230	ePg	Pg	01 47 40.5	-0.1
BAIF				eSg	Sg	01 48 11.6	+1.1
	8.2nm,0.5s						
BAIF	Baives	2.30	230	ePn	Pn	01 47 35.1	-0.6
BAIF				ePg	Pg	01 47 40.5	-0.1
BAIF				eSg	Sg	01 48 11.6	+1.1
BAIF	Baives	2.30	230	ePn	Pn	01 47 35.1	-0.6
BAIF	Baives	2.30	230	ePg	Pg	01 47 40.5	-0.1
BAIF				eSg	Sg	01 48 11.6	+1.1
	4.1nm,0.5s						
MOX	Moxa	3.08	106	eSg	Sg	01 48 31.1	-4.2
	SNR=2.9						
CDF	Champ du Feu	3.16	176	ePn	Pn	01 47 47.0	-0.5
CDF				eSn	Sn	01 48 24.0	-1.9
CDF				eSg	Sg	01 48 39.1	+1.1
	3.8nm,0.4s						
CDF	Champ du Feu	3.16	176	ePn	Pn	01 47 47.0	-0.5
CDF				eSn	Sn	01 48 24.0	-1.9
CDF				eSg	Sg	01 48 39.1	+1.1
	1.9nm,0.4s						
MEZF	Maizieres J’vi	3.30	203	ePn	Pn	01 47 48.5	-0.9
	baz=25						
MEZF				eSn	Sn	01 48 27.5	-1.8
	5.6nm,0.5s,baz=21						
MEZF	Maizieres J’vi	3.30	203	ePn	Pn	01 47 48.5	-0.9
MEZF				eSn	Sn	01 48 27.5	-1.8
	2.8nm,0.5s						
BFO	Black Forest	3.36	164	ePn	Pn	01 47 50.3	+0.1
	SNR=1.5						
BFO	Black Forest	3.36	164	Pn	Pn	01 47 50.3	+0.1
	SNR=1.5						
HAU	Haudompre	3.58	187	ePn	Pn	01 47 52.7	-0.6
HAU				eSn	Sn	01 48 33.9	-2.4
	0.8nm,0.2s						
HAU	Haudompre	3.58	187	ePn	Pn	01 47 52.7	-0.6
HAU				eSn	Sn	01 48 33.9	-2.4
	0.4nm,0.2s						
HINF	Hinteralfeld	3.75	181	ePn	Pn	01 47 55.0	-0.6
HINF				eSn	Sn	01 48 38.6	-1.8
	0.9nm,0.3s						
HINF	Hinteralfeld	3.75	181	ePn	Pn	01 47 55.0	-0.6
HINF				eSn	Sn	01 48 38.6	-1.8
	0.4nm,0.3s						
LOR	Lormes	4.75	206	ePn	Pn	01 48 08.4	-0.9
	baz=33						
LOR				eSn	Sn	01 49 01.9	-3.1
	0.8nm,0.3s						
LOR	Lormes	4.75	206	ePn	Pn	01 48 08.4	-0.9
LOR				eSn	Sn	01 49 01.9	-3.1
	0.4nm,0.3s						
CABF	La Chapelle	4.99	187	ePn	Pn	01 48 12.3	-0.3
CABF				eSn	Sn	01 49 08.4	-2.5
	1.0nm,0.4s						
CABF	La Chapelle	4.99	187	ePn	Pn	01 48 12.3	-0.3
CABF				eSn	Sn	01 49 08.4	-2.5
	0.5nm,0.4s						
SSF	Saint Saulge	5.04	208	ePn	Pn	01 48 12.4	-0.9
SSF				eSn	Sn	01 49 08.5	-3.6
	0.7nm,0.3s						
SSF	Saint Saulge	5.04	208	ePn	Pn	01 48 12.4	-0.9
SSF				eSn	Sn	01 49 08.5	-3.6
	0.3nm,0.3s						
HYF	Humbligny	5.14	215	ePn	Pn	01 48 14.2	-0.4
HYF				eSn	Sn	01 49 11.0	-3.6
HYF	Humbligny	5.14	215	ePn	Pn	01 48 14.2	-0.4
HYF				eSn	Sn	01 49 11.0	-3.6
AVF	Avril sur Loir	5.33	208	ePn	Pn	01 48 16.3	-1.0
AVF				eSn	Sn	01 49 16.1	-3.2
	0.4nm,0.3s						
AVF	Avril sur Loir	5.33	208	ePn	Pn	01 48 16.3	-1.0
AVF				eSn	Sn	01 49 16.1	-3.2
	0.2nm,0.3s						
SMF	Signal de Mont	5.33	204	ePn	Pn	01 48 16.4	-0.9
SMF				eSn	Sn	01 49 15.6	-3.7
	1.1nm,0.3s						
SMF	Signal de Mont	5.33	204	ePn	Pn	01 48 16.4	-0.9
SMF				eSn	Sn	01 49 15.6	-3.7
	0.6nm,0.3s						
LDF	La Druitiere	5.44	240	ePn	Pn	01 48 17.3	-1.5
LDF	La Druitiere	5.44	240	ePn	Pn	01 48 17.3	-1.5
FLN	La Foliniere	5.54	243	ePn	Pn	01 48 19.1	-1.1
	baz=57						
FLN				eSn	Sn	01 49 19.9	-4.6
	1.2nm,0.3s						
FLN	La Foliniere	5.54	243	ePn	Pn	01 48 19.1	-1.1
BGF	Bois d’Agland	5.69	210	ePn	Pn	01 48 21.5	-0.7

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BGF	**Bois d'Agland**	**5.69**	**210**	*e*Pn	**Pn**	**01 48 21.5**	**-0.7**
GRR	**Gorron**	**5.96**	**241**	*e*Pn	**Pn**	**01 48 24.9**	**-1.0**
GRR				*e*Sn	**Sn**	**01 49 30.2**	**-4.6**
	2.5nm,0.3s						
GRR	**Gorron**	**5.96**	**241**	*e*Pn	**Pn**	**01 48 24.9**	**-1.0**

IDC 16 01:48:43.4±1.0**, 16°.80N×119°.52E, h0^{km}, mb3.6**/6**, mb1 3.8**/7**, mb1mx3.7**/21**, mbtmp3.6**/7**, ML4.6**/1**, Error ellipse: s-maj=36.9km s-min=19.1km az=67.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**19.68**	**278**	P	Pn	01 53 16.2	+0.5
	0.7nm,0.3s,baz=84,slow=9.2,SNR=3.8						
KSRS	**Korea Array**	**21.87**	**18**	P	P	01 53 38.5	+0.7
	3.3nm,0.8s,baz=209,slow=11,SNR=7.6						
WRA	**Warramunga Arr**	**39.30**	**158**	P	P	01 56 14.2	-0.1
	0.6nm,0.8s,baz=339,slow=9.2,SNR=3.1						
ASAR	**Alice Springs**	**42.60**	**160**	P	P	01 56 41.2	-0.2
	0.3nm,0.6s,baz=341,slow=7.0,SNR=3.6						
MKAR	**Makanchi Array**	**42.89**	**322**	P	P	01 56 43.1	-0.5
	1.2nm,0.9s,baz=120,slow=8.5,SNR=11						
ZALV	**Zalesovo Beam**	**45.80**	**332**	P	P	01 57 05.5	-1.3
	0.2nm,0.3s,baz=131,slow=9.8,SNR=2.4						
YKA	**Yellowknife Ar**	**90.36**	**22**	P	P	02 01 47.0	+0.7
	0.2nm,0.5s,baz=316,slow=4.4,SNR=5.5						

CSEM ***16*** *02:07:00.6±0.2, 33°.35N×35°.40E, h8^{km}, ML2.7, Error ellipse: s-maj=6.8km s-min=2.6km az=99.0*

GRAL 16 02:07:01.6±0.3**, 33°.34N×35°.42E, h6^{km}**±3^{km}**, MD2.7, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	**Matirih**	**0.17**	**334**	*e*P	Pg	02 07 04.8	-0.2
MATL	**Matirih**	**0.17**	**334**	*e*P	Pg	02 07 04.8	-0.2
RCY	**Rachaya**	**0.37**	**67**	*e*P	Pg	02 07 08.5	-0.2
RCY				*e*S	Sg	02 07 13.8	+0.3
RCY	**Rachaya**	**0.37**	**67**	*e*P	Pg	02 07 08.5	-0.2
RCY				*e*S	Sg	02 07 13.8	+0.3
BHL	**Bhannes**	**0.60**	**19**	*e*P	Pg	02 07 12.3	-0.8
BHL	**Bhannes**	**0.60**	**19**	*e*P	Pg	02 07 12.3	-0.8
HWQ	**Hawqa**	**1.03**	**25**	*e*P	Pg	02 07 20.1	-1.4
HWQ	**Hawqa**	**1.03**	**25**	*e*P	Pg	02 07 20.1	-1.4

IDC 16 02:07:44.3±0.9**, 16°.77N×119°.27E, h0^{km}, mb3.7**/9**, mb1 3.8**/9**, mb1mx3.7**/22**, mbtmp3.7**/9**, MS3.2**/1**, Ms1 3.2**/1**, ms1mx2.3**/27**, Error ellipse: s-maj=46.9km s-min=18.0km az=67.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**11.45**	**147**	LR	LR	02 16 25.6	
	comp=Z,104nm,18.1s,baz=227,slow=46						
CMAR	**Chiang Mai Arr**	**19.45**	**278**	P	Pn	02 12 16.6	+2.9
	0.1nm,0.3s,baz=96,slow=7.6,SNR=4.3						
KSRS	**Korea Array**	**21.97**	**19**	P	P	02 12 39.8	0.0
	2.4nm,0.7s,baz=205,slow=11,SNR=5.2						
SONM	**Songino Array**	**32.74**	**344**	P	P	02 14 18.4	-0.2
	0.1nm,0.3s,baz=167,slow=6.9,SNR=2.4						
WRA	**Warramunga Arr**	**39.38**	**157**	P	P	02 15 14.7	-1.1
	0.6nm,0.6s,baz=340,slow=9.2,SNR=5.4						
ASAR	**Alice Springs**	**42.66**	**160**	P	P	02 15 43.8	+1.0
	0.5nm,0.6s,baz=341,slow=7.3,SNR=5.7						
MKAR	**Makanchi Array**	**42.76**	**323**	P	P	02 15 44.0	+0.6
	1.2nm,0.8s,baz=132,slow=8.5,SNR=12						
ZALV	**Zalesovo Beam**	**45.71**	**332**	P	P	02 16 06.7	-0.2
	0.2nm,0.3s,baz=129,slow=3.9,SNR=3.3						
KURK	**Kurchatov**	**46.88**	**325**	P	P	02 16 16.2	0.0
	3.8nm,0.8s,baz=122,slow=8.5,SNR=14						
AKTO	**Aktyubinsk**	**58.99**	**319**	P	P	02 17 45.2	-0.5
	0.9nm,0.6s,baz=90,slow=9.1,SNR=4.8						
YKA	**Yellowknife Ar**	**90.47**	**22**	P	P	02 20 47.7	0.0
	0.3nm,0.7s,baz=313,slow=4.5,SNR=7.3						

GUC ***16*** *02:31:22.2±0.6, 22°.03S×68°.79W, h103^{km}±4^{km}, ML4.8*

NEIC ***16*** *02:31:22.2, 22°.03S×68°.79W, h103^{km}, mb4.2/16, After GUC.*

IDC ***16*** *02:31:22.9±0.5, 22°.09S×68°.63W, h110^{km}±4^{km}, mb4.0/7, mb1 4.1/10, mb1mx3.9/17, mbtmp3.9/10, MS3.0/2, Ms1 3.0/2, ms1mx2.6/19, Error ellipse: s-maj=19.5km s-min=16.3km az=94.0*

ISC 16 02:31:22.5±0.5**, 22°.31S**±0°.05×**68°.69W**±0°.06**, h110^{km}**±5^{km}**, h109^{km}**±1.4^{km}**:pP-P, n219,** σ**1^{s}27**/48**, mb4.1**/21**, 78C-92D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**0.36**	**214**	P	**Pn**	**02 31 39.8**	**+7.5**
	976nm,0.3s,baz=24,slow=7.1						
LVC				S	**Sn**	**02 31 51.9**	**+1.3**
	3µm,0.3s,baz=270,slow=20,SNR=131						
LVC	**Limon Verde**	**0.36**	**214**	P	**Pn**	**02 31 39.8**	**+7.5**
LVC				S	**Sn**	**02 31 51.9**	**+1.3**
LVC	**Limon Verde**	**0.36**	**214**	*e*P	**Pn**	**02 31 39.5**	**+7.2**
LVC				*i* S	**Sn**	**02 31 53.2**	**+2.6**
LVC				AML	AML	02 31 53.6	
	comp=E,29µm,0.3s						
PECH	**Pedro de Valdi**	**0.95**	**252**	⇓*i*P	**Pn**	**02 31 43.8**	**+3.5**
PECH				*i* S	**Sn**	**02 31 59.9**	**+1.1**
PECH				AML	AML	02 32 00.9	
	comp=E,86µm,0.4s						
MACH	**Maria Elena**	**0.99**	**276**	⇑*i*P	**Pn**	**02 31 43.0**	**+2.1**
MACH				*i* S	**Sn**	**02 31 58.6**	**-1.0**
TOCH	**Tocopilla**	**1.41**	**278**	⇑*i*P	**Pn**	**02 31 46.8**	**+0.3**
TOCH				*i* S	**Sn**	**02 32 05.2**	**-2.6**
TOCH				AML	AML	02 32 09.9	
	comp=N,23µm,0.2s						
MECH	**Mejillones**	**1.80**	**244**	⇑*i*P	**Pn**	**02 31 53.9**	**+2.1**
MECH				*i* S	**Sn**	**02 32 17.9**	**+1.6**
MECH				AML	AML	02 32 35.4	
	comp=N,6µm,0.3s						
CPN1	**Cerro Paranal**	**2.79**	**214**	AML	AML	02 33 10.5	
	comp=E,3µm,0.5s						
PSGC	**Pisagua**	**3.01**	**333**	AML	AML	02 32 43.7	
	comp=E,2µm,0.3s						
MNMC	**Miæe Miæ**	**3.27**	**345**	AML	AML	02 32 49.8	
	comp=E,4µm,0.5s						
ARE	**Arequipa**	**6.39**	**335**	*e*P	**Pn**	**02 32 47.0**	**-7.2**
ARE				*e*S	**Sn**	**02 33 55.0**	**-11**
LCO	**Las Campanas**	**6.91**	**195**	*e*Pn	**Pn**	**02 32 59.9**	**-1.3**
	comp=E,57nm,0.3s						
LCO				*e*Sn	**Sn**	**02 34 17.1**	**-1.2**
CFAA	**Coronel Fontan**	**9.27**	**178**	P	**Pn**	**02 33 33.1**	**0.0**
	comp=E,0.3nm,0.3s,baz=352,slow=13,SNR=29						
CFAA				S	**Sn**	**02 35 13.1**	**-2.4**
	comp=E,0.6nm,0.3s,baz=259,slow=23,SNR=7.8						
CPUP	**Villa Florida**	**11.11**	**113**	P	**Pn**	**02 33 57.5**	**-0.5**
	comp=E,0.6nm,0.3s,baz=265,slow=11,SNR=9.0						
CPUP				LR	LR	02 39 11.5	
	comp=E,39nm,18.8s,baz=238,slow=42						
ATAH	**Atahualpa**	**17.87**	**327**	P	**Pn**	**02 35 20.6**	**-3.6**
	comp=E,0.3nm,0.3s,baz=129,slow=13,SNR=3.0						
ATAH				LR	LR	02 42 46.8	
	comp=E,118nm,21.9s,baz=357,slow=39						
PLCA	**Paso Flores**	**18.43**	**184**	P	**P**	**02 35 32.6**	**+3.3**
	comp=E,0.3nm,0.3s,baz=4.4,slow=12,SNR=18						
PLCA	**Paso Flores**	**18.43**	**184**	*e*P	**P**	**02 35 32.6**	**+3.3**
	comp=E,5.1nm,0.7s						
SPB	**Sao Paulo**	**19.62**	**98**	*e*P	**P**	**02 35 42.2**	**-0.2**
	comp=E,8.3nm,0.6s						
OTAV	**Otavalo**	**24.35**	**336**	*e*P	**P**	**02 36 31.3**	**+1.0**
	comp=E,2.3nm,0.7s,mb3.6						
RCBR	**Riachuelo**	**35.65**	**68**	*e*P	**P**	**02 38 08.9**	**-1.3**
	comp=E,12nm,0.8s,mb4.9						
TXAR	**Lajitas Array**	**61.41**	**325**	pP	pP	02 41 52.6	-1.5
	comp=E,1.5nm,0.7s,baz=145,slow=8.4,SNR=7.1						
WMOK	**Wichita Mounta**	**63.53**	**333**	*e*P	**P**	**02 41 39.6**	**-1.6**
	comp=E,2.5nm,0.8s,mb4.1						
319A	**Douglas**	**66.05**	**322**	⇑P	pP	02 42 24.8	-0.1
	baz=66,SNR=7.5						
318A	**Bisbee**	**66.50**	**322**	⇑P	pP	02 42 28.0	+0.3
	baz=66,SNR=9.4						
219A	**White Tail Can**	**66.50**	**323**	⇑P	pP	02 42 27.6	-0.2
	baz=66						
120A	**U Bar Ranch, L**	**66.57**	**324**	⇓P	pP	02 42 28.0	-0.3
	baz=66						
217A	**Green Valley**	**67.22**	**322**	⇓P	pP	02 42 32.5	+0.1
	baz=67						
216A	**Three Points,**	**67.75**	**321**	⇓P	pP	02 42 36.1	+0.3
	baz=68,SNR=6.9						
117A	**Oracle**	**67.76**	**322**	⇓P	pP	02 42 36.0	+0.1
	baz=68,SNR=5.6						
QSPA	**South Pole Qui**	**67.89**	**180**	P	**P**	**02 42 12.1**	**+3.5**
	comp=E,3.1nm,0.6s,mb4.3,baz=168,slow=2.6,SNR=12						
Y19A	**Nutrioso**	**67.98**	**324**	⇑P	pP	02 42 37.5	+0.3
	baz=68,SNR=13						
116A	**Eloy**	**68.31**	**322**	⇓P	pP	02 42 39.8	+0.6
	baz=68						
W20A	**Ramah**	**68.47**	**326**	⇓P	pP	02 42 40.3	+0.1
	baz=68						
214A	**Organ Pipe Nat**	**68.51**	**321**	⇑P	pP	02 42 41.2	+0.6
	baz=68						
Y17A	**Roosevelt**	**68.66**	**323**	⇓P	pP	02 42 41.8	+0.3
	baz=69,SNR=8.1						
115A	**Sonoran Desert**	**68.71**	**321**	⇓P	pP	02 42 41.9	+0.1
	baz=69						
DBIC	**Dimbokro**	**68.77**	**73**	P	**P**	**02 42 14.1**	**-1.1**
	comp=E,4.0nm,0.7s,mb4.4,baz=209,slow=9.4,SNR=7.1						
DBIC				pP	pP	02 42 43.5	+0.9
	comp=E,8.1nm,1.1s,baz=238,slow=9.5,SNR=2.3						
DBIC	**Dimbokro**	**68.77**	**73**	P	**P**	**02 42 14.1**	**-1.1**
DBIC				pP	pP	02 42 43.5	+0.9
SDCO	**Great Sand Dun**	**69.04**	**329**	*e*P	**P**	**02 42 16.3**	**0.0**
	comp=E,3.7nm,1.2s,mb4.1						
SDCO				*e*pP	pP	02 42 42.9	-0.9
Y15A	**Casa Rosa Ranc**	**69.68**	**322**	⇓P	pP	02 42 48.0	+0.2
	baz=70						
X15A	**Humboldt**	**70.02**	**323**	⇓P	pP	02 42 49.7	-0.2
	baz=70						
MVCO	**Mesa Verde**	**70.08**	**327**	⇑P	pP	02 42 50.0	-0.2
	baz=70						
MVCO	**Mesa Verde**	**70.08**	**327**	*e*P	**P**	**02 42 23.2**	**+0.5**
	comp=E,5.7nm,1.3s,mb4.2						
MVCO				*e*pP	pP	02 42 49.9	-0.4
X14A	**Yava**	**70.37**	**322**	⇓P	pP	02 42 52.6	+0.5
	baz=70						
R21A	**Cimarron**	**70.52**	**328**	⇓P	pP	02 42 52.2	-0.7
	baz=70						
T18A	**Mexican Hat**	**70.73**	**326**	⇓P	pP	02 42 53.5	-0.7
	baz=71,SNR=7.1						
R20A	**Redvale**	**70.78**	**328**	⇓P	pP	02 42 54.4	-0.2
	baz=71,SNR=5.9						
Y12C	**Blythe**	**70.80**	**321**	⇓P	pP	02 42 54.8	+0.1
	baz=71						
S19A	**Harvey Farm, M**	**70.82**	**327**	⇑P	pP	02 42 54.3	-0.4
	baz=71,SNR=5.3						
V15A	**Kaibab Nationa**	**70.96**	**324**	⇑P	pP	02 42 56.1	+0.4
	baz=71						
W14A	**Seligman**	**71.02**	**323**	⇓P	pP	02 42 56.2	+0.2
	baz=71						
BC3	**Big Chuckw Mtn**	**71.28**	**320**	⇑P	pP	02 42 58.4	+0.7
	baz=71						
R19A	**Curley Farm, L**	**71.30**	**327**	⇑P	pP	02 42 57.4	-0.3
	baz=71						
V14A	**Boquillas Ranc**	**71.34**	**323**	⇓P	pP	02 42 58.2	+0.2
	baz=71						
P21A	**Newcastle**	**71.38**	**329**	⇓P	pP	02 42 57.5	-0.6
	baz=71						
W13A	**Hualapai Mount**	**71.39**	**322**	⇓P	pP	02 42 58.6	+0.3
	baz=71						
IRM	**Iron Mountain**	**71.45**	**321**	⇓P	pP	02 42 59.3	+0.6
	baz=71						
R18A	**Canyonlands Na**	**71.69**	**327**	⇓P	pP	02 42 59.4	-0.6
	baz=72						
PFO	**Pinyon Flat Ob**	**71.85**	**319**	⇑P	pP	02 43 02.0	+0.9
	baz=72						
N22A	**Wattenberg Ran**	**71.94**	**331**	⇑P	pP	02 43 00.6	-0.9
	baz=72						
U14A	**Mt Trumbull**	**71.95**	**324**	⇓P	pP	02 43 02.4	+0.7
	baz=72,SNR=7.6						
T15A	**Red Dirt Ranch**	**71.96**	**324**	⇑P	pP	02 43 02.8	+1.0
	baz=72,SNR=5.8						
V13A	**Grand Canyon W**	**71.99**	**323**	⇑P	pP	02 43 02.3	+0.3
	baz=72,SNR=5.6						
S16A	**Weppner Ranch,**	**72.06**	**325**	⇓P	pP	02 43 01.8	-0.5
	baz=72						
R17A	**Hanksville Air**	**72.13**	**326**	P	pP	02 43 02.9	+0.2
	baz=72,SNR=7.6						
GMRC	**Granite Mounta**	**72.19**	**321**	⇑P	pP	02 43 03.7	+0.5
	baz=72						
P19A	**Cripple Cowboy**	**72.20**	**328**	⇓P	pP	02 43 02.9	-0.2
	baz=72,SNR=7.2						
T14A	**Hurricane**	**72.37**	**324**	⇓P	pP	02 43 03.7	-0.5
	baz=72						
V12A	**Nelson**	**72.39**	**322**	⇓P	pP	02 43 05.1	+0.7
	baz=72						
SRU	**San Rafael**	**72.56**	**327**	P	pP	02 43 05.4	+0.1
	baz=72,SNR=5.2						
O19A	**Miners Draw (B**	**72.78**	**329**	⇑P	pP	02 43 05.6	-1.0
	baz=73						
P18A	**Preston Nutter**	**72.82**	**328**	⇓P	pP	02 43 07.0	+0.2
	baz=73						
S14A	**Cedar City**	**72.93**	**324**	⇓P	pP	02 43 08.4	+0.9
	baz=73						
S13A	**Holt Ranch, En**	**73.17**	**324**	⇑P	pP	02 43 09.5	+0.5
	baz=73,SNR=8.2						
N19A	**John Jarvie Ra**	**73.27**	**329**	⇓P	pP	02 43 09.3	-0.2
	baz=73						
O17A	**Robinson Place**	**73.49**	**328**	⇑P	pP	02 43 11.3	+0.5
	baz=74,SNR=7.6						
RSSD	**Black Hills**	**73.61**	**334**	*e*P	**P**	**02 42 43.7**	**+0.1**
	comp=E,2.2nm,0.9s,mb3.9						
R13A	**O'Grain Ranch,**	**73.67**	**324**	⇓P	pP	02 43 12.4	+0.5
	baz=74						
T11A	**Corn Creek, Al**	**73.68**	**323**	⇓P	pP	02 43 12.8	+0.8
	baz=74						
U10A	**Ash Meadows, A**	**73.73**	**322**	⇑P	pP	02 43 13.3	+1.0
	baz=74						
L20A	**Wamsutter**	**73.75**	**330**	⇓P	pP	02 43 12.2	-0.2
	baz=74						
Q14A	**Sevier Lake (B**	**73.89**	**325**	⇑P	pP	02 43 13.4	+0.2
	baz=74,SNR=7.1						
FURC	**Furnace Creek,**	**74.07**	**321**	⇓P	pP	02 43 14.8	+0.5
	baz=74						
N17A	**Moffit Pass**	**74.11**	**328**	⇓P	pP	02 43 14.4	-0.1
	baz=74,SNR=8.1						
R12A	**Pony Springs,**	**74.12**	**324**	⇑P	pP	02 43 15.5	+0.9
	baz=74,SNR=5.8						
P14A	**Drum Mountains**	**74.22**	**326**	⇑P	pP	02 43 15.7	+0.5
	baz=74,SNR=7.7						
Q13A	**Wheeler Ranch,**	**74.26**	**325**	⇑P	pP	02 43 15.2	-0.1
	baz=74						
K20A	**Yellowstone Ra**	**74.27**	**331**	⇓P	pP	02 43 14.6	-0.7
	baz=74						
L19A	**Farson**	**74.30**	**330**	⇑P	pP	02 43 15.0	-0.5
	baz=74						
ISA	**Isabella**	**74.46**	**320**	⇓P	pP	02 43 16.9	+0.3
	baz=74						
L18A	**Fontenelle, Gr**	**74.48**	**329**	⇓P	pP	02 43 16.1	-0.5
	baz=74,SNR=5.4						
DUG	**Dugway**	**74.54**	**326**	⇓P	pP	02 43 16.7	-0.2
	baz=74						
DUG	**Dugway**	**74.54**	**326**	*e*P	**P**	**02 42 48.9**	**-0.2**
	comp=E,2.6nm,1.1s,mb3.9						
DUG				*e*pP	pP	02 43 16.5	-0.5
P13A	**Bates Ranch, G**	**74.62**	**325**	⇑P	pP	02 43 16.8	-0.6
	baz=75,SNR=5.2						
K19A	**Absolon Red Bu**	**74.63**	**331**	⇑P	pP	02 43 16.6	-0.8
	baz=75						
R11A	**Troy Canyon, C**	**74.67**	**323**	⇑P	pP	02 43 17.5	-0.2
	baz=75,SNR=5.7						
CWC	**Cottonwood Cre**	**74.76**	**321**	⇓P	pP	02 43 19.1	+0.8
	baz=75						
M16A	**Huntsville**	**74.78**	**328**	⇓P	pP	02 43 17.0	-1.4
	baz=75						
PDAR	**Pinedale Array**	**74.91**	**330**	P	**P**	**02 42 51.2**	**0.0**
	comp=E,0.3nm,0.6s,mb3.2,baz=139,slow=8.2,SNR=4.5						
PDAR				pP	pP	02 43 18.4	-0.6
	comp=E,0.6nm,0.7s,baz=145,slow=5.4,SNR=5.2						
BW06	**Boulder Array**	**74.91**	**330**	⇑P	pP	02 43 18.6	-0.4
	baz=75						
BW06	**Boulder Array**	**74.91**	**330**	*e*P	**P**	**02 42 51.2**	**0.0**
	comp=E,8.9nm,1.8s,mb4.2						
BW06				*e*pP	pP	02 43 18.1	-1.0
R10A	**Warm Springs**	**75.03**	**323**	⇓P	pP	02 43 20.2	+0.3
	baz=75						
K18A	**Toltan Ranch,**	**75.03**	**330**	⇑P	pP	02 43 19.4	-0.4
	baz=75						
Q11A	**Duckwater**	**75.06**	**324**	⇓P	pP	02 43 20.4	+0.3
	baz=75,SNR=5.3						
S09A	**Goldfield**	**75.15**	**322**	⇑P	pP	02 43 21.0	+0.4
	baz=75						
N14A	**Grayback Hills**	**75.22**	**327**	⇑P	pP	02 43 20.3	-0.6
	baz=75						
M15A	**Larsen Ranch,**	**75.30**	**327**	⇑P	pP	02 43 21.3	-0.1
	baz=75,SNR=5.9						
J18A	**Kendall Valley**	**75.47**	**330**	⇑P	pP	02 43 22.0	-0.3
	baz=76						
K17A	**Gardner Place,**	**75.53**	**329**	⇓P	pP	02 43 22.8	+0.1
	baz=76,SNR=5.0						
O12A	**Currie**	**75.60**	**325**	⇓P	pP	02 43 23.7	+0.5
	baz=76,SNR=5.1						
L15A	**Malad City**	**75.67**	**328**	⇑P	pP	02 43 23.4	-0.1
	baz=76,SNR=6.3						
M14A	**Sheep Mountain**	**75.78**	**327**	⇓P	pP	02 43 23.9	-0.2
	baz=76						
J17A	**Brown Place, J**	**75.91**	**330**	⇓P	pP	02 43 24.2	-0.7
	baz=76						
K16A	**Soda Springs**	**75.91**	**329**	⇓P	pP	02 43 24.5	-0.3
	baz=76,SNR=7.1						
O11A	**Cowboy Ranch,**	**75.98**	**325**	⇑P	pP	02 43 25.3	0.0
	baz=76						
LOHW	**Long Hollow**	**76.05**	**330**	*e*P	**P**	**02 42 57.9**	**+0.3**
	comp=E,2.5nm,1.2s,mb3.8						
LOHW				*e*pP	pP	02 43 25.5	-0.1
M13A	**Montello**	**76.09**	**326**	⇑P	pP	02 43 25.5	-0.4
	baz=76						
TPAW	**Teton Pass**	**76.11**	**330**	*e*P	**P**	**02 42 58.5**	**+0.4**
	comp=E,6.1nm,1.3s,mb4.2						
TPAW				*e*pP	pP	02 43 25.0	-1.0
L14A	**Malta**	**76.12**	**327**	⇑P	pP	02 43 25.7	-0.4
	baz=76						
ULM	**Lac du Bonnet**	**76.14**	**342**	pP	pP	02 43 24.6	-1.4
	comp=E,1.5nm,0.4s,baz=162,slow=4.7,SNR=2.7						
ULM				sP	sP	02 43 36.2	-1.7
	comp=E,3.2nm,0.8s,baz=64,slow=0.6,SNR=3.2						
RRI2	**Red Ridge**	**76.18**	**329**	*e*P	**P**	**02 42 58.7**	**+0.2**
	comp=E,7.9nm,0.9s,mb4.4						
RRI2				*e*pP	pP	02 43 26.1	-0.3
MOOW	**Moose Ponds**	**76.22**	**330**	*e*P	**P**	**02 42 58.3**	**-0.3**
	comp=E,1.2nm,0.7s,mb3.7						
NVAR	**Mina Array Bea**	**76.25**	**322**	pP	pP	02 43 27.6	+0.7
	comp=E,1.9nm,0.8s,baz=153,slow=7.1,SNR=12						
I17A	**Pilgrim Ck.**	**76.27**	**330**	⇑P	pP	02 43 26.9	0.0
	baz=76,SNR=6.0						
Q08A	**Gabbs**	**76.34**	**323**	⇑P	pP	02 43 27.8	+0.4
	baz=76						
L13A	**Double Diamond**	**76.51**	**327**	⇓P	pP	02 43 28.4	+0.1
	baz=76						
RLMT	**Red Lodge**	**76.62**	**332**	*e*P	**P**	**02 43 01.1**	**+0.2**
	comp=E,4.9nm,1.1s,mb4.2						
RLMT				*e*pP	pP	02 43 28.5	-0.3
I16A	**Newdale**	**76.66**	**330**	⇑P	pP	02 43 29.4	+0.3
	baz=77						
J15A	**Blackfoot**	**76.75**	**329**	⇓P	pP	02 43 29.8	+0.1
	baz=77						
G18A	**Lazy EL Ranch,**	**76.90**	**332**	⇓P	pP	02 43 29.7	-0.8
	baz=77,SNR=7.2						
M11A	**Holland Ranch,**	**76.98**	**326**	⇓P	pP	02 43 31.9	+0.9
	baz=77						
P08A	**Dixie Valley**	**77.00**	**323**	⇑P	pP	02 43 31.3	+0.1
	baz=77						
H16A	**Russell Place,**	**77.18**	**330**	⇓P	pP	02 43 31.7	-0.4
	baz=77						
J14A	**Carey**	**77.22**	**328**	⇑P	pP	02 43 32.2	-0.1
	baz=77						
DGMT	**Dagmar**	**77.29**	**337**	⇓P	pP	02 43 31.9	-0.7
	baz=77						
K12A	**Draper Farm, C**	**77.40**	**327**	⇓P	pP	02 43 34.2	+0.9
	baz=77,SNR=5.9						
F18A	**Big Timber**	**77.43**	**332**	P	pP	02 43 33.6	+0.2
	baz=77,SNR=8.8						
TOA0	**Torodi Ar. Sit**	**77.44**	**70**	*e*P	**P**	**02 43 08.1**	**+1.9**
TORD	**Torodi Ar. Bea**	**77.44**	**70**	P	**P**	**02 43 04.9**	**-1.2**
	comp=E,2.4nm,0.5s,mb4.2,baz=258,slow=5.4,SNR=62						
TORD				pP	pP	02 43 33.9	-0.3
	comp=E,3.8nm,0.9s,baz=255,slow=4.9,SNR=4.8						
O08A	**Rochester Mine**	**77.45**	**323**	⇑P	pP	02 43 34.8	+1.1
	baz=77						
L11A	**Cat Creek Ranc**	**77.49**	**326**	⇓P	pP	02 43 34.7	+0.8
	baz=78						
J13A	**Cove Ranch, Pi**	**77.59**	**328**	⇑P	pP	02 43 34.2	-0.2
	baz=78						
I14A	**Mackay**	**77.63**	**329**	⇓P	pP	02 43 34.4	-0.2
	baz=78,SNR=5.6						
O07A	**Toulon**	**77.76**	**323**	⇑P	pP	02 43 35.4	0.0
	baz=78						
N08A	**GE Springer Mi**	**77.78**	**324**	⇓P	pP	02 43 35.5	0.0
	baz=78						
L10A	**Juniper Basin**	**77.80**	**326**	⇓P	pP	02 43 35.7	+0.1
	baz=78,SNR=5.4						
HLID	**Hailey**	**77.83**	**328**	⇑P	pP	02 43 36.2	+0.5
	baz=78,SNR=9.0						
HLID	**Hailey**	**77.83**	**328**	*e*P	**P**	**02 43 08.8**	**+1.1**
	comp=E,3.5nm,1.0s,mb4.0						
HLID				*e*pP	pP	02 43 36.5	+0.7
HLID				*e*sP	sP	02 43 46.9	-0.6
G16A	**Moss Hill, Enn**	**77.84**	**330**	⇑P	pP	02 43 35.4	-0.4
	baz=78						
F17A	**Fitzpatrick Pl**	**77.84**	**331**	⇑P	pP	02 43 35.4	-0.3
	baz=78,SNR=6.8						
M09A	**Marrel Ranch,**	**77.86**	**325**	⇓P	pP	02 43 36.3	+0.4
	baz=78						
J12A	**Stokes Ranch,**	**77.94**	**327**	⇑P	pP	02 43 36.3	-0.1
	baz=78,SNR=5.8						
I13A	**Wildhorse Cree**	**77.94**	**328**	⇑P	pP	02 43 36.4	+0.1
	baz=78,SNR=5.6						
K11A	**Parker Ranch,**	**78.07**	**326**	⇓P	pP	02 43 37.0	-0.1
	baz=78						
G15A	**Dillon**	**78.11**	**330**	⇓P	pP	02 43 36.4	-0.9
	baz=78,SNR=5.5						
I12A	**Atlanta**	**78.36**	**328**	⇑P	pP	02 43 38.8	+0.2
	baz=78						
E17A	**Martinsdale**	**78.36**	**332**	⇓P	pP	02 43 38.9	+0.3
	baz=78,SNR=6.6						
BEKR	**Beckwourth**	**78.40**	**322**	⇑P	pP	02 43 39.6	+0.6
	baz=78						
H13A	**Challis**	**78.49**	**329**	⇑P	pP	02 43 39.6	+0.2
	baz=78,SNR=9.0						
K10A	**MacKenzie Ranc**	**78.51**	**326**	⇓P	pP	02 43 40.1	+0.6
	baz=78						
N06A	**Buffalo Meadow**	**78.70**	**323**	⇑P	pP	02 43 41.1	+0.5
	baz=79						
M07A	**Soldier Meadow**	**78.77**	**324**	⇑P	pP	02 43 41.3	+0.3
	baz=79						
H12A	**Diamond D Ranc**	**78.77**	**328**	⇓P	pP	02 43 41.3	+0.4
	baz=79						
D17A	**Six Diamond Ra**	**78.82**	**332**	⇑P	pP	02 43 40.3	-0.8
	baz=79,SNR=7.7						
G13A	**Cobalt**	**78.87**	**329**	⇓P	pP	02 43 41.3	-0.2
	baz=79,SNR=17						
K09A	**Rome**	**78.90**	**325**	⇓P	pP	02 43 42.0	+0.3
	baz=79						
D16A	**Dana Ranch, Ca**	**79.10**	**332**	⇑P	pP	02 43 43.2	+0.4
	baz=79,SNR=8.4						
EGMT	**Eagleton**	**79.11**	**333**	⇓P	pP	02 43 42.5	-0.2
	baz=79						
E15A	**Deer Lodge**	**79.13**	**331**	⇓P	pP	02 43 42.7	-0.2
	baz=79,SNR=6.6						
C17A	**Wharram Farm,**	**79.23**	**333**	⇓P	pP	02 43 42.7	-0.7
	baz=79						
F13A	**Darby**	**79.43**	**329**	⇑P	pP	02 43 44.6	+0.1
	baz=79,SNR=14						
H11A	**Donnelly**	**79.45**	**328**	⇓P	pP	02 43 44.9	+0.2
	baz=79						
H10A	**Noah's Angus R**	**79.73**	**327**	⇑P	pP	02 43 46.5	+0.2
	baz=80						
J08A	**Circle Bar Ran**	**79.75**	**326**	⇑P	pP	02 43 46.8	+0.4
	baz=80						
B17A	**L&G Farms, Che**	**79.75**	**333**	⇑P	pP	02 43 45.8	-0.4
	baz=80						
C16A	**Fuhringer Ranc**	**79.78**	**332**	⇑P	pP	02 43 46.2	-0.2
	baz=80						
F12A	**Elk City**	**79.85**	**329**	⇓P	pP	02 43 47.5	+0.6
	baz=80						
A18A	**Metzger Ranch,**	**79.85**	**334**	⇑P	pP	02 43 46.5	-0.3
	baz=80						
E13A	**Victor**	**79.85**	**330**	P	pP	02 43 47.4	+0.5
	baz=80,SNR=6.8						
D14A	**Greenough**	**80.01**	**331**	⇓P	pP	02 43 47.8	+0.1
	baz=80						
C15A	**Salmond Ranch,**	**80.14**	**332**	⇑P	pP	02 43 48.8	+0.5
	baz=80,SNR=6.1						
I08A	**Drewsey**	**80.19**	**326**	⇑P	pP	02 43 48.1	-0.6
	baz=80						
A17A	**Triple J Farms**	**80.22**	**333**	⇓P	pP	02 43 48.4	-0.3
	baz=80						
F11A	**Grangeville**	**80.38**	**329**	⇓P	pP	02 43 49.2	-0.5
	baz=80						
G10A	**Bishop Farm, J**	**80.42**	**328**	⇓P	pP	02 43 50.5	+0.5
	baz=80,SNR=9.8						
D13A	**Huson**	**80.46**	**330**	⇓P	pP	02 43 49.2	-0.9
	baz=80,SNR=6.4						
B15A	**Bradely Ranch,**	**80.52**	**332**	⇑P	pP	02 43 49.5	-1.0
	baz=80						
J06A	**Christmas Vall**	**80.57**	**325**	⇓P	pP	02 43 50.6	-0.2

	baz=80						
A16A	West Butte Ran	80.60	333	⇓P	pP	02 43 50.6	-0.2
	baz=81,SNR=11						
K05A	Summer Lake	80.61	324	⇑P	pP	02 43 51.5	+0.5
	baz=81						
C14A	Swan Lake	80.64	331	⇓P	pP	02 43 50.6	-0.4
	baz=81						
H08A	Prairie City	80.66	326	⇓P	pP	02 43 50.6	-0.7
	baz=81						
E11A	Bogner Ranch,	80.74	329	⇓P	pP	02 43 50.8	-0.8
	baz=81						
G09A	Cove	80.74	327	⇓P	pP	02 43 52.3	+0.6
	baz=81,SNR=8.8						
I07A	Izee	80.79	326	⇓P	pP	02 43 52.5	+0.5
	baz=81						
C13A	Hot Springs	80.94	331	⇓P	pP	02 43 52.8	0.0
	baz=81,SNR=5.3						
F10A	Beach Ranch, E	80.96	328	⇑P	pP	02 43 52.9	0.0
	baz=81						
I06A	Prineville	81.07	325	⇑P	pP	02 43 53.8	+0.3
	baz=81						
G08A	Pilot Rock	81.34	327	⇑P	pP	02 43 55.1	+0.2
	baz=81						
B13A	Whitefish	81.41	331	⇓P	pP	02 43 54.9	-0.3
	baz=81						
H06A	Lindquist Farm	81.67	326	⇓P	pP	02 43 56.5	-0.2
	baz=82						
G07A	Ruggs Ranch, H	81.69	326	⇑P	pP	02 43 56.6	-0.1
	baz=82						
D10A	Wagner Farm, O	81.75	329	⇓P	pP	02 43 56.1	-0.9
	baz=82						
A13A	Flathead Natio	81.80	332	⇑P	pP	02 43 57.2	0.0
	baz=82						
D09A	Jones Farm, Ri	82.26	328	⇓P	pP	02 43 59.3	-0.4
	baz=82						
G05A	Wamic	82.53	326	⇑P	pP	02 44 01.8	+0.6
	baz=82						
A11A	Hall Mountain,	82.69	331	⇓P	pP	02 44 02.1	+0.2
	baz=83,SNR=6.4						
BOSA	Boshof	82.89	118	P	P	02 43 36.2	+0.9
	comp=E,3.5nm,1.0s,mb4.2,baz=304,slow=6.6,SNR=3.6						
C07A	Waterville	83.55	328	⇑P	pP	02 44 06.9	+0.5
	baz=84						
A09A	Danville	83.73	330	⇓P	pP	02 44 07.2	-0.1
	baz=84						
A08A	Turner Farm, O	84.04	329	⇑P	pP	02 44 09.0	0.0
	baz=84						
LBTB	Lobatse	84.50	115	P	P	02 43 45.1	+1.5
	comp=E,2.8nm,0.8s,mb4.2,baz=247,slow=6.1,SNR=5.5						
A07A	Ashnola River,	84.64	329	⇓P	pP	02 44 12.6	+0.6
	baz=85						
YKA	Yellowknife Ar	92.01	341	P	P	02 44 17.8	-0.6
	comp=E,0.7nm,0.6s,mb4.1,baz=134,slow=4.5,SNR=24						
YKA				pP	pP	02 44 46.3	-0.8
	comp=E,1.5nm,0.8s,baz=135,slow=4.6,SNR=10.0						
ASAR	Alice Springs	129.29	207	PKP	PKPdf	02 50 19.4	+0.8
	comp=E,0.2nm,0.3s,baz=154,slow=1.9,SNR=5.9						
ASAR				pPKP	pPKPdf	02 50 49.9	+1.3
	comp=E,0.3nm,0.8s,baz=164,slow=1.3,SNR=2.8						
WRA	Warramunga Arr	132.36	210	PKP	PKPdf	02 50 25.8	+1.2
	comp=E,0.6nm,0.7s,baz=159,slow=1.9,SNR=5.9						
WRA				pPKP	pPKPdf	02 50 56.4	+1.9
	comp=E,1.0nm,0.8s,baz=173,slow=1.7,SNR=3.7						
ZALV	Zalesovo Beam	142.59	26	pPKP	pPKPdf	02 51 13.8	+1.5
	comp=E,0.9nm,0.6s,baz=271,slow=2.5,SNR=5.2						
MKAR	Makanchi Array	146.16	37	PKPbc	PKPbc	02 50 49.6	-0.3
	comp=E,0.4nm,0.7s,baz=352,slow=3.7,SNR=5.2						
MKAR				pPKPbc	pPKPbc	02 51 20.0	+0.5
	comp=E,2.5nm,0.8s,baz=320,slow=3.2,SNR=10.0						
SONM	Songino Array	154.23	8	pPKPbc	pPKPbc	02 51 32.6	-6.8
	comp=E,0.3nm,0.6s,baz=96,slow=1.4,SNR=3.2						

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*ISCJB **16** 02:40:52.2±0.7, 33°.0S±0°.1×57°.2E±0°.2, h10^{km}, mb4.0/11, MS3.6/4, Error ellipse: s-maj=25.5km s-min=12.4km az=41.5*

*IDC **16** 02:40:52.7±0.8, 32°.94S×57°.22E, h0^{km}, mb4.0/10, mb1 4.2/11, mb1mx4.0/25, mbtmp4.1/11, ML5.1/1, MS3.6/4, Ms1 3.6/4, ms1mx3.3/35, Error ellipse: s-maj=31.5km s-min=18.6km az=30.0*

*NEIC **16** 02:40:53.9±0.5, 32°.96S×57°.10E, h10^{km}, mb4.1/1, Error ellipse: s-maj=19.1km s-min=8.9km az=43.0*

ISC 16 02:40:54.4±0.7, **32°.9S**±0°.1×**57°.2E**±0°.2, **h10**^{km}, **n19**, σ**0^{s}90**/15, **mb4.0**/11, **MS3.6**/4, **Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABPO	Ambohimpanom	16.46	325	*e*Pn	Pn	02 44 44.8	-0.7
OPO	Ambohidratompo	16.86	325	Pn	Pn	02 44 50.6	0.0
	7.0nm,0.3s,baz=132,slow=11,SNR=19						
OPO				Sn	Sn	02 47 46.7	-11
	1.5nm,0.3s,baz=198,slow=20,SNR=2.9						
BOSA	Boshof	27.70	270	LR	LR	02 56 01.2	
	comp=Z,96nm,20.0s,MS3.4,baz=290,slow=33						
LBTB	Lobatse	28.65	278	LR	LR	02 56 47.4	
	comp=Z,112nm,18.3s,MS3.5,baz=307,slow=33						
LSZ	Lusaka	31.60	297	P	P	02 47 17.1	-0.3
	1.6nm,0.6s,mb4.0,baz=128,slow=10,SNR=3.9						
LSZ	Lusaka	31.60	297	*e*P	P	02 47 16.9	-0.6
	1.8nm,0.7s,mb4.0						
QSPA	South Pole Qui	57.26	180	P	P	02 50 41.6	+0.1
	2.5nm,0.9s,mb4.3,baz=223,slow=4.1,SNR=4.1						
CMAR	Chiang Mai Arr	64.82	44	P	P	02 51 34.0	+0.4
	1.8nm,0.7s,mb4.2,baz=234,slow=7.1,SNR=6.4						
CMAR				LR	LR	03 15 21.7	
	comp=Z,41nm,19.1s,MS3.6,baz=47,slow=32						
EIL	Elat	65.71	339	LR	LR	03 20 44.0	
	comp=Z,46nm,18.2s,MS3.7,baz=82,slow=36						
ASAR	Alice Springs	66.86	104	P	P	02 51 46.6	-0.2
	0.6nm,0.7s,mb3.8,baz=239,slow=5.7,SNR=6.3						
WRA	Warramunga Arr	68.95	101	P	P	02 52 00.3	+0.3
	0.8nm,0.5s,mb3.9,baz=238,slow=5.7,SNR=5.1						
STKA	Stephens Creek	69.28	115	P	P	02 52 00.8	-1.1
	1.4nm,0.8s,mb4.0,baz=212,slow=9.5,SNR=3.6						
TORD	Torodi Ar. Bea	70.00	301	P	P	02 52 05.5	-0.9
	1.1nm,0.8s,mb3.8,baz=118,slow=8.4,SNR=6.3						
DBIC	Dimbokro	70.77	292	P	P	02 52 13.4	+2.2
	2.9nm,0.8s,mb4.3,baz=141,slow=6.5,SNR=3.3						
BRTR	Keskin Array B	75.49	341	P	P	02 52 38.5	0.0
	1.4nm,1.0s,mb3.9,baz=180,slow=3.1,SNR=4.9						
KURK	Kurchatov	85.39	13	P	P	02 53 31.2	-0.2
	0.4nm,0.6s,mb3.7,baz=216,slow=5.1,SNR=3.3						
BVAR	Borovoye Array	86.34	8	P	P	02 53 39.4	+3.3
	0.5nm,0.5s,mb4.0,baz=194,slow=5.5,SNR=3.7						
YKA	Yellowknife Ar	149.94	352	PKPbc	PKPbc	03 00 43.2	-0.9
	0.4nm,0.6s,baz=13,slow=2.4,SNR=5.6						
YKA	Yellowknife Ar	149.94	352	PKPbc	PKPbc	03 00 43.2	-0.9

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*NDI **16** 02:49:10.7±2.9, 29°.72N×86°.66E, h10^{km}, ML3.3*

*IDC **16** 02:49:14.9±1.2, 26°.60N×86°.11E, h0^{km}, mb3.3/4, mb1 3.5/4, mb1mx3.4/23, mbtmp3.4/4, Error ellipse: s-maj=36.9km s-min=29.5km az=67.0*

*ISCJB **16** 02:49:16.9±4.3, 26°.7N±0°.1×85°.83E±0°.06, h28^{km}±35^{km}, mb3.3/3, Error ellipse: s-maj=24.3km s-min=9.2km az=4.9*

ISC 16 02:49:20.4±1.4, **26°.7N**±0°.1×**85°.90E**±0°.06, **h37**^{km}±17^{km}, **n8**, σ**0^{s}72**/10, **mb3.3**/3, **Nepal-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	5.49	100	*e*PKP	Pn	02 50 40.5	+0.8
SHL				*e*S	Sn	02 51 50.0	+8.4
SONA	Sohna	7.99	283	*e*S	Sn	02 52 43.2	+0.1
SONA				AML	AML	02 54 03.4	
	comp=E,22nm,0.3s						
SONA				AML	AML	02 54 05.0	
	comp=N,23nm,0.4s						
KHET	Khetri	9.08	281	*e*PKP	Pn	02 51 28.2	-0.7
KHET				*e*S	Sn	02 53 09.9	0.0
KHET				AML	AML	02 54 36.2	
	comp=E,8.0nm,0.4s						
KHET				AML	AML	02 54 37.4	
	comp=N,9.0nm,0.7s						
GTA	Gaotai	17.22	39	*e*P	Pn	02 53 17.4	-0.6
GTA				pP		02 53 21.6	
GTA				sP	sP	02 53 24.1	-9.3
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MKAR	Makanchi Array	20.29	353	P	P	02 53 53.4	+0.6
	comp=Z,0.8nm,0.6s,baz=171,slow=9.7,SNR=12						
SONM	Songino Array	26.54	32	P	P	02 54 54.2	-0.3
	comp=Z,0.3nm,0.6s,mb3.0,baz=217,slow=10,SNR=3.1						
WRA	Warramunga Arr	65.98	130	P	P	03 00 02.1	-1.1
	comp=Z,0.2nm,0.3s,mb3.6,baz=323,slow=6.4,SNR=9.3						
TORD	Torodi Ar. Bea	79.11	279	P	P	03 01 22.8	+1.2
	comp=Z,0.2nm,0.7s,mb3.1,baz=57,slow=5.3,SNR=3.1						

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*ISK **16** 03:03:44.1, 38°.66N×31°.05E, h18^{km}, MD2.9*

*CSEM **16** 03:03:44.5±0.2, 38°.62N×31°.07E, h8^{km}, MD2.9, Error ellipse: s-maj=4.4km s-min=3.6km az=167.0*

*DDA **16** 03:03:44.5, 38°.64N×31°.06E, h7^{km}±2^{km}, Md2.9*

*ISCJB **16** 03:03:45.7±0.6, 38°.63N±0°.04×31°.06E±0°.04, h21^{km}±11^{km}, Error ellipse: s-maj=6.3km s-min=5.2km az=160.6*

ISC 16 03:03:45.1±0.6, **38°.64N**±0°.03×**31°.07E**±0°.04, **h9**^{km}±7^{km}, **n15**, σ**0^{s}86**/28, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHUT	Suhut-Afyon	0.41	258	PG	Pg	03 03 52.9	-0.3
SHUT				SG	Sg	03 03 59.3	+0.6
SHUT	Suhut-Afyon	0.41	258	*i* Pg	Pg	03 03 52.9	-0.3
SHUT				*i* Sg	Sg	03 03 59.3	+0.6
KDHN	Kadinhani	0.83	98	*i* P	Pg	03 04 00.4	-0.7
KDHN				*i* S	Sg	03 04 13.1	+1.1
KDHN	Kadinhani	0.83	98	*i* P	Pg	03 04 00.4	-0.7
KDHN				*i* S	Sg	03 04 13.1	+1.2
ALT	Altintas	0.85	299	*e*PG	Pg	03 04 00.8	-0.8
ALT				*e*SG	Sg	03 04 11.7	-1.0
ALT	Altintas	0.85	299	*e*Pg	Pg	03 04 00.8	-0.8
ALT				*e*Sg	Sg	03 04 11.7	-1.0
SVRH	Sivrihisar-ESK	0.88	24	*e*PG	Pg	03 04 01.8	-0.3
SVRH				*e*SG	Sg	03 04 14.1	+0.6
SVRH	Sivrihisar-ESK	0.88	24	*e*Pg	Pg	03 04 01.8	-0.2
SVRH				*e*Sg	Sg	03 04 14.1	+0.6
ISP	Isparta	0.91	209	*e*PG	Pg	03 04 01.8	-0.8
ISP				*e*SG	Sg	03 04 15.8	+1.3
KONT	Konya--Tatoy	1.23	124	*e*PN	Pn	03 04 07.4	-1.2
KONT	Konya--Tatoy	1.23	124	*e*Pn	Pn	03 04 07.4	-1.1
KHAL	Karahalli	1.27	258	*i* P	Pn	03 04 08.1	-0.8
KHAL				*i* S	Sb	03 04 26.5	+1.0
KHAL	Karahalli	1.27	258	*i* P	Pn	03 04 08.1	-0.9
KHAL				*i* S	Sb	03 04 26.5	+1.0
BORA	Eskisehir	1.32	339	*i* P	Pn	03 04 09.8	-0.1
BORA				*i* S	Sb	03 04 28.5	+1.2
BORA	Eskisehir	1.32	339	*i* P	Pn	03 04 09.8	0.0
BORA				*i* S	Sb	03 04 28.5	+1.2

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*NEIC **16** 03:08:09.9, 16°.96N×100°.27W, h17^{km}, MD3.6(MEX), After MEX.*

MEX 16 03:08:09.9±0.4, **16°.96N**×**100°.27W**, **h17**^{km}±5^{km}, **MD3.6**, **Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.09	4	*i* P	Pg	03 08 12.6	-0.8
CAIG				*i* S	Sg	03 08 14.5	-1.1
ACX	Acapulco	0.35	105	*i* P	Pg	03 08 16.4	-1.0
ACX				*i* S	Sg	03 08 21.1	-1.3
MEIG	Mezcala	1.14	33	*e*P	Pn	03 08 27.0	-4.1
MEIG				*i* S	Sb	03 08 41.7	-4.0
PNIG	Pinotepa	2.13	105	*e*P	Pn	03 08 41.5	-3.2
PNIG				*i* S	Sn	03 09 06.8	-4.0
MZVM		2.43	24	*e*P	Pn	03 08 46.3	-2.5
MZVM				*i* S	Sn	03 09 14.2	-3.8
PPM	Popocatepetl	2.61	37	*e*P	Pn	03 08 50.5	-0.8
PPM				*i* S	Sn	03 09 21.6	-1.1
PBVM	Pinon	2.71	24	*e*P	Pn	03 08 49.9	-2.8
PBVM				*i* S	Sn	03 09 20.1	-4.9
IIO	Organos	3.00	29	*e*P	Pn	03 08 54.1	-2.5
IIO				*i* S	Sn	03 09 29.5	-2.7

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*ISCJB **16** 03:12:41.5±0.8, 36°.26N±0°.03×21°.51E±0°.04, h23^{km}±5^{km}, mb3.7/9, Error ellipse: s-maj=5.9km s-min=4.7km az=26.8*

*CSEM **16** 03:12:42.6±0.3, 36°.29N×21°.61E, h15^{km}, ML3.3, Error ellipse: s-maj=6.6km s-min=5.1km az=31.0*

*NEIC **16** 03:12:42.5, 36°.29N×21°.62E, h25^{km}, mb3.6/1, ML3.3(ATH), After ATH.*

*THE **16** 03:12:42.6, 36°.29N×21°.55E, h16^{km}±2^{km}, ML3.8/5, Error ellipse: s-maj=3.2km s-min=1.7km az=57.0*

*ATH **16** 03:12:42.6, 36°.29N×21°.63E, h24^{km}±1^{km}, MD3.6/4, ML3.3*

*IDC **16** 03:12:46.6±2.1, 36°.37N×21°.84E, h71^{km}±22^{km}, mb3.5/8, mb1 3.6/11, mb1mx3.4/27, mbtmp3.5/11, Error ellipse: s-maj=21.8km s-min=18.8km az=163.0*

ISC 16 03:12:42.6±0.9, **36°.29N**±0°.03×**21°.58E**±0°.04, **h16**^{km}±5^{km}, **n110**, σ**1^{s}18**/134, **mb3.7**/9, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.62	12	P	Pg	03 12 54.8	0.0
PYL				S	Sg	03 13 03.5	+0.4
PYL	PYLOS	0.62	12	*e*PN	Pg	03 12 54.8	0.0
PYL				*e*SN	Sg	03 13 03.8	+0.7
PYL	PYLOS	0.62	12	P	Pg	03 12 54.8	0.0
PYL				S	Sg	03 13 03.5	+0.4
ITM	Ithomi	0.93	17	*e*PN	Pg	03 12 59.8	-0.9
ITM				*e*SN	Sg	03 13 14.0	+1.0
ITM	Ithomi	0.93	17	*e*Pn	Pg	03 12 59.8	-0.9
ITM				*e*Sn	Sg	03 13 14.0	+1.0
VLI	Veliai	1.18	68	*e*PN	Pn	03 13 04.5	+0.2
VLI	Veliai	1.18	68	*e*Pn	Pn	03 13 04.5	+0.2
KYTH	Kithira	1.18	90	*e*PN	Pn	03 13 04.2	-0.1
KYTH	Kithira	1.18	90	*e*Pn	Pn	03 13 04.2	-0.1
VLX	Vlachokerasia	1.26	30	*e*PB	Pb	03 13 04.9	-1.0
VLX				*e*SN	Sn	03 13 22.3	+0.3
GUR	Goura	1.75	20	*e*PB	Pn	03 13 13.0	+0.7
GUR	Goura	1.75	20	*e*Pn	Pn	03 13 13.0	+0.7
RLS	Riolos of Patr	1.77	357	*e*PN	Pn	03 13 13.9	+1.4
RLS	Riolos of Patr	1.77	357	*e*Pn	Pn	03 13 13.9	+1.4
DID	Didima	1.80	47	P	Pn	03 13 11.9	-1.0
DID				S	Sn	03 13 36.9	+1.5
DID	Didima	1.80	47	P	Pn	03 13 11.9	-1.0
DID				S	Sn	03 13 36.9	+1.5
LAKA	Lakka	1.98	9	P	Pn	03 13 16.4	+1.1
LAKA				S	Sn	03 13 39.3	-0.4
LAKA	Lakka	1.98	9	P	Pn	03 13 16.4	+1.1
LAKA				S	Sn	03 13 39.3	-0.4
VLS	Valsamata	2.04	338	P	Pn	03 13 16.3	+0.1
VLS				S	Sn	03 13 41.1	-0.3
VLS	Valsamata	2.04	338	*e*PB	Pb	03 13 16.7	-2.6
VLS	Valsamata	2.04	338	P	Pn	03 13 16.3	+0.1
VLS				S	Sn	03 13 41.1	-0.3
LTK	Loutraki	2.06	32	P	Pn	03 13 15.7	-0.7
LTK				S	Sn	03 13 43.1	+1.4
LTK	Loutraki	2.06	32	*e*PB	Pn	03 13 17.5	+1.1
LTK	Loutraki	2.06	32	P	Pn	03 13 15.7	-0.7
LTK	Loutraki	2.06	32	*e*Pn	Pn	03 13 17.5	+1.1
LTK				S	Sn	03 13 43.1	+1.4
KARN	Karanos	2.10	114	P	Pn	03 13 17.2	+0.3
KARN				S	Sn	03 13 43.3	+0.7
KARN	Karanos	2.10	114	P	Pn	03 13 17.2	+0.3
KARN				S	Sn	03 13 43.3	+0.7
TRIZ	Trizonia	2.11	11	P	Pn	03 13 17.8	+0.6
TRIZ				S	Sn	03 13 44.1	+1.1
TRIZ	Trizonia	2.11	11	P	Pn	03 13 17.8	+0.6
TRIZ				S	Sn	03 13 44.1	+1.1
NAIG	Nisos Aigina	2.12	46	*e*PB	Pb	03 13 18.5	-2.0
EFP	Efpalio	2.15	7	*e*PB	Pb	03 13 19.9	-1.2
ATH	Athens Observa	2.40	45	*e*PN	Pn	03 13 22.4	+1.3
ATH	Athens Observa	2.40	45	*e*Pn	Pn	03 13 22.4	+1.3
ATHU	Athens Univers	2.43	46	P	Pn	03 13 20.5	-1.1
ATHU	Athens Univers	2.43	46	P	Pn	03 13 20.5	-1.1
PTL	Penteli	2.53	45	*e*PN	Pn	03 13 24.2	+1.2
PTL	Penteli	2.53	45	*e*Pn	Pn	03 13 24.2	+1.2
LKR	Lokris	2.62	25	P	Pn	03 13 22.6	-1.5
LKR	Lokris	2.62	25	*e*PN	Pn	03 13 24.8	+0.7
LKR	Lokris	2.62	25	*e*Pn	Pn	03 13 22.9	-1.2
LKR	Lokris	2.62	25	P	Pn	03 13 22.6	-1.5
LKR	Lokris	2.62	25	*e*Pn	Pn	03 13 22.9	-1.2
AGG	Agios Georgios	2.79	12	P	Pn	03 13 26.9	+0.4
AGG	Agios Georgios	2.79	12	*e*PN	Pn	03 13 28.5	+2.0
AGG	Agios Georgios	2.79	12	P	Pn	03 13 26.9	+0.4
AGG	Agios Georgios	2.79	12	*e*Pn	Pn	03 13 28.5	+2.0
IDI	Anoyia	2.87	109	P	Pn	03 13 27.3	-0.2
	1.1nm,0.3s,baz=294,slow=14,SNR=14						
IDI	Anoyia	2.87	109	P	Pn	03 13 27.3	-0.3
THL	Klokotos Trika	3.29	6	P	Pn	03 13 33.8	+0.4
THL	Klokotos Trika	3.29	6	P	Pn	03 13 33.8	+0.4
LAST	Lasithi	3.37	108	P	Pn	03 13 34.5	+0.1
LAST	Lasithi	3.37	108	P	Pn	03 13 34.5	+0.1
IGT	Igoumenitsa	3.39	343	P	Pn	03 13 34.8	+0.1
IGT				S	Sn	03 14 13.1	-1.4
IGT	Igoumenitsa	3.39	343	P	Pn	03 13 34.8	+0.1
IGT				S	Sn	03 14 13.1	-1.4
JAN	Janina	3.41	351	P	Pn	03 13 36.7	+1.7
JAN	Janina	3.41	351	P	Pn	03 13 36.7	+1.7
MEV	Metsovon	3.50	356	P	Pn	03 13 38.0	+1.7
MEV	Metsovon	3.50	356	P	Pn	03 13 38.0	+1.7
KEK	Kerkira	3.70	338	P	Pn	03 13 39.5	+0.5
KEK	Kerkira	3.70	338	P	Pn	03 13 39.5	+0.5
LIT	Litokhoron	3.87	10	P	Pn	03 13 41.7	+0.3
LIT	Litokhoron	3.87	10	P	Pn	03 13 41.7	+0.3
KZN	Kozani	4.02	2	P	Pn	03 13 45.0	+1.7
KZN	Kozani	4.02	2	P	Pn	03 13 45.0	+1.7
SMG	Samos	4.44	70	P	Pn	03 13 48.6	-0.6
SMG	Samos	4.44	70	P	Pn	03 13 48.6	-0.6
FNA	Florina	4.49	358	P	Pn	03 13 49.9	0.0
FNA	Florina	4.49	358	P	Pn	03 13 49.9	0.0
GRG	Griva	4.71	8	P	Pn	03 13 52.4	-0.4
GRG	Griva	4.71	8	P	Pn	03 13 52.4	-0.4
BIA	Bitola	4.73	358	*e*Pn	Pn	03 13 52.6	-0.5
BIA				*e*Sg	Sn	03 14 44.2	-3.3
BIA	Bitola	4.73	358	*e*Pn	Pn	03 13 52.6	-0.5
SOH	Sokhos	4.74	17	P	Pn	03 13 53.3	+0.1
SOH	Sokhos	4.74	17	P	Pn	03 13 53.3	+0.1
TIP	Timpagrande	4.79	309	*e*Pn	Pn	03 13 55.4	+1.4
TIP				*e*Sn	Sn	03 14 40.5	-8.5
TIP	Timpagrande	4.79	309	*e*Pn	Pn	03 13 55.3	+1.3
CEL	Celeste	4.94	295	P	Pn	03 13 57.7	+1.6
CEL	Celeste	4.94	295	P	Pn	03 13 57.7	+1.6
SRS	Serrai	5.07	17	P	Pn	03 13 57.7	-0.2
SRS	Serrai	5.07	17	P	Pn	03 13 57.7	-0.2
KRUS	Krusevo	5.08	357	*e*Pn	Pn	03 13 56.9	-1.0
KRUS				*e*Sg	Sn	03 14 51.4	-4.8
KRUS	Krusevo	5.08	357	*e*Pn	Pn	03 13 56.9	-1.1
VAY	Valandovo	5.08	8	*e*Pn	Pn	03 13 57.4	-0.7
VAY	Valandovo	5.08	8	*e*Pn	Pn	03 13 57.3	-0.7
HAVL	Avola	5.24	279	Pn	Pn	03 14 01.9	+1.8
	101nm,0.2s						
HAVL	Avola	5.24	279	Pn	Pn	03 14 01.9	+1.8
	101nm,0.2s						
NVR	Nevrokopi	5.36	19	P	Pn	03 14 02.6	+0.8
NVR	Nevrokopi	5.36	19	P	Pn	03 14 02.6	+0.8
TAR1	Taranto	5.41	323	*e*Pn	Pn	03 14 02.3	-0.2
LTRZ	Laterza	5.70	321	Pn	Pn	03 14 06.2	-0.3
	172nm,1.6s						
LTRZ	Laterza	5.70	321	Pn	Pn	03 14 06.2	-0.3
	172nm,1.6s						
VAE	Valguarnera	5.87	284	P	Pn	03 14 13.5	+4.7
	0.4nm,0.3s,baz=82,slow=15,SNR=3.9						
VAE				S	Sn	03 15 16.2	+0.5
	2.1nm,0.3s,baz=284,slow=17,SNR=4.1						
VAE	Valguarnera	5.87	284	S	Sn	03 15 16.2	+0.5
BARS	Barje	6.52	2	*e*Pn	Pn	03 14 16.7	-1.1
GRUS	Gruza	7.62	355	*e*Pn	Pn	03 14 30.6	-2.2
BBLS	Lazići	7.75	348	*e*Pn	Pn	03 14 33.2	-1.4
MLR	Muntele Rosu	9.77	18	P	Pn	03 15 04.1	+1.9
	0.2nm,0.3s,baz=243,slow=11,SNR=2.9						
MLR	Muntele Rosu	9.77	18	P	Pn	03 15 04.1	+1.8
HFS	Hagfors	24.40	350	P	P	03 17 57.3	-2.5
	3.5nm,0.9s,mb3.8,baz=144,slow=11,SNR=4.4						
HFS	Hagfors	24.40	350	P	P	03 17 57.3	-2.5
NOA	NORSAR Array B	25.64	348	P	P	03 18 08.9	-2.1
	0.5nm,0.6s,mb3.2,baz=156,slow=8.9,SNR=3.3						
TORD	Torodi Ar. Bea	29.16	223	P	P	03 18 43.4	+0.4
	0.3nm,0.7s,mb3.1,baz=35,slow=11,SNR=3.7						
ARCES	ARCESS Array B	33.37	3	P	P	03 19 17.0	-2.6
	5.5nm,1.0s,mb4.4,baz=192,slow=8.3,SNR=5.0						
EKS2	Erkin-Say	40.26	64	*e*P	P	03 20 16.2	-2.3
	0.5nm,0.4s,mb3.6						
EKS2	Erkin-Say	40.26	64	*e*P	P	03 20 16.2	-2.3
	0.5nm,0.4s,mb3.6						
KURK	Kurchatov	42.75	52	P	P	03 20 34.2	-4.6
	0.4nm,0.3s,mb3.6,baz=87,slow=35,SNR=3.4						
MKAR	Makanchi Array	45.60	57	P	P	03 20 57.8	-4.0
	0.5nm,0.4s,mb3.8,baz=267,slow=7.9,SNR=21						
ZALV	Zalesovo Beam	46.34	47	P	P	03 21 03.5	-4.0
	0.8nm,0.3s,mb4.1,baz=271,slow=8.9,SNR=4.3						
ZALV	Zalesovo Beam	46.34	47	P	P	03 21 03.5	-4.0
SONM	Songino Array	61.01	50	P	P	03 22 51.4	-3.6
	0.1nm,0.4s,mb3.3,baz=269,slow=7.7,SNR=3.5						

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*HLW **16** 03:16:02.3, 33°.72N×35°.38E, h26^{km}, Mb3.1*

*ISCJB **16** 03:16:03.0±0.5, 33°.34N±0°.03×35°.39E±0°.04, h9^{km}±4^{km}, Error ellipse: s-maj=6.3km s-min=3.8km az=32.6*

*GII **16** 03:16:03.3±0.6, 33°.26N×35°.45E, h1^{km}±2^{km}, Md2.5/2*

*CSEM **16** 03:16:03.5±0.2, 33°.34N×35°.45E, h10^{km}, ML3.2, Error ellipse: s-maj=6.1km s-min=3.2km az=105.0*

*GRAL **16** 03:16:04.2±0.3, 33°.32N×35°.43E, h6^{km}±3^{km}, MD3.1*

ISC 16 03:16:03.6±0.5, **33°.34N**±0°.03×**35°.40E**±0°.04, **h6**^{km}±4^{km}, **n31**, σ**0^{s}64**/46, **1C-2D**, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.15	339	*e*P	Pg	03 16 07.7	+0.9
MATL	Matirih	0.15	339	*e*P	Pg	03 16 07.7	+0.9
KSDI	Kefar Szold	0.27	124	Pg	Pg	03 16 08.2	-0.6
KSDI				Sg	Sg	03 16 12.7	+0.4
HRI	Mount Hermon	0.29	105	Pg	Pg	03 16 08.9	-0.4
HRI				Sg	Sg	03 16 13.8	+0.7
HNTI	Hanita	0.32	216	Pg	Pg	03 16 09.9	+0.1
HNTI				Sg	Sg	03 16 15.0	+1.0
MMA0B	Mount Meron ar	0.33	179	Pg	Pg	03 16 09.4	-0.5
MMA0B				Sg	Sg	03 16 14.4	+0.2
MMA4	Mount Meron ar	0.33	180	Pg	Pg	03 16 09.5	-0.4
RCY	Rachaya	0.38	68	*e*P	Pg	03 16 11.1	+0.1
RCY				*e*S	Sg	03 16 16.2	+0.3
RCY	Rachaya	0.38	68	*e*P	Pg	03 16 11.1	+0.1
RCY				*e*S	Sg	03 16 16.2	+0.3
BHL	Bhannes	0.60	21	*e*P	Pg	03 16 15.1	0.0
BHL	Bhannes	0.60	21	*e*P	Pg	03 16 15.1	0.0
BLGI	Bet Lehem HaGe	0.63	196	Pg	Pg	03 16 15.4	-0.3
OFRI	‘Ofer	0.80	206	Pg	Pg	03 16 18.7	-0.2
OFRI				Sg	Sg	03 16 30.6	+1.3
MMLI	Mount Malkishu	0.90	179	Pg	Pg	03 16 19.9	-1.0
MMLI				Sg	Sg	03 16 32.2	-0.4
HWQ	Hawqa	1.04	26	*e*P	Pg	03 16 22.8	-0.7
HWQ	Hawqa	1.04	26	*e*P	Pg	03 16 22.8	-0.7
HMDT	Nahal Hemdat	1.09	174	Pg	Pg	03 16 23.3	-1.2
HMDT				Sg	Sg	03 16 39.1	+0.4
SLTI	Sal’it	1.14	195	Pg	Pg	03 16 24.5	-1.0
SLTI				Sg	Sg	03 16 40.5	+0.3
DSI	Dead Sea	1.77	180	Pn	Pn	03 16 34.3	-0.4
YTIR	Yattir	1.99	187	Pn	Pn	03 16 38.3	+0.5
MZDA	Masada	2.03	181	Pn	Pn	03 16 38.6	+0.3
MZDA				Sn	Sn	03 17 05.1	+1.2
RTMI	Retamim	2.36	195	Pn	Pn	03 16 43.6	+0.7
KZIT	Kziot	2.57	200	Pn	Pn	03 16 46.4	+0.6
ZFRI	Zfri	2.79	184	Pn	Pn	03 16 48.8	+0.1
PRNI	Paran	3.00	186	Pn	Pn	03 16 52.0	+0.3
AMAG	Maghara	3.27	215	⇓P	Pn	03 16 55.1	-0.3
AMAG				S	Sn	03 17 33.8	-0.8
AMAG	Maghara	3.27	215	P	Pn	03 16 55.1	-0.3
AMAG				S	Sn	03 17 33.8	-0.9
HNKL	Nakhl	3.61	200	⇑P	Pn	03 17 00.5	+0.4
HNKL	Nakhl	3.61	200	P	Pn	03 17 00.5	+0.4
SUZ		4.12	213	⇓P	Pn	03 17 07.1	0.0
SUZ				S	Sn	03 17 54.4	-1.2
SUZ		4.12	213	P	Pn	03 17 07.1	0.0
SUZ				S	Sn	03 17 54.4	-1.2

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*ISCJB **16** 03:24:56.7±0.6, 51°.17N±0°.05×130°.79W±0°.08, h10^{km}, Error ellipse: s-maj=9.2km s-min=4.0km az=136.0*

*IDC **16** 03:24:56.9±2.4, 51°.15N×131°.25W, h0^{km}, mb1 3.8/3, mb1mx3.4/22, mbtmp3.4/3, ML3.4/3, Error ellipse: s-maj=36.0km s-min=17.4km az=60.0*

*NEIC **16** 03:24:57.9, 51°.03N×130°.93W, h10^{km}, mb3.1/1, ML3.3(PGC), After PGC.*

*PGC **16** 03:24:57.9±1.9, 51°.03N×130°.93W, h10^{km}, ML3.3/9, Mw3.9, 231km Wsw of Bella Bella, Bc Queen Charlotte Islands Region*

ISC 16 03:24:58.3±0.6, **51°.23N**±0°.05×**130°.81W**±0°.09, **h10**^{km}, **n28**, σ**1^{s}31**/36, **5D**, **Queen Charlotte Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNB	Barry Inlet	1.47	337	⇑Pn	Pn	03 25 24.3	-0.5
HOLB	Holberg	1.79	108	⇑Pn	Pn	03 25 27.2	-2.1
HOLB				⇓Sn	Sn	03 25 47.6	-4.5
BBB	Bella Bella	1.93	59	⇓Pn	Pn	03 25 31.3	+0.1
BBB				⇓Sn	Sn	03 25 54.7	-0.9
MOBC	Moresby Island	2.05	340	⇑Pn	Pn	03 25 33.0	+0.2

PHC	Port Hardy	2.20	102	⇑Pn	Pn	03 25 32.7	-2.2
PHC				⇑Sn	Sn	03 25 58.4	-3.7
BPBC	Brooks Peninsu	2.21	118	Pn	Pn	03 25 32.1	-2.9
BPBC				⇑Sn	Sn	03 25 56.8	-5.6
DIB	Dawson Inlet,	2.23	333	⇓Pn	Pn	03 25 36.2	+0.9
DIB	Dawson Inlet,	2.23	333	Pn	Pn	03 25 35.5	+0.2
DIB				Sn	Sn	03 26 02.8	0.0
	SNR=101						
VIB	Van Inlet	2.29	333	Pn	Pn	03 25 33.8	-2.3
VIB				Sn	Sn	03 26 03.7	-0.6
MAYB	Maynard	2.45	108	⇑Pn	Pn	03 25 36.8	-1.6
EDB	Eliza Dome	2.72	118	⇑Pn	Pn	03 25 39.5	-2.5
BCBC	Bella Coola	2.77	64	⇑Pn	Pn	03 25 43.7	+1.1
BCBC				⇓Sn	Sn	03 26 17.3	+1.3
WOSB	Woss	2.90	110	⇑Pn	Pn	03 25 43.0	-1.5
WOSB	Woss	2.90	110	Pn	Pn	03 25 43.7	-0.8
CRAG	Craig	4.47	343	*e*Pn	Pn	03 26 07.5	+1.5
MCW	Mount Constitu	5.75	113	P	Pn	03 26 24.3	+0.7
NLWA	Neilton Lookou	5.94	128	*e*Pn	Pn	03 26 26.1	-0.2
JCW	Jim Creek	6.51	114	P	Pn	03 26 35.0	+0.9
RPW	Rockport	6.62	111	P	Pn	03 26 36.1	+0.5
LON	Longmire	7.42	124	P	Pn	03 26 47.8	+1.2
TDL	Tradedollar La	7.48	127	P	Pn	03 26 49.3	+1.9
WPW	White Pass	7.59	123	P	Pn	03 26 50.5	+1.6
WTV	Waterville	7.91	112	P	Pn	03 26 53.8	+0.6
YKA	Yellowknife Ar	14.30	32	Pn	Pn	03 28 21.4	+0.9
	0.2nm,0.3s,baz=219,slow=13,SNR=12						
YKA				Sn	Sn	03 30 54.2	-4.8
	0.0nm,0.3s,baz=226,slow=23,SNR=3.2						
MOOW	Moose Ponds	15.46	111	*e*Pn	Pn	03 28 37.3	+1.0
NVAR	Mina Array Bea	15.54	141	Pn	Pn	03 28 42.7	+5.4
	0.0nm,0.3s,baz=332,slow=7.6,SNR=3.4						
BW06	Boulder Array	16.74	112	*e*P	Pn	03 28 52.7	0.0
	1.1nm,0.7s						
PDAR	Pinedale Array	16.74	112	Pn	Pn	03 28 55.8	+3.0
	0.0nm,0.3s,baz=309,slow=12,SNR=7.7						

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*MOS **16** 03:29:32.9±1.0, 10°.05S×161°.07E, h33^{km}, mb5.2/14, Error ellipse: s-maj=12.6km s-min=9.4km az=62.4*
*IDC **16** 03:29:35.8±2.4, 10°.48S×161°.44E, h62^{km}±18^{km}, mb4.4/17, mb1 4.6/18, mb1mx4.6/21, mbtmp4.4/18, MS4.1/13, Ms1 4.1/13, ms1mx3.9/26, Error ellipse: s-maj=19.1km s-min=13.3km az=102.0*
*ISCJB **16** 03:29:36.1±1.0, 10°.46S±0°.05×161°.18E±0°.04, h70^{km}±9^{km}, mb4.7/54, Error ellipse: s-maj=8.0km s-min=6.4km az=22.3*
*BJI **16** 03:29:36.0, 10°.17S×161°.73E, h81^{km}, mB5.2/27, mb4.8/34, Ms5.1/17, Ms7 4.9/17*
*NOU **16** 03:29:38.1±0.6, 9°.79S×163°.98E, h30^{km}±999^{km}*
*NEIC **16** 03:29:39.3±1.1, 10°.28S×161°.11E, h83^{km}±9^{km}, mb5.0/23, Error ellipse: s-maj=11.4km s-min=5.8km az=130.0*
*DJA **16** 03:29:56, 10°.91S×161°.14E, h242^{km}, mb4.8/8*
ISC 16 03:29:37.5±0.8**, 10°.45S**±0°.05×**161°.24E**±0°.04**, h69**^{km}±7^{km}**, h79**^{km}±2.7^{km}**:pP-P, n255, σ0.^{s}74**/243**, mb4.7**/54**, 72C-70D,**
Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	1.63	308	P	Pn	03 30 03.1	-1.0
	683nm,0.3s,baz=177,slow=6.3,SNR=84						
HNR				S	Sn	03 30 27.7	+3.4
	2µm,0.3s,baz=198,slow=20,SNR=25						
HNR	Honiara	1.63	308	*e*Pn	Pn	03 30 03.0	-1.2
HNR				*e*Sn	Sn	03 30 25.7	+1.4
NOUC	Port Laguerre	12.56	158	*e*P	Pn	03 32 32.4	-0.9
NOUC				*e*S	Sn	03 34 50.2	-1.2
DZM	Mont Dzumac	12.58	157	*e*P	Pn	03 32 32.8	-0.8
LASL	Noumea	12.77	157	*e*P	Pn	03 32 35.7	-0.4
CTA	Charters Tower	17.33	235	P	Pn	03 33 37.1	+2.2
CTA				S	S	03 36 45.4	-6.9
CTA	Charters Tower	17.33	235	P	Pn	03 33 37.1	+2.1
	1.7nm,0.3s,baz=66,slow=14,SNR=25						
CTA				S	S	03 36 45.4	-6.9
	0.2nm,0.3s,baz=79,slow=18,SNR=3.1						
CTA				LR	LR	03 39 50.6	
	comp=Z,604nm,18.5s,baz=56,slow=35						
CTAO	Charters Tower	17.33	235	*e*P	Pn	03 33 37.0	+2.1
CTAO				pmax	pmax		
	comp=Z,54nm,0.9s						
CTAO	Charters Tower	17.33	235	*e*P	Pn	03 33 37.0	+2.0
	comp=Z,54nm,0.9s						
COEN	Coen	18.00	257	*e*P	Pn	03 33 46.5	+3.4
	comp=Z,105nm,0.7s						
WRAB	Tennant Creek	27.57	247	P	P	03 35 18.9	+0.6
	comp=Z,169nm,1.0s,mb5.5,SNR=13						
WRAB	Tennant Creek	27.57	247	*e*P	P	03 35 18.5	+0.2
WRAB				pmax	pmax		
	comp=Z,27nm,1.1s,mb4.7						
WRAB	Tennant Creek	27.57	247	*e*P	P	03 35 18.5	+0.2
	comp=Z,27nm,1.1s,mb4.7						
WRA	Warramunga Arr	27.59	247	P	P	03 35 18.7	+0.2
	comp=Z,19nm,0.7s,mb4.7,baz=77,slow=8.9,SNR=119						
WRA				ScP	ScP	03 42 11.8	+2.2
	comp=Z,1.1nm,0.6s,baz=75,slow=3.6,SNR=7.7						
WRA				LR	LR	03 45 46.7	
	comp=Z,350nm,19.9s,baz=80,slow=35						
STKA	Stephens Creek	28.02	218	P	P	03 35 22.8	+0.7
	comp=Z,5.0nm,0.9s,mb4.0,baz=32,slow=11,SNR=7.0						
STKA				LR	LR	03 46 16.6	
	comp=Z,1µm,19.8s,baz=141,slow=36						
STKA	Stephens Creek	28.02	218	P	P	03 35 22.8	+0.7
STKA				LR	LR	03 46 16.6	
KAKA	Kakadu	28.30	263	*e*P	P	03 35 24.7	-0.1
	comp=Z,30nm,0.6s,mb5.0						
ASAR	Alice Springs	29.18	240	P	P	03 35 31.9	-0.6
	comp=Z,5.5nm,0.6s,mb4.4,baz=71,slow=9.5,SNR=54						
ASAR				ScP	ScP	03 42 16.3	+1.8
	comp=Z,0.3nm,0.3s,baz=62,slow=2.9,SNR=4.4						
FITZ	Fitzroy Crossi	35.28	253	P	P	03 36 25.6	-0.5
	comp=Z,26nm,0.8s,mb5.1,baz=81,slow=6.7,SNR=34						
FITZ				LR	LR	03 48 51.1	
	comp=Z,22nm,20.5s,baz=85,slow=33						
FITZ	Fitzroy Crossi	35.28	253	*e*P	P	03 36 25.6	-0.4
	comp=Z,23nm,0.8s,mb5.1						
RAR	Rarotonga	38.90	111	LR	LR	03 49 33.0	
	comp=Z,120nm,21.1s,baz=274,slow=31						
MBWA	Marble Bar	41.22	250	*e*P	P	03 37 16.0	+0.1
NWAO	Narrogin (SRO)	46.17	234	P	P	03 37 55.8	+0.3
	comp=Z,11nm,0.8s,mb4.7,baz=86,slow=10.0,SNR=4.4						
PPT	Papeete	48.13	104	*e*LR	LR	03 52 05.3	
	comp=Z,366nm,25.2s						
MJAR	Matsushiro Arr	51.53	336	P	P	03 38 34.9	-1.5
	comp=Z,5.0nm,0.7s,mb4.7,baz=169,slow=8.6,SNR=14						
MAJO	Matsushiro	51.53	336	*e*P	P	03 38 35.2	-1.2
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
MAJO	Matsushiro	51.53	336	*e*P	P	03 38 35.1	-1.2
	comp=Z,8.0nm,0.6s,mb4.9						
MAT	Matsushiro	51.53	336	P	P	03 38 35.3	-1.1
KSRS	Korea Array	56.98	329	P	P	03 39 15.3	-0.6
	comp=Z,9.8nm,1.0s,mb4.8,baz=142,slow=7.5,SNR=16						
KSRS				LR	LR	04 00 40.3	
	comp=Z,88nm,20.3s,baz=333,slow=33						
NJ2	Nanjing	58.55	318	*e*P	P	03 39 28.6	+1.5
NJ2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
YSS	Yuzh-Sakhalins	59.48	345	*e*P	P	03 39 33.4	+0.1
MDJ	Mudanjiang	61.84	335	P	P	03 39 49.4	0.0
MDJ				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
MDJ				pmax	pmax		
	comp=Z,91nm,4.1s						
RKT	Rikitea	61.94	111	*e*LR	LR	03 58 34.3	
	comp=Z,316nm,31.2s						
CN2	Changchun	63.04	332	*e*P	P	03 39 57.8	+0.4
CN2				*e*S	S	03 48 20.1	-2.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,300nm,16.0s						
CN2				LR	LR		
	comp=E,200nm,16.0s						
CN2				LR	LR		
	comp=Z,200nm,15.0s						
HABR	Khabarovsk	63.07	341	*e*P	P	03 39 55.0	-2.5
HABR				*e**PP	pP	03 40 13.2	-2.4
HABR				*e*		03 42 13.9	
HABR				PPP		03 43 40.6	
HABR				*e*S	S	03 48 19.4	-3.6
HABR				*e*SS	SS	03 52 26.4	-3.8
HABR				MLR	MLR		
	comp=Z,59nm,20.0s						
PETK	Petropavlovsk-	63.38	358	P	P	03 39 59.3	-0.1
	comp=Z,2.0nm,0.6s,mb4.2,baz=144,slow=4.3,SNR=4.9						
PETK				LR	LR	04 02 30.1	
	comp=Z,161nm,21.2s,baz=196,slow=31						
GYA	Guiyang	64.46	306	*e*P	P	03 40 07.9	+0.8
GYA				pP	pP	03 40 30.3	+5.1
GYA				sP	sP	03 40 38.8	+6.0
GYA				PcP	PcP	03 40 42.1	+1.2
GYA				PP	PP	03 42 33.0	+3.3
GYA				ScP		03 44 35.4	
GYA				PcS		03 44 44.6	
GYA				S	S	03 48 38.0	-3.0
GYA				sS	sS	03 49 14.3	+2.6
GYA				SKS		03 49 50.5	
GYA				SS	SS	03 52 50.3	-2.3
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
GYA				pmax	pmax		
	comp=Z,130nm,5.0s						
GYA				LR	LR		
	comp=N,630nm,18.2s						
GYA				LR	LR		
	comp=E,610nm,18.0s						
GYA				LR	LR		
	comp=Z,560nm,17.8s						
KLR	Kul'dur	64.84	339	*e*P	P	03 40 05.8	-3.2
KLR				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.0						
BJI	Beijing	65.30	323	P	P	03 40 15.9	+3.6
BJI				sP	sP	03 40 46.1	+8.0
BJI				PP	PP	03 42 42.3	+5.4
BJI				S	S	03 48 50.9	+0.1
BJI				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.6						
BJI				pmax	pmax		
	comp=Z,120nm,5.0s						
BJI				LR	LR		
	comp=Z,93nm,23.5s						
XAN	Xi'an	66.50	314	P	P	03 40 19.9	-0.2
XAN				pP	pP	03 40 40.0	+1.7
XAN				sP	sP	03 40 50.0	+4.1
XAN				S	S	03 48 54.3	-11
XAN				ScS	ScS	03 50 03.4	-7.7
XAN				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.8						
XAN				pmax	pmax		
	comp=Z,79nm,5.0s						
XAN				LR	LR		
	comp=N,99nm,8.4s						
XAN				LR	LR		
	comp=Z,110nm,8.4s						
VNDA	Vanda	67.05	180	P	P	03 40 22.4	-0.5
	comp=Z,4.3nm,0.9s,mb4.3,baz=358,slow=2.2,SNR=5.1						
KMI	Kunming	67.06	303	P	P	03 40 26.6	+2.7
KMI				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
CMAR	Chiang Mai Arr	67.83	295	P	P	03 40 28.8	-0.1
	comp=Z,1.1nm,0.3s,mb4.2,baz=127,slow=4.4,SNR=7.3						
CMAR				LR	LR	04 07 52.3	
	comp=Z,41nm,19.2s,baz=239,slow=34						
HHC	Hu-ho-hao-te	68.57	322	*e*P	P	03 40 34.5	+1.5
HHC				pP	pP	03 40 54.1	+2.8
HHC				sP	sP	03 41 02.8	+3.9
HHC				PP	PP	03 43 07.0	+1.7
HHC				PcS		03 45 03.1	
HHC				*e*S	S	03 49 27.6	-2.6
HHC				sS	sS	03 50 01.3	+0.1
HHC				ScS	ScS	03 50 22.8	-4.1
HHC				SS	SS	03 53 52.3	-3.6
HHC				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.6						
HHC				pmax	pmax		
	comp=Z,170nm,4.5s						
HHC				LR	LR		
	comp=N,120nm,19.0s						
HHC				LR	LR		
	comp=E,170nm,16.7s						
HHC				LR	LR		
	comp=Z,100nm,16.6s						
CD2	Chengdu	68.76	309	P	P	03 40 36.0	+1.6
CD2				pP	pP	03 40 56.3	+3.6
CD2				sP	sP	03 41 04.4	+4.1
CD2				PP	PP	03 43 10.5	+3.3
CD2				S	S	03 49 31.3	-1.6
CD2				sS	sS	03 50 05.4	+1.5
CD2				SS	SS	03 53 58.4	-0.8
CD2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
CD2				pmax	pmax		
	comp=Z,220nm,5.0s						
CD2				LR	LR		
	comp=N,250nm,5.3s						
CD2				LR	LR		
	comp=Z,280nm,5.9s						
LZH	Lanzhou	71.12	314	*e*P	P	03 40 49.0	+0.2
LZH				pP	pP	03 41 11.5	+4.3
LZH				sP	sP	03 41 20.5	+5.7
LZH				PP	PP	03 43 30.0	+2.6
LZH				S	S	03 49 57.0	-3.3
LZH				sS	sS	03 50 32.0	+0.5
LZH				*e*SS	SS	03 54 34.0	-1.4
LZH				pmax	pmax		
	comp=Z,29nm,1.6s,mb4.9						
LZH				pmax	pmax		
	comp=Z,130nm,4.7s						
LZH				LR	LR		
	comp=N,1µm,17.3s						
LZH				LR	LR		
	comp=Z,1µm,18.5s						
SEY	Seymchan	73.48	356	⇑*e*P	P	03 41 01.7	-0.5
ULN	Ulaanbaatar	75.27	326	*e*P	P	03 41 13.5	+0.5
GTA	Gaotai	75.49	315	⇑P	P	03 41 15.3	+0.8
GTA				pP	pP	03 41 37.9	+4.9
GTA				sP	sP	03 41 47.8	+7.2
GTA				PP	PP	03 44 06.5	+1.9
GTA				S	S	03 50 47.6	-2.1
GTA				sS	sS	03 51 26.6	+5.4
GTA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
GTA				pmax	pmax		
	comp=Z,88nm,4.8s						
GTA				LR	LR		
	comp=N,110nm,15.9s						
GTA				LR	LR		
	comp=E,110nm,16.2s						
GTA				LR	LR		
	comp=Z,100nm,17.1s						
SONM	Songino Array	75.62	325	P	P	03 41 15.1	+0.1
	comp=Z,9.9nm,0.8s,mb4.6,baz=140,slow=5.9,SNR=56						
SONM				LR	LR	04 12 33.8	
	comp=Z,102nm,19.9s,baz=58,slow=34						
SONM	Songino Array	75.62	325	P	P	03 41 15.1	+0.1
SONM				LR	LR	04 12 33.8	
YAK	Yakutsk	76.34	345	*e*P	P	03 41 17.4	-1.3
YAK				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,8.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
YAK	Yakutsk	76.34	345	*e*P	P	03 41 17.3	-1.4
	comp=E,43nm,0.8s,mb5.2						
KDAK	Kodiak Island	77.72	23	*i* P	P	03 41 26.6	0.0
BOD	Bodaibo	78.16	336	*e*P	P	03 41 27.9	-1.1
BOD				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.9						
BILL	Bilibino	78.37	2	α*e*P	P	03 41 29.9	-0.1
BILL						03 41 38.0	
BILL				*e*	pP	03 41 47.4	-1.2
BILL				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.9						
BILL	Bilibino	78.37	2	*e*P	P	03 41 29.6	-0.3
	comp=Z,21nm,1.0s,mb4.8						
ZAK	Zakamensk	78.72	326	⇓*i*P	P	03 41 31.8	-0.5
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
SVW2	Sparrevohn	78.99	20	*e*P	P	03 41 34.0	+0.5
TNA	Tin City	79.19	13	*e*P	P	03 41 34.2	-0.3
	comp=Z,11nm,1.0s,mb4.6						
TLY	Talaya	79.22	328	*e*P	P	03 41 34.8	-0.2
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
FIB	Fire Island	80.92	22	*e*P	P	03 41 44.6	+0.7
FIB				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.3						
FIB	Fire Island	80.92	22	*e*P	P	03 41 44.5	+0.6
	comp=Z,60nm,1.2s,mb5.3						
PMR	Palmer	81.58	22	*e*P	P	03 41 47.1	-0.3
CHUM	Lake Minchumin	82.04	19	*e*P	P	03 41 49.4	-0.4
	comp=Z,18nm,1.0s,mb4.9						
KTH	Kantishna Hill	82.27	20	*e*P	P	03 41 50.0	-1.0
	comp=Z,23nm,0.8s,mb5.0						
TRF	Thorofare Moun	82.41	20	*e*P	P	03 41 50.5	-1.3
	comp=Z,12nm,0.8s,mb4.8						
MCK	McKinley	83.05	20	*e*P	P	03 41 54.2	-0.9
MCK				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.3						
MCK	McKinley	83.05	20	*e*P	P	03 41 54.2	-0.9
	comp=Z,44nm,0.9s,mb5.3						
IMA2	Indian Mountai	83.17	17	*e*P	P	03 41 55.4	-0.3
MAW	Mawson	83.59	202	LR	LR	04 18 38.5	
	comp=Z,199nm,18.2s,baz=231,slow=35						
COLA	College	84.15	19	*e*P	P	03 41 59.6	-1.1
COLA				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.0						
COLA	College	84.15	19	*e*P	P	03 41 59.6	-1.1
	comp=Z,21nm,0.8s,mb5.0						
TIXI	Tiksi	84.71	350	⇑*e*P	P	03 42 02.1	-1.3
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
WMQ	Urumqi	85.57	316	*e*P	P	03 42 08.0	-0.3
WMQ				pP	pP	03 42 28.0	+0.8
WMQ				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,150nm,5.0s						
EGAK	Eagle	86.39	21	*e*P	P	03 42 12.0	+0.2
	comp=Z,22nm,1.2s,mb5.0						
WDC	Whiskeytown Da	86.46	48	*e*P	P	03 42 14.1	+1.3
DAWY	Dawson	86.64	22	*e*P	P	03 42 13.8	+0.8
HUMO	Hull Mountain	86.75	46	*e*P	P	03 42 15.4	+1.3
H04A	Detroit Lake	87.90	44	⇑P	P	03 42 18.9	-0.7
	baz=88						
F04A	Amboy	88.10	43	⇓P	P	03 42 20.4	-0.1
	baz=88						
R06C	Coleville	88.20	50	⇑P	P	03 42 20.2	-1.0
	baz=88						
K05A	Summer Lake	88.25	46	⇓P	P	03 42 20.4	-0.9
	baz=88						
C04A	Brinnon	88.27	41	⇑P	P	03 42 20.6	-0.6
	baz=88						
O06A	Flanigan	88.34	49	⇓P	P	03 42 21.5	-0.3
	baz=88						
MOD	Modoc	88.45	47	*e*P	P	03 42 23.2	+1.0
N06A	Buffalo Meadow	88.49	48	⇑P	P	03 42 21.7	-0.8
	baz=88						
A04A	Legoe Bay, Lum	88.74	40	⇓P	P	03 42 23.0	-0.4
	baz=89						
CWC	Cottonwood Cre	88.74	53	⇓P	P	03 42 24.6	+0.8
	baz=89						
J06A	Christmas Vall	88.91	46	⇓P	P	03 42 24.8	+0.3
	baz=89						
B05A	Bryant	88.99	41	⇓P	P	03 42 24.9	+0.2
	baz=89						
O07A	Toulon	89.04	49	⇓P	P	03 42 25.6	+0.4
	baz=89						
NVAR	Mina Array Bea	89.05	51	P	P	03 42 25.6	+0.4
	comp=Z,3.5nm,0.8s,mb4.5,baz=233,slow=6.9,SNR=19						
I06A	Prineville	89.06	45	⇓P	P	03 42 25.4	+0.4
	baz=89						
MPMC	Manual Prospec	89.12	53	⇑P	P	03 42 26.1	+0.5
	baz=89,SNR=5.4						
L07A	Adell	89.17	47	⇓P	P	03 42 26.5	+0.9
	baz=89						
E06A	Yakima	89.23	42	⇓P	P	03 42 25.7	-0.2
	baz=89						
MONP	Monument Peak	89.26	57	⇑P	P	03 42 27.3	+1.0
	baz=89						
K07A	Rock Creek Ran	89.41	46	⇓P	P	03 42 27.4	+0.6
	baz=90						
GRAC	Grapevine Rang	89.43	52	⇑P	P	03 42 28.1	+1.0
	baz=90						
Q08A	Gabbs	89.44	50	⇓P	P	03 42 27.9	+0.9
	baz=90						
GSC	Goldstone	89.48	54	⇓P	P	03 42 27.3	0.0
	baz=90						
GSC	Goldstone	89.48	54	*e*P	P	03 42 28.6	+1.3
D06A	Cle Elum	89.50	42	⇓P	P	03 42 27.9	+0.8
	baz=90						
I07A	Izee	89.58	45	⇓P	P	03 42 28.0	+0.4
	baz=90						
O08A	Rochester Mine	89.61	49	⇑P	P	03 42 28.7	+0.9
	baz=90						
H07A	Lands Inn, Kim	89.67	45	⇑P	P	03 42 27.7	-0.3
	baz=90						
FURC	Furnace Creek,	89.71	53	⇑P	P	03 42 28.6	+0.3
	baz=90,SNR=5.7						
S09A	Goldfield	89.71	52	⇑P	P	03 42 28.2	-0.1
	baz=90,SNR=5.8						
M08A	Happy Creek Ra	89.73	48	⇓P	P	03 42 28.9	+0.6
	baz=90						
N08A	GE Springer Mi	89.74	49	⇑P	P	03 42 28.7	+0.3
	baz=90						
HEC	Hector,Ludlow	89.76	55	⇑P	P	03 42 28.1	-0.5
	baz=90						
G07A	Ruggs Ranch, H	89.78	44	⇑P	P	03 42 28.6	+0.1
	baz=90						
WVOR	Wild Horse Val	89.78	47	*e*P	P	03 42 29.1	+0.6
WVOR				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.8						
WVOR	Wild Horse Val	89.78	47	*e*P	P	03 42 29.1	+0.6
	comp=Z,10nm,1.2s,mb4.8						
L08A	Fields	89.93	47	⇑P	P	03 42 29.6	+0.3
	baz=90						
R09A	Tonopah	89.95	51	⇓P	P	03 42 29.3	-0.1
	baz=90,SNR=5.1						
K08A	Mann Creek Ran	89.96	47	⇓P	P	03 42 29.1	-0.3
	baz=90						
E07A	Sunnyside	89.99	43	⇑P	P	03 42 29.5	+0.1
	baz=90						
MKAR	Makanchi Array	90.08	318	P	P	03 42 28.7	-1.1
	comp=Z,1.4nm,0.4s,mb4.4,baz=94,slow=6.7,SNR=44						
MKAR				LR	LR	04 20 32.3	
	comp=Z,39nm,21.0s,baz=251,slow=34						
U10A	Ash Meadows, A	90.11	53	⇓P	P	03 42 30.8	+0.6
	baz=90						
J08A	Circle Bar Ran	90.12	46	⇓P	P	03 42 30.6	+0.5
	baz=90						
N09A	Rock Creek Ran	90.21	49	⇓P	P	03 42 30.7	+0.1
	baz=90						
S10A	Tonopah Range,	90.24	52	⇓P	P	03 42 30.1	-0.6
	baz=90,SNR=12						
G08A	Pilot Rock	90.27	44	⇓P	P	03 42 30.7	0.0
	baz=90						
GMRC	Granite Mounta	90.29	55	⇑P	P	03 42 30.1	-1.0
	baz=90						
O09A	Fish Creek Ran	90.30	49	⇑P	P	03 42 31.4	+0.4
	baz=90,SNR=8.4						
A07A	Ashnola River,	90.30	40	⇓P	P	03 42 30.5	-0.3
	baz=90						
B07A	Winthrop	90.31	41	⇑P	P	03 42 30.7	-0.2
	baz=90						
L09A	Wilkinson Ranc	90.38	47	⇓P	P	03 42 31.2	-0.1
	baz=90,SNR=6.2						
M09A	Marrel Ranch,	90.40	48	⇑P	P	03 42 32.2	+0.7
	baz=90,SNR=5.5						
K09A	Rome	90.50	47	⇑P	P	03 42 32.4	+0.5
	baz=90,SNR=8.1						
E08A	Dider Farm, El	90.50	43	⇑P	P	03 42 32.1	+0.3
	baz=90						
ZALV	Zalesovo Beam	90.51	325	P	P	03 42 29.6	-2.0
	comp=Z,0.7nm,0.6s,mb4.0,baz=94,slow=5.9,SNR=5.2						
R10A	Warm Springs	90.55	51	⇓P	P	03 42 32.7	+0.5
	baz=91						
IRM	Iron Mountain	90.57	55	⇓P	P	03 42 32.4	0.0
	baz=91						
Q10A	Clear Creek Ra	90.59	51	⇑P	P	03 42 32.3	-0.1
	baz=91						
J09A	Fry Pan Ranch,	90.63	46	⇑P	P	03 42 32.6	+0.1
	baz=91,SNR=9.2						
V11A	Goodsprings	90.70	54	⇑P	P	03 42 32.1	-0.9
	baz=91						
B08A	Colville Reser	90.79	41	⇑P	P	03 42 32.0	-1.1
	baz=91,SNR=5.6						
C08A	Higginbotham F	90.83	42	⇓P	P	03 42 32.4	-0.9
	baz=91						
A08A	Turner Farm, O	90.98	40	⇑P	P	03 42 33.6	-0.4
	baz=91,SNR=5.1						
SHPR	Sheep Range	91.05	53	*e*P	P	03 42 35.6	+1.0
G09A	Cove	91.07	44	⇓P	P	03 42 34.5	0.0
	baz=91						

R11A	Troy Canyon, C	91.11	51	⇑P	P	03 42 35.1	+0.3
	baz=91,SNR=8.8						
E09A	Wood Farm, Sta	91.12	43	⇑P	P	03 42 35.2	+0.5
	baz=91						
K10A	MacKenzie Ranc	91.13	47	⇓P	P	03 42 35.4	+0.6
	baz=91,SNR=11						
V12A	Nelson	91.13	54	⇓P	P	03 42 35.4	+0.4
	baz=91						
T11A	Corn Creek, Al	91.16	52	⇓P	P	03 42 34.9	-0.1
	baz=91,SNR=8.0						
Q11A	Duckwater	91.16	51	⇑P	P	03 42 35.1	+0.1
	baz=91,SNR=13						
P11A	Circle Ranch,	91.24	50	⇑P	P	03 42 35.9	+0.5
	baz=91						
L10A	Juniper Basin	91.26	48	⇑P	P	03 42 35.5	+0.1
	baz=91,SNR=8.2						
C09A	Chrisman Ranch	91.34	42	⇓P	P	03 42 35.5	-0.2
	baz=91						
J10A	Berg Farm, Mel	91.35	46	⇑P	P	03 42 35.4	-0.4
	baz=91						
A09A	Danville	91.43	40	⇑P	P	03 42 35.4	-0.6
	baz=92,SNR=5.9						
O11A	Cowboy Ranch,	91.44	50	⇓P	P	03 42 36.3	0.0
	baz=92,SNR=6.2						
G10A	Bishop Farm, J	91.53	44	⇓P	P	03 42 36.4	-0.2
	baz=92,SNR=16						
B09A	Rice	91.57	41	⇑P	P	03 42 36.5	-0.2
	baz=92,SNR=6.6						
F10A	Beach Ranch, E	91.61	44	⇓P	P	03 42 37.2	+0.3
	baz=92,SNR=10.0						
M11A	Holland Ranch,	91.62	48	⇑P	P	03 42 37.0	-0.1
	baz=92,SNR=7.5						
H10A	Noah's Angus R	91.62	45	⇑P	P	03 42 36.8	-0.2
	baz=92,SNR=9.6						
K11A	Parker Ranch,	91.73	47	⇓P	P	03 42 37.4	-0.1
	baz=92,SNR=9.9						
L11A	Cat Creek Ranc	91.80	48	⇓P	P	03 42 37.3	-0.7
	baz=92,SNR=8.6						
D10A	Wagner Farm, O	91.83	43	⇓P	P	03 42 38.0	+0.1
	baz=92						
Q12A	Willow Creek R	91.83	51	⇓P	P	03 42 38.0	-0.2
	baz=92,SNR=6.2						
V13A	Grand Canyon W	91.85	54	⇓P	P	03 42 38.6	+0.3
	baz=92,SNR=6.1						
R12A	Pony Springs,	91.86	52	⇓P	P	03 42 38.8	+0.5
	baz=92,SNR=8.1						
P12A	McGill	91.86	50	⇓P	P	03 42 38.8	+0.5
	baz=92,SNR=8.4						
ELK	Elko	91.88	49	*e*P	P	03 42 39.2	+0.9
ELK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ELK	Elko	91.88	49	*e*P	P	03 42 39.2	+0.9
	comp=Z,6.3nm,1.0s,mb4.8						
U13A	Pakoon Wash	91.97	53	⇓P	P	03 42 38.5	-0.4
	baz=92						
MFID	Camas Ranch	92.02	46	⇓P	P	03 42 39.4	+0.5
	baz=92						
I11A	Placerville	92.03	46	⇓P	P	03 42 39.2	+0.3
	baz=92,SNR=17						
N12A	Clover Valley,	92.05	49	⇑P	P	03 42 39.0	-0.1
	baz=92,SNR=9.9						
A10A	Northport	92.09	41	⇑P	P	03 42 38.8	-0.3
	baz=92,SNR=6.5						
T13A	Saint George	92.14	53	⇓P	P	03 42 39.6	-0.1
	baz=92,SNR=6.2						
O12A	Currie	92.15	50	⇑P	P	03 42 39.7	+0.2
	baz=92,SNR=11						
H11A	Donnelly	92.16	45	⇓P	P	03 42 39.4	-0.1
	baz=92,SNR=7.7						
NEW	Newport	92.20	41	*e*P	P	03 42 39.2	-0.4
NEW				pmax	pmax		
	comp=Z,9.0nm,1.1s						
NEW	Newport	92.20	41	*e*P	P	03 42 39.2	-0.4
	comp=Z,9.0nm,1.1s,mb4.9						
S13A	Holt Ranch, En	92.29	52	⇑P	P	03 42 40.1	-0.2
	baz=92,SNR=5.7						
F11A	Grangeville	92.32	44	⇑P	P	03 42 39.4	-0.9
	baz=92						
L12A	House Creek Ra	92.33	48	⇓P	P	03 42 40.2	-0.1
	baz=92,SNR=7.4						
E11A	Bogner Ranch,	92.39	43	⇓P	P	03 42 39.5	-1.0
	baz=92,SNR=7.9						
Q13A	Wheeler Ranch,	92.43	51	⇑P	P	03 42 41.7	+0.8
	baz=92,SNR=5.9						
D11A	Klaveano Farm,	92.45	43	⇑P	P	03 42 39.8	-1.0
	baz=92,SNR=9.1						
J12A	Stokes Ranch,	92.50	47	⇓P	P	03 42 41.8	+0.7
	baz=92,SNR=18						
K12A	Draper Farm, C	92.52	47	⇓P	P	03 42 41.3	+0.1
	baz=93,SNR=7.7						
P13A	Bates Ranch, G	92.54	51	⇑P	P	03 42 41.2	-0.2
	baz=93,SNR=8.8						
I12A	Atlanta	92.59	46	⇑P	P	03 42 41.0	-0.6
	baz=93,SNR=10						
U14A	Mt Trumbull	92.60	54	⇓P	P	03 42 43.1	+1.4
	baz=93						
G12A	Big Creek, Yel	92.73	45	⇑P	P	03 42 42.5	+0.4
	baz=93						
M13A	Montello	92.80	49	⇓P	P	03 42 42.7	+0.1
	baz=93,SNR=6.6						
A11A	Hall Mountain,	92.85	41	⇓P	P	03 42 42.2	-0.4
	baz=93,SNR=8.0						
F12A	Elk City	92.91	44	P	P	03 42 43.1	+0.1
	baz=93,SNR=12						
H12A	Diamond D Ranc	92.94	45	⇑P	P	03 42 42.9	-0.3
	baz=93,SNR=7.6						
Q14A	Sevier Lake (B	93.01	51	⇓P	P	03 42 43.7	+0.1
	baz=93						
HLID	Hailey	93.05	46	⇑P	P	03 42 44.3	+0.7
	baz=93,SNR=12						
HLID	Hailey	93.05	46	*e*P	P	03 42 44.6	+0.9
	comp=Z,5.8nm,1.0s,mb4.9						
J13A	Cove Ranch, Pi	93.19	47	⇑P	P	03 42 45.3	+1.0
	baz=93,SNR=7.4						
I13A	Wildhorse Cree	93.33	46	⇑P	P	03 42 45.6	+0.7
	baz=93,SNR=23						
H13A	Challis	93.36	45	⇑P	P	03 42 45.6	+0.6
	baz=93,SNR=18						
KURK	Kurchatov	93.37	321	P	P	03 42 43.0	-1.9
	comp=Z,1.2nm,0.7s,mb4.4,baz=89,slow=2.3,SNR=4.8						
M14A	Sheep Mountain	93.43	49	⇓P	P	03 42 46.3	+0.9
	baz=94,SNR=6.2						
G13A	Cobalt	93.48	45	⇑P	P	03 42 46.0	+0.4
	baz=94,SNR=13						
F13A	Darby	93.55	44	P	P	03 42 46.0	+0.1
	baz=94,SNR=14						
DUG	Dugway	93.59	50	*e*P	P	03 42 47.0	+0.8
DUG				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.6						
DUG	Dugway	93.59	50	⇓P	P	03 42 47.2	+0.9
	baz=94						
DUG	Dugway	93.59	50	*e*P	P	03 42 47.0	+0.8
	comp=Z,3.7nm,1.3s,mb4.5						
L14A	Malta	93.61	48	⇑P	P	03 42 46.5	+0.2
	baz=94,SNR=5.6						
J14A	Carey	93.65	47	⇑P	P	03 42 47.0	+0.5
	baz=94						
217A	Green Valley	93.69	59	⇓P	P	03 42 46.7	-0.2
	baz=94						
TUC	Tucson	93.81	58	*e*P	P	03 42 47.7	+0.3
TUC				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.2						
TUC	Tucson	93.81	58	*e*P	P	03 42 47.6	+0.2
	comp=Z,1.0nm,0.7s,mb4.2						
I14A	Mackay	93.81	46	⇓P	P	03 42 47.7	+0.5
	baz=94,SNR=8.8						
M15A	Larsen Ranch,	94.09	49	⇓P	P	03 42 47.8	-0.7
	baz=94						
H15A	Lima	94.50	46	⇑P	P	03 42 50.6	+0.3
	baz=94,SNR=7.7						
G15A	Dillon	94.71	45	⇓P	P	03 42 51.0	-0.2
	baz=95,SNR=5.4						
E15A	Deer Lodge	94.82	44	⇓P	P	03 42 52.1	+0.4
	baz=95						
G16A	Moss Hill, Enn	95.19	45	⇓P	P	03 42 53.1	-0.3
	baz=95						
I16A	Newdale	95.20	46	⇑P	P	03 42 53.9	+0.4
	baz=95						
A15A	Johnson Ranch,	95.20	41	⇓P	P	03 42 52.4	-0.9
	baz=95						
F16A	Kennard Place,	95.41	45	⇑P	P	03 42 54.7	+0.3
	baz=95						
E16A	East Helena	95.50	44	⇓P	P	03 42 54.8	0.0
	baz=96						
H16A	Russell Place,	95.50	46	⇓P	P	03 42 55.5	+0.6
	baz=96						
C16A	Fuhringer Ranc	95.65	43	⇑P	P	03 42 55.9	+0.4
	baz=96						
A16A	West Butte Ran	95.93	41	⇑P	P	03 42 55.8	-1.0
	baz=96						
E17A	Martinsdale	96.04	44	⇑P	P	03 42 57.6	+0.3
	baz=96						
F17A	Fitzpatrick Pl	96.10	45	⇑P	P	03 42 58.4	+0.9
	baz=96						
J18A	Kendall Valley	96.15	47	⇑P	P	03 42 57.7	-0.2
	baz=96						
D17A	Six Diamond Ra	96.26	43	⇑P	P	03 42 58.4	+0.1
	baz=96						
B17A	L&G Farms, Che	96.36	42	⇑P	P	03 42 57.7	-1.0
	baz=96						
PDAR	Pinedale Array	96.42	48	P	P	03 42 59.0	-0.1
	comp=Z,0.6nm,0.8s,mb4.1,baz=253,slow=4.0,SNR=6.6						
YKA	Yellowknife Ar	96.49	28	P	P	03 42 57.4	-1.6
	comp=Z,3.0nm,0.7s,mb4.8,baz=258,slow=4.8,SNR=56						
YKA				LR	LR	04 20 33.4	
	comp=Z,136nm,20.6s,baz=85,slow=32						
YKA	Yellowknife Ar	96.49	28	P	P	03 42 57.4	-1.5
YKA				LR	LR	04 20 33.4	
A17A	Triple J Farms	96.52	42	⇓P	P	03 42 59.4	0.0
	baz=96						
E18A	Harlowton	96.70	44	⇑P	P	03 43 01.0	+0.7
	baz=97						
EGMT	Eagleton	97.01	43	⇑P	P	03 43 00.8	-0.8
	baz=97						
ANMO	Albuquerque	97.77	56	LR	LR	04 19 44.8	
	comp=Z,94nm,20.7s,baz=84,slow=31						
LAO	LASA Array	99.24	44	*e*P	P	03 43 11.2	-0.5
	comp=Z,10nm,1.0s,mb5.3						
TXAR	Lajitas Array	99.44	62	LR	LR	04 18 20.6	
	comp=Z,137nm,21.7s,baz=85,slow=30						
ARCES	ARCESS Array B	114.61	344	PKP	PKiKP	03 48 08.8	-0.5
	comp=Z,3.8nm,1.0s,baz=81,slow=1.5,SNR=17						
BOSA	Boshof	122.42	226	PKP	PKPdf	03 48 25.6	+0.1
	comp=Z,1.3nm,0.6s,baz=181,slow=7.2,SNR=3.7						
EKA	Eskdalemuir Ar	133.57	348	PP	PP	03 51 15.1	+0.9
	comp=Z,1.4nm,0.8s,baz=44,slow=11,SNR=3.9						
ESK	Eskdalemuir	133.59	348	*i* PKIKP	PKPdf	03 48 45.5	-0.5
MVO	Moncorvo	147.71	343	*e*PKP	PKPbc	03 49 14.2	-0.4
PVRL	Vila Real	147.79	344	*e*PKP	PKPbc	03 49 15.7	+0.9
ESDC	Sonseca Array	148.06	338	PKPbc	PKPbc	03 49 14.9	-0.7
	comp=Z,1.1nm,0.7s,baz=48,slow=2.2,SNR=5.3						
PVIS	Viseu	148.36	344	*e*PKP	PKPbc	03 49 17.2	+0.9
MTE	Manteigas	148.56	343	*e*PKP	PKPbc	03 49 17.5	+0.6
PMRV	Marv??o	149.42	343	*e*PKP	PKPbc	03 49 19.5	+0.4
PTOM	Tomar	149.53	344	*e*PKP	PKPbc	03 49 19.7	+0.4
PBEJ	Beja	150.85	342	*e*PKP	PKPbc	03 49 23.6	+1.0
PTEO	Sao Teotonio	151.55	343	*e*PKP	PKPbc	03 49 24.5	+0.3
MDT	Midelt	154.21	332	PKPab	PKPab	03 49 43.9	-0.2
	comp=Z,2.4nm,0.8s,baz=62,slow=4.2,SNR=6.1						

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*PRU **16** 03:44:57.9, 50°.05N×18°.41E, h0^{km}*
*CSEM **16** 03:44:57.0±0.3, 50°.08N×18°.41E, h2^{km}, ML2.0/5, Error ellipse: s-maj=7.6km s-min=4.6km az=166.0*
*IPEC **16** 03:44:57.4±0.2, 50°.06N×18°.45E, h7^{km}±1^{km}, ML1.1/3, Error ellipse: s-maj=2.0km s-min=1.1km az=161.0*
WAR 16 03:44:57.5, 50°.06N×18°.42E, ML2.1, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.15	280	*i* Pg	Pg	03 45 01.0	+0.6
RAC				*i* Sg	Sg	03 45 04.1	+1.8
RAC	Raciborz	0.15	280	*i* Sg	Sg	03 45 04.1	+1.8
OKC	Ostrava-Krasne	0.28	219	*e*PG	Pg	03 45 03.2	+0.3
OKC				*e*SG	Sg	03 45 07.5	+0.9
	comp=Z,29nm,0.7s						
OKC	Ostrava-Krasne	0.28	219	*e*Pg	Pg	03 45 03.1	+0.2
OKC				Sg	Sg	03 45 07.5	+0.9
	comp=Z,29nm,0.7s						
MORC	Moravsky Berou	0.64	244	*e*Pg	Pg	03 45 09.4	-0.3
MORC				*e*Sg	Sg	03 45 18.3	+0.4
	comp=Z,1.8nm,0.1s						
OJC	Ojcow	0.90	79	*e*Pg	Pg	03 45 14.6	-0.1
OJC				*e*Sg	Sg	03 45 26.4	0.0
OJC	Ojcow	0.90	79	*e*Pg	Pg	03 45 14.5	-0.2
DPC	Dobruska-Polom	1.38	283	*e*PG	Pg	03 45 22.6	-1.4
DPC				*e*SG	Sg	03 45 41.2	-0.7
	comp=Z,8.8nm,0.5s						
DPC	Dobruska-Polom	1.38	283	*e*Pg	Pg	03 45 22.8	-1.2
DPC				Sg	Sg	03 45 41.2	-0.7
	comp=Z,8.8nm,0.5s						
VRAC	Vranov	1.41	238	*e*Pg	Pg	03 45 23.3	-1.1
VRAC				*e*Sg	Sg	03 45 41.8	-0.8
	comp=Z,3.6nm,0.3s						
UPC	Upice	1.61	287	*e*SG	Sg	03 45 48.8	-0.4
UPC	Upice	1.61	287	Sg	Sg	03 45 48.8	-0.4
KRUC	Moravsky	1.66	234	*e*Pn	Pn	03 45 27.3	-0.4
KRUC				*e*Sg	Sg	03 45 49.4	-1.2
	comp=Z,1.8nm,0.3s						

GUC 16 04:10:55.1±0.6**, 23°.17S×70°.38W, h44**^{km}±1^{km}**, MD3.5, ML2.6, 3C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MECH	Mejillones	0.09	319	⇑*i*P	Pn	04 11 01.9	-0.3
MECH				*i* S	Sn	04 11 07.3	+0.2
MECH				AML	AML	04 11 08.1	
	comp=E,3μm,0.4s						
CEN1	Los Morros	0.27	142	⇑*i*P	Pn	04 11 06.6	+3.1
CEN1				*i* S	Sn	04 11 14.0	+4.6
CEN1				AML	AML	04 11 14.8	
	comp=N,397nm,0.3s						
PECH	Pedro de Valdi	0.87	49	⇓*i*P	Pn	04 11 11.9	+1.0
PECH				*i* S	Sn	04 11 24.0	+1.5
PECH				AML	AML	04 11 24.7	
	comp=E,514nm,0.4s						
CPN1	Cerro Paranal	1.45	181	⇓*i*P	Pn	04 11 20.4	+1.6
CPN1				AML	AML	04 11 39.7	
	comp=E,86nm,0.4s						
CPN1				*i* S	Sn	04 11 39.9	+3.3
LVC	Limon Verde	1.47	68	⇑*i*P	Pn	04 11 22.0	+2.9
LVC				*i* S	Sn	04 11 41.5	+4.3
PB01	Plate Boundary	2.28	22	*i* P	Pn	04 11 31.3	+1.1
PB01				*i* S	Sn	04 11 59.4	+2.3
PB01				AML	AML	04 12 11.3	
	comp=E,33nm,0.6s						
HMBC	Humberston	2.92	9	AML	AML	04 12 30.6	
	comp=E,16nm,0.7s						

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*GUC **16** 04:23:37.4±0.6, 38°.95S×71°.51W, h53^{km}±47^{km}, ML4.9*
*NEIC **16** 04:23:37.4, 38°.95S×71°.51W, h53^{km}, mb4.5/11, After GUC.*
*ISCJB **16** 04:23:39.7±1.0, 38°.28S±0°.04×73°.4W±0°.1, h34^{km}±10^{km}, mb4.3/17, MS4.0/5, Error ellipse: s-maj=15.1km s-min=6.0km az=2.4*
*IDC **16** 04:23:40.7±0.8, 38°.24S×73°.29W, h27^{km}±5^{km}, mb4.0/8, mb1 4.1/12, mb1mx4.1/18, mbtmp4.0/12, ML4.5/2, MS3.9/10, Ms1 3.9/10, ms1mx3.7/19, Error ellipse: s-maj=23.9km s-min=16.8km az=91.0*
ISC 16 04:23:40.3±2.0**, 38°.30S**±0°.04×**73°.4W**±0°.1**, h26**^{km}±14^{km}**, h31**^{km}±1.9^{km}**:pP-P, n51, σ1^{s}.08**/50**, mb4.3**/17**, MS4.0**/5**, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TMU	Temuco	0.77	125	*i* P	Pb	04 23 54.1	-0.9
TMU				*i* S	Sb	04 24 06.3	+1.2
TMU	Temuco	0.77	125	*i* P	Pb	04 23 54.1	-0.9
TMU				*i* S	Sb	04 24 06.3	+1.2
VLCH	Valdivia	1.51	175	*e*P	Pn	04 24 04.0	-1.6
VLCH				*e*S	Sn	04 24 23.4	-1.0
VLCH	Valdivia	1.51	175	*e*P	Pn	04 24 04.0	-1.6
VLCH				*e*S	Sn	04 24 23.4	-1.0
VLCH				AML	AML	04 24 29.8	
	comp=N,31μm,0.4s						
CCHI	Chillan	2.00	32	*e*P	Pn	04 24 13.4	+1.1
CCHI				*e*S	Sn	04 24 41.7	+5.3
CCHI	Chillan	2.00	32	*e*P	Pn	04 24 13.4	+1.1
CCHI				*e*S	Sn	04 24 41.7	+5.3
CCHI				AML	AML	04 25 02.8	
	comp=N,7μm,0.7s						
TALC	Talca	3.23	27	*e*P	Pn	04 24 28.6	-0.6
TALC				*i* S	Sn	04 25 08.8	+2.1
TALC	Talca	3.23	27	*e*P	Pn	04 24 28.6	-0.6
TALC				*i* S	Sn	04 25 08.8	+2.1
PLCA	Paso Flores	3.29	139	Pn	Pn	04 24 31.1	+1.1
	comp=N,9.0nm,0.3s,baz=305,slow=9.4,SNR=223						
PLCA				Sn	Sn	04 25 15.3	+7.1
	comp=N,58nm,0.3s,baz=209,slow=21,SNR=5.6						
PLCA				LR	LR	04 25 58.3	
	comp=N,2μm,18.6s,baz=320,slow=42						
PLCA	Paso Flores	3.29	139	Pn	Pn	04 24 31.1	+1.1
PLCA				Sn	Sn	04 25 15.3	+7.1
PLCA				LR	LR	04 25 58.3	
NICH	Los Niches	3.73	29	*i* P	Pn	04 24 35.9	-0.2
FCH	Farellones	5.57	28	*e*P	Pn	04 25 00.7	-0.7
CFAA	Coronel Fontan	7.91	34	Pn	Pn	04 25 32.4	-1.2
	comp=N,0.3nm,0.3s,baz=211,slow=12,SNR=33						
CFAA				Sn	Sn	04 27 01.1	-1.1
	comp=N,0.1nm,0.3s,baz=207,slow=11,SNR=2.1						
CFAA				Lg		04 27 50.8	
	comp=N,0.1nm,0.3s,baz=282,slow=8.3,SNR=4.3						
CFAA				LR	LR	04 28 43.9	
	comp=N,119nm,18.0s,baz=215,slow=39						
LCO	Las Campanas	9.53	14	*e*Pn	Pn	04 25 54.2	-1.6
	comp=N,22nm,0.6s						
LCO				*e*Sn	Sn	04 28 18.6	+37
LVC	Limon Verde	16.11	15	Pn	Pn	04 27 29.1	+4.2
	comp=N,0.3nm,0.3s,baz=236,slow=13,SNR=4.7						
LVC				LR	LR	04 34 20.4	
	comp=N,244nm,19.1s,baz=204,slow=40						
LVC	Limon Verde	16.11	15	*e*P	Pn	04 27 25.2	+0.4
	comp=N,6.4nm,0.8s						
LVC				LR	LR	04 34 20.4	
USHA	Ushuaia	16.88	170	Pn	Pn	04 27 36.8	+2.3
	comp=N,0.3nm,0.3s,baz=345,slow=16,SNR=3.3						
USHA				LR	LR	04 34 24.4	
	comp=N,425nm,19.2s,baz=15,slow=38						
CPUP	Villa Florida	18.06	53	P	Pn	04 27 48.4	-0.8
	comp=N,0.6nm,0.3s,baz=224,slow=9.2,SNR=8.3						
CPUP				LR	LR	04 35 54.5	
	comp=N,507nm,20.9s,baz=209,slow=41						
CPUP	Villa Florida	18.06	53	P	Pn	04 27 48.4	-0.8
CPUP				LR	LR	04 35 54.5	
ARE	Arequipa	21.82	5	*e*P	P	04 28 33.0	+2.5
PMSA	Palmer Station	27.09	171	LR	LR	04 38 49.8	
	comp=N,424nm,19.2s,MS4.0,baz=8.0,slow=34						
OTAV	Otavalo	38.63	352	*e*P	P	04 31 02.5	+1.1
	comp=N,17nm,1.6s,mb4.5						
SDV	Santo Domingo	47.01	4	P	P	04 32 09.0	-0.3
	comp=N,2.9nm,0.7s,mb4.3,baz=218,slow=4.4,SNR=4.7						
QSPA	South Pole Qui	51.95	180	P	P	04 32 47.4	+1.1
	comp=N,3.0nm,0.7s,mb4.3,baz=123,slow=2.9,SNR=17						
RKT	Rikitea	54.13	267	*e*LR	LR	04 48 55.2	
	comp=N,271nm,25.0s						
CMIG	Matias Romero	58.67	336	LR	LR	04 54 35.2	
	comp=N,24nm,19.7s,MS3.3,baz=47,slow=32						
TAOE	Nuku Hiva Isla	66.33	278	*e*LR	LR	04 54 28.0	
	comp=N,582nm,23.6s						
PPT	Papeete	68.61	264	*e*LR	LR	04 55 37.4	
	comp=N,205nm,27.2s						
MAW	Mawson	69.38	164	LR	LR	05 04 53.0	
	comp=N,222nm,18.1s,MS4.4,baz=18,slow=36						
HKT	Hockley	71.05	340	*e*P	P	04 34 56.0	+0.2
	comp=N,4.6nm,0.9s,mb4.4						
JCT	Junction City	72.72	336	*e*P	P	04 35 07.3	+1.5
	comp=N,5.6nm,0.8s,mb4.5						
TXAR	Lajitas Array	72.98	333	P	P	04 35 08.5	+1.2
	comp=N,1.2nm,0.9s,mb3.8,baz=146,slow=9.1,SNR=6.4						
TXAR				pP	pP	04 35 16.8	+1.1
	comp=N,1.0nm,0.8s,baz=150,slow=8.7,SNR=4.9						
TXAR				LR	LR	05 02 27.4	
	comp=N,74nm,18.2s,MS4.0,baz=100,slow=32						
TXAR	Lajitas Array	72.98	333	P	P	04 35 08.5	+1.2
TXAR				pP	pP	04 35 16.8	+1.1
TXAR				LR	LR	05 02 27.4	
PLAL	Pickwick Lake	74.17	348	*e*P	P	04 35 13.9	-0.3
	comp=N,16nm,1.5s,mb4.7						
WVT	Waverly	75.25	348	*e*P	P	04 35 20.3	-0.1
	comp=N,4.2nm,0.9s,mb4.4						
WMOK	Wichita Mounta	76.38	339	*e*P	P	04 35 27.1	+0.2
	comp=N,1.6nm,0.9s,mb4.0						
DBIC	Dimbokro	77.61	71	P	P	04 35 33.8	-0.6
	comp=N,5.1nm,0.8s,mb4.5,baz=199,slow=5.9,SNR=9.2						
CCM	Cathedral Cave	77.73	346	*e*P	P	04 35 34.4	0.0
	comp=N,8.1nm,0.8s,mb4.7						
ANMO	Albuquerque	79.06	333	*e*P	P	04 35 42.3	+0.4
	comp=N,2.2nm,0.9s,mb4.1						
BOSA	Boshof	79.06	118	P	P	04 35 41.5	-0.8
	comp=N,2.4nm,0.6s,mb4.3,baz=231,slow=5.0,SNR=5.3						
BOSA				LR	LR	05 06 46.7	
	comp=N,124nm,18.2s,MS4.3,baz=163,slow=33						
BOSA	Boshof	79.06	118	P	P	04 35 41.5	-0.8
BOSA				LR	LR	05 06 46.7	
TORD	Torodi Ar. Bea	86.70	71	P	P	04 36 21.1	-0.8
	comp=N,3.1nm,0.6s,mb4.7,baz=221,slow=5.1,SNR=52						
NVAR	Mina Array Bea	86.80	326	P	P	04 36 22.1	+0.2
	comp=N,0.4nm,0.7s,mb3.8,baz=101,slow=7.4,SNR=2.6						
NVAR				pP	pP	04 36 31.1	+0.7
	comp=N,0.5nm,0.8s,baz=147,slow=8.5,SNR=3.4						
PDAR	Pinedale Array	87.11	334	P	P	04 36 22.2	-1.1
	comp=N,0.5nm,0.8s,mb3.8,baz=165,slow=6.2,SNR=5.1						
PDAR				pP	pP	04 36 32.6	+0.8
	comp=N,0.5nm,0.8s,baz=163,slow=5.6,SNR=4.0						
MOOW	Moose Ponds	88.39	334	*e*P	P	04 36 27.9	-1.5
	comp=N,2.3nm,0.9s,mb4.4						
BRTR	Keskin Array B	124.81	64	PKP	PKPdf	04 42 37.0	-0.3
	comp=N,0.3nm,0.5s,baz=204,slow=3.2,SNR=3.6						
BRTR	Keskin Array B	124.81	64	PKP	PKPdf	04 42 37.0	-0.3
BVAR	Borovoye Array	151.09	48	PKPbc	PKPbc	04 43 30.6	+0.4
	comp=N,1.8nm,0.6s,baz=312,slow=5.4,SNR=7.8						
KURK	Kurchatov	156.66	49	PKP	PKPdf	04 43 33.3	+1.0
	comp=N,0.2nm,0.6s,baz=285,slow=1.1,SNR=4.2						
KURK				PKPab	PKPab	04 44 01.8	+0.1
	comp=N,1.1nm,0.9s,baz=292,slow=4.6,SNR=4.1						
MKAR	Makanchi Array	160.25	57	PKPab	PKPab	04 44 16.9	-0.4
	comp=N,0.6nm,0.7s,baz=277,slow=4.2,SNR=5.4						
SONM	Songino Array	170.47	1	PKPab	PKPab	04 45 02.9	+0.8
	comp=N,0.8nm,0.8s,baz=338,slow=4.1,SNR=7.4						

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*NEIC **16** 04:25:03.7, 45°.71N×26°.38E, h170^{km}, MG3.3(BUC), After BUC.*
*CSEM **16** 04:25:05.8, 45°.58N×26°.37E, h150^{km}, MD4.1/2, After BUC*
BUC 16 04:25:05.8±1.5**, 45°.58N×26°.37E, h150**^{km}±15^{km}**, MD4.1**/2**, 24C-5D, Error ellipse: s-maj=16.5km s-min=10.2km az=51.0, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLR	Muntele Rosu	0.31	254	⇑*i*P	Pn	04 25 26.6	+0.3
MLR				*i* S	Sn	04 25 42.2	+0.3
MLR	Muntele Rosu	0.31	254	P	Pn	04 25 26.6	+0.3
MLR	Muntele Rosu	0.31	254	⇑*i*P	Pn	04 25 26.6	+0.3
MLR				*i* S	Sn	04 25 42.2	+0.3
PLOR	Plostina	0.34	35	⇑*i*P	Pn	04 25 26.0	-0.4
PLOR				*i* S	Sn	04 25 41.3	-0.8
PLOR	Plostina	0.34	35	⇑*i*P	Pn	04 25 26.0	-0.4
PLOR				*i* S	Sn	04 25 41.3	-0.8
VRI	Vrincioaia	0.38	41	P	Pn	04 25 26.3	-0.2
ODB	Odobesti	0.52	67	⇑*i*P	Pn	04 25 27.9	+0.7
ODB				*i* S	Sn	04 25 43.6	+0.2
ODB	Odobesti	0.52	67	P	Pn	04 25 27.8	+0.7
ODB	Odobesti	0.52	67	⇑*i*P	Pn	04 25 27.9	+0.7
ODB				*i* S	Sn	04 25 43.6	+0.2
VOIR		0.94	262	⇑*i*P	Pn	04 25 30.2	+0.2
VOIR				*i* S	Sn	04 25 48.3	-0.1
VOIR		0.94	262	P	Pn	04 25 30.2	+0.2
VOIR		0.94	262	⇑*i*P	Pn	04 25 30.2	+0.2
VOIR				*i* S	Sn	04 25 48.3	-0.1
BUC1	Bucharest	1.25	191	⇑*i*P	Pn	04 25 33.8	+1.0
BUC1				*i* S	Sn	04 25 54.1	+0.6
BUC1	Bucharest	1.25	191	P	Pn	04 25 33.8	+1.0
BUC1	Bucharest	1.25	191	⇑*i*P	Pn	04 25 33.8	+1.0
BUC1				*i* S	Sn	04 25 54.1	+0.6
HARR	Harsova	1.42	128	⇑*i*P	Pn	04 25 34.7	+0.3
HARR				*i* S	Sn	04 25 55.2	-1.1
HARR	Harsova	1.42	128	P	Pn	04 25 34.7	+0.2
HARR	Harsova	1.42	128	⇑*i*P	Pn	04 25 34.7	+0.3
HARR				*i* S	Sn	04 25 55.2	-1.1
CVD	Cernavoda	1.73	136	⇑*i*P	Pn	04 25 38.0	+0.2
CVD				*i* S	Sn	04 26 01.2	-1.1
CVD	Cernavoda	1.73	136	⇑*i*P	Pn	04 25 38.0	+0.2
CVD				*i* S	Sn	04 26 01.2	-1.1
TLCR		1.77	102	⇑*i*P	Pn	04 25 38.2	0.0
TLCR				*i* S	Sn	04 26 02.0	-1.0
TLCR		1.77	102	⇑P	Pn	04 25 38.2	0.0
TLCR				S	Sn	04 26 02.0	-1.0
TLCR		1.77	102	⇑*i*P	Pn	04 25 38.2	0.0
TLCR				*i* S	Sn	04 26 02.0	-1.0

TIRR	Tirgusor	1.83	127	⇑iP	Pn	04 25 39.1	+0.2
TIRR				iS	Sn	04 26 03.0	-1.3
TIRR	Tirgusor	1.83	127	P	Pn	04 25 39.2	+0.2
TIRR	Tirgusor	1.83	127	⇑iP	Pn	04 25 39.1	+0.2
TIRR				iS	Sn	04 26 03.0	-1.3
ZIMR		2.05	201	⇓iP	Pn	04 25 42.5	+1.0
ZIMR				iS	Sn	04 26 08.8	-0.1
ZIMR		2.05	201	⇓P	Pn	04 25 42.5	+1.0
ZIMR				S	Sn	04 26 08.8	0.0
BURAR	Bucovina Array	2.19	339	⇑iP	Pn	04 25 44.2	+1.2
BURAR	Bucovina Array	2.19	339	⇑P	Pn	04 25 44.3	+1.3
BURAR	Bucovina Array	2.19	339	⇑iP	Pn	04 25 44.2	+1.2
GZR	Gura Zlata	2.54	267	⇓iP	Pn	04 25 49.7	+2.4
GZR	Gura Zlata	2.54	267	⇓P	Pn	04 25 49.7	+2.4
GZR				S	Sn	04 26 21.6	+2.3
GZR	Gura Zlata	2.54	267	⇓iP	Pn	04 25 49.7	+2.4
DRGR		2.82	297	⇑iP	Pn	04 25 50.6	-0.2
DRGR		2.82	297	⇑iP	Pn	04 25 50.6	-0.2

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*ISK **16** 04:35:19.8, 39°.52N×25°.82E, h4^{km}, MD3.4*
*ISCJB **16** 04:35:20.6±0.4, 39°.53N±0°.02×26°.00E±0°.03, h1^{km}±4^{km}, Error ellipse: s-maj=4.7km s-min=2.6km az=157.1*
*NEIC **16** 04:35:20.0, 39°.52N×25°.77E, h12^{km}, MD3.4(ATH), MD3.4(ISK), After ISK.*
*ATH **16** 04:35:20.4, 39°.64N×26°.14E, h3^{km}, MD3.4/3*
*CSEM **16** 04:35:21.6±0.2, 39°.51N×25°.99E, h2^{km}, ML3.5/4, Error ellipse: s-maj=5.9km s-min=3.7km az=67.0*
*DDA **16** 04:35:21.1, 39°.55N×26°.04E, h7^{km}±4^{km}, Md3.4*
*THE **16** 04:35:21.6, 39°.52N×25°.99E, h7^{km}±2^{km}, ML3.5/4, Error ellipse: s-maj=3.6km s-min=1.0km az=234.0*
ISC 16 04:35:21.3±0.4, **39°.53N**±0°.02×**26°.01E**±0°.03, **h1**^{km}±3^{km}, **n74**, σ1^{s}.**12**/103, **4C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	Bozcaada	0.31	5	iP	Pg	04 35 27.4	+0.1
BOZC				iS	Sg	04 35 32.3	+0.9
SIGR	SIGRI	0.34	201	P	Pg	04 35 28.0	+0.2
SIGR				S	Sg	04 35 32.8	+0.5
SIGR	SIGRI	0.34	201	P	Pg	04 35 28.0	+0.2
SIGR				S	Sg	04 35 32.8	+0.5
PRK	Paraskevi	0.35	145	P	Pg	04 35 28.4	+0.5
PRK				S	Sg	04 35 33.5	+1.1
PRK	Paraskevi	0.35	145	ePG	Pg	04 35 28.4	+0.5
PRK				eSG	Sg	04 35 33.8	+1.4
PRK	Paraskevi	0.35	145	ePg	Pg	04 35 28.4	+0.5
PRK				eSg	Sg	04 35 33.8	+1.4
AYVA	Ayvalik	0.57	113	iP	Pg	04 35 32.4	+0.2
AYVA				iS	Sg	04 35 41.0	+1.4
AYVA	Ayvalik	0.57	113	iP	Pg	04 35 32.4	+0.2
AYVA				iS	Sg	04 35 41.0	+1.4
GADA	Gvkgeada	0.67	352	ePG	Pg	04 35 33.7	-0.4
GADA				eSG	Sg	04 35 43.5	+0.8
GADA	Gvkgeada	0.67	352	ePg	Pg	04 35 33.7	-0.4
GADA				eSg	Sg	04 35 43.5	+0.8
LIA	Limnos Island	0.74	300	P	Pg	04 35 35.4	-0.1
LIA				S	Sg	04 35 45.6	+0.5
LIA	Limnos Island	0.74	300	ePG	Pg	04 35 35.4	-0.1
LIA	Limnos Island	0.74	300	ePg	Pg	04 35 35.4	-0.1
LIA				S	Sg	04 35 45.6	+0.5
LOS	Limnos	0.82	300	P	Pg	04 35 37.6	+0.5
LOS	Limnos	0.82	300	P	Pg	04 35 37.6	+0.5
ENEZ	Enez	1.21	5	ePN	Pn	04 35 43.7	-1.7
ENEZ				eSN	Sn	04 36 01.1	-1.2
ENEZ	Enez	1.21	5	ePn	Pn	04 35 43.7	-1.7
ENEZ				eSn	Sn	04 36 01.2	-1.2
URLA	Izmir	1.25	159	iP	Pg	04 35 43.5	-1.9
URLA				iS	Sg	04 36 00.5	-1.0
URLA	Izmir	1.25	159	iP	Pg	04 35 43.5	-1.8
URLA				iS	Sg	04 36 00.5	-1.1
BALY	Balya	1.26	80	iP	Pg	04 35 44.9	-0.5
BALY				iS	Sg	04 36 01.3	-0.4
BALY	Balya	1.26	80	iP	Pg	04 35 44.9	-0.5
BALY				iS	Sg	04 36 01.3	-0.4
ALN	Alexandroupoli	1.36	1	P	Pn	04 35 45.9	-1.6
ALN				S	Sg	04 36 04.7	-0.5
ALN	Alexandroupoli	1.36	1	P	Pn	04 35 45.9	-1.6
ALN				S	Sg	04 36 04.7	-0.5
BLCB	Balcova	1.40	145	ePN	Pn	04 35 47.8	-0.1
BLCB	Balcova	1.40	145	P	Pn	04 35 48.2	+0.3
BLCB				S	Sb	04 36 05.3	-1.2
BLCB	Balcova	1.40	145	ePn	Pn	04 35 47.8	-0.1
BLCB				S	Sb	04 36 05.3	-1.2
SART	Tekirdag	1.46	37	iP	Pn	04 35 47.8	-1.0
SART				iS	Sb	04 36 08.1	-0.3
SART	Tekirdag	1.46	37	iP	Pn	04 35 47.8	-1.0
SART				iS	Sb	04 36 08.1	-0.3
IZM	Izmir	1.49	139	ePN	Pn	04 35 48.6	-0.6
IZM				eSN	Sg	04 36 10.8	+1.6
AKHS	Akhisar	1.54	114	iP	Pn	04 35 48.1	-1.8
AKHS				iS	Sn	04 36 09.8	-0.8
AKHS	Akhisar	1.54	114	iP	Pn	04 35 48.1	-1.8
AKHS				iS	Sn	04 36 09.8	-0.8
EDC	Edincik	1.64	60	ePN	Pg	04 35 52.8	+0.1
EDC	Edincik	1.64	60	ePn	Pg	04 35 52.8	+0.1
RDO	Rodhopi	1.66	347	ePB	Pn	04 35 49.9	-1.6
RDO	Rodhopi	1.66	347	ePb	Pn	04 35 49.9	-1.6
BNT	Bandirma	1.68	60	ePN	Pg	04 35 52.3	-1.2
TKR	Tekirdag	1.87	38	ePN	Pg	04 35 55.0	-2.1
TKR	Tekirdag	1.87	38	ePn	Pg	04 35 55.0	-2.1
SMG	Samos	1.93	160	ePG	Pg	04 35 57.4	-0.9
SMG	Samos	1.93	160	ePg	Pg	04 35 57.4	-0.9
KCT	Karacabey	1.95	67	ePN	Pg	04 35 56.7	-1.9
KCT	Karacabey	1.95	67	ePn	Pg	04 35 56.7	-1.9
DST	Dursunbey	2.02	87	ePN	Pn	04 35 57.1	+0.6
GCAM	G?zelcaml?	2.06	152	iP	Pg	04 35 59.7	-1.1
GCAM				iS	Sg	04 36 27.5	0.0
GCAM	G?zelcaml?	2.06	152	iP	Pg	04 35 59.7	-1.1
GCAM				iS	Sg	04 36 27.5	0.0
KDZ	Kurdzhali	2.17	348	eP	Pn	04 35 57.0	-1.5
KULA	Kula-Manisa	2.30	115	ePN	Pn	04 36 01.2	+0.9
KULA	Kula-Manisa	2.30	115	ePn	Pn	04 36 01.2	+0.9
RZN	Rozhen	2.37	336	eP	Pn	04 36 01.2	-0.1
EDRB	Edirne	2.38	13	ePN	Pn	04 36 01.3	-0.2
EDRB	Edirne	2.38	13	ePn	Pn	04 36 01.3	-0.2
SLVT	Silivri	2.39	44	ePN	Pn	04 36 02.8	+1.2
SLVT	Silivri	2.39	44	ePn	Pn	04 36 02.8	+1.3
DIM	Dimitrovgrad	2.54	352	eP	Pn	04 36 03.7	0.0
CTKS	Kestanelik-??a	2.56	47	ePN	Pn	04 36 05.6	+1.7
CTKS	Kestanelik-??a	2.56	47	ePn	Pn	04 36 05.6	+1.7
BODT	Bodrum	2.67	157	ePN	Pn	04 36 06.0	+0.6
BODT	Bodrum	2.67	157	ePn	Pn	04 36 06.0	+0.6
BGKT	Bogazkoy	2.68	51	ePN	Pn	04 36 07.2	+1.7
BGKT	Bogazkoy	2.68	51	ePn	Pn	04 36 07.2	+1.7
ISK	Istanbul-Kandi	2.79	56	ePN	Pn	04 36 08.8	+1.8
ISK	Istanbul-Kandi	2.79	56	ePn	Pn	04 36 08.8	+1.7
KLYT	Kilyos	2.88	52	ePN	Pn	04 36 08.8	+0.5
KLYT	Kilyos	2.88	52	ePn	Pn	04 36 08.8	+0.4
CAVI	Cavuskoy	3.02	76	ePN	Pn	04 36 11.6	+1.3
CAVI	Cavuskoy	3.02	76	ePn	Pn	04 36 11.6	+1.3
ALT	Altintas	3.21	97	ePN	Pn	04 36 14.0	+1.1
ALT	Altintas	3.21	97	ePn	Pn	04 36 14.0	+1.1
MLR	Muntele Rosu	5.96	360	⇑iP	Pn	04 36 52.5	+1.9
MLR	Muntele Rosu	5.96	360	⇑iP	Pn	04 36 52.5	+1.9
PLOR	Plostina	6.33	4	⇑iP	Pn	04 36 57.6	+1.8
PLOR	Plostina	6.33	4	⇑iP	Pn	04 36 57.6	+1.8
VRI	Vrincioaia	6.35	5	⇓iP	Pn	04 36 58.5	+2.5
VRI	Vrincioaia	6.35	5	⇓iP	Pn	04 36 58.5	+2.5

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*CSEM **16** 05:20:07.6±0.4, 43°.42N×17°.32E, h2^{km}, ML2.7, Error ellipse: s-maj=10.1km s-min=6.3km az=40.0*
*ISCJB **16** 05:20:08.3±0.6, 43°.38N±0°.04×17°.36E±0°.05, h10^{km}, Error ellipse: s-maj=7.1km s-min=3.9km az=36.5*
*NEIC **16** 05:20:09.3, 43°.35N×17°.41E, h8^{km}, ML2.7(PDG), After PDG.*
*PDG **16** 05:20:09.3±0.2, 43°.35N×17°.41E, h8^{km}, ML2.7/10, Error ellipse: s-maj=0.7km s-min=0.9km az=0.0*
ISC 16 05:20:08.9±0.6, **43°.38N**±0°.04×**17°.34E**±0°.05, **h10**^{km}, **n30**, σ1^{s}.**27**/56, **15C-9D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STON	Ston	0.57	152	ePg	Pg	05 20 18.1	-1.9
STON				Sg	Sg	05 20 28.1	+0.7
STON	Ston	0.57	152	ePg	Pg	05 20 18.1	-1.9
STON				Sg	Sg	05 20 28.1	+0.7
BRY	Bratogost	1.00	118	⇑iPg	Pg	05 20 27.1	-1.1
BRY				eSg	Sg	05 20 41.6	+0.3
BRY	Bratogost	1.00	118	⇑iPg	Pg	05 20 27.1	-1.1
BRY				eSg	Sg	05 20 41.6	+0.3
UPM	Unac-Piva	1.16	98	⇓iPg	Pg	05 20 29.3	-1.9
UPM				eSg	Sg	05 20 47.2	+0.9
UPM	Unac-Piva	1.16	98	⇓iPg	Pg	05 20 29.3	-1.9
UPM				eSg	Sg	05 20 47.2	+0.9
HCY	Herceg Novi	1.26	137	⇓iPg	Pg	05 20 31.4	-1.7
HCY				eSg	Sg	05 20 50.6	+1.1
HCY	Herceg Novi	1.26	137	⇓iPg	Pg	05 20 31.4	-1.7
HCY				eSg	Sg	05 20 50.6	+1.1
NKY	Niksic	1.34	114	⇓iPg	Pg	05 20 33.4	-1.3
NKY				eSg	Sg	05 20 53.4	+1.3
NKY	Niksic	1.34	114	⇓iPg	Pg	05 20 33.4	-1.3
NKY				eSg	Sg	05 20 53.4	+1.3
PLE	Pljevlja	1.50	91	⇑iPg	Pn	05 20 35.9	0.0
PLE				eSg	Sg	05 20 58.6	+1.4
PLE	Pljevlja	1.50	91	⇑iPg	Pn	05 20 35.9	0.0
PLE				eSg	Sg	05 20 58.6	+1.4
BUM	Brajici-Budva	1.57	133	⇑iPg	Pn	05 20 37.3	+0.4
BUM				eSg	Sg	05 21 00.6	+1.1
BUM	Brajici-Budva	1.57	133	⇑iPg	Pn	05 20 37.3	+0.4
BUM				eSg	Sg	05 21 00.6	+1.1
BBLS	Lazići	1.58	71	⇑iPn	Pn	05 20 35.6	-1.4
PDG	Podgorica	1.70	123	⇑iPn	Pn	05 20 39.1	+0.5
PDG				eSn	Sg	05 21 03.4	-0.2
TTG	Podgorica	1.70	123	⇑iPn	Pn	05 20 39.1	+0.5
TTG				eSn	Sg	05 21 03.4	-0.2
TTG	Podgorica	1.70	123	⇑iPn	Pn	05 20 39.1	+0.5
TTG				eSn	Sg	05 21 03.4	-0.2
BEY	Berane	1.94	104	⇑iPn	Pn	05 20 43.2	+1.3
BEY				eSn	Sg	05 21 09.4	-1.9
IVA	Berane	1.94	104	⇑iPn	Pn	05 20 43.2	+1.3
IVA				eSn	Sg	05 21 09.4	-1.9
IVA	Berane	1.94	104	⇑iPn	Pn	05 20 43.2	+1.3
IVA				eSn	Sg	05 21 09.4	-1.9
ULC	Ulcinj	2.00	134	⇑iPn	Pn	05 20 43.6	+0.9
ULC				eSn	Sg	05 21 10.7	-2.4
ULC	Ulcinj	2.00	134	⇑iPn	Pn	05 20 43.6	+0.9
ULC				eSn	Sg	05 21 10.7	-2.4
DIVS	Divibare	2.06	69	ePn	Pn	05 20 41.3	-2.2
PVY	Plav	2.09	111	⇓iPn	Pn	05 20 44.9	+1.0
PVY				eSn	Sn	05 21 12.7	+2.8
PVY	Plav	2.09	111	⇓iPn	Pn	05 20 44.9	+1.0
PVY				eSn	Sn	05 21 12.7	+2.8
NVLJ	Novalja	2.14	305	ePn	Pn	05 20 44.6	-0.1
NVLJ				Sn	Sn	05 21 12.4	+1.2
NVLJ	Novalja	2.14	305	ePn	Pn	05 20 44.6	0.0
NVLJ				Sn	Sn	05 21 12.4	+1.2
GRUS	Gruza	2.51	77	ePn	Pn	05 20 50.5	+0.8
BARS	Barje	3.33	98	⇓iPn	Pn	05 21 00.7	-0.3

IDC 16 05:34:23.9±0.8, **46°.75N**×**155°.70E, h0**^{km}, **mb3.7**/11, **mb1 3.9**/12, **mb1mx3.8**/25, **mbtmp3.6**/12, **ML3.1**/1, **Error ellipse: s-maj=23.0km s-min=19.2km az=156.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	Petropavlovsk-	6.50	11	Pn	Pn	05 35 58.6	-2.0
	0.4nm,0.3s,baz=203,slow=14,SNR=11						
SONM	Songino Array	33.01	290	P	P	05 41 01.4	+1.0
	0.3nm,0.6s,baz=75,slow=7.6,SNR=3.3						
MKAR	Makanchi Array	48.52	298	P	P	05 43 08.3	0.0
	0.2nm,0.5s,baz=66,slow=7.0,SNR=4.1						
KURK	Kurchatov	48.84	305	P	P	05 43 11.5	+0.8
	0.9nm,0.7s,baz=71,slow=8.9,SNR=5.4						
YKA	Yellowknife Ar	49.85	37	P	P	05 43 17.8	-0.4
	0.1nm,0.5s,baz=294,slow=7.0,SNR=3.4						
BVAR	Borovoye Array	52.23	310	P	P	05 43 35.8	-0.4
	1.8nm,0.9s,baz=64,slow=8.8,SNR=5.1						
NVAR	Mina Array Bea	60.85	64	P	P	05 44 38.4	+0.5
	0.6nm,0.8s,baz=304,slow=6.0,SNR=3.8						
PDAR	Pinedale Array	63.30	55	P	P	05 44 55.2	+1.0
	0.3nm,0.9s,baz=350,slow=4.6,SNR=3.7						
WRA	Warramunga Arr	69.12	202	P	P	05 45 31.1	-0.6
	1.0nm,0.6s,baz=21,slow=6.8,SNR=7.8						
ASAR	Alice Springs	72.80	201	P	P	05 45 54.2	+0.3
	0.9nm,0.6s,baz=14,slow=6.1,SNR=9.1						
TXAR	Lajitas Array	75.93	62	P	P	05 46 12.8	+0.4
	1.3nm,0.7s,baz=300,slow=4.3,SNR=11						
BRTR	Keskin Array B	79.60	318	P	P	05 46 32.8	+0.2
	0.8nm,0.8s,baz=28,slow=7.2,SNR=3.2						

IDC 16 05:40:43.4±2.3, **6°.73S**×**129°.55E, h0**^{km}, **mb3.4**/1, **mb1 3.4**/3, **mb1mx3.3**/16, **mbtmp3.2**/3, **ML3.2**/2, **Error ellipse: s-maj=148.9km s-min=32.3km az=68.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.93	161	Pn	Pn	05 44 01.7	-0.6
	0.1nm,0.3s,baz=343,slow=13,SNR=6.2						
WRA				Sn	Sn	05 46 23.8	-14
	0.2nm,0.3s,baz=338,slow=22,SNR=7.3						
ASAR	Alice Springs	17.35	166	P	Pn	05 44 47.6	+0.6
	0.1nm,0.3s,baz=344,slow=9.7,SNR=6.2						
ASAR				S	Sn	05 47 48.8	-12
	0.1nm,0.3s,baz=339,slow=23,SNR=2.9						
MKAR	Makanchi Array	67.76	327	P	P	05 51 43.0	+0.1
	0.3nm,0.7s,baz=124,slow=7.8,SNR=5.2						

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*IDC **16** 05:59:53.0±8.2, 29°.37N×101°.55E, h0^{km}, mb3.8/3, mb1 3.8/4, mb1mx3.4/22, mbtmp3.6/4, ML3.1/1, MS3.6/1, Ms1 3.6/1, ms1mx2.7/31, Error ellipse: s-maj=363.2km s-min=33.8km az=84.0*
*BJI **16** 05:59:55.4, 29°.64N×102°.08E, h14^{km}*
*ISCJB **16** 05:59:56.4±1.8, 29°.5N±0°.1×101°.9E±0°.4, h33^{km}, mb3.9/3, Error ellipse: s-maj=48.8km s-min=17.3km az=8.2*
ISC 16 05:59:59.4±1.9, **29°.5N**±0°.1×**102°.0E**±0°.4, **h35**^{km}, **n6**, σ0^{s}.**38**/5, **mb3.9**/3, **Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	2.05	46	Pg	Pn	06 00 31.3	0.0
SONM	Songino Array	18.62	9	P	Pn	06 04 14.2	0.0
	0.1nm,0.3s,baz=206,slow=9.6,SNR=2.6						
KURK	Kurchatov	27.54	327	LR	LR	06 16 42.5	
	comp=Z,101nm,18.1s,baz=100,slow=37						
WRA	Warramunga Arr	58.18	144	P	P	06 09 50.0	0.0
	1.2nm,0.6s,mb4.1,baz=335,slow=7.6,SNR=23						
ASAR	Alice Springs	61.09	146	P	P	06 10 10.3	+0.4
	0.2nm,0.5s,mb3.5,baz=326,slow=6.7,SNR=6.8						
STKA	Stephens Creek	71.67	145	P	P	06 11 17.1	-0.4
	0.8nm,0.4s,mb4.0,baz=329,slow=12,SNR=2.5						

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*NEIC **16** 05:59:58.9±1.3, 21°.05S×66°.25W, h223^{km}±14^{km}, MD3.6(GUC), Error ellipse: s-maj=23.6km s-min=13.0km az=84.0*
*IDC **16** 05:59:58.8±1.1, 21°.06S×66°.33W, h222^{km}±10^{km}, mb3.6/5, mb1 3.6/8, mb1mx3.5/20, mbtmp3.5/8, Error ellipse: s-maj=20.0km s-min=14.5km az=118.0*
*ISCJB **16** 06:00:00.8±0.8, 21°.08S±0°.07×66°.8W±0°.1, h259^{km}±10^{km}, mb3.7/5, Error ellipse: s-maj=17.3km s-min=10.1km az=160.2*
*GUC **16** 06:00:02.2±0.7, 21°.07S×66°.93W, h243^{km}±10^{km}, MD3.6, ML3.9*
ISC 16 06:00:01.7±0.8, **21°.08S**±0°.07×**66°.8W**±0°.1, **h251**^{km}±10^{km}, **n23**, σ1^{s}.**13**/29, **mb3.8**/5, **4C-1D, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	2.51	232	P	Pn	06 00 49.8	+0.7
	32nm,0.3s,baz=50,slow=9.0,SNR=358						
LVC				S	S	06 01 27.0	+0.4
	21nm,0.3s,baz=262,slow=19,SNR=15						
LVC	Limon Verde	2.51	232	P	Pn	06 00 49.8	+0.7
LVC				S	S	06 01 27.0	+0.4
LVC	Limon Verde	2.51	232	⇑iP	Pn	06 00 49.8	+0.7
LVC				iS	S	06 01 26.9	+0.2
LVC				AML	AML	06 01 28.6	
	comp=E,121nm,0.4s						
PB01	Plate Boundary	2.55	270	eP	Pn	06 00 50.1	+0.6
PB01				iS	S	06 01 25.3	-2.0
PB01				AML	AML	06 01 30.2	
	comp=N,445nm,0.1s						
PB04	Plate Boundary	2.80	245	eP	Pn	06 00 59.3	+7.3
PB04				iS	S	06 01 42.6	+11
MACH	Maria Elena	3.00	248	⇑iP	Pn	06 00 55.5	+1.3
MACH				iS	S	06 01 35.6	-0.2
HMBC	Humberston	3.04	285	⇑iP	Pn	06 00 54.9	+0.2
HMBC				iS	S	06 01 35.7	-0.8
PECH	Pedro de Valdi	3.10	240	eP	Pn	06 00 56.5	+1.2
PECH				eS	S	06 01 37.6	-0.1
MNMC	Miæe Miæ	3.30	306	⇑iP	Pn	06 00 58.6	+1.1
MNMC				iS	S	06 01 41.5	-0.3
TOCH	Tocopilla	3.36	252	⇓iP	Pn	06 00 58.8	+0.7
TOCH				iS	S	06 01 41.9	-1.0
CPUP	Villa Florida	10.09	123	P	Pn	06 02 22.0	+0.5
	comp=N,1.2nm,0.3s,baz=289,slow=11,SNR=11						
CPUP	Villa Florida	10.09	123	ePn	Pn	06 02 22.4	+1.0
CFAA	Coronel Fontan	10.56	187	P	Pn	06 02 25.5	-1.8
	comp=N,0.1nm,0.3s,baz=24,slow=14,SNR=9.4						
PLCA	Paso Flores	19.85	189	P	P	06 04 14.3	+0.4
	comp=N,0.8nm,0.3s,baz=7.4,slow=9.7,SNR=26						
SDV	Santo Domingo	30.02	352	P	P	06 05 47.0	-0.6
	comp=N,1.0nm,0.4s,mb3.8,baz=76,slow=17,SNR=2.9						
TXAR	Lajitas Array	61.46	323	P	P	06 09 53.9	+1.9
	comp=N,0.2nm,0.4s,mb3.1,baz=145,slow=8.0,SNR=4.0						
DBIC	Dimbokro	66.70	73	P	P	06 10 24.0	-2.3
	comp=N,6.9nm,0.8s,mb4.4,baz=220,slow=7.4,SNR=10						
TORD	Torodi Ar. Bea	75.33	69	P	P	06 11 15.9	-2.1
	comp=N,4.5nm,0.5s,mb4.3,baz=256,slow=5.5,SNR=121						
TORD				pP	pP	06 12 13.9	-2.8
	comp=N,1.6nm,0.6s,baz=252,slow=5.6,SNR=5.6						
YKA	Yellowknife Ar	91.47	340	P	P	06 12 40.3	+1.2
	comp=N,0.1nm,0.4s,mb3.1,baz=128,slow=4.5,SNR=6.0						
ASAR	Alice Springs	131.18	205	PKP	PKPdf	06 18 45.6	+1.1
	comp=N,0.1nm,0.3s,baz=118,slow=1.9,SNR=4.4						
ASAR				SKPbc	SKPbc	06 21 48.2	+2.8
	comp=N,0.3nm,0.4s,baz=144,slow=3.1,SNR=4.6						
WRA	Warramunga Arr	134.30	208	PKP	PKPdf	06 18 51.9	+1.5
	comp=N,0.2nm,0.4s,baz=152,slow=1.7,SNR=8.1						
WRA				SKPbc	SKPbc	06 21 58.9	+2.7
	comp=N,0.8nm,0.8s,baz=149,slow=3.0,SNR=5.0						
MKAR	Makanchi Array	144.11	37	PKP	PKPdf	06 19 06.8	-0.6
	comp=N,0.5nm,0.6s,baz=316,slow=3.3,SNR=8.0						
SONM	Songino Array	152.75	10	PKPbc	PKPbc	06 19 29.6	+1.1
	comp=N,0.1nm,0.3s,baz=318,slow=1.0,SNR=3.8						

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*BJI **16** 06:00:07.8, 29°.40N×102°.14E, h11^{km}, mB4.6/4, mb4.3/14, ML4.2/17, Ms4.3/11, Ms7 3.8/9*
*ISCJB **16** 06:00:08.1±1.7, 29°.36N±0°.03×102°.00E±0°.04, h14^{km}±11^{km}, mb4.1/18, Error ellipse: s-maj=5.3km s-min=5.1km az=36.6*
*IDC **16** 06:00:08.8±0.7, 29°.64N×102°.21E, h0^{km}, mb4.1/9, mb1 4.2/11, mb1mx4.0/24, mbtmp4.1/11, ML3.7/2, Error ellipse: s-maj=25.0km s-min=13.6km az=68.0*
*MOS **16** 06:00:12.2±1.7, 29°.52N×102°.26E, h33^{km}, mb4.2/5, Error ellipse: s-maj=18.3km s-min=9.1km az=92.7*
*NEIC **16** 06:00:15.3±1.8, 29°.54N×102°.03E, h44^{km}±19^{km}, mb3.9/8, Error ellipse: s-maj=17.0km s-min=9.5km az=73.0*
ISC 16 06:00:08.5±1.7, **29°.39N**±0°.04×**101°.99E**±0°.04, **h1**^{km}±12^{km}, **n61**, σ1^{s}.**42**/74, **mb4.3**/17, **2D, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	2.15	45	⇓iPg	Pn	06 00 44.9	-0.7
CD2				Sg	Sn	06 01 11.6	-1.3
CD2				LR	LR		
	comp=N,4µm,4.5s						
CD2				LR	LR		
	comp=Z,3µm,8.6s						
KMI	Kunming	4.31	171	Pg	Pb	06 01 21.6	-3.4
KMI				Sg	Sb	06 02 16.3	-1.2
KMI				smax			
	comp=N,270nm,1.4s						
KMI				smax			
	comp=E,290nm,1.0s						
GYA	Guiyang	5.07	124	Pn	Pn	06 01 28.1	+2.5
GYA				Pg	Pg	06 01 45.1	-0.5
GYA				Sn	Sn	06 02 21.8	-3.0
GYA				Sg	Sg	06 02 45.4	-5.9
GYA				smax			
	comp=N,80nm,0.8s						
GYA				smax			
	comp=E,90nm,1.0s						
GYA				LR	LR		
	comp=N,930nm,5.1s						
GYA				LR	LR		
	comp=E,2µm,6.3s						
GYA				LR	LR		
	comp=Z,2µm,7.5s						
LZH	Lanzhou	6.86	13	Pg	Pn	06 01 52.5	+2.3
LZH				Sg	Sn	06 03 18.5	+10
LZH				smax			
	comp=N,97nm,1.1s						
LZH				smax			
	comp=E,130nm,1.2s						
LZH				LR	LR		
	comp=N,2µm,8.2s						
LZH				LR	LR		
	comp=Z,3µm,10.2s						
XAN	Xi’an	7.50	50	Pn	Pn	06 01 59.0	-0.1
XAN				Sn	Sn	06 03 23.6	-1.3
XAN				Sg	Sg	06 03 57.3	-12
XAN				smax			
	comp=N,300nm,1.1s						
XAN				smax			
	comp=E,260nm,1.1s						
LSA	Lhasa	9.45	275	eP	Pn	06 02 32.0	+6.2
LSA	Lhasa	9.45	275	eP	Pn	06 02 28.6	+2.8
LSA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
LSA	Lhasa	9.45	275	ePn	Pn	06 02 28.6	+2.8
	comp=Z,6.8nm,0.6s						
SHL	Shillong	9.75	249	ePKP	Pn	06 02 33.5	+3.6
GTA	Gaotai	10.15	350	eP	Pn	06 02 37.9	+2.5
GTA				pP		06 02 42.5	
GTA				sP		06 02 45.0	
GTA				S	Sn	06 04 33.1	+3.2
GTA				pmax	pmax		
	comp=Z,3.0nm,1.2s						
GTA				pmax	pmax		
	comp=Z,62nm,5.1s						
GTA				LR	LR		
	comp=N,550nm,9.6s						
GTA				LR	LR		
	comp=E,920nm,12.3s						
GTA				LR	LR		
	comp=Z,540nm,9.6s						
WHN	Wuhan	10.78	81	P	Pn	06 02 48.4	+4.3
WHN				S	Sn	06 04 38.0	-7.5
WHN				LR	LR		
	comp=N,3µm,7.8s						
WHN				LR	LR		
	comp=E,1µm,8.2s						
WHN				LR	LR		
	comp=Z,1µm,11.4s						
CMAR	Chiang Mai Arr	11.24	195	Pn	Pn	06 02 56.4	+6.1
	comp=Z,0.2nm,0.3s,baz=9.7,slow=13,SNR=3.8						
CMAR				Lg		06 06 15.7	
	comp=Z,0.4nm,0.3s,baz=7.1,slow=30,SNR=5.1						
TAPN	Taplejung	12.74	264	eP	Pn	06 03 11.8	+1.0
ODAN	Odare	13.13	262	eP	Pn	06 03 16.6	+0.4
	comp=Z,17nm,0.7s						
RAMN	Ramite	13.79	264	eP	Pn	06 03 24.8	-0.4
	comp=Z,14nm,0.6s						
HHC	Hu-ho-hao-te	13.85	32	eP	Pn	06 03 25.3	-0.6
HHC				pP		06 03 32.8	
HHC				sP		06 03 37.5	
HHC				eS	Sn	06 05 53.1	-7.2
HHC				sS		06 06 05.5	
HHC				SS		06 06 10.3	
HHC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
HHC				pmax	pmax		
	comp=Z,130nm,4.8s						
HHC				LR	LR		
	comp=N,320nm,5.4s						
HHC				LR	LR		
	comp=E,410nm,6.1s						
HHC				LR	LR		
	comp=Z,160nm,8.3s						
JIRN	Jiri	14.00	267	eP	Pn	06 03 28.4	+0.4
GUN	Gumba	14.22	268	eP	Pn	06 03 31.1	0.0
PKI	Pulchoki	14.70	267	eP	Pn	06 03 36.0	-1.6
	comp=Z,18nm,0.6s						
PKI	Pulchoki	14.70	267	eP	Pn	06 03 36.5	-1.1
PKI				pmax	pmax		

	comp=Z,12nm,0.6s						
PKI	**Pulchoki**	**14.70**	**267**	*e*P	**Pn**	**06 03 36.5**	**-1.1**
	comp=Z,12nm,0.6s						
PKIN	**Phulchoki**	**14.70**	**267**	*e*P	**Pn**	**06 03 36.5**	**-1.2**
	comp=Z,12nm,0.6s						
NJ2	**Nanjing**	**14.75**	**75**	*e*P	**Pn**	**06 03 33.3**	**-5.0**
NJ2				pP	pP	06 03 40.6	-4.1
NJ2				sP	sP	06 03 45.1	+0.3
NJ2				S	**Sn**	**06 06 14.5**	**-7.9**
NJ2				sS	sS	06 06 26.5	-15
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s						
NJ2				LR	LR		
	comp=N,80nm,16.0s						
NJ2				LR	LR		
	comp=E,390nm,12.2s						
KKN	**Kakani**	**14.77**	**268**	*e*P	**Pn**	**06 03 37.1**	**-1.4**
DMN	**Daman**	**14.95**	**267**	*e*P	**Pn**	**06 03 40.1**	**-1.0**
	comp=E,40nm,1.1s						
GKN	**Gorkha**	**15.29**	**269**	*e*P	**Pn**	**06 03 44.7**	**-0.9**
	comp=E,29nm,0.9s						
QZH	**Quanzhou**	**15.43**	**103**	*e*P	**Pn**	**06 03 46.8**	**-0.6**
QZH				*e*S	**Sn**	**06 06 36.0**	**-3.0**
QZH				LR	LR		
	comp=N,2µm,6.2s						
QZH				LR	LR		
	comp=E,1µm,8.0s						
QZH				LR	LR		
	comp=Z,1µm,8.9s						
BJI	**Beijing**	**15.76**	**44**	P	**Pn**	**06 03 55.4**	**+3.8**
BJI				pmax	pmax		
	comp=Z,8.0nm,1.4s						
BJI				LR	LR		
	comp=N,360nm,18.4s						
BJI				LR	LR		
	comp=E,360nm,20.6s						
BJI				LR	LR		
	comp=Z,130nm,18.9s						
DANN	**Dangsing**	**16.00**	**271**	*e*P	**Pn**	**06 03 52.7**	**-2.2**
KOLN	**Koldanda**	**16.24**	**269**	*e*P	**Pn**	**06 03 55.5**	**-2.4**
WMQ	**Urumqi**	**18.37**	**325**	*e*P	**Pn**	**06 04 23.6**	**-0.9**
WMQ				pP	pP	06 04 31.8	+7.0
WMQ				sP	sP	06 04 36.0	+11
WMQ				*e*S	**Sn**	**06 07 43.0**	**-7.2**
WMQ				SS		06 08 09.0	
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,170nm,4.4s						
WMQ				LR	LR		
	comp=N,470nm,12.2s						
WMQ				LR	LR		
	comp=E,330nm,8.2s						
WMQ				LR	LR		
	comp=Z,320nm,14.5s						
SONM	**Songino Array**	**18.73**	**9**	P	**Pn**	**06 04 27.8**	**-1.0**
	comp=Z,0.2nm,0.3s,baz=195,slow=12,SNR=20						
ULN	**Ulaanbaatar**	**18.86**	**11**	*e*P	**Pn**	**06 04 31.3**	**+0.9**
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ULN	**Ulaanbaatar**	**18.86**	**11**	*e*P	**Pn**	**06 04 31.3**	**+0.9**
	comp=Z,5.9nm,0.9s						
ZAK	**Zakamensk**	**20.99**	**2**	⇓*i*P	**P**	**06 04 53.4**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s						
MOY	**Mondy**	**22.26**	**358**	*e*P	**P**	**06 05 08.3**	**+1.5**
TLY	**Talaya**	**22.30**	**3**	*e*P	**P**	**06 05 08.9**	**+1.7**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
TLY	**Talaya**	**22.30**	**3**	*e*P	**P**	**06 05 08.9**	**+1.7**
	comp=Z,2.8nm,0.8s,mb3.7						
KSRS	**Korea Array**	**23.04**	**63**	P	**P**	**06 05 12.8**	**-2.4**
KSRS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.0						
KSRS	**Korea Array**	**23.04**	**63**	P	**P**	**06 05 12.8**	**-2.4**
	comp=Z,4.7nm,1.0s,mb4.0,baz=249,slow=9.7,SNR=8.4						
MKAR	**Makanchi Array**	**23.18**	**324**	P	**P**	**06 05 14.9**	**-1.7**
	comp=Z,1.2nm,0.5s,mb3.7,baz=130,slow=11,SNR=18						
CN2	**Changchun**	**23.59**	**46**	*e*P	**P**	**06 05 20.3**	**-0.6**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
UCH	**Uchtor**	**25.57**	**307**	*e*P	**P**	**06 05 40.1**	**+1.0**
	comp=Z,5.6nm,1.4s,mb4.0						
AAK	**Ala-Archa**	**25.74**	**308**	P	**P**	**06 05 44.8**	**+4.3**
AAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.0						
AAK	**Ala-Archa**	**25.74**	**308**	P	**P**	**06 05 44.8**	**+4.3**
	comp=Z,4.8nm,1.3s,mb4.0						
AML	**Almayashu**	**26.11**	**307**	*e*P	**P**	**06 05 46.7**	**+2.8**
	comp=Z,3.6nm,1.0s,mb4.0						
PSI	**Prapat**	**26.61**	**187**	P	**P**	**06 05 53.1**	**+4.5**
	comp=Z,2.5nm,0.4s,mb4.3,baz=335,slow=14,SNR=3.3						
ZALV	**Zalesovo Beam**	**27.54**	**338**	P	**P**	**06 05 56.1**	**-0.5**
	comp=Z,3.0nm,0.7s,mb4.2,baz=140,slow=7.2,SNR=16						
KURK	**Kurchatov**	**27.60**	**327**	*e*P	**P**	**06 05 55.6**	**-1.6**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
KURK	**Kurchatov**	**27.60**	**327**	P	**P**	**06 05 56.3**	**-0.9**
	comp=Z,1.6nm,0.7s,mb4.0,baz=133,slow=9.9,SNR=8.9						
KURK	**Kurchatov**	**27.60**	**327**	*e*P	**P**	**06 05 55.6**	**-1.6**
	comp=Z,2.1nm,0.7s,mb4.1						
KBL	**Kabul**	**28.34**	**289**	*e*P	**P**	**06 06 06.6**	**+2.6**
KBL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
KBL	**Kabul**	**28.34**	**289**	*e*P	**P**	**06 06 06.6**	**+2.6**
	comp=Z,7.6nm,1.0s,mb4.5						
KLR	**Kul'dur**	**30.08**	**40**	*e*P	**P**	**06 06 15.1**	**-4.2**
BRTR	**Keskin Array B**	**56.00**	**300**	P	**P**	**06 09 50.0**	**+1.2**
	comp=Z,0.7nm,0.8s,mb3.8,baz=76,slow=6.1,SNR=4.8						
AKASG	**Malin Array Be**	**57.23**	**314**	P	**P**	**06 09 57.5**	**+0.1**
	comp=Z,1.1nm,0.7s,mb4.0,baz=67,slow=7.0,SNR=2.9						
WRAB	**Tennant Creek**	**58.13**	**144**	*e*P	**P**	**06 10 04.5**	**+0.6**
WRAB				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.2						
WRAB	**Tennant Creek**	**58.13**	**144**	*e*P	**P**	**06 10 04.5**	**+0.5**
	comp=Z,14nm,0.5s,mb5.2						
WRA	**Warramunga Arr**	**58.13**	**144**	P	**P**	**06 10 04.7**	**+0.7**
	comp=Z,16nm,0.5s,mb5.3,baz=335,slow=7.6,SNR=193						
ASAR	**Alice Springs**	**61.03**	**146**	P	**P**	**06 10 24.9**	**+1.0**
	comp=Z,3.3nm,0.5s,mb4.7,baz=330,slow=7.0,SNR=74						
STKA	**Stephens Creek**	**71.61**	**145**	P	**P**	**06 11 31.8**	**+0.2**
	comp=Z,2.2nm,0.5s,mb4.5,baz=344,slow=4.5,SNR=6.1						

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*NEIC **16** 06:38:31.9±1.7, 7°.06S×129°.52E, h125^{km}±17^{km}, mb4.3/6, Error ellipse: s-maj=16.7km s-min=10.9km az=51.0*

*IDC **16** 06:38:31.6±2.5, 7°.04S×129°.55E, h122^{km}±23^{km}, mb4.0/10, mb1 4.0/13, mb1mx4.0/20, mbtmp4.0/13, Error ellipse: s-maj=23.3km s-min=13.0km az=65.0*

*ISCJB **16** 06:38:32.9±1.7, 7°.17S±0°.08×129°.49E±0°.10, h156^{km}±19^{km}, mb4.3/20, Error ellipse: s-maj=17.6km s-min=11.4km az=150.6*

ISC 16 06:38:32.5±2.1, 7°.1S±0°.1×129°.50E±0°.10, h131^{km}±24^{km}, n43, σ0^{s}.79/42, mb4.3/20, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.27**	**153**	*e*Pn	**Pn**	**06 40 03.9**	**+1.2**
	283nm,0.5s						
FITZ	**Fitzroy Crossi**	**11.55**	**199**	P	**Pn**	**06 41 12.8**	**-0.7**
	0.6nm,0.3s,baz=7.5,slow=15,SNR=46						
FITZ				S	**Sn**	**06 43 12.8**	**-8.1**
	1.5nm,0.3s,baz=58,slow=14,SNR=4.9						
FITZ	**Fitzroy Crossi**	**11.55**	**199**	*e*Pn	**Pn**	**06 41 14.3**	**+0.8**
FITZ				*e*Sn	**Sn**	**06 43 13.4**	**-7.5**
WRAB	**Tennant Creek**	**13.59**	**160**	*e*Pn	**Pn**	**06 41 38.4**	**-1.6**
	13nm,0.5s						
WRA	**Warramunga Arr**	**13.59**	**160**	P	**Pn**	**06 41 39.2**	**-0.9**
	3.1nm,0.3s,baz=338,slow=13,SNR=97						
WRA				S	**Sn**	**06 44 01.9**	**-8.3**
	5.0nm,0.3s,baz=335,slow=23,SNR=9.8						
WB2	**Warramunga Arr**	**13.60**	**160**	*e*Pn	**Pn**	**06 41 38.2**	**-1.9**
WB2				*e*Sn	**Sn**	**06 44 00.3**	**-10**
COEN	**Coen**	**15.06**	**118**	*e*P	**Pn**	**06 41 59.8**	**+1.1**
	241nm,0.8s						
COEN				*e*Sn	**Sn**	**06 44 34.3**	**-11**
ASAR	**Alice Springs**	**17.00**	**166**	P	**Pn**	**06 42 23.9**	**+1.5**
	1.0nm,0.3s,baz=342,slow=8.4,SNR=60						
ASAR				S	**S**	**06 45 22.9**	**-8.9**
	0.8nm,0.3s,baz=350,slow=26,SNR=6.6						
ASAR				ScP	ScP	06 50 22.4	-1.3
	0.2nm,0.3s,baz=352,slow=2.1,SNR=7.2						
CTA	**Charters Tower**	**20.74**	**130**	P	**P**	**06 43 03.0**	**0.0**
	6.0nm,1.0s,baz=310,slow=15,SNR=3.0						
CTA	**Charters Tower**	**20.74**	**130**	P	**P**	**06 43 03.0**	**0.0**
STKA	**Stephens Creek**	**27.10**	**157**	P	**P**	**06 44 02.9**	**-0.3**
	1.6nm,0.5s,mb3.9,baz=331,slow=12,SNR=4.3						
STKA	**Stephens Creek**	**27.10**	**157**	*e*P	**P**	**06 44 04.9**	**+1.7**
	0.3nm,0.4s,mb3.3						
NWAO	**Narrogin (SRO)**	**28.10**	**202**	P	**P**	**06 44 12.7**	**+0.6**
	4.5nm,0.6s,mb4.4,baz=39,slow=14,SNR=4.3						
PSI	**Prapat**	**32.07**	**287**	P	**P**	**06 44 47.1**	**-0.2**
	15nm,0.8s,mb4.8,baz=99,slow=6.2,SNR=15						
CMAR	**Chiang Mai Arr**	**39.42**	**311**	P	**P**	**06 45 50.0**	**0.0**
	4.7nm,0.6s,mb4.3,baz=136,slow=7.1,SNR=12						
CHTO	**Chiang Mai**	**39.64**	**311**	*e*P	**P**	**06 45 52.0**	**+0.3**
	2.4nm,0.5s,mb4.1						
CHTO				*e*pP	pP	06 46 15.9	-4.9
MJAR	**Matsushiro Arr**	**44.18**	**10**	P	**P**	**06 46 25.9**	**-2.5**
	1.1nm,0.5s,mb3.8,baz=187,slow=9.0,SNR=3.8						
ODAN	**Odare**	**52.96**	**311**	*e*P	**P**	**06 47 35.9**	**+0.1**
	8.9nm,0.5s,mb4.8						
TAPN	**Taplejung**	**52.99**	**312**	*e*P	**P**	**06 47 36.3**	**+0.3**
	9.6nm,0.4s,mb4.9						
RAMN	**Ramite**	**53.60**	**311**	*e*P	**P**	**06 47 41.0**	**+0.6**
	17nm,0.4s						
GTA	**Gaotai**	**53.83**	**332**	*e*P	**P**	**06 47 42.4**	**+0.5**
GTA				pP	pP	06 47 45.9	-27
GTA				sP	sP	06 47 47.5	-39
GTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
JIRN	**Jiri**	**54.29**	**311**	*e*P	**P**	**06 47 45.3**	**-0.2**
	comp=Z,5.2nm,0.4s,mb4.6						
GUN	**Gumba**	**54.65**	**312**	*e*P	**P**	**06 47 47.7**	**-0.4**
	comp=Z,13nm,0.4s,mb5.0						
KKN	**Kakani**	**55.04**	**311**	*e*P	**P**	**06 47 50.5**	**-0.4**
DMN	**Daman**	**55.07**	**311**	*e*P	**P**	**06 47 51.5**	**+0.4**
GKN	**Gorkha**	**55.63**	**311**	*e*P	**P**	**06 47 55.1**	**0.0**
	comp=Z,16nm,0.4s						
KOLN	**Koldanda**	**56.29**	**310**	*e*P	**P**	**06 47 59.9**	**+0.1**
	comp=Z,17nm,0.7s,mb5.0						
DANN	**Dangsing**	**56.47**	**311**	*e*P	**P**	**06 48 01.1**	**0.0**
ULN	**Ulaanbaatar**	**58.22**	**342**	*e*P	**P**	**06 48 13.4**	**+0.5**
	comp=Z,1.4nm,0.4s,mb4.1						
SONM	**Songino Array**	**58.39**	**342**	P	**P**	**06 48 14.3**	**+0.1**
	comp=Z,1.3nm,0.6s,mb3.9,baz=154,slow=6.3,SNR=11						
PETK	**Petropavlovsk-**	**64.58**	**18**	P	**P**	**06 48 55.8**	**+0.2**
	comp=Z,2.1nm,0.8s,mb4.0,baz=208,slow=5.9,SNR=3.5						
MKAR	**Makanchi Array**	**68.05**	**327**	P	**P**	**06 49 18.1**	**+0.2**
	comp=Z,3.5nm,0.3s,mb4.5,baz=115,slow=8.3,SNR=171						
ZALV	**Zalesovo Beam**	**71.46**	**334**	P	**P**	**06 49 38.1**	**-0.5**
	comp=Z,2.0nm,0.5s,mb4.1,baz=131,slow=5.6,SNR=13						
KURK	**Kurchatov**	**72.36**	**329**	*e*P	**P**	**06 49 43.4**	**-0.6**
	comp=Z,8.3nm,1.0s,mb4.4						
BRVK	**Borovoye**	**77.97**	**328**	*e*P	**P**	**06 50 16.2**	**+0.1**
	comp=Z,3.7nm,0.9s,mb4.0						
ARU	**Arti**	**85.54**	**328**	*e*P	**P**	**06 50 55.4**	**-0.3**
	comp=Z,2.9nm,0.6s,mb4.2						
PDAR	**Pinedale Array**	**117.32**	**45**	PKP	PKPdf	06 57 01.9	-0.9
	comp=Z,0.2nm,0.6s,baz=52,slow=2.4,SNR=3.6						
TXAR	**Lajitas Array**	**125.41**	**59**	PKP	PKPdf	06 57 20.0	+1.3
	comp=Z,0.3nm,0.4s,baz=191,slow=2.1,SNR=6.7						
TXAR	**Lajitas Array**	**125.41**	**59**	PKP	PKPdf	06 57 20.0	+1.3
TORD	**Torodi Ar. Bea**	**128.34**	**281**	PKP	PKPdf	06 57 24.8	+0.1
	comp=Z,0.7nm,0.6s,baz=114,slow=1.8,SNR=5.8						
TORD	**Torodi Ar. Bea**	**128.34**	**281**	PKP	PKPdf	06 57 24.8	+0.1
DBIC	**Dimbokro**	**134.70**	**272**	PKP	PKPdf	06 57 36.0	-0.7
	comp=Z,3.6nm,1.1s,baz=117,slow=6.8,SNR=2.1						
CPUP	**Villa Florida**	**146.10**	**169**	PKPbc	PKPbc	06 57 59.1	+1.0
	comp=Z,1.0nm,0.4s,baz=194,slow=2.2,SNR=8.6						

MAN 16 06:59:36, 12°.87N×124°.83E, h16^{km}, mb4.3, ML3.2, MS3.0, 2C, Samar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVCP	**Virac**	**0.98**	**318**	*e*P	Pb	06 59 54.1	-0.5
PVCP				*e*S	Sb	07 00 09.4	+2.1
PLP	**Palo**	**1.70**	**175**	⇑*e*P	Pn	07 00 05.1	+0.1
PLP				*i* S	Sn	07 00 27.4	+1.0
RCP	**Roxas**	**2.42**	**238**	⇑*i*P	Pn	07 00 16.5	+1.6
MSLP	**Maasin**	**2.72**	**179**	*e*P	Pn	07 00 21.6	+2.5
GUIM	**Jordan**	**3.13**	**225**	*e*P	Pn	07 00 25.9	+1.2

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*IDC **16** 07:04:21.9±0.7, 4°.53S×138°.88E, h0^{km}, mb4.3/12, mb1 4.5/16, mb1mx4.5/18, mbtmp4.4/16, ML4.6/4, MS3.8/11, Ms1 3.8/11, ms1mx3.5/29, Error ellipse: s-maj=32.6km s-min=13.3km az=84.0*

*BJI **16** 07:04:25.8, 4°.31S×138°.96E, h26^{km}, mB5.1/14, mb4.7/18, Ms4.9/12, Ms7 4.6/12*

*ISCJB **16** 07:04:25.8±0.9, 4°.60S±0°.03×138°.82E±0°.07, h37^{km}±8^{km}, mb4.5/36, MS3.9/9, Error ellipse: s-maj=10.9km s-min=5.7km az=2.5*

*MOS **16** 07:04:25.3±0.8, 4°.50S×138°.91E, h35^{km}, mb4.8/5, Error ellipse: s-maj=22.2km s-min=8.6km az=105.7*

*NEIC **16** 07:04:27.4±1.7, 4°.57S×138°.85E, h38^{km}±16^{km}, mb4.6/9, Error ellipse: s-maj=13.7km s-min=9.7km az=70.0*

*DJA **16** 07:04:31, 3°.81S×138°.91E, h214^{km}, mb5.0/6*

ISC 16 07:04:27.8±0.8, 4°.64S±0°.03×138°.91E±0°.06, h41^{km}±7^{km}, h35^{km}±1.6^{km}:pP-P, n79, σ1^{s}.02/84, mb4.5/36, MS3.9/9, 2C-1D, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAY	**Jayapura**	**2.77**	**40**	P	**Pn**	**07 05 10.6**	**+0.9**
MMPI	**Merauke**	**4.07**	**159**	P	Px	07 05 54.0	
BAKI	**Biak**	**4.42**	**321**	P	**Pn**	**07 05 31.7**	**-0.7**
SWI	**Sorong**	**8.51**	**296**	P	**Pn**	**07 06 28.5**	**0.0**
	73nm,0.6s						
COEN	**Coen**	**10.17**	**156**	*e*Pn	**Pn**	**07 06 53.3**	**+2.0**
	366nm,0.6s						
COEN				*e*Sn	**Sn**	**07 08 42.7**	**-1.3**
COEN	**Coen**	**10.17**	**156**	P	**Pn**	**07 06 53.6**	**+2.3**
	320nm,0.7s						
KAKA	**Kakadu**	**10.25**	**218**	*e*P	**Pn**	**07 06 52.9**	**+0.5**
	383nm,0.5s						
KAKA	**Kakadu**	**10.25**	**218**	*e*Pn	**Pn**	**07 06 53.2**	**+0.8**
	1µm,0.6s						
KAKA				*e*Sn	**Sn**	**07 08 45.5**	**-0.6**
KAKA	**Kakadu**	**10.25**	**218**	P	**Pn**	**07 06 53.8**	**+1.4**
	1µm,0.6s,8µm						
WRAB	**Tennant Creek**	**15.83**	**196**	*e*Pn	**Pn**	**07 08 08.3**	**+0.4**
	147nm,0.8s						
WRAB	**Tennant Creek**	**15.83**	**196**	P	**Pn**	**07 08 08.5**	**+0.6**
	208nm,0.9s						
WRA	**Warramunga Arr**	**15.85**	**196**	P	**Pn**	**07 08 05.8**	**-2.2**
WRA	**Warramunga Arr**	**15.85**	**196**	Pn	**Pn**	**07 08 05.9**	**-2.1**
	1.8nm,0.3s,baz=15,slow=13,SNR=59						
WRA				Sn	**Sn**	**07 10 57.9**	**-4.7**
	2.0nm,0.3s,baz=2.5,slow=24,SNR=3.4						
WRA				Lg		07 12 50.8	
	1.9nm,0.3s,baz=15,slow=30,SNR=3.6						
WRA				LR	LR	07 14 55.8	
	comp=Z,407nm,18.1s,baz=10.0,slow=40						
CTA	**Charters Tower**	**16.94**	**156**	*e*P	**Pn**	**07 08 27.2**	**+5.3**
	10nm,0.4s						
CTA	**Charters Tower**	**16.94**	**156**	P	**Pn**	**07 08 22.1**	**+0.2**
	0.2nm,0.3s,baz=334,slow=14,SNR=4.0						
CTA				Lg		07 13 27.7	
	0.6nm,0.3s,baz=64,slow=24,SNR=4.3						
CTA				LR	LR	07 15 32.1	
	comp=Z,280nm,18.4s,baz=231,slow=39						
CTAO	**Charters Tower**	**16.94**	**156**	*e*P	**Pn**	**07 08 22.9**	**+1.0**
	12nm,0.5s						
CTAO	**Charters Tower**	**16.94**	**156**	P	**Pn**	**07 08 27.2**	**+5.3**
	37nm,1.8s						
FITZ	**Fitzroy Crossi**	**18.64**	**223**	*e*P	**Pn**	**07 08 43.1**	**+0.4**
	41nm,0.6s						
FITZ	**Fitzroy Crossi**	**18.64**	**223**	P	**Pn**	**07 08 41.6**	**-1.1**
	3.4nm,0.3s,baz=43,slow=10,SNR=29						
FITZ				S	**S**	**07 12 00.3**	**-12**
	2.7nm,0.3s,baz=179,slow=10,SNR=4.3						
FITZ				Lg		07 14 20.8	
	0.7nm,0.3s,baz=90,slow=11,SNR=2.2						
FITZ				LR	LR	07 16 42.7	
	comp=Z,294nm,19.0s,baz=39,slow=40						
FITZ	**Fitzroy Crossi**	**18.64**	**223**	*e*P	**Pn**	**07 08 42.2**	**-0.5**
	21nm,0.6s						
FITZ				*e*Sn	**Sn**	**07 11 60.0**	**-10**
FITZ	**Fitzroy Crossi**	**18.64**	**223**	P	**Pn**	**07 08 44.8**	**+2.1**
GUMO	**Guam**	**19.05**	**18**	LR	LR	07 14 32.1	
	comp=Z,234nm,21.3s,baz=213,slow=32						
ASAR	**Alice Springs**	**19.52**	**194**	P	**Pn**	**07 08 54.0**	**+0.8**
	14nm,0.3s,baz=23,slow=8.6,SNR=784						
ASAR				S	**S**	**07 12 28.1**	**-2.1**
	0.7nm,0.3s,baz=16,slow=27,SNR=5.0						
ASAR				Lg		07 14 48.5	
	0.3nm,0.3s,baz=7.8,slow=30,SNR=4.4						
EIDS	**Eidsvold**	**23.69**	**152**	*e*P	**P**	**07 09 37.6**	**+1.6**
	12nm,0.7s,mb4.4						
MBWA	**Marble Bar**	**24.82**	**227**	*e*P	**P**	**07 09 47.5**	**+1.1**
	18nm,0.6s,mb4.8						
STKA	**Stephens Creek**	**27.21**	**175**	P	**P**	**07 10 07.7**	**-0.2**
	1.7nm,0.6s,mb3.8,baz=16,slow=8.9,SNR=4.5						
STKA				LR	LR	07 22 42.4	
	comp=Z,79nm,20.5s,MS3.3,baz=21,slow=40						
FORT	**Forrest**	**27.93**	**200**	*e*P	**P**	**07 10 15.0**	**+0.7**
	15nm,0.6s,mb4.8						
FORT	**Forrest**	**27.93**	**200**	*e*P	**P**	**07 10 13.9**	**-0.4**
	38nm,0.6s,mb5.2						
CBIJ	**Chichi jima**	**31.71**	**6**	LR	LR	07 21 07.7	
	comp=Z,221nm,20.2s,MS3.8,baz=139,slow=32						
KLBR	**Kellerberrin**	**33.36**	**214**	*e*P	**P**	**07 11 02.9**	**+0.7**
	210nm,2.0s,mb5.7						
MUN	**Mundaring**	**34.53**	**215**	*e*P	**P**	**07 11 13.2**	**+0.9**
MJAR	**Matsushiro Arr**	**40.97**	**359**	P	**P**	**07 12 04.5**	**-2.2**
	1.9nm,0.6s,mb3.9,baz=177,slow=9.4,SNR=6.0						
MJAR				LR	LR	07 27 20.1	
	comp=Z,68nm,18.7s,MS3.5,baz=150,slow=34						
MAT	**Matsushiro**	**40.97**	**359**	P	**P**	**07 12 06.6**	**-0.1**
NJ2	**Nanjing**	**41.18**	**334**	*e*P	**P**	**07 12 08.9**	**+0.5**
NJ2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
KSRS	**Korea Array**	**43.11**	**347**	P	**P**	**07 12 23.1**	**-1.0**
	comp=Z,1.9nm,0.6s,mb4.0,baz=152,slow=8.6,SNR=6.8						
KSRS				LR	LR	07 26 57.6	
	comp=Z,60nm,21.5s,MS3.5,baz=335,slow=32						
GYA	**Guiyang**	**43.93**	**316**	P	**P**	**07 12 31.0**	**+0.1**
GYA				pP	pP	07 12 41.5	-0.9
GYA				PP	PP	07 14 15.5	+1.6
GYA				ScP	ScP	07 18 04.3	-0.9
GYA				S	**S**	**07 19 01.3**	**+1.4**
GYA				sS	sS	07 19 17.8	-1.2
GYA				SS	SS	07 22 10.0	-7.8
GYA				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
GYA				pmax	pmax		
	comp=Z,80nm,4.9s						
GYA				LR	LR		
	comp=N,730nm,17.2s,MS4.8						
GYA				LR	LR		
	comp=E,510nm,16.0s,MS4.8						
GYA				LR	LR		
	comp=Z,560nm,17.8s,MS4.5						
CMAR	**Chiang Mai Arr**	**45.58**	**301**	P	**P**	**07 12 44.0**	**-0.2**
	comp=Z,3.4nm,0.7s,mb4.4,baz=130,slow=6.4,SNR=15						
CHTO	**Chiang Mai**	**45.74**	**302**	*e*P	**P**	**07 12 45.1**	**-0.4**
	comp=Z,2.7nm,0.6s,mb4.3						
KMI	**Kunming**	**45.93**	**312**	P	**P**	**07 12 46.6**	**-0.3**
KMI				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
XAN	**Xi'an**	**47.77**	**326**	P	**P**	**07 13 01.4**	**+0.3**
XAN				PP	PP	07 14 53.3	+0.1
XAN				S	**S**	**07 19 56.8**	**+1.9**
XAN				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
XAN				pmax	pmax		
	comp=Z,37nm,6.1s						
XAN				LR	LR		
	comp=N,100nm,8.0s						
XAN				LR	LR		
	comp=Z,160nm,7.3s						
CD2	**Chengdu**	**48.74**	**319**	P	**P**	**07 13 11.0**	**+2.3**
CD2				pP	pP	07 13 21.1	+0.8
CD2				sP	sP	07 13 24.8	-0.3
CD2				PP	PP	07 15 04.1	+1.9
CD2				S	**S**	**07 20 10.8**	**+2.0**
CD2				sS	sS	07 20 27.3	-0.8
CD2				SS	SS	07 23 36.6	-3.2
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
CD2				pmax	pmax		
	comp=Z,130nm,7.1s						
CD2				LR	LR		
	comp=N,300nm,6.0s						
CD2				LR	LR		
	comp=Z,250nm,5.7s						
CN2	**Changchun**	**49.72**	**347**	*e*P	**P**	**07 13 18.6**	**+2.7**
MDJ	**Mudanjiang**	**49.74**	**351**	P	**P**	**07 13 15.4**	**-0.6**
MDJ				pP	pP	07 13 24.3	-3.4
MDJ				sP	sP	07 13 28.4	-4.0
MDJ				ScP	ScP	07 18 29.5	+0.4
MDJ				PcS	PcS	07 18 33.3	+0.1
MDJ				S	**S**	**07 20 22.3**	**0.0**
MDJ				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,160nm,5.5s						
YSS	**Yuzh-Sakhalins**	**51.48**	**3**	⇑*i*P	**P**	**07 13 28.0**	**-1.1**
YSS				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
KLR	**Kul'dur**	**54.01**	**354**	*e*P	**P**	**07 13 43.7**	**-4.0**
GTA	**Gaotai**	**56.73**	**324**	*e*P	**P**	**07 14 08.8**	**+1.2**
GTA				pP	pP	07 14 19.0	-0.4
GTA				sP	sP	07 14 22.9	-1.2
GTA				S	**S**	**07 22 00.6**	**+3.0**
GTA				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
GTA				pmax	pmax		
	comp=Z,88nm,4.2s						
GTA				LR	LR		
	comp=N,150nm,15.9s,MS4.2						
GTA				LR	LR		
	comp=E,84nm,15.6s,MS4.2						
GTA				LR	LR		
	comp=Z,130nm,15.9s,MS4.1						
TAPN	**Taplejung**	**58.74**	**306**	*e*P	**P**	**07 14 21.7**	**-0.2**
ODAN	**Odare**	**58.80**	**305**	*e*P	**P**	**07 14 21.7**	**-0.6**
ULN	**Ulaanbaatar**	**59.29**	**336**	*e*P	**P**	**07 14 25.6**	**+0.3**
	comp=Z,2.4nm,0.5s,mb4.5						
RAMN	**Ramite**	**59.48**	**305**	*e*P	**P**	**07 14 27.1**	**+0.1**
	comp=Z,9.7nm,0.6s,mb5.0						
SONM	**Songino Array**	**59.54**	**335**	P	**P**	**07 14 27.1**	**+0.1**
	comp=Z,1.0nm,0.6s,mb4.0,baz=155,slow=7.1,SNR=5.7						
SONM				PcP	PcP	07 15 14.1	0.0
	comp=Z,0.6nm,0.5s,baz=160,slow=3.5,SNR=2.8						
SONM				LR	LR	07 38 11.6	
	comp=Z,92nm,19.4s,MS3.9,baz=155,slow=34						
PETK	**Petropavlovsk-**	**59.68**	**13**	P	**P**	**07 14 28.4**	**+0.5**
	comp=Z,4.1nm,0.7s,mb4.6,baz=168,slow=7.9,SNR=9.8						
PETK				PKiKP	PKiKP	07 21 34.8	+0.4
	comp=Z,2.0nm,0.4s,baz=222,slow=1.9,SNR=27						
PETK				LR	LR	07 35 25.5	
	comp=Z,80nm,21.6s,MS3.8,baz=103,slow=31						
JIRN	**Jiri**	**60.10**	**306**	*e*P	**P**	**07 14 31.3**	**0.0**
GUN	**Gumba**	**60.45**	**306**	*e*P	**P**	**07 14 33.9**	**+0.2**
DMN	**Daman**	**60.96**	**305**	*e*P	**P**	**07 14 37.4**	**+0.2**
GKN	**Gorkha**	**61.50**	**305**	*e*P	**P**	**07 14 40.1**	**-0.7**
	comp=Z,15nm,0.6s,mb5.3						
KOLN	**Koldanda**	**62.26**	**305**	*e*P	**P**	**07 14 45.8**	**-0.1**
	comp=Z,14nm,0.8s,mb5.2						
DANN	**Dangsing**	**62.35**	**305**	*e*P	**P**	**07 14 46.3**	**-0.2**
	comp=Z,14nm,0.6s,mb5.3						
ZAK	**Zakamensk**	**62.81**	**335**	⇑*i*P	**P**	**07 14 49.1**	**0.0**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.7						
TLY	**Talaya**	**63.65**	**336**	*e*P	**P**	**07 14 54.9**	**+0.2**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BOD	**Bodaibo**	**65.42**	**346**	*e*P	**P**	**07 15 05.4**	**-0.7**
BOD				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
WMQ	**Urumqi**	**66.64**	**322**	*e*P	**P**	**07 15 16.0**	**+1.8**
SEY	**Seymchan**	**68.16**	**7**	*i* P	**P**	**07 15 22.3**	**-1.2**
MKAR	**Makanchi Array**	**71.43**	**323**	P	**P**	**07 15 43.5**	**-0.4**
	comp=Z,1.7nm,0.5s,mb4.2,baz=105,slow=8.2,SNR=41						
ZAA0	**Zalesovo Array**	**73.69**	**330**	*e*P	**P**	**07 15 55.8**	**-1.4**
ZALV	**Zalesovo Beam**	**73.69**	**330**	P	**P**	**07 15 56.0**	**-1.2**
	comp=Z,5.3nm,0.6s,mb4.7,baz=110,slow=6.5,SNR=13						
VNDA	**Vanda**	**73.85**	**175**	P	**P**	**07 15 58.6**	**+0.9**
	comp=Z,0.9nm,0.7s,mb3.8,baz=319,slow=6.4,SNR=3.0						
VNDA				LR	LR	07 48 07.2	
	comp=Z,190nm,21.4s,MS4.3,baz=303,slow=36						
AAK	**Ala-Archa**	**74.72**	**316**	*i* P	**P**	**07 16 03.1**	**-0.4**
AAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
NVS	**Novosibirsk**	**74.95**	**330**	*e*P	**P**	**07 16 03.0**	**-1.5**
NVS				pmax	pmax		
	comp=N,4.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,9.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
KURK	**Kurchatov**	**75.40**	**325**	*e*P	**P**	**07 16 05.9**	**-1.3**

KURK	Kurchatov	75.40	325	P	P	07 16 06.6	-0.6
	comp=Z,1.2nm,0.6s,mb4.0,baz=122,slow=5.0,SNR=7.2						
KURK	Kurchatov	75.40	325	eP	P	07 16 06.0	-1.2
	comp=Z,2.6nm,0.8s,mb4.2						
BVAR	Borovoye Array	81.00	325	P	P	07 16 37.8	-0.3
	comp=Z,2.1nm,0.5s,mb4.3,baz=116,slow=6.8,SNR=10						
QSPA	South Pole Qui	85.32	180	P	P	07 17 00.6	+0.7
	comp=Z,2.2nm,0.7s,mb4.4,baz=314,slow=4.2,SNR=12						
QSPA	South Pole Qui	85.32	180	P	P	07 17 00.6	+0.7
ARU	Arti	88.51	327	d iP	P	07 17 14.7	-1.1
ARU				e		07 20 39.9	
ARU				S	SKSac	07 27 40.4	-1.2
ARU				SS	SS	07 33 48.3	-1.5
ARU				pmax	pmax		
	comp=Z,14nm,2.5s,mb4.8						
ARCES	ARCESS Array B	102.39	341	P	Pdif	07 18 17.6	-1.5
	comp=Z,9.4nm,1.1s,baz=57,slow=4.5,SNR=7.3						
DBIC	Dimbokro	143.89	275	PKP	PKPdf	07 23 59.8	-0.1
	comp=Z,7.7nm,1.1s,baz=135,slow=4.3,SNR=3.0						
CPUP	Villa Florida	145.43	154	PKPbc	PKPbc	07 24 02.8	+0.6
	comp=Z,3.0nm,0.7s,baz=213,slow=2.9,SNR=12						

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*NSSP **16** 07:04:33.9, 38°.45N×45°.32E, h14^{km}, Ms4.0*
*ISCJB **16** 07:04:36.6±0.4, 38°.43N±0°.02×45°.21E±0°.02, h2^{km}±3^{km}, mb4.2/26, MS3.5/3, Error ellipse: s-maj=3.2km s-min=2.3km az=34.6*
*IDC **16** 07:04:36.6±0.9, 38°.29N×45°.04E, h0^{km}, mb4.0/11, mb1 4.1/13, mb1mx3.9/25, mbtmp4.0/13, ML3.6/2, MS3.3/4, Ms1 3.3/4, ms1mx2.8/49, Error ellipse: s-maj=20.8km s-min=15.2km az=159.0*
*THR **16** 07:04:37.8±1.4, 38°.48N×45°.23E, h14^{km}±13^{km}, ML4.0*
*NEIC **16** 07:04:37.6, 38°.44N×45°.16E, h14^{km}, mb4.0/6, ML4.0(THR), MN4.2(TEH), After THR.*
*MOS **16** 07:04:37.7±1.2, 38°.38N×45°.06E, h16^{km}, mb4.2/4, Error ellipse: s-maj=12.3km s-min=9.7km az=75.0*
*TEH **16** 07:04:37.2, 38°.36N×45°.16E, h12^{km}*
*CSEM **16** 07:04:37.8±0.1, 38°.47N×45°.19E, h2^{km}, mb4.1/5, Error ellipse: s-maj=4.7km s-min=3.4km az=16.0*
*BJI **16** 07:04:38.6, 38°.40N×45°.20E, h14^{km}, mb4.2/5, Ms4.4/2, Ms7 4.1/2*
*DDA **16** 07:04:40.5, 39°.16N×45°.17E, h2^{km}, Md4.0*
ISC 16 07:04:37.6±0.4, **38°.43N**±0°.02×**45°.19E**±0°.02, **h1**^{km}±3^{km}, **n179, σ1°.34**/223, **mb4.3**/26, **MS3.5**/3, **20C-17D,**
Iran-Armenia-Azerbaijan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ISHB	Shabestar	0.37	114	Pg	Pg	07 04 43.4	-1.2
ISHB				Sg	Sg	07 04 48.7	-0.6
ISHB	Shabestar	0.37	114	ePg	Pg	07 04 43.5	-1.1
ISHB				eSg	Sg	07 04 48.7	-0.6
ISHB				e		07 04 49.2	
	comp=Z,478nm,0.1s						
IMRD	Marand	0.49	55	Pg	Pg	07 04 47.0	+0.1
IMRD				Sg	Sg	07 04 56.0	+2.8
IMRD	Marand	0.49	55	⇓ePg	Pg	07 04 47.0	+0.1
IMRD				eSg	Sg	07 04 56.0	+2.8
IMRD				e		07 04 57.1	
	comp=Z,34μm,0.1s						
NAX	Nakhchivan	0.78	18	P	Pg	07 04 53.0	+0.6
	SNR=1000						
NAX				S	Sg	07 05 05.1	+2.6
ITBZ	Tabriz	0.78	105	Pg	Pg	07 04 50.9	-1.6
ITBZ				Sg	Sg	07 05 01.9	-0.6
ITBZ	Tabriz	0.78	105	ePg	Pg	07 04 51.0	-1.5
ITBZ				eSg	Sg	07 05 01.9	-0.6
ITBZ				e		07 05 02.8	
	comp=Z,74μm,0.1s						
ITBZ	Tabriz	0.78	105	ePg	Pg	07 04 51.0	-1.5
ITBZ				eSg	Sg	07 05 01.9	-0.6
IAZR	Azarshahr	0.98	140	Pg	Pg	07 04 54.2	-2.1
IAZR	Azarshahr	0.98	140	e	Sg	07 05 12.1	+3.2
	comp=Z,19μm,0.2s						
IAZR	Azarshahr	0.98	140	Pg	Pg	07 04 54.2	-2.1
MAKU	Maku	1.00	337	Pg	Pg	07 04 56.0	-0.8
MAKU	Maku	1.00	337	ePg	Pg	07 04 56.1	-0.7
MAKU				AML	AML	07 05 15.4	
	comp=N,2μm,0.6s						
MAKU	Maku	1.00	337	ePg	Pg	07 04 56.1	-0.7
CLDR	Caldiran	1.22	306	ePN	Pn	07 05 00.3	-1.5
CLDR				eSN	Sg	07 05 21.9	+5.1
CLDR	Caldiran	1.22	306	ePn	Pn	07 05 00.3	-1.5
CLDR				eSn	Sg	07 05 21.9	+5.1
GRS	Goris	1.39	40	⇑iP	Pn	07 05 03.0	-1.1
GRS				⇓iS	Sb	07 05 21.0	-1.5
GRS	Goris	1.39	40	⇑P	Pn	07 05 03.0	-1.1
GRS				S	Sb	07 05 21.0	-1.5
VANT	Van	1.42	271	ePN	Pb	07 05 06.9	+2.1
VANB	Van	1.42	277	ePN	Pn	07 05 04.8	+0.2
VANB	Van	1.42	277	ePn	Pn	07 05 04.8	+0.2
IHRS	Heris	1.46	94	Pn	Pn	07 05 04.0	-1.1
IHRS	Heris	1.46	94	e	Sg	07 05 25.9	+1.4
	comp=Z,99μm,0.2s						
IHRS				⇑ePn	Pn	07 05 04.0	-1.1
HAKT	HAKKARI	1.46	234	i P	Px	07 05 22.2	
HAKT				i S	Sx	07 05 50.5	
ARRZ	Ararat	1.47	345	eP	Px	07 04 53.0	
ARRZ				eS	Sx	07 05 13.0	
IBST	Bostanabad	1.53	118	Pn	Pn	07 05 03.5	-2.5
IBST	Bostanabad	1.53	118	e	Sg	07 05 24.5	-2.2
	comp=Z,47μm,0.1s						
IBST				⇑ePn	Pn	07 05 03.6	-2.4
DYDN	Diyadin	1.61	314	i P	Pn	07 05 07.6	+0.4
DYDN				i S	Sg	07 05 38.6	+9.3
DYDN	Diyadin	1.61	314	i P	Pn	07 05 07.6	+0.4
IMAH	Mahabad	1.72	166	ePn	Pn	07 05 06.0	-2.6
CUKT	Cukurca	1.73	227	ePN	Pn	07 05 08.0	-0.7
CUKT	Cukurca	1.73	227	ePn	Pn	07 05 08.0	-0.7
GNI	Garni	1.75	349	⇓iP	Pn	07 05 09.4	+0.4
GNI				⇓iS	Sg	07 05 34.7	+0.9
GNI	Garni	1.75	349	⇓P	Pn	07 05 09.4	+0.3
GNI				S	Sg	07 05 34.7	+1.0
VADZ	Vardenis	1.79	14	eP	Pn	07 05 10.0	+0.4
VADZ				⇑S	Sg	07 05 38.2	+3.2
VRNZ	Vardanashen	1.79	335	⇑iP	Pn	07 05 06.5	-3.2
VRNZ				⇑iS	Sg	07 05 35.9	+0.8
VRNZ	Vardanashen	1.79	335	⇑P	Pn	07 05 06.5	-3.1
VRNZ				S	Sg	07 05 35.9	+0.8
ERE	Yerevan	1.82	342	eP	Pn	07 05 08.0	-2.1
ERE	Yerevan	1.82	342	P	Pn	07 05 08.0	-2.1
PAAR	P'arak'ar	1.83	340	⇓iP	Pn	07 05 09.0	-1.2
PAAR				⇓iS	Sg	07 05 41.3	+5.1
PAAR	P'arak'ar	1.83	340	⇓P	Pn	07 05 09.0	-1.1
STKZ		1.83	41	⇓iP	Pn	07 05 08.5	-1.8
STKZ				⇓iS	Sn	07 05 33.5	-0.7
STKZ		1.83	41	⇓P	Pn	07 05 08.5	-1.7
STKZ				S	Sn	07 05 33.5	-0.6
KAPZ	Kaputan	1.92	349	⇓iP	Pn	07 05 11.0	-0.4
KAPZ				⇑iS	Sg	07 05 40.2	+0.8
KAPZ	Kaputan	1.92	349	⇓P	Pn	07 05 11.0	-0.5
VNNZ	Vanand	1.98	328	⇓P	Pn	07 05 12.0	-0.2
ARUZ	Aruch	2.03	336	⇑iP	Pn	07 05 12.0	-1.0
ARUZ				⇑iS	Sn	07 05 36.9	-2.1
ARUZ	Aruch	2.03	336	⇑P	Pn	07 05 12.0	-1.0
ARUZ				S	Sn	07 05 36.9	-2.1
AGRB	Hanur-Agry	2.06	304	ePN	Pn	07 05 13.8	+0.5
AGRB	Hanur-Agry	2.06	304	ePn	Pn	07 05 13.8	+0.5
AMBZ	Amberd	2.08	340	⇓iP	Pn	07 05 13.2	-0.4
AMBZ				⇓iS	Sg	07 05 44.0	-0.4
AMBZ	Amberd	2.08	340	⇓P	Pn	07 05 13.2	-0.4
AMBZ				S	Sg	07 05 44.0	-0.4
GRMI	Germi	2.15	79	Pn	Pn	07 05 15.0	+0.4
GRMI				Sg	Sg	07 05 45.0	-1.6
GRMI	Germi	2.15	79	ePg	Pn	07 05 15.7	+1.1
GRMI				eSg	Sg	07 05 44.7	-2.0
GRMI				AML	AML	07 05 48.9	
	comp=E,2μm,0.5s						
GRMI				AML	AML	07 05 52.0	
	comp=N,965nm,0.4s						
GRMI	Germi	2.15	79	ePn	Pn	07 05 15.7	+1.1
GRMI				eSg	Sg	07 05 45.8	-0.8
TATV	Tatvan	2.30	273	i P	Pb	07 05 18.6	-1.2
TATV				i S	Sg	07 05 57.4	+6.1
TATV	Tatvan	2.30	273	i P	Pb	07 05 18.6	-1.2
NARZ	Nor Artik	2.33	331	⇑iP	Pg	07 05 22.6	+0.4
NARZ				⇑iS	Sg	07 05 54.6	+2.3
LERZ	Lernakert	2.34	336	⇑iP	Pg	07 05 22.0	-0.3
LERZ				⇑iS	Sg	07 05 54.1	+1.5
HNAZ	Hnaberd	2.34	340	⇑iP	Pg	07 05 22.3	-0.1
HNAZ				⇑iS	Sg	07 05 57.9	+5.1
HARI	Harich	2.36	337	⇑iP	Pg	07 05 22.5	-0.3
HARI				⇑iS	Sg	07 05 57.6	+4.2
GANJ	Ganja	2.38	21	P	Pb	07 05 21.1	0.0
	SNR=120						
KAMZ	Kamo	2.57	339	S	Sn	07 05 47.2	-5.1
MSL	Mosul	2.62	220	ex	Pn	07 05 21.0	0.0
MSL				ex	x	07 05 54.0	
MSL	Mosul	2.62	220	ePn	Pn	07 05 21.0	0.0
MSL				eSn	Sn	07 05 54.0	+0.5
GLBA	Clilabad	2.63	71	P	Pn	07 05 24.3	+3.2
	SNR=55						
STEZ	Stepenevan	2.63	347	eP	Pn	07 05 23.0	+1.8
STEZ				eS	Sg	07 06 01.0	-1.2
STE	Stepanavan	2.64	346	P	Pn	07 05 23.0	+1.7
KARS	Kars	2.71	324	ePN	Pn	07 05 21.8	-0.5
HOMI	Horasan	3.02	303	i P	Pg	07 05 34.3	-1.1
HOMI				i S	Sg	07 06 23.9	+9.4
BEST	Besiri	3.14	261	i P	Pn	07 05 28.6	+0.4
BEST				i S	Sg	07 06 22.4	+4.0
ZNJK	Zanjan	3.29	121	ePn	Pn	07 05 31.1	+0.9
ZNJK				AML	AML	07 06 26.7	
	comp=N,224nm,0.6s						
ZNJK	Zanjan	3.29	121	ePn	Pn	07 05 31.1	+0.9
TBLG	Delisi	3.31	354	ePN	Pg	07 05 36.6	-4.4
TBLG				eS	Sg	07 06 22.4	-1.5
TBLG	Delisi	3.31	354	P	Pb	07 05 36.6	-0.4
TBLG	Delisi	3.31	354	eSb	Sg	07 06 22.4	-1.5
EZM	Erzurum	3.32	297	ePN	Pn	07 05 31.8	+1.2
GOR	Gori	3.64	347	P	Pg	07 05 45.9	-1.5
MARD	Mardin	3.67	254	eP	Pg	07 05 46.5	-1.3
MARD				i S	Sg	07 06 43.7	+8.4
SNGE	Sanandaj	3.76	152	Pn	Pn	07 05 37.0	+0.3
SNGE				Sg	Sg	07 06 34.0	-4.3
SNGE	Sanandaj	3.76	152	ePn	Pn	07 05 38.8	+2.1
SNGE				eSg	Sg	07 06 35.0	-3.3
SNGE				AML	AML	07 06 44.1	
	comp=N,217nm,0.7s						
SNGE				AML	AML	07 06 45.8	
	comp=E,326nm,0.8s						
SNGE	Sanandaj	3.76	152	ePn	Pn	07 05 37.8	+1.1
SNGE				eSg	Sg	07 06 35.0	-3.3
KOPT	Kop Dagi	3.97	295	i P	Pg	07 05 51.1	-2.6
KOPT				i S	Sg	07 07 04.3	+19
DIYA	Diyarbakir	4.03	264	eP	Pn	07 05 41.5	+1.2
DIYA				i S	Sg	07 06 53.5	+6.6
DIYA	Diyarbakir	4.03	264	eP	Pn	07 05 41.5	+1.1
IVIS	Veis	4.12	161	e	Sg	07 06 59.9	+10
	comp=Z,3μm,0.5s						
ONI	Oni	4.35	343	P	Pg	07 05 58.1	-2.7
ELZG	Elazig	4.87	273	eP	Pn	07 05 53.0	+1.0
ELZG	Elazig	4.87	273	eP	Pn	07 05 53.0	+1.0
BHD	Baghdad	5.20	188	ex	x	07 05 54.0	
BHD				ex	x	07 06 54.0	
BHD	Baghdad	5.20	188	ePn	Pn	07 05 54.0	-2.4
BHD				eSn	Sn	07 06 54.0	-3.0
MALT	Malatya	5.32	271	ePN	Pn	07 05 59.0	+0.9
MALT	Malatya	5.32	271	ePn	Pn	07 05 59.0	+0.9
ASAO	Ashtian	5.50	133	Pn	Pn	07 06 01.0	+0.4
ASAO	Ashtian	5.50	133	ePn	Pn	07 06 01.8	+1.2
ASAO	Ashtian	5.50	133	ePn	Pn	07 06 01.8	+1.2
AKCD	Akcadag	5.71	271	i P	Pg	07 06 22.0	-5.0
AKCD				i S	Sg	07 07 53.3	+12
KIV	Kislovodsk	5.83	342	P	Pb	07 06 18.0	-2.0
KIV				pmax	pmax		
	comp=Z,11nm,1.1s						
IVRN	Varamin	6.27	121	Pn	Pn	07 06 09.1	-2.1
BRTR	Keskin Array B	9.08	282	Pn	Pn	07 06 54.8	+5.0
	comp=Z,0.2nm,0.3s,baz=109,slow=14,SNR=11						
ASF	Jabal al Asfar	9.21	230	LR	LR	07 11 00.7	
	comp=Z,127nm,19.0s,baz=164,slow=43						
EIL	Elat	12.18	227	LR	LR	07 12 43.8	
	comp=Z,117nm,20.3s,baz=269,slow=41						
AKTK	Aktyubinsk	15.07	33	Pn	Pn	07 08 11.2	-0.3
AKTK	Aktyubinsk	15.07	33	Pn	Pn	07 08 11.2	-0.3
AKTO	Aktyubinsk	15.07	33	Pn	Pn	07 08 11.2	-0.3
	comp=Z,0.3nm,0.3s,baz=214,slow=9.1,SNR=4.8						
IDI	Anoyia	16.55	265	Pn	Pn	07 08 33.3	+2.4
	comp=Z,0.8nm,0.3s,baz=55,slow=12,SNR=4.5						
IDI	Anoyia	16.55	265	Pn	Pn	07 08 33.2	+2.3
AKASG	Malin Array Be	16.68	322	Pn	Pn	07 08 32.1	-0.4
	comp=Z,0.2nm,0.3s,baz=130,slow=12,SNR=5.9						
AKASG	Malin Array Be	16.68	322	Pn	Pn	07 08 32.1	-0.4
OBN	Obninsk	17.68	344	P	Pn	07 08 46.0	+1.1
OBN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,100nm,11.0s						
OBN	Obninsk	17.68	344	P	Pn	07 08 46.0	+1.1
	comp=Z,100nm,11.0s						
ARU	Arti	20.08	22	P	P	07 09 12.2	-0.1
ARU	Arti	20.08	22	eP	P	07 09 11.7	-0.6
	comp=Z,5.7nm,0.7s						
ARU	Arti	20.08	22	P	P	07 09 12.2	-0.1
AML	Almayashu	22.01	71	eP	P	07 09 33.4	+0.2
	comp=Z,3.5nm,0.8s,mb3.8						
AML	Almayashu	22.01	71	eP	P	07 09 33.4	+0.2
	comp=Z,3.5nm,0.8s,mb3.8						
EKS2	Erkin-Say	22.08	70	eP	P	07 09 36.9	+3.0
	comp=Z,5.0nm,0.8s,mb4.0						
AAK	Ala-Archa	22.61	70	eP	P	07 09 42.1	+2.5
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.9						
AAK	Ala-Archa	22.61	70	eP	P	07 09 42.0	+2.5
	comp=Z,3.9nm,1.1s,mb3.9						
AAK	Ala-Archa	22.61	70	eP	P	07 09 42.1	+2.5
	comp=Z,4.0nm,1.1s,mb3.9						
BRVK	Borovoye	22.65	42	eP	P	07 09 41.0	+1.1
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.3						
BRVK	Borovoye	22.65	42	eP	P	07 09 41.0	+1.1
	comp=Z,5.7nm,0.6s,mb4.3						
BRVK	Borovoye	22.65	42	eP	P	07 09 41.0	+1.1
	comp=Z,6.0nm,0.6s,mb4.3						
BVAR	Borovoye Array	22.69	42	P	P	07 09 42.0	+1.6
	comp=Z,2.5nm,0.7s,mb3.9,baz=243,slow=9.7,SNR=10						
BVAR	Borovoye Array	22.69	42	P	P	07 09 42.0	+1.6
TKM2	Tokmak 2	23.42	69	eP	P	07 09 49.5	+1.3
TKM2				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.2						
TKM2	Tokmak 2	23.42	69	eP	P	07 09 49.5	+1.3
	comp=Z,9.3nm,1.2s,mb4.2						
TKM2	Tokmak 2	23.42	69	eP	P	07 09 49.5	+1.3
	comp=Z,9.0nm,1.2s,mb4.2						
KSH	Kashi	23.90	78	eP	P	07 09 55.1	+2.3
KSH				epP		07 10 02.1	
KSH				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
KSH				LR	LR		
	comp=N,180nm,4.6s						
KSH				LR	LR		
	comp=E,160nm,7.1s						
KSH				LR	LR		
	comp=Z,210nm,4.8s						
GERES	GERESS Array B	24.89	305	P	P	07 10 01.6	-0.1
	comp=Z,1.5nm,0.8s,mb3.8,baz=108,slow=8.8,SNR=7.3						
GERES				LR	LR	07 21 26.3	
	comp=Z,54nm,18.8s,MS3.1,baz=41,slow=41						
GERES	GERESS Array B	24.89	305	P	P	07 10 01.6	-0.1
KHC	Kasperske Hory	25.03	306	eP	P	07 10 01.5	-1.5
KHC	Kasperske Hory	25.03	306	eP	P	07 10 01.5	-1.5
JOF	Joensuu	25.93	345	eP	P	07 10 11.2	+0.2
JOF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
JOF	Joensuu	25.93	345	ep	P	07 10 11.2	+0.2
	comp=Z,3.9nm,0.7s,mb4.2						
JOF	Joensuu	25.93	345	eP	P	07 10 11.2	+0.2
	comp=Z,4.0nm,0.7s,mb4.2						
KURK	Kurchatov	26.55	52	P	P	07 10 16.9	+0.1
	comp=Z,3.4nm,0.7s,mb4.2,baz=262,slow=9.3,SNR=14						
KURK	Kurchatov	26.55	52	P	P	07 10 16.9	+0.1
MKAR	Makanchi Array	28.34	61	P	P	07 10 33.6	+0.7
	comp=Z,1.5nm,0.7s,mb3.9,baz=264,slow=6.0,SNR=18						
MKAR	Makanchi Array	28.34	61	P	P	07 10 33.6	+0.7
HFS	Hagfors	29.41	328	P	P	07 10 41.6	-0.7
	comp=Z,6.0nm,0.9s,mb4.4,baz=129,slow=12,SNR=3.9						
HFS	Hagfors	29.41	328	P	P	07 10 41.6	-0.7
NOA	NORSAR Array B	30.93	328	LR	LR	07 24 36.2	
	comp=Z,70nm,18.3s,MS3.4,baz=350,slow=39						
ZALV	Zalesovo Beam	31.03	47	P	P	07 10 57.9	+1.2
	comp=Z,0.7nm,0.4s,mb4.0,baz=256,slow=8.5,SNR=3.9						
DANN	Dangsing	33.53	96	eP	P	07 11 19.6	+0.8
	comp=Z,22nm,0.8s,mb5.2						
DANN	Dangsing	33.53	96	eP	P	07 11 19.6	+0.8
KOLN	Koldanda	33.67	97	eP	P	07 11 20.9	+0.8
KOLN	Koldanda	33.67	97	eP	P	07 11 20.9	+0.8
GKN	Gorkha	34.37	96	eP	P	07 11 27.2	+1.0
GKN	Gorkha	34.37	96	eP	P	07 11 27.2	+1.0
PKIN	Phulchoki	35.16	96	eP	P	07 11 33.3	+0.3
PKI	Pulchoki	35.18	96	eP	P	07 11 33.3	+0.2
PKI	Pulchoki	35.18	96	eP	P	07 11 33.3	+0.2
GUN	Gumba	35.39	95	eP	P	07 11 36.1	+1.2
	comp=Z,19nm,1.0s,mb5.0						
GUN	Gumba	35.39	95	eP	P	07 11 36.1	+1.2
JIRN	Jiri	35.75	95	eP	P	07 11 38.7	+0.7
	comp=Z,13nm,0.8s,mb4.8						
JIRN	Jiri	35.75	95	eP	P	07 11 38.7	+0.7
EKA	Eskdalemuir Ar	36.27	314	P	P	07 11 41.2	-1.0
	comp=Z,1.8nm,1.0s,mb3.9,baz=107,slow=4.5,SNR=3.6						
EKA	Eskdalemuir Ar	36.27	314	P	P	07 11 41.2	-1.0
RAMN	Ramite	36.41	96	eP	P	07 11 43.9	+0.2
	comp=Z,8.7nm,0.6s,mb4.8						
RAMN	Ramite	36.41	96	eP	P	07 11 43.9	+0.2
ODAN	Odare	37.07	95	eP	P	07 11 50.1	+0.8
ODAN	Odare	37.07	95	eP	P	07 11 50.1	+0.8
TAPN	Taplejung	37.08	94	eP	P	07 11 49.9	+0.5
	comp=Z,8.6nm,0.8s,mb4.5						
TAPN	Taplejung	37.08	94	eP	P	07 11 49.9	+0.5
KMBO	Kilima Mbogo	40.04	192	P	P	07 12 13.3	-1.1
	comp=Z,23nm,0.6s,mb5.0,baz=24,slow=0.3,SNR=3.8						
KMBO	Kilima Mbogo	40.04	192	P	P	07 12 13.3	-1.1
KMBO	Kilima Mbogo	40.04	192	P	P	07 12 13.3	-1.0
TORD	Torodi Ar. Bea	45.98	249	P	P	07 13 00.1	-2.5
	comp=Z,0.4nm,0.5s,mb3.7,baz=34,slow=9.1,SNR=4.1						
LZH	Lanzhou	46.06	74	eP	P	07 13 06.0	+3.1
LZH				pP		07 13 11.0	
LZH				sP	sP	07 13 12.5	+9.3
LZH				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
BOD	Bodaibo	47.56	43	eP	P	07 13 14.3	-0.1
BOD	Bodaibo	47.56	43	eP	P	07 13 14.3	-0.1
HHC	Hu-ho-hao-te	50.05	65	eP	P	07 13 31.6	-2.2
HHC				pP		07 13 41.8	
HHC				sP	sP	07 13 45.8	+12
HHC				PP	PP	07 15 29.9	+1.3
HHC				eS	S	07 20 48.5	+2.8
HHC				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
HHC				LR	LR		
	comp=N,120nm,16.7s,MS4.4						
HHC				LR	LR		
	comp=E,250nm,14.3s,MS4.4						
HHC				LR	LR		
	comp=Z,83nm,14.3s,MS3.9						
CMAR	Chiang Mai Arr	50.54	97	P	P	07 13 37.3	-0.4
	comp=Z,0.8nm,0.4s,mb4.0,baz=304,slow=8.4,SNR=5.3						
CMAR	Chiang Mai Arr	50.54	97	P	P	07 13 37.3	-0.4
DBIC	Dimbokro	55.08	248	P	P	07 14 08.6	-2.8
	comp=Z,6.2nm,1.2s,mb4.5,baz=60,slow=4.6,SNR=3.2						
YKA	Yellowknife Ar	78.11	351	P	P	07 16 36.5	-1.3
	comp=Z,0.4nm,0.9s,mb3.6,baz=14,slow=6.7,SNR=6.2						
YKA	Yellowknife Ar	78.11	351	P	P	07 16 36.5	-1.3
YKA	Yellowknife Ar	78.11	351	P	P	07 16 36.5	-1.3

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*NEIC **16** 07:12:32.1±0.8, 23°.92N×121°.48E, h10^{km}, ML4.0(TAP), Error ellipse: s-maj=17.6km s-min=6.7km az=113.0*
NEIC Recorded [4 TAP] in Hua-lien and [1 TAP] in Nan-t'ou.
*ISCJB **16** 07:12:33.1±0.3, 23°.91N±0°.02×121°.52E±0°.03, h20^{km}±3^{km}, Error ellipse: s-maj=4.4km s-min=2.1km az=21.5*
*TAP **16** 07:12:33.0, 23°.92N×121°.44E, h17^{km}, ML3.5, B*
ISC 16 07:12:33.2±0.3, **23°.92N**±0°.01×**121°.50E**±0°.02, **h15**^{km}±2^{km}, **n49, σ1°.00**/83, **10C-3D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESF	Shoufeng Towns	0.04	167	⇓iP	Pg	07 12 36.4	+0.4
	baz=130						
ESF				S	Sg	07 12 38.6	+0.7
	baz=130						
ESL	Shilin	0.12	210	⇓iP	Pg	07 12 36.8	+0.1
	baz=183						
ESL				eS	Sg	07 12 38.8	-0.1
	baz=183						
HWA	Hwalien	0.12	58	⇑iP	Pg	07 12 37.5	+0.9
	baz=64						
HWA				i S	Sg	07 12 40.9	+1.9
	baz=64						
TWD	Chiawan	0.19	29	⇑iP	Pg	07 12 38.1	+0.4
	baz=37						
TWD				S	Sg	07 12 41.5	+0.7
	baz=37						
TEGC	Jichi Village	0.21	169	eP	Pg	07 12 38.7	+0.7
	baz=162						
TEGC				eS	Sg	07 12 42.9	+1.6
	baz=162						
NACB	Ninganchiao	0.27	19	eP	Pg	07 12 38.6	-0.4
NACB				eS	Sg	07 12 42.5	-0.6
WHF	Hehuan Shan	0.31	317	S	Sg	07 12 44.0	-0.2
	baz=320						
EHY	Hungye	0.44	201	⇑iP	Pg	07 12 40.8	-1.1
	baz=187						
EHY				eS	Sg	07 12 47.2	-0.7
	baz=187						
TWT	Tachien	0.45	319	⇑iP	Pg	07 12 42.3	+0.2
	baz=316						
TWT				S	Sg	07 12 47.9	-0.3
	baz=316						
SSLB	Suanglung	0.51	256	ePn	Pg	07 12 42.4	-0.9
SSLB				eS	Sg	07 12 49.1	-1.1
NNS	Nan Shan	0.53	348	⇑iP	Pg	07 12 43.8	+0.1
	baz=354						
NNS				eS	Sg	07 12 50.7	-0.3
	baz=354						
SMLT	Sun Moon Lake	0.55	267	⇑iP	Pg	07 12 43.6	-0.3
	baz=265						
SMLT				eS	Sg	07 12 50.6	-0.7
	baz=265						
YULB	Yu-li	0.55	199	ePn	Pg	07 12 42.9	-1.2
YULB				eSn	Sg	07 12 50.7	-0.7
ENA	Nanau	0.56	24	⇑iP	Pg	07 12 43.8	-0.4
	baz=29						
ENA				eS	Sg	07 12 52.1	+0.4
	baz=29						
TYC	Yuchr	0.58	269	⇑iP	Pg	07 12 44.1	-0.6
	baz=273						
TYC				S	Sg	07 12 51.6	-0.9
	baz=273						
TWF1	Yuli	0.59	198	⇓eP	Pg	07 12 43.0	-1.7
	baz=187						
TWF1				eS	Sg	07 12 52.8	+0.2
	baz=187						
ENTT	Nioudou	0.72	5	eP	Pg	07 12 46.8	-0.5
	baz=10.0						
ENTT				eS	Sg	07 12 56.5	-0.4
	baz=10.0						
WNT	Mingjian	0.74	267	eP	Pg	07 12 47.9	+0.2
	baz=266						
WNT				eS	Sg	07 12 58.7	+1.2
	baz=266						
ALS	Alishan	0.75	238	eP	Pg	07 12 47.5	-0.3
	baz=240						
YHNB	Yeheng	0.76	352	ePn	Pn	07 12 47.5	-1.7
YHNB				eSn	Sn	07 12 57.8	-2.7
TWC	Suao	0.76	25	eP	Pg	07 12 47.1	-0.9
	baz=29						
TWC				eS	Sg	07 12 58.3	+0.1
	baz=29						
NSK	Sanguang	0.77	351	⇑iP	Pg	07 12 47.8	-0.3
	baz=345						
NSK				S	Sg	07 12 57.6	-0.7
	baz=345						
TCU	Taichung	0.78	287	eP	Pb	07 12 49.5	+1.0
	baz=286						
TWQ1	Liyutan	0.79	303	eP	Pb	07 12 48.9	+0.3
	baz=306						
CHN5	Tsauling	0.81	247	⇑iP	Pb	07 12 49.3	+0.4
	baz=245						
CHN5				S	Sb	07 13 00.9	+1.1
	baz=245						
TWE	Neicheng	0.82	11	eP	Pb	07 12 47.7	-1.4
	baz=26						
CHKT	Chengkung	0.82	188	eP	Pb	07 12 47.3	-1.8
	baz=171						
CHKT				eS	Sb	07 12 59.6	-0.3
	baz=171						
NSY	Sanyi	0.84	307	eP	Pb	07 12 49.9	+0.6
	baz=309						

NSTT	Nanjuang	0.84	328	*e*P	Pb	07 12 49.4	-0.1
	baz=331						
NSTT				*e*S	Sb	07 12 59.9	-0.7
	baz=331						
ELDTW	Lidau	0.85	211	*e*P	Pb	07 12 47.3	-2.2
	baz=215						
ELDTW				*e*S	Sb	07 12 59.1	-1.6
	baz=215						
WGK	Gukeng	0.89	255	*e*P	Pb	07 12 50.6	+0.4
	baz=252						
CHN4	Tsaushan	1.00	236	*e*P	Pb	07 12 52.4	+0.3
	baz=233						
CHN4				*e*S	Sb	07 13 06.5	+1.4
	baz=233						
TPUB	Ta-pu	1.00	233	*e*Pn	Pn	07 12 52.0	-0.6
TPUB				*e*Sn	Sn	07 13 04.7	-1.7
CHN2	Minshiung	1.01	248	*e*P	Pb	07 12 53.0	+0.6
	baz=244						
STYT	Tauyuan	1.01	222	*e*P	Pb	07 12 51.9	-0.4
	baz=216						
STYT				*e*S	Sb	07 13 05.0	-0.3
	baz=216						
WTP	Ta-pu	1.05	231	*e*P	Pb	07 12 53.0	0.0
	baz=216						
WTP				*e*S	Sb	07 13 07.9	+1.4
	baz=216						
TATO	Taipei	1.05	360	*e*Pn	Pn	07 12 53.0	-0.4
TWA	Mucha	1.06	4	*e*P	Pb	07 12 50.3	-3.0
	baz=20						
CHY	Chiayi	1.07	247	*e*P	Pb	07 12 54.5	+1.3
	baz=243						
NCU	National Centr	1.09	345	*e*P	Pb	07 12 54.8	+1.2
	baz=349						
NCU				*e*S	Sb	07 13 10.4	+2.8
	baz=349						
TWK	Hsinying	1.13	235	*e*P	Pb	07 12 54.6	+0.3
	baz=233						
TWK				*e*S	Sb	07 13 10.1	+1.3
	baz=233						
CHN1	Nanshi	1.15	231	*e*P	Pn	07 12 55.0	+0.4
	baz=228						
CHN1				*e*S	Sb	07 13 10.6	+1.2
	baz=228						
TWG	Pinlang	1.16	200	*e*Pn	Pn	07 12 54.2	-0.5
TWG	Pinlang	1.16	200	*e*P	Pn	07 12 53.8	-1.0
	baz=180						
SGST	Jiashian	1.18	225	*e*P	Pn	07 12 55.5	+0.5
	baz=209						
SGST				*e*S	Sb	07 13 12.0	+1.8
	baz=209						
NWF	Wu-fen Shan	1.18	13	*e*P	Pn	07 12 56.0	+0.9
	baz=25						
NWF				*e*S	Sb	07 13 10.8	+0.5
	baz=25						
TWS1	Kuangyinshan	1.18	357	*e*P	Pn	07 12 55.8	+0.7
	baz=1.0						
TWS1				*e*S	Sb	07 13 13.0	+2.6
	baz=1.0						
ECL	Taimali	1.40	201	*e*P	Pn	07 12 58.5	+0.4
	baz=183						
SCZT	Fangliau	1.73	208	*e*P	Pn	07 13 04.0	+1.3
	baz=198						

LDG ***16*** *07:14:33.5±0.5, 14°.43S×167°.27E, h100km, Mb4.2/2, Error ellipse: s-maj=44.4km s-min=30.1km az=1.0*

NEIC ***16*** *07:14:34.7±1.6, 14°.81S×167°.44E, h127km±14km, mb4.6/3, Error ellipse: s-maj=14.2km s-min=10.3km az=69.0*

IDC ***16*** *07:14:34.4±2.3, 14°.84S×167°.40E, h121km±19km, mb4.1/16, mb1 4.2/17, mb1mx4.2/22, mbtmp4.1/17, MS3.4/2, Ms1 3.4/2, ms1mx2.9/32, Error ellipse: s-maj=18.5km s-min=13.5km az=76.0*

ISCJB ***16*** *07:14:35.7±1.6, 14°.81S±0°.06×167°.4E±0°.1, h149km±14km, mb4.1/15, Error ellipse: s-maj=18.4km s-min=7.8km az=155.3*

ISC 16 07:14:36.4±1.5**, 14°.78S**±0°.06×**167°.4E**±0°.1**, h140**km±12km**, n72,** σ1ˢ05/33**, mb4.1**/15**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	7.31	187	*e*Pn	Pn	07 16 18.2	-2.4
DZM				*e*Sn	Sn	07 17 42.1	0.0
NOUC	Port Laguerre	7.35	188	*e*P	Pn	07 16 21.7	+0.5
NOUC				*e*S	Sn	07 17 45.5	+2.2
HNR	Honiara	9.02	305	P	Pn	07 16 44.0	+0.4
	18nm,0.3s,baz=169,slow=5.2,SNR=4.8						
HNR				S	Sn	07 18 22.7	-0.8
	27nm,0.3s,baz=9.1,slow=22,SNR=7.3						
HNR				LR	LR	07 19 28.1	
	comp=Z,127nm,19.7s,baz=293,slow=32						
HNR	Honiara	9.02	305	*e*Pn	Pn	07 16 42.9	-0.6
HNR				*e*Sn	Sn	07 18 24.3	+0.8
HNR				LR	LR	07 19 28.1	
EIDS	Eidsvold	18.57	233	*e*P	P	07 18 43.5	+0.9
	45nm,0.6s						
CTA	Charters Tower	20.84	252	*e*P	P	07 19 07.7	+0.5
	16nm,0.7s						
CTA	Charters Tower	20.84	252	P	P	07 19 07.7	+0.5
	21nm,0.8s,baz=80,slow=11,SNR=11						
CTA	Charters Tower	20.84	252	P	P	07 19 07.7	+0.5
CTAO	Charters Tower	20.84	252	*e*P	P	07 19 07.2	-0.1
	19nm,0.7s						
URZ	Urewera	24.92	162	P	P	07 19 45.2	-1.2
	6.5nm,0.6s,mb4.4,baz=325,slow=3.9,SNR=6.9						
RPZ	Rata Peaks	29.01	175	P	P	07 20 22.6	-0.3
	15nm,0.8s,mb4.8,baz=75,slow=12,SNR=5.8						
STKA	Stephens Creek	29.05	230	P	P	07 20 24.2	+0.7
	8.1nm,0.4s,mb4.8,baz=53,slow=7.9,SNR=26						
STKA				PcP	PcP	07 23 27.8	-0.5
	0.9nm,0.7s,baz=76,slow=4.2,SNR=3.0						
STKA				ScP	ScP	07 26 59.2	+2.2
	3.3nm,0.9s,baz=53,slow=6.3,SNR=5.2						
STKA	Stephens Creek	29.05	230	*e*P	P	07 20 23.9	+0.3
	2.0nm,0.6s,mb4.0						
STKA				*e*		07 20 45.1	
STKA				PcP	PcP	07 23 27.8	-0.5
STKA				ScP	ScP	07 26 59.2	+2.2
RAR	Rarotonga	31.83	106	LR	LR	07 30 23.7	
	comp=Z,132nm,20.5s,baz=265,slow=30						
WRA	Warramunga Arr	31.93	256	P	P	07 20 47.2	-1.8
	1.6nm,0.7s,mb3.9,baz=80,slow=6.7,SNR=9.7						
ASAR	Alice Springs	32.77	249	P	P	07 20 55.0	-1.2
	6.9nm,0.7s,mb4.5,baz=79,slow=9.4,SNR=26						
ASAR				PcP	PcP	07 23 37.8	-0.7
	0.6nm,0.6s,baz=69,slow=2.6,SNR=4.9						
ASAR				ScP	ScP	07 27 11.6	+2.0
	0.3nm,0.6s,baz=106,slow=3.8,SNR=4.5						
FITZ	Fitzroy Crossi	40.12	259	*e*P	P	07 21 58.3	-0.5
	11nm,0.8s,mb4.5						
FITZ	Fitzroy Crossi	40.12	259	P	P	07 21 57.9	-0.8
	6.9nm,0.7s,mb4.4,baz=118,slow=12,SNR=7.3						
MJAR	Matsushiro Arr	58.01	332	P	P	07 24 14.0	-0.5
	0.9nm,0.6s,mb3.8,baz=172,slow=8.3,SNR=3.4						
VNDA	Vanda	62.81	181	P	P	07 24 46.2	-0.4
	3.6nm,0.7s,mb4.3,baz=358,slow=5.3,SNR=14						
VNDA	Vanda	62.81	181	P	P	07 24 46.2	-0.4
PETK	Petropavlovsk-	68.12	354	P	P	07 25 21.3	+0.4
	1.8nm,0.7s,mb3.9,baz=140,slow=3.8,SNR=5.3						
PETK	Petropavlovsk-	68.12	354	P	P	07 25 21.3	+0.3
CMAR	Chiang Mai Arr	75.08	294	P	P	07 26 05.3	+2.0
	1.4nm,0.4s,mb4.0,baz=112,slow=4.9,SNR=3.1						
CMAR	Chiang Mai Arr	75.08	294	P	P	07 26 05.3	+2.0
SONM	Songino Array	82.61	324	P	P	07 26 44.9	+1.1
	1.0nm,0.4s,mb3.9,baz=141,slow=5.6,SNR=17						
TXAR	Lajitas Array	96.19	61	P	P	07 27 50.0	+1.1
	0.2nm,0.7s,mb3.5,baz=244,slow=3.5,SNR=2.8						
MKAR	Makanchi Array	97.32	316	P	P	07 27 54.3	+0.7
	1.2nm,0.6s,mb4.4,baz=78,slow=6.3,SNR=20						
ZALV	Zalesovo Beam	97.50	324	P	P	07 27 53.7	-0.5
	1.1nm,0.6s,mb4.5,baz=106,slow=4.8,SNR=5.9						
YKA	Yellowknife Ar	97.54	27	P	P	07 27 53.6	-0.5
	0.1nm,0.6s,mb3.4,baz=259,slow=4.8,SNR=4.3						
ARCES	ARCESS Array B	120.33	345	PKP	PKPdf	07 33 10.0	-0.3
	3.7nm,0.7s,baz=84,slow=2.4,SNR=36						
ARCES	ARCESS Array B	120.33	345	PKP	PKPdf	07 33 10.0	-0.3
BOSA	Boshof	123.41	220	PKP	PKPdf	07 33 18.8	+1.2
	0.7nm,0.4s,baz=104,slow=4.2,SNR=3.2						
GERES	GERESS Array B	139.75	333	PKhKP		07 33 42.9	
	0.3nm,0.5s,baz=5.7,slow=2.7,SNR=3.5						
DAVOX	Davos/Dischmat	142.98	334	PKP	PKPdf	07 33 51.6	-1.9
	2.7nm,0.6s,baz=0.0,slow=3.0,SNR=3.8						
HAU	Haudompre	143.34	339	*e*PKP1	PKPdf	07 33 52.4	-1.7
	16nm,1.0s						
CABF	La Chapelle	144.62	338	*e*PKP1	PKPdf	07 33 56.8	+0.4
	22nm,0.9s						
FLN	La Foliniere	144.68	346	*e*PKP1	PKPdf	07 33 55.8	-0.6
	22nm,0.7s						
LDF	La Druitiere	144.75	346	*e*PKP1	PKPdf	07 33 56.0	-0.5
	25nm,1.0s						
LOR	Lormes	144.83	340	*e*PKP1	PKPdf	07 33 57.0	+0.3
	25nm,0.9s						
GRR	Gorron	145.11	346	*e*PKP1	PKPbc	07 33 57.6	+0.6
	34nm,0.6s						
SSF	Saint Saulge	145.12	341	*e*PKP1	PKPbc	07 33 58.0	+1.0
	57nm,0.9s						
HYF	Humbligny	145.21	342	*e*PKP1	PKPbc	07 33 58.5	+1.2
LPL	La Plagne	145.29	336	*e*PKP1	PKPbc	07 33 59.1	+1.5
	18nm,0.7s						
LPG	La Plagne	145.30	336	*e*PKP1	PKPbc	07 33 59.2	+1.6
	20nm,0.7s						
SMF	Signal de Mont	145.38	340	*e*PKP1	PKPbc	07 33 58.7	+0.8
	36nm,1.0s						
AVF	Avril sur Loir	145.41	341	*e*PKP1	PKPbc	07 33 58.7	+0.7
SGMF	Saint Gilles	145.60	348	*e*PKP1	PKPbc	07 33 59.0	+0.5
	35nm,0.9s						
ROSF	Rostrenen	145.66	349	*e*PKP1	PKPbc	07 33 59.4	+0.7
	35nm,1.1s						
BNI	Bardonecchia	145.69	335	*e*PKPdf	PKPdf	07 33 59.7	+1.4
BGF	Bois d'Agland	145.78	341	*e*PKP1	PKPbc	07 33 59.1	0.0
	14nm,0.5s						
MBDF	Montbardon	145.92	335	*e*PKP1	PKPbc	07 34 00.4	+0.8
	14nm,0.7s						
QUIF	Quistinic	146.05	349	*e*PKP1	PKPbc	07 34 00.2	+0.4
ORIF	Oris-en-Rattie	146.12	336	*e*PKP1	PKPbc	07 34 01.3	+1.1
	29nm,0.7s						
TCF	Toulx Ste Croi	146.22	341	*e*PKP1	PKPbc	07 34 01.2	+0.8
SBF	Sospel	146.34	333	*e*PKP1	PKPbc	07 34 01.3	+0.4
MFF	Saint Martin d	146.60	344	*e*PKP1	PKPbc	07 34 02.2	+0.7
	33nm,0.8s						
VIVF	Saint-Julien-l	146.63	337	*e*PKP1	PKPbc	07 34 02.6	+0.9
FRF	La Foret Royal	146.93	334	*e*PKP1	PKPbc	07 34 03.0	+0.5
	27nm,1.1s						
SMRF	Simiane la Rot	147.03	336	*e*PKP1	PKPbc	07 34 03.8	+1.0
	6.7nm,0.6s						
LMR	La Mourre	147.17	334	*e*PKP1	PKPbc	07 34 03.0	-0.2
	11nm,0.8s						
RJF	Les Rejaudoux	147.32	341	*e*PKP1	PKPbc	07 34 04.4	+0.8
	10.0nm,0.5s						
CAF	Calviac	147.48	340	*e*PKP1	PKPbc	07 34 05.1	+1.1
	13nm,0.9s						
LASF	Ste Croix	147.60	338	*e*PKP1	PKPbc	07 34 05.4	+1.0
	9.2nm,0.7s						
LFF	La Frestale	147.88	342	*e*PKP1	PKPbc	07 34 05.8	+0.7
	21nm,0.7s						
MTLF	Montolieu	148.83	339	*e*PKP1	PKPbc	07 34 08.4	+0.8
	10nm,0.7s						
EPF	Esparros	149.73	341	*e*PKP1	PKPbc	07 34 10.9	+1.1
	13nm,1.0s						
SJPF	Ste Jean	150.12	343	*e*PKP1	PKPbc	07 34 11.4	+0.6
	19nm,0.9s						
ETSF	Etsaut	150.13	342	*e*PKP1	PKPbc	07 34 12.0	+1.2
	9.2nm,0.7s						
KEST	Kesra	151.33	321	PKPbc	PKPbc	07 34 15.1	+1.2
	1.2nm,0.6s,baz=50,slow=22,SNR=13						
TORD	Torodi Ar. Bea	166.03	265	PKP	PKPdf	07 34 25.7	+0.1
	0.5nm,0.7s,baz=92,slow=0.6,SNR=3.3						
TORD				PKPab	PKPab	07 35 26.7	0.0
	0.7nm,0.9s,baz=94,slow=3.7,SNR=3.5						
TORD	Torodi Ar. Bea	166.03	265	PKP	PKPdf	07 34 25.7	+0.1
TORD				PKPab	PKPab	07 35 26.7	0.0

NEIC ***16*** *07:26:15.4, 17°.27N×94°.67W, h151km, MD3.7(MEX), After MEX.*

MEX 16 07:26:15.4±0.9**, 17°.27N**×**94°.67W, h151**km±9km**, MD3.7, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.27	229	*i* P	Pn	07 26 34.6	-1.4
CMIG				*i* S	Sn	07 26 49.1	-2.5
TGIG		1.56	108	*i* P	Pn	07 26 44.8	-0.9
TGIG				*i* S	Sn	07 27 06.8	-2.0
VHO	Vista Hermosa	1.98	265	*i* P	Pn	07 26 49.8	-0.6
VHO				*i* S	Sn	07 27 16.4	-0.8
HUIG	Huatulco	2.03	223	*i* P	Pn	07 26 48.6	-2.3
HUIG				*i* S	Sn	07 27 17.4	-0.8
PCIG		2.09	138	*i* P	Pn	07 26 51.0	-0.6
PCIG				*i* S	Sn	07 27 17.8	-1.7
CCIG	Comitan	2.62	112	*e*P	Pn	07 26 57.2	-0.8
CCIG				*i* S	Sn	07 27 29.6	-1.3
PNIG	Pinotepa	3.42	256	*e*P	Pn	07 27 05.5	-2.7
PNIG				*i* S	Sn	07 27 45.6	-3.4
PPM	Popocatepetl	4.16	296	*e*P	Pn	07 27 19.5	+1.6
PPM				*i* S	Sn	07 28 07.2	+0.8

IDC 16 07:26:59.6±1.0**, 46°.78N**×**155°.38E, h0**km**, mb3.4**/6**, mb1 3.6**/7**, mb1mx3.5**/23**, mbtmp3.4**/7**, ML3.1**/1**, Error ellipse: s-maj=30.4km s-min=24.6km az=135.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	Petropavlovsk-	6.51	12	Pn	Pn	07 28 35.7	-0.9
	0.4nm,0.3s,baz=172,slow=13,SNR=5.7						
SONM	Songino Array	32.79	290	P	P	07 33 34.9	+0.6
	0.2nm,0.5s,baz=89,slow=7.6,SNR=2.2						
MKAR	Makanchi Array	48.31	298	P	P	07 35 42.3	-0.1
	0.4nm,0.9s,baz=72,slow=6.1,SNR=3.1						
YKA	Yellowknife Ar	49.96	37	P	P	07 35 54.4	-0.4
	0.1nm,0.5s,baz=295,slow=7.7,SNR=2.6						
WRA	Warramunga Arr	69.08	201	P	P	07 38 06.7	-0.5
	0.7nm,0.9s,baz=14,slow=6.3,SNR=3.1						
ASAR	Alice Springs	72.76	201	P	P	07 38 29.7	+0.2
	0.3nm,0.7s,baz=17,slow=5.6,SNR=4.4						
TXAR	Lajitas Array	76.11	62	P	P	07 38 49.9	+0.7
	0.7nm,0.7s,baz=302,slow=5.4,SNR=7.5						

IDC 16 08:18:49.0±2.5**, 60°.41S**×**35°.99W, h0**km**, mb3.9**/2**, mb1 4.0**/2**, mb1mx3.8**/13**, mbtmp3.9**/2**, Error ellipse: s-maj=96.1km s-min=50.3km az=37.0, Scotia Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPUP	Villa Florida	37.07	327	P	P	08 26 00.6	0.0
	0.3nm,0.4s,baz=141,slow=6.5,SNR=2.8						
TORD	Torodi Ar. Bea	79.26	37	P	P	08 30 55.9	+0.1
	0.8nm,0.6s,baz=200,slow=6.5,SNR=4.0						
YKA	Yellowknife Ar	136.34	319	PKP	PKPdf	08 38 10.0	-0.7
	0.4nm,0.6s,baz=131,slow=2.1,SNR=13						
SONM	Songino Array	155.01	103	PKP	PKPdf	08 38 42.3	-0.3
	2.1nm,0.7s,baz=226,slow=2.4,SNR=17						

HLW ***16*** *08:23:08.4, 33°.68N×36°.38E, h15km, Mb2.9*

ISCJB ***16*** *08:23:17.9±0.6, 33°.33N±0°.03×35°.39E±0°.05, h8km±4km, Error ellipse: s-maj=6.9km s-min=4.0km az=25.6*

CSEM ***16*** *08:23:17.9±0.2, 33°.34N×35°.37E, h12km, ML3.0, Error ellipse: s-maj=6.6km s-min=3.7km az=113.0*

GRAL ***16*** *08:23:18.8±0.4, 33°.30N×35°.40E, h0km±161km, MD2.9*

GII ***16*** *08:23:18.1±0.6, 33°.24N×35°.43E, h1km±2km, Md2.6/11*

ISC 16 08:23:18.4±0.5**, 33°.34N**±0°.03×**35°.40E**±0°.05**, h7**km±4km**, n28,** σ**0ˢ74**/39**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	339	*e*P	Pg	08 23 22.3	+0.7
MATL	Matirih	0.16	339	*e*P	Pg	08 23 22.3	+0.7
KSDI	Kefar Szold	0.27	124	Pg	Pg	08 23 23.0	-0.6
KSDI				Sg	Sg	08 23 27.3	+0.2
HNTI	Hanita	0.32	216	Pg	Pg	08 23 24.7	+0.1
HNTI				Sg	Sg	08 23 29.9	+1.1
MMA0B	Mount Meron ar	0.33	179	Pg	Pg	08 23 24.1	-0.6
MMA0B				Sg	Sg	08 23 29.1	+0.1
MMB2	Mount Meron ar	0.33	180	Pg	Pg	08 23 24.5	-0.3
RCY	Rachaya	0.38	68	*e*P	Pg	08 23 25.9	+0.1
RCY				*e*S	Sg	08 23 31.6	+0.9
RCY	Rachaya	0.38	68	*e*P	Pg	08 23 25.9	+0.1
RCY				*e*S	Sg	08 23 31.6	+0.8
KSHT	Keshet	0.50	136	Pg	Pg	08 23 27.9	-0.1
BHL	Bhannes	0.60	21	*e*P	Pg	08 23 30.2	+0.2
BHL	Bhannes	0.60	21	*e*P	Pg	08 23 30.2	+0.3
BLGI	Bet Lehem HaGe	0.63	196	Pg	Pg	08 23 30.4	-0.1
BLGI				Sg	Sg	08 23 40.3	+1.6
OFRI	'Ofer	0.80	206	Pg	Pg	08 23 33.5	-0.2
MMLI	Mount Malkishu	0.90	179	Pg	Pg	08 23 34.7	-1.0
MMLI				Sg	Sg	08 23 46.9	-0.5
HWQ	Hawqa	1.04	26	*e*P	Pg	08 23 38.1	-0.2
HWQ	Hawqa	1.04	26	*e*P	Pg	08 23 38.1	-0.2
HMDT	Nahal Hemdat	1.09	174	Pg	Pg	08 23 38.1	-1.2
HMDT				Sg	Sg	08 23 53.7	+0.2
SLTI	Sal'it	1.14	195	Pg	Pg	08 23 39.5	-0.7
SLTI				Sg	Sg	08 23 55.3	+0.3
DSI	Dead Sea	1.77	180	Pn	Pn	08 23 49.0	-0.4
DSI				Sn	Sn	08 24 13.0	+0.9
YTIR	Yattir	1.99	187	Pn	Pn	08 23 53.2	+0.8
MZDA	Masada	2.03	181	Pn	Pn	08 23 53.4	+0.5
MZDA				Sn	Sn	08 24 19.4	+0.9
PRNI	Paran	3.00	187	Pn	Pn	08 24 06.7	+0.4
AMAG	Maghara	3.27	215	P	Pn	08 24 09.5	-0.5
AMAG	Maghara	3.27	215	P	Pn	08 24 09.5	-0.6
HNKL	Nakhl	3.61	200	P	Pn	08 24 12.4	-2.3
HNKL	Nakhl	3.61	200	P	Pn	08 24 12.4	-2.3
SUZ		4.12	213	P	Pn	08 24 21.0	-0.7
SUZ		4.12	213	P	Pn	08 24 21.0	-0.7

NEIC ***16*** *08:37:10.8, 30°.94S×71°.65W, h18km, ML3.5(GUC), After GUC.*

GUC 16 08:37:10.8±0.9**, 30°.94S**×**71°.65W, h18**km±5km**, MD4.1, ML3.5, 9C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.51	50⇓	*i*P	Pg	08 37 21.2	+0.1
OVCH				*i* S	Sg	08 37 28.2	+0.3
OVCH	Ovalle	0.51	50⇓	*i*P	Pg	08 37 21.2	+0.1
OVCH				*i* S	Sg	08 37 28.2	+0.3
CMCH	Combarbala	0.60	113⇑	*i*P	Pg	08 37 22.4	-0.4
CMCH				*i* S	Sg	08 37 31.1	+0.1
CMCH	Combarbala	0.60	113⇑	*i*P	Pg	08 37 22.4	-0.4
CMCH				*i* S	Sg	08 37 31.1	+0.1
CMCH				AML	AML	08 37 31.3	
	comp=N,6μm,0.1s						
CHNG	Los Chungos	0.95	172⇑	*i*P	Pb	08 37 27.8	-0.9
CHNG				*i* S	Sb	08 37 40.2	-0.7
TLL	Tololo Astrono	1.06	44⇓	*i*P	Pb	08 37 29.9	-0.7
TLL				*i* S	Sb	08 37 44.5	+0.4
TLL	Tololo Astrono	1.06	44⇓	*i*P	Pb	08 37 29.9	-0.7
TLL				*i* S	Sb	08 37 44.5	+0.4
LSCH	La Serena	1.09	19⇑	*i*P	Pb	08 40 37.2	
LSCH				*i* S	Sb	08 40 51.9	
LCO	Las Campanas	2.09	23⇑	*i*P	Pn	08 37 45.0	0.0
LCO				*i* S	Sn	08 38 11.8	+1.3
LCO	Las Campanas	2.09	23⇑	*i*P	Pn	08 37 45.0	0.0
LCO				*i* S	Sn	08 38 11.8	+1.3
PEL	Peldehue	2.34	160⇑	*i*P	Pn	08 37 48.9	+0.5
PEL				*i* S	Sn	08 38 19.1	+2.4
PEL				AML	AML	08 38 21.9	
	comp=E,519nm,0.3s						
RCDM	Rinconada Maip	2.64	164	AML	AML	08 38 34.8	
	comp=E,230nm,0.1s						
FCH	Farellones	2.65	154	*e*P	Pn	08 37 56.6	+4.1
FCH				*i* S	Sn	08 38 29.9	+5.8
FCH				AML	AML	08 38 39.4	
	comp=E,151nm,0.4s						
ANTU	Antumapu	2.76	162	AML	AML	08 38 37.8	
	comp=E,200nm,0.3s						
LMEL	Las Melosas	3.15	157⇑	*i*P	Pn	08 38 00.9	+1.5
LMEL				*i* S	Sn	08 38 39.1	+2.6
LMEL	Las Melosas	3.15	157⇑	*i*P	Pn	08 38 00.9	+1.5
LMEL				*i* S	Sn	08 38 39.1	+2.6
LMEL				AML	AML	08 38 48.3	
	comp=N,153nm,0.5s						

ISCJB ***16*** *08:48:27.4±0.6, 33°.31N±0°.03×35°.43E±0°.05, h14km±7km, Error ellipse: s-maj=8.0km s-min=4.9km az=24.5*

GII ***16*** *08:48:27.8±0.2, 33°.27N×35°.43E, h5km, Md2.0/5*

CSEM ***16*** *08:48:28.5, 33°.32N×35°.43E, h0km, ML2.7, After GRAL*

GRAL ***16*** *08:48:28.5±0.3, 33°.32N×35°.43E, h0km±134km, MD2.7*

ISC 16 08:48:27.6±0.7**, 33°.33N**±0°.03×**35°.43E**±0°.05**, h13**km±7km**, n19,** σ**0ˢ35**/26**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.18	333	*e*P	Pg	08 48 31.9	+0.1
MATL	Matirih	0.18	333	*e*P	Pg	08 48 31.9	+0.2
KSDI	Kefar Szold	0.24	125	Pg	Pg	08 48 32.5	-0.2
KSDI				Sg	Sg	08 48 36.3	+0.1
MMC7	Mount Meron ar	0.31	185	Pg	Pg	08 48 33.5	-0.4
MMA0B	Mount Meron ar	0.31	183	Pg	Pg	08 48 33.6	-0.4
MMA0B				Sg	Sg	08 48 38.6	+0.2
HNTI	Hanita	0.32	221	Pg	Pg	08 48 34.1	-0.1
HNTI				Sg	Sg	08 48 39.1	+0.4
RCY	Rachaya	0.36	65	*e*P	Pg	08 48 35.4	+0.4
RCY	Rachaya	0.36	65	*e*P	Pg	08 48 35.4	+0.4
KSHT	Keshet	0.47	137	Pg	Pg	08 48 37.3	+0.3
BHL	Bhannes	0.60	18	*e*P	Pg	08 48 39.5	+0.1
BHL	Bhannes	0.60	18	*e*P	Pg	08 48 39.5	+0.1
BLGI	Bet Lehem HaGe	0.63	198	Pg	Pg	08 48 39.6	-0.2
BLGI				Sg	Sg	08 48 48.7	+0.6
OFRI	'Ofer	0.80	208	Pg	Pg	08 48 42.9	-0.2
MMLI	Mount Malkishu	0.89	180	Pg	Pg	08 48 44.3	-0.5
MMLI				Sg	Sg	08 48 56.5	+0.1
HWQ	Hawqa	1.04	24	*e*P	Pb	08 48 47.4	-0.1
HWQ	Hawqa	1.04	24	*e*P	Pb	08 48 47.4	-0.1
HMDT	Nahal Hemdat	1.08	175	Pg	Pg	08 48 47.7	-0.7
HMDT				Sg	Sg	08 49 02.6	+0.2
SLTI	Sal'it	1.13	197	Pg	Pg	08 48 49.0	-0.4
SLTI				Sg	Sg	08 49 04.4	+0.2
DSI	Dead Sea	1.75	181	Pn	Pn	08 48 58.2	+0.5

ISCJB ***16*** *08:56:08.0±0.5, 38°.08N±0°.03×21°.70E±0°.03, h10km±4km, Error ellipse: s-maj=5.2km s-min=4.0km az=157.7*

CSEM ***16*** *08:56:07.7±0.2, 38°.08N×21°.67E, h20km, MD3.2, Error ellipse: s-maj=6.5km s-min=5.4km az=136.0*

ATH ***16*** *08:56:07.2, 38°.09N×21°.65E, h27km±1km, MD3.2/4*

THE ***16*** *08:56:08.2, 38°.08N×21°.70E, h12km±1km, ML3.0/3, Error ellipse: s-maj=2.3km s-min=1.4km az=339.0*

ISC 16 08:56:08.2±0.5**, 38°.08N**±0°.03×**21°.71E**±0°.03**, h15**km±4km**, n31,** σ**0ˢ98**/52**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RLS	Riolos of Patr	0.19	265	*e*PB	Pg	08 56 12.8	+0.1
RLS				*e*SB	Sg	08 56 16.8	+1.0
RLS	Riolos of Patr	0.19	265	*e*Pb	Pg	08 56 12.8	+0.1
RLS				*e*Sb	Sg	08 56 16.8	+1.0
LAKA	Lakka	0.27	52	P	Pg	08 56 13.9	-0.1
LAKA				S	Sg	08 56 18.5	+0.6
LAKA	Lakka	0.27	52	P	Pg	08 56 13.9	-0.1
LAKA				S	Sg	08 56 18.5	+0.6
EFP	Efpalio	0.38	24	*e*PB	Pg	08 56 15.6	-0.4
EFP				*e*SB	Sg	08 56 22.3	+1.0
EFP	Efpalio	0.38	24	*e*Pb	Pg	08 56 15.6	-0.4
EFP				*e*Sb	Sg	08 56 22.3	+1.0
TRIZ	Trizonia	0.41	45	P	Pg	08 56 16.1	-0.3
TRIZ				S	Sg	08 56 22.4	+0.4
TRIZ	Trizonia	0.41	45	P	Pg	08 56 16.1	-0.3
TRIZ				S	Sg	08 56 22.4	+0.4
EVR	Evrytania	0.84	5	*e*PN	Pg	08 56 23.5	-1.1
EVR	Evrytania	0.84	5	*e*Pn	Pg	08 56 23.5	-1.1
VLX	Vlachokerasia	0.88	143	*e*PN	Pg	08 56 24.9	-0.4
VLX	Vlachokerasia	0.88	143	*e*Pn	Pg	08 56 24.9	-0.4
VLS	Valsamata	0.89	277	P	Pg	08 56 23.6	-1.8
VLS				S	Sg	08 56 38.4	+1.3
VLS	Valsamata	0.89	277	*e*PN	Pg	08 56 23.7	-1.7
VLS	Valsamata	0.89	277	*e*Pn	Pg	08 56 23.7	-1.7
VLS				S	Sg	08 56 38.4	+1.3
LTK	Loutraki	0.99	93	P	Pg	08 56 26.6	-0.9
LTK				S	Sg	08 56 41.6	+1.1
LTK	Loutraki	0.99	93	*e*PN	Pg	08 56 26.7	-0.8
LTK	Loutraki	0.99	93	*e*Pn	Pg	08 56 26.7	-0.8
LTK				S	Sg	08 56 41.6	+1.1
AGG	Agios Georgios	1.06	27	P	Pg	08 56 27.3	-1.5
AGG				S	Sg	08 56 42.1	-0.6
AGG	Agios Georgios	1.06	27	P	Pg	08 56 27.3	-1.5
AGG				S	Sg	08 56 42.1	-0.6
LKR	Lokris	1.17	60	P	Pn	08 56 28.7	-1.3
LKR				S	Sb	08 56 44.8	-0.2
LKR	Lokris	1.17	60	P	Pn	08 56 28.7	-1.3
LKR				S	Sb	08 56 44.8	-0.2
PYL	PYLOS	1.18	179	P	Pn	08 56 29.1	-1.1
PYL	PYLOS	1.18	179	P	Pn	08 56 29.1	-1.1
DID	Didima	1.34	115	P	Pn	08 56 33.1	+0.7
DID				S	Sn	08 56 51.2	+1.3

DID	**Didima**	1.34	115	*e*PN	Pn	08 56 33.0	+0.6
DID				*e*SN	Sn	08 56 52.3	+2.4
DID	**Didima**	1.34	115	*e*Pn	Pn	08 56 33.0	+0.6
DID				S	Sn	08 56 51.2	+1.3
THL	**Klokotos Trika**	1.51	9	P	Pn	08 56 33.9	-0.8
THL				S	Sn	08 56 55.7	+1.6
THL	**Klokotos Trika**	1.51	9	P	Pn	08 56 33.9	-0.8
THL				S	Sn	08 56 55.7	+1.6
MEV	**Metsovon**	1.75	348	P	Pn	08 56 38.9	+0.9
MEV	**Metsovon**	1.75	348	P	Pn	08 56 38.9	+0.9

IDC 16 09:18:03.4±1.8**, 9°.01S×122°.79E, h0^{km}, mb3.5**/1**, mb1 3.5**/4**, mb1mx3.4**/18**, mbtmp3.4**/4**, ML3.0**/3**, Error ellipse: s-maj=143.8km s-min=27.5km az=60.0, Savu Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	9.45	163	Pn	Pn	09 20 20.9	0.0
	0.2nm,0.3s,baz=338,slow=16,SNR=2.5						
FITZ				Sn	Sn	09 21 57.4	-11
	0.1nm,0.3s,baz=114,slow=18,SNR=3.3						
WRA	**Warramunga Arr**	15.58	135	Pn	Pn	09 21 43.2	-1.3
	0.1nm,0.3s,baz=308,slow=15,SNR=3.2						
WRA				Sn	Sn	09 24 28.4	-10
	0.1nm,0.3s,baz=297,slow=23,SNR=3.6						
ASAR	**Alice Springs**	18.04	145	P	Pn	09 22 16.9	+1.2
	0.1nm,0.3s,baz=328,slow=14,SNR=5.3						
MKAR	**Makanchi Array**	66.23	331	P	P	09 28 53.2	0.0
	0.3nm,0.6s,baz=139,slow=6.0,SNR=4.7						

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*NEIC **16** 09:20:02.7, 15°.32N×92°.73W, h138^{km}, MD4.0(MEX), After MEX.*

MEX 16 09:20:02.7±1.1**, 15°.32N×92°.73W, h138^{km}**±10^{km}**, MD4.0, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THIG		0.60	133	*i* P	Pn	09 20 21.7	-1.5
THIG				*i* S	Sn	09 20 36.0	-2.8
PCIG		0.61	309	*i* P	Pn	09 20 22.5	-0.8
PCIG				*i* S	Sn	09 20 37.4	-1.5
CCIG	**Comitan**	1.11	31	*i* P	Pn	09 20 26.6	-0.7
CCIG				*i* S	Sn	09 20 43.7	-2.5
SCX	**San Cristobal**	1.41	4	*e*P	Pn	09 20 30.0	-0.4
SCX				*i* S	Sn	09 20 51.5	0.0
TGIG		1.50	345	*i* P	Pn	09 20 30.1	-1.2
TGIG				*i* S	Sn	09 20 51.2	-2.1
CMIG	**Matias Romero**	2.72	311	*i* P	Pn	09 20 45.4	-0.7
CMIG				*i* S	Sn	09 21 15.8	-3.7
HUIG	**Huatulco**	3.29	278	*i* P	Pn	09 20 52.8	-0.6
HUIG				*i* S	Sn	09 21 28.3	-4.3
VHO	**Vista Hermosa**	4.23	295	*e*P	Pn	09 21 05.3	-0.3
VHO				*i* S	Sn	09 21 53.5	-1.0
PNIG	**Pinotepa**	5.31	282	*e*P	Pn	09 21 19.3	-0.8
PNIG				*i* S	Sn	09 22 17.4	-2.9
TEIG	**Tepich**	6.46	40	*i* P	Pn	09 21 32.4	-3.2
TEIG				*i* S	Sn	09 22 43.5	-4.6

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*ISCJB **16** 09:23:58.4±0.6, 33°.33N±0°.03×35°.40E±0°.05, h2^{km}±5^{km}, Error ellipse: s-maj=6.9km s-min=3.9km az=26.1*

*CSEM **16** 09:23:58.7±0.3, 33°.35N×35°.40E, h5^{km}, ML3.2, Error ellipse: s-maj=10.1km s-min=4.2km az=98.0*

*GII **16** 09:23:58.5±0.8, 33°.25N×35°.43E, h1^{km}±3^{km}, Md2.4/8*

*GRAL **16** 09:23:59.5±0.3, 33°.32N×35°.43E, h3^{km}±17^{km}, MD3.1*

ISC 16 09:23:58.8±0.6**, 33°.34N**±0°.03×**35°.41E**±0°.05**, h1**^{km}±5^{km}**, n24, σ0^{s}.55**/35**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	**Matirih**	0.16	337	*e*P	Pg	09 24 02.8	+0.9
MATL	**Matirih**	0.16	337	*e*P	Pg	09 24 02.8	+0.9
KSDI	**Kefar Szold**	0.26	125	Pg	Pg	09 24 03.6	-0.2
KSDI				Sg	Sg	09 24 07.3	+0.1
HNTI	**Hanita**	0.32	217	Pg	Pg	09 24 04.8	-0.2
HNTI				Sg	Sg	09 24 10.2	+1.0
MMA0B	**Mount Meron ar**	0.33	180	Pg	Pg	09 24 04.5	-0.6
MMA0B				Sg	Sg	09 24 09.9	+0.6
MMB1	**Mount Meron ar**	0.33	179	Pg	Pg	09 24 04.5	-0.6
MMB2	**Mount Meron ar**	0.33	182	Pg	Pg	09 24 04.7	-0.5
RCY	**Rachaya**	0.37	68	*e*P	Pg	09 24 06.3	+0.4
RCY				*e*S	Sg	09 24 11.4	+0.6
RCY	**Rachaya**	0.37	68	*e*P	Pg	09 24 06.3	+0.3
RCY				*e*S	Sg	09 24 11.4	+0.6
KSHT	**Keshet**	0.49	136	Pg	Pg	09 24 08.6	+0.3
BHL	**Bhannes**	0.60	20	*e*P	Pg	09 24 10.4	+0.2
BHL	**Bhannes**	0.60	20	*e*P	Pg	09 24 10.4	+0.1
BLGI	**Bet Lehem HaGe**	0.63	197	Pg	Pg	09 24 10.9	0.0
BLGI				Sg	Sg	09 24 19.8	+0.7
OFRI	**‘Ofer**	0.80	206	Pg	Pg	09 24 13.9	-0.3
MMLI	**Mount Malkishu**	0.90	179	Pg	Pg	09 24 15.3	-0.8
MMLI				Sg	Sg	09 24 27.8	0.0
HWQ	**Hawqa**	1.04	26	*e*P	Pg	09 24 18.2	-0.4
HWQ	**Hawqa**	1.04	26	*e*P	Pg	09 24 18.2	-0.5
HMDT	**Nahal Hemdat**	1.09	175	Pg	Pg	09 24 18.6	-1.1
HMDT				Sg	Sg	09 24 34.6	+0.8
SLTI	**Sal’it**	1.14	196	Pg	Pg	09 24 19.8	-0.9
SLTI				Sg	Sg	09 24 35.7	+0.2
DSI	**Dead Sea**	1.77	181	Pn	Pn	09 24 29.6	-0.9
DSI				Sn	Sn	09 24 53.7	+0.1
YTIR	**Yattir**	1.99	187	Pn	Pn	09 24 33.6	0.0
MZDA	**Masada**	2.03	181	Pn	Pn	09 24 33.8	-0.3
MZDA				Sn	Sn	09 25 00.8	+0.8
RTMI	**Retamim**	2.36	195	Pn	Pn	09 24 38.9	+0.2
PRNI	**Paran**	3.00	187	Pn	Pn	09 24 47.3	-0.2

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*LDG **16** 09:52:31.4±0.2, 46°.86N×12°.51E, h10^{km}, Ml2.9/18, Error ellipse: s-maj=4.4km s-min=3.6km az=58.0*

*ISCJB **16** 09:52:35.4±0.2, 47°.36N±0°.01×11°.79E±0°.02, h8^{km}±2^{km}, Error ellipse: s-maj=2.0km s-min=1.9km az=3.9*

*VIE **16** 09:52:36.9±0.2, 47°.27N×11°.74E, h12^{km}±1^{km}, mb1.8/8, ML2.7/14, Error ellipse: s-maj=1.7km s-min=1.1km az=15.0 9 km SSE of Schwaz felt 3 EMS98 South of Schwaz / TYROL*

*CSEM **16** 09:52:36.7±0.1, 47°.32N×11°.78E, h8^{km}, ML2.8/18, Error ellipse: s-maj=1.7km s-min=1.5km az=37.0*

*NEIC **16** 09:52:38.2, 47°.29N×11°.78E, h10^{km}, MD2.5(ROM), ML2.5(SZGRF), ML2.9(LDG), After SZGRF.*

*PRU **16** 09:52:38.0, 47°.37N×11°.78E, h0^{km}*

*ROM **16** 09:52:39.2±0.5, 47°.17N×11°.75E, h4^{km}, Md2.5/5, Ml1.8/1, Error ellipse: s-maj=6.5km s-min=3.2km az=4.0*

*BGR **16** 09:52:39.1±0.6, 47°.36N×11°.76E, h10^{km}, ML2.5/12, Error ellipse: s-maj=7.8km s-min=4.4km az=163.0*

ISC 16 09:52:36.9±0.2**, 47°.34N**±0°.01×**11°.79E**±0°.02**, h9**^{km}±2^{km}**, n129, σ0^{s}.89**/233**, 19C-11D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WTTA	**Wattenberg**	0.12	235	*e*Pg	Pg	09 52 40.3	+0.6
WTTA				*e*Sg	Sg	09 52 42.5	+0.9
WTTA	**Wattenberg**	0.12	235	⇑*e*Pg	Pg	09 52 40.3	+0.7
	338nm,0.1s,SNR=1730						
WTTA				⇑*i*Sg	Sg	09 52 42.5	+0.9
	2µm,0.2s						
WTTA	**Wattenberg**	0.12	235	Pg	Pg	09 52 40.3	+0.6
	338nm,0.1s,SNR=1000						
WTTA				Sg	Sg	09 52 42.5	+0.9
	2µm,0.2s						
WATA	**Walderalm**	0.14	271	⇓*e*Pg	Pg	09 52 40.5	+0.6
	251nm,0.1s,SNR=615						
WATA				⇑*i*Sg	Sg	09 52 43.0	+0.9
	543nm,0.1s						
WATA	**Walderalm**	0.14	271	Pg	Pg	09 52 40.5	+0.5
	251nm,0.1s,SNR=615						
WATA				Sg	Sg	09 52 43.0	+0.9
	543nm,0.1s						
SQTA	**Sankt Quirin**	0.41	254	⇓*i*Pg	Pg	09 52 44.5	-0.3
SQTA	**Sankt Quirin**	0.41	254	Pg	Pg	09 52 44.5	-0.4
MOTA	**Moosalm**	0.46	272	⇓*e*Pg	Pg	09 52 45.1	-0.8
	9.6nm,0.2s,SNR=12						
MOTA				⇑*i*Sg	Sg	09 52 50.6	-1.4
	30nm,0.1s						
MOTA	**Moosalm**	0.46	272	Pg	Pg	09 52 45.1	-0.8
	9.6nm,0.2s,SNR=12						
MOTA				Sg	Sg	09 52 50.6	-1.4
	30nm,0.1s						
PART	**Garmisch-Parte**	0.48	290	⇑*i*Pg	Pg	09 52 46.5	+0.2
PART				⇑*i*Sg	Sg	09 52 53.8	+1.1
PART	**Garmisch-Parte**	0.48	290	Pg	Pg	09 52 46.5	+0.2
PART				Sg	Sg	09 52 53.8	+1.1
ABTA	**Abfaltersbach**	0.77	139	*e*Pg	Pg	09 52 51.7	-0.1
	1.7nm,0.1s,SNR=10						
ABTA				⇑*i*Sg	Sg	09 53 01.7	0.0
	16nm,0.1s						
ABTA	**Abfaltersbach**	0.77	139	Pg	Pg	09 52 51.7	0.0
	1.7nm,0.1s,SNR=10						
ABTA				Sg	Sg	09 53 01.7	0.0
	16nm,0.1s						
FETA	**Feichten**	0.79	247	⇑*i*Pg	Pg	09 52 51.2	-0.9
	1.1nm,0.1s						
FETA				⇑*i*Sg	Sg	09 53 01.1	-1.2
	12nm,0.2s						
FETA	**Feichten**	0.79	247	Pg	Pg	09 52 51.2	-0.8
	1.1nm,0.1s						
FETA				Sg	Sg	09 53 01.1	-1.1
	12nm,0.2s						
RJOB	**Jochberg**	0.80	59	⇑*i*Pg	Pg	09 52 53.3	+1.1
RJOB	**Jochberg**	0.80	59	Pg	Pg	09 52 53.3	+1.1
FUR	**Furstenfeldbru**	0.90	338	*e*Pg	Pg	09 52 55.6	+1.4
	SNR=16						
FUR				*e*Sg	Sg	09 53 08.5	+2.6
	SNR=7.9						
FUR	**Furstenfeldbru**	0.90	338	*e*Pn	Pn	09 52 55.9	+0.1
FUR				*e*Sg	Sg	09 53 11.3	+5.4
FUR	**Furstenfeldbru**	0.90	338	Pg	Pg	09 52 55.6	+1.4
	SNR=16						
FUR	**Furstenfeldbru**	0.90	338	*e*Pn	Pn	09 52 55.9	+0.1
FUR				Sg	Sg	09 53 08.5	+2.6
	SNR=7.9						
APPI	**Appiano**	0.94	204	Pg	Pg	09 52 54.2	-0.7
APPI				Sg	Sg	09 53 06.2	-0.9
APPI	**Appiano**	0.94	204	Pg	Pg	09 52 54.2	-0.7
APPI				Sg	Sg	09 53 06.2	-0.9
CSMI	**Casera Mimoias**	1.01	144	⇑*e*Pg	Pg	09 52 56.2	-0.2
CSMI				*e*Sg	Sg	09 53 09.1	-0.4
CSMI	**Casera Mimoias**	1.01	144	*e*Pg	Pg	09 52 56.2	-0.2
CSMI				*e*Sg	Sg	09 53 09.1	-0.5
OBER	**Oberstdorf**	1.02	275	⇓*i*Pg	Pg	09 52 57.3	+0.9
OBER				⇓*i*Sg	Sg	09 53 10.6	+1.0
OBER	**Oberstdorf**	1.02	275	Pg	Pg	09 52 57.3	+0.9
OBER				Sg	Sg	09 53 10.6	+1.0
KBA	**Koelnbreinsper**	1.09	103	*e*Pn	Pn	09 52 57.9	-0.5
KBA	**Koelnbreinsper**	1.09	103	⇓*e*Pg	Pg	09 52 57.9	0.0
	2.8nm,0.1s,SNR=21						
KBA				⇑*i*Sg	Sg	09 53 12.1	0.0
	18nm,0.3s						
KBA	**Koelnbreinsper**	1.09	103	Pg	Pg	09 52 57.9	0.0
	2.8nm,0.1s,SNR=21						
KBA				Sg	Sg	09 53 12.1	0.0
	18nm,0.3s						
CIMO	**Cimolais**	1.12	156	*e*Pg	Pg	09 52 58.2	-0.2
CIMO				*e*Sg	Sg	09 53 12.2	-0.6
CIMO	**Cimolais**	1.12	156	*e*Pg	Pg	09 52 58.2	-0.2
CIMO				*e*Sg	Sg	09 53 12.2	-0.7
ZOU	**Zoufplan**	1.13	133	⇓*i*Pg	Pg	09 52 58.3	-0.3
ZOU				*i* Sg	Sg	09 53 12.9	-0.2
ZOU	**Zoufplan**	1.13	133	*i* Pg	Pg	09 52 58.3	-0.2
ZOU				*i* Sg	Sg	09 53 12.9	-0.2
FUORN	**Ofenpass-Fuorn**	1.26	236	Pg	Pg	09 53 02.5	+1.4
FUORN				Sg	Sg	09 53 18.4	+0.9
FUORN	**Ofenpass-Fuorn**	1.26	236	Pg	Pg	09 53 02.5	+1.4
FUORN				Sg	Sg	09 53 18.4	+0.9
CTI	**Castel Tesino**	1.29	184	Pg	Pg	09 53 00.9	-0.7
CTI				Sg	Sg	09 53 17.3	-1.1
	21nm,0.2s						
CTI	**Castel Tesino**	1.29	184	Pg	Pg	09 53 00.9	-0.7
CTI				Sg	Sg	09 53 17.3	-1.1
	21nm,0.2s						
BRMO	**Bormio**	1.29	229	Pg	Pg	09 53 00.8	-0.9
BRMO				Sg	Sg	09 53 17.7	-0.8
	16nm,0.4s						
BRMO	**Bormio**	1.29	229	Pg	Pg	09 53 00.8	-0.9
BRMO				Sg	Sg	09 53 17.7	-0.8
	16nm,0.4s						
DAVA	**Damuels**	1.30	269	*e*Pn	Pn	09 53 01.7	+0.5
DAVA				*e*Sg	Sg	09 53 20.3	+1.7
DAVA	**Damuels**	1.30	269	⇑*e*Pg	Pg	09 53 01.5	-0.3
	13nm,0.1s,SNR=14						
DAVA				⇑*i*Sg	Sg	09 53 19.3	+0.7
	70nm,0.3s						
DAVA	**Damuels**	1.30	269	Pg	Pg	09 53 01.5	-0.3
	13nm,0.1s,SNR=14						
DAVA	**Damuels**	1.30	269	Pn	Pn	09 53 01.7	+0.5
DAVA				Sg	Sg	09 53 19.3	+0.7
	70nm,0.3s						
VARN	**Col Varnada, M**	1.36	171	⇓*i*Pg	Pg	09 53 03.7	+0.7
VARN				*i* Sg	Sg	09 53 21.2	+0.6
VARN	**Col Varnada, M**	1.36	171	*i* Pg	Pg	09 53 03.7	+0.7
VARN				*i* Sg	Sg	09 53 21.2	+0.6
DAVOX	**Davos/Dischmat**	1.42	248	Pg	Pg	09 53 04.3	+0.3
DAVOX				Sg	Sg	09 53 23.1	+0.7
DAVOX	**Davos/Dischmat**	1.42	248	Pg	Pg	09 53 04.3	+0.3
DAVOX				Sg	Sg	09 53 23.1	+0.7
ACOM	**Acomizza, Ital**	1.42	123	*e*Pg	Pg	09 53 04.1	0.0
ACOM	**Acomizza, Ital**	1.42	123	*e*Pg	Pg	09 53 04.1	-0.1
PTCC	**Patocco-Chiusa**	1.42	130	Pg	Pg	09 53 04.5	+0.3
PTCC				Sg	Sg	09 53 22.8	+0.2
PTCC	**Patocco-Chiusa**	1.42	130	Pg	Pg	09 53 04.5	+0.3
PTCC				Sg	Sg	09 53 22.8	+0.2
MYKA	**Terra Mystica**	1.45	118	⇓*i*Pg	Pg	09 53 05.2	+0.4
	14nm,0.4s						
MYKA				⇑*i*Sn	Sn	09 53 23.5	+1.0
MYKA				⇓*i*Sg	Sg	09 53 24.8	+1.2
	7.2nm,0.3s						
MYKA	**Terra Mystica**	1.45	118	Pg	Pg	09 53 05.2	+0.4
	14nm,0.4s						
MYKA				Sn	Sn	09 53 23.5	+1.0
MYKA				Sg	Sg	09 53 24.8	+1.2
	7.2nm,0.3s						
CGRP	**Cima Grappa**	1.46	180	*e*Pg	Pg	09 53 04.2	-0.6
CGRP				*e*Sg	Sg	09 53 23.6	-0.1
CGRP	**Cima Grappa**	1.46	180	*e*Pg	Pg	09 53 04.2	-0.6
CGRP				*e*Sg	Sg	09 53 23.6	-0.1
VINO	**Villanova**	1.49	136	⇑*i*Pg	Pg	09 53 06.0	+0.6
VINO	**Villanova**	1.49	136	*i* Pg	Pg	09 53 06.1	+0.6
NORI	**Noerdlinger Ri**	1.59	331	⇑*i*Pn	Pn	09 53 05.0	-0.3
NORI				⇑*i*Sn	Sn	09 53 26.1	+0.2
NORI	**Noerdlinger Ri**	1.59	331	Pn	Pn	09 53 05.0	-0.3
NORI				Sn	Sn	09 53 26.1	+0.2
MOA	**Molln**	1.76	72	*e*Pn	Pn	09 53 10.7	+3.2
MOA				*e*Sg	Sg	09 53 33.0	-0.4
MOA	**Molln**	1.76	72	Sg	Sg	09 53 33.0	-0.3
SABO	**M.te Sabotino**	1.84	137	⇓*e*Pg	Pg	09 53 10.7	-1.6
SABO				*e*Sg	Sg	09 53 36.8	+0.7
SABO	**M.te Sabotino**	1.84	137	*e*Pg	Pg	09 53 10.7	-1.5
SABO				*e*Sg	Sg	09 53 36.8	+0.7
VOY	**Vojsko**	1.95	131	*e*Pn	Pn	09 53 11.7	+1.5
VOY				*e*Sn	Sn	09 53 38.9	+4.1
VOY	**Vojsko**	1.95	131	*e*Pn	Pn	09 53 11.7	+1.5
VOY				*e*Sn	Sn	09 53 38.9	+4.1
WET	**Wettzell**	1.95	22	*e*Pn	Pn	09 53 10.5	+0.2
	SNR=2.0						
WET				*e*Pg	Pg	09 53 14.1	-0.3
	SNR=3.7						
WET				*e*Sn	Sn	09 53 35.0	+0.2
	SNR=4.6						
WET				*e*Sg	Sg	09 53 40.7	+1.0
	SNR=1.4						
WET	**Wettzell**	1.95	22	Pn	Pn	09 53 10.5	+0.3
	SNR=2.0						
GEC2	**GERESS Array S**	1.98	40	*e*Pn	Pn	09 53 11.2	+0.6
	SNR=2.6						
GEC2				*e*Sn	Sn	09 53 36.6	+1.0
	SNR=5.9						
GEC2				*e*Sg	Sg	09 53 40.9	+0.3
	SNR=1.3						
GEC2	**GERESS Array S**	1.98	40	Pn	Pn	09 53 11.2	+0.5
	SNR=2.6						
GEC2				Sn	Sn	09 53 36.6	+1.0
	SNR=5.9						
GEC2				Sg	Sg	09 53 40.9	+0.3
	SNR=1.3						
OBKA	**Obir**	2.07	113	⇑*i*Pg	Pg	09 53 15.2	-1.3
	4.2nm,0.3s						
OBKA	**Obir**	2.07	113	Pg	Pg	09 53 15.2	-1.3
	4.2nm,0.3s						
KHC	**Kasperske Hory**	2.16	33	*e*PN	Pn	09 53 13.9	+0.8
KHC				*e*SG	Sg	09 53 46.0	-0.3
	comp=Z,11nm,0.4s						
KHC	**Kasperske Hory**	2.16	33	Pn	Pn	09 53 13.9	+0.8
KHC				Sg	Sg	09 53 46.0	-0.3
	comp=Z,11nm,0.4s						
GRA1	**Grafenberg Arr**	2.39	351	Sg	Sg	09 53 54.0	+0.4
GRF	**Grafenberg Arr**	2.39	351	*e*Sg	Sg	09 53 54.0	+0.4
BFO	**Black Forest**	2.53	294	*e*Pn	Pn	09 53 19.3	+1.1
	SNR=3.8						
BFO				*e*Pg	Pg	09 53 24.7	-0.7
	SNR=4.5						
BFO				*e*Sg	Sg	09 53 56.8	-1.4
	SNR=4.3						
BFO	**Black Forest**	2.53	294	*e*Pn	Pn	09 53 19.1	+0.9
BFO				*e*Sg	Sg	09 53 57.3	-0.9
BFO	**Black Forest**	2.53	294	*e*Pn	Pn	09 53 19.1	+0.9
BFO	**Black Forest**	2.53	294	Pg	Pg	09 53 24.7	-0.7
	SNR=4.5						
BFO				*e*Sg	Sg	09 53 57.3	-0.9
NKC	**Novy Kostel**	2.93	8	*e*SG	Sg	09 54 09.6	-1.5
	comp=Z,11nm,0.3s						
NKC	**Novy Kostel**	2.93	8	Sg	Sg	09 54 09.6	-1.5
	comp=Z,11nm,0.3s						
GUNZ	**Gunzen**	3.05	7	*e*Pg	Pg	09 53 35.9	+0.5
	SNR=1.7						
GUNZ				*e*Sg	Sg	09 54 14.7	-0.2
	SNR=3.6						
GUNZ	**Gunzen**	3.05	7	Pg	Pg	09 53 35.9	+0.5
	SNR=1.7						
GUNZ				Sg	Sg	09 54 14.7	-0.2
	SNR=3.6						
TANN	**Tannenbergstha**	3.12	8	*e*Sn	Sn	09 54 01.9	-1.6
	SNR=2.0						
TANN				*e*Sg	Sg	09 54 15.6	-1.3
	SNR=3.5						
TANN	**Tannenbergstha**	3.12	8	Sn	Sn	09 54 01.9	-1.6
	SNR=2.0						
TANN				Sg	Sg	09 54 15.6	-1.3
	SNR=3.5						
WERD	**Werda**	3.13	6	*e*Pn	Pn	09 53 27.4	+0.9
	SNR=1.3						
WERD				*e*Sg	Sg	09 54 17.1	-0.5
	SNR=4.2						
WERD	**Werda**	3.13	6	Pn	Pn	09 53 27.4	+0.9
	SNR=1.3						
WERD				Sg	Sg	09 54 17.1	-0.4
	SNR=4.2						
CDF	**Champ du Feu**	3.22	291	*e*Pn	Pn	09 53 28.0	+0.3
CDF				*e*Sn	Sn	09 54 12.4	+6.3
	comp=Z,8.7nm,0.4s						
CDF	**Champ du Feu**	3.22	291	*e*Pn	Pn	09 53 28.0	+0.3
PRU	**Pruhonice**	3.22	34	*e*SG	Sg	09 54 20.0	-0.4
PRU	**Pruhonice**	3.22	34	Sg	Sg	09 54 20.0	-0.4
MOX	**Moxa**	3.31	358	*e*Sn	Sn	09 54 06.9	-1.6
	SNR=2.2						
MOX				*e*Sg	Sg	09 54 23.5	+0.2
	SNR=2.8						
MOX	**Moxa**	3.31	358	Sn	Sn	09 54 06.9	-1.6
	SNR=2.2						
MOX				Sg	Sg	09 54 23.5	+0.2
	SNR=2.8						
HINF	**Hinteralfeld**	3.37	280	*e*Pn	Pn	09 53 29.8	0.0
HINF				*e*Sn	Sn	09 54 14.7	+4.8
	comp=Z,6.6nm,0.3s						
HINF	**Hinteralfeld**	3.37	280	*e*Pn	Pn	09 53 29.8	0.0
TNS	**Taunus Mts**	3.64	324	*e*Pn	Pn	09 53 33.9	+0.5
	SNR=4.3						
TNS				*e*Sn	Sn	09 54 15.6	-0.8
	SNR=1.7						
TNS				*e*Sg	Sg	09 54 34.1	+0.5
	SNR=2.0						
TNS	**Taunus Mts**	3.64	324	*e*Pn	Pn	09 53 33.8	+0.4
TNS	**Taunus Mts**	3.64	324	*e*Pn	Pn	09 53 33.8	+0.4
TNS				Sn	Sn	09 54 15.6	-0.8
	SNR=1.7						
TNS				Sg	Sg	09 54 34.1	+0.5
	SNR=2.0						
UBBA	**Unterbreizbach**	3.68	342	*e*Sg	Sg	09 54 34.7	-0.3
	SNR=2.3						
UBBA	**Unterbreizbach**	3.68	342	Sg	Sg	09 54 34.7	-0.3
	SNR=2.3						
HAU	**Haudompre**	3.73	282	*e*Pn	Pn	09 53 35.3	+0.6
HAU				*e*Sn	Sn	09 54 23.4	+4.6
	comp=Z,7.0nm,0.3s						
HAU	**Haudompre**	3.73	282	*e*Pn	Pn	09 53 35.3	+0.6
HAU				*e*Sn	Sn	09 54 23.4	+4.6
	comp=Z,3.5nm,0.3s						
BRG	**Berggiesshubel**	3.81	21	SG	Sg	09 54 38.6	-0.7
	comp=Z,2.7nm,0.5s						
LPL	**La Plagne**	3.94	244	*e*Pn	Pn	09 53 34.2	-3.3
LPL				*e*Sn	Sn	09 54 20.8	-3.0
	comp=Z,1.2nm,0.2s						
LPL	**La Plagne**	3.94	244	*e*Pn	Pn	09 53 34.2	-3.3
LPL				*e*Sn	Sn	09 54 20.8	-3.0
	comp=Z,0.6nm,0.2s						
CABF	**La Chapelle**	3.97	262	*e*Pn	Pn	09 53 36.9	-1.0
CABF				*e*Sn	Sn	09 54 25.4	+0.9
	comp=Z,1.8nm,0.5s						
CABF	**La Chapelle**	3.97	262	*e*Pn	Pn	09 53 36.9	-1.0
CABF				*e*Sn	Sn	09 54 25.4	+0.9
	comp=Z,0.9nm,0.5s						
CLL	**Collm**	4.06	11	*e*Sg	Sg	09 54 47.0	-0.1
CLL	**Collm**	4.06	11	Sg	Sg	09 54 47.0	-0.1
MBDF	**Montbardon**	4.36	235	*e*Pn	Pn	09 53 38.1	-5.2
MBDF				*e*Sn	Sn	09 54 28.1	-6.1
	comp=Z,1.1nm,0.4s						
MBDF	**Montbardon**	4.36	235	*e*Pn	Pn	09 53 38.1	-5.2
CLZ	**Clausthal**	4.60	349	*e*Sg	Sg	09 55 02.9	-1.7
	SNR=2.7						
CLZ	**Clausthal**	4.60	349	Sg	Sg	09 55 02.9	-1.7
	SNR=2.7						
SBF	**Sospel**	4.62	223	*e*Pn	Pn	09 53 39.6	-7.3
SBF				*e*Sn	Sn	09 54 30.9	-10
	comp=Z,2.0nm,0.2s						
ORIF	**Oris-en-Rattie**	4.76	242	*e*Pn	Pn	09 53 44.6	-4.3
ORIF				*e*Sn	Sn	09 54 39.3	-4.9
	comp=Z,0.9nm,0.3s						
ORIF	**Oris-en-Rattie**	4.76	242	*e*Pn	Pn	09 53 44.6	-4.3
ORIF				*e*Sn	Sn	09 54 39.3	-4.9
	comp=Z,0.4nm,0.3s						
GIVF	**Givet**	5.38	304	*e*Pn	Pn	09 53 59.0	+1.8
GIVF				*e*Sn	Sn	09 55 04.6	+5.4
	comp=Z,3.5nm,0.3s						
GIVF	**Givet**	5.38	304	*e*Pn	Pn	09 53 59.0	+1.8
LOR	**Lormes**	5.39	272	*e*Pn	Pn	09 53 56.8	-0.7
	baz=104						
LOR				*e*Sn	Sn	09 55 01.4	+1.7
	comp=Z,0.8nm,0.3s						
LOR	**Lormes**	5.39	272	*e*Pn	Pn	09 53 56.8	-0.7
	baz=104						
LOR				*e*Sn	Sn	09 55 01.4	+1.7
	comp=Z,0.4nm,0.3s						
SMF	**Signal de Mont**	5.48	266	*e*Pn	Pn	09 53 57.8	-0.9
SMF				*e*Sn	Sn	09 55 01.8	0.0
	comp=Z,4.0nm,0.6s						
SMF	**Signal de Mont**	5.48	266	*e*Pn	Pn	09 53 57.8	-0.9
SMF				*e*Sn	Sn	09 55 01.8	0.0
	comp=Z,2.0nm,0.6s						
SSF	**Saint Saulge**	5.65	270	*e*Pn	Pn	09 53 59.6	-1.4
SSF				*e*Sn	Sn	09 55 07.4	+1.4
	comp=Z,1.1nm,0.3s						
SSF	**Saint Saulge**	5.65	270	*e*Pn	Pn	09 53 59.6	-1.4
SSF				*e*Sn	Sn	09 55 07.4	+1.4
	comp=Z,0.6nm,0.3s						
AVF	**Avril sur Loir**	5.79	268	*e*Pn	Pn	09 54 02.2	-0.7
AVF				*e*Sn	Sn	09 55 09.6	+0.2
	comp=Z,0.9nm,0.3s						
AVF	**Avril sur Loir**	5.79	268	*e*Pn	Pn	09 54 02.2	-0.7
AVF				*e*Sn	Sn	09 55 09.6	+0.2
	comp=Z,0.4nm,0.3s						
BGF	**Bois d’Agland**	6.17	266	*e*Pn	Pn	09 54 06.9	-1.3
BGF				*e*Sn	Sn	09 55 18.2	-0.6
	comp=Z,5.6nm,0.4s						
BGF	**Bois d’Agland**	6.17	266	*e*Pn	Pn	09 54 06.9	-1.3
BGF				*e*Sn	Sn	09 55 18.2	-0.6
	comp=Z,2.8nm,0.4s						

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*ISCJB **16** 09:59:24.0±1.3, 36°.07N±0°.06×21°.4E±0°.1, h10^{km}, Error ellipse: s-maj=13.9km s-min=8.3km az=176.5*

*NEIC **16** 09:59:23.1, 36°.02N×21°.37E, h23^{km}, MD3.6(ATH), After ATH.*

*ATH **16** 09:59:23.1, 36°.02N×21°.37E, h23^{km}±5^{km}, MD3.6/3*

*CSEM **16** 09:59:25.5±0.8, 36°.14N×21°.46E, h10^{km}, MD3.6, Error ellipse: s-maj=21.0km s-min=11.5km az=46.0*

ISC 16 09:59:25.0±1.3**, 36°.06N**±0°.06×**21°.4E**±0°.1**, h10**^{km}**, n21, σ0^{s}.97**/25**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.87	17	ePN	Pg	09 59 41.3	-0.6
PYL				eSN	Sg	09 59 53.6	+0.3
PYL	PYLOS	0.87	17	ePn	Pg	09 59 41.3	-0.6
PYL				eSn	Sg	09 59 53.6	+0.3
ITM	Ithomi	1.19	20	ePN	Pg	09 59 46.0	-1.9
ITM				eSN	Sg	10 00 04.3	+0.9
ITM	Ithomi	1.19	20	ePn	Pg	09 59 46.0	-1.9
ITM				eSn	Sg	10 00 04.3	+0.9
KYTH	Kithira	1.32	80	ePN	Pn	09 59 49.2	-0.3
KYTH	Kithira	1.32	80	ePn	Pn	09 59 49.2	-0.3
VLI	Veliai	1.39	61	ePN	Pn	09 59 49.5	-0.9
VLI	Veliai	1.39	61	ePn	Pn	09 59 49.5	-0.9
VLX	Vlachokerasia	1.52	30	ePN	Pn	09 59 51.5	-0.7
VLX	Vlachokerasia	1.52	30	ePn	Pn	09 59 51.5	-0.7
GUR	Goura	2.01	21	ePN	Pn	09 59 58.8	-0.3
GUR	Goura	2.01	21	ePn	Pn	09 59 58.8	-0.3
DID	Didima	2.05	45	ePB	Pn	09 59 59.0	-0.6
LTK	Loutraki	2.32	32	ePB	Pn	10 00 04.0	+0.8
NAIG	Nisos Aigina	2.37	44	ePN	Pn	10 00 04.0	+0.1
NAIG	Nisos Aigina	2.37	44	ePn	Pn	10 00 04.0	+0.1
LKR	Lokris	2.88	25	P	Pn	10 00 13.7	+2.8
LKR	Lokris	2.88	25	P	Pn	10 00 13.7	+2.8
LAST	Lasithi	3.42	104	P	Pn	10 00 19.6	+1.2
LAST	Lasithi	3.42	104	P	Pn	10 00 19.6	+1.2
TAR1	Taranto	5.52	325	ePn	Pn	10 00 47.6	+0.3

GUC 16 10:10:03.7±0.7**, 23.°99S×67.°61W, h230^{km}**±8^{km}**, MD3.9, ML4.0, 1C-1D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	1.82	319	⇓iP	Pn	10 10 45.0	+2.1
LVC				iS	S	10 11 15.9	+2.2
LVC				AML	AML	10 11 17.2	
	comp=E,178nm,0.5s						
PECH	Pedro de Valdi	2.35	306	iP	Pn	10 10 49.9	+1.9
PECH				iS	S	10 11 25.2	+2.4
PECH				AML	AML	10 11 26.4	
	comp=E,629nm,0.2s						
PB04	Plate Boundary	2.44	314	eP	Pn	10 10 55.7	+6.8
PB04				iS	S	10 11 35.5	+11
PB04				AML	AML	10 11 38.1	
	comp=E,168nm,0.3s						
CEN1	Los Morros	2.45	284	⇑iP	Pn	10 10 51.4	+2.3
CEN1				iS	S	10 11 28.1	+3.5
CEN1				AML	AML	10 11 31.0	
	comp=N,139nm,0.5s						
CPN1	Cerro Paranal	2.63	256	AML	AML	10 11 30.2	
	comp=E,123nm,0.4s						
TOCH	Tocopilla	3.05	308	AML	AML	10 11 42.8	
	comp=N,181nm,0.2s						
HMBC	Humberston	4.26	330	eP	Pn	10 11 12.7	+2.9
HMBC				iS	S	10 12 05.4	+3.3
HMBC				AML	AML	10 12 07.9	
	comp=E,49nm,0.2s						
PSGC	Pisagua	4.96	331	AML	AML	10 12 23.1	
	comp=N,15nm,0.4s						
MNMC	Miæe Miæ	5.18	339	AML	AML	10 12 29.3	
	comp=E,66nm,0.5s						

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*NIED **16** 10:12:00, 44.°00N×148.°30E, h56^{km}, Mw3.8 Best double couple: M$_0$6.62000×10^{14} NP1:φ$_s$163.00000°, δ78.00000°, λ38.00000°. NP2:φ$_s$64.00000°, δ53.00000°, λ165.00000°.*

*MOS **16** 10:12:36.6±1.3, 44.°46N×148.°71E, h48^{km}, mb4.0/1, Error ellipse: s-maj=14.4km s-min=10.7km az=57.3*

*ISCJB **16** 10:12:37.2±0.9, 44.°47N±0.°05×148.°66E±0.°08, h50^{km}±8^{km}, mb3.9/13, Error ellipse: s-maj=11.4km s-min=6.3km az=39.5*

*JMA **16** 10:12:39.3±0.4, 44.°01N×148.°32E, h0^{km}, M4.7*

*IDC **16** 10:12:39.5±2.8, 44.°49N×148.°53E, h56^{km}±25^{km}, mb3.6/11, mb1 3.8/15, mb1mx3.7/24, mbtmp3.6/15, ML3.2/1, MS2.8/1, Ms1 2.8/1, ms1mx2.5/38, Error ellipse: s-maj=26.5km s-min=18.6km az=145.0*

*SKHL **16** 10:12:39.9±1.0, 44.°69N×148.°56E, h63^{km}±11^{km}, mb5.8/1, msh5.1/1*

*NEIC **16** 10:12:43.1±1.1, 44.°69N×148.°64E, h81^{km}±10^{km}, mb4.5/1, Error ellipse: s-maj=15.8km s-min=9.8km az=145.0*

ISC 16 10:12:39.6±0.8**, 44.°38N**±0.°06×**148.°62E**±0.°08**, h59^{km}**±8^{km}**, n52, σ1^s.07**/60**, mb3.9**/13**, 1C-2D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	1.01	328	⇓iPN	Pn	10 12 52.6	-5.0
KUR				iS	Sn	10 13 05.5	-5.5
KUR				pmax	pmax		
	comp=N,460nm,0.5s						
KUR				pmax	pmax		
	comp=E,440nm,0.5s						
KUR				pmax	pmax		
	comp=Z,990nm,0.5s						
KUR				smax			
	comp=N,6μm,1.8s						
KUR				smax			
	comp=E,8μm,1.8s						
KUR				smax			
	comp=E,3690μm,0.5s						
KUR				smax			
	comp=E,2μm,0.5s						
KUR	Kuril'sk	1.01	328	⇓iP	Pn	10 12 52.4	-5.2
KUR				AMB	AMB	10 12 53.5	
	comp=E,456nm,0.5s						
KUR				AMB	AMB	10 12 53.5	
	comp=E,441nm,0.5s						
KUR				AMB	AMB	10 12 53.5	
	comp=E,988nm,0.5s						
KUR				iS	Sn	10 13 05.5	-5.5
KUR				A		10 13 07.0	
	comp=E,7μm,1.6s						
KUR				A		10 13 07.0	
	comp=E,8μm,1.6s						
KUR				A		10 13 08.5	
	comp=E,4μm,0.5s						
KUR				A		10 13 08.5	
	comp=E,2μm,0.5s						
YUK	Yuzh-Kuril'sk	2.01	261	ePN	Pn	10 13 11.0	-0.1
YUK				eS	Sn	10 13 35.0	-0.1
YUK				pmax	pmax		
	comp=N,5μm,2.0s						
YUK				pmax	pmax		
	comp=Z,2μm,2.0s						
YUK				pmax	pmax		
	comp=N,380nm,0.3s						
YUK				pmax	pmax		
	comp=Z,880nm,0.3s						
YUK				smax			
	comp=N,2μm,0.4s						
YUK				smax			
	comp=E,770nm,0.4s						
YUK				smax			
	comp=N,2μm,2.0s						
YUK				smax			
	comp=E,5μm,2.0s						
YUK	Yuzh-Kuril'sk	2.01	261	eP	Pn	10 13 11.0	-0.1
YUK				AMB	AMB	10 13 13.1	
	comp=E,5μm,2.0s						
YUK				AMB	AMB	10 13 13.1	
	comp=E,2μm,2.0s						
YUK				AMB	AMB	10 13 13.2	
	comp=E,380nm,0.2s						
YUK				AMB	AMB	10 13 13.2	
	comp=E,880nm,0.2s						
YUK				eS	Sn	10 13 35.0	-0.1
YUK				A		10 13 43.0	
	comp=E,2μm,0.4s						
YUK				A		10 13 43.0	
	comp=E,770nm,0.4s						
YUK				A		10 13 47.3	
	comp=E,2μm,2.0s						
YUK				A		10 13 47.3	
	comp=E,5μm,2.0s						
NEM2	Nemuro 2	2.31	245	P	Pn	10 13 14.4	-0.8
NEM2				eS	Sn	10 13 40.7	-1.8
JRA	Rausu	2.55	261	P	Pn	10 13 19.4	+0.9
JNK	Nakash	2.92	256	P	Pn	10 13 24.0	+0.4
JNK				eS	Sn	10 13 57.8	+0.3
JAK	Akkeshi	3.16	245	P	Pn	10 13 26.5	-0.3
JAK				eS	Sn	10 14 02.4	-0.9
JTKR	Abashiri--Toko	3.41	265	P	Pn	10 13 32.3	+2.1
JAR	Ashorobuto	3.67	255	P	Pn	10 13 35.0	+1.2
JCH	Churui	4.21	247	P	Pn	10 13 41.4	+0.2
JKK2	Kamakawa 2	4.26	265	P	Pn	10 13 44.1	+2.3
ASAJ	Asahikawa	4.33	269	PN	Pn	10 13 43.7	+0.9
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	Asahikawa	4.33	269	P	Pn	10 13 43.6	+0.8
	comp=Z,3.7nm,0.3s,baz=108,slow=15,SNR=22						
JFR	Furan	4.53	257	P	Pn	10 13 47.8	+2.3
ERM	Erimo	4.64	241	⇑iPN	Pn	10 13 50.1	+3.1
ERM	Erimo	4.64	241	eP	Pn	10 13 50.1	+3.1
ERM	Erimo	4.64	241	ePn	Pn	10 13 54.5	+7.5
JNBK	Urakawa-nobuka	4.76	246	P	Pn	10 13 49.1	+0.3
YSS	Yuzh-Sakhalins	4.85	304	eP	Pn	10 13 50.7	+0.8
YSS				AMB	AMB	10 13 52.1	
	comp=Z,10.0nm,0.5s						
YSS				eS	Sn	10 14 44.0	-0.6
YSS				A		10 14 49.0	
	comp=Z,20nm,0.5s						
YSS	Yuzh-Sakhalins	4.85	304	ePn	Pn	10 13 50.5	+0.6
JKB	Kayabe	6.08	248	P	Pn	10 14 07.2	+0.4
JKB				eS	Sn	10 15 12.9	-2.1
JOT	Ohata	6.32	244	P	Pn	10 14 09.8	-0.2
JOT				eS	Sn	10 15 17.2	-3.5
JANG	Nango	6.61	235	P	Pn	10 14 12.6	-1.4
JANG				eS	Sn	10 15 22.0	-5.9
JOSM	Okushiri--Mats	7.06	254	P	Pn	10 14 21.6	+1.4
SKR	Severo-Kuril's	8.09	36	eP	Pn	10 14 31.5	-2.7
PETK	Petropavlovsk-	10.59	31	P	Pn	10 15 07.3	-1.0
	comp=Z,1.4nm,0.3s,baz=213,slow=12,SNR=6.5						
MJAR	Matsushiro Arr	11.14	229	P	Pn	10 15 14.9	-1.0
	comp=Z,0.2nm,0.3s,baz=30,slow=14,SNR=3.6						
KSRS	Korea Array	17.08	253	P	Pn	10 16 32.8	-1.4
	baz=52,slow=14,SNR=2.8						
KSRS				LR	LR	10 23 37.0	
	comp=Z,33nm,19.6s,baz=50,slow=38						
BILL	Bilibino	25.47	15	P	P	10 18 09.0	+7.4
BILL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
IMA2	Indian Mountai	37.56	34	eP	P	10 19 47.3	-0.4
ZALV	Zalesovo Beam	41.47	307	PcP	PcP	10 22 17.5	+0.5
	comp=Z,0.6nm,0.5s,baz=104,slow=6.1,SNR=3.5						
MENT	Mentasta	41.89	39	P	P	10 20 23.8	+0.2
MKAR	Makanchi Array	45.23	298	PcP	PcP	10 22 30.0	+0.2
	comp=Z,0.4nm,0.6s,baz=83,slow=2.7,SNR=3.0						
KURK	Kurchatov	46.06	304	P	P	10 20 57.7	+0.6
	comp=Z,0.4nm,0.3s,mb3.8,baz=76,slow=8.2,SNR=2.3						
YKA	Yellowknife Ar	54.69	34	P	P	10 22 02.2	+0.1
	comp=Z,1.2nm,0.6s,mb4.1,baz=298,slow=6.9,SNR=23						
YKA	Yellowknife Ar	54.69	34	P	P	10 22 02.2	+0.1
FFC	Flin Flon	64.56	37	iP	P	10 23 11.2	+1.1
WRA	Warramunga Arr	65.33	195	P	P	10 23 16.4	+1.0
	comp=Z,0.5nm,0.7s,mb3.6,baz=14,slow=7.0,SNR=3.8						
NVAR	Mina Array Bea	66.35	59	P	P	10 23 22.9	+0.9
	comp=Z,0.2nm,0.4s,mb3.5,baz=295,slow=6.9,SNR=4.3						
PDAR	Pinedale Array	68.69	51	P	P	10 23 36.6	-0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=9.8,slow=2.1,SNR=4.6						
NOA	NORSAR Array B	69.39	339	P	P	10 23 40.3	-0.3
	comp=Z,1.1nm,0.8s,mb3.8,baz=33,slow=5.8,SNR=8.1						
ULM	Lac du Bonnet	70.36	38	P	P	10 23 45.9	-0.8
	comp=Z,0.8nm,0.4s,mb4.0,baz=297,slow=3.2,SNR=2.9						
ULM	Lac du Bonnet	70.36	38	P	P	10 23 45.9	-0.8
AKASG	Malin Array Be	71.69	324	P	P	10 23 53.5	-1.3
	comp=Z,0.5nm,0.4s,mb3.8,baz=33,slow=6.8,SNR=2.7						
AKASG	Malin Array Be	71.69	324	P	P	10 23 53.5	-1.3
SCHQ	Schefferville	76.67	20	P	P	10 24 23.2	-0.5
	comp=Z,1.9nm,0.9s,mb4.0,baz=311,slow=9.3,SNR=2.4						
CLL	Collm	77.24	333	iP	P	10 24 26.8	-0.2
	comp=Z,4.0nm,0.6s,mb4.5						
KHC	Kasperske Hory	78.91	332	eP	P	10 24 36.5	+0.2
GERES	GERESS Array B	79.12	332	P	P	10 24 37.1	-0.3
	comp=Z,0.8nm,0.6s,mb3.8,baz=36,slow=7.0,SNR=4.8						
TXAR	Lajitas Array	81.42	57	P	P	10 24 50.9	+0.7
	comp=Z,0.8nm,0.5s,mb3.9,baz=294,slow=4.0,SNR=22						
PLCA	Paso Flores	151.11	97	PKPbc	PKPbc	10 32 26.3	+0.8
	comp=Z,0.6nm,0.7s,baz=255,slow=2.3,SNR=3.4						

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*CSEM **16** 10:14:46.0±0.4, 67.°81N×20.°31E, h2^{km}, ML1.1, Error ellipse: s-maj=9.4km s-min=6.3km az=160.0, Mining explosion.*

*UPP **16** 10:14:46.3, 67.°89N×20.°21E, h0^{km}, ML2.1, Suspected Mining explosion.*

HEL 16 10:14:46.9±0.2**, 67.°87N×20.°23E, h0^{km}, ML1.1, ML2.1**(UPP)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	Kurravaara	0.09	26	iP	Pg	10 14 48.2	-0.4
LANU	Lannavaara	0.69	74	eP	Pg	10 14 58.5	-1.5
LANU				eS	Sg	10 15 07.8	-1.1
LANU	Lannavaara	0.69	74	iP	Pg	10 14 59.3	-0.7
LANU				iS	Sg	10 15 09.1	+0.2
LANU	Lannavaara	0.69	74	Pg	Pg	10 14 58.4	-1.6
LANU	Lannavaara	0.69	74	P	Pg	10 14 59.3	-0.7
LANU				Sg	Sg	10 15 07.8	-1.1
LANU				S	Sg	10 15 09.1	+0.2
SALU	Saltoluokta	0.83	234	iP	Pg	10 15 01.8	-0.8
SALU	Saltoluokta	0.83	234	P	Pg	10 15 01.8	-0.9
KIF	Kilpisjarvi	1.16	10	eP	Pg	10 15 08.3	-0.7
KIF				MSG		10 15 24.9	
	comp=Z,2.1nm,0.4s						
KIF				eSB	Sb	10 15 24.9	-0.3
KIF	Kilpisjarvi	1.16	10	eP	Pg	10 15 09.3	+0.3
KIF				eS	Sg	10 15 24.7	+0.7
KIF	Kilpisjarvi	1.16	10	Pg	Pg	10 15 08.3	-0.7
KIF				Sg	Sg	10 15 24.9	+0.9
KIF	Kilpisjarvi	1.16	10	P	Pg	10 15 09.3	+0.3
KIF				S	Sg	10 15 24.6	+0.6
HEF	Hetta	1.39	66	ePG	Pg	10 15 12.3	-1.2
	baz=250						
HEF				MSG		10 15 31.2	
	comp=Z,1.1nm,0.4s						
HEF				eSB	Sb	10 15 31.2	-0.8
HEF	Hetta	1.39	66	eS	Sg	10 15 31.3	-0.2
HEF				MSG		10 15 38.0	
	comp=Z,1.5nm,0.2s						
HEF	Hetta	1.39	66	Pg	Pg	10 15 12.3	-1.2
HEF				Sg	Sg	10 15 31.2	-0.3
HEF	Hetta	1.39	66	S	Sg	10 15 31.3	-0.2
	comp=Z,1.5nm,0.2s						
SGF	Sodankyl	2.44	97	ePG	Pg	10 15 30.8	-2.9
	baz=282						
SGF				MSG		10 16 03.6	
	comp=Z,0.6nm,0.2s						
SGF				eSG	Sg	10 16 03.6	-1.7
SGF	Sodankyl	2.44	97	eP	Pn	10 15 29.3	+1.4
SGF				eS	Sn	10 16 00.2	+1.8
SGF				MSG		10 16 06.0	
	comp=Z,1.1nm,0.2s						
SGF	Sodankyl	2.44	97	P	Pn	10 15 29.3	+1.3
SGF				S	Sn	10 16 00.2	+1.7
	comp=Z,1.1nm,0.2s						
ARA0	ARCESS Array S	2.55	47	ePB	Pb	10 15 30.4	-3.0
	baz=224						
ARA0				eSG	Sg	10 16 04.3	-4.3
ARA0	ARCESS Array S	2.55	47	eP	Pn	10 15 31.4	+2.0
ARA0	ARCESS Array S	2.55	47	Pn	Pn	10 15 30.4	+1.0
ARA0	ARCESS Array S	2.55	47	P	Pn	10 15 31.4	+2.0
RNF	Rovaniemi	2.58	117	eSG	Sg	10 16 05.8	-3.9
RNF				MSG		10 16 05.8	
	comp=Z,0.5nm,0.1s						
RNF	Rovaniemi	2.58	117	eP	Pn	10 15 31.2	+1.4
RNF				eS	Sn	10 16 03.4	+1.5
RNF	Rovaniemi	2.58	117	Sg	Sg	10 16 05.8	-3.9
RNF	Rovaniemi	2.58	117	P	Pn	10 15 31.2	+1.4
RNF				S	Sn	10 16 03.4	+1.5
KEV	Kevo	3.10	49	eS	Sn	10 16 14.8	+0.1
KEV				MSG		10 16 25.3	
	comp=Z,1.2nm,0.3s						
KEV	Kevo	3.10	49	S	Sn	10 16 14.8	+0.1
	comp=Z,1.2nm,0.3s						

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*IDC **16** 10:30:46.3±1.1, 36.°43N×21.°61E, h0^{km}, mb3.8/8, mb1 3.8/11, mb1mx3.7/26, mbtmp3.7/11, ML3.6/3, MS3.0/1, Ms1 3.0/1, ms1mx2.2/47, Error ellipse: s-maj=24.0km s-min=18.5km az=39.0*

*ATH **16** 10:30:49.7, 36.°23N×21.°45E, h31^{km}±2^{km}, MD4.0/10, ML3.8*

*ISCJB **16** 10:30:50.2±0.5, 36.°21N±0.°03×21.°43E±0.°05, h69^{km}±6^{km}, mb3.6/8, Error ellipse: s-maj=7.3km s-min=4.3km az=139.3*

*CSEM **16** 10:30:50.2±0.3, 36.°21N×21.°48E, h20^{km}, ML4.5/4, Error ellipse: s-maj=7.7km s-min=4.9km az=47.0*

*NEIC **16** 10:30:52.0, 36.°26N×21.°48E, h32^{km}, ML3.8(ATH), ML4.5(THE), After THE.*

*THE **16** 10:30:52.0, 36.°26N×21.°48E, h32^{km}±67^{km}, ML4.5/4, Error ellipse: s-maj=67.4km s-min=2.9km az=37.0*

*HLW **16** 10:31:23.5, 34.°46N×23.°95E, h26^{km}, Mb3.5*

ISC 16 10:30:51.7±0.5**, 36.°23N**±0.°03×**21.°46E**±0.°04**, h52^{km}**±7^{km}**, n120, σ1^s.11**/141**, mb3.8**/8**, 2C-1D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.71	19	P	Pn	10 31 04.2	-1.4
PYL				S	Sn	10 31 14.2	-1.5
PYL	PYLOS	0.71	19	ePN	Pn	10 31 04.2	-1.4
PYL				eSN	Sn	10 31 14.3	-1.4
PYL	PYLOS	0.71	19	ePn	Pn	10 31 04.2	-1.4
PYL				eSn	Sn	10 31 14.3	-1.4
ITM	Ithomi	1.02	21	ePN	Pn	10 31 09.0	-0.8
ITM				eSN	Sn	10 31 23.3	+0.2
ITM	Ithomi	1.02	21	ePn	Pn	10 31 09.0	-0.8
ITM				eSn	Sn	10 31 23.3	+0.2
KYTH	Kithira	1.28	87	ePN	Pn	10 31 14.0	+0.8
KYTH	Kithira	1.28	87	ePn	Pn	10 31 14.0	+0.8
VLI	Veliai	1.29	67	ePN	Pn	10 31 13.5	+0.1
VLI	Veliai	1.29	67	ePn	Pn	10 31 13.5	+0.1
VLX	Vlachokerasia	1.36	33	ePN	Pn	10 31 14.9	+0.6
VLX	Vlachokerasia	1.36	33	ePn	Pn	10 31 14.9	+0.6
RLS	Riolos of Patr	1.83	0	ePB	Pn	10 31 21.7	+1.0
RLS	Riolos of Patr	1.83	0	ePb	Pn	10 31 21.7	+1.0
GUR	Goura	1.85	22	ePB	Pn	10 31 22.3	+1.3
GUR	Goura	1.85	22	ePb	Pn	10 31 22.3	+1.3
DID	Didima	1.91	48	ePN	Pn	10 31 21.7	-0.2
DID	Didima	1.91	48	ePn	Pn	10 31 21.7	-0.2
LAKA	Lakka	2.05	11	P	Pn	10 31 25.1	+1.3
LAKA				S	Sn	10 31 47.5	-0.7
LAKA	Lakka	2.05	11	P	Pn	10 31 25.1	+1.3
LAKA				S	Sn	10 31 47.5	-0.7
VLS	Valsamata	2.07	341	P	Pn	10 31 23.3	-0.7
VLS				S	Sn	10 31 48.2	-0.4
VLS	Valsamata	2.07	341	ePN	Pn	10 31 24.1	+0.1
VLS	Valsamata	2.07	341	P	Pn	10 31 23.3	-0.7
VLS	Valsamata	2.07	341	ePn	Pn	10 31 24.1	+0.1
VLS				S	Sn	10 31 48.2	-0.4
KARN	Karanos	2.16	112	ePN	Pn	10 31 25.5	+0.2
KARN	Karanos	2.16	112	ePn	Pn	10 31 25.5	+0.2
LTK	Loutraki	2.16	33	P	Pn	10 31 25.4	+0.1
LTK				S	Sn	10 31 50.3	-0.6
LTK	Loutraki	2.16	33	P	Pn	10 31 25.4	+0.1
LTK				S	Sn	10 31 50.3	-0.6
TRIZ	Trizonia	2.19	13	P	Pn	10 31 27.3	+1.6
TRIZ				S	Sn	10 31 52.3	+0.7
TRIZ	Trizonia	2.19	13	P	Pn	10 31 27.3	+1.6
TRIZ				S	Sn	10 31 52.3	+0.7
NAIG	Nisos Aigina	2.23	46	ePN	Pn	10 31 26.5	+0.3
NAIG	Nisos Aigina	2.23	46	ePn	Pn	10 31 26.5	+0.3
VAM	Vamos	2.37	109	ePN	Pn	10 31 28.8	+0.6
VAM	Vamos	2.37	109	ePn	Pn	10 31 28.8	+0.6
ATH	Athens Observa	2.51	45	ePN	Pn	10 31 31.2	+1.2
ATH	Athens Observa	2.51	45	P	Pn	10 31 30.2	+0.2
ATH	Athens Observa	2.51	45	ePn	Pn	10 31 31.2	+1.2
ATHU	Athens Univers	2.54	46	P	Pn	10 31 30.2	-0.3
ATHU	Athens Univers	2.54	46	P	Pn	10 31 30.2	-0.3
EVR	Evrytania	2.70	6	ePN	Pn	10 31 34.0	+1.4
EVR	Evrytania	2.70	6	ePn	Pn	10 31 34.0	+1.4
LKR	Lokris	2.71	26	P	Pn	10 31 32.6	-0.2
LKR	Lokris	2.71	26	P	Pn	10 31 32.6	-0.2
AGG	Agios Georgios	2.88	14	P	Pn	10 31 37.1	+2.0
AGG	Agios Georgios	2.88	14	P	Pn	10 31 37.1	+2.0
IDI	Anoyia	2.94	108	Pn	Pn	10 31 35.9	-0.1
	4.0nm,0.3s,baz=287,slow=13,SNR=18						
IDI				Sn	Sn	10 32 11.2	+1.1
	21nm,0.3s,baz=302,slow=22,SNR=8.6						
IDI	Anoyia	2.94	108	Pn	Pn	10 31 35.8	-0.2
IDI				Sn	Sn	10 32 11.2	+1.1
THL	Klokotos Trika	3.36	7	P	Pn	10 31 42.5	+0.8
THL	Klokotos Trika	3.36	7	P	Pn	10 31 42.5	+0.8
LAST	Lasithi	3.44	107	P	Pn	10 31 42.8	0.0
LAST	Lasithi	3.44	107	P	Pn	10 31 42.8	0.0
KEK	Kerkira	3.72	340	ePN	Pn	10 31 46.5	-0.1
KEK	Kerkira	3.72	340	ePn	Pn	10 31 46.5	-0.1
LIT	Litokhoron	3.95	12	P	Pn	10 31 50.3	+0.5
LIT	Litokhoron	3.95	12	P	Pn	10 31 50.3	+0.5
KZN	Kozani	4.08	3	ePN	Pn	10 31 52.4	+0.8
KZN	Kozani	4.08	3	ePn	Pn	10 31 52.4	+0.8
PLG	Polygyros	4.43	20	P	Pn	10 31 58.6	+2.3
PLG	Polygyros	4.43	20	P	Pn	10 31 58.6	+2.3
FNA	Florina	4.55	359	P	Pn	10 31 57.8	-0.2
FNA	Florina	4.55	359	P	Pn	10 31 57.8	-0.2
HORT	Hortiatis	4.55	16	P	Pn	10 31 57.9	-0.1
HORT	Hortiatis	4.55	16	P	Pn	10 31 57.9	-0.1
KARP	Karpathos	4.68	97	ePN	Pn	10 32 00.2	+0.4
KARP	Karpathos	4.68	97	ePn	Pn	10 32 00.2	+0.4
SOI	Samo	4.69	295	Pn	Pn	10 32 01.2	+1.2
SOI	Samo	4.69	295	Pn	Pn	10 32 01.2	+1.2
TIP	Timpagrande	4.75	310	P	Pn	10 32 02.3	+1.5
TIP	Timpagrande	4.75	310	P	Pn	10 32 02.3	+1.5
GRG	Griva	4.78	9	P	Pn	10 32 01.4	+0.2
GRG	Griva	4.78	9	P	Pn	10 32 01.4	+0.2
BIA	Bitola	4.79	359	ePn	Pn	10 32 00.2	-1.1
BIA				eSg	Sn	10 32 55.1	-0.3
BIA	Bitola	4.79	359	ePn	Pn	10 32 00.1	-1.1
CEL	Celeste	4.88	296	P	Pn	10 32 03.9	+1.3
CEL	Celeste	4.88	296	P	Pn	10 32 03.9	+1.3
OHR	Ohrid	4.91	354	ePn	Pn	10 32 03.2	+0.3
OHR	Ohrid	4.91	354	ePn	Pn	10 32 03.2	+0.3
MTTG	Motta San Giov	4.94	293	Pn	Pn	10 32 04.7	+1.4
MTTG	Motta San Giov	4.94	293	Pn	Pn	10 32 04.7	+1.4
KRUS	Krusevo	5.14	358	ePn	Pn	10 32 04.2	-1.9
KRUS	Krusevo	5.14	358	ePn	Pn	10 32 04.1	-2.0
SRS	Serrai	5.16	18	P	Pn	10 32 06.9	+0.5
SRS	Serrai	5.16	18	P	Pn	10 32 06.9	+0.5
VAY	Valandovo	5.16	9	ePn	Pn	10 32 06.0	-0.3
VAY	Valandovo	5.16	9	ePn	Pn	10 32 06.0	-0.4
TAR1	Taranto	5.40	324	ePn	Pn	10 32 09.6	-0.1
TAR1				eSn	Sn	10 33 07.8	-2.7
LTRZ	Laterza	5.69	322	Pn	Pn	10 32 13.4	-0.2
LTRZ	Laterza	5.69	322	Pn	Pn	10 32 13.4	-0.2
SWA2		7.73	153	P	Pn	10 32 41.2	-0.5
BBLS	Lazići	7.79	349	ePn	Pn	10 32 42.2	-0.2
DIVS	Divibare	7.94	352	⇑iPn	Pn	10 32 42.4	-2.1
AWBH		10.09	139	⇑P	Pn	10 33 09.4	-4.5
AWBH		10.09	139	P	Pn	10 33 09.4	-4.5
BRTR	Keskin Array B	10.23	66	Pn	Pn	10 33 16.5	+0.7
	0.1nm,0.3s,baz=246,slow=18,SNR=2.8						
BOJS	Bojanci	10.39	335	iP	Pn	10 33 16.6	-1.3
BOJS	Bojanci	10.39	335	eSn	Sn	10 35 06.1	-6.6
BOJS	Bojanci	10.39	335	P	Pn	10 33 16.6	-1.3
HFRF	Wahat Farafira	10.76	145	⇓eP	Pn	10 33 21.5	-1.7
HFRF				S	Sn	10 35 03.5	-19
HFRF	Wahat Farafira	10.76	145	P	Pn	10 33 21.5	-1.7
HFRF				S	Sn	10 35 03.5	-19
GLL	Jalalah	10.87	125	P	Pn	10 33 20.5	-4.0
GLL	Jalalah	10.87	125	P	Pn	10 33 20.5	-4.0
	592nm,0.4s						
JAVS	Javornik	11.15	332	iPn	Pn	10 33 27.7	-0.6
JAVS				iSn	Sn	10 35 23.9	-7.4
JAVS	Javornik	11.15	332	iPn	Pn	10 33 27.7	-0.6
PERS	Pernice	11.43	337	iPn	Pn	10 33 30.6	-1.6
PERS	Pernice	11.43	337	iPn	Pn	10 33 30.6	-1.6
SUZ		11.47	120	P	Pn	10 33 29.7	-3.1
SUZ		11.47	120	P	Pn	10 33 29.7	-3.1
MMAI	Mount Meron Ar	11.93	102	Pn	Pn	10 33 35.7	-3.3
	1.0nm,0.3s,baz=280,slow=13,SNR=4.7						
MMAI				Sn	Sn	10 35 44.0	-6.5
	2.3nm,0.3s,baz=257,slow=22,SNR=5.2						
HDK1	Dakhla	12.64	145	P	Pn	10 33 46.9	-1.9
HDK1	Dakhla	12.64	145	P	Pn	10 33 46.9	-1.9
EIL	Elat	13.07	116	Sn	Sn	10 36 08.3	-10
	1.2nm,0.3s,baz=126,slow=22,SNR=5.6						
GERES	GERESS Array B	13.84	338	Pn	Pn	10 34 03.1	-1.8
	0.1nm,0.3s,baz=170,slow=12,SNR=3.0						
HFS	Hagfors	24.44	351	P	P	10 36 05.3	0.0
	4.0nm,0.9s,mb3.9,baz=161,slow=9.4,SNR=7.0						
HFS				LR	LR	10 45 52.0	
	comp=Z,32nm,19.2s,baz=253,slow=37						
NB2	NORSAR Subarra	25.68	348	P	P	10 36 17.6	+1.1
	comp=Z,2.8nm,1.1s,mb3.7,baz=161,slow=9.3						
NOA	NORSAR Array B	25.68	348	P	P	10 36 17.1	+0.6
	comp=Z,1.2nm,0.9s,mb3.4,baz=157,slow=9.0,SNR=2.8						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	29.04	223	P	P	10 36 49.8	+2.8
	comp=Z,0.3nm,0.5s,mb3.2,baz=48,slow=8.3,SNR=3.4						
ARCES	ARCESS Array B	33.44	3	P	P	10 37 22.8	-2.4
	comp=Z,8.0nm,1.1s,mb4.6,baz=189,slow=11,SNR=3.5						
MKAR	Makanchi Array	45.71	57	P	P	10 39 07.5	+0.1
	comp=Z,0.8nm,0.5s,mb4.0,baz=269,slow=7.8,SNR=35						
ZALV	Zalesovo Beam	46.46	47	P	P	10 39 12.6	-0.7
	comp=Z,1.3nm,0.4s,mb4.2,baz=264,slow=9.0,SNR=6.5						
SONM	Songino Array	61.13	50	P	P	10 40 59.6	-0.9
	comp=Z,0.2nm,0.3s,mb3.7,baz=317,slow=4.3,SNR=4.1						
YKA	Yellowknife Ar	75.48	341	P	P	10 42 31.7	+1.8
	comp=Z,0.2nm,0.7s,mb3.2,baz=34,slow=5.4,SNR=5.5						

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*ISK **16** 10:39:01.1,37°.30N×28°.23E,h5^{km},MD2.8*
*ISCJB **16** 10:39:02.9±0.5,37°.25N±0°.04×28°.22E±0°.04,h9^{km}±5^{km}, Error ellipse: s-maj=6.7km s-min=4.7km az=35.4*
*DDA **16** 10:39:02.9,37°.25N×28°.26E,h7^{km}±6^{km},Md2.7*
*CSEM **16** 10:39:03.0±0.1,37°.24N×28°.20E,h10^{km},MD2.8,Error ellipse: s-maj=2.1km s-min=1.2km az=48.0*
ISC 16 10:39:03.3±0.5,**37°.26N**±0°.04×**28°.23E**±0°.04,**h9**^{km}±8^{km}, **n20**,σ**1^{s}.11**/36,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.13	162	ePG	Pg	10 39 05.3	-0.9
YER				eSG	Sg	10 39 08.4	+0.3
YER	Yerkesik	0.13	162	ePg	Pg	10 39 05.3	-0.9
YER				eSg	Sg	10 39 08.4	+0.3
MLSB	Milas	0.37	276	ePG	Pg	10 39 09.7	-0.8
MLSB	Milas	0.37	276	ePg	Pg	10 39 09.7	-0.8
TURN	Turunc	0.48	142	iP	Pg	10 39 11.7	-1.0
TURN				iS	Sg	10 39 19.2	+0.2
TURN	Turunc	0.48	142	iP	Pg	10 39 11.7	-1.0
TURN				iS	Sg	10 39 19.2	+0.2
AYDN	Tasoluk	0.49	325	iP	Pg	10 39 12.6	-0.3
AYDN				iS	Sg	10 39 19.8	+0.5
AYDN	Tasoluk	0.49	325	iP	Pg	10 39 12.6	-0.3
AYDN				iS	Sg	10 39 19.8	+0.5
DALT	Dalyan (Mudla)	0.58	146	ePG	Pg	10 39 14.5	-0.1
DALT				eSG	Sg	10 39 24.3	+2.1
DALT	Dalyan (Mudla)	0.58	146	ePg	Pg	10 39 14.5	-0.1
DALT				eSg	Sg	10 39 24.3	+2.1
BDRM	Kayabasi	0.66	253	iP	Pg	10 39 13.9	-2.1
BDRM				iS	Sg	10 39 26.8	+2.3
BDRM	Kayabasi	0.66	253	iP	Pg	10 39 13.9	-2.1
BDRM				iS	Sg	10 39 26.8	+2.2
BODT	Bodrum	0.76	256	ePG	Pg	10 39 17.3	-0.7
BODT				eSG	Sg	10 39 28.7	+0.8
BODT	Bodrum	0.76	256	ePg	Pg	10 39 17.3	-0.7
BODT				eSg	Sg	10 39 28.7	+0.8
FETY	Fethiye	0.92	132	ePG	Pg	10 39 20.9	-0.1
FETY	Fethiye	0.92	132	ePg	Pg	10 39 20.9	-0.1
MANT	Manisa	1.26	12	iP	Pn	10 39 27.4	+0.3
MANT				iS	Sb	10 39 45.7	+2.2
MANT	Manisa	1.26	12	iP	Pn	10 39 27.4	+0.3
MANT				iS	Sb	10 39 45.7	+2.2
KULA	Kula-Manisa	1.30	15	ePN	Pn	10 39 26.1	-1.6
KULA				eSN	Sn	10 39 44.9	-0.2
KULA	Kula-Manisa	1.30	15	ePn	Pn	10 39 26.1	-1.6
KULA				eSn	Sn	10 39 44.9	-0.3

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*ISK **16** 10:41:31.9,37°.24N×28°.19E,h5^{km},MD2.8*
*ISCJB **16** 10:41:32.8±0.5,37°.24N±0°.03×28°.22E±0°.04,h10^{km},Error ellipse: s-maj=5.3km s-min=3.3km az=37.3*
*CSEM **16** 10:41:32.6±0.2,37°.26N×28°.25E,h2^{km},MD2.8,Error ellipse: s-maj=3.7km s-min=2.4km az=44.0*
*DDA **16** 10:41:32.5,37°.23N×28°.24E,h7^{km}±3^{km},Md2.6*
ISC 16 10:41:33.2±0.5,**37°.25N**±0°.03×**28°.23E**±0°.04,**h10**^{km},**n18**, σ**0^{s}.94**/33,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.12	159	PG	Pg	10 41 34.9	-1.1
YER				eSG	Sg	10 41 36.9	-1.1
YER	Yerkesik	0.12	159	iPg	Pg	10 41 34.9	-1.1
YER				eSg	Sg	10 41 36.9	-1.1
MLSB	Milas	0.36	278	ePG	Pg	10 41 39.5	-0.9
MLSB				eSG	Sg	10 41 45.9	+0.6
MLSB	Milas	0.36	278	ePg	Pg	10 41 39.5	-0.9
MLSB				eSg	Sg	10 41 45.9	+0.6
TURN	Turunc	0.48	141	iP	Pg	10 41 41.3	-1.2
TURN				iS	Sg	10 41 49.0	+0.2
TURN	Turunc	0.48	141	iP	Pg	10 41 41.3	-1.2
TURN				iS	Sg	10 41 49.0	+0.2
AYDN	Tasoluk	0.50	326	iP	Pg	10 41 42.7	-0.3
AYDN				iS	Sg	10 41 49.2	-0.3
AYDN	Tasoluk	0.50	326	iP	Pg	10 41 42.7	-0.3
AYDN				iS	Sg	10 41 49.2	-0.4
DALT	Dalyan (Mudla)	0.58	145	ePG	Pg	10 41 44.1	-0.3
DALT				eSG	Sg	10 41 54.5	+2.6
DALT	Dalyan (Mudla)	0.58	145	ePg	Pg	10 41 44.1	-0.3
BDRM	Kayabasi	0.65	254	iP	Pg	10 41 45.2	-0.6
BDRM				iS	Sg	10 41 55.3	+0.9
BDRM	Kayabasi	0.65	254	iP	Pg	10 41 45.2	-0.6
BDRM				iS	Sg	10 41 55.3	+0.9
BODT	Bodrum	0.76	256	ePG	Pg	10 41 47.3	-0.5
BODT				eSG	Sg	10 41 58.4	+0.8
BODT	Bodrum	0.76	256	ePg	Pg	10 41 47.3	-0.5
BODT				eSg	Sg	10 41 58.4	+0.7
FETY	Fethiye	0.92	131	ePG	Pg	10 41 52.1	+1.3
FETY	Fethiye	0.92	131	ePg	Pg	10 41 52.1	+1.3
MANT	Manisa	1.27	12	iP	Pn	10 41 56.7	-0.3
MANT				iS	Sn	10 42 15.3	+1.1
MANT	Manisa	1.27	12	iP	Pn	10 41 56.7	-0.3
MANT				iS	Sn	10 42 15.3	+1.2

IDC 16 10:42:20.7±2.5,**20°.81N**×**121°.29E**,**h0**^{km},**mb3.6**/4, **mb1 3.8**/4,**mb1mx3.5**/20,**mbtmp3.6**/4,**Error ellipse: s-maj=236.0km s-min=22.6km az=63.0,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	40.88	319	P	P	10 50 04.5	+0.1
	0.1nm,0.7s,baz=116,slow=7.7,SNR=4.4						
WRA	Warramunga Arr	42.46	162	P	P	10 50 17.5	-0.1
	1.8nm,0.6s,baz=342,slow=9.0,SNR=14						
ZALV	Zalesovo Beam	43.15	329	P	P	10 50 22.6	-0.3
	0.5nm,0.3s,baz=119,slow=7.1,SNR=3.6						
ASAR	Alice Springs	45.88	164	P	P	10 50 45.0	0.0
	0.2nm,0.4s,baz=354,slow=7.9,SNR=4.6						

NEIC 16 11:04:05.1,38°.24S×**175°.95E,h183**^{km},**MG4.0**(WEL), **After WEL.,North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WATZ	Wairara	0.50	200	P	Pn	11 04 31.1	+0.9
RATZ	Rangitukua	0.64	193	P	Pn	11 04 31.5	+0.7
HATZ	Hinemaiaia	0.66	170	P	Pn	11 04 31.3	+0.4
RITZ	Rihia Road	0.74	186	P	Pn	11 04 32.4	+1.0
KATZ	Kakaramea	0.76	195	P	Pn	11 04 32.3	+0.8
HIZ	Hauiti	0.90	252	P	Pn	11 04 33.3	+0.9
URZ	Urewera	0.91	92	P	Pn	11 04 31.8	-0.7
WTVZ	West Tongariro	0.92	198	P	Pn	11 04 33.1	+0.6
TWVZ	Taurewa	0.92	206	P	Pn	11 04 33.3	+0.8
NGZ	Ngauruhoe	0.97	196	P	Pn	11 04 33.5	+0.6
BKZ	Black Stump Fm	1.02	156	P	Pn	11 04 33.5	+0.3
BKZ				S	Sn	11 04 54.6	-0.4
TUVZ	Tukino	1.05	193	P	Pn	11 04 34.2	+0.8
WNVZ	Wahianoa	1.12	194	P	Pn	11 04 34.6	+0.6
MOVZ	Moawhango	1.18	187	P	Pn	11 04 34.6	+0.2
MWZ	Matawai	1.25	95	P	Pn	11 04 34.5	-0.5
VRZ	Vera Road	1.29	226	P	Pn	11 04 36.1	+0.8
KNZ	Kokohu	1.56	121	P	Pn	11 04 37.7	-0.1
WAZ	Wanganui	1.69	206	P	Pn	11 04 39.3	+0.2
TSZ	Takapari Road	1.82	180	P	Pn	11 04 40.3	-0.1
PUZ	Puketiti	1.83	85	P	Pn	11 04 39.4	-1.1
NWEZ	Newall Road	1.93	237	P	Pn	11 04 42.3	+0.8
MXZ	Matakaoa Point	1.98	71	P	Pn	11 04 41.2	-1.0
MRZ	Mangatainoka R	2.44	187	P	Pn	11 04 46.0	-1.1
BFZ	Birch Farm	2.45	175	P	Pn	11 04 46.3	-1.0
KIW	Kapiti Island	2.74	197	P	Pn	11 04 49.2	-1.5
MTW	Mount Morrison	2.94	187	P	Pn	11 04 51.1	-1.9
CAW	Cannon Point	2.94	193	P	Pn	11 04 51.5	-1.6
MRW	Makara Radio	3.14	197	P	Pn	11 04 53.7	-1.8
PAWZ	Paruwai Farm	3.16	187	P	Pn	11 04 53.7	-2.1
WEL	Wellington	3.18	196	P	Pn	11 04 54.1	-1.8
SNZO	South Karori	3.21	197	P	Pn	11 04 54.3	-2.1
SNZO				eS	Sn	11 05 32.5	-4.0
MSWZ	Moikau Station	3.22	189	P	Pn	11 04 54.3	-2.1
TCW	Tory Channel	3.24	203	P	Pn	11 04 54.8	-1.9
QRZ	Quartz Range	3.70	225	P	Pn	11 04 59.6	-2.8
BSWZ	Blackbirch Sta	3.82	204	P	Pn	11 05 01.8	-2.1
THZ	Tophouse	4.23	213	P	Pn	11 05 06.8	-2.3
KHZ	Kahutara	4.56	203	P	Pn	11 05 10.9	-2.4
DSZ	Denniston Nort	4.73	221	P	Pn	11 05 12.6	-3.0
LTZ	Lake Taylor	5.33	211	P	Pn	11 05 20.0	-3.3
CRLZ	Canterbury Las	5.90	204	P	Pn	11 05 26.7	-3.9
MQZ	McQueen's Vall	6.00	204	P	Pn	11 05 27.7	-4.4
RPZ	Rata Peaks	6.61	213	P	Pn	11 05 36.4	-3.5

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*ISCJB **16** 11:06:39.7±0.5,37°.74N±0°.03×27°.37E±0°.05,h10^{km}±6^{km}, Error ellipse: s-maj=7.0km s-min=3.8km az=150.9*
*CSEM **16** 11:06:39.5±0.1,37°.75N×27°.34E,h12^{km},MD3.0,Error ellipse: s-maj=2.8km s-min=1.6km az=70.0*
*DDA **16** 11:06:39.6,37°.78N×27°.37E,h7^{km}±5^{km},Md3.0*
*ISK **16** 11:06:39.2,37°.75N×27°.41E,h8^{km},MD3.0*
ISC 16 11:06:39.9±0.5,**37°.73N**±0°.03×**27°.35E**±0°.05,**h14**^{km}±5^{km}, **n30**,σ**0^{s}.77**/48,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	G?zelcaml?	0.10	252	iP	Pg	11 06 42.1	-0.8
GCAM				iS	Sg	11 06 45.2	+0.1
GCAM	G?zelcaml?	0.10	252	iP	Pg	11 06 42.1	-0.8
GCAM				iS	Sg	11 06 45.2	+0.1
AYDN	Tasoluk	0.43	99	iP	Pg	11 06 48.0	-0.5
AYDN				iS	Sg	11 06 54.4	+0.2
AYDN	Tasoluk	0.43	99	iP	Pg	11 06 48.0	-0.5
AYDN				iS	Sg	11 06 54.4	+0.2
MLSB	Milas	0.55	142	ePG	Pg	11 06 50.2	-0.5
MLSB				eSG	Sg	11 06 57.9	-0.2
MLSB	Milas	0.55	142	ePg	Pg	11 06 50.3	-0.5
MLSB				eSg	Sg	11 06 57.9	-0.2
BDRM	Kayabasi	0.67	173	iP	Pg	11 06 54.8	+1.9
BDRM				iS	Sg	11 07 05.7	+3.9
BDRM	Kayabasi	0.67	173	iP	Pg	11 06 54.8	+1.8
BODT	Bodrum	0.67	183	ePG	Pg	11 06 52.9	0.0
BODT	Bodrum	0.67	183	ePg	Pg	11 06 52.9	0.0
IZM	Izmir	0.67	354	ePG	Pg	11 06 52.4	-0.6
IZM				eSG	Sg	11 07 02.5	+0.7
IZM	Izmir	0.67	354	ePg	Pg	11 06 52.4	-0.6
IZM				eSg	Sg	11 07 02.5	+0.6
BLCB	Balcova	0.70	340	ePG	Pg	11 06 52.9	-0.6
BLCB				eSG	Sg	11 07 03.5	+0.8
BLCB	Balcova	0.70	340	ePg	Pg	11 06 52.9	-0.6
BLCB				eSg	Sg	11 07 03.5	+0.8
YER	Yerkesik	0.95	128	ePG	Pg	11 06 57.5	-0.8
YER				eSG	Sg	11 07 11.7	+0.9
YER	Yerkesik	0.95	128	ePg	Pg	11 06 57.5	-0.9
YER				eSg	Sg	11 07 11.7	+0.9
AKHS	Akhisar	1.20	18	iP	Pn	11 07 01.5	-0.9
AKHS				iS	Sb	11 07 19.9	+1.9
AKHS	Akhisar	1.20	18	iP	Pn	11 07 01.5	-0.9
AKS	Akhisar	1.20	18	ePN	Pn	11 07 01.7	-0.7
AKS	Akhisar	1.20	18	ePn	Pn	11 07 01.7	-0.7
MANT	Manisa	1.22	51	iP	Pn	11 07 02.6	0.0
MANT				iS	Sb	11 07 17.8	-0.7
MANT	Manisa	1.22	51	iP	Pn	11 07 02.6	0.0
MANT				iS	Sb	11 07 17.8	-0.6
KULA	Kula-Manisa	1.30	53	ePN	Pn	11 07 03.1	-0.6
KULA				eSN	Sn	11 07 21.2	+0.3
KULA	Kula-Manisa	1.30	53	ePn	Pn	11 07 03.1	-0.6
KULA				eSn	Sn	11 07 21.2	+0.3
DENT	Denizli	1.34	88	ePN	Pn	11 07 04.1	-0.1
DENT	Denizli	1.34	88	ePn	Pn	11 07 04.1	-0.1
DALT	Dalyan (Mudla)	1.41	133	ePN	Pn	11 07 05.3	+0.1
DALT	Dalyan (Mudla)	1.41	133	ePn	Pn	11 07 05.3	+0.1
FETY	Fethiye	1.77	128	ePN	Pn	11 07 10.5	+0.4
FETY	Fethiye	1.77	128	ePn	Pn	11 07 10.5	+0.4

IDC 16 11:06:53.3±2.2,**54°.61N**×**164°.90W**,**h0**^{km},**mb3.2**/3, **mb1 3.6**/4,**mb1mx3.3**/26,**mbtmp3.3**/4,**ML3.1**/1,**Error ellipse: s-maj=68.9km s-min=26.9km az=1.0,Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KDAK	Kodiak Island	7.57	60	Pn	Pn	11 08 45.3	+0.6
	0.3nm,0.3s,baz=256,slow=4.2,SNR=5.2						
KDAK				Sn	Sn	11 09 52.8	-18
	0.2nm,0.3s,baz=300,slow=22,SNR=3.4						
YKA	Yellowknife Ar	26.75	53	P	P	11 12 33.9	-0.2
	0.2nm,0.6s,baz=274,slow=10,SNR=7.7						
TXAR	Lajitas Array	50.14	94	P	P	11 15 50.7	+0.5
	0.4nm,0.9s,baz=307,slow=7.3,SNR=4.9						
SONM	Songino Array	52.42	302	P	P	11 16 07.0	0.0
	0.1nm,0.3s,baz=45,slow=4.5,SNR=2.5						

IDC 16 11:11:20.1±1.6,**3°.32N**×**125°.73E**,**h0**^{km},**mb3.7**/5, **mb1 3.8**/5,**mb1mx3.6**/19,**mbtmp3.7**/5,**Error ellipse: s-maj=111.4km s-min=21.6km az=67.0,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	21.29	180	P	P	11 16 09.0	+0.5
	1.9nm,0.4s,baz=352,slow=7.1,SNR=9.4						
WRA	Warramunga Arr	24.62	160	P	P	11 16 42.6	+0.2
	0.8nm,0.6s,baz=339,slow=10,SNR=9.0						
ASAR	Alice Springs	27.98	164	P	P	11 17 12.0	-0.7
	0.2nm,0.5s,baz=339,slow=7.2,SNR=3.9						
STKA	Stephens Creek	38.12	158	P	P	11 18 41.5	+0.5
	0.7nm,0.4s,baz=339,slow=12,SNR=3.9						
MKAR	Makanchi Array	57.32	326	P	P	11 21 09.8	0.0
	0.6nm,0.4s,baz=123,slow=7.7,SNR=31						

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*ISCJB **16** 11:15:29.3±0.6,33°.33N±0°.03×35°.36E±0°.04,h2^{km}±6^{km}, Error ellipse: s-maj=6.4km s-min=3.8km az=28.4*
*CSEM **16** 11:15:29.5±0.3,33°.32N×35°.37E,h2^{km},ML3.3,Error ellipse: s-maj=9.3km s-min=3.5km az=98.0*
*GII **16** 11:15:29.6±0.5,33°.22N×35°.40E,h1^{km},Md2.2/6*
*GRAL **16** 11:15:30.5±0.3,33°.31N×35°.40E,h0^{km}±97^{km},MD3.1*
ISC 16 11:15:29.7±0.6,**33°.34N**±0°.03×**35°.36E**±0°.04,**h1**^{km}±6^{km}, **n21**,σ**0^{s}.67**/33,**Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	350	eP	Pg	11 15 33.7	+0.9
MATL	Matirih	0.16	350	eP	Pg	11 15 33.7	+0.9
KSDI	Kefar Szold	0.29	120	Pg	Pg	11 15 34.9	-0.3
KSDI				Sg	Sg	11 15 39.6	+0.6
HNTI	Hanita	0.30	212	Pg	Pg	11 15 35.5	+0.1
HNTI				Sg	Sg	11 15 40.1	+0.9
MMA1	Mount Meron ar	0.32	173	Pg	Pg	11 15 35.3	-0.5
MMA1				Sg	Sg	11 15 40.0	+0.1
MMB2	Mount Meron ar	0.33	175	Pg	Pg	11 15 35.3	-0.7
RCY	Rachaya	0.41	69	eP	Pg	11 15 37.8	+0.1
RCY				eS	Sg	11 15 43.3	+0.3
RCY	Rachaya	0.41	69	eP	Pg	11 15 37.8	+0.2
RCY				eS	Sg	11 15 43.3	+0.3
KSHT	Keshet	0.52	133	Pg	Pg	11 15 39.5	-0.1
KSHT				Sg	Sg	11 15 47.5	+1.2
BLGI	Bet Lehem HaGe	0.62	193	Pg	Pg	11 15 41.5	-0.1
BLGI				Sg	Sg	11 15 50.1	+0.6
BHL	Bhannes	0.62	23	eP	Pg	11 15 41.8	+0.2
BHL	Bhannes	0.62	23	eP	Pg	11 15 41.8	+0.2
OFRI	‘Ofer	0.78	204	Pg	Pg	11 15 44.3	-0.4
OFRI				Sg	Sg	11 15 56.2	+1.4
MMLI	Mount Malkishu	0.90	177	Pg	Pg	11 15 46.0	-0.9
MMLI				Sg	Sg	11 15 58.2	-0.3
HWQ	Hawqa	1.06	27	eP	Pg	11 15 49.6	-0.5
HWQ	Hawqa	1.06	27	eP	Pg	11 15 49.6	-0.5
HMDT	Nahal Hemdat	1.09	173	Pg	Pg	11 15 49.4	-1.2
HMDT				Sg	Sg	11 16 04.2	-0.5
SLTI	Sal’it	1.12	194	Pg	Pg	11 15 50.5	-0.8
SLTI				Sg	Sg	11 16 06.0	+0.1
DSI	Dead Sea	1.76	179	Pn	Pn	11 16 00.4	-0.9
YTIR	Yattir	1.98	186	Sn	Sn	11 16 30.8	+1.1
MZDA	Masada	2.02	180	Pn	Pn	11 16 04.6	-0.3
MZDA				Sn	Sn	11 16 30.6	-0.1

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*ISCJB **16** 11:29:19.7±0.9,17°.8S±0°.1×13°.1W±0°.1,h10^{km},mb4.4/11, MS4.0/16,Error ellipse: s-maj=19.0km s-min=14.0km az=177.4*
*IDC **16** 11:29:19.1±1.1,17°.77S×13°.28W,h0^{km},mb4.2/7, mb1 4.2/7,mb1mx4.0/21,mbtmp4.2/7,MS4.0/16, Ms1 4.0/16,ms1mx3.9/24,Error ellipse: s-maj=29.4km s-min=27.5km az=134.0*
*NEIC **16** 11:29:21.2±0.8,17°.82S×13°.12W,h10^{km},mb4.6/1,Error ellipse: s-maj=23.2km s-min=14.3km az=176.0*
ISC 16 11:29:21.4±0.9,**17°.8S**±0°.1×**13°.1W**±0°.1,**h10**^{km},**n28**, σ**0^{s}.98**/14,**mb4.4**/11,**MS4.0**/16,**Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHEL	Horse Pasture	7.30	77	ePn	Pn	11 31 08.0	-0.2
	160nm,0.5s						
LIC	Lamto	25.17	19	eP	P	11 34 47.4	+0.3
	68nm,1.4s,mb5.0						
RCBR	Riachuelo	25.22	295	eP	P	11 34 49.8	+2.1
	16nm,1.1s,mb4.5						
KIC	Kosan Boka	25.39	20	eP	P	11 34 48.0	-1.1
	62nm,1.0s,mb5.1						
TIC	Toumodi	25.57	19	eP	P	11 34 51.4	+0.6
	72nm,0.9s,mb5.2						
DBIC	Dimbokro	25.64	19	P	P	11 34 51.7	+0.3
	4.4nm,0.8s,mb4.1,baz=181,slow=15,SNR=4.4						
DBIC				LR	LR	11 42 25.9	
	comp=Z,284nm,20.6s,MS3.8,baz=163,slow=31						
DBIC	Dimbokro	25.64	19	P	P	11 34 51.7	+0.3
DBIC				LR	LR	11 42 25.9	
BBTS	Babate	32.42	354	LR	LR	11 46 03.0	
	comp=Z,202nm,18.4s,MS3.9,baz=101,slow=31						
TORD	Torodi Ar. Bea	34.05	26	P	P	11 36 05.3	-0.7
	13nm,0.8s,mb4.9,baz=203,slow=8.9,SNR=15						
TORD				LR	LR	11 48 25.3	
	comp=Z,719nm,19.4s,MS4.4,baz=15,slow=34						
TORD	Torodi Ar. Bea	34.05	26	P	P	11 36 05.3	-0.7
TORD				LR	LR	11 48 25.3	
LBTB	Lobatse	36.67	108	P	P	11 36 29.0	+0.4
	1.3nm,0.5s,mb4.0,baz=274,slow=13,SNR=3.6						
BOSA	Boshof	36.75	114	LR	LR	11 48 52.2	
	comp=Z,198nm,18.6s,MS3.9,baz=81,slow=32						
LSZ	Lusaka	39.64	93	P	P	11 36 54.5	+0.9
	4.9nm,0.8s,mb4.3,baz=267,slow=6.0,SNR=9.6						
CPUP	Villa Florida	41.67	250	P	P	11 37 09.0	-1.4
	0.3nm,0.4s,mb3.3,baz=44,slow=8.0,SNR=2.9						
CPUP				LR	LR	11 52 22.6	
	comp=Z,81nm,19.3s,MS3.6,baz=262,slow=33						
PLCA	Paso Flores	54.03	232	LR	LR	11 58 28.3	
	comp=Z,191nm,18.8s,MS4.2,baz=15,slow=32						
KEST	Kesra	57.34	22	LR	LR	12 02 35.8	
	comp=Z,54nm,18.5s,MS3.7,baz=278,slow=35						
ESDC	Sonseca Array	57.80	8	LR	LR	12 02 01.2	
	comp=Z,90nm,19.8s,MS3.9,baz=235,slow=34						
ROSC	El Rosal	64.41	285	LR	LR	12 07 55.8	
	comp=Z,216nm,18.2s,MS4.4,baz=1.5,slow=36						
MMAI	Mount Meron Ar	68.57	43	LR	LR	12 10 54.7	
	comp=Z,47nm,19.4s,MS3.7,baz=335,slow=36						
GERES	GERESS Array B	70.51	18	LR	LR	12 09 29.7	
	comp=Z,100nm,21.2s,MS4.0,baz=89,slow=34						
BRTR	Keskin Array B	71.94	36	P	P	11 40 45.6	+0.6
	1.5nm,0.8s,mb4.0,baz=212,slow=6.7,SNR=6.0						
AKASG	Malin Array Be	77.68	26	P	P	11 41 16.6	-1.5
	0.4nm,0.4s,mb3.7,baz=223,slow=5.7,SNR=4.0						
NOA	NORSAR Array B	80.96	12	LR	LR	12 17 42.8	
	comp=Z,70nm,18.9s,MS4.0,baz=195,slow=36						
VNDA	Vanda	84.84	179	LR	LR	12 14 52.7	
	comp=Z,178nm,19.5s,MS4.5,baz=86,slow=32						
ARCES	ARCESS Array B	91.29	13	LR	LR	12 21 04.0	
	comp=Z,96nm,18.2s,MS4.3,baz=215,slow=34						
AKTO	Aktyubinsk	92.10	37	LR	LR	12 28 51.4	
	comp=Z,52nm,19.4s,MS4.0,baz=267,slow=39						
ULM	Lac du Bonnet	98.95	320	LR	LR	12 22 45.0	
	comp=Z,109nm,22.0s,MS4.3,baz=2.3,slow=32						
ASAR	Alice Springs	127.71	141	PKP	PKPdf	11 48 27.0	-0.9
	0.5nm,1.0s,baz=193,slow=2.4,SNR=3.0						

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*ISCJB **16** 11:30:17.4±1.2,4°.90S±0°.04×126°.87E±0°.04,h31^{km}±9^{km}, mb4.7/42,MS4.1/7,Error ellipse: s-maj=6.6km s-min=5.6km az=33.1*
*MOS **16** 11:30:17.5±0.9,4°.86S×126°.94E,h33^{km},mb4.8/10,Error ellipse: s-maj=20.1km s-min=8.4km az=118.2*
*BJI **16** 11:30:18.4,5°.43S×127°.32E,h86^{km},mB5.1/18,mb4.8/31, Ms4.8/16,Ms7 4.5/16*
*DJA **16** 11:30:20,4°.84S×126°.96E,h70^{km},MLv4.4/8*
*NEIC **16** 11:30:21.9±1.3,4°.97S×126°.93E,h62^{km}±14^{km},mb4.8/14, Error ellipse: s-maj=15.0km s-min=5.9km az=216.0*
*IDC **16** 11:30:22.9±3.1,4°.61S×126°.81E,h48^{km}±31^{km},mb4.2/11, mb1 4.3/12,mb1mx4.2/20,mbtmp4.3/12,ML4.6/1,MS3.5/4, Ms1 3.5/4,ms1mx3.0/31,Error ellipse: s-maj=23.4km s-min=13.8km az=60.0*
ISC 16 11:30:19.9±1.3,**4°.85S**±0°.04×**126°.89E**±0°.04,**h32**^{km}±10^{km}, **h67**^{km}±4.0^{km}**:pP-P**,**n91**,σ**1^{s}.08**/102,**mb4.7**/42,**MS4.1**/7, **6C-1D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	Ambon	1.74	48	P	Pn	11 30 46.4	-1.5
AAI				S	Sn	11 31 07.2	-1.9
MSAI	Masohi	2.52	54	P	Pn	11 30 59.5	+0.8
LBMI	Labuha	4.23	8	P	Pn	11 31 22.8	+0.6
LBMI				S	Sn	11 32 10.4	-0.2
KDI	Kendari	4.35	282	P	Pn	11 31 22.5	-1.3
KDI				S	Sn	11 32 09.9	-3.6
TNTI	Ternate	5.61	5	P	Pn	11 31 42.3	+1.2
	142nm,1.0s,0.5nm						
TNTI				S	Sn	11 32 47.2	+2.7
	142nm,1.0s,0.5nm						
SWI	Sorong	5.89	48	P	Pn	11 31 45.2	+0.1
	222nm,0.8s,0.7nm						
KAPI	Kappang	7.11	268	P	Pn	11 32 03.4	+1.6
	10nm,0.3s,baz=133,slow=5.1,SNR=35						
KAPI				S	Sn	11 33 23.0	+1.3
	1.7nm,0.3s,baz=327,slow=17,SNR=2.9						
KAPI	Kappang	7.11	268	ePn	Pn	11 32 03.2	+1.4
	66nm,0.6s						
KAPI				eSn	Sn	11 33 21.1	-0.6
KAPI	Kappang	7.11	268	P	Pn	11 32 02.8	+1.0
KAKA	Kakadu	9.54	145	eP	Pn	11 32 35.2	+0.1
	16nm,0.6s						
KAKA	Kakadu	9.54	145	ePn	Pn	11 32 35.2	+0.1
	50nm,0.7s						
KNA	Kununurra	10.98	170	eP	Pn	11 32 55.6	+0.7
	25nm,0.6s						
FITZ	Fitzroy Crossi	13.22	185	eP	Pn	11 33 25.4	-0.1
	27nm,1.2s						
FITZ	Fitzroy Crossi	13.22	185	P	Pn	11 33 24.5	-1.0
	0.8nm,0.3s,baz=43,slow=6.3,SNR=9.9						
FITZ				LR	LR	11 39 09.9	
	comp=Z,162nm,20.0s,baz=312,slow=39						
FITZ	Fitzroy Crossi	13.22	185	ePn	Pn	11 33 25.1	-0.5
WRAB	Tennant Creek	16.66	155	eP	Pn	11 34 10.1	-0.9
WRAB				pmax	pmax		
	comp=Z,16nm,0.8s						
WRAB	Tennant Creek	16.66	155	eP	Pn	11 34 10.1	-1.0
	comp=Z,16nm,0.8s						
WRA	Warramunga Arr	16.66	155	P	Pn	11 34 09.8	-1.3
	comp=Z,0.5nm,0.3s,baz=324,slow=14,SNR=45						
WRA				LR	LR	11 40 53.4	
	comp=Z,58nm,21.4s,baz=80,slow=37						
WB2	Warramunga Arr	16.66	155	ePn	Pn	11 34 09.9	-1.3
KSM	Kuching	17.72	290	ePn	Pn	11 34 21.9	-2.5
	comp=Z,28nm,1.0s						
ASAR	Alice Springs	19.89	161	P	Pn	11 34 52.7	+2.2
	comp=Z,18nm,0.7s,baz=342,slow=12,SNR=153						
ASAR				PcP	PcP	11 39 06.3	+1.0
	comp=Z,0.5nm,0.6s,baz=318,slow=1.6,SNR=4.7						
CTA	Charters Tower	24.17	130	P	P	11 35 37.5	+4.0
	comp=Z,4.0nm,0.5s,mb4.1,baz=328,slow=13,SNR=3.9						
CTA	Charters Tower	24.17	130	P	P	11 35 37.5	+4.0
CTAO	Charters Tower	24.17	130	eP	P	11 35 31.0	-2.5
CTAO				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.2						
CTAO	Charters Tower	24.17	130	eP	P	11 35 31.0	-2.5
	comp=Z,10.0nm,1.0s,mb4.2						
PSI	Prapat	28.96	285	P	P	11 36 16.9	+0.2
	comp=Z,9.3nm,0.7s,mb4.6,baz=179,slow=5.7,SNR=5.2						
PSI	Prapat	28.96	285	P	P	11 36 16.9	+0.2
STKA	Stephens Creek	30.21	155	eP	P	11 36 30.4	+2.8
	comp=Z,3.2nm,1.0s,mb4.0						
STKA	Stephens Creek	30.21	155	P	P	11 36 30.6	+3.0
	comp=Z,3.7nm,0.9s,mb4.1,baz=335,slow=7.0,SNR=6.3						

STKA				LR	LR	11 50 27.1	
	comp=Z,114nm,19.0s,MS3.5,baz=217,slow=40						
YNG	**Young**	**35.45**	**148**	*e*P	**P**	**11 37 17.4**	**+4.1**
	comp=Z,7.8nm,1.9s,mb4.3						
CMAR	**Chiang Mai Arr**	**35.99**	**311**	P	**P**	**11 37 19.2**	**+1.0**
	comp=Z,4.2nm,0.7s,mb4.5,baz=136,slow=7.0,SNR=27						
CHTO	**Chiang Mai**	**36.21**	**311**	*e*P	**P**	**11 37 20.9**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
CHTO	**Chiang Mai**	**36.21**	**311**	*e*P	**P**	**11 37 20.9**	**+0.8**
	comp=Z,6.5nm,0.8s,mb4.6						
GYA	**Guiyang**	**36.78**	**329**	⇑*i*P	**P**	**11 37 26.0**	**+1.2**
GYA				pP	pP	11 37 46.5	+12
GYA				sP	sP	11 37 58.4	+20
GYA				PP	PP	11 38 56.3	+7.3
GYA				PcP	PcP	11 39 47.6	+0.9
GYA				S	**S**	**11 43 08.0**	**+1.1**
GYA				ScP	ScP	11 43 25.3	-6.1
GYA				PcS	PcS	11 43 34.8	-0.1
GYA				ScS	ScS	11 47 31.9	-6.5
GYA				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
NJ2	**Nanjing**	**37.49**	**349**	*e*P	**P**	**11 37 33.6**	**+2.9**
NJ2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
KMI	**Kunming**	**37.93**	**323**	P	**P**	**11 37 36.8**	**+2.2**
KMI				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
CD2	**Chengdu**	**41.87**	**330**	P	**P**	**11 38 07.3**	**0.0**
CD2				pP	pP	11 38 25.8	+9.1
CD2				sP	sP	11 38 34.6	+14
CD2				PP	PP	11 39 49.3	+4.7
CD2				S	**S**	**11 44 21.6**	**-1.7**
CD2				SS	SS	11 47 26.0	-4.7
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,210nm,5.2s						
CD2				LR	LR		
	comp=N,290nm,5.2s						
CD2				LR	LR		
	comp=Z,240nm,6.4s						
KSRS	**Korea Array**	**42.10**	**1**	P	**P**	**11 38 08.6**	**-0.5**
	comp=Z,4.6nm,0.8s,mb4.1,baz=180,slow=11,SNR=13						
XAN	**Xi'an**	**42.25**	**338**	P	**P**	**11 38 09.0**	**-1.3**
XAN				PP	PP	11 39 53.3	+4.7
XAN				S	**S**	**11 44 31.6**	**+2.8**
XAN				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.9						
XAN				pmax	pmax		
	comp=Z,34nm,4.4s						
XAN				LR	LR		
	comp=N,120nm,8.6s						
XAN				LR	LR		
	comp=E,110nm,7.1s						
XAN				LR	LR		
	comp=Z,180nm,7.1s						
MJAR	**Matsushiro Arr**	**42.52**	**14**	P	**P**	**11 38 11.3**	**-1.1**
	comp=Z,3.8nm,1.0s,mb4.1,baz=188,slow=10,SNR=6.6						
MAT	**Matsushiro**	**42.52**	**14**	P	**P**	**11 38 14.0**	**+1.6**
LZH	**Lanzhou**	**46.10**	**334**	*e*P	**P**	**11 38 42.1**	**+1.0**
LZH				pP	pP	11 39 01.5	+11
LZH				sP	sP	11 39 10.0	+16
LZH				*e*PP	PP	11 40 38.0	+8.3
LZH				S	**S**	**11 45 24.1**	**-0.7**
LZH				SS	SS	11 48 41.0	-9.4
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,130nm,4.0s						
LZH				LR	LR		
	comp=N,830nm,14.6s						
LZH				LR	LR		
	comp=Z,1μm,15.7s,MS5.0						
HHC	**Hu-ho-hao-te**	**47.60**	**344**	*e*P	**P**	**11 38 56.5**	**+3.7**
HHC				pP	pP	11 39 14.9	+13
HHC				sP	sP	11 39 23.9	+18
HHC				PP	PP	11 40 48.3	+3.7
HHC				PcS	PcS	11 44 17.3	-0.2
HHC				*e*S	**S**	**11 45 47.6**	**+1.5**
HHC				sS	sS	11 46 19.8	+18
HHC				ScS	ScS	11 48 38.8	-5.4
HHC				SS	SS	11 49 12.1	-2.6
HHC				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
HHC				pmax	pmax		
	comp=Z,74nm,4.4s						
HHC				LR	LR		
	comp=N,160nm,15.5s,MS4.3						
HHC				LR	LR		
	comp=E,210nm,13.1s,MS4.3						
HHC				LR	LR		
	comp=Z,100nm,13.1s,MS4.0						
LSA	**Lhasa**	**48.53**	**317**	*e*P	**P**	**11 39 01.3**	**+1.2**
LSA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LSA	**Lhasa**	**48.53**	**317**	*e*P	**P**	**11 39 01.3**	**+1.2**
	comp=Z,8.6nm,0.8s,mb4.8						
MDJ	**Mudanjiang**	**49.30**	**3**	P	**P**	**11 39 06.1**	**+0.3**
MDJ				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
MDJ				pmax	pmax		
	comp=Z,38nm,3.0s						
ODAN	**Odare**	**49.53**	**312**	*e*P	**P**	**11 39 08.0**	**+0.1**
	comp=Z,14nm,0.7s,mb5.1						
TAPN	**Taplejung**	**49.56**	**312**	*e*P	**P**	**11 39 08.3**	**+0.2**
	comp=Z,19nm,0.8s,mb5.2						
RAMN	**Ramite**	**50.16**	**311**	*e*P	**P**	**11 39 13.2**	**+0.5**
	comp=Z,26nm,0.7s,mb5.4						
GTA	**Gaotai**	**50.64**	**333**	⇑P	**P**	**11 39 16.0**	**-0.1**
GTA				pP	pP	11 39 34.8	+9.1
GTA				sP	sP	11 39 43.5	+14
GTA				S	**S**	**11 46 25.3**	**-3.5**
GTA				SS	SS	11 49 59.6	-4.0
GTA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
GTA				pmax	pmax		
	comp=Z,70nm,5.1s						
GTA				LR	LR		
	comp=N,140nm,14.1s,MS4.2						
GTA				LR	LR		
	comp=E,110nm,15.0s,MS4.2						
GTA				LR	LR		
	comp=Z,71nm,15.6s,MS3.8						
JIRN	**Jiri**	**50.86**	**312**	*e*P	**P**	**11 39 18.1**	**+0.2**
	comp=Z,3.1nm,0.2s,mb4.9						
GUN	**Gumba**	**51.22**	**312**	*e*P	**P**	**11 39 20.7**	**0.0**
	comp=Z,29nm,0.7s,mb5.3						
PKI	**Pulchoki**	**51.39**	**311**	*e*P	**P**	**11 39 21.5**	**-0.4**
PKI	**Pulchoki**	**51.39**	**311**	*e*P	**P**	**11 39 21.6**	**-0.3**
PKI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
PKI	**Pulchoki**	**51.39**	**311**	*e*P	**P**	**11 39 21.6**	**-0.3**
	comp=Z,5.2nm,0.6s,mb4.6						
PKIN	**Phulchoki**	**51.40**	**311**	*e*P	**P**	**11 39 21.6**	**-0.4**
	comp=Z,5.2nm,0.6s,mb4.7						
KKN	**Kakani**	**51.60**	**311**	*e*P	**P**	**11 39 23.2**	**-0.3**
DMN	**Daman**	**51.64**	**311**	*e*P	**P**	**11 39 23.7**	**-0.1**
	comp=Z,14nm,0.8s,mb5.0						
GKN	**Gorkha**	**52.20**	**311**	*e*P	**P**	**11 39 27.4**	**-0.6**
HYB	**Hyderabad**	**52.60**	**296**	*i* P	**P**	**11 39 32.0**	**+0.9**
HYB	**Hyderabad**	**52.60**	**296**	*e*P	**P**	**11 39 30.0**	**-1.1**
KOLN	**Koldanda**	**52.86**	**310**	*e*P	**P**	**11 39 32.9**	**0.0**
DANN	**Dangsing**	**53.04**	**311**	*e*P	**P**	**11 39 34.1**	**-0.1**
HABR	**Khabarovsk**	**53.58**	**7**	*e*P	**P**	**11 39 37.1**	**-0.7**
HABR				*e**SP	sP	11 39 50.3	-1.0
HABR				*e*		11 40 41.5	
HABR						11 41 36.6	
HABR				S	**S**	**11 47 08.9**	**0.0**
HABR				*e*		11 49 21.9	
HABR				SS	SS	11 50 49.4	-0.5
HABR				SSS		11 52 45.8	
HABR				MLR	MLR		
	comp=Z,87nm,16.0s,MS3.9						
ULN	**Ulaanbaatar**	**55.32**	**344**	*e*P	**P**	**11 39 50.5**	**+0.1**
ULN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**55.32**	**344**	*e*P	**P**	**11 39 50.5**	**+0.1**
	comp=Z,8.7nm,1.0s,mb4.7						
SONM	**Songino Array**	**55.48**	**343**	P	**P**	**11 39 51.3**	**-0.2**
	comp=Z,4.5nm,0.9s,mb4.5,baz=155,slow=6.2,SNR=27						
TLY	**Talaya**	**59.72**	**343**	*e*P	**P**	**11 40 21.2**	**-0.1**
TLY				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
TLY				MLR	MLR		
	comp=Z,68nm,17.0s,MS3.9						
WMQ	**Urumqi**	**59.94**	**328**	*e*P	**P**	**11 40 23.8**	**+0.8**
WMQ				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
PETK	**Petropavlovsk-**	**63.33**	**20**	P	**P**	**11 40 46.1**	**+0.4**
	comp=Z,3.1nm,0.7s,mb4.6,baz=185,slow=4.0,SNR=9.2						
BOD	**Bodaibo**	**63.33**	**352**	*e*P	**P**	**11 40 45.2**	**-0.4**
BOD				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
KSH	**Kashi**	**64.36**	**318**	P	**P**	**11 40 53.0**	**+0.2**
KSH				*e*pP	pP	11 41 13.1	+10
KSH				*e*sP	sP	11 41 21.0	+15
KSH				*e*PcP	PcP	11 41 28.1	+1.0
KSH				*e*ScP		11 45 22.1	
KSH				*e*PcS		11 45 30.3	
KSH				*e*S	**S**	**11 49 21.9**	**-7.2**
KSH				*e*ScS	ScS	11 50 36.0	-8.8
KSH				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
KSH				pmax	pmax		
	comp=Z,160nm,4.2s						
KSH				LR	LR		
	comp=N,210nm,7.2s						
KSH				LR	LR		
	comp=E,210nm,6.0s						
KSH				LR	LR		
	comp=Z,280nm,5.2s						
MK31	**Makanchi Array**	**64.76**	**328**	*e*P	**P**	**11 40 54.4**	**-0.8**
MKAR	**Makanchi Array**	**64.76**	**328**	P	**P**	**11 40 54.5**	**-0.7**
	comp=Z,4.5nm,0.7s,mb4.6,baz=128,slow=7.7,SNR=52						
MKAR				PcP	PcP	11 41 27.2	-1.4
	comp=Z,1.5nm,0.7s,baz=145,slow=4.2,SNR=5.2						
MKAR	**Makanchi Array**	**64.76**	**328**	P	**P**	**11 40 54.5**	**-0.7**
MKAR				PcP	PcP	11 41 27.2	-1.4
YAK	**Yakutsk**	**66.73**	**1**	*e*P	**P**	**11 41 07.3**	**-0.3**
YAK				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,6.0nm,1.1s						
AAK	**Ala-Archa**	**66.92**	**321**	⇑*e*P	**P**	**11 41 09.5**	**+0.3**
AAK				pmax	pmax		
	comp=Z,4.0nm,2.5s,mb4.0						
AML	**Almayashu**	**67.18**	**320**	*e*P	**P**	**11 41 11.2**	**+0.3**
	comp=Z,2.2nm,0.7s,mb4.3						
ZAA0	**Zalesovo Array**	**68.32**	**335**	*e*P	**P**	**11 41 16.1**	**-1.7**
ZALV	**Zalesovo Beam**	**68.32**	**335**	P	**P**	**11 41 15.8**	**-2.0**
	comp=Z,4.6nm,0.7s,mb4.6,baz=108,slow=4.8,SNR=25						
ZALV	**Zalesovo Beam**	**68.32**	**335**	P	**P**	**11 41 15.8**	**-2.0**
KURK	**Kurchatov**	**69.10**	**329**	*e*P	**P**	**11 41 21.8**	**-0.9**
KURK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
KURK	**Kurchatov**	**69.10**	**329**	*e*P	**P**	**11 41 21.8**	**-1.0**
	comp=Z,13nm,1.0s,mb4.8						
NVS	**Novosibirsk**	**69.61**	**335**	*e*P	**P**	**11 41 24.1**	**-1.7**
SEY	**Seymchan**	**70.32**	**12**	⇑*e*P	**P**	**11 41 31.1**	**+1.1**
TIXI	**Tiksi**	**76.37**	**1**	⇑*e*P	**P**	**11 42 04.8**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BILL	**Bilibino**	**77.77**	**14**	⇑*e*P	**P**	**11 42 13.8**	**+0.3**
BILL					pP	11 42 23.0	-0.5
BILL				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
AKTO	**Aktyubinsk**	**80.50**	**323**	LR	LR	12 16 50.2	
	comp=Z,76nm,20.3s,MS4.0,baz=265,slow=35						
ARU	**Arti**	**82.27**	**329**	*d i*P	**P**	**11 42 38.6**	**+0.6**
ARU				*e*		11 45 44.0	
ARU				S	S	11 52 51.6	+0.4
ARU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
LVC	**Limon Verde**	**148.63**	**151**	PKP	PKPdf	11 50 02.8	+1.8
	comp=Z,0.9nm,0.4s,baz=219,slow=6.5,SNR=2.3						
LVC				PKPbc	PKPbc	11 50 07.2	+2.6
	comp=Z,3.9nm,0.8s,baz=300,slow=7.4,SNR=5.7						
CPUP	**Villa Florida**	**148.73**	**173**	PKPbc	PKPbc	11 50 06.1	+1.3
	comp=Z,1.9nm,0.7s,baz=57,slow=4.1,SNR=7.7						

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*ISCJB **16** 11:56:34.8±0.2, 35°.92N±0°.01×117°.69W±0°.02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.8km az=33.1*

*NEIC **16** 11:56:36.0, 35°.96N×117°.73W, h2^{km}, ML3.6(PAS), After PAS.*

ISC 16 11:56:35.3±0.2**, 35°.94N**±0°.01×**117°.72W**±0°.02**, h7**^{km}±2^{km}**, n86,** σ**0^{s}82**/128**, 40C-55D, Central California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPMC	**Manual Prospec**	**0.23**	**57**	⇑P	**Pg**	**11 56 40.0**	**+0.2**
	baz=0.2,SNR=1000						
MPMC				⇓S	**Sg**	**11 56 43.2**	**+0.4**
	baz=0.2						
CWC	**Cottonwood Cre**	**0.58**	**330**	⇓P	**Pg**	**11 56 46.6**	**+0.1**
	baz=0.6,SNR=231						
CWC				⇓S	**Sg**	**11 56 54.6**	**+0.6**
	baz=0.6						
ISA	**Isabella**	**0.67**	**246**	⇓P	**Pg**	**11 56 48.2**	**0.0**
	baz=0.7,SNR=1000						
ISA				⇑S	**Sg**	**11 56 57.0**	**+0.1**
	baz=0.7						
ISA	**Isabella**	**0.67**	**246**	*e*Pg	**Pg**	**11 56 48.7**	**+0.5**
ISA				*e*Sg	**Sg**	**11 56 57.1**	**+0.2**
FURC	**Furnace Creek,**	**0.88**	**52**	⇓P	**Pg**	**11 56 52.7**	**+0.5**
	baz=0.9,SNR=694						
FURC				⇑S	**Sg**	**11 57 04.0**	**+0.4**
	baz=0.9						
GSC	**Goldstone**	**0.98**	**130**	⇑P	**Pg**	**11 56 54.2**	**+0.1**
	baz=1.0,SNR=266						
GSC				⇑S	**Sg**	**11 57 07.1**	**+0.3**
	baz=1.0						
GSC	**Goldstone**	**0.98**	**130**	*e*Pg	**Pg**	**11 56 54.0**	**-0.1**
GSC				*e*Sg	**Sg**	**11 57 07.7**	**+0.8**
EDW2	**Edwards Air Fo**	**1.08**	**192**	⇓P	**Pg**	**11 56 55.8**	**-0.2**
	baz=1.1,SNR=1000						
EDW2				⇑S	**Sg**	**11 57 10.2**	**+0.3**
	baz=1.1						
GRAC	**Grapevine Rang**	**1.10**	**15**	⇑P	**Pg**	**11 56 56.3**	**-0.1**
	baz=1.1,SNR=166						
VES	**Vestal, Richgr**	**1.11**	**265**	⇓P	**Pg**	**11 56 56.9**	**+0.2**
	baz=1.1,SNR=550						
VES				⇑S	**Sg**	**11 57 11.3**	**+0.2**
	baz=1.1						
SHOC	**Shoshone**	**1.17**	**91**	⇓P	**Pg**	**11 56 57.6**	**-0.2**
	baz=1.2,SNR=33						
SHOC				⇑S	**Sg**	**11 57 13.5**	**+0.5**
	baz=1.2						
TIN	**Tinemaha**	**1.19**	**340**	⇓P	**Pg**	**11 56 58.2**	**+0.1**
	baz=1.2,SNR=46						
TIN				⇑S	**Sg**	**11 57 14.6**	**+1.0**
	baz=1.2						
RRX	**Edison Barstow**	**1.21**	**151**	⇓P	**Pg**	**11 56 58.5**	**0.0**
	baz=1.2,SNR=64						
ARVC	**Arvin**	**1.21**	**228**	⇓P	**Pg**	**11 56 58.2**	**-0.3**
	baz=1.2,SNR=87						
ARVC				⇓S	**Sg**	**11 57 14.6**	**+0.3**
	baz=1.2						
U10A	**Ash Meadows, A**	**1.23**	**66**	⇓P	**Pb**	**11 56 58.9**	**+0.1**
	baz=1.2,SNR=323						
U10A				⇓S	**Sg**	**11 57 15.3**	**+0.6**
	baz=1.2						
RCTC	**Rector, Farmer**	**1.28**	**287**	⇓P	**Pn**	**11 56 59.4**	**-0.3**
	baz=1.3,SNR=97						
RCTC				⇓S	**Sb**	**11 57 16.7**	**+0.2**
	baz=1.3						
TUQ	**Turquoise Moun**	**1.55**	**108**	⇓P	**Pn**	**11 57 03.3**	**-0.1**
	baz=1.6,SNR=122						
TUQ				⇓Sg	**Sg**	**11 57 26.1**	**+1.1**
	baz=1.6						
OSI	**Osito Adit**	**1.55**	**212**	⇓Pb	**Pb**	**11 57 03.9**	**-0.5**
	baz=1.6,SNR=36						
OSI				⇑Sn	**Sn**	**11 57 23.6**	**-0.1**
	baz=1.6						
OSI	**Osito Adit**	**1.55**	**212**	*e*Pn	**Pn**	**11 57 04.8**	**+1.4**
OSI				*e*Sn	**Sn**	**11 57 29.2**	**+5.4**
TPNV	**Topopah Spring**	**1.56**	**49**	Pn	**Pn**	**11 57 05.3**	**+1.8**
HEC	**Hector,Ludlow**	**1.59**	**134**	⇑P	**Pn**	**11 57 03.7**	**-0.1**
	baz=1.6,SNR=122						
HEC				⇑Sg	**Sg**	**11 57 26.8**	**+0.6**
	baz=1.6						
BFSC	**Mount Baldy St**	**1.69**	**178**	⇑Pn	**Pn**	**11 57 04.8**	**-0.5**
	baz=1.7,SNR=123						
MWC	**Mount Wilson**	**1.73**	**189**	*e*Pn	**Pn**	**11 57 06.6**	**+0.8**
MWC				*e*Sg	**Sg**	**11 57 32.8**	**+1.8**
DECC	**Green Verdugo**	**1.76**	**197**	⇑Pb	**Pb**	**11 57 07.0**	**-0.8**
	baz=1.8						
DECC				⇓Sg	**Sg**	**11 57 32.6**	**+0.8**
	baz=1.8						
BBRC	**Big Bear Sol-O**	**1.80**	**158**	⇓Pg	**Pg**	**11 57 09.5**	**-0.2**
	baz=1.8						
BBRC				⇑Sg	**Sg**	**11 57 34.1**	**+1.1**
	baz=1.8						
S09A	**Goldfield**	**1.83**	**12**	⇓P	**Pn**	**11 57 08.0**	**+0.8**
	baz=1.8,SNR=358						
S09A				⇓Pb	**Pb**	**11 57 10.1**	**+1.0**
	baz=1.8						
V11A	**Goodsprings**	**1.86**	**92**	⇑Pn	**Pn**	**11 57 07.3**	**-0.3**
	baz=1.9						
V11A				⇑Sg	**Sg**	**11 57 36.5**	**+1.3**
	baz=1.9						
MLAC	**Mammoth Lakes**	**1.91**	**332**	⇓Pb	**Pb**	**11 57 10.2**	**-0.3**
	baz=1.9,SNR=22						
SMMC	**Simmler**	**1.96**	**252**	⇑Pb	**Pb**	**11 57 10.9**	**-0.4**
	baz=1.9,SNR=43						
SMMC				⇑Pg	**Pg**	**11 57 12.3**	**-0.5**
	baz=1.9						
GMRC	**Granite Mounta**	**2.04**	**124**	⇑Pn	**Pn**	**11 57 09.5**	**-0.6**
	baz=2.1,SNR=38						
BLG	**Laguna Peak**	**2.13**	**212**	⇓Pn	**Pn**	**11 57 10.8**	**-0.5**
	baz=2.1,SNR=17						
BLG				⇑Pg	**Pg**	**11 57 15.9**	**-0.3**
	baz=2.1						
BLG				⇑Sg	**Sg**	**11 57 45.3**	**+1.6**
	baz=2.1						
TPH	**Tonopah**	**2.17**	**10**	*e*Pn	**Pn**	**11 57 13.0**	**+1.1**
TPH				*e*S	**Sn**	**11 57 44.6**	**+5.6**
S10A	**Tonopah Range,**	**2.18**	**24**	⇑Pn	**Pn**	**11 57 11.7**	**-0.3**
	baz=2.2,SNR=18						
S10A				⇓Pg	**Pg**	**11 57 16.5**	**-0.5**
	baz=2.2						
LDFC	**Landfair**	**2.30**	**111**	*e*Pn	**Pn**	**11 57 12.7**	**-0.9**
LDFC				*e*Sg	**Sg**	**11 57 47.9**	**-1.3**
V12A	**Nelson**	**2.34**	**94**	⇑Pn	**Pn**	**11 57 14.1**	**-0.1**
	baz=2.3,SNR=20						
R09A	**Tonopah**	**2.36**	**13**	⇑P	**Pn**	**11 57 15.4**	**+1.0**
	baz=2.3,SNR=43						
MURC	**Murrieta**	**2.37**	**169**	⇓Pn	**Pn**	**11 57 14.2**	**-0.4**
	baz=2.4,SNR=20						
T11A	**Corn Creek, Al**	**2.40**	**56**	⇑Pn	**Pn**	**11 57 15.0**	**0.0**
	baz=2.4,SNR=30						
T11A				⇓Pg	**Pg**	**11 57 20.6**	**-0.6**
	baz=2.4						
W12A	**Cal Nev Ari**	**2.41**	**104**	⇓Pn	**Pn**	**11 57 14.6**	**-0.5**
	baz=2.4,SNR=14						
R08A	**Mina**	**2.43**	**353**	⇓Pg	**Pg**	**11 57 21.4**	**-0.4**
	baz=2.4						
PFO	**Pinyon Flat Ob**	**2.55**	**155**	⇓Pn	**Pn**	**11 57 16.7**	**-0.4**
	baz=2.6,SNR=16						
PFO				⇑Pg	**Pg**	**11 57 23.4**	**-0.7**
	baz=2.6						
PFO	**Pinyon Flat Ob**	**2.55**	**155**	*e*Pn	**Pn**	**11 57 17.5**	**+0.4**
PFO				*e*Sg	**Sg**	**11 57 57.3**	**+0.2**
T12A	**Moapa**	**2.55**	**71**	⇓Pg	**Pg**	**11 57 23.4**	**-0.8**
	baz=2.5						
CIS	**Catalina Islan**	**2.59**	**193**	⇑Pg	**Pg**	**11 57 24.5**	**-0.4**
	baz=2.6						
R10A	**Warm Springs**	**2.61**	**25**	⇓Pg	**Pg**	**11 57 24.6**	**-0.7**
	baz=2.6,SNR=13						
IRM	**Iron Mountain**	**2.76**	**129**	⇓Pn	**Pn**	**11 57 19.4**	**-0.6**
	baz=2.8,SNR=14						
NEE2	**Needles Airpor**	**2.79**	**114**	⇑Sg	**Sg**	**11 58 06.8**	**+1.8**
	baz=2.8						
S12A	**Delamar Landin**	**2.85**	**53**	⇓Pg	**Pg**	**11 57 29.6**	**-0.3**
	baz=2.8,SNR=6.0						
Q09A	**Carvers**	**2.92**	**8**	⇑Pn	**Pn**	**11 57 22.0**	**-0.2**
	baz=2.9,SNR=7.3						
Q09A				⇓Pg	**Pg**	**11 57 31.3**	**0.0**
	baz=2.9						
R11A	**Troy Canyon, C**	**2.95**	**35**	⇓Pn	**Pn**	**11 57 22.6**	**0.0**
	baz=2.9,SNR=9.7						
CMB	**Columbia Colle**	**2.99**	**315**	*e*Pn	**Pn**	**11 57 28.1**	**+4.9**
CMB				*e*Sg	**Sg**	**11 58 08.9**	**-2.4**
V13A	**Grand Canyon W**	**3.04**	**91**	⇓Pn	**Pn**	**11 57 23.3**	**-0.5**
	baz=3.0,SNR=11						
SAO	**San Andreas Ge**	**3.12**	**286**	*e*Pn	**Pn**	**11 57 27.4**	**+2.5**
SAO				*e*Sg	**Sg**	**11 58 14.3**	**-1.2**
MONP	**Monument Peak**	**3.23**	**160**	⇓Pg	**Pg**	**11 57 36.2**	**-0.9**
	baz=3.2,SNR=7.9						
W13A	**Hualapai Mount**	**3.24**	**104**	⇑Pn	**Pn**	**11 57 26.8**	**+0.2**
	baz=3.2,SNR=30						
T13A	**Saint George**	**3.26**	**70**	⇑Pn	**Pn**	**11 57 26.6**	**-0.2**
	baz=3.3,SNR=16						
BAR	**Barrett**	**3.36**	**165**	*e*Pn	**Pn**	**11 57 29.1**	**+0.8**
BAR				*e*Sg	**Sg**	**11 58 20.5**	**-2.8**
Y12C	**Blythe**	**3.42**	**129**	⇑Pn	**Pn**	**11 57 28.1**	**-0.9**
	baz=3.4,SNR=9.3						
X13A	**Yucca**	**3.46**	**112**	⇑Pn	**Pn**	**11 57 29.7**	**+0.2**
	baz=3.5,SNR=54						
S13A	**Holt Ranch, En**	**3.51**	**61**	⇓Pn	**Pn**	**11 57 30.4**	**+0.1**
	baz=3.5,SNR=5.6						
DVTC	**Desert V Tower**	**3.54**	**157**	⇓Pg	**Pg**	**11 57 42.4**	**-0.6**
	baz=3.6						
GLA	**Glamis**	**3.74**	**139**	⇓Pn	**Pn**	**11 57 32.8**	**-0.7**
	baz=3.8						
GLA	**Glamis**	**3.74**	**139**	*e*Pn	**Pn**	**11 57 32.6**	**-0.8**
GLA				*e*Sg	**Sg**	**11 58 35.5**	**0.0**
R13A	**O'Grain Ranch,**	**3.74**	**52**	⇓Pn	**Pn**	**11 57 33.2**	**-0.3**
	baz=3.7,SNR=10						
R13A				⇓Pg	**Pg**	**11 57 46.4**	**-0.6**
	baz=3.7						
V14A	**Boquillas Ranc**	**3.77**	**93**	⇓Pn	**Pn**	**11 57 33.4**	**-0.4**
	baz=3.8,SNR=9.8						
Y13A	**Salome**	**3.84**	**122**	⇑Pn	**Pn**	**11 57 34.3**	**-0.5**
	baz=3.9						
W14A	**Seligman**	**3.85**	**99**	⇑Pn	**Pn**	**11 57 34.8**	**-0.2**
	baz=3.9,SNR=12						
T14A	**Hurricane**	**3.90**	**72**	⇑Pn	**Pn**	**11 57 35.7**	**0.0**
	baz=3.9,SNR=24						
P12A	**McGill**	**4.18**	**31**	⇓Pn	**Pn**	**11 57 39.4**	**-0.1**
	baz=4.2,SNR=6.7						
X14A	**Yava**	**4.22**	**109**	⇑Pn	**Pn**	**11 57 40.2**	**+0.1**
	baz=4.2,SNR=35						
O08A	**Rochester Mine**	**4.36**	**356**	⇓Pn	**Pn**	**11 57 41.7**	**-0.3**
	baz=4.3,SNR=5.7						
O10A	**Cortez Mining,**	**4.45**	**12**	⇑Pn	**Pn**	**11 57 43.0**	**-0.2**
	baz=4.4,SNR=14						
BMN	**Battle Mountai**	**4.50**	**5**	*e*Pn	**Pn**	**11 57 45.4**	**+1.5**
BMN				*e*Sg	**Sg**	**11 59 02.1**	**+2.1**
V15A	**Kaibab Nationa**	**4.51**	**90**	⇓Pn	**Pn**	**11 57 43.4**	**-0.6**
	baz=4.5,SNR=10						
X15A	**Humboldt**	**4.72**	**106**	⇓Pn	**Pn**	**11 57 46.7**	**-0.2**
	baz=4.7,SNR=25						
Y15A	**Casa Rosa Ranc**	**4.85**	**113**	⇓Pn	**Pn**	**11 57 48.2**	**-0.5**
	baz=4.9,SNR=10						
ELK	**Elko**	**5.18**	**21**	*e*Pn	**Pn**	**11 57 55.2**	**+2.0**
	2.1nm,0.3s						
WUAZ	**Wupatki**	**5.18**	**93**	*e*Pn	**Pn**	**11 57 53.7**	**+0.4**
	16nm,0.7s						
WUAZ				*e*Sg	**Sg**	**11 59 20.4**	**-1.3**
N12A	**Clover Valley,**	**5.34**	**22**	⇓Pn	**Pn**	**11 57 55.2**	**-0.2**
	baz=5.3,SNR=20						
M09A	**Marrel Ranch,**	**5.48**	**2**	⇓Pg	**Pg**	**11 58 20.0**	**-0.3**
	baz=5.5						
115A	**Sonoran Desert**	**5.58**	**124**	⇓Pn	**Pn**	**11 57 58.4**	**-0.3**
	baz=5.6						
M11A	**Holland Ranch,**	**5.69**	**15**	⇓Pg	**Pg**	**11 58 23.8**	**-0.4**
	baz=5.7						
DUG	**Dugway**	**5.75**	**41**	*e*Pn	**Pn**	**11 58 04.0**	**+2.9**
	4.9nm,0.8s						
DUG				*e*Sg	**Sg**	**11 59 36.8**	**-3.1**
Y17A	**Roosevelt**	**6.08**	**110**	⇓Pn	**Pn**	**11 58 05.3**	**-0.3**
	baz=6.1,SNR=6.0						
MOD	**Modoc**	**6.29**	**342**	*e*Pg	**Pg**	**11 58 34.2**	**-1.5**
	8.6nm,1.2s						
MOD				*e*Sg	**Sg**	**11 59 56.5**	**-0.6**
MVCO	**Mesa Verde**	**7.53**	**78**	*e*Pg	**Pg**	**11 58 59.1**	**-0.3**
	5.5nm,0.8s						

CASC 16 12:01:52.7±2.2**, 9°.29N×82°.68W, h13**^{km}±9^{km}**, MD3.6, MW3.4, 1C-2D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNI	**Changuinola**	**0.21**	**52**	⇑*i*P	Pg	12 01 57.7	+0.3
CNI				*e*S	Sg	12 02 01.8	+1.4
BRU2	**Volcan**	**0.49**	**181**	⇓*e*P	Pg	12 02 01.1	-1.3
BRU2				*e*S	Sg	12 02 10.0	+1.0
BAR1		**0.62**	**266**	*e*P	Pg	12 02 04.8	-0.1
BAR1				*e*P		12 02 04.8	
BAR1				*e*S	Sg	12 02 14.1	+1.0
BAR1				*e*S	Sg	12 02 14.2	+1.0
ACR	**Cerro Adams**	**0.79**	**217**	*e*S	Sg	12 02 20.1	+1.6
BUS	**Buena Vista**	**1.09**	**284**	*e*P	Pb	12 02 12.9	-0.6
BUS				*e*S	Sb	12 02 28.1	+0.5
URSC	**Urasca**	**1.21**	**297**	⇓*e*P	Pn	12 02 14.6	-0.7

URSC				eS	Sb	12 02 30.3	-0.7
LCR2	La Lucha 2	1.38	289	eP	Pn	12 02 02.6	-15
PRS1	Puriscal	1.75	293	eP	Pn	12 02 23.1	+0.3

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*IDC **16** 12:12:50.7±3.5, 11°.71N×125°.04E, h0^{km}, mb3.4/4, mb1 3.5/4, mb1mx3.3/21, mbtmp3.4/4, Error ellipse: s-maj=329.1km s-min=22.5km az=65.0*

*ISCJB **16** 12:12:51.5±1.3, 11°.57N±0°.04×124°.43E±0°.05, h9^{km}±8^{km}, mb3.3/4, Error ellipse: s-maj=8.2km s-min=6.5km az=145.3*

*MAN **16** 12:12:52, 11°.53N×124°.53E, h19^{km}, mb4.6, ML3.4, MS3.3*

MAN INTENSITY III - NAVAL BILIRAN; INTENSITY II - LEYTE LEYTE.

ISC 16 12:12:51.8±1.2, **11°.54N**±0°.04×**124°.38E**±0°.05, **h2**^{km}±8^{km}, **n12, σ0^{s}98**/19, **mb3.3**/4, **2C-1D, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OCLP	Ormoc	0.54	155	eP	Pg	12 13 02.4	+0.3
OCLP				eS	Sg	12 13 10.6	+1.4
PLP	Palo	0.70	123⇑	eP	Pg	12 13 04.7	-0.6
PLP				i S	Sg	12 13 15.1	+0.8
LLP	Lapu-Lapu	1.28	198⇓	eP	Pn	12 13 15.4	-1.4
LLP				eS	Sg	12 13 32.1	-1.0
MSLP	Maasin	1.48	161	eP	Pn	12 13 19.1	-0.4
MSLP				eS	Sn	12 13 40.5	+1.0
RCP	Roxas	1.60	271⇑	eP	Pn	12 13 20.9	-0.2
RCP				i S	Sn	12 13 43.0	+0.5
TBP	Tagbilaran	1.91	195	eP	Pn	12 13 23.8	-1.7
TBP				eS	Sn	12 13 49.8	-0.3
GUIM	Jordan	1.98	243	eP	Pn	12 13 27.7	+1.3
GUIM				eS	Sn	12 13 53.1	+1.3
PVCP	Virac	2.05	354	eP	Pn	12 13 26.7	-0.7
WRA	Warramunga Arr	32.79	163	P	P	12 19 25.1	-1.5
	0.3nm,0.8s,mb3.3,baz=344,slow=8.6,SNR=2.6						
ASAR	Alice Springs	36.21	165	P	P	12 19 55.8	-0.5
	0.2nm,0.4s,mb3.4,baz=347,slow=10.0,SNR=4.1						
MKAR	Makanchi Array	49.90	323	P	P	12 21 47.5	+0.6
	0.2nm,0.7s,mb3.2,baz=115,slow=8.2,SNR=4.7						
KURK	Kurchatov	53.97	326	P	P	12 22 18.3	+1.1
	0.2nm,0.4s,mb3.4,baz=121,slow=8.2,SNR=2.9						

IDC 16 12:23:29.7±8.1, **6°.79S**×**155°.93E, h102**^{km}±92^{km}, **mb3.3**/4, **mb1 3.4**/5, **mb1mx3.2**/17, **mbtmp3.4**/5, **ML4.2**/1, **Error ellipse: s-maj=66.2km s-min=33.2km az=142.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.76	124	P	Pn	12 24 39.5	+0.3
	11nm,0.3s,baz=214,slow=8.1,SNR=5.6						
HNR				S	Sn	12 25 33.7	+0.4
	2.5nm,0.3s,baz=190,slow=18,SNR=2.3						
WRA	Warramunga Arr	24.70	236	P	P	12 28 41.5	0.0
	0.5nm,0.7s,baz=59,slow=9.8,SNR=3.8						
SONM	Songino Array	69.67	327	P	P	12 34 29.4	+1.1
	0.5nm,0.5s,baz=139,slow=7.1,SNR=6.7						
MKAR	Makanchi Array	83.87	318	P	P	12 35 48.4	+0.2
	0.4nm,0.6s,baz=94,slow=4.9,SNR=5.3						
ZALV	Zalesovo Beam	84.53	326	P	P	12 35 50.3	-1.0
	0.3nm,0.4s,baz=96,slow=7.2,SNR=2.4						

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*IDC **16** 12:36:49.0±2.0, 9°.51S×149°.83E, h0^{km}, mb3.9/7, mb1 4.0/9, mb1mx3.9/16, mbtmp3.9/9, ML3.7/1, MS3.1/2, Ms1 3.1/2, ms1mx2.6/25, Error ellipse: s-maj=60.8km s-min=21.1km az=102.0*

*ISCJB **16** 12:36:52.2±1.1, 9°.6S±0°.1×149°.8E±0°.2, h33^{km}, mb4.0/7, Error ellipse: s-maj=30.6km s-min=12.5km az=16.2*

*NEIC **16** 12:36:54.9±2.7, 9°.61S×149°.83E, h43^{km}±26^{km}, mb4.3/1, Error ellipse: s-maj=24.3km s-min=17.1km az=118.0*

ISC 16 12:36:55.0±4.1, **9°.6S**±0°.2×**149°.8E**±0°.2, **h43**^{km}±40^{km}, **n14, σ0^{s}52**/13, **mb4.0**/7, **Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	10.97	198	Pn	Pn	12 39 29.4	0.0
	0.4nm,0.3s,baz=24,slow=17,SNR=7.6						
CTA				LR	LR	12 43 34.0	
	comp=Z,50nm,18.7s,baz=50,slow=37						
CTA	Charters Tower	10.97	198	Pn	Pn	12 39 29.4	0.0
CTA				LR	LR	12 43 34.0	
WRA	Warramunga Arr	18.14	234	P	Pn	12 41 03.5	-0.3
	0.1nm,0.3s,baz=52,slow=14,SNR=7.7						
ASAR	Alice Springs	20.66	225	P	P	12 41 31.4	+0.2
	0.9nm,0.7s,baz=63,slow=10,SNR=12						
STKA	Stephens Creek	23.43	198	P	P	12 42 01.0	+0.5
	2.1nm,0.9s,mb3.6,baz=355,slow=12,SNR=3.5						
STKA				LR	LR	12 52 03.0	
	comp=Z,80nm,19.2s,baz=209,slow=39						
FITZ	Fitzroy Crossi	24.93	248	P	P	12 42 13.5	-0.8
	2.9nm,0.6s,mb4.0,baz=114,slow=13,SNR=5.1						
CMAR	Chiang Mai Arr	57.43	299	P	P	12 46 40.5	+0.8
	0.6nm,0.5s,mb3.9,baz=106,slow=6.7,SNR=5.7						
ULN	Ulaanbaatar	68.61	331	eP	P	12 47 54.0	+0.5
	2.5nm,0.7s,mb4.2						
SONM	Songino Array	68.91	330	P	P	12 47 55.7	+0.4
	3.6nm,0.8s,mb4.3,baz=153,slow=5.8,SNR=25						
MKAR	Makanchi Array	82.05	320	P	P	12 49 10.6	-0.1
	0.5nm,0.7s,mb3.6,baz=102,slow=7.6,SNR=6.2						
MKAR	Makanchi Array	82.05	320	P	P	12 49 10.6	-0.1
ZALV	Zalesovo Beam	83.54	327	P	P	12 49 17.4	-0.9
	1.6nm,0.7s,mb4.2,baz=107,slow=5.0,SNR=9.2						
FIB	Fire Island	84.61	25	eP	P	12 49 23.1	-0.5
TORD	Torodi Ar. Bea	148.57	279	PKPbc	PKPbc	12 56 38.6	+0.3
	2.5nm,0.7s,baz=62,slow=2.4,SNR=16						

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*IDC **16** 12:43:57.9±0.6, 6°.68N×93°.33E, h0^{km}, mb4.3/13, mb1 4.4/14, mb1mx4.2/24, mbtmp4.3/14, ML3.8/1, MS3.5/2, Ms1 3.5/2, ms1mx2.8/34, Error ellipse: s-maj=29.8km s-min=13.6km az=52.0*

*BJI **16** 12:44:00.1, 6°.60N×93°.40E, h46^{km}, mB4.8/2, mb4.5/5*

*ISCJB **16** 12:44:03.6±2.2, 6°.67N±0°.09×93°.5E±0°.1, h57^{km}±19^{km}, mb4.4/24, Error ellipse: s-maj=24.8km s-min=8.8km az=148.0*

*NEIC **16** 12:44:04.2±0.3, 6°.62N×93°.35E, mb4.3/3, Error ellipse: s-maj=10.3km s-min=6.2km az=53.0*

ISC 16 12:44:05.1±1.8, **6°.66N**±0°.09×**93°.4E**±0°.1, **h55**^{km}±15^{km}, **h48**^{km}±.5^{km}**:pP-P, n45, σ0^{s}64**/40, **mb4.4**/24, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	6.71	125	Pn	Pn	12 45 41.2	+0.2
	1.6nm,0.3s,baz=341,slow=16,SNR=5.0						
PSI				LR	LR	12 48 42.5	
	comp=Z,322nm,18.8s,baz=173,slow=42						
KULM	Kulim	7.34	100	ePn	Pn	12 45 48.5	-1.2
CMAR	Chiang Mai Arr	12.91	24	Pn	Pn	12 47 06.1	+0.2
	0.2nm,0.3s,baz=216,slow=13,SNR=5.5						
CHTO	Chiang Mai	13.23	24	ePn	Pn	12 47 11.6	+1.3
	4.2nm,0.6s						
SHL	Shillong	18.86	356	ePKP	Pn	12 48 22.0	+0.1
ODAN	Odare	20.89	345	eP	P	12 48 43.0	+0.1
	16nm,0.6s						
RAMN	Ramite	21.19	343	eP	P	12 48 46.5	+0.3
	43nm,0.6s,mb5.0						
TAPN	Taplejung	21.28	346	eP	P	12 48 46.3	-0.8
	26nm,0.7s,mb4.7						
JIRN	Jiri	21.98	343	eP	P	12 48 53.4	-1.2
	6.4nm,0.5s,mb4.3						
PKI	Pulchoki	22.14	341	eP	P	12 48 55.7	-0.6
PKI	Pulchoki	22.14	341	eP	P	12 48 56.6	+0.3
PKIN	Phulchoki	22.15	341	eP	P	12 48 56.6	+0.2
DMN	Daman	22.27	340	eP	P	12 48 58.1	+0.4
GUN	Gumba	22.31	342	eP	P	12 48 57.4	-0.7
GKN	Gorkha	22.80	340	eP	P	12 49 02.9	-0.4
	16nm,0.3s,mb4.9						
KOLN	Koldanda	22.96	337	eP	P	12 49 05.1	+0.1
	17nm,0.6s,mb4.7						
LSA	Lhasa	23.02	355	eP	P	12 49 07.0	+1.4
DANN	Dangsing	23.43	338	eP	P	12 49 09.5	-0.1
	14nm,0.6s,mb4.6						
XAN	Xi’an	30.80	26	P	P	12 50 14.5	-1.2
XAN				pP	pP	12 50 26.5	-3.1
XAN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
XAN				pmax	pmax		
	comp=Z,82nm,5.6s						
AML	Almayashu	39.41	337	eP	P	12 51 30.6	+0.9
	comp=Z,3.1nm,0.6s,mb4.2						
AML				epP	pP	12 51 43.0	-0.8
FITZ	Fitzroy Crossi	40.22	128	P	P	12 51 36.6	-0.1
	comp=Z,4.8nm,0.9s,mb4.2,baz=321,slow=9.4,SNR=3.5						
FITZ				LR	LR	13 08 38.2	
	comp=Z,78nm,20.3s,baz=103,slow=37						
MKAR	Makanchi Array	41.11	348	P	P	12 51 43.5	-0.2
	comp=Z,1.5nm,0.5s,mb3.9,baz=166,slow=8.5,SNR=33						
MKAR				PcP	PcP	12 53 43.0	+0.6
	comp=Z,0.9nm,0.8s,baz=167,slow=2.3,SNR=4.5						
SONM	Songino Array	42.50	13	P	P	12 51 54.4	-0.6
	comp=Z,1.2nm,0.5s,mb3.9,baz=199,slow=9.1,SNR=16						
SONM				PcP	PcP	12 53 47.8	+0.9
	comp=Z,0.9nm,0.7s,baz=193,slow=3.6,SNR=6.2						
KURK	Kurchatov	45.61	347	eP	P	12 52 19.4	-0.5
	comp=Z,3.2nm,1.0s,mb4.2						
KURK				epP	pP	12 52 31.7	-2.5
KURK				ePcP	PcP	12 53 58.4	+0.9
ZAA0	Zalesovo Array	47.66	353	eP	P	12 52 36.2	+0.3
ZAA0				epP	pP	12 52 49.2	-1.2
ZALV	Zalesovo Beam	47.66	353	P	P	12 52 36.4	+0.5
	comp=Z,16nm,0.6s,mb5.2,baz=171,slow=7.8,SNR=76						
ZALV				PcP	PcP	12 54 04.3	-0.3
	comp=Z,0.7nm,0.4s,baz=192,slow=4.7,SNR=2.6						
ZALV	Zalesovo Beam	47.66	353	P	P	12 52 36.4	+0.5
ZALV				PcP	PcP	12 54 04.3	-0.3
WRA	Warramunga Arr	48.17	124	P	P	12 52 40.7	+0.4
	comp=Z,7.6nm,0.5s,mb5.0,baz=305,slow=8.5,SNR=129						
WRA				PcP	PcP	12 54 07.9	+0.7
	comp=Z,0.8nm,0.7s,baz=304,slow=2.9,SNR=3.1						
ASAR	Alice Springs	49.72	129	P	P	12 52 52.2	+0.1
	comp=Z,1.7nm,0.4s,mb4.4,baz=301,slow=7.8,SNR=64						
ASAR				PcP	PcP	12 54 14.1	+1.4
	comp=Z,1.2nm,0.7s,baz=306,slow=4.0,SNR=6.5						
MJAR	Matsushiro Arr	50.52	47	P	P	12 52 58.9	+0.8
	comp=Z,1.0nm,0.5s,mb4.0,baz=216,slow=6.1,SNR=6.3						
STKA	Stephens Creek	59.81	133	P	P	12 54 05.8	+0.7
	comp=Z,0.9nm,0.4s,mb4.1,baz=292,slow=10,SNR=3.5						
STKA	Stephens Creek	59.81	133	P	P	12 54 05.8	+0.7
BRTR	Keskin Array B	62.67	311	P	P	12 54 24.0	-0.3
	comp=Z,1.1nm,0.6s,mb4.2,baz=148,slow=7.3,SNR=4.8						
TIXI	Tiksi	68.56	11	eP	P	12 55 01.1	-0.6
	comp=Z,8.8nm,1.0s,mb4.6						
TIXI				epP	pP	12 55 14.3	-2.6
JOF	Joensuu	71.62	335	ep	P	12 55 19.8	-0.8
	comp=Z,2.1nm,0.5s,mb4.3						
ARCES	ARCESS Array B	76.15	340	P	P	12 55 47.2	+0.2
	comp=Z,4.6nm,0.8s,mb4.4,baz=86,slow=5.2,SNR=5.8						
ARCES	ARCESS Array B	76.15	340	P	P	12 55 47.2	+0.2
GERES	GERESS Array B	78.24	318	P	P	12 55 59.6	+0.5
	comp=Z,1.8nm,0.6s,mb4.2,baz=93,slow=5.3,SNR=11						
NOA	NORSAR Array B	80.42	331	P	P	12 56 10.5	-0.3
	comp=Z,1.3nm,0.7s,mb3.9,baz=95,slow=5.3,SNR=3.1						
TORD	Torodi Ar. Bea	90.16	283	P	P	12 57 00.7	+0.4
	comp=Z,0.5nm,0.6s,mb4.0,baz=78,slow=3.8,SNR=2.5						
NVAR	Mina Array Bea	126.33	31	PKP	PKPdf	13 03 04.1	+1.9
	comp=Z,0.4nm,0.5s,baz=332,slow=2.1,SNR=4.5						
NVAR	Mina Array Bea	126.33	31	PKP	PKPdf	13 03 04.1	+1.9
PDAR	Pinedale Array	126.56	21	PKP	PKPdf	13 03 02.6	0.0
	comp=Z,0.4nm,0.8s,baz=128,slow=2.4,SNR=3.8						
TXAR	Lajitas Array	140.63	24	PKP	PKPdf	13 03 31.0	+1.6
	comp=Z,0.2nm,0.4s,baz=8.9,slow=0.8,SNR=6.4						
CPUP	Villa Florida	145.94	232	PKPbc	PKPbc	13 03 40.3	+0.9
	comp=Z,0.2nm,0.3s,baz=70,slow=2.7,SNR=4.6						

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*ISCJB **16** 12:48:09.9±0.7, 16°.35N±0°.09×145°.5E±0°.2, h528^{km}±8^{km}, mb3.9/19, Error ellipse: s-maj=24.2km s-min=13.1km az=2.9*

*IDC **16** 12:48:10.5±0.7, 16°.31N×145°.62E, h521^{km}±8^{km}, mb3.4/16, mb1 3.6/17, mb1mx3.5/26, mbtmp3.5/17, Error ellipse: s-maj=17.5km s-min=9.3km az=93.0*

*NEIC **16** 12:48:11.2±0.9, 16°.33N×145°.61E, h534^{km}±11^{km}, mb4.2/2, Error ellipse: s-maj=23.3km s-min=11.3km az=96.0*

ISC 16 12:48:10.5±0.7, **16°.33N**±0°.09×**145°.6E**±0°.2, **h524**^{km}±8^{km}, **n24, σ0^{s}94**/22, **mb4.0**/19, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.81	194	P	P	12 49 23.3	+1.0
	40nm,0.3s,baz=212,slow=1.8,SNR=28						
GUMO				S	S	12 50 19.3	-1.2
	14nm,0.3s,baz=138,slow=22,SNR=4.1						
MJAR	Matsushiro Arr	21.17	343	P	P	12 52 18.3	-0.1
	0.9nm,0.4s,mb3.8,baz=170,slow=11,SNR=6.0						
KSRS	Korea Array	26.20	327	P	P	12 53 03.7	+0.6
	1.8nm,0.7s,mb3.8,baz=140,slow=9.6,SNR=6.7						
WRAB	Tennant Creek	37.69	197	eP	P	12 54 41.5	+0.3
	3.3nm,0.5s,mb4.1						
WRA	Warramunga Arr	37.70	197	P	P	12 54 41.9	+0.6
	3.9nm,0.5s,mb4.2,baz=23,slow=8.8,SNR=29						
WRA				PcP	PcP	12 56 44.5	-0.5
	0.3nm,0.5s,baz=13,slow=2.6,SNR=3.8						
PETK	Petropavlovsk-	37.91	12	P	P	12 54 43.4	+0.8
	3.0nm,0.9s,mb3.8,baz=181,slow=6.8,SNR=3.4						
FITZ	Fitzroy Crossi	39.45	211	P	P	12 54 55.9	+0.3
	3.2nm,0.4s,mb4.2,baz=54,slow=8.9,SNR=22						
ASAR	Alice Springs	41.36	196	P	P	12 55 10.9	+0.2
	2.6nm,0.9s,mb3.7,baz=17,slow=7.4,SNR=18						
ASAR				PcP	PcP	12 56 56.2	-0.5
	0.5nm,0.7s,baz=8.9,slow=3.0,SNR=3.9						
ASAR				ScP	ScP	12 59 54.6	-2.2
	0.4nm,0.6s,baz=19,slow=4.2,SNR=7.0						
SONM	Songino Array	44.94	323	P	P	12 55 39.7	+1.3
	2.1nm,0.4s,mb4.0,baz=140,slow=6.8,SNR=35						
SONM				PcP	PcP	12 57 08.6	-0.1
	0.5nm,0.6s,baz=129,slow=2.2,SNR=3.7						
ZALV	Zalesovo Beam	59.83	323	P	P	12 57 25.0	-0.1
	1.0nm,0.3s,mb3.6,baz=113,slow=7.7,SNR=8.7						
MKAR	Makanchi Array	60.04	315	P	P	12 57 27.4	+0.8
	3.3nm,0.3s,mb4.1,baz=90,slow=8.4,SNR=123						
MKAR				PcP	PcP	12 58 06.0	-0.1
	0.4nm,0.4s,baz=84,slow=5.9,SNR=2.4						
KDAK	Kodiak Island	61.39	33	P	P	12 57 36.4	+1.0
	7.0nm,0.7s,mb4.1,baz=358,slow=16,SNR=9.1						
KURK	Kurchatov	62.97	319	P	P	12 57 46.1	+0.4
	6.4nm,0.6s,mb4.2,baz=97,slow=6.8,SNR=13						
BVAR	Borovoye Array	68.23	321	P	P	12 58 18.6	0.0
	3.3nm,0.5s,mb4.2,baz=101,slow=7.8,SNR=16						
YKA	Yellowknife Ar	80.12	28	P	P	12 59 25.2	-0.4
	1.8nm,0.7s,mb3.5,baz=285,slow=5.2,SNR=29						
KEV	Kevo	84.14	342	ep	P	12 59 44.1	-1.8
NVAR	Mina Array Bea	84.68	52	P	P	12 59 49.8	+0.6
	1.5nm,0.6s,mb3.7,baz=266,slow=5.1,SNR=15						
ARCES	ARCESS Array B	84.70	342	P	P	12 59 48.2	-0.4
	5.1nm,0.7s,mb4.2,baz=73,slow=6.3,SNR=13						
JOF	Joensuu	86.12	335	ep	P	12 59 53.5	-2.1
	3.3nm,0.5s,mb4.2						
KAF	Kangasniemi	88.52	336	ep	P	13 00 04.6	-2.3
	2.1nm,0.5s,mb4.2						
PDAR	Pinedale Array	89.55	45	P	P	13 00 11.8	-0.3
	0.4nm,0.6s,mb3.4,baz=224,slow=4.1,SNR=5.2						
KIC	Kosan Boka	142.98	305	ePKP2	PKPdf	13 06 42.7	-2.9
	96nm,1.6s						
TIC	Toumodi	143.03	306	ePKP2	PKPdf	13 06 42.3	-3.3
	6.6nm,0.2s						
LIC	Lamto	143.29	305	ePKP2	PKPdf	13 06 43.7	-2.4
	59nm,1.7s						

NEIC 16 13:00:52.0, 41°.59S×**173°.59E, h59**^{km}**, mb4.0**/2, **ML4.2**(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSWZ	Blackbirch Sta	0.25	120	P	Pn	13 01 01.4	-0.2
BSWZ				S	Sn	13 01 08.6	0.0
NNZ	Nelson	0.40	337	P	Pn	13 01 02.0	-0.9
CMWZ	Cape Campbell	0.49	109	P	Pn	13 01 04.1	+0.3
THZ	Tophouse	0.54	251	P	Pn	13 01 03.2	-1.1
TCW	Tory Channel	0.64	54	P	Pn	13 01 05.4	0.0
KHZ	Kahutara	0.83	183	P	Pn	13 01 07.8	0.0
SNZO	South Karori	0.88	72	P	Pn	13 01 08.2	-0.3
MRW	Makara Radio	0.91	67	P	Pn	13 01 08.7	-0.1
WEL	Wellington	0.94	71	P	Pn	13 01 08.9	-0.2
BHW	Baring Head	0.98	80	P	Pn	13 01 09.2	-0.5
QRZ	Quartz Range	1.10	313	P	Pn	13 01 11.2	-0.1
CAW	Cannon Point	1.21	67	P	Pn	13 01 12.2	-0.6
KIW	Kapiti Island	1.23	54	P	Pn	13 01 13.1	+0.1
MSWZ	Moikau Station	1.26	83	P	Pn	13 01 12.4	-1.0
DSZ	Denniston Nort	1.35	263	P	Pn	13 01 14.8	+0.2
PAWZ	Paruwai Farm	1.40	82	P	Pn	13 01 13.9	-1.3
MTW	Mount Morrison	1.50	74	P	Pn	13 01 15.4	-1.2
LTZ	Lake Taylor	1.54	219	P	Pn	13 01 16.9	-0.3
MRZ	Mangatainoka R	1.77	59	P	Pn	13 01 19.2	-1.0
CRLZ	Canterbury Las	2.11	199	P	Pn	13 01 22.9	-2.0
WAZ	Wanganui	2.12	31	P	Pn	13 01 26.2	+1.2
BFZ	Birch Farm	2.20	67	P	Pn	13 01 24.1	-2.0
MQZ	McQueen’s Vall	2.23	198	P	Pn	13 01 24.2	-2.3
NEZ	North Egmont	2.35	10	P	Pn	13 01 29.5	+1.3
TSZ	Takapari Road	2.36	50	P	Pn	13 01 27.1	-1.2
WVZ	Waitaha Valley	2.58	234	P	Pn	13 01 30.9	-0.5
WNVZ	Wahianoa	2.73	35	P	Pn	13 01 33.9	+0.5
MOVZ	Moawhango	2.73	38	P	Pn	13 01 32.9	-0.5
TUVZ	Tukino	2.80	35	P	Pn	13 01 34.8	+0.4
RPZ	Rata Peaks	2.83	221	P	Pn	13 01 33.5	-1.2
NGZ	Ngauruhoe	2.86	33	P	Pn	13 01 35.6	+0.5
TWVZ	Taurewa	2.88	30	P	Pn	13 01 36.8	+1.3
WTVZ	West Tongariro	2.90	32	P	Pn	13 01 36.2	+0.4
RATZ	Rangitukua	3.19	32	P	Pn	13 01 43.0	+3.3
HIZ	Hauiti	3.22	18	P	Pn	13 01 41.1	+1.0
WATZ	Wairara	3.31	30	P	Pn	13 01 44.8	+3.5
FOZ	Fox Glacier	3.49	234	P	Pn	13 01 41.7	-2.1
LBZ	Lake Benmore	3.75	221	P	Pn	13 01 46.0	-1.3
TOZ	Tahuroa Road	4.13	22	P	Pn	13 01 53.9	+1.4
URZ	Urewera	4.29	40	P	Pn	13 01 51.5	-3.2
JCZ	Jackson Bay	4.33	233	P	Pn	13 01 54.1	-1.2
MWZ	Matawai	4.44	44	P	Pn	13 01 53.3	-3.5
WKZ	Wanaka	4.65	224	P	Pn	13 01 57.7	-1.9
WTAZ	Waiatarua	4.71	10	P	Pn	13 02 01.8	+1.3
EAZ	Earnscleugh	4.79	219	P	Pn	13 01 59.3	-2.3
KAAZ	Kauri Point	4.84	11	P	Pn	13 02 02.2	0.0
MTAZ	Motutapu	4.90	12	P	Pn	13 02 04.3	+1.2
MSZ	Milford Sound	5.16	231	P	Pn	13 02 07.5	+0.9
TUZ	Tuapeka	5.22	212	P	Pn	13 02 05.7	-1.7
MLZ	Mavora Lakes	5.44	225	P	Pn	13 02 10.4	-0.1
WCZ	Waipu Caves	5.67	6	P	Pn	13 02 14.2	+0.6
DCZ	Deep Cove	6.08	228	P	Pn	13 02 20.5	+1.3
OUZ	Omahuta	6.36	0	P	Pn	13 02 23.7	+0.6

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*ISCJB **16** 13:27:39.0±0.4, 30°.06S±0°.04×70°.66W±0°.07, h95^{km}±4^{km}, mb3.7/6, Error ellipse: s-maj=10.4km s-min=5.8km az=3.5*

*GUC **16** 13:27:39.5±0.7, 30°.14S×70°.32W, h42^{km}±4^{km}, MD4.2, ML4.3*

*NEIC **16** 13:27:39.5, 30°.14S×70°.32W, h42^{km}, MD4.2(GUC), After GUC.*

*IDC **16** 13:27:40.4±0.9, 30°.07S×70°.61W, h94^{km}±6^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.7/17, mbtmp3.5/9, MS2.9/1, Ms1 2.9/1, ms1mx2.7/19, Error ellipse: s-maj=34.5km s-min=10.9km az=42.0*

ISC 16 13:27:39.9±0.4, **30°.05S**±0°.03×**70°.66W**±0°.07, **h89**^{km}±5^{km}, **n31, σ0^{s}97**/33, **mb3.7**/6, **6C-3D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.72	220⇓	iP	Pn	13 27 56.2	-0.4
OVCH				i S	Sn	13 28 08.4	-0.6
OVCH	Ovalle	0.72	220⇓	iP	Pn	13 27 56.2	-0.4
OVCH				i S	Sn	13 28 08.4	-0.6
LCO	Las Campanas	1.04	358	ePn	Pn	13 28 00.0	0.0
LCO				eSn	Sn	13 28 14.8	-0.3
CMCH	Combarbala	1.15	195⇑	iP	Pn	13 28 01.0	-0.3
CMCH				i S	Sn	13 28 17.3	-0.2
CMCH	Combarbala	1.15	195⇑	iP	Pn	13 28 01.0	-0.3
CMCH				i S	Sn	13 28 17.3	-0.2
CMCH				AML	AML	13 28 19.8	
	comp=E,14µm,0.7s						
CHNG	Los Chungos	1.96	201⇓	iP	Pn	13 28 11.7	+0.1
CHNG				i S	Sn	13 28 36.4	+0.7
CHNG				AML	AML	13 28 45.4	
	comp=E,2µm,0.7s						
CFAA	Coronel Fontan	2.59	127	P	Pn	13 28 21.1	+1.2
	comp=E,10nm,0.3s,baz=314,slow=10,SNR=213						
CFAA				S	Sn	13 28 51.5	+0.9
	comp=E,5.5nm,0.3s,baz=305,slow=11,SNR=26						
CPCH	Copiapo	2.70	6⇑	iP	Pn	13 28 22.2	+0.8
CPCH				i S	Sn	13 28 54.9	+1.7
CPCH	Copiapo	2.70	6⇑	iP	Pn	13 28 22.2	+0.8
CPCH				i S	Sn	13 28 54.9	+1.7
PEL	Peldehue	3.08	180	AML	AML	13 29 13.7	
	comp=E,1µm,0.8s						
FCH	Farellones	3.28	175	AML	AML	13 29 27.1	
	comp=E,600nm,0.3s						
ANTU	Antumapu	3.50	180	AML	AML	13 29 27.5	
	comp=E,474nm,0.3s						
TACH	Talagante	3.60	184⇑	iP	Pn	13 28 32.8	-0.7
TACH	Talagante	3.60	184⇑	iP	Pn	13 28 32.8	-0.7
LMEL	Las Melosas	3.80	174	AML	AML	13 29 36.7	
	comp=N,455nm,0.3s						
LVC	Limon Verde	7.57	12	P	Pn	13 29 25.1	-2.5
	comp=N,0.5nm,0.3s,baz=177,slow=9.0,SNR=7.1						
LVC				S	Sn	13 30 48.0	-3.9
	comp=N,2.2nm,0.3s,baz=195,slow=21,SNR=4.1						
LVC	Limon Verde	7.57	12	ePn	Pn	13 29 24.4	-3.2
LVC				eSn	Sn	13 30 49.0	-2.9
CPUP	Villa Florida	12.33	76	P	Pn	13 30 31.6	-0.6
	comp=N,0.6nm,0.3s,baz=227,slow=13,SNR=3.6						
CPUP				LR	LR	13 34 52.0	
	comp=N,49nm,18.1s,baz=177,slow=35						
TXAR	Lajitas Array	66.92	329	P	P	13 38 24.1	+1.4
	comp=N,0.6nm,0.6s,mb3.6,baz=154,slow=8.1,SNR=6.9						
DBIC	Dimbokro	72.81	72	P	P	13 38 57.6	-1.6
	comp=N,1.3nm,0.6s,mb3.9,baz=248,slow=5.4,SNR=3.1						
PDAR	Pinedale Array	80.81	332	P	P	13 39 43.7	+0.2
	comp=N,0.4nm,0.6s,mb3.4,baz=128,slow=9.6,SNR=3.8						
BOSA	Boshof	80.86	118	P	P	13 39 43.8	-0.6
	comp=N,1.6nm,0.7s,mb4.0,baz=210,slow=1.6,SNR=3.3						
NVAR	Mina Array Bea	81.35	324	P	P	13 39 47.9	+1.5
	comp=N,0.3nm,0.6s,baz=146,slow=5.5,SNR=3.5						
TORD	Torodi Ar. Bea	81.75	70	P	P	13 39 48.6	-0.5
	comp=N,0.8nm,0.7s,mb3.7,baz=278,slow=4.6,SNR=6.0						
TORD				pP	pP	13 40 13.3	+0.7
	comp=N,0.5nm,0.8s,baz=267,slow=5.0,SNR=2.5						
TORD	Torodi Ar. Bea	81.75	70	P	P	13 39 48.6	-0.5
TORD				pP	pP	13 40 13.3	+0.7
YKA	Yellowknife Ar	98.71	341	P	P	13 41 08.3	-0.3
	comp=N,0.1nm,0.6s,mb3.5,baz=133,slow=4.7,SNR=4.0						
ASAR	Alice Springs	121.61	207	PKP	PKPdf	13 46 22.1	-1.6
	comp=N,0.3nm,0.9s,baz=121,slow=1.4,SNR=3.9						
WRA	Warramunga Arr	124.77	209	PKP	PKPdf	13 46 29.0	-0.8
	comp=N,0.5nm,0.6s,baz=162,slow=1.8,SNR=9.3						
ZALV	Zalesovo Beam	150.25	30	PKPbc	PKPbc	13 47 20.4	+0.4
	comp=N,6.0nm,0.7s,baz=296,slow=3.2,SNR=30						
ZALV				pPKPbc	pPKPbc	13 47 45.2	+0.5
	comp=N,2.6nm,0.7s,baz=295,slow=3.2,SNR=4.5						
MKAR	Makanchi Array	153.20	44	PKPbc	PKPbc	13 47 27.3	+0.2
	comp=N,0.8nm,0.9s,baz=354,slow=1.2,SNR=7.8						
MKAR				PKPab	PKPab	13 47 39.5	+0.4
	comp=N,0.9nm,0.8s,baz=288,slow=4.5,SNR=8.7						
MKAR				pPKPbc	pPKPbc	13 47 52.1	+0.3
	comp=N,0.3nm,0.7s,baz=310,slow=2.2,SNR=1.8						
MKAR	Makanchi Array	153.20	44	PKPbc	PKPbc	13 47 27.3	+0.2
MKAR				PKPab	PKPab	13 47 39.5	+0.4
MKAR				pPKPbc	pPKPbc	13 47 52.1	+0.3

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*ISCJB **16** 13:28:24.4±0.6, 33°.31N±0°.03×35°.37E±0°.04, h4^{km}±5^{km}, Error ellipse: s-maj=6.4km s-min=4.0km az=25.7*

*GII **16** 13:28:24.4±0.6, 33°.22N×35°.41E, h1^{km}±2^{km}, Md2.2/6*

*CSEM **16** 13:28:25.4, 33°.29N×35°.41E, h5^{km}, ML2.8, After GRAL*

*GRAL **16** 13:28:25.4±0.3, 33°.29N×35°.41E, h6^{km}±3^{km}, MD2.8*

ISC 16 13:28:24.8±0.6, **33°.32N**±0°.03×**35°.37E**±0°.04, **h3**^{km}±5^{km}, **n21, σ0^{s}61**/32, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	349	eP	Pg	13 28 29.3	+1.1
MATL	Matirih	0.17	349	eP	Pg	13 28 29.3	+1.0
KSDI	Kefar Szold	0.27	117	Pg	Pg	13 28 29.6	-0.5
KSDI				Sg	Sg	13 28 34.3	+0.7
HNTI	Hanita	0.28	215	Pg	Pg	13 28 30.6	+0.3
HNTI				Sg	Sg	13 28 35.3	+1.3
MMA0B	Mount Meron ar	0.30	175	Pg	Pg	13 28 30.2	-0.4
MMA0B				Sg	Sg	13 28 34.8	+0.2
RCY	Rachaya	0.41	66	eP	Pg	13 28 32.7	0.0
RCY				eS	Sg	13 28 38.4	+0.3
RCY	Rachaya	0.41	66	eP	Pg	13 28 32.7	0.0
RCY				eS	Sg	13 28 38.4	+0.3
KSHT	Keshet	0.50	132	Pg	Pg	13 28 34.1	-0.3
KSHT				Sg	Sg	13 28 41.9	+1.0
BLGI	Bet Lehem HaGe	0.60	195	Pg	Pg	13 28 35.9	-0.5
BHL	Bhannes	0.63	22	eP	Pg	13 28 37.0	+0.1
BHL	Bhannes	0.63	22	eP	Pg	13 28 37.0	0.0
OFRI	‘Ofer	0.77	205	Pg	Pg	13 28 39.3	-0.2

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
MMLI	Mount Malkishu	0.88	177	Pg	Pg	13 28 40.8	-0.9
MMLI				Sg	Sg	13 28 52.9	-0.1
HMDT	Nahal Hemdat	1.07	173	Pg	Pg	13 28 44.3	-1.0
HMDT				Sg	Sg	13 28 58.8	-0.4
HWQ	Hawqa	1.07	26	*e*P	Pg	13 28 44.7	-0.8
HWQ	Hawqa	1.07	26	*e*P	Pg	13 28 44.7	-0.7
SLTI	Sal'it	1.11	195	Pg	Pg	13 28 45.3	-0.8
SLTI				Sg	Sg	13 29 01.0	+0.6
DSI	Dead Sea	1.74	180	Pn	Pn	13 28 55.1	-0.8
DSI				Sn	Sn	13 29 18.8	+0.2
MZDA	Masada	2.00	180	Pn	Pn	13 28 59.2	-0.3
MZDA				Sn	Sn	13 29 25.5	+0.4
KZIT	Kziot	2.54	199	Pn	Pn	13 29 07.3	+0.4
PRNI	Paran	2.97	186	Pn	Pn	13 29 13.4	+0.5

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*NEIC **16** 13:51:58.3±0.8, 6°.81S×155°.09E, h35^{km}, mb3.9/1, Error ellipse: s-maj=20.2km s-min=15.3km az=202.0*

*ISCJB **16** 13:52:02.0±0.8, 7°.0S±0°.1×155°.39E±0°.09, h100^{km}, mb3.3/6, Error ellipse: s-maj=20.6km s-min=11.0km az=21.0*

*IDC **16** 13:52:07.2±4.0, 7°.17S×155°.60E, h146^{km}±44^{km}, mb3.1/5, mb1 3.2/6, mb1mx3.2/17, mbtmp3.1/6, MS3.0/2, Ms1 3.0/2, ms1mx2.7/11, Error ellipse: s-maj=44.8km s-min=27.4km az=129.0*

ISC 16 13:52:03.6±0.8**, 7°.1S**±0°.1×**155°.38E**±0°.09**, h100^{km}, n12, σ0^s.65**/11**, mb3.3**/6**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	5.09	118	P	Pn	13 53 18.7	+1.1
	4.0nm,0.3s,baz=127,slow=8.1,SNR=3.4						
HNR				S	Sn	13 54 07.0	-8.3
	6.3nm,0.3s,baz=218,slow=24,SNR=3.5						
HNR				LR	LR	13 54 17.0	
	comp=Z,85nm,21.0s,baz=294,slow=27						
HNR	Honiara	5.09	118	*e*Pn	Pn	13 53 17.6	0.0
	30nm,0.6s						
HNR				*e*Sn	Sn	13 54 14.7	-0.5
HNR				LR	LR	13 54 17.1	
WRAB	Tennant Creek	24.08	236	*e*P	P	13 57 09.2	-0.7
	3.3nm,0.8s,mb3.7						
WRA	Warramunga Arr	24.09	236	P	P	13 57 11.0	+1.0
	0.5nm,0.7s,mb3.0,baz=62,slow=9.6,SNR=7.5						
ASAR	Alice Springs	26.41	229	P	P	13 57 30.6	-0.5
	0.2nm,0.8s,mb2.6,baz=59,slow=9.7,SNR=5.6						
ASAR				PcP	PcP	14 00 53.4	-0.9
	0.2nm,0.5s,baz=73,slow=2.5,SNR=4.7						
STKA	Stephens Creek	27.84	206	LR	LR	14 09 23.5	
	comp=Z,82nm,20.9s,baz=204,slow=37						
CMAR	Chiang Mai Arr	61.16	295	P	P	14 02 08.9	+0.9
	0.5nm,0.3s,mb4.0,baz=121,slow=5.6,SNR=4.9						
SONM	Songino Array	69.60	327	P	P	14 03 01.4	-0.5
	0.2nm,0.4s,mb3.3,baz=123,slow=5.8,SNR=4.1						
MK31	Makanchi Array	83.71	319	*e*P	P	14 04 21.2	-0.2
MKAR	Makanchi Array	83.71	319	P	P	14 04 21.3	-0.1
	0.2nm,0.5s,mb3.2,baz=102,slow=6.3,SNR=7.1						
TORD	Torodi Ar. Bea	153.41	285	PKPbc	PKPbc	14 11 48.7	-2.6
	0.2nm,0.4s,baz=28,slow=1.6,SNR=4.4						
TORD	Torodi Ar. Bea	153.41	285	PKPbc	PKPbc	14 11 48.7	-2.6

NEIC 16 14:10:29.1, 41°.25S×172°.70E, h195^{km}, MG3.7(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QRZ	Quartz Range	0.44	343	P	Pn	14 10 54.6	-0.8
NNZ	Nelson	0.51	87	P	Pn	14 10 55.1	-0.5
NNZ				S	Sn	14 11 15.6	-0.5
THZ	Tophouse	0.54	163	P	Pn	14 10 55.2	-0.5
THZ				S	Sn	14 11 15.3	-1.2
DSZ	Denniston Nort	0.84	233	P	Pn	14 10 55.5	-1.7
BSWZ	Blackbirch Sta	1.00	118	P	Pn	14 10 58.1	-0.2
TCW	Tory Channel	1.19	89	P	Pn	14 10 59.7	0.0
MRW	Makara Radio	1.51	90	P	Pn	14 11 02.2	-0.2
SNZO	South Karori	1.51	93	P	Pn	14 11 02.1	-0.3
WEL	Wellington	1.56	92	P	Pn	14 11 02.7	-0.1
LTZ	Lake Taylor	1.56	192	P	Pn	14 11 01.5	-1.4
LTZ				S	Sn	14 11 25.9	-3.3
KIW	Kapiti Island	1.71	78	P	Pn	14 11 04.3	0.0
CAW	Cannon Point	1.79	86	P	Pn	14 11 04.9	-0.2
MSWZ	Moikau Station	1.93	96	P	Pn	14 11 06.2	-0.2
PAWZ	Paruwai Farm	2.06	95	P	Pn	14 11 07.6	-0.2
MTW	Mount Morrison	2.12	88	P	Pn	14 11 08.3	-0.1
MRZ	Mangatainoka R	2.26	76	P	Pn	14 11 09.6	-0.3
WVZ	Waitaha Valley	2.34	218	P	Pn	14 11 07.9	-2.9
BFZ	Birch Farm	2.74	79	P	Pn	14 11 15.5	+0.1
TSZ	Takapari Road	2.75	65	P	Pn	14 11 15.0	-0.5
WNVZ	Wahianoa	2.93	50	P	Pn	14 11 16.5	-1.1
TUVZ	Tukino	3.00	50	P	Pn	14 11 18.3	-0.2
BKZ	Black Stump Fm	3.57	56	P	Pn	14 11 23.8	-1.6
JCZ	Jackson Bay	4.05	225	P	Pn	14 11 27.3	-3.9
WKZ	Wanaka	4.48	216	P	Pn	14 11 32.4	-4.2
MWZ	Matawai	4.72	54	P	Pn	14 11 38.2	-1.6

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*ISCJB **16** 14:14:20.0±4.3, 7°.8S±0°.2×128°.5E±0°.2, h150^{km}±51^{km}, mb3.5/4, Error ellipse: s-maj=38.7km s-min=37.4km az=11.8*

*IDC **16** 14:14:20.8±12.0, 7°.78S×128°.41E, h137^{km}±137^{km}, mb3.4/4, mb1 3.5/7, mb1mx3.4/18, mbtmp3.4/7, ML4.0/3, Error ellipse: s-maj=101.4km s-min=58.3km az=38.0*

*NEIC **16** 14:14:21.3±2.7, 7°.80S×128°.44E, h145^{km}±31^{km}, mb3.8/1, Error ellipse: s-maj=28.2km s-min=21.6km az=70.0*

ISC 16 14:14:21.5±3.7**, 7°.8S**±0°.2×**128°.5E**±0°.2**, h146^{km}**±44^{km}**, n11, σ0^s.65**/11**, mb3.5**/4**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.25	142	*e*Pn	Pn	14 15 51.8	+0.3
KAKA				*e*Sn	Sx	14 16 58.6	
FITZ	Fitzroy Crossi	10.60	195	P	Pn	14 16 49.4	-0.1
	2.0nm,0.3s,baz=23,slow=11,SNR=30						
FITZ				S	Sx	14 18 41.4	
	1.3nm,0.3s,baz=81,slow=21,SNR=5.2						
WRAB	Tennant Creek	13.34	155	*e*Pn	Pn	14 17 24.8	-0.3
WRAB				*e*Sn	Sx	14 19 45.7	
WRA	Warramunga Arr	13.34	155	P	Pn	14 17 24.2	-1.0
	0.5nm,0.3s,baz=326,slow=13,SNR=29						
WRA				S	Sx	14 19 45.5	
	2.8nm,0.3s,baz=330,slow=21,SNR=15						
ASAR	Alice Springs	16.61	162	P	Pn	14 18 07.2	+1.3
	0.5nm,0.3s,baz=339,slow=12,SNR=31						
ASAR				S	Sx	14 21 04.4	
	0.4nm,0.3s,baz=343,slow=26,SNR=6.0						
SONM	Songino Array	58.73	343	P	P	14 24 04.3	+0.5
	0.4nm,0.6s,mb3.4,baz=159,slow=6.2,SNR=3.7						
MK31	Makanchi Array	68.07	328	*e*P	P	14 25 05.3	0.0
MKAR	Makanchi Array	68.07	328	P	P	14 25 05.8	+0.5
	0.3nm,0.3s,mb3.5,baz=118,slow=7.5,SNR=14						
ZALV	Zalesovo Beam	71.64	335	P	P	14 25 25.9	-0.9
	0.5nm,0.5s,mb3.5,baz=116,slow=6.6,SNR=3.0						
KURK	Kurchatov	72.42	329	P	P	14 25 31.6	0.0
	1.4nm,0.7s,mb3.8,baz=125,slow=4.9,SNR=6.2						
KURK	Kurchatov	72.42	329	*e*P	P	14 25 31.4	-0.3
	1.4nm,0.7s,mb3.8						

IDC 16 14:14:24.2±2.4**, 28°.14N**×**96°.50E, h0^{km}, mb2.8**/2**, mb1 3.1**/3**, mb1mx3.0**/24**, mbtmp3.0**/3**, ML3.6**/1**, Error ellipse: s-maj=77.7km s-min=32.4km az=78.0, Eastern Xizang-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	4.85	239	*e*PN	Pn	14 15 33.5	-5.0
SHL				*e*SN	Sn	14 16 24.5	-11
CMAR	Chiang Mai Arr	9.89	166	Pn	Pn	14 16 47.8	+0.1
	0.1nm,0.3s,baz=334,slow=12,SNR=5.3						
SONM	Songino Array	21.12	19	P	P	14 19 10.4	0.0
	0.2nm,0.5s,baz=202,slow=11,SNR=4.0						
MKAR	Makanchi Array	21.71	333	P	P	14 19 17.0	+0.3
	0.2nm,0.3s,baz=141,slow=10,SNR=7.7						

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*CSEM **16** 14:16:40.8, 35°.75N×21°.70E, h10^{km}, MD3.5*

ATH 16 14:16:40.8, 35°.75N×**21°.70E, h10^{km}, MD3.5**/3**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	1.14	2	*e*PG	Pg	14 17 01.9	-0.9
PYL	PYLOS	1.14	2	*e*Pg	Pg	14 17 01.9	-0.9
KYTH	Kithira	1.21	64	*e*PB	Pb	14 17 03.5	-0.2
KYTH	Kithira	1.21	64	*e*Pb	Pb	14 17 03.5	-0.2
ITM	Ithomi	1.44	7	*e*PB	Pb	14 17 08.5	+0.8
ITM	Ithomi	1.44	7	*e*Pb	Pb	14 17 08.5	+0.8

CASC 16 14:29:45.0±1.4**, 13°.71N**×**90°.75W, h59^{km}**±12^{km}**, MD3.6, 1C-4D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSG	Pto de San Jos	0.24	350	*e*P	Pn	14 29 55.0	+0.4
PCG	Pacaya	0.69	11⇓	*e*P	Pn	14 29 59.4	+0.2
PCG				*e*S	Sn	14 30 11.1	+1.6
FG6		0.86	351	*e*P	Pn	14 30 01.4	+0.2
FG6				*e*S	Sn	14 30 13.7	+0.7
NBG	Las Nubes	0.96	24⇓	*e*P	Pn	14 30 03.9	+1.5
NBG				*e*S	Sn	14 30 17.4	+2.1
JAT	Jato	1.05	305⇑	*e*P	Pn	14 30 03.9	+0.2
RTR	El Retiro	1.09	80	*e*P	Pn	14 30 04.3	+0.2
RTR				*e*S	Sn	14 30 19.3	+1.0
SBLS	San Blas	1.10	83	*e*P	Pn	14 30 04.1	-0.2
SBLS				*e*S	Sn	14 30 19.4	+0.7
TP2	Tecpan 2	1.10	346⇓	*e*P	Pn	14 30 05.4	+1.0
TP2				*e*S	Sn	14 30 20.3	+1.6
RBDL	Robledal	1.11	69	*e*P	Pn	14 30 04.5	+0.2
SNJE	San Jose	1.12	82	*e*P	Pn	14 30 04.5	-0.1
SNJE				*e*S	Sn	14 30 20.4	+1.3
BOQS	Boqueron	1.43	89	*e*P	Pn	14 30 09.1	+0.4
BOQS				*e*S	Sn	14 30 28.5	+2.1
MTO2	Montecristo 2	1.51	63	*e*P	Pn	14 30 09.6	-0.2
LFRS	El Faro	1.64	93	*e*P	Pn	14 30 11.9	+0.3
LFRS				*e*S	Sn	14 30 32.5	+0.9
MRL	Marmol	1.69	37⇓	*e*P	Pn	14 30 13.6	+1.3
SNVI	San Vicente	1.86	93	*e*P	Pn	14 30 15.1	+0.6
SNVI				*e*S	Sn	14 30 39.8	+2.9

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*IDC **16** 14:41:02.9±1.3, 36°.34N×21°.79E, h0^{km}, mb3.6/4, mb1 3.7/4, mb1mx3.5/22, mbtmp3.6/4, Error ellipse: s-maj=61.1km s-min=25.4km az=139.0*

*NEIC **16** 14:41:03.2, 36°.15N×21°.21E, h4^{km}, ML3.8(ATH), After ATH.*

*ATH **16** 14:41:03.2, 36°.15N×21°.21E, h4^{km}, MD3.7/8, ML3.8*

*CSEM **16** 14:41:06.3±0.4, 36°.23N×21°.43E, h15^{km}, ML4.3/4, Error ellipse: s-maj=8.7km s-min=6.3km az=16.0*

*THE **16** 14:41:07.9, 36°.22N×21°.46E, h32^{km}±58^{km}, ML4.3/4, Error ellipse: s-maj=58.2km s-min=2.8km az=57.0*

ISC 16 14:41:08.2±1.1**, 36°.26N**±0°.04×**21°.41E**±0°.05**, h29^{km}**±8^{km}**, n77, σ1^s.20**/91**, mb3.5**/4**, 1C-1D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.69	23	P	Pb	14 41 20.2	-1.4
PYL				S	Sb	14 41 30.7	0.0
PYL	PYLOS	0.69	23	*e*PB	Pb	14 41 20.3	-1.3
PYL	PYLOS	0.69	23	*e*Pb	Pb	14 41 20.3	-1.3
PYL				S	Sb	14 41 30.7	0.0
ITM	Ithomi	1.00	24	*e*PB	Pn	14 41 25.5	-0.8
ITM				*e*SN	Sb	14 41 41.1	+1.3
ITM	Ithomi	1.00	24	*e*Pb	Pn	14 41 25.5	-0.8
ITM				*e*Sn	Sb	14 41 41.1	+1.3
VLI	Veliai	1.31	69	P	Pn	14 41 31.3	+0.7
VLI	Veliai	1.31	69	P	Pn	14 41 31.3	+0.7
KYTH	Kithira	1.32	89	*e*PG	Pn	14 41 30.5	-0.1
KYTH	Kithira	1.32	89	*e*Pg	Pn	14 41 30.5	-0.1
VLX	Vlachokerasia	1.35	35	*e*PB	Pb	14 41 32.3	-0.5
VLX	Vlachokerasia	1.35	35	*e*Pb	Pb	14 41 32.3	-0.5
RLS	Riolos of Patr	1.79	2	*e*PN	Pn	14 41 38.4	+1.3
RLS	Riolos of Patr	1.79	2	*e*Pn	Pn	14 41 38.4	+1.3
GUR	Goura	1.83	24	*e*PN	Pn	14 41 39.9	+2.2
GUR	Goura	1.83	24	*e*Pn	Pn	14 41 39.9	+2.2
VLS	Valsamata	2.02	341	P	Pn	14 41 40.8	+0.5
VLS				S	Sn	14 42 04.3	-0.2
VLS	Valsamata	2.02	341	*e*PN	Pn	14 41 40.8	+0.5
VLS	Valsamata	2.02	341	*e*Pn	Pn	14 41 40.8	+0.5
VLS				S	Sn	14 42 04.3	-0.2
LAKA	Lakka	2.02	13	P	Pn	14 41 41.3	+1.0
LAKA				S	Sn	14 42 04.7	0.0
LAKA	Lakka	2.02	13	P	Pn	14 41 41.3	+1.0
LAKA				S	Sn	14 42 04.7	0.0
TRIZ	Trizonia	2.16	14	P	Pn	14 41 41.2	-1.1
TRIZ				S	Sn	14 42 09.2	+1.1
TRIZ	Trizonia	2.16	14	P	Pn	14 41 41.2	-1.1
TRIZ				S	Sn	14 42 09.2	+1.1
KARN	Karanos	2.21	112	P	Pn	14 41 41.1	-1.8
KARN	Karanos	2.21	112	P	Pn	14 41 41.1	-1.8
NAIG	Nisos Aigina	2.24	48	*e*PN	Pn	14 41 46.5	+3.3
NAIG	Nisos Aigina	2.24	48	*e*Pn	Pn	14 41 46.5	+3.3
ATH	Athens Observa	2.51	47	*e*PB	Pn	14 41 50.0	+2.9
ATH	Athens Observa	2.51	47	*e*Pb	Pn	14 41 50.0	+2.9
LKR	Lokris	2.70	28	P	Pn	14 41 48.5	-1.1
LKR	Lokris	2.70	28	P	Pn	14 41 49.4	-0.2
LKR	Lokris	2.70	28	P	Pn	14 41 49.4	-0.2
AGG	Agios Georgios	2.85	15	P	Pn	14 41 52.6	+0.9
AGG	Agios Georgios	2.85	15	P	Pn	14 41 52.6	+0.9
IDI	Anoyia	3.00	108	P	Pn	14 41 52.9	-0.8
IDI	Anoyia	3.00	108	P	Pn	14 41 52.9	-0.8
THL	Klokotos Trika	3.33	8	P	Pn	14 41 58.3	0.0
THL	Klokotos Trika	3.33	8	P	Pn	14 41 58.3	0.0
IGT	Igoumenitsa	3.37	346	P	Pn	14 41 58.5	-0.4
IGT	Igoumenitsa	3.37	346	P	Pn	14 41 58.5	-0.4
JAN	Janina	3.42	353	*e*PN	Pn	14 42 00.4	+0.9
JAN	Janina	3.42	353	*e*Pn	Pn	14 42 00.4	+0.9
MEV	Metsovon	3.52	358	P	Pn	14 42 02.3	+1.4
MEV	Metsovon	3.52	358	P	Pn	14 42 02.3	+1.4
LIT	Litokhoron	3.92	12	P	Pn	14 42 06.5	+0.1
LIT	Litokhoron	3.92	12	P	Pn	14 42 06.5	+0.1
FNA	Florina	4.51	360	P	Pn	14 42 14.1	-0.4
FNA	Florina	4.51	360	P	Pn	14 42 14.1	-0.4
HORT	Hortiatis	4.53	17	P	Pn	14 42 14.0	-0.7
HORT	Hortiatis	4.53	17	P	Pn	14 42 14.0	-0.7
TIP	Timpagrande	4.70	310	P	Pn	14 42 18.3	+1.3
TIP	Timpagrande	4.70	310	P	Pn	14 42 18.3	+1.3
CEL	Celeste	4.83	296	P	Pn	14 42 19.9	+1.0
CEL	Celeste	4.83	296	P	Pn	14 42 19.9	+1.0
KNT	Kendrikon	5.03	13	P	Pn	14 42 21.8	+0.2
KNT	Kendrikon	5.03	13	P	Pn	14 42 21.8	+0.2
KRUS	Krusevo	5.10	359	*e*Pn	Pn	14 42 20.9	-1.7
KRUS				*e*Sg	Sn	14 43 18.3	-2.2
KRUS	Krusevo	5.10	359	*e*Pn	Pn	14 42 20.8	-1.8
HAVL	Avola	5.10	280	Pn	Pn	14 42 23.5	+0.9
HAVL	Avola	5.10	280	Pn	Pn	14 42 23.5	+0.9
VAY	Valandovo	5.13	10	*e*Pn	Pn	14 42 22.2	-0.8
VAY	Valandovo	5.13	10	*e*Pn	Pn	14 42 22.2	-0.8
TAR1	Taranto	5.35	324	*e*Pn	Pn	14 42 25.3	-0.7
MGR	Morigerati	6.02	312	Pn	Pn	14 42 35.8	+0.6
MGR	Morigerati	6.02	312	Pn	Pn	14 42 35.8	+0.6
STON	Ston	7.19	338	*e*Pn	Pn	14 42 49.1	-2.2
STON				Sn	Sn	14 44 03.3	-8.7
VOIR		9.57	16⇑	*i*P	Pn	14 43 24.5	+0.6
MLR	Muntele Rosu	9.84	19⇓	*i*P	Pn	14 43 30.7	+3.2
BOJS	Bojanci	10.34	335	*i* Pn	Pn	14 43 32.9	-1.5
BOJS				*i* Sn	Sn	14 45 21.1	-8.0
BOJS	Bojanci	10.34	335	Pn	Pn	14 43 32.9	-1.5
VISS	Visnje	10.74	335	*i* Pn	Pn	14 43 38.8	-1.1
VISS				*i* Sn	Sn	14 45 30.5	-8.6
VISS	Visnje	10.74	335	*i* Pn	Pn	14 43 38.8	-1.1
PERS	Pernice	11.38	338	*i* Pn	Pn	14 43 47.3	-1.4
PERS	Pernice	11.38	338	*i* Pn	Pn	14 43 47.3	-1.4
TORD	Torodi Ar. Bea	29.04	223	P	P	14 47 07.2	+1.3
	0.4nm,0.6s,mb3.3,baz=34,slow=9.2,SNR=3.0						
MKAR	Makanchi Array	45.73	57	P	P	14 49 23.1	-3.5
	0.5nm,0.3s,mb3.9,baz=269,slow=8.1,SNR=17						
ZALV	Zalesovo Beam	46.46	47	P	P	14 49 29.1	-3.1
	0.5nm,0.3s,mb3.9,baz=271,slow=7.9,SNR=4.0						
YKA	Yellowknife Ar	75.43	341	P	P	14 52 48.3	-0.5
	0.1nm,0.5s,mb3.0,baz=40,slow=5.6,SNR=5.6						

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*DJA **16** 14:45:01, 21°.62S×68°.32W, h10^{km}, mb5.9/4*

*MOS **16** 14:45:08.3±1.1, 21°.14S×68°.40W, h105^{km}, mb5.7/61, MS5.1/15, Error ellipse: s-maj=7.4km s-min=5.3km az=95.7*

*GUC **16** 14:45:08.4±0.8, 21°.47S×68°.68W, h130^{km}±5^{km}, ML6.0*

*ISCJB **16** 14:45:10.6±0.1, 21°.30S±0°.02×68°.43W±0°.02, h130^{km}, mb5.5/233, Error ellipse: s-maj=3.7km s-min=2.6km az=38.6*

*GCMT **16** 14:45:11.7±0.1, 21°.58S×68°.77W, h135^{km}, MW6.1/112, Moment Tensor Solution. s107,c244; s112,c335; Duration: 2^s.6 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.79±.01; M$_{\theta\theta}$0.15±.01; M$_{\phi\phi}$0.64±.01; M$_{r\theta}$-0.04±.01; M$_{\theta\phi}$0.33±.01; M$_{\phi r}$-1.39±.01; Best double couple: M$_0$1.60000×10^{18} NP1:φ$_s$223.00000°, δ18.00000°, λ-54.00000°. NP2:φ$_s$6.00000°, δ76.00000°, λ-100.00000°. Principal axes: T 1.5550, Plg30.0000°, Azm104.0000°; N 0.0910, Plg10.0000°, Azm8.0000°; P -1.6460, Plg58.0000°, Azm262.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IDC **16** 14:45:11.8±0.3, 21°.29S×68°.44W, h128^{km}±2^{km}, mb5.2/28, mb1 5.3/30, mb1mx5.3/30, mbtmp5.2/30, MS5.1/24, Ms1 5.1/24, ms1mx5.0/28 Error ellipse: s-maj=8.5km s-min=7.1km az=57.0*

*NEIC **16** 14:45:11.7±0.1, 21°.35S×68°.39W, mb5.6/173, ME5.8, MW6.0, MW6.1, Error ellipse: s-maj=4.4km s-min=3.3km az=35.0, Moment Tensor Solution. s95 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.19; M$_{\theta\theta}$-0.07; M$_{\phi\phi}$0.26; M$_{r\theta}$-0.55; M$_{\theta\phi}$0.04; M$_{\phi r}$-1.45; Best double couple: M$_0$1.60000×10^{18} NP1:φ$_s$21.00000°, δ86.00000°, λ-87.00000°. NP2: φ$_s$164.00000°, δ5.00000°, λ-126.00000°. Principal axes: T 1.5900, Plg40.0000°, Azm107.0000°; N -0.0500, Plg2.0000°, Azm200.0000°; P -1.5400, Plg48.0000°, Azm293.0000°; Broadband fault plane solution: P waves. NP1:φ$_s$200.00000°, δ10.00000°, λ-90.00000°. NP2: φ$_s$20.00000°, δ80.00000°, λ-90.00000°. Principal axes: T Plg35.0000°, Azm110.0000°; N Plg0.0000°, Azm0.0000°; P Plg55.0000°, Azm290.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [IV] at Alto Hospicio, Calama, Huara, Iquique, Pica and Pozo Almonte; [II] at Arica and Tocopilla.

*IGIL **16** 14:45:18.1, 21°.18S×68°.25W, h134^{km}, MS5.3*

ISC 16 14:45:12.3±0.1**, 21°.32S**±0°.02×**68°.36W**±0°.02**, h132^{km}, h132^{km}**±.8^{km}**:pP-P, n1262, σ0^s.83**/1033**, mb5.5**/233**, 228C-224D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB01	Plate Boundary	1.08	284	*e*P	Pn	14 45 30.8	-5.4
PB01				*i* S	Sn	14 45 47.5	-6.8
PB01				AML	AML	14 45 49.8	
	comp=E,365μm,0.7s						
LVC	Limon Verde	1.38	201	P	Pn	14 45 34.1	-5.2
	comp=E,4μm,0.3s,baz=12,slow=7.5,SNR=7721						
LVC				S	Sn	14 45 52.2	-7.6
	comp=E,12μm,0.3s,baz=224,slow=17,SNR=60						
LVC	Limon Verde	1.38	201	*e*Pn	Pn	14 45 33.8	-5.5
LVC				*e*Sn	Sn	14 45 52.3	-7.5
LVC	Limon Verde	1.38	201	*e*P	Pn	14 45 34.0	-5.3
LVC				*i* S	Sn	14 45 52.9	-6.9
PB04	Plate Boundary	1.41	228	*e*P	Pn	14 45 38.5	-1.0
PB04				*e*S	Sn	14 46 00.8	+0.5
PB04				AML	AML	14 46 04.1	
	comp=E,128μm,0.8s						
MACH	Maria Elena	1.56	236⇑	*i*P	Pn	14 45 34.3	-6.9
MACH				*i* S	Sn	14 45 54.5	-8.8
PECH	Pedro de Valdi	1.76	224⇑	*i*P	Pn	14 45 37.1	-6.4
PECH				*i* S	Sn	14 45 58.7	-8.7
PECH				AML	AML	14 46 00.1	
	comp=N,496μm,0.5s						
HMBC	Humberston	1.76	306⇑	*e*P	Pn	14 45 39.0	-4.5
HMBC				*i* S	Sn	14 46 01.9	-5.5
HMBC				AML	AML	14 46 05.8	
	comp=E,214μm,0.6s						
TOCH	Tocopilla	1.88	245	*e*P	Pn	14 45 37.7	-7.1
TOCH				*i* S	Sn	14 45 59.6	-10
TOCH				AML	AML	14 46 02.6	
	comp=E,231μm,0.2s						
PSGC	Pisagua	2.38	316⇑	*e*P	Pn	14 45 45.9	-5.2
PSGC				*i* S	Sn	14 46 14.5	-6.3
PSGC				AML	AML	14 46 19.5	
	comp=E,56μm,0.9s						
MNMC	Miæe Miæ	2.47	332	*e*P	Pn	14 45 49.5	-2.7
MNMC				*i* S	Sn	14 46 21.3	-1.5
MNMC				AML	AML	14 46 24.9	
	comp=E,152μm,0.5s						
MECH	Mejillones	2.62	227	*e*P	Pn	14 45 47.0	-7.1
MECH				*i* S	Sn	14 46 16.2	-10
MECH				AML	AML	14 46 25.2	
	comp=N,87μm,0.6s						
CEN1	Los Morros	2.67	219	*e*P	Pn	14 45 50.8	-4.0
CEN1				*i* S	Sn	14 46 23.1	-4.4
ARE	Arequipa	5.67	328⇑	*i*P	Pn	14 46 29.6	-4.8
LCO	Las Campanas	7.95	195	*e*Pn	Pn	14 46 55.5	-10
CFAA	Coronel Fontan	10.24	179	P	Pn	14 47 28.2	-7.7
	comp=N,4.5nm,0.3s,baz=355,slow=13,SNR=116						
CFAA				LR	LR	14 52 20.5	
	comp=N,2μm,21.1s,baz=353,slow=42						
CFAA				ScS	ScS	15 00 26.8	+0.1
	comp=N,0.0nm,0.3s,baz=165,slow=22,SNR=4.5						
CFAA	Coronel Fontan	10.24	179	P	Pn	14 47 28.2	-7.7
CFAA				LR	LR	14 52 20.5	
CFAA				ScS	ScS	15 00 26.8	+0.1
CPUP	Villa Florida	11.26	118	P	Pn	14 47 46.5	-2.9
CPUP				S	Sn	14 49 54.2	+0.6
CPUP	Villa Florida	11.26	118	P	Pn	14 47 46.5	-2.9
	comp=N,22nm,0.3s,baz=282,slow=12,SNR=432						
CPUP				S	Sn	14 49 54.2	+0.6
	comp=N,9.5nm,0.3s,baz=203,slow=20,SNR=1.4						
CPUP				LR	LR	14 51 57.1	
	comp=N,10μm,18.7s,baz=324,slow=36						
CPUP	Villa Florida	11.26	118	P	Pn	14 47 46.5	-2.9
CPUP				S	Sn	14 49 54.2	+0.6
CPUP				LR	LR	14 51 57.1	
NNA	Nana	12.33	317	*e*Pn	Pn	14 48 00.3	-3.1
LPA	La Plata	16.35	148⇑	*e*P	Pn	14 48 56.8	+2.6
	comp=N,880nm,1.0s						
LPA				*e*pP	pP	14 49 17.0	-0.9
ATAH	Atahualpa	17.23	324	P	Pn	14 49 02.7	-2.3
	comp=N,4.4nm,0.3s,baz=164,slow=4.9,SNR=44						
ATAH				S	S	14 52 11.1	-5.8
	comp=N,0.3nm,0.3s,baz=290,slow=20,SNR=2.0						
PLCA	Paso Flores	19.44	185	P	P	14 49 26.6	-1.9
PLCA				S	S	14 52 59.2	-1.9
PLCA	Paso Flores	19.44	185	P	P	14 49 26.6	-1.8
	comp=N,4.2nm,0.3s,baz=6.1,slow=13,SNR=110						
PLCA				S	S	14 52 59.1	-2.0
	comp=N,0.4nm,0.3s,baz=287,slow=20,SNR=1.6						
PLCA				LR	LR	14 57 48.3	
	comp=N,8μm,20.1s,baz=360,slow=39						
PLCA				ScS	ScS	15 00 50.5	+0.6
	comp=N,0.0nm,0.3s,baz=198,slow=22,SNR=1.9						
SPB	Sao Paulo	19.48	101	*e*P	P	14 49 27.4	-1.6
	comp=N,1μm,0.9s						
OTAV	Otavalo	23.58	334	*e*P	P	14 50 11.7	+0.5
	comp=N,681nm,1.4s,mb6.0						
ROSC	El Rosal	26.66	347	P	P	14 50 39.1	+0.1
	comp=N,20nm,0.5s,mb5.0,baz=96,slow=20,SNR=16						
ROSC				S	S	14 55 02.7	-2.0
	comp=N,6.7nm,0.5s,baz=266,slow=18,SNR=2.0						
ROSC				LR	LR	15 02 42.0	
	comp=N,9μm,18.7s,baz=187,slow=40						
SDV	Santo Domingo	30.10	356	P	P	14 51 08.1	-1.4
	comp=N,45nm,0.8s,mb5.2,baz=194,slow=5.7,SNR=22						
SDV				S	S	14 55 54.1	-4.5
	comp=N,9.0nm,0.7s,baz=307,slow=17,SNR=2.1						
SDV	Santo Domingo	30.10	356	*e*P	P	14 51 08.1	-1.4
	comp=N,113nm,1.0s,mb5.5						
SDV				*e*pP	pP	14 51 38.1	+0.2
EFI	East Falkland	31.34	168	P	P	14 51 18.9	-1.2
	comp=N,656nm,0.9s,mb6.4,SNR=7.3						
PCRV	Puerto La Cruz	31.51	7	P	P	14 51 22.0	0.0
	comp=N,23nm,0.4s,mb5.2,baz=261,slow=2.0,SNR=13						
PCRV				S	S	14 56 18.9	-1.8
	comp=N,9.2nm,0.8s,baz=265,slow=19,SNR=1.6						
PCRV				LR	LR	15 06 23.8	
	comp=N,8μm,18.4s,baz=2.6,slow=40						
BCIP	Isla Barro Col	32.32	338	*e*P	P	14 51 29.4	+0.4
	comp=N,295nm,1.3s,mb5.9						
BCIP				*e*pP	pP	14 51 58.8	+1.1
USHA	Ushuaia	33.46	180	P	P	14 51 37.3	-1.2
	comp=N,22nm,0.6s,mb5.0,baz=351,slow=2.5,SNR=12						
USHA				S	S	14 56 47.8	-2.3
	comp=N,6.3nm,0.7s,baz=91,slow=18,SNR=2.0						
USHA				LR	LR	15 06 12.5	
	comp=N,4μm,21.9s,baz=97,slow=38						

GRGR	Grenville	33.89	12	eP	P	14 51 41.5	-1.2
	comp=N,374nm,0.9s,mb6.1						
BUS	Buena Vista	34.21	332	eP	P	14 51 46.9	+1.4
QCR	Quepos	34.27	331	eP	P	14 51 47.7	+1.8
URSC	Urasca	34.46	332	eP	P	14 51 48.8	+1.1
LCR2	La Lucha 2	34.48	332	eP	P	14 51 49.0	+1.2
LAJ	Bijagual	34.64	332	eP	P	14 51 50.7	+1.6
CGA2	Cerro Gallo 2	34.93	332	eP	P	14 51 53.0	+1.3
RCBR	Riachuelo	35.00	69	eP	P	14 51 52.3	0.0
	comp=N,637nm,0.9s,mb6.2						
JCR	Jicaral	35.07	330	eP	P	14 51 54.6	+1.7
BHS	Barnard House	35.12	12	eP	P	14 51 54.0	+0.7
BHS	Barnard House	35.12	12	e	pP	14 52 26.6	+4.5
SVV	Soufriere Volc	35.13	12	eP	P	14 51 55.0	+1.6
SVV	Soufriere Volc	35.13	12	e	P	14 52 00.7	+7.3
SSV	Crater Summit	35.14	12	eP	P	14 51 54.2	+0.8
SSV	Crater Summit	35.14	12	e	pP	14 52 24.1	+1.8
JTS	JuntasAbangare	35.39	331	P	P	14 51 56.6	+1.1
	comp=N,81nm,1.2s,mb5.2,baz=155,slow=4.2,SNR=28						
JTS				pP	pP	14 52 21.3	-3.1
	comp=N,19nm,0.8s,baz=174,slow=20,SNR=2.3						
JTS	JuntasAbangare	35.39	331	eP	P	14 51 56.6	+1.1
FORC	Fortuna	35.42	332	eP	P	14 51 56.0	+0.2
SLB	Belfond	35.66	12	eP	P	14 51 57.9	0.0
SLB	Belfond	35.66	12	e	pP	14 52 25.6	-1.2
BIM	Bigot	36.33	12	eP	P	14 52 01.8	-1.7
MVM	Montagne Vaucl	36.40	12	eP	P	14 52 03.2	-0.9
FDF	Fort de France	36.52	12	eP	P	14 52 02.0	-3.2
FDF				pmax	pmax		
	comp=Z,138nm,0.4s,mb5.9						
FDF	Fort de France	36.52	12	eP	P	14 52 03.8	-1.4
FDF	Fort de France	36.52	12	eP	P	14 52 02.0	-3.2
	comp=Z,138nm,0.4s,mb5.9						
RPN	Rapa Nui	37.69	253	i P	P	14 52 15.1	0.0
RPN	Rapa Nui	37.69	253	eP	P	14 52 13.5	-1.6
	comp=Z,2μm,1.8s,mb6.3						
ICM	Isla Caja Muer	39.01	3	eP	P	14 52 24.8	-1.3
ICM				epP	pP	14 52 54.3	-1.1
CRPR	Cabo Rojo, PR	39.10	2	eP	P	14 52 25.1	-1.8
	comp=Z,286nm,1.0s,mb5.9						
CRPR				epP	pP	14 52 55.4	-0.7
OBIP	Obispado Ponce	39.16	3	eP	P	14 52 25.4	-1.8
	comp=Z,483nm,0.8s,mb6.2						
OBIP				epP	pP	14 52 56.3	-0.3
CELP	Cerrillos	39.19	3	eP	P	14 52 25.7	-1.8
CELP				epP	pP	14 52 56.6	-0.3
SJG	San Juan	39.25	3	eP	P	14 52 25.8	-2.2
SJG				pmax	pmax		
	comp=Z,900nm,0.9s						
SJG	San Juan	39.25	3	eP	P	14 52 25.8	-2.3
	comp=Z,900nm,0.9s,mb6.4						
SJG				epP	pP	14 52 56.0	-1.3
MTP	Monte Pirata	39.27	4	eP	P	14 52 24.4	-3.9
	comp=Z,198nm,0.9s,mb5.7						
LSP	Las Mesas	39.27	2	eP	P	14 52 26.6	-1.6
LSP				epP	pP	14 52 56.4	-1.2
ANWB	Willy Bob	39.28	10	eP	P	14 52 30.4	+2.1
	comp=Z,322nm,1.0s,mb5.9						
ANWB				epP	pP	14 52 56.0	-1.6
HUMP	Col San Antoni	39.29	4	eP	P	14 52 26.4	-2.0
	comp=Z,1μm,1.8s,mb6.2						
MPR	Mayaguez	39.30	2	eP	P	14 52 26.8	-1.8
LRS	Lares	39.39	2	epP	pP	14 52 59.5	+1.0
CBYP	Canovanas	39.42	4	ePn	P	14 52 26.8	-2.7
	comp=Z,1μm,1.4s,mb6.4						
CBYP				epP	pP	14 52 57.5	-1.4
AOPR	Arecibo Observ	39.45	2	eP	P	14 52 28.1	-1.7
	comp=Z,162nm,0.8s,mb5.7						
TGUH	Tegucigalpa,Un	39.76	331	eP	P	14 52 32.6	+0.2
TGUH				epP	pP	14 53 01.1	-0.6
MTDJ	Mount Denham	40.31	346	eP	P	14 52 38.3	+1.5
MTDJ				epP	pP	14 53 06.2	0.0
GTBY	Guantanamo Bay	41.52	350	epP	pP	14 53 16.8	+0.6
RCC	Rio Carpintero	41.68	350	e	pP	14 53 09.4	-8.2
LMGC	Las Mercedes	41.99	348	e	pP	14 53 20.5	+0.4
HLGC	Holguin	42.62	349	e	P	14 52 54.7	-1.0
GRTK	Grand Turk	42.66	356	eP	P	14 52 54.7	-1.2
	comp=Z,156nm,0.7s,mb5.8						
GRTK				epP	pP	14 53 25.0	-0.6
CCCC	Cccc	43.24	347	e	P	14 53 01.7	+1.0
PMSA	Palmer Station	43.53	177	P	P	14 52 55.9	-6.5
	comp=Z,43nm,0.4s,mb5.4,baz=350,slow=16,SNR=16						
PMSA				S	S	14 59 21.3	+0.1
	comp=Z,14nm,0.9s,baz=205,slow=20,SNR=2.6						
PMSA				LR	LR	15 11 06.8	
	comp=Z,3μm,21.1s,baz=135,slow=36						
CCIG	Comitan	44.05	326	i P	P	14 53 04.0	-3.2
MGV	Manicaragua	44.63	345	e	pP	14 53 38.9	-2.7
TEIG	Tepich	45.65	333	eP	P	14 53 18.3	-1.6
	comp=Z,1μm,2.0s,mb6.1						
HUIG	Huatulco	45.82	321	i P	P	14 53 20.7	-0.5
SOR	Soroa	46.11	341	e	P	14 53 21.8	-1.6
CMIG	Matias Romero	46.19	324	LR	LR	15 10 04.7	
	comp=Z,971nm,19.9s,baz=126,slow=32						
CMIG	Matias Romero	46.19	324	i P	P	14 53 23.5	-0.6
TUIG	Tuzandepetl	46.70	325	i P	P	14 53 27.4	-0.7
VHO	Vista Hermosa	47.22	322	i P	P	14 53 31.4	-0.6
OXX	Oaxaca	47.22	322	eP	P	14 53 36.1	+4.0
PNIG	Pinotepa	47.51	320	i P	P	14 53 34.4	0.0
ACX	Acapulco	48.96	318	eP	P	14 53 47.2	+1.7
LVIG	Laguna Verde	49.16	324	i P	P	14 53 44.1	-2.9
CAIG	El Cayaco	49.32	318	i P	P	14 53 49.1	+0.9
PLIG	Platanillo	49.88	320	i P	P	14 53 53.0	+0.6
PPM	Popocatepetl	49.88	321	i P	P	14 53 54.2	+1.7
YAIG	Yautepec	49.98	321	i P	P	14 53 54.1	+0.8
IIO	Organos	50.35	322	eP	P	14 53 57.7	+1.6
PBVM	Pinon	50.45	321	eP	P	14 54 00.5	+3.7
PTVM	Pico Tres Padr	50.58	321	eP	P	14 53 58.6	+0.9
DWPF	Disney	50.74	345	eP	P	14 53 57.9	-0.8
	comp=Z,794nm,1.3s,mb6.2						
DWPF				epP	pP	14 54 28.7	-0.6
DWPF				esP	sP	14 54 43.5	-0.5
MOIG	Morelia	51.88	320	i P	P	14 54 07.9	+0.4
BBSR	BB Station	53.50	4	eP	P	14 54 17.6	-1.6
	comp=Z,82nm,0.9s,mb5.5						
BBSR				epP	pP	14 54 52.8	+2.8
CJM	Chamela	54.16	316	i P	P	14 54 23.5	-0.7
BRAL	Brewton	55.04	340	eP	P	14 54 31.0	+0.7
	comp=Z,563nm,0.9s,mb6.3						
ZAIG	Zacatecas	55.06	321	i P	P	14 54 31.4	+0.8
NHSC	New Hope	55.28	348	eP	P	14 54 32.1	+0.1
	comp=Z,2μm,1.1s,mb6.7						
GOGA	Godfrey	56.30	345	eP	P	14 54 38.0	-1.2
GOGA				pmax	pmax		
	comp=Z,200nm,1.2s,mb5.8						
GOGA	Godfrey	56.30	345	eP	P	14 54 38.0	-1.2
	comp=Z,198nm,1.3s,mb5.8						
KVTX	Kingsville	56.35	328	eP	P	14 54 40.5	+0.8
	comp=Z,857nm,1.4s,mb6.4						
KVTX				epP	pP	14 55 11.4	+0.5
PTCN	Pitcairn Islan	56.44	253	eP	P	14 54 41.0	+0.4
	comp=Z,839nm,1.2s,mb6.4						
PTCN				epP	pP	14 55 12.7	+1.0
PTCN				sP	sP	14 55 25.1	-1.1
LRAL	Lakeview Retre	56.90	341	eP	P	14 54 42.0	-1.5
CNNC	Cliffs of the	56.97	351	eP	P	14 54 43.4	-0.6
	comp=Z,149nm,1.0s,mb5.8						
VBMS	Vicksburg	57.30	338	eP	P	14 54 45.3	-1.0
	comp=Z,250nm,1.1s,mb6.0						
HKT	Hockley	57.42	332	⇓iP	P	14 54 46.5	-0.7
HKT				pmax	pmax		
	comp=Z,568nm,1.6s,mb6.2						
HKT	Hockley	57.42	332	⇓iP	P	14 54 46.5	-0.8
	comp=Z,568nm,1.6s,mb6.2						
MAIG	Mazatlaan	57.72	318	i P	P	14 54 49.5	0.0
NATX	Nacogdoches	58.48	334	eP	P	14 54 54.6	0.0
CPCT	Cooper Cave	58.50	345	eP	P	14 54 53.7	-0.9
TKL	Tuckaleechee C	58.52	345	S	S	15 02 46.3	-1.7
	comp=Z,1.6nm,0.7s,baz=12,slow=22,SNR=4.1						
TKL	Tuckaleechee C	58.52	345	eP	P	14 54 52.5	-2.2
TKL				epP	pP	14 55 24.7	-1.4
SWET	Sewanee	58.64	343	eP	P	14 54 54.5	-1.1
PLAL	Pickwick Lake	59.04	341	eP	P	14 54 56.5	-1.8
SHEL	Horse Pasture	59.25	96	i P	P	14 55 02.2	+1.9
SHEL	Horse Pasture	59.25	96	eP	P	14 55 00.7	+0.4
	comp=Z,543nm,0.8s,mb6.4						
VWCC	Virginia Weste	59.27	349	eP	P	14 54 59.9	0.0
TZTN	Tazewell	59.31	346	eP	P	14 54 59.0	-1.2
	comp=Z,299nm,1.3s,mb6.0						
BLA	Blacksburg	59.31	349	⇓iP	P	14 55 00.3	+0.1
BLA				pmax	pmax		
	comp=Z,688nm,1.4s,mb6.3						
BLA	Blacksburg	59.31	349	⇓iP	P	14 55 00.3	+0.1
	comp=Z,688nm,1.4s,mb6.3						
JSRW	J. Sargeant Re	59.38	351	eP	P	14 55 00.2	-0.5
JCT	Junction City	59.71	329	eP	P	14 55 02.1	-1.0
JCT				pmax	pmax		
	comp=Z,430nm,1.3s,mb6.1						
JCT	Junction City	59.71	329	eP	P	14 55 02.1	-1.0
	comp=Z,432nm,1.3s,mb6.1						
MET	Memphis--Engin	59.75	340	eP	P	14 55 02.5	-0.7
	comp=Z,2μm,1.4s,mb6.7						
CBN	Corbin	59.81	352	eP	P	14 55 03.7	+0.1
WVT	Waverly	60.03	342	eP	P	14 55 03.0	-2.2
VNA3	Neumayer Olymp	60.08	161	eP	P	14 55 04.8	-0.3
VNA3				e		14 55 15.0	
UALR	University of	60.26	337	eP	P	14 55 06.9	+0.2
VNA1	Neumayer--Stat	60.28	161	eP	P	14 55 06.3	-0.2
VNA1				e		14 55 16.4	
MIAR	Mount Ida	60.51	336	eP	P	14 55 07.4	-1.0
UTMT	University of	60.54	341	eP	P	14 55 07.8	-0.8
	comp=Z,1μm,1.1s,mb6.7						
GNAR	Gosnell	60.55	340	eP	P	14 55 08.1	-0.6
VNA2	Neumayer--Watz	60.65	161	eP	P	14 55 08.9	-0.1
	baz=273,slow=8.6						
VNA2				e		14 55 19.0	
TXAR	Lajitas Array	60.77	325	P	P	14 55 09.4	-1.0
TXAR				S	S	15 03 18.1	+0.8
TXAR	Lajitas Array	60.77	325	P	P	14 55 09.4	-0.9
	comp=Z,23nm,0.5s,mb5.2,baz=149,slow=9.2,SNR=241						
TXAR				S	S	15 03 18.1	+0.8
	comp=Z,0.4nm,0.8s,baz=72,slow=4.1,SNR=2.1						
TXAR				LR	LR	15 19 05.2	
	comp=Z,858nm,21.7s,baz=80,slow=34						
TXAR				PKP2bc		15 24 36.5	
	comp=Z,0.9nm,0.9s,baz=250,slow=3.6,SNR=5.9						
TXAR	Lajitas Array	60.77	325	P	P	14 55 09.4	-0.9
TXAR				S	S	15 03 18.1	+0.8
TXAR				LR	LR	15 19 05.2	
TXAR				⇑e		15 24 36.5	
PVMO	Portageville	60.86	340	eP	P	14 55 10.1	-0.7
	comp=Z,1μm,1.1s,mb6.7						
SDMD	Soldier's Deli	60.93	352	eP	P	14 55 10.9	-0.3
	comp=Z,118nm,1.1s,mb5.6						
PARMO	Parma	61.11	340	eP	P	14 55 11.7	-0.8
RKT	Rikitea	61.19	255	eP	P	14 55 12.5	-1.0
	comp=Z,300nm,1.3s,mb6.0						
RKT				epP	pP	14 55 40.0	-5.0
	comp=Z,143nm,1.2s						
RKT				eS	S	15 03 12.6	-10
	comp=Z,5μm,26.2s						
RKT				eLQ		15 10 31.2	
	comp=Z,4μm,28.5s						
RKT				eLR	LR	15 12 57.3	
	comp=Z,7μm,36.5s,baz=100						
RKT	Rikitea	61.19	255	eP	P	14 55 12.5	-1.0
RKT				e*PP	pP	14 55 40.0	-5.0
RKT				pmax	pmax		
	comp=Z,300nm,1.3s,mb6.0						
RKT	Rikitea	61.19	255	eP	P	14 55 12.5	-1.0
	comp=Z,300nm,1.3s,mb6.0						
RKT				epP	pP	14 55 40.0	-5.0
RKT				eS	S	15 03 12.6	-10
RKT				eLQ		15 10 31.2	
MVL	Millersville	61.45	353	eP	P	14 55 14.6	-0.1
	comp=Z,98nm,1.0s,mb5.6						
WCI	Wyandotte Cave	61.58	344	eP	P	14 55 13.4	-2.2
MCWV	Mont Chateau	61.60	350	eP	P	14 55 15.4	-0.3
	comp=Z,291nm,0.8s,mb6.2						
MCWV				epP	pP	14 55 46.5	-0.9
USIN	University of	61.70	343	eP	P	14 55 14.7	-1.7
	comp=Z,497nm,1.2s,mb6.2						
SIUC	Southern Illin	61.91	341	eP	P	14 55 16.5	-1.3
	comp=Z,577nm,1.0s,mb6.4						
BBTS	Babate	62.17	59	P	P	14 55 19.7	-0.4
	comp=Z,303nm,1.0s,mb6.1,baz=262,slow=1.0,SNR=22						
BBTS				PP	PP	14 57 38.9	+0.3
	comp=Z,81nm,0.9s,baz=244,slow=3.9,SNR=5.0						
BBTS				S	S	15 03 36.9	+1.5
	comp=Z,33nm,1.2s,baz=163,slow=4.3,SNR=1.7						
BBTS				LR	LR	15 22 22.4	
	comp=Z,3μm,18.3s,baz=240,slow=36						
BBTS	Babate	62.17	59	P	P	14 55 19.7	-0.4
BBTS				PP	PP	14 57 38.9	+0.3
BBTS				S	S	15 03 36.9	+1.5
BBTS				LR	LR	15 22 22.4	
PAL	Palisades	62.22	355	eP	P	14 55 19.8	0.0
PAL				e*PP	pP	14 55 51.6	+0.1
SSPA	Standing Stone	62.27	352	eP	P	14 55 19.4	-0.8
YLE	Yale	62.46	356	eP	P	14 55 21.8	+0.5
YLE				epP	pP	14 55 57.3	+4.2
BLO	Bloomington	62.53	344	eP	P	14 55 19.8	-2.1
FVM	French Village	62.53	340	eP	P	14 55 20.8	-1.1
OLIL	Olney	62.54	343	eP	P	14 55 20.1	-1.9
ACSO	Alum Creek Sta	62.73	347	eP	P	14 55 22.2	-1.0
WMOK	Wichita Mounta	62.80	332	⇓iP	P	14 55 21.9	-1.9
WMOK				pmax	pmax		
	comp=Z,221nm,1.5s,mb5.8						
WMOK	Wichita Mounta	62.80	332	⇓iP	P	14 55 21.9	-1.9
	comp=Z,222nm,1.5s,mb5.8						
CCM	Cathedral Cave	62.85	340	eP	P	14 55 22.8	-1.3
SLM	Saint Louis	63.07	341	eP	P	14 55 24.3	-1.2
SLM				e*PP	pP	14 55 55.9	-1.4
GDL2	Guadalupe Moun	63.40	326	eP	P	14 55 27.3	-0.5
BINY	Binghamton	63.59	354	eP	P	14 55 28.9	0.0
ALLY	Alegheny Colle	63.59	350	eP	P	14 55 28.5	-0.4
TRY	Troy	63.91	356	eP	P	14 55 31.4	+0.4
TRY				epP	pP	14 56 03.5	+0.7
ERPA	Erie	64.03	350	eP	P	14 55 30.6	-1.1
ACCN	Adirondack Com	64.56	356	eP	P	14 55 32.5	-2.7
HDIL	Hopedale	64.57	342	eP	P	14 55 33.4	-1.9
HNH	Hanover	64.80	357	eP	P	14 55 37.0	+0.2
AAM	Ann Arbor	64.86	348	eP	P	14 55 36.0	-1.1
122A	Conniff Cattle	65.18	325	⇓P	P	14 55 39.5	+0.1
	baz=65						
NCB	Newcomb	65.19	355	eP	P	14 55 39.1	-0.1
LBNH	Lisbon	65.32	357	eP	P	14 55 39.8	-0.2
LBNH				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.3						
LBNH	Lisbon	65.32	357	eP	P	14 55 39.8	-0.2
	comp=Z,32nm,0.7s,mb5.2						
319A	Douglas	65.46	322	⇓P	P	14 55 41.5	+0.2
	baz=66,SNR=197						
KSU1	Kansas State U	65.66	336	eP	P	14 55 41.3	-1.1
LONY	Lake Ozonia	65.86	355	eP	P	14 55 42.4	-1.2
219A	White Tail Can	65.91	322	⇓P	P	14 55 44.3	+0.2
	baz=66						
318A	Bisbee	65.91	322	⇑P	P	14 55 44.4	+0.2
	baz=66,SNR=171						
120A	U Bar Ranch, L	65.96	323	⇑P	P	14 55 44.7	+0.3
	baz=66						
FRNY	Flat Rock	66.00	356	eP	P	14 55 44.5	0.0
Y22D	IRIS PASSCAL I	66.19	326	⇓P	P	14 55 46.4	+0.5
	baz=66						
LPM	Los Pinos Moun	66.23	326	eP	P	14 55 46.2	+0.1
LENM	Lemitar	66.29	326	eP	P	14 55 46.7	+0.2
218A	Dragoon	66.34	322	⇓P	P	14 55 46.9	+0.1
	baz=66,SNR=106						
119A	Ashpeak Ranch,	66.50	323	⇓P	P	14 55 48.2	+0.3
	baz=67,SNR=69						
X22A	Bernardo	66.57	326	⇑P	P	14 55 48.9	+0.5
	baz=67,SNR=42						
ANMO	Albuquerque	66.63	326	⇓iP	P	14 55 48.7	0.0
ANMO				e*PP	pP	14 56 20.3	-0.5
ANMO				pmax	pmax		
	comp=Z,334nm,0.9s						
ANMO	Albuquerque	66.63	326	⇓iP	P	14 55 48.7	0.0
	comp=Z,334nm,0.9s,mb6.2						
ANMO				epP	pP	14 56 20.3	-0.5
ANMO				esP	sP	14 56 35.3	+0.3
217A	Green Valley	66.64	321	⇓P	P	14 55 48.9	+0.1
	baz=67,SNR=125						
CBKS	Cedar Bluff	66.65	334	eP	P	14 55 48.3	-0.4
118A	Homack Ranch,	66.78	322	⇑P	P	14 55 49.8	+0.1
	baz=67,SNR=115						
MAIT	Maitri	66.79	159	eP	P	14 55 47.0	-2.2
NVL	N'lazarevskaya	66.82	159	eP	P	14 55 49.6	+0.2
NVL				*PP	pP	14 56 23.4	+1.9
NVL				eS	S	15 04 34.2	+3.2
NVL				pmax	pmax		
	comp=Z,147nm,1.2s,mb5.7						
NVL				MLR	MLR		
	comp=Z,1μm,21.0s						
NVL				MLR	MLR		
	comp=N,221nm,10.0s						
NVL				MLR	MLR		
	comp=E,797nm,21.0s						
Z19A	T-Link Ranch,	66.87	323	⇓P	P	14 55 50.5	+0.3
	baz=67						
W22A	Albuquerque	66.94	326	⇓P	P	14 55 51.1	+0.5
	baz=67,SNR=41						
SCIA	State Center	66.98	340	eP	P	14 55 49.6	-1.2
TUC	Tucson	67.01	322	eP	P	14 55 51.2	+0.1
JFWS	Jewell Farm	67.02	343	eP	P	14 55 49.6	-1.4
Z18A	Geronimo	67.15	323	⇓P	P	14 55 52.3	+0.3
	baz=67,SNR=36						
117A	Oracle	67.17	322	⇓P	P	14 55 52.3	+0.2
	baz=67,SNR=190						
216A	Three Points,	67.18	321	P	P	14 55 52.6	+0.4
	baz=67,SNR=112						
Y19A	Nutrioso	67.36	324	⇓P	P	14 55 54.2	+0.9
	baz=68,SNR=380						
W21A	San Fidel	67.38	326	⇓P	P	14 55 53.7	+0.3
	baz=68,SNR=64						
GLMI	Grayling	67.47	348	eP	P	14 55 52.6	-1.2
Z17A	San Carlos Hig	67.55	323	⇓P	P	14 55 54.7	+0.1
	baz=68,SNR=84						
116A	Eloy	67.73	321	P	P	14 55 55.9	+0.3
	baz=68,SNR=96						
W20A	Ramah	67.83	325	⇓P	P	14 55 56.8	+0.5
	baz=68,SNR=115						
LIC	Lamto	67.85	74	⇑iP	P	14 55 56.5	-0.3
	comp=E,572nm,1.1s,mb5.9,baz=254						
LIC				eMLR	MLR		
	comp=Z,5μm,21.2s						
LIC	Lamto	67.85	74	eP	P	14 55 55.9	-0.9
	comp=Z,701nm,1.1s,mb6.3						
LIC	Lamto	67.85	74	⇑iP	P	14 55 56.5	-0.3
	comp=Z,286nm,1.1s,mb5.9						
LIC				LR	LR		
	comp=Z,2μm,21.3s						
214A	Organ Pipe Nat	67.95	320	⇓P	P	14 55 57.0	-0.1
	baz=68,SNR=102						
TIC	Toumodi	68.04	73	eP	P	14 55 57.4	-0.6
	comp=Z,2μm,1.1s,mb6.7						
Y17A	Roosevelt	68.06	323	⇓P	P	14 55 58.1	+0.4
	baz=68,SNR=223						
Z16A	Peralta Trail,	68.13	322	⇑P	P	14 55 58.5	+0.3
	baz=68,SNR=50						
115A	Sonoran Desert	68.13	321	⇓P	P	14 55 58.6	+0.4
	baz=68						
KIC	Kosan Boka	68.16	74	eP	P	14 55 57.9	-0.9
	comp=Z,2μm,1.0s,mb6.9						
X18A	Snowflake	68.17	324	⇑P	P	14 55 58.8	+0.4
	baz=68,SNR=76						
DBIC	Dimbokro	68.19	73	P	P	14 55 58.4	-0.6
DBIC				S	S	15 04 50.1	+0.9
DBIC	Dimbokro	68.19	73	P	P	14 55 58.4	-0.6
	comp=Z,590nm,1.0s,mb6.3,baz=220,slow=6.3,SNR=117						
DBIC				S	S	15 04 50.1	+0.9
	comp=Z,15nm,1.0s,baz=106,slow=20,SNR=10						
DBIC				LR	LR	15 24 49.1	
	comp=Z,3μm,20.9s,baz=291,slow=35						
W19A	Sanders	68.30	325	⇓P	P	14 55 59.6	+0.4
	baz=68,SNR=99						
SDCO	Great Sand Dun	68.35	329	eP	P	14 55 59.6	+0.2
T22A	Edith	68.46	328	⇑P	P	14 56 00.6	+0.4
	baz=69,SNR=176						
W18A	Petrified Fore	68.49	324	⇓P	P	14 56 00.5	+0.1
	baz=69,SNR=41						
X17A	Forest Lakes	68.50	323	⇑P	P	14 56 00.9	+0.5
	baz=69,SNR=108						
Z15A	Gila River Ind	68.51	321	⇑P	P	14 56 00.8	+0.2
	baz=69,SNR=17						
Y16A	Circle Bar Ran	68.55	322	⇓P	P	14 56 01.4	+0.6
	baz=69,SNR=131						
114A	Black Gap (USA	68.56	321	⇓P	P	14 56 00.9	+0.1
	baz=69						
V19A	Window Rock	68.57	325	⇓P	P	14 56 01.2	+0.4
	baz=69,SNR=266						
QSPA	South Pole Qui	68.87	180	S	S	15 04 56.7	+1.5
	comp=Z,1.9nm,1.0s,baz=24,slow=22,SNR=4.1						
QSPA	South Pole Qui	68.87	180	eP	P	14 56 01.6	-0.5
	comp=Z,108nm,0.8s,mb5.6						
QSPA				epP	pP	14 56 34.9	+0.6
QSPA				esP	sP	14 56 49.0	+0.4
X16A	Lo Mia Camp, P	68.92	323	⇑P	P	14 56 03.6	+0.6
	baz=69,SNR=201						
CHIE	El Hierro	68.93	47	P	P	14 56 07.7	+4.5
	comp=Z,59nm,0.9s,mb5.3						
W17A	Winslow	69.00	324	⇓P	P	14 56 04.0	+0.4
	baz=69,SNR=48						
Z14A	Wintersburg	69.03	321	⇑P	P	14 56 03.5	-0.3
	baz=69,SNR=22						
V18A	Ganado	69.04	325	⇑P	P	14 56 03.7	-0.1
	baz=69,SNR=54						
113A	Mohawk Valley,	69.09	320	⇑P	P	14 56 04.2	0.0
	baz=69,SNR=47						
Y15A	Casa Rosa Ranc	69.09	322	⇑P	P	14 56 04.4	+0.3
	baz=69,SNR=143						
R22A	Saguache, Gunn	69.34	328	⇑P	P	14 56 06.0	+0.5
	baz=70,SNR=77						
OGNE	Ogallala	69.40	333	eP	P	14 56 05.7	-0.1
T19A	Beclabito	69.41	326	P	P	14 56 06.1	+0.1
	baz=70,SNR=205						
112A	Yuma	69.42	319	⇑P	P	14 56 06.1	-0.1
	baz=70,SNR=17						
X15A	Humboldt	69.42	322	⇑P	P	14 56 06.6	+0.4
	baz=70,SNR=161						
MVCO	Mesa Verde	69.42	327	⇑P	P	14 56 06.3	+0.2
	baz=70,SNR=207						
MVCO	Mesa Verde	69.42	327	eP	P	14 56 05.6	-0.5
W16A	Flagstaff	69.47	323	⇑P	P	14 56 07.2	+0.8
	baz=70,SNR=173						
Y14A	Wickenburg	69.47	321	⇓P	P	14 56 06.6	+0.2
	baz=70,SNR=96						
U18A	Rough Rock, Ch	69.54	325	⇓P	P	14 56 07.3	+0.5
	baz=70,SNR=372						
WUAZ	Wupatki	69.69	324	⇓P	P	14 56 08.5	+0.7
	baz=70,SNR=189						
WUAZ	Wupatki	69.69	324	eP	P	14 56 07.9	+0.2
COWI	Conover	69.69	345	eP	P	14 56 05.3	-2.2
EGOM	La Gomera	69.71	47	P	P	14 56 10.8	+2.7
	comp=Z,131nm,0.6s,mb5.8						
ECSD	EROS Data Cent	69.73	339	eP	P	14 56 06.7	-1.2
X14A	Yava	69.78	322	⇓P	P	14 56 08.9	+0.6
	baz=70,SNR=150						
Y13A	Salome	69.86	321	⇓P	P	14 56 09.0	+0.1
	baz=70,SNR=102						
Q22A	Crested Butte,	69.91	329	⇑P	P	14 56 09.4	+0.4
	baz=70,SNR=91						
TAOE	Nuku Hiva Isla	69.92	268	eP	P	14 56 09.6	-0.1
	comp=Z,2μm,1.4s,mb6.6						
TAOE				eS	S	15 05 01.7	-7.9
	comp=Z,6μm,26.7s						
TAOE				eSS	SS	15 09 29.4	-12
	comp=Z,2μm,23.9s						
TAOE				eLQ		15 14 15.2	
	comp=Z,9μm,24.3s						
TAOE				eLR	LR	15 16 58.7	
	comp=Z,13μm,38.6s,baz=125						
TAOE	Nuku Hiva Isla	69.92	268	eP	P	14 56 09.6	-0.1
	comp=Z,2μm,1.4s,mb6.6						
TAOE				eS	S	15 05 01.7	-7.9
TAOE				eSS	SS	15 09 29.4	-12
TAOE				eLQ		15 14 15.2	
GLA	Glamis	69.93	320	⇑P	P	14 56 09.5	+0.2
	baz=70,SNR=35						
GLA	Glamis	69.93	320	eP	P	14 56 09.6	+0.3
W15A	Williams	69.94	323	⇑P	P	14 56 10.0	+0.7
	baz=70,SNR=92						
U16A	Tuba City	70.01	324	⇑P	P	14 56 10.2	+0.4
	baz=70						
ISCO	Idaho Springs	70.04	330	eP	P	14 56 10.2	+0.4
T18A	Mexican Hat	70.08	326	⇓P	P	14 56 10.1	0.0
	baz=70,SNR=323						
U17A	Shonto	70.10	325	⇑P	P	14 56 10.9	+0.7
	baz=70						
R20A	Redvale	70.11	327	⇑P	P	14 56 11.1	+0.8
	baz=70,SNR=245						
S19A	Harvey Farm, M	70.16	327	⇓P	P	14 56 10.8	+0.2
	baz=70,SNR=248						
Q21A	Lamborn Mesa,	70.21	328	⇓P	P	14 56 11.1	+0.2
	baz=70,SNR=46						
Y12C	Blythe	70.23	320	⇓P	P	14 56 11.4	+0.3
	baz=70,SNR=28						
V15A	Kaibab Nationa	70.35	323	⇓P	P	14 56 12.7	+0.9
	baz=70,SNR=284						
PDMCI	Parker Dam,Lak	70.39	321	⇑P	P	14 56 12.4	+0.3
	baz=71,SNR=23						
X13A	Yucca	70.42	321	⇓P	P	14 56 12.5	+0.3
	baz=71,SNR=169						
W14A	Seligman	70.43	322	⇑P	P	14 56 13.0	+0.7
	baz=71,SNR=166						

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DVTC  Desert V Tower   70.44 319 ⇑P      P      14 56 12.7 +0.4
      baz=71,SNR=36
SWSC  Sam W. Stewart   70.44 319 ⇑P      P      14 56 12.6 +0.2
      baz=71,SNR=36
T17A  Navajo Res., N   70.47 325 ⇓P      P      14 56 13.5 +1.0
      baz=71,SNR=584
PV04  Paradox Valley   70.53 327 eP      P      14 56 13.2 +0.3
EBAJ  Bajamar          70.55  47  P      P      14 56 12.6 -0.5
      comp=Z,32nm,1.0s,mb5.0
S18A  Hurst Farm, Bl   70.56 326 ⇑P      P      14 56 13.6 +0.6
      baz=71,SNR=504
R19A  Curley Farm, L   70.64 327 ⇑P      P      14 56 13.5  0.0
      baz=71,SNR=75
Q20A  Ridgley Place,   70.66 328 ⇑P      P      14 56 13.3 -0.3
      baz=71,SNR=34
P21A  Newcastle        70.69 329 ⇑P      P      14 56 14.6 +0.8
      baz=71,SNR=192
BC3   Big Chuckw Mtn   70.72 320 ⇑P      P      14 56 14.5 +0.4
      baz=71,SNR=108
V14A  Boquillas Ranc   70.74 323 ⇑P      P      14 56 15.0 +0.9
      baz=71,SNR=344
MONP  Monument Peak    70.79 318 ⇓P      P      14 56 14.9 +0.4
      baz=71,SNR=49
EOSO  Osorio           70.80  48  P      P      14 56 18.7 +4.0
      comp=Z,51nm,0.6s,mb5.4
BAR   Barrett          70.81 318 eP      P      14 56 14.9 +0.3
W13A  Hualapai Mount   70.81 322 ⇓P      P      14 56 15.3 +0.7
      baz=71,SNR=90
T16A  Glen Canyon Da   70.84 325 ⇑P      P      14 56 15.4 +0.7
      baz=71,SNR=82
IRM   Iron Mountain    70.89 320 ⇓P      P      14 56 15.5 +0.4
      baz=71,SNR=220
S17A  Black Ridge (B   70.94 325 ⇓P      P      14 56 15.8 +0.4
      baz=71,SNR=229
NEE2  Needles Airpor   71.00 321 ⇑P      P      14 56 16.5 +0.7
      baz=71,SNR=8.7
R18A  Canyonlands Na   71.03 327 ⇑P      P      14 56 15.9  0.0
      baz=71,SNR=159
P20A  De Beque         71.13 328 ⇓P      P      14 56 16.7 +0.3
      baz=71,SNR=85
Q19A  Hogan Spring (   71.14 327 ⇓P      P      14 56 16.7 +0.2
      baz=71,SNR=180
PHWY  Pilot Hill       71.17 331 eP      P      14 56 16.9 +0.3
109C  Camp Elliot, M   71.22 318 ⇓P      P      14 56 17.8 +0.7
      baz=71,SNR=9.3
N22A  Wattenberg Ran   71.23 330 ⇑P      P      14 56 17.5 +0.5
      baz=71,SNR=136
O21A  Pagoda           71.24 329 ⇑P      P      14 56 17.7 +0.6
      baz=71,SNR=50
BELC  Belle Mtn.       71.29 320 ⇓P      P      14 56 18.0 +0.5
      baz=72,SNR=35
PFO   Pinyon Flat Ob   71.30 319 ⇓P      P      14 56 18.1 +0.5
      baz=72,SNR=68
PFO   Pinyon Flat Ob   71.30 319⇓iP      P      14 56 18.2 +0.6
      comp=Z,188nm,1.2s,mb5.7
T15A  Red Dirt Ranch   71.34 324 ⇑P      P      14 56 18.4 +0.6
      baz=72,SNR=133
U14A  Mt Trumbull      71.35 323 ⇑P      P      14 56 18.9 +1.1
      baz=72,SNR=402
V13A  Grand Canyon W   71.40 322 ⇓P      P      14 56 18.8 +0.7
      baz=72,SNR=232
S16A  Weppner Ranch,   71.43 325 ⇑P      P      14 56 18.5 +0.3
      baz=72,SNR=173
R17A  Hanksville Air   71.48 326 ⇓P      P      14 56 18.9 +0.3
      baz=72,SNR=294
LDFC  Landfair         71.50 321 eP      P      14 56 19.9 +1.1
W12A  Cal Nev Ari      71.52 321 ⇓P      P      14 56 19.1 +0.3
      baz=72,SNR=16
P19A  Cripple Cowboy   71.52 328 ⇓P      P      14 56 19.2 +0.4
      baz=72,SNR=364
O20A  White River Ci   71.55 329 ⇑P      P      14 56 19.3 +0.4
      baz=72,SNR=178
GMRC  Granite Mounta   71.62 320 ⇑P      P      14 56 19.8 +0.3
      baz=72,SNR=250
N21A  Black Mountain   71.69 330 ⇑P      P      14 56 20.3 +0.5
      baz=72,SNR=47
Q18A  Rafter H Ranch   71.70 327 ⇓P      P      14 56 20.1 +0.2
      baz=72,SNR=116
MURC  Murrieta         71.75 319 ⇑P      P      14 56 20.5 +0.2
      baz=72,SNR=46
T14A  Hurricane        71.76 324 ⇓P      P      14 56 21.1 +0.8
      baz=72,SNR=176
M22A  Cedar Creek Ra   71.77 331 ⇑P      P      14 56 20.5 +0.3
      baz=72,SNR=70
R16A  Teasdale         71.78 326 ⇑P      P      14 56 20.8 +0.5
      baz=72,SNR=72
U13A  Pakoon Wash      71.78 323 ⇑P      P      14 56 21.0 +0.6
      baz=72,SNR=114
V12A  Nelson           71.81 322  P      P      14 56 20.7 +0.2
      baz=72,SNR=179
S15A  Panguitch        71.81 325 ⇓P      P      14 56 21.2 +0.6
      baz=72,SNR=61
SRU   San Rafael       71.90 327 ⇑P      P      14 56 21.3 +0.2
      baz=72,SNR=74
SRU   San Rafael       71.90 327 eP      P      14 56 21.5 +0.4
EYMN  Ely              72.01 344⇓iP      P      14 56 19.8 -1.7
      comp=Z,242nm,1.3s,mb5.8
EYMN                             epP     pP     14 56 52.2 -1.8
BBRC  Big Bear Sol-O   72.03 319 ⇑P      P      14 56 22.8 +0.8
      baz=72,SNR=33
CFTV  Fuerteventura    72.04  49  P      P      14 56 24.5 +2.4
      comp=Z,26nm,0.7s,mb5.1
HEC   Hector,Ludlow    72.06 320 ⇑P      P      14 56 22.8 +0.7
      baz=72,SNR=118
Q16A  Castle Valley    72.09 326 ⇑P      P      14 56 22.6 +0.4
      baz=72,SNR=201
N20A  Spence Gulch,    72.10 329 ⇓P      P      14 56 22.5 +0.3
      baz=72
O19A  Miners Draw (B   72.10 328 ⇓P      P      14 56 22.5 +0.2
      baz=72,SNR=57
U12A  Valley of Fire   72.12 322 ⇑P      P      14 56 23.0 +0.6
      baz=72,SNR=58
P18A  Preston Nutter   72.15 327 ⇑P      P      14 56 23.2 +0.7
      baz=72,SNR=83
SCI   San Clemente I   72.18 317 ⇑P      P      14 56 23.7 +0.8
      baz=72,SNR=9.6
T13A  Saint George     72.18 323 ⇑P      P      14 56 23.6 +0.8
      baz=72,SNR=153
V11A  Goodsprings      72.22 321 ⇓P      P      14 56 23.4 +0.4
      baz=72
TUQ   Turquoise Moun   72.23 321 ⇑P      P      14 56 23.6 +0.5
      baz=72,SNR=28
RWWY  Rawlins          72.28 330 eP      P      14 56 23.7 +0.5
M21A  Separation Pea   72.28 330 ⇑P      P      14 56 23.5 +0.2
      baz=72,SNR=65
P17A  Butcher Ranch,   72.28 327 ⇓P      P      14 56 23.7 +0.4
      baz=72,SNR=130
S14A  Cedar City       72.31 324 ⇓P      P      14 56 24.3 +0.8
      baz=72,SNR=40
MSU   Marysvale        72.32 325 eP      P      14 56 24.1 +0.5
CIS   Catalina Islan   72.37 318 ⇓P      P      14 56 24.7 +0.7
      baz=73,SNR=16
TMUT  Trail Mountain   72.39 326 eP      P      14 56 24.6 +0.6
T12A  Moapa            72.43 322 ⇓P      P      14 56 25.2 +1.0
      baz=73
BFSC  Mount Baldy St   72.46 319 ⇑P      P      14 56 25.3 +0.8
      baz=73,SNR=110
RRX   Edison Barstow   72.49 320 ⇓P      P      14 56 25.7 +1.0
      baz=73,SNR=12
FMP   Fort Macarthur   72.50 318 ⇓P      P      14 56 25.8 +1.0
      baz=73
SHPR  Sheep Range      72.53 322 eP      P      14 56 25.6 +0.7
S13A  Holt Ranch, En   72.56 324 ⇓P      P      14 56 26.1 +1.1
      baz=73,SNR=400
L21A  Rawlins          72.57 331 ⇓P      P      14 56 24.9 -0.1
      baz=73,SNR=112
M20A  Sweetwater, Wa   72.58 330 ⇑P      P      14 56 25.2 +0.2
      baz=73,SNR=89
N19A  John Jarvie Ra   72.59 329 ⇑P      P      14 56 25.0  0.0
      baz=73,SNR=166
U11A  Corn Creek       72.60 322 ⇓P      P      14 56 26.2 +0.9
      baz=73,SNR=8.3
R14A  James Farms, M   72.62 325 ⇓P      P      14 56 26.1 +0.7
      baz=73,SNR=79
GSC   Goldstone        72.66 320 ⇓P      P      14 56 26.0 +0.4
      baz=73,SNR=111
GSC   Goldstone        72.66 320 eP      P      14 56 26.3 +0.7
MWC   Mount Wilson     72.70 319 eP      P      14 56 26.4 +0.5
PASC  Pasadena Art C   72.74 318 eP      P      14 56 26.6 +0.5
PASC                             epP     pP     14 57 01.5 +2.7
SHOC  Shoshone         72.76 321 ⇑P      P      14 56 26.3  0.0
      baz=73,SNR=51
Q15A  Fillmore         72.78 325 ⇑P      P      14 56 26.8 +0.5
      baz=73,SNR=61
O17A  Robinson Place   72.83 327 ⇓P      P      14 56 27.4 +0.8
      baz=73,SNR=339
EFAM  Famara           72.85  48  P      P      14 56 32.5 +5.6
      comp=Z,78nm,1.0s,mb5.4

RSSD  Black Hills      72.86 334 eP      P      14 56 26.5 -0.1
P16A  Fountain Green   72.86 326 ⇓P      P      14 56 27.4 +0.7
      baz=73,SNR=59
DECC  Green Verdugo    72.88 318 ⇓P      P      14 56 27.5 +0.5
      baz=73,SNR=10
SNCC  San Nicolas Is   72.98 317 ⇓P      P      14 56 27.9 +0.4
      baz=73
SNCC  San Nicolas Is   72.98 317 eP      P      14 56 27.0 -0.6
      comp=Z,187nm,1.2s,mb5.7
M19A  Rock Springs     73.05 329 ⇑P      P      14 56 28.1 +0.3
      baz=73,SNR=29
R13A  O’Grain Ranch,   73.05 324 ⇓P      P      14 56 28.3 +0.4
      baz=73,SNR=226
L20A  Wamsutter        73.05 330 ⇓P      P      14 56 28.0 +0.2
      baz=73,SNR=84
T11A  Corn Creek, Al   73.08 323 ⇑P      P      14 56 29.0 +0.9
      baz=73,SNR=302
EDW2  Edwards Air Fo   73.09 319 ⇓P      P      14 56 28.1 -0.1
      baz=73,SNR=86
S12A  Delamar Landin   73.13 323 ⇓P      P      14 56 29.1 +0.8
      baz=73,SNR=90
MPU   Maple Canyon     73.15 327 eP      P      14 56 28.9 +0.5
U10A  Ash Meadows, A   73.15 321 ⇑P      P      14 56 29.2 +0.7
      baz=73,SNR=29
P15A  Leamington       73.15 326 ⇑P      P      14 56 28.6 +0.2
      baz=73,SNR=108
O16A  Springville      73.22 327 ⇓P      P      14 56 29.0 +0.2
      baz=73
BLG   Laguna Peak      73.25 318 ⇓P      P      14 56 29.1 -0.1
      baz=73,SNR=11
DAU   Daniels Canyon   73.25 327 eP      P      14 56 29.8 +0.8
Q14A  Sevier Lake (B   73.25 325 ⇑P      P      14 56 29.6 +0.5
      baz=73,SNR=261
NLU   North Lily Min   73.33 326 eP      P      14 56 30.3 +0.8
OSI   Osito Adit       73.37 318 ⇑P      P      14 56 29.9  0.0
      baz=74,SNR=12
OSI   Osito Adit       73.37 318 eP      P      14 56 29.9 +0.1
M18A  Lyman            73.43 329 ⇑P      P      14 56 29.8 -0.2
      baz=74,SNR=50
N17A  Moffit Pass      73.44 328 ⇑P      P      14 56 30.7 +0.6
      baz=74,SNR=319
JLU   Jordanelle       73.49 327 eP      P      14 56 31.1 +0.7
FURC  Furnace Creek,   73.49 321 ⇑P      P      14 56 30.9 +0.4
      baz=74,SNR=118
R12A  Pony Springs,    73.50 324 ⇓P      P      14 56 31.3 +0.7
      baz=74,SNR=261
BSC   Santa Cruz Isl   73.53 317 ⇓P      P      14 56 30.7 -0.1
      baz=74,SNR=15
AGMN  Agassiz Refuge   73.55 341⇓iP      P      14 56 29.3 -1.2
      comp=Z,225nm,1.3s,mb5.7
AGMN                             epP     pP     14 57 00.9 -2.3
K20A  Yellowstone Ra   73.56 330 ⇑P      P      14 56 30.6 -0.2
      baz=74,SNR=115
P14A  Drum Mountains   73.58 325 ⇑P      P      14 56 31.9 +0.9
      baz=74,SNR=299
MPMC  Manual Prospec   73.59 320 ⇑P      P      14 56 31.1  0.0
      baz=74,SNR=94
L19A  Farson           73.60 329 ⇓P      P      14 56 31.2 +0.2
      baz=74,SNR=147
Q13A  Wheeler Ranch,   73.63 324 ⇓P      P      14 56 31.8 +0.5
      baz=74,SNR=113
N16A  Rees Ranch, Co   73.70 327 ⇑P      P      14 56 31.9 +0.3
      baz=74,SNR=78
CTU   Camp Tracy       73.71 327 eP      P      14 56 32.7 +1.0
M17A  Scullys Gap (B   73.75 328 ⇑P      P      14 56 31.5 -0.4
      baz=74,SNR=47
ARVC  Arvin            73.77 319 ⇓P      P      14 56 31.0 -1.2
      baz=74,SNR=12
O15A  The Old Anders   73.77 326 ⇑P      P      14 56 32.0 -0.1
      baz=74,SNR=56
L18A  Fontenelle, Gr   73.79 329 ⇓P      P      14 56 32.3 +0.2
      baz=74,SNR=196
NOQ   North Oquirrh    73.87 327 eP      P      14 56 33.2 +0.6
SBC   Santa Barbara    73.87 318 ⇑P      P      14 56 33.0 +0.2
      baz=74
DUG   Dugway           73.89 326 ⇑P      P      14 56 33.1 +0.4
      baz=74,SNR=142
DUG   Dugway           73.89 326 eP      P      14 56 33.4 +0.6
ISA   Isabella         73.91 319 ⇑P      P      14 56 33.5 +0.5
      baz=74,SNR=147
ISA   Isabella         73.91 319 eP      P      14 56 33.6 +0.6
K19A  Absolon Red Bu   73.92 330 ⇓P      P      14 56 32.2 -0.7
      baz=74,SNR=105
P13A  Bates Ranch, G   73.99 325 ⇓P      P      14 56 34.2 +0.8
      baz=74
R11A  Troy Canyon, C   74.06 323 ⇓P      P      14 56 34.5 +0.7
      baz=74,SNR=330
M16A  Huntsville       74.11 328 ⇑P      P      14 56 33.8 -0.2
      baz=74,SNR=18
GRAC  Grapevine Rang   74.15 321 ⇓P      P      14 56 34.1 -0.3
      baz=74
CWC   Cottonwood Cre   74.19 320 ⇓P      P      14 56 35.1 +0.4
      baz=74,SNR=129
BW06  Boulder Array    74.21 330 ⇑P      P      14 56 34.1 -0.4
      baz=74,SNR=106
BW06  Boulder Array    74.21 330⇓iP      P      14 56 34.2 -0.3
      comp=Z,41nm,0.3s,mb5.6
PDAR  Pinedale Array   74.21 330  P      P      14 56 34.2 -0.3
      comp=Z,25nm,0.6s,mb5.1,baz=129,slow=7.9,SNR=140
PDAR                              pP     pP     14 57 05.6 -1.6
      comp=Z,17nm,0.8s,baz=158,slow=4.3,SNR=3.1
PDAR                              sP     sP     14 57 19.5 -1.8
      comp=Z,21nm,1.1s,baz=150,slow=15,SNR=1.6
PDAR                              S      S      15 05 58.9 +1.6
      comp=Z,0.1nm,0.3s,baz=72,slow=33,SNR=2.2
PDAR                              LR     LR     15 31 35.5
      comp=Z,548nm,18.5s,baz=144,slow=38
N15A  Stansbury Isla   74.25 327 ⇑P      P      14 56 34.1 -0.7
      baz=74
L17A  Cokeville        74.33 329 ⇑P      P      14 56 35.0 -0.3
      baz=74,SNR=88
K18A  Toltan Ranch,    74.34 329 ⇑P      P      14 56 35.7 +0.4
      baz=74,SNR=152
S10A  Tonopah Range,   74.34 322 ⇓P      P      14 56 35.9 +0.5
      baz=74,SNR=189
MEH   Mehetia          74.40 257 eP      P      14 56 36.0 -0.3
      comp=Z,2μm,1.3s,mb6.8
MEH                              epP     pP     14 57 06.3 -2.7
      comp=Z,1μm,1.2s
R10A  Warm Springs     74.42 323 ⇑P      P      14 56 36.8 +0.9
      baz=75,SNR=214
Q11A  Duckwater        74.45 323 ⇑P      P      14 56 36.5 +0.5
      baz=75,SNR=208
O13A  Hicks Ranch, I   74.46 325 ⇑P      P      14 56 36.4 +0.3
      baz=75,SNR=42
P12A  McGill           74.48 324 ⇑P      P      14 56 36.5 +0.3
      baz=75,SNR=115
SPUT  South Promonto   74.52 327 eP      P      14 56 36.7 +0.3
L16A  Fish Haven       74.54 328 ⇑P      P      14 56 36.2 -0.3
      baz=75,SNR=156
S09A  Goldfield        74.56 322 ⇓P      P      14 56 36.7  0.0
      baz=75,SNR=128
N14A  Grayback Hills   74.56 326 ⇑P      P      14 56 36.8 +0.1
      baz=75,SNR=123
SMMC  Simmler          74.61 318 ⇑P      P      14 56 37.2 +0.1
      baz=75,SNR=10
M15A  Larsen Ranch,    74.64 327 ⇓P      P      14 56 36.9 -0.1
      baz=75,SNR=150
TIN   Tinemaha         74.69 321 ⇑P      P      14 56 37.7 +0.2
      baz=75,SNR=17
J18A  Kendall Valley   74.77 330 ⇑P      P      14 56 37.4 -0.3
      baz=75,SNR=354
TPH   Tonopah          74.80 322 eP      P      14 56 38.6 +0.5
RCTC  Rector, Farmer   74.80 320 ⇓P      P      14 56 37.4 -0.8
      baz=75,SNR=19
VAH   Vaihoa           74.81 259 eP      P      14 56 38.5 -0.2
      comp=Z,367nm,1.3s,mb5.9
VAH                              epP     pP     14 57 08.8 -2.6
      comp=Z,223nm,1.2s
R09A  Tonopah          74.83 322 ⇑P      P      14 56 38.5 +0.3
      baz=75,SNR=161
K17A  Gardner Place,   74.84 329 ⇑P      P      14 56 38.0 -0.2
      baz=75,SNR=64
Q10A  Clear Creek Ra   74.85 323 ⇑P      P      14 56 38.8 +0.4
      baz=75,SNR=115
AHID  Auburn Hatcher   74.94 329 eP      P      14 56 39.0 +0.2
O12A  Currie           74.96 325 ⇓P      P      14 56 39.3 +0.4
      baz=75,SNR=163
P11A  Circle Ranch,    75.00 324 ⇓P      P      14 56 39.6 +0.3
      baz=75,SNR=24
L15A  Malad City       75.00 328 ⇓P      P      14 56 39.0 -0.1
      baz=75,SNR=297
HVU   Hansel Valley    75.03 327 eP      P      14 56 39.3  0.0
I18A  Diamond G Ranc   75.05 330 ⇓P      P      14 56 39.7 +0.3
      baz=75,SNR=130
MTUM  Tungsten Hills   75.09 321 eP      P      14 56 40.1 +0.3
N13A  Wendover, West   75.10 326 ⇓P      P      14 56 39.6 -0.1
      baz=75,SNR=14

M14A  Sheep Mountain   75.12 327 ⇓P      P      14 56 39.8 -0.1
      baz=75,SNR=210
PMOR  Pomariorio Ree   75.13 259 eP      P      14 56 40.4 -0.1
      comp=Z,574nm,1.4s,mb6.0
PMOR                             epP     pP     14 57 10.8 -2.5
      comp=Z,168nm,1.2s
J17A  Brown Place, J   75.21 329 ⇑P      P      14 56 40.7 +0.4
      baz=75,SNR=65
K16A  Soda Springs     75.23 329 ⇑P      P      14 56 41.0 +0.6
      baz=75,SNR=522
REDW  Red Top Meadow   75.28 329 eP      P      14 56 41.1 +0.4
Q09A  Carvers          75.30 323 ⇑P      P      14 56 41.1 +0.1
      baz=76,SNR=20
ULM   Lac du Bonnet    75.30 342  P      P      14 56 39.3 -1.3
      comp=Z,31nm,0.5s,mb5.2,baz=155,slow=5.9,SNR=58
ULM                               pP     pP     14 57 11.2 -2.3
      comp=Z,51nm,0.8s,baz=159,slow=4.6,SNR=5.2
ULM                               sP     sP     14 57 24.9 -2.5
      comp=Z,26nm,0.8s,baz=107,slow=3.2,SNR=1.6
ULM                               S      S      15 06 05.8 -3.3
      comp=Z,1.4nm,0.5s,baz=229,slow=23,SNR=2.1
ULM                               LR     LR     15 35 03.7
      comp=Z,1μm,18.6s,baz=340,slow=40
SNOW  Snow King Moun   75.31 330 eP      P      14 56 41.5 +0.7
LOHW  Long Hollow      75.35 330 eP      P      14 56 41.5 +0.4
O11A  Cowboy Ranch,    75.36 324 ⇓P      P      14 56 41.5 +0.3
      baz=76,SNR=121
TPAW  Teton Pass       75.42 329 eP      P      14 56 42.1 +0.6
MLAC  Mammoth Lakes    75.44 321 ⇑P      P      14 56 42.4 +0.6
      baz=76,SNR=42
M13A  Montello         75.44 326 ⇓P      P      14 56 41.5 -0.2
      baz=76,SNR=38
P10A  Eureka           75.44 324 ⇑P      P      14 56 42.5 +0.7
      baz=76
L14A  Malta            75.46 327 ⇓P      P      14 56 41.4 -0.3
      baz=76,SNR=139
RRI2  Red Ridge        75.49 329 eP      P      14 56 42.4 +0.6
R08A  Mina             75.50 322 ⇑P      P      14 56 41.9 -0.2
      baz=76,SNR=24
TVO   Taravao          75.50 256 eP      P      14 56 42.6  0.0
      comp=Z,3μm,1.5s,mb6.7
TVO                              epP     pP     14 57 13.3 -2.1
      comp=Z,2μm,1.3s
TVO   Taravao          75.50 256 eP      P      14 56 42.6  0.0
TVO                              e*PP    pP     14 57 13.3 -2.1
TVO                               pmax   pmax
      comp=Z,3μm,1.5s,mb6.7
MOOW  Moose Ponds      75.52 330 eP      P      14 56 42.4 +0.3
N12A  Clover Valley,   75.53 325 ⇓P      P      14 56 41.7 -0.5
      baz=76,SNR=25
ELK   Elko             75.57 325⇓iP      P      14 56 42.6 +0.2
ELK                               pmax   pmax
      comp=Z,175nm,1.2s
ELK   Elko             75.57 325⇓iP      P      14 56 42.6 +0.2
      comp=Z,175nm,1.2s,mb5.6
I17A  Pilgrim Ck.      75.57 330 ⇑P      P      14 56 43.1 +0.7
      baz=76
J16A  Bone             75.57 329 ⇑P      P      14 56 42.5 +0.1
      baz=76,SNR=123
K15A  Arbon            75.58 328 ⇓P      P      14 56 42.6 +0.1
      baz=76,SNR=119
DCID1 Drake Creek      75.61 329 eP      P      14 56 43.2 +0.6
TIAR  Tiarei           75.65 257 eP      P      14 56 43.2 -0.3
      comp=Z,284nm,0.9s,mb5.9
NVAR  Mina Array Bea   75.67 322  P      P      14 56 43.4 +0.4
      comp=Z,50nm,0.9s,mb5.1,baz=146,slow=6.4,SNR=166
NVAR                              pP     pP     14 57 14.9 -1.0
      comp=Z,31nm,0.8s,baz=125,slow=6.5,SNR=5.3
NVAR                              sP     sP     14 57 29.1 -0.8
      comp=Z,4.7nm,0.6s,baz=73,slow=24,SNR=1.1
NVAR  Mina Array Bea   75.67 322  P      P      14 56 43.4 +0.4
NVAR                              pP     pP     14 57 14.9 -1.0
NVAR                              sP     sP     14 57 29.1 -0.8
IMW   Indian Meadow    75.72 330 eP      P      14 56 43.9 +0.7
Q08A  Gabbs            75.74 322 ⇓P      P      14 56 43.5  0.0
      baz=76,SNR=77
P09A  Austin           75.77 323 ⇑P      P      14 56 43.7 +0.1
      baz=76,SNR=23
K14A  Jones Ranch, D   75.80 328 ⇑P      P      14 56 43.4 -0.3
      baz=76,SNR=81
PAE   Paea             75.83 256 eP      P      14 56 44.4 -0.1
      comp=Z,2μm,1.3s,mb6.7
PAE                              epP     pP     14 57 15.3 -2.0
      comp=Z,2μm,1.2s
PAE   Paea             75.83 256 eP      P      14 56 44.4 -0.1
PAE                              e*PP    pP     14 57 15.3 -2.0
PAE                               pmax   pmax
      comp=Z,2μm,1.3s,mb6.7
LAO   LASA Array       75.84 334⇓iP      P      14 56 43.5 -0.3
      comp=Z,346nm,1.3s,mb5.8
SCHQ  Schefferville    75.85   1  P      P      14 56 43.2 -0.5
      comp=Z,37nm,0.8s,mb5.0,baz=170,slow=4.4,SNR=55
SCHQ                              S      S      15 06 14.2 -0.7
      comp=Z,2.3nm,0.9s,baz=67,slow=19,SNR=4.5
SCHQ  Schefferville    75.85   1  P      P      14 56 43.2 -0.5
SCHQ                              S      S      15 06 14.2 -0.7
L13A  Double Diamond   75.86 327 ⇓P      P      14 56 44.3 +0.2
      baz=76,SNR=55
PPT   Papeete          75.86 256 eP      P      14 56 44.6 -0.1
      comp=Z,326nm,1.5s,mb5.8
PPT                              epP     pP     14 57 15.5 -2.0
      comp=Z,141nm,1.3s
PPT                              eS      S      15 06 09.3 -7.4
      comp=Z,5μm,25.5s
PPT                              eLQ            15 16 41.7
      comp=Z,5μm,31.0s
PPT                              eLR     LR     15 19 54.0
      comp=Z,6μm,37.0s,baz=110
PPT   Papeete          75.86 256  P      P      14 56 44.7  0.0
PPT                               *PP    pP     14 57 16.6 -0.9
PPT   Papeete          75.86 256  P      P      14 56 44.7  0.0
      comp=Z,194nm,1.2s,mb5.6,baz=116,slow=4.7,SNR=22
PPT                               pP     pP     14 57 16.6 -0.9
      comp=Z,70nm,1.0s,baz=110,slow=11,SNR=4.0
PPT                               LR     LR     15 23 35.0
      comp=Z,446nm,21.5s,baz=290,slow=30
N11A  Elko Archery C   75.88 325 ⇑P      P      14 56 44.4 +0.2
      baz=76,SNR=12
RLMT  Red Lodge        75.90 331 ⇑P      P      14 56 44.5 +0.3
      baz=76,SNR=103
RLMT  Red Lodge        75.90 331⇓iP      P      14 56 44.6 +0.4
      comp=Z,549nm,1.4s,mb6.0
RLMT                             epP     pP     14 57 16.2 -0.8
RLMT                             esP     sP     14 57 30.1 -0.9
O10A  Cortez Mining,   75.93 324 ⇑P      P      14 56 44.9 +0.5
      baz=76,SNR=102
H17A  Grant Village    75.93 330 ⇑P      P      14 56 44.9 +0.5
      baz=76,SNR=61
I16A  Newdale          75.97 329 ⇑P      P      14 56 45.1 +0.5
      baz=76,SNR=135
LKWY  Lake             75.98 330⇓iP      P      14 56 46.3 +1.6
LKWY                              pmax   pmax
      comp=Z,352nm,1.3s,mb5.8
LKWY  Lake             75.98 330⇓iP      P      14 56 46.2 +1.6
      comp=Z,352nm,1.3s,mb5.8
J15A  Blackfoot        76.06 329 ⇓P      P      14 56 45.6 +0.5
      baz=76,SNR=184
YFT   Old Faithful     76.09 330 eP      P      14 56 47.2 +1.9
SBA   Scott Base       76.10 190 eP      P      14 56 44.6 -0.4
SBA                              e*PP    pP     14 57 19.1 +1.3
SBA                               pmax   pmax
      comp=Z,88nm,1.0s,mb5.3
SBA   Scott Base       76.10 190 eP      P      14 56 44.6 -0.4
      comp=Z,88nm,1.0s,mb5.3
SBA                              epP     pP     14 57 19.1 +1.3
G18A  Lazy EL Ranch,   76.18 331 ⇑P      P      14 56 45.8  0.0
      baz=76,SNR=66
O09A  Fish Creek Ran   76.22 324 ⇓P      P      14 56 46.6 +0.4
      baz=76,SNR=9.8
YNR   Norris Junctio   76.22 330 eP      P      14 56 47.7 +1.7
N10A  Dunphy           76.23 324 ⇑P      P      14 56 46.1 -0.1
      baz=76,SNR=18
YMR   Madison River    76.32 330⇓iP      P      14 56 47.8 +1.2
      comp=Z,966nm,1.5s,mb6.2
YMR                              epP     pP     14 57 20.5 +1.0
YMR                              esP     sP     14 57 34.2 +0.7
K13A  Stover Farm, H   76.33 327 ⇓P      P      14 56 46.9 +0.2
      baz=76,SNR=44
M11A  Holland Ranch,   76.35 325 ⇓P      P      14 56 47.2 +0.4
      baz=76,SNR=214
WAKR  Walker           76.38 321 eP      P      14 56 47.8 +0.7
P08A  Dixie Valley     76.40 323 ⇓P      P      14 56 47.7 +0.6
      baz=77,SNR=81
R06C  Coleville        76.40 321 ⇓P      P      14 56 47.7 +0.6
      baz=77,SNR=110
BMN   Battle Mountai   76.42 324 eP      P      14 56 46.8 -0.5
BMN                               pmax   pmax
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	comp=Z,238nm,1.8s,mb5.5						
BMN	Battle Mountai	76.42	324	*e*P	P	14 56 46.8	-0.5
	comp=Z,238nm,1.8s,mb5.5						
L12A	House Creek Ra	76.45	326	⇑P	P	14 56 48.0	+0.6
	baz=77,SNR=213						
SAO	San Andreas Ge	76.45	319	*e*P	P	14 56 47.1	-0.4
SAO				pmax	pmax		
	comp=Z,197nm,1.5s,mb5.5						
SAO	San Andreas Ge	76.45	319	*e*P	P	14 56 47.1	-0.4
	comp=Z,197nm,1.5s,mb5.5						
H16A	Russell Place,	76.48	330	⇑P	P	14 56 48.2	+0.7
	baz=77,SNR=97						
SYO	Syowa Base	76.49	159	⇑*i*P	P	14 56 45.6	-1.7
SYO	Syowa Base	76.49	159	⇓*i*P	P	14 56 47.7	+0.4
DGMT	Dagmar	76.51	336	⇓P	P	14 56 47.5	-0.1
	baz=77,SNR=33						
DGMT	Dagmar	76.51	336	*e*P	P	14 56 47.5	-0.1
	comp=Z,1µm,1.6s,mb6.2						
I15A	Monteview	76.54	329	⇓P	P	14 56 48.5	+0.7
	baz=77,SNR=103						
J14A	Carey	76.54	328	⇑P	P	14 56 48.5	+0.7
	baz=77,SNR=164						
CMB	Columbia Colle	76.63	320	*e*P	P	14 56 48.3	-0.2
QLMT	Earthquake Lak	76.66	330	*e*P	P	14 56 49.6	+1.1
F18A	Big Timber	76.70	332	⇓P	P	14 56 48.7	0.0
	baz=77,SNR=57						
G17A	Pierce Place,	76.71	331	⇑P	P	14 56 49.0	+0.2
	baz=77,SNR=31						
CER	Ceres	76.72	121	*e*P	P	14 56 48.1	-1.2
ELIM	Elim	76.72	122	*e*P	P	14 56 49.6	+0.4
K12A	Draper Farm, C	76.74	327	⇑P	P	14 56 49.4	+0.4
	baz=77,SNR=311						
P07A	Fallon	76.75	322	⇑P	P	14 56 49.1	0.0
	baz=77						
M10A	I.L. Ranch, Tu	76.81	325	⇑P	P	14 56 49.6	+0.2
	baz=77,SNR=81						
TORD	Torodi Ar. Bea	76.81	70	P	P	14 56 49.7	-0.3
	comp=Z,144nm,0.6s,mb5.8,baz=254,slow=5.6,SNR=528						
TORD				pP	pP	14 57 22.5	-0.4
	comp=Z,55nm,0.9s,baz=255,slow=5.7,SNR=1.7						
TORD				sP	sP	14 57 35.3	-1.7
	comp=Z,48nm,0.8s,baz=255,slow=5.0,SNR=1.0						
TORD				S	S	15 06 26.6	-0.6
	comp=Z,13nm,1.1s,baz=253,slow=9.8,SNR=13						
TORD				LR	LR	15 29 38.0	
	comp=Z,2µm,21.3s,baz=260,slow=35						
TORD	Torodi Ar. Bea	76.81	70	P	P	14 56 49.7	-0.3
TORD				pP	pP	14 57 22.5	-0.4
TORD				sP	sP	14 57 35.3	-1.7
TORD				S	S	15 06 26.6	-0.6
TORD				LR	LR	15 29 38.0	
O08A	Rochester Mine	76.84	323	⇑P	P	14 56 49.2	-0.4
	baz=77,SNR=85						
L11A	Cat Creek Ranc	76.85	326	⇑P	P	14 56 49.9	+0.3
	baz=77,SNR=141						
N09A	Rock Creek Ran	76.88	324	⇑P	P	14 56 49.2	-0.6
	baz=77,SNR=11						
J13A	Cove Ranch, Pi	76.92	328	⇑P	P	14 56 50.5	+0.5
	baz=77,SNR=128						
I14A	Mackay	76.95	328	⇓P	P	14 56 50.8	+0.7
	baz=77,SNR=228						
H15A	Lima	77.07	329	⇑P	P	14 56 51.3	+0.5
	baz=77,SNR=93						
WCN	Washoe City	77.09	322	⇑P	P	14 56 50.6	-0.4
	baz=77,SNR=40						
VNDA	Vanda	77.11	190	P	P	14 56 50.8	+0.1
VNDA				S	S	15 06 30.1	+1.6
VNDA	Vanda	77.11	190	P	P	14 56 50.8	+0.1
	comp=Z,28nm,0.9s,mb4.9,baz=129,slow=4.7,SNR=44						
VNDA				pP	pP	14 57 23.7	+0.1
	comp=Z,26nm,1.2s,baz=113,slow=11,SNR=2.3						
VNDA				S	S	15 06 30.1	+1.6
	comp=Z,2.5nm,1.1s,baz=46,slow=9.4,SNR=3.0						
VNDA				LR	LR	15 31 14.7	
	comp=Z,587nm,20.1s,baz=45,slow=36						
VNDA	Vanda	77.11	190	P	P	14 56 50.8	+0.1
VNDA				pP	pP	14 57 23.7	+0.1
VNDA				S	S	15 06 30.1	+1.6
VNDA				LR	LR	15 31 14.7	
F17A	Fitzpatrick Pl	77.12	331	⇑P	P	14 56 51.5	+0.4
	baz=77,SNR=186						
G16A	Moss Hill, Enn	77.13	330	⇑P	P	14 56 51.1	0.0
	baz=77,SNR=63						
PAHR	Pah Rah Range	77.15	322	*e*P	P	14 56 52.2	+0.9
HLID	Hailey	77.16	328	⇑P	P	14 56 52.0	+0.7
	baz=77,SNR=438						
HLID	Hailey	77.16	328	⇓*i*P	P	14 56 52.1	+0.8
	comp=Z,315nm,1.2s,mb5.8						
HLID				*e*pP	pP	14 57 23.2	-1.1
L10A	Juniper Basin	77.16	325	⇓P	P	14 56 51.4	+0.1
	baz=77,SNR=242						
O07A	Toulon	77.16	323	⇓P	P	14 56 51.3	-0.1
	baz=77,SNR=97						
N08A	GE Springer Mi	77.17	324	⇑P	P	14 56 50.3	-1.1
	baz=77,SNR=29						
M09A	Marrel Ranch,	77.23	324	⇓P	P	14 56 52.0	+0.2
	baz=77,SNR=103						
I13A	Wildhorse Cree	77.27	328	⇓P	P	14 56 52.0	0.0
	baz=78,SNR=303						
J12A	Stokes Ranch,	77.28	327	⇑P	P	14 56 52.3	+0.3
	baz=78,SNR=196						
E18A	Harlowton	77.30	332	⇓P	P	14 56 52.0	0.0
	baz=78,SNR=85						
BOZ	Bozeman (W)	77.37	330	⇓*i*P	P	14 56 52.2	-0.2
BOZ				*e**PP	pP	14 57 23.5	-1.9
BOZ				pmax	pmax		
	comp=Z,222nm,1.5s,mb5.6						
BOZ	Bozeman (W)	77.37	330	⇑P	P	14 56 52.3	-0.1
	baz=78,SNR=147						
BOZ	Bozeman (W)	77.37	330	⇓*i*P	P	14 56 52.2	-0.2
	comp=Z,222nm,1.5s,mb5.6						
BOZ				*e*pP	pP	14 57 23.5	-1.8
BOZ				*e*sP	sP	14 57 38.1	-1.4
G15A	Dillon	77.41	330	⇑P	P	14 56 52.9	+0.2
	baz=78,SNR=90						
K11A	Parker Ranch,	77.42	326	⇓P	P	14 56 52.9	0.0
	baz=78,SNR=147						
P06A	Stead Airport,	77.42	322	⇑P	P	14 56 52.7	-0.2
	baz=78,SNR=17						
F16A	Kennard Place,	77.47	331	⇓P	P	14 56 52.9	-0.1
	baz=78,SNR=31						
SAC	San Andreas	77.56	319	*e*P	P	14 56 54.4	+0.7
DLMT	Dillon	77.60	330	*e*P	P	14 56 54.4	+0.6
N07B	Gerlach	77.63	323	⇑P	P	14 56 53.9	-0.1
	baz=78,SNR=222						
E17A	Martinsdale	77.64	331	⇓P	P	14 56 54.2	+0.3
	baz=78,SNR=128						
CVNA	Calvinia	77.65	119	*e*P	P	14 56 55.4	+0.9
CVNA				AMb	AMB	14 56 59.0	
	comp=Z,341nm,1.3s,mb5.8						
I12A	Atlanta	77.69	327	⇑P	P	14 56 54.9	+0.6
	baz=78						
O06A	Flanigan	77.70	322	⇓P	P	14 56 54.6	+0.1
	baz=78,SNR=74						
D18A	Linhart Farms,	77.74	332	⇓P	P	14 56 54.3	-0.2
	baz=78,SNR=46						
M08A	Happy Creek Ra	77.76	324	⇑P	P	14 56 54.6	-0.1
	baz=78,SNR=86						
L09A	Wilkinson Ranc	77.76	325	⇓P	P	14 56 55.0	+0.2
	baz=78,SNR=25						
MFID	Camas Ranch	77.77	327	⇑P	P	14 56 55.2	+0.5
	baz=78,SNR=143						
H13A	Challis	77.81	328	P	P	14 56 55.6	+0.7
	baz=78,SNR=327						
BEKR	Beckwourth	77.81	322	⇑P	P	14 56 55.4	+0.3
	baz=78,SNR=138						
K10A	MacKenzie Ranc	77.86	326	⇑P	P	14 56 55.2	0.0
	baz=78,SNR=38						
LRM	Limekiln Ridge	77.88	330	*e*P	P	14 56 55.7	+0.4
F15A	Butte	77.91	330	⇓P	P	14 56 55.1	-0.3
	baz=78,SNR=101						
G14A	Jackson	77.92	329	⇑P	P	14 56 55.9	+0.3
	baz=78,SNR=30						
E16A	East Helena	78.06	331	⇑P	P	14 56 56.5	+0.2
	baz=78,SNR=38						
D17A	Six Diamond Ra	78.09	332	⇓P	P	14 56 56.5	+0.1
	baz=78,SNR=308						
H12A	Diamond D Ranc	78.10	328	⇓P	P	14 56 57.1	+0.6
	baz=78,SNR=224						
N06A	Buffalo Meadow	78.10	323	⇑P	P	14 56 56.8	+0.2
	baz=78,SNR=192						
OHCM	Honcut	78.12	321	*e*P	P	14 56 56.7	-0.1
M07A	Soldier Meadow	78.15	323	⇑P	P	14 56 56.6	-0.3
	baz=78,SNR=150						
G13A	Cobalt	78.19	329	⇓P	P	14 56 57.4	+0.4
	baz=78,SNR=575						
I11A	Placerville	78.19	327	⇑P	P	14 56 56.9	-0.1
	baz=78,SNR=34						
MCCM	Marconi Confer	78.20	319	*e*P	P	14 56 56.5	-0.8
	comp=Z,482nm,1.5s,mb5.9						
SUR	Sutherland	78.23	120	P	P	14 56 58.7	+1.0
	comp=Z,59nm,0.7s,mb5.3,baz=234,slow=7.2,SNR=38						
SUR				S	S	15 06 44.8	+2.8
	comp=Z,1.7nm,0.8s,baz=180,slow=21,SNR=2.2						
SUR	Sutherland	78.23	120	P	P	14 56 58.7	+1.0
SUR				S	S	15 06 44.8	+2.8
SUR	Sutherland	78.23	120	⇓P	P	14 56 59.0	+1.3
	SNR=6.6						
SUR				⇓P		14 56 59.0	
	SNR=6.6						
L08A	Fields	78.25	324	⇓P	P	14 56 57.4	0.0
	baz=78,SNR=109						
K09A	Rome	78.26	325	⇓P	P	14 56 57.3	-0.1
	baz=78,SNR=153						
HRY	Holter Researc	78.27	331	*e*P	P	14 56 57.8	+0.5
J10A	Berg Farm, Mel	78.27	326	⇑P	P	14 56 57.0	-0.5
	baz=78,SNR=9.2						
F14A	Wisdom	78.30	330	⇑P	P	14 56 58.1	+0.5
	baz=78,SNR=108						
EGMT	Eagleton	78.36	333	⇓P	P	14 56 57.5	-0.4
	baz=78,SNR=71						
EGMT	Eagleton	78.36	333	⇓*i*P	P	14 56 57.4	-0.5
	comp=Z,266nm,1.2s,mb5.7						
EGMT				*e*pP	pP	14 57 28.6	-2.3
EGMT				*e*sP	sP	14 57 43.0	-1.9
D16A	Dana Ranch, Ca	78.38	331	⇓P	P	14 56 58.4	+0.4
	baz=79,SNR=215						
E15A	Deer Lodge	78.42	330	⇓P	P	14 56 58.6	+0.4
	baz=79,SNR=113						
C17A	Wharram Farm,	78.49	332	⇓P	P	14 56 58.2	-0.4
	baz=79,SNR=80						
WVOR	Wild Horse Val	78.57	324	*e*P	P	14 56 58.5	-0.7
WVOR				pmax	pmax		
	comp=Z,162nm,1.4s,mb5.5						
WVOR	Wild Horse Val	78.57	324	*e*P	P	14 56 58.5	-0.7
	comp=Z,162nm,1.4s,mb5.5						
B18A	Beardsley Farm	78.66	333	⇓P	P	14 56 59.1	-0.4
	baz=79,SNR=151						
L07A	Adell	78.67	324	⇑P	P	14 57 00.1	+0.4
	baz=79,SNR=135						
K08A	Mann Creek Ran	78.69	325	⇑P	P	14 56 59.8	0.0
	baz=79,SNR=24						
J09A	Fry Pan Ranch,	78.72	326	⇑P	P	14 57 00.0	+0.1
	baz=79,SNR=53						
F13A	Darby	78.74	329	P	P	14 57 00.5	+0.5
	baz=79,SNR=306						
G12A	Big Creek, Yel	78.75	328	⇓P	P	14 56 59.8	-0.2
	baz=79						
I10A	Payette	78.75	327	⇓P	P	14 56 59.9	-0.2
	baz=79,SNR=12						
H11A	Donnelly	78.78	328	⇑P	P	14 56 59.8	-0.5
	baz=79,SNR=125						
E14A	Clinton	78.81	330	⇑P	P	14 57 00.8	+0.5
	baz=79,SNR=103						
D15A	Lincoln	78.83	331	⇓P	P	14 57 01.0	+0.5
	baz=79,SNR=104						
HOPS	Hopland	78.86	320	*e*P	P	14 57 01.0	+0.2
	comp=Z,413nm,1.7s,mb5.8						
B17A	L&G Farms, Che	79.02	333	⇓P	P	14 57 00.6	-0.9
	baz=79,SNR=27						
LBCM	Butte Creek Ri	79.02	322	P	P	14 57 01.4	-0.2
C16A	Fuhringer Ranc	79.05	332	⇑P	P	14 57 01.4	-0.3
	baz=79,SNR=100						
CHMT	Chamberlain Mo	79.06	330	*e*P	P	14 56 56.6	-5.2
H10A	Noah's Angus R	79.07	327	⇓P	P	14 57 01.3	-0.6
	baz=79,SNR=106						
K07A	Rock Creek Ran	79.08	324	⇓P	P	14 57 01.8	-0.2
	baz=79,SNR=161						
A18A	Metzger Ranch,	79.10	334	⇓P	P	14 57 01.0	-0.9
	baz=79,SNR=62						
J08A	Circle Bar Ran	79.11	325	⇓P	P	14 57 01.9	-0.2
	baz=79,SNR=101						
MOD	Modoc	79.13	323	*e*P	P	14 57 02.3	0.0
	comp=Z,306nm,1.1s,mb5.8						
E13A	Victor	79.15	330	⇑P	P	14 57 02.2	0.0
	baz=79,SNR=112						
I09A	Lost Marbles R	79.15	326	⇓P	P	14 57 02.4	+0.1
	baz=79,SNR=36						
F12A	Elk City	79.16	329	⇑P	P	14 57 02.3	0.0
	baz=79						
D14A	Greenough	79.31	330	⇑P	P	14 57 03.0	0.0
	baz=80,SNR=81						
MSO	Missoula	79.32	330	*e*P	P	14 57 03.2	0.0
	comp=Z,109nm,1.3s,mb5.3						
MSO				*e*pP	pP	14 57 35.4	-0.8
C15A	Salmond Ranch,	79.41	331	⇑P	P	14 57 02.9	-0.7
	baz=80,SNR=154						
SLMT	Seeley Lake	79.42	331	*e*P	P	14 57 03.9	+0.2
A17A	Triple J Farms	79.48	333	⇑P	P	14 57 03.6	-0.3
	baz=80,SNR=120						
B16A	M & M Farms, S	79.50	332	⇓P	P	14 57 03.2	-0.9
	baz=80,SNR=13						
I08A	Drewsey	79.54	326	⇑P	P	14 57 05.0	+0.6
	baz=80,SNR=181						
WDC	Whiskeytown Da	79.55	321	⇓*i*P	P	14 57 02.6	-1.9
WDC				pmax	pmax		
	comp=Z,146nm,1.0s,mb5.6						
WDC	Whiskeytown Da	79.55	321	⇓*i*P	P	14 57 02.6	-2.0
	comp=Z,146nm,1.0s,mb5.6						
J07A	Hines	79.57	325	⇑P	P	14 57 05.1	+0.5
	baz=80,SNR=98						
H09A	Durkee	79.59	327	⇑P	P	14 57 04.6	-0.1
	baz=80,SNR=47						
TSUM	Tsumeb	79.60	107	P	P	14 57 06.1	+0.6
	comp=Z,276nm,1.1s,mb5.8,baz=233,slow=5.7,SNR=72						
TSUM				pP	pP	14 57 38.9	+0.4
	comp=Z,173nm,1.1s,baz=244,slow=5.2,SNR=4.3						
F11A	Grangeville	79.70	328	⇓P	P	14 57 04.9	-0.3
	baz=80,SNR=185						
G10A	Bishop Farm, J	79.75	327	P	P	14 57 06.1	+0.6
	baz=80,SNR=321						
D13A	Huson	79.75	330	⇑P	P	14 57 05.2	-0.3
	baz=80,SNR=164						
B15A	Bradely Ranch,	79.80	332	⇑P	P	14 57 05.1	-0.6
	baz=80,SNR=110						
UPI	Upington	79.84	116	*e*P	P	14 57 06.9	+0.3
UPI				AMb	AMB	14 57 11.2	
	comp=Z,296nm,1.3s,mb5.8						
SWMT	Swartz Lake	79.85	331	*e*P	P	14 57 03.9	-2.1
A16A	West Butte Ran	79.86	333	⇑P	P	14 57 05.8	-0.2
	baz=80,SNR=168						
C14A	Swan Lake	79.92	331	⇓P	P	14 57 06.4	0.0
	baz=80						
J06A	Christmas Vall	79.94	324	⇓P	P	14 57 06.2	-0.4
	baz=80,SNR=180						
K05A	Summer Lake	80.00	324	⇓P	P	14 57 07.1	+0.2
	baz=80,SNR=171						
H08A	Prairie City	80.01	326	⇓P	P	14 57 07.1	+0.2
	baz=80,SNR=170						
E11A	Bogner Ranch,	80.06	329	⇓P	P	14 57 06.6	-0.5
	baz=80,SNR=82						
G09A	Cove	80.08	327	⇑P	P	14 57 07.5	+0.2
	baz=80,SNR=426						
YBMT	Yellow Bay	80.11	331	*e*P	P	14 57 05.5	-1.9
HOG	Hogback Mounta	80.14	323	P	P	14 57 07.9	+0.2
JTMT	Jette	80.15	331	*e*P	P	14 57 05.6	-2.0
I07A	Izee	80.15	325	⇓P	P	14 57 08.1	+0.4
	baz=80,SNR=158						
C13A	Hot Springs	80.24	330	⇓P	P	14 57 08.2	+0.2
	baz=80,SNR=104						
F10A	Beach Ranch, E	80.29	328	⇑P	P	14 57 08.5	+0.1
	baz=80,SNR=154						
A15A	Johnson Ranch,	80.37	332	⇑P	P	14 57 07.8	-0.9
	baz=81,SNR=45						
YBH	Yreka Blue Hor	80.38	322	*e*P	P	14 57 07.3	-1.7
YBH				pmax	pmax		
	comp=Z,142nm,1.4s						
YBH	Yreka Blue Hor	80.38	322	LR	LR	15 31 50.1	
	comp=Z,679nm,20.8s,baz=134,slow=35						
YBH	Yreka Blue Hor	80.38	322	*e*P	P	14 57 07.3	-1.7
	comp=Z,142nm,1.4s,mb5.4						
KHMM	Horse Mountain	80.43	321	*e*P	P	14 57 10.2	+0.9
I06A	Prineville	80.44	325	⇓P	P	14 57 09.8	+0.6
	baz=81,SNR=156						
BSMT	Bassoo Peak	80.46	330	*e*P	P	14 57 06.8	-2.5
H07A	Lands Inn, Kim	80.53	326	⇑P	P	14 57 09.7	0.0
	baz=81						
E10A	Myers Farm, Un	80.59	328	⇑P	P	14 57 10.0	+0.1
	baz=81,SNR=82						
D11A	Klaveano Farm,	80.61	329	⇑P	P	14 57 09.4	-0.6
	baz=81,SNR=88						
PKA	Prieska	80.67	118	*e*P	P	14 57 11.0	0.0
PKA				AMb	AMB	14 57 13.8	
	comp=Z,45nm,1.1s,mb5.0						
A14A	Double T Ranch	80.67	332	⇓P	P	14 57 09.7	-0.7
	baz=81,SNR=56						
C12B	Naegeli Ranch,	80.68	330	⇓P	P	14 57 10.7	+0.3
	baz=81						
G08A	Pilot Rock	80.69	326	⇑P	P	14 57 10.4	-0.1
	baz=81,SNR=103						
B13A	Whitefish	80.70	331	⇑P	P	14 57 10.3	-0.2
	baz=81,SNR=86						
LNOR	Lincton Mounta	80.74	327	*e*P	P	14 57 10.1	-0.7
F08A	Pendleton	80.94	327	⇓P	P	14 57 11.0	-0.9
	baz=81,SNR=40						
WALA	Waterton Lakes	80.95	332	*e*P	P	14 57 11.8	-0.1
MORF	Marmelete	80.98	44	*e*pP	pP	14 57 45.3	-0.2
MORF				*e*S	S	15 07 17.1	+6.7
MORF	Marmelete	80.98	44	*e*P	P	14 57 17.7	+5.4
MORF				*e*S	S	15 07 12.6	+2.2
FFC	Flin Flon	81.02	341	*e*P	P	14 57 11.0	-1.1
FFC				*e**PP	pP	14 57 43.0	-2.3
FFC				pmax	pmax		
	comp=Z,127nm,1.3s,mb5.4						
FFC	Flin Flon	81.02	341	*e*P	P	14 57 11.0	-1.1
	comp=Z,127nm,1.3s,mb5.4						
FFC				*e*pP	pP	14 57 43.0	-2.3
H06A	Lindquist Farm	81.03	325	⇓P	P	14 57 12.3	-0.1
	baz=81,SNR=138						
G07A	Ruggs Ranch, H	81.04	326	⇓P	P	14 57 13.0	+0.6
	baz=81,SNR=157						
PTEO	Sao Teotonio	81.07	44	*e*P	P	14 57 16.0	+3.2
	comp=Z,130nm,0.7s,mb5.7						
PTEO				*e*pP	pP	14 57 47.2	+1.3
D10A	Wagner Farm, O	81.07	329	⇓P	P	14 57 12.0	-0.5
	baz=81						
HUMO	Hull Mountain	81.08	322	*e*P	P	14 57 11.3	-1.4
	comp=Z,147nm,1.4s,mb5.4						
A13A	Flathead Natio	81.08	331	⇑P	P	14 57 12.0	-0.5
	baz=81						
E09A	Wood Farm, Sta	81.12	328	⇓P	P	14 57 12.0	-0.8
	baz=81,SNR=52						
MDT	Midelt	81.24	50	P	P	14 57 15.2	+1.4
	comp=Z,25nm,1.0s,mb4.8,baz=238,slow=4.8,SNR=27						
MDT				pP	pP	14 57 47.4	+0.4
	comp=Z,77nm,1.1s,baz=247,slow=5.8,SNR=6.0						
MDT				S	S	15 07 15.9	+2.6
	comp=Z,2.7nm,0.8s,baz=234,slow=10,SNR=2.2						
MDT				LR	LR	15 34 31.3	
	comp=Z,2µm,19.5s,baz=255,slow=36						
B12A	Libby	81.28	330	⇓P	P	14 57 13.7	+0.2
	baz=82,SNR=52						
PBDV	Barranco-do-Ve	81.41	45	*e*P	P	14 57 20.8	+6.2
	comp=Z,123nm,1.4s,mb5.3						
PBDV				*e*pP	pP	14 57 47.3	-0.5
PBDV				*e*S	S	15 07 21.5	+6.6
PBDV				*e*LR	LR	15 24 15.9	
	comp=Z,962nm,18.4s						
G06A	Carlson Farm,	81.53	326	⇓P	P	14 57 15.1	+0.1
	baz=82,SNR=56						
PMAFR	Mafra	81.53	43	*e*S	S	15 07 24.2	+8.1
PMAFR				*e*LR	LR	15 24 23.2	
	comp=Z,1µm,19.8s						
E08A	Dider Farm, El	81.56	327	⇑P	P	14 57 14.5	-0.6
	baz=82,SNR=19						
D09A	Jones Farm, Ri	81.58	328	⇓P	P	14 57 14.8	-0.4
	baz=82,SNR=112						
B11A	Sandpoint	81.62	330	⇓P	P	14 57 14.7	-0.6
	baz=82,SNR=32						
C10A	Spilker Farm,	81.62	329	⇑P	P	14 57 14.6	-0.8
	baz=82,SNR=32						
PVAQ	Vaqueiros	81.64	45	*e*P	P	14 57 20.4	+4.6
	comp=Z,55nm,1.1s,mb5.1						
PVAQ				*e*pP	pP	14 57 48.4	-0.6
PVAQ				*e*S	S	15 07 21.9	+4.6
PVAQ				*e*LR	LR	15 24 23.6	
	comp=Z,776nm,18.5s						
A12A	Yaak River Ran	81.64	331	⇑P	P	14 57 15.5	0.0
	baz=82,SNR=81						
HAWA	Hanford	81.73	327	*e*P	P	14 57 15.8	-0.2
	comp=Z,599nm,1.5s,mb6.0						
HAWA				*e*pP	pP	14 57 47.4	-1.9
HAWA				*e*sP	sP	14 58 01.8	-1.5
RSW	Rattlesnake Hi	81.77	327	*e*P	P	14 57 16.6	+0.4
NEW	Newport	81.85	329	*e*P	P	14 57 15.2	-1.4
NEW				pmax	pmax		
	comp=Z,113nm,1.5s						
NEW	Newport	81.85	329	*e*P	P	14 57 15.2	-1.4
	comp=Z,113nm,1.5s,mb5.3						
EGRO	El Granado	81.87	45	P	P	14 57 19.0	+2.0
	comp=Z,47nm,1.0s,mb5.1						
D08A	Wollman Farm,	81.88	328	⇓P	P	14 57 16.7	-0.1
	baz=82,SNR=66						
G05A	Wamic	81.89	325	⇑P	P	14 57 17.3	+0.4
	baz=82,SNR=56						
PBEJ	Beja	81.90	44	*e*P	P	14 57 18.9	+1.8
	comp=Z,69nm,1.1s,mb5.2						
PBEJ				*e*pP	pP	14 57 52.5	+2.1
SOE	Somerset East	81.92	122	*e*P	P	14 57 18.1	+0.6
B10A	Chitwood Farm,	81.92	329	⇑P	P	14 57 15.8	-1.2
	baz=82						
F06A	Goldendale	81.96	326	⇓P	P	14 57 17.4	+0.2
	baz=82,SNR=47						
A11A	Hall Mountain,	81.99	330	⇑P	P	14 57 16.8	-0.5
	baz=82,SNR=147						
H04A	Detroit Lake	81.99	324	⇑P	P	14 57 16.5	-0.9
	baz=82,SNR=32						
OD2	Odessa Site #2	82.01	328	P	P	14 57 17.4	0.0
E07A	Sunnyside	82.01	327	⇓P	P	14 57 17.3	-0.1
	baz=82,SNR=48						
EVOP	Sao Brissos	82.02	43	*e*P	P	14 57 24.1	+6.3
EVOP				*e*S	S	15 07 25.0	+3.9
EVOP				*e*S	S	15 07 25.1	+3.9
EVOP				AMS	AMS	15 30 54.6	
	comp=Z,1µm,15.6s						
EVOP	Sao Brissos	82.02	43	*e*P	P	14 57 24.1	+6.4
EVOP				*e*S	S	15 07 25.0	+3.9
KEBM	Edson Butte	82.03	322	*e*P	P	14 57 18.5	+0.8
C09A	Chrisman Ranch	82.08	329	⇑P	P	14 57 17.4	-0.4
	baz=82,SNR=143						
EVO	Evora	82.09	43	⇑*i*P	P	14 57 19.0	+0.9
	comp=Z,39nm,0.8s,mb4.8						
EVO				*e*MLR	MLR		
	comp=Z,2µm,20.8s						
EVO	Evora	82.09	43	*e*P	P	14 57 19.8	+1.7
	comp=Z,44nm,2.0s,mb4.8						
EVO				*e*pP	pP	14 57 49.7	-1.7
HOOD	Mount Hood Mea	82.12	325	*e*P	P	14 57 18.4	+0.4
C08A	Higginbotham F	82.44	328	⇓P	P	14 57 18.9	-0.8
	baz=83,SNR=50						
B09A	Rice	82.45	329	⇑P	P	14 57 18.6	-1.1
	baz=83,SNR=75						
GRM	Grahamstown	82.46	123	*e*P	P	14 57 20.6	+0.2
GRM				AMb	AMB	14 57 28.1	
	comp=Z,163nm,1.7s,mb5.4						
G04A	Mulino	82.49	325	⇑P	P	14 57 19.6	-0.4
	baz=83,SNR=27						
D07A	Quincy	82.50	327	⇓P	P	14 57 20.2	+0.2
	baz=83,SNR=61						
EMIN	Mina Concepcio	82.53	45	P	P	14 57 21.3	+0.9
	comp=Z,45nm,0.9s,mb5.2						
COR	Corvallis	82.54	324	*e*P	P	14 57 20.5	+0.2
COR				*e**PP	pP	14 57 52.6	-1.0
COR				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.3						
COR	Corvallis	82.54	324	*e*P	P	14 57 20.5	+0.2
	comp=Z,1µm,1.6s,mb6.3						
COR				*e*pP	pP	14 57 52.6	-1.0
COR				*e*sP	sP	14 58 07.9	+0.4
PESTR	Estremoz	82.56	43	*e*P	P	14 57 22.5	+2.0
	comp=Z,79nm,1.5s,mb5.2						
PESTR				*e*pP	pP	14 57 51.0	-2.8
PESTR				*e*S	S	15 07 33.7	+7.1
PESTR				*e*LR	LR	15 24 39.6	
	comp=Z,971nm,18.7s						
A10A	Northport	82.56	330	⇓P	P	14 57 19.1	-1.2
	baz=83,SNR=46						
FCC	Fort Churchill	82.57	347	⇓*i*P	P	14 57 19.5	-0.6
FCC				*e**PP	pP	14 57 51.9	-1.5
FCC				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
FCC	Fort Churchill	82.57	347	⇓*i*P	P	14 57 19.4	-0.6
	comp=Z,4.8nm,1.1s,mb4.1						
FCC				*e*pP	pP	14 57 51.9	-1.5
ESPR	Espera	82.57	46	P	P	14 57 22.1	+1.5
	comp=Z,51nm,0.9s,mb5.2						
E06A	Yakima	82.58	326	⇑P	P	14 57 20.3	-0.1
	baz=83,SNR=66						
HVD	Gariep Dam	82.59	120	⇓*i*P	P	14 57 21.5	+0.4
EBG	Ellensburg	82.61	327	P	P	14 57 21.1	+0.5

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EBAD  Badajoz          82.86  44  P      P      14 57 22.5 +0.4
      comp=Z,27nm,0.9s,mb5.0
C07A  Waterville       82.88 328 ⇓P      P      14 57 21.8 -0.2
      baz=83,SNR=170
F04A  Amboy            82.93 325 ⇑P      P      14 57 21.4 -0.8
      baz=83,SNR=36
D06A  Cle Elum         82.94 327 ⇓P      P      14 57 21.3 -1.0
      baz=83,SNR=25
ETW   Entiat           82.96 328 eP      P      14 57 22.4 +0.1
B08A  Colville Reser   82.97 329 ⇑P      P      14 57 21.4 -1.0
      baz=83,SNR=44
PMRV  Marv??o          83.00  43 eP      P      14 57 23.6 +0.8
      comp=Z,42nm,1.2s,mb5.0
PMRV                             epP     pP     14 57 53.8 -2.4
PMRV                             eS      S      15 07 35.8 +4.7
PMRV                             eLR     LR     15 24 57.3
      comp=Z,981nm,21.9s
A09A  Danville         83.04 329 ⇑P      P      14 57 22.0 -0.7
      baz=83,SNR=80
BOSA  Boshof           83.08 118  P      P      14 57 23.7 +0.1
BOSA                              S      S      15 07 33.5 +0.9
BOSA  Boshof           83.08 118  P      P      14 57 23.7 +0.1
      comp=Z,108nm,0.9s,mb5.5,baz=256,slow=4.6,SNR=71
BOSA                              pP     pP     14 57 56.7 -0.2
      comp=Z,84nm,0.9s,baz=241,slow=5.2,SNR=5.8
BOSA                              S      S      15 07 33.5 +0.9
      comp=Z,12nm,1.1s,baz=27,slow=19,SNR=4.1
BOSA                              LR     LR     15 32 15.8
      comp=Z,2µm,18.6s,baz=168,slow=34
BOSA  Boshof           83.08 118  P      P      14 57 23.7 +0.1
BOSA                              pP     pP     14 57 56.7 -0.2
BOSA                              S      S      15 07 33.5 +0.9
BOSA                              LR     LR     15 32 15.8
EMIJ  Mijas            83.14  47  P      P      14 57 25.0 +1.5
      comp=Z,43nm,0.9s,mb5.2
LON   Longmire         83.14 326 eP      P      14 57 22.0 -1.3
LON                               pmax   pmax
      comp=Z,105nm,1.4s,mb5.4
LON   Longmire         83.14 326 eP      P      14 57 22.0 -1.3
      comp=Z,105nm,1.4s,mb5.4
HEBO  Mount Hebo       83.19 324 eP      P      14 57 23.4 -0.2
      comp=Z,899nm,1.6s,mb6.2
PCBR  Castelo Branco   83.19  43 eP      P      14 57 28.2 +4.5
      comp=Z,49nm,1.2s,mb5.1
PCBR                             epP     pP     14 58 02.2 +5.1
A08A  Turner Farm, O   83.35 329 ⇑P      P      14 57 23.9 -0.4
      baz=84,SNR=156
PVIS  Viseu            83.43  42 eP      P      14 57 26.3 +1.3
PVIS                             epP     pP     14 58 00.1 +1.8
B07A  Winthrop         83.43 328 ⇑P      P      14 57 24.0 -0.8
      baz=84,SNR=124
C06A  Tall Timber Ra   83.45 327 ⇑P      P      14 57 23.8 -1.1
      baz=84,SNR=9.1
MTE   Manteigas        83.46  42 eP      P      14 57 25.9 +0.8
      comp=Z,87nm,1.4s,mb5.3
MTE                              epP     pP     14 57 58.6 +0.1
MTE                              eS      S      15 07 38.6 +2.9
MTE                              eLR     LR     15 25 02.1
      comp=Z,1µm,19.5s
MTE   Manteigas        83.46  42 eP      P      14 57 24.4 -0.8
      comp=Z,50nm,1.0s,mb5.2
MTE                              epP     pP     14 58 00.2 +1.7
D05A  Enumclaw         83.52 326 ⇓P      P      14 57 24.7 -0.6
      baz=84,SNR=29
ECAB  El Cabril        83.53  45  P      P      14 57 26.1 +0.6
      comp=Z,10nm,0.9s,mb4.6
F03A  Seaside          83.53 325 ⇓P      P      14 57 24.1 -1.3
      baz=84
C05A  Tolt Reservoir   83.70 327 ⇑P      P      14 57 24.2 -2.0
      baz=84,SNR=33
RAR   Rarotonga        83.77 250  P      P      14 57 26.1 -1.1
RAR                               S      S      15 07 37.4 -2.3
RAR   Rarotonga        83.77 250  P      P      14 57 26.0 -1.2
      comp=Z,46nm,1.0s,mb5.2,baz=207,slow=3.1,SNR=6.9
RAR                               S      S      15 07 37.3 -2.3
      comp=Z,7.2nm,0.6s,baz=276,slow=9.4,SNR=2.1
RAR                               LR     LR     15 28 03.2
      comp=Z,737nm,19.9s,baz=292,slow=31
EZAM  Zamans           83.77  40  P      P      14 57 28.2 +1.5
EZAM                              pmax   pmax
      comp=Z,4.0nm,1.6s
EZAM  Zamans           83.77  40  P      P      14 57 28.2 +1.5
      comp=Z,4.2nm,1.6s
EDM   Edmonton         83.81 335 eP      P      14 57 24.9 -1.7
PVRL  Vila Real        83.86  41 eP      P      14 57 28.2 +1.1
      comp=Z,109nm,1.6s,mb5.3
PVRL                             epP     pP     14 58 04.0 +3.5
ELOJ  Sierra Loja      83.87  46  P      P      14 57 28.1 +0.8
ELOJ                              pmax   pmax
      comp=Z,31nm,0.9s,mb5.0
ELOJ  Sierra Loja      83.87  46  P      P      14 57 28.1 +0.8
      comp=Z,31nm,0.9s,mb5.0
D04A  Dobbs Creek Ra   83.89 326 ⇓P      P      14 57 26.0 -1.2
      baz=84
PCAB  Cabril           83.92  41 eP      P      14 57 28.1 +0.7
      comp=Z,72nm,1.1s,mb5.3
PCAB                             epP     pP     14 58 04.0 +3.2
E03A  Lebam            83.93 325 ⇑P      P      14 57 27.1 -0.3
      baz=84,SNR=8.7
A07A  Ashnola River,   83.95 329 ⇑P      P      14 57 26.9 -0.6
      baz=84,SNR=148
ELOB  Lobios           83.99  41  P      P      14 57 28.4 +0.6
      comp=Z,22nm,1.0s,mb4.8
ELUQ  Luque            84.01  46  P      P      14 57 29.8 +1.8
ELUQ                              pmax   pmax
      comp=Z,61nm,1.0s,mb5.3
ELUQ  Luque            84.01  46  P      P      14 57 29.8 +1.7
      comp=Z,61nm,1.0s,mb5.3
ERON  Agron            84.03  47  P      P      14 57 29.5 +1.3
      comp=Z,15nm,0.9s,mb4.7
EMAZ  Mazaricos        84.07  39  P      P      14 57 28.8 +0.6
      comp=Z,14nm,0.9s,mb4.7
EADA  Adamuz           84.13  45  P      P      14 57 29.5 +0.9
      comp=Z,14nm,1.1s,mb4.6
B06A  Marblemount      84.14 328 ⇑P      P      14 57 27.1 -1.3
      baz=84,SNR=33
MVO   Moncorvo         84.22  42 eP      P      14 57 29.9 +0.9
      comp=Z,103nm,1.2s,mb5.4
MVO                              epP     pP     14 58 00.8 -1.6
MVO                              eS      S      15 07 46.3 +3.1
MVO                              eLQ            15 19 55.9
MVO                              eLR     LR     15 25 07.3
      comp=Z,1µm,20.9s
B05A  Bryant           84.28 327 ⇑P      P      14 57 27.9 -1.2
      baz=84,SNR=74
TAM   Tamanrasset      84.28  63 eP      P      14 57 30.5 +0.8
TAM                               pmax   pmax
      comp=Z,51nm,1.0s,mb5.2
TAM   Tamanrasset      84.28  63 eP      P      14 57 30.5 +0.8
      comp=Z,51nm,1.0s,mb5.2
TAM                              epP     pP     14 58 03.5 +0.4
STS   Santiago         84.29  40  P      P      14 57 29.2 -0.1
STS                               pmax   pmax
      comp=Z,12nm,1.0s,mb4.6
STS   Santiago         84.29  40  P      P      14 57 29.2 -0.1
      comp=Z,12nm,1.0s,mb4.6
ECOG  Cogollos-Vega    84.33  46  P      P      14 57 30.5 +0.8
ECOG                              pmax   pmax
      comp=Z,9.0nm,0.7s,mb4.6
ECOG  Cogollos-Vega    84.33  46  P      P      14 57 30.5 +0.9
      comp=Z,9.1nm,0.7s,mb4.6
MAW   Mawson           84.36 163  P      P      14 57 29.2 -0.1
MAW                               S      S      15 07 40.0 -3.9
MAW                               pmax   pmax
      comp=Z,50nm,1.0s
MAW                               smax
      comp=N,12nm,1.0s
MAW                               MLR    MLR
      comp=Z,952nm,19.7s
MAW   Mawson           84.36 163 ePDIF   P      14 57 29.3  0.0
      comp=Z,56nm,1.0s,mb5.2
MAW   Mawson           84.36 163  P      P      14 57 29.2 -0.2
      comp=Z,50nm,1.0s,mb5.2,baz=238,slow=8.3,SNR=16
MAW                               S      S      15 07 40.0 -4.0
      comp=Z,12nm,1.0s,baz=235,slow=13,SNR=1.8
MAW                               LR     LR     15 34 25.0
      comp=Z,952nm,19.7s,baz=227,slow=35
MAW   Mawson           84.36 163 eP      P      14 57 29.1 -0.2
      comp=Z,25nm,1.1s,mb4.8
MAW                               LR     LR     15 34 25.0
EBER  Berja            84.59  47  P      P      14 57 32.4 +1.4
      comp=Z,44nm,1.0s,mb5.1
LBTB  Lobatse          84.63 115  P      P      14 57 32.0 +0.5
      comp=Z,99nm,0.8s,mb5.6,baz=264,slow=6.1,SNR=80
LBTB                              pP     pP     14 58 04.0 -0.9
      comp=Z,94nm,1.0s,baz=270,slow=5.0,SNR=4.3
LBTB                              S      S      15 07 43.1 -5.1
      comp=Z,0.9nm,0.5s,baz=172,slow=14,SNR=2.1
NLWA  Neilton Lookou   84.63 326 ⇓P      P      14 57 30.6 -0.3
      baz=85,SNR=11
NLWA  Neilton Lookou   84.63 326 eP      P      14 57 30.2 -0.7
      comp=Z,342nm,1.6s,mb5.8
EBAN  Banos Encina     84.66  46  P      P      14 57 32.5 +1.2
EBAN                              pmax   pmax
      comp=Z,98nm,1.0s,mb5.5
EBAN  Banos Encina     84.66  46  P      P      14 57 32.5 +1.3
      comp=Z,98nm,1.0s,mb5.5
A05A  Maple Falls      84.76 328 ⇑P      P      14 57 30.4 -1.1
      baz=85,SNR=54
ECAL  Calabor          84.84  41  P      P      14 57 32.8 +0.7
      comp=Z,24nm,0.9s,mb4.9
ERUA  La Rua           84.85  41  P      P      14 57 32.2 +0.1
ERUA                              pmax   pmax
      comp=Z,13nm,0.8s,mb4.7
ERUA  La Rua           84.85  41  P      P      14 57 32.2 +0.1
      comp=Z,13nm,0.8s,mb4.7
A04A  Legoe Bay, Lum   84.89 327 ⇓P      P      14 57 31.5 -0.7
      baz=85,SNR=22
EQES  Quesada          84.94  46  P      P      14 57 33.2 +0.5
      comp=Z,66nm,1.0s,mb5.3
PAB   San Pablo        85.03  44 eP      P      14 57 33.8 +0.7
PAB                              e*PP    pP     14 58 08.9 +2.3
PAB                               pmax   pmax
      comp=Z,127nm,1.2s,mb5.5
PAB   San Pablo        85.03  44 eP      P      14 57 33.8 +0.7
      comp=Z,127nm,1.2s,mb5.5
PAB                              epP     pP     14 58 08.9 +2.3
ENIJ  Nijar            85.10  47  P      P      14 57 33.9 +0.4
ENIJ                              pmax   pmax
      comp=Z,23nm,0.9s,mb4.9
ENIJ  Nijar            85.10  47  P      P      14 57 33.9 +0.4
      comp=Z,23nm,0.9s,mb4.9
SEK   Senekal          85.13 118 eP      P      14 57 33.8 -0.3
PGC   Sidney           85.22 327 eP      P      14 57 33.3 -0.5
      comp=Z,28nm,1.5s,mb4.8
EHUE  Huescar          85.27  46  P      P      14 57 34.1 -0.2
EHUE                              pmax   pmax
      comp=Z,20nm,0.9s,mb4.8
EHUE  Huescar          85.27  46  P      P      14 57 34.0 -0.3
      comp=Z,20nm,0.9s,mb4.8
ESLA  Sonseca Array    85.35  44 eP      P      14 57 34.8 +0.1
      comp=Z,57nm,1.4s,mb5.1
ESLA                             e              14 57 44.9
ESLA                             epP     pP     14 58 08.9 +0.7
ESDC  Sonseca Array    85.35  44  P      P      14 57 35.5 +0.9
      comp=Z,27nm,1.0s,mb4.9,baz=241,slow=4.9,SNR=43
ESDC                              pP     pP     14 58 09.3 +1.2
      comp=Z,38nm,1.0s,baz=240,slow=5.0,SNR=6.3
ESDC                              S      S      15 07 48.2 -6.2
      comp=Z,0.2nm,0.3s,baz=34,slow=40,SNR=3.0
ESDC                              LR     LR     15 32 54.9
      comp=Z,830nm,19.5s,baz=240,slow=34
ESDC  Sonseca Array    85.35  44  P      P      14 57 35.4 +0.8
      comp=Z,18nm,1.0s,mb4.8
EPON  Pontenova        85.38  40  P      P      14 57 35.2 +0.5
      comp=Z,24nm,0.8s,mb5.0
PRYS  Parys            85.42 117 i P     P      14 57 35.1 -0.4
PRYS                              AMb    AMB    14 57 42.0
      comp=Z,143nm,1.3s,mb5.5
KSR   Koster           85.43 116 eP      P      14 57 36.4 +0.8
KSR                               AMb    AMB    14 57 41.6
      comp=Z,42nm,1.2s,mb5.0
ODJA  Bouhanifia       85.70  50  P      P      14 57 44.0 +7.5
GUD   Guadarrama       85.75  43  P      P      14 57 37.8 +1.2
GUD                               pmax   pmax
      comp=Z,15nm,1.2s,mb4.6
GUD   Guadarrama       85.75  43  P      P      14 57 37.8 +1.1
      comp=Z,15nm,1.2s,mb4.6
EVIA  Vianos           85.76  46  P      P      14 57 38.2 +1.4
EVIA                              pmax   pmax
      comp=Z,23nm,0.7s,mb5.0
EVIA  Vianos           85.76  46  P      P      14 57 38.2 +1.5
      comp=Z,23nm,0.7s,mb5.0
OJBR  Djebel Berber    86.18  50  P      P      14 57 43.0 +4.1
EMUR  La Murta         86.21  47  P      P      14 57 38.8 -0.1
      comp=Z,12nm,1.0s,mb4.6
ETOB  Tobarra          86.41  46  P      P      14 57 40.8 +0.9
      comp=Z,51nm,0.9s,mb5.2
OJGS  Djebel Guires    86.43  50  P      P      14 57 43.0 +2.9
EARI  Arriondas        86.54  41  P      P      14 57 40.7 +0.3
      comp=Z,26nm,0.9s,mb5.0
OKGL  Djebel Kef Gue   86.61  49  P      P      14 57 44.0 +3.0
SLR   Silverton        86.63 116 eP      P      14 57 41.2 -0.2
SLR                               AMb    AMB    14 57 48.9
      comp=Z,165nm,1.2s,mb5.7
ETRT  Tiaret           86.77  50  P      P      14 57 44.3 +2.5
EANR  'Ain N'Sour      86.90  50  P      P      14 57 43.4 +1.0
ECHA  Ech Chlef        87.18  49  P      P      14 57 42.0 -1.7
ECHE  Chera            87.28  46  P      P      14 57 44.2 +0.1
ECHE                              pmax   pmax
      comp=Z,34nm,0.9s,mb5.2
ECHE  Chera            87.28  46  P      P      14 57 44.2 +0.1
      comp=Z,34nm,0.9s,mb5.2
EBEN  Beniarda         87.33  47  P      P      14 57 46.6 +2.2
      comp=Z,13nm,1.2s,mb4.6
EMOS  Mosqueruela      88.00  45  P      P      14 57 48.1 +0.6
      comp=Z,47nm,1.6s,mb5.1
EIBI  Ibiza            88.56  47  P      P      14 57 55.7 +5.6
      comp=Z,27nm,1.1s,mb5.1
ESAC  San Caprasio     88.68  44  P      P      14 57 50.3 -0.4
      comp=Z,18nm,0.6s,mb5.2
ELIZ  Elizondo         88.74  42  P      P      14 57 51.1 +0.2
ELIZ                              pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
ELIZ  Elizondo         88.74  42  P      P      14 57 51.1 +0.2
      comp=Z,6.0nm,0.8s,mb4.6
POGA  Pongola          88.76 119 eP      P      14 57 51.9 +0.3
POGA                              AMb    AMB    14 58 30.1
      comp=Z,39nm,1.5s,mb5.1
POGA                              AMS    AMS    16 18 08.8
      comp=Z,3µm,24.3s
ERTA  Horta de San J   88.82  45  P      P      14 57 52.4 +1.0
      comp=Z,29nm,0.9s,mb5.2
SJPF  Ste Jean         88.90  42 eP      P      14 57 51.9 +0.2
      comp=Z,69nm,1.3s,mb5.1
SJPF                             epP     pP     14 58 26.5 +1.0
SJPF  Ste Jean         88.90  42 eP      P      14 57 51.9 +0.2
SJPF                             e*PP    pP     14 58 26.5 +1.0
SJPF                              pmax   pmax
      comp=Z,34nm,1.3s,mb5.1
SJPF  Ste Jean         88.90  42 eP      P      14 57 51.9 +0.2
      comp=Z,34nm,1.3s,mb5.1
SJPF                             epP     pP     14 58 26.5 +1.0
SFJD  Kangerlussuaq    89.04   7 i P     Px     14 58 06.0
SFJD                             i S     S      15 08 25.1 -3.6
SFJD                              pmax   pmax
      comp=Z,20nm,0.8s,mb5.1
SFJD                              MLR    MLR
      comp=Z,560nm,19.0s
SFJD  Kangerlussuaq    89.04   7 i P     Px     14 58 06.0
      comp=Z,20nm,0.8s
SFJD                             i S     S      15 08 25.1 -3.6
SFJD                                     SKSac
      comp=Z,560nm,19.0s
SFJD  Kangerlussuaq    89.04   7  S      SKSac  15 08 09.7 +1.0
      comp=Z,1.1nm,0.3s,baz=87,slow=20,SNR=2.0
ETSF  Etsaut           89.22  43 eP      P      14 57 53.5 +0.3
      comp=Z,18nm,0.8s,mb4.8
ETSF  Etsaut           89.22  43 eP      P      14 57 53.5 +0.3
ETSF                              pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.8
ETSF  Etsaut           89.22  43 eP      P      14 57 53.5 +0.3
      comp=Z,8.8nm,0.8s,mb4.7
MSNA  Messina          89.39 114 eP      P      14 57 55.9 +1.3
MSNA                              AMb    AMB    14 58 02.9
      comp=Z,102nm,1.1s,mb5.7
REYF  Montagne du Re   89.41  43 eP      P      14 57 53.3 -0.8
EPOB  Poblet           89.51  45  P      P      14 57 54.5 -0.1
      comp=Z,18nm,1.0s,mb5.0
EBIE  Bielsa           89.56  43  P      P      14 57 54.8  0.0
      comp=Z,11nm,1.1s,mb4.7
EPF   Esparros         89.85  43 eP      P      14 57 56.3 +0.2
      comp=Z,18nm,0.8s,mb4.7
EPF   Esparros         89.85  43 eP      P      14 57 56.3 +0.2
EPF                               pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.8
EPF   Esparros         89.85  43 eP      P      14 57 56.3 +0.2
      comp=Z,9.3nm,0.8s,mb4.8
XMAS  Kiritimati       89.88 272 eP      P      14 57 57.9 +0.9
      comp=Z,182nm,1.5s,mb5.8
ETOS  Mallorca         89.91  47  P      P      14 57 57.4 +0.9
      comp=Z,14nm,1.1s,mb4.8
MELF  Melles           90.04  43 eP      P      14 57 57.3 +0.3
EMIR  Miracle          90.07  44  P      P      14 57 58.9 +1.7
      comp=Z,9.0nm,0.6s,mb4.9
MOPA  Mopani           90.10 115 eP      P      14 57 56.3 -1.6
MOPA                              AMb    AMB    14 58 01.1
      comp=Z,53nm,1.3s,mb5.3
QUIF  Quistinic        90.25  38 eP      P      14 57 57.1 -0.8
      comp=Z,34nm,1.0s,mb5.0
QUIF  Quistinic        90.25  38 eP      P      14 57 57.1 -0.8
QUIF                              pmax   pmax
      comp=Z,17nm,1.0s,mb4.9
QUIF  Quistinic        90.25  38 eP      P      14 57 57.1 -0.8
      comp=Z,17nm,1.0s,mb4.9
SALF  Salau            90.26  44 eP      P      14 57 58.0 -0.1
MLS   Moulis           90.30  43 eP      P      14 57 59.2 +1.0
ROSF  Rostrenen        90.41  37 eP      P      14 57 57.9 -0.7
      comp=Z,64nm,1.1s,mb5.2
ROSF  Rostrenen        90.41  37 eP      P      14 57 57.9 -0.7
ROSF                              pmax   pmax
      comp=Z,32nm,1.1s,mb5.2
ROSF  Rostrenen        90.41  37 eP      P      14 57 57.9 -0.7
      comp=Z,32nm,1.1s,mb5.2
LSZ   Lusaka           90.46 106  P      P      14 58 01.2 +1.5
LSZ                                             15 01 33.6
LSZ                               S      SKSac  15 08 21.3 +2.0
LSZ                               pmax   pmax
      comp=Z,23nm,0.9s,mb5.1
LSZ                               pmax   pmax
      comp=Z,22nm,1.2s,mb5.0
LSZ                               smax
      comp=N,1.0nm,0.4s
LSZ                               pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.6
LSZ   Lusaka           90.46 106  P      P      14 58 01.3 +1.6
LSZ                                             15 01 33.6
LSZ                               S      SKSac  15 08 21.3 +2.0
LSZ   Lusaka           90.46 106  P      P      14 58 01.2 +1.6
      comp=Z,23nm,0.9s,mb5.1,baz=241,slow=3.3,SNR=28
LSZ                               PP     PP     15 01 33.6 -2.3
      comp=Z,22nm,1.2s,baz=279,slow=11,SNR=3.5
LSZ                               S      SKSac  15 08 21.3 +1.9
      comp=Z,0.6nm,0.4s,baz=124,slow=3.8,SNR=1.5
LSZ                               PKKPbc PKKPbc 15 15 26.5 +0.3
      comp=Z,4.6nm,0.6s,baz=68,slow=3.2,SNR=11
LSZ   Lusaka           90.46 106 ⇓P      P      14 58 01.5 +1.8
      SNR=15
LSZ                              ⇓P             14 58 01.5
      SNR=15
SGMF  Saint Gilles     90.77  38 eP      P      14 57 59.9 -0.4
      comp=Z,36nm,1.1s,mb5.0
SGMF                             epP     pP     14 58 33.6 -0.5
SGMF  Saint Gilles     90.77  38 eP      P      14 57 59.9 -0.4
SGMF                              pmax   pmax
      comp=Z,18nm,1.1s,mb5.0
SGMF  Saint Gilles     90.77  38 eP      P      14 57 59.9 -0.4
      comp=Z,18nm,1.1s,mb5.0
SGMF                             epP     pP     14 58 33.6 -0.5
CARF  Carcanieres      90.83  44 eP      P      14 58 00.9 +0.2
LFF   La Frestale      91.05  42 eP      P      14 58 01.3 -0.3
      comp=Z,78nm,0.8s,mb5.5
LFF   La Frestale      91.05  42 eP      P      14 58 01.3 -0.3
LFF                               pmax   pmax
      comp=Z,39nm,0.8s,mb5.5
LFF   La Frestale      91.05  42 eP      P      14 58 01.3 -0.3
      comp=Z,39nm,0.8s,mb5.5
YKA   Yellowknife Ar   91.19 340  P      P      14 58 01.0 -0.8
      comp=Z,74nm,0.6s,mb5.9,baz=134,slow=4.4,SNR=697
YKA                               pP     pP     14 58 34.4 -1.2
      comp=Z,25nm,0.7s,baz=133,slow=4.5,SNR=2.8
YKA                               sP     sP     14 58 49.2 -0.3
      comp=Z,46nm,0.9s,baz=135,slow=4.7,SNR=2.9
YKA                               PKKPbc PKKPbc 15 15 26.9 -0.1
      comp=Z,0.2nm,0.6s,baz=345,slow=2.5,SNR=4.0
YKA                               LR     LR     15 43 35.5
      comp=Z,1µm,19.8s,baz=120,slow=38
YKA   Yellowknife Ar   91.19 340  P      P      14 58 01.0 -0.8
YKA                               pP     pP     14 58 34.4 -1.2
YKA                               sP     sP     14 58 49.2 -0.3
YKA                               PKKPbc PKKPbc 15 15 26.9 -0.1
YKA                               LR     LR     15 43 35.5
MTLF  Montolieu        91.20  43 eP      P      14 58 01.6 -0.8
      comp=Z,52nm,1.0s,mb5.2
MTLF                             epP     pP     14 58 36.4 +0.2
MTLF  Montolieu        91.20  43 eP      P      14 58 01.6 -0.8
MTLF                             e*PP    pP     14 58 36.4 +0.2
MTLF                              pmax   pmax
      comp=Z,26nm,1.0s,mb5.2
MTLF  Montolieu        91.20  43 eP      P      14 58 01.6 -0.8
      comp=Z,26nm,1.0s,mb5.2
MTLF                             epP     pP     14 58 36.4 +0.2
EJON  La Jonquera      91.22  45  P      P      14 58 03.6 +1.1
      comp=Z,18nm,1.2s,mb5.0
MFF   Saint Martin d   91.33  40 eP      P      14 58 02.4 -0.5
      comp=Z,60nm,0.8s,mb5.3
MFF                              epP     pP     14 58 36.9 +0.2
MFF   Saint Martin d   91.33  40 eP      P      14 58 02.4 -0.5
MFF                              e*PP    pP     14 58 36.9 +0.2
MFF                               pmax   pmax
      comp=Z,30nm,0.8s,mb5.4
MFF   Saint Martin d   91.33  40 eP      P      14 58 02.4 -0.5
      comp=Z,30nm,0.8s,mb5.4
MFF                              epP     pP     14 58 36.9 +0.2
RJF   Les Rejaudoux    91.70  42 eP      P      14 58 04.1 -0.6
      comp=Z,70nm,1.2s,mb5.3
RJF                              eMLR    MLR
      comp=Z,2µm,22.5s
RJF   Les Rejaudoux    91.70  42 eP      P      14 58 04.1 -0.6
RJF                               pmax   pmax
      comp=Z,35nm,1.2s,mb5.3
RJF   Les Rejaudoux    91.70  42 eP      P      14 58 04.1 -0.6
      comp=Z,35nm,1.2s,mb5.3
GRR   Gorron           91.81  38 eP      P      14 58 04.1 -1.0
      comp=Z,88nm,1.2s,mb5.4
GRR                              epP     pP     14 58 38.4 -0.5
GRR   Gorron           91.81  38 eP      P      14 58 04.1 -1.0
GRR                              e*PP    pP     14 58 38.4 -0.5
GRR                               pmax   pmax
      comp=Z,44nm,1.2s,mb5.4
GRR   Gorron           91.81  38 eP      P      14 58 04.1 -1.0
      comp=Z,44nm,1.2s,mb5.4
GRR                              epP     pP     14 58 38.4 -0.5
CAF   Calviac          91.86  42 eP      P      14 58 05.0 -0.4
      comp=Z,29nm,0.9s,mb5.0
CAF   Calviac          91.86  42 eP      P      14 58 05.0 -0.4
CAF                               pmax   pmax
      comp=Z,15nm,0.9s,mb5.0
CAF   Calviac          91.86  42 eP      P      14 58 05.0 -0.4
      comp=Z,15nm,0.9s,mb5.0
FLN   La Foliniere     92.22  38 eP      P      14 58 06.3 -0.7
      comp=Z,83nm,1.2s,mb5.3
FLN                              epP     pP     14 58 40.5 -0.3
FLN                              eMLR    MLR
      comp=Z,1µm,22.0s
FLN   La Foliniere     92.22  38 eP      P      14 58 06.3 -0.7
FLN                              e*PP    pP     14 58 40.5 -0.3
FLN                               pmax   pmax
      comp=Z,42nm,1.2s,mb5.3
FLN                               MLR    MLR
      comp=Z,1µm,22.0s
FLN   La Foliniere     92.22  38 eP      P      14 58 06.3 -0.7
      comp=Z,42nm,1.2s,mb5.3
FLN                              epP     pP     14 58 40.5 -0.3
FLN                               LR     LR
      comp=Z,1µm,22.0s
LDF   La Druitiere     92.34  38 eP      P      14 58 06.5 -1.0
      comp=Z,40nm,0.9s,mb5.2
LDF   La Druitiere     92.34  38 eP      P      14 58 06.5 -1.0
LDF                               pmax   pmax
      comp=Z,20nm,0.9s,mb5.2
LDF   La Druitiere     92.34  38 eP      P      14 58 06.5 -1.0
      comp=Z,20nm,0.9s,mb5.1
LASF  Ste Croix        92.60  43 eP      P      14 58 08.4 -0.5
      comp=Z,42nm,1.1s,mb5.2
TCF   Toulx Ste Croi   92.60  41 eP      P      14 58 08.0 -0.8
      comp=Z,31nm,1.0s,mb5.1
TCF                              epP     pP     14 58 42.5 -0.1
TCF   Toulx Ste Croi   92.60  41 eP      P      14 58 08.0 -0.8
TCF                              e*PP    pP     14 58 42.5 -0.1
TCF                               pmax   pmax
      comp=Z,15nm,1.0s,mb5.1
TCF   Toulx Ste Croi   92.60  41 eP      P      14 58 08.0 -0.8
      comp=Z,15nm,1.0s,mb5.1
TCF                              epP     pP     14 58 42.5 -0.1
CASY  Casey            92.67 180 ePDIF   P      14 58 08.9  0.0
CASY  Casey            92.67 180 eP      P      14 58 07.6 -1.3
      comp=Z,77nm,1.1s,mb5.8
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LBL   Lubilhac          92.75  42 eP       P        14 58 08.5 -1.0
KEST  Kesra             92.79  53  P       P        14 58 10.8 +0.8
      comp=Z,5.1nm,0.9s,mb4.7,baz=119,slow=1.0,SNR=8.3
KEST                               S       SKSac    15 08 32.9 +1.4
      comp=Z,3.5nm,1.2s,baz=42,slow=16,SNR=2.0
PYM   Petit Puy Mans    92.84  42 eP       P        14 58 09.7 -0.2
AGO   Saint Agoulin     93.05  41 eP       P        14 58 05.2 -5.7
BGF   Bois d'Agland     93.11  41 eP       P        14 58 10.5 -0.7
      comp=Z,78nm,1.1s,mb5.5
BGF                               epP      pP       14 58 45.0  0.0
BGF   Bois d'Agland     93.11  41 eP       P        14 58 10.5 -0.7
BGF                               e*PP     pP       14 58 45.0  0.0
BGF                                pmax    pmax
      comp=Z,39nm,1.1s,mb5.5
BGF   Bois d'Agland     93.11  41 eP       P        14 58 10.5 -0.7
      comp=Z,39nm,1.1s,mb5.5
BGF                               epP      pP       14 58 45.0  0.0
VIVF  Saint-Julien-l    93.47  43 eP       P        14 58 12.6 -0.3
      comp=Z,50nm,1.2s,mb5.2
VIVF  Saint-Julien-l    93.47  43 eP       P        14 58 12.6 -0.3
VIVF                               pmax    pmax
      comp=Z,25nm,1.2s,mb5.2
VIVF  Saint-Julien-l    93.47  43 eP       P        14 58 12.6 -0.3
      comp=Z,25nm,1.2s,mb5.2
AVF   Avril sur Loir    93.53  41 eP       P        14 58 12.2 -0.9
      comp=Z,53nm,1.3s,mb5.2
AVF                               epP      pP       14 58 46.7 -0.2
AVF   Avril sur Loir    93.53  41 eP       P        14 58 12.2 -0.9
AVF                               e*PP     pP       14 58 46.7 -0.2
AVF                                pmax    pmax
      comp=Z,26nm,1.3s,mb5.2
AVF   Avril sur Loir    93.53  41 eP       P        14 58 12.2 -0.9
      comp=Z,26nm,1.3s,mb5.2
AVF                               epP      pP       14 58 46.7 -0.2
SSB   Saint Sauveur     93.58  43 eP       P        14 58 11.7 -1.6
SSB                               e                 15 02 00.0
SSB                                pmax    pmax
      comp=Z,19nm,1.2s,mb5.1
SSB   Saint Sauveur     93.58  43 eP       P        14 58 11.7 -1.6
      comp=Z,19nm,1.2s,mb5.1
SSB                               ePP      PP       15 02 00.0 -0.2
SMRF  Simiane la Rot    93.66  44 eP       P        14 58 14.0 +0.2
      comp=Z,53nm,1.2s,mb5.2
SMRF                              epP      pP       14 58 48.5 +0.9
SMRF  Simiane la Rot    93.66  44 eP       P        14 58 14.0 +0.2
      comp=Z,53nm,1.2s,mb5.5
SMRF                              epP      pP       14 58 48.5 +0.9
SSF   Saint Saulge      93.75  41 eP       P        14 58 13.0 -1.1
      comp=Z,32nm,1.0s,mb5.1
SSF   Saint Saulge      93.75  41 eP       P        14 58 13.0 -1.1
SSF                                pmax    pmax
      comp=Z,16nm,1.0s,mb5.1
SSF   Saint Saulge      93.75  41 eP       P        14 58 13.0 -1.1
      comp=Z,16nm,1.0s,mb5.1
SMF   Signal de Mont    93.76  41 eP       P        14 58 13.6 -0.6
      comp=Z,81nm,1.1s,mb5.5
SMF   Signal de Mont    93.76  41 eP       P        14 58 13.6 -0.6
SMF                                pmax    pmax
      comp=Z,41nm,1.1s,mb5.5
SMF   Signal de Mont    93.76  41 eP       P        14 58 13.6 -0.6
      comp=Z,41nm,1.1s,mb5.5
LMR   La Mourre         93.99  45 eP       P        14 58 15.1 -0.2
      comp=Z,84nm,1.2s,mb5.4
LMR   La Mourre         93.99  45 eP       P        14 58 15.1 -0.2
LMR                                pmax    pmax
      comp=Z,42nm,1.2s,mb5.4
LMR   La Mourre         93.99  45 eP       P        14 58 15.1 -0.2
      comp=Z,42nm,1.2s,mb5.4
LOR   Lormes            94.06  41 eP       P        14 58 14.4 -1.1
      comp=Z,20nm,0.8s,mb5.0
LOR                               epP      pP       14 58 49.0 -0.3
LOR                               eMLR     MLR
      comp=Z,1µm,18.8s
LOR   Lormes            94.06  41 eP       P        14 58 14.4 -1.1
LOR                               e*PP     pP       14 58 49.0 -0.3
LOR                                pmax    pmax
      comp=Z,10.0nm,0.8s,mb5.0
LOR                                MLR     MLR
      comp=Z,1µm,18.8s
LOR   Lormes            94.06  41 eP       P        14 58 14.4 -1.1
      comp=Z,9.8nm,0.8s,mb5.0
LOR                               epP      pP       14 58 49.0 -0.3
LOR                                LR      LR
      comp=Z,1µm,18.8s
FRF   La Foret Royal    94.18  45 eP       P        14 58 15.2 -0.9
      comp=Z,37nm,0.9s,mb5.2
FRF   La Foret Royal    94.18  45 eP       P        14 58 15.2 -0.9
FRF                                pmax    pmax
      comp=Z,19nm,0.9s,mb5.2
FRF   La Foret Royal    94.18  45 eP       P        14 58 15.2 -0.9
      comp=Z,18nm,0.9s,mb5.2
EKA   Eskdalemuir Ar    94.20  31  P       P        14 58 15.5 -0.4
      comp=Z,5.6nm,1.0s,mb4.7,baz=243,slow=5.5,SNR=8.0
EKA                                pP      pP       14 58 49.2 -0.6
      comp=Z,11nm,1.0s,baz=246,slow=6.3,SNR=4.9
WRAK  Wrangell Islan    94.20 330 eP       P        14 58 14.1 -1.8
      comp=Z,59nm,1.2s,mb5.6
ORIF  Oris-en-Rattie    94.27  43 eP       P        14 58 16.9 +0.4
      comp=Z,36nm,0.9s,mb5.2
ORIF                              epP      pP       14 58 51.4 +1.0
ORIF                              eMLR     MLR
      comp=Z,1µm,20.2s
ORIF  Oris-en-Rattie    94.27  43 eP       P        14 58 16.9 +0.4
ORIF                              e*PP     pP       14 58 51.4 +1.0
ORIF                               pmax    pmax
      comp=Z,18nm,0.9s,mb5.2
ORIF  Oris-en-Rattie    94.27  43 eP       P        14 58 16.9 +0.4
      comp=Z,18nm,0.9s,mb5.2
ORIF                              epP      pP       14 58 51.4 +1.0
DLBC  Dease Lake        94.28 332 eP       P        14 58 15.6 -0.6
DLBC                              epP      pP       14 58 48.3 -1.8
DLBC                              esP      sP       14 59 04.2 +0.4
DLBC                              ePP      PP       15 02 05.4 +0.1
URZ   Urewera           94.69 226  LR      LR       15 36 10.9
      comp=Z,583nm,18.6s,baz=104,slow=32
MBDF  Montbardon        94.76  44 eP       P        14 58 17.8 -1.0
      comp=Z,61nm,1.4s,mb5.3
MBDF  Montbardon        94.76  44 eP       P        14 58 17.8 -1.0
MBDF                               pmax    pmax
      comp=Z,31nm,1.4s,mb5.3
MBDF  Montbardon        94.76  44 eP       P        14 58 17.8 -1.0
      comp=Z,30nm,1.4s,mb5.3
LPL   La Plagne         95.07  43 eP       P        14 58 20.6 +0.4
      comp=Z,46nm,1.1s,mb5.3
LPL   La Plagne         95.07  43 eP       P        14 58 20.6 +0.4
LPL                                pmax    pmax
      comp=Z,23nm,1.1s,mb5.3
LPL   La Plagne         95.07  43 eP       P        14 58 20.6 +0.4
      comp=Z,23nm,1.1s,mb5.3
LPG   La Plagne         95.08  43 eP       P        14 58 20.8 +0.6
LPG                               epP      pP       14 58 55.4 +1.3
CABF  La Chapelle       95.14  42 eP       P        14 58 19.9 -0.5
      comp=Z,35nm,1.2s,mb5.2
CABF  La Chapelle       95.14  42 eP       P        14 58 19.9 -0.5
CABF                               pmax    pmax
      comp=Z,17nm,1.2s,mb5.2
CABF  La Chapelle       95.14  42 eP       P        14 58 19.9 -0.5
      comp=Z,18nm,1.2s,mb5.2
PGF   Pioggiola         95.32  46 eP       P        14 58 20.8 -0.6
      comp=Z,97nm,1.5s,mb5.5
PGF   Pioggiola         95.32  46 eP       P        14 58 20.8 -0.6
PGF                                pmax    pmax
      comp=Z,49nm,1.5s,mb5.5
PGF   Pioggiola         95.32  46 eP       P        14 58 20.8 -0.6
      comp=Z,49nm,1.5s,mb5.5
MEZF  Maizieres J'vi    95.33  40 eP       P        14 58 20.5 -0.8
BAIF  Baives            95.53  38 eP       P        14 58 21.4 -0.7
DOU   Dourbes           95.77  38  P       P        14 58 23.0 -0.2
DOU                                AP      pP       14 58 58.7 +1.6
      comp=Z,15nm,2.1s
SUMG  Summit            95.81   9 eP       P        14 58 22.1 -0.8
      comp=Z,29nm,0.8s,mb5.7
HAU   Haudompre         95.89  41 eP       P        14 58 23.0 -0.9
HAU                               eMLR     MLR
      comp=Z,913nm,19.5s
HAU   Haudompre         95.89  41 eP       P        14 58 23.0 -0.9
HAU                                LR      LR
      comp=Z,910nm,19.5s
GIVF  Givet             95.90  38 eP       P        14 58 23.4 -0.4
      comp=Z,41nm,0.9s,mb5.5
GIVF                              epP      pP       14 58 57.5 -0.2
GIVF  Givet             95.90  38 eP       P        14 58 23.4 -0.4
GIVF                               pmax    pmax
      comp=Z,21nm,0.9s,mb5.5
GIVF  Givet             95.90  38 eP       P        14 58 23.4 -0.4
      comp=Z,21nm,0.9s,mb5.5
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GIVF                              epP      pP       14 58 57.5 -0.2
UCC   Uccle             95.95  38  AP      pP       14 59 00.3 +2.4
HINF  Hinteralfeld      96.12  41 eP       P        14 58 23.9 -1.0
MOF   Molkenrain        96.31  41 eP       P        14 58 24.8 -0.9
BCLA  Clavier           96.32  38  P       P        14 58 25.5 -0.2
      comp=Z,11nm,1.5s,mb5.0
BCLA                               AP      pP       14 59 00.9 +1.3
ECH   Echery            96.48  41 eP       P        14 58 27.9 +1.4
WLF   Walferdange       96.49  39  P       P        14 58 26.6  0.0
WLF                                AP      pP       14 59 00.1 -0.3
      comp=Z,34nm,2.0s
WLF   Walferdange       96.49  39 eP       P        14 58 24.3 -2.2
WLF                                pmax    pmax
      comp=Z,37nm,1.3s,mb5.5
WLF   Walferdange       96.49  39 ePdiff   P        14 58 25.5 -1.0
WLF                               epPdiff  pP       14 59 00.2 -0.2
WLF   Walferdange       96.49  39 eP       P        14 58 24.3 -2.2
      comp=Z,37nm,1.3s,mb5.6
CDF   Champ du Feu      96.63  41 eP       P        14 58 26.4 -0.8
      comp=Z,14nm,0.9s,mb5.0
CDF                               epP      pP       14 59 00.9 -0.2
CDF   Champ du Feu      96.63  41 eP       P        14 58 26.4 -0.8
CDF                               e*PP     pP       14 59 00.9 -0.2
CDF                                pmax    pmax
      comp=Z,7.0nm,0.9s,mb5.0
CDF   Champ du Feu      96.63  41 eP       P        14 58 26.4 -0.8
      comp=Z,6.8nm,0.9s,mb5.0
CDF                               epP      pP       14 59 00.9 -0.2
BEBN  Eben Emael        96.70  38  AP      pP       14 59 03.8 +2.5
      comp=Z,14nm,1.7s
MEM   Membach           96.81  38  P       P        14 58 33.6 +5.6
MEM                                AP      pP       14 59 04.2 +2.4
HGN   Heimansgroeve     96.83  38⇑eP       pP       14 59 04.3 +2.4
      comp=Z,29nm,1.3s
FELD  Feldberg im Sc    96.85  41 eP       P        14 58 22.4 -5.8
RUP   Ruppelstein       97.04  39 eP       P        14 58 29.0  0.0
TUE   Stuetta           97.13  43 eP       P        14 58 29.6 +0.2
      comp=Z,24nm,1.1s,mb5.5
SCO   Scoresbysund      97.14  14 eP       P        14 58 28.8 -0.2
SCO                                pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.9
SCO                                MLR     MLR
      comp=Z,490nm,21.0s
SCO   Scoresbysund      97.14  14 i P      P        14 58 28.8 -0.2
      comp=Z,3.7nm,0.7s,mb4.8
SCO
      comp=Z,490nm,21.0s
SCO   Scoresbysund      97.14  14 eP       P        14 58 28.8 -0.2
      comp=Z,3.7nm,0.7s,mb4.8
SCO                                LR      LR
      comp=Z,490nm,21.0s
LANF  Langenberg        97.18  40 eP       P        14 58 22.7 -7.0
VAE   Valguarnera       97.22  53  S       SKSac    15 08 59.4 +4.4
      comp=Z,4.1nm,0.3s,baz=65,slow=18,SNR=1.7
BFO   Black Forest      97.24  41 ePdiff   P        14 58 28.9 -1.0
BFO                               epPdiff  pP       14 59 03.1 -0.7
BFO                               eSKSac   SKSac    15 08 55.6 +1.0
RES   Resolute Bay      97.28 353 eP       P        14 58 28.5 -1.1
RES                               e*PP     pP       14 59 01.6 -1.9
RES                                pmax    pmax
      comp=Z,52nm,1.8s,mb5.6
RES   Resolute Bay      97.28 353  PKKPbc  PKKPbc   15 15 05.5 -5.5
      comp=Z,1.4nm,0.7s,baz=332,slow=5.0,SNR=6.0
RES   Resolute Bay      97.28 353 eP       P        14 58 28.5 -1.1
      comp=Z,52nm,1.8s,mb5.6
RES                               epP      pP       14 59 01.6 -1.9
DAVOS Davos             97.55  43  P       P        14 58 31.9 +0.5
DAVOX Davos/Dischmat    97.58  43  P       P        14 58 31.9 +0.3
      comp=Z,8.7nm,1.0s,mb5.1,baz=269,slow=4.3,SNR=5.6
WTSB  Winterswijk       97.83  37⇑eP       pP       14 59 08.6 +2.2
      comp=Z,33nm,1.4s
BUG   Bochum--Univer    97.88  38 ePdiff   P        14 58 31.6 -1.1
BUG                               epPdiff  pP       14 59 06.4 -0.3
BUG                               eSKSac   SKSac    15 08 58.9 +1.2
STU   Stuttgart         97.94  41 ePdiff   P        14 58 31.5 -1.6
STU                               eSKSac   SKSac    15 08 59.6 +1.4
TNS   Taunus Mts        98.07  39 ePdiff   P        14 58 32.6 -1.0
TNS                               epPdiff  pP       14 59 07.1 -0.4
IBBN  Ibbenburen        98.51  37 ePdiff   P        14 58 34.2 -1.3
IBBN                              epPdiff  pP       14 59 09.2 -0.3
MOTA  Moosalm           98.57  43⇑iPdiff   P        14 58 36.5 +0.5
      comp=Z,25nm,0.9s,mb5.7
WTTA  Wattenberg        98.88  43⇓iPdiff   P        14 58 37.8 +0.5
      comp=Z,34nm,1.5s,mb5.6
FUR   Furstenfeldbru    98.99  42 eSKSac   SKSac    15 09 04.3 +0.8
UBBA  Unterbreizbach    99.21  39 ePdiff   P        14 58 37.6 -1.1
UBBA                              eSKSac   SKSac    15 09 08.4 +3.9
GRA1  Grafenberg Arr    99.52  40 ePdif    Pdif     14 58 39.4 -0.9
GRA1                              eSKSac   SKSac    15 09 09.2 +3.2
GRA1                              ePKKPbc  PKKPbc   15 15 29.4  +26
GRA1                              eSS      SS       15 16 55.9 +0.5
GRF   Grafenberg Arr    99.52  40 eP       Pdif     14 58 39.4 -0.9
GRF                               e                 14 59 14.2
GRF                               e                 15 09 09.2
GRF                               eSS      SS       15 16 55.9 +0.5
GRF   Grafenberg Arr    99.52  40 ePdiff   Pdif     14 58 39.4 -0.9
GRF                               epPdiff           14 59 14.2
GRF                               eSKSac   SKSac    15 09 09.2 +3.2
GRF                               ePKKPbc  PKKPbc   15 15 29.4  +26
GRF                               eSS      SS       15 16 55.9 +0.5
CLZ   Clausthal         99.81  38 ePdiff   Pdif     14 58 40.9 -0.7
CLZ                               epPdiff           14 59 15.6
CLZ                               eSKSac   SKSac    15 09 11.2 +3.8
NRDL  Niedersach Rie    99.91  37 ePdiff   Pdif     14 58 41.0 -1.0
NRDL                              epPdiff           14 59 15.9
NRDL                              eSKSac   SKSac    15 09 10.7 +2.9
MOX   Moxa             100.10  40 eP       Pdif     14 58 48.4 +5.5
MOX                               e                 15 02 46.8
MOX                                pmax    pmax
      comp=Z,14nm,1.6s
MOX                                pmax    pmax
      comp=Z,15nm,1.6s
MOX                                MLR     MLR
      comp=Z,25µm,23.0s
MOX   Moxa             100.10  40 ePdiff   Pdif     14 58 42.2 -0.7
MOX                               ePP      PP       15 02 46.9 -3.3
MOX                               eSKSac   SKSac    15 09 12.8 +4.0
MOX   Moxa             100.10  40 ePdif    Pdif     14 58 48.4 +5.5
      comp=Z,15nm,1.6s
MOX                               ePP      PP       15 02 46.8 -3.4
MOX                               eSKS              15 09 18.0
MOX                               e                 15 16 00.2
MOX                                LR      LR
      comp=Z,900nm,23.0s
MOX   Moxa             100.10  40 ePDIFF   Pdif     14 58 48.4 +5.5
      comp=Z,15nm,1.6s
MOX                               ePP      PP       15 02 46.8 -3.4
      comp=Z,25nm,1.6s
MOX                               eSKS              15 09 18.0
MOX                               e                 15 16 00.2
MOX
      comp=Z,900nm,23.0s
ROTZ  Rotzenmuhle      100.14  41 ePdiff   Pdif     14 58 42.2 -0.8
ROTZ                              epPdiff           14 59 17.2
ROTZ                              ePP      PP       15 02 48.3 -2.2
MANZ  Manzenberg       100.16  40 ePdiff   Pdif     14 58 42.4 -0.7
MANZ                              epPdiff           14 59 17.3
WET   Wettzell         100.33  41 ePdiff   Pdif     14 58 42.9 -1.0
WET                               epPdiff           14 59 17.5
WET                               eSKSac   SKSac    15 09 11.7 +1.7
NKC   Novy Kostel      100.45  40 ePDIFF   Pdif     14 58 48.6 +4.2
NKC                               epP               14 59 21.0
NKC                               ePP      PP       15 02 49.5 -3.3
NKC                               eSKS              15 09 14.1
NKC                               ex       x        15 10 12.0
NKC                               eSS      SS       15 17 09.1 +0.8
NKC                                AMS     AMS      15 40 40.0
      comp=Z,700nm,17.6s
NKC   Novy Kostel      100.45  40 ePdif    Pdif     14 58 48.6 +4.2
NKC                               e                 14 59 21.0
NKC                               e                 15 02 49.5
NKC                               eSKS              15 09 14.1
NKC                               e                 15 10 12.0
NKC                               e                 15 17 09.1
TANN  Tannenbergstha   100.53  40 ePdiff   Pdif     14 58 44.0 -0.8
TANN                              epPdiff           14 59 18.6
BSEG  Bad Segeberg     100.56  36 ePdiff   Pdif     14 58 48.8 +3.9
BSEG                              ePP      PP       15 02 51.7 -1.8
BSEG                              eSKSac   SKSac    15 09 13.6 +2.7
GEC2  GERESS Array S   100.74  42 ePdiff   Pdif     14 58 44.9 -0.8
GEC2                              epPdiff           14 59 19.5
GEC2                              ePP      PP       15 02 56.0 +1.0
GEC2                              eSKSac   SKSac    15 09 13.0 +1.0
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GEC2  GERESS Array S   100.74  42 ePdif    Pdif     14 58 45.7  0.0
      comp=Z,2µm,1.2s
GERES GERESS Array B   100.74  42  P       Pdif     14 58 43.8 -1.9
GERES                                               15 02 55.6
GERES GERESS Array B   100.74  42  P       Pdif     14 58 43.8 -1.9
      comp=Z,0.9nm,0.8s,baz=252,slow=3.9,SNR=5.8
GERES                              PP      PP       15 02 55.6 +0.6
      comp=Z,3.8nm,1.0s,baz=216,slow=6.6,SNR=6.0
GERES                              PKKPbc  PKKPbc   15 14 56.2 -4.1
      comp=Z,0.9nm,0.7s,baz=46,slow=3.9,SNR=6.1
KHC   Kasperske Hory   100.76  41 eP       Pdif     14 58 55.5  +10
KHC                               e                 15 09 13.9
KHC                               e                 15 10 14.1
KHC                               e                 15 10 14.8
KHC                               e                 15 17 07.6
KHC                                MLR     MLR
      comp=Z,700nm,16.9s
KHC   Kasperske Hory   100.76  41 ePDIFF   Pdif     14 58 55.5  +10
KHC                               epP               14 59 21.7
KHC                               ex       x        15 02 02.0
KHC                               ePP      PP       15 02 14.5  -41
KHC                               eSKS              15 09 13.9
KHC                               eSDIF    Sdif     15 10 14.1 +2.2
KHC                               ex       x        15 15 23.8
KHC                               eSS      SS       15 17 07.6 -5.0
KHC                                AMS     AMS      15 38 20.0
      comp=Z,700nm,16.9s
KHC   Kasperske Hory   100.76  41 i P      Pdif     14 58 45.9 +0.1
CLL   Collm            101.16  39 eP       Pdif     14 58 48.0 +0.4
CLL                               e                 15 02 53.0
CLL                               e                 15 09 22.0
CLL                               eS       Sdif     15 10 19.0 +3.7
CLL                                pmax    pmax
      comp=Z,4.0nm,1.4s
CLL   Collm            101.16  39 ePdif    Pdif     14 58 48.0 +0.4
CLL                               i                 14 58 57.7
      comp=Z,11nm,1.1s
CLL                               i pPdif           14 59 23.9
      comp=Z,14nm,1.3s
CLL                               ePP      PP       15 02 53.0 -5.1
      comp=Z,16nm,1.4s
CLL                               epPP              15 03 33.0
CLL                               e                 15 05 42.0
CLL                               eSKSac   SKSac    15 09 22.0 +8.1
CLL                               eSdif    Sdif     15 10 19.0 +3.7
CLL                               esSdiff           15 11 19.0
CLL                               eSP      SP       15 11 45.0 -1.8
CLL                               ePS      PS       15 12 03.0 -0.5
CLL                               ePPS              15 12 48.0
CLL                               eSS      SS       15 17 20.0 +2.0
CLL                               esSS              15 18 17.0
CLL                               e                 15 22 30.0
CLL   Collm            101.16  39 ePdif    Pdif     14 58 48.0 +0.4
      comp=Z,16nm,1.4s
CLL                               i                 14 58 57.7
CLL                               ePP      PP       15 02 53.0 -5.1
CLL                               eSKS              15 09 22.0
CLL                               eSdif    Sdif     15 10 19.0 +3.7
BRG   Berggiesshubel   101.57  40 eP       Pdif     14 59 00.7  +11
BRG                               e                 15 02 57.9
BRG                                                 15 09 23.0
BRG                                S       Sdif     15 10 24.0 +5.3
BRG                               e                 15 11 47.0
BRG                                SS      SS       15 17 22.0 -1.8
BRG                                pmax    pmax
      comp=Z,2.0nm,1.6s
BRG                                pmax    pmax
      comp=Z,9.0nm,1.1s
BRG                                pmax    pmax
      comp=Z,5.0nm,1.6s
BRG                                pmax    pmax
      comp=Z,19nm,1.3s
BRG                                pmax    pmax
      comp=Z,9.0nm,2.0s
BRG                                MLR     MLR
      comp=N,14µm,15.1s
BRG                                MLR     MLR
      comp=E,249nm,18.3s
BRG                                MLR     MLR
      comp=Z,438nm,25.1s
BRG   Berggiesshubel   101.57  40 ePdiff   Pdif     14 58 48.8 -0.6
BRG                               epPdiff           14 59 23.3
BRG                               eSKSac   SKSac    15 09 18.3 +2.4
BRG   Berggiesshubel   101.57  40 eP       Pdif     14 59 00.7  +11
      comp=Z,15nm,1.6s
BRG                               epP               14 59 25.5
      comp=Z,7.5nm,1.1s
BRG                               ePP      PP       15 02 57.9 -3.3
      comp=Z,32nm,1.6s
BRG                                SKS              15 09 23.0
BRG                                S       Sdif     15 10 24.0 +5.3
BRG                               e                 15 11 47.0
BRG                               ePKKP    PKKPbc   15 15 19.9  +22
      comp=Z,14nm,1.3s
BRG                               e                 15 15 54.4
      comp=Z,24nm,1.9s
BRG                                SS      SS       15 17 22.0 -1.8
BRG
      comp=N,416nm,15.1s
BRG
      comp=E,731nm,18.3s
BRG
      comp=Z,1µm,25.1s
BRG   Berggiesshubel   101.57  40 eP       Pdif     14 59 00.7  +11
BRG                               epP               14 59 25.5
BRG                               ePP      PP       15 02 57.9 -3.3
BRG                                SKS              15 09 23.0
BRG                                S       Sdif     15 10 24.0 +5.3
BRG                               e                 15 11 47.0
BRG                               ePKKP    PKKPbc   15 15 19.9  +22
BRG                               e                 15 15 54.4
BRG                                SS      SS       15 17 22.0 -1.8
BRG                                LR      LR
      comp=Z,610nm,25.1s
PRU   Pruhonice        101.64  41 eP       Pdif     14 58 59.2  +10
PRU                               e                 15 02 56.2
PRU                               e                 15 09 17.0
PRU                               e                 15 10 19.2
PRU                                MLR     MLR
      comp=Z,1µm,30.2s
PRU   Pruhonice        101.64  41 ePDIFF   Pdif     14 58 59.2  +10
PRU                               epP               14 59 26.0
PRU                               ePP      PP       15 02 56.2 -5.6
PRU                               eSKS              15 09 17.0
PRU                               eSDIF    Sdif     15 10 19.2 -0.1
PRU                               ePKKP    PKKPbc   15 14 58.0 +0.3
PRU                               ex       x        15 15 20.0
PRU                               ex       x        15 17 06.8
PRU                                AMS     AMS      15 39 20.0
      comp=Z,1µm,30.2s
PVCC  Panska Ves       101.83  40 eSKS              15 09 22.5
PVCC                              ePKKP    PKKPbc   15 14 57.3 +0.1
PVCC                              ex       x        15 15 19.0
PVCC                               AMS     AMS      15 44 20.0
      comp=Z,1µm,17.0s
TREC  Trest            101.99  42 ePDIFF   Pdif     14 59 01.7  +10
DAG   Danmarks Havn    102.29  10⇑iP       Pdif     14 59 06.8  +14
DAG                                pmax    pmax
      comp=Z,3.0nm,0.4s
DAG   Danmarks Havn    102.29  10⇑iP       Pdif     14 59 06.8  +14
      comp=Z,2.5nm,0.4s
DAG                               i                 15 02 02.3
VRAC  Vranov           102.69  42  PP      PP       15 03 05.0 -4.7
      comp=Z,4.7nm,0.9s,baz=240,slow=8.2,SNR=4.5
UPC   Upice            102.70  41 ePDIFF   Pdif     14 59 04.8  +10
UPC                               ePKKP    PKKPbc   15 14 49.9 -4.7
UPC                               ex       x        15 15 15.2
DPC   Dobruska-Polom   102.84  41 eP       Pdif     14 59 00.5 +5.5
DPC                               e                 15 09 28.5
DPC                               e                 15 10 26.6
DPC                               e                 15 17 37.5
DPC                                MLR     MLR
      comp=Z,1µm,19.5s
DPC   Dobruska-Polom   102.84  41 ePDIFF   Pdif     14 59 00.5 +5.5
DPC                               epP               14 59 31.9
DPC                               ex       x        15 02 29.9
DPC                               eSKS              15 09 28.5
DPC                               eSDIF    Sdif     15 10 26.6 -2.7
DPC                               ePKKP    PKKPbc   15 14 54.0 -0.2
DPC                               ex       x        15 15 14.0
DPC                               eSS      SS       15 17 37.5 -3.8
DPC                                AMS     AMS      15 45 50.0
      comp=Z,1µm,19.5s
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MORC	**Moravsky Berou**	**103.42**	**42**	*e*P	Pdif	14 58 57.9	+0.3
MORC				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MORC	**Moravsky Berou**	**103.42**	**42**	*e*Pdif	Pdif	14 58 57.9	+0.2
	comp=Z,5.9nm,0.9s						
NOA	**NORSAR Array B**	**103.51**	**29**	PP	PP	15 03 15.4	-0.1
	comp=Z,13nm,1.1s,baz=247,slow=7.6,SNR=4.4						
NOA				PKKPbc	PKKPbc	15 14 50.1	-2.5
	comp=Z,1.5nm,0.9s,baz=260,slow=2.9,SNR=3.4						
OKC	**Ostrava-Krasne**	**103.81**	**42**	*e*SKS		15 09 29.8	
OKC				*e*SDIF	Sdif	15 10 37.7	+0.3
HFS	**Hagfors**	**104.38**	**31**	PP	PP	15 03 21.9	-0.1
	comp=Z,19nm,1.0s,baz=240,slow=4.8,SNR=7.7						
COLA	**College**	**104.73**	**334**	*e*P	Pdif	14 59 01.7	-1.7
COLA				pmax	pmax		
	comp=Z,22nm,1.5s						
COLA	**College**	**104.73**	**334**	*e*Pdif	Pdif	14 59 01.7	-1.7
	comp=Z,22nm,1.5s						
COLA				*e*PKPdf	PKiKP	15 03 12.9	-4.7
TRF	**Thorofare Moun**	**105.31**	**333**	*e*PKPdf	PKiKP	15 03 18.8	0.0
UZH	**Uzhgorod**	**106.11**	**44**	*e*P	Pdif	14 59 17.0	+7.4
UZH				*e*		15 03 35.0	
UZH				*i*		15 09 41.0	
UZH				*i*		15 12 42.0	
COLD	**Coldfoot**	**106.34**	**336**	*e*PKPdf	PKiKP	15 03 19.4	-1.1
MLR	**Muntele Rosu**	**107.83**	**47**	⇑*i*P	PKKPab	15 14 51.9	+1.4
MLR	**Muntele Rosu**	**107.83**	**47**	PKKPab	PKKPab	15 14 52.2	+1.7
	comp=Z,6.7nm,0.8s,baz=182,slow=4.4,SNR=7.7						
AKASG	**Malin Array Be**	**110.93**	**42**	PKIKP	PKiKP	15 03 29.0	-0.7
AKASG						15 04 09.0	
AKASG	**Malin Array Be**	**110.93**	**42**	PKiKP	PKiKP	15 03 28.9	-0.7
	comp=Z,3.1nm,0.7s,baz=265,slow=2.8,SNR=9.8						
AKASG				PP	PP	15 04 08.9	-1.0
	comp=Z,8.2nm,0.9s,baz=258,slow=7.7,SNR=8.4						
AKASG				PKKPbc	PKKPbc	15 14 25.8	-3.2
	comp=Z,2.4nm,0.6s,baz=73,slow=3.5,SNR=11						
ARCES	**ARCESS Array B**	**111.13**	**22**	PKKPbc	PKKPbc	15 14 25.6	-3.3
	comp=Z,6.8nm,0.9s,baz=99,slow=4.0,SNR=6.6						
ARCES				PKKPab	PKKPab	15 14 34.9	-0.2
	comp=Z,6.9nm,0.9s,baz=70,slow=4.0,SNR=6.5						
BRTR	**Keskin Array B**	**112.31**	**55**	PKiKP	PKiKP	15 03 31.1	-1.5
	comp=Z,2.8nm,0.8s,baz=188,slow=2.5,SNR=8.4						
BRTR				PP	PP	15 04 18.8	-1.4
	comp=Z,9.1nm,1.0s,baz=263,slow=4.2,SNR=4.5						
MMAI	**Mount Meron Ar**	**112.48**	**62**	PKiKP	PKiKP	15 03 33.4	+0.2
	comp=Z,1.5nm,0.6s,baz=225,slow=1.8,SNR=4.6						
MMAI				PP	PP	15 04 24.9	+3.2
	comp=Z,5.0nm,0.9s,baz=221,slow=6.3,SNR=4.2						
MMAI				PKKPab	PKKPab	15 14 31.6	+1.1
	comp=Z,7.5nm,1.0s,baz=183,slow=11,SNR=5.5						
SIM	**Simferopol'**	**113.42**	**49**	*i* PKIKP	PKiKP	15 03 35.4	+0.8
SIM				*i*		15 04 11.0	
SIM				*e*PS	PS	15 14 05.0	-0.6
SIM				pmax	pmax		
	comp=Z,14nm,0.7s						
SIM				MLR	MLR		
	comp=Z,300nm,18.0s						
APA	**Apatity**	**114.00**	**24**	⇑*i*PKIKP	PKiKP	15 03 41.7	+6.7
APA				pmax	pmax		
	comp=Z,260nm,2.0s						
OBN	**Obninsk**	**115.71**	**38**	⇑*i*PKIKP	PKPdf	15 03 38.6	-0.1
OBN				*e*		15 04 14.1	
OBN				*e*		15 04 48.2	
OBN						15 10 17.0	
OBN				*e*PS	PS	15 14 09.8	-16
OBN				*e*SS	SS	15 20 35.5	+1.8
OBN				pmax	pmax		
	comp=Z,23nm,0.9s						
OBN				MLR	MLR		
	comp=Z,700nm,19.0s						
OBN	**Obninsk**	**115.71**	**38**	⇑*i*PKP	PKPdf	15 03 38.9	+0.2
OBN				LR	LR		
	comp=Z,900nm,21.0s						
ANN	**Anapa**	**115.75**	**50**	*i* PKIKP	PKPdf	15 03 37.7	-1.4
ANN				*e*		15 10 15.6	
ANN				pmax	pmax		
	comp=Z,46nm,1.1s						
MALT	**Malatya**	**115.79**	**57**	*e*PKIKP	PKPdf	15 03 39.7	+0.3
KLMR	**Klimovskoe**	**117.09**	**32**	*e*PKIKP	PKPdf	15 03 40.0	-1.1
KLMR				pmax	pmax		
	comp=Z,39nm,1.5s						
VSR	**Storozhevoye**	**117.23**	**42**	*e*PKIKP	PKPdf	15 03 41.2	-0.5
VSR				*e*		15 04 53.2	
VSR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
VSR				pmax	pmax		
	comp=N,5.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,4.0nm,0.3s						
VSR				pmax	pmax		
	comp=Z,30nm,1.3s						
VSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VSR				pmax	pmax		
	comp=E,20nm,1.1s						
SOC	**Sochi**	**117.30**	**51**	*i* PKIKP	PKPdf	15 03 42.8	+0.7
SOC				*e*		15 04 52.1	
SOC				*e*		15 10 15.8	
SOC				*e*PS	PS	15 14 23.5	-17
SOC				*e*SS	SS	15 20 51.5	-3.5
VRHR	**Novokhopersk**	**118.78**	**43**	*e*PKIKP	PKPdf	15 03 44.3	-0.4
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.8s						
KIV	**Kislovodsk**	**119.46**	**51**	⇑*i*PKIKP	PKPdf	15 03 46.4	+0.2
KIV				*e*		15 05 09.1	
KIV				*e*PPP		15 07 45.8	
KIV				*i*		15 10 33.5	
KIV				*e*PS	PS	15 14 50.0	-10
KIV				pmax	pmax		
	comp=Z,11nm,0.6s						
KIV				MLR	MLR		
	comp=Z,300nm,20.0s						
KIV	**Kislovodsk**	**119.46**	**51**	⇑*e*PKP	PKPdf	15 03 45.9	-0.3
STKA	**Stephens Creek**	**119.82**	**209**	*e*PKP	PKPdf	15 03 46.5	-1.0
	comp=Z,5.3nm,0.6s						
STKA				*e*pPKP	pPKPdf	15 04 21.9	-0.9
STKA	**Stephens Creek**	**119.82**	**209**	PKP	PKPdf	15 03 47.1	-0.3
	comp=Z,7.7nm,0.7s,baz=112,slow=3.3,SNR=13						
STKA				pPKP	pPKPdf	15 04 21.8	-0.9
	comp=Z,8.2nm,1.0s,baz=108,slow=2.4,SNR=4.2						
STKA				PKKPbc	PKKPbc	15 13 57.0	-0.9
	comp=Z,2.7nm,0.9s,baz=350,slow=3.7,SNR=4.1						
STKA	**Stephens Creek**	**119.82**	**209**	PKP	PKPdf	15 03 47.1	-0.3
STKA				pPKP	pPKPdf	15 04 21.8	-0.9
STKA				PKKPbc	PKKPbc	15 13 57.0	-0.9
PRGR	**Permogore**	**119.91**	**30**	⇑*i*PKIKP	PKPdf	15 03 46.4	-0.1
PRGR				pmax	pmax		
	comp=Z,29nm,0.9s						
BILL	**Bilibino**	**122.54**	**339**	κ *i*PKIKP	PKPdf	15 03 50.8	-0.6
BILL				*e*		15 04 33.7	
BILL				*i*		15 05 25.5	
BILL				pmax	pmax		
	comp=Z,11nm,0.9s						
BILL	**Bilibino**	**122.54**	**339**	⇓*i*PKP	PKPdf	15 03 50.2	-1.2
MAK	**Makhachkala**	**122.96**	**52**	*e*PKIKP	PKPdf	15 03 53.9	+0.9
MAK				*i*		15 05 31.5	
MAK				*e*PPP		15 08 14.2	
MAK						15 10 43.0	
MAK				*i* SP	SP	15 15 13.7	-2.1
MAK				*e*PS	PS	15 15 31.7	+0.1
MAK				pmax	pmax		
	comp=Z,227nm,1.9s						
MAK				MLR	MLR		
	comp=Z,571nm,22.0s						
SOKR	**Solikamsk**	**125.76**	**31**	*i* PKIKP	PKPdf	15 03 58.2	+0.4
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SOKR				MLR	MLR		
	comp=Z,700nm,21.0s						
NWAO	**Narrogin (SRO)**	**125.80**	**186**	PKP	PKPdf	15 03 58.6	-0.3
	comp=Z,14nm,0.7s,baz=194,slow=3.5,SNR=9.7						
FORT	**Forrest**	**125.85**	**197**	*e*PKP	PKPdf	15 03 58.1	-1.0
	comp=Z,39nm,0.6s						
FORT	**Forrest**	**125.85**	**197**	*e*PKPdf	PKPdf	15 03 56.8	-2.3
CTA	**Charters Tower**	**126.71**	**222**	*e*PKP	PKPdf	15 04 00.5	-0.5
	comp=Z,22nm,1.1s						
CTA				*e*pPKP	pPKPdf	15 04 35.1	-1.2
CTA	**Charters Tower**	**126.71**	**222**	PKP	PKPdf	15 04 00.8	-0.1
	comp=Z,22nm,1.0s,baz=177,slow=2.9,SNR=8.4						
CTA	**Charters Tower**	**126.71**	**222**	PKP	PKPdf	15 04 00.8	-0.1
CTAO	**Charters Tower**	**126.71**	**222**	*e*PKIKP	PKPdf	15 03 59.8	-1.2
MUN	**Mundaring**	**126.83**	**185**	*e*PKP	PKPdf	15 04 00.3	-0.6
KLBR	**Kellerberrin**	**127.07**	**187**	*e*PKP	PKPdf	15 04 00.7	-0.7
	comp=Z,38nm,0.7s						
KLBR				*e*pPKP	pPKPdf	15 04 35.1	-1.6
SHAO	**Shalim**	**127.38**	**83**	P	PKPdf	15 04 02.2	0.0
	SNR=39						
ARU	**Arti**	**127.71**	**34**	*i* PKIKP	PKPdf	15 04 01.4	-0.3
ARU						15 06 03.8	
ARU						15 10 55.8	
ARU				SS	SS	15 23 03.1	-3.0
ARU	**Arti**	**127.71**	**34**	⇑*e*PKP	PKPdf	15 04 01.3	-0.4
SVE	**Sverdlovsk**	**128.65**	**33**	*e*PKIKP	PKPdf	15 04 00.1	-3.3
SVE				pmax	pmax		
	comp=Z,35nm,1.5s						
TIXI	**Tiksi**	**128.68**	**353**	*i* PKIKP	PKPdf	15 04 00.7	-2.4
TIXI	**Tiksi**	**128.68**	**353**	*i* PKP	PKPdf	15 04 00.8	-2.3
AKTO	**Aktyubinsk**	**129.16**	**42**	PKIKP	PKPdf	15 04 04.8	+0.2
AKTO				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SEY	**Seymchan**	**130.13**	**337**	⇑*i*PKIKP	PKPdf	15 04 05.9	-0.2
SEY	**Seymchan**	**130.13**	**337**	⇑*e*PKP	PKPdf	15 04 05.0	-1.1
ASAR	**Alice Springs**	**130.31**	**207**	PKHKP		15 03 48.3	
ASAR						15 04 06.7	
ASAR	**Alice Springs**	**130.31**	**207**	PKhKP		15 03 48.3	
	comp=Z,0.7nm,0.6s,baz=155,slow=2.0,SNR=10						
ASAR				PKP	PKPdf	15 04 06.7	-1.0
	comp=Z,22nm,0.8s,baz=134,slow=2.0,SNR=31						
ASAR				pPKP	pPKPdf	15 04 41.3	-1.7
	comp=Z,32nm,1.0s,baz=149,slow=2.3,SNR=5.7						
SMDO	**Samad**	**130.58**	**77**	P	PKPdf	15 04 08.3	+0.2
	SNR=7.0						
AB31	**Akbulak array**	**130.67**	**43**	PKIKP	PKPdf	15 04 08.0	+0.5
AB31				pmax	pmax		
	comp=Z,50nm,1.2s						
WBK	**Wadi Bani Khal**	**131.35**	**78**	P	PKPdf	15 04 10.4	+0.8
	SNR=6.4						
PET	**Petropavlovsk**	**132.23**	**323**	*i* PKIKP	PKPdf	15 04 11.8	+1.5
PET				*e*PPS		15 18 30.3	
PET				pmax	pmax		
	comp=Z,60nm,1.1s						
PET				pmax	pmax		
	comp=Z,1μm,19.6s						
PET	**Petropavlovsk**	**132.23**	**323**	*e*PKPdf	PKPdf	15 04 09.6	-0.8
PEA0B	**Petropavlovsk-**	**132.72**	**324**	*e*PKPdf	PKPdf	15 04 09.8	-1.4
PETK	**Petropavlovsk-**	**132.72**	**324**	PKHKP		15 03 58.5	
PETK						15 04 10.6	
PETK	**Petropavlovsk-**	**132.72**	**324**	PKhKP		15 03 58.5	
	comp=Z,3.6nm,0.7s,baz=65,slow=4.2,SNR=9.2						
PETK				PKP	PKPdf	15 04 10.6	-0.7
	comp=Z,21nm,0.8s,baz=74,slow=3.3,SNR=30						
PETK				pPKP	pPKPdf	15 04 45.3	-1.3
	comp=Z,27nm,1.0s,baz=86,slow=7.6,SNR=5.5						
PETK	**Petropavlovsk-**	**132.72**	**324**	PKP		15 03 58.5	
PETK				PKP	PKPdf	15 04 10.6	-0.7
PETK				pPKP	pPKPdf	15 04 45.3	-1.3
WB2	**Warramunga Arr**	**133.36**	**210**	*e*PKPdf	PKPdf	15 04 12.5	-1.0
WB2				*e*sPKPdf		15 05 01.8	
WRA	**Warramunga Arr**	**133.37**	**210**	PKHKP		15 03 56.1	
WRA						15 04 12.4	
WRA						15 04 49.2	
WRA	**Warramunga Arr**	**133.37**	**210**	PKhKP		15 03 56.1	
	comp=Z,1.9nm,0.6s,baz=130,slow=2.5,SNR=15						
WRA				PKP	PKPdf	15 04 12.4	-1.2
	comp=Z,32nm,0.9s,baz=158,slow=1.7,SNR=52						
WRA				pPKP	pPKPdf	15 04 49.2	+0.3
	comp=Z,29nm,1.1s,baz=161,slow=1.5,SNR=4.9						
WRA				PP	PP	15 06 37.8	-3.3
	comp=Z,4.9nm,1.1s,baz=148,slow=5.3,SNR=4.8						
WRA				SKPbc	SKPbc	15 07 29.5	-0.4
	comp=Z,20nm,1.1s,baz=151,slow=3.3,SNR=7.3						
WRAB	**Tennant Creek**	**133.37**	**210**	*e*PKIKP	PKPdf	15 04 12.6	-1.0
BRVK	**Borovoye**	**135.29**	**35**	*e*PKIKP	PKPdf	15 04 16.4	+0.3
YAK	**Yakutsk**	**137.45**	**348**	*i* PKHKP		15 04 09.8	
YAK				*e*		15 11 16.3	
YAK				pmax	pmax		
	comp=Z,29nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,85nm,1.9s						
YAK				pmax	pmax		
	comp=N,85nm,1.8s						
YAK				pmax	pmax		
	comp=E,28nm,1.1s						
YAK	**Yakutsk**	**137.45**	**348**	*e*PKPdf		15 04 10.0	
FITZ	**Fitzroy Crossi**	**138.49**	**200**	*e*PKP	PKPdf	15 04 23.1	-0.1
	comp=E,49nm,0.7s						
FITZ				*e*pPKP	pPKPdf	15 05 00.0	+1.5
FITZ	**Fitzroy Crossi**	**138.49**	**200**	PKhKP		15 04 12.6	
	comp=E,7.1nm,0.8s,baz=162,slow=5.9,SNR=9.6						
FITZ				PKP	PKPdf	15 04 23.2	0.0
	comp=E,27nm,0.7s,baz=188,slow=3.9,SNR=18						
KK31	**Karatay Array**	**139.51**	**48**	PKIKP	PKPdf	15 04 24.4	+0.2
KK31				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NVS	**Novosibirsk**	**140.29**	**26**	*e*PKIKP	PKPdf	15 04 25.3	+0.1
NVS				pmax	pmax		
	comp=Z,103nm,1.5s						
NVS				pmax	pmax		
	comp=E,29nm,1.4s						
KAKA	**Kakadu**	**140.49**	**213**	*e*PKP		15 04 19.2	
	comp=E,23nm,0.6s						
KAKA				*e*pPKP	pPKPdf	15 04 59.5	-2.7
KAKA	**Kakadu**	**140.49**	**213**	*e*PKPdf	PKPdf	15 04 18.4	-8.5
KURK	**Kurchatov**	**140.90**	**33**	*e*PKPdf	PKPdf	15 04 21.6	-4.9
KURK				⇑*e*PKP	PKPdf	15 04 26.5	0.0
KURK	**Kurchatov**	**140.90**	**33**	P	PKPdf	15 04 26.6	+0.1
	SNR=9.6						
KURK				P		15 04 26.6	
	SNR=9.6						
ZAA0	**Zalesovo Array**	**141.57**	**25**	*e*PKPdf		15 04 21.5	
ZALV	**Zalesovo Beam**	**141.57**	**25**	PKhKP		15 04 21.6	
	comp=E,13nm,0.8s,baz=316,slow=4.1,SNR=40						
ZALV				PKP	PKPdf	15 04 28.1	+0.5
	comp=E,46nm,0.8s,baz=303,slow=2.4,SNR=34						
ZALV				pPKP	pPKPdf	15 05 01.9	-1.0
	comp=E,14nm,0.6s,baz=305,slow=2.2,SNR=2.7						
EKS2	**Erkin-Say**	**141.91**	**47**	P	PKPdf	15 04 25.1	-3.5
	SNR=14						
EKS2	**Erkin-Say**	**141.91**	**47**	*e*PKPdf	PKPdf	15 04 24.7	-3.9
AML	**Almayashu**	**142.05**	**48**	P	PKPdf	15 04 30.9	+2.1
	SNR=13						
AML	**Almayashu**	**142.05**	**48**	*e*PKPdf	PKPdf	15 04 25.7	-3.1
USP	**Ospenovka**	**142.17**	**46**	P	PKPdf	15 04 29.6	+0.6
	SNR=17						
AAK	**Ala-Archa**	**142.41**	**47**	P	PKPdf	15 04 27.9	-1.6
	SNR=12						
AAK	**Ala-Archa**	**142.41**	**47**	*i* PKP	PKPdf	15 04 28.3	-1.2
AAK	**Ala-Archa**	**142.41**	**47**	P	PKPdf	15 04 29.4	-0.1
	SNR=15						
AAK				P		15 04 29.4	
	SNR=15						
FRU	**Bishkek**	**142.42**	**47**	*e*PKIKP	PKPdf	15 04 27.0	-2.5
FRU				*i*		15 05 11.0	
FRU				pmax	pmax		
	comp=Z,80nm,1.8s						
UCH	**Uchtor**	**142.58**	**48**	P	PKPdf	15 04 28.0	-1.7
	SNR=25						
UCH	**Uchtor**	**142.58**	**48**	*e*PKPdf	PKPdf	15 04 27.7	-2.1
KBK	**Karagaybulak**	**142.71**	**47**	P	PKPdf	15 04 28.6	-1.4
	SNR=9.4						
TKM2	**Tokmak 2**	**143.04**	**46**	P	PKPdf	15 04 31.4	+0.8
	SNR=10						
TKM2	**Tokmak 2**	**143.04**	**46**	*e*PKPdf	PKPdf	15 04 27.8	-2.8
KZA	**Kyzart**	**143.14**	**47**	P	PKPdf	15 04 29.9	-0.8
	SNR=14						
CLNS	**Chul'man**	**143.20**	**348**	*i* PKIKP	PKPdf	15 04 26.3	-4.1
CLNS				*e*SS	SS	15 26 09.2	-0.8
CLNS				pmax	pmax		
	comp=Z,36nm,1.2s						
CLNS				pmax	pmax		
	comp=N,18nm,1.3s						
CLNS				pmax	pmax		
	comp=E,12nm,0.9s						
CLNS				pmax	pmax		
	comp=N,215nm,13.7s						
CLNS				pmax	pmax		
	comp=E,245nm,18.0s						
NRGR	**Nerungri**	**143.40**	**348**	*e*PKIKP	PKPdf	15 04 27.4	-3.3
NRGR				S	PP	15 07 43.5	+0.6
BOD	**Bodaibo**	**143.50**	**358**	*e*PKIKP	PKPdf	15 04 26.9	-4.0
BOD				pmax	pmax		
	comp=Z,7.0nm,1.5s						
ULHL	**Ulahol**	**143.75**	**47**	P	PKPdf	15 04 31.6	-0.2
	SNR=18						
MNGI	**Mangalore**	**143.92**	**97**	*e*PKP	PKPdf	15 04 30.1	-2.8
YSS	**Yuzh-Sakhalins**	**144.11**	**323**	*i* PKIKP	PKPdf	15 04 30.3	-2.0
POO	**Poona**	**144.42**	**88**	*e*PKP	PKPdf	15 04 32.2	-1.5
POO				*i* x	x	15 07 46.3	
POO				AMS	AMS	15 42 47.6	
	comp=E,550nm,24.7s						
POO				AMS	AMS	15 44 15.1	
	comp=N,1μm,23.3s						
KAD	**Karad**	**144.48**	**90**	*e*PKP	PKPdf	15 04 32.7	-1.1
KAD				*i* x	x	15 07 46.0	
KSH	**Kashi**	**144.59**	**51**	PKP	PKPdf	15 04 32.9	-0.5
KSH				*e*PKS		15 08 07.1	
KSH				SKS	SKSdf	15 11 26.0	-4.6
KSH				AMB	AMB		
	comp=Z,2μm,7.4s						
KSH				LR	LR		
	comp=N,290nm,5.2s						
KSH				LR	LR		
	comp=E,370nm,6.8s						
KSH				LR	LR		
	comp=Z,640nm,5.7s						
MK31	**Makanchi Array**	**145.19**	**36**	*i* PKIKP	PKPdf	15 04 34.1	-0.1
MK31				pmax	pmax		
	comp=Z,243nm,1.1s						
MKAR	**Makanchi Array**	**145.19**	**36**	PKPbc	PKPbc	15 04 34.4	+0.3
	comp=Z,84nm,0.8s,baz=320,slow=2.4,SNR=456						
MKAR				pPKPbc		15 05 08.3	
	comp=Z,37nm,0.7s,baz=316,slow=3.3,SNR=3.0						
MKAR	**Makanchi Array**	**145.19**	**36**	PKPbc	PKPbc	15 04 34.4	+0.3
MKAR				pPKPbc		15 05 08.3	
ASAJ	**Asahikawa**	**145.75**	**319**	PKP2	PKPab	15 04 35.3	-1.2
ASAJ				pmax	pmax		
	comp=Z,118nm,1.1s						
ASAJ				pmax	pmax		
	comp=Z,308nm,1.1s						
ASAJ	**Asahikawa**	**145.75**	**319**	PKPbc	PKPbc	15 04 35.2	-0.7
	comp=Z,118nm,1.1s,baz=270,slow=3.2,SNR=38						
ASAJ				pPKPbc	pPKPbc	15 05 10.2	-0.5
	comp=Z,308nm,1.1s,baz=235,slow=3.1,SNR=9.2						
AJM	**Ajmer**	**145.87**	**74**	*e*PKP	PKPdf	15 04 34.0	-1.9
AJM				*i* PP	PP	15 07 57.4	-2.1
THN	**Thein Dam**	**146.25**	**63**	*e*PKP	PKPdf	15 04 35.6	-0.8
ERM	**Erimo**	**146.44**	**315**	*e*PKIKP	PKPdf	15 04 35.2	-1.3
LATR	**Latur**	**146.92**	**89**	*e*PKP	PKPdf	15 04 37.4	-0.6
BHK	**Bhakra**	**147.00**	**65**	*e*x	PKPdf	15 04 40.2	+2.4
PALK	**Pallekele**	**147.02**	**110**	*e*PKIKP	PKPdf	15 04 37.8	-0.5
HABR	**Khabarovsk**	**147.05**	**331**	*de*PKIKP	PKPdf	15 04 35.7	-1.6
HABR				*i*		15 04 40.9	
HABR				*e*		15 05 08.1	
HABR				*e*		15 05 10.9	
HABR				*e*		15 08 03.5	
HABR						15 11 33.2	
HABR				*e*		15 20 36.1	
HABR				*e*SS	SS	15 26 54.7	0.0
HABR				*e*SSS		15 32 27.4	
HABR				pmax	pmax		
	comp=Z,59nm,1.5s						
HABR				pmax	pmax		
	comp=N,11nm,0.8s						
HABR				pmax	pmax		
	comp=E,23nm,1.2s						
HABR				pmax	pmax		
	comp=Z,548nm,1.6s						
GUMO	**Guam**	**147.43**	**262**	PKPbc	PKPbc	15 04 40.5	-1.0
	comp=Z,520nm,1.0s,baz=164,slow=7.0,SNR=11						
GUMO				pPKPbc	pPKPbc	15 05 14.3	-2.3
	comp=Z,623nm,1.1s,baz=172,slow=6.7,SNR=5.1						
GUMO	**Guam**	**147.43**	**262**	PKPbc	PKPbc	15 04 40.5	-1.0
GUMO				pPKPbc	pPKPbc	15 05 14.3	-2.3
SDNR	**Sundarnagar**	**147.46**	**65**	*e*PKP	PKPdf	15 04 40.0	+1.5
KLR	**Kul'dur**	**147.88**	**335**	*e*PKHKP		15 04 34.2	
KLR				*e*		15 08 06.0	
KLR				pmax	pmax		
	comp=Z,2μm,12.0s						
NDI	**New Delhi**	**148.04**	**70**	*e*PKP	PKPdf	15 04 38.0	-1.5
NDI				*e*x	x	15 05 15.5	
DDI	**Dehra Dun**	**148.56**	**66**	*e*PKP	PKPdf	15 04 39.0	-1.4
DDI				*e*x	x	15 08 12.9	
HYB	**Hyderabad**	**148.58**	**91**	*i* PKP	PKPdf	15 04 40.0	-0.7
HYB				*e*PP	PP	15 08 18.0	+2.5
HYB	**Hyderabad**	**148.58**	**91**	*e*P	PKPdf	15 04 40.0	-0.7
MOY	**Mondy**	**148.59**	**13**	*e*PKIKP	PKPdf	15 04 41.3	+1.6
MOY				*e*		15 05 18.6	
MOY				pmax	pmax		
	comp=Z,246nm,1.6s						
IRK	**Irkutsk**	**148.61**	**9**	*e*PKIKP	PKPdf	15 04 40.2	+0.5
IRK				*e*		15 05 17.8	
IRK				pmax	pmax		
	comp=Z,326nm,1.8s						
TLY	**Talaya**	**149.06**	**10**	*d i*PKIKP	PKPdf	15 04 41.2	+0.7
TLY				*i*		15 05 18.4	
TLY				*e*SS	SS	15 27 16.7	+0.3
TLY				*e*		15 27 58.6	
TLY				pmax	pmax		
	comp=Z,179nm,1.5s						
TLY	**Talaya**	**149.06**	**10**	*i* PKP	PKPdf	15 04 40.4	-0.1
TLY	**Talaya**	**149.06**	**10**	P	PKPdf	15 04 41.8	+1.4
	SNR=65						
TLY				P		15 04 41.8	
	SNR=65						
CIT	**Chita**	**149.32**	**358**	*e*PKHKP	PKPdf	15 04 42.0	+1.1
CIT				*e*		15 08 16.3	
CIT				pmax	pmax		
	comp=Z,496nm,1.7s						
WMQ	**Urumqi**	**150.02**	**36**	PKPbc	PKPdf	15 04 42.3	0.0
WMQ				PKPab	PKPab	15 04 55.0	+1.5
WMQ				pPKP	pPKPdf	15 05 18.0	+0.3
WMQ				sPKP		15 05 32.0	
WMQ				PP	PP	15 08 25.0	+2.6
WMQ				SKS	SKSdf	15 11 37.0	-0.9
WMQ				SKKS	SKKSac	15 15 01.0	0.0
WMQ				SS	SS	15 27 31.0	+2.7
WMQ				AMB	AMB		
	comp=Z,690nm,7.4s						
WMQ				LR	LR		
	comp=N,2μm,33.0s						
WMQ				LR	LR		
	comp=E,2μm,28.4s						
WMQ				LR	LR		
	comp=Z,2μm,34.0s						
ZAK	**Zakamensk**	**150.26**	**11**	⇓*i*PKIKP	PKPdf	15 04 43.1	+0.7
ZAK				*e*		15 05 17.8	
ZAK				pmax	pmax		
	comp=Z,58nm,1.7s						
PTH	**Pithoragarh**	**150.53**	**67**	*e*x	PKPbc	15 04 50.0	+1.0
PTH				*e*x	x	15 05 21.2	
LGTI	**Lohaghat**	**150.57**	**68**	*e*PKP	PKPdf	15 04 41.5	-2.1
HIA	**Hailar**	**151.38**	**349**	*e*PKPdf	PKPdf	15 04 43.2	-0.9
HIA				*e*PKPbc	PKPbc	15 04 49.9	-0.5
ALBI	**Allahabad**	**152.35**	**76**	*e*x	PKPdf	15 04 48.0	+1.6
MJAR	**Matsushiro Arr**	**152.36**	**309**	PKIKP	PKPdf	15 04 45.9	-0.2
MJAR						15 05 02.9	
MJAR						15 05 25.9	
MJAR	**Matsushiro Arr**	**152.36**	**309**	PKP	PKPdf	15 04 45.9	-0.1
	comp=Z,3.3nm,0.9s,baz=183,slow=1.1,SNR=7.4						
MJAR				PKPbc	PKPbc	15 04 51.9	-1.1
	comp=Z,34nm,0.9s,baz=112,slow=1.0,SNR=61						
MJAR				PKPab	PKPab	15 05 02.9	-0.6
	comp=Z,6.9nm,0.6s,baz=69,slow=3.8,SNR=11						
MJAR				pPKPbc	pPKPbc	15 05 25.9	-2.3
	comp=Z,50nm,1.0s,baz=86,slow=1.2,SNR=7.2						
MJAR				pPKPab	pPKPab	15 05 36.3	-1.3
	comp=Z,24nm,1.1s,baz=42,slow=1.6,SNR=2.1						
MAJO	**Matsushiro**	**152.36**	**309**	*e*PKIKP	PKPbc	15 04 51.7	-1.3
MAT	**Matsushiro**	**152.36**	**309**	PKP	PKPdf	15 04 46.7	+0.6
MDJ	**Mudanjiang**	**152.43**	**332**	PKPbc	PKPbc	15 04 45.3	-7.6
MDJ				PP	PP	15 08 35.3	-0.6
MDJ				SS	SS	15 27 57.8	+3.4
MDJ				AMB	AMB		
	comp=Z,480nm,7.1s						
MDJ	**Mudanjiang**	**152.43**	**332**	*e*PKPdf	PKPdf	15 04 45.5	-0.4
MDJ				*e*PKPbc	PKPbc	15 04 52.5	-0.4
MDJ				*e*PKPab	PKPab	15 05 02.9	-0.6
KAPI	**Kappang**	**152.65**	**198**	*e*PKPbc	PKPbc	15 04 53.1	-1.3
KAPI				*e*PKPab	PKPab	15 05 05.1	-0.1
VIS	**Vishakhapatnam**	**153.10**	**93**	*e*PKP	PKPdf	15 04 45.2	-2.5
VIS				*i* x	x	15 08 09.4	
SONM	**Songino Array**	**153.21**	**8**	PKP	PKPdf	15 04 47.4	+0.4
	comp=Z,17nm,0.9s,baz=315,slow=1.1,SNR=85						
SONM				PKPbc	PKPbc	15 04 54.4	-0.1
	comp=Z,19nm,0.8s,baz=308,slow=1.3,SNR=30						
SONM				PP	PP	15 08 40.4	+0.6
	comp=Z,4.0nm,1.0s,baz=353,slow=7.5,SNR=3.7						
ULN	**Ulaanbaatar**	**153.26**	**7**	*e*PKIKP	PKPdf	15 04 46.7	-0.3
ULN	**Ulaanbaatar**	**153.26**	**7**	P	PKPdf	15 04 47.6	+0.6
	SNR=16						

ULN				P		15 04 47.6	
	SNR=16						
KOLN	Koldanda	153.74	70	*e*P	PKPdf	15 04 47.9	-0.4
DANN	Dangsing	153.79	69	*e*P	PKPdf	15 04 48.7	+0.3
	comp=Z,94nm,0.9s						
GKN	Gorkha	154.61	69	*e*P	PKPdf	15 04 49.3	-0.2
CN2	Changchun	154.81	336	*e*PKPbc	PKPdf	15 04 47.0	-2.3
CN2				PKS		15 08 20.8	
CN2				AMB	AMB		
	comp=Z,600nm,9.0s						
CN2				LR	LR		
	comp=N,400nm,19.0s						
CN2				LR	LR		
	comp=E,400nm,19.0s						
CN2				LR	LR		
	comp=Z,400nm,22.0s						
DMN	Daman	155.08	70	*e*P	PKPdf	15 04 49.9	-0.3
KKN	Kakani	155.21	70	*e*P	PKPdf	15 04 50.1	-0.3
PKIN	Phulchoki	155.34	70	*e*P	PKPdf	15 04 50.2	-0.4
PKI	Pulchoki	155.35	70	*e*P	PKPdf	15 04 50.7	+0.1
GUN	Gumba	155.71	69	*e*P	PKPdf	15 04 51.0	0.0
	comp=Z,126nm,1.5s						
JIRN	Jiri	156.02	70	*e*P	PKPdf	15 04 51.1	-0.4
BOK	Bokaro	156.10	79	*e*PKP	PKPdf	15 04 49.2	-2.4
BOK				*i* x	x	15 08 10.2	
RAMN	Ramite	156.49	71	*e*P	PKPdf	15 04 52.2	+0.1
	comp=Z,50nm,0.9s						
ODAN	Odare	157.20	71	*e*P	PKPdf	15 04 52.8	-0.2
	comp=Z,50nm,0.9s						
SNY	Shenyang	157.21	336	⇓PKP	PKPdf	15 04 47.6	-4.9
SNY				PP	PP	15 09 02.8	+0.4
SNY				SS	SS	15 28 48.0	+2.2
SNY				AMB	AMB		
	comp=Z,580nm,5.5s						
SNY				LR	LR		
	comp=N,460nm,25.2s						
SNY				LR	LR		
	comp=E,490nm,21.6s						
SNY				LR	LR		
	comp=Z,740nm,46.8s						
TAPN	Taplejung	157.41	70	*e*P	PKPdf	15 04 53.1	-0.2
	comp=Z,56nm,1.2s						
PSI	Prapat	157.82	144	PKP	PKPdf	15 04 53.2	-1.0
	comp=Z,8.3nm,0.8s,baz=188,slow=7.9,SNR=7.4						
PSI				pPKP	pPKPdf	15 05 26.9	-2.8
	comp=Z,28nm,0.9s,baz=211,slow=6.8,SNR=7.8						
PSI	Prapat	157.82	144	PKP	PKPdf	15 04 53.2	-1.0
PSI				pPKP	pPKPdf	15 05 26.9	-2.8
KSRS	Korea Array	158.61	322	PKIKP	PKPdf	15 04 54.3	-0.1
KSRS						15 05 29.8	
KSRS				pmax	pmax		
	comp=Z,18nm,1.0s						
KSRS				pmax	pmax		
	comp=Z,15nm,0.8s						
KSRS				pmax	pmax		
	comp=Z,8.0nm,0.8s						
KSRS	Korea Array	158.61	322	PKP	PKPdf	15 04 54.2	-0.2
	comp=Z,18nm,0.9s,baz=77,slow=1.0,SNR=36						
KSRS				PKPab	PKPab	15 05 29.8	-0.4
	comp=Z,14nm,0.8s,baz=55,slow=4.3,SNR=6.1						
KSRS				pPKPab	pPKPab	15 06 02.9	-1.4
	comp=Z,8.1nm,0.8s,baz=46,slow=4.9,SNR=5.8						
GTA	Gaotai	159.32	27	⇓PKP	PKPdf	15 04 55.8	+0.6
GTA				pPKP	pPKPdf	15 05 30.8	+0.1
GTA				PKPab	PKPab	15 05 35.4	+2.2
GTA				sPKP		15 05 40.8	
GTA				PP	PP	15 09 17.3	+3.2
GTA				SKS	SKSdf	15 11 43.4	-5.1
GTA				SKKS	SKKSac	15 15 47.1	-3.8
GTA				SS	SS	15 29 05.6	-2.8
GTA				AMB	AMB		
	comp=Z,740nm,7.5s						
GTA				LR	LR		
	comp=N,360nm,19.8s						
GTA				LR	LR		
	comp=E,370nm,19.2s						
GTA				LR	LR		
	comp=Z,740nm,21.0s						
LSA	Lhasa	159.74	62	PKP	PKPdf	15 04 57.3	+1.3
LSA	Lhasa	159.74	62	*e*PKPdf	PKPdf	15 04 56.7	+0.7
DAV	Davao City (W)	160.45	226	PKPab	PKPab	15 05 39.1	+0.3
	comp=Z,58nm,0.3s,baz=73,slow=22,SNR=5.1						
DL2	Dalian	160.48	336	PKP	PKPdf	15 04 55.3	-1.2
DL2				PP	PP	15 09 19.3	-0.9
DL2				SS	SS	15 29 18.8	-1.7
DL2				AMB	AMB		
	comp=Z,300nm,12.0s						
DL2				LR	LR		
	comp=N,400nm,30.0s						
DL2				LR	LR		
	comp=Z,400nm,42.0s						
HHC	Hu-ho-hao-te	160.53	0	⇓PKP	PKPdf	15 04 57.6	+1.1
HHC				PKPab	PKPab	15 05 41.1	+2.8
HHC				PKS		15 08 30.0	
HHC				PP	PP	15 09 20.3	+0.2
HHC				SKS	SKSdf	15 11 45.1	-4.4
HHC				SKKS	SKKSac	15 15 53.8	-3.2
HHC				SS	SS	15 29 20.3	0.0
HHC				AMB	AMB		
	comp=Z,800nm,6.4s						
HHC				LR	LR		
	comp=N,540nm,17.8s						
HHC				LR	LR		
	comp=E,200nm,13.1s						
HHC				LR	LR		
	comp=Z,590nm,18.6s						
BTO	Baotou	160.72	4	*e*PKP	PKPdf	15 04 54.6	-2.1
BJI	Beijing	160.94	349	PKP	PKPdf	15 04 56.8	-0.2
BJI				pPKP	pPKPdf	15 05 31.3	-1.2
BJI				sPKP		15 05 44.5	
BJI				SKS	SKSdf	15 11 49.8	-0.1
BJT	Baijiatuau	160.96	349	*e*PKIKP	PKPdf	15 04 57.5	+0.5
SHL	Shillong	161.39	73	*e*x	PKPdf	15 05 00.5	+2.6
SHL				*e*x	x	15 16 01.5	
LZH	Lanzhou	163.79	23	PKP	PKPdf	15 05 00.8	+0.9
LZH				pPKP	pPKPdf	15 05 39.1	+3.6
LZH				PP	PP	15 09 39.0	+1.2
LZH				SKKS	SKKSac	15 16 09.0	-4.9
LZH				SS	SS	15 29 51.0	-3.8
LZH				AMB	AMB		
	comp=Z,640nm,8.2s						
LZH				LR	LR		
	comp=N,660nm,19.8s						
LZH				LR	LR		
	comp=Z,740nm,21.3s						
JOW	Kunigami	163.85	293	PKPab	PKPab	15 05 53.4	-0.2
	comp=Z,42nm,0.9s,baz=122,slow=6.4,SNR=4.5						
SSE	Sheshan	167.04	321	PKP	PKPdf	15 05 01.1	-1.7
SSE				PP	PP	15 09 56.8	+1.6
SSE				SS	SS	15 30 28.8	-0.1
SSE				AMB	AMB		
	comp=Z,580nm,8.4s						
SSE				LR	LR		
	comp=N,620nm,19.6s						
SSE				LR	LR		
	comp=E,1µm,19.6s						
SSE				LR	LR		
	comp=Z,520nm,15.8s						
XAN	Xi’an	167.10	10	PKP	PKPdf	15 05 01.5	-1.2
XAN				pPKP	pPKPdf	15 05 35.5	-2.8
XAN				LR	LR		
	comp=N,260nm,16.1s						
XAN				LR	LR		
	comp=E,1µm,27.3s						
XAN				LR	LR		
	comp=Z,920nm,29.0s						
NJ2	Nanjing	167.52	330	*e*PKP	PKPdf	15 04 58.6	-4.5
NJ2				pPKP	pPKPdf	15 05 40.9	+2.2
NJ2				PKPab	PKPab	15 06 07.5	-1.9
NJ2				PKS		15 08 29.0	
NJ2				PP	PP	15 09 56.3	-1.0
NJ2				LR	LR		
	comp=N,15µm,22.0s						
NJ2				LR	LR		
	comp=E,12µm,22.0s						
NJ2				LR	LR		
	comp=Z,182µm,23.5s						
CMAR	Chiang Mai Arr	167.72	101	PKIKP	PKPdf	15 05 03.4	-0.2
CMAR						15 05 37.8	
CMAR						15 06 11.3	
CMAR						15 10 02.2	
CMAR	Chiang Mai Arr	167.72	101	PKP	PKPdf	15 05 03.4	-0.3
	comp=Z,7.8nm,0.9s,baz=273,slow=1.9,SNR=50						
CMAR				pPKP	pPKPdf	15 05 37.8	-1.4
	comp=Z,7.1nm,1.0s,baz=251,slow=1.9,SNR=3.9						
CMAR				PKPab	PKPab	15 06 11.3	+0.4
	comp=Z,8.0nm,1.0s,baz=253,slow=5.0,SNR=7.6						
CMAR				pPKPab	pPKPab	15 06 45.0	+0.2
	comp=Z,8.8nm,1.1s,baz=257,slow=5.5,SNR=5.0						
CMAR				PP	PP	15 10 02.2	+2.2
	comp=Z,6.6nm,1.0s,baz=257,slow=4.6,SNR=5.4						
CHG	Chiang Mai	167.81	100	⇓P	PKPdf	15 05 03.1	-0.6
	comp=Z,22nm,1.5s						
CHTO	Chiang Mai	167.81	100	*e*PKIKP	PKPdf	15 05 02.8	-0.9
CHTO	Chiang Mai	167.81	100	P	PKPdf	15 05 03.3	-0.4
	SNR=9.7						
CHTO				P		15 05 03.3	
	SNR=9.7						
CD2	Chengdu	168.12	35	PKP	PKPdf	15 05 03.9	+0.3
CD2				pPKP	pPKPdf	15 05 34.0	-5.1
CD2				sPKP		15 05 49.5	
CD2				PKPab	PKPab	15 06 10.3	-1.8
CD2				PKS		15 08 30.0	
CD2				PP	PP	15 10 00.0	-0.5
CD2				SKS	SKSdf	15 11 50.3	-5.0
CD2				SKKS	SKKSac	15 16 37.3	+1.4
CD2				SS	SS	15 30 34.3	-5.1
CD2				AMB	AMB		
	comp=Z,700nm,8.3s						
CD2				LR	LR		
	comp=N,440nm,21.4s						
CD2				LR	LR		
	comp=Z,1µm,28.1s						
CHRT	Chiangrai	168.80	95	⇓P	PKPdf	15 05 03.5	-0.8
	comp=Z,121nm,1.2s						
WHN	Wuhan	170.50	346	⇑PKP	PKPdf	15 05 05.3	+0.3
WHN				pPKP	pPKPdf	15 05 39.3	-1.3
WHN				PKPab	PKPab	15 06 20.8	-1.7
KMI	Kunming	170.99	63	PKP	PKPdf	15 05 05.4	0.0
QZH	Quanzhou	172.65	301	PKP	PKPdf	15 05 05.4	-0.8
QZH				PKPab	PKPab	15 06 31.5	-1.0
QZH				PP	PP	15 10 24.3	+0.1
QZH				AMB	AMB		
	comp=Z,2µm,8.1s						
QZH				LR	LR		
	comp=Z,1µm,25.3s						
GYA	Guiyang	173.15	41	PKP	PKPdf	15 05 05.6	-0.8
GYA				pPKP	pPKPdf	15 05 40.3	-1.7
GYA				sPKP		15 05 55.4	
GYA				PKPab	PKPab	15 06 32.8	-1.7
GYA				PKS		15 08 35.6	
GYA				PP	PP	15 10 27.3	+1.4
GYA				SKS	SKSdf	15 11 53.4	-4.2
GYA				SKKS	SKKSac	15 16 55.8	-4.8
GYA				SS	SS	15 31 24.0	-5.4
GYA				AMB	AMB		
	comp=Z,3µm,8.9s						
GYA				LR	LR		
	comp=N,5µm,25.2s						
GYA				LR	LR		
	comp=E,3µm,24.0s						
GYA				LR	LR		
	comp=Z,5µm,25.8s						
QIZ	Qiongzhong	177.17	143	PKP	PKPdf	15 05 03.5	-4.2
QIZ				PP	PP	15 10 46.8	+1.9
QIZ				SS	SS	15 32 02.6	-4.8

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*NNC **16** 14:45:49.7±7.1, 37°.04N×71°.19E, h150km±133km, mb3.1, mpv3.8, Error ellipse: s-maj=95.1km s-min=39.1km az=43.0*

ISC 16 14:45:38.0±3.9**, 36°.1N**±0°.2×**70°.9E**±0°.3**, h73**km±65km**, n18, σ0ˢ.42**/19**, 4C, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	6.37	19	P	Pn	14 47 09.3	+0.2
	SNR=34						
KZA	Kyzart	6.83	28	P	Pn	14 47 15.4	0.0
	SNR=6.5						
EKS2	Erkin-Say	6.89	18	P	Pn	14 47 16.4	+0.1
	SNR=27						
KK31	Karatay Array	6.96	358	⇑P	Pn	14 47 17.7	+0.4
	4.3nm,0.2s,baz=177,slow=12,SNR=83						
KK31				⇑S	Sn	14 48 26.6	-8.3
	1.0nm,0.2s,baz=180,slow=23,SNR=5.8						
AAK	Ala-Archa	7.06	22	P	Pn	14 47 18.8	+0.2
	SNR=7.8						
USP	Ospenovka	7.64	20	P	Pn	14 47 26.3	-0.3
	SNR=7.5						
TKM2	Tokmak 2	7.69	27	⇑P	Pn	14 47 26.8	-0.4
	5.0nm,1.1s						
DANN	Dangsing	13.36	122	*e*P	Pn	14 48 44.6	+0.1
KOLN	Koldanda	13.62	124	*e*P	Pn	14 48 48.3	+0.3
GKN	Gorkha	14.19	121	*e*P	Pn	14 48 54.7	-0.6
DMN	Daman	14.75	121	*e*P	Pn	14 49 03.0	+0.3
KKN	Kakani	14.76	120	*e*P	Pn	14 49 03.3	+0.4
PKIN	Phulchoki	14.98	121	*e*P	Pn	14 49 05.3	-0.3
GUN	Gumba	15.11	119	*e*P	Pn	14 49 06.4	-1.0
AB01	Akbulak array	15.36	332	⇑P	Pn	14 49 10.1	-0.2
	0.8nm,0.5s						
JIRN	Jiri	15.48	119	*e*P	Pn	14 49 11.8	-0.3
TAPN	Taplejung	16.75	117	*e*P	Pn	14 49 28.8	+0.8
ODAN	Odare	16.82	119	*e*P	Pn	14 49 29.2	+0.4

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*MAN **16** 14:48:57, 13°.17N×120°.36E, h2km, mb5.2, ML4.2, MS4.4*
MAN INTENSITY III - MAMBURAO OCC. MINDORO;INTENSITY II - PTO GALERA.
*MOS **16** 14:48:58.7±1.1, 13°.36N×120°.60E, h33km, mb5.0/18, Error ellipse: s-maj=17.1km s-min=7.2km az=120.6*
*NEIC **16** 14:49:00.7±0.3, 13°.31N×120°.58E, h35km, mb5.0/28, Error ellipse: s-maj=9.1km s-min=5.4km az=60.0*
NEIC Felt [III PIVS] at Mamburao and [II PIVS] at Puerto Galera.
*ISCJB **16** 14:49:01.5±0.4, 13°.25N±0°.03×120°.51E±0°.04, h56km±4km, mb4.8/59, MS4.6/6, Error ellipse: s-maj=6.6km s-min=4.2km az=171.2*
*BJI **16** 14:49:03.2, 12°.83N×120°.12E, h56km, mB4.9/6, mb4.4/9, Ms4.4/3, Ms7 4.5/3*
*IDC **16** 14:49:03.1±1.7, 13°.38N×120°.65E, h53km±15km, mb4.2/17, mb1 4.2/17, mb1mx4.1/24, mbtmp4.2/17, MS4.4/4, Ms1 4.4/4, ms1mx3.8/36, Error ellipse: s-maj=26.7km s-min=11.1km az=61.0*
*DJA **16** 14:49:07, 13°.93N×120°.14E, h10km, mb4.8/13*

ISC 16 14:49:02.7±0.4**, 13°.29N**±0°.03×**120°.55E**±0°.04**, h50**km±4km**, n142, σ1ˢ.21**/138**, mb4.8**/59**, MS4.6**/6**, 11C-1D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGP	Puerto Galera	0.45	62	⇑*i*P	Pn	14 49 10.9	-2.5
PGP				*i* S	Sn	14 49 19.3	-1.8
LUBP	Lubang	0.53	327	*e*P	Pn	14 49 09.0	-5.4
TGY	Tagaytay City	0.90	25	P	Pn	14 49 18.5	-0.5
	2µm,0.3s,baz=225,slow=4.2,SNR=122						
TGY				S	Sn	14 49 34.5	+3.4
	7µm,0.3s,baz=162,slow=19,SNR=19						
TGY	Tagaytay City	0.90	25	⇑*i*P	Pn	14 49 18.7	-0.4
TGY				*i* S	Sn	14 49 34.5	+3.4
SJMP	San Jose	0.99	146	*e*P	Pn	14 49 19.5	-0.9
BUSP	Coron	1.32	195	*e*P	Pn	14 49 22.0	-2.8
GQP	Guinayangan	1.95	71	⇑*e*P	Pn	14 49 35.5	+2.1
POLP	Polilio Island	1.97	43	*e*P	Pn	14 49 35.2	+1.6
AUQP	San Andres	2.07	89	*e*P	Pn	14 49 38.9	+3.8
ENPP	El Nido	2.34	208	*e*P	Pn	14 49 35.5	-3.2
KALP	Kalibo	2.37	132	*e*P	Pn	14 49 38.6	-0.5
CUYO	Cuyo Island	2.46	169	*e*P	Pn	14 49 38.2	-2.2
SCZP	Santa Cruz	2.55	346	*e*P	Pn	14 49 42.5	+0.9
BALP	Baler	2.64	22	*e*P	Pn	14 49 45.1	+2.3
RCP	Roxas	2.75	128	⇑*e*P	Pn	14 49 43.7	-0.6
BOLP	Bolinao	3.14	349	*e*P	Pn	14 49 50.0	+0.4
GUIM	Jordan	3.31	143	*e*P	Pn	14 49 51.9	-0.2
PVCP	Virac	3.52	85	*e*P	Pn	14 49 56.7	+1.8
CAUP	Cauayan	3.84	19	*e*P	Pn	14 50 01.3	+2.0
PALP	Palanan	4.17	26	*e*P	Pn	14 50 11.2	+7.4
ABRA	Dolores	4.34	2	*e*P	Pn	14 50 10.2	+4.1
OCLP	Ormoc	4.55	119	*e*P	Pn	14 50 12.4	+3.3
BATP	Bataraza	5.21	211	*e*P	Pn	14 50 14.5	-3.6
MSLP	Maasin	5.26	126	*e*P	Pn	14 50 20.8	+2.0
IPIL	Ipil	5.81	160	⇑*e*P	Sn	14 51 44.0	+12
PAGZ	Pagadian	6.08	152	*e*P	Pn	14 50 31.2	+1.1
DAV	Davao City (W)	7.92	141	LR	LR	14 54 40.2	
	comp=Z,2µm,21.5s,baz=337,slow=42						
SDKM	Sandakan	8.28	204	P	Pn	14 50 59.0	-1.3
MYLDM	Lahad Datu	8.30	194	P	Pn	14 51 02.1	+1.6
TSM	Tawau	9.32	197	P	Pn	14 51 14.9	+0.4
TPUB	Ta-pu	9.96	0	*e*Pn	Pn	14 51 20.3	-2.9
YHNB	Yeheng	11.35	4	*e*Pn	Pn	14 51 41.5	-0.7
	7.4nm,0.7s						
SBUM	Sibu	13.55	218	P	Pn	14 52 22.5	+10
JOW	Kunigami	15.30	27	LR	LR	14 59 20.3	
	comp=Z,354nm,18.1s,baz=53,slow=41						
KSM	Kuching	15.51	222	P	Pn	14 52 37.8	-0.4
MYKOM	Kota Tinggi	20.09	237	P	P	14 53 34.7	+2.4
KGM	Kluang	20.39	238	P	P	14 53 37.7	+2.1
IPM	Ipoh	21.16	247	P	P	14 53 44.9	+1.0
KULM	Kulim	21.17	250	P	P	14 53 45.1	+1.1
FRIM	Kepong	21.20	244	P	P	14 53 46.5	+2.2
CMAR	Chiang Mai Arr	21.40	287	P	P	14 53 47.4	+1.0
	11nm,0.7s,mb4.3,baz=95,slow=9.1,SNR=60						
CMAR				PcP	PcP	14 57 50.7	+1.9
	0.8nm,0.4s,baz=101,slow=0.5,SNR=5.1						
CHTO	Chiang Mai	21.47	288	*e*P	P	14 53 47.0	-0.1
CHTO				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.0						
CHTO	Chiang Mai	21.47	288	*e*P	P	14 53 47.0	-0.1
	comp=Z,9.0nm,1.1s,mb4.0						
XAN	Xi’an	23.20	335	P	P	14 54 05.1	-0.3
XAN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.1						
XAN				pmax	pmax		
	comp=Z,82nm,5.4s						
CD2	Chengdu	23.39	321	P	P	14 54 11.4	+4.2
CD2				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.0						
CD2				pmax	pmax		
	comp=Z,140nm,6.9s						
CD2				LR	LR		
	comp=N,840nm,15.5s						
CD2				LR	LR		
	comp=Z,630nm,16.6s,MS4.2						
BJT	Baijiatuau	26.91	353	*e*P	P	14 54 38.8	-0.2
BJT				pmax	pmax		
	comp=Z,9.0nm,0.4s						
BJT	Baijiatuau	26.91	353	*e*P	P	14 54 38.8	-0.3
	comp=Z,9.4nm,0.4s,mb4.7						
BJI	Beijing	26.93	353	P	P	14 54 42.6	+3.4
LZH	Lanzhou	27.22	329	*e*P	P	14 54 49.0	+7.1
LZH				pP	pP	14 54 54.5	-0.3
LZH				pmax	pmax		
	comp=Z,35nm,1.5s,mb4.7						
LZH				pmax	pmax		
	comp=Z,190nm,5.9s						
KAKA	Kakadu	28.39	155	*e*P	P	14 54 52.1	-0.5
	comp=Z,6.8nm,0.5s,mb4.5						
FITZ	Fitzroy Crossi	31.59	171	*e*P	P	14 55 21.7	+0.9
	comp=Z,22nm,1.0s,mb4.9						
GTA	Gaotai	31.81	329	*e*P	P	14 55 29.3	+6.7
GTA				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.0						
GTA				pmax	pmax		
	comp=Z,87nm,5.4s						
GTA				LR	LR		
	comp=N,530nm,17.7s,MS4.4						
GTA				LR	LR		
	comp=E,470nm,16.5s,MS4.4						
GTA				LR	LR		
	comp=Z,840nm,17.4s,MS4.5						
TAPN	Taplejung	33.70	300	*e*P	P	14 55 39.9	+0.6
	comp=Z,18nm,0.7s,mb5.1						
ODAN	Odare	33.82	299	*e*P	P	14 55 41.6	+1.2
MBWA	Marble Bar	34.24	181	*e*P	P	14 55 43.5	-0.4
	comp=Z,9.0nm,0.6s,mb4.9						
RAMN	Ramite	34.53	298	*e*P	P	14 55 47.7	+1.3
	comp=Z,50nm,0.9s,mb5.5						
JIRN	Jiri	35.08	299	*e*P	P	14 55 51.7	+0.5
COEN	Coen	35.14	140	*e*P	P	14 55 50.2	-1.6
	comp=Z,82nm,0.8s,mb5.7						
GUN	Gumba	35.41	300	*e*P	P	14 55 54.3	+0.2
	comp=Z,58nm,0.8s,mb5.6						
WRAB	Tennant Creek	35.70	157	*e*P	P	14 55 55.7	-0.8
WRAB				pmax	pmax		
	comp=Z,28nm,0.4s,mb5.5						
WRAB	Tennant Creek	35.70	157	*e*P	P	14 55 55.7	-0.8
	comp=Z,28nm,0.4s,mb5.5						
WRA	Warramunga Arr	35.70	157	P	P	14 55 56.1	-0.4
	comp=Z,20nm,0.4s,mb5.4,baz=341,slow=9.2,SNR=450						
PKI	Pulchoki	35.72	299	*e*P	P	14 55 56.2	-0.5
PKI				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
PKI	Pulchoki	35.72	299	*e*P	P	14 55 56.2	-0.5
	comp=Z,33nm,0.8s,mb5.3						
PKIN	Phulchoki	35.73	299	*e*P	P	14 55 56.2	-0.6
	comp=Z,33nm,0.8s,mb5.3						
KKN	Kakani	35.89	299	*e*P	P	14 55 57.3	-0.9
	comp=Z,32nm,0.9s,mb5.3						
KKN	Kakani	35.89	299	*e*P	P	14 55 57.3	-0.9
KKN				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
DMN	Daman	35.99	299	*e*P	P	14 55 58.8	-0.2
ULN	Ulaanbaatar	36.26	345	*e*P	P	14 55 59.9	-1.2
ULN				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
ULN	Ulaanbaatar	36.26	345	*e*P	P	14 55 59.9	-1.2
	comp=Z,17nm,1.0s,mb4.9						
SONM	Songino Array	36.41	344	P	P	14 56 02.2	-0.1
	comp=Z,8.1nm,0.6s,mb4.8,baz=164,slow=9.7,SNR=71						
GKN	Gorkha	36.49	299	*e*P	P	14 56 02.8	-0.5
	comp=Z,31nm,0.8s,mb5.3						
KLR	Kul’dur	37.01	12	*e*P	pP	14 56 23.4	+2.8
KOLN	Koldanda	37.31	299	*e*P	P	14 56 10.4	+0.1
	comp=Z,33nm,0.7s,mb5.3						
DANN	Dangsing	37.33	300	*e*P	P	14 56 10.2	-0.3
ASAR	Alice Springs	38.98	160	P	P	14 56 24.7	+0.4
	comp=Z,33nm,0.6s,mb5.3,baz=339,slow=7.0,SNR=961						
MOY	Mondy	41.41	342	*e*P	P	14 56 51.4	+7.4
CTA	Charters Tower	41.71	142	*e*P	P	14 56 48.0	+1.1
	comp=Z,9.5nm,0.8s,mb4.5						
CTA	Charters Tower	41.71	142	P	P	14 56 47.5	+0.6
	comp=Z,11nm,0.6s,mb4.7,baz=301,slow=9.4,SNR=21						
CTAO	Charters Tower	41.71	142	*e*P	P	14 56 46.4	-0.5
CTAO				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.7						
CTAO	Charters Tower	41.71	142	*e*P	P	14 56 46.4	-0.5
	comp=Z,7.5nm,0.4s,mb4.7						
FORT	Forrest	44.40	171	*e*P	P	14 57 09.0	+0.5
	comp=Z,20nm,0.7s,mb5.0						
HNR	Honiara	45.16	118	P	P	14 57 14.7	-0.1
	comp=Z,12nm,0.4s,mb5.1,baz=162,slow=2.5,SNR=3.2						
NWAO	Narrogin (SRO)	46.06	184	*e*P	P	14 57 20.7	-0.9
NWAO				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NWAO	Narrogin (SRO)	46.06	184	*e*P	P	14 57 20.7	-0.9
	comp=Z,10nm,0.6s,mb4.9						
MKAR	Makanchi Array	46.27	324	P	P	14 57 24.2	+1.0
	comp=Z,1.4nm,0.4s,mb4.3,baz=112,slow=8.4,SNR=44						
TKM2	Tokmak 2	48.62	316	*e*P	P	14 57 42.9	+1.4
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
TKM2	Tokmak 2	48.62	316	*e*P	P	14 57 42.9	+1.4
	comp=Z,4.6nm,0.6s,mb4.7						
UCH	Uchtor	49.09	315	*e*P	P	14 57 46.0	+0.9
	comp=Z,8.2nm,0.9s,mb4.8						
YAK	Yakutsk	49.11	6	*e*P	P	14 57 42.9	-2.1
YAK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
YAK	Yakutsk	49.11	6	*e*P	P	14 57 42.9	-2.1
	comp=Z,3.9nm,0.5s,mb4.7						
STKA	Stephens Creek	49.23	156	*e*P	P	14 57 46.3	+0.1
	comp=Z,4.9nm,0.7s,mb4.7						
STKA	Stephens Creek	49.23	156	P	P	14 57 46.5	+0.3
	comp=Z,5.2nm,0.6s,mb4.7,baz=329,slow=7.4,SNR=20						
STKA	Stephens Creek	49.23	156	*e*P	P	14 57 45.5	-0.8
	comp=Z,1.7nm,0.9s,mb4.1						
AAK	Ala-Archa	49.25	315	⇑*e*P	P	14 57 45.8	-0.6
AAK				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.2						
AAK	Ala-Archa	49.25	315	*e*P	P	14 57 46.9	+0.5
	comp=Z,5.4nm,0.9s,mb4.6						
ZAA0	Zalesovo Array	49.35	333	*e*P	P	14 57 45.8	-1.1
ZALV	Zalesovo Beam	49.35	333	P	P	14 57 46.5	-0.5
	comp=Z,5.7nm,0.4s,mb5.0,baz=125,slow=6.7,SNR=43						
PETK	Petropavlovsk-	49.46	29	P	P	14 57 48.2	+0.5
	comp=Z,2.4nm,0.8s,mb4.3,baz=252,slow=12,SNR=4.6						
AML	Almayashu	49.62	315	*e*P	P	14 57 48.2	-0.9
	comp=Z,5.9nm,0.8s,mb4.7						
EKS2	Erkin-Say	49.75	315	*e*P	P	14 57 49.2	-1.0
	comp=Z,5.1nm,0.9s,mb4.5						
KURK	Kurchatov	50.45	327	*e*P	P	14 57 55.7	+0.4
KURK				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.5						
KURK	Kurchatov	50.45	327	*e*P	P	14 57 55.7	+0.4
	comp=Z,33nm,0.6s,mb5.5						
NVS	Novosibirsk	50.64	333	*e*P	P	14 57 55.9	-0.8

NVS				pmax	pmax		
	comp=Z,20nm,1.7s,mb4.8						
NVS				pmax	pmax		
	comp=N,17nm,1.8s						
NVS				pmax	pmax		
	comp=E,17nm,1.6s						
ARMA	Armidale	52.76	146	eP	P	14 58 14.5	+1.7
CNB	Canberra Magne	55.51	151	eP	P	14 58 33.6	+0.8
TOO	Toolangi	55.75	156	eP	P	14 58 35.2	+0.8
BVAR	Borovoye Array	56.03	326	LR	LR	15 20 42.5	
	comp=E,443nm,21.5s,MS4.5,baz=184,slow=34						
BRVK	Borovoye	56.10	326	eP	P	14 58 37.0	+0.2
BRVK				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.3						
BRVK	Borovoye	56.10	326	eP	P	14 58 37.0	+0.2
	comp=Z,38nm,1.3s,mb5.3						
TAU	Tasmania Unive	61.07	158	eP	P	14 59 12.8	+1.4
	comp=Z,8.1nm,0.9s,mb4.8						
BILL	Bilibino	62.15	18	P	P	14 59 18.0	-0.3
BILL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
SVE	Sverdlovsk	62.67	328	eP	P	14 59 21.3	-0.7
SVE				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.2						
ARU	Arti	63.65	327	eP	P	14 59 27.2	-1.3
ARU				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.1						
ARU	Arti	63.65	327	eP	P	14 59 27.2	-1.3
	comp=Z,8.9nm,0.5s,mb5.0						
KIV	Kislovodsk	72.19	312	⇑eP	P	15 00 23.8	+1.3
KIV				e		15 00 31.8	
KIV				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
KIV				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.7						
OBN	Obninsk	75.78	324	⇑eP	P	15 00 50.3	+7.1
OBN				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.6						
JOF	Joensuu	77.94	332	eP	P	15 00 53.5	-1.7
JOF				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.7						
JOF	Joensuu	77.94	332	ep	P	15 00 53.5	-1.7
	comp=Z,3.3nm,0.3s,mb4.7						
KEV	Kevo	78.86	339	eP	P	15 00 57.4	-2.8
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
KEV	Kevo	78.86	339	ep	P	15 00 57.4	-2.8
	comp=Z,3.0nm,0.5s,mb4.5						
MMAI	Mount Meron Ar	78.87	301	P	P	15 01 03.0	+2.1
	comp=Z,0.4nm,0.4s,mb3.7,baz=82,slow=10,SNR=3.2						
BRTR	Keskin Array B	79.29	308	P	P	15 01 05.2	+2.0
	comp=Z,0.6nm,0.5s,mb3.8,baz=116,slow=2.9,SNR=3.5						
ARCES	ARCESS Array B	79.42	339	P	P	15 01 02.7	-0.5
	comp=Z,3.7nm,0.5s,mb4.6,baz=75,slow=6.7,SNR=29						
ARCES	ARCESS Array B	79.42	339	P	P	15 01 02.7	-0.5
SPITS	Spitsbergen Ar	79.96	348	P	P	15 01 05.1	-1.0
	comp=Z,24nm,1.1s,mb5.0,baz=17,slow=2.0,SNR=4.7						
KAF	Kangasniemi	80.35	332	eP	P	15 01 06.2	-2.2
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KAF	Kangasniemi	80.35	332	ep	P	15 01 06.2	-2.2
	comp=Z,1.2nm,0.4s,mb4.2						
AKASG	Malin Array Be	80.68	320	P	P	15 01 09.4	-1.0
	comp=Z,0.7nm,0.5s,mb3.9,baz=73,slow=3.5,SNR=5.5						
MLR	Muntele Rosu	83.84	315	⇑iP	P	15 01 27.2	+0.2
BURAR	Bucovina Array	83.86	317	⇑iP	P	15 01 27.3	+0.2
BUR08	Bucovina Ar. S	83.86	317	eP	P	15 01 26.9	-0.2
VOIR		84.46	315	⇑iP	P	15 01 30.1	-0.1
DRGR		85.72	317	⇓iP	P	15 01 36.6	+0.2
HFS	Hagfors	86.77	331	P	P	15 01 39.7	-1.6
	comp=Z,1.6nm,0.4s,mb4.6,baz=134,slow=4.2,SNR=9.8						
NB2	NORSAR Subarra	87.56	333	P	P	15 01 43.4	-1.7
	comp=Z,15nm,1.7s,mb4.9,baz=67,slow=4.8						
NOA	NORSAR Array B	87.56	333	P	P	15 01 43.7	-1.5
	comp=Z,1.0nm,0.7s,mb4.1,baz=68,slow=4.8,SNR=6.2						
GERES	GERESS Array B	90.86	321	P	P	15 02 00.9	0.0
	comp=Z,0.3nm,0.4s,mb3.9,baz=71,slow=4.3,SNR=3.7						
GERES				LR	LR	15 48 16.8	
	comp=Z,745nm,18.1s,MS5.2,baz=248,slow=39						
YKA	Yellowknife Ar	93.21	22	P	P	15 02 10.8	-0.7
	comp=Z,0.8nm,0.6s,mb4.3,baz=311,slow=4.3,SNR=4.3						
TORD	Torodi Ar. Bea	113.95	291	PKiKP	PKiKP	15 07 36.7	-0.4
	comp=Z,2.2nm,1.1s,baz=69,slow=2.4,SNR=3.4						
TXAR	Lajitas Array	119.87	45	PKP	PKPdf	15 07 48.5	+0.3
	comp=Z,0.5nm,0.6s,baz=349,slow=1.8,SNR=7.1						
PLCA	Paso Flores	150.98	162	PKPbc	PKPbc	15 08 51.0	+0.7
	comp=Z,2.2nm,0.9s,baz=143,slow=4.8,SNR=5.0						

MAN 16 15:07:16, 13°.64N×121°.46E, h9km, mb4.0, ML2.7, MS2.4, 1D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PGP	Puerto Galera	0.51	255	eP	Pg	15 07 26.6	+0.7
GQP	Guinayangan	0.99	74	⇓eP	Pg	15 07 34.0	-1.1
GQP				eS	Sg	15 07 51.0	+2.9
POLP	Polilio Island	1.18	23	eP	Pb	15 07 38.0	-0.6
POLP				eS	Sb	15 07 55.0	+1.0
LUBP	Lubang	1.18	275	eP	Pb	15 07 38.1	-0.6
LUBP				eS	Sb	15 07 54.4	+0.4

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*IDC **16** 15:07:55.7±2.2, 7°.81S×128°.86E, h0km, mb3.9/1, mb1 3.7/4, mb1mx3.5/17, mbtmp3.6/4, ML3.0/3, Error ellipse: s-maj=104.2km s-min=28.9km az=74.0*

*ISCJB **16** 15:07:59.7±4.3, 8°.0S±0°.1×128°.6E±0°.1, h42km±43km, mb4.4/3, Error ellipse: s-maj=26.2km s-min=17.8km az=152.8*

*NEIC **16** 15:08:00.1±1.0, 7°.85S×128°.87E, h35km, mb4.6/2, Error ellipse: s-maj=33.1km s-min=11.5km az=67.0*

ISC 16 15:08:00.7±5.1, **7°.93S**±0°.08×**128°.6E**±0°.2, **h33**km±38km, **n6**, σ**1s.31**/8, **mb4.4**/3, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	10.52	196	Pn	Pn	15 10 30.5	+1.2
	0.2nm,0.3s,baz=206,slow=21,SNR=2.6						
FITZ				Sn	Sn	15 12 25.2	-0.9
	0.2nm,0.3s,baz=268,slow=21,SNR=4.8						
WRA	Warramunga Arr	13.16	156	Pn	Pn	15 11 04.7	-0.6
	0.0nm,0.3s,baz=335,slow=12,SNR=3.3						
WRA				Sn	Sn	15 13 31.6	+1.0
	0.1nm,0.3s,baz=333,slow=22,SNR=5.4						
ASAR	Alice Springs	16.44	163	Pn	Pn	15 11 48.2	-0.9
	0.1nm,0.3s,baz=341,slow=11,SNR=8.9						
PALK	Pallekele	50.12	286	eP	P	15 16 54.4	+1.1
	15nm,1.3s,mb4.9						
MKAR	Makanchi Array	68.27	328	P	P	15 18 58.6	+0.3
	2.9nm,1.3s,mb4.2,baz=129,slow=4.6,SNR=5.8						
AAK	Ala-Archa	70.38	321	eP	P	15 19 10.3	-1.2
	4.7nm,1.3s,mb4.3						

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*IDC **16** 15:17:04.7±18.0, 18°.72S×169°.54E, h222km±180km, mb3.6/9, mb1 3.8/9, mb1mx3.6/19, mbtmp3.6/9, Error ellipse: s-maj=86.8km s-min=16.6km az=8.0*

*ISCJB **16** 15:17:10.6±1.3, 19°.0S±0°.1×169°.4E±0°.1, h292km±11km, mb3.8/9, Error ellipse: s-maj=20.9km s-min=18.7km az=39.5*

*NEIC **16** 15:17:10.1±1.4, 18°.99S×169°.50E, h277km±13km, mb3.8/3, Error ellipse: s-maj=16.9km s-min=14.6km az=208.0*

ISC 16 15:17:10.9±1.4, **19°.0S**±0°.1×**169°.5E**±0°.1, **h283**km±12km, **n20**, σ**0s.92**/18, **mb3.8**/9, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	4.18	222	ePn	Pn	15 18 16.9	-1.4
LASL	Noumea	4.24	220	eP	Pn	15 18 18.5	-0.5
NOUC	Port Laguerre	4.29	223	eP	Pn	15 18 21.2	+1.7
HNR	Honiara	13.23	315	P	Pn	15 20 09.2	+0.4
	5.3nm,0.3s,baz=350,slow=1.8,SNR=8.4						
URZ	Urewera	20.34	162	P	P	15 21 26.7	+0.5
	6.5nm,0.9s,baz=25,slow=14,SNR=4.8						
CTA	Charters Tower	21.90	263	P	P	15 21 42.6	+1.2
	4.7nm,0.7s,mb4.0,baz=100,slow=10,SNR=6.0						
CTAO	Charters Tower	21.90	263	eP	P	15 21 42.7	+1.3
	5.4nm,0.7s,mb4.0						
STKA	Stephens Creek	28.16	237	P	P	15 22 38.5	+1.0
	1.3nm,0.5s,mb3.6,baz=68,slow=16,SNR=5.4						
STKA	Stephens Creek	28.16	237	eP	P	15 22 37.8	+0.2
	0.4nm,0.7s,mb3.0						
WB2	Warramunga Arr	33.09	262	eP	P	15 23 19.5	-1.2
WRAB	Tennant Creek	33.09	262	eP	P	15 23 19.5	-1.2
	1.1nm,0.3s,mb3.9						
WRA	Warramunga Arr	33.10	262	P	P	15 23 20.2	-0.6
	0.9nm,0.3s,mb3.7,baz=81,slow=6.0,SNR=65						
ASAR	Alice Springs	33.40	256	P	P	15 23 23.4	-0.1
	7.6nm,0.5s,mb4.5,baz=80,slow=9.0,SNR=301						
FITZ	Fitzroy Crossi	41.48	264	P	P	15 24 31.3	+0.3
	3.2nm,0.6s,mb3.8,baz=140,slow=6.9,SNR=6.5						
DRV	Dumont d'Urvil	51.34	195	L		15 25 00.0	
CMAR	Chiang Mai Arr	78.59	294	P	P	15 28 42.9	+1.0
	0.5nm,0.6s,mb3.4,baz=123,slow=4.5,SNR=5.0						
YBH	Yreka Blue Hor	86.96	44	P	P	15 29 23.3	-0.9
	0.7nm,0.4s,mb3.9,baz=294,slow=23,SNR=3.3						
NVAR	Mina Array Bea	88.47	48	P	P	15 29 31.5	+0.2
	0.7nm,0.7s,mb3.6,baz=231,slow=9.5,SNR=4.9						
NVAR	Mina Array Bea	88.47	48	P	P	15 29 31.5	+0.1
YKA	Yellowknife Ar	100.34	27	P	Pdif	15 30 24.0	-1.4
	0.1nm,0.5s,baz=257,slow=4.4,SNR=3.0						

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*NEIC **16** 15:39:10.0±2.0, 29°.21S×176°.81W, h35km, mb4.4/1, Error ellipse: s-maj=43.2km s-min=22.0km az=95.0*

IDC 16 15:39:05.0±2.7, **29°.06S**×**176°.75W**, **h0**km, **mb3.8**/2, **mb1 4.0**/3, **mb1mx3.7**/16, **mbtmp3.9**/3, **ML3.2**/1, **Error ellipse: s-maj=72.5km s-min=42.8km az=128.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	10.50	208	Pn	Pn	15 41 35.8	-1.0
	0.2nm,0.3s,baz=62,slow=17,SNR=3.0						
URZ				Sn	Sn	15 43 30.3	-4.8
	1.2nm,0.3s,baz=321,slow=22,SNR=6.3						
ASAR	Alice Springs	44.29	265	P	P	15 47 16.9	+0.2
	0.6nm,0.5s,baz=105,slow=7.1,SNR=28						
WB2	Warramunga Arr	45.15	270	eP	P	15 47 23.0	-0.5
WRAB	Tennant Creek	45.16	270	eP	P	15 47 22.0	-1.6
	4.7nm,1.0s						
WRA	Warramunga Arr	45.16	270	P	P	15 47 23.4	-0.3
	1.4nm,0.9s,baz=109,slow=7.9,SNR=11						
AKASG	Malin Array Be	150.87	325	PKPbc	PKPbc	15 58 58.6	-0.4
	0.2nm,0.3s,baz=45,slow=3.0,SNR=5.0						
AKASG				PKPab	PKPab	15 59 06.2	-0.1
	1.3nm,0.7s,baz=42,slow=4.8,SNR=4.1						

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*IDC **16** 15:43:50.3±1.6, 29°.25S×176°.61W, h0km, mb4.1/4, mb1 4.2/5, mb1mx3.9/17, mbtmp4.1/5, ML3.4/1, MS3.9/2, Ms1 3.9/2, ms1mx3.3/32, Error ellipse: s-maj=51.5km s-min=27.7km az=132.0*

NEIC 16 15:43:55.3±0.9, **29°.34S**×**176°.64W**, **h35**km, **mb4.5**/2, **Error ellipse: s-maj=22.3km s-min=14.4km az=120.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	10.30	209	Pn	Pn	15 46 20.5	0.0
	0.3nm,0.3s,baz=358,slow=18,SNR=4.3						
URZ				Sn	Sn	15 48 18.1	+3.4
	2.2nm,0.3s,baz=258,slow=19,SNR=8.1						
RAR	Rarotonga	17.26	66	LR	LR	15 53 08.7	
	comp=Z,264nm,19.0s,baz=343,slow=32						
HNR	Honiara	29.55	307	LR	LR	15 59 27.8	
	comp=Z,279nm,18.1s,baz=346,slow=32						
CTA	Charters Tower	34.82	277	P	P	15 50 43.9	+0.9
	3.4nm,0.6s,baz=241,slow=22,SNR=6.4						
CTAO	Charters Tower	34.82	277	eP	P	15 50 43.4	+0.4
	6.4nm,0.9s						
ASAR	Alice Springs	44.36	265	P	P	15 52 02.8	+0.4
	1.1nm,0.6s,baz=104,slow=7.2,SNR=32						
ASAR				PcP	PcP	15 53 47.6	+1.6
	0.3nm,0.5s,baz=113,slow=4.2,SNR=4.4						
WB2	Warramunga Arr	45.24	270	eP	P	15 52 09.4	-0.1
WRAB	Tennant Creek	45.25	270	eP	P	15 52 08.3	-1.2
	7.3nm,1.3s						
WRA	Warramunga Arr	45.25	270	P	P	15 52 09.3	-0.2
	1.3nm,0.6s,baz=109,slow=7.8,SNR=15						
PETK	Petropavlovsk-	85.09	345	P	P	15 56 26.7	-0.3
	1.0nm,0.5s,baz=103,slow=8.6,SNR=7.1						
MKAR	Makanchi Array	117.99	310	PKP	PKPdf	16 02 38.3	+0.3
	0.2nm,0.5s,baz=38,slow=0.3,SNR=3.8						
NOA	NORSAR Array B	147.87	353	PKPbc	PKPbc	16 03 36.2	+0.3
	0.8nm,0.6s,baz=13,slow=4.5,SNR=2.9						
AKASG	Malin Array Be	151.14	325	PKPbc	PKPbc	16 03 44.5	+0.1
	1.5nm,0.6s,baz=44,slow=3.3,SNR=7.8						
AKASG				PKPab	PKPab	16 03 52.5	+0.3
	1.3nm,0.5s,baz=46,slow=3.6,SNR=6.1						

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*ISCJB **16** 15:53:19.4±2.1, 11°.44N±0°.06×87°.59W±0°.05, h5km±15km, mb3.3/3, Error ellipse: s-maj=10.9km s-min=6.5km az=36.1*

*CASC **16** 15:53:21.4±2.1, 11°.43N×87°.57W, h16km±10km, mb6.3, ML3.4, mb3.9(NEIC)*

*IDC **16** 15:53:21.4±1.5, 12°.23N×86°.89W, h0km, mb3.3/3, mb1 3.7/5, mb1mx3.5/20, mbtmp3.4/5, ML3.1/2, Error ellipse: s-maj=71.0km s-min=21.0km az=47.0*

*NEIC **16** 15:53:24.8±0.7, 11°.68N×87°.37W, h35km, mb3.9/1, Error ellipse: s-maj=19.5km s-min=8.7km az=51.0*

ISC 16 15:53:20.6±1.5, **11°.51N**±0°.07×**87°.53W**±0°.05, **h4**km±8km, **n29**, σ**0s.99**/31, **mb3.2**/3, **Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	Copaltepe	1.13	54	eP	Pg	15 53 42.8	+0.4
MIRN	Miramar	1.22	41	eP	Pg	15 53 44.0	0.0
CSAN		1.27	58	eP	Pg	15 53 45.7	+0.7
CRIN	San Cristobal	1.28	21	eP	Pg	15 53 44.3	-0.8
CRIN				AMP		15 54 35.3	
	comp=E,1µm,0.4s						
CNGN	Cerro Negro	1.28	39	eP	Pg	15 53 44.4	-0.7
TELN	Telica	1.29	32	eP	Pg	15 53 45.6	+0.4
MOMN	Momotombo	1.32	47	eP	Pn	15 53 45.3	-0.5
TICN	Ticuantepe	1.37	67	eP	Pn	15 53 46.6	+0.1
TISN	Laguna Tiscapa	1.38	63	eP	Pn	15 53 46.9	+0.2
MGAN	Managua	1.41	63	eP	Pn	15 53 48.1	+1.1
MGAN				eS	Sb	15 54 06.8	+1.1
WILN	Americas 2	1.46	63	eP	Pn	15 53 47.4	-0.4
APON	Apoyo	1.49	74	eP	Pn	15 53 49.1	+1.0
HUEN		1.56	58	eP	Pn	15 53 48.7	-0.5
SSN	San Juan del S	1.65	97	eP	Pn	15 53 50.2	-0.2
CNCH	Conchagua	1.79	350	eP	Pn	15 53 52.0	-0.3
CONN	Concepcion	1.86	88	eP	Pn	15 53 52.4	-0.9
BOAB	BOACO BROADBAN	2.05	63	eP	Pn	15 53 55.0	-0.8
CAHU	Cacacuatique	2.35	344	eP	Pn	15 54 01.1	+1.1
CAHU				eS	Sn	15 54 31.4	+2.0
TGUH	Tegucigalpa,Un	2.55	6	ePn	Pn	15 54 01.6	-1.2
TGUH	Tegucigalpa,Un	2.55	6	eP	Pn	15 54 01.5	-1.3
JTS	JuntasAbangare	2.80	115	Pn	Pn	15 54 06.5	+0.3
	comp=E,1.5nm,0.3s,baz=316,slow=20,SNR=6.7						
JTS				Sn	Sn	15 54 40.2	-0.3
	comp=E,4.3nm,0.3s,baz=336,slow=18,SNR=4.2						
JTS	JuntasAbangare	2.80	115	ePn	Pn	15 54 05.7	-0.6
CMIG	Matias Romero	9.04	309	Pn	Pn	15 55 33.3	+1.3
	comp=E,0.4nm,0.3s,baz=100,slow=9.7,SNR=11						
OTAV	Otavalo	14.37	141	ePn	Pn	15 56 47.6	+2.6
	comp=E,0.9nm,0.5s						
DWPF	Disney	17.48	18	Pn	Pn	15 57 23.8	-1.6
	comp=E,4.4nm,0.4s						
TXAR	Lajitas Array	23.26	322	P	P	15 58 29.4	+0.1
	comp=E,1.0nm,0.6s,mb3.4,baz=136,slow=9.6,SNR=14						
PDAR	Pinedale Array	36.57	332	P	P	16 00 26.5	-1.1
	comp=E,0.3nm,0.7s,mb3.2,baz=134,slow=7.7,SNR=3.5						
YKA	Yellowknife Ar	54.50	345	P	P	16 02 46.4	-2.8
	comp=E,0.1nm,0.4s,mb3.1,baz=142,slow=7.1,SNR=4.8						
CMAR	Chiang Mai Arr	149.55	348	PKPbc	PKPbc	16 13 11.7	-0.6
	comp=E,1.4nm,0.8s,baz=331,slow=3.8,SNR=9.5						

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*IDC **16** 16:08:45.9±1.2, 8°.56S×124°.13E, h0km, mb3.7/4, mb1 4.0/7, mb1mx3.9/18, mbtmp3.8/7, ML4.1/3, Error ellipse: s-maj=88.1km s-min=22.1km az=64.0*

*NEIC **16** 16:08:51.0±0.7, 8°.74S×124°.02E, h35km, Error ellipse: s-maj=42.6km s-min=10.0km az=58.0*

ISC 16 16:08:58.5±1.9, **9°.36S**±0°.09×**123°.9E**±0°.1, **h136**km±21km, **n13**, σ**1s.06**/21, **mb3.6**/3, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNA	Kununurra	7.94	144	eP	Pn	16 10 52.6	+1.4
	12nm,0.2s						
KNA				eS	Sn	16 12 18.3	-1.2
FITZ	Fitzroy Crossi	8.85	169	eP	Pn	16 11 04.5	+1.0
	6.4nm,0.3s						
FITZ				eS	Sn	16 12 38.7	-2.9
FITZ	Fitzroy Crossi	8.85	169	Pn	Pn	16 11 04.6	+1.2
	1.1nm,0.3s,baz=357,slow=8.9,SNR=25						
FITZ				Sn	Sn	16 12 40.6	-1.0
	5.0nm,0.3s,baz=89,slow=24,SNR=16						
FITZ	Fitzroy Crossi	8.85	169	ePn	Pn	16 11 04.2	+0.7
	2.5nm,0.3s						
FITZ				eSn	Sn	16 12 39.5	-2.1
KAKA	Kakadu	9.03	112	eP	Pn	16 11 06.1	+0.2
	6.6nm,0.4s						
KAKA				eS	Sn	16 12 45.1	-0.8
WRA	Warramunga Arr	14.58	137	Pn	Pn	16 12 20.5	+2.1
	0.9nm,0.3s,baz=321,slow=14,SNR=66						
WRA				Sn	Sn	16 14 53.4	-6.6
	1.3nm,0.3s,baz=309,slow=24,SNR=9.7						
WRAB	Tennant Creek	14.58	137	ePn	Pn	16 12 18.5	+0.1
	4.7nm,0.6s						
WRAB				eSn	Sn	16 14 55.2	-4.8
ASAR	Alice Springs	17.15	147	P	Pn	16 12 54.7	+4.7
	0.5nm,0.3s,baz=320,slow=11,SNR=50						
ASAR				S	S	16 16 01.2	+0.4
	0.5nm,0.3s,baz=313,slow=20,SNR=10						
CMAR	Chiang Mai Arr	37.02	318	P	P	16 15 54.4	-0.8
	0.7nm,0.6s,mb3.5,baz=140,slow=6.8,SNR=7.5						
SONM	Songino Array	59.02	346	P	P	16 18 42.9	-1.0
	0.2nm,0.5s,baz=120,slow=5.7,SNR=2.8						
MK31	Makanchi Array	67.07	330	eP	P	16 19 37.7	+0.6
MKAR	Makanchi Array	67.07	330	P	P	16 19 37.8	+0.7
	0.5nm,0.5s,mb3.6,baz=131,slow=7.6,SNR=18						
ZALV	Zalesovo Beam	71.18	337	P	P	16 20 01.4	-1.0
	0.4nm,0.3s,mb3.6,baz=126,slow=7.5,SNR=4.6						

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*ISCJB **16** 16:51:11.5±1.1, 16°.2S±0°.2×176°.7W±0°.2, h380km±14km, mb3.5/11, Error ellipse: s-maj=35.3km s-min=14.6km az=141.6*

*NEIC **16** 16:51:11.9±1.0, 16°.23S×176°.66W, h371km±11km, mb3.4/1, Error ellipse: s-maj=23.2km s-min=10.1km az=141.0*

*IDC **16** 16:51:12.2±1.4, 16°.24S×176°.63W, h370km±16km, mb3.3/10, mb1 3.6/11, mb1mx3.4/19, mbtmp3.3/11, Error ellipse: s-maj=29.5km s-min=12.5km az=141.0*

ISC 16 16:51:12.2±1.2, **16°.2S**±0°.2×**176°.7W**±0°.2, **h373**km±15km, **n17**, σ**0s.71**/13, **mb3.5**/11, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	5.27	65	P	Pn	16 52 35.3	-0.4
	7.2nm,0.3s,baz=342,slow=1.5,SNR=14						
AFI				S	S	16 53 43.8	+0.3
	1.8nm,0.3s,baz=158,slow=19,SNR=3.6						
URZ	Urewera	22.62	193	P	P	16 55 41.8	-0.4
	5.3nm,0.6s,mb4.0,baz=331,slow=10,SNR=7.0						
STKA	Stephens Creek	40.89	240	P	P	16 58 18.9	-0.7
	1.3nm,0.7s,mb3.3,baz=164,slow=18,SNR=2.5						
WRAB	Tennant Creek	46.58	258	eP	P	16 59 04.5	0.0
	1.2nm,0.5s,mb3.4						
WRA	Warramunga Arr	46.59	258	P	P	16 59 05.0	+0.4
	0.7nm,0.3s,mb3.4,baz=96,slow=8.0,SNR=38						
ASAR	Alice Springs	46.85	253	P	P	16 59 07.8	+1.2
	4.0nm,0.3s,mb4.1,baz=89,slow=7.6,SNR=176						
PETK	Petropavlovsk-	72.51	344	P	P	17 01 58.1	-0.8
	1.8nm,0.9s,mb3.8,baz=116,slow=9.8,SNR=5.2						
NVAR	Mina Array Bea	77.07	43	P	P	17 02 26.1	+0.9
	0.9nm,0.7s,mb3.6,baz=220,slow=5.5,SNR=4.3						
TXAR	Lajitas Array	83.70	57	P	P	17 03 00.8	+0.4
	1.4nm,0.9s,mb3.8,baz=212,slow=6.9,SNR=10						
PDAR	Pinedale Array	85.00	43	P	P	17 03 07.0	+0.4
	0.2nm,0.6s,mb3.1,baz=197,slow=4.9,SNR=3.7						
YKA	Yellowknife Ar	92.13	24	P	P	17 03 38.0	-1.5
	0.1nm,0.3s,mb3.2,baz=244,slow=4.6,SNR=3.7						
SONM	Songino Array	93.38	319	P	P	17 03 46.0	+0.3
	0.2nm,0.6s,mb3.4,baz=135,slow=3.0,SNR=2.2						
BVAR	Borovoye Array	116.58	322	PKP	PKPdf	17 09 11.8	-0.3
	0.3nm,0.4s,baz=70,slow=1.7,SNR=5.3						
ARCES	ARCESS Array B	124.95	351	PKP	PKPdf	17 09 28.0	+0.2
	1.9nm,0.6s,baz=2.9,slow=2.4,SNR=6.0						
BRTR	Keskin Array B	144.72	318	PKP	PKPdf	17 10 06.0	+0.7
	1.8nm,0.7s,baz=126,slow=3.0,SNR=7.4						
GERES	GERESS Array B	146.38	348	PKPbc	PKPbc	17 10 10.2	+0.4
	0.6nm,0.6s,baz=34,slow=3.1,SNR=6.4						
MMAI	Mount Meron Ar	146.57	306	PKPbc	PKPbc	17 10 12.2	+1.4
	1.5nm,0.5s,baz=84,slow=7.6,SNR=5.2						

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*IDC **16** 16:53:10.8±2.8, 36°.07N×71°.19E, h0km, mb3.6/2, mb1 3.8/6, mb1mx3.5/27, mbtmp3.8/6, ML3.8/4, MS3.2/1, Ms1 3.2/1, ms1mx2.6/36, Error ellipse: s-maj=58.5km s-min=24.7km az=134.0*

*BJI **16** 16:53:20.9, 36°.45N×71°.24E, h98km, mb4.2/1*

*NEIC **16** 16:53:21.7±1.7, 36°.45N×71°.16E, h102km±19km, mb4.7/5, Error ellipse: s-maj=21.9km s-min=6.4km az=61.0*

*ISCJB **16** 16:53:22.5±0.7, 36°.57N±0°.03×71°.19E±0°.09, h141km±10km, Error ellipse: s-maj=12.4km s-min=4.3km az=169.8*

*NNC **16** 16:53:24.9±6.1, 36°.86N×70°.95E, h32km±54km, mb4.0, mpv4.1, Error ellipse: s-maj=45.2km s-min=37.7km az=52.0*

ISC 16 16:53:22.9±0.8, **36°.53N**±0°.03×**71°.1E**±0°.1, **h132**km±11km, **n50**, σ**1s.05**/60, **6C-4D**, **Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	2.78	166	⇑P	Pn	16 54 08.3	+1.5
CEP				S	Sn	16 54 44.0	+3.5
KSH	Kashi	4.85	51	P	Pn	16 54 29.3	-4.7
KSH				S	Sn	16 55 17.4	-12
KSH				smax			
	comp=N,170nm,0.6s						
KSH				smax			
	comp=E,240nm,1.0s						
THN	Thein Dam	5.58	136	ePKP	Pn	16 54 44.7	+0.9
THN				eS	Sn	16 55 46.4	-0.4
AML	Almayashu	5.93	19	P	Pn	16 54 48.8	+0.3
	SNR=75						
AML	Almayashu	5.93	19	ePn	Pn	16 54 48.4	0.0
	comp=E,51nm,0.5s						
AML				eS	Sn	16 55 54.0	-1.3
UCH	Uchtor	6.26	24	P	Pn	16 54 54.1	+1.2
	SNR=10.0						
UCH	Uchtor	6.26	24	ePn	Pn	16 54 53.0	+0.2
UCH				eSn	Sn	16 56 04.0	+0.8
KZA	Kyzart	6.39	29	P	Pn	16 54 55.0	+0.3
	SNR=18						
EKS2	Erkin-Say	6.45	18	P	Pn	16 54 56.1	+0.7
	SNR=17						
EKS2	Erkin-Say	6.45	18	ePn	Pn	16 54 56.0	+0.6
	comp=E,11nm,0.6s						
EKS2				eS	Sn	16 56 06.3	-1.4
KK31	Karatay Array	6.58	356	⇓Pn	Pn	16 54 55.1	-2.0
	comp=E,8.3nm,0.7s						
KK31				⇑Sn	Sn	16 56 05.2	-5.5
	comp=E,12nm,0.5s						
KK31				⇓Lg		16 56 44.5	
	comp=E,30nm,0.6s,baz=162,slow=33,SNR=2.7						
AAK	Ala-Archa	6.62	22	P	Pn	16 54 58.1	+0.4
	SNR=32						
AAK	Ala-Archa	6.62	22	ePn	Pn	16 54 57.7	-0.1
	comp=E,18nm,0.4s						
KBK	Karagaybulak	6.79	25	P	Pn	16 55 01.0	+1.0
	SNR=8.0						
CHMS	Chumysh	7.04	22	P	Pn	16 55 04.0	+0.8
	SNR=22						
USP	Ospenovka	7.21	20	P	Pn	16 55 05.3	-0.2
	SNR=18						
TKM2	Tokmak 2	7.25	27	⇓Pn	Pn	16 55 06.5	+0.3
	comp=E,7.8nm,0.5s						
TKM2				⇓Sn	Sn	16 56 26.2	-0.8
	comp=E,7.6nm,0.7s						
TKM2				⇑Lg		16 57 07.2	
	comp=E,10nm,0.8s						
TKM2	Tokmak 2	7.25	27	P	Pn	16 55 07.1	+1.0
	SNR=25						
TKM2	Tokmak 2	7.25	27	ePn	Pn	16 55 06.7	+0.5
	comp=E,12nm,0.5s						
KKR	Kurukshetra	8.11	142	ex	x	16 56 23.1	
JOSI	Joshimath	9.22	128	ePKP	Pn	16 55 34.1	+1.3
JOSI				AMb	AMB	16 55 35.6	
	comp=Z,44nm,0.9s						
JOSI				eS	Sn	16 57 09.3	-5.5
KHET	Khetri	9.32	154	ePKP	Pn	16 55 32.6	-1.5
KHET				eS	Sn	16 57 10.5	-6.6

AYAN	Aya Nagar	9.49	146	*e*S	Sn	16 57 14.6	-6.8
SONA	Sohna	9.67	147	*e*S	Sn	16 57 19.7	-6.1
AGRA	Agra	10.93	146	*e*S	Sn	16 57 47.4	-8.9
MK31	Makanchi Array	13.21	36	P	Pn	16 56 25.4	+0.3
	comp=Z,2.8nm,0.6s,baz=225,slow=13,SNR=33						
MKAR	Makanchi Array	13.21	36	Pn	Pn	16 56 25.9	+0.7
	comp=Z,0.4nm,0.3s,baz=226,slow=14,SNR=46						
DANN	Dangsing	13.43	124	*e*P	Pn	16 56 27.1	-1.1
KOLN	Koldanda	13.70	126	*e*P	Pn	16 56 29.0	-2.7
GKN	Gorkha	14.24	123	*e*P	Pn	16 56 37.6	-0.9
	comp=Z,13nm,0.6s						
DMN	Daman	14.81	123	*e*P	Pn	16 56 45.1	-0.6
KKN	Kakani	14.81	122	*e*P	Pn	16 56 44.9	-0.8
PKIN	Phulchoki	15.03	122	*e*P	Pn	16 56 48.5	+0.1
PKI	Pulchoki	15.04	122	*e*P	Pn	16 56 48.8	+0.2
KURBB	Kurchatov Arra	15.06	18	⇑P	Pn	16 56 53.6	+5.0
	comp=Z,0.6nm,0.8s						
GUN	Gumba	15.15	120	*e*P	Pn	16 56 50.0	0.0
KURK	Kurchatov	15.17	18	⇑P	Pn	16 56 54.7	+4.7
	comp=Z,2.8nm,0.8s						
KURK	Kurchatov	15.17	18	Pn	Pn	16 56 48.0	-1.9
	comp=Z,0.0nm,0.3s,baz=206,slow=10,SNR=4.4						
KURK	Kurchatov	15.17	18	*e*P	Pn	16 56 46.2	-3.8
	comp=Z,2.9nm,0.8s						
JIRN	Jiri	15.52	120	*e*P	Pn	16 56 54.4	-0.2
BVAR	Borovoye Array	16.50	358	Pn	Pn	16 57 06.9	+0.6
	comp=Z,0.6nm,0.3s,baz=177,slow=13,SNR=12						
TAPN	Taplejung	16.78	118	*e*P	Pn	16 57 11.7	+1.7
AKTK	Aktyubinsk	16.80	330	Pn	Pn	16 57 09.7	-0.3
AKTK				Sn	Sn	17 00 04.7	-12
AKTO	Aktyubinsk	16.80	330	⇑P	Pn	16 57 08.6	-1.4
	comp=Z,1.8nm,0.8s						
AKTO	Aktyubinsk	16.80	330	Pn	Pn	16 57 09.7	-0.3
	comp=Z,0.6nm,0.3s,baz=144,slow=12,SNR=21						
AKTO				Sn	Sn	17 00 04.7	-12
	comp=Z,0.1nm,0.3s,baz=127,slow=20,SNR=2.7						
ZAA0	Zalesovo Array	19.84	24	*e*P	P	16 57 43.4	+0.2
ZALV	Zalesovo Beam	19.84	24	P	P	16 57 45.5	+2.4
	comp=Z,2.8nm,0.5s,baz=230,slow=10,SNR=18						
GTA	Gaotai	22.76	74	*e*P	P	16 58 19.0	+5.1
TGY	Tagaytay City	49.63	103	LR	LR	17 22 53.1	
	comp=Z,23nm,20.1s,baz=163,slow=36						
TORD	Torodi Ar. Bea	65.82	269	P	P	17 03 58.7	+4.4
	comp=Z,0.2nm,0.4s,baz=47,slow=5.9,SNR=2.9						

ISCJB ***16*** *16:53:42.2±1.6, 19.°6S±0.°2×177.°9W±0.°2, h358^{km}±21^{km}, mb3.0/5, Error ellipse: s-maj=39.7km s-min=17.3km az=138.6*
NEIC ***16*** *16:53:43.0±1.4, 19.°65S×177.°81W, h358^{km}±17^{km}, mb4.2/1, Error ellipse: s-maj=30.7km s-min=13.3km az=136.0*
IDC ***16*** *16:53:44.3±2.5, 19.°72S×177.°79W, h372^{km}±28^{km}, mb2.9/5, mb1 3.2/7, mb1mx3.1/19, mbtmp3.0/7, Error ellipse: s-maj=39.9km s-min=17.6km az=141.0*
ISC 16 16:53:43.6±1.6**, 19.°7S**±0.°2×**177.°8W**±0.°2**, h360**^{km}±21^{km}**, n13, σ0^{s}.57**/12**, mb3.0**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	8.18	46	P	Pn	16 55 40.8	+0.7
	2.6nm,0.3s,baz=78,slow=2.5,SNR=5.5						
AFI				S	S	16 57 09.9	-5.4
	1.5nm,0.3s,baz=0.0,slow=19,SNR=2.6						
AFI	Afiamalu	8.18	46	*e*P	Pn	16 55 38.9	-1.3
	7.3nm,0.4s						
AFI				S	S	16 57 15.8	+0.5
URZ	Urewera	18.99	192	P	P	16 57 40.3	-0.1
	0.8nm,0.3s,baz=24,slow=20,SNR=5.9						
STKA	Stephens Creek	38.28	243	P	P	17 00 31.5	+0.7
	1.1nm,0.7s,mb3.2,baz=50,slow=7.9,SNR=3.0						
STKA	Stephens Creek	38.28	243	P	P	17 00 31.5	+0.7
ASAR	Alice Springs	44.86	256	P	P	17 01 23.9	+0.1
	0.5nm,0.6s,mb2.8,baz=97,slow=7.9,SNR=4.1						
WRA	Warramunga Arr	44.87	261	P	P	17 01 23.4	-0.5
	0.2nm,0.3s,mb2.8,baz=96,slow=6.8,SNR=3.6						
NVAR	Mina Array Bea	80.35	43	P	P	17 05 15.1	-0.6
	0.2nm,0.8s,mb2.9,baz=212,slow=8.4,SNR=2.4						
TXAR	Lajitas Array	86.50	57	P	P	17 05 47.4	+0.5
	0.5nm,0.7s,mb3.5,baz=216,slow=6.8,SNR=4.6						
TXAR	Lajitas Array	86.50	57	P	P	17 05 47.4	+0.5
CLL	Collm	147.34	347	*e*PKPbc	PKPbc	17 12 44.0	-1.2
MMAI	Mount Meron Ar	147.56	301	PKPbc	PKPbc	17 12 45.3	-1.1
	0.2nm,0.3s,baz=72,slow=5.0,SNR=2.5						
GERES	GERESS Array B	149.50	345	PKPbc	PKPbc	17 12 49.2	-1.5
	0.9nm,0.7s,baz=5.7,slow=2.7,SNR=7.3						

IDC ***16*** *17:02:40.7±0.8, 1.°39N×126.°24E, h0^{km}, mb4.0/8, mb1 4.2/9, mb1mx4.0/18, mbtmp4.0/9, ML3.7/1, Error ellipse: s-maj=46.3km s-min=14.6km az=77.0*
NEIC ***16*** *17:02:45.9±0.4, 1.°40N×126.°34E, h35^{km}, mb4.3/10, Error ellipse: s-maj=21.4km s-min=6.4km az=70.0*
ISCJB ***16*** *17:02:47.5±0.6, 1.°41N±0.°05×126.°51E±0.°05, h70^{km}±6^{km}, mb4.1/15, Error ellipse: s-maj=10.9km s-min=6.3km az=137.9*
DJA ***16*** *17:02:49, 1.°41N×126.°49E, h30^{km}, MLv4.3/5*
ISC 16 17:02:48.4±0.6**, 1.°41N**±0.°05×**126.°51E**±0.°05**, h59**^{km}±6^{km}**, n31, σ0^{s}.88**/33**, mb4.2**/15**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.07	127	P	Pn	17 03 07.1	-0.3
TNTI				S	Sn	17 03 21.2	-0.2
MNI	Manado	1.67	271	P	Pn	17 03 14.2	-1.2
MNI				S	Sn	17 03 35.6	-0.2
LBMI	Labuha	2.27	154	P	Pn	17 03 24.4	+0.9
SGSI	Sangihe	2.46	337	P	Pn	17 03 25.9	-0.3
SGSI				S	Sn	17 03 55.7	+0.5
KMSI	Cibinong	2.66	252	P	Pn	17 03 29.4	+0.5
APSI	Ampana	5.38	245	P	Px	17 04 16.8	
MYLDM	Lahad Datu	8.83	295	P	Pn	17 05 00.4	+7.0
	58nm,0.9s						
KAKA	Kakadu	15.22	157	*e*Pn	Pn	17 06 20.3	+0.5
	49nm,0.7s						
KAKA	Kakadu	15.22	157	P	Pn	17 06 26.3	+6.5
	40nm,0.7s						
KSM	Kuching	16.20	270	P	Pn	17 06 34.2	+1.9
	26nm,1.1s						
FITZ	Fitzroy Crossi	19.41	182	P	Pn	17 07 08.3	-3.2
	0.2nm,0.3s,baz=356,slow=8.0,SNR=4.6						
WRAB	Tennant Creek	22.56	160	*e*P	P	17 07 42.8	-1.0
	16nm,0.8s,mb4.5						
WRAB	Tennant Creek	22.56	160	P	P	17 07 45.8	+2.0
WRA	Warramunga Arr	22.57	160	P	P	17 07 43.3	-0.5
	7.5nm,0.5s,mb4.3,baz=337,slow=11,SNR=57						
YHNB	Yeheng	23.65	348	*e*P	P	17 07 53.1	-1.4
	61nm,1.4s,mb4.8						
ASAR	Alice Springs	25.94	164	P	P	17 08 15.4	0.0
	1.7nm,0.5s,mb3.9,baz=345,slow=7.6,SNR=34						
STKA	Stephens Creek	36.06	158	P	P	17 09 44.8	+0.4
	4.0nm,0.7s,mb4.5,baz=325,slow=6.5,SNR=11						
STKA	Stephens Creek	36.06	158	*e*P	P	17 09 44.8	+0.4
	1.0nm,0.7s,mb3.9						
MJAR	Matsushiro Arr	36.59	16	P	P	17 09 49.1	+0.3
	1.6nm,0.9s,mb3.9,baz=182,slow=10.0,SNR=4.5						
LSA	Lhasa	43.83	313	*e*P	P	17 10 49.8	+0.9
	1.8nm,0.6s,mb4.0						
SONM	Songino Array	49.42	342	P	P	17 11 32.4	+0.2
	0.4nm,0.6s,mb3.6,baz=154,slow=9.3,SNR=4.6						
PETK	Petropavlovsk-	57.65	22	P	P	17 12 33.7	+1.2
	0.8nm,0.3s,mb4.2,baz=185,slow=4.5,SNR=31						
PETK	Petropavlovsk-	57.65	22	P	P	17 12 33.7	+1.2
MKAR	Makanchi Array	59.33	326	P	P	17 12 44.1	-0.2
	0.7nm,0.5s,mb3.9,baz=121,slow=7.8,SNR=17						
TKM2	Tokmak 2	61.34	319	*e*P	P	17 12 58.0	-0.1
	1.8nm,0.7s,mb4.3						
UCH	Uchtor	61.73	318	*e*P	P	17 13 01.5	+0.7
	1.2nm,0.7s,mb4.1						
EKS2	Erkin-Say	62.41	319	*e*P	P	17 13 05.5	+0.1
	1.3nm,0.7s,mb4.2						
ZALV	Zalesovo Beam	62.55	334	P	P	17 13 04.7	-1.2
	0.4nm,0.5s,mb3.8,baz=162,slow=7.0,SNR=3.5						
KBL	Kabul	62.77	308	P	P	17 13 06.5	-1.4
KURK	Kurchatov	63.57	328	*e*P	P	17 13 12.2	-0.7
	2.7nm,0.5s,mb4.5						
BRVK	Borovoye	69.21	328	*e*P	P	17 13 49.4	+0.6

IDC 16 17:06:01.7±6.1**, 61.°39S×155.°90E, h0**^{km}**, mb4.0**/3**, mb1 4.3**/4**, mb1mx4.1**/12**, mbtmp4.1**/4**, ML4.4**/1**, MS4.0**/6**, Ms1 4.0**/6**, ms1mx3.7**/20**, Error ellipse: s-maj=375.1km s-min=23.3km az=75.0, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	Vanda	16.32	175	Pn	Pn	17 09 49.7	-2.1
	1.3nm,0.3s,baz=343,slow=12,SNR=26						
VNDA				LR	LR	17 15 44.5	
	comp=Z,448nm,19.5s,baz=352,slow=36						
RPZ	Rata Peaks	19.86	34	LR	LR	17 17 25.5	
	comp=Z,461nm,18.4s,baz=149,slow=34						
QSPA	South Pole Qui	28.70	180	P	P	17 12 00.3	+0.5
	2.5nm,1.1s,baz=319,slow=2.9,SNR=6.4						
QSPA				LR	LR	17 22 49.8	
	comp=Z,274nm,18.6s,baz=4.0,slow=35						
MAW	Mawson	36.88	220	LR	LR	17 28 12.8	
	comp=Z,246nm,18.2s,baz=100,slow=36						
NWAO	Narrogin (SRO)	37.79	301	LR	LR	17 24 44.5	
	comp=Z,242nm,20.4s,baz=321,slow=30						
ASAR	Alice Springs	40.62	328	P	P	17 13 43.0	0.0
	1.6nm,1.0s,baz=176,slow=8.9,SNR=8.5						
CTA	Charters Tower	41.81	346	LR	LR	17 28 55.5	
	comp=Z,117nm,18.3s,baz=230,slow=33						
WRA	Warramunga Arr	44.08	330	P	P	17 14 10.5	-0.7
	1.9nm,0.9s,baz=164,slow=7.3,SNR=15						
AKASG	Malin Array Be	149.24	274	PKPbc	PKPbc	17 25 51.5	+0.7
	0.1nm,0.3s,baz=112,slow=2.0,SNR=4.4						

ISCJB ***16*** *17:15:41.8±0.5, 49.°95N±0.°06×154.°89E±0.°06, h138^{km}±4^{km}, mb4.1/49, Error ellipse: s-maj=10.7km s-min=4.9km az=151.4*
BJI ***16*** *17:15:42.8, 49.°73N×155.°07E, h165^{km}, mB4.8/5, mb4.6/8*
MOS ***16*** *17:15:42.7±1.1, 50.°03N×154.°84E, h146^{km}, mb4.2/14, Error ellipse: s-maj=12.0km s-min=7.5km az=61.2*
KRSC ***16*** *17:15:43.8±1.5, 49.°90N×155.°81E, h162^{km}±101^{km}, ML4.6*
NEIC ***16*** *17:15:44.2±0.9, 50.°00N×154.°78E, h143^{km}±7^{km}, mb4.3/21, Error ellipse: s-maj=10.7km s-min=5.5km az=164.0*
IDC ***16*** *17:15:44.6±0.8, 50.°03N×154.°77E, h144^{km}±6^{km}, mb3.7/19, mb1 3.9/22, mb1mx3.9/26, mbtmp3.7/22, Error ellipse: s-maj=15.8km s-min=9.5km az=156.0*
ISC 16 17:15:43.4±0.5**, 50.°00N**±0.°06×**154.°84E**±0.°06**, h133**^{km}±4^{km}**, h147**^{km}±3.1^{km}**:pP-P, n102, σ0^{s}.92**/113**, mb4.1**/49**, 3D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	1.07	49	⇓*i*PN	Pn	17 16 06.5	-0.6
SKR				*e*S	Sn	17 16 24.5	-0.7
SKR				pmax	pmax		
	comp=N,680nm,0.5s						
SKR				pmax	pmax		
	comp=E,540nm,0.5s						
SKR				pmax	pmax		
	comp=Z,2μm,0.5s						
SKR				smax			
	comp=N,1μm,0.5s						
SKR				smax			
	comp=Z,390nm,0.5s						
SKR				smax			
	comp=Z,570nm,0.2s						
MIPR	Malaya Ipel'ka	2.58	27	*i* P	Pn	17 16 26.0	+1.4
MIPR				*e*S	Sn	17 16 57.0	+0.6
GRL	Gorelyy	3.27	37	P	Pn	17 16 33.7	+0.3
GRL				*i* S	Sn	17 17 09.7	-2.4
RUS	Russkaya	3.36	42	*e*P	Pn	17 16 34.2	-0.4
RUS				*i* S	Sn	17 17 11.2	-3.1
PEA0B	Petropavlovsk-	3.59	29	*e*Pn	Pn	17 16 39.5	+1.8
PETK	Petropavlovsk-	3.59	29	P	Pn	17 16 39.4	+1.7
	comp=Z,14nm,0.3s,baz=198,slow=12,SNR=430						
PET	Petropavlovsk	3.85	37	*e*PN	Pn	17 16 41.8	+0.7
PET				*e*S	Sn	17 17 25.5	-0.5
PET				pmax	pmax		
	comp=Z,53nm,0.4s						
PET				smax			
	comp=N,163nm,0.5s						
PET	Petropavlovsk	3.85	37	*e*P	Pn	17 16 41.9	+0.8
PET				*i* S	Sn	17 17 23.6	-2.4
PET	Petropavlovsk	3.85	37	*e*Pn	Pn	17 16 41.8	+0.7
PET				*e*Sn	Sn	17 17 17.4	-8.5
GNL	Ganaly	4.17	26	*i* P	Pn	17 16 47.6	+2.3
NLC	Nalytchevo	4.24	40	*e*P	Pn	17 16 45.4	-0.8
NLC				*i* S	Sn	17 17 30.8	-4.3
TUMR	Tumrok	6.20	29	P	Pn	17 17 13.1	+0.7
KPT	Kopyto	6.80	26	P	Pn	17 17 20.1	-0.4
ZLN	Zelenaya	7.02	28	P	Pn	17 17 23.6	+0.2
KRSR	Krestovskiy	7.12	27	P	Pn	17 17 25.7	+0.9
SRKR	Sorokina	7.67	27	P	Pn	17 17 32.5	+0.4
KBTR	Krutoberegovo	7.86	35	*e*P	Pn	17 17 33.9	-0.8
BKI	Bering	8.54	48	*e*P	Pn	17 17 42.0	-1.9
BKI				*i* S	Sn	17 19 06.6	-12
ASAJ	Asahikawa	10.21	240	PN	Pn	17 18 08.2	+1.9
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ	Asahikawa	10.21	240	P	Pn	17 18 08.2	+1.8
	comp=Z,7.3nm,0.3s,baz=68,slow=9.8,SNR=56						
ERM	Erimo	11.38	230	*e*PN	Pn	17 18 19.0	-2.8
HABR	Khabarovsk	13.03	271	*e*PN	Pn	17 18 43.8	+0.6
HABR				S	Sn	17 21 06.7	-0.1
HABR				MLR	MLR		
	comp=Z,44nm,15.0s						
MDJ	Mudanjiang	17.91	262	*e*P	Pn	17 19 46.9	+3.1
	comp=Z,16nm,0.8s						
MAJO	Matsushiro	18.04	228	*e*P	P	17 19 43.4	-0.7
MAJO				pmax	pmax		
	comp=Z,13nm,0.5s						
MAJO	Matsushiro	18.04	228	*e*P	P	17 19 43.4	-0.7
	comp=Z,13nm,0.5s						
MAT	Matsushiro	18.04	228	P	P	17 19 44.0	-0.1
MJAR	Matsushiro Arr	18.04	228	*e*P	P	17 19 44.1	0.0
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	18.04	228	P	P	17 19 43.5	-0.6
	comp=Z,0.5nm,0.3s,baz=19,slow=12,SNR=16						
YAK	Yakutsk	18.37	321	*e*P	P	17 19 47.7	+0.2
YAK				pmax	pmax		
	comp=Z,10.0nm,0.5s						
YAK	Yakutsk	18.37	321	*e*P	P	17 19 47.7	+0.2
	comp=Z,9.5nm,0.5s						
HIA	Hailar	22.63	282	*e*P	P	17 20 31.6	-1.3
HIA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HIA	Hailar	22.63	282	*e*P	P	17 20 31.6	-1.3
	comp=Z,3.0nm,0.6s,mb3.9						
KSRS	Korea Array	23.00	247	P	P	17 20 36.0	-0.4
KSRS				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.1						
KSRS	Korea Array	23.00	247	P	P	17 20 36.0	-0.5
	comp=Z,6.8nm,0.8s,mb4.1,baz=43,slow=10,SNR=17						
SONM	Songino Array	31.47	285	P	P	17 21 51.7	-0.4
	comp=Z,0.5nm,0.4s,mb3.6,baz=72,slow=7.8,SNR=12						
SONM				PcP	PcP	17 24 41.7	-0.1
	comp=Z,0.2nm,0.5s,baz=105,slow=1.2,SNR=2.6						
TLY	Talaya	31.84	293	*e*P	P	17 21 55.7	+0.5
TLY				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
ZAK	Zakamensk	32.47	291	⇓*i*P	P	17 22 00.7	-0.1
ZAK				*e*	pP	17 22 32.5	+3.1
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
GTA	Gaotai	39.69	276	*e*P	P	17 23 02.3	+0.1
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
ZALV	Zalesovo Beam	41.72	303	P	P	17 23 18.0	-0.7
	comp=Z,1.6nm,0.6s,mb3.8,baz=64,slow=6.4,SNR=9.7						
ZALV				pP	pP	17 23 51.1	+2.8
	comp=Z,1.4nm,0.9s,baz=48,slow=6.9,SNR=2.9						
ZALV				PcP	PcP	17 25 11.6	-0.9
	comp=Z,1.3nm,0.7s,baz=50,slow=2.5,SNR=5.6						
ZALV	Zalesovo Beam	41.72	303	P	P	17 23 18.0	-0.7
ZALV				pP	pP	17 23 51.1	+2.8
ZALV				PcP	PcP	17 25 11.6	-0.9
MKAR	Makanchi Array	46.53	295	P	P	17 23 56.4	-0.8
	comp=Z,1.6nm,0.6s,mb3.8,baz=58,slow=7.2,SNR=24						
MKAR				pP	pP	17 24 29.8	+2.4
	comp=Z,1.1nm,0.7s,baz=62,slow=8.3,SNR=5.3						
MKAR				PcP	PcP	17 25 28.6	-0.6
	comp=Z,0.6nm,0.7s,baz=25,slow=5.4,SNR=4.0						
KURK	Kurchatov	46.58	302	P	P	17 23 57.1	-0.3
	comp=Z,4.7nm,0.7s,mb4.3,baz=68,slow=8.6,SNR=24						
KURK				pP	pP	17 24 30.6	+2.9
	comp=Z,0.7nm,0.5s,baz=66,slow=8.3,SNR=2.3						
KURK				PcP	PcP	17 25 29.3	+0.1
	comp=Z,1.1nm,0.7s,baz=59,slow=3.5,SNR=5.0						
RES	Resolute Bay	47.39	20	*e*P	P	17 24 03.3	-0.2
	comp=Z,0.5nm,0.4s,mb3.5						
YKA	Yellowknife Ar	47.65	39	P	P	17 24 06.0	+0.5
	comp=Z,2.8nm,0.7s,mb4.0,baz=299,slow=7.6,SNR=32						
BRVK	Borovoye	49.76	308	*e*P	P	17 24 21.2	-0.6
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.3						
BRVK	Borovoye	49.76	308	*e*P	P	17 24 21.2	-0.7
	comp=Z,3.6nm,0.5s,mb4.3						
LSA	Lhasa	51.29	272	*e*P	P	17 24 34.3	+0.7
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
LSA	Lhasa	51.29	272	*e*P	P	17 24 34.3	+0.7
	comp=Z,3.0nm,0.6s,mb4.1						
ARU	Arti	53.42	317	*d i*P	P	17 24 47.8	-1.2
ARU				*e*		17 26 47.9	
ARU				*e*S	S	17 32 10.4	-0.2
ARU				SS	SS	17 35 54.2	+2.6
ARU				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
ARU	Arti	53.42	317	*e*P	P	17 24 47.6	-1.4
	comp=Z,7.5nm,0.3s,mb4.9						
CHTO	Chiang Mai	54.01	256	*e*P	P	17 24 54.1	+0.3
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
CHTO	Chiang Mai	54.01	256	*e*P	P	17 24 54.0	+0.3
	comp=Z,6.9nm,0.9s,mb4.4						
CMAR	Chiang Mai Arr	54.28	255	P	P	17 24 56.6	+0.9
	comp=Z,2.6nm,0.5s,mb4.2,baz=35,slow=7.4,SNR=37						
CMAR				PcP	PcP	17 25 59.1	+0.9
	comp=Z,1.1nm,0.7s,baz=9.9,slow=2.5,SNR=7.9						
TAPN	Taplejung	55.10	272	*e*P	P	17 25 01.0	-0.5
JIRN	Jiri	55.87	274	*e*P	P	17 25 07.0	0.0
	comp=Z,6.0nm,0.4s,mb4.8						
GUN	Gumba	55.90	274	*e*P	P	17 25 07.1	-0.1
	comp=Z,11nm,0.4s,mb5.0						
RAMN	Ramite	56.09	273	*e*P	P	17 25 08.6	0.0
	comp=Z,18nm,0.5s,mb5.2						
KKN	Kakani	56.37	274	*e*P	P	17 25 09.8	-0.7
	comp=Z,14nm,0.6s,mb4.9						
PKI	Pulchoki	56.43	274	*e*P	P	17 25 11.5	+0.5
PKIN	Phulchoki	56.44	274	*e*P	P	17 25 11.0	0.0
	comp=Z,2.5nm,0.4s,mb4.4						
DMN	Daman	56.60	274	*e*P	P	17 25 12.2	0.0
	comp=Z,4.7nm,0.4s,mb4.7						
GKN	Gorkha	56.63	275	*e*P	P	17 25 12.1	-0.3
	comp=Z,13nm,0.4s,mb5.1						
DANN	Dangsing	56.96	276	*e*P	P	17 25 15.1	+0.4
	comp=Z,13nm,0.5s,mb5.0						
KOLN	Koldanda	57.46	276	*e*P	P	17 25 18.0	-0.2
	comp=Z,7.6nm,0.5s,mb4.8						
FFC	Flin Flon	57.53	42	*i* P	P	17 25 19.2	+0.9
FFC	Flin Flon	57.53	42	*e*P	P	17 25 19.1	+0.7
	comp=Z,3.9nm,0.6s,mb4.4						
FCC	Fort Churchill	57.93	35	*e*P	P	17 25 20.9	-0.1
	comp=Z,0.1nm,0.6s						
HLID	Hailey	58.77	58	*e*P	P	17 25 28.0	+0.9
	comp=Z,0.9nm,0.6s,mb3.8						
NVAR	Mina Array Bea	59.96	65	P	P	17 25 36.5	+1.2
	comp=Z,3.5nm,0.7s,mb4.3,baz=294,slow=7.5,SNR=23						
NVAR				pP	pP	17 26 08.3	+1.4
	comp=Z,0.4nm,0.6s,baz=300,slow=7.2,SNR=2.0						
ELK	Elko	60.18	61	*e*P	P	17 25 37.8	+1.0
ELK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ELK	Elko	60.18	61	*e*P	P	17 25 37.8	+0.9
	comp=Z,1.2nm,0.6s,mb3.9						
RLMT	Red Lodge	60.49	54	*e*P	P	17 25 39.9	+1.0
	comp=Z,2.7nm,0.8s,mb4.1						
TPH	Tonopah	60.83	65	P	P	17 25 40.8	-0.5
TPH				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
TPH	Tonopah	60.83	65	P	P	17 25 40.8	-0.5
	comp=Z,5.7nm,0.8s,mb4.5						
ISA	Isabella	61.72	67	P	P	17 25 44.9	-2.4
ISA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
ISA	Isabella	61.72	67	P	P	17 25 44.9	-2.4
	comp=Z,1.6nm,0.8s,mb3.9						
DUG	Dugway	61.91	60	*e*P	P	17 25 48.5	0.0
DUG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
DUG	Dugway	61.91	60	*e*P	P	17 25 48.5	0.0
	comp=Z,2.8nm,0.7s,mb4.2						
BW06	Boulder Array	61.94	56	*e*P	P	17 25 49.2	+0.5
	comp=Z,4.9nm,0.9s,mb4.3						
PDAR	Pinedale Array	61.94	56	P	P	17 25 49.5	+0.9
	comp=Z,3.2nm,0.8s,mb4.2,baz=313,slow=2.6,SNR=19						
ULM	Lac du Bonnet	63.33	43	P	P	17 25 57.7	0.0
	comp=Z,0.8nm,0.4s,mb3.9,baz=328,slow=7.3,SNR=3.5						
NOA	NORSAR Array B	65.52	342	P	P	17 26 11.3	-0.5
	comp=Z,0.9nm,0.8s,mb3.7,baz=26,slow=6.4,SNR=2.9						
PV01	Paradox Valley	65.71	59	*e*P	P	17 26 13.8	+0.3
	comp=Z,157nm,0.9s						
ISCO	Idaho Springs	66.14	56	*e*P	P	17 26 17.1	+1.0
ISCO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
ISCO	Idaho Springs	66.14	56	*e*P	P	17 26 17.1	+0.9
	comp=Z,2.2nm,0.8s,mb4.0						
SDCO	Great Sand Dun	67.68	58	*e*P	P	17 26 26.3	+0.3
	comp=Z,0.8nm,0.8s,mb3.5						
ECSD	EROS Data Cent	67.83	48	*e*P	P	17 26 26.1	-0.7
	comp=Z,9.1nm,1.1s,mb4.4						
AKASG	Malin Array Be	69.48	326	P	P	17 26 37.2	+0.3
	comp=Z,0.4nm,0.3s,mb3.6,baz=31,slow=5.2,SNR=4.3						
AKASG	Malin Array Be	69.48	326	P	P	17 26 37.2	+0.3
SCHQ	Schefferville	69.87	24	P	P	17 26 37.7	-1.5
	comp=Z,1.0nm,0.4s,mb3.9,baz=316,slow=6.5,SNR=7.1						
SCHQ	Schefferville	69.87	24	P	P	17 26 37.7	-1.5
WRA	Warramunga Arr	71.96	200	P	P	17 26 51.4	-0.7
	comp=Z,0.4nm,0.6s,mb3.3,baz=16,slow=6.2,SNR=5.7						
WMOK	Wichita Mounta	73.53	55	*e*P	P	17 27 01.1	-0.4
WMOK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
WMOK	Wichita Mounta	73.53	55	*e*P	P	17 27 01.1	-0.3
	comp=Z,3.1nm,1.1s,mb4.0						
TXAR	Lajitas Array	74.93	62	*e*P	P	17 27 10.2	+0.6
TXAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
TXAR	Lajitas Array	74.93	62	P	P	17 27 10.3	+0.6
	comp=Z,4.4nm,0.5s,mb4.3,baz=297,slow=4.6,SNR=62						
TXAR	Lajitas Array	74.93	62	P	P	17 27 10.3	+0.6
ASAR	Alice Springs	75.65	200	*e*P	P	17 27 13.8	+0.2
ASAR	Alice Springs	75.65	200	P	P	17 27 13.8	+0.2
	comp=Z,0.3nm,0.5s,mb3.2,baz=14,slow=5.6,SNR=14						
GERES	GERESS Array B	76.03	335	P	P	17 27 15.6	0.0
	comp=Z,0.4nm,0.5s,mb3.3,baz=59,slow=4.7,SNR=4.0						
BRTR	Keskin Array B	76.80	317	P	P	17 27 21.5	+1.4
	comp=Z,0.9nm,0.7s,mb3.5,baz=345,slow=10,SNR=2.8						
ESDC	Sonseca Array	88.78	344	P	P	17 28 20.5	-1.4
	comp=Z,0.9nm,0.6s,mb3.9,baz=11,slow=3.9,SNR=3.4						

HLW ***16*** *17:19:22.9, 33.°54N×35.°65E, h20^{km}, Mb3.2*
ISCJB ***16*** *17:19:23.5±0.6, 33.°35N±0.°03×35.°40E±0.°05, h10^{km}, Error ellipse: s-maj=6.4km s-min=3.4km az=32.4*
CSEM ***16*** *17:19:23.5±0.2, 33.°34N×35.°38E, h2^{km}, ML3.5, Error ellipse: s-maj=4.9km s-min=2.6km az=116.0*
GII ***16*** *17:19:23.6±0.8, 33.°25N×35.°45E, h1^{km}±4^{km}, Md2.6/8*
GRAL ***16*** *17:19:24.6±0.3, 33.°32N×35.°44E, h9^{km}±4^{km}, MD3.1*
ISC 16 17:19:24.2±0.6**, 33.°35N**±0.°03×**35.°43E**±0.°05**, h10**^{km}**, n34, σ0^{s}.94**/45**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSDI	Kefar Szold	0.25	130	Pg	Pg	17 19 28.8	-0.5
KSDI				Sg	Sg	17 19 32.8	+0.1
HRI	Mount Hermon	0.27	109	Pg	Pg	17 19 29.3	-0.3
MMA0B	Mount Meron ar	0.34	184	Pg	Pg	17 19 29.7	-1.2
MMA0B				Sg	Sg	17 19 35.0	-0.4
RCY	Rachaya	0.35	68	*e*P	Pg	17 19 31.5	+0.4
RCY				*e*S	Sg	17 19 36.6	+0.8
RCY	Rachaya	0.35	68	*e*P	Pg	17 19 31.5	+0.4
RCY				*e*S	Sg	17 19 36.6	+0.8
BHL	Bhannes	0.58	19	*e*P	Pg	17 19 35.6	+0.1
BHL	Bhannes	0.58	19	*e*P	Pg	17 19 35.6	+0.2
BLGI	Bet Lehem HaGe	0.65	198	Pg	Pg	17 19 36.0	-0.8
HRSH	Kfar Ka'horesh	0.66	191	P	Px	17 20 08.9	
OFRI	'Ofer	0.82	207	Pg	Pg	17 19 39.1	-0.9
OFRI				Sg	Sg	17 19 51.5	+0.8
MMLI	Mount Malkishu	0.91	180	Pg	Pg	17 19 40.1	-1.7
MMLI				Sg	Sg	17 19 52.9	-0.7
HWQ	Hawqa	1.02	25	*e*P	Pg	17 19 43.0	-0.8
HWQ	Hawqa	1.02	25	*e*P	Pg	17 19 43.0	-0.8
HMDT	Nahal Hemdat	1.10	176	Pg	Pg	17 19 43.8	-1.5
HMDT				Sg	Sg	17 19 59.5	-0.1
SLTI	Sal'it	1.16	197	Pg	Pg	17 19 44.8	-1.6
SLTI				Sg	Sg	17 20 00.8	-0.6

DSI	Dead Sea	1.78	181	Pn	Pn	17 19 54.7	-0.3
DSI				Sn	Sn	17 20 19.1	+1.5
YTIR	Yattir	2.00	188	Pn	Pn	17 19 58.7	+0.7
MZDA	Masada	2.04	182	Pn	Pn	17 19 59.1	+0.6
MZDA				Sn	Sn	17 20 26.0	+2.0
RTMI	Retamim	2.38	195	Pn	Pn	17 20 04.1	+0.9
KZIT	Kziot	2.59	200	Sn	Sn	17 20 40.0	+2.3
RSH		2.79	212	P	Pn	17 20 08.9	0.0
ZFRI	Zfri	2.80	184	Pn	Pn	17 20 09.3	+0.3
PRNI	Paran	3.01	187	Pn	Pn	17 20 12.3	+0.3
KRMI	Paran Flat	3.28	191	Sn	Sn	17 20 57.1	+2.4
AMAG	Maghara	3.30	216	P	Pn	17 20 15.9	0.0
AMAG	Maghara	3.30	216	P	Pn	17 20 15.9	+0.1
HNKL	Nakhl	3.63	200	P	Pn	17 20 20.3	-0.1
HNKL				S	Sn	17 21 02.5	-0.9
HNKL	Nakhl	3.63	200	P	Pn	17 20 20.3	-0.1
HNKL				S	Sn	17 21 02.5	-0.8
SUZ		4.14	213	P	Pn	17 20 28.1	+0.6
SUZ		4.14	213	P	Pn	17 20 28.1	+0.6
HDHB	Dhahab	4.67	189	P	Pn	17 20 34.6	-0.1
HDHB	Dhahab	4.67	189	P	Pn	17 20 34.6	-0.1
HKAT	Jabal Katrina	4.97	195	P	Pn	17 20 38.8	-0.1
HKAT	Jabal Katrina	4.97	195	P	Pn	17 20 38.8	-0.1

IDC 16 17:20:32.3±1.9, 38°.17S×73°.88W, h0km, mb3.8/2, mb1 3.8/5, mb1mx3.7/15, mbtmp3.6/5, ML3.8/3, Error ellipse: s-maj=39.3km s-min=28.4km az=65.0, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLCA	Paso Flores	3.63	136	Pn	Pn	17 21 29.6	-0.2
	1.5nm,0.3s,baz=316,slow=16,SNR=41						
PLCA				Sn	Sn	17 22 15.4	+2.1
	13nm,0.3s,baz=232,slow=18,SNR=5.9						
CFAA	Coronel Fontan	8.02	37	Pn	Pn	17 22 31.5	+1.4
	0.2nm,0.3s,baz=206,slow=10,SNR=3.8						
CFAA				Sn	Sn	17 24 00.5	-1.1
	0.1nm,0.3s,baz=219,slow=14,SNR=2.5						
CPUP	Villa Florida	18.28	55	P	Pn	17 24 47.3	0.0
	0.5nm,0.3s,baz=221,slow=6.0,SNR=3.7						
PDAR	Pinedale Array	86.84	335	P	P	17 33 18.6	+0.3
	0.2nm,0.7s,baz=176,slow=2.5,SNR=2.7						
TORD	Torodi Ar. Bea	87.01	71	P	P	17 33 19.7	-0.1
	0.7nm,0.6s,baz=232,slow=4.9,SNR=7.2						

IDC 16 17:36:37.8±3.1, 33°.95S×178°.43W, h0km, mb4.2/2, mb1 4.5/3, mb1mx3.9/16, mbtmp4.3/3, ML4.3/1, Error ellipse: s-maj=70.7km s-min=50.4km az=126.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.62	219	Pn	Pn	17 38 02.4	-0.1
	9.3nm,0.3s,baz=16,slow=7.1,SNR=58						
URZ				Sn	Sn	17 39 02.3	-5.3
	13nm,0.3s,baz=134,slow=22,SNR=10						
ASAR	Alice Springs	42.68	271	P	P	17 44 36.5	+0.1
	1.9nm,0.7s,baz=110,slow=7.5,SNR=42						
WRA	Warramunga Arr	43.98	276	P	P	17 44 46.8	-0.2
	1.6nm,0.3s,baz=118,slow=7.5,SNR=50						
MKAR	Makanchi Array	119.73	309	PKP	PKPdf	17 55 29.3	0.0
	0.1nm,0.5s,baz=131,slow=2.2,SNR=3.7						

ISCJB ***16*** *17:42:22.9±0.8, 39°.38N±0°.03×33°.12E±0°.04, h7km±6km, Error ellipse: s-maj=5.9km s-min=4.9km az=159.4*
CSEM ***16*** *17:42:23.1±0.1, 39°.37N×33°.12E, h10km, MD3.1, Error ellipse: s-maj=2.6km s-min=1.7km az=153.0*
DDA ***16*** *17:42:23.0, 39°.41N×33°.17E, h7km±4km, Md3.1*
ISK ***16*** *17:42:23.0, 39°.37N×33°.14E, h14km, MD3.1*
ISC 16 17:42:23.1±0.6, 39°.38N±0°.03×33°.11E±0°.04, h7km±5km, n33, σ0s.75/44, 1C, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALAT	Bala	0.18	3	*e*P	Pg	17 42 26.4	-0.3
BALAT				*e*S	Sg	17 42 29.2	+0.1
KAMT	Kaman	0.47	91	PG	Pg	17 42 32.6	+0.4
KAMT				*e*SG	Sg	17 42 38.9	+0.7
KAMT	Kaman	0.47	91	*i* Pg	Pg	17 42 32.6	+0.5
KAMT				*e*Sg	Sg	17 42 38.9	+0.6
CDAG	Cicekdag	1.01	76	⇑*i*P	Pg	17 42 41.5	-0.9
CDAG				*i* S	Sg	17 42 54.3	-1.2
CDAG	Cicekdag	1.01	76	*i* P	Pg	17 42 41.5	-0.9
CDAG				*i* S	Sg	17 42 54.3	-1.2
KIZT	Kizilcal	1.08	243	*e*PN	Pn	17 42 44.6	0.0
KIZT	Kizilcal	1.08	243	*e*Pn	Pn	17 42 44.6	0.0
ELDT	Eldivan	1.14	12	*e*P	Pg	17 42 44.5	-0.4
ELDT				*e*S	Sg	17 43 01.1	+1.5
ELDT	Eldivan	1.14	12	*e*P	Pg	17 42 44.5	-0.4
ELDT				*e*S	Sg	17 43 01.1	+1.5
KDHN	Kadinhani	1.16	222	*e*P	Pg	17 42 45.5	+0.3
KDHN				*e*S	Sg	17 43 00.7	+0.5
KDHN	Kadinhani	1.16	222	*e*P	Pg	17 42 45.5	+0.3
KDHN				*e*S	Sg	17 43 00.7	+0.5
SULT	Sultanhani-AKS	1.22	165	*e*PN	Pn	17 42 45.9	-0.6
SULT	Sultanhani-AKS	1.22	165	*e*Pn	Pn	17 42 45.9	-0.7
SVRH	Sivrihisar-ESK	1.23	274	*e*PN	Pn	17 42 46.4	-0.3
SVRH	Sivrihisar-ESK	1.23	274	*e*Pn	Pn	17 42 46.4	-0.3
CANT	Cankiri	1.29	18	*e*PN	Pn	17 42 47.2	-0.2
CORM	Corum	1.42	55	*e*PN	Pn	17 42 48.8	-0.5
CORM	Corum	1.42	55	*e*Pn	Pn	17 42 48.8	-0.5
AVNT	Avonos	1.49	113	*e*P	Pn	17 42 51.4	+1.2
AVNT				*e*S	Sn	17 43 11.7	+1.8
AVNT	Avonos	1.49	113	*e*P	Pn	17 42 51.4	+1.2
AVNT				*e*S	Sn	17 43 11.7	+1.8
KONT	Konya--Tatoy	1.55	202	*e*PN	Pn	17 42 50.8	-0.3
KONT	Konya--Tatoy	1.55	202	*e*Pn	Pn	17 42 50.8	-0.3
YOZ	Yozgat	1.73	81	*e*PN	Pn	17 42 53.4	-0.2
YOZ	Yozgat	1.73	81	*e*Pn	Pn	17 42 53.4	-0.2
ESKT	Eskisehir	1.75	275	*e*PN	Pn	17 42 53.8	-0.1
ESKT	Eskisehir	1.75	275	*e*Pn	Pn	17 42 53.8	-0.1
TOS	Tosya	1.80	23	*e*PN	Pn	17 42 54.7	+0.2
TOS	Tosya	1.80	23	*e*Pn	Pn	17 42 54.7	+0.2
KOZT	Kozan	2.86	131	*e*PN	Pn	17 43 08.7	-0.4
SARI	SarD1z-Kayseri	2.88	103	*e*PN	Pn	17 43 07.8	-1.6
SARI	SarD1z-Kayseri	2.88	103	*e*Pn	Pn	17 43 07.8	-1.6
SVSK	Karacayir	3.05	79	*e*PN	Pn	17 43 12.2	+0.5
SVSK	Karacayir	3.05	79	*e*Pn	Pn	17 43 12.2	+0.5

IDC ***16*** *17:55:16.7±2.0, 3°.68S×145°.58E, h0km, mb3.8/10, mb1 4.0/11, mb1mx4.0/18, mbtmp3.9/11, ML4.3/1, MS3.3/2, Ms1 3.3/2, ms1mx2.8/30, Error ellipse: s-maj=66.0km s-min=17.6km az=96.0*
NEIC ***16*** *17:55:22.7±1.1, 3°.70S×145°.39E, h35km, mb4.4/2, Error ellipse: s-maj=30.9km s-min=9.9km az=99.0*
ISCJB ***16*** *17:55:28.1±1.3, 3°.83S±0°.09×145°.2E±0°.3, h100km, mb3.6/10, Error ellipse: s-maj=36.8km s-min=11.2km az=9.3*
ISC 16 17:55:30.2±1.3, 3°.81S±0°.09×145°.2E±0°.3, h100km, n15, σ0s.95/15, mb3.6/10, Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.38	234	*e*Pn	Pn	17 58 59.9	-1.9
WRAB	Tennant Creek	19.18	212	*e*P	P	17 59 46.5	+0.4
	19nm,0.9s						
WB2	Warramunga Arr	19.19	212	*e*P	P	17 59 46.7	+0.5
WRA	Warramunga Arr	19.20	213	P	P	17 59 46.3	+0.1
	0.9nm,0.3s,baz=32,slow=11,SNR=37						
WRA				LR	LR	18 07 09.0	
	comp=Z,55nm,19.6s,baz=335,slow=36						
ASAR	Alice Springs	22.54	208	P	P	18 00 21.9	-0.1
	3.3nm,0.7s,mb3.8,baz=35,slow=10.0,SNR=43						
FITZ	Fitzroy Crossi	23.81	232	P	P	18 00 34.7	+0.7
	7.1nm,0.6s,mb4.2,baz=49,slow=11,SNR=13						
FITZ	Fitzroy Crossi	23.81	232	*e*P	P	18 00 34.5	+0.4
	8.7nm,0.6s,mb4.3						
STKA	Stephens Creek	28.12	186	P	P	18 01 12.4	-0.4
	2.7nm,0.9s,mb3.8,baz=358,slow=6.1,SNR=3.8						
KSRS	Korea Array	44.08	340	P	P	18 03 27.1	-1.2
	0.8nm,0.6s,mb3.6,baz=151,slow=8.9,SNR=3.2						
CMAR	Chiang Mai Arr	50.62	298	P	P	18 04 21.1	+1.8
	0.9nm,1.0s,mb3.8,baz=123,slow=5.9,SNR=5.2						
SONM	Songino Array	61.62	331	P	P	18 05 36.8	-0.3
	0.1nm,0.3s,mb3.4,baz=20,slow=4.6,SNR=2.5						
MKAR	Makanchi Array	74.66	321	P	P	18 06 58.8	+0.1
	0.5nm,0.8s,mb3.3,baz=108,slow=7.8,SNR=5.5						
ZALV	Zalesovo Beam	76.20	328	P	P	18 07 07.6	+0.2
	0.6nm,0.6s,mb3.5,baz=104,slow=4.8,SNR=3.0						
ZALV				LR	LR	18 39 37.9	
	comp=Z,32nm,19.8s,baz=347,slow=35						
KURK	Kurchatov	78.37	323	P	P	18 07 18.2	-1.4
	0.2nm,0.3s,mb3.3,baz=110,slow=5.2,SNR=1.8						
BVAR	Borovoye Array	83.93	324	P	P	18 07 50.5	+1.5
	0.4nm,0.7s,mb3.4,baz=111,slow=8.2,SNR=2.3						

ISCJB ***16*** *18:00:27.3±0.5, 33°.32N±0°.02×35°.43E±0°.03, h7km±3km, Error ellipse: s-maj=5.3km s-min=2.8km az=34.3*
CSEM ***16*** *18:00:27.0±0.2, 33°.33N×35°.35E, h0km±1km, ML3.7, Error ellipse: s-maj=4.7km s-min=2.0km az=103.0*
GII ***16*** *18:00:27.4±0.5, 33°.23N×35°.44E, h1km±2km, Md3.1/9, Mm2.6/7*
GRAL ***16*** *18:00:28.3±0.4, 33°.31N×35°.42E, h4km±5km, MD3.3*
NSSC ***16*** *18:00:28, 33°.33N×35°.50E, h12km±3km*
ISC 16 18:00:27.7±0.5, 33°.33N±0°.02×35°.44E±0°.03, h6km±3km, n30, σ0s.69/48, 11D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSDI	Kefar Szold	0.23	126	Pg	Pg	18 00 32.3	+0.1
KSDI				Sg	Sg	18 00 36.2	+1.0
MMA4	Mount Meron ar	0.31	186	Pg	Pg	18 00 33.5	-0.2
MMA4				Sg	Sg	18 00 38.0	+0.2
HNTI	Hanita	0.33	223	Pg	Pg	18 00 34.0	-0.1
HNTI				Sg	Sg	18 00 39.0	+0.6
RCY	Rachaya	0.35	63	*e*P	Pg	18 00 35.3	+0.7
RCY				*e*S	Sg	18 00 40.6	+1.3
RCY	Rachaya	0.35	63	*e*P	Pg	18 00 35.3	+0.7
RCY				*e*S	Sg	18 00 40.6	+1.3
BRBR	Barbar	0.44	78	⇑P	Pg	18 00 36.0	-0.1
BRBR				⇑S	Sg	18 00 42.0	+0.2
BEYL	Beyrouth	0.55	5	*e*P	Pg	18 00 38.5	+0.3
BEYL	Beyrouth	0.55	5	*e*P	Pg	18 00 38.5	+0.2
BHL	Bhannes	0.60	17	*e*P	Pg	18 00 39.3	-0.1
BHL	Bhannes	0.60	17	*e*P	Pg	18 00 39.3	-0.1
BLGI	Bet Lehem HaGe	0.62	200	Pg	Pg	18 00 39.4	-0.3
QASN	Qassioun	0.73	73	⇓P	Pg	18 00 42.0	+0.3
QASN				⇓S	Sg	18 00 52.0	+0.8
TOTH	TOTAH	0.83	87	⇓P	Pg	18 00 43.0	-0.6
TOTH				⇑S	Sg	18 00 55.0	+0.6
MMLI	Mount Malkishu	0.88	181	Pg	Pg	18 00 43.7	-1.0
MMLI				Sg	Sg	18 00 56.5	+0.3
HWQ	Hawqa	1.04	24	*e*P	Pg	18 00 47.4	-0.3
HWQ	Hawqa	1.04	24	*e*P	Pg	18 00 47.4	-0.3
MARH	Ras Al Marh	1.12	51	⇓P	Pg	18 00 48.0	-1.1
MARH				⇓S	Sg	18 01 04.0	+0.4
SLTI	Sal’it	1.13	197	Pg	Pg	18 00 48.3	-1.1
SLTI				Sg	Sg	18 01 04.3	+0.2
SALA	Sala	1.25	119	⇓P	Pg	18 00 50.0	-1.6
SALA				⇓S	Sg	18 01 06.0	-1.8
ZALF	Zalf	1.64	104	⇓P	Pn	18 00 57.0	-0.1
ZALF				⇓S	Sn	18 01 18.0	-0.6
DSI	Dead Sea	1.75	182	Pn	Pn	18 00 58.0	-0.6
DSI				Sn	Sn	18 01 22.1	+0.8
ROOS	tl_alroos	1.76	61	⇓P	Pn	18 00 59.0	+0.3
ROOS				⇑S	Sn	18 01 21.0	-0.4
BIDA	Albida	1.84	23	⇑P	Pn	18 01 00.0	+0.2
BIDA				⇑S	Sn	18 01 24.0	+0.6
YTIR	Yattir	1.98	188	Pn	Pn	18 01 01.6	-0.1
MZDA	Masada	2.01	182	Pn	Pn	18 01 02.4	+0.2
MZDA				Sn	Sn	18 01 28.7	+1.0
WRDH	Warideh	2.32	20	⇓P	Pn	18 01 07.0	+0.5
WRDH				⇑S	Sn	18 01 34.0	-1.4
RTMI	Retamim	2.35	196	Pn	Pn	18 01 07.4	+0.5
ZFRI	Zfri	2.77	185	Pn	Pn	18 01 12.5	-0.2
PRNI	Paran	2.99	187	Pn	Pn	18 01 15.8	+0.1
EIL	Elat	3.67	187	Pn	Pn	18 01 25.5	+0.5

NIED ***16*** *18:15:00, 36°.30N×141°.00E, h38km, Mw3.9 Best double couple: M0 8.42000×10^14 NP1:φs2.00000°, δ74.00000°, λ78.00000°. NP2:φs219.00000°, δ19.00000°, λ126.00000°.*
ISCJB ***16*** *18:15:49.0±0.6, 36°.30N±0°.03×141°.07E±0°.06, h43km±5km, mb3.9/19, Error ellipse: s-maj=7.9km s-min=5.3km az=1.3*
NEIC ***16*** *18:15:49.6±2.0, 36°.27N×141°.11E, h36km±16km, mb4.4/6, Error ellipse: s-maj=16.5km s-min=12.9km az=99.0*
JMA ***16*** *18:15:49.8±0.1, 36°.29N×140°.98E, h46km±1km, M3.8 Broadband fault plane solution: P waves. NP1: φs203.00000°, δ13.00000°, λ109.00000°. NP2:φs3.00000°, δ78.00000°, λ86.00000°. Principal axes: T Plg57.0000°, Azm268.0000°; N Plg4.0000°, Azm4.0000°; P Plg33.0000°, Azm97.0000°;*
JMA Felt II J1.
IDC ***16*** *18:15:51.0±0.7, 36°.31N×141°.09E, h43km±5km, mb3.6/13, mb1 3.8/17, mb1mx3.7/28, mbtmp3.6/17, ML3.6/4, MS3.2/1, Ms1 3.2/1, ms1mx2.5/39 Error ellipse: s-maj=10.6km s-min=9.4km az=82.0*
ISC 16 18:15:49.2±0.7, 36°.32N±0°.03×141°.07E±0°.05, h27km±4km, h43km±1.1km:pP-P, n38, σ0s.82/46, mb3.9/19, 8D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	Hitachi	0.50	306	⇓P	Pb	18 16 00.1	+0.6
JHO				S	Sb	18 16 07.1	+0.6
CHOJ	Chosi	0.64	196	⇓P	Pb	18 16 01.9	+0.1
CHOJ				S	Sb	18 16 10.0	-0.3
JYT	Yasato	0.71	263	⇓P	Pb	18 16 02.6	-0.5
JYT				S	Sb	18 16 11.4	-1.1
ONAJ	Iwakimizuishiy	0.81	344	⇓P	Pb	18 16 04.5	-0.3
ONAJ				S	Sb	18 16 14.8	-0.6
JFK	Kawauchi	1.06	352	⇓P	Pn	18 16 07.9	-0.4
JAG	Ashikaga	1.31	275	⇓P	Pn	18 16 11.1	-0.6
JAG				S	Sn	18 16 27.0	-1.3
JFT	Otama	1.33	334	P	Pn	18 16 13.0	+0.9
JFT				S	Sn	18 16 29.4	+0.5
JKT	Katashina	1.53	288	⇓P	Pn	18 16 15.0	+0.2
JKT				S	Sn	18 16 33.1	-0.7
JFY	Yanaizu	1.54	315	⇓P	Pn	18 16 15.4	+0.5
MJAR	Matsushiro Arr	2.32	276	P	Pn	18 16 26.1	+0.5
	37nm,0.3s,baz=84,slow=10,SNR=13						
MJAR				S	Sn	18 16 54.5	+1.3
	19nm,0.3s,baz=135,slow=14,SNR=6.0						
MAJO	Matsushiro	2.32	276	*e*Pn	Pn	18 16 25.9	+0.3
MAT	Matsushiro	2.32	276	P	Pn	18 16 26.1	+0.5
MAT				S	Sn	18 16 53.0	-0.2
JHJ	Hachijo jima 2	3.36	199	P	Pn	18 16 40.9	+0.9
	15nm,0.3s,baz=191,slow=17,SNR=3.2						
JHJ				S	Sn	18 17 20.1	+1.1
	59nm,0.3s,baz=71,slow=21,SNR=7.1						
ASAJ	Asahikawa	7.88	8	P	Pn	18 17 42.5	+0.6
	1.2nm,0.3s,baz=352,slow=17,SNR=7.5						
KSRS	Korea Array	10.59	280	P	Pn	18 18 21.8	+2.6
	0.1nm,0.3s,baz=90,slow=14,SNR=4.3						
PETK	Petropavlovsk-	20.45	30	LR	LR	18 28 30.9	
	comp=Z,63nm,20.3s,baz=81,slow=37						
SONM	Songino Array	27.96	305	P	P	18 21 37.2	-0.1
	0.6nm,0.5s,mb3.5,baz=106,slow=8.8,SNR=4.8						
BILL	Bilibino	34.79	16	*e*P	P	18 22 34.0	-3.0
	7.7nm,1.1s,mb4.5						
CMAR	Chiang Mai Arr	41.05	256	P	P	18 23 30.6	+0.1
	0.4nm,0.7s,mb3.1,baz=45,slow=6.8,SNR=5.4						
ZALV	Zalesovo Beam	42.20	313	P	P	18 23 39.4	0.0
	1.7nm,0.8s,mb3.7,baz=93,slow=8.9,SNR=10.0						
ZALV				pP	pP	18 23 50.7	+3.1
	0.7nm,0.4s,baz=100,slow=6.8,SNR=4.4						
ZALV				PcP	PcP	18 25 33.1	-0.1
	0.6nm,0.5s,baz=96,slow=2.9,SNR=3.4						
MKAR	Makanchi Array	44.27	303	P	P	18 23 57.1	+0.8
	0.8nm,0.6s,mb3.6,baz=88,slow=9.7,SNR=11						
MKAR				pP	pP	18 24 08.8	+4.2
	0.4nm,0.6s,baz=87,slow=8.7,SNR=3.3						
MKAR				PcP	PcP	18 25 38.8	-1.6
	0.5nm,0.8s,baz=29,slow=3.3,SNR=3.7						
KSM	Kuching	44.86	226	P	P	18 23 58.3	-3.0
KURK	Kurchatov	46.16	309	P	P	18 24 11.2	0.0
	3.0nm,0.7s,mb4.4,baz=84,slow=7.8,SNR=15						
TKM2	Tokmak 2	49.73	299	P	P	18 24 38.0	-0.9
	1.8nm,0.5s,mb4.4						
BVAR	Borovoye Array	50.85	313	P	P	18 24 47.3	0.0
	0.8nm,0.6s,mb3.9,baz=74,slow=7.5,SNR=7.3						
BRVK	Borovoye	50.91	313	P	P	18 24 47.5	-0.2
	2.2nm,0.8s,mb4.1						
AML	Almayashu	51.30	298	*e*P	P	18 24 51.9	+1.0
	4.5nm,0.8s,mb4.5						
WRA	Warramunga Arr	56.31	188	P	P	18 25 26.8	-0.8
	2.9nm,0.7s,mb4.4,baz=5.5,slow=7.5,SNR=38						
WRA				pP	pP	18 25 39.3	+3.3
	0.8nm,0.5s,baz=2.0,slow=7.5,SNR=3.2						
ARU	Arti	56.72	319	*e*P	P	18 25 29.5	-0.6
	5.8nm,0.6s,mb4.8						
ASAR	Alice Springs	60.04	188	P	P	18 25 53.2	-0.4
	1.2nm,0.7s,mb4.1,baz=15,slow=8.7,SNR=21						
ASAR				pP	pP	18 26 06.1	+4.0
	0.4nm,0.5s,baz=8.3,slow=5.3,SNR=3.4						
RES	Resolute Bay	63.36	14	P	P	18 26 15.1	-0.3
	1.5nm,0.9s,mb4.1						
YKA	Yellowknife Ar	64.57	30	P	P	18 26 23.5	0.0
	0.2nm,0.5s,mb3.4,baz=302,slow=6.7,SNR=6.1						
YKA				pP	pP	18 26 36.6	+4.6
	0.2nm,0.6s,baz=300,slow=6.4,SNR=3.7						
AKASG	Malin Array Be	74.69	322	P	P	18 27 25.4	-0.7
	1.3nm,0.5s,mb4.1,baz=46,slow=5.6,SNR=6.9						
AKASG				pP	pP	18 27 37.8	+3.0
	0.5nm,0.4s,baz=51,slow=5.5,SNR=2.9						
NOA	NORSAR Array B	74.74	337	P	P	18 27 26.2	0.0
	0.9nm,0.7s,mb3.8,baz=42,slow=6.0,SNR=3.2						
NVAR	Mina Array Bea	75.64	53	P	P	18 27 33.2	+1.4
	0.1nm,0.3s,mb3.2,baz=298,slow=7.8,SNR=2.1						
CLL	Collm	81.58	330	*e*P	P	18 28 04.0	-0.3
GERES	GERESS Array B	83.17	328	P	P	18 28 12.1	-0.6
	0.2nm,0.5s,mb3.4,baz=11,slow=6.0,SNR=3.1						
TORD	Torodi Ar. Bea	117.64	314	PKP	PKPdf	18 34 32.1	-1.1
	0.4nm,0.9s,baz=15,slow=2.2,SNR=2.7						

NNC ***16*** *18:19:54.0±19.0, 38°.86N×73°.94E, h174km±292km, mb2.3, mpv3.1, Error ellipse: s-maj=350.7km s-min=89.7km az=18.0*
ISC 16 18:19:42.9±1.0, 37°.94N±0°.05×73°.8E±0°.1, h69km±30km, n19, σ1s.04/23, 3C-1D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	2.33	47	⇑*i*Pg	Pn	18 20 16.3	-2.6
KSH				Sg	Sn	18 20 36.5	-10
KSH				smax			
	comp=N,940nm,0.3s						
KSH				smax			
	comp=E,1μm,0.2s						
TKM2	Tokmak 2	5.16	15	⇑P	Pn	18 20 58.2	+0.7
	comp=E,1.2nm,0.6s						
THN	Thein Dam	5.72	163	*e*PKP	Pn	18 21 15.6	+10
THN				*e*x	Sn	18 22 17.5	+8.0
KK31	Karatay Array	5.72	335	⇓P	Pn	18 21 07.3	+2.1
	comp=E,1.3nm,0.2s,baz=133,slow=11,SNR=124						
KK31				S	Sn	18 22 05.4	-4.1
	comp=E,3.6nm,0.3s,baz=140,slow=23,SNR=12						
JOSI	Joshimath	8.78	145	*e*PKP	Pn	18 21 52.8	+5.7
JOSI				*e*S	Sn	18 23 24.5	0.0
JOSI				AML	AML	18 23 27.1	
	comp=E,42nm,0.5s						
JOSI				AML	AML	18 23 27.9	
	comp=N,25nm,0.4s						
AYAN	Aya Nagar	9.84	162	*e*S	Sn	18 23 49.6	-0.7
KHET	Khetri	9.99	170	*e*S	Sn	18 23 54.6	+0.7
SONA	Sohna	10.05	163	*e*S	Sn	18 23 55.7	+0.1
SONA				AML	AML	18 24 03.3	
	comp=E,14nm,0.1s						
SONA				AML	AML	18 24 03.8	
	comp=N,11nm,0.1s						
AGRA	Agra	11.24	161	*e*S	Sn	18 24 22.4	-2.2
AGRA				AML	AML	18 26 20.8	
	comp=E,54nm,0.2s						
AGRA				AML	AML	18 26 21.1	
	comp=N,93nm,0.4s						
DANN	Dangsing	12.70	136	*e*P	Pn	18 22 41.6	+1.1
GKN	Gorkha	13.46	134	*e*P	Pn	18 22 51.1	+0.4
KKN	Kakani	13.98	133	*e*P	Pn	18 22 58.1	+0.4
DMN	Daman	14.02	134	*e*P	Pn	18 22 58.6	+0.4
PKIN	Phulchoki	14.21	133	*e*P	Pn	18 23 00.9	+0.2
PKI	Pulchoki	14.22	133	*e*P	Pn	18 23 00.8	0.0
GUN	Gumba	14.25	131	*e*P	Pn	18 23 01.6	+0.5
JIRN	Jiri	14.62	131	*e*P	Pn	18 23 06.4	+0.5
	comp=N,3.4nm,0.3s						
AB01	Akbulak array	15.08	323	⇑P	Pn	18 23 10.3	-1.5
	comp=N,0.7nm,0.6s						
TAPN	Taplejung	15.77	128	*e*P	Pn	18 23 20.1	-0.6

NEIC 16 18:31:42.3, 36°.27S×177°.62E, h219km, MG4.3(WEL), After WEL., Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.40	157	P	Pn	18 32 16.8	0.0
PUZ	Puketiti	1.87	164	P	Pn	18 32 20.9	0.0
PUZ				S	S	18 32 50.4	-0.9
MARZ	Manawahe	1.87	204	P	Pn	18 32 22.3	+1.4
URZ	Urewera	2.03	191	P	Pn	18 32 23.0	+0.6
MWZ	Matawai	2.06	182	P	Pn	18 32 23.3	+0.5
KNZ	Kokohu	2.75	179	P	Pn	18 32 29.7	-0.3
BKZ	Black Stump Fm	3.03	197	P	Pn	18 32 32.9	-0.3
NGZ	Ngauruhoe	3.31	208	P	Pn	18 32 37.6	+1.1
TUVZ	Tukino	3.38	207	P	Pn	18 32 37.8	+0.6
WNVZ	Wahianoa	3.45	207	P	Pn	18 32 38.3	+0.2
MOVZ	Moawhango	3.46	205	P	Pn	18 32 37.9	-0.3
TSZ	Takapari Road	4.00	199	P	Pn	18 32 43.4	-1.3
BFZ	Birch Farm	4.54	193	P	Pn	18 32 49.7	-1.5
MRZ	Mangatainoka R	4.67	199	P	Pn	18 32 50.9	-2.0
MTW	Mount Morrison	5.16	198	P	Pn	18 32 56.5	-2.5
MRW	Makara Radio	5.45	204	P	Pn	18 33 00.6	-2.2
TCW	Tory Channel	5.58	207	P	Pn	18 33 02.0	-2.4
NNZ	Nelson	5.95	213	P	Pn	18 33 06.5	-2.6
THZ	Tophouse	6.60	212	P	Pn	18 33 15.8	-1.6
KHZ	Kahutara	6.91	206	P	Pn	18 33 18.6	-2.7
LTZ	Lake Taylor	7.71	211	P	Pn	18 33 29.3	-2.3

ISCJB ***16*** *18:54:03.1±0.7, 33°.34N±0°.03×35°.37E±0°.05, h7km±6km, Error ellipse: s-maj=7.9km s-min=4.0km az=36.1*
CSEM ***16*** *18:54:03.8, 33°.30N×35°.44E, h17km, ML3.0*
GRAL ***16*** *18:54:03.8±0.3, 33°.30N×35°.44E, h17km±15km, MD3.0*
GII ***16*** *18:54:03.9±0.4, 33°.23N×35°.44E, h1km, Md2.2/7*
ISC 16 18:54:03.4±0.7, 33°.36N±0°.03×35°.37E±0°.05, h6km±7km, n19, σ0s.70/30, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSDI	Kefar Szold	0.30	124	Pg	Pg	18 54 08.5	-0.6
KSDI				Sg	Sg	18 54 12.8	-0.2
HNTI	Hanita	0.32	211	Pg	Pg	18 54 10.5	+0.9
HNTI				Sg	Sg	18 54 15.3	+1.6
HRI	Mount Hermon	0.32	106	Pg	Pg	18 54 10.4	+0.8
HRI				Sg	Sg	18 54 15.1	+1.3
MMC2	Mount Meron ar	0.33	173	Pg	Pg	18 54 09.2	-0.6
MMA0B	Mount Meron ar	0.34	175	Pg	Pg	18 54 09.4	-0.6
MMA0B				Sg	Sg	18 54 14.2	-0.3
MMB1	Mount Meron ar	0.34	174	Pg	Pg	18 54 09.6	-0.4
RCY	Rachaya	0.40	71	*e*P	Pg	18 54 11.3	+0.2
RCY				*e*S	Sg	18 54 16.8	+0.4
RCY	Rachaya	0.40	71	*e*P	Pg	18 54 11.3	+0.2
RCY				*e*S	Sg	18 54 16.8	+0.5
BHL	Bhannes	0.59	24	*e*P	Pg	18 54 15.2	+0.3
BHL	Bhannes	0.59	24	*e*P	Pg	18 54 15.2	+0.4
BLGI	Bet Lehem HaGe	0.64	193	Pg	Pg	18 54 15.7	0.0
BLGI				Sg	Sg	18 54 24.8	+0.8
OFRI	‘Ofer	0.80	204	Pg	Pg	18 54 18.9	+0.1
MMLI	Mount Malkishu	0.92	177	Pg	Pg	18 54 20.1	-0.9
MMLI				Sg	Sg	18 54 32.5	-0.4
HWQ	Hawqa	1.04	28	*e*P	Pg	18 54 22.2	-1.1
HWQ	Hawqa	1.04	28	*e*P	Pg	18 54 22.2	-1.1
HMDT	Nahal Hemdat	1.11	173	Pg	Pg	18 54 23.5	-1.2
HMDT				Sg	Sg	18 54 39.1	0.0
SLTI	Sal’it	1.15	194	Pg	Pg	18 54 24.7	-0.7
SLTI				Sg	Sg	18 54 40.3	0.0
DSI	Dead Sea	1.78	180	Pn	Pn	18 54 34.4	-0.3
DSI				Sn	Sn	18 54 57.9	+0.3
YTIR	Yattir	2.00	186	Pn	Pn	18 54 38.4	+0.7

BJI ***16*** *18:55:18.2, 7°.85S×70°.85E, h10km, mB4.6/2, mb4.3/5*
ISCJB ***16*** *18:55:25.2±0.6, 7°.03S±0°.10×71°.6E±0°.1, h10km, mb4.4/27, MS3.5/7, Error ellipse: s-maj=17.7km s-min=11.1km az=40.1*
IDC ***16*** *18:55:25.2±0.7, 6°.90S×71°.58E, h0km, mb4.1/10, mb1 4.2/10, mb1mx4.0/25, mbtmp4.1/10, MS3.5/7, Ms1 3.5/7, ms1mx3.2/34, Error ellipse: s-maj=26.0km*

s-min=18.4km az=142.0

*NEIC **16** 18:55:26.7±0.5, 6°.97S×71°.67E, h10^{km}, mb4.4/12, Error ellipse: s-maj=15.7km s-min=10.7km az=134.0*

ISC 16 18:55:27.2±0.6, **7°.05S**±0°.10×**71°.6E**±0°.1, **h10**^{km}, **n41**, σ**1^{s}.13**/34, **mb4.4**/27, **MS3.5**/7, **Chagos Archipelago region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	16.89	33	ePn	Pn	18 59 20.8	-3.0
PALK				eSn	Sn	19 02 11.1	-21
PSI	Prapat	29.00	71	LR	LR	19 10 53.6	
	comp=Z,131nm,18.6s,MS3.6,baz=8.8,slow=32						
KULM	Kulim	31.50	68	P	P	19 01 46.1	-3.5
	8.9nm,0.8s,mb4.7						
KOLN	Koldanda	36.51	18	eP	P	19 02 33.6	+0.7
DMN	Daman	36.85	20	eP	P	19 02 36.3	+0.5
	17nm,1.1s,mb4.8						
CMAR	Chiang Mai Arr	37.03	46	P	P	19 02 35.8	-1.6
	2.0nm,0.8s,mb4.0,baz=242,slow=9.5,SNR=21						
CMAR				LR	LR	19 17 08.6	
	comp=Z,64nm,18.5s,MS3.4,baz=230,slow=35						
CMAR	Chiang Mai Arr	37.03	46	P	P	19 02 35.8	-1.6
CMAR				LR	LR	19 17 08.6	
GKN	Gorkha	37.06	19	eP	P	19 02 37.8	+0.2
	26nm,0.9s,mb5.1						
KKN	Kakani	37.08	20	eP	P	19 02 38.9	+1.2
DANN	Dangsing	37.10	18	eP	P	19 02 38.7	+0.8
CHTO	Chiang Mai	37.27	46	eP	P	19 02 40.5	+1.0
	3.7nm,1.1s,mb4.1						
GUN	Gumba	37.40	21	eP	P	19 02 41.5	+1.0
	25nm,1.1s,mb5.0						
TAPN	Taplejung	37.59	24	eP	P	19 02 43.1	+1.0
LSA	Lhasa	41.10	26	eP	P	19 03 14.1	+2.7
	7.7nm,1.4s,mb4.1						
LSZ	Lusaka	43.27	255	P	P	19 03 29.2	-0.2
	2.2nm,0.8s,mb3.9,baz=55,slow=12,SNR=3.0						
LBTB	Lobatse	47.38	242	P	P	19 04 02.1	+0.2
	3.9nm,0.9s,mb4.3,baz=99,slow=12,SNR=4.3						
BOSA	Boshof	48.64	238	P	P	19 04 12.1	+0.5
	1.9nm,0.6s,mb4.3,baz=62,slow=8.5,SNR=5.0						
AML	Almayashu	48.98	2	eP	P	19 04 12.5	-1.4
	5.3nm,0.8s,mb4.6						
UCH	Uchtor	49.11	3	P	P	19 04 14.5	-0.3
	1.4nm,0.8s,mb4.0						
EKS2	Erkin-Say	49.51	2	eP	P	19 04 18.8	+0.9
	1.6nm,0.9s,mb4.0						
TKM2	Tokmak 2	49.86	4	eP	P	19 04 19.4	-1.2
	8.0nm,1.0s,mb4.7						
EIL	Elat	50.70	318	LR	LR	19 24 01.8	
	comp=Z,42nm,18.2s,MS3.5,baz=239,slow=34						
ASF	Jabal al Asfar	51.12	322	LR	LR	19 22 40.4	
	comp=Z,52nm,21.5s,MS3.5,baz=8.6,slow=32						
LZH	Lanzhou	52.53	33	eP	P	19 04 43.0	+2.2
LZH				pP	pP	19 04 46.5	+2.5
LZH				sP	sP	19 04 49.5	+4.3
LZH				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,82nm,5.0s						
GTA	Gaotai	53.11	27	eP	P	19 04 46.1	+1.1
GTA				pP	pP	19 04 49.8	+1.7
GTA				sP	sP	19 04 51.1	+1.7
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
MKAR	Makanchi Array	54.44	9	P	P	19 04 52.3	-2.3
	comp=Z,1.6nm,0.5s,mb4.2,baz=195,slow=7.8,SNR=27						
MKAR				LR	LR	19 28 22.9	
	comp=Z,47nm,19.5s,MS3.6,baz=351,slow=36						
KURK	Kurchatov	57.85	5	LR	LR	19 28 23.7	
	comp=Z,33nm,18.7s,MS3.5,baz=65,slow=34						
KURK	Kurchatov	57.85	5	eP	P	19 05 17.9	-0.9
	comp=Z,4.6nm,0.9s,mb4.5						
BRVK	Borovoye	59.88	359	P	P	19 05 33.0	0.0
	comp=Z,3.2nm,1.0s,mb4.3						
ZALV	Zalesovo Beam	61.78	9	P	P	19 05 43.8	-2.1
	comp=Z,1.4nm,0.7s,mb4.2,baz=215,slow=7.0,SNR=9.9						
ASAR	Alice Springs	61.89	113	P	P	19 05 47.0	-0.2
	comp=Z,1.0nm,0.7s,mb4.0,baz=280,slow=6.6,SNR=9.5						
WRA	Warramunga Arr	62.06	109	P	P	19 05 48.3	-0.2
	comp=Z,3.4nm,1.1s,mb4.4,baz=281,slow=6.7,SNR=8.6						
SONM	Songino Array	62.68	26	P	P	19 05 52.3	+0.3
	comp=Z,3.0nm,0.8s,mb4.5,baz=216,slow=7.3,SNR=22						
ULN	Ulaanbaatar	62.99	26	P	P	19 05 54.5	+0.4
	comp=Z,1.0nm,0.7s,mb4.0						
ARU	Arti	64.16	352	eP	P	19 06 01.3	-0.3
	comp=Z,5.3nm,0.9s,mb4.6						
MJAR	Matsushiro Arr	75.83	50	P	P	19 07 13.7	-0.2
	comp=Z,1.8nm,0.9s,mb4.0,baz=30,slow=36,SNR=3.6						
NOA	NORSAR Array B	82.39	335	LR	LR	19 44 34.9	
	comp=Z,18nm,19.6s,MS3.4,baz=250,slow=36						
TIXI	Tiksi	86.89	15	eP	P	19 08 11.1	-0.6
	comp=Z,3.2nm,1.0s,mb4.5						
YKA	Yellowknife Ar	124.48	3	PKP	PKPdf	19 14 24.5	-1.8
	comp=Z,0.1nm,0.5s,baz=4.1,slow=2.2,SNR=4.7						
PDAR	Pinedale Array	144.41	1	PKP	PKPdf	19 15 04.1	+0.1
	comp=Z,0.2nm,0.5s,baz=14,slow=1.9,SNR=2.6						
NVAR	Mina Array Bea	147.50	15	PKPbc	PKPbc	19 15 12.3	+0.3
	comp=Z,0.5nm,0.6s,baz=307,slow=2.7,SNR=5.9						

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*NEIC **16** 19:08:55.9, 16°.49N×99°.20W, h18^{km}, MD3.5(MEX), After MEX.*

MEX 16 19:08:55.9±1.1, **16°.49N**×**99°.20W**, **h18**^{km}±97^{km}, **MD3.5**, **Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.79	298	i P	Pb	19 09 08.5	-2.6
ACX				i S	Sb	19 09 16.8	-4.6
PNIG	Pinotepa	1.03	95	i P	Pb	19 09 12.0	-3.2
PNIG				i S	Sb	19 09 23.7	-4.6
CAIG	El Cayaco	1.17	298	i P	Pn	19 09 14.6	-2.7
CAIG				i S	Sb	19 09 28.9	-3.5
MEIG	Mezcala	1.48	344	eP	Pn	19 09 19.4	-2.2
MEIG				i S	Sn	19 09 35.8	-4.8
PPM	Popocatepetl	2.62	12	eP	Pn	19 09 35.0	-2.3
PPM				i S	Sn	19 10 06.0	-2.7
MZVM		2.68	359	eP	Pn	19 09 36.6	-1.6
MZVM				i S	Sn	19 10 07.0	-3.3
IIO	Organos	3.12	8	eP	Pn	19 09 41.9	-2.3
IIO				i S	Sn	19 10 16.4	-4.5

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*NEIC **16** 19:54:46.9, 16°.44N×99°.79W, h7^{km}, MD4.1(MEX), After MEX.*

MEX 16 19:54:46.9±1.1, **16°.44N**×**99°.79W**, **h7**^{km}±6^{km}, **MD4.1**, **Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.45	345	i P	Pg	19 54 55.0	-0.5
ACX				i S	Sg	19 55 01.1	-0.3
CAIG	El Cayaco	0.76	323	i P	Pg	19 55 00.4	-1.1
CAIG				i S	Sg	19 55 10.0	-1.4
MEIG	Mezcala	1.49	6	i P	Pn	19 55 11.0	-3.1
MEIG				i S	Sn	19 55 29.8	-4.1
PNIG	Pinotepa	1.60	91	i P	Pn	19 55 12.3	-3.4
PNIG				i S	Sn	19 55 29.8	-6.8
PLIG	Platanillo	1.97	8	i P	Pn	19 55 17.6	-3.1
PLIG				i S	Sn	19 55 41.8	-3.9
YAIG	Yautepec	2.51	16	eP	Pn	19 55 25.7	-2.5
YAIG				i S	Sn	19 55 56.5	-2.6
MZVM		2.79	11	eP	Pn	19 55 29.9	-2.2
MZVM				i S	Sn	19 56 03.0	-3.0
PPM	Popocatepetl	2.84	23	eP	Pn	19 55 30.0	-2.8
PPM				eP		19 55 31.6	
PPM				i S	Sn	19 56 03.9	-3.4
PPM				i S	Sn	19 56 06.6	-0.7
VHO	Vista Hermosa	3.00	77	eP	Pn	19 55 32.4	-2.5
VHO				i S	Sn	19 56 08.5	-2.7
OXX	Oaxaca	3.01	77	eP	Pn	19 55 34.6	-0.5
OXX				i S	Sn	19 56 11.0	-0.4
TPIG	Tehuac#an	3.05	49	eP	Pn	19 55 34.3	-1.2
TPIG				i S	Sn	19 56 10.1	-2.3
PBVM	Pinon	3.06	13	eP	Pn	19 55 34.1	-1.7
PBVM				i S	Sn	19 56 10.4	-2.3
PTVM	Pico Tres Padr	3.21	12	eP	Pn	19 55 36.3	-1.5
PTVM				i S	Sn	19 56 15.1	-1.2
IIO	Organos	3.30	18	eP	Pn	19 55 38.0	-1.0
IIO				i S	Sn	19 56 17.8	-0.8
MOIG	Morelia	3.49	338	i S	Sn	19 56 19.6	-3.7
HUIG	Huatulco	3.60	100	eP	Pn	19 55 43.4	+0.2
HUIG				i S	Sn	19 56 31.7	+5.6
MMIG	Aquila	3.86	299	eP	Pn	19 55 38.2	-8.5
MMIG				i S	Sn	19 56 27.4	-5.0
CMIG	Matias Romero	4.75	81	eP	Pn	19 55 58.1	-0.8
CMIG				i S	Sn	19 56 53.7	-0.6
CCIG	Comitan	7.35	90	eP	Pn	19 56 35.6	+0.9
CCIG				i S	Sn	19 57 58.5	-0.1

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*ISCJB **16** 20:12:44.1±1.1, 17°.71S±0°.07×178°.82W±0°.08, h527^{km}±15^{km}, mb4.4/34, Error ellipse: s-maj=13.3km s-min=8.6km az=136.1*

*NEIC **16** 20:12:44.9±0.8, 17°.71S×178°.77W, h529^{km}±10^{km}, mb4.6/20, Error ellipse: s-maj=11.2km s-min=7.2km az=145.0*

*IDC **16** 20:12:44.9±1.6, 17°.66S×178°.84W, h519^{km}±18^{km}, mb3.6/18, mb1 3.8/19, mb1mx3.8/24, mbtmp3.6/19, Error ellipse: s-maj=13.5km s-min=10.3km az=130.0*

ISC 16 20:12:45.0±1.0, **17°.71S**±0°.07×**178°.79W**±0°.08, **h523**^{km}±13^{km}, **n62**, σ**0^{s}.91**/58, **mb4.4**/34, **1C-6D**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.73	62	P	P	20 14 39.4	+0.1
	5.9nm,0.3s,baz=79,slow=0.2,SNR=19						
DZM	Mont Dzumac	14.55	250	eP	P	20 15 50.2	0.0
	22nm,0.6s						
RAR	Rarotonga	18.26	104	eP	P	20 16 26.0	-0.6
	12nm,0.9s						
URZ	Urewera	20.79	189	P	P	20 16 48.8	-0.6
	3.4nm,0.3s,baz=331,slow=16,SNR=9.6						
URZ				S	S	20 20 05.2	-2.1
	6.9nm,0.7s,baz=73,slow=19,SNR=4.6						
SNZO	South Karori	24.18	192	P	P	20 17 17.8	-1.9
	164nm,1.4s,mb5.5						
RPZ	Rata Peaks	27.31	196	P	P	20 17 47.2	-0.1
	6.7nm,0.6s,mb4.5,baz=342,slow=18,SNR=5.7						
EIDS	Eidsvold	29.00	250	eP	P	20 18 02.0	-0.4
	21nm,0.7s,mb4.9						
ARMA	Armidale	29.73	239	⇓iP	P	20 18 10.1	+1.5
ARMA	Armidale	29.73	239	eP	P	20 18 09.8	+1.2
	40nm,0.6s,mb5.1						
CTA	Charters Tower	33.12	260	eP	P	20 18 38.2	+0.4
	18nm,0.8s,mb4.7						
CTA	Charters Tower	33.12	260	P	P	20 18 37.9	0.0
	22nm,0.7s,mb4.8,baz=93,slow=8.9,SNR=18						
CTAO	Charters Tower	33.12	260	eP	P	20 18 37.5	-0.3
	24nm,0.8s,mb4.8						
CNB	Canberra Magne	33.26	232	eP	P	20 18 40.0	+1.2
CAN	Canberra	33.54	232	eP	P	20 18 41.8	+0.7
	15nm,0.8s,mb4.6						
TOO	Toolangi	37.02	230	⇓iP	P	20 19 11.0	+1.0
MOO	Moorlands	37.99	222	eP	P	20 19 19.2	+1.3
TAU	Tasmania Unive	38.15	222	eP	P	20 19 19.1	-0.1
	16nm,0.8s,mb4.6						
STKA	Stephens Creek	38.41	241	⇓iP	P	20 19 22.6	+1.1
	23nm,0.5s,mb5.0						
STKA	Stephens Creek	38.41	241	P	P	20 19 22.4	+0.8
	26nm,0.5s,mb5.1,baz=91,slow=9.6,SNR=113						
WRAB	Tennant Creek	44.31	259	eP	P	20 20 07.3	-1.1
	79nm,1.6s,mb5.0						
WRA	Warramunga Arr	44.31	259	P	P	20 20 07.3	-1.2
	6.1nm,0.5s,mb4.4,baz=90,slow=7.8,SNR=117						
WRA				PcP	PcP	20 21 41.5	0.0
	1.8nm,0.7s,baz=96,slow=3.7,SNR=4.5						
WRA				S	S	20 25 59.3	-5.2
	0.6nm,0.9s,baz=92,slow=14,SNR=3.5						
WRA	Warramunga Arr	44.31	259	P	P	20 20 07.3	-1.2
WRA				PcP	PcP	20 21 41.5	0.0
WRA				S	S	20 25 59.3	-5.2
ASAR	Alice Springs	44.50	254	P	P	20 20 09.7	-0.2
	111nm,0.7s,mb5.5,baz=89,slow=8.1,SNR=2136						
ASAR				PcP	PcP	20 21 41.9	-0.1
	2.8nm,0.5s,baz=100,slow=3.9,SNR=4.2						
ASAR				ScP	ScP	20 24 43.4	-1.0
	1.1nm,0.8s,baz=92,slow=4.3,SNR=4.1						
ASAR				S	S	20 26 03.0	-4.1
	2.6nm,1.0s,baz=86,slow=17,SNR=10						
KAKA	Kakadu	47.23	269	⇓iP	P	20 20 30.3	-0.5
	35nm,0.4s,mb5.2						
KAKA	Kakadu	47.23	269	eP	P	20 20 30.3	-0.5
	106nm,0.6s,mb5.5						
FORT	Forrest	49.77	244	⇓iP	P	20 20 49.0	-0.5
	67nm,0.5s,mb5.3						
FITZ	Fitzroy Crossi	52.71	260	⇓iP	P	20 21 11.0	0.0
	7.5nm,0.3s,mb4.5						
FITZ	Fitzroy Crossi	52.71	260	P	P	20 21 11.1	+0.1
	4.9nm,0.3s,mb4.3,baz=94,slow=8.0,SNR=34						
FITZ	Fitzroy Crossi	52.71	260	eP	P	20 21 10.9	-0.1
	5.1nm,0.5s,mb4.1						
MBWA	Marble Bar	57.77	256	eP	P	20 21 45.6	-0.7
	15nm,0.6s,mb4.4						
KLBR	Kellerberrin	58.60	243	eP	P	20 21 50.9	-0.8
	27nm,0.6s,mb4.7						
NWAO	Narrogin (SRO)	58.99	242	P	P	20 21 53.8	-0.5
	5.9nm,0.5s,mb4.0,baz=335,slow=7.1,SNR=7.0						
NWAO	Narrogin (SRO)	58.99	242	eP	P	20 21 53.3	-1.0
	41nm,1.4s,mb4.5						
MUN	Mundaring	59.89	243	eP	P	20 22 00.6	+0.2
VNDA	Vanda	60.61	185	P	P	20 22 05.3	+0.9
	1.6nm,0.8s,mb3.4,baz=69,slow=9.2,SNR=7.7						
VNDA	Vanda	60.61	185	eP	P	20 22 04.9	+0.5
	14nm,1.5s,mb4.1						
MJAR	Matsushiro Arr	67.53	324	P	P	20 22 48.6	-0.4
	4.6nm,0.7s,mb4.1,baz=162,slow=6.2,SNR=13						
MAJO	Matsushiro	67.53	324	eP	P	20 22 48.5	-0.5
	5.1nm,0.4s,mb4.4						
MAT	Matsushiro	67.53	324	P	P	20 22 48.9	-0.1
KSM	Kuching	72.30	277	eP	P	20 23 18.2	+0.3
	14nm,0.9s,mb4.4						
QSPA	South Pole Qui	72.34	180	P	P	20 23 18.3	+1.4
	8.9nm,0.8s,mb4.2,baz=19,slow=1.5,SNR=48						
PETK	Petropavlovsk-	73.40	345	P	P	20 23 22.7	-0.6
	6.0nm,0.7s,mb4.1,baz=118,slow=7.2,SNR=16						
KSRS	Korea Array	74.31	318	P	P	20 23 29.5	+0.7
	1.2nm,0.8s,mb3.4,baz=129,slow=5.6,SNR=4.0						
MDJ	Mudanjiang	77.82	325	P	P	20 23 49.4	+1.4
	5.4nm,0.6s,mb4.0						
YBH	Yreka Blue Hor	78.60	39	P	P	20 23 50.8	-1.5
	1.6nm,0.5s,mb3.6,baz=259,slow=16,SNR=3.8						
NVAR	Mina Array Bea	79.53	44	P	P	20 23 58.5	+1.2
	1.0nm,0.7s,mb3.3,baz=222,slow=9.1,SNR=9.0						
TRF	Thorofare Moun	83.89	12	eP	P	20 24 17.7	-1.4
	8.9nm,0.8s,mb4.3						
MCK	McKinley	84.43	13	eP	P	20 24 20.7	-1.0
	8.6nm,1.0s,mb4.2						
TXAR	Lajitas Array	86.19	58	P	P	20 24 33.4	+2.3
	0.8nm,0.7s,mb3.5,baz=224,slow=11,SNR=3.3						
BILL	Bilibino	86.20	354	eP	P	20 24 30.1	-0.1
	5.6nm,0.9s,mb4.2						
PDAR	Pinedale Array	87.45	44	P	P	20 24 37.2	+0.6
	0.8nm,0.7s,mb3.5,baz=210,slow=5.2,SNR=2.2						
CMAR	Chiang Mai Arr	88.48	290	P	P	20 24 43.0	+1.0
	0.5nm,0.5s,mb3.5,baz=116,slow=3.2,SNR=6.0						
YKA	Yellowknife Ar	94.30	25	P	P	20 25 07.6	-0.2
	0.2nm,0.5s,mb3.5,baz=248,slow=4.3,SNR=6.7						
YKA	Yellowknife Ar	94.30	25	P	P	20 25 07.6	-0.2
MKAR	Makanchi Array	108.74	314	PKiKP	PKiKP	20 30 13.1	-1.3
	0.2nm,0.6s,baz=154,slow=1.6,SNR=3.6						
KMBO	Kilima Mbogo	139.88	246	PKP	PKPdf	20 31 18.6	+4.2
	7.6nm,0.6s,baz=59,slow=0.2,SNR=3.8						
BRTR	Keskin Array B	144.39	315	PKP	PKPdf	20 31 21.4	-0.2
	0.7nm,0.5s,baz=152,slow=2.5,SNR=5.6						
CLL	Collm	145.19	347	⇑iPKPbc	PKPbc	20 31 23.8	+0.2
	comp=Z,6.0nm,0.7s						
CSS	Prodhromos	146.67	307	ePKPbc	PKPbc	20 31 25.3	-3.0
GERES	GERESS Array B	147.33	345	PKPbc	PKPbc	20 31 29.3	-0.3
	comp=Z,0.9nm,0.5s,baz=22,slow=3.4,SNR=14						
DAVOX	Davos/Dischmat	150.14	348	PKPbc	PKPbc	20 31 36.6	+0.1
	comp=Z,2.2nm,0.4s,baz=325,slow=3.1,SNR=8.4						
TORD	Torodi Ar. Bea	175.44	186	PKP	PKPdf	20 31 54.3	-1.3
	comp=Z,0.4nm,0.8s,baz=219,slow=2.1,SNR=2.7						
TORD				PKPab	PKPab	20 33 36.4	+0.4
	comp=Z,0.3nm,0.7s,baz=169,slow=3.6,SNR=2.9						

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*IDC **16** 20:36:28.6±1.6, 61°.51N×151°.33W, h0^{km}, mb3.5/2, mb1 3.6/4, mb1mx3.4/23, mbtmp3.6/4, ML3.5/2, MS3.5/1, Ms1 3.5/1, ms1mx2.6/46, Error ellipse: s-maj=44.2km s-min=23.6km az=85.0*

*ISCJB **16** 20:36:34.4±0.4, 61°.05N±0°.03×151°.18W±0°.08, h86^{km}±5^{km}, mb3.7/3, Error ellipse: s-maj=6.3km s-min=5.3km az=3.7*

*NEIC **16** 20:36:37.0, 61°.07N×151°.19W, h61^{km}, ML3.5(AEIC), After AEIC.*

NEIC Felt at Anchorage.

ISC 16 20:36:35.7±0.4, **61°.04N**±0°.03×**151°.21W**±0°.07, **h76**^{km}±6^{km}, **n40**, σ**0^{s}.62**/45, **mb3.7**/3, **Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FIB	Fire Island	0.52	76	P	Pn	20 36 49.8	+0.6
FIB				S	Sn	20 36 59.6	+0.4
RC01	Rabbit Creek A	0.72	86	P	Pn	20 36 51.0	-0.2
RC01				S	Sn	20 37 02.1	-0.6
SLKM	Skilak Lake	0.72	138	P	Pn	20 36 51.2	-0.1
SKT	Skwentna	0.95	351	P	Pn	20 36 53.4	-0.5
SKT				S	Sn	20 37 07.2	-0.3
RSO	Redoubt South	0.96	233	ePn	Pn	20 36 54.1	+0.1
PMR	Palmer	1.14	60	P	Pn	20 36 56.1	-0.2
SEW	Seward	1.28	137	P	Pn	20 36 57.6	-0.4
KNK	Knik Glacier	1.38	73	P	Pn	20 36 59.3	0.0
SML	Sawmill	1.58	60	P	Pn	20 37 01.9	0.0
PPLA	Purkeypile	1.92	346	P	Pn	20 37 06.3	0.0
SVW2	Sparrevohn	2.13	273	P	Pn	20 37 08.5	-0.6
TRF	Thorofare Moun	2.46	10	P	Pn	20 37 14.2	+0.6
KTH	Kantishna Hill	2.52	3	P	Pn	20 37 15.0	+0.5
EYAK	Cordova Ski Ar	2.72	98	P	Pn	20 37 15.9	-1.3
CHUM	Lake Minchumin	2.90	350	P	Pn	20 37 19.5	0.0
MCK	McKinley	2.90	20	P	Pn	20 37 20.0	+0.5
TT01	Tatalina	2.94	312	P	Pn	20 37 19.9	-0.3
BPAW	Bear Paw Mtn.	3.07	2	ePn	Pn	20 37 21.2	-0.6
BPAW				eSn	Sn	20 37 58.4	+1.0
PAX	Paxson	3.33	52	P	Pn	20 37 26.3	+1.0
KDAK	Kodiak Island	3.35	193	Pn	Pn	20 37 26.7	+1.1
	9.5nm,0.3s,baz=338,slow=11,SNR=40						
KDAK				Sn	Sn	20 38 04.9	+0.7
	7.1nm,0.3s,baz=270,slow=20,SNR=2.8						
KDAK	Kodiak Island	3.35	193	P	Pn	20 37 26.5	+0.8
MENT	Mentasta	4.01	58	ePn	Pn	20 37 34.6	0.0
COLA	College	4.14	20	P	Pn	20 37 36.5	+0.1
IL1	Eielson Array	4.23	26	P	Pn	20 37 37.5	-0.1
DOT	Dot Lake	4.23	49	P	Pn	20 37 38.2	+0.5
GCSA	Galena City Sc	4.53	328	P	Pn	20 37 41.9	+0.2
SII	Sitkinak Islan	4.75	200	P	Pn	20 37 44.4	-0.4
BCA3	Beaver Creek A	4.88	61	P	Pn	20 37 46.9	+0.5
IM3	Indian Mountai	5.09	348	P	Pn	20 37 49.1	-0.2
EGAK	Eagle	5.92	46	ePn	Pn	20 38 00.6	-0.1
	18nm,0.5s						
PNL	Peninsula	6.02	98	P	Pn	20 38 01.5	-0.5
COLD	Coldfoot	6.22	4	P	Pn	20 38 05.2	+0.5
DAWY	Dawson	6.25	56	P	Pn	20 38 04.3	-0.8
BM3	Burnt Mountain	7.01	21	P	Pn	20 38 15.5	0.0
TNA	Tin City	8.77	308	ePn	Pn	20 38 40.2	+0.7
	6.7nm,0.3s						
TNA				eSn	Sn	20 40 14.8	-1.7
YKA	Yellowknife Ar	17.23	69	P	Pn	20 40 30.2	-0.8
	0.2nm,0.3s,baz=276,slow=10,SNR=5.6						
MDJ	Mudanjiang	47.42	288	P	P	20 45 02.5	+0.5
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,140nm,6.4s						
SONM	Songino Array	54.89	306	P	P	20 45 59.0	+1.1
	comp=Z,1.3nm,0.8s,mb4.0,baz=40,slow=6.8,SNR=7.9						
CMIG	Matias Romero	59.12	112	LR	LR	21 11 47.9	
	comp=Z,45nm,21.3s,baz=83,slow=36						
MKAR	Makanchi Array	64.16	322	P	P	20 47 00.4	-1.2
	comp=Z,0.2nm,0.7s,mb3.0,baz=41,slow=6.3,SNR=2.6						

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*MOS **16** 20:57:04.3±0.8, 7°.14N×123°.71E, h33^{km}, mb4.7/9, Error ellipse: s-maj=22.7km s-min=10.4km az=116.6*

*MAN **16** 20:57:06, 7°.16N×123°.64E, h24^{km}, mb5.0, ML4.0, MS4.1*

MAN INTENSITY II - BRGY MAKAGUILING SULTAN KUDARAT CABUNSUAN.

*IDC **16** 20:57:07.4±0.6, 7°.08N×123°.67E, h38^{km}±5^{km}, mb3.9/14, mb1 4.1/14, mb1mx4.0/23, mbtmp3.9/14, MS3.6/10, Ms1 3.6/10, ms1mx3.3/44, Error ellipse: s-maj=25.9km s-min=11.2km az=63.0*

*ISCJB **16** 20:57:07.1±0.4, 7°.15N±0°.03×123°.65E±0°.03, h57^{km}±4^{km}, mb4.4/29, MS3.6/11, Error ellipse: s-maj=5.9km s-min=4.4km az=39.7*

*NEIC **16** 20:57:09.8±1.6, 7°.13N×123°.77E, h67^{km}±15^{km}, mb4.4/13, Error ellipse: s-maj=14.4km s-min=6.0km az=70.0*

NEIC Felt [II PIVS] at Makaguiling.

*DJA **16** 20:57:11, 6°.97N×123°.81E, h55^{km}, mb4.9/13*

*BJI **16** 20:57:18.3, 7°.42N×123°.65E, h45^{km}, mB5.0/5, mb4.3/5*

ISC 16 20:57:08.0±0.4, **7°.13N**±0°.03×**123°.64E**±0°.03, **h45**^{km}±5^{km}, **h39**^{km}±3.9^{km}**:pP-P**, **n88**, σ**1^{s}.10**/86, **mb4.4**/29, **MS3.6**/11, **8C-6D**, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTBH	Cotabato--PC H	0.61	82	⇓iP	Pn	20 57 18.1	-2.1
CTBH				i S	Sn	20 57 26.1	-3.2
PAGZ	Pagadian	0.76	340	eP	Pn	20 57 20.9	-1.4
IPIL	Ipil	1.25	302	eP	Pn	20 57 29.2	+0.2
KCP	Kidapawan	1.44	95	⇑iP	Pn	20 57 31.2	-0.5
KCP				i S	Sn	20 57 49.7	+0.2
ZMPH	Zamboanga City	1.57	264	eP	Pn	20 57 33.6	+0.1
ZMPH				i S	Sn	20 57 53.0	+0.2
BUKP	Musuan	1.59	62	eP	Pn	20 57 33.6	-0.2
GSPH	General Santos	1.66	129	⇓iP	Pn	20 57 38.4	+3.6
GSPH				eS	Sn	20 57 57.3	+2.4
CGP	Cagayan de Oro	1.68	38	⇑iP	Pn	20 57 34.9	0.0
CGP				i S	Sn	20 57 56.0	+0.7
DMPH	Davao City--Mi	1.85	91	⇓eP	Pn	20 57 37.5	+0.2
DMPH				i S	Sn	20 58 02.2	+2.7
DAV	Davao City (W)	1.93	92	Pn	Pn	20 57 38.9	+0.6
	557nm,0.3s,baz=259,slow=1.3,SNR=68						
DAV				Sn	Sn	20 58 04.4	+3.1
	305nm,0.3s,baz=63,slow=23,SNR=11						
DAV				LR	LR	20 58 39.6	
	comp=Z,2μm,19.4s,baz=262,slow=49						
DAV	Davao City (W)	1.93	92	Pn	Pn	20 57 38.9	+0.6
DAV				Sn	Sn	20 58 04.4	+3.1
DAV				LR	LR	20 58 39.6	
SNPH	Sibulan	2.23	350	i P	Pn	20 57 43.5	+0.9
TBP	Tagbilaran	2.55	5	eP	Pn	20 57 46.6	-0.4
TBP				eS	Sn	20 58 15.5	-1.3
MATI	Mati	2.60	94	eP	Pn	20 57 46.7	-0.9
BUTP	Butuan	2.68	47	eP	Pn	20 57 49.6	+0.9
BIPH	Bislig	2.89	69	⇓eP	Pn	20 57 51.5	-0.1
BIPH				eS	Sn	20 58 24.4	-0.7
LLP	Lapu-Lapu	3.18	6	eP	Pn	20 57 56.9	+1.3
LLP				eS	Sn	20 58 31.1	-1.2
SCPH	Surigao	3.21	35	⇑eP	Pn	20 57 54.5	-1.4
MSLP	Maasin	3.22	22	eP	Pn	20 57 56.2	+0.1
GUIM	Jordan	3.62	343	eP	Pn	20 58 01.6	-0.1
OCLP	Ormoc	4.01	14	eP	Pn	20 58 09.4	+2.4
RCP	Roxas	4.49	349	⇓eP	Pn	20 58 15.8	+2.3
ENPP	El Nido	5.81	315	eP	Pn	20 58 31.1	-0.6
SJMP	San Jose	5.85	335	eP	Pn	20 58 32.9	+0.6
BATP	Bataraza	6.02	286	eP	Pn	20 58 31.1	-3.4
JOW	Kunigami	20.08	12	LR	LR	21 08 23.2	
	comp=Z,157nm,19.6s,MS3.4,baz=79,slow=34						
KAKA	Kakadu	21.57	156	⇑iP	P	21 01 53.2	-0.7
	66nm,0.6s,mb5.2						
KAKA	Kakadu	21.57	156	eP	P	21 01 53.2	-0.7
	174nm,0.6s						
GUMO	Guam	21.83	71	P	P	21 01 55.5	-1.3
GUMO				pmax	pmax		
	comp=Z,364nm,1.4s						
GUMO	Guam	21.83	71	P	P	21 01 55.5	-1.3
	comp=Z,364nm,1.4s						
FITZ	Fitzroy Crossi	25.15	176	⇑iP	P	21 02 28.9	-0.2
	comp=Z,17nm,0.5s,mb4.8						
FITZ	Fitzroy Crossi	25.15	176	P	P	21 02 29.0	-0.1
	comp=Z,15nm,0.7s,mb4.6,baz=4.4,slow=8.9,SNR=22						
FITZ	Fitzroy Crossi	25.15	176	eP	P	21 02 29.0	-0.2
	comp=Z,13nm,0.7s,mb4.6						
CBIJ	Chichi jima	26.54	39	LR	LR	21 11 08.3	
	comp=Z,196nm,21.1s,MS3.6,baz=326,slow=32						
CMAR	Chiang Mai Arr	26.54	297	P	P	21 02 42.1	+0.3
	comp=Z,0.4nm,0.3s,mb3.4,baz=121,slow=8.3,SNR=4.9						
CMAR				LR	LR	21 13 27.6	
	comp=Z,111nm,18.1s,MS3.5,baz=286,slow=37						
MBWA	Marble Bar	28.38	188	eP	P	21 02 58.6	+0.5
	comp=Z,102nm,1.5s,mb5.2						
WRAB	Tennant Creek	28.89	159	eP	P	21 03 01.7	-1.0
WRAB				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
WRAB	Tennant Creek	28.89	159	eP	P	21 03 01.7	-1.0
	comp=Z,15nm,1.0s,mb4.7						
WRA	Warramunga Arr	28.89	159	P	P	21 03 01.6	-1.1

	comp=Z,5.2nm,0.5s,mb4.5,baz=341,slow=9.4,SNR=60						
WB2	**Warramunga Arr**	**28.89**	**159**	*e*P	**P**	**21 03 01.2**	**-1.6**
KSRS	**Korea Array**	**30.43**	**7**	LR	LR	21 15 46.4	
	comp=Z,62nm,18.1s,MS3.3,baz=59,slow=37						
MJAR	**Matsushiro Arr**	**32.16**	**22**	LR	LR	21 15 06.7	
	comp=Z,95nm,19.6s,MS3.5,baz=210,slow=34						
ASAR	**Alice Springs**	**32.21**	**162**	P	**P**	**21 03 31.7**	**-0.3**
	comp=Z,5.6nm,0.8s,mb4.5,baz=334,slow=6.7,SNR=38						
ASAR				PcP	PcP	21 06 19.2	-0.8
	comp=Z,1.3nm,0.8s,baz=327,slow=1.7,SNR=5.4						
CTA	**Charters Tower**	**35.02**	**141**	P	**P**	**21 03 55.9**	**-0.7**
	comp=Z,6.2nm,0.7s,mb4.6,baz=324,slow=9.7,SNR=6.0						
CTAO	**Charters Tower**	**35.02**	**141**	P	**P**	**21 03 56.2**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
CTAO	**Charters Tower**	**35.02**	**141**	P	**P**	**21 03 56.2**	**-0.4**
	comp=Z,6.7nm,0.7s,mb4.7						
FORT	**Forrest**	**37.93**	**174**	*e*P	**P**	**21 04 20.9**	**-0.3**
	comp=Z,28nm,0.7s,mb5.1						
NWAO	**Narrogin (SRO)**	**40.30**	**188**	*e*P	**P**	**21 04 39.8**	**-1.1**
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.7s						
NWAO	**Narrogin (SRO)**	**40.30**	**188**	*e*P	**P**	**21 04 39.8**	**-1.2**
	comp=Z,7.7nm,0.7s,mb4.5						
STKA	**Stephens Creek**	**42.41**	**157**	⇑*i*P	**P**	**21 04 58.9**	**+0.6**
	comp=Z,15nm,0.8s,mb4.7						
STKA	**Stephens Creek**	**42.41**	**157**	P	**P**	**21 04 58.6**	**+0.4**
	comp=Z,16nm,0.7s,mb4.8,baz=329,slow=7.7,SNR=41						
ULN	**Ulaanbaatar**	**42.98**	**344**	P	**P**	**21 05 00.6**	**-2.1**
ULN				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.6						
ULN	**Ulaanbaatar**	**42.98**	**344**	P	**P**	**21 05 00.6**	**-2.1**
	comp=Z,1.4nm,0.8s,mb3.7						
SONM	**Songino Array**	**43.14**	**343**	P	**P**	**21 05 03.7**	**-0.3**
SONM				*PP	pP	21 05 15.7	-0.7
SONM	**Songino Array**	**43.14**	**343**	P	**P**	**21 05 03.7**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=152,slow=7.5,SNR=2.8						
SONM				pP	pP	21 05 15.7	-0.7
	comp=Z,0.8nm,0.7s,baz=160,slow=8.3,SNR=4.7						
SONM				LR	LR	21 23 43.0	
	comp=Z,72nm,19.8s,MS3.6,baz=111,slow=37						
ARMA	**Armidale**	**45.98**	**146**	*e*P	**P**	**21 05 27.9**	**+0.9**
TLY	**Talaya**	**47.38**	**343**	*e*P	pP	21 05 52.0	+1.9
TLY				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
TLY				MLR	MLR		
	comp=Z,62nm,16.0s,MS3.7						
TOO	**Toolangi**	**48.93**	**157**	*e*P	**P**	**21 05 50.8**	**+1.1**
MK31	**Makanchi Array**	**53.03**	**325**	*e*P	**P**	**21 06 20.9**	**+0.5**
MKAR	**Makanchi Array**	**53.03**	**325**	P	**P**	**21 06 21.7**	**+1.3**
MKAR				*SP	sP	21 06 36.3	-2.1
MKAR	**Makanchi Array**	**53.03**	**325**	P	**P**	**21 06 21.6**	**+1.2**
	comp=Z,0.8nm,0.8s,mb3.7,baz=126,slow=8.8,SNR=6.4						
MKAR				sP	sP	21 06 36.2	-2.1
	comp=Z,1.0nm,0.6s,baz=125,slow=8.2,SNR=7.3						
MKAR				LR	LR	21 30 19.2	
	comp=Z,52nm,18.3s,MS3.6,baz=360,slow=38						
PETK	**Petropavlovsk-**	**53.55**	**25**	P	**P**	**21 06 23.2**	**-0.9**
	comp=Z,2.5nm,0.7s,mb4.2,baz=233,slow=4.6,SNR=3.4						
PETK				LR	LR	21 25 58.2	
	comp=Z,70nm,21.5s,MS3.7,baz=123,slow=32						
YAK	**Yakutsk**	**54.97**	**3**	*e*P	**P**	**21 06 43.4**	**+9.1**
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
UCH	**Uchtor**	**55.60**	**317**	*e*P	**P**	**21 06 40.1**	**+0.9**
	comp=N,3.6nm,1.2s,mb4.3						
UCH				*e*	pP	21 06 51.8	-0.2
AAK	**Ala-Archa**	**55.79**	**318**	*i*P	pP	21 06 53.7	+0.3
AAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.9						
AML	**Almayashu**	**56.12**	**317**	*e*P	**P**	**21 06 44.9**	**+2.0**
	comp=Z,2.0nm,0.7s,mb4.3						
ZALV	**Zalesovo Beam**	**56.19**	**334**	P	**P**	**21 06 44.8**	**+1.6**
ZALV				*PP	pP	21 06 53.7	-2.3
ZALV	**Zalesovo Beam**	**56.19**	**334**	P	**P**	**21 06 44.8**	**+1.6**
	comp=Z,0.3nm,0.4s,mb3.7,baz=149,slow=5.9,SNR=2.7						
ZALV				pP	pP	21 06 53.7	-2.3
	comp=Z,0.4nm,0.4s,baz=122,slow=5.4,SNR=2.6						
ZALV				LR	LR	21 31 26.7	
	comp=Z,39nm,18.4s,MS3.5,baz=250,slow=37						
ZALV	**Zalesovo Beam**	**56.19**	**334**	P	**P**	**21 06 44.8**	**+1.6**
ZALV				pP	pP	21 06 53.7	-2.3
ZALV				LR	LR	21 31 26.7	
EKS2	**Erkin-Say**	**56.28**	**317**	P	**P**	**21 06 43.5**	**-0.6**
	comp=Z,2.8nm,1.1s,mb4.2						
KURK	**Kurchatov**	**57.24**	**328**	*e*P	**P**	**21 06 49.8**	**-0.9**
KURK				*PP	pP	21 07 03.1	-0.5
KURK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
KURK	**Kurchatov**	**57.24**	**328**	P	**P**	**21 06 52.5**	**+1.8**
	comp=Z,0.8nm,0.7s,mb3.9,baz=122,slow=7.5,SNR=4.9						
KURK				pP	pP	21 07 03.0	-0.5
	comp=Z,2.0nm,0.7s,baz=120,slow=8.7,SNR=9.1						
KURK	**Kurchatov**	**57.24**	**328**	*e*P	**P**	**21 06 49.8**	**-0.9**
	comp=Z,3.1nm,0.8s,mb4.4						
KURK				pP	pP	21 07 03.0	-0.5
BVAR	**Borovoye Array**	**62.81**	**327**	P	**P**	**21 07 29.9**	**+1.1**
	comp=Z,0.5nm,0.6s,mb3.8,baz=154,slow=11,SNR=4.4						
BVAR				pP	pP	21 07 41.3	-0.6
	comp=Z,1.5nm,0.8s,baz=132,slow=8.6,SNR=8.3						
BRVK	**Borovoye**	**62.88**	**327**	*e*P	**P**	**21 07 29.0**	**-0.4**
BRVK				*e*	pP	21 07 40.2	-2.1
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
BRVK	**Borovoye**	**62.88**	**327**	*e*P	**P**	**21 07 28.9**	**-0.4**
	comp=Z,5.2nm,1.0s,mb4.6						
BRVK				*e*	pP	21 07 40.2	-2.1
TIXI	**Tiksi**	**64.53**	**2**	⇓*e*P	**P**	**21 07 49.8**	**+10**
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
TIXI	**Tiksi**	**64.53**	**2**	*e*P	**P**	**21 07 45.2**	**+5.4**
	comp=Z,5.9nm,1.1s,mb4.5						
AKTO	**Aktyubinsk**	**69.10**	**321**	LR	LR	21 42 34.3	
	comp=Z,55nm,18.3s,MS3.8,baz=272,slow=39						
ARU	**Arti**	**70.44**	**328**	*c* *i*P	pP	21 08 28.3	-2.3
ARU				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
ARU	**Arti**	**70.44**	**328**	P	**P**	**21 08 17.4**	**-0.1**
	comp=Z,2.2nm,0.6s,mb4.3						
KIV	**Kislovodsk**	**78.58**	**313**	P	pP	21 09 19.0	+0.6
KIV				*e*		21 09 25.8	
OBN	**Obninsk**	**82.53**	**325**	⇑*e*P	pP	21 09 41.1	+1.7
OBN				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.0						
VNDA	**Vanda**	**87.18**	**172**	P	**P**	**21 09 48.3**	**-0.5**
	comp=Z,0.6nm,0.6s,mb4.0,baz=339,slow=4.8,SNR=3.9						
AKASG	**Malin Array Be**	**87.33**	**321**	P	**P**	**21 09 50.3**	**+0.1**
	comp=Z,0.9nm,0.5s,mb4.3,baz=73,slow=4.4,SNR=4.2						
YKA	**Yellowknife Ar**	**97.66**	**23**	pP	pP	21 10 51.0	-0.2
	comp=Z,0.5nm,0.8s,baz=295,slow=4.9,SNR=4.7						
TORD	**Torodi Ar. Bea**	**118.92**	**289**	PKP	PKPdf	21 15 51.2	-1.5
	comp=Z,0.4nm,0.9s,baz=39,slow=2.5,SNR=2.5						
PLCA	**Paso Flores**	**144.22**	**161**	PKP	PKPdf	21 16 38.5	-0.8
	comp=Z,1.4nm,0.7s,baz=289,slow=5.5,SNR=4.1						

ISCJB ***16*** *21:01:34.3±0.5, 43°.80N±0°.04×105°.27W±0°.06, h0^{km}, mb3.9/2, Error ellipse: s-maj=6.2km s-min=5.3km az=9.6*
IDC ***16*** *21:01:34.5±1.7, 43°.69N×105°.44W, h0^{km}, mb3.8/2, mb1 3.8/5, mb1mx3.5/23, mbtmp3.6/5, ML3.5/3, MS2.7/1, Ms1 2.6/1, ms1mx2.3/40, Error ellipse: s-maj=41.5km s-min=7.0km az=149.0*
NEIC ***16*** *21:01:35.9±0.4, 43°.75N×105°.30W, h0^{km}, ML3.0, Error ellipse: s-maj=6.3km s-min=5.3km az=159.0, Suspected Mining explosion.*
NEIC 60 km [40 miles] SSE of Gillette.
ISC 16 21:01:35.7±0.5, **43°.74N**±0°.03×**105°.28W**±0°.06, **h0**^{km}, **n28**, σ**1^{s}.13**/34, **mb3.9**/2, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSSD	**Black Hills**	**0.98**	**67**	*e*Pg	**Pg**	**21 01 54.8**	**+0.4**
PHWY	**Pilot Hill**	**2.44**	**183**	*e*Pn	**Pn**	**21 02 17.2**	**+0.4**
PHWY				*e*Sg	**Sg**	**21 02 52.1**	**-2.0**
RWWY	**Rawlins**	**2.50**	**215**	*e*Pn	**Pn**	**21 02 18.6**	**+1.1**
LAO	**LASA Array**	**3.02**	**348**	*e*Pn	**Pn**	**21 02 24.7**	**0.0**
LAO				*e*Sg	**Sg**	**21 03 12.9**	**+0.2**
RLMT	**Red Lodge**	**3.17**	**297**	*e*Pn	**Pn**	**21 02 27.5**	**+0.7**
BW06	**Boulder Array**	**3.27**	**254**	*e*Pn	**Pn**	**21 02 28.8**	**+0.7**
PD31	**Pinedale Array**	**3.27**	**254**	*e*Pn	**Pn**	**21 02 28.9**	**+0.7**
PDAR	**Pinedale Array**	**3.27**	**254**	Pn	**Pn**	**21 02 28.8**	**+0.6**
	4.0nm,0.3s,baz=77,slow=16,SNR=49						
PDAR				Pg	**Pg**	**21 02 34.6**	**-3.7**
	8.9nm,0.3s,baz=78,slow=18,SNR=41						
PDAR				Lg		21 03 13.1	
	16nm,0.3s,baz=75,slow=28,SNR=18						
OGNE	**Ogallala**	**3.69**	**138**	*e*Pn	**Pn**	**21 02 35.0**	**+1.1**
LKWY	**Lake**	**3.77**	**284**	*e*Pn	**Pn**	**21 02 33.3**	**-1.8**
LOHW	**Long Hollow**	**3.86**	**270**	*e*Pn	**Pn**	**21 02 37.8**	**+1.5**
ISCO	**Idaho Springs**	**3.95**	**184**	*e*Pn	**Pn**	**21 02 38.2**	**+0.8**
MOOW	**Moose Ponds**	**3.96**	**272**	*e*Pn	**Pn**	**21 02 38.3**	**+0.7**
SNOW	**Snow King Moun**	**3.98**	**268**	*e*Pn	**Pn**	**21 02 36.4**	**-1.6**
REDW	**Red Top Meadow**	**4.07**	**267**	*e*Pn	**Pn**	**21 02 39.9**	**+0.8**
IMW	**Indian Meadow**	**4.10**	**274**	*e*Pn	**Pn**	**21 02 41.3**	**+1.8**
TPAW	**Teton Pass**	**4.12**	**268**	*e*Pn	**Pn**	**21 02 38.6**	**-1.3**
YMR	**Madison River**	**4.19**	**285**	*e*Pn	**Pn**	**21 02 41.4**	**+0.6**
AHID	**Auburn Hatcher**	**4.36**	**259**	*e*Pn	**Pn**	**21 02 43.2**	**+0.1**
RRI2	**Red Ridge**	**4.41**	**267**	*e*Pn	**Pn**	**21 02 43.6**	**-0.1**
DGMT	**Dagmar**	**4.79**	**9**	*e*Pn	**Pn**	**21 02 50.7**	**+1.7**
BOZ	**Bozeman (W)**	**4.91**	**295**	*e*Pn	**Pn**	**21 02 50.2**	**-0.5**
BOZ				*e*Sg	**Sg**	**21 04 09.7**	**-3.6**
SDCO	**Great Sand Dun**	**5.99**	**182**	*e*Pn	**Pn**	**21 03 05.3**	**-0.3**
	2.0nm,0.7s						
ULM	**Lac du Bonnet**	**9.14**	**41**	Pn	**Pn**	**21 03 47.9**	**-0.9**
ULM				Sn	**Sn**	**21 05 26.7**	**-5.7**
ULM	**Lac du Bonnet**	**9.14**	**41**	Pn	**Pn**	**21 03 47.9**	**-0.9**
	3.0nm,0.3s,baz=237,slow=13,SNR=15						
ULM				Sn	**Sn**	**21 05 26.7**	**-5.7**
	0.8nm,0.3s,baz=36,slow=19,SNR=6.6						
ULM				Lg		21 06 20.7	
	baz=300,slow=20,SNR=2.5						
ULM				LR	LR	21 07 60.0	
	comp=Z,55nm,22.0s,baz=7.3,slow=42						
YKA	**Yellowknife Ar**	**19.56**	**347**	P	**Pn**	**21 06 04.7**	**-1.3**
	0.1nm,0.3s,baz=167,slow=12,SNR=3.4						
ARCES	**ARCESS Array B**	**61.42**	**18**	P	**P**	**21 11 52.1**	**-1.0**
	2.6nm,0.7s,mb4.5,baz=332,slow=7.1,SNR=5.0						
MKAR	**Makanchi Array**	**89.60**	**355**	P	**P**	**21 14 32.5**	**-2.4**
	0.2nm,0.8s,mb3.4,baz=4.8,slow=5.8,SNR=2.5						

IDC ***16*** *21:17:25.7±8.0, 35°.96N×71°.45E, h86^{km}±62^{km}, mb3.4/5, mb1 3.4/9, mb1mx3.2/27, mbtmp3.3/9, ML3.5/4, Error ellipse: s-maj=65.2km s-min=34.7km az=151.0*
NEIC ***16*** *21:17:28.5±1.2, 36°.16N×71°.43E, h102^{km}±11^{km}, mb4.4/5, Error ellipse: s-maj=15.9km s-min=3.8km az=64.0*
ISCJB ***16*** *21:17:30.3±0.6, 36°.34N±0°.03×71°.66E±0°.08, h133^{km}±8^{km}, mb3.6/3, Error ellipse: s-maj=10.6km s-min=4.1km az=167.8*
NNC ***16*** *21:17:38.0±10.0, 37°.00N×71°.30E, h219^{km}±133^{km}, mb2.9, mpv4.1, Error ellipse: s-maj=146.9km s-min=50.9km az=44.0*
ISC 16 21:17:31.3±0.6, **36°.32N**±0°.03×**71°.65E**±0°.08, **h129**^{km}±8^{km}, **n49**, σ**1^{s}.01**/62, **mb3.6**/3, **4C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	**Cherat**	**2.50**	**175**	⇑P	**Pn**	**21 18 12.2**	**+0.8**
CEP				S	**Sn**	**21 18 44.0**	**+1.8**
KSH	**Kashi**	**4.68**	**46**	Pn	**Pn**	**21 18 36.6**	**-3.4**
KSH				Sn	**Sn**	**21 19 24.6**	**-8.9**
KSH				smax			
	comp=N,160nm,0.4s						
KSH				smax			
	comp=E,140nm,0.2s						
THN	**Thein Dam**	**5.13**	**138**	*e*PKP	**Pn**	**21 18 47.4**	**+1.3**
THN				*e*S	**Sn**	**21 19 44.1**	**-0.2**
AML	**Almayashu**	**6.02**	**15**	P	**Pn**	**21 18 57.9**	**-0.1**
	SNR=68						
AML	**Almayashu**	**6.02**	**15**	*e*Pn	**Pn**	**21 18 58.0**	**+0.1**
AML				*e*Sn	**Sn**	**21 20 04.4**	**-1.2**
UCH	**Uchtor**	**6.31**	**20**	P	**Pn**	**21 19 02.4**	**+0.5**
	SNR=13						
UCH	**Uchtor**	**6.31**	**20**	*e*Pn	**Pn**	**21 19 02.3**	**+0.4**
UCH				*e*Sn	**Sn**	**21 20 13.1**	**+0.5**
KZA	**Kyzart**	**6.40**	**25**	P	**Pn**	**21 19 03.7**	**+0.6**
	SNR=12						
EKS2	**Erkin-Say**	**6.55**	**14**	P	**Pn**	**21 19 04.9**	**-0.2**
	SNR=12						
EKS2	**Erkin-Say**	**6.55**	**14**	*e*Pn	**Pn**	**21 19 04.8**	**-0.3**
EKS2				*e*Sn	**Sn**	**21 20 16.7**	**-1.6**
AAK	**Ala-Archa**	**6.68**	**18**	P	**Pn**	**21 19 07.5**	**+0.6**
	SNR=14						
AAK	**Ala-Archa**	**6.68**	**18**	*e*Pn	**Pn**	**21 19 07.2**	**+0.3**
	comp=E,8.8nm,0.3s						
AAK				*e*Sn	**Sn**	**21 20 21.9**	**+0.3**
KK31	**Karatay Array**	**6.83**	**353**	⇓P	**Pn**	**21 19 06.5**	**-2.5**
	comp=E,7.9nm,0.2s,baz=179,slow=13,SNR=604						
KK31				S	**Sn**	**21 20 18.9**	**-6.4**
	comp=E,3.3nm,0.3s,baz=177,slow=19,SNR=7.8						
CHMS	**Chumysh**	**7.09**	**19**	P	**Pn**	**21 19 12.4**	**0.0**
	SNR=7.2						
TKM2	**Tokmak 2**	**7.27**	**24**	⇑P	**Pn**	**21 19 15.3**	**+0.5**
	comp=E,3.9nm,0.6s						
TKM2	**Tokmak 2**	**7.27**	**24**	P	**Pn**	**21 19 15.5**	**+0.7**
	SNR=7.2						
TKM2	**Tokmak 2**	**7.27**	**24**	*e*Pn	**Pn**	**21 19 15.5**	**+0.8**
USP	**Ospenovka**	**7.28**	**17**	P	**Pn**	**21 19 15.0**	**+0.1**
	SNR=16						
JOSI	**Joshimath**	**8.76**	**129**	*e*PKP	**Pn**	**21 19 36.3**	**+1.4**
JOSI				*e*S	**Sn**	**21 21 07.6**	**-4.3**
KHET	**Khetri**	**8.94**	**156**	*e*PKP	**Pn**	**21 19 37.0**	**-0.4**
KHET				*e*S	**Sn**	**21 21 09.1**	**-7.3**
SONA	**Sohna**	**9.26**	**149**	*e*S	**Sn**	**21 21 16.2**	**-8.0**
AGRA	**Agra**	**10.52**	**148**	*e*S	**Sn**	**21 21 45.7**	**-9.0**
AGRA				AML	AML	21 24 09.5	
	comp=E,79nm,0.4s						
AGRA				AML	AML	21 24 10.9	
	comp=N,111nm,0.4s						
DANN	**Dangsing**	**12.95**	**124**	*e*P	**Pn**	**21 20 30.1**	**-0.5**
MK31	**Makanchi Array**	**13.14**	**34**	*e*Pn	**Pn**	**21 20 34.1**	**+1.3**
MKAR	**Makanchi Array**	**13.14**	**34**	P	**Pn**	**21 20 35.7**	**+2.8**
	comp=N,0.0nm,0.3s,baz=215,slow=14,SNR=3.7						
KOLN	**Koldanda**	**13.23**	**127**	*e*P	**Pn**	**21 20 32.9**	**-1.3**
GKN	**Gorkha**	**13.77**	**123**	*e*P	**Pn**	**21 20 40.4**	**-0.6**
	comp=N,20nm,0.4s						
DMN	**Daman**	**14.34**	**123**	*e*P	**Pn**	**21 20 47.7**	**-0.6**
	comp=N,8.3nm,0.3s						
KKN	**Kakani**	**14.34**	**123**	*e*P	**Pn**	**21 20 47.2**	**-1.1**
	comp=N,8.3nm,0.3s						
PKIN	**Phulchoki**	**14.55**	**123**	*e*P	**Pn**	**21 20 50.8**	**-0.2**
	comp=N,11nm,0.4s						
PKI	**Pulchoki**	**14.57**	**123**	*e*P	**Pn**	**21 20 51.1**	**-0.1**
GUN	**Gumba**	**14.68**	**121**	*e*P	**Pn**	**21 20 52.0**	**-0.6**
	comp=N,10nm,0.4s						
JIRN	**Jiri**	**15.05**	**121**	*e*P	**Pn**	**21 20 56.6**	**-0.6**
	comp=N,18nm,0.4s						
KURK	**Kurchatov**	**15.24**	**17**	P	**Pn**	**21 21 00.1**	**+0.6**
	comp=N,0.1nm,0.3s,baz=207,slow=11,SNR=5.4						
AB01	**Akbulak array**	**15.50**	**330**	⇑P	**Pn**	**21 20 58.8**	**-3.9**
	comp=N,1.1nm,0.4s						
AB01				⇑S	**Sn**	**21 23 38.3**	**-16**
	comp=N,1.9nm,0.6s						
RAMN	**Ramite**	**15.78**	**122**	*e*P	**Pn**	**21 21 06.2**	**-0.1**
TAPN	**Taplejung**	**16.30**	**119**	*e*P	**Pn**	**21 21 12.7**	**-0.1**
	comp=N,7.2nm,0.3s						
ODAN	**Odare**	**16.38**	**121**	*e*P	**Pn**	**21 21 13.4**	**-0.3**
	comp=N,14nm,0.5s						
BVAR	**Borovoye Array**	**16.73**	**357**	P	**Pn**	**21 21 17.3**	**-0.4**
	comp=N,0.2nm,0.3s,baz=198,slow=4.2,SNR=4.5						
AKTK	**Aktyubinsk**	**17.20**	**329**	P	**Pn**	**21 21 22.9**	**-0.6**
AKTK				S	**Sn**	**21 24 18.9**	**-16**
AKTO	**Aktyubinsk**	**17.20**	**329**	P	**Pn**	**21 21 22.9**	**-0.6**
	comp=N,0.6nm,0.3s,baz=127,slow=8.8,SNR=14						
AKTO				S	**Sn**	**21 24 18.9**	**-16**
	comp=N,0.1nm,0.3s,baz=276,slow=19,SNR=3.2						
ZAA0	**Zalesovo Array**	**19.87**	**23**	*e*P	**P**	**21 21 53.4**	**+1.3**
ZALV	**Zalesovo Beam**	**19.87**	**23**	P	**P**	**21 21 53.1**	**+1.0**
	comp=N,1.2nm,0.4s,baz=210,slow=9.6,SNR=9.6						
ARCES	**ARCESS Array B**	**41.51**	**338**	P	**P**	**21 25 06.7**	**+1.4**
	comp=N,0.9nm,0.6s,mb3.6,baz=123,slow=9.8,SNR=4.2						
ARCES	**ARCESS Array B**	**41.51**	**338**	P	**P**	**21 25 06.7**	**+1.4**
NB2	**NORSAR Subarra**	**44.84**	**323**	P	**P**	**21 25 33.0**	**+0.9**
	comp=Z,1.0nm,0.5s,mb3.7,baz=96,slow=7.9						
NOA	**NORSAR Array B**	**44.84**	**323**	P	**P**	**21 25 32.7**	**+0.6**
	comp=Z,1.1nm,0.6s,mb3.7,baz=96,slow=7.7,SNR=4.9						
TORD	**Torodi Ar. Bea**	**66.23**	**269**	P	**P**	**21 28 03.8**	**-2.0**
	comp=Z,0.3nm,0.3s,mb3.5,baz=51,slow=5.7,SNR=8.1						
YKA	**Yellowknife Ar**	**81.40**	**3**	P	**P**	**21 29 34.6**	**+1.3**
	comp=Z,0.2nm,0.5s,baz=350,slow=5.4,SNR=6.6						

CRAAG ***16*** *21:33:52.3, 36°.65N×2°.21E, Ml3.9*
ISCJB ***16*** *21:33:53.9±0.4, 36°.76N±0°.02×2°.18E±0°.03, h10^{km}, Error ellipse: s-maj=4.0km s-min=3.5km az=16.4*
CSEM ***16*** *21:33:54.7±0.2, 36°.61N×2°.25E, h10^{km}, ML3.9, Error ellipse: s-maj=4.8km s-min=4.4km az=156.0*
NEIC ***16*** *21:33:54.7±0.5, 36°.64N×2°.29E, h10^{km}, ML3.8(ALG), Error ellipse: s-maj=6.2km s-min=5.3km az=171.0*
MDD ***16*** *21:33:55.2±0.4, 36°.65N×2°.24E, h0^{km}, mb3.6/26, Error ellipse: s-maj=5.5km s-min=4.4km az=20.0, PRIMO*
ISC 16 21:33:55.0±0.4, **36°.71N**±0°.02×**2°.20E**±0°.03, **h10**^{km}, **n86**, σ**1^{s}.46**/122, **1D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABA	**Alger-Bouzarea**	**0.68**	**82**	P	**Pg**	**21 34 07.5**	**-0.6**
ABA	**Alger-Bouzarea**	**0.68**	**82**	P	**Pg**	**21 34 07.5**	**-0.6**
EBNR	**Beni Rached**	**0.68**	**233**	P	**Pg**	**21 34 07.0**	**-1.2**
EBNR	**Beni Rached**	**0.68**	**233**	P	**Pg**	**21 34 07.0**	**-1.2**
EMHD	**Djebel Mahouad**	**0.79**	**130**	P	**Pg**	**21 34 08.5**	**-1.7**
EMHD	**Djebel Mahouad**	**0.79**	**130**	P	**Pg**	**21 34 08.5**	**-1.7**
ECHA	**Ech Chlef**	**0.87**	**231**	P	**Pg**	**21 34 10.5**	**-1.3**
ECHA	**Ech Chlef**	**0.87**	**231**	P	**Pg**	**21 34 10.5**	**-1.3**
ECHF	**Ech Chlef**	**0.89**	**232**	P	**Pg**	**21 34 10.5**	**-1.6**
ECHF	**Ech Chlef**	**0.89**	**232**	P	**Pg**	**21 34 10.5**	**-1.6**
ADJB	**Djebel Djouab**	**1.14**	**118**	P	**Pg**	**21 34 14.8**	**-2.1**
ADJB	**Djebel Djouab**	**1.14**	**118**	P	**Pg**	**21 34 14.8**	**-2.1**
EANR	**’Ain N’Sour**	**1.17**	**230**	P	**Pb**	**21 34 16.7**	**-0.6**
EANR	**’Ain N’Sour**	**1.17**	**230**	P	**Pb**	**21 34 16.7**	**-0.6**
OKGL	**Djebel Kef Gue**	**1.43**	**242**	P	**Pg**	**21 34 24.0**	**+1.6**
ETRT	**Tiaret**	**1.50**	**209**	P	**Pn**	**21 34 22.0**	**0.0**
ETRT	**Tiaret**	**1.50**	**209**	P	**Pn**	**21 34 22.0**	**0.0**
OJGS	**Djebel Guires**	**1.68**	**225**	P	**Pn**	**21 34 22.0**	**-2.5**
OJGS	**Djebel Guires**	**1.68**	**225**	P	**Pn**	**21 34 22.0**	**-2.5**
OJBR	**Djebel Berber**	**1.88**	**234**	P	**Pn**	**21 34 26.0**	**-1.1**
OJBR	**Djebel Berber**	**1.88**	**234**	P	**Pn**	**21 34 26.0**	**-1.1**
EIBI	**Ibiza**	**2.41**	**344**	⇓P	**Pn**	**21 34 35.0**	**+0.5**
	SNR=18						
EIBI				S	**Sn**	**21 35 02.2**	**-1.9**
	70nm,0.2s,SNR=14						
EIBI	**Ibiza**	**2.41**	**344**	P	**Pn**	**21 34 35.0**	**+0.5**
	SNR=18						
EIBI				S	**Sn**	**21 35 02.2**	**-1.9**
	70nm,0.2s,SNR=14						
CART	**Cartagena**	**2.71**	**290**	*e*Pn	**Pn**	**21 34 40.2**	**+1.7**
EBEN	**Beniarda**	**2.77**	**317**	P	**Pn**	**21 34 39.1**	**-0.4**
	0.3nm,0.3s,SNR=8.9						
EBEN				S	**Sn**	**21 35 11.4**	**-1.5**
	6.9nm,0.3s,SNR=8.2						
EBEN	**Beniarda**	**2.77**	**317**	P	**Pn**	**21 34 39.1**	**-0.3**
	0.3nm,0.3s,SNR=8.9						
EBEN				S	**Sn**	**21 35 11.4**	**-1.5**
	6.9nm,0.3s,SNR=8.2						
EMUR	**La Murta**	**2.97**	**293**	P	**Pn**	**21 34 42.8**	**+0.6**
	0.8nm,0.2s,SNR=7.9						
EMUR				S	**Sn**	**21 35 14.9**	**-2.9**
	4.1nm,0.2s,SNR=7.9						
ETOS	**Mallorca**	**3.09**	**9**	P	**Pn**	**21 34 43.8**	**-0.1**
	3.8nm,0.3s,SNR=27						
ETOS				S	**Sn**	**21 35 18.1**	**-2.8**
	21nm,0.5s,SNR=6.8						
ETOS	**Mallorca**	**3.09**	**9**	P	**Pn**	**21 34 43.8**	**-0.1**
	3.8nm,0.3s,SNR=27						
ETOS				S	**Sn**	**21 35 18.1**	**-2.8**
	21nm,0.5s,SNR=6.8						
ENIJ	**Nijar**	**3.55**	**276**	P	**Pn**	**21 34 52.1**	**+2.0**
	0.5nm,0.2s,SNR=7.9						
ENIJ	**Nijar**	**3.55**	**276**	P	**Pn**	**21 34 52.1**	**+2.0**
	0.5nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	**3.55**	**304**	P	**Pn**	**21 34 50.7**	**+0.5**
	2.9nm,0.3s,SNR=17						
ETOB				S	**Sn**	**21 35 31.3**	**-0.8**
	10nm,0.2s,SNR=9.2						
ETOB	**Tobarra**	**3.55**	**304**	P	**Pn**	**21 34 50.7**	**+0.6**
	2.9nm,0.3s,SNR=17						
ETOB				S	**Sn**	**21 35 31.3**	**-0.8**
	10nm,0.2s,SNR=9.2						
ECHE	**Chera**	**3.81**	**320**	P	**Pn**	**21 34 55.3**	**+1.6**
	0.8nm,0.2s,SNR=6.3						
ECHE				S	**Sn**	**21 35 38.1**	**-0.5**
	5.4nm,0.4s,SNR=5.1						
ECHE	**Chera**	**3.81**	**320**	P	**Pn**	**21 34 55.3**	**+1.5**
	0.8nm,0.2s,SNR=6.3						
ECHE				S	**Sn**	**21 35 38.1**	**-0.5**
	5.4nm,0.4s,SNR=5.1						
EHUE	**Huescar**	**3.98**	**288**	P	**Pn**	**21 34 57.7**	**+1.7**
	0.7nm,0.4s,SNR=7.9						
EHUE				S	**Sn**	**21 35 43.2**	**+0.4**
	1.6nm,0.3s,SNR=7.9						
EHUE	**Huescar**	**3.98**	**288**	P	**Pn**	**21 34 57.7**	**+1.6**
	0.7nm,0.4s,SNR=7.9						
EHUE				S	**Sn**	**21 35 43.2**	**+0.4**
	1.6nm,0.3s,SNR=7.9						
EBER	**Berja**	**4.09**	**274**	P	**Pn**	**21 34 57.8**	**+0.2**
	1.6nm,0.4s,SNR=6.8						
EBER				S	**Sn**	**21 35 43.0**	**-2.6**
	3.0nm,0.2s,SNR=7.9						
EBER	**Berja**	**4.09**	**274**	P	**Pn**	**21 34 57.8**	**+0.2**
	1.6nm,0.4s,SNR=6.8						
EBER				S	**Sn**	**21 35 43.0**	**-2.5**
	3.0nm,0.2s,SNR=7.9						
EVIA	**Vianos**	**4.20**	**299**	P	**Pn**	**21 35 01.2**	**+2.1**
	0.8nm,0.3s,SNR=7.9						
EVIA				S	**Sn**	**21 35 48.0**	**-0.2**
	2.8nm,0.2s,SNR=7.9						
EVIA	**Vianos**	**4.20**	**299**	P	**Pn**	**21 35 01.2**	**+2.1**
	0.8nm,0.3s,SNR=7.9						
EVIA				S	**Sn**	**21 35 48.0**	**-0.2**
	2.8nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	**4.21**	**331**	P	**Pn**	**21 35 00.0**	**+0.8**
	3.1nm,0.2s,SNR=45						
EMOS				S	**Sn**	**21 35 46.0**	**-2.4**
	7.6nm,0.2s,SNR=6.5						
EMOS	**Mosqueruela**	**4.21**	**331**	P	**Pn**	**21 35 00.0**	**+0.8**
	3.1nm,0.2s,SNR=45						
EMOS				S	**Sn**	**21 35 46.0**	**-2.4**
	7.6nm,0.2s,SNR=6.5						
EQES	**Quesada**	**4.35**	**286**	P	**Pn**	**21 35 02.7**	**+1.6**
	1.8nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**21 35 51.6**	**-0.2**
	19nm,0.3s,SNR=5.4						
EQES	**Quesada**	**4.35**	**286**	P	**Pn**	**21 35 02.7**	**+1.6**
EQES				S	**Sn**	**21 35 51.6**	**-0.2**
EQES	**Quesada**	**4.35**	**286**	P	**Pn**	**21 35 02.7**	**+1.6**
	1.8nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**21 35 51.6**	**-0.2**
	19nm,0.3s,SNR=5.4						
ERTA	**Horta de San J**	**4.49**	**342**	P	**Pn**	**21 35 03.6**	**+0.6**
	1.6nm,0.4s,SNR=8.7						
ERTA				S	**Sn**	**21 35 53.7**	**-1.6**
	2.8nm,0.2s,SNR=6.0						
ERTA	**Horta de San J**	**4.49**	**342**	P	**Pn**	**21 35 03.6**	**+0.6**
	1.6nm,0.4s,SNR=8.7						
ERTA				S	**Sn**	**21 35 53.7**	**-1.6**
	2.8nm,0.2s,SNR=6.0						
EQUE	**Quentar**	**4.55**	**278**	P	**Pn**	**21 35 05.4**	**+1.5**
	0.8nm,0.2s,SNR=7.9						
EQUE				S	**Sn**	**21 35 55.9**	**-0.9**
	4.1nm,0.3s,SNR=7.9						
EQUE	**Quentar**	**4.55**	**278**	P	**Pn**	**21 35 05.4**	**+1.5**
	0.8nm,0.2s,SNR=7.9						
EQUE				S	**Sn**	**21 35 55.9**	**-0.8**
	4.1nm,0.3s,SNR=7.9						
EGUA	**Guajares**	**4.63**	**273**	S	**Sn**	**21 35 58.3**	**-0.5**
	5.8nm,0.4s,SNR=7.9						
EGUA	**Guajares**	**4.63**	**273**	S	**Sn**	**21 35 58.3**	**-0.6**
	5.8nm,0.4s,SNR=7.9						
EPOB	**Poblet**	**4.72**	**350**	P	**Pn**	**21 35 07.3**	**+1.0**
	0.9nm,0.3s,SNR=5.7						
EPOB				S	**Sn**	**21 35 57.6**	**-3.4**
	1.8nm,0.3s						
EPOB	**Poblet**	**4.72**	**350**	P	**Pn**	**21 35 07.3**	**+1.1**
	0.9nm,0.3s,SNR=5.7						
EMIR	**Miracle**	**5.23**	**354**	P	**Pn**	**21 35 15.5**	**+2.3**
	1.2nm,0.1s,SNR=4.0						
EMIR				S	**Sn**	**21 36 11.5**	**-2.0**
	10nm,0.5s,SNR=7.9						
EMIR	**Miracle**	**5.23**	**354**	P	**Pn**	**21 35 15.5**	**+2.3**
	1.2nm,0.1s,SNR=4.0						
EMIR				S	**Sn**	**21 36 11.5**	**-2.0**
	10nm,0.5s,SNR=7.9						
ETOR	**Torete**	**5.28**	**322**	P	**Pn**	**21 35 16.5**	**+2.6**
	2.0nm,0.3s,SNR=7.9						
ETOR				S	**Sn**	**21 36 10.2**	**-4.7**
	1.3nm,0.5s,SNR=4.0						
ETOR	**Torete**	**5.28**	**322**	P	**Pn**	**21 35 16.5**	**+2.5**
	2.0nm,0.3s,SNR=7.9						
ESAC	**San Caprasio**	**5.42**	**338**	P	**Pn**	**21 35 18.2**	**+2.4**
	2.2nm,0.3s,SNR=4.0						
ESAC				S	**Sn**	**21 36 17.1**	**-1.1**
	14nm,0.3s,SNR=7.9						

ESAC	San Caprasio	5.42	338	P	Pn	21 35 18.2	+2.4
	2.2nm,0.3s,SNR=4.0						
EADA	Adamuz	5.59	287	S	Sn	21 36 20.3	-2.1
	0.1nm,0.3s,SNR=4.0						
ESDC	Sonseca Array	5.69	303	P	Pn	21 35 20.6	+1.1
	0.3nm,0.3s,baz=118,slow=13,SNR=9.0						
ESDC				S	Sn	21 36 22.5	-2.4
	1.0nm,0.1s,baz=117,slow=24,SNR=7.7						
ESDC	Sonseca Array	5.69	303	P	Pn	21 35 20.6	+1.1
	0.3nm,0.3s,SNR=9.0						
ESLA	Sonseca Array	5.69	303	*e*Pn	Pn	21 35 20.4	+0.9
ESLA	Sonseca Array	5.69	303	*e*Pn	Pn	21 35 20.4	+0.9
EJON	La Jonquera	5.76	5	P	Pn	21 35 21.5	+1.0
	0.3nm,0.1s,SNR=7.9						
EJON				S	Sn	21 36 23.0	-3.6
	1.4nm,0.3s,SNR=7.9						
EJON	La Jonquera	5.76	5	P	Pn	21 35 21.5	+1.0
	0.3nm,0.1s,SNR=7.9						
PAB	San Pablo	5.89	301	*e*Pn	Pn	21 35 23.1	+0.8
PAB	San Pablo	5.89	301	*e*Pn	Pn	21 35 23.1	+0.8
EBIE	Bielsa	6.18	346	P	Pn	21 35 26.7	+0.5
	0.5nm,0.3s,SNR=7.9						
EBIE				S	Sn	21 36 36.9	0.0
	1.1nm,0.4s,SNR=7.9						
EBIE	Bielsa	6.18	346	P	Pn	21 35 26.7	+0.4
	0.5nm,0.3s,SNR=7.9						
EBIE				S	Sn	21 36 36.9	0.0
	1.1nm,0.4s,SNR=7.9						
EJIF	Jimena Fronter	6.18	270	P	Pn	21 35 28.1	+1.8
	1.8nm,0.3s,SNR=7.9						
EJIF	Jimena Fronter	6.18	270	P	Pn	21 35 28.1	+1.8
	1.8nm,0.3s,SNR=7.9						
VSL	Villasalto	6.31	62	*e*Pn	Pn	21 35 27.4	-0.6
VSL	Villasalto	6.31	62	*e*Pn	Pn	21 35 27.4	-0.6
GUD	Guadarrama	6.34	310	P	Pn	21 35 30.0	+1.6
	1.4nm,0.3s,SNR=7.9						
GUD				S	Sn	21 36 37.3	-3.5
	2.1nm,0.5s,SNR=7.9						
GUD	Guadarrama	6.34	310	P	Pn	21 35 30.0	+1.6
	1.4nm,0.3s,SNR=7.9						
EBAD	Badajoz	7.58	288	S	Sn	21 37 07.0	-4.6
	0.8nm,0.2s,SNR=7.9						
ELAN	Lanestosa	7.82	328	P	Pn	21 35 51.1	+2.3
	0.4nm,0.1s,SNR=9.0						
ELAN	Lanestosa	7.82	328	P	Pn	21 35 51.1	+2.3
	0.4nm,0.1s,SNR=9.0						
ECAL	Calabor	8.68	310	P	Pn	21 36 01.4	+0.9
	1.8nm,0.3s,SNR=5.3						
ECAL	Calabor	8.68	310	P	Pn	21 36 01.4	+0.9
	1.8nm,0.3s,SNR=5.3						
EARI	Arriondas	8.70	321	P	Pn	21 36 03.0	+2.1
	0.9nm,0.3s,SNR=6.3						
EARI	Arriondas	8.70	321	P	Pn	21 36 03.0	+2.2
	0.9nm,0.3s,SNR=6.3						
ELOB	Lobios	9.48	306	P	Pn	21 36 12.3	+0.8
	0.4nm,0.2s,SNR=7.9						
ELOB	Lobios	9.48	306	P	Pn	21 36 12.3	+0.8
	0.4nm,0.2s,SNR=7.9						

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*ISCJB **16** 21:57:38.8±0.6, 33°33N±0°03×35°42E±0°05, h4^{km}±6^{km}, Error ellipse: s-maj=7.0km s-min=4.0km az=27.6*

*CSEM **16** 21:57:39.7, 33°33N×35°43E, h4^{km}, ML2.9, After GRAL*

*GRAL **16** 21:57:39.7±0.4, 33°33N×35°43E, h4^{km}±15^{km}, MD2.9*

*GII **16** 21:57:39.0±0.7, 33°23N×35°44E, h1^{km}±3^{km}, Md2.1/4*

ISC 16 21:57:39.2±0.6, **33°34N**±0°03×**35°42E**±0°05, **h4**^{km}±6^{km}, **n19,** σ**0^{s}56**/29, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	334	*e*P	Pg	21 57 43.0	+0.6
MATL	Matirih	0.17	334	*e*P	Pg	21 57 43.0	+0.6
KSDI	Kefar Szold	0.25	126	Pg	Pg	21 57 43.8	-0.2
KSDI				Sg	Sg	21 57 48.0	+0.7
MMA0	Mount Meron ar	0.32	182	Pg	Pg	21 57 44.8	-0.6
MMA0				Sg	Sg	21 57 49.7	+0.1
HNTI	Hanita	0.33	219	Pg	Pg	21 57 45.6	+0.1
HNTI				Sg	Sg	21 57 50.5	+0.8
RCY	Rachaya	0.36	66	*e*P	Pg	21 57 46.4	+0.2
RCY				*e*S	Sg	21 57 51.6	+0.6
RCY	Rachaya	0.36	66	*e*P	Pg	21 57 46.4	+0.2
RCY				*e*S	Sg	21 57 51.6	+0.6
BHL	Bhannes	0.60	19	*e*P	Pg	21 57 50.5	-0.2
BHL	Bhannes	0.60	19	*e*P	Pg	21 57 50.5	-0.1
BLGI	Bet Lehem HaGe	0.63	198	Pg	Pg	21 57 51.2	-0.1
OFRI	‘Ofer	0.80	207	Pg	Pg	21 57 54.2	-0.4
OFRI				Sg	Sg	21 58 06.0	+1.0
MMLI	Mount Malkishu	0.90	180	Pg	Pg	21 57 55.5	-0.9
MMLI				Sg	Sg	21 58 08.0	0.0
HWQ	Hawqa	1.03	25	*e*P	Pg	21 57 58.5	-0.5
HWQ	Hawqa	1.03	25	*e*P	Pg	21 57 58.5	-0.5
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	21 57 58.8	-1.2
HMDT				Sg	Sg	21 58 14.1	0.0
SLTI	Sal’it	1.14	196	Pg	Pg	21 58 00.2	-0.8
SLTI				Sg	Sg	21 58 16.0	+0.2
DSI	Dead Sea	1.76	181	Pn	Pn	21 58 09.8	-0.6
DSI				Sn	Sn	21 58 33.9	+0.6
MZDA	Masada	2.02	181	Pn	Pn	21 58 14.0	0.0
RTMI	Retamim	2.36	195	Pn	Pn	21 58 19.1	+0.5

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*CSEM **16** 22:12:15.7±0.1, 43°10N×10°70E, h2^{km}, ML3.8/10, Error ellipse: s-maj=3.1km s-min=2.5km az=176.0*

*IDC **16** 22:12:16.7±1.1, 43°19N×10°65E, h0^{km}, mb3.7/4, mb1 3.9/7, mb1mx3.7/23, mbtmp3.8/7, ML3.8/3, MS3.0/2, Ms1 3.0/2, ms1mx2.4/38, Error ellipse: s-maj=38.0km s-min=12.9km az=106.0*

*ROM **16** 22:12:16.8±0.1, 43°11N×10°77E, h16^{km}±3^{km}, Ml3.3/23, Error ellipse: s-maj=2.6km s-min=1.6km az=74.0*

*NEIC **16** 22:12:16.8, 43°11N×10°77E, h16^{km}, ML3.3(ROM), ML3.0(STR), ML3.1(LDG), After ROM.*

NEIC Felt [IV] at Massa Marittima.

*LDG **16** 22:12:17.2±0.1, 43°17N×10°86E, h10^{km}, Ml3.1/32*

*GEN **16** 22:12:17.9, 43°12N×10°78E, h19^{km}, ML3.1*

*PRU **16** 22:12:18.5, 43°29N×10°91E, h0^{km}*

*SZGRF **16** 22:12:18.5, 43°04N×10°81E, h10^{km}, mb3.8, Central Italy*

*STR **16** 22:12:27.3±0.5, 42°83N×9°45E, h10^{km}, Ml3.0, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 16 22:12:16.1±0.4, **43°12N**±0°02×**10°65E**±0°03, **h4**^{km}±3^{km}, **n224,** σ**1^{s}19**/299, **mb3.7**/4, **19C, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CASP	Castiglione de	0.36	154	⇑*i*Pg	Pg	22 12 23.7	+0.7
CASP				Sg	Sg	22 12 28.7	+1.0
	7μm,0.3s						
CASP	Castiglione de	0.36	154	⇑*i*Pg	Pg	22 12 23.7	+0.7
CSNT	Castellina Chi	0.59	52	⇑*i*Pg	Pg	22 12 26.4	-0.9
CSNT				Sg	Sg	22 12 32.8	-2.1
	2μm,0.8s						
CSNT	Castellina Chi	0.59	52	⇑*i*Pg	Pg	22 12 26.4	-0.9
CSNT				Sg	Sg	22 12 32.8	-2.1
	2μm,0.8s						
PII	Pisa	0.61	351	⇑*i*Pg	Pg	22 12 29.1	+1.2
PII				Sg	Sg	22 12 37.0	+1.2
PII	Pisa	0.61	351	⇑*i*Pg	Pg	22 12 29.1	+1.2
PII				Sg	Sg	22 12 37.0	+1.2
ARCI	Arcidosso	0.66	113	Pg	Pg	22 12 27.9	-0.8
ARCI				Sg	Sg	22 12 35.5	-1.7
	2μm,0.3s						
ARCI	Arcidosso	0.66	113	Pg	Pg	22 12 27.9	-0.8
ARCI				Sg	Sg	22 12 35.5	-1.7
	2μm,0.3s						
CRMI	Carmignano	0.71	19	⇑*i*Pg	Pg	22 12 30.1	+0.3
	2μm,0.7s						
CRMI	Carmignano	0.71	19	⇑*i*Pg	Pg	22 12 30.1	+0.3
	2μm,0.7s						
MAON	Monte Argentar	0.77	153	Pg	Pg	22 12 31.6	+0.7
MAON				Sg	Sg	22 12 41.5	+0.6
	3μm,0.3s						
MAON	Monte Argentar	0.77	153	Pg	Pg	22 12 31.6	+0.7
MAON				Sg	Sg	22 12 41.5	+0.6
	3μm,0.3s						
MAIM	Mastiano	0.81	352	⇑*i*Pg	Pg	22 12 32.4	+0.8
MAIM				Sg	Sg	22 12 42.7	+0.7
	1μm,0.8s						
MAIM	Mastiano	0.81	352	⇑*i*Pg	Pg	22 12 32.4	+0.8
MAIM				Sg	Sg	22 12 42.7	+0.7
	1μm,0.8s						
MAIM				S	Sg	22 12 44.0	+2.0
POPM	Popiglio	0.93	5	P	Pg	22 12 34.3	+0.3
POPM				S	Sg	22 12 47.0	+1.0
BDI	Bagni Di Lucca	0.95	358	Pg	Pg	22 12 34.7	+0.4
	1μm,0.9s						
BDI	Bagni Di Lucca	0.95	358	Pg	Pg	22 12 34.7	+0.4
	1μm,0.9s						
SACS	San Casciano d	0.96	106	Pg	Pg	22 12 33.6	-0.9
	2μm,1.6s						
VLC	Villacollemand	1.06	350	Pg	Pg	22 12 37.0	+0.6
VLC				Sg	Sg	22 12 51.8	+1.6
	805nm,1.1s						
VLC	Villacollemand	1.06	350	Pg	Pg	22 12 37.0	+0.6
VLC				*e*Pn	Pn	22 12 37.1	-0.5
VLC				Sg	Sg	22 12 51.8	+1.6
VLC	Villacollemand	1.06	350	Pg	Pg	22 12 37.0	+0.6
VLC	Villacollemand	1.06	350	*e*Pn	Pn	22 12 37.2	-0.5
VLC				Sg	Sg	22 12 51.8	+1.6
	805nm,1.1s						
VMG	Vicchio	1.06	37	Pg	Pg	22 12 35.9	-0.6
	700nm,0.5s						
VMG	Vicchio	1.06	37	Pg	Pg	22 12 35.9	-0.6
	700nm,0.5s						
SEI	Scarperia	1.07	28	Pg	Pg	22 12 36.3	-0.3
	3μm,0.8s						
SEI	Scarperia	1.07	28	Pg	Pg	22 12 36.3	-0.3
	3μm,0.8s						
CRE	Caprese Michel	1.07	62	Pg	Pg	22 12 35.5	-1.1
CRE				Sg	Sg	22 12 48.9	-1.6
	279nm,0.6s						
CRE	Caprese Michel	1.07	62	Pg	Pg	22 12 35.5	-1.1
CRE				Sg	Sg	22 12 48.9	-1.6
	279nm,0.6s						
SARO	Sassorosso	1.08	350	P	Pg	22 12 37.1	+0.2
SARO				S	Sg	22 12 50.3	-0.6
FNVD	Fontana Vidola	1.10	18	Pg	Pg	22 12 37.3	0.0
	1μm,0.7s						
FNVD	Fontana Vidola	1.10	18	Pg	Pg	22 12 37.3	0.0
	1μm,0.7s						
SFI	Santa Sofia	1.17	47	Pg	Pg	22 12 37.4	-1.2
	742nm,1.0s						
CDCA	Citt‘ di Caste	1.20	73	Pg	Pg	22 12 37.5	-1.6
	545nm,0.7s						
CDCA	Citt‘ di Caste	1.20	73	Pg	Pg	22 12 37.5	-1.6
	545nm,0.7s						
BADI	Badiali	1.23	71	Pg	Pg	22 12 38.1	-1.5
BADI	Badiali	1.23	71	Pg	Pg	22 12 38.1	-1.5
BACM	Baccana	1.24	340	P	Pg	22 12 39.0	-0.8
BACM				S	Sg	22 12 54.4	-1.4
ZCCA	Zocca	1.26	11	Pg	Pg	22 12 41.4	+1.2
	3μm,1.5s						
ZCCA	Zocca	1.26	11	Pg	Pg	22 12 41.4	+1.2
	3μm,1.5s						
VALM	Valbona	1.27	347	P	Pg	22 12 40.4	0.0
VALM				S	Sg	22 12 55.5	-1.3
ERBM	Eremo	1.31	352	Pg	Pg	22 12 41.4	+0.1
	555nm,0.9s						
ERBM	Eremo	1.31	352	Pg	Pg	22 12 41.4	+0.1
	555nm,0.9s						
PGF	Pioggiola	1.34	246	*e*Pn	Pn	22 12 42.5	+0.9
	SNR=1.0						
PGF				*e*Sn	Sn	22 13 00.8	+1.0
	277nm,0.4s						
PGF	Pioggiola	1.34	246	*e*Pn	Pn	22 12 42.5	+0.9
	SNR=1.0						
PGF				*e*Sn	Sn	22 13 00.8	+1.0
	139nm,0.4s						
MURB	Monte Urbino	1.38	83	Pg	Pg	22 12 40.3	-2.1
	871nm,0.6s						
MURB	Monte Urbino	1.38	83	Pg	Pg	22 12 40.3	-2.1
	871nm,0.6s						
PIEI	Pieia	1.44	72	Pg	Pg	22 12 41.0	-2.6
	306nm,0.8s						
PIEI	Pieia	1.44	72	Pg	Pg	22 12 41.0	-2.6
	306nm,0.8s						
GRAM	Graiana	1.44	343	P	Pn	22 12 43.1	+0.2
ASS	Assisi	1.46	91	Pg	Pg	22 12 41.6	-2.5
	206nm,0.6s						
ASS	Assisi	1.46	91	Pg	Pg	22 12 41.6	-2.5
	206nm,0.6s						
SC2M	Scurtabo	1.52	328	Pg	Pg	22 12 44.4	-0.9
	480nm,0.8s						
SC2M	Scurtabo	1.52	328	P	Pn	22 12 43.9	-0.1
SC2M	Scurtabo	1.52	328	Pg	Pg	22 12 44.4	-0.9
	480nm,0.8s						
RSM	Repubblica di	1.54	57	Pg	Pg	22 12 44.8	-0.8
RSM	Repubblica di	1.54	57	Pg	Pg	22 12 44.8	-0.8
FIU	Minerbio Fiu	1.64	21	Pg	Pg	22 12 48.4	+0.9
	1μm,0.8s						
FIU	Minerbio Fiu	1.64	21	Pg	Pg	22 12 48.4	+0.9
	1μm,0.8s						
FSSB	Fossombrone	1.65	69	Pg	Pg	22 12 44.5	-3.2
	373nm,0.6s						
FSSB	Fossombrone	1.65	69	Pg	Pg	22 12 44.5	-3.2
	373nm,0.6s						
CESI	CESI - Serrava	1.65	93	Pg	Pg	22 12 44.4	-3.4
	100nm,0.6s						
CESI	CESI - Serrava	1.65	93	Pg	Pg	22 12 44.4	-3.4
	100nm,0.6s						
MNS	Montasola	1.66	115	Pg	Pg	22 12 44.3	-3.6
	123nm,0.7s						
RAVA	Ravarino	1.67	11	Pg	Pg	22 12 49.9	+1.7
RAVA	Ravarino	1.67	11	Pg	Pg	22 12 49.9	+1.7
SNTG	Esanatoglia	1.68	84	Pg	Pg	22 12 44.5	-3.7
	54nm,0.3s						
NOVE	Novellara	1.68	2	Pg	Pg	22 12 50.0	+1.7
NOVE	Novellara	1.68	2	*e*Pg	Pg	22 12 50.0	+1.7
NOVE	Novellara	1.68	2	Pg	Pg	22 12 50.0	+1.7
OSPF	L’Ospedale	1.81	217	Pn	Pn	22 12 48.4	+0.4
OSPF	L’Ospedale	1.81	217	Pn	Pn	22 12 48.4	+0.4
LNSS	Leonessa	1.83	105	Pg	Pg	22 12 47.1	-4.0
	428nm,0.8s						
NRCA	Norcia	1.83	98	Pg	Pg	22 12 47.4	-3.7
	50nm,0.6s						
BOB	Bobbio (Coli)	1.87	333	Pg	Pg	22 12 49.9	-1.9
	233nm,0.7s						
BOB	Bobbio (Coli)	1.87	333	Pg	Pg	22 12 49.9	-1.9
	233nm,0.7s						
PCP	Piancastagn	2.09	314	P	Pn	22 12 52.9	+1.1
RORO	Rocca Rossa	2.13	299	P	Pn	22 12 51.5	-0.8
IMI	Imperia	2.16	293	P	Pn	22 12 52.4	-0.4
NEGI	Seborga	2.27	290	P	Pn	22 12 54.0	-0.3
RONM	Roccetta Nervi	2.35	290	P	Pn	22 12 54.9	-0.5
ROTM	Rocchetta Tana	2.40	317	P	Pn	22 12 57.3	+1.2
SAOF	Saorge	2.42	292	Pn	Pn	22 12 56.4	+0.1
SAOF				Sg	Sn	22 13 25.8	-0.5
SAOF	Saorge	2.42	292	Pn	Pn	22 12 56.4	+0.1
SBF	Sospel	2.46	289	*e*Pn	Pn	22 12 57.0	+0.1
	SNR=1.0						
SBF				*e*Sn	Sn	22 13 26.5	-0.8
	55nm,0.3s,SNR=1.0						
SBF	Sospel	2.46	289	*e*Pn	Pn	22 12 57.0	+0.1
	SNR=1.0						
SBF				*e*Sn	Sn	22 13 26.5	-0.8
	27nm,0.3s,SNR=1.0						
REVF	Revere	2.47	286	Pn	Pn	22 12 57.3	+0.2
REVF				Sg	Sn	22 13 26.7	-1.0
REVF	Revere	2.47	286	Pn	Pn	22 12 57.3	+0.2
AUTN	L’Aution	2.50	292	Pn	Pn	22 12 57.9	+0.4
AUTN				Sg	Sn	22 13 27.9	-0.6
AUTN	L’Aution	2.50	292	Pn	Pn	22 12 57.9	+0.4
LUCF	Luceram	2.53	289	Sg	Sn	22 13 28.2	-0.9
MVIF	Mont Vial	2.66	288	Pn	Pn	22 12 59.9	+0.2
MVIF	Mont Vial	2.66	288	Pn	Pn	22 12 59.9	+0.2
CALN	Calern	2.81	284	Sg	Sn	22 13 35.5	-0.6
FRF	La Foret Royal	2.96	280	*e*Pn	Pn	22 13 03.8	+0.1
FRF				*e*Sn	Sn	22 13 38.1	-1.5
	16nm,0.2s						
FRF	La Foret Royal	2.96	280	*e*Pn	Pn	22 13 03.8	+0.1
FRF				*e*Sn	Sn	22 13 38.1	-1.5
	8.2nm,0.2s						
LMR	La Mourre	3.04	276	*e*Pn	Pn	22 13 05.0	+0.2
	SNR=1.0						
LMR				*e*Sn	Sn	22 13 40.1	-1.5
	20nm,0.2s,SNR=1.0						
LMR	La Mourre	3.04	276	*e*Pn	Pn	22 13 05.0	+0.2
	SNR=1.0						
LMR				*e*Sn	Sn	22 13 40.1	-1.5
	9.9nm,0.2s,SNR=1.0						
TRAV	Traversella	3.18	320	P	Pn	22 13 07.8	+1.0
MBDF	Montbardon	3.23	301	*e*Pn	Pn	22 13 08.3	+0.7
	SNR=1.0						
MBDF				*e*Sn	Sn	22 13 44.6	-1.9
	42nm,0.7s						
MBDF	Montbardon	3.23	301	*e*Pn	Pn	22 13 08.3	+0.7
	SNR=1.0						
MBDF				*e*Sn	Sn	22 13 44.6	-1.9
	21nm,0.7s						
LSD	Lago del Serru	3.45	314	P	Pn	22 13 11.1	+0.6
LSD				S	Sn	22 13 49.1	-2.6
BNI	Bardonecchia	3.46	305	*e*Pn	Pn	22 13 14.2	+3.6
BNI	Bardonecchia	3.46	305	*e*Pn	Pn	22 13 14.2	+3.6
TUE	Stuetta	3.48	345	*e*Pn	Pn	22 13 12.9	+2.0
TUE	Stuetta	3.48	345	*e*Pn	Pn	22 13 12.9	+1.9
LPG	La Plagne	3.68	312	*e*Pn	Pn	22 13 14.2	+0.6
	SNR=1.0						
LPG				*e*Sn	Sn	22 13 55.0	-2.4
	31nm,0.8s,SNR=1.0						
LPG	La Plagne	3.68	312	*e*Pn	Pn	22 13 14.2	+0.6
	SNR=1.0						
LPG				*e*Sn	Sn	22 13 55.0	-2.4
	16nm,0.8s,SNR=1.0						
LPL	La Plagne	3.70	312	*e*Pn	Pn	22 13 14.5	+0.6
	SNR=1.0						
LPL				*e*Sn	Sn	22 13 55.1	-2.8
	23nm,0.8s						
LPL	La Plagne	3.70	312	*e*Pn	Pn	22 13 14.5	+0.6
	SNR=1.0						
LPL				*e*Sn	Sn	22 13 55.1	-2.8
	11nm,0.8s						
DAVOX	Davos/Dischmat	3.71	352	Pn	Pn	22 13 16.3	+2.3
	9.3nm,0.3s,baz=167,slow=12,SNR=117						
DAVOX				Sn	Sn	22 14 01.8	+3.8
	1.8nm,0.3s,baz=162,slow=20,SNR=3.3						
DAVOX	Davos/Dischmat	3.71	352	Pn	Pn	22 13 16.3	+2.3
DAVOX				Sn	Sn	22 14 01.8	+3.7
VOY	Vojsko	3.72	37	*e*Pn	Pn	22 13 13.7	-0.6
VOY				*e*		22 13 21.3	
VOY				*e*		22 13 36.9	
VOY				*e*		22 14 37.8	
VOY	Vojsko	3.72	37	*e*Pn	Pn	22 13 13.7	-0.6
VSL	Villasalto	3.74	195	*e*Pn	Pn	22 13 15.6	+1.0
VSL	Villasalto	3.74	195	*e*Pn	Pn	22 13 15.6	+1.1
SMRF	Simiane la Rot	3.79	285	*e*Pn	Pn	22 13 16.5	+1.3
	SNR=1.0						
SMRF				*e*Sn	Sn	22 13 58.4	-1.8
	31nm,0.8s						
SMRF	Simiane la Rot	3.79	285	*e*Pn	Pn	22 13 16.5	+1.3
	SNR=1.0						
SMRF				*e*Sn	Sn	22 13 58.4	-1.8
	16nm,0.8s						
ABTA	Abfaltersbach	3.86	19	⇑*i*Pn	Pn	22 13 17.4	+1.2
	15nm,0.5s,SNR=30						
ABTA	Abfaltersbach	3.86	19	Pn	Pn	22 13 17.4	+1.2
	15nm,0.5s,SNR=30						
RSL	Roselend	3.87	313	Pn	Pn	22 13 20.7	+4.5
RSL	Roselend	3.87	313	Pn	Pn	22 13 20.7	+4.5
ORIF	Oris-en-Rattie	3.89	299	*e*Pn	Pn	22 13 17.1	+0.6
	SNR=1.0						
ORIF				*e*Sn	Sn	22 14 00.4	-2.2
	35nm,0.7s,SNR=1.0						
ORIF	Oris-en-Rattie	3.89	299	*e*Pn	Pn	22 13 17.1	+0.6
	SNR=1.0						
ORIF				*e*Sn	Sn	22 14 00.4	-2.2
	18nm,0.7s,SNR=1.0						
FETA	Feichten	3.91	1	*i* P	Pn	22 13 19.6	+2.8
	38nm,0.8s,SNR=18						
FETA	Feichten	3.91	1	P	Pn	22 13 19.6	+2.8
	38nm,0.8s,SNR=18						
WTTA	Wattenberg	4.21	9	*e*Pn	Pn	22 13 23.3	+2.4
WTTA	Wattenberg	4.21	9	⇑*i*P	Pn	22 13 23.3	+2.4
	61nm,0.6s,SNR=54						
WTTA	Wattenberg	4.21	9	P	Pn	22 13 23.3	+2.4
	61nm,0.6s,SNR=54						
DAVA	Damuels	4.21	353	*e*Pn	Pn	22 13 24.4	+3.5
DAVA	Damuels	4.21	353	⇑*i*P	Pn	22 13 23.7	+2.7
	39nm,0.8s,SNR=14						
DAVA	Damuels	4.21	353	P	Pn	22 13 23.7	+2.8
	39nm,0.8s,SNR=14						
MOTA	Moosalm	4.24	4	⇑*i*P	Pn	22 13 23.8	+2.4
	78nm,0.7s,SNR=106						
MOTA	Moosalm	4.24	4	P	Pn	22 13 23.8	+2.4
	78nm,0.7s,SNR=106						
WATA	Walderalm	4.27	8	⇑*i*P	Pn	22 13 23.8	+2.0
	59nm,0.6s,SNR=40						
WATA	Walderalm	4.27	8	P	Pn	22 13 23.8	+2.0
	59nm,0.6s,SNR=40						
KBA	Koelnbreinsper	4.40	25	*e*Pn	Pn	22 13 24.2	+0.7
KBA	Koelnbreinsper	4.40	25	⇑*i*Pn	Pn	22 13 24.4	+0.9
	8.3nm,0.5s,SNR=13						
KBA	Koelnbreinsper	4.40	25	Pn	Pn	22 13 24.4	+0.9
	8.3nm,0.5s,SNR=13						
VIVF	Saint-Julien-l	4.65	294	*e*Pn	Pn	22 13 27.6	+0.5
	SNR=1.0						
VIVF				*e*Sn	Sn	22 14 18.6	-2.9
	4.1nm,0.3s,SNR=1.0						
VIVF	Saint-Julien-l	4.65	294	*e*Pn	Pn	22 13 27.6	+0.5
	SNR=1.0						
VIVF				*e*Sn	Sn	22 14 18.6	-2.9
	2.0nm,0.3s,SNR=1.0						
CABF	La Chapelle	4.77	319	*e*Pn	Pn	22 13 29.2	+0.6
	SNR=1.0						
CABF				*e*Sn	Sn	22 14 20.2	-4.1
	3.9nm,0.5s						
CABF	La Chapelle	4.77	319	*e*Pn	Pn	22 13 29.2	+0.6
	SNR=1.0						
CABF				*e*Sn	Sn	22 14 20.2	-4.1
	2.0nm,0.5s						
SSB	Saint Sauveur	4.90	298	*e*Pn	Pn	22 13 32.8	+2.4
SSB	Saint Sauveur	4.90	298	*e*Pn	Pn	22 13 32.8	+2.4
LASF	Ste Croix	5.03	283	*e*Pn	Pn	22 13 32.4	+0.2
	SNR=1.0						
LASF				*e*Sn	Sn	22 14 27.9	-2.8
	2.8nm,0.3s,SNR=1.0						
LASF	Ste Croix	5.03	283	*e*Pn	Pn	22 13 32.4	+0.2
	SNR=1.0						
LASF				*e*Sn	Sn	22 14 27.9	-2.8
	1.4nm,0.3s,SNR=1.0						
MOA	Molln	5.37	27	*e*Pn	Pn	22 13 38.3	+1.4
MOA	Molln	5.37	27	⇑*i*P	Pn	22 13 38.3	+1.4
	6.5nm,0.5s,SNR=13						
MOA	Molln	5.37	27	P	Pn	22 13 38.3	+1.4
	6.5nm,0.5s,SNR=13						
ARSA	Arzberg	5.38	38	*e*Pn	Pn	22 13 37.8	+0.8
ARSA	Arzberg	5.38	38	⇑*i*Pn	Pn	22 13 37.4	+0.4
	7.7nm,0.5s,SNR=16						
ARSA	Arzberg	5.38	38	Pn	Pn	22 13 37.4	+0.4
	7.7nm,0.5s,SNR=16						
HINF	Hinteralfeld	5.41	332	*e*Pn	Pn	22 13 36.8	-0.6
	SNR=1.0						
HINF				*e*Sn	Sn	22 14 34.3	-5.7
	4.4nm,0.4s						
HINF	Hinteralfeld	5.41	332	*e*Pn	Pn	22 13 36.8	-0.6
	SNR=1.0						
BFO	Black Forest	5.46	343	*e*Pn	Pn	22 13 39.3	+1.1
BFO	Black Forest	5.46	343	*e*Pn	Pn	22 13 39.3	+1.1
ECH	Echery	5.66	336	*e*Pn	Pn	22 13 41.6	+0.8
	7.7nm,0.6s						
ECH				*e*Sn	Sn	22 14 47.0	+0.8
ECH	Echery	5.66	336	*e*Pn	Pn	22 13 41.6	+0.8
	7.7nm,0.6s						
ECH				*e*Sn	Sn	22 14 47.0	+0.8
HAU	Haudompre	5.75	330	*e*Pn	Pn	22 13 41.2	-0.9
	SNR=1.0						
HAU				*e*Sn	Sn	22 14 42.7	-5.7
	2.1nm,0.3s						
HAU	Haudompre	5.75	330	*e*Pn	Pn	22 13 41.2	-0.9
	SNR=1.0						
CDF	Champ du Feu	5.80	337	*e*Pn	Pn	22 13 41.9	-0.9
	SNR=1.0						
CDF				*e*Sn	Sn	22 14 43.6	-6.1
	8.6nm,0.6s						
CDF	Champ du Feu	5.80	337	*e*Pn	Pn	22 13 41.9	-0.9
	SNR=1.0						
SMF	Signal de Mont	5.99	308	*e*Pn	Pn	22 13 45.3	-0.1
	SNR=1.0						
SMF				*e*Sn	Sn	22 14 49.9	-4.5
	3.6nm,0.5s,SNR=1.0						
SMF	Signal de Mont	5.99	308	*e*Pn	Pn	22 13 45.3	-0.1
	SNR=1.0						
CONA	Conrad Observa	6.04	35	⇑*i*Pn	Pn	22 13 45.7	-0.4
	7.3nm,0.9s,SNR=9.6						
CONA	Conrad Observa	6.04	35	Pn	Pn	22 13 45.7	-0.4
	7.3nm,0.9s,SNR=9.6						
GEC2	GERESS Array S	6.11	19	*e*Pn	Pn	22 13 46.8	-0.2
GEC2	GERESS Array S	6.11	19	*e*Pn	Pn	22 13 46.8	-0.2
GERES	GERESS Array B	6.11	19	Pn	Pn	22 13 46.5	-0.5
	1.4nm,0.3s,baz=193,slow=14,SNR=57						
GERES				Sn	Sn	22 14 56.5	-0.8
	0.4nm,0.3s,baz=195,slow=22,SNR=2.8						
GERES				LR	LR	22 16 50.4	
	comp=Z,144nm,19.6s,baz=277,slow=45						
GERES	GERESS Array B	6.11	19	Pn	Pn	22 13 46.5	-0.6
GERES				Sn	Sn	22 14 56.5	-0.8
MTLF	Montolieu	6.17	275	*e*Pn	Pn	22 13 48.7	+0.8
	SNR=1.0						

MTLF				eSn	Sn	22 14 55.5	-3.3
	8.4nm,0.7s						
MTLF	Montolieu	6.17	275	ePn	Pn	22 13 48.7	+0.8
	SNR=1.0						
WET	Wettzell	6.22	14	ePn	Pn	22 13 48.9	+0.3
WET	Wettzell	6.22	14	ePn	Pn	22 13 48.9	+0.3
LOR	Lormes	6.35	313	ePn	Pn	22 13 50.3	0.0
	baz=136,SNR=1.0						
LOR				eSn	Sn	22 14 57.9	-5.3
	5.8nm,0.5s						
LOR	Lormes	6.35	313	ePn	Pn	22 13 50.3	0.0
	baz=136,SNR=1.0						
AVF	Avril sur Loir	6.35	308	ePn	Pn	22 13 50.3	-0.1
AVF				eSn	Sn	22 14 57.9	-5.4
	2.6nm,0.7s						
AVF	Avril sur Loir	6.35	308	ePn	Pn	22 13 50.3	-0.1
KHC	Kasperske Hory	6.35	18	ePN	Pn	22 13 50.1	-0.2
KHC				ex	x	22 13 57.5	
KHC				ePG	Pg	22 14 18.5	+0.8
KHC				ex	x	22 15 55.0	
KHC	Kasperske Hory	6.35	18	ePn	Pn	22 13 50.2	-0.1
KHC	Kasperske Hory	6.35	18	ePn	Pn	22 13 50.2	-0.1
SSF	Saint Saulge	6.42	310	ePn	Pn	22 13 51.1	-0.1
	SNR=1.0						
SSF				eSn	Sn	22 14 59.9	-4.9
	0.4nm,0.2s						
SSF	Saint Saulge	6.42	310	ePn	Pn	22 13 51.1	-0.1
	SNR=1.0						
SFTF	Sexfontaines	6.43	324	ePn	Pn	22 13 50.7	-0.8
	baz=144						
SFTF				eSn	Sn	22 14 59.4	-5.9
	1.3nm,0.3s						
SFTF	Sexfontaines	6.43	324	ePn	Pn	22 13 50.7	-0.8
	baz=144						
CAF	Calviac	6.45	289	ePn	Pn	22 13 52.4	+0.6
	SNR=1.0						
CAF				eSn	Sn	22 15 01.7	-4.1
	0.7nm,0.3s						
CAF	Calviac	6.45	289	ePn	Pn	22 13 52.4	+0.6
	SNR=1.0						
BGF	Bois d’Agland	6.53	304	ePn	Pn	22 13 53.0	+0.2
	SNR=1.0						
BGF				eSn	Sn	22 15 03.0	-4.7
	4.1nm,0.6s						
BGF	Bois d’Agland	6.53	304	ePn	Pn	22 13 53.0	+0.2
	SNR=1.0						
RFYF	Reffroy	6.59	329	ePn	Pn	22 13 51.9	-1.8
	baz=145						
RFYF	Reffroy	6.59	329	ePn	Pn	22 13 51.9	-1.8
	baz=145						
MEZF	Maizieres J’vi	6.66	326	ePn	Pn	22 13 53.8	-0.8
MEZF				eSn	Sn	22 15 04.5	-6.3
	1.5nm,0.3s						
MEZF	Maizieres J’vi	6.66	326	ePn	Pn	22 13 53.8	-0.8
RJF	Les Rejaudoux	6.92	292	ePn	Pn	22 13 58.4	+0.2
RJF				eSn	Sn	22 15 12.8	-4.5
	1.5nm,0.3s						
RJF	Les Rejaudoux	6.92	292	ePn	Pn	22 13 58.4	+0.2
NKC	Novy Kostel	7.23	9	ePN	Pn	22 14 02.7	+0.4
NKC	Novy Kostel	7.23	9	Pn	Pn	22 14 02.7	+0.4
TNS	Taunus Mts	7.27	349	ePn	Pn	22 14 04.5	+1.6
TNS	Taunus Mts	7.27	349	ePn	Pn	22 14 04.5	+1.6
LFF	La Frestale	7.38	288	ePn	Pn	22 14 04.7	+0.3
LFF				eSn	Sn	22 15 23.7	-4.8
	2.7nm,0.6s						
LFF	La Frestale	7.38	288	ePn	Pn	22 14 04.7	+0.3
PRU	Pruhonice	7.38	20	ePN	Pn	22 14 05.0	+0.6
PRU	Pruhonice	7.38	20	Pn	Pn	22 14 05.0	+0.6
VRAC	Vranov	7.44	32	LR	LR	22 17 31.4	
	comp=Z,118nm,21.1s,baz=67,slow=43						
KEST	Kesra	7.44	188	Pn	Pn	22 14 09.3	+4.0
	1.3nm,0.3s,baz=348,slow=5.2,SNR=42						
KEST				Sn	Sn	22 15 37.5	+7.3
	0.0nm,0.3s,baz=336,slow=18,SNR=2.3						
EPF	Esparros	7.55	273	ePn	Pn	22 14 07.5	+0.6
EPF				eSn	Sn	22 15 28.5	-4.4
	1.1nm,0.4s						
EPF	Esparros	7.55	273	ePn	Pn	22 14 07.5	+0.6
MOX	Moxa	7.56	5	ePN	Pn	22 14 08.1	+1.2
MOX	Moxa	7.56	5	ePn	Pn	22 14 08.1	+1.2
GIVF	Givet	8.06	332	ePn	Pn	22 14 12.5	-1.2
GIVF				eSn	Sn	22 15 37.7	-7.5
	2.4nm,0.3s						
GIVF	Givet	8.06	332	ePn	Pn	22 14 12.5	-1.2
DPC	Dobruska-Polom	8.21	26	ePN	Pn	22 14 15.6	-0.3
DPC	Dobruska-Polom	8.21	26	Pn	Pn	22 14 15.6	-0.3
ETSF	Etsaut	8.22	272	ePn	Pn	22 14 16.7	+0.7
ETSF				eSn	Sn	22 15 44.6	-4.7
	1.2nm,0.5s						
ETSF	Etsaut	8.22	272	ePn	Pn	22 14 16.7	+0.7
CLL	Collm	8.35	10	ePn	Pn	22 14 18.0	+0.2
SJPF	Ste Jean	8.69	274	ePn	Pn	22 14 22.9	+0.4
SJPF				eSn	Sn	22 15 55.6	-5.3
	0.6nm,0.4s						
SJPF	Ste Jean	8.69	274	ePn	Pn	22 14 22.9	+0.4
TORD	Torodi Ar. Bea	30.85	197	P	P	22 18 34.4	+1.1
	0.6nm,0.8s,mb3.5,baz=9.2,slow=8.5,SNR=3.6						
MKAR	Makanchi Array	49.21	59	P	P	22 21 05.4	+0.2
	0.6nm,0.6s,mb3.8,baz=279,slow=7.2,SNR=12						
SONM	Songino Array	63.01	49	P	P	22 22 46.0	+2.2
	1.6nm,1.1s,mb4.1,baz=307,slow=5.2,SNR=6.3						
SONM	Songino Array	63.01	49	P	P	22 22 46.0	+2.2
YKA	Yellowknife Ar	65.99	335	P	P	22 23 03.5	+0.5
	0.4nm,0.7s,mb3.5,baz=43,slow=6.3,SNR=7.4						
YKA	Yellowknife Ar	65.99	335	P	P	22 23 03.5	+0.4

IDC 16 22:25:22.2±21.0, 5°.67S×151°.73E, h131^{km}±171^{km}, mb3.0/2, mb1 3.2/2, mb1mx2.9/15, mbtmp3.0/2, Error ellipse: s-maj=142.0km s-min=98.3km az=118.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	22.07	228	P	P	22 30 06.5	-0.3
	0.7nm,0.6s,baz=54,slow=10.0,SNR=7.5						
ASAR	Alice Springs	24.80	222	P	P	22 30 32.4	+0.3
	0.5nm,0.5s,baz=56,slow=9.0,SNR=9.6						
TORD	Torodi Ar. Bea	149.54	286	PKPbc	PKPbc	22 44 56.8	-0.4
	0.4nm,0.9s,baz=84,slow=3.4,SNR=2.8						

ISCJB 16 22:32:35.3±2.0, 17°.0N±0°.1×119°.5E±0°.2, h109^{km}±23^{km}, mb3.6/6, Error ellipse: s-maj=29.6km s-min=18.1km az=148.8

NEIC 16 22:32:36.7±1.7, 16°.95N×119°.53E, h108^{km}±18^{km}, mb4.2/1, Error ellipse: s-maj=30.4km s-min=12.8km az=50.0

IDC 16 22:32:36.3±2.8, 16°.98N×119°.54E, h103^{km}±29^{km}, mb3.2/5, mb1 3.4/7, mb1mx3.3/22, mbtmp3.3/7, MS2.9/1, Ms1 3.1/1, ms1mx2.6/15, Error ellipse: s-maj=32.7km s-min=17.7km az=67.0

ISC 16 22:32:36.5±1.9, 17°.0N±0°.1×119°.6E±0°.2, h105^{km}±21^{km}, n9, σ0^{s}.53/9, mb3.6/6, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	Tagaytay City	3.15	155	P	Pn	22 33 24.5	+0.1
	baz=43,slow=19,SNR=2.3						
CMAR	Chiang Mai Arr	19.70	277	P	P	22 36 57.7	+0.1
	baz=86,slow=7.1,SNR=4.6						
CMAR				LR	LR	22 43 38.0	
	comp=Z,40nm,21.8s,baz=115,slow=34						
KSRS	Korea Array	21.68	18	P	P	22 37 18.4	-0.3
	2.6nm,0.7s,mb3.6,baz=203,slow=11,SNR=6.1						
WRA	Warramunga Arr	39.46	158	P	P	22 39 57.4	+0.8
	0.7nm,1.0s,mb3.5,baz=339,slow=8.9,SNR=3.4						
ASAR	Alice Springs	42.76	160	P	P	22 40 22.4	-1.2
	0.4nm,0.7s,mb3.2,baz=339,slow=9.9,SNR=4.5						
MK31	Makanchi Array	42.77	322	eP	P	22 40 23.5	+0.1
MKAR	Makanchi Array	42.77	322	P	P	22 40 23.2	-0.3
	0.9nm,0.8s,mb3.5,baz=128,slow=9.3,SNR=8.8						
KURK	Kurchatov	46.88	325	eP	P	22 40 56.0	+0.1
	3.3nm,0.8s,mb4.1						
YKA	Yellowknife Ar	90.17	22	P	P	22 45 25.3	+0.6
	0.2nm,0.7s,mb3.4,baz=317,slow=4.6,SNR=5.4						

ISCJB 16 23:18:35.4±0.7, 6°.60S±0°.05×27°.3E±0°.1, h10^{km}, mb3.8/6, Error ellipse: s-maj=15.4km s-min=7.4km az=3.4

IDC 16 23:18:37.6±1.0, 6°.36S×27°.23E, h0^{km}, mb3.9/6, mb1 3.9/10, mb1mx3.7/23, mbtmp3.9/10, ML3.4/2, Error ellipse: s-maj=27.4km s-min=19.0km az=92.0

NEIC 16 23:18:38.9±0.6, 6°.31S×27°.25E, h10^{km}, mb3.6/2, Error ellipse: s-maj=14.3km s-min=11.0km az=98.0

ISC 16 23:18:38.3±0.7, 6°.50S±0°.06×27°.3E±0°.1, h10^{km}, n14, σ1^{s}.03/20, mb3.8/6, Zaire

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSZ	Lusaka	8.77	174	Pn	Pn	23 20 49.1	+3.9
	2.2nm,0.3s,baz=359,slow=12,SNR=38						
LSZ				Sn	Sn	23 22 23.0	-1.2
	8.0nm,0.3s,baz=68,slow=15,SNR=9.0						
LSZ				Lg		23 23 15.2	
	6.2nm,0.3s,baz=130,slow=21,SNR=4.4						
LSZ	Lusaka	8.77	174	ePn	Pn	23 20 49.2	+4.0
	30nm,0.8s						
LSZ				eSn	Sn	23 22 24.1	0.0
LSZ				eLg		23 23 15.3	
KMBO	Kilima Mbogo	11.30	62	Pn	Pn	23 21 19.3	-0.6
	0.2nm,0.3s,baz=225,slow=19,SNR=4.5						
KMBO				Sn	Sn	23 23 15.1	-11
	0.8nm,0.3s,baz=217,slow=20,SNR=2.6						
KMBO				Lg		23 24 28.5	
	2.6nm,0.3s,baz=308,slow=20,SNR=7.4						
KMBO	Kilima Mbogo	11.30	62	Pn	Pn	23 21 19.3	-0.6
KMBO				Sn	Sn	23 23 15.1	-11
KMBO				Lg		23 24 28.5	
TSUM	Tsumeb	15.75	216	Pn	Pn	23 22 20.2	-0.2
	0.2nm,0.3s,baz=104,slow=14,SNR=6.0						
TSUM	Tsumeb	15.75	216	ePn	Pn	23 22 18.6	-1.8
	3.4nm,0.8s						
LBTB	Lobatse	18.48	185	P	Pn	23 22 57.7	+3.1
	0.1nm,0.3s,baz=11,slow=16,SNR=3.9						
LBTB				S	Sn	23 26 13.7	-7.5
	0.3nm,0.3s,baz=121,slow=18,SNR=2.3						
LBTB	Lobatse	18.48	185	ePn	Pn	23 22 50.1	-4.4
	3.3nm,0.6s						
LBTB				S	Sn	23 26 13.7	-7.5
BOSA	Boshof	22.08	185	P	P	23 23 35.7	+2.2
	2.0nm,0.9s,mb3.5,baz=16,slow=10,SNR=3.3						
TORD	Torodi Ar. Bea	32.04	308	P	P	23 25 05.2	-0.2
	0.7nm,0.4s,mb3.9,baz=119,slow=8.7,SNR=22						
DBIC	Dimbokro	34.62	292	P	P	23 25 27.6	-0.5
	1.4nm,0.4s,mb4.3,baz=98,slow=9.1,SNR=6.9						
KEST	Kesra	45.27	339	P	P	23 26 56.8	+0.7
	1.4nm,0.9s,mb3.8,baz=161,slow=19,SNR=4.2						
BRTR	Keskin Array B	46.37	7	P	P	23 27 04.8	+0.1
	2.1nm,0.7s,mb4.2,baz=184,slow=9.5,SNR=8.6						
MKAR	Makanchi Array	71.96	36	P	P	23 30 02.1	+0.1
	0.4nm,0.9s,mb3.4,baz=248,slow=3.1,SNR=4.1						

ISCJB 16 23:18:45.7±0.6, 6°.25S±0°.08×27°.52E±0°.10, h10^{km}, mb4.1/8, Error ellipse: s-maj=13.8km s-min=11.3km az=175.1

IDC 16 23:18:46.4±1.0, 6°.26S×27°.52E, h0^{km}, mb4.0/7, mb1 4.1/10, mb1mx3.9/22, mbtmp4.0/10, ML4.1/3, MS3.4/1, Ms1 3.3/1, ms1mx2.7/36, Error ellipse: s-maj=27.3km s-min=18.5km az=88.0

NEIC 16 23:18:47.8±0.9, 6°.24S×27°.49E, h10^{km}, mb3.8/2, Error ellipse: s-maj=31.2km s-min=11.8km az=79.0

ISC 16 23:18:47.9±0.6, 6°.26S±0°.08×27°.48E±0°.10, h10^{km}, n18, σ0^{s}.66/18, mb4.1/8, Zaire

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSZ	Lusaka	8.99	176	Pn	Pn	23 20 58.5	+0.6
	4.1nm,0.3s,baz=349,slow=10,SNR=39						
LSZ	Lusaka	8.99	176	ePn	Pn	23 20 58.7	+0.8
KMBO	Kilima Mbogo	11.00	63	Pn	Pn	23 21 25.2	-0.3
	0.7nm,0.3s,baz=234,slow=23,SNR=8.1						
TSUM	Tsumeb	16.07	216	Pn	Pn	23 22 28.7	-5.5
	0.5nm,0.3s,baz=8.3,slow=13,SNR=12						
TSUM	Tsumeb	16.07	216	Pn	Pn	23 22 28.4	-5.7
	4.7nm,0.6s						
LBTB	Lobatse	18.74	185	P	Pn	23 23 07.3	-0.1
	0.7nm,0.3s,baz=21,slow=14,SNR=9.0						
LBTB	Lobatse	18.74	185	ePn	Pn	23 23 02.1	-5.3
	2.8nm,0.5s						
BOSA	Boshof	22.34	185	P	P	23 23 45.5	-0.4
	4.4nm,0.8s,mb4.0,baz=3.9,slow=11,SNR=7.2						
BOSA				LR	LR	23 33 35.0	
	comp=Z,87nm,18.6s,baz=187,slow=40						
TORD	Torodi Ar. Bea	32.05	307	P	P	23 25 15.7	+0.6
	3.5nm,0.7s,mb4.3,baz=122,slow=6.8,SNR=23						
KIC	Kosan Boka	34.51	291	eP	P	23 25 36.6	0.0
	61nm,1.3s						
DBIC	Dimbokro	34.73	291	P	P	23 25 38.5	0.0
	3.4nm,0.5s,mb4.6,baz=93,slow=9.2,SNR=13						
LIC	Lamto	34.73	290	eP	P	23 25 37.6	-0.9
	55nm,1.7s,mb5.2						
TIC	Toumodi	34.87	291	eP	P	23 25 39.5	-0.3
	38nm,0.5s						
KEST	Kesra	45.11	339	P	P	23 27 06.0	+1.5
	1.3nm,1.0s,mb3.7,baz=162,slow=16,SNR=4.2						
BRTR	Keskin Array B	46.10	7	P	P	23 27 12.8	+0.5
	1.4nm,0.6s,mb4.1,baz=188,slow=11,SNR=7.1						
BRTR	Keskin Array B	46.10	7	P	P	23 27 12.8	+0.5
GERES	GERESS Array B	56.18	349	P	P	23 28 26.9	-0.9
	0.6nm,0.7s,mb3.8,baz=172,slow=7.9,SNR=5.7						
MKAR	Makanchi Array	71.64	36	P	P	23 30 09.5	-0.2
	0.2nm,0.7s,mb3.2,baz=249,slow=4.2,SNR=3.7						

IDC 16 23:32:03.5±8.6, 28°.54N×138°.47E, h0^{km}, mb3.5/3, mb1 3.7/3, mb1mx3.4/20, mbtmp3.5/3, Error ellipse: s-maj=335.1km s-min=31.5km az=66.0, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	47.01	309	P	P	23 40 36.4	0.0
	0.2nm,0.5s,baz=91,slow=9.0,SNR=6.0						
WRA	Warramunga Arr	48.36	185	P	P	23 40 47.2	+0.1
	0.5nm,0.3s,baz=3.2,slow=7.7,SNR=9.9						
ASAR	Alice Springs	52.09	185	P	P	23 41 15.0	-0.3
	0.1nm,0.3s,baz=13,slow=8.6,SNR=4.2						

DDA 16 23:32:16.7, 38°.87N×26°.00E, h7^{km}±3^{km}, Md2.9

ISCJB 16 23:32:17.2±1.3, 38°.88N±0°.04×26°.01E±0°.07, h4^{km}±8^{km}, Error ellipse: s-maj=10.2km s-min=5.2km az=160.7

ATH 16 23:32:17.8, 38°.93N×26°.10E, h28^{km}±3^{km}, MD2.9/3

ISK 16 23:32:18.1, 38°.71N×26°.04E, h5^{km}, MD3.0

CSEM 16 23:32:19.0±0.7, 38°.90N×26°.08E, h20^{km}±1^{km}, MD2.9, Error ellipse: s-maj=16.7km s-min=9.4km az=61.0

ISC 16 23:32:17.8±1.3, 38°.89N±0°.04×26°.01E±0°.08, h7^{km}±7^{km}, n18, σ0^{s}.86/31, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.41	30	ePB	Pg	23 32 25.8	0.0
PRK				eSB	Sg	23 32 31.9	+0.6
PRK	Paraskevi	0.41	30	ePb	Pg	23 32 25.8	0.0
PRK				eSb	Sg	23 32 31.9	+0.6
AYVA	Ayvalik	0.68	52	i P	Pg	23 32 30.1	-0.8
AYVA				i S	Sg	23 32 39.7	0.0
AYVA	Ayvalik	0.68	52	i P	Pg	23 32 30.1	-0.8
AYVA				i S	Sg	23 32 39.7	0.0
BLCB	Balcova	0.95	121	ePG	Pg	23 32 35.6	-0.6
BLCB				eSG	Sg	23 32 48.6	+0.1
BLCB	Balcova	0.95	121	ePg	Pg	23 32 35.6	-0.5
BLCB				eSg	Sg	23 32 48.6	+0.1
IZM	Izmir	1.10	116	ePG	Pg	23 32 38.4	-0.5
IZM				eSG	Sg	23 32 53.2	0.0
LIA	Limnos Island	1.19	328	ePN	Pn	23 32 40.3	-0.5
LIA				eSN	Sn	23 32 57.2	-0.1
LIA	Limnos Island	1.19	328	ePn	Pn	23 32 40.3	-0.5
LIA				eSn	Sn	23 32 57.2	-0.1
SMG	Samos	1.35	151	ePN	Pn	23 32 42.9	0.0
SMG				eSN	Sn	23 33 00.7	-0.3
SMG	Samos	1.35	151	ePn	Pn	23 32 42.9	0.0
SMG				eSn	Sn	23 33 00.7	-0.3
BALY	Balya	1.52	55	eP	Pn	23 32 46.0	+0.8
BALY				eS	Sn	23 33 03.5	-1.7
BALY	Balya	1.52	55	eP	Pn	23 32 46.0	+0.8
BALY				eS	Sn	23 33 03.5	-1.7
ENEZ	Enez	1.85	3	ePN	Pn	23 32 54.6	+4.8
ENEZ	Enez	1.85	3	ePn	Pn	23 32 54.6	+4.7
KULA	Kula-Manisa	2.11	99	ePN	Pn	23 32 55.4	+2.0
KULA	Kula-Manisa	2.11	99	ePn	Pn	23 32 55.4	+2.0
DST	Dursunbey	2.16	70	ePN	Pn	23 32 57.4	+3.3

IDC 16 23:39:58.5±15.0, 4°.65S×151°.29E, h455^{km}±131^{km}, mb2.6/4, mb1 2.7/4, mb1mx2.6/16, mbtmp2.6/4, Error ellipse: s-maj=187.6km s-min=32.8km az=92.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	22.44	226	P	P	23 44 20.8	-1.1
	0.2nm,0.3s,baz=51,slow=9.9,SNR=7.3						
ASAR	Alice Springs	25.27	220	P	P	23 44 48.6	+1.5
	0.2nm,0.5s,baz=51,slow=9.4,SNR=5.2						
SONM	Songino Array	65.40	328	P	P	23 49 54.7	-0.2
	0.2nm,0.3s,baz=139,slow=9.0,SNR=2.5						
MKAR	Makanchi Array	79.22	319	P	P	23 51 16.4	+1.1
	0.5nm,0.7s,baz=96,slow=6.3,SNR=6.8						
TORD	Torodi Ar. Bea	148.82	288	PKPbc	PKPbc	23 58 54.1	-0.8
	1.0nm,0.5s,baz=90,slow=2.3,SNR=15						

NIED 16 23:57:00, 32°.30N×132°.10E, h26^{km}, Mw3.6 Best double couple: $M_0 2.80000\times10^{14}$ NP1: ϕ_s201.00000°, δ88.00000°, λ-71.00000°. NP2: ϕ_s297.00000°, δ19.00000°, λ-174.00000°.

JMA 16 23:57:28.9, 32°.32N×132°.12E, h21^{km}±1^{km}, M3.5

JMA Felt I J1.

ISCJB 16 23:57:29.2±0.8, 32°.33N±0°.05×132°.12E±0°.06, h28^{km}±11^{km}, Error ellipse: s-maj=10.7km s-min=4.9km az=136.9

ISC 16 23:57:28.9±0.9, 32°.31N±0°.06×132°.14E±0°.06, h20^{km}±8^{km}, n8, σ0^{s}.58/15, 2C-3D, Shikoku

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTSN	Tsuno	0.54	263	⇓P	Pb	23 57 39.0	-0.6
JTSN				S	Sb	23 57 46.4	-0.6
JKIT	Kitakata	0.66	299	⇓P	Pb	23 57 41.2	-0.5
JKIT				S	Sb	23 57 50.4	0.0
JTO	Tosashimizu	0.78	46	⇓P	Pb	23 57 43.6	-0.2
JTO				eS	Sb	23 57 54.4	+0.4
JUS	Usuki	0.82	337	P	Pb	23 57 44.2	-0.2
JUS				eS	Sb	23 57 55.6	+0.5
JTZ	Takazaki	0.98	246	⇑P	Pn	23 57 46.5	-0.9
JTZ				eS	Sb	23 58 00.3	+0.7
UWA2	Uwa jima 2	0.99	24	P	Pn	23 57 46.7	-0.9
UWA2				eS	Sn	23 58 01.4	+0.4
JNAR	Kushima--Naru	1.07	223	P	Pn	23 57 48.8	+0.1
JNAR				S	Sn	23 58 04.1	+1.1
JIU2	Izumi 2	1.14	282	⇑P	Pn	23 57 49.4	-0.3

CSEM 17 00:05:32.1±1.1, 36°.75N×27°.58E, h10^{km}, MD2.5, Error ellipse: s-maj=22.8km s-min=8.8km az=24.0

DDA 17 00:05:34.0, 36°.88N×27°.70E, h7^{km}±6^{km}, Md2.5

ISCJB 17 00:05:35.5±1.5, 37°.01N±0°.10×27°.44E±0°.07, h33^{km}, Error ellipse: s-maj=14.2km s-min=7.5km az=179.1

ISK 17 00:05:36.2, 36°.99N×27°.49E, h9^{km}, MD2.8

ISC 17 00:05:36.0±2.2, 36°.99N±0°.09×27°.47E±0°.08, h18^{km}±14^{km}, n12, σ0^{s}.71/17, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BODT	Bodrum	0.15	297	ePG	Pg	00 05 40.0	-0.2
BODT				eSG	Sg	00 05 42.9	-0.2
BODT	Bodrum	0.15	297	ePg	Pg	00 05 40.0	-0.2
BODT				eSg	Sg	00 05 42.9	-0.2
MLSB	Milas	0.39	39	ePG	Pg	00 05 44.5	+0.5
MLSB				eSG	Sg	00 05 49.9	+0.4
MLSB	Milas	0.39	39	ePg	Pg	00 05 44.5	+0.5
MLSB				eSg	Sg	00 05 49.9	+0.4
YER	Yerkesik	0.66	78	ePG	Pg	00 05 49.2	+0.1
YER	Yerkesik	0.66	78	ePg	Pg	00 05 49.2	+0.1
GCAM	G?zelcaml?	0.73	345	i P	Pg	00 05 50.4	0.0
GCAM				i S	Sg	00 06 00.7	+0.6
GCAM	G?zelcaml?	0.73	345	i P	Pg	00 05 50.4	+0.1
GCAM				i S	Sg	00 06 00.7	+0.6
AYDN	Tasoluk	0.74	26	i P	Pg	00 05 50.1	-0.4
AYDN				i S	Sg	00 05 57.2	-3.2
AYDN	Tasoluk	0.74	26	i P	Pg	00 05 50.1	-0.4
TURN	Turunc	0.91	97	i P	Px	00 05 47.9	
TURN				i S	Sx	00 05 58.1	
TURN	Turunc	0.91	97	i P	Px	00 05 47.9	
TURN				i S	Sx	00 05 58.1	

CASC 17 00:12:53.1±2.0, 8°.94N×83°.34W, h32^{km}±4^{km}, MD3.6, MW3.9, 3C-2D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BAR1		0.30	6	⇑eP	Pb	00 13 01.6	+0.8
BAR1				eS	Sb	00 13 08.0	+2.0
ACR	Cerro Adams	0.34	149	⇓eP	Pb	00 13 00.8	-0.5
ACR				eS	Sb	00 13 07.0	+0.2
BRU2	Volcan	0.66	103	⇑iP	Pn	00 13 05.3	-0.9
BRU2				eS	Sb	00 13 15.6	+0.4
BUS	Buena Vista	0.73	326	eP	Pn	00 13 07.2	-0.1
BUS				eS	Sb	00 13 18.7	+1.5
CNI	Changuinola	0.94	60	⇑iP	Pn	00 13 10.2	0.0
CNI				eS	Sn	00 13 15.3	-7.2
URSC	Urasca	0.98	334	⇓eP	Pn	00 13 10.8	0.0
URSC				eS	Sn	00 13 24.5	+0.9
LCR2	La Lucha 2	1.03	321	eP	Pn	00 13 11.1	-0.2
LCR2				eS	Sn	00 13 25.2	+0.6
LAJ	Bijagual	1.19	320	eP	Pn	00 13 13.0	-0.6
PRS1	Puriscal	1.41	317	eP	Pn	00 13 16.4	-0.1
PRS1				eS	Sn	00 13 34.1	+0.1
CGA2	Cerro Gallo 2	1.54	314	eP	Pn	00 13 19.4	+1.0
CGA2				eS	Sn	00 13 38.6	+1.4

DDA 17 00:15:56.7, 39°.46N×40°.31E, h7^{km}±4^{km}, Md3.0

ISK 17 00:15:56.3, 39°.50N×40°.27E, h5^{km}, MD3.1

ISCJB 17 00:15:57.5±0.7, 39°.49N±0°.06×40°.30E±0°.04, h10^{km}, Error ellipse: s-maj=8.5km s-min=4.2km az=163.7

CSEM 17 00:15:57.1±0.3, 39°.50N×40°.31E, h2^{km}, MD3.1, Error ellipse: s-maj=10.5km s-min=5.8km az=163.0

ISC 17 00:15:58.0±1.1, 39°.46N±0°.07×40°.31E±0°.05, h7^{km}±12^{km}, n14, σ1^{s}.09/22, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZC	Erzincan	0.47	307	ePG	Pg	00 16 11.7	+4.5
EZC				eSG	Sg	00 16 22.9	+10
EZM	Erzurum	0.93	61	ePG	Pg	00 16 15.0	-0.8
EZM				eSG	Sg	00 16 29.6	+1.7
ERZM	Erzurum	0.93	61	i P	Pg	00 16 14.3	-1.6
ERZM				i S	Sg	00 16 28.5	+0.5
ERZM	Erzurum	0.93	61	i P	Pg	00 16 14.3	-1.6
ERZM				i S	Sg	00 16 28.5	+0.5
GUMT	Gumushane	1.18	328	ePN	Pg	00 16 18.5	-2.2
GUMT				eSN	Sg	00 16 36.8	+0.8
GUMT	Gumushane	1.18	328	ePn	Pg	00 16 18.5	-2.2
GUMT				eSn	Sg	00 16 36.8	+0.8
KEMA	Kemaliye	1.42	263	i P	Pn	00 16 23.1	-1.0
KEMA				i S	Sg	00 16 44.2	+0.7
KEMA	Kemaliye	1.42	263	i P	Pn	00 16 23.1	-1.0
KEMA				i S	Sg	00 16 44.2	+0.7
MYA	Malataya	1.85	233	ePN	Pn	00 16 30.9	+0.8
MYA	Malataya	1.85	233	ePn	Pn	00 16 30.9	+0.8
MALT	Malatya	1.86	233	ePN	Pn	00 16 30.4	+0.2
MALT	Malatya	1.86	233	ePn	Pn	00 16 30.4	+0.2
ESPY	Espiye-Giresun	1.89	321	ePN	Pn	00 16 30.8	+0.2
ESPY	Espiye-Giresun	1.89	321	ePn	Pn	00 16 30.8	+0.2

IDC 17 00:25:06.7±0.8, 22°.95N×142°.52E, h0^{km}, mb3.8/9, mb1 4.0/9, mb1mx3.9/22, mbtmp3.8/9, MS3.3/3, Ms1 3.3/3, ms1mx2.9/34, Error ellipse: s-maj=29.6km s-min=18.6km az=92.0, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ	Hachijo jima 2	10.41	347	LR	LR	00 30 57.6	
	comp=Z,217nm,21.1s,baz=147,slow=34						
JOW	Kunigami	13.49	290	LR	LR	00 32 23.7	
	comp=Z,148nm,20.4s,baz=135,slow=32						
KSRS	Korea Array	19.15	322	LR	LR	00 36 18.9	
	comp=Z,54nm,18.3s,baz=120,slow=35						
CMAR	Chiang Mai Arr	40.90	272	P	P	00 32 51.8	+0.9
	0.3nm,0.3s,baz=54,slow=8.2,SNR=4.4						
WRA	Warramunga Arr	43.37	191	P	P	00 33 10.9	0.0
	3.4nm,0.8s,baz=9.6,slow=8.1,SNR=19						

FITZ	**Fitzroy Crossi**	**44.01**	**203**	P	P	00 33 16.1	0.0
	2.1nm,0.9s,baz=20,slow=12,SNR=2.5						
ASAR	**Alice Springs**	**47.09**	**191**	P	P	00 33 40.1	-0.3
	1.8nm,0.6s,baz=17,slow=11,SNR=31						
ZALV	**Zalesovo Beam**	**52.85**	**321**	P	P	00 34 23.2	-0.7
	0.2nm,0.5s,baz=93,slow=7.2,SNR=2.3						
ZALV				PcP	PcP	00 35 31.3	-1.9
	0.6nm,0.6s,baz=114,slow=3.6,SNR=3.9						
MKAR	**Makanchi Array**	**53.40**	**312**	P	P	00 34 28.1	-0.1
	0.4nm,0.8s,baz=92,slow=8.4,SNR=4.7						
KURK	**Kurchatov**	**56.15**	**317**	P	P	00 34 49.2	+1.2
	0.5nm,0.7s,baz=94,slow=7.4,SNR=4.1						
YKA	**Yellowknife Ar**	**75.64**	**28**	P	P	00 36 53.2	-0.1
	0.4nm,0.7s,baz=293,slow=5.5,SNR=7.8						
JOF	**Joensuu**	**78.92**	**334**	*e*p	P	00 37 10.6	-1.2
NVAR	**Mina Array Bea**	**82.85**	**51**	P	P	00 37 34.4	+1.2
	0.3nm,0.5s,baz=282,slow=4.5,SNR=2.9						

IDC 17 00:31:50.0±12.0**, 17°.06S×69°.69W, h0km, mb4.0**/4**, mb1 4.1**/4**, mb1mx3.7**/17**, mbtmp4.0**/4**, Error ellipse: s-maj=457.7km s-min=40.0km az=25.0, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBIC	**Dimbokro**	**68.25**	**75**	P	P	00 42 53.8	+0.5
	1.4nm,0.7s,baz=224,slow=6.5,SNR=3.1						
ULM	**Lac du Bonnet**	**70.89**	**343**	P	P	00 43 08.7	0.0
	1.0nm,0.4s,baz=155,slow=3.1,SNR=3.2						
TORD	**Torodi Ar. Bea**	**76.61**	**72**	P	P	00 43 42.9	-0.2
	0.4nm,0.4s,baz=257,slow=4.9,SNR=10.0						
YKA	**Yellowknife Ar**	**86.78**	**341**	P	P	00 44 35.8	+0.1
	0.5nm,0.7s,baz=133,slow=4.7,SNR=9.7						

IDC 17 00:32:42.5±2.8**, 6°.60S×128°.38E, h0km, mb3.4**/1**, mb1 3.5**/3**, mb1mx3.3**/16**, mbtmp3.3**/3**, ML3.2**/2**, Error ellipse: s-maj=315.3km s-min=31.2km az=66.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.47**	**157**	Pn	Pn	00 36 08.7	0.0
	0.1nm,0.3s,baz=333,slow=13,SNR=7.7						
WRA				Sn	Sn	00 38 37.2	-13
	0.1nm,0.3s,baz=335,slow=22,SNR=6.5						
ASAR	**Alice Springs**	**17.78**	**163**	P	Pn	00 36 51.7	+0.1
	0.1nm,0.3s,baz=351,slow=11,SNR=4.9						
MKAR	**Makanchi Array**	**67.02**	**327**	P	P	00 43 37.5	+0.1
	0.2nm,0.4s,baz=117,slow=7.9,SNR=8.0						

IDC 17 00:43:42.3±0.9**, 23°.03N×142°.32E, h0km, mb3.7**/6**, mb1 4.0**/6**, mb1mx3.8**/20**, mbtmp3.7**/6**, MS3.2**/3**, Ms1 3.2**/3**, ms1mx2.7**/47**, Error ellipse: s-maj=39.4km s-min=21.9km az=93.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOW	**Kunigami**	**13.29**	**289**	LR	LR	00 51 20.1	
	comp=Z,156nm,18.1s,baz=152,slow=34						
KSRS	**Korea Array**	**18.98**	**323**	LR	LR	00 54 45.0	
	comp=Z,65nm,19.2s,baz=160,slow=35						
PETK	**Petropavlovsk-**	**32.24**	**17**	LR	LR	01 00 50.5	
	comp=Z,28nm,20.7s,baz=69,slow=32						
WRA	**Warramunga Arr**	**43.41**	**191**	P	P	00 51 47.6	+0.7
	2.3nm,0.8s,baz=12,slow=8.5,SNR=12						
ASAR	**Alice Springs**	**47.13**	**191**	P	P	00 52 15.6	-0.8
	0.6nm,0.6s,baz=17,slow=12,SNR=14						
ZALV	**Zalesovo Beam**	**52.68**	**321**	P	P	00 52 57.7	-0.6
	0.2nm,0.2s,baz=76,slow=6.1,SNR=2.8						
ZALV				PcP	PcP	00 54 07.0	-1.2
	0.9nm,0.7s,baz=101,slow=3.0,SNR=4.5						
MKAR	**Makanchi Array**	**53.21**	**312**	P	P	00 53 03.2	+0.8
	0.5nm,0.7s,baz=92,slow=9.2,SNR=5.9						
YKA	**Yellowknife Ar**	**75.66**	**28**	P	P	00 55 29.2	+0.1
	0.6nm,0.7s,baz=291,slow=5.6,SNR=9.9						
NVAR	**Mina Array Bea**	**82.95**	**51**	P	P	00 56 10.0	+0.6
	1.2nm,1.1s,baz=274,slow=5.6,SNR=4.5						

ISCJB ***17*** *00:47:45.1±0.2, 13°.48S±0°.04×76°.88W±0°.06, h29km, mb4.8/61, MS4.5/12, Error ellipse: s-maj=8.5km s-min=4.2km az=152.2*

MOS ***17*** *00:47:47.3±1.0, 13°.21S×76°.84W, h33km, mb4.9/16, Error ellipse: s-maj=28.2km s-min=10.1km az=109.5*

BJI ***17*** *00:47:47.1, 13°.22S×77°.03W, h32km, mB5.3/12, Ms5.5/7, Ms7 5.2/8*

IDC ***17*** *00:47:47.1±0.5, 13°.37S×76°.82W, h26km±3km, mb4.4/13, mb1 4.5/15, mb1mx4.5/19, mbtmp4.4/15, ML4.3/2, MS4.3/11, Ms1 4.3/11, ms1mx4.0/38, Error ellipse: s-maj=21.0km s-min=9.5km az=79.0*

NEIC ***17*** *00:47:47.4±0.2, 13°.43S×76°.82W, mb4.8/49, ML4.8(LIM), Error ellipse: s-maj=9.5km s-min=4.3km az=62.0*

NEIC Felt [III] at Lima and San Vincente de Canete. Also felt at Pachacamac.

ISC 17 00:47:47.7±0.2**, 13°.44S**±0°.04×**76°.81W**±0°.05**, h30km, h30km**±1.2km**:pP-P, n325, σ0^{s}71**/295**, mb4.8**/61**, MS4.5**/12**, 90C-77D, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**1.45**	**359**	Pg	**Pn**	**00 48 10.8**	**-1.0**
	603nm,0.3s,baz=182,slow=13,SNR=433						
NNA				Lg		00 48 30.1	
	7µm,0.3s,baz=243,slow=18,SNR=31						
NNA	**Nana**	**1.45**	**359**	*e*Pn	**Pn**	**00 48 10.9**	**-0.9**
NNA				*e*Sn	**Sn**	**00 48 30.4**	**+0.6**
ARE	**Arequipa**	**5.95**	**121**	*e*P	**Pn**	**00 49 14.0**	**+0.2**
ARE				*e*S	**Sn**	**00 50 39.0**	**+18**
ATAH	**Atahualpa**	**6.59**	**346**	Pn	**Pn**	**00 49 22.3**	**-0.3**
	9.1nm,0.3s,baz=136,slow=5.9,SNR=49						
ATAH				Sn	**Sn**	**00 50 33.5**	**-3.3**
	14nm,0.3s,baz=66,slow=20,SNR=2.0						
ATAH				LR	LR	00 51 39.8	
	comp=Z,1µm,21.1s,baz=19,slow=36						
LVC	**Limon Verde**	**11.81**	**142**	Pn	**Pn**	**00 50 33.9**	**-0.2**
	1.2nm,0.3s,baz=0.1,slow=5.8,SNR=17						
LVC				Sn	**Sn**	**00 52 43.4**	**-1.6**
	0.6nm,0.3s,baz=0.0,slow=20,SNR=2.4						
LVC				LR	LR	00 55 39.5	
	comp=Z,1µm,19.4s,baz=180,slow=40						
LVC	**Limon Verde**	**11.81**	**142**	*e*Pn	**Pn**	**00 50 33.6**	**-0.6**
LVC				*e*Sn	**Sn**	**00 52 47.2**	**+2.3**
OTAV	**Otavalo**	**13.69**	**353**	*e*Pn	**Pn**	**00 51 01.8**	**+1.9**
OTAV				*e*Sn	**Sn**	**00 53 33.4**	**+2.4**
LCO	**Las Campanas**	**16.50**	**161**	*e*Pn	**Pn**	**00 51 39.0**	**+2.1**
	49nm,1.2s						
ROSC	**El Rosal**	**18.35**	**8**	P	**Pn**	**00 52 03.5**	**+3.5**
	0.9nm,0.3s,baz=270,slow=20,SNR=3.2						
ROSC				LR	LR	01 00 20.1	
	comp=Z,2µm,18.7s,baz=194,slow=41						
PAYG	**Puerto Ayora**	**18.41**	**312**	*e*P	**Pn**	**00 51 59.7**	**-1.1**
	11nm,0.6s						
CFAA	**Coronel Fontan**	**19.72**	**158**	P	**Pn**	**00 52 15.2**	**-1.2**
	0.2nm,0.3s,baz=336,slow=11,SNR=21						
CFAA				LR	LR	00 58 24.0	
	comp=Z,55nm,19.7s,baz=349,slow=32						
FCH	**Farellones**	**20.67**	**164**	⇑*e*P	**P**	**00 52 24.8**	**-0.2**
CPUP	**Villa Florida**	**22.32**	**128**	P	**P**	**00 52 42.4**	**-0.5**
	12nm,0.9s,mb4.3,baz=290,slow=9.8,SNR=21						
CPUP				LR	LR	01 03 41.1	
	comp=Z,769nm,18.0s,MS4.2,baz=291,slow=43						
SDV	**Santo Domingo**	**23.02**	**16**	P	**P**	**00 52 50.7**	**+0.3**
	13nm,0.5s,mb4.7,baz=205,slow=13,SNR=25						
SDV				LR	LR	01 03 06.3	
	comp=Z,1µm,18.9s,MS4.3,baz=122,slow=40						
SDV	**Santo Domingo**	**23.02**	**16**	*e*P	**P**	**00 52 50.6**	**+0.3**
	119nm,1.5s,mb5.1						
JTS	**JuntasAbangare**	**24.93**	**341**	LR	LR	01 02 36.2	
	comp=Z,343nm,19.7s,MS3.9,baz=320,slow=36						
PCRV	**Puerto La Cruz**	**26.39**	**28**	LR	LR	01 04 41.6	
	comp=Z,2µm,18.3s,MS4.7,baz=204,slow=38						
PLCA	**Paso Flores**	**27.73**	**170**	P	**P**	**00 53 32.7**	**-0.7**
	6.8nm,0.9s,mb4.3,baz=341,slow=8.7,SNR=9.4						
PLCA				LR	LR	01 02 22.3	
	comp=Z,216nm,19.6s,MS3.7,baz=334,slow=32						
PLCA	**Paso Flores**	**27.73**	**170**	P	**P**	**00 53 32.7**	**-0.7**
PLCA				LR	LR	01 02 22.3	
CELP	**Cerrillos**	**32.90**	**18**	*e*P	**P**	**00 54 19.2**	**-0.2**
CMIG	**Matias Romero**	**35.20**	**329**	LR	LR	01 07 46.3	
	comp=Z,281nm,18.1s,MS4.1,baz=284,slow=34						
LRAL	**Lakeview Retre**	**47.23**	**348**	*e*P	**P**	**00 56 16.9**	**-1.0**
	6.9nm,0.8s,mb4.6						
SWET	**Sewanee**	**49.16**	**350**	*e*P	**P**	**00 56 31.6**	**-1.2**
TXAR	**Lajitas Array**	**49.81**	**329**	P	**P**	**00 56 37.9**	**0.0**
	1.2nm,0.6s,mb4.1,baz=150,slow=9.3,SNR=8.6						
TXAR				pP	pP	00 56 45.9	-1.2
	2.1nm,0.6s,baz=147,slow=8.8,SNR=9.3						
TZTN	**Tazewell**	**50.12**	**353**	*e*P	**P**	**00 56 39.3**	**-0.8**
	4.5nm,0.6s,mb4.7						
UALR	**University of**	**50.17**	**343**	*e*P	**P**	**00 56 41.8**	**+1.2**
	12nm,1.0s,mb4.9						
MIAR	**Mount Ida**	**50.31**	**342**	*e*P	**P**	**00 56 41.4**	**-0.2**
MIAR				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
MIAR	**Mount Ida**	**50.31**	**342**	*e*P	**P**	**00 56 41.4**	**-0.2**
	comp=Z,8.0nm,0.7s,mb4.9						
WCI	**Wyandotte Cave**	**52.16**	**351**	*e*P	**P**	**00 56 54.5**	**-0.9**
WCI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
WCI	**Wyandotte Cave**	**52.16**	**351**	*e*P	**P**	**00 56 54.5**	**-0.9**
	comp=Z,6.7nm,0.8s,mb4.6						
SIUC	**Southern Illin**	**52.20**	**348**	*e*P	**P**	**00 56 54.6**	**-1.1**
	comp=Z,12nm,0.7s,mb4.9						
SIUC				*e*pP	pP	00 57 05.3	+0.3
WMOK	**Wichita Mounta**	**52.26**	**337**	*e*P	**P**	**00 57 01.1**	**+4.9**
WMOK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
WMOK	**Wichita Mounta**	**52.26**	**337**	*e*P	**P**	**00 57 01.1**	**+4.9**
	comp=Z,7.4nm,1.0s,mb4.6						
GDL2	**Guadalupe Moun**	**52.50**	**330**	*e*P	**P**	**00 56 56.6**	**-1.4**
GDL2				*e*pP	pP	00 57 04.9	-2.3
OLIL	**Olney**	**52.97**	**349**	*e*P	**P**	**00 57 00.0**	**-1.4**
	comp=Z,14nm,0.7s,mb5.0						
OLIL				*e*pP	pP	00 57 10.0	-0.6
CCM	**Cathedral Cave**	**52.99**	**346**	*e*P	**P**	**00 57 00.2**	**-1.3**
CCM				*e**PP	pP	00 57 07.6	-3.1
CCM				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CCM	**Cathedral Cave**	**52.99**	**346**	*e*P	**P**	**00 57 00.2**	**-1.3**
	comp=Z,9.7nm,0.9s,mb4.7						
CCM				*e*pP	pP	00 57 07.6	-3.1
MVL	**Millersville**	**53.17**	**0**	*e*P	**P**	**00 57 03.3**	**+0.5**
	comp=Z,20nm,1.2s,mb4.9						
MVL				*e*pP	pP	00 57 08.5	-3.5
ACSO	**Alum Creek Sta**	**53.71**	**354**	*e*P	**P**	**00 57 05.7**	**-1.1**
	comp=Z,14nm,0.9s,mb4.9						
ACSO				*e*pP	pP	00 57 14.0	-2.0
SSPA	**Standing Stone**	**53.81**	**359**	*e*P	**P**	**00 57 07.0**	**-0.5**
	comp=Z,33nm,1.6s,mb5.0						
319A	**Douglas**	**54.38**	**326**	⇓P	**P**	**00 57 12.2**	**+0.3**
	baz=54						
YLE	**Yale**	**54.60**	**4**	*e*P	**P**	**00 57 14.1**	**+0.9**
YLE				*e*pP	pP	00 57 24.9	+2.4
318A	**Bisbee**	**54.82**	**325**	⇑P	**P**	**00 57 15.2**	**+0.1**
	baz=55,SNR=5.3						
219A	**White Tail Can**	**54.85**	**326**	⇑P	**P**	**00 57 15.4**	**+0.1**
	baz=55						
BINY	**Binghamton**	**55.37**	**1**	*e*P	**P**	**00 57 18.6**	**-0.2**
	comp=Z,14nm,0.6s,mb5.2						
BINY				*e*pP	pP	00 57 28.0	0.0
217A	**Green Valley**	**55.54**	**325**	⇑P	**P**	**00 57 20.8**	**+0.5**
	baz=56						
118A	**Homack Ranch,**	**55.72**	**326**	⇓P	**P**	**00 57 21.8**	**+0.2**
	baz=56						
RKT	**Rikitea**	**55.76**	**251**	*e*S	**S**	**01 05 07.0**	**-0.3**
	comp=Z,305nm,24.8s						
RKT				*e*LR	LR	01 13 40.5	
	comp=Z,313nm,27.5s						
TUC	**Tucson**	**55.92**	**325**	*e*P	**P**	**00 57 22.9**	**-0.1**
TUC				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
TUC	**Tucson**	**55.92**	**325**	*e*P	**P**	**00 57 22.9**	**-0.1**
	comp=Z,7.7nm,1.1s,mb4.7						
TRY	**Troy**	**55.97**	**3**	*e*P	**P**	**00 57 24.1**	**+1.0**
117A	**Oracle**	**56.09**	**325**	⇓P	**P**	**00 57 24.0**	**-0.2**
	baz=56,SNR=7.3						
Y19A	**Nutrioso**	**56.35**	**328**	⇑P	**P**	**00 57 26.9**	**+0.9**
	baz=56						
ACCN	**Adirondack Com**	**56.62**	**3**	*e*P	**P**	**00 57 28.1**	**+0.4**
	comp=Z,33nm,1.2s,mb5.2						
214A	**Organ Pipe Nat**	**56.81**	**323**	⇓P	**P**	**00 57 29.9**	**+0.5**
	baz=57						
W20A	**Ramah**	**56.89**	**329**	⇑P	**P**	**00 57 30.5**	**+0.7**
	baz=57						
Y17A	**Roosevelt**	**57.00**	**326**	⇓P	**P**	**00 57 30.8**	**+0.1**
	baz=57						
115A	**Sonoran Desert**	**57.02**	**324**	⇓P	**P**	**00 57 31.2**	**+0.4**
	baz=57						
114A	**Black Gap (USA**	**57.43**	**324**	⇑P	**P**	**00 57 34.1**	**+0.4**
	baz=58						
X17A	**Forest Lakes**	**57.47**	**327**	⇓P	**P**	**00 57 34.6**	**+0.7**
	baz=58						
Y16A	**Circle Bar Ran**	**57.48**	**326**	⇑P	**P**	**00 57 34.8**	**+0.7**
	baz=58						
LBNH	**Lisbon**	**57.58**	**4**	*e*P	**P**	**00 57 35.1**	**+0.6**
LBNH				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
LBNH	**Lisbon**	**57.58**	**4**	*e*P	**P**	**00 57 35.1**	**+0.6**
	comp=Z,1.2nm,0.5s,mb4.2						
SDCO	**Great Sand Dun**	**57.60**	**333**	*e*P	**P**	**00 57 34.9**	**+0.1**
	comp=Z,7.2nm,0.8s,mb4.8						
SDCO				*e*pP	pP	00 57 45.8	+1.7
X16A	**Lo Mia Camp, P**	**57.87**	**326**	⇓P	**P**	**00 57 37.4**	**+0.6**
	baz=58,SNR=6.3						
113A	**Mohawk Valley,**	**57.95**	**323**	⇓P	**P**	**00 57 38.0**	**+0.6**
	baz=58						
Y15A	**Casa Rosa Ranc**	**58.01**	**325**	⇓P	**P**	**00 57 38.2**	**+0.5**
	baz=58						
FRNY	**Flat Rock**	**58.07**	**3**	*e*P	**P**	**00 57 38.1**	**+0.1**
X15A	**Humboldt**	**58.35**	**326**	⇑P	**P**	**00 57 40.9**	**+0.7**
	baz=58						
Y14A	**Wickenburg**	**58.37**	**325**	⇑P	**P**	**00 57 40.7**	**+0.4**
	baz=58						
MVCO	**Mesa Verde**	**58.54**	**331**	P	**P**	**00 57 47.4**	**+6.0**
WUAZ	**Wupatki**	**58.67**	**327**	⇑P	**P**	**00 57 43.5**	**+1.2**
	baz=59,SNR=5.6						
WUAZ	**Wupatki**	**58.67**	**327**	*e*P	**P**	**00 57 43.1**	**+0.7**
	comp=Z,15nm,0.8s,mb5.1						
X14A	**Yava**	**58.70**	**325**	⇓P	**P**	**00 57 43.2**	**+0.6**
	baz=59						
U16A	**Tuba City**	**59.02**	**328**	⇓P	**P**	**00 57 45.3**	**+0.6**
	baz=59						
Y12C	**Blythe**	**59.10**	**324**	⇓P	**P**	**00 57 46.0**	**+0.6**
	baz=59						
U17A	**Shonto**	**59.13**	**329**	⇓P	**P**	**00 57 46.4**	**+0.9**
	baz=59						
T18A	**Mexican Hat**	**59.15**	**329**	⇑P	**P**	**00 57 45.3**	**-0.4**
	baz=59,SNR=7.9						
R20A	**Redvale**	**59.27**	**331**	⇓P	**P**	**00 57 46.9**	**+0.5**
	baz=60,SNR=6.2						
S19A	**Harvey Farm, M**	**59.27**	**330**	⇓P	**P**	**00 57 45.9**	**-0.5**
	baz=60						
V15A	**Kaibab Nationa**	**59.32**	**327**	⇑P	**P**	**00 57 46.9**	**+0.1**
	baz=60						
W14A	**Seligman**	**59.36**	**326**	⇑P	**P**	**00 57 47.3**	**+0.2**
	baz=60						
ISCO	**Idaho Springs**	**59.37**	**334**	*e*P	**P**	**00 57 47.5**	**+0.4**
ISCO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
ISCO	**Idaho Springs**	**59.37**	**334**	*e*P	**P**	**00 57 47.5**	**+0.4**
	comp=Z,4.3nm,0.8s,mb4.5						
Q21A	**Lamborn Mesa,**	**59.42**	**332**	⇓P	**P**	**00 57 47.3**	**-0.2**
	baz=60						
T17A	**Navajo Res., N**	**59.51**	**329**	⇑P	**P**	**00 57 48.8**	**+0.6**
	baz=60,SNR=6.6						
BC3	**Big Chuckw Mtn**	**59.57**	**323**	⇑P	**P**	**00 57 49.2**	**+0.6**
	baz=60						
S18A	**Hurst Farm, Bl**	**59.65**	**330**	⇓P	**P**	**00 57 49.8**	**+0.7**
	baz=60						
V14A	**Boquillas Ranc**	**59.68**	**326**	⇓P	**P**	**00 57 50.2**	**+0.9**
	baz=60						
ECSD	**EROS Data Cent**	**59.71**	**343**	*e*P	**P**	**00 57 48.1**	**-1.2**
	comp=Z,9.3nm,1.0s,mb4.8						
W13A	**Hualapai Mount**	**59.72**	**325**	⇑P	**P**	**00 57 50.3**	**+0.7**
	baz=60						
IRM	**Iron Mountain**	**59.76**	**323**	⇑P	**P**	**00 57 50.3**	**+0.4**
	baz=60,SNR=5.8						
Q19A	**Hogan Spring (**	**60.30**	**331**	⇓P	**P**	**00 57 53.5**	**0.0**
	baz=60						
U14A	**Mt Trumbull**	**60.31**	**327**	⇑P	**P**	**00 57 54.3**	**+0.7**
	baz=60						
V13A	**Grand Canyon W**	**60.32**	**326**	⇑P	**P**	**00 57 54.1**	**+0.3**
	baz=60						
T15A	**Red Dirt Ranch**	**60.34**	**328**	⇑P	**P**	**00 57 53.9**	**+0.1**
	baz=60						
LDFC	**Landfair**	**60.39**	**324**	*e*P	**P**	**00 57 51.6**	**-2.6**
S16A	**Weppner Ranch,**	**60.47**	**329**	⇑P	**P**	**00 57 54.9**	**+0.2**
	baz=61						
GMRC	**Granite Mounta**	**60.49**	**324**	⇑P	**P**	**00 57 55.4**	**+0.5**
	baz=61						
R17A	**Hanksville Air**	**60.57**	**330**	⇑P	**P**	**00 57 55.6**	**+0.2**
	baz=61						
Q18A	**Rafter H Ranch**	**60.83**	**331**	⇑P	**P**	**00 57 57.6**	**+0.5**
	baz=61						
N21A	**Black Mountain**	**60.98**	**334**	⇓P	**P**	**00 57 58.7**	**+0.6**
	baz=61						
SRU	**San Rafael**	**61.02**	**330**	*e*P	**P**	**00 57 58.8**	**+0.4**
SRU				*e**PP	pP	00 58 05.3	-2.5
SRU				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.8						
SRU	**San Rafael**	**61.02**	**330**	⇑P	**P**	**00 57 58.3**	**-0.1**
	baz=61						
SRU	**San Rafael**	**61.02**	**330**	*e*P	**P**	**00 57 58.8**	**+0.4**
	comp=Z,10nm,1.2s,mb4.8						
SRU				*e*pP	pP	00 58 05.3	-2.4
Q16A	**Castle Valley**	**61.18**	**330**	⇓P	**P**	**00 57 59.7**	**+0.2**
	baz=61						
O19A	**Miners Draw (B**	**61.31**	**332**	⇑P	**P**	**00 58 00.2**	**-0.2**
	baz=62						
MSU	**Marysvale**	**61.37**	**329**	*e*P	**P**	**00 58 01.6**	**+0.8**
SHPR	**Sheep Range**	**61.45**	**325**	*e*P	**P**	**00 58 01.7**	**+0.3**
S13A	**Holt Ranch, En**	**61.53**	**327**	⇑P	**P**	**00 58 02.5**	**+0.5**
	baz=62,SNR=5.9						
M21A	**Separation Pea**	**61.61**	**334**	⇓P	**P**	**00 58 02.5**	**+0.2**
	baz=62						
N19A	**John Jarvie Ra**	**61.81**	**333**	P	**P**	**00 58 03.9**	**+0.1**
	baz=62,SNR=5.7						
M20A	**Sweetwater, Wa**	**61.86**	**334**	⇑P	**P**	**00 58 04.2**	**+0.1**
	baz=62						
EDW2	**Edwards Air Fo**	**61.93**	**322**	⇑P	**P**	**00 58 04.6**	**-0.1**
	baz=62						
T11A	**Corn Creek, Al**	**62.02**	**326**	⇓P	**P**	**00 58 05.3**	**+0.1**
	baz=62,SNR=6.1						
R13A	**O’Grain Ranch,**	**62.04**	**327**	⇑P	**P**	**00 58 06.2**	**+0.9**
	baz=62						
TAOE	**Nuku Hiva Isla**	**62.17**	**267**	*e*S	**S**	**01 06 32.8**	**+2.0**
	comp=Z,1µm,29.7s						
TAOE				*e*LR	LR	01 16 39.0	
	comp=Z,3µm,26.7s						
Q14A	**Sevier Lake (B**	**62.29**	**328**	⇑P	**P**	**00 58 07.9**	**+1.0**
	baz=62						
MPMC	**Manual Prospec**	**62.45**	**323**	⇓P	**P**	**00 58 08.3**	**+0.1**
	baz=63						
R12A	**Pony Springs,**	**62.48**	**327**	⇑P	**P**	**00 58 08.9**	**+0.6**
	baz=63						
EYMN	**Ely**	**62.50**	**349**	*e*P	**P**	**00 58 08.0**	**-0.2**
	comp=Z,2.2nm,0.6s,mb4.5						
S11A	**Rachel**	**62.60**	**326**	⇑P	**P**	**00 58 09.7**	**+0.6**
	baz=63						
N17A	**Moffit Pass**	**62.61**	**331**	⇑P	**P**	**00 58 09.9**	**+0.8**
	baz=63						
JLU	**Jordanelle**	**62.63**	**331**	*e*P	**P**	**00 58 09.1**	**-0.1**
	comp=Z,9.6nm,1.0s,mb4.9						
P14A	**Drum Mountains**	**62.64**	**329**	⇑P	**P**	**00 58 09.6**	**+0.3**
	baz=63						
Q13A	**Wheeler Ranch,**	**62.64**	**328**	⇓P	**P**	**00 58 09.5**	**+0.2**
	baz=63						
L19A	**Farson**	**62.87**	**333**	⇓P	**P**	**00 58 11.0**	**+0.3**
	baz=63						
K20A	**Yellowstone Ra**	**62.88**	**334**	⇓P	**P**	**00 58 10.1**	**-0.8**
	baz=63						
M17A	**Scullys Gap (B**	**62.95**	**332**	⇑P	**P**	**00 58 10.6**	**-0.7**
	baz=63						
DUG	**Dugway**	**62.97**	**330**	⇓P	**P**	**00 58 11.8**	**+0.3**
	baz=63,SNR=8.6						
R11A	**Troy Canyon, C**	**63.02**	**326**	⇑P	**P**	**00 58 12.5**	**+0.6**
	baz=63,SNR=6.4						
L18A	**Fontenelle, Gr**	**63.03**	**333**	⇓P	**P**	**00 58 11.0**	**-0.8**
	baz=63						
Q12A	**Willow Creek R**	**63.13**	**327**	⇓P	**P**	**00 58 11.6**	**-1.0**
	baz=63						
K19A	**Absolon Red Bu**	**63.23**	**334**	⇑P	**P**	**00 58 12.4**	**-0.8**
	baz=63						
VES	**Vestal, Richgr**	**63.24**	**322**	⇑P	**P**	**00 58 12.2**	**-1.2**
	baz=63						
S10A	**Tonopah Range,**	**63.26**	**325**	⇑P	**P**	**00 58 12.2**	**-1.3**
	baz=63						
Q11A	**Duckwater**	**63.42**	**327**	⇓P	**P**	**00 58 14.0**	**-0.5**
	baz=64,SNR=7.1						
S09A	**Goldfield**	**63.47**	**325**	⇓P	**P**	**00 58 14.5**	**-0.3**
	baz=64						
P12A	**McGill**	**63.49**	**328**	⇑P	**P**	**00 58 14.4**	**-0.6**
	baz=64,SNR=5.6						
BW06	**Boulder Array**	**63.49**	**334**	⇓P	**P**	**00 58 14.4**	**-0.5**
	baz=64						
BW06	**Boulder Array**	**63.49**	**334**	*e*P	**P**	**00 58 14.9**	**0.0**
	comp=Z,7.6nm,1.3s,mb4.7						
PDAR	**Pinedale Array**	**63.49**	**334**	P	**P**	**00 58 14.2**	**-0.7**
	comp=Z,1.5nm,0.9s,mb4.1,baz=139,slow=8.0,SNR=12						
PDAR				pP	pP	00 58 23.4	-0.9
	comp=Z,1.4nm,0.5s,baz=125,slow=9.6,SNR=9.1						
K18A	**Toltan Ranch,**	**63.60**	**333**	⇓P	**P**	**00 58 16.1**	**+0.5**
	baz=64						
N14A	**Grayback Hills**	**63.66**	**330**	⇓P	**P**	**00 58 15.9**	**-0.1**
	baz=64						
TPH	**Tonopah**	**63.72**	**325**	*e*P	**P**	**00 58 17.5**	**+1.0**
TPH				*e**PP	pP	00 58 25.9	0.0
TPH				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
TPH	**Tonopah**	**63.72**	**325**	*e*P	**P**	**00 58 17.5**	**+1.0**
	comp=Z,15nm,1.2s,mb4.9						
TPH				*e*pP	pP	00 58 25.9	0.0
AGMN	**Agassiz Refuge**	**63.76**	**346**	*e*P	**P**	**00 58 15.6**	**-0.9**
	comp=Z,20nm,1.0s,mb5.1						
M15A	**Larsen Ranch,**	**63.77**	**331**	⇓P	**P**	**00 58 16.7**	**-0.1**
	baz=64						
Q10A	**Clear Creek Ra**	**63.80**	**326**	⇑P	**P**	**00 58 16.6**	**-0.4**
	baz=64						
MTUM	**Tungsten Hills**	**63.97**	**324**	*e*P	**P**	**00 58 19.1**	**+1.0**
O12A	**Currie**	**64.00**	**328**	⇑P	**P**	**00 58 17.3**	**-1.0**
	baz=64						
J18A	**Kendall Valley**	**64.05**	**334**	⇑P	**P**	**00 58 17.9**	**-0.6**
	baz=64,SNR=7.0						
L15A	**Malad City**	**64.16**	**331**	⇑P	**P**	**00 58 18.5**	**-0.8**
	baz=64						
HVU	**Hansel Valley**	**64.17**	**331**	*e*P	**P**	**00 58 19.6**	**+0.2**
HVU				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
HVU	**Hansel Valley**	**64.17**	**331**	*e*P	**P**	**00 58 19.6**	**+0.1**
	comp=Z,7.2nm,0.9s,mb4.7						
M14A	**Sheep Mountain**	**64.23**	**330**	⇑P	**P**	**00 58 19.4**	**-0.4**
	baz=64,SNR=6.6						
O11A	**Cowboy Ranch,**	**64.36**	**328**	⇓P	**P**	**00 58 20.6**	**-0.1**
	baz=64						
K16A	**Soda Springs**	**64.44**	**332**	⇓P	**P**	**00 58 20.4**	**-0.7**
	baz=65						
J17A	**Brown Place, J**	**64.47**	**333**	⇓P	**P**	**00 58 21.5**	**+0.1**
	baz=65						
REDW	**Red Top Meadow**	**64.54**	**333**	*e*P	**P**	**00 58 21.8**	**+0.1**
	comp=Z,15nm,1.6s,mb4.8						
NVAR	**Mina Array Bea**	**64.57**	**325**	P	**P**	**00 58 22.7**	**+0.6**
	comp=Z,2.2nm,0.7s,mb4.3,baz=138,slow=7.2,SNR=17						
NVAR				pP	pP	00 58 31.6	0.0
	comp=Z,2.7nm,0.7s,baz=154,slow=5.5,SNR=11						
NVAR	**Mina Array Bea**	**64.57**	**325**	P	**P**	**00 58 22.7**	**+0.6**
NVAR				pP	pP	00 58 31.6	0.0
L14A	**Malta**	**64.59**	**331**	⇓P	**P**	**00 58 21.3**	**-0.8**
	baz=65						
ELK	**Elko**	**64.60**	**328**	*e*P	**P**	**00 58 26.1**	**+3.9**
ELK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ELK	**Elko**	**64.60**	**328**	*e*P	**P**	**00 58 26.1**	**+3.8**
	comp=Z,5.6nm,1.0s,mb4.5						
Q08A	**Gabbs**	**64.67**	**325**	⇓P	**P**	**00 58 20.6**	**-2.1**
	baz=65						
J16A	**Bone**	**64.80**	**333**	⇑P	**P**	**00 58 22.0**	**-1.5**
	baz=65						
K14A	**Jones Ranch, D**	**64.95**	**331**	⇑P	**P**	**00 58 23.3**	**-1.2**
	baz=65						
IMW	**Indian Meadow**	**65.00**	**333**	*e*P	**P**	**00 58 25.0**	**+0.2**
	comp=Z,4.6nm,1.0s,mb4.5						
WAKR	**Walker**	**65.26**	**324**	*e*P	**P**	**00 58 27.8**	**+1.2**
RLMT	**Red Lodge**	**65.29**	**335**	⇓P	**P**	**00 58 25.8**	**-0.8**
	baz=66						
RLMT	**Red Lodge**	**65.29**	**335**	*e*P	**P**	**00 58 26.6**	**0.0**
	comp=Z,10nm,1.2s,mb4.7						
LKWY	**Lake**	**65.31**	**334**	*e*P	**P**	**00 58 28.1**	**+1.4**
LKWY				*e**PP	pP	00 58 35.6	-0.6
LKWY				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
LKWY	**Lake**	**65.31**	**334**	*e*P	**P**	**00 58 28.1**	**+1.4**
	comp=Z,12nm,1.0s,mb4.9						
LKWY				*e*pP	pP	00 58 35.6	-0.6
CMB	**Columbia Colle**	**65.49**	**323**	*e*P	**P**	**00 58 28.4**	**+0.3**
CMB				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						

CMB	Columbia Colle	65.49	323	*e*P	P	00 58 28.4	+0.3
	comp=Z,8.3nm,1.3s,mb4.6						
G18A	Lazy EL Ranch,	65.57	335	⇓P	P	00 58 27.8	-0.6
	baz=66,SNR=13						
ULM	Lac du Bonnet	65.59	347	P	P	00 58 27.2	-1.2
	comp=Z,12nm,0.9s,mb4.9,baz=161,slow=6.7,SNR=14						
J14A	Carey	65.71	331	⇑P	P	00 58 29.9	+0.6
	baz=66,SNR=7.0						
H16A	Russell Place,	65.78	334	⇓P	P	00 58 30.0	+0.2
	baz=66						
O08A	Rochester Mine	65.80	326	⇓P	P	00 58 29.7	-0.3
	baz=66						
K12A	Draper Farm, C	65.85	330	⇓P	P	00 58 30.4	+0.1
	baz=66,SNR=6.0						
BBTS	Babate	65.87	67	LR	LR	01 25 27.7	
	comp=Z,237nm,18.3s,MS4.4,baz=48,slow=34						
L11A	Cat Creek Ranc	65.92	329	⇓P	P	00 58 31.2	+0.4
	baz=66						
PAHR	Pah Rah Range	66.06	325	*e*P	P	00 58 32.9	+1.2
	comp=Z,14nm,1.0s,mb5.0						
J13A	Cove Ranch, Pi	66.08	331	⇓P	P	00 58 31.4	-0.3
	baz=66						
O07A	Toulon	66.10	326	⇓P	P	00 58 31.0	-0.9
	baz=66						
F18A	Big Timber	66.11	335	⇑P	P	00 58 31.5	-0.4
	baz=66,SNR=6.7						
I14A	Mackay	66.15	332	⇓P	P	00 58 32.6	+0.4
	baz=66						
L10A	Juniper Basin	66.21	329	⇑P	P	00 58 33.1	+0.5
	baz=66,SNR=6.7						
HLID	Hailey	66.32	331	⇓P	P	00 58 33.8	+0.5
	baz=66						
HLID	Hailey	66.32	331	*e*P	P	00 58 34.0	+0.7
	comp=Z,29nm,2.0s,mb5.0						
J12A	Stokes Ranch,	66.41	330	⇑P	P	00 58 33.9	0.0
	baz=67						
G16A	Moss Hill, Enn	66.44	334	⇓P	P	00 58 34.1	+0.1
	baz=67						
I13A	Wildhorse Cree	66.45	331	⇑P	P	00 58 34.2	+0.1
	baz=67,SNR=7.1						
G15A	Dillon	66.68	333	⇑P	P	00 58 34.6	-1.0
	baz=67						
BOZ	Bozeman (W)	66.69	334	*e*P	P	00 58 35.6	0.0
BOZ				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.5						
BOZ	Bozeman (W)	66.69	334	⇑P	P	00 58 35.0	-0.7
	baz=67,SNR=5.8						
BOZ	Bozeman (W)	66.69	334	*e*P	P	00 58 35.6	0.0
	comp=Z,6.5nm,1.3s,mb4.5						
MFID	Camas Ranch	66.88	330	⇑P	P	00 58 36.9	0.0
	baz=67,SNR=5.0						
DLMT	Dillon	66.88	333	*e*P	P	00 58 37.4	+0.5
	comp=Z,7.3nm,1.1s,mb4.6						
K10A	MacKenzie Ranc	66.92	329	⇑P	P	00 58 37.0	-0.2
	baz=67						
H13A	Challis	67.01	332	⇑P	P	00 58 37.4	-0.3
	baz=67						
E17A	Martinsdale	67.02	335	⇓P	P	00 58 37.1	-0.6
	baz=67						
N06A	Buffalo Meadow	67.03	326	⇑P	P	00 58 37.6	-0.3
	baz=67,SNR=8.3						
H12A	Diamond D Ranc	67.27	331	⇑P	P	00 58 38.8	-0.6
	baz=68						
K09A	Rome	67.30	328	⇓P	P	00 58 39.2	-0.3
	baz=68,SNR=6.1						
G13A	Cobalt	67.40	332	⇑P	P	00 58 39.9	-0.3
	baz=68						
E16A	East Helena	67.42	335	⇓P	P	00 58 40.1	-0.1
	baz=68						
D17A	Six Diamond Ra	67.51	336	⇑P	P	00 58 40.7	-0.1
	baz=68						
D16A	Dana Ranch, Ca	67.77	335	⇑P	P	00 58 42.3	-0.1
	baz=68						
C17A	Wharram Farm,	67.93	336	⇓P	P	00 58 43.4	-0.1
	baz=68						
H11A	Donnelly	67.93	331	⇑P	P	00 58 43.1	-0.4
	baz=68						
F13A	Darby	67.98	333	⇓P	P	00 58 43.8	0.0
	baz=68						
K07A	Rock Creek Ran	68.08	328	⇓P	P	00 58 44.1	-0.4
	baz=68						
MOD	Modoc	68.09	326	*e*P	P	00 58 45.2	+0.7
	comp=Z,17nm,1.3s,mb4.9						
E14A	Clinton	68.10	334	⇑P	P	00 58 44.4	-0.1
	baz=68						
B18A	Beardsley Farm	68.17	337	⇑P	P	00 58 44.6	-0.4
	baz=68						
F12A	Elk City	68.37	332	⇓P	P	00 58 45.8	-0.4
	baz=69						
E13A	Victor	68.42	333	⇑P	P	00 58 45.4	-1.2
	baz=69						
B17A	L&G Farms, Che	68.48	336	⇓P	P	00 58 45.7	-1.2
	baz=69						
SCHQ	Schefferville	68.53	6	P	P	00 58 46.3	-0.7
	comp=Z,9.5nm,0.8s,mb4.8,baz=185,slow=4.5,SNR=15						
SCHQ				pP	pP	00 58 55.9	-0.6
	comp=Z,10nm,0.8s,baz=174,slow=3.8,SNR=7.6						
SCHQ	Schefferville	68.53	6	P	P	00 58 46.3	-0.7
SCHQ				pP	pP	00 58 55.9	-0.6
MSO	Missoula	68.61	334	*e*P	P	00 58 48.5	+0.8
	comp=Z,8.9nm,1.4s,mb4.5						
D14A	Greenough	68.62	334	⇑P	P	00 58 47.3	-0.4
	baz=69						
A18A	Metzger Ranch,	68.63	337	⇑P	P	00 58 47.1	-0.7
	baz=69						
C15A	Salmond Ranch,	68.79	335	⇓P	P	00 58 48.7	-0.1
	baz=69,SNR=5.1						
F11A	Grangeville	68.89	332	⇑P	P	00 58 49.0	-0.4
	baz=69						
G10A	Bishop Farm, J	68.90	331	⇑P	P	00 58 49.5	0.0
	baz=69,SNR=6.1						
B16A	M & M Farms, S	68.94	336	⇑P	P	00 58 49.9	+0.2
	baz=69						
J06A	Christmas Vall	68.94	327	P	P	00 58 50.0	+0.1
	baz=69,SNR=9.7						
A17A	Triple J Farms	68.97	337	⇑P	P	00 58 50.0	+0.1
	baz=69						
D13A	Huson	69.04	333	⇑P	P	00 58 50.3	-0.1
	baz=69						
H08A	Prairie City	69.09	329	⇑P	P	00 58 51.0	+0.2
	baz=69,SNR=6.6						
I07A	Izee	69.19	328	⇓P	P	00 58 52.0	+0.6
	baz=69,SNR=5.9						
G09A	Cove	69.20	330	⇑P	P	00 58 51.7	+0.3
	baz=69,SNR=7.6						
C14A	Swan Lake	69.26	334	⇑P	P	00 58 50.9	-0.8
	baz=70						
E11A	Bogner Ranch,	69.26	332	⇑P	P	00 58 50.7	-1.0
	baz=69						
F10A	Beach Ranch, E	69.45	331	⇑P	P	00 58 52.9	0.0
	baz=70,SNR=7.1						
I06A	Prineville	69.46	328	⇓P	P	00 58 52.9	-0.1
	baz=70						
C13A	Hot Springs	69.55	334	⇑P	P	00 58 53.7	+0.2
	baz=70						
H07A	Lands Inn, Kim	69.59	329	⇓P	P	00 58 53.1	-0.7
	baz=70						
BSMT	Bassoo Peak	69.77	334	*e*P	P	00 58 53.5	-1.4
G08A	Pilot Rock	69.78	330	⇓P	P	00 58 54.6	-0.5
	baz=70						
A15A	Johnson Ranch,	69.80	336	⇓P	P	00 58 54.1	-0.9
	baz=70						
PPT	Papeete	69.86	256	*e*LR	LR	01 20 07.7	
	comp=Z,399nm,35.5s						
VNA3	Neumayer Olymp	70.07	162	*e*P	P	00 58 56.5	0.0
VNA3				*e*	pP	00 59 05.3	-0.6
VNA3				*e*		00 59 08.2	
VNA3				*e*		00 59 18.2	
H06A	Lindquist Farm	70.08	329	⇓P	P	00 58 56.3	-0.5
	baz=70						
G07A	Ruggs Ranch, H	70.12	329	⇓P	P	00 58 56.3	-0.7
	baz=70						
D10A	Wagner Farm, O	70.27	332	⇓P	P	00 58 57.6	-0.4
	baz=70						
WALA	Waterton Lakes	70.34	335	*e*P	P	00 58 58.7	+0.4
	comp=Z,0.2nm,0.8s						
B12A	Libby	70.59	334	⇑P	P	00 59 00.5	+0.6
	baz=71						
VNA2	Neumayer--Watz	70.69	161	*e*P	P	00 59 00.6	+0.3
	baz=295,slow=7.5						
VNA2				*e*	pP	00 59 10.6	+0.8
VNA2				*e*		00 59 14.2	
VNA2				*e*		00 59 21.3	
HAWA	Hanford	70.85	330	*e*P	P	00 59 01.5	0.0
	comp=Z,16nm,1.5s,mb4.7						
B11A	Sandpoint	70.90	333	⇑P	P	00 59 02.0	+0.2
	baz=71						
A12A	Yaak River Ran	70.97	334	⇑P	P	00 59 02.8	+0.6
	baz=71,SNR=9.4						
D08A	Wollman Farm,	71.04	331	⇓P	P	00 59 03.0	+0.3
	baz=71						
NEW	Newport	71.10	333	*e*P	P	00 59 02.8	-0.2
NEW				pmax	pmax		
	comp=Z,120nm,3.0s						
NEW	Newport	71.10	333	*e*P	P	00 59 02.8	-0.2
	comp=Z,120nm,3.0s						
E07A	Sunnyside	71.13	330	⇓P	P	00 59 03.5	+0.3
	baz=71						
FFC	Flin Flon	71.18	345	*i* P	P	00 59 03.1	-0.2
FFC	Flin Flon	71.18	345	*e*P	P	00 59 02.5	-0.8
	comp=Z,12nm,1.3s,mb4.7						
OD2	Odessa Site #2	71.18	331	*e*P	P	00 59 04.1	+0.6
A11A	Hall Mountain,	71.29	334	⇓P	P	00 59 04.3	+0.2
	baz=72						
B09A	Rice	71.68	332	⇓P	P	00 59 06.4	-0.1
	baz=72						
B08A	Colville Reser	72.17	332	⇑P	P	00 59 09.1	-0.4
	baz=72						
LON	Longmire	72.22	329	*e*P	P	00 59 14.1	+4.3
LON				*e*		00 59 32.1	
LON				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
LON	Longmire	72.22	329	*e*P	P	00 59 14.1	+4.3
	comp=Z,1.1nm,0.3s,mb4.3						
LON				*e*PcP	PcP	00 59 32.1	+4.2
A09A	Danville	72.28	333	⇑P	P	00 59 09.8	-0.3
	baz=72						
A08A	Turner Farm, O	72.58	332	⇓P	P	00 59 12.3	+0.4
	baz=73,SNR=5.8						
D05A	Enumclaw	72.61	330	⇑P	P	00 59 12.5	+0.4
	baz=73						
E03A	Lebam	72.97	328	⇑P	P	00 59 14.8	+0.6
	baz=73						
A07A	Ashnola River,	73.15	332	⇑P	P	00 59 16.1	+0.8
	baz=73						
FCC	Fort Churchill	73.32	351	*e*P	P	00 59 15.2	-0.9
	comp=Z,0.4nm,1.1s						
EDM	Edmonton	73.41	338	*e*P	P	00 59 15.8	-0.9
NLWA	Neilton Lookou	73.69	329	⇓P	P	00 59 19.2	+0.7
	baz=74						
LIC	Lamto	73.89	79	*e*P	P	00 59 21.0	+0.6
	comp=Z,97nm,1.8s,mb5.4						
A05A	Maple Falls	73.91	331	⇑P	P	00 59 19.5	-0.2
	baz=74						
TIC	Toumodi	74.01	79	*e*P	P	00 59 21.0	-0.1
	comp=Z,145nm,1.6s,mb5.7						
A04A	Legoe Bay, Lum	74.02	330	⇓P	P	00 59 20.5	+0.1
	baz=74						
DBIC	Dimbokro	74.17	79	P	P	00 59 22.1	0.0
	comp=Z,8.9nm,0.8s,mb4.8,baz=211,slow=6.4,SNR=19						
DBIC				LR	LR	01 30 42.8	
	comp=Z,436nm,18.2s,MS4.8,baz=199,slow=35						
KIC	Kosan Boka	74.20	79	*e*P	P	00 59 22.3	+0.1
	comp=Z,57nm,0.7s,mb5.6						
YKA	Yellowknife Ar	81.24	343	P	P	00 59 59.4	-0.9
	comp=Z,3.8nm,0.9s,mb4.3,baz=141,slow=5.7,SNR=48						
YKA				pP	pP	01 00 08.6	-1.3
	comp=Z,3.1nm,0.7s,baz=145,slow=6.1,SNR=12						
TORD	Torodi Ar. Bea	82.14	74	P	P	01 00 06.6	+0.4
	comp=Z,35nm,0.9s,mb5.3,baz=263,slow=4.8,SNR=137						
VNDA	Vanda	83.37	191	P	P	01 00 12.4	+0.9
	comp=Z,3.1nm,1.0s,mb4.3,baz=142,slow=7.3,SNR=4.9						
VNDA				pP	pP	01 00 20.9	-0.3
	comp=Z,3.3nm,0.8s,baz=129,slow=5.4,SNR=5.7						
DLBC	Dease Lake	83.69	335	*e*P	P	01 00 13.9	+0.7
ESDC	Sonseca Array	85.72	48	P	P	01 00 25.0	+1.1
	comp=Z,1.5nm,0.9s,mb4.2,baz=240,slow=5.6,SNR=5.6						
TAM	Tamanrasset	88.23	66	*e*P	P	01 00 37.9	+1.4
TAM				*e**PP	pP	01 00 47.6	+1.3
TAM				pmax	pmax		
	comp=Z,14nm,1.2s,mb5.1						
TAM	Tamanrasset	88.23	66	*e*P	P	01 00 37.9	+1.4
	comp=Z,14nm,1.2s,mb5.1						
TAM				*e*pP	pP	01 00 47.6	+1.4
RES	Resolute Bay	88.68	355	*e*P	P	01 00 37.3	-0.2
SUMG	Summit	89.45	11	*e*P	P	01 00 41.6	+0.5
	comp=Z,36nm,1.1s,mb5.6						
DAWY	Dawson	90.60	337	*e*P	P	01 00 46.1	-0.5
SCO	Scoresbysund	91.68	16	*i* P	P	01 00 51.5	-0.1
SCO				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.9						
SCO	Scoresbysund	91.68	16	*i* P	P	01 00 51.5	-0.1
	comp=Z,4.7nm,0.8s,mb4.9						
OBN	Obninsk	114.26	35	*e*PKIKP	PKiKP	01 06 23.5	-0.5
OBN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKTK	Aktyubinsk	128.04	35	PKP	PKPdf	01 06 50.2	-0.5
AKTO	Aktyubinsk	128.04	35	PKP	PKPdf	01 06 50.2	-0.5
	comp=Z,1.1nm,0.5s,baz=216,slow=3.4,SNR=5.0						
ASAR	Alice Springs	132.44	219	PKP	PKPdf	01 06 58.9	-1.0
	comp=Z,0.2nm,0.3s,baz=116,slow=1.7,SNR=4.5						
ASAR				pPKP	pPKPdf	01 07 07.8	-2.2
	comp=Z,1.2nm,0.7s,baz=148,slow=2.6,SNR=6.6						
WRA	Warramunga Arr	134.83	223	PKP	PKPdf	01 07 04.0	-0.5
	comp=Z,3.1nm,0.8s,baz=135,slow=1.9,SNR=19						
ZAA0	Zalesovo Array	137.07	16	*e*PKPdf	PKPdf	01 07 07.5	-0.1
ZALV	Zalesovo Beam	137.07	16	PKP	PKPdf	01 07 05.7	-1.8
	comp=Z,6.4nm,0.9s,baz=318,slow=2.0,SNR=15						
ZALV	Zalesovo Beam	137.07	16	PKP	PKPdf	01 07 05.7	-1.8
KURK	Kurchatov	137.80	23	PKP	PKPdf	01 07 09.4	+0.4
	comp=Z,2.9nm,0.8s,baz=313,slow=2.5,SNR=8.6						
KURK	Kurchatov	137.80	23	*e*PKPdf	PKPdf	01 07 09.5	+0.5
MJAR	Matsushiro Arr	141.14	313	PKP	PKPdf	01 07 16.8	+1.2
	comp=Z,1.7nm,0.8s,baz=6.2,slow=1.4,SNR=4.9						
AAK	Ala-Archa	141.79	35	*i* PKIKP	PKPdf	01 07 16.5	0.0
MK31	Makanchi Array	142.41	24	*e*PKIKP		01 07 14.3	
MKAR	Makanchi Array	142.41	24	PKhKP		01 07 14.2	
	comp=Z,1.2nm,0.8s,baz=342,slow=2.5,SNR=10						
ZAK	Zakamensk	143.16	360	*e*PKHKP		01 06 58.6	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s						
CN2	Changchun	144.23	332	*e*PKP	PKPdf	01 07 20.3	-0.5
KSH	Kashi	144.66	38	*e*PKP	PKPdf	01 07 21.5	-0.2
KSH				pPKP	pPKPdf	01 07 31.8	+0.1
KSH				*e*sPKP		01 07 35.8	
KSH				*e*PKS		01 10 55.1	
KSH				*e*SKS	SKSdf	01 14 26.1	-2.9
KSH				AMB	AMB		
	comp=Z,260nm,4.4s						
KSH				LR	LR		
	comp=N,96nm,4.4s						
KSH				LR	LR		
	comp=E,190nm,4.7s						
KSH				LR	LR		
	comp=Z,150nm,4.5s						
ULN	Ulaanbaatar	145.53	355	*e*PKIKP	PKPdf	01 07 23.4	+0.5
SONM	Songino Array	145.61	356	PKPbc	PKPbc	01 07 23.5	+0.2
	comp=Z,20nm,1.0s,baz=348,slow=3.2,SNR=60						
WMQ	Urumqi	146.94	21	PKPbc	PKPdf	01 07 23.8	-1.6
WMQ				pPKP	pPKPdf	01 07 34.0	-1.5
WMQ				sPKP		01 07 38.0	
WMQ				PP	PP	01 10 54.0	+3.1
WMQ				SKS	SKSdf	01 14 27.0	-5.1
WMQ				SKKS	SKKSac	01 17 39.0	-2.5
WMQ				AMB	AMB		
	comp=Z,190nm,5.8s						
WMQ				LR	LR		
	comp=N,700nm,33.8s						
WMQ				LR	LR		
	comp=E,320nm,28.2s						
WMQ				LR	LR		
	comp=Z,450nm,26.5s						
KSRS	Korea Array	147.47	322	PKPbc	PKPdf	01 07 26.9	+0.3
	comp=Z,4.9nm,1.0s,baz=48,slow=3.2,SNR=7.9						
KSRS				pPKPbc	pPKPbc	01 07 35.5	-3.5
	comp=Z,6.7nm,0.9s,baz=57,slow=3.4,SNR=7.1						
BJI	Beijing	151.15	339	PKPbc	PKPbc	01 07 37.3	-0.9
BJI				PP	PP	01 11 08.3	-7.1
BJI				SS	SS	01 30 15.1	-21
BJI				AMB	AMB		
	comp=Z,210nm,7.5s						
BJI				LR	LR		
	comp=N,160nm,26.3s,MS4.9						
BJI				LR	LR		
	comp=E,230nm,26.9s,MS4.9						
BJI				LR	LR		
	comp=Z,63nm,31.1s,MS4.2						
DDI	Dehra Dun	151.36	50	*e*x	PKPbc	01 07 39.3	+0.3
HHC	Hu-ho-hao-te	151.73	347	*e*PKPbc	PKPbc	01 07 38.5	-1.0
HHC				pPKP	pPKPdf	01 07 48.6	+5.4
HHC				sPKP		01 07 53.3	
HHC				PKPab	PKPab	01 07 56.8	+8.5
HHC				PKS		01 11 12.0	
HHC				PP	PP	01 11 26.9	+8.4
HHC				SKS	SKSdf	01 14 40.8	+2.2
HHC				SKKS	SKKSac	01 18 11.6	+3.5
HHC				SS	SS	01 30 48.1	+6.3
HHC				AMB	AMB		
	comp=Z,76nm,7.4s						
HHC				LR	LR		
	comp=N,210nm,15.3s,MS5.2						
HHC				LR	LR		
	comp=E,260nm,16.1s,MS5.2						
HHC				LR	LR		
	comp=Z,210nm,16.9s,MS5.0						
GTA	Gaotai	153.97	6	*e*PKPbc	PKPbc	01 07 44.4	-0.1
GTA				pPKP	pPKPdf	01 07 54.8	+8.2
GTA				sPKP		01 07 59.1	
GTA				PP	PP	01 12 15.1	+44
GTA				SKS	SKSdf	01 14 44.9	+3.5
GTA				SKKS	SKKSac	01 18 55.8	+36
GTA				SS	SS	01 32 22.1	+76
GTA				AMB	AMB		
	comp=Z,110nm,7.7s						
GTA				LR	LR		
	comp=N,150nm,13.7s,MS5.1						
GTA				LR	LR		
	comp=E,180nm,15.8s,MS5.1						
GTA				LR	LR		
	comp=Z,130nm,17.2s,MS4.8						
LZH	Lanzhou	157.45	359	*e*PKP	PKPdf	01 07 44.0	+2.7
LZH				pPKP	pPKPdf	01 07 55.0	+3.7
LZH				PP	PP	01 11 53.1	+2.7
LZH				SKKS	SKKSac	01 18 40.3	+1.4
LZH				AMB	AMB		
	comp=Z,80nm,4.0s						
LZH				LR	LR		
	comp=N,310nm,17.1s						
LZH				LR	LR		
	comp=Z,410nm,19.3s,MS5.3						
CD2	Chengdu	162.61	358	PKP	PKPdf	01 07 46.0	-1.2
GYA	Guiyang	166.65	346	*e*PKP	PKPdf	01 07 50.0	-0.9
GYA				pPKP	pPKPdf	01 08 01.3	+0.3
GYA				sPKP		01 08 05.8	
GYA				PKPab	PKPab	01 08 53.6	+0.5
GYA				PKS		01 11 20.4	
GYA				PP	PP	01 12 42.9	+3.3
GYA				SKS	SKSdf	01 14 49.4	-3.7
GYA				SKKS	SKKSac	01 19 25.3	-1.1
GYA				SS	SS	01 33 20.0	+0.4
GYA				AMB	AMB		
	comp=Z,90nm,7.9s						
GYA				LR	LR		
	comp=N,130nm,24.2s						
GYA				LR	LR		
	comp=E,110nm,23.0s						
GYA				LR	LR		
	comp=Z,160nm,24.8s						
KMI	Kunming	168.37	2	PKP	PKPdf	01 07 50.3	-1.9
CMAR	Chiang Mai Arr	173.56	39	PKIKP	PKPdf	01 07 54.9	-0.1
CMAR						01 08 03.9	
CMAR	Chiang Mai Arr	173.56	39	PKP	PKPdf	01 07 54.9	-0.1
	comp=Z,0.4nm,0.3s,baz=262,slow=1.9,SNR=5.8						
CMAR				pPKP	pPKPdf	01 08 03.9	-1.2
	comp=Z,1.4nm,0.7s,baz=288,slow=2.1,SNR=2.3						
CMAR				PKPab	PKPab	01 09 24.8	+0.7
	comp=Z,0.5nm,0.3s,baz=316,slow=5.3,SNR=5.6						

IDC 17 01:09:17.6±3.6**,7°.63S**×**150°.84E,h0^{km},mb3.4**/2**, mb1 3.8**/2**,mb1mx3.4**/15**,mbtmp3.5**/2**,Error ellipse: s-maj=143.8km s-min=48.4km az=122.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.14	231	P	P	01 13 53.0	-0.4
	1.4nm,0.5s,baz=56,slow=11,SNR=18						
ASAR	Alice Springs	22.76	224	P	P	01 14 21.4	-0.2
	0.3nm,0.8s,baz=60,slow=9.3,SNR=4.4						
TORD	Torodi Ar. Bea	149.17	283	PKPbc	PKPbc	01 29 08.9	-0.2
	0.5nm,0.7s,baz=60,slow=2.6,SNR=3.3						

IDC 17 01:13:42.1±11.0**,2°.47N**×**98°.66E,h97^{km}**±38^{km}**,mb3.4**/3**, mb1 3.5**/3**,mb1mx3.1**/21**,mbtmp3.4**/3**,Error ellipse: s-maj=385.6km s-min=27.1km az=55.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PSI	Prapat	0.42	39	P	Pn	01 13 57.7	+0.6
	9.2nm,0.3s,baz=275,slow=14,SNR=17						
WRA	Warramunga Arr	41.50	124	P	P	01 21 20.0	0.0
	0.3nm,0.4s,baz=302,slow=9.4,SNR=3.4						
MKAR	Makanchi Array	46.40	344	P	P	01 21 58.9	+0.1
	1.6nm,0.8s,baz=155,slow=7.4,SNR=15						
ZALV	Zalesovo Beam	52.56	350	P	P	01 22 45.3	-0.2
	1.1nm,0.5s,baz=174,slow=7.7,SNR=9.7						

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*ISCJB **17** 01:15:09.4±0.6, 44°.63N±0°.03×17°.79E±0°.03, h6^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=3.1km az=37.7*

*CSEM **17** 01:15:10.2±0.2, 44°.59N×17°.73E, h8^{km}, ML2.6, Error ellipse: s-maj=5.3km s-min=2.8km az=37.0*

*BEO **17** 01:15:10.0±0.4, 44°.61N×17°.67E, h10^{km}±3^{km}, ML2.6/4*

*VIE **17** 01:15:16.1±0.9, 45°.05N×17°.69E, h10^{km}, mb2.3/2, ML2.1/3, Error ellipse: s-maj=9.3km s-min=5.8km az=29.0 28 km WSW of Slavonski Brod*

ISC 17 01:15:10.6±0.6**,44°.60N**±0°.03×**17°.74E**±0°.03**,h9^{km}**±4^{km}**, n46,σ1^{s}11**/76**,11C-11D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BLY	Banja Luka	0.42	290	⇑*i*Pg	Pg	01 15 17.6	-1.2
BLY				*i* Sg	Sg	01 15 23.8	-0.6
BLY	Banja Luka	0.42	290	⇑*i*Pg	Pg	01 15 17.6	-1.2
BLY				*i* Sg	Sg	01 15 23.8	-0.6
SISC	Sisak	1.30	312	*e*Pg	Pg	01 15 35.6	+0.1
SISC				Sg	Sg	01 15 53.5	+1.1
SISC	Sisak	1.30	312	*e*Pg	Pg	01 15 35.6	+0.1
SISC				Sg	Sg	01 15 53.5	+1.1
RHK3	Tenkes	1.34	16	*e*Sn	Sn	01 15 55.3	+2.0
BBLS	Lazići	1.41	121	⇓*i*Pg	Pg	01 15 36.3	-1.3
BBLS				*e*Sg	Sg	01 15 55.5	-0.3
BBLS	Lazići	1.41	121	⇓*i*Pg	Pg	01 15 36.3	-1.3
BBLS				*e*Sg	Sg	01 15 55.5	-0.3
DIVS	Divibare	1.69	107	*e*Pn	Pn	01 15 39.8	-0.5
DIVS				*e*Sg	Sg	01 16 05.9	+0.9
DIVS	Divibare	1.69	107	*e*Pn	Pn	01 15 39.8	-0.5
DIVS				*e*Sg	Sg	01 16 05.9	+0.9
PKSM	Moragy	1.73	21	⇓*i*P	Pn	01 15 40.1	-0.7
PKSM	Moragy	1.73	21	⇓*e*Pn	Pn	01 15 40.2	-0.6
PKSM				*e*Sn	Sn	01 16 05.9	+2.9
STON	Ston	1.73	181	*e*Pn	Pn	01 15 40.9	+0.1
STON				Sn	Sn	01 16 05.4	+2.4
STON	Ston	1.73	181	*e*Pn	Pn	01 15 40.8	0.0
STON				Sn	Sn	01 16 05.3	+2.3
BEHE	Becsehely	1.98	340	⇓*e*Pn	Pn	01 15 44.6	+0.3
BEHE				*e*Sn	Sn	01 16 08.7	-0.6
PKS9	Tamasi	2.02	11	*e*Pn	Pn	01 15 43.6	-1.2
NVLJ	Novalja	2.05	270	*e*Pn	Pn	01 15 44.2	-0.9
NVLJ				Sn	Sn	01 16 11.7	+0.9
NVLJ	Novalja	2.05	270	*e*Pn	Pn	01 15 44.2	-1.0
NVLJ				Sn	Sn	01 16 11.6	+0.8
GRUS	Gruza	2.26	107	*e*Pn	Pn	01 15 48.7	+0.7
GRUS				*e*Sg	Sg	01 16 23.0	-0.1
GROS	Grobnik	2.43	321	*i* Pn	Pn	01 15 50.6	+0.2
GROS	Grobnik	2.43	321	Pn	Pn	01 15 50.6	+0.1
PKSG		2.83	9	⇓*e*Pn	Pn	01 15 56.5	+0.6
PKSG				*e*Sn	Sn	01 16 30.5	+0.5
BZS	Buzias	2.93	68	⇑*i*P	Pn	01 16 05.6	+8.3
BUD	Budapest	3.02	17	*e*	Sg	01 16 49.5	+2.0
ARSA	Arzberg	3.06	331	⇑*i*Pn	Pn	01 15 59.3	+0.1
ARSA				⇓*i*Sn	Sn	01 16 32.6	-3.3
ARSA	Arzberg	3.06	331	Pn	Pn	01 15 59.3	+0.2
ARSA				Sn	Sn	01 16 32.6	-3.3
BOLS	Boljevac	3.13	103	*e*Pn	Pn	01 15 59.7	-0.3
BOLS				*e*Sn	Sn	01 16 36.8	-0.7
BOLS	Boljevac	3.13	103	*e*Pn	Pn	01 15 59.7	-0.3
BOLS				*e*Sn	Sn	01 16 36.8	-0.7
BARS	Barje	3.46	120	⇓*i*Pn	Pn	01 16 04.5	0.0
BARS				*e*Sn	Sn	01 16 45.2	-0.3
BARS	Barje	3.46	120	⇓*i*Pn	Pn	01 16 04.5	0.0
BARS				*e*Sn	Sn	01 16 45.2	-0.3
CONA	Conrad Observa	3.57	339	⇑*i*Pn	Pn	01 16 06.5	+0.4

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
CONA				⇓*i*Sn	Sn	01 16 44.2	-4.1
CONA	Conrad Observa	3.57	339	Pn	Pn	01 16 06.5	+0.4
CONA				Sn	Sn	01 16 44.2	-4.2
CSNA	Conrad Observa	3.57	339	⇑*i*Pn	Pn	01 16 06.4	+0.3
CSNA				⇑*i*Sn	Sn	01 16 44.5	-3.9
CSNA	Conrad Observa	3.57	339	Pn	Pn	01 16 06.4	+0.3
CSNA				Sn	Sn	01 16 44.5	-3.9
ZST	Bratislava	3.62	353	*e*PN	Pn	01 16 07.7	+0.9
GZR	Gura Zlata	3.66	76	⇑*i*P	Pn	01 16 14.1	+6.8
ZAPS	Zavoj	3.78	109	⇑*i*Pn	Pn	01 16 09.8	+0.8
MODS	Modra-Piesok	3.79	355	*e*PN	Pn	01 16 09.6	+0.6
MODS	Modra-Piesok	3.79	355	*e*Pn	Pn	01 16 09.6	+0.6
SMOL	Smolenice	3.92	357	*e*PN	Pn	01 16 09.4	-1.5
SMOL				*e*SN	Sn	01 16 54.3	-2.6
SMOL	Smolenice	3.92	357	*e*Pn	Pn	01 16 09.4	-1.5
SMOL				*e*Sn	Sn	01 16 54.3	-2.6
VYHS	Vyhne	3.96	11	*e*PN	Pn	01 16 12.1	+0.6
VYHS				*e*SN	Sn	01 16 56.5	-1.6
VYHS	Vyhne	3.96	11	*e*Pn	Pn	01 16 12.1	+0.6
VYHS				*e*Sn	Sn	01 16 56.5	-1.6
MOA	Molln	4.04	325	⇓*i*Pn	Pn	01 16 13.5	+1.0
MOA	Molln	4.04	325	Pn	Pn	01 16 13.5	+0.9
BMR	Baia Mare	5.04	50	⇑*i*P	Pn	01 16 23.8	-2.5
BMR	Baia Mare	5.04	50	⇑*i*P	Pn	01 16 23.8	-2.5

CASC ***17*** *01:15:26.2±1.2, 17°.14N×85°.75W, h21^{km}±15^{km}, ML4.4, mb4.7(NEIC)*

ISCJB ***17*** *01:15:30.0±0.2, 16°.79N±0°.02×85°.75W±0°.03, h33^{km}, mb4.5/47, MS4.1/9, Error ellipse: s-maj=3.7km s-min=3.2km az=0.6*

BJI ***17*** *01:15:31.0, 16°.80N×85°.90W, h25^{km}, mB5.4/3, Ms5.3/2, Ms7 4.6/2*

NEIC ***17*** *01:15:31.1±1.6, 16°.82N×85°.90W, h20^{km}±12^{km}, mb4.7/52, Error ellipse: s-maj=5.7km s-min=5.2km az=71.0*

NEIC Felt [IV] on Roatan. Also felt on Guanaja and at Utila.

IDC ***17*** *01:15:33.0±1.0, 16°.85N×85°.67W, h39^{km}±7^{km}, mb4.1/12, mb1 4.4/15, mb1mx4.2/23, mbtmp4.2/15, ML4.5/3, MS3.8/10, Ms1 3.8/10, ms1mx3.6/33, Error ellipse: s-maj=23.5km s-min=15.1km az=45.0*

ISC 17 01:15:32.3±0.2**, 16°.78N**±0°.02×**85°.76W**±0°.03**, h35**^{km}**, (h46**^{km}±1.4^{km}**:pP-P), n234,** σ**0^{s}.99**/243**, mb4.5**/47**, MS4.1**/9**, 42C-61D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGUH	Tegucigalpa,Un	3.08	208	*e*Pn	Pn	01 16 17.8	-0.6
TGUH	Tegucigalpa,Un	3.08	208	*e*P	Pn	01 16 17.9	-0.4
TGUH				*e*P		01 16 18.0	
TGUH				*e*S	Sn	01 16 58.9	+4.9
TGUH				AML	AML	01 17 12.3	
	comp=N,8μm,0.4s						
TGUH				AML	AML	01 17 18.1	
	comp=E,8μm,0.7s						
CAHU	Cacacuatique	3.81	219	*e*P	Pn	01 16 28.4	-0.2
CAHU				*e*S	Sn	01 17 19.7	+7.6
CNCH	Conchagua	4.02	210	*e*P	Pn	01 16 30.6	-0.8
BLLM	Bellamira	4.09	216	*e*P	Pn	01 16 32.0	-0.3
VSM	San Miguel	4.12	216	*e*P	Pn	01 16 32.0	-0.8
TEIG	Tepich	4.17	326	Pn	Pn	01 16 31.6	-1.9
	comp=E,310nm,0.3s,baz=129,slow=1.9,SNR=1774						
TEIG				Sn	Sn	01 17 14.0	-7.1
	comp=E,261nm,0.3s,baz=81,slow=23,SNR=7.8						
TEIG				LR	LR	01 17 57.6	
	comp=E,694nm,20.1s,baz=156,slow=35						
TEIG	Tepich	4.17	326	Pn	Pn	01 16 31.6	-1.9
TEIG				Sn	Sn	01 17 14.0	-7.1
TEIG				LR	LR	01 17 57.6	
TEIG	Tepich	4.17	326	*e*P	Pn	01 16 31.6	-1.9
MTO2	Montecristo 2	4.20	236	*e*P	Pn	01 16 33.3	-0.5
CRIN	San Cristobal	4.24	197	*e*P	Pn	01 16 34.5	0.0
CRIN				AML	AML	01 18 06.3	
	comp=N,1μm,0.5s						
BOAB	BOACO BROADBAN	4.31	179	*e*P	Pn	01 16 35.3	-0.1
BOAB				AML	AML	01 17 53.5	
	comp=E,398nm,0.6s						
CNGN	Cerro Negro	4.35	192	*e*P	Pn	01 16 36.6	+0.6
CNGN				AML	AML	01 17 58.4	
	comp=E,643nm,0.5s						
LFRS	El Faro	4.47	226	*e*P	Pn	01 16 37.1	-0.5
LFRS				*e*S	Sn	01 17 35.3	+6.8
RBDL	Robledal	4.62	235	*e*P	Pn	01 16 38.6	-1.1
MGAN	Managua	4.63	186	AML	AML	01 18 14.2	
	comp=N,461nm,0.4s						
COPN	Copaltepe	4.64	190	*e*P	Pn	01 16 37.8	-2.2
CONN	Concepcion	5.19	179	*e*P	Pn	01 16 48.1	+0.7
CCIG	Comitan	6.13	266	*i* P	Pn	01 16 57.5	-2.9
CCIG				*i* S	Sn	01 18 03.0	-6.4
JTS	JuntasAbangare	6.50	173	Pn	Pn	01 17 06.2	+0.7
	comp=N,4.9nm,0.3s,baz=6.9,slow=10,SNR=42						
JTS				Sn	Sn	01 18 16.9	-1.6
	comp=N,6.4nm,0.3s,baz=225,slow=22,SNR=9.7						
JTS				Lg		01 18 45.2	
	comp=N,8.6nm,0.3s,baz=175,slow=20,SNR=4.4						
JTS	JuntasAbangare	6.50	173	*e*Pn	Pn	01 17 05.6	+0.1
	comp=N,67nm,0.8s						
JTS	JuntasAbangare	6.50	173	*e*P	Pn	01 17 05.9	+0.4
JTS				*e*Pg	Pn	01 17 26.5	+21
SOR	Soroa	6.52	23	*e*P	Pn	01 17 04.0	-1.7
SOR				*e*S	Sn	01 18 15.5	-3.3
	comp=N,28μm,0.2s						
SOR				*e*			
	comp=E,26μm,0.2s						
SCX	San Cristobal	6.58	271	*e*P	Pn	01 17 04.6	-2.0
MGV	Manicaragua	7.61	45	*e*P	Pn	01 17 17.0	-3.6
MCJ	Malvern	7.79	80	*e*P	Pn	01 17 22.9	-0.3
CVJ	Coleyville	7.98	78	⇓*i*P	Pn	01 17 26.3	+0.5
STH	Stony Hill	8.64	80	⇓*e*P	Pn	01 17 34.4	-0.5
STH				*e*S	Sn	01 19 06.3	-4.9
HOJ	Hope	8.69	81	⇓*e*P	Pn	01 17 34.5	-1.0
GWJ	Greenwich	8.72	80	⇑*e*P	Pn	01 17 35.5	-0.5
CMIG	Matias Romero	8.74	273	Pn	Pn	01 17 32.2	-4.0
	comp=E,2.6nm,0.3s,baz=82,slow=9.1,SNR=20						
CMIG				Sn	Sn	01 19 03.5	-10
	comp=E,2.6nm,0.3s,baz=0.0,slow=20,SNR=3.0						
CMIG				LR	LR	01 21 22.3	
	comp=E,1μm,19.5s,baz=87,slow=40						
LMGC	Las Mercedes	8.93	67	*e*P	Pn	01 17 39.4	+0.6
CMJ	Castle Mountai	9.06	80	⇓*i*P	Pn	01 17 41.0	+0.3
HUIG	Huatulco	9.99	266	*i* P	Pn	01 17 50.1	-3.2
HUIG				*i* S	Sn	01 19 35.8	-8.4
RCC	Rio Carpintero	10.08	70	*e*P	Pn	01 17 53.7	-0.8
VHO	Vista Hermosa	10.50	273	*i* P	Pn	01 17 58.3	-2.1
VHO				*i* S	Sn	01 19 50.7	-6.2
PNIG	Pinotepa	11.86	270	*e*P	Pn	01 18 13.4	-5.6
PNIG				*i* S	Sn	01 20 14.8	-15
DWPF	Disney	11.96	19	*e*Pn	Pn	01 18 18.1	-2.2
	comp=E,158nm,0.8s						
PPM	Popocatepetl	12.45	282	*e*P	Pn	01 18 27.5	+0.4
IIO	Organos	12.63	285	*e*P	Pn	01 18 28.8	-0.7
PBVM	Pinon	12.94	284	*e*P	Pn	01 18 27.5	-6.2
PTVM	Pico Tres Padr	12.99	284	*e*P	Pn	01 18 42.3	+7.9
SDDR	Presa de Saban	13.95	79	*e*Pn	Pn	01 18 50.2	+2.7
	comp=E,18nm,0.5s						
BRAL	Brewton	14.21	355	*e*Pn	Pn	01 18 50.5	-0.6
	comp=E,115nm,0.6s						
BRAL				*e*Sn	Sn	01 21 20.4	-7.2
HKT	Hockley	16.03	327	*e*P	Pn	01 19 15.1	0.0
	comp=E,16nm,0.9s						
HKT				*e*Sn	Sn	01 21 58.7	-13
LRAL	Lakeview Retre	16.22	356	*e*Pn	Pn	01 19 15.3	-2.2
	comp=E,40nm,0.3s						
LRAL				*e*Sn	Sn	01 21 58.6	-18
ROSC	El Rosal	16.31	135	Pn	Pn	01 19 22.4	+3.6
	baz=262,slow=23,SNR=5.4						
ROSC				LR	LR	01 25 34.4	
	comp=E,302nm,20.7s,baz=348,slow=37						
GOGA	Godfrey	16.69	7	*e*Pn	Pn	01 19 19.0	-4.4
	comp=E,45nm,0.8s						
GOGA				*e*Sn	Sn	01 22 09.2	-18
SDV	Santo Domingo	16.70	116	Pn	Pn	01 19 23.1	-0.6
	comp=E,2.0nm,0.3s,baz=284,slow=5.1,SNR=24						
SDV	Santo Domingo	16.70	116	*e*Pn	Pn	01 19 21.8	-1.9
	comp=E,24nm,0.8s						
NHSC	New Hope	17.02	16	*e*P	Pn	01 19 27.6	+0.1
	comp=E,213nm,1.0s						
CRPR	Cabo Rojo, PR	17.84	83	*e*Pn	Pn	01 19 41.4	+3.5
OTAV	Otavalo	17.95	156	*e*P	Pn	01 19 42.2	+3.0
	comp=E,9.0nm,1.2s						
PLAL	Pickwick Lake	18.24	354	*e*P	Pn	01 19 42.2	-0.5
	comp=E,66nm,0.7s						
PLAL				*e*Sn	Sn	01 22 48.0	-17
JCT	Junction City	18.72	319	*e*P	Pn	01 19 47.0	-1.5
	comp=E,36nm,0.6s						
TKL	Tuckaleechee C	18.88	5	P	Pn	01 19 49.3	-1.1
	comp=E,2.4nm,0.3s,baz=175,slow=13,SNR=33						
TKL				S	S	01 23 04.4	-18
	comp=E,1.7nm,0.3s,baz=66,slow=10,SNR=6.9						
TKL				LR	LR	01 27 12.7	
	comp=E,176nm,18.3s,baz=233,slow=37						
TKL	Tuckaleechee C	18.88	5	*e*P	Pn	01 19 50.1	-0.3
TKL				*e*Sn	Sn	01 23 05.0	-16
MIAR	Mount Ida	19.02	340	*e*P	Pn	01 19 51.8	-0.3
	comp=E,11nm,0.8s						
CBYP	Canovanas	19.04	83	*e*P	Pn	01 19 57.5	+5.1
	comp=E,9.8nm,0.6s						
WVT	Waverly	19.36	355	*e*P	Pn	01 19 54.9	-1.2
	comp=E,37nm,0.6s						
WVT				*e*Sn	Sn	01 23 15.0	-17
UTMT	University of	19.68	353	*e*P	Pn	01 19 58.7	-1.2
	comp=E,188nm,1.0s						
CNNC	Cliffs of the	19.68	19	*e*P	Pn	01 19 59.5	-0.4
	comp=E,79nm,0.6s						
TZTN	Tazewell	19.78	5	*e*P	Pn	01 19 59.9	-1.3
	comp=E,24nm,0.9s						
TZTN				*e*S	S	01 23 43.1	+2.6
TXAR	Lajitas Array	20.64	310	P	P	01 20 09.4	+0.5
	comp=E,18nm,0.8s,baz=132,slow=10,SNR=105						
TXAR				S	S	01 23 42.8	-15
	comp=E,1.6nm,0.5s,baz=123,slow=24,SNR=6.9						
TXAR				LR	LR	01 28 24.6	
	comp=E,71nm,20.3s,MS3.0,baz=40,slow=37						
BLA	Blacksburg	20.89	12	*e*P	P	01 20 12.2	+0.7
	comp=E,61nm,1.0s						
SIUC	Southern Illin	21.07	352	*e*P	P	01 20 13.6	+0.1
	comp=E,87nm,1.0s,mb5.0						
SIUC				*e*S	S	01 24 02.4	-3.7
USIN	University of	21.17	356	*e*P	P	01 20 14.7	+0.2
	comp=E,103nm,0.8s,mb5.2						
WMOK	Wichita Mounta	21.34	329	*e*P	P	01 20 16.0	-0.4
	comp=E,17nm,1.0s,mb4.3						
WMOK				*e*S	S	01 23 58.6	-13
WCI	Wyandotte Cave	21.37	359	*e*P	P	01 20 16.8	+0.1
	comp=E,69nm,0.8s,mb5.0						
WCI				*e*S	S	01 24 03.8	-8.1
FVM	French Village	21.52	350	*e*P	P	01 20 19.9	+1.7
	comp=E,29nm,1.1s,mb4.6						
PCRV	Puerto La Cruz	21.56	105	LR	LR	01 29 33.3	
	comp=E,288nm,18.7s,MS3.7,baz=288,slow=39						
CCM	Cathedral Cave	21.73	348	*e*P	P	01 20 19.7	-0.9
	comp=E,45nm,0.7s,mb5.0						
CCM				*e*		01 20 32.6	
OLIL	Olney	21.97	355	*e*P	P	01 20 23.4	+0.4
	comp=E,82nm,1.0s,mb5.1						
OLIL				*e*		01 20 35.1	
BLO	Bloomington	22.32	358	*e*P	P	01 20 25.5	-1.2
	comp=E,35nm,0.9s,mb4.8						
BLO				*e*		01 20 39.2	
CBN	Corbin	22.58	17	*e*P	P	01 20 30.2	+0.7
	comp=E,51nm,0.5s,mb5.2						
CBN				*e*pP		01 20 42.4	
AMTX	Amarillo	22.97	325	*e*P	P	01 20 31.9	-1.9
	comp=E,25nm,0.6s,mb4.8						
MCWV	Mont Chateau	23.37	12	*e*P	P	01 20 38.7	+0.8
	comp=E,54nm,1.1s,mb4.9						
MCWV				*e*		01 20 48.2	
ACSO	Alum Creek Sta	23.49	5	*e*P	P	01 20 39.8	+0.8
	comp=E,22nm,0.9s,mb4.6						
HDIL	Hopedale	23.89	353	*e*P	P	01 20 42.1	-0.5
	comp=E,26nm,0.7s,mb4.8						
HDIL				*e*pP		01 20 54.0	
HDIL				*e*sP	sP	01 21 00.6	+3.8
KSU1	Kansas State U	24.17	339	*e*P	P	01 20 48.1	+2.8
	comp=E,14nm,0.7s,mb4.5						
ATAH	Atahualpa	24.73	162	LR	LR	01 29 53.3	
	comp=E,246nm,19.9s,MS3.7,baz=149,slow=35						
SSPA	Standing Stone	24.73	14	*e*P	P	01 20 51.5	+1.2
	comp=E,53nm,1.2s,mb5.0						
ERPA	Erie	25.73	10	*e*P	P	01 21 00.1	+0.7
	comp=E,47nm,0.9s,mb5.0						
ERPA				*e*pP	pP	01 21 12.1	+2.7
319A	Douglas	25.85	308	⇓P	P	01 21 01.4	+0.8
	baz=26						
ANMO	Albuquerque	25.87	318	P	P	01 21 01.0	+0.2
	comp=E,5.5nm,1.0s,mb4.0,baz=146,slow=11,SNR=9.9						
ANMO	Albuquerque	25.87	318	*e*P	P	01 21 00.3	-0.5
	comp=E,21nm,1.3s,mb4.5						
ANMO				*e*		01 21 13.7	
120A	U Bar Ranch, L	25.96	311	⇑P	P	01 21 02.3	+0.7
	baz=26						
219A	White Tail Can	26.14	310	⇑P	P	01 21 03.9	+0.7
	baz=26,SNR=10						
JFWS	Jewell Farm	26.33	353	*e*P	P	01 21 07.2	+2.5
	comp=E,60nm,0.9s,mb5.1						
318A	Bisbee	26.41	308	⇓P	P	01 21 06.8	+1.1
	baz=26,SNR=42						
119A	Ashpeak Ranch,	26.56	311	⇓P	P	01 21 08.0	+1.0
	baz=26,SNR=13						
BINY	Binghamton	26.68	16	*e*P	P	01 21 09.0	+1.0
	comp=E,29nm,1.0s,mb4.8						
218A	Dragoon	26.71	309	⇓P	P	01 21 09.3	+1.0
	baz=27						
118A	Homack Ranch,	26.98	310	⇓P	P	01 21 11.5	+0.7
	baz=27						
Y19A	Nutrioso	27.15	313	⇑P	P	01 21 13.4	+1.0
	baz=27,SNR=9.6						
SDCO	Great Sand Dun	27.17	324	*e*P	P	01 21 12.7	+0.3
	comp=E,2.7nm,0.8s,mb3.8						
SDCO				*e*pP	pP	01 21 24.7	+2.3
217A	Green Valley	27.19	308	⇓P	P	01 21 13.6	+0.9
	baz=27,SNR=8.2						
W20A	Ramah	27.31	316	⇑P	P	01 21 14.2	+0.5
	baz=27						
TUC	Tucson	27.42	309	*e*P	P	01 21 15.4	+0.7
	comp=E,6.0nm,1.1s,mb4.0						
117A	Oracle	27.51	309	⇓P	P	01 21 15.1	-0.5
	baz=27						
Z17A	San Carlos Hig	27.67	311	⇓P	P	01 21 18.0	+1.0
	baz=28						
X18A	Snowflake	27.95	314	⇓P	P	01 21 20.2	+0.8
	baz=28						
W18A	Petrified Fore	28.13	315	⇓P	P	01 21 21.7	+0.6
	baz=28						
SADO	Sadowa	28.45	10	P	P	01 21 23.6	-0.2
	comp=E,9.9nm,0.8s,mb4.5,baz=200,slow=6.7,SNR=6.3						
SADO				LR	LR	01 33 08.0	
	comp=E,274nm,18.1s,MS3.9,baz=171,slow=37						
SADO	Sadowa	28.45	10	P	P	01 21 23.6	-0.2
SADO				LR	LR	01 33 08.0	
MVCO	Mesa Verde	28.58	320	⇑P	P	01 21 25.9	+0.9
	baz=28						
MVCO	Mesa Verde	28.58	320	*e*P	P	01 21 26.1	+1.1
	comp=E,3.0nm,0.8s,mb4.1						
Y16A	Circle Bar Ran	28.69	311	⇓P	P	01 21 27.2	+1.1
	baz=29,SNR=9.3						
Q22A	Crested Butte,	28.74	324	⇑P	P	01 21 26.5	0.0
	baz=29						
X16A	Lo Mia Camp, P	28.93	312	⇓P	P	01 21 29.2	+1.0
	baz=29,SNR=13						
114A	Black Gap (USA	29.19	308	⇓P	P	01 21 30.5	-0.1
	baz=29						
X15A	Humboldt	29.54	312	⇑P	P	01 21 33.1	-0.5
	baz=29,SNR=12						
U16A	Tuba City	29.64	315	⇑P	P	01 21 34.4	0.0
	baz=30,SNR=9.6						
Y14A	Wickenburg	29.83	310	⇑P	P	01 21 36.1	-0.1
	baz=30						
V15A	Kaibab Nationa	30.18	314	⇓P	P	01 21 40.9	+1.7
	baz=30,SNR=16						
W14A	Seligman	30.50	312	⇑P	P	01 21 42.3	+0.2
	baz=30,SNR=8.9						
R17A	Hanksville Air	30.70	320	⇓P	P	01 21 43.4	-0.4
	baz=31						
V14A	Boquillas Ranc	30.73	313	⇓P	P	01 21 45.6	+1.5
	baz=31,SNR=9.1						
PDMCI	Parker Dam,Lak	30.83	310	⇓P	P	01 21 45.5	+0.5
	baz=31						
T15A	Red Dirt Ranch	30.97	316	⇑P	P	01 21 46.8	+0.6
	baz=31						
W13A	Hualapai Mount	31.02	311	⇓P	P	01 21 48.5	+1.8
	baz=31,SNR=6.3						
P18A	Preston Nutter	31.18	322	⇓P	P	01 21 48.2	+0.2
	baz=31						
U14A	Mt Trumbull	31.18	314	⇓P	P	01 21 49.3	+1.2
	baz=31,SNR=12						
V13A	Grand Canyon W	31.46	313	⇓P	P	01 21 51.9	+1.4
	baz=31,SNR=9.8						
T14A	Hurricane	31.46	315	⇑P	P	01 21 51.9	+1.3
	baz=31,SNR=6.1						
BC3	Big Chuckw Mtn	31.53	308	⇑P	P	01 21 51.5	+0.3
	baz=31						
DVTC	Desert V Tower	31.62	306	⇑P	P	01 21 51.7	-0.4
	baz=32						
U13A	Pakoon Wash	31.73	314	⇑P	P	01 21 54.2	+1.3
	baz=32,SNR=12						
W12A	Cal Nev Ari	31.82	311	⇑P	P	01 21 54.6	+0.9
	baz=32						
LDFC	Landfair	31.89	310	*e*P	P	01 21 56.2	+1.9
	comp=E,11nm,1.1s,mb4.6						
T13A	Saint George	32.00	315	⇓P	P	01 21 56.2	+0.9
	baz=32,SNR=5.7						
V12A	Nelson	32.01	312	⇓P	P	01 21 55.7	+0.3
	baz=32,SNR=11						
BELC	Belle Mtn.	32.08	308	⇓P	P	01 21 57.0	+1.0
	baz=32,SNR=6.6						
S13A	Holt Ranch, En	32.26	315	⇑P	P	01 21 58.7	+1.2
	baz=32,SNR=9.2						
L18A	Fontenelle, Gr	32.58	325	⇑P	P	01 21 59.7	-0.5
	baz=32						
TUQ	Turquoise Moun	32.65	310	⇓P	P	01 22 00.8	-0.2
	baz=32,SNR=7.8						
BW06	Boulder Array	32.90	327	*e*P	P	01 22 02.5	-0.6
	comp=E,0.8nm,0.6s,mb3.8						
PDAR	Pinedale Array	32.90	327	P	P	01 22 02.9	-0.2
	comp=E,1.1nm,0.9s,mb3.8,baz=129,slow=11,SNR=9.0						
PDAR				pP	pP	01 22 14.2	+0.9
	comp=E,0.4nm,0.6s,baz=128,slow=10,SNR=3.6						
T11A	Corn Creek, Al	33.01	314	⇑P	P	01 22 04.5	+0.4
	baz=33						
K18A	Toltan Ranch,	33.07	326	⇑P	P	01 22 04.4	-0.1
	baz=33						
DUG	Dugway	33.07	320	*e*P	P	01 22 05.6	+1.0
	comp=E,1.0nm,0.7s,mb3.9						
Q13A	Wheeler Ranch,	33.12	317	⇓P	P	01 22 04.7	-0.3
	baz=33,SNR=6.8						
N15A	Stansbury Isla	33.32	322	⇓P	P	01 22 06.3	-0.5
	baz=33						
U10A	Ash Meadows, A	33.39	312	⇓P	P	01 22 08.1	+0.6
	baz=33,SNR=8.3						
L16A	Fish Haven	33.41	324	⇓P	P	01 22 06.8	-0.7
	baz=33,SNR=5.6						
J18A	Kendall Valley	33.46	327	⇑P	P	01 22 07.4	-0.5
	baz=33						
M15A	Larsen Ranch,	33.64	322	⇓P	P	01 22 09.5	-0.1
	baz=34						
N14A	Grayback Hills	33.70	321	⇓P	P	01 22 10.2	+0.1
	baz=34						
FURC	Furnace Creek,	33.80	312	⇓P	P	01 22 12.6	+1.6
	baz=34,SNR=6.0						
R11A	Troy Canyon, C	33.82	315	⇑P	P	01 22 11.9	+0.7
	baz=34						
EDW2	Edwards Air Fo	33.94	308	⇓P	P	01 22 10.8	-1.5
	baz=34						
L15A	Malad City	33.94	323	⇑P	P	01 22 11.4	-0.8
	baz=34,SNR=6.4						
REDW	Red Top Meadow	34.00	326	*e*P	P	01 22 12.8	+0.2
	comp=E,12nm,1.2s,mb4.7						
REDW				*e*pP	pP	01 22 25.7	+2.9
SNOW	Snow King Moun	34.02	327	*e*P	P	01 22 13.5	+0.7
	comp=E,7.2nm,0.9s,mb4.6						
K16A	Soda Springs	34.04	325	⇑P	P	01 22 13.4	+0.4
	baz=34						
LOHW	Long Hollow	34.04	327	*e*P	P	01 22 13.0	-0.1
	comp=E,2.0nm,0.8s,mb4.1						
MPMC	Manual Prospec	34.07	310	⇓P	P	01 22 14.5	+1.1
	baz=34,SNR=15						
TPAW	Teton Pass	34.14	326	*e*P	P	01 22 14.8	+1.0
	comp=E,5.2nm,0.7s,mb4.6						
M14A	Sheep Mountain	34.19	322	⇑P	P	01 22 13.8	-0.5
	baz=34						
MOOW	Moose Ponds	34.21	327	*e*P	P	01 22 14.9	+0.4
	comp=E,2.1nm,0.9s,mb4.1						
I17A	Pilgrim Ck.	34.24	327	⇓P	P	01 22 15.3	+0.6
	baz=34						
R10A	Warm Springs	34.28	315	⇓P	P	01 22 14.6	-0.5
	baz=34						
S10A	Tonopah Range,	34.30	314	⇑P	P	01 22 16.4	+1.0
	baz=34,SNR=12						
J16A	Bone	34.34	326	⇓P	P	01 22 15.7	0.0
	baz=34						
GRAC	Grapevine Rang	34.40	312	⇓P	P	01 22 16.3	0.0
	baz=34,SNR=8.3						
RLMT	Red Lodge	34.45	330	⇓P	P	01 22 16.8	+0.3
	baz=34						
RLMT	Red Lodge	34.45	330	*e*P	P	01 22 16.7	+0.1
	comp=E,4.9nm,1.0s,mb4.4						
RLMT				*e*pP	pP	01 22 29.1	+2.4
Q10A	Clear Creek Ra	34.62	316	⇓P	P	01 22 18.9	+0.9
	baz=34						
S09A	Goldfield	34.64	313	⇑P	P	01 22 18.4	+0.1
	baz=34,SNR=7.1						
CWC	Cottonwood Cre	34.66	311	⇑P	P	01 22 18.8	+0.3
	baz=34						
K14A	Jones Ranch, D	34.74	323	⇓P	P	01 22 18.9	-0.2
	baz=35						
R09A	Tonopah	34.78	314	⇑P	P	01 22 20.6	+1.1
	baz=35,SNR=9.3						
ELK	Elko	34.90	319	*e*P	P	01 22 21.4	+0.9
	comp=E,1.8nm,0.7s,mb4.1						
J14A	Carey	35.43	324	⇓P	P	01 22 24.9	-0.1
	baz=35						
Q08A	Gabbs	35.67	315	⇓P	P	01 22 26.7	-0.5
	baz=36,SNR=5.4						
NVAR	Mina Array Bea	35.72	314	P	P	01 22 29.1	+1.5
	comp=E,3.7nm,0.8s,mb4.4,baz=122,slow=9.1,SNR=31						
NVAR				PcP	PcP	01 24 55.4	+0.1
	comp=E,0.7nm,0.7s,baz=107,slow=4.8,SNR=4.5						
J13A	Cove Ranch, Pi	35.85	324	⇑P	P	01 22 28.4	-0.2
	baz=36						
BOZ	Bozeman (W)	35.99	329	*e*P	P	01 22 29.7	-0.1
HLID	Hailey	36.09	324	*e*P	P	01 22 30.6	-0.1
	comp=E,2.0nm,1.1s,mb4.0						
I13A	Wildhorse Cree	36.14	324	⇓P	P	01 22 30.3	-0.8
	baz=36						
J12A	Stokes Ranch,	36.28	323	⇑P	P	01 22 31.6	-0.8
	baz=36						
F15A	Butte	36.55	328	⇓P	P	01 22 34.0	-0.6
	baz=36						
R06C	Coleville	36.56	313	⇑P	P	01 22 35.9	+1.1
	baz=36,SNR=5.5						
D17A	Six Diamond Ra	36.62	331	⇓P	P	01 22 35.0	-0.1
	baz=37						
H13A	Challis	36.63	325	⇑P	P	01 22 35.2	0.0
	baz=37						
E16A	East Helena	36.64	330	⇓P	P	01 22 34.6	-0.7
	baz=37						
I12A	Atlanta	36.64	323	⇓P	P	01 22 34.8	-0.6
	baz=37						
N08A	GE Springer Mi	36.77	317	⇓P	P	01 22 35.4	-1.0
	baz=37						
C17A	Wharram Farm,	37.01	332	⇓P	P	01 22 37.8	-0.7
	baz=37,SNR=5.1						
L08A	Fields	37.64	319	⇑P	P	01 22 43.6	-0.3
	baz=38,SNR=5.5						
BEKR	Beckwourth	37.80	315	⇑P	P	01 22 44.4	-0.9
	baz=38						
F12A	Elk City	37.94	326	⇓P	P	01 22 45.1	-1.2
	baz=38						
WVOR	Wild Horse Val	37.95	319	*e*P	P	01 22 47.0	+0.5
	comp=E,12nm,1.3s,mb4.5						
C15A	Salmond Ranch,	37.97	330	⇑P	P	01 22 45.1	-1.5
	baz=38						
K08A	Mann Creek Ran	38.02	320	⇓P	P	01 22 45.2	-1.9
	baz=38,SNR=5.5						
L07A	Adell	38.18	318	⇑P	P	01 22 46.0	-2.5
	baz=38						
K07A	Rock Creek Ran	38.47	319	⇓P	P	01 22 49.9	-1.0
	baz=38						
F11A	Grangeville	38.51	325	⇑P	P	01 22 49.8	-1.4
	baz=38						
H08A	Prairie City	39.12	322	⇓P	P	01 22 55.5	-0.8
	baz=39						
I07A	Izee	39.38	321	⇑P	P	01 22 57.1	-1.3
	baz=39						
I06A	Prineville	39.73	320	⇓P	P	01 23 01.4	0.0
	baz=40						
SCHQ	Schefferville	40.69	17	P	P	01 23 09.1	0.0
	comp=E,16nm,0.6s,mb4.9,baz=217,slow=6.8,SNR=58						
SCHQ				LR	LR	01 41 19.3	
	comp=E,139nm,18.9s,MS3.8,baz=34,slow=38						
SCHQ	Schefferville	40.69	17	P	P	01 23 09.1	-0.1
SCHQ				LR	LR	01 41 19.3	
E07A	Sunnyside	40.97	324	⇑P	P	01 23 10.7	-0.9
	baz=41						
H04A	Detroit Lake	41.33	320	⇓P	P	01 23 13.9	-0.7
	baz=41						

C07A	Waterville	41.74	325	⇑P	P	01 23 17.2	-0.7
	baz=42						
FCC	Fort Churchill	42.36	354	eP	P	01 23 23.1	+0.3
	comp=E,0.1nm,0.9s						
D05A	Enumclaw	42.53	323	⇓P	P	01 23 23.4	-1.0
	baz=42						
YKA	Yellowknife Ar	49.93	343	P	P	01 24 22.2	0.0
	comp=E,0.6nm,0.7s,mb3.7,baz=138,slow=7.7,SNR=13						
YKA				pP	pP	01 24 33.5	+0.8
	comp=E,1.3nm,0.6s,baz=137,slow=8.0,SNR=13						
YKA	Yellowknife Ar	49.93	343	P	P	01 24 22.2	0.0
YKA				pP	pP	01 24 33.5	+0.8
RES	Resolute Bay	58.13	357	eP	P	01 25 20.9	-1.0
	comp=E,5.8nm,1.4s,mb4.4						
PLCA	Paso Flores	58.94	167	P	P	01 25 29.4	+1.5
	comp=E,2.4nm,1.0s,mb4.2,baz=318,slow=5.9,SNR=2.4						
PLCA	Paso Flores	58.94	167	P	P	01 25 29.4	+1.5
SUMG	Summit	62.01	15	eP	P	01 25 48.8	+0.2
	comp=E,10nm,0.9s,mb5.0						
SUMG				epP	pP	01 26 00.9	+1.6
ESDC	Sonseca Array	73.27	53	P	P	01 26 59.9	-0.3
	comp=E,2.7nm,0.7s,mb4.3,baz=288,slow=6.0,SNR=14						
ESDC				pP	pP	01 27 12.0	+0.9
	comp=E,1.7nm,0.7s,baz=281,slow=5.5,SNR=3.7						
ESDC	Sonseca Array	73.27	53	P	P	01 26 59.9	-0.3
ESDC				pP	pP	01 27 12.0	+0.9
SPITS	Spitsbergen Ar	76.16	12	LR	LR	02 06 20.5	
	comp=E,193nm,18.1s,MS4.5,baz=200,slow=40						
DBIC	Dimbokro	79.43	86	P	P	01 27 36.1	+0.5
	comp=E,5.8nm,1.1s,mb4.4,baz=274,slow=6.4,SNR=3.7						
PMSA	Palmer Station	82.98	171	eP	P	01 27 56.8	+3.5
	comp=E,19nm,0.4s,mb5.5						
GERES	GERESS Array B	83.61	41	P	P	01 27 56.1	-1.0
	comp=E,0.9nm,0.9s,mb3.9,baz=339,slow=3.3,SNR=6.4						
TORD	Torodi Ar. Bea	83.90	78	P	P	01 27 58.5	-0.8
	comp=E,0.9nm,0.8s,mb3.9,baz=297,slow=6.0,SNR=5.5						
VNA2	Neumayer--Watz	101.98	161	ePdiff	Pdif	01 29 19.2	-3.3
MDJ	Mudanjiang	110.92	334	Pdif	Pdif	01 30 01.9	-0.4
MDJ				PP	PP	01 34 34.9	-4.3
MDJ				S	Sdif	01 42 02.9	-14
MDJ				SS	SS	01 49 55.3	-12
MDJ				AMB	AMB		
	comp=Z,14nm,19.1s						
MDJ				LR	LR		
	comp=N,320nm,33.0s,MS4.8						
MDJ				LR	LR		
	comp=E,200nm,33.0s,MS4.8						
MDJ				LR	LR		
	comp=Z,150nm,28.1s,MS4.4						
CN2	Changchun	113.29	336	ePKP	PKiKP	01 34 06.5	0.0
BJI	Beijing	119.89	341	PKP	PKPdf	01 34 19.1	-0.2
BJI				SKS	SKSdf	01 41 28.8	-0.1
BJI				LR	LR		
	comp=N,250nm,18.6s,MS5.1						
BJI				LR	LR		
	comp=E,310nm,20.0s,MS5.1						
BJI				LR	LR		
	comp=Z,130nm,28.4s						
HHC	Hu-ho-hao-te	120.45	345	ePKP	PKPdf	01 34 19.3	-1.1
HHC				sPKP		01 34 33.6	
HHC				PKS		01 37 55.0	
HHC				SKS	SKSdf	01 41 26.4	-3.5
HHC				AMB	AMB		
	comp=Z,86nm,5.1s						
HHC				LR	LR		
	comp=N,170nm,11.6s,MS5.1						
HHC				LR	LR		
	comp=E,230nm,14.5s,MS5.1						
HHC				LR	LR		
	comp=Z,190nm,14.2s,MS4.9						
LZH	Lanzhou	126.64	350	ePKP	PKPdf	01 34 30.0	-2.4
LZH				sPKP		01 34 44.5	
LZH	Lanzhou	126.64	350	eP	Pdif	01 31 12.0	-0.2
LZH				pP		01 31 16.3	
LZH				sP		01 31 18.8	
LZH				pmax	pmax		
	comp=Z,18nm,1.4s						
LZH				pmax	pmax		
	comp=Z,75nm,4.3s						
CD2	Chengdu	131.71	349	PKP	PKPdf	01 34 44.8	+2.6
KMI	Kunming	137.53	349	PKP	PKPdf	01 34 53.1	-0.1
WRAB	Tennant Creek	141.86	259	ePKPdf	PKPdf	01 35 03.4	+2.3
WRA	Warramunga Arr	141.87	259	PKhKP		01 34 55.0	
	comp=Z,0.5nm,0.7s,baz=92,slow=3.4,SNR=4.2						
WRA				PKP	PKPdf	01 35 00.7	-0.5
	comp=Z,0.6nm,0.8s,baz=87,slow=2.6,SNR=3.5						
ASAR	Alice Springs	142.25	253	PKhKP		01 34 55.8	
	comp=Z,1.2nm,0.8s,baz=102,slow=3.4,SNR=10						
FORT	Forrest	146.21	239	ePKPbc	PKPbc	01 35 09.4	-0.1

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*IDC **17** 01:19:12.7±0.8, 11°.42S×166°.21E, h54^{km}±6^{km}, mb4.2/16, mb1 4.3/17, mb1mx4.2/23, mbtmp4.2/17, MS3.7/6, Ms1 3.7/6, ms1mx3.5/23, Error ellipse: s-maj=15.7km s-min=15.1km az=178.0*

*ISCJB **17** 01:19:13.4±3.2, 11°.41S±0°.08×166°.1E±0°.1, h70^{km}±25^{km}, mb4.5/26, Error ellipse: s-maj=20.1km s-min=13.5km az=3.5*

*NEIC **17** 01:19:15.3±2.1, 11°.42S×166°.17E, h77^{km}±17^{km}, mb4.7/9, Error ellipse: s-maj=16.5km s-min=10.0km az=116.0*

ISC 17 01:19:14.4±2.7**, 11°.42S**±0°.08×**166°.2E**±0°.1**, h67**^{km}±21^{km}**, h55**^{km}±1.7^{km}**:pP-P, n42,** σ**0^{s}81**/37**, mb4.5**/26**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.42	287	P	Pn	01 20 47.3	+1.0
	43nm,0.3s,baz=134,slow=4.1,SNR=23						
HNR				S	Sn	01 21 56.7	-1.5
	baz=162,slow=20,SNR=1.5						
CTA	Charters Tower	20.98	243	P	P	01 23 53.0	+0.6
	6.4nm,0.8s,baz=68,slow=16,SNR=3.0						
CTA				LR	LR	01 30 43.3	
	comp=Z,250nm,21.8s,baz=53,slow=33						
CTAO	Charters Tower	20.98	243	eP	P	01 23 52.8	+0.4
	11nm,0.9s						
AFI	Afiamalu	21.67	99	LR	LR	01 31 05.2	
	comp=Z,186nm,18.4s,baz=275,slow=33						
COEN	Coen	22.56	261	eP	P	01 24 10.3	+1.1
	41nm,0.9s,mb4.8						
ARMA	Armidale	23.22	213	eP	P	01 24 16.0	+0.2
	21nm,1.0s,mb4.4						
URZ	Urewera	28.47	162	LR	LR	01 34 35.5	
	comp=Z,340nm,18.6s,baz=16,slow=32						
STKA	Stephens Creek	30.45	224	P	P	01 25 21.9	+1.0
	5.8nm,0.8s,mb4.3,baz=36,slow=8.8,SNR=11						
STKA				PcP	PcP	01 28 18.6	-0.3
	0.7nm,0.3s,baz=326,slow=3.6,SNR=3.7						
STKA				LR	LR	01 37 21.7	
	comp=Z,170nm,18.1s,baz=27,slow=36						
WRAB	Tennant Creek	31.72	251	eP	P	01 25 31.6	-0.5
	10nm,1.0s,mb4.5						
WRA	Warramunga Arr	31.73	251	P	P	01 25 32.2	-0.1
	6.1nm,0.8s,mb4.4,baz=81,slow=9.1,SNR=24						
WRA				pP	pP	01 25 46.4	-2.0
	5.4nm,0.8s,baz=80,slow=9.0,SNR=11						
WRA				PcP	PcP	01 28 22.4	-0.2
	1.1nm,0.8s,baz=74,slow=3.2,SNR=6.2						
WRA				LR	LR	01 36 49.3	
	comp=Z,93nm,19.5s,baz=175,slow=33						
RPZ	Rata Peaks	32.46	173	P	P	01 25 36.4	-1.8
	15nm,1.0s,mb4.7,baz=303,slow=3.4,SNR=4.7						
GUMO	Guam	32.60	319	LR	LR	01 36 34.6	
	comp=Z,78nm,19.9s,baz=115,slow=32						
ASAR	Alice Springs	32.98	244	P	P	01 25 42.8	-0.4
	5.7nm,0.8s,mb4.5,baz=74,slow=9.6,SNR=53						
ASAR				PcP	PcP	01 28 25.8	-0.2
	1.8nm,0.7s,baz=74,slow=2.7,SNR=12						
FITZ	Fitzroy Crossi	39.67	255	eP	P	01 26 40.0	-0.3
	13nm,0.7s,mb4.9						
FITZ	Fitzroy Crossi	39.67	255	P	P	01 26 40.3	0.0
	7.0nm,0.7s,mb4.6,baz=134,slow=11,SNR=7.8						
FORT	Forrest	40.16	235	eP	P	01 26 44.1	0.0
	20nm,1.0s,mb4.9						
MBWA	Marble Bar	45.46	252	eP	P	01 27 27.6	+0.4
	35nm,1.1s,mb5.0						
KLBR	Kellerberrin	48.85	238	eP	P	01 27 53.3	-0.1
	52nm,1.5s,mb5.2						
NWAO	Narrogin (SRO)	49.59	236	P	P	01 27 59.2	+0.1
	10nm,0.9s,mb4.8,baz=61,slow=8.1,SNR=5.3						
NWAO	Narrogin (SRO)	49.59	236	P	P	01 27 59.2	+0.1
MUN	Mundaring	50.22	238	eP	P	01 28 04.2	+0.3
KKM	Kota Kinabalu	52.63	287	eP	P	01 28 22.6	+0.5
	9.3nm,0.5s,mb5.1						
KSRS	Korea Array	60.41	326	P	P	01 29 16.6	-0.4
	1.4nm,0.9s,mb4.0,baz=132,slow=7.6,SNR=4.1						
VNDA	Vanda	66.13	181	P	P	01 29 53.5	-0.7
	3.7nm,1.1s,mb4.1,baz=322,slow=9.6,SNR=6.5						
VNDA				pP	pP	01 30 08.8	-3.1
	1.3nm,0.8s,baz=347,slow=8.0,SNR=1.7						
PSI	Prapat	68.31	278	P	P	01 30 08.9	-0.3
	3.1nm,0.5s,mb4.4,baz=326,slow=3.6,SNR=11						
XAN	Xi’an	70.67	312	P	P	01 30 23.5	+0.3
XAN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
XAN				pmax	pmax		
	comp=Z,41nm,4.0s						
CMAR	Chiang Mai Arr	72.63	294	P	P	01 30 36.8	+1.4
	comp=Z,1.3nm,0.3s,mb4.2,baz=118,slow=4.6,SNR=8.1						
ULN	Ulaanbaatar	78.84	324	eP	P	01 31 10.3	+0.1
	comp=Z,6.9nm,1.3s,mb4.3						
SONM	Songino Array	79.20	324	P	P	01 31 12.3	+0.1
	comp=Z,1.1nm,0.6s,mb3.9,baz=130,slow=5.4,SNR=5.5						
GTA	Gaotai	79.60	314	eP	P	01 31 14.3	-0.2
GTA				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.3						
NVAR	Mina Array Bea	85.96	50	P	P	01 31 48.5	+1.0
	comp=Z,0.6nm,0.7s,mb3.7,baz=234,slow=8.6,SNR=6.1						
NVAR				pP	pP	01 32 03.8	-2.1
	comp=Z,0.5nm,0.6s,baz=235,slow=7.3,SNR=3.2						
NVAR	Mina Array Bea	85.96	50	P	P	01 31 48.5	+0.9
NVAR				pP	pP	01 32 03.8	-2.1
HLID	Hailey	90.25	46	eP	P	01 32 09.3	+1.4
	comp=Z,0.7nm,0.7s,mb3.9						
MK31	Makanchi Array	94.07	317	eP	P	01 32 24.8	-0.7
MKAR	Makanchi Array	94.07	317	P	P	01 32 25.3	-0.2
	comp=Z,3.9nm,0.7s,mb4.8,baz=85,slow=6.0,SNR=54						
MKAR				pP	pP	01 32 40.0	-4.0
	comp=Z,1.4nm,0.7s,baz=101,slow=5.6,SNR=5.9						
MKAR	Makanchi Array	94.07	317	P	P	01 32 25.3	-0.2
MKAR				pP	pP	01 32 40.0	-4.0
ZALV	Zalesovo Beam	94.09	324	P	P	01 32 24.7	-0.7
	comp=Z,1.1nm,0.6s,mb4.4,baz=98,slow=3.1,SNR=9.4						
ZALV	Zalesovo Beam	94.09	324	P	P	01 32 24.7	-0.7
YKA	Yellowknife Ar	95.12	27	P	P	01 32 27.6	-2.2
	comp=Z,0.3nm,0.6s,mb3.9,baz=253,slow=4.6,SNR=3.9						
CLL	Collm	134.61	337	Lm		01 39 00.0	
	comp=Z,100nm,20.2s						
KEST	Kesra	147.95	323	PKPbc	PKPbc	01 38 52.8	+0.2
	comp=Z,1.2nm,0.8s,baz=47,slow=5.6,SNR=4.3						
TORD	Torodi Ar. Bea	164.72	278	PKPab	PKPab	01 40 07.3	-0.3
	comp=Z,0.7nm,0.7s,baz=69,slow=5.2,SNR=3.9						

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*ISCJB **17** 01:20:53.2±0.3, 16°.84N±0°.03×85°.98W±0°.04, h35^{km}, mb4.2/15, Error ellipse: s-maj=5.0km s-min=3.8km az=8.6*

*NEIC **17** 01:20:54.9±0.8, 16°.78N×85°.89W, h35^{km}±10^{km}, mb4.2/9, Error ellipse: s-maj=8.6km s-min=7.1km az=212.0*

*CASC **17** 01:20:54.8±1.6, 16°.80N×85°.95W, h35^{km}±999^{km}, ML4.3, mb4.2(NEIC)*

*IDC **17** 01:20:55.8±1.2, 16°.79N×85°.73W, h41^{km}±9^{km}, mb3.7/7, mb1 4.2/10, mb1mx3.9/21, mbtmp3.9/10, ML3.9/3, Error ellipse: s-maj=31.6km s-min=19.9km az=43.0*

ISC 17 01:20:55.0±0.3**, 16°.82N**±0°.03×**85°.93W**±0°.03**, h35**^{km}**, (h46**^{km}±2.0^{km}**:pP-P), n58,** σ**1^{s}10**/71**, mb4.2**/15**, 1C, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGUH	Tegucigalpa,Un	3.04	205	eP	Pn	01 21 40.6	0.0
TGUH				AML	AML	01 22 43.4	
	comp=E,6µm,0.4s						
CAHU	Cacacuatique	3.75	216	eP	Pn	01 21 50.6	+0.2
BLLM	Bellamira	4.03	214	eP	Pn	01 21 54.3	0.0
TEIG	Tepich	4.05	327	P	Pn	01 21 54.4	-0.2
	comp=E,496nm,0.3s,baz=104,slow=0.8,SNR=83						
TEIG				S	Sn	01 22 37.6	-3.1
	comp=E,478nm,0.3s,baz=270,slow=22,SNR=24						
TEIG	Tepich	4.05	327	⇑eP	Pn	01 21 54.4	-0.1
VSM	San Miguel	4.07	214	eP	Pn	01 21 54.6	-0.2
MTO2	Montecristo 2	4.09	234	eP	Pn	01 21 55.2	+0.1
CRIN	San Cristobal	4.24	195	eP	Pn	01 21 57.3	+0.1
CRIN				AML	AML	01 23 09.1	
	comp=N,1µm,0.5s						
BOAB	BOACO BROADBAN	4.36	177	eP	Pn	01 21 57.7	-1.1
CNGN	Cerro Negro	4.36	190	eP	Pn	01 22 00.8	+2.0
LFRS	El Faro	4.39	224	eP	Pn	01 21 59.1	-0.1
HUEN		4.47	183	eP	Pn	01 22 00.5	+0.3
COPN	Copaltepe	4.66	188	eP	Pn	01 22 02.8	-0.1
CONN	Concepcion	5.24	177	eP	Pn	01 22 11.1	+0.2
SSN	San Juan del S	5.49	179	eP	Pn	01 22 14.7	+0.3
CCIG	Comitan	5.98	266	*i* P	Pn	01 22 21.4	+0.4
CCIG				*i* S	Sn	01 23 26.7	-1.6
SCX	San Cristobal	6.42	270	eP	Pn	01 22 27.6	+0.5
SCX				*i* S	Sn	01 23 38.5	-0.8
SOR	Soroa	6.54	24	eP	Pn	01 22 28.1	-0.7
	baz=197						
SOR				eS	Sn	01 23 40.3	-1.9
	comp=N,5µm,0.3s						
SOR				*e*			
	comp=E,5µm,0.3s						
JTS	JuntasAbangare	6.56	172	P	Pn	01 22 28.6	-0.5
	comp=E,2.3nm,0.3s,baz=14,slow=9.7,SNR=6.3						
JTS				S	Sn	01 23 39.5	-3.2
	comp=E,5.5nm,0.3s,baz=343,slow=20,SNR=8.0						
JTS				Lg		01 24 07.7	
	comp=E,6.0nm,0.3s,baz=270,slow=19,SNR=6.9						
JTS	JuntasAbangare	6.56	172	eP	Pn	01 22 28.8	-0.3
CMIG	Matias Romero	8.57	273	P	Pn	01 22 54.9	-1.8
	comp=E,2.2nm,0.3s,baz=90,slow=9.8,SNR=12						
CMIG				S	Sn	01 24 25.7	-6.5
	comp=E,3.5nm,0.3s,baz=18,slow=20,SNR=3.6						
CMIG	Matias Romero	8.57	273	*i* P	Pn	01 22 58.2	+1.5
CMIG				*i* S	Sn	01 24 30.1	-2.1
HUIG	Huatulco	9.83	265	*i* P	Pn	01 23 11.9	-2.0
HUIG				*i* S	Sn	01 24 58.4	-4.7
OXX	Oaxaca	10.33	273	eP	Pn	01 23 22.1	+1.3
VHO	Vista Hermosa	10.34	273	*i* P	Pn	01 23 21.2	+0.3
VHO				*i* S	Sn	01 25 09.6	-6.1
PNIG	Pinotepa	11.70	270	*i* P	Pn	01 23 37.6	-1.9
PNIG				*i* S	Sn	01 25 41.1	-7.8
DWPF	Disney	11.97	20	ePn	Pn	01 23 43.9	+0.6
PPM	Popocatepetl	12.29	282	eP	Pn	01 23 50.5	+2.9
IIO	Organos	12.46	285	*i* P	Pn	01 23 51.4	+1.4
CAIG	El Cayaco	13.72	273	eP	Pn	01 24 16.9	+10
HKT	Hockley	15.90	327	eP	Pn	01 24 37.8	+1.6
	comp=E,8.6nm,0.9s						
ROSC	El Rosal	16.46	135	P	Pn	01 24 44.9	+1.6
	comp=E,0.3nm,0.3s,baz=90,slow=20,SNR=2.7						
GOGA	Godfrey	16.66	7	ePn	Pn	01 24 45.0	-0.8
SDV	Santo Domingo	16.86	116	P	Pn	01 24 46.4	-2.1
	comp=E,0.5nm,0.3s,baz=321,slow=18,SNR=4.1						
SDV	Santo Domingo	16.86	116	P	Pn	01 24 46.4	-2.1
NHSC	New Hope	17.02	17	eP	Pn	01 24 50.6	+0.2
	comp=E,74nm,0.8s						
JCT	Junction City	18.58	319	eP	Pn	01 25 09.9	+0.3
	comp=E,32nm,0.6s						
TKL	Tuckaleechee C	18.86	5	P	Pn	01 25 13.1	+0.3
	comp=E,0.3nm,0.3s,baz=181,slow=12,SNR=3.6						
TKL				S	S	01 28 27.4	-17
	comp=E,0.8nm,0.3s,baz=98,slow=14,SNR=4.8						
TKL	Tuckaleechee C	18.86	5	P	Pn	01 25 13.1	+0.3
TKL				S	S	01 28 27.4	-17
WVT	Waverly	19.30	355	eP	Pn	01 25 17.4	-0.8
	comp=E,11nm,0.6s						
WVT				eS	S	01 28 36.0	-18
TXAR	Lajitas Array	20.49	311	P	P	01 25 32.1	+2.2
	comp=E,12nm,0.8s,baz=135,slow=11,SNR=13						
TXAR				S	S	01 29 05.5	-12
	comp=E,0.6nm,0.4s,baz=122,slow=24,SNR=5.8						
WCI	Wyandotte Cave	21.33	359	eP	P	01 25 39.0	+0.1
	comp=E,37nm,0.8s,mb4.8						
FVM	French Village	21.45	350	eP	P	01 25 40.7	+0.5
	comp=E,42nm,1.4s,mb4.6						
CCM	Cathedral Cave	21.66	349	eP	P	01 25 43.8	+1.3
	comp=E,252nm,1.8s,mb5.3						
SSPA	Standing Stone	24.73	15	eP	P	01 26 13.9	+0.9
	comp=E,21nm,1.1s,mb4.6						
JFWS	Jewell Farm	26.26	353	eP	P	01 26 26.9	0.0
	comp=E,16nm,0.9s,mb4.5						
TUC	Tucson	27.27	309	eP	P	01 26 36.9	+0.8
	comp=E,1.6nm,0.7s,mb3.7						
ECSD	EROS Data Cent	28.31	344	eP	P	01 26 45.5	+0.2
	comp=E,2.9nm,0.8s,mb4.0						
PDAR	Pinedale Array	32.78	327	P	P	01 27 25.6	+0.8
	comp=E,0.3nm,0.6s,mb3.4,baz=118,slow=9.3,SNR=2.9						
PDAR				pP	pP	01 27 38.2	+3.3
	comp=E,0.5nm,0.6s,baz=123,slow=12,SNR=3.9						
MOOW	Moose Ponds	34.09	327	eP	P	01 27 35.5	-0.6
	comp=E,1.6nm,0.9s,mb4.0						
NVAR	Mina Array Bea	35.58	314	P	P	01 27 51.7	+2.6
	comp=E,2.1nm,0.8s,mb4.1,baz=125,slow=9.1,SNR=12						
NVAR				pP	pP	01 28 02.9	+3.6
	comp=E,1.6nm,0.8s,baz=125,slow=10,SNR=5.1						
SCHQ	Schefferville	40.69	17	P	P	01 28 32.0	+0.1
	comp=E,8.0nm,0.7s,mb4.5,baz=215,slow=6.8,SNR=17						
YKA	Yellowknife Ar	49.84	343	P	P	01 29 43.6	-0.7
	comp=E,0.9nm,0.9s,mb3.8,baz=140,slow=7.9,SNR=7.6						
YKA				pP	pP	01 29 56.1	+1.2
	comp=E,1.3nm,0.7s,baz=140,slow=7.6,SNR=8.5						
RES	Resolute Bay	58.08	357	eP	P	01 30 43.4	-0.9
	comp=E,1.2nm,0.8s,mb4.0						
ESDC	Sonseca Array	73.37	53	P	P	01 32 23.6	0.0
	comp=E,1.7nm,0.8s,mb4.0,baz=296,slow=6.7,SNR=8.5						
TORD	Torodi Ar. Bea	84.05	78	P	P	01 33 21.5	-1.1
	comp=E,0.3nm,0.7s,mb3.5,baz=293,slow=5.2,SNR=2.5						
NPS	Neapolis	97.03	50	P	P	01 34 15.1	-8.5
ASAR	Alice Springs	142.10	253	PKhKP		01 40 18.2	
	comp=E,0.3nm,0.8s,baz=104,slow=3.9,SNR=3.7						
ASAR				PKP	PKPdf	01 40 23.8	-0.4
	comp=E,0.2nm,0.6s,baz=106,slow=3.4,SNR=3.1						

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*ISCJB **17** 01:31:19.4±0.5, 16°.12S±0°.10×67°.57E±0°.09, h10^{km}, mb4.4/32, MS4.5/21, Error ellipse: s-maj=14.9km s-min=10.7km az=34.1*

*IDC **17** 01:31:20.3±0.7, 16°.16S×67°.73E, h0^{km}, mb4.2/16, mb1 4.3/16, mb1mx4.1/27, mbtmp4.2/16, MS4.5/20, Ms1 4.5/20, ms1mx4.4/31, Error ellipse: s-maj=21.7km s-min=17.6km az=56.0*

*NEIC **17** 01:31:21.6±0.5, 16°.12S×67°.55E, h10^{km}, mb4.7/15, Error ellipse: s-maj=16.5km s-min=11.5km az=214.0*

*GCMT **17** 01:31:21.6±0.2, 16°.11S×67°.25E, h17^{km}, MW5.4/94, Moment Tensor Solution. s64,c95; s94,c173; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.25±.03; M$_{\theta\theta}$-1.15±.02; M$_{\phi\phi}$1.40±.03; M$_{r\theta}$-0.05±.05; M$_{\theta\phi}$0.44±.02; M$_{\phi r}$-0.14±.06; Best double couple: M$_0$1.35700×10^{17} NP1:φ$_s$144.00000°,δ85.00000°,λ178.00000°. NP2: φ$_s$235.00000°,δ88.00000°,λ5.00000°. Principal axes: T 1.4880, Plg5.0000°, Azm100.0000°; N -0.2590, Plg85.0000°, Azm260.0000°; P -1.2260, Plg2.0000°, Azm10.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*DJA **17** 01:31:28, 16°.95S×68°.11E, h10^{km}, mb4.8/8*

ISC 17 01:31:21.3±0.5**, 16°.16S**±0°.10×**67°.53E**±0°.09**, h10**^{km}**, n82,** σ**1^{s}19**/48**, mb4.4**/32**, MS4.5**/21**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	33.37	294	LR	LR	01 48 22.9	
	comp=Z,1µm,21.5s,MS4.6,baz=97,slow=30						
KULM	Kulim	39.09	60	eP	P	01 38 47.7	-1.4
	16nm,1.1s,mb4.7						
MBAR	Mbarara	39.43	289	eP	P	01 38 52.2	+0.4
	1.3nm,0.8s,mb3.7						
LBTB	Lobatse	40.10	250	P	P	01 39 00.1	+2.7
	3.0nm,0.8s,mb4.1,baz=113,slow=7.7,SNR=3.2						
LBTB	Lobatse	40.10	250	eP	P	01 38 53.1	-4.3
	5.3nm,0.9s,mb4.3						
CMAR	Chiang Mai Arr	46.26	43	P	P	01 39 47.8	+0.6
	1.2nm,0.3s,mb4.3,baz=235,slow=9.0,SNR=7.0						
CMAR				LR	LR	01 55 51.9	
	comp=Z,264nm,20.5s,MS4.2,baz=230,slow=32						
KBL	Kabul	50.44	2	eP	P	01 40 17.5	-1.7
	1.5nm,0.4s,mb4.4						
MAW	Mawson	51.50	182	LR	LR	01 56 36.9	
	comp=Z,648nm,19.3s,MS4.7,baz=346,slow=29						
EIL	Elat	55.35	325	LR	LR	02 00 56.4	
	comp=Z,500nm,19.7s,MS4.6,baz=327,slow=32						
KSH	Kashi	55.95	8	eP	P	01 40 58.6	-1.0
KSH				epP	pP	01 41 06.8	+4.0
KSH				esP	sP	01 41 11.0	+6.9
KSH				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
KSH				pmax	pmax		
	comp=Z,170nm,2.7s,mb5.6						
KSH				LR	LR		
	comp=N,220nm,6.8s						
KSH				LR	LR		
	comp=E,460nm,8.5s						
KSH				LR	LR		
	comp=Z,650nm,7.2s						
ASF	Jabal al Asfar	56.31	329	LR	LR	02 01 12.1	
	comp=Z,319nm,21.5s,MS4.4,baz=195,slow=32						
MMAI	Mount Meron Ar	57.74	328	LR	LR	02 02 47.6	
	comp=Z,212nm,18.3s,MS4.3,baz=135,slow=33						
CD2	Chengdu	58.34	37	P	P	01 41 20.4	+3.6
EKS2	Erkin-Say	58.81	5	eP	P	01 41 21.5	+1.7
	comp=Z,4.2nm,1.0s,mb4.4						
AAK	Ala-Archa	58.85	6	eP	P	01 41 20.1	0.0
	comp=Z,4.0nm,0.9s,mb4.5						
TKM2	Tokmak 2	59.26	7	eP	P	01 41 22.8	-0.1
	comp=Z,6.8nm,0.8s,mb4.7						
ASAR	Alice Springs	62.39	109	P	P	01 41 44.0	-0.7
	comp=Z,2.8nm,0.7s,mb4.5,baz=273,slow=6.0,SNR=31						
KAKA	Kakadu	62.74	96	eP	P	01 41 46.9	-0.3
	comp=Z,44nm,0.9s,mb5.6						
GTA	Gaotai	62.97	28	eP	P	01 41 48.8	+0.6
GTA				pP	pP	01 41 53.4	+2.0
GTA				sP	sP	01 41 56.1	+3.5
GTA				PP	PP	01 44 11.4	+4.4
GTA				S	S	01 50 24.0	+5.6
GTA				sS	sS	01 50 32.3	+8.6
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
GTA				pmax	pmax		
	comp=Z,170nm,4.2s						
GTA				LR	LR		
	comp=N,290nm,22.6s						
GTA				LR	LR		
	comp=E,200nm,17.0s						
GTA				LR	LR		
	comp=Z,490nm,18.1s,MS4.7						
WRA	Warramunga Arr	63.27	104	P	P	01 41 50.1	-0.6
	comp=Z,8.8nm,1.1s,mb4.8,baz=269,slow=6.0,SNR=26						
WRA				LR	LR	02 05 57.8	
	comp=Z,316nm,20.6s,MS4.5,baz=250,slow=33						
WB2	Warramunga Arr	63.28	104	eP	P	01 41 51.2	+0.4
WRAB	Tennant Creek	63.28	104	eP	P	01 41 51.5	+0.7
	comp=Z,17nm,0.8s,mb5.2						
BRTR	Keskin Array B	63.95	331	P	P	01 41 56.8	+2.1
	comp=Z,1.6nm,1.0s,mb4.0,baz=116,slow=3.4,SNR=2.6						
MK31	Makanchi Array	64.06	11	eP	P	01 41 55.7	+0.5
MKAR	Makanchi Array	64.06	11	P	P	01 41 54.4	-0.8
	comp=Z,1.4nm,0.9s,mb4.0,baz=212,slow=6.7,SNR=9.3						
MKAR				LR	LR	02 09 21.9	
	comp=Z,220nm,18.2s,MS4.4,baz=74,slow=36						
AKTK	Aktyubinsk	66.83	353	P	P	01 42 14.7	+1.6
AKTO	Aktyubinsk	66.83	353	P	P	01 42 14.7	+1.6
	comp=Z,1.3nm,0.7s,mb4.1,baz=194,slow=9.4,SNR=3.6						
KURK	Kurchatov	67.30	8	P	P	01 42 16.0	-0.1
	comp=Z,1.2nm,0.7s,mb4.0,baz=204,slow=6.8,SNR=4.5						
KURK	Kurchatov	67.30	8	eP	P	01 42 17.8	+1.7
	comp=Z,3.6nm,0.8s,mb4.5						
STKA	Stephens Creek	68.30	118	P	P	01 42 22.8	-0.1
	comp=Z,1.3nm,0.5s,mb4.2,baz=301,slow=5.9,SNR=2.6						
STKA				LR	LR	02 08 10.5	
	comp=Z,800nm,18.6s,MS5.0,baz=237,slow=32						
BVAR	Borovoye Array	68.94	2	P	P	01 42 27.0	+0.7
	comp=Z,1.0nm,0.8s,mb3.8,baz=195,slow=10,SNR=5.3						
TORD	Torodi Ar. Bea	71.29	290	P	P	01 42 42.9	+1.3
	comp=Z,1.1nm,0.9s,mb3.8,baz=106,slow=3.8,SNR=4.3						
TORD				LR	LR	02 12 33.7	
	comp=Z,344nm,20.0s,MS4.6,baz=120,slow=35						
ZAA0	Zalesovo Array	71.38	11	eP	P	01 42 42.5	+1.2
ZALV	Zalesovo Beam	71.38	11	P	P	01 42 40.5	-0.7
	comp=Z,1.7nm,0.6s,mb4.2,baz=207,slow=6.3,SNR=9.4						
SONM	Songino Array	72.56	26	P	P	01 42 49.0	+0.5
	comp=Z,2.0nm,0.8s,mb4.1,baz=218,slow=6.1,SNR=7.7						
SONM				LR	LR	02 13 32.8	
	comp=Z,496nm,20.1s,MS4.8,baz=216,slow=35						
ULN	Ulaanbaatar	72.87	27	eP	P	01 42 50.3	0.0
	comp=Z,13nm,1.6s,mb4.6						
QSPA	South Pole Qui	73.92	180	P	P	01 42 56.9	+0.7
	comp=Z,3.8nm,1.0s,mb4.3,baz=294,slow=4.8,SNR=9.9						
QSPA	South Pole Qui	73.92	180	P	P	01 42 56.9	+0.7
AKASG	Malin Array Be	74.57	336	P	P	01 42 59.4	-0.9
	comp=Z,0.5nm,0.4s,mb3.8,baz=129,slow=4.6,SNR=3.8						
AKASG				LR	LR	02 14 39.5	
	comp=Z,140nm,20.4s,MS4.2,baz=265,slow=35						
AKBB	Malin Array Si	74.57	336	eP	P	01 43 00.6	+0.4
DBIC	Dimbokro	75.11	282	LR	LR	02 14 42.1	
	comp=Z,308nm,18.8s,MS4.6,baz=99,slow=35						

VNDA	Vanda	75.27	167	LR	LR	02 12 14.9	
	comp=Z,448nm,19.9s,MS4.8,baz=265,slow=33						
KEST	Kesra	75.44	314	LR	LR	02 14 58.8	
	comp=Z,159nm,20.3s,MS4.3,baz=104,slow=35						
KSRS	Korea Array	77.86	45	LR	LR	02 15 54.7	
	comp=Z,168nm,20.6s,MS4.3,baz=55,slow=34						
PGF	Pioggiola	79.38	320	*e*P	P	01 43 26.1	-1.4
	comp=Z,107nm,1.5s,mb5.3						
PGF	Pioggiola	79.38	320	*e*P	P	01 43 26.1	-1.4
	comp=Z,54nm,1.5s,mb5.2						
FRF	La Foret Royal	81.37	320	*e*P	P	01 43 36.2	-2.1
	comp=Z,12nm,0.9s,mb4.5						
FRF	La Foret Royal	81.37	320	*e*P	P	01 43 36.2	-2.1
	comp=Z,5.9nm,0.9s,mb4.5						
MBDF	Montbardon	81.92	321	*e*P	P	01 43 39.1	-2.0
GUMO	Guam	81.94	73	LR	LR	02 15 40.7	
	comp=Z,169nm,19.7s,MS4.4,baz=16,slow=32						
CLL	Collm	82.26	329	*e*(sP)	sP	01 43 50.0	+2.8
CLL				*e*S	S	01 54 03.0	+4.9
CLL				*e*SS	SS	01 59 12.0	-6.8
CLL				*e*		02 00 12.0	
CLL				*e*SSS		02 02 36.0	
LPG	La Plagne	82.34	322	*e*P	P	01 43 41.9	-1.4
	comp=Z,18nm,1.4s,mb4.5						
LPG	La Plagne	82.34	322	*e*P	P	01 43 41.9	-1.4
	comp=Z,9.3nm,1.4s,mb4.5						
LPL	La Plagne	82.36	322	*e*P	P	01 43 41.8	-1.6
	comp=Z,14nm,1.2s,mb4.5						
LPL	La Plagne	82.36	322	*e*P	P	01 43 41.8	-1.6
	comp=Z,7.0nm,1.2s,mb4.5						
ORIF	Oris-en-Rattie	82.56	321	*e*P	P	01 43 42.8	-1.6
	comp=Z,27nm,1.1s,mb4.9						
ORIF	Oris-en-Rattie	82.56	321	*e*P	P	01 43 42.8	-1.6
	comp=Z,14nm,1.1s,mb4.9						
MJAR	Matsushiro Arr	84.72	50	LR	LR	02 17 49.6	
	comp=Z,166nm,21.2s,MS4.4,baz=265,slow=33						
ESDC	Sonseca Array	86.59	313	P	P	01 44 07.9	+2.9
	comp=Z,1.7nm,0.8s,mb4.3,baz=125,slow=3.3,SNR=4.1						
ESDC				LR	LR	02 25 13.4	
	comp=Z,174nm,18.6s,MS4.5,baz=115,slow=37						
ARCES	ARCESS Array B	90.45	346	LR	LR	02 22 43.1	
	comp=Z,270nm,19.0s,MS4.7,baz=150,slow=34						
PPT	Papeete	130.40	131	*e*LR	LR	02 31 36.9	
	comp=Z,257nm,25.2s						
YKA	Yellowknife Ar	133.70	1	PKP	PKPdf	01 50 41.9	+4.0
	comp=Z,0.5nm,0.8s,baz=343,slow=2.5,SNR=9.4						
YKA	Yellowknife Ar	133.70	1	PKP	PKPdf	01 50 41.9	+4.0
RKT	Rikitea	135.18	150	*e*LR	LR	02 34 09.5	
	comp=Z,278nm,33.8s						
TAOE	Nuku Hiva Isla	143.01	130	*e*LR	LR	02 37 37.9	
	comp=Z,1µm,30.7s						
ACSO	Alum Creek Sta	144.92	319	*e*PKPdf	PKPdf	01 50 59.5	+0.5
DGMT	Dagmar	147.07	350	*e*PKPbc	PKPbc	01 51 04.8	+0.3
NEW	Newport	147.76	6	*e*PKPbc	PKPbc	01 51 07.1	+0.8
ECSD	EROS Data Cent	149.39	337	*e*PKPbc	PKPbc	01 51 12.5	+1.8
WVT	Waverly	150.40	317	*e*PKPbc	PKPbc	01 51 15.2	+1.7
WVT				*e*PKPab	PKPab	01 51 21.6	+1.8
BOZ	Bozeman (W)	150.60	359	*e*PKPbc	PKPbc	01 51 14.2	+0.6
DLMT	Dillon	150.89	0	*e*PKPdf	PKPdf	01 51 09.7	+1.0
DLMT				*e*PKPbc	PKPbc	01 51 15.7	+1.4
RLMT	Red Lodge	151.00	355	*e*PKPdf	PKPdf	01 51 10.1	+1.3
RLMT				*e*PKPbc	PKPbc	01 51 16.4	+1.8
RSSD	Black Hills	151.23	347	*e*PKPbc	PKPbc	01 51 17.5	+2.4
RSSD				*e*PKPab	PKPab	01 51 24.8	+1.9
CCM	Cathedral Cave	151.28	324	*e*PKPab	PKPab	01 51 24.1	+0.7
LOHW	Long Hollow	152.59	357	*e*PKPab	PKPab	01 51 28.5	-0.2
HLID	Hailey	152.64	3	*e*PKPbc	PKPbc	01 51 19.1	+0.7
HLID				*e*PKPab	PKPab	01 51 28.7	-0.1
TPAW	Teton Pass	152.73	358	*e*PKPdf	PKPdf	01 51 13.7	+2.2
REDW	Red Top Meadow	152.85	357	*e*PKPab	PKPab	01 51 29.2	-0.5
BW06	Boulder Array	153.37	355	*e*PKPbc	PKPbc	01 51 20.4	+0.4
PDAR	Pinedale Array	153.37	355	PKPbc	PKPbc	01 51 21.4	+1.5
	comp=Z,0.8nm,0.8s,baz=88,slow=1.0,SNR=5.8						
NVAR	Mina Array Bea	157.23	12	PKPab	PKPab	01 51 50.9	+2.4
	comp=Z,0.3nm,0.6s,baz=308,slow=3.3,SNR=3.7						

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*NEIC **17** 01:33:16.1, 38°.11N×23°.74E, h19^{km}, ML3.9(ATH), After ATH.*

*ISCJB **17** 01:33:16.3±0.4, 38°.14N±0°.02×23°.73E±0°.03, h7^{km}±4^{km}, mb3.4/3, Error ellipse: s-maj=4.1km s-min=3.5km az=149.8*

*IDC **17** 01:33:16.1±1.4, 38°.11N×23°.56E, h0^{km}, mb3.4/3, mb1 3.5/4, mb1mx3.4/23, mbtmp3.5/4, ML3.1/1, MS3.1/1, Ms1 3.1/1, ms1mx2.3/33, Error ellipse: s-maj=35.2km s-min=26.2km az=151.0*

*ATH **17** 01:33:16.1, 38°.11N×23°.74E, h19^{km}±1^{km}, MD3.6/5, ML3.9*

*CSEM **17** 01:33:17.2±0.1, 38°.13N×23°.69E, h8^{km}, ML3.9, Error ellipse: s-maj=3.6km s-min=2.9km az=91.0*

*THE **17** 01:33:17.3, 38°.14N×23°.69E, h4^{km}±2^{km}, ML4.0/4, Error ellipse: s-maj=2.5km s-min=1.0km az=178.0*

ISC 17 01:33:17.1±0.5**, 38°.13N**±0°.02×**23°.71E**±0°.03**, h7**^{km}±4^{km}**, n90,** σ0ˢ.**86**/116**, mb3.4**/3**, 4C-3D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTL	Penteli	0.15	124	P	Pg	01 33 20.7	+0.5
PTL	Penteli	0.15	124	P	Pg	01 33 20.7	+0.5
ATH	Athens Observa	0.16	178	*e*PB	Pg	01 33 20.2	-0.2
ATH				*e*SB	Sg	01 33 22.9	+0.3
ATH	Athens Observa	0.16	178	*e*Pb	Pg	01 33 20.2	-0.2
ATH				*e*Sb	Sg	01 33 22.9	+0.3
ATHU	Athens Univers	0.18	160	P	Pg	01 33 20.7	0.0
ATHU				S	Sg	01 33 23.1	0.0
ATHU	Athens Univers	0.18	160	P	Pg	01 33 20.7	0.0
ATHU				S	Sg	01 33 23.1	0.0
NAIG	Nisos Aigina	0.41	205	*e*PB	Pg	01 33 24.5	-0.6
NAIG	Nisos Aigina	0.41	205	*e*Pb	Pg	01 33 24.5	-0.6
LTK	Loutraki	0.59	260	P	Pg	01 33 28.1	-0.5
LTK				S	Sg	01 33 36.4	+0.1
LTK	Loutraki	0.59	260	*e*PN	Pg	01 33 28.0	-0.6
LTK				*e*SN	Sg	01 33 36.4	+0.1
LTK	Loutraki	0.59	260	*e*Pn	Pg	01 33 28.0	-0.6
LTK				S	Sg	01 33 36.4	+0.1
DID	Didima	0.73	211	P	Pg	01 33 30.1	-1.0
DID				S	Sg	01 33 41.1	+0.5
DID	Didima	0.73	211	*e*PN	Pg	01 33 30.2	-0.9
DID				*e*SN	Sg	01 33 41.1	+0.5
DID	Didima	0.73	211	P	Pg	01 33 30.1	-1.0
DID				S	Sg	01 33 41.1	+0.5
LKR	Lokris	0.76	313	P	Pg	01 33 30.8	-0.9
LKR				S	Sg	01 33 42.9	+1.3
LKR	Lokris	0.76	313	*e*PB	Pg	01 33 30.9	-0.8
LKR				*e*SN	Sg	01 33 43.3	+1.7
LKR	Lokris	0.76	313	P	Pg	01 33 30.8	-0.9
LKR				S	Sg	01 33 42.9	+1.3
AOS	Alonnisos	1.04	7	P	Pg	01 33 36.8	-0.4
AOS	Alonnisos	1.04	7	P	Pg	01 33 36.8	-0.4
GUR	Goura	1.10	260	*e*PN	Pg	01 33 37.7	-0.5
GUR				*e*SN	Sg	01 33 52.2	-0.2
GUR	Goura	1.10	260	*e*Pn	Pg	01 33 37.7	-0.5
GUR				*e*Sn	Sg	01 33 52.2	-0.2
XOR	Xorichti	1.30	342	P	Pn	01 33 41.8	+0.1
XOR				S	Sb	01 33 58.1	-0.6
XOR	Xorichti	1.30	342	P	Pn	01 33 41.8	+0.1
XOR				S	Sb	01 33 58.1	-0.6
VLX	Vlachokerasia	1.30	235	*e*PN	Pn	01 33 41.0	-0.7
VLX	Vlachokerasia	1.30	235	*e*Pn	Pn	01 33 41.0	-0.7
TRIZ	Trizonia	1.31	281	P	Pn	01 33 41.3	-0.5
TRIZ				S	Sb	01 33 58.8	-0.2
TRIZ	Trizonia	1.31	281	P	Pn	01 33 41.3	-0.5
TRIZ				S	Sb	01 33 58.8	-0.2
LAKA	Lakka	1.37	275	P	Pn	01 33 41.9	-0.7
LAKA				S	Sb	01 34 01.5	+0.8
LAKA	Lakka	1.37	275	P	Pn	01 33 41.9	-0.7
LAKA				S	Sb	01 34 01.5	+0.8
AGG	Agios Georgios	1.40	310	P	Pn	01 33 42.9	-0.2
AGG				S	Sb	01 34 01.7	+0.1
AGG	Agios Georgios	1.40	310	*e*PN	Pn	01 33 42.9	-0.2
AGG	Agios Georgios	1.40	310	*e*Pn	Pn	01 33 42.9	-0.2
AGG				S	Sb	01 34 01.7	+0.1
VLI	Veliai	1.54	204	*e*PN	Pn	01 33 44.0	-1.0
VLI	Veliai	1.54	204	*e*Pn	Pn	01 33 44.0	-1.0
EVR	Evrytania	1.68	298	*e*PN	Pn	01 33 47.0	0.0
EVR	Evrytania	1.68	298	*e*Pn	Pn	01 33 47.0	0.0
ITM	Ithomi	1.70	237	*e*PN	Pn	01 33 47.3	0.0
ITM	Ithomi	1.70	237	*e*Pn	Pn	01 33 47.3	0.0
RLS	Riolos of Patr	1.77	268	P	Pn	01 33 51.7	+3.5
PAIG	Paliouri	1.79	359	P	Pn	01 33 47.7	-0.8
PAIG	Paliouri	1.79	359	P	Pn	01 33 47.7	-0.8
CHOS	Chios island	1.86	81	P	Pn	01 33 49.5	0.0
CHOS	Chios island	1.86	81	P	Pn	01 33 49.5	0.0
PYL	PYLOS	1.99	232	*e*PN	Pn	01 33 52.2	+1.0
PYL	PYLOS	1.99	232	*e*Pn	Pn	01 33 52.2	+1.0
LIA	Limnos Island	2.10	33	P	Pn	01 33 52.1	-0.7
LIA	Limnos Island	2.10	33	P	Pn	01 33 52.1	-0.7
LIT	Litokhoron	2.18	335	P	Pn	01 33 53.6	-0.3
LIT	Litokhoron	2.18	335	*e*PB	Pb	01 33 53.7	-3.2
LIT	Litokhoron	2.18	335	P	Pn	01 33 53.6	-0.3
OUR	Ouranopolis	2.21	5	P	Pn	01 33 53.8	-0.4
OUR	Ouranopolis	2.21	5	P	Pn	01 33 53.8	-0.4
PLG	Polygyros	2.25	355	P	Pn	01 33 54.5	-0.3
PLG	Polygyros	2.25	355	P	Pn	01 33 54.9	+0.1
PLG	Polygyros	2.25	355	P	Pn	01 33 54.5	-0.3
VLS	Valsamata	2.46	272	P	Pn	01 33 58.9	+1.2
VLS	Valsamata	2.46	272	P	Pn	01 33 58.9	+1.2
HORT	Hortiatis	2.51	349	P	Pn	01 33 58.6	+0.3
HORT				S	Sn	01 34 28.1	-1.0
HORT	Hortiatis	2.51	349	P	Pn	01 33 58.6	+0.3
HORT				S	Sn	01 34 28.1	-1.0
SMG	Samos	2.51	99	P	Pn	01 33 59.1	+0.7
SMG	Samos	2.51	99	P	Pn	01 33 59.1	+0.7
SOH	Sokhos	2.70	354	*e*PB	Pb	01 34 01.9	-3.9
SOH	Sokhos	2.70	354	*e*Pb	Pb	01 34 01.9	-3.9
KARN	Karanos	2.73	176	P	Pn	01 34 02.7	+1.3
KARN	Karanos	2.73	176	P	Pn	01 34 02.7	+1.3
IGT	Igoumenitsa	2.98	299	P	Pn	01 34 05.6	+0.7
IGT	Igoumenitsa	2.98	299	P	Pn	01 34 05.6	+0.7
IDI	Anoyia	2.99	161	Pn	Pn	01 34 05.1	+0.1
	2.5nm,0.3s,baz=8.1,slow=20,SNR=14						
IDI				Sn	Sn	01 34 39.0	-2.1
	6.0nm,0.3s,baz=307,slow=20,SNR=3.6						
IDI	Anoyia	2.99	161	Pn	Pn	01 34 05.1	+0.1
IDI				Sn	Sn	01 34 39.0	-2.1
KNT	Kendrikon	3.09	349	P	Pn	01 34 07.3	+1.0
KNT	Kendrikon	3.09	349	P	Pn	01 34 07.3	+1.0
NVR	Nevrokopi	3.22	2	P	Pn	01 34 08.7	+0.6
NVR	Nevrokopi	3.22	2	P	Pn	01 34 08.7	+0.6
LAST	Lasithi	3.29	154	P	Pn	01 34 10.4	+1.3
LAST	Lasithi	3.29	154	P	Pn	01 34 10.4	+1.3
TIP	Timpagrande	5.54	283	P	Pn	01 34 41.2	+1.2
TIP	Timpagrande	5.54	283	P	Pn	01 34 41.2	+1.2
VOIR		7.37	7	⇑*i*P	Pn	01 35 04.8	-0.3
VOIR		7.37	7	⇑*i*P	Pn	01 35 04.8	-0.3
MLR	Muntele Rosu	7.54	12	⇑*i*P	Pn	01 35 07.0	-0.4
MLR	Muntele Rosu	7.54	12	⇑*i*P	Pn	01 35 07.0	-0.4
BZS	Buzias	7.64	349	⇓*i*P	Pn	01 35 09.9	+1.1
BZS	Buzias	7.64	349	⇓*i*P	Pn	01 35 09.9	+1.1
PKSM	Moragy	8.90	337	⇓*i*P	Pn	01 35 28.7	+2.6
VRAC	Vranov	12.29	338	LR	LR	01 40 01.0	
	comp=Z,76nm,18.7s,baz=188,slow=33						
ESDC	Sonseca Array	21.56	283	P	P	01 38 05.9	-1.3
	0.5nm,0.5s,mb3.2,baz=81,slow=10,SNR=4.2						
ESDC	Sonseca Array	21.56	283	P	P	01 38 05.9	-1.2
TORD	Torodi Ar. Bea	31.66	224	P	P	01 39 40.4	-0.8
	0.6nm,0.5s,mb3.7,baz=32,slow=8.8,SNR=15						
MKAR	Makanchi Array	43.18	59	P	P	01 41 19.2	+0.8
	0.4nm,0.5s,mb3.4,baz=269,slow=8.0,SNR=9.5						
MKAR	Makanchi Array	43.18	59	P	P	01 41 19.2	+0.8

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*LDG **17** 01:50:04.9±0.4, 14°.87N×61°.63W, h160^{km}, Mb4.5/30, Error ellipse: s-maj=16.0km s-min=8.1km az=57.0*

*TRN **17** 01:50:06.7, 14°.93N×60°.96W, h171^{km}, MD4.2, M3.8(FDF)*

*ISCJB **17** 01:50:07.3±0.1, 14°.87N±0°.02×61°.44W±0°.02, h174^{km}±1^{km}, mb4.4/120, Error ellipse: s-maj=3.5km s-min=2.4km az=156.6*

*IDC **17** 01:50:07.6±0.4, 14°.88N×61°.40W, h159^{km}±3^{km}, mb4.1/23, mb1 4.3/25, mb1mx4.3/28, mbtmp4.1/25, Error ellipse: s-maj=10.5km s-min=6.9km az=93.0*

*MOS **17** 01:50:07.3±0.8, 14°.88N×61°.44W, h173^{km}, mb4.6/56, Error ellipse: s-maj=7.3km s-min=5.4km az=68.8*

*NEIC **17** 01:50:08.8±0.1, 14°.82N×61°.39W, h172^{km}±1^{km}, mb4.5/84, MD4.2(TRN), Error ellipse: s-maj=3.8km s-min=2.7km az=46.0*

NEIC Felt at Le Marin.

*RSPR **17** 01:50:09.7, 15°.86N×61°.03W, h241^{km}±15^{km}, MD4.9/8, MD4.9/8*

ISC 17 01:50:08.5±0.1**, 14°.86N**±0°.02×**61°.44W**±0°.02**, h168**^{km}±1^{km}**, n546,** σ0ˢ.**73**/595**, mb4.4**/120**, 158C-121D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FDF	Fort de France	0.30	114	⇓*i*P	Pn	01 50 30.9	-0.2
FDF				⇓*e*S	Sn	01 50 47.8	-0.6
FDF	Fort de France	0.30	114	*e*Pn	Pn	01 50 30.7	-0.4
FDF				*e*Sn	Sn	01 50 47.9	-0.5
DSHT	Scott's Head	0.36	10	⇑*i*P	Pn	01 50 32.2	+0.9
DSHT				*e*S	Sn	01 50 49.5	+0.6
DFBT	Forest Bistro	0.39	11	⇑*i*P	Pn	01 50 32.0	+0.6
DFBT				*e*S	Sn	01 50 49.2	+0.1
DPMT	Pointe Michel	0.41	8	⇑*e*P	Pn	01 50 32.3	+0.8
DPMT				*e*S	Sn	01 50 49.9	+0.7
DSTT	Stowe	0.41	18	⇓*i*P	Pn	01 50 32.2	+0.8
DSTT				*e*S	Sn	01 50 49.0	-0.2
MDN	Morne-Daniel	0.46	5	⇑*i*P	Pn	01 50 32.7	+1.0
MDN				*i* S	Sn	01 50 50.1	+0.5
BIM	Bigot	0.49	134	⇓*i*P	Pn	01 50 31.4	-0.4
BIM				⇓*e*S	Sn	01 50 49.0	-0.6
DLPL	La Plaine	0.51	21	⇑*i*P	Pn	01 50 31.4	-0.5
DLPL				*e*S	Sn	01 50 49.0	-0.9
MVM	Montagne Vaucl	0.60	120	⇑*e*P	Pn	01 50 31.6	-0.7
SLW	Petit Monier	0.96	150	*e*P	Pn	01 50 33.7	-0.9
SLW	Petit Monier	0.96	150	⇑*e*P	Pn	01 50 34.7	0.0
SLW				*e*S	Sn	01 50 54.1	-0.7
SLW	Petit Monier	0.96	150	⇑*e*P	Pn	01 50 34.7	0.0
SLW				*e*S	Sn	01 50 54.1	-0.7
TBG	Guadaloupe-3	1.01	348	⇑*i*P	Pn	01 50 35.0	-0.1
MGG	Marie-Galante	1.06	6	⇑*i*P	Pn	01 50 34.8	-0.7
SLB	Belfond	1.09	159	⇑*i*P	Pn	01 50 36.1	+0.3
SLPE	Piton Saint Es	1.09	157	*e*P	Pn	01 50 36.0	+0.3
SLPE				*e*S	Sn	01 50 57.4	+0.7
SLDE	Delcer	1.11	161	⇓*i*P	Pn	01 50 36.5	+0.6
SLDE				*e*S	Sn	01 50 57.1	+0.3
SLDE	Delcer	1.11	161	⇓*i*P	Pn	01 50 36.5	+0.6
SLDE				*e*S	Sn	01 50 58.2	+1.4
HMG	Houelmont	1.15	347	⇑*i*P	Pn	01 50 36.3	+0.1
PHG	Guadaloupe-2	1.17	350	⇑*i*P	Pn	01 50 36.6	+0.2
DOG	Dongo Capester	1.18	351	⇑*i*P	Pn	01 50 36.4	0.0
SCG	Saint Claude	1.19	349	⇑*i*P	Pn	01 50 36.7	+0.2
BCG	Bois Riant Cap	1.24	352	*e*P	Pn	01 50 37.0	0.0
MCLT	Moule a Chique	1.24	157	⇓*i*P	Pn	01 50 36.3	-0.6
MCLT				*e*S	Sn	01 50 57.5	-1.3
LZG	Guadaloupe-1	1.32	346	⇑*i*P	Pn	01 50 37.7	0.0
SFG	Saint Francois	1.41	9	*e*P	Pn	01 50 37.6	-0.9
DEG	La Desirade	1.49	14	⇑*i*P	Pn	01 50 38.0	-1.4
DEG				⇑*e*S	Sn	01 51 00.3	-2.9
SSV	Crater Summit	1.54	171	⇑*i*P	Pn	01 50 40.5	+0.7
SSV				*e*S	Sn	01 51 04.5	+0.6
SSV	Crater Summit	1.54	171	⇑*i*P	Pn	01 50 40.5	+0.7
SSV				*e*S	Sn	01 50 54.8	-9.2
SEG	Port Louis	1.54	358	⇑*i*P	Pn	01 50 39.4	-0.5
SVV	Soufriere Volc	1.54	172	⇓*i*P	Pn	01 50 40.7	+0.8
SVV				*e*S	Sn	01 51 03.8	-0.3
SVV	Soufriere Volc	1.54	172	⇓*i*P	Pn	01 50 40.7	+0.8
SVV				*e*S	Sn	01 51 00.4	-3.7
BHS	Barnard House	1.58	169	⇓*i*P	Pn	01 50 41.0	+0.7
BHS				*e*S	Sn	01 51 04.6	-0.1
BHS	Barnard House	1.58	169	⇓*i*P	Pn	01 50 41.0	+0.7
BHS				*e*S	Sn	01 51 03.6	-1.1
SVB	Belmont	1.58	174	⇑*i*P	Pn	01 50 40.2	-0.1
SVB				*i* S	Sn	01 51 03.6	-1.2
FCV	Fort Charlotte	1.70	174	⇑*i*P	Pn	01 50 41.9	+0.4
FCV				*e*S	Sn	01 51 07.0	+0.1
FCV	Fort Charlotte	1.70	174	⇑*i*P	Pn	01 50 41.9	+0.4
FCV				*e*S	Sn	01 51 06.1	-0.8
BPA	Boggy Peak	2.22	350	⇓*i*P	Pn	01 50 46.9	-0.3
BPA				*e*S	Sn	01 51 15.1	-2.1
BBGH	Gun Hill	2.49	133	*e*Pn	Pn	01 50 49.9	-0.6
BBGH				*e*Sn	Sn	01 51 15.6	-7.3
GRSS	Sisters	2.55	184	⇑*i*P	Pn	01 50 51.6	+0.5
GRSS				*e*S	Sn	01 51 25.5	+1.4
GRSS	Sisters	2.55	184	⇑*i*P	Pn	01 50 51.6	+0.5
GRSS				*e*S	Sn	01 51 22.5	-1.6
GRIC	Isle de Caille	2.56	183	⇓*i*P	Pn	01 50 52.3	+1.1
GRIC				*e*S	Sn	01 51 25.0	+0.7
GRHS	Sauteurs	2.62	184	⇓*e*P	Pn	01 50 53.0	+1.0
GRHS				*e*S	Sn	01 51 26.8	+1.0
GRW	Mount Saint Ca	2.69	185	⇑*e*P	Pn	01 50 53.8	+1.0
GRW				*e*S	Sn	01 51 28.8	+1.7
GRW	Mount Saint Ca	2.69	185	⇑*e*P	Pn	01 50 53.8	+1.0
GRW				*e*S	Sn	01 51 26.8	-0.4
GRGR	Grenville	2.71	185	*e*Pn	Pn	01 50 53.1	0.0
GRGR				*e*Sn	Sn	01 51 27.6	-0.1
SKI	Saint Kitts	2.76	333	⇑*i*P	Pn	01 50 54.0	+0.3
SKI				*e*S	Sn	01 51 28.2	-0.5
ANWB	Willy Bob	2.82	353	*e*Pn	Pn	01 50 52.5	-1.9
ANWB				*e*Sn	Sn	01 51 23.2	-6.7
SEUS	St. Eustatius	3.01	331	⇓*e*P	Pn	01 50 57.2	+0.5
SEUS				*e*S	Sn	01 51 36.6	+2.4
SABA	Saba	3.25	328	⇑*e*P	Pn	01 50 60.0	+0.3
SMRT	St. Maarten	3.54	334	⇓*e*P	Pn	01 51 02.8	-0.6
SMRT				*e*S	Sn	01 51 43.4	-2.8
TOSP	Speyside	3.64	166	*i* P	Pn	01 51 03.9	-0.8
TOSP				*e*S	Sn	01 51 46.5	-2.0
TPR	Prospect	3.70	170	*e*P	Pn	01 51 05.1	-0.3
BOT	Bacolet	3.73	169	*e*P	Pn	01 51 05.3	-0.5
TCE	Chacachacare	4.14	184	*e*P	Pn	01 51 11.5	+0.4
TCE				*e*S	Sn	01 52 00.3	+0.3
TRN	Trinidad (W)	4.18	180	⇑*e*P	Pn	01 51 11.8	+0.2
TRN				*e*S	Sn	01 51 59.1	-1.8
TBH	Brigand Hill	4.36	175	*e*P	Pn	01 51 13.8	-0.1
TBH				*e*S	Sn	01 52 04.9	-0.1
TBH	Brigand Hill	4.36	175	*e*P	Pn	01 51 13.8	-0.1
TBH				*e*S	Sn	01 52 01.5	-3.5
TPP	Pointe-a-Pierr	4.51	180	*e*P	Pn	01 51 16.5	+0.6
TPP				*e*S	Sn	01 52 06.8	-1.8
TPP	Pointe-a-Pierr	4.51	180	*e*P	Pn	01 51 16.5	+0.6
TPP				*e*S	Sn	01 52 05.3	-3.3
TBVI	Tortola	4.67	320	⇑*e*P	Pn	01 51 18.0	+0.1
TBVI				*e*S	Sn	01 52 11.3	-1.0
TBVI	Tortola	4.67	320	⇑*e*P	Pn	01 51 18.0	+0.1
TBVI				*e*S	Sn	01 52 11.3	-1.0
ABV	Anegada	4.75	325	⇓*e*P	Pn	01 51 19.1	+0.2
ABV				*e*S	Sn	01 52 11.5	-2.5
STVI	Saint Thomas	4.84	316	⇑*e*P	Pn	01 51 21.2	+1.0
STVI				*e*S	Sn	01 52 18.6	+2.4
STVI	Saint Thomas	4.84	316	⇑*e*P	Pn	01 51 21.2	+1.0
STVI				*e*S	Sn	01 52 18.1	+1.8
MTP	Monte Pirata	5.10	310	⇓*e*P	Pn	01 51 27.6	+4.1
MTP	Monte Pirata	5.10	310	*e*Pn	Pn	01 51 24.2	+0.7
	81nm,0.6s						
MTP				*e*Sn	Sn	01 52 22.7	+0.5
HUMP	Col San Antoni	5.35	308	⇑*e*P	Pn	01 51 30.8	+4.0
HUMP				*e*S	Sn	01 52 34.4	+6.3
CBYP	Canovanas	5.43	309	⇓*e*P	Pn	01 51 31.3	+3.4
CBYP				*e*S	Sn	01 52 33.9	+3.8
PCRV	Puerto La Cruz	5.60	214	P	Pn	01 51 30.9	+0.8
	6.3nm,0.3s,baz=17,slow=4.9,SNR=12						
PCRV				S	Sn	01 52 43.0	+8.8
	9.5nm,0.3s,baz=239,slow=16,SNR=6.5						
ICM	Isla Caja Muer	5.74	302	*e*Pn	Pn	01 51 35.2	+3.2
CELP	Cerrillos	5.88	304	⇓*e*P	Pn	01 51 37.8	+4.0
AOPR	Arecibo Observ	6.17	305	⇑*e*P	Pn	01 51 40.0	+2.5
AOPR	Arecibo Observ	6.17	305	⇑*e*P	Pn	01 51 40.2	+2.6
AOPR				*e*S	Sn	01 52 51.4	+3.8
AOPR	Arecibo Observ	6.17	305	⇑*e*P	Pn	01 51 40.0	+2.5
AOPR				*e*S	Sn	01 52 51.4	+3.8
CRPR	Cabo Rojo, PR	6.28	301	⇓*e*P	Pn	01 51 42.2	+3.1
LSP	Las Mesas	6.34	302	⇑*e*P	Pn	01 51 43.5	+3.6
LSP				*e*S	Sn	01 52 60.0	+8.2
SDDR	Presa de Saban	10.28	295	*e*Pn	Pn	01 52 33.1	+1.2
	76nm,0.4s						
SDDR				*e*Sn	Sn	01 54 31.8	+5.7
SDV	Santo Domingo	10.78	238	P	Pn	01 52 43.8	+5.3
	0.6nm,0.3s,baz=72,slow=15,SNR=4.2						
SDV	Santo Domingo	10.78	238	*e*Pn	Pn	01 52 48.3	+10
	13nm,0.6s						
ROSC	El Rosal	16.11	233	P	Pn	01 53 47.4	+1.6
	8.6nm,0.3s,baz=102,slow=13,SNR=46						
BBSR	BB Station	17.69	351	*e*P	Pn	01 54 07.8	+3.2
	11nm,0.5s						
OTAV	Otavalo	22.22	231	*e*P	P	01 54 51.2	-0.5
	16nm,0.8s,mb4.5						
OTAV				*e*S	S	01 58 49.7	+5.6
ATAH	Atahualpa	27.46	219	P	P	01 55 40.9	+1.8
	7.4nm,0.5s,mb4.6,baz=31,slow=2.7,SNR=6.2						
BINY	Binghamton	30.00	338	*e*P	P	01 56 01.7	+0.4
	7.0nm,0.7s,mb4.5						
NCB	Newcomb	31.00	342	*e*P	P	01 56 10.6	+0.6
	9.0nm,0.9s,mb4.5						
PLAL	Pickwick Lake	31.22	315	*e*P	P	01 56 13.1	+0.9
	8.3nm,0.4s,mb4.8						
ACSO	Alum Creek Sta	31.52	327	*e*P	P	01 56 15.4	+0.7
	37nm,0.8s,mb5.2						
WVT	Waverly	31.70	317	*e*P	P	01 56 16.2	-0.1
WVT				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.6						
WVT	Waverly	31.70	317	*e*P	P	01 56 16.2	-0.1
	comp=Z,8.2nm,0.6s,mb4.6						
WCI	Wyandotte Cave	32.00	321	*e*P	P	01 56 20.0	+1.1
WCI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
WCI	Wyandotte Cave	32.00	321	*e*P	P	01 56 20.0	+1.1
	comp=Z,5.0nm,0.7s,mb4.3						
MIAR	Mount Ida	34.94	310	*e*P	P	01 56 43.2	-1.2
MIAR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.3						
MIAR	Mount Ida	34.94	310	*e*P	P	01 56 43.2	-1.3
	comp=Z,7.6nm,1.0s,mb4.3						
HKT	Hockley	35.01	301	*e*P	P	01 56 45.3	+0.2
HKT				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.4						
HKT	Hockley	35.01	301	*e*P	P	01 56 45.3	+0.3
	comp=Z,13nm,1.2s,mb4.4						
CCM	Cathedral Cave	35.04	317	*e*P	P	01 56 44.9	-0.3
CCM				*e*		01 59 13.3	
CCM				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.7						
CCM	Cathedral Cave	35.04	317	*e*P	P	01 56 44.9	-0.3
	comp=Z,14nm,0.7s,mb4.7						
CCM				*e*PcP	PcP	01 59 13.3	-0.1
GLMI	Grayling	35.75	331	*e*P	P	01 56 51.9	+0.7
	comp=Z,69nm,0.8s,mb5.3						
JFWS	Jewell Farm	37.31	324	*e*P	P	01 57 04.8	+0.4
JFWS				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.7						
JFWS	Jewell Farm	37.31	324	*e*P	P	01 57 04.8	+0.4
	comp=Z,13nm,0.7s,mb4.7						
LVC	Limon Verde	37.95	191	P	P	01 57 08.7	-1.2
	comp=Z,4.0nm,0.4s,mb4.4,baz=0.1,slow=6.9,SNR=7.7						
LVC	Limon Verde	37.95	191	*e*P	P	01 57 08.4	-1.6
	comp=Z,4.6nm,0.5s,mb4.4						
SCIA	State Center	38.45	321	*e*P	P	01 57 13.2	-0.8
	comp=Z,11nm,0.6s,mb4.7						
JCT	Junction City	38.45	300	*e*P	P	01 57 13.6	-0.6
JCT				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
JCT	Junction City	38.45	300	*e*P	P	01 57 13.6	-0.6
	comp=Z,5.5nm,0.7s,mb4.3						
WMOK	Wichita Mounta	38.96	307	*e*P	P	01 57 17.6	-0.7
WMOK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.5						
WMOK	Wichita Mounta	38.96	307	*e*P	P	01 57 17.6	-0.7
	comp=Z,7.5nm,0.6s,mb4.5						
SCHQ	Schefferville	40.11	355	P	P	01 57 28.2	+0.7
	comp=Z,5.0nm,0.5s,mb4.5,baz=177,slow=8.3,SNR=21						
SCHQ	Schefferville	40.11	355	P	P	01 57 28.2	+0.7
CPUP	Villa Florida	41.13	174	P	P	01 57 35.4	-0.8
	comp=Z,4.6nm,0.5s,mb4.4,baz=342,slow=7.1,SNR=38						
CBKS	Cedar Bluff	41.25	313	*e*P	P	01 57 35.1	-2.0
CBKS				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.7						
CBKS	Cedar Bluff	41.25	313	*e*P	P	01 57 35.1	-2.0
	comp=Z,21nm,1.0s,mb4.7						
AMTX	Amarillo	41.25	306	*e*P	P	01 57 37.6	+0.4
	comp=Z,4.7nm,0.7s,mb4.2						
TXAR	Lajitas Array	41.46	298	P	P	01 57 40.4	+1.3
	comp=Z,0.7nm,0.5s,mb3.5,baz=110,slow=7.2,SNR=5.2						
ECSD	EROS Data Cent	41.54	321	*e*P	P	01 57 39.3	-0.2
	comp=Z,12nm,0.7s,mb4.6						
ECSD				*e*PcP	PcP	01 59 33.6	0.0
ECSD				*e*ScP	ScP	02 03 07.6	-0.4
AGMN	Agassiz Refuge	43.76	327	*e*P	P	01 57 56.9	-0.3
	comp=Z,38nm,0.5s,mb5.3						
ULM	Lac du Bonnet	44.98	329	P	P	01 58 06.2	-0.6
	comp=Z,19nm,0.3s,mb5.1,baz=133,slow=8.1,SNR=45						
SDCO	Great Sand Dun	45.08	309	*e*P	P	01 58 08.3	+0.4
	comp=Z,6.2nm,1.1s,mb4.2						
T22A	Edith	45.93	307	⇓P	P	01 58 14.7	+0.1
	baz=46						
R22A	Saguache, Gunn	46.17	309	⇑P	P	01 58 16.5	+0.1

	baz=46						
120A	U Bar Ranch, L	46.26	301	⇑P	P	01 58 16.9	-0.3
	baz=46						
RSSD	Black Hills	46.42	318	*e*P	P	01 58 18.9	+0.7
RSSD				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.6						
RSSD	Black Hills	46.42	318	*e*P	P	01 58 18.9	+0.6
	comp=Z,1.1nm,0.6s,mb3.7						
Q22A	Crested Butte,	46.48	310	⇓P	P	01 58 18.7	-0.1
	baz=47						
319A	Douglas	46.60	299	⇓P	P	01 58 19.6	-0.3
	baz=47						
219A	White Tail Can	46.69	300	⇑P	P	01 58 19.9	-0.6
	baz=47						
W20A	Ramah	46.70	304	⇓P	P	01 58 19.9	-0.7
	baz=47						
N22A	Wattenberg Ran	46.78	313	⇓P	P	01 58 20.8	-0.3
	baz=47						
Y19A	Nutrioso	47.05	303	⇓P	P	01 58 24.1	+0.7
	baz=47,SNR=11						
P21A	Newcastle	47.09	311	⇓P	P	01 58 23.0	-0.5
	baz=47						
M22A	Cedar Creek Ra	47.09	313	⇑P	P	01 58 24.2	+0.7
	baz=47						
318A	Bisbee	47.21	299	⇑P	P	01 58 25.2	+0.6
	baz=47,SNR=7.5						
218A	Dragoon	47.34	300	⇓P	P	01 58 25.4	-0.2
	baz=47						
R20A	Redvale	47.38	309	⇑P	P	01 58 26.0	+0.2
	baz=48						
T19A	Beclabito	47.52	307	⇑P	P	01 58 26.0	-0.9
	baz=48						
N21A	Black Mountain	47.53	312	⇑P	P	01 58 26.8	-0.1
	baz=48						
Q20A	Ridgley Place,	47.54	310	⇓P	P	01 58 27.1	+0.1
	baz=48						
M21A	Separation Pea	47.70	313	⇑P	P	01 58 27.9	-0.4
	baz=48						
X18A	Snowflake	47.73	303	⇑P	P	01 58 29.3	+0.7
	baz=48,SNR=6.5						
P20A	De Beque	47.77	310	⇑P	P	01 58 28.3	-0.5
	baz=48						
L21A	Rawlins	47.83	314	⇑P	P	01 58 28.4	-0.8
	baz=48						
S19A	Harvey Farm, M	47.84	308	⇑P	P	01 58 29.7	+0.3
	baz=48,SNR=5.2						
TUC	Tucson	48.01	300	*e*P	P	01 58 31.5	+0.7
TUC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.9						
TUC	Tucson	48.01	300	*e*P	P	01 58 31.5	+0.7
	comp=Z,3.4nm,0.9s,mb4.0						
117A	Oracle	48.02	301	⇓P	P	01 58 30.9	+0.1
	baz=48,SNR=5.5						
R19A	Curley Farm, L	48.08	308	⇓P	P	01 58 31.9	+0.7
	baz=48						
M20A	Sweetwater, Wa	48.25	313	⇓P	P	01 58 32.6	+0.2
	baz=48						
T18A	Mexican Hat	48.25	307	P	P	01 58 33.3	+0.7
	baz=48,SNR=14						
Y17A	Roosevelt	48.30	302	⇓P	P	01 58 32.9	-0.1
	baz=48						
S18A	Hurst Farm, Bl	48.48	307	⇓P	P	01 58 34.4	+0.2
	baz=48						
DGMT	Dagmar	48.50	323	P	P	01 58 35.1	+0.9
	baz=49,SNR=9.6						
L20A	Wamsutter	48.53	313	⇓P	P	01 58 34.1	-0.5
	baz=49,SNR=5.8						
O19A	Miners Draw (B	48.55	311	⇑P	P	01 58 35.3	+0.5
	baz=49						
R18A	Canyonlands Na	48.59	308	⇓P	P	01 58 35.2	+0.1
	baz=49,SNR=7.7						
K20A	Yellowstone Ra	48.75	314	⇑P	P	01 58 35.9	-0.4
	baz=49						
N19A	John Jarvie Ra	48.77	312	⇑P	P	01 58 35.3	-1.0
	baz=49						
Y16A	Circle Bar Ran	48.85	302	⇑P	P	01 58 37.6	+0.5
	baz=49,SNR=5.9						
X16A	Lo Mia Camp, P	48.92	303	⇑P	P	01 58 37.4	-0.3
	baz=49,SNR=5.4						
Q18A	Rafter H Ranch	48.95	309	⇓P	P	01 58 38.4	+0.6
	baz=49						
WUAZ	Wupatki	49.08	304	⇓P	P	01 58 39.3	+0.5
	baz=49						
S17A	Black Ridge (B	49.09	307	⇑P	P	01 58 39.3	+0.4
	baz=49,SNR=11						
W16A	Flagstaff	49.12	304	⇑P	P	01 58 38.9	-0.3
	baz=49						
K19A	Absolon Red Bu	49.16	314	P	P	01 58 39.6	+0.3
	baz=49,SNR=17						
P18A	Preston Nutter	49.18	310	⇓P	P	01 58 39.9	+0.3
	baz=49,SNR=6.2						
R17A	Hanksville Air	49.21	308	⇓P	P	01 58 39.8	0.0
	baz=49						
SRU	San Rafael	49.25	309	⇑P	P	01 58 40.2	+0.1
	baz=49						
L19A	Farson	49.27	313	⇓P	P	01 58 40.7	+0.5
	baz=49,SNR=6.3						
P17A	Butcher Ranch,	49.51	309	⇓P	P	01 58 41.9	-0.1
	baz=50						
Y15A	Casa Rosa Ranc	49.56	302	⇓P	P	01 58 42.1	-0.5
	baz=50						
M18A	Lyman	49.57	312	⇓P	P	01 58 42.4	-0.1
	baz=50						
X15A	Humboldt	49.58	303	⇑P	P	01 58 42.1	-0.5
	baz=50,SNR=5.1						
BW06	Boulder Array	49.63	314	⇓P	P	01 58 43.4	+0.5
	baz=50,SNR=14						
BW06	Boulder Array	49.63	314	*e*P	P	01 58 42.9	0.0
	comp=Z,12nm,1.2s,mb4.4						
PDAR	Pinedale Array	49.63	314	P	P	01 58 43.2	+0.3
	comp=Z,8.6nm,0.8s,mb4.4,baz=117,slow=9.8,SNR=69						
PDAR				ScP	ScP	02 03 41.3	-0.3
	comp=Z,0.4nm,0.7s,baz=116,slow=6.8,SNR=4.6						
Q16A	Castle Valley	49.69	309	⇑P	P	01 58 42.1	-1.4
	baz=50						
L18A	Fontenelle, Gr	49.70	313	⇑P	P	01 58 43.4	0.0
	baz=50						
O17A	Robinson Place	49.70	310	⇓P	P	01 58 44.1	+0.6
	baz=50,SNR=7.7						
S16A	Weppner Ranch,	49.72	307	⇑P	P	01 58 43.5	-0.2
	baz=50						
V15A	Kaibab Nationa	49.77	304	⇓P	P	01 58 44.1	0.0
	baz=50						
K18A	Toltan Ranch,	49.93	314	⇑P	P	01 58 45.4	+0.3
	baz=50						
Z14A	Wintersburg	49.97	301	⇓P	P	01 58 45.6	-0.1
	baz=50						
N17A	Moffit Pass	49.98	311	⇑P	P	01 58 44.2	-1.4
	baz=50,SNR=5.8						
M17A	Scullys Gap (B	50.01	312	⇑P	P	01 58 45.8	0.0
	baz=50						
FCC	Fort Churchill	50.08	338	*e*P	P	01 58 45.1	-0.9
	comp=Z,0.2nm,0.6s						
J18A	Kendall Valley	50.10	314	P	P	01 58 46.9	+0.5
	baz=50,SNR=7.1						
Y14A	Wickenburg	50.11	302	⇑P	P	01 58 46.2	-0.5
	baz=50,SNR=5.5						
I18A	Diamond G Ranc	50.12	315	⇓P	P	01 58 46.9	+0.4
	baz=50,SNR=14						
T15A	Red Dirt Ranch	50.18	306	⇑P	P	01 58 46.9	-0.2
	baz=50						
RLMT	Red Lodge	50.24	317	⇑P	P	01 58 47.8	+0.3
	baz=50,SNR=11						
RLMT	Red Lodge	50.24	317	*e*P	P	01 58 47.4	-0.1
	comp=Z,14nm,1.1s,mb4.5						
O16A	Springville	50.27	310	⇑P	P	01 58 47.7	0.0
	baz=50						
S15A	Panguitch	50.31	307	⇑P	P	01 58 46.9	-1.2
	baz=50						
W14A	Seligman	50.39	304	⇑P	P	01 58 47.6	-1.2
	baz=50						
N16A	Rees Ranch, Co	50.40	311	⇓P	P	01 58 48.6	-0.2
	baz=50,SNR=5.3						
G18A	Lazy EL Ranch,	50.51	317	⇓P	P	01 58 48.9	-0.6
	baz=51						
K17A	Gardner Place,	50.58	314	⇑P	P	01 58 49.2	-0.8
	baz=51						
J17A	Brown Place, J	50.62	314	⇓P	P	01 58 50.5	+0.1
	baz=51,SNR=11						
LOHW	Long Hollow	50.63	315	*e*P	P	01 58 50.6	+0.2
	comp=Z,2.0nm,0.7s,mb3.9						
M16A	Huntsville	50.66	312	⇑P	P	01 58 50.7	0.0
	baz=51,SNR=6.0						
FFC	Flin Flon	50.67	331	*i* P	P	01 58 50.5	0.0
FFC	Flin Flon	50.67	331	*e*P	P	01 58 50.0	-0.5
	comp=Z,6.0nm,0.8s,mb4.3						
P15A	Leamington	50.68	309	⇓P	P	01 58 51.2	+0.3
	baz=51						
SNOW	Snow King Moun	50.68	314	*e*P	P	01 58 51.4	+0.6
U14A	Mt Trumbull	50.69	305	⇑P	P	01 58 51.8	+0.8
	baz=51,SNR=5.8						
I17A	Pilgrim Ck.	50.71	315	⇓P	P	01 58 51.3	+0.3
	baz=51						
L16A	Fish Haven	50.72	312	P	P	01 58 51.7	+0.6
	baz=51,SNR=9.0						
REDW	Red Top Meadow	50.72	314	*e*P	P	01 58 51.5	+0.4
	comp=Z,5.7nm,0.8s,mb4.2						
MOOW	Moose Ponds	50.77	315	*e*P	P	01 58 52.1	+0.7
	comp=Z,1.4nm,0.7s,mb3.7						
Y13A	Salome	50.77	302	⇓P	P	01 58 52.5	+0.9
	baz=51,SNR=5.6						
F18A	Big Timber	50.82	318	⇑P	P	01 58 51.7	-0.2
	baz=51,SNR=8.5						
TPAW	Teton Pass	50.83	314	*e*P	P	01 58 52.5	+0.5
	comp=Z,3.7nm,0.8s,mb4.1						
W13A	Hualapai Mount	51.02	303	⇓P	P	01 58 54.4	+1.0
	baz=51						
RRI2	Red Ridge	51.04	314	*e*P	P	01 58 53.9	+0.4
	comp=Z,13nm,1.4s,mb4.4						
K16A	Soda Springs	51.07	313	⇑P	P	01 58 54.0	+0.3
	baz=51,SNR=5.5						
E18A	Harlowton	51.19	318	⇓P	P	01 58 54.9	+0.3
	baz=51						
J16A	Bone	51.22	314	⇓P	P	01 58 54.5	-0.4
	baz=51						
V13A	Grand Canyon W	51.23	304	⇓P	P	01 58 54.9	-0.1
	baz=51,SNR=6.1						
DUG	Dugway	51.23	310	*e*P	P	01 58 55.5	+0.5
DUG				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.3						
DUG	Dugway	51.23	310	⇑P	P	01 58 54.8	-0.2
	baz=51,SNR=12						
DUG	Dugway	51.23	310	*e*P	P	01 58 55.5	+0.5
	comp=Z,9.1nm,1.0s,mb4.4						
P14A	Drum Mountains	51.28	309	⇓P	P	01 58 54.5	-0.8
	baz=51,SNR=9.5						
G17A	Pierce Place,	51.29	317	⇑P	P	01 58 54.9	-0.4
	baz=51						
M15A	Larsen Ranch,	51.29	312	⇑P	P	01 58 54.4	-1.0
	baz=51,SNR=9.1						
Q14A	Sevier Lake (B	51.30	308	⇑P	P	01 58 56.0	+0.5
	baz=51						
U13A	Pakoon Wash	51.31	305	⇓P	P	01 58 56.4	+0.8
	baz=51						
I16A	Newdale	51.32	315	⇑P	P	01 58 55.4	-0.1
	baz=51,SNR=6.2						
D18A	Linhart Farms,	51.36	319	⇓P	P	01 58 55.9	+0.1
	baz=51						
T13A	Saint George	51.38	306	⇑P	P	01 58 55.7	-0.4
	baz=51						
L15A	Malad City	51.40	312	⇑P	P	01 58 56.1	0.0
	baz=52,SNR=15						
H16A	Russell Place,	51.42	316	⇑P	P	01 58 57.0	+0.7
	baz=52,SNR=6.5						
F17A	Fitzpatrick Pl	51.44	317	⇓P	P	01 58 56.9	+0.5
	baz=52						
S13A	Holt Ranch, En	51.45	306	⇓P	P	01 58 56.5	-0.1
	baz=52						
EGMT	Eagleton	51.65	320	⇓P	P	01 58 57.9	0.0
	baz=52,SNR=6.0						
N14A	Grayback Hills	51.67	311	⇑P	P	01 58 58.4	+0.2
	baz=52,SNR=13						
K15A	Arbon	51.69	313	⇓P	P	01 58 58.1	-0.3
	baz=52						
E17A	Martinsdale	51.76	318	⇑P	P	01 58 58.7	-0.1
	baz=52						
B18A	Beardsley Farm	51.81	321	⇑P	P	01 58 58.8	-0.3
	baz=52,SNR=8.0						
J15A	Blackfoot	51.83	314	⇓P	P	01 58 59.4	+0.1
	baz=52,SNR=7.0						
Q13A	Wheeler Ranch,	51.86	308	⇓P	P	01 58 59.7	+0.1
	baz=52,SNR=7.5						
V12A	Nelson	51.90	304	⇑P	P	01 59 00.7	+0.7
	baz=52						
D17A	Six Diamond Ra	51.90	319	⇑P	P	01 59 00.0	+0.2
	baz=52						
IRM	Iron Mountain	51.91	302	⇑P	P	01 58 59.9	-0.2
	baz=52,SNR=6.4						
M14A	Sheep Mountain	51.96	311	⇓P	P	01 58 59.7	-0.6
	baz=52						
P13A	Bates Ranch, G	51.96	309	⇑P	P	01 59 00.8	+0.4
	baz=52,SNR=8.7						
G16A	Moss Hill, Enn	51.97	316	⇓P	P	01 59 00.1	-0.3
	baz=52						
BOZ	Bozeman (W)	51.99	317	*e*P	P	01 59 00.7	+0.2
BOZ				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.9						
BOZ	Bozeman (W)	51.99	317	⇓P	P	01 59 00.3	-0.2
	baz=52,SNR=5.9						
BOZ	Bozeman (W)	51.99	317	*e*P	P	01 59 00.7	+0.2
	comp=Z,2.8nm,1.0s,mb3.9						
L14A	Malta	52.02	312	⇓P	P	01 59 00.7	-0.1
	baz=52,SNR=7.9						
F16A	Kennard Place,	52.03	317	⇑P	P	01 59 01.0	+0.2
	baz=52						
A18A	Metzger Ranch,	52.06	321	⇓P	P	01 59 00.6	-0.4
	baz=52						
BC3	Big Chuckw Mtn	52.09	301	⇓P	P	01 59 00.6	-0.9
	baz=52						
K14A	Jones Ranch, D	52.11	313	⇓P	P	01 59 01.8	+0.3
	baz=52,SNR=14						
C17A	Wharram Farm,	52.13	319	⇓P	P	01 59 01.4	0.0
	baz=52,SNR=7.9						
R12A	Pony Springs,	52.18	307	⇓P	P	01 59 01.9	-0.1
	baz=52,SNR=5.2						
E16A	East Helena	52.32	318	⇑P	P	01 59 02.6	-0.3
	baz=52						
PTOM	Tomar	52.33	51	*e*P	P	01 59 03.6	+0.5
	comp=Z,44nm,1.8s,mb4.8						
H15A	Lima	52.34	315	⇓P	P	01 59 02.7	-0.4
	baz=52						
G15A	Dillon	52.40	316	⇑P	P	01 59 03.8	+0.3
	baz=52,SNR=5.5						
D16A	Dana Ranch, Ca	52.41	319	⇑P	P	01 59 04.1	+0.5
	baz=52						
GMRC	Granite Mounta	52.41	303	⇑P	P	01 59 03.2	-0.6
	baz=52						
EVO	Evora	52.41	53	*e*P	P	01 59 03.3	-0.4
	comp=Z,4.9nm,0.5s,mb4.1						
PBEJ	Beja	52.43	53	*e*P	P	01 59 04.7	+0.8
	comp=Z,35nm,1.6s,mb4.7						
M13A	Montello	52.52	311	⇓P	P	01 59 04.5	0.0
	baz=53,SNR=9.5						
L13A	Double Diamond	52.54	312	⇑P	P	01 59 05.0	+0.4
	baz=53,SNR=9.8						
J14A	Carey	52.56	314	⇓P	P	01 59 05.2	+0.4
	baz=53,SNR=7.2						
A17A	Triple J Farms	52.58	321	⇑P	P	01 59 04.8	0.0
	baz=53,SNR=5.6						
F15A	Butte	52.62	317	⇑P	P	01 59 05.9	+0.7
	baz=53,SNR=5.9						
I14A	Mackay	52.69	314	⇑P	P	01 59 05.8	+0.1
	baz=53,SNR=5.7						
O12A	Currie	52.69	310	⇑P	P	01 59 05.6	-0.1
	baz=53						
TUQ	Turquoise Moun	52.72	303	⇓P	P	01 59 06.6	+0.5
	baz=53,SNR=6.0						
K13A	Stover Farm, H	52.78	313	⇓P	P	01 59 05.8	-0.6
	baz=53,SNR=6.8						
MONP	Monument Peak	52.80	300	⇑P	P	01 59 05.9	-0.8
	baz=53						
C16A	Fuhringer Ranc	52.81	319	P	P	01 59 07.0	+0.5
	baz=53,SNR=5.5						
E15A	Deer Lodge	52.91	317	⇓P	P	01 59 07.7	+0.4
	baz=53						
R11A	Troy Canyon, C	52.94	307	⇑P	P	01 59 07.7	+0.1
	baz=53						
PVIS	Viseu	52.96	50	*e*P	P	01 59 07.6	-0.1
	comp=Z,23nm,1.9s,mb4.6						
B16A	M & M Farms, S	53.00	320	⇑P	P	01 59 07.6	-0.3
	baz=53,SNR=6.3						
D15A	Lincoln	53.04	318	⇑P	P	01 59 07.8	-0.4
	baz=53,SNR=8.1						
N12A	Clover Valley,	53.04	310	⇑P	P	01 59 09.0	+0.7
	baz=53						
J13A	Cove Ranch, Pi	53.05	313	⇓P	P	01 59 08.1	-0.2
	baz=53,SNR=6.7						
PMRV	Marv??o	53.06	52	*e*P	P	01 59 08.4	-0.1
	comp=Z,23nm,1.6s,mb4.7						
Q11A	Duckwater	53.08	308	⇑P	P	01 59 08.0	-0.6
	baz=53						
A16A	West Butte Ran	53.13	321	⇑P	P	01 59 08.7	-0.1
	baz=53,SNR=8.6						
I13A	Wildhorse Cree	53.15	314	⇑P	P	01 59 09.7	+0.7
	baz=53,SNR=9.6						
MTE	Manteigas	53.15	50	*e*P	P	01 59 09.5	+0.4
	comp=Z,32nm,1.5s,mb4.8						
ELK	Elko	53.16	310	*e*P	P	01 59 09.8	+0.6
ELK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ELK	Elko	53.16	310	*e*P	P	01 59 09.8	+0.6
	comp=Z,3.4nm,0.9s,mb4.1						
PVRL	Vila Real	53.22	49	*e*P	P	01 59 10.5	+0.9
	comp=Z,25nm,1.6s,mb4.7						
HLID	Hailey	53.26	314	⇑P	P	01 59 10.2	+0.4
	baz=53,SNR=8.0						
HLID	Hailey	53.26	314	*e*P	P	01 59 10.2	+0.4
	comp=Z,5.2nm,1.0s,mb4.2						
C15A	Salmond Ranch,	53.34	319	⇑P	P	01 59 10.8	+0.4
	baz=53,SNR=14						
O11A	Cowboy Ranch,	53.34	309	⇓P	P	01 59 11.0	+0.4
	baz=53,SNR=16						
K12A	Draper Farm, C	53.36	312	⇑P	P	01 59 11.2	+0.6
	baz=53,SNR=7.7						
GSC	Goldstone	53.41	303	⇓P	P	01 59 11.6	+0.4
	baz=54						
H13A	Challis	53.42	315	⇓P	P	01 59 10.8	-0.2
	baz=54						
B15A	Bradely Ranch,	53.50	320	⇑P	P	01 59 11.1	-0.4
	baz=54,SNR=6.4						
S10A	Tonopah Range,	53.64	306	⇓P	P	01 59 10.8	-1.9
	baz=54,SNR=5.8						
Q10A	Clear Creek Ra	53.65	307	⇓P	P	01 59 12.7	-0.1
	baz=54						
J12A	Stokes Ranch,	53.66	313	⇑P	P	01 59 12.7	0.0
	baz=54						
D14A	Greenough	53.69	318	⇑P	P	01 59 12.2	-0.7
	baz=54						
MVO	Moncorvo	53.70	50	*e*P	P	01 59 14.5	+1.4
	comp=Z,20nm,1.6s,mb4.6						
I12A	Atlanta	53.82	314	⇓P	P	01 59 13.8	-0.1
	baz=54						
H12A	Diamond D Ranc	53.83	315	⇑P	P	01 59 14.3	+0.3
	baz=54						
A15A	Johnson Ranch,	53.84	320	⇓P	P	01 59 12.7	-1.3
	baz=54,SNR=12						
P10A	Eureka	53.85	308	⇑P	P	01 59 13.5	-0.7
	baz=54						
L11A	Cat Creek Ranc	53.86	312	⇓P	P	01 59 12.7	-1.6
	baz=54,SNR=7.9						
E13A	Victor	53.93	317	⇓P	P	01 59 13.9	-0.8
	baz=54,SNR=5.7						
S09A	Goldfield	54.10	306	⇓P	P	01 59 13.6	-2.5
	baz=54						
A14A	Double T Ranch	54.26	320	⇑P	P	01 59 16.1	-0.9
	baz=54,SNR=5.6						
D13A	Huson	54.31	318	⇓P	P	01 59 17.0	-0.4
	baz=54						
G12A	Big Creek, Yel	54.31	315	⇑P	P	01 59 17.7	+0.2
	baz=54						
L10A	Juniper Basin	54.36	311	⇑P	P	01 59 17.8	-0.1
	baz=54,SNR=8.4						
I11A	Placerville	54.43	314	⇓P	P	01 59 17.3	-1.0
	baz=54						
F12A	Elk City	54.44	316	⇑P	P	01 59 17.3	-1.1
	baz=54						
B13A	Whitefish	54.72	319	⇑P	P	01 59 19.3	-1.0
	baz=55						
K10A	MacKenzie Ranc	54.81	312	⇓P	P	01 59 20.6	-0.5
	baz=55,SNR=5.8						
Q08A	Gabbs	54.84	307	⇑P	P	01 59 22.0	+0.6
	baz=55						
A13A	Flathead Natio	54.87	320	⇓P	P	01 59 21.1	-0.3
	baz=55						
N09A	Rock Creek Ran	54.88	310	⇑P	P	01 59 22.0	+0.3
	baz=55						
M09A	Marrel Ranch,	54.94	310	⇑P	P	01 59 21.7	-0.4
	baz=55						
ARVC	Arvin	55.04	303	⇑P	P	01 59 22.1	-0.7
	baz=55						
NVAR	Mina Array Bea	55.05	307	P	P	01 59 24.1	+1.1
	comp=Z,2.4nm,0.7s,mb4.0,baz=99,slow=7.2,SNR=26						
F11A	Grangeville	55.08	316	⇓P	P	01 59 22.3	-0.6
	baz=55						
H10A	Noah's Angus R	55.15	314	⇓P	P	01 59 22.6	-0.9
	baz=55,SNR=7.0						
L09A	Wilkinson Ranc	55.22	311	⇓P	P	01 59 24.1	+0.1
	baz=55,SNR=6.1						
E11A	Bogner Ranch,	55.24	316	⇑P	P	01 59 24.1	0.0
	baz=55,SNR=14						
O08A	Rochester Mine	55.25	309	⇑P	P	01 59 23.7	-0.6
	baz=55						
N08A	GE Springer Mi	55.32	309	⇑P	P	01 59 24.8	0.0
	baz=55,SNR=7.4						
K09A	Rome	55.40	312	⇑P	P	01 59 25.4	+0.1
	baz=56,SNR=6.6						
D11A	Klaveano Farm,	55.52	317	⇑P	P	01 59 25.4	-0.7
	baz=56,SNR=6.5						
G10A	Bishop Farm, J	55.58	315	⇓P	P	01 59 26.2	-0.4
	baz=56						
M08A	Happy Creek Ra	55.63	310	⇓P	P	01 59 27.2	+0.2
	baz=56						
A12A	Yaak River Ran	55.64	320	⇓P	P	01 59 27.3	+0.4
	baz=56,SNR=6.7						
ESDC	Sonseca Array	55.72	52	P	P	01 59 28.4	+0.7
	comp=Z,3.5nm,0.6s,mb4.3,baz=260,slow=7.2,SNR=31						
L08A	Fields	55.75	311	⇑P	P	01 59 28.0	+0.2
	baz=56,SNR=9.8						
O07A	Toulon	55.77	309	⇑P	P	01 59 28.2	+0.1
	baz=56						
EDM	Edmonton	55.79	325	*e*P	P	01 59 27.2	-0.7
H09A	Durkee	55.80	314	⇑P	P	01 59 28.1	0.0
	baz=56						
F10A	Beach Ranch, E	55.82	316	⇓P	P	01 59 27.4	-0.9
	baz=56						
PLCA	Paso Flores	55.95	188	P	P	01 59 28.8	-0.3
	comp=Z,3.9nm,0.6s,mb4.4,baz=9.4,slow=7.8,SNR=13						
LIC	Lamto	55.99	92	*e*P	P	01 59 29.1	-0.9
	comp=Z,4.4nm,0.4s,mb4.3						
LIC	Lamto	55.99	92	*e*P	P	01 59 29.1	-0.9
	comp=Z,2.2nm,0.4s,mb4.3						
G09A	Cove	56.03	315	⇑P	P	01 59 28.8	-1.0
	baz=56						
DBIC	Dimbokro	56.05	92	*e*P	P	01 59 29.7	-0.7
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
DBIC	Dimbokro	56.05	92	P	P	01 59 29.9	-0.5
	comp=Z,3.6nm,0.6s,mb4.4,baz=266,slow=5.6,SNR=9.3						
DBIC	Dimbokro	56.05	92	*e*P	P	01 59 29.7	-0.7
	comp=Z,3.3nm,0.6s,mb4.3						
J08A	Circle Bar Ran	56.08	312	⇓P	P	01 59 30.5	+0.3
	baz=56						
D10A	Wagner Farm, O	56.14	317	⇓P	P	01 59 29.4	-1.1
	baz=56						
M07A	Soldier Meadow	56.20	310	⇓P	P	01 59 30.6	-0.5
	baz=56,SNR=7.2						
NEW	Newport	56.37	318	*e*P	P	01 59 31.6	-0.5
NEW				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NEW	Newport	56.37	318	*e*P	P	01 59 31.6	-0.5
	comp=Z,6.6nm,0.7s,mb4.6						
L07A	Adell	56.44	311	⇑P	P	01 59 33.3	+0.5
	baz=56						
H08A	Prairie City	56.47	314	⇓P	P	01 59 33.0	+0.1
	baz=56,SNR=9.2						
O06A	Flanigan	56.49	308	⇑P	P	01 59 32.5	-0.7
	baz=56						
N06A	Buffalo Meadow	56.59	309	⇑P	P	01 59 33.2	-0.6
	baz=57,SNR=5.8						
F08A	Pendleton	56.83	315	⇑P	P	01 59 34.6	-0.8
	baz=57						
G08A	Pilot Rock	56.84	315	⇓P	P	01 59 35.0	-0.5
	baz=57						
I07A	Izee	56.96	313	⇓P	P	01 59 36.4	0.0
	baz=57,SNR=6.5						
B09A	Rice	57.08	318	⇑P	P	01 59 36.0	-1.1
	baz=57						
H07A	Lands Inn, Kim	57.11	314	⇓P	P	01 59 35.9	-1.5
	baz=57						
J06A	Christmas Vall	57.26	312	⇑P	P	01 59 37.8	-0.7
	baz=57						
G07A	Ruggs Ranch, H	57.32	314	⇓P	P	01 59 38.1	-0.8
	baz=57						
I06A	Prineville	57.43	313	⇑P	P	01 59 39.1	-0.6
	baz=58						
C08A	Higginbotham F	57.49	318	⇓P	P	01 59 39.7	-0.3
	baz=58						
K05A	Summer Lake	57.70	311	⇑P	P	01 59 41.4	-0.2
	baz=58,SNR=7.4						
A08A	Turner Farm, O	57.93	319	⇑P	P	01 59 42.3	-0.8
	baz=58						
QUIF	Quistinic	57.95	42	*e*P	P	01 59 43.6	+0.4
ROSF	Rostrenen	57.99	42	*e*P	P	01 59 43.9	+0.4
	comp=Z,18nm,0.8s,mb4.6						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
ROSF	Rostrenen	57.99	42	eP	P	01 59 43.9	+0.4
ROSF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
ROSF	Rostrenen	57.99	42	eP	P	01 59 43.9	+0.4
	comp=Z,8.8nm,0.8s,mb4.6						
SJPF	Ste Jean	58.31	48	eP	P	01 59 46.8	+1.0
	comp=Z,23nm,0.8s,mb4.8						
SJPF	Ste Jean	58.31	48	eP	P	01 59 46.8	+1.0
SJPF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
SJPF	Ste Jean	58.31	48	eP	P	01 59 46.8	+1.0
	comp=Z,11nm,0.8s,mb4.8						
B07A	Winthrop	58.35	318	⇓P	P	01 59 45.8	-0.3
	baz=58,SNR=7.7						
SGMF	Saint Gilles	58.43	42	eP	P	01 59 46.9	+0.4
	comp=Z,20nm,0.8s,mb4.7						
SGMF	Saint Gilles	58.43	42	eP	P	01 59 46.9	+0.4
SGMF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
SGMF	Saint Gilles	58.43	42	eP	P	01 59 46.9	+0.4
	comp=Z,9.9nm,0.8s,mb4.7						
A07A	Ashnola River,	58.66	319	⇑P	P	01 59 48.2	+0.1
	baz=59,SNR=5.5						
ETSF	Etsaut	58.76	49	eP	P	01 59 49.9	+1.0
	comp=Z,8.0nm,0.8s,mb4.3						
ETSF	Etsaut	58.76	49	eP	P	01 59 49.9	+1.0
ETSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
ETSF	Etsaut	58.76	49	eP	P	01 59 49.9	+1.0
	comp=Z,4.0nm,0.8s,mb4.3						
SUMG	Summit	59.26	8	eP	P	01 59 52.2	+0.4
	comp=Z,30nm,0.8s,mb5.2						
EPF	Esparros	59.43	49	eP	P	01 59 54.5	+1.0
	comp=Z,19nm,0.8s,mb4.7						
EPF	Esparros	59.43	49	eP	P	01 59 54.5	+1.0
EPF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
EPF	Esparros	59.43	49	eP	P	01 59 54.5	+1.0
	comp=Z,9.6nm,0.8s,mb4.7						
GRR	Gorron	59.56	42	eP	P	01 59 54.6	+0.2
MFF	Saint Martin d	59.68	44	eP	P	01 59 55.6	+0.4
	comp=Z,17nm,0.8s,mb4.6						
MFF	Saint Martin d	59.68	44	eP	P	01 59 55.6	+0.4
MFF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
MFF	Saint Martin d	59.68	44	eP	P	01 59 55.6	+0.4
	comp=Z,8.6nm,0.8s,mb4.6						
FLN	La Foliniere	59.89	42	eP	P	01 59 56.9	+0.3
	comp=Z,25nm,0.6s,mb4.9						
FLN	La Foliniere	59.89	42	eP	P	01 59 56.9	+0.3
FLN				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.9						
FLN	La Foliniere	59.89	42	eP	P	01 59 56.9	+0.3
	comp=Z,12nm,0.6s,mb4.9						
LFF	La Frestale	60.01	46	eP	P	01 59 57.7	+0.3
	comp=Z,19nm,0.9s,mb4.6						
LFF	La Frestale	60.01	46	eP	P	01 59 57.7	+0.3
LFF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
LFF	La Frestale	60.01	46	eP	P	01 59 57.7	+0.3
	comp=Z,9.5nm,0.9s,mb4.6						
LDF	La Druitiere	60.09	42	eP	P	01 59 58.0	+0.1
	comp=Z,8.5nm,0.6s,mb4.5						
LDF	La Druitiere	60.09	42	eP	P	01 59 58.0	+0.1
LDF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
LDF	La Druitiere	60.09	42	eP	P	01 59 58.0	+0.1
	comp=Z,4.3nm,0.6s,mb4.5						
YKA	Yellowknife Ar	60.34	335	P	P	01 59 58.7	-0.6
	comp=Z,11nm,0.6s,mb4.8,baz=108,slow=7.2,SNR=133						
YKA	Yellowknife Ar	60.34	335	P	P	01 59 58.7	-0.7
RJF	Les Rejaudoux	60.60	46	eP	P	02 00 01.6	+0.1
	comp=Z,5.0nm,0.6s,mb4.2						
RJF	Les Rejaudoux	60.60	46	eP	P	02 00 01.6	+0.1
RJF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
RJF	Les Rejaudoux	60.60	46	eP	P	02 00 01.6	+0.1
	comp=Z,2.5nm,0.6s,mb4.2						
MTLF	Montolieu	60.83	48	eP	P	02 00 03.3	+0.2
	comp=Z,16nm,0.9s,mb4.6						
MTLF	Montolieu	60.83	48	eP	P	02 00 03.3	+0.2
MTLF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
MTLF	Montolieu	60.83	48	eP	P	02 00 03.3	+0.2
	comp=Z,8.2nm,0.9s,mb4.6						
CAF	Calviac	60.93	47	eP	P	02 00 03.9	+0.2
	comp=Z,4.5nm,0.4s,mb4.3						
CAF	Calviac	60.93	47	eP	P	02 00 03.9	+0.2
CAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.3						
CAF	Calviac	60.93	47	eP	P	02 00 03.9	+0.2
	comp=Z,2.3nm,0.4s,mb4.4						
TORD	Torodi Ar. Bea	61.10	83	P	P	02 00 04.5	-0.8
	comp=Z,4.2nm,0.8s,mb4.3,baz=286,slow=7.0,SNR=69						
TORD	Torodi Ar. Bea	61.10	83	P	P	02 00 04.5	-0.9
TCF	Toulx Ste Croi	61.23	45	eP	P	02 00 05.9	+0.2
	comp=Z,8.9nm,0.6s,mb4.5						
TCF	Toulx Ste Croi	61.23	45	eP	P	02 00 05.9	+0.2
TCF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
TCF	Toulx Ste Croi	61.23	45	eP	P	02 00 05.9	+0.2
	comp=Z,4.4nm,0.6s,mb4.5						
HYF	Humbligny	61.67	44	eP	P	02 00 09.1	+0.4
BGF	Bois d'Agland	61.71	45	eP	P	02 00 08.9	0.0
AVF	Avril sur Loir	62.09	45	eP	P	02 00 11.2	-0.2
	comp=Z,11nm,0.7s,mb4.5						
AVF	Avril sur Loir	62.09	45	eP	P	02 00 11.2	-0.2
AVF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
AVF	Avril sur Loir	62.09	45	eP	P	02 00 11.2	-0.2
	comp=Z,5.6nm,0.7s,mb4.5						
SSF	Saint Saulge	62.23	44	eP	P	02 00 12.1	-0.3
	comp=Z,9.0nm,0.6s,mb4.5						
SSF	Saint Saulge	62.23	44	eP	P	02 00 12.1	-0.3
SSF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
SSF	Saint Saulge	62.23	44	eP	P	02 00 12.1	-0.3
	comp=Z,4.5nm,0.6s,mb4.5						
SMF	Signal de Mont	62.40	45	eP	P	02 00 13.4	-0.1
	comp=Z,16nm,0.8s,mb4.6						
SMF	Signal de Mont	62.40	45	eP	P	02 00 13.4	-0.1
SMF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
SMF	Signal de Mont	62.40	45	eP	P	02 00 13.4	-0.1
	comp=Z,7.8nm,0.8s,mb4.6						
RPN	Rapa Nui	62.47	228	i P	P	02 00 15.2	+1.0
LOR	Lormes	62.50	44	eP	P	02 00 13.9	-0.2
	comp=Z,12nm,0.6s,mb4.6						
LOR	Lormes	62.50	44	eP	P	02 00 13.9	-0.2
LOR				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
LOR	Lormes	62.50	44	eP	P	02 00 13.9	-0.2
	comp=Z,6.1nm,0.6s,mb4.6						
RES	Resolute Bay	62.61	350	eP	P	02 00 13.8	-0.6
RES				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
RES	Resolute Bay	62.61	350	eP	P	02 00 13.8	-0.6
	comp=Z,2.7nm,0.8s,mb4.1						
VIVF	Saint-Julien-l	62.77	47	eP	P	02 00 16.8	+0.8
	comp=Z,18nm,1.0s,mb4.5						
VIVF	Saint-Julien-l	62.77	47	eP	P	02 00 16.8	+0.8
VIVF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
VIVF	Saint-Julien-l	62.77	47	eP	P	02 00 16.8	+0.8
	comp=Z,8.9nm,1.0s,mb4.5						
BAIF	Baives	63.14	41	eP	P	02 00 17.8	-0.5
UCC	Uccle	63.35	40	P	P	02 00 19.5	-0.2
	comp=Z,25nm,3.0s						
DOU	Dourbes	63.39	41	P	P	02 00 19.6	-0.3
	comp=Z,9.9nm,1.9s,mb4.3						
TAM	Tamanrasset	63.42	72	eP	P	02 00 21.8	+1.1
TAM				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.4						
TAM	Tamanrasset	63.42	72	eP	P	02 00 21.8	+1.1
	comp=Z,6.4nm,1.0s,mb4.4						
MEZF	Maizieres J'vi	63.46	43	eP	P	02 00 20.5	+0.1
	comp=Z,31nm,0.6s,mb5.0						
MEZF	Maizieres J'vi	63.46	43	eP	P	02 00 20.5	+0.1
	comp=Z,31nm,0.6s,mb5.3						
GIVF	Givet	63.54	41	eP	P	02 00 20.8	-0.1
	comp=Z,9.8nm,0.6s,mb4.5						
GIVF	Givet	63.54	41	eP	P	02 00 20.8	-0.1
GIVF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
GIVF	Givet	63.54	41	eP	P	02 00 20.8	-0.1
	comp=Z,4.9nm,0.6s,mb4.5						
ORIF	Oris-en-Rattie	63.62	47	eP	P	02 00 22.5	+0.9
BCLA	Clavier	63.89	41	P	P	02 00 23.1	-0.2
	comp=Z,12nm,2.1s,mb4.4						
CABF	La Chapelle	63.93	45	eP	P	02 00 23.6	0.0
FRF	La Foret Royal	64.07	49	eP	P	02 00 24.8	+0.3
BNI	Bardonecchia	64.20	47	eP	P	02 00 26.1	+0.7
BNI				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.7						
BNI	Bardonecchia	64.20	47	eP	P	02 00 26.1	+0.7
	comp=Z,15nm,1.2s,mb4.7						
MBDF	Montbardon	64.24	47	eP	P	02 00 26.4	+0.8
	comp=Z,7.1nm,0.7s,mb4.3						
MBDF	Montbardon	64.24	47	eP	P	02 00 26.4	+0.8
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
MBDF	Montbardon	64.24	47	eP	P	02 00 26.4	+0.8
	comp=Z,3.5nm,0.7s,mb4.3						
HAU	Haudompre	64.26	44	eP	P	02 00 25.2	-0.5
	comp=Z,5.8nm,0.6s,mb4.3						
HAU	Haudompre	64.26	44	eP	P	02 00 25.2	-0.5
HAU				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
HAU	Haudompre	64.26	44	eP	P	02 00 25.2	-0.5
	comp=Z,2.9nm,0.6s,mb4.3						
LPL	La Plagne	64.28	46	eP	P	02 00 26.9	+1.0
	comp=Z,23nm,0.9s,mb4.7						
LPL	La Plagne	64.28	46	eP	P	02 00 26.9	+1.0
LPL				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
LPL	La Plagne	64.28	46	eP	P	02 00 26.9	+1.0
	comp=Z,12nm,0.9s,mb4.7						
LPG	La Plagne	64.29	46	eP	P	02 00 27.1	+1.2
	comp=Z,12nm,0.7s,mb4.5						
LPG	La Plagne	64.29	46	eP	P	02 00 27.1	+1.2
LPG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
LPG	La Plagne	64.29	46	eP	P	02 00 27.1	+1.2
	comp=Z,5.9nm,0.7s,mb4.5						
WLF	Walferdange	64.33	42	P	P	02 00 26.6	+0.5
WLF	Walferdange	64.33	42	eP	P	02 00 25.5	-0.6
WLF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
WLF	Walferdange	64.33	42	eP	P	02 00 25.5	-0.6
	comp=Z,6.6nm,0.8s,mb4.5						
HINF	Hinteralfeld	64.58	44	eP	P	02 00 27.1	-0.7
	comp=Z,5.1nm,0.6s,mb4.2						
HINF	Hinteralfeld	64.58	44	eP	P	02 00 27.1	-0.7
HINF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
HINF	Hinteralfeld	64.58	44	eP	P	02 00 27.1	-0.7
	comp=Z,2.5nm,0.6s,mb4.2						
CDF	Champ du Feu	64.92	43	eP	P	02 00 29.6	-0.4
	comp=Z,6.3nm,0.6s,mb4.3						
CDF	Champ du Feu	64.92	43	eP	P	02 00 29.6	-0.4
CDF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
CDF	Champ du Feu	64.92	43	eP	P	02 00 29.6	-0.4
	comp=Z,3.2nm,0.6s,mb4.3						
KEST	Kesra	65.98	57	P	P	02 00 37.9	+0.9
	comp=Z,3.1nm,0.7s,mb4.2,baz=144,slow=1.4,SNR=14						
STU	Stuttgart	66.22	43	eP	P	02 00 37.8	-0.5
STU				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
STU	Stuttgart	66.22	43	eP	P	02 00 37.8	-0.5
	comp=Z,8.7nm,0.7s,mb4.7						
NB2	NORSAR Subarra	68.72	30	P	P	02 00 54.0	+0.3
	comp=Z,3.7nm,0.6s,mb4.3,baz=262,slow=6.5						
NOA	NORSAR Array B	68.72	30	P	P	02 00 54.2	+0.5
	comp=Z,6.0nm,0.7s,mb4.4,baz=262,slow=6.3,SNR=16						
CLL	Collm	68.83	40	⇑iP	P	02 00 54.7	+0.1
CLL				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.6						
CLL	Collm	68.83	40	⇑iP	P	02 00 54.7	+0.1
	comp=Z,10.0nm,1.2s,mb4.4						
KHC	Kasperske Hory	69.12	43	eP	P	02 00 56.8	+0.3
GERES	GERESS Array B	69.20	43	P	P	02 00 56.7	-0.2
	comp=Z,2.1nm,0.6s,mb4.0,baz=269,slow=5.0,SNR=23						
PRU	Pruhonice	69.77	42	eP	P	02 01 00.7	+0.3
UPC	Upice	70.72	41	eP	P	02 01 06.1	-0.1
DPC	Dobruska-Polom	70.92	41	eP	P	02 01 07.6	+0.2
VRAC	Vranov	71.10	43	⇑iP	P	02 01 08.6	+0.1
ZST	Bratislava	71.46	44	eP	P	02 01 11.1	+0.4
ZST				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
ZST	Bratislava	71.46	44	eP	P	02 01 11.1	+0.4
	comp=Z,4.4nm,0.8s,mb4.2						
DAWY	Dawson	71.48	333	eP	P	02 01 10.8	+0.3
MODS	Modra-Piesok	71.58	44	eP	P	02 01 11.8	+0.4
MODS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
MODS	Modra-Piesok	71.58	44	eP	P	02 01 11.8	+0.4
	comp=Z,3.8nm,0.9s,mb4.1						
SMOL	Smolenice	71.67	43	eP	P	02 01 12.4	+0.5
MORC	Moravsky Berou	71.71	42	eP	P	02 01 11.7	-0.4
MORC				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
MORC	Moravsky Berou	71.71	42	⇓iP	P	02 01 12.3	+0.2
MORC	Moravsky Berou	71.71	42	eP	P	02 01 11.7	-0.5
	comp=Z,2.9nm,0.7s,mb4.1						
EGAK	Eagle	72.30	334	eP	P	02 01 15.2	-0.1
	comp=Z,13nm,1.0s,mb4.6						
PKSM	Moragy	72.60	46	⇓iP	P	02 01 17.4	-0.1
VYHS	Vyhne	72.61	43	eP	P	02 01 17.7	+0.2
VYHS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
VYHS	Vyhne	72.61	43	eP	P	02 01 17.7	+0.2
	comp=Z,1.9nm,0.8s,mb3.9						
MENT	Mentasta	73.39	332	eP	P	02 01 22.6	+0.9
STHS	Stebnicka Huta	74.13	42	eP	P	02 01 27.7	+1.3
STHS				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.0						
STHS	Stebnicka Huta	74.13	42	eP	P	02 01 27.7	+1.3
	comp=Z,3.6nm,1.2s,mb4.0						
CRVS	Cervenica-Dubn	74.32	43	eP	P	02 01 28.6	+1.1
CRVS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.9						
CRVS	Cervenica-Dubn	74.32	43	eP	P	02 01 28.6	+1.1
	comp=Z,2.0nm,0.9s,mb3.9						
BZS	Buzias	74.72	46	⇑iP	P	02 01 29.9	0.0
KWP	Kalwaria Pacla	75.07	42	⇑iP	P	02 01 33.2	+1.4
TRPA	Tarpa	75.10	44	⇓iP	P	02 01 32.3	+0.3
ARCES	ARCESS Array B	75.13	21	P	P	02 01 31.8	0.0
	comp=Z,9.7nm,0.9s,mb4.4,baz=284,slow=4.9,SNR=8.3						
COLA	College	75.16	334	eP	P	02 01 32.0	0.0
COLA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
COLA	College	75.16	334	eP	P	02 01 32.0	0.0
	comp=Z,3.8nm,0.7s,mb4.1						
DRGR		75.35	45	⇑iP	P	02 01 33.5	0.0
MCK	McKinley	75.70	333	eP	P	02 01 35.0	-0.1
MCK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
MCK	McKinley	75.70	333	eP	P	02 01 35.0	-0.2
	comp=Z,9.9nm,0.9s,mb4.4						
BURAR	Bucovina Array	76.95	44	⇑iP	P	02 01 43.3	+0.8
MLR	Muntele Rosu	77.75	46	P	P	02 01 46.5	-0.5
	comp=Z,3.6nm,0.7s,mb4.1,baz=81,slow=13,SNR=2.4						
KDAK	Kodiak Island	78.19	327	i P	P	02 01 49.9	+0.8
AKASG	Malin Array Be	79.08	40	P	P	02 01 53.8	-0.4
	comp=Z,0.5nm,0.5s,mb3.5,baz=257,slow=5.5,SNR=6.5						
KLMR	Klimovskoe	82.40	29	eP	P	02 02 08.9	-2.7
KLMR				pmax	pmax		
	comp=Z,31nm,1.6s,mb4.7						
OBN	Obninsk	82.46	35	⇑eP	P	02 02 12.6	+0.6
OBN				pmax	pmax		
	comp=Z,25nm,1.2s,mb4.7						
BRTR	Keskin Array B	84.48	51	P	P	02 02 22.7	+0.1
	comp=Z,4.5nm,0.9s,mb4.2,baz=266,slow=5.2,SNR=10						
PRGR	Permogore	84.93	27	eP	P	02 02 21.7	-2.7
PRGR				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.8						
VSR	Storozhevoye	85.06	38	eP	P	02 02 25.1	-0.2
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
VSR				pmax	pmax		
	comp=N,3.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,5.0nm,0.5s						
ANN	Anapa	85.83	45	eP	P	02 02 27.0	-2.2
ANN				e*PP	pP	02 03 12.0	+1.0
ANN				e		02 05 44.6	
ANN				ePPP		02 07 44.7	
ANN				eS	SKSac	02 12 33.0	-6.2
ANN				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.0						
MMAI	Mount Meron Ar	87.63	57	P	P	02 02 39.0	+0.8
	comp=Z,0.8nm,0.5s,mb3.8,baz=350,slow=4.3,SNR=3.8						
EIL	Elat	88.17	60	P	P	02 02 39.9	-0.9
	comp=Z,2.5nm,0.6s,mb4.2,baz=39,slow=13,SNR=3.4						
EIL	Elat	88.17	60	P	P	02 02 39.9	-0.9
MALT	Malatya	88.45	51	eP	P	02 02 42.3	+0.3
MALT				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
MALT	Malatya	88.45	51	⇓iP	P	02 02 42.7	+0.7
MALT	Malatya	88.45	51	eP	P	02 02 42.3	+0.3
	comp=Z,3.9nm,0.8s,mb4.3						
KIV	Kislovodsk	89.67	44	eP	P	02 02 48.6	+1.1
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
BILL	Bilibino	90.50	344	⇑eP	P	02 02 51.2	+0.3
BILL				e		02 06 29.2	
BILL				eS	SKSac	02 13 04.0	-2.2
BILL				eSS	SS	02 19 37.3	+2.2
BILL				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
TIXI	Tiksi	93.42	357	⇑eP	P	02 03 03.3	-1.1
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.3						
AKTK	Aktyubinsk	96.21	34	P	P	02 03 17.7	+0.2
AKTO	Aktyubinsk	96.21	34	P	P	02 03 17.7	+0.2
	comp=Z,1.0nm,0.6s,mb4.3,baz=9.5,slow=6.1,SNR=3.8						
SEY	Seymchan	98.11	345	eP	P	02 03 25.4	-0.4
WMQ	Urumqi	115.15	24	ePKP	PKPdf	02 08 30.0	0.0
HABR	Khabarovsk	115.27	348	eP	Pdif	02 04 40.0	-2.3
HABR				e		02 09 31.2	
HABR				e		02 15 22.1	
HABR				ePS	PS	02 19 13.6	-0.8
HABR				SS	SS	02 25 14.9	-0.5
HABR				MLR	MLR		
	comp=Z,62nm,25.0s						
HHC	Hu-ho-hao-te	124.20	6	ePKP	PKPdf	02 08 45.8	-1.7
HHC				sPKP		02 09 44.8	
HHC				PP	PP	02 10 36.5	+3.5
HHC				PKS		02 12 20.9	
HHC				SKS	SKSdf	02 15 39.9	-3.9
HHC				SKKS	SKKSac	02 17 11.1	-5.1
HHC				AMB	AMB		
	comp=Z,140nm,6.6s						
HHC				LR	LR		
	comp=N,160nm,15.5s						
HHC				LR	LR		
	comp=E,150nm,16.7s						
HHC				LR	LR		
	comp=Z,120nm,13.1s						
BJI	Beijing	125.34	2	PKP	PKPdf	02 08 47.8	-1.9
BJI				sPKP		02 09 49.9	
BJI				LR	LR		
	comp=N,190nm,15.3s						
BJI				LR	LR		
	comp=E,170nm,14.9s						
BJI				LR	LR		
	comp=Z,26nm,18.9s						
LZH	Lanzhou	127.46	15	ePKP	PKPdf	02 08 54.5	+0.6
LZH				sPKP		02 09 52.0	
CD2	Chengdu	132.32	17	PKP	PKPdf	02 09 01.3	-2.0
GYA	Guiyang	137.34	16	ePdif	Pdif	02 06 17.8	-2.6
GYA				PKP	PKPdf	02 09 09.4	-3.3
GYA				sPKP		02 10 12.3	
GYA				PP	PP	02 12 01.3	+3.3
GYA				AMB	AMB		
	comp=Z,80nm,7.6s						
KMI	Kunming	137.37	21	PKP	PKPdf	02 09 08.3	-4.5
ASAR	Alice Springs	163.08	236	PKPab	PKPab	02 10 41.0	-1.3
	comp=Z,0.4nm,0.4s,baz=118,slow=4.4,SNR=10.0						
WRA	Warramunga Arr	164.12	249	PKPab	PKPab	02 10 46.8	-0.2
	comp=Z,1.2nm,0.6s,baz=99,slow=4.2,SNR=16						

IDC **17** *01:50:43.7±11.0, 36°.02N×71°.50E, $h88^{km}\pm103^{km}$, mb3.5/3, mb1 3.6/7, mb1mx3.2/27, mbtmp3.6/7, ML3.7/4, Error ellipse: s-maj=74.1km s-min=50.9km az=159.0*

ISCJB **17** *01:50:45.9±0.5, 36°.32N±0°.03×71°.59E±0°.05, $h111^{km}\pm9^{km}$, mb3.6/2, Error ellipse: s-maj=7.4km s-min=4.4km az=169.4*

NEIC **17** *01:50:47.6±0.5, 36°.24N×71°.56E, $h121^{km}\pm6^{km}$, mb4.3/4, Error ellipse: s-maj=6.5km s-min=3.9km az=67.0*

NNC **17** *01:50:56.2±8.5, 37°.05N×70°.91E, $h114^{km}\pm142^{km}$, mb3.6, mpv4.5, Error ellipse: s-maj=67.3km s-min=44.0km az=14.0*

ISC 17 01:50:46.9±0.5**, 36°.29N**±0°.03×**71°.62E**±0°.06**, $h104^{km}\pm8^{km}$, n44,** $\sigma1^{s}.36$/60**, mb3.6**/2**, 2C-5D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.73	231	ePn	Pn	01 51 30.3	+1.2
KBL				eSn	Sn	01 52 01.6	0.0
KSH	Kashi	4.72	46	Pn	Pn	01 51 54.1	-1.7
KSH				Sn	Sn	01 52 40.8	-8.5
KSH				smax			
	comp=N,600nm,0.7s						
KSH				smax			
	comp=E,500nm,0.4s						
THN	Thein Dam	5.13	137	ePKP	Pn	01 52 04.0	+2.7
THN				eS	Sn	01 53 02.1	+2.8
AML	Almayashu	6.05	15	P	Pn	01 52 15.8	+1.9
	SNR=47						
AML	Almayashu	6.05	15	ePn	Pn	01 52 15.6	+1.7
	comp=E,25nm,0.4s						
AML				eSn	Sn	01 53 20.9	-0.8
UCH	Uchtor	6.34	20	P	Pn	01 52 20.3	+2.6
	SNR=5.5						
UCH	Uchtor	6.34	20	ePn	Pn	01 52 19.8	+2.0
	comp=E,8.6nm,0.8s						
UCH				eSn	Sn	01 53 24.6	-4.1
SDNR	Sundarnagar	6.53	135	ePKP	Pn	01 52 18.0	-2.3
SDNR				ex	x	01 53 33.0	
EKS2	Erkin-Say	6.58	14	P	Pn	01 52 22.8	+1.7
	SNR=10						
EKS2	Erkin-Say	6.58	14	ePn	Pn	01 52 22.3	+1.3
	comp=E,8.6nm,0.7s						
EKS2				eSn	Sn	01 53 33.3	-1.2
AAK	Ala-Archa	6.72	18	P	Pn	01 52 25.1	+2.2
	SNR=11						
AAK	Ala-Archa	6.72	18	ePn	Pn	01 52 24.6	+1.8
	comp=E,7.8nm,0.6s						
AAK				eSn	Sn	01 53 35.8	-2.0
KK31	Karatay Array	6.86	353	P	Pn	01 52 24.9	+0.1
	comp=E,44nm,0.4s,baz=179,slow=13,SNR=1962						
KK31				⇓S	Sn	01 53 33.0	-8.3
	comp=E,7.5nm,0.3s,baz=181,slow=22,SNR=8.3						
KLP	Kalpa	7.27	129	ePKP	Pn	01 52 29.6	-0.8
KLP				eS	Sn	01 53 47.6	-3.8
KLP				AML	AML	01 53 58.1	
	comp=E,100nm,0.8s						
KLP				AML	AML	01 53 59.1	
	comp=N,203nm,0.7s						
TKM2	Tokmak 2	7.30	24	⇓P	Pn	01 52 32.9	+2.1
	comp=N,7.2nm,0.6s						
TKM2				⇑S	Sn	01 53 50.5	-1.5
	comp=N,5.3nm,0.8s						
TKM2	Tokmak 2	7.30	24	P	Pn	01 52 33.1	+2.3
	SNR=13						
TKM2	Tokmak 2	7.30	24	ePn	Pn	01 52 32.7	+1.9
	comp=N,11nm,0.8s						
USP	Ospenovka	7.32	17	P	Pn	01 52 32.6	+1.6
	SNR=8.9						
JOSI	Joshimath	8.76	128	ePKP	Pn	01 52 48.1	-2.6
JOSI				eS	Sn	01 54 19.8	-7.7
KHET	Khetri	8.92	155	ePKP	Pn	01 52 51.6	-1.4
KHET				eS	Sn	01 54 23.7	-7.9
SONA	Sohna	9.25	148	ePKP	Pn	01 52 55.0	-2.4
SONA				eS	Sn	01 54 31.9	-7.7
DANN	Dangsing	12.96	124	eP	Pn	01 53 47.6	+0.6
MKAR	Makanchi Array	13.18	34	P	Pn	01 53 51.4	+1.5
	comp=N,0.0nm,0.3s,baz=221,slow=17,SNR=3.3						
GKN	Gorkha	13.77	123	eP	Pn	01 53 58.4	+0.7
	comp=N,20nm,0.4s						
DMN	Daman	14.34	123	eP	Pn	01 54 05.5	+0.5
KKN	Kakani	14.34	122	eP	Pn	01 54 05.7	+0.7
	comp=N,8.2nm,0.5s						
PKIN	Phulchoki	14.56	123	eP	Pn	01 54 07.9	+0.1
PKI	Pulchoki	14.57	123	eP	Pn	01 54 08.5	+0.6
JIRN	Jiri	15.05	121	eP	Pn	01 54 14.1	+0.1
	comp=N,14nm,0.4s						
KURK	Kurchatov	15.28	17	P	Pn	01 54 17.6	+0.9
	comp=N,0.1nm,0.3s,baz=206,slow=10,SNR=6.6						
AB01	Akbulak array	15.51	330	⇑P	Pn	01 54 16.7	-3.0
	comp=N,2.7nm,0.5s						
AB01				⇓S	S	01 56 54.1	-26

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=N,2.8nm,0.6s						
RAMN	Ramite	15.78	122	*e*P	Pn	01 54 22.7	-0.5
TAPN	Taplejung	16.31	119	*e*P	Pn	01 54 30.3	+0.6
	comp=N,14nm,0.7s						
ODAN	Odare	16.38	121	*e*P	Pn	01 54 31.0	+0.3
BVAR	Borovoye Array	16.76	357	P	Pn	01 54 35.0	-0.1
	comp=N,0.4nm,0.3s,baz=161,slow=11,SNR=14						
AKTK	Aktyubinsk	17.21	329	P	Pn	01 54 40.4	-0.3
AKTK				S	S	01 57 41.2	-11
AKTO	Aktyubinsk	17.21	329	⇓P	Pn	01 54 40.0	-0.6
	comp=N,0.8nm,0.6s						
AKTO				⇓S	S	01 57 38.1	-14
	comp=N,0.3nm,0.5s						
AKTO	Aktyubinsk	17.21	329	P	Pn	01 54 40.4	-0.3
	comp=N,1.1nm,0.3s,baz=131,slow=12,SNR=18						
AKTO				S	S	01 57 41.2	-11
	comp=N,0.1nm,0.3s,baz=169,slow=19,SNR=4.7						
ZAA0	Zalesovo Array	19.91	23	*e*P	P	01 55 10.4	+0.5
ZALV	Zalesovo Beam	19.91	23	P	P	01 55 10.8	+0.8
	comp=N,4.2nm,0.3s,baz=205,slow=10,SNR=39						
ZALV	Zalesovo Beam	19.91	23	P	P	01 55 10.8	+0.8
NB2	NORSAR Subarra	44.85	323	P	P	01 58 50.6	+0.3
	comp=Z,0.9nm,0.6s,mb3.7,baz=98,slow=7.9						
NOA	NORSAR Array B	44.85	323	P	P	01 58 50.2	-0.1
	comp=Z,1.8nm,1.0s,mb3.8,baz=103,slow=7.4,SNR=3.9						
TORD	Torodi Ar. Bea	66.21	269	P	P	02 01 21.8	-2.1
	comp=Z,0.4nm,0.5s,mb3.5,baz=53,slow=5.4,SNR=11						

NDI 17 01:51:09.3±1.2, 28.°59N×76.°23E, h15^{km}±22^{km}, ML2.6, Northern India

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KHET	Khetri	0.64	216	*e*PKP	Pg	01 51 22.0	+0.2
KHET				*e*S	Sg	01 51 31.0	+0.8
SONA	Sohna	0.82	114	*e*PKP	Pb	01 51 24.7	-0.7
SONA				*e*S	Sg	01 51 36.8	+0.6
SONA				AML	AML	01 51 43.0	
	comp=N,57nm,0.3s						
SONA				AML	AML	01 51 43.1	
	comp=E,117nm,0.3s						
NDI	New Delhi	0.87	84	*e*PKP	Pb	01 51 22.0	-4.1
NDI				*e*S	Sb	01 51 35.0	-2.6
DDI	Dehra Dun	2.35	42	*e*x	Sn	01 52 15.5	-0.3
DDI	Dehra Dun	2.35	42	*e*S	Sn	01 52 15.5	-0.3
KLP	Kalpa	3.41	30	*e*S	Sn	01 52 41.8	-0.4
KLP				AML	AML	01 52 52.2	
	comp=N,45nm,0.7s						
KLP				AML	AML	01 52 55.2	
	comp=E,52nm,0.5s						

ISCJB 17 02:12:15.3±0.6, 33.°33N±0.°03×35.°39E±0.°05, h6^{km}±5^{km}, Error ellipse: s-maj=7.2km s-min=4.0km az=27.0
CSEM 17 02:12:15.4±0.2, 33.°34N×35.°38E, h2^{km}, ML2.9, Error ellipse: s-maj=6.7km s-min=2.7km az=99.0
GII 17 02:12:15.7±0.4, 33.°24N×35.°41E, h1^{km}±1^{km}, Md2.0/7
GRAL 17 02:12:16.3±0.4, 33.°34N×35.°39E, h0^{km}±140^{km}, MD2.9
ISC 17 02:12:15.7±0.6, 33.°34N±0.°03×35.°39E±0.°05, h6^{km}±6^{km}, n21, σ0.s49/31, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATL	Matirih	0.15	341	*e*P	Pg	02 12 19.1	+0.3
MATL	Matirih	0.15	341	*e*P	Pg	02 12 19.1	+0.3
KSDI	Kefar Szold	0.27	124	Pg	Pg	02 12 21.0	0.0
KSDI				Sg	Sg	02 12 25.0	+0.4
HNTI	Hanita	0.32	215	Pg	Pg	02 12 21.7	-0.1
HNTI				Sg	Sg	02 12 26.9	+1.0
MMA0	Mount Meron ar	0.33	178	Pg	Pg	02 12 21.7	-0.3
MMA0				Sg	Sg	02 12 26.4	+0.1
MMA4	Mount Meron ar	0.33	179	Pg	Pg	02 12 21.8	-0.2
RCY	Rachaya	0.39	69	*e*P	Pg	02 12 23.4	+0.3
RCY				*e*S	Sg	02 12 28.9	+0.6
RCY	Rachaya	0.39	69	*e*P	Pg	02 12 23.4	+0.2
RCY				*e*S	Sg	02 12 28.9	+0.7
BHL	Bhannes	0.60	22	*e*P	Pg	02 12 27.1	-0.1
BHL	Bhannes	0.60	22	*e*P	Pg	02 12 27.1	-0.1
BLGI	Bet Lehem HaGe	0.63	195	Pg	Pg	02 12 27.6	-0.2
OFRI	‘Ofer	0.80	205	Pg	Pg	02 12 30.6	-0.4
OFRI				Sg	Sg	02 12 42.5	+1.2
MMLI	Mount Malkishu	0.90	178	Pg	Pg	02 12 32.5	-0.5
MMLI				Sg	Sg	02 12 44.4	-0.3
HWQ	Hawqa	1.04	26	*e*P	Pg	02 12 35.2	-0.4
HWQ	Hawqa	1.04	26	*e*P	Pg	02 12 35.2	-0.5
HMDT	Nahal Hemdat	1.09	174	Pg	Pg	02 12 35.7	-1.0
HMDT				Sg	Sg	02 12 50.8	0.0
SLTI	Sal’it	1.14	195	Pg	Pg	02 12 36.7	-0.8
SLTI				Sg	Sg	02 12 52.3	0.0
DSI	Dead Sea	1.77	180	Pn	Pn	02 12 46.3	-0.5
DSI				Sn	Sn	02 13 10.1	+0.4
MZDA	Masada	2.03	181	Pn	Pn	02 12 50.4	0.0
RTMI	Retamim	2.36	195	Pn	Pn	02 12 55.2	+0.2
PRNI	Paran	3.00	186	Pn	Pn	02 13 04.2	+0.4

ISCJB 17 02:16:37.0±0.6, 33.°34N±0.°03×35.°38E±0.°05, h5^{km}±5^{km}, Error ellipse: s-maj=7.3km s-min=4.2km az=23.6
CSEM 17 02:16:36.8±0.3, 33.°36N×35.°33E, h2^{km}, ML3.1, Error ellipse: s-maj=9.5km s-min=3.8km az=100.0
GRAL 17 02:16:36.3±0.3, 33.°28N×35.°32E, h7^{km}±3^{km}, MD3.0
GII 17 02:16:37.3±0.5, 33.°25N×35.°43E, h1^{km}±1^{km}, Md2.1/8
ISC 17 02:16:37.3±0.6, 33.°35N±0.°03×35.°38E±0.°05, h4^{km}±5^{km}, n20, σ0.s64/29, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATL	Matirih	0.14	343	*e*P	Pg	02 16 40.2	+0.1
MATL	Matirih	0.14	343	*e*P	Pg	02 16 40.2	0.0
KSDI	Kefar Szold	0.28	124	Pg	Pg	02 16 42.1	-0.7
KSDI				Sg	Sg	02 16 46.4	-0.2
HNTI	Hanita	0.32	212	Pg	Pg	02 16 44.0	+0.5
HNTI				Sg	Sg	02 16 48.8	+1.1
MMA0	Mount Meron ar	0.34	177	Pg	Pg	02 16 43.3	-0.6
MMA0				Sg	Sg	02 16 48.4	+0.1
RCY	Rachaya	0.39	70	*e*P	Pg	02 16 45.3	+0.4
RCY				*e*S	Sg	02 16 51.6	+1.7
RCY	Rachaya	0.39	70	*e*P	Pg	02 16 45.3	+0.4
RCY				*e*S	Sg	02 16 51.6	+1.6
BHL	Bhannes	0.59	23	*e*P	Pg	02 16 48.8	0.0
BHL	Bhannes	0.59	23	*e*P	Pg	02 16 48.8	0.0
BLGI	Bet Lehem HaGe	0.64	194	Pg	Pg	02 16 49.8	+0.2
OFRI	‘Ofer	0.80	204	Pg	Pg	02 16 52.8	+0.1
MMLI	Mount Malkishu	0.91	178	Pg	Pg	02 16 54.1	-0.8
MMLI				Sg	Sg	02 17 06.8	+0.1
HWQ	Hawqa	1.04	27	*e*P	Pg	02 16 56.2	-1.0
HWQ	Hawqa	1.04	27	*e*P	Pg	02 16 56.2	-1.0
HMDT	Nahal Hemdat	1.10	174	Pg	Pg	02 16 57.4	-1.1
HMDT				Sg	Sg	02 17 13.0	+0.2
SLTI	Sal’it	1.15	194	Pg	Pg	02 16 58.8	-0.5
SLTI				Sg	Sg	02 17 14.4	+0.2
DSI	Dead Sea	1.78	180	Pn	Pn	02 17 08.4	-0.4
DSI				Sn	Sn	02 17 31.3	-0.5
YTIR	Yattir	2.00	186	Pn	Pn	02 17 12.4	+0.6
MZDA	Masada	2.04	180	Sn	Sn	02 17 39.0	+0.8
RTMI	Retamim	2.37	194	Pn	Pn	02 17 16.8	-0.1

IDC 17 02:16:49.1±1.2, 22.°88N×142.°54E, h0^{km}, mb3.6/6, mb1 3.9/6, mb1mx3.7/22, mbtmp3.6/6, MS3.3/3, Ms1 3.4/3, ms1mx3.0/30, Error ellipse: s-maj=51.0km s-min=21.7km az=83.0, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOW	Kunigami	13.54	290	LR	LR	02 24 18.3	
	comp=Z,202nm,20.6s,baz=286,slow=33						
KSRS	Korea Array	19.22	322	LR	LR	02 27 41.3	
	comp=Z,85nm,19.8s,baz=135,slow=34						
CMAR	Chiang Mai Arr	40.92	272	LR	LR	02 40 45.0	
	comp=Z,34nm,19.6s,baz=85,slow=35						
WRA	Warramunga Arr	43.30	191	P	P	02 24 53.1	+0.2
	5.7nm,0.9s,baz=12,slow=8.5,SNR=17						
ASAR	Alice Springs	47.02	191	P	P	02 25 22.0	-0.3
	0.9nm,0.6s,baz=15,slow=11,SNR=13						
MKAR	Makanchi Array	53.47	312	P	P	02 26 12.0	+0.9
	0.1nm,0.4s,baz=98,slow=7.9,SNR=2.0						
KURK	Kurchatov	56.21	317	P	P	02 26 31.4	+0.5
	0.3nm,0.5s,baz=92,slow=7.5,SNR=3.2						
BVAR	Borovoye Array	61.39	319	P	P	02 27 06.3	-0.6
	0.3nm,0.4s,baz=93,slow=9.0,SNR=2.7						
YKA	Yellowknife Ar	75.70	28	P	P	02 28 36.2	+0.1
	0.1nm,0.4s,baz=295,slow=5.1,SNR=4.6						

IDC 17 02:32:44.3±49.0, 30.°14S×176.°67W, h0^{km}, mb3.9/3, mb1 4.1/3, mb1mx3.8/15, mbtmp3.9/3, Error ellipse: s-maj=910.5km s-min=194.3km az=98.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	35.66	256	P	P	02 39 44.2	0.0
	1.3nm,0.5s,baz=103,slow=12,SNR=4.5						
ASAR	Alice Springs	44.28	266	P	P	02 40 55.5	-0.4
	0.5nm,0.4s,baz=102,slow=7.2,SNR=8.8						
WRA	Warramunga Arr	45.24	271	P	P	02 41 03.9	+0.2
	0.5nm,0.3s,baz=111,slow=8.1,SNR=8.6						

JMA 17 02:37:32.6±0.3, 43.°18N×147.°10E, h36^{km}, M3.6, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.01	281	P	Pn	02 37 50.6	+0.4
NEM2				*e*S	Sn	02 38 03.7	+0.5
JRA	Rausu	1.62	298	P	Pn	02 37 59.7	+1.0
JRA				*e*S	Sn	02 38 19.1	+0.7
JAK	Akkeshi	1.77	265	P	Pn	02 38 01.8	+1.1
JNK	Nakash	1.78	284	P	Pn	02 38 01.5	+0.6
JNK				*e*S	Sn	02 38 22.0	-0.3
JAR	Ashorobuto	2.44	274	P	Pn	02 38 11.5	+1.7
JTKR	Abashiri--Toko	2.45	290	P	Pn	02 38 12.0	+2.0
JCH	Churui	2.80	260	P	Pn	02 38 16.8	+1.9
JMP	Maruseppu	2.84	288	P	Pn	02 38 17.5	+2.1
JNBK	Urakawa-nobuka	3.33	256	P	Pn	02 38 23.7	+1.6

ISCJB 17 02:47:57.3±0.8, 53.°56N±0.°08×165.°37W±0.°07, h53^{km}±7^{km}, mb4.0/14, Error ellipse: s-maj=13.6km s-min=5.4km az=159.7
NEIC 17 02:47:57.1, 53.°52N×165.°41W, h23^{km}, ML3.6(AEIC), ML4.1(PMR), After AEIC.
IDC 17 02:47:57.8±4.8, 53.°75N×165.°53W, h37^{km}±39^{km}, mb3.7/12, mb1 4.0/13, mb1mx3.7/26, mbtmp3.7/13, ML3.5/1, Error ellipse: s-maj=35.2km s-min=15.9km az=7.0
ISC 17 02:47:58.5±0.8, 53.°57N±0.°07×165.°42W±0.°07, h47^{km}±7^{km}, n26, σ0.s85/34, mb4.0/14, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AKUT	Akutan	0.60	340	P	Pn	02 48 10.0	-0.8
AKUT				S	Sn	02 48 20.1	+0.5
AKLV	Akutan Long Va	0.67	332	P	Pn	02 48 10.8	-0.9
AKLV				S	Sn	02 48 21.9	+0.7
AKGG	Akutan Green G	0.71	332	P	Pn	02 48 11.6	-0.7
AKGG				S	Sn	02 48 23.0	+0.8
OKFG	Magazine Ridge	1.50	265	P	Pn	02 48 22.5	-0.4
OKFG				S	Sn	02 48 42.6	+1.4
FALS	False Pass	1.74	42	P	Pn	02 48 25.8	-0.4
FALS				S	Sn	02 48 47.5	+0.3
NIKO	Nikolski	2.15	255	P	Pn	02 48 31.4	-0.4
NIKO				S	Sn	02 48 57.0	-0.2
SDPT	Sand Point	3.39	56	P	Pn	02 48 48.7	-0.1
SDPT				S	Sn	02 49 28.6	+1.0
CHGN	Chignik	4.88	53	*e*P	Pn	02 49 07.8	-1.3
KDAK	Kodiak Island	8.38	55	Pn	Pn	02 49 56.5	-0.7
	0.6nm,0.3s,baz=73,slow=21,SNR=6.3						
KDAK				Sn	Sn	02 51 25.6	-4.8
	0.4nm,0.3s,baz=294,slow=18,SNR=2.7						
PETK	Petropavlovsk-	21.88	284	P	P	02 52 46.9	-0.1
	1.7nm,0.6s,mb3.7,baz=83,slow=13,SNR=11						
PETK	Petropavlovsk-	21.88	284	P	P	02 52 46.9	-0.1
YKA	Yellowknife Ar	27.64	51	P	P	02 53 41.9	+0.7
	1.3nm,0.6s,mb3.7,baz=274,slow=9.7,SNR=14						
YKA	Yellowknife Ar	27.64	51	P	P	02 53 41.9	+0.7
NVAR	Mina Array Bea	35.35	96	P	P	02 54 50.8	+1.6
	0.9nm,0.8s,mb3.8,baz=301,slow=7.6,SNR=6.5						
PDAR	Pinedale Array	37.86	83	P	P	02 55 11.0	+0.6
	0.6nm,0.9s,mb3.3,baz=318,slow=4.2,SNR=4.8						
MDJ	Mudanjiang	42.11	285	P	P	02 55 46.5	+0.8
MDJ				pmax	pmax		
	comp=Z,8.0nm,1.8s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,97nm,4.4s						
TXAR	Lajitas Array	50.38	93	P	P	02 56 51.1	+0.3
	comp=Z,1.2nm,0.8s,mb4.0,baz=304,slow=6.0,SNR=10						
SONM	Songino Array	52.71	302	P	P	02 57 06.9	-1.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=54,slow=7.5,SNR=4.1						
SONM				PcP	PcP	02 58 17.3	+0.2
	comp=Z,0.2nm,0.3s,baz=35,slow=5.3,SNR=3.5						
MKAR	Makanchi Array	64.67	315	P	P	02 58 29.8	-1.3
	comp=Z,0.6nm,0.7s,mb3.7,baz=54,slow=6.2,SNR=7.4						
NOA	NORSAR Array B	65.70	2	P	P	02 58 37.0	-0.5
	comp=Z,1.1nm,0.8s,mb3.9,baz=359,slow=6.0,SNR=3.8						
GYA	Guiyang	67.97	285	*e*P	P	02 58 54.3	+1.8
GYA				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
AKASG	Malin Array Be	75.37	350	P	P	02 59 35.0	-1.6
	comp=Z,2.3nm,0.5s,mb4.4,baz=15,slow=6.1,SNR=7.0						
GERES	GERESS Array B	77.95	1	P	P	02 59 51.5	+0.3
	comp=Z,0.4nm,0.6s,mb3.5,baz=350,slow=4.5,SNR=4.5						
CMAR	Chiang Mai Arr	78.64	286	P	P	02 59 54.9	-0.6
	comp=Z,1.3nm,0.3s,mb4.3,baz=35,slow=5.2,SNR=6.6						
BRTR	Keskin Array B	85.63	345	P	P	03 00 31.9	+0.2
	comp=Z,1.4nm,0.8s,mb4.2,baz=0.0,slow=2.2,SNR=3.5						
BRTR	Keskin Array B	85.63	345	P	P	03 00 31.9	+0.2

CSEM 17 03:03:13.4, 36.°34N×21.°42E, h37^{km}, MD3.1, After ATH
ATH 17 03:03:13.4, 36.°34N×21.°42E, h37^{km}±2^{km}, MD3.1/5, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.61	25	*e*PN	Pn	03 03 26.3	+0.7
PYL				*e*SN	Sn	03 03 35.3	+1.1
PYL	PYLOS	0.61	25	*e*Pn	Pn	03 03 26.3	+0.7
PYL				*e*Sn	Sn	03 03 35.3	+1.1
ITM	Ithomi	0.93	26	*e*PN	Pn	03 03 31.4	+1.4
ITM				*e*SN	Sn	03 03 45.0	+2.9
ITM	Ithomi	0.93	26	*e*Pn	Pn	03 03 31.4	+1.4
ITM				*e*Sn	Sn	03 03 45.0	+2.9
VLX	Vlachokerasia	1.28	37	*e*PN	Pn	03 03 36.4	+1.6
VLX				*e*SN	Sn	03 03 53.6	+2.8
VLX	Vlachokerasia	1.28	37	*e*Pn	Pn	03 03 36.4	+1.6
VLX				*e*Sn	Sn	03 03 53.6	+2.8
KYTH	Kithira	1.31	92	*e*PN	Pn	03 03 37.0	+1.9
KYTH	Kithira	1.31	92	*e*Pn	Pn	03 03 37.0	+1.9
DID	Didima	1.86	51	*e*PN	Pn	03 03 44.4	+1.6
DID	Didima	1.86	51	*e*Pn	Pn	03 03 44.4	+1.6

NEIC 17 03:13:01.7±0.5, 5.°47S×154.°33E, mb4.1/3, Error ellipse: s-maj=16.7km s-min=10.7km az=82.0
IDC 17 03:13:01.9±1.0, 5.°51S×154.°31E, h118^{km}±7^{km}, mb3.8/12, mb1 3.9/12, mb1mx3.9/18, mbtmp3.8/12, Error ellipse: s-maj=25.2km s-min=14.2km az=79.0
ISCJB 17 03:13:08.2±5.9, 5.°6S±0.°1×154.°2E±0.°2, h190^{km}±54^{km}, mb4.0/16, Error ellipse: s-maj=31.0km s-min=18.1km az=143.4
ISC 17 03:13:09.7±5.7, 5.°6S±0.°1×154.°3E±0.°2, h189^{km}±53^{km}, n21, σ0.s63/20, mb4.0/16, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	16.36	208	P	Pn	03 16 49.4	+0.4
	0.4nm,0.3s,baz=11,slow=16,SNR=4.2						
WRAB	Tennant Creek	24.03	232	*e*P	P	03 18 06.9	-0.6
	2.7nm,0.6s,mb4.0						
WRA	Warramunga Arr	24.04	232	P	P	03 18 07.5	-0.1
	1.3nm,0.5s,mb3.7,baz=56,slow=9.6,SNR=5.9						
ASAR	Alice Springs	26.58	225	P	P	03 18 29.9	-0.5
	0.6nm,0.4s,mb3.6,baz=53,slow=9.0,SNR=12						
ASAR				pP	pP	03 18 54.4	-15
	1.3nm,0.8s,baz=56,slow=8.9,SNR=5.3						
ASAR				PcP	PcP	03 21 50.3	+0.4
	0.6nm,0.7s,baz=62,slow=2.6,SNR=5.4						
STKA	Stephens Creek	28.70	203	P	P	03 18 49.0	-0.3
	1.0nm,0.4s,mb3.9,baz=32,slow=12,SNR=3.3						
URZ	Urewera	38.58	151	P	P	03 20 13.6	-0.7
	7.4nm,0.9s,mb4.3,baz=243,slow=2.3,SNR=3.2						
RPZ	Rata Peaks	40.74	161	P	P	03 20 32.7	+0.7
	16nm,1.0s,mb4.6,baz=346,slow=8.3,SNR=4.4						
RPZ	Rata Peaks	40.74	161	P	P	03 20 32.7	+0.7
KSRS	Korea Array	49.37	332	P	P	03 21 39.6	-0.5
	0.9nm,0.6s,mb3.6,baz=143,slow=8.5,SNR=3.5						
CMAR	Chiang Mai Arr	59.52	295	P	P	03 22 54.6	+1.0
	0.9nm,0.3s,mb4.0,baz=110,slow=5.1,SNR=6.5						
GTA	Gaotai	67.22	317	*e*P	P	03 23 45.1	+1.4
GTA				pP	pP	03 23 54.6	-34
GTA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
ULN	Ulaanbaatar	67.44	328	*e*P	P	03 23 44.4	-0.5
	comp=Z,1.6nm,0.6s,mb4.0						
SONM	Songino Array	67.77	327	P	P	03 23 47.5	+0.5
	comp=Z,1.2nm,0.4s,mb4.0,baz=143,slow=5.0,SNR=9.2						
VNDA	Vanda	71.99	178	P	P	03 24 13.0	+0.8
	comp=Z,2.4nm,0.7s,mb4.0,baz=338,slow=4.9,SNR=9.8						
VNDA	Vanda	71.99	178	P	P	03 24 13.0	+0.8
MK31	Makanchi Array	81.88	319	*e*P	P	03 25 08.0	+0.1
MKAR	Makanchi Array	81.88	319	P	P	03 25 07.9	0.0
	comp=Z,1.0nm,0.7s,mb3.6,baz=97,slow=6.2,SNR=10						
MKAR				pP	pP	03 25 39.4	-15
	comp=Z,0.4nm,0.7s,baz=92,slow=9.7,SNR=2.5						
ZALV	Zalesovo Beam	82.62	326	P	P	03 25 10.8	-0.9
	comp=Z,1.2nm,0.4s,mb4.0,baz=108,slow=5.6,SNR=9.0						
KURK	Kurchatov	85.28	322	*e*P	P	03 25 24.5	-0.7
	comp=Z,1.1nm,0.4s,mb3.9						
NVAR	Mina Array Bea	91.44	52	P	P	03 25 54.7	0.0
	comp=Z,0.4nm,0.8s,mb3.5,baz=238,slow=8.4,SNR=3.3						
TORD	Torodi Ar. Bea	151.92	287	PKPbc	PKPbc	03 32 42.2	-1.1
	comp=Z,0.4nm,0.5s,baz=64,slow=2.2,SNR=15						
TORD				pPKPbc	pPKPbc	03 33 15.6	-17
	comp=Z,0.6nm,0.8s,baz=100,slow=2.0,SNR=2.9						

ISCJB 17 03:21:55.4±2.0, 23.°84S±0.°09×179.°9W±0.°1, h493^{km}±32^{km}, mb3.9/9, Error ellipse: s-maj=18.0km s-min=13.0km az=29.7
NEIC 17 03:21:56.5±1.2, 23.°82S×179.°82W, h498^{km}±18^{km}, mb4.3/3, Error ellipse: s-maj=14.7km s-min=10.5km az=155.0
IDC 17 03:21:56.1±2.5, 23.°88S×179.°81W, h487^{km}±35^{km}, mb3.5/7, mb1 3.6/10, mb1mx3.4/20, mbtmp3.5/10, Error ellipse: s-maj=20.2km s-min=15.0km az=177.0
ISC 17 03:21:55.8±1.6, 23.°9S±0.°1×179.°8W±0.°1, h485^{km}±26^{km}, n14, σ0.s96/15, mb3.9/9, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	12.52	39	P	P	03 24 39.6	-0.5
	4.9nm,0.3s,baz=150,slow=8.1,SNR=3.5						
AFI				S	S	03 26 44.6	-11
	1.0nm,0.3s,baz=288,slow=20,SNR=3.0						
URZ	Urewera	14.55	190	P	P	03 25 03.4	+2.1
	2.1nm,0.3s,baz=349,slow=5.2,SNR=6.4						
URZ				S	S	03 27 32.2	-2.2
	0.5nm,0.3s,baz=198,slow=20,SNR=5.5						
RAR	Rarotonga	18.71	86	P	P	03 25 43.1	-0.5
	1.8nm,0.3s,baz=180,slow=8.1,SNR=3.1						
RPZ	Rata Peaks	21.14	199	P	P	03 26 05.5	+0.2
	38nm,1.1s,mb4.8,baz=296,slow=2.3,SNR=4.5						
CTA	Charters Tower	31.63	270	P	P	03 27 39.3	+1.0
	3.4nm,0.6s,mb4.0,baz=109,slow=9.3,SNR=12						
CTAO	Charters Tower	31.63	270	*e*P	P	03 27 38.7	+0.4
	3.4nm,0.3s,mb4.2						
STKA	Stephens Creek	34.87	248	P	P	03 28 06.2	+0.7
	1.1nm,0.5s,mb3.6,baz=103,slow=12,SNR=4.7						
ASAR	Alice Springs	42.19	261	P	P	03 29 05.3	0.0
	2.6nm,0.7s,mb3.8,baz=92,slow=7.8,SNR=24						
WRAB	Tennant Creek	42.56	266	*e*P	P	03 29 07.4	-0.9
	3.2nm,0.4s,mb4.1						
WRA	Warramunga Arr	42.56	266	P	P	03 29 07.9	-0.5
	2.4nm,0.3s,mb4.0,baz=96,slow=8.4,SNR=34						
FORT	Forrest	46.46	250	*e*P	P	03 29 37.5	-0.9
	4.5nm,0.5s,mb4.2						
VNDA	Vanda	54.39	185	P	P	03 30 36.5	+0.8
	2.2nm,0.9s,mb3.5,baz=3.7,slow=7.8,SNR=5.0						
TXAR	Lajitas Array	90.30	58	P	P	03 34 05.2	+0.6
	0.4nm,0.7s,mb3.4,baz=209,slow=5.9,SNR=6.0						
TORD	Torodi Ar. Bea	169.20	188	PKPab	PKPab	03 42 21.9	-0.8
	0.5nm,0.7s,baz=172,slow=5.3,SNR=4.0						

GUC 17 03:31:30.2±0.6, 20.°76S×69.°25W, h102^{km}±3^{km}, MD3.6, ML3.6, 2C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB01	Plate Boundary	0.36	218	⇓*i*P	Pn	03 31 45.6	+0.3
PB01				*i*S	Sn	03 31 57.2	+0.5
PB01				AML	AML	03 31 57.5	
	comp=E,9μm,0.2s						
PSGC	Pisagua	1.42	325	⇑*i*P	Pn	03 31 56.3	+0.7
PSGC				*i*S	Sn	03 32 15.3	+0.5
PB04	Plate Boundary	1.51	188	AML	AML	03 32 35.0	
	comp=N,327nm,0.3s						
TOCH	Tocopilla	1.59	214	*i*P	Pn	03 31 58.4	+0.7
TOCH				*i*S	Sn	03 32 19.7	+1.1
TOCH				AML	AML	03 32 23.0	
	comp=E,951nm,0.1s						
MNMC	Miæe Miæ	1.65	349	*e*P	Pn	03 31 59.3	+0.8
MNMC				*e*S	Sn	03 32 21.9	+1.9
MNMC				AML	AML	03 32 24.1	
	comp=N,1μm,0.2s						
LVC	Limon Verde	1.87	170	⇑*i*P	Pn	03 32 02.4	+1.2
LVC				*i*S	Sn	03 32 27.1	+2.3
LVC				AML	AML	03 32 28.9	
	comp=E,318nm,0.5s						
PECH	Pedro de Valdi	1.87	192	*i*P	Pn	03 32 02.0	+0.8
PECH				*i*S	Sn	03 32 26.5	+1.6
PECH				AML	AML	03 32 29.5	
	comp=N,2μm,0.5s						

MAN 17 03:38:37, 10.°02N×126.°75E, h29^{km}, mb4.4, ML3.2, MS3.1, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCPH	Surigao	1.26	259	*e*P	Pn	03 38 58.8	+0.1
SCPH				*e*S	Sn	03 39 13.4	-1.3
MSLP	Maasin	1.86	274	*e*P	Pn	03 39 07.5	+0.5
BESP	Borongan	2.03	321	*e*P	Pn	03 39 09.7	+0.4
BUKP	Musuan	2.70	218	*e*P	Pn	03 39 19.3	+0.7
TBP	Tagbilaran	2.86	264	*e*P	Pn	03 39 22.8	+2.1
TBP				*e*S	Sn	03 39 55.6	+1.4
PAGZ	Pagadian	3.97	237	*e*P	Pn	03 39 39.8	+3.9

IDC 17 03:56:01.3±1.3, 19.°72N×120.°76E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.5/21, mbtmp3.6/4, Error ellipse: s-maj=103.4km s-min=26.0km az=73.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	41.60	161	P	P	04 03 50.3	-0.9
	0.4nm,0.4s,baz=344,slow=9.2,SNR=5.5						
ZALV	Zalesovo Beam	43.83	330	P	P	04 04 08.5	-0.5
	0.3nm,0.2s,baz=117,slow=8.3,SNR=2.5						
ASAR	Alice Springs	44.98	163	P	P	04 04 19.1	+0.6
	0.4nm,0.4s,baz=341,slow=6.9,SNR=12						
YKA	Yellowknife Ar	87.22	22	P	P	04 08 49.8	+0.4
	0.1nm,0.4s,baz=308,slow=5.1,SNR=3.9						

IDC 17 04:04:37.5±7.2, 18.°57S×175.°99W, h0^{km}, mb4.2/2, mb1 4.5/2, mb1mx3.7/17, mbtmp4.2/2, Error ellipse: s-maj=288.5km s-min=116.5km az=152.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.78	260	P	P	04 13 09.2	+0.1
	1.9nm,0.4s,baz=96,slow=7.6,SNR=24						
ASAR	Alice Springs	46.83	255	P	P	04 13 09.3	-0.1
	2.6nm,0.7s,baz=95,slow=7.4,SNR=29						
AKASG	Malin Array Be	142.19	334	PKP	PKPdf	04 24 11.0	-0.7
	0.9nm,0.5s,baz=46,slow=3.9,SNR=5.7						

NEIC 17 04:20:32.7, 60.°91N×138.°39W, h1^{km}, ML2.9(PGC), ML3.0(AEIC), After PGC.
PGC 17 04:20:32.7±0.8, 60.°91N×138.°39W, h1^{km}, ML2.9/5, 5D, 49km west of Haines Jct., Yt Southern Yukon Territory, Canada, Southern Yukon Territory

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYT	**Haines Junctio**	**0.44**	**101**	⇓P	Pg	04 20 40.5	-0.7
HYT				⇓S	Sg	04 20 46.5	-0.4
PNL	**Peninsula**	**1.34**	**202**	P	Pg	04 20 57.2	-1.3
PNL				S	Sg	04 21 14.9	-0.9
WHY	**Whitehorse**	**1.74**	**97**	⇑Pn	Pn	04 21 03.2	-0.8
WHY				⇑Sg	Sg	04 21 27.1	-1.4
WHY	**Whitehorse**	**1.74**	**97**	Sn	Sn	04 21 27.1	+0.3
PLBC	**Pleasant Camp**	**1.78**	**144**	⇓Pn	Pn	04 21 04.3	-0.1
PLBC				⇑Sg	Sg	04 21 28.2	-1.5
SKAG	**Skagway**	**2.11**	**132**	P	Pn	04 21 08.3	-0.8
BCA3	**Beaver Creek A**	**2.69**	**325**	P	Pn	04 21 15.6	-1.5
DAWY	**Dawson**	**3.20**	**352**	⇑Pn	Pn	04 21 23.7	-0.4
DAWY				⇓Sn	Sn	04 22 01.3	-1.5
DAWY				⇓Sg	Sg	04 22 12.2	-3.2
DAWY	**Dawson**	**3.20**	**352**	P	Pn	04 21 23.6	-0.5
MENT	**Mentasta**	**3.24**	**311**	*e*Pn	Pn	04 21 25.2	+0.6
MENT				*e*Pg	Pg	04 21 33.2	-1.5
MENT				*e*Sg	Sg	04 22 13.5	-3.2
EGAK	**Eagle**	**4.08**	**343**	*e*Pn	Pn	04 21 34.8	-1.4
EGAK				*e*Pg	Pg	04 21 49.0	-1.9
EGAK				*e*Sg	Sg	04 22 40.7	-3.1
DLBC	**Dease Lake**	**4.91**	**117**	*e*Pg	Pg	04 22 06.2	-0.5
DLBC				*e*Sg	Sg	04 23 05.7	-4.6

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*IDC **17** 04:22:08.0±0.7, 61°.33S×153°.90E, h0^{km}, mb4.6/8, mb1 4.8/8, mb1mx4.6/13, mbtmp4.6/8, MS4.2/13, Ms1 4.2/13, ms1mx4.1/23, Error ellipse: s-maj=29.6km s-min=18.6km az=81.0*

*ISCJB **17** 04:22:08.4±0.6, 61°.27S±0°.08×154°.1E±0°.3, h10^{km}, mb4.6/12, MS4.2/12, Error ellipse: s-maj=18.0km s-min=11.2km az=170.0*

*NEIC **17** 04:22:08.6±0.4, 61°.51S×153°.70E, h10^{km}, mb4.9/4, Error ellipse: s-maj=14.9km s-min=9.9km az=89.0*

*GCMT **17** 04:22:08.6±0.2, 61°.31S×154°.07E, h20^{km}±1^{km}, MW5.2/70, Moment Tensor Solution. s39,c57; s70,c109; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.97±.20; $M_{\theta\theta}$5.15±.17; $M_{\phi\phi}$-4.17±.17; $M_{r\theta}$-0.16±.31; $M_{\theta\phi}$-4.38±.16; $M_{\phi r}$1.67±.37; Best double couple: $M_0$6.64300×10^{16} NP1:ϕ_s247.00000°,δ75.00000°,λ-173.00000°. NP2: ϕ_s156.00000°,δ83.00000°,λ-15.00000°. Principal axes: T 6.9610, Plg6.0000°, Azm202.0000°; N -0.6280, Plg73.0000°, Azm311.0000°; P -6.3250, Plg16.0000°, Azm111.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 17 04:22:10.2±0.6**, 61°.28S**±0°.08×**154°.0E**±0°.3**, h10**^{km}**, n40, σ0^{s}.58**/23**, mb4.6**/12**, MS4.2**/12**, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	**16.52**	**174**	Pn	**Pn**	**04 25 55.9**	**-5.6**
	1.8nm,0.3s,baz=348,slow=13,SNR=65						
VNDA				LR	LR	04 31 32.0	
	comp=Z,2µm,18.2s,baz=353,slow=34						
MOO	**Moorlands**	**19.31**	**345**	*e*P	**Pn**	**04 26 35.9**	**-0.2**
CASY	**Casey**	**19.51**	**236**	*e*P	**Pn**	**04 26 39.5**	**+1.2**
CASY	**Casey**	**19.51**	**236**	*e*P	**Pn**	**04 26 31.9**	**-6.5**
	146nm,1.6s						
RPZ	**Rata Peaks**	**20.31**	**38**	P	**P**	**04 26 46.5**	**+0.6**
	45nm,1.1s,baz=169,slow=13,SNR=5.4						
RPZ				LR	LR	04 32 48.3	
	comp=Z,1µm,20.6s,MS4.3,baz=170,slow=31						
RPZ	**Rata Peaks**	**20.31**	**38**	P	**P**	**04 26 46.5**	**+0.6**
RPZ				LR	LR	04 32 48.3	
TOO	**Toolangi**	**24.33**	**343**	*e*P	**P**	**04 27 28.2**	**+0.5**
CNB	**Canberra Magne**	**26.16**	**351**	*e*P	**P**	**04 27 44.8**	**+0.5**
CAN	**Canberra**	**26.18**	**351**	*e*P	**P**	**04 27 44.7**	**+0.2**
	19nm,1.0s,mb4.6						
URZ	**Urewera**	**27.17**	**43**	P	**P**	**04 27 53.7**	**+0.3**
	22nm,0.8s,mb4.7,baz=242,slow=6.2,SNR=8.7						
URZ				LR	LR	04 36 26.1	
	comp=Z,444nm,21.4s,MS4.0,baz=92,slow=32						
QSPA	**South Pole Qui**	**28.81**	**180**	P	**P**	**04 28 08.1**	**+0.4**
	6.1nm,1.0s,mb4.3,baz=333,slow=3.6,SNR=7.0						
QSPA				LR	LR	04 39 00.3	
	comp=Z,783nm,21.2s,MS4.3,baz=17,slow=35						
STKA	**Stephens Creek**	**30.52**	**339**	*e*P	**P**	**04 28 23.7**	**+0.5**
	8.7nm,0.9s,mb4.6						
STKA	**Stephens Creek**	**30.52**	**339**	P	**P**	**04 28 23.5**	**+0.3**
	9.8nm,0.8s,mb4.7,baz=166,slow=9.1,SNR=18						
STKA				LR	LR	04 37 45.6	
	comp=Z,620nm,21.5s,MS4.2,baz=168,slow=31						
STKA	**Stephens Creek**	**30.52**	**339**	P	**P**	**04 28 23.5**	**+0.3**
STKA				LR	LR	04 37 45.6	
MAW	**Mawson**	**36.38**	**220**	LR	LR	04 44 19.1	
	comp=Z,869nm,18.0s,MS4.6,baz=116,slow=37						
NWAO	**Narrogin (SRO)**	**36.96**	**303**	LR	LR	04 38 58.7	
	comp=Z,87nm,21.9s,MS3.5,baz=256,slow=27						
ASAR	**Alice Springs**	**40.06**	**331**	P	**P**	**04 29 45.0**	**-0.3**
	5.8nm,0.9s,mb4.3,baz=164,slow=8.6,SNR=38						
ASAR				PcP	PcP	04 31 48.9	-1.1
	2.7nm,0.9s,baz=152,slow=3.8,SNR=10						
CTA	**Charters Tower**	**41.52**	**349**	*e*P	**P**	**04 29 57.2**	**-0.1**
	12nm,1.1s,mb4.5						
WB2	**Warramunga Arr**	**43.55**	**333**	*e*P	**P**	**04 30 12.8**	**-1.0**
WRA	**Warramunga Arr**	**43.55**	**333**	P	**P**	**04 30 13.0**	**-0.9**
	14nm,1.1s,mb4.6,baz=162,slow=6.9,SNR=25						
WRA				PcP	PcP	04 32 00.1	-1.4
	3.7nm,0.9s,baz=166,slow=3.2,SNR=12						
WRA				LR	LR	04 46 02.6	
	comp=Z,218nm,19.3s,MS4.1,baz=140,slow=33						
FITZ	**Fitzroy Crossi**	**47.58**	**322**	*e*P	**P**	**04 30 46.1**	**+0.4**
	16nm,0.8s,mb5.1						
KAKA	**Kakadu**	**50.97**	**333**	*e*P	**P**	**04 31 11.2**	**-0.6**
	30nm,0.7s,mb5.3						
PPT	**Papeete**	**58.83**	**68**	*e*LR	LR	04 49 16.8	
	305nm,25.0s						
PPT	**Papeete**	**58.83**	**68**	LR	LR	04 51 46.7	
	comp=Z,206nm,18.8s,MS4.3,baz=71,slow=30						
TAOE	**Nuku Hiva Isla**	**70.78**	**73**	*e*LR	LR	04 54 51.0	
	1µm,30.3s						
PLCA	**Paso Flores**	**72.08**	**146**	P	**P**	**04 33 33.2**	**-0.9**
	2.5nm,0.8s,mb4.2,baz=254,slow=8.0,SNR=4.2						
PSI	**Prapat**	**76.49**	**303**	LR	LR	05 03 57.4	
	comp=Z,104nm,20.0s,MS4.1,baz=4.5,slow=33						
BOSA	**Boshof**	**81.29**	**224**	LR	LR	05 04 01.1	
	comp=Z,158nm,20.7s,MS4.3,baz=156,slow=31						
LVC	**Limon Verde**	**89.55**	**141**	*e*P	**P**	**04 35 07.2**	**-0.3**
	4.7nm,1.0s,mb4.8						
CMAR	**Chiang Mai Arr**	**90.75**	**309**	P	**P**	**04 35 13.6**	**+0.6**
	0.7nm,0.3s,mb4.4,baz=181,slow=4.8,SNR=4.2						
CMAR				LR	LR	05 14 35.1	
	comp=Z,84nm,18.6s,MS4.2,baz=153,slow=35						
MJAR	**Matsushiro Arr**	**98.33**	**347**	LR	LR	05 23 24.6	
	comp=Z,74nm,18.3s,MS4.2,baz=150,slow=37						
NVAR	**Mina Array Bea**	**121.78**	**67**	PKP	PKPdf	04 41 03.7	+0.3
	0.3nm,0.4s,baz=202,slow=4.5,SNR=3.5						
MKAR	**Makanchi Array**	**122.15**	**310**	PKP	PKPdf	04 41 02.4	-1.4
	0.6nm,1.0s,baz=90,slow=3.6,SNR=4.6						
TORD	**Torodi Ar. Bea**	**127.92**	**215**	PKP	PKPdf	04 41 12.8	-3.0
	0.5nm,0.9s,baz=166,slow=1.4,SNR=2.7						
YKA	**Yellowknife Ar**	**141.35**	**48**	PKP	PKPdf	04 41 38.9	-0.4
	0.3nm,0.7s,baz=233,slow=1.9,SNR=5.7						
YKA	**Yellowknife Ar**	**141.35**	**48**	PKP	PKPdf	04 41 38.9	-0.4
KEST	**Kesra**	**146.06**	**237**	PKPbc	PKPbc	04 41 50.4	+0.9
	2.9nm,0.9s,baz=354,slow=1.4,SNR=5.2						
AKASG	**Malin Array Be**	**148.32**	**276**	PKPbc	PKPbc	04 41 54.0	-1.3
	0.6nm,0.4s,baz=112,slow=2.1,SNR=3.6						
RES	**Resolute Bay**	**152.92**	**33**	*e*PKPab	PKPab	04 42 15.2	-1.8
GERES	**GERESS Array B**	**154.54**	**259**	PKPbc	PKPbc	04 42 08.3	-1.5
	0.2nm,0.6s,baz=5.7,slow=1.0,SNR=3.3						

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*IDC **17** 05:02:52.1±0.5, 2°.13N×126°.48E, h0^{km}, mb4.3/16, mb1 4.4/16, mb1mx4.3/22, mbtmp4.3/16, MS3.5/1, Ms1 3.5/1, ms1mx2.9/33, Error ellipse: s-maj=33.0km s-min=10.3km az=74.0*

*ISCJB **17** 05:02:59.4±0.7, 2°.12N±0°.04×126°.66E±0°.06, h71^{km}±6^{km}, mb4.4/39, Error ellipse: s-maj=11.0km s-min=5.4km az=150.6*

*MOS **17** 05:03:00.9±1.7, 1°.84N×126°.09E, h77^{km}, mb4.6/9, Error ellipse: s-maj=29.2km s-min=9.4km az=116.3*

*DJA **17** 05:03:00, 2°.17N×126°.63E, h30^{km}, MLv4.5/6*

*NEIC **17** 05:03:01.0±1.4, 2°.12N×126°.73E, h74^{km}±12^{km}, mb4.8/13, Error ellipse: s-maj=14.4km s-min=4.8km az=60.0*

*BJI **17** 05:03:01.7, 2°.21N×125°.78E, h55^{km}, mB5.1/6, mb4.3/8*

ISC 17 05:03:00.3±0.7**, 2°.12N**±0°.04×**126°.68E**±0°.06**, h62**^{km}±6^{km}**, n73, σ1^{s}.17**/74**, mb4.5**/39**, 1C-2D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.50**	**153**	P	**Pn**	**05 03 23.3**	**-1.8**
TNTI				S	**Sn**	**05 03 46.2**	**+2.4**
SGSI	**Sangihe**	**1.94**	**324**	P	**Pn**	**05 03 29.3**	**-1.7**
SGSI				S	**Sn**	**05 03 53.5**	**-0.8**
MNI	**Manado**	**1.96**	**250**	P	**Pn**	**05 03 30.1**	**-1.1**
MNI				S	**Sn**	**05 03 55.2**	**+0.4**
LBMI	**Labuha**	**2.86**	**163**	P	**Pn**	**05 03 46.3**	**+2.8**
NLAI	**Namlea**	**5.34**	**175**	P	**Pn**	**05 04 22.6**	**+5.1**
	47nm,0.9s,0.2nm						
KDI	**Kendari**	**7.27**	**214**	P	**Pn**	**05 04 43.9**	**-0.1**
	30nm,0.8s,0.1nm						
MYLDM	**Lahad Datu**	**8.71**	**291**	P	**Pn**	**05 05 06.3**	**+2.6**
	92nm,1.1s						
KKM	**Kota Kinabalu**	**11.14**	**291**	*e*Pn	**Pn**	**05 05 38.8**	**+1.8**
	17nm,0.8s						
KKM	**Kota Kinabalu**	**11.14**	**291**	P	**Pn**	**05 05 37.8**	**+0.9**
	32nm,1.1s						
SBUM	**Sibu**	**14.45**	**272**	P	**Pn**	**05 06 28.5**	**+6.8**
KAKA	**Kakadu**	**15.80**	**159**	Pn	**Pn**	**05 06 39.2**	**+0.1**
	48nm,0.6s						
KAKA	**Kakadu**	**15.80**	**159**	P	**Pn**	**05 06 42.1**	**+3.0**
	40nm,0.6s,400nm						
KNA	**Kununurra**	**17.87**	**173**	*e*P	**Pn**	**05 07 02.9**	**-1.9**
	18nm,0.8s						
FITZ	**Fitzroy Crossi**	**20.12**	**183**	*e*P	**P**	**05 07 29.4**	**+0.1**
FITZ	**Fitzroy Crossi**	**20.12**	**183**	P	**P**	**05 07 29.5**	**+0.3**
	2.3nm,0.3s,baz=359,slow=9.9,SNR=14						
WRAB	**Tennant Creek**	**23.17**	**161**	*e*P	**P**	**05 08 01.2**	**-0.6**
WRAB				*e*		05 11 49.2	
WRAB				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.6						
WRAB	**Tennant Creek**	**23.17**	**161**	*e*P	**P**	**05 08 01.2**	**-0.6**
	comp=Z,14nm,0.6s,mb4.6						
WRAB				*e*PcP	PcP	05 11 49.2	+0.7
WRAB	**Tennant Creek**	**23.17**	**161**	P	**P**	**05 08 02.9**	**+1.1**
WRA	**Warramunga Arr**	**23.18**	**161**	P	**P**	**05 08 00.4**	**-1.5**
	comp=Z,6.7nm,0.6s,mb4.3,baz=334,slow=11,SNR=70						
WRA				S	**S**	**05 12 10.2**	**+1.4**
	comp=Z,1.1nm,0.8s,baz=334,slow=21,SNR=3.1						
WB2	**Warramunga Arr**	**23.18**	**161**	*e*P	**P**	**05 08 00.7**	**-1.2**
WB2				*e*PcP	PcP	05 11 49.7	+1.2
MBWA	**Marble Bar**	**24.11**	**196**	*e*P	**P**	**05 08 10.4**	**0.0**
	comp=Z,75nm,1.4s,mb4.9						
ASAR	**Alice Springs**	**26.57**	**165**	P	**P**	**05 08 32.1**	**-0.6**
ASAR						05 11 56.9	
ASAR	**Alice Springs**	**26.57**	**165**	P	**P**	**05 08 32.1**	**-0.7**
	comp=Z,2.5nm,0.7s,mb3.8,baz=346,slow=12,SNR=21						
ASAR				PcP	PcP	05 11 56.9	+0.9
	comp=Z,0.4nm,0.3s,baz=351,slow=2.1,SNR=5.7						
ASAR				S	**S**	**05 13 11.8**	**+8.7**
	comp=Z,0.7nm,0.8s,baz=342,slow=20,SNR=3.2						
PSI	**Prapat**	**27.74**	**272**	LR	LR	05 19 42.3	
	comp=Z,102nm,20.6s,baz=17,slow=37						
CMAR	**Chiang Mai Arr**	**31.67**	**303**	P	**P**	**05 09 14.2**	**-3.8**
	comp=Z,0.5nm,0.3s,mb3.8,baz=104,slow=6.6,SNR=2.8						
CHTO	**Chiang Mai**	**31.83**	**303**	*e*P	**P**	**05 09 18.7**	**-0.8**
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
CHTO	**Chiang Mai**	**31.83**	**303**	*e*P	**P**	**05 09 18.7**	**-0.8**
	comp=Z,5.0nm,0.8s,mb4.4						
FORT	**Forrest**	**32.74**	**178**	*e*P	**P**	**05 09 26.6**	**-0.7**
	comp=Z,15nm,0.5s,mb5.2						
KSRS	**Korea Array**	**35.18**	**2**	P	**P**	**05 09 48.9**	**+0.5**
	comp=Z,3.3nm,0.6s,mb4.4,baz=178,slow=9.6,SNR=11						
BBOO	**Buckleboo**	**35.85**	**166**	*e*P	**P**	**05 09 53.7**	**-0.5**
	comp=Z,1.9nm,0.4s,mb4.4						
MJAR	**Matsushiro Arr**	**35.87**	**16**	P	**P**	**05 09 53.3**	**-1.1**
	comp=Z,4.5nm,0.7s,mb4.5,baz=182,slow=9.4,SNR=12						
STKA	**Stephens Creek**	**36.65**	**158**	*e*P	**P**	**05 10 00.2**	**-0.8**
	comp=Z,4.2nm,0.7s,mb4.4						
STKA	**Stephens Creek**	**36.65**	**158**	P	**P**	**05 10 00.3**	**-0.8**
	comp=Z,5.0nm,0.7s,mb4.5,baz=338,slow=8.7,SNR=13						
ASAJ	**Asahikawa**	**44.14**	**16**	P	**P**	**05 11 03.1**	**+0.4**
	comp=Z,3.4nm,0.4s,mb4.4,baz=127,slow=20,SNR=3.9						
GTA	**Gaotai**	**44.45**	**330**	*e*P	**P**	**05 11 08.4**	**+3.1**
GTA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
TAPN	**Taplejung**	**44.94**	**308**	*e*P	**P**	**05 11 09.5**	**+0.1**
	comp=Z,14nm,1.1s,mb4.7						
ODAN	**Odare**	**44.97**	**307**	*e*P	**P**	**05 11 10.4**	**+0.7**
	comp=Z,8.7nm,0.7s,mb4.7						
JIRN	**Jiri**	**46.28**	**307**	*e*P	**P**	**05 11 19.5**	**-0.5**
GUN	**Gumba**	**46.64**	**307**	*e*P	**P**	**05 11 22.3**	**-0.5**
	comp=Z,19nm,0.7s,mb5.1						
DMN	**Daman**	**47.13**	**307**	*e*P	**P**	**05 11 26.8**	**+0.2**
	comp=Z,8.6nm,0.8s,mb4.8						
KLR	**Kul'dur**	**47.14**	**5**	*e*P	**P**	**05 11 23.8**	**-2.5**
GKN	**Gorkha**	**47.67**	**307**	*e*P	**P**	**05 11 30.8**	**0.0**
KOLN	**Koldanda**	**48.41**	**306**	*e*P	**P**	**05 11 36.1**	**-0.4**
	comp=Z,20nm,0.7s,mb5.2						
DANN	**Dangsing**	**48.52**	**307**	*e*P	**P**	**05 11 37.0**	**-0.4**
	comp=Z,19nm,0.6s,mb5.3						
SONM	**Songino Array**	**48.80**	**342**	P	**P**	**05 11 39.4**	**+0.2**
	comp=Z,1.3nm,0.7s,mb4.1,baz=146,slow=7.5,SNR=8.1						
ZAK	**Zakamensk**	**52.02**	**341**	*e*P	**P**	**05 12 07.5**	**+4.1**
ZAK				*e*		05 13 12.6	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
TLY	**Talaya**	**53.04**	**342**	*e*P	**P**	**05 12 13.5**	**+2.6**
TLY				*e*	pP	05 12 32.2	+5.1
TLY				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
MK31	**Makanchi Array**	**58.85**	**326**	*e*P	**P**	**05 12 52.0**	**-0.6**
MKAR	**Makanchi Array**	**58.85**	**326**	P	**P**	**05 12 52.0**	**-0.5**
	comp=Z,2.6nm,0.5s,mb4.5,baz=120,slow=7.7,SNR=67						
UCH	**Uchtor**	**61.33**	**318**	*e*P	**P**	**05 13 08.9**	**-0.7**
	comp=Z,4.5nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**61.52**	**318**	*i* P	**P**	**05 13 11.1**	**+0.2**
AAK				pmax	pmax		
	comp=Z,4.0nm,2.6s,mb4.1						
AML	**Almayashu**	**61.83**	**318**	*e*P	**P**	**05 13 12.7**	**-0.3**
	comp=Z,5.0nm,0.9s,mb4.6						
ZALV	**Zalesovo Beam**	**61.99**	**333**	P	**P**	**05 13 12.8**	**-1.1**
	comp=Z,0.9nm,0.4s,mb4.3,baz=116,slow=8.6,SNR=4.7						
ZALV	**Zalesovo Beam**	**61.99**	**333**	P	**P**	**05 13 12.8**	**-1.1**
KURK	**Kurchatov**	**63.07**	**328**	P	**P**	**05 13 20.6**	**-0.5**
	comp=Z,5.2nm,0.7s,mb4.8,baz=130,slow=6.1,SNR=33						
SEY	**Seymchan**	**63.60**	**13**	⇓*i*P	**P**	**05 13 26.6**	**+2.2**
BVAR	**Borovoye Array**	**68.64**	**327**	P	**P**	**05 13 56.3**	**-0.6**
	comp=Z,1.3nm,0.4s,mb4.2,baz=131,slow=6.6,SNR=7.2						
TIXI	**Tiksi**	**69.44**	**1**	⇓*i*P	**P**	**05 14 04.8**	**+3.3**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BILL	**Bilibino**	**71.11**	**15**	*e*P	**P**	**05 14 17.4**	**+5.6**
BILL				*e*		05 16 53.3	
BILL				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BILL				MLR	MLR		
	comp=Z,2µm,16.0s						
AKTK	**Aktyubinsk**	**74.89**	**322**	P	**P**	**05 14 34.4**	**-0.1**
AKTO	**Aktyubinsk**	**74.89**	**322**	P	**P**	**05 14 34.4**	**-0.1**
	comp=Z,3.1nm,0.7s,mb4.3,baz=98,slow=8.7,SNR=5.6						
SVE	**Sverdlovsk**	**75.30**	**329**	*e*P	**P**	**05 14 36.9**	**+0.2**
SVE				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
ARU	**Arti**	**76.27**	**328***c*	*i*P	**P**	**05 14 41.7**	**-0.5**
ARU				*e*		05 17 31.0	
ARU				S	S	05 24 25.6	+3.8
ARU				SS	SS	05 29 22.1	+5.4
ARU				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
ARU	**Arti**	**76.27**	**328**	*e*P	**P**	**05 14 41.7**	**-0.5**
	comp=Z,13nm,0.8s,mb4.9						
VNDA	**Vanda**	**81.84**	**173**	P	**P**	**05 15 11.6**	**-0.7**
	comp=Z,1.6nm,0.6s,mb4.1,baz=300,slow=8.0,SNR=7.1						
IMA2	**Indian Mountai**	**83.87**	**24**	P	**P**	**05 15 22.7**	**-0.2**
VORD	**Divnogorie**	**86.72**	**321**	*e*P	**P**	**05 15 39.0**	**+1.5**
VORD				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
VSR	**Storozhevoye**	**86.80**	**321**	*e*P	**P**	**05 15 40.1**	**+2.2**
VSR				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.6						
VSR				pmax	pmax		
	comp=N,9.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,3.0nm,0.5s						
OBN	**Obninsk**	**88.34**	**325**	*e*P	**P**	**05 15 47.1**	**+1.9**
OBN				*e*PS		05 27 35.3	
OBN				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.7						
OBN				MLR	MLR		
	comp=Z,100nm,18.0s						
BRTR	**Keskin Array B**	**91.00**	**310**	P	**P**	**05 15 59.5**	**+1.5**
	comp=Z,0.6nm,0.8s,mb4.0,baz=103,slow=3.2,SNR=3.3						
YKA	**Yellowknife Ar**	**100.98**	**25**	P	Pdif	05 16 43.8	+0.8
	comp=Z,0.2nm,0.7s,baz=296,slow=4.2,SNR=3.7						
SCHQ	**Schefferville**	**122.16**	**9**	PKP	PKPdf	05 21 49.0	+1.0
	comp=Z,1.3nm,0.7s,baz=225,slow=2.9,SNR=5.5						
TORD	**Torodi Ar. Bea**	**123.36**	**287**	PKP	PKPdf	05 21 51.8	+0.3
	comp=Z,0.2nm,0.7s,baz=70,slow=1.5,SNR=4.7						

GUC 17 05:20:59.2±0.9**, 22°.93S×70°.89W, h30**^{km}±5^{km}**, MD3.7, ML3.4, 5C-1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOCH	**Tocopilla**	**1.05**	**37**	⇑*i*P	Pn	05 21 17.3	-0.6
TOCH				*i* S	Sn	05 21 31.4	-0.1
TOCH				AML	AML	05 21 35.1	
	comp=E,2µm,0.6s						
PECH	**Pedro de Valdi**	**1.17**	**74**	⇓*i*P	Pn	05 21 20.4	+0.9
PECH				*i* S	Sn	05 21 35.5	+1.1
PECH				AML	AML	05 21 40.0	
	comp=N,2µm,0.4s						
MACH	**Maria Elena**	**1.27**	**55**	⇑*i*P	Pn	05 21 21.6	+0.6
MACH				*i* S	Sn	05 21 38.7	+1.7
CPN1	**Cerro Paranal**	**1.75**	**165**	⇑*i*P	Pn	05 21 29.6	+2.1
CPN1				*i* S	Sn	05 21 52.7	+4.0
CPN1				AML	AML	05 22 04.9	
	comp=E,501nm,0.5s						
LVC	**Limon Verde**	**1.85**	**81**	⇑*i*P	Pn	05 21 31.6	+2.6
LVC				*i* S	Sn	05 21 55.2	+3.9
LVC				AML	AML	05 22 01.5	
	comp=N,393nm,0.3s						
PB01	**Plate Boundary**	**2.28**	**35**	⇑*i*P	Pn	05 21 36.4	+1.5
PB01				*i* S	Sn	05 22 05.9	+3.9
PB01				AML	AML	05 22 15.4	
	comp=N,283nm,0.4s						

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*ISCJB **17** 05:31:31.0±3.1, 8°.4S±0°.3×158°.6E±0°.3, h102^{km}±46^{km}, mb3.7/7, Error ellipse: s-maj=63.3km s-min=29.3km az=32.6*

*NEIC **17** 05:31:31.4±3.2, 8°.26S×158°.57E, h88^{km}±44^{km}, mb4.6/2, Error ellipse: s-maj=51.0km s-min=22.4km az=122.0*

*IDC **17** 05:31:32.7±4.1, 8°.41S×158°.75E, h108^{km}±56^{km}, mb3.4/5, mb1 3.5/5, mb1mx3.4/16, mbtmp3.4/5, Error ellipse: s-maj=64.1km s-min=26.4km az=121.0*

ISC 17 05:31:31.9±3.3**, 8°.3S**±0°.2×**158°.7E**±0°.3**, h97**^{km}±46^{km}**, n8, σ0^{s}.83**/9**, mb3.7**/7**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	**1.67**	**131**	P	**Pn**	**05 32 00.8**	**+0.7**
	42nm,0.3s,baz=187,slow=6.6,SNR=22						
HNR				S	**Sn**	**05 32 20.9**	**-0.6**
	73nm,0.3s,baz=136,slow=21,SNR=14						
WRAB	**Tennant Creek**	**26.21**	**241**	*e*P	**P**	**05 36 59.1**	**+1.2**
	48nm,2.1s,mb4.6						
WRA	**Warramunga Arr**	**26.22**	**241**	P	**P**	**05 36 57.9**	**-0.1**
	0.4nm,0.5s,mb3.1,baz=69,slow=9.1,SNR=8.3						
ASAR	**Alice Springs**	**28.20**	**234**	P	**P**	**05 37 15.1**	**-0.6**
	0.4nm,0.4s,mb3.3,baz=62,slow=9.8,SNR=9.3						
STKA	**Stephens Creek**	**28.30**	**212**	P	**P**	**05 37 16.8**	**+0.3**
	0.5nm,0.4s,mb3.4,baz=69,slow=11,SNR=3.3						
KAPI	**Kappang**	**38.78**	**272**	*e*P	**P**	**05 38 46.2**	**-1.3**
	6.9nm,0.9s,mb4.5						
SONM	**Songino Array**	**72.45**	**326**	P	**P**	**05 42 48.8**	**+1.0**
	1.2nm,0.6s,mb3.9,baz=141,slow=5.1,SNR=6.1						
MKAR	**Makanchi Array**	**86.82**	**318**	P	**P**	**05 44 04.8**	**-0.7**
	0.3nm,0.7s,mb3.3,baz=101,slow=7.0,SNR=3.4						

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*ISCJB **17** 05:37:50.4±1.0, 18°.71S±0°.06×67°.9W±0°.1, h216^{km}±10^{km}, mb3.5/10, Error ellipse: s-maj=20.0km s-min=7.0km az=160.3*

*NEIC **17** 05:37:50.4±1.2, 18°.64S×67°.78W, h198^{km}±13^{km}, mb3.6/2, Error ellipse: s-maj=23.4km s-min=9.5km az=58.0*

*IDC **17** 05:37:52.3±2.8, 18°.81S×67°.72W, h225^{km}±33^{km}, mb3.5/8, mb1 3.6/10, mb1mx3.4/21, mbtmp3.4/10, Error ellipse: s-maj=36.7km s-min=18.8km az=33.0*

ISC 17 05:37:50.9±1.1**, 18°.70S**±0°.08×**67°.9W**±0°.1**, h203**^{km}±12^{km}**, n19, σ1^{s}.16**/24**, mb3.5**/10**, 1C, Central Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**4.01**	**194**	P	**Pn**	**05 38 54.8**	**+1.9**
	4.4nm,0.3s,baz=360,slow=5.0,SNR=55						
LVC				S	**Sn**	**05 39 44.0**	**+2.3**
	8.5nm,0.3s,baz=180,slow=21,SNR=16						
LVC	**Limon Verde**	**4.01**	**194**	P	**Pn**	**05 38 54.8**	**+1.9**
LVC				S	**Sn**	**05 39 44.0**	**+2.3**
ARE	**Arequipa**	**4.10**	**302**	⇑*i*P	**Pn**	**05 38 54.3**	**+0.2**
ARE				*e*S	**Sn**	**05 39 43.0**	**-0.8**
LCO	**Las Campanas**	**10.58**	**194**	*e*Pn	**Pn**	**05 40 16.3**	**-1.2**
LCO				*e*Sn	**Sn**	**05 42 12.1**	**-3.6**
NNA	**Nana**	**10.92**	**306**	*e*P	**Pn**	**05 40 21.3**	**-0.7**
NNA				*e*Sn	**Sn**	**05 42 14.2**	**-10**
CPUP	**Villa Florida**	**12.35**	**130**	P	**Pn**	**05 40 39.8**	**-0.4**
	0.4nm,0.3s,baz=276,slow=15,SNR=4.6						
CFAA	**Coronel Fontan**	**12.85**	**181**	P	**Pn**	**05 40 47.3**	**+0.9**
	0.0nm,0.3s,baz=53,slow=20,SNR=4.3						
CFAA				S	**S**	**05 43 03.8**	**-5.9**
	0.0nm,0.3s,baz=308,slow=20,SNR=6.1						
TEIG	**Tepich**	**43.55**	**332**	P	**P**	**05 45 36.0**	**+1.2**
	9.0nm,1.1s,mb4.0,baz=112,slow=5.4,SNR=4.2						
TEIG	**Tepich**	**43.55**	**332**	P	**P**	**05 45 36.0**	**+1.2**
TXAR	**Lajitas Array**	**58.93**	**323**	P	**P**	**05 47 28.6**	**-0.4**
	0.3nm,0.6s,mb3.1,baz=149,slow=7.2,SNR=5.6						
WMOK	**Wichita Mounta**	**60.72**	**331**	*e*P	**P**	**05 47 40.5**	**-0.6**
	0.4nm,0.3s,mb3.5						
ANMO	**Albuquerque**	**64.73**	**325**	P	**P**	**05 48 08.0**	**+0.5**
	0.6nm,0.5s,mb3.5,baz=99,slow=12,SNR=3.4						
PDAR	**Pinedale Array**	**72.20**	**329**	P	**P**	**05 48 53.6**	**0.0**
	0.5nm,0.5s,mb3.4,baz=120,slow=8.0,SNR=6.9						
ULM	**Lac du Bonnet**	**72.97**	**342**	P	**P**	**05 48 56.8**	**-1.1**
	2.4nm,0.6s,mb4.0,baz=178,slow=3.7,SNR=4.9						
NVAR	**Mina Array Bea**	**73.92**	**321**	P	**P**	**05 49 05.2**	**+1.4**
	0.4nm,0.5s,mb3.3,baz=133,slow=8.7,SNR=3.0						
HLID	**Hailey**	**75.22**	**327**	*e*P	**P**	**05 49 13.1**	**+1.9**
	0.7nm,0.6s,mb3.5						
TORD	**Torodi Ar. Bea**	**75.51**	**71**	P	**P**	**05 49 11.8**	**-1.7**
	1.0nm,0.5s,mb3.7,baz=255,slow=5.4,SNR=39						
YKA	**Yellowknife Ar**	**88.89**	**340**	P	**P**	**05 50 21.6**	**0.0**
	0.2nm,0.5s,mb3.2,baz=132,slow=4.5,SNR=4.5						
WRA	**Warramunga Arr**	**135.84**	**211**	PKP	PKPdf	05 56 49.1	+0.8
	0.4nm,0.6s,baz=140,slow=1.9,SNR=4.8						

NNC 17 05:43:43.0±2.9**, 49°.67N×87°.65E, h0**^{km}**, mb3.9, mpv3.5, 6C-3D, Error ellipse: s-maj=22.2km s-min=14.0km az=77.0, Kazakhstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	**Makanchi Array**	**4.59**	**233**	⇑Pn	Pn	05 44 57.1	+3.5
	1.1nm,0.2s,baz=54,slow=14,SNR=122						
MK31				⇑Sn	Sn	05 45 53.9	+6.3
	3.3nm,0.3s,baz=64,slow=27,SNR=4.0						
MK31				⇓Lg		05 46 08.4	
	16nm,0.6s,baz=51,slow=28,SNR=5.9						
KURK	**Kurchatov**	**5.89**	**284**	⇓Pn	Pn	05 45 10.2	-1.2
	4.7nm,0.4s						
KURK				⇑Sn	Sn	05 46 20.5	+0.9
	4.8nm,0.4s						
KURK				⇑Lg		05 46 51.5	
	20nm,0.6s						
KURBB	**Kurchatov Arra**	**5.94**	**283**	⇑Pn	Pn	05 45 11.0	-1.0
	1.7nm,0.4s						
KURBB				⇓Sn	Sn	05 46 22.8	+2.1
	3.0nm,0.5s						
KURBB				⇑Lg		05 46 52.0	
	9.3nm,0.7s						

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*IDC **17** 05:46:38.8±2.8, 52°.30N×168°.70W, h19^{km}±16^{km}, mb4.8/32, mb1 4.9/32, mb1mx4.9/35, mbtmp4.8/32, MS4.1/21, Ms1 4.1/21, ms1mx3.9/47, Error ellipse: s-maj=19.0km s-min=10.8km az=175.0*

*MOS **17** 05:46:39.8±1.0, 52°.36N×168°.76W, h33^{km}, mb5.4/96, MS4.3/10, Error ellipse: s-maj=8.1km s-min=4.0km az=90.6*

ISCJB **17** *05:46:39.3±0.1, 52°.24N±0°.03×168°.60W±0°.02, h34km, mb5.1/261, MS4.3/41, Error ellipse: s-maj=4.1km s-min=1.9km az=14.8*

GCMT **17** *05:46:41.6±0.4, 52°.11N×168°.62W, h21km±1km, MW5.0/67, Moment Tensor Solution. s34,c41; s67,c95; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.75±.24; $M_{\theta\theta}$-2.59±.15; $M_{\phi\phi}$-1.16±.14; $M_{r\theta}$1.84±.25; $M_{\theta\phi}$-1.12±.08; $M_{\phi r}$-0.15±.27; Best double couple: $M_0$3.91300×10^{16} NP1:ϕ_s232.00000°, δ34.00000°, λ71.00000°. NP2: ϕ_s75.00000°, δ58.00000°, λ102.00000°. Principal axes: T 4.2820, Plg74.0000°, Azm17.0000°; N -0.7360, Plg11.0000°, Azm248.0000°; P -3.5450, Plg12.0000°, Azm156.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI **17** *05:46:41.5, 52°.81N×169°.45W, h26km, mB5.1/29, mb5.2/49, Ms4.9/31, Ms7 4.5/31*

NEIC **17** *05:46:41.6±0.2, 52°.33N×168°.66W, mb5.0/151, ML4.4(AEIC), ML4.7(PMR), Error ellipse: s-maj=4.8km s-min=2.8km az=186.0*

BGS **17** *05:46:47.7±2.1, 53°.37N×167°.47W, h33km±999km, mb5.2*

SZGRF **17** *05:46:48.6, 53°.74N×168°.30W, h33km, mb5.3, Fox Islands, Aleutian Islands, United States*

ISC 17 05:46:41.4±0.1**, 52°.29N**±0°.03×**168°.62W**±0°.02**, h36km, h36km**±1.2km**: pP-P, n860,** σ**0ˢ87**/856**, mb5.1**/261**, MS4.3**/41**, 251C-117D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	**Nikolski**	0.70	348	P	Pn	05 46 52.7	-2.0
NIKO				S	Sn	05 47 04.6	+0.3
OKFG	**Magazine Ridge**	1.20	21	P	Pn	05 47 00.8	-0.9
OKFG				S	Sn	05 47 18.5	+1.8
AKLV	**Akutan Long Va**	2.46	39	P	Pn	05 47 18.6	-0.4
AKGG	**Akutan Green G**	2.48	39	P	Pn	05 47 19.2	0.0
AKUT	**Akutan**	2.52	42	P	Pn	05 47 18.7	-1.1
ATKA	**Atka Island**	3.43	271	P	Pn	05 47 32.1	-0.2
FALS	**False Pass**	4.03	48	P	Pn	05 47 40.8	+0.4
SPIA	**Saint Paul Isl**	4.99	350	P	Pn	05 47 55.0	+1.3
SDPT	**Sand Point**	5.71	54	P	Pn	05 48 02.9	-0.7
CHGN	**Chignik**	7.19	52	eP	Pn	05 48 24.4	+0.5
OHAK	**Old Harbor**	10.13	55	eP	Pn	05 49 02.0	-2.2
	68nm,1.0s						
KDAK	**Kodiak Island**	10.71	53	Pn	Pn	05 49 10.3	-1.7
	6.7nm,0.3s,baz=153,slow=4.3,SNR=45						
KDAK				Sn	Sn	05 50 56.2	-14
	0.9nm,0.3s,baz=229,slow=19,SNR=5.3						
KDAK	**Kodiak Island**	10.71	53	ePn	Pn	05 49 12.4	+0.4
SVW2	**Sparrevohn**	11.34	34	ePn	Pn	05 49 23.4	+2.7
GAMB	**Gambell**	11.63	353	ePn	Pn	05 49 26.7	+2.1
RSO	**Redoubt South**	11.98	41	ePn	Pn	05 49 29.8	+0.3
TTA	**Tatalina**	12.59	27	eP	Pn	05 49 40.3	+2.6
SEW	**Seward**	13.19	46	ePn	Pn	05 49 43.6	-2.3
TNA	**Tin City**	13.31	1	ePn	Pn	05 49 48.6	+1.1
	52nm,1.1s						
FIB	**Fire Island**	13.43	41	eP	Pn	05 49 47.9	-1.2
RC01	**Rabbit Creek A**	13.56	42	ePn	Pn	05 49 49.1	-1.9
	61nm,1.2s						
PPLA	**Purkeypile**	13.75	33	ePn	Pn	05 49 56.4	+2.9
	62nm,0.9s						
CHUM	**Lake Minchumin**	14.40	30	ePn	Pn	05 50 02.8	+0.4
	28nm,0.8s						
KTH	**Kantishna Hill**	14.62	33	ePn	Pn	05 50 05.2	-0.1
	65nm,1.0s						
TRF	**Thorofare Moun**	14.76	34	ePn	Pn	05 50 08.0	+0.7
	20nm,0.8s						
BPAW	**Bear Paw Mtn.**	14.97	31	ePn	Pn	05 50 09.8	-0.2
	51nm,0.9s						
MCK	**McKinley**	15.41	34	eP	Pn	05 50 15.8	0.0
MCK				pmax	pmax		
	comp=Z,39nm,1.2s						
MCK	**McKinley**	15.41	34	ePn	Pn	05 50 15.8	0.0
	comp=Z,39nm,1.3s						
IMA2	**Indian Mountai**	15.72	23	ePn	Pn	05 50 19.6	-0.2
PAX	**Paxson**	16.26	40	P	Pn	05 50 25.0	-1.7
PAX				pmax	pmax		
	comp=Z,17nm,0.8s						
PAX	**Paxson**	16.26	40	ePn	Pn	05 50 24.9	-1.9
	comp=Z,17nm,0.8s						
COLA	**College**	16.50	32	P	Pn	05 50 26.5	-3.2
COLA				pmax	pmax		
	comp=Z,40nm,0.9s						
COLA	**College**	16.50	32	ePn	Pn	05 50 26.4	-3.3
	comp=Z,40nm,0.9s						
MENT	**Mentasta**	16.95	41	ePn	Pn	05 50 34.9	-0.5
COLD	**Coldfoot**	17.49	24	ePn	Pn	05 50 42.2	+0.1
	comp=Z,28nm,0.8s						
PNL	**Peninsula**	17.82	54	ePn	Pn	05 50 45.5	-0.7
EGAK	**Eagle**	18.82	38	eP	Pn	05 50 55.5	-2.7
	comp=Z,29nm,0.8s						
HYT	**Haines Junctio**	18.99	51	ePn	Pn	05 51 00.4	0.0
DAWY	**Dawson**	19.19	41	eP	Pn	05 51 00.5	-2.2
PET	**Petropavlovsk**	19.78	285	⇓iP	Pn	05 51 07.5	-2.3
PET				eS	S	05 54 49.3	+0.5
PET				pmax	pmax		
	comp=Z,85nm,0.7s						
PET				MLR	MLR		
	comp=Z,400nm,21.0s						
PET	**Petropavlovsk**	19.78	285	eP	Pn	05 51 07.7	-2.1
	comp=Z,53nm,0.7s						
SKAG	**Skagway**	19.83	56	eP	Pn	05 51 09.1	-1.3
	comp=Z,62nm,0.9s						
BILL	**Bilibino**	19.88	332	⇓iP	Pn	05 51 09.3	-1.7
BILL				pmax	pmax		
	comp=Z,33nm,1.3s						
BILL				MLR	MLR		
	comp=Z,500nm,15.0s						
BILL	**Bilibino**	19.88	332	ePn	Pn	05 51 10.2	-0.8
	comp=Z,56nm,1.0s						
PEA0B	**Petropavlovsk-**	20.33	286	eP	P	05 51 13.6	-0.5
PETK	**Petropavlovsk-**	20.33	286	P	P	05 51 13.6	-0.5
	comp=Z,70nm,0.6s,baz=84,slow=14,SNR=254						
PETK				LR	LR	05 57 46.5	
	comp=Z,256nm,21.3s,MS3.5,baz=90,slow=33						
DLBC	**Dease Lake**	22.53	59	P	P	05 51 38.8	+1.1
	comp=Z,16nm,1.0s,mb4.4,baz=276,slow=10.0,SNR=12						
DLBC	**Dease Lake**	22.53	59	eP	P	05 51 40.6	+2.9
SEY	**Seymchan**	23.06	313	⇑eP	P	05 51 42.1	-1.1
NLWA	**Neilton Lookou**	28.91	82	⇓P	P	05 52 37.4	+0.8
	baz=29						
NLWA	**Neilton Lookou**	28.91	82	eP	P	05 52 38.6	+2.0
	comp=Z,88nm,2.2s,mb5.1						
E03A	**Lebam**	29.48	83	⇓P	P	05 52 41.9	+0.2
	baz=29						
B05A	**Bryant**	29.60	79	⇓P	P	05 52 42.7	0.0
	baz=30,SNR=9.5						
JCW	**Jim Creek**	29.73	79	eP	P	05 52 44.2	+0.4
YKA	**Yellowknife Ar**	29.95	49	P	P	05 52 45.9	+0.3
YKA						05 55 47.5	
YKA	**Yellowknife Ar**	29.95	49	P	P	05 52 45.8	+0.2
	comp=Z,4.6nm,0.6s,mb4.4,baz=274,slow=7.7,SNR=63						
YKA				PcP	PcP	05 55 47.5	+0.3
	comp=Z,1.8nm,0.7s,baz=283,slow=2.6,SNR=8.0						
YKA				ScP	ScP	05 59 28.2	+2.0
	comp=Z,1.5nm,0.9s,baz=281,slow=3.3,SNR=10						
YKA				LR	LR	06 06 50.9	
	comp=Z,674nm,18.5s,MS4.3,baz=45,slow=40						
YKA	**Yellowknife Ar**	29.95	49	P	P	05 52 45.9	+0.2
YKA				PcP	PcP	05 55 47.5	+0.3
YKA				ScP	ScP	05 59 28.2	+2.0
YKA				LR	LR	06 06 50.9	
C05A	**Tolt Reservoir**	30.09	80	⇑P	P	05 52 47.1	0.0
	baz=30,SNR=7.7						
D05A	**Enumclaw**	30.14	81	⇓P	P	05 52 48.5	+1.0
	baz=30,SNR=9.1						
A07A	**Ashnola River,**	30.29	77	⇑P	P	05 52 48.7	-0.2
	baz=30						
LON	**Longmire**	30.45	82	eP	P	05 52 51.4	+1.1
LON				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
LON	**Longmire**	30.45	82	eP	P	05 52 51.4	+1.2
	comp=Z,7.3nm,1.0s,mb4.4						
F04A	**Amboy**	30.47	83	⇓P	P	05 52 50.5	+0.1
	baz=30						
B07A	**Winthrop**	30.70	78	⇓P	P	05 52 52.7	+0.3
	baz=31						
D06A	**Cle Elum**	30.83	80	⇑P	P	05 52 53.9	+0.3
	baz=31,SNR=7.0						
ETW	**Entiat**	30.95	79	eP	P	05 52 56.3	+1.6
A08A	**Turner Farm, O**	31.00	76	⇑P	P	05 52 55.1	+0.1
	baz=31,SNR=5.8						
E06A	**Yakima**	31.06	81	⇓P	P	05 52 56.0	+0.4
	baz=31,SNR=8.1						
C07A	**Waterville**	31.08	79	⇑P	P	05 52 55.9	+0.1
	baz=31,SNR=11						
EBG	**Ellensburg**	31.13	80	P	P	05 52 58.1	+1.8
B08A	**Colville Reser**	31.22	77	⇑P	P	05 52 57.0	0.0
	baz=31,SNR=13						
H04A	**Detroit Lake**	31.24	85	⇑P	P	05 52 57.1	-0.2
	baz=31						
D07A	**Quincy**	31.36	80	⇑P	P	05 52 58.0	-0.3
	baz=31						
A09A	**Danville**	31.40	76	⇓P	P	05 52 58.7	+0.1
	baz=31,SNR=9.5						
C08A	**Higginbotham F**	31.65	78	⇓P	P	05 53 00.7	0.0
	baz=32						
MDW	**Midway**	31.76	80	P	P	05 53 03.4	+1.6
HUMO	**Hull Mountain**	31.88	89	eP	P	05 53 06.6	+3.7
	comp=Z,16nm,1.3s,mb4.7						
B09A	**Rice**	31.90	76	⇑P	P	05 53 02.9	0.0
	baz=32,SNR=7.8						
G06A	**Carlson Farm,**	31.91	83	⇑P	P	05 53 03.8	+0.7
	baz=32						
RSW	**Rattlesnake Hi**	31.97	81	P	P	05 53 05.3	+1.6
RSW				epP	pP	05 53 22.3	+8.4
A10A	**Northport**	32.01	75	⇑P	P	05 53 03.7	-0.2
	baz=32						
HAWA	**Hanford**	32.01	81	eP	P	05 53 05.2	+1.2
	comp=Z,24nm,1.1s,mb5.0						
F07A	**Phinny Hill Vi**	32.01	82	⇓P	P	05 53 04.2	+0.3
	baz=32,SNR=6.3						
OD2	**Odessa Site #2**	32.03	79	P	P	05 53 04.6	+0.5
D08A	**Wollman Farm,**	32.06	79	⇓P	P	05 53 04.2	-0.2
	baz=32,SNR=8.1						
H2OWA	**Water**	32.07	81	P	P	05 53 06.0	+1.5
C09A	**Chrisman Ranch**	32.10	78	⇑P	P	05 53 04.5	-0.3
	baz=32						
H06A	**Lindquist Farm**	32.34	84	⇑P	P	05 53 07.1	+0.1
	baz=32						
G07A	**Ruggs Ranch, H**	32.48	83	⇓P	P	05 53 08.2	+0.1
	baz=32						
YBH	**Yreka Blue Hor**	32.52	90	eP	P	05 53 11.0	+2.5
YBH				pmax	pmax		
	comp=Z,17nm,1.4s						
YBH	**Yreka Blue Hor**	32.52	90	LR	LR	06 03 30.3	
	comp=Z,211nm,20.1s,MS3.8,baz=307,slow=31						
YBH	**Yreka Blue Hor**	32.52	90	eP	P	05 53 11.0	+2.5
	comp=Z,17nm,1.4s,mb4.8						
NEW	**Newport**	32.58	76	eP	P	05 53 09.2	+0.2
NEW				pmax	pmax		
	comp=Z,9.0nm,0.9s						
NEW	**Newport**	32.58	76	eP	P	05 53 09.2	+0.3
	comp=Z,9.2nm,0.8s,mb4.8						
C10A	**Spilker Farm,**	32.67	77	⇓P	P	05 53 09.8	0.0
	baz=33						
A11A	**Hall Mountain,**	32.72	75	⇓P	P	05 53 11.0	+0.8
	baz=33,SNR=7.9						
F08A	**Pendleton**	32.76	81	⇓P	P	05 53 10.0	-0.5
	baz=33						
EDM	**Edmonton**	32.76	66	eP	P	05 53 10.7	+0.2
E09A	**Wood Farm, Sta**	32.79	80	⇓P	P	05 53 10.7	-0.1
	baz=33						
G08A	**Pilot Rock**	32.90	82	⇑P	P	05 53 12.0	+0.2
	baz=33,SNR=11						
ASAJ	**Asahikawa**	32.97	275	LR	LR	06 06 08.6	
	comp=Z,348nm,20.8s,MS4.0,baz=349,slow=36						
LNOR	**Lincton Mounta**	33.02	81	eP	P	05 53 14.2	+1.4
TIXI	**Tiksi**	33.04	329	⇑eP	P	05 53 12.0	-0.7
TIXI				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
TIXI	**Tiksi**	33.04	329	eP	P	05 53 11.8	-1.0
	comp=Z,11nm,0.7s,mb4.9						
D10A	**Wagner Farm, O**	33.05	78	⇑P	P	05 53 11.7	-1.4
	baz=33,SNR=12						
K05A	**Summer Lake**	33.08	87	⇓P	P	05 53 14.4	+1.1
	baz=33						
A12A	**Yaak River Ran**	33.16	74	⇓P	P	05 53 14.5	+0.6
	baz=33,SNR=7.7						
I07A	**Izee**	33.19	84	⇓P	P	05 53 14.4	+0.1
	baz=33						
J06A	**Christmas Vall**	33.24	86	⇑P	P	05 53 15.6	+0.8
	baz=33,SNR=9.3						
WDC	**Whiskeytown Da**	33.29	92	eP	P	05 53 16.7	+1.4
WDC				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
WDC	**Whiskeytown Da**	33.29	92	eP	P	05 53 16.7	+1.4
	comp=Z,18nm,1.4s,mb4.8						
E10A	**Myers Farm, Un**	33.42	79	⇑P	P	05 53 16.2	-0.2
	baz=33,SNR=13						
H08A	**Prairie City**	33.47	83	⇓P	P	05 53 17.2	+0.4
	baz=33,SNR=7.2						
YAK	**Yakutsk**	33.57	311	eP	P	05 53 12.6	-4.8
YAK				e		05 55 56.1	
YAK				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.3						
YAK				pmax	pmax		
	comp=E,6.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,554nm,18.0s,MS4.3						
YAK				MLR	MLR		
	comp=N,322nm,18.0s,MS4.3						
YAK				MLR	MLR		
	comp=E,386nm,16.0s,MS4.3						
YAK	**Yakutsk**	33.57	311	eP	P	05 53 15.2	-2.2
	comp=E,37nm,0.7s,mb5.4						
F10A	**Beach Ranch, E**	33.61	80	⇓P	P	05 53 17.6	-0.3
	baz=34						
D11A	**Klaveano Farm,**	33.62	78	⇓P	P	05 53 17.2	-0.9
	baz=34,SNR=12						
G09A	**Cove**	33.62	81	⇓P	P	05 53 18.2	+0.1
	baz=34,SNR=12						
C12B	**Naegeli Ranch,**	33.82	76	⇑P	P	05 53 19.3	-0.5
	baz=34,SNR=7.7						
I08A	**Drewsey**	33.86	84	⇓P	P	05 53 20.4	+0.3
	baz=34,SNR=8.3						
LBCM	**Butte Creek Ri**	33.87	91	P	P	05 53 21.8	+1.4
A13A	**Flathead Natio**	33.89	74	⇓P	P	05 53 19.6	-0.7
	baz=34						
MOD	**Modoc**	33.90	88	eP	P	05 53 21.9	+1.3
	comp=E,14nm,1.1s,mb4.8						
H09A	**Durkee**	34.01	82	⇑P	P	05 53 22.1	+0.6
	baz=34,SNR=5.7						
G10A	**Bishop Farm, J**	34.02	81	⇓P	P	05 53 22.0	+0.5
	baz=34,SNR=33						
E11A	**Bogner Ranch,**	34.03	79	⇓P	P	05 53 21.3	-0.4
	baz=34,SNR=6.9						
K07A	**Rock Creek Ran**	34.11	86	⇑P	P	05 53 22.9	+0.6
	baz=34						
B13A	**Whitefish**	34.11	75	⇑P	P	05 53 21.6	-0.6
	baz=34						
WALA	**Waterton Lakes**	34.13	73	eP	P	05 53 22.4	0.0
	comp=E,0.2nm,0.9s						
BSMT	**Bassoo Peak**	34.16	76	P	P	05 53 20.7	-2.0
J08A	**Circle Bar Ran**	34.21	85	⇑P	P	05 53 23.1	-0.1
	baz=34						
F11A	**Grangeville**	34.30	79	⇓P	P	05 53 23.8	-0.1
	baz=34						
C13A	**Hot Springs**	34.37	76	⇓P	P	05 53 24.5	0.0
	baz=34,SNR=12						
L07A	**Adell**	34.43	87	⇓P	P	05 53 25.2	+0.1
	baz=34						
A14A	**Double T Ranch**	34.45	73	⇓P	P	05 53 25.1	-0.2
	baz=34,SNR=11						
JTMT	**Jette**	34.51	75	eP	P	05 53 23.6	-2.2
K08A	**Mann Creek Ran**	34.55	86	⇑P	P	05 53 26.5	+0.3
	baz=34						
H10A	**Noah's Angus R**	34.61	82	⇑P	P	05 53 27.0	+0.4
	baz=34,SNR=44						
YBMT	**Yellow Bay**	34.62	75	eP	P	05 53 24.7	-1.9
WVOR	**Wild Horse Val**	34.62	86	eP	P	05 53 28.1	+1.3
WVOR				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
WVOR	**Wild Horse Val**	34.62	86	eP	P	05 53 28.1	+1.3
	comp=Z,11nm,1.1s,mb4.7						
J09A	**Fry Pan Ranch,**	34.66	84	⇑P	P	05 53 28.0	+0.9
	baz=35,SNR=7.1						
OHCM	**Honcut**	34.69	93	eP	P	05 53 27.8	+0.4
D13A	**Huson**	34.72	77	⇓P	P	05 53 26.8	-0.8
	baz=35						
SWMT	**Swartz Lake**	34.79	76	eP	P	05 53 25.9	-2.3
C14A	**Swan Lake**	34.82	75	⇓P	P	05 53 27.4	-1.0
	baz=35						
A15A	**Johnson Ranch,**	34.85	73	⇑P	P	05 53 27.5	-1.2
	baz=35,SNR=6.0						
N06A	**Buffalo Meadow**	34.86	90	⇓P	P	05 53 28.0	-0.8
	baz=35,SNR=12						
M07A	**Soldier Meadow**	34.89	88	⇑P	P	05 53 29.6	+0.5
	baz=35,SNR=6.2						
F12A	**Elk City**	34.91	79	⇑P	P	05 53 28.7	-0.5
	baz=35,SNR=32						
H11A	**Donnelly**	34.99	81	⇑P	P	05 53 29.8	-0.2
	baz=35,SNR=16						
BEKR	**Beckwourth**	35.06	91	⇑P	P	05 53 30.9	+0.4
	baz=35						
MSO	**Missoula**	35.16	77	eP	P	05 53 32.0	+0.6
	comp=Z,14nm,1.3s,mb4.7						
G12A	**Big Creek, Yel**	35.19	80	⇑P	P	05 53 31.8	+0.2
	baz=35						
E13A	**Victor**	35.20	77	⇓P	P	05 53 30.8	-0.9
	baz=35,SNR=11						
O06A	**Flanigan**	35.21	90	⇑P	P	05 53 31.7	-0.2
	baz=35,SNR=7.4						
SLMT	**Seeley Lake**	35.22	76	eP	P	05 53 31.9	0.0
B15A	**Bradely Ranch,**	35.26	74	⇑P	P	05 53 30.9	-1.3
	baz=35,SNR=8.0						
D14A	**Greenough**	35.30	76	⇑P	P	05 53 31.2	-1.3
	baz=35,SNR=24						
M08A	**Happy Creek Ra**	35.34	87	⇑P	P	05 53 32.8	-0.2
	baz=35,SNR=6.3						
HABR	**Khabarovsk**	35.35	287	eP	P	05 53 31.7	-1.3
HABR				e*SP	sP	05 53 45.1	-2.6
HABR						05 54 49.5	
HABR				e		05 56 01.3	
HABR				eS	S	05 59 04.0	-0.6
HABR				e*SS	sS	05 59 20.2	-1.6
HABR				eSS	SS	06 01 24.7	-14
HABR				eSSS		06 01 41.7	
HABR						06 03 48.4	
HABR				pmax	pmax		
	comp=E,60nm,1.1s						
HABR				pmax	pmax		
	comp=Z,87nm,1.0s,mb5.6						
HABR				pmax	pmax		
	comp=N,24nm,1.1s						
HABR				MLR	MLR		
	comp=Z,299nm,17.0s,MS4.1						
F13A	**Darby**	35.45	78	⇑P	P	05 53 33.3	-0.6
	baz=35,SNR=14						
I11A	**Placerville**	35.45	82	⇓P	P	05 53 32.2	-1.7
	baz=35,SNR=22						
C15A	**Salmond Ranch,**	35.49	74	⇓P	P	05 53 33.9	-0.3
	baz=35,SNR=32						
K10A	**MacKenzie Ranc**	35.51	84	⇑P	P	05 53 35.6	+1.2
	baz=35,SNR=5.4						
CHMT	**Chamberlain Mo**	35.53	76	eP	P	05 53 34.1	-0.4
A16A	**West Butte Ran**	35.53	72	⇑P	P	05 53 33.6	-0.9
	baz=35,SNR=6.9						
E14A	**Clinton**	35.63	77	⇓P	P	05 53 35.4	0.0
	baz=36,SNR=10						
B16A	**M & M Farms, S**	35.72	73	⇓P	P	05 53 34.6	-1.6
	baz=36						
PAHR	**Pah Rah Range**	35.75	91	eP	P	05 53 37.7	+1.1
	comp=Z,22nm,1.2s,mb5.0						
H12A	**Diamond D Ranc**	35.78	81	⇓P	P	05 53 35.9	-0.7
	baz=36,SNR=11						
O07A	**Toulon**	35.79	90	⇓P	P	05 53 38.9	+2.0
	baz=36,SNR=12						
MFID	**Camas Ranch**	35.80	83	⇑P	P	05 53 36.3	-0.5
	baz=36,SNR=5.3						
G13A	**Cobalt**	35.87	79	⇑P	P	05 53 36.6	-0.8
	baz=36,SNR=14						
D15A	**Lincoln**	35.90	75	⇑P	P	05 53 37.1	-0.7
	baz=36,SNR=19						
C16A	**Fuhringer Ranc**	35.99	74	⇑P	P	05 53 37.6	-0.8
	baz=36,SNR=16						
F14A	**Wisdom**	36.01	78	⇑P	P	05 53 38.0	-0.7
	baz=36,SNR=15						
I12A	**Atlanta**	36.01	82	⇑P	P	05 53 38.7	0.0
	baz=36						
K11A	**Parker Ranch,**	36.03	84	⇑P	P	05 53 38.3	-0.5
	baz=36,SNR=11						
A17A	**Triple J Farms**	36.06	72	⇓P	P	05 53 37.8	-1.3
	baz=36,SNR=12						
H13A	**Challis**	36.13	80	⇑P	P	05 53 39.5	-0.2
	baz=36,SNR=11						
E15A	**Deer Lodge**	36.14	76	⇑P	P	05 53 39.3	-0.5
	baz=36,SNR=21						
L10A	**Juniper Basin**	36.15	85	⇑P	P	05 53 39.4	-0.5
	baz=36						
O08A	**Rochester Mine**	36.16	89	⇑P	P	05 53 39.9	-0.1
	baz=36,SNR=6.8						
CMB	**Columbia Colle**	36.17	94	eP	P	05 53 41.7	+1.6
CMB				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.7						
CMB	**Columbia Colle**	36.17	94	eP	P	05 53 41.7	+1.6
	comp=Z,14nm,1.4s,mb4.7						
RES	**Resolute Bay**	36.24	26	eP	P	05 53 38.6	-1.7
RES				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
RES	**Resolute Bay**	36.24	26	eP	P	05 53 38.6	-1.8
	comp=Z,6.0nm,0.5s,mb4.8						
G14A	**Jackson**	36.25	79	⇓P	P	05 53 40.5	-0.2
	baz=36,SNR=8.1						
B17A	**L&G Farms, Che**	36.31	73	⇓P	P	05 53 39.7	-1.5
	baz=36						
J12A	**Stokes Ranch,**	36.33	83	⇑P	P	05 53 41.4	-0.1
	baz=36,SNR=8.8						
R06C	**Coleville**	36.44	92	⇑P	P	05 53 42.8	+0.4
	baz=36						
WAKR	**Walker**	36.46	92	eP	P	05 53 44.2	+1.6
HRY	**Holter Researc**	36.48	76	eP	P	05 53 42.8	+0.2
D16A	**Dana Ranch, Ca**	36.48	75	⇑P	P	05 53 41.6	-1.1
	baz=36,SNR=11						
F15A	**Butte**	36.52	77	⇓P	P	05 53 43.0	0.0
	baz=36,SNR=5.9						
L11A	**Cat Creek Ranc**	36.54	85	⇓P	P	05 53 43.1	-0.2
	baz=36,SNR=12						
LRM	**Limekiln Ridge**	36.56	77	eP	P	05 53 43.7	+0.3
I13A	**Wildhorse Cree**	36.56	81	⇑P	P	05 53 43.1	-0.3
	baz=36,SNR=18						
A18A	**Metzger Ranch,**	36.57	71	⇓P	P	05 53 42.2	-1.2
	baz=36						
HLID	**Hailey**	36.58	82	⇑P	P	05 53 43.4	-0.1
	baz=36,SNR=12						
HLID	**Hailey**	36.58	82	eP	P	05 53 44.4	+0.9
	comp=Z,12nm,1.3s,mb4.6						
C17A	**Wharram Farm,**	36.65	74	⇓P	P	05 53 43.2	-0.9
	baz=36						
E16A	**East Helena**	36.66	76	⇑P	P	05 53 43.6	-0.6
	baz=36,SNR=14						
DLMT	**Dillon**	36.71	78	eP	P	05 53 45.5	+0.8
	comp=Z,8.9nm,1.0s,mb4.5						
J13A	**Cove Ranch, Pi**	36.81	82	⇑P	P	05 53 45.6	+0.1
	baz=37,SNR=22						
B18A	**Beardsley Farm**	36.86	72	⇓P	P	05 53 45.3	-0.5
	baz=37,SNR=8.1						
G15A	**Dillon**	36.88	78	⇑P	P	05 53 44.9	-1.2
	baz=37,SNR=22						
KLR	**Kul'dur**	36.92	290	eP	P	05 53 40.8	-5.6
KLR				pmax	pmax		
	comp=E,28nm,1.2s						
KLR				pmax	pmax		
	comp=Z,56nm,1.2s,mb5.3						
KLR				MLR	MLR		
	comp=Z,700nm,17.0s,MS4.5						
D17A	**Six Diamond Ra**	36.93	74	⇓P	P	05 53 44.3	-2.2
	baz=37,SNR=7.5						
I14A	**Mackay**	36.96	81	⇑P	P	05 53 46.4	-0.4
	baz=37,SNR=16						
L12A	**House Creek Ra**	37.00	84	⇑P	P	05 53 47.5	+0.3
	baz=37,SNR=8.3						
EGMT	**Eagleton**	37.05	72	⇑P	P	05 53 46.9	-0.6
	baz=37,SNR=12						
EGMT	**Eagleton**	37.05	72	eP	P	05 53 47.7	+0.2
	comp=Z,30nm,1.0s,mb5.1						
F16A	**Kennard Place,**	37.07	77	⇑P	P	05 53 47.8	+0.1
	baz=37						
H15A	**Lima**	37.08	79	⇑P	P	05 53 48.0	+0.2
	baz=37,SNR=16						
BOZ	**Bozeman (W)**	37.14	77	eP	P	05 53 48.5	+0.2
BOZ				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
BOZ	**Bozeman (W)**	37.14	77	⇓P	P	05 53 47.7	-0.6
	baz=37,SNR=21						
BOZ	**Bozeman (W)**	37.14	77	eP	P	05 53 48.5	+0.2
	comp=Z,9.5nm,1.0s,mb4.6						
Q08A	**Gabbs**	37.16	91	⇑P	P	05 53 49.4	+0.8
	baz=37,SNR=5.7						
E17A	**Martinsdale**	37.18	75	⇓P	P	05 53 49.1	+0.4
	baz=37,SNR=24						
NVAR	**Mina Array Bea**	37.20	91	P	P	05 53 50.2	+1.3
	comp=Z,3.4nm,1.0s,mb4.2,baz=299,slow=8.3,SNR=14						
NVAR				PcP	PcP	05 56 09.0	+0.9
	comp=Z,0.8nm,0.8s,baz=270,slow=3.6,SNR=3.0						
NVAR				ScP	ScP	05 59 52.8	+0.7
	comp=Z,0.3nm,0.5s,baz=289,slow=4.5,SNR=3.9						
NVAR	**Mina Array Bea**	37.20	91	P	P	05 53 50.2	+1.3

NVAR				PcP	PcP	05 56 09.0	+0.9
NVAR				ScP	ScP	05 59 52.8	+0.7
J14A	Carey	37.25	81	⇓P	P	05 53 49.5	+0.2
	baz=37,SNR=15						
G16A	Moss Hill, Enn	37.26	78	⇓P	P	05 53 49.0	-0.3
	baz=37,SNR=14						
K13A	Stover Farm, H	37.28	83	⇓P	P	05 53 49.5	-0.1
	baz=37,SNR=5.6						
D18A	Linhart Farms,	37.43	74	⇓P	P	05 53 50.4	-0.4
	baz=37						
I15A	Monteview	37.51	80	⇓P	P	05 53 51.3	-0.1
	baz=37						
F17A	Fitzpatrick Pl	37.59	76	⇓P	P	05 53 51.2	-0.9
	baz=38,SNR=14						
ELK	Elko	37.68	86	*e*P	P	05 53 55.9	+3.0
ELK				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ELK	Elko	37.68	86	LR	LR	06 07 35.3	
	comp=Z,223nm,21.5s,MS3.9,baz=289,slow=33						
ELK	Elko	37.68	86	*e*P	P	05 53 55.9	+3.0
	comp=Z,9.2nm,0.9s,mb4.5						
E18A	Harlowton	37.69	75	⇓P	P	05 53 52.6	-0.3
	baz=38,SNR=6.5						
L13A	Double Diamond	37.69	83	⇓P	P	05 53 53.6	+0.6
	baz=38,SNR=12						
QLMT	Earthquake Lak	37.69	78	*e*P	P	05 53 54.0	+1.0
MTUM	Tungsten Hills	37.72	93	*e*P	P	05 53 59.1	+5.8
N12A	Clover Valley,	37.74	86	⇑P	P	05 53 53.0	-0.4
	baz=38						
G17A	Pierce Place,	37.84	77	⇑P	P	05 53 54.4	+0.2
	baz=38,SNR=6.8						
J15A	Blackfoot	37.87	81	⇓P	P	05 53 54.5	+0.1
	baz=38,SNR=6.7						
H16A	Russell Place,	37.87	78	⇓P	P	05 53 54.0	-0.5
	baz=38,SNR=15						
M13A	Montello	37.98	85	⇑P	P	05 53 55.5	+0.1
	baz=38						
YMR	Madison River	38.06	78	*e*P	P	05 53 56.8	+0.7
	comp=Z,23nm,1.0s,mb4.9						
R09A	Tonopah	38.08	91	⇑P	P	05 53 56.2	-0.1
	baz=38,SNR=7.8						
TPH	Tonopah	38.09	91	*e*P	pP	05 54 04.8	-2.0
TPH				*e**PP	sP	05 54 13.6	+2.4
TPH				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
TPH	Tonopah	38.09	91	*e*P	pP	05 54 04.8	-2.0
	comp=Z,12nm,1.1s						
TPH				*e*pP	sP	05 54 13.6	+2.4
Q10A	Clear Creek Ra	38.13	89	⇓P	P	05 53 57.4	+0.7
	baz=38,SNR=9.4						
F18A	Big Timber	38.15	75	⇑P	P	05 53 56.6	-0.2
	baz=38,SNR=8.9						
L14A	Malta	38.15	83	⇓P	P	05 53 56.9	0.0
	baz=38,SNR=7.0						
I16A	Newdale	38.18	79	⇓P	P	05 53 57.1	0.0
	baz=38,SNR=7.6						
YNR	Norris Junctio	38.21	78	*e*P	P	05 53 59.0	+1.7
	comp=Z,41nm,1.2s,mb5.0						
K15A	Arbon	38.21	82	⇓P	P	05 53 57.8	+0.4
	baz=38						
YFT	Old Faithful	38.26	78	*e*P	P	05 54 01.1	+3.4
	comp=Z,34nm,1.7s,mb4.8						
O12A	Currie	38.27	86	⇓P	P	05 53 58.3	+0.5
	baz=38,SNR=9.0						
S09A	Goldfield	38.31	92	⇓P	P	05 53 58.7	+0.4
	baz=38						
FFC	Flin Flon	38.37	59	*i* P	P	05 53 58.5	0.0
FFC	Flin Flon	38.37	59	*e*P	P	05 53 57.9	-0.6
	comp=Z,8.0nm,1.0s,mb4.4						
M14A	Sheep Mountain	38.39	84	⇑P	P	05 53 59.5	+0.6
	baz=38						
J16A	Bone	38.44	80	⇓P	P	05 53 59.5	+0.3
	baz=38						
H17A	Grant Village	38.44	78	⇑P	P	05 53 58.9	-0.4
	baz=38,SNR=14						
LKWY	Lake	38.45	78	*e*P	P	05 54 01.4	+2.0
LKWY				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
LKWY	Lake	38.45	78	*e*P	P	05 54 01.4	+2.0
	comp=Z,16nm,0.9s,mb4.8						
IMW	Indian Meadow	38.50	79	*e*P	P	05 54 00.9	+1.2
	comp=Z,14nm,1.1s,mb4.6						
DCID1	Drake Creek	38.52	80	*e*P	P	05 54 01.2	+1.3
	comp=Z,27nm,1.2s,mb4.8						
R10A	Warm Springs	38.52	90	⇓P	P	05 54 00.2	+0.2
	baz=38						
G18A	Lazy EL Ranch,	38.55	76	⇑P	P	05 53 59.7	-0.5
	baz=38						
S10A	Tonopah Range,	38.57	91	⇑P	P	05 54 00.8	+0.3
	baz=38,SNR=10						
RRI2	Red Ridge	38.57	80	*e*P	P	05 54 01.4	+1.0
	comp=Z,23nm,1.0s,mb4.8						
HVU	Hansel Valley	38.58	83	*e*P	P	05 54 01.8	+1.3
HVU				pmax	pmax		
	comp=Z,55nm,2.2s,mb4.9						
HVU	Hansel Valley	38.58	83	*e*P	P	05 54 01.8	+1.3
	comp=Z,55nm,2.3s,mb4.9						
P12A	McGill	38.65	87	⇓P	P	05 54 02.0	+0.9
	baz=38						
L15A	Malad City	38.69	82	⇓P	P	05 54 01.3	0.0
	baz=39						
MOOW	Moose Ponds	38.70	79	*e*P	P	05 54 02.2	+0.8
	comp=Z,10nm,1.5s,mb4.3						
K16A	Soda Springs	38.70	81	⇑P	P	05 54 02.1	+0.6
	baz=39,SNR=33						
I17A	Pilgrim Ck.	38.70	79	⇑P	P	05 54 01.5	0.0
	baz=39						
TPAW	Teton Pass	38.72	79	*e*P	P	05 54 02.8	+1.2
	comp=Z,11nm,0.9s,mb4.6						
RLMT	Red Lodge	38.83	76	⇓P	P	05 54 02.5	0.0
	baz=39,SNR=23						
RLMT	Red Lodge	38.83	76	*e*P	P	05 54 03.3	+0.8
	comp=Z,31nm,1.1s,mb5.0						
REDW	Red Top Meadow	38.85	80	*e*P	P	05 54 03.8	+1.1
	comp=Z,25nm,1.3s,mb4.8						
SNOW	Snow King Moun	38.85	79	*e*P	P	05 54 05.1	+2.4
	comp=Z,9.8nm,1.0s,mb4.5						
LOHW	Long Hollow	38.86	79	*e*P	P	05 54 03.6	+0.8
	comp=Z,5.4nm,0.9s,mb4.3						
ISA	Isabella	38.87	95	*e*P	P	05 54 06.4	+3.4
ISA				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
ISA	Isabella	38.87	95	*e*P	P	05 54 06.4	+3.4
	comp=Z,8.6nm,1.1s,mb4.4						
N14A	Grayback Hills	38.87	84	⇑P	P	05 54 02.3	-0.7
	baz=39						
M15A	Larsen Ranch,	38.96	83	⇓P	P	05 54 03.0	-0.7
	baz=39						
AHID	Auburn Hatcher	39.03	81	*e*P	P	05 54 05.9	+1.6
	comp=Z,12nm,0.9s,mb4.6						
P13A	Bates Ranch, G	39.20	87	⇑P	P	05 54 04.9	-0.8
	baz=39,SNR=5.8						
MPMC	Manual Prospec	39.21	94	⇓P	P	05 54 05.9	+0.1
	baz=39						
L16A	Fish Haven	39.26	82	⇓P	P	05 54 06.7	+0.5
	baz=39,SNR=11						
I18A	Diamond G Ranc	39.28	78	⇑P	P	05 54 05.4	-0.9
	baz=39,SNR=7.4						
J18A	Kendall Valley	39.43	79	⇓P	P	05 54 07.4	-0.2
	baz=39,SNR=12						
DUG	Dugway	39.49	85	*e*P	P	05 54 09.9	+1.8
DUG				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
DUG	Dugway	39.49	85	⇑P	P	05 54 07.5	-0.6
	baz=39,SNR=11						
DUG	Dugway	39.49	85	*e*P	P	05 54 09.9	+1.8
	comp=Z,15nm,1.0s,mb4.7						
Q13A	Wheeler Ranch,	39.51	87	⇑P	P	05 54 07.8	-0.5
	baz=39						
R12A	Pony Springs,	39.53	89	⇑P	P	05 54 08.6	+0.1
	baz=39						
M16A	Huntsville	39.55	83	⇑P	P	05 54 08.9	+0.3
	baz=39,SNR=8.5						
K18A	Toltan Ranch,	39.75	80	⇓P	P	05 54 07.9	-2.3
	baz=40,SNR=16						
T11A	Corn Creek, Al	39.84	90	⇓P	P	05 54 11.5	+0.4
	baz=40,SNR=11						
BW06	Boulder Array	39.97	80	⇓P	P	05 54 11.5	-0.5
	baz=40,SNR=32						
BW06	Boulder Array	39.97	80	*e*P	P	05 54 12.2	+0.1
	comp=Z,16nm,1.0s,mb4.7						
PDAR	Pinedale Array	39.97	80	P	P	05 54 12.4	+0.3
	comp=Z,21nm,1.1s,mb4.8,baz=304,slow=3.9,SNR=80						
R13A	O'Grain Ranch,	40.02	88	⇓P	P	05 54 12.1	-0.4
	baz=40						
M17A	Scullys Gap (B	40.04	82	⇓P	P	05 54 12.6	-0.1
	baz=40,SNR=8.6						
DGMT	Dagmar	40.05	69	⇑P	P	05 54 10.2	-2.4
	baz=40						
DGMT	Dagmar	40.05	69	*e*P	P	05 54 12.5	-0.2
	comp=Z,30nm,1.3s,mb4.9						
JLU	Jordanelle	40.08	84	*e*P	P	05 54 14.2	+1.2
	comp=Z,26nm,1.7s,mb4.7						
NLU	North Lily Min	40.09	85	*e*P	P	05 54 19.6	+6.6
	comp=Z,8.0nm,1.0s,mb4.4						
NLU				*e*pP	pP	05 54 31.4	+7.8
GSC	Goldstone	40.13	94	*e*P	P	05 54 18.6	+5.1
GSC				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
GSC	Goldstone	40.13	94	*e*P	P	05 54 18.6	+5.1
	comp=Z,13nm,1.0s,mb4.6						
MAJO	Matsushiro	40.16	269	*e*P	P	05 54 13.7	0.0
MAT	Matsushiro	40.16	269	P	P	05 54 13.0	-0.7
MJAR	Matsushiro Arr	40.16	269	P	P	05 54 13.3	-0.3
	comp=Z,11nm,1.0s,mb4.6,baz=48,slow=7.0,SNR=20						
L18A	Fontenelle, Gr	40.16	81	⇑P	P	05 54 12.6	-1.1
	baz=40						
N17A	Moffit Pass	40.25	83	⇑P	P	05 54 14.1	-0.4
	baz=40						
DAU	Daniels Canyon	40.31	84	*e*P	P	05 54 16.6	+1.7
K19A	Absolon Red Bu	40.36	79	⇑P	P	05 54 14.7	-0.6
	baz=40,SNR=23						
M18A	Lyman	40.43	82	⇑P	P	05 54 15.2	-0.8
	baz=40						
S13A	Holt Ranch, En	40.46	89	⇑P	P	05 54 16.0	-0.2
	baz=40,SNR=5.8						
L19A	Farson	40.47	80	⇑P	P	05 54 15.6	-0.6
	baz=40,SNR=8.7						
MDJ	Mudanjiang	40.56	285	P	P	05 54 15.0	-1.9
MDJ				pP	pP	05 54 24.4	-3.0
MDJ				sP	sP	05 54 28.8	-3.0
MDJ				PP	PP	05 55 50.9	+0.4
MDJ				PcP	PcP	05 56 18.3	-0.3
MDJ				S	S	06 00 22.6	-0.9
MDJ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,89nm,6.3s						
MDJ				LR	LR		
	comp=N,260nm,27.1s,MS4.0						
MDJ				LR	LR		
	comp=E,100nm,28.7s,MS4.0						
MDJ	Mudanjiang	40.56	285	*e*P	P	05 54 15.1	-1.9
	comp=E,8.1nm,0.9s,mb4.3						
ALE	Alert	40.56	11	P	P	05 54 16.2	-0.3
	comp=E,115nm,0.5s,mb5.8,SNR=7.2						
FCC	Fort Churchill	40.63	50	*e*P	P	05 54 17.3	-0.1
FCC				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FCC	Fort Churchill	40.63	50	*e*P	P	05 54 17.3	-0.1
	comp=Z,1.3nm,0.8s,mb3.6						
K20A	Yellowstone Ra	40.76	79	⇓P	P	05 54 17.0	-1.7
	baz=41						
MSU	Marysvale	40.91	87	*e*pP	sP	05 54 36.8	+2.0
TMUT	Trail Mountain	41.02	85	*e*P	P	05 54 23.0	+2.2
	comp=Z,12nm,0.9s,mb4.5						
U13A	Pakoon Wash	41.15	90	⇓P	P	05 54 21.5	-0.3
	baz=41,SNR=6.5						
N19A	John Jarvie Ra	41.29	82	⇓P	P	05 54 21.9	-1.1
	baz=41,SNR=5.4						
LDFC	Landfair	41.32	93	*e*P	P	05 54 22.1	-1.1
P18A	Preston Nutter	41.41	84	⇓P	P	05 54 23.8	-0.2
	baz=41,SNR=17						
M20A	Sweetwater, Wa	41.54	80	⇑P	P	05 54 23.8	-1.2
	baz=41						
SRU	San Rafael	41.55	85	*e*P	P	05 54 27.1	+1.9
SRU				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.5						
SRU	San Rafael	41.55	85	⇓P	P	05 54 25.2	+0.1
	baz=41						
SRU	San Rafael	41.55	85	*e*P	P	05 54 27.1	+2.0
	comp=Z,12nm,1.0s,mb4.5						
O19A	Miners Draw (B	41.68	82	⇓P	P	05 54 26.0	-0.2
	baz=42,SNR=21						
L21A	Rawlins	41.75	79	⇑P	P	05 54 26.0	-0.8
	baz=42,SNR=11						
Q18A	Rafter H Ranch	41.80	84	⇓P	P	05 54 27.4	+0.2
	baz=42,SNR=11						
N20A	Spence Gulch,	41.88	81	⇓P	P	05 54 27.9	+0.1
	baz=42						
M21A	Separation Pea	41.97	80	⇑P	P	05 54 27.0	-1.5
	baz=42						
P19A	Cripple Cowboy	42.17	83	⇓P	P	05 54 29.7	-0.5
	baz=42,SNR=24						
O20A	White River Ci	42.32	82	⇓P	P	05 54 30.9	-0.5
	baz=42,SNR=18						
N21A	Black Mountain	42.38	81	⇓P	P	05 54 31.2	-0.6
	baz=42,SNR=8.8						
R18A	Canyonlands Na	42.39	85	⇑P	P	05 54 31.0	-0.9
	baz=42,SNR=7.4						
BOD	Bodaibo	42.40	309	*e*P	P	05 54 30.1	-1.7
BOD				pmax	pmax		
	comp=Z,31nm,0.7s,mb5.0						
Q19A	Hogan Spring (	42.42	84	⇑P	P	05 54 31.5	-0.7
	baz=42,SNR=9.4						
RSSD	Black Hills	42.49	74	*e*P	P	05 54 32.7	-0.1
M22A	Cedar Creek Ra	42.55	79	⇓P	P	05 54 31.9	-1.4
	baz=42,SNR=15						
P20A	De Beque	42.62	83	⇓P	P	05 54 32.8	-1.0
	baz=42,SNR=12						
V15A	Kaibab Nationa	42.63	90	⇑P	P	05 54 34.7	+0.7
	baz=42,SNR=11						
O21A	Pagoda	42.74	81	⇑P	P	05 54 33.9	-0.9
	baz=43,SNR=5.9						
S18A	Hurst Farm, Bl	42.77	86	⇑P	P	05 54 35.5	+0.4
	baz=43,SNR=7.3						
R19A	Curley Farm, L	42.84	85	⇓P	P	05 54 35.2	-0.4
	baz=43,SNR=12						
PV04	Paradox Valley	42.99	84	*e*P	P	05 54 37.4	+0.6
N22A	Wattenberg Ran	43.00	80	⇑P	P	05 54 36.6	-0.3
	baz=43,SNR=6.6						
Q20A	Ridgley Place,	43.01	83	⇓P	P	05 54 36.3	-0.7
	baz=43,SNR=9.8						
P21A	Newcastle	43.17	82	⇑P	P	05 54 38.4	+0.1
	baz=43,SNR=18						
T18A	Mexican Hat	43.19	86	⇑P	P	05 54 37.7	-0.9
	baz=43,SNR=7.1						
S19A	Harvey Farm, M	43.26	85	⇓P	P	05 54 38.3	-0.7
	baz=43,SNR=12						
R20A	Redvale	43.44	84	⇓P	P	05 54 39.9	-0.6
	baz=43,SNR=5.3						
CN2	Changchun	43.48	286	*e*P	P	05 54 39.5	-1.2
CN2				*e*PP	PP	05 56 22.1	+0.1
CN2				*e*S	S	06 01 03.8	-2.8
CN2				*e*SS	SS	06 04 10.3	-11
CN2				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.3						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,300nm,16.0s,MS4.6						
CN2				LR	LR		
	comp=E,500nm,16.0s,MS4.6						
CN2				LR	LR		
	comp=Z,500nm,17.0s,MS4.5						
W16A	Flagstaff	43.50	90	⇓P	P	05 54 41.5	+0.4
	baz=43,SNR=5.3						
Q21A	Lamborn Mesa,	43.52	83	⇓P	P	05 54 41.0	-0.2
	baz=43,SNR=6.9						
HIA	Hailar	43.70	296	*e*P	P	05 54 41.7	-0.7
HIA				pmax	pmax		
	comp=Z,39nm,1.0s						
HIA	Hailar	43.70	296	*e*P	P	05 54 41.7	-0.7
	comp=Z,39nm,1.0s,mb5.1						
ULM	Lac du Bonnet	43.78	62	P	P	05 54 42.4	-0.7
	comp=Z,5.9nm,0.9s,mb4.3,baz=307,slow=7.1,SNR=8.1						
R21A	Cimarron	43.83	83	⇓P	P	05 54 43.2	-0.4
	baz=44						
T19A	Beclabito	43.91	86	⇓P	P	05 54 44.1	-0.2
	baz=44,SNR=7.7						
Q22A	Crested Butte,	43.91	82	⇑P	P	05 54 44.2	-0.1
	baz=44,SNR=6.2						
X16A	Lo Mia Camp, P	44.01	91	⇑P	P	05 54 45.4	+0.3
	baz=44						
Y16A	Circle Bar Ran	44.35	91	⇑P	P	05 54 47.6	-0.2
	baz=44						
R22A	Saguache, Gunn	44.40	83	⇓P	P	05 54 48.5	+0.3
	baz=44						
X17A	Forest Lakes	44.45	90	⇑P	P	05 54 49.3	+0.6
	baz=44						
AGMN	Agassiz Refuge	44.85	65	*e*P	P	05 54 50.6	-1.0
T22A	Edith	45.09	84	⇑P	P	05 54 54.1	+0.4
	baz=45,SNR=11						
W20A	Ramah	45.34	88	⇓P	P	05 54 55.9	+0.1
	baz=45						
SDCO	Great Sand Dun	45.48	83	*e*P	P	05 54 57.4	+0.6
TUC	Tucson	45.84	92	P	P	05 55 04.8	+5.1
TUC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
TUC	Tucson	45.84	92	*e*P	pP	05 55 07.6	-2.7
KSRS	Korea Array	45.87	277	P	P	05 55 00.3	+0.4
	comp=Z,35nm,0.9s,mb5.3,baz=55,slow=7.5,SNR=75						
KSRS				PcP	PcP	05 56 37.2	+0.7
	comp=Z,3.3nm,0.9s,baz=67,slow=4.8,SNR=3.4						
KSRS				LR	LR	06 12 44.0	
	comp=Z,180nm,19.8s,MS4.0,baz=258,slow=34						
INCN	Inchon	46.64	278	*e*P	P	05 55 05.9	-0.1
ANMO	Albuquerque	46.71	86	*e*P	P	05 55 08.1	+1.6
ANMO				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ANMO	Albuquerque	46.71	86	LR	LR	06 13 50.9	
	comp=Z,132nm,18.3s,MS3.9,baz=135,slow=35						
ANMO	Albuquerque	46.71	86	*e*P	P	05 55 08.1	+1.5
	comp=Z,8.4nm,0.7s,mb4.8						
120A	U Bar Ranch, L	47.00	90	⇑P	P	05 55 08.8	0.0
	baz=47						
ECSD	EROS Data Cent	47.06	70	*e*P	P	05 55 07.5	-1.7
DAG	Danmarks Havn	49.80	9	⇑*i*P	P	05 55 28.7	-1.1
DAG				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
DAG	Danmarks Havn	49.80	9	⇑*i*P	P	05 55 28.7	-1.1
	comp=Z,12nm,0.7s,mb5.0						
KSU1	Kansas State U	49.96	75	*e*P	P	05 55 30.5	-1.0
SCIA	State Center	50.16	70	*e*P	P	05 55 31.9	-1.0
SUMG	Summit	50.72	17	*e*P	P	05 55 37.1	+0.3
	comp=Z,79nm,1.0s,mb5.6						
TLY	Talaya	50.76	307	P	P	05 55 37.6	+0.3
	comp=Z,200nm,0.6s,mb6.2,SNR=12						
TLY	Talaya	50.76	307	*e*P	P	05 55 36.7	-0.6
TLY				*e*S	S	06 02 55.2	+5.2
TLY				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.2						
TLY				MLR	MLR		
	comp=Z,339nm,17.0s,MS4.4						
JFWS	Jewell Farm	51.22	67	*e*P	P	05 55 39.3	-1.6
BJI	Beijing	51.24	288	P	P	05 55 39.6	-1.5
BJI				pP	pP	05 55 48.8	-3.1
BJI				sP	sP	05 55 52.5	-3.7
BJI				S	S	06 02 54.6	-2.4
BJI				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
BJI				pmax	pmax		
	comp=Z,120nm,4.5s						
BJI				LR	LR		
	comp=N,370nm,16.5s,MS4.7						
BJI				LR	LR		
	comp=E,390nm,14.0s,MS4.7						
BJI				LR	LR		
	comp=Z,340nm,18.0s,MS4.4						
BJT	Baijiatuau	51.26	288	*e*P	P	05 55 41.0	-0.3
BJT				pmax	pmax		
	comp=Z,12nm,0.4s						
BJT	Baijiatuau	51.26	288	*e*P	P	05 55 41.0	-0.2
	comp=Z,12nm,0.4s,mb5.2						
ULN	Ulaanbaatar	51.37	301	P	P	05 55 41.2	-0.8
ULN				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
ULN	Ulaanbaatar	51.37	301	*e*P	P	05 55 41.1	-0.9
	comp=Z,15nm,0.6s,mb5.1						
WMOK	Wichita Mounta	51.54	81	P	P	05 55 43.1	-0.3
WMOK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
WMOK	Wichita Mounta	51.54	81	*e*P	P	05 55 42.6	-0.8
	comp=Z,6.9nm,0.8s,mb4.6						
SONM	Songino Array	51.73	301	P	P	05 55 44.4	-0.3
SONM						05 56 57.8	
SONM	Songino Array	51.73	301	P	P	05 55 44.4	-0.3
	comp=Z,17nm,0.9s,mb5.0,baz=64,slow=5.8,SNR=62						
SONM				PcP	PcP	05 56 57.8	+0.2
	comp=Z,4.4nm,1.0s,baz=67,slow=1.9,SNR=4.3						
SONM				ScP	ScP	06 00 53.5	+2.2
	comp=Z,0.2nm,0.3s,baz=52,slow=2.4,SNR=3.7						
SONM				LR	LR	06 19 31.9	
	comp=Z,220nm,18.8s,MS4.2,baz=88,slow=38						
ZAK	Zakamensk	51.74	305	*e*P	P	05 55 44.3	-0.4
ZAK				*e*		05 56 58.9	
ZAK				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
SFJD	Kangerlussuaq	52.24	26	*i* P	P	05 55 44.4	-3.8
SFJD				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
SFJD	Kangerlussuaq	52.24	26	*i* P	P	05 55 44.4	-3.8
	comp=Z,12nm,0.9s,mb4.8						
TXAR	Lajitas Array	52.29	89	P	P	05 55 48.6	-0.4
	comp=Z,4.9nm,0.9s,mb4.4,baz=297,slow=5.4,SNR=19						
TXAR				LR	LR	06 16 50.4	
	comp=Z,110nm,20.8s,MS3.9,baz=5.0,slow=35						
HDIL	Hopedale	53.29	69	*e*P	P	05 55 54.8	-1.5
HHC	Hu-ho-hao-te	53.38	292	*e*P	P	05 55 57.3	+0.3
HHC				pP	pP	05 56 06.9	-0.9
HHC				sP	sP	05 56 11.4	-0.7
HHC				PP	PP	05 57 58.6	+1.4
HHC				PcS	PcS	06 01 03.0	+0.2
HHC				*e*S	S	06 03 22.1	-4.2
HHC				sS	sS	06 03 39.4	-4.7
HHC				ScS	ScS	06 05 40.0	-3.3
HHC				SS	SS	06 07 02.1	-3.9
HHC				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
HHC				pmax	pmax		
	comp=Z,140nm,4.9s						
HHC				LR	LR		
	comp=N,250nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=E,310nm,17.3s,MS4.5						
HHC				LR	LR		
	comp=Z,330nm,19.0s,MS4.4						
CCM	Cathedral Cave	53.81	73	P	P	05 55 57.7	-2.5
CCM				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CCM	Cathedral Cave	53.81	73	*e*P	P	05 55 57.5	-2.7
	comp=Z,8.8nm,1.0s,mb4.6						
JCT	Junction City	53.85	85	*e*P	P	05 56 00.6	0.0
FVM	French Village	54.34	72	P	P	05 56 02.3	-1.8
FVM				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
FVM	French Village	54.34	72	*e*P	P	05 56 01.9	-2.2
	comp=Z,15nm,1.0s,mb4.9						
BTO	Baotou	54.42	292	*e*P	P	05 56 04.6	0.0
MIAR	Mount Ida	54.81	77	P	P	05 56 06.7	-0.8
MIAR				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
MIAR	Mount Ida	54.81	77	*e*P	P	05 56 06.4	-1.1
	comp=Z,21nm,1.3s,mb5.0						
SCHQ	Schefferville	55.17	44	P	P	05 56 08.9	-0.9
	comp=Z,14nm,0.9s,mb5.0,baz=320,slow=7.1,SNR=15						
SCHQ				LR	LR	06 22 22.8	
	comp=Z,273nm,18.5s,MS4.4,baz=346,slow=39						
OLIL	Olney	55.19	70	*e*P	P	05 56 08.8	-1.4
	comp=Z,16nm,0.8s,mb5.1						
SCO	Scoresbysund	55.20	13	*i* P	P	05 56 09.2	-0.6
SCO				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
SCO	Scoresbysund	55.20	13	*i* P	P	05 56 09.2	-0.6
	comp=Z,12nm,0.9s,mb4.9						
BLO	Bloomington	55.80	69	P	P	05 56 13.2	-1.4
BLO				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
BLO	Bloomington	55.80	69	*e*P	P	05 56 13.0	-1.6
	comp=Z,17nm,0.9s,mb5.1						
USIN	University of	55.96	70	*e*P	P	05 56 14.6	-1.1
	comp=Z,22nm,0.6s,mb5.4						
WCI	Wyandotte Cave	56.57	69	P	P	05 56 18.5	-1.6
WCI				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
WCI	Wyandotte Cave	56.57	69	*e*P	P	05 56 18.3	-1.8
	comp=Z,17nm,1.3s,mb4.9						
WVT	Waverly	57.12	72	P	P	05 56 22.6	-1.4
WVT				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
WVT	Waverly	57.12	72	*e*P	P	05 56 22.5	-1.5
	comp=Z,12nm,1.0s,mb4.9						
KEV	Kevo	57.73	354	*e*P	P	05 56 25.6	-2.2
KEV				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.4						
KEV	Kevo	57.73	354	*e*p	P	05 56 25.6	-2.2
	comp=Z,22nm,0.6s,mb5.4						
PLAL	Pickwick Lake	57.77	73	*e*P	P	05 56 26.7	-1.9
	comp=Z,13nm,1.0s,mb4.9						
NVS	Novosibirsk	57.79	319	*i* P	P	05 56 26.8	-1.6
NVS				pmax	pmax		

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      comp=Z,22nm,1.2s,mb5.1
NVS                                pmax   pmax
      comp=N,10.0nm,1.6s
NVS                                pmax   pmax
      comp=E,20nm,1.3s
ZAA0  Zalesovo Array    57.79 318  eP     P       05 56 27.6 -0.8
ZAA0                               ePcP   PcP     05 57 20.7 -0.1
ZALV  Zalesovo Beam     57.79 318  P      P       05 56 27.0 -1.5
ZALV                                              05 57 20.8
ZALV  Zalesovo Beam     57.79 318  P      P       05 56 27.0 -1.5
      comp=E,4.4nm,0.7s,mb4.6,baz=35,slow=6.0,SNR=25
ZALV                               PcP    PcP     05 57 20.8  0.0
      comp=E,3.2nm,0.6s,baz=28,slow=4.7,SNR=5.0
ZALV                               LR     LR      06 22 54.1
      comp=E,142nm,18.9s,MS4.1,baz=244,slow=38
ZALV  Zalesovo Beam     57.79 318  P      P       05 56 26.9 -1.5
ZALV                               PcP    PcP     05 57 20.8  0.0
ZALV                               LR     LR      06 22 54.1
ARCES ARCESS Array B    58.05 354  P      P       05 56 29.0 -1.0
      comp=E,17nm,0.8s,mb5.2,baz=13,slow=7.9,SNR=22
ARCES                              LR     LR      06 23 07.1
      comp=E,295nm,18.7s,MS4.4,baz=150,slow=38
LONY  Lake Ozonia       58.56  57  eP     P       05 56 32.6 -1.4
      comp=E,12nm,1.0s,mb4.9
WHN   Wuhan             58.80 281 ⇑P      P       05 56 35.8 -0.1
WHN                                pmax   pmax
      comp=Z,92nm,1.0s,mb5.8
LVZ   Lovozero          58.87 350  P      P       05 56 35.5 -0.3
      comp=Z,557nm,0.6s,SNR=19
LVZ   Lovozero          58.87 350⇑eP      P       05 56 34.8 -1.0
LVZ                                pmax   pmax
      comp=Z,82nm,1.0s,mb5.7
NCB   Newcomb           59.20  57  eP     P       05 56 37.6 -0.8
      comp=Z,6.8nm,0.7s,mb4.8
MCWV  Mont Chateau      59.22  64  eP     P       05 56 37.6 -1.0
      comp=Z,24nm,1.0s,mb5.2
BINY  Binghamton        59.52  59  eP     P       05 56 40.3 -0.4
      comp=Z,51nm,1.4s,mb5.4
XAN   Xi'an             59.56 287  P      P       05 56 40.8 -0.3
XAN                                pP     pP      05 56 50.8 -1.2
XAN                                sP     sP      05 56 55.8 -0.5
XAN                                PP     PP      05 58 50.8 -1.7
XAN                                S      S       06 04 46.5 -1.8
XAN                                SS     SS      06 08 42.8 -0.7
XAN                                pmax   pmax
      comp=Z,32nm,1.3s,mb5.2
XAN                                pmax   pmax
      comp=Z,46nm,4.3s
XAN                                LR     LR
      comp=E,250nm,15.7s
XAN                                LR     LR
      comp=Z,340nm,17.1s,MS4.5
SSPA  Standing Stone    59.60  62  eP     P       05 56 40.2 -1.0
      comp=Z,10nm,0.8s,mb4.9
BLA   Blacksburg        60.62  66  P      P       05 56 47.8 -0.5
BLA                                pmax   pmax
      comp=Z,23nm,0.9s,mb5.3
BLA   Blacksburg        60.62  66  eP     P       05 56 47.4 -0.9
      comp=Z,23nm,0.8s,mb5.4
GTA   Gaotai            60.92 298 ⇑P      P       05 56 49.8 -0.5
GTA                                pP     pP      05 57 01.8 +0.5
GTA                                sP     sP      05 57 05.8 +0.3
GTA                                PcP    PcP     05 57 34.8 +1.3
GTA                                PP     PP      05 59 06.6 +2.2
GTA                                S      S       06 05 02.4 -3.2
GTA                                sS     sS      06 05 20.0 -3.7
GTA                                pmax   pmax
      comp=Z,20nm,0.7s,mb5.4
GTA                                pmax   pmax
      comp=Z,120nm,4.8s
GTA                                LR     LR
      comp=N,370nm,19.0s,MS4.7
GTA                                LR     LR
      comp=E,400nm,17.8s,MS4.7
GTA                                LR     LR
      comp=Z,400nm,17.8s,MS4.6
LZH   Lanzhou           61.04 292  P      P       05 56 51.0 -0.2
LZH                                pP     pP      05 57 01.5 -0.6
LZH                                sP     sP      05 57 03.5 -2.9
LZH                                PP     PP      05 59 07.3 +1.8
LZH                                eS     S       06 05 03.1 -4.1
LZH                                sS     sS      06 05 22.0 -3.3
LZH                                SS     SS      06 09 01.3 -5.3
LZH                                pmax   pmax
      comp=Z,40nm,1.0s,mb5.5
LZH                                pmax   pmax
      comp=Z,130nm,4.0s
LZH                                LR     LR
      comp=E,820nm,16.7s
LZH                                LR     LR
      comp=Z,1μm,18.4s,MS5.1
CBN   Corbin            61.61  64  eP     P       05 56 54.8 -0.1
SOKR  Solikamsk         62.63 336  eP     P       05 57 00.7 -0.8
SOKR                               pmax   pmax
      comp=Z,30nm,1.0s,mb5.4
SOKR                               MLR    MLR
      comp=Z,950nm,25.0s,MS4.9
KURK  Kurchatov         62.74 319  P      P       05 57 01.6 -0.7
KURK                               pmax   pmax
      comp=Z,43nm,1.1s,mb5.5
KURK  Kurchatov         62.74 319  LR     LR      06 25 59.2
      comp=Z,140nm,19.1s,MS4.2,baz=40,slow=38
KURK  Kurchatov         62.74 319  eP     P       05 57 01.5 -0.9
      comp=Z,43nm,1.1s,mb5.5
PRGR  Permogore         63.20 342⇑iP      P       05 57 04.4 -0.8
PRGR                               pmax   pmax
      comp=Z,25nm,0.5s,mb5.6
WMQ   Urumqi            63.94 308⇑iP      P       05 57 10.8 +0.4
WMQ                                pP     pP      05 57 21.0 -0.4
WMQ                                sP     sP      05 57 25.0 -0.7
WMQ                                PcP    PcP     05 57 46.0 +0.3
WMQ                                PP     PP      05 59 33.0 +2.2
WMQ                                S      S       06 05 42.0 -1.4
WMQ                                pmax   pmax
      comp=Z,23nm,0.8s,mb5.3
WMQ                                pmax   pmax
      comp=Z,230nm,5.4s
WMQ                                LR     LR
      comp=N,610nm,21.0s,MS4.8
WMQ                                LR     LR
      comp=E,460nm,22.8s,MS4.8
WMQ                                LR     LR
      comp=Z,490nm,18.4s,MS4.7
SVE   Sverdlovsk        63.97 332⇓eP      P       05 57 10.4  0.0
SVE                                pmax   pmax
      comp=Z,42nm,1.2s,mb5.3
BVAR  Borovoye Array    64.03 325  P      P       05 57 10.5 -0.3
BVAR                                              05 57 45.9
BVAR  Borovoye Array    64.03 325  P      P       05 57 10.5 -0.4
      comp=Z,20nm,0.7s,mb5.3,baz=53,slow=6.7,SNR=99
BVAR                               PcP    PcP     05 57 45.9 -0.1
      comp=Z,5.1nm,0.8s,baz=63,slow=4.5,SNR=3.5
BVAR                               LR     LR      06 28 14.6
      comp=Z,658nm,18.2s,MS4.9,baz=49,slow=39
BRVK  Borovoye          64.04 325  eP     P       05 57 10.6 -0.3
BRVK                               pmax   pmax
      comp=Z,37nm,1.0s,mb5.4
BRVK  Borovoye          64.04 325  eP     P       05 57 10.6 -0.3
      comp=Z,38nm,1.0s,mb5.4
JOF   Joensuu           64.06 350  eP     P       05 57 08.8 -2.1
JOF                                pmax   pmax
      comp=Z,30nm,0.5s,mb5.6
JOF   Joensuu           64.06 350  ep     P       05 57 08.8 -2.1
      comp=Z,30nm,0.5s,mb5.6
MK31  Makanchi Array    64.19 314  P      P       05 57 10.8 -1.2
MK31                               pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.5
MK31  Makanchi Array    64.19 314  eP     P       05 57 10.8 -1.2
MKAR  Makanchi Array    64.19 314  P      P       05 57 10.8 -1.2
      comp=Z,15nm,0.7s,mb5.1,baz=49,slow=6.8,SNR=148
MKAR                               LR     LR      06 26 07.4
      comp=Z,228nm,18.4s,MS4.4,baz=24,slow=37
CD2   Chengdu           64.83 288  P      P       05 57 16.8 +0.4
CD2                                pP     pP      05 57 27.1 -0.4
CD2                                sP     sP      05 57 31.0 -0.7
CD2                                PP     PP      05 59 40.9 +1.9
CD2                                S      S       06 05 52.6 -2.2
CD2                                sS     sS      06 06 09.8 -3.2
CD2                                SS     SS      06 10 05.1 -0.9
CD2                                pmax   pmax
      comp=Z,70nm,1.1s,mb5.6
CD2                                pmax   pmax
      comp=Z,100nm,6.1s
CD2                                LR     LR
      comp=N,360nm,8.3s
CD2                                LR     LR
      comp=Z,240nm,9.5s
ARU   Arti              64.90 333  P      P       05 57 16.7 +0.3
      comp=Z,234nm,0.9s,mb6.2,SNR=10
ARU   Arti              64.90 333d iP     P       05 57 15.9 -0.5
ARU                                e              05 59 35.4
ARU                                S      S       06 05 55.9 +1.1
ARU                                SS     SS      06 10 07.5 +1.8
ARU                                pmax   pmax
      comp=Z,48nm,1.2s,mb5.4
ARU   Arti              64.90 333  eP     P       05 57 15.9 -0.5
      comp=Z,29nm,0.9s,mb5.3
KAF   Kangasniemi       65.33 352  eP     P       05 57 17.5 -1.6
KAF                                pmax   pmax
      comp=Z,61nm,0.5s,mb5.9
KAF   Kangasniemi       65.33 352  ep     P       05 57 17.5 -1.6
      comp=Z,61nm,0.5s,mb5.9,baz=6.4,slow=6.1
GYA   Guiyang           66.40 283⇑iP      P       05 57 26.9 +0.3
GYA                                pP     pP      05 57 37.8 +0.2
GYA                                sP     sP      05 57 41.3 -0.6
GYA                                PP     PP      05 59 53.8 +1.1
GYA                                S      S       06 06 14.6 +0.6
GYA                                SKS            06 07 15.4
GYA                                pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.8
GYA                                pmax   pmax
      comp=Z,50nm,5.9s
GYA                                LR     LR
      comp=N,420nm,18.8s,MS4.8
GYA                                LR     LR
      comp=E,310nm,19.2s,MS4.8
GYA                                LR     LR
      comp=Z,420nm,18.9s,MS4.7
NOA   NORSAR Array B    67.02   0  P      P       05 57 29.7 -0.3
      comp=Z,13nm,0.6s,mb5.1,baz=0.3,slow=6.3,SNR=33
NOA                                LR     LR      06 25 48.8
      comp=Z,59nm,20.0s,MS3.8,baz=180,slow=35
NOA   NORSAR Array B    67.02   0  P      P       05 57 29.7 -0.3
NOA                                LR     LR      06 25 48.8
HFS   Hagfors           67.91 359  LR     LR      06 26 38.5
      comp=Z,193nm,18.3s,MS4.4,baz=59,slow=35
KONO  Kongsberg         68.40   1⇑eP      P       05 57 37.4 -1.3
MVH1  Achvaich          69.41   9  eP     P       05 57 43.8 -1.2
KMI   Kunming           69.73 285  P      P       05 57 48.1 +0.6
KMI                                pmax   pmax
      comp=Z,27nm,1.6s,mb4.9
KMI                                LR     LR
      comp=Z,95nm,20.4s,MS4.0
TKM2  Tokmak 2          70.17 315  P      P       05 57 50.2 +0.2
TKM2                               pmax   pmax
      comp=Z,34nm,1.1s,mb5.2
TKM2  Tokmak 2          70.17 315  P      P       05 57 50.2 +0.3
      SNR=16
TKM2  Tokmak 2          70.17 315  eP     P       05 57 50.1 +0.1
      comp=Z,34nm,1.2s,mb5.2
AKTK  Aktyubinsk        70.31 330  P      P       05 57 50.4 -0.3
AKTO  Aktyubinsk        70.31 330  P      P       05 57 50.4 -0.3
      comp=Z,33nm,0.8s,mb5.3,baz=42,slow=6.3,SNR=88
USP   Ospenovka         70.36 316  P      P       05 57 51.4 +0.3
      SNR=42
ULHL  Ulahol            70.44 314  P      P       05 57 51.8 +0.1
      SNR=12
CHMS  Chumysh           70.47 316  P      P       05 57 52.1 +0.3
      SNR=14
KBK   Karagaybulak      70.67 316  P      P       05 57 53.6 +0.6
      SNR=9.7
AB31  Akbulak array     70.74 329  P      P       05 57 53.0 -0.3
AB31                               pmax   pmax
      comp=Z,20nm,0.4s,mb5.4
AAK   Ala-Archa         70.88 316  eP     P       05 57 54.5 +0.2
AAK                                pmax   pmax
      comp=Z,29nm,0.8s,mb5.3
AAK   Ala-Archa         70.88 316  P      P       05 57 54.6 +0.3
      SNR=36
AAK   Ala-Archa         70.88 316  eP     P       05 57 54.5 +0.2
      comp=Z,29nm,0.8s,mb5.3
OBN   Obninsk           70.94 345⇓iP      P       05 57 53.7 -0.7
OBN                                e              06 00 31.5
OBN                                eS     S       06 07 05.9 -1.1
OBN                                pmax   pmax
      comp=Z,82nm,0.9s,mb5.7
OBN   Obninsk           70.94 345  eP     P       05 57 53.7 -0.7
      comp=Z,55nm,0.7s,mb5.6
KZA   Kyzart            71.01 315  P      P       05 57 55.9 +0.8
      SNR=22
EAB   Aberfoyle         71.11   9  eP     P       05 57 54.6 -0.9
EBH   Black Hill        71.13   9  eP     P       05 57 55.2 -0.3
EKS2  Erkin-Say         71.16 316  P      P       05 57 56.5 +0.5
      SNR=33
EKS2  Erkin-Say         71.16 316  eP     P       05 57 56.5 +0.5
      comp=Z,35nm,1.1s,mb5.2
UCH   Uchtor            71.20 316  P      P       05 57 57.5 +1.2
      SNR=12
UCH   Uchtor            71.20 316  eP     P       05 57 57.0 +0.8
      comp=Z,16nm,1.3s,mb4.8
PPT   Papeete           71.51 161  LR     LR      06 23 46.2
      comp=Z,176nm,19.5s,MS4.3,baz=66,slow=31
EAU   Auchinoon         71.53   9  eP     P       05 57 56.7 -1.3
AML   Almayashu         71.63 316  P      P       05 57 59.7 +0.8
      SNR=22
AML   Almayashu         71.63 316  eP     P       05 57 59.5 +0.6
      comp=Z,21nm,0.9s,mb5.1
EBL   Broad Law         71.64   9  eP     P       05 57 58.5 -0.2
EKA   Eskdalemuir Ar    72.07   9  P      P       05 58 01.2  0.0
      comp=Z,11nm,0.8s,mb4.8,baz=352,slow=4.6,SNR=25
ESK   Eskdalemuir       72.08   9  eP     P       05 58 00.8 -0.5
ESK                                AMb    AMB     05 58 06.0
      comp=Z,27nm,1.4s,mb5.0
KK31  Karatay Array     72.15 319  i P    P       05 58 01.7 -0.3
KK31                               pmax   pmax
      comp=Z,15nm,0.7s,mb5.0
ECK   Cauldkaine Hil    72.22   9  eP     P       05 58 01.6 -0.5
GAL1  Galloway          72.38  10  eP     P       05 58 02.3 -0.8
GAL1                               AMb    AMB     05 58 04.2
      comp=Z,47nm,1.3s,mb5.3
XAL   Allendale         72.62   8  eP     P       05 58 04.2 -0.3
KSH   Kashi             72.77 313⇑iP      P       05 58 09.1 +3.4
KSH                                epP    pP      05 58 19.3 +2.5
KSH                                esP    sP      05 58 23.5 +2.5
KSH                                ePcP   PcP     05 58 26.0 +3.2
KSH                                eS     S       06 07 30.9 +2.4
KSH                                eSKS           06 08 07.1
KSH                                pmax   pmax
      comp=Z,51nm,0.6s,mb5.6
KSH                                pmax   pmax
      comp=Z,120nm,4.2s
KSH                                LR     LR
      comp=Z,170nm,5.3s
LSA   Lhasa             72.90 296  P      P       05 58 08.4 +1.8
LSA                                pmax   pmax
      comp=Z,40nm,1.1s,mb5.3
LSA   Lhasa             72.90 296  eP     P       05 58 08.2 +1.6
LSA                                pmax   pmax
      comp=Z,41nm,1.0s,mb5.3
LSA   Lhasa             72.90 296  eP     P       05 58 08.2 +1.6
      comp=Z,41nm,1.0s,mb5.3
HPK   Haverah Park      73.56   8  eP     P       05 58 10.6 +0.4
HPK                                AMb    AMB     05 58 19.0
      comp=Z,66nm,2.1s,mb5.2
SUW   Suwalki           73.61 353  eP     P       05 58 09.5 -0.8
SUW   Suwalki           73.61 353  P      P       05 58 09.6 -0.8
SUW                                pmax   pmax
      comp=Z,120nm,1.1s,mb5.7
SUW   Suwalki           73.61 353  eP     P       05 58 09.5 -0.9
VRHR  Novokhopersk      73.87 341  eP     P       05 58 11.3 -0.6
VRHR                               pmax   pmax
      comp=N,20nm,0.7s
VRHR                               pmax   pmax
      comp=Z,20nm,0.7s,mb5.2
BSEG  Bad Segeberg      74.14   1  eP     P       05 58 13.8 +0.3
BSEG                               pmax   pmax
      comp=Z,32nm,1.1s,mb5.2
BSEG  Bad Segeberg      74.14   1  eP     P       05 58 13.8 +0.3
      comp=Z,26nm,1.1s,mb5.1
VSR   Storozhevoye      74.23 342  eP     P       05 58 13.2 -0.9
VSR                                pmax   pmax
      comp=Z,40nm,0.6s,mb5.5
VSR                                pmax   pmax
      comp=N,10.0nm,0.7s
VSR                                pmax   pmax
      comp=E,4.0nm,0.5s
KBI1  Birley Grange     74.27   8  eP     P       05 58 13.2 -1.1
STNC  Stoke             74.37   8  eP     P       05 58 15.1 +0.2
STNC                               AMb    AMB     05 58 16.4
      comp=Z,131nm,1.4s,mb5.7
KWE   Weaver Farm       74.48   8  eP     P       05 58 15.3 -0.2
GKP   Gorka Klasztor    74.69 356  eP     P       05 58 17.1 +0.4
GKP   Gorka Klasztor    74.69 356  eP     P       05 58 17.2 +0.5
CWF   Charnwood Fore    74.80   8  eP     P       05 58 16.6 -0.7
CWF                                AMb    AMB     05 58 18.2
      comp=Z,42nm,1.3s,mb5.2
AEU   East Anglia Un    75.11   6  eP     P       05 58 18.5 -0.7
MCH1  Michaelchurch     75.38   9  eP     P       05 58 20.6 -0.1
MCH1                               AMb    AMB     05 58 22.5
      comp=Z,48nm,1.5s,mb5.2
NRDL  Niedersach Rie    75.58   1  eP     P       05 58 21.9 +0.1
      comp=Z,25nm,1.2s,mb5.0
SHL   Shillong          75.69 293  i P    P       05 58 23.0 +0.1
SHL                                ex     x       06 08 04.0
IBBN  Ibbenburen        75.73   2  eP     P       05 58 23.0 +0.3
      comp=Z,54nm,1.2s,mb5.3
HGH   Gray Hill         75.75   9  eP     P       05 58 22.6 -0.2
WTSB  Winterswijk       76.04   3⇑eP      P       05 58 24.4 -0.1
      comp=Z,24nm,1.3s,mb5.0
HEX   Exmoor            76.22  10  eP     P       05 58 24.8 -0.7
WOL   Wolverton         76.22   8  eP     P       05 58 25.3 -0.2
WOL                                AMb    AMB     05 58 26.7
      comp=Z,192nm,1.6s,mb5.8
CLZ   Clausthal         76.24   1  eP     P       05 58 26.2 +0.6
CLZ                                pmax   pmax
      comp=Z,24nm,1.2s,mb5.0
CLZ   Clausthal         76.24   1  eP     P       05 58 26.2 +0.6
      comp=Z,48nm,1.2s,mb5.3
AKASG Malin Array Be    76.28 348  P      P       05 58 24.6 -1.2
      comp=Z,25nm,0.7s,mb5.3,baz=14,slow=5.9,SNR=64
AKASG                              LR     LR      06 41 30.2
      comp=Z,159nm,18.4s,MS4.4,baz=15,slow=43
KIEV  Kiev              76.29 348  eP     P       05 58 24.8 -1.1
KIEV                               pmax   pmax
      comp=Z,52nm,1.1s,mb5.4
KIEV  Kiev              76.29 348  eP     P       05 58 24.8 -1.1
      comp=Z,52nm,1.1s,mb5.4
KKTK  Khon Kaen         76.38 279 ⇓P      P       05 58 27.4 +0.5
BUG   Bochum--Univer    76.58   3  eP     P       05 58 27.5 -0.1
      comp=Z,39nm,1.4s,mb5.1
TAPN  Taplejung         76.61 297  eP     P       05 58 28.4 +0.2
CLL   Collm             76.77 359⇑iP      P       05 58 28.5 -0.1
CLL                                e      pP      05 58 40.0 +0.2
CLL                                pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.7
CLL   Collm             76.77 359⇑iP      P       05 58 28.5 -0.1
      comp=Z,25nm,1.1s,mb5.1
CLL                                epP    pP      05 58 40.0 +0.2
CHG   Chiang Mai        76.81 284 ⇓P      P       05 58 29.3  0.0
CHTO  Chiang Mai        76.81 284  P      P       05 58 29.2 -0.1
CHTO                               pmax   pmax
      comp=Z,33nm,1.3s,mb5.1
CHTO  Chiang Mai        76.81 284  eP     P       05 58 29.1 -0.2
      comp=Z,33nm,1.4s,mb5.1
CMAR  Chiang Mai Arr    77.08 283  P      P       05 58 31.2 +0.4
      comp=Z,2.1nm,0.5s,mb4.3,baz=26,slow=6.5,SNR=6.8
UCC   Uccle             77.11   5  P      P       05 58 30.4 -0.2
      comp=Z,16nm,1.8s,mb4.6
FBE   Freiberg          77.15 359  eP     P       05 58 30.9 +0.1
      comp=Z,34nm,1.1s,mb5.2
KSP   Ksiaz             77.16 357  eP     P       05 58 31.2 +0.4
KSP   Ksiaz             77.16 357⇑eP      P       05 58 31.0 +0.2
GUN   Gumba             77.16 299  eP     P       05 58 31.6 +0.4
BEBN  Eben Emael        77.17   4  P      P       05 58 31.2 +0.4
      comp=Z,9.3nm,1.5s,mb4.5
ODAN  Odare             77.17 297  eP     P       05 58 31.3  0.0
      comp=Z,20nm,0.7s,mb5.2
BRG   Berggiesshubel    77.19 358  i P    P       05 58 31.1 +0.1
BRG                                pmax   pmax
      comp=Z,6.0nm,1.2s,mb4.4
BRG   Berggiesshubel    77.19 358  eP     P       05 58 31.2 +0.2
      comp=Z,34nm,1.2s,mb5.2
BRG   Berggiesshubel    77.19 358  i P    P       05 58 31.1 +0.2
      comp=Z,34nm,1.2s,mb5.1
JIRN  Jiri              77.19 299  eP     P       05 58 31.9 +0.5
HGN   Heimansgroeve     77.22   4⇑eP      P       05 58 31.2  0.0
      comp=Z,41nm,1.2s,mb5.2
MENF  Mencas            77.23   6  eP     P       05 58 31.0 -0.2
UBBA  Unterbreizbach    77.26   1  eP     P       05 58 31.5 +0.1
      comp=Z,20nm,1.6s,mb4.8
MEM   Membach           77.37   4  P      P       05 58 32.3 +0.3
      comp=Z,18nm,1.2s,mb4.9
SNF   Seneffe           77.40   5  P      P       05 58 32.4 +0.2
      comp=Z,12nm,1.8s,mb4.5
MOX   Moxa              77.44 360  eP     P       05 58 31.8 -0.6
      comp=Z,34nm,1.1s,mb5.2
MOX   Moxa              77.44 360  eP     P       05 58 31.8 -0.6
MOX                                pmax   pmax
      comp=Z,1.0nm,1.1s,mb3.7
MOX   Moxa              77.44 360  eP     P       05 58 32.7 +0.3
      comp=Z,27nm,1.0s,mb5.1
UPC   Upice             77.50 357  eP     P       05 58 33.0 +0.3
PVCC  Panska Ves        77.52 358  eP     P       05 58 33.1 +0.3
RAMN  Ramite            77.53 298  eP     P       05 58 33.2 -0.1
      comp=Z,61nm,0.7s,mb5.6
BCLA  Clavier           77.53   4  P      P       05 58 33.1 +0.2
      comp=Z,17nm,1.4s,mb4.8
KKN   Kakani            77.58 299  eP     P       05 58 33.7 +0.1
OJC   Ojcow             77.62 354  eP     P       05 58 33.5 +0.1
WERD  Werda             77.63 359  eP     P       05 58 33.6 +0.1
      comp=Z,54nm,2.0s,mb5.1
DPC   Dobruska-Polom    77.65 357  eP     P       05 58 34.0 +0.4
TANN  Tannenbergstha    77.67 359  eP     P       05 58 34.2 +0.6
      comp=Z,16nm,1.3s,mb4.8
PKI   Pulchoki          77.69 299  eP     P       05 58 34.1 -0.1
      comp=Z,123nm,1.2s,mb5.7
PKIN  Phulchoki         77.69 299  eP     P       05 58 33.9 -0.3
      comp=Z,83nm,1.2s,mb5.5
LVV   L'vov             77.70 352  eP     P       05 58 32.8 -1.1
GUNZ  Gunzen            77.72 359  eP     P       05 58 34.2 +0.3
      comp=Z,18nm,1.2s,mb4.9
GKN   Gorkha            77.75 300  eP     P       05 58 34.5  0.0
WERN  Wernitzgruen      77.79 359  eP     P       05 58 34.8 +0.4
      comp=Z,26nm,1.0s,mb5.1
DMN   Daman             77.82 299  eP     P       05 58 35.0 +0.1
      comp=Z,92nm,1.2s,mb5.6
DOU   Dourbes           77.83   4  P      P       05 58 35.0 +0.4
      comp=Z,11nm,1.1s,mb4.7
GIVF  Givet             77.83   4⇑iP      P       05 58 34.5 -0.1
      comp=Z,69nm,1.1s,mb5.2
GIVF  Givet             77.83   4⇑iP      P       05 58 34.5 -0.1
GIVF                               pmax   pmax
      comp=Z,35nm,1.1s,mb5.2
GIVF  Givet             77.83   4⇑iP      P       05 58 34.5 -0.1
      comp=Z,35nm,1.1s,mb5.2
TNS   Taunus Mts        77.83   2  eP     P       05 58 34.9 +0.3
TNS                                pmax   pmax
      comp=Z,55nm,1.1s,mb5.4
TNS   Taunus Mts        77.83   2  eP     P       05 58 34.9 +0.3
      comp=Z,36nm,1.1s,mb5.2
BAIF  Baives            77.84   5⇑iP      P       05 58 34.8 +0.2
      comp=Z,25nm,0.7s,mb5.0
BAIF  Baives            77.84   5⇑iP      P       05 58 34.8 +0.2
BAIF                               pmax   pmax
      comp=Z,13nm,0.7s,mb5.0
BAIF  Baives            77.84   5⇑iP      P       05 58 34.8 +0.2
      comp=Z,12nm,0.7s,mb5.0
NKC   Novy Kostel       77.85 359  eP     P       05 58 35.3 +0.6
DANN  Dangsing          77.94 301  eP     P       05 58 36.0 +0.4
KWP   Kalwaria Pacla    78.00 352  eP     P       05 58 36.1 +0.6
KWP   Kalwaria Pacla    78.00 352  P      P       05 58 36.2 +0.7
KWP                                pmax   pmax
      comp=Z,99nm,1.1s,mb5.7
KWP   Kalwaria Pacla    78.00 352⇑iP      P       05 58 35.9 +0.4
KWP   Kalwaria Pacla    78.00 352  eP     P       05 58 36.1 +0.6
PRU   Pruhonice         78.06 358  eP     P       05 58 36.5 +0.6
OKC   Ostrava-Krasne    78.08 356  eP     P       05 58 36.5 +0.5
MANZ  Manzenberg        78.10 360  eP     P       05 58 36.5 +0.4
      comp=Z,14nm,1.2s,mb4.8
ABH   Alteburg          78.15   3  eP     P       05 58 36.6 +0.2
MORC  Moravsky Berou    78.17 356⇓iP      P       05 58 35.6 -0.9
MORC  Moravsky Berou    78.17 356  P      P       05 58 37.0 +0.5
ROTZ  Rotzenmuhle       78.31 359  eP     P       05 58 38.1 +0.8
      comp=Z,36nm,1.4s,mb5.1
RUP   Ruppelstein       78.32   3  eP     P       05 58 37.5 +0.2
STHS  Stebnicka Huta    78.32 353  eP     P       05 58 38.6 +1.3
STHS                               pmax   pmax
      comp=Z,29nm,1.2s,mb5.1
STHS  Stebnicka Huta    78.32 353  eP     P       05 58 38.6 +1.3
      comp=Z,29nm,1.2s,mb5.1
WLF   Walferdange       78.32   3  P      P       05 58 38.0 +0.7
      comp=Z,13nm,1.4s,mb4.7
WLF   Walferdange       78.32   3  eP     P       05 58 38.0 +0.7
      comp=Z,23nm,1.1s,mb5.0
NIE   Niedzica          78.38 354  eP     P       05 58 38.3 +0.7
GRA1  Grafenberg Arr    78.39   0  eP     P       05 58 38.5 +0.8
      comp=Z,56nm,1.1s,mb5.4
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GRF    Grafenberg Arr   78.39   0  eP       P        05 58 38.5 +0.8
GRF                                 pmax    pmax
       comp=Z,56nm,1.1s,mb5.4
GRF    Grafenberg Arr   78.39   0  eP       P        05 58 38.5 +0.8
       comp=Z,56nm,1.1s,mb5.4
TOD    Tromm            78.45   2  eP       P        05 58 38.4 +0.4
KOLN   Koldanda         78.49 301  eP       P        05 58 38.7 +0.1
       comp=Z,97nm,1.2s,mb5.6
VRAC   Vranov           78.68 357⇑iP       P        05 58 40.0 +0.7
VRAC   Vranov           78.68 357   P       P        05 58 39.9 +0.6
       comp=Z,31nm,0.9s,mb5.2,baz=1.1,slow=5.1,SNR=33
VRAC   Vranov           78.68 357   P       P        05 58 40.1 +0.8
KOLS   Kolonicke sedl   78.73 353  eP       P        05 58 40.1 +0.6
KOLS                                pmax    pmax
       comp=Z,15nm,1.0s,mb4.9
KOLS   Kolonicke sedl   78.73 353  eP       P        05 58 40.1 +0.6
       comp=Z,15nm,1.0s,mb4.9
TREC   Trest            78.73 357  eP       P        05 58 40.1 +0.5
FLN    La Foliniere     78.82   8  eP       P        05 58 39.7 -0.3
       comp=Z,40nm,0.9s,mb5.1
FLN                                eMLR     MLR
       comp=Z,143nm,20.2s,MS4.0
FLN    La Foliniere     78.82   8  eP       P        05 58 39.7 -0.3
FLN                                 pmax    pmax
       comp=Z,20nm,0.9s,mb5.0
FLN                                 MLR     MLR
       comp=Z,140nm,20.3s,MS4.3
FLN    La Foliniere     78.82   8  eP       P        05 58 39.7 -0.3
       comp=Z,20nm,0.9s,mb5.0
FLN                                 LR      LR
       comp=Z,140nm,20.3s,MS4.3
CRVS   Cervenica-Dubn   78.82 353  eP       P        05 58 40.6 +0.5
CRVS                                pmax    pmax
       comp=Z,47nm,2.0s,mb5.1
CRVS   Cervenica-Dubn   78.82 353  eP       P        05 58 40.6 +0.5
       comp=Z,47nm,2.0s,mb5.1
WET    Wettzell         78.93 359  eP       P        05 58 41.5 +0.8
WET                                 pmax    pmax
       comp=Z,48nm,1.2s,mb5.3
WET    Wettzell         78.93 359  eP       P        05 58 41.5 +0.8
       comp=Z,23nm,1.2s,mb5.0
KHC    Kasperske Hory   78.94 359  eP       P        05 58 41.4 +0.7
ROSF   Rostrenen        78.97  10  eP       P        05 58 41.2 +0.3
       comp=Z,33nm,1.0s,mb4.9
ROSF   Rostrenen        78.97  10  eP       P        05 58 41.2 +0.3
ROSF                                pmax    pmax
       comp=Z,17nm,1.0s,mb4.9
ROSF   Rostrenen        78.97  10  eP       P        05 58 41.2 +0.3
       comp=Z,16nm,1.0s,mb4.9
LDF    La Druitiere     79.02   8  eP       P        05 58 40.7 -0.4
       comp=Z,43nm,0.9s,mb5.1
LDF    La Druitiere     79.02   8  eP       P        05 58 40.7 -0.4
LDF                                 pmax    pmax
       comp=Z,22nm,0.9s,mb5.1
LDF    La Druitiere     79.02   8  eP       P        05 58 40.7 -0.4
       comp=Z,22nm,0.9s,mb5.1
UZH    Uzhgorod         79.03 353⇓iP       P        05 58 40.8 -0.4
UZH                                 i       pP       05 58 51.0 -1.5
LANF   Langenberg       79.06   2  eP       P        05 58 41.6 +0.2
SGMF   Saint Gilles     79.13   9⇑iP       P        05 58 41.6 -0.2
       comp=Z,89nm,1.3s,mb5.2
SGMF   Saint Gilles     79.13   9⇑iP       P        05 58 41.6 -0.2
SGMF                                pmax    pmax
       comp=Z,44nm,1.3s,mb5.2
SGMF   Saint Gilles     79.13   9⇑iP       P        05 58 41.6 -0.2
       comp=Z,44nm,1.3s,mb5.2
GRR    Gorron           79.16   8⇑iP       P        05 58 41.8 -0.1
       comp=Z,55nm,1.0s,mb5.1
GRR    Gorron           79.16   8⇑iP       P        05 58 41.8 -0.1
GRR                                 pmax    pmax
       comp=Z,28nm,1.0s,mb5.2
GRR    Gorron           79.16   8⇑iP       P        05 58 41.8 -0.1
       comp=Z,28nm,1.0s,mb5.1
GEC2   GERESS Array S   79.22 358  eP       P        05 58 42.8 +0.5
GEC2                                pmax    pmax
       comp=Z,254nm,1.1s,mb6.1
GEC2   GERESS Array S   79.22 358  eP       P        05 58 42.8 +0.5
       comp=Z,25nm,1.1s,mb5.1
GERES  GERESS Array B   79.22 358   P       P        05 58 42.7 +0.5
       comp=Z,9.3nm,0.9s,mb4.7,baz=3.5,slow=4.4,SNR=59
DDI    Dehra Dun        79.27 306  ex       P        05 58 45.0 +2.1
STU    Stuttgart        79.30   1  eP       P        05 58 43.2 +0.5
STU                                 pmax    pmax
       comp=Z,39nm,1.2s,mb5.2
STU    Stuttgart        79.30   1  eP       P        05 58 43.1 +0.4
       comp=Z,44nm,1.3s,mb5.2
STU    Stuttgart        79.30   1  eP       P        05 58 43.2 +0.5
       comp=Z,39nm,1.2s,mb5.2
KECS   Kecovo           79.30 354  eP       P        05 58 41.7 -1.0
KECS                                pmax    pmax
       comp=Z,9.0nm,0.6s,mb4.9
KECS   Kecovo           79.30 354  eP       P        05 58 41.7 -1.0
       comp=Z,8.5nm,0.6s,mb4.8
VYHS   Vyhne            79.39 355  eP       P        05 58 43.9 +0.7
VYHS                                pmax    pmax
       comp=Z,21nm,1.1s,mb5.0
VYHS   Vyhne            79.39 355  eP       P        05 58 43.9 +0.7
       comp=Z,20nm,1.1s,mb5.0
QUIF   Quistinic        79.40  10  eP       P        05 58 43.3 +0.1
MEZF   Maizieres J'vi   79.44   4⇑iP       P        05 58 43.7 +0.2
       comp=Z,58nm,1.2s,mb5.1
MEZF   Maizieres J'vi   79.44   4⇑iP       P        05 58 43.7 +0.2
       comp=Z,58nm,1.2s,mb5.4
SMOL   Smolenice        79.44 356  eP       P        05 58 45.0 +1.5
STR    Strasbourg       79.45   2  eP       P        05 58 44.9 +1.4
TRPA   Tarpa            79.50 352⇑iP       P        05 58 44.3 +0.5
MODS   Modra-Piesok     79.59 356  eP       P        05 58 45.7 +1.4
MODS                                pmax    pmax
       comp=Z,26nm,1.2s,mb5.0
MODS   Modra-Piesok     79.59 356  eP       P        05 58 45.7 +1.4
       comp=Z,26nm,1.2s,mb5.0
CDF    Champ du Feu     79.61   3⇑iP       P        05 58 44.7 +0.3
       comp=Z,62nm,1.2s,mb5.1
CDF    Champ du Feu     79.61   3⇑iP       P        05 58 44.7 +0.3
CDF                                 pmax    pmax
       comp=Z,31nm,1.2s,mb5.1
CDF    Champ du Feu     79.61   3⇑iP       P        05 58 44.7 +0.3
       comp=Z,31nm,1.2s,mb5.1
BFO    Black Forest     79.72   2  i P      P        05 58 45.7 +0.7
BFO    Black Forest     79.72   2  eP       P        05 58 45.3 +0.3
       comp=Z,32nm,1.2s,mb5.1
BUR08  Bucovina Ar. S   79.74 351  eP       P        05 58 45.3 +0.1
THEF   They Montfort    79.75   4  eP       P        05 58 45.3 +0.1
BUR02  Bucovina Ar. S   79.77 351   P       P        05 58 45.6 +0.3
BURAR  Bucovina Array   79.77 351⇑iP       P        05 58 45.0 -0.3
ZST    Bratislava       79.77 356  eP       P        05 58 46.6 +1.3
ZST                                 pmax    pmax
       comp=Z,42nm,1.1s,mb5.3
ZST    Bratislava       79.77 356  eP       P        05 58 46.6 +1.3
ZST    Bratislava       79.77 356  eP       P        05 58 46.6 +1.3
       comp=Z,42nm,1.1s,mb5.3
ECH    Echery           79.81   3  eP       P        05 58 45.5 +0.1
ECH    Echery           79.81   3   P       P        05 58 45.6 +0.1
ECH                                 pmax    pmax
       comp=Z,38nm,1.0s,mb5.3
LIBD   Limburg          79.88   3  eP       P        05 58 46.4 +0.5
PSZ    Piszkesteto      79.90 354⇑iP       P        05 58 46.3 +0.3
PSZ    Piszkesteto      79.90 354   P       P        05 58 46.8 +0.9
FUR    Furstenfeldbru   79.92   0  eP       P        05 58 46.8 +0.7
FUR                                 pmax    pmax
       comp=Z,17nm,1.2s,mb4.8
FUR    Furstenfeldbru   79.92   0  eP       P        05 58 46.8 +0.7
       comp=Z,48nm,1.2s,mb5.3
KIS    Kishinev         79.97 348  eP       P        05 58 45.0 -1.3
KIS    Kishinev         79.97 348  eUNK              05 58 45.0
KBL    Kabul            79.97 315⇑iP       P        05 58 45.7 -0.9
KBL                                 pmax    pmax
       comp=Z,52nm,1.1s,mb5.4
KBL    Kabul            79.97 315⇑iP       P        05 58 45.7 -0.9
       comp=Z,52nm,1.1s,mb5.4
HAU    Haudompre        79.99   3⇑iP       P        05 58 46.6 +0.2
       comp=Z,57nm,1.0s,mb5.2
HAU                                eMLR     MLR
       comp=Z,146nm,18.5s,MS4.0
HAU    Haudompre        79.99   3⇑iP       P        05 58 46.6 +0.2
HAU                                 pmax    pmax
       comp=Z,29nm,1.0s,mb5.2
HAU                                 MLR     MLR
       comp=Z,150nm,18.5s,MS4.4
HAU    Haudompre        79.99   3⇑iP       P        05 58 46.6 +0.2
       comp=Z,28nm,1.0s,mb5.2
HAU                                 LR      LR
       comp=Z,150nm,18.5s,MS4.4
CONA   Conrad Observa   80.08 357⇑iP       P        05 58 47.9 +0.9
       comp=Z,48nm,1.1s,mb5.3,SNR=23
CSNA   Conrad Observa   80.08 357⇑iP       P        05 58 47.9 +0.9
       comp=Z,44nm,1.1s,mb5.3
FELD   Feldberg im Sc   80.17   2  eP       P        05 58 47.0 -0.4
MOF    Molkenrain       80.17   3  eP       P        05 58 47.7 +0.3
HINF   Hinteralfeld     80.19   3⇑iP       P        05 58 47.6  0.0
       comp=Z,34nm,0.8s,mb5.0
HINF   Hinteralfeld     80.19   3⇑iP       P        05 58 47.6  0.0
HINF                                pmax    pmax
       comp=Z,17nm,0.8s,mb5.0
HINF   Hinteralfeld     80.19   3⇑iP       P        05 58 47.6  0.0
       comp=Z,17nm,0.8s,mb5.0
MOA    Molln            80.21 358⇑iP       P        05 58 48.2 +0.6
       comp=Z,18nm,1.2s,mb4.9,SNR=9.0
KIV    Kislovodsk       80.40 338   P       P        05 58 49.1 +0.4
       comp=Z,242nm,0.8s,mb6.2,SNR=7.9
KIV    Kislovodsk       80.40 338  eP       P        05 58 49.1 +0.4
KIV                                 pmax    pmax
       comp=Z,43nm,1.1s,mb5.3
KIV    Kislovodsk       80.40 338⇑iP       P        05 58 49.2 +0.5
       comp=Z,37nm,0.9s,mb5.3
HYF    Humbligny        80.54   6  eP       P        05 58 49.7 +0.3
LOR    Lormes           80.61   5⇑iP       P        05 58 49.9 +0.1
       comp=Z,67nm,1.1s,mb5.2
LOR                                eMLR     MLR
       comp=Z,130nm,20.0s,MS4.0
LOR    Lormes           80.61   5⇑iP       P        05 58 49.9 +0.1
LOR                                 pmax    pmax
       comp=Z,33nm,1.1s,mb5.2
LOR                                 MLR     MLR
       comp=Z,130nm,20.0s,MS4.3
LOR    Lormes           80.61   5⇑iP       P        05 58 49.9 +0.1
       comp=Z,34nm,1.1s,mb5.2
LOR                                 LR      LR
       comp=Z,130nm,20.0s,MS4.3
LOMF   Lomont           80.66   3  eP       P        05 58 50.5 +0.4
MOTA   Moosalm          80.74   0⇑iP       P        05 58 51.1 +0.6
       comp=Z,40nm,1.1s,mb5.3,SNR=20
WATA   Walderalm        80.75 360⇑iP       P        05 58 51.3 +0.7
       comp=Z,24nm,0.9s,mb5.1
ARSA   Arzberg          80.77 357⇑iP       P        05 58 51.5 +0.8
       comp=Z,34nm,1.2s,mb5.2,SNR=10
DAVA   Damuels          80.79   1⇑iP       P        05 58 51.2 +0.4
       comp=Z,17nm,1.0s,mb4.9
SSF    Saint Saulge     80.80   5⇑iP       P        05 58 50.9 +0.1
       comp=Z,74nm,1.1s,mb5.2
SSF    Saint Saulge     80.80   5⇑iP       P        05 58 50.9 +0.1
SSF                                 pmax    pmax
       comp=Z,37nm,1.1s,mb5.2
SSF    Saint Saulge     80.80   5⇑iP       P        05 58 50.9 +0.1
       comp=Z,37nm,1.1s,mb5.2
DRGR                    80.82 352⇑iP       P        05 58 50.8 -0.1
WTTA   Wattenberg       80.82 360⇑iP       P        05 58 51.8 +0.9
       comp=Z,66nm,1.5s,mb5.3
MFF    Saint Martin d   80.99   8⇑iP       P        05 58 52.0 +0.2
       comp=Z,93nm,1.0s,mb5.4
MFF    Saint Martin d   80.99   8⇑iP       P        05 58 52.0 +0.2
MFF                                 pmax    pmax
       comp=Z,47nm,1.0s,mb5.4
MFF    Saint Martin d   80.99   8⇑iP       P        05 58 52.0 +0.2
       comp=Z,46nm,1.0s,mb5.4
KBA    Koelnbreinsper   80.99 359  i P      P        05 58 53.2 +1.3
       comp=Z,121nm,1.2s,mb5.7,SNR=36
AVF    Avril sur Loir   81.06   6⇑iP       P        05 58 52.2  0.0
       comp=Z,49nm,0.9s,mb5.1
AVF    Avril sur Loir   81.06   6⇑iP       P        05 58 52.2  0.0
AVF                                 pmax    pmax
       comp=Z,25nm,0.9s,mb5.1
AVF    Avril sur Loir   81.06   6⇑iP       P        05 58 52.2  0.0
       comp=Z,25nm,0.9s,mb5.1
FETA   Feichten         81.06   0⇑iP       P        05 58 53.2 +1.0
       comp=Z,49nm,1.0s,mb5.4,SNR=22
SMF    Signal de Mont   81.23   5⇑iP       P        05 58 53.1  0.0
       comp=Z,93nm,1.1s,mb5.3
SMF    Signal de Mont   81.23   5⇑iP       P        05 58 53.1  0.0
SMF                                 pmax    pmax
       comp=Z,47nm,1.1s,mb5.3
SMF    Signal de Mont   81.23   5⇑iP       P        05 58 53.1  0.0
       comp=Z,47nm,1.1s,mb5.3
DAVOS  Davos            81.24   1   P       P        05 58 54.6 +1.4
BGF    Bois d'Agland    81.26   6⇑iP       P        05 58 53.3  0.0
       comp=Z,27nm,0.8s,mb4.9
BGF    Bois d'Agland    81.26   6⇑iP       P        05 58 53.3  0.0
BGF                                 pmax    pmax
       comp=Z,14nm,0.8s,mb4.9
BGF    Bois d'Agland    81.26   6⇑iP       P        05 58 53.3  0.0
       comp=Z,14nm,0.8s,mb4.9
DAVOX  Davos/Dischmat   81.30   1   P       P        05 58 54.6 +1.2
       comp=Z,14nm,0.7s,mb5.0,baz=352,slow=3.9,SNR=30
DAVOX                               LR      LR       06 34 05.3
       comp=Z,99nm,18.1s,MS4.2,baz=175,slow=35
ABTA   Abfaltersbach    81.33 359⇓iP       P        05 58 54.1 +0.5
       comp=Z,47nm,1.3s,mb5.3,SNR=15
SOKA   Soboth           81.36 357⇑iP       P        05 58 54.6 +0.8
       comp=Z,70nm,1.2s,mb5.5
ABKT   Ailbek           81.36 324   P       P        05 58 54.3 +0.3
       comp=Z,281nm,1.0s,mb6.2,SNR=17
CABF   La Chapelle      81.37   4⇑iP       P        05 58 54.6 +0.7
       comp=Z,118nm,1.1s,mb5.4
CABF   La Chapelle      81.37   4⇑iP       P        05 58 54.6 +0.7
CABF                                pmax    pmax
       comp=Z,59nm,1.1s,mb5.4
CABF   La Chapelle      81.37   4⇑iP       P        05 58 54.6 +0.7
       comp=Z,59nm,1.1s,mb5.4
PERS   Pernice          81.40 357  i P      P        05 58 54.7 +0.7
TCF    Toulx Ste Croi   81.48   6⇑iP       P        05 58 54.4 -0.1
       comp=Z,17nm,0.7s,mb4.8
TCF    Toulx Ste Croi   81.48   6⇑iP       P        05 58 54.4 -0.1
TCF                                 pmax    pmax
       comp=Z,9.0nm,0.7s,mb4.8
TCF    Toulx Ste Croi   81.48   6⇑iP       P        05 58 54.4 -0.1
       comp=Z,8.7nm,0.7s,mb4.8
OBKA   Obir             81.54 358⇑iP       P        05 58 55.3 +0.5
       comp=Z,29nm,0.8s,mb5.2,SNR=16
KOGS   Kog              81.55 357  eP       P        05 58 55.2 +0.3
TUE    Stuetta          81.60   1  eP       P        05 58 55.1  0.0
       comp=Z,48nm,1.3s,mb5.3
DEV    Deva             81.70 352⇑iP       pP       05 59 06.8 -0.2
DEV    Deva             81.70 352 ⇑P       pP       05 59 06.8 -0.2
AGO    Saint Agoulin    81.78   6  eP       P        05 58 56.6 +0.6
MLR    Muntele Rosu     81.79 350⇑iP       P        05 58 57.9 +1.8
MLR    Muntele Rosu     81.79 350 ⇑P       P        05 58 57.9 +1.7
CADS   Cadrg            81.84 358  i P      P        05 58 56.1 -0.3
OG05   Jujurieux        81.92   4  eP       P        05 58 57.3 +0.6
VOIR                    81.94 350⇑iP       P        05 58 57.3 +0.4
VOIR                    81.94 350   P       P        05 58 57.7 +0.8
PYM    Petit Puy Mans   82.07   6  eP       P        05 58 57.8 +0.2
BZS    Buzias           82.07 353⇑iP       P        05 58 57.5 -0.1
BZS    Buzias           82.07 353   P       P        05 58 57.4 -0.2
GCIS   Gornji Cirnik    82.15 357  i P      P        05 58 58.2 +0.2
GZR    Gura Zlata       82.20 352⇑iP       P        05 58 58.4 +0.1
GZR    Gura Zlata       82.20 352   P       P        05 58 58.4 +0.2
RSL    Roselend         82.31   3  eP       P        05 59 00.1 +1.3
COLF   Collangettes     82.34   5  eP       P        05 59 00.7 +1.7
RJF    Les Rejaudoux    82.41   7⇑iP       P        05 58 59.2 -0.2
       comp=Z,31nm,1.1s,mb4.9
RJF                                eMLR     MLR
       comp=Z,172nm,17.5s,MS4.2
RJF    Les Rejaudoux    82.41   7⇑iP       P        05 58 59.2 -0.2
RJF                                 pmax    pmax
       comp=Z,16nm,1.1s,mb4.9
RJF                                 MLR     MLR
       comp=Z,170nm,17.5s,MS4.5
RJF    Les Rejaudoux    82.41   7⇑iP       P        05 58 59.2 -0.2
       comp=Z,16nm,1.1s,mb4.8
RJF                                 LR      LR
       comp=Z,170nm,17.5s,MS4.5
LPL    La Plagne        82.49   3⇑iP       P        05 59 01.2 +1.4
       comp=Z,27nm,1.0s,mb4.8
LPL    La Plagne        82.49   3⇑iP       P        05 59 01.2 +1.4
LPL                                 pmax    pmax
       comp=Z,13nm,1.0s,mb4.8
LPL    La Plagne        82.49   3⇑iP       P        05 59 01.2 +1.4
       comp=Z,13nm,1.0s,mb4.8
LPG    La Plagne        82.51   3⇑iP       P        05 59 01.5 +1.6
       comp=Z,34nm,1.1s,mb5.0
LPG    La Plagne        82.51   3⇑iP       P        05 59 01.5 +1.6
LPG                                 pmax    pmax
       comp=Z,17nm,1.1s,mb5.0
LPG    La Plagne        82.51   3⇑iP       P        05 59 01.5 +1.6
       comp=Z,17nm,1.1s,mb5.0
TIRR   Tirgusor         82.52 348⇓iP       P        05 58 59.9  0.0
TIRR   Tirgusor         82.52 348 ⇓P       P        05 58 59.9  0.0
BOJS   Bojanci          82.53 357  i P      P        05 59 00.1 +0.1
SSB    Saint Sauveur    82.63   5  eP       P        05 59 01.1 +0.6
SSB    Saint Sauveur    82.63   5   P       P        05 59 01.5 +1.0
SSB                                 pmax    pmax
       comp=Z,23nm,1.0s,mb5.2
LFF    La Frestale      82.72   8⇑iP       P        05 59 01.2 +0.3
       comp=Z,46nm,0.6s,mb5.4
LFF    La Frestale      82.72   8⇑iP       P        05 59 01.2 +0.3
LFF                                 pmax    pmax
       comp=Z,23nm,0.6s,mb5.4
LFF    La Frestale      82.72   8⇑iP       P        05 59 01.2 +0.3
       comp=Z,23nm,0.6s,mb5.4
CAF    Calviac          82.83   7⇑iP       P        05 59 01.8 +0.3
       comp=Z,29nm,0.8s,mb5.0
CAF    Calviac          82.83   7⇑iP       P        05 59 01.8 +0.3
CAF                                 pmax    pmax
       comp=Z,15nm,0.8s,mb5.1
CAF    Calviac          82.83   7⇑iP       P        05 59 01.8 +0.3
       comp=Z,15nm,0.8s,mb5.1
BNI    Bardonecchia     82.95   3⇑iP       P        05 59 04.1 +1.9
BNI                                 pmax    pmax
       comp=Z,54nm,1.2s,mb5.5
BNI    Bardonecchia     82.95   3⇑iP       P        05 59 04.1 +1.9
       comp=Z,54nm,1.2s,mb5.5
ORIF   Oris-en-Rattie   83.05   4⇑iP       P        05 59 03.6 +0.9
       comp=Z,34nm,0.9s,mb5.1
ORIF                               eMLR     MLR
       comp=Z,139nm,17.5s,MS4.1
ORIF   Oris-en-Rattie   83.05   4⇑iP       P        05 59 03.6 +0.9
ORIF                                pmax    pmax
       comp=Z,17nm,0.9s,mb5.1
ORIF   Oris-en-Rattie   83.05   4⇑iP       P        05 59 03.6 +0.9
       comp=Z,17nm,0.9s,mb5.1
VIVF   Saint-Julien-l   83.06   5⇑iP       P        05 59 03.3 +0.6
       comp=Z,31nm,0.8s,mb5.1
VIVF   Saint-Julien-l   83.06   5⇑iP       P        05 59 03.3 +0.6
VIVF                                pmax    pmax
       comp=Z,16nm,0.8s,mb5.1
VIVF   Saint-Julien-l   83.06   5⇑iP       P        05 59 03.3 +0.6
       comp=Z,16nm,0.8s,mb5.1
MBDF   Montbardon       83.28   3⇑iP       P        05 59 05.3 +1.4
       comp=Z,35nm,0.6s,mb5.2
MBDF   Montbardon       83.28   3⇑iP       P        05 59 05.3 +1.4
MBDF                                pmax    pmax
       comp=Z,17nm,0.6s,mb5.2
MBDF   Montbardon       83.28   3⇑iP       P        05 59 05.3 +1.4
       comp=Z,17nm,0.6s,mb5.3
LASF   Ste Croix        83.79   5⇑iP       P        05 59 07.3 +0.8
       comp=Z,48nm,1.1s,mb5.2
STOF   St-Etienne Org   83.97   4  eP       P        05 59 08.0 +0.6
SMRF   Simiane la Rot   83.98   4⇑iP       P        05 59 08.8 +1.3
       comp=Z,60nm,1.0s,mb5.4
SMRF   Simiane la Rot   83.98   4⇑iP       P        05 59 08.8 +1.3
       comp=Z,60nm,1.0s,mb5.7
TOUF   Mont Tournerai   84.01   3  eP       P        05 59 08.4 +0.8
SAOF   Saorge           84.04   3  eP       P        05 59 08.2 +0.4
VILF   Villemus         84.11   4  eP       P        05 59 10.0 +1.9
MVIF   Mont Vial        84.12   3  eP       P        05 59 08.9 +0.7
PRAF   Pradon           84.13   5  eP       P        05 59 09.3 +1.0
SBF    Sospel           84.16   3⇑iP       P        05 59 08.8 +0.4
       comp=Z,98nm,0.8s,mb5.7
SBF    Sospel           84.16   3⇑iP       P        05 59 08.8 +0.4
SBF                                 pmax    pmax
       comp=Z,49nm,0.8s,mb5.7
SBF    Sospel           84.16   3⇑iP       P        05 59 08.8 +0.4
       comp=Z,49nm,0.8s,mb5.7
CALN   Calern           84.26   3  eP       P        05 59 10.6 +1.7
TREF   Trevaresse       84.32   4  eP       P        05 59 08.0 -1.2
SJPF   Ste Jean         84.35   9⇑iP       P        05 59 10.2 +0.8
       comp=Z,16nm,0.6s,mb5.0
SJPF   Ste Jean         84.35   9⇑iP       P        05 59 10.2 +0.8
SJPF                                pmax    pmax
       comp=Z,8.0nm,0.6s,mb5.0
SJPF   Ste Jean         84.35   9⇑iP       P        05 59 10.2 +0.8
       comp=Z,8.1nm,0.6s,mb5.0
TAVF   Tavernes         84.36   4  eP       P        05 59 10.6 +1.2
MTLF   Montolieu        84.42   7⇑iP       P        05 59 10.2 +0.5
       comp=Z,59nm,1.0s,mb5.4
MTLF   Montolieu        84.42   7⇑iP       P        05 59 10.2 +0.5
MTLF                                pmax    pmax
       comp=Z,29nm,1.0s,mb5.4
MTLF   Montolieu        84.42   7⇑iP       P        05 59 10.2 +0.5
       comp=Z,29nm,1.0s,mb5.4
FRF    La Foret Royal   84.44   3⇑iP       P        05 59 10.2 +0.4
       comp=Z,80nm,0.9s,mb5.5
FRF    La Foret Royal   84.44   3⇑iP       P        05 59 10.2 +0.4
FRF                                 pmax    pmax
       comp=Z,40nm,0.9s,mb5.5
FRF    La Foret Royal   84.44   3⇑iP       P        05 59 10.2 +0.4
       comp=Z,40nm,0.9s,mb5.5
EPF    Esparros         84.58   8⇑iP       P        05 59 10.3 -0.2
       comp=Z,30nm,0.9s,mb5.2
EPF    Esparros         84.58   8⇑iP       P        05 59 10.3 -0.2
EPF                                 pmax    pmax
       comp=Z,15nm,0.9s,mb5.1
EPF    Esparros         84.58   8⇑iP       P        05 59 10.3 -0.2
       comp=Z,15nm,0.9s,mb5.1
ETSF   Etsaut           84.63   9⇑iP       P        05 59 11.5 +0.7
       comp=Z,41nm,0.6s,mb5.4
ETSF   Etsaut           84.63   9⇑iP       P        05 59 11.5 +0.7
ETSF                                pmax    pmax
       comp=Z,21nm,0.6s,mb5.4
ETSF   Etsaut           84.63   9⇑iP       P        05 59 11.5 +0.7
       comp=Z,21nm,0.6s,mb5.4
LMR    La Mourre        84.66   4⇑iP       P        05 59 11.5 +0.6
       comp=Z,60nm,1.0s,mb5.4
LMR    La Mourre        84.66   4⇑iP       P        05 59 11.5 +0.6
LMR                                 pmax    pmax
       comp=Z,30nm,1.0s,mb5.4
LMR    La Mourre        84.66   4⇑iP       P        05 59 11.5 +0.6
       comp=Z,30nm,1.0s,mb5.4
VIEF   Viey             84.69   8  eP       P        05 59 12.1 +1.0
MLS    Moulis           84.71   8  eP       P        05 59 11.7 +0.5
RESF   Ens              84.80   8  eP       P        05 59 12.9 +1.3
LRDF   Laroque-de-Fa    84.84   7  eP       P        05 59 12.6 +0.7
PTO    Porto            85.34  15  eP       P        05 59 15.4 +1.0
       comp=Z,42nm,1.6s,mb5.3
PVRL   Vila Real        85.35  14  eP       P        05 59 14.9 +0.5
       comp=Z,28nm,1.6s,mb5.2
PGF    Pioggiola        85.52   2⇑iP       P        05 59 15.8 +0.6
       comp=Z,154nm,0.9s,mb5.9
PGF    Pioggiola        85.52   2⇑iP       P        05 59 15.8 +0.6
PGF                                 pmax    pmax
       comp=Z,77nm,0.9s,mb5.9
PGF    Pioggiola        85.52   2⇑iP       P        05 59 15.8 +0.6
       comp=Z,77nm,0.9s,mb5.9
PVIS   Viseu            85.87  15  eP       P        05 59 17.7 +0.7
       comp=Z,26nm,1.8s,mb5.2
BRTR   Keskin Array B   86.33 343   P       P        05 59 20.1 +0.8
       comp=Z,12nm,0.8s,mb5.2,baz=350,slow=1.3,SNR=24
BRTR                                LR      LR       06 47 27.0
       comp=Z,66nm,18.7s,MS4.1,baz=285,slow=42
MALT   Malatya          86.74 339⇑iP       P        05 59 22.1 +0.7
MALT   Malatya          86.74 339 ⇑P       P        05 59 22.1 +0.7
WRA    Warramunga Arr   87.32 232   P       P        05 59 22.7 -1.5
       comp=Z,2.8nm,0.8s,mb4.5,baz=33,slow=5.8,SNR=18
ESDC   Sonseca Array    87.44  12   P       P        05 59 24.9 +0.1
       comp=Z,6.2nm,0.7s,mb5.0,baz=346,slow=4.6,SNR=38
EVO    Evora            87.98  15  eP       P        05 59 27.8 +0.4
       comp=Z,35nm,1.9s,mb5.3
PSI    Prapat           89.31 274   P       P        05 59 34.0  0.0
       comp=Z,13nm,0.9s,mb5.3,baz=349,slow=5.8,SNR=6.5
HYB    Hyderabad        89.58 298  i P      P        05 59 34.0 -1.2
HYB    Hyderabad        89.58 298  eP       P        05 59 34.0 -1.2
ASAR   Alice Springs    90.70 231   P       P        05 59 39.2 -0.9
       comp=Z,5.9nm,0.8s,mb4.9,baz=29,slow=4.5,SNR=44
POO    Poona            91.15 303  ex       x        05 59 43.0
KEST   Kesra            92.33   2   P       P        05 59 47.5 -0.2
       comp=Z,4.0nm,1.1s,mb4.7,baz=195,slow=16,SNR=6.7
MMAI   Mount Meron Ar   92.49 340   P       P        05 59 49.0 +0.5
       comp=Z,0.9nm,0.5s,mb4.4,baz=350,slow=4.2,SNR=4.9
ASF    Jabal al Asfar   92.98 339   P       P        05 59 51.2 +0.5
       comp=Z,5.7nm,0.8s,mb5.1,baz=208,slow=4.0,SNR=7.7
MDT    Midelt           94.10  13   P       P        05 59 57.1 +1.2
       comp=Z,2.9nm,0.8s,mb4.7,baz=300,slow=14,SNR=4.1
TORD   Torodi Ar. Bea  114.29  10   PKP     PKiKP    06 05 15.8 -1.4
       comp=Z,0.7nm,0.8s,baz=333,slow=2.2,SNR=3.8
TORD                                PP      PP       06 06 14.1 +2.2
       comp=Z,1.5nm,0.9s,baz=357,slow=6.6,SNR=5.6
TORD                                PKKPbc  PKKPbc   06 15 54.0 -0.8
       comp=Z,1.2nm,1.0s,baz=204,slow=2.3,SNR=4.6
KMBO   Kilima Mbogo    124.61 328   PKP     PKPdf    06 05 37.1 +0.1
       comp=Z,0.9nm,0.5s,baz=40,slow=22,SNR=6.0
TSUM   Tsumeb          146.62 349   PKPbc   PKPbc    06 06 19.2 +0.2
       comp=Z,9.4nm,0.8s,baz=338,slow=6.1,SNR=11
LBTB   Lobatse         150.70 333  ePKIKP   PKPbc    06 06 29.8 +0.5
BOSA   Boshof          154.19 331   PKPbc   PKPbc    06 06 37.2 +0.2
       comp=Z,2.9nm,0.8s,baz=32,slow=6.5,SNR=5.5
BOSA                                PKPab   PKPab    06 06 50.3 -0.6
       comp=Z,2.0nm,0.5s,baz=5.0,slow=9.0,SNR=5.2
```

NEIC ***17*** *06:15:34.7, 17°.25N×101°.16W, h6^{km}, MD3.9(MEX), After MEX.*

MEX 17 06:15:34.7±0.6**, 17°.25N×101°.16W, h6**^{km}±48^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.88	103	*i* P	Pg	06 15 49.2	-2.3
CAIG				*i* S	Sg	06 16 00.7	-2.3
ACX	Acapulco	1.25	108	*i* P	Pn	06 15 55.0	-3.7
ACX				*i* S	Sg	06 16 11.2	-3.7
MEIG	Mezcala	1.61	65	*e*P	Pn	06 16 00.5	-3.1
MEIG				*i* S	Sn	06 16 19.3	-5.5
MZVM		2.66	43	*i* P	Pn	06 16 15.6	-2.5
MZVM				*i* S	Sn	06 16 44.8	-5.9
PBVM	Pinon	2.94	42	*e*P	Pn	06 16 19.2	-2.7
PBVM				*i* S	Sn	06 16 55.1	-2.4
PPM	Popocatepetl	3.01	53	*e*P	Pn	06 16 23.3	+0.4
PPM				*i* S	Sn	06 16 58.6	-0.6
PNIG	Pinotepa	3.03	106	*e*P	Pn	06 16 20.8	-2.4
PNIG				*i* S	Sn	06 16 55.3	-4.4
PTVM	Pico Tres Padr	3.03	40	*e*P	Pn	06 16 19.3	-3.9
PTVM				*i* S	Sn	06 16 55.5	-4.3
UTMO	Huajuapan	3.25	79	*i* P	Pn	06 16 24.4	-1.8
UTMO				*i* S	Sn	06 17 02.0	-3.2
IIO	Organos	3.28	44	*e*P	Pn	06 16 24.5	-2.1
IIO				*i* S	Sn	06 17 03.8	-2.2
VHO	Vista Hermosa	4.24	92	*e*P	Pn	06 16 37.5	-2.2
VHO				*i* S	Sn	06 17 27.5	-2.0

IDC ***17*** *06:15:34.9±1.2, 52°.27N×168°.65W, h0^{km}, mb3.8/14, mb1 3.9/14, mb1mx3.8/29, mbtmp3.8/14, Error ellipse: s-maj=36.8km s-min=19.0km az=6.0*

NEIC ***17*** *06:15:36.5±3.0, 52°.13N×168°.49W, h9^{km}±17^{km}, ML3.5(AEIC), Error ellipse: s-maj=20.4km s-min=8.7km az=167.0*

ISCJB ***17*** *06:15:38.9±1.5, 52°.19N±0°.10×168°.56W±0°.10, h45^{km}±11^{km}, mb3.8/13, Error ellipse: s-maj=17.6km s-min=8.4km az=158.1*

ISC 17 06:15:38.5±2.0**, 52°.17N**±0°.08×**168°.51W**±0°.09**, h25**^{km}±12^{km}**, n24, σ0^{s}82**/27**, mb3.8**/13**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	Nikolski	0.83	346	P	Pb	06 15 53.3	-1.0
NIKO				S	Sb	06 16 05.5	+0.4
OKFG	Magazine Ridge	1.30	16	P	Pn	06 16 00.3	-0.6
OKFG				S	Sn	06 16 18.2	+0.7
AKGG	Akutan Green G	2.54	36	P	Pn	06 16 18.3	+0.3
ATKA	Atka Island	3.50	273	P	Pn	06 16 31.7	+0.5
ATKA				S	Sn	06 17 12.6	+0.8
SPIA	Saint Paul Isl	5.12	349	P	Pn	06 16 55.1	+1.6
KDAK	Kodiak Island	10.73	52	Pn	Pn	06 18 09.8	-0.5
	1.0nm,0.3s,baz=68,slow=18,SNR=11						
PETK	Petropavlovsk-	20.42	286	P	P	06 20 13.1	-0.4
	3.0nm,0.4s,baz=83,slow=15,SNR=25						
YKA	Yellowknife Ar	29.98	49	P	P	06 21 45.3	+0.9
	0.3nm,0.7s,mb3.2,baz=276,slow=7.5,SNR=7.1						
YKA	Yellowknife Ar	29.98	49	P	P	06 21 45.3	+0.9
PDAR	Pinedale Array	39.92	79	P	P	06 23 11.6	+1.4
	1.0nm,0.7s,mb3.7,baz=308,slow=5.1,SNR=9.8						
SONM	Songino Array	51.86	301	P	P	06 24 44.9	+0.7
	0.6nm,0.6s,mb3.7,baz=59,slow=5.6,SNR=3.0						
TXAR	Lajitas Array	52.22	89	P	P	06 24 47.7	+0.5
	0.3nm,0.8s,mb3.3,baz=289,slow=4.6,SNR=3.6						
TXAR	Lajitas Array	52.22	89	P	P	06 24 47.7	+0.5
KURK	Kurchatov	62.87	319	P	P	06 26 01.6	-0.3
	0.4nm,0.4s,mb3.9,baz=42,slow=8.3,SNR=2.8						
BVAR	Borovoye Array	64.17	325	P	P	06 26 09.8	-0.6
	1.5nm,0.8s,mb4.1,baz=48,slow=6.9,SNR=4.2						
JOF	Joensuu	64.20	350	*e*p	P	06 26 08.9	-1.5
MKAR	Makanchi Array	64.33	314	P	P	06 26 10.5	-1.0
	0.5nm,0.6s,mb3.7,baz=48,slow=7.6,SNR=6.8						
KAF	Kangasniemi	65.46	352	*e*p	P	06 26 17.2	-1.4
NOA	NORSAR Array B	67.14	0	P	P	06 26 28.9	-0.5
	1.4nm,0.8s,mb4.0,baz=0.7,slow=6.2,SNR=2.7						
HFS	Hagfors	68.04	359	P	P	06 26 34.6	-0.5
	1.2nm,0.4s,mb4.3,baz=26,slow=4.0,SNR=14						
AKTO	Aktyubinsk	70.45	330	P	P	06 26 50.6	+0.5
	0.7nm,0.6s,mb3.8,baz=44,slow=6.1,SNR=4.1						
AKASG	Malin Array Be	76.41	349	P	P	06 27 24.5	-0.8
	1.5nm,0.8s,mb4.0,baz=17,slow=6.3,SNR=3.0						
ESDC	Sonseca Array	87.55	12	P	P	06 28 24.6	+0.6
	0.2nm,0.4s,mb3.7,baz=324,slow=3.8,SNR=3.0						
ASAR	Alice Springs	90.67	231	P	P	06 28 38.9	+0.3
	0.3nm,0.8s,mb3.6,baz=21,slow=4.4,SNR=5.6						

ISCJB ***17*** *06:19:34.7±1.4, 36°.13N±0°.05×21°.53E±0°.10, h6^{km}±8^{km}, mb3.5/5, Error ellipse: s-maj=13.1km s-min=8.6km az=170.8*

CSEM ***17*** *06:19:36.2±0.6, 36°.18N×21°.62E, h2^{km}, ML3.5, Error ellipse: s-maj=13.9km s-min=11.4km az=73.0*

NEIC ***17*** *06:19:36.6, 36°.17N×21°.62E, h5^{km}, ML3.5(ATH), After ATH.*

ATH ***17*** *06:19:36.6, 36°.17N×21°.62E, h5^{km}, MD3.6/8, ML3.5*

IDC ***17*** *06:19:41.6±4.4, 36°.30N×21°.89E, h52^{km}±49^{km}, mb3.3/5, mb1 3.4/6, mb1mx3.2/24, mbtmp3.4/6, ML2.7/1, Error ellipse: s-maj=35.8km s-min=27.6km az=133.0*

ISC 17 06:19:36.8±1.4**, 36°.15N**±0°.06×**21°.64E**±0°.09**, h9**^{km}±7^{km}**, n33, σ1^{s}32**/39**, mb3.5**/5**, 2C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.75	6	*e*PB	Pg	06 19 50.7	-0.7
PYL				*e*SB	Sg	06 20 01.5	+0.3
PYL	PYLOS	0.75	6	*e*Pb	Pg	06 19 50.7	-0.7
PYL				*e*Sb	Sg	06 20 01.5	+0.3
ITM	Ithomi	1.06	13	*e*PB	Pg	06 19 56.4	-0.8
ITM				*e*SB	Sg	06 20 11.4	+0.5
ITM	Ithomi	1.06	13	*e*Pb	Pg	06 19 56.4	-0.8
ITM				*e*Sb	Sg	06 20 11.4	+0.5
KYTH	Kithira	1.14	83	*e*PN	Pg	06 19 58.2	-0.5
KYTH	Kithira	1.14	83	*e*Pn	Pg	06 19 58.2	-0.5
VLI	Veliai	1.19	61	*e*PB	Pg	06 20 00.0	+0.3
VLI	Veliai	1.19	61	*e*Pb	Pg	06 20 00.0	+0.3
VLX	Vlachokerasia	1.36	26	*e*PG	Pn	06 20 01.4	-0.6
VLX				*e*SB	Sn	06 20 20.4	+0.2
VLX	Vlachokerasia	1.36	26	*e*Pg	Pn	06 20 01.4	-0.6
VLX				*e*Sb	Sn	06 20 20.4	+0.2
RLS	Riolos of Patr	1.91	356	*e*PN	Pn	06 20 13.2	+3.6
NAIG	Nisos Aigina	2.19	42	*e*PN	Pn	06 20 15.6	+2.2
NAIG	Nisos Aigina	2.19	42	*e*Pn	Pn	06 20 15.6	+2.2
VLS	Valsamata	2.19	338	*e*PN	Pn	06 20 15.3	+1.8
VLS	Valsamata	2.19	338	*e*Pn	Pn	06 20 15.3	+1.8
ATH	Athens Observa	2.47	42	*e*PN	Pn	06 20 21.0	+3.8
PTL	Penteli	2.60	42	*e*PN	Pn	06 20 22.5	+3.4
EVR	Evrytania	2.77	3	*e*PN	Pn	06 20 25.0	+3.6
IDI	Anoyia	2.78	107	P	Pn	06 20 21.8	+0.2
	1.5nm,0.3s,baz=282,slow=18,SNR=4.3						
IDI	Anoyia	2.78	107	P	Pn	06 20 21.8	+0.3
BIA	Bitola	4.87	357	*e*Pn	Pn	06 20 50.7	+0.4
BIA	Bitola	4.87	357	*e*Pn	Pn	06 20 50.7	+0.4
KRUS	Krusevo	5.22	357	*e*Pn	Pn	06 20 54.9	-0.2
KRUS	Krusevo	5.22	357	*e*Pn	Pn	06 20 54.9	-0.2
BARS	Barje	6.66	1	⇑*i*P	Pn	06 21 14.7	-0.2
DIVS	Divibare	8.04	351	⇑*i*P	Pn	06 21 32.3	-1.5
HFS	Hagfors	24.55	350	P	P	06 24 54.8	-1.7
	1.5nm,0.6s,mb3.7,baz=153,slow=13,SNR=6.0						
HFS	Hagfors	24.55	350	P	P	06 24 54.8	-1.8
NOA	NORSAR Array B	25.78	348	P	P	06 25 06.5	-1.2
	1.6nm,0.8s,mb3.6,baz=159,slow=13,SNR=3.2						
NOA	NORSAR Array B	25.78	348	P	P	06 25 06.6	-1.2
TORD	Torodi Ar. Bea	29.09	223	P	P	06 25 39.5	+1.6
	0.4nm,0.7s,mb3.3,baz=32,slow=9.5,SNR=2.8						
MKAR	Makanchi Array	45.63	57	P	P	06 27 54.6	-2.8
	0.2nm,0.4s,mb3.4,baz=272,slow=7.7,SNR=6.7						
ZALV	Zalesovo Beam	46.41	47	P	P	06 28 00.4	-3.0
	0.5nm,0.4s,mb3.8,baz=277,slow=8.1,SNR=2.5						

ISCJB ***17*** *06:28:03.5±0.5, 22°.86N±0°.05×142°.2E±0°.1, h26^{km}, mb4.4/24, MS3.8/10, Error ellipse: s-maj=17.1km s-min=7.8km az=179.1*

IDC ***17*** *06:28:04.8±0.7, 22°.97N×142°.41E, h24^{km}±4^{km}, mb4.0/16, mb1 4.2/18, mb1mx4.1/23, mbtmp4.0/18, ML3.5/2, MS3.7/13, Ms1 3.8/13, ms1mx3.5/40, Error ellipse: s-maj=22.6km s-min=13.7km az=84.0*

NEIC ***17*** *06:28:05.1±0.4, 22°.98N×142°.32E, mb4.8/7, Error ellipse: s-maj=15.0km s-min=9.3km az=83.0*

ISC 17 06:28:05.3±0.5**, 22°.88N**±0°.06×**142°.3E**±0°.1**, h27**^{km}**, h27**^{km}±.7^{km}**:pP-P, n38, σ1^{s}02**/32**, mb4.4**/24**, MS3.8**/10**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	4.20	359	Pn	Pn	06 29 08.7	+1.0
	24nm,0.3s,baz=275,slow=20,SNR=5.7						
CBIJ				Sn	Sn	06 29 57.8	+2.0
	22nm,0.3s,baz=285,slow=20,SNR=3.2						
CBIJ				LR	LR	06 30 16.9	
	comp=Z,201nm,20.7s,baz=286,slow=32						
JOW	Kunigami	13.31	290	LR	LR	06 35 30.4	
	comp=Z,623nm,20.6s,baz=88,slow=33						
MJAR	Matsushiro Arr	14.07	346	Pn	Pn	06 31 20.4	-2.4
	0.3nm,0.3s,baz=127,slow=12,SNR=5.3						
MAT	Matsushiro	14.07	346	P	Pn	06 31 27.3	+4.5
MAT				S	Sn	06 34 28.8	+31
KSRS	Korea Array	19.07	323	P	Pn	06 32 26.8	+0.2
	0.1nm,0.3s,baz=134,slow=12,SNR=5.0						
KSRS				LR	LR	06 39 13.6	
	comp=Z,189nm,18.7s,baz=269,slow=35						
DAV	Davao City (W)	22.48	228	LR	LR	06 40 16.8	
	comp=Z,318nm,19.0s,MS3.8,baz=72,slow=32						
PETK	Petropavlovsk-	32.39	17	LR	LR	06 45 56.7	
	comp=Z,94nm,20.4s,MS3.5,baz=197,slow=33						
SONM	Songino Array	37.90	320	PcP	PcP	06 37 36.3	+0.5
	0.5nm,0.8s,baz=147,slow=3.4,SNR=3.2						
SONM				LR	LR	06 52 10.0	
	comp=Z,166nm,18.2s,MS3.9,baz=1.9,slow=38						
CMAR	Chiang Mai Arr	40.68	272	P	P	06 35 45.9	+2.2
	1.3nm,0.3s,mb4.0,baz=57,slow=7.5,SNR=6.6						
CMAR				LR	LR	06 50 58.2	
	comp=Z,109nm,19.9s,MS3.7,baz=131,slow=34						
WRAB	Tennant Creek	43.25	191	*e*P	P	06 36 05.1	+0.6
	15nm,0.9s,mb4.7						
WRAB				*e*pP	pP	06 36 13.6	+0.9
WRA	Warramunga Arr	43.26	191	P	P	06 36 05.4	+0.8
	7.8nm,0.8s,mb4.5,baz=11,slow=8.5,SNR=28						
WRA				PcP	PcP	06 37 52.0	-1.5
	0.7nm,0.7s,baz=358,slow=3.4,SNR=4.5						
WRA				LR	LR	06 52 38.7	
	comp=Z,90nm,21.4s,MS3.6,baz=250,slow=34						
ASAR	Alice Springs	46.97	191	P	P	06 36 34.8	+0.7
	3.5nm,0.6s,mb4.5,baz=16,slow=11,SNR=50						
ASAR				pP	pP	06 36 42.8	+0.5
	2.7nm,0.6s,baz=12,slow=9.5,SNR=8.4						
BILL	Bilibino	47.54	12	P	P	06 36 33.0	-5.0
	5.3nm,0.8s,mb4.6						
ZALV	Zalesovo Beam	52.77	321	P	P	06 37 17.5	-0.4
	0.7nm,0.4s,mb3.9,baz=91,slow=9.0,SNR=3.9						
ZALV				PcP	PcP	06 38 26.5	-0.6
	0.9nm,0.5s,baz=134,slow=4.3,SNR=4.9						
ZALV				LR	LR	07 01 42.7	
	comp=Z,69nm,18.6s,MS3.7,baz=84,slow=38						
MKAR	Makanchi Array	53.29	312	P	P	06 37 22.5	+0.7
	0.9nm,0.7s,mb3.8,baz=89,slow=8.4,SNR=15						
MKAR				LR	LR	06 59 58.1	
	comp=Z,45nm,18.6s,MS3.5,baz=173,slow=36						
STKA	Stephens Creek	54.45	181	P	P	06 37 29.9	-0.4
	2.0nm,0.7s,mb4.2,baz=336,slow=10,SNR=5.8						
NWAO	Narrogin (SRO)	60.42	204	LR	LR	07 02 16.6	
	comp=Z,85nm,20.8s,MS3.9,baz=186,slow=34						
KBL	Kabul	64.04	298	*e*P	P	06 38 37.4	+0.5
	8.8nm,0.7s,mb4.9						
KBL				*e*pP	pP	06 38 45.4	0.0
ARU	Arti	67.82	323	*e*P	P	06 39 00.3	-0.4
	6.2nm,0.6s,mb4.8						
ARU				*e*pP	pP	06 39 08.8	-0.6
AKTK	Aktyubinsk	69.14	317	P	P	06 39 09.3	+0.2
AKTO	Aktyubinsk	69.14	317	P	P	06 39 09.3	+0.2
	2.2nm,0.7s,mb4.2,baz=76,slow=14,SNR=5.9						
YKA	Yellowknife Ar	75.81	28	P	P	06 39 48.0	-0.6
	1.1nm,0.6s,mb4.0,baz=292,slow=5.8,SNR=24						
YKA				LR	LR	07 11 55.6	
	comp=Z,101nm,18.5s,MS4.2,baz=175,slow=35						
YKA	Yellowknife Ar	75.81	28	P	P	06 39 48.0	-0.6
YKA				LR	LR	07 11 55.6	
ARCES	ARCESS Array B	77.54	341	P	P	06 39 58.5	+0.2
	5.0nm,0.7s,mb4.6,baz=60,slow=4.8,SNR=8.5						
ARCES				pP	pP	06 40 05.8	-1.3
	8.6nm,0.8s,baz=15,slow=5.0,SNR=3.4						
JOF	Joensuu	78.89	334	*e*p	P	06 40 05.1	-0.8
	6.4nm,0.4s,mb4.9						
KAF	Kangasniemi	81.30	335	*e*p	P	06 40 17.2	-1.7
	7.0nm,0.7s,mb4.7,baz=55,slow=5.0						
NVAR	Mina Array Bea	83.07	51	P	P	06 40 28.2	-0.4
	0.6nm,0.6s,mb3.8,baz=278,slow=4.3,SNR=4.1						
NVAR				pP	pP	06 40 35.8	-1.6
	1.1nm,0.7s,baz=264,slow=5.9,SNR=5.1						
YMR	Madison River	85.35	43	*e*P	P	06 40 40.1	0.0
	6.1nm,0.8s,mb4.8						
YMR				*e*pP	pP	06 40 48.6	-0.3
AKASG	Malin Array Be	86.06	324	P	P	06 40 42.4	-1.2
	1.4nm,0.6s,mb4.4,baz=53,slow=4.8,SNR=4.9						
RLMT	Red Lodge	86.20	42	*e*P	P	06 40 45.1	+0.8
	4.1nm,0.7s,mb4.8						
PDAR	Pinedale Array	87.15	44	P	P	06 40 50.5	+1.5
	0.4nm,0.9s,mb3.6,baz=238,slow=5.2,SNR=5.1						
PDAR				LR	LR	07 15 46.7	
	comp=Z,63nm,20.8s,MS4.0,baz=97,slow=33						
HFS	Hagfors	87.32	337	P	P	06 40 47.6	-1.9
	3.4nm,0.7s,mb4.7,baz=64,slow=3.4,SNR=6.2						
NOA	NORSAR Array B	87.55	338	P	P	06 40 50.0	-0.6
	1.3nm,0.7s,mb4.3,baz=58,slow=4.4,SNR=3.5						
NOA	NORSAR Array B	87.55	338	P	P	06 40 50.0	-0.6
BRTR	Keskin Array B	88.93	313	P	P	06 40 57.0	-0.5
	0.9nm,0.8s,mb4.1,baz=45,slow=2.2,SNR=2.7						
GERES	GERESS Array B	95.15	329	P	P	06 41 25.2	-1.0
	0.3nm,0.6s,mb3.9,baz=46,slow=5.8,SNR=3.9						
GERES				pP	pP	06 41 33.4	-1.6
	0.3nm,0.6s,baz=45,slow=4.0,SNR=2.7						
PLCA	Paso Flores	147.16	131	PKPbc	PKPbc	06 47 46.2	+0.1
	1.3nm,0.6s,baz=222,slow=3.8,SNR=6.9						
PLCA	Paso Flores	147.16	131	PKPbc	PKPbc	06 47 46.2	+0.1

IDC 17 06:45:12.8±7.0**, 1°.50N×98°.27E, h0**^{km}**, mb3.6**/4**, mb1 3.7**/4**, mb1mx3.5**/21**, mbtmp3.6**/4**, Error ellipse: s-maj=359.2km s-min=23.2km az=56.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	41.29	123	P	P	06 53 01.7	+1.3
	0.5nm,0.8s,baz=304,slow=9.0,SNR=3.0						
ASAR	Alice Springs	42.73	128	P	P	06 53 10.6	-1.4
	0.3nm,0.8s,baz=302,slow=8.7,SNR=3.1						
MKAR	Makanchi Array	47.22	345	P	P	06 53 47.3	-0.1
	0.6nm,0.5s,baz=158,slow=8.5,SNR=10						
ZALV	Zalesovo Beam	53.44	350	P	P	06 54 34.5	+0.1
	0.5nm,0.4s,baz=166,slow=5.6,SNR=3.6						

IDC 17 06:47:27.8±1.9**, 42°.05S×84°.33E, h0**^{km}**, mb4.1**/4**, mb1 4.3**/4**, mb1mx3.8**/18**, mbtmp4.1**/4**, Error ellipse: s-maj=54.4km s-min=29.6km az=111.0, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	44.83	82	P	P	06 55 43.1	-0.5
	0.5nm,0.7s,baz=226,slow=7.4,SNR=5.5						
WRA	Warramunga Arr	47.43	78	P	P	06 56 04.5	+0.4
	2.0nm,0.9s,baz=233,slow=8.3,SNR=9.6						
QSPA	South Pole Qui	48.10	180	P	P	06 56 09.0	+0.3
	2.2nm,0.7s,baz=315,slow=2.3,SNR=16						
CMAR	Chiang Mai Arr	61.70	16	P	P	06 57 47.7	0.0
	1.5nm,0.3s,baz=207,slow=7.8,SNR=5.1						

IDC 17 06:57:19.9±7.9**, 8°.81S×128°.62E, h76**^{km}±90^{km}**, mb3.1**/1**, mb1 3.4**/4**, mb1mx3.1**/17**, mbtmp3.2**/4**, ML3.4**/3**, Error ellipse: s-maj=56.5km s-min=50.6km az=160.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.68	197	P	Pn	06 59 37.4	+1.0
	0.2nm,0.3s,baz=62,slow=7.1,SNR=7.4						
FITZ				S	Sn	07 01 25.1	+1.6
	0.7nm,0.3s,baz=280,slow=19,SNR=4.6						
WRA	Warramunga Arr	12.37	154	P	Pn	07 00 11.5	-1.6
	0.3nm,0.3s,baz=332,slow=11,SNR=15						
WRA				S	Sn	07 02 25.8	-3.3
	0.2nm,0.3s,baz=335,slow=22,SNR=4.1						
ASAR	Alice Springs	15.61	162	P	Pn	07 00 55.3	-0.2
	0.1nm,0.3s,baz=333,slow=9.0,SNR=7.0						
ASAR				S	S	07 03 48.9	-10
	0.1nm,0.3s,baz=321,slow=20,SNR=3.1						
MKAR	Makanchi Array	69.01	328	P	P	07 08 17.5	+0.2
	0.2nm,0.4s,baz=117,slow=8.1,SNR=3.9						

ISCJB ***17*** *07:10:33.2±4.1, 21°.6N±0°.1×143°.1E±0°.4, h277^{km}±42^{km}, mb3.3/7, Error ellipse: s-maj=54.6km s-min=17.1km az=177.4*

NEIC ***17*** *07:10:36.7±3.3, 21°.59N×143°.05E, h298^{km}±34^{km}, mb3.7/1, Error ellipse: s-maj=32.4km s-min=11.0km az=87.0*

IDC ***17*** *07:10:37.8±6.2, 21°.60N×142°.99E, h310^{km}±61^{km}, mb2.9/5, mb1 3.0/6, mb1mx2.8/22, mbtmp2.8/6, Error ellipse: s-maj=36.8km s-min=16.3km az=86.0*

ISC 17 07:10:34.4±3.7**, 21°.6N**±0°.1×**143°.1E**±0°.4**, h275**^{km}±38^{km}**, n13, σ0^{s}24**/11**, mb3.3**/7**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	15.47	345	P	Pn	07 13 59.3	0.0
	0.4nm,0.3s,baz=163,slow=9.5,SNR=5.1						
WRAB	Tennant Creek	42.17	192	*e*P	P	07 18 01.0	+0.3
	5.0nm,1.1s,mb3.7						
WRA	Warramunga Arr	42.18	192	P	P	07 18 00.3	-0.4
	0.2nm,0.3s,mb2.8,baz=13,slow=9.1,SNR=3.2						
ASAR	Alice Springs	45.89	192	P	P	07 18 30.0	+0.1
	0.2nm,0.8s,mb2.5,baz=18,slow=12,SNR=4.5						
ZALV	Zalesovo Beam	54.23	322	P	P	07 19 31.8	-0.2
	0.5nm,0.5s,mb3.1,baz=105,slow=7.9,SNR=3.0						
ZALV				PcP	PcP	07 20 30.2	-2.3
	0.9nm,0.4s,baz=103,slow=4.9,SNR=4.5						
MKAR	Makanchi Array	54.70	313	P	P	07 19 35.5	0.0
	0.2nm,0.6s,mb2.8,baz=90,slow=8.8,SNR=3.6						
MKAR				PcP	PcP	07 20 33.6	-0.9
	0.2nm,0.4s,baz=78,slow=4.4,SNR=3.6						
MKAR	Makanchi Array	54.70	313	P	P	07 19 35.5	0.0
MKAR				PcP	PcP	07 20 33.6	-0.9
YKA	Yellowknife Ar	76.56	28	P	P	07 21 54.2	-0.1
	0.6nm,0.5s,mb3.6,baz=291,slow=5.9,SNR=12						
YKA	Yellowknife Ar	76.56	28	P	P	07 21 54.2	-0.1
ARCES	ARCESS Array B	78.98	341	P	P	07 22 07.8	+0.3
	8.8nm,1.0s,mb4.4,baz=57,slow=9.8,SNR=4.1						
ARCES	ARCESS Array B	78.98	341	P	P	07 22 07.8	+0.3
PLCA	Paso Flores	145.75	132	PKPbc	PKPbc	07 29 41.5	+0.1
	1.0nm,0.8s,baz=256,slow=3.4,SNR=3.2						
PLCA	Paso Flores	145.75	132	PKPbc	PKPbc	07 29 41.5	+0.1

ISCJB ***17*** *07:10:45.4±0.7, 16°.42N±0°.03×98°.35W±0°.03, h23^{km}±5^{km}, mb4.3/33, MS4.0/4, Error ellipse: s-maj=6.0km s-min=4.0km az=26.9*

NEIC ***17*** *07:10:45.3, 16°.24N×98°.47W, h21^{km}, mb4.3/30, MD4.4(MEX), After MEX.*

MEX ***17*** *07:10:45.3±0.6, 16°.24N×98°.47W, h19^{km}±15^{km}, MD4.4*

IDC ***17*** *07:10:46.8±1.5, 16°.80N×98°.12W, h0^{km}, mb4.0/6, mb1 4.2/11, mb1mx4.0/24, mbtmp4.0/11, ML3.8/5, MS3.8/3, Ms1 3.7/3, ms1mx3.2/27, Error ellipse: s-maj=30.9km s-min=19.4km az=16.0*

BJI ***17*** *07:10:48.3, 16°.20N×98°.50W, h21^{km}, Ms5.1/2, Ms7 4.7/3*

ISC 17 07:10:47.1±0.6**, 16°.47N**±0°.04×**98°.27W**±0°.03**, h19**^{km}±4^{km}**, n174, σ0^{s}90**/196**, mb4.3**/33**, MS4.0**/4**, 35C-56D, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.16	120	*i* P	Pg	07 10 51.4	-0.3
PNIG				*i* S	Sg	07 10 56.8	+2.0
UTMO	Huajuapan	1.42	18	*e*P	Pn	07 11 11.8	-0.2
UTMO				*i* S	Sn	07 11 31.1	+1.0
VHO	Vista Hermosa	1.59	68	*e*P	Pn	07 11 14.2	0.0
VHO				*i* S	Sn	07 11 35.8	+1.5
OXX	Oaxaca	1.60	68	*e*P	Pn	07 11 13.7	-0.7
OXX				*i* S	Sn	07 11 35.7	+1.1
ACX	Acapulco	1.62	284	*i* P	Pn	07 11 08.2	-6.5
ACX				*i* S	Sn	07 11 26.7	-8.3
MEIG	Mezcala	1.93	319	*e*P	Pn	07 11 15.6	-3.4
MEIG				*i* S	Sn	07 11 39.5	-3.2
CAIG	El Cayaco	1.99	287	*i* P	Pn	07 11 14.5	-5.3
CAIG				*i* S	Sn	07 11 34.9	-9.2
TPIG	Tehuac#an	2.12	24	*e*P	Pn	07 11 20.8	-0.8
TPIG				*i* S	Sn	07 11 50.1	+2.7
HUIG	Huatulco	2.20	108	*e*P	Pn	07 11 20.1	-2.5
HUIG				*i* S	Sn	07 11 45.1	-4.1
PLIG	Platanillo	2.24	329	*e*P	Pn	07 11 20.0	-3.2
PLIG				*i* S	Sn	07 11 46.9	-3.4
YAIG	Yautepec	2.49	342	*e*P	Pn	07 11 25.6	-1.1
YAIG				*i* S	Sn	07 11 57.1	+0.5
PPM	Popocatepetl	2.60	353	*e*P	Pn	07 11 26.9	-1.2
PPM				*e*P		07 11 27.6	
PPM				*i* S	Sn	07 11 59.3	+0.1
PPM				*i* S	Sn	07 11 59.3	+0.1
PPM	Popocatepetl	2.60	353	*e*P	Pn	07 11 27.6	-0.5
CHVM	Chichinautzin	2.73	342	*e*P	Pn	07 11 29.4	-0.5
CHVM				*i* S	Sn	07 12 01.9	-0.4
MZVM		2.85	342	*e*P	Pn	07 11 28.6	-3.0
MZVM				*i* S	Sn	07 12 04.0	-1.4
UNM	Universidad Na	2.97	343	*e*P	Pn	07 11 31.8	-1.4
UNM				*i* S	Sn	07 12 07.9	-0.3
SZVM	Salazar	3.02	340	*i* P	Pn	07 11 32.5	-1.4
SZVM				*i* S	Sn	07 12 10.9	+1.3
PBVM	Pinon	3.05	345	*e*P	Pn	07 11 33.1	-1.2
PBVM				*i* S	Sn	07 12 10.2	-0.1
IIO	Organos	3.13	352	*e*P	Pn	07 11 42.8	+7.4
IIO				*i* S	Sn	07 12 21.4	+9.1
PTVM	Pico Tres Padr	3.20	346	*e*P	Pn	07 11 40.5	+4.0
PTVM				*i* S	Sn	07 12 19.1	+5.0
CMIG	Matias Romero	3.31	79	*e*P	Pn	07 11 37.1	-0.7
CMIG				*i* S	Sn	07 12 18.0	+1.4
CMIG	Matias Romero	3.31	79	Pn	Pn	07 11 37.0	-0.8
	8.0nm,0.3s,baz=256,slow=11,SNR=122						
CMIG				Sn	Sn	07 12 16.9	+0.3
	60nm,0.3s,baz=20,slow=12,SNR=6.9						
CMIG				Lg		07 12 34.1	
	188nm,0.3s,baz=330,slow=17,SNR=22						
CMIG	Matias Romero	3.31	79	*e*P	Pn	07 11 37.1	-0.7
CMIG				Sn	Sn	07 12 16.9	+0.3
CMIG				*i* S	Sn	07 12 18.0	+1.4
CMIG				Lg		07 12 34.1	
DEIG	Demacu	3.88	349	*e*P	Pn	07 11 50.7	+5.1
DEIG				*i* S	Sn	07 12 31.1	+0.4
MOIG	Morelia	4.22	319	*e*P	Pn	07 11 47.6	-2.8
MOIG				*i* S	Sn	07 12 36.4	-2.8
MMIG	Aquila	5.17	291	*e*P	Pn	07 11 58.6	-4.8
MMIG				*i* S	Sn	07 12 55.9	-6.7
SCX	San Cristobal	5.41	86	*e*P	Pn	07 12 08.3	+1.5
TEIG	Tepich	10.20	67	Pn	Pn	07 13 11.2	-1.4
	3.8nm,0.3s,baz=314,slow=20,SNR=30						
TEIG				Sn	Sn	07 15 04.8	-1.7
	4.3nm,0.3s,baz=72,slow=20,SNR=4.9						
TXAR	Lajitas Array	13.73	340	Pn	Pn	07 14 02.1	+1.3
	0.0nm,0.3s,baz=134,slow=13,SNR=4.0						
TXAR				Lg		07 18 02.1	
	0.0nm,0.3s,baz=168,slow=31,SNR=3.3						
JCT	Junction City	14.01	355	*e*Pn	Pn	07 14 05.5	+0.8
JTS	JuntasAbangare	14.34	114	Pn	Pn	07 14 12.5	+3.3
	1.0nm,0.3s,baz=286,slow=11,SNR=8.4						
JTS	JuntasAbangare	14.34	114	Pn	Pn	07 14 07.4	-1.8
JTS				*e*Sn	Sn	07 16 37.7	-10
319A	Douglas	17.91	328	⇑P	Pn	07 14 55.6	+0.5
	baz=18						
WMOK	Wichita Mounta	18.20	359	*e*P	Pn	07 14 58.2	-0.4
	5.2nm,0.9s						
219A	White Tail Can	18.40	329	⇓P	Pn	07 15 01.5	+0.3
	baz=18						
MIAR	Mount Ida	18.48	12	*e*P	Pn	07 15 01.6	-0.5
	7.5nm,0.8s						
218A	Dragoon	18.77	327	⇓P	Pn	07 15 06.0	+0.3
	baz=18						
117A	Oracle	19.61	327	⇓P	Pn	07 15 13.9	-1.8
	baz=19						
ANMO	Albuquerque	19.81	340	P	Pn	07 15 17.8	-0.3
	0.2nm,0.3s,baz=155,slow=12,SNR=16						
ANMO				LR	LR	07 23 31.6	
	comp=Z,574nm,18.1s,baz=42,slow=39						
MTDJ	Mount Denham	19.87	82	*e*P	Pn	07 15 17.9	-1.1
	31nm,1.0s						
Y19A	Nutrioso	20.02	332	⇓P	P	07 15 19.0	+0.2
	baz=20,SNR=10						
Z17A	San Carlos Hig	20.05	329	⇓P	P	07 15 19.7	+0.6

	baz=20						
214A	Organ Pipe Nat baz=20	20.30	322	⇓P	P	07 15 22.0	+0.2
115A	Sonoran Desert baz=20	20.51	325	⇓P	P	07 15 24.7	+0.6
Y17A	Roosevelt baz=20,SNR=8.3	20.55	329	⇓P	P	07 15 25.5	+0.9
Z16A	Peralta Trail, baz=20	20.57	327	⇑P	P	07 15 24.6	-0.1
PLAL	Pickwick Lake 8.3nm,0.8s	20.57	24	*e*P	P	07 15 24.1	-0.7
W20A	Ramah baz=20,SNR=14	20.71	336	⇓P	P	07 15 26.9	+0.7
114A	Black Gap (USA baz=21	20.91	323	⇑P	P	07 15 28.6	+0.1
Y16A	Circle Bar Ran baz=21,SNR=7.9	21.02	328	⇑P	P	07 15 30.0	+0.5
X17A	Forest Lakes baz=21	21.05	330	⇑P	P	07 15 30.8	+0.9
X16A	Lo Mia Camp, P baz=21,SNR=16	21.42	329	⇑P	P	07 15 34.5	+0.5
GOGA	Godfrey 164nm,2.8s,mb5.0	21.51	36	*e*P	P	07 15 34.3	-0.6
Y15A	Casa Rosa Ranc baz=21	21.52	327	⇓P	P	07 15 35.5	+0.5
WVT	Waverly 16nm,0.9s,mb4.5	21.67	23	*e*P	P	07 15 37.6	+0.9
SWET	Sewanee	21.68	28	*e*Pn	P	07 15 36.0	-0.8
V18A	Ganado baz=22,SNR=7.5	21.80	334	⇓P	P	07 15 37.8	-0.2
Y14A	Wickenburg baz=22	21.86	325	⇑P	P	07 15 39.0	+0.3
X15A	Humboldt baz=22	21.88	328	⇑P	P	07 15 39.0	+0.2
W16A	Flagstaff baz=22	22.01	330	⇓P	P	07 15 41.2	+0.9
SDCO	Great Sand Dun 3.6nm,0.9s,mb3.8	22.13	345	*e*P	P	07 15 42.2	+0.7
WUAZ	Wupatki 11nm,0.8s,mb4.3	22.28	331	*e*P	P	07 15 46.4	+3.3
CCM	Cathedral Cave 12nm,0.9s,mb4.3	22.37	15	*e*P	P	07 15 43.8	-0.3
FVM	French Village 5.5nm,0.6s,mb4.2	22.52	16	*e*P	P	07 15 47.0	+1.4
CPCT	Cooper Cave	22.54	30	*e*P	P	07 15 45.5	-0.3
MVCO	Mesa Verde 8.3nm,0.8s,mb4.2	22.55	338	*e*P	P	07 15 47.0	+1.1
U16A	Tuba City baz=22	22.68	332	⇓P	P	07 15 47.9	+0.4
R22A	Saguache, Gunn baz=23	22.92	343	⇑P	P	07 15 49.0	-0.9
T18A	Mexican Hat baz=23	23.00	336	⇓P	P	07 15 50.3	-0.4
TKL	Tuckaleechee C 4.5nm,0.9s,mb3.9,baz=217,slow=13,SNR=3.6	23.07	31	P	P	07 15 50.9	-0.6
TKL	comp=Z,82nm,18.3s,MS3.2,baz=301,slow=47			LR	LR	07 28 24.9	
S19A	Harvey Farm, M baz=23	23.25	338	⇓P	P	07 15 51.9	-1.5
T17A	Navajo Res., N baz=23	23.26	334	⇓P	P	07 15 52.1	-1.4
USIN	University of 27nm,0.9s,mb4.7	23.36	22	*e*P	P	07 15 53.3	-1.2
R20A	Redvale baz=23,SNR=8.1	23.39	340	⇑P	P	07 15 53.9	-0.9
S18A	Hurst Farm, Bl baz=23,SNR=7.4	23.53	336	⇑P	P	07 15 56.0	-0.2
Q22A	Crested Butte, baz=23,SNR=6.6	23.55	343	⇑P	P	07 15 56.7	+0.2
PV04	Paradox Valley	23.75	339	*e*P	P	07 15 59.4	+1.1
R19A	Curley Farm, L baz=24	23.79	338	⇓P	P	07 15 58.2	-0.4
S17A	Black Ridge (B baz=24,SNR=9.3	23.80	335	⇓P	P	07 15 58.4	-0.3
TZTN	Tazewell 16nm,1.2s,mb4.3	23.88	30	*e*P	P	07 15 58.7	-0.8
TZTN				*e*pP		07 16 05.8	
OLIL	Olney 13nm,0.9s,mb4.4	23.91	20	*e*P	P	07 15 59.1	-0.6
T15A	Red Dirt Ranch baz=24,SNR=8.2	23.97	331	⇓P	P	07 16 00.3	-0.1
WCI	Wyandotte Cave 20nm,0.9s,mb4.5	24.10	24	*e*P	P	07 16 01.3	-0.2
WCI				*e*pP		07 16 07.2	
R18A	Canyonlands Na baz=24,SNR=5.5	24.10	337	⇑P	P	07 16 01.7	+0.2
ISCO	Idaho Springs 8.0nm,0.8s,mb4.2	24.11	346	*e*P	P	07 16 01.7	+0.2
S16A	Weppner Ranch, baz=24,SNR=6.7	24.21	334	⇓P	P	07 16 02.1	-0.4
U13A	Pakoon Wash baz=24	24.26	328	⇓P	P	07 16 03.1	+0.1
TUQ	Turquoise Moun baz=24,SNR=5.3	24.59	323	⇓P	P	07 16 05.6	-0.4
R16A	Teasdale baz=24,SNR=5.3	24.64	334	⇓P	P	07 16 04.8	-1.6
T13A	Saint George baz=24	24.70	329	⇓P	P	07 16 06.4	-0.6
P19A	Cripple Cowboy baz=25,SNR=9.8	24.89	340	⇓P	P	07 16 08.3	-0.4
S14A	Cedar City baz=25	24.94	331	⇑P	P	07 16 09.0	-0.1
O21A	Pagoda baz=25,SNR=5.5	24.97	343	⇑P	P	07 16 10.1	+0.8
SRU	San Rafael baz=25	24.97	337	⇑P	P	07 16 08.8	-0.6
SRU	San Rafael 6.8nm,0.9s,mb4.2	24.97	337	*e*P	P	07 16 09.6	+0.2
Q16A	Castle Valley baz=25,SNR=9.4	25.05	336	⇓P	P	07 16 09.9	-0.2
O20A	White River Ci baz=25	25.12	342	⇓P	P	07 16 10.3	-0.4
MSU	Marysvale	25.12	334	*e*P	P	07 16 14.4	+3.6
HDIL	Hopedale 12nm,0.9s,mb4.4	25.23	16	*e*P	P	07 16 11.4	-0.4
P18A	Preston Nutter baz=25,SNR=11	25.32	338	⇓P	P	07 16 13.0	+0.4
OTAV	Otavalo 2.3nm,0.9s,mb3.7	25.34	128	*e*P	P	07 16 17.0	+4.0
N21A	Black Mountain baz=25,SNR=9.2	25.49	344	⇑P	P	07 16 14.4	+0.2
PHWY	Pilot Hill 5.1nm,1.0s,mb4.0	25.51	347	*e*P	P	07 16 14.8	+0.6
O19A	Miners Draw (B baz=25,SNR=5.5	25.54	340	⇑P	P	07 16 14.7	+0.1
SCIA	State Center 32nm,0.8s,mb4.9	25.72	9	*e*P	P	07 16 15.7	-0.5
N20A	Spence Gulch, baz=26	25.77	342	⇓P	P	07 16 16.8	+0.2
Q14A	Sevier Lake (B baz=26	25.99	333	⇓P	P	07 16 19.1	+0.4
O17A	Robinson Place baz=26	26.00	338	⇓P	P	07 16 19.1	+0.3
MPU	Maple Canyon 3.8nm,0.8s,mb4.0	26.18	336	*e*P	P	07 16 21.4	+1.1
O16A	Springville baz=26	26.29	337	⇓P	P	07 16 21.7	+0.3
DUG	Dugway 3.0nm,0.8s,mb3.9	26.80	335	*e*P	P	07 16 27.6	+1.6
M17A	Scullys Gap (B baz=27	27.11	339	⇑P	P	07 16 28.9	+0.2
L18A	Fontenelle, Gr baz=27	27.31	341	⇓P	P	07 16 30.4	-0.1
K20A	Yellowstone Ra baz=27	27.48	344	⇓P	P	07 16 31.9	-0.1
N14A	Grayback Hills baz=27,SNR=5.0	27.51	335	⇓P	P	07 16 33.3	+1.0
BW06	Boulder Array baz=28	27.93	342	⇑P	P	07 16 36.6	+0.6
PDAR	Pinedale Array 1.7nm,0.9s,mb3.7,baz=136,slow=12,SNR=13	27.93	342	P	P	07 16 37.0	+0.9
SDV	Santo Domingo 2.3nm,0.4s,mb4.2	27.98	102	P	P	07 16 34.8	-2.0
O11A	Cowboy Ranch, baz=28	28.00	331	⇓P	P	07 16 35.5	-1.2
NVAR	Mina Array Bea 1.3nm,0.8s,mb3.6,baz=146,slow=7.5,SNR=5.3	28.06	325	P	P	07 16 39.2	+1.8
M14A	Sheep Mountain baz=28,SNR=5.3	28.12	336	⇑P	P	07 16 38.1	+0.2
K17A	Gardner Place, baz=28	28.33	340	⇓P	P	07 16 39.8	+0.1
M13A	Montello baz=28	28.34	334	⇓P	P	07 16 40.1	+0.4
J18A	Kendall Valley baz=28,SNR=6.0	28.47	342	⇓P	P	07 16 40.8	-0.1
L14A	Malta baz=28	28.53	336	⇑P	P	07 16 41.8	+0.3
RRI2	Red Ridge 51nm,2.6s,mb4.8	29.00	340	*e*P	P	07 16 47.0	+1.4
LOHW	Long Hollow 2.8nm,0.8s,mb4.0	29.01	341	*e*P	P	07 16 46.2	+0.5
IMW	Indian Meadow 16nm,2.1s,mb4.4	29.37	341	*e*P	P	07 16 49.8	+0.9
J15A	Blackfoot baz=29	29.42	339	⇓P	P	07 16 49.9	+0.5
L11A	Cat Creek Ranc baz=29	29.68	333	⇑P	P	07 16 52.3	+0.7
L10A	Juniper Basin baz=30	29.92	332	⇑P	P	07 16 54.6	+0.9
RLMT	Red Lodge baz=30	30.02	344	⇑P	P	07 16 54.7	+0.1
G16A	Moss Hill, Enn baz=31	30.84	341	⇓P	P	07 17 02.1	+0.2
F18A	Big Timber baz=31	30.86	344	⇓P	P	07 17 02.2	+0.2
K09A	Rome baz=31	30.98	332	⇑P	P	07 17 03.6	+0.5
G15A	Dillon baz=31	31.00	340	⇑P	P	07 17 03.9	+0.6
DLMT	Dillon 2.8nm,0.8s,mb4.1	31.21	340	*e*P	P	07 17 05.3	+0.2
G13A	Cobalt baz=31	31.53	338	⇑P	P	07 17 08.7	+0.7
AGMN	Agassiz Refuge 39nm,1.9s,mb4.9	31.80	3	*e*P	P	07 17 10.1	-0.2
J08A	Circle Bar Ran baz=32	31.84	331	⇑P	P	07 17 10.9	+0.2
H11A	Donnelly baz=32	31.87	336	⇑P	P	07 17 11.5	+0.5
G12A	Big Creek, Yel baz=32	31.96	337	⇑P	P	07 17 12.0	+0.2
E16A	East Helena baz=32	31.98	342	⇑P	P	07 17 11.7	-0.1
I09A	Lost Marbles R baz=32	31.99	333	⇓P	P	07 17 12.4	+0.3
H10A	Noah's Angus R baz=32	32.07	335	⇓P	P	07 17 12.0	-0.7
D18A	Linhart Farms, baz=32	32.09	345	⇓P	P	07 17 13.0	+0.2
F13A	Darby baz=32	32.17	339	⇓P	P	07 17 13.7	+0.2
HRY	Holter Researc	32.19	342	*e*P	P	07 17 14.4	+0.7
D17A	Six Diamond Ra baz=32	32.27	344	⇓P	P	07 17 14.6	+0.2
I08A	Drewsey baz=32	32.31	332	⇑P	P	07 17 13.6	-1.3
F12A	Elk City baz=32	32.47	338	⇓P	P	07 17 16.1	-0.1
E13A	Victor baz=32	32.69	339	⇓P	P	07 17 18.9	+0.8
C17A	Wharram Farm, baz=32,SNR=6.4	32.74	344	⇓P	P	07 17 19.4	+0.9
G10A	Bishop Farm, J baz=32	32.80	335	⇓P	P	07 17 19.1	0.0
H08A	Prairie City baz=33,SNR=6.9	32.83	333	⇑P	P	07 17 19.5	+0.2
H07A	Lands Inn, Kim baz=33	33.29	332	⇓P	P	07 17 23.8	+0.4
E11A	Bogner Ranch, baz=33	33.33	337	⇓P	P	07 17 23.6	-0.1
D13A	Huson baz=33,SNR=5.7	33.35	340	⇑P	P	07 17 24.2	+0.3
F10A	Beach Ranch, E baz=33	33.40	336	⇓P	P	07 17 24.6	+0.2
G08A	Pilot Rock baz=33	33.57	333	⇓P	P	07 17 25.7	-0.1
ULM	Lac du Bonnet 1.5nm,0.6s,mb4.1,baz=163,slow=7.9,SNR=3.2	33.75	3	P	P	07 17 26.4	-0.8
A16A	West Butte Ran baz=34	34.17	344	⇓P	P	07 17 31.2	+0.2
ETW	Entiat	35.98	334	*e*P	P	07 17 47.4	+0.8
FFC	Flin Flon 5.1nm,0.8s,mb4.3	38.28	357	*e*P	P	07 18 05.0	-1.0
FFC				*e*pP	pP	07 18 11.4	-0.7
SCHQ	Schefferville 5.2nm,0.9s,mb4.4,baz=238,slow=8.3,SNR=5.8	45.29	25	P	P	07 19 02.5	-1.0
SCHQ	comp=Z,90nm,18.3s,MS3.7,baz=186,slow=40			LR	LR	07 40 43.8	
YKA	Yellowknife Ar 0.9nm,0.8s,mb3.8,baz=158,slow=7.4,SNR=17	47.38	350	P	P	07 19 18.9	-0.8
KTH	Kantishna Hill 72nm,1.9s,mb5.4	59.16	336	*e*P	P	07 20 41.6	-4.7
BJI	Beijing	115.27	331	PKP	PKiKP	07 29 28.4	+0.8
BJI				SKS	SKSdf	07 36 40.8	+1.8
BJI	comp=N,97nm,15.2s,MS4.8			LR	LR		
BJI	comp=E,170nm,14.4s,MS4.8			LR	LR		
BJI	comp=Z,25nm,16.6s,MS3.9			LR	LR		
HHC	Hu-ho-hao-te	116.60	335	*e*PKP	PKPdf	07 29 32.0	+1.8
HHC				PP	PP	07 30 41.5	+5.0
HHC				PKS		07 33 07.3	
HHC				SKS	SKSdf	07 36 38.9	-2.6
HHC				SKKS	SKKSac	07 37 29.5	-8.2
HHC	comp=N,150nm,15.5s,MS4.8			LR	LR		
HHC	comp=E,130nm,17.8s,MS4.8			LR	LR		
HHC	comp=Z,120nm,14.3s,MS4.7			LR	LR		
WMQ	Urumqi	119.75	355	PKP	PKPdf	07 29 35.4	-0.8
GTA	Gaotai	121.90	344	*e*PKP	PKPdf	07 29 36.3	-4.1
CD2	Chengdu	128.34	336	PKP	PKPdf	07 29 53.4	+0.4
WRA	Warramunga Arr comp=Z,0.5nm,0.9s,baz=104,slow=4.1,SNR=4.5	130.06	258	PKP	PKPdf	07 30 00.2	+3.7
ASAR	Alice Springs comp=Z,0.5nm,0.9s,baz=111,slow=2.1,SNR=3.7	130.69	253	PKP	PKPdf	07 30 00.2	+2.7

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*NEIC **17** 07:45:30.1, 15°.53N×94°.61W, h24^{km}, MD3.8(MEX), After MEX.*

MEX 17 07:45:30.1±1.3**, 15°.53N×94°.61W, h24**^{km}±34^{km}**, MD3.8, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.35	82	*i* P	Pn	07 45 50.6	-2.9
PCIG				*i* S	Sn	07 46 06.7	-4.0
HUIG	Huatulco	1.47	280	*i* P	Pn	07 45 52.6	-2.4
HUIG				*i* S	Sn	07 46 09.1	-4.5
CMIG	Matias Romero	1.58	350	*i* P	Pn	07 45 54.5	-2.1
CMIG				*i* S	Sn	07 46 12.1	-4.2
TGIG		1.89	49	*e*P	Pn	07 45 58.5	-2.5
TGIG				*i* S	Sn	07 46 20.1	-4.0
SCX	San Cristobal	2.25	57	*e*P	Pn	07 46 03.9	-1.9
SCX				*i* S	Sn	07 46 29.9	-2.9
THIG		2.34	105	*e*P	Pn	07 46 05.5	-1.6
THIG				*i* S	Sn	07 46 31.9	-3.3
CCIG	Comitan	2.49	72	*i* P	Pn	07 46 08.0	-1.2
CCIG				*i* S	Sn	07 46 35.1	-3.8
VHO	Vista Hermosa	2.56	307	*i* P	Pn	07 46 09.6	-0.5
VHO				*i* S	Sn	07 46 38.7	-1.8
PNIG	Pinotepa	3.49	285	*e*P	Pn	07 46 20.2	-2.7
PNIG				*i* S	Sn	07 46 57.8	-5.8
UTMO	Huajuapan	3.82	307	*e*P	Pn	07 46 28.1	+0.6
UTMO				*i* S	Sn	07 47 10.8	-1.0

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*IDC **17** 07:56:53.1±6.2, 16°.21N×98°.35W, h0^{km}, mb3.3/3, mb1 3.6/6, mb1mx3.5/22, mbtmp3.4/6, ML3.3/3, MS2.8/1, Ms1 2.8/1, ms1mx1.8/12, Error ellipse: s-maj=104.9km s-min=19.5km az=7.0*

*ISCJB **17** 07:56:55.2±0.9, 16°.11N±0°.04×98°.35W±0°.03, h28^{km}±6^{km}, mb3.6/3, Error ellipse: s-maj=7.7km s-min=4.3km az=18.4*

*NEIC **17** 07:56:57.2, 16°.17N×98°.37W, h5^{km}, mb4.6/1, MD4.3(MEX), After MEX.*

*MEX **17** 07:56:57.0±0.8, 16°.16N×98°.37W, h5^{km}±5^{km}, MD4.3*

ISC 17 07:56:55.8±1.0**, 16°.10N**±0°.05×**98°.34W**±0°.03**, h22**^{km}±7^{km}**, n30, σ1^{s}.03**/53**, mb3.6**/3**, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.35	36	*i* P	Pb	07 57 02.7	-0.7
PNIG				*i* S	Sb	07 57 07.8	-0.8
ACX	Acapulco	1.69	297	*e*P	Pn	07 57 22.7	-1.3
ACX				*i* S	Sn	07 57 42.4	-2.6
VHO	Vista Hermosa	1.82	58	*i* P	Pn	07 57 26.4	+0.6
VHO				*i* S	Sn	07 57 47.8	-0.4
OXX	Oaxaca	1.83	58	*i* P	Pn	07 57 25.0	-1.0
OXX				*i* S	Sn	07 57 48.0	-0.6
CAIG	El Cayaco	2.07	297	*i* P	Pn	07 57 29.6	+0.4
CAIG				*i* S	Sn	07 57 52.2	-2.2
HUIG	Huatulco	2.17	99	*i* P	Pn	07 57 31.5	+0.8
HUIG				*i* S	Sn	07 57 56.2	-0.7
MEIG	Mezcala	2.19	326	*i* P	Pn	07 57 29.9	-1.0
MEIG				*i* S	Sn	07 57 56.8	-0.4
TPIG	Tehuac#an	2.49	22	*i* P	Pn	07 57 34.6	-0.4
TPIG				*i* S	Sn	07 58 04.2	-0.5
PLIG	Platanillo	2.53	334	*i* P	Pn	07 57 35.7	+0.2
PLIG				*i* S	Sn	07 58 02.2	-3.6
YAIG	Yautepec	2.83	346	*i* P	Pn	07 57 39.3	-0.4
YAIG				*i* S	Sn	07 58 13.0	-0.1
PPM	Popocatepetl	2.96	355	*e*P	Pn	07 57 42.2	+0.7
PPM				*i* S	Sn	07 58 16.2	-0.1
CHVM	Chichinautzin	3.06	346	*i* P	Pn	07 57 43.2	+0.3
CHVM				*i* S	Sn	07 58 19.0	0.0
MZVM		3.18	345	*e*P	Pn	07 57 44.4	-0.1
MZVM				*i* S	Sn	07 58 21.4	-0.4
UNM	Universidad Na	3.31	346	*i* P	Pn	07 57 46.8	+0.5
UNM				*i* S	Sn	07 58 24.3	-0.6
SZVM	Salazar	3.35	343	*e*P	Pn	07 57 46.8	0.0
SZVM				*i* S	Sn	07 58 25.9	-0.1
PBVM	Pinon	3.39	348	*e*P	Pn	07 57 49.8	+2.3
PBVM				*i* S	Sn	07 58 23.7	-3.3
CMIG	Matias Romero	3.46	73	*i* P	Pn	07 57 49.5	+1.2
CMIG				*i* S	Sn	07 58 28.8	+0.1
CMIG	Matias Romero 2.9nm,0.3s,baz=250,slow=11,SNR=10	3.46	73	Pn	Pn	07 57 48.1	-0.3
CMIG	11nm,0.3s,baz=249,slow=17,SNR=6.9			Sn	Sn	07 58 28.5	-0.1
CMIG	27nm,0.3s,baz=327,slow=18,SNR=6.7			Lg		07 58 43.2	
CMIG	Matias Romero	3.46	73	*i* P	Pn	07 57 49.5	+1.2
CMIG				Sn	Sn	07 58 28.5	-0.1
CMIG				*i* S	Sn	07 58 28.8	+0.1
CMIG				Lg		07 58 43.2	
IIO	Organos	3.49	354	*e*P	Pn	07 57 51.2	+2.4
IIO				*i* S	Sn	07 58 32.5	+3.2
PTVM	Pico Tres Padr	3.55	348	*e*P	Pn	07 57 52.1	+2.5
PTVM				*i* S	Sn	07 58 32.1	+1.2
MOIG	Morelia	4.47	323	*i* P	Pn	07 58 03.4	+1.1
MOIG				*i* S	Sn	07 58 54.4	+0.8
SFJM	Santa Fe	6.24	315	*e*P	Pn	07 58 30.1	+3.5
TEIG	Tepich 0.3nm,0.3s,baz=95,slow=18,SNR=5.3	10.41	65	Pn	Pn	07 59 23.0	-0.8
TEIG	baz=307,slow=20,SNR=3.2			Sn	Sn	08 01 15.1	-4.7
TXAR	Lajitas Array 0.0nm,0.3s,baz=168,slow=13,SNR=2.5	14.05	341	Pn	Pn	08 00 14.1	+0.5
ANMO	Albuquerque 1.0nm,0.8s,baz=151,slow=12,SNR=4.1	20.13	340	P	P	08 01 27.8	-0.5
ROSC	El Rosal comp=Z,18nm,19.0s,baz=46,slow=37	26.09	113	LR	LR	08 13 03.6	
SCIA	State Center 9.9nm,0.8s,mb4.4	26.09	9	*e*P	P	08 02 28.3	+0.4
PDAR	Pinedale Array 0.4nm,0.8s,mb3.1,baz=128,slow=9.6,SNR=3.9	28.25	342	P	P	08 02 47.4	0.0
YKA	Yellowknife Ar 0.3nm,0.8s,mb3.4,baz=158,slow=7.4,SNR=4.6	47.73	350	P	P	08 05 30.7	0.0

IDC 17 08:02:46.2±9.6**, 0°.38S**×**146°.58E, h0**^{km}**, mb3.6**/3**, mb1 3.8**/3**, mb1mx3.4**/15**, mbtmp3.6**/3**, Error ellipse: s-maj=157.8km s-min=104.9km az=176.0, Admiralty Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr 1.3nm,0.7s,baz=34,slow=10,SNR=9.9	22.84	211	P	P	08 07 51.1	0.0
ASAR	Alice Springs 0.6nm,0.6s,baz=32,slow=7.4,SNR=16	26.21	207	P	P	08 08 22.6	-0.2
STKA	Stephens Creek 1.2nm,0.9s,baz=15,slow=12,SNR=3.8	31.68	188	P	P	08 09 12.0	+0.6

IDC 17 08:06:45.2±2.5**, 8°.49S**×**74°.51W, h0**^{km}**, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.7**/18**, mbtmp3.8**/4**, MS4.2**/1**, Ms1 4.2**/1**, ms1mx3.0**/27**, Error ellipse: s-maj=99.1km s-min=32.1km az=28.0, Peru-Brazil border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	Lajitas Array 0.3nm,0.5s,baz=148,slow=8.8,SNR=7.0	46.93	324	P	P	08 15 18.1	+0.3
PMSA	Palmer Station comp=Z,194nm,19.1s,baz=158,slow=37	56.68	175	LR	LR	08 41 23.0	
DBIC	Dimbokro 3.9nm,0.9s,baz=248,slow=7.1,SNR=5.4	71.05	80	P	P	08 18 06.5	+0.6
YKA	Yellowknife Ar 0.3nm,0.5s,baz=140,slow=6.1,SNR=8.0	77.20	342	P	P	08 18 40.6	-0.1
YKA	0.2nm,0.4s,baz=136,slow=6.1,SNR=4.0			pP		08 18 52.1	
TORD	Torodi Ar. Bea 0.5nm,0.5s,baz=272,slow=4.0,SNR=4.8	78.66	75	P	P	08 18 49.3	-0.5
ASAR	Alice Springs 0.2nm,0.8s,baz=116,slow=2.2,SNR=3.1	137.66	220	PKP	PKPdf	08 26 11.6	-0.7
WRA	Warramunga Arr 0.3nm,0.6s,baz=107,slow=3.5,SNR=2.8	139.94	225	PKP	PKPdf	08 26 16.4	-0.1

IDC 17 08:52:05.8±1.6**, 10°.61N**×**91°.41E, h0**^{km}**, mb3.8**/6**, mb1 3.9**/7**, mb1mx3.7**/24**, mbtmp3.8**/7**, ML3.9**/1**, Error ellipse: s-maj=56.7km s-min=19.8km az=64.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 0.3nm,0.3s,baz=232,slow=15,SNR=5.8	10.68	42	Pn	Pn	08 54 40.7	+0.6
MKAR	Makanchi Array 0.7nm,0.7s,baz=166,slow=8.0,SNR=7.8	36.88	350	P	P	08 59 16.1	+0.1
MKAR	0.4nm,0.8s,baz=174,slow=4.1,SNR=2.9			PcP	PcP	09 01 37.8	0.0
SONM	Songino Array 1.2nm,0.8s,baz=202,slow=7.6,SNR=8.8	39.19	16	P	P	08 59 35.4	-0.2
KURK	Kurchatov 0.5nm,0.6s,baz=152,slow=8.1,SNR=2.8	41.35	348	P	P	08 59 52.8	-0.6
ZALV	Zalesovo Beam 0.3nm,0.3s,baz=166,slow=7.3,SNR=3.6	43.54	354	P	P	09 00 10.9	-0.3
WRA	Warramunga Arr 0.9nm,0.6s,baz=305,slow=8.5,SNR=8.7	52.03	126	P	P	09 01 17.5	-0.1
ASAR	Alice Springs 1.4nm,0.8s,baz=309,slow=6.8,SNR=12	53.73	130	P	P	09 01 30.1	0.0

IDC 17 08:53:47.4±2.3**, 7°.04S**×**127°.94E, h0**^{km}**, mb3.1**/1**, mb1 3.8**/4**, mb1mx3.6**/17**, mbtmp3.6**/4**, ML3.6**/3**, Error ellipse: s-maj=107.6km s-min=29.1km az=72.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi 0.3nm,0.3s,baz=38,slow=11,SNR=6.3	11.22	191	Pn	Pn	08 56 30.4	+1.2
FITZ	0.1nm,0.3s,baz=51,slow=18,SNR=2.1			Sn	Sn	08 58 19.5	-16
WRA	Warramunga Arr 0.4nm,0.3s,baz=326,slow=14,SNR=15	14.25	155	Pn	Pn	08 57 09.9	-0.8
WRA	0.3nm,0.3s,baz=330,slow=23,SNR=8.8			Sn	Sn	08 59 33.5	-16
ASAR	Alice Springs 0.2nm,0.3s,baz=334,slow=12,SNR=17	17.50	162	P	Pn	08 57 52.6	-0.4
ASAR	0.1nm,0.3s,baz=339,slow=26,SNR=3.9			S	Sn	09 00 53.3	-15
MKAR	Makanchi Array 0.1nm,0.4s,baz=135,slow=6.6,SNR=3.4	67.15	328	P	P	09 04 43.2	+0.1

IDC 17 09:12:05.6±25.0**, 22°.02S**×**172°.41W, h0**^{km}**, mb4.1**/4**, mb1 4.3**/4**, mb1mx3.9**/18**, mbtmp4.1**/4**, Error ellipse: s-maj=464.1km s-min=147.4km az=76.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower 3.7nm,0.4s,baz=96,slow=13,SNR=14	38.54	265	P	P	09 19 31.0	+0.7
STKA	Stephens Creek 0.9nm,0.4s,baz=72,slow=9.6,SNR=5.3	41.90	246	P	P	09 19 55.9	-2.0
ASAR	Alice Springs 0.5nm,0.3s,baz=92,slow=6.5,SNR=25	49.26	257	P	P	09 20 56.4	0.0
WRA	Warramunga Arr 1.6nm,0.3s,baz=98,slow=8.4,SNR=55	49.56	262	P	P	09 20 59.3	+0.6

MAN 17 09:13:00,8°.38N×126°.01E,h26^{km},mb4.0,ML2.8,MS2.5, 1C,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	**Butuan**	**0.70**	**327**	*e*P	Pb	09 13 14.6	+1.0
BUKP	**Musuan**	**1.06**	**242**	*e*P	Pn	09 13 19.5	+0.2
CGP	**Cagayan de Oro**	**1.30**	**273**⇑	*e*P	Pn	09 13 22.7	+0.2
CGP				*e*S	Sn	09 13 40.5	+1.4
MATI	**Mati**	**1.45**	**170**	*e*P	Pn	09 13 25.2	+0.7

BJI ***17*** *09:38:13.8, 0°.76N×126°.67E, h46^{km}, mB5.2/26, mb4.9/41, Ms4.7/23, Ms7 4.5/23*

MOS ***17*** *09:38:18.7±1.1, 1°.64N×126°.40E, h33^{km}, mb5.3/22, Error ellipse: s-maj=14.1km s-min=6.2km az=114.1*

ISCJB ***17*** *09:38:20.3±0.2, 1°.66N±0°.02×126°.54E±0°.03, h45^{km}, mb5.0/98, MS4.1/18, Error ellipse: s-maj=4.9km s-min=3.2km az=161.0*

IDC ***17*** *09:38:20.3±2.3, 1°.60N×126°.44E, h31^{km}±16^{km}, mb4.7/30, mb1 4.7/31, mb1mx4.7/33, mbtmp4.6/31, ML4.7/1, MS3.9/7, Ms1 3.9/7, ms1mx3.5/30, Error ellipse: s-maj=18.0km s-min=8.0km az=73.0*

NEIC ***17*** *09:38:21.9±1.1, 1°.65N×126°.54E, h47^{km}±10^{km}, mb5.0/24, Error ellipse: s-maj=9.7km s-min=5.0km az=65.0*

NEIC Felt at Manado, Indonesia.

GCMT ***17*** *09:38:21.9±0.4, 1°.72N×126°.52E, h37^{km}±2^{km}, MW5.0/49, Moment Tensor Solution. s26,c34; s49,c68; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.83±.24; $M_{\theta\theta}$1.67±.17; $M_{\phi\phi}$-3.50±.20; $M_{r\theta}$-1.23±.23; $M_{\theta\phi}$-2.10±.18; $M_{\phi r}$-0.02±.27; Best double couple: $M_0$3.79900×10^{16} NP1:ϕ_s341.00000°,δ61.00000°,λ26.00000°. NP2: ϕ_s237.00000°,δ67.00000°,λ148.00000°. Principal axes: T 3.3210, Plg38.0000°, Azm197.0000°; N 0.9560, Plg52.0000°, Azm26.0000°; P -4.2770, Plg4.0000°, Azm290.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

DJA ***17*** *09:38:24, 1°.61N×126°.50E, h30^{km}, mb5.2/17*

ISC 17 09:38:22.3±0.2**, 1°.64N**±0°.02**×126°.52E**±0°.03**, h47^{km}, h47^{km}**±1.6^{km}**:pP-P, n238,** σ**1^{s}19**/239**, mb5.0**/97**, MS4.1**/18**, 4C-9D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.21**	**135**	P	**Pn**	**09 38 41.8**	**-1.0**
TNTI				S	**Sn**	**09 39 01.3**	**+3.3**
MNI	**Manado**	**1.69**	**264**	P	**Pn**	**09 38 49.2**	**-0.2**
MNI				S	**Sn**	**09 39 11.3**	**+1.4**
SGSI	**Sangihe**	**2.26**	**334**	P	**Pn**	**09 38 57.4**	**+0.1**
SGSI				S	**Sn**	**09 39 27.8**	**+3.8**
LBMI	**Labuha**	**2.46**	**157**	P	**Pn**	**09 39 00.7**	**+0.7**
LBMI				S	**Sn**	**09 39 32.5**	**+3.6**
NLAI	**Namlea**	**4.88**	**173**	P	**Pn**	**09 39 34.9**	**+1.7**
MATI	**Mati**	**5.28**	**357**	*e*P	**Pn**	**09 39 39.4**	**+0.7**
SWI	**Sorong**	**5.35**	**118**	P	**Pn**	**09 39 42.4**	**+2.7**
	94nm,0.9s,0.3nm						
APSI	**Ampana**	**5.49**	**243**	P	**Pn**	**09 39 44.5**	**+2.9**
	1µm,0.9s,9µm4.1nm						
AAI	**Ambon**	**5.55**	**162**	P	**Pn**	**09 39 44.8**	**+2.4**
	194nm,0.9s,0.8nm						
CTBH	**Cotabato--PC H**	**5.99**	**338**⇑	*e*P	**Pn**	**09 39 49.8**	**+1.3**
BUKP	**Musuan**	**6.37**	**347**	*e*P	**Pn**	**09 39 54.6**	**+0.9**
KDI	**Kendari**	**6.79**	**215**	P	**Pn**	**09 40 00.5**	**+1.0**
	114nm,0.8s,0.4nm						
PAGZ	**Pagadian**	**6.92**	**333**	*e*P	**Pn**	**09 40 01.0**	**-0.2**
PCI	**Palu**	**7.15**	**249**	P	Px	09 40 07.7	
	0.8nm225nm,1.0s						
IPIL	**Ipil**	**7.27**	**327**	*e*P	**Pn**	**09 40 06.9**	**+0.8**
BUTP	**Butuan**	**7.34**	**353**	*e*P	**Pn**	**09 40 05.0**	**-2.0**
MYLDM	**Lahad Datu**	**8.75**	**294**	P	**Pn**	**09 40 29.7**	**+3.4**
MYLDM	**Lahad Datu**	**8.75**	**294**	P	**Pn**	**09 40 29.5**	**+3.2**
	335nm,0.9s						
BNSI	**Bone**	**8.78**	**227**	P	**Pn**	**09 40 28.4**	**+1.7**
	169nm,0.8s,2µm0.5nm						
TSM	**Tawau**	**9.03**	**287**	P	**Pn**	**09 40 30.6**	**+0.4**
KAPI	**Kappang**	**9.46**	**226**	Pn	**Pn**	**09 40 37.4**	**+1.4**
	566nm,0.5s,SNR=16						
KAPI	**Kappang**	**9.46**	**226**	Pn	**Pn**	**09 40 36.2**	**+0.2**
	11nm,0.3s,baz=16,slow=5.5,SNR=23						
KAPI				Sn	**Sn**	**09 42 20.0**	**-1.0**
	3.1nm,0.3s,baz=229,slow=19,SNR=5.1						
KAPI	**Kappang**	**9.46**	**226**	*e*Pn	**Pn**	**09 40 37.2**	**+1.2**
	45nm,0.6s						
KAPI				*e*Sn	**Sn**	**09 42 18.5**	**-2.5**
KAPI	**Kappang**	**9.46**	**226**	P	**Pn**	**09 40 38.0**	**+2.0**
	39nm,1.3s						
BAKI	**Biak**	**9.99**	**106**	P	**Pn**	**09 40 48.4**	**+5.1**
	232nm,1.2s,3µm						
SDKM	**Sandakan**	**10.12**	**293**	P	**Pn**	**09 40 46.4**	**+1.3**
KDM	**Kudat**	**10.99**	**299**	P	**Pn**	**09 40 58.3**	**+1.2**
KKM	**Kota Kinabalu**	**11.18**	**293**	P	**Pn**	**09 41 02.6**	**+3.0**
KKM	**Kota Kinabalu**	**11.18**	**293**	*e*Pn	**Pn**	**09 41 02.0**	**+2.4**
	37nm,0.5s						
KKM	**Kota Kinabalu**	**11.18**	**293**	P	**Pn**	**09 41 03.0**	**+3.4**
	94nm,0.9s						
SBUM	**Sibu**	**14.31**	**273**	P	**Pn**	**09 41 45.1**	**+2.7**
SBUM	**Sibu**	**14.31**	**273**	P	**Pn**	**09 41 46.2**	**+3.8**
	49nm,0.8s						
KHKI	**Kahang-Kahang**	**14.73**	**227**	P	Px	09 41 55.7	
DNP	**Denpasar**	**15.23**	**228**	P	Px	09 42 06.4	
KAKA	**Kakadu**	**15.42**	**158**	*e*P	**Pn**	**09 42 01.1**	**+4.3**
	201nm,0.9s						
KAKA	**Kakadu**	**15.42**	**158**	*e*P	**Pn**	**09 41 55.0**	**-1.8**
	677nm,0.9s						
KAKA	**Kakadu**	**15.42**	**158**	P	**Pn**	**09 41 56.5**	**-0.3**
	434nm,1.1s,3µm						
KSM	**Kuching**	**16.21**	**270**	P	**Pn**	**09 42 11.5**	**+4.5**
KSM	**Kuching**	**16.21**	**270**	*e*P	**Pn**	**09 42 08.6**	**+1.6**
	31nm,0.6s						
KSM	**Kuching**	**16.21**	**270**	P	**Pn**	**09 42 14.1**	**+7.1**
SJI	**Sawahan**	**17.41**	**237**	P	**Pn**	**09 42 24.8**	**+2.7**
	59nm,0.7s						
PWJI	**Pagerwojo**	**17.54**	**237**	P	**Pn**	**09 42 29.5**	**+5.9**
	87nm,0.8s						
FITZ	**Fitzroy Crossi**	**19.63**	**182**	*e*P	**Pn**	**09 42 45.7**	**-3.1**
	20nm,0.4s						
FITZ	**Fitzroy Crossi**	**19.63**	**182**	P	**Pn**	**09 42 45.7**	**-3.1**
	1.6nm,0.3s,baz=15,slow=9.1,SNR=22						
FITZ	**Fitzroy Crossi**	**19.63**	**182**	*e*P	**Pn**	**09 42 45.4**	**-3.4**
	11nm,0.5s						
FITZ	**Fitzroy Crossi**	**19.63**	**182**	P	**Pn**	**09 42 47.6**	**-1.2**
	88nm,1.5s						
GUMO	**Guam**	**21.69**	**56**	LR	LR	09 49 28.3	
	comp=Z,98nm,21.4s,MS3.2,baz=325,slow=31						
YULB	**Yu-li**	**22.21**	**347**	*e*P	**P**	**09 43 11.6**	**-3.3**
	27nm,0.8s,mb4.7						
TPUB	**Ta-pu**	**22.28**	**346**	*e*P	**P**	**09 43 12.8**	**-2.8**
	32nm,0.6s,mb4.9						
COEN	**Coen**	**22.64**	**134**	*e*P	**P**	**09 43 19.6**	**+0.1**
	324nm,1.3s,mb5.6						
COEN	**Coen**	**22.64**	**134**	P	**P**	**09 43 25.5**	**+6.0**
MYKOM	**Kota Tinggi**	**22.66**	**271**	P	**P**	**09 43 20.9**	**+1.1**
WRAB	**Tennant Creek**	**22.77**	**161**	P	**P**	**09 43 20.0**	**-0.8**
	1µm,1.0s,mb6.3,SNR=47						
WRAB	**Tennant Creek**	**22.77**	**161**	*e*P	**P**	**09 43 19.2**	**-1.6**
WRAB				pmax	pmax		
	comp=Z,171nm,0.8s,mb5.5						
WRAB	**Tennant Creek**	**22.77**	**161**	*e*P	**P**	**09 43 19.2**	**-1.6**
	comp=Z,171nm,0.8s,mb5.5						
WRAB	**Tennant Creek**	**22.77**	**161**	P	**P**	**09 43 19.5**	**-1.3**
WRA	**Warramunga Arr**	**22.78**	**161**	P	**P**	**09 43 19.2**	**-1.7**
WRA						09 47 10.8	
WRA				S	**S**	**09 47 25.9**	**-0.9**
WRA	**Warramunga Arr**	**22.78**	**161**	P	**P**	**09 43 19.2**	**-1.7**
	comp=Z,110nm,0.7s,mb5.4,baz=337,slow=11,SNR=361						
WRA				PcP	PcP	09 47 10.8	-0.7
	comp=Z,3.2nm,0.7s,baz=331,slow=2.0,SNR=5.9						
WRA				S	**S**	**09 47 25.9**	**-0.9**
	comp=Z,9.6nm,1.1s,baz=341,slow=17,SNR=8.7						
WRA				ScP	ScP	09 50 46.9	+1.3
	comp=Z,1.1nm,0.7s,baz=336,slow=2.9,SNR=5.2						
KGM	**Kluang**	**23.19**	**271**	P	**P**	**09 43 25.8**	**+0.4**
YHNB	**Yeheng**	**23.43**	**348**	*e*P	**P**	**09 43 26.2**	**-1.3**
	comp=Z,21nm,0.5s,mb4.8						
MBWA	**Marble Bar**	**23.61**	**196**	*e*P	**P**	**09 43 27.5**	**-1.7**
	comp=Z,28nm,0.8s,mb4.7						
KTGM	**Kuala Trenggan**	**23.63**	**280**	P	**P**	**09 43 29.0**	**-0.5**
QIZ	**Qiongzhong**	**23.79**	**318**	P	**P**	**09 43 30.6**	**-0.3**
QIZ				sP	sP	09 43 45.3	-3.5
QIZ				S	**S**	**09 47 43.1**	**-0.2**
QIZ				sS	sS	09 48 00.4	-3.4
QIZ				pmax	pmax		
	comp=Z,36nm,0.9s,mb4.8						
QIZ				pmax	pmax		
	comp=Z,350nm,3.6s						
FRIM	**Kepong**	**24.92**	**274**	P	**P**	**09 43 37.3**	**-4.1**
JOW	**Kunigami**	**25.11**	**4**	P	**P**	**09 43 43.5**	**+0.7**
	comp=Z,23nm,0.4s,mb5.0,baz=203,slow=7.7,SNR=2.9						
IPM	**Ipoh**	**25.61**	**277**	P	**P**	**09 43 47.1**	**-0.5**
IPM	**Ipoh**	**25.61**	**277**	P	**P**	**09 43 52.4**	**+4.8**
KULM	**Kulim**	**26.07**	**279**	P	**P**	**09 43 51.5**	**-0.3**
ASAR	**Alice Springs**	**26.16**	**164**	P	**P**	**09 43 51.9**	**-0.4**
ASAR						09 47 19.1	
ASAR				S	**S**	**09 48 24.7**	**+3.7**
ASAR	**Alice Springs**	**26.16**	**164**	P	**P**	**09 43 51.9**	**-0.4**
	comp=Z,52nm,0.9s,mb5.1,baz=345,slow=7.3,SNR=209						
ASAR				PcP	PcP	09 47 19.1	+0.3
	comp=Z,2.6nm,0.5s,baz=342,slow=2.3,SNR=5.6						
ASAR				S	**S**	**09 48 24.7**	**+3.7**
	comp=Z,2.1nm,0.7s,baz=346,slow=21,SNR=4.2						
ASAR				ScP	ScP	09 50 55.7	+0.8
	comp=Z,0.7nm,0.6s,baz=344,slow=3.1,SNR=4.6						
PSI	**Prapat**	**27.60**	**273**	P	**P**	**09 44 04.3**	**-1.2**
	comp=Z,4.4nm,0.6s,mb4.3,baz=108,slow=6.4,SNR=4.6						
GSI	**Gunungsitoli**	**28.94**	**270**	P	**P**	**09 44 17.2**	**-0.3**
CTA	**Charters Tower**	**28.99**	**139**	*e*P	**P**	**09 44 18.3**	**+0.5**
	comp=Z,18nm,1.9s,mb4.5						
CTA	**Charters Tower**	**28.99**	**139**	P	**P**	**09 44 17.9**	**+0.1**
	comp=Z,9.3nm,0.5s,mb4.8,baz=315,slow=13,SNR=4.6						
WHN	**Wuhan**	**30.98**	**339**	P	**P**	**09 44 38.3**	**+3.0**
NJ2	**Nanjing**	**31.10**	**347**	*e*P	**P**	**09 44 38.3**	**+2.0**
NJ2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.1						
GYA	**Guiyang**	**31.20**	**324**	P	**P**	**09 44 36.8**	**-0.4**
GYA				pP	pP	09 44 51.6	+1.9
GYA				sP	sP	09 44 58.4	+3.1
GYA				PP	PP	09 45 42.1	-6.3
GYA				PcP	PcP	09 47 31.0	-0.4
GYA				S	**S**	**09 49 42.0**	**+1.7**
GYA				sS	sS	09 50 02.3	+1.1
GYA				ScP	ScP	09 51 08.9	-1.8
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
GYA				pmax	pmax		
	comp=Z,130nm,4.9s						
GYA				LR	LR		
	comp=N,820nm,15.8s,MS4.6						
GYA				LR	LR		
	comp=E,610nm,14.2s,MS4.6						
GYA				LR	LR		
	comp=Z,820nm,15.9s,MS4.5						
CMAR	**Chiang Mai Arr**	**31.80**	**303**	P	**P**	**09 44 42.5**	**-0.1**
CMAR						09 47 34.1	
CMAR	**Chiang Mai Arr**	**31.80**	**303**	P	**P**	**09 44 42.5**	**-0.2**
	comp=Z,3.9nm,0.8s,mb4.3,baz=108,slow=6.1,SNR=14						
CMAR				PcP	PcP	09 47 34.1	+1.0
	comp=Z,0.8nm,0.3s,baz=167,slow=1.5,SNR=5.2						
CMAR				LR	LR	09 57 21.6	
	comp=Z,148nm,19.9s,MS3.7,baz=115,slow=36						
CHTO	**Chiang Mai**	**31.96**	**304**	*e*P	**P**	**09 44 43.5**	**-0.6**
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
CHTO	**Chiang Mai**	**31.96**	**304**	*e*P	**P**	**09 44 43.5**	**-0.6**
	comp=Z,7.0nm,0.8s,mb4.5						
CHTO	**Chiang Mai**	**31.96**	**304**	P	**P**	**09 44 44.9**	**+0.8**
FORT	**Forrest**	**32.27**	**178**	*e*P	**P**	**09 44 46.1**	**-0.5**
	comp=Z,61nm,0.5s,mb5.7						
FORT	**Forrest**	**32.27**	**178**	*e*P	**P**	**09 44 45.9**	**-0.7**
	comp=Z,64nm,0.6s,mb5.6						
KMI	**Kunming**	**32.74**	**317**	P	**P**	**09 44 53.3**	**+2.5**
KMI				pP	pP	09 45 06.1	+2.9
KMI				S	**S**	**09 50 07.6**	**+3.3**
KMI				SS	SS	09 52 08.4	-18
KMI				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
KMI				LR	LR		
	comp=N,210nm,11.9s						
KMI				LR	LR		
	comp=E,190nm,20.0s						
KMI				LR	LR		
	comp=Z,270nm,21.0s						
KLBR	**Kellerberrin**	**34.08**	**193**	*e*P	**P**	**09 45 01.9**	**-0.5**
	comp=Z,17nm,0.8s,mb5.0						
MUN	**Mundaring**	**34.83**	**195**	*e*P	**P**	**09 45 08.4**	**-0.5**
NWAO	**Narrogin (SRO)**	**35.48**	**194**	P	**P**	**09 45 14.1**	**-0.3**
	comp=Z,5.7nm,0.5s,mb4.8,baz=13,slow=7.8,SNR=13						
KSRS	**Korea Array**	**35.66**	**2**	P	**P**	**09 45 16.9**	**+0.9**
	comp=Z,3.7nm,0.8s,mb4.3,baz=177,slow=9.4,SNR=10.0						
KSRS				PcP	PcP	09 47 44.5	+0.8
	comp=Z,1.0nm,0.7s,baz=206,slow=2.2,SNR=3.7						
EIDS	**Eidsvold**	**35.86**	**140**	*e*P	**P**	**09 45 17.0**	**-0.8**
	comp=Z,10nm,0.8s,mb4.8						
XAN	**Xi'an**	**36.19**	**335**	P	**P**	**09 45 19.9**	**-0.7**
XAN				pP	pP	09 45 30.3	-2.8
XAN				sP	sP	09 45 35.3	-3.4
XAN				PP	PP	09 46 45.3	+1.7
XAN				S	**S**	**09 51 00.9**	**+3.5**
XAN				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
XAN				pmax	pmax		
	comp=Z,68nm,5.1s						
XAN				LR	LR		
	comp=N,110nm,9.6s						
XAN				LR	LR		
	comp=E,140nm,14.4s						
XAN				LR	LR		
	comp=Z,210nm,24.1s						
CD2	**Chengdu**	**36.22**	**326**	P	**P**	**09 45 20.6**	**-0.3**
CD2				pP	pP	09 45 32.8	-0.6
CD2				sP	sP	09 45 38.0	-1.0
CD2				PP	PP	09 46 45.1	+1.1
CD2				PcP	PcP	09 47 43.8	-1.7
CD2				S	**S**	**09 50 58.3**	**+0.3**
CD2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
CD2				pmax	pmax		
	comp=Z,140nm,4.7s						
CD2				LR	LR		
	comp=N,470nm,4.7s						
CD2				LR	LR		
	comp=Z,320nm,5.1s						
STKA	**Stephens Creek**	**36.27**	**158**	*e*P	**P**	**09 45 20.9**	**-0.3**
	comp=Z,16nm,0.6s,mb5.1						
STKA	**Stephens Creek**	**36.27**	**158**	P	**P**	**09 45 21.0**	**-0.2**
	comp=Z,24nm,0.8s,mb5.2,baz=328,slow=8.3,SNR=56						
STKA				LR	LR	10 02 19.8	
	comp=Z,159nm,18.0s,MS3.8,baz=212,slow=40						
MJAR	**Matsushiro Arr**	**36.38**	**16**	P	**P**	**09 45 21.2**	**-0.9**
	comp=Z,4.4nm,0.7s,mb4.5,baz=187,slow=8.9,SNR=13						
MAJO	**Matsushiro**	**36.38**	**16**	*e*P	**P**	**09 45 22.0**	**-0.1**
MAJO				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
MAJO	**Matsushiro**	**36.38**	**16**	*e*P	**P**	**09 45 22.0**	**-0.1**
	comp=Z,13nm,0.9s,mb4.8						
MAT	**Matsushiro**	**36.38**	**16**	P	**P**	**09 45 22.1**	**0.0**
BJI	**Beijing**	**39.37**	**347**	P	**P**	**09 45 47.8**	**+0.6**
BJI				pP	pP	09 45 59.8	-0.1
BJI				sP	sP	09 46 04.8	-0.7
BJI				S	**S**	**09 51 48.6**	**+3.3**
BJI				sS	sS	09 52 08.3	+1.8
BJI				SS	SS	09 54 44.6	+3.9
BJI				pmax	pmax		
	comp=Z,31nm,0.7s,mb5.2						
BJI				pmax	pmax		
	comp=Z,88nm,3.5s						
BJI				LR	LR		
	comp=N,220nm,25.5s,MS4.0						
BJI				LR	LR		
	comp=E,220nm,24.8s,MS4.0						
ARMA	**Armidale**	**39.86**	**145**	*e*P	**P**	**09 45 52.2**	**+0.7**
ARMA	**Armidale**	**39.86**	**145**	*e*P	**P**	**09 45 52.0**	**+0.5**
	comp=E,52nm,1.3s,mb5.1						
LZH	**Lanzhou**	**40.21**	**331**	P	**P**	**09 45 57.5**	**+3.2**
LZH				pP	pP	09 46 09.5	+2.5
LZH				sP	sP	09 46 14.5	+1.9
LZH				PP	PP	09 47 31.0	+3.4
LZH				*e*S	**S**	**09 52 00.3**	**+2.2**
LZH				sS	sS	09 52 26.1	+6.8
LZH				SS	SS	09 54 58.3	+0.6
LZH				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.0						
LZH				pmax	pmax		
	comp=Z,150nm,4.0s						
LZH				LR	LR		
	comp=E,510nm,15.7s						
LZH				LR	LR		
	comp=Z,900nm,16.7s,MS4.7						
SHL	**Shillong**	**40.97**	**308**	*e*PKP	**P**	**09 46 01.0**	**+0.2**
HHC	**Hu-ho-hao-te**	**41.31**	**343**	*e*P	**P**	**09 46 05.1**	**+1.7**
HHC				pP	pP	09 46 17.3	+1.2
HHC				sP	sP	09 46 22.6	+1.0
HHC				PP	PP	09 47 44.6	+5.1
HHC				*e*S	**S**	**09 52 16.3**	**+1.9**
HHC				sS	sS	09 52 37.6	+1.9
HHC				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
HHC				pmax	pmax		
	comp=Z,84nm,4.3s						
HHC				LR	LR		
	comp=N,180nm,14.3s,MS4.2						
HHC				LR	LR		
	comp=E,170nm,14.3s,MS4.2						
HHC				LR	LR		
	comp=Z,180nm,19.0s,MS4.0						
CN2	**Changchun**	**41.99**	**359**	*e*P	**P**	**09 46 09.5**	**+0.6**
CN2				*e*PP	PP	09 47 51.1	+4.3
CN2				*e*S	**S**	**09 52 26.5**	**+2.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
CN2				LR	LR		
	comp=Z,200nm,15.0s,MS4.1						
CAN	**Canberra**	**42.35**	**152**	*e*P	**P**	**09 46 12.7**	**+0.8**
CAN				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.6						
CAN	**Canberra**	**42.35**	**152**	*e*P	**P**	**09 46 12.7**	**+0.7**
	comp=Z,14nm,0.8s,mb4.6						
CNB	**Canberra Magne**	**42.52**	**152**	*e*P	**P**	**09 46 14.7**	**+1.4**
TOO	**Toolangi**	**42.79**	**158**	*e*P	**P**	**09 46 16.5**	**+1.1**
MDJ	**Mudanjiang**	**42.88**	**3**	P	**P**	**09 46 17.3**	**+1.2**
MDJ				pP	pP	09 46 28.6	-0.3
MDJ				S	**S**	**09 52 36.3**	**-1.1**
MDJ				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,180nm,5.4s						
LSA	**Lhasa**	**43.68**	**313**	P	**P**	**09 46 25.0**	**+2.2**
ASAJ	**Asahikawa**	**44.64**	**16**	P	**P**	**09 46 31.4**	**+1.2**
	comp=Z,12nm,0.8s,mb4.8,baz=236,slow=12,SNR=12						
GTA	**Gaotai**	**44.79**	**330**	*e*P	**P**	**09 46 32.3**	**+0.8**
GTA				pP	pP	09 46 45.9	+1.6
GTA				sP	sP	09 46 50.9	+1.1
GTA				PcP	PcP	09 48 14.3	+1.4
GTA				PP	PP	09 48 19.1	+2.3
GTA				S	**S**	**09 53 06.4**	**+1.0**
GTA				sS	sS	09 53 28.8	+1.9
GTA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
GTA				pmax	pmax		
	comp=Z,150nm,5.1s						
GTA				LR	LR		
	comp=N,120nm,14.9s,MS4.2						
GTA				LR	LR		
	comp=E,140nm,13.1s,MS4.2						
GTA				LR	LR		
	comp=Z,180nm,19.6s						
TAPN	**Taplejung**	**45.11**	**308**	*e*P	**P**	**09 46 33.3**	**-0.9**
	comp=Z,16nm,0.4s,mb5.2						
ODAN	**Odare**	**45.14**	**307**	*e*P	**P**	**09 46 33.2**	**-1.3**
	comp=Z,28nm,0.9s,mb5.1						
RAMN	**Ramite**	**45.81**	**307**	*e*P	**P**	**09 46 38.8**	**-1.0**
	comp=Z,20nm,0.5s,mb5.3						
JIRN	**Jiri**	**46.45**	**308**	*e*P	**P**	**09 46 44.0**	**-0.8**
	comp=Z,16nm,0.3s,mb5.4						
GUN	**Gumba**	**46.81**	**308**	*e*P	**P**	**09 46 46.9**	**-0.7**
PKI	**Pulchoki**	**47.03**	**307**	*e*P	**P**	**09 46 48.0**	**-1.4**
	comp=Z,9.6nm,0.4s,mb5.1						
PKIN	**Phulchoki**	**47.04**	**307**	*e*P	**P**	**09 46 48.0**	**-1.5**
KKN	**Kakani**	**47.23**	**307**	*e*P	**P**	**09 46 50.1**	**-0.8**
	comp=Z,14nm,0.5s,mb5.2						
HABR	**Khabarovsk**	**47.23**	**8**	*e*P	**P**	**09 46 51.6**	**+1.0**
HABR				*e**PP	pP	09 47 02.7	-0.8
HABR				*e**SP	sP	09 47 08.3	-0.7
HABR				*e*		09 48 18.6	
HABR				*e*		09 48 40.4	
HABR				S	**S**	**09 53 42.6**	**+2.4**
HABR				*e**SS	sS	09 54 03.2	+1.4
HABR				*e*		09 56 38.0	
HABR				pmax	pmax		
	comp=E,20nm,1.9s						
HABR				pmax	pmax		
	comp=N,14nm,1.8s						
HABR				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.0						
HABR				MLR	MLR		
	comp=Z,53nm,18.0s,MS3.5						
DMN	**Daman**	**47.29**	**307**	*e*P	**P**	**09 46 50.7**	**-0.7**
YSS	**Yuzh-Sakhalins**	**47.30**	**15**	*e*P	**P**	**09 46 51.9**	**+0.8**
YSS	**Yuzh-Sakhalins**	**47.30**	**15**	*i* P	**P**	**09 46 50.5**	**-0.6**
KLR	**Kul'dur**	**47.62**	**5**	*e*P	**P**	**09 46 52.8**	**-0.8**
GKN	**Gorkha**	**47.83**	**307**	*e*P	**P**	**09 46 54.4**	**-1.2**
KOLN	**Koldanda**	**48.56**	**306**	*e*P	**P**	**09 47 00.3**	**-1.0**
	comp=Z,33nm,0.5s,mb5.6						
DANN	**Dangsing**	**48.68**	**307**	*e*P	**P**	**09 47 01.3**	**-0.8**
	comp=Z,43nm,0.5s,mb5.8						
ULN	**Ulaanbaatar**	**49.04**	**343**	*e*P	**P**	**09 47 04.3**	**-0.2**
	comp=Z,4.4nm,0.6s,mb4.7						
SONM	**Songino Array**	**49.21**	**342**	P	**P**	**09 47 05.5**	**-0.3**
	comp=Z,6.0nm,0.7s,mb4.7,baz=156,slow=9.0,SNR=24						
SONM				LR	LR	10 08 43.0	
	comp=Z,129nm,20.5s,MS3.9,baz=192,slow=37						
HYB	**Hyderabad**	**49.65**	**291**	*i* P	**P**	**09 47 11.0**	**+1.3**
ZAK	**Zakamensk**	**52.42**	**341**	*e*P	**P**	**09 47 30.5**	**+0.5**
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
TLY	**Talaya**	**53.44**	**342**	*e*P	**P**	**09 47 38.1**	**+0.6**
TLY				*e*		09 50 49.0	
TLY				*e*		09 58 38.9	
TLY				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
TLY				MLR	MLR		
	comp=Z,92nm,20.0s,MS3.8						
MOY	**Mondy**	**54.27**	**341**	*e*P	**P**	**09 47 45.2**	**+1.7**
WMQ	**Urumqi**	**54.32**	**326**	P	**P**	**09 47 44.1**	**+0.1**
WMQ				pP	pP	09 47 56.5	-0.7
WMQ				sP	sP	09 48 02.0	-0.6
WMQ				PcP	PcP	09 48 48.0	+0.4
WMQ				PP	PP	09 49 48.0	+1.6
WMQ				S	**S**	**09 55 17.0**	**-1.6**
WMQ				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,280nm,5.1s						
WMQ				LR	LR		
	comp=N,280nm,23.4s,MS4.3						
WMQ				LR	LR		
	comp=E,230nm,25.8s,MS4.3						
WMQ				LR	LR		
	comp=Z,250nm,25.4s,MS4.2						
BOD	**Bodaibo**	**56.89**	**352**	*e*P	**P**	**09 48 02.2**	**0.0**
BOD				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
PEA0B	**Petropavlovsk-**	**57.44**	**22**	*e*P	**P**	**09 48 07.2**	**+1.1**
PETK	**Petropavlovsk-**	**57.44**	**22**	P	**P**	**09 48 07.3**	**+1.2**
	comp=Z,5.0nm,0.5s,mb4.8,baz=178,slow=4.2,SNR=44						
PETK	**Petropavlovsk-**	**57.44**	**22**	P	**P**	**09 48 07.3**	**+1.2**
MK31	**Makanchi Array**	**59.15**	**326**	*e*P	**P**	**09 48 17.1**	**-1.2**
MK31				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.2						
MK31	**Makanchi Array**	**59.15**	**326**	*i* P	**P**	**09 48 17.1**	**-1.2**
MKAR	**Makanchi Array**	**59.15**	**326**	P	**P**	**09 48 17.3**	**-1.0**
	comp=Z,20nm,0.5s,mb5.4,baz=119,slow=8.0,SNR=95						
MKAR				LR	LR	10 16 38.1	
	comp=Z,92nm,18.5s,MS3.9,baz=268,slow=39						
MKAR	**Makanchi Array**	**59.15**	**326**	P	**P**	**09 48 17.3**	**-1.0**
MKAR				LR	LR	10 16 38.1	
KSH	**Kashi**	**59.38**	**316**	P	**P**	**09 48 20.4**	**+0.4**
KSH				*e*pP	pP	09 48 33.3	0.0
KSH				*e*sP	sP	09 48 38.4	-0.3
KSH				*e*PcP	PcP	09 49 08.1	+0.6
KSH				*e*PP	PP	09 50 32.1	+0.5
KSH				*e*ScP	ScP	09 53 04.0	-0.6
KSH				*e*PcS	PcS	09 53 09.1	-0.4
KSH				*e*S	**S**	**09 56 22.6**	**-3.0**
KSH				*e*ScS	ScS	09 58 03.1	-3.3
KSH				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
KSH				LR	LR		
	comp=N,550nm,5.3s						
KSH				LR	LR		
	comp=E,410nm,5.1s						
KSH				LR	LR		
	comp=Z,660nm,5.3s						

RPZ	Rata Peaks	60.19	144	P	P	09 48 25.5	+0.1
	comp=Z,27nm,1.0s,mb5.2,baz=288,slow=3.2,SNR=2.9						
YAK	Yakutsk	60.29	2	eP	P	09 48 25.3	-0.5
YAK				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
YAK	Yakutsk	60.29	2	eP	P	09 48 25.9	+0.1
	comp=Z,26nm,0.6s,mb5.4						
ULHL	Ulahol	60.44	319	P	P	09 48 26.1	-1.1
	SNR=6.2						
KRAR	Krasnoyarsk	60.61	339	iP	P	09 48 29.0	+0.9
KRAR				pmax	pmax		
	comp=Z,40nm,0.5s,mb5.8						
KZA	Kyzart	61.02	318	P	P	09 48 31.4	+0.2
	SNR=18						
TKM2	Tokmak 2	61.18	319	eP	P	09 48 31.3	-0.9
TKM2				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.2						
TKM2	Tokmak 2	61.18	319	P	P	09 48 31.5	-0.7
	SNR=13						
TKM2	Tokmak 2	61.18	319	eP	P	09 48 31.3	-0.9
	comp=Z,11nm,0.6s,mb5.2						
URZ	Urewera	61.18	136	P	P	09 48 30.6	-1.7
	comp=Z,7.2nm,0.8s,mb4.9,baz=72,slow=3.2,SNR=3.7						
UCH	Uchtor	61.58	318	P	P	09 48 35.6	+0.7
	SNR=27						
UCH	Uchtor	61.58	318	eP	P	09 48 35.5	+0.6
	comp=Z,13nm,0.7s,mb5.2						
AAK	Ala-Archa	61.77	319	P	P	09 48 36.6	+0.4
	comp=Z,42nm,0.6s,mb5.8,SNR=5.9						
USP	Ospenovka	62.05	319	P	P	09 48 37.2	-0.9
	SNR=23						
AML	Almayashu	62.08	318	P	P	09 48 37.5	-0.9
	SNR=26						
AML	Almayashu	62.08	318	eP	P	09 48 38.0	-0.3
	comp=Z,14nm,0.7s,mb5.2						
EKS2	Erkin-Say	62.26	318	P	P	09 48 41.0	+1.5
	SNR=14						
EKS2	Erkin-Say	62.26	318	eP	P	09 48 39.2	-0.3
	comp=Z,9.2nm,0.7s,mb5.0						
ZAA0	Zalesovo Array	62.35	334	eP	P	09 48 39.4	-0.5
ZALV	Zalesovo Beam	62.35	334	P	P	09 48 38.4	-1.5
	comp=Z,3.9nm,0.5s,mb4.8,baz=120,slow=8.8,SNR=14						
KURK	Kurchatov	63.39	328	P	P	09 48 46.2	-0.7
	comp=Z,374nm,0.7s,mb6.6,SNR=43						
KURK	Kurchatov	63.39	328	eP	P	09 48 45.8	-1.1
KURK				pmax	pmax		
	comp=Z,37nm,0.6s,mb5.7						
KURK	Kurchatov	63.39	328	P	P	09 48 45.8	-1.1
	comp=Z,22nm,0.6s,mb5.5,baz=127,slow=6.3,SNR=45						
KURK	Kurchatov	63.39	328	eP	P	09 48 45.8	-1.1
	comp=Z,37nm,0.6s,mb5.7						
NVS	Novosibirsk	63.64	334	eP	P	09 48 47.4	-1.0
NVS				e		09 57 17.0	
NVS				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
NVS				pmax	pmax		
	comp=N,7.0nm,0.6s						
NVS				pmax	pmax		
	comp=E,12nm,0.8s						
SEY	Seymchan	64.10	13	⇑eP	P	09 48 52.7	+1.4
KK31	Karatay Array	64.62	318	iP	P	09 48 54.1	-1.0
BVAR	Borovoye Array	68.95	327	P	P	09 49 21.9	-0.6
	comp=E,4.9nm,0.5s,mb4.7,baz=106,slow=7.5,SNR=28						
BRVK	Borovoye	69.03	327	P	P	09 49 22.5	-0.4
	comp=E,94nm,0.4s,mb6.1,SNR=6.1						
BILL	Bilibino	71.62	15	eP	P	09 49 41.4	+2.9
BILL				e		09 52 15.1	
BILL				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
BILL				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.8						
AB31	Akbulak array	73.63	321	P	P	09 49 49.5	-1.4
AB31				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
AKTK	Aktyubinsk	75.16	322	P	P	09 49 59.4	-0.3
AKTO	Aktyubinsk	75.16	322	P	P	09 49 59.4	-0.3
	comp=Z,9.1nm,0.6s,mb4.9,baz=108,slow=6.6,SNR=20						
SVE	Sverdlovsk	75.63	329	⇓eP	P	09 50 01.9	-0.3
SVE				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.3						
ARU	Arti	76.59	328	P	P	09 50 07.0	-0.7
	comp=Z,193nm,0.6s,mb6.2,SNR=5.2						
ARU	Arti	76.59	328	d iP	P	09 50 06.6	-1.1
ARU				e		09 52 57.7	
ARU				S	S	09 59 48.9	-1.4
ARU				SS	SS	10 04 40.7	-5.5
ARU				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
ARU	Arti	76.59	328	eP	P	09 50 06.4	-1.3
	comp=Z,21nm,0.7s,mb5.2						
SOKR	Solikamsk	78.42	331	eP	P	09 50 17.4	-0.5
SOKR				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
KBD	Kabd	79.45	299	eP	P	09 50 23.5	-0.7
KBD				AMb	AMB	09 50 29.4	
	comp=Z,24nm,0.8s,mb5.2						
MIB	Mutribah	79.80	300	eP	P	09 50 24.9	-1.2
MIB				AMb	AMB	09 50 26.5	
	comp=Z,33nm,0.8s,mb5.3						
NAY	Al-Naaiem	79.85	299	eP	P	09 50 25.1	-1.3
NAY				AMb	AMB	09 50 27.0	
	comp=Z,13nm,1.2s,mb4.7						
OPO	Ambohidratompo	80.42	251	P	P	09 50 30.4	+0.8
	comp=Z,5.5nm,0.8s,mb4.6,baz=104,slow=8.3,SNR=3.9						
VNDA	Vanda	81.39	173	P	P	09 50 33.5	-0.1
	comp=Z,9.4nm,0.5s,mb5.0,baz=312,slow=7.2,SNR=69						
VNDA				LR	LR	10 23 56.6	
	comp=Z,163nm,19.7s,MS4.4,baz=324,slow=34						
MAW	Mawson	81.73	200	LR	LR	10 26 35.4	
	comp=Z,161nm,19.0s,MS4.4,baz=201,slow=35						
PRGR	Permogore	84.23	332	eP	P	09 50 45.4	-3.2
PRGR				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.3						
IMA2	Indian Mountai	84.36	24	eP	P	09 50 50.6	+1.4
KIV	Kislovodsk	84.42	314	eP	P	09 50 50.8	+0.8
KIV				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
KIV	Kislovodsk	84.42	314	eP	P	09 50 51.0	+1.0
	comp=Z,12nm,0.8s,mb5.1						
VRHR	Novokhopersk	85.52	321	eP	P	09 50 54.8	-0.5
VRHR				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.8						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
SOC	Sochi	86.56	313	eP	P	09 50 58.3	-2.4
SOC				e*SP	sP	09 51 16.2	-3.7
SOC				ePPP		09 56 16.7	
SOC				eS	SKSac	10 01 20.1	-3.5
SOC				eSS	SS	10 07 13.5	-1.8
SOC				eSSS		10 10 40.7	
SOC				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.2						
VSR	Storozhevoye	87.07	321	eP	P	09 51 04.1	+1.1
VSR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.1						
VSR				pmax	pmax		
	comp=N,10.0nm,1.2s						
VSR				pmax	pmax		
	comp=E,9.0nm,1.3s						
KLMR	Klimovskoe	87.11	331	eP	P	09 51 01.0	-2.0
KLMR				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.5						
MALT	Malatya	87.50	308	⇓iP	P	09 51 06.3	+1.0
MALT	Malatya	87.50	308	⇓P	P	09 51 06.3	+0.9
OBN	Obninsk	88.64	325	⇓eP	P	09 51 09.6	-0.8
OBN				e	pP	09 51 24.1	-0.3
OBN				eSS	SS	10 07 48.0	+3.0
OBN				pmax	pmax		
	comp=Z,47nm,1.7s,mb5.5						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.4						
ASF	Jabal al Asfar	88.82	302	P	P	09 51 12.5	+0.7
	comp=Z,5.7nm,0.6s,mb5.1,baz=181,slow=1.4,SNR=7.2						
KMBO	Kilima Mbogo	89.30	269	P	P	09 51 15.1	+0.6
	comp=Z,2.9nm,0.9s,mb4.6,baz=63,slow=6.8,SNR=7.4						
JOF	Joensuu	90.93	333	eP	P	09 51 19.4	-1.5
JOF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb5.0						
JOF	Joensuu	90.93	333	ep	P	09 51 19.4	-1.5
	comp=Z,4.2nm,0.5s,mb5.0						
BRTR	Keskin Array B	91.19	310	P	P	09 51 21.6	-1.0
	comp=Z,1.7nm,0.7s,mb4.5,baz=125,slow=3.6,SNR=4.8						
QSPA	South Pole Qui	91.56	180	P	P	09 51 24.3	+0.8
	comp=Z,2.4nm,0.5s,mb4.8,baz=284,slow=4.1,SNR=18						
QSPA	South Pole Qui	91.56	180	P	P	09 51 24.3	+0.8
ARCES	ARCESS Array B	92.33	340	P	P	09 51 26.1	-1.1
	comp=Z,6.8nm,1.0s,mb5.0,baz=66,slow=4.1,SNR=4.3						
SPITS	Spitsbergen Ar	92.48	349	P	P	09 51 27.4	-0.5
	comp=Z,9.5nm,1.0s,mb5.1,baz=167,slow=9.4,SNR=3.6						
KAF	Kangasniemi	93.34	332	eP	P	09 51 30.5	-1.6
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb5.1						
KAF	Kangasniemi	93.34	332	ep	P	09 51 30.5	-1.6
	comp=Z,2.7nm,0.4s,mb5.0						
AKASG	Malin Array Be	93.37	321	P	P	09 51 31.4	-1.0
	comp=Z,0.5nm,0.4s,mb4.3,baz=67,slow=4.9,SNR=3.7						
MLR	Muntele Rosu	96.25	316	⇑iP	P	09 51 42.8	-3.0
MLR	Muntele Rosu	96.25	316	P	P	09 51 44.8	-0.9
	comp=Z,6.0nm,1.0s,mb5.0,baz=349,slow=5.2,SNR=3.5						
MLR	Muntele Rosu	96.25	316	⇑P	P	09 51 42.8	-3.0
BURAR	Bucovina Array	96.41	318	⇓iP	P	09 51 46.5	+0.1
BURAR	Bucovina Array	96.41	318	⇓P	P	09 51 46.5	0.0
BUR08	Bucovina Ar. S	96.42	318	eP	P	09 51 45.7	-0.7
DRGR		98.24	318	⇓iP	P	09 51 51.1	-3.6
DRGR		98.24	318	⇓P	P	09 51 51.1	-3.6
RES	Resolute Bay	99.89	10	P	Pdif	09 52 01.4	-0.5
	comp=Z,1.3nm,0.5s,baz=290,slow=6.0,SNR=8.6						
RES	Resolute Bay	99.89	10	P	Pdif	09 52 01.4	-0.5
NOA	NORSAR Array B	100.56	333	P	Pdif	09 52 04.4	-0.4
	comp=Z,1.0nm,0.7s,baz=61,slow=2.0,SNR=3.0						
YKA	Yellowknife Ar	101.48	25	P	Pdif	09 52 08.6	-0.3
	comp=Z,0.2nm,0.6s,baz=300,slow=4.4,SNR=7.7						
YKA				PKiKP	PKiKP	09 56 32.4	-0.2
	comp=Z,0.2nm,0.5s,baz=296,slow=2.0,SNR=6.1						
YKA				PKKPbc	PKKPbc	10 08 15.9	-3.4
	comp=Z,0.3nm,0.7s,baz=114,slow=2.5,SNR=5.6						
PDAR	Pinedale Array	113.05	42	PKKPbc	PKKPbc	10 07 41.4	-1.1
	comp=Z,0.2nm,0.4s,baz=112,slow=6.2,SNR=3.6						
ECSD	EROS Data Cent	120.61	35	ePKPdf	PKPdf	09 57 08.8	-0.4
SCHQ	Schefferville	122.65	9	PKP	PKPdf	09 57 12.8	0.0
	comp=Z,2.0nm,0.4s,baz=355,slow=2.2,SNR=15						
TXAR	Lajitas Array	123.03	53	PKP	PKPdf	09 57 14.5	+0.2
	comp=Z,0.7nm,0.7s,baz=217,slow=0.5,SNR=7.7						
TORD	Torodi Ar. Bea	123.35	287	PKP	PKPdf	09 57 15.0	-0.2
	comp=Z,2.2nm,0.8s,baz=49,slow=1.4,SNR=10						
TORD	Torodi Ar. Bea	123.35	287	PKP	PKPdf	09 57 15.0	-0.2
JCT	Junction City	125.56	50	ePKIKP	PKPdf	09 57 19.5	+0.4
USHA	Ushuaia	125.58	169	PKP	PKPdf	09 57 19.7	+1.3
	comp=Z,3.4nm,0.7s,baz=241,slow=1.9,SNR=4.4						
LRAL	Lakeview Retre	133.21	40	ePKPdf	PKPdf	09 57 34.5	+0.9
PLCA	Paso Flores	138.12	160	PKIKP	PKPdf	09 57 44.4	+1.9
PLCA	Paso Flores	138.12	160	PKhKP		09 57 33.5	
	comp=Z,2.3nm,1.1s,baz=118,slow=5.5,SNR=3.7						
PLCA				PKP	PKPdf	09 57 44.4	+1.9
	comp=Z,3.1nm,0.8s,baz=196,slow=3.5,SNR=7.4						
LCO	Las Campanas	148.21	151	ePKPbc	PKPbc	09 58 04.1	+0.2
CPUP	Villa Florida	155.17	172	PKIKP	PKPdf	09 58 12.3	+1.2
CPUP						09 58 20.7	
CPUP	Villa Florida	155.17	172	PKP	PKPdf	09 58 12.3	+1.2
	comp=Z,0.3nm,0.4s,baz=171,slow=1.5,SNR=2.9						
CPUP				PKPbc	PKPdf	09 58 20.7	+10
	comp=Z,2.1nm,0.7s,baz=148,slow=3.1,SNR=6.4						
CPUP				PKPab	PKPab	09 58 36.6	+0.8
	comp=Z,3.9nm,0.8s,baz=173,slow=4.5,SNR=5.2						

IDC 17 09:49:49.2±0.9**, 16°.95N×119°.57E, h0^{km}, mb3.8**/7**, mb1 3.9**/7**, mb1mx3.7**/21**, mbtmp3.8**/7**, MS4.0**/3**, Ms1 4.0**/3**, ms1mx3.2**/37**, Error ellipse: s-maj=56.1km s-min=16.5km az=68.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	21.72	18	P	P	09 54 41.8	-0.2
	1.2nm,0.8s,baz=205,slow=11,SNR=3.6						
WRA	Warramunga Arr	39.42	158	P	P	09 57 20.5	-0.6
	2.1nm,0.6s,baz=339,slow=9.1,SNR=21						
ASAR	Alice Springs	42.72	160	P	P	09 57 48.2	0.0
	1.5nm,0.6s,baz=339,slow=7.0,SNR=29						
MKAR	Makanchi Array	42.80	322	P	P	09 57 48.8	+0.1
	0.6nm,1.0s,baz=120,slow=8.5,SNR=3.8						
ZALV	Zalesovo Beam	45.69	332	P	P	09 58 11.4	-0.3
	0.5nm,0.4s,baz=108,slow=9.3,SNR=3.3						
KURK	Kurchatov	46.91	325	P	P	09 58 21.4	0.0
	1.8nm,0.6s,baz=120,slow=8.7,SNR=8.1						
STKA	Stephens Creek	52.94	156	P	P	09 59 08.2	+0.8
	0.6nm,0.5s,baz=332,slow=6.8,SNR=3.2						
AKASG	Malin Array Be	77.30	319	LR	LR	10 37 33.3	
	comp=Z,51nm,21.4s,baz=310,slow=37						
NOA	NORSAR Array B	83.89	332	LR	LR	10 45 00.3	
	comp=Z,95nm,18.1s,baz=265,slow=40						
GERES	GERESS Array B	87.44	320	LR	LR	10 43 29.6	
	comp=Z,79nm,19.2s,baz=132,slow=37						

IDC ***17*** *09:52:14.4±0.8, 3°.24N×126°.44E, h0^{km}, mb4.1/10, mb1 4.2/10, mb1mx4.0/21, mbtmp4.1/10, Error ellipse: s-maj=69.5km s-min=14.3km az=71.0*

NEIC ***17*** *09:52:18.9±0.5, 3°.40N×127°.12E, h35^{km}, mb4.2/5, Error ellipse: s-maj=20.1km s-min=7.2km az=65.0*

ISCJB ***17*** *09:52:23.7±4.7, 3°.2N±0°.1×126°.7E±0°.3, h95^{km}±45^{km}, mb4.0/12, Error ellipse: s-maj=47.7km s-min=10.9km az=154.8*

ISC 17 09:52:24.8±3.9**, 3°.2N**±0°.1×**126°.7E**±0°.3**, h88**^{km}±37^{km}**, n19, σ0^{s}.47**/19**, mb4.0**/12**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	Kota Kinabalu	10.83	285	ePn	Pn	09 54 57.1	+0.1
FITZ	Fitzroy Crossi	21.20	183	P	P	09 57 03.3	-0.1
	3.8nm,0.7s,mb3.9,baz=39,slow=11,SNR=4.7						
FITZ	Fitzroy Crossi	21.20	183	eP	P	09 57 03.1	-0.3
	3.8nm,0.6s,mb3.9						
WRAB	Tennant Creek	24.19	162	eP	P	09 57 32.7	-0.5
	8.4nm,0.5s,mb4.3						
WRA	Warramunga Arr	24.20	162	P	P	09 57 33.2	0.0
	5.0nm,0.7s,mb4.0,baz=341,slow=10,SNR=18						
WB2	Warramunga Arr	24.20	162	eP	P	09 57 32.8	-0.5
ASAR	Alice Springs	27.62	166	P	P	09 58 04.3	+0.3
	0.8nm,0.6s,mb3.5,baz=347,slow=7.3,SNR=4.9						
KSRS	Korea Array	34.10	2	P	P	09 59 00.9	0.0
	0.7nm,0.6s,mb3.7,baz=183,slow=9.5,SNR=4.7						
STKA	Stephens Creek	37.65	159	P	P	09 59 32.7	+1.3
	4.1nm,0.7s,mb4.4,baz=325,slow=5.8,SNR=9.4						
STKA	Stephens Creek	37.65	159	eP	P	09 59 31.9	+0.5
	1.1nm,0.8s,mb3.7						
ULN	Ulaanbaatar	47.60	342	eP	P	10 00 51.9	+0.2
	1.1nm,0.6s,mb3.9						
SONM	Songino Array	47.78	342	P	P	10 00 53.2	+0.2
	0.4nm,0.4s,mb3.6,baz=164,slow=8.7,SNR=5.1						
MKAR	Makanchi Array	57.97	325	P	P	10 02 07.7	-0.4
	1.4nm,0.5s,mb4.3,baz=118,slow=7.7,SNR=24						
ZALV	Zalesovo Beam	61.04	333	P	P	10 02 28.8	-0.3
	1.0nm,0.5s,mb4.1,baz=111,slow=7.9,SNR=6.5						
ZALV	Zalesovo Beam	61.04	333	P	P	10 02 28.8	-0.3
KURK	Kurchatov	62.17	328	P	P	10 02 35.3	-1.4
	4.7nm,0.7s,mb4.6,baz=127,slow=6.2,SNR=19						
KURK	Kurchatov	62.17	328	eP	P	10 02 36.5	-0.2
	5.7nm,0.7s,mb4.7						
AKTK	Aktyubinsk	74.05	322	P	P	10 03 51.6	+0.5
AKTO	Aktyubinsk	74.05	322	P	P	10 03 51.6	+0.5
	1.4nm,0.6s,mb3.9,baz=93,slow=9.1,SNR=6.4						

IDC 17 09:54:29.4±1.2**, 3°.40N×126°.88E, h0^{km}, mb4.0**/9**, mb1 4.1**/9**, mb1mx3.9**/22**, mbtmp4.0**/9**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.2**/33**, Error ellipse: s-maj=107.1km s-min=15.4km az=70.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	21.40	183	P	P	09 59 19.1	+0.2
	3.8nm,0.7s,baz=6.3,slow=9.2,SNR=4.4						
JOW	Kunigami	23.34	3	LR	LR	10 08 38.2	
	comp=Z,100nm,19.7s,baz=125,slow=36						
WRA	Warramunga Arr	24.32	163	P	P	09 59 48.8	-0.1
	2.2nm,0.4s,baz=334,slow=11,SNR=8.1						
ASAR	Alice Springs	27.76	166	P	P	10 00 19.8	-0.2
	0.4nm,0.5s,baz=344,slow=6.8,SNR=4.2						
STKA	Stephens Creek	37.77	159	P	P	10 01 47.8	+0.4
	2.4nm,0.5s,baz=350,slow=7.6,SNR=4.2						
SONM	Songino Array	47.66	341	P	P	10 03 08.4	+1.0
	0.9nm,0.9s,baz=142,slow=7.3,SNR=6.6						
MKAR	Makanchi Array	57.91	325	P	P	10 04 23.6	+0.3
	0.7nm,0.4s,baz=118,slow=7.5,SNR=9.2						
ZALV	Zalesovo Beam	60.95	333	P	P	10 04 42.8	-1.4
	0.9nm,0.6s,baz=162,slow=11,SNR=3.7						
KURK	Kurchatov	62.10	328	P	P	10 04 52.3	+0.3
	3.0nm,0.6s,baz=126,slow=6.2,SNR=9.6						
AKTO	Aktyubinsk	74.01	322	P	P	10 06 07.3	+0.3
	0.8nm,0.5s,baz=99,slow=6.5,SNR=4.8						

IDC 17 10:28:34.9±3.8**, 17°.22N×121°.10E, h0^{km}, mb3.3**/3**, mb1 3.5**/3**, mb1mx3.2**/21**, mbtmp3.3**/3**, Error ellipse: s-maj=356.7km s-min=26.1km az=61.0, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	39.16	160	P	P	10 36 04.7	+0.2
	0.5nm,0.8s,baz=340,slow=9.0,SNR=4.8						
ASAR	Alice Springs	42.52	163	P	P	10 36 32.0	-0.2
	0.2nm,0.5s,baz=339,slow=7.0,SNR=7.5						
MKAR	Makanchi Array	43.49	321	P	P	10 36 39.9	0.0
	0.4nm,0.9s,baz=122,slow=5.4,SNR=3.2						

ISCJB ***17*** *11:07:17.4±0.2, 51°.44N±0°.01×6°.41E±0°.02, h0^{km}, Error ellipse: s-maj=2.0km s-min=1.8km az=34.4*

CSEM ***17*** *11:07:19.3±0.1, 51°.46N×6°.50E, h2^{km}, ML3.6/29, Error ellipse: s-maj=2.0km s-min=1.7km az=150.0*

BUG ***17*** *11:07:19.4, 51°.44N×6°.62E, h1^{km}, ML2.7*

BGS ***17*** *11:07:20.6±0.3, 51°.55N×6°.51E, h5^{km}, ML3.3*

LDG ***17*** *11:07:20.7±0.1, 51°.49N×6°.54E, h1^{km}, Md3.7/2, Ml3.6/30, Error ellipse: s-maj=1.9km s-min=1.2km az=152.0, Suspected Mining induced.*

NEIC ***17*** *11:07:20.6, 51°.46N×6°.60E, h1^{km}, ML3.1(STR), ML3.2(SZGRF), ML3.6(LDG), After SZGRF.*

NEIC Felt at Moers and Neukirchen-Vluyn.

BNS ***17*** *11:07:20.6±1.2, 51°.48N×6°.58E, h1^{km}, ML2.9*

PRU ***17*** *11:07:20.9, 51°.42N×6°.64E, h0^{km}*

BGR ***17*** *11:07:21.1±0.4, 51°.45N×6°.64E, h1^{km}, ML3.2/14, Error ellipse: s-maj=4.4km s-min=3.3km az=129.0*

STR ***17*** *11:07:27.1±0.5, 51°.10N×6°.74E, h10^{km}, Ml3.1, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 17 11:07:19.1±0.2**, 51°.45N**±0°.01×**6°.51E**±0°.02**, h0**^{km}**, n236, σ1^{s}.19**/396**, 6C-13D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRHE	Rheinberg	0.07	29	Pg	Pg	11 07 20.5	0.0
BRHE				Sg	Sg	11 07 21.4	-0.1
BRHE	Rheinberg	0.07	29	Pg	Pg	11 07 20.5	0.0
BRHE				Sg	Sg	11 07 21.4	-0.1
LAUG	Laupendahl	0.29	110	⇓ePg	Pg	11 07 25.5	+1.0
LAUG				eSg	Sg	11 07 29.6	+1.3
	1μm,0.7s						
LAUG	Laupendahl	0.29	110	Pg	Pg	11 07 25.5	+0.9
LAUG				Sg	Sg	11 07 29.6	+1.3
	1μm,0.7s						
RODG	Roetgen-Dahlhe	0.37	214	ePg	Pg	11 07 28.6	+2.5
RODG				eSg	Sg	11 07 35.1	+4.2
	2μm,0.7s						
RODG	Roetgen-Dahlhe	0.37	214	Pg	Pg	11 07 28.6	+2.5
BUG	Bochum--Univer	0.47	91	ePg	Pg	11 07 28.6	+0.5
	SNR=104						
BUG				eSg	Sg	11 07 35.6	+1.4
	SNR=3.8						
BUG	Bochum--Univer	0.47	91	ePg	Pg	11 07 28.6	+0.5
BUG				eSg	Sg	11 07 35.5	+1.2
BUG	Bochum--Univer	0.47	91	ePg	Pg	11 07 28.6	+0.5
BUG				eSg	Sg	11 07 35.5	+1.2
WTSB	Winterswijk	0.55	19	ePg	Pg	11 07 29.9	+0.4
	63nm,0.2s						
WTSB				eSg	Sg	11 07 36.6	0.0
WTSB	Winterswijk	0.55	19	ePg	Pg	11 07 29.9	+0.4
	63nm,0.2s						
WTSB				eSg	Sg	11 07 36.6	0.0
BNS	Bensberg	0.64	139	⇓iPg	Pg	11 07 33.1	+1.8
BNS				eSg	Sg	11 07 41.9	+2.3
	706nm,0.3s						
BNS	Bensberg	0.64	139	Pg	Pg	11 07 33.2	+1.9
BNS				Sg	Sg	11 07 41.9	+2.3
	706nm,0.3s						
HOBG	Hohbusch	0.70	132	⇓ePg	Pg	11 07 33.9	+1.5
HOBG				eSg	Sg	11 07 43.4	+2.0
	788nm,0.4s						
HOBG	Hohbusch	0.70	132	Pg	Pg	11 07 33.9	+1.5
HOBG				Sg	Sg	11 07 43.4	+2.0
	788nm,0.4s						
HGN	Heimansgroeve	0.78	208	ePn	Pn	11 07 36.0	-1.2
	16nm,0.4s						
HGN	Heimansgroeve	0.78	208	⇓iPg	Pg	11 07 37.4	+3.4
	259nm,0.3s						
HGN				eSg	Sg	11 07 47.0	+3.0
HGN	Heimansgroeve	0.78	208	ePn	Pn	11 07 36.0	-1.2
	16nm,0.4s						
HGN	Heimansgroeve	0.78	208	⇓iPg	Pg	11 07 37.4	+3.5
	259nm,0.3s						
HGN				eSg	Sg	11 07 47.0	+3.0
DREG	Dreilaegerbach	0.81	193	⇓ePg	Pg	11 07 36.4	+1.9
DREG				eSg	Sg	11 07 48.7	+3.7
	329nm,0.5s						
DREG	Dreilaegerbach	0.81	193	Pg	Pg	11 07 36.4	+1.9
KLL	Kalltalsperre	0.81	189	ePg	Pg	11 07 36.5	+1.8
KLL				eSg	Sg	11 07 49.1	+4.0
	535nm,0.4s						
KLL	Kalltalsperre	0.81	189	Pg	Pg	11 07 36.5	+1.9
BEBN	Eben Emael	0.84	219	P	Pg	11 07 37.6	+2.5
BEBN	Eben Emael	0.84	219	P	Pg	11 07 37.6	+2.5
STB	Steinbach	0.88	166	ePg	Pg	11 07 38.1	+2.1
STB				eSg	Sg	11 07 49.9	+2.5
	386nm,0.5s						
STB	Steinbach	0.88	166	Pg	Pg	11 07 38.1	+2.2
STB				Sg	Sg	11 07 49.9	+2.6
	386nm,0.5s						
MEM	Membach	0.90	201	P	Pg	11 07 38.1	+1.8
MEM	Membach	0.90	201	P	Pg	11 07 38.0	+1.7
IBBN	Ibbenburen	1.15	41	ePg	Pg	11 07 40.7	-0.5
	SNR=46						
IBBN				eSg	Sg	11 07 56.6	+0.5
	SNR=6.2						
IBBN	Ibbenburen	1.15	41	ePg	Pg	11 07 41.2	0.0
IBBN				eSg	Sg	11 07 56.6	+0.5
IBBN	Ibbenburen	1.15	41	ePg	Pg	11 07 41.2	0.0
IBBN				Sg	Sg	11 07 56.6	+0.5
	SNR=6.2						
HILG	Hillesheim	1.17	175	ePg	Pg	11 07 42.9	+1.6
HILG				eSg	Sg	11 07 59.8	+3.4
	370nm,0.3s						
HILG	Hillesheim	1.17	175	Pg	Pg	11 07 42.9	+1.6
KOE	Koeppel	1.28	143	⇓ePg	Pg	11 07 44.5	+0.8
KOE				eSg	Sg	11 08 02.2	+2.0
	249nm,0.5s						
KOE	Koeppel	1.28	143	Pg	Pg	11 07 44.5	+0.9
KOE				Sg	Sg	11 08 02.2	+1.9
	249nm,0.5s						
BCLA	Clavier	1.28	217	P	Pg	11 07 44.8	+1.1
BCLA	Clavier	1.28	217	P	Pg	11 07 44.7	+1.1
BGG	Burgeitz	1.35	157	ePg	Pg	11 07 45.2	+0.3
BGG				eSg	Sg	11 08 04.0	+1.6
	109nm,0.6s						
BGG	Burgeitz	1.35	157	Pg	Pg	11 07 45.2	+0.3
BGG				Sg	Sg	11 08 04.1	+1.7
	109nm,0.6s						
WIT	Witteveen	1.37	4	ePg	Pg	11 07 46.3	+1.0
WIT				eSg	Sg	11 08 04.7	+1.7
WIT	Witteveen	1.37	4	ePg	Pg	11 07 46.3	+1.0
WIT				eSg	Sg	11 08 04.7	+1.7
UCC	Uccle	1.50	245	P	Pn	11 07 49.2	+2.0
UCC	Uccle	1.50	245	P	Pn	11 07 49.2	+2.0
SNF	Seneffe	1.69	237	P	Pn	11 07 50.6	+0.8
SNF	Seneffe	1.69	237	P	Pn	11 07 50.6	+0.7
ABH	Alteburg	1.70	157	Pn	Pn	11 07 50.3	+0.3
ABH	Alteburg	1.70	157	Pn	Pn	11 07 50.3	+0.3
GIVF	Givet	1.72	219	ePg	Pg	11 07 53.7	+1.6
GIVF				eSn	Sn	11 08 12.4	-0.5
	245nm,0.4s,SNR=1.0						
GIVF	Givet	1.72	219	ePn	Pn	11 07 50.3	+0.1
GIVF				ePg	Pg	11 07 53.7	+1.6
GIVF				eSn	Sn	11 08 12.4	-0.5
GIVF	Givet	1.72	219	ePn	Pn	11 07 50.3	+0.1
	SNR=1.0						
GIVF	Givet	1.72	219	ePg	Pg	11 07 53.7	+1.6
GIVF				eSn	Sn	11 08 12.4	-0.5
	122nm,0.4s,SNR=1.0						
TNS	Taunus Mts	1.74	134	ePn	Pn	11 07 50.3	-0.1
	SNR=20						
TNS				eSg	Sg	11 08 14.3	-0.5
	SNR=3.6						
TNS	Taunus Mts	1.74	134	ePn	Pn	11 07 50.3	-0.1
TNS	Taunus Mts	1.74	134	Pn	Pn	11 07 50.3	-0.1
	SNR=20						
TNS				Sg	Sg	11 08 14.3	-0.5

	SNR=3.6						
RUP	Ruppelstein	1.79	169	Pn	Pn	11 07 51.3	+0.2
RUP				Sg	Sg	11 08 13.6	-2.8
RUP	Ruppelstein	1.79	169	Pn	Pn	11 07 51.3	+0.2
RUP				Sg	Sg	11 08 13.6	-2.8
WLF	Walferdange	1.80	187	P	Pn	11 07 53.0	+1.7
WLF	Walferdange	1.80	187	*e*Pn	Pn	11 07 53.0	+1.7
	SNR=2.9						
WLF				*e*Pg	Pg	11 07 54.5	+0.9
	SNR=36						
WLF				*e*Sg	Sg	11 08 17.6	+0.7
	SNR=8.3						
WLF	Walferdange	1.80	187	Pn	Pn	11 07 53.0	+1.7
	SNR=2.9						
WLF	Walferdange	1.80	187	Pg	Pg	11 07 54.5	+0.9
	SNR=36						
WLF				Sg	Sg	11 08 17.6	+0.7
	SNR=8.3						
DOU	Dourbes	1.82	223	P	Pn	11 07 52.6	+1.0
DOU	Dourbes	1.82	223	P	Pn	11 07 52.6	+1.0
BAIF	Baives	2.02	227	*e*Pn	Pn	11 07 54.9	+0.6
	SNR=1.0						
BAIF				*e*Sn	Sn	11 08 19.8	-0.4
	190nm,0.7s						
BAIF	Baives	2.02	227	*e*Pn	Pn	11 07 54.9	+0.6
	SNR=1.0						
BAIF				*e*Sn	Sn	11 08 19.8	-0.4
	95nm,0.7s						
GTTG	Gvttingen	2.16	86	*e*Sg	Sg	11 08 26.8	-1.6
	SNR=4.2						
UBBA	Unterbreizbach	2.29	105	*e*Pn	Pn	11 07 58.2	+0.3
	SNR=1.7						
UBBA				*e*Pg	Pg	11 08 01.2	-1.7
	SNR=5.5						
UBBA				*e*Sg	Sg	11 08 30.8	-1.7
	SNR=2.5						
UBBA	Unterbreizbach	2.29	105	Pn	Pn	11 07 58.2	+0.2
	SNR=1.7						
TOD	Tromm	2.35	141	Pn	Pn	11 07 58.5	-0.4
TOD	Tromm	2.35	141	Pn	Pn	11 07 58.5	-0.4
CLZ	Clausthal	2.44	79	*e*Pn	Pn	11 07 58.7	-1.3
	SNR=4.0						
CLZ				*e*Pg	Pg	11 08 04.3	-1.5
	SNR=12						
CLZ				*e*Sg	Sg	11 08 35.5	-1.8
	SNR=3.6						
CLZ	Clausthal	2.44	79	*e*Pn	Pn	11 07 58.7	-1.3
CLZ				*e*Sg	Sg	11 08 36.7	-0.6
CLZ	Clausthal	2.44	79	Pn	Pn	11 07 58.7	-1.3
	SNR=4.0						
CLZ	Clausthal	2.44	79	Pg	Pg	11 08 04.3	-1.4
	SNR=12						
CLZ				*e*Sg	Sg	11 08 36.7	-0.6
NRDL	Niedersach Rie	2.46	63	*e*Pg	Pg	11 08 05.0	-1.1
	SNR=6.0						
NRDL				*e*Sg	Sg	11 08 37.1	-0.9
	SNR=1.8						
NRDL	Niedersach Rie	2.46	63	Pg	Pg	11 08 05.0	-1.1
	SNR=6.0						
NRDL				Sg	Sg	11 08 37.1	-0.9
	SNR=1.8						
LANF	Langenberg	2.61	161	Pg	Pg	11 08 08.7	-0.3
LANF	Langenberg	2.61	161	Pn	Pn	11 08 03.2	+0.8
LANF				Pg	Pg	11 08 08.7	-0.3
LANF	Langenberg	2.61	161	Pn	Pn	11 08 03.2	+0.8
LANF	Langenberg	2.61	161	Pg	Pg	11 08 08.7	-0.3
ASSE	Asse, Remlinge	2.67	74	*e*Pn	Pn	11 08 03.6	+0.3
	SNR=1.6						
ASSE				*e*Pg	Pg	11 08 09.8	-0.4
	SNR=6.2						
ASSE	Asse, Remlinge	2.67	74	Pn	Pn	11 08 03.6	+0.3
	SNR=1.6						
RFYF	Reffroy	2.90	194	*e*Pg	Pg	11 08 15.0	+0.4
	baz=8.2						
RFYF				*e*Sg	Sg	11 08 53.0	+0.8
	78nm,0.3s,baz=15						
RFYF	Reffroy	2.90	194	*e*Pn	Pn	11 08 06.5	+0.1
RFYF				*e*Pg	Pg	11 08 15.0	+0.4
RFYF				*e*Sg	Sg	11 08 53.0	+0.8
RFYF	Reffroy	2.90	194	*e*Pn	Pn	11 08 06.5	+0.1
RFYF	Reffroy	2.90	194	*e*Pg	Pg	11 08 15.0	+0.4
RFYF				*e*Sg	Sg	11 08 53.0	+0.8
	39nm,0.3s						
CDF	Champ du Feu	3.08	170	*e*Pg	Pg	11 08 18.3	+0.2
CDF				*e*Sg	Sg	11 08 58.0	0.0
	50nm,0.6s						
CDF	Champ du Feu	3.08	170	*e*Pn	Pn	11 08 09.1	+0.2
CDF				*e*Pg	Pg	11 08 18.3	+0.2
CDF				*e*Sg	Sg	11 08 58.0	0.0
CDF	Champ du Feu	3.08	170	*e*Pn	Pn	11 08 09.1	+0.2
	SNR=1.0						
CDF	Champ du Feu	3.08	170	*e*Pg	Pg	11 08 18.3	+0.2
CDF				*e*Sg	Sg	11 08 58.0	0.0
	25nm,0.6s						
MEZF	Maizieres J'vi	3.10	198	*e*Pn	Pn	11 08 09.3	+0.2
	baz=22,SNR=1.0						
MEZF				*e*Sg	Sg	11 08 59.1	+0.6
	83nm,0.6s,baz=19,SNR=1.0						
MEZF	Maizieres J'vi	3.10	198	*e*Pn	Pn	11 08 09.3	+0.2
	SNR=1.0						
MEZF				*e*Sg	Sg	11 08 59.1	+0.6
	42nm,0.6s,SNR=1.0						
STU	Stuttgart	3.19	146	*e*Pn	Pn	11 08 11.2	+0.9
	SNR=1.6						
STU	Stuttgart	3.19	146	*e*Pn	Pn	11 08 10.6	+0.2
STU				*e*Pg	Pg	11 08 21.5	+1.4
STU				*e*Sg	Sn	11 08 48.5	-0.5
STU	Stuttgart	3.19	146	*e*Pn	Pn	11 08 10.6	+0.2
STU	Stuttgart	3.19	146	*e*Pg	Pg	11 08 21.5	+1.4
THEF	They Montfort	3.25	186	Pn	Pn	11 08 12.1	+0.9
THEF				Pg	Pg	11 08 21.3	+0.1
THEF	They Montfort	3.25	186	Pn	Pn	11 08 12.1	+0.9
ECH	Echery	3.27	172	Pn	Pn	11 08 11.9	+0.5
ECH	Echery	3.27	172	Pn	Pn	11 08 11.9	+0.5
NEUB	Neuenburg	3.31	92	*e*Pg	Pg	11 08 20.1	-2.3
	SNR=3.8						
NEUB				*e*Sg	Sg	11 09 02.5	-2.8
	SNR=2.4						
MOX	Moxa	3.32	102	*e*PN	Pn	11 08 12.3	+0.1
MOX				*e*PG	Pg	11 08 23.5	+0.9
MOX				*e*SG	Sg	11 09 03.8	-1.9
MOX	Moxa	3.32	102	*e*Pn	Pn	11 08 12.4	+0.2
	SNR=5.5						
MOX				⇓*e*Pg	Pg	11 08 23.5	+0.9
MOX				*e*Sg	Sg	11 09 02.9	-2.8
	SNR=2.3						
MOX	Moxa	3.32	102	Pn	Pn	11 08 12.4	+0.2
	SNR=5.5						
BFO	Black Forest	3.34	159	*e*Pn	Pn	11 08 12.9	+0.5
	SNR=13						
BFO	Black Forest	3.34	159	*e*Pn	Pn	11 08 12.9	+0.5
BFO	Black Forest	3.34	159	Pn	Pn	11 08 12.9	+0.5
	SNR=13						
SFTF	Sexfontaines	3.39	197	*e*Pn	Pn	11 08 13.2	+0.1
	baz=22						
SFTF	Sexfontaines	3.39	197	*e*Pg	Pg	11 08 23.9	0.0
	baz=8.4						
SFTF				*e*Sg	Sg	11 09 08.3	+0.5
	32nm,0.3s,baz=16						
SFTF	Sexfontaines	3.39	197	*e*Pn	Pn	11 08 13.2	+0.1
SFTF				*e*Pg	Pg	11 08 23.9	0.0
SFTF				*e*Sg	Sg	11 09 08.3	+0.5
SFTF	Sexfontaines	3.39	197	*e*Pn	Pn	11 08 13.2	+0.1
SFTF	Sexfontaines	3.39	197	*e*Pg	Pg	11 08 23.9	0.0
SFTF				*e*Sg	Sg	11 09 08.3	+0.5
	16nm,0.3s						
BSEG	Bad Segeberg	3.40	41	*e*Sn	Sn	11 08 51.3	-3.0
	SNR=1.9						
HAU	Haudompre	3.45	182	*e*Pn	Pn	11 08 13.6	-0.4
	SNR=1.0						
HAU				*e*Sg	Sg	11 09 09.5	-0.3
	48nm,0.4s						
HAU	Haudompre	3.45	182	*e*Pn	Pn	11 08 13.6	-0.4
	SNR=1.0						
HAU				*e*Sg	Sg	11 09 09.5	-0.3
	24nm,0.4s						
GRA1	Grafenberg Arr	3.48	119	*e*Pn	Pn	11 08 14.6	+0.2
GRA1	Grafenberg Arr	3.48	119	Pn	Pn	11 08 14.6	+0.2
GRF	Grafenberg Arr	3.48	119	*e*Pn	Pn	11 08 14.6	+0.2
GRF	Grafenberg Arr	3.48	119	*e*Pn	Pn	11 08 14.6	+0.2
GRF	Grafenberg Arr	3.48	119	*e*Pn	Pn	11 08 14.6	+0.2
HINF	Hinteralfeld	3.64	176	*e*Pn	Pn	11 08 16.4	-0.2
	SNR=1.0						
HINF				*e*Sg	Sg	11 09 15.2	-0.9
	52nm,0.7s,SNR=1.0						
HINF	Hinteralfeld	3.64	176	*e*Pn	Pn	11 08 16.4	-0.2
	SNR=1.0						
HINF				*e*Sg	Sg	11 09 15.2	-0.9
	26nm,0.7s,SNR=1.0						
SPAK	Spaichingen-Ko	3.66	155	Pn	Pn	11 08 17.6	+0.7
SPAK	Spaichingen-Ko	3.66	155	Pn	Pn	11 08 17.6	+0.7
FELD	Feldberg im Sc	3.71	164	Pn	Pn	11 08 18.0	+0.5
FELD	Feldberg im Sc	3.71	164	Pn	Pn	11 08 18.0	+0.5
WERD	Werda	3.80	103	*e*Pn	Pn	11 08 18.9	+0.2
	SNR=5.3						
WERD				*e*Pg	Pg	11 08 32.4	+0.5
	SNR=1.6						
WERD				*e*Sg	Sg	11 09 18.6	-2.5
	SNR=2.7						
WERD	Werda	3.80	103	Pn	Pn	11 08 18.9	+0.1
	SNR=5.3						
GUNZ	Gunzen	3.84	104	*e*Pn	Pn	11 08 19.5	+0.2
	SNR=3.0						
GUNZ				*e*Pg	Pg	11 08 30.8	-1.9
	SNR=2.2						
GUNZ				*e*Sg	Sg	11 09 21.0	-1.4
	SNR=1.7						
GUNZ	Gunzen	3.84	104	Pn	Pn	11 08 19.5	+0.2
	SNR=3.0						
GUNZ				Sg	Sg	11 09 21.0	-1.4
	SNR=1.7						
MANZ	Manzenberg	3.85	110	*e*Pn	Pn	11 08 19.7	+0.3
MANZ	Manzenberg	3.85	110	Pn	Pn	11 08 19.7	+0.3
TANN	Tannenbergstha	3.90	103	*e*Pn	Pn	11 08 20.4	+0.2
	SNR=4.8						
TANN				*e*Sg	Sg	11 09 22.3	-2.1
	SNR=1.6						
TANN	Tannenbergstha	3.90	103	Pn	Pn	11 08 20.4	+0.2
	SNR=4.8						
NKC	Novy Kostel	3.96	106	*e*PN	Pn	11 08 20.4	-0.5
NKC				*e*SG	Sg	11 09 24.5	-1.5
	comp=Z,28nm,0.8s						
NKC	Novy Kostel	3.96	106	Pn	Pn	11 08 20.4	-0.5
NKC				Sg	Sg	11 09 24.5	-1.5
	comp=Z,28nm,0.8s						
ROTZ	Rotzenmuhle	4.00	113	*e*Pn	Pn	11 08 21.6	+0.1
ROTZ	Rotzenmuhle	4.00	113	Pn	Pn	11 08 21.6	+0.1
CLL	Collm	4.07	89	*e*Pn	Pn	11 08 23.0	+0.5
CLL				*e*Pg	Pg	11 08 34.0	-3.0
CLL				*e*Sg	Sg	11 09 27.0	-2.7
	comp=Z,21nm,0.8s						
CLL	Collm	4.07	89	Pn	Pn	11 08 23.0	+0.5
LOR	Lormes	4.53	204	*e*Pn	Pn	11 08 28.9	+0.1
	baz=27,SNR=1.0						
LOR				*e*Sn	Sn	11 09 20.3	-1.8
	baz=24,SNR=1.0						
LOR				*e*Sg	Sg	11 09 44.1	-0.4
	comp=Z,30nm,0.5s,SNR=1.0						
LOR	Lormes	4.53	204	*e*Pn	Pn	11 08 28.9	+0.1
	SNR=1.0						
LOR				*e*Sn	Sn	11 09 20.3	-1.8
	SNR=1.0						
LOR				*e*Sg	Sg	11 09 44.1	-0.4
	comp=Z,15nm,0.5s,SNR=1.0						
WET	Wettzell	4.69	117	*e*Pn	Pn	11 08 31.2	+0.3
	SNR=5.0						
WET				*e*Pg	Pg	11 08 49.6	+0.7
	SNR=2.3						
WET	Wettzell	4.69	117	*e*Pn	Pn	11 08 31.2	+0.2
WET	Wettzell	4.69	117	Pn	Pn	11 08 31.2	+0.2
	SNR=5.0						
DAVA	Damuels	4.71	151	⇓*i*Pn	Pn	11 08 33.4	+2.1
DAVA				⇑*i*Sn	Sn	11 09 27.5	+0.9
DAVA	Damuels	4.71	151	Pn	Pn	11 08 33.4	+2.1
BRG	Berggiesshubel	4.71	94	PN	Pn	11 08 33.8	+2.5
BRG				*e*		11 08 47.0	
BRG				*e*		11 09 27.2	
BRG	Berggiesshubel	4.71	94	SG	Sg	11 09 47.1	-3.2
	comp=Z,12nm,0.8s						
BRG	Berggiesshubel	4.71	94	Pn	Pn	11 08 33.8	+2.5
BRG				*e*		11 08 47.0	
BRG				*e*		11 09 27.2	
BRG				Sg	Sg	11 09 47.1	-3.2
BRG	Berggiesshubel	4.71	94	Pn	Pn	11 08 33.8	+2.5
SSF	Saint Saulge	4.81	205	*e*Pn	Pn	11 08 32.4	-0.3
	SNR=1.0						
SSF				*e*Sn	Sn	11 09 26.4	-2.7
SSF				*e*Sg	Sg	11 09 52.6	-1.0
	comp=Z,38nm,0.5s						
SSF	Saint Saulge	4.81	205	*e*Pn	Pn	11 08 32.4	-0.3
	SNR=1.0						
SSF				*e*Sn	Sn	11 09 26.4	-2.7
SSF				*e*Sg	Sg	11 09 52.6	-1.0
	comp=Z,19nm,0.5s						
CABF	La Chapelle	4.85	183	*e*Pn	Pn	11 08 32.9	-0.3
	SNR=1.0						
CABF				*e*Sg	Sg	11 09 54.2	-0.6
	comp=Z,42nm,0.8s						
CABF	La Chapelle	4.85	183	*e*Pn	Pn	11 08 32.9	-0.3
	SNR=1.0						
CABF				*e*Sg	Sg	11 09 54.2	-0.6
	comp=Z,21nm,0.8s						
HYF	Humbligny	4.89	213	*e*Pn	Pn	11 08 33.7	-0.1
HYF				*e*Sn	Sn	11 09 28.2	-2.8
HYF				*e*Sg	Sg	11 09 55.1	-1.0
HYF	Humbligny	4.89	213	*e*Pn	Pn	11 08 33.7	-0.1
HYF				*e*Sn	Sn	11 09 28.2	-2.8
HYF				*e*Sg	Sg	11 09 55.1	-1.0
CWF	Charnwood Fore	4.99	288	*e*P	Pn	11 08 35.1	0.0
CWF				*e*S	Sn	11 09 29.6	-3.8
CWF				AML	AML	11 09 33.2	
	comp=N,13nm,0.5s						
CWF				AML	AML	11 09 34.0	
	comp=E,14nm,0.5s						
CWF	Charnwood Fore	4.99	288	*e*P	Pn	11 08 35.1	0.0
CWF				*e*S	Sn	11 09 29.6	-3.9
MOTA	Moosalm	5.09	142	⇑*i*Pn	Pn	11 08 37.4	+1.0
MOTA	Moosalm	5.09	142	Pn	Pn	11 08 37.4	+1.0
KHC	Kasperske Hory	5.09	114	*e*PN	Pn	11 08 36.3	-0.2
KHC				*e*x	x	11 08 43.5	
KHC				*e*PG	Pg	11 08 56.0	-0.5
KHC				*e*x	x	11 09 43.5	
KHC				*e*SG	Sg	11 10 00.1	-2.4
	comp=Z,8.6nm,0.6s						
KHC	Kasperske Hory	5.09	114	Pn	Pn	11 08 36.3	-0.2
AVF	Avril sur Loir	5.10	205	*e*Pn	Pn	11 08 36.3	-0.4
	SNR=1.0						
AVF				*e*Sn	Sn	11 09 33.1	-3.2
	SNR=1.0						
AVF				*e*Sg	Sg	11 10 02.4	-0.5
	comp=Z,23nm,0.6s						
AVF	Avril sur Loir	5.10	205	*e*Pn	Pn	11 08 36.3	-0.4
	SNR=1.0						
AVF				*e*Sn	Sn	11 09 33.1	-3.2
	SNR=1.0						
AVF				*e*Sg	Sg	11 10 02.4	-0.5
	comp=Z,11nm,0.6s						
SMF	Signal de Mont	5.12	201	*e*Pn	Pn	11 08 36.8	-0.1
	SNR=1.0						
SMF				*e*Sg	Sg	11 10 02.1	-1.3
	comp=Z,18nm,0.4s,SNR=1.0						
SMF	Signal de Mont	5.12	201	*e*Pn	Pn	11 08 36.8	-0.1
	SNR=1.0						
SMF				*e*Sg	Sg	11 10 02.1	-1.3
	comp=Z,9.2nm,0.4s,SNR=1.0						
LDF	La Druitiere	5.14	239	*e*Pn	Pn	11 08 37.3	+0.1
	SNR=1.0						
LDF				*e*Sn	Sn	11 09 33.7	-3.5
	SNR=1.0						
LDF				*e*Sg	Sg	11 10 03.9	-0.3
	comp=Z,19nm,0.6s,SNR=1.0						
LDF	La Druitiere	5.14	239	*e*Pn	Pn	11 08 37.3	+0.1
	SNR=1.0						
LDF				*e*Sn	Sn	11 09 33.7	-3.5
	SNR=1.0						
LDF				*e*Sg	Sg	11 10 03.9	-0.3
	comp=Z,9.6nm,0.6s,SNR=1.0						
FETA	Feichten	5.22	146	⇑*i*Pn	Pn	11 08 39.9	+1.6
FETA	Feichten	5.22	146	Pn	Pn	11 08 39.9	+1.6
FLN	La Foliniere	5.24	242	*e*Pn	Pn	11 08 38.5	-0.1
	baz=62,SNR=1.0						
FLN				*e*Sn	Sn	11 09 36.3	-3.4
	SNR=1.0						
FLN				*e*Sg	Sg	11 10 06.6	-0.8
	comp=Z,20nm,0.5s						
FLN	La Foliniere	5.24	242	*e*Pn	Pn	11 08 38.5	-0.1
	SNR=1.0						
FLN				*e*Sn	Sn	11 09 36.3	-3.4
	SNR=1.0						
FLN				*e*Sg	Sg	11 10 06.6	-0.8
	comp=Z,9.9nm,0.5s						
WATA	Walderalm	5.28	139	⇓*i*Pn	Pn	11 08 40.0	+0.9
WATA	Walderalm	5.28	139	Pn	Pn	11 08 40.0	+0.9
GEC2	GERESS Array S	5.31	117	*e*Pn	Pn	11 08 39.7	+0.2
	SNR=3.9						
GEC2				*e*Sg	Sg	11 10 07.4	-2.0
	SNR=1.5						
GEC2	GERESS Array S	5.31	117	*e*Pn	Pn	11 08 40.5	+1.0
GEC2	GERESS Array S	5.31	117	Pn	Pn	11 08 39.7	+0.2
	SNR=3.9						
WTTA	Wattenberg	5.36	139	⇑*i*Pn	Pn	11 08 41.6	+1.3
WTTA				⇓*i*Sn	Sn	11 09 42.4	-0.2
WTTA	Wattenberg	5.36	139	Pn	Pn	11 08 41.6	+1.4
WTTA				Sn	Sn	11 09 42.4	-0.2
BGF	Bois d'Agland	5.46	208	*e*Pn	Pn	11 08 41.4	-0.2
	SNR=1.0						
BGF				*e*Sn	Sn	11 09 41.2	-3.8
	SNR=1.0						
BGF				*e*Sg	Sg	11 10 13.8	-0.5
	comp=Z,61nm,0.5s,SNR=1.0						
BGF	Bois d'Agland	5.46	208	*e*Pn	Pn	11 08 41.4	-0.2
	SNR=1.0						
BGF				*e*Sg	Sg	11 10 13.8	-0.5
	comp=Z,30nm,0.5s,SNR=1.0						
HPK	Haverah Park	5.55	300	*e*P	Pn	11 08 42.5	-0.2
HPK				AML	AML	11 09 49.2	
	comp=E,21nm,0.4s						
HPK				AML	AML	11 10 03.4	
	comp=N,13nm,0.7s						
HPK	Haverah Park	5.55	300	*e*P	Pn	11 08 42.5	-0.3
	comp=N,13nm,0.7s						
GRR	Gorron	5.66	240	*e*Pn	Pn	11 08 44.1	-0.2
	SNR=1.0						
GRR				*e*Sn	Sn	11 09 45.2	-4.8
	SNR=1.0						
GRR				*e*Sg	Sg	11 10 19.5	-1.3
	comp=N,19nm,0.6s						
GRR	Gorron	5.66	240	*e*Pn	Pn	11 08 44.1	-0.2
	SNR=1.0						
GRR				*e*Sg	Sg	11 10 19.5	-1.3
	comp=N,9.4nm,0.6s						
TCF	Toulx Ste Croi	5.89	210	*e*Pn	Pn	11 08 47.1	-0.4
	SNR=1.0						
TCF				*e*Sn	Sn	11 09 51.5	-4.2
TCF				*e*Sg	Sg	11 10 26.9	-1.4
	comp=N,23nm,0.7s						
TCF	Toulx Ste Croi	5.89	210	*e*Pn	Pn	11 08 47.1	-0.4
	SNR=1.0						
TCF				*e*Sg	Sg	11 10 26.9	-1.4
	comp=N,12nm,0.7s						
MCH1	Michaelchurch	5.94	279	*e*P	Pn	11 08 48.5	+0.4
MCH1				*e*S	Sn	11 09 52.9	-3.9
MCH1				AML	AML	11 09 55.2	
	comp=E,11nm,0.4s						
MCH1				AML	AML	11 09 55.4	
	comp=N,14nm,0.7s						
MCH1	Michaelchurch	5.94	279	*e*P	Pn	11 08 48.5	+0.4
MOA	Molln	6.19	123	⇑*i*Pn	Pn	11 08 52.4	+0.8
MOA	Molln	6.19	123	Pn	Pn	11 08 52.4	+0.8
KBA	Koelnbreinsper	6.25	132	⇓*i*Pn	Pn	11 08 54.5	+2.0
KBA				⇓*i*Sn	Sn	11 10 06.3	+1.7
KBA	Koelnbreinsper	6.25	132	Pn	Pn	11 08 54.5	+2.0
KBA				Sn	Sn	11 10 06.3	+1.7
XAL	Allendale	6.26	306	*e*P	Pn	11 08 52.9	+0.3
XAL	Allendale	6.26	306	*e*P	Pn	11 08 52.9	+0.3
DPC	Dobruska-Polom	6.30	96	*e*SG	Sg	11 10 42.5	+1.1
DPC	Dobruska-Polom	6.30	96	Sg	Sg	11 10 42.5	+1.1
MFF	Saint Martin d	6.53	225	*e*Pn	Pn	11 08 56.3	0.0
	SNR=1.0						
MFF				*e*Sn	Sn	11 10 06.2	-5.3
	SNR=1.0						
MFF				*e*Sg	Sg	11 10 46.7	-2.1
	comp=N,14nm,0.6s						
MFF	Saint Martin d	6.53	225	*e*Pn	Pn	11 08 56.3	0.0
	SNR=1.0						
MFF				*e*Sg	Sg	11 10 46.7	-2.1
	comp=N,7.2nm,0.6s						
ORIF	Oris-en-Rattie	6.55	184	*e*Pn	Pn	11 08 56.0	-0.6
	SNR=1.0						
ORIF				*e*Sn	Sn	11 10 07.9	-4.0
ORIF				*e*Sg	Sg	11 10 47.8	-1.5
	comp=N,32nm,1.1s						
ORIF	Oris-en-Rattie	6.55	184	*e*Pn	Pn	11 08 56.0	-0.6
	SNR=1.0						
ORIF				*e*Sg	Sg	11 10 47.8	-1.5
	comp=N,16nm,1.1s						
SGMF	Saint Gilles	6.68	245	*e*Pn	Pn	11 08 58.0	-0.3
SGMF				*e*Sn	Sn	11 10 11.9	-3.1
	comp=N,5.6nm,0.4s						
SGMF	Saint Gilles	6.68	245	*e*Pn	Pn	11 08 58.0	-0.3
VIVF	Saint-Julien-l	6.71	191	*e*Pn	Pn	11 08 58.2	-0.6
VIVF				*e*Sn	Sn	11 10 12.0	-3.9
VIVF				*e*Sg	Sg	11 10 53.0	-1.5
	comp=N,9.6nm,0.6s						
VIVF	Saint-Julien-l	6.71	191	*e*Pn	Pn	11 08 58.2	-0.6
VIVF				*e*Sg	Sg	11 10 53.0	-1.5
	comp=N,4.8nm,0.6s						
MBDF	Montbardon	6.73	178	*e*Pn	Pn	11 08 58.3	-0.7
MBDF				*e*Sn	Sn	11 10 11.3	-5.0
MBDF				*e*Sg	Sg	11 10 53.6	-1.5
	comp=N,9.7nm,0.8s						
MBDF	Montbardon	6.73	178	*e*Pn	Pn	11 08 58.3	-0.7
MBDF				*e*Sg	Sg	11 10 53.6	-1.5
	comp=N,4.8nm,0.8s						
ECK	Cauldkaine Hil	6.88	307	*e*P	Pn	11 09 01.3	+0.3
ECK	Cauldkaine Hil	6.88	307	*e*P	Pn	11 09 01.3	+0.3
ESK	Eskdalemuir	6.98	307	*e*P	Pn	11 09 02.6	+0.2
ESK				*e*S	Sn	11 10 16.6	-5.9
ESK				AML	AML	11 10 21.7	
	comp=N,6.3nm,0.7s						
ESK				AML	AML	11 10 22.9	
	comp=E,8.4nm,0.7s						
ESK	Eskdalemuir	6.98	307	*e*P	Pn	11 09 02.7	+0.2
RJF	Les Rejaudoux	6.99	210	*e*Pn	Pn	11 09 02.4	-0.2
RJF	Les Rejaudoux	6.99	210	*e*Pn	Pn	11 09 02.4	-0.2
ESY	Stoneypath	7.03	313	*e*P	Pn	11 09 03.0	-0.1
ESY	Stoneypath	7.03	313	*e*P	Pn	11 09 03.0	-0.1
ROSF	Rostrenen	7.05	248	*e*Pn	Pn	11 09 02.9	-0.5
ROSF				*e*Sn	Sn	11 10 20.0	-4.1
	comp=E,2.8nm,0.3s						
ROSF	Rostrenen	7.05	248	*e*Pn	Pn	11 09 02.9	-0.5
EBL	Broad Law	7.14	311	*e*P	Pn	11 09 05.0	+0.3
EBL	Broad Law	7.14	311	*e*P	Pn	11 09 05.0	+0.3
CAF	Calviac	7.17	206	*e*Pn	Pn	11 09 04.6	-0.5
CAF				*e*Sn	Sn	11 10 23.1	-4.1
CAF				*e*Sg	Sg	11 11 06.8	-2.5
	comp=E,13nm,0.6s						
CAF	Calviac	7.17	206	*e*Pn	Pn	11 09 04.6	-0.5
QUIF	Quistinic	7.21	244	*e*Pn	Pn	11 09 04.7	-0.8
QUIF				*e*Sn	Sn	11 10 23.7	-4.3
	comp=E,2.6nm,0.4s						
QUIF	Quistinic	7.21	244	*e*Pn	Pn	11 09 04.7	-0.8
SOKA	Soboth	7.36	127	⇑*i*Pn	Pn	11 09 08.5	+0.9
SOKA	Soboth	7.36	127	Pn	Pn	11 09 08.5	+0.9
EAU	Auchinoon	7.37	311	*e*P	Pn	11 09 07.8	0.0
EAU	Auchinoon	7.37	311	*e*P	Pn	11 09 07.8	0.0
GAL1	Galloway	7.56	301	*e*P	Pn	11 09 09.9	-0.6
GAL1				*e*S	Sn	11 10 30.7	-6.1
GAL1				AML	AML	11 10 37.5	
	comp=N,2.8nm,0.6s						
GAL1				AML	AML	11 10 37.8	
	comp=E,3.2nm,0.5s						
GAL1	Galloway	7.56	301	*e*P	Pn	11 09 09.9	-0.5
LFF	La Frestale	7.57	213	*e*Pn	Pn	11 09 10.3	-0.2
LFF				*e*Sn	Sn	11 10 31.2	-5.7
LFF				*e*Sg	Sg	11 11 18.7	-3.3
	comp=E,54nm,1.0s						
LFF	La Frestale	7.57	213	*e*Pn	Pn	11 09 10.3	-0.2
EBH	Black Hill	7.63	313	*e*P	Pn	11 09 11.4	+0.1
EBH	Black Hill	7.63	313	*e*P	Pn	11 09 11.4	+0.1
ELO	Logie Almond	7.85	314	*e*P	Pn	11 09 14.3	-0.1
ELO	Logie Almond	7.85	314	*e*P	Pn	11 09 14.3	0.0

ISCJB ***17*** *11:15:18.9±3.6, 21°.0S±0°.2×179°.2W±0°.2, h587^{km}±46^{km}, mb3.7/14, Error ellipse: s-maj=27.1km s-min=19.2km az=35.0*

NEIC ***17*** *11:15:18.2±4.0, 20°.96S×179°.08W, h564^{km}±48^{km}, mb4.4/4, Error ellipse: s-maj=23.5km s-min=14.1km az=224.0*

IDC ***17*** *11:15:19.6±2.7, 21°.02S×179°.11W, h582^{km}±31^{km}, mb3.3/13, mb1 3.5/14, mb1mx3.4/19, mbtmp3.3/14, Error ellipse: s-maj=17.6km s-min=14.6km az=66.0*

ISC 17 11:15:17.9±5.2, **21°.0S**±0°.2×**179°.1W**±0°.2, **h558**^{km}±62^{km}, **n21**, σ**0^{s}.75**/20, **mb3.7**/14, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUZ	**Omahuta**	15.60	203	*e*P	P	11 18 34.9	+1.7
	15nm,0.9s						
URZ	**Urewera**	17.56	190	P	P	11 18 49.4	-1.7
	0.9nm,0.3s,baz=343,slow=19,SNR=9.6						
URZ				S	S	11 21 34.5	-10
	0.4nm,0.3s,baz=348,slow=19,SNR=3.3						
CTA	**Charters Tower**	32.42	265	P	P	11 21 03.6	+0.9
	5.9nm,0.4s,mb4.5,baz=60,slow=13,SNR=14						
CTAO	**Charters Tower**	32.42	265	*e*P	P	11 21 03.1	+0.4
	6.9nm,0.6s,mb4.4						
STKA	**Stephens Creek**	36.67	244	P	P	11 21 38.5	+0.6
	0.6nm,0.5s,mb3.4,baz=74,slow=9.1,SNR=3.9						
ASAR	**Alice Springs**	43.41	257	P	P	11 22 31.9	0.0
	4.9nm,0.8s,mb4.1,baz=97,slow=7.6,SNR=48						
ASAR				ScP	ScP	11 27 02.9	-3.5
	1.0nm,0.7s,baz=101,slow=4.6,SNR=7.6						
WRAB	**Tennant Creek**	43.51	263	*e*P	P	11 22 32.0	-0.8
	2.5nm,0.4s,mb4.1						
WRA	**Warramunga Arr**	43.52	263	P	P	11 22 32.2	-0.7
	2.2nm,0.3s,mb4.1,baz=97,slow=7.4,SNR=43						
VNDA	**Vanda**	57.38	185	P	P	11 24 13.0	+0.2
	1.4nm,0.6s,mb3.4,baz=1.0,slow=5.0,SNR=9.2						
VNDA	**Vanda**	57.38	185	P	P	11 24 13.0	+0.2
QSPA	**South Pole Qui**	69.12	180	P	P	11 25 27.5	-0.4
	5.1nm,0.6s,mb4.2,baz=39,slow=0.8,SNR=47						
QSPA	**South Pole Qui**	69.12	180	*e*P	P	11 25 27.4	-0.5
	6.7nm,0.8s,mb4.2						
MJAR	**Matsushiro Arr**	69.96	324	P	P	11 25 33.2	-0.4
	2.0nm,0.5s,mb3.9,baz=157,slow=5.6,SNR=8.0						
PETK	**Petropavlovsk-**	76.44	346	P	P	11 26 09.9	-0.3
	2.1nm,0.6s,mb3.7,baz=153,slow=4.8,SNR=7.2						
NVAR	**Mina Array Bea**	82.06	44	P	P	11 26 40.5	+0.3
	0.1nm,0.3s,mb2.7,baz=229,slow=8.2,SNR=3.7						
TXAR	**Lajitas Array**	88.16	58	P	P	11 27 10.8	+0.8
	1.0nm,0.8s,mb3.6,baz=217,slow=6.0,SNR=9.3						
CMAR	**Chiang Mai Arr**	89.29	290	P	P	11 27 16.1	+0.6
	1.0nm,0.9s,mb3.7,baz=140,slow=2.7,SNR=6.6						
PLCA	**Paso Flores**	89.71	134	P	P	11 27 17.1	0.0
	0.4nm,0.3s,mb3.7,baz=322,slow=6.1,SNR=5.1						
PDAR	**Pinedale Array**	89.99	44	P	P	11 27 17.6	-0.5
	0.2nm,0.5s,mb3.2,baz=194,slow=3.3,SNR=4.0						
AKASG	**Malin Array Be**	142.89	330	PKhKP		11 33 43.5	
	2.6nm,0.4s,baz=43,slow=4.3,SNR=16						
TORD	**Torodi Ar. Bea**	172.21	186	PKPab	PKPab	11 35 48.3	-3.0
	0.3nm,0.7s,baz=171,slow=4.1,SNR=2.6						

IDC 17 11:16:08.9±4.1, 5°.64S×147°.37E, h0^{km}, mb3.9/4, mb1 3.9/5, mb1mx3.6/17, mbtmp3.8/5, ML3.7/1, Error ellipse: s-maj=78.4km s-min=50.7km az=176.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	19.05	221	P	Pn	11 20 32.0	-1.4
	0.2nm,0.3s,baz=43,slow=12,SNR=12						
ASAR	**Alice Springs**	22.12	215	P	P	11 21 05.5	-0.6
	0.7nm,0.4s,baz=53,slow=8.5,SNR=28						
FITZ	**Fitzroy Crossi**	24.57	238	P	P	11 21 31.5	+0.8
	4.0nm,0.6s,baz=61,slow=10,SNR=9.6						
STKA	**Stephens Creek**	26.66	191	P	P	11 21 50.8	+1.3
	1.0nm,0.6s,baz=354,slow=10,SNR=4.1						
QSPA	**South Pole Qui**	84.33	180	P	P	11 28 42.0	-0.3
	1.0nm,0.6s,baz=43,slow=3.1,SNR=5.6						

IDC 17 11:16:07.0±1.1, 18°.15S×168°.56E, h0^{km}, mb4.4/10, mb1 4.5/11, mb1mx4.4/20, mbtmp4.5/11, ML5.0/1, MS3.6/8, Ms1 3.6/8, ms1mx3.3/25, Error ellipse: s-maj=31.0km s-min=22.8km az=134.0

LDG 17 11:16:10.2±0.2, 17°.75S×167°.80E, h10^{km}, Mb4.6/1, Error ellipse: s-maj=21.7km s-min=4.5km az=97.0

BJI 17 11:16:10.8, 18°.20S×168°.60E, h35^{km}, mB5.0/3, mb4.7/5

ISCJB 17 11:16:11.8±2.1, 18°.20S±0°.08×168°.4E±0°.1, h37^{km}±17^{km}, mb4.6/14, MS3.5/6, Error ellipse: s-maj=23.5km s-min=12.6km az=5.7

NEIC 17 11:16:11.9±0.8, 18°.17S×168°.61E, h35^{km}, mb4.7/6, Error ellipse: s-maj=19.8km s-min=15.7km az=133.0

ISC 17 11:16:13.4±1.8, 18°.19S±0°.07×168°.4E±0°.1, h38^{km}±14^{km}, n59, σ0^{s}.85/26, mb4.5/15, MS3.5/6, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	4.28	205	*e*P	Pn	11 17 16.4	+0.3
DZM				*e*S	Sn	11 18 03.9	-0.9
NORM	**Noumea**	4.41	204	*e*P	Pn	11 17 19.3	+1.5
NORM				*e*S	Sn	11 18 07.2	-0.8
HNR	**Honiara**	11.98	316	Pn	Pn	11 19 00.2	-1.4
	9.2nm,0.3s,baz=192,slow=3.0,SNR=6.1						
HNR				LR	LR	11 22 36.0	
	comp=Z,209nm,20.4s,baz=155,slow=32						
HNR	**Honiara**	11.98	316	*e*Pn	Pn	11 19 01.9	+0.3
HNR				LR	LR	11 22 36.0	
AFI	**Afiamalu**	19.50	80	LR	LR	11 26 22.6	
	comp=Z,147nm,19.1s,baz=89,slow=32						
CTA	**Charters Tower**	21.03	261	P	P	11 20 55.8	+1.8
	6.9nm,0.9s,mb4.0,baz=87,slow=13,SNR=4.6						
CTA				LR	LR	11 27 20.1	
	comp=Z,167nm,19.2s,MS3.4,baz=51,slow=32						
CTA	**Charters Tower**	21.03	261	P	P	11 20 55.8	+1.8
CTA				LR	LR	11 27 20.1	
CTAO	**Charters Tower**	21.03	261	P	P	11 20 55.5	+1.5
	3.6nm,0.7s,mb3.8						
URZ	**Urewera**	21.39	161	LR	LR	11 27 58.7	
	comp=Z,146nm,18.3s,MS3.4,baz=347,slow=33						
STKA	**Stephens Creek**	27.77	235	P	P	11 21 59.6	+0.9
	4.9nm,0.8s,mb4.2,baz=81,slow=7.6,SNR=9.1						
STKA				LR	LR	11 32 23.8	
	comp=Z,89nm,20.5s,MS3.3,baz=210,slow=35						
WRA	**Warramunga Arr**	32.23	261	LR	LR	11 33 27.0	
	comp=Z,62nm,18.4s,MS3.3,baz=65,slow=32						
ASAR	**Alice Springs**	32.65	254	P	P	11 22 40.9	-1.1
	5.7nm,0.6s,mb4.7,baz=84,slow=8.4,SNR=9.1						
ASAR	**Alice Springs**	32.65	254	P	P	11 22 40.9	-1.1
FORT	**Forrest**	38.61	243	*e*P	P	11 23 33.1	+0.1
	16nm,0.7s,mb4.9						
GUMO	**Guam**	39.20	322	LR	LR	11 38 13.7	
	comp=Z,98nm,19.1s,MS3.6,baz=91,slow=34						
FITZ	**Fitzroy Crossi**	40.59	263	P	P	11 23 49.8	+0.2
	20nm,0.7s,mb4.8,baz=99,slow=5.9,SNR=22						
FITZ				LR	LR	11 38 39.2	
	comp=Z,162nm,18.8s,MS3.9,baz=277,slow=33						
FITZ	**Fitzroy Crossi**	40.59	263	*e*P	P	11 23 49.0	-0.7
	18nm,0.7s,mb4.8						
FITZ				LR	LR	11 38 39.2	
MBWA	**Marble Bar**	45.81	258	*e*P	P	11 24 31.9	+0.1
	74nm,1.4s,mb5.4						
NWAO	**Narrogin (SRO)**	48.01	242	P	P	11 24 48.5	-0.4
	7.3nm,0.7s,mb4.8,baz=129,slow=8.8,SNR=3.3						
PETK	**Petropavlovsk-**	71.61	353	P	P	11 27 28.7	-1.8
	2.9nm,1.0s,mb4.2,baz=116,slow=12,SNR=3.3						
QSPA	**South Pole Qui**	71.86	180	P	P	11 27 31.8	0.0
	2.7nm,0.9s,mb4.2,baz=29,slow=3.9,SNR=4.2						
QSPA	**South Pole Qui**	71.86	180	*e*P	P	11 27 32.0	+0.2
	4.2nm,1.1s,mb4.3						
CMAR	**Chiang Mai Arr**	77.37	294	P	P	11 28 05.4	+0.6
	1.8nm,0.8s,mb4.1,baz=132,slow=4.6,SNR=10						
LZH	**Lanzhou**	81.46	312	*e*P	P	11 28 31.5	+4.8
LZH				pP	pP	11 28 40.0	+1.5
LZH				sP	sP	11 28 45.3	+2.5
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,75nm,4.3s						
ULN	**Ulaanbaatar**	85.57	324	*e*P	P	11 28 47.3	-0.2
	comp=Z,4.5nm,1.3s,mb4.5						
GTA	**Gaotai**	85.85	314	*e*P	P	11 28 49.8	+0.7
GTA				pP	pP	11 28 58.4	-2.6
GTA				sP	sP	11 29 03.0	-2.3
GTA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.9						
SONM	**Songino Array**	85.92	323	P	P	11 28 49.0	-0.3
	comp=Z,1.3nm,0.9s,mb4.2,baz=134,slow=4.7,SNR=10.0						
NVAR	**Mina Array Bea**	88.69	49	P	P	11 29 03.1	+0.3
	comp=Z,0.8nm,0.7s,mb4.2,baz=227,slow=8.8,SNR=6.7						
MKAR	**Makanchi Array**	100.45	316	P	Pdif	11 29 56.9	+0.4
	comp=Z,0.4nm,0.6s,baz=91,slow=5.8,SNR=4.7						
MKAR	**Makanchi Array**	100.45	316	P	Pdif	11 29 56.9	+0.4
GERES	**GERESS Array B**	143.21	332	PKhKP		11 35 39.6	
	comp=Z,0.6nm,0.7s,baz=48,slow=4.0,SNR=6.0						
BAIF	**Baives**	145.78	342	*e*PKP1	PKPbc	11 35 47.3	-0.9
	comp=Z,14nm,1.0s						
CDF	**Champ du Feu**	146.18	337	*e*PKP1	PKPbc	11 35 48.5	-1.0
	comp=Z,20nm,0.9s						
HINF	**Hinteralfeld**	146.84	337	*e*PKP1	PKPbc	11 35 50.1	-1.4
	comp=Z,5.0nm,0.7s						
HAU	**Haudompre**	146.86	338	*e*PKP1	PKPbc	11 35 50.4	-1.1
	comp=Z,6.5nm,0.7s						
MEZF	**Maizieres J'vi**	146.88	340	*e*PKP1	PKPbc	11 35 50.9	-0.7
	comp=Z,16nm,0.8s						
CABF	**La Chapelle**	148.13	337	*e*PKP1	PKPbc	11 35 54.4	-0.6
	comp=Z,26nm,1.0s						
FLN	**La Foliniere**	148.21	346	*e*PKP1	PKPbc	11 35 53.8	-1.4
LDF	**La Druitiere**	148.28	345	*e*PKP1	PKPbc	11 35 53.8	-1.6
LOR	**Lormes**	148.35	340	*e*PKP1	PKPbc	11 35 54.5	-1.1
	comp=Z,12nm,0.8s						
SSF	**Saint Saulge**	148.65	340	*e*PKP1	PKPbc	11 35 55.5	-0.9
	comp=Z,23nm,0.9s						
LPL	**La Plagne**	148.78	335	*e*PKP1	PKPbc	11 35 56.2	-0.6
LPG	**La Plagne**	148.79	335	*e*PKP1	PKPbc	11 35 56.3	-0.5
	comp=Z,17nm,0.8s						
SGMF	**Saint Gilles**	149.13	348	*e*PKP1	PKPbc	11 35 56.2	-1.4
	comp=Z,17nm,0.8s						
BGF	**Bois d'Agland**	149.31	340	*e*PKP1	PKPbc	11 35 57.1	-1.0
	comp=Z,10.0nm,0.7s						
ORIF	**Oris-en-Rattie**	149.62	335	*e*PKP1	PKPbc	11 35 58.0	-0.9
	comp=Z,12nm,0.7s						
TCF	**Toulx Ste Croi**	149.75	341	*e*PKP1	PKPbc	11 35 58.1	-1.1
	comp=Z,22nm,1.1s						
PGF	**Pioggiola**	150.08	329	*e*PKP1	PKPbc	11 35 59.0	-1.1
	comp=Z,36nm,0.8s						
MFF	**Saint Martin d**	150.14	344	*e*PKP1	PKPbc	11 35 59.0	-1.1
	comp=Z,10.0nm,0.8s						
VIVF	**Saint-Julien-l**	150.14	336	*e*PKP1	PKPbc	11 35 59.3	-0.9
	comp=Z,11nm,0.9s						
SMRF	**Simiane la Rot**	150.52	334	*e*PKP1	PKPbc	11 36 00.3	-0.8
	comp=Z,18nm,0.9s						
LMR	**La Mourre**	150.64	332	*e*PKP1	PKPbc	11 36 00.7	-0.7
	comp=Z,83nm,1.2s						
RJF	**Les Rejaudoux**	150.84	341	*e*PKP1	PKPbc	11 36 00.8	-1.0
CAF	**Calviac**	151.01	340	*e*PKP1	PKPbc	11 36 01.2	-1.0
LASF	**Ste Croix**	151.11	337	*e*PKP1	PKPbc	11 36 01.6	-0.9
	comp=Z,37nm,0.9s						
LFF	**La Frestale**	151.41	342	*e*PKP1	PKPbc	11 36 02.8	-0.4
	comp=Z,11nm,0.7s						
EPF	**Esparros**	153.26	340	*e*PKP1	PKPbc	11 36 06.7	-0.7
	comp=Z,6.9nm,0.8s						
ETSF	**Etsaut**	153.66	342	*e*PKP1	PKPbc	11 36 09.5	+1.3
	comp=Z,26nm,1.3s						
TORD	**Torodi Ar. Bea**	166.27	250	PKPab	PKPab	11 37 15.8	-0.8
	comp=Z,0.6nm,0.7s,baz=106,slow=4.2,SNR=4.1						

IDC 17 11:20:48.4±1.8, 7°.70S×129°.16E, h0^{km}, mb3.6/2, mb1 3.8/5, mb1mx3.6/17, mbtmp3.7/5, ML3.3/3, Error ellipse: s-maj=85.5km s-min=26.2km az=70.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	10.90	198	Pn	Pn	11 23 25.4	-0.3
	0.2nm,0.3s,baz=24,slow=12,SNR=5.5						
FITZ				Sn	Sn	11 25 15.1	-13
	1.2nm,0.3s,baz=181,slow=19,SNR=9.3						
WRA	**Warramunga Arr**	13.17	158	Pn	Pn	11 23 57.7	+0.9
	0.2nm,0.3s,baz=328,slow=16,SNR=4.4						
WRA				Sn	Sn	11 26 12.2	-12
	1.1nm,0.3s,baz=331,slow=21,SNR=12						
ASAR	**Alice Springs**	16.52	165	Pn	Pn	11 24 42.7	+1.1
	0.1nm,0.3s,baz=342,slow=10,SNR=4.2						
ASAR				Sn	Sn	11 27 35.0	-11
	0.3nm,0.3s,baz=320,slow=16,SNR=8.0						
STKA	**Stephens Creek**	26.70	156	P	P	11 26 28.9	-0.5
	1.8nm,0.8s,baz=352,slow=7.8,SNR=3.7						
MKAR	**Makanchi Array**	68.35	327	P	P	11 31 51.8	+0.2
	0.2nm,0.5s,baz=127,slow=8.0,SNR=4.5						

ISCJB 17 11:30:26.9±0.5, 15°.08N±0°.04×93°.82W±0°.03, h48^{km}±11^{km}, mb3.5/2, Error ellipse: s-maj=8.1km s-min=3.1km az=23.4

NEIC 17 11:30:28.8, 15°.05N×93°.83W, h27^{km}, MD4.3(MEX), After MEX.

MEX 17 11:30:28.9±0.7, 15°.05N×93°.82W, h27^{km}±13^{km}, MD4.3

CASC 17 11:30:30.9±2.2, 14°.74N×93°.65W, h108^{km}±70^{km}, MD4.2

IDC 17 11:30:30.3±3.0, 15°.37N×93°.62W, h50^{km}±23^{km}, mb3.2/2, mb1 3.7/5, mb1mx3.4/21, mbtmp3.4/5, ML3.7/4, Error ellipse: s-maj=31.1km s-min=13.6km az=25.0

ISC 17 11:30:28.8±0.4, 15°.14N±0°.04×93°.79W±0°.03, h39^{km}±13^{km}, n32, σ1^{s}.21/52, mb3.5/2, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		0.78	44	*i* P	Pn	11 30 42.8	-0.6
PCIG				*i* S	Sn	11 30 53.2	-0.7
THIG		1.49	99	*i* P	Pn	11 30 52.1	-0.9
THIG				*i* S	Sn	11 31 09.1	-2.2
TGIG		1.75	21	*i* P	Pn	11 30 56.8	+0.1
TGIG				*i* S	Sn	11 31 18.5	+0.8
CCIG	**Comitan**	1.95	54	*i* P	Pn	11 31 00.1	+0.6
CCIG				*i* S	Sn	11 31 22.9	+0.2
CMIG	**Matias Romero**	2.21	332	*i* P	Pn	11 31 02.9	-0.1
CMIG				*i* S	Sn	11 31 29.1	0.0
CMIG	**Matias Romero**	2.21	332	P	Pn	11 31 02.6	-0.4
	19nm,0.3s,baz=148,slow=12,SNR=215						
CMIG				S	Sn	11 31 28.6	-0.4
	89nm,0.3s,baz=60,slow=21,SNR=22						
JAT	**Jato**	2.23	111	*e*P	Pn	11 31 04.3	+1.0
HUIG	**Huatulco**	2.33	286	*i* P	Pn	11 31 03.1	-1.5
HUIG				*i* S	Sn	11 31 28.6	-3.4
TP2	**Tecpan 2**	2.69	97	*e*P	Pn	11 31 12.0	+2.3
FG6		2.87	101	*e*P	Pn	11 31 14.2	+2.2
FG6				*e*S	Sn	11 31 47.1	+1.8
TUIG	**Tuzandepetl**	2.94	348	*e*P	Pn	11 31 12.1	-1.0
NBG	**Las Nubes**	3.37	99	*e*P	Pn	11 31 23.0	+4.0
VHO	**Vista Hermosa**	3.42	305	*i* P	Pn	11 31 19.0	-0.7
VHO				*i* S	Sn	11 31 57.4	-1.6
MRL	**Marmol**	3.96	91	*e*P	Pn	11 31 28.4	+1.4
RBDL	**Robledal**	4.10	104	*e*P	Pn	11 31 28.5	-0.4
RTR	**El Retiro**	4.20	107	*e*P	Pn	11 31 30.6	+0.3
RTR				*e*S	Sn	11 32 16.7	-1.4
SBLS	**San Blas**	4.23	107	*e*P	Pn	11 31 31.0	+0.1
SBLS				*e*S	Sn	11 32 19.1	+0.1
SNJE	**San Jose**	4.24	107	*e*P	Pn	11 31 30.9	0.0
SNJE				*e*S	Sn	11 32 18.7	-0.5
PNIG	**Pinotepa**	4.36	287	*e*P	Pn	11 31 32.5	-0.1
PNIG				*i* S	Sn	11 32 21.6	-0.6
UTMO	**Huajuapan**	4.69	305	*e*P	Pn	11 31 34.9	-2.2
UTMO				*i* S	Sn	11 32 30.3	0.0
TPIG	**Tehuac#an**	4.73	314	*e*P	Pn	11 31 40.8	+3.1
TPIG				*i* S	Sn	11 32 34.1	+2.9
LFRS	**El Faro**	4.82	108	*e*P	Pn	11 31 39.5	+0.6
LFRS				*e*S	Sn	11 32 31.8	-1.8
PPM	**Popocatepetl**	6.05	311	*e*P	Pn	11 31 55.6	-0.2
PPM				*i* S	Sn	11 33 06.1	+2.2
CAIG	**El Cayaco**	6.51	288	*e*P	Pn	11 32 04.1	+1.9
CAIG				*i* S	Sn	11 33 15.9	+0.7
TEIG	**Tepich**	7.29	45	*e*P	Pn	11 32 11.1	-1.7
TEIG				*i* S	Sn	11 33 28.8	-5.6
TEIG	**Tepich**	7.29	45	P	Pn	11 32 11.8	-1.0
	14nm,0.3s,baz=313,slow=0.4,SNR=53						
TEIG				S	Sn	11 33 28.9	-5.4
	6.0nm,0.3s,baz=12,slow=22,SNR=9.3						
JTS	**JuntasAbangare**	9.87	118	P	Pn	11 32 49.0	+0.7
	0.2nm,0.3s,baz=315,slow=20,SNR=3.2						
TXAR	**Lajitas Array**	16.81	329	P	Pn	11 34 22.5	+1.2
	0.0nm,0.3s,baz=155,slow=12,SNR=4.6						
TXAR	**Lajitas Array**	16.81	329	P	Pn	11 34 22.5	+1.2
NVAR	**Mina Array Bea**	31.70	322	P	P	11 36 48.8	0.0
	0.3nm,0.7s,mb3.2,baz=135,slow=9.0,SNR=2.8						
YKA	**Yellowknife Ar**	49.53	347	P	P	11 39 14.2	-1.2
	0.4nm,0.5s,mb3.7,baz=152,slow=7.3,SNR=12						
YKA				pP	pP	11 39 28.0	+1.3
	0.4nm,0.5s,baz=154,slow=7.3,SNR=7.1						
YKA	**Yellowknife Ar**	49.53	347	P	P	11 39 14.2	-1.2
YKA				pP	pP	11 39 28.0	+1.3

CSEM 17 11:45:11.1, 36°.20N×21°.71E, h5^{km}, ML3.4, After ATH

NEIC 17 11:45:11.1, 36°.20N×21°.71E, h5^{km}, ML3.4(ATH), After ATH.

ATH 17 11:45:11.1, 36°.20N×21°.71E, h5^{km}±4^{km}, MD3.5/6, ML3.4, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.69	2	*e*PB	Pg	11 45 24.9	+0.4
PYL				*e*SB	Sg	11 45 35.0	+1.5
PYL	**PYLOS**	0.69	2	*e*Pb	Pg	11 45 24.9	+0.4
PYL				*e*Sb	Sg	11 45 35.0	+1.5
ITM	**Ithomi**	0.99	10	*e*PG	Pg	11 45 29.5	-0.7
ITM				*e*SB	Sg	11 45 43.6	+0.5
ITM	**Ithomi**	0.99	10	*e*Pg	Pg	11 45 29.5	-0.7
ITM				*e*Sb	Sg	11 45 43.6	+0.5
KYTH	**Kithira**	1.07	85	*e*PB	Pg	11 45 31.7	0.0
KYTH	**Kithira**	1.07	85	*e*Pb	Pg	11 45 31.7	0.0
VLI	**Veliai**	1.12	62	*e*PB	Pg	11 45 32.5	0.0
VLI	**Veliai**	1.12	62	*e*Pb	Pg	11 45 32.5	0.0
VLX	**Vlachokerasia**	1.29	25	*e*PB	Pg	11 45 35.8	0.0
VLX				*e*SB	Sg	11 45 54.2	+1.8
VLX	**Vlachokerasia**	1.29	25	*e*Pb	Pg	11 45 35.8	0.0
VLX				*e*Sb	Sg	11 45 54.2	+1.8
GUR	**Goura**	1.81	16	*e*PG	Pn	11 45 44.6	+1.7
GUR	**Goura**	1.81	16	*e*Pg	Pn	11 45 44.6	+1.7
LTK	**Loutraki**	2.08	29	*e*PG	Pn	11 45 50.0	+3.4
LTK	**Loutraki**	2.08	29	*e*Pg	Pn	11 45 50.0	+3.4
NAIG	**Nisos Aigina**	2.11	42	*e*PN	Pn	11 45 50.0	+3.0
NAIG	**Nisos Aigina**	2.11	42	*e*Pn	Pn	11 45 50.0	+3.0
EFP	**Efpalio**	2.23	4	*e*PN	Pn	11 45 51.7	+3.0
EFP	**Efpalio**	2.23	4	*e*Pn	Pn	11 45 51.7	+3.0
ATH	**Athens Observa**	2.39	42	*e*PN	Pn	11 45 54.0	+3.1
ATH	**Athens Observa**	2.39	42	*e*Pn	Pn	11 45 54.0	+3.1
PTL	**Penteli**	2.52	42	*e*PN	Pn	11 45 55.0	+2.3
PTL	**Penteli**	2.52	42	*e*Pn	Pn	11 45 55.0	+2.3

IDC 17 12:00:51.4±1.4, 4°.83S×154°.57E, h0^{km}, mb3.6/4, mb1 3.9/5, mb1mx3.7/17, mbtmp3.8/5, ML4.8/1, MS2.9/1, Ms1 2.9/1, ms1mx2.7/18, Error ellipse: s-maj=38.0km s-min=29.7km az=129.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	7.03	131	Pn	Pn	12 02 34.7	-1.0
	15nm,0.3s,baz=221,slow=5.5,SNR=8.9						
HNR				Sn	Sn	12 03 48.1	-8.2
	7.0nm,0.3s,baz=156,slow=10.0,SNR=3.2						
CTA	**Charters Tower**	17.19	207	LR	LR	12 09 17.6	
	comp=Z,38nm,19.7s,baz=53,slow=29						
WRA	**Warramunga Arr**	24.77	231	P	P	12 06 15.7	+0.6
	1.2nm,0.6s,baz=55,slow=10,SNR=17						
ASAR	**Alice Springs**	27.34	225	P	P	12 06 38.0	-0.4
	0.3nm,0.4s,baz=56,slow=9.0,SNR=8.1						
MKAR	**Makanchi Array**	81.51	319	P	P	12 13 10.7	-0.1
	0.2nm,0.7s,baz=103,slow=6.2,SNR=3.5						
YKA	**Yellowknife Ar**	94.63	28	P	P	12 14 14.3	+0.3
	0.3nm,0.6s,baz=267,slow=4.9,SNR=8.3						

IDC 17 12:11:49.4±1.1, 35°.56N×34°.71W, h0^{km}, mb3.6/11, mb1 3.8/11, mb1mx3.7/24, mbtmp3.6/11, MS3.5/7, Ms1 3.5/7, ms1mx3.2/28, Error ellipse: s-maj=31.9km s-min=20.0km az=16.0, Azores Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESDC	**Sonseca Array**	24.64	71	P	P	12 17 12.5	+1.0
	0.3nm,0.4s,baz=269,slow=9.9,SNR=3.4						
MDT	**Midelt**	25.00	88	LR	LR	12 24 36.0	
	comp=Z,72nm,18.2s,baz=59,slow=31						
BBTS	**Babate**	26.44	137	LR	LR	12 24 52.9	
	comp=Z,78nm,20.2s,baz=336,slow=30						
SCHQ	**Schefferville**	29.34	321	LR	LR	12 28 03.1	
	comp=Z,108nm,20.2s,baz=34,slow=33						
GERES	**GERESS Array B**	37.61	54	P	P	12 19 05.3	-0.3
	0.3nm,0.4s,baz=266,slow=7.9,SNR=3.5						
NOA	**NORSAR Array B**	38.57	34	P	P	12 19 14.5	+0.9
	1.6nm,0.9s,baz=252,slow=8.7,SNR=2.6						
TORD	**Torodi Ar. Bea**	39.64	115	P	P	12 19 24.1	+1.1
	0.5nm,0.9s,baz=294,slow=6.8,SNR=4.0						
TORD				LR	LR	12 34 34.8	
	comp=Z,60nm,18.7s,baz=240,slow=34						
DBIC	**Dimbokro**	39.71	129	P	P	12 19 23.0	-0.7
	2.8nm,0.8s,baz=355,slow=11,SNR=3.9						
ULM	**Lac du Bonnet**	45.87	308	LR	LR	12 37 41.8	
	comp=Z,112nm,20.0s,baz=270,slow=34						
AKASG	**Malin Array Be**	47.57	51	P	P	12 20 26.2	-0.4
	2.8nm,0.7s,baz=272,slow=7.7,SNR=7.1						
YKA	**Yellowknife Ar**	54.61	326	P	P	12 21 20.2	+0.9
	0.3nm,0.8s,baz=83,slow=6.9,SNR=6.2						
PDAR	**Pinedale Array**	56.73	302	P	P	12 21 35.4	+0.6
	0.3nm,0.6s,baz=64,slow=6.8,SNR=3.9						
PDAR				LR	LR	12 44 17.0	
	comp=Z,47nm,21.3s,baz=349,slow=34						
TXAR	**Lajitas Array**	57.47	285	P	P	12 21 40.0	-0.3
	0.2nm,0.6s,baz=89,slow=5.6,SNR=3.1						
TXAR				LR	LR	12 42 34.6	
	comp=Z,40nm,20.0s,baz=185,slow=32						
ZALV	**Zalesovo Beam**	76.74	32	P	P	12 23 40.7	-1.6
	0.3nm,0.3s,baz=299,slow=6.1,SNR=3.8						
MKAR	**Makanchi Array**	80.42	38	P	P	12 24 02.3	-0.5
	1.0nm,0.9s,baz=316,slow=5.5,SNR=7.4						

JMA 17 12:39:49.3±0.4, 32°.50N×138°.01E, h375^{km}, M3.2

ISCJB 17 12:39:52.0±0.8, 32°.8N±0°.1×138°.1E±0°.1, h360^{km}±6^{km}, mb3.1/6, Error ellipse: s-maj=17.6km s-min=13.2km az=156.7

IDC 17 12:39:53.2±1.8, 32°.81N×137°.99E, h355^{km}±20^{km}, mb3.0/6, mb1 3.0/8, mb1mx2.8/26, mbtmp2.9/8, Error ellipse: s-maj=45.4km s-min=15.1km az=67.0

ISC 17 12:39:53.2±0.8, 32°.8N±0°.1×138°.1E±0°.1, h354^{km}±7^{km}, n22, σ0^{s}.94/23, mb3.1/6, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIE	**Ise**	1.92	324	P	Pn	12 40 44.5	+0.3
HMMJ	**Hamamatsu 2**	2.03	352	P	Pn	12 40 46.0	+1.0
JKN2	**Miekihoku**	2.04	314	P	Pn	12 40 44.7	-0.4
JWZ	**Kozaga**	2.09	290	P	Pn	12 40 44.3	-1.1
JWY	**Kouya**	2.48	304	P	Pn	12 40 48.1	-0.2
JOD2	**Odawara 2**	2.56	19	P	Pn	12 40 50.6	+1.6
BSO1	**Boso 1**	3.03	53	*e*S	S	12 41 39.9	-1.3
JGM	**Miyama**	3.06	339	P	Pn	12 40 53.9	+0.6
JHU	**Hanno**	3.17	18	P	Pn	12 40 54.9	+0.6
JHU				*e*S	S	12 41 42.3	-1.2
JRY	**Ryogami san**	3.25	12	P	Pn	12 40 57.1	+2.2
JWT	**Wachi**	3.29	319	P	Pn	12 40 55.1	-0.3
MJAR	**Matsushiro Arr**	3.70	2	P	Pn	12 40 59.6	+0.4
	0.5nm,0.3s,baz=159,slow=9.5,SNR=7.3						
JAG	**Ashikaga**	3.76	17	P	Pn	12 41 00.3	+0.4
JYT	**Yasato**	3.81	27	*e*S	S	12 41 52.0	-2.7
JHO	**Hitachi**	4.29	28	P	Pn	12 41 06.1	+0.8
KSRS	**Korea Array**	9.49	302	P	Pn	12 42 04.2	-0.7
	0.3nm,0.3s,baz=116,slow=11,SNR=7.9						
SONM	**Songino Array**	28.17	311	P	P	12 45 14.6	+0.6
	1.0nm,0.7s,mb3.2,baz=120,slow=8.4,SNR=9.3						
ZALV	**Zalesovo Beam**	42.85	316	P	P	12 47 17.1	-0.3
	0.4nm,0.3s,mb3.0,baz=73,slow=10,SNR=3.6						
MKAR	**Makanchi Array**	44.15	305	P	P	12 47 27.1	-0.7
	0.7nm,0.5s,mb3.0,baz=87,slow=9.7,SNR=19						
WRA	**Warramunga Arr**	52.60	184	P	P	12 48 31.7	-0.2
	0.2nm,0.3s,mb3.0,baz=0.5,slow=7.7,SNR=11						
ASAR	**Alice Springs**	56.33	185	P	P	12 48 58.0	-0.3
	0.2nm,0.8s,mb2.5,baz=8.6,slow=8.9,SNR=4.6						
HFS	**Hagfors**	76.74	335	P	P	12 51 05.7	-0.1
	2.6nm,0.9s,mb4.0,baz=90,slow=7.2,SNR=3.6						

ISCJB 17 12:41:29.5±0.2, 45°.939N±0°.008×7°.06E±0°.01, h4^{km}±1^{km}, mb3.2/2, Error ellipse: s-maj=1.6km s-min=1.3km az=3.4

BGS 17 12:41:30.8±2.2, 45°.87N×7°.07E, h5^{km}, ML3.9

CSEM 17 12:41:30.9±0.1, 45°.91N×7°.16E, h2^{km}, ML4.1/38, Error ellipse: s-maj=1.6km s-min=1.3km az=106.0

ZUR 17 12:41:31.2, 45°.91N×7°.16E, h8^{km}, ML3.6/24

NEIC 17 12:41:31.2, 45°.91N×7°.16E, h8^{km}, ML3.3(ROM), ML3.6(STR), ML4.0(SZGRF), ML3.6(ZUR), ML4.0(LDG), After ZUR.

ROM 17 12:41:31.1±0.2, 45°.90N×7°.10E, h7^{km}±3^{km}, Ml3.3/18, Error ellipse: s-maj=4.1km s-min=2.2km az=98.0

LDG 17 12:41:31.5±0.1, 45°.91N×7°.14E, h9^{km}, Md3.8/2, Ml4.0/39, Error ellipse: s-maj=1.1km s-min=0.9km az=108.0

GEN 17 12:41:31.0, 45°.93N×7°.16E, h0^{km}, ML3.3

IDC 17 12:41:32.4±1.2, 46°.08N×6°.99E, h0^{km}, mb3.2/2, mb1 3.6/7, mb1mx3.4/26, mbtmp3.4/7, ML3.8/5, Error ellipse: s-maj=28.3km s-min=11.9km az=151.0

SZGRF 17 12:41:32.4, 45°.95N×7°.07E, h10^{km}, mb4.0, Northern Italy

PRU 17 12:41:32.4, 45°.95N×7°.19E, h0^{km}

*STR **17** 12:41:33.2±0.2, 45.°99N×7.°07E, h5^{km}, Ml3.6, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 17 12:41:30.6±0.2, **45.°917N**±0.°007×**7.°12E**±0.°01, **h1**^{km}±1^{km}, **n437**, σ1^{s}.32/736, **mb3.3**/2, **43C-42D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MRGE	Morge	0.15	197	Pg	Pg	12 41 34.8	+1.3
MRGE				Sg	Sg	12 41 37.1	+1.6
	37µm,0.3s						
MRGE	Morge	0.15	197	Pg	Pg	12 41 34.8	+1.3
MRGE				Sg	Sg	12 41 37.1	+1.6
	37µm,0.3s						
EMV	Vieux Emosson	0.21	313	Pg	Pg	12 41 36.1	+1.4
EMV				Sg	Sg	12 41 39.2	+1.7
EMV	Vieux Emosson	0.21	313	⇑*i*Pg	Pg	12 41 36.2	+1.5
	15µm,0.1s						
EMV				*i* Sg	Sg	12 41 39.3	+1.8
	15µm,0.1s						
EMV	Vieux Emosson	0.21	313	⇑*i*Pg	Pg	12 41 34.8	+0.1
EMV				*i* Sg	Sg	12 41 37.1	-0.4
EMV	Vieux Emosson	0.21	313	Pg	Pg	12 41 36.1	+1.4
EMV				*i* Sg	Sg	12 41 39.3	+1.8
	15µm,0.1s						
SALAN	Lac Salanfe	0.25	335	⇑*i*Pg	Pg	12 41 36.7	+1.3
	3µm,0.3s						
SALAN				*i* Sg	Sg	12 41 40.2	+1.6
	3µm,0.3s						
SALAN	Lac Salanfe	0.25	335	⇑*i*Pg	Pg	12 41 36.3	+0.9
SALAN				*i* Sg	Sg	12 41 39.3	+0.7
SALAN	Lac Salanfe	0.25	335	⇑*i*Pg	Pg	12 41 36.7	+1.3
	3µm,0.3s						
SALAN				*i* Sg	Sg	12 41 40.2	+1.6
	3µm,0.3s						
DIX	Grande Dixence	0.26	50	⇓*i*Pg	Pg	12 41 36.3	+0.8
	10µm,0.3s						
DIX	Grande Dixence	0.26	50	⇓*i*Pg	Pg	12 41 36.2	+0.7
DIX	Grande Dixence	0.26	50	⇓*i*Pg	Pg	12 41 36.2	+0.7
GRYON	Gryon	0.33	358	⇓*i*Pg	Pg	12 41 38.1	+1.1
	5µm,0.3s						
GRYON				*i* Sg	Sg	12 41 42.6	+1.3
	5µm,0.3s						
GRYON	Gryon	0.33	358	⇓*i*Pg	Pg	12 41 36.7	-0.3
GRYON				*i* Sg	Sg	12 41 40.2	-1.1
GRYON	Gryon	0.33	358	⇓*i*Pg	Pg	12 41 38.1	+1.1
	5µm,0.3s						
GRYON				*i* Sg	Sg	12 41 42.6	+1.3
	5µm,0.3s						
AIGLE	Aigle	0.44	344	⇑*i*Pg	Pg	12 41 40.1	+1.1
	6µm,0.5s						
AIGLE	Aigle	0.44	344	⇑*i*Pg	Pg	12 41 44.6	+5.6
AIGLE	Aigle	0.44	344	⇑*i*Pg	Pg	12 41 40.1	+1.1
	6µm,0.5s						
LSD	Lago del Serru	0.46	179	Pg	Pg	12 41 40.3	+1.0
LSD				Sg	Sg	12 41 46.1	+0.8
	3µm,0.2s						
LSD	Lago del Serru	0.46	179	Pg	Pg	12 41 40.3	+1.0
LSD				Sg	Sg	12 41 46.1	+0.8
	3µm,0.2s						
SENIN	Lac Senin/Sane	0.46	15	⇓*i*Pg	Pg	12 41 40.1	+0.6
	5µm,0.4s						
SENIN	Lac Senin/Sane	0.46	15	⇓*i*Pg	Pg	12 41 39.1	-0.4
SENIN	Lac Senin/Sane	0.46	15	⇓*i*Pg	Pg	12 41 40.1	+0.6
	5µm,0.4s						
LPL	La Plagne	0.49	215	*e*Pg	Pg	12 41 41.0	+1.1
	SNR=1.0						
LPL				*e*Sg	Sg	12 41 47.7	+1.5
	342nm,0.2s						
LPL	La Plagne	0.49	215	*e*Pg	Pg	12 41 41.0	+1.1
	SNR=1.0						
LPL				*e*Sg	Sg	12 41 47.7	+1.5
	171nm,0.2s						
LPG	La Plagne	0.49	212	*e*Pg	Pg	12 41 41.2	+1.2
	SNR=1.0						
LPG				*e*Sg	Sg	12 41 48.2	+1.8
	1µm,0.2s,SNR=1.0						
LPG	La Plagne	0.49	212	*e*Pg	Pg	12 41 41.2	+1.2
	SNR=1.0						
LPG				*e*Sg	Sg	12 41 48.2	+1.8
	581nm,0.2s,SNR=1.0						
OG01	Vacheresse	0.51	324	Pg	Pg	12 41 41.9	+1.5
OG01				Sg	Sg	12 41 49.1	+2.0
OG01	Vacheresse	0.51	324	Pg	Pg	12 41 41.9	+1.5
OG01				Sg	Sg	12 41 49.1	+2.0
LKBD2	Leukerbad 2	0.58	38	⇓*i*Pg	Pg	12 41 41.8	0.0
LKBD2	Leukerbad 2	0.58	38	⇓*i*Pg	Pg	12 41 41.8	0.0
LKBD	Leukerbad	0.59	36	⇓*i*Pg	Pg	12 41 42.2	+0.4
	3µm,0.4s						
LKBD	Leukerbad	0.59	36	⇓*i*Pg	Pg	12 41 40.2	-1.6
LKBD	Leukerbad	0.59	36	⇓*i*Pg	Pg	12 41 42.2	+0.4
	3µm,0.4s						
TRAV	Traversella	0.59	133	Pg	Pg	12 41 42.3	+0.3
TRAV				Sg	Sg	12 41 49.6	-0.1
	2µm,0.4s						
TRAV	Traversella	0.59	133	Pg	Pg	12 41 42.3	+0.3
TRAV				Sg	Sg	12 41 49.6	-0.1
	2µm,0.4s						
MMK	Mattmark	0.60	77	Pg	Pg	12 41 41.9	-0.2
MMK				Sg	Sg	12 41 50.1	+0.2
MMK	Mattmark	0.60	77	⇓*i*Pg	Pg	12 41 42.2	+0.1
	4µm,0.3s						
MMK	Mattmark	0.60	77	⇓*i*Pg	Pg	12 41 40.1	-2.0
MMK	Mattmark	0.60	77	⇓*i*Pg	Pg	12 41 42.2	+0.1
	4µm,0.3s						
MMK				Sg	Sg	12 41 50.1	+0.2
ORO	Oropa	0.67	115	Pg	Pg	12 41 43.4	+0.1
	551nm,0.2s						
ORO	Oropa	0.67	115	Pg	Pg	12 41 43.4	+0.1
	551nm,0.2s						
RSP	Reno Superiore	0.78	173	Pg	Pg	12 41 45.9	+0.5
RSP				Sg	Sg	12 41 55.4	-0.1
	881nm,0.2s						
RSP	Reno Superiore	0.78	173	Pg	Pg	12 41 45.9	+0.5
RSP				Sg	Sg	12 41 55.4	-0.1
	881nm,0.2s						
RSP				S	Sg	12 41 56.3	+0.8
WIMIS	Wimmis	0.82	25	⇓*i*P	Pg	12 41 46.7	+0.3
	4µm,0.6s						
WIMIS	Wimmis	0.82	25	⇓*i*P	Pg	12 41 41.8	-4.6
WIMIS	Wimmis	0.82	25	⇓*i*P	Pg	12 41 46.7	+0.3
	4µm,0.6s						
GIMEL	St. Georges /	0.86	316	⇑*i*P	Pg	12 41 48.5	+1.5
	1µm,0.2s						
GIMEL	St. Georges /	0.86	316	⇑*i*P	Pg	12 41 42.2	-4.8
GIMEL	St. Georges /	0.86	316	⇑*i*P	Pg	12 41 48.5	+1.5
	1µm,0.2s						
TORNY	Torny/Romont	0.86	352	⇑*i*P	Pg	12 41 48.5	+1.3
	13µm,0.2s						
TORNY	Torny/Romont	0.86	352	⇑*i*P	Pg	12 41 42.2	-5.0
TORNY	Torny/Romont	0.86	352	⇑*i*P	Pg	12 41 48.5	+1.3
	13µm,0.2s						
BNI	Bardonecchia	0.92	200	Pg	Pg	12 41 48.7	+0.5
BNI				Sg	Sg	12 42 00.3	+0.2
	263nm,0.7s						
BNI	Bardonecchia	0.92	200	*e*Pg	Pg	12 41 48.3	+0.1
BNI				Pg	Pg	12 41 48.7	+0.5
BNI				*e*Sg	Sg	12 41 58.7	-1.4
BNI				Sg	Sg	12 42 00.3	+0.2
BNI	Bardonecchia	0.92	200	Pg	Pg	12 41 48.7	+0.5
BNI				Sg	Sg	12 42 00.3	+0.2
	263nm,0.7s						
CABF	La Chapelle	1.00	314	*e*P	Pg	12 41 51.8	+2.1
CABF				*e*Sg	Sg	12 42 04.2	+1.5
	652nm,0.2s						
CABF	La Chapelle	1.00	314	*e*Pg	Pg	12 41 50.9	+1.2
CABF				*e*P		12 41 51.8	
CABF				*e*Sg	Sg	12 42 04.2	+1.5
CABF	La Chapelle	1.00	314	*e*Pg	Pg	12 41 50.9	+1.2
	SNR=1.0						
CABF				*e*Sg	Sg	12 42 04.2	+1.5
	326nm,0.2s						
MONC	Moncucco Torin	1.01	146	Pg	Pg	12 41 52.0	+2.0
	813nm,0.4s						
MONC	Moncucco Torin	1.01	146	Pg	Pg	12 41 52.0	+2.0
	813nm,0.4s						
HASLI	Hasliberg/Brie	1.10	40	⇓*i*P	Pg	12 41 51.6	-0.1
	4µm,0.4s						
HASLI	Hasliberg/Brie	1.10	40	⇓*i*P	Pg	12 41 45.9	-5.8
HASLI	Hasliberg/Brie	1.10	40	⇓*i*P	Pg	12 41 51.6	-0.1
	4µm,0.4s						
BRANT	Les Verrieres	1.12	336	⇑*i*P	Pg	12 41 53.0	+1.0
	4µm,0.5s						
BRANT	Les Verrieres	1.12	336	⇑*i*P	Pg	12 41 46.7	-5.3
BRANT	Les Verrieres	1.12	336	⇑*i*P	Pg	12 41 53.0	+1.0
	4µm,0.5s						
VAI	Varese	1.15	92	Pg	Pg	12 41 52.0	-0.6
VAI	Varese	1.15	92	Pg	Pg	12 41 52.0	-0.6
FUSIO	Fusio	1.20	63	⇓*i*P	Pg	12 41 53.2	-0.3
	2µm,0.7s						
FUSIO	Fusio	1.20	63	⇓*i*P	Pg	12 41 48.5	-5.0
FUSIO	Fusio	1.20	63	⇓*i*P	Pg	12 41 53.2	-0.3
	2µm,0.7s						
MBDF	Montbardon	1.22	192	*e*P	Pg	12 41 54.8	+0.9
MBDF				*e*Sg	Sg	12 42 10.0	+0.4
	558nm,0.4s						
MBDF	Montbardon	1.22	192	*e*Pg	Pg	12 41 53.9	0.0
MBDF				*e*P		12 41 54.8	
MBDF				*e*Sg	Sg	12 42 10.0	+0.4
MBDF	Montbardon	1.22	192	*e*Pg	Pg	12 41 53.9	0.0
MBDF	Montbardon	1.22	192	*e*P	Pg	12 41 54.8	+0.9
MBDF				*e*Sg	Sg	12 42 10.0	+0.4
	279nm,0.4s						
BNALP	Bannalp	1.31	43	⇓*i*P	Pn	12 41 55.3	-0.7
	3µm,0.5s						
BNALP	Bannalp	1.31	43	⇓*i*P	Pn	12 41 51.6	-4.4
BNALP	Bannalp	1.31	43	⇓*i*P	Pn	12 41 55.3	-0.7
	3µm,0.5s						
ORIF	Oris-en-Rattie	1.33	222	*e*Pg	Pg	12 41 57.0	+1.0
ORIF				*e*Sg	Sg	12 42 14.0	+0.8
	377nm,0.3s						
ORIF	Oris-en-Rattie	1.33	222	*e*P	Pn	12 41 56.3	+0.1
ORIF				*e*Pg	Pg	12 41 57.0	+1.0
ORIF				*e*Sg	Sg	12 42 14.0	+0.8
ORIF	Oris-en-Rattie	1.33	222	*e*Pg	Pg	12 41 57.0	+1.0
ORIF				*e*Sg	Sg	12 42 14.0	+0.8
	189nm,0.3s						
MUGIO	Muggio	1.34	89	Pg	Pg	12 41 55.7	-0.5
MUGIO	Muggio	1.34	89	⇓*i*P	Pn	12 41 55.6	-0.7
	1µm,0.4s						
MUGIO	Muggio	1.34	89	⇓*i*P	Pn	12 41 51.9	-4.4
MUGIO	Muggio	1.34	89	Pg	Pg	12 41 55.7	-0.5
ROTM	Rocchetta Tana	1.38	141	P	Pn	12 41 56.7	-0.1
PZZ	Stroppo	1.41	180	Pg	Pg	12 41 57.6	0.0
PZZ				Sg	Sg	12 42 16.0	+0.1
	705nm,0.6s						
PZZ	Stroppo	1.41	180	Pg	Pg	12 41 57.6	0.0
PZZ				Sg	Sg	12 42 16.0	+0.1
	705nm,0.6s						
DOI	San Damiano	1.42	176	Pg	Pg	12 41 56.8	-0.9
DOI				Sg	Sg	12 42 15.7	-0.3
	407nm,0.3s						
DOI	San Damiano	1.42	176	Pg	Pg	12 41 56.8	-0.9
DOI				Sg	Sg	12 42 15.7	-0.3
	407nm,0.3s						
LOMF	Lomont	1.45	352	Pg	Pg	12 42 00.1	+1.8
LOMF				Sg	Sg	12 42 19.9	+2.8
LOMF	Lomont	1.45	352	Pn	Pn	12 41 58.6	+0.7
LOMF				Pg	Pg	12 42 00.1	+1.8
LOMF				Sg	Sg	12 42 19.9	+2.8
LOMF	Lomont	1.45	352	Pn	Pn	12 41 58.6	+0.7
LOMF	Lomont	1.45	352	Pg	Pg	12 42 00.1	+1.8
LOMF				Sg	Sg	12 42 19.9	+2.8
BALST	Balsthal	1.47	15	⇑*i*P	Pn	12 41 58.7	+0.5
	4µm,0.6s						
BALST	Balsthal	1.47	15	⇑*i*P	Pn	12 41 54.9	-3.3
BALST	Balsthal	1.47	15	⇑*i*P	Pn	12 41 58.7	+0.5
	4µm,0.6s						
BOURR	Bourrignon	1.48	3	⇑*i*P	Pn	12 41 59.1	+0.8
	4µm,0.7s						
BOURR	Bourrignon	1.48	3	⇑*i*P	Pn	12 41 55.3	-3.0
BOURR	Bourrignon	1.48	3	⇑*i*P	Pn	12 41 59.1	+0.8
	4µm,0.7s						
MUO	Muotathal	1.48	44	⇓*i*P	Pn	12 41 58.6	+0.3
	8µm,0.9s						
MUO	Muotathal	1.48	44	⇓*i*P	Pn	12 41 53.2	-5.1
MUO	Muotathal	1.48	44	⇓*i*P	Pn	12 41 58.6	+0.3
	8µm,0.9s						
BBS	Basel-Blauen	1.57	10	Pn	Pn	12 41 59.8	+0.3
BBS				Pg	Pg	12 42 01.8	+1.1
BBS				Sg	Sg	12 42 23.0	+2.0
BBS	Basel-Blauen	1.57	10	Pn	Pn	12 41 59.8	+0.3
BBS	Basel-Blauen	1.57	10	Pg	Pg	12 42 01.8	+1.1
BBS				Sg	Sg	12 42 23.0	+2.0
LLS	Linth-Limmern	1.60	54	⇑*i*P	Pn	12 42 00.7	+0.7
	816nm,0.4s						
LLS	Linth-Limmern	1.60	54	⇑*i*P	Pn	12 41 55.6	-4.4
LLS	Linth-Limmern	1.60	54	⇑*i*P	Pn	12 42 00.7	+0.7
	816nm,0.4s						
TUE	Stuetta	1.64	69	Pg	Pg	12 42 00.9	-1.1
	381nm,0.4s						
TUE	Stuetta	1.64	69	*e*Pn	Pn	12 42 00.5	0.0
TUE				Pg	Pg	12 42 00.9	-1.1
TUE				*e*Sn	Sn	12 42 22.9	+0.7
TUE	Stuetta	1.64	69	*e*Pn	Pn	12 42 00.5	0.0
TUE	Stuetta	1.64	69	Pg	Pg	12 42 00.9	-1.1
	381nm,0.4s						
STV	Sant Anna di V	1.68	175	Pg	Pg	12 42 01.5	-1.2
	146nm,0.7s						
STV	Sant Anna di V	1.68	175	Pg	Pg	12 42 01.5	-1.2
	146nm,0.7s						
STV	Sant Anna di V	1.68	175	P	Pn	12 42 02.1	+1.1
STV				S	Sn	12 42 22.5	-0.6
PCP	Piancastagn	1.70	143	Pg	Pg	12 42 02.5	-0.7
PCP				Sg	Sg	12 42 24.7	-0.6
	89nm,0.6s						
PCP	Piancastagn	1.70	143	P	Pn	12 42 00.8	-0.6
PCP	Piancastagn	1.70	143	Pg	Pg	12 42 02.5	-0.7
PCP				S	Sn	12 42 21.4	-2.3
PCP				Sg	Sg	12 42 24.7	-0.6
	89nm,0.6s						
VDL	Val di Lei	1.71	70	⇑*i*P	Pn	12 42 01.9	+0.4
	2µm,0.6s						
VDL	Val di Lei	1.71	70	⇑*i*P	Pn	12 41 56.0	-5.5
SULZ	Cheisacher	1.75	23	⇑*i*P	Pn	12 42 02.2	+0.2
	4µm,0.6s						
SULZ	Cheisacher	1.75	23	⇑*i*P	Pn	12 41 56.7	-5.3
SULZ	Cheisacher	1.75	23	⇑*i*P	Pn	12 42 02.2	+0.2
	4µm,0.6s						
QLNO	Quiliano	1.81	151	Pg	Pg	12 42 03.9	-1.4
	90nm,0.5s						
QLNO	Quiliano	1.81	151	Pg	Pg	12 42 03.9	-1.4
	90nm,0.5s						
MDI	Monti di Nese	1.81	94	Pg	Pg	12 42 03.8	-1.5
MDI				Sg	Sg	12 42 27.8	-1.0
	339nm,0.5s						
MDI	Monti di Nese	1.81	94	Pg	Pg	12 42 03.8	-1.5
MDI				Sg	Sg	12 42 27.8	-1.0
	339nm,0.5s						
OCF	Saint Nazaire	1.86	225	Pg	Pg	12 42 08.0	+1.8
OCF				Sg	Sg	12 42 35.1	+4.9
OCF	Saint Nazaire	1.86	225	Pg	Pg	12 42 08.0	+1.8
OCF				Sg	Sg	12 42 35.1	+4.9
OG26	St.-Nazaire-De	1.86	225	Pg	Pg	12 42 08.0	+1.8
OG26				Sg	Sg	12 42 35.1	+4.9
OG26	St.-Nazaire-De	1.86	225	Pg	Pg	12 42 08.0	+1.8
OG26				Sg	Sg	12 42 35.1	+4.9
TOUF	Mont Tournerai	1.91	177	Pn	Pn	12 42 06.2	+2.1
TOUF	Mont Tournerai	1.91	177	Pn	Pn	12 42 06.2	+2.1
HINF	Hinteralfeld	1.91	355	*e*P	Pn	12 42 04.3	+0.1
HINF				*e*Sg	Sg	12 42 31.6	-0.3
	566nm,0.2s						
HINF	Hinteralfeld	1.91	355	*e*P	Pn	12 42 04.3	+0.1
HINF				*e*Sg	Sg	12 42 31.6	-0.3
	283nm,0.2s						
SSB	Saint Sauveur	1.92	252	Pn	Pn	12 42 05.1	+0.7
SSB	Saint Sauveur	1.92	252	Pg	Pg	12 42 07.9	+0.5
SSB				Sg	Sg	12 42 33.1	+0.8
SSB	Saint Sauveur	1.92	252	*e*Pn	Pn	12 42 05.2	+0.8
SSB				*e*Sg	Sg	12 42 32.5	+0.2
SSB	Saint Sauveur	1.92	252	*e*Pn	Pn	12 42 05.2	+0.8
SSB	Saint Sauveur	1.92	252	Pg	Pg	12 42 07.9	+0.5
SSB				Sg	Sg	12 42 33.1	+0.8
RORO	Rocca Rossa	1.93	159	P	Pn	12 42 04.3	-0.1
RORO				S	Sn	12 42 26.4	-2.8
AUTN	L'Aution	1.93	173	Pn	Pn	12 42 06.6	+2.1
AUTN	L'Aution	1.93	173	Pn	Pn	12 42 06.6	+2.1
MOF	Molkenrain	1.94	0	Pn	Pn	12 42 04.5	-0.1
MOF				Sg	Sg	12 42 33.0	+0.3
MOF	Molkenrain	1.94	0	Pn	Pn	12 42 04.5	-0.1
MOF				Sg	Sg	12 42 33.0	+0.3
SAOF	Saorge	1.96	171	Pn	Pn	12 42 05.5	+0.7
SAOF	Saorge	1.96	171	Pn	Pn	12 42 05.5	+0.7
BOB	Bobbio (Coli)	2.00	124	Pg	Pg	12 42 08.5	-0.4
BOB	Bobbio (Coli)	2.00	124	Pg	Pg	12 42 08.5	-0.4
MVIF	Mont Vial	2.02	179	Pn	Pn	12 42 08.8	+3.1
MVIF	Mont Vial	2.02	179	Pn	Pn	12 42 08.8	+3.1
VIVF	Saint-Julien-l	2.03	239	*e*Pg	Pg	12 42 09.4	0.0
VIVF				*e*Sg	Sg	12 42 35.8	+0.1
	477nm,0.2s						
VIVF	Saint-Julien-l	2.03	239	*e*P	Pn	12 42 06.8	+1.0
VIVF				*e*Pg	Pg	12 42 09.4	0.0
VIVF				*e*Sg	Sg	12 42 35.8	+0.1
VIVF	Saint-Julien-l	2.03	239	*e*P	Pn	12 42 06.8	+1.0
VIVF	Saint-Julien-l	2.03	239	*e*Pg	Pg	12 42 09.4	0.0
VIVF				*e*Sg	Sg	12 42 35.8	+0.1
	238nm,0.2s						
LUCF	Luceram	2.03	175	Pn	Pn	12 42 07.1	+1.2
LUCF	Luceram	2.03	175	Pn	Pn	12 42 07.1	+1.2
FELD	Feldberg im Sc	2.05	17	Pn	Pn	12 42 05.7	-0.4
FELD				Pg	Pg	12 42 10.3	+0.4
FELD	Feldberg im Sc	2.05	17	Pn	Pn	12 42 05.7	-0.4
FELD	Feldberg im Sc	2.05	17	Pg	Pg	12 42 10.3	+0.4
SBF	Sospel	2.07	174	*e*Pg	Pg	12 42 09.4	-0.8
SBF				*e*Sg	Sg	12 42 36.4	-0.5
	540nm,0.4s,SNR=1.0						
SBF	Sospel	2.07	174	*e*P	Pn	12 42 07.5	+1.2
SBF				*e*Pg	Pg	12 42 09.4	-0.8
SBF				*e*Sg	Sg	12 42 36.4	-0.5
SBF	Sospel	2.07	174	*e*P	Pn	12 42 07.5	+1.2
SBF	Sospel	2.07	174	*e*Pg	Pg	12 42 09.4	-0.8
SBF				*e*Sg	Sg	12 42 36.4	-0.5
	270nm,0.4s,SNR=1.0						
RONM	Roccetta Nervi	2.07	170	P	Pn	12 42 06.2	-0.2
RONM				S	Sn	12 42 29.0	-3.7
SLE	Schleitheim	2.07	26	⇑*i*Pn	Pn	12 42 06.3	-0.1
	4µm,0.5s						
SLE	Schleitheim	2.07	26	⇑*i*Pn	Pn	12 42 06.3	-0.1
	4µm,0.5s						
BERNI	Berninapass	2.07	75	Pg	Pg	12 42 09.1	-1.2
BERNI				Sg	Sg	12 42 35.1	-2.1
BERNI	Berninapass	2.07	75	Pg	Pg	12 42 09.1	-1.2
BERNI				Sg	Sg	12 42 35.1	-2.1
IMI	Imperia	2.08	164	Pg	Pg	12 42 07.8	-2.6
	235nm,0.5s						
IMI	Imperia	2.08	164	P	Pn	12 42 07.0	+0.5
IMI				S	Sn	12 42 29.6	-3.4
DAVOX	Davos/Dischmat	2.10	65	Pg	Pg	12 42 09.6	-1.1
DAVOX	Davos/Dischmat	2.10	65	Pn	Pn	12 42 09.7	+3.0
	24nm,0.3s,baz=259,slow=5.8,SNR=152						
DAVOX				Lg		12 42 39.7	
	21nm,0.3s,baz=132,slow=22,SNR=4.3						
DAVOX	Davos/Dischmat	2.10	65	Pg	Pg	12 42 09.6	-1.1
DAVOX				Lg		12 42 39.7	
NEGI	Seborga	2.11	169	P	Pn	12 42 07.0	+0.1
NEGI				S	Sn	12 42 30.6	-3.2
LIENZ	Kamor/St.Gall	2.14	49	*e*Pn	Pn	12 42 09.0	+1.7
	2µm,1.3s						
LIENZ	Kamor/St.Gall	2.14	49	*e*Pn	Pn	12 42 09.0	+1.7
	2µm,1.3s						
HAU	Haudompre	2.16	346	*e*Pg	Pg	12 42 11.8	-0.1
	SNR=1.0						
HAU				*e*Sg	Sg	12 42 39.0	-0.8
	349nm,0.3s,SNR=1.0						
HAU	Haudompre	2.16	346	*e*P	Pn	12 42 08.0	+0.4
HAU				*e*Pg	Pg	12 42 11.8	-0.1
HAU				*e*Sg	Sg	12 42 39.0	-0.8
HAU	Haudompre	2.16	346	*e*P	Pn	12 42 08.0	+0.4
	SNR=1.0						
HAU	Haudompre	2.16	346	*e*Pg	Pg	12 42 11.8	-0.1
	SNR=1.0						
HAU				*e*Sg	Sg	12 42 39.0	-0.8
	175nm,0.3s,SNR=1.0						
CALN	Calern	2.17	184	Pn	Pn	12 42 10.5	+2.7
CALN	Calern	2.17	184	Pn	Pn	12 42 10.5	+2.7
REVF	Revere	2.18	175	Pn	Pn	12 42 11.2	+3.2
REVF	Revere	2.18	175	Pn	Pn	12 42 11.2	+3.2
SMRF	Simiane la Rot	2.23	210	*e*Pg	Pg	12 42 13.7	+0.4
SMRF				*e*Sn	Sn	12 42 33.5	-3.3
SMRF				*e*Sg	Sg	12 42 41.8	-0.4
	69nm,0.3s						
SMRF	Simiane la Rot	2.23	210	*e*P	Pn	12 42 10.5	+1.9
SMRF				*e*Pg	Pg	12 42 13.7	+0.4
SMRF				*e*Sn	Sn	12 42 33.5	-3.3
SMRF				*e*Sg	Sg	12 42 41.8	-0.4
SMRF	Simiane la Rot	2.23	210	*e*P	Pn	12 42 10.5	+1.9
SMRF	Simiane la Rot	2.23	210	*e*Pg	Pg	12 42 13.7	+0.4
SMRF				*e*Sn	Sn	12 42 33.5	-3.3
SMRF				*e*Sg	Sg	12 42 41.8	-0.4
	35nm,0.3s						
LIBD	Limburg	2.26	8	Pn	Pn	12 42 08.8	-0.2
LIBD				Sg	Sg	12 42 44.8	+1.7
LIBD	Limburg	2.26	8	Pn	Pn	12 42 08.8	-0.2
LIBD				Sg	Sg	12 42 44.8	+1.7
SC2M	Scurtabo	2.28	131	Pg	Pg	12 42 11.7	-2.5
SC2M	Scurtabo	2.28	131	P	Pn	12 42 10.0	+0.7
SC2M	Scurtabo	2.28	131	Pg	Pg	12 42 11.7	-2.5
SC2M				S	Sn	12 42 35.9	-2.0
FUORN	Ofenpass-Fuorn	2.29	71	Pg	Pg	12 42 12.5	-1.9
FUORN	Ofenpass-Fuorn	2.29	71	Pg	Pg	12 42 12.5	-1.9
ECH	Echery	2.30	1	Pn	Pn	12 42 08.8	-0.8
ECH	Echery	2.30	1	*e*Pn	Pn	12 42 08.7	-0.8
ECH				*e*Pg	Pg	12 42 17.4	+2.8
ECH				*e*Sg	Sg	12 42 44.1	-0.4
ECH	Echery	2.30	1	Pn	Pn	12 42 08.8	-0.8
ECH	Echery	2.30	1	*e*Pg	Pg	12 42 17.4	+2.8
BRMO	Bormio	2.33	75	Pg	Pg	12 42 12.6	-2.5
	75nm,0.7s						
BRMO	Bormio	2.33	75	Pg	Pg	12 42 12.6	-2.5
	75nm,0.7s						
DAVA	Damuels	2.34	53	⇑*e*Pn	Pn	12 42 12.2	+2.1
	SNR=64						
DAVA				⇑*i*Sn	Sn	12 42 43.8	+4.3
DAVA	Damuels	2.34	53	Pn	Pn	12 42 12.2	+2.1
	SNR=64						
DAVA				Sn	Sn	12 42 43.8	+4.3
MABI	Malga Bissina	2.37	85	Pg	Pg	12 42 12.6	-3.3
	75nm,0.6s						
FRF	La Foret Royal	2.38	188	*e*Pg	Pg	12 42 16.5	+0.3
FRF				*e*Sg	Sg	12 42 46.3	-0.7
	124nm,0.3s,SNR=1.0						
FRF	La Foret Royal	2.38	188	*e*P	Pn	12 42 11.9	+1.2
FRF				*e*Pg	Pg	12 42 16.5	+0.3
FRF				*e*Sg	Sg	12 42 46.3	-0.7
FRF	La Foret Royal	2.38	188	*e*P	Pn	12 42 11.9	+1.2
FRF	La Foret Royal	2.38	188	*e*Pg	Pg	12 42 16.5	+0.3
FRF				*e*Sg	Sg	12 42 46.3	-0.7
	62nm,0.3s,SNR=1.0						
SMF	Signal de Mont	2.39	289	*e*Pg	Pg	12 42 16.0	-0.4
SMF				*e*Sn	Sn	12 42 36.7	-4.0
SMF				*e*Sg	Sg	12 42 47.0	-0.3
	283nm,0.2s,SNR=1.0						
SMF	Signal de Mont	2.39	289	*e*P	Pn	12 42 11.7	+0.9
SMF				*e*Pg	Pg	12 42 16.0	-0.4
SMF				*e*Sn	Sn	12 42 36.7	-4.0
SMF				*e*Sg	Sg	12 42 47.0	-0.3
SMF	Signal de Mont	2.39	289	*e*P	Pn	12 42 11.7	+0.9
SMF	Signal de Mont	2.39	289	*e*Pg	Pg	12 42 16.0	-0.4
SMF				*e*Sg	Sg	12 42 47.0	-0.3
	141nm,0.2s,SNR=1.0						
COLF	Collangettes	2.44	262	Pn	Pn	12 42 13.1	+1.7
COLF				Pg	Pg	12 42 18.3	+1.1
COLF	Collangettes	2.44	262	Pn	Pn	12 42 13.1	+1.7
THEF	They Montfort	2.44	342	Pn	Pn	12 42 12.1	+0.6
THEF	They Montfort	2.44	342	Pn	Pn	12 42 12.1	+0.6
MAGA	Magasa	2.45	92	Pg	Pg	12 42 12.7	-4.9
	446nm,0.5s						
SPAK	Spaichingen-Ko	2.46	27	Pn	Pn	12 42 11.4	-0.4
SPAK				Pg	Pg	12 42 18.0	+0.2
SPAK				Sg	Sg	12 42 51.7	+2.0
SPAK	Spaichingen-Ko	2.46	27	Pn	Pn	12 42 11.4	-0.4
SPAK	Spaichingen-Ko	2.46	27	Pg	Pg	12 42 18.0	+0.2
SPAK				Sg	Sg	12 42 51.7	+2.0
CDF	Champ du Feu	2.50	2	*e*Pg	Pg	12 42 18.1	-0.4
CDF				*e*Sn	Sn	12 42 39.3	-4.1
CDF				*e*Sg	Sg	12 42 49.9	-0.9
	172nm,0.4s,SNR=1.0						
CDF	Champ du Feu	2.50	2	*e*P	Pn	12 42 12.1	-0.2
CDF				*e*Pg	Pg	12 42 18.1	-0.4
CDF				*e*Sn	Sn	12 42 39.3	-4.1
CDF				*e*Sg	Sg	12 42 49.9	-0.9
CDF	Champ du Feu	2.50	2	*e*P	Pn	12 42 12.1	-0.2
CDF	Champ du Feu	2.50	2	*e*Pg	Pg	12 42 18.1	-0.4
CDF				*e*Sn	Sn	12 42 39.3	-4.1
CDF				*e*Sg	Sg	12 42 49.9	-0.9
	86nm,0.4s,SNR=1.0						
GRAM	Graiana	2.52	123	P	Pn	12 42 12.8	+0.2
GRAM				S	Sn	12 42 40.8	-3.1
BFO	Black Forest	2.55	18	*e*Pn	Pn	12 42 12.2	-0.8
BFO				*e*Sg	Sg	12 42 51.2	-1.3
BFO	Black Forest	2.55	18	*e*Pn	Pn	12 42 12.2	-0.8
BFO				*e*Sg	Sg	12 42 51.2	-1.3

LMR	**La Mourre**	2.62	190	*e*Pg	Pg	12 42 19.8	-1.0
LMR				*e*Sn	Sn	12 42 41.2	-5.2
LMR				*e*Sg	Sg	12 42 53.5	-1.2
	87nm,0.4s,SNR=1.0						
LMR	**La Mourre**	2.62	190	*e*P	Pn	12 42 15.2	+1.2
LMR				*e*Pg	Pg	12 42 19.8	-1.0
LMR				*e*Sn	Sn	12 42 41.2	-5.2
LMR				*e*Sg	Sg	12 42 53.5	-1.2
LMR	**La Mourre**	2.62	190	*e*P	Pn	12 42 15.2	+1.2
LMR	**La Mourre**	2.62	190	*e*Pg	Pg	12 42 19.8	-1.0
LMR				*e*Sg	Sg	12 42 53.5	-1.2
	43nm,0.4s,SNR=1.0						
LOR	**Lormes**	2.63	302	*e*P	Pn	12 42 15.0	+1.0
	baz=122,SNR=1.0						
LOR	**Lormes**	2.63	302	*e*Pg	Pg	12 42 20.6	-0.3
	baz=121,SNR=1.0						
LOR				*e*Sn	Sn	12 42 42.8	-3.7
LOR				*e*Sg	Sg	12 42 54.5	-0.4
	153nm,0.3s,baz=122,SNR=1.0						
LOR	**Lormes**	2.63	302	*e*P	Pn	12 42 15.0	+1.0
LOR				*e*Pg	Pg	12 42 20.6	-0.3
LOR				*e*Sn	Sn	12 42 42.8	-3.7
LOR				*e*Sg	Sg	12 42 54.5	-0.4
LOR	**Lormes**	2.63	302	*e*P	Pn	12 42 15.0	+1.0
	baz=122,SNR=1.0						
LOR	**Lormes**	2.63	302	*e*Pg	Pg	12 42 20.6	-0.3
	baz=121,SNR=1.0						
LOR				*e*Sn	Sn	12 42 42.8	-3.7
LOR				*e*Sg	Sg	12 42 54.5	-0.4
	76nm,0.3s,baz=122,SNR=1.0						
SFTF	**Sexfontaines**	2.70	329	*e*P	Pn	12 42 16.0	+1.0
	baz=144						
SFTF	**Sexfontaines**	2.70	329	*e*Pg	Pg	12 42 21.3	-0.9
	baz=151						
SFTF				*e*Sg	Sg	12 42 56.2	-1.0
	351nm,0.4s,baz=144						
SFTF	**Sexfontaines**	2.70	329	*e*P	Pn	12 42 16.0	+1.0
SFTF				*e*Pg	Pg	12 42 21.3	-0.9
SFTF				*e*Sg	Sg	12 42 56.2	-1.0
SFTF	**Sexfontaines**	2.70	329	*e*P	Pn	12 42 16.0	+1.0
	baz=144						
SFTF	**Sexfontaines**	2.70	329	*e*Pg	Pg	12 42 21.3	-0.9
	baz=151						
SFTF				*e*Sg	Sg	12 42 56.2	-1.0
	176nm,0.4s,baz=144						
FETA	**Feichten**	2.73	65	⇑*e*Pn	Pn	12 42 18.6	+3.2
	SNR=45						
FETA				⇓*i*Sn	Sn	12 42 52.7	+3.7
FETA	**Feichten**	2.73	65	Pn	Pn	12 42 18.6	+3.2
	SNR=45						
FETA				Sn	Sn	12 42 52.7	+3.8
SSF	**Saint Saulge**	2.75	296	*e*Pg	Pg	12 42 22.7	-0.6
SSF				*e*Sn	Sn	12 42 45.6	-3.9
SSF				*e*Sg	Sg	12 42 58.8	-0.1
	83nm,0.2s,SNR=1.0						
SSF	**Saint Saulge**	2.75	296	*e*P	Pn	12 42 16.7	+1.0
SSF				*e*Pg	Pg	12 42 22.7	-0.6
SSF				*e*Sn	Sn	12 42 45.6	-3.9
SSF				*e*Sg	Sg	12 42 58.8	-0.1
SSF	**Saint Saulge**	2.75	296	*e*P	Pn	12 42 16.7	+1.0
SSF	**Saint Saulge**	2.75	296	*e*Pg	Pg	12 42 22.7	-0.6
SSF				*e*Sg	Sg	12 42 58.8	-0.1
	42nm,0.2s,SNR=1.0						
AVF	**Avril sur Loir**	2.75	290	*e*Pg	Pg	12 42 23.1	-0.2
	SNR=1.0						
AVF				*e*Sn	Sn	12 42 46.0	-3.7
AVF				*e*Sg	Sg	12 42 57.6	-1.4
	114nm,0.3s						
AVF	**Avril sur Loir**	2.75	290	*e*P	Pn	12 42 16.8	+1.0
AVF				*e*Pg	Pg	12 42 23.1	-0.2
AVF				*e*Sn	Sn	12 42 46.0	-3.7
AVF				*e*Sg	Sg	12 42 57.6	-1.4
AVF	**Avril sur Loir**	2.75	290	*e*P	Pn	12 42 16.8	+1.0
AVF	**Avril sur Loir**	2.75	290	*e*Pg	Pg	12 42 23.1	-0.2
	SNR=1.0						
AVF				*e*Sn	Sn	12 42 46.0	-3.7
AVF				*e*Sg	Sg	12 42 57.6	-1.4
	57nm,0.3s						
AGO	**Saint Agoulin**	2.79	274	Pn	Pn	12 42 17.3	+1.0
AGO	**Saint Agoulin**	2.79	274	Pn	Pn	12 42 17.3	+1.0
LBL	**Lubilhac**	2.81	257	Pn	Pn	12 42 17.6	+1.1
LBL				Pg	Pg	12 42 25.3	+0.9
LBL	**Lubilhac**	2.81	257	Pn	Pn	12 42 17.6	+1.1
PYM	**Petit Puy Mans**	2.88	268	Pn	Pn	12 42 18.2	+0.6
PYM				Pg	Pg	12 42 26.0	+0.2
PYM	**Petit Puy Mans**	2.88	268	Pn	Pn	12 42 18.2	+0.6
RFYF	**Reffroy**	2.94	338	*e*P	Pn	12 42 19.3	+1.0
	baz=151						
RFYF				*e*Sn	Sn	12 42 49.9	-4.3
RFYF				*e*Sg	Sg	12 43 03.7	-1.2
	198nm,0.3s,baz=148						
RFYF	**Reffroy**	2.94	338	*e*P	Pn	12 42 19.3	+1.0
	baz=151						
RFYF				*e*Sg	Sg	12 43 03.7	-1.2
	99nm,0.3s,baz=148						
MEZF	**Maizieres J'vi**	2.95	332	*e*P	Pn	12 42 19.6	+1.2
	baz=149,SNR=1.0						
MEZF	**Maizieres J'vi**	2.95	332	*e*Pg	Pg	12 42 26.7	-0.3
	baz=152,SNR=1.0						
MEZF				*e*Sn	Sn	12 42 50.3	-4.1
MEZF				*e*Sg	Sg	12 43 04.1	-1.1
	191nm,0.5s,SNR=1.0						
MEZF	**Maizieres J'vi**	2.95	332	*e*P	Pn	12 42 19.6	+1.2
MEZF				*e*Pg	Pg	12 42 26.7	-0.3
MEZF				*e*Sn	Sn	12 42 50.3	-4.1
MEZF				*e*Sg	Sg	12 43 04.1	-1.1
MEZF	**Maizieres J'vi**	2.95	332	*e*P	Pn	12 42 19.6	+1.2
	baz=149,SNR=1.0						
MEZF	**Maizieres J'vi**	2.95	332	*e*Pg	Pg	12 42 26.7	-0.3
	baz=152,SNR=1.0						
MEZF				*e*Sg	Sg	12 43 04.1	-1.1
	96nm,0.5s,SNR=1.0						
LASF	**Ste Croix**	2.96	233	*e*Pg	Pg	12 42 26.6	-0.7
LASF				*e*Sn	Sn	12 42 50.2	-4.5
	SNR=1.0						
LASF				*e*Sg	Sg	12 43 03.6	-2.0
	81nm,0.3s						
LASF	**Ste Croix**	2.96	233	*e*P	Pn	12 42 19.7	+1.1
LASF				*e*Pg	Pg	12 42 26.6	-0.7
LASF				*e*Sn	Sn	12 42 50.2	-4.5
LASF				*e*Sg	Sg	12 43 03.6	-2.0
LASF	**Ste Croix**	2.96	233	*e*P	Pn	12 42 19.7	+1.1
LASF	**Ste Croix**	2.96	233	*e*Pg	Pg	12 42 26.6	-0.7
LASF				*e*Sg	Sg	12 43 03.6	-2.0
	40nm,0.3s						
BGF	**Bois d'Agland**	3.04	284	*e*Pg	Pg	12 42 28.2	-0.6
BGF				*e*Sn	Sn	12 42 52.5	-4.1
BGF				*e*Sg	Sg	12 43 07.6	-0.5
	408nm,0.4s						
BGF	**Bois d'Agland**	3.04	284	*e*P	Pn	12 42 20.8	+1.1
BGF				*e*Pg	Pg	12 42 28.2	-0.6
BGF				*e*Sn	Sn	12 42 52.5	-4.1
BGF				*e*Sg	Sg	12 43 07.6	-0.5
BGF	**Bois d'Agland**	3.04	284	*e*P	Pn	12 42 20.8	+1.1
BGF	**Bois d'Agland**	3.04	284	*e*Pg	Pg	12 42 28.2	-0.6
BGF				*e*Sg	Sg	12 43 07.6	-0.5
	204nm,0.4s						
MOTA	**Moosalm**	3.09	61	⇑*i*Pn	Pn	12 42 23.0	+2.6
	SNR=20						
MOTA	**Moosalm**	3.09	61	Pn	Pn	12 42 23.0	+2.6
	SNR=20						
MAIM	**Mastiano**	3.12	129	P	Pn	12 42 20.8	0.0
MAIM				S	Sn	12 42 54.1	-4.6
STU	**Stuttgart**	3.18	25	*e*Pn	Pn	12 42 19.8	-1.9
STU				*e*Pg	Pg	12 42 32.3	+0.7
STU				*e*Sg	Sg	12 43 13.8	+0.9
STU	**Stuttgart**	3.18	25	*e*Pn	Pn	12 42 19.8	-1.9
POPM	**Popiglio**	3.19	125	P	Pn	12 42 21.7	0.0
POPM				S	Sn	12 42 56.4	-3.9
FRNF	**Fournols**	3.24	262	Pn	Pn	12 42 24.0	+1.5
FRNF				Pg	Pg	12 42 32.5	-0.2
FRNF	**Fournols**	3.24	262	Pn	Pn	12 42 24.0	+1.5
SCE	**Schlegeis**	3.36	69	⇓*i*Pn	Pn	12 42 27.7	+3.6
SCE	**Schlegeis**	3.36	69	⇓*i*Pn	Pn	12 42 27.7	+3.6
HYF	**Humbligny**	3.38	295	*e*P	Pn	12 42 25.9	+1.6
HYF				*e*Sn	Sn	12 43 00.7	-4.3
HYF				*e*Sg	Sg	12 43 17.6	-1.3
HYF	**Humbligny**	3.38	295	*e*P	Pn	12 42 25.9	+1.6
HYF				*e*Sg	Sg	12 43 17.6	-1.3
WATA	**Walderalm**	3.38	64	⇓*i*Pn	Pn	12 42 26.9	+2.5
	SNR=18						
WATA				⇓*i*Sn	Sn	12 43 08.2	+3.1
WATA	**Walderalm**	3.38	64	Pn	Pn	12 42 26.9	+2.5
	SNR=18						
WATA				Sn	Sn	12 43 08.2	+3.1
WTTA	**Wattenberg**	3.39	65	⇑*i*Pn	Pn	12 42 27.6	+3.1
	SNR=27						
WTTA	**Wattenberg**	3.39	65	Pn	Pn	12 42 27.6	+3.1
	SNR=27						
TCF	**Toulx Ste Croi**	3.44	278	*e*P	Pn	12 42 26.7	+1.5
TCF				*e*Sn	Sn	12 43 02.9	-3.6
	SNR=1.0						
TCF				*e*Sg	Sg	12 43 19.5	-1.5
	248nm,0.5s,SNR=1.0						
TCF	**Toulx Ste Croi**	3.44	278	*e*Pn	Pn	12 42 23.6	-1.6
TCF				*e*P		12 42 26.7	
TCF				*e*Sn	Sn	12 43 02.9	-3.6
TCF				*e*Sg	Sg	12 43 19.5	-1.5
TCF	**Toulx Ste Croi**	3.44	278	*e*P	Pn	12 42 26.7	+1.5
TCF				*e*Sn	Sn	12 43 02.9	-3.6
	SNR=1.0						
TCF				*e*Sg	Sg	12 43 19.5	-1.5
	124nm,0.5s,SNR=1.0						
FUR	**Furstenfeldbru**	3.62	50	*e*Pn	Pn	12 42 28.6	+0.9
FUR				*e*Sg	Sg	12 43 30.0	+3.1
FUR	**Furstenfeldbru**	3.62	50	*e*Pn	Pn	12 42 28.6	+0.9
FUR				*e*Sg	Sg	12 43 30.0	+3.1
PGF	**Pioggiola**	3.63	158	*e*P	Pn	12 42 28.2	+0.4
PGF				*e*Sn	Sn	12 43 06.5	-4.7
	17nm,0.4s,SNR=1.0						
PGF	**Pioggiola**	3.63	158	*e*P	Pn	12 42 28.2	+0.4
PGF				*e*Sn	Sn	12 43 06.5	-4.7
	8.5nm,0.4s,SNR=1.0						
CAF	**Calviac**	3.70	256	*e*P	Pn	12 42 30.0	+1.2
CAF				*e*Sg	Sg	12 43 28.7	-0.6
	110nm,0.4s						
CAF	**Calviac**	3.70	256	*e*Pn	Pn	12 42 27.0	-1.8
CAF				*e*P		12 42 30.0	
CAF				*e*Sg	Sg	12 43 28.7	-0.6
CAF	**Calviac**	3.70	256	*e*Pn	Pn	12 42 27.0	-1.8
	SNR=1.0						
CAF	**Calviac**	3.70	256	*e*P	Pn	12 42 30.0	+1.2
CAF				*e*Sg	Sg	12 43 28.7	-0.6
	55nm,0.4s						
RUP	**Ruppelstein**	3.79	359	Pn	Pn	12 42 30.7	+0.7
RUP	**Ruppelstein**	3.79	359	Pn	Pn	12 42 30.7	+0.7
WLF	**Walferdange**	3.81	350	*e*Pn	Pn	12 42 31.6	+1.3
WLF	**Walferdange**	3.81	350	*e*Pn	Pn	12 42 31.3	+1.1
WLF	**Walferdange**	3.81	350	PN	Pn	12 42 31.6	+1.3
WLF				SN	Sn	12 43 16.3	+0.7
	comp=N,40nm,0.7s						
WLF	**Walferdange**	3.81	350	*e*Pn	Pn	12 42 31.3	+1.0
WLF				Sn	Sn	12 43 16.3	+0.7
	comp=N,40nm,0.7s						
ABTA	**Abfaltersbach**	3.82	76	⇓*i*Pn	Pn	12 42 34.0	+3.5
	SNR=11						
ABTA				⇑*i*Sn	Sn	12 43 20.1	+4.1
ABTA	**Abfaltersbach**	3.82	76	Pn	Pn	12 42 34.0	+3.5
	SNR=11						
ABTA				Sn	Sn	12 43 20.1	+4.1
TOD	**Tromm**	3.86	16	Pn	Pn	12 42 29.6	-1.4
TOD	**Tromm**	3.86	16	Pn	Pn	12 42 29.6	-1.4
RJF	**Les Rejaudoux**	3.98	263	*e*Pg	Pg	12 42 45.3	-1.6
	SNR=1.0						
RJF				*e*Sg	Sg	12 43 35.6	-2.9
	comp=N,125nm,0.3s						
RJF	**Les Rejaudoux**	3.98	263	*e*Pn	Pn	12 42 30.7	-2.0
RJF				*e*P		12 42 34.3	
RJF				*e*Pg	Pg	12 42 45.3	-1.6
RJF				*e*Sg	Sg	12 43 35.6	-2.9
RJF	**Les Rejaudoux**	3.98	263	*e*Pg	Pg	12 42 45.3	-1.6
	SNR=1.0						
RJF				*e*Sg	Sg	12 43 35.6	-2.9
	comp=N,63nm,0.3s						
MTLF	**Montolieu**	4.35	235	*e*Pg	Pg	12 42 52.4	-1.5
	SNR=1.0						
MTLF				*e*Sn	Sn	12 43 23.9	-5.1
	SNR=1.0						
MTLF				*e*Sg	Sg	12 43 47.6	-2.6
	comp=N,38nm,0.4s						
MTLF	**Montolieu**	4.35	235	*e*P	Pn	12 42 38.8	+1.1
MTLF				*e*Pg	Pg	12 42 52.4	-1.5
MTLF				*e*Sn	Sn	12 43 23.9	-5.1
MTLF				*e*Sg	Sg	12 43 47.6	-2.6
MTLF	**Montolieu**	4.35	235	*e*P	Pn	12 42 38.8	+1.1
MTLF	**Montolieu**	4.35	235	*e*Pg	Pg	12 42 52.4	-1.5
	SNR=1.0						
MTLF				*e*Sg	Sg	12 43 47.6	-2.6
	comp=N,19nm,0.4s						
TNS	**Taunus Mts**	4.40	11	*e*Pn	Pn	12 42 38.1	-0.3
TNS				*e*Sg	Sg	12 43 52.3	+0.5
KBA	**Koelnbreinsper**	4.45	73	⇑*i*Pn	Pn	12 42 42.5	+3.3
	SNR=15						
KBA	**Koelnbreinsper**	4.45	73	Pn	Pn	12 42 42.5	+3.4
	SNR=15						
GIVF	**Givet**	4.46	341	*e*P	Pn	12 42 40.6	+1.3
GIVF				*e*Sn	Sn	12 43 26.5	-5.3
GIVF				*e*Sg	Sg	12 43 52.0	-1.9
	comp=N,29nm,0.3s						
DOU	**Dourbes**	4.51	339	PN	Pn	12 42 41.5	+1.5
DOU				SN	Sn	12 43 30.4	-2.7
	comp=E,18nm,0.6s						
BAIF	**Baives**	4.58	336	*e*P	Pn	12 42 42.2	+1.3
BAIF				*e*Sn	Sn	12 43 28.8	-6.0
BAIF				*e*Sg	Sg	12 43 55.9	-1.8
	comp=E,27nm,0.5s						
LFF	**La Frestale**	4.60	260	*e*Pg	Pg	12 42 56.6	-2.1
	SNR=1.0						
LFF				*e*Sn	Sn	12 43 29.9	-5.3
	SNR=1.0						
LFF				*e*Sg	Sg	12 43 55.3	-3.0
	comp=E,191nm,0.6s,SNR=1.0						
LFF	**La Frestale**	4.60	260	*e*Pn	Pn	12 42 39.0	-2.2
LFF				*e*P		12 42 43.1	
LFF				*e*Pg	Pg	12 42 56.6	-2.1
LFF				*e*Sn	Sn	12 43 29.9	-5.3
LFF				*e*Sg	Sg	12 43 55.3	-3.0
LFF	**La Frestale**	4.60	260	*e*Pg	Pg	12 42 56.6	-2.1
	SNR=1.0						
LFF				*e*Sg	Sg	12 43 55.3	-3.0
	comp=E,95nm,0.6s,SNR=1.0						
EJON	**La Jonquera**	4.62	223	Pn	Pn	12 42 41.2	-0.1
EJON				Sn	Sn	12 43 33.9	-1.6
EJON				Lg		12 43 59.2	
EJON	**La Jonquera**	4.62	223	Pn	Pn	12 42 41.2	-0.2
EJON				Sn	Sn	12 43 33.9	-1.7
BCLA	**Clavier**	4.67	346	PN	Pn	12 42 43.5	+1.4
BCLA				SN	Sn	12 43 34.2	-2.6
	comp=N,18nm,0.6s						
BCLA	**Clavier**	4.67	346	Pn	Pn	12 42 43.4	+1.3
BCLA				Sn	Sn	12 43 34.2	-2.6
	comp=N,18nm,0.6s						
GRF	**Grafenberg Arr**	4.68	35	*e*Sg	Sg	12 43 59.9	-0.9
MEM	**Membach**	4.75	351	PN	Pn	12 42 44.3	+1.0
MEM				SN	Sn	12 43 36.4	-2.6
	comp=N,23nm,0.6s						
MEM	**Membach**	4.75	351	Pn	Pn	12 42 44.3	+1.0
MEM				Sn	Sn	12 43 36.3	-2.7
	comp=N,23nm,0.6s						
HGN	**Heimansgroeve**	4.92	351	*e*P	Pn	12 42 46.2	+0.7
	comp=N,10nm,0.2s						
HGN	**Heimansgroeve**	4.92	351	*e*P	Pn	12 42 46.2	+0.7
	comp=N,10nm,0.2s						
HGN				*e*S	Sn	12 43 39.3	-3.6
SNF	**Seneffe**	4.97	339	PN	Pn	12 42 47.8	+1.5
SNF	**Seneffe**	4.97	339	Pn	Pn	12 42 47.7	+1.4
WET	**Wettzell**	5.06	48	*e*Pn	Pn	12 42 47.8	+0.3
WET				*e*Sn	Sn	12 43 44.1	-2.4
WET				*e*Sg	Sg	12 44 13.3	+0.3
WET	**Wettzell**	5.06	48	*e*Pn	Pn	12 42 47.8	+0.3
WET				*e*Sn	Sn	12 43 44.1	-2.4
MFF	**Saint Martin d**	5.09	280	*e*Pg	Pg	12 43 05.2	-2.9
MFF				*e*Sn	Sn	12 43 41.9	-5.3
MFF				*e*Sg	Sg	12 44 10.6	-3.4
	comp=N,103nm,0.6s,SNR=1.0						
MFF	**Saint Martin d**	5.09	280	*e*P	Pn	12 42 49.3	+1.4
MFF				*e*Pg	Pg	12 43 05.2	-2.9
MFF				*e*Sn	Sn	12 43 41.9	-5.3
MFF				*e*Sg	Sg	12 44 10.6	-3.4
MFF	**Saint Martin d**	5.09	280	*e*P	Pn	12 42 49.3	+1.4
ROTZ	**Rotzenmuhle**	5.15	40	*e*Sn	Sn	12 43 46.6	-2.2
ROTZ				*e*Sg	Sg	12 44 15.7	-0.3
OBKA	**Obir**	5.19	81	⇑*i*Pn	Pn	12 42 51.5	+2.3
	SNR=8.5						
OBKA	**Obir**	5.19	81	Pn	Pn	12 42 51.5	+2.3
	SNR=8.5						
UCC	**Uccle**	5.22	340	PN	Pn	12 42 51.4	+1.7
UCC	**Uccle**	5.22	340	Pn	Pn	12 42 51.4	+1.7
MOA	**Molln**	5.26	66	⇓*i*Pn	Pn	12 42 51.7	+1.4
	SNR=8.4						
MOA	**Molln**	5.26	66	Pn	Pn	12 42 51.7	+1.4
	SNR=8.4						
UBBA	**Unterbreizbach**	5.27	20	*e*Sg	Sg	12 44 20.6	+1.0
MANZ	**Manzenberg**	5.27	38	*e*Sn	Sn	12 43 49.9	-1.8
GEC2	**GERESS Array S**	5.34	54	*e*Pn	Pn	12 42 52.5	+1.2
GEC2				*e*Sn	Sn	12 43 51.1	-2.3
GEC2	**GERESS Array S**	5.34	54	*e*Pn	Pn	12 42 52.5	+1.2
GEC2				*e*Sn	Sn	12 43 51.1	-2.3
GERES	**GERESS Array B**	5.34	54	Pn	Pn	12 42 52.0	+0.6
	comp=N,1.1nm,0.3s,baz=240,slow=14,SNR=63						
GERES				Pg	Pg	12 43 12.9	0.0
	comp=N,3.2nm,0.3s,baz=244,slow=16,SNR=15						
GERES				Sn	Sn	12 43 51.0	-2.4
	comp=N,5.0nm,0.3s,baz=15,slow=32,SNR=8.3						
GERES				Lg		12 44 24.5	
	comp=N,4.2nm,0.3s,baz=250,slow=27,SNR=5.5						
GERES	**GERESS Array B**	5.34	54	Pn	Pn	12 42 52.0	+0.7
GERES	**GERESS Array B**	5.34	54	Pg	Pg	12 43 12.9	0.0
KHC	**Kasperske Hory**	5.43	51	*e*PN	Pn	12 42 53.3	+0.8
KHC				*e*PG	Pg	12 43 13.3	-1.2
KHC				*e*SN	Sn	12 43 52.1	-3.4
KHC				*e*SG	Sg	12 44 24.5	-0.3
	comp=Z,33nm,0.5s						
KHC	**Kasperske Hory**	5.43	51	*e*Pn	Pn	12 42 53.3	+0.8
	comp=Z,33nm,0.5s						
KHC				*e*Pg	Pg	12 43 13.3	-1.2
KHC				*e*Sn	Sn	12 43 52.1	-3.4
KHC				*e*Sg	Sg	12 44 24.5	-0.3
KHC	**Kasperske Hory**	5.43	51	Pn	Pn	12 42 53.3	+0.8
MOX	**Moxa**	5.60	31	*e*PN	Pn	12 43 00.0	+5.1
MOX				*e*SG	Sg	12 44 29.3	-1.0
MOX	**Moxa**	5.60	31	*e*Sg	Sg	12 44 28.8	-1.5
NKC	**Novy Kostel**	5.60	38	*e*PG	Pg	12 43 16.5	-1.3
NKC				*e*SG	Sg	12 44 29.7	-0.7
	comp=Z,29nm,0.5s						
NKC	**Novy Kostel**	5.60	38	Pg	Pg	12 43 16.5	-1.3
NKC				Sg	Sg	12 44 29.7	-0.7
	comp=Z,29nm,0.5s						
WERN	**Wernitzgruen**	5.61	37	*e*Sg	Sg	12 44 30.0	-0.7
LDF	**La Druitiere**	5.61	301	*e*P	Pn	12 42 55.8	+0.7
LDF				*e*Sn	Sn	12 43 53.9	-6.2
	SNR=1.0						
LDF				*e*Sg	Sg	12 44 28.3	-2.5
	comp=Z,36nm,0.6s						
LDF	**La Druitiere**	5.61	301	*e*P	Pn	12 42 55.8	+0.7
EPF	**Esparros**	5.65	242	*e*Pg	Pg	12 43 15.7	-3.0
EPF				*e*Sn	Sn	12 43 55.1	-5.9
EPF				*e*Sg	Sg	12 44 28.2	-3.7
	comp=Z,24nm,0.4s,SNR=1.0						
EPF	**Esparros**	5.65	242	*e*Pn	Pn	12 42 53.6	-2.0
EPF				*e*P		12 42 57.9	
EPF				*e*Pg	Pg	12 43 15.7	-3.0
EPF				*e*Sn	Sn	12 43 55.1	-5.9
EPF				*e*Sg	Sg	12 44 28.2	-3.7
EMIR	**Miracle**	5.69	227	Pn	Pn	12 42 57.5	+1.4
EMIR	**Miracle**	5.69	227	Pn	Pn	12 42 57.5	+1.4
FLN	**La Foliniere**	5.90	302	*e*P	Pn	12 42 59.7	+0.7
	baz=115						
FLN				*e*Sn	Sn	12 44 01.5	-5.7
	SNR=1.0						
FLN				*e*Sg	Sg	12 44 36.5	-3.5
	comp=Z,20nm,0.3s						
FLN	**La Foliniere**	5.90	302	*e*P	Pn	12 42 59.7	+0.7
	baz=115						
ARSA	**Arzberg**	5.94	74	⇑*i*Pn	Pn	12 43 01.8	+2.2
	SNR=9.6						
ARSA	**Arzberg**	5.94	74	Pn	Pn	12 43 01.8	+2.2
	SNR=9.6						
EBIE	**Bielsa**	5.96	240	Pn	Pn	12 43 04.9	+5.0
EBIE				Sn	Sn	12 44 13.5	+4.8
EBIE				Lg		12 44 46.8	
GRR	**Gorron**	5.98	297	*e*P	Pn	12 43 01.1	+1.0
GRR				*e*Sn	Sn	12 44 04.0	-5.1
	SNR=1.0						
GRR				*e*Sg	Sg	12 44 39.6	-2.9
	comp=Z,15nm,0.3s						
GRR	**Gorron**	5.98	297	*e*P	Pn	12 43 01.1	+1.0
WTSB	**Winterswijk**	6.06	358	*e*P	Pn	12 43 02.4	+1.2
WTSB	**Winterswijk**	6.06	358	*e*S	Sg	12 44 26.4	-19
WTSB	**Winterswijk**	6.06	358	*e*P	Pn	12 43 02.4	+1.2
ETSF	**Etsaut**	6.28	244	*e*Pg	Pg	12 43 27.8	-3.0
ETSF				*e*Sn	Sn	12 44 09.9	-6.6
ETSF				*e*Sg	Sg	12 44 48.3	-3.8
	comp=Z,25nm,0.5s,SNR=1.0						
ETSF	**Etsaut**	6.28	244	*e*Pn	Pn	12 43 02.8	-1.4
ETSF				*e*P		12 43 08.1	
ETSF				*e*Pg	Pg	12 43 27.8	-3.0
ETSF				*e*Sn	Sn	12 44 09.9	-6.6
ETSF				*e*Sg	Sg	12 44 48.3	-3.8
ETSF	**Etsaut**	6.28	244	*e*Pn	Pn	12 43 02.8	-1.4
CSNA	**Conrad Observa**	6.31	68	⇓*i*Pn	Pn	12 43 06.5	+1.8
CSNA	**Conrad Observa**	6.31	68	Pn	Pn	12 43 06.5	+1.8
CONA	**Conrad Observa**	6.31	68	⇑*i*Pn	Pn	12 43 06.5	+1.8
	SNR=8.7						
CONA	**Conrad Observa**	6.31	68	Pn	Pn	12 43 06.5	+1.8
	SNR=8.7						
EPOB	**Poblet**	6.33	226	Pn	Pn	12 43 05.4	+0.5
EPOB				Lg		12 45 00.7	
EPOB	**Poblet**	6.33	226	Pn	Pn	12 43 05.4	+0.5
PRU	**Pruhonice**	6.43	48	*e*PN	Pn	12 43 06.3	0.0
PRU				*e*SG	Sg	12 44 56.5	-0.6
	comp=Z,24nm,0.7s						
PRU	**Pruhonice**	6.43	48	*e*Pn	Pn	12 43 06.3	0.0
	comp=Z,24nm,0.7s						
PRU				*e*Sg	Sg	12 44 56.5	-0.6
PRU	**Pruhonice**	6.43	48	Pn	Pn	12 43 06.3	0.0
SJPF	**Ste Jean**	6.59	248	*e*Pg	Pg	12 43 33.3	-3.6
SJPF				*e*Sg	Sg	12 44 58.2	-4.1
	comp=Z,20nm,0.6s,SNR=1.0						
SJPF	**Ste Jean**	6.59	248	*e*Pn	Pn	12 43 07.1	-1.5
SJPF				*e*Pg	Pg	12 43 33.3	-3.6
SJPF				*e*Sg	Sg	12 44 58.2	-4.1
SJPF	**Ste Jean**	6.59	248	*e*Pn	Pn	12 43 07.1	-1.5
CLL	**Collm**	6.65	34	*e*Pg	Pg	12 43 38.0	0.0
CLL				*e*Sg	Sg	12 45 02.0	-2.1
	comp=Z,35nm,1.0s						
BRG	**Berggiesshubel**	6.72	40	SG	Sg	12 45 04.0	-2.3
	comp=Z,12nm,0.7s						
BRG	**Berggiesshubel**	6.72	40	PG	Pg	12 43 37.0	-2.3
BRG				*i*		12 44 25.6	
ETOS	**Mallorca**	6.91	209	Pn	Pn	12 43 08.2	-4.8
ERTA	**Horta de San J**	7.00	227	Pn	Pn	12 43 17.5	+3.4
SGMF	**Saint Gilles**	7.01	293	*e*Pn	Pn	12 43 14.5	+0.2
	SNR=1.0						
SGMF				*e*Sn	Sn	12 44 28.3	-6.2
	SNR=1.0						
SGMF				*e*Sg	Sg	12 45 11.9	-3.7
	comp=Z,42nm,0.9s						
SGMF	**Saint Gilles**	7.01	293	*e*Pn	Pn	12 43 14.5	+0.2
	SNR=1.0						
JSA	**Saint Aubin**	7.09	301	*e*P	Pn	12 43 15.8	+0.4
JSA				*e*S	Sn	12 44 29.8	-6.6
JSA				AML	AML	12 44 41.3	
	comp=E,11nm,0.4s						
JSA				AML	AML	12 44 48.5	
	comp=N,14nm,0.4s						
JSA	**Saint Aubin**	7.09	301	*e*P	Pn	12 43 15.8	+0.5
VRAC	**Vranov**	7.24	59	Pn	Pn	12 43 18.7	+1.3
	comp=N,0.6nm,0.3s,baz=239,slow=14,SNR=4.0						
VRAC				Sn	Sn	12 44 34.9	-5.3
	comp=N,1.3nm,0.3s,baz=155,slow=19,SNR=5.0						
VRAC				Lg		12 45 24.1	
	comp=N,1.2nm,0.3s,baz=4.8,slow=21,SNR=3.9						
VRAC	**Vranov**	7.24	59	Pn	Pn	12 43 18.7	+1.3
QUIF	**Quistinic**	7.33	290	*e*Pn	Pn	12 43 19.0	+0.4
	SNR=1.0						
QUIF				*e*Sn	Sn	12 44 35.6	-6.7
	SNR=1.0						
QUIF				*e*Sg	Sg	12 45 22.7	-3.0
	comp=N,35nm,0.7s						
QUIF	**Quistinic**	7.33	290	*e*Pn	Pn	12 43 19.0	+0.4
	SNR=1.0						
MODS	**Modra-Piesok**	7.35	67	*e*PN	Pn	12 43 22.5	+3.6
MODS				*e*SN	Sn	12 44 43.2	+0.4
MODS				*e*		12 45 38.8	
ROSF	**Rostrenen**	7.49	293	*e*Pn	Pn	12 43 20.6	-0.3
	SNR=1.0						
ROSF				*e*Sn	Sn	12 44 38.8	-7.6
	SNR=1.0						
ROSF				*e*Sg	Sg	12 45 26.6	-4.5
	comp=N,17nm,0.6s						
DPC	**Dobruska-Polom**	7.58	51	*e*SG	Sg	12 45 34.0	0.0

	comp=N,17nm,0.6s						
DPC	Dobruska-Polom	7.58	51	Sg	Sg	12 45 34.0	0.0
	comp=N,17nm,0.6s						
MORC	Moravsky Berou	8.00	57	*e*Pn	Pn	12 43 27.4	-0.4
	comp=N,3.4nm,0.6s						
MORC	Moravsky Berou	8.00	57	*e*Pn	Pn	12 43 27.4	-0.4
	comp=N,3.4nm,0.6s						
VYHS	Vyhne	8.38	68	*e*PN	Pn	12 43 35.0	+1.9
VYHS				*e*SN	Sn	12 45 06.7	-1.5
VYHS				*e*		12 46 06.2	
VYHS	Vyhne	8.38	68	*e*Pn	Pn	12 43 35.0	+1.9
VYHS				*e*Sn	Sn	12 45 06.7	-1.5
DYA	Yadsworthy	8.66	305	*e*P	Pn	12 43 36.0	-0.9
DYA				*e*S	Sn	12 45 09.8	-5.2
DYA				AML	AML	12 45 11.2	
	comp=E,6.1nm,0.4s						
DYA				AML	AML	12 45 14.8	
	comp=N,12nm,0.7s						
DYA	Yadsworthy	8.66	305	*e*P	Pn	12 43 36.0	-0.8
CWF	Charnwood Fore	8.77	324	*e*P	Pn	12 43 38.5	+0.2
CWF				*e*S	Sn	12 45 12.3	-5.3
CWF				AML	AML	12 45 17.6	
	comp=E,5.5nm,0.6s						
CWF				AML	AML	12 45 22.7	
	comp=N,5.3nm,0.4s						
CWF	Charnwood Fore	8.77	324	*e*P	Pn	12 43 38.5	+0.2
MCH1	Michaelchurch	9.02	316	*e*P	Pn	12 43 41.5	-0.2
MCH1				*e*S	Sn	12 45 16.4	-7.4
MCH1				AML	AML	12 45 23.3	
	comp=N,9.0nm,0.6s						
MCH1				AML	AML	12 45 24.3	
	comp=E,6.8nm,0.9s						
MCH1	Michaelchurch	9.02	316	*e*P	Pn	12 43 41.5	-0.2
KWE	Weaver Farm	9.19	324	*e*P	Pn	12 43 44.0	-0.1
KWE	Weaver Farm	9.19	324	*e*P	Pn	12 43 44.0	-0.1
HTL	Hartland	9.23	308	*e*P	Pn	12 43 44.9	+0.2
HTL				AML	AML	12 45 34.8	
	comp=N,10nm,0.6s						
HTL				AML	AML	12 45 40.5	
	comp=E,9.4nm,0.4s						
HTL	Hartland	9.23	308	*e*P	Pn	12 43 44.9	+0.2
	comp=E,9.4nm,0.4s						
KBI1	Birley Grange	9.24	326	*e*P	Pn	12 43 45.5	+0.7
KBI1	Birley Grange	9.24	326	*e*P	Pn	12 43 45.5	+0.7
HPK	Haverah Park	9.82	328	*e*P	Pn	12 43 52.9	+0.1
HPK	Haverah Park	9.82	328	*e*P	Pn	12 43 52.8	0.0
STHS	Stebnicka Huta	10.15	65	*e*SN	Sn	12 45 48.1	-3.5
STHS				*e*		12 47 05.6	
ESDC	Sonseca Array	10.26	236	Pn	Pn	12 44 00.2	+1.4
	comp=E,0.3nm,0.3s,baz=48,slow=14,SNR=4.1						
EKA	Eskdalemuir Ar	11.45	329	Pn	Pn	12 44 14.0	-1.1
	baz=139,slow=14,SNR=13						
TORD	Torodi Ar. Bea	32.98	190	P	P	12 48 10.2	+3.3
	comp=E,0.4nm,0.8s,mb3.4,baz=5.4,slow=8.9,SNR=2.4						
YKA	Yellowknife Ar	62.38	334	P	P	12 51 55.6	+1.3
	comp=E,0.1nm,0.7s,mb3.2,baz=41,slow=6.7,SNR=3.4						

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*ISCJB **17** 13:14:48.9±1.1, 41.°22N±0.°06×39.°81E±0.°05, h10^{km}±5^{km}, Error ellipse: s-maj=10.7km s-min=6.0km az=165.0*

*CSEM **17** 13:14:48.5±0.6, 41.°26N×39.°75E, h2^{km}, MD3.1, Error ellipse: s-maj=11.7km s-min=6.5km az=166.0*

*DDA **17** 13:14:50.1, 41.°05N×39.°69E, h6^{km}±3^{km}, Md2.9*

*ISK **17** 13:14:50.8, 40.°95N×40.°00E, h14^{km}, MD3.1*

ISC 17 13:14:48.7±1.1, **41.°24N**±0.°06×**39.°77E**±0.°05, **h4**^{km}±7^{km}, **n13,** σ**1.^{s}24**/26, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTUT	Trabzon	0.26	181	PG	Pg	13 14 54.7	+1.1
KTUT				SG	Sg	13 14 58.8	+1.8
KTUT	Trabzon	0.26	181	*i* Pg	Pg	13 14 54.7	+1.1
KTUT				*i* Sg	Sg	13 14 58.8	+1.8
GUMT	Gumushane	0.81	196	*e*PG	Pg	13 15 03.4	-0.9
GUMT				*e*SG	Sg	13 15 12.9	-2.0
GUMT	Gumushane	0.81	196	*e*Pg	Pg	13 15 03.4	-0.9
GUMT				*e*Sg	Sg	13 15 12.9	-1.9
PZAR	Pazar-Rize	0.85	94	*e*PG	Pg	13 15 04.8	-0.2
PZAR				*e*SG	Sg	13 15 15.9	-0.2
PZAR	Pazar-Rize	0.85	94	*e*Pg	Pg	13 15 04.8	-0.2
PZAR				*e*Sg	Sg	13 15 15.9	-0.2
GRSN	GIRESUNGRSN	1.18	255	*i* P	Pg	13 15 11.2	-0.1
GRSN				*i* S	Sg	13 15 25.8	-0.8
GRSN	GIRESUNGRSN	1.18	255	*i* P	Pg	13 15 11.2	-0.1
GRSN				*i* S	Sg	13 15 25.8	-0.8
EZC	Erzincan	1.50	179	*e*PN	Pn	13 15 15.8	-0.5
EZC				*e*SN	Sn	13 15 32.3	-3.9
ERZM	Erzurum	1.81	137	*i* P	Pn	13 15 22.0	+1.4
ERZM				*i* S	Sn	13 15 41.9	-2.1
ERZM	Erzurum	1.81	137	*i* P	Pn	13 15 22.0	+1.4
ERZM				*i* S	Sn	13 15 41.9	-2.0
KEMA	Kemaliye	2.20	207	*i* P	Pn	13 15 28.0	+1.9
KEMA				*i* S	Sn	13 15 54.3	+0.6
KEMA	Kemaliye	2.20	207	*i* P	Pn	13 15 28.0	+2.0
KEMA				*i* S	Sn	13 15 54.3	+0.6

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*ISCJB **17** 13:17:48.0±0.6, 33.°33N±0.°03×35.°37E±0.°04, h9^{km}±6^{km}, Error ellipse: s-maj=6.6km s-min=3.9km az=28.6*

*CSEM **17** 13:17:49.2, 33.°33N×35.°40E, h0^{km}, ML3.0, After GRAL*

*GII **17** 13:17:49.0±0.5, 33.°25N×35.°40E, h3^{km}±1^{km}, Md2.3/9*

*GRAL **17** 13:17:49.2±0.3, 33.°33N×35.°40E, h0^{km}±122^{km}, MD3.0*

ISC 17 13:17:48.4±0.6, **33.°34N**±0.°03×**35.°37E**±0.°04, **h9**^{km}±7^{km}, **n18,** σ**0.^{s}41**/30, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.15	348	*e*P	Pg	13 17 52.1	+0.4
MATL	Matirih	0.15	348	*e*P	Pg	13 17 52.1	+0.4
KSDI	Kefar Szold	0.29	121	Pg	Pg	13 17 53.9	-0.2
KSDI				Sg	Sg	13 17 57.9	0.0
HNTI	Hanita	0.30	212	Pg	Pg	13 17 53.9	-0.5
HNTI				Sg	Sg	13 17 59.3	+0.8
MMA0	Mount Meron ar	0.33	175	Pg	Pg	13 17 54.5	-0.3
MMA0				Sg	Sg	13 17 59.2	0.0
RCY	Rachaya	0.40	69	*e*P	Pg	13 17 56.4	+0.2
RCY				*e*S	Sg	13 18 01.8	+0.2
RCY	Rachaya	0.40	69	*e*P	Pg	13 17 56.4	+0.1
RCY				*e*S	Sg	13 18 01.8	+0.2
KSHT	Keshet	0.52	134	Pg	Pg	13 17 58.7	+0.3
KSHT				Sg	Sg	13 18 06.0	+0.8
BHL	Bhannes	0.61	23	*e*P	Pg	13 18 00.2	0.0
BHL	Bhannes	0.61	23	*e*P	Pg	13 18 00.2	0.0
BLGI	Bet Lehem HaGe	0.62	194	Pg	Pg	13 18 00.4	0.0
BLGI				Sg	Sg	13 18 08.8	+0.2
OFRI	‘Ofer	0.79	204	Pg	Pg	13 18 03.5	0.0
OFRI				Sg	Sg	13 18 14.5	+0.7
MMLI	Mount Malkishu	0.90	177	Pg	Pg	13 18 05.3	-0.4
MMLI				Sg	Sg	13 18 16.9	-0.6
HWQ	Hawqa	1.05	27	*e*P	Pg	13 18 08.1	-0.5
HWQ	Hawqa	1.05	27	*e*P	Pg	13 18 08.1	-0.5
HMDT	Nahal Hemdat	1.09	173	Pg	Pg	13 18 08.5	-0.9
HMDT				Sg	Sg	13 18 23.3	-0.3
SLTI	Sal’it	1.13	194	Pg	Pg	13 18 10.0	-0.1
SLTI				Sg	Sg	13 18 24.7	-0.1
DSI	Dead Sea	1.77	180	Pn	Pn	13 18 19.4	+0.3
DSI				Sn	Sn	13 18 41.8	+0.2

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*NEIC **17** 13:27:44.2, 16.°35N×98.°43W, h6^{km}, MD4.0(MEX), After MEX.*

MEX 17 13:27:44.2±0.8, **16.°35N**×**98.°43W**, **h6**^{km}±9^{km}, **MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.29	82	*i* P	Pg	13 27 49.6	-0.3
PNIG				*i* S	Sg	13 27 53.5	-0.2
ACX	Acapulco	1.52	290	*e*P	Pn	13 28 08.9	-3.0
ACX				*i* S	Sn	13 28 27.2	-4.7
UTMO	Huajuapan	1.59	22	*i* P	Pn	13 28 09.9	-2.9
UTMO				*i* S	Sn	13 28 29.9	-3.7
VHO	Vista Hermosa	1.77	66	*i* P	Pn	13 28 12.9	-2.5
VHO				*i* S	Sn	13 28 34.7	-3.5
OXX	Oaxaca	1.79	66	*e*P	Pn	13 28 12.4	-3.2
OXX				*i* S	Sn	13 28 32.9	-5.6
CAIG	El Cayaco	1.90	292	*i* P	Pn	13 28 12.6	-4.5
CAIG				*i* S	Sn	13 28 35.4	-5.9
MEIG	Mezcala	1.94	324	*e*P	Pn	13 28 15.0	-2.7
MEIG				*i* S	Sn	13 28 38.0	-4.3
PLIG	Platanillo	2.27	333	*e*P	Pn	13 28 19.4	-2.8
PLIG				*i* S	Sn	13 28 47.7	-3.0
TPIG	Tehuac#an	2.29	26	*e*P	Pn	13 28 19.8	-2.8
TPIG				*i* S	Sn	13 28 44.3	-6.8
HUIG	Huatulco	2.30	104	*e*P	Pn	13 28 23.5	+0.9
HUIG				*i* S	Sn	13 28 55.0	+3.6
YAIG	Yautepec	2.57	346	*e*P	Pn	13 28 23.2	-3.2
YAIG				*i* S	Sn	13 28 53.1	-4.8
YAIG	Yautepec	2.57	346	*e*P	Pn	13 28 28.2	+1.8
YAIG				*i* S	Sn	13 28 53.1	-4.8
PPM	Popocatepetl	2.71	356	*i* P	Pn	13 28 26.6	-1.7
PPM				*e*P		13 28 27.8	
PPM				*i* S	Sn	13 28 57.8	-3.5
PPM				*i* S	Sn	13 28 58.0	-3.3
PPM	Popocatepetl	2.71	356	*e*P	Pn	13 28 27.8	-0.5
PPM				*i* S	Sn	13 28 57.8	-3.5
PPM				*i* S	Sn	13 28 58.0	-3.3
MZVM		2.92	345	*e*P	Pn	13 28 28.6	-2.6
MZVM				*i* S	Sn	13 29 04.9	-1.7
SZVM	Salazar	3.09	343	*e*P	Pn	13 28 31.5	-2.0
SZVM				*i* S	Sn	13 29 08.6	-2.2
PBVM	Pinon	3.14	349	*e*P	Pn	13 28 31.4	-2.7
PBVM				*i* S	Sn	13 29 08.3	-3.6
IIO	Organos	3.23	355	*e*P	Pn	13 28 30.9	-4.6
IIO				*i* S	Sn	13 29 12.3	-2.0
PTVM	Pico Tres Padr	3.29	349	*e*P	Pn	13 28 33.9	-2.4
PTVM				*i* S	Sn	13 29 13.2	-2.4
CMIG	Matias Romero	3.47	77	*e*P	Pn	13 28 36.2	-2.5
CMIG				*i* S	Sn	13 29 16.4	-3.8
DEIG	Demacu	3.97	352	*e*P	Pn	13 28 45.1	-0.5
DEIG				*i* S	Sn	13 29 31.8	-0.7

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*ISCJB **17** 14:07:52.0±2.7, 19.°9S±0.°5×178.°0W±0.°3, h438^{km}±25^{km}, mb3.6/9, Error ellipse: s-maj=91.4km s-min=15.4km az=152.4*

*IDC **17** 14:07:52.5±3.1, 20.°00S×177.°80W, h439^{km}±31^{km}, mb3.3/8, mb1 3.6/9, mb1mx3.4/19, mbtmp3.4/9, Error ellipse: s-maj=77.9km s-min=14.0km az=153.0*

*NEIC **17** 14:07:53.1±2.0, 20.°18S×177.°78W, h446^{km}±19^{km}, mb4.0/2, Error ellipse: s-maj=67.1km s-min=10.8km az=155.0*

ISC 17 14:07:53.3±2.7, **19.°7S**±0.°5×**178.°0W**±0.°3, **h438**^{km}±26^{km}, **n13,** σ**0.^{s}90**/15, **mb3.6**/9, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	8.27	47	P	P	14 09 53.8	+2.2
	12nm,0.3s,baz=40,slow=1.6,SNR=21						
AFI				S	S	14 11 27.1	-1.5
	5.6nm,0.3s,baz=49,slow=22,SNR=6.0						
AFI	Afiamalu	8.27	47	*e*P	P	14 09 53.7	+2.1
AFI				*e*S	S	14 11 27.3	-1.4
CTA	Charters Tower	33.60	263	P	P	14 13 56.5	+0.9
	5.6nm,0.5s,mb4.2,baz=91,slow=9.7,SNR=14						
CTAO	Charters Tower	33.60	263	*e*P	P	14 13 56.7	+1.1
	4.9nm,0.5s,mb4.1						
STKA	Stephens Creek	38.16	243	P	P	14 14 32.9	-0.6
	0.7nm,0.4s,mb3.4,baz=89,slow=13,SNR=6.9						
ASAR	Alice Springs	44.73	256	P	P	14 15 25.6	-0.5
	4.4nm,0.7s,mb3.9,baz=88,slow=8.4,SNR=88						
ASAR				PcP	PcP	14 16 57.6	-1.9
	0.5nm,0.8s,baz=100,slow=4.2,SNR=4.4						
WB2	Warramunga Arr	44.73	261	*e*P	P	14 15 25.6	-0.5
WRAB	Tennant Creek	44.73	261	*e*P	P	14 15 25.8	-0.4
	1.4nm,0.4s,mb3.6						
WRA	Warramunga Arr	44.74	261	P	P	14 15 25.7	-0.5
	1.1nm,0.3s,mb3.7,baz=96,slow=7.4,SNR=105						
FITZ	Fitzroy Crossi	53.16	262	P	P	14 16 29.2	0.0
	3.5nm,0.9s,mb3.6,baz=53,slow=10,SNR=4.2						
TXAR	Lajitas Array	86.61	57	P	P	14 19 49.3	+0.1
	0.5nm,0.8s,mb3.3,baz=210,slow=7.2,SNR=5.5						
PDAR	Pinedale Array	88.37	43	P	P	14 19 57.1	-0.1
	0.3nm,0.6s,mb3.2,baz=207,slow=1.8,SNR=2.8						
CMAR	Chiang Mai Arr	89.88	290	P	P	14 20 06.0	+1.2
	1.0nm,0.7s,mb3.8,baz=125,slow=2.3,SNR=6.3						

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*ISCJB **17** 14:21:54.1±0.5, 21.°47S±0.°04×68.°51W±0.°09, h123^{km}±6^{km}, mb4.3/9, Error ellipse: s-maj=13.5km s-min=6.1km az=169.4*

*GUC **17** 14:21:55.8±0.8, 21.°46S×68.°65W, h113^{km}±7^{km}, ML4.6*

*NEIC **17** 14:21:56.5±0.5, 21.°58S×68.°43W, mb4.3/2, Error ellipse: s-maj=14.3km s-min=11.7km az=87.0*

*IDC **17** 14:21:56.7±0.5, 21.°56S×68.°46W, h123^{km}±5^{km}, mb3.8/6, mb1 3.9/8, mb1mx3.7/18, mbtmp3.7/8, Error ellipse: s-maj=20.3km s-min=9.6km az=101.0*

ISC 17 14:21:55.2±0.5, **21.°46S**±0.°04×**68.°51W**±0.°08, **h116**^{km}±6^{km}, **h127**^{km}±1.3^{km}**:pP-P, n34,** σ**0.^{s}99**/42, **mb4.3**/9, **7C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB01	Plate Boundary	1.00	294⇑	*i*P	Pn	14 22 17.5	+0.6
PB01				*i* S	Sn	14 22 33.3	0.0
PB01				AML	AML	14 22 34.3	
	comp=N,19µm,0.2s						
LVC	Limon Verde	1.21	198	P	Pn	14 22 20.2	+1.1
	baz=360,slow=8.9						
LVC				S	Sn	14 22 38.6	+1.5
	comp=N,290nm,0.3s,baz=180,slow=14,SNR=31						
LVC	Limon Verde	1.21	198	*e*Pn	Pn	14 22 19.9	+0.9
LVC				P		14 22 20.2	
LVC				*e*Sn	Sn	14 22 37.8	+0.7
LVC				S	Sn	14 22 38.6	+1.5
LVC	Limon Verde	1.21	198⇑	*i*P	Pn	14 22 20.4	+1.3
LVC				*i* S	Sn	14 22 38.3	+1.2
LVC				AML	AML	14 22 41.5	
	comp=N,1µm,0.6s						
PB04	Plate Boundary	1.21	229⇑	*i*P	Pn	14 22 25.2	+6.1
PB04				*i* S	Sn	14 22 47.1	+10
PB04				AML	AML	14 22 48.7	
	comp=E,9µm,0.2s						
MACH	Maria Elena	1.37	238⇑	*i*P	Pn	14 22 21.2	+0.3
MACH				*i* S	Sn	14 22 40.4	0.0
PECH	Pedro de Valdi	1.57	224⇑	*i*P	Pn	14 22 23.4	+0.3
PECH				*i* S	Sn	14 22 44.2	-0.2
PECH				AML	AML	14 22 45.5	
	comp=E,31µm,0.2s						
TOCH	Tocopilla	1.70	248⇑	*i*P	Pn	14 22 24.4	-0.3
TOCH				*i* S	Sn	14 22 45.6	-1.6
TOCH				AML	AML	14 22 46.1	
	comp=E,34µm,0.3s						
HMBC	Humberston	1.75	312⇑	*i*P	Pn	14 22 25.2	-0.1
HMBC				*i* S	Sn	14 22 47.8	-0.5
HMBC				AML	AML	14 22 49.3	
	comp=E,12µm,0.6s						
PSGC	Pisagua	2.39	320	*i* P	Pn	14 22 32.7	-0.8
PSGC				*i* S	Sn	14 23 01.4	-1.4
PSGC				AML	AML	14 23 04.5	
	comp=N,2µm,0.3s						
CEN1	Los Morros	2.48	219	AML	AML	14 23 10.4	
	comp=N,1µm,0.5s						
MNMC	Miæe Miæ	2.53	336	*e*P	Pn	14 22 36.1	+0.9
MNMC				*i* S	Sn	14 23 07.6	+1.6
MNMC				AML	AML	14 23 11.9	
	comp=N,6µm,0.2s						
CPN1	Cerro Paranal	3.60	209	AML	AML	14 23 31.3	
	comp=E,651nm,0.3s						
LCO	Las Campanas	7.78	194	*e*Pn	Pn	14 23 41.3	-4.3
	comp=E,20nm,0.6s						
LCO				*e*Sn	Sn	14 25 06.7	-5.3
CFAA	Coronel Fontan	10.11	179	P	Pn	14 24 14.5	-2.7
	comp=E,0.2nm,0.3s,baz=0.0,slow=13,SNR=8.7						
CFAA				S	Sn	14 26 01.3	-7.3
	comp=E,0.2nm,0.3s,baz=155,slow=16,SNR=7.2						
CPUP	Villa Florida	11.31	118	P	Pn	14 24 32.5	-0.9
	comp=E,0.5nm,0.3s,baz=285,slow=12,SNR=17						
PLCA	Paso Flores	19.29	185	P	P	14 26 11.5	+0.6
	comp=E,0.3nm,0.3s,baz=357,slow=12,SNR=12						
PLCA	Paso Flores	19.29	185	*e*P	P	14 26 11.8	+0.8
	comp=E,2.8nm,0.7s						
SPB	Sao Paulo	19.58	100	*e*P	P	14 26 14.8	+0.6
	comp=E,13nm,0.2s						
TXAR	Lajitas Array	60.81	325	P	P	14 31 55.5	+0.3
	comp=E,0.2nm,0.5s,mb3.4,baz=151,slow=9.4,SNR=5.0						
TXAR				pP	pP	14 32 25.6	+2.3
	comp=E,0.2nm,0.5s,baz=152,slow=7.6,SNR=4.2						
LIC	Lamto	68.02	74	*e*P	P	14 32 42.0	-0.5
	comp=E,46nm,1.5s,mb5.1						
TIC	Toumodi	68.21	73	*e*P	P	14 32 40.9	-2.8
	comp=E,6.2nm,0.2s,mb5.0						
KIC	Kosan Boka	68.33	74	*e*P	P	14 32 44.2	-0.3
	comp=E,28nm,0.7s,mb5.2						
DBIC	Dimbokro	68.36	73	P	P	14 32 44.5	-0.2
	comp=E,10nm,0.9s,mb4.7,baz=218,slow=6.5,SNR=10						
QSPA	South Pole Qui	68.73	180	P	P	14 32 47.7	+1.8
	comp=E,1.3nm,0.5s,mb4.0,baz=169,slow=1.4,SNR=27						
QSPA				pP	pP	14 33 18.0	+3.5
	comp=E,1.0nm,0.6s,baz=186,slow=2.5,SNR=2.1						
PDAR	Pinedale Array	74.26	330	P	P	14 33 21.0	+1.4
	comp=E,0.2nm,0.5s,mb3.1,baz=108,slow=7.7,SNR=2.7						
PDAR				pP	pP	14 33 53.3	+4.7
	comp=E,0.7nm,1.0s,baz=170,slow=4.2,SNR=3.3						
TOA0	Torodi Ar. Sit	76.99	70	*e*P	P	14 33 35.2	-0.5
TOA0				*e*		14 33 41.1	
TORD	Torodi Ar. Bea	76.99	70	P	P	14 33 35.4	-0.3
	comp=E,6.8nm,0.6s,mb4.5,baz=255,slow=5.7,SNR=42						
YKA	Yellowknife Ar	91.27	340	P	P	14 34 47.5	+0.5
	comp=E,0.8nm,0.6s,mb4.0,baz=135,slow=4.4,SNR=22						
YKA				pP	pP	14 35 19.8	+2.7
	comp=E,0.6nm,0.7s,baz=135,slow=4.4,SNR=4.4						
YKA	Yellowknife Ar	91.27	340	P	P	14 34 47.5	+0.5
YKA				pP	pP	14 35 19.8	+2.8
ASAR	Alice Springs	130.12	207	PKP	PKPdf	14 40 52.8	+0.5
	comp=E,0.3nm,0.5s,baz=128,slow=2.0,SNR=4.8						
WRA	Warramunga Arr	133.18	210	PKP	PKPdf	14 40 58.7	+0.6
	comp=E,0.5nm,0.6s,baz=149,slow=1.9,SNR=7.7						
MKAR	Makanchi Array	145.38	36	PKPbc	PKPbc	14 41 20.4	+0.9
	comp=E,2.2nm,0.7s,baz=318,slow=4.3,SNR=23						
MKAR				pPKPbc	pPKPbc	14 41 53.5	+3.1
	comp=E,1.8nm,0.8s,baz=327,slow=3.7,SNR=5.9						
SONM	Songino Array	153.37	8	PKPbc	PKPbc	14 41 41.1	+1.4
	comp=E,0.2nm,0.6s,baz=48,slow=2.1,SNR=1.9						
SONM				PKPab	PKPab	14 41 53.3	+1.2
	comp=E,0.5nm,0.9s,baz=262,slow=2.9,SNR=3.2						

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*ISCJB **17** 14:32:17.5±0.6, 34.°65N±0.°06×27.°08E±0.°09, h33^{km}, Error ellipse: s-maj=11.4km s-min=6.3km az=147.0*

*CSEM **17** 14:32:17.0±0.2, 34.°73N×27.°04E, h15^{km}, ML3.3, Error ellipse: s-maj=9.3km s-min=4.9km az=43.0*

*NEIC **17** 14:32:17.4, 34.°72N×27.°02E, h34^{km}, MD3.4(ATH), After ATH.*

*ATH **17** 14:32:17.4, 34.°72N×27.°02E, h34^{km}, MD3.4/3*

*HLW **17** 14:32:23.4, 34.°65N×27.°58E, h33^{km}, Mb3.3*

ISC 17 14:32:17.1±1.8, **34.°74N**±0.°06×**27.°1E**±0.°1, **h15**^{km}±16^{km}, **n20,** σ**0.^{s}55**/23, **Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	Zakros	0.78	299	P	Pg	14 32 32.1	-0.1
ZKR	Zakros	0.78	299	P	Pg	14 32 32.1	-0.1
KARP	Karpathos	0.81	6	*e*PN	Pn	14 32 33.7	-0.3
KARP				*e*SN	Sn	14 32 45.5	-0.3
KARP	Karpathos	0.81	6	*e*Pn	Pn	14 32 33.7	-0.3
KARP				*e*Sn	Sn	14 32 45.5	-0.3
NPS	Neapolis	1.29	294	*e*PN	Pn	14 32 40.3	-0.2
NPS	Neapolis	1.29	294	*e*Pn	Pn	14 32 40.3	-0.2
LAST	Lasithi	1.36	289	P	Pn	14 32 41.8	+0.3
LAST	Lasithi	1.36	289	P	Pn	14 32 41.8	+0.3
ARG	Arkhangelos	1.72	31	*e*PN	Pn	14 32 47.4	+1.0
ARG	Arkhangelos	1.72	31	*e*Pn	Pn	14 32 47.4	+1.0
HSAF	As Saff	6.38	142	P	Pn	14 33 51.0	+0.5
HSAF	As Saff	6.38	142	P	Pn	14 33 51.0	+0.5
HHAG	Hagoal	6.41	137	P	Pn	14 33 51.7	+0.8
HHAG	Hagoal	6.41	137	P	Pn	14 33 51.7	+0.8
GLL	Jalalah	6.49	141	P	Pn	14 33 51.7	-0.3
GLL	Jalalah	6.49	141	P	Pn	14 33 51.7	-0.3
AMAG	Maghara	6.61	126	P	Pn	14 33 53.0	-0.6
AMAG				S	Sn	14 34 58.8	-10
AMAG	Maghara	6.61	126	P	Pn	14 33 53.0	-0.6
RSH		6.76	122	P	Pn	14 33 55.0	-0.8
HRSH	Kfar Ka’horesh	7.15	104	P	Pn	14 33 55.0	-6.2

IDC 17 14:42:39.4±7.6, **25.°92N**×**89.°93E, h0**^{km}**, mb3.2**/3, **mb1 3.5**/3, **mb1mx3.2**/23, **mbtmp3.3**/3, **MS3.1**/1, **Ms1 3.1**/1, **ms1mx2.4**/24, **Error ellipse: s-maj=483.0km s-min=30.7km az=64.0, India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	Shillong	1.80	101	*e*PN	Pn	14 43 13.5	+1.9
SHL				*e*x	x	14 43 22.5	
SHL				*e*SN	Sn	14 43 39.0	+3.8
SHBG	Sahibganj	2.16	252	*e*PKP	Pn	14 43 13.7	-2.9
MKAR	Makanchi Array	21.70	346	P	P	14 47 31.9	+0.1
	0.2nm,0.8s,baz=156,slow=9.8,SNR=5.3						
KSRS	Korea Array	34.10	61	LR	LR	15 03 04.3	
	comp=Z,33nm,19.9s,baz=172,slow=36						
WRA	Warramunga Arr	62.75	132	P	P	14 53 06.7	0.0
	0.3nm,0.9s,baz=321,slow=6.8,SNR=4.8						
ASAR	Alice Springs	65.12	135	P	P	14 53 22.3	+0.1
	0.2nm,0.6s,baz=317,slow=6.1,SNR=3.6						

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*IDC **17** 14:49:03.9±0.8, 19.°28S×69.°75W, h0^{km}, mb3.7/6, mb1 4.1/7, mb1mx3.9/17, mbtmp3.8/7, ML5.4/1, MS3.1/4, Ms1 3.1/4, ms1mx2.8/30, Error ellipse: s-maj=42.0km s-min=13.9km az=75.0*

*ISCJB **17** 14:49:07.7±0.9, 19.°51S±0.°05×70.°1W±0.°1, h40^{km}±11^{km}, mb3.8/6, Error ellipse: s-maj=22.5km s-min=6.3km az=166.1*

*GUC **17** 14:49:08.1±0.8, 19.°85S×70.°67W, h18^{km}±231^{km}, MD4.3, ML4.2*

*NEIC **17** 14:49:09.3±1.2, 19.°47S×70.°07W, h40^{km}±13^{km}, mb4.0/1, MD4.3(GUC), Error ellipse: s-maj=24.9km s-min=11.7km az=67.0*

NEIC Felt [IV] at Pisagua; [III] at Alto Hospicio, Arica, Huara and Iquique; [II] at Putre.

ISC 17 14:49:09.3±0.8, **19.°51S**±0.°05×**70.°1W**±0.°1, **h36**^{km}±10^{km}, **n25,** σ**1.^{s}23**/29, **mb3.8**/6, **1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB01	Plate Boundary	1.63	159	AML	AML	14 50 07.9	
	comp=E,2µm,0.3s						
TOCH	Tocopilla	2.58	182	*e*P	Pn	14 49 46.4	-2.1
TOCH				*e*S	Sn	14 50 16.0	-2.5
TOCH				AML	AML	14 50 33.2	
	comp=E,1µm,0.5s						
MACH	Maria Elena	2.69	173	*e*P	Pn	14 49 49.9	-0.2
MACH				*i* S	Sn	14 50 21.4	-0.1
PECH	Pedro de Valdi	3.10	173	AML	AML	14 50 49.5	
	comp=E,2µm,0.5s						
LVC	Limon Verde	3.29	160	Pn	Pn	14 50 00.2	+2.0
	comp=E,36nm,0.3s,baz=360,slow=8.5,SNR=172						
LVC				Pg	Pn	14 50 07.5	+9.3
	comp=E,98nm,0.3s,baz=0.0,slow=10,SNR=43						
LVC				Sn	Sn	14 50 41.7	+5.7
	comp=E,37nm,0.3s,baz=180,slow=20,SNR=6.3						
LVC				Lg		14 50 50.4	
	comp=E,78nm,0.3s,baz=180,slow=21,SNR=16						
LVC				LR	LR	14 51 30.9	
	comp=E,212nm,19.6s,baz=359,slow=43						
LVC	Limon Verde	3.29	160	*e*Pn	Pn	14 50 00.3	+2.1
LVC				Pg	Pn	14 50 07.5	+9.3
LVC				Sn	Sn	14 50 41.7	+5.7
LVC				*e*Sg	Sn	14 50 48.5	+12
LVC				Lg		14 50 50.4	
LVC				LR	LR	14 51 30.9	
LVC	Limon Verde	3.29	160⇓	*e*P	Pn	14 50 00.2	+2.0
LVC				*i* S	Sn	14 50 39.9	+3.8
LVC				AML	AML	14 50 52.7	
	comp=E,742nm,0.7s						
ARE	Arequipa	3.30	336	*e*P	Pn	14 49 58.0	-0.5
ARE				*e*S	Sn	14 50 37.0	+0.4
CEN1	Los Morros	3.87	181	*e*P	Pn	14 50 07.1	+0.9
CEN1				*i* S	Sn	14 50 52.0	+1.6
LCO	Las Campanas	9.48	183	Pn	Pn	14 51 21.9	-1.4
CFAA	Coronel Fontan	12.16	172	Pn	Pn	14 51 56.3	-3.7
	comp=E,0.1nm,0.3s,baz=360,slow=12,SNR=3.3						
CFAA				Sn	Sn	14 54 29.7	+15
	comp=E,0.0nm,0.3s,baz=179,slow=20,SNR=2.3						
CPUP	Villa Florida	13.58	122	Pn	Pn	14 52 20.1	+0.6
	comp=E,0.2nm,0.3s,baz=262,slow=14,SNR=2.7						
ATAH	Atahualpa	14.81	326	LR	LR	14 59 19.8	
	comp=E,91nm,18.1s,baz=11,slow=42						
PLCA	Paso Flores	21.16	181	P	P	14 53 52.0	+0.7
	comp=E,1.8nm,0.9s,mb3.4,baz=5.0,slow=15,SNR=3.9						
ROSC	El Rosal	24.56	350	LR	LR	15 03 29.7	
	comp=E,40nm,20.4s,baz=225,slow=36						
SDV	Santo Domingo	28.22	359	LR	LR	15 07 41.9	
	comp=E,25nm,18.7s,baz=230,slow=40						
TXAR	Lajitas Array	58.36	325	P	P	14 59 00.5	-0.6

	comp=E,0.3nm,0.6s,mb3.5,baz=147,slow=10.0,SNR=5.3						
PDAR	Pinedale Array	71.83	330	P	P	15 00 28.7	+0.5
	comp=E,0.2nm,0.6s,baz=131,slow=9.7,SNR=2.7						
NVAR	Mina Array Bea	73.24	322	P	P	15 00 38.1	+1.3
	comp=E,0.3nm,0.6s,mb3.4,baz=134,slow=7.5,SNR=4.0						
HLID	Hailey	74.77	328	*e*P	P	15 00 46.1	+0.5
	comp=E,1.8nm,1.0s,mb4.0						
TORD	Torodi Ar. Bea	77.76	71	P	P	15 01 00.8	-2.4
	comp=E,1.1nm,0.5s,mb4.0,baz=253,slow=5.7,SNR=9.1						
YKA	Yellowknife Ar	88.94	341	P	P	15 01 59.0	-0.6
	comp=E,1.2nm,0.8s,mb4.3,baz=136,slow=4.7,SNR=21						
YKA	Yellowknife Ar	88.94	341	P	P	15 01 59.0	-0.6
MKAR	Makanchi Array	144.64	33	PKP	PKPdf	15 08 40.3	-1.7
	comp=E,0.6nm,0.8s,baz=315,slow=3.9,SNR=6.2						
SONM	Songino Array	151.60	5	PKPbc	PKPbc	15 08 59.6	-0.1
	comp=E,1.1nm,0.6s,baz=309,slow=1.4,SNR=16						
SONM				PKPab	PKPab	15 09 08.7	+0.5
	comp=E,0.8nm,0.6s,baz=333,slow=1.6,SNR=7.4						

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*IDC **17** 14:59:25.4±1.1, 25°.40N×142°.04E, h0^{km}, mb3.5/6, mb1 3.7/6, mb1mx3.5/21, mbtmp3.5/6, Error ellipse: s-maj=38.4km s-min=16.9km az=90.0*

NEIC 17 14:59:30.7±0.8**, 25°.35N×141°.99E, h35^{km}, mb4.1**/2**, Error ellipse: s-maj=32.6km s-min=12.3km az=77.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.75	6	Pn	Pn	14 59 55.6	-2.9
	69nm,0.3s,baz=115,slow=22,SNR=30						
CBIJ				Sn	Sn	15 00 19.3	-0.3
	39nm,0.3s,baz=108,slow=23,SNR=9.5						
SONM	Songino Array	35.87	318	P	P	15 06 27.6	+0.5
	0.2nm,0.4s,baz=120,slow=8.4,SNR=7.0						
WRAB	Tennant Creek	45.62	190	*e*P	P	15 07 47.2	-0.4
	1.4nm,0.4s						
WRA	Warramunga Arr	45.63	190	P	P	15 07 47.0	-0.7
	0.9nm,0.3s,baz=8.7,slow=8.7,SNR=30						
ASAR	Alice Springs	49.35	190	P	P	15 08 18.1	+1.4
	0.2nm,0.6s,baz=14,slow=8.9,SNR=4.1						
MKAR	Makanchi Array	51.46	311	P	P	15 08 32.9	+0.4
	0.2nm,0.5s,baz=90,slow=9.8,SNR=11						
MKAR	Makanchi Array	51.46	311	P	P	15 08 32.9	+0.4
KURK	Kurchatov	54.09	315	*e*P	P	15 08 51.9	+0.1
	0.8nm,0.4s						
BVAR	Borovoye Array	59.21	318	P	P	15 09 27.7	-0.5
	1.4nm,0.4s,baz=90,slow=6.8,SNR=16						
BRVK	Borovoye	59.28	318	P	P	15 09 28.5	-0.1
YKA	Yellowknife Ar	73.76	28	P	P	15 11 01.0	+0.1
	0.1nm,0.4s,baz=294,slow=6.2,SNR=2.6						

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*NEIC **17** 15:13:37.8, 17°.68N×67°.47W, h21^{km}, MD3.4(RSPR), After RSPR.*

RSPR 17 15:13:37.8, 17°.68N×67°.47W, h21^{km}±13^{km}**, MD3.4**/16**, MD3.4**/16**, 10C-8D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRPR	Cabo Rojo, PR	0.47	46	⇓*i*P	Pb	15 13 46.4	-1.1
CRPR				*e*S	Sb	15 13 53.4	-0.7
IMO	Isla Mona	0.60	316	⇑*e*P	Pb	15 13 48.2	-1.4
IMO				*e*S	Sb	15 13 56.4	-1.3
LSP	Las Mesas	0.61	36	⇑*i*P	Pb	15 13 48.5	-1.4
MPR	Mayaguez	0.62	30	⇓*i*P	Pb	15 13 48.6	-1.4
GBPR	Guanica, Bosqu	0.63	62	⇓*e*P	Pb	15 13 48.9	-1.3
GBPR	Guanica, Bosqu	0.63	62	*e*S	Sb	15 13 57.8	-0.9
LRS	Lares	0.85	44	⇓*i*P	Pb	15 13 52.0	-1.9
AGPR	Aguadilla, PR	0.86	23	⇓*e*P	Pb	15 13 52.1	-2.0
OBIP	Obispado Ponce	0.90	66	⇑*e*P	Pb	15 13 52.6	-2.1
OBIP				*e*S	Sb	15 14 04.2	-2.0
ICM	Isla Caja Muer	0.93	76	⇑*e*P	Pb	15 13 53.1	-2.1
ICM				*e*S	Sb	15 14 05.0	-2.1
CELP	Cerrillos	0.93	65	⇓*e*P	Pb	15 13 53.2	-2.2
AOPR	Arecibo Observ	0.95	45	⇓*i*P	Pb	15 13 53.5	-2.2
AOPR				*e*S	Sb	15 14 05.5	-2.3
SJG	San Juan	1.33	71	⇑*e*P	Pn	15 13 59.0	-2.1
SJG	San Juan	1.33	71	⇑*e*P	Pn	15 13 58.6	-2.5
SJG				*e*Pn	Pn	15 14 02.5	+1.4
SJG				*e*S	Sn	15 14 14.3	-3.9
CPD	Cerro la Pandu	1.52	76	⇑*e*P	Pn	15 14 01.4	-2.4
HUMP	Col San Antoni	1.61	73	⇓*e*P	Pn	15 14 02.3	-2.7
HUMP				*e*S	Sn	15 14 21.4	-3.7
CBYP	Canovanas	1.64	69	⇑*e*P	Pn	15 14 03.1	-2.4
MTP	Monte Pirata	1.87	77	⇑*e*P	Pn	15 14 06.0	-2.5
MTP				*e*S	Sn	15 14 28.0	-3.5
STVI	Saint Thomas	2.48	74	⇑*e*P	Pn	15 14 15.5	-1.5
STVI				*e*S	Sn	15 14 43.8	-2.9
CDVI	St. Croix	2.58	88	⇑*e*P	Pn	15 14 14.9	-3.4
CDVI				*e*S	Sn	15 14 43.8	-5.2
TBVI	Tortola	2.81	74	*e*S	Sn	15 14 51.4	-3.4
SDDR	Presa de Saban	3.85	290	Pn	Pn	15 14 35.6	-0.2
SDDR				*e*		15 14 39.6	

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*NIED **17** 15:40:00, 31°.70N×131°.80E, h26^{km}, Mw4.0 Best double couple: $M_0$1.31000×10^{15} NP1:ϕ_s200.00000°, δ78.00000°, λ-96.00000°. NP2:ϕ_s47.00000°, δ13.00000°, λ-63.00000°.*

*IDC **17** 15:40:33.0±0.8, 31°.74N×131°.60E, h0^{km}, mb3.7/7, mb1 3.9/10, mb1mx3.7/26, mbtmp3.7/10, ML3.4/3, MS3.3/5, Ms1 3.3/5, ms1mx3.0/44, Error ellipse: s-maj=26.8km s-min=16.5km az=80.0*

*ISCJB **17** 15:40:36.8±0.7, 31°.74N±0°.05×131°.79E±0°.07, h49^{km}±6^{km}, mb3.7/9, MS3.2/4, Error ellipse: s-maj=10.1km s-min=8.1km az=5.3*

*NEIC **17** 15:40:36.9±2.5, 31°.78N×131°.56E, h27^{km}±19^{km}, mb3.8/1, Error ellipse: s-maj=10.4km s-min=7.7km az=113.0*

NEIC Recorded [2 JMA] in Miyazaki and [1 JMA] in Kagoshima.

*JMA **17** 15:40:37.1±0.1, 31°.73N×131°.80E, h45^{km}±1^{km}, M4.0*

JMA Felt II J1.

ISC 17 15:40:38.3±0.7**, 31°.73N**±0°.05×**131°.74E**±0°.07**, h41**^{km}±7^{km}**, n21, σ0^{s}.95**/26**, mb3.7**/9**, MS3.2**/4**, 4C, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNAR	Kushima--Naru	0.44	243	⇑P	Pn	15 40 47.9	-0.5
JNAR				*e*S	Sn	15 40 56.1	+0.7
JTSN	Tsuno	0.55	339	⇑P	Pn	15 40 48.8	-1.0
JTSN				*e*S	Sn	15 40 57.3	-0.6
JTZ	Takazaki	0.58	288	⇑P	Pn	15 40 49.3	-0.8
JTZ				*e*S	Sn	15 40 59.0	+0.5
JZO	Okuchi	1.05	293	⇑P	Pn	15 40 56.5	0.0
JZO				*e*S	Sn	15 41 11.7	+1.7
JOW	Kunigami	5.74	213	Pn	Pn	15 42 00.3	-0.7
	2.1nm,0.3s,baz=66,slow=18,SNR=18						
JOW				Sn	Sn	15 43 00.9	-4.7
	3.3nm,0.3s,baz=73,slow=26,SNR=10.0						
KSRS	Korea Array	6.52	332	Pn	Pn	15 42 10.9	-0.7
	0.7nm,0.3s,baz=146,slow=15,SNR=11						
KSRS				Sn	Sn	15 43 26.9	+2.2
	0.2nm,0.3s,baz=287,slow=21,SNR=3.2						
KSRS				Lg		15 44 10.1	
	0.3nm,0.3s,baz=148,slow=31,SNR=5.1						
KSRS				LR	LR	15 45 04.4	
	comp=Z,163nm,19.5s,baz=150,slow=42						
MAJO	Matsushiro	7.20	46	*e*P	Pn	15 42 21.2	+0.2
MJAR	Matsushiro Arr	7.20	46	Pn	Pn	15 42 21.2	+0.2
	1.0nm,0.3s,baz=271,slow=23,SNR=24						
ULN	Ulaanbaatar	24.73	318	*e*P	P	15 45 55.0	-0.7
	2.9nm,0.9s,mb3.8						
SONM	Songino Array	25.10	317	P	P	15 45 58.2	-0.7
	1.2nm,0.7s,mb3.6,baz=132,slow=9.1,SNR=11						
SONM				LR	LR	15 57 08.4	
	comp=Z,110nm,18.4s,MS3.4,baz=322,slow=40						
GTA	Gaotai	26.97	295	*e*P	P	15 46 15.8	-0.2
GTA				pP	pP	15 46 24.6	-2.6
GTA				sP	sP	15 46 27.3	-4.8
GTA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
CMAR	Chiang Mai Arr	32.37	254	LR	LR	16 01 52.1	
	comp=Z,40nm,20.2s,MS3.1,baz=35,slow=40						
ZALV	Zalesovo Beam	39.99	318	LR	LR	16 04 37.4	
	comp=Z,28nm,18.5s,MS3.1,baz=78,slow=36						
MK31	Makanchi Array	40.46	306	*e*P	P	15 48 11.4	-1.3
MKAR	Makanchi Array	40.46	306	P	P	15 48 11.6	-1.1
	comp=Z,0.5nm,0.5s,mb3.5,baz=88,slow=11,SNR=14						
MKAR				LR	LR	16 06 21.5	
	comp=Z,46nm,19.1s,MS3.4,baz=170,slow=38						
BRVK	Borovoye	48.47	315	*e*P	P	15 49 15.6	-1.0
WRA	Warramunga Arr	51.44	177	P	P	15 49 39.3	-0.1
	comp=Z,1.1nm,0.7s,mb3.9,baz=353,slow=8.3,SNR=6.3						
ASAR	Alice Springs	55.12	178	P	P	15 50 07.8	+1.4
	comp=Z,0.4nm,0.5s,mb3.7,baz=13,slow=12,SNR=10						
STKA	Stephens Creek	63.94	171	P	P	15 51 07.5	+0.5
	comp=Z,0.9nm,0.6s,mb4.0,baz=338,slow=17,SNR=3.6						
YKA	Yellowknife Ar	72.26	27	P	P	15 52 00.2	+1.3
	comp=Z,0.2nm,0.7s,mb3.1,baz=304,slow=5.4,SNR=4.2						
NVAR	Mina Array Bea	84.52	48	P	P	15 53 08.6	+1.5
	comp=Z,0.5nm,0.6s,mb3.8,baz=296,slow=7.6,SNR=4.0						

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*IDC **17** 15:43:45.1±1.3, 0°.22S×124°.57E, h0^{km}, mb3.4/4, mb1 3.5/4, mb1mx3.4/18, mbtmp3.4/4, Error ellipse: s-maj=174.8km s-min=22.0km az=66.0*

*ISCJB **17** 15:43:51.4±1.0, 0°.35S±0°.07×124°.49E±0°.07, h66^{km}±14^{km}, mb3.3/4, Error ellipse: s-maj=12.1km s-min=11.3km az=174.6*

*DJA **17** 15:43:51, 0°.33S×124°.44E, h66^{km}, MLv4.0/8*

ISC 17 15:43:52.7±1.0**, 0°.35S**±0°.07×**124°.49E**±0°.08**, h59**^{km}±14^{km}**, n12, σ0^{s}.55**/13**, mb3.3**/4**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.81	11	P	Pn	15 44 21.6	-0.1
APSI	Ampana	2.90	259	P	Px	15 44 45.8	
LBMI	Labuha	3.02	96	P	Pn	15 44 38.3	+0.1
LBMI				S	Sn	15 45 12.1	-1.2
TNTI	Ternate	3.08	69	P	Pn	15 44 39.1	+0.1
TNTI				S	Sn	15 45 15.0	+0.3
KDI	Kendari	4.04	207	P	Pn	15 44 51.6	-0.6
SGSI	Sangihe	4.14	15	P	Pn	15 44 53.8	+0.3
PCI	Palu	4.69	263	P	Pn	15 44 55.3	-5.7
AAI	Ambon	4.97	132	P	Pn	15 45 05.9	+1.0
	30nm,0.6s,0.2nm						
WRA	Warramunga Arr	21.73	154	P	P	15 48 39.2	-0.2
	0.3nm,0.6s,mb2.9,baz=335,slow=9.6,SNR=7.2						
ASAR	Alice Springs	24.92	159	P	P	15 49 11.1	+0.7
	0.3nm,0.7s,mb2.9,baz=343,slow=12,SNR=4.1						
SONM	Songino Array	50.51	344	P	P	15 52 44.8	-0.1
	0.4nm,0.6s,mb3.6,baz=158,slow=8.7,SNR=4.5						
MKAR	Makanchi Array	59.69	328	P	P	15 53 50.7	-0.5
	0.5nm,0.4s,mb3.9,baz=123,slow=8.0,SNR=15						

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*KISR **17** 16:23:09.1±1.0, 34°.17N×45°.35E, h33^{km}±999^{km}, ML3.3*

*ISCJB **17** 16:23:12.0±3.0, 34°.18N±0°.07×45°.62E±0°.10, h27^{km}±29^{km}, Error ellipse: s-maj=16.1km s-min=6.5km az=143.2*

*CSEM **17** 16:23:12.6±0.3, 34°.11N×45°.52E, h10^{km}, ML3.3, Error ellipse: s-maj=10.5km s-min=5.2km az=54.0*

ISC 17 16:23:12.3±2.9**, 34°.16N**±0°.06×**45°.51E**±0°.09**, h13**^{km}±19^{km}**, n11, σ0^{s}.64**/22**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BHD	Baghdad	1.29	227	*e*x	Pn	16 23 36.0	-0.1
BHD				*e*x	Sb	16 23 53.0	0.0
BHD	Baghdad	1.29	227	*e*P	Pn	16 23 36.0	-0.1
BHD				*e*S	Sb	16 23 53.0	0.0
MSL	Mosul	2.98	319	*e*x	Pn	16 24 01.0	+1.7
MSL				*e*x	Sn	16 24 34.0	-0.9
MIB	Mutribah	4.61	160	*e*P	Pn	16 24 21.5	-0.2
MIB				*e*S	Sn	16 25 15.8	+0.6
MIB				AML	AML	16 25 16.7	
	comp=Z,21nm,0.5s						
MIB	Mutribah	4.61	160	*e*P	Pn	16 24 21.5	-0.3
MIB				*e*S	Sn	16 25 15.8	+0.6
	comp=Z,21nm,0.5s						
UMR	Umm Al-Rimmam	4.96	157	*e*P	Pn	16 24 26.2	-0.3
UMR				*e*S	Sn	16 25 23.6	-0.2
UMR				AML	AML	16 25 26.9	
	comp=Z,38nm,0.2s						
UMR	Umm Al-Rimmam	4.96	157	*e*P	Pn	16 24 26.2	-0.4
UMR				*e*S	Sn	16 25 23.6	-0.2
NAY	Al-Naaiem	5.11	163	*e*P	Pn	16 24 28.1	-0.5
NAY				*e*S	Sn	16 25 27.4	-0.2
NAY				AML	AML	16 25 28.1	
	comp=Z,9.5nm,0.5s						
NAY	Al-Naaiem	5.11	163	*e*P	Pn	16 24 28.1	-0.5
NAY				*e*S	Sn	16 25 27.4	-0.1
KBD	Kabd	5.30	159	*e*P	Pn	16 24 30.9	-0.4
KBD				*e*S	Sn	16 25 32.9	+0.6
KBD	Kabd	5.30	159	*e*P	Pn	16 24 30.9	-0.4
KBD				*e*S	Sn	16 25 32.9	+0.6

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*CSEM **17** 16:46:17.3, 36°.09N×21°.63E, h5^{km}, ML3.5, After ATH*

*NEIC **17** 16:46:17.3, 36°.09N×21°.63E, h5^{km}, ML3.5(ATH), After ATH.*

*ATH **17** 16:46:17.3, 36°.09N×21°.63E, h5^{km}±4^{km}, MD3.6/8, ML3.5*

ISC 17 16:46:20.9±1.3**, 36°.14N**±0°.08×**21°.73E**±0°.06**, h10**^{km}**, n32, σ1^{s}.31**/41**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	1.05	8	*e*PB	Pg	16 46 39.0	-2.0
ITM				*e*SB	Sg	16 46 54.0	-0.6
ITM	Ithomi	1.05	8	*e*Pb	Pg	16 46 39.0	-2.0
ITM				*e*Sb	Sg	16 46 54.0	-0.6
KYTH	Kithira	1.06	82	*e*PB	Pg	16 46 39.4	-1.9
KYTH				*e*SB	Sg	16 46 55.0	-0.1
KYTH	Kithira	1.06	82	*e*Pb	Pg	16 46 39.4	-1.9
KYTH				*e*Sb	Sg	16 46 55.0	-0.1
VLI	Veliai	1.13	59	*e*PG	Pg	16 46 40.5	-2.0
VLI				*e*SB	Sg	16 46 58.5	+1.3
VLI	Veliai	1.13	59	*e*Pg	Pg	16 46 40.5	-2.0
VLI				*e*Sb	Sg	16 46 58.5	+1.3
VLX	Vlachokerasia	1.33	23	*e*PG	Pn	16 46 43.8	-1.7
VLX				*e*SB	Sn	16 47 03.3	0.0
VLX	Vlachokerasia	1.33	23	*e*Pg	Pn	16 46 43.8	-1.7
VLX				*e*Sb	Sn	16 47 03.3	0.0
GUR	Goura	1.85	15	*e*PN	Pn	16 46 54.0	+1.3
GUR	Goura	1.85	15	*e*Pn	Pn	16 46 54.0	+1.3
RLS	Riolos of Patr	1.92	354	*e*PN	Pn	16 46 54.2	+0.5
RLS	Riolos of Patr	1.92	354	*e*Pn	Pn	16 46 54.2	+0.5
NAIG	Nisos Aigina	2.14	41	*e*PN	Pn	16 46 58.0	+1.4
NAIG	Nisos Aigina	2.14	41	*e*Pn	Pn	16 46 58.0	+1.4
VLS	Valsamata	2.23	336	*e*PN	Pn	16 46 57.6	-0.2
VLS	Valsamata	2.23	336	*e*Pn	Pn	16 46 57.6	-0.2
ATH	Athens Observa	2.42	40	*e*PN	Pn	16 47 01.5	+1.0
ATH	Athens Observa	2.42	40	*e*PN	Pn	16 47 01.4	+0.9
ATH	Athens Observa	2.42	40	*e*Pn	Pn	16 47 01.4	+0.9
ATH	Athens Observa	2.42	40	*e*Pn	Pn	16 47 01.4	+0.9
ATH	Athens Observa	2.42	40	*e*Pn	Pn	16 47 01.5	+1.0
PTL	Penteli	2.55	41	*e*PN	Pn	16 47 03.5	+1.2
PTL	Penteli	2.55	41	*e*Pn	Pn	16 47 03.5	+1.2
EVR	Evrytania	2.77	1	*e*PN	Pn	16 47 07.0	+1.7
EVR	Evrytania	2.77	1	*e*Pn	Pn	16 47 07.0	+1.7
AGG	Agios Georgios	2.91	9	*e*PN	Pn	16 47 09.3	+2.0
AGG	Agios Georgios	2.91	9	*e*Pn	Pn	16 47 09.3	+2.0
THL	Klokotos Trika	3.42	4	*e*PN	Pn	16 47 14.3	0.0
THL	Klokotos Trika	3.42	4	*e*Pn	Pn	16 47 14.3	0.0
KEK	Kerkira	3.88	337	*e*PN	Pn	16 47 20.1	-0.4
KEK	Kerkira	3.88	337	*e*Pn	Pn	16 47 20.1	-0.4
KRUS	Krusevo	5.23	356	*e*Pn	Pn	16 47 37.0	-2.1
KRUS				*e*Sg	Sn	16 48 34.5	-5.0

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*IDC **17** 16:51:12.7±1.3, 24°.17N×125°.17E, h0^{km}, mb3.3/3, mb1 3.5/4, mb1mx3.3/21, mbtmp3.4/4, ML2.4/1, Error ellipse: s-maj=35.1km s-min=24.0km az=86.0*

*ISCJB **17** 16:51:13.5±1.5, 24°.09N±0°.06×125°.27E±0°.04, h6^{km}±9^{km}, mb3.3/3, Error ellipse: s-maj=11.1km s-min=5.8km az=164.7*

*JMA **17** 16:51:15.9±0.2, 24°.21N×125°.17E, h0^{km}, M3.4*

ISC 17 16:51:14.5±1.5**, 24°.10N**±0°.07×**125°.23E**±0°.05**, h4**^{km}±9^{km}**, n12, σ0^{s}.92**/19**, mb3.3**/3**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOGS	Gusukube	0.68	14	P	Pg	16 51 28.0	+0.5
JOGS				S	Sg	16 51 36.8	+0.5
JMJ	Miyako jima 2	0.71	5	P	Pg	16 51 28.5	+0.3
JMJ				S	Sg	16 51 37.0	-0.5
JTJ	Tarama	0.72	318	P	Pg	16 51 28.1	-0.2
JTJ				S	Sg	16 51 36.7	-1.0
JIJ	Ishigaki jima	1.02	285	P	Pg	16 51 34.3	+0.2
JIJ				*e*S	Sg	16 51 46.9	-0.5
JKRS	Kuro-shima	1.12	277	P	Pg	16 51 36.5	+0.5
JKRS				*e*S	Sg	16 51 50.8	+0.3
HATJ	Hateruma jima	1.30	268	P	Pn	16 51 41.1	+1.7
IRIF	Iriomote-Funau	1.39	280	P	Pn	16 51 41.2	+0.6
IRIF				*e*S	Sb	16 51 59.3	+0.3
YOJ	Yonaguni jima	2.05	281	P	Pn	16 51 50.1	+0.3
JOW	Kunigami	3.87	45	Pn	Pn	16 52 12.5	-2.3
	0.6nm,0.3s,baz=238,slow=18,SNR=5.2						
JOW				Sn	Sn	16 53 02.4	+1.6
	1.6nm,0.3s,baz=137,slow=24,SNR=2.2						
MKAR	Makanchi Array	41.00	314	P	P	16 58 56.8	-1.8
	0.1nm,0.4s,mb2.8,baz=97,slow=8.5,SNR=2.6						
WRA	Warramunga Arr	44.67	168	P	P	16 59 27.6	-0.9
	0.6nm,0.5s,mb3.7,baz=348,slow=8.8,SNR=11						
ASAR	Alice Springs	48.22	169	P	P	16 59 56.3	-0.1
	0.2nm,0.5s,mb3.4,baz=356,slow=7.6,SNR=11						

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*CSEM **17** 17:07:44.7, 36°.54N×20°.65E, h2^{km}, MD3.5, After ATH*

ATH 17 17:07:44.7, 36°.54N×20°.65E, h2^{km}**, MD3.5**/3**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.95	68	*e*PB	Pb	17 08 02.3	-1.5
PYL	PYLOS	0.95	68	*e*Pb	Pb	17 08 02.3	-1.5
ITM	Ithomi	1.21	58	*e*PN	Pn	17 08 08.1	-0.5
ITM				*e*SB	Sb	17 08 24.0	-0.3
ITM	Ithomi	1.21	58	*e*Pn	Pn	17 08 08.1	-0.5
ITM				*e*Sb	Sb	17 08 24.0	-0.3
VLX	Vlachokerasia	1.61	59	*e*PG	Pg	17 08 14.6	-1.0
VLX	Vlachokerasia	1.61	59	*e*Pg	Pg	17 08 14.6	-1.0
VLI	Veliai	1.85	84	*e*PB	Pb	17 08 20.0	+0.8
VLI	Veliai	1.85	84	*e*Pb	Pb	17 08 20.0	+0.8
KYTH	Kithira	1.94	97	*e*PG	Pg	17 08 20.5	-1.4
KYTH	Kithira	1.94	97	*e*Pg	Pg	17 08 20.5	-1.4

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*THE **17** 17:24:37.0, 38°.16N×20°.25E, h16^{km}±2^{km}, ML3.9/3, Error ellipse: s-maj=5.1km s-min=2.4km az=208.0*

*CSEM **17** 17:24:39.7±0.5, 38°.41N×20°.45E, h2^{km}, ML3.6, Error ellipse: s-maj=12.7km s-min=6.5km az=55.0*

*ISCJB **17** 17:24:40.5±0.8, 38°.36N±0°.04×20°.53E±0°.06, h8^{km}±6^{km}, Error ellipse: s-maj=8.6km s-min=5.8km az=143.3*

*ATH **17** 17:24:40.3, 38°.37N×20°.49E, h6^{km}±2^{km}, MD3.6/7, ML3.6*

*NEIC **17** 17:24:40.3, 38°.37N×20°.49E, h6^{km}, ML3.6(ATH), After ATH.*

ISC 17 17:24:39.9±0.9**, 38°.28N**±0°.05×**20°.42E**±0°.07**, h16**^{km}±5^{km}**, n44, σ1^{s}.20**/56**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.17	129	*e*PG	Pg	17 24 44.4	+0.3
VLS				*e*SG	Sg	17 24 48.2	+1.2
VLS	Valsamata	0.17	129	*e*Pg	Pg	17 24 44.4	+0.3
VLS				*e*Sg	Sg	17 24 48.2	+1.2
RLS	Riolos of Patr	0.85	105	*e*PG	Pg	17 24 55.9	-0.5
RLS				*e*SB	Sg	17 25 07.9	+0.2
RLS	Riolos of Patr	0.85	105	*e*Pg	Pg	17 24 55.9	-0.5
RLS				*e*Sb	Sg	17 25 07.9	+0.2
EFP	Efpalio	1.17	83	*e*PG	Pg	17 25 00.7	-1.8
EFP				*e*SB	Sg	17 25 16.6	-1.3
EFP	Efpalio	1.17	83	*e*Pg	Pg	17 25 00.7	-1.8
EFP				*e*Sb	Sg	17 25 16.6	-1.3
LAKA	Lakka	1.23	92	P	Pn	17 25 01.7	-0.6
LAKA	Lakka	1.23	92	P	Pn	17 25 01.7	-0.6
IGT	Igoumenitsa	1.25	357	P	Pn	17 25 01.5	-1.1
IGT				S	Sg	17 25 20.7	+0.4
IGT	Igoumenitsa	1.25	357	P	Pn	17 25 01.5	-1.1
EVR	Evrytania	1.26	59	*e*PN	Pn	17 25 01.5	-1.2
EVR	Evrytania	1.26	59	*e*Pn	Pn	17 25 01.5	-1.2
TRIZ	Trizonia	1.30	86	P	Pn	17 25 02.7	-0.6
TRIZ				S	Sg	17 25 22.3	+0.4
TRIZ	Trizonia	1.30	86	P	Pn	17 25 02.7	-0.6
TRIZ				S	Sg	17 25 22.3	+0.4
JAN	Janina	1.41	14	*e*PB	Pn	17 25 05.5	+0.7
JAN	Janina	1.41	14	*e*Pb	Pn	17 25 05.5	+0.7
KEK	Kerkira	1.51	341	*e*PB	Pn	17 25 07.5	+1.3
KEK	Kerkira	1.51	341	*e*Pb	Pn	17 25 07.5	+1.3
GUR	Goura	1.55	102	*e*PN	Pn	17 25 07.7	+0.9
GUR	Goura	1.55	102	*e*Pn	Pn	17 25 07.7	+0.9
ITM	Ithomi	1.62	132	*e*PB	Pn	17 25 11.6	+3.9
ITM	Ithomi	1.62	132	*e*Pb	Pn	17 25 11.6	+3.9
AGG	Agios Georgios	1.67	63	P	Pn	17 25 09.1	+0.8
AGG	Agios Georgios	1.67	63	*e*PB	Pn	17 25 10.1	+1.8
AGG	Agios Georgios	1.67	63	P	Pn	17 25 09.1	+0.8
AGG	Agios Georgios	1.67	63	*e*Pb	Pn	17 25 10.1	+1.8
THL	Klokotos Trika	1.78	44	P	Pn	17 25 10.7	+0.8
THL	Klokotos Trika	1.78	44	*e*PB	Pn	17 25 12.0	+2.1
THL	Klokotos Trika	1.78	44	P	Pn	17 25 10.7	+0.8
THL	Klokotos Trika	1.78	44	*e*Pb	Pn	17 25 12.0	+2.1
VLX	Vlachokerasia	1.80	120	*e*PN	Pg	17 25 14.1	-0.3
VLX	Vlachokerasia	1.80	120	*e*Pn	Pg	17 25 14.1	-0.3
KZN	Kozani	2.27	27	*e*PN	Pn	17 25 18.5	+1.8
KZN	Kozani	2.27	27	*e*Pn	Pn	17 25 18.5	+1.8
VLI	Veliai	2.54	127	*e*PN	Pg	17 25 25.0	-3.5
VLI	Veliai	2.54	127	*e*Pn	Pg	17 25 25.0	-3.5
ATH	Athens Observa	2.62	96	*e*PN	Pg	17 25 25.0	-5.0
ATH	Athens Observa	2.62	96	*e*Pn	Pg	17 25 25.0	-5.0
KRUS	Krusevo	3.15	11	*e*Pn	Pn	17 25 30.2	+1.5
KRUS	Krusevo	3.15	11	*e*Pn	Pn	17 25 30.2	+1.5
STON	Ston	5.03	337	*e*Pn	Pn	17 25 52.8	-1.8
STON				Sn	Sn	17 26 48.1	-4.2
STON	Ston	5.03	337	*e*Pn	Pn	17 25 52.7	-1.9
STON				Sn	Sn	17 26 48.1	-4.2
NVLJ	Novalja	7.53	328	*e*Pn	Pn	17 26 27.3	-1.6
NVLJ				Sn	Sn	17 27 48.8	-5.1
NVLJ	Novalja	7.53	328	*e*Pn	Pn	17 26 27.3	-1.6

IDC 17 17:44:39.9±6.0**, 19°.74S×176°.59W, h204**^{km}±54^{km}**, mb3.1**/3**, mb1 3.3**/4**, mb1mx3.1**/18**, mbtmp3.2**/4**, Error ellipse: s-maj=126.9km s-min=31.1km az=148.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.40	39	P	Pn	17 46 27.1	+1.6
	1.0nm,0.3s,baz=229,slow=20,SNR=2.3						
AFI				S	Sn	17 47 48.4	-1.1
	8.1nm,0.3s,baz=241,slow=19,SNR=9.5						
STKA	Stephens Creek	39.31	244	P	P	17 51 47.8	-1.5
	0.5nm,0.4s,baz=94,slow=15,SNR=2.8						
ASAR	Alice Springs	45.99	256	P	P	17 52 43.4	+0.3
	0.9nm,0.8s,baz=84,slow=8.9,SNR=6.9						
ASAR				PcP	PcP	17 54 15.8	-0.5
	0.3nm,0.5s,baz=112,slow=3.5,SNR=5.2						
WRA	Warramunga Arr	46.02	261	P	P	17 52 43.7	+0.3
	0.3nm,0.3s,baz=96,slow=7.6,SNR=18						
WRA				PcP	PcP	17 54 16.5	0.0
	0.8nm,1.0s,baz=104,slow=2.8,SNR=3.7						

DJA 17 17:59:52, 2°.50S×128°.65E, h24^{km}**, MLv3.5**/4**, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	1.26	201	P	Pn	18 00 14.2	0.0
AAI				S	Sn	18 00 30.8	+0.4
LBMI	Labuha	2.18	328	P	Pn	18 00 26.6	-0.2
LBMI				S	Sn	18 00 54.8	+1.8
TNTI	Ternate	3.49	338	P	Pn	18 00 45.8	+0.9

IDC 17 18:00:51.3±2.7**, 19°.35N×108°.82W, h0**^{km}**, mb3.1**/2**, mb1 3.8**/3**, mb1mx3.6**/17**, mbtmp3.4**/3**, ML3.5**/1**, MS3.0**/1**, Ms1 3.0**/1**, ms1mx2.6**/12**, Error ellipse: s-maj=61.8km s-min=24.0km az=135.0, Revilla Gigedo Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	Lajitas Array	10.99	24	Pn	Pn	18 03 32.3	+2.4
	0.1nm,0.3s,baz=198,slow=14,SNR=17						
ANMO	Albuquerque	15.68	7	LR	LR	18 10 18.3	
	comp=Z,52nm,20.3s,baz=119,slow=36						
NVAR	Mina Array Bea	20.72	339	P	P	18 05 35.0	+1.7
	1.1nm,0.9s,baz=165,slow=11,SNR=7.5						
YKA	Yellowknife Ar	43.29	356	P	P	18 08 52.5	-1.9
	0.1nm,0.4s,baz=174,slow=7.5,SNR=3.7						
ASAR	Alice Springs	121.88	254	PKP	PKPdf	18 19 48.7	+0.5
	0.2nm,0.8s,baz=75,slow=2.3,SNR=4.0						

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*NNC **17** 18:08:24.3±2.3, 39°.15N×70°.39E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=17.5km s-min=12.7km az=11.0*

ISC 17 18:08:23.8±2.4**, 38°.6N**±0°.2×**70°.5E**±0°.2**, h98**^{km}±64^{km}**, n11,**

σ0^{s}.54/14,**7C-1D,Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	**Almayashu**	**4.25**	**34**	P	**Pn**	**18 09 25.6**	**-0.7**
	SNR=24						
KK31	**Karatay Array**	**4.46**	**360**	⇑Pn	**Pn**	**18 09 29.4**	**+0.2**
	1.6nm,0.4s,baz=183,slow=13						
KK31				⇑Sn	**Sn**	**18 10 19.9**	**0.0**
	2.1nm,0.3s,baz=182,slow=23						
KK31				⇑Lg		18 10 28.9	
	5.4nm,0.5s						
UCH	**Uchtor**	**4.71**	**39**	P	**Pn**	**18 09 32.2**	**-0.3**
	SNR=19						
EKS2	**Erkin-Say**	**4.72**	**31**	P	**Pn**	**18 09 33.2**	**+0.6**
	SNR=8.1						
KZA	**Kyzart**	**4.99**	**45**	P	**Pn**	**18 09 37.6**	**+1.3**
	SNR=12						
AAK	**Ala-Archa**	**5.01**	**36**	P	**Pn**	**18 09 36.1**	**-0.4**
	SNR=12						
KBK	**Karagaybulak**	**5.24**	**39**	P	**Pn**	**18 09 39.9**	**+0.2**
	SNR=15						
USP	**Ospenovka**	**5.52**	**32**	P	**Pn**	**18 09 43.2**	**-0.3**
	SNR=13						
TKM2	**Tokmak 2**	**5.76**	**40**	⇑Pn	**Pn**	**18 09 45.8**	**-0.9**
	4.1nm,0.7s						
TKM2				⇑Sn	**Sn**	**18 10 51.5**	**+0.1**
	7.8nm,0.9s						
TKM2				⇓Lg		18 11 17.3	
	3.4nm,0.7s						
TKM2	**Tokmak 2**	**5.76**	**40**	P	**Pn**	**18 09 46.1**	**-0.6**
	SNR=9.1						
AB09	**Akbulak array**	**13.07**	**328**	⇑Pn	**Pn**	**18 11 25.5**	**0.0**
	0.6nm,0.4s						
AB09				⇑Sn	**Sn**	**18 13 43.2**	**-5.9**
	1.3nm,0.6s						

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*IDC **17** 18:31:56.5±2.0,9°.93S×107°.18E,h0^{km},mb3.9/7, mb1 4.0/8,mb1mx3.8/20,mbtmp3.9/8,ML4.1/1,MS3.4/1, Ms1 3.4/1,ms1mx2.6/30,Error ellipse: s-maj=97.3km s-min=16.3km az=50.0*

*DJA **17** 18:32:00,9°.77S×107°.69E,h30^{km},MLv4.6/4*

*NEIC **17** 18:32:02.5±0.5,9°.77S×107°.43E,h35^{km},mb3.9/4,Error ellipse: s-maj=14.7km s-min=8.9km az=46.0*

ISC 17 18:31:58.6±3.3,**9°.81S**±0°.05×**107°.47E**±0°.06,**h6**^{km}±22^{km}, **n35**,**σ0^{s}.81**/35,**mb4.2**/19,**South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	**Christmas Isla**	**1.91**	**249**	*e*Pn	**Pn**	**18 32 32.5**	**+0.8**
XMIS				*e*Sn	**Sn**	**18 32 55.0**	**-1.1**
XMIS	**Christmas Isla**	**1.91**	**249**	P	**Pn**	**18 32 33.1**	**+1.4**
LEM	**Lembang**	**2.97**	**3**	P	**Pn**	**18 32 46.5**	**+0.3**
LEM				S	**Sn**	**18 33 23.1**	**+1.0**
DBJI	**Dramaga**	**3.31**	**348**	P	**Pn**	**18 32 51.1**	**+0.1**
DBJI				S	**Sn**	**18 33 30.6**	**-0.1**
CBJI	**Citeko**	**3.42**	**350**	P	**Pn**	**18 32 49.8**	**-2.7**
UGM	**Wanagama**	**3.56**	**58**	P	**Pn**	**18 32 53.0**	**-1.4**
UGM				S	**Sn**	**18 33 28.4**	**-8.3**
SJI	**Sawahan**	**4.72**	**64**	P	**Pn**	**18 33 10.4**	**0.0**
PSI	**Prapat**	**15.15**	**325**	LR	LR	18 41 14.2	
	comp=Z,156nm,19.3s,baz=358,slow=37						
FITZ	**Fitzroy Crossi**	**19.45**	**117**	P	**Pn**	**18 36 27.7**	**+0.5**
	0.4nm,0.3s,baz=300,slow=7.2,SNR=8.6						
WRA	**Warramunga Arr**	**27.81**	**114**	P	**P**	**18 37 50.4**	**+1.6**
	0.7nm,0.9s,mb3.3,baz=282,slow=9.6,SNR=7.7						
ASAR	**Alice Springs**	**28.75**	**122**	P	**P**	**18 37 56.8**	**-0.4**
	0.7nm,0.8s,mb3.5,baz=301,slow=9.2,SNR=3.3						
CM31	**Chiang Mai Arr**	**29.32**	**343**	P	**P**	**18 38 02.1**	**-0.1**
	0.3nm,0.3s,mb3.5						
CMAR	**Chiang Mai Arr**	**29.32**	**343**	P	**P**	**18 38 01.9**	**-0.2**
	1.0nm,0.7s,mb3.7,baz=178,slow=8.5,SNR=12						
CMAR				PcP	PcP	18 41 09.8	+0.9
	0.7nm,0.9s,baz=207,slow=3.8,SNR=4.0						
CHTO	**Chiang Mai**	**29.66**	**344**	*e*P	**P**	**18 38 05.1**	**0.0**
	2.1nm,0.9s,mb3.9						
STKA	**Stephens Creek**	**38.46**	**130**	P	**P**	**18 39 21.2**	**-0.2**
	1.6nm,0.7s,mb3.9,baz=309,slow=9.8,SNR=5.7						
ODAN	**Odare**	**41.33**	**332**	*e*P	**P**	**18 39 45.9**	**+0.6**
	15nm,0.7s,mb4.8						
TAPN	**Taplejung**	**41.61**	**333**	*e*P	**P**	**18 39 48.5**	**+0.9**
	14nm,0.7s,mb4.7						
LSA	**Lhasa**	**42.31**	**339**	*e*P	**P**	**18 39 53.8**	**+0.5**
	7.9nm,0.8s,mb4.4						
JIRN	**Jiri**	**42.57**	**332**	*e*P	**P**	**18 39 56.4**	**+1.0**
	20nm,0.7s,mb5.0						
PKI	**Pulchoki**	**42.87**	**331**	*e*P	**P**	**18 39 57.9**	**0.0**
PKIN	**Phulchoki**	**42.88**	**331**	*e*P	**P**	**18 39 57.9**	**0.0**
GUN	**Gumba**	**42.93**	**331**	*e*P	**P**	**18 39 59.0**	**+0.7**
	15nm,0.7s,mb4.8						
DMN	**Daman**	**43.05**	**330**	*e*P	**P**	**18 39 59.8**	**+0.5**
	18nm,0.8s,mb4.8						
KKN	**Kakani**	**43.11**	**331**	*e*P	**P**	**18 40 00.1**	**+0.3**
	14nm,0.9s,mb4.7						
GKN	**Gorkha**	**43.60**	**330**	*e*P	**P**	**18 40 04.1**	**+0.3**
	13nm,0.8s,mb4.7						
KOLN	**Koldanda**	**43.93**	**329**	*e*P	**P**	**18 40 06.5**	**+0.1**
	16nm,0.8s,mb4.8						
DANN	**Dangsing**	**44.32**	**330**	*e*P	**P**	**18 40 10.2**	**+0.6**
SONM	**Songino Array**	**57.40**	**359**	P	**P**	**18 41 46.8**	**-0.9**
	0.7nm,0.5s,mb3.9,baz=172,slow=8.4,SNR=8.0						
ULN	**Ulaanbaatar**	**57.42**	**360**	*e*P	**P**	**18 41 46.2**	**-1.7**
	0.9nm,0.6s,mb4.0						
MK31	**Makanchi Array**	**60.67**	**340**	*e*P	**P**	**18 42 09.9**	**-0.6**
MKAR	**Makanchi Array**	**60.67**	**340**	P	**P**	**18 42 09.8**	**-0.7**
	1.8nm,0.6s,mb4.4,baz=143,slow=7.9,SNR=28						
ZALV	**Zalesovo Beam**	**66.35**	**346**	P	**P**	**18 42 46.8**	**-1.1**
	0.4nm,0.3s,mb3.9,baz=146,slow=2.8,SNR=2.9						
YKA	**Yellowknife Ar**	**119.31**	**21**	PKP	PKPdf	18 50 45.6	-2.8
	0.1nm,0.5s,baz=300,slow=1.7,SNR=3.2						
TXAR	**Lajitas Array**	**144.99**	**52**	PKPbc	PKPdf	18 51 37.3	-0.2
	1.0nm,0.8s,baz=280,slow=2.2,SNR=7.7						
TKL	**Tuckaleechee C**	**152.31**	**20**	PKPbc	PKPbc	18 51 55.1	-0.8
	2.5nm,0.8s,baz=307,slow=5.1,SNR=4.1						

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*JMA **17** 19:06:50.6±0.1,24°.66N×122°.24E,h68^{km},M2.1*

*ISCJB **17** 19:06:51.1±0.4,24°.39N±0°.03×122°.21E±0°.02,h49^{km}±8^{km}, Error ellipse: s-maj=5.2km s-min=3.2km az=159.7*

*TAP **17** 19:06:51.3,24°.40N×122°.13E,h55^{km},ML3.1,D*

ISC 17 19:06:51.5±0.4,**24°.40N**±0°.03×**122°.21E**±0°.02,**h48**^{km}±10^{km}, **n37**,**σ0^{s}.76**/71,**4C-1D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWC	**Suao**	**0.39**	**302**	*i* P	**Pn**	**19 07 01.5**	**+0.2**
	baz=309						
TWC				S	**Sn**	**19 07 08.9**	**+0.6**
	baz=309						
ENA	**Nanau**	**0.43**	**273**	⇓*i*P	**Pn**	**19 07 01.7**	**-0.1**
	baz=274						
ENA				S	**Sn**	**19 07 09.5**	**+0.4**
	baz=274						
ILA	**Ilan**	**0.55**	**311**	*e*P	**Pn**	**19 07 02.8**	**-0.5**
	baz=316						
ILA				*e*S	**Sn**	**19 07 12.4**	**+0.7**
	baz=316						
TWE	**Neicheng**	**0.58**	**303**	⇑*i*P	**Pn**	**19 07 03.8**	**+0.1**
	baz=307						
TWE				S	**Sn**	**19 07 12.7**	**+0.2**
	baz=307						
ENTT	**Nioudou**	**0.63**	**292**	⇑*i*P	**Pn**	**19 07 04.2**	**-0.1**
	baz=294						
ENTT				S	**Sn**	**19 07 13.5**	**+0.1**
	baz=294						
TWB1	**Santiao Chiao**	**0.63**	**342**	*e*P	**Pn**	**19 07 05.5**	**+1.2**
	baz=348						
TWB1				*e*S	**Sn**	**19 07 12.6**	**-1.0**
	baz=348						
TWD	**Chiawan**	**0.65**	**240**	*e*P	**Pn**	**19 07 03.8**	**-0.6**
	baz=236						
TWD				S	**Sn**	**19 07 13.7**	**-0.1**
	baz=236						
YOJ	**Yonaguni jima**	**0.73**	**85**	P	**Pn**	**19 07 05.7**	**+0.1**
YOJ				*e*S	**Sn**	**19 07 16.9**	**+1.0**
NNS	**Nan Shan**	**0.76**	**273**	⇑*i*P	**Pn**	**19 07 05.4**	**-0.6**
	baz=273						
NNS				S	**Sn**	**19 07 16.0**	**-0.5**
	baz=273						
NWF	**Wu-fen Shan**	**0.77**	**330**	*e*P	**Pn**	**19 07 05.8**	**-0.3**
	baz=334						
NWF				*e*S	**Sn**	**19 07 15.6**	**-1.1**
	baz=334						
TWA	**Mucha**	**0.81**	**315**	*e*P	**Pn**	**19 07 06.5**	**-0.1**
	baz=319						
TWA				*e*S	**Sn**	**19 07 17.3**	**-0.3**
	baz=319						
NSK	**Sanguang**	**0.82**	**289**	⇑*i*P	**Pn**	**19 07 06.4**	**-0.4**
	baz=291						
NSK				S	**Sn**	**19 07 17.4**	**-0.5**
	baz=291						
WHF	**Hehuan Shan**	**0.90**	**254**	P	**Pn**	**19 07 07.4**	**-0.4**
	baz=251						
WHF				S	**Sn**	**19 07 19.6**	**-0.2**
	baz=251						
ESL	**Shilin**	**0.92**	**231**	*e*P	**Pn**	**19 07 07.0**	**-1.1**
	baz=227						
ESL				*e*S	**Sn**	**19 07 19.1**	**-1.1**
	baz=227						
TWT	**Tachien**	**0.95**	**261**	P	**Pn**	**19 07 08.7**	**+0.1**
	baz=260						
TWT				S	**Sn**	**19 07 21.2**	**+0.1**
	baz=260						
TWS1	**Kuangyinshan**	**1.00**	**314**	*e*P	**Pn**	**19 07 08.6**	**-0.6**
	baz=317						
TWS1				*e*S	**Sn**	**19 07 22.8**	**+0.6**
	baz=317						
NSTT	**Nanjuang**	**1.12**	**282**	P	**Pn**	**19 07 10.6**	**-0.3**
	baz=282						
NSTT				*e*S	**Sn**	**19 07 25.3**	**+0.1**
	baz=282						
EHY	**Hungye**	**1.21**	**222**	*e*P	**Pn**	**19 07 10.5**	**-1.5**
	baz=219						
SMLT	**Sun Moon Lake**	**1.30**	**247**	P	**Pn**	**19 07 13.9**	**+0.6**
	baz=245						
SMLT				S	**Sn**	**19 07 30.1**	**+0.5**
	baz=245						
TWQ1	**Liyutan**	**1.31**	**268**	*e*P	**Pn**	**19 07 13.8**	**+0.4**
	baz=267						
TYC	**Yuchr**	**1.33**	**248**	*e*P	**Pn**	**19 07 13.6**	**-0.1**
	baz=246						
TYC				*e*S	**Sn**	**19 07 30.1**	**-0.2**
	baz=246						
TWF1	**Yuli**	**1.34**	**219**	*e*P	**Pn**	**19 07 12.5**	**-1.3**
	baz=215						
TWF1				*e*S	**Sn**	**19 07 28.4**	**-2.0**
	baz=215						
IRIF	**Iriomote-Funau**	**1.39**	**93**	P	**Pn**	**19 07 14.2**	**-0.3**
IRIF				*e*S	**Sn**	**19 07 31.8**	**+0.1**
YUS	**Yu-Shan**	**1.47**	**232**	*e*P	**Pn**	**19 07 15.8**	**+0.2**
	baz=229						
YUS				*e*S	**Sn**	**19 07 32.9**	**-0.7**
	baz=229						
WNT	**Mingjian**	**1.49**	**250**	*e*P	**Pn**	**19 07 16.4**	**+0.5**
	baz=248						
WNT				*e*S	**Sn**	**19 07 35.5**	**+1.4**
	baz=248						
ALS	**Alishan**	**1.56**	**236**	P	**Pn**	**19 07 17.5**	**+0.6**
	baz=233						
ALS				*e*S	**Sn**	**19 07 36.2**	**+0.3**
	baz=233						
CHN5	**Tsauling**	**1.61**	**240**	P	**Pn**	**19 07 18.2**	**+0.6**
	baz=238						
CHN5				*e*S	**Sn**	**19 07 38.7**	**+1.5**
	baz=238						
ELDTW	**Lidau**	**1.63**	**222**	*e*P	**Pn**	**19 07 16.9**	**-0.9**
	baz=219						
ELDTW				*e*S	**Sn**	**19 07 36.4**	**-1.2**
	baz=219						
JKRS	**Kuro-shima**	**1.65**	**95**	P	**Pn**	**19 07 18.4**	**+0.3**
JKRS				*e*S	**Sn**	**19 07 38.8**	**+0.7**
WGK	**Gukeng**	**1.67**	**245**	*e*P	**Pn**	**19 07 18.5**	**+0.2**
	baz=243						
JIJ	**Ishigaki jima**	**1.76**	**91**	P	**Pn**	**19 07 19.3**	**-0.3**
JIJ				*e*S	**Sn**	**19 07 40.7**	**-0.2**
STYT	**Tauyuan**	**1.81**	**227**	*e*P	**Pn**	**19 07 20.7**	**+0.4**
	baz=225						
STYT				*e*S	**Sn**	**19 07 42.0**	**-0.1**
	baz=225						
WTP	**Ta-pu**	**1.86**	**232**	*e*P	**Pn**	**19 07 21.7**	**+0.8**
	baz=230						
WTP				*e*S	**Sn**	**19 07 44.5**	**+1.3**
	baz=230						
TWG	**Pinlang**	**1.89**	**214**	*e*P	**Pn**	**19 07 20.2**	**-1.1**
	baz=211						
TWG				*e*S	**Sn**	**19 07 40.7**	**-3.3**
	baz=211						
CHN1	**Nanshi**	**1.96**	**232**	*e*P	**Pn**	**19 07 23.2**	**+0.9**
	baz=230						
CHN1				*e*S	**Sn**	**19 07 46.9**	**+1.2**
	baz=230						
SGST	**Jiashian**	**1.99**	**229**	*e*P	**Pn**	**19 07 22.0**	**-0.7**
	baz=227						
SGST				*e*S	**Sn**	**19 07 47.8**	**+1.4**
	baz=227						
SSD	**Sandimen**	**2.19**	**222**	*e*P	**Pn**	**19 07 26.6**	**+1.1**
	baz=219						
SSD				*e*S	**Sn**	**19 07 52.1**	**+0.6**
	baz=219						

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*NEIC **17** 19:28:50.8±1.8,7°.59S×127°.67E,h121^{km}±18^{km},mb5.3/3, Error ellipse: s-maj=21.2km s-min=12.1km az=68.0*

*ISCJB **17** 19:28:53.7±0.7,7°.77S±0°.04×127°.78E±0°.06,h171^{km}±8^{km}, mb4.2/21,Error ellipse: s-maj=10.7km s-min=6.1km az=156.0*

*IDC **17** 19:28:56.3±2.9,7°.56S×127°.78E,h170^{km}±27^{km},mb3.8/15, mb1 3.9/16,mb1mx3.9/21,mbtmp3.9/16,MS3.3/1, Ms1 3.3/1,ms1mx2.5/27,Error ellipse: s-maj=23.0km s-min=9.7km az=69.0*

*DJA **17** 19:28:58,7°.59S×128°.73E,h70^{km},mb5.3/7*

ISC 17 19:28:54.7±0.7,**7°.71S**±0°.05×**127°.76E**±0°.06,**h157**^{km}±8^{km}, **n47**,**σ1^{s}.29**/52,**mb4.3**/21,**1D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	**Ambon**	**4.02**	**6**	P	**Pn**	**19 29 55.8**	**+0.3**
NLAI	**Namlea**	**4.49**	**352**	P	**Pn**	**19 30 07.6**	**+6.0**
KAKA	**Kakadu**	**6.77**	**138**	*e*P	**Pn**	**19 30 31.1**	**-0.7**
	222nm,0.5s						
KAKA				*e*S	**Sn**	**19 31 43.2**	**-4.8**
KAKA	**Kakadu**	**6.77**	**138**	*e*Pn	**Pn**	**19 30 30.9**	**-0.9**
	570nm,0.6s						
KAKA				*e*Sn	**Sn**	**19 31 43.3**	**-4.7**
KAKA	**Kakadu**	**6.77**	**138**	P	**Pn**	**19 30 31.9**	**+0.1**
	446nm,0.6s,5.7nm						
WSI	**Waingapu**	**7.63**	**255**	S	**Sn**	**19 32 08.5**	**-0.1**
TNTI	**Ternate**	**8.44**	**357**	P	**Pn**	**19 30 56.7**	**+2.7**
	43nm,1.4s,0.2nm						
MNI	**Manado**	**9.55**	**342**	P	**Pn**	**19 31 10.5**	**+1.8**
	105nm,0.9s						
FITZ	**Fitzroy Crossi**	**10.53**	**191**	⇓*i*P	**Pn**	**19 31 20.2**	**-1.4**
	21nm,0.7s						
FITZ				*e*S	**Sn**	**19 33 12.9**	**-5.4**
FITZ	**Fitzroy Crossi**	**10.53**	**191**	P	**Pn**	**19 31 19.6**	**-2.0**
	2.2nm,0.3s,baz=33,slow=9.3,SNR=36						
FITZ				S	**Sn**	**19 33 11.9**	**-6.4**
	8.7nm,0.3s,baz=70,slow=13,SNR=11						
FITZ	**Fitzroy Crossi**	**10.53**	**191**	*e*Pn	**Pn**	**19 31 18.6**	**-3.1**
	6.8nm,0.3s						
FITZ				*e*Sn	**Sn**	**19 33 10.3**	**-8.0**
FITZ	**Fitzroy Crossi**	**10.53**	**191**	P	**Pn**	**19 31 25.5**	**+3.9**
	54nm,2.5s						
WRAB	**Tennant Creek**	**13.72**	**153**	*e*Pn	**Pn**	**19 32 01.3**	**-1.6**
	52nm,0.4s						
WRAB				*e*Sn	**Sn**	**19 34 26.0**	**-9.1**
WRAB	**Tennant Creek**	**13.72**	**153**	P	**Pn**	**19 32 02.2**	**-0.7**
	86nm,0.7s						
WRA	**Warramunga Arr**	**13.73**	**153**	P	**Pn**	**19 32 00.6**	**-2.3**
	3.8nm,0.3s,baz=325,slow=14,SNR=108						
WRA				S	**Sn**	**19 34 26.0**	**-9.2**
	3.0nm,0.3s,baz=333,slow=22,SNR=12						
WB2	**Warramunga Arr**	**13.73**	**153**	*e*Pn	**Pn**	**19 32 01.3**	**-1.7**
ASAR	**Alice Springs**	**16.92**	**160**	P	**Pn**	**19 32 44.5**	**+2.1**
	8.4nm,0.3s,baz=336,slow=10,SNR=589						
ASAR				S	**S**	**19 35 40.5**	**-10**
	0.3nm,0.3s,baz=333,slow=24,SNR=4.4						
CTA	**Charters Tower**	**21.73**	**126**	P	**P**	**19 33 35.1**	**+1.5**
	8.1nm,0.7s,mb4.2,baz=318,slow=11,SNR=6.8						
CTA				LR	LR	19 41 01.9	
	comp=Z,74nm,20.6s,baz=53,slow=33						
FORT	**Forrest**	**22.95**	**179**	*e*P	**P**	**19 33 47.2**	**+1.8**
	21nm,0.6s,mb4.7						
KLBR	**Kellerberrin**	**25.53**	**200**	*e*P	**P**	**19 34 11.8**	**+3.0**
	30nm,1.3s,mb4.8						
NWAO	**Narrogin (SRO)**	**26.92**	**200**	P	**P**	**19 34 22.8**	**+1.5**
	4.9nm,0.7s,mb4.2,baz=51,slow=13,SNR=3.1						
STKA	**Stephens Creek**	**27.28**	**154**	*e*P	**P**	**19 34 25.8**	**+1.3**
	4.0nm,0.4s,mb4.4						
STKA	**Stephens Creek**	**27.28**	**154**	P	**P**	**19 34 25.8**	**+1.3**
	4.0nm,0.4s,mb4.4,baz=329,slow=7.8,SNR=13						
CMAR	**Chiang Mai Arr**	**38.53**	**313**	P	**P**	**19 36 02.8**	**+0.6**
	1.0nm,0.6s,mb3.6,baz=139,slow=6.5,SNR=11						
CMAR				ScP	ScP	19 41 44.2	-1.0
	0.7nm,0.8s,baz=160,slow=2.8,SNR=7.0						
KSRS	**Korea Array**	**44.93**	**0**	P	**P**	**19 36 53.6**	**-0.3**
	1.8nm,0.6s,mb3.9,baz=178,slow=9.5,SNR=8.7						
MJAR	**Matsushiro Arr**	**45.10**	**12**	P	**P**	**19 36 53.0**	**-2.2**
	2.3nm,1.0s,mb3.8,baz=181,slow=11,SNR=4.4						
RPZ	**Rata Peaks**	**52.06**	**141**	P	**P**	**19 37 50.3**	**+1.9**
	26nm,1.1s,mb4.8,baz=354,slow=10,SNR=6.8						
ODAN	**Odare**	**52.08**	**313**	*e*P	**P**	**19 37 48.0**	**-0.7**
	4.1nm,0.4s,mb4.4						
TAPN	**Taplejung**	**52.13**	**314**	*e*P	**P**	**19 37 48.9**	**-0.2**
	4.1nm,0.3s,mb4.5						
RAMN	**Ramite**	**52.70**	**312**	*e*P	**P**	**19 37 53.1**	**-0.3**
	7.3nm,0.5s,mb4.7						
GUN	**Gumba**	**53.78**	**313**	*e*P	**P**	**19 38 00.9**	**-0.3**
URZ	**Urewera**	**53.81**	**132**	P	**P**	**19 38 01.9**	**+0.6**
	8.0nm,1.0s,mb4.4,baz=303,slow=17,SNR=2.8						
GKN	**Gorkha**	**54.74**	**312**	*e*P	**P**	**19 38 07.6**	**-0.5**
	5.6nm,0.3s,mb4.8						
KOLN	**Koldanda**	**55.37**	**311**	*e*P	**P**	**19 38 12.5**	**-0.2**
SONM	**Songino Array**	**58.44**	**343**	P	**P**	**19 38 33.9**	**0.0**
	0.8nm,0.5s,mb3.9,baz=168,slow=7.6,SNR=11						
PETK	**Petropavlovsk-**	**65.70**	**19**	P	**P**	**19 39 21.4**	**-0.8**
	2.2nm,1.0s,mb4.0,baz=132,slow=2.2,SNR=4.2						
PETK	**Petropavlovsk-**	**65.70**	**19**	P	**P**	**19 39 21.4**	**-0.8**
MK31	**Makanchi Array**	**67.62**	**328**	*e*P	**P**	**19 39 33.9**	**-0.6**
MKAR	**Makanchi Array**	**67.62**	**328**	P	**P**	**19 39 33.8**	**-0.7**
	0.8nm,0.4s,mb3.8,baz=121,slow=7.7,SNR=38						
ZALV	**Zalesovo Beam**	**71.26**	**335**	P	**P**	**19 39 54.6**	**-2.0**
	0.5nm,0.3s,mb3.7,baz=133,slow=6.3,SNR=4.0						
VNDA	**Vanda**	**72.02**	**173**	P	**P**	**19 40 02.2**	**+1.3**
	24nm,0.6s,mb5.1,baz=304,slow=8.2,SNR=10						
VNDA	**Vanda**	**72.02**	**173**	P	**P**	**19 40 02.2**	**+1.3**
BVAR	**Borovoye Array**	**77.49**	**329**	P	**P**	**19 40 31.9**	**-0.8**
	0.6nm,0.5s,mb3.5,baz=126,slow=8.2,SNR=7.9						
QSPA	**South Pole Qui**	**82.27**	**180**	P	**P**	**19 40 58.9**	**+0.9**
	5.8nm,0.6s,mb4.4,baz=360,slow=19,SNR=3.8						
TORD	**Torodi Ar. Bea**	**126.76**	**281**	PKP	PKPdf	19 47 38.9	-1.7
	0.4nm,0.6s,baz=88,slow=2.3,SNR=3.2						
CPUP	**Villa Florida**	**145.80**	**172**	PKPbc	PKPbc	19 48 16.4	+0.3
	1.0nm,0.4s,baz=117,slow=0.5,SNR=7.0						
CPUP	**Villa Florida**	**145.80**	**172**	PKPbc	PKPbc	19 48 16.4	+0.3

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*MOS **17** 19:32:04.3±1.1,59°.01S×25°.63W,h33^{km},mb5.4/6,Error ellipse: s-maj=34.5km s-min=19.4km az=86.4*

*ISCJB **17** 19:32:05.6±0.3,59°.06S±0°.06×25°.6W±0°.1,h50^{km}, mb4.9/26,MS4.1/10,Error ellipse: s-maj=9.7km s-min=7.8km az=160.1*

*NEIC **17** 19:32:09.1±2.2,58°.99S×25°.70W,h66^{km}±18^{km},mb4.9/9, Error ellipse: s-maj=8.7km s-min=8.2km az=198.0*

*IDC **17** 19:32:09.6±1.9,58°.98S×25°.78W,h68^{km}±15^{km},mb4.7/11, mb1 4.7/12,mb1mx4.5/18,mbtmp4.7/12,MS4.1/11, Ms1 4.0/11,ms1mx4.0/16,Error ellipse: s-maj=15.9km s-min=14.4km az=58.0*

*BJI **17** 19:32:11.1,59°.00S×25°.70W,h66^{km},mB5.5/4*

ISC 17 19:32:04.3±3.3,**59°.05S**±0°.07×**25°.6W**±0°.1,**h24**^{km}±24^{km}, **n98**,**σ0^{s}.87**/47,**mb4.9**/26,**MS4.1**/10,**2C,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**13.70**	**155**	*e*P	**Pn**	**19 35 17.2**	**+0.6**
VNA3	**Neumayer Olymp**	**13.87**	**158**	*e*P	**Pn**	**19 35 19.0**	**-0.1**
VNA3				*e*S	**Sn**	**19 37 37.1**	**-15**
VNA3				*e*		19 40 40.1	
VNA2	**Neumayer--Watz**	**14.09**	**155**	*e*P	**Pn**	**19 35 21.6**	**-0.5**
	baz=313,slow=15						
VNA2				*e*S	**Sn**	**19 37 42.2**	**-15**
VNA2				*e*		19 40 41.1	
PMSA	**Palmer Station**	**18.74**	**236**	P	**Pn**	**19 36 22.4**	**+0.9**
	0.7nm,0.3s,baz=136,slow=13,SNR=2.7						
PMSA				LR	LR	19 42 28.0	
	comp=Z,519nm,19.3s,baz=102,slow=33						
MAIT	**Maitri**	**19.29**	**143**	*e*P	**Pn**	**19 36 25.9**	**-2.1**
USHA	**Ushuaia**	**23.43**	**262**	P	**P**	**19 37 11.6**	**+0.1**
	17nm,0.6s,mb4.7,baz=107,slow=12,SNR=8.1						
USHA				LR	LR	19 43 48.1	
	comp=Z,668nm,20.5s,MS4.1,baz=121,slow=30						
QSPA	**South Pole Qui**	**31.19**	**180**	P	**P**	**19 38 22.8**	**+1.9**
	39nm,0.6s,mb5.4,baz=208,slow=2.8,SNR=391						
QSPA				PcP	PcP	19 41 15.1	+0.2
	10.0nm,0.7s,baz=168,slow=4.8,SNR=4.9						
PLCA	**Paso Flores**	**33.44**	**283**	P	**P**	**19 38 41.0**	**0.0**
PLCA						19 41 20.1	
PLCA	**Paso Flores**	**33.44**	**283**	P	**P**	**19 38 41.0**	**0.0**
	8.6nm,0.8s,mb4.7,baz=147,slow=8.3,SNR=15						
PLCA				PcP	PcP	19 41 20.1	-1.6
	0.8nm,0.7s,baz=236,slow=3.2,SNR=2.9						
PLCA				LR	LR	19 52 58.3	
	comp=Z,213nm,18.6s,MS3.9,baz=150,slow=38						
MAW	**Mawson**	**37.25**	**141**	LR	LR	19 52 23.9	
	comp=Z,366nm,18.9s,MS4.2,baz=257,slow=32						
CPUP	**Villa Florida**	**39.45**	**312**	P	**P**	**19 39 30.4**	**-1.9**
	1.2nm,0.7s,mb3.7,baz=131,slow=7.7,SNR=5.4						
CPUP				LR	LR	19 55 18.1	
	comp=Z,118nm,19.6s,MS3.7,baz=154,slow=35						
CFAA	**Coronel Fontan**	**39.57**	**295**	P	**P**	**19 39 32.5**	**-0.7**
	6.2nm,0.8s,mb4.4,baz=148,slow=7.5,SNR=46						
LCO	**Las Campanas**	**42.89**	**294**	*e*P	**P**	**19 40 00.6**	**0.0**
	24nm,0.8s,mb5.0						
VNDA	**Vanda**	**43.61**	**182**	P	**P**	**19 40 07.6**	**+1.8**
VNDA	**Vanda**	**43.61**	**182**	P	**P**	**19 40 07.6**	**+1.8**
	24nm,0.6s,mb5.1,baz=187,slow=6.7,SNR=101						
VNDA				LR	LR	19 58 28.9	
	comp=Z,146nm,19.6s,MS3.9,baz=173,slow=36						
VNDA	**Vanda**	**43.61**	**182**	P	**P**	**19 40 07.6**	**+1.8**
VNDA				LR	LR	19 58 28.9	
BOSA	**Boshof**	**46.00**	**71**	P	**P**	**19 40 25.7**	**+0.3**
	3.6nm,0.8s,mb4.4,baz=186,slow=8.7,SNR=6.4						
BOSA				LR	LR	19 56 01.5	
	comp=Z,205nm,19.3s,MS4.1,baz=194,slow=31						
BOSA	**Boshof**	**46.00**	**71**	*e*P	**P**	**19 40 25.5**	**0.0**
BOSA				*e*		19 40 40.6	
LVC	**Limon Verde**	**47.56**	**301**	*e*P	**P**	**19 40 37.1**	**-0.6**
	5.3nm,0.6s,mb4.8						
LBTB	**Lobatse**	**49.17**	**69**	*e*P	**P**	**19 40 49.8**	**-0.3**
LBTB				*e**PP	pP	19 41 05.3	+7.7
LBTB				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
LBTB	**Lobatse**	**49.17**	**69**	*e*P	**P**	**19 40 49.8**	**-0.3**
	comp=Z,5.6nm,0.7s,mb4.7						
LBTB				*e*pP	pP	19 41 05.3	+7.7
TSUM	**Tsumeb**	**50.51**	**57**	*e*P	**P**	**19 41 00.3**	**+0.1**
	comp=Z,4.6nm,0.6s,mb4.6						
CASY	**Casey**	**50.79**	**159**	*e*P	**P**	**19 41 02.5**	**+0.7**
	comp=Z,16nm,0.8s,mb5.0						
LSZ	**Lusaka**	**58.75**	**66**	*e*P	**P**	**19 42 00.2**	**+0.1**
LSZ				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
LSZ	**Lusaka**	**58.75**	**66**	*e*P	**P**	**19 42 00.2**	**+0.1**
	comp=Z,9.8nm,0.7s,mb5.0						
LIC	**Lamto**	**67.12**	**22**	*e*P	**P**	**19 42 56.1**	**+0.4**
	comp=Z,43nm,0.7s,mb5.6						
KIC	**Kosan Boka**	**67.31**	**23**	*e*P	**P**	**19 42 57.4**	**+0.5**
	comp=Z,69nm,0.8s,mb5.7						
TIC	**Toumodi**	**67.53**	**22**	*e*P	**P**	**19 42 58.4**	**+0.1**
	comp=Z,45nm,0.7s,mb5.6						
DBIC	**Dimbokro**	**67.58**	**22**	*e*P	**P**	**19 42 58.8**	**+0.2**
DBIC				pmax	pmax		
	comp=Z,16nm,1.0s						
DBIC	**Dimbokro**	**67.58**	**22**	P	**P**	**19 42 59.0**	**+0.4**
	comp=Z,10nm,0.7s,mb4.9,baz=176,slow=7.7,SNR=15						
DBIC				LR	LR	20 05 31.8	
	comp=Z,67nm,20.1s,MS3.9,baz=144,slow=30						
DBIC	**Dimbokro**	**67.58**	**22**	*e*P	**P**	**19 42 58.8**	**+0.2**
	comp=Z,16nm,1.0s,mb5.0						
ROSC	**El Rosal**	**74.47**	**309**	LR	LR	20 16 13.1	
	comp=Z,140nm,18.5s,MS4.3,baz=177,slow=36						
TOA0	**Torodi Ar. Sit**	**75.29**	**28**	*e*P	**P**	**19 43 44.9**	**-0.1**
TORD	**Torodi Ar. Bea**	**75.29**	**28**	P	**P**	**19 43 45.7**	**+0.6**
	comp=Z,25nm,0.6s,mb5.3,baz=198,slow=6.6,SNR=188						
TORD				LR	LR	20 08 57.2	
	comp=Z,125nm,21.4s,MS4.2,baz=330,slow=29						
KMBO	**Kilima Mbogo**	**75.38**	**67**	LR	LR	20 13 59.0	
	comp=Z,235nm,18.7s,MS4.5,baz=267,slow=33						
TOO	**Toolangi**	**83.45**	**173**	*e*P	**P**	**19 44 29.2**	**-0.2**
MUN	**Mundaring**	**83.92**	**148**	*e*P	**P**	**19 44 31.3**	**-0.6**
TAM	**Tamanrasset**	**85.50**	**29**	*e*P	**P**	**19 44 42.2**	**+2.5**
TAM				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.4						
TAM	**Tamanrasset**	**85.50**	**29**	*e*P	**P**	**19 44 42.2**	**+2.5**
	comp=Z,1.6nm,0.7s,mb4.3						
YNG	**Young**	**86.87**	**175**	*e*P	**P**	**19 44 46.6**	**0.0**

	comp=Z,3.9nm,0.6s,mb4.8						
BBOO	Buckleboo	87.22	165	⇑iP	P	19 44 47.7	-0.6
	comp=Z,6.2nm,0.6s,mb5.0						
FORT	Forrest	87.86	158	eP	P	19 44 51.5	0.0
	comp=Z,43nm,0.6s,mb5.8						
STKA	Stephens Creek	88.79	169	eP	P	19 44 55.6	-0.2
	comp=Z,8.8nm,0.6s,mb5.3						
STKA	Stephens Creek	88.79	169	P	P	19 44 55.6	-0.2
	comp=Z,9.9nm,0.7s,mb5.3,baz=168,slow=5.2,SNR=20						
CMSA	Cobar Meteorol	89.46	173	⇑iP	P	19 44 58.9	-0.1
ASAR	Alice Springs	95.86	161	P	P	19 45 27.6	-1.0
	comp=Z,7.2nm,0.6s,mb5.2,baz=183,slow=4.1,SNR=117						
ASAR				PP	PP	19 49 21.0	+1.2
	comp=Z,1.2nm,0.9s,baz=182,slow=10,SNR=6.4						
ASAR				PKiKP	PKiKP	19 50 07.1	-0.5
	comp=Z,0.4nm,0.7s,baz=172,slow=1.8,SNR=5.4						
ASAR	Alice Springs	95.86	161	P	P	19 45 27.6	-1.0
ASAR				PP	PP	19 49 21.0	+1.2
WRA	Warramunga Arr	99.58	161	P	P	19 45 43.9	-1.5
	comp=Z,0.6nm,0.6s,mb4.2,baz=193,slow=4.3,SNR=10						
WRA				PKiKP	PKiKP	19 50 13.7	-0.6
	comp=Z,0.9nm,1.1s,baz=220,slow=1.5,SNR=4.5						
WRAB	Tennant Creek	99.59	161	P	Pdif	19 45 44.3	-1.3
WRAB				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb5.0						
WRAB	Tennant Creek	99.59	161	Pdif	Pdif	19 45 44.3	-1.3
	comp=Z,9.1nm,1.3s						
TXAR	Lajitas Array	108.90	295	PKiKP	PKiKP	19 50 30.5	-0.4
	comp=Z,0.4nm,0.6s,baz=158,slow=5.5,SNR=3.5						
TXAR	Lajitas Array	108.90	295	PKPdf	PKiKP	19 50 30.5	-0.4
GERES	GERESS Array B	112.24	27	PKiKP	PKiKP	19 50 35.9	-0.6
	comp=Z,0.3nm,0.6s,baz=207,slow=3.3,SNR=4.0						
AKASG	Malin Array Be	118.12	36	PKP	PKPdf	19 50 46.5	-1.3
	comp=Z,2.5nm,0.7s,baz=245,slow=1.0,SNR=9.0						
SCHQ	Schefferville	118.25	334	PKP	PKPdf	19 50 46.9	-1.0
	comp=Z,4.8nm,0.8s,baz=179,slow=0.5,SNR=9.5						
PDAR	Pinedale Array	122.62	300	PKP	PKPdf	19 50 55.4	-1.3
	comp=Z,0.8nm,0.6s,baz=136,slow=5.4,SNR=7.7						
ULM	Lac du Bonnet	122.98	314	PKP	PKPdf	19 50 55.6	-1.5
	comp=Z,7.0nm,0.6s,baz=332,slow=0.3,SNR=16						
NB2	NORSAR Subarra	123.13	20	PKPdf	PKPdf	19 50 56.7	-0.4
	comp=Z,6.3nm,1.1s,baz=202,slow=1.9						
NB2	NORSAR Subarra	123.13	20	PKPdf	PKPdf	19 50 56.7	-0.4
	baz=202,slow=1.9						
NOA	NORSAR Array B	123.13	20	PKP	PKPdf	19 50 56.5	-0.5
	comp=Z,5.7nm,1.0s,baz=192,slow=1.7,SNR=7.2						
KOLN	Koldanda	123.19	91	eP	PKPdf	19 50 57.7	-0.6
	comp=Z,21nm,0.8s						
CMAR	Chiang Mai Arr	123.20	111	PKP	PKPdf	19 50 58.2	-0.4
	comp=Z,4.7nm,0.7s,baz=228,slow=3.7,SNR=37						
NVAR	Mina Array Bea	123.30	290	PKP	PKPdf	19 50 58.7	+0.5
	comp=Z,1.6nm,0.6s,baz=134,slow=3.3,SNR=15						
DANN	Dangsing	123.74	90	eP	PKPdf	19 50 59.0	-0.4
DMN	Daman	123.84	92	eP	PKPdf	19 50 59.2	-0.4
	comp=Z,13nm,0.7s						
GKN	Gorkha	123.91	91	eP	PKPdf	19 50 59.0	-0.7
	comp=Z,15nm,0.7s						
PKIN	Phulchoki	123.96	92	eP	PKPdf	19 50 59.3	-0.5
	comp=Z,9.6nm,0.7s						
PKI	Pulchoki	123.96	92	eP	PKPdf	19 50 59.3	-0.5
	comp=Z,13nm,0.7s						
KKN	Kakani	124.07	92	eP	PKPdf	19 50 59.5	-0.5
	comp=Z,9.5nm,0.6s						
RAMN	Ramite	124.07	94	eP	PKPdf	19 51 00.2	+0.2
	comp=Z,24nm,0.6s						
OBN	Obninsk	124.20	38	ePKIKP	PKPdf	19 50 59.2	-0.1
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ODAN	Odare	124.41	95	eP	PKPdf	19 51 00.9	+0.2
	comp=Z,16nm,0.6s						
JIRN	Jiri	124.44	93	eP	PKPdf	19 51 00.8	+0.1
	comp=Z,29nm,0.6s						
GUN	Gumba	124.48	93	eP	PKPdf	19 51 00.8	0.0
	comp=Z,16nm,0.7s						
TAPN	Taplejung	124.97	95	eP	PKPdf	19 51 02.0	+0.2
FRB	Frobisher Bay	126.76	338	PKP	PKPdf	19 51 03.5	-0.5
	comp=Z,12nm,0.7s,baz=140,slow=3.2,SNR=34						
KAF	Kangasniemi	127.28	28	ePKIKP	PKPdf	19 51 02.6	-2.4
KAF				pmax	pmax		
	comp=Z,14nm,0.7s						
KAF	Kangasniemi	127.28	28	ep	PKPdf	19 51 02.6	-2.4
	comp=Z,14nm,0.7s						
YBH	Yreka Blue Hor	127.99	290	PKP	PKPdf	19 51 07.8	+0.8
	comp=Z,0.8nm,0.6s,baz=122,slow=3.7,SNR=3.3						
JOF	Joensuu	129.20	30	ePKIKP	PKPdf	19 51 06.9	-1.7
JOF				pmax	pmax		
	comp=Z,17nm,0.8s						
JOF	Joensuu	129.20	30	ep	PKPdf	19 51 06.9	-1.7
	comp=Z,17nm,0.8s						
ARCES	ARCESS Array B	133.41	22	PKP	PKPdf	19 51 16.0	-0.5
	comp=Z,8.3nm,0.8s,baz=262,slow=1.3,SNR=12						
BVAR	Borovoye Array	135.63	59	PKP	PKPdf	19 51 20.0	-1.1
	baz=248,slow=1.6						
MKAR	Makanchi Array	136.98	73	PKHKP		19 51 12.1	
MKAR						19 51 22.0	
MKAR	Makanchi Array	136.98	73	PKhKP		19 51 12.1	
	comp=Z,0.8nm,0.7s,baz=220,slow=4.5,SNR=4.0						
MKAR				PKP	PKPdf	19 51 22.0	-1.8
	comp=Z,2.3nm,0.8s,baz=228,slow=1.6,SNR=10.0						
MKAR				SKP		19 54 50.9	
	comp=Z,1.2nm,0.8s,baz=248,slow=1.3,SNR=7.3						
YKA	Yellowknife Ar	138.94	315	PKP	PKPdf	19 51 26.1	-0.8
	comp=Z,17nm,0.6s,baz=129,slow=2.3,SNR=202						
YKA				SKPbc	SKPbc	19 54 54.6	-5.3
	comp=Z,0.8nm,0.8s,baz=131,slow=2.3,SNR=4.5						
YKA				PKKP		20 00 54.6	
	comp=Z,0.1nm,0.5s,baz=328,slow=1.8,SNR=3.8						
LZH	Lanzhou	140.18	102	ePKP	PKPdf	19 51 32.5	+2.5
LZH				AMB	AMB		
	comp=Z,160nm,5.6s						
GTA	Gaotai	140.66	95	PKP	PKPdf	19 51 29.1	-1.7
ZALV	Zalesovo Beam	142.86	67	PKhKP		19 51 29.4	
	comp=Z,1.8nm,0.5s,baz=239,slow=4.0,SNR=9.0						
MOY	Mondy	149.51	80	ePKP2	PKPbc	19 51 50.5	+0.4
MOY				pmax	pmax		
	comp=Z,20nm,1.8s						
ZAK	Zakamensk	149.92	84	ePKHKP		19 51 45.5	
SONM	Songino Array	149.95	90	PKP	PKPdf	19 51 46.0	-0.4
	comp=Z,11nm,0.8s,baz=202,slow=3.2,SNR=34						
SONM				PKPbc	PKPbc	19 51 50.8	-0.6
	comp=Z,11nm,0.8s,baz=219,slow=2.4,SNR=54						
SONM				PKPab	PKPab	19 51 56.9	-0.3
	comp=Z,4.5nm,0.8s,baz=222,slow=3.0,SNR=8.2						
TLY	Talaya	150.87	82	ePKIKP	PKPbc	19 51 53.7	+0.3
TLY				pmax	pmax		
	comp=Z,13nm,1.0s						
KSRS	Korea Array	152.45	130	PKP	PKPdf	19 51 50.0	-0.5
	comp=Z,0.8nm,0.8s,baz=163,slow=1.3,SNR=3.6						
KSRS				PKPbc	PKPbc	19 51 57.0	-0.5
	comp=Z,3.1nm,0.6s,baz=202,slow=2.1,SNR=15						
KSRS				PKPab	PKPab	19 52 08.2	+0.4
	comp=Z,4.4nm,0.8s,baz=216,slow=4.0,SNR=8.8						
KDAK	Kodiak Island	152.80	291	PKPbc	PKPbc	19 51 57.8	+0.2
	comp=Z,14nm,0.9s,baz=180,slow=3.0,SNR=4.6						
MJAR	Matsushiro Arr	155.12	148	PKPbc	PKPdf	19 52 03.3	+8.8
	comp=Z,1.0nm,0.6s,baz=144,slow=3.5,SNR=4.5						
MJAR				PKPab	PKPab	19 52 18.7	-0.5
	comp=Z,2.5nm,0.6s,baz=184,slow=4.8,SNR=8.4						
BOD	Bodaibo	159.04	76	ePKIKP	PKPdf	19 51 55.9	-2.8
BOD				e		19 52 35.3	
BOD				pmax	pmax		
	comp=Z,3.0nm,1.2s						
BOD				pmax	pmax		
	comp=Z,4.0nm,1.1s						
PETK	Petropavlovsk-	173.76	199	PKPab	PKPab	19 53 40.1	-0.4
	comp=Z,4.4nm,0.9s,baz=188,slow=5.5,SNR=4.0						

NEIC **17** *19:49:33.0±0.7, 1°.70N×124°.29E, h35^{km}, mb3.9/1, Error ellipse: s-maj=124.0km s-min=10.8km az=65.0*

IDC 17 19:49:28.1±1.1**, 1°.83N×124°.49E, h0**^{km}**, mb3.6**/4**, mb1 3.8**/4**, mb1mx3.5**/19**, mbtmp3.6**/4**, Error ellipse: s-maj=139.8km s-min=20.7km az=66.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNPH	Sibulan	7.57	351	i P	Sn	19 52 35.0	-11
WRAB	Tennant Creek	23.69	156	eP	P	19 54 41.5	-0.4
	2.4nm,0.6s						
WRA	Warramunga Arr	23.70	156	P	P	19 54 41.7	-0.2
	1.9nm,0.3s,baz=335,slow=10,SNR=51						
WRA				ScP	ScP	20 02 05.5	-0.6
	1.0nm,0.6s,baz=351,slow=2.7,SNR=15						
WB2	Warramunga Arr	23.70	156	eP	P	19 54 40.9	-1.1
ASAR	Alice Springs	26.95	161	P	P	19 55 11.6	+0.2
	0.3nm,0.5s,baz=341,slow=7.9,SNR=7.4						
ASAR				ScP	ScP	20 02 15.7	+0.4
	1.4nm,0.6s,baz=1.9,slow=2.8,SNR=27						
SONM	Songino Array	48.43	344	P	P	19 58 12.7	+0.6
	0.2nm,0.5s,baz=148,slow=8.5,SNR=2.1						
MK31	Makanchi Array	57.87	327	eP	P	19 59 21.2	-0.6
MKAR	Makanchi Array	57.87	327	P	P	19 59 21.4	-0.3
	0.3nm,0.3s,baz=125,slow=7.7,SNR=13						

MAN 17 20:21:55, 18°.44N×120°.42E, h13^{km}**, mb3.8, ML2.6, MS2.2, 2D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.22	120	⇓iP	Pg	20 22 01.5	+1.7
PIP				eS	Sg	20 22 06.7	+3.6
SIPP	Brgy, Tapao	0.51	176	⇓eP	Pg	20 22 06.2	+1.2
ABRA	Dolores	0.83	160	eP	Pg	20 22 10.8	-0.3
ABRA				eS	Sg	20 22 24.7	+2.7
SGCP	Mt. Cagua	1.56	97	eP	Pn	20 22 20.8	-1.6
CAUP	Cauayan	2.00	138	eP	Pn	20 22 29.9	+1.5
PALP	Palanan	2.35	125	eP	Pn	20 22 35.8	+2.4

ISCJB **17** *20:33:00.6±0.1, 23°.25N±0°.01×121°.58E±0°.01, h29^{km}, mb5.2/197, MS5.1/61, Error ellipse: s-maj=1.6km s-min=1.4km az=21.4*

BJI **17** *20:33:00.7, 23°.31N×121°.45E, h21^{km}, mB5.3/37, mb4.8/50, ML5.1/5, Ms5.5/61, Ms7 5.3/53*

MOS **17** *20:33:00.8±0.9, 23°.29N×121°.58E, h33^{km}, mb5.5/70, MS5.2/25, Error ellipse: s-maj=8.2km s-min=4.1km az=120.5*

NIED **17** *20:33:00, 23°.30N×121°.50E, h71^{km}, Mw5.7 Best double couple: M$_0$4.23000×10^{17} NP1:φ$_s$55.00000°, δ87.00000°, λ93.00000°. NP2:φ$_s$185.00000°, δ4.00000°, λ40.00000°.*

SZGRF **17** *20:33:00.2, 23°.10N×122°.06E, h33^{km}, mb5.5, MS5.2, Taiwan region*

JMA **17** *20:33:01.9±0.2, 23°.26N×121°.51E, h83^{km}, M5.4*

IDC **17** *20:33:01.9±0.6, 23°.27N×121°.57E, h30^{km}±3^{km}, mb4.6/32, mb1 4.7/35, mb1mx4.7/38, mbtmp4.7/35, ML4.5/3, MS4.9/27, Ms1 4.9/27, ms1mx4.8/36, Error ellipse: s-maj=12.1km s-min=9.9km az=72.0*

TAP **17** *20:33:02.3, 23°.31N×121°.46E, h28^{km}, ML5.4, B*

NEIC **17** *20:33:03.1, 23°.28N×121°.45E, h19^{km}, mb5.3/100, MS5.3/7, After TAP.*

NEIC Felt at Hua-lien, Pan-ch'iao, T'ai-chung, T'ai-nan and Taipei. Recorded [5 TAP] in Hua-lien and T'ai-tung; [3 TAP] in Kao-hsiung and Yun-lin; [2 TAP] in Chang-hua, Chia-i, Nan-t'ou, P'ing-tung and T'ai-nan; [1 TAP] in I-lan, Miao-li, P'eng-hu and T'ai-chung.

GCMT **17** *20:33:03.1±0.1, 23°.20N×121°.60E, h29^{km}, MW5.4/88, Moment Tensor Solution. s88,c158; s87,c177; Duration: 1^s.3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.46±.03; M$_{\theta\theta}$-0.12±.02; M$_{\phi\phi}$-1.34±.02; M$_{r\theta}$-0.15±.03; M$_{\theta\phi}$-0.80±.01; M$_{\phi r}$0.51±.04; Best double couple: M$_0$1.69600×10^{17} NP1:φ$_s$222.00000°, δ40.00000°, λ114.00000°. NP2:φ$_s$12.00000°, δ54.00000°, λ71.00000°. Principal axes: T 1.6050, Plg73.0000°, Azm229.0000°; N 0.1860, Plg15.0000°, Azm23.0000°; P -1.7860, Plg7.0000°, Azm115.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

DJA **17** *20:33:05, 23°.34N×121°.61E, h50^{km}, mb5.7/44*

ISC 17 20:33:02.6±0.1**, 23°.29N**±0°.01×**121°.52E**±0°.01**, h31**^{km}**, h31**^{km}±.6^{km}**:pP-P, n670, σ1^s.17**/737**, mb5.2**/197**, MS5.1**/61**, 117C-40D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWF1	Yuli	0.21	287	⇑iP	Pb	20 33 08.2	-0.8
	baz=286						
TWF1				eS	Sb	20 33 12.4	-1.1
	baz=286						
YULB	Yu-li	0.23	297	eP	Pb	20 33 07.7	-1.5
YULB				eS	Sb	20 33 13.9	+0.2
CHKT	Chengkung	0.23	217	⇓iP	Pb	20 33 08.9	-0.4
	baz=197						
EHY	Hungye	0.28	320	⇑iP	Pb	20 33 09.0	-0.9
	baz=317						
TEGC	Jichi Village	0.42	3	P	Pb	20 33 11.8	0.0
	baz=15						
TEGC				eS	Sb	20 33 18.7	+0.6
	baz=15						
ELDTW	Lidau	0.47	258	⇑iP	Pb	20 33 11.2	-1.4
	baz=247						
ELDTW				eS	Sb	20 33 17.0	-2.5
	baz=247						
ESL	Shilin	0.53	351	⇑iP	Pb	20 33 12.4	-1.2
	baz=347						
YUS	Yu-Shan	0.56	291	⇑iP	Pb	20 33 13.3	-0.7
	baz=290						
ESF	Shoufeng Towns	0.58	359	eP	Pb	20 33 13.6	-0.8
	baz=355						
ESF				eS	Sb	20 33 21.2	-1.1
	baz=355						
TWG	Pinlang	0.62	222	eP	Pb	20 33 13.0	-2.0
TWG				eS	Sb	20 33 22.5	-1.0
TWG	Pinlang	0.62	222	⇓iP	Pb	20 33 13.3	-1.7
	baz=216						
TWG				eS	Sb	20 33 21.4	-2.1
	baz=216						
TTN	Taitung	0.63	213	⇓iP	Pb	20 33 14.7	-0.5
	baz=208						
HWA	Hwalien	0.69	7	⇑iP	Pb	20 33 15.7	-0.5
	baz=24						
ALS	Alishan	0.69	289	⇑iP	Pb	20 33 15.6	-0.6
	baz=288						
ALS				eS	Sb	20 33 24.6	-0.9
	baz=288						
STYT	Tauyuan	0.71	260	⇑iP	Pn	20 33 15.3	-1.2
	baz=257						
SSLB	Suanglung	0.72	314	⇓iP	Pn	20 33 15.1	-1.5
SSLB				eS	Sb	20 33 24.1	-2.1
TWD	Chiawan	0.79	5	⇑iP	Pn	20 33 16.5	-1.1
	baz=356						
TWD				eS	Sb	20 33 26.4	-1.9
	baz=356						
TPUB	Ta-pu	0.82	271	⇓iP	Pn	20 33 17.4	-0.6
TPUB				eS	Sn	20 33 28.5	-0.5
SMLT	Sun Moon Lake	0.82	316	⇑iP	Pn	20 33 17.4	-0.6
	baz=322						
SMLT				eS	Sn	20 33 28.2	-0.9
	baz=322						
CHN5	Tsauling	0.83	292	⇑iP	Pn	20 33 18.0	-0.1
	baz=282						
WTP	Ta-pu	0.83	267	⇑iP	Pn	20 33 17.9	-0.3
	baz=265						
CHN4	Tsaushan	0.85	274	⇑iP	Pn	20 33 18.4	0.0
	baz=273						
ECL	Taimali	0.86	217	⇓iP	Pn	20 33 16.5	-2.1
	baz=213						
TYC	Yuchr	0.86	315	⇑iP	Pn	20 33 18.1	-0.5
	baz=320						
NACB	Ninganchiao	0.88	4	ePn	Pn	20 33 17.1	-1.8
NACB				eSn	Sn	20 33 29.5	-1.2
WHF	Hehuan Shan	0.88	345	⇑iP	Pn	20 33 18.1	-0.8
	baz=357						
SGST	Jiashian	0.89	257	⇑iP	Pn	20 33 18.8	-0.1
	baz=254						
CHN1	Nanshi	0.92	264	⇑iP	Pn	20 33 19.6	+0.2
	baz=261						
TWK	Hsinying	0.95	269	⇑iP	Pn	20 33 19.9	+0.1
	baz=266						
TWK				eS	Sn	20 33 32.1	-0.1
	baz=266						
WGK	Gukeng	0.96	294	⇑iP	Pn	20 33 20.5	+0.5
	baz=294						
WNT	Mingjian	0.96	308	⇑iP	Pn	20 33 20.6	+0.6
	baz=307						
WNT				eS	Sn	20 33 33.2	+0.5
	baz=307						
SSD	Sandimen	0.98	237	eP	Pn	20 33 19.0	-1.2
	baz=233						
SSD				eS	Sn	20 33 34.1	+1.1
	baz=233						
CHN2	Minshiung	0.99	284	⇑iP	Pn	20 33 21.0	+0.7
	baz=283						
TWT	Tachien	1.01	342	⇑iP	Pn	20 33 20.6	0.0
	baz=343						
TWT				eS	Sn	20 33 32.7	-1.1
	baz=343						
CHY	Chiayi	1.03	282	⇑iP	Pn	20 33 21.3	+0.5
	baz=281						
TAW	Tawu	1.09	212	⇓iP	Pn	20 33 20.1	-1.6
	baz=198						
TAW				eS	Sn	20 33 32.7	-3.0
	baz=198						
EAST	Anshuo	1.09	215	eP	Pn	20 33 20.5	-1.3
	baz=204						
SGLT	Jiouru	1.10	240	⇑P	Pn	20 33 23.1	+1.2
	baz=235						
TWM1	Shoushan	1.11	246	⇑iP	Pn	20 33 24.0	+2.0
	baz=242						
TWM1				eS	Sn	20 33 39.8	+3.6
	baz=242						
ENA	Nanau	1.15	10	eP	Pn	20 33 21.7	-0.9
	baz=359						
TCU	Taichung	1.15	318	⇑iP	Pn	20 33 23.7	+1.1
	baz=304						
TCU				eS	Sn	20 33 38.1	+0.8
	baz=304						
NNS	Nan Shan	1.15	353	⇑iP	Pn	20 33 22.2	-0.4
	baz=356						
NNS				eS	Sn	20 33 36.0	-1.4
	baz=356						
CHN8	Yiju	1.20	273	eP	Pn	20 33 23.9	+0.6
	baz=270						
CHN8				eS	Sn	20 33 39.5	+0.9
	baz=270						
TAI1	Yung-k'ang	1.21	259	eP	Pn	20 33 24.4	+1.0
	baz=256						
SCZT	Fangliau	1.23	222	⇓iP	Pn	20 33 23.2	-0.4
	baz=217						
SCZT				eS	Sn	20 33 38.5	-0.7
	baz=217						
WSF	Szhu	1.24	287	eP	Pn	20 33 24.1	+0.3
	baz=298						
WSF				eS	Sn	20 33 39.8	+0.3
	baz=298						
LAY	Lan-yu	1.24	179	⇑iP	Pn	20 33 22.6	-1.2
	baz=169						
TWQ1	Liyutan	1.26	327	⇑iP	Pn	20 33 25.5	+1.5
	baz=327						
TWQ1				eS	Sn	20 33 41.7	+1.8
	baz=327						
WTCT	Ta-ch'eng	1.27	297	eP	Pn	20 33 24.6	+0.4
	baz=296						
WTCT				eS	Sn	20 33 41.3	+1.1
	baz=296						
NSY	Sanyi	1.32	328	⇑iP	Pn	20 33 26.4	+1.5
	baz=328						
NSY				eS	Sn	20 33 44.0	+2.6
	baz=328						
KAU	Kaohsiung	1.33	238	⇓P	Pn	20 33 27.1	+2.1
	baz=235						
ENTT	Nioudou	1.35	2	⇑P	Pn	20 33 24.9	-0.4
	baz=2.0						
TWC	Suao	1.35	13	eP	Pn	20 33 25.3	0.0
	baz=29						
TWC				eS	Sn	20 33 43.6	+1.4
	baz=29						
YHNB	Yeheng	1.38	355	ePn	Pn	20 33 25.6	-0.1
NSK	Sanguang	1.39	354	⇑iP	Pn	20 33 26.0	+0.1
	baz=7.0						
NSTT	Nanjuang	1.42	341	⇑P	Pn	20 33 27.5	+1.2
	baz=341						
NSTT				eS	Sn	20 33 45.0	+1.2
	baz=341						
TWP	Hsiaoliuchiu	1.42	229	⇓iP	Pn	20 33 28.9	+2.7
	baz=227						
TWE	Neicheng	1.43	5	eP	Pn	20 33 26.2	-0.2
	baz=6.0						
HEN	Hengchun	1.47	210	P	Pn	20 33 27.2	+0.3
	baz=197						
ILA	Ilan	1.49	8	eP	Pn	20 33 29.3	+2.1
	baz=8.0						
TWK1	Hengchun	1.49	206	eP	Pn	20 33 26.4	-0.8
	baz=204						
TWK1				eS	Sn	20 33 45.5	-0.2
	baz=204						
TSEB	Hengchuen, Pin	1.50	203	⇓P	Pn	20 33 26.9	-0.4
	baz=193						
HSN	Hsinchu	1.59	342	eP	Pn	20 33 30.2	+1.6
	baz=343						
HSN				eS	Sn	20 33 51.0	+2.9
	baz=343						
TATO	Taipei	1.68	359	ePn	Pn	20 33 30.0	+0.2
TATO	Taipei	1.68	359	⇓P	Pn	20 33 35.5	+5.7
	SNR=28						
TATO				⇓P		20 33 35.5	
	SNR=28						
TWA	Mucha	1.69	2	eP	Pn	20 33 30.3	+0.4
	baz=4.0						
TWA				eS	Sn	20 33 51.5	+1.0
	baz=4.0						
NCU	National Centr	1.70	350	eP	Pn	20 33 31.6	+1.5
	baz=349						
TAP1	Taipei	1.74	0	eP	Pn	20 33 32.6	+1.9
	baz=358						
TWB1	Santiao Chiao	1.77	14	eP	Pn	20 33 32.3	+1.3
	baz=5.0						
TWB1				S	Sn	20 33 54.1	+1.7
	baz=5.0						
NWF	Wu-fen Shan	1.79	8	eP	Pn	20 33 32.0	+0.7
	baz=6.0						
YOJ	Yonaguni jima	1.80	49	P	Pn	20 33 32.1	+0.7
YOJ				eS	Sn	20 33 54.6	+1.4
YOJ	Yonaguni jima	1.80	49	⇓iP	Pn	20 33 32.1	+0.7
	baz=53						
YOJ				S	Sn	20 33 53.8	+0.6
	baz=53						
TWS1	Kuangyinshan	1.81	357	eP	Pn	20 33 32.2	+0.6
	baz=15						
TWS1				eS	Sn	20 33 54.8	+1.4
	baz=15						
PNG	Penghu	1.83	279	⇑P	Pn	20 33 31.9	+0.1
	baz=261						
PNG				eS	Sn	20 33 53.2	-0.7
	baz=261						
TWY	Chenhua	1.98	2	eP	Pn	20 33 34.8	+0.9
	baz=360						
HATJ	Hateruma jima	2.23	69	P	Pn	20 33 37.8	+0.4
HATJ				eS	Sn	20 34 04.2	+0.3
IRIF	Iriomote-Funau	2.28	62	P	Pn	20 33 38.8	+0.8
IRIF				eS	Sn	20 34 07.1	+2.1
PCYT	Pengchaiyu	2.38	12	eP	Pn	20 33 40.0	+0.5
	baz=357						
JKRS	Kuro-shima	2.47	67	P	Pn	20 33 41.3	+0.6
JKRS				eS	Sn	20 34 11.2	+1.4
JIJ	Ishigaki jima	2.63	65	P	Pn	20 33 43.0	+0.1
JIJ				eS	Sn	20 34 14.8	+1.0
KNM	Kinmen	3.04	292	⇑eP	Pn	20 33 49.6	+1.1
	baz=291						
QZH	Quanzhou	3.14	302	i P	Pn	20 33 50.6	+0.7
QZH				S	Sn	20 34 25.4	-1.0
QZH				smax			
	comp=N,15μm,1.0s						
QZH				smax			
	comp=E,9μm,0.8s						
JTJ	Tarama	3.21	65	P	Pn	20 33 51.2	+0.4
JTJ				eS	Sn	20 34 29.3	+1.3
JMJ	Miyako jima 2	3.77	65	P	Pn	20 33 59.4	+0.8
JMJ				eS	Sn	20 34 43.0	+1.1
JMJ	Miyako jima 2	3.77	65	eP	Pn	20 33 58.2	-0.4
	baz=79						
JOGS	Gusukube	3.84	67	P	Pn	20 34 00.3	+0.7
JOGS				eS	Sn	20 34 44.3	+0.6
PIP	Pasuquin	5.01	190	⇓iP	Pn	20 34 15.7	+0.1
PIP				eS	Sn	20 35 13.0	+0.5
SGCP	Mt. Cagua	5.04	174	eP	Pn	20 34 15.8	-0.3
SIPP	Brgy, Tapao	5.43	191	⇓eP	Pn	20 34 21.5	+0.1
SIPP				i S	Sn	20 35 27.4	+4.5
ABRA	Dolores	5.66	188	eP	Pn	20 34 25.9	+1.3
ABRA				eS	Sn	20 35 30.2	+1.6
JKE	Kume jima 2	5.66	57	P	Pn	20 34 24.0	-0.6
JKE				eS	Sn	20 35 27.3	-1.2
JAGN	Aguni-jima	6.15	57	P	Pn	20 34 31.3	+0.1
JAGN				eS	Sn	20 35 39.9	-0.6
PALP	Palanan	6.25	172	eP	Pn	20 34 32.6	-0.2
NAH1	Naha	6.32	61	P	Pn	20 34 33.5	-0.1
NAH1				eS	Sn	20 35 44.5	-0.2
CAUP	Cauayan	6.32	177	eP	Pn	20 34 36.5	+2.8
JJT2	Tamagusuku 2	6.33	62	P	Pn	20 34 33.4	-0.4
HKC	Hong Kong Obse	6.85	263	⇑iP	Pn	20 34 41.0	+0.1
JIH	Iheya	6.93	56	P	Pn	20 34 41.9	-0.1
JIH				eS	Sn	20 35 58.7	-1.1
BOLP	Bolinao	7.04	193	eP	Pn	20 34 47.1	+3.6
JOW	Kunigami	7.07	59	P	Pn	20 34 42.3	-1.6

JOW				eS	Sn	20 36 01.0	-2.2
JOW	**Kunigami**	7.07	59	Pn	Pn	20 34 42.3	-1.6
	comp=E,36nm,0.3s,baz=224,slow=11,SNR=66						
JOW				Sn	Sn	20 36 02.5	-0.7
	comp=E,17nm,0.3s,baz=129,slow=19,SNR=3.8						
JOW	**Kunigami**	7.07	59	eP	Pn	20 34 42.4	-1.6
	baz=79						
BALP	**Baler**	7.51	180	eP	Pn	20 34 52.2	+2.2
GZH	**Guangzhou**	7.52	270	Pg	Pn	20 34 46.5	-3.7
GZH				Sg	Sn	20 36 01.3	-13
GZH				smax			
	comp=N,3µm,1.3s						
GZH				smax			
	comp=E,2µm,1.2s						
SCZP	**Santa Cruz**	7.62	192	eP	Pn	20 34 53.5	+1.9
PCPH	**Palayan**	7.70	183	⇑eP	Pn	20 34 54.6	+2.0
PCPH				eS	Sn	20 36 19.8	+1.1
SSE	**Sheshan**	7.78	358	P	Pn	20 34 55.3	+1.6
SSE				S	Sn	20 36 23.8	+3.1
SSE				smax			
	comp=N,400nm,1.2s						
SSE				smax			
	comp=E,350nm,1.2s						
JTK	**Tokunoshima**	8.07	55	P	Pn	20 34 55.3	-2.3
JTK				eS	Sn	20 36 22.8	-5.0
POLP	**Polilio Island**	8.52	177	eP	Pn	20 35 05.1	+1.1
JAM	**Amami Oshima**	8.89	53	P	Pn	20 35 06.9	-2.0
JAM				eS	Sn	20 36 41.8	-6.2
NJ2	**Nanjing**	9.04	345	eP	Pn	20 35 14.0	+3.0
NJ2				pP		20 35 21.3	
NJ2				sP		20 35 26.6	
NJ2				S	Sn	20 36 56.6	+4.9
NJ2				sS		20 37 05.0	
NJ2				pmax	pmax		
	comp=Z,20nm,0.8s						
NJ2				LR	LR		
	comp=N,5µm,16.2s						
NJ2				LR	LR		
	comp=E,9µm,15.0s						
NJ2				LR	LR		
	comp=Z,17µm,15.0s						
TGY	**Tagaytay City**	9.15	184	Pn	Pn	20 35 16.5	+3.9
	comp=Z,35nm,0.3s,baz=137,slow=5.1,SNR=9.5						
JMZ	**Minamidaito 2**	9.18	72	P	Pn	20 35 09.2	-3.7
JMZ				eS	Sn	20 36 45.7	-10
GQP	**Guinayangan**	9.37	174	⇓eP	Pn	20 35 17.3	+1.7
GQP				i S	Sn	20 36 57.2	-2.8
LUBP	**Lubang**	9.58	187	eP	Pn	20 35 21.5	+3.1
WHN	**Wuhan**	9.65	320	⇓P	Pn	20 35 18.9	-0.4
WHN				S	Sn	20 37 01.8	-4.8
WHN				LR	LR		
	comp=N,43µm,4.2s						
WHN				LR	LR		
	comp=E,39µm,7.0s						
WHN				LR	LR		
	comp=Z,71µm,11.2s						
PVCP	**Virac**	9.96	165	eP	Pn	20 35 23.8	+0.2
BUSP	**Coron**	11.29	187	eP	Pn	20 35 36.5	-5.4
QIZ	**Qiongzhong**	11.69	251	P	Pn	20 35 44.8	-2.5
QIZ				S	Sn	20 37 52.8	-3.9
QIZ				pmax	pmax		
	comp=Z,20nm,1.8s						
QIZ				pmax	pmax		
	comp=Z,280nm,4.0s						
QIZ				LR	LR		
	comp=N,12µm,16.0s						
QIZ				LR	LR		
	comp=Z,15µm,16.3s						
QIZ	**Qiongzhong**	11.69	251	ePn	Pn	20 35 48.5	+1.2
	comp=Z,176nm,1.1s						
ENPP	**El Nido**	12.18	190	eP	Pn	20 35 54.6	+0.6
OCLP	**Ormoc**	12.52	166	eP	Pn	20 35 59.6	+0.9
GUIM	**Jordan**	12.63	175	eP	Pn	20 36 02.4	+2.2
TIA	**Tai'an**	13.43	345	eP	Pn	20 36 16.3	+5.3
TIA				S	Sn	20 38 49.0	+10
TIA				LR	LR		
	comp=N,6µm,13.0s						
MSLP	**Maasin**	13.46	166	eP	Pn	20 36 11.7	+0.2
TBP	**Tagbilaran**	13.71	170	eP	Pn	20 36 14.5	-0.4
GYA	**Guiyang**	13.85	286	⇑iP	Pn	20 36 15.4	-1.4
GYA				pP		20 36 22.6	
GYA				sP		20 36 29.4	
GYA				S	Sn	20 38 47.8	-1.7
GYA				sS		20 39 01.0	
GYA				SS		20 39 03.4	
GYA				pmax	pmax		
	comp=Z,40nm,0.7s						
GYA				pmax	pmax		
	comp=Z,180nm,4.3s						
GYA				LR	LR		
	comp=N,11µm,15.5s						
GYA				LR	LR		
	comp=E,10µm,14.8s						
GYA				LR	LR		
	comp=Z,14µm,15.0s						
BUTP	**Butuan**	14.77	164	eP	Pn	20 36 30.0	+0.6
INCN	**Inchon**	14.81	16	ePn	Pn	20 36 33.2	+3.3
INCN	**Inchon**	14.81	16	P	Pn	20 36 34.0	+4.1
	SNR=6.8						
INCN				P		20 36 34.0	
	SNR=6.8						
BATP	**Bataraza**	14.84	194	eP	Pn	20 36 26.1	-4.3
KS15	**Wonju Array Si**	15.13	20	ePn	Pn	20 36 36.5	+2.4
KSRS	**Korea Array**	15.15	20	Pn	Pn	20 36 36.8	+2.4
	comp=Z,0.5nm,0.3s,baz=200,slow=13,SNR=32						
KSRS				LR	LR	20 43 16.6	
	comp=Z,3µm,19.3s,baz=204,slow=41						
XAN	**Xi'an**	15.38	317	P	Pn	20 36 37.5	+0.2
XAN				pP	pP	20 36 45.4	-4.5
XAN				PP		20 36 54.0	
XAN				pmax	pmax		
	comp=Z,52nm,1.4s						
XAN				pmax	pmax		
	comp=Z,420nm,8.6s						
XAN				LR	LR		
	comp=N,11µm,13.0s						
XAN				LR	LR		
	comp=E,19µm,14.4s						
XAN				LR	LR		
	comp=Z,36µm,14.8s						
IPIL	**Ipil**	15.45	176	eP	Pn	20 36 38.2	-0.1
PAGZ	**Pagadian**	15.46	173	eP	Pn	20 36 40.9	+2.5
BUKP	**Musuan**	15.69	167	eP	Pn	20 36 43.2	+1.7
DAV	**Davao City (W)**	16.59	166	Pn	Pn	20 37 02.5	+10
	comp=Z,24nm,0.3s,baz=349,slow=8.5,SNR=5.5						
DAV				LR	LR	20 42 59.2	
	comp=Z,4µm,21.3s,baz=348,slow=36						
KDM	**Kudat**	16.89	196	P	Pn	20 37 00.4	+3.6
KMI	**Kunming**	17.23	280	⇑P	Pn	20 37 05.0	+4.0
KMI				S	Sn	20 40 18.1	+6.3
KMI				pmax	pmax		
	comp=Z,78nm,1.4s						
KMI				pmax	pmax		
	comp=Z,750nm,9.6s						
KMI				LR	LR		
	comp=N,3µm,15.1s						
KMI				LR	LR		
	comp=E,14µm,15.3s						
KMI				LR	LR		
	comp=Z,17µm,14.6s						
BJT	**Baijiatuau**	17.28	346	eP	Pn	20 37 04.1	+2.6
BJT				pmax	pmax		
	comp=Z,168nm,1.3s						
BJT	**Baijiatuau**	17.28	346	ePn	Pn	20 37 04.0	+2.5
	comp=Z,168nm,1.3s						
BJI	**Beijing**	17.30	346	P	Pn	20 37 03.6	+1.9
BJI				pP	pP	20 37 11.4	+0.3
BJI				sP	sP	20 37 16.3	+1.2
BJI				S	Sn	20 40 13.1	-0.2
BJI				pmax	pmax		
	comp=Z,32nm,1.5s						
BJI				pmax	pmax		
	comp=Z,430nm,4.9s						
BJI				LR	LR		
	comp=N,7µm,14.3s						
BJI				LR	LR		
	comp=E,5µm,14.3s						
BJI				LR	LR		
	comp=Z,4µm,18.4s						
UBT	**Ubonrachathani**	17.50	246	⇓P	Pn	20 37 09.0	+4.6
CD2	**Chengdu**	17.53	299	P	Pn	20 37 05.3	+0.7
CD2				pP	pP	20 37 13.0	-0.7
CD2				sP	sP	20 37 17.6	-0.1
CD2				PP		20 37 20.1	
CD2				S	Sn	20 40 16.9	-2.0
CD2				sS	sS	20 40 28.3	-11
CD2				SS		20 40 37.8	
CD2				pmax	pmax		
	comp=Z,210nm,1.2s						
CD2				pmax	pmax		
	comp=Z,1µm,4.9s						
CD2				LR	LR		
	comp=N,21µm,13.7s						
CD2				LR	LR		
	comp=Z,25µm,14.9s						
SDKM	**Sandakan**	18.03	194	P	Pn	20 37 13.7	+2.8
MYLDM	**Lahad Datu**	18.24	190	P	Pn	20 37 16.9	+3.5
SNY	**Shenyang**	18.57	5	⇑P	Pn	20 37 18.9	+1.6
SNY				S	Sn	20 40 49.0	+5.1
SNY				pmax	pmax		
	comp=Z,10.0nm,0.6s						
SNY				pmax	pmax		
	comp=Z,1µm,9.8s						
SNY				LR	LR		
	comp=E,8µm,17.3s						
SNY				LR	LR		
	comp=Z,6µm,13.2s						
JHJ	**Hachijo jima 2**	18.82	55	LR	LR	20 44 19.1	
	comp=Z,2µm,19.7s,baz=263,slow=36						
KKTK	**Khon Kaen**	18.89	252	P	Pn	20 37 23.0	+1.6
CBIJ	**Chichi jima**	19.08	74	P	Pn	20 37 22.9	-0.6
	comp=Z,5.0nm,0.3s,baz=277,slow=1.9,SNR=7.2						
TSM	**Tawau**	19.21	191	P	Pn	20 37 25.5	+0.3
HHC	**Hu-ho-hao-te**	19.41	337	eP	Pn	20 37 29.6	+2.2
HHC				pP	pP	20 37 37.8	+3.4
HHC				sP	sP	20 37 42.6	+4.3
HHC				PP		20 37 47.6	
HHC				eS	Sn	20 41 01.1	-3.1
HHC				sS	sS	20 41 13.4	-3.7
HHC				SS		20 41 27.8	
HHC				PcP	PcP	20 41 49.9	+3.0
HHC				pmax	pmax		
	comp=Z,53nm,1.2s						
HHC				pmax	pmax		
	comp=Z,930nm,4.3s						
HHC				LR	LR		
	comp=N,6µm,14.3s						
HHC				LR	LR		
	comp=E,4µm,12.7s						
HHC				LR	LR		
	comp=Z,7µm,16.5s						
MAJO	**Matsushiro**	19.55	44	eP	Pn	20 37 31.1	+2.0
MAJO				pmax	pmax		
	comp=Z,39nm,0.9s						
MAJO	**Matsushiro**	19.55	44	ePn	Pn	20 37 31.1	+1.9
	comp=Z,40nm,0.9s						
MAT	**Matsushiro**	19.55	44	P	Pn	20 37 27.1	-2.0
MAT				S	Sn	20 41 07.0	-0.7
MJAR	**Matsushiro Arr**	19.55	44	P	Pn	20 37 27.0	-2.2
	comp=Z,0.8nm,0.3s,baz=228,slow=8.9,SNR=14						
BTO	**Baotou**	19.80	333	eP	Pn	20 37 32.3	+0.2
BTO				S	Sn	20 41 09.3	-4.3
BTO				LR	LR		
	comp=N,8µm,13.9s						
BTO				LR	LR		
	comp=E,4µm,12.6s						
LZH	**Lanzhou**	19.92	314	P	Pn	20 37 33.8	+0.3
LZH				pP	pP	20 37 44.3	+4.3
LZH				sP	sP	20 37 48.3	+4.3
LZH				PP		20 37 53.0	
LZH				S	Sn	20 41 11.1	-5.5
LZH				sS	sS	20 41 20.0	-7.5
LZH				SS		20 41 35.3	
LZH				pmax	pmax		
	comp=Z,280nm,1.4s						
LZH				pmax	pmax		
	comp=Z,1µm,6.3s						
LZH				LR	LR		
	comp=E,13µm,12.8s						
LZH				LR	LR		
	comp=Z,17µm,14.1s						
CN2	**Changchun**	20.71	8	eP	P	20 37 41.6	+1.3
CN2				ePP		20 38 04.0	
CN2				eS	S	20 41 27.1	-2.8
CN2				eSS		20 41 58.9	
CN2				pmax	pmax		
	comp=Z,30nm,1.0s						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,2µm,20.0s,MS5.0						
CN2				LR	LR		
	comp=E,6µm,20.0s,MS5.0						
CN2				LR	LR		
	comp=Z,7µm,14.0s						
NST	**Nakhon Sawan**	21.52	253	P	P	20 37 49.3	+0.1
CHG	**Chiang Mai**	21.53	262	⇑P	P	20 37 50.9	+1.6
CHTO	**Chiang Mai**	21.53	262	eP	P	20 37 50.9	+1.6
CHTO				pmax	pmax		
	comp=Z,175nm,1.2s,mb5.4						
CHTO	**Chiang Mai**	21.53	262	eP	P	20 37 50.9	+1.7
	comp=Z,175nm,1.2s,mb5.4						
CHTO	**Chiang Mai**	21.53	262	P	P	20 37 51.3	+2.0
	SNR=52						
CHTO				P		20 37 51.3	
	SNR=52						
BTM	**Bintulu**	21.57	203	P	P	20 37 50.1	+0.3
CMAR	**Chiang Mai Arr**	21.63	261	P	P	20 37 51.9	+1.6
CMAR						20 41 51.7	
CMAR	**Chiang Mai Arr**	21.63	261	P	P	20 37 51.9	+1.5
	comp=Z,14nm,0.9s,mb4.4,baz=66,slow=9.0,SNR=94						
CMAR				PcP	PcP	20 41 51.7	+0.3
	comp=Z,4.7nm,1.0s,baz=39,slow=0.9,SNR=9.7						
CMAR				LR	LR	20 47 03.2	
	comp=Z,6µm,18.9s,MS5.0,baz=77,slow=39						
BDT	**Bhumibol Dam**	21.95	258	P	P	20 37 56.0	+2.2
MDJ	**Mudanjiang**	22.28	15	P	P	20 37 59.3	+2.2
MDJ				sP	sP	20 38 11.4	+2.0
MDJ				S	S	20 42 01.9	+1.3
MDJ				pmax	pmax		
	comp=Z,30nm,1.3s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,370nm,13.8s						
MDJ				LR	LR		
	comp=N,6µm,14.4s,MS5.2						
MDJ				LR	LR		
	comp=E,5µm,17.8s,MS5.2						
MDJ				LR	LR		
	comp=Z,7µm,15.6s,MS5.2						
MDJ	**Mudanjiang**	22.28	15	eP	P	20 37 57.6	+0.5
	comp=Z,34nm,1.0s,mb4.7						
SBUM	**Sibu**	22.59	205	P	P	20 38 01.1	+0.5
GUMO	**Guam**	24.13	109	eP	P	20 38 18.8	+2.9
GUMO				pmax	pmax		
	comp=Z,4µm,2.0s,mb6.4						
GUMO	**Guam**	24.13	109	P	P	20 38 17.8	+2.0
	comp=Z,273nm,0.8s,mb5.7,baz=228,slow=4.7,SNR=8.8						
GUMO				LR	LR	20 45 17.5	
	comp=Z,2µm,20.3s,MS4.5,baz=260,slow=31						
GUMO	**Guam**	24.13	109	eP	P	20 38 18.8	+3.0
	comp=Z,4µm,2.0s,mb6.4						
KSM	**Kuching**	24.26	208	P	P	20 38 17.4	+0.3
KSM	**Kuching**	24.26	208	eP	P	20 38 16.3	-0.8
	comp=Z,292nm,1.3s,mb5.5						
GTA	**Gaotai**	24.44	316	eP	P	20 38 19.1	+0.6
GTA				pP		20 38 28.4	
GTA				sP	sP	20 38 32.8	+1.6
GTA				PP		20 38 54.8	
GTA				S	S	20 42 34.9	-1.6
GTA				SS		20 43 32.3	
GTA				pmax	pmax		
	comp=Z,530nm,5.1s						
GTA				LR	LR		
	comp=N,9µm,12.8s,MS5.6						
GTA				LR	LR		
	comp=E,12µm,15.5s,MS5.6						
KTGM	**Kuala Trenggan**	25.16	228	P	P	20 38 27.5	+2.2
ERM	**Erimo**	25.96	39	i P	P	20 38 35.5	+3.2
HIA	**Hailar**	25.96	357	eP	P	20 38 31.0	-1.2
HIA				pmax	pmax		
	comp=Z,46nm,1.2s						
HIA	**Hailar**	25.96	357	eP	P	20 38 31.0	-1.2
	comp=Z,46nm,1.2s,mb4.9						
KULM	**Kulim**	26.93	232	P	P	20 38 42.9	+1.6
KULM	**Kulim**	26.93	232	eP	P	20 38 40.2	-1.1
	comp=Z,77nm,1.4s,mb5.0						
ASAJ	**Asahikawa**	27.04	35	P	P	20 38 42.4	+0.4
	comp=Z,6.8nm,0.4s,mb4.5,baz=226,slow=13,SNR=12						
SHL	**Shillong**	27.05	281	i P	P	20 38 44.0	+1.7
SHL				ex	x	20 45 44.5	
ULN	**Ulaanbaatar**	27.11	338	⇑iP	P	20 38 42.3	-0.2
ULN	**Ulaanbaatar**	27.11	338	eP	P	20 38 41.5	-1.0
	comp=Z,39nm,1.1s,mb4.8						
ULN	**Ulaanbaatar**	27.11	338	P	P	20 38 43.2	+0.7
	SNR=22						
ULN				P		20 38 43.2	
	SNR=22						
KLR	**Kul'dur**	27.12	15	eP	P	20 38 40.2	-2.4
KLR				eS	S	20 43 16.5	-2.4
KLR				MLR	MLR		
	comp=E,2µm,13.5s						
KLR				MLR	MLR		
	comp=Z,9µm,13.5s,MS5.5						
IPM	**Ipoh**	27.23	230	P	P	20 38 44.6	+0.7
SONM	**Songino Array**	27.31	337	P	P	20 38 43.9	-0.5
	comp=Z,6.0nm,0.6s,mb4.3,baz=159,slow=9.7,SNR=42						
SONM				LR	LR	20 50 16.3	
	comp=Z,5µm,20.9s,MS5.0,baz=150,slow=38						
HABR	**Khabarovsk**	27.34	20	ceP	P	20 38 44.2	-0.4
HABR				ePPP		20 39 37.5	
HABR				e		20 42 01.7	
HABR				eS	S	20 43 25.0	+2.7
HABR				eSSS		20 44 51.5	
HABR						20 49 31.6	
HABR				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.4						
HABR				pmax	pmax		
	comp=N,13nm,1.4s						
HABR				pmax	pmax		
	comp=E,17nm,1.2s						
HABR				MLR	MLR		
	comp=Z,931nm,16.0s,MS4.5						
MYKOM	**Kota Tinggi**	27.39	221	P	P	20 38 49.4	+4.0
KGM	**Kluang**	27.54	222	P	P	20 38 48.2	+1.4
FRIM	**Kepong**	27.71	227	P	P	20 38 48.7	+0.4
AGT	**Agartala**	27.72	277	ePKP	P	20 38 49.0	+0.6
AGT				ex	x	20 39 25.0	
LSA	**Lhasa**	27.87	290	P	P	20 38 53.3	+3.7
LSA				pP	pP	20 38 59.9	+1.3
LSA				sP	sP	20 39 04.3	+1.9
LSA				PcP	PcP	20 42 03.8	-1.2
LSA				S	S	20 43 31.3	+0.2
LSA				ScS	ScS	20 49 35.6	-0.4
LSA				LR	LR		
	comp=N,2µm,17.0s,MS5.4						
LSA				LR	LR		
	comp=E,8µm,17.0s,MS5.4						
LSA				LR	LR		
	comp=Z,11µm,17.0s,MS5.5						
LSA	**Lhasa**	27.87	290	eP	P	20 38 51.4	+1.8
LSA				pmax	pmax		
	comp=Z,49nm,0.8s,mb5.2						
LSA	**Lhasa**	27.87	290	eP	P	20 38 51.4	+1.8
	comp=Z,49nm,0.8s,mb5.2						
KAPI	**Kappang**	28.18	184	eP	P	20 38 49.9	-2.5
	comp=Z,134nm,1.2s,mb5.5						
YSS	**Yuzh-Sakhalins**	29.13	31	αeP	P	20 39 02.9	+2.3
YSS				e	pP	20 39 11.6	+2.0
YSS				e*SP	sP	20 39 21.0	+7.6
YSS				e		20 40 00.0	
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.3						
YSS				MLR	MLR		
	comp=N,2µm,15.0s,MS4.9						
YSS				MLR	MLR		
	comp=Z,2µm,15.0s,MS4.7						
YSS				MLR	MLR		
	comp=E,1µm,14.0s,MS4.9						
YSS	**Yuzh-Sakhalins**	29.13	31	eP	P	20 39 03.6	+3.0
	comp=E,46nm,1.0s,mb5.2						
PSI	**Prapat**	29.89	230	P	P	20 39 08.4	+0.7
PSI						20 42 09.7	
PSI						20 45 48.3	
PSI	**Prapat**	29.89	230	P	P	20 39 08.4	+0.7
	comp=E,53nm,1.1s,mb5.2,baz=11,slow=4.6,SNR=30						
PSI				PcP	PcP	20 42 09.7	-0.7
	comp=E,13nm,0.5s,baz=217,slow=5.1,SNR=8.9						
PSI				ScP	ScP	20 45 48.3	-2.0
	comp=E,3.2nm,0.6s,baz=342,slow=5.9,SNR=6.0						
PSI				LR	LR	20 51 07.3	
	comp=E,2µm,19.4s,MS4.7,baz=55,slow=36						
CAL	**Calcutta**	30.54	275	ex	x	20 40 01.0	
CAL				ex	x	20 44 35.8	
ZAK	**Zakamensk**	30.56	337	eP	P	20 39 14.2	+1.0
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
TAPN	**Taplejung**	30.77	285	eP	P	20 39 16.9	+1.5
	comp=Z,278nm,1.2s,mb6.0						
ODAN	**Odare**	31.06	284	eP	P	20 39 19.1	+1.1
	comp=Z,324nm,1.6s,mb5.9						
TLY	**Talaya**	31.52	339	eP	P	20 39 25.0	+3.4
TLY				e		20 40 36.5	
TLY				eSS	SS	20 46 45.5	+2.1
TLY				pmax	pmax		
	comp=Z,29nm,1.6s,mb4.9						
TLY				MLR	MLR		
	comp=Z,5µm,15.0s,MS5.3						
RAMN	**Ramite**	31.77	284	eP	P	20 39 25.3	+1.1
	comp=Z,168nm,1.2s,mb5.8						
IRK	**Irkutsk**	31.79	340	eP	P	20 39 23.2	-0.8
IRK				e		20 40 42.0	
IRK				eS	S	20 44 33.4	+1.3
IRK				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.0						
JIRN	**Jiri**	32.12	285	eP	P	20 39 28.7	+1.4
	comp=Z,309nm,1.3s,mb6.0						
GUN	**Gumba**	32.40	286	eP	P	20 39 30.9	+1.2
	comp=Z,312nm,1.3s,mb6.0						
MOY	**Mondy**	32.45	336	eP	P	20 39 33.2	+3.4
BOK	**Bokaro**	32.62	278	ePKP	P	20 39 33.6	+1.9
BOK				AMb	AMB	20 39 38.4	
	comp=Z,93nm,1.3s,mb5.5						
PKI	**Pulchoki**	32.82	285	eP	P	20 39 34.0	+0.6
	comp=Z,326nm,1.5s,mb6.0						
PKI	**Pulchoki**	32.82	285	eP	P	20 39 34.0	+0.6
PKI				pmax	pmax		
	comp=Z,326nm,1.5s,mb6.0						
PKIN	**Phulchoki**	32.83	285	eP	P	20 39 34.0	+0.5
KKN	**Kakani**	32.93	286	eP	P	20 39 35.0	+0.7
	comp=Z,264nm,1.3s,mb6.0						
KKN	**Kakani**	32.93	286	eP	P	20 39 35.0	+0.7
KKN				pmax	pmax		
	comp=Z,264nm,1.3s,mb6.0						
DMN	**Daman**	33.08	285	eP	P	20 39 36.4	+0.7
	comp=Z,291nm,1.3s,mb6.0						
GKN	**Gorkha**	33.49	286	eP	P	20 39 39.6	+0.3
	comp=Z,241nm,1.4s,mb6.0						
DANN	**Dangsing**	34.27	287	eP	P	20 39 46.7	+0.7
	comp=Z,300nm,1.3s,mb6.1						
KOLN	**Koldanda**	34.42	286	eP	P	20 39 47.8	+0.5
	comp=Z,342nm,1.6s,mb6.0						
WMQ	**Urumqi**	34.50	315	eP	P	20 39 49.3	+1.5
WMQ				pP	pP	20 39 59.0	+2.1
WMQ				sP	sP	20 40 03.0	+2.4
WMQ				PP	PP	20 41 08.0	+1.8
WMQ				S	S	20 45 16.0	+1.6
WMQ				sS	sS	20 45 34.0	+4.7
WMQ				SS	SS	20 47 28.0	-16
WMQ				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.1						
WMQ				pmax	pmax		
	comp=Z,430nm,4.7s						
WMQ				LR	LR		
	comp=N,6µm,14.2s,MS5.7						
WMQ				LR	LR		
	comp=E,8µm,13.4s,MS5.7						
WMQ				LR	LR		
	comp=Z,3µm,14.7s,MS5.2						
BOD	**Bodaibo**	34.92	353	eP	P	20 39 57.1	+5.9
BOD				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.2						
VIS	**Vishakhapatnam**	36.12	268	ePKP	P	20 40 04.9	+2.8
VIS				AMb	AMB	20 40 08.8	
	comp=Z,65nm,1.8s,mb5.2						
KAKA	**Kakadu**	37.34	162	eP	P	20 40 09.2	-3.1
	comp=Z,48nm,0.9s,mb5.3						
LGTI	**Lohaghat**	37.34	288	ePKP	P	20 40 12.5	+0.2
PTH	**Pithoragarh**	37.37	289	ePKP	P	20 40 14.8	+2.2
PTH				ex	x	20 41 51.2	
JBP	**Jabalpur**	38.08	278	⇑iP	P	20 40 19.7	+1.1
JBP				ex	x	20 40 37.6	
	comp=Z,79nm,1.3s						
JBP				eS	S	20 46 11.9	+2.4
YAK	**Yakutsk**	39.12	6	eP	P	20 40 28.5	+1.6
YAK				e*PP	pP	20 40 35.1	-0.9

YAK				e		20 41 57.4	
YAK				ePPP		20 42 26.7	
YAK				e		20 42 41.9	
YAK				eS	S	20 46 29.4	+5.0
YAK				e		20 50 25.9	
YAK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
YAK				pmax	pmax		
	comp=N,6.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
YAK				smax			
	comp=N,264nm,4.4s						
YAK				smax			
	comp=E,194nm,4.4s						
YAK				MLR	MLR		
	comp=Z,2µm,12.0s,MS5.2						
YAK				MLR	MLR		
	comp=N,2µm,13.0s,MS5.1						
YAK				MLR	MLR		
	comp=E,774nm,13.0s,MS5.1						
YAK	**Yakutsk**	**39.12**	**6**	eP	**P**	**20 40 27.4**	**+0.5**
	comp=E,38nm,1.0s,mb5.1						
MK31	**Makanchi Array**	**39.19**	**317**	i P	**P**	**20 40 27.9**	**+0.2**
MK31				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.1						
MK31	**Makanchi Array**	**39.19**	**317**	eP	**P**	**20 40 27.9**	**+0.2**
MKAR	**Makanchi Array**	**39.19**	**317**	P	**P**	**20 40 28.0**	**+0.3**
MKAR						20 46 22.0	
MKAR	**Makanchi Array**	**39.19**	**317**	P	**P**	**20 40 28.0**	**+0.3**
	comp=Z,3.2nm,0.6s,mb4.2,baz=110,slow=9.3,SNR=35						
MKAR				ScP	ScP	20 46 22.0	-0.9
	comp=Z,0.8nm,0.7s,baz=124,slow=2.6,SNR=3.6						
MKAR				LR	LR	20 57 32.9	
	comp=Z,2µm,19.0s,MS4.9,baz=109,slow=38						
DDI	**Dehra Dun**	**39.24**	**290**	ePKP	**P**	**20 40 27.2**	**-1.1**
DDI				ex	x	20 41 17.2	
SDNR	**Sundarnagar**	**40.17**	**292**	ePKP	**P**	**20 40 38.0**	**+1.9**
PEA0B	**Petropavlovsk-**	**40.44**	**33**	eP	**P**	**20 40 39.2**	**+1.3**
PETK	**Petropavlovsk-**	**40.44**	**33**	P	**P**	**20 40 38.2**	**+0.3**
	comp=Z,7.9nm,0.7s,mb4.5,baz=176,slow=5.2,SNR=27						
PETK				LR	LR	20 57 18.8	
	comp=Z,1µm,20.7s,MS4.7,baz=231,slow=36						
PETK	**Petropavlovsk-**	**40.44**	**33**	P	**P**	**20 40 38.2**	**+0.3**
PETK				LR	LR	20 57 18.8	
HYB	**Hyderabad**	**40.59**	**270**	i P	**P**	**20 40 42.0**	**+2.3**
HYB				eS	**S**	**20 46 50.0**	**+2.5**
HYB	**Hyderabad**	**40.59**	**270**	eP	**P**	**20 40 40.0**	**+0.3**
HYB				eS	**S**	**20 46 46.0**	**-1.5**
PET	**Petropavlovsk**	**40.88**	**34**	eP	**P**	**20 40 42.7**	**+1.1**
PET				eS	**S**	**20 46 50.0**	**-0.9**
PET				pmax	pmax		
	comp=Z,100nm,12.6s						
PET				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.3						
PET				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.8						
PET	**Petropavlovsk**	**40.88**	**34**	eP	**P**	**20 40 42.8**	**+1.3**
	comp=Z,66nm,1.0s,mb5.2						
ZAA0	**Zalesovo Array**	**41.16**	**328**	eP	**P**	**20 40 42.1**	**-1.7**
ZALV	**Zalesovo Beam**	**41.16**	**328**	P	**P**	**20 40 43.0**	**-0.9**
	comp=Z,22nm,0.7s,mb4.9,baz=117,slow=8.3,SNR=31						
ZALV				LR	LR	20 59 00.8	
	comp=Z,2µm,19.5s,MS5.0,baz=350,slow=38						
FITZ	**Fitzroy Crossi**	**41.33**	**174**	⇑iP	**P**	**20 40 43.1**	**-2.5**
	comp=Z,45nm,0.8s,mb5.2						
FITZ	**Fitzroy Crossi**	**41.33**	**174**	LR	LR	21 02 38.5	
	comp=Z,235nm,19.1s,MS4.1,baz=360,slow=43						
FITZ	**Fitzroy Crossi**	**41.33**	**174**	eP	**P**	**20 40 43.1**	**-2.5**
	comp=Z,37nm,1.0s,mb5.0						
KSH	**Kashi**	**41.65**	**304**	eP	**P**	**20 40 53.6**	**+5.5**
KSH				ePP	PP	20 42 34.3	+10
KSH				ePcP	PcP	20 42 47.3	+2.7
KSH				eScP	ScP	20 46 35.1	+2.4
KSH				ePcS	PcS	20 46 38.3	+2.3
KSH				eS	**S**	**20 47 10.0**	**+7.3**
KSH				eScS	ScS	20 50 50.1	+0.8
KSH				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.9						
KSH				pmax	pmax		
	comp=Z,410nm,4.2s						
KSH				LR	LR		
	comp=N,3µm,13.3s						
KSH				LR	LR		
	comp=E,2µm,7.1s						
KSH				LR	LR		
	comp=Z,4µm,10.9s,MS5.5						
ULHL	**Ulahol**	**41.95**	**308**	P	**P**	**20 40 51.9**	**+1.3**
	SNR=16						
PALK	**Pallekele**	**42.29**	**255**	i P	**P**	**20 40 59.9**	**+6.3**
NVS	**Novosibirsk**	**42.42**	**328**	eP	**P**	**20 40 53.5**	**-0.7**
NVS				e		20 42 33.5	
NVS				eS	**S**	**20 47 11.2**	**-2.5**
NVS				pmax	pmax		
	comp=Z,73nm,1.7s,mb5.0						
NVS				pmax	pmax		
	comp=N,65nm,1.8s						
NVS				pmax	pmax		
	comp=E,77nm,1.8s						
NVS				pmax	pmax		
	comp=Z,36nm,1.8s,mb4.7						
NVS				pmax	pmax		
	comp=N,43nm,2.0s						
NVS				smax			
	comp=N,17nm,1.9s						
NVS				smax			
	comp=E,32nm,1.8s						
AJM	**Ajmer**	**42.47**	**284**	ePKP	**P**	**20 40 55.7**	**+0.7**
AJM				AMb	AMB	20 41 13.5	
	comp=Z,130nm,1.0s,mb5.5						
TKM2	**Tokmak 2**	**42.56**	**309**	eP	**P**	**20 40 56.8**	**+1.3**
TKM2				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.0						
TKM2	**Tokmak 2**	**42.56**	**309**	P	**P**	**20 40 57.3**	**+1.8**
	SNR=17						
TKM2	**Tokmak 2**	**42.56**	**309**	eP	**P**	**20 40 56.8**	**+1.3**
	comp=Z,26nm,0.9s,mb5.0						
KZA	**Kyzart**	**42.64**	**307**	P	**P**	**20 40 58.8**	**+2.7**
	SNR=21						
COEN	**Coen**	**42.65**	**148**	eP	**P**	**20 40 56.3**	**-0.2**
	comp=Z,998nm,0.9s,mb6.5						
KBK	**Karagaybulak**	**42.97**	**308**	P	**P**	**20 41 00.8**	**+2.0**
	SNR=12						
KURK	**Kurchatov**	**42.97**	**321**	P	**P**	**20 40 58.0**	**-0.7**
	comp=Z,199nm,1.1s,mb5.8,SNR=14						
KURK	**Kurchatov**	**42.97**	**321**	eP	**P**	**20 40 58.8**	**+0.1**
KURK				pmax	pmax		
	comp=Z,56nm,1.2s,mb5.2						
KURK	**Kurchatov**	**42.97**	**321**	LR	LR	21 00 59.3	
	comp=Z,605nm,20.3s,MS4.5,baz=55,slow=39						
KURK	**Kurchatov**	**42.97**	**321**	eP	**P**	**20 40 58.8**	**0.0**
	comp=Z,56nm,1.2s,mb5.2						
KURK	**Kurchatov**	**42.97**	**321**	P	**P**	**20 40 59.5**	**+0.8**
	SNR=17						
KURK				P		20 40 59.5	
	SNR=17						
UCH	**Uchtor**	**43.20**	**307**	P	**P**	**20 41 03.0**	**+2.3**
	SNR=17						
UCH	**Uchtor**	**43.20**	**307**	eP	**P**	**20 41 02.2**	**+1.5**
	comp=Z,1.6nm,0.5s,mb4.0						
AAK	**Ala-Archa**	**43.29**	**308**	eP	**P**	**20 41 01.9**	**+0.5**
AAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.6						
AAK	**Ala-Archa**	**43.29**	**308**	eP	**P**	**20 41 01.9**	**+0.4**
	comp=Z,12nm,0.9s,mb4.6						
USP	**Ospenovka**	**43.42**	**309**	P	**P**	**20 41 07.1**	**+4.7**
	SNR=11						
AML	**Almayashu**	**43.78**	**307**	P	**P**	**20 41 07.0**	**+1.5**
	SNR=19						
AML	**Almayashu**	**43.78**	**307**	eP	**P**	**20 41 06.9**	**+1.4**
	comp=Z,25nm,0.9s,mb5.0						
EKS2	**Erkin-Say**	**43.82**	**308**	P	**P**	**20 41 08.2**	**+2.6**
	SNR=6.5						
EKS2	**Erkin-Say**	**43.82**	**308**	eP	**P**	**20 41 05.3**	**-0.4**
	comp=Z,13nm,0.9s,mb4.7						
POO	**Poona**	**44.63**	**273**	ePKP	**P**	**20 41 13.3**	**+0.9**
POO				AMb	AMB	20 41 18.5	
	comp=Z,80nm,1.6s,mb5.3						
SEY	**Seymchan**	**44.71**	**19**	⇑eP	**P**	**20 41 13.8**	**+1.3**
WRAB	**Tennant Creek**	**44.74**	**163**	P	**P**	**20 41 11.0**	**-2.2**
	comp=Z,487nm,0.8s,mb6.4,SNR=22						
WRAB	**Tennant Creek**	**44.74**	**163**	eP	**P**	**20 41 11.2**	**-2.0**
WRA	**Warramunga Arr**	**44.75**	**163**	P	**P**	**20 41 11.5**	**-1.8**
	comp=Z,53nm,0.8s,mb5.5,baz=344,slow=8.8,SNR=237						
WB2	**Warramunga Arr**	**44.75**	**163**	eP	**P**	**20 41 10.9**	**-2.4**
TRD	**Trivandrum**	**45.10**	**258**	⇓ePKP	**P**	**20 41 20.0**	**+3.7**
TRD				ex	x	20 48 07.0	
KK31	**Karatay Array**	**46.26**	**308**	i P	**P**	**20 41 25.9**	**+0.8**
KBL	**Kabul**	**46.83**	**296**	eP	**P**	**20 41 30.3**	**+0.6**
KBL				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
KBL	**Kabul**	**46.83**	**296**	eP	**P**	**20 41 30.3**	**+0.6**
	comp=Z,76nm,1.1s,mb5.5						
ASAR	**Alice Springs**	**48.20**	**165**	P	**P**	**20 41 39.1**	**-1.1**
	comp=Z,24nm,0.7s,mb5.3,baz=341,slow=7.5,SNR=120						
ASAR				PcP	PcP	20 43 06.2	-1.0
	comp=Z,14nm,0.9s,baz=350,slow=3.7,SNR=5.9						
ASAR				S	**S**	**20 48 37.0**	**-0.6**
	comp=Z,1.9nm,1.0s,baz=355,slow=21,SNR=6.2						
BVAR	**Borovoye Array**	**48.56**	**321**	P	**P**	**20 41 42.8**	**0.0**
	comp=Z,4.2nm,0.5s,mb4.8,baz=105,slow=9.0,SNR=30						
BVAR				LR	LR	21 02 00.1	
	comp=Z,794nm,21.2s,MS4.7,baz=107,slow=36						
TIXI	**Tiksi**	**48.57**	**3**	⇑eP	**P**	**20 41 41.4**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.3						
TIXI	**Tiksi**	**48.57**	**3**	eP	**P**	**20 41 43.5**	**+0.9**
BRVK	**Borovoye**	**48.63**	**321**	P	**P**	**20 41 43.0**	**-0.3**
	comp=Z,154nm,0.9s,mb6.0,SNR=14						
BRVK	**Borovoye**	**48.63**	**321**	eP	**P**	**20 41 43.2**	**-0.1**
BRVK				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.4						
BRVK	**Borovoye**	**48.63**	**321**	eP	**P**	**20 41 43.2**	**-0.2**
	comp=Z,55nm,1.3s,mb5.4						
CTA	**Charters Tower**	**49.40**	**149**	eP	**P**	**20 41 50.6**	**+1.0**
	comp=Z,41nm,0.9s,mb5.5						
CTA	**Charters Tower**	**49.40**	**149**	LR	LR	21 01 24.6	
	comp=Z,1µm,19.5s,MS4.9,baz=332,slow=34						
CTAO	**Charters Tower**	**49.40**	**149**	eP	**P**	**20 41 51.1**	**+1.5**
BILL	**Bilibino**	**52.42**	**20**	⇑eP	**P**	**20 42 13.7**	**+2.0**
BILL				e	pP	20 42 22.0	+0.9
BILL				e		20 43 23.0	
BILL				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
BILL				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
BILL	**Bilibino**	**52.42**	**20**	⇑eP	**P**	**20 42 13.8**	**+2.1**
FORT	**Forrest**	**54.12**	**173**	⇑iP	**P**	**20 42 23.6**	**-1.0**
	comp=Z,144nm,0.7s,mb6.0						
FORT	**Forrest**	**54.12**	**173**	eP	**P**	**20 42 22.9**	**-1.8**
AB31	**Akbulak array**	**54.29**	**315**	P	**P**	**20 42 25.7**	**0.0**
AB31				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
KLBR	**Kellerberrin**	**54.69**	**184**	eP	**P**	**20 42 27.1**	**-1.6**
	comp=Z,30nm,0.7s,mb5.4						
SVE	**Sverdlovsk**	**54.95**	**324**	⇓eP	**P**	**20 42 30.4**	**0.0**
SVE				eS	**S**	**20 50 14.8**	**+4.8**
SVE				pmax	pmax		
	comp=Z,93nm,1.0s,mb5.8						
SVE				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.3						
MUN	**Mundaring**	**55.19**	**185**	eP	**P**	**20 42 31.0**	**-1.3**
ABKT	**Ailbek**	**55.52**	**301**	P	**P**	**20 42 36.6**	**+1.8**
	comp=Z,231nm,1.2s,mb6.1,SNR=5.1						
AKTK	**Aktyubinsk**	**55.63**	**316**	P	**P**	**20 42 35.4**	**-0.1**
AKTK				LR	LR	21 08 09.6	
AKTO	**Aktyubinsk**	**55.63**	**316**	P	**P**	**20 42 35.4**	**-0.1**
	comp=Z,13nm,0.9s,mb4.9,baz=92,slow=6.9,SNR=21						
AKTO				LR	LR	21 08 09.6	
	comp=Z,3µm,18.2s,MS5.5,baz=97,slow=38						
ARU	**Arti**	**56.01**	**323**	P	**P**	**20 42 37.6**	**-0.4**
	comp=Z,356nm,1.1s,mb6.3,SNR=15						
ARU	**Arti**	**56.01**	**323**	c iP	**P**	**20 42 37.7**	**-0.3**
ARU				e		20 44 39.2	
ARU				S	**S**	**20 50 27.5**	**+3.4**
ARU				SS	SS	20 54 14.0	+3.9
ARU				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.4						
ARU				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.3						
ARU	**Arti**	**56.01**	**323**	eP	**P**	**20 42 37.5**	**-0.5**
NWAO	**Narrogin (SRO)**	**56.05**	**184**	eP	**P**	**20 42 37.8**	**-0.7**
EIDS	**Eidsvold**	**56.22**	**148**	eP	**P**	**20 42 38.4**	**-1.5**
	comp=Z,45nm,1.3s,mb5.3						
SOKR	**Solikamsk**	**57.44**	**327**	eP	**P**	**20 42 44.5**	**-3.6**
SOKR				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.0						
SOKR				MLR	MLR		
	comp=Z,3µm,14.0s,MS5.6						
STKA	**Stephens Creek**	**58.12**	**160**	⇑iP	**P**	**20 42 52.5**	**-0.7**
	comp=Z,66nm,0.7s,mb5.8						
STKA	**Stephens Creek**	**58.12**	**160**	P	**P**	**20 42 52.6**	**-0.6**
	comp=Z,78nm,0.7s,mb5.8,baz=338,slow=6.8,SNR=210						
STKA				LR	LR	21 09 45.1	
	comp=Z,467nm,18.6s,MS4.6,baz=225,slow=38						
STKA	**Stephens Creek**	**58.12**	**160**	P	**P**	**20 42 52.6**	**-0.6**
STKA				LR	LR	21 09 45.1	
GAMB	**Gambell**	**59.12**	**28**	eP	**P**	**20 43 00.4**	**+0.6**
	comp=Z,43nm,1.1s,mb5.4						
ARMA	**Armidale**	**60.72**	**150**	⇑iP	**P**	**20 43 12.0**	**+0.8**
ARMA	**Armidale**	**60.72**	**150**	eP	**P**	**20 43 11.3**	**+0.1**
	comp=Z,16nm,0.7s,mb5.3						
TNA	**Tin City**	**61.00**	**27**	eP	**P**	**20 43 12.4**	**-0.3**
	comp=Z,42nm,1.4s,mb5.4						
RBK	**Rabkut**	**62.88**	**278**	P	**P**	**20 43 26.5**	**+0.4**
	SNR=12						
MAK	**Makhachkala**	**63.08**	**308**	P	**P**	**20 43 27.3**	**+0.3**
MAK				e		20 44 05.6	
MAK				i S	**S**	**20 51 59.1**	**+3.3**
MAK				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.6						
PRGR	**Permogore**	**63.10**	**329**	eP	**P**	**20 43 24.9**	**-1.9**
PRGR				pmax	pmax		
	comp=Z,73nm,1.3s,mb5.7						
WHFO	**Wadi Hawf**	**63.15**	**279**	⇑P	**P**	**20 43 30.2**	**+2.3**
	SNR=8.0						
ABTO	**Aybut**	**63.75**	**279**	⇑P	**P**	**20 43 34.1**	**+2.3**
	SNR=8.3						
CAN	**Canberra**	**63.84**	**155**	eP	**P**	**20 43 32.3**	**+0.3**
CAN				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
CAN	**Canberra**	**63.84**	**155**	eP	**P**	**20 43 32.3**	**+0.3**
	comp=Z,15nm,0.8s,mb5.1						
CNB	**Canberra Magne**	**63.98**	**155**	⇑iP	**P**	**20 43 33.0**	**+0.1**
TOO	**Toolangi**	**64.60**	**159**	⇑iP	**P**	**20 43 37.1**	**+0.2**
TBLG	**Delisi**	**65.29**	**307**	P	sP	20 43 54.4	-0.4
KBD	**Kabd**	**65.50**	**293**	eP	**P**	**20 43 42.9**	**-0.3**
MIB	**Mutribah**	**65.65**	**293**	eP	**P**	**20 43 43.7**	**-0.5**
MIB				AMb	AMB	20 43 48.2	
	comp=Z,60nm,1.1s,mb5.5						
RDF	**Al-Radifah**	**65.69**	**292**	eP	**P**	**20 43 43.7**	**-0.7**
RDF				AMb	AMB	20 43 48.5	
	comp=Z,84nm,1.1s,mb5.7						
VRHR	**Novokhopersk**	**65.99**	**317**	eP	**P**	**20 43 46.4**	**+0.5**
VRHR				e*SP	sP	20 43 55.3	-3.9
VRHR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
VRHR				pmax	pmax		
	comp=N,30nm,0.8s						
KLMR	**Klimovskoe**	**66.08**	**328**	⇑iP	**P**	**20 43 45.2**	**-1.1**
KLMR				pmax	pmax		
	comp=Z,95nm,1.3s,mb5.7						
ONI	**Oni**	**66.08**	**308**	P	**P**	**20 43 48.4**	**+1.8**
KIV	**Kislovodsk**	**66.39**	**309**	eP	**P**	**20 43 49.1**	**+0.5**
KIV				eS	S	20 52 39.6	+3.0
KIV				eSS	SS	20 56 56.7	+3.6
KIV				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
KIV				pmax	pmax		
	comp=Z,104nm,6.0s						
KIV				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.3						
KIV	**Kislovodsk**	**66.39**	**309**	⇑iP	**P**	**20 43 49.2**	**+0.6**
KIV	**Kislovodsk**	**66.39**	**309**	P	**P**	**20 43 50.1**	**+1.5**
	SNR=9.3						
KIV				P		20 43 50.1	
	SNR=9.3						
SVW2	**Sparrevohn**	**66.50**	**32**	eP	**P**	**20 43 50.3**	**+1.4**
IMA2	**Indian Mountai**	**66.86**	**26**	eP	**P**	**20 43 53.4**	**+2.2**
VOR	**Voronezh**	**67.40**	**318**	P	**P**	**20 43 55.0**	**+0.1**
VOR				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.9						
VORD	**Divnogorie**	**67.47**	**317**	eP	**P**	**20 43 55.2**	**-0.1**
VORD				e*SP	sP	20 44 03.6	-5.0
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
VORD				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.2						
VORD				MLR	MLR		
	comp=N,1µm,15.0s,MS5.2						
VORD				MLR	MLR		
	comp=E,790nm,17.0s,MS5.2						
VSR	**Storozhevoye**	**67.51**	**318**	eP	**P**	**20 43 55.1**	**-0.5**
VSR				e*SP	sP	20 44 01.8	-7.1
VSR				pmax	pmax		
	comp=N,4.0nm,0.7s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.7s						
VSR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
VSR				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.4						
VSR				MLR	MLR		
	comp=N,1µm,20.0s,MS5.4						
VSR				MLR	MLR		
	comp=E,1µm,18.0s,MS5.4						
CHUM	**Lake Minchumin**	**67.68**	**29**	eP	**P**	**20 43 56.9**	**+0.4**
	comp=E,33nm,1.1s,mb5.3						
MOS	**Moscow**	**67.70**	**323**	eP	**P**	**20 43 54.6**	**-2.1**
MOS				e	pP	20 44 03.2	-3.1
MOS				e		20 46 24.2	
MOS				eS	S	20 52 47.9	-4.0
MOS				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.4						
MOS				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.4						
APA	**Apatity**	**68.00**	**336**	⇑iP	**P**	**20 43 57.7**	**-0.7**
APA				i		20 44 12.0	
APA				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.3						
APA				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.8						
COLD	**Coldfoot**	**68.11**	**25**	eP	**P**	**20 43 59.9**	**+0.8**
	comp=Z,30nm,1.2s,mb5.2						
KTH	**Kantishna Hill**	**68.34**	**29**	eP	**P**	**20 44 02.0**	**+1.4**
	comp=Z,44nm,1.4s,mb5.3						
OBN	**Obninsk**	**68.39**	**322**	⇓eP	**P**	**20 44 00.5**	**-0.6**
OBN				e	pP	20 44 09.1	-1.6
OBN				e		20 46 30.6	
OBN				eS	S	20 52 59.5	-0.8
OBN				eSS	SS	20 57 21.8	-1.8
OBN				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
OBN				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
OBN	**Obninsk**	**68.39**	**322**	eP	**P**	**20 44 01.0**	**-0.1**
	comp=Z,57nm,1.1s,mb5.5						
KDAK	**Kodiak Island**	**68.46**	**35**	P	**P**	**20 44 02.0**	**+0.6**
	comp=Z,402nm,1.2s,mb6.3,SNR=9.1						
KDAK	**Kodiak Island**	**68.46**	**35**	i P	**P**	**20 44 01.9**	**+0.5**
KDAK	**Kodiak Island**	**68.46**	**35**	P	**P**	**20 44 02.5**	**+1.1**
	comp=Z,21nm,0.6s,mb5.4,baz=318,slow=16,SNR=22						
KDAK	**Kodiak Island**	**68.46**	**35**	eP	**P**	**20 44 01.7**	**+0.3**
	comp=Z,27nm,0.6s,mb5.5						
SOC	**Sochi**	**68.57**	**309**	eP	**P**	**20 43 59.6**	**-2.8**
SOC				e		20 46 33.4	
SOC				eS	S	20 52 59.5	-3.3
SOC				eSS	SS	20 57 19.8	-7.1
SOC				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.2						
MCK	**McKinley**	**69.19**	**28**	eP	**P**	**20 44 05.6**	**-0.3**
MCK				pmax	pmax		
	comp=Z,71nm,1.3s,mb5.4						
MCK	**McKinley**	**69.19**	**28**	eP	**P**	**20 44 05.6**	**-0.3**
	comp=Z,71nm,1.3s,mb5.4						
COLA	**College**	**69.44**	**27**	eP	**P**	**20 44 09.3**	**+1.9**
COLA				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
COLA	**College**	**69.44**	**27**	eP	**P**	**20 44 09.3**	**+1.9**
	comp=Z,12nm,0.9s,mb4.8						
PMR	**Palmer**	**69.50**	**31**	eP	**P**	**20 44 07.1**	**-0.7**
PMR				pmax	pmax		
	comp=Z,76nm,1.4s,mb5.4						
PMR	**Palmer**	**69.50**	**31**	eP	**P**	**20 44 07.1**	**-0.8**
	comp=Z,76nm,1.4s,mb5.4						
MOO	**Moorlands**	**69.56**	**160**	eP	**P**	**20 44 08.4**	**0.0**
JOF	**Joensuu**	**69.64**	**331**	eP	**P**	**20 44 06.8**	**-1.8**
JOF				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
JOF	**Joensuu**	**69.64**	**331**	ep	**P**	**20 44 06.8**	**-1.8**
	comp=Z,10nm,0.5s,mb5.0						
ANN	**Anapa**	**69.91**	**311**	eP	**P**	**20 44 13.6**	**+2.9**
ANN				e*PP	pP	20 44 24.2	+3.8
ANN				e		20 44 34.0	
ANN				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.6						
ANN				MLR	MLR		
	comp=N,1µm,19.0s,MS5.4						
ANN				MLR	MLR		
	comp=E,1µm,19.0s,MS5.4						
ANN				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
KEV	**Kevo**	**69.92**	**338**	ep	**P**	**20 44 09.1**	**-1.2**
TAU	**Tasmania Unive**	**70.03**	**160**	eP	**P**	**20 44 10.7**	**-0.5**
TAU				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
TAU	**Tasmania Unive**	**70.03**	**160**	eP	**P**	**20 44 10.7**	**-0.5**
	comp=Z,43nm,1.1s,mb5.3						
SPITS	**Spitsbergen Ar**	**70.42**	**348**	P	**P**	**20 44 12.0**	**-1.2**
	comp=Z,9.3nm,0.8s,mb4.8,baz=55,slow=7.8,SNR=7.6						
ARCES	**ARCESS Array B**	**70.48**	**338**	P	**P**	**20 44 13.2**	**-0.5**
	comp=Z,5.6nm,0.7s,mb4.6,baz=68,slow=9.1,SNR=12						
ARCES				LR	LR	21 20 36.0	
	comp=Z,1µm,18.5s,MS5.1,baz=311,slow=40						
MALT	**Malatya**	**70.75**	**304**	⇓iP	**P**	**20 44 16.4**	**+0.5**
MALT	**Malatya**	**70.75**	**304**	⇓P	**P**	**20 44 16.4**	**+0.4**
MENT	**Mentasta**	**71.66**	**29**	eP	**P**	**20 44 22.0**	**+1.0**
KAF	**Kangasniemi**	**72.08**	**331**	eP	**P**	**20 44 21.8**	**-1.7**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
KAF	**Kangasniemi**	**72.08**	**331**	ep	**P**	**20 44 21.8**	**-1.7**
	comp=Z,7.5nm,0.5s,mb4.9,baz=73,slow=5.6						
SIM	**Simferopol’**	**72.16**	**312**	eP	**P**	**20 44 24.7**	**+0.4**
SIM				pmax	pmax		
	comp=Z,67nm,1.1s,mb5.5						
SIM				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
EGAK	**Eagle**	**72.24**	**27**	eP	**P**	**20 44 25.0**	**+0.5**
	comp=Z,13nm,0.8s,mb4.9						
VSU	**Vasula**	**72.90**	**327**	⇓eP	**P**	**20 44 27.7**	**-0.7**
VSU				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
DAWY	**Dawson**	**73.19**	**27**	eP	**P**	**20 44 29.4**	**-0.7**
MICGM	**Minsk**	**73.42**	**323**	eP	**P**	**20 44 31.0**	**-0.6**
MNK	**Minsk**	**73.45**	**323**	eP	**P**	**20 44 31.0**	**-0.8**
ASF	**Jabal al Asfar**	**73.66**	**298**	P	**P**	**20 44 34.2**	**+0.8**
	comp=Z,11nm,1.1s,mb4.7,baz=108,slow=3.2,SNR=7.0						
ASF				pP	pP	20 44 43.8	+0.6
	comp=Z,17nm,1.0s,baz=198,slow=2.8,SNR=9.1						
AKASG	**Malin Array Be**	**73.74**	**319**	P	**P**	**20 44 31.9**	**-1.7**
AKASG				*PP	pP	20 44 42.6	-0.7
AKASG	**Malin Array Be**	**73.74**	**319**	P	**P**	**20 44 31.9**	**-1.7**
	comp=Z,6.2nm,0.7s,mb4.7,baz=60,slow=5.6,SNR=21						
AKASG				pP	pP	20 44 42.6	-0.7
	comp=Z,11nm,0.8s,baz=69,slow=5.7,SNR=8.0						
AKASG				LR	LR	21 19 43.3	
	comp=Z,1µm,18.4s,MS5.2,baz=70,slow=38						
AKASG	**Malin Array Be**	**73.74**	**319**	P	**P**	**20 44 31.9**	**-1.7**
AKASG				pP	pP	20 44 42.6	-0.7
AKASG				LR	LR	21 19 43.3	
AKBB	**Malin Array Si**	**73.74**	**319**	eP	**P**	**20 44 31.8**	**-1.8**
KIEV	**Kiev**	**73.75**	**319**	eP	**P**	**20 44 31.4**	**-2.2**
KIEV				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
KIEV	**Kiev**	**73.75**	**319**	eP	**P**	**20 44 31.4**	**-2.3**
	comp=Z,21nm,1.0s,mb5.0						
NACGM	**Naroch**	**73.92**	**323**	e	**P**	**20 44 31.0**	**-3.5**
BRTR	**Keskin Array B**	**73.95**	**307**	P	**P**	**20 44 35.0**	**0.0**
	comp=Z,6.9nm,0.8s,mb4.6,baz=109,slow=2.3,SNR=19						
BRTR				LR	LR	21 21 51.4	
	comp=Z,388nm,19.0s,MS4.7,baz=176,slow=40						
MMAI	**Mount Meron Ar**	**74.60**	**300**	P	**P**	**20 44 38.0**	**-0.9**
	comp=Z,2.8nm,0.9s,mb4.2,baz=79,slow=7.5,SNR=2.5						
KIS	**Kishinev**	**75.11**	**315**	eP	**P**	**20 44 47.0**	**+5.4**
KIS				e	pP	20 44 55.0	+3.6
KIS				MLR	MLR		
	comp=N,1µm,18.0s,MS5.4						
KIS				MLR	MLR		
	comp=E,2µm,18.0s,MS5.4						
KIS				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.4						

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KIS                                 MLR      MLR
      comp=Z,2µm,18.0s
KIS   Kishinev           75.11 315  eP       P        20 44 47.0 +5.4
KIS                                 eL                21 18 16.0
KIS                                 LRM               21 22 24.0
      comp=Z,2µm,18.0s
TLCR                     75.69 313⇑iP       P        20 44 44.8 -0.1
TLCR                     75.69 313 ⇑P       P        20 44 44.8 -0.1
EIL   Elat               76.03 296  P       P        20 44 48.0 +0.9
      comp=Z,8.1nm,1.1s,mb4.6,baz=74,slow=6.1,SNR=5.2
SUW   Suwalki            76.19 323  eP       P        20 44 47.4 -0.3
SUW                                 e        pP       20 44 55.7 -1.7
SUW                                 e                 20 45 00.9
SUW   Suwalki            76.19 323  eP       P        20 44 47.4 -0.3
SUW                                 e        pP       20 44 55.7 -1.7
SUW                                 e                 20 45 00.9
KHU   Kahuku             76.31  75  eP       P        20 44 47.8 -1.1
HARR  Harsova            76.44 313⇓iP       P        20 44 49.1 -0.2
HARR  Harsova            76.44 313 ⇓P       P        20 44 49.1 -0.2
VRI   Vrincioaia         76.85 314⇓iP       P        20 44 52.2 +0.7
VRI   Vrincioaia         76.85 314 ⇓P       P        20 44 52.2 +0.6
ISP   Isparta            76.86 306⇑iP       P        20 44 51.5 -0.3
ISP   Isparta            76.86 306 ⇑P       P        20 44 51.5 -0.2
LVV   L'vov              77.18 319  eP       P        20 44 53.2 -0.1
LVV                                 e                 20 45 05.8
LVV                                 MLR      MLR
      comp=Z,1µm,17.0s,MS5.3
LVV                                 MLR      MLR
      comp=N,300nm,18.0s,MS5.2
LVV                                 MLR      MLR
      comp=E,1µm,17.0s,MS5.2
BUR08 Bucovina Ar. S     77.22 316  eP       P        20 44 53.0 -0.6
BURAR Bucovina Array     77.22 316⇓iP       P        20 44 53.7 +0.1
BURAR Bucovina Array     77.22 316 ⇓P       P        20 44 53.6  0.0
MLR   Muntele Rosu       77.49 314⇓iP       P        20 44 55.5 +0.3
MLR   Muntele Rosu       77.49 314  P       P        20 44 54.9 -0.3
      comp=E,10nm,0.5s,mb5.0,baz=342,slow=3.2,SNR=12
MLR   Muntele Rosu       77.49 314 ⇓P       P        20 44 55.5 +0.4
KWP   Kalwaria Pacla     78.05 319  eP       P        20 44 58.5 +0.4
KWP                                 e        pP       20 45 08.1 +0.1
KWP   Kalwaria Pacla     78.05 319⇑iP       P        20 44 58.3 +0.1
KWP   Kalwaria Pacla     78.05 319  eP       P        20 44 58.5 +0.3
KWP                                 e        pP       20 45 08.1 +0.1
VOIR                     78.10 314⇓iP       P        20 44 58.7 +0.1
VOIR                     78.10 314 ⇓P       P        20 44 58.6 +0.1
HFS   Hagfors            78.50 331  P       P        20 44 59.4 -1.0
HFS                                 *PP      pP       20 45 09.5 -0.7
HFS   Hagfors            78.50 331  P       P        20 44 59.3 -1.1
      comp=E,6.0nm,0.5s,mb4.8,baz=79,slow=7.5,SNR=23
HFS                                 pP       pP       20 45 09.5 -0.7
      comp=E,14nm,0.7s,baz=85,slow=8.0,SNR=8.1
HFS                                 LR       LR       21 22 57.2
      comp=E,4µm,19.0s,MS5.8,baz=62,slow=38
KOLS  Kolonicke sedl     78.58 318  eP       P        20 45 02.5 +1.4
KOLS                                epP      pP       20 45 15.0 +4.1
UZH   Uzhgorod           78.68 318  eP       P        20 45 00.0 -1.7
UZH                                 e        pP       20 45 10.6 -0.9
UZH                                 e                 20 45 15.8
UZH                                 eS       S        20 54 50.0 -6.7
UZH                                 e                 20 55 23.0
UZH                                 e                 20 55 40.0
PVL   Pavlikeni          78.71 312  eP       pP       20 45 13.0 +1.2
STHS  Stebnicka Huta     79.01 319  eP       P        20 45 04.0 +0.5
STHS                                e        pP       20 45 13.8 +0.5
STHS                                pmax     pmax
      comp=Z,5.0nm,1.1s,mb4.4
STHS  Stebnicka Huta     79.01 319  eP       P        20 45 04.0 +0.5
STHS                                epP      pP       20 45 13.8 +0.5
STHS  Stebnicka Huta     79.01 319  eP       P        20 45 04.0 +0.5
      comp=Z,5.0nm,1.1s,mb4.4
STHS                                e        pP       20 45 13.8 +0.5
CRVS  Cervenica-Dubn     79.08 319  eP       P        20 45 04.1 +0.2
CRVS                                e        pP       20 45 13.5 -0.2
CRVS                                pmax     pmax
      comp=Z,44nm,1.9s,mb5.1
CRVS  Cervenica-Dubn     79.08 319  eP       P        20 45 04.1 +0.2
CRVS                                epP      pP       20 45 13.5 -0.2
CRVS  Cervenica-Dubn     79.08 319  eP       P        20 45 04.1 +0.2
      comp=Z,44nm,1.9s,mb5.1
CRVS                                e        pP       20 45 13.5 -0.2
DRGR                     79.11 316⇑iP       P        20 45 03.6 -0.5
DRGR                     79.11 316 ⇑P       P        20 45 03.6 -0.5
NB2   NORSAR Subarra     79.16 332  P       P        20 45 02.7 -1.4
      comp=Z,25nm,1.0s,mb5.1,baz=62,slow=5.6
NOA   NORSAR Array B     79.16 332  P       P        20 45 02.7 -1.4
      comp=Z,8.9nm,0.9s,mb4.7,baz=58,slow=5.7,SNR=21
NOA                                 LR       LR       21 23 03.3
      comp=Z,2µm,18.2s,MS5.5,baz=55,slow=38
NOA   NORSAR Array B     79.16 332  P       P        20 45 02.7 -1.4
NOA                                 LR       LR       21 23 03.3
RES   Resolute Bay       79.49   9  P       P        20 45 04.5 -1.1
      comp=Z,5.9nm,1.0s,mb4.5,baz=332,slow=5.6,SNR=13
OJC   Ojcow              79.56 320  eP       P        20 45 06.2 -0.2
OJC                                 ePcP     PcP      20 45 15.2 +0.9
DLBC  Dease Lake         79.56  30  P       P        20 45 08.9 +2.6
      comp=Z,2.1nm,0.5s,mb4.3,baz=268,slow=10,SNR=3.3
NIE   Niedzica           79.57 319  eP       P        20 45 07.2 +0.7
GZR   Gura Zlata         79.60 315⇓iP       P        20 45 06.9 +0.1
GKP   Gorka Klasztor     79.74 324  eP       P        20 45 07.5  0.0
GKP                                 e        pP       20 45 16.1 -1.1
GKP   Gorka Klasztor     79.74 324  eP       P        20 45 07.5 +0.1
GKP                                 e        pP       20 45 16.1 -1.1
BZS   Buzias             80.27 315⇑iP       P        20 45 11.3 +0.9
BZS   Buzias             80.27 315 ⇑P       P        20 45 11.2 +0.8
VTS   Vitosha            80.39 312  P       P        20 45 12.0 +0.9
URZ   Urewera            80.41 139  eP       P        20 45 07.2 -3.9
      comp=Z,16nm,0.9s,mb4.9
MMB   Musomiste          80.42 311  P       P        20 45 11.5 +0.2
PSZ   Piszkesteto        80.43 318⇑iP       P        20 45 11.4 +0.2
PSZ   Piszkesteto        80.43 318⇓eP       P        20 45 11.2  0.0
PSZ   Piszkesteto        80.43 318 ⇑P       P        20 45 11.4 +0.1
OKC   Ostrava-Krasne     80.68 320  eP       P        20 45 12.1 -0.4
OKC                                 epP      pP       20 45 21.1 -1.3
OKC                                 AMS      AMS      21 26 30.0
      comp=Z,1µm,16.6s
OKC   Ostrava-Krasne     80.68 320  eP       P        20 45 12.1 -0.4
OKC                                 epP      pP       20 45 21.1 -1.3
VYHS  Vyhne              80.84 319  eP       P        20 45 13.5 +0.1
VYHS                                e        pP       20 45 22.6 -0.6
VYHS                                pmax     pmax
      comp=Z,52nm,2.0s,mb5.1
VYHS  Vyhne              80.84 319  eP       P        20 45 13.5 +0.1
      comp=Z,52nm,2.0s,mb5.1
VYHS                                e        pP       20 45 22.6 -0.6
MORC  Moravsky Berou     81.06 320⇓iP       P        20 45 14.4 -0.2
MORC  Moravsky Berou     81.06 320 ⇓P       P        20 45 14.4 -0.2
KHZ   Kahutara           81.09 144  eP       P        20 45 12.7 -2.0
BUD   Budapest           81.15 318⇑eP       P        20 45 15.0 -0.1
KSP   Ksiaz              81.32 322  eP       P        20 45 16.0 +0.1
KSP                                 e        pP       20 45 25.7 -0.1
KSP                                 e                 20 45 30.4
KSP   Ksiaz              81.32 322  eP       P        20 45 15.8 -0.1
KSP                                 epP      pP       20 45 24.8 -1.0
DPC   Dobruska-Polom     81.52 321  eP       P        20 45 16.9 -0.1
DPC                                 epP      pP       20 45 26.0 -0.8
DPC                                 AMS      AMS      21 24 30.0
      comp=Z,2µm,15.7s
UPC   Upice              81.63 322  eP       P        20 45 17.1 -0.5
SMOL  Smolenice          81.68 319  eP       P        20 45 20.3 +2.5
VRAC  Vranov             81.83 320⇑iP       P        20 45 18.8 +0.2
VRAC  Vranov             81.83 320  P       P        20 45 18.3 -0.3
      comp=Z,8.2nm,0.7s,mb4.8,baz=76,slow=6.1,SNR=12
VRAC  Vranov             81.83 320 ⇑P       P        20 45 18.8 +0.2
MODS  Modra-Piesok       81.83 319  eP       P        20 45 19.2 +0.6
MODS                                e        pP       20 45 27.9 -0.6
MODS                                pmax     pmax
      comp=Z,8.0nm,1.5s,mb4.4
MODS  Modra-Piesok       81.83 319  eP       P        20 45 19.2 +0.6
      comp=Z,8.4nm,1.5s,mb4.5
MODS                                e        pP       20 45 27.9 -0.6
PKSM  Moragy             81.92 317⇑iP       P        20 45 18.5 -0.7
PKSM  Moragy             81.92 317 ⇑P       P        20 45 18.5 -0.7
ZST   Bratislava         82.01 319  eP       P        20 45 19.5 -0.1
ZST                                 pmax     pmax
      comp=Z,3.0nm,0.8s,mb4.3
ZST   Bratislava         82.01 319  eP       P        20 45 19.5 -0.1
      comp=Z,2.7nm,0.8s,mb4.2
PVCC  Panska Ves         82.44 322  eP       P        20 45 21.8  0.0
PVCC                                AMS      AMS      21 26 50.0
      comp=Z,2µm,15.5s
TREC  Trest              82.48 321  eP       P        20 45 21.7 -0.3
TREC                                epP      pP       20 45 30.8 -1.1
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TREC                                AMS      AMS      21 26 10.0
      comp=Z,1µm,15.5s
SOP   Sopron             82.57 319⇑eP       P        20 45 22.1 -0.4
BRG   Berggiesshubel     82.63 322  eP       P        20 45 22.1 -0.7
BRG                                 i        pP       20 45 31.9 -0.8
BRG                                 pmax     pmax
      comp=Z,1.0nm,1.6s
BRG                                 pmax     pmax
      comp=Z,17nm,1.1s,mb5.0
BRG                                 pmax     pmax
      comp=Z,16nm,1.5s,mb4.8
BRG                                 MLR      MLR
      comp=N,5µm,18.6s,MS6.0
BRG                                 MLR      MLR
      comp=E,888nm,16.2s,MS6.0
BRG                                 MLR      MLR
      comp=Z,1µm,16.0s,MS5.3
BRG   Berggiesshubel     82.63 322  eP       P        20 45 22.7 -0.1
      comp=Z,27nm,1.1s,mb5.2
BRG   Berggiesshubel     82.63 322  eP       P        20 45 22.1 -0.7
      comp=Z,28nm,1.6s,mb5.0
BRG                                 i        pP       20 45 31.9 -0.8
      comp=Z,27nm,1.1s
BRG                                 e                 20 48 42.4
      comp=Z,9.0nm,1.5s
BRG
      comp=N,2µm,18.6s
BRG
      comp=E,2µm,16.2s
BRG
      comp=Z,3µm,16.0s
BRG   Berggiesshubel     82.63 322  eP       P        20 45 22.1 -0.7
      comp=Z,17nm,1.6s,mb4.8
BRG                                 i        pP       20 45 31.9 -0.8
BRG                                 e                 20 48 42.4
BRG                                 LR       LR
      comp=Z,2µm,16.0s,MS5.5
PRU   Pruhonice          82.71 322  eP       P        20 45 23.0 -0.2
PRU                                 epP      pP       20 45 31.7 -1.4
PRU                                 AMS      AMS      21 25 00.0
      comp=Z,2µm,16.6s
CONA  Conrad Observa     82.88 319⇑iP       P        20 45 24.2 +0.1
      comp=Z,40nm,1.4s,mb5.2
CSNA  Conrad Observa     82.88 319⇑iP       P        20 45 24.2 +0.1
      comp=Z,37nm,1.4s,mb5.2
CLL   Collm              82.95 323⇑iP       P        20 45 23.4 -1.1
CLL                                 i        pP       20 45 32.8 -1.5
CLL                                 pmax     pmax
      comp=Z,25nm,1.5s,mb5.0
CLL                                 MLR      MLR
      comp=Z,2µm,18.5s,MS5.5
CLL   Collm              82.95 323⇑iP       P        20 45 23.4 -1.1
      comp=Z,40nm,1.5s,mb5.2
CLL                                 i sP     sP       20 45 32.8 -5.1
CLL                                 i                 20 45 38.1
CLL                                 ePP      PP       20 48 43.0 +8.3
CLL                                 eS       S        20 55 48.0 +6.8
CLL                                 eSS      SS       21 01 42.0 +38
CLL                                 e                 21 05 48.0
CLL                                 eSSSS             21 07 12.0
CLL   Collm              82.95 323⇑iP       P        20 45 23.4 -1.1
      comp=Z,40nm,1.5s,mb5.2
CLL                                 i        pP       20 45 32.8 -1.5
CLL                                 LR       LR
      comp=Z,2µm,18.5s,MS5.5
SCO   Scoresbysund       83.00 348  i P      P        20 45 24.3  0.0
SCO                                 pmax     pmax
      comp=Z,3.0nm,1.1s,mb4.2
SCO                                 MLR      MLR
      comp=Z,460nm,21.0s,MS4.8
SCO   Scoresbysund       83.00 348  i P      P        20 45 24.3  0.0
      comp=Z,3.1nm,1.1s,mb4.2
SCO
      comp=Z,450nm,21.0s
BSEG  Bad Segeberg       83.08 326  eP       P        20 45 25.0 -0.1
BSEG                                pmax     pmax
      comp=Z,26nm,1.4s,mb5.1
BSEG  Bad Segeberg       83.08 326  eP       P        20 45 25.0 -0.1
      comp=Z,25nm,1.4s,mb5.0
TIR   Tirane             83.17 312  eP       P        20 45 24.7 -1.1
TIR                                 pmax     pmax
      comp=Z,41nm,0.9s,mb5.5
TIR   Tirane             83.17 312  eP       P        20 45 24.7 -1.1
      comp=Z,41nm,0.9s,mb5.5
ARSA  Arzberg            83.39 319⇑iP       P        20 45 26.3 -0.5
      comp=Z,18nm,1.4s,mb4.9
SUMG  Summit             83.42 354  eP       P        20 45 25.3 -1.2
      comp=Z,7.8nm,0.6s,mb4.9
KHC   Kasperske Hory     83.66 321  eP       P        20 45 27.8 -0.4
KHC                                 epP      pP       20 45 36.8 -1.2
KHC                                 AMS      AMS      21 25 40.0
      comp=Z,2µm,17.0s
YKA   Yellowknife Ar     83.67  23  P       P        20 45 26.6 -1.3
      comp=Z,1.2nm,0.5s,mb4.3,baz=313,slow=5.0,SNR=22
YKA                                 PKKPbc   PKKPbc   21 03 42.3 -4.0
      comp=Z,0.7nm,0.8s,baz=129,slow=2.2,SNR=12
YKA                                 LR       LR       21 25 36.5
      comp=Z,280nm,18.7s,MS4.7,baz=65,slow=38
YKA   Yellowknife Ar     83.67  23  P       P        20 45 26.6 -1.3
YKA                                 PKKPbc   PKKPbc   21 03 42.3 -4.0
YKA                                 LR       LR       21 25 36.5
TANN  Tannenbergstha     83.68 323  eP       P        20 45 28.2  0.0
      comp=Z,26nm,1.3s,mb5.2
GEC2  GERESS Array S     83.73 321  eP       P        20 45 28.5  0.0
GEC2                                pmax     pmax
      comp=Z,25nm,1.1s,mb5.3
GEC2  GERESS Array S     83.73 321  eP       P        20 45 28.5  0.0
      comp=Z,35nm,1.1s,mb5.4
GERES GERESS Array B     83.73 321  P       P        20 45 27.6 -0.9
GERES                               *PP      pP       20 45 38.5 +0.1
GERES GERESS Array B     83.73 321  P       P        20 45 27.6 -0.9
      comp=Z,6.3nm,0.8s,mb4.8,baz=57,slow=4.9,SNR=22
GERES                               pP       pP       20 45 38.5 +0.1
      comp=Z,9.8nm,0.8s,baz=57,slow=4.9,SNR=14
GERES                               LR       LR       21 26 12.9
      comp=Z,1µm,18.3s,MS5.3,baz=148,slow=38
GROS  Grobnik            83.76 318  i P      P        20 45 28.0 -0.7
NKC   Novy Kostel        83.78 322  eP       P        20 45 28.1 -0.6
NKC                                 epP      pP       20 45 36.8 -1.8
NKC                                 AMS      AMS      21 27 40.0
      comp=Z,2µm,13.5s
NKC   Novy Kostel        83.78 322  eP       P        20 45 28.1 -0.6
NKC                                 epP      pP       20 45 36.8 -1.8
MOA   Molln              83.86 320⇑iP       P        20 45 29.2 -0.1
      comp=Z,51nm,1.1s,mb5.5
PERS  Pernice            83.92 318  i P      P        20 45 28.9 -0.6
NRDL  Niedersach Rie     83.92 325  eP       P        20 45 29.7 +0.3
      comp=Z,56nm,1.5s,mb5.5
SOKA  Soboth             83.95 318⇑iP       P        20 45 29.2 -0.5
      comp=Z,28nm,1.1s,mb5.3
MOX   Moxa               84.04 323  eP       P        20 45 29.8 -0.3
      comp=Z,29nm,1.6s,mb5.2
MOX
      comp=Z,2µm,17.0s
MOX   Moxa               84.04 323  eP       P        20 45 29.8 -0.3
MOX                                 pmax     pmax
      comp=Z,34nm,1.6s,mb5.2
MOX                                 MLR      MLR
      comp=Z,29µm,17.0s
MOX   Moxa               84.04 323  eP       P        20 45 29.7 -0.4
      comp=Z,40nm,1.4s,mb5.4
WET   Wettzell           84.06 321  eP       P        20 45 30.6 +0.4
WET                                 pmax     pmax
      comp=Z,23nm,1.4s,mb5.1
WET   Wettzell           84.06 321  eP       P        20 45 30.6 +0.4
      comp=Z,33nm,1.4s,mb5.3
MANZ  Manzenberg         84.09 322  eP       P        20 45 30.4 +0.1
      comp=Z,30nm,1.3s,mb5.3
CLZ   Clausthal          84.12 324  eP       P        20 45 30.7 +0.3
CLZ                                 pmax     pmax
      comp=Z,48nm,1.2s,mb5.5
CLZ   Clausthal          84.12 324  eP       P        20 45 30.7 +0.3
      comp=Z,53nm,1.2s,mb5.5
ROTZ  Rotzenmuhle        84.14 322  eP       P        20 45 30.8 +0.2
      comp=Z,42nm,1.2s,mb5.4
PDKS  Podkum             84.26 318  i P      P        20 45 30.9 -0.4
OBKA  Obir               84.32 318⇑iP       P        20 45 31.0 -0.6
      comp=Z,16nm,0.8s,mb5.2
BOJS  Bojanci            84.36 317  i P      P        20 45 31.4 -0.3
LJU   Ljubljana          84.55 318  eP       P        20 45 32.1 -0.7
LJU                                 epP      pP       20 45 41.5 -1.1
GRA1  Grafenberg Arr     84.73 322  eP       P        20 45 33.7 +0.1
      comp=Z,52nm,1.2s,mb5.5
GRA1                                LR       LR
      comp=Z,1µm,21.1s,MS5.2
GRF   Grafenberg Arr     84.73 322  eP       P        20 45 33.7 +0.1
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GRF                                 pmax     pmax
      comp=Z,56nm,1.2s,mb5.6
GRF                                 MLR      MLR
      comp=Z,52µm,21.1s
GRF   Grafenberg Arr     84.73 322  eP       P        20 45 33.7 +0.1
GRF                                 pmax     pmax
      comp=Z,52nm,1.2s,mb5.5
GRF                                 MLR      MLR
      comp=Z,1µm,21.1s,MS5.2
GRF   Grafenberg Arr     84.73 322  eP       P        20 45 33.7 +0.1
      comp=Z,52nm,1.2s,mb5.5
GRF                                 eL                21 27 10.7
      comp=Z,952nm,21.1s
KBA   Koelnbreinsper     84.78 319⇑iP       P        20 45 33.1 -0.8
      comp=Z,21nm,1.0s,mb5.2
UBBA  Unterbreizbach     84.84 324  eP       P        20 45 33.8 -0.3
      comp=Z,35nm,1.5s,mb5.3
VOY   Vojsko             84.95 318  eP       P        20 45 33.2 -1.6
VOY                                 epP      pP       20 45 42.6 -2.1
VOY                                 e                 20 45 47.8
CADS  Cadrg              84.95 318  eP       P        20 45 33.4 -1.4
CADS                                epP      pP       20 45 42.7 -1.9
KMBO  Kilima Mbogo       85.17 267  P       P        20 45 38.1 +1.6
      comp=Z,22nm,1.0s,mb5.2,baz=38,slow=6.5,SNR=35
KMBO                                LR       LR       21 25 00.7
      comp=Z,402nm,20.1s,MS4.8,baz=279,slow=37
IBBN  Ibbenburen         85.25 326  eP       P        20 45 36.0 -0.1
      comp=Z,54nm,1.1s,mb5.6
FUR   Furstenfeldbru     85.47 321  eP       P        20 45 37.3  0.0
FUR                                 pmax     pmax
      comp=Z,48nm,1.6s,mb5.4
FUR   Furstenfeldbru     85.47 321  eP       P        20 45 37.3  0.0
      comp=Z,122nm,1.6s,mb5.8
WIT   Witteveen          85.53 326⇑eP       P        20 45 37.6  0.0
      comp=Z,187nm,1.5s,mb6.1
WTTA  Wattenberg         85.71 320⇑iP       P        20 45 37.7 -0.8
      comp=Z,26nm,1.0s,mb5.4
WTSB  Winterswijk        85.93 326⇑eP       P        20 45 38.7 -0.9
      comp=Z,23nm,1.9s,mb5.1
BUG   Bochum--Univer     85.97 325  eP       P        20 45 39.5 -0.2
      comp=Z,64nm,1.2s,mb5.7
TNS   Taunus Mts         86.00 324  eP       P        20 45 39.8 -0.1
TNS                                 pmax     pmax
      comp=Z,36nm,1.4s,mb5.4
TNS   Taunus Mts         86.00 324  eP       P        20 45 39.8 -0.1
      comp=Z,41nm,1.4s,mb5.5
TOD   Tromm              86.13 323  eP       P        20 45 39.5 -1.0
STU   Stuttgart          86.35 322  eP       P        20 45 41.2 -0.4
      comp=Z,28nm,1.3s,mb5.3
ABH   Alteburg           86.67 324  eP       P        20 45 42.3 -0.9
DAVOX Davos/Dischmat     86.99 320  P       P        20 45 44.0 -0.8
      comp=Z,2.8nm,0.5s,mb4.7,baz=29,slow=19,SNR=9.3
DAVOS Davos              87.01 320  P       P        20 45 44.0 -0.9
LANF  Langenberg         87.01 323  eP       P        20 45 44.0 -0.9
RUP   Ruppelstein        87.03 324  eP       P        20 45 44.0 -1.0
HGN   Heimansgroeve      87.05 325⇑eP       P        20 45 43.8 -1.2
BFO   Black Forest       87.07 322  eP       P        20 45 44.6 -0.6
BFO                                 pmax     pmax
      comp=Z,32nm,2.1s,mb5.2
BFO   Black Forest       87.07 322  eP       P        20 45 44.6 -0.6
      comp=Z,62nm,2.1s,mb5.5
MEM   Membach            87.10 325  P       P        20 45 45.3  0.0
      comp=Z,13nm,1.7s,mb4.9
MEM                                 AP       pP       20 45 53.9 -1.3
FELD  Feldberg im Sc     87.50 322  eP       P        20 45 45.6 -1.7
WLF   Walferdange        87.55 324  P       P        20 45 47.5 +0.1
      comp=Z,29nm,1.4s,mb5.3
WLF                                 AP       pP       20 45 57.0 -0.4
WLF   Walferdange        87.55 324  eP       P        20 45 47.1 -0.4
WLF                                 pmax     pmax
      comp=Z,44nm,1.5s,mb5.5
WLF   Walferdange        87.55 324  eP       P        20 45 47.6 +0.1
      comp=Z,52nm,1.3s,mb5.6
WLF   Walferdange        87.55 324  eP       P        20 45 47.1 -0.3
      comp=Z,44nm,1.5s,mb5.5
BCLA  Clavier            87.58 325  P       P        20 45 47.1 -0.5
      comp=Z,14nm,1.8s,mb4.9
BCLA                                AP       pP       20 45 56.8 -0.7
CDF   Champ du Feu       87.62 323⇑iP       P        20 45 47.0 -0.8
      comp=Z,56nm,1.4s,mb5.3
CDF   Champ du Feu       87.62 323⇑iP       P        20 45 47.0 -0.8
CDF                                 pmax     pmax
      comp=Z,28nm,1.4s,mb5.3
CDF   Champ du Feu       87.62 323⇑iP       P        20 45 47.0 -0.8
      comp=Z,28nm,1.4s,mb5.3
ECH   Echery             87.79 322  eP       P        20 45 48.4 -0.3
UCC   Uccle              87.85 326  P       P        20 45 48.4 -0.6
      comp=Z,25nm,1.9s,mb5.1
UCC                                 AP       pP       20 45 56.8 -2.0
MOF   Molkenrain         88.00 322  eP       P        20 45 47.9 -1.8
GIVF  Givet              88.01 325  eP       P        20 45 48.7 -1.0
SNF   Seneffe            88.06 325  P       P        20 45 49.0 -0.9
      comp=Z,18nm,2.0s,mb5.0
DOU   Dourbes            88.13 325  P       P        20 45 49.5 -0.7
      comp=Z,14nm,1.9s,mb4.9
DOU                                 AP       pP       20 45 59.5 -0.7
HINF  Hinteralfeld       88.18 322  eP       P        20 45 49.4 -1.1
HAU   Haudompre          88.36 323  eP       P        20 45 50.0 -1.4
HAU                                 eMLR     MLR
      comp=Z,1µm,19.2s,MS5.1
HAU   Haudompre          88.36 323  eP       P        20 45 50.0 -1.4
HAU                                 LR       LR
      comp=Z,1µm,19.3s,MS5.4
BAIF  Baives             88.36 325  eP       P        20 45 50.2 -1.1
      comp=Z,34nm,1.3s,mb5.1
BAIF  Baives             88.36 325  eP       P        20 45 50.2 -1.1
BAIF                                pmax     pmax
      comp=Z,17nm,1.3s,mb5.1
BAIF  Baives             88.36 325  eP       P        20 45 50.2 -1.1
      comp=Z,17nm,1.3s,mb5.1
EKA   Eskdalemuir Ar     88.64 332  P       P        20 45 51.6 -0.9
      comp=Z,1.8nm,0.8s,mb4.4,baz=45,slow=2.5,SNR=8.7
MEZF  Maizieres J'vi     88.80 323  eP       P        20 45 52.6 -0.8
      comp=Z,56nm,1.3s,mb5.4
MEZF  Maizieres J'vi     88.80 323  eP       P        20 45 52.6 -0.8
      comp=Z,56nm,1.3s,mb5.7
JCW   Jim Creek          89.02  37  eP       P        20 45 54.5  0.0
MENF  Mencas             89.13 326  eP       P        20 45 51.4 -3.5
CABF  La Chapelle        89.28 321  eP       P        20 45 54.7 -1.0
LPG   La Plagne          89.51 320⇑iP       P        20 45 56.4 -0.5
      comp=Z,28nm,0.9s,mb5.3
LPG   La Plagne          89.51 320⇑iP       P        20 45 56.4 -0.5
LPG                                 pmax     pmax
      comp=Z,14nm,0.9s,mb5.3
LPG   La Plagne          89.51 320⇑iP       P        20 45 56.4 -0.5
      comp=Z,14nm,0.9s,mb5.3
LPL   La Plagne          89.51 320⇑iP       P        20 45 56.3 -0.6
      comp=Z,20nm,0.8s,mb5.2
LPL   La Plagne          89.51 320⇑iP       P        20 45 56.3 -0.6
LPL                                 pmax     pmax
      comp=Z,10.0nm,0.8s,mb5.2
LPL   La Plagne          89.51 320⇑iP       P        20 45 56.3 -0.6
      comp=Z,9.8nm,0.8s,mb5.2
PGF   Pioggiola          89.74 317  eP       P        20 45 57.4 -0.6
      comp=Z,38nm,0.8s,mb5.5
PGF   Pioggiola          89.74 317  eP       P        20 45 57.4 -0.6
PGF                                 pmax     pmax
      comp=Z,19nm,0.8s,mb5.5
PGF   Pioggiola          89.74 317  eP       P        20 45 57.4 -0.6
      comp=Z,19nm,0.8s,mb5.5
BNI   Bardonecchia       89.80 320  eP       P        20 45 55.6 -2.6
BNI                                 pmax     pmax
      comp=Z,17nm,1.1s,mb5.3
BNI   Bardonecchia       89.80 320  eP       P        20 45 55.5 -2.7
      comp=Z,17nm,1.1s,mb5.3
MBDF  Montbardon         89.92 320  eP       P        20 45 57.3 -1.5
      comp=Z,27nm,1.2s,mb5.1
MBDF  Montbardon         89.92 320  eP       P        20 45 57.3 -1.5
MBDF                                pmax     pmax
      comp=Z,13nm,1.2s,mb5.1
MBDF  Montbardon         89.92 320  eP       P        20 45 57.3 -1.5
      comp=Z,13nm,1.2s,mb5.1
SBF   Sospel             90.00 319  eP       P        20 45 57.9 -1.3
      comp=Z,37nm,0.9s,mb5.4
SBF   Sospel             90.00 319  eP       P        20 45 57.9 -1.3
SBF                                 pmax     pmax
      comp=Z,19nm,0.9s,mb5.4
SBF   Sospel             90.00 319  eP       P        20 45 57.9 -1.3
      comp=Z,19nm,0.9s,mb5.4
LOR   Lormes             90.16 323⇑iP       P        20 45 58.5 -1.4
      comp=Z,41nm,1.2s,mb5.3
LOR                                 eMLR     MLR
      comp=Z,2µm,21.0s,MS5.1
LOR   Lormes             90.16 323⇑iP       P        20 45 58.5 -1.4
LOR                                 pmax     pmax
      comp=Z,21nm,1.2s,mb5.3
```

LOR				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
LOR	**Lormes**	90.16	323	⇑*i*P	P	20 45 58.5	-1.4
	comp=Z,21nm,1.2s,mb5.3						
LOR				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
EDM	**Edmonton**	90.23	29	*e*P	P	20 45 57.9	-2.1
ORIF	**Oris-en-Rattie**	90.35	320	*e*P	P	20 45 59.9	-0.9
	comp=Z,23nm,1.0s,mb5.1						
ORIF				*e*MLR	MLR		
	comp=Z,2µm,17.5s,MS5.3						
ORIF	**Oris-en-Rattie**	90.35	320	*e*P	P	20 45 59.9	-0.9
ORIF				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.1						
ORIF	**Oris-en-Rattie**	90.35	320	*e*P	P	20 45 59.9	-0.9
	comp=Z,11nm,1.0s,mb5.2						
SSF	**Saint Saulge**	90.48	323	⇑*i*P	P	20 46 00.0	-1.3
	comp=Z,38nm,1.4s,mb5.2						
SSF	**Saint Saulge**	90.48	323	⇑*i*P	P	20 46 00.0	-1.3
SSF				pmax	pmax		
	comp=Z,19nm,1.4s,mb5.2						
SSF	**Saint Saulge**	90.48	323	⇑*i*P	P	20 46 00.0	-1.3
	comp=Z,19nm,1.4s,mb5.2						
SMF	**Signal de Mont**	90.53	322	⇑*i*P	P	20 46 00.4	-1.2
	comp=Z,94nm,1.2s,mb5.7						
SMF	**Signal de Mont**	90.53	322	⇑*i*P	P	20 46 00.4	-1.2
SMF				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.7						
SMF	**Signal de Mont**	90.53	322	⇑*i*P	P	20 46 00.4	-1.2
	comp=Z,47nm,1.2s,mb5.7						
AVF	**Avril sur Loir**	90.72	323	⇑*i*P	P	20 46 01.2	-1.3
	comp=Z,46nm,1.1s,mb5.4						
AVF	**Avril sur Loir**	90.72	323	⇑*i*P	P	20 46 01.2	-1.3
AVF				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.4						
AVF	**Avril sur Loir**	90.72	323	⇑*i*P	P	20 46 01.2	-1.3
	comp=Z,23nm,1.1s,mb5.4						
HYF	**Humbligny**	90.84	323	*e*P	P	20 46 02.3	-0.7
MBAR	**Mbarara**	90.95	270	⇓*e*P	P	20 46 04.2	0.0
PLDF	**La Plantade**	91.05	322	*e*P	P	20 46 04.1	+0.1
VIVF	**Saint-Julien-l**	91.09	321	*e*P	P	20 46 03.3	-0.9
BGF	**Bois d’Agland**	91.14	323	*e*P	P	20 46 03.1	-1.3
	comp=Z,40nm,1.2s,mb5.3						
BGF	**Bois d’Agland**	91.14	323	*e*P	P	20 46 03.1	-1.3
BGF				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.3						
BGF	**Bois d’Agland**	91.14	323	*e*P	P	20 46 03.1	-1.3
	comp=Z,20nm,1.2s,mb5.3						
AGO	**Saint Agoulin**	91.28	322	*e*P	P	20 46 05.0	-0.1
LDF	**La Druitiere**	91.50	326	*e*P	P	20 46 04.8	-1.3
	comp=Z,117nm,1.8s,mb5.6						
LDF	**La Druitiere**	91.50	326	*e*P	P	20 46 04.8	-1.3
LDF				pmax	pmax		
	comp=Z,58nm,1.8s,mb5.6						
LDF	**La Druitiere**	91.50	326	*e*P	P	20 46 04.8	-1.3
	comp=Z,58nm,1.8s,mb5.6						
PYM	**Petit Puy Mans**	91.53	322	*e*P	P	20 46 06.2	0.0
TCF	**Toulx Ste Croi**	91.66	323	⇑*i*P	P	20 46 05.9	-0.9
	comp=Z,57nm,1.3s,mb5.4						
TCF	**Toulx Ste Croi**	91.66	323	⇑*i*P	P	20 46 05.9	-0.9
TCF				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.4						
TCF	**Toulx Ste Croi**	91.66	323	⇑*i*P	P	20 46 05.9	-0.9
	comp=Z,28nm,1.3s,mb5.4						
YBH	**Yreka Blue Hor**	92.21	42	P	P	20 46 11.6	+2.1
	comp=Z,0.5nm,0.3s,mb4.3,baz=297,slow=2.3,SNR=3.3						
YBH				LR	LR	21 21 18.6	
	comp=Z,161nm,21.8s,MS4.4,baz=297,slow=31						
RJF	**Les Rejaudoux**	92.64	322	*e*P	P	20 46 10.9	-0.5
	comp=Z,95nm,1.2s,mb5.8						
RJF				*e*MLR	MLR		
	comp=Z,980nm,18.2s,MS5.0						
RJF	**Les Rejaudoux**	92.64	322	*e*P	P	20 46 10.9	-0.5
RJF				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.8						
RJF				MLR	MLR		
	comp=Z,980nm,18.3s,MS5.3						
RJF	**Les Rejaudoux**	92.64	322	*e*P	P	20 46 10.9	-0.5
	comp=Z,47nm,1.2s,mb5.8						
RJF				LR	LR		
	comp=Z,980nm,18.3s,MS5.3						
WALA	**Waterton Lakes**	92.70	33	*e*P	P	20 46 11.7	+0.1
	comp=Z,0.5nm,1.2s						
FRB	**Frobisher Bay**	92.90	4	P	P	20 46 12.1	-0.1
	comp=Z,1.7nm,0.7s,mb4.6,baz=6.1,slow=6.0,SNR=4.7						
BSMT	**Bassoo Peak**	93.04	34	*e*P	P	20 46 10.9	-2.3
	comp=Z,4.9nm,1.0s,mb4.9						
BSMT				*e*PP	PP	20 49 50.1	-5.5
KEST	**Kesra**	93.08	311	P	P	20 46 16.6	+3.0
	comp=Z,3.1nm,1.0s,mb4.7,baz=10.0,slow=17,SNR=4.4						
FCC	**Fort Churchill**	93.10	18	*e*P	P	20 46 11.8	-1.4
	comp=Z,0.2nm,1.0s						
LFF	**La Frestale**	93.29	322	*e*P	P	20 46 13.9	-0.5
	comp=Z,106nm,1.6s,mb5.7						
LFF	**La Frestale**	93.29	322	*e*P	P	20 46 13.9	-0.5
LFF				pmax	pmax		
	comp=Z,53nm,1.6s,mb5.7						
LFF	**La Frestale**	93.29	322	*e*P	P	20 46 13.9	-0.5
	comp=Z,53nm,1.6s,mb5.7						
JTMT	**Jette**	93.37	34	*e*P	P	20 46 12.2	-2.4
	comp=Z,5.6nm,1.3s,mb4.8						
BMO	**Blue Mountains**	93.57	38	*e*P	P	20 46 11.7	-4.0
BMO				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
BMO	**Blue Mountains**	93.57	38	*e*P	P	20 46 11.7	-3.9
	comp=Z,4.5nm,0.9s,mb4.9						
MOD	**Modoc**	93.59	41	*e*P	P	20 46 15.7	-0.1
	comp=Z,18nm,1.4s,mb5.3						
SWMT	**Swartz Lake**	93.67	34	*e*P	P	20 46 12.4	-3.6
	comp=Z,3.0nm,0.9s,mb4.7						
FFC	**Flin Flon**	93.83	24	*e*P	P	20 46 14.7	-1.9
FFC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
FFC	**Flin Flon**	93.83	24	*e*P	P	20 46 14.7	-2.0
	comp=Z,6.8nm,1.0s,mb5.0						
SLMT	**Seeley Lake**	94.10	34	*e*P	P	20 46 15.6	-2.5
	comp=Z,11nm,1.2s,mb5.2						
CHMT	**Chamberlain Mo**	94.44	34	*e*P	P	20 46 20.2	+0.6
	comp=Z,2.7nm,1.1s,mb4.6						
LRM	**Limekiln Ridge**	95.58	35	*e*P	P	20 46 24.3	-0.6
	comp=Z,10nm,1.0s,mb5.2						
CMB	**Columbia Colle**	95.78	44	*e*P	P	20 46 24.8	-1.2
CMB				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb5.1						
CMB	**Columbia Colle**	95.78	44	*e*P	P	20 46 24.8	-1.1
	comp=Z,10nm,1.3s,mb5.1						
PPT	**Papeete**	95.81	107	*e*LR	LR	21 17 30.3	
	comp=Z,768nm,24.0s						
DLMT	**Dillon**	95.81	35	*e*P	P	20 46 24.3	-1.6
	comp=Z,1.0nm,0.6s,mb4.4						
NVAR	**Mina Array Bea**	96.87	43	P	P	20 46 31.5	+0.6
	comp=Z,0.3nm,0.4s,mb4.0,baz=271,slow=4.6,SNR=5.2						
PDAR	**Pinedale Array**	99.17	35	pP	pP	20 46 48.8	-2.3
	comp=Z,0.3nm,0.6s,baz=29,slow=3.4,SNR=3.3						
PDAR				PP	PP	20 50 47.9	+4.8
	comp=Z,1.1nm,1.0s,baz=302,slow=6.7,SNR=5.0						
PDAR				PKKPbc	PKKPbc	21 03 04.3	-2.1
	comp=Z,0.7nm,1.0s,baz=142,slow=3.1,SNR=5.1						
ESDC	**Sonseca Array**	99.32	320	LR	LR	21 39 40.5	
	comp=Z,413nm,18.0s,MS5.0,baz=25,slow=40						
ULM	**Lac du Bonnet**	99.65	23	LR	LR	21 40 37.5	
	comp=Z,390nm,18.0s,MS5.0,baz=62,slow=41						
TAOE	**Nuku Hiva Isla**	101.06	95	*e*LR	LR	21 19 59.6	
	comp=Z,1µm,22.7s						
SDCO	**Great Sand Dun**	104.91	37	*e*PKPdf	PKiKP	20 51 24.7	+3.0
ANMO	**Albuquerque**	106.35	39	PP	PP	20 51 43.5	+6.4
	comp=Z,0.6nm,0.7s,baz=329,slow=5.5,SNR=3.9						
ANMO				PKKPbc	PKKPbc	21 02 43.9	-1.4
	comp=Z,1.0nm,0.7s,baz=79,slow=10,SNR=3.5						
RKT	**Rikitea**	110.56	107	*e*PS	PS	21 01 39.0	-0.6
	comp=Z,344nm,34.2s						
RKT				*e*LR	LR	21 24 19.8	
	comp=Z,457nm,23.8s						
TORD	**Torodi Ar. Bea**	110.89	295	PKiKP	PKiKP	20 51 34.4	+0.9
	comp=Z,0.7nm,0.9s,baz=74,slow=1.5,SNR=2.7						
TORD				PP	PP	20 52 10.9	-0.1
	comp=Z,1.6nm,0.9s,baz=30,slow=4.6,SNR=4.0						
TORD				PKKPbc	PKKPbc	21 02 30.1	-0.4
	comp=Z,0.6nm,0.8s,baz=229,slow=2.5,SNR=4.1						
TORD				PKKPab	PKKPab	21 02 39.7	-2.6
	comp=Z,1.9nm,0.9s,baz=215,slow=3.5,SNR=6.2						
TORD	**Torodi Ar. Bea**	110.89	295	PKPdf	PKiKP	20 51 34.4	+0.9
TORD				PP	PP	20 52 10.9	-0.1
TORD				PKKPbc	PKKPbc	21 02 30.1	-0.3
TORD				PKKPab	PKKPab	21 02 39.7	-2.6
TXAR	**Lajitas Array**	111.98	42	PKIKP	PKiKP	20 51 34.4	-0.8
TXAR						20 52 18.2	
TXAR	**Lajitas Array**	111.98	42	PKiKP	PKiKP	20 51 34.4	-0.8
	comp=Z,0.3nm,0.5s,baz=271,slow=0.4,SNR=3.9						
TXAR				PP	PP	20 52 18.2	+0.1
	comp=Z,0.7nm,0.9s,baz=285,slow=6.3,SNR=4.2						
TXAR				PKKPbc	PKKPbc	21 02 26.8	-0.5
	comp=Z,1.0nm,0.9s,baz=147,slow=3.0,SNR=3.8						
VNA2	**Neumayer--Watz**	124.14	198	*e*PKPdf	PKPdf	20 51 56.4	-0.8
	baz=31,slow=2.4						
VNA3	**Neumayer Olymp**	124.60	197	*e*PKPdf	PKPdf	20 51 56.7	-1.4
SDV	**Santo Domingo**	145.88	22	*e*PKPdf	PKPdf	20 52 38.4	-0.8
ROSC	**El Rosal**	148.03	31	PKPbc	PKPbc	20 52 43.7	-2.2
	comp=Z,4.5nm,0.7s,baz=359,slow=3.3,SNR=6.8						
ROSC				pPKPbc	pPKPbc	20 52 53.5	-2.6
	comp=Z,5.7nm,0.6s,baz=250,slow=7.0,SNR=2.3						
OTAV	**Otavalo**	149.61	42	*e*PKPdf	PKPdf	20 52 45.6	+0.2
PLCA	**Paso Flores**	159.85	153	PKP	PKPdf	20 52 57.6	-0.9
	comp=Z,3.7nm,1.1s,baz=251,slow=5.8,SNR=3.0						
PLCA				PKPab	PKPab	20 53 36.4	-1.3
	comp=Z,4.7nm,0.9s,baz=186,slow=8.2,SNR=6.7						
CPUP	**Villa Florida**	176.79	199	PKP	PKPdf	20 53 08.6	-1.7
	comp=Z,0.2nm,0.3s,baz=53,slow=10,SNR=4.0						
CPUP				PKPab	PKPab	20 54 50.5	-2.3
	comp=Z,1.1nm,0.6s,baz=152,slow=5.9,SNR=5.9						

TAP 17 20:34:00.7,23°.30N×121°.36E,h29^{km},ML4.2,C,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWF1	**Yuli**	0.08	310	*e*P	Pb	20 34 06.2	+0.4
	baz=313						
CHKT	**Chengkung**	0.20	179	*e*P	Pb	20 34 07.3	+0.5
	baz=176						
CHKT				*e*S	Sb	20 34 11.9	+1.0
	baz=176						
EHY	**Hungye**	0.21	350	*e*P	Pb	20 34 07.4	+0.5
	baz=351						
EHY				*e*S	Sb	20 34 11.9	+0.8
	baz=351						
ELDTW	**Lidau**	0.34	250	*e*P	Pb	20 34 09.2	+0.7
	baz=249						
ELDTW				*e*S	Sb	20 34 14.8	+0.9
	baz=249						
YUS	**Yu-Shan**	0.42	296	*e*P	Pb	20 34 10.7	+0.9
	baz=296						
ESL	**Shilin**	0.51	7	*e*P	Pb	20 34 11.6	+0.2
	baz=8.0						
ESF	**Shoufeng Towns**	0.58	13	*e*P	Pb	20 34 13.5	+1.0
	baz=13						

KRSC ***17*** *20:47:21.0±1.4, 49°.43N×157°.00E, h4^{km}±5^{km}, ML4.8*

MOS ***17*** *20:47:21.5±1.0, 49°.58N×155°.87E, h49^{km}, mb4.7/9, Error ellipse: s-maj=17.6km s-min=6.2km az=77.7*

MOS Felt (II) at Severo-Kuril’sk.

ISCJB ***17*** *20:47:23.0±0.9, 49°.55N±0°.06×156°.0E±0°.1, h65^{km}±6^{km}, mb4.0/28, Error ellipse: s-maj=14.1km s-min=6.9km az=42.2*

NEIC ***17*** *20:47:25.3±1.1, 49°.62N×155°.81E, h68^{km}±8^{km}, mb4.3/7, Error ellipse: s-maj=10.9km s-min=8.3km az=164.0*

IDC ***17*** *20:47:27.3±2.7, 49°.70N×155°.77E, h86^{km}±23^{km}, mb3.6/19, mb1 3.8/21, mb1mx3.6/32, mbtmp3.6/21, Error ellipse: s-maj=19.9km s-min=12.4km az=148.0*

ISC 17 20:47:25.3±0.8, 49°.60N±0°.07×155°.9E±0°.1, h68^{km}±5^{km}, n88, σ1^{s}.08/99, mb3.9/28, 1D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril’s**	1.09	8	⇓*i*PN	Pn	20 47 42.0	-2.8
SKR				*e*S	Sn	20 47 58.0	-1.3
SKR				pmax	pmax		
	comp=Z,820nm,0.4s						
SKR				pmax	pmax		
	comp=E,240nm,0.2s						
SKR				smax			
	comp=N,5µm,2.0s						
SKR				smax			
	comp=N,4µm,0.3s						
SKR				smax			
	comp=E,3µm,0.3s						
MIPR	**Malaya Ipel’ka**	2.73	11	*e*P	Pn	20 48 06.4	-0.4
MIPR				*i* S	Sn	20 48 39.8	+1.2
GRL	**Gorelyy**	3.26	24	*e*P	Pn	20 48 14.0	+0.1
GRL				*i* S	Sn	20 48 52.8	+1.3
RUS	**Russkaya**	3.28	29	*e*P	Pn	20 48 12.5	-1.7
RUS				*i* S	Sn	20 48 49.5	-2.6
PEA0B	**Petropavlovsk-**	3.69	17	*e*Pn	Pn	20 48 20.3	+0.5
PETK	**Petropavlovsk-**	3.69	17	P	Pn	20 48 20.5	+0.7
	comp=E,11nm,0.3s,baz=185,slow=10,SNR=225						
PETK				S	Sn	20 49 07.8	+5.8
	baz=231,slow=28,SNR=2.5						
PETK	**Petropavlovsk-**	3.69	17	P	Pn	20 48 20.5	+0.7
PETK				S	Sn	20 49 07.8	+5.8
PET	**Petropavlovsk**	3.84	26	*e*PN	Pn	20 48 21.3	-0.5
PET				*e*S	Sn	20 49 06.2	+0.5
PET				pmax	pmax		
	comp=Z,85nm,0.6s						
PET				smax			
	comp=N,367nm,0.5s						
PET				smax			
	comp=E,347nm,0.4s						
PET	**Petropavlovsk**	3.84	26	*e*P	Pn	20 48 21.4	-0.4
PET				*i* S	Sn	20 49 05.6	-0.1
PET	**Petropavlovsk**	3.84	26	*e*Pn	Pn	20 48 21.0	-0.8
PET				*e*Sn	Sn	20 49 03.8	-1.9
AVH	**Avacha**	4.08	25	*e*P	Pn	20 48 25.8	+0.7
AVH				*i* S	Sn	20 49 13.4	+1.9
NLC	**Nalytchevo**	4.18	30	*e*P	Pn	20 48 23.1	-3.3
NLC				*i* S	Sn	20 49 08.8	-5.1
GNL	**Ganaly**	4.29	17	*e*P	Pn	20 48 29.3	+1.3
SPN	**Mys Shipunski**	4.35	35	*e*P	Pn	20 48 27.6	-1.3
SPN				*i* S	Sn	20 49 16.1	-2.2
MKZ	**Mys Kozlova**	6.13	34	*e*P	Pn	20 48 50.7	-2.4
MKZ				*i* S	Sn	20 49 56.0	-5.7
TUMR	**Tumrok**	6.26	23	*e*P	Pn	20 48 56.1	+1.3
KMNR	**Kamenistaya**	6.71	22	*e*P	Pn	20 49 02.1	+1.1
KPT	**Kopyto**	6.89	21	*e*P	Pn	20 49 05.0	+1.5
KIRR	**Kirishev**	6.91	21	*e*P	Pn	20 49 05.6	+1.8
BZMR	**Bezymyannaya**	6.93	22	*e*P	Pn	20 49 04.9	+0.9
ZLN	**Zelenaya**	7.08	23	*e*P	Pn	20 49 06.3	+0.2
SRDR	**Sredinnyy**	7.11	17	*e*P	Pn	20 49 07.2	+0.7
KRSR	**Krestovskiy**	7.20	21	*e*P	Pn	20 49 08.8	+1.0
BDR	**Baidarnaya**	7.67	23	*e*P	Pn	20 49 14.9	+0.7
SRKR	**Sorokina**	7.74	22	*e*P	Pn	20 49 15.5	+0.4
KBTR	**Krutoberegovo**	7.83	30	*e*P	Pn	20 49 14.3	-2.0
ASAJ	**Asahikawa**	10.62	244	PN	Pn	20 49 56.9	+2.4
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	10.62	244	P	Pn	20 49 56.9	+2.4
	comp=Z,0.5nm,0.3s,baz=315,slow=5.7,SNR=4.9						
ERM	**Erimo**	11.67	234	*i* PN	Pn	20 50 07.3	-1.6
BILL	**Bilibino**	19.20	12	*i* P	Pn	20 51 43.5	-1.4
BILL				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KSRS	**Korea Array**	23.49	249	P	P	20 52 29.7	+0.9
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.1						
KSRS	**Korea Array**	23.49	249	P	P	20 52 29.6	+0.9
	comp=Z,1.3nm,0.9s,mb3.2,baz=43,slow=9.0,SNR=3.6						
TIXI	**Tiksi**	25.33	340	*e*P	P	20 52 44.8	-0.4
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.0						
COLA	**College**	32.75	41	*e*P	P	20 53 51.3	+0.1
COLA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
COLA	**College**	32.75	41	*e*P	P	20 53 51.3	+0.1
	comp=Z,8.4nm,1.0s,mb4.5						
MKAR	**Makanchi Array**	47.31	296	P	P	20 55 50.6	-1.2
	comp=Z,0.4nm,0.6s,mb3.3,baz=65,slow=6.4,SNR=6.9						
RES	**Resolute Bay**	47.53	20	P	P	20 55 53.0	-0.1
	comp=Z,0.7nm,0.4s,mb3.8,baz=250,slow=9.2,SNR=15						
YKA	**Yellowknife Ar**	47.53	39	P	P	20 55 53.2	-0.1
	comp=Z,0.6nm,0.6s,mb3.6,baz=298,slow=7.5,SNR=11						
YKA				pP	pP	20 56 07.3	-3.0
	comp=Z,1.0nm,0.7s,baz=298,slow=7.7,SNR=8.9						
YKA	**Yellowknife Ar**	47.53	39	P	P	20 55 53.2	-0.1
YKA				pP	pP	20 56 07.3	-3.0
BVAR	**Borovoye Array**	50.50	309	P	P	20 56 15.1	-1.0
	comp=Z,0.9nm,0.3s,mb4.3,baz=56,slow=8.8,SNR=13						
BVAR				PcP	PcP	20 57 32.7	-0.4
	comp=Z,0.5nm,0.5s,baz=111,slow=3.2,SNR=3.6						
YBH	**Yreka Blue Hor**	54.80	65	P	P	20 56 49.1	+1.1
	comp=Z,1.0nm,0.6s,mb4.0,baz=344,slow=6.7,SNR=3.3						
CMAR	**Chiang Mai Arr**	54.84	257	P	P	20 56 49.1	+0.6
	comp=Z,0.8nm,0.7s,mb3.9,baz=30,slow=7.7,SNR=6.7						
AKTK	**Aktyubinsk**	58.21	312	P	P	20 57 10.7	-1.3
AKTO	**Aktyubinsk**	58.21	312	P	P	20 57 10.7	-1.3
	comp=Z,0.7nm,0.4s,mb4.0,baz=68,slow=7.4,SNR=4.0						
NVAR	**Mina Array Bea**	59.51	65	P	P	20 57 21.8	+0.5
	comp=Z,0.8nm,0.6s,mb3.9,baz=300,slow=7.6,SNR=7.3						
PDAR	**Pinedale Array**	61.59	57	P	P	20 57 35.9	+0.6
	comp=Z,1.4nm,0.8s,mb4.0,baz=319,slow=2.3,SNR=12						
FRB	**Frobisher Bay**	61.73	21	P	P	20 57 34.6	-1.3
	comp=Z,2.0nm,0.5s,mb4.5,baz=321,slow=7.5,SNR=8.5						
OBN	**Obninsk**	63.99	326	*e*P	P	20 57 52.4	+1.3
OBN				*e*		20 58 25.5	
OBN				*e*SS	SS	21 10 31.1	+0.8
OBN				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
HFS	**Hagfors**	66.41	340	P	P	20 58 05.7	-1.0
	comp=Z,3.8nm,1.0s,mb4.2,baz=36,slow=2.7,SNR=4.6						
HFS	**Hagfors**	66.41	340	P	P	20 58 05.7	-1.0
SCHQ	**Schefferville**	69.95	25	P	P	20 58 28.8	-0.1
	comp=Z,3.2nm,0.9s,mb4.2,baz=49,slow=5.3,SNR=6.4						
SCHQ	**Schefferville**	69.95	25	P	P	20 58 28.8	-0.1
WRA	**Warramunga Arr**	71.83	201	P	P	20 58 39.9	-0.7
	comp=Z,0.8nm,1.0s,mb3.5,baz=15,slow=6.2,SNR=4.0						
EKA	**Eskdalemuir Ar**	73.98	348	P	P	20 58 52.1	-0.8
	comp=Z,0.6nm,0.6s,mb3.5,baz=18,slow=5.1,SNR=5.2						
TXAR	**Lajitas Array**	74.50	63	P	P	20 58 56.8	+0.3
	comp=Z,0.5nm,0.3s,mb3.7,baz=293,slow=6.5,SNR=3.8						
ASAR	**Alice Springs**	75.52	201	*e*P	P	20 59 02.2	+0.1
ASAR	**Alice Springs**	75.52	201	P	P	20 59 02.1	0.0
	comp=Z,0.4nm,0.6s,mb3.3,baz=18,slow=5.7,SNR=6.8						
GERES	**GERESS Array B**	76.67	335	P	P	20 59 07.7	-0.8
	comp=Z,0.3nm,0.6s,mb3.2,baz=23,slow=3.2,SNR=2.7						
GERES	**GERESS Array B**	76.67	335	P	P	20 59 07.7	-0.9
DAVOS	**Davos**	79.54	337	P	P	20 59 20.3	-4.1
FLN	**La Foliniere**	79.92	344	*e*P	P	20 59 26.8	+0.3
LDF	**La Druitiere**	80.02	344	*e*P	P	20 59 27.2	+0.2
SGMF	**Saint Gilles**	80.77	346	*e*P	P	20 59 31.2	+0.2
	comp=Z,19nm,1.0s,mb4.6						
SGMF	**Saint Gilles**	80.77	346	*e*P	P	20 59 31.2	+0.2
SGMF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
SGMF	**Saint Gilles**	80.77	346	*e*P	P	20 59 31.2	+0.2
	comp=Z,9.3nm,1.0s,mb4.6						
SSF	**Saint Saulge**	80.79	341	*e*P	P	20 59 31.0	-0.1
	comp=Z,8.8nm,1.1s,mb4.2						
SSF	**Saint Saulge**	80.79	341	*e*P	P	20 59 31.0	-0.1
SSF				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.2						
SSF	**Saint Saulge**	80.79	341	*e*P	P	20 59 31.0	-0.1
	comp=Z,4.4nm,1.1s,mb4.2						
AVF	**Avril sur Loir**	81.08	341	*e*P	P	20 59 32.1	-0.6
SMF	**Signal de Mont**	81.11	341	*e*P	P	20 59 33.1	+0.2
BGF	**Bois d’Agland**	81.41	342	*e*P	P	20 59 34.6	+0.2
	comp=Z,7.7nm,0.8s,mb4.3						
BGF	**Bois d’Agland**	81.41	342	*e*P	P	20 59 34.6	+0.2
BGF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
BGF	**Bois d’Agland**	81.41	342	*e*P	P	20 59 34.6	+0.2
	comp=Z,3.8nm,0.8s,mb4.3						
LPL	**La Plagne**	81.53	339	*e*P	P	20 59 35.6	+0.5
	comp=Z,2.8nm,0.5s,mb4.0						
LPL	**La Plagne**	81.53	339	*e*P	P	20 59 35.6	+0.5
LPL				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
LPL	**La Plagne**	81.53	339	*e*P	P	20 59 35.6	+0.5
	comp=Z,1.4nm,0.5s,mb4.0						
LPG	**La Plagne**	81.55	339	*e*P	P	20 59 35.9	+0.7
	comp=Z,3.3nm,0.5s,mb4.1						
LPG	**La Plagne**	81.55	339	*e*P	P	20 59 35.9	+0.7
LPG				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
LPG	**La Plagne**	81.55	339	*e*P	P	20 59 35.9	+0.7
	comp=Z,1.6nm,0.5s,mb4.1						
TCF	**Toulx Ste Croi**	81.79	342	*e*P	P	20 59 36.5	0.0
	comp=Z,3.7nm,0.8s,mb4.0						
TCF	**Toulx Ste Croi**	81.79	342	*e*P	P	20 59 36.5	0.0
TCF				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
TCF	**Toulx Ste Croi**	81.79	342	*e*P	P	20 59 36.5	0.0
	comp=Z,1.9nm,0.8s,mb4.0						
MBDF	**Montbardon**	82.27	338	*e*P	P	20 59 39.1	+0.1
MMAI	**Mount Meron Ar**	82.27	313	P	P	20 59 39.6	+0.4
	comp=Z,2.8nm,0.6s,mb4.3,baz=36,slow=7.2,SNR=4.8						
ORIF	**Oris-en-Rattie**	82.30	339	*e*P	P	20 59 39.9	+0.8
CAF	**Calviac**	83.13	342	*e*P	P	20 59 44.0	+0.6
CPUP	**Villa Florida**	145.44	60	PKPbc	PKPbc	21 06 54.7	-0.7
	comp=Z,0.2nm,0.3s,baz=279,slow=6.0,SNR=4.6						
CPUP	**Villa Florida**	145.44	60	PKPbc	PKPbc	21 06 54.7	-0.7

NEIC ***17*** *20:47:53.6±2.3, 23°.25N×121°.65E, h10^{km}, Error ellipse: s-maj=26.4km s-min=9.8km az=122.0*

ISCJB ***17*** *20:47:56.8±0.3, 23°.28N±0°.02×121°.52E±0°.02, h33^{km}, Error ellipse: s-maj=2.8km s-min=1.9km az=141.2*

TAP ***17*** *20:47:56.2, 23°.32N×121°.51E, h23^{km}, ML3.6, C*

JMA ***17*** *20:47:57.3±0.4, 23°.40N×121°.53E, h99^{km}, M2.9*

ISC 17 20:47:57.3±0.3, 23°.28N±0°.02×121°.50E±0°.02, h35^{km}, n57, σ1^{s}.26/108, 10C-1D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWF1	**Yuli**	0.20	291	⇑*i*P	Pn	20 48 02.2	-1.9
	baz=280						
TWF1				S	Sn	20 48 06.3	-2.5
	baz=280						
YULB	**Yu-li**	0.22	300	*e*P	Pn	20 48 01.6	-2.7
CHKT	**Chengkung**	0.22	215	⇓*i*P	Pn	20 48 03.0	-1.3
	baz=209						
CHKT				*i* S	Sn	20 48 07.6	-1.5
	baz=209						
EHY	**Hungye**	0.28	323	⇑*i*P	Pn	20 48 03.0	-2.0
	baz=319						
EHY				*i* S	Sn	20 48 07.6	-2.6
	baz=319						
TEGC	**Jichi Village**	0.43	5	*e*P	Pn	20 48 05.8	-1.1
	baz=5.0						
TEGC				*e*S	Sn	20 48 13.2	-0.4
	baz=5.0						
ELDTW	**Lidau**	0.46	259	⇑*i*P	Pn	20 48 05.2	-2.1
	baz=253						
ELDTW				*e*S	Sn	20 48 11.1	-3.1
	baz=253						
ESL	**Shilin**	0.54	353	P	Pn	20 48 06.6	-1.9
	baz=353						
ESL				*e*S	Sn	20 48 13.6	-2.7
	baz=353						
YUS	**Yu-Shan**	0.55	292	⇑*i*P	Pn	20 48 07.4	-1.2
	baz=288						
YUS				S	Sn	20 48 14.6	-1.9
	baz=288						
TWG	**Pinlang**	0.61	221	*e*P	Pn	20 48 07.0	-2.4
TWG				*e*S	Sn	20 48 15.8	-2.2
TWG	**Pinlang**	0.61	221	*e*P	Pn	20 48 07.5	-1.9
	baz=218						
ALS	**Alishan**	0.68	290	⇑*i*P	Pn	20 48 09.7	-0.8
	baz=286						
ALS				S	Sn	20 48 19.2	-0.7
	baz=286						
STYT	**Tauyuan**	0.70	260	⇑*i*P	Pn	20 48 09.4	-1.2
	baz=257						
STYT				*e*S	Sn	20 48 18.3	-1.9
	baz=257						
HWA	**Hwalien**	0.70	8	*e*P	Pn	20 48 10.5	-0.2
	baz=8.0						
HWA				*e*S	Sn	20 48 19.2	-1.1
	baz=8.0						
TWD	**Chiawan**	0.80	6	P	Pn	20 48 10.8	-1.3
	baz=6.0						
TWD				*e*S	Sn	20 48 20.5	-2.3
	baz=6.0						
TPUB	**Ta-pu**	0.80	272	*e*P	Pn	20 48 10.8	-1.3
TPUB				*e*S	Sn	20 48 22.1	-0.8
SMLT	**Sun Moon Lake**	0.82	317	⇑*i*P	Pn	20 48 11.6	-0.7
	baz=315						
SMLT				S	Sn	20 48 21.6	-1.6
	baz=315						
WTP	**Ta-pu**	0.82	268	⇑*i*P	Pn	20 48 12.0	-0.3
	baz=264						
WTP				S	Sn	20 48 22.8	-0.4
	baz=264						
CHN5	**Tsauling**	0.82	293	*i* P	Pn	20 48 12.5	+0.1
	baz=290						
CHN5				S	Sn	20 48 23.9	+0.7
	baz=290						
CHN4	**Tsaushan**	0.84	275	P	Pn	20 48 12.5	-0.1
	baz=272						

CHN4				S	Sn	20 48 25.0	+1.2
	baz=272						
ECL	**Taimali**	**0.85**	**217**	*e*P	**Pn**	**20 48 10.8**	**-1.9**
	baz=214						
TYC	**Yuchr**	**0.86**	**316**	⇑*i*P	**Pn**	**20 48 12.2**	**-0.6**
	baz=315						
TYC				S	**Sn**	**20 48 24.6**	**+0.4**
	baz=315						
SGST	**Jiashian**	**0.87**	**257**	P	**Pn**	**20 48 13.1**	**+0.1**
	baz=254						
SGST				S	**Sn**	**20 48 25.0**	**+0.5**
	baz=254						
WHF	**Hehuan Shan**	**0.89**	**346**	P	**Pn**	**20 48 12.3**	**-1.0**
	baz=345						
WHF				S	**Sn**	**20 48 23.3**	**-1.6**
	baz=345						
NACB	**Ninganchiao**	**0.89**	**5**	*e*P	**Pn**	**20 48 11.1**	**-2.2**
NACB				*e*S	**Sn**	**20 48 22.5**	**-2.6**
CHN1	**Nanshi**	**0.90**	**264**	⇑*i*P	**Pn**	**20 48 13.7**	**+0.2**
	baz=261						
CHN1				S	**Sn**	**20 48 26.4**	**+1.1**
	baz=261						
TWK	**Hsinying**	**0.93**	**269**	P	**Pn**	**20 48 13.9**	**0.0**
	baz=266						
TWK				*e*S	**Sn**	**20 48 26.9**	**+0.9**
	baz=266						
WGK	**Gukeng**	**0.95**	**295**	P	**Pn**	**20 48 14.4**	**+0.3**
	baz=293						
WGK				S	**Sn**	**20 48 27.6**	**+1.0**
	baz=293						
WNT	**Mingjian**	**0.96**	**309**	P	**Pn**	**20 48 14.8**	**+0.5**
	baz=306						
WNT				S	**Sn**	**20 48 27.6**	**+1.0**
	baz=306						
SSD	**Sandimen**	**0.96**	**237**	*e*P	**Pn**	**20 48 13.4**	**-0.9**
	baz=234						
SSD				*e*S	**Sn**	**20 48 28.1**	**+1.3**
	baz=234						
CHN2	**Minshiung**	**0.98**	**285**	*e*P	**Pn**	**20 48 15.5**	**+1.0**
	baz=282						
CHN2				*e*S	**Sn**	**20 48 29.0**	**+1.8**
	baz=282						
TWT	**Tachien**	**1.01**	**343**	*e*P	**Pn**	**20 48 15.3**	**+0.2**
	baz=341						
TWT				*e*S	**Sn**	**20 48 26.7**	**-1.4**
	baz=341						
CHY	**Chiayi**	**1.01**	**282**	*e*P	**Pn**	**20 48 15.6**	**+0.6**
	baz=280						
CHY				*e*S	**Sn**	**20 48 29.8**	**+1.7**
	baz=280						
TWM1	**Shoushan**	**1.09**	**246**	*e*P	**Pn**	**20 48 18.1**	**+2.0**
	baz=243						
TCU	**Taichung**	**1.15**	**319**	*e*P	**Pn**	**20 48 18.4**	**+1.5**
	baz=317						
TCU				S	**Sn**	**20 48 32.8**	**+1.4**
	baz=317						
NNS	**Nan Shan**	**1.16**	**354**	*e*P	**Pn**	**20 48 17.1**	**+0.1**
	baz=354						
NNS				*e*S	**Sn**	**20 48 30.4**	**-1.2**
	baz=354						
CHN8	**Yiju**	**1.19**	**273**	*e*P	**Pn**	**20 48 18.1**	**+0.6**
	baz=271						
CHN8				*e*S	**Sn**	**20 48 34.4**	**+2.0**
	baz=271						
SCZT	**Fangliau**	**1.22**	**222**	*e*P	**Pn**	**20 48 18.8**	**+1.0**
	baz=220						
SCZT				*e*S	**Sn**	**20 48 34.1**	**+1.0**
	baz=220						
WSF	**Szhu**	**1.23**	**287**	*e*P	**Pn**	**20 48 18.6**	**+0.7**
	baz=285						
WSF				*e*S	**Sn**	**20 48 34.9**	**+1.5**
	baz=285						
LAY	**Lan-yu**	**1.24**	**178**	*e*P	**Pn**	**20 48 16.7**	**-1.4**
	baz=177						
TWQ1	**Liyutan**	**1.25**	**328**	*e*P	**Pn**	**20 48 19.9**	**+1.6**
	baz=327						
TWQ1				*e*S	**Sn**	**20 48 36.5**	**+2.5**
	baz=327						
WTCT	**Ta-ch'eng**	**1.26**	**298**	*e*P	**Pn**	**20 48 19.4**	**+1.0**
	baz=295						
WTCT				*e*S	**Sn**	**20 48 35.6**	**+1.4**
	baz=295						
NSY	**Sanyi**	**1.32**	**329**	*e*P	**Pn**	**20 48 20.2**	**+1.0**
	baz=328						
NSY				*e*S	**Sn**	**20 48 38.2**	**+2.6**
	baz=328						
ENTT	**Nioudou**	**1.35**	**2**	*e*P	**Pn**	**20 48 20.0**	**+0.3**
	baz=2.0						
ENTT				*e*S	**Sn**	**20 48 36.8**	**+0.4**
	baz=2.0						
TWC	**Suao**	**1.36**	**13**	*e*P	**Pn**	**20 48 20.1**	**+0.3**
	baz=14						
TWC				*e*S	**Sn**	**20 48 37.1**	**+0.5**
	baz=14						
YHNB	**Yeheng**	**1.39**	**355**	*e*P	**Pn**	**20 48 20.0**	**-0.2**
YHNB				*e*S	**Sn**	**20 48 36.4**	**-0.9**
NSK	**Sanguang**	**1.40**	**355**	P	**Pn**	**20 48 20.7**	**+0.4**
	baz=354						
NSK				*e*S	**Sn**	**20 48 37.1**	**-0.4**
	baz=354						
NSTT	**Nanjuang**	**1.42**	**341**	*e*P	**Pn**	**20 48 21.7**	**+1.1**
	baz=340						
NSTT				*e*S	**Sn**	**20 48 38.4**	**+0.3**
	baz=340						
TWE	**Neicheng**	**1.44**	**6**	*e*P	**Pn**	**20 48 22.1**	**+1.2**
	baz=6.0						
TWE				*e*S	**Sn**	**20 48 39.2**	**+0.6**
	baz=6.0						
TWK1	**Hengchun**	**1.48**	**206**	*e*P	**Pn**	**20 48 22.6**	**+1.1**
	baz=205						
TWK1				*e*S	**Sn**	**20 48 41.5**	**+2.0**
	baz=205						
NWF	**Wu-fen Shan**	**1.80**	**8**	*e*P	**Pn**	**20 48 27.7**	**+1.9**
	baz=8.0						
NWF				*e*S	**Sn**	**20 48 48.4**	**+0.9**
	baz=8.0						
TWS1	**Kuangyinshan**	**1.81**	**358**	*e*P	**Pn**	**20 48 27.5**	**+1.5**
	baz=357						
TWS1				*e*S	**Sn**	**20 48 48.9**	**+1.1**
	baz=357						
YOJ	**Yonaguni jima**	**1.81**	**49**	P	**Pn**	**20 48 26.5**	**+0.5**
YOJ				*e*S	**Sn**	**20 48 49.2**	**+1.4**
HATJ	**Hateruma jima**	**2.25**	**69**	*e*S	**Sn**	**20 48 58.9**	**+0.4**
IRIF	**Iriomote-Funau**	**2.29**	**62**	P	**Pn**	**20 48 33.7**	**+1.1**
IRIF				*e*S	**Sn**	**20 49 00.6**	**+1.0**
JKRS	**Kuro-shima**	**2.49**	**67**	P	**Pn**	**20 48 36.0**	**+0.7**
JKRS				*e*S	**Sn**	**20 49 05.5**	**+1.1**
JIJ	**Ishigaki jima**	**2.65**	**65**	P	**Pn**	**20 48 37.6**	**+0.1**
JIJ				*e*S	**Sn**	**20 49 08.2**	**-0.2**
JTJ	**Tarama**	**3.22**	**65**	P	**Pn**	**20 48 45.6**	**+0.2**
JTJ				*e*S	**Sn**	**20 49 23.4**	**+0.8**

IDC 17 20:52:14.9±1.9**, 1°.81N**×**127°.53E, h0**^{km}**, mb3.6**/4**, mb1 3.8**/4**, mb1mx3.5**/17**, mbtmp3.6**/4**, MS3.7**/1**, Ms1 3.7**/1**, ms1mx2.8**/32**, Error ellipse: s-maj=142.7km s-min=25.2km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	**Davao City (W)**	**5.58**	**340**	LR	LR	20 56 05.3	
	comp=Z,746nm,18.7s,baz=289,slow=41						
WRA	**Warramunga Arr**	**22.63**	**163**	P	P	20 57 17.5	0.0
	0.8nm,0.3s,baz=343,slow=11,SNR=28						
ASAR	**Alice Springs**	**26.07**	**167**	P	P	20 57 50.1	-0.2
	0.2nm,0.3s,baz=339,slow=10,SNR=5.5						
STKA	**Stephens Creek**	**36.06**	**159**	P	P	20 59 18.3	0.0
	0.9nm,0.4s,baz=351,slow=9.0,SNR=6.4						
MKAR	**Makanchi Array**	**59.58**	**326**	P	P	21 02 20.6	+0.2
	0.2nm,0.5s,baz=115,slow=8.8,SNR=4.4						

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*IDC **17** 20:54:29.8±0.9, 23°.11N×121°.40E, h0^{km}, mb3.5/7, mb1 3.7/7, mb1mx3.5/22, mbtmp3.5/7, Error ellipse: s-maj=69.3km s-min=17.8km az=69.0*

*NEIC **17** 20:54:30.9±0.7, 23°.22N×121°.68E, h10^{km}, Error ellipse: s-maj=10.6km s-min=8.3km az=99.0*

*ISCJB **17** 20:54:33.6±0.3, 23°.28N±0°.02×121°.56E±0°.02, h24^{km}±2^{km}, mb3.6/5, Error ellipse: s-maj=3.3km s-min=2.5km az=138.1*

*TAP **17** 20:54:34.4, 23°.31N×121°.45E, h27^{km}, ML4.1, B*

*JMA **17** 20:54:34.9±0.3, 23°.38N×121°.54E, h98^{km}, M3.3*

ISC 17 20:54:33.9±0.4**, 23°.28N**±0°.02×**121°.54E**±0°.02**, h21**^{km}±3^{km}**, n81, σ0^{s}.98**/121**, mb3.6**/5**, 20C-4D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWF1	**Yuli**	**0.23**	**288**	⇑*i*P	**Pb**	**20 54 40.1**	**+0.5**
	baz=286						
TWF1				S	**Sb**	**20 54 44.4**	**+0.9**
	baz=286						
CHKT	**Chengkung**	**0.24**	**222**	⇓*i*P	**Pb**	**20 54 40.8**	**+1.1**
	baz=194						
CHKT				*i* S	**Sb**	**20 54 45.4**	**+1.7**
	baz=194						
YULB	**Yu-li**	**0.25**	**296**	*e*P	**Pb**	**20 54 39.4**	**-0.4**
EHY	**Hungye**	**0.30**	**318**	⇑*i*P	**Pb**	**20 54 40.8**	**+0.2**
	baz=316						
EHY				S	**Sb**	**20 54 45.5**	**+0.3**
	baz=316						
TEGC	**Jichi Village**	**0.43**	**360**	*e*P	**Pb**	**20 54 43.6**	**+0.9**
	baz=17						
TEGC				*e*S	**Sb**	**20 54 50.6**	**+1.9**
	baz=17						
ELDTW	**Lidau**	**0.49**	**259**	⇑*i*P	**Pb**	**20 54 43.1**	**-0.7**
	baz=246						
ELDTW				*e*S	**Sb**	**20 54 48.9**	**-1.7**
	baz=246						
ESL	**Shilin**	**0.54**	**350**	⇑*i*P	**Pb**	**20 54 44.3**	**-0.3**
	baz=347						
ESL				*e*S	**Sb**	**20 54 50.9**	**-1.1**
	baz=347						
YUS	**Yu-Shan**	**0.58**	**291**	⇑*i*P	**Pb**	**20 54 45.2**	**-0.1**
	baz=289						
YUS				S	**Sb**	**20 54 52.4**	**-0.7**
	baz=289						
ESF	**Shoufeng Towns**	**0.59**	**357**	*e*P	**Pb**	**20 54 43.2**	**-2.3**
	baz=353						
TWG	**Pinlang**	**0.63**	**223**	*e*P	**Pb**	**20 54 44.6**	**-1.6**
TWG	**Pinlang**	**0.63**	**223**	⇓*i*P	**Pb**	**20 54 45.4**	**-0.8**
	baz=215						
TTN	**Taitung**	**0.64**	**215**	*e*P	**Pb**	**20 54 45.8**	**-0.5**
	baz=207						
HWA	**Hwalien**	**0.69**	**5**	*e*P	**Pb**	**20 54 47.9**	**+0.6**
	baz=358						
ALS	**Alishan**	**0.71**	**289**	⇑*i*P	**Pb**	**20 54 47.5**	**-0.1**
	baz=288						
ALS				*e*S	**Sb**	**20 54 56.7**	**-0.3**
	baz=288						
TWD	**Chiawan**	**0.80**	**4**	*e*P	**Pb**	**20 54 48.6**	**-0.4**
	baz=356						
TWD				*e*S	**Sb**	**20 54 58.5**	**-0.9**
	baz=356						
TPUB	**Ta-pu**	**0.84**	**271**	*e*P	**Pb**	**20 54 48.9**	**-0.9**
TPUB				*e*S	**Sb**	**20 55 01.9**	**+1.3**
SMLT	**Sun Moon Lake**	**0.84**	**316**	⇑*i*P	**Pb**	**20 54 49.3**	**-0.5**
	baz=321						
SMLT				*e*S	**Sb**	**20 54 59.5**	**-1.1**
	baz=321						
CHN5	**Tsauling**	**0.85**	**292**	⇑*i*P	**Pb**	**20 54 49.9**	**0.0**
	baz=285						
CHN5				*e*S	**Sb**	**20 55 01.4**	**+0.4**
	baz=285						
WTP	**Ta-pu**	**0.85**	**268**	⇑*i*P	**Pb**	**20 54 49.9**	**-0.1**
	baz=259						
WTP				*e*S	**Sb**	**20 55 00.9**	**-0.1**
	baz=259						
ECL	**Taimali**	**0.87**	**219**	*e*P	**Pb**	**20 54 48.5**	**-1.8**
	baz=213						
CHN4	**Tsaushan**	**0.87**	**275**	⇑*i*P	**Pb**	**20 54 50.3**	**0.0**
	baz=272						
CHN4				*e*S	**Sb**	**20 55 02.4**	**+0.8**
	baz=272						
TYC	**Yuchr**	**0.88**	**315**	⇑*i*P	**Pb**	**20 54 50.0**	**-0.4**
	baz=316						
TYC				*e*S	**Sb**	**20 55 01.9**	**0.0**
	baz=316						
NACB	**Ninganchiao**	**0.89**	**3**	*e*P	**Pb**	**20 54 49.0**	**-1.6**
NACB				*e*S	**Sb**	**20 55 00.1**	**-2.0**
WHF	**Hehuan Shan**	**0.90**	**344**	P	**Pb**	**20 54 49.9**	**-0.8**
	baz=348						
WHF				*e*S	**Sb**	**20 55 01.6**	**-0.6**
	baz=348						
SGST	**Jiashian**	**0.90**	**257**	⇑*i*P	**Pb**	**20 54 50.8**	**-0.1**
	baz=253						
SGST				S	**Sb**	**20 55 02.7**	**+0.3**
	baz=253						
CHN1	**Nanshi**	**0.94**	**264**	⇑*i*P	**Pb**	**20 54 51.5**	**+0.2**
	baz=261						
CHN1				S	**Sb**	**20 55 04.1**	**+0.7**
	baz=261						
TWK	**Hsinying**	**0.97**	**269**	⇑*i*P	**Pb**	**20 54 51.8**	**-0.2**
	baz=266						
TWK				*e*S	**Sb**	**20 55 04.2**	**-0.1**
	baz=266						
WGK	**Gukeng**	**0.98**	**294**	*e*P	**Pb**	**20 54 52.3**	**+0.1**
	baz=293						
WGK				*e*S	**Sb**	**20 55 05.4**	**+0.7**
	baz=293						
WNT	**Mingjian**	**0.98**	**307**	⇑*i*P	**Pb**	**20 54 52.5**	**+0.3**
	baz=307						
WNT				*e*S	**Sb**	**20 55 05.1**	**+0.3**
	baz=307						
SSD	**Sandimen**	**0.99**	**238**	*e*P	**Pb**	**20 54 51.1**	**-1.3**
	baz=229						
CHN2	**Minshiung**	**1.01**	**285**	*e*P	**Pb**	**20 54 52.6**	**0.0**
	baz=283						
CHN2				*e*S	**Sb**	**20 55 07.2**	**+1.7**
	baz=283						
TWT	**Tachien**	**1.02**	**341**	*e*P	**Pb**	**20 54 52.1**	**-0.8**
	baz=343						
TWT				*e*S	**Sb**	**20 55 04.7**	**-1.3**
	baz=343						
CHY	**Chiayi**	**1.05**	**282**	⇑P	**Pb**	**20 54 53.4**	**+0.1**
	baz=280						
CHY				*e*S	**Sb**	**20 55 07.5**	**+0.9**
	baz=280						
TAW	**Tawu**	**1.09**	**213**	*e*P	**Pn**	**20 54 52.0**	**-2.0**
	baz=208						
SGLT	**Jiouru**	**1.11**	**240**	*e*P	**Pn**	**20 54 54.7**	**+0.5**
	baz=234						
TWM1	**Shoushan**	**1.13**	**246**	*e*P	**Pn**	**20 54 55.8**	**+1.4**
	baz=242						
ENA	**Nanau**	**1.16**	**9**	*e*P	**Pn**	**20 54 54.1**	**-0.8**
NNS	**Nan Shan**	**1.16**	**352**	⇓*e*P	**Pn**	**20 54 54.4**	**-0.6**
	baz=356						
TCU	**Taichung**	**1.17**	**318**	⇑P	**Pn**	**20 54 55.5**	**+0.5**
	baz=304						
TCU				*e*S	**Sb**	**20 55 10.7**	**+0.6**
	baz=304						
CHN8	**Yiju**	**1.22**	**273**	*e*P	**Pn**	**20 54 56.0**	**+0.2**
	baz=270						
CHN8				*e*S	**Sb**	**20 55 12.2**	**+0.6**
	baz=270						
LAY	**Lan-yu**	**1.24**	**180**	*e*P	**Pn**	**20 54 54.4**	**-1.6**
	baz=168						
SCZT	**Fangliau**	**1.24**	**223**	*e*P	**Pn**	**20 54 54.9**	**-1.1**
	baz=209						
WSF	**Szhu**	**1.26**	**287**	⇑P	**Pn**	**20 54 56.0**	**-0.2**
	baz=299						
WSF				*e*S	**Sn**	**20 55 12.8**	**+0.2**
	baz=299						
TWQ1	**Liyutan**	**1.27**	**327**	⇑*i*P	**Pn**	**20 54 57.4**	**+1.0**
	baz=327						
TWQ1				*e*S	**Sn**	**20 55 13.6**	**+0.6**
	baz=327						
WTCT	**Ta-ch'eng**	**1.29**	**297**	*e*P	**Pn**	**20 54 56.7**	**0.0**
	baz=295						
WTCT				*e*S	**Sn**	**20 55 13.2**	**-0.2**
	baz=295						
NSY	**Sanyi**	**1.34**	**328**	*e*P	**Pn**	**20 54 58.2**	**+0.9**
	baz=328						
NSY				*e*S	**Sn**	**20 55 16.1**	**+1.6**
	baz=328						
KAU	**Kaohsiung**	**1.34**	**238**	*e*P	**Pn**	**20 54 59.3**	**+2.0**
	baz=233						
TWC	**Suao**	**1.35**	**12**	*e*P	**Pn**	**20 54 57.5**	**-0.1**
	baz=2.0						
ENTT	**Nioudou**	**1.35**	**1**	⇓*e*P	**Pn**	**20 54 57.0**	**-0.6**
	baz=4.0						
YHNB	**Yeheng**	**1.39**	**354**	*e*Pn	**Pn**	**20 54 57.7**	**-0.3**
YHNB				*e*Sn	**Sn**	**20 55 16.3**	**+0.5**
NSK	**Sanguang**	**1.40**	**353**	*e*P	**Pn**	**20 54 57.7**	**-0.5**
	baz=9.0						
NSTT	**Nanjuang**	**1.43**	**340**	⇑P	**Pn**	**20 54 59.2**	**+0.6**
	baz=340						
NSTT				*e*S	**Sn**	**20 55 16.3**	**-0.5**
	baz=340						
TWP	**Hsiaoliuchiu**	**1.43**	**230**	*e*P	**Pn**	**20 55 00.9**	**+2.3**
	baz=224						
TWE	**Neicheng**	**1.44**	**5**	*e*P	**Pn**	**20 54 58.9**	**+0.2**
	baz=7.0						
HEN	**Hengchun**	**1.47**	**210**	*e*P	**Pn**	**20 55 01.5**	**+2.4**
	baz=195						
ILA	**Ilan**	**1.49**	**7**	*e*P	**Pn**	**20 55 00.3**	**+0.9**
	baz=10.0						
TWK1	**Hengchun**	**1.50**	**207**	*e*P	**Pn**	**20 54 58.8**	**-0.7**
	baz=204						
TSEB	**Hengchuen, Pin**	**1.50**	**203**	*e*P	**Pn**	**20 55 00.3**	**+0.8**
	baz=191						
HSN	**Hsinchu**	**1.60**	**341**	*e*P	**Pn**	**20 55 02.3**	**+1.4**
	baz=344						
TWA	**Mucha**	**1.69**	**1**	*e*P	**Pn**	**20 55 00.1**	**-2.1**
	baz=15						
NCU	**National Centr**	**1.71**	**349**	*e*P	**Pn**	**20 55 02.2**	**-0.3**
	baz=351						
TAP1	**Taipei**	**1.75**	**359**	*e*P	**Pn**	**20 55 04.9**	**+1.9**
	baz=1.0						
YOJ	**Yonaguni jima**	**1.79**	**49**	P	**Pn**	**20 55 04.2**	**+0.7**
YOJ				*e*S	**Sn**	**20 55 26.7**	**+1.1**
YOJ	**Yonaguni jima**	**1.79**	**49**	*e*P	**Pn**	**20 55 02.3**	**-1.2**
	baz=51						
NWF	**Wu-fen Shan**	**1.79**	**7**	*e*P	**Pn**	**20 55 04.3**	**+0.7**
	baz=8.0						
TWS1	**Kuangyinshan**	**1.81**	**356**	*e*P	**Pn**	**20 55 05.1**	**+1.2**
	baz=13						
PNG	**Penghu**	**1.85**	**279**	*e*P	**Pn**	**20 55 03.6**	**-0.7**
	baz=262						
PNG				*e*S	**Sn**	**20 55 24.9**	**-2.2**
	baz=262						
HATJ	**Hateruma jima**	**2.21**	**69**	*e*S	**Sn**	**20 55 36.8**	**+0.6**
IRIF	**Iriomote-Funau**	**2.26**	**62**	P	**Pn**	**20 55 11.0**	**+0.9**
IRIF				*e*S	**Sn**	**20 55 38.1**	**+0.7**
JKRS	**Kuro-shima**	**2.45**	**67**	P	**Pn**	**20 55 13.7**	**+1.0**
JKRS				*e*S	**Sn**	**20 55 43.1**	**+1.0**
JIJ	**Ishigaki jima**	**2.62**	**65**	P	**Pn**	**20 55 15.1**	**+0.2**
JIJ				*e*S	**Sn**	**20 55 45.6**	**-0.5**
KNM	**Kinmen**	**3.06**	**292**	*e*P	**Pn**	**20 55 21.6**	**+0.5**
	baz=291						
QZH	**Quanzhou**	**3.16**	**302**	Pn	**Pn**	**20 55 22.3**	**-0.1**
QZH				Sn	**Sn**	**20 55 57.1**	**-2.4**
QZH				smax			
	comp=N,310nm,1.0s						
QZH				smax			
	comp=E,140nm,0.5s						
JTJ	**Tarama**	**3.19**	**64**	P	**Pn**	**20 55 23.5**	**+0.6**
JTJ				*e*S	**Sn**	**20 56 00.4**	**+0.1**
SONM	**Songino Array**	**27.32**	**337**	P	**P**	**21 00 18.5**	**+1.4**
	comp=E,0.5nm,1.1s,baz=145,slow=5.3,SNR=2.5						
MKAR	**Makanchi Array**	**39.21**	**317**	P	**P**	**21 02 00.1**	**-0.4**
	comp=E,0.2nm,0.6s,baz=114,slow=7.0,SNR=3.0						
ZALV	**Zalesovo Beam**	**41.18**	**328**	P	**P**	**21 02 15.3**	**-1.4**
	comp=E,0.3nm,0.4s,mb3.3,baz=131,slow=7.9,SNR=2.8						
WRA	**Warramunga Arr**	**44.74**	**163**	P	**P**	**21 02 43.4**	**-2.4**
	comp=E,0.8nm,0.6s,mb3.7,baz=345,slow=8.7,SNR=12						
ASAR	**Alice Springs**	**48.19**	**165**	P	**P**	**21 03 11.4**	**-1.4**
	comp=E,0.3nm,0.4s,mb3.7,baz=336,slow=6.8,SNR=8.3						
STKA	**Stephens Creek**	**58.11**	**160**	P	**P**	**21 04 24.6**	**-1.2**
	comp=E,1.4nm,0.6s,mb4.2,baz=326,slow=8.6,SNR=6.7						
YKA	**Yellowknife Ar**	**83.67**	**23**	P	**P**	**21 07 01.0**	**+0.3**
	comp=E,0.1nm,0.6s,mb3.1,baz=310,slow=4.8,SNR=3.0						

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*NEIC **17** 20:55:12.8, 34°.17N×26°.18E, h13^{km}, MD3.4(ATH), After ATH.*

*CSEM **17** 20:55:12.8, 34°.17N×26°.18E, h13^{km}, MD3.4, After ATH*

*ATH **17** 20:55:12.8, 34°.17N×26°.18E, h13^{km}±13^{km}, MD3.4/4*

*IDC **17** 20:55:16.5±2.0, 34°.19N×26°.21E, h42^{km}±21^{km}, mb3.4/9, mb1 3.5/14, mb1mx3.4/28, mbtmp3.4/14, ML3.6/5, MS2.9/1, Ms1 2.9/1, ms1mx2.6/28, Error ellipse: s-maj=24.1km s-min=13.6km az=13.0*

ISC 17 20:55:12.5±1.5**, 34°.15N**±0°.08×**26°.22E**±0°.06**, h12**^{km}±9^{km}**, n27, σ1^{s}.10**/31**, mb3.5**/9**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	**Zakros**	**0.96**	**360**	*e*PG	**Pg**	**20 55 30.4**	**-0.6**
ZKR				*e*SB	**Sg**	**20 55 43.9**	**+0.3**
ZKR	**Zakros**	**0.96**	**360**	*e*Pg	**Pg**	**20 55 30.4**	**-0.6**
ZKR				*e*Sb	**Sg**	**20 55 43.9**	**+0.3**
LAST	**Lasithi**	**1.18**	**329**	*e*PG	**Pg**	**20 55 34.2**	**-0.9**
LAST	**Lasithi**	**1.18**	**329**	*e*Pg	**Pg**	**20 55 34.2**	**-0.9**
NPS	**Neapolis**	**1.22**	**336**	*e*PG	**Pn**	**20 55 35.9**	**+0.6**
NPS	**Neapolis**	**1.22**	**336**	*e*Pg	**Pn**	**20 55 35.9**	**+0.6**
IDI	**Anoyia**	**1.58**	**316**	P	**Pg**	**20 55 42.5**	**-0.3**
	3.0nm,0.3s,baz=78,slow=22,SNR=5.4						
KARP	**Karpathos**	**1.59**	**29**	*e*PB	**Pg**	**20 55 43.0**	**-0.1**
KARP	**Karpathos**	**1.59**	**29**	*e*Pb	**Pg**	**20 55 43.0**	**-0.1**
ARG	**Arkhangelos**	**2.59**	**37**	*e*PN	**Pn**	**20 55 56.7**	**+2.5**
ARG	**Arkhangelos**	**2.59**	**37**	*e*Pn	**Pn**	**20 55 56.7**	**+2.5**
MMAI	**Mount Meron Ar**	**7.75**	**96**	P	**Pn**	**20 57 06.8**	**+1.7**
	0.7nm,0.3s,baz=268,slow=11,SNR=7.0						
MMAI				S	**Sn**	**20 58 32.2**	**-0.6**
	1.4nm,0.3s,baz=276,slow=27,SNR=5.7						
EIL	**Elat**	**8.66**	**119**	P	**Pn**	**20 57 18.6**	**+0.9**
	0.3nm,0.3s,baz=304,slow=3.6,SNR=5.7						
EIL				S	**Sn**	**20 58 53.2**	**-2.1**
	0.4nm,0.3s,baz=59,slow=18,SNR=4.0						
EIL	**Elat**	**8.66**	**119**	P	**Pn**	**20 57 18.6**	**+0.9**
EIL				S	**Sn**	**20 58 53.2**	**-2.1**
ASF	**Jabal al Asfar**	**9.17**	**99**	LR	LR	21 02 33.7	
	comp=Z,75nm,20.8s,baz=69,slow=48						
AKASG	**Malin Array Be**	**16.69**	**7**	P	**Pn**	**20 59 04.6**	**-1.4**
	0.4nm,0.3s,baz=198,slow=12,SNR=4.9						
GERES	**GERESS Array B**	**17.38**	**331**	P	**Pn**	**20 59 15.3**	**+0.5**
	0.1nm,0.3s,baz=138,slow=12,SNR=4.1						
GERES				pP	pP	20 59 25.2	+5.9
	0.1nm,0.3s,baz=128,slow=8.6,SNR=3.3						
DAVOX	**Davos/Dischmat**	**17.67**	**320**	P	**Pn**	**20 59 20.3**	**+2.0**
	0.2nm,0.3s,baz=129,slow=14,SNR=2.6						
ESDC	**Sonseca Array**	**24.69**	**292**	P	**P**	**21 00 32.6**	**-0.6**
	0.3nm,0.5s,mb3.1,baz=76,slow=9.6,SNR=4.7						
HFS	**Hagfors**	**27.26**	**346**	P	**P**	**21 00 55.3**	**-1.0**
	4.8nm,1.1s,mb4.0,baz=148,slow=17,SNR=4.7						
EKA	**Eskdalemuir Ar**	**29.37**	**325**	P	**P**	**21 01 14.7**	**-0.5**
	0.5nm,0.7s,mb3.4,baz=119,slow=9.7,SNR=4.5						
TORD	**Torodi Ar. Bea**	**30.54**	**233**	P	**P**	**21 01 26.7**	**+0.8**
	0.2nm,0.6s,mb3.1,baz=30,slow=7.9,SNR=5.7						
KURK	**Kurchatov**	**41.15**	**50**	P	**P**	**21 02 56.5**	**+0.1**
	1.3nm,0.6s,mb3.7,baz=278,slow=9.0,SNR=5.4						
MKAR	**Makanchi Array**	**43.61**	**56**	P	**P**	**21 03 17.1**	**+0.5**
	1.0nm,0.7s,mb3.6,baz=284,slow=6.0,SNR=12						
ZALV	**Zalesovo Beam**	**45.08**	**45**	P	**P**	**21 03 27.9**	**-0.3**
	0.6nm,0.5s,mb3.7,baz=271,slow=6.6,SNR=3.1						
SONM	**Songino Array**	**59.45**	**50**	P	**P**	**21 05 16.1**	**+1.0**
	0.2nm,0.6s,mb3.3,baz=291,slow=9.1,SNR=3.0						
YKA	**Yellowknife Ar**	**78.67**	**343**	P	**P**	**21 07 11.8**	**-2.3**
	0.2nm,0.7s,mb3.2,baz=42,slow=4.4,SNR=3.4						

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*BGS **17** 21:14:41.8±1.9, 5°.66N×73°.02W, h33^{km}, mb5.1*

*SZGRF **17** 21:14:46.7, 5°.93N×72°.35W, h33^{km}, mb5.1, Colombia*

*MOS **17** 21:14:56.8±0.9, 6°.78N×72°.93W, h120^{km}, mb5.1/48, Error ellipse: s-maj=6.0km s-min=4.5km az=89.3*

*ISCJB **17** 21:15:00.9±0.1, 6°.79N±0°.02×72°.95W±0°.01, h159^{km}, mb5.1/215, Error ellipse: s-maj=2.4km s-min=1.6km az=170.4*

*BJI **17** 21:15:00.8, 6°.70N×72°.90W, h154^{km}, mB5.3/27*

*GCMT **17** 21:15:01.8±0.2, 6°.82N×73°.04W, h157^{km}±1^{km}, MW5.4/87, Moment Tensor Solution. s57,c88; s87,c158; Duration: $1^{s}.2$ Moment tensor: Scale 10^{17}Nm; M_{rr}0.35±.03; $M_{\theta\theta}$0.34±.03; $M_{\phi\phi}$-0.68±.03; $M_{r\theta}$0.98±.02; $M_{\theta\phi}$0.81±.03; $M_{\phi r}$-0.13±.02; Best double couple: $M_0$1.41000×10^{17} NP1:ϕ_s10.00000°,δ45.00000°,λ165.00000°. NP2: ϕ_s111.00000°,δ80.00000°,λ46.00000°. Principal axes: T 1.4460, Plg39.0000°, Azm342.0000°; N -0.0730, Plg43.0000°, Azm120.0000°; P -1.3730, Plg22.0000°, Azm232.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **17** 21:15:01.8±0.2, 6°.74N×72°.93W, h155^{km}±2^{km}, mb5.4/166 Error ellipse: s-maj=3.1km s-min=2.4km az=179.0*

NEIC Felt [III] at Bogota. Also felt at Barranquilla, Bucaramanga, Chia, Cucuta, Facatativa, Floridablanca, Manizales, Medellin, Monteria, Mosquera and Pereira.

*IDC **17** 21:15:02.0±0.3, 6°.69N×72°.90W, h158^{km}±2^{km}, mb4.8/16, mb1 4.9/21, mb1mx4.9/23, mbtmp4.8/21, MS4.1/5, Ms1 4.1/5, ms1mx3.6/34, Error ellipse: s-maj=7.4km s-min=5.5km az=107.0*

*FUNV **17** 21:15:03.4, 6°.80N×73°.07W, h162^{km}, MW5.5*

ISC 17 21:15:02.5±0.1**, 6°.76N**±0°.02×**72°.89W**±0°.01**, h161**^{km}**, h161**^{km}±1.0^{km}**: pP-P, n1090, σ0^{s}.79**/1075**, mb5.1**/215**, 217C-212D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	0.31	248	⇓iP	Pn	21 15 23.8	-0.6
BARC				eS	Sn	21 15 38.1	-3.0
BARC	**Barichara**	0.31	248	eP	Pn	21 15 23.8	-0.7
BARC				e		21 15 38.0	
RUSC	**La Rusia**	0.84	193	⇑iP	Pn	21 15 27.2	0.0
RUSC				eS	Sn	21 15 45.9	-0.3
RUSC	**La Rusia**	0.84	193	eP	Pn	21 15 27.3	0.0
RUSC				eS	Sn	21 15 45.6	-0.5
CAPV	**Capacho**	1.24	27	⇓eP	Pn	21 15 31.4	+0.9
CAPV				eS	Sn	21 15 53.1	+1.2
CAPV	**Capacho**	1.24	27	eP	Pn	21 15 31.4	+0.9
CAPV				eS	Sn	21 15 53.1	+1.2
OCAC	**Ocana**	1.53	344	⇓iP	Pn	21 15 31.9	-1.5
OCAC				eS	Sn	21 15 54.3	-2.7
OCAC	**Ocana**	1.53	344	eP	Pn	21 15 32.0	-1.3
OCAC				eS	Sn	21 15 53.8	-3.2
ROSC	**El Rosal**	2.37	217	⇑iP	Pn	21 15 43.1	+0.4
ROSC				eS	Sn	21 16 11.7	-2.0
ROSC	**El Rosal**	2.37	217	P	Pn	21 15 43.1	+0.4
	3µm,0.3s,baz=35,slow=2.4,SNR=5479						
ROSC				S	Sn	21 16 12.4	-1.3
	6µm,0.3s,baz=95,slow=15,SNR=9.3						
ROSC	**El Rosal**	2.37	217	eP	Pn	21 15 43.2	+0.5
ROSC				eS	Sn	21 16 14.2	+0.5
SOCV	**Socops**	2.52	53	⇓iP	Pn	21 15 46.1	+1.6
SOCV				eS	Sn	21 16 17.9	+1.0
SOCV	**Socops**	2.52	53	eP	Pn	21 15 46.1	+1.6
SOCV				eS	Sn	21 16 17.9	+1.0
VIGV	**El Vigia**	2.56	36	⇓eP	Pn	21 15 45.9	+0.9
VIGV				eS	Sn	21 16 17.6	-0.2
VIGV	**El Vigia**	2.56	36	eP	Pn	21 15 45.9	+0.9
VIGV				eS	Sn	21 16 17.6	-0.2
HELC	**Santa Helena**	2.69	259	eP	Pn	21 15 44.0	-2.5
HELC	**Santa Helena**	2.69	259	eP	Pn	21 15 44.2	-2.4
SDV	**Santo Domingo**	3.08	46	P	Pn	21 15 52.8	+1.5
	1µm,0.3s,baz=251,slow=11,SNR=7188						
SDV				S	Sn	21 16 30.0	+0.8
	2µm,0.3s,baz=267,slow=23,SNR=20						
SDV				LR	LR	21 16 43.8	
	comp=Z,2µm,20.5s,baz=264,slow=33						
SDV	**Santo Domingo**	3.08	46	⇓iPn	Pn	21 15 52.7	+1.4
SDV				eSn	Sn	21 16 27.3	-1.9
TOLC	**Tolima**	3.25	229	eP	Pn	21 15 52.1	-1.5
TOLC				eS	Sn	21 16 30.6	-2.5
TOLC	**Tolima**	3.25	229	eP	Pn	21 15 52.9	-0.7
TOLC				eS	Sn	21 16 32.5	-0.6
ELOV	**Elorza**	3.39	86	⇓eP	Pn	21 15 57.6	+2.3
VIRV	**Villa del Rosa**	3.75	7	⇓iP	Pn	21 15 58.3	-1.7
VIRV				eS	Sn	21 16 40.5	-4.1
VIRV	**Villa del Rosa**	3.75	7	⇓iP	Pn	21 15 58.2	-1.7
VIRV				eS	Sn	21 16 40.5	-4.1
QARV	**Quebrada Arrib**	4.15	34	⇓eP	Pn	21 16 05.8	+0.7
QARV				eS	Sn	21 16 52.3	-1.5
QARV	**Quebrada Arrib**	4.15	34	eP	Pn	21 16 05.9	+0.8
QARV				eS	Sn	21 16 52.3	-1.5
GUVC	**San Jose del G**	4.19	176	⇑iP	Pn	21 16 05.6	-0.1
GUVC				eS	Sn	21 16 56.4	+1.6
SANV	**Sanarito**	4.30	50	⇓eP	Pn	21 16 07.9	+0.9
SANV				eS	Sn	21 16 56.4	-0.8
SANV	**Sanarito**	4.30	50	eP	Pn	21 16 07.8	+0.8
SANV				eS	Sn	21 16 56.4	-0.8
CURV	**Curarigua**	4.34	42	⇓iP	Pn	21 16 08.2	+0.6
CURV				eS	Sn	21 16 57.2	-1.1
CURV	**Curarigua**	4.34	42	⇓iP	Pn	21 16 08.2	+0.6
CURV				eS	Sn	21 16 57.2	-1.1
SOLC	**Bahia Solano**	4.55	265	eP	Pn	21 16 07.2	-3.1
DABV	**Dabajuro**	4.70	28	⇓iP	Pn	21 16 12.6	+0.3
DABV				eS	Sn	21 17 04.0	-2.7
DABV	**Dabajuro**	4.70	28	i P	Pn	21 16 12.5	+0.3
DABV				eS	Sn	21 17 04.0	-2.7
TEPV	**Terepaima**	4.85	49	⇓iP	Pn	21 16 15.0	+0.8
SIQV	**Siquisique**	4.92	38	⇓eP	Pn	21 16 15.3	+0.2
SIQV				eS	Sn	21 17 09.1	-2.8
SIQV	**Siquisique**	4.92	38	eP	Pn	21 16 15.3	+0.2
SIQV				eS	Sn	21 17 09.1	-2.8
BAUV	**El Baul**	5.27	65	⇓iP	Pn	21 16 19.5	-0.2
BAUV				eS	Sn	21 17 18.8	-1.3
BAUV	**El Baul**	5.27	65	⇓iP	Pn	21 16 19.7	-0.1
BAUV				eS	Sn	21 17 18.8	-1.3
MAPV	**Macapo**	5.34	55	⇓eP	Pn	21 16 21.6	+0.9
PAYV	**Puerto Ayacuch**	5.37	104	eP	Pn	21 16 22.5	+1.5
PAYV				eS	Sn	21 17 20.5	-2.0
PAYV	**Puerto Ayacuch**	5.37	104	eP	Pn	21 16 22.6	+1.5
PAYV				eS	Sn	21 17 20.5	-2.0
JACV	**Jacura**	5.88	43	⇓iP	Pn	21 16 28.2	+0.4
MONV	**Montecano**	5.91	29	⇓iP	Pn	21 16 27.3	-0.9
MONV				eS	Sn	21 17 30.6	-4.8
TURV	**Turiamo**	6.20	53	⇓iP	Pn	21 16 32.0	+0.1
CAOV	**Caicara del Or**	6.54	85	⇓iP	Pn	21 16 36.7	+0.1
CAOV				eS	Sn	21 17 48.2	-2.3
CRUC	**La Cruz**	6.61	218	⇓iP	Pn	21 16 37.1	-0.4
MERV	**Las Mercedes**	6.98	69	⇓eP	Pn	21 16 42.4	0.0
FUNV	**FUNVISIS**	7.05	58	⇓eP	Pn	21 16 43.4	0.0
BCIP	**Isla Barro Col**	7.29	290	ePn	Pn	21 16 41.3	-5.2
BCIP				eSn	Sn	21 18 00.1	-8.0
CUPV	**Cœpira**	7.75	65	⇓iP	Pn	21 16 52.6	0.0
ORCV	**Isla La Orchil**	8.30	52	⇓eP	Pn	21 16 58.2	-1.7
PRGV	**PARIAGUAN**	8.41	76	⇓iP	Pn	21 17 01.1	-0.3
OTAV	**Otavalo**	8.53	221	⇓ePn	Pn	21 17 00.6	-2.3
OTAV				eSn	Sn	21 18 33.4	-4.6
PCRV	**Puerto La Cruz**	8.84	67	⇓iP	Pn	21 17 07.1	0.0
PCRV	**Puerto La Cruz**	8.84	67	P	Pn	21 17 07.3	+0.1
	29nm,0.3s,baz=225,slow=4.8,SNR=96						
IBAV	**Isla La Blanqu**	9.62	58	⇓eP	Pn	21 17 15.6	-1.9
ORIV	**Oritupano**	9.67	76	⇓eP	Pn	21 17 17.2	-0.8
GURV	**El Guri**	9.78	84	eP	Pn	21 17 18.7	-0.8
CRUV	**Carupano**	10.30	67	eP	Pn	21 17 26.5	+0.1
GUNV	**Guanoco**	10.40	70	eP	Pn	21 17 27.4	-0.3
RIOV	**Rio Grande**	11.06	83	eP	Pn	21 17 36.7	+0.3
GUIV	**Guiria**	11.23	69	eP	Pn	21 17 37.6	-0.9
TCE	**Chacachacare**	11.68	70	e	Pn	21 17 45.9	+1.4
PCJ	**Portland Cotta**	11.68	340	⇑eP	Pn	21 17 44.4	0.0
PCJ				eS	Sn	21 19 40.8	-13
PCJ				eS	Sn	21 19 41.3	-13
HOJ	**Hope**	11.79	342	⇓eP	Pn	21 17 47.7	+1.9
CMJ	**Castle Mountai**	11.81	344	⇑eP	Pn	21 17 46.5	+0.5
TPP	**Pointe-a-Pierr**	11.85	72	e	Pn	21 17 48.2	+1.6
GWJ	**Greenwich**	11.85	342	⇑eP	Pn	21 17 47.0	+0.4
STH	**Stony Hill**	11.88	342	⇑eP	Pn	21 17 47.2	+0.1
STH				eS	Sn	21 19 45.6	-13
STH				⇓iS	Sn	21 19 46.9	-12
TRN	**Trinidad (W)**	11.99	70	e	Pn	21 17 50.1	+1.6
MCJ	**Malvern**	12.05	338	⇑eP	Pn	21 17 49.1	-0.1
MCJ				⇑iP		21 17 50.1	
MCJ				eS	Sn	21 19 52.9	-10
SDDR	**Presa de Saban**	12.25	7	ePn	Pn	21 17 51.7	-0.1
SDDR				eSn	Sn	21 20 01.2	-6.3
TBH	**Brigand Hill**	12.26	72	e	Pn	21 17 54.0	+2.0
CVJ	**Coleyville**	12.27	339	⇑eP	Pn	21 17 53.1	+1.1
MTDJ	**Mount Denham**	12.27	339	ePn	Pn	21 17 51.7	-0.2
MTDJ				eSn	Sn	21 19 45.9	-22
GRGR	**Grenville**	12.30	63	ePn	Pn	21 17 53.4	+0.9
	2µm,1.1s						
GRGR				eSn	Sn	21 20 08.0	-0.8
GRW	**Mount Saint Ca**	12.31	63	e	Pn	21 17 55.1	+2.5
BBJ	**Bamboo Saint A**	12.32	340	⇑eP	Pn	21 17 53.0	+0.4
GRHS	**Sauteurs**	12.35	63	e	Pn	21 17 54.3	+1.1
GRSS	**Sisters**	12.41	63	e	Pn	21 17 53.8	0.0
GRIC	**Isle de Caille**	12.43	63	e	Pn	21 17 54.0	-0.1
JTS	**JuntasAbangare**	12.43	287	Pn	Pn	21 17 53.7	-0.5
	1µm,0.9s,SNR=19						
JTS	**JuntasAbangare**	12.43	287	P	Pn	21 17 53.9	-0.3
	2.6nm,0.3s,baz=81,slow=8.5,SNR=39						
JTS				S	Sn	21 20 10.9	-1.1
	1.8nm,0.3s,baz=277,slow=19,SNR=1.9						
JTS				LR	LR	21 22 13.3	
	comp=Z,451nm,20.7s,baz=140,slow=35						
JTS	**JuntasAbangare**	12.43	287	ePn	Pn	21 17 53.5	-0.7
JTS				eSn	Sn	21 20 07.2	-4.8
CRPR	**Cabo Rojo, PR**	12.52	26	ePn	Pn	21 17 52.3	-2.9
CRPR				eSn	Sn	21 20 01.6	-12
NEJ	**Negril**	12.59	336	⇓eP	Pn	21 17 57.8	+1.6
NEJ				i P		21 17 57.8	
GRCU	**Cariacou**	12.62	62	e	Pn	21 17 54.0	-2.6
LSP	**Las Mesas**	12.68	26	ePn	Pn	21 17 55.5	-1.9
LSP				eSn	Sn	21 20 04.9	-13
MPR	**Mayaguez**	12.69	26	ePn	Pn	21 17 54.8	-2.6
MPR				eSn	Sn	21 20 08.0	-10
ICM	**Isla Caja Muer**	12.69	29	ePn	Pn	21 17 55.6	-1.9
ICM				eSn	Sn	21 20 07.2	-11
TPR	**Prospect**	12.75	69	e	Pn	21 17 59.5	+1.3
OBIP	**Obispado Ponce**	12.78	28	ePn	Pn	21 17 56.7	-1.9
OBIP				eSn	Sn	21 20 15.4	-4.8
BOT	**Bacolet**	12.80	69	e	Pn	21 17 58.2	-0.7
CELP	**Cerrillos**	12.82	28	ePn	Pn	21 17 57.2	-1.9
AGP	**Aguadilla**	12.86	25	ePn	Pn	21 17 59.4	-0.3
AGP				eSn	Sn	21 20 15.1	-7.2
LRS	**Lares**	12.89	27	ePn	Pn	21 17 57.8	-2.2
LRS				eSn	Sn	21 20 11.6	-11
AGPR	**Aguadilla, PR**	12.93	25	ePn	Pn	21 17 57.7	-2.8
	330nm,1.0s						
AGPR				eSn	Sn	21 20 14.3	-9.5
AOPR	**Arecibo Observ**	12.98	27	ePn	Pn	21 17 59.1	-2.0
AOPR				eSn	Sn	21 20 11.7	-13
SJG	**San Juan**	13.06	30	ePn	Pn	21 18 00.0	-2.1
SJG				eSn	Sn	21 20 15.5	-11
FCV	**Fort Charlotte**	13.11	60	e	Pn	21 18 01.5	-1.4
HUMP	**Col San Antoni**	13.23	31	ePn	Pn	21 18 02.1	-2.3
GTBY	**Guantanamo Bay**	13.27	351	ePn	Pn	21 18 04.7	-0.1
GTBY				eSn	Sn	21 20 27.1	-4.8
CBYP	**Canovanas**	13.34	30	ePn	Pn	21 18 04.0	-1.7
	231nm,0.8s						
CBYP				eSn	Sn	21 20 23.9	-10
MTP	**Monte Pirata**	13.35	32	ePn	Pn	21 18 03.7	-2.2
	244nm,0.9s						
MTP				eSn	Sn	21 20 26.9	-7.0
MASC	**Masc**	13.40	355	eP	Pn	21 18 07.2	+0.7
MASC				eS	Sn	21 20 24.8	-10
	comp=N,12nm,0.9s						
MASC				e			
	comp=E,14nm,0.9s						
RCC	**Rio Carpintero**	13.44	349	eP	Pn	21 18 06.9	0.0
CDVI	**St. Croix**	13.50	35	ePn	Pn	21 18 04.9	-2.9
LMGC	**Las Mercedes**	13.82	344	eP	Pn	21 18 11.3	-0.4
LMGC				eS	Sn	21 20 30.6	-15
	comp=N,426nm,1.0s						
LMGC				e			
	comp=E,517nm,0.6s						
STVI	**Saint Thomas**	13.88	33	ePn	Pn	21 18 12.8	+0.3
MOAC	**Moa**	13.96	352	eP	Pn	21 18 13.7	+0.1
MOAC				eS	Sn	21 20 42.4	-6.3
	comp=N,131nm,1.8s						
MOAC				e			
	comp=E,97nm,1.1s						
FDF	**Fort de France**	13.99	55	eP	Pn	21 18 12.7	-1.2
FDF				pmax	pmax		
	comp=Z,560nm,1.0s						
FDF	**Fort de France**	13.99	55	⇑eP	Pn	21 18 13.1	-0.8
FDF	**Fort de France**	13.99	55	ePn	Pn	21 18 12.7	-1.2
	comp=Z,557nm,0.9s						
FDF				Sn	Sn	21 20 41.3	-8.0
MVM	**Montagne Vaucl**	14.10	56	eP	Pn	21 18 21.6	+6.2
HLGC	**Holguin**	14.38	348	eP	Pn	21 18 19.7	+0.9
HLGC				eS	Sn	21 20 48.1	-11
	comp=N,32nm,0.2s						
HLGC				e			
	comp=E,49nm,0.2s						
COPN	**Copaltepe**	14.55	293	eP	Pn	21 18 18.6	-2.3
BBGH	**Gun Hill**	14.58	63	ePn	Pn	21 18 20.1	-1.2
ATAH	**Atahualpa**	14.73	202	P	Pn	21 18 23.6	+0.4
	comp=E,1.8nm,0.3s,baz=24,slow=7.6,SNR=27						
ATAH				S	Sn	21 21 16.7	+10
	comp=E,0.2nm,0.3s,baz=38,slow=22,SNR=4.8						
CNGN	**Cerro Negro**	14.76	294	eP	Pn	21 18 19.2	-4.4
CNGN				eS	Sn	21 21 04.3	-3.5
GRTK	**Grand Turk**	14.77	6	ePn	Pn	21 18 22.9	-0.7
GRTK				Sn	Sn	21 20 58.2	-10
CCCC	**Cccc**	15.11	342	eP	Pn	21 18 19.6	-8.3
ANWB	**Willy Bob**	15.33	44	eP	Pn	21 18 32.9	+2.2
	comp=E,692nm,1.4s						
ANWB				eSn	Sn	21 21 20.4	-1.1
TGUH	**Tegucigalpa,Un**	15.89	298	ePn	Pn	21 18 35.6	-1.9
	comp=E,328nm,1.1s						
TGUH	**Tegucigalpa,Un**	15.89	298	eP	Pn	21 18 35.2	-2.3
BLLM	**Bellamira**	16.50	295	eP	Pn	21 18 43.3	-1.6
CAHU	**Cacacuatique**	16.60	296	eP	Pn	21 18 44.6	-1.5
MGV	**Manicaragua**	16.73	337	eP	Pn	21 18 46.6	-1.0
MGV				eS	S	21 21 42.6	-11
LFRS	**El Faro**	17.31	294	eP	Pn	21 18 52.0	-2.6
RBDL	**Robledal**	18.05	295	eP	P	21 18 59.5	-2.3
SOR	**Soroa**	18.69	330	eP	P	21 19 08.2	-0.3
SOR				eS	S	21 22 35.4	+2.4
	comp=N,1.2nm,1.0s						
SOR				e			
	comp=E,1.0nm,0.5s						
PAYG	**Puerto Ayora**	18.86	248	eP	P	21 19 09.6	-1.0
	comp=E,650nm,1.2s						
PAYG				eS	S	21 22 33.0	-3.7
NNA	**Nana**	19.03	192	P	P	21 19 12.0	-0.4
	comp=E,408nm,0.6s,SNR=13						
NNA	**Nana**	19.03	192	P	P	21 19 12.6	+0.2
	comp=E,4.1nm,0.3s,baz=355,slow=9.6,SNR=36						
NNA	**Nana**	19.03	192	eP	P	21 19 11.6	-0.7
	comp=E,64nm,0.9s						
NNA				eS	S	21 22 41.1	+1.2
TEIG	**Tepich**	20.05	313	P	P	21 19 22.8	-0.5
	comp=E,422nm,0.7s,baz=131,slow=7.8,SNR=97						
TEIG				S	S	21 23 00.7	+0.7
	comp=E,9.3nm,0.9s,baz=176,slow=13,SNR=3.6						
TEIG	**Tepich**	20.05	313	eP	P	21 19 22.7	-0.6
	comp=E,495nm,0.8s						
CCIG	**Comitan**	21.08	298	i P	P	21 19 32.1	-2.3
CCIG				i S	sP	21 20 20.9	-2.0
SCX	**San Cristobal**	21.70	299	eP	P	21 19 40.0	-0.9
DWPF	**Disney**	22.73	340	eP	P	21 19 51.2	+0.4
	comp=E,1µm,1.6s,mb6.1						
ARE	**Arequipa**	23.11	177	eP	P	21 19 53.0	-1.4
CMIG	**Matias Romero**	23.82	297	P	P	21 19 56.8	-4.1
	comp=E,8.4nm,0.6s,mb4.5,baz=101,slow=7.7,SNR=13						
CMIG				ScP	ScP	21 27 04.5	+1.1
	comp=E,5.3nm,0.8s,baz=41,slow=3.2,SNR=5.2						
HUIG	**Huatulco**	24.44	293	eP	P	21 20 07.0	+0.4
VHO	**Vista Hermosa**	25.45	296	eP	P	21 20 15.8	+0.1
PNIG	**Pinotepa**	26.48	293	eP	P	21 20 22.6	-2.4
BBSR	**BB Station**	26.60	16	eP	P	21 20 27.1	+1.2
NHSC	**New Hope**	27.08	346	eP	P	21 20 31.5	+1.3
	comp=E,154nm,0.8s,mb5.7						
BRAL	**Brewton**	27.54	333	P	P	21 20 33.8	-0.4
	comp=E,480nm,1.3s,mb6.1						
PPM	**Popocatepetl**	27.86	298	eP	P	21 20 42.7	+5.4
IIO	**Organos**	28.15	299	i P	P	21 20 40.7	+0.9
GOGA	**Godfrey**	28.28	341	eP	P	21 20 42.0	+1.2
GOGA				pmax	pmax		
	comp=Z,130nm,0.9s,mb5.7						
GOGA	**Godfrey**	28.28	341	eP	P	21 20 42.0	+1.2
	comp=Z,128nm,0.9s,mb5.7						
JSC	**Jenkinsville**	28.46	345	eP	P	21 20 43.3	+0.9
JSC				e	pP	21 21 12.1	-4.0
PTVM	**Pico Tres Padr**	28.48	299	eP	P	21 20 47.3	+4.4
CAIG	**El Cayaco**	28.63	293	eP	P	21 20 43.1	-1.0
LVC	**Limon Verde**	29.45	173	P	P	21 20 50.1	-1.1
	comp=Z,7.8nm,0.6s,mb4.6,baz=360,slow=6.9,SNR=16						
LVC				pP	pP	21 21 22.8	-2.2
	comp=Z,37nm,1.0s,baz=0.3,slow=4.5,SNR=7.7						
LVC				S	S	21 25 34.5	+0.9
	comp=Z,4.1nm,0.9s,baz=360,slow=12,SNR=1.9						
LVC				ScP	ScP	21 27 20.6	+0.6
	comp=Z,17nm,0.9s,baz=0.2,slow=3.2,SNR=7.5						
LVC	**Limon Verde**	29.45	173	eP	P	21 20 50.2	-1.1
	comp=Z,9.8nm,0.7s,mb4.7						
LVC				e	pP	21 21 22.4	-2.7
LVC				eS	S	21 25 41.6	+7.9
VBMS	**Vicksburg**	30.20	329	eP	P	21 20 58.7	+1.0
	comp=Z,544nm,0.9s,mb6.3						
TKL	**Tuckaleechee C**	30.45	342	eP	P	21 21 01.1	+1.1
TKL				e		21 23 55.5	
CPCT	**Cooper Cave**	30.49	341	eP	P	21 21 01.8	+1.4
CPCT				ePcP	PcP	21 23 57.7	+2.1
SWET	**Sewanee**	30.76	339	eP	P	21 21 03.7	+1.0
SWET				ePcP	PcP	21 23 56.6	+0.3
BLA	**Blacksburg**	31.08	348	eP	P	21 21 06.6	+1.1
BLA				pmax	pmax		
	comp=Z,129nm,1.0s,mb5.6						
BLA	**Blacksburg**	31.08	348	eP	P	21 21 06.5	+1.1
	comp=Z,130nm,1.0s,mb5.6						
BLA				e		21 21 54.3	
TZTN	**Tazewell**	31.21	343	eP	P	21 21 07.8	+1.2
TZTN				ePcP	PcP	21 24 00.6	+3.1
PLAL	**Pickwick Lake**	31.38	336	eP	P	21 21 08.6	+0.4
	comp=Z,300nm,0.9s,mb6.0						
CBN	**Corbin**	31.57	353	eP	P	21 21 11.2	+1.4
HKT	**Hockley**	31.59	320	eP	P	21 21 09.5	-0.6
HKT				e		21 22 23.5	
HKT				pmax	pmax		
	comp=Z,176nm,1.5s,mb5.6						
HKT	**Hockley**	31.59	320	eP	P	21 21 09.5	-0.6
	comp=Z,176nm,1.5s,mb5.6						
HKT				ePP	PP	21 22 23.5	-1.2
MET	**Memphis--Engin**	32.29	333	eP	P	21 21 16.4	+0.3
	comp=Z,415nm,0.7s,mb6.3						
MET				ePP	PP	21 22 31.1	-1.4
HALT	**Halls**	32.70	335	eP	P	21 21 19.3	-0.4
HALT				ePcP	PcP	21 24 02.2	+0.6
SDMD	**Soldier's Deli**	32.70	354	eP	P	21 21 20.8	+1.2
	comp=Z,70nm,1.0s,mb5.3						
UTMT	**University of**	32.88	336	eP	P	21 21 20.1	-1.1
HBAR	**Harrisburg**	32.98	333	eP	P	21 21 22.4	+0.2
HBAR				ePP	PP	21 22 39.5	-0.6
GLAT	**Glass**	32.99	335	eP	P	21 21 22.4	+0.2
GNAR	**Gosnell**	33.04	334	eP	P	21 21 23.7	+1.1
	comp=Z,7µm,1.0s						
UALR	**University of**	33.15	330	eP	P	21 21 25.0	+1.4
	comp=Z,163nm,1.4s,mb5.6						
MVL	**Millersville**	33.24	355	eP	P	21 21 25.8	+1.5
	comp=Z,337nm,1.6s,mb5.8						
PVMO	**Portageville**	33.28	335	eP	P	21 21 25.6	+0.9
MCWV	**Mont Chateau**	33.35	350	eP	P	21 21 27.1	+1.9
PARMO	**Parma**	33.52	335	eP	P	21 21 27.5	+0.8
MIAR	**Mount Ida**	33.60	328	eP	P	21 21 26.5	-1.0
MIAR				e		21 22 45.4	
MIAR				e		21 24 05.6	
MIAR				pmax	pmax		
	comp=Z,67nm,0.8s,mb5.4						
MIAR	**Mount Ida**	33.60	328	eP	P	21 21 26.5	-1.0
	comp=Z,67nm,0.8s,mb5.4						
MIAR				ePP	PP	21 22 45.4	-1.6
MIAR				ePcP	PcP	21 24 05.6	+1.4
WCI	**Wyandotte Cave**	33.60	341	eP	P	21 21 27.4	-0.1
USIN	**University of**	33.84	339	eP	P	21 21 30.0	+0.5
SSPA	**Standing Stone**	34.03	353	eP	P	21 21 32.7	+1.6
PAL	**Palisades**	34.11	359	eP	P	21 21 33.0	+1.1
SIUC	**Southern Illin**	34.20	337	eP	P	21 21 32.6	-0.1
YLE	**Yale**	34.41	360	eP	P	21 21 35.7	+1.3
BLO	**Bloomington**	34.53	341	eP	P	21 21 36.4	+0.9
ACSO	**Alum Creek Sta**	34.54	346	eP	P	21 21 36.8	+1.3
JCT	**Junction City**	34.56	316	eP	P	21 21 34.9	-1.0
OLIL	**Olney**	34.68	339	eP	P	21 21 37.0	+0.3
FVM	**French Village**	34.92	335	eP	P	21 21 38.5	-0.3
ALLY	**Alegheny Colle**	35.34	351	eP	P	21 21 43.8	+1.5
BINY	**Binghamton**	35.40	356	eP	P	21 21 43.5	+0.6
	comp=Z,265nm,1.1s,mb5.8						
BINY				ePcP	PcP	21 24 08.3	-0.9
SLM	**Saint Louis**	35.40	336	eP	P	21 21 42.9	0.0
LCO	**Las Campanas**	35.62	177	eP	P	21 21 43.2	-1.7
LCO				epP	pP	21 22 16.4	-3.0
ERPA	**Erie**	35.77	351	eP	P	21 21 47.5	+1.4
TRY	**Troy**	35.83	359	eP	P	21 21 48.2	+1.6
CPUP	**Villa Florida**	36.19	156	P	P	21 21 47.1	-2.7
	comp=Z,1.7nm,0.6s,mb3.9,baz=322,slow=9.8,SNR=11						
CPUP				pP	pP	21 22 23.0	-1.3
	comp=Z,6.4nm,0.6s,baz=322,slow=8.9,SNR=7.4						
CPUP				ScP	ScP	21 27 42.6	-0.7
	comp=Z,8.1nm,1.0s,baz=311,slow=3.9,SNR=5.3						
CPUP				LR	LR	21 38 51.8	
	comp=Z,342nm,19.3s,baz=204,slow=40						
ACCN	**Adirondack Com**	36.49	359	eP	P	21 21 53.6	+1.5
AAM	**Ann Arbor**	36.66	347	eP	P	21 21 54.6	+1.0
WMOK	**Wichita Mounta**	36.67	323	eP	P	21 21 48.5	-5.3
WMOK				pmax	pmax		
	comp=Z,107nm,0.8s,mb5.5						
WMOK	**Wichita Mounta**	36.67	323	eP	P	21 21 48.5	-5.2
	comp=Z,107nm,0.8s,mb5.5						
TXAR	**Lajitas Array**	36.67	312	P	P	21 21 53.5	-0.4
TXAR						21 24 14.6	
TXAR						21 31 55.5	
TXAR	**Lajitas Array**	36.67	312	P	P	21 21 53.5	-0.5
	comp=Z,43nm,0.7s,mb5.2,baz=127,slow=9.4,SNR=257						
TXAR				pP	pP	21 22 29.2	+0.7
	comp=Z,12nm,0.9s,baz=125,slow=11,SNR=2.5						
TXAR				PcP	PcP	21 24 14.6	+1.2
	comp=Z,12nm,0.8s,baz=145,slow=4.1,SNR=7.0						
TXAR				ScP	ScP	21 27 45.8	+0.7
	comp=Z,3.0nm,0.8s,baz=139,slow=6.3,SNR=4.7						
TXAR				ScS	ScS	21 31 55.5	+3.2
	comp=Z,1.8nm,1.1s,baz=113,slow=3.3,SNR=4.1						
TXAR	**Lajitas Array**	36.67	312	P	P	21 21 53.5	-0.5
TXAR				pP	pP	21 22 29.2	+0.7
TXAR				PcP	PcP	21 24 14.6	+1.2
TXAR				ScP	ScP	21 27 45.8	+0.7
TXAR				ScS	ScS	21 31 55.5	+3.2
HDIL	**Hopedale**	36.72	339	eP	P	21 21 53.5	-0.6
HNH	**Hanover**	36.80	1	eP	P	21 21 56.3	+1.5
NCB	**Newcomb**	37.08	358	eP	P	21 21 58.6	+1.4
LBNH	**Lisbon**	37.34	1	eP	P	21 22 00.5	+1.2
LBNH				pmax	pmax		
	comp=Z,126nm,0.9s,mb5.5						
LBNH	**Lisbon**	37.34	1	eP	P	21 22 00.5	+1.1
	comp=Z,126nm,0.9s,mb5.5						
LBNH				epP	pP	21 22 33.9	-0.1
LONY	**Lake Ozonia**	37.74	358	eP	P	21 22 03.1	+0.4
	comp=Z,156nm,1.2s,mb5.5						
LONY				ePP	PP	21 23 30.9	-1.4
FRNY	**Flat Rock**	37.93	359	eP	P	21 22 05.5	+1.2
CFAA	**Coronel Fontan**	38.40	174	P	P	21 22 07.3	-1.1
	comp=Z,1.3nm,0.9s,mb3.6,baz=342,slow=7.7,SNR=17						
CFAA				pP	pP	21 22 41.5	-1.7
	comp=Z,1.1nm,0.5s,baz=341,slow=7.6,SNR=4.0						
CFAA				ScP	ScP	21 27 50.5	-0.9
	comp=Z,1.5nm,0.8s,baz=244,slow=8.6,SNR=9.9						
AMTX	**Amarillo**	38.55	321	eP	P	21 22 09.4	-0.2
	comp=Z,450nm,1.1s,mb6.0						
AMTX				PP	PP	21 23 43.5	+2.3
KSU1	**Kansas State U**	38.66	330	eP	P	21 22 09.0	-1.4
	comp=Z,264nm,0.8s,mb5.9						
GDL2	**Guadalupe Moun**	38.73	315	eP	P	21 22 11.0	-0.2
RCBR	**Riachuelo**	38.97	108	eP	P	21 22 14.1	+0.6
RCBR				epP	pP	21 22 43.7	-4.6
JFWS	**Jewell Farm**	39.13	340	eP	P	21 22 13.9	-0.4
JFWS				pmax	pmax		
	comp=Z,411nm,0.6s,mb6.2						
JFWS	**Jewell Farm**	39.13	340	eP	P	21 22 13.9	-0.4
	comp=Z,411nm,0.6s,mb6.2						
GLMI	**Grayling**	39.27	347	eP	P	21 22 16.1	+0.7
	comp=Z,216nm,0.7s,mb5.9						
SCIA	**State Center**	39.38	336	eP	P	21 22 15.9	-0.5
	comp=Z,570nm,0.9s,mb6.2						
CBKS	**Cedar Bluff**	40.07	327	eP	P	21 22 21.2	-1.0
CBKS				pmax	pmax		
	comp=Z,207nm,1.1s,mb5.7						
CBKS	**Cedar Bluff**	40.07	327	eP	P	21 22 21.2	-0.9
	comp=Z,207nm,1.1s,mb5.7						
122A	**Conniff Cattle**	40.87	314	⇓P	P	21 22 29.4	+0.6
	baz=41						
BNM	**Barren Site**	41.39	316	eP	P	21 22 32.7	-0.4
	comp=Z,126nm,1.7s,mb5.3						
ANMO	**Albuquerque**	41.72	317	eP	P	21 22 35.9	+0.2
ANMO				e		21 24 14.9	
ANMO				pmax	pmax		
	comp=Z,45nm,1.0s						
ANMO	**Albuquerque**	41.72	317	eP	P	21 22 35.9	+0.2
	comp=Z,45nm,1.0s,mb5.0						
ANMO				ePP	PP	21 24 14.9	-0.7
X22A	**Bernardo**	41.85	316	⇓P	P	21 22 37.5	+0.8
	baz=42,SNR=33						
LAZ	**Ladron**	41.88	316	eP	P	21 22 37.6	+0.6
	comp=Z,74nm,1.0s,mb5.3						
319A	**Douglas**	41.90	311	⇑P	P	21 22 37.7	+0.6
	baz=42,SNR=64						
120A	**U Bar Ranch, L**	41.98	312	⇑P	P	21 22 38.8	+0.9
	baz=42						
219A	**White Tail Can**	42.17	311	⇑P	P	21 22 39.8	+0.4
	baz=42,SNR=26						
ECSD	**EROS Data Cent**	42.30	334	eP	P	21 22 39.0	-1.3
	comp=Z,310nm,1.3s,mb5.8						
ECSD				ePP	PP	21 24 20.6	-1.1
ECSD				ePcP	PcP	21 24 28.3	-2.6
318A	**Bisbee**	42.46	310	⇑P	P	21 22 42.0	+0.3
	baz=42,SNR=107						
119A	**Ashpeak Ranch,**	42.58	312	⇓P	P	21 22 43.0	+0.3
	baz=43,SNR=46						
W21A	**San Fidel**	42.62	316	⇓P	P	21 22 43.7	+0.6
	baz=43,SNR=5.5						
SDCO	**Great Sand Dun**	42.74	321	eP	P	21 22 44.6	+0.7
	comp=Z,74nm,0.8s,mb5.4						
218A	**Dragoon**	42.75	311	⇑P	P	21 22 44.6	+0.5
	baz=43,SNR=78						
Z19A	**T-Link Ranch,**	42.81	313	⇑P	P	21 22 44.9	+0.4

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              baz=43,SNR=18
OGNE  Ogallala            42.83 327 eP      P        21 22 44.1  -0.5
              comp=Z,76nm,0.7s,mb5.4
OGNE                                ePcP    PcP      21 24 33.2 +0.5
118A  Homack Ranch,       43.01 312 ⇓P      P        21 22 46.7 +0.5
              baz=43,SNR=55
Y19A  Nutrioso            43.14 314 ⇓P      P        21 22 48.0 +0.9
              baz=43,SNR=140
T22A  Edith               43.20 319 ⇑P      P        21 22 48.1 +0.5
              baz=43,SNR=66
W20A  Ramah               43.21 316 ⇓P      P        21 22 48.4 +0.6
              baz=43
217A  Green Valley        43.24 310  P      P        21 22 48.1 +0.1
              baz=43,SNR=82
Z18A  Geronimo            43.27 312 ⇑P      P        21 22 48.8 +0.6
              baz=43,SNR=13
TUC   Tucson              43.46 311 eP      P        21 22 49.4  -0.4
TUC                                  pmax   pmax
              comp=Z,43nm,2.3s,mb4.7
TUC   Tucson              43.46 311 eP      P        21 22 49.4  -0.4
              comp=Z,44nm,2.3s,mb4.7
117A  Oracle              43.55 311 ⇑P      P        21 22 50.6 +0.1
              baz=44,SNR=65
Z17A  San Carlos Hig      43.69 312 ⇑P      P        21 22 52.1 +0.5
              baz=44,SNR=35
R22A  Saguache, Gunn      43.82 321 ⇑P      P        21 22 53.2 +0.6
              baz=44,SNR=36
W19A  Sanders             43.82 315 ⇓P      P        21 22 53.4 +0.8
              baz=44,SNR=20
216A  Three Points,       43.83 310 ⇑P      P        21 22 52.5  -0.2
              baz=44,SNR=20
X18A  Snowflake           43.92 314 ⇓P      P        21 22 53.8 +0.4
              baz=44,SNR=32
EYMN  Ely                 44.00 342 eP      P        21 22 53.6  -0.2
              comp=Z,327nm,0.6s,mb6.1
W18A  Petrified Fore      44.07 315 ⇑P      P        21 22 55.1 +0.5
              baz=44,SNR=23
ISCO  Idaho Springs       44.09 323 eP      P        21 22 55.6 +0.9
ISCO                                e                21 24 39.0
ISCO                                 pmax   pmax
              comp=Z,169nm,1.0s,mb5.6
ISCO  Idaho Springs       44.09 323 eP      P        21 22 55.6 +0.9
              comp=Z,169nm,1.0s,mb5.6
ISCO                                ePcP    PcP      21 24 39.0 +1.9
Y17A  Roosevelt           44.16 313 ⇓P      P        21 22 55.5 +0.2
              baz=44,SNR=32
116A  Eloy                44.27 311 ⇑P      P        21 22 56.0  -0.2
              baz=44,SNR=56
Q22A  Crested Butte,      44.30 321 ⇑P      P        21 22 57.0 +0.7
              baz=44,SNR=131
MVCO  Mesa Verde          44.35 318 ⇑P      P        21 22 56.8   0.0
              baz=44,SNR=44
MVCO  Mesa Verde          44.35 318 eP      P        21 22 56.6  -0.2
MVCO                                ePcP    PcP      21 24 39.0 +1.0
Z16A  Peralta Trail,      44.42 312 ⇑P      P        21 22 57.4   0.0
              baz=44,SNR=10
X17A  Forest Lakes        44.44 313 ⇓P      P        21 22 58.5 +0.9
              baz=44,SNR=51
T19A  Beclabito           44.49 318 ⇓P      P        21 22 58.1 +0.1
              baz=44,SNR=35
V18A  Ganado              44.52 316 ⇓P      P        21 22 58.0  -0.1
              baz=45,SNR=15
Q21A  Lamborn Mesa,       44.70 321 ⇓P      P        21 23 00.0 +0.5
              baz=45,SNR=26
Y16A  Circle Bar Ran      44.71 312 ⇓P      P        21 22 60.0 +0.3
              baz=45,SNR=89
115A  Sonoran Desert      44.73 311 ⇑P      P        21 22 59.8  -0.1
              baz=45,SNR=38
W17A  Winslow             44.74 314 ⇓P      P        21 23 00.1 +0.2
              baz=45,SNR=11
R20A  Redvale             44.83 320 ⇑P      P        21 23 01.5 +0.9
              baz=45,SNR=160
214A  Organ Pipe Nat      44.84 309 ⇓P      P        21 23 00.9 +0.1
              baz=45,SNR=64
U18A  Rough Rock, Ch      44.84 317 ⇑P      P        21 23 01.0 +0.3
              baz=45,SNR=50
PV01  Paradox Valley      44.92 319 eP      P        21 23 02.3 +0.9
              comp=Z,10µm,1.0s
Z15A  Gila River Ind      44.94 311 ⇑P      P        21 23 01.6 +0.1
              baz=45,SNR=8.5
X16A  Lo Mia Camp, P      44.94 313 ⇓P      P        21 23 01.9 +0.4
              baz=45,SNR=81
PHWY  Pilot Hill          44.97 325 eP      P        21 23 01.9 +0.3
              comp=Z,37nm,0.6s,mb5.2
P21A  Newcastle           45.03 322 ⇑P      P        21 23 03.2 +1.0
              baz=45
S19A  Harvey Farm, M      45.07 319 ⇑P      P        21 23 02.6 +0.1
              baz=45,SNR=65
Q20A  Ridgley Place,      45.22 320 ⇑P      P        21 23 04.1 +0.5
              baz=45,SNR=169
N22A  Wattenberg Ran      45.23 324 ⇑P      P        21 23 04.3 +0.6
              baz=45,SNR=25
T18A  Mexican Hat         45.23 317 ⇓P      P        21 23 03.6  -0.2
              baz=45,SNR=95
114A  Black Gap (USA      45.24 310 ⇑P      P        21 23 04.3 +0.4
              baz=45
PV04  Paradox Valley      45.29 319 eP      P        21 23 04.6 +0.4
W16A  Flagstaff           45.33 314 ⇓P      P        21 23 05.4 +0.8
              baz=45,SNR=62
Y15A  Casa Rosa Ranc      45.37 312 ⇓P      P        21 23 05.1 +0.2
              baz=45,SNR=96
WUAZ  Wupatki             45.43 315 ⇑P      P        21 23 05.9 +0.6
              baz=46,SNR=112
WUAZ  Wupatki             45.43 315 eP      P        21 23 05.8 +0.5
              comp=Z,258nm,1.0s,mb5.8
WUAZ                                eScP    ScP      21 28 21.5 +1.9
R19A  Curley Farm, L      45.46 319 ⇑P      P        21 23 05.5   0.0
              baz=46,SNR=27
O21A  Pagoda              45.47 322 ⇑P      P        21 23 06.3 +0.7
              baz=46,SNR=33
U17A  Shonto              45.48 316 ⇑P      P        21 23 05.9 +0.1
              baz=46,SNR=51
X15A  Humboldt            45.55 313 ⇓P      P        21 23 06.7 +0.4
              baz=46,SNR=83
Z14A  Wintersburg         45.56 311 ⇓P      P        21 23 06.7 +0.3
              baz=46,SNR=42
U16A  Tuba City           45.57 315 ⇓P      P        21 23 06.9 +0.4
              baz=46,SNR=89
P20A  De Beque            45.60 321 ⇓P      P        21 23 06.8 +0.1
              baz=46,SNR=41
S18A  Hurst Farm, Bl      45.61 318 ⇓P      P        21 23 06.8 +0.1
              baz=46,SNR=58
M22A  Cedar Creek Ra      45.69 324 ⇑P      P        21 23 07.5 +0.2
              baz=46,SNR=31
AGMN  Agassiz Refuge      45.77 339 eP      P        21 23 07.9 +0.1
              comp=Z,147nm,0.6s,mb5.8
AGMN                                epP     pP       21 23 37.1  -6.6
T17A  Navajo Res., N      45.79 317 ⇓P      P        21 23 08.5 +0.4
              baz=46,SNR=49
N21A  Black Mountain      45.83 323 ⇑P      P        21 23 09.1 +0.7
              baz=46,SNR=40
Q19A  Hogan Spring (      45.84 320 ⇑P      P        21 23 08.6   0.0
              baz=46,SNR=16
Y14A  Wickenburg          45.86 312 ⇑P      P        21 23 08.8   0.0
              baz=46,SNR=66
O20A  White River Ci      45.89 322 ⇓P      P        21 23 09.4 +0.5
              baz=46,SNR=35
W15A  Williams            45.90 314 ⇑P      P        21 23 08.9  -0.2
              baz=46,SNR=24
113A  Mohawk Valley,      45.92 310 ⇑P      P        21 23 09.0  -0.3
              baz=46,SNR=75
R18A  Canyonlands Na      45.93 319 ⇑P      P        21 23 08.9  -0.3
              baz=46,SNR=39
X14A  Yava                46.02 312 ⇓P      P        21 23 10.0   0.0
              baz=46,SNR=40
P19A  Cripple Cowboy      46.05 321 ⇑P      P        21 23 10.3 +0.1
              baz=46,SNR=49
RSSD  Black Hills         46.11 329 eP      P        21 23 10.2  -0.3
RSSD                                e*PP    pP       21 23 42.2  -4.3
RSSD                                e                21 24 44.7
S17A  Black Ridge (B      46.12 317 ⇓P      P        21 23 11.0 +0.3
              baz=46,SNR=124
V15A  Kaibab Nationa      46.14 314 ⇓P      P        21 23 11.9 +1.0
              baz=46,SNR=281
RWWY  Rawlins             46.23 324 eP      P        21 23 11.5   0.0
              comp=Z,151nm,1.0s,mb5.6
T16A  Glen Canyon Da      46.26 316 ⇓P      P        21 23 12.2 +0.4
              baz=46,SNR=52
M21A  Separation Pea      46.27 324 ⇑P      P        21 23 12.0 +0.2
              baz=46,SNR=35
N20A  Spence Gulch,       46.32 323 ⇓P      P        21 23 12.4 +0.1
              baz=46,SNR=61
Y13A  Salome              46.42 311 ⇓P      P        21 23 13.2 +0.1
              baz=46,SNR=34
112A  Yuma                46.45 309 ⇑P      P        21 23 13.1  -0.3
              baz=46
Q18A  Rafter H Ranch      46.48 320  P      P        21 23 13.8 +0.3
              baz=46,SNR=88
R17A  Hanksville Air      46.48 318 ⇑P      P        21 23 13.6   0.0
              baz=46,SNR=138
L21A  Rawlins             46.49 324 ⇓P      P        21 23 13.6   0.0
              baz=47,SNR=28
W14A  Seligman            46.50 313 ⇑P      P        21 23 13.9 +0.1
              baz=46,SNR=65
O19A  Miners Draw (B      46.53 321 ⇓P      P        21 23 13.8  -0.1
              baz=47,SNR=80
M20A  Sweetwater, Wa      46.68 323 ⇓P      P        21 23 14.7  -0.3
              baz=47,SNR=59
S16A  Weppner Ranch,      46.70 317 ⇑P      P        21 23 15.1  -0.2
              baz=47,SNR=66
V14A  Boquillas Ranc      46.72 314 ⇓P      P        21 23 16.1 +0.7
              baz=47,SNR=126
SRU   San Rafael          46.74 319 eP      P        21 23 16.0 +0.5
SRU                                  pmax   pmax
              comp=Z,247nm,1.2s,mb5.7
SRU   San Rafael          46.74 319 ⇓P      P        21 23 15.6 +0.1
              baz=47,SNR=89
SRU   San Rafael          46.74 319 eP      P        21 23 16.0 +0.5
              comp=Z,247nm,1.2s,mb5.7
X13A  Yucca               46.77 312 ⇓P      P        21 23 15.8  -0.1
              baz=47,SNR=23
P18A  Preston Nutter      46.85 320 ⇑P      P        21 23 16.7 +0.4
              baz=47,SNR=115
GLA   Glamis              46.85 310 eP      P        21 23 16.7 +0.2
GLA                                 e*PP    pP       21 23 49.3  -3.2
GLA                                  pmax   pmax
              comp=Z,90nm,0.8s,mb5.5
GLA   Glamis              46.85 310 ⇑P      P        21 23 16.6 +0.1
              baz=47,SNR=48
GLA   Glamis              46.85 310 eP      P        21 23 16.7 +0.2
              comp=Z,90nm,0.8s,mb5.5
GLA                                 epP     pP       21 23 49.3  -3.2
T15A  Red Dirt Ranch      46.88 316 ⇑P      P        21 23 17.4 +0.7
              baz=47,SNR=57
N19A  John Jarvie Ra      46.91 322 ⇑P      P        21 23 16.7  -0.2
              baz=47,SNR=62
Y12C  Blythe              46.91 311 ⇑P      P        21 23 16.9  -0.1
              baz=47,SNR=24
R16A  Teasdale            46.92 318 ⇓P      P        21 23 17.7 +0.7
              baz=47,SNR=108
W13A  Hualapai Mount      47.03 313 ⇑P      P        21 23 18.0 +0.1
              baz=47,SNR=34
Q16A  Castle Valley       47.05 319 ⇑P      P        21 23 18.1 +0.2
              baz=47,SNR=18
P17A  Butcher Ranch,      47.08 320 ⇓P      P        21 23 18.4 +0.3
              baz=47,SNR=71
L20A  Wamsutter           47.09 324  P      P        21 23 18.5 +0.3
              baz=47,SNR=26
U14A  Mt Trumbull         47.15 315 ⇓P      P        21 23 19.4 +0.7
              baz=47,SNR=102
S15A  Panguitch           47.20 317 ⇓P      P        21 23 19.1  -0.1
              baz=47,SNR=12
M19A  Rock Springs        47.26 323 ⇑P      P        21 23 19.0  -0.5
              baz=47,SNR=12
TMUT  Trail Mountain      47.28 319 eP      P        21 23 20.2 +0.5
              comp=Z,88nm,1.0s,mb5.3
TMUT                                eScP    ScP      21 28 30.0 +2.8
PLCA  Paso Flores         47.30 178  P      P        21 23 18.4  -1.4
PLCA                                 *PP    pP       21 23 55.9   0.0
PLCA  Paso Flores         47.30 178  P      P        21 23 18.4  -1.4
              comp=Z,9.0nm,0.8s,mb4.5,baz=356,slow=9.5,SNR=26
PLCA                                 pP     pP       21 23 55.9   0.0
              comp=Z,29nm,1.0s,baz=1.1,slow=7.8,SNR=7.0
PLCA                                 ScP    ScP      21 28 26.6  -0.6
              comp=Z,11nm,0.8s,baz=355,slow=4.4,SNR=11
T14A  Hurricane           47.39 315 ⇑P      P        21 23 21.3 +0.7
              baz=47,SNR=140
R15A  Junction            47.42 317 ⇓P      P        21 23 21.4 +0.6
              baz=48
ULM   Lac du Bonnet       47.42 340  P      P        21 23 19.9  -0.8
              comp=Z,250nm,0.8s,mb5.9,baz=147,slow=7.8,SNR=266
V13A  Grand Canyon W      47.45 314 ⇓P      P        21 23 21.0  -0.1
              baz=48,SNR=87
O17A  Robinson Place      47.48 320  P      P        21 23 21.9 +0.7
              baz=48,SNR=111
K20A  Yellowstone Ra      47.49 325 ⇑P      P        21 23 21.1  -0.2
              baz=48
MSU   Marysvale           47.51 318 eP      P        21 23 22.2 +0.7
MSU                                 e                21 25 15.7
MSU                                  pmax   pmax
              comp=Z,124nm,0.8s,mb5.6
MSU   Marysvale           47.51 318 eP      P        21 23 22.2 +0.7
              comp=Z,124nm,0.8s,mb5.6
MSU                                 ePP     PP       21 25 15.7 +1.4
SWSC  Sam W. Stewart      47.55 309 ⇑P      P        21 23 21.9   0.0
              baz=48,SNR=15
IRM   Iron Mountain       47.56 311 ⇑P      P        21 23 21.7  -0.3
              baz=48,SNR=64
BC3   Big Chuckw Mtn      47.58 310 ⇑P      P        21 23 21.9  -0.2
              baz=48,SNR=39
U13A  Pakoon Wash         47.70 314 ⇑P      P        21 23 23.7 +0.7
              baz=48,SNR=126
L19A  Farson              47.74 323 ⇑P      P        21 23 23.3   0.0
              baz=48,SNR=70
P16A  Fountain Green      47.75 319 ⇑P      P        21 23 23.9 +0.6
              baz=48,SNR=53
M18A  Lyman               47.77 322 ⇓P      P        21 23 23.4  -0.1
              baz=48,SNR=22
S14A  Cedar City          47.79 316 ⇑P      P        21 23 23.9 +0.2
              baz=48,SNR=7.7
CCUT  Cedar City          47.82 316 eP      P        21 23 24.1 +0.2
              comp=Z,50nm,1.0s,mb5.1
CCUT                                epP     pP       21 23 49.3   -11
CCUT                                ePcP    PcP      21 24 50.8 +0.5
CCUT                                eScP    ScP      21 28 32.5 +3.0
W12A  Cal Nev Ari         47.85 312 ⇓P      P        21 23 24.0  -0.2
              baz=48,SNR=12
K19A  Absolon Red Bu      47.88 324 ⇓P      P        21 23 23.9  -0.4
              baz=48,SNR=89
Q15A  Fillmore            47.89 318 ⇓P      P        21 23 25.0 +0.5
              baz=48,SNR=24
LDFC  Landfair            47.92 312 eP      P        21 23 25.6 +0.8
              comp=Z,149nm,1.1s,mb5.5
LDFC                                eScP    ScP      21 28 32.7 +2.7
DAU   Daniels Canyon      47.93 320 eP      P        21 23 25.1 +0.4
DAU                                  pmax   pmax
              comp=Z,254nm,1.2s,mb5.7
DAU   Daniels Canyon      47.93 320 eP      P        21 23 25.1 +0.3
              comp=Z,254nm,1.2s,mb5.7
T13A  Saint George        47.95 315 ⇓P      P        21 23 25.7 +0.8
              baz=48,SNR=66
MPU   Maple Canyon        47.95 320 eP      P        21 23 25.3 +0.4
              comp=Z,202nm,1.1s,mb5.7
N17A  Moffit Pass         47.96 321 ⇓P      P        21 23 25.3 +0.3
              baz=48,SNR=177
R14A  James Farms, M      47.96 317 ⇑P      P        21 23 25.0   0.0
              baz=48,SNR=23
O16A  Springville         47.97 320 ⇓P      P        21 23 25.1 +0.1
              baz=48
ARUT  Antelope Range      47.99 316 eP      P        21 23 25.3   0.0
ARUT                                 pmax   pmax
              comp=Z,97nm,1.0s,mb5.4
ARUT  Antelope Range      47.99 316 eP      P        21 23 25.3   0.0
              comp=Z,97nm,1.0s,mb5.4
MONP  Monument Peak       48.01 309 ⇓P      P        21 23 25.7 +0.2
              baz=48,SNR=12
V12A  Nelson              48.02 313 ⇓P      P        21 23 25.7 +0.2
              baz=48,SNR=116
L18A  Fontenelle, Gr      48.04 323 ⇓P      P        21 23 25.8 +0.2
              baz=48,SNR=147
U12A  Valley of Fire      48.12 314 ⇑P      P        21 23 26.6 +0.4
              baz=48,SNR=20
BAR   Barrett             48.12 308 eP      P        21 23 26.3   0.0
              comp=Z,50nm,1.4s,mb5.0
BAR                                 epP     pP       21 24 01.9  -0.6
BAR                                 ePcP    PcP      21 24 52.0 +0.5
P15A  Leamington          48.13 319 ⇓P      P        21 23 26.3   0.0
              baz=48,SNR=36
BELC  Belle Mtn.          48.13 310 ⇑P      P        21 23 26.3   0.0
              baz=48,SNR=33
M17A  Scullys Gap (B      48.16 322 ⇓P      P        21 23 26.1  -0.4
              baz=48,SNR=91
S13A  Holt Ranch, En      48.18 316 ⇑P      P        21 23 27.6 +0.9
              baz=48,SNR=162
SCHQ  Schefferville       48.18   5  P      P        21 23 27.1 +0.8
              comp=Z,192nm,0.7s,mb5.8,baz=187,slow=6.1,SNR=341
SCHQ                                 pP     pP       21 24 02.4  -0.2
              comp=Z,44nm,0.9s,baz=178,slow=6.6,SNR=3.2
SCHQ                                 ScP    ScP      21 28 31.4 +0.8
              comp=Z,27nm,1.0s,baz=182,slow=3.1,SNR=8.7
GMRC  Granite Mounta      48.20 311 ⇑P      P        21 23 26.8  -0.1
              baz=48,SNR=25
NLU   North Lily Min      48.20 319 eP      P        21 23 27.2 +0.4
              comp=Z,111nm,1.1s,mb5.4
PDAR  Pinedale Array      48.26 324  P      P        21 23 26.9  -0.3
              comp=Z,66nm,0.9s,mb5.3,baz=128,slow=8.3,SNR=343
PDAR                                 PcP    PcP      21 24 52.0 +0.3
              comp=Z,5.2nm,0.6s,baz=134,slow=5.2,SNR=2.5
PDAR                                 ScP    ScP      21 28 31.6 +0.3
              comp=Z,1.8nm,0.7s,baz=135,slow=6.3,SNR=4.1
PDAR                                 P4KPbc          22 01 04.8
              comp=Z,0.8nm,0.7s,baz=124,slow=5.4,SNR=7.7
PDAR  Pinedale Array      48.26 324  P      P        21 23 26.9  -0.3
PDAR                                 PcP    PcP      21 24 52.0 +0.3
PDAR                                 ScP    ScP      21 28 31.6 +0.3
BW06  Boulder Array       48.26 324  P      P        21 23 27.0  -0.3
              baz=48,SNR=161
BW06  Boulder Array       48.26 324 eP      P        21 23 27.2   0.0
              comp=Z,41nm,0.6s,mb5.2
N16A  Rees Ranch, Co      48.31 321 ⇑P      P        21 23 28.1 +0.4
              baz=48,SNR=60
PFO   Pinyon Flat Ob      48.32 310  P      P        21 23 27.9 +0.1
              comp=Z,122nm,1.5s,mb5.3,SNR=11
PFO   Pinyon Flat Ob      48.32 310 eP      P        21 23 27.5  -0.3
PFO                                  pmax   pmax
              comp=Z,42nm,1.3s,mb4.9
PFO   Pinyon Flat Ob      48.32 310 ⇑P      P        21 23 27.4  -0.4
              baz=48,SNR=17
PFO   Pinyon Flat Ob      48.32 310 eP      P        21 23 27.5  -0.4
              comp=Z,42nm,1.3s,mb4.9
PFO                                 eScP    ScP      21 28 33.3 +1.5
CTU   Camp Tracy          48.40 320 eP      P        21 23 28.7 +0.4
              comp=Z,138nm,1.5s,mb5.4
CTU                                 epP     pP       21 23 57.9  -6.6
CTU                                 ePcP    PcP      21 24 53.5 +1.3
K18A  Toltan Ranch,       48.47 323 ⇑P      P        21 23 29.2 +0.4
              baz=48,SNR=55
Q14A  Sevier Lake (B      48.49 318 ⇓P      P        21 23 29.7 +0.7
              baz=48,SNR=188
V11A  Goodsprings         48.49 313 ⇓P      P        21 23 28.8  -0.3
              baz=48
109C  Camp Elliot, M      48.54 308 ⇑P      P        21 23 29.3  -0.2
              baz=49,SNR=6.6
R13A  O'Grain Ranch,      48.55 316 ⇓P      P        21 23 30.3 +0.8
              baz=49,SNR=88
NOQ   North Oquirrh       48.61 320 eP      P        21 23 29.9   0.0
              comp=Z,32nm,0.9s,mb5.0
NOQ                                 ePcP    PcP      21 24 53.8 +0.8
O15A  The Old Anders      48.63 319 ⇑P      P        21 23 30.6 +0.5
              baz=49,SNR=60
L17A  Cokeville           48.65 322 ⇑P      P        21 23 30.1  -0.1
              baz=49,SNR=130
P14A  Drum Mountains      48.66 318 ⇑P      P        21 23 31.0 +0.7
              baz=49,SNR=80
M16A  Huntsville          48.67 321 ⇑P      P        21 23 30.3   0.0
              baz=49,SNR=50
TUQ   Turquoise Moun      48.68 312 ⇑P      P        21 23 30.5  -0.1
              baz=49,SNR=57
HEC   Hector,Ludlow       48.72 311 ⇑P      P        21 23 31.2 +0.3
              baz=49,SNR=21
RPN   Rapa Nui            48.77 225  P      P        21 23 30.4  -1.0
J18A  Kendall Valley      48.80 324  P      P        21 23 31.3   0.0
              baz=49,SNR=151
DUG   Dugway              48.81 319 eP      P        21 23 31.6 +0.1
DUG                                 e                21 24 54.5
DUG                                  pmax   pmax
              comp=Z,84nm,0.9s,mb5.4
DUG   Dugway              48.81 319 ⇓P      P        21 23 31.4   0.0
              baz=49,SNR=102
DUG   Dugway              48.81 319 eP      P        21 23 31.6 +0.1
              comp=Z,84nm,0.9s,mb5.4
DUG                                 ePcP    PcP      21 24 54.5 +0.7
S12A  Delamar Landin      48.89 315 ⇑P      P        21 23 32.8 +0.7
              baz=49,SNR=28
MURC  Murrieta            48.89 309 ⇓P      P        21 23 32.1  -0.1
              baz=49,SNR=10
BBRC  Big Bear Sol-O      48.94 310 ⇑P      P        21 23 33.3 +0.7
              baz=49,SNR=6.5
L16A  Fish Haven          48.94 322 ⇑P      P        21 23 32.1  -0.4
              baz=49,SNR=216
Q13A  Wheeler Ranch,      48.97 317 ⇓P      P        21 23 33.4 +0.7
              baz=49,SNR=144
T11A  Corn Creek, Al      48.98 315 ⇑P      P        21 23 32.1  -0.7
              baz=49,SNR=42
I18A  Diamond G Ranc      48.98 325 ⇓P      P        21 23 32.7   0.0
              baz=49,SNR=47
N15A  Stansbury Isla      48.99 320 ⇑P      P        21 23 32.4  -0.4
              baz=49,SNR=26
LAO   LASA Array          49.01 330 eP      P        21 23 32.4  -0.5
              comp=Z,123nm,1.0s,mb5.5
LAO                                 ePcP    PcP      21 24 55.0 +0.7
K17A  Gardner Place,      49.06 323 ⇑P      P        21 23 32.7  -0.6
              baz=49,SNR=42
R12A  Pony Springs,       49.06 316 ⇑P      P        21 23 34.0 +0.6
              baz=49,SNR=92
SHOC  Shoshone            49.14 312 ⇑P      P        21 23 34.0   0.0
              baz=49,SNR=8.0
AHID  Auburn Hatcher      49.17 323 eP      P        21 23 33.7  -0.5
              comp=Z,92nm,0.9s,mb5.4
AHID                                 PcP    PcP      21 24 53.8  -1.2
SPUT  South Promonto      49.18 321 eP      P        21 23 34.3 +0.1
              comp=Z,91nm,1.2s,mb5.3
SPUT                                ePcP    PcP      21 24 55.1 +0.1
P13A  Bates Ranch, G      49.22 318 ⇓P      P        21 23 34.6   0.0
              baz=49,SNR=145
M15A  Larsen Ranch,       49.26 321 ⇑P      P        21 23 34.3  -0.6
              baz=49,SNR=57
GSC   Goldstone           49.27 312 eP      P        21 23 35.2 +0.1
GSC                                  pmax   pmax
              comp=Z,62nm,0.8s,mb5.3
GSC   Goldstone           49.27 312 ⇑P      P        21 23 35.3 +0.2
              baz=49,SNR=70
GSC   Goldstone           49.27 312 eP      P        21 23 35.2 +0.1
              comp=Z,62nm,0.8s,mb5.3
J17A  Brown Place, J      49.30 324 ⇑P      P        21 23 35.3 +0.2
              baz=49,SNR=203
DGMT  Dagmar              49.31 333 ⇑P      P        21 23 35.6 +0.5
              baz=49,SNR=38
DGMT  Dagmar              49.31 333 eP      P        21 23 35.7 +0.6
              comp=Z,538nm,0.7s,mb6.3
BGU   Big Grassy Mou      49.34 320 eP      P        21 23 35.5   0.0
              comp=Z,141nm,0.8s,mb5.6
REDW  Red Top Meadow      49.38 324 eP      P        21 23 35.4  -0.4
              comp=Z,314nm,1.1s,mb5.9
SNOW  Snow King Moun      49.38 324 eP      P        21 23 36.1 +0.3
              comp=Z,158nm,1.0s,mb5.6
SNOW                                ePP     PP       21 25 33.4 +2.0
LOHW  Long Hollow         49.38 324 eP      P        21 23 35.5  -0.3
              comp=Z,101nm,0.9s,mb5.5
N14A  Grayback Hills      49.40 320 ⇓P      P        21 23 35.9   0.0
              baz=50,SNR=103
U10A  Ash Meadows, A      49.40 313 ⇑P      P        21 23 36.5 +0.5
              baz=49,SNR=13
K16A  Soda Springs        49.51 323  P      P        21 23 36.9 +0.2
              baz=50,SNR=60
TPAW  Teton Pass          49.51 324 eP      P        21 23 36.8 +0.1
              comp=Z,90nm,0.8s,mb5.5
TPAW                                ePP     PP       21 25 32.5  -0.1
L15A  Malad City          49.52 321 ⇓P      P        21 23 36.4  -0.5
              baz=50,SNR=154
O13A  Hicks Ranch, I      49.54 319 ⇓P      P        21 23 37.6 +0.6
              baz=50
MOOW  Moose Ponds         49.55 324 eP      P        21 23 42.2 +5.2
              comp=Z,63nm,0.8s,mb5.3
I17A  Pilgrim Ck.         49.55 325 ⇓P      P        21 23 37.6 +0.5
              baz=50,SNR=35
RLMT  Red Lodge           49.56 327 ⇑P      P        21 23 37.0   0.0
              baz=50,SNR=47
RLMT  Red Lodge           49.56 327 eP      P        21 23 37.2 +0.1
              comp=Z,30nm,0.6s,mb5.1
Q12A  Willow Creek R      49.56 317 ⇓P      P        21 23 37.6 +0.4
              baz=50
HVU   Hansel Valley       49.64 321 eP      P        21 23 37.1  -0.6
HVU                                 e                21 24 57.6
HVU                                  pmax   pmax
              comp=Z,71nm,1.0s,mb5.2
HVU   Hansel Valley       49.64 321 eP      P        21 23 37.1  -0.7
              comp=Z,71nm,1.0s,mb5.2
HVU                                 ePcP    PcP      21 24 57.6 +0.9
RRI2  Red Ridge           49.65 323 eP      P        21 23 37.9 +0.1
              comp=Z,152nm,0.7s,mb5.7
DCID1 Drake Creek         49.71 324 eP      P        21 23 38.4 +0.1
              comp=Z,70nm,0.8s,mb5.3
CIS   Catalina Islan      49.74 309 ⇑P      P        21 23 38.2  -0.5
              baz=50,SNR=5.3
IMW   Indian Meadow       49.75 324 eP      P        21 23 38.6 +0.1
              comp=Z,77nm,0.7s,mb5.4
R11A  Troy Canyon, C      49.75 316 ⇑P      P        21 23 38.8 +0.2
              baz=50,SNR=79
J16A  Bone                49.78 323 ⇓P      P        21 23 38.9 +0.1
              baz=50
MWC   Mount Wilson        49.79 310 eP      P        21 23 38.5  -0.5
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MWC				*e*		21 24 57.6	
MWC				pmax	pmax		
	comp=Z,71nm,1.6s,mb5.0						
MWC	**Mount Wilson**	49.79	310	*e*P	P	21 23 38.5	-0.5
	comp=Z,71nm,1.6s,mb5.0						
MWC				*e*PcP	PcP	21 24 57.6	+0.2
FURC	**Furnace Creek,**	49.81	313	⇓P	P	21 23 39.4	+0.3
	baz=50,SNR=29						
P12A	**McGill**	49.83	317	⇑P	P	21 23 39.4	+0.2
	baz=50,SNR=49						
H17A	**Grant Village**	49.84	325	⇑P	P	21 23 39.4	+0.2
	baz=50,SNR=29						
LKWY	**Lake**	49.84	325	*e*P	P	21 23 40.2	+1.0
LKWY				*e*		21 24 58.7	
LKWY				*e*		21 25 31.3	
LKWY				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.7						
LKWY	**Lake**	49.84	325	*e*P	P	21 23 40.2	+1.0
	comp=Z,13nm,0.7s,mb4.7						
LKWY				*e*PcP	PcP	21 24 58.7	+1.3
LKWY				*e*PP	PP	21 25 31.3	-4.2
G18A	**Lazy EL Ranch,**	49.84	327	P	P	21 23 39.0	-0.2
	baz=50,SNR=69						
M14A	**Sheep Mountain**	49.85	320	⇑P	P	21 23 39.2	-0.1
	baz=50,SNR=184						
EDW2	**Edwards Air Fo**	49.99	311	⇓P	P	21 23 40.3	-0.3
	baz=50,SNR=22						
K15A	**Arbon**	49.99	322	⇓P	P	21 23 40.4	0.0
	baz=50,SNR=65						
DECC	**Green Verdugo**	50.01	310	⇑P	P	21 23 40.2	-0.4
	baz=50						
YFT	**Old Faithful**	50.02	325	*e*P	P	21 23 42.0	+1.5
	comp=Z,45nm,0.9s,mb5.1						
YFT				*e*PcP	PcP	21 24 57.9	-0.2
Q11A	**Duckwater**	50.03	316	⇓P	P	21 23 41.0	+0.3
	baz=50,SNR=75						
I16A	**Newdale**	50.05	324	⇓P	P	21 23 41.1	+0.2
	baz=50,SNR=128						
N13A	**Wendover, West**	50.06	319	⇑P	P	21 23 41.3	+0.3
	baz=50,SNR=35						
L14A	**Malta**	50.07	321	⇓P	P	21 23 40.6	-0.3
	baz=50,SNR=55						
YNR	**Norris Junctio**	50.09	325	*e*P	P	21 23 41.1	0.0
	comp=Z,38nm,1.3s,mb4.9						
YNR				*e*PcP	PcP	21 24 57.0	-1.4
MPMC	**Manual Prospec**	50.10	312	⇑P	P	21 23 41.1	-0.2
	baz=50,SNR=32						
O12A	**Currie**	50.11	318	⇑P	P	21 23 41.6	+0.3
	baz=50,SNR=21						
GCMT	**Greycliff**	50.20	327	*e*P	P	21 23 42.4	+0.5
	comp=Z,95nm,0.9s,mb5.4						
R10A	**Warm Springs**	50.22	315	⇑P	P	21 23 42.4	+0.2
	baz=50,SNR=49						
YMR	**Madison River**	50.23	325	*e*P	P	21 23 43.2	+1.1
	comp=Z,83nm,0.8s,mb5.4						
S10A	**Tonopah Range,**	50.26	315	⇑P	P	21 23 43.1	+0.6
	baz=50,SNR=90						
M13A	**Montello**	50.30	320	⇓P	P	21 23 42.6	0.0
	baz=50,SNR=132						
F18A	**Big Timber**	50.30	327	⇓P	P	21 23 42.7	+0.1
	baz=50,SNR=121						
K14A	**Jones Ranch, D**	50.31	322	⇓P	P	21 23 42.4	-0.4
	baz=50,SNR=98						
J15A	**Blackfoot**	50.34	323	⇑P	P	21 23 43.1	+0.1
	baz=50,SNR=77						
H16A	**Russell Place,**	50.41	325	⇑P	P	21 23 43.9	+0.5
	baz=50,SNR=43						
P11A	**Circle Ranch,**	50.44	317	⇑P	P	21 23 43.9	+0.2
	baz=50,SNR=13						
OSI	**Osito Adit**	50.45	310	⇑P	P	21 23 43.5	-0.4
	baz=50						
OSI	**Osito Adit**	50.45	310	*e*P	P	21 23 43.5	-0.5
	comp=Z,42nm,1.2s,mb4.9						
G17A	**Pierce Place,**	50.50	326	⇓P	P	21 23 44.9	+0.8
	baz=51,SNR=46						
BLG	**Laguna Peak**	50.52	309	⇑P	P	21 23 44.2	-0.3
	baz=50,SNR=6.1						
Q10A	**Clear Creek Ra**	50.53	316	⇑P	P	21 23 45.2	+0.7
	baz=51,SNR=36						
L13A	**Double Diamond**	50.54	321	⇓P	P	21 23 44.2	-0.3
	baz=51,SNR=77						
N12A	**Clover Valley,**	50.60	319	⇓P	P	21 23 45.0	0.0
	baz=51,SNR=36						
S09A	**Goldfield**	50.62	314	⇑P	P	21 23 45.2	0.0
	baz=51,SNR=76						
O11A	**Cowboy Ranch,**	50.65	318	⇓P	P	21 23 45.8	+0.4
	baz=51,SNR=66						
ISA	**Isabella**	50.66	311	*e*P	P	21 23 45.5	-0.1
ISA				*e*		21 25 01.4	
ISA	**Isabella**	50.66	311	⇓P	P	21 23 45.7	+0.1
	baz=51,SNR=26						
ISA	**Isabella**	50.66	311	*e*P	P	21 23 45.5	0.0
ISA				*e*PcP	PcP	21 25 01.4	+0.7
ISA				*e*ScP	ScP	21 28 43.4	+1.7
ELK	**Elko**	50.68	319	*e*P	P	21 23 45.5	-0.1
ELK				*e*		21 25 01.8	
ELK				pmax	pmax		
	comp=Z,59nm,1.1s						
ELK	**Elko**	50.68	319	*e*P	P	21 23 45.5	0.0
	comp=Z,59nm,1.1s,mb5.1						
ELK				*e*PcP	PcP	21 25 01.8	+1.2
I15A	**Monteview**	50.71	324	⇓P	P	21 23 46.3	+0.5
	baz=51,SNR=13						
ARVC	**Arvin**	50.72	310	⇑P	P	21 23 46.0	0.0
	baz=51,SNR=14						
R09A	**Tonopah**	50.74	315	⇑P	P	21 23 46.1	+0.1
	baz=51,SNR=72						
TPH	**Tonopah**	50.77	315	*e*P	P	21 23 46.4	+0.1
TPH				*e*		21 25 41.7	
F17A	**Fitzpatrick Pl**	50.81	327	⇑P	P	21 23 46.7	+0.2
	baz=51,SNR=91						
E18A	**Harlowton**	50.83	328	⇑P	P	21 23 46.7	+0.2
	baz=51,SNR=88						
K13A	**Stover Farm, H**	50.93	321	⇓P	P	21 23 47.0	-0.4
	baz=51,SNR=26						
J14A	**Carey**	50.95	322	⇓P	P	21 23 48.0	+0.5
	baz=51,SNR=276						
P10A	**Eureka**	50.95	317	⇓P	P	21 23 47.4	-0.2
	baz=51,SNR=51						
G16A	**Moss Hill, Enn**	51.04	325	⇓P	P	21 23 48.5	+0.4
	baz=51,SNR=63						
N11A	**Elko Archery C**	51.04	318	⇓P	P	21 23 48.0	-0.3
	baz=51,SNR=5.5						
Q09A	**Carvers**	51.08	315	⇑P	P	21 23 48.9	+0.3
	baz=51,SNR=6.1						
H15A	**Lima**	51.16	324	⇓P	P	21 23 50.1	+1.0
	baz=51,SNR=197						
D18A	**Linhart Farms,**	51.17	328	⇓P	P	21 23 49.5	+0.4
	baz=51,SNR=26						
BOZ	**Bozeman (W)**	51.19	326	*e*P	P	21 23 49.6	+0.3
BOZ				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.3						
BOZ	**Bozeman (W)**	51.19	326	⇓P	P	21 23 49.3	0.0
	baz=51,SNR=103						
BOZ	**Bozeman (W)**	51.19	326	*e*P	P	21 23 49.6	+0.3
	comp=Z,80nm,0.9s,mb5.3						
VES	**Vestal, Richgr**	51.19	311	P	P	21 23 49.9	+0.4
	baz=51,SNR=36						
I14A	**Mackay**	51.25	323	⇓P	P	21 23 50.1	+0.4
	baz=51,SNR=67						
L12A	**House Creek Ra**	51.25	320	P	P	21 23 50.0	+0.2
	baz=51,SNR=55						
E17A	**Martinsdale**	51.27	327	⇑P	P	21 23 49.9	+0.1
	baz=51,SNR=143						
F16A	**Kennard Place,**	51.27	326	⇑P	P	21 23 49.9	0.0
	baz=51,SNR=36						
O10A	**Cortez Mining,**	51.29	317	⇑P	P	21 23 50.0	-0.1
	baz=51,SNR=10						
P09A	**Austin**	51.38	316	⇑P	P	21 23 50.7	-0.1
	baz=51,SNR=21						
M11A	**Holland Ranch,**	51.38	319	⇑P	P	21 23 50.9	+0.1
	baz=51,SNR=79						
J13A	**Cove Ranch, Pi**	51.39	322	⇑P	P	21 23 50.9	0.0
	baz=52,SNR=113						
G15A	**Dillon**	51.39	325	⇓P	P	21 23 51.2	+0.4
	baz=52,SNR=33						
MCMT	**McKenzie Canyo**	51.40	324	*e*P	P	21 23 51.7	+0.8
	comp=Z,109nm,1.1s,mb5.4						
K12A	**Draper Farm, C**	51.43	321	⇓P	P	21 23 51.0	-0.2
	baz=52,SNR=60						
R08A	**Mina**	51.52	315	⇓P	P	21 23 52.2	+0.3
	baz=52,SNR=17						
DLMT	**Dillon**	51.57	325	*e*P	P	21 23 52.2	+0.1
	comp=Z,146nm,1.3s,mb5.5						
DLMT				*e*PP	PP	21 25 49.8	-1.4
D17A	**Six Diamond Ra**	51.61	328	⇓P	P	21 23 52.3	0.0
	baz=52,SNR=124						
Q08A	**Gabbs**	51.62	315	⇓P	P	21 23 52.6	0.0
	baz=52,SNR=65						
HLID	**Hailey**	51.63	322	⇑P	P	21 23 52.4	-0.2
	baz=52,SNR=115						
HLID	**Hailey**	51.63	322	*e*P	P	21 23 52.8	+0.2
I13A	**Wildhorse Cree**	51.64	323	⇑P	P	21 23 52.9	+0.3
	baz=52,SNR=131						
SMMC	**Simmler**	51.68	310	⇑P	P	21 23 53.3	+0.2
	baz=52,SNR=16						
EGMT	**Eagleton**	51.68	329	P	P	21 23 52.9	0.0
	baz=52,SNR=53						
EGMT	**Eagleton**	51.68	329	*e*P	P	21 23 52.8	-0.1
	comp=Z,174nm,1.2s,mb5.6						
NVAR	**Mina Array Bea**	51.69	315	P	P	21 23 53.5	+0.4
	comp=Z,30nm,0.8s,mb5.0,baz=122,slow=6.8,SNR=163						
NVAR				PcP	PcP	21 25 05.0	+0.6
	comp=Z,13nm,0.8s,baz=131,slow=4.9,SNR=6.2						
NVAR				ScP	ScP	21 28 46.8	+0.6
	comp=Z,2.9nm,0.8s,baz=133,slow=4.8,SNR=4.4						
O09A	**Fish Creek Ran**	51.70	317	⇑P	P	21 23 53.4	+0.2
	baz=52,SNR=113						
L11A	**Cat Creek Ranc**	51.73	320	⇓P	P	21 23 53.4	0.0
	baz=52,SNR=206						
MLAC	**Mammoth Lakes**	51.73	313	⇑P	P	21 23 53.6	+0.1
	baz=52,SNR=6.3						
E16A	**East Helena**	51.76	327	⇓P	P	21 23 53.1	-0.3
	baz=52,SNR=68						
LRM	**Limekiln Ridge**	51.76	325	*e*P	P	21 23 53.4	-0.1
	comp=Z,316nm,0.7s,mb6.0						
F15A	**Butte**	51.79	325	⇑P	P	21 23 53.6	-0.2
	baz=52,SNR=98						
BMN	**Battle Mountai**	51.84	317	*e*P	P	21 23 53.9	-0.4
BMN				*e*		21 25 54.6	
BMN				pmax	pmax		
	comp=Z,93nm,1.1s,mb5.3						
BMN	**Battle Mountai**	51.84	317	*e*P	P	21 23 53.9	-0.3
	comp=Z,93nm,1.1s,mb5.3						
BMN				*e*pP	pP	21 24 27.3	-3.6
BMN				*e*PP	PP	21 25 54.6	+0.8
J12A	**Stokes Ranch,**	51.88	321	⇓P	P	21 23 54.2	-0.3
	baz=52,SNR=62						
M10A	**I.L. Ranch, Tu**	51.92	319	⇓P	P	21 23 54.2	-0.5
	baz=52,SNR=34						
B18A	**Beardsley Farm**	51.93	329	⇓P	P	21 23 54.8	+0.1
	baz=52,SNR=128						
HRY	**Holter Researc**	51.95	327	*e*P	P	21 23 55.1	+0.2
	comp=Z,83nm,0.6s,mb5.5						
HRY				*e*pP	pP	21 24 28.9	-2.8
HRY				*e*sP	sP	21 24 38.3	-11
C17A	**Wharram Farm,**	51.95	328	⇑P	P	21 23 54.7	-0.2
	baz=52,SNR=89						
D16A	**Dana Ranch, Ca**	51.99	327	⇑P	P	21 23 55.1	-0.1
	baz=52,SNR=90						
G14A	**Jackson**	52.00	324	⇓P	P	21 23 55.3	0.0
	baz=52,SNR=28						
H13A	**Challis**	52.08	323	⇑P	P	21 23 55.7	-0.2
	baz=52,SNR=74						
P08A	**Dixie Valley**	52.09	316	⇓P	P	21 23 55.7	-0.4
	baz=52,SNR=6.3						
L10A	**Juniper Basin**	52.15	319	⇑P	P	21 23 56.5	+0.1
	baz=52,SNR=207						
I12A	**Atlanta**	52.19	322	P	P	21 23 56.8	0.0
	baz=52,SNR=157						
K11A	**Parker Ranch,**	52.22	320	⇓P	P	21 23 56.9	0.0
	baz=52,SNR=98						
E15A	**Deer Lodge**	52.22	326	⇑P	P	21 23 57.0	0.0
	baz=52,SNR=112						
N09A	**Rock Creek Ran**	52.25	318	⇑P	P	21 23 57.0	-0.2
	baz=52,SNR=62						
F14A	**Wisdom**	52.27	325	⇓P	P	21 23 57.5	+0.2
	baz=52,SNR=52						
A18A	**Metzger Ranch,**	52.31	330	⇑P	P	21 23 57.6	+0.1
	baz=52,SNR=85						
G13A	**Cobalt**	52.36	324	⇑P	P	21 23 57.7	-0.3
	baz=52,SNR=131						
B17A	**L&G Farms, Che**	52.39	329	⇑P	P	21 23 57.8	-0.3
	baz=52,SNR=22						
O08A	**Rochester Mine**	52.41	317	⇑P	P	21 23 57.8	-0.7
	baz=52,SNR=19						
MFID	**Camas Ranch**	52.42	321	⇓P	P	21 23 58.4	0.0
	baz=52,SNR=162						
H12A	**Diamond D Ranc**	52.43	323	⇓P	P	21 23 58.7	+0.2
	baz=52						
M09A	**Marrel Ranch,**	52.47	318	⇓P	P	21 23 58.8	0.0
	baz=52,SNR=26						
D15A	**Lincoln**	52.53	327	⇑P	P	21 23 59.7	+0.5
	baz=53,SNR=73						
R06C	**Coleville**	52.54	314	⇑P	P	21 23 59.9	+0.5
	baz=53,SNR=25						
C16A	**Fuhringer Ranc**	52.57	328	P	P	21 23 59.3	-0.2
	baz=53,SNR=78						
N08A	**GE Springer Mi**	52.62	317	⇓P	P	21 23 59.2	-0.8
	baz=53,SNR=24						
E14A	**Clinton**	52.69	326	⇓P	P	21 24 00.4	0.0
	baz=53,SNR=84						
K10A	**MacKenzie Ranc**	52.75	320	⇑P	P	21 24 00.9	0.0
	baz=53,SNR=122						
A17A	**Triple J Farms**	52.76	329	⇑P	P	21 24 00.8	0.0
	baz=53,SNR=79						
I11A	**Placerville**	52.76	322	⇑P	P	21 24 00.8	-0.2
	baz=53,SNR=62						
F13A	**Darby**	52.81	324	P	P	21 24 01.1	-0.1
	baz=53,SNR=132						
O07A	**Toulon**	52.85	316	⇑P	P	21 24 00.5	-1.1
	baz=53,SNR=45						
CHMT	**Chamberlain Mo**	52.85	326	*e*P	P	21 24 01.3	-0.2
	comp=Z,18nm,1.1s,mb4.7						
CHMT				*e*PP	PP	21 26 01.4	-1.3
L09A	**Wilkinson Ranc**	52.90	319	⇑P	P	21 24 01.9	-0.1
	baz=53,SNR=45						
B16A	**M & M Farms, S**	52.94	328	⇓P	P	21 24 01.7	-0.5
	baz=53,SNR=36						
J10A	**Berg Farm, Mel**	53.01	321	⇑P	P	21 24 02.3	-0.5
	baz=53,SNR=6.4						
C15A	**Salmond Ranch,**	53.02	327	⇑P	P	21 24 02.8	+0.1
	baz=53,SNR=49						
CMB	**Columbia Colle**	53.02	313	*e*P	P	21 24 02.4	-0.5
CMB				*e*		21 25 10.2	
CMB	**Columbia Colle**	53.02	313	*e*P	P	21 24 02.4	-0.5
CMB				*e*PcP	PcP	21 25 10.2	+0.7
CMB				*e*ScP	ScP	21 28 53.2	+1.3
G12A	**Big Creek, Yel**	53.03	323	⇓P	P	21 24 02.8	0.0
	baz=53						
WCN	**Washoe City**	53.09	315	⇓P	P	21 24 03.3	-0.1
	baz=53,SNR=29						
D14A	**Greenough**	53.09	326	⇑P	P	21 24 02.9	-0.4
	baz=53,SNR=43						
M08A	**Happy Creek Ra**	53.09	318	⇓P	P	21 24 03.3	-0.1
	baz=53,SNR=75						
E13A	**Victor**	53.10	325	⇓P	P	21 24 03.0	-0.4
	baz=53,SNR=34						
SLMT	**Seeley Lake**	53.18	326	*e*P	P	21 24 03.7	-0.2
	comp=Z,64nm,1.1s,mb5.3						
MSO	**Missoula**	53.19	326	*e*P	P	21 24 03.8	-0.2
	comp=Z,40nm,1.1s,mb5.1						
N07B	**Gerlach**	53.19	317	⇓P	P	21 24 03.1	-1.1
	baz=53,SNR=56						
H11A	**Donnelly**	53.21	323	⇓P	P	21 24 03.6	-0.6
	baz=53,SNR=84						
A16A	**West Butte Ran**	53.22	329	⇑P	P	21 24 04.1	-0.1
	baz=53,SNR=114						
FFC	**Flin Flon**	53.23	339	P	P	21 24 03.7	-0.4
	comp=Z,514nm,0.6s,mb6.4,SNR=50						
FFC	**Flin Flon**	53.23	339	*i* P	P	21 24 03.5	-0.6
FFC	**Flin Flon**	53.23	339	*e*P	P	21 24 03.4	-0.7
	comp=Z,130nm,1.1s,mb5.6						
K09A	**Rome**	53.26	320	P	P	21 24 05.0	+0.3
	baz=53,SNR=251						
SAO	**San Andreas Ge**	53.31	311	*e*P	P	21 24 04.4	-0.7
SAO				pmax	pmax		
	comp=Z,77nm,1.3s,mb5.3						
SAO	**San Andreas Ge**	53.31	311	*e*P	P	21 24 04.4	-0.7
	comp=Z,77nm,1.3s,mb5.3						
B15A	**Bradely Ranch,**	53.32	328	⇑P	P	21 24 04.5	-0.5
	baz=53,SNR=34						
F12A	**Elk City**	53.33	324	⇑P	P	21 24 04.8	-0.2
	baz=53,SNR=100						
P06A	**Stead Airport,**	53.35	315	⇑P	P	21 24 05.7	+0.4
	baz=53,SNR=24						
I10A	**Payette**	53.37	321	⇓P	P	21 24 04.9	-0.5
	baz=53,SNR=6.0						
L08A	**Fields**	53.42	319	⇓P	P	21 24 06.0	+0.2
	baz=54,SNR=363						
O06A	**Flanigan**	53.51	316	⇓P	P	21 24 05.8	-0.6
	baz=54,SNR=30						
J09A	**Fry Pan Ranch,**	53.60	320	⇑P	P	21 24 06.8	-0.3
	baz=54,SNR=109						
H10A	**Noah’s Angus R**	53.60	322	⇓P	P	21 24 05.7	-1.4
	baz=54,SNR=53						
M07A	**Soldier Meadow**	53.60	317	⇑P	P	21 24 06.5	-0.6
	baz=54,SNR=116						
SWMT	**Swartz Lake**	53.61	326	*e*P	P	21 24 03.7	-3.4
	comp=Z,83nm,1.7s,mb5.2						
C14A	**Swan Lake**	53.63	327	⇓P	P	21 24 07.2	0.0
	baz=54						
D13A	**Huson**	53.63	326	⇑P	P	21 24 07.0	-0.2
	baz=54,SNR=114						
WVOR	**Wild Horse Val**	53.73	319	*e*P	P	21 24 08.0	0.0
WVOR				*e*		21 25 13.3	
WVOR				pmax	pmax		
	comp=Z,219nm,1.2s,mb5.8						
WVOR	**Wild Horse Val**	53.73	319	*e*P	P	21 24 08.0	0.0
	comp=Z,219nm,1.2s,mb5.8						
WVOR				*e*PcP	PcP	21 25 13.3	+1.3
BEKR	**Beckwourth**	53.75	315	⇓P	P	21 24 08.2	-0.1
	baz=54,SNR=65						
N06A	**Buffalo Meadow**	53.76	317	⇓P	P	21 24 07.4	-0.9
	baz=54,SNR=32						
K08A	**Mann Creek Ran**	53.77	319	⇑P	P	21 24 08.2	-0.1
	baz=54,SNR=30						
A15A	**Johnson Ranch,**	53.82	328	P	P	21 24 08.4	-0.1
	baz=54,SNR=72						
YBMT	**Yellow Bay**	53.83	327	*e*P	P	21 24 05.9	-2.7
	comp=Z,154nm,1.2s,mb5.6						
I09A	**Lost Marbles R**	53.90	321	⇓P	P	21 24 08.4	-0.8
	baz=54,SNR=6.5						
JTMT	**Jette**	53.91	326	*e*P	P	21 24 06.8	-2.4
	comp=Z,75nm,0.9s,mb5.4						
F11A	**Grangeville**	53.93	324	⇓P	P	21 24 08.6	-0.8
	baz=54						
L07A	**Adell**	54.00	318	⇑P	P	21 24 09.9	-0.1
	baz=54,SNR=142						
C13A	**Hot Springs**	54.03	326	⇓P	P	21 24 09.8	-0.3
	baz=54,SNR=126						
J08A	**Circle Bar Ran**	54.06	320	⇓P	P	21 24 09.9	-0.5
	baz=54,SNR=56						
BMO	**Blue Mountains**	54.07	322	*e*P	P	21 24 09.3	-1.2
BMO				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.9						
BMO	**Blue Mountains**	54.07	322	*e*P	P	21 24 09.3	-1.2
	comp=Z,16nm,0.7s,mb4.9						
BMO				*e*PP	PP	21 26 10.9	-2.9
A14A	**Double T Ranch**	54.17	328	⇑P	P	21 24 10.3	-0.8
	baz=54,SNR=33						
G10A	**Bishop Farm, J**	54.19	323	P	P	21 24 10.7	-0.6
	baz=54,SNR=130						
H09A	**Durkee**	54.20	322	P	P	21 24 10.4	-1.0
	baz=54,SNR=17						
E11A	**Bogner Ranch,**	54.21	324	⇑P	P	21 24 10.7	-0.8
	baz=54,SNR=145						
K07A	**Rock Creek Ran**	54.24	319	⇑P	P	21 24 11.3	-0.4
	baz=54,SNR=71						
BSMT	**Bassoo Peak**	54.25	326	*e*P	P	21 24 09.3	-2.3
	comp=Z,143nm,1.2s,mb5.6						
B13A	**Whitefish**	54.38	327	⇓P	P	21 24 12.2	-0.4
	baz=54,SNR=52						
FCC	**Fort Churchill**	54.39	347	*e*P	P	21 24 12.1	-0.4
FCC				*e*		21 26 16.6	
I08A	**Drewsey**	54.39	321	P	P	21 24 12.0	-0.8
	baz=54,SNR=26						
WALA	**Waterton Lakes**	54.48	328	*e*P	P	21 24 12.8	-0.5
WALA				*e*PcP	PcP	21 25 16.4	+1.6
C12B	**Naegeli Ranch,**	54.55	326	⇑P	P	21 24 13.8	0.0
	baz=55,SNR=133						
G09A	**Cove**	54.58	322	⇓P	P	21 24 13.4	-0.8
	baz=55,SNR=42						
MOD	**Modoc**	54.59	318	*e*P	P	21 24 13.0	-1.2
MOD				PP	PP	21 26 14.9	-3.4
J07A	**Hines**	54.60	320	⇑P	P	21 24 13.8	-0.5
	baz=55,SNR=17						
F10A	**Beach Ranch, E**	54.61	323	⇓P	P	21 24 13.8	-0.5
	baz=55,SNR=97						
D11A	**Klaveano Farm,**	54.66	325	⇓P	P	21 24 14.3	-0.4
	baz=55						
H08A	**Prairie City**	54.75	321	⇓P	P	21 24 14.7	-0.6
	baz=55,SNR=78						
E10A	**Myers Farm, Un**	54.81	324	⇓P	P	21 24 14.9	-0.9
	baz=55,SNR=46						
MCCM	**Marconi Confer**	54.88	312	*e*P	P	21 24 16.4	0.0
	comp=Z,90nm,1.1s,mb5.4						
MCCM				*e*PcP	PcP	21 25 15.4	-1.2
B12A	**Libby**	55.04	327	⇓P	P	21 24 17.4	0.0
	baz=55,SNR=18						
I07A	**Izee**	55.06	320	⇓P	P	21 24 17.2	-0.5
	baz=55,SNR=91						
J06A	**Christmas Vall**	55.09	319	⇓P	P	21 24 16.9	-1.0
	baz=55,SNR=57						
D10A	**Wagner Farm, O**	55.21	324	⇑P	P	21 24 17.7	-0.9
	baz=55,SNR=84						
G08A	**Pilot Rock**	55.31	322	⇓P	P	21 24 19.4	0.0
	baz=55,SNR=274						
HOPS	**Hopland**	55.33	313	*e*P	P	21 24 19.8	+0.1
	comp=Z,82nm,1.3s,mb5.3						
A12A	**Yaak River Ran**	55.34	327	⇑P	P	21 24 20.0	+0.5
	baz=55,SNR=175						
K05A	**Summer Lake**	55.34	318	⇑P	P	21 24 18.9	-0.7
	baz=55,SNR=22						
H07A	**Lands Inn, Kim**	55.34	321	⇓P	P	21 24 19.0	-0.6
	baz=55,SNR=98						
E09A	**Wood Farm, Sta**	55.43	323	⇓P	P	21 24 19.9	-0.4
	baz=56,SNR=71						
F08A	**Pendleton**	55.45	322	P	P	21 24 19.6	-0.7
	baz=56,SNR=47						
I06A	**Prineville**	55.45	320	⇓P	P	21 24 20.3	-0.1
	baz=56						
B11A	**Sandpoint**	55.45	326	⇓P	P	21 24 20.2	-0.1
	baz=56,SNR=34						
C10A	**Spilker Farm,**	55.64	325	⇓P	P	21 24 21.3	-0.3
	baz=56,SNR=6.2						
G07A	**Ruggs Ranch, H**	55.73	321	⇑P	P	21 24 21.6	-0.8
	baz=56,SNR=58						
A11A	**Hall Mountain,**	55.74	327	⇓P	P	21 24 22.6	+0.2
	baz=56,SNR=63						
LHEM	**Herd Peak**	55.77	317	P	P	21 24 22.5	-0.2
NEW	**Newport**	55.77	326	*e*P	P	21 24 21.6	-1.0
NEW				*e*		21 25 20.9	
D09A	**Jones Farm, Ri**	55.81	324	⇑P	P	21 24 22.1	-0.8
	baz=56,SNR=7.5						
B10A	**Chitwood Farm,**	55.85	326	⇑P	P	21 24 22.5	-0.7
	baz=56						
H06A	**Lindquist Farm**	55.90	321	⇓P	P	21 24 23.7	+0.1
	baz=56,SNR=49						
E08A	**Dider Farm, El**	55.97	323	⇑P	P	21 24 23.6	-0.4
	baz=56,SNR=9.9						
VIPM	**Ingram Point**	55.97	320	P	P	21 24 24.4	+0.3
BUOR	**Burton Butte**	56.05	317	P	P	21 24 24.7	0.0
YBH	**Yreka Blue Hor**	56.14	316	*e*P	P	21 24 23.7	-1.7
YBH						21 25 16.2	
YBH				pmax	pmax		
	comp=Z,26nm,0.6s						
YBH	**Yreka Blue Hor**	56.14	316	*e*P	P	21 24 23.7	-1.7
	comp=Z,26nm,0.6s,mb5.2						
YBH				PcP	PcP	21 25 16.2	-5.2
D08A	**Wollman Farm,**	56.17	324	⇑P	P	21 24 25.3	-0.2
	baz=56,SNR=32						
C09A	**Chrisman Ranch**	56.18	325	P	P	21 24 25.5	0.0
	baz=56,SNR=53						
F07A	**Phinny Hill Vi**	56.20	322	⇑P	P	21 24 25.5	-0.2
	baz=56,SNR=14						
HAWA	**Hanford**	56.20	323	*e*P	P	21 24 25.2	-0.5
	comp=Z,50nm,1.2s,mb5.2						
HAWA				*e*pP	pP	21 24 59.1	-3.8
G06A	**Carlson Farm,**	56.32	321	⇓P	P	21 24 25.9	-0.7
	baz=56						
A10A	**Northport**	56.41	326	⇑P	P	21 24 26.3	-0.8
	baz=56,SNR=54						
CROR	**Criterion Ridg**	56.42	321	P	P	21 24 28.3	+1.0
B09A	**Rice**	56.44	325	⇑P	P	21 24 26.6	-0.7
	baz=56,SNR=56						
E07A	**Sunnyside**	56.48	323	⇑P	P	21 24 27.4	-0.2
	baz=56,SNR=20						
C08A	**Higginbotham F**	56.62	324	⇑P	P	21 24 28.1	-0.5
	baz=57,SNR=41						
F06A	**Goldendale**	56.66	322	⇑P	P	21 24 29.1	+0.1
	baz=57,SNR=79						
HUMO	**Hull Mountain**	56.67	317	*e*P	P	21 24 27.0	-2.0
	comp=Z,10nm,0.7s,mb4.8						
G05A	**Wamic**	56.75	321	⇓P	P	21 24 30.4	+0.8
	baz=57,SNR=22						
EDM	**Edmonton**	56.79	332	*e*P	P	21 24 28.9	-0.8
D07A	**Quincy**	56.86	323	⇓P	P	21 24 30.6	+0.2
	baz=57,SNR=44						
A09A	**Danville**	56.98	326	⇓P	P	21 24 30.5	-0.6
	baz=57,SNR=28						
HOOD	**Mount Hood Mea**	56.99	321	*e*P	P	21 24 31.9	+0.6

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          comp=Z,331nm,1.1s,mb6.1
HOOD                                ePP     PP      21 26 37.9 -1.9
H04A  Detroit Lake     57.05 320  ⇑P      P       21 24 31.5 -0.2
          baz=57,SNR=61
B08A  Colville Reser   57.08 325  ⇑P      P       21 24 31.4 -0.4
          baz=57,SNR=86
E06A  Yakima           57.15 322  ⇑P      P       21 24 32.6 +0.3
          baz=57,SNR=19
C07A  Waterville       57.16 324  ⇓P      P       21 24 32.0 -0.4
          baz=57,SNR=50
TBM   Table Mountain   57.22 323   P      P       21 24 33.5 +0.6
A08A  Turner Farm, O   57.35 325  ⇑P      P       21 24 33.3 -0.4
          baz=57,SNR=52
D06A  Cle Elum         57.38 323  ⇑P      P       21 24 34.2 +0.3
          baz=57,SNR=22
G04A  Mulino           57.46 320  ⇓P      P       21 24 32.9 -1.8
          baz=58,SNR=20
B07A  Winthrop         57.58 325  ⇓P      P       21 24 34.7 -0.6
          baz=58,SNR=29
COR   Corvallis        57.72 319  eP      P       21 24 36.1 -0.4
COR                                pmax   pmax
          comp=Z,208nm,1.3s,mb5.8
COR   Corvallis        57.72 319  eP      P       21 24 36.1 -0.3
          comp=Z,208nm,1.3s,mb5.8
LON   Longmire         57.75 322  eP      P       21 24 36.7 +0.1
LON                               e               21 26 45.0
LON                                pmax   pmax
          comp=Z,41nm,0.9s,mb5.3
LON   Longmire         57.75 322  eP      P       21 24 36.7 +0.1
          comp=Z,41nm,0.9s,mb5.3
LON                               ePP     PP      21 26 45.0 -1.4
F04A  Amboy            57.75 321  ⇓P      P       21 24 35.9 -0.7
          baz=58,SNR=13
C06A  Tall Timber Ra   57.76 324  ⇓P      P       21 24 36.3 -0.3
          baz=58,SNR=11
A07A  Ashnola River,   58.03 325  ⇓P      P       21 24 38.5  0.0
          baz=58,SNR=52
D05A  Enumclaw         58.06 323  ⇑P      P       21 24 38.3 -0.4
          baz=58,SNR=28
C05A  Tolt Reservoir   58.12 323  ⇓P      P       21 24 38.2 -0.9
          baz=58,SNR=13
HEBO  Mount Hebo       58.28 320  eP      P       21 24 40.9 +0.6
          comp=Z,214nm,1.1s,mb5.9
B06A  Marblemount      58.40 324  ⇑P      P       21 24 40.1 -1.0
          baz=58,SNR=6.5
F03A  Seaside          58.46 321  ⇓P      P       21 24 41.7 +0.1
          baz=58,SNR=14
JCW   Jim Creek        58.50 324  eP      P       21 24 40.4 -1.4
B05A  Bryant           58.63 324  ⇑P      P       21 24 41.1 -1.6
          baz=59,SNR=10
E03A  Lebam            58.73 321  ⇓P      P       21 24 43.5 +0.1
          baz=59,SNR=26
C04A  Brinnon          58.90 323  ⇓P      P       21 24 44.0 -0.5
          baz=59,SNR=22
A05A  Maple Falls      58.98 324  ⇓P      P       21 24 44.2 -0.9
          baz=59,SNR=8.4
NLWA  Neilton Lookou   59.30 322  ⇑P      P       21 24 47.5 +0.2
          baz=59,SNR=27
NLWA  Neilton Lookou   59.30 322  eP      P       21 24 48.2 +1.0
          comp=Z,149nm,1.1s,mb5.7
PGC   Sidney           59.61 324  eP      P       21 24 49.3 -0.1
          comp=Z,8.4nm,1.4s,mb4.4
SFJD  Kangerlussuaq    62.05  10  i P     P       21 25 05.0 -0.5
SFJD                               pmax   pmax
          comp=Z,27nm,0.9s,mb5.1
SFJD  Kangerlussuaq    62.05  10  i P     P       21 25 05.0 -0.5
          comp=Z,27nm,0.9s,mb5.1
YKA   Yellowknife Ar   63.40 340   P      P       21 25 14.2 -0.4
YKA                                *PP    pP      21 25 50.5 -2.2
YKA                                S      S       21 33 33.0 -1.1
YKA   Yellowknife Ar   63.40 340   P      P       21 25 14.1 -0.4
          comp=Z,125nm,0.6s,mb5.9,baz=132,slow=6.8,SNR=2241
YKA                                pP     pP      21 25 50.5 -2.1
          comp=Z,14nm,0.6s,baz=129,slow=6.7,SNR=2.2
YKA                                S      S       21 33 33.0 -1.2
          comp=Z,1.2nm,0.9s,baz=131,slow=13,SNR=4.6
YKA                                LR     LR      21 53 08.2
          comp=Z,171nm,19.2s,baz=355,slow=36
YKA                                P4KPbc         22 02 10.3
          comp=Z,0.3nm,0.6s,baz=121,slow=4.1,SNR=5.5
YKA   Yellowknife Ar   63.40 340   P      P       21 25 14.2 -0.4
YKA                                pP     pP      21 25 50.5 -2.1
YKA                                S      S       21 33 33.0 -1.2
YKA                                LR     LR      21 53 08.2
TIC   Toumodi          67.35  86  eP      P       21 25 40.9  0.0
          comp=Z,100nm,0.7s,mb5.8
LIC   Lamto            67.38  86⇑iP      P       21 25 41.1  0.0
          comp=Z,116nm,0.7s,mb5.5,baz=273
LIC   Lamto            67.38  86  eP      P       21 25 41.2 +0.1
          comp=Z,194nm,0.7s,mb6.1
LIC   Lamto            67.38  86⇑iP      P       21 25 41.1  0.0
          comp=Z,58nm,0.7s,mb5.5
DLBC  Dease Lake       67.49 331  eP      P       21 25 41.4 +0.5
DBIC  Dimbokro         67.51  86  eP      P       21 25 41.9  0.0
DBIC                              e       pP      21 26 22.7 +2.3
DBIC                               pmax   pmax
          comp=Z,43nm,0.7s
DBIC  Dimbokro         67.51  86   P      P       21 25 41.5 -0.4
          comp=Z,45nm,0.7s,mb5.3,baz=264,slow=6.7,SNR=95
DBIC                               pP     pP      21 26 22.9 +2.5
          comp=Z,47nm,1.0s,baz=247,slow=4.6,SNR=6.6
DBIC                               S      S       21 34 24.2 -1.7
          comp=Z,5.5nm,1.1s,baz=147,slow=20,SNR=5.8
DBIC  Dimbokro         67.51  86  eP      P       21 25 41.9  0.0
          comp=Z,43nm,0.7s,mb5.3
DBIC                              e       pP      21 26 22.7 +2.2
RKT   Rikitea          67.52 242  eP      P       21 25 41.7  0.0
          comp=Z,40nm,0.9s,mb5.1
RKT   Rikitea          67.52 242  eP      P       21 25 41.7  0.0
RKT                                pmax   pmax
          comp=Z,40nm,0.9s,mb5.2
KIC   Kosan Boka       67.65  86  eP      P       21 25 42.8  0.0
          comp=Z,339nm,0.7s,mb6.2
SUMG  Summit           69.01  11  eP      P       21 25 51.0 +0.9
          comp=Z,256nm,0.7s,mb6.1
RES   Resolute Bay     69.06 354  eP      P       21 25 50.1 -0.3
RES                                pmax   pmax
          comp=Z,2.0nm,0.6s,mb4.0
RES   Resolute Bay     69.06 354   P      P       21 25 50.3 -0.1
          comp=Z,16nm,0.8s,mb4.8,baz=172,slow=8.5,SNR=83
RES   Resolute Bay     69.06 354  eP      P       21 25 50.1 -0.3
          comp=Z,1.6nm,0.6s,mb3.9
ESDC  Sonseca Array    69.52  50   P      P       21 25 53.7 -0.2
          comp=Z,1.3nm,0.6s,mb3.9,baz=264,slow=5.9,SNR=5.1
ESDC                               pP     pP      21 26 32.7  0.0
          comp=Z,5.0nm,0.8s,baz=261,slow=6.6,SNR=6.3
ESDC                               PKPPKP         21 53 59.4
          comp=Z,0.4nm,0.6s,baz=34,slow=1.8,SNR=5.1
ESDC  Sonseca Array    69.52  50   P      P       21 25 53.7 -0.2
ESDC                               pP     pP      21 26 32.7  0.0
ESDC                               P'P'           21 53 59.4
SKAG  Skagway          70.42 331  eP      P       21 25 59.7 +0.8
SCO   Scoresbysund     71.31  16  i P     P       21 26 04.5 +0.3
SCO                                pmax   pmax
          comp=Z,4.0nm,1.1s,mb4.1
SCO   Scoresbysund     71.31  16  i P     P       21 26 04.5 +0.3
          comp=Z,3.5nm,1.1s,mb4.0
QUIF  Quistinic        71.46  42  eP      P       21 26 04.6 -0.9
ROSF  Rostrenen        71.47  41  eP      P       21 26 05.1 -0.4
          comp=Z,46nm,1.0s,mb4.9
ROSF  Rostrenen        71.47  41  eP      P       21 26 05.1 -0.4
ROSF                               pmax   pmax
          comp=Z,23nm,1.0s,mb4.9
ROSF  Rostrenen        71.47  41  eP      P       21 26 05.1 -0.4
          comp=Z,23nm,1.0s,mb4.9
PMSA  Palmer Station   71.64 176   P      P       21 26 05.9 -0.3
SGMF  Saint Gilles     71.92  41  eP      P       21 26 07.9 -0.3
          comp=Z,29nm,0.8s,mb4.8
SGMF                              epP     pP      21 26 47.8 +0.6
SGMF  Saint Gilles     71.92  41  eP      P       21 26 07.9 -0.3
SGMF                              e*PP    pP      21 26 47.8 +0.6
SGMF                               pmax   pmax
          comp=Z,15nm,0.8s,mb4.8
SGMF  Saint Gilles     71.92  41  eP      P       21 26 07.9 -0.3
          comp=Z,15nm,0.8s,mb4.8
SGMF                              epP     pP      21 26 47.8 +0.6
GAL1  Galloway         72.01  34  eP      P       21 26 08.5 -0.1
GAL1                               AMb    AMB     21 26 09.1
          comp=Z,39nm,1.3s,mb5.0
SJPF  Ste Jean         72.04  47  eP      P       21 26 08.3 -0.7
SJPF                              epP     pP      21 26 50.2 +2.2
MCH1  Michaelchurch    72.36  38  eP      P       21 26 09.7 -1.1
MCH1                               AMb    AMB     21 26 17.9
          comp=Z,54nm,1.7s,mb5.0
KAC   Achnashellach    72.38  32  eP      P       21 26 10.2 -0.6
ETSF  Etsaut           72.50  47  eP      P       21 26 11.5 -0.3
MDO   Dochfour         72.85  32  eP      P       21 26 13.6  0.0
EAU   Auchinoon        72.95  34  eP      P       21 26 14.5 +0.3
ESK   Eskdalemuir      72.96  34  eP      P       21 26 14.0 -0.2
ESK                                AMb    AMB     21 26 15.1
          comp=Z,50nm,1.6s,mb5.0
ESK   Eskdalemuir      72.96  34  eP      P       21 26 14.8 +0.6
ECK   Cauldkaine Hil   72.97  34  eP      P       21 26 13.9 -0.4
EBH   Black Hill       73.01  33  eP      P       21 26 14.6 +0.1
GRR   Gorron           73.06  42  eP      P       21 26 14.6 -0.4
          comp=Z,24nm,0.6s,mb4.8
GRR                               epP     pP      21 26 54.6 +0.5
GRR   Gorron           73.06  42  eP      P       21 26 14.6 -0.4
GRR                               e*PP    pP      21 26 54.6 +0.5
GRR                                pmax   pmax
          comp=Z,12nm,0.6s,mb4.8
GRR   Gorron           73.06  42  eP      P       21 26 14.6 -0.4
          comp=Z,12nm,0.6s,mb4.8
GRR                               epP     pP      21 26 54.6 +0.5
EBL   Broad Law        73.16  34  eP      P       21 26 14.6 -0.7
EPF   Esparros         73.17  47  eP      P       21 26 15.1 -0.6
KWE   Weaver Farm      73.26  37  eP      P       21 26 16.0  0.0
MFF   Saint Martin d   73.28  43  eP      P       21 26 16.1 -0.2
          comp=Z,28nm,0.7s,mb4.8
MFF   Saint Martin d   73.28  43  eP      P       21 26 16.1 -0.2
MFF                                pmax   pmax
          comp=Z,14nm,0.7s,mb4.8
MFF   Saint Martin d   73.28  43  eP      P       21 26 16.1 -0.2
          comp=Z,14nm,0.7s,mb4.8
FLN   La Foliniere     73.37  41  eP      P       21 26 16.5 -0.3
          comp=Z,39nm,0.6s,mb5.0
FLN                               epP     pP      21 26 56.5 +0.6
FLN   La Foliniere     73.37  41  eP      P       21 26 16.5 -0.3
FLN                               e*PP    pP      21 26 56.5 +0.6
FLN                                pmax   pmax
          comp=Z,19nm,0.6s,mb5.0
FLN   La Foliniere     73.37  41  eP      P       21 26 16.5 -0.3
          comp=Z,19nm,0.6s,mb5.0
FLN                               epP     pP      21 26 56.5 +0.6
XAL   Allendale        73.42  35  eP      P       21 26 16.5 -0.4
ESY   Stoneypath       73.42  34  eP      P       21 26 17.1 +0.1
MCD   Coleburn Disti   73.46  32  eP      P       21 26 16.5 -0.6
KBI1  Birley Grange    73.49  36  eP      P       21 26 16.6 -0.8
CWF   Charnwood Fore   73.53  37  eP      P       21 26 17.3 -0.3
CWF                                AMb    AMB     21 26 17.9
          comp=Z,24nm,1.3s,mb4.8
TORD  Torodi Ar. Bea   73.53  78   P      P       21 26 18.1 -0.2
          comp=Z,4.0nm,0.5s,mb4.4,baz=284,slow=6.1,SNR=151
TORD                               pP     pP      21 26 58.5 +1.1
          comp=Z,4.6nm,0.8s,baz=286,slow=4.9,SNR=4.4
HPK   Haverah Park     73.57  36  eP      P       21 26 16.9 -0.9
HPK                                AMb    AMB     21 26 17.8
          comp=Z,48nm,1.7s,mb5.0
LDF   La Druitiere     73.58  41  eP      P       21 26 17.5 -0.5
          comp=Z,28nm,0.8s,mb4.7
LDF   La Druitiere     73.58  41  eP      P       21 26 17.5 -0.5
LDF                                pmax   pmax
          comp=Z,14nm,0.8s,mb4.7
LDF   La Druitiere     73.58  41  eP      P       21 26 17.5 -0.5
          comp=Z,14nm,0.8s,mb4.7
LFF   La Frestale      73.68  45  eP      P       21 26 18.4 -0.2
DAWY  Dawson           73.79 335  eP      P       21 26 18.8 -0.2
DAWY                              ePP     PP      21 29 05.3 -0.3
RJF   Les Rejaudoux    74.26  45  eP      P       21 26 21.6 -0.5
RJF                               epP     pP      21 27 01.8 +0.5
MTLF  Montolieu        74.56  47  eP      P       21 26 24.0 +0.2
CAF   Calviac          74.61  45  eP      P       21 26 23.6 -0.5
CAF                               epP     pP      21 27 04.0 +0.7
EGAK  Eagle            74.74 336  eP      P       21 26 24.6 +0.2
          comp=Z,180nm,1.4s,mb5.5
EGAK                              ePP     PP      21 29 13.5 -0.1
TCF   Toulx Ste Croi   74.85  44  eP      P       21 26 24.7 -0.7
TCF                               epP     pP      21 27 05.1 +0.4
HYF   Humbligny        75.25  43  eP      P       21 26 27.3 -0.4
BGF   Bois d'Agland    75.32  44  eP      P       21 26 27.5 -0.6
          comp=Z,8.0nm,0.6s,mb4.2
BGF                               epP     pP      21 27 07.7 +0.3
BGF   Bois d'Agland    75.32  44  eP      P       21 26 27.5 -0.6
BGF                               e*PP    pP      21 27 07.7 +0.3
BGF                                pmax   pmax
          comp=Z,4.0nm,0.6s,mb4.2
BGF   Bois d'Agland    75.32  44  eP      P       21 26 27.5 -0.6
          comp=Z,4.0nm,0.6s,mb4.2
BGF                               epP     pP      21 27 07.7 +0.3
MENT  Mentasta         75.34 333  eP      P       21 26 28.6 +0.8
PYM   Petit Puy Mans   75.35  45  eP      P       21 26 31.9 +3.6
DAG   Danmarks Havn    75.67  11⇓iP      P       21 26 29.3 -0.3
DAG                                pmax   pmax
          comp=Z,52nm,0.5s,mb5.4
DAG   Danmarks Havn    75.67  11⇓iP      P       21 26 29.3 -0.3
          comp=Z,52nm,0.5s,mb5.4
AVF   Avril sur Loir   75.69  44  eP      P       21 26 29.8 -0.4
AVF                               epP     pP      21 27 09.7 +0.2
PLDF  La Plantade      75.80  44  eP      P       21 26 31.5 +0.7
LASF  Ste Croix        75.81  46  eP      P       21 26 27.0 -3.9
LASF                              epP     pP      21 27 07.3 -3.0
SSF   Saint Saulge     75.82  43  eP      P       21 26 30.0 -0.9
ALE   Alert            75.87   1   P      P       21 26 30.0 -0.6
          comp=Z,330nm,0.7s,mb6.1,SNR=39
SMF   Signal de Mont   76.01  44  eP      P       21 26 31.2 -0.8
          comp=Z,14nm,0.9s,mb4.3
SMF   Signal de Mont   76.01  44  eP      P       21 26 31.2 -0.8
SMF                                pmax   pmax
          comp=Z,7.0nm,0.9s,mb4.3
SMF   Signal de Mont   76.01  44  eP      P       21 26 31.2 -0.8
          comp=Z,7.1nm,0.9s,mb4.3
LOR   Lormes           76.08  43  eP      P       21 26 31.7 -0.7
          comp=Z,6.8nm,0.7s,mb4.1
LOR                               epP     pP      21 27 12.0 +0.2
LOR   Lormes           76.08  43  eP      P       21 26 31.7 -0.7
LOR                               e*PP    pP      21 27 12.0 +0.2
LOR                                pmax   pmax
          comp=Z,3.0nm,0.7s,mb4.0
LOR   Lormes           76.08  43  eP      P       21 26 31.7 -0.7
          comp=Z,3.4nm,0.7s,mb4.1
LOR                               epP     pP      21 27 12.0 +0.2
PAX   Paxson           76.12 333  eP      P       21 26 32.5 +0.2
PAX                               e               21 26 44.3
PAX                                pmax   pmax
          comp=Z,77nm,1.2s,mb5.2
PAX   Paxson           76.12 333  eP      P       21 26 32.5 +0.2
          comp=Z,77nm,1.2s,mb5.2
PAX                               ePcP    PcP     21 26 44.3 +0.5
VIVF  Saint-Julien-l   76.45  46  eP      P       21 26 34.7 +0.2
BAIF  Baives           76.57  40  eP      P       21 26 34.3 -0.8
          comp=Z,6.4nm,0.6s,mb4.1
BAIF                              epP     pP      21 27 15.8 +1.3
BAIF  Baives           76.57  40  eP      P       21 26 34.3 -0.8
BAIF                              e*PP    pP      21 27 15.8 +1.3
BAIF                               pmax   pmax
          comp=Z,3.0nm,0.6s,mb4.1
BAIF  Baives           76.57  40  eP      P       21 26 34.3 -0.8
          comp=Z,3.2nm,0.6s,mb4.1
BAIF                              epP     pP      21 27 15.8 +1.3
UCC   Uccle            76.74  39   P      P       21 26 36.4 +0.4
UCC                                AP     pP      21 27 15.6 +0.1
TAM   Tamanrasset      76.76  68  eP      P       21 26 37.1 +0.4
TAM                               e       pP      21 27 18.0 +1.8
TAM                                pmax   pmax
          comp=Z,1.0nm,0.6s,mb3.6
TAM   Tamanrasset      76.76  68  eP      P       21 26 37.1 +0.4
          comp=Z,1.5nm,0.6s,mb3.8
TAM                               e       pP      21 27 18.0 +1.9
DOU   Dourbes          76.82  40   P      P       21 26 37.0 +0.5
          comp=Z,13nm,1.1s,mb4.5
DOU                                AP     pP      21 27 15.7 -0.3
GIVF  Givet            76.97  40  eP      P       21 26 37.0 -0.3
          comp=Z,31nm,0.7s,mb4.8
GIVF  Givet            76.97  40  eP      P       21 26 37.0 -0.3
GIVF                               pmax   pmax
          comp=Z,15nm,0.7s,mb4.7
GIVF  Givet            76.97  40  eP      P       21 26 37.0 -0.3
          comp=Z,15nm,0.7s,mb4.7
MEZF  Maizieres J'vi   76.98  42  eP      P       21 26 37.0 -0.4
          comp=Z,31nm,0.9s,mb4.7
MEZF  Maizieres J'vi   76.98  42  eP      P       21 26 37.0 -0.4
          comp=Z,31nm,0.9s,mb4.9
VAH   Vaihoa           77.18 253  eP      P       21 26 39.8 +0.6
          comp=Z,54nm,1.0s,mb5.1
BCLA  Clavier          77.30  40   P      P       21 26 39.3 +0.1
          comp=Z,15nm,2.4s,mb4.2
ORIF  Oris-en-Rattie   77.31  46  eP      P       21 26 38.9 -0.5
          comp=Z,14nm,0.9s,mb4.3
ORIF  Oris-en-Rattie   77.31  46  eP      P       21 26 38.9 -0.5
ORIF                               pmax   pmax
          comp=Z,7.0nm,0.9s,mb4.3
ORIF  Oris-en-Rattie   77.31  46  eP      P       21 26 38.9 -0.5
          comp=Z,7.0nm,0.9s,mb4.3
COLA  College          77.54 335  eP      P       21 26 39.9 -0.3
COLA                              e               21 26 49.8
COLA                              e               21 29 37.0
COLA                               pmax   pmax
          comp=Z,20nm,0.9s,mb4.8
COLA  College          77.54 335  eP      P       21 26 39.9 -0.3
          comp=Z,20nm,0.9s,mb4.8
COLA                              ePcP    PcP     21 26 49.8 -0.1
COLA                              ePP     PP      21 29 37.0 -0.1
PMR   Palmer           77.55 332  eP      P       21 26 40.6 +0.3
PMR                                pmax   pmax
          comp=Z,34nm,0.8s,mb5.0
PMR   Palmer           77.55 332  eP      P       21 26 40.6 +0.3
          comp=Z,34nm,0.8s,mb5.0
CABF  La Chapelle      77.55  44  eP      P       21 26 40.6 -0.1
THEF  They Montfort    77.58  42  eP      P       21 26 41.7 +0.9
LMR   La Mourre        77.69  47  eP      P       21 26 40.9 -0.6
HGN   Heimansgroeve    77.73  40  eP      P       21 26 41.9 +0.3
          comp=Z,14nm,1.0s,mb4.5
HGN   Heimansgroeve    77.73  40  ex      PcP     21 26 47.5 -3.5
          comp=Z,23nm,0.9s
HGN   Heimansgroeve    77.73  40  ex      pP      21 27 20.7 -0.4
RC01  Rabbit Creek A   77.76 331  eP      P       21 26 41.8 +0.3
          comp=Z,80nm,1.2s,mb5.2
MEM   Membach          77.76  40   P      P       21 26 42.1 +0.3
          comp=Z,12nm,1.7s,mb4.3
MEM                                AP     pP      21 27 22.4 +1.1
WLF   Walferdange      77.79  41   P      P       21 26 42.6 +0.7
          comp=Z,24nm,1.2s,mb4.7
WLF                                AP     pP      21 27 21.9 +0.4
WLF   Walferdange      77.79  41  eP      P       21 26 41.7 -0.2
WLF                               e               21 26 48.7
WLF                                pmax   pmax
          comp=Z,30nm,1.0s,mb4.9
WLF   Walferdange      77.79  41  eP      P       21 26 42.8 +0.9
          comp=Z,36nm,1.0s,mb5.0
WLF   Walferdange      77.79  41  eP      P       21 26 41.7 -0.2
          comp=Z,30nm,1.0s,mb4.9
WLF                               e               21 26 48.7
MCK   McKinley         77.80 334  eP      P       21 26 42.2 +0.5
MCK                                pmax   pmax
          comp=Z,136nm,1.4s,mb5.4
MCK   McKinley         77.80 334  eP      P       21 26 42.2 +0.5
          comp=Z,136nm,1.4s,mb5.4
HAU   Haudompre        77.81  42  eP      P       21 26 41.2 -0.9
          comp=Z,3.9nm,0.5s,mb4.0
HAU                               epP     pP      21 27 20.9 -0.7
HAU   Haudompre        77.81  42  eP      P       21 26 41.2 -0.9
HAU                               e*PP    pP      21 27 20.9 -0.7
HAU                                pmax   pmax
          comp=Z,2.0nm,0.5s,mb4.0
HAU   Haudompre        77.81  42  eP      P       21 26 41.2 -0.9
          comp=Z,2.0nm,0.5s,mb4.0
HAU                               epP     pP      21 27 20.9 -0.7
BNI   Bardonecchia     77.88  45  eP      P       21 26 43.2 +0.7
LPL   La Plagne        77.94  45  eP      P       21 26 43.4 +0.6
          comp=Z,22nm,1.0s,mb4.4
LPL   La Plagne        77.94  45  eP      P       21 26 43.4 +0.6
LPL                                pmax   pmax
          comp=Z,11nm,1.0s,mb4.4
LPL   La Plagne        77.94  45  eP      P       21 26 43.4 +0.6
          comp=Z,11nm,1.0s,mb4.4
LPG   La Plagne        77.95  45  eP      P       21 26 43.6 +0.7
LPG                               epP     pP      21 27 24.2 +1.7
MEH   Mehetia          78.09 250  eP      P       21 26 44.6 +0.4
          comp=Z,450nm,1.0s,mb6.0
HINF  Hinteralfeld     78.14  43  eP      P       21 26 43.0 -0.9
          comp=Z,12nm,0.6s,mb4.4
HINF  Hinteralfeld     78.14  43  eP      P       21 26 43.0 -0.9
HINF                               pmax   pmax
          comp=Z,6.0nm,0.6s,mb4.4
HINF  Hinteralfeld     78.14  43  eP      P       21 26 43.0 -0.9
          comp=Z,6.1nm,0.6s,mb4.4
MOF   Molkenrain       78.33  43  eP      P       21 26 46.4 +1.5
WIT   Witteveen        78.34  38  eP      P       21 26 46.3 +1.4
          comp=Z,99nm,0.8s,mb5.5
WIT   Witteveen        78.34  38  i x     PcP     21 26 52.3 -1.3
          comp=Z,168nm,0.9s
WTSB  Winterswijk      78.36  38  eP      P       21 26 44.8 -0.1
          comp=Z,24nm,0.9s,mb4.8
WTSB  Winterswijk      78.36  38  ex      PcP     21 26 51.0 -2.6
          comp=Z,32nm,1.2s
WTSB  Winterswijk      78.36  38  ex      pP      21 27 24.1 -0.4
TRF   Thorofare Moun   78.36 333  eP      P       21 26 45.1 +0.4
          comp=Z,157nm,1.3s,mb5.5
ECH   Echery           78.36  42  eP      P       21 26 46.0 +0.9
ECH   Echery           78.36  42  eP      P       21 26 45.0 -0.1
ECH                                pmax   pmax
          comp=Z,11nm,0.8s,mb4.5
ECH   Echery           78.36  42  eP      P       21 26 45.0 -0.1
          comp=Z,11nm,0.8s,mb4.5
RUP   Ruppelstein      78.38  41  eP      P       21 26 46.4 +1.2
CDF   Champ du Feu     78.45  42  eP      P       21 26 44.9 -0.7
          comp=Z,16nm,0.9s,mb4.3
CDF                               epP     pP      21 27 25.8 +0.6
CDF   Champ du Feu     78.45  42  eP      P       21 26 44.9 -0.7
CDF                               e*PP    pP      21 27 25.8 +0.6
CDF                                pmax   pmax
          comp=Z,8.0nm,0.9s,mb4.3
CDF   Champ du Feu     78.45  42  eP      P       21 26 44.9 -0.7
          comp=Z,8.1nm,0.9s,mb4.3
CDF                               epP     pP      21 27 25.8 +0.6
BUG   Bochum--Univer   78.61  39  eP      P       21 26 46.8 +0.4
          comp=Z,25nm,1.1s,mb4.8
KTH   Kantishna Hill   78.65 333  eP      P       21 26 46.3  0.0
          comp=Z,60nm,1.0s,mb5.2
BPAW  Bear Paw Mtn.    78.76 334  eP      P       21 26 47.4 +0.5
          comp=Z,103nm,1.2s,mb5.3
KDAK  Kodiak Island    78.82 328   P      P       21 26 48.0 +0.6
          comp=Z,16nm,0.7s,mb4.8,baz=123,slow=18,SNR=8.6
KDAK  Kodiak Island    78.82 328   P      P       21 26 48.0 +0.6
LANF  Langenberg       78.83  42  eP      P       21 26 48.0 +0.4
COLD  Coldfoot         78.90 337  eP      P       21 26 48.6 +1.0
          comp=Z,64nm,1.0s,mb5.2
FELD  Feldberg im Sc   78.92  43  eP      P       21 26 46.2 -1.9
IBBN  Ibbenburen       78.97  38  eP      P       21 26 48.4 +0.1
          comp=Z,25nm,0.9s,mb4.8
PPLA  Purkeypile       79.14 333  eP      P       21 26 49.4 +0.4
          comp=Z,47nm,0.4s,mb5.5
BFO   Black Forest     79.15  42  i P     P       21 26 50.3 +0.9
BFO   Black Forest     79.15  42  eP      P       21 26 49.4  0.0
          comp=Z,14nm,1.0s,mb4.5
BFO   Black Forest     79.15  42  eP      P       21 26 48.7 -0.7
          comp=Z,4.6nm,0.7s,mb4.2
TNS   Taunus Mts       79.30  40  eP      P       21 26 51.3 +1.1
TNS                                pmax   pmax
          comp=Z,41nm,1.1s,mb5.0
TNS   Taunus Mts       79.30  40  eP      P       21 26 51.3 +1.1
          comp=Z,48nm,1.1s,mb5.0
CHUM  Lake Minchumin   79.31 334  eP      P       21 26 50.0  0.0
          comp=Z,88nm,0.9s,mb5.4
CHUM                              ePP     PP      21 29 49.4 -2.5
SPAK  Spaichingen-Ko   79.45  42  eP      P       21 26 52.3 +1.3
PAE   Paea             79.47 251  eP      P       21 26 51.9 +0.2
          comp=Z,349nm,1.1s,mb5.9
PAE   Paea             79.47 251  eP      P       21 26 51.9 +0.2
PAE                                pmax   pmax
          comp=Z,349nm,1.1s,mb5.9
STU   Stuttgart        79.74  42  eP      P       21 26 52.6  0.0
STU                                pmax   pmax
          comp=Z,36nm,1.0s,mb5.0
STU   Stuttgart        79.74  42  eP      P       21 26 52.7 +0.1
          comp=Z,37nm,1.2s,mb4.9
STU   Stuttgart        79.74  42  eP      P       21 26 52.5  0.0
          comp=Z,36nm,1.0s,mb5.0
VSL   Villasalto       79.78  51   P      P       21 26 54.6 +1.6
TUE   Stuetta          79.79  44  eP      P       21 26 53.3 +0.3
          comp=Z,11nm,0.8s,mb4.5
TUE                               e       pP      21 27 33.1 +0.5
KEST  Kesra            79.80  55   P      P       21 26 54.1 +0.9
          comp=Z,2.3nm,1.1s,mb3.7,baz=90,slow=3.0,SNR=3.6
KEST                               pP     pP      21 27 33.0 +0.1
          comp=Z,3.9nm,0.8s,baz=26,slow=1.3,SNR=4.6
IMA2  Indian Mountai   80.12 336  eP      P       21 26 54.4 +0.1
DAVA  Damuels          80.17  43⇑iP      P       21 26 55.2 +0.3
          comp=Z,19nm,0.8s,mb4.8,SNR=8.6
DAVA                             ⇓ipP     pP      21 27 35.8 +1.1
VLC   Villacollemand   80.51  46   P      P       21 26 56.0 -0.8
CLZ   Clausthal        80.56  39  eP      P       21 26 58.0 +1.1
CLZ                                pmax   pmax
          comp=Z,53nm,0.9s,mb5.2
CLZ   Clausthal        80.56  39  eP      P       21 26 58.0 +1.1
          comp=Z,16nm,0.9s,mb4.7
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BSEG	Bad Segeberg	80.58	37	eP	P	21 26 57.9	+1.0
BSEG				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.8						
BSEG	Bad Segeberg	80.58	37	eP	P	21 26 57.9	+1.0
	comp=Z,19nm,1.1s,mb4.6						
SVW2	Sparrevohn	80.59	331	eP	P	21 26 55.8	-1.0
FETA	Feichten	80.75	44	⇑iP	P	21 26 58.0	0.0
	comp=Z,17nm,1.0s,mb4.6						
FETA				⇑ipP	pP	21 27 38.1	+0.3
MOTA	Moosalm	81.00	43	⇓iP	P	21 26 59.5	+0.2
	comp=Z,5.1nm,0.7s,mb4.3						
MOTA				⇓ipP	pP	21 27 39.7	+0.5
GRA1	Grafenberg Arr	81.08	41	eP	P	21 27 00.2	+0.5
	comp=Z,15nm,1.1s,mb4.5						
GRF	Grafenberg Arr	81.08	41	eP	P	21 27 00.2	+0.5
GRF				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.5						
GRF	Grafenberg Arr	81.08	41	eP	P	21 27 00.2	+0.5
GRF				pmax	pmax		
	comp=Z,1.0nm,1.1s						
GRF	Grafenberg Arr	81.08	41	eP	P	21 27 00.2	+0.5
	comp=Z,15nm,1.1s,mb4.5						
NB2	NORSAR Subarra	81.27	29	P	P	21 27 01.2	+0.7
	comp=Z,8.7nm,0.7s,mb4.5,baz=266,slow=5.3						
NOA	NORSAR Array B	81.27	29	P	P	21 27 01.5	+1.0
	comp=Z,8.3nm,0.6s,mb4.6,baz=267,slow=5.4,SNR=23						
NOA				pP	pP	21 27 39.3	-1.0
	comp=Z,12nm,0.9s,baz=268,slow=5.4,SNR=3.0						
MOX	Moxa	81.33	40	eP	P	21 27 01.9	+0.9
	comp=Z,10.0nm,1.1s,mb4.4						
MOX	Moxa	81.33	40	eP	P	21 27 01.9	+0.9
MOX				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.7						
MANZ	Manzenberg	81.65	41	eP	P	21 27 03.3	+0.6
	comp=Z,19nm,1.2s,mb4.6						
NKC	Novy Kostel	81.87	40	eP	P	21 27 04.5	+0.7
NKC				ePCP	PcP	21 27 09.7	+0.6
NKC				epP	pP	21 27 44.5	+0.7
TANN	Tannenbergstha	81.88	40	eP	P	21 27 04.9	+1.0
	comp=Z,19nm,1.1s,mb4.6						
ABTA	Abfaltersbach	81.97	44	⇑iP	P	21 27 04.2	-0.3
	comp=Z,12nm,0.8s,mb4.6						
ABTA				⇑ipP	pP	21 27 45.0	+0.6
WET	Wettzell	82.17	41	eP	P	21 27 06.1	+0.7
WET				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.9						
WET	Wettzell	82.17	41	eP	P	21 27 06.1	+0.7
	comp=Z,9.0nm,1.0s,mb4.3						
CLL	Collm	82.20	39	⇓iP	P	21 27 06.3	+0.7
CLL				i *PP	pP	21 27 46.8	+1.3
CLL				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.1						
CLL	Collm	82.20	39	⇓iP	P	21 27 06.3	+0.7
	comp=Z,10.0nm,0.8s,mb4.5						
CLL				i PcP	PcP	21 27 11.8	+1.3
CLL				i pP	pP	21 27 46.8	+1.3
KBA	Koelnbreinsper	82.54	43	i P	P	21 27 07.9	+0.5
	comp=Z,12nm,1.1s,mb4.5,SNR=9.0						
KBA				⇑ipP	pP	21 27 47.3	0.0
KHC	Kasperske Hory	82.63	41	eP	P	21 27 08.7	+0.9
KHC				ePCP	PcP	21 27 13.6	+1.2
KHC				epP	pP	21 27 47.6	-0.2
GEC2	GERESS Array S	82.72	42	eP	P	21 27 08.8	+0.5
GEC2				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.9						
GEC2	GERESS Array S	82.72	42	eP	P	21 27 08.8	+0.5
	comp=Z,19nm,1.4s,mb4.6						
GERES	GERESS Array B	82.72	42	P	P	21 27 08.6	+0.3
	comp=Z,5.9nm,0.7s,mb4.5,baz=263,slow=3.4,SNR=45						
GERES				pP	pP	21 27 46.8	-1.5
	comp=Z,7.4nm,1.0s,baz=272,slow=3.7,SNR=3.1						
BRG	Berggiesshubel	82.81	40	i P	P	21 27 09.8	+1.1
BRG				e	pP	21 27 49.3	+0.6
BRG				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
BRG				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
BRG				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
BRG	Berggiesshubel	82.81	40	i P	P	21 27 09.8	+1.1
	comp=Z,5.8nm,0.8s,mb4.4						
BRG				i		21 27 15.3	
	comp=Z,8.3nm,0.9s						
BRG				e	pP	21 27 49.4	+0.6
	comp=Z,6.2nm,1.0s						
CADS	Cadrg	82.84	44	i P	P	21 27 09.8	+0.8
VOY	Vojsko	82.95	44	eP	P	21 27 09.7	+0.1
VOY				epP	pP	21 27 49.8	+0.2
VOY				e		21 28 11.5	
JAVS	Javornik	83.08	45	i P	P	21 27 11.3	+1.1
JAVS				i pP	pP	21 27 50.6	+0.3
MOA	Molln	83.13	43	⇓iP	P	21 27 10.2	-0.2
	comp=Z,8.2nm,0.8s,mb4.5,SNR=8.2						
MOA				⇓ipP	pP	21 27 49.9	-0.5
PVCC	Panska Ves	83.22	40	eP	P	21 27 10.9	+0.1
PVCC				ePCP	PcP	21 27 16.3	+1.3
PVCC				epP	pP	21 27 50.9	0.0
PRU	Pruhonice	83.22	40	eP	P	21 27 11.9	+1.0
PRU				e*PP	pP	21 27 51.1	+0.2
PRU	Pruhonice	83.22	40	eP	P	21 27 11.9	+1.0
PRU				ePCP	PcP	21 27 16.0	+1.0
PRU				epP	pP	21 27 51.1	+0.2
PRU				esP	sP	21 28 04.3	-3.6
SPITS	Spitsbergen Ar	83.28	12	P	P	21 27 11.3	+0.7
	comp=Z,33nm,0.9s,mb5.1,baz=222,slow=4.7,SNR=27						
LJU	Ljubljana	83.39	44	eP	P	21 27 12.7	+0.9
TREC	Trest	83.87	41	eP	P	21 27 14.7	+0.5
TREC				ePCP	PcP	21 27 21.7	+3.8
TREC				epP	pP	21 27 54.6	+0.3
UPC	Upice	84.14	40	eP	P	21 27 16.6	+1.1
UPC				ePCP	PcP	21 27 21.8	+2.8
UPC				epP	pP	21 27 56.0	+0.4
CSNA	Conrad Observa	84.20	43	⇑iP	P	21 27 16.6	+0.8
	comp=Z,7.3nm,0.8s,mb4.5						
CSNA				⇑ipP	pP	21 27 55.8	-0.1
CONA	Conrad Observa	84.20	43	⇑iP	P	21 27 16.6	+0.8
	comp=Z,8.3nm,0.8s,mb4.5						
CONA				⇑ipP	pP	21 27 55.9	-0.1
DPC	Dobruska-Polom	84.35	40	eP	P	21 27 17.6	+1.0
DPC				ePCP	PcP	21 27 22.8	+2.9
DPC				epP	pP	21 27 56.6	-0.1
DPC				ex	x	21 28 15.1	
ZST	Bratislava	85.01	42	eP	P	21 27 20.9	+1.0
ZST				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
ZST	Bratislava	85.01	42	eP	P	21 27 20.9	+1.0
	comp=Z,7.2nm,0.6s,mb4.6						
ZST				ePcP	PcP	21 27 26.4	+3.5
ZST				ePP	pP	21 28 00.2	+0.1
MODS	Modra-Piesok	85.11	42	eP	P	21 27 21.9	+1.5
MODS				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
MODS	Modra-Piesok	85.11	42	eP	P	21 27 21.9	+1.5
	comp=Z,4.7nm,1.1s,mb4.1						
MODS				ePP	pP	21 28 02.1	+1.5
MORC	Moravsky Berou	85.17	41	eP	P	21 27 21.2	+0.5
MORC				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
MORC	Moravsky Berou	85.17	41	⇑iP	P	21 27 21.9	+1.2
MORC	Moravsky Berou	85.17	41	eP	P	21 27 21.2	+0.5
	comp=Z,8.1nm,0.9s,mb4.5						
MORC				ePcP	PcP	21 27 25.9	+2.3
TIP	Timpagrande	85.51	51	P	P	21 27 24.2	+1.5
OKC	Ostrava-Krasne	85.56	40	eP	P	21 27 23.2	+0.6
OKC				epP	pP	21 28 03.4	+0.5
TNA	Tin City	85.98	335	eP	P	21 27 24.7	+0.4
	comp=Z,38nm,1.2s,mb5.0						
TNA				ePP	PP	21 30 47.1	+0.7
VYHS	Vyhne	86.14	42	eP	P	21 27 26.5	+1.0
VYHS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
VYHS	Vyhne	86.14	42	eP	P	21 27 26.5	+1.0
	comp=Z,2.7nm,0.9s,mb4.0						
VYHS				ePcP	PcP	21 27 32.4	+4.5
VYHS				ePP	pP	21 28 06.7	+0.9
PKSM	Moragy	86.23	44	⇑iP	P	21 27 27.0	+1.0
PKSM	Moragy	86.23	44	⇑P	P	21 27 27.0	+1.0
OJC	Ojcow	86.58	40	eP	P	21 27 28.6	+1.0
ARCES	ARCESS Array B	86.65	20	P	P	21 27 27.5	0.0
	comp=Z,19nm,0.8s,mb5.0,baz=278,slow=3.8,SNR=40						
ARCES				pP	pP	21 28 07.9	0.0
	comp=Z,8.4nm,0.8s,baz=344,slow=7.6,SNR=3.2						
ARCES	ARCESS Array B	86.65	20	P	P	21 27 27.5	0.0
ARCES				pP	pP	21 28 07.9	0.0
PSZ	Piszkesteto	86.90	42	P	P	21 27 29.7	+0.5
GAMB	Gambell	87.87	334	eP	P	21 27 34.5	+1.0
	comp=Z,23nm,0.7s,mb5.1						
GAMB				e	pP	21 28 11.0	-3.0
VNA3	Neumayer Olymp	88.04	163	eP	P	21 27 34.1	0.0
VNA3				e	pP	21 28 12.5	-2.1
SUW	Suwalki	88.15	36	P	P	21 27 35.2	+0.2
KAF	Kangasniemi	88.36	28	eP	P	21 27 34.3	-1.6
KAF				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
KAF	Kangasniemi	88.36	28	ep	P	21 27 34.3	-1.6
	comp=Z,16nm,0.9s,mb4.8,baz=282,slow=4.5						
BZS	Buzias	88.37	44	⇑iP	P	21 27 37.8	+1.5
BZS	Buzias	88.37	44	⇑P	P	21 27 37.8	+1.5
VNA2	Neumayer--Watz	88.57	163	eP	P	21 27 36.8	+0.2
TRPA	Tarpa	88.64	42	⇑iP	P	21 27 36.2	-1.2
DRGR		88.95	43	⇑iP	P	21 27 38.7	-0.3
DRGR		88.95	43	⇑P	P	21 27 38.7	-0.3
GZR	Gura Zlata	89.21	45	⇑iP	P	21 27 41.1	+0.9
GZR	Gura Zlata	89.21	45	⇑P	P	21 27 41.1	+0.9
NACGM	Naroch	90.05	35	e	P	21 27 42.0	-1.9
BUR08	Bucovina Ar. S	90.48	42	eP	P	21 27 47.0	+0.9
BURAR	Bucovina Array	90.50	42	⇑iP	P	21 27 48.3	+2.1
BURAR	Bucovina Array	90.50	42	⇑P	P	21 27 48.3	+2.2
MICGM	Minsk	90.76	35	e	pP	21 28 25.0	-2.8
MLR	Muntele Rosu	91.39	44	⇓iP	P	21 27 50.0	-0.3
MLR	Muntele Rosu	91.39	44	⇓P	P	21 27 50.0	-0.4
AKASG	Malin Array Be	92.43	38	pP	pP	21 28 36.2	+0.6
	comp=Z,1.3nm,0.7s,baz=260,slow=5.0,SNR=2.9						
AKASG				LR	LR	22 06 24.3	
	comp=Z,116nm,18.1s,baz=75,slow=33						
TSUM	Tsumeb	92.64	109	P	P	21 27 56.3	-0.4
BILL	Bilibino	94.77	341	eP	P	21 28 05.5	+0.1
BILL				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.5						
BILL	Bilibino	94.77	341	eP	P	21 28 05.5	+0.1
	comp=Z,41nm,1.4s,mb5.5						
KLMR	Klimovskoe	94.78	27	eP	P	21 28 03.0	-2.6
KLMR				e*PP	pP	21 28 43.4	-2.9
KLMR				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.2						
QSPA	South Pole Qui	96.77	180	P	P	21 28 14.2	0.0
	comp=Z,5.7nm,0.9s,mb4.9,baz=152,slow=3.0,SNR=9.8						
PRGR	Permogore	97.11	25	eP	P	21 28 15.9	-0.2
PRGR				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb5.0						
LSZ	Lusaka	102.40	104	P	Pdif	21 28 42.1	+2.2
ARU	Arti	105.55	26	PKiKP	PKiKP	21 33 06.5	+0.2
AKTO	Aktyubinsk	109.03	31	PKKPbc	PKKPbc	21 44 20.3	-2.2
	comp=Z,1.2nm,0.4s,baz=106,slow=5.6,SNR=6.2						
BVAR	Borovoye Array	112.81	23	PKKPbc	PKKPbc	21 44 07.1	-3.2
	comp=Z,0.7nm,0.8s,baz=176,slow=5.6,SNR=3.0						
ZAA0	Zalesovo Array	116.67	15	ePKPdf	PKPdf	21 33 27.5	0.0
ZALV	Zalesovo Beam	116.67	15	PKP	PKPdf	21 33 27.6	0.0
	comp=Z,10nm,0.6s,baz=270,slow=1.6,SNR=60						
ZALV				SKP		21 36 48.9	
	comp=Z,3.5nm,0.8s,baz=286,slow=2.1,SNR=7.4						
KURK	Kurchatov	117.69	20	PKP	PKPdf	21 33 29.8	+0.2
	comp=Z,5.4nm,0.5s,baz=323,slow=2.3,SNR=19						
KURK	Kurchatov	117.69	20	ePKPdf	PKPdf	21 33 29.6	+0.1
HABR	Khabarovsk	119.78	339	eP	Pdif	21 29 55.6	-1.5
HABR				i		21 33 32.3	
HABR				e		21 34 57.3	
HABR				ePPP		21 37 30.8	
HABR				PS	PS	21 44 48.8	-1.2
HABR				eSSS		21 55 37.5	
HABR				MLR	MLR		
	comp=Z,65nm,20.0s						
MOY	Mondy	121.57	4	ePKIKP	PKPdf	21 33 38.0	+1.0
USP	Ospenovka	122.09	28	P	PKPdf	21 33 39.3	+1.0
	SNR=10						
EKS2	Erkin-Say	122.22	29	P	PKPdf	21 33 40.1	+1.6
	SNR=10						
EKS2	Erkin-Say	122.22	29	ePKPdf	PKPdf	21 33 39.8	+1.3
MK31	Makanchi Array	122.30	20	ePKIKP	PKPdf	21 33 38.4	-0.2
MKAR	Makanchi Array	122.30	20	PKP	PKPdf	21 33 38.5	-0.1
	comp=Z,5.9nm,0.5s,baz=300,slow=2.5,SNR=132						
MKAR				SKKPbc		21 47 05.8	
	comp=Z,0.9nm,1.0s,baz=144,slow=2.9,SNR=4.2						
MKAR	Makanchi Array	122.30	20	PKP	PKPdf	21 33 38.5	-0.1
MKAR				SKKPbc		21 47 05.8	
AAK	Ala-Archa	122.58	28	P	PKPdf	21 33 41.0	+1.8
	SNR=7.7						
AAK	Ala-Archa	122.58	28	ePKPdf	PKPdf	21 33 40.1	+0.8
AML	Almayashu	122.58	29	P	PKPdf	21 33 41.3	+2.0
	SNR=12						
AML	Almayashu	122.58	29	ePKPdf	PKPdf	21 33 41.1	+1.9
TKM2	Tokmak 2	122.86	27	P	PKPdf	21 33 40.8	+1.0
	SNR=5.8						
TKM2	Tokmak 2	122.86	27	ePKPdf	PKPdf	21 33 40.4	+0.7
UCH	Uchtor	122.90	28	P	PKPdf	21 33 41.9	+2.1
	SNR=10						
UCH	Uchtor	122.90	28	ePKPdf	PKPdf	21 33 41.6	+1.8
ZAK	Zakamensk	123.00	3	ePKIKP	PKPdf	21 33 39.9	+0.1
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s						
KZA	Kyzart	123.36	28	P	PKPdf	21 33 42.5	+1.7
	SNR=5.8						
ULHL	Ulahol	123.69	27	P	PKPdf	21 33 43.1	+1.8
	SNR=10						
MDJ	Mudanjiang	125.00	341	PKP	PKPdf	21 33 42.6	-1.2
MDJ				AMB	AMB		
	comp=Z,140nm,7.1s						
ULN	Ulaanbaatar	125.61	0	ePKIKP	PKPdf	21 33 45.9	+1.0
SONM	Songino Array	125.64	1	PKIKP	PKPdf	21 33 45.7	+0.8
SONM						21 34 29.0	
SONM						21 35 38.4	
SONM	Songino Array	125.64	1	PKP	PKPdf	21 33 45.7	+0.7
	comp=Z,4.4nm,0.5s,baz=299,slow=1.1,SNR=46						
SONM				pPKP	pPKPdf	21 34 29.0	+1.6
	comp=Z,1.5nm,0.7s,baz=341,slow=1.8,SNR=2.1						
SONM				PP	PP	21 35 38.4	+1.0
	comp=Z,1.7nm,0.8s,baz=352,slow=4.0,SNR=4.3						
SONM				SKPbc		21 36 51.3	
	comp=Z,2.0nm,0.7s,baz=331,slow=3.4,SNR=5.1						
SONM				SKP		21 37 07.5	
	comp=Z,3.1nm,1.0s,baz=6.3,slow=2.3,SNR=5.6						
SONM				SKKPbc		21 46 55.5	
	comp=Z,0.5nm,0.8s,baz=191,slow=2.4,SNR=3.8						
KSH	Kashi	125.70	30	ePKP	PKPdf	21 33 46.5	+1.2
KSH				esPKP		21 34 44.8	
KSH				ePKS		21 37 22.0	
KSH				eSKS	SKSdf	21 40 41.1	-1.1
KSH				AMB	AMB		
	comp=Z,220nm,4.8s						
KSH				LR	LR		
	comp=N,310nm,5.5s						
KSH				LR	LR		
	comp=E,320nm,5.8s						
KSH				LR	LR		
	comp=Z,490nm,5.4s						
WMQ	Urumqi	126.68	17	PKP	PKPdf	21 33 48.0	+0.9
WMQ				PP	PP	21 35 50.0	+5.5
WMQ				PKS		21 37 24.0	
WMQ				AMB	AMB		
	comp=Z,280nm,5.1s						
WMQ				LR	LR		
	comp=N,190nm,28.0s						
WMQ				LR	LR		
	comp=E,300nm,23.7s						
WMQ				LR	LR		
	comp=Z,260nm,30.0s						
CN2	Changchun	127.01	343	ePKP	PKPdf	21 33 45.6	-2.1
CN2				sPKP		21 34 44.8	
CN2				PP	PP	21 35 48.8	+2.2
CN2				SS	SS	21 52 39.4	-1.3
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
MJAR	Matsushiro Arr	127.99	328	PKP	PKPdf	21 33 50.0	+0.2
	comp=Z,2.3nm,0.7s,baz=97,slow=0.4,SNR=6.0						
MJAR				pPKP	pPKPdf	21 34 31.5	-0.7
	comp=Z,2.2nm,0.9s,baz=143,slow=0.2,SNR=2.9						
KSRS	Korea Array	131.91	338	PKP	PKPdf	21 33 56.5	-0.7
	comp=Z,1.8nm,0.6s,baz=29,slow=2.9,SNR=6.8						
KSRS				pPKP	pPKPdf	21 34 40.1	+0.4
	comp=Z,1.8nm,0.7s,baz=8.5,slow=1.4,SNR=3.2						
KSRS				PP	PP	21 36 18.8	+0.1
	comp=Z,4.1nm,0.9s,baz=5.2,slow=6.5,SNR=8.9						
KSRS				SKPbc	SKPbc	21 37 08.8	+0.4
	comp=Z,4.1nm,1.0s,baz=7.4,slow=4.1,SNR=5.3						
CNB	Canberra Magne	131.95	228	ePKP	PKPdf	21 33 59.7	+2.4
CNB				eSKP		21 37 08.8	
HHC	Hu-ho-hao-te	132.45	355	ePKP	PKPdf	21 33 59.5	+1.4
HHC				sPKP		21 34 58.8	
HHC				PP	PP	21 36 27.1	+5.3
HHC				PKS		21 37 34.1	
HHC				SKS	SKSdf	21 40 53.5	-1.0
HHC				SKKS	SKKSac	21 43 06.0	+2.7
HHC				AMB	AMB		
	comp=Z,160nm,6.1s						
HHC				LR	LR		
	comp=N,170nm,14.3s						
HHC				LR	LR		
	comp=E,140nm,16.6s						
HHC				LR	LR		
	comp=Z,140nm,20.2s						
BJI	Beijing	132.69	351	PKP	PKPdf	21 33 59.3	+0.7
BJI				SS	SS	21 53 50.8	+0.7
BJI				LR	LR		
	comp=N,190nm,30.6s						
BJI				LR	LR		
	comp=E,150nm,30.9s						
BJT	Baijiatuau	132.71	351	ePKIKP	PKPdf	21 33 59.4	+0.8
GTA	Gaotai	133.57	8	ePKP	PKPdf	21 34 01.3	+1.0
GTA				PP	PP	21 36 32.1	+3.1
GTA				AMB	AMB		
	comp=Z,220nm,5.3s						
GTA				LR	LR		
	comp=N,130nm,15.2s						
GTA				LR	LR		
	comp=E,150nm,18.1s						
GTA				LR	LR		
	comp=Z,310nm,25.0s						
DDI	Dehra Dun	133.79	36	ex	x	21 34 48.6	
CMSA	Cobar Meteorol	136.36	231	ePKP	PKPdf	21 34 06.7	+1.0
CMSA				eSKP		21 37 22.5	
LZH	Lanzhou	137.27	4	PKP	PKPdf	21 34 08.4	+1.1
LZH				sPKP		21 34 59.8	
LZH				SKKS	SKKSac	21 43 28.0	-4.4
LZH				SS	SS	21 54 44.0	-0.9
LZH				AMB	AMB		
	comp=Z,150nm,4.8s						
DANN	Dangsing	138.46	32	eP	PKPdf	21 34 03.3	-6.4
KOLN	Koldanda	138.84	32	eP	PKPdf	21 34 03.2	-7.2
GKN	Gorkha	139.19	31	eP	PKPdf	21 34 04.2	-6.8
	comp=Z,62nm,0.9s						
STKA	Stephens Creek	139.28	228	ePKP	PKPdf	21 34 12.3	+1.3
	comp=Z,4.4nm,0.6s						
STKA				eSKP		21 37 31.2	
STKA	Stephens Creek	139.28	228	PKhKP		21 34 06.5	
	comp=Z,2.3nm,0.8s,baz=118,slow=4.3,SNR=5.9						
STKA				PKP	PKPdf	21 34 10.7	-0.3
	comp=Z,6.1nm,0.7s,baz=65,slow=1.6,SNR=16						
STKA				pPKP	pPKPdf	21 34 52.0	-1.5
	comp=Z,4.7nm,0.8s,baz=37,slow=1.6,SNR=2.3						
STKA				SKP		21 37 29.9	
	comp=Z,9.3nm,0.9s,baz=130,slow=1.8,SNR=9.3						
STKA	Stephens Creek	139.28	228	PKP		21 34 06.5	
STKA				PKP	PKPdf	21 34 10.7	-0.3
STKA				pPKP	pPKPdf	21 34 52.0	-1.5
STKA				SKP		21 37 29.9	
XAN	Xi’an	139.39	358	PKP	PKPdf	21 34 05.9	-5.3
XAN				AMB	AMB		
	comp=Z,100nm,6.3s						
KKN	Kakani	139.69	31	eP	PKPdf	21 34 05.2	-6.7
DMN	Daman	139.75	31	eP	PKPdf	21 34 04.5	-7.6
	comp=Z,16nm,0.7s						
NJ2	Nanjing	139.81	344	ePKP	PKPdf	21 34 10.1	-2.0
GUN	Gumba	139.89	30	eP	PKPdf	21 34 04.2	-8.1
PKI	Pulchoki	139.94	31	eP	PKPdf	21 34 04.9	-7.5
JIRN	Jiri	140.25	30	eP	PKPdf	21 34 06.4	-6.6
	comp=Z,12nm,0.7s						
LSA	Lhasa	140.64	22	PKP	PKPdf	21 34 15.6	+2.0
LSA	Lhasa	140.64	22	ePKHKP		21 34 07.6	
LSA				e		21 34 15.1	
LSA	Lhasa	140.64	22	ePKPpre		21 34 07.6	
LSA				ePKPdf	PKPdf	21 34 15.1	+1.5
LSA				eSKP		21 37 37.5	
RAMN	Ramite	141.04	30	eP	PKPdf	21 34 07.5	-6.9
	comp=Z,38nm,0.7s						
TAPN	Taplejung	141.24	28	eP	PKPdf	21 34 08.2	-6.6
	comp=Z,23nm,0.6s						
ODAN	Odare	141.50	29	eP	PKPdf	21 34 08.3	-6.9
	comp=Z,15nm,0.6s						
WHN	Wuhan	142.27	350	ePKP	PKPdf	21 34 11.6	-4.9
CD2	Chengdu	142.41	5	PKP	PKPdf	21 34 14.1	-2.6
CD2				pPKP	pPKPdf	21 34 55.9	-3.4
CD2				sPKP		21 35 13.0	
CD2				PKS		21 37 48.4	
CD2				SKS	SKSdf	21 41 06.1	-5.7
CD2				SKKS	SKKSac	21 43 58.4	-4.2
CD2				SS	SS	21 55 44.3	-0.7
CD2				AMB	AMB		
	comp=Z,90nm,5.9s						
CD2	Chengdu	142.41	5	PKP	PKPdf	21 34 22.9	+6.2
CD2				pPKP	pPKPdf	21 34 49.3	-10
CD2				sPKP		21 35 00.3	
CD2				PP	PP	21 37 34.6	+11
CD2				PKS		21 37 57.3	
CD2				SKS	SKSdf	21 41 21.3	+10
CD2				SKKS	SKKSac	21 44 13.1	+10
CD2				SS	SS	21 55 58.3	+13
CD2				LR	LR		
	comp=N,410nm,5.3s						
CD2				LR	LR		
	comp=Z,240nm,5.4s						
HYB	Hyderabad	142.94	49	i PKP	PKPdf	21 34 19.0	+1.0
HYB	Hyderabad	142.94	49	eP	PKPdf	21 34 19.0	+1.0
SHL	Shillong	144.62	24	i P	PKPdf	21 34 21.5	+0.7
SHL				eS		21 38 01.5	
	comp=E,43nm,0.6s						
AGT	Agartala	145.84	26	ex	PKPdf	21 34 19.0	-3.9
NACB	Ninganchiao	146.16	336	PKPdf	PKPdf	21 34 24.2	+0.7
SSLB	Suanglung	146.77	336	ePKPdf	PKPdf	21 34 25.6	+1.1
GYA	Guiyang	146.98	1	PKPbc	PKPdf	21 34 22.8	-2.0
GYA				PKPab	PKPab	21 34 28.5	-0.1
GYA				pPKP	pPKPdf	21 35 02.3	-5.0
GYA				sPKP		21 35 19.0	
GYA				PP	PP	21 37 52.8	+1.9
GYA				PKS		21 37 55.8	
GYA				SKKS	SKKSac	21 44 25.3	-3.4
GYA				SS	SS	21 56 37.6	+0.4
GYA				AMB	AMB		
	comp=Z,260nm,8.3s						
TPUB	Ta-pu	147.33	337	PKPdf	PKPdf	21 34 26.6	+1.1
KMI	Kunming	148.03	7	PKPbc	PKPbc	21 34 27.9	-1.9
FORT	Forrest	149.07	217	ePKP	PKPdf	21 34 31.9	+3.9
	comp=Z,33nm,0.6s						
FORT	Forrest	149.07	217	ePKPdf	PKPdf	21 34 28.2	+0.1
FORT				PKPbc	PKPbc	21 34 32.8	+0.5
FORT				ePKPab	PKPab	21 34 36.6	-0.4
ASAR	Alice Springs	149.26	234	PKP	PKPdf	21 34 28.7	+0.2
	comp=Z,26nm,0.8s,baz=100,slow=1.5,SNR=71						
ASAR				PKPbc	PKPbc	21 34 32.5	-0.4
	comp=Z,21nm,0.6s,baz=120,slow=3.3,SNR=169						
ASAR				pPKP	pPKPdf	21 35 09.6	-1.5
	comp=Z,13nm,0.9s,baz=113,slow=3.0,SNR=2.3						
ASAR				pPKPbc	pPKPbc	21 35 12.3	-2.9
	comp=Z,18nm,0.8s,baz=124,slow=2.9,SNR=3.4						
ASAR				SKPbc	SKPbc	21 37 55.6	+0.3
	comp=Z,5.9nm,0.9s,baz=122,slow=2.3,SNR=5.6						
PALK	Pallekele	150.20	63	i PKIKP	PKPbc	21 34 37.1	+1.5
WB2	Warramunga Arr	150.50	241	ePKPdf	PKPdf	21 34 31.0	+0.4
WB2				ePKPbc	PKPbc	21 34 35.9	-0.2
WRAB	Tennant Creek	150.50	241	ePKPdf	PKPdf	21 34 30.6	0.0
WRAB				ePKPbc	PKPbc	21 34 36.3	+0.3
WRA	Warramunga Arr	150.51	241	PKP	PKPdf	21 34 31.2	+0.7
	comp=Z,13nm,0.4s,baz=108,slow=2.3,SNR=44						
WRA				PKPbc	PKPbc	21 34 35.8	-0.3
	comp=Z,20nm,0.5s,baz=108,slow=2.7,SNR=187						
WRA				pPKP	pPKPdf	21 35 12.5	-0.7
	comp=Z,17nm,0.6s,baz=108,slow=2.3,SNR=2.0						
WRA				pPKPbc	pPKPbc	21 35 16.2	-2.2
	comp=Z,17nm,0.6s,baz=106,slow=2.0,SNR=3.5						
CHTO	Chiang Mai	153.35	17	ePKPdf	PKPdf	21 34 36.0	+1.1
CHTO				ePKPbc	PKPbc	21 34 42.0	-0.5
CHTO				ePKPab	PKPab	21 34 55.1	+0.2
CM31	Chiang Mai Arr	153.68	18	ePKPdf	PKPdf	21 34 36.4	+1.1
CM31				ePKPbc	PKPbc	21 34 43.7	+0.5
CMAR	Chiang Mai Arr	153.68	18	PKP	PKPdf	21 34 36.4	+1.0
	comp=Z,6.3nm,0.8s,baz=300,slow=1.9,SNR=55						
CMAR				PKPbc	PKPbc	21 34 43.6	+0.3
	comp=Z,20nm,0.6s,baz=321,slow=3.2,SNR=82						
CMAR				pPKP	pPKPdf	21 35 16.0	-2.0
	comp=Z,4.0nm,0.9s,baz=328,slow=5.4,SNR=1.4						
CMAR				pPKPbc	pPKPbc	21 35 27.4	+1.8
	comp=Z,6.0nm,0.7s,baz=309,slow=2.6,SNR=2.5						
KAKA	Kakadu	154.36	255	ePKPdf	PKPdf	21 34 38.0	+1.6
KAKA				ePKPbc	PKPbc	21 34 44.8	0.0

FITZ	Fitzroy Crossi comp=Z,28nm,0.9s	158.71	236	ePKP	PKPab	21 35 17.9	-0.3
FITZ	Fitzroy Crossi	158.71	236	ePKPdf	PKPdf	21 34 42.9	+0.9

JMA 17 21:17:07.9±0.5, 44°.53N×148°.74E, h30^{km}, M3.9, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	2.46	243	P	Pn	21 17 44.8	-1.1
JRA	Rausu	2.67	258	P	Pn	21 17 50.1	+1.3
JRA				eS	Sn	21 18 21.5	+1.5
JNK	Nakash	3.05	253	P	Pn	21 17 54.4	+0.4
JNK				eS	Sn	21 18 29.2	-0.3
JAK	Akkeshi	3.31	244	P	Pn	21 17 56.7	-0.9
JAK				eS	Sn	21 18 32.9	-2.9
JTKR	Abashiri--Toko	3.52	263	P	Pn	21 18 02.4	+2.0
JAR	Ashorobuto	3.80	253	P	Pn	21 18 05.6	+1.3
JAR				eS	Sn	21 18 48.9	+1.0
JMP	Maruseppu	3.90	264	P	Pn	21 18 08.2	+2.5
JOB	Onbets	3.91	247	P	Pn	21 18 06.2	+0.3
JOB				eS	Sn	21 18 49.9	-0.8
JCH	Churui	4.35	246	P	Pn	21 18 11.7	-0.2
JCH				eS	Sn	21 18 58.9	-2.7
JEM	Erimo	4.79	240	P	Pn	21 18 18.7	+0.8
JNBK	Urakawa-nobuka	4.91	245	P	Pn	21 18 19.2	-0.4
JBT2	Biratori 2	4.95	251	P	Pn	21 18 21.6	+1.5
JNB	Noboribetsu	5.97	252	P	Pn	21 18 35.1	+1.0
JNB				eS	Sn	21 19 40.1	-1.3
JKB	Kayabe	6.22	248	P	Pn	21 18 36.9	-0.7
JKB				eS	Sn	21 19 43.2	-4.4
JANG	Nango	6.77	235	eS	Sn	21 19 52.0	-9.1
JTM	Tenmabayashi	6.78	239	eS	Sn	21 19 54.9	-6.5
JTH	Tanohata	6.86	230	P	Pn	21 18 43.6	-2.8
JTH				eS	Sn	21 19 53.0	-10
JOSM	Okushiri--Mats	7.19	253	P	Pn	21 18 51.8	+0.9
JRG	Rokugo	7.92	232	P	Pn	21 18 59.9	-1.0
JRG				eS	Sn	21 20 21.5	-8.0
JIO	Ouri	8.22	225	eS	Sn	21 20 24.9	-12
JFK	Kawauchi	9.30	222	eS	Sn	21 20 51.7	-12

DDA 17 21:28:00.4, 38°.21N×28°.68E, h5^{km}±2^{km}, Md2.8
ISK 17 21:28:00.5, 38°.22N×28°.69E, h6^{km}, MD2.8
ISCJB 17 21:28:01.0±0.5, 38°.23N±0°.03×28°.72E±0°.04, h13^{km}±5^{km}, Error ellipse: s-maj=5.8km s-min=4.8km az=25.7
CSEM 17 21:28:01.0±0.2, 38°.21N×28°.67E, h5^{km}, MD2.8, Error ellipse: s-maj=3.8km s-min=3.0km az=156.0

ISC 17 21:28:01.2±0.5, 38°.22N±0°.03×28°.70E±0°.04, h9^{km}±6^{km}, n16, σ0^{s}69/30, 1C, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MANT	Manisa	0.29	338	⇑iP	Pg	21 28 06.9	-0.1
MANT				i S	Sg	21 28 11.4	+0.6
KULA	Kula-Manisa	0.29	355	PG	Pg	21 28 06.8	-0.2
KULA				eSG	Sg	21 28 11.3	+0.3
KULA	Kula-Manisa	0.29	355	i Pg	Pg	21 28 06.8	-0.2
KULA				eSg	Sg	21 28 11.3	+0.3
DENT	Denizli	0.54	150	PG	Pg	21 28 11.3	-0.4
DENT				eSG	Sg	21 28 19.3	+0.6
DENT	Denizli	0.54	150	i Pg	Pg	21 28 11.3	-0.3
DENT				eSg	Sg	21 28 19.3	+0.6
KHAL	Karahalli	0.64	77	eP	Pg	21 28 13.6	-0.1
KHAL				eS	Sg	21 28 20.5	-1.6
KHAL	Karahalli	0.64	77	eP	Pg	21 28 13.6	-0.1
KHAL				eS	Sg	21 28 20.5	-1.6
KHL	Karahalli	0.66	81	ePG	Pg	21 28 14.8	+0.8
KHL				eSG	Sg	21 28 23.2	+0.6
KHL	Karahalli	0.66	81	ePg	Pg	21 28 14.8	+0.8
KHL				eSg	Sg	21 28 23.2	+0.6
AYDN	Tasoluk	0.85	229	eP	Pg	21 28 16.5	-1.1
AYDN				eS	Sg	21 28 29.0	+0.2
AYDN	Tasoluk	0.85	229	eP	Pg	21 28 16.5	-1.2
AYDN				eS	Sg	21 28 29.0	+0.2
IZM	Izmir	1.14	279	ePN	Pn	21 28 23.6	+0.3
IZM				eSN	Sn	21 28 38.1	-0.9
BLCB	Balcova	1.31	278	ePN	Pn	21 28 26.2	+0.6
BLCB	Balcova	1.31	278	ePn	Pn	21 28 26.2	+0.6
BDRM	Kayabasi	1.52	221	eP	Pn	21 28 27.9	-0.6
BDRM				eS	Sn	21 28 49.4	+0.9
BDRM	Kayabasi	1.52	221	eP	Pn	21 28 27.9	-0.7
BDRM				eS	Sn	21 28 49.4	+0.9

ISCJB 17 21:29:34.3±0.9, 6°.28S±0°.05×75°.15W±0°.07, h143^{km}±8^{km}, mb4.3/33, Error ellipse: s-maj=11.2km s-min=8.1km az=160.2
IDC 17 21:29:35.0±0.5, 6°.35S×75°.18W, h135^{km}±4^{km}, mb4.0/12, mb1 4.2/15, mb1mx4.1/22, mbtmp4.1/15, Error ellipse: s-maj=11.4km s-min=9.6km az=96.0
NEIC 17 21:29:37.9±1.2, 6°.32S×75°.25W, h159^{km}±11^{km}, mb4.4/23, Error ellipse: s-maj=13.8km s-min=7.4km az=83.0
BJI 17 21:29:38.9, 6°.30S×75°.20W, h148^{km}, mB5.3/7

ISC 17 21:29:35.2±0.9, 6°.32S±0°.04×75°.12W±0°.06, h133^{km}±8^{km}, h131^{km}±4.1^{km}:pP-P, n307, σ0^{s}64/281, mb4.3/33, 95C-110D, Northern Peru

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATAH	Atahualpa 415nm,0.3s,baz=82,slow=4.8,SNR=3060	3.33	258	P	Pn	21 30 26.3	+0.1
ATAH	41nm,0.3s,baz=86,slow=9.2,SNR=4.1			S	Sn	21 31 03.8	-1.9
NNA	Nana 16nm,0.3s,baz=27,slow=13,SNR=24	5.88	197	P	Pn	21 31 00.5	+0.2
NNA	48nm,0.3s,baz=283,slow=20,SNR=11			S	Sn	21 32 02.0	-4.6
NNA	Nana	5.88	197	ePn	Pn	21 31 00.2	0.0
NNA				eSn	Sn	21 32 02.1	-4.5
OTAV	Otavalo	7.32	333	ePn	Pn	21 31 20.7	+1.2
OTAV				eSn	Sn	21 32 19.2	-22
ROSC	El Rosal 0.9nm,0.3s,baz=345,slow=20,SNR=2.9	11.13	4	P	Pn	21 32 14.1	+3.5
SDV	Santo Domingo 1.2nm,0.3s,baz=214,slow=11,SNR=6.5	15.75	17	P	Pn	21 33 09.8	-0.1
SDV	Santo Domingo 16nm,0.9s	15.75	17	eP	Pn	21 33 14.2	+4.4
BCIP	Isla Barro Col	16.09	343	Pn	Pn	21 33 13.7	-0.3
LVC	Limon Verde 1.2nm,0.3s,baz=360,slow=7.8,SNR=12	17.27	160	P	Pn	21 33 31.1	+2.8
LVC	baz=360,slow=18,SNR=2.5			S	S	21 36 40.4	-0.2
LVC	Limon Verde 8.2nm,0.6s	17.27	160	ePn	Pn	21 33 32.9	+4.6
PCRV	Puerto La Cruz 1.8nm,0.3s,baz=208,slow=15,SNR=5.9	19.43	33	P	P	21 33 51.5	+0.1
LCO	Las Campanas	22.95	170	P	P	21 34 30.4	+2.3
SDDR	Presa de Saban	25.42	8	P	P	21 34 52.8	+2.1
SJG	San Juan 52nm,0.6s,mb5.3	25.84	20	eP	P	21 34 58.7	+4.3
CFAA	Coronel Fontan 0.4nm,0.6s,baz=15,slow=6.6,SNR=6.1	25.97	167	pP	pP	21 35 24.7	+1.0
MTP	Monte Pirata	26.03	21	eP	P	21 34 59.9	+3.7
CPUP	Villa Florida 9.3nm,0.6s,mb4.6,baz=311,slow=7.9,SNR=22	26.15	142	P	P	21 34 55.8	-1.4
PLCA	Paso Flores 2.2nm,0.7s,mb3.9,baz=356,slow=12,SNR=5.4	34.51	174	P	P	21 36 10.8	+0.2
PLCA	0.8nm,0.6s,baz=331,slow=2.2,SNR=3.2			PcP	PcP	21 38 42.9	+0.1
PLCA	Paso Flores	34.51	174	P	P	21 36 10.8	+0.2
PLCA				PcP	PcP	21 38 42.9	+0.1
RPN	Rapa Nui	38.54	234	P	P	21 36 43.6	-1.4
RCBR	Riachuelo	38.99	91	P	P	21 36 54.8	+5.8
SWET	Sewanee	42.55	347	eP	P	21 37 16.4	-1.4
PLAL	Pickwick Lake	42.86	344	eP	P	21 37 17.5	-2.8
TZTN	Tazewell 5.3nm,0.5s,mb4.4	43.36	350	eP	P	21 37 23.3	-1.0
TXAR	Lajitas Array 2.6nm,0.6s,mb4.0,baz=149,slow=9.0,SNR=19	44.84	324	P	P	21 37 36.8	+0.5
TXAR	0.9nm,0.7s,baz=159,slow=7.5,SNR=4.0			PcP	PcP	21 39 14.9	-0.9
WMOK	Wichita Mounta 5.0nm,0.8s,mb4.2	46.55	333	eP	P	21 37 49.4	-0.1
ACSO	Alum Creek Sta	46.88	352	P	P	21 37 50.8	-1.2
AMTX	Amarillo 6.1nm,0.8s,mb4.3	48.04	330	eP	P	21 38 00.8	-0.3
BINY	Binghamton 13nm,0.7s,mb4.7	48.29	359	eP	P	21 38 03.4	+0.5
HDIL	Hopedale 35nm,0.6s,mb5.2	48.43	346	eP	P	21 38 02.1	-1.9
KSU1	Kansas State U 15nm,1.0s,mb4.6	49.38	338	eP	P	21 38 09.5	-1.9
319A	Douglas baz=50	49.70	321	⇓P	P	21 38 14.4	+0.6
120A	U Bar Ranch, L baz=50	50.10	323	⇓P	P	21 38 17.5	+0.6
318A	Bisbee baz=50	50.19	320	⇓P	P	21 38 17.8	+0.3
218A	Dragoon baz=51	50.58	321	⇑P	P	21 38 20.4	-0.1
119A	Ashpeak Ranch, baz=51	50.66	322	⇓P	P	21 38 21.7	+0.6
217A	Green Valley baz=51	50.94	320	⇓P	P	21 38 23.4	+0.2
118A	Homack Ranch, baz=51	50.98	322	⇑P	P	21 38 23.3	-0.2
TUC	Tucson 2.7nm,0.8s,mb3.9	51.27	321	eP	P	21 38 26.0	+0.3
117A	Oracle baz=52	51.42	321	⇓P	P	21 38 27.0	+0.3
216A	Three Points, baz=52	51.49	320	⇓P	P	21 38 27.7	+0.4
W20A	Ramah baz=52	51.85	325	⇑P	P	21 38 30.2	+0.3
116A	Eloy baz=52	52.02	320	⇑P	P	21 38 31.8	+0.6
SDCO	Great Sand Dun 4.7nm,1.0s,mb4.1	52.19	329	eP	P	21 38 32.9	+0.5
Y17A	Roosevelt baz=52	52.24	322	⇑P	P	21 38 33.3	+0.4
X18A	Snowflake baz=52	52.27	323	⇓P	P	21 38 33.3	+0.3
214A	Organ Pipe Nat baz=52	52.34	319	⇓P	P	21 38 33.6	0.0
Z16A	Peralta Trail, baz=52	52.36	321	⇓P	P	21 38 33.9	+0.2
Y16A	Circle Bar Ran baz=53	52.75	322	⇓P	P	21 38 37.2	+0.6
Z15A	Gila River Ind baz=53	52.78	321	⇓P	P	21 38 37.4	+0.6
114A	Black Gap (USA baz=53	52.90	320	⇑P	P	21 38 38.2	+0.5
X16A	Lo Mia Camp, P baz=53	53.09	322	⇓P	P	21 38 39.8	+0.7
R22A	Saguache, Gunn baz=53	53.20	329	⇓P	P	21 38 41.1	+1.3
Y15A	Casa Rosa Ranc baz=53	53.33	321	⇑P	P	21 38 41.1	+0.3
MVCO	Mesa Verde baz=54	53.36	327	⇑P	P	21 38 41.0	0.0
W16A	Flagstaff baz=54	53.60	323	⇓P	P	21 38 43.6	+0.8
X15A	Humboldt baz=54	53.62	322	⇓P	P	21 38 42.8	-0.2
Y14A	Wickenburg baz=54	53.74	321	⇓P	P	21 38 44.0	+0.2
Q22A	Crested Butte, baz=54	53.75	329	⇑P	P	21 38 44.5	+0.7
WUAZ	Wupatki baz=54	53.80	323	⇓P	P	21 38 44.6	+0.4
WUAZ	Wupatki 10nm,1.0s,mb4.5	53.80	323	eP	P	21 38 45.2	+1.0
R20A	Redvale baz=54	54.01	328	⇑P	P	21 38 46.0	+0.3
T18A	Mexican Hat baz=54	54.06	326	⇓P	P	21 38 46.0	-0.1
S19A	Harvey Farm, M baz=54	54.09	327	⇑P	P	21 38 46.5	+0.2
V15A	Kaibab Nationa baz=55	54.48	323	⇓P	P	21 38 49.0	-0.2
T17A	Navajo Res., N baz=55	54.49	325	⇑P	P	21 38 49.8	+0.6
S18A	Hurst Farm, Bl baz=55	54.53	326	⇑P	P	21 38 49.5	0.0
X13A	Yucca baz=55	54.69	321	⇓P	P	21 38 50.9	+0.2
V14A	Boquillas Ranc baz=55	54.92	322	⇓P	P	21 38 52.9	+0.6
R18A	Canyonlands Na baz=55	54.97	327	⇑P	P	21 38 52.8	+0.1
P20A	De Beque baz=55	54.99	329	⇓P	P	21 38 52.7	-0.1
Q19A	Hogan Spring (baz=55	55.04	328	⇓P	P	21 38 53.4	+0.3
W13A	Hualapai Mount baz=55	55.05	321	⇑P	P	21 38 52.9	-0.3
IRM	Iron Mountain baz=55	55.25	320	⇓P	P	21 38 55.1	+0.3
O20A	White River Ci baz=56	55.39	329	⇓P	P	21 38 56.0	+0.4
P19A	Cripple Cowboy baz=56	55.40	328	⇑P	P	21 38 56.0	+0.3
T15A	Red Dirt Ranch baz=56	55.42	324	⇑P	P	21 38 56.8	+1.0
R17A	Hanksville Air baz=56	55.44	326	⇓P	P	21 38 56.3	+0.3
S16A	Weppner Ranch, baz=56	55.45	325	⇓P	P	21 38 56.2	+0.1
V13A	Grand Canyon W baz=56	55.60	322	⇓P	P	21 38 58.0	+0.8
Q18A	Rafter H Ranch baz=56	55.62	327	⇓P	P	21 38 58.2	+0.9
BELC	Belle Mtn. baz=56	55.70	319	⇓P	P	21 38 58.3	+0.4
PFO	Pinyon Flat Ob baz=56	55.77	318	⇑P	P	21 38 58.9	+0.5
R16A	Teasdale baz=56	55.78	326	⇓P	P	21 38 59.4	+1.0
SRU	San Rafael baz=56	55.83	327	⇑P	P	21 38 59.0	+0.2
S15A	Panguitch baz=56	55.85	325	⇑P	P	21 38 59.4	+0.5
T14A	Hurricane baz=56	55.86	324	⇓P	P	21 38 59.8	+0.8
N20A	Spence Gulch, baz=56	55.92	330	⇑P	P	21 38 59.9	+0.5
U13A	Pakoon Wash baz=56	55.96	322	⇑P	P	21 39 00.3	+0.6
O19A	Miners Draw (B baz=56	55.96	329	⇑P	P	21 38 60.0	+0.3
GMRC	Granite Mounta baz=56	55.97	320	⇑P	P	21 39 00.2	+0.4
V12A	Nelson baz=56	56.05	321	⇑P	P	21 39 00.8	+0.4
RWWY	Rawlins 7.0nm,0.8s,mb4.5	56.06	331	eP	P	21 39 01.2	+0.8
M21A	Separation Pea baz=56	56.07	331	⇑P	P	21 39 01.1	+0.6
T13A	Saint George baz=56	56.32	323	⇓P	P	21 39 02.8	+0.5
L21A	Rawlins baz=56	56.35	331	⇑P	P	21 39 02.5	0.0
S14A	Cedar City baz=56	56.38	324	⇑P	P	21 39 03.2	+0.5
M20A	Sweetwater, Wa baz=56	56.38	331	⇑P	P	21 39 03.1	+0.5
N19A	John Jarvie Ra baz=56	56.43	329	⇓P	P	21 39 02.9	-0.1
TUQ	Turquoise Moun baz=57	56.55	320	⇓P	P	21 39 04.3	+0.3
S13A	Holt Ranch, En baz=57	56.67	323	⇑P	P	21 39 05.1	+0.3
GSC	Goldstone baz=57	57.03	320	⇑P	P	21 39 07.7	+0.4
GSC	Goldstone 3.3nm,0.8s,mb4.2	57.03	320	eP	P	21 39 08.2	+0.8
R13A	O'Grain Ranch, baz=57	57.13	324	⇑P	P	21 39 09.0	+1.0
O16A	Springville baz=57	57.14	327	⇓P	P	21 39 08.9	+0.9
Q14A	Sevier Lake (B baz=57	57.28	325	⇑P	P	21 39 08.8	-0.2
K20A	Yellowstone Ra baz=58	57.35	331	⇓P	P	21 39 09.0	-0.4
EDW2	Edwards Air Fo baz=58	57.54	318	⇑P	P	21 39 10.3	-0.6
P14A	Drum Mountains baz=58	57.57	326	⇑P	P	21 39 11.3	+0.3
M17A	Scullys Gap (B baz=58	57.62	329	⇑P	P	21 39 10.7	-0.6
Q13A	Wheeler Ranch, baz=58	57.68	325	⇓P	P	21 39 12.7	+0.8
K19A	Absolon Red Bu baz=58	57.72	331	⇓P	P	21 39 11.2	-0.8
FURC	Furnace Creek, baz=58	57.78	321	⇓P	P	21 39 12.6	0.0
S11A	Rachel baz=58	57.84	322	⇓P	P	21 39 12.3	-0.7
DUG	Dugway baz=58	57.85	326	⇑P	P	21 39 12.9	-0.1
DUG	Dugway 9.8nm,1.3s,mb4.5	57.85	326	eP	P	21 39 13.4	+0.4
MPMC	Manual Prospec baz=58	57.93	320	⇑P	P	21 39 13.2	-0.5
P13A	Bates Ranch, G baz=58	58.01	325	⇓P	P	21 39 14.6	+0.4
PDAR	Pinedale Array 0.7nm,0.5s,mb3.8,baz=140,slow=7.0,SNR=8.3	58.02	331	P	P	21 39 13.7	-0.4
PDAR	0.7nm,0.5s,baz=138,slow=5.6,SNR=6.1			PcP	PcP	21 40 03.5	-1.1
BW06	Boulder Array baz=58	58.02	331	⇓P	P	21 39 13.2	-0.9
K18A	Toltan Ranch, baz=58	58.16	330	⇓P	P	21 39 15.3	+0.2
N15A	Stansbury Isla baz=58	58.17	327	⇑P	P	21 39 15.5	+0.3
R11A	Troy Canyon, C baz=58	58.20	323	⇓P	P	21 39 15.5	+0.1
ISA	Isabella baz=58	58.33	319	⇓P	P	21 39 16.4	0.0
ISA	Isabella	58.33	319	P	P	21 39 17.0	+0.6
L16A	Fish Haven baz=58	58.40	329	⇓P	P	21 39 15.9	-0.9
SPUT	South Promonto 5.7nm,1.0s,mb4.4	58.43	328	eP	P	21 39 17.7	+0.6
O13A	Hicks Ranch, I baz=58	58.45	326	⇓P	P	21 39 16.7	-0.5
N14A	Grayback Hills baz=59	58.51	327	⇑P	P	21 39 17.3	-0.3
S10A	Tonopah Range, baz=59,SNR=6.8	58.53	322	⇑P	P	21 39 18.1	+0.3
P12A	McGill baz=59	58.54	324	⇓P	P	21 39 17.5	-0.3
Q11A	Duckwater baz=59,SNR=7.8	58.56	323	⇑P	P	21 39 18.3	+0.3
J18A	Kendall Valley baz=59	58.57	331	⇓P	P	21 39 17.4	-0.6
S09A	Goldfield baz=59	58.79	322	⇓P	P	21 39 18.7	-0.9
VES	Vestal, Richgr baz=59	58.83	319	⇑P	P	21 39 18.6	-1.4
I18A	Diamond G Ranc baz=59	58.84	331	⇑P	P	21 39 19.0	-0.8
L15A	Malad City baz=59,SNR=5.2	58.89	328	⇓P	P	21 39 19.8	-0.3
O12A	Currie baz=59	58.98	325	⇓P	P	21 39 20.9	+0.1
Q10A	Clear Creek Ra baz=59	58.99	323	⇓P	P	21 39 21.2	+0.2
TPH	Tonopah	59.01	322	P	P	21 39 20.1	-1.0
J17A	Brown Place, J baz=59	59.02	330	⇑P	P	21 39 21.1	0.0
R09A	Tonopah baz=59	59.02	322	⇓P	P	21 39 21.1	0.0
M14A	Sheep Mountain baz=59,SNR=7.0	59.05	327	⇑P	P	21 39 20.8	-0.5
N13A	Wendover, West baz=59	59.07	326	⇑P	P	21 39 21.2	-0.3
K16A	Soda Springs baz=59	59.07	329	⇑P	P	21 39 21.4	-0.1
ULM	Lac du Bonnet 12nm,0.7s,mb4.8,baz=155,slow=6.4,SNR=19	59.14	345	P	P	21 39 20.2	-1.6
ULM	1.8nm,0.5s,baz=149,slow=10,SNR=2.1			pP	pP	21 39 52.5	-0.9
ULM	4.5nm,0.7s,baz=44,slow=0.8,SNR=4.0			PcP	PcP	21 40 08.3	-0.6
ULM	Lac du Bonnet	59.14	345	P	P	21 39 20.2	-1.6
ULM				pP	pP	21 39 52.5	-0.9
ULM				PcP	PcP	21 40 08.3	-0.6
LOHW	Long Hollow 2.2nm,0.8s,mb4.0	59.16	331	eP	P	21 39 22.0	+0.1
RRI2	Red Ridge 5.1nm,0.8s,mb4.4	59.31	330	eP	P	21 39 23.4	+0.3
I17A	Pilgrim Ck. baz=60	59.37	331	⇑P	P	21 39 23.6	+0.2
J16A	Bone baz=60	59.41	330	⇑P	P	21 39 23.7	0.0
O11A	Cowboy Ranch, baz=60	59.41	325	⇑P	P	21 39 23.3	-0.5
K15A	Arbon baz=60	59.45	329	⇑P	P	21 39 23.9	-0.1
IMW	Indian Meadow 20nm,1.9s,mb4.6	59.53	331	eP	P	21 39 24.8	+0.3
N12A	Clover Valley, baz=60	59.53	326	⇓P	P	21 39 24.6	-0.1
RLMT	Red Lodge baz=60	59.66	333	⇓P	P	21 39 25.2	-0.2
K14A	Jones Ranch, D baz=60	59.69	328	⇓P	P	21 39 25.1	-0.5
H17A	Grant Village baz=60	59.72	331	⇓P	P	21 39 25.8	-0.1
L13A	Double Diamond baz=60	59.78	327	⇓P	P	21 39 26.0	-0.3
I16A	Newdale baz=60	59.78	330	⇓P	P	21 39 26.6	+0.3
NVAR	Mina Array Bea 1.1nm,0.6s,mb3.9,baz=126,slow=6.6,SNR=9.7	59.90	322	P	P	21 39 28.1	+1.0
NVAR	0.6nm,0.7s,baz=127,slow=7.3,SNR=2.8			pP	pP	21 39 58.8	-0.1
NVAR	0.9nm,0.6s,baz=127,slow=4.7,SNR=5.6			PcP	PcP	21 40 11.8	-0.4
J15A	Blackfoot baz=60,SNR=6.4	59.91	329	P	P	21 39 27.4	+0.3
G18A	Lazy EL Ranch, baz=60	59.94	333	⇑P	P	21 39 27.1	-0.2
H16A	Russell Place, baz=60,SNR=9.0	60.27	331	⇓P	P	21 39 30.4	+0.8
L12A	House Creek Ra baz=60	60.40	327	⇓P	P	21 39 30.8	+0.3
J14A	Carey baz=60,SNR=8.7	60.41	329	P	P	21 39 31.1	+0.5
F18A	Big Timber baz=61,SNR=11	60.46	333	⇓P	P	21 39 30.6	-0.2
R06C	Coleville baz=61	60.67	321	⇑P	P	21 39 31.7	-0.7
K12A	Draper Farm, C baz=61	60.67	327	⇓P	P	21 39 32.9	+0.5
I14A	Mackay baz=61,SNR=5.5	60.81	329	⇓P	P	21 39 33.5	+0.2
J13A	Cove Ranch, Pi baz=61	60.81	328	⇑P	P	21 39 32.5	-0.8
L11A	Cat Creek Ranc baz=61,SNR=5.6	60.81	326	⇓P	P	21 39 33.4	+0.1
F17A	Fitzpatrick Pl baz=61	60.89	332	⇓P	P	21 39 33.9	+0.2
G16A	Moss Hill, Enn baz=61	60.93	331	⇑P	P	21 39 33.7	-0.3
CMB	Columbia Colle	60.97	320	eP	P	21 39 33.6	-0.9
HLID	Hailey baz=61	61.05	328	⇓P	P	21 39 34.9	0.0
HLID	Hailey 2.5nm,1.0s,mb4.0	61.05	328	eP	P	21 39 34.9	0.0
E18A	Harlowton baz=61	61.05	333	⇑P	P	21 39 34.7	-0.2
I13A	Wildhorse Cree baz=61,SNR=5.4	61.14	329	P	P	21 39 36.0	+0.6
BOZ	Bozeman (W) baz=61,SNR=6.3	61.15	332	⇑P	P	21 39 35.5	0.0
L10A	Juniper Basin baz=61,SNR=5.2	61.15	326	⇑P	P	21 39 35.8	+0.2
J12A	Stokes Ranch, baz=61	61.19	328	⇑P	P	21 39 36.1	+0.2
F16A	Kennard Place, baz=61	61.25	332	⇓P	P	21 39 36.4	+0.2
N08A	GE Springer Mi baz=61	61.27	324	⇓P	P	21 39 34.9	-1.5
SCHQ	Schefferville 2.2nm,0.8s,mb4.0,baz=249,slow=7.4,SNR=6.1	61.32	5	P	P	21 39 35.2	-1.3
K11A	Parker Ranch, baz=62	61.37	327	⇑P	P	21 39 36.8	-0.3
E17A	Martinsdale baz=62	61.40	333	⇑P	P	21 39 37.3	+0.1
MFID	Camas Ranch baz=62,SNR=17	61.70	327	P	P	21 39 39.6	+0.4
F15A	Butte baz=62	61.71	331	⇓P	P	21 39 39.0	-0.3
G14A	Jackson baz=62	61.75	330	⇑P	P	21 39 39.7	+0.2
L09A	Wilkinson Ranc baz=62	61.79	325	⇑P	P	21 39 40.4	+0.5
E16A	East Helena baz=62	61.83	332	⇓P	P	21 39 39.8	-0.3
M08A	Happy Creek Ra baz=62	61.83	324	⇓P	P	21 39 40.0	-0.2
K10A	MacKenzie Ranc baz=62	61.84	326	⇑P	P	21 39 40.0	-0.2

D17A	Six Diamond Ra	61.84	333	⇓P	P	21 39 40.1	0.0
	baz=62,SNR=5.3						
H12A	Diamond D Ranc	61.96	329	⇓P	P	21 39 41.2	+0.2
	baz=62						
G13A	Cobalt	62.02	330	⇓P	P	21 39 41.1	-0.3
	baz=62,SNR=5.8						
BEKR	Beckwourth	62.04	322	⇑P	P	21 39 41.9	+0.3
	baz=62,SNR=5.4						
EGMT	Eagleton	62.10	334	⇓P	P	21 39 41.5	-0.3
	baz=62						
I11A	Placerville	62.10	328	⇓P	P	21 39 41.8	-0.2
	baz=62,SNR=5.8						
F14A	Wisdom	62.11	331	⇑P	P	21 39 42.3	+0.3
	baz=62						
D16A	Dana Ranch, Ca	62.14	333	⇓P	P	21 39 42.5	+0.4
	baz=62						
C17A	Wharram Farm,	62.24	334	⇓P	P	21 39 42.6	-0.1
	baz=62						
N06A	Buffalo Meadow	62.26	323	⇓P	P	21 39 43.0	-0.1
	baz=62,SNR=5.9						
K09A	Rome	62.26	326	⇓P	P	21 39 43.3	+0.2
	baz=62,SNR=13						
L08A	Fields	62.28	325	P	P	21 39 43.0	-0.2
	baz=62,SNR=6.0						
B18A	Beardsley Farm	62.39	335	⇓P	P	21 39 43.6	-0.2
	baz=62,SNR=6.6						
F13A	Darby	62.56	330	⇓P	P	21 39 44.8	-0.2
	baz=63						
E14A	Clinton	62.60	331	⇑P	P	21 39 45.3	0.0
	baz=63						
G12A	Big Creek, Yel	62.60	329	⇑P	P	21 39 45.1	-0.2
	baz=63						
H11A	Donnelly	62.67	328	⇑P	P	21 39 44.6	-1.1
	baz=63						
J09A	Fry Pan Ranch,	62.70	326	⇑P	P	21 39 44.9	-1.1
	baz=63						
L07A	Adell	62.75	324	⇓P	P	21 39 46.0	-0.3
	baz=63						
C16A	Fuhringer Ranc	62.80	333	⇑P	P	21 39 45.9	-0.6
	baz=63						
A18A	Metzger Ranch,	62.83	335	⇓P	P	21 39 46.4	-0.2
	baz=63						
E13A	Victor	62.96	331	⇑P	P	21 39 47.2	-0.4
	baz=63						
F12A	Elk City	63.00	330	⇓P	P	21 39 48.0	+0.1
	baz=63,SNR=5.7						
I09A	Lost Marbles R	63.10	327	⇓P	P	21 39 48.4	-0.2
	baz=63						
MSO	Missoula	63.11	331	*e*P	P	21 39 49.1	+0.5
	7.6nm,1.3s,mb4.4						
K07A	Rock Creek Ran	63.12	325	⇑P	P	21 39 48.8	0.0
	baz=63						
A17A	Triple J Farms	63.21	335	⇓P	P	21 39 49.0	-0.1
	baz=63						
B16A	M & M Farms, S	63.24	334	⇓P	P	21 39 48.9	-0.5
	baz=63						
F11A	Grangeville	63.55	329	⇓P	P	21 39 51.1	-0.4
	baz=64						
B15A	Bradely Ranch,	63.55	333	⇑P	P	21 39 51.2	-0.3
	baz=64						
D13A	Huson	63.55	331	⇑P	P	21 39 51.4	-0.1
	baz=64						
A16A	West Butte Ran	63.60	334	⇑P	P	21 39 51.8	+0.1
	baz=64						
G10A	Bishop Farm, J	63.65	328	⇑P	P	21 39 51.5	-0.6
	baz=64						
C14A	Swan Lake	63.70	332	⇓P	P	21 39 52.4	-0.1
	baz=64						
E11A	Bogner Ranch,	63.90	330	⇓P	P	21 39 53.0	-0.8
	baz=64						
H08A	Prairie City	63.96	327	⇓P	P	21 39 54.5	+0.2
	baz=64						
G09A	Cove	63.98	328	⇑P	P	21 39 54.4	+0.1
	baz=64,SNR=6.2						
J06A	Christmas Vall	63.99	325	⇓P	P	21 39 54.6	+0.2
	baz=64,SNR=6.5						
C13A	Hot Springs	64.02	331	⇓P	P	21 39 54.5	-0.1
	baz=64						
K05A	Summer Lake	64.09	324	⇑P	P	21 39 55.0	-0.1
	baz=64						
I07A	Izee	64.14	326	⇑P	P	21 39 56.0	+0.6
	baz=64,SNR=9.2						
F10A	Beach Ranch, E	64.16	329	⇑P	P	21 39 55.2	-0.3
	baz=64						
BSMT	Bassoo Peak	64.25	331	*e*P	P	21 39 54.1	-1.9
A14A	Double T Ranch	64.42	333	⇑P	P	21 39 56.8	-0.3
	baz=64						
D11A	Klaveano Farm,	64.44	330	⇑P	P	21 39 56.3	-1.0
	baz=64						
E10A	Myers Farm, Un	64.44	329	⇓P	P	21 39 56.1	-1.2
	baz=64						
I06A	Prineville	64.45	325	⇓P	P	21 39 58.1	+0.7
	baz=64						
B13A	Whitefish	64.47	332	⇓P	P	21 39 57.2	-0.2
	baz=65						
C12B	Naegeli Ranch,	64.47	331	⇑P	P	21 39 57.9	+0.4
	baz=65						
H07A	Lands Inn, Kim	64.50	326	⇓P	P	21 39 57.9	+0.2
	baz=65,SNR=5.3						
G08A	Pilot Rock	64.62	327	⇑P	P	21 39 58.7	+0.2
	baz=65						
WALA	Waterton Lakes	64.71	333	*e*P	P	21 39 58.7	-0.3
	0.1nm,0.6s						
FFC	Flin Flon	64.83	343	*e*P	P	21 39 58.3	-1.3
	4.3nm,0.8s,mb4.3						
A13A	Flathead Natio	64.84	333	⇑P	P	21 39 60.0	+0.1
	baz=65						
F08A	Pendleton	64.85	328	⇑P	P	21 39 59.6	-0.4
	baz=65						
D10A	Wagner Farm, O	64.91	330	⇓P	P	21 39 59.5	-0.9
	baz=65						
E09A	Wood Farm, Sta	64.99	329	⇑P	P	21 39 59.8	-1.0
	baz=65						
H06A	Lindquist Farm	65.02	326	⇓P	P	21 40 01.3	+0.2
	baz=65						
A12A	Yaak River Ran	65.42	332	⇑P	P	21 40 04.1	+0.5
	baz=66						
G06A	Carlson Farm,	65.50	326	⇓P	P	21 40 04.0	-0.2
	baz=66						
NEW	Newport	65.66	331	*e*P	P	21 40 04.7	-0.4
A11A	Hall Mountain,	65.77	332	⇓P	P	21 40 06.4	+0.6
	baz=66						
OD2	Odessa Site #2	65.86	329	*e*P	P	21 40 07.0	+0.5
E07A	Sunnyside	65.92	328	⇓P	P	21 40 07.2	+0.3
	baz=66						
H04A	Detroit Lake	66.03	325	⇑P	P	21 40 07.1	-0.5
	baz=66						
B09A	Rice	66.27	330	⇑P	P	21 40 08.9	-0.1
	baz=66,SNR=6.1						
A10A	Northport	66.36	331	⇑P	P	21 40 09.4	-0.2
	baz=66						
D07A	Quincy	66.39	328	⇓P	P	21 40 10.2	+0.3
	baz=66,SNR=6.8						
C07A	Waterville	66.75	329	⇑P	P	21 40 12.5	+0.3
	baz=67						
B08A	Colville Reser	66.82	330	⇓P	P	21 40 11.8	-0.7
	baz=67						
EDM	Edmonton	67.53	336	*e*P	P	21 40 16.4	-0.6
A07A	Ashnola River,	67.79	330	⇓P	P	21 40 19.5	+0.8
	baz=68,SNR=5.8						
NLWA	Neilton Lookou	68.59	327	*e*P	P	21 40 24.2	+0.5
A05A	Maple Falls	68.63	329	⇑P	P	21 40 23.5	-0.4
	baz=69						
DBIC	Dimbokro	71.28	81	P	P	21 40 40.0	-0.9
	6.0nm,0.7s,mb4.4,baz=195,slow=7.3,SNR=14						
YKA	Yellowknife Ar	74.97	342	P	P	21 41 00.4	-1.0
	2.6nm,0.5s,mb4.1,baz=142,slow=5.8,SNR=58						
YKA				pP	pP	21 41 33.9	-0.6
	1.7nm,0.7s,baz=138,slow=5.9,SNR=6.1						
YKA	Yellowknife Ar	74.97	342	P	P	21 41 00.4	-1.0
YKA				pP	pP	21 41 33.9	-0.6
TORD	Torodi Ar. Bea	78.68	75	P	P	21 41 22.2	-1.2
	2.2nm,0.7s,mb3.9,baz=286,slow=4.7,SNR=32						
TORD				pP	pP	21 41 53.1	-3.5
	0.4nm,0.3s,baz=276,slow=5.7,SNR=2.6						
TORD	Torodi Ar. Bea	78.68	75	P	P	21 41 22.2	-1.2
TORD				pP	pP	21 41 53.1	-3.5
SUMG	Summit	82.19	10	*e*P	P	21 41 40.9	+0.1
	152nm,2.9s,mb5.1						
QSPA	South Pole Qui	83.78	180	P	P	21 41 50.3	+1.3
	7.8nm,0.8s,mb4.5,baz=180,slow=4.0,SNR=18						
VNDA	Vanda	90.64	191	P	P	21 42 23.3	+1.1
	1.4nm,0.8s,mb4.0,baz=350,slow=18,SNR=7.8						
VNDA	Vanda	90.64	191	P	P	21 42 23.3	+1.1
SUR	Sutherland	91.64	123	P	P	21 42 32.5	+4.8
MOO	Moorlands	118.08	214	*e*P	pPKPdf	21 48 44.0	+1.7
AKTK	Aktyubinsk	121.24	33	PKP	PKPdf	21 48 12.5	0.0
AKTO	Aktyubinsk	121.24	33	PKP	PKPdf	21 48 12.5	0.0
	0.7nm,0.6s,baz=284,slow=8.3,SNR=2.7						
BVAR	Borovoye Array	125.59	25	PKP	PKPdf	21 48 20.7	-0.1
	1.1nm,0.8s,baz=232,slow=1.7,SNR=5.7						
BVAR				pPKP	pPKPdf	21 48 57.8	+1.4
	0.4nm,0.7s,baz=253,slow=1.5,SNR=3.6						
ZALV	Zalesovo Beam	129.80	15	PKP	PKPdf	21 48 28.8	0.0
	4.3nm,0.9s,baz=281,slow=2.3,SNR=15						
ZALV				pPKP	pPKPdf	21 49 05.5	+1.1
	3.9nm,0.7s,baz=318,slow=2.0,SNR=10						
KURK	Kurchatov	130.62	22	PKP	PKPdf	21 48 30.1	-0.4
	0.9nm,0.3s,baz=315,slow=2.3,SNR=4.2						
KURK				pPKP	pPKPdf	21 49 07.6	+1.6
	1.1nm,0.5s,baz=320,slow=2.8,SNR=2.9						
MKAR	Makanchi Array	135.23	22	PKP	PKPdf	21 48 38.6	-0.6
	0.8nm,0.7s,baz=344,slow=2.2,SNR=7.1						
MKAR				pPKP	pPKPdf	21 49 15.6	+0.7
	1.1nm,0.7s,baz=290,slow=2.6,SNR=6.0						
MDJ	Mudanjiang	136.18	334	PKP	PKPdf	21 48 41.8	+0.8
MDJ				PP	PP	21 51 22.0	+0.4
MDJ				SS	SS	22 09 10.5	-0.4
MDJ				AMB	AMB		
	comp=Z,200nm,7.5s						
MDJ				LR	LR		
	comp=N,190nm,35.7s						
MDJ				LR	LR		
	comp=E,180nm,41.4s						
MDJ				LR	LR		
	comp=Z,400nm,35.0s						
CN2	Changchun	138.53	337	*e*PKP	PKPdf	21 48 43.1	-2.3
SONM	Songino Array	138.62	358	PKP	PKPdf	21 48 43.3	-2.2
	comp=Z,0.5nm,0.7s,baz=13,slow=1.9,SNR=3.7						
SONM				pPKP	pPKPdf	21 49 20.4	-0.6
	comp=Z,0.9nm,0.8s,baz=321,slow=1.1,SNR=4.2						
KSRS	Korea Array	142.58	329	PKhKP		21 48 47.9	
	comp=Z,1.1nm,0.5s,baz=47,slow=3.7,SNR=5.8						
KSRS				PKP	PKPdf	21 48 52.0	-0.9
	comp=Z,1.3nm,0.7s,baz=38,slow=1.9,SNR=6.7						
KSRS				pPKP	pPKPdf	21 49 29.2	+0.6
	comp=Z,0.9nm,0.6s,baz=351,slow=1.9,SNR=4.0						
BJI	Beijing	144.93	345	PKP	PKPdf	21 48 57.4	+0.4
BJI				pPKP	pPKPdf	21 49 32.1	-0.5
BJI				PP	PP	21 52 16.0	+1.3
BJI				LR	LR		
	comp=N,190nm,35.4s						
BJI				LR	LR		
	comp=E,150nm,36.2s						
BJI				LR	LR		
	comp=Z,220nm,38.2s						
HHC	Hu-ho-hao-te	145.10	351	*e*PKPbc	PKPbc	21 48 55.6	-1.4
HHC				pPKP	pPKPdf	21 49 37.8	+4.9
HHC				sPKP		21 49 54.8	
HHC				PP	PP	21 52 18.1	+2.4
HHC				PKS		21 52 30.3	
HHC				SKS	SKSdf	21 55 46.4	-7.9
HHC				SKKS	SKKSac	21 58 50.0	-6.4
HHC				AMB	AMB		
	comp=Z,130nm,7.7s						
HHC				LR	LR		
	comp=N,120nm,19.0s						
HHC				LR	LR		
	comp=E,120nm,15.5s						
HHC				LR	LR		
	comp=Z,85nm,17.8s						
GTA	Gaotai	146.74	7	*e*PKPbc	PKPbc	21 49 01.3	-0.6
GTA				pPKP	pPKPdf	21 49 38.0	+2.3
GTA				SKS	SKSdf	21 55 51.6	-5.1
GTA				AMB	AMB		
	comp=Z,390nm,5.4s						
GTA				LR	LR		
	comp=N,73nm,14.6s						
GTA				LR	LR		
	comp=E,68nm,14.6s						
GTA				LR	LR		
	comp=Z,110nm,18.4s						
DANN	Dangsing	150.33	40	*e*P	PKPbc	21 49 12.0	+0.4
LZH	Lanzhou	150.36	2	PKPbc	PKPdf	21 49 03.0	-3.1
LZH				pPKP	pPKPdf	21 49 46.0	+4.2
LZH				sPKP		21 49 58.0	
KOLN	Koldanda	150.62	41	*e*P	PKPbc	21 49 11.9	-0.4
	comp=Z,15nm,0.8s						
GKN	Gorkha	151.13	39	*e*P	PKPbc	21 49 13.2	-0.2
	comp=Z,35nm,0.8s						
KKN	Kakani	151.68	39	*e*P	PKPbc	21 49 14.8	+0.1
	comp=Z,17nm,0.7s						
DMN	Daman	151.70	39	*e*P	PKPbc	21 49 14.5	-0.3
	comp=Z,9.5nm,0.6s						
PKI	Pulchoki	151.91	39	*e*P	PKPbc	21 49 15.1	-0.2
GUN	Gumba	151.96	38	*e*P	PKPbc	21 49 15.2	-0.1
	comp=Z,11nm,0.8s						
JIRN	Jiri	152.33	38	*e*P	PKPbc	21 49 16.1	-0.1
	comp=Z,7.7nm,0.7s						
RAMN	Ramite	153.10	38	*e*P	PKPbc	21 49 17.7	-0.2
	comp=Z,12nm,0.6s						
TAPN	Taplejung	153.47	36	*e*P	PKPbc	21 49 18.6	-0.1
ODAN	Odare	153.64	37	*e*P	PKPbc	21 49 18.4	-0.7
CD2	Chengdu	155.51	2	PKP	PKPdf	21 49 13.4	-0.3
GYA	Guiyang	159.90	355	*e*PKP	PKPdf	21 49 18.9	-0.3
GYA				pPKP	pPKPdf	21 49 55.4	+0.4
GYA				PKPab	PKPab	21 50 01.0	+2.1
GYA				sPKP		21 50 11.3	
GYA				PKS		21 52 52.6	
GYA				PP	PP	21 53 44.1	+4.6
GYA				AMB	AMB		
	comp=Z,70nm,7.8s						
CMAR	Chiang Mai Arr	166.62	25	PKP	PKPdf	21 49 25.1	-0.7
	comp=Z,0.6nm,0.7s,baz=329,slow=3.0,SNR=4.9						
CMAR				pPKP	pPKPdf	21 50 02.5	+0.9
	comp=Z,0.4nm,0.4s,baz=300,slow=2.2,SNR=2.1						
CMAR				PKPab	PKPab	21 50 27.7	-0.9
	comp=Z,1.0nm,0.8s,baz=335,slow=5.1,SNR=5.7						
CMAR				pPKPab	pPKPab	21 51 03.4	+0.6
	comp=Z,0.9nm,0.7s,baz=323,slow=5.4,SNR=4.4						

NEIC **17** *21:34:48.9±1.7, 23°.28N×121°.62E, h10^{km}, Error ellipse: s-maj=19.0km s-min=8.3km az=124.0*
ISCJB **17** *21:34:50.4±0.3, 23°.28N±0°.02×121°.54E±0°.02, h23^{km}±3^{km}, Error ellipse: s-maj=3.3km s-min=2.5km az=33.4*
JMA **17** *21:34:50.6±0.3, 23°.21N×121°.50E, h64^{km}, M3.2*
TAP **17** *21:34:51.0, 23°.30N×121°.44E, h26^{km}, ML3.7, C*
ISC 17 21:34:50.6±0.3**, 23°.29N**±0°.02×**121°.52E**±0°.02**, h20**^{km}±3^{km}**,**
n70, σ0^{s}**93**/114**, 20C-1D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TWF1	Yuli	0.21	288	⇑*i*P	Pb	21 34 56.6	+0.6
	baz=292						
TWF1				S	Sb	21 35 00.8	+1.1
	baz=292						
YULB	Yu-li	0.23	297	*e*P	Pb	21 34 56.5	+0.2
YULB				*e*S	Sb	21 35 01.1	+1.1
CHKT	Chengkung	0.23	217	⇑P	Pb	21 34 57.3	+1.0
	baz=193						
CHKT				S	Sb	21 35 01.6	+1.4
	baz=193						
EHY	Hungye	0.28	320	⇑*i*P	Pb	21 34 57.4	+0.3
	baz=319						
EHY				*i* S	Sb	21 35 02.1	+0.6
	baz=319						
TEGC	Jichi Village	0.42	3	*e*P	Pb	21 35 00.0	+0.6
	baz=17						
ELDTW	Lidau	0.47	258	⇑*i*P	Pb	21 34 59.5	-0.7
	baz=248						
ELDTW				*i* S	Sb	21 35 05.2	-1.6
	baz=248						
ESL	Shilin	0.53	351	*i* P	Pb	21 35 00.9	-0.4
	baz=348						
ESL				*e*S	Sb	21 35 08.0	-0.5
	baz=348						
YUS	Yu-Shan	0.56	291	⇑*i*P	Pb	21 35 01.7	0.0
	baz=291						
YUS				S	Sb	21 35 09.0	-0.3
	baz=291						
TWG	Pinlang	0.62	222	*e*P	Pb	21 35 02.0	-0.8
TWG				*e*S	Sb	21 35 10.3	-0.8
TWG	Pinlang	0.62	222	⇑P	Pb	21 35 01.8	-1.0
	baz=215						
TTN	Taitung	0.63	213	*e*P	Pb	21 35 02.8	-0.2
	baz=206						
TTN				*e*S	Sb	21 35 12.7	+1.3
	baz=206						
HWA	Hwalien	0.69	6	*e*P	Pb	21 35 03.6	-0.4
	baz=359						
ALS	Alishan	0.69	289	⇑*i*P	Pb	21 35 04.1	0.0
	baz=289						
ALS				S	Sb	21 35 13.5	+0.3
	baz=289						
STYT	Tauyuan	0.71	260	⇑P	Pb	21 35 03.8	-0.6
	baz=255						
STYT				*e*S	Sb	21 35 12.7	-1.0
	baz=255						
SSLB	Suanglung	0.72	314	*e*P	Pb	21 35 03.7	-0.8
SSLB				*e*S	Sb	21 35 13.1	-0.8
TWD	Chiawan	0.79	5	*e*P	Pb	21 35 04.8	-0.9
	baz=356						
TWD				*e*S	Sb	21 35 15.1	-0.9
	baz=356						
TPUB	Ta-pu	0.82	271	*e*P	Pb	21 35 05.8	-0.4
TPUB				*e*S	Sb	21 35 17.4	+0.6
SMLT	Sun Moon Lake	0.82	316	⇑*i*P	Pb	21 35 05.9	-0.3
	baz=322						
SMLT				S	Sb	21 35 16.1	-0.7
	baz=322						
CHN5	Tsauling	0.83	292	⇑P	Pb	21 35 06.5	+0.1
	baz=286						
CHN5				*e*S	Sb	21 35 18.4	+1.3
	baz=286						
WTP	Ta-pu	0.83	267	⇑*i*P	Pb	21 35 06.4	0.0
	baz=260						
WTP				*e*S	Sb	21 35 17.4	+0.2
	baz=260						
CHN4	Tsaushan	0.85	274	⇑*i*P	Pb	21 35 06.8	+0.1
	baz=273						
CHN4				*e*S	Sb	21 35 18.2	+0.5
	baz=273						
ECL	Taimali	0.86	217	*e*P	Pb	21 35 04.9	-2.0
	baz=213						
TYC	Yuchr	0.86	315	⇑*i*P	Pb	21 35 06.7	-0.3
	baz=321						
NACB	Ninganchiao	0.89	4	*e*P	Pb	21 35 05.7	-1.7
NACB				*e*S	Sb	21 35 16.9	-1.8
WHF	Hehuan Shan	0.89	345	⇑P	Pb	21 35 06.7	-0.7
	baz=348						
WHF				*e*S	Sb	21 35 17.8	-0.9
	baz=348						
SGST	Jiashian	0.89	257	⇑P	Pb	21 35 07.3	-0.1
	baz=254						
SGST				*e*S	Sb	21 35 18.7	0.0
	baz=254						
CHN1	Nanshi	0.92	264	⇑*i*P	Pb	21 35 08.0	+0.2
	baz=261						
CHN1				*e*S	Sb	21 35 20.6	+1.0
	baz=261						
TWK	Hsinying	0.95	269	⇑*i*P	Pb	21 35 08.3	-0.1
	baz=267						
TWK				*e*S	Sb	21 35 20.4	-0.1
	baz=267						
WGK	Gukeng	0.96	294	⇑P	Pb	21 35 08.8	+0.2
	baz=294						
WGK				*e*S	Sb	21 35 22.0	+1.1
	baz=294						
WNT	Mingjian	0.97	308	⇑*i*P	Pb	21 35 09.1	+0.5
	baz=308						
WNT				*e*S	Sb	21 35 22.2	+1.2
	baz=308						
SSD	Sandimen	0.98	237	*e*P	Pb	21 35 07.6	-1.3
	baz=230						
CHN2	Minshiung	0.99	284	*e*P	Pb	21 35 09.1	0.0
	baz=283						
CHN2				*e*S	Sb	21 35 23.1	+1.4
	baz=283						
TWT	Tachien	1.01	342	*e*P	Pb	21 35 08.4	-1.0
	baz=342						
TWT				*e*S	Sb	21 35 21.5	-0.9
	baz=342						
CHY	Chiayi	1.03	282	*e*P	Pb	21 35 09.7	-0.1
	baz=281						
CHY				*e*S	Sb	21 35 22.9	0.0
	baz=281						
TAW	Tawu	1.09	212	*e*P	Pn	21 35 08.5	-2.2
	baz=208						
SGLT	Jiouru	1.10	240	*e*P	Pn	21 35 12.3	+1.4
	baz=235						
TWM1	Shoushan	1.11	246	*e*P	Pn	21 35 11.6	+0.6
	baz=242						
ENA	Nanau	1.15	10	*e*P	Pn	21 35 10.3	-1.3
	baz=1.0						
TCU	Taichung	1.15	318	*e*P	Pn	21 35 12.0	+0.4
	baz=304						
TCU				*e*S	Sb	21 35 27.3	+0.9
	baz=304						
NNS	Nan Shan	1.16	353	⇓*e*P	Pn	21 35 10.9	-0.7
	baz=356						
NNS				*e*S	Sb	21 35 24.7	-1.8
	baz=356						
CHN8	Yiju	1.20	273	*e*P	Pn	21 35 11.9	-0.4
	baz=271						
CHN8				*e*S	Sb	21 35 28.5	+0.6
	baz=271						
SCZT	Fangliau	1.23	223	*e*P	Pn	21 35 12.0	-0.7
	baz=208						
WSF	Szhu	1.24	287	*e*P	Pn	21 35 12.1	-0.7
	baz=299						
WSF				*e*S	Sn	21 35 29.0	+0.1
	baz=299						
LAY	Lan-yu	1.24	179	*e*P	Pn	21 35 10.9	-1.9
	baz=167						
TWQ1	Liyutan	1.26	327	⇑P	Pn	21 35 13.9	+0.9
	baz=327						
TWQ1				*e*S	Sn	21 35 30.6	+1.3
	baz=327						
WTCT	Ta-ch’eng	1.27	297	*e*P	Pn	21 35 12.1	-1.1
	baz=297						
NSY	Sanyi	1.32	328	*e*P	Pn	21 35 15.0	+1.1
	baz=328						
NSY				*e*S	Sn	21 35 32.8	+1.9
	baz=328						
ENTT	Nioudou	1.35	2	*e*P	Pn	21 35 13.6	-0.7
	baz=4.0						
TWC	Suao	1.35	13	*e*P	Pn	21 35 14.3	0.0
	baz=1.0						
TWC				*e*S	Sn	21 35 33.0	+1.4
	baz=1.0						
YHNB	Yeheng	1.38	355	*e*Pn	Pn	21 35 14.5	-0.3
YHNB				*e*S	Sn	21 35 32.0	-0.4
NSK	Sanguang	1.39	354	*e*P	Pn	21 35 14.8	-0.1
	baz=10.0						
NSK				S	Sn	21 35 32.0	-0.6
	baz=10.0						
NSTT	Nanjuang	1.42	341	*e*P	Pn	21 35 15.2	-0.1
	baz=342						
TWP	Hsiaoliuchiu	1.42	229	*e*P	Pn	21 35 17.9	+2.6
	baz=223						
TWE	Neicheng	1.43	5	*e*P	Pn	21 35 15.0	-0.5
	baz=8.0						
HEN	Hengchun	1.47	210	*e*P	Pn	21 35 16.8	+0.9
	baz=195						
TWK1	Hengchun	1.49	206	*e*P	Pn	21 35 15.3	-0.9
	baz=192						
TSEB	Hengchuen, Pin	1.50	203	*e*P	Pn	21 35 15.8	-0.5
	baz=191						
TATO	Taipei	1.68	359	*e*Pn	Pn	21 35 19.0	+0.2
TATO				*e*Sn	Sn	21 35 39.3	-0.5
TWA	Mucha	1.69	2	*e*P	Pn	21 35 20.5	+1.6
	baz=15						
NWF	Wu-fen Shan	1.79	8	*e*P	Pn	21 35 22.8	+2.4
	baz=9.0						
YOJ	Yonaguni jima	1.80	49	P	Pn	21 35 20.9	+0.4
YOJ				*e*S	Sn	21 35 44.1	+1.4
TWS1	Kuangyinshan	1.81	357	*e*P	Pn	21 35 22.8	+2.2
	baz=14						
PNG	Penghu	1.83	279	*e*P	Pn	21 35 19.8	-1.1
	baz=263						
PNG				*e*S	Sn	21 35 41.5	-1.8
	baz=263						
HATJ	Hateruma jima	2.23	69	*e*S	Sn	21 35 53.2	-0.2
IRIF	Iriomote-Funau	2.28	62	P	Pn	21 35 27.7	+0.6
IRIF				*e*S	Sn	21 35 54.9	+0.4
JKRS	Kuro-shima	2.47	67	P	Pn	21 35 30.3	+0.6
JIJ	Ishigaki jima	2.63	65	P	Pn	21 35 32.4	+0.5
JIJ				*e*S	Sn	21 36 03.3	+0.1
KNM	Kinmen	3.04	292	*e*P	Pn	21 35 38.3	+0.7
	baz=291						
QZH	Quanzhou	3.14	302	*e*Pn	Pn	21 35 39.0	0.0
QZH				Sn	Sn	21 36 14.6	-1.3
QZH				smax			
	comp=N,80nm,0.4s						
QZH				smax			
	comp=E,70nm,0.6s						
JTJ	Tarama	3.21	65	P	Pn	21 35 40.5	+0.6
JTJ				*e*S	Sn	21 36 18.7	+1.2

SZGRF ***17*** *21:38:55.0, 15°.89S×173°.30W, h33^{km}, Tonga Islands*

MOS ***17*** *21:38:55.3±1.0, 15°.27S×173°.60W, h33^{km}, mb5.7/45, MS4.6/5, Error ellipse: s-maj=7.8km s-min=7.0km az=54.2*

ISCJB ***17*** *21:38:57.4±1.0, 15°.43S±0°.04×173°.56W±0°.03, h58^{km}±8^{km}, mb5.4/105, MS4.5/37, Error ellipse: s-maj=7.0km s-min=3.8km az=154.9*

IDC ***17*** *21:38:58.4±2.3, 15°.42S×173°.56W, h52^{km}±20^{km}, mb5.1/21, mb1 5.2/23, mb1mx5.2/23, mbtmp5.1/23, ML4.5/2, MS4.2/20, Ms1 4.2/20, ms1mx4.1/25, Error ellipse: s-maj=14.6km s-min=10.2km az=140.0*

BJI ***17*** *21:38:59.5, 15°.16S×173°.38W, h72^{km}, mB5.5/29, mb5.4/47, Ms5.3/26, Ms7 5.0/25*

NEIC ***17*** *21:39:00.8±0.7, 15°.48S×173°.56W, h76^{km}±6^{km}, mb5.4/66, Error ellipse: s-maj=5.6km s-min=3.5km az=155.0*

GCMT ***17*** *21:39:00.8±0.1, 15°.24S×173°.12W, h101^{km}±1^{km}, MW5.4/99, Moment Tensor Solution. s81,c139; s99,c190; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.46±.02; M$_{\theta\theta}$-0.53±.02; M$_{\phi\phi}$0.06±.03; M$_{r\theta}$0.44±.02; M$_{\theta\phi}$-0.56±.02; M$_{\phi r}$1.08±.01; Best double couple: M$_{0}$1.38500×10^{17} NP1:ϕ_{s}274.00000°, δ27.00000°, λ155.00000°. NP2:ϕ_{s}26.00000°, δ79.00000°, λ65.00000°. Principal axes: T 1.3610, Plg50.0000°, Azm269.0000°; N 0.0480, Plg24.0000°, Azm31.0000°; P -1.4100, Plg30.0000°, Azm136.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

DJA ***17*** *21:39:02, 15°.66S×173°.54W, h77^{km}, mb5.7/29*

ISC 17 21:38:59.9±0.9**, 15°.46S**±0°.04×**173°.55W**±0°.03**, h66**^{km}±8^{km}**, h78**^{km}±1.9^{km}**:pP-P, n1000,** σ**0^{s}66**/630**, mb5.3**/105**, 220C-173D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.30	48	P	Pn	21 39 35.7	+0.2
	1µm,0.3s,baz=66,slow=1.6,SNR=907						
AFI				S	Sn	21 39 58.1	-4.7
	1µm,0.3s,baz=8.2,slow=23,SNR=22						
AFI				LR	LR	21 40 18.9	
	comp=Z,3µm,21.3s,baz=215,slow=35						
AFI	Afiamalu	2.30	48	⇑iPn	Pn	21 39 35.5	0.0
AFI				eSn	Sn	21 39 59.5	-3.3
FUNA	Funafuti	9.89	313	Pn	Pn	21 41 19.9	+0.6
RAR	Rarotonga	14.27	116	P	Pn	21 42 18.4	-0.2
	11nm,0.3s,baz=287,slow=8.2,SNR=15						
RAR				S	Sn	21 44 47.1	-8.5
	3.0nm,0.3s,baz=158,slow=19,SNR=4.0						
RAR	Rarotonga	14.27	116	ePn	Pn	21 42 20.6	+2.0
DZM	Mont Dzumac	20.05	248	eP	P	21 43 28.3	+0.5
DZM	Mont Dzumac	20.05	248	eP	P	21 43 27.9	+0.2
	984nm,1.4s						
TARA	Tarawa	21.40	320	eP	P	21 43 43.7	+1.3
OUZ	Omahuta	22.81	208	eP	P	21 43 59.5	+2.4
	313nm,1.2s,mb5.5						
PAE	Paea	23.07	99	eP	P	21 43 58.4	-1.7
	1µm,1.4s,mb6.0						
PAE	Paea	23.07	99	eP	P	21 43 58.4	-1.7
PAE				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.0						
PPT	Papeete	23.07	99	eP	P	21 43 58.5	-1.6
	comp=Z,102nm,1.3s,mb5.0						
PPT				eLQ		21 48 19.8	
	comp=Z,2µm,25.2s						
PPT				eLR	LR	21 49 21.8	
	comp=Z,4µm,33.0s						
PPT	Papeete	23.07	99	P	P	21 43 59.1	-1.0
	comp=Z,81nm,1.1s,mb5.0,baz=206,slow=19,SNR=6.3						
TIAR	Tiarei	23.30	99	eP	P	21 44 00.8	-1.4
	comp=Z,688nm,0.9s,mb6.0						
TVO	Taravao	23.39	99	eP	P	21 44 01.6	-1.5
	comp=Z,2µm,1.3s,mb6.2						
TVO	Taravao	23.39	99	eP	P	21 44 01.6	-1.5
TVO				pmax	pmax		
	comp=Z,2µm,1.3s,mb6.2						
URZ	Urewera	24.17	198	P	P	21 44 09.0	-0.9
	comp=Z,143nm,0.4s,mb5.7,baz=345,slow=2.9,SNR=38						
URZ				S	S	21 48 22.5	-1.0
	comp=Z,13nm,0.9s,baz=145,slow=16,SNR=3.3						
URZ				LR	LR	21 51 33.0	
	comp=Z,294nm,21.6s,baz=23,slow=31						
URZ	Urewera	24.17	198	eP	P	21 44 08.6	-1.4
	comp=Z,187nm,0.6s,mb5.6						
URZ				eS	S	21 48 23.6	+0.2
PMOR	Pomariorio Ree	24.75	92	eP	P	21 44 15.3	-0.2
	comp=Z,523nm,1.3s,mb5.8						
VAH	Vaihoa	24.99	93	eP	P	21 44 17.1	-0.6
	comp=Z,163nm,1.0s,mb5.4						
HNR	Honiara	26.55	280	eP	P	21 44 31.5	-0.3
HNR				e		21 47 53.8	
HNR				pmax	pmax		
	comp=Z,360nm,0.8s,mb6.0						
HNR	Honiara	26.55	280	P	P	21 44 30.5	-1.3
	comp=Z,393nm,0.8s,mb6.0,baz=193,slow=14,SNR=6.5						
HNR	Honiara	26.55	280	eP	P	21 44 31.5	-0.4
	comp=Z,360nm,0.8s,mb6.0						
HNR				ePcP	PcP	21 47 53.8	-1.4
SNZO	South Karori	27.70	199	eP	P	21 44 43.2	+1.4
	comp=Z,117nm,1.0s,mb5.4						
SNZO				ePP	PP	21 45 44.3	-1.2
SNZO				ePcP	PcP	21 47 53.4	-4.0
KHZ	Kahutara	29.07	200	eP	P	21 44 53.4	-0.6
	comp=Z,57nm,0.6s,mb5.4						
KHZ				ePP	PP	21 46 00.9	+0.1
KHZ				PcP	PcP	21 48 00.9	+0.1
RPZ	Rata Peaks	31.08	202	P	P	21 45 10.7	-1.0
	comp=Z,41nm,0.5s,mb5.4,baz=325,slow=1.2,SNR=33						
RPZ	Rata Peaks	31.08	202	eP	P	21 45 10.8	-1.0
	comp=Z,51nm,0.7s,mb5.4						
TAOE	Nuku Hiva Isla	33.27	83	eLR	LR	21 53 58.2	
	comp=Z,6µm,30.9s						
EIDS	Eidsvold	34.49	248	eP	P	21 45 40.8	-1.1
	comp=Z,15nm,0.6s,mb5.0						
ARMA	Armidale	35.19	239	⇑iP	P	21 45 47.8	0.0
ARMA	Armidale	35.19	239	eP	P	21 45 48.1	+0.3
ARMA				ePcP	PcP	21 48 19.8	+2.0
RKT	Rikitea	37.11	108	eP	P	21 46 04.4	+0.1
	comp=Z,70nm,1.0s,mb5.6						
RKT				eLR	LR	21 55 38.3	
	comp=Z,1µm,32.8s,baz=265						
CTA	Charters Tower	38.49	257	P	P	21 46 15.4	-0.5
CTA						21 48 28.3	
CTA	Charters Tower	38.49	257	eP	P	21 46 15.3	-0.6
	comp=Z,22nm,0.6s,mb5.2						
CTA				ePCP	PcP	21 48 28.7	+0.8
CTA	Charters Tower	38.49	257	P	P	21 46 15.4	-0.5
	comp=Z,32nm,0.6s,mb5.3,baz=91,slow=9.4,SNR=27						
CTA				PcP	PcP	21 48 28.3	+0.4
	comp=Z,41nm,0.8s,baz=52,slow=3.3,SNR=10						
CTA				LR	LR	21 59 33.1	
	comp=Z,327nm,21.6s,baz=75,slow=32						
CTA	Charters Tower	38.49	257	P	P	21 46 15.4	-0.5
CTA				PcP	PcP	21 48 28.3	+0.4
CTA				LR	LR	21 59 33.1	
CTAO	Charters Tower	38.49	257	eP	P	21 46 15.4	-0.5
CTAO				e		21 48 28.1	
CTAO				pmax	pmax		
	comp=Z,74nm,1.2s,mb5.4						
CTAO	Charters Tower	38.49	257	eP	P	21 46 15.4	-0.5
	comp=Z,74nm,1.2s,mb5.4						
CTAO				ePcP	PcP	21 48 28.1	+0.2
CNB	Canberra Magne	38.60	232	⇑iP	P	21 46 16.7	0.0
CNB				ePCP	PcP	21 48 29.7	+1.7
CAN	Canberra	38.88	232	eP	P	21 46 18.4	-0.6
CAN				e		21 48 28.9	
CAN				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.2						
CAN	Canberra	38.88	232	eP	P	21 46 18.4	-0.6
	comp=Z,39nm,0.9s,mb5.2						
CAN				ePcP	PcP	21 48 28.9	0.0
COEN	Coen	41.84	266	eP	P	21 46 44.7	+1.0
	comp=Z,2µm,0.8s						
COEN				ePcP	PcP	21 48 39.7	+1.0
TOO	Toolangi	42.32	231	⇑iP	P	21 46 47.1	-0.2
STKA	Stephens Creek	43.89	240	⇑iP	P	21 46 59.8	-0.3
	comp=Z,98nm,0.9s,mb5.5						
STKA				ePCP	PcP	21 48 46.1	+0.8
STKA	Stephens Creek	43.89	240	P	P	21 46 59.9	-0.1
	comp=Z,122nm,0.8s,mb5.7,baz=87,slow=8.6,SNR=201						
STKA				PcP	PcP	21 48 46.2	+0.9
	comp=Z,40nm,0.8s,baz=66,slow=2.5,SNR=8.6						
STKA				LR	LR	22 03 01.2	
	comp=Z,214nm,20.8s,baz=199,slow=33						
STKA	Stephens Creek	43.89	240	P	P	21 46 59.9	-0.1
STKA				PcP	PcP	21 48 46.2	+0.9
STKA				LR	LR	22 03 01.2	
WB2	Warramunga Arr	49.68	257	eP	P	21 47 44.5	-1.0
WB2				ePcP	PcP	21 49 05.9	-0.1
WRAB	Tennant Creek	49.68	257	P	P	21 47 44.9	-0.6
	comp=Z,1µm,0.9s,SNR=38						
WRAB	Tennant Creek	49.68	257	eP	P	21 47 43.6	-1.9
WRAB				e		21 49 06.5	
WRAB				pmax	pmax		
	comp=Z,125nm,0.8s,mb5.9						
WRAB	Tennant Creek	49.68	257	eP	P	21 47 43.6	-1.9
	comp=Z,125nm,0.8s,mb5.9						
WRAB				ePcP	PcP	21 49 06.5	+0.5
WRA	Warramunga Arr	49.69	257	P	P	21 47 44.4	-1.2
WRA						21 49 06.1	
WRA	Warramunga Arr	49.69	257	P	P	21 47 44.4	-1.2
	comp=Z,90nm,0.7s,mb5.8,baz=91,slow=6.7,SNR=414						
WRA				PcP	PcP	21 49 06.1	+0.1
	comp=Z,50nm,0.7s,baz=90,slow=3.7,SNR=22						
WRA				LR	LR	22 05 48.1	
	comp=Z,443nm,21.3s,baz=90,slow=32						
ASAR	Alice Springs	49.96	252	P	P	21 47 47.0	-0.6
	comp=Z,148nm,0.6s,mb6.1,baz=87,slow=8.1,SNR=995						
ASAR				PcP	PcP	21 49 06.5	-0.4
	comp=Z,29nm,0.7s,baz=98,slow=4.3,SNR=12						
GUMO	Guam	50.24	303	P	P	21 47 49.6	-0.2
KAKA	Kakadu	52.35	266	eP	P	21 48 04.9	-0.7
	comp=Z,84nm,0.5s,mb6.0						
KAKA	Kakadu	52.35	266	eP	P	21 48 05.0	-0.6
	comp=Z,243nm,0.5s,mb6.5						
KAKA				ePcP	PcP	21 49 15.0	-1.0
FORT	Forrest	55.27	243	eP	P	21 48 25.7	-1.0
	comp=Z,289nm,0.6s,mb6.5						
FORT	Forrest	55.27	243	eP	P	21 48 25.5	-1.2
	comp=Z,315nm,0.7s,mb6.5						
FITZ	Fitzroy Crossi	58.06	258	eP	P	21 48 46.2	-0.5
	comp=Z,17nm,0.7s,mb5.2						
FITZ	Fitzroy Crossi	58.06	258	P	P	21 48 46.3	-0.4
	comp=Z,5.6nm,0.5s,mb4.9,baz=132,slow=2.1,SNR=16						
FITZ				PcP	PcP	21 49 38.4	+0.4
	comp=Z,12nm,0.8s,baz=100,slow=7.1,SNR=2.6						
FITZ	Fitzroy Crossi	58.06	258	eP	P	21 48 46.5	-0.2
	comp=Z,18nm,0.9s,mb5.1						
FITZ				e	pP	21 49 06.0	+2.1
FITZ				ePcP	PcP	21 49 38.3	+0.3
RPN	Rapa Nui	60.40	113	i P	P	21 49 05.1	+2.4
RPN	Rapa Nui	60.40	113	eP	P	21 49 03.1	+0.4
SBA	Scott Base	63.18	185	eP	P	21 49 23.4	+2.8
SBA				e		21 49 59.3	
SBA				pmax	pmax		
	comp=Z,206nm,1.8s,mb5.8						
SBA	Scott Base	63.18	185	eP	P	21 49 23.4	+2.8
	comp=Z,206nm,1.8s,mb5.8						
SBA				ePcP	PcP	21 49 59.2	+1.8
MBWA	Marble Bar	63.21	254	eP	P	21 49 21.3	-0.4
MBWA				ePP	PP	21 51 41.8	+0.4
VNDA	Vanda	63.31	186	P	P	21 49 23.5	+2.1
VNDA						21 49 59.4	
VNDA	Vanda	63.31	186	P	P	21 49 23.5	+2.1
	comp=Z,31nm,1.1s,mb5.2,baz=6.0,slow=6.3,SNR=30						
VNDA				PcP	PcP	21 49 59.4	+1.4
	comp=Z,12nm,0.7s,baz=0.6,slow=5.5,SNR=9.6						
VNDA				LR	LR	22 10 31.2	
	comp=Z,141nm,19.2s,baz=116,slow=30						
KLBR	Kellerberrin	64.09	242	eP	P	21 49 26.8	-0.5
	comp=Z,165nm,0.8s,mb5.9						
NWAO	Narrogin (SRO)	64.47	241	eP	P	21 49 30.1	+0.3
NWAO				pmax	pmax		
	comp=Z,31nm,0.6s						
NWAO	Narrogin (SRO)	64.47	241	P	P	21 49 29.2	-0.6
	comp=Z,51nm,0.7s,mb5.4,baz=98,slow=5.2,SNR=29						
NWAO	Narrogin (SRO)	64.47	241	eP	P	21 49 30.1	+0.3
	comp=Z,31nm,0.6s,mb5.3						
MUN	Mundaring	65.38	242	eP	P	21 49 35.7	-0.1
MJAR	Matsushiro Arr	68.89	320	P	P	21 49 57.6	-0.2
	comp=Z,19nm,1.0s,mb4.9,baz=162,slow=5.8,SNR=24						
MJAR				LR	LR	22 13 27.9	
	comp=Z,221nm,21.6s,baz=155,slow=30						
MAJO	Matsushiro	68.89	320	eP	P	21 49 57.9	+0.1
MAJO				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.1						
MAJO	Matsushiro	68.89	320	eP	P	21 49 57.9	+0.1
	comp=Z,34nm,1.0s,mb5.1						
MAT	Matsushiro	68.89	320	P	P	21 49 57.4	-0.4
MAT				S	S	21 59 02.0	+4.9
CASY	Casey	70.30	205	⇑iP	P	21 50 06.2	+0.2
MYLDM	Lahad Datu	70.32	281	P	P	21 50 09.1	+2.0
SKR	Severo-Kuril's	71.03	340	eP	P	21 50 08.1	-2.4
SKR				e	pP	21 50 20.9	-7.4
SKR				pmax	pmax		
	comp=Z,140nm,0.8s,mb5.8						
SCI	San Clemente I	71.25	47	⇑P	P	21 50 13.0	+0.7
	baz=72						
SAO	San Andreas Ge	71.47	42	eP	P	21 50 14.4	+0.9
SAO				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.0						
SAO	San Andreas Ge	71.47	42	eP	P	21 50 14.4	+0.9
	comp=Z,24nm,0.9s,mb5.0						
SMMC	Simmler	71.57	44	⇑P	P	21 50 14.7	+0.6
	baz=72						
SDKM	Sandakan	71.70	281	P	P	21 50 15.0	-0.4
HOPS	Hopland	71.80	39	eP	P	21 50 16.4	+1.0
	comp=Z,54nm,1.1s,mb5.3						
DECC	Green Verdugo	72.10	46	⇑P	P	21 50 18.1	+0.7
	baz=72						
109C	Camp Elliot, M	72.22	47	⇓P	P	21 50 18.3	+0.2
	baz=72						
ARVC	Arvin	72.25	45	⇑P	P	21 50 18.8	+0.6
	baz=72						
MWC	Mount Wilson	72.28	46	eP	P	21 50 18.3	-0.1
MWC				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.0						
MWC	Mount Wilson	72.28	46	eP	P	21 50 18.3	-0.2
	comp=Z,19nm,0.8s,mb5.0						
PET	Petropavlovsk	72.29	343	eP	P	21 50 18.2	+0.1
PET				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.1						
PET	Petropavlovsk	72.29	343	⇑eP	P	21 50 17.9	-0.2
BAR	Barrett	72.42	48	eP	P	21 50 20.0	+0.7
	comp=Z,8.6nm,0.8s,mb4.6						
VES	Vestal, Richgr	72.48	44	⇓P	P	21 50 19.6	0.0
	baz=73,SNR=9.5						
MURC	Murrieta	72.53	47	⇑P	P	21 50 20.1	+0.1
	baz=73,SNR=6.1						
BFSC	Mount Baldy St	72.56	46	⇓P	P	21 50 20.1	0.0
	baz=73,SNR=6.4						
KHMM	Horse Mountain	72.59	37	eP	P	21 50 21.2	+1.0
	comp=Z,32nm,0.9s,mb5.2						
PEA0B	Petropavlovsk-	72.64	342	eP	P	21 50 19.9	-0.2
PETK	Petropavlovsk-	72.64	342	P	P	21 50 20.2	+0.1
	comp=Z,90nm,0.8s,mb5.7,baz=123,slow=8.4,SNR=98						
PETK				LR	LR	22 22 19.9	
	comp=Z,50nm,18.7s,baz=329,slow=36						
EDW2	Edwards Air Fo	72.68	45	⇑P	P	21 50 21.0	+0.2
	baz=73,SNR=24						
MONP	Monument Peak	72.71	48	⇑P	P	21 50 21.4	+0.3
	baz=73,SNR=19						
ISA	Isabella	72.79	44	eP	P	21 50 21.4	-0.1
ISA				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
ISA	Isabella	72.79	44	⇑P	P	21 50 21.9	+0.5
	baz=73,SNR=18						
ISA	Isabella	72.79	44	eP	P	21 50 21.4	0.0
	comp=Z,19nm,1.0s,mb4.9						
DVTC	Desert V Tower	72.81	48	⇑P	P	21 50 21.8	+0.2
	baz=73,SNR=9.3						
CMB	Columbia Colle	72.90	41	eP	P	21 50 21.6	-0.4
CMB				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.0						
CMB	Columbia Colle	72.90	41	eP	P	21 50 21.6	-0.5
	comp=Z,25nm,0.9s,mb5.0						
OHCM	Honcut	72.99	40	eP	P	21 50 22.8	+0.3
PFO	Pinyon Flat Ob	73.06	47	i P	P	21 50 24.0	+0.9
PFO	Pinyon Flat Ob	73.06	47	⇓P	P	21 50 23.4	+0.3
	baz=73,SNR=5.6						
PFO	Pinyon Flat Ob	73.06	47	eP	P	21 50 23.6	+0.5
WDC	Whiskeytown Da	73.11	38	eP	P	21 50 23.6	+0.4
SWSC	Sam W. Stewart	73.18	48	⇓P	P	21 50 24.3	+0.5
	baz=73						
YSS	Yuzh-Sakhalins	73.46	330	⇑iP	P	21 50 25.9	+0.8
YSS				e		21 50 35.0	
YSS				pmax	pmax		
	comp=E,60nm,1.0s						
YSS				pmax	pmax		
	comp=Z,200nm,1.0s,mb5.9						
YSS	Yuzh-Sakhalins	73.46	330	eP	P	21 50 26.1	+0.9
BELC	Belle Mtn.	73.59	47	⇓P	P	21 50 26.4	+0.1
	baz=74,SNR=17						
MLAC	Mammoth Lakes	73.66	42	⇑P	P	21 50 27.0	+0.4
	baz=74						
MPMC	Manual Prospec	73.67	44	⇓P	P	21 50 27.0	+0.3
	baz=74,SNR=26						
MTUM	Tungsten Hills	73.68	43	eP	P	21 50 27.4	+0.7
GSC	Goldstone	73.73	45	eP	P	21 50 27.2	+0.2
GSC				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.8						
GSC	Goldstone	73.73	45	⇓P	P	21 50 27.2	+0.2
	baz=74,SNR=15						
GSC	Goldstone	73.73	45	eP	P	21 50 27.2	+0.3
	comp=Z,15nm,0.8s,mb4.8						
YBH	Yreka Blue Hor	73.73	37	eP	P	21 50 27.6	+0.8
YBH	Yreka Blue Hor	73.73	37	LR	LR	22 14 45.1	
	comp=Z,121nm,19.8s,baz=149,slow=29						
WAKR	Walker	73.78	41	eP	P	21 50 27.8	+0.6
R06C	Coleville	73.78	41	⇓P	P	21 50 27.8	+0.6
	baz=74,SNR=17						
BC3	Big Chuckw Mtn	73.80	48	⇑P	P	21 50 27.8	+0.3
	baz=74,SNR=18						
HEC	Hector,Ludlow	73.80	46	⇑P	P	21 50 27.7	+0.3
	baz=74,SNR=11						
112A	Yuma	73.85	49	⇑P	P	21 50 27.7	-0.1
	baz=74						
GLA	Glamis	73.93	48	eP	P	21 50 29.0	+0.8
GLA				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
GLA	Glamis	73.93	48	⇓P	P	21 50 28.4	+0.1
	baz=74,SNR=7.6						
GLA	Glamis	73.93	48	eP	P	21 50 29.0	+0.8
	comp=Z,18nm,0.9s,mb4.8						
BEKR	Beckwourth	74.00	40	P	P	21 50 28.9	+0.4
	baz=74,SNR=38						
WCN	Washoe City	74.04	41	⇓P	P	21 50 29.2	+0.4
	baz=74,SNR=19						
HUMO	Hull Mountain	74.14	36	eP	P	21 50 30.1	+0.9
P06A	Stead Airport,	74.17	40	⇑P	P	21 50 29.6	+0.1
	baz=74,SNR=6.3						
GMRC	Granite Mounta	74.24	46	P	P	21 50 30.1	+0.1
	baz=74,SNR=17						
IRM	Iron Mountain	74.28	47	⇓P	P	21 50 30.3	+0.1
	baz=74,SNR=25						
FURC	Furnace Creek,	74.33	44	⇑P	P	21 50 30.7	+0.3
	baz=74						
TUQ	Turquoise Moun	74.41	46	⇑P	P	21 50 31.5	+0.6
	baz=75						
SHOC	Shoshone	74.41	45	⇑P	P	21 50 31.0	0.0
	baz=75						
NVAR	Mina Array Bea	74.46	42	P	P	21 50 31.7	+0.5
	comp=Z,20nm,0.7s,mb4.9,baz=227,slow=10,SNR=122						
NVAR	Mina Array Bea	74.46	42	P	P	21 50 31.7	+0.5
YULB	Yu-li	74.47	300	eP	P	21 50 30.9	-0.6
O06A	Flanigan	74.51	40	⇑P	P	21 50 32.0	+0.6
	baz=75,SNR=39						
Y12C	Blythe	74.51	48	⇓P	P	21 50 31.7	+0.1
	baz=75,SNR=13						
PAHR	Pah Rah Range	74.51	40	eP	P	21 50 32.0	+0.5
	comp=Z,32nm,0.9s,mb5.0						
R08A	Mina	74.55	42	⇓P	P	21 50 32.2	+0.5
	baz=75,SNR=11						
NACB	Ninganchiao	74.55	301	eP	P	21 50 31.3	-0.7
	comp=Z,47nm,0.9s,mb5.2						
113A	Mohawk Valley,	74.56	49	P	P	21 50 32.3	+0.4
	baz=75,SNR=9.5						
U10A	Ash Meadows, A	74.66	45	⇓P	P	21 50 33.1	+0.7
	baz=75,SNR=7.3						
S09A	Goldfield	74.77	43	P	P	21 50 33.2	+0.2
	baz=75,SNR=24						
LDFC	Landfair	74.78	46	eP	P	21 50 34.3	+1.1
N06A	Buffalo Meadow	74.85	39	P	P	21 50 33.8	+0.5
	baz=75,SNR=44						
214A	Organ Pipe Nat	74.86	50	⇑P	P	21 50 34.0	+0.4
	baz=75,SNR=6.1						
BTM	Bintulu	74.88	278	P	P	21 50 34.4	+0.2
SSLB	Suanglung	74.92	300	eP	P	21 50 33.5	-0.7
	comp=Z,18nm,0.5s,mb5.1						
YHNB	Yeheng	74.94	301	eP	P	21 50 34.7	+0.4
	comp=Z,54nm,0.8s,mb5.3						
Q08A	Gabbs	74.95	42	P	P	21 50 34.5	+0.5
	baz=75,SNR=14						
V11A	Goodsprings	74.96	46	⇑P	P	21 50 33.9	-0.2
	baz=75						
TPH	Tonopah	74.97	43	eP	P	21 50 34.7	+0.6
TPH				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.1						
TPH	Tonopah	74.97	43	eP	P	21 50 34.7	+0.6
	comp=Z,42nm,1.1s,mb5.1						
TATO	Taipei	74.98	302	eP	P	21 50 34.0	-0.5
	comp=Z,66nm,0.7s,mb5.5						
TPUB	Ta-pu	74.99	300	eP	P	21 50 33.5	-1.2
	comp=Z,105nm,0.9s,mb5.6						
KDAK	Kodiak Island	75.00	11	i P	P	21 50 33.9	0.0
Y13A	Salome	75.04	48	P	P	21 50 35.2	+0.6
	baz=75,SNR=13						
PDMCI	Parker Dam,Lak	75.06	48	⇑P	P	21 50 35.3	+0.5
	baz=75,SNR=8.7						
W12A	Cal Nev Ari	75.07	46	⇑P	P	21 50 35.3	+0.6
	baz=75						
O07A	Toulon	75.09	40	P	P	21 50 35.3	+0.5
	baz=75,SNR=46						
R09A	Tonopah	75.16	43	P	P	21 50 35.6	+0.4
	baz=75,SNR=6.4						
114A	Black Gap (USA	75.19	49	⇓P	P	21 50 36.1	+0.5
	baz=75						
MOD	Modoc	75.25	38	eP	P	21 50 36.0	+0.4
S10A	Tonopah Range,	75.30	43	P	P	21 50 36.4	+0.3
	baz=76,SNR=25						
U11A	Corn Creek	75.30	45	⇓P	P	21 50 36.4	+0.3
	baz=76						
V12A	Nelson	75.30	46	P	P	21 50 36.5	+0.4
	baz=76,SNR=8.2						
P08A	Dixie Valley	75.33	41	⇑P	P	21 50 37.0	+0.9
	baz=76						
N07B	Gerlach	75.39	40	⇓P	P	21 50 36.9	+0.3
	baz=76,SNR=32						
K05A	Summer Lake	75.40	37	⇓P	P	21 50 37.3	+0.8
	baz=76,SNR=39						
Q09A	Carvers	75.42	42	⇑P	P	21 50 37.0	+0.3
	baz=76						
X13A	Yucca	75.43	47	⇑P	P	21 50 36.8	-0.1
	baz=76,SNR=16						
Z14A	Wintersburg	75.45	49	⇓P	P	21 50 37.5	+0.5
	baz=76,SNR=6.6						
SBUM	Sibu	75.49	277	P	P	21 50 37.3	-0.5
SHPR	Sheep Range	75.50	45	eP	P	21 50 37.8	+0.5
O08A	Rochester Mine	75.62	41	⇑P	P	21 50 38.2	+0.4
	baz=76,SNR=26						
M07A	Soldier Meadow	75.63	39	⇓P	P	21 50 38.5	+0.7
	baz=76,SNR=49						
115A	Sonoran Desert	75.65	50	⇑P	P	21 50 38.7	+0.5
	baz=76						
W13A	Hualapai Mount	75.65	47	⇑P	P	21 50 38.4	+0.2
	baz=76,SNR=8.1						
R10A	Warm Springs	75.69	43	P	P	21 50 39.0	+0.7
	baz=76,SNR=18						
Y14A	Wickenburg	75.69	48	⇑P	P	21 50 38.7	+0.3
	baz=76,SNR=14						
S11A	Rachel	75.71	44	⇓P	P	21 50 38.8	+0.4
	baz=76						
P09A	Austin	75.84	42	⇑P	P	21 50 39.2	+0.1
	baz=76						
T11A	Corn Creek, Al	75.85	44	P	P	21 50 39.8	+0.6
	baz=76,SNR=28						
H04A	Detroit Lake	75.88	35	⇑P	P	21 50 38.6	-0.6
	baz=76,SNR=14						
U12A	Valley of Fire	75.89	45	⇑P	P	21 50 39.7	+0.3
	baz=76,SNR=15						
216A	Three Points,	75.89	51	⇑P	P	21 50 39.7	+0.2
	baz=76,SNR=13						
L07A	Adell	75.90	39	⇓P	P	21 50 39.8	+0.5
	baz=76,SNR=41						
N08A	GE Springer Mi	75.91	40	⇑P	P	21 50 39.8	+0.3
	baz=76,SNR=28						
Q10A	Clear Creek Ra	75.92	43	⇓P	P	21 50 39.4	-0.1
	baz=76,SNR=10						
F03A	Seaside	75.93	33	⇑P	P	21 50 39.9	+0.5
	baz=76						
V13A	Grand Canyon W	75.97	46	⇓P	P	21 50 39.9	0.0
	baz=76,SNR=12						
116A	Eloy	75.97	50	⇓P	P	21 50 39.9	-0.1
	baz=76,SNR=5.3						
Z15A	Gila River Ind	75.99	49	⇓P	P	21 50 39.9	-0.2
	baz=76						
X14A	Yava	76.04	48	⇑P	P	21 50 40.5	+0.2
	baz=76,SNR=28						
G04A	Mulino	76.05	35	⇑P	P	21 50 40.6	+0.4
	baz=76						

KSRS	Korea Array	76.10	316	P	P	21 50 41.8	+1.2
	comp=Z,15nm,0.8s,mb4.8,baz=127,slow=5.5,SNR=47						
KSRS				LR	LR	22 17 24.0	
	comp=Z,133nm,21.4s,baz=279,slow=30						
M08A	Happy Creek Ra	76.15	39	P	P	21 50 41.5	+0.7
	baz=76,SNR=17						
J06A	Christmas Vall	76.15	37	⇓P	P	21 50 40.8	0.0
	baz=76,SNR=23						
O09A	Fish Creek Ran	76.16	41	⇑P	P	21 50 41.1	+0.2
	baz=76,SNR=10						
Y15A	Casa Rosa Ranc	76.19	49	⇑P	P	21 50 41.4	+0.2
	baz=76,SNR=27						
R11A	Troy Canyon, C	76.20	43	P	P	21 50 41.2	+0.1
	baz=76,SNR=19						
217A	Green Valley	76.26	51	⇑P	P	21 50 41.9	+0.2
	baz=76,SNR=16						
U13A	Pakoon Wash	76.27	46	P	P	21 50 42.4	+0.7
	baz=76,SNR=22						
W14A	Seligman	76.28	47	⇓P	P	21 50 42.1	+0.5
	baz=76,SNR=22						
BMN	Battle Mountai	76.29	41	*e*P	P	21 50 42.4	+0.8
S12A	Delamar Landin	76.29	44	⇓P	P	21 50 42.7	+0.9
	baz=76,SNR=14						
P10A	Eureka	76.32	42	⇑P	P	21 50 42.2	+0.4
	baz=76,SNR=10						
E03A	Lebam	76.33	33	⇓P	P	21 50 41.6	-0.1
	baz=77						
N09A	Rock Creek Ran	76.33	40	⇓P	P	21 50 42.0	+0.1
	baz=77,SNR=19						
K07A	Rock Creek Ran	76.35	38	P	P	21 50 42.5	+0.6
	baz=77,SNR=30						
Q11A	Duckwater	76.42	43	⇑P	P	21 50 42.5	+0.1
	baz=77,SNR=27						
V14A	Boquillas Ranc	76.47	47	⇓P	P	21 50 43.5	+0.7
	baz=77,SNR=27						
X15A	Humboldt	76.52	48	⇓P	P	21 50 43.5	+0.4
	baz=77,SNR=20						
TUC	Tucson	76.53	51	*e*P	P	21 50 43.1	-0.1
TUC				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.7						
TUC	Tucson	76.53	51	*e*P	P	21 50 43.1	-0.2
	comp=Z,13nm,0.8s,mb4.7						
I06A	Prineville	76.54	37	⇓P	P	21 50 43.0	+0.1
	baz=77						
F04A	Amboy	76.54	34	⇑P	P	21 50 42.9	0.0
	baz=77						
Z16A	Peralta Trail,	76.55	50	P	P	21 50 44.2	+0.9
	baz=77,SNR=5.8						
WVOR	Wild Horse Val	76.56	39	*e*P	P	21 50 44.1	+1.0
WVOR				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.1						
WVOR	Wild Horse Val	76.56	39	*e*P	P	21 50 44.1	+1.0
	comp=Z,41nm,1.1s,mb5.1						
HOOD	Mount Hood Mea	76.58	35	*e*P	P	21 50 42.0	-1.1
	comp=Z,56nm,1.2s,mb5.2						
L08A	Fields	76.60	39	P	P	21 50 43.9	+0.5
	baz=77,SNR=56						
T13A	Saint George	76.62	45	P	P	21 50 44.3	+0.7
	baz=77,SNR=14						
O10A	Cortez Mining,	76.67	41	⇓P	P	21 50 43.8	+0.1
	baz=77,SNR=5.9						
117A	Oracle	76.69	51	⇑P	P	21 50 44.6	+0.5
	baz=77,SNR=16						
M09A	Marrel Ranch,	76.70	40	⇓P	P	21 50 44.4	+0.4
	baz=77,SNR=17						
G05A	Wamic	76.71	35	⇑P	P	21 50 44.2	+0.3
	baz=77,SNR=5.7						
J07A	Hines	76.72	37	⇑P	P	21 50 44.2	+0.3
	baz=77,SNR=13						
318A	Bisbee	76.73	52	⇓P	P	21 50 44.0	-0.3
	baz=77,SNR=12						
P11A	Circle Ranch,	76.74	42	⇓P	P	21 50 44.8	+0.6
	baz=77						
Y16A	Circle Bar Ran	76.77	49	⇓P	P	21 50 44.8	+0.3
	baz=77,SNR=15						
U14A	Mt Trumbull	76.82	46	⇓P	P	21 50 44.8	+0.1
	baz=77,SNR=33						
K08A	Mann Creek Ran	76.83	38	⇑P	P	21 50 44.9	+0.3
	baz=77,SNR=29						
R12A	Pony Springs,	76.83	44	⇓P	P	21 50 45.1	+0.3
	baz=77,SNR=8.7						
W15A	Williams	76.84	48	⇑P	P	21 50 45.4	+0.5
	baz=77						
L09A	Wilkinson Ranc	76.91	39	⇑P	P	21 50 45.4	+0.3
	baz=77,SNR=10						
218A	Dragoon	76.93	51	⇑P	P	21 50 45.5	+0.1
	baz=77,SNR=17						
S13A	Holt Ranch, En	76.95	45	⇓P	P	21 50 45.7	+0.3
	baz=77,SNR=20						
H06A	Lindquist Farm	76.95	36	⇓P	P	21 50 45.1	-0.1
	baz=77,SNR=35						
INCN	Inchon	76.99	315	*e*P	P	21 50 46.9	+1.3
INCN	Inchon	76.99	315	P	P	21 50 47.4	+1.8
	SNR=5.0						
INCN				P		21 50 47.4	
	SNR=5.0						
I07A	Izee	77.03	37	P	P	21 50 46.0	+0.3
	baz=77,SNR=30						
KSM	Kuching	77.05	275	*e*P	P	21 50 46.1	-0.5
	comp=Z,118nm,1.0s,mb5.6						
X16A	Lo Mia Camp, P	77.06	49	⇓P	P	21 50 46.4	+0.3
	baz=77,SNR=26						
G06A	Carlson Farm,	77.09	35	⇑P	P	21 50 45.7	-0.3
	baz=77,SNR=9.4						
O11A	Cowboy Ranch,	77.12	42	⇓P	P	21 50 46.6	+0.3
	baz=77,SNR=23						
Y17A	Roosevelt	77.15	49	⇓P	P	21 50 46.5	-0.1
	baz=77,SNR=11						
R13A	O’Grain Ranch,	77.19	44	⇑P	P	21 50 46.8	+0.1
	baz=77,SNR=13						
J08A	Circle Bar Ran	77.20	38	⇓P	P	21 50 46.9	+0.2
	baz=77,SNR=16						
T14A	Hurricane	77.21	46	⇓P	P	21 50 47.0	+0.1
	baz=77,SNR=8.7						
V15A	Kaibab Nationa	77.22	47	⇑P	P	21 50 47.2	+0.2
	baz=77,SNR=16						
319A	Douglas	77.24	52	⇑P	P	21 50 47.8	+0.6
	baz=77,SNR=7.9						
P12A	McGill	77.25	43	⇓P	P	21 50 46.9	-0.1
	baz=78,SNR=15						
K09A	Rome	77.27	39	P	P	21 50 47.5	+0.4
	baz=78,SNR=57						
118A	Homack Ranch,	77.30	51	⇑P	P	21 50 48.0	+0.5
	baz=78,SNR=14						
H07A	Lands Inn, Kim	77.30	36	⇑P	P	21 50 47.1	-0.1
	baz=78,SNR=28						
W16A	Flagstaff	77.32	48	⇓P	P	21 50 48.1	+0.6
	baz=78,SNR=9.0						
M10A	I.L. Ranch, Tu	77.33	40	⇑P	P	21 50 47.8	+0.4
	baz=78,SNR=25						
F06A	Goldendale	77.33	35	P	P	21 50 47.5	+0.2
	baz=78,SNR=5.7						
ARUT	Antelope Range	77.34	45	*e*P	P	21 50 47.7	+0.1
ARUT				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.8						
ARUT	Antelope Range	77.34	45	*e*P	P	21 50 47.7	+0.1
	comp=Z,22nm,1.1s,mb4.8						
QZH	Quanzhou	77.36	300	P	P	21 50 48.0	0.0
QZH				pmax	pmax		
	comp=Z,90nm,0.8s,mb5.5						
LON	Longmire	77.39	34	*e*P	P	21 50 47.5	-0.2
LON				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.5						
LON	Longmire	77.39	34	*e*P	P	21 50 47.5	-0.1
	comp=Z,16nm,1.4s,mb4.5						
C04A	Brinnon	77.40	32	⇑P	P	21 50 47.8	+0.2
	baz=78						
N11A	Elko Archery C	77.44	41	⇑P	P	21 50 47.8	-0.3
	baz=78						
I08A	Drewsey	77.47	37	⇑P	P	21 50 47.8	-0.4
	baz=78,SNR=8.4						
X17A	Forest Lakes	77.48	49	⇑P	P	21 50 49.1	+0.6
	baz=78,SNR=8.9						
S14A	Cedar City	77.51	45	⇓P	P	21 50 48.2	-0.3
	baz=78,SNR=6.2						
Q13A	Wheeler Ranch,	77.56	43	⇓P	P	21 50 48.9	+0.1
	baz=78						
J09A	Fry Pan Ranch,	77.62	38	⇓P	P	21 50 49.2	+0.2
	baz=78,SNR=17						
WUAZ	Wupatki	77.64	48	⇓P	P	21 50 49.5	+0.1
	baz=78						
WUAZ	Wupatki	77.64	48	*e*P	P	21 50 50.0	+0.6
	comp=Z,10nm,0.9s,mb4.5						
G07A	Ruggs Ranch, H	77.65	36	P	P	21 50 49.1	0.0
	baz=78,SNR=12						
T15A	Red Dirt Ranch	77.67	46	⇑P	P	21 50 50.0	+0.5
	baz=78,SNR=25						
L10A	Juniper Basin	77.68	40	⇑P	P	21 50 49.3	-0.1
	baz=78,SNR=38						
E06A	Yakima	77.70	34	⇑P	P	21 50 49.3	-0.1
	baz=78,SNR=8.5						
ELK	Elko	77.72	41	*e*P	P	21 50 50.0	+0.4
M11A	Holland Ranch,	77.74	41	⇓P	P	21 50 49.9	+0.2
	baz=78,SNR=14						
H08A	Prairie City	77.77	37	⇓P	P	21 50 49.7	-0.2
	baz=78,SNR=13						
P13A	Bates Ranch, G	77.82	43	⇑P	P	21 50 50.5	+0.3
	baz=78,SNR=22						
K10A	MacKenzie Ranc	77.83	39	P	P	21 50 50.5	+0.3
	baz=78,SNR=36						
119A	Ashpeak Ranch,	77.85	51	⇑P	P	21 50 50.7	+0.1
	baz=78,SNR=6.4						
F07A	Phinny Hill Vi	77.88	35	P	P	21 50 50.4	0.0
	baz=78,SNR=7.0						
R14A	James Farms, M	77.89	44	⇑P	P	21 50 51.3	+0.6
	baz=78						
W17A	Winslow	77.90	48	⇓P	P	21 50 51.3	+0.5
	baz=78						
N12A	Clover Valley,	77.90	41	⇑P	P	21 50 50.9	+0.2
	baz=78,SNR=17						
I09A	Lost Marbles R	77.99	38	⇓P	P	21 50 51.3	+0.2
	baz=78						
BBB	Bella Bella	78.00	27	LR	LR	22 20 47.3	
	comp=Z,126nm,18.4s,baz=276,slow=32						
S15A	Panguitch	78.02	45	⇑P	P	21 50 52.5	+1.1
	baz=78,SNR=7.1						
C05A	Tolt Reservoir	78.05	33	⇑P	P	21 50 51.3	0.0
	baz=78,SNR=14						
G08A	Pilot Rock	78.06	36	P	P	21 50 51.5	0.0
	baz=78,SNR=33						
Q14A	Sevier Lake (B	78.07	44	⇓P	P	21 50 51.3	-0.4
	baz=78,SNR=41						
U16A	Tuba City	78.12	47	⇑P	P	21 50 52.6	+0.6
	baz=78,SNR=12						
Z19A	T-Link Ranch,	78.12	50	⇓P	P	21 50 51.6	-0.5
	baz=78						
L11A	Cat Creek Ranc	78.17	40	P	P	21 50 52.6	+0.4
	baz=78,SNR=45						
D06A	Cle Elum	78.18	34	⇓P	P	21 50 52.3	+0.2
	baz=78,SNR=8.0						
X18A	Snowflake	78.19	49	⇓P	P	21 50 52.3	-0.1
	baz=78						
B05A	Bryant	78.20	32	⇑P	P	21 50 52.1	0.0
	baz=78						
O13A	Hicks Ranch, I	78.20	42	⇓P	P	21 50 52.3	-0.1
	baz=78,SNR=6.8						
JCW	Jim Creek	78.24	32	*e*P	P	21 50 52.6	+0.3
120A	U Bar Ranch, L	78.26	51	⇑P	P	21 50 53.1	+0.2
	baz=78						
J10A	Berg Farm, Mel	78.26	38	⇓P	P	21 50 52.5	-0.1
	baz=78						
T16A	Glen Canyon Da	78.27	46	⇓P	P	21 50 53.4	+0.6
	baz=78,SNR=9.6						
HABR	Khabarovsk	78.31	328	*i* P	P	21 50 53.2	+0.5
HABR				*e*		21 50 59.6	
HABR				*e*		21 53 46.3	
HABR				*e*S	S	22 00 42.0	-0.8
HABR						22 01 03.4	
HABR				SS	SS	22 05 42.1	-4.9
HABR				SSS		22 09 08.5	
HABR				pmax	pmax		
	comp=N,20nm,1.5s						
HABR				pmax	pmax		
	comp=Z,181nm,1.4s,mb5.6						
HABR				pmax	pmax		
	comp=E,42nm,1.0s						
HABR				MLR	MLR		
	comp=N,1µm,20.0s						
HABR				MLR	MLR		
	comp=E,1µm,20.0s						
HABR				MLR	MLR		
	comp=Z,101nm,20.0s						
E07A	Sunnyside	78.33	35	P	P	21 50 53.1	+0.2
	baz=79,SNR=17						
K11A	Parker Ranch,	78.34	39	⇑P	P	21 50 53.1	0.0
	baz=79,SNR=24						
R15A	Junction	78.34	45	⇓P	P	21 50 53.0	-0.2
	baz=78						
RSW	Rattlesnake Hi	78.37	35	*e*P	P	21 50 53.4	+0.3
HAWA	Hanford	78.40	35	*e*P	P	21 50 53.3	0.0
Y19A	Nutrioso	78.44	50	⇓P	P	21 50 54.5	+0.7
	baz=79,SNR=21						
N13A	Wendover, West	78.44	42	⇓P	P	21 50 53.6	0.0
	baz=79,SNR=11						
F08A	Pendleton	78.47	36	⇓P	P	21 50 53.4	-0.3
	baz=79,SNR=11						
P14A	Drum Mountains	78.52	43	P	P	21 50 54.3	+0.2
	baz=79,SNR=35						
MSU	Marysvale	78.56	45	*e*P	P	21 50 55.5	+1.1
S16A	Weppner Ranch,	78.57	46	⇓P	P	21 50 54.7	+0.3
	baz=79,SNR=11						
L12A	House Creek Ra	78.62	40	⇓P	P	21 50 55.0	+0.4
	baz=79,SNR=16						
D07A	Quincy	78.65	34	⇓P	P	21 50 54.3	-0.3
	baz=79,SNR=7.5						
U17A	Shonto	78.67	47	⇑P	P	21 50 55.0	0.0
	baz=79,SNR=8.3						
Q15A	Fillmore	78.67	44	⇑P	P	21 50 54.9	0.0
	baz=79,SNR=6.5						
ETW	Entiat	78.71	34	*e*P	P	21 50 54.8	-0.1
E08A	Dider Farm, El	78.72	35	⇑P	P	21 50 54.7	-0.3
	baz=79,SNR=6.4						
G09A	Cove	78.73	37	⇑P	P	21 50 54.5	-0.6
	baz=79,SNR=17						
M13A	Montello	78.73	41	⇓P	P	21 50 55.2	0.0
	baz=79,SNR=18						
BMO	Blue Mountains	78.75	37	*e*P	P	21 50 54.9	-0.4
T17A	Navajo Res., N	78.76	47	⇑P	P	21 50 55.3	-0.2
	baz=79,SNR=18						
V18A	Ganado	78.76	48	⇑P	P	21 50 55.7	+0.2
	baz=79,SNR=12						
LNOR	Lincton Mounta	78.79	36	*e*P	P	21 50 55.4	0.0
MFID	Camas Ranch	78.82	39	⇓P	P	21 50 54.9	-0.7
	baz=79,SNR=26						
C07A	Waterville	78.91	34	⇓P	P	21 50 55.3	-0.8
	baz=79,SNR=9.4						
R16A	Teasdale	78.92	45	⇓P	P	21 50 56.7	+0.3
	baz=79,SNR=6.3						
H10A	Noah’s Angus R	78.93	38	⇓P	P	21 50 55.4	-0.8
	baz=79,SNR=56						
K12A	Draper Farm, C	78.96	40	⇓P	P	21 50 56.1	-0.3
	baz=79,SNR=15						
MDJ	Mudanjiang	78.98	322	P	P	21 50 57.1	+0.6
MDJ				pP	pP	21 51 16.0	+1.4
MDJ				S	S	22 00 50.8	+0.7
MDJ				pmax	pmax		
	comp=Z,33nm,1.6s,mb4.9						
MDJ				pmax	pmax		
	comp=Z,190nm,4.1s						
MDJ				LR	LR		
	comp=N,190nm,38.9s						
MDJ				LR	LR		
	comp=E,180nm,37.9s						
MDJ				LR	LR		
	comp=Z,400nm,37.9s						
MDJ	Mudanjiang	78.98	322	*e*P	P	21 50 57.0	+0.5
	comp=Z,97nm,1.6s,mb5.4						
GAMB	Gambell	78.99	1	*e*P	P	21 50 56.5	+0.4
	comp=Z,3µm,0.7s						
DUG	Dugway	79.00	43	⇓P	P	21 50 56.2	-0.5
	baz=79,SNR=21						
DUG	Dugway	79.00	43	*e*P	P	21 50 56.8	0.0
I11A	Placerville	79.02	38	⇓P	P	21 50 56.6	-0.1
	baz=79						
A06A	Chilliwack	79.04	32	⇓P	P	21 50 56.7	-0.1
	baz=79						
S17A	Black Ridge (B	79.07	46	⇓P	P	21 50 56.8	-0.4
	baz=79,SNR=15						
N14A	Grayback Hills	79.09	42	⇑P	P	21 50 57.4	+0.2
	baz=79,SNR=10						
G10A	Bishop Farm, J	79.11	37	⇑P	P	21 50 57.1	-0.2
	baz=79,SNR=26						
D08A	Wollman Farm,	79.14	35	P	P	21 50 57.0	-0.3
	baz=79,SNR=16						
U18A	Rough Rock, Ch	79.14	47	⇑P	P	21 50 58.1	+0.5
	baz=79,SNR=11						
J12A	Stokes Ranch,	79.17	39	⇑P	P	21 50 57.4	-0.2
	baz=79,SNR=19						
PMR	Palmer	79.20	12	*e*P	P	21 50 56.8	-0.5
E09A	Wood Farm, Sta	79.24	35	⇓P	P	21 50 57.6	-0.4
	baz=80,SNR=10						
L13A	Double Diamond	79.26	41	⇑P	P	21 50 58.4	+0.3
	baz=80,SNR=23						
O15A	The Old Anders	79.27	43	⇓P	P	21 50 57.9	-0.3
	baz=80						
TTA	Tatalina	79.33	8	*e*P	P	21 50 58.2	+0.2
M14A	Sheep Mountain	79.33	42	P	P	21 50 58.9	+0.3
	baz=80,SNR=68						
B07A	Winthrop	79.35	33	P	P	21 50 58.1	-0.3
	baz=80,SNR=10						
H11A	Donnelly	79.43	38	⇑P	P	21 50 58.6	-0.3
	baz=80,SNR=28						
F10A	Beach Ranch, E	79.45	36	⇑P	P	21 50 58.0	-1.0
	baz=80,SNR=18						
Q16A	Castle Valley	79.45	45	⇑P	P	21 50 59.8	+0.6
	baz=80,SNR=7.0						
I12A	Atlanta	79.45	39	P	P	21 50 59.6	+0.5
	baz=80,SNR=59						
OD2	Odessa Site #2	79.45	34	*e*P	P	21 50 58.9	-0.2
K13A	Stover Farm, H	79.47	40	P	P	21 50 59.8	+0.5
	baz=80,SNR=15						
D09A	Jones Farm, Ri	79.48	35	⇓P	P	21 50 58.9	-0.3
	baz=80,SNR=9.3						
T18A	Mexican Hat	79.48	47	⇓P	P	21 50 59.5	+0.1
	baz=80,SNR=42						
C08A	Higginbotham F	79.51	34	⇑P	P	21 50 58.6	-0.7
	baz=80,SNR=5.1						
R17A	Hanksville Air	79.52	45	⇑P	P	21 50 59.7	+0.1
	baz=80,SNR=17						
W20A	Ramah	79.53	49	⇑P	P	21 51 00.1	+0.3
	baz=80						
A07A	Ashnola River,	79.58	32	⇓P	P	21 50 59.3	-0.4
	baz=80,SNR=11						
TMUT	Trail Mountain	79.61	44	*e*P	P	21 51 01.5	+1.4
S18A	Hurst Farm, Bl	79.66	46	⇓P	P	21 51 00.2	-0.2
	baz=80						
L14A	Malta	79.68	41	⇓P	P	21 51 00.8	+0.4
	baz=80,SNR=5.2						
MPU	Maple Canyon	79.69	44	*e*P	P	21 51 01.3	+0.9
NOQ	North Oquirrh	79.69	43	*e*P	P	21 51 00.7	+0.3
	comp=Z,7.8nm,0.6s,mb4.7						
B08A	Colville Reser	79.70	33	⇑P	P	21 50 59.8	-0.6
	baz=80,SNR=15						
HLID	Hailey	79.76	39	⇓P	P	21 51 01.1	+0.3
	baz=80,SNR=49						
HLID	Hailey	79.76	39	*e*P	P	21 51 01.3	+0.6
SPUT	South Promonto	79.81	42	*e*P	P	21 51 01.6	+0.5
E10A	Myers Farm, Un	79.81	36	⇑P	P	21 51 00.4	-0.5
	baz=80,SNR=8.2						
J13A	Cove Ranch, Pi	79.82	40	⇓P	P	21 51 01.2	+0.1
	baz=80,SNR=49						
HVU	Hansel Valley	79.84	42	*e*P	P	21 51 01.8	+0.5
M15A	Larsen Ranch,	79.89	42	⇓P	P	21 51 01.3	-0.2
	baz=80,SNR=19						
C09A	Chrisman Ranch	79.94	34	⇓P	P	21 51 00.9	-0.7
	baz=80,SNR=5.7						
T19A	Beclabito	79.94	47	⇓P	P	21 51 01.2	-0.7
	baz=80,SNR=8.1						
SRU	San Rafael	79.98	45	⇓P	P	21 51 01.6	-0.5
	baz=80,SNR=9.5						
SRU	San Rafael	79.98	45	*e*P	P	21 51 02.8	+0.7
K14A	Jones Ranch, D	79.98	41	⇑P	P	21 51 01.5	-0.5
	baz=80,SNR=23						
F11A	Grangeville	80.01	37	⇑P	P	21 51 00.7	-1.4
	baz=80						
P17A	Butcher Ranch,	80.01	44	⇓P	P	21 51 01.1	-1.2
	baz=80,SNR=7.0						
H12A	Diamond D Ranc	80.03	38	⇓P	P	21 51 00.8	-1.4
	baz=80						
D10A	Wagner Farm, O	80.05	35	⇓P	P	21 51 00.9	-1.3
	baz=80						
R18A	Canyonlands Na	80.06	46	⇓P	P	21 51 01.3	-1.2
	baz=80,SNR=13						
G12A	Big Creek, Yel	80.07	38	⇓P	P	21 51 02.3	-0.1
	baz=80						
NJ2	Nanjing	80.08	307	*e*P	P	21 51 04.4	+1.6
NJ2				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.4						
A08A	Turner Farm, O	80.09	33	P	P	21 51 02.2	-0.2
	baz=80,SNR=23						
JLU	Jordanelle	80.10	43	*e*P	P	21 51 03.3	+0.6
I13A	Wildhorse Cree	80.13	39	⇑P	P	21 51 02.8	0.0
	baz=80,SNR=21						
J14A	Carey	80.18	40	⇑P	P	21 51 03.2	+0.1
	baz=80,SNR=40						
L15A	Malad City	80.20	41	⇓P	P	21 51 02.7	-0.5
	baz=80,SNR=13						
LENM	Lemitar	80.22	51	*e*P	P	21 51 04.6	+1.1
Q18A	Rafter H Ranch	80.24	45	⇑P	P	21 51 03.1	-0.4
	baz=80,SNR=13						
E11A	Bogner Ranch,	80.25	36	⇓P	P	21 51 01.5	-1.8
	baz=80,SNR=10						
N16A	Rees Ranch, Co	80.25	43	⇓P	P	21 51 03.1	-0.4
	baz=80,SNR=6.2						
S19A	Harvey Farm, M	80.28	46	⇑P	P	21 51 03.8	0.0
	baz=80,SNR=7.6						
M16A	Huntsville	80.34	42	⇓P	P	21 51 04.4	+0.4
	baz=80,SNR=6.3						
O17A	Robinson Place	80.37	44	⇑P	P	21 51 04.4	+0.2
	baz=81,SNR=13						
B09A	Rice	80.37	34	⇑P	P	21 51 03.0	-1.0
	baz=81,SNR=7.9						
H13A	Challis	80.40	39	⇑P	P	21 51 03.9	-0.3
	baz=81,SNR=21						
P18A	Preston Nutter	80.42	44	⇑P	P	21 51 04.2	-0.3
	baz=81,SNR=6.1						
R19A	Curley Farm, L	80.46	46	⇑P	P	21 51 04.7	0.0
	baz=81,SNR=8.0						
F12A	Elk City	80.46	37	P	P	21 51 04.2	-0.3
	baz=81,SNR=65						
K15A	Arbon	80.47	41	⇑P	P	21 51 04.1	-0.5
	baz=81,SNR=10						
A09A	Danville	80.47	33	P	P	21 51 04.3	-0.2
	baz=81,SNR=15						
BNM	Barren Site	80.47	51	*e*P	P	21 51 05.3	+0.4
	comp=Z,6.9nm,1.0s,mb4.4						
KLR	Kul’dur	80.49	327	*e*P	P	21 51 00.0	-4.6
KLR				pmax	pmax		
	comp=E,40nm,1.6s						
KLR				pmax	pmax		
	comp=Z,97nm,1.6s,mb5.4						
LPM	Los Pinos Moun	80.54	51	*e*P	P	21 51 03.9	-1.4
I14A	Mackay	80.54	39	⇓P	P	21 51 03.9	-1.1
	baz=81,SNR=14						
D11A	Klaveano Farm,	80.57	36	⇑P	P	21 51 03.6	-1.4
	baz=81						
N17A	Moffit Pass	80.68	43	⇓P	P	21 51 04.8	-1.0
	baz=81,SNR=6.8						
KTH	Kantishna Hill	80.69	10	*e*P	P	21 51 04.1	-1.2
	comp=Z,48nm,1.1s,mb5.2						
G13A	Cobalt	80.70	38	P	P	21 51 05.7	-0.1
	baz=81,SNR=21						
TRF	Thorofare Moun	80.70	10	*e*P	P	21 51 04.5	-0.9
	comp=Z,30nm,0.7s,mb5.2						
PV04	Paradox Valley	80.75	46	*e*P	P	21 51 07.0	+0.8
TXAR	Lajitas Array	80.76	56	P	P	21 51 06.9	+0.4
	comp=Z,4.0nm,0.8s,mb4.3,baz=220,slow=8.5,SNR=26						
TXAR				LR	LR	22 21 00.6	
	comp=Z,121nm,18.5s,baz=100,slow=31						
Q19A	Hogan Spring (	80.77	45	⇓P	P	21 51 06.0	-0.3
	baz=81,SNR=9.9						
L16A	Fish Haven	80.82	42	⇑P	P	21 51 06.2	-0.3
	baz=81,SNR=13						
NEW	Newport	80.83	34	*e*P	P	21 51 05.9	-0.5
PV01	Paradox Valley	80.86	46	*e*P	P	21 51 06.8	-0.1
	comp=Z,3µm,1.4s						
TNA	Tin City	80.88	2	*e*P	P	21 51 06.5	+0.2
	comp=Z,88nm,1.2s,mb5.5						
J15A	Blackfoot	80.90	40	⇑P	P	21 51 07.5	+0.6
	baz=81,SNR=34						
ANMO	Albuquerque	80.94	50	*e*P	P	21 51 07.5	+0.1
ANMO				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ANMO	Albuquerque	80.94	50	*e*P	P	21 51 07.5	+0.1
	comp=Z,7.2nm,0.7s,mb4.6						
A10A	Northport	81.02	34	⇑P	P	21 51 07.3	-0.1
	baz=81,SNR=9.9						
F13A	Darby	81.02	37	⇑P	P	21 51 06.2	-1.3
	baz=81,SNR=21						
R20A	Redvale	81.02	46	⇓P	P	21 51 06.6	-1.1
	baz=81,SNR=8.8						
CN2	Changchun	81.04	320	*e*P	P	21 51 10.0	+2.4
CN2				*e*S	S	22 01 12.5	+0.7
CN2				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.5						
CN2				pmax	pmax		
	comp=Z,300nm,7.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s						
CN2				LR	LR		
	comp=E,600nm,15.0s						
CN2				LR	LR		

	comp=Z,600nm,17.0s						
M17A	**Scullys Gap (B**	**81.05**	**43**	⇓P	**P**	**21 51 06.9**	**-0.8**
	baz=81,SNR=7.2						
K16A	**Soda Springs**	**81.14**	**41**	⇓P	**P**	**21 51 08.1**	**0.0**
	baz=81,SNR=16						
MCK	**McKinley**	**81.20**	**11**	*e*P	**P**	**21 51 07.5**	**-0.6**
SNY	**Shenyang**	**81.22**	**318**	⇑P	**P**	**21 51 09.4**	**+0.7**
SNY				pmax	pmax		
	comp=Z,51nm,1.8s,mb5.0						
SNY				pmax	pmax		
	comp=Z,130nm,8.5s						
G14A	**Jackson**	**81.24**	**38**	⇑P	**P**	**21 51 08.6**	**-0.1**
	baz=82,SNR=10						
P19A	**Cripple Cowboy**	**81.28**	**45**	⇓P	**P**	**21 51 09.0**	**-0.1**
	baz=82,SNR=6.9						
HYT	**Haines Junctio**	**81.30**	**17**	*e*P	**P**	**21 51 09.3**	**+0.7**
B11A	**Sandpoint**	**81.34**	**34**	⇑P	**P**	**21 51 08.8**	**-0.4**
	baz=82,SNR=6.2						
J16A	**Bone**	**81.35**	**41**	⇓P	**P**	**21 51 09.7**	**+0.4**
	baz=82						
GDL2	**Guadalupe Moun**	**81.37**	**53**	*e*P	**P**	**21 51 10.6**	**+0.9**
MCMT	**McKenzie Canyo**	**81.39**	**39**	*e*P	**P**	**21 51 09.4**	**0.0**
	comp=Z,13nm,1.1s,mb4.7						
H15A	**Lima**	**81.40**	**39**	⇓P	**P**	**21 51 09.6**	**+0.1**
	baz=82,SNR=19						
AHID	**Auburn Hatcher**	**81.41**	**41**	*e*P	**P**	**21 51 09.7**	**0.0**
M18A	**Lyman**	**81.42**	**43**	⇑P	**P**	**21 51 09.9**	**+0.1**
	baz=82						
C12B	**Naegeli Ranch,**	**81.42**	**35**	P	**P**	**21 51 09.7**	**+0.1**
	baz=82,SNR=5.5						
Q20A	**Ridgley Place,**	**81.43**	**46**	⇓P	**P**	**21 51 09.7**	**-0.2**
	baz=82,SNR=10						
E13A	**Victor**	**81.46**	**37**	⇑P	**P**	**21 51 08.8**	**-1.0**
	baz=82,SNR=24						
O19A	**Miners Draw (B**	**81.50**	**44**	⇑P	**P**	**21 51 09.9**	**-0.3**
	baz=82						
K17A	**Gardner Place,**	**81.52**	**41**	⇑P	**P**	**21 51 09.6**	**-0.6**
	baz=82,SNR=11						
T22A	**Edith**	**81.53**	**48**	⇓P	**P**	**21 51 09.9**	**-0.6**
	baz=82						
MENT	**Mentasta**	**81.54**	**13**	*e*P	**P**	**21 51 09.9**	**+0.1**
RRI2	**Red Ridge**	**81.57**	**41**	*e*P	**P**	**21 51 10.8**	**+0.3**
F14A	**Wisdom**	**81.60**	**38**	⇓P	**P**	**21 51 10.1**	**-0.4**
	baz=82,SNR=11						
P20A	**De Beque**	**81.62**	**45**	⇓P	**P**	**21 51 10.7**	**-0.2**
	baz=82						
A11A	**Hall Mountain,**	**81.64**	**34**	⇓P	**P**	**21 51 10.4**	**-0.3**
	baz=82,SNR=8.5						
D13A	**Huson**	**81.66**	**36**	⇓P	**P**	**21 51 09.8**	**-1.0**
	baz=82,SNR=24						
L18A	**Fontenelle, Gr**	**81.68**	**42**	⇓P	**P**	**21 51 10.7**	**-0.4**
	baz=82						
I16A	**Newdale**	**81.73**	**40**	⇓P	**P**	**21 51 11.6**	**+0.3**
	baz=82,SNR=18						
N19A	**John Jarvie Ra**	**81.75**	**44**	⇓P	**P**	**21 51 10.6**	**-0.9**
	baz=82						
G15A	**Dillon**	**81.78**	**39**	⇓P	**P**	**21 51 11.5**	**-0.1**
	baz=82,SNR=14						
B12A	**Libby**	**81.79**	**35**	⇓P	**P**	**21 51 11.4**	**-0.1**
	baz=82						
MSO	**Missoula**	**81.81**	**37**	*e*P	**P**	**21 51 11.2**	**-0.5**
DLMT	**Dillon**	**81.82**	**39**	*e*P	**P**	**21 51 10.8**	**-0.9**
E14A	**Clinton**	**81.85**	**37**	⇑P	**P**	**21 51 11.4**	**-0.4**
	baz=82						
REDW	**Red Top Meadow**	**81.87**	**41**	*e*P	**P**	**21 51 12.1**	**0.0**
TPAW	**Teton Pass**	**81.87**	**41**	*e*P	**P**	**21 51 12.5**	**+0.4**
Q21A	**Lamborn Mesa,**	**81.88**	**46**	P	**P**	**21 51 13.0**	**+0.8**
	baz=82,SNR=5.2						
BSMT	**Bassoo Peak**	**81.89**	**36**	*e*P	**P**	**21 51 08.9**	**-3.1**
C13A	**Hot Springs**	**81.91**	**36**	P	**P**	**21 51 11.3**	**-0.8**
	baz=82,SNR=14						
J17A	**Brown Place, J**	**81.96**	**41**	⇓P	**P**	**21 51 12.3**	**-0.2**
	baz=82,SNR=19						
SNOW	**Snow King Moun**	**81.98**	**41**	*e*P	**P**	**21 51 13.5**	**+0.8**
A12A	**Yaak River Ran**	**82.02**	**34**	⇑P	**P**	**21 51 12.4**	**-0.3**
	baz=82						
O20A	**White River Ci**	**82.02**	**45**	⇓P	**P**	**21 51 12.7**	**-0.2**
	baz=82						
K18A	**Toltan Ranch,**	**82.03**	**42**	⇑P	**P**	**21 51 12.6**	**-0.3**
	baz=82,SNR=26						
M19A	**Rock Springs**	**82.05**	**43**	⇓P	**P**	**21 51 12.7**	**-0.4**
	baz=82,SNR=5.6						
IMW	**Indian Meadow**	**82.08**	**40**	*e*P	**P**	**21 51 13.6**	**+0.4**
JTMT	**Jette**	**82.11**	**36**	*e*P	**P**	**21 51 09.8**	**-3.4**
MOOW	**Moose Ponds**	**82.13**	**41**	*e*P	**P**	**21 51 13.6**	**+0.2**
	comp=Z,16nm,1.3s,mb4.7						
F15A	**Butte**	**82.13**	**38**	⇑P	**P**	**21 51 12.8**	**-0.6**
	baz=82,SNR=12						
SWMT	**Swartz Lake**	**82.15**	**36**	*e*P	**P**	**21 51 10.1**	**-3.3**
LRM	**Limekiln Ridge**	**82.15**	**38**	*e*P	**P**	**21 51 13.3**	**-0.1**
LOHW	**Long Hollow**	**82.15**	**41**	*e*P	**P**	**21 51 13.8**	**+0.2**
R22A	**Saguache, Gunn**	**82.18**	**47**	⇑P	**P**	**21 51 14.2**	**+0.4**
	baz=82,SNR=6.2						
D14A	**Greenough**	**82.20**	**37**	⇓P	**P**	**21 51 12.3**	**-1.4**
	baz=82,SNR=14						
L19A	**Farson**	**82.21**	**43**	⇓P	**P**	**21 51 13.6**	**-0.3**
	baz=82,SNR=12						
G16A	**Moss Hill, Enn**	**82.23**	**39**	⇓P	**P**	**21 51 13.2**	**-0.7**
	baz=82,SNR=8.3						
QLMT	**Earthquake Lak**	**82.25**	**39**	*e*P	**P**	**21 51 14.8**	**+0.8**
CHMT	**Chamberlain Mo**	**82.25**	**37**	*e*P	**P**	**21 51 13.3**	**-0.6**
P21A	**Newcastle**	**82.28**	**46**	⇑P	**P**	**21 51 14.0**	**-0.3**
	baz=82,SNR=6.9						
SLMT	**Seeley Lake**	**82.29**	**37**	*e*P	**P**	**21 51 13.3**	**-0.9**
H16A	**Russell Place,**	**82.30**	**40**	⇑P	**P**	**21 51 14.6**	**+0.3**
	baz=82,SNR=32						
I17A	**Pilgrim Ck.**	**82.32**	**41**	⇓P	**P**	**21 51 14.0**	**-0.4**
	baz=82,SNR=14						
J18A	**Kendall Valley**	**82.32**	**41**	⇑P	**P**	**21 51 14.2**	**-0.2**
	baz=82,SNR=41						
N20A	**Spence Gulch,**	**82.33**	**44**	⇓P	**P**	**21 51 14.6**	**+0.1**
	baz=82,SNR=15						
YBMT	**Yellow Bay**	**82.33**	**36**	*e*P	**P**	**21 51 10.9**	**-3.4**
E15A	**Deer Lodge**	**82.35**	**38**	⇑P	**P**	**21 51 13.9**	**-0.6**
	baz=83,SNR=14						
Q22A	**Crested Butte,**	**82.35**	**46**	⇓P	**P**	**21 51 14.0**	**-0.7**
	baz=82,SNR=15						
B13A	**Whitefish**	**82.36**	**35**	⇑P	**P**	**21 51 13.4**	**-1.1**
	baz=83,SNR=8.5						
BW06	**Boulder Array**	**82.40**	**42**	P	**P**	**21 51 14.6**	**-0.3**
	baz=83,SNR=23						
BW06	**Boulder Array**	**82.40**	**42**	*e*P	**P**	**21 51 14.5**	**-0.3**
PDAR	**Pinedale Array**	**82.40**	**42**	P	**P**	**21 51 14.4**	**-0.4**
	comp=Z,9.3nm,0.9s,mb4.6,baz=209,slow=2.7,SNR=7.3						
PDAR				PKKPbc	PKKPbc	22 09 42.3	-0.9
	comp=Z,0.7nm,0.8s,baz=96,slow=3.0,SNR=4.1						
PDAR				LR	LR	22 25 17.8	
	comp=Z,114nm,18.0s,baz=231,slow=34						
YFT	**Old Faithful**	**82.42**	**40**	*e*P	**P**	**21 51 17.0**	**+2.0**
C14A	**Swan Lake**	**82.43**	**36**	⇓P	**P**	**21 51 13.6**	**-1.3**
	baz=83						
COLA	**College**	**82.44**	**11**	*e*P	**P**	**21 51 13.8**	**-0.7**
COLA				pmax	pmax		
	comp=Z,76nm,0.9s,mb5.5						
COLA	**College**	**82.44**	**11**	*e*P	**P**	**21 51 13.8**	**-0.7**
	comp=Z,76nm,0.9s,mb5.5						
YMR	**Madison River**	**82.45**	**40**	*e*P	**P**	**21 51 15.6**	**+0.5**
	comp=Z,64nm,1.4s,mb5.3						
SEY	**Seymchan**	**82.53**	**345**	⇑*e*P	**P**	**21 51 14.9**	**-0.2**
SEY	**Seymchan**	**82.53**	**345**	⇑*e*P	**P**	**21 51 14.0**	**-1.1**
BOZ	**Bozeman (W)**	**82.55**	**39**	*e*P	**P**	**21 51 15.6**	**+0.1**
BOZ				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.8						
BOZ	**Bozeman (W)**	**82.55**	**39**	⇑P	**P**	**21 51 15.6**	**+0.1**
	baz=83,SNR=13						
BOZ	**Bozeman (W)**	**82.55**	**39**	*e*P	**P**	**21 51 15.6**	**0.0**
	comp=Z,24nm,1.4s,mb4.8						
H17A	**Grant Village**	**82.56**	**40**	⇓P	**P**	**21 51 16.8**	**+1.2**
	baz=83,SNR=14						
O21A	**Pagoda**	**82.58**	**45**	⇓P	**P**	**21 51 15.7**	**-0.1**
	baz=83						
F16A	**Kennard Place,**	**82.62**	**39**	⇑P	**P**	**21 51 15.8**	**-0.1**
	baz=83						
IMA2	**Indian Mountai**	**82.64**	**8**	*e*P	**P**	**21 51 15.6**	**+0.1**
YNR	**Norris Junctio**	**82.66**	**40**	*e*P	**P**	**21 51 16.7**	**+0.6**
M20A	**Sweetwater, Wa**	**82.69**	**44**	⇓P	**P**	**21 51 16.9**	**+0.6**
	baz=83						
I18A	**Diamond G Ranc**	**82.69**	**41**	⇓P	**P**	**21 51 15.4**	**-1.0**
	baz=83,SNR=6.2						
D15A	**Lincoln**	**82.75**	**37**	P	**P**	**21 51 16.3**	**-0.2**
	baz=83,SNR=23						
LKWY	**Lake**	**82.75**	**40**	*e*P	**P**	**21 51 16.4**	**-0.2**
QIZ	**Qiongzhong**	**82.80**	**292**	P	**P**	**21 51 18.3**	**+0.9**
QIZ				PP	PP	21 54 28.4	-0.1
QIZ				S	S	22 01 20.9	-10
QIZ				pmax	pmax		
	comp=Z,25nm,2.0s,mb4.7						
QIZ				pmax	pmax		
	comp=Z,210nm,4.1s						
N21A	**Black Mountain**	**82.80**	**44**	⇓P	**P**	**21 51 16.6**	**-0.3**
	baz=83,SNR=12						
L20A	**Wamsutter**	**82.83**	**43**	⇓P	**P**	**21 51 16.8**	**-0.3**
	baz=83,SNR=23						
SDCO	**Great Sand Dun**	**82.86**	**48**	*e*P	**P**	**21 51 17.8**	**+0.5**
K19A	**Absolon Red Bu**	**82.89**	**42**	⇑P	**P**	**21 51 16.6**	**-0.8**
	baz=83,SNR=18						
G17A	**Pierce Place,**	**82.92**	**39**	⇑P	**P**	**21 51 17.7**	**+0.2**
	baz=83,SNR=9.1						
E16A	**East Helena**	**82.98**	**38**	⇑P	**P**	**21 51 17.0**	**-0.8**
	baz=83,SNR=25						
HRY	**Holter Researc**	**82.98**	**38**	*e*P	**P**	**21 51 17.6**	**-0.1**
WHN	**Wuhan**	**83.01**	**304**	*e*P	**P**	**21 51 19.0**	**+0.7**
WALA	**Waterton Lakes**	**83.04**	**35**	*e*P	**P**	**21 51 17.6**	**-0.4**
C15A	**Salmond Ranch,**	**83.08**	**36**	⇑P	**P**	**21 51 17.4**	**-0.9**
	baz=83,SNR=21						
K20A	**Yellowstone Ra**	**83.14**	**42**	⇑P	**P**	**21 51 18.0**	**-0.6**
	baz=83						
A14A	**Double T Ranch**	**83.26**	**35**	⇑P	**P**	**21 51 18.1**	**-1.1**
	baz=84,SNR=13						
F17A	**Fitzpatrick Pl**	**83.27**	**39**	⇓P	**P**	**21 51 19.1**	**-0.1**
	baz=84,SNR=22						
M21A	**Separation Pea**	**83.29**	**44**	⇓P	**P**	**21 51 18.9**	**-0.6**
	baz=84,SNR=13						
D16A	**Dana Ranch, Ca**	**83.31**	**37**	⇓P	**P**	**21 51 18.6**	**-0.8**
	baz=84						
B15A	**Bradely Ranch,**	**83.39**	**36**	⇓P	**P**	**21 51 18.4**	**-1.5**
	baz=84,SNR=17						
E17A	**Martinsdale**	**83.43**	**38**	⇓P	**P**	**21 51 19.3**	**-0.7**
	baz=84,SNR=8.0						
RWWY	**Rawlins**	**83.43**	**44**	*e*P	**P**	**21 51 20.1**	**-0.1**
L21A	**Rawlins**	**83.45**	**43**	⇓P	**P**	**21 51 19.4**	**-0.9**
	baz=84,SNR=9.4						
DAWY	**Dawson**	**83.51**	**14**	*e*P	**P**	**21 51 20.2**	**+0.2**
N22A	**Wattenberg Ran**	**83.54**	**45**	⇑P	**P**	**21 51 20.4**	**-0.4**
	baz=84,SNR=9.7						
C16A	**Fuhringer Ranc**	**83.59**	**37**	⇑P	**P**	**21 51 20.1**	**-0.8**
	baz=84,SNR=9.8						
G18A	**Lazy EL Ranch,**	**83.64**	**40**	⇓P	**P**	**21 51 20.9**	**-0.3**
	baz=84,SNR=23						
A15A	**Johnson Ranch,**	**83.65**	**35**	⇑P	**P**	**21 51 20.3**	**-0.9**
	baz=84,SNR=8.9						
ISCO	**Idaho Springs**	**83.67**	**46**	*e*P	**P**	**21 51 22.0**	**+0.5**
EGAK	**Eagle**	**83.71**	**13**	*e*P	**P**	**21 51 21.3**	**+0.2**
M22A	**Cedar Creek Ra**	**83.71**	**44**	⇑P	**P**	**21 51 21.5**	**-0.1**
	baz=84,SNR=11						
RLMT	**Red Lodge**	**83.73**	**40**	⇑P	**P**	**21 51 21.3**	**-0.3**
	baz=84,SNR=16						
RLMT	**Red Lodge**	**83.73**	**40**	*e*P	**P**	**21 51 22.0**	**+0.3**
F18A	**Big Timber**	**83.83**	**39**	P	**P**	**21 51 22.6**	**+0.4**
	baz=84,SNR=17						
D17A	**Six Diamond Ra**	**83.88**	**38**	P	**P**	**21 51 22.5**	**+0.2**
	baz=84,SNR=24						
B16A	**M & M Farms, S**	**83.93**	**36**	⇑P	**P**	**21 51 21.2**	**-1.4**
	baz=84,SNR=16						
E18A	**Harlowton**	**84.04**	**38**	P	**P**	**21 51 23.4**	**+0.2**
	baz=84,SNR=21						
C17A	**Wharram Farm,**	**84.08**	**37**	⇑P	**P**	**21 51 22.7**	**-0.7**
	baz=84,SNR=37						
COLD	**Coldfoot**	**84.22**	**9**	*e*P	**P**	**21 51 23.6**	**0.0**
	comp=Z,64nm,1.3s,mb5.3						
A16A	**West Butte Ran**	**84.27**	**36**	⇓P	**P**	**21 51 23.8**	**-0.5**
	baz=84,SNR=31						
B17A	**L&G Farms, Che**	**84.39**	**37**	⇓P	**P**	**21 51 23.9**	**-1.0**
	baz=85,SNR=8.3						
D18A	**Linhart Farms,**	**84.42**	**38**	⇑P	**P**	**21 51 25.0**	**-0.1**
	baz=85,SNR=5.5						
PHWY	**Pilot Hill**	**84.43**	**45**	*e*P	**P**	**21 51 23.8**	**-1.5**
AMTX	**Amarillo**	**84.49**	**52**	*e*P	**P**	**21 51 25.6**	**-0.1**
BILL	**Bilibino**	**84.54**	**353***c*	*i*P	**P**	**21 51 24.8**	**-0.5**
BILL				*e*		21 54 41.2	
BILL				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.7						
BILL				MLR	MLR		
	comp=Z,3µm,24.0s						
BILL	**Bilibino**	**84.54**	**353**	*e*P	**P**	**21 51 24.8**	**-0.4**
	comp=Z,108nm,1.2s,mb5.7						
A17A	**Triple J Farms**	**84.78**	**36**	⇓P	**P**	**21 51 26.3**	**-0.6**
	baz=85,SNR=22						
EGMT	**Eagleton**	**84.86**	**37**	⇑P	**P**	**21 51 26.2**	**-1.1**
	baz=85,SNR=8.9						
EGMT	**Eagleton**	**84.86**	**37**	*e*P	**P**	**21 51 27.3**	**0.0**
B18A	**Beardsley Farm**	**85.03**	**37**	⇑P	**P**	**21 51 27.5**	**-0.7**
	baz=85,SNR=12						
A18A	**Metzger Ranch,**	**85.25**	**36**	⇓P	**P**	**21 51 28.0**	**-1.2**
	baz=86,SNR=11						
BJT	**Baijiatuau**	**85.40**	**314**	*e*P	**P**	**21 51 31.1**	**+0.9**
BJT				pmax	pmax		
	comp=Z,93nm,1.1s						
BJT	**Baijiatuau**	**85.40**	**314**	*e*P	**P**	**21 51 31.1**	**+0.9**
	comp=Z,93nm,1.1s,mb5.6						
BJI	**Beijing**	**85.40**	**314**	P	**P**	**21 51 30.8**	**+0.6**
BJI				PP	PP	21 54 49.9	+0.5
BJI				S	S	22 01 56.3	+0.1
BJI				SS	SS	22 07 34.1	+1.2
BJI				pmax	pmax		
	comp=Z,77nm,1.2s,mb5.5						
BJI				pmax	pmax		
	comp=Z,520nm,3.9s						
BJI				LR	LR		
	comp=N,190nm,35.4s						
BJI				LR	LR		
	comp=E,150nm,37.8s						
BJI				LR	LR		
	comp=Z,220nm,33.8s						
EDM	**Edmonton**	**85.61**	**32**	*e*P	**P**	**21 51 30.3**	**-0.6**
UBT	**Ubonrachathani**	**86.02**	**287**	⇓P	**P**	**21 51 35.0**	**+1.2**
HIA	**Hailar**	**87.15**	**323**	*e*P	**P**	**21 51 38.3**	**-0.3**
HIA				pmax	pmax		
	comp=Z,71nm,1.4s						
HIA	**Hailar**	**87.15**	**323**	*e*P	**P**	**21 51 38.3**	**-0.3**
	comp=Z,71nm,1.4s,mb5.4						
KULM	**Kulim**	**87.36**	**276**	*e*P	**P**	**21 51 40.4**	**-0.1**
	comp=Z,30nm,0.8s,mb5.3						
MAW	**Mawson**	**87.69**	**199**	*e*P	**P**	**21 51 41.7**	**+0.7**
MAW				pmax	pmax		
	comp=Z,25nm,1.0s						
MAW	**Mawson**	**87.69**	**199**	*e*P	**P**	**21 51 42.0**	**+1.0**
	comp=Z,35nm,0.6s,mb5.6						
MAW	**Mawson**	**87.69**	**199**	P	**P**	**21 51 42.2**	**+1.2**
	comp=Z,88nm,1.0s,mb5.8,baz=132,slow=9.1,SNR=15						
MAW				LR	LR	22 27 57.6	
	comp=Z,199nm,18.4s,baz=13,slow=34						
MAW	**Mawson**	**87.69**	**199**	*e*P	**P**	**21 51 41.6**	**+0.7**
	comp=Z,25nm,1.0s,mb5.2						
MAW				LR	LR	22 27 57.6	
GYA	**Guiyang**	**87.94**	**298**	⇓*i*P	**P**	**21 51 42.3**	**-0.6**
GYA				pP	pP	21 52 05.0	+3.7
GYA				sP	sP	21 52 14.8	+6.4
GYA				PP	PP	21 55 11.3	+1.1
GYA				SKS		22 02 01.6	
GYA				S	S	22 02 17.8	-3.6
GYA				sS	sS	22 02 54.8	+2.4
GYA				SS	SS	22 08 12.5	+1.8
GYA				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
GYA				pmax	pmax		
	comp=Z,140nm,5.2s						
GYA				LR	LR		
	comp=N,720nm,19.8s						
GYA				LR	LR		
	comp=E,510nm,18.2s						
GYA				LR	LR		
	comp=Z,620nm,19.9s						
CLNS	**Chul'man**	**88.22**	**331**	*e*P	**P**	**21 51 43.6**	**+0.1**
CLNS				pmax	pmax		
	comp=Z,71nm,0.9s,mb5.7						
CLNS				pmax	pmax		
	comp=N,19nm,0.9s						
CLNS				pmax	pmax		
	comp=E,20nm,1.0s						
PSI	**Prapat**	**88.36**	**273**	LR	LR	22 26 14.1	
	comp=E,170nm,21.2s,baz=0.6,slow=32						
DGMT	**Dagmar**	**88.36**	**39**	⇓P	**P**	**21 51 44.5**	**+0.1**
	baz=89						
DGMT	**Dagmar**	**88.36**	**39**	*e*P	**P**	**21 51 44.6**	**+0.2**
XAN	**Xi'an**	**88.55**	**306**	P	**P**	**21 51 46.3**	**+0.7**
XAN				PP	PP	21 55 15.4	+0.5
XAN				S	S	22 02 27.3	+0.5
XAN				SS	SS	22 08 20.9	+1.7
XAN				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.3						
XAN				pmax	pmax		
	comp=Z,130nm,8.4s						
XAN				LR	LR		
	comp=E,170nm,35.0s						
XAN				LR	LR		
	comp=Z,320nm,36.4s						
HHC	**Hu-ho-hao-te**	**88.96**	**313**	⇑P	**P**	**21 51 48.6**	**+1.2**
HHC				pP	pP	21 52 08.8	+3.1
HHC				PP	PP	21 55 21.0	+3.0
HHC				SKS		22 02 09.0	
HHC				S	S	22 02 29.4	-0.9
HHC				sS	sS	22 03 03.8	+2.3
HHC				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.5						
HHC				pmax	pmax		
	comp=Z,120nm,4.0s						
HHC				LR	LR		
	comp=N,140nm,14.3s						
HHC				LR	LR		
	comp=E,140nm,14.3s						
HHC				LR	LR		
	comp=Z,170nm,15.5s						
YAK	**Yakutsk**	**89.11**	**337**	*e*P	**P**	**21 51 44.7**	**-2.9**
YAK				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,13nm,1.0s						
YAK				pmax	pmax		
	comp=E,16nm,1.0s						
YAK	**Yakutsk**	**89.11**	**337**	*e*P	**P**	**21 51 45.7**	**-1.9**
	comp=E,78nm,1.0s,mb5.7						
PLCA	**Paso Flores**	**89.58**	**132**	PKKPbc	PKKPbc	22 09 23.2	-1.9
	comp=E,1.5nm,0.9s,baz=358,slow=6.6,SNR=3.9						
PLCA				LR	LR	22 25 42.3	
	comp=E,330nm,18.9s,baz=358,slow=31						
BTO	**Baotou**	**89.97**	**312**	*e*P	**P**	**21 51 52.3**	**+0.2**
YKA	**Yellowknife Ar**	**90.20**	**23**	P	**P**	**21 51 51.0**	**-1.6**
	comp=E,7.6nm,0.9s,mb4.8,baz=240,slow=4.9,SNR=90						
YKA				PKiKP	PKiKP	21 56 48.0	+0.2
	comp=E,0.3nm,0.8s,baz=269,slow=1.3,SNR=3.5						
YKA				PKKP	PKKPbc	22 09 20.8	-4.3
	comp=E,0.4nm,0.4s,baz=38,slow=2.0,SNR=6.5						
YKA				LR	LR	22 26 15.6	
	comp=E,112nm,18.3s,baz=275,slow=32						
YKA	**Yellowknife Ar**	**90.20**	**23**	P	**P**	**21 51 51.0**	**-1.6**
KMI	**Kunming**	**90.92**	**296**	P	**P**	**21 51 57.8**	**+0.9**
KMI				pP	pP	21 52 20.8	+5.5
KMI				sP	sP	21 52 28.4	+6.0
KMI				PP	PP	21 55 34.3	+0.3
KMI				pmax	pmax		
	comp=Z,20nm,1.5s,mb5.0						
CD2	**Chengdu**	**91.72**	**301**	P	**P**	**21 52 00.8**	**+0.3**
CD2				pP	pP	21 52 21.5	+2.6
CD2				sP	sP	21 52 29.8	+3.8
CD2				PP	PP	21 55 42.6	+2.4
CD2				SKS		22 02 24.9	
CD2				S	S	22 02 52.8	-3.4
CD2				sS	sS	22 03 28.5	+1.0
CD2				SS	SS	22 09 05.3	+0.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.3						
CD2				pmax	pmax		
	comp=Z,210nm,4.5s						
CD2				LR	LR		
	comp=N,240nm,7.1s						
CD2				LR	LR		
	comp=Z,290nm,5.1s						
FFC	**Flin Flon**	**92.23**	**33**	*i* P	**P**	**21 52 01.6**	**-0.6**
CMAR	**Chiang Mai Arr**	**92.50**	**288**	P	**P**	**21 52 05.3**	**+1.0**
	comp=Z,14nm,0.9s,mb5.2,baz=96,slow=2.8,SNR=63						
CMAR				PKiKP	PKiKP	21 56 53.5	+0.4
	comp=Z,1.4nm,0.9s,baz=291,slow=0.5,SNR=5.9						
CMAR				LR	LR	22 27 38.8	
	comp=Z,90nm,21.6s,baz=277,slow=32						
CHG	**Chiang Mai**	**92.59**	**289**	⇑P	**P**	**21 52 05.5**	**+0.7**
CHTO	**Chiang Mai**	**92.59**	**289**	*e*P	**P**	**21 52 04.9**	**+0.1**
CHTO				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.3						
CHTO	**Chiang Mai**	**92.59**	**289**	*e*P	**P**	**21 52 04.9**	**+0.1**
	comp=Z,17nm,1.0s,mb5.3						
VNA3	**Neumayer Olymp**	**92.81**	**175**	*e*P	**P**	**21 52 05.8**	**+1.0**
LZH	**Lanzhou**	**93.14**	**306**	*e*P	**P**	**21 52 08.1**	**+1.1**
LZH				pP	pP	21 52 30.0	+4.7
LZH				sP	sP	21 52 37.5	+5.0
LZH				PP	PP	21 55 55.3	+4.0
LZH				SKS		22 02 33.1	
LZH				S	S	22 03 06.0	-2.6
LZH				sS	sS	22 03 44.0	+4.0
LZH				*e*SS	SS	22 09 30.0	+4.6
LZH				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.6						
LZH				pmax	pmax		
	comp=Z,200nm,4.5s						
LZH				LR	LR		
	comp=N,790nm,18.9s						
LZH				LR	LR		
	comp=Z,960nm,19.5s						
VNA2	**Neumayer--Watz**	**93.31**	**175**	*e*P	**P**	**21 52 08.1**	**+1.0**
VNA1	**Neumayer--Stat**	**93.51**	**175**	*e*P	**P**	**21 52 04.2**	**-3.8**
BOD	**Bodaibo**	**93.90**	**329**	*e*P	**P**	**21 52 08.6**	**-1.3**
BOD				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.2						
ULM	**Lac du Bonnet**	**94.06**	**39**	P	**P**	**21 52 09.2**	**-1.6**
	comp=Z,3.6nm,0.7s,mb4.8,baz=280,slow=3.8,SNR=5.6						
ULM				PKiKP	PKiKP	21 56 53.5	-1.4
	comp=Z,1.2nm,0.5s,baz=315,slow=2.9,SNR=3.0						
ULM				LR	LR	22 30 46.8	
	comp=Z,221nm,18.7s,baz=246,slow=33						
FVM	**French Village**	**94.07**	**52**	*e*P	**P**	**21 52 10.3**	**-0.9**
ULN	**Ulaanbaatar**	**94.38**	**318**	*e*P	**P**	**21 52 12.1**	**-0.2**
ULN				*e*		21 55 59.2	
ULN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
ULN	**Ulaanbaatar**	**94.38**	**318**	*e*P	**P**	**21 52 12.1**	**-0.2**
	comp=Z,9.2nm,1.0s,mb5.1						
ULN				*e*PP	PP	21 55 59.2	-1.4
ULN	**Ulaanbaatar**	**94.38**	**318**	⇑P	**P**	**21 52 13.3**	**+0.9**
	SNR=5.8						
ULN				⇑P		21 52 13.3	
	SNR=5.8						
CFAA	**Coronel Fontan**	**94.54**	**124**	P	**P**	**21 52 13.7**	**+0.1**
	comp=Z,0.2nm,0.6s,baz=252,slow=6.9,SNR=3.6						
SONM	**Songino Array**	**94.79**	**318**	P	**P**	**21 52 14.1**	**-0.1**
SONM						21 56 00.7	
SONM	**Songino Array**	**94.79**	**318**	P	**P**	**21 52 14.1**	**-0.1**
	comp=Z,3.1nm,0.7s,mb4.8,baz=105,slow=2.8,SNR=19						
SONM				PP	PP	21 56 00.7	-3.1
	comp=Z,1.9nm,1.1s,baz=115,slow=6.7,SNR=5.6						
SONM				LR	LR	22 29 17.1	
	comp=Z,101nm,19.4s,baz=102,slow=32						
TIXI	**Tiksi**	**95.02**	**344**	⇑*e*P	**P**	**21 52 14.4**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.5						
TIXI	**Tiksi**	**95.02**	**344**	P	**P**	**21 52 14.0**	**-0.8**
	comp=Z,26nm,1.1s,mb5.6						
GTA	**Gaotai**	**97.10**	**309**	P	**P**	**21 52 25.4**	**+0.4**
GTA				pP	pP	21 52 45.5	+2.1
GTA				sP	sP	21 52 54.8	+4.3
GTA				PP	PP	21 56 27.9	+6.0
GTA				SKS		22 02 54.9	
GTA				S	S	22 03 40.9	-2.0
GTA				sS	sS	22 04 17.3	+2.9
GTA				SS	SS	22 10 24.5	+2.9
GTA				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.3						
GTA				LR	LR		
	comp=N,130nm,14.9s						
GTA				LR	LR		
	comp=E,170nm,18.4s						
GTA				LR	LR		
	comp=Z,310nm,25.0s						
ZAK	**Zakamensk**	**97.47**	**320**	*e*P	**P**	**21 52 25.8**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.8						
TLY	**Talaya**	**97.59**	**321**	*e*P	**P**	**21 52 26.9**	**+0.1**
TLY				*e*		21 56 19.3	
TLY				*e*S	S	22 03 54.0	+7.5
TLY				*e*SSS		22 14 10.1	
TLY				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb5.1						
RES	**Resolute Bay**	**101.82**	**15**	*e*P	Pdif	21 52 45.0	-0.8
WMQ	**Urumqi**	**106.80**	**312**	Pdif	Pdif	21 53 06.0	-1.9
WMQ				*e*PP	PP	21 57 36.0	+1.3
WMQ				AMB	AMB		
	comp=Z,180nm,6.2s						
WMQ				LR	LR		
	comp=N,230nm,28.0s						

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WMQ                                  LR       LR
       comp=E,150nm,23.9s
WMQ                                  LR       LR
       comp=Z,160nm,18.0s
ZALV  Zalesovo Beam    109.18 322    Pdiff    Pdif      21 53 15.8  -2.8
       comp=Z,0.5nm,0.4s,baz=132,slow=2.2,SNR=4.9
ZALV                                 PKiKP    PKiKP     21 57 21.1  -1.0
       comp=Z,3.4nm,0.6s,baz=144,slow=1.3,SNR=18
ZALV                                 PP       PP        21 57 56.4  +4.6
       comp=Z,1.4nm,0.6s,baz=96,slow=6.7,SNR=5.6
MK31  Makanchi Array   110.77 315   ePKIKP    PKiKP     21 57 23.6  -1.7
MKAR  Makanchi Array   110.77 315    Pdiff    Pdif      21 53 25.9  +0.3
       comp=Z,0.6nm,0.7s,baz=83,slow=5.0,SNR=5.1
MKAR                                 PKiKP    PKiKP     21 57 24.2  -1.1
       comp=Z,4.7nm,0.7s,baz=62,slow=1.2,SNR=52
MKAR                                 PKKPbc   PKKPbc    22 08 35.0  +10
       comp=Z,0.5nm,0.9s,baz=259,slow=2.5,SNR=4.1
MKAR  Makanchi Array   110.77 315    Pdif     Pdif      21 53 25.9  +0.3
MKAR                                 PKPdf    PKiKP     21 57 24.2  -1.1
MKAR                                 PKKPbc   PKKPbc    22 08 35.0  +10
KURK  Kurchatov        113.09 319    PKiKP    PKiKP     21 57 28.4  -1.2
       comp=Z,7.3nm,0.8s,baz=88,slow=1.8,SNR=24
KURK                                 PP       PP        21 58 15.3  -4.6
       comp=Z,3.6nm,1.0s,baz=83,slow=6.4,SNR=7.7
KURK  Kurchatov        113.09 319   ePKiKP    PKiKP     21 57 28.2  -1.3
ULHL  Ulahol           115.14 310    P        PKiKP     21 57 33.5  -0.3
       SNR=7.2
KSH   Kashi            115.39 307   ePKP      PKPdf     21 57 35.0  +0.6
KSH                                 ePKS                22 01 12.3
KSH                                 eSKS      SKSdf     22 04 36.3  -4.6
KSH                                  AMB      AMB
       comp=Z,340nm,5.0s
KSH                                  LR       LR
       comp=N,240nm,6.3s
KSH                                  LR       LR
       comp=E,250nm,6.6s
KSH                                  LR       LR
       comp=Z,440nm,5.4s
TKM2  Tokmak 2         115.59 310    P        PKPdf     21 57 33.8  -0.8
       SNR=5.5
TKM2  Tokmak 2         115.59 310   ePKPdf    PKPdf     21 57 34.0  -0.7
USP   Ospenovka        116.37 311    P        PKPdf     21 57 35.2  -0.9
       SNR=8.3
AAK   Ala-Archa        116.41 310   ePKIKP    PKPdf     21 57 35.5  -0.7
UCH   Uchtor           116.42 310    P        PKPdf     21 57 35.8  -0.4
       SNR=6.9
UCH   Uchtor           116.42 310   ePKPdf    PKPdf     21 57 36.5  +0.2
EKS2  Erkin-Say        116.94 310    P        PKPdf     21 57 36.7  -0.6
       SNR=6.0
EKS2  Erkin-Say        116.94 310   ePKPdf    PKPdf     21 57 36.2  -1.0
AML   Almayashu        117.03 310    P        PKPdf     21 57 37.3  -0.1
       SNR=11
AML   Almayashu        117.03 310   ePKPdf    PKPdf     21 57 37.4   0.0
SPITS Spitsbergen Ar   117.06 358    PKP      PKPdf     21 57 36.0  -0.6
       comp=Z,19nm,0.8s,baz=270,slow=1.9,SNR=9.4
SPITS Spitsbergen Ar   117.06 358    PKP      PKPdf     21 57 36.0  -0.6
BVAR  Borovoye Array   117.84 322    PKP      PKPdf     21 57 37.9  -0.7
       comp=Z,19nm,0.9s,baz=94,slow=1.0,SNR=60
BVAR                                 PP       PP        21 58 48.9  -4.2
       comp=Z,2.1nm,0.9s,baz=84,slow=7.6,SNR=3.8
BRVK  Borovoye         117.89 322   ePKIKP    PKPdf     21 57 37.5  -1.2
SVE   Sverdlovsk       122.10 328   ePKIKP    PKPdf     21 57 46.1  -0.6
SVE                                  pmax     pmax
       comp=Z,30nm,1.0s
SCO   Scoresbysund     122.31  11  i PKIKP    PKPdf     21 57 45.9  -0.9
SCO                                  pmax     pmax
       comp=Z,8.0nm,0.8s
SCO   Scoresbysund     122.31  11  i P        PKPdf     21 57 45.9  -0.9
       comp=Z,8.3nm,0.8s
SOKR  Solikamsk        122.77 332c iPKIKP     PKPdf     21 57 46.0  -1.9
SOKR                                 pmax     pmax
       comp=Z,80nm,1.1s
ARU   Arti             123.31 328  i PKIKP    PKPdf     21 57 48.6  -0.4
ARU                                                     22 04 42.1
ARU   Arti             123.31 328   ePKPdf    PKPdf     21 57 48.4  -0.7
ARCES ARCESS Array B   124.64 352    PKP      PKPdf     21 57 50.9  -0.4
       comp=Z,37nm,0.8s,baz=7.8,slow=1.4,SNR=78
AKTK  Aktyubinsk       125.94 322    PKP      PKPdf     21 57 54.0  -0.2
AKTO  Aktyubinsk       125.94 322    PKP      PKPdf     21 57 54.0  -0.2
       comp=Z,10nm,0.8s,baz=75,slow=3.1,SNR=28
PRGR  Permogore        126.13 338⇓iPKIKP      PKPdf     21 57 53.6  -0.7
PRGR                                 pmax     pmax
       comp=Z,52nm,0.9s
KLMR  Klimovskoe       128.79 340   ePKIKP    PKPdf     21 57 56.2  -3.2
KLMR                                 pmax     pmax
       comp=Z,73nm,1.4s
JOF   Joensuu          129.49 346   ep        PKPdf     21 57 51.9  -8.8
SMDO  Samad            130.91 287  ⇑P         PKPdf     21 58 04.1  -0.5
       SNR=5.9
KAF   Kangasniemi      131.31 348   ep        PKPdf     21 57 58.2  -6.0
BSY   Bisya            131.69 287    P        PKPdf     21 58 05.5  -0.6
       SNR=7.8
BOSA  Boshof           132.56 203    PKhKP              21 58 01.3
       comp=Z,1.5nm,0.8s,baz=165,slow=11,SNR=4.1
BOSA                                 PKP      PKPdf     21 58 06.7  -1.0
       comp=Z,4.3nm,0.9s,baz=185,slow=6.4,SNR=4.7
OBN   Obninsk          134.11 336⇓iPKIKP      PKPdf     21 58 09.4  -0.2
OBN                                 e                   22 00 39.4
OBN                                  pmax     pmax
       comp=Z,49nm,1.2s
OBN   Obninsk          134.11 336   ePKPdf    PKPdf     21 58 09.5  -0.1
RBK   Rabkut           134.26 280    P        PKPdf     21 58 11.4  +0.4
       SNR=7.2
NOA   NORSAR Array B   134.35 357    PKhKP              21 57 58.1
       comp=Z,2.0nm,0.7s,baz=36,slow=2.1,SNR=4.1
NOA                                  PKP      PKPdf     21 58 10.0  +0.1
       comp=Z,10nm,0.9s,baz=13,slow=4.0,SNR=12
VRHR  Novokhopersk     134.64 329   ePKIKP    PKPdf     21 58 10.6  -0.1
VRHR                                 pmax     pmax
       comp=Z,10.0nm,0.7s
VRHR                                 pmax     pmax
       comp=N,5.0nm,0.6s
WHFO  Wadi Hawf        134.70 280    P        PKPdf     21 58 11.9   0.0
       SNR=9.2
ABTO  Aybut            135.11 279    P        PKPdf     21 58 13.1  +0.5
       SNR=6.1
VSR   Storozhevoye     135.74 331   ePKIKP    PKPdf     21 58 13.3  +0.5
VSR                                  pmax     pmax
       comp=Z,10.0nm,0.6s
VSR                                  pmax     pmax
       comp=N,7.0nm,0.8s
VSR                                  pmax     pmax
       comp=E,7.0nm,0.7s
KONO  Kongsberg        135.82 358⇓iPKIKP      PKPdf     21 58 11.5  -1.2
KONO  Kongsberg        135.82 358⇓ePKP        PKPdf     21 58 11.5  -1.2
VORD  Divnogorie       135.85 331   ePKIKP    PKPdf     21 58 12.2  -0.8
VORD                                 pmax     pmax
       comp=N,9.0nm,0.4s
VORD                                 pmax     pmax
       comp=E,10.0nm,0.4s
VORD                                 pmax     pmax
       comp=Z,9.0nm,0.4s
KIV   Kislovodsk       138.15 320  i PKIKP    PKPdf     21 58 19.4  +1.9
KIV                                  pmax     pmax
       comp=Z,13nm,1.1s
KIV                                  MLR      MLR
       comp=Z,87nm,20.0s
KIV   Kislovodsk       138.15 320  i PKP      PKPdf     21 58 19.4  +1.9
SUW   Suwalki          139.36 345   ePKP                21 58 05.9
SUW   Suwalki          139.36 345   ePKP                21 58 05.9
SUW                                  PKPpre             21 58 09.7
EKA   Eskdalemuir Ar   139.52   8    PKhKP              21 58 10.3
       comp=Z,2.1nm,0.8s,baz=330,slow=2.8,SNR=8.6
EKA                                  PKP      PKPdf     21 58 20.8  +1.1
       comp=Z,0.9nm,0.6s,baz=34,slow=0.3,SNR=3.9
RDF   Al-Radifah       139.86 297   eP        PKPdf     21 58 11.8  -9.3
RDF                                  AMb      AMB       21 58 15.3
       comp=Z,16nm,0.6s
MIB   Mutribah         139.87 298   eP        PKPdf     21 58 11.3   -10
MIB                                  AMb      AMB       21 58 14.5
       comp=Z,14nm,0.6s
NAY   Al-Naaiem        140.06 297   eP        PKPdf     21 58 11.8   -10
NAY                                  AMb      AMB       21 58 17.5
       comp=Z,5.8nm,1.0s
AKASG Malin Array Be   140.34 337    PKhKP              21 58 12.9
       comp=Z,7.6nm,0.6s,baz=38,slow=4.0,SNR=28
AKASG                                PKP      PKPdf     21 58 20.1  -1.1
       comp=Z,17nm,0.8s,baz=36,slow=3.5,SNR=32
KIEV  Kiev             140.35 337   ePKHKP              21 58 13.0
KIEV                                e                   21 58 20.7
ANN   Anapa            140.76 325  i PKIKP    PKPdf     21 58 19.7  -2.5
ANN                                 e                   22 05 25.9
ANN                                  pmax     pmax
       comp=Z,42nm,0.9s
SIM   Simferopol'      142.46 327    PKIKP    PKPdf     21 58 22.7  -2.6
SIM                                  pmax     pmax
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       comp=Z,19nm,0.9s
LSZ   Lusaka           142.67 216   ePKHKP              21 58 22.2
LSZ   Lusaka           142.67 216    P        PKPdf     21 58 24.3  -2.2
       SNR=5.2
LSZ                                  P                  21 58 24.3
       SNR=5.2
LVV   L'vov            142.87 341   ePKHKP              21 58 20.5
NRDL  Niedersach Rie   142.94 356   ePKPbc    PKPdf     21 58 22.0  -3.9
IBBN  Ibbenburen       143.22 359   ePKPbc    PKPdf     21 58 23.9  -2.5
KWP   Kalwaria Pacla   143.43 342   ePKP      PKPdf     21 58 23.9  -3.0
KWP   Kalwaria Pacla   143.43 342⇑iP          PKPdf     21 58 23.9  -2.9
KWP   Kalwaria Pacla   143.43 342   ePKP      PKPdf     21 58 23.9  -2.9
KIS   Kishinev         143.46 334   ePKIKP    PKPdf     21 58 24.0  -3.0
KIS                                 e                   21 58 31.0
KIS                                 e                   21 58 39.0
KIS   Kishinev         143.46 334   eUNK      PKPdf     21 58 24.0  -3.0
CLZ   Clausthal        143.57 356   ePKPbc    PKPdf     21 58 23.5  -3.5
WTSB  Winterswijk      143.58 360⇑ePKP        PKPdf     21 58 22.6  -4.4
       comp=Z,37nm,2.5s
OJC   Ojcow            143.68 346   ePKP      PKPdf     21 58 24.4  -2.9
MALT  Malatya          143.80 315    PKIKP    PKPdf     21 58 27.1  -0.8
MALT  Malatya          143.80 315⇑iP          PKPdf     21 58 26.4  -1.5
MALT  Malatya          143.80 315   ePKPdf    PKPdf     21 58 26.5  -1.4
KSP   Ksiaz            143.82 349   ePKP      PKPdf     21 58 25.2  -2.3
KSP   Ksiaz            143.82 349   ePKP      PKPdf     21 58 25.3  -2.2
CLL   Collm            143.85 353  i PKIKP    PKPdf     21 58 24.8  -2.7
CLL                                  pmax     pmax
       comp=Z,10.0nm,0.9s
CLL   Collm            143.85 353  i PKPdf    PKPdf     21 58 24.8  -2.7
       comp=Z,48nm,0.9s
CLL                                 ePKiKP    PKiKP     21 58 30.0  -1.0
TSUM  Tsumeb           143.86 198   ePKPdf    PKPdf     21 58 26.8  -1.8
STHS  Stebnicka Huta   144.04 344   ePKP      PKPdf     21 58 26.4  -1.5
STHS                                e                   21 58 29.9
BUG   Bochum--Univer   144.10 359   ePKPbc    PKPdf     21 58 25.1  -2.8
BRG   Berggiesshubel   144.16 352   ePKPbc    PKPdf     21 58 25.4  -2.7
BRG   Berggiesshubel   144.16 352  i PKP      PKPdf     21 58 25.3  -2.8
       comp=Z,22nm,0.8s
BRG                                 e                   22 00 11.8
       comp=Z,6.8nm,0.8s
KOLS  Kolonicke sedl   144.18 342   ePKP      PKPdf     21 58 26.5  -1.7
UPC   Upice            144.19 350   ePKP      PKPdf     21 58 26.5  -1.6
NIE   Niedzica         144.29 344   ePKP      PKPdf     21 58 21.7  -6.6
DPC   Dobruska-Polom   144.29 349   ePKP      PKPdf     21 58 26.6  -1.7
BUR08 Bucovina Ar. S   144.35 338   ePKPdf    PKPdf     21 58 26.7  -1.8
BUR02 Bucovina Ar. S   144.36 338    P        PKPdf     21 58 27.8  -0.7
PVCC  Panska Ves       144.41 351   ePKP      PKPdf     21 58 27.5  -1.0
OKC   Ostrava-Krasne   144.41 347   ePKP      PKPdf     21 58 26.7  -1.8
CRVS  Cervenica-Dubn   144.45 343   ePKP      PKPdf     21 58 27.2  -1.4
UZH   Uzhgorod         144.45 342⇑iPKIKP      PKPdf     21 58 25.6  -3.0
MORC  Moravsky Berou   144.60 348    PKIKP    PKPdf     21 58 27.8  -1.1
MORC  Moravsky Berou   144.60 348⇑iP          PKPdf     21 58 27.7  -1.2
MORC  Moravsky Berou   144.60 348   ePKPdf    PKPdf     21 58 27.2  -1.7
UBBA  Unterbreizbach   144.61 356   ePKPbc    PKPdf     21 58 26.5  -2.4
MOX   Moxa             144.65 354   ePKP      PKPdf     21 58 27.2  -1.7
       comp=Z,134nm,1.4s
MOX   Moxa             144.65 354   ePKIKP    PKPdf     21 58 27.2  -1.7
MOX                                  pmax     pmax
       comp=Z,10.0nm,1.4s
MOX   Moxa             144.65 354   ePKPbc    PKPdf     21 58 27.3  -1.6
UCC   Uccle            144.71   2    PKP      PKPdf     21 58 27.6  -1.4
BEBN  Eben Emael       144.74   1    PKP      PKPdf     21 58 27.7  -1.4
HGN   Heimansgroeve    144.78   1⇑iPKP        PKPdf     21 58 27.8  -1.3
       comp=Z,90nm,1.3s
TANN  Tannenbergstha   144.79 353   ePKPbc    PKPdf     21 58 27.9  -1.3
MENF  Mencas           144.82   5    PKP      PKPdf     21 58 21.4  -7.8
BMR   Baia Mare        144.91 340    PKIKP    PKPdf     21 58 29.0  -0.5
MEM   Membach          144.94   0    PKP      PKPdf     21 58 28.3  -1.1
PRU   Pruhonice        144.94 351   ePKP      PKPdf     21 58 28.6  -0.8
NKC   Novy Kostel      144.97 353   ePKP      PKPdf     21 58 28.6  -0.9
SNF   Seneffe          144.99   2    PKP      PKPdf     21 58 28.8  -0.7
KECS  Kecovo           145.10 344   ePKP      PKPdf     21 58 29.6  -0.2
BCLA  Clavier          145.12   1    PKP      PKPdf     21 58 28.6  -1.2
VRAC  Vranov           145.24 348⇑iP          PKPbc     21 58 30.0  +0.2
VRAC  Vranov           145.24 348    PKPbc    PKPbc     21 58 29.9  +0.2
       comp=Z,125nm,1.0s,baz=21,slow=2.4,SNR=98
VRAC  Vranov           145.24 348    P        PKPbc     21 58 29.9  +0.2
VRI   Vrincioaia       145.24 335⇑iP          PKPbc     21 58 29.9   0.0
VRI   Vrincioaia       145.24 335    P        PKPbc     21 58 30.2  +0.3
MANZ  Manzenberg       145.25 354   ePKPbc    PKPbc     21 58 29.5  -0.3
PLOR  Plostina         145.28 335    PKIKP    PKPdf     21 58 30.3  +0.1
PLOR  Plostina         145.28 335⇑iP          PKPbc     21 58 30.1  +0.1
TNS   Taunus Mts       145.29 358   ePKPbc    PKPbc     21 58 29.5  -0.4
KMBO  Kilima Mbogo     145.38 244    PKPbc    PKPbc     21 58 32.6  +1.2
       comp=Z,79nm,0.9s,baz=44,slow=2.6,SNR=138
DOU   Dourbes          145.42   2    PKP      PKPdf     21 58 30.1  -0.2
GIVF  Givet            145.42   2⇑iPKIKP      PKPdf     21 58 29.9  -0.4
       comp=Z,199nm,0.8s
BAIF  Baives           145.44   3⇑iPKIKP      PKPdf     21 58 30.2  -0.1
       comp=Z,437nm,1.0s
TREC  Trest            145.45 350   ePKP      PKPdf     21 58 30.0  -0.4
ROTZ  Rotzenmuhle      145.46 353   ePKPbc    PKPbc     21 58 30.6  +0.1
VYHS  Vyhne            145.51 345   ePKP      PKPdf     21 58 30.7  +0.2
TIRR  Tirgusor         145.62 332⇑iP          PKPdf     21 58 31.2  +0.4
TIRR  Tirgusor         145.62 332    P        PKPdf     21 58 31.3  +0.5
GRA1  Grafenberg Arr   145.63 355   ePKPbc    PKPbc     21 58 30.9  -0.1
GRF   Grafenberg Arr   145.63 355   ePKPbc    PKPbc     21 58 30.9  -0.1
ABH   Alteburg         145.65 359    PKP      PKPdf     21 58 24.7  -6.0
HARR  Harsova          145.66 332  ⇓PKIKP     PKPdf     21 58 31.7  +0.8
HARR  Harsova          145.66 332⇓iP          PKPdf     21 58 31.6  +0.7
HARR  Harsova          145.66 332    P        PKPdf     21 58 31.5  +0.6
PSZ   Piszkesteto      145.78 344⇑iP          PKPdf     21 58 31.6  +0.6
PSZ   Piszkesteto      145.78 344⇑ePKP        PKPdf     21 58 31.7  +0.7
PSZ   Piszkesteto      145.78 344   ePKPdf    PKPdf     21 58 30.4  -0.6
SMOL  Smolenice        145.82 347   ePKP      PKPdf     21 58 32.3  +1.3
RUP   Ruppelstein      145.84 359    PKP      PKPdf     21 58 26.5  -4.5
MLR   Muntele Rosu     145.86 335⇑iP          PKPdf     21 58 31.8  +0.6
MLR   Muntele Rosu     145.86 335    PKPbc    PKPbc     21 58 31.9  +0.1
       baz=65,slow=3.5
MLR   Muntele Rosu     145.86 335    P        PKPdf     21 58 31.7  +0.5
WLF   Walferdange      145.88   0    PKP      PKPdf     21 58 32.2  +1.1
WLF   Walferdange      145.88   0   ePKPbc    PKPbc     21 58 31.9  +0.1
WLF   Walferdange      145.88   0   ePKPdf    PKPdf     21 58 31.3  +0.2
TOD   Tromm            145.89 357    PKP      PKPdf     21 58 26.0  -5.1
CVD   Cernavoda        145.90 332⇓iP          PKPdf     21 58 32.8  +1.5
KHC   Kasperske Hory   145.91 352   ePKP      PKPdf     21 58 31.0  -0.2
KHC                                 ex        x         21 58 44.0
MDB   Medias           145.92 338⇑iP          PKPdf     21 58 32.8  +1.5
MDB   Medias           145.92 338  ⇑P         PKPdf     21 58 32.9  +1.6
DRGR                   145.94 340⇑iP          PKPdf     21 58 32.0  +0.7
DRGR                   145.94 340    P        PKPdf     21 58 31.6  +0.3
MODS  Modra-Piesok     145.99 347   ePKP      PKPdf     21 58 32.2  +0.9
WET   Wettzell         145.99 352   ePKPbc    PKPbc     21 58 32.0  -0.1
BRTR  Keskin Array B   146.11 321    PKPbc    PKPbc     21 58 33.0  +0.2
       comp=Z,124nm,0.9s,baz=160,slow=2.7,SNR=208
GEC2  GERESS Array S   146.18 351   ePKPbc    PKPbc     21 58 32.3  -0.4
GERES GERESS Array B   146.18 351    PKPbc    PKPbc     21 58 31.5  -1.2
       comp=Z,47nm,0.7s,baz=29,slow=3.0,SNR=197
ZST   Bratislava       146.19 347   ePKP      PKPbc     21 58 33.7  +1.0
ROSF  Rostrenen        146.25  12   ePKIKP    PKPdf     21 58 30.9  -0.8
       comp=Z,31nm,0.8s
VOIR                   146.26 336⇓iP          PKPbc     21 58 33.9  +0.9
VOIR                   146.26 336    P        PKPdf     21 58 32.9  +1.0
FLN   La Foliniere     146.30   8   ePKIKP    PKPdf     21 58 31.2  -0.6
FLN                                 eMLR      MLR
       comp=Z,138nm,22.5s
FLN   La Foliniere     146.30   8   ePKPdf    PKPdf     21 58 31.2  -0.6
FLN                                  LR       LR
       comp=Z,140nm,22.5s
BUD   Budapest         146.41 345⇑ePKP        PKPdf     21 58 33.8  +1.8
SGMF  Saint Gilles     146.46  11   ePKIKP    PKPdf     21 58 31.6  -0.5
       comp=Z,135nm,1.0s
LDF   La Druitiere     146.51   8   ePKIKP    PKPdf     21 58 31.6  -0.6
LANF  Langenberg       146.55 358    PKP      PKPdf     21 58 28.9  -3.3
GRR   Gorron           146.61   9   ePKIKP    PKPdf     21 58 31.9  -0.5
QUIF  Quistinic        146.67  12   ePKIKP    PKPdf     21 58 31.9  -0.6
       comp=Z,97nm,1.0s
DEV   Deva             146.67 339⇓iP          PKPbc     21 58 34.6  +0.4
DEV   Deva             146.67 339  ⇓P         PKPbc     21 58 34.6  +0.4
CONA  Conrad Observa   146.70 348  i PKPbc    PKPbc     21 58 32.7  -1.5
       comp=Z,81nm,0.9s,SNR=177
CSNA  Conrad Observa   146.70 348⇓iPKPbc      PKPbc     21 58 32.9  -1.4
       comp=Z,77nm,0.9s
STU   Stuttgart        146.70 357   ePKIKP    PKPdf     21 58 32.7  +0.2
SOP   Sopron           146.79 347⇑ePKP        PKPbc     21 58 34.8  +0.3
STR   Strasbourg       146.95 358    PKP      PKPdf     21 58 30.4  -2.5
MEZF  Maizieres J'vi   147.03   2   ePKIKP    PKPdf     21 58 33.0  -0.1
MOA   Molln            147.06 350⇓iPKPbc      PKPdf     21 58 32.8  -0.3
       comp=Z,4.3nm,0.8s,SNR=51
GZR   Gura Zlata       147.14 339⇓iP          PKPbc     21 58 35.7  +0.1
GZR   Gura Zlata       147.14 339  ⇓P         PKPbc     21 58 35.7  +0.1
FUR   Furstenfeldbru   147.14 354   ePKPbc    PKPbc     21 58 35.3  -0.2
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BFO   Black Forest     147.18 358   ePKPbc    PKPbc     21 58 35.3  -0.3
BFO   Black Forest     147.18 358   ePKPdf    PKPdf     21 58 32.6  -0.7
THEF  They Montfort    147.32   1    PKP      PKPdf     21 58 30.4  -3.2
ECH   Echery           147.33 359    PKP      PKPdf     21 58 31.4  -2.2
ECH   Echery           147.33 359   ePKPdf    PKPdf     21 58 33.0  -0.6
BZS   Buzias           147.34 340    PKIKP    PKPdf     21 58 33.7   0.0
LIBD  Limburg          147.38 359    PKP      PKPdf     21 58 30.6  -3.1
SPAK  Spaichingen-Ko   147.39 357    PKP      PKPdf     21 58 31.2  -2.5
DESE  Dese             147.44 267    P        PKPab     21 58 39.6  +0.1
HAU   Haudompre        147.54   0   ePKIKP    PKPdf     21 58 33.6  -0.3
HAU                                 eMLR      MLR
       comp=Z,112nm,22.0s
HAU   Haudompre        147.54   0   ePKPdf    PKPdf     21 58 33.6  -0.3
HAU                                  LR       LR
       comp=Z,110nm,22.0s
FELD  Feldberg im Sc   147.65 358    PKP      PKPdf     21 58 29.9  -4.2
PKSM  Moragy           147.68 344⇑iP          PKPbc     21 58 36.4  -0.6
PKSM  Moragy           147.68 344    P        PKPdf     21 58 34.1  -0.2
ASF   Jabal al Asfar   147.71 306    PKPbc    PKPbc     21 58 38.0  +0.4
       comp=Z,26nm,0.9s,baz=317,slow=1.6,SNR=29
HINF  Hinteralfeld     147.73 359   ePKIKP    PKPdf     21 58 33.9  -0.3
BHL   Bhannes          147.90 310   eP        PKPbc     21 58 37.9  -0.2
WATA  Walderalm        147.93 353⇓iPKPdf      PKPdf     21 58 34.3  -0.3
       comp=Z,9.7nm,1.1s,SNR=51
KBA   Koelnbreinsper   147.95 351⇑iPKPdf      PKPdf     21 58 33.7  -0.9
       comp=Z,10nm,1.1s,SNR=18
PVL   Pavlikeni        147.97 334   eP        PKPdf     21 58 34.0  -0.8
MOTA  Moosalm          147.97 354⇑iPKPdf      PKPdf     21 58 34.2  -0.5
       comp=Z,13nm,1.0s,SNR=79
WTTA  Wattenberg       147.99 353  i PKPdf    PKPdf     21 58 34.6  -0.1
       comp=Z,21nm,1.2s,SNR=104
KOGS  Kog              148.03 347   ePKPdf    PKPdf     21 58 33.9  -0.9
KOGS                               i PKPbc    PKPbc     21 58 37.3  -0.7
SOKA  Soboth           148.06 349⇓iPKPdf      PKPdf     21 58 34.2  -0.7
       comp=Z,17nm,1.3s
BBS   Basel-Blauen     148.07 359    PKP      PKPdf     21 58 32.5  -2.3
PERS  Pernice          148.08 349  i PKPdf    PKPdf     21 58 34.1  -0.8
PERS                               i PKPbc    PKPbc     21 58 37.5  -0.6
HYF   Humbligny        148.12   5   ePKIKP    PKPdf     21 58 34.9   0.0
DAVA  Damuels          148.13 356⇓iPKPdf      PKPdf     21 58 34.8  -0.1
       comp=Z,14nm,1.7s,SNR=40
GROS  Grobnik          148.18 348  i PKPdf    PKPdf     21 58 34.0  -1.0
LOMF  Lomont           148.20 360    PKP      PKPdf     21 58 32.5  -2.5
LOR   Lormes           148.21   3⇑iPKIKP      PKPdf     21 58 34.8  -0.3
       comp=Z,36nm,1.1s
LOR                                 eMLR      MLR
       comp=Z,170nm,21.5s
LOR   Lormes           148.21   3⇑iPKPdf      PKPdf     21 58 34.8  -0.3
LOR                                  LR       LR
       comp=Z,170nm,21.5s
OBKA  Obir             148.31 349⇑iPKPdf      PKPdf     21 58 34.1  -1.1
       comp=Z,5.8nm,1.1s,SNR=19
FETA  Feichten         148.33 354  i PKPdf    PKPdf     21 58 35.1  -0.1
       comp=Z,24nm,1.1s,SNR=85
MYKA  Terra Mystica    148.34 351⇑iPKPdf      PKPdf     21 58 34.4  -0.9
       comp=Z,9.6nm,0.9s
SSF   Saint Saulge     148.39   4⇑iPKIKP      PKPdf     21 58 35.1  -0.3
       comp=Z,37nm,0.9s
ABTA  Abfaltersbach    148.40 352⇑iPKPdf      PKPdf     21 58 34.5  -0.8
       comp=Z,22nm,1.0s,SNR=129
MFF   Saint Martin d   148.46   9⇑iPKIKP      PKPdf     21 58 35.0  -0.5
       comp=Z,34nm,1.1s
MMAI  Mount Meron Ar   148.49 309    PKPbc    PKPbc     21 58 40.1  +0.5
       comp=Z,57nm,0.8s,baz=67,slow=5.0,SNR=59
DAVOS Davos            148.59 356    PKIKP    PKPdf     21 58 35.6  -0.1
DAVOS                                                   21 58 39.7
PTCC  Patocco-Chiusa   148.61 351    PKP      PKPdf     21 58 35.2  -0.5
DAVOX Davos/Dischmat   148.64 355    PKP      PKPdf     21 58 35.6  -0.2
       comp=Z,119nm,0.9s,baz=312,slow=1.9,SNR=42
DAVOX                                PKPbc    PKPbc     21 58 39.7  +0.1
       comp=Z,119nm,0.9s,baz=275,slow=3.5,SNR=98
AVF   Avril sur Loir   148.65   4⇑iPKIKP      PKPdf     21 58 35.2  -0.6
       comp=Z,8.6nm,0.8s
PDKS  Podkum           148.66 349  i PKPdf    PKPdf     21 58 35.2  -0.6
CADS  Cadrg            148.72 350  i PKPdf    PKPdf     21 58 34.7  -1.3
CADS                               i PKPbc    PKPbc     21 58 38.5  -1.2
GMNA  Gemona           148.75 351    PKP      PKPdf     21 58 35.6  -0.4
LJU   Ljubljana        148.76 349   ePKPdf    PKPdf     21 58 35.6  -0.4
LJU                                i PKPbc    PKPbc     21 58 39.5  -0.3
APPI  Appiano          148.81 354    PKP      PKPdf     21 58 36.5  +0.4
SMF   Signal de Mont   148.83   3   ePKIKP    PKPdf     21 58 35.7  -0.4
BGF   Bois d'Agland    148.85   5   ePKIKP    PKPdf     21 58 35.8  -0.3
VOY   Vojsko           148.88 350   ePKPdf    PKPdf     21 58 35.2  -1.0
VOY                                 ePKPbc    PKPbc     21 58 39.2  -1.0
VOY                                 e                   21 58 47.5
CABF  La Chapelle      148.94   0   ePKIKP    PKPdf     21 58 36.8  +0.5
       comp=Z,63nm,1.3s
TUE   Stuetta          148.98 356   ePKPdf    PKPdf     21 58 35.9  -0.5
TUE                                 ePKPbc    PKPbc     21 58 40.4  -0.1
TUE                                  PKP      PKPab     21 58 41.6  -3.0
CSS   Prodhromos       149.04 314   ePKPbc    PKPbc     21 58 40.8  -0.2
TCF   Toulx Ste Croi   149.06   6⇑iPKIKP      PKPdf     21 58 36.0  -0.5
       comp=Z,39nm,1.1s
BOJS  Bojanci          149.14 348  i PKPdf    PKPdf     21 58 36.5  -0.2
BOJS                               i PKPbc    PKPbc     21 58 40.9   0.0
KDZ   Kurdzhali        149.18 332    P        PKPbc     21 58 41.4  +0.3
CTI   Castel Tesino    149.19 353    PKIKP    PKPdf     21 58 36.5  -0.2
ISP   Isparta          149.19 321⇓iP          PKPbc     21 58 40.5  -0.7
ISP   Isparta          149.19 321   ePKPdf    PKPdf     21 58 35.9  -1.0
ISP                                 ePKPbc    PKPbc     21 58 40.9  -0.4
OG01  Vacheresse       149.22 360    PKP      PKPdf     21 58 38.5  +1.8
MABI  Malga Bissina    149.31 354    PKP      PKPbc     21 58 40.9  -0.3
VTS   Vitosha          149.37 335    P        PKPbc     21 58 42.3  +0.8
AGO   Saint Agoulin    149.37   5    PKP      PKPdf     21 58 37.7  +0.7
PLDF  La Plantade      149.49   4    PKP      PKPdf     21 58 38.0  +0.8
PYM   Petit Puy Mans   149.66   5    PKP      PKPdf     21 58 38.7  +1.2
RSL   Roselend         149.86 360    PKP      PKPbc     21 58 40.4  -2.2
RJF   Les Rejaudoux    149.96   7⇑iPKIKP      PKPdf     21 58 37.5  -0.4
       comp=Z,51nm,1.0s
RJF                                 eMLR      MLR
       comp=Z,136nm,18.2s
RJF   Les Rejaudoux    149.96   7⇑iPKPdf      PKPdf     21 58 37.5  -0.4
RJF                                  LR       LR
       comp=Z,140nm,18.3s
MMB   Musomiste        149.98 334    P        PKPbc     21 58 43.1  +0.1
LPL   La Plagne        150.03 360   ePKIKP    PKPdf     21 58 38.5  +0.5
LPG   La Plagne        150.05 360   ePKIKP    PKPdf     21 58 38.7  +0.6
PLE   Pljevlja         150.10 341⇑iPKP        PKPbc     21 58 43.7  +0.4
PLE   Pljevlja         150.10 341⇑iPKP        PKPbc     21 58 43.7  +0.4
LBL   Lubilhac         150.19   5    PKP      PKPdf     21 58 40.1  +1.8
LFF   La Frestale      150.22   8   ePKIKP    PKPdf     21 58 38.0  -0.4
       comp=Z,25nm,0.9s
EIL   Elat             150.22 303    PKP      PKPdf     21 58 38.6  -0.3
       comp=Z,6.0nm,0.7s,baz=272,slow=0.7,SNR=7.3
EIL                                  PKPbc    PKPbc     21 58 44.1  +0.1
       comp=Z,70nm,1.0s,baz=7.1,slow=2.3,SNR=34
SSB   Saint Sauveur    150.23   3    PKP      PKPdf     21 58 39.2  +0.8
SSB   Saint Sauveur    150.23   3   ePKPdf    PKPdf     21 58 38.6  +0.2
SSB                                 ePKPbc    PKPbc     21 58 43.8  +0.3
IVA   Berane           150.34 340⇑iPKP        PKPbc     21 58 44.0  +0.1
IVA   Berane           150.34 340⇑iPKP        PKPbc     21 58 44.1  +0.2
UPM   Unac-Piva        150.36 341⇑iPKP        PKPbc     21 58 43.2  -0.7
UPM   Unac-Piva        150.36 341⇑iPKP        PKPbc     21 58 43.3  -0.7
CAF   Calviac          150.39   6   ePKIKP    PKPdf     21 58 38.4  -0.2
       comp=Z,34nm,1.4s
BNI   Bardonecchia     150.50 360   ePKIKP    PKPdf     21 58 39.7  +0.9
BNI                                 e                   21 58 45.2
BNI                                                     21 58 49.0
BNI                                 e                   21 58 52.0
PVY   Plav             150.56 339⇑iPKP        PKPbc     21 58 44.2  -0.2
PVY   Plav             150.56 339⇑iPKP        PKPbc     21 58 44.2  -0.2
SKO   Skopje           150.58 337   ePKP      PKPbc     21 58 43.5  -1.0
ORIF  Oris-en-Rattie   150.63   1   ePKIKP    PKPdf     21 58 39.2  +0.2
       comp=Z,16nm,1.0s
ORIF                                eMLR      MLR
       comp=Z,118nm,22.0s
VIVF  Saint-Julien-l   150.66   3   ePKIKP    PKPdf     21 58 39.2  +0.2
       comp=Z,37nm,1.2s
LIA   Limnos Island    150.66 330    P        PKPbc     21 58 44.1  -0.6
BOB   Bobbio (Coli)    150.67 356    PKIKP    PKPbc     21 58 44.6   0.0
KNT   Kendrikon        150.69 334    P        PKPbc     21 58 43.7  -1.0
NKY   Niksic           150.69 341⇑iPKP        PKPbc     21 58 44.5  -0.2
NKY   Niksic           150.69 341⇑iPKP        PKPbc     21 58 44.5  -0.2
VAY   Valandovo        150.69 335   ePKP      PKPbc     21 58 43.5  -1.2
BRY   Bratogost        150.75 342⇑iPKP        PKPbc     21 58 44.2  -0.6
BRY   Bratogost        150.75 342⇑iPKP        PKPbc     21 58 44.2  -0.6
MBDF  Montbardon       150.82 360   ePKIKP    PKPdf     21 58 39.4  +0.1
TTG   Podgorica        150.95 340⇑iPKP        PKPbc     21 58 44.8  -0.5
OCF   Saint Nazaire    150.96   2    PKP      PKPdf     21 58 40.7  +1.2
OG26  St.-Nazaire-De   150.96   2    PKP      PKPdf     21 58 40.7  +1.2
PCAB  Cabril           151.00  23   ePKP      PKPbc     21 58 45.4  -0.1
GRG   Griva            151.06 335    P        PKPbc     21 58 44.3  -1.3
HORT  Hortiatis        151.06 333    P        PKPbc     21 58 44.7  -1.0
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FNVD	**Fontana Vidola**	151.11	353	PKP	PKPbc	21 58 46.1	+0.5
HCY	**Herceg Novi**	151.18	341	⇑*i*PKP	PKPbc	21 58 44.9	-0.9
HCY	**Herceg Novi**	151.18	341	⇑*i*PKP	PKPbc	21 58 45.0	-0.9
KRUS	**Krusevo**	151.18	337	*e*PKP	PKPbc	21 58 44.8	-1.1
BUM	**Brajici-Budva**	151.18	341	⇑*i*PKP	PKPbc	21 58 45.4	-0.5
BUM	**Brajici-Budva**	151.18	341	⇑*i*PKP	PKPbc	21 58 45.5	-0.4
MBAR	**Mbarara**	151.18	239*c*	*i*PKIKP	PKPbc	21 58 46.3	-0.5
VLC	**Villacollemand**	151.19	354	*e*PKPbc	PKPbc	21 58 44.6	-1.2
ULC	**Ulcinj**	151.37	340	⇑*i*PKP	PKPbc	21 58 45.6	-0.7
ULC	**Ulcinj**	151.37	340	⇑*i*PKP	PKPbc	21 58 45.7	-0.6
PBRG	**Braganca**	151.38	21	*e*PKP	PKPbc	21 58 45.9	-0.4
LASF	**Ste Croix**	151.39	4	*e*PKIKP	PKPdf	21 58 40.3	+0.1
	comp=Z,74nm,1.2s						
BIA	**Bitola**	151.44	336	*e*PKP	PKPbc	21 58 45.4	-1.1
PVRL	**Vila Real**	151.49	23	*e*PKP	PKPbc	21 58 46.6	0.0
TOUF	**Mont Tournerai**	151.53	359	PKP	PKPdf	21 58 40.5	+0.1
AUTN	**L'Aution**	151.54	359	PKP	PKPdf	21 58 41.6	+1.2
SAOF	**Saorge**	151.55	358	PKP	PKPdf	21 58 40.3	-0.1
STOF	**St-Etienne Org**	151.55	1	PKP	PKPdf	21 58 38.8	-1.6
SMRF	**Simiane la Rot**	151.56	1	*e*PKIKP	PKPdf	21 58 39.9	-0.6
OHR	**Ohrid**	151.57	337	*e*PKP	PKPbc	21 58 45.9	-0.9
CING	**Cingoli**	151.58	350	PKP	PKPbc	21 58 47.6	+0.8
IMI	**Imperia**	151.61	358	PKP	PKPbc	21 58 46.1	-0.7
FNA	**Florina**	151.63	336	P	PKPbc	21 58 46.3	-0.6
LUCF	**Luceram**	151.65	359	PKP	PKPdf	21 58 41.0	+0.4
SJPF	**Ste Jean**	151.66	12	*e*PKIKP	PKPdf	21 58 40.7	+0.1
	comp=Z,35nm,1.2s						
SBF	**Sospel**	151.67	359	*e*PKIKP	PKPdf	21 58 40.0	-0.6
	comp=Z,106nm,1.4s						
VILF	**Villemus**	151.69	1	PKP	PKPdf	21 58 41.2	+0.5
TIR	**Tirane**	151.71	338	*e*PKIKP	PKPdf	21 58 41.4	+0.6
TIR				*e*		21 58 46.7	
TIR				*e*		21 58 55.7	
PRAF	**Pradon**	151.72	2	PKP	PKPdf	21 58 39.5	-1.2
LIT	**Litokhoron**	151.74	333	P	PKPbc	21 58 46.2	-1.0
CSNT	**Castellina Chi**	151.77	353	PKP	PKPbc	21 58 45.7	-1.5
ATE	**Arette**	151.79	11	PKP	PKPdf	21 58 42.2	+1.4
CALN	**Calern**	151.79	359	PKP	PKPdf	21 58 41.2	+0.4
MURB	**Monte Urbino**	151.80	351	PKP	PKPbc	21 58 46.9	-0.4
MVO	**Moncorvo**	151.84	22	*e*PKP	PKPbc	21 58 47.4	0.0
PVIS	**Viseu**	151.91	24	*e*PKP	PKPbc	21 58 47.3	-0.3
TREF	**Trevaresse**	151.91	2	PKP	PKPdf	21 58 39.7	-1.3
MTLF	**Montolieu**	151.97	7	⇑*i*PKIKP	PKPdf	21 58 40.9	-0.2
	comp=Z,21nm,1.0s						
ASS	**Assisi**	151.98	350	PKIKP	PKPbc	21 58 46.8	-0.9
FRF	**La Foret Royal**	151.99	360	*e*PKIKP	PKPdf	21 58 40.5	-0.6
ETSF	**Etsaut**	152.00	11	*e*PKIKP	PKPdf	21 58 41.4	+0.3
	comp=Z,21nm,0.9s						
EPF	**Esparros**	152.02	10	*e*PKIKP	PKPdf	21 58 41.1	-0.1
	comp=Z,40nm,1.2s						
MLS	**Moulis**	152.21	8	PKP	PKPdf	21 58 43.2	+1.7
LMR	**La Mourre**	152.22	360	*e*PKIKP	PKPdf	21 58 40.9	-0.6
BERF	**Bertagne**	152.23	1	PKP	PKPdf	21 58 40.7	-0.8
RESF	**Ens**	152.24	10	PKP	PKPdf	21 58 42.9	+1.4
MTE	**Manteigas**	152.32	23	*e*PKP	PKPbc	21 58 48.2	-0.3
MEV	**Metsovon**	152.53	335	P	PKPdf	21 58 42.5	+0.5
AQU	**L'Aquila**	152.54	349	PKIKP	PKPbc	21 58 48.7	-0.2
MNS	**Montasola**	152.63	350	PKIKP	PKPbc	21 58 48.1	-1.1
PTOM	**Tomar**	152.64	26	*e*PKP	PKPbc	21 58 49.1	-0.2
PCBR	**Castelo Branco**	152.82	24	*e*PKP	PKPbc	21 58 46.1	-3.6
PGF	**Pioggiola**	152.91	356	*e*PKIKP	PKPdf	21 58 41.8	-0.7
	comp=Z,25nm,0.9s						
CERT	**Cerreto**	153.00	349	PKP	PKPbc	21 58 49.2	-0.8
MIDA	**Miranda**	153.05	347	PKP	PKPbc	21 58 50.3	+0.2
PMRV	**Marv??o**	153.21	24	*e*PKP	PKPbc	21 58 50.3	-0.2
LAKA	**Lakka**	153.49	332	P	PKPbc	21 58 51.6	+0.4
EVO	**Evora**	153.72	26	⇑*i*PKIKP	PKPdf	21 58 42.9	-0.9
	comp=Z,225nm,1.8s						
EVO				*e*MLR	MLR		
	comp=Z,100nm,19.8s						
EVO	**Evora**	153.72	26	*e*PKP	PKPbc	21 58 50.1	-1.6
PBEJ	**Beja**	154.20	27	*e*PKP	PKPdf	21 58 38.6	-5.9
ESDC	**Sonseca Array**	154.21	19	PKP	PKPdf	21 58 44.4	0.0
	comp=Z,3.6nm,0.8s,baz=347,slow=2.4,SNR=13						
ESDC				PKPbc	PKPbc	21 58 52.0	-0.6
	comp=Z,1.7nm,0.5s,baz=331,slow=2.9,SNR=9.4						
ESDC				PKPab	PKPab	21 59 06.6	0.0
	comp=Z,6.4nm,0.8s,baz=327,slow=3.7,SNR=13						
ESDC	**Sonseca Array**	154.21	19	PKP	PKPdf	21 58 44.4	0.0
ESDC				PKPbc	PKPbc	21 58 52.0	-0.6
ESDC				PKPab	PKPab	21 59 06.6	0.0
CMAH	**Djebel Manchou**	158.90	358	P	PKPab	21 59 26.4	-0.4
DFRA	**Djebel Bou Aff**	158.99	1	P	PKPab	21 59 28.3	+1.1
ABSA	**Djebel Ababsia**	159.25	358	P	PKPab	21 59 28.2	-0.1
CASM	**Ain Smara**	159.28	360	P	PKPab	21 59 28.5	+0.1
CTEI	**Djebel Teioual**	159.48	0	P	PKPab	21 59 30.0	+0.7
CKHR	**Kef el Ahmar**	159.51	2	P	PKPab	21 59 30.5	+1.1
KEST	**Kesra**	159.64	353	PKP	PKPdf	21 58 51.8	+0.2
	comp=Z,2.4nm,0.9s,baz=10.0,slow=7.2,SNR=3.7						
KEST				PKPab	PKPab	21 59 29.8	-0.2
	comp=Z,8.4nm,1.0s,baz=241,slow=5.3,SNR=12						
LIC	**Lamto**	165.47	128	⇑*i*PKIKP	PKPdf	21 58 56.6	-1.3
	comp=Z,43nm,0.9s						
LIC	**Lamto**	165.47	128	*e*PKIKP	PKPdf	21 58 56.4	-1.5
	comp=Z,85nm,1.3s						
TIC	**Toumodi**	165.74	127	*e*PKIKP	PKPdf	21 58 56.8	-1.3
	comp=Z,59nm,0.7s						
KIC	**Kosan Boka**	165.78	128	*e*PKIKP	PKPdf	21 58 56.5	-1.7
	comp=Z,102nm,1.1s						
DBIC	**Dimbokro**	165.89	127	PKP	PKPdf	21 58 56.8	-1.4
	comp=Z,18nm,1.1s,baz=271,slow=2.5,SNR=10						
TAM	**Tamanrasset**	172.65	7	*e*PKPdf	PKPdf	21 59 02.3	+0.1
TAM				*e*PKPab	PKPab	22 00 26.9	-0.7
TOA0	**Torodi Ar. Sit**	174.85	116	*e*PKPdf	PKPdf	21 59 01.4	-1.7
TORD	**Torodi Ar. Bea**	174.85	116	PKP	PKPdf	21 59 01.3	-1.8
	comp=Z,8.1nm,1.0s,baz=345,slow=1.1,SNR=34						
TORD				PKPab	PKPab	22 00 37.1	-0.8
	comp=Z,0.8nm,0.7s,baz=256,slow=5.2,SNR=4.4						

KRSC 17 21:57:51.6±0.1, 54°.44N×164°.41E, h40^{km}±40^{km}, ML3.8, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	**Bering**	1.19	49	*e*P	Pn	21 58 12.7	+1.1
BKI				*i* S	Sn	21 58 27.3	+0.8
MKZ	**Mys Kozlova**	1.57	275	*e*P	Pn	21 58 18.3	+1.4
MKZ				*i* S	Sn	21 58 36.8	+0.9
KBTR	**Krutoberegovo**	1.99	333	*e*P	Pn	21 58 23.5	+0.8
KBTR				*i* S	Sn	21 58 47.3	+0.9
ZLN	**Zelenaya**	2.60	309	*e*P	Pn	21 58 33.6	+2.5
TUMR	**Tumrok**	2.61	291	*e*P	Pn	21 58 33.9	+2.8
TUMR				*i* S	Sn	21 59 05.9	+4.4
CIRR	**Tsirk**	2.69	310	*e*P	Pn	21 58 35.6	+3.4
CIRR				*i* S	Sn	21 59 08.3	+4.9
BZMR	**Bezymyannaya**	2.70	305	*e*P	Pn	21 58 35.3	+2.9
BZMR				*i* S	Sn	21 59 08.3	+4.5
SMKR	**Semkarok**	2.72	323	*e*P	Pn	21 58 35.3	+2.6
SMKR				*i* S	Sn	21 59 07.8	+3.5
KMNR	**Kamenistaya**	2.74	301	*e*P	Pn	21 58 35.5	+2.6
KMNR				*i* S	Sn	21 59 08.3	+3.6
KIRR	**Kirishev**	2.78	305	*e*P	Pn	21 58 37.3	+3.8
KIRR				*i* S	Sn	21 59 10.9	+5.1
BDR	**Baidarnaya**	2.81	321	*e*P	Pn	21 58 36.2	+2.3
BDR				*i* S	Sn	21 59 09.5	+3.1
KPT	**Kopyto**	2.85	304	*e*P	Pn	21 58 37.4	+3.0
KPT				*i* S	Sn	21 59 11.6	+4.2
KLY	**Klyuchi**	2.85	313	*e*P	Pn	21 58 35.6	+1.1
KLY				*i* S	Sn	21 59 08.6	+1.1
SRKR	**Sorokina**	2.88	322	*e*P	Pn	21 58 37.5	+2.6
SRKR				*i* S	Sn	21 59 12.0	+3.7
SPN	**Mys Shipunski**	2.93	244	*e*P	Pn	21 58 36.4	+0.8
SPN				*i* S	Sn	21 59 08.7	-0.8
KOZ	**Kozyrevsk**	3.06	304	*e*P	Pn	21 58 40.7	+3.3
KOZ				*i* S	Sn	21 59 17.7	+5.0
SRDR	**Sredinnyy**	3.27	307	*e*P	Pn	21 58 43.2	+2.9
SRDR				*i* S	Sn	21 59 21.8	+3.9
AVH	**Avacha**	3.56	253	*e*P	Pn	21 58 46.7	+2.5
AVH				*i* S	Sn	21 59 26.6	+1.6
GNL	**Ganaly**	3.88	262	*e*P	Pn	21 58 51.4	+2.7

IDC 17 22:07:47.0±29.0, 16°.10S×175°.02W, h0^{km}, mb4.4/4, mb1 4.5/4, mb1mx3.9/18, mbtmp4.4/4, Error ellipse: s-maj=568.6km s-min=148.1km az=84.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	42.34	240	P	P	22 15 42.9	0.0
	1.8nm,0.5s,baz=83,slow=9.7,SNR=8.0						
WRA	**Warramunga Arr**	48.16	257	P	P	22 16 28.8	-0.6
	1.3nm,0.5s,baz=93,slow=7.0,SNR=48						
ASAR	**Alice Springs**	48.41	252	P	P	22 16 31.1	-0.2
	12nm,0.5s,baz=89,slow=8.2,SNR=169						
FITZ	**Fitzroy Crossi**	56.54	259	P	P	22 17 32.4	+0.7
	1.5nm,0.5s,baz=62,slow=9.5,SNR=3.7						

ISCJB ***17*** *22:10:06.4±0.4, 32°.19N±0°.02×115°.77W±0°.02, h12^{km}±3^{km}, Error ellipse: s-maj=3.1km s-min=2.4km az=13.8*

NEIC ***17*** *22:10:08.0, 32°.17N×115°.78W, h7^{km}, ML3.4(ECX), ML3.7(PAS), After ECX.*

ECX ***17*** *22:10:08.6±0.7, 32°.17N×115°.81W, h5^{km}, MD3.6, ML3.7*

ISC 17 22:10:06.7±0.3, 32°.18N±0°.02×115°.78W±0°.02, h9^{km}±2^{km}, n61, σ1^{s}.07/107, 37C-32D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RDX	**Rancho Dawling**	0.28	210	⇑*i*P	Pg	22 10 12.9	+0.5
RDX				*e*S	Sg	22 10 16.8	+0.6
RDX	**Rancho Dawling**	0.28	210	⇑*i*P	Pg	22 10 12.9	+0.5
RDX				*e*S	Sg	22 10 16.5	+0.3
CPBX	**Cerro Prieto**	0.47	59	⇑*e*P	Pg	22 10 17.7	+1.9
RMX	**La Rumorosa**	0.49	329	⇓*e*P	Pg	22 10 17.3	+1.0
RMX				*e*S	Sg	22 10 23.9	+1.1
DVTC	**Desert V Tower**	0.55	331	⇑P	Pg	22 10 18.3	+0.9
	baz=0.6,SNR=320						
DVTC				⇑S	Sg	22 10 25.0	+0.4
	baz=0.6						
CBX	**Cerro Bola**	0.76	280	⇑*i*P	Pg	22 10 21.7	+0.3
CBX				*e*S	Sg	22 10 31.6	+0.4
SWSC	**Sam W. Stewart**	0.76	359	⇑P	Pg	22 10 21.9	+0.5
	baz=0.9,SNR=41						
SWSC				⇑S	Sg	22 10 31.0	-0.3
	baz=0.9						
ECNX	**Esteban Cantu**	0.87	233	⇑*e*P	Pg	22 10 23.5	+0.1
ECNX				⇓*e*P		22 10 22.7	
ECNX				*e*S	Sg	22 10 33.2	-1.5
MONP	**Monument Peak**	0.89	323	⇓P	Pg	22 10 24.3	+0.4
	baz=1.0,SNR=1000						
MONP				⇓S	Sg	22 10 35.5	0.0
	baz=1.0						
BAR	**Barrett**	0.90	304	*e*P	Pg	22 10 24.0	-0.1
BAR				*e*S	Sg	22 10 34.8	-1.1
PBX	**Punta Banda**	0.91	242	⇑*e*P	Pg	22 10 24.3	0.0
PBX				*e*S	Sg	22 10 36.5	+0.3
PBX				⇓*e*		22 10 37.1	
	comp=N,3µm,0.4s						
PBX				⇓*e*		22 10 37.4	
	comp=E,3µm,0.8s						
PBX	**Punta Banda**	0.91	242	*e*P	Pg	22 10 24.3	0.0
PBX				*e*S	Sg	22 10 36.5	+0.3
112A	**Yuma**	1.08	70	⇑P	Pg	22 10 26.7	-0.7
	baz=1.1						
112A				⇓S	Sg	22 10 41.0	-0.4
	baz=1.1						
SPX	**San Pedro Mart**	1.16	166	*e*P	Pb	22 10 29.1	+0.1
SPX				*e*S	Sg	22 10 44.7	+0.5
SPX				⇓*e*		22 10 52.1	
	comp=E,1µm,0.5s						
SPX				⇑*e*		22 10 56.3	
	comp=N,859nm,0.5s						
GLA	**Glamis**	1.19	43	⇓P	Pb	22 10 28.6	-0.8
	baz=1.3,SNR=225						
GLA				⇑S	Sb	22 10 43.1	-1.8
	baz=1.3						
GLA	**Glamis**	1.19	43	*e*P	Pb	22 10 28.5	-0.9
GLA				*e*S	Sb	22 10 43.5	-1.3
109C	**Camp Elliot, M**	1.32	303	⇓P	Pn	22 10 30.8	-0.5
	baz=1.3,SNR=124						
109C				⇓S	Sb	22 10 47.6	-1.2
	baz=1.3						
BC3	**Big Chuckw Mtn**	1.50	11	⇓Pb	Pb	22 10 33.4	-1.3
	baz=1.6,SNR=90						
BC3				⇑S	Sn	22 10 50.9	-2.5
	baz=1.6						
PFO	**Pinyon Flat Ob**	1.53	339	⇑Pn	Pn	22 10 33.4	-0.9
	baz=1.6,SNR=98						
PFO				⇑S	Sn	22 10 52.6	-1.7
	baz=1.6						
PFO	**Pinyon Flat Ob**	1.53	339	*e*Pn	Pn	22 10 33.7	-0.6
PFO				*e*Sn	Sn	22 10 52.8	-1.6
113A	**Mohawk Valley,**	1.80	70	⇑Pn	Pn	22 10 37.4	-0.6
	baz=1.9,SNR=101						
BELC	**Belle Mtn.**	1.83	354	⇑Pn	Pn	22 10 37.2	-1.1
	baz=1.9,SNR=15						
MURC	**Murrieta**	1.85	320	⇑Pn	Pn	22 10 38.3	-0.3
	baz=1.9,SNR=43						
MURC				⇓Sb	Sb	22 11 04.0	-0.1
	baz=1.9						
Y12C	**Blythe**	1.89	34	⇑Pn	Pn	22 10 38.3	-0.8
	baz=2.0,SNR=14						
IRM	**Iron Mountain**	2.04	15	⇑Pb	Pb	22 10 42.6	-1.5
	baz=2.1,SNR=26						
IRM				⇑Sn	Sn	22 11 04.7	-2.2
	baz=2.1						
Z13A	**Yuma Proving G**	2.06	60	⇑Pn	Pn	22 10 41.3	-0.2
	baz=2.1						
BBRC	**Big Bear Sol-O**	2.29	336	⇑Pn	Pn	22 10 43.9	-0.8
	baz=2.4,SNR=14						
Y13A	**Salome**	2.31	45	⇓Pb	Pb	22 10 47.6	-1.0
	baz=2.4,SNR=7.2						
SCI	**San Clemente I**	2.47	290	⇓Sn	Sn	22 11 16.9	-0.4
	baz=2.5						
114A	**Black Gap (USA**	2.52	76	⇑Pn	Pn	22 10 47.1	-0.7
	baz=2.6,SNR=13						
114A				⇓Pb	Pb	22 10 51.8	-0.3
	baz=2.6						
CIS	**Catalina Islan**	2.52	300	⇓Pn	Pn	22 10 47.7	-0.2
	baz=2.5,SNR=15						
CIS				⇑Sn	Sn	22 11 18.6	-0.2
	baz=2.5						
CIS				⇓Sb	Sb	22 11 24.6	+1.2
	baz=2.5						
214A	**Organ Pipe Nat**	2.53	94	⇑Pn	Pn	22 10 46.8	-1.2
	baz=2.6,SNR=22						
BFSC	**Mount Baldy St**	2.59	323	⇑Sb	Sb	22 11 25.4	+0.3
	baz=2.6						
FMP	**Fort Macarthur**	2.61	307	⇓Sb	Sb	22 11 26.4	+0.7
	baz=2.6						
Z14A	**Wintersburg**	2.67	63	⇓Pn	Pn	22 10 49.7	-0.1
	baz=2.7,SNR=17						
NEE2	**Needles Airpor**	2.76	20	⇓Pn	Pn	22 10 50.5	-0.6
	baz=2.9						
MWC	**Mount Wilson**	2.79	318	*e*Pn	Pn	22 10 51.7	+0.1
MWC				*e*Pg	Pg	22 10 59.1	-1.1
MWC				*e*Sn	Sn	22 11 26.0	+0.6
MWC				*e*Sg	Sg	22 11 35.2	-1.3
X13A	**Yucca**	2.91	34	⇓Pn	Pn	22 10 52.5	-0.7
	baz=3.0,SNR=23						
Y14A	**Wickenburg**	2.92	52	⇑Pn	Pn	22 10 52.6	-0.8
	baz=3.0						
LDFC	**Landfair**	2.94	11	*e*Pn	Pn	22 10 55.2	+1.6
LDFC				*e*Pg	Pg	22 11 06.0	+2.8
LDFC				Sn	Sn	22 11 31.4	+2.2
DECC	**Green Verdugo**	2.97	315	⇑Sn	Sn	22 11 29.3	-0.5
	baz=3.0						
DECC				⇑Sn	Sn	22 11 37.5	+7.7
	baz=3.0						
GSC	**Goldstone**	3.23	345	*e*Pn	Pn	22 10 58.4	+0.8
GSC				*e*Pg	Pg	22 11 10.0	+1.3
GSC				Sn	Sn	22 11 37.2	+1.1
GSC				*e*Sg	Sg	22 11 51.5	+1.0
Z15A	**Gila River Ind**	3.25	69	⇓Pn	Pn	22 10 57.8	-0.1
	baz=3.3						
EDW2	**Edwards Air Fo**	3.27	326	⇓Pn	Pn	22 10 58.0	0.0
	baz=3.3,SNR=17						
EDW2				⇓Sb	Sb	22 11 45.9	+1.2
	baz=3.3						
BLG	**Laguna Peak**	3.36	306	⇓Pn	Pn	22 10 59.1	-0.3
	baz=3.4,SNR=17						
BLG				⇓Sn	Sn	22 11 38.8	-0.5
	baz=3.4						
Y15A	**Casa Rosa Ranc**	3.39	58	⇑Pn	Pn	22 10 58.9	-0.9
	baz=3.5						
OSI	**Osito Adit**	3.46	315	⇑Sb	Sb	22 11 51.5	+1.3
	baz=3.5						
OSI	**Osito Adit**	3.46	315	*e*Pn	Pn	22 11 01.0	+0.3
OSI				*e*Pg	Pg	22 11 09.5	-3.5
OSI				*e*Sn	Sn	22 11 42.5	+0.8
OSI				*e*Sg	Sg	22 11 54.5	-3.4
116A	**Eloy**	3.47	83	⇓Pn	Pn	22 11 00.3	-0.6
	baz=3.5						
X15A	**Humboldt**	3.75	51	⇓Pn	Pn	22 11 05.6	+0.8
	baz=3.8						
Y16A	**Circle Bar Ran**	3.99	64	⇑Pn	Pn	22 11 08.0	0.0
	baz=4.1,SNR=12						
ISA	**Isabella**	4.13	328	*e*Pn	Pn	22 11 10.9	+0.9
ISA				*e*Pg	Pg	22 11 24.6	-1.4
ISA				Sn	Sn	22 11 58.7	+0.2
ISA				*e*Sg	Sg	22 12 17.6	-1.8
TUC	**Tucson**	4.24	87	*e*Pn	Pn	22 11 12.5	+1.1
TUC				*e*Pg	Pg	22 11 29.8	+1.9
TUC				*e*Sn	Sn	22 12 04.5	+3.5
TUC				*e*Sg	Sg	22 12 19.9	-2.9
X16A	**Lo Mia Camp, P**	4.26	57	⇓Pn	Pn	22 11 11.9	+0.1
	baz=4.3						
Y17A	**Roosevelt**	4.42	69	⇓Pn	Pn	22 11 13.9	0.0
	baz=4.5,SNR=9.9						
U13A	**Pakoon Wash**	4.49	19	⇓Pn	Pn	22 11 15.9	+1.1
	baz=4.6						
118A	**Homack Ranch,**	4.94	83	⇑Pn	Pn	22 11 20.9	-0.1
	baz=5.0						
WUAZ	**Wupatki**	4.95	47	*e*Pn	Pn	22 11 23.4	+2.2
WUAZ				Sn	Sn	22 12 21.6	+2.9
318A	**Bisbee**	4.99	97	⇑Pn	Pn	22 11 21.8	+0.1
	baz=5.0						
CCUT	**Cedar City**	5.71	20	*e*Pn	Pn	22 11 34.6	+2.9
	comp=N,2.8nm,0.3s						
CCUT				*e*Sn	Sn	22 12 39.7	+2.2
Y19A	**Nutrioso**	5.76	70	⇑Pn	Pn	22 11 33.4	+1.0
	baz=5.8						

ISCJB ***17*** *22:28:53.4±0.8, 18°.4S±0°.1×178°.01W±0°.09, h646^{km}±12^{km}, mb4.0/17, Error ellipse: s-maj=17.2km s-min=9.8km az=147.2*

NEIC ***17*** *22:28:53.5±0.8, 18°.34S×177°.88W, h637^{km}±9^{km}, mb4.1/7, Error ellipse: s-maj=13.0km s-min=8.9km az=153.0*

IDC ***17*** *22:28:54.0±1.6, 18°.40S×177°.92W, h640^{km}±20^{km}, mb3.5/10, mb1 3.7/11, mb1mx3.4/21, mbtmp3.5/11, Error ellipse: s-maj=28.3km s-min=11.5km az=151.0*

ISC 17 22:28:54.0±0.8, 18°.3S±0°.1×177°.95W±0°.09, h635^{km}±11^{km}, n51, σ0^{s}.76/42, mb4.1/17, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	7.39	54	P	P	22 30 47.6	-1.5
	5.1nm,0.3s,baz=86,slow=2.4,SNR=13						
AFI	**Afiamalu**	7.39	54	*e*P	P	22 30 47.5	-1.6
AFI				*e*S	S	22 32 23.6	+0.4
URZ	**Urewera**	20.31	191	P	P	22 32 47.6	-1.1
	6.7nm,0.9s,baz=2.5,slow=5.7,SNR=5.0						
URZ	**Urewera**	20.31	191	*e*P	P	22 32 47.8	-0.9
	6.8nm,0.9s						
HNR	**Honiara**	23.19	289	P	P	22 33 16.0	+1.2
ARMA	**Armidale**	30.10	241	*e*P	P	22 34 16.4	+1.6
CNB	**Canberra Magne**	33.51	233	*e*P	P	22 34 44.7	+1.2
CTA	**Charters Tower**	33.81	261	*e*P	P	22 34 46.5	+0.3
	7.0nm,0.5s,mb4.5						
CTAO	**Charters Tower**	33.81	261	*e*P	P	22 34 46.4	+0.2
	7.8nm,0.4s,mb4.7						
STKA	**Stephens Creek**	38.80	242	*e*P	P	22 35 27.8	+1.0
	3.3nm,0.5s,mb4.1						
STKA	**Stephens Creek**	38.80	242	P	P	22 35 27.9	+1.1
	3.9nm,0.5s,mb4.2,baz=86,slow=8.7,SNR=16						
WRAB	**Tennant Creek**	44.97	260	*e*P	P	22 36 15.1	-0.1
	8.4nm,0.4s,mb4.6						
WRA	**Warramunga Arr**	44.98	260	P	P	22 36 15.0	-0.2
	10.0nm,0.4s,mb4.7,baz=97,slow=7.2,SNR=471						
WRA				PcP	PcP	22 37 42.0	-0.2
	0.7nm,0.4s,baz=95,slow=3.2,SNR=3.7						
WRA				S	S	22 42 08.2	-1.2
	0.6nm,0.8s,baz=97,slow=14,SNR=3.6						
ASAR	**Alice Springs**	45.09	255	P	P	22 36 16.2	+0.2
	18nm,0.7s,mb4.7,baz=90,slow=8.0,SNR=149						
ASAR				PcP	PcP	22 37 42.5	-0.1
	1.7nm,0.4s,baz=103,slow=3.9,SNR=7.4						
ASAR				S	S	22 42 09.5	-1.4
	1.3nm,0.8s,baz=89,slow=15,SNR=8.1						
KAKA	**Kakadu**	48.01	269	*e*P	P	22 36 37.7	-0.3
	14nm,0.3s,mb5.0						
FORT	**Forrest**	50.22	245	*e*P	P	22 36 53.1	-0.8
	8.5nm,0.4s,mb4.5						
FITZ	**Fitzroy Crossi**	53.39	261	*e*P	P	22 37 16.6	-0.1
	4.6nm,0.5s,mb4.1						
FITZ	**Fitzroy Crossi**	53.39	261	*e*P	P	22 37 16.5	-0.2
	2.3nm,0.4s,mb3.9						
KLBR	**Kellerberrin**	59.03	244	*e*P	P	22 37 54.4	-0.7
	32nm,1.2s,mb4.3						
NWAO	**Narrogin (SRO)**	59.39	242	P	P	22 37 57.4	-0.1
	9.5nm,1.0s,mb3.9,baz=84,slow=10,SNR=3.9						
NWAO	**Narrogin (SRO)**	59.39	242	*e*P	P	22 37 57.3	-0.2
	6.8nm,0.8s,mb3.8						
SBA	**Scott Base**	60.01	184	P	P	22 38 00.4	-0.4
MUN	**Mundaring**	60.32	243	*e*P	P	22 38 04.1	+0.5
TWG	**Pinlang**	72.27	302	P	P	22 39 16.9	-0.3
NACB	**Ninganchiao**	72.52	304	P	P	22 39 17.7	-0.9
SSLB	**Suanglung**	72.84	303	*e*P	P	22 39 19.6	-0.9
TPUB	**Ta-pu**	72.86	302	P	P	22 39 19.6	-1.0
CMB	**Columbia Colle**	77.86	43	*e*P	P	22 39 47.9	0.0
	1.4nm,0.7s,mb3.5						
MDJ	**Mudanjiang**	78.79	325	P	P	22 39 52.8	+0.1
NVAR	**Mina Array Bea**	79.44	44	P	P	22 39 56.5	+0.3
	1.1nm,0.8s,mb3.3,baz=224,slow=9.3,SNR=7.1						
PMSA	**Palmer Station**	83.24	157	P	P	22 40 15.2	0.0
KULM	**Kulim**	83.52	278	*e*P	P	22 40 18.1	+0.6
	6.4nm,1.1s,mb4.1						
PSI	**Prapat**	84.36	275	P	P	22 40 20.9	-0.7
	1.1nm,0.4s,mb3.8,baz=357,slow=17,SNR=5.9						
PSI	**Prapat**	84.36	275	P	P	22 40 20.9	-0.7
TXAR	**Lajitas Array**	85.86	57	P	P	22 40 29.6	+1.1
	0.9nm,0.6s,mb3.6,baz=216,slow=6.4,SNR=10						
PDAR	**Pinedale Array**	87.37	43	P	P	22 40 35.4	+0.2
	0.7nm,0.6s,mb3.6,baz=220,slow=3.1,SNR=7.2						
CMAR	**Chiang Mai Arr**	89.44	290	P	P	22 40 46.5	+1.1
	1.0nm,0.7s,mb3.8,baz=98,slow=2.2,SNR=8.4						
CHTO	**Chiang Mai**	89.56	290	*e*P	P	22 40 46.5	+0.6
ULN	**Ulaanbaatar**	93.77	319	P	P	22 41 04.6	0.0
MKAR	**Makanchi Array**	109.75	314	PKiKP	PKiKP	22 46 12.3	-1.9
	0.3nm,0.6s,baz=98,slow=0.9,SNR=4.9						
AML	**Almayashu**	115.57	308	*e*PKPdf	PKPdf	22 46 24.7	-0.8
BVAR	**Borovoye Array**	117.46	321	PKP	PKPdf	22 46 27.6	-1.2
	0.4nm,0.3s,baz=140,slow=3.1,SNR=6.5						
ARU	**Arti**	123.45	326	*e*PKPdf	PKPdf	22 46 39.4	-0.8
ARCES	**ARCESS Array B**	126.82	350	PKP	PKPdf	22 46 44.4	-1.9
	5.2nm,1.0s,baz=349,slow=4.9,SNR=3.6						
AKASG	**Malin Array Be**	141.15	332	PKhKP		22 47 07.1	
	0.7nm,0.7s,baz=42,slow=3.6,SNR=4.4						
MALT	**Malatya**	142.63	310	*e*PKPdf	PKPdf	22 47 15.0	-1.6
BRTR	**Keskin Array B**	145.40	315	PKPbc	PKPbc	22 47 22.2	-0.6
	1.2nm,0.6s,baz=152,slow=3.4,SNR=6.4						
CLL	**Collm**	145.98	348	*e*PKPbc	PKPbc	22 47 23.0	-1.0
GERES	**GERESS Array B**	148.14	345	PKPbc	PKPbc	22 47 29.6	-0.2
	0.6nm,0.5s,baz=22,slow=4.3,SNR=5.0						
DAVOX	**Davos/Dischmat**	150.92	349	PKPbc	PKPbc	22 47 36.1	-0.3
	baz=311,slow=9.3						
TORD	**Torodi Ar. Bea**	174.82	176	PKPab	PKPab	22 49 31.1	-1.0
	0.4nm,0.9s,baz=200,slow=3.5,SNR=2.3						

IDC 17 22:30:06.3±5.4, 6°.76N×73°.99W, h183^{km}±23^{km}, mb3.0/1, mb1 3.4/1, mb1mx2.9/18, mbtmp3.0/1, Error ellipse: s-maj=307.4km s-min=36.8km az=92.0, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	1.92	190	P	Pn	22 30 43.3	+0.5
	5.3nm,0.3s,baz=122,slow=23,SNR=22						
ROSC				S	Sn	22 31 12.3	+1.2
	12nm,0.3s,baz=103,slow=15,SNR=16						
YKA	**Yellowknife Ar**	63.02	340	P	P	22 40 13.5	0.0
	0.4nm,0.6s,baz=134,slow=6.7,SNR=9.7						
WRA	**Warramunga Arr**	149.55	242	PKPbc	PKPbc	22 49 34.5	-0.4
	0.2nm,0.5s,baz=109,slow=2.4,SNR=10						

IDC 17 23:14:26.9±10.0, 16°.03S×167°.79E, h249^{km}±92^{km}, mb3.7/7, mb1 3.9/7, mb1mx3.6/19, mbtmp3.7/7, Error ellipse: s-maj=53.3km s-min=22.0km az=33.0, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARMA	**Armidale**	20.60	223	*e*P	P	23 18 48.5	+1.1
CTA	**Charters Tower**	20.87	256	*e*P	P	23 18 52.3	+2.0
	18nm,1.6s						
CTA	**Charters Tower**	20.87	256	P	P	23 18 51.3	+1.0
	8.1nm,0.7s,baz=81,slow=10.0,SNR=6.5						
URZ	**Urewera**	23.62	161	P	P	23 19 15.6	-0.1

	2.9nm,0.3s,baz=320,slow=4.4,SNR=4.1						
STKA	Stephens Creek	28.57	232	eP	P	23 20 01.0	+0.9
	3.2nm,0.8s						
STKA	Stephens Creek	28.57	232	P	P	23 20 00.8	+0.8
	2.0nm,0.3s,baz=53,slow=9.1,SNR=9.4						
WRA	Warramunga Arr	32.03	258	P	P	23 20 29.9	-0.7
	1.2nm,0.3s,baz=80,slow=6.1,SNR=44						
ASAR	Alice Springs	32.71	251	P	P	23 20 35.5	-1.0
	9.2nm,0.4s,baz=75,slow=9.1,SNR=123						
KAKA	Kakadu	34.38	271	eP	P	23 20 50.4	-0.6
	9.8nm,0.8s						
FORT	Forrest	39.09	241	eP	P	23 21 30.5	+0.1
	10nm,0.4s						
FITZ	Fitzroy Crossi	40.29	261	eP	P	23 21 41.0	+0.6
	33nm,0.7s						
KLBR	Kellerberrin	47.93	242	eP	P	23 22 40.1	-0.6
	129nm,1.8s						
CMAR	Chiang Mai Arr	75.94	294	P	P	23 25 48.0	+1.1
	1.1nm,0.3s,baz=126,slow=5.2,SNR=9.0						
SONM	Songino Array	83.83	323	P	P	23 26 27.9	-0.6
	0.5nm,0.9s,baz=122,slow=5.2,SNR=3.7						
TORD	Torodi Ar. Bea	166.24	260	PKPab	PKPab	23 35 05.5	-0.3
	0.7nm,0.9s,baz=95,slow=2.9,SNR=6.0						

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*TRN **17** 23:23:46.6, 17°.65N×62°.85W, h185^{km}, MD3.5, M4.1(FDF)*
*ISCJB **17** 23:23:48.7±0.8, 17°.43N±0°.08×63°.04W±0°.06, h172^{km}±7^{km}, Error ellipse: s-maj=15.8km s-min=2.9km az=32.6*
*NEIC **17** 23:23:48.9±1.5, 17°.60N×62°.99W, h181^{km}±14^{km}, MD3.6(TRN), Error ellipse: s-maj=29.0km s-min=3.0km az=214.0*
*RSPR **17** 23:23:49.6, 17°.49N×63°.13W, h182^{km}±8^{km}, MD4.2/7, MD4.2/7*
ISC 17 23:23:49.2±0.8**, 17°.45N**±0°.08×**63°.02W**±0°.05**, h173**^{km}±7^{km}**, n56, σ0^s.79**/77**, 25C-3D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKI	Saint Kitts	0.29	113	⇑eP	Pn	23 24 13.1	+0.7
SKI				eS	Sn	23 24 31.0	+0.9
BPA	Boggy Peak	1.18	110	⇓eP	Pn	23 24 18.1	+0.5
BPA				eS	Sn	23 24 38.5	-0.9
CDVI	St. Croix	1.70	280	ePn	Pn	23 24 22.8	+0.3
CDVI				eSn	Sn	23 24 46.6	-1.5
LZG	Guadaloupe-1	1.76	137	⇑iP	Pn	23 24 22.8	-0.4
SEG	Port Louis	1.78	126	⇑iP	Pn	23 24 22.8	-0.6
ABV	Anegada	1.79	316	eS	Sn	23 24 50.0	+0.1
ABV	Anegada	1.79	316	⇑eP	Pn	23 24 24.7	+1.3
TBVI	Tortola	1.80	303	⇑eP	Pn	23 24 23.7	+0.2
TBVI				eS	Sn	23 24 48.7	-1.4
BCG	Bois Riant Cap	1.91	135	eP	Pn	23 24 24.4	-0.3
SCG	Saint Claude	1.91	138	eP	Pn	23 24 24.2	-0.5
HMG	Houelmont	1.93	139	eP	Pn	23 24 24.6	-0.4
PHG	Guadaloupe-2	1.94	137	⇑iP	Pn	23 24 25.0	-0.1
DOG	Dongo Capester	1.94	136	eP	Pn	23 24 24.9	-0.3
STVI	Saint Thomas	2.05	296	⇑eP	Pn	23 24 26.8	+0.5
STVI				eS	Sn	23 24 54.3	-0.6
TBG	Guadaloupe-3	2.06	140	eP	Pn	23 24 25.7	-0.8
SFG	Saint Francois	2.11	124	eP	Pn	23 24 25.9	-1.1
MGG	Marie-Galante	2.23	133	⇑iP	Pn	23 24 27.9	-0.5
MTP	Monte Pirata	2.50	285	⇑eP	Pn	23 24 31.6	+0.1
MTP				eS	Sn	23 25 04.8	+0.6
MDN	Morne-Daniel	2.63	143	eP	Pn	23 24 33.8	+0.7
MDN				eS	Sn	23 25 07.3	+0.3
MDN	Morne-Daniel	2.63	143	eP	Pn	23 24 34.7	+1.7
MDN				eS	Sn	23 25 09.2	+2.2
DPMT	Pointe Michel	2.69	144	eP	Pn	23 24 33.7	0.0
DPMT	Pointe Michel	2.69	144	eP	Pn	23 24 35.0	+1.3
DBCT	Belle View Cho	2.69	143	eP	Pn	23 24 34.6	+0.8
DLPL	La Plaine	2.71	141	eP	Pn	23 24 34.4	+0.4
DLPL				eS	Sn	23 25 08.3	-0.3
DFBT	Forest Bistro	2.71	144	eP	Pn	23 24 33.6	-0.4
DFBT	Forest Bistro	2.71	144	eP	Pn	23 24 35.4	+1.4
DSHT	Scott’s Head	2.73	144	eP	Pn	23 24 34.5	+0.3
DSHT	Scott’s Head	2.73	144	eP	Pn	23 24 35.9	+1.7
DSTT	Stowe	2.74	143	eP	Pn	23 24 35.5	+1.2
HUMP	Col San Antoni	2.79	285	⇑eP	Pn	23 24 35.7	+0.8
HUMP	Col San Antoni	2.79	285	⇑eP	Pn	23 24 35.1	+0.2
HUMP				eS	Sn	23 25 12.0	+1.7
CPD	Cerro la Pandu	2.82	282	⇑eP	Pn	23 24 35.4	+0.1
CPD				eS	Sn	23 25 11.2	0.0
CBYP	Canovanas	2.83	287	⇑eP	Pn	23 24 35.6	+0.3
CBYP				eS	Sn	23 25 10.7	-0.5
SJG	San Juan	3.06	283	⇑eP	Pn	23 24 38.7	+0.5
SJG	San Juan	3.06	283	⇑eP	Pn	23 24 38.4	+0.2
SJG	San Juan	3.06	283	eS	Sn	23 25 16.1	-0.1
SJG	San Juan	3.06	283	⇑eP	Pn	23 24 38.7	+0.5
SJG	San Juan	3.06	283	⇑eP	Pn	23 24 38.4	+0.2
SJG				eS	Sn	23 25 16.1	-0.1
FDF	Fort de France	3.24	146	eP	Pn	23 24 39.4	-1.1
FDF				eS	Sn	23 25 19.8	-0.6
ICM	Isla Caja Muer	3.37	278	⇑eP	Pn	23 24 41.9	-0.2
CELP	Cerrillos	3.45	281	⇑eP	Pn	23 24 43.3	+0.3
BIM	Bigot	3.46	147	eP	Pn	23 24 42.4	-0.9
OBIP	Obispado Ponce	3.47	280	⇑eP	Pn	23 24 43.4	0.0
MVM	Montagne Vaucl	3.53	144	⇓eP	Pn	23 24 43.3	-0.8
MVM				⇓eS	Sn	23 25 26.3	-0.5
AOPR	Arecibo Observ	3.67	285	⇑eP	Pn	23 24 45.9	0.0
AOPR				eS	Sn	23 25 31.0	+1.0
GBPR	Guanica, Bosqu	3.72	279	⇑eP	Pn	23 24 46.4	-0.1
CRPR	Cabo Rojo, PR	3.94	279	⇑eP	Pn	23 24 48.7	-0.5
LSP	Las Mesas	3.94	281	⇑eP	Pn	23 24 49.6	+0.2
MPR	Mayaguez	4.00	282	ePn	Pn	23 24 49.8	-0.2
AGPR	Aguadilla, PR	4.03	285	⇑eP	Pn	23 24 49.9	-0.5
MCLT	Moule a Chique	4.22	151	eP	Pn	23 24 53.2	+0.3
MCLT				eS	Sn	23 25 42.1	-0.6
MCLT	Moule a Chique	4.22	151	eP	Pn	23 24 55.0	+2.1
MCLT				eS	Sn	23 25 45.6	+2.9
SVB	Belmont	4.49	157	eP	Pn	23 25 02.8	+6.4
SVB				eS	Sn	23 25 52.8	+3.9
SVB	Belmont	4.49	157	eP	Pn	23 25 02.8	+6.4
SVB				eS	Sn	23 25 56.0	+7.0
TOSP	Speyside	6.57	158	eS	Sn	23 26 28.6	-9.5
SDDR	Presa de Saban	8.01	282	ePn	Pn	23 25 42.1	-0.5
SDDR				eSn	Sn	23 27 10.8	-1.5

FUNV 17 23:30:53.7, 6°.75N×73°.15W, h167^{km}, MW3.5, 1D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.39	37	⇓iP	Pn	23 31 23.2	-0.4
CAPV				eS	Sn	23 31 44.8	-1.7
VIGV	El Vigia	2.73	40	eP	Pn	23 31 37.7	-0.8
VIGV				eS	Sn	23 32 09.8	-3.4
SOCV	Socops	2.74	56	eP	Pn	23 31 37.9	-0.7
SOCV				eS	Sn	23 32 09.4	-4.0
VIRV	Villa del Rosa	3.81	11	eP	Pn	23 31 50.1	-1.8
VIRV				eS	Sn	23 32 32.5	-4.9
QARV	Quebrada Arrib	4.31	37	eP	Pn	23 31 57.7	-0.7
QARV				eS	Sn	23 32 44.3	-4.7
CURV	Curarigua	4.53	44	eP	Pn	23 31 60.0	-1.3
BAUV	El Baul	5.51	66	eP	Pn	23 32 11.5	-2.6
BAUV				eS	Sn	23 33 10.9	-6.4

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*ISCJB **17** 23:47:44.0±0.4, 28°.61S±0°.08×62°.16E±0°.08, h10^{km}, mb4.2/19, MS4.1/2, Error ellipse: s-maj=11.8km s-min=10.2km az=13.0*
*IDC **17** 23:47:44.2±0.6, 28°.60S×62°.12E, h0^{km}, mb4.2/14, mb1 4.3/15, mb1mx4.1/26, mbtmp4.2/15, ML4.4/1, MS4.1/2, Ms1 4.1/2, ms1mx3.2/38, Error ellipse: s-maj=21.7km s-min=17.2km az=49.0*
*NEIC **17** 23:47:45.9±0.2, 28°.58S×62°.12E, h10^{km}, mb4.3/7, Error ellipse: s-maj=7.0km s-min=6.0km az=197.0*
ISC 17 23:47:46.0±0.4**, 28°.60S**±0°.08×**62°.14E**±0°.08**, h10**^{km}**, n37, σ0^s.48**/31**, mb4.2**/19**, MS4.1**/2**, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	Ambohidratompo	16.94	303	Pn	Pn	23 51 44.1	+1.0
	1.2nm,0.3s,baz=121,slow=17,SNR=3.1						
BOSA	Boshof	32.30	261	P	P	23 54 14.3	-0.9
LBTB	Lobatse	32.73	268	LR	LR	00 04 58.6	
	comp=Z,299nm,21.3s,MS4.0,baz=105,slow=32						
LSZ	Lusaka	34.04	286	P	P	23 54 30.1	-0.4
	3.7nm,0.9s,mb4.3,baz=127,slow=10,SNR=5.9						
LSZ	Lusaka	34.04	286	eP	P	23 54 29.7	-0.8
	9.7nm,1.3s,mb4.6						
SUR	Sutherland	35.66	253	P	P	23 54 44.5	+0.2
MAW	Mawson	39.04	180	eP	P	23 55 13.2	+0.6
TSUM	Tsumeb	41.60	273	eP	P	23 55 34.3	0.0
	5.6nm,1.3s,mb4.0						
FITZ	Fitzroy Crossi	58.65	95	eP	P	23 57 43.5	-0.4
	2.8nm,0.7s,mb4.4						
CMAR	Chiang Mai Arr	58.77	42	P	P	23 57 45.4	+0.9
	3.2nm,0.9s,mb4.4,baz=229,slow=7.5,SNR=18						
QSPA	South Pole Qui	61.56	180	P	P	23 58 03.1	+0.3
	9.5nm,0.7s,mb5.0,baz=276,slow=2.5,SNR=39						
SHEL	Horse Pasture	63.35	266	eP	P	23 58 16.1	+0.3
	72nm,1.0s						
ASAR	Alice Springs	63.75	104	P	P	23 58 18.4	0.0
	3.3nm,0.8s,mb4.4,baz=246,slow=6.3,SNR=26						
LSA	Lhasa	64.25	28	P	P	23 58 21.5	+0.2
VNDA	Vanda	64.38	166	P	P	23 58 21.6	0.0
	1.4nm,0.6s,mb4.2,baz=87,slow=15,SNR=8.0						
VNDA	Vanda	64.38	166	eP	P	23 58 21.7	+0.1
	1.1nm,0.6s,mb4.1						
SBA	Scott Base	65.27	167	P	P	23 58 27.5	+0.1
WRA	Warramunga Arr	65.52	100	P	P	23 58 29.8	-0.2
	4.0nm,0.9s,mb4.4,baz=247,slow=5.6,SNR=17						
WRAB	Tennant Creek	65.54	100	eP	P	23 58 30.1	+0.1
	2.8nm,0.7s,mb4.4						
STKA	Stephens Creek	67.22	115	P	P	23 58 41.0	+0.3
	1.8nm,0.7s,mb4.2,baz=305,slow=12,SNR=3.4						
STKA	Stephens Creek	67.22	115	P	P	23 58 41.0	+0.2
AML	Almayashu	71.18	9	eP	P	23 59 04.6	-0.1
	1.1nm,0.7s,mb3.9						
TORD	Torodi Ar. Bea	71.64	297	P	P	23 59 08.0	-0.2
	1.1nm,1.0s,mb3.8,baz=144,slow=5.6,SNR=4.6						
TORD	Torodi Ar. Bea	71.64	297	P	P	23 59 08.0	-0.2
EKS2	Erkin-Say	71.71	9	eP	P	23 59 08.4	+0.5
	1.8nm,0.7s,mb4.1						
CTA	Charters Tower	75.68	105	LR	LR	00 31 53.2	
	comp=Z,100nm,18.4s,MS4.2,baz=231,slow=35						
MKAR	Makanchi Array	77.22	14	P	P	23 59 39.6	-0.3
	0.7nm,1.0s,mb3.6,baz=195,slow=3.3,SNR=4.6						
PMSA	Palmer Station	78.01	201	P	P	23 59 44.0	-0.3
BVAR	Borovoye Array	81.59	5	P	P	00 00 03.7	+0.2
	0.8nm,0.8s,mb3.7,baz=160,slow=4.6,SNR=4.2						
AKASG	Malin Array Be	84.15	340	P	P	00 00 16.8	-0.1
	1.7nm,0.8s,mb4.2,baz=154,slow=4.2,SNR=4.1						
ZALV	Zalesovo Beam	84.52	13	P	P	00 00 18.4	-0.4
	1.3nm,0.6s,mb4.2,baz=199,slow=3.1,SNR=8.3						
SONM	Songino Array	85.84	28	P	P	00 00 25.8	+0.3
	0.8nm,1.0s,mb3.9,baz=242,slow=6.4,SNR=4.7						
KSRS	Korea Array	90.07	47	P	P	00 00 44.6	-1.4
	1.5nm,0.7s,mb4.4,baz=244,slow=4.2,SNR=7.2						
SADO	Sadowa	145.38	308	PKPbc	PKPbc	00 07 22.7	-1.2
	9.5nm,1.1s,baz=308,slow=3.1,SNR=3.5						
SADO	Sadowa	145.38	308	PKPbc	PKPbc	00 07 22.7	-1.3
YKA	Yellowknife Ar	146.03	357	PKPbc	PKPbc	00 07 24.5	-0.9
	1.1nm,0.5s,baz=350,slow=3.5,SNR=18						
TXAR	Lajitas Array	167.55	277	PKP	PKPdf	00 07 53.1	+0.3
	0.5nm,0.8s,baz=273,slow=1.8,SNR=5.1						

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*BJI **17** 23:54:27.9, 60°.23N×153°.77W, h102^{km}, mB5.0/10, mb4.6/14*
*ISCJB **17** 23:54:30.3±0.3, 59°.94N±0°.03×153°.42W±0°.05, h126^{km}±2^{km}, mb4.1/25, Error ellipse: s-maj=4.9km s-min=3.7km az=35.7*
*IDC **17** 23:54:31.5±0.5, 59°.78N×153°.54W, h126^{km}±4^{km}, mb3.9/17, mb1 4.0/21, mb1mx3.9/31, mbtmp3.9/21, MS3.3/1, Ms1 3.3/1, ms1mx2.6/45, Error ellipse: s-maj=11.3km s-min=6.7km az=52.0*
*NEIC **17** 23:54:31.9, 59°.84N×153°.28W, h129^{km}, mb4.0/6, After AEIC.*
NEIC Felt at Anchor Point and Homer.
ISC 17 23:54:31.3±0.3**, 59°.92N**±0°.03×**153°.41W**±0°.05**, h118**^{km}±2^{km}**, h128**^{km}±2.5^{km}**:pP-P, n202, σ0^s.78**/212**, mb4.1**/25**, 59C-56D, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUL	Augustine Lava	0.54	181	P	Pn	23 54 50.2	+0.9
AUL				S	Sn	23 55 04.4	+1.6
RSO	Redoubt South	0.64	31	ePn	Pn	23 54 51.4	+1.4
SVW2	Sparrevohn	1.60	319	P	Pn	23 55 00.7	+1.0
SLKM	Skilak Lake	1.70	68	P	Pn	23 55 00.8	-0.1
SEW	Seward	2.00	83	P	Pn	23 55 04.2	-0.4
SEW				S	Sn	23 55 28.8	-1.3
FIB	Fire Island	2.03	51	P	Pn	23 55 06.3	+1.3
FIB				S	Sn	23 55 32.9	+2.1
RC01	Rabbit Creek A	2.16	56	P	Pn	23 55 06.6	0.0
RC01				S	Sn	23 55 33.2	-0.6
KDAK	Kodiak Island	2.19	168	P	Pn	23 55 06.0	-0.9
	52nm,0.3s,baz=276,slow=23,SNR=340						
KDAK				S	Sn	23 55 31.8	-2.5
	160nm,0.3s,baz=268,slow=24,SNR=38						
KDAK	Kodiak Island	2.19	168	P	Pn	23 55 06.2	-0.8
KDAK				S	Sn	23 55 32.3	-2.0
SKT	Skwentna	2.26	23	P	Pn	23 55 08.7	+0.7
SKT				S	Sn	23 55 38.0	+2.0
PMR	Palmer	2.69	50	P	Pn	23 55 12.3	-1.1
OHAK	Old Harbor	2.71	179	P	Pn	23 55 11.3	-2.4
OHAK				S	Sn	23 55 41.9	-4.3
PPLA	Purkeypile	3.05	11	P	Pn	23 55 19.8	+1.7
SML	Sawmill	3.12	50	P	Pn	23 55 18.1	-0.9
TT01	Tatalina	3.25	338	P	Pn	23 55 21.4	+0.7
TTA	Tatalina	3.27	339	eP	Pn	23 55 21.6	+0.6
SII	Sitkinak Islan	3.39	187	P	Pn	23 55 20.7	-2.0
KTH	Kantishna Hill	3.83	17	P	Pn	23 55 29.0	+0.5
TRF	Thorofare Moun	3.84	21	P	Pn	23 55 28.8	+0.2
EYAK	Cordova Ski Ar	3.87	77	P	Pn	23 55 28.2	-0.8
CHUM	Lake Minchumin	4.01	7	ePn	Pn	23 55 31.4	+0.5
MCK	McKinley	4.38	27	P	Pn	23 55 35.8	+0.1
PAX	Paxson	4.89	48	P	Pn	23 55 42.3	-0.3
MENT	Mentasta	5.55	53	ePn	Pn	23 55 50.5	-1.0
COLA	College	5.60	25	P	Pn	23 55 51.5	-0.7
IL1	Eielson Array	5.74	29	P	Pn	23 55 53.0	-1.1
IM3	Indian Mountai	6.09	359	P	Pn	23 55 59.2	+0.5
IMA2	Indian Mountai	6.17	359	eP	Pn	23 56 01.1	+1.2
BCA3	Beaver Creek A	6.40	55	P	Pn	23 56 02.2	-0.7
PNL	Peninsula	7.08	86	P	Pn	23 56 10.8	-1.3
COLD	Coldfoot	7.47	10	P	Pn	23 56 17.4	-0.1
EGAK	Eagle	7.49	44	ePn	Pn	23 56 16.5	-1.2
	20nm,0.5s						
EGAK				Sn	Sn	23 57 39.5	-1.4
DAWY	Dawson	7.79	52	P	Pn	23 56 21.2	-0.6
HYT	Haines Junctio	7.94	77	ePn	Pn	23 56 23.7	0.0
HYT				eSn	Sn	23 57 48.6	-3.1
BM3	Burnt Mountain	8.47	24	P	Pn	23 56 29.7	-1.3
TNA	Tin City	8.72	317	P	Pn	23 56 35.8	+1.4
SKAG	Skagway	9.15	85	P	Pn	23 56 39.8	-0.4
WHY	Whitehorse	9.23	77	P	Pn	23 56 39.3	-2.0
BESE	Bessie Mountai	9.60	90	P	Pn	23 56 45.9	-0.4
DLBC	Dease Lake	12.07	87	P	Pn	23 57 19.1	0.0
	1.7nm,0.3s,baz=286,slow=17,SNR=29						
DLBC				S	Sn	23 59 31.0	-0.8
	0.6nm,0.3s,baz=51,slow=27,SNR=5.6						
DLBC	Dease Lake	12.07	87	ePn	Pn	23 57 18.9	-0.3
DLBC				eSn	Sn	23 59 31.7	-0.1
BBB	Bella Bella	16.03	108	P	Pn	23 58 10.6	+0.8
	0.3nm,0.3s,baz=321,slow=14,SNR=3.1						
YKA	Yellowknife Ar	18.67	65	P	P	23 58 39.2	-0.6
	1.3nm,0.3s,baz=278,slow=10,SNR=230						
YKA				ScP	ScP	00 06 24.1	-2.6
	0.2nm,0.3s,baz=289,slow=2.1,SNR=25						
YKA				LR	LR	00 07 17.3	
	comp=Z,87nm,18.7s,baz=120,slow=41						
YKA	Yellowknife Ar	18.67	65	P	P	23 58 39.2	-0.6
YKA				ScP	ScP	00 06 24.1	-2.6
YKA				LR	LR	00 07 17.3	
A05A	Maple Falls	21.02	107	⇓P	P	23 59 05.3	+0.1
	baz=21						
B05A	Bryant	21.52	109	⇑P	P	23 59 10.9	+0.4
	baz=21						
A07A	Ashnola River,	21.81	105	⇓P	P	23 59 14.7	+1.1
	baz=22						
A08A	Turner Farm, O	22.42	104	⇓P	P	23 59 19.8	-0.2
	baz=22						
A09A	Danville	22.74	103	⇑P	P	23 59 22.8	-0.3
	baz=22						
EDM	Edmonton	22.77	89	eP	P	23 59 23.4	0.0
B08A	Colville Reser	22.79	105	⇓P	P	23 59 23.6	0.0
	baz=22,SNR=6.3						
C07A	Waterville	22.90	107	⇓P	P	23 59 24.7	+0.1
	baz=23,SNR=7.9						
A10A	Northport	23.24	102	⇓P	P	23 59 28.0	+0.2
	baz=23						
D07A	Quincy	23.30	108	⇓P	P	23 59 28.8	+0.5
	baz=23						
B09A	Rice	23.32	104	⇑P	P	23 59 29.3	+0.8
	baz=23,SNR=10						
C08A	Higginbotham F	23.33	106	⇑P	P	23 59 29.0	+0.4
	baz=23,SNR=5.2						
C09A	Chrisman Ranch	23.69	105	⇑P	P	23 59 32.4	+0.5
	baz=23						
E07A	Sunnyside	23.81	109	⇓P	P	23 59 33.1	+0.2
	baz=24						
A11A	Hall Mountain,	23.84	101	⇑P	P	23 59 33.5	+0.2
	baz=24,SNR=9.4						
D08A	Wollman Farm,	23.90	107	⇓P	P	23 59 34.2	+0.5
	baz=24						
NEW	Newport	23.93	103	eP	P	23 59 33.6	-0.5
	8.0nm,0.9s,mb4.0						
HAWA	Hanford	24.08	109	eP	P	23 59 34.1	-1.3
	3.1nm,0.7s,mb3.8						
H04A	Detroit Lake	24.12	115	⇑P	P	23 59 37.7	+1.9
	baz=24						
D09A	Jones Farm, Ri	24.19	106	⇑P	P	23 59 36.8	+0.4
	baz=24						
A12A	Yaak River Ran	24.21	100	⇓P	P	23 59 37.0	+0.4
	baz=24						
F07A	Phinny Hill Vi	24.26	110	⇑P	P	23 59 37.1	+0.1
	baz=24						
D10A	Wagner Farm, O	24.70	105	⇑P	P	23 59 40.9	-0.1
	baz=24						
G07A	Ruggs Ranch, H	24.85	111	⇓P	P	23 59 42.9	+0.5
	baz=25						
F08A	Pendleton	24.88	109	⇑P	P	23 59 43.2	+0.6
	baz=25						
D11A	Klaveano Farm,	25.16	104	⇑P	P	23 59 44.9	-0.3
	baz=25						
G08A	Pilot Rock	25.16	110	⇑P	P	23 59 45.7	+0.5
	baz=25						
B13A	Whitefish	25.17	100	⇑P	P	23 59 45.4	+0.1
	baz=25						
E10A	Myers Farm, Un	25.18	106	⇑P	P	23 59 45.5	+0.1
	baz=25						
A14A	Double T Ranch	25.30	98	⇓P	P	23 59 46.6	+0.2
	baz=25						
RES	Resolute Bay	25.48	32	P	P	23 59 46.8	-1.1
	1.2nm,0.7s,mb3.5,baz=270,slow=6.1,SNR=4.5						
RES	Resolute Bay	25.48	32	eP	P	23 59 46.8	-1.1
	2.1nm,0.8s,mb3.6						
F10A	Beach Ranch, E	25.49	107	P	P	23 59 48.6	+0.4
	baz=25,SNR=9.2						
C13A	Hot Springs	25.59	101	⇓P	P	23 59 49.0	-0.1
	baz=25						
A15A	Johnson Ranch,	25.64	97	⇑P	P	23 59 49.1	-0.4
	baz=25						
C14A	Swan Lake	25.94	100	⇑P	P	23 59 52.2	0.0
	baz=26						
B15A	Bradely Ranch,	26.16	98	⇓P	P	23 59 53.2	-1.0
	baz=26						
YBH	Yreka Blue Hor	26.23	120	P	P	23 59 55.1	+0.2
	1.3nm,0.6s,mb3.5,baz=320,slow=4.6,SNR=6.1						
A16A	West Butte Ran	26.23	96	⇓P	P	23 59 54.4	-0.4
	baz=26,SNR=6.8						
K05A	Summer Lake	26.23	116	⇓P	P	23 59 55.8	+0.8
	baz=26						
C15A	Salmond Ranch,	26.50	99	⇑P	P	23 59 57.0	-0.3
	baz=26						
D14A	Greenough	26.53	101	⇑P	P	23 59 56.3	-1.2
	baz=26,SNR=5.1						
F12A	Elk City	26.60	105	⇓P	P	23 59 58.4	+0.2
	baz=26						
E13A	Victor	26.64	103	⇑P	P	23 59 57.9	-0.6
	baz=26						
H10A	Noah’s Angus R	26.74	108	⇓P	P	23 59 59.6	+0.2
	baz=26,SNR=8.9						
J08A	Circle Bar Ran	26.85	112	⇑P	P	00 00 00.3	-0.2
	baz=27						
C16A	Fuhringer Ranc	26.91	98	⇓P	P	23 59 59.9	-1.0
	baz=27						
E14A	Clinton	27.00	102	⇓P	P	00 00 01.2	-0.6
	baz=27						
H11A	Donnelly	27.00	107	⇑P	P	23 59 59.9	-1.9
	baz=27,SNR=5.1						
G12A	Big Creek, Yel	27.02	106	⇓P	P	00 00 00.1	-1.8
	baz=27						
F13A	Darby	27.03	104	⇑P	P	00 00 00.9	-1.1
	baz=27,SNR=6.0						
D15A	Lincoln	27.04	100	⇓P	P	00 00 02.3	+0.2
	baz=27						
B17A	L&G Farms, Che	27.06	96	⇓P	P	00 00 01.8	-0.4
	baz=27,SNR=5.5						
PETK	Petropavlovsk-	27.27	277	P	P	00 00 03.8	-0.2
	5.5nm,0.7s,mb4.2,baz=65,slow=13,SNR=7.7						
B18A	Beardsley Farm	27.50	95	⇑P	P	00 00 05.5	-0.7
	baz=27						
C17A	Wharram Farm,	27.52	97	⇑P	P	00 00 06.2	-0.1
	baz=27						
G13A	Cobalt	27.58	105	⇓P	P	00 00 07.4	+0.5
	baz=27,SNR=9.0						
K09A	Rome	27.71	112	⇓P	P	00 00 08.3	+0.2
	baz=28						
EGMT	Eagleton	27.76	96	⇑P	P	00 00 07.9	-0.6
	baz=28						
E16A	East Helena	27.81	100	⇑P	P	00 00 08.6	-0.4
	baz=28,SNR=6.8						
H13A	Challis	27.95	106	⇓P	P	00 00 10.6	+0.3
	baz=28,SNR=8.8						
MFID	Camas Ranch	28.06	109	⇑P	P	00 00 11.5	+0.3
	baz=28						
M07A	Soldier Meadow	28.08	116	⇑P	P	00 00 12.1	+0.8
	baz=28						
I12A	Atlanta	28.10	108	⇑P	P	00 00 11.2	-0.4
	baz=28						
E17A	Martinsdale	28.27	99	⇑P	P	00 00 13.4	+0.3
	baz=28						
N06A	Buffalo Meadow	28.29	118	⇑P	P	00 00 13.8	+0.6
	baz=28						
BOZ	Bozeman (W)	28.46	101	⇓P	P	00 00 14.9	+0.1
	baz=28						
I13A	Wildhorse Cree	28.50	106	⇑P	P	00 00 15.1	0.0
	baz=28						
J12A	Stokes Ranch,	28.53	108	⇓P	P	00 00 15.3	-0.1
	baz=28,SNR=6.5						
HLID	Hailey	28.62	107	⇑P	P	00 00 15.9	-0.3
	baz=28						
N07B	Gerlach	28.65	116	⇑P	P	00 00 17.0	+0.5
	baz=28,SNR=8.4						
G16A	Moss Hill, Enn	28.67	102	⇓P	P	00 00 17.0	+0.4
	baz=28,SNR=6.6						
F17A	Fitzpatrick Pl	28.76	100	⇓P	P	00 00 18.0	+0.6
	baz=28,SNR=6.8						
O06A	Flanigan	28.77	118	⇓P	P	00 00 18.0	+0.5
	baz=28						
BEKR	Beckwourth	28.78	119	⇓P	P	00 00 18.6	+0.9
	baz=28						
I14A	Mackay	28.81	106	⇓P	P	00 00 18.4	+0.5
	baz=29						
J14A	Carey	29.23	107	⇑P	P	00 00 22.1	+0.5
	baz=29						
H16A	Russell Place,	29.32	102	⇑P	P	00 00 22.6	+0.3
	baz=29,SNR=5.4						
J15A	Blackfoot	29.70	105	⇓P	P	00 00 25.8	+0.1
	baz=29						
O09A	Fish Creek Ran	29.95	115	⇑P	P	00 00 28.6	+0.6
	baz=30						
K14A	Jones Ranch, D	29.98	107	⇓P	P	00 00 28.7	+0.4
	baz=30						
RLMT	Red Lodge	30.00	100	⇑P	P	00 00 29.1	+0.7
	baz=30,SNR=7.4						
K15A	Arbon	30.19	106	⇑P	P	00 00 30.7	+0.6
	baz=30						
I17A	Pilgrim Ck.	30.23	103	⇑P	P	00 00 30.6	+0.2
	baz=30						
ELK	Elko	30.40	112	P	P	00 00 33.3	+1.4
	1.8nm,0.8s,mb3.8,baz=303,slow=8.7,SNR=7.7						
ELK				pP	pP	00 00 59.4	+1.6
	1.2nm,0.8s,baz=356,slow=15,SNR=3.3						
M13A	Montello	30.42	110	⇑P	P	00 00 32.7	+0.6
	baz=30						
J17A	Brown Place, J	30.57	103	⇓P	P	00 00 34.2	+0.9
	baz=30						
Q08A	Gabbs	30.68	117	⇓P	P	00 00 35.3	+0.9
	baz=30						
M14A	Sheep Mountain	30.70	109	⇑P	P	00 00 35.5	+0.9
	baz=30						
L15A	Malad City	30.78	107	⇓P	P	00 00 35.6	+0.4
	baz=30						
NVAR	Mina Array Bea	30.86	118	P	P	00 00 37.3	+1.3
	2.0nm,0.7s,mb4.0,baz=313,slow=9.3,SNR=19						
NVAR				PcP	PcP	00 03 29.8	0.0
	0.6nm,0.6s,baz=321,slow=2.6,SNR=5.4						
NVAR				ScP	ScP	00 06 59.5	-1.8
	0.6nm,0.7s,baz=304,slow=2.4,SNR=5.4						

NVAR	**Mina Array Bea**	**30.86**	**118**	P	**P**	**00 00 37.3**	**+1.3**
NVAR				PcP	PcP	00 03 29.8	0.0
NVAR				ScP	ScP	00 06 59.5	-1.8
J18A	**Kendall Valley**	**31.02**	**103**	⇑P	**P**	**00 00 37.9**	**+0.5**
	baz=31,SNR=7.2						
R09A	**Tonopah**	**31.57**	**117**	⇓P	**P**	**00 00 42.6**	**+0.3**
	baz=31						
BW06	**Boulder Array**	**31.58**	**103**	⇓P	**P**	**00 00 42.6**	**+0.3**
	baz=31						
PDAR	**Pinedale Array**	**31.58**	**103**	P	**P**	**00 00 42.9**	**+0.6**
	2.3nm,0.9s,mb3.9,baz=312,slow=5.8,SNR=15						
M16A	**Huntsville**	**31.67**	**107**	⇓P	**P**	**00 00 43.4**	**+0.4**
	baz=31						
R10A	**Warm Springs**	**31.88**	**116**	⇓P	**P**	**00 00 44.7**	**-0.2**
	baz=32						
K19A	**Absolon Red Bu**	**31.88**	**102**	⇓P	**P**	**00 00 44.8**	**-0.1**
	baz=32						
S09A	**Goldfield**	**31.93**	**118**	⇑P	**P**	**00 00 45.4**	**0.0**
	baz=32						
S10A	**Tonopah Range,**	**32.05**	**117**	⇑P	**P**	**00 00 47.0**	**+0.5**
	baz=32						
R11A	**Troy Canyon, C**	**32.16**	**115**	⇑P	**P**	**00 00 47.9**	**+0.6**
	baz=32						
L20A	**Wamsutter**	**32.74**	**103**	⇑P	**P**	**00 00 52.3**	**-0.2**
	baz=32						
N19A	**John Jarvie Ra**	**33.18**	**105**	⇑P	**P**	**00 00 55.6**	**-0.6**
	baz=33,SNR=5.2						
M20A	**Sweetwater, Wa**	**33.21**	**103**	⇓P	**P**	**00 00 55.5**	**-1.0**
	baz=33,SNR=5.2						
ULM	**Lac du Bonnet**	**33.29**	**81**	P	**P**	**00 00 57.2**	**+0.1**
	4.4nm,0.5s,mb4.5,baz=314,slow=8.8,SNR=8.8						
ULM				pP	pP	00 01 24.6	+1.5
	2.7nm,0.8s,baz=292,slow=9.1,SNR=3.0						
ULM	**Lac du Bonnet**	**33.29**	**81**	P	**P**	**00 00 57.2**	**+0.1**
ULM				pP	pP	00 01 24.6	+1.5
M21A	**Separation Pea**	**33.52**	**102**	⇑P	**P**	**00 00 59.0**	**-0.3**
	baz=33,SNR=5.9						
S13A	**Holt Ranch, En**	**33.57**	**114**	⇑P	**P**	**00 01 00.2**	**+0.5**
	baz=33						
P18A	**Preston Nutter**	**33.64**	**108**	⇓P	**P**	**00 01 00.2**	**-0.1**
	baz=33						
N20A	**Spence Gulch,**	**33.67**	**104**	⇑P	**P**	**00 01 00.9**	**+0.3**
	baz=33,SNR=5.9						
Q16A	**Castle Valley**	**33.76**	**109**	⇓P	**P**	**00 01 01.7**	**+0.4**
	baz=34						
SRU	**San Rafael**	**33.91**	**108**	⇓P	**P**	**00 01 03.4**	**+0.7**
	baz=34,SNR=7.8						
N21A	**Black Mountain**	**34.09**	**103**	⇑P	**P**	**00 01 04.6**	**+0.5**
	baz=34,SNR=5.0						
P19A	**Cripple Cowboy**	**34.25**	**106**	⇓P	**P**	**00 01 05.5**	**0.0**
	baz=34						
N22A	**Wattenberg Ran**	**34.58**	**102**	⇑P	**P**	**00 01 08.1**	**-0.3**
	baz=34						
Q19A	**Hogan Spring (**	**34.64**	**107**	⇓P	**P**	**00 01 08.7**	**-0.2**
	baz=34						
Q20A	**Ridgley Place,**	**35.11**	**106**	⇓P	**P**	**00 01 12.9**	**0.0**
	baz=35						
R19A	**Curley Farm, L**	**35.17**	**108**	⇓P	**P**	**00 01 13.1**	**-0.4**
	baz=35						
S18A	**Hurst Farm, Bl**	**35.29**	**109**	⇑P	**P**	**00 01 14.6**	**0.0**
	baz=35						
SCI	**San Clemente I**	**35.37**	**124**	⇓P	**P**	**00 01 15.4**	**+0.2**
	baz=35						
V14A	**Boquillas Ranc**	**35.51**	**115**	⇓P	**P**	**00 01 17.1**	**+0.6**
	baz=35						
S19A	**Harvey Farm, M**	**35.66**	**108**	⇑P	**P**	**00 01 17.7**	**0.0**
	baz=35						
R20A	**Redvale**	**35.67**	**107**	⇑P	**P**	**00 01 17.7**	**0.0**
	baz=35,SNR=6.3						
T18A	**Mexican Hat**	**35.80**	**110**	⇓P	**P**	**00 01 18.9**	**+0.1**
	baz=36,SNR=5.1						
U17A	**Shonto**	**35.86**	**111**	⇓P	**P**	**00 01 19.8**	**+0.5**
	baz=36						
W14A	**Seligman**	**35.87**	**115**	⇑P	**P**	**00 01 20.6**	**+1.1**
	baz=36						
T19A	**Beclabito**	**36.44**	**109**	⇑P	**P**	**00 01 25.0**	**+0.6**
	baz=36						
X15A	**Humboldt**	**36.86**	**115**	⇓P	**P**	**00 01 28.7**	**+0.8**
	baz=37						
ANMO	**Albuquerque**	**39.19**	**108**	P	**P**	**00 01 48.1**	**+0.7**
	0.6nm,0.5s,mb3.7,baz=307,slow=3.7,SNR=2.7						
ERM	**Erimo**	**41.93**	**274**	P	**P**	**00 02 10.3**	**+0.4**
SCHQ	**Schefferville**	**43.78**	**57**	P	**P**	**00 02 23.6**	**-1.0**
	4.7nm,0.6s,mb4.4,baz=317,slow=7.3,SNR=26						
TXAR	**Lajitas Array**	**45.15**	**110**	P	**P**	**00 02 36.2**	**+0.5**
	0.9nm,0.8s,mb3.5,baz=319,slow=6.4,SNR=7.7						
TXAR				PcP	PcP	00 04 14.3	+0.2
	0.1nm,0.6s,baz=0.0,slow=1.8,SNR=2.2						
MAJO	**Matsushiro**	**48.58**	**273**	P	**P**	**00 03 01.4**	**-1.0**
CN2	**Changchun**	**49.31**	**289**	*e*P	**P**	**00 03 07.0**	**-0.8**
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
ELN	**Prospectdale**	**50.19**	**83**	*e*P	**P**	**00 03 13.7**	**-1.0**
KSRS	**Korea Array**	**52.99**	**282**	P	**P**	**00 03 35.7**	**+0.2**
	comp=Z,6.1nm,0.6s,mb4.8,baz=39,slow=6.3,SNR=25						
ULN	**Ulaanbaatar**	**54.38**	**305**	*e*P	**P**	**00 03 45.1**	**-0.2**
	comp=Z,1.7nm,0.6s,mb4.2						
SONM	**Songino Array**	**54.67**	**306**	P	**P**	**00 03 48.1**	**+0.6**
	comp=Z,6.9nm,0.7s,mb4.8,baz=41,slow=7.1,SNR=61						
BJI	**Beijing**	**56.58**	**293**	P	**P**	**00 04 00.5**	**-0.7**
BJI				pP	pP	00 04 28.3	-1.2
BJI				sP	sP	00 04 43.1	+0.6
BJI				S	**S**	**00 11 41.8**	**-1.8**
BJI				SS	SS	00 15 31.8	-0.3
BJI				pmax	pmax		
	comp=Z,110nm,5.0s						
BJI				LR	LR		
	comp=N,210nm,15.6s						
BJI				LR	LR		
	comp=E,250nm,15.6s						
BJI				LR	LR		
	comp=Z,31nm,19.3s						
ZAA0	**Zalesovo Array**	**57.32**	**323**	*e*P	**P**	**00 04 05.5**	**-0.8**
ZAA0				*e*	pP	00 04 35.1	+0.7
ZALV	**Zalesovo Beam**	**57.32**	**323**	P	**P**	**00 04 06.0**	**-0.2**
	comp=Z,6.4nm,0.5s,mb4.9,baz=29,slow=7.3,SNR=31						
ZALV				pP	pP	00 04 37.1	+2.7
	comp=Z,3.4nm,0.8s,baz=36,slow=7.7,SNR=5.5						
NOA	**NORSAR Array B**	**58.79**	**9**	pP	pP	00 04 44.8	+0.1
	comp=Z,1.4nm,0.8s,baz=353,slow=6.7,SNR=3.0						
KURK	**Kurchatov**	**61.98**	**325**	P	**P**	**00 04 38.0**	**-0.2**
	comp=Z,1.3nm,0.5s,mb4.2,baz=28,slow=6.7,SNR=8.7						
KURK				pP	pP	00 05 09.6	+2.8
	comp=Z,1.7nm,0.8s,baz=28,slow=6.5,SNR=6.6						
KURK	**Kurchatov**	**61.98**	**325**	P	**P**	**00 04 38.0**	**-0.2**
KURK				pP	pP	00 05 09.6	+2.8
BVAR	**Borovoye Array**	**62.04**	**332**	P	**P**	**00 04 38.0**	**-0.6**
	comp=Z,2.0nm,0.5s,mb4.4,baz=33,slow=6.3,SNR=19						
BVAR				pP	pP	00 05 09.1	+1.9
	comp=Z,1.2nm,0.7s,baz=44,slow=9.3,SNR=4.2						
GTA	**Gaotai**	**64.30**	**305**	*e*P	**P**	**00 04 53.3**	**-0.4**
GTA				PP	PP	00 07 17.9	+1.9
GTA				S	**S**	**00 13 20.4**	**-1.6**
GTA				SS	SS	00 17 33.6	+0.8
GTA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
GTA				pmax	pmax		
	comp=Z,160nm,5.4s						
GTA				LR	LR		
	comp=N,100nm,12.2s						
GTA				LR	LR		
	comp=E,94nm,13.4s						
GTA				LR	LR		
	comp=Z,91nm,13.1s						
MKAR	**Makanchi Array**	**64.37**	**321**	P	**P**	**00 04 52.7**	**-1.3**
	comp=Z,0.6nm,0.5s,mb3.7,baz=37,slow=6.3,SNR=13						
MKAR				pP	pP	00 05 24.9	+2.1
	comp=Z,0.5nm,0.7s,baz=38,slow=6.1,SNR=3.1						
MKAR	**Makanchi Array**	**64.37**	**321**	P	**P**	**00 04 52.7**	**-1.3**
MKAR				pP	pP	00 05 24.9	+2.1
XAN	**Xi’an**	**64.82**	**295**	P	**P**	**00 04 55.5**	**-1.6**
XAN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
XAN				pmax	pmax		
	comp=Z,82nm,6.4s						
LZH	**Lanzhou**	**65.38**	**300**	*e*P	**P**	**00 05 01.0**	**+0.2**
LZH				pmax	pmax		
	comp=Z,76nm,4.3s						
UCH	**Uchtor**	**70.87**	**324**	*e*P	**P**	**00 05 35.1**	**+0.2**
	comp=Z,1.0nm,0.8s,mb3.7						
GYA	**Guiyang**	**72.24**	**292**	*e*P	**P**	**00 05 43.3**	**-0.1**
GYA				PP	PP	00 08 28.1	+3.1
GYA				S	S	00 14 53.3	-3.2
GYA				SKS		00 15 31.9	
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
PSZ	**Piszkesteto**	**72.38**	**5**	*e*P	**P**	**00 05 44.4**	**+0.6**
	comp=Z,2.7nm,0.7s,mb4.2						
CMAR	**Chiang Mai Arr**	**82.71**	**294**	P	**P**	**00 06 39.4**	**-2.3**
	comp=Z,0.5nm,0.4s,mb3.7,baz=19,slow=6.0,SNR=4.1						
BOSA	**Boshof**	**148.69**	**2**	PKPbc	PKPbc	00 14 02.2	-1.8
	comp=Z,1.1nm,0.6s,baz=321,slow=6.5,SNR=5.2						
QSPA	**South Pole Qui**	**149.72**	**180**	PKPbc	PKPbc	00 14 03.7	-1.3
	comp=Z,7.0nm,1.0s,baz=133,slow=0.7,SNR=12						
QSPA	**South Pole Qui**	**149.72**	**180**	PKPbc	PKPbc	00 14 03.7	-1.3

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*CSEM **17** 23:54:38.2±0.3, 42°.54N×43°.40E, h8^{km}, ML2.6, Error ellipse: s-maj=6.4km s-min=2.9km az=87.0*

*TIF **17** 23:54:38.0, 42°.55N×43°.59E, h10^{km}*

*MOS **17** 23:54:38.7±1.4, 42°.57N×43°.42E, h16^{km}, mb3.8/1, Error ellipse: s-maj=14.9km s-min=8.6km az=66.0*

ISC 17 23:54:38.4±1.1, **42°.54N**±0°.03×**43°.40E**±0°.08, **h10**^{km}±5^{km}, **n29,** σ**0^{s}.58**/56, **1C-4D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONI	**Oni**	**0.06**	**43**	P	**Pg**	**23 54 40.7**	**+0.2**
ONI				S	**Sg**	**23 54 42.4**	**+0.4**
ONI	**Oni**	**0.06**	**43**	P	**Pg**	**23 54 40.7**	**+0.2**
ONI				S	**Sg**	**23 54 42.4**	**+0.4**
DIGR	**Digorskoe uzhe**	**0.39**	**21**	⇓*i*PG	**Pg**	**23 54 45.8**	**-0.2**
DIGR				*i* S	**Sg**	**23 54 51.8**	**+0.6**
DIGR	**Digorskoe uzhe**	**0.39**	**21**	*i* Pg	**Pg**	**23 54 45.8**	**-0.2**
DIGR				*i* Sg	**Sg**	**23 54 51.8**	**+0.6**
ZEI	**Tsey**	**0.44**	**58**	⇓*i*PG	**Pg**	**23 54 46.5**	**-0.5**
ZEI				*i* S	**Sg**	**23 54 53.0**	**+0.2**
ZEI	**Tsey**	**0.44**	**58**	*i* Pg	**Pg**	**23 54 46.5**	**-0.5**
ZEI				*i* Sg	**Sg**	**23 54 53.0**	**+0.2**
KORR	**Kora**	**0.74**	**42**	⇑*i*PG	**Pg**	**23 54 52.4**	**-0.3**
KORR				*e*S	**Sg**	**23 55 02.7**	**+0.4**
KORR	**Kora**	**0.74**	**42**	*i* Pg	**Pg**	**23 54 52.4**	**-0.3**
KORR				*e*Sg	**Sg**	**23 55 02.7**	**+0.4**
GOR	**Gori**	**0.76**	**136**	*e*PG	**Pg**	**23 54 52.8**	**-0.4**
GOR	**Gori**	**0.76**	**136**	P	**Pg**	**23 54 52.8**	**-0.3**
GOR				S	**Sg**	**23 55 03.0**	**-0.1**
GOR	**Gori**	**0.76**	**136**	P	**Pg**	**23 54 52.8**	**-0.4**
GOR				S	**Sg**	**23 55 03.0**	**-0.1**
LSNR	**Lesken**	**0.80**	**23**	⇓*i*PG	**Pg**	**23 54 53.9**	**+0.1**
LSNR				*e*S	**Sg**	**23 55 04.9**	**+0.7**
LSNR	**Lesken**	**0.80**	**23**	*i* Pg	**Pg**	**23 54 53.9**	**+0.1**
LSNR				*e*Sg	**Sg**	**23 55 04.9**	**+0.7**
ARNR	**Ardon**	**0.92**	**45**	⇓*i*PG	**Pg**	**23 54 56.2**	**+0.1**
ARNR				*e*S	**Sg**	**23 55 08.5**	**+0.4**
ARNR	**Ardon**	**0.92**	**45**	*i* Pg	**Pg**	**23 54 56.2**	**+0.1**
ARNR				*e*Sg	**Sg**	**23 55 08.5**	**+0.4**
VLKR	**Vladikavkaz**	**1.07**	**61**	*e*PG	**Pg**	**23 54 58.1**	**-0.9**
VLKR				*e*S	**Sg**	**23 55 12.9**	**0.0**
VLKR	**Vladikavkaz**	**1.07**	**61**	*e*Pg	**Pg**	**23 54 58.1**	**-0.9**
VLKR				*e*Sg	**Sg**	**23 55 12.9**	**0.0**
SNJR	**Sundja**	**1.17**	**63**	*e*PG	**Pg**	**23 55 00.1**	**-0.8**
SNJR				*e*S	**Sg**	**23 55 16.0**	**-0.1**
SNJR	**Sundja**	**1.17**	**63**	*e*Pg	**Pg**	**23 55 00.1**	**-0.8**
SNJR				*e*Sg	**Sg**	**23 55 16.0**	**-0.1**
TBLG	**Delisi**	**1.28**	**128**	*i* PG	**Pn**	**23 55 01.7**	**-0.7**
TBLG				*i* S	**Sb**	**23 55 18.8**	**-0.4**
TBLG	**Delisi**	**1.28**	**128**	P	**Pn**	**23 55 01.7**	**-0.7**
TBLG				S	**Sb**	**23 55 18.8**	**-0.4**
TBLG	**Delisi**	**1.28**	**128**	P	**Pn**	**23 55 01.7**	**-0.7**
TBLG				S	**Sb**	**23 55 18.8**	**-0.4**
MTA	**Mtatsminda**	**1.34**	**129**	*e*PG	**Pg**	**23 55 04.6**	**+0.5**
MTA	**Mtatsminda**	**1.34**	**129**	P	**Pn**	**23 55 04.6**	**+1.4**
MTA				S	**Sb**	**23 55 21.7**	**+1.0**
MTA	**Mtatsminda**	**1.34**	**129**	P	**Pg**	**23 55 04.6**	**+0.5**
MTA				S	**Sb**	**23 55 21.7**	**+1.0**
PRTR	**Priterechnaya**	**1.38**	**28**	*e*PG	**Pg**	**23 55 04.6**	**-0.2**
PRTR				*e*S	**Sg**	**23 55 23.2**	**+0.5**
PRTR	**Priterechnaya**	**1.38**	**28**	*e*Pg	**Pg**	**23 55 04.6**	**-0.2**
PRTR				*e*Sg	**Sg**	**23 55 23.2**	**+0.5**
TRKR	**Terskaya**	**1.54**	**39**	*e*PG	**Pg**	**23 55 06.8**	**-1.1**
TRKR				*e*S	**Sg**	**23 55 27.1**	**-0.7**
TRKR	**Terskaya**	**1.54**	**39**	*e*Pg	**Pg**	**23 55 06.8**	**-1.1**
TRKR				*e*Sg	**Sg**	**23 55 27.1**	**-0.7**

IDC 18 00:20:15.7±1.3, **5°.42N**×**126°.19E, h0**^{km}**, mb3.9**/7, **mb1 4.1**/7, **mb1mx3.8**/21, **mbtmp3.9**/7, **Error ellipse: s-maj=159.7km s-min=17.2km az=66.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**26.45**	**163**	P	P	00 25 55.7	+1.1
	0.9nm,0.5s,baz=342,slow=10,SNR=12						
ASAR	**Alice Springs**	**29.87**	**166**	P	P	00 26 24.8	-0.3
	0.3nm,0.4s,baz=343,slow=6.6,SNR=4.5						
ASAR				PcP	PcP	00 29 26.7	-1.8
	0.4nm,0.4s,baz=344,slow=2.5,SNR=5.5						
STKA	**Stephens Creek**	**39.89**	**159**	P	P	00 27 51.5	0.0
	1.6nm,0.6s,baz=350,slow=11,SNR=4.2						
MKAR	**Makanchi Array**	**55.87**	**325**	P	P	00 29 54.9	-0.3
	0.4nm,0.7s,baz=116,slow=7.1,SNR=6.2						
ZALV	**Zalesovo Beam**	**58.85**	**333**	P	P	00 30 16.0	0.0
	0.3nm,0.3s,baz=152,slow=6.5,SNR=2.1						
KURK	**Kurchatov**	**60.03**	**327**	P	P	00 30 25.6	+1.3
	0.8nm,0.5s,baz=125,slow=7.1,SNR=8.8						
BVAR	**Borovoye Array**	**65.62**	**327**	P	P	00 31 00.9	-0.7
	0.5nm,0.5s,baz=134,slow=8.4,SNR=5.4						

IDC 18 00:24:03.8±3.4, **4°.03S**×**152°.73E, h0**^{km}**, mb3.8**/2, **mb1 4.0**/2, **mb1mx3.5**/16, **mbtmp3.8**/2, **Error ellipse: s-maj=147.3km s-min=46.1km az=119.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**23.90**	**227**	P	P	00 29 19.2	-0.3
	2.2nm,0.6s,baz=52,slow=9.5,SNR=27						
ASAR	**Alice Springs**	**26.67**	**221**	P	P	00 29 45.5	+1.0
	0.5nm,0.5s,baz=59,slow=8.4,SNR=7.3						
TORD	**Torodi Ar. Bea**	**150.00**	**289**	PKPbc	PKPbc	00 43 56.5	-0.8
	0.3nm,0.4s,baz=68,slow=2.0,SNR=7.7						

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*UPP **18** 00:30:23.5, 68°.19N×20°.14E, h0^{km}, ML2.6, Mining explosion.*

*CSEM **18** 00:30:23.5, 68°.19N×20°.14E, h0^{km}, ML2.6, Mining explosion.*

HEL 18 00:30:25.4±0.7, **68°.13N**×**20°.64E, h0**^{km}**, ML2.6**(UPP)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.21**	**213**	*i* P	Pg	00 30 28.4	-1.0
KUA				*i* S	Sg	00 30 32.1	0.0
LANU	**Lannavaara**	**0.51**	**98**	*e*P	Pg	00 30 33.1	-2.1
LANU	**Lannavaara**	**0.51**	**98**	P	Pg	00 30 33.4	-1.8
KIF	**Kilpisjarvi**	**0.88**	**4**	*e*P	Pg	00 30 42.6	+0.4
HEF	**Hetta**	**1.16**	**75**	*e*P	Pg	00 30 45.6	-2.0
PAJU	**Pajala**	**1.46**	**138**	*e*P	Pn	00 30 53.4	+0.5
PAJU	**Pajala**	**1.46**	**138**	P	Pn	00 30 53.4	+0.4
KALU	**Kalix**	**2.52**	**154**	*e*P	Pn	00 31 08.8	+1.3
KALU	**Kalix**	**2.52**	**154**	P	Pn	00 31 08.8	+1.3

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*CSEM **18** 00:37:25.9, 37°.15N×20°.41E, h4^{km}, MD3.2, After ATH*

ATH 18 00:37:25.9, 37°.15N×**20°.41E, h4**^{km}**, MD3.2**/3**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	**Valsamata**	**1.03**	**8**	*e*PG	Pg	00 37 45.9	+0.1
VLS				*e*SG	Sg	00 37 59.6	+0.4
VLS	**Valsamata**	**1.03**	**8**	*e*Pg	Pg	00 37 45.9	+0.1
VLS				*e*Sg	Sg	00 37 59.6	+0.4
PYL	**PYLOS**	**1.10**	**103**	*e*PB	Pb	00 37 46.2	-1.2
PYL				*e*SB	Sb	00 38 01.4	-0.6
PYL	**PYLOS**	**1.10**	**103**	*e*Pb	Pb	00 37 46.2	-1.2
PYL				*e*Sb	Sb	00 38 01.4	-0.6
ITM	**Ithomi**	**1.21**	**88**	*e*PB	Pb	00 37 48.8	-0.6
ITM	**Ithomi**	**1.21**	**88**	*e*Pb	Pb	00 37 48.8	-0.6
RLS	**Riolos of Patr**	**1.23**	**42**	*e*PN	Pn	00 37 50.2	+0.3
RLS	**Riolos of Patr**	**1.23**	**42**	*e*Pn	Pn	00 37 50.2	+0.3
VLX	**Vlachokerasia**	**1.59**	**81**	*e*PB	Pb	00 37 56.2	+0.4
VLX	**Vlachokerasia**	**1.59**	**81**	*e*Pb	Pb	00 37 56.2	+0.4

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*IDC **18** 00:46:44.9±2.1, 13°.66S×77°.12W, h0^{km}, mb3.5/4, mb1 3.8/5, mb1mx3.6/17, mbtmp3.5/5, ML3.3/1, Error ellipse: s-maj=79.5km s-min=35.0km az=49.0*

*ISCJB **18** 00:46:47.2±0.8, 13°.65S±0°.07×77°.1W±0°.2, h33^{km}, mb3.6/4, Error ellipse: s-maj=22.9km s-min=8.7km az=164.5*

*NEIC **18** 00:46:49.9±0.8, 13°.55S×76°.89W, h35^{km}, mb3.9/1, Error ellipse: s-maj=28.0km s-min=8.6km az=63.0*

ISC 18 00:46:47.6±3.9, **13°.58S**±0°.08×**77°.0W**±0°.2, **h18**^{km}±26^{km}, **n14,** σ**0^{s}.67**/15, **mb3.6**/4, **Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**1.59**	**5**	*e*Pn	**Pn**	**00 47 14.0**	**-0.8**
NNA				*e*S	**Sn**	**00 47 35.4**	**+0.5**
ATAH	**Atahualpa**	**6.68**	**348**	Pn	**Pn**	**00 48 25.4**	**+0.5**
	0.6nm,0.3s,baz=164,slow=18,SNR=2.5						
ATAH				Sn	**Sn**	**00 49 39.2**	**-1.4**
	0.2nm,0.3s,baz=153,slow=22,SNR=1.9						
LVC	**Limon Verde**	**11.81**	**141**	Pn	**Pn**	**00 49 35.0**	**-0.3**
OTAV	**Otavalo**	**13.80**	**354**	*e*Pn	**Pn**	**00 50 02.7**	**+0.2**
	0.6nm,0.4s						
CPUP	**Villa Florida**	**22.38**	**128**	*e*P	**P**	**00 51 43.9**	**-1.0**
	5.4nm,1.0s,mb3.9						
BCIP	**Isla Barro Col**	**22.77**	**353**	P	**P**	**00 51 49.4**	**+0.3**
SDV	**Santo Domingo**	**23.20**	**16**	P	**P**	**00 51 54.5**	**+0.9**
JTS	**JuntasAbangare**	**25.00**	**341**	P	**P**	**00 52 10.1**	**-0.4**
TXAR	**Lajitas Array**	**49.84**	**329**	P	**P**	**00 55 40.0**	**+0.4**
	0.2nm,0.7s,baz=125,slow=7.8,SNR=2.6						
PDAR	**Pinedale Array**	**63.54**	**334**	P	**P**	**00 57 17.1**	**+0.2**
	0.5nm,1.0s,mb3.5,baz=140,slow=7.1,SNR=3.1						
YKA	**Yellowknife Ar**	**81.31**	**343**	P	**P**	**00 59 02.4**	**0.0**
	0.3nm,0.7s,mb3.3,baz=143,slow=6.2,SNR=4.5						
YKA	**Yellowknife Ar**	**81.31**	**343**	P	**P**	**00 59 02.4**	**0.0**
TORD	**Torodi Ar. Bea**	**82.35**	**75**	P	**P**	**00 59 09.9**	**+0.9**
	0.5nm,0.9s,mb3.5,baz=265,slow=4.8,SNR=5.1						
SONM	**Songino Array**	**145.73**	**356**	PKPbc	PKPbc	01 06 26.3	+0.9
	0.7nm,0.9s,baz=4.7,slow=0.9,SNR=5.2						

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*IDC **18** 01:23:24.8±9.9, 13°.29S×76°.87W, h0^{km}, mb3.5/3, mb1 3.7/3, mb1mx3.5/16, mbtmp3.5/3, Error ellipse: s-maj=408.5km s-min=48.5km az=30.0*

*NEIC **18** 01:23:29.5±1.3, 13°.40S×76°.91W, h35^{km}, Error ellipse: s-maj=43.1km s-min=25.3km az=75.0*

ISC 18 01:23:29.1±1.5, **13°.5S**±0°.1×**77°.0W**±0°.4, **h35**^{km}**, n5,** σ**1^{s}.10**/5, **mb3.4**/3, **Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**1.55**	**6**	*e*Pn	**Pn**	**01 23 52.7**	**-1.6**
NNA				*e*Sn	**Sn**	**01 24 13.9**	**+0.7**
PDAR	**Pinedale Array**	**63.50**	**334**	P	**P**	**01 33 56.1**	**+0.4**
	0.2nm,0.6s,mb3.4,baz=128,slow=7.3,SNR=2.6						
YKA	**Yellowknife Ar**	**81.27**	**343**	P	**P**	**01 35 41.4**	**+0.1**
	0.2nm,0.6s,mb3.2,baz=142,slow=6.0,SNR=5.0						
TORD	**Torodi Ar. Bea**	**82.35**	**75**	P	**P**	**01 35 48.3**	**+0.3**
	0.5nm,0.9s,mb3.5,baz=246,slow=5.3,SNR=4.1						
SONM	**Songino Array**	**145.69**	**356**	PKPbc	PKPbc	01 43 04.0	-0.3
	0.5nm,1.0s,baz=343,slow=1.5,SNR=4.0						

PRE 18 01:53:07.7±1.7, **21°.08S**×**33°.57E, h10**^{km}**, ML3.7, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSNA	**Messina**	**3.53**	**248**	*e*P	Pn	01 54 04.7	+2.0
MSNA				*e*S	Sn	01 54 45.6	+1.2
MSNA				AML	AML	01 54 53.0	
	comp=Z,79nm,0.3s						
MSNA	**Messina**	**3.53**	**248**	*e*P	Pn	01 54 05.3	+2.6
MSNA				*e*S	Sn	01 54 39.6	-4.9
MSNA				AML	AML	01 54 53.1	
	comp=Z,89nm,0.3s						
POGA	**Pongola**	**6.52**	**196**	*e*P	Pn	01 54 44.8	+1.1
POGA				*e*S	Sn	01 55 54.9	-3.2
POGA				AML	AML	01 56 36.9	
	comp=Z,14nm,0.5s						
POGA	**Pongola**	**6.52**	**196**	*e*P	Pn	01 54 46.4	+2.8
POGA				*e*S	Sn	01 55 51.5	-6.6
POGA				AML	AML	01 56 15.2	
	comp=Z,5.5nm,0.8s						
SLR	**Silverton**	**6.71**	**225**	*e*P	Pn	01 54 46.9	+0.5
SLR				*e*S	Sn	01 56 00.4	-2.6
SLR				AML	AML	01 56 30.5	
	comp=Z,17nm,0.5s						
ERPM	**east rand prop**	**7.16**	**222**	*e*P	Pn	01 54 52.0	-0.6
ERPM				*e*S	Sn	01 56 08.4	-5.6
ERPM				AML	AML	01 56 57.4	
	comp=Z,12nm,0.6s						
KSR	**Koster**	**7.75**	**231**	*e*P	Pn	01 55 02.0	+1.3
KSR				*e*S	Sn	01 56 24.9	-3.7
KSR				AML	AML	01 57 14.4	
	comp=Z,12nm,0.5s						
PRYS	**Parys**	**8.13**	**223**	*e*P	Pn	01 55 06.6	+0.8
PRYS				*e*S	Sn	01 56 33.9	-4.0
PRYS	**Parys**	**8.13**	**223**	*e*P	Pn	01 55 07.0	+1.2
PRYS				*e*S	Sn	01 56 28.7	-9.2
PRYS				AML	AML	01 57 19.2	
	comp=Z,8.2nm,0.5s						
SEK	**Senekal**	**9.01**	**216**	*e*P	Pn	01 55 18.4	+0.5
SEK				*e*S	Sn	01 56 55.4	-4.1
PKA	**Prieska**	**12.98**	**227**	*e*P	Pn	01 56 14.1	+1.8
PKA				*e*S	Sn	01 58 23.9	-13
PKA				AML	AML	01 58 30.1	
	comp=Z,2.7nm,1.0s						

IDC 18 01:55:30.2±4.7, **30°.51N**×**68°.84E, h0**^{km}**, mb3.3**/4, **mb1 3.3**/5, **mb1mx3.1**/27, **mbtmp3.2**/5, **ML2.7**/1, **Error ellipse: s-maj=136.1km s-min=70.3km az=123.0, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**19.31**	**29**	P	Pn	01 59 56.8	-1.0
	0.0nm,0.3s,baz=206,slow=13,SNR=2.3						
KURK	**Kurchatov**	**21.47**	**17**	P	P	02 00 17.6	-2.5
	0.5nm,0.5s,baz=210,slow=8.8,SNR=2.3						
BVAR	**Borovoye Array**	**22.53**	**2**	P	P	02 00 31.7	+0.2
	0.4nm,0.7s,baz=176,slow=10,SNR=3.7						
ZALV	**Zalesovo Beam**	**26.12**	**22**	P	P	02 01 06.9	+1.2
	0.5nm,0.3s,baz=212,slow=10,SNR=3.8						
YKA	**Yellowknife Ar**	**87.29**	**2**	P	P	02 08 18.3	-0.2
	0.1nm,0.5s,baz=346,slow=4.4,SNR=3.5						

IDC 18 02:02:07.8±4.5, **5°.33S**×**147°.18E, h162**^{km}±31^{km}**, mb3.2**/3, **mb1 3.4**/4, **mb1mx3.2**/16, **mbtmp3.2**/4, **Error ellipse: s-maj=105.3km s-min=21.2km az=108.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.16**	**220**	P	P	02 06 18.9	-0.1
	0.3nm,0.3s,baz=38,slow=11,SNR=25						
WRA				S	S	02 09 42.7	-4.9
	0.1nm,0.3s,baz=41,slow=21,SNR=3.7						
ASAR	**Alice Springs**	**22.27**	**214**	P	P	02 06 51.9	-0.1
	1.0nm,0.5s,baz=49,slow=8.0,SNR=17						
ASAR				S	S	02 10 46.0	+1.0
	1.0nm,0.8s,baz=31,slow=24,SNR=5.0						
FITZ	**Fitzroy Crossi**	**24.57**	**237**	P	P	02 07 13.1	+0.1
	3.2nm,0.6s,baz=68,slow=11,SNR=9.1						
MKAR	**Makanchi Array**	**77.10**	**320**	P	P	02 13 43.7	+0.4
	0.3nm,0.9s,baz=107,slow=4.8,SNR=2.4						
TORD	**Torodi Ar. Bea**	**145.09**	**285**	PKPbc	PKPbc	02 21 25.9	-1.0
	0.2nm,0.4s,baz=63,slow=4.3,SNR=8.4						

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*ISCJB **18** 02:02:27.1±0.6, 22°.71S±0°.05×66°.14W±0°.07, h241^{km}±7^{km}, mb4.3/27, Error ellipse: s-maj=11.8km s-min=7.1km az=152.4*

*NEIC **18** 02:02:28.5±0.6, 22°.74S×66°.12W, h241^{km}±7^{km}, mb4.6/16, Error ellipse: s-maj=9.9km s-min=7.3km az=53.0*

*IDC **18** 02:02:28.2±0.8, 22°.70S×66°.05W, h235^{km}±7^{km}, mb3.8/14, mb1 3.9/20, mb1mx3.9/23, mbtmp3.8/20, Error ellipse: s-maj=13.1km s-min=10.8km az=43.0*

*GUC **18** 02:02:29.1±0.7, 22°.52S×66°.64W, h272^{km}±10^{km}, ML5.3*

ISC 18 02:02:28.0±0.6, **22°.69S**±0°.05×**66°.14W**±0°.07, **h234**^{km}±7^{km}, **n85,** σ**1^{s}.06**/86, **mb4.3**/27, **1C, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**2.56**	**271**	P	**Pn**	**02 03 17.2**	**+2.4**
	175nm,0.3s,baz=180,slow=0.3,SNR=659						
LVC				S	**S**	**02 03 53.3**	**+1.8**

	56nm,0.3s,baz=180,slow=23,SNR=36						
LVC	**Limon Verde**	2.56	271	*e*Pn	Pn	02 03 17.2	+2.5
LVC				*e*S	S	02 03 51.4	-0.2
LVC	**Limon Verde**	2.56	271	⇑*e*P	Pn	02 03 16.4	+1.6
LVC				*i* S	S	02 03 53.0	+1.5
PECH	**Pedro de Valdi**	3.27	271	*e*P	Pn	02 03 23.9	+1.3
PECH				*e*S	S	02 04 04.9	-0.6
PECH				AML	AML	02 04 07.3	
	comp=E,3µm,0.7s						
MACH	**Maria Elena**	3.38	278	*e*P	Pn	02 03 24.8	+0.9
MACH				*e*S	S	02 04 06.9	-1.0
PB01	**Plate Boundary**	3.51	297	*e*P	Pn	02 03 25.9	+0.5
PB01				*i* S	S	02 04 10.3	-0.4
PB01				AML	AML	02 04 12.5	
	comp=E,1µm,0.2s						
TOCH	**Tocopilla**	3.81	278	*e*P	Pn	02 03 29.2	+0.4
TOCH				*e*S	S	02 04 14.6	-2.2
TOCH				AML	AML	02 04 16.8	
	comp=N,2µm,0.8s						
HMBC	**Humberston**	4.23	304	*e*P	Pn	02 03 34.1	+0.1
HMBC				*i* S	S	02 04 23.9	-2.3
HMBC				AML	AML	02 04 27.3	
	comp=N,1µm,0.6s						
MNMC	**Miæe Miæ**	4.79	317	*e*P	Pn	02 03 42.0	+1.2
MNMC				*i* S	S	02 04 37.6	-0.9
LCO	**Las Campanas**	7.52	212	*e*Pn	Pn	02 04 13.8	-1.3
	comp=N,24nm,0.5s						
LCO				*e*S	S	02 05 29.0	-12
ARE	**Arequipa**	7.99	320	*e*P	Pn	02 04 22.0	+0.8
ARE				*e*S	S	02 05 47.0	-5.0
CPUP	**Villa Florida**	8.80	116	P	Pn	02 04 31.4	-0.1
	comp=N,0.5nm,0.3s,baz=302,slow=12,SNR=5.9						
CPUP	**Villa Florida**	8.80	116	*e*Pn	Pn	02 04 32.3	+0.7
CFAA	**Coronel Fontan**	9.08	191	P	Pn	02 04 33.5	-1.5
	comp=N,0.9nm,0.3s,baz=6.8,slow=13,SNR=49						
CFAA				S	S	02 06 10.3	-7.1
	comp=N,2.5nm,0.3s,baz=244,slow=17,SNR=32						
CFAA	**Coronel Fontan**	9.08	191	P	Pn	02 04 33.5	-1.4
CFAA				S	S	02 06 10.3	-7.1
NNA	**Nana**	14.74	314	P	Pn	02 05 46.1	+0.2
	comp=N,0.9nm,0.3s,baz=162,slow=11,SNR=11						
NNA	**Nana**	14.74	314	*e*Pn	Pn	02 05 47.3	+1.4
	comp=N,20nm,0.8s						
SPB	**Sao Paulo**	17.23	97	*e*P	P	02 06 14.6	+1.3
	comp=N,57nm,0.8s						
PLCA	**Paso Flores**	18.38	191	P	P	02 06 25.6	0.0
	comp=N,0.4nm,0.3s,baz=10,slow=13,SNR=16						
PLCA	**Paso Flores**	18.38	191	*e*P	P	02 06 25.6	+0.1
	comp=N,7.5nm,0.8s						
ATAH	**Atahualpa**	19.56	321	P	P	02 06 40.4	+1.8
	comp=N,0.3nm,0.3s,baz=101,slow=4.0,SNR=4.4						
ROSC	**El Rosal**	28.52	343	P	P	02 08 03.8	+1.7
	comp=N,3.6nm,0.4s,mb4.3,baz=179,slow=5.6,SNR=4.3						
SDV	**Santo Domingo**	31.68	352	*e*P	P	02 08 31.6	+1.7
	comp=N,3.9nm,0.4s,mb4.3						
USHA	**Ushuaia**	32.15	182	P	P	02 08 37.1	+3.6
	comp=N,6.3nm,0.8s,mb4.2,baz=351,slow=7.7,SNR=3.2						
RCBR	**Riachuelo**	33.64	65	*e*P	P	02 08 47.0	+0.1
	comp=N,39nm,1.0s,mb4.9						
VNA3	**Neumayer Olymp**	58.14	161	*e*	P	02 11 57.6	+0.8
VNA3	**Neumayer Olymp**	58.14	161	*e*	P	02 11 57.6	+0.8
VNA3	**Neumayer Olymp**	58.14	161	*e*	P	02 11 58.3	+1.5
VNA3	**Neumayer Olymp**	58.14	161	*e*	P	02 11 58.3	+1.5
VNA2	**Neumayer--Watz**	58.69	161	*e*	P	02 12 02.4	+1.8
	baz=309,slow=7.6						
VNA2	**Neumayer--Watz**	58.69	161	*e*	P	02 12 02.4	+1.8
	baz=59,slow=15						
VNA2	**Neumayer--Watz**	58.69	161	*e*	P	02 12 02.5	+1.9
	baz=309,slow=7.6						
VNA2	**Neumayer--Watz**	58.69	161	*e*	P	02 12 02.5	+1.9
	baz=59,slow=15						
TXAR	**Lajitas Array**	63.09	323	P	P	02 12 30.9	+0.2
	comp=N,0.3nm,0.7s,baz=152,slow=7.3,SNR=8.0						
TXAR	**Lajitas Array**	63.09	323	P	P	02 12 30.9	+0.2
LIC	**Lamto**	66.28	72	*e*P	P	02 12 50.5	-1.2
	comp=N,25nm,0.8s,mb4.9						
LIC	**Lamto**	66.28	72	*e*P	P	02 12 49.8	-1.9
TIC	**Toumodi**	66.48	72	*e*P	P	02 12 51.8	-1.2
	comp=N,228nm,1.8s						
KIC	**Kosan Boka**	66.59	72	*e*P	P	02 12 52.7	-1.0
	comp=N,41nm,0.6s,mb5.3						
DBIC	**Dimbokro**	66.64	72	P	P	02 12 53.0	-1.0
	comp=N,9.6nm,0.6s,mb4.6,baz=208,slow=6.8,SNR=24						
DBIC	**Dimbokro**	66.64	72	*e*P	P	02 12 53.3	-0.7
	comp=N,17nm,1.0s,mb4.6						
QSPA	**South Pole Qui**	67.51	180	P	P	02 12 59.9	+1.5
	comp=N,3.5nm,0.9s,mb4.0,baz=136,slow=5.9,SNR=8.9						
TOA0	**Torodi Ar. Sit**	75.36	69	*e*P	P	02 13 45.1	-1.2
TORD	**Torodi Ar. Bea**	75.36	69	P	P	02 13 45.4	-0.9
	comp=N,12nm,0.7s,mb4.7,baz=255,slow=5.7,SNR=202						
TORD				pP	pP	02 14 45.5	+4.1
	comp=N,3.4nm,0.9s,baz=250,slow=5.6,SNR=3.4						
TORD				PP	PP	02 16 25.6	-13
	comp=N,1.5nm,0.8s,baz=246,slow=7.0,SNR=3.6						
PDAR	**Pinedale Array**	76.43	329	P	P	02 13 52.2	+0.5
	comp=N,0.5nm,0.5s,mb3.4,baz=138,slow=7.6,SNR=6.9						
SCHQ	**Schefferville**	77.20	360	P	P	02 13 55.3	-0.4
	comp=N,2.8nm,0.7s,mb4.0,baz=59,slow=4.5,SNR=5.7						
ULM	**Lac du Bonnet**	77.24	341	P	P	02 13 56.0	0.0
	comp=N,1.1nm,0.5s,mb3.7,baz=150,slow=8.9,SNR=2.5						
TSUM	**Tsumeb**	77.24	106	*e*P	P	02 13 56.5	-0.4
	comp=N,13nm,0.9s,mb4.5						
NVAR	**Mina Array Bea**	78.02	321	P	P	02 14 01.2	+0.6
	comp=N,0.7nm,0.8s,mb3.3,baz=166,slow=6.3,SNR=5.4						
MDT	**Midelt**	80.56	49	P	P	02 14 15.3	+0.8
	comp=N,4.9nm,0.9s,mb4.1,baz=232,slow=4.4,SNR=6.5						
BOSA	**Boshof**	80.62	117	P	P	02 14 14.3	-0.8
	comp=N,5.6nm,0.9s,mb4.2,baz=222,slow=8.7,SNR=8.5						
BOSA	**Boshof**	80.62	117	P	P	02 14 14.3	-0.8
TAM	**Tamanrasset**	83.08	62	*e*P	P	02 14 27.7	-0.1
	comp=N,20nm,1.5s,mb4.6						
FCC	**Fort Churchill**	84.38	346	*e*P	P	02 14 31.1	-2.4
	comp=N,0.1nm,0.6s						
ESDC	**Sonseca Array**	84.90	43	P	P	02 14 37.1	+0.5
	comp=N,8.1nm,0.9s,mb4.5,baz=243,slow=4.5,SNR=22						
SJPF	**Ste Jean**	88.53	42	*e*P	P	02 14 53.3	-0.7
	comp=N,13nm,0.9s,mb4.5						
SJPF	**Ste Jean**	88.53	42	*e*P	P	02 14 53.3	-0.7
	comp=N,6.3nm,0.9s,mb4.5						
ETSF	**Etsaut**	88.83	42	*e*P	P	02 14 55.5	+0.1
	comp=N,12nm,0.9s,mb4.4						
ETSF	**Etsaut**	88.83	42	*e*P	P	02 14 55.5	+0.1
	comp=N,6.1nm,0.9s,mb4.4						
EPF	**Esparros**	89.45	42	*e*P	P	02 14 58.2	-0.1
	comp=N,16nm,1.0s,mb4.5						
EPF	**Esparros**	89.45	42	*e*P	P	02 14 58.2	-0.1
	comp=N,8.1nm,1.0s,mb4.5						
MTLF	**Montolieu**	90.79	43	*e*P	P	02 15 03.8	-0.7
MFF	**Saint Martin d**	91.07	39	*e*P	P	02 15 05.1	-0.7
	comp=N,26nm,1.1s,mb4.8						
MFF	**Saint Martin d**	91.07	39	*e*P	P	02 15 05.1	-0.7
	comp=N,13nm,1.1s,mb4.8						
KEST	**Kesra**	91.98	52	P	P	02 15 11.0	+0.7
	comp=N,2.5nm,0.9s,mb4.2,baz=265,slow=3.5,SNR=6.8						
TCF	**Toulx Ste Croi**	92.29	40	*e*P	P	02 15 10.5	-0.9
	comp=N,25nm,1.3s,mb4.7						
TCF	**Toulx Ste Croi**	92.29	40	*e*P	P	02 15 10.5	-0.9
	comp=N,12nm,1.3s,mb4.7						
YKA	**Yellowknife Ar**	93.17	340	P	P	02 15 15.4	+0.3
	comp=N,0.8nm,0.7s,mb3.8,baz=130,slow=4.2,SNR=20						
YKA				pP	pP	02 16 15.4	+3.2
	comp=N,0.2nm,0.6s,baz=128,slow=4.5,SNR=3.1						
ORIF	**Oris-en-Rattie**	93.86	43	*e*P	P	02 15 18.7	0.0
	comp=N,7.7nm,0.8s,mb4.5						
ORIF	**Oris-en-Rattie**	93.86	43	*e*P	P	02 15 18.7	0.0
	comp=N,3.8nm,0.8s,mb4.5						
LPL	**La Plagne**	94.67	42	*e*P	P	02 15 21.8	-0.6
LPG	**La Plagne**	94.67	42	*e*P	P	02 15 22.1	-0.3
	comp=N,6.5nm,0.9s,mb4.5						
LPG	**La Plagne**	94.67	42	*e*P	P	02 15 22.1	-0.3
	comp=N,3.3nm,0.9s,mb4.5						
ASAR	**Alice Springs**	129.98	204	PKP	PKPdf	02 21 10.3	-0.2
	comp=N,0.6nm,0.6s,baz=154,slow=3.3,SNR=6.4						
ASAR				SKPbc	SKPbc	02 24 08.7	-2.2
	comp=N,1.2nm,0.8s,baz=117,slow=3.1,SNR=7.0						
WRA	**Warramunga Arr**	133.15	207	PKP	PKPdf	02 21 16.6	0.0
	comp=N,0.3nm,0.4s,baz=154,slow=1.6,SNR=11						
WRA				SKPbc	SKPbc	02 24 20.2	-2.2
	comp=N,1.1nm,0.8s,baz=143,slow=3.0,SNR=11						
BVAR	**Borovoye Array**	135.27	36	PKP	PKPdf	02 21 19.9	+0.5
	comp=N,0.8nm,0.7s,baz=243,slow=6.5,SNR=4.9						
KURK	**Kurchatov**	140.85	36	PKP	PKPdf	02 21 28.8	-1.0
	comp=N,0.2nm,0.3s,baz=350,slow=4.8,SNR=5.0						
KURK				SKP		02 24 40.0	
	comp=N,1.0nm,0.5s,baz=272,slow=2.4,SNR=5.7						
KURK	**Kurchatov**	140.85	36	PKP	PKPdf	02 21 28.8	-1.0
KURK				SKP		02 24 40.0	
ZALV	**Zalesovo Beam**	141.87	28	PKhKP		02 21 27.7	
	comp=N,0.8nm,0.4s,baz=316,slow=4.1,SNR=4.2						
ZALV				PKP	PKPdf	02 21 32.5	+1.1
	comp=N,2.2nm,0.7s,baz=270,slow=1.5,SNR=8.3						
MK31	**Makanchi Array**	145.01	39	*e*PKPbc	PKPbc	02 21 37.8	+0.7
MKAR	**Makanchi Array**	145.01	39	PKP	PKPdf	02 21 37.6	+0.4
	comp=N,15nm,0.8s,baz=309,slow=2.6,SNR=109						
MKAR				SKPbc	SKPbc	02 24 53.5	-0.8
	comp=N,0.6nm,0.8s,baz=288,slow=5.0,SNR=3.7						
HYB	**Hyderabad**	146.47	92	*i* PKP	PKPdf	02 21 42.5	+1.9
HYB	**Hyderabad**	146.47	92	*e*P	PKPdf	02 21 42.5	+1.9
SONM	**Songino Array**	154.20	12	PKP	PKPdf	02 21 53.1	+1.4
	comp=N,0.4nm,0.4s,baz=16,slow=41,SNR=4.2						
SONM				PKPbc	PKPbc	02 22 00.4	+0.4
	comp=N,0.8nm,0.8s,baz=297,slow=0.6,SNR=4.2						
SONM				PKPab	PKPab	02 22 15.3	+0.6
	comp=N,0.8nm,0.8s,baz=328,slow=5.3,SNR=4.1						
CMAR	**Chiang Mai Arr**	165.41	104	PKPab	PKPab	02 23 04.5	0.0
	comp=N,0.9nm,0.4s,baz=250,slow=5.1,SNR=4.6						

IDC 18 02:06:42.2±4.9, 21°.67S×177°.32W, h0^{km}, mb3.5/3, mb1 3.9/3, mb1mx3.6/16, mbtmp3.5/3, Error ellipse: s-maj=324.3km s-min=34.7km az=155.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	**Alice Springs**	44.88	258	P	P	02 14 58.2	-0.5
	0.5nm,0.7s,baz=108,slow=8.0,SNR=4.6						
WRA	**Warramunga Arr**	45.08	263	P	P	02 15 00.7	+0.4
	1.2nm,1.2s,baz=100,slow=8.5,SNR=6.8						
NVAR	**Mina Array Bea**	81.43	43	P	P	02 19 01.5	+0.4
	0.2nm,0.7s,baz=220,slow=6.8,SNR=3.8						

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*NIED **18** 02:18:00, 42°.00N×142°.60E, h68^{km}, Mw3.8 Best double couple: M$_0$5.94000×10^{14} NP1:φ$_s$29.00000°, δ72.00000°, λ100.00000°. NP2:φ$_s$178.00000°, δ20.00000°, λ61.00000°.*

*ISCJB **18** 02:18:44.1±0.4, 41°.99N±0°.04×142°.55E±0°.05, h69^{km}±3^{km}, mb3.6/11, Error ellipse: s-maj=7.7km s-min=4.8km az=146.8*

*IDC **18** 02:18:45.4±2.1, 42°.02N×142°.51E, h65^{km}±16^{km}, mb3.5/11, mb1 3.6/14, mb1mx3.5/26, mbtmp3.4/14, Error ellipse: s-maj=23.2km s-min=13.8km az=110.0*

*NEIC **18** 02:18:45.2±0.7, 42°.02N×142°.52E, h63^{km}±8^{km}, MG4.0(JMA), Error ellipse: s-maj=14.4km s-min=10.7km az=141.0*

NEIC Recorded [1 JMA] in south-central Hokkaido.

*JMA **18** 02:18:45.0±0.2, 42°.03N×142°.58E, h63^{km}±2^{km}, M3.7 Broadband fault plane solution: P waves. NP1: φ$_s$163.00000°, δ11.00000°, λ50.00000°. NP2:φ$_s$23.00000°, δ81.00000°, λ97.00000°. Principal axes: T Plg53.0000°, Azm302.0000°; N Plg7.0000°, Azm202.0000°; P Plg36.0000°, Azm107.0000°;*

JMA Felt I J1.

ISC 18 02:18:45.1±0.4, 42°.00N±0°.04×142°.54E±0°.05, h62^{km}±4^{km}, n31, σ0^{s}46/42, mb3.7/11, 4C-7D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNBK	**Urakawa-nobuka**	0.32	29	⇑P	Pn	02 18 55.2	-0.4
JNBK				*e*S	Sn	02 19 03.0	-0.1
ERM	**Erimo**	0.46	88	*e*Pg	Pn	02 18 57.0	+0.2
ERM				*e*Sg	Sn	02 19 05.0	-0.3
JEM	**Erimo**	0.46	88	⇑P	Pn	02 18 56.8	0.0
JBT2	**Biratori 2**	0.79	350	⇓P	Pn	02 19 00.1	-0.4
JBT2				*e*S	Sn	02 19 11.4	-0.5
JCH	**Churui**	0.86	44	⇑P	Pn	02 19 01.1	-0.4
JCH				*e*S	Sn	02 19 13.1	-0.4
JKB	**Kayabe**	1.13	265	⇓P	Pn	02 19 05.0	+0.1
JKB				*e*S	Sn	02 19 19.8	+0.1
JFR	**Furan**	1.16	2	⇓P	Pn	02 19 04.8	-0.5
JEW	**Eniwo**	1.17	316	⇓P	Pn	02 19 05.4	0.0
JNB	**Noboribetsu**	1.21	293	⇓P	Pn	02 19 05.3	-0.7
JNB				*e*S	Sn	02 19 21.3	-0.2
JOT	**Ohata**	1.28	242	⇓P	Pn	02 19 07.1	+0.2
JOT				*e*S	Sn	02 19 23.6	+0.5
JOB	**Onbets**	1.31	46	⇑P	Pn	02 19 07.9	+0.6
JOB				*e*S	Sn	02 19 25.0	+1.0
JAB	**Ashibetsu**	1.52	351	P	Pn	02 19 10.2	+0.1
JAB				*e*S	Sn	02 19 29.9	+1.0
JAR	**Ashorobuto**	1.58	35	P	Pn	02 19 10.7	-0.2
JAR				*e*S	Sn	02 19 29.9	-0.4
JYM2	**Yakumo 2**	1.62	275	⇓P	Pn	02 19 11.6	+0.1
ASAJ	**Asahikawa**	2.12	1	P	Pn	02 19 18.8	+0.7
	41nm,0.3s,baz=208,slow=11,SNR=49						
ASAJ				S	Sn	02 19 43.8	+0.5
	18nm,0.3s,baz=79,slow=32,SNR=16						
MJAR	**Matsushiro Arr**	6.40	213	P	Pn	02 20 17.2	+0.4
	baz=24,slow=13,SNR=2.6						
KSRS	**Korea Array**	12.13	253	P	Pn	02 21 35.1	0.0
	0.3nm,0.3s,baz=65,slow=14,SNR=2.7						
SONM	**Songino Array**	26.08	295	P	P	02 24 13.1	+0.3
	0.4nm,0.4s,mb3.3,baz=83,slow=7.4,SNR=4.4						
ZALV	**Zalesovo Beam**	39.38	308	P	P	02 26 08.4	+0.1
	1.7nm,0.6s,mb4.0,baz=78,slow=8.2,SNR=9.3						
MKAR	**Makanchi Array**	42.40	298	P	P	02 26 33.0	-0.3
	1.2nm,0.9s,mb3.5,baz=81,slow=9.2,SNR=8.2						
KURK	**Kurchatov**	43.71	304	P	P	02 26 43.8	0.0
	2.1nm,0.5s,mb4.2,baz=76,slow=8.9,SNR=10.0						
BVAR	**Borovoye Array**	47.99	309	P	P	02 27 17.6	+0.1
	1.2nm,0.3s,mb4.4,baz=74,slow=9.2,SNR=11						
YKA	**Yellowknife Ar**	59.11	32	P	P	02 28 38.4	-0.2
	0.1nm,0.5s,mb3.1,baz=303,slow=7.0,SNR=2.8						
YKA	**Yellowknife Ar**	59.11	32	P	P	02 28 38.4	-0.2
WRA	**Warramunga Arr**	62.09	189	P	P	02 28 59.1	-0.3
	0.7nm,1.1s,mb3.7,baz=7.1,slow=6.9,SNR=5.5						
NB2	**NORSAR Subarra**	69.95	337	P	P	02 29 48.8	-0.6
	comp=Z,0.9nm,0.7s,mb3.8,baz=37,slow=6.5						
NOA	**NORSAR Array B**	69.95	337	P	P	02 29 48.9	-0.5
	comp=Z,1.0nm,0.9s,mb3.8,baz=37,slow=6.2,SNR=3.8						
NOA	**NORSAR Array B**	69.95	337	P	P	02 29 48.9	-0.5
AKASG	**Malin Array Be**	70.92	322	P	P	02 29 54.8	-0.7
	comp=Z,0.5nm,0.4s,mb3.8,baz=47,slow=6.0,SNR=4.1						
GERES	**GERESS Array B**	78.95	328	P	P	02 30 41.2	-0.6
	comp=Z,0.3nm,0.6s,mb3.4,baz=26,slow=9.2,SNR=3.0						
TXAR	**Lajitas Array**	86.42	53	P	P	02 31 22.1	+1.2
	comp=Z,0.3nm,0.8s,mb3.6,baz=291,slow=2.7,SNR=3.1						

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*ISCJB **18** 02:20:15.2±2.7, 24°.0S±0°.1×66°.7W±0°.4, h191^{km}±28^{km}, mb3.4/3, Error ellipse: s-maj=59.2km s-min=20.3km az=178.5*

*NEIC **18** 02:20:15.6±2.1, 24°.06S×66°.66W, h182^{km}±21^{km}, Error ellipse: s-maj=44.6km s-min=16.7km az=94.0*

*IDC **18** 02:20:16.0±2.9, 23°.96S×66°.72W, h183^{km}±30^{km}, mb3.3/3, mb1 3.5/4, mb1mx3.3/17, mbtmp3.4/4, Error ellipse: s-maj=46.1km s-min=27.9km az=101.0*

ISC 18 02:20:16.3±2.6, 24°.0S±0°.1×66°.8W±0°.4, h188^{km}±28^{km}, n9, σ0^{s}66/9, mb3.4/3, Salta Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	2.44	305	P	Pn	02 20 59.5	+0.8
	29nm,0.3s,baz=180,slow=4.8,SNR=279						
LVC				S	Sn	02 21 31.1	-0.7
	18nm,0.3s,baz=0.0,slow=19,SNR=29						
LVC	**Limon Verde**	2.44	305	*e*Pn	Pn	02 20 59.3	+0.5
LVC				*e*Sn	Sn	02 21 32.1	+0.3
LCO	**Las Campanas**	6.09	215	*e*Pn	Pn	02 21 43.9	-0.7
QSPA	**South Pole Qui**	66.17	180	P	P	02 30 44.1	+1.0
	0.7nm,0.5s,mb3.8,baz=263,slow=14,SNR=10						
TORD	**Torodi Ar. Bea**	76.36	69	P	P	02 31 44.8	-0.4
	0.2nm,0.5s,mb3.0,baz=244,slow=5.4,SNR=7.2						
YKA	**Yellowknife Ar**	94.23	340	P	P	02 33 12.9	-0.4
	0.2nm,0.6s,mb3.5,baz=136,slow=4.5,SNR=4.1						
YKA	**Yellowknife Ar**	94.23	340	P	P	02 33 12.9	-0.4
WRA	**Warramunga Arr**	131.70	207	PKP	PKPdf	02 39 07.8	+0.3
	0.4nm,0.9s,baz=152,slow=1.9,SNR=6.1						
MKAR	**Makanchi Array**	146.40	40	PKPbc	PKPbc	02 39 35.4	+0.5
	0.4nm,0.6s,baz=316,slow=2.3,SNR=6.1						

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*DDA **18** 02:35:19.9, 37°.10N×29°.60E, h8^{km}±8^{km}, Md2.9*

*CSEM **18** 02:35:20.6±0.2, 36°.96N×29°.29E, h2^{km}, MD3.0, Error ellipse: s-maj=4.7km s-min=4.0km az=116.0*

*ISK **18** 02:35:20.6, 36°.97N×29°.23E, h9^{km}, MD3.0*

*ISCJB **18** 02:35:21.0±0.6, 36°.93N±0°.03×29°.29E±0°.05, h10^{km}, Error ellipse: s-maj=5.8km s-min=4.2km az=24.1*

ISC 18 02:35:20.9±0.8, 36°.95N±0°.03×29°.30E±0°.05, h4^{km}±7^{km}, n25, σ0^{s}90/39, 1D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	0.36	208	PG	Pg	02 35 27.2	-0.6
FETY				*e*SG	Sg	02 35 33.6	+1.1
FETY	**Fethiye**	0.36	208	*i* Pg	Pg	02 35 27.2	-0.6
FETY				*e*Sg	Sg	02 35 33.6	+1.2
DALT	**Dalyan (Mudla)**	0.56	251	*e*PG	Pg	02 35 31.5	-0.1
DALT				*e*SG	Sg	02 35 39.4	+0.5
DALT	**Dalyan (Mudla)**	0.56	251	*e*Pg	Pg	02 35 31.5	-0.1
DALT				*e*Sg	Sg	02 35 39.4	+0.5
TURN	**Turunc**	0.56	262	*e*P	Pg	02 35 36.3	+4.6
TURN				*e*S	Sg	02 35 48.4	+9.4
AKAS	**Kas**	0.76	161	⇓*i*P	Pg	02 35 35.6	+0.1
AKAS				*i* S	Sg	02 35 50.4	+5.1
AKAS	**Kas**	0.76	161	*i* P	Pg	02 35 35.6	+0.1
DENT	**Denizli**	0.83	346	*e*PG	Pg	02 35 36.1	-0.8
DENT				*e*SG	Sg	02 35 48.1	+0.5
DENT	**Denizli**	0.83	346	*e*Pg	Pg	02 35 36.1	-0.8
DENT				*e*Sg	Sg	02 35 48.1	+0.5
YER	**Yerkesik**	0.83	283	*e*PG	Pg	02 35 35.9	-1.0
YER	**Yerkesik**	0.83	283	*e*Pg	Pg	02 35 35.9	-1.0
BCK	**Bucak**	1.15	63	*e*PN	Pn	02 35 44.5	+0.7
BCK	**Bucak**	1.15	63	*e*Pn	Pn	02 35 44.6	+0.8
MLSB	**Milas**	1.26	286	*e*PN	Pn	02 35 43.3	-2.0
MLSB	**Milas**	1.26	286	*e*Pn	Pn	02 35 43.3	-2.0
ISP	**Isparta**	1.32	47	*e*PN	Pn	02 35 46.1	0.0
ISP	**Isparta**	1.32	47	*e*Pn	Pn	02 35 46.1	0.0
AYDN	**Tasoluk**	1.33	303	*e*P	Pn	02 35 46.0	-0.4
AYDN				*e*S	Sg	02 36 04.4	+0.6
AYDN	**Tasoluk**	1.33	303	*e*P	Pn	02 35 46.0	-0.3
AYDN				*e*S	Sg	02 36 04.4	+0.6
KHL	**Karahalli**	1.38	7	*e*PN	Pn	02 35 46.2	-0.8
KHL	**Karahalli**	1.38	7	*e*Pn	Pn	02 35 46.2	-0.8
KHAL	**Karahalli**	1.43	6	*e*P	Pn	02 35 51.3	+3.7
KHAL				*e*S	Sb	02 36 07.7	+1.1
KHAL	**Karahalli**	1.43	6	*e*P	Pn	02 35 51.3	+3.7
KHAL				*e*S	Sb	02 36 07.7	+1.1
BDRM	**Kayabasi**	1.49	275	*e*P	Pn	02 35 47.5	-0.9
BDRM				*e*S	Sn	02 36 09.4	+1.2
BDRM	**Kayabasi**	1.49	275	*e*P	Pn	02 35 47.5	-0.9
BDRM				*e*S	Sn	02 36 09.4	+1.1

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*SKHL **18** 02:39:10.8±2.5, 46°.23N×153°.24E, h65^{km}±12^{km}, mb5.2/2*

*ISCJB **18** 02:39:12.6±1.1, 46°.73N±0°.09×152°.7E±0°.1, h57^{km}±9^{km}, mb3.8/15, MS4.4/1, Error ellipse: s-maj=19.2km s-min=6.8km az=138.6*

*MOS **18** 02:39:12.4±1.2, 46°.73N×152°.77E, h59^{km}, mb4.2/9, Error ellipse: s-maj=14.5km s-min=10.6km az=51.2*

*NEIC **18** 02:39:14.6±1.0, 46°.78N×152°.71E, h60^{km}±9^{km}, mb4.2/1, Error ellipse: s-maj=14.8km s-min=7.8km az=132.0*

*IDC **18** 02:39:15.7±2.9, 46°.72N×152°.70E, h70^{km}±25^{km}, mb3.5/15, mb1 3.7/18, mb1mx3.6/26, mbtmp3.5/18, Error ellipse: s-maj=20.1km s-min=15.8km az=125.0*

ISC 18 02:39:15.3±0.9, 46°.75N±0°.09×152°.7E±0°.1, h65^{km}±8^{km}, n45, σ1^{s}07/50, mb3.7/15, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	3.71	248	PN	Pn	02 40 06.0	-4.1
KUR				S	Sn	02 40 49.3	-3.2
KUR				pmax	pmax		
	comp=Z,90nm,0.5s						
KUR				smax			
	comp=N,290nm,0.5s						
KUR				smax			
	comp=E,170nm,0.5s						
KUR	**Kuril'sk**	3.71	248	*e*P	Pn	02 40 06.0	-4.1
KUR				AMB	AMB	02 40 06.8	
	comp=E,90nm,0.5s						
KUR				*e*S	Sn	02 40 49.3	-3.2
KUR				A		02 41 04.5	
	comp=E,290nm,0.5s						
KUR				A		02 41 04.5	
	comp=E,170nm,0.5s						
SKR	**Severo-Kuril's**	4.53	28	*e*P	Pn	02 40 22.5	+1.2
SKR				*e*rx	rx	02 41 07.5	
YUK	**Yuzh-Kuril'sk**	5.54	243	PN	Pn	02 40 34.5	-0.6
YUK				S	Sn	02 41 41.0	+3.6
YUK				smax			
	comp=E,310nm,0.5s						
YUK				smax			
	comp=N,310nm,0.6s						
YUK	**Yuzh-Kuril'sk**	5.54	243	*e*P	Pn	02 40 34.5	-0.6
YUK				*e*S	Sn	02 41 41.0	+3.6
YUK				A		02 41 58.5	
	comp=N,310nm,0.6s						
YSS	**Yuzh-Sakhalins**	6.84	275	*e*P	Pn	02 40 55.2	+2.3
YSS				AMB	AMB	02 40 56.8	
	comp=N,700nm,1.1s						
PEA0B	**Petropavlovsk-**	7.13	25	*e*Pn	Pn	02 40 55.0	-1.7
PETK	**Petropavlovsk-**	7.13	25	P	Pn	02 40 56.4	-0.4
	comp=N,0.4nm,0.3s,baz=184,slow=12,SNR=8.2						
ASAJ	**Asahikawa**	7.60	253	PN	Pn	02 41 04.3	+1.1
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	7.60	253	P	Pn	02 41 04.3	+1.1
	comp=Z,1.9nm,0.3s,baz=64,slow=14,SNR=7.3						
ERM	**Erimo**	8.33	239	*e*P	Pn	02 41 12.3	-0.9
ERM	**Erimo**	8.33	239	*e*Pn	Pn	02 41 12.2	-0.9
ERM				*e*Sn	Sn	02 42 45.5	-0.1
MJAR	**Matsushiro Arr**	14.87	232	P	Pn	02 42 42.5	+0.8
	baz=32,slow=8.4,SNR=2.8						
KSRS	**Korea Array**	20.54	252	P	P	02 43 48.7	+0.4
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
KSRS	**Korea Array**	20.54	252	P	P	02 43 48.6	+0.4
	comp=Z,1.8nm,0.5s,baz=60,slow=9.7,SNR=3.9						
SONM	**Songino Array**	31.09	289	P	P	02 45 28.1	+1.2
	comp=Z,0.3nm,0.7s,mb3.1,baz=76,slow=7.9,SNR=2.7						
TLY	**Talaya**	31.95	297	*e*P	P	02 45 38.4	+3.9
TLY				MLR	MLR		
	comp=Z,517nm,13.0s						
ZALV	**Zalesovo Beam**	42.40	306	P	P	02 47 01.6	-1.3
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.0						
ZALV	**Zalesovo Beam**	42.40	306	P	P	02 47 01.6	-1.3
	comp=Z,0.5nm,0.3s,mb3.7,baz=46,slow=6.2,SNR=3.4						
MKAR	**Makanchi Array**	46.71	297	P	P	02 47 36.4	-0.9
MKAR						02 49 09.6	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	46.71	297	P	P	02 47 36.4	-0.9
	comp=Z,0.4nm,0.5s,mb3.4,baz=63,slow=7.5,SNR=10.0						
MKAR				PcP	PcP	02 49 09.6	-0.3
	comp=Z,0.7nm,0.7s,baz=48,slow=3.6,SNR=4.2						
KURK	**Kurchatov**	47.15	303	P	P	02 47 40.4	-0.3
KURK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
KURK	**Kurchatov**	47.15	303	P	P	02 47 40.4	-0.3
	comp=Z,0.8nm,0.4s,mb3.8,baz=72,slow=8.8,SNR=4.1						
YKA	**Yellowknife Ar**	51.09	37	P	P	02 48 11.2	+0.6
	comp=Z,0.2nm,0.6s,mb3.4,baz=298,slow=7.9,SNR=4.5						
YKA	**Yellowknife Ar**	51.09	37	P	P	02 48 11.2	+0.6
ARCES	**ARCESS Array B**	57.77	341	P	P	02 48 58.5	-0.4
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES	**ARCESS Array B**	57.77	341	P	P	02 48 58.5	-0.5
	comp=Z,6.9nm,1.1s,mb4.6,baz=36,slow=7.8,SNR=3.6						
NVAR	**Mina Array Bea**	62.67	62	P	P	02 49 33.7	+0.8
	comp=Z,0.3nm,0.7s,mb3.3,baz=303,slow=8.5,SNR=2.7						
KAF	**Kangasniemi**	63.34	335	*e*P	P	02 49 35.4	-1.5
KAF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
KAF	**Kangasniemi**	63.34	335	*e*p	P	02 49 35.4	-1.5
	comp=Z,1.6nm,0.7s,mb4.1						
NB2	**NORSAR Subarra**	68.15	341	P	P	02 50 07.9	0.0
	comp=Z,1.1nm,0.5s,mb3.9,baz=28,slow=6.2						
NOA	**NORSAR Array B**	68.15	341	P	P	02 50 07.8	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NOA	**NORSAR Array B**	68.15	341	P	P	02 50 07.8	-0.1
	comp=Z,1.5nm,0.5s,mb4.1,baz=28,slow=6.4,SNR=9.3						
WRA	**Warramunga Arr**	68.42	199	P	P	02 50 08.6	-1.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	**Warramunga Arr**	68.42	199	P	P	02 50 08.6	-1.4
	comp=Z,0.8nm,0.9s,mb3.5,baz=20,slow=6.9,SNR=12						
AKASG	**Malin Array Be**	71.40	326	P	P	02 50 27.8	-0.2
AKASG				pmax	pmax		

	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	71.40	326	P	P	02 50 27.8	-0.3
	comp=Z,1.9nm,0.5s,mb4.2,baz=34,slow=6.3,SNR=7.1						
ASAR	Alice Springs	72.12	198	P	P	02 50 32.8	+0.3
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	72.12	198	P	P	02 50 32.8	+0.2
	comp=Z,0.5nm,0.5s,mb3.6,baz=12,slow=4.9,SNR=7.5						
CLL	Collm	76.36	335	eP	P	02 50 57.0	0.0
TXAR	Lajitas Array	77.72	60	P	P	02 51 05.2	+0.1
	comp=Z,0.2nm,0.7s,mb3.0,baz=318,slow=8.9,SNR=3.5						
BRTR	Keskin Array B	78.21	316	P	P	02 51 09.0	+1.4
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	78.21	316	P	P	02 51 09.0	+1.5
	comp=Z,1.4nm,0.9s,mb3.7,baz=35,slow=5.5,SNR=3.6						
GERES	GERESS Array B	78.34	334	P	P	02 51 08.7	+0.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	GERESS Array B	78.34	334	P	P	02 51 08.7	+0.6
	comp=Z,0.5nm,0.5s,mb3.5,baz=46,slow=3.9,SNR=4.9						

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*ISCJB **18** 02:44:44.5±0.3, 25˚.65N±0˚.03×99˚.72E±0˚.03, h10^{km}, mb4.2/27, MS4.0/26, Error ellipse: s-maj=4.2km s-min=3.9km az=36.2*

*IDC **18** 02:44:45.2±0.6, 25˚.71N×99˚.91E, h0^{km}, mb4.1/19, mb1 4.2/20, mb1mx4.1/28, mbtmp4.1/20, ML4.8/1, MS4.0/26, Ms1 4.0/26, ms1mx3.9/48, Error ellipse: s-maj=23.6km s-min=11.5km az=66.0*

*BJI **18** 02:44:46.1, 25˚.69N×99˚.91E, h14^{km}, mB4.7/9, mb4.1/16, ML4.6/11, Ms4.6/13, Ms7 4.3/12*

*NEIC **18** 02:44:48.5±2.4, 25˚.69N×99˚.93E, h23^{km}±18^{km}, mb4.2/6, Error ellipse: s-maj=12.2km s-min=5.2km az=69.0*

ISC 18 02:44:46.5±0.3**, 25˚.66N**±0˚.03×**99˚.77E**±0˚.03**, h10^{km}, n82, σ1^{s}.14**/76**, mb4.2**/27**, MS4.0**/26**, 1C-1D, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	Kunming	2.74	101	Pn	Pn	02 45 31.8	+1.2
CHRT	Chiangrai	5.77	180	P	Pn	02 46 12.5	+0.3
GYA	Guiyang	6.25	81	⇑iPn	Pn	02 46 18.8	-0.1
GYA				LR	LR		
	comp=N,2μm,10.4s						
GYA				LR	LR		
	comp=E,3μm,10.2s						
GYA				LR	LR		
	comp=Z,2μm,10.3s						
CD2	Chengdu	6.30	33	Pn	Pn	02 46 20.8	+1.3
CD2				Sg	Sg	02 48 07.5	-1.3
CD2				smax			
	comp=N,490nm,1.9s						
CD2				smax			
	comp=E,580nm,1.8s						
CHG	Chiang Mai	6.86	187	PN	Pn	02 46 28.0	+0.7
CHG	Chiang Mai	6.86	187	PG	Pn	02 46 28.0	+0.7
CHG				SG	Sg	02 48 32.2	+5.4
CHTO	Chiang Mai	6.86	187	ePn	Pn	02 46 28.1	+0.9
	comp=E,209nm,1.1s						
CHTO				ePg	Pg	02 46 56.0	-1.9
SHL	Shillong	7.12	271	ePKP	Pn	02 46 31.0	+0.2
CM31	Chiang Mai Arr	7.21	186	ePn	Pn	02 46 33.1	+1.0
CM31				ePg	Pg	02 47 02.6	-2.1
CMAR	Chiang Mai Arr	7.21	186	Pn	Pn	02 46 32.9	+0.7
	comp=E,4.5nm,0.3s,baz=2.2,slow=12,SNR=26						
CMAR				Pg	Pg	02 47 00.8	-3.9
	comp=E,6.7nm,0.3s,baz=359,slow=15,SNR=46						
CMAR				Lg		02 48 38.8	
	comp=E,3.6nm,0.3s,baz=18,slow=27,SNR=6.2						
CMAR				LR	LR	02 49 31.9	
	comp=E,1μm,18.6s,baz=5.7,slow=39						
AGT	Agartala	7.94	259	ePKP	Pn	02 46 41.0	-1.1
BDT	Bhumibol Dam	8.41	185	P	Pn	02 46 50.0	+1.5
	comp=E,36nm,1.1s						
LSA	Lhasa	8.63	300	P	Pn	02 46 53.8	+2.2
LSA	Lhasa	8.63	300	ePn	Pn	02 46 54.0	+2.4
	comp=E,8.7nm,0.6s						
TAPN	Taplejung	10.93	281	eP	Pn	02 47 22.6	-0.5
	comp=E,44nm,0.5s						
LZH	Lanzhou	10.96	18	eP	Pn	02 47 25.0	+1.6
LZH				pP		02 47 31.4	
LZH				PP		02 47 34.3	
LZH				sP		02 47 37.4	
LZH				S	Sn	02 49 31.1	+5.0
LZH				sS		02 49 38.6	
LZH				SS		02 49 43.1	
LZH				pmax	pmax		
	comp=Z,70nm,1.4s						
LZH				pmax	pmax		
	comp=Z,200nm,6.2s						
LZH				LR	LR		
	comp=N,1μm,9.5s						
LZH				LR	LR		
	comp=Z,2μm,10.8s						
ODAN	Odare	11.18	279	eP	Pn	02 47 26.1	-0.3
	comp=Z,33nm,0.5s						
XAN	Xi'an	11.52	41	P	Pn	02 47 30.8	-0.3
XAN				pP		02 47 37.0	
XAN				pmax	pmax		
	comp=Z,8.0nm,1.0s						
XAN				pmax	pmax		
	comp=Z,68nm,4.1s						
XAN				LR	LR		
	comp=N,2μm,17.2s						
XAN				LR	LR		
	comp=E,2μm,16.0s						
XAN				LR	LR		
	comp=Z,1μm,13.7s						
RAMN	Ramite	11.88	279	eP	Pn	02 47 36.1	0.0
JIRN	Jiri	12.31	282	eP	Pn	02 47 41.5	-0.4
	comp=Z,33nm,0.5s						
GUN	Gumba	12.61	283	eP	Pn	02 47 45.4	-0.6
	comp=Z,32nm,0.5s						
PKI	Pulchoki	12.99	282	eP	Pn	02 47 49.8	-1.4
	comp=Z,28nm,0.6s						
KKN	Kakani	13.12	282	eP	Pn	02 47 51.7	-1.4
	comp=Z,28nm,0.5s						
DMN	Daman	13.26	282	eP	Pn	02 47 53.3	-1.6
GKN	Gorkha	13.71	283	eP	Pn	02 47 59.5	-1.6
WHN	Wuhan	13.75	66	⇓P	Pn	02 48 02.1	+0.4
WHN				S	Sn	02 50 26.8	-7.7
WHN				LR	LR		
	comp=N,4μm,6.2s						
WHN				LR	LR		
	comp=E,2μm,7.2s						
WHN				LR	LR		
	comp=Z,3μm,10.1s						
DANN	Dangsing	14.52	284	eP	Pn	02 48 09.0	-3.1
	comp=Z,30nm,0.6s						
KOLN	Koldanda	14.60	282	eP	Pn	02 48 10.5	-2.8
QZH	Quanzhou	17.04	88	eP	Pn	02 48 44.5	-0.5
QZH				S	Sn	02 51 53.0	-1.6
QZH				LR	LR		
	comp=Z,3μm,11.3s						
HHC	Hu-ho-hao-te	18.05	30	eP	Pn	02 48 57.4	0.0
HHC				pP	pP	02 49 01.0	+0.5
HHC				sP	sP	02 49 04.4	+2.6
HHC				PP		02 49 12.4	
HHC				S	Sn	02 52 15.4	-3.3
HHC				sS	sS	02 52 20.8	-8.3
HHC				SS		02 52 38.8	
HHC				pmax	pmax		
	comp=Z,10.0nm,0.9s						
HHC				pmax	pmax		
	comp=Z,110nm,3.8s						
HHC				LR	LR		
	comp=N,1μm,8.6s						
HHC				LR	LR		
	comp=E,990nm,7.3s						
HHC				LR	LR		
	comp=Z,940nm,10.4s						
BJI	Beijing	19.84	40	P	Pn	02 49 17.3	-1.8
BJI				pmax	pmax		
	comp=Z,26nm,0.6s						
WMQ	Urumqi	20.61	335	eP	P	02 49 27.0	+1.1
WMQ				pP		02 49 31.0	
WMQ				sP	sP	02 49 34.0	+4.1
WMQ				PP		02 49 49.0	
WMQ				S	S	02 53 12.0	-4.3
WMQ				SS		02 53 45.0	
WMQ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,160nm,5.2s						
WMQ				LR	LR		
	comp=N,870nm,16.4s,MS4.3						
WMQ				LR	LR		
	comp=E,620nm,18.2s,MS4.3						
WMQ				LR	LR		
	comp=Z,770nm,20.0s,MS4.1						
SONM	Songino Array	22.74	12	P	P	02 49 48.2	-0.4
	comp=Z,5.4nm,1.0s,mb3.9,baz=194,slow=11,SNR=19						
PSI	Prapat	22.75	182	P	P	02 49 51.2	+2.2
	comp=Z,8.3nm,0.9s,mb4.2,baz=274,slow=4.0,SNR=9.3						
PSI				LR	LR	02 59 07.5	
	comp=Z,350nm,19.1s,MS3.8,baz=98,slow=38						
ULN	Ulaanbaatar	22.89	13	eP	P	02 49 50.0	-0.3
	comp=Z,22nm,1.3s,mb4.4						
MKAR	Makanchi Array	25.26	331	P	P	02 50 13.8	+1.0
	comp=Z,7.3nm,0.6s,mb4.4,baz=142,slow=9.8,SNR=63						
MKAR				LR	LR	03 01 18.5	
	comp=Z,258nm,18.3s,MS3.8,baz=139,slow=39						
JOW	Kunigami	25.57	81	LR	LR	03 01 24.6	
	comp=Z,709nm,18.9s,MS4.2,baz=137,slow=39						
KSRS	Korea Array	26.61	57	P	P	02 50 24.4	-0.8
	comp=Z,0.8nm,0.5s,mb3.5,baz=244,slow=10,SNR=3.2						
KSRS				LR	LR	03 00 27.3	
	comp=Z,201nm,19.3s,MS3.7,baz=74,slow=36						
AAK	Ala-Archa	26.76	316	P	P	02 50 27.8	+1.3
	comp=Z,2.0nm,0.5s,mb3.9,baz=131,slow=9.0,SNR=9.5						
AAK				LR	LR	03 02 02.3	
	comp=Z,258nm,20.9s,MS3.8,baz=89,slow=39						
AAK	Ala-Archa	26.76	316	eP	P	02 50 27.5	+1.1
	comp=Z,1.1nm,0.6s,mb3.6						
AAK				LR	LR	03 02 02.3	
AML	Almayashu	27.02	314	eP	P	02 50 30.9	+2.1
	comp=Z,3.9nm,0.6s,mb4.1						
EKS2	Erkin-Say	27.23	315	eP	P	02 50 32.9	+2.3
	comp=Z,3.6nm,0.7s,mb4.0						
KBL	Kabul	27.93	296	eP	P	02 50 37.9	+0.9
	comp=Z,0.9nm,0.4s,mb3.8						
KURK	Kurchatov	29.82	333	P	P	02 50 53.9	+0.3
	comp=Z,2.6nm,0.6s,mb4.2,baz=140,slow=10,SNR=11						
KURK				LR	LR	03 04 14.7	
	comp=Z,444nm,20.5s,MS4.1,baz=125,slow=39						
KURK	Kurchatov	29.82	333	eP	P	02 50 54.3	+0.7
KURK				LR	LR	03 04 14.7	
ZAA0	Zalesovo Array	30.36	342	eP	P	02 50 58.5	+0.1
ZALV	Zalesovo Beam	30.36	342	P	P	02 50 58.1	-0.3
	comp=Z,2.5nm,0.6s,mb4.1,baz=151,slow=11,SNR=11						
ZALV				LR	LR	03 04 39.1	
	comp=Z,105nm,21.9s,MS3.4,baz=245,slow=39						
DAV	Davao City (W)	30.79	122	LR	LR	03 05 28.4	
	comp=Z,242nm,18.4s,MS3.9,baz=224,slow=40						
MJAR	Matsushiro Arr	34.45	62	LR	LR	03 07 32.3	
	comp=Z,156nm,18.1s,MS3.8,baz=275,slow=40						
BVAR	Borovoye Array	35.09	329	P	P	02 51 40.5	+0.8
	comp=Z,3.9nm,0.5s,mb4.6,baz=133,slow=8.5,SNR=14						
BRVK	Borovoye	35.16	329	eP	P	02 51 40.8	+0.5
	comp=Z,4.8nm,0.5s,mb4.7						
AKTK	Aktyubinsk	40.39	319	P	P	02 52 25.2	+0.7
AKTO	Aktyubinsk	40.39	319	P	P	02 52 25.2	+0.6
	comp=Z,2.2nm,0.6s,mb4.1,baz=112,slow=7.0,SNR=13						
GUMO	Guam	43.95	97	LR	LR	03 09 21.7	
	comp=Z,144nm,18.2s,MS3.9,baz=103,slow=34						
RDF	Al-Radifah	46.22	286	eP	P	02 53 12.6	+0.6
RDF				AMb	AMB	02 53 14.1	
	comp=Z,13nm,1.2s,mb4.7						
MIB	Mutribah	46.27	288	eP	P	02 53 11.2	-1.2
MIB				AMb	AMB	02 53 20.3	
	comp=Z,12nm,0.7s,mb5.0						
NAY	Al-Naaiem	46.43	287	eP	P	02 53 13.9	+0.2
NAY				AMb	AMB	02 53 16.3	
	comp=Z,9.8nm,1.0s,mb4.7						
PETK	Petropavlovsk-	50.76	41	LR	LR	03 15 01.4	
	comp=Z,145nm,18.8s,MS4.0,baz=78,slow=36						
ASF	Jabal al Asfar	54.74	292	LR	LR	03 19 17.4	
	comp=Z,75nm,19.8s,MS3.8,baz=96,slow=38						
MMAI	Mount Meron Ar	55.83	294	LR	LR	03 20 49.2	
	comp=Z,75nm,18.9s,MS3.8,baz=140,slow=39						
BRTR	Keskin Array B	56.23	302	P	P	02 54 28.0	+0.9
	comp=Z,1.1nm,0.9s,mb3.9,baz=82,slow=12,SNR=3.2						
WRA	Warramunga Arr	56.42	140	P	P	02 54 28.1	-0.4
	comp=Z,2.1nm,0.6s,mb4.3,baz=329,slow=7.7,SNR=13						
EIL	Elat	56.88	290	LR	LR	03 20 36.9	
	comp=Z,104nm,18.2s,MS4.0,baz=255,slow=38						
AKASG	Malin Array Be	58.43	315	P	P	02 54 42.1	-0.2
	comp=Z,0.6nm,0.4s,mb4.0,baz=81,slow=5.7,SNR=5.4						
AKASG				LR	LR	03 24 10.3	
	comp=Z,131nm,19.3s,MS4.1,baz=90,slow=40						
ASAR	Alice Springs	59.14	143	P	P	02 54 47.8	+0.2
	comp=Z,2.3nm,1.0s,mb4.2,baz=331,slow=6.3,SNR=10						
ARCES	ARCESS Array B	60.71	337	P	P	02 54 59.5	+1.7
	comp=Z,6.5nm,0.9s,mb4.8,baz=52,slow=7.9,SNR=5.3						
ARCES				LR	LR	03 23 28.8	
	comp=Z,148nm,18.2s,MS4.2,baz=18,slow=38						
MLR	Muntele Rosu	61.12	310	LR	LR	03 26 39.9	
	comp=Z,135nm,18.3s,MS4.1,baz=167,slow=41						
KMBO	Kilima Mbogo	65.92	256	LR	LR	03 23 22.3	
	comp=Z,110nm,18.4s,MS4.1,baz=87,slow=35						
VRAC	Vranov	66.68	315	LR	LR	03 26 38.0	
	comp=Z,115nm,18.8s,MS4.1,baz=78,slow=38						
NB2	NORSAR Subarra	67.21	328	P	P	02 55 40.1	-0.6
	comp=Z,2.8nm,0.8s,mb4.3,baz=79,slow=6.5						
NOA	NORSAR Array B	67.21	328	P	P	02 55 40.1	-0.6
	comp=Z,1.6nm,0.8s,mb4.1,baz=79,slow=6.4,SNR=3.9						
NOA				LR	LR	03 26 55.8	
	comp=Z,159nm,18.0s,MS4.3,baz=190,slow=38						
HNR	Honiara	68.12	113	LR	LR	03 24 11.3	
	comp=Z,92nm,19.2s,MS4.0,baz=86,slow=35						
GERES	GERESS Array B	68.64	315	P	P	02 55 50.7	+0.8
	comp=Z,0.5nm,0.5s,mb3.7,baz=63,slow=6.1,SNR=4.5						
GERES				LR	LR	03 27 03.9	
	comp=Z,180nm,19.5s,MS4.3,baz=287,slow=37						
STKA	Stephens Creek	69.77	143	P	P	02 55 56.9	-0.1
	comp=Z,1.8nm,0.6s,mb4.2,baz=312,slow=8.6,SNR=6.0						
STKA	Stephens Creek	69.77	143	P	P	02 55 56.9	-0.1
KDAK	Kodiak Island	77.46	32	LR	LR	03 32 15.5	
	comp=Z,216nm,19.6s,MS4.5,baz=316,slow=37						
YKA	Yellowknife Ar	87.96	15	P	P	02 57 35.5	-0.9
	comp=Z,0.4nm,0.8s,mb3.7,baz=325,slow=4.4,SNR=5.2						
YKA				LR	LR	03 40 35.9	
	comp=Z,117nm,21.0s,MS4.3,baz=190,slow=38						
YKA	Yellowknife Ar	87.96	15	P	P	02 57 35.5	-0.9
BOSA	Boshof	89.62	238	LR	LR	03 35 19.0	
	comp=Z,97nm,19.4s,MS4.2,baz=149,slow=34						
TORD	Torodi Ar. Bea	91.50	285	P	P	02 57 52.9	-1.1
	comp=Z,0.4nm,0.8s,mb3.8,baz=62,slow=3.9,SNR=2.3						
TXAR	Lajitas Array	120.87	24	PKP	PKPdf	03 03 40.1	+0.5
	comp=Z,0.2nm,0.6s,baz=132,slow=1.9,SNR=3.8						
SDV	Santo Domingo	144.41	344	ePKPdf	PKPdf	03 04 22.2	-1.8

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*IDC **18** 02:49:24.6±5.9, 16˚.51N×100˚.55W, h0^{km}, mb3.3/3, mb1 3.6/5, mb1mx3.5/20, mbtmp3.1/5, ML2.6/2, Error ellipse: s-maj=110.7km s-min=24.0km az=12.0*

*ISCJB **18** 02:49:28.5±0.9, 16˚.64N±0˚.04×100˚.41W±0˚.03, h31^{km}±4^{km}, mb3.2/3, Error ellipse: s-maj=7.3km s-min=4.9km az=27.9*

*NEIC **18** 02:49:28.9, 16˚.61N×100˚.53W, h20^{km}, MD4.1(MEX), After MEX.*

*MEX **18** 02:49:28.9±1.0, 16˚.61N×100˚.54W, h20^{km}±23^{km}, MD4.2*

ISC 18 02:49:29.7±0.9**, 16˚.66N**±0˚.04×**100˚.37W**±0˚.04**, h24^{km}**±6^{km}**, n28, σ1^{s}.14**/51**, mb3.2**/3**, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.40	15	iP	Pb	02 49 36.6	-1.6
CAIG				iS	Sb	02 49 43.5	-0.4
ACX	Acapulco	0.48	65	iP	Pb	02 49 39.4	-0.2
ACX				iS	Sb	02 49 48.3	+2.0
MEIG	Mezcala	1.45	30	eP	Pn	02 49 53.2	-1.2
MEIG				iS	Sn	02 50 11.5	-1.2
PLIG	Platanillo	1.91	26	iP	Pn	02 50 00.1	-0.7
PLIG				iS	Sn	02 50 23.4	-0.7
PNIG	Pinotepa	2.17	97	iP	Pn	02 50 04.2	-0.2
PNIG				iS	Sn	02 50 29.5	-1.0
PNIG	Pinotepa	2.17	97	iP	Pn	02 50 04.2	-0.2
PNIG				iS	Sn	02 50 26.6	-4.0
YAIG	Yautepec	2.52	29	eP	Pn	02 50 09.1	0.0
YAIG				iS	Sn	02 50 38.8	-0.2
UTMO	Huajuapan	2.71	64	iP	Pn	02 50 11.4	-0.5
UTMO				iS	Sn	02 50 43.5	-0.5
MZVM		2.74	23	iP	Pn	02 50 11.3	-0.9
MZVM				iS	Sn	02 50 42.9	-1.6
SZVM	Salazar	2.81	19	eP	Pn	02 50 12.2	-0.9
SZVM				iS	Sn	02 50 47.1	+0.8
PPM	Popocatepetl	2.91	35	iP	Pn	02 50 15.2	+0.6
PPM				eP		02 50 17.0	
PPM				iS	Sn	02 50 48.9	+0.1
PPM				iS	Sn	02 50 54.5	+5.6
PPM	Popocatepetl	2.91	35	eP	Pn	02 50 17.0	+2.4
PPM				iS	Sn	02 50 54.5	+5.6
PBVM	Pinon	3.02	24	eP	Pn	02 50 15.9	-0.2
PBVM				iS	Sn	02 50 52.7	+1.1
MOIG	Morelia	3.10	346	eP	Pn	02 50 20.0	+2.8
MOIG				iS	Sn	02 50 56.8	+3.3
PTVM	Pico Tres Padr	3.15	22	eP	Pn	02 50 18.2	+0.3
PTVM				iS	Sn	02 50 56.1	+1.3
IIO	Organos	3.31	28	eP	Pn	02 50 19.9	-0.2
IIO				iS	Sn	02 50 58.9	+0.2
TPIG	Tehuac#an	3.36	58	eP	Pn	02 50 23.0	+2.3
TPIG				iS	Sn	02 50 59.1	-0.8
VHO	Vista Hermosa	3.51	83	iP	Pn	02 50 22.8	0.0
VHO				iS	Sn	02 51 05.1	+1.6
OXX	Oaxaca	3.52	83	eP	Pn	02 50 24.0	+1.1
OXX				iS	Sn	02 51 07.1	+3.3
HUIG	Huatulco	4.19	102	iP	Pn	02 50 31.7	-0.5
HUIG				iS	Sn	02 51 19.1	-1.4
R15V		4.25	306	iP	Pn	02 50 29.0	-4.0
R15V				iS	Sn	02 51 22.8	+1.0
SFJM	Santa Fe	4.57	327	eP	Pn	02 50 37.0	-0.3
SFJM				iS	Sn	02 51 28.4	-1.3
CMIG	Matias Romero	5.27	85	Pn	Pn	02 50 47.1	0.0
	0.1nm,0.3s,baz=274,slow=16,SNR=3.1						
CMIG				Lg		02 52 19.2	
	0.2nm,0.3s,baz=354,slow=22,SNR=6.4						
TXAR	Lajitas Array	12.97	347	Pn	Pn	02 52 34.1	+1.5
	0.0nm,0.3s,baz=156,slow=18,SNR=2.6						
NVAR	Mina Array Bea	26.79	328	P	P	02 55 08.4	+0.5
	0.6nm,0.8s,mb3.2,baz=141,slow=10,SNR=5.0						
PDAR	Pinedale Array	27.18	345	P	P	02 55 11.9	+0.5
	0.4nm,0.9s,mb3.0,baz=139,slow=8.4,SNR=3.3						
YKA	Yellowknife Ar	46.86	351	P	P	02 57 55.2	-2.4
	0.4nm,0.9s,mb3.4,baz=164,slow=7.4,SNR=6.7						
YKA	Yellowknife Ar	46.86	351	P	P	02 57 55.2	-2.4

IDC 18 02:51:37.1±54.0**, 14˚.26S**×**169˚.61E, h0^{km}, mb4.4**/3**, mb1 4.6**/3**, mb1mx3.9**/17**, mbtmp4.4**/3**, Error ellipse: s-maj=916.5km s-min=109.0km az=66.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	31.03	231	P	P	02 57 56.1	-0.5
	2.2nm,0.3s,baz=62,slow=9.0,SNR=19						
WRA	Warramunga Arr	34.13	255	P	P	02 58 24.7	+0.7
	1.1nm,0.3s,baz=86,slow=8.7,SNR=25						
ASAR	Alice Springs	34.95	249	P	P	02 58 30.9	-0.2
	2.8nm,0.4s,baz=75,slow=9.7,SNR=45						

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*ISCJB **18** 03:01:04.6±0.7, 38˚.06N±0˚.04×43˚.05E±0˚.05, h10^{km}, Error ellipse: s-maj=7.1km s-min=4.1km az=142.5*

*ISK **18** 03:01:05.6, 38˚.07N×43˚.60E, h6^{km}, MD3.0*

*DDA **18** 03:01:05.6, 38˚.16N×42˚.98E, h6^{km}±3^{km}, Md3.1*

*CSEM **18** 03:01:06.1±0.4, 38˚.02N×43˚.27E, h2^{km}, MD3.0, Error ellipse: s-maj=13.1km s-min=7.1km az=98.0*

ISC 18 03:01:05.2±0.7**, 38˚.05N**±0˚.04×**43˚.07E**±0˚.05**, h10^{km}, n20, σ1^{s}.17**/29**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VANT	Van	0.47	33	PG	Pg	03 01 14.5	+0.2
VANT				SG	Sg	03 01 21.2	+0.7
TVAN	Van	0.54	29	eP	Pg	03 01 16.2	+0.4
TVAN				eS	Sg	03 01 22.7	-0.3
TVAN	Van	0.54	29	eP	Pg	03 01 16.2	+0.4
TVAN				eS	Sg	03 01 22.7	-0.3
VANB	Van	0.60	25	ePG	Pg	03 01 16.0	-0.8
VANB				eSG	Sg	03 01 25.5	+0.9
VANB	Van	0.60	25	ePg	Pg	03 01 16.0	-0.8
VANB				eSg	Sg	03 01 25.5	+0.9
HAKT	HAKKARI	0.71	134	eP	Px	03 01 37.9	
HAKT				eS	Sx	03 01 49.1	
HAKT	HAKKARI	0.71	134	eP	Px	03 01 37.9	
HAKT				eS	Sx	03 01 49.2	
TATV	Tatvan	0.78	306	eP	Pg	03 01 18.8	-1.4
TATV				eS	Sg	03 01 29.8	-0.5
TATV	Tatvan	0.78	306	eP	Pg	03 01 18.8	-1.4
TATV				eS	Sg	03 01 29.8	-0.5
CUKT	Cukurca	0.91	152	ePG	Pg	03 01 22.2	-0.6
CUKT	Cukurca	0.91	152	ePg	Pg	03 01 22.2	-0.6
CLDR	Caldiran	1.27	31	ePN	Pn	03 01 27.1	-2.0
CLDR	Caldiran	1.27	31	ePn	Pn	03 01 27.1	-2.0
BEST	Besiri	1.43	264	⇓iP	Pn	03 01 31.6	+0.4
BEST				iS	Sn	03 01 51.8	+1.8
AGRB	Hanur-Agry	1.52	358	ePN	Pn	03 01 34.8	+2.3
AGRB	Hanur-Agry	1.52	358	ePn	Pn	03 01 34.8	+2.4
MARD	Mardin	1.96	249	eP	Pn	03 01 38.5	0.0
MARD				eS	Sn	03 02 05.0	+1.9
EZM	Erzurum	2.28	325	ePN	Pg	03 01 48.6	-0.3
DIYA	Diyarbakir	2.33	268	eP	Pg	03 01 48.0	-1.9
DIYA				eS	Sg	03 02 16.2	-3.9
DIYA	Diyarbakir	2.33	268	eP	Pg	03 01 48.0	-1.9
DIYA				eS	Sg	03 02 16.2	-3.9

IDC 18 03:06:48.0±2.3**, 13˚.89S**×**167˚.43E, h0^{km}, mb4.3**/3**, mb1 4.5**/3**, mb1mx3.8**/17**, mbtmp4.3**/3**, Error ellipse: s-maj=107.1km s-min=34.6km az=138.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	29.66	229	P	P	03 12 55.8	+0.3
	3.6nm,0.5s,baz=50,slow=8.3,SNR=21						
WRA	Warramunga Arr	32.19	255	P	P	03 13 17.9	0.0
	1.1nm,0.4s,baz=86,slow=9.5,SNR=45						
ASAR	Alice Springs	33.12	248	P	P	03 13 25.9	-0.2
	1.6nm,0.3s,baz=79,slow=9.3,SNR=60						
ARCES	ARCESS Array B	119.48	346	PKP	PKPdf	03 25 38.2	-0.8
	3.6nm,0.8s,baz=78,slow=1.8,SNR=8.2						
KEST	Kesra	150.66	322	PKPbc	PKPbc	03 26 42.9	+0.4
	0.8nm,0.8s,baz=90,slow=4.0,SNR=8.3						

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*IDC **18** 03:07:48.0±0.6, 0˚.08N×97˚.81E, h0^{km}, mb4.7/25, mb1 4.7/27, mb1mx4.6/33, mbtmp4.6/27, ML4.2/2, MS3.8/10, Ms1 3.8/10, ms1mx3.5/38, Error ellipse: s-maj=21.9km s-min=12.1km az=48.0*

*DJA **18** 03:07:49, 0˚.20S×97˚.47E, h30^{km}, MLv5.0/5*

*MOS **18** 03:07:51.7±0.9, 0˚.17N×97˚.91E, h33^{km}, mb5.1/31, Error ellipse: s-maj=12.7km s-min=5.9km az=109.7*

*BJI **18** 03:07:51.5, 0˚.18N×98˚.08E, h29^{km}, mB5.1/16, mb5.0/33, Ms4.5/14, Ms7 4.3/14*

*NEIC **18** 03:07:53.3±0.2, 0˚.09N×97˚.88E, h35^{km}, mb4.8/23, Error ellipse: s-maj=7.7km s-min=5.6km az=222.0*

*ISCJB **18** 03:07:53.0±1.0, 0˚.16N±0˚.05×97˚.90E±0˚.05, h46^{km}±8^{km}, mb4.8/83, MS4.0/15, Error ellipse: s-maj=10.9km s-min=5.6km az=135.2*

ISC 18 03:07:54.4±0.9**, 0˚.11N**±0˚.05×**97˚.86E**±0˚.05**, h42^{km}**±7^{km}**, h27^{km}**±2.5^{km}**:pP-P, n184, σ0^{s}.87**/176**, mb4.8**/83**, MS4.0**/15**, 6C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSI	Gunungsitoli	1.22	346	P	Pn	03 08 13.1	-1.9
GSI				S	Sn	03 08 35.9	+5.6
PPI	Padang Panjang	2.59	103	P	Pn	03 08 33.9	0.0
PDSI	Padang	2.79	111	P	Pn	03 08 36.4	-0.1
PSI	Prapat	2.87	22	Pn	Pn	03 08 35.6	-2.1
	12nm,0.3s,baz=197,slow=7.1,SNR=80						
PSI				LR	LR	03 09 17.4	
	comp=Z,582nm,20.0s,baz=198,slow=32						
FRIM	Kepong	4.88	50	P	Pn	03 09 05.9	+0.7
IPM	Ipoh	5.37	36	P	Pn	03 09 13.1	+1.1
KGM	Kluang	5.77	71	P	Pn	03 09 18.4	+0.9
KULM	Kulim	5.85	28	P	Pn	03 09 18.3	-0.3
KULM	Kulim	5.85	28	ePn	Pn	03 09 17.6	-1.0
	76nm,0.7s						
BSI	Banda Aceh	5.93	334	P	Pn	03 09 17.0	-2.7
	88nm,0.7s,0.6nm						
KSI	Kapahiang	6.03	128	P	Pn	03 09 21.4	+0.4
	378nm,0.9s,2.8nm						
MYKOM	Kota Tinggi	6.21	74	P	Pn	03 09 24.5	+0.9
MYKOM	Kota Tinggi	6.21	74	P	Pn	03 09 24.4	+0.8
KTGM	Kuala Trenggan	7.38	45	P	Pn	03 09 40.1	+0.4
KSM	Kuching	12.52	84	P	Pn	03 10 50.1	+0.1
SBUM	Sibu	14.54	81	P	Pn	03 11 19.0	+1.4

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CMAR  Chiang Mai Arr    18.26   3  P       Pn      03 12 02.5 -2.3
      0.6nm,0.3s,baz=194,slow=11,SNR=30
CMAR                               LR      LR      03 19 49.3
      comp=Z,341nm,18.3s,baz=310,slow=39
KKM   Kota Kinabalu     19.24  72  P       Pn      03 12 16.4 -0.2
KKM   Kota Kinabalu     19.24  72 eP       Pn      03 12 15.3 -1.3
      109nm,1.2s
SDKM  Sandakan          20.07  74  P       P       03 12 24.6 +0.2
VIS   Vishakhapatnam    22.60 322 ePKP     P       03 12 51.5 +0.1
VIS                                AMb     AMB     03 12 53.9
      comp=Z,27nm,0.7s,mb4.8
SHL   Shillong          25.96 348 i P      P       03 13 21.5 -1.5
BOK   Bokaro            26.26 335 ePKP     P       03 13 26.5 +0.7
BOK                                AMb     AMB     03 13 28.4
      comp=Z,38nm,0.6s,mb5.1
ODAN  Odare             28.44 340 eP       P       03 13 45.9 +0.6
TAPN  Taplejung         28.79 341 eP       P       03 13 49.1 +0.7
KAD   Karad             28.91 307 ePKP     P       03 13 50.8 +1.2
KAD                                AMb     AMB     03 14 04.8
      comp=Z,17nm,0.8s,mb4.8
JIRN  Jiri              29.59 339 eP       P       03 13 56.2 +0.6
      comp=Z,21nm,0.7s,mb5.0
PKI   Pulchoki          29.81 337 eP       P       03 13 57.6 +0.1
POO   Poona             29.86 309 ePKP     P       03 13 57.1 -0.9
POO                                AMb     AMB     03 14 00.0
      comp=Z,19nm,1.5s,mb4.6
GUN   Gumba             29.94 338 eP       P       03 13 59.4 +0.8
      comp=Z,34nm,0.6s,mb5.2
DMN   Daman             29.96 337 eP       P       03 13 59.6 +0.8
KKN   Kakani            30.05 337 eP       P       03 14 00.0 +0.4
LSA   Lhasa             30.11 348  P       P       03 14 01.8 +1.7
LSA   Lhasa             30.11 348 eP       P       03 14 01.4 +1.3
LSA                                pmax    pmax
      comp=Z,9.0nm,0.4s,mb4.8
LSA   Lhasa             30.11 348 eP       P       03 14 01.4 +1.3
      comp=Z,8.9nm,0.4s,mb4.8
GKN   Gorkha            30.50 337 eP       P       03 14 04.0 +0.5
KOLN  Koldanda          30.72 335 eP       P       03 14 06.1 +0.6
      comp=Z,26nm,0.7s,mb5.2
CD2   Chengdu           31.14  10  P       P       03 14 08.4 -0.8
CD2                                pmax    pmax
      comp=Z,11nm,0.9s,mb4.7
DANN  Dangsing          31.16 335 eP       P       03 14 09.3 -0.1
FITZ  Fitzroy Crossi    32.76 125  P       P       03 14 22.4 -1.2
      comp=Z,8.3nm,0.9s,mb4.7,baz=300,slow=2.1,SNR=6.2
AJM   Ajmer             34.46 321 ePKP     P       03 14 38.4 +0.1
AJM                                AMb     AMB     03 14 40.8
      comp=Z,15nm,1.3s,mb4.8
XAN   Xi'an             35.31  16  P       P       03 14 44.8 -0.7
XAN                                pP      pP      03 14 51.8 -5.2
XAN                                pmax    pmax
      comp=Z,66nm,0.9s,mb5.6
XAN                                pmax    pmax
      comp=Z,81nm,4.9s
XAN                                LR      LR
      comp=E,290nm,15.6s
XAN                                LR      LR
      comp=Z,780nm,15.6s,MS4.6
LZH   Lanzhou           36.22   8 ⇑P       P       03 14 53.5 +0.2
LZH                                pmax    pmax
      comp=Z,32nm,1.0s,mb5.2
LZH                                pmax    pmax
      comp=Z,180nm,4.0s
LZH                                LR      LR
      comp=E,390nm,14.2s
LZH                                LR      LR
      comp=Z,360nm,16.9s,MS4.2
GTA   Gaotai            39.15   2 ⇑P       P       03 15 18.3 +0.3
GTA                                PcP     PcP     03 17 28.0 +1.0
GTA                                S       S       03 21 09.6 -5.5
GTA                                sS      sS      03 21 35.3 +0.9
GTA                                pmax    pmax
      comp=Z,16nm,1.0s,mb4.7
GTA                                pmax    pmax
      comp=Z,88nm,6.5s
GTA                                LR      LR
      comp=N,210nm,14.3s,MS4.2
GTA                                LR      LR
      comp=E,140nm,13.7s,MS4.2
GTA                                LR      LR
      comp=Z,210nm,16.1s,MS4.1
WRA   Warramunga Arr    40.90 121  P       P       03 15 32.2 -0.6
      comp=Z,10nm,0.6s,mb4.6,baz=301,slow=9.0,SNR=53
WRA                                LR      LR      03 32 30.9
      comp=Z,141nm,20.1s,MS3.8,baz=275,slow=36
WRAB  Tennant Creek     40.91 121 eP       P       03 15 32.4 -0.5
WRAB                               pmax    pmax
      comp=Z,10.0nm,0.6s,mb4.6
WRAB  Tennant Creek     40.91 121 eP       P       03 15 32.4 -0.5
      comp=Z,9.6nm,0.6s,mb4.6
WB2   Warramunga Arr    40.91 121 eP       P       03 15 32.4 -0.5
ASAR  Alice Springs     42.22 127  P       P       03 15 43.2 -0.3
      comp=Z,10nm,0.9s,mb4.5,baz=302,slow=7.6,SNR=45
ASAR                               PcP     PcP     03 17 37.9 +0.7
      comp=Z,1.3nm,0.6s,baz=289,slow=3.4,SNR=5.4
BJT   Baijiatuau        43.08  21 eP       P       03 15 51.5 +1.2
BJT                                pmax    pmax
      comp=Z,47nm,0.8s
BJT   Baijiatuau        43.08  21 eP       P       03 15 51.5 +1.1
      comp=Z,47nm,0.8s,mb5.3
WMQ   Urumqi            44.46 349⇑iP       P       03 16 02.4 +1.1
WMQ                                pP      pP      03 16 11.0 -2.1
WMQ                                sP      sP      03 16 13.0 -5.0
WMQ                                pmax    pmax
      comp=Z,34nm,1.0s,mb5.0
WMQ                                pmax    pmax
      comp=Z,160nm,5.7s
WMQ                                LR      LR
      comp=N,120nm,21.2s,MS4.0
WMQ                                LR      LR
      comp=E,160nm,20.6s,MS4.0
WMQ                                LR      LR
      comp=Z,250nm,24.8s,MS4.0
ULHL  Ulahol            46.25 338  P       P       03 16 16.4 +0.9
      SNR=6.6
KS15  Wonju Array Si    46.34  33 eP       P       03 16 16.4  0.0
KSRS  Korea Array       46.37  33  P       P       03 16 16.1 -0.6
      comp=Z,20nm,0.9s,mb5.1,baz=221,slow=8.9,SNR=64
KSRS                               LR      LR      03 37 16.3
      comp=Z,136nm,19.1s,MS3.9,baz=10,slow=38
KZA   Kyzart            46.49 337  P       P       03 16 18.8 +1.4
      SNR=5.1
UCH   Uchtor            46.91 336  P       P       03 16 22.1 +1.4
      SNR=26
UCH   Uchtor            46.91 336 eP       P       03 16 21.0 +0.3
      comp=Z,14nm,0.8s,mb5.0
TKM2  Tokmak 2          47.07 338 eP       P       03 16 23.2 +1.2
TKM2                               pmax    pmax
      comp=Z,41nm,1.3s,mb5.2
TKM2  Tokmak 2          47.07 338  P       P       03 16 22.9 +1.0
      SNR=12
TKM2  Tokmak 2          47.07 338 eP       P       03 16 23.2 +1.3
      comp=Z,41nm,1.3s,mb5.2
KBK   Karagaybulak      47.09 337  P       P       03 16 23.6 +1.5
      SNR=14
AML   Almayashu         47.16 335  P       P       03 16 23.9 +1.2
      SNR=26
AAK   Ala-Archa         47.26 337 eP       P       03 16 24.3 +0.9
AAK                               e                03 17 55.6
AAK   Ala-Archa         47.26 337  P       P       03 16 24.8 +1.3
      comp=Z,2.7nm,0.6s,mb4.3,baz=153,slow=6.5,SNR=12
AAK                                PcP     PcP     03 17 55.4 +1.2
      comp=Z,2.3nm,0.6s,baz=134,slow=5.3,SNR=4.3
AAK                                LR      LR      03 41 44.9
      comp=Z,76nm,18.3s,MS3.7,baz=352,slow=43
AAK   Ala-Archa         47.26 337 eP       P       03 16 24.3 +0.9
AAK                               ePcP     PcP     03 17 55.6 +1.5
AAK                                LR      LR      03 41 44.9
EKS2  Erkin-Say         47.57 336  P       P       03 16 27.2 +1.3
      SNR=12
EKS2  Erkin-Say         47.57 336 eP       P       03 16 25.9 +0.1
      comp=Z,8.5nm,0.7s,mb4.9
USP   Ospenovka         47.79 337  P       P       03 16 28.3 +0.8
      SNR=34
SONM  Songino Array     48.11   8  P       P       03 16 30.6 +0.7
      comp=Z,5.5nm,0.4s,mb4.9,baz=192,slow=9.5,SNR=70
SONM                               PcP     PcP     03 17 57.7 +0.6
      comp=Z,2.7nm,0.7s,baz=184,slow=3.8,SNR=4.3
ULN   Ulaanbaatar       48.23   8 eP       P       03 16 31.3 +0.4
ULN                                pmax    pmax
      comp=Z,13nm,1.1s,mb4.9
ULN   Ulaanbaatar       48.23   8 eP       P       03 16 31.2 +0.4
      comp=Z,13nm,1.1s,mb4.9
MK31  Makanchi Array    48.45 346 eP       P       03 16 33.1 +0.5
MKAR  Makanchi Array    48.45 346  P       P       03 16 33.0 +0.4
      comp=Z,34nm,0.6s,mb5.5,baz=159,slow=7.3,SNR=290
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MKAR                               LR      LR      03 38 54.3
      comp=Z,82nm,20.7s,MS3.7,baz=166,slow=38
MKAR  Makanchi Array    48.45 346  P       P       03 16 33.0 +0.4
MKAR                               LR      LR      03 38 54.3
BBOO  Buckleboo         48.64 136 eP       P       03 16 33.1 -1.2
      comp=Z,5.8nm,1.0s,mb4.6
KK31  Karatay Array     49.32 334 i P      P       03 16 39.0 -0.3
KK31                               pmax    pmax
      comp=Z,7.0nm,0.7s,mb4.8
CN2   Changchun         49.98  26 ⇑P       P       03 16 43.6 -0.7
CN2                                pmax    pmax
      comp=Z,20nm,0.6s,mb5.3
CN2                                LR      LR
      comp=N,500nm,20.0s,MS4.7
CN2                                LR      LR
      comp=E,500nm,20.0s,MS4.7
CN2                                LR      LR
      comp=Z,300nm,20.0s,MS4.3
ZAK   Zakamensk         50.30   5 eP       P       03 16 46.9 +0.3
ZAK                               e                03 18 03.6
ZAK                                pmax    pmax
      comp=Z,4.0nm,1.1s,mb4.4
TLY   Talaya            51.61   5 eP       P       03 16 57.4 +0.9
TLY                                pmax    pmax
      comp=Z,5.0nm,0.8s,mb4.5
TLY                                MLR     MLR
      comp=Z,242nm,16.0s,MS4.3
QLP   Quilpie           51.90 125 eP       P       03 16 59.1  0.0
MJAR  Matsushiro Arr    52.05  41  P       P       03 16 58.6 -1.4
      comp=Z,2.1nm,0.8s,mb4.1,baz=238,slow=6.2,SNR=4.6
STKA  Stephens Creek    52.14 132 eP       P       03 17 01.5 +0.7
      comp=Z,11nm,0.9s,mb4.8
STKA  Stephens Creek    52.14 132  P       P       03 17 01.7 +0.9
      comp=Z,3.4nm,0.5s,mb4.6,baz=317,slow=8.3,SNR=17
STKA                               LR      LR      03 37 57.0
      comp=Z,190nm,21.7s,MS4.1,baz=331,slow=35
KURK  Kurchatov         53.01 345 eP       P       03 17 07.0 +0.1
KURK                               pmax    pmax
      comp=Z,26nm,1.0s,mb5.1
KURK  Kurchatov         53.01 345  P       P       03 17 06.7 -0.2
      comp=Z,12nm,0.7s,mb5.0,baz=272,slow=30,SNR=73
KURK                               LR      LR      03 45 31.4
      comp=Z,90nm,19.0s,MS3.8,baz=145,slow=43
KURK  Kurchatov         53.01 345 eP       P       03 17 07.0 +0.1
      comp=Z,26nm,1.0s,mb5.1
KURK                               LR      LR      03 45 31.4
ZAA0  Zalesovo Array    54.73 351 eP       P       03 17 19.4 +0.1
ZALV  Zalesovo Beam     54.73 351  P       P       03 17 19.6 +0.2
      comp=Z,24nm,0.5s,mb5.5,baz=179,slow=6.8,SNR=105
ZALV                               LR      LR      03 44 17.0
      comp=Z,44nm,18.7s,MS3.6,baz=265,slow=40
CMSA  Cobar Meteorol    55.09 129 eP       P       03 17 23.7 +1.2
NVS   Novosibirsk       55.86 350⇑iP       P       03 17 27.1 -0.4
NVS                                pmax    pmax
      comp=N,17nm,1.3s
NVS                                pmax    pmax
      comp=Z,24nm,1.3s,mb5.1
NVS                                pmax    pmax
      comp=E,13nm,1.4s
RDF   Al-Radifah        55.90 305 eP       P       03 17 28.0 -0.3
RDF                                AMb     AMB     03 17 29.3
      comp=Z,52nm,1.2s,mb5.4
NAY   Al-Naaiem         56.26 306 eP       P       03 17 30.4 -0.6
NAY                                AMb     AMB     03 17 31.4
      comp=Z,17nm,0.8s,mb5.1
MIB   Mutribah          56.39 306 eP       P       03 17 30.9 -0.9
MIB                                AMb     AMB     03 17 33.0
      comp=Z,44nm,0.9s,mb5.5
KLR   Kul'dur           56.93  26 eP       P       03 17 31.8 -3.4
KLR                                pmax    pmax
      comp=Z,34nm,1.2s,mb5.2
EIDS  Eidsvold          57.26 121 eP       P       03 17 38.7 +0.7
BVAR  Borovoye Array    57.49 341  P       P       03 17 38.4 -0.7
      comp=Z,6.6nm,0.6s,mb4.8,baz=146,slow=9.0,SNR=54
BRVK  Borovoye          57.55 341 eP       P       03 17 38.8 -0.7
BRVK                               pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.6
BRVK  Borovoye          57.55 341 eP       P       03 17 38.8 -0.7
      comp=Z,3.8nm,0.6s,mb4.6
YNG   Young             58.32 131 eP       pP      03 17 54.5 -3.0
      comp=Z,7.4nm,0.9s
AB31  Akbulak array     58.78 332  P       P       03 17 46.7 -1.5
AB31                               pmax    pmax
      comp=Z,8.0nm,0.7s,mb4.9
BOD   Bodaibo           58.95  10 eP       P       03 17 49.5 +0.2
BOD                                pmax    pmax
      comp=Z,14nm,0.9s,mb5.0
AKTK  Aktyubinsk        60.50 332  P       P       03 17 58.5 -1.5
AKTO  Aktyubinsk        60.50 332  P       P       03 17 58.5 -1.5
      comp=Z,1.3nm,0.5s,mb4.2,baz=141,slow=7.1,SNR=9.2
YSS   Yuzh-Sakhalins    60.87  34 eP       P       03 18 02.2 -0.5
YSS                               e        pP      03 18 11.0 -3.9
YSS                                pmax    pmax
      comp=Z,120nm,1.1s,mb5.9
KIV   Kislovodsk        65.56 319 eP       P       03 18 34.1 +0.3
KIV                                pmax    pmax
      comp=Z,12nm,1.0s,mb4.9
KIV                                MLR     MLR
      comp=Z,48nm,19.0s,MS3.7
ASF   Jabal al Asfar    65.63 306  P       P       03 18 34.9 +0.4
      comp=Z,3.3nm,0.9s,mb4.3,baz=159,slow=15,SNR=3.2
YAK   Yakutsk           66.28  16 eP       P       03 18 35.3 -2.7
YAK                                pmax    pmax
      comp=Z,19nm,0.8s,mb5.2
EIL   Elat              66.59 302  P       P       03 18 41.1 +0.4
      comp=Z,4.7nm,0.7s,mb4.6,baz=190,slow=3.3,SNR=4.9
ANN   Anapa             69.35 319 eP       P       03 18 56.9 -0.8
ANN                               eS       S       03 27 59.0 -2.6
ANN                                pmax    pmax
      comp=Z,156nm,2.2s,mb5.5
BRTR  Keskin Array B    70.33 312  P       P       03 19 02.2 -1.7
      comp=Z,2.4nm,0.6s,mb4.3,baz=138,slow=7.5,SNR=9.7
PETK  Petropavlovsk-    72.27  33  P       P       03 19 14.9 -0.4
      comp=Z,5.7nm,0.8s,mb4.6,baz=182,slow=3.5,SNR=5.5
PET   Petropavlovsk     72.76  34 eP       P       03 19 17.5 -0.7
PET                                pmax    pmax
      comp=Z,29nm,0.8s,mb5.3
PRGR  Permogore         72.89 337 eP       P       03 19 17.1 -1.7
PRGR                               pmax    pmax
      comp=Z,13nm,0.5s,mb5.1
MOS   Moscow            73.60 329 eP       pP      03 19 37.7 +2.1
MOS                                pmax    pmax
      comp=Z,35nm,0.9s,mb5.3
OBN   Obninsk           73.89 328⇓eP       P       03 19 24.4 -0.4
OBN                               eS       S       03 28 54.4 +0.9
OBN                                pmax    pmax
      comp=Z,31nm,1.7s,mb5.0
KLMR  Klimovskoe        75.01 334 eP       P       03 19 29.1 -2.1
KLMR                               pmax    pmax
      comp=Z,12nm,1.3s,mb4.7
AKASG Malin Array Be    76.52 322  P       P       03 19 38.9 -1.2
      comp=Z,4.4nm,0.6s,mb4.5,baz=92,slow=5.0,SNR=16
KIEV  Kiev              76.53 322 eP       P       03 19 39.5 -0.6
KIEV                               pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.5
KIEV  Kiev              76.53 322 eP       P       03 19 39.5 -0.6
      comp=Z,4.3nm,0.7s,mb4.5
MLR   Muntele Rosu      77.31 317  P       P       03 19 44.8 +0.2
      comp=Z,3.5nm,0.5s,mb4.5,baz=193,slow=14,SNR=3.7
BUR08 Bucovina Ar. S    78.29 319 eP       P       03 19 50.6 +0.5
JOF   Joensuu           79.41 335 eP       P       03 19 54.8 -1.0
JOF                                pmax    pmax
      comp=Z,3.0nm,0.6s,mb4.4
JOF   Joensuu           79.41 335 ep       P       03 19 54.8 -1.0
      comp=Z,3.3nm,0.6s,mb4.4
KOLS  Kolonicke sedl    80.47 320 eP       P       03 20 02.9 +1.0
KOLS                               pmax    pmax
      comp=Z,10.0nm,1.0s,mb4.7
KOLS  Kolonicke sedl    80.47 320 eP       P       03 20 02.9 +1.0
      comp=Z,9.6nm,1.0s,mb4.7
CRVS  Cervenica-Dubn    80.99 320 eP       P       03 20 05.2 +0.5
CRVS                              ePCP     PcP     03 20 09.0 -2.0
STHS  Stebnicka Huta    81.22 320 eP       P       03 20 07.1 +1.2
STHS                               pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.6
STHS  Stebnicka Huta    81.22 320 eP       P       03 20 07.1 +1.2
      comp=Z,5.8nm,0.8s,mb4.6
KAF   Kangasniemi       81.35 333 eP       P       03 20 04.8 -1.5
KAF                                pmax    pmax
      comp=Z,7.0nm,0.6s,mb4.8
KAF   Kangasniemi       81.35 333 ep       P       03 20 04.8 -1.5
      comp=Z,6.6nm,0.6s,mb4.7
BILL  Bilibino          81.94  21⇓eP       P       03 20 08.9 -0.4
BILL                              e                03 23 12.7
BILL                              eS       S       03 30 23.0 +3.2
BILL                               pmax    pmax
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      comp=Z,3.0nm,1.0s,mb4.2
VYHS  Vyhne             82.64 319 eP       P       03 20 13.3 -0.1
VYHS                               pmax    pmax
      comp=Z,3.0nm,1.4s,mb4.1
VYHS  Vyhne             82.64 319 eP       P       03 20 13.3 -0.1
      comp=Z,3.3nm,1.4s,mb4.2
ZST   Bratislava        83.75 318 eP       P       03 20 19.7 +0.6
ZST                                pmax    pmax
      comp=Z,5.0nm,0.7s,mb4.8
ZST   Bratislava        83.75 318 eP       P       03 20 19.7 +0.6
      comp=Z,5.1nm,0.7s,mb4.8
ARCES ARCESS Array B    83.78 340  P       P       03 20 19.1 +0.3
      comp=Z,6.4nm,0.8s,mb4.8,baz=77,slow=5.5,SNR=11
ARCES                              LR      LR      04 01 20.2
      comp=Z,125nm,18.7s,MS4.3,baz=11,slow=38
DPC   Dobruska-Polom    84.51 320 eP       P       03 20 23.7 +0.8
SOKA  Soboth            84.99 317⇑iP       P       03 20 25.5 +0.1
      comp=Z,6.5nm,1.2s,mb4.6
GEC2  GERESS Array S    86.06 319 eP       P       03 20 30.8 +0.1
GERES GERESS Array B    86.06 319  P       P       03 20 31.3 +0.5
      comp=Z,3.5nm,1.0s,mb4.5,baz=106,slow=4.7,SNR=13
WET   Wettzell          86.63 319 eP       P       03 20 33.6 +0.1
HFS   Hagfors           86.99 330  P       P       03 20 34.7 -0.3
      comp=Z,6.3nm,0.8s,mb4.9,baz=122,slow=5.4,SNR=6.3
GRA1  Grafenberg Arr    87.74 320 eP       P       03 20 39.1 +0.3
GRF   Grafenberg Arr    87.74 320 eP       P       03 20 39.1 +0.3
NB2   NORSAR Subarra    88.27 331  P       P       03 20 41.1  0.0
      comp=Z,1.2nm,0.7s,mb4.2,baz=97,slow=4.6
NOA   NORSAR Array B    88.27 331  P       P       03 20 41.1  0.0
      comp=Z,3.8nm,1.0s,mb4.6,baz=95,slow=4.9,SNR=4.5
DAVOX Davos/Dischmat    88.53 317  P       P       03 20 42.5 -0.2
      comp=Z,2.5nm,0.7s,mb4.7,baz=71,slow=8.1,SNR=4.8
DAVOS Davos             88.59 317  P       P       03 20 42.5 -0.5
KEST  Kesra             88.73 306  P       P       03 20 44.1 +0.2
      comp=Z,2.1nm,1.0s,mb4.4,baz=220,slow=6.7,SNR=3.8
CDF   Champ du Feu      90.31 318 eP       P       03 20 50.8 -0.2
      comp=Z,3.3nm,0.7s,mb4.5
CDF   Champ du Feu      90.31 318 eP       P       03 20 50.8 -0.2
CDF                                pmax    pmax
      comp=Z,2.0nm,0.7s,mb4.6
CDF   Champ du Feu      90.31 318 eP       P       03 20 50.8 -0.2
      comp=Z,1.6nm,0.7s,mb4.5
HINF  Hinteralfeld      90.60 318 eP       P       03 20 51.6 -0.7
LPG   La Plagne         90.70 315 eP       P       03 20 53.2 +0.3
      comp=Z,11nm,1.0s,mb4.8
LPG   La Plagne         90.70 315 eP       P       03 20 53.2 +0.3
LPG                                pmax    pmax
      comp=Z,5.0nm,1.0s,mb4.8
LPG   La Plagne         90.70 315 eP       P       03 20 53.2 +0.3
      comp=Z,5.4nm,1.0s,mb4.8
LPL   La Plagne         90.72 315 eP       P       03 20 53.3 +0.4
      comp=Z,21nm,1.1s,mb5.1
LPL   La Plagne         90.72 315 eP       P       03 20 53.3 +0.4
LPL                                pmax    pmax
      comp=Z,10.0nm,1.1s,mb5.1
LPL   La Plagne         90.72 315 eP       P       03 20 53.3 +0.4
      comp=Z,10nm,1.1s,mb5.1
HAU   Haudompre         90.94 318 eP       P       03 20 53.7 -0.2
      comp=Z,10nm,0.9s,mb4.8
HAU   Haudompre         90.94 318 eP       P       03 20 53.7 -0.2
HAU                                pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.8
HAU   Haudompre         90.94 318 eP       P       03 20 53.7 -0.2
      comp=Z,5.3nm,0.9s,mb4.9
CABF  La Chapelle       91.14 316 eP       P       03 20 55.2 +0.3
ORIF  Oris-en-Rattie    91.33 315 eP       P       03 20 56.3 +0.5
BAIF  Baives            92.27 320 eP       P       03 21 00.5 +0.5
      comp=Z,12nm,1.0s,mb4.9
BAIF  Baives            92.27 320 eP       P       03 21 00.5 +0.5
BAIF                               pmax    pmax
      comp=Z,6.0nm,1.0s,mb4.9
BAIF  Baives            92.27 320 eP       P       03 21 00.5 +0.5
      comp=Z,5.8nm,1.0s,mb4.9
LOR   Lormes            92.64 317 eP       P       03 21 01.9 +0.1
      comp=Z,5.5nm,0.8s,mb4.8
LOR   Lormes            92.64 317 eP       P       03 21 01.9 +0.1
LOR                                pmax    pmax
      comp=Z,3.0nm,0.8s,mb4.8
LOR   Lormes            92.64 317 eP       P       03 21 01.9 +0.1
      comp=Z,2.8nm,0.8s,mb4.7
SMF   Signal de Mont    92.69 317 eP       P       03 21 01.9 -0.2
SSF   Saint Saulge      92.90 317 eP       P       03 21 03.2 +0.2
      comp=Z,8.7nm,1.0s,mb4.8
SSF   Saint Saulge      92.90 317 eP       P       03 21 03.2 +0.2
SSF                                pmax    pmax
      comp=Z,4.0nm,1.0s,mb4.8
SSF   Saint Saulge      92.90 317 eP       P       03 21 03.2 +0.2
      comp=Z,4.3nm,1.0s,mb4.8
AVF   Avril sur Loir    93.02 317 eP       P       03 21 04.4 +0.8
NVAR  Mina Array Bea   129.26  37  PKP     PKPdf   03 26 59.9 +1.3
      comp=Z,0.8nm,0.8s,baz=284,slow=1.6,SNR=6.9
NVAR  Mina Array Bea   129.26  37  PKP     PKPdf   03 26 59.9 +1.3
PDAR  Pinedale Array   130.72  27  PKP     PKPdf   03 27 01.1 -0.1
      comp=Z,0.5nm,0.7s,baz=126,slow=1.4,SNR=4.5
MIAR  Mount Ida        143.90  16 ePKIKP   PKPdf   03 27 24.0 -1.8
TXAR  Lajitas Array    144.22  33  PKP     PKPdf   03 27 25.8 -0.7
      comp=Z,3.6nm,0.7s,baz=182,slow=0.7,SNR=61
TKL   Tuckaleechee C   144.38   2  PKP     PKPdf   03 27 24.3 -2.2
      comp=Z,4.0nm,0.6s,baz=195,slow=2.4,SNR=8.4
CPUP  Villa Florida    144.63 221  PKP     PKPdf   03 27 26.4 -0.9
      comp=Z,3.6nm,0.7s,baz=97,slow=2.9,SNR=14
JCT   Junction City    145.25  27 ePKIKP   PKPdf   03 27 28.7 +0.5
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ISCJB ***18*** *03:08:47.8±1.1, 36.°33N±0.°04×40.°86E±0.°04, h10^{km}±8^{km}, Error ellipse: s-maj=6.1km s-min=5.5km az=141.5*

DDA ***18*** *03:08:47.7, 36.°43N×40.°85E, h13^{km}±3^{km}, Md3.7, Ml3.6*

CSEM ***18*** *03:08:48.5±0.3, 36.°31N×40.°88E, h10^{km}, ML3.6, Error ellipse: s-maj=9.2km s-min=6.1km az=179.0*

ISC 18 03:08:47.9±1.1**, 36.°36N**±0.°04×**40.°87E**±0.°04**, h1**^{km}±7^{km}**,**
n49, σ1.^{s}03/55, 1C-9D, Jordan - Syria region

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Code  Station Name       Δ°  AZ°   Phase ID         Time     Res
                                  Op      ISC      h  m  s   ISC
SFNV  Sufian            0.62 276 ⇓P       Pg      03 09 00.3 +0.6
SFNV                             ⇓S       Sg      03 09 08.3 +0.6
KBSD  Kabsdagh          0.69 337 ⇓P       Px      03 09 15.1
KBSD                             ⇓S       Sx      03 09 34.3
MARD  Mardin            0.95 355⇓iP       Pg      03 09 04.9 -1.2
MARD                             i S      Sg      03 09 17.9 -0.7
BSHR  Al Beshri         1.10 231 ⇓P       Pg      03 09 15.2 +6.3
BSHR                             ⇓S       Sg      03 09 34.3  +11
MNKR  ALMNKUR           1.36 253 ⇑P       Px      03 08 59.9
MNKR                             ⇑S       Sx      03 09 08.8
BEST  Besiri            1.56  12⇓iP       Pn      03 09 15.7 -1.0
BEST                             i S      Sn      03 09 36.6 -0.9
DIY   Diyarbakir        1.62 342  PN      Pn      03 09 16.7 -0.8
DIY   Diyarbakir        1.62 342 i Pn     Pn      03 09 16.7 -0.8
DIYA  Diyarbakir        1.67 339⇓iP       Pn      03 09 17.6 -0.7
DIYA                             i S      Sn      03 09 39.8 -0.5
DIYA  Diyarbakir        1.67 339 i P      Pn      03 09 17.6 -0.6
DIYA                             i S      Sn      03 09 39.8 -0.5
MSL   Mosul             1.81  88 ex       x       03 09 25.0
MSL                              i x      x       03 09 49.0
MSL                              i x      x       03 09 53.0
URFA  Urfa              1.97 304  PN      Pn      03 09 22.8 +0.5
URFA  Urfa              1.97 304 i Pn     Pn      03 09 22.8 +0.5
JHLN  Al Jahlan         2.09 252 ⇑P       Pn      03 09 23.9 -0.1
JHLN                             ⇑S       Sn      03 09 48.2 -2.4
ATAB  Bozova            2.34 299 eP       Pn      03 09 26.0 -1.5
ATAB                             eS       Sn      03 10 00.0 +3.1
ATAB  Bozova            2.34 299 eP       Pn      03 09 26.0 -1.5
CUKT  Cukurca           2.37  67  PN      Pn      03 09 27.7 -0.1
CUKT  Cukurca           2.37  67 i Pn     Pn      03 09 27.7 -0.1
HAKT  HAKKARI           2.56  61⇑iP       Px      03 09 48.9
HAKT                             i S      Sx      03 10 22.7
MALT  Malatya           2.76 316 ePN      Pn      03 09 34.3 +1.1
MALT  Malatya           2.76 316 ePn      Pn      03 09 34.3 +1.1
MYA   Malataya          2.77 316 ePN      Pn      03 09 33.8 +0.5
MYA   Malataya          2.77 316 ePn      Pn      03 09 33.8 +0.5
VANB  Van               3.00  41 ePN      Pn      03 09 36.4  0.0
VANB  Van               3.00  41 ePn      Pn      03 09 36.4  0.0
GAZ   Gaziantep         3.05 286 ePN      Pn      03 09 37.7 +0.5
GAZ   Gaziantep         3.05 286 ePn      Pn      03 09 37.7 +0.5
KUZU  Kuzuini           3.09 279 eP       Pn      03 09 37.6 -0.1
KUZU                             eS       Sn      03 10 22.9 +7.7
KUZU  Kuzuini           3.09 279 eP       Pn      03 09 37.6 -0.1
KMRS  Kahramanmaras     3.38 291 ePN      Pn      03 09 40.4 -1.3
KMRS  Kahramanmaras     3.38 291 ePn      Pn      03 09 40.4 -1.4
EZC   Erzincan          3.48 346 ePN      Pn      03 09 45.9 +2.8
AGRB  Hanur-Agry        3.62  27 ePN      Pn      03 09 46.6 +1.6
AGRB  Hanur-Agry        3.62  27 ePn      Pn      03 09 46.6 +1.6
CLDR  Caldiran          3.68  40 ePN      Pn      03 09 46.7 +0.9
CLDR  Caldiran          3.68  40 ePn      Pn      03 09 46.7 +0.9
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WRDH	Warideh	3.72	258	⇑P	Pn	03 09 45.5	-0.9
WRDH				⇑S	Sn	03 10 26.4	-4.5
HTY	Hatay	3.84	268	*e*PN	Pn	03 09 48.3	+0.3
HTY	Hatay	3.84	268	*e*Pn	Pn	03 09 48.3	+0.3
SARI	SarD1z-Kayseri	4.05	306	*e*PN	Pn	03 09 51.4	+0.5
SARI	SarD1z-Kayseri	4.05	306	*e*Pn	Pn	03 09 51.4	+0.5
KOZT	Kozan	4.20	287	*e*PN	Pn	03 09 53.4	+0.4
KOZT	Kozan	4.20	287	*e*Pn	Pn	03 09 53.4	+0.5
BHD	Baghdad	4.22	136	*e*x	x	03 09 52.0	
BHD				*e*x	x	03 10 44.0	
BHD	Baghdad	4.22	136	*e*Pn	Pn	03 09 52.0	-1.3
BHD				*e*Sn	Sn	03 10 44.0	+0.8
GUMT	Gumushane	4.24	345	*e*PN	Pn	03 09 54.6	+1.1
GUMT	Gumushane	4.24	345	*e*Pn	Pn	03 09 54.6	+1.1
SVSK	Karacayir	4.68	320	*e*PN	Pn	03 10 00.4	+0.7
SVSK	Karacayir	4.68	320	*e*Pn	Pn	03 10 00.4	+0.8

ISCJB ***18*** *03:10:48.9±1.7, 6°.32S±0°.09×129°.4E±0°.1, h245km±17km, mb3.5/2, Error ellipse: s-maj=20.9km s-min=13.9km az=176.1*

NEIC ***18*** *03:10:49.8±3.4, 6°.28S×129°.28E, h238km±39km, mb4.4/3, Error ellipse: s-maj=32.6km s-min=25.0km az=201.0*

IDC ***18*** *03:10:54.2±4.9, 6°.52S×129°.17E, h286km±51km, mb3.2/2, mb1 3.2/5, mb1mx3.0/18, mbtmp3.1/5, Error ellipse: s-maj=63.5km s-min=18.5km az=70.0*

ISC 18 03:10:51.9±1.7**, 6°.50S**±0°.09×**129°.3E**±0°.1**, h263**km±18km**, n10, σ0ˢ.99**/14**, mb3.5**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.92	153	*e*Pn	Pn	03 12 31.5	-0.3
	23nm,0.3s						
KAKA				*e*S	S	03 13 48.1	-4.0
FITZ	Fitzroy Crossi	12.07	197	P	Pn	03 13 37.4	+1.3
	0.3nm,0.3s,baz=22,slow=11,SNR=9.9						
FITZ				S	S	03 15 49.8	-0.9
	0.4nm,0.3s,baz=108,slow=20,SNR=3.3						
FITZ	Fitzroy Crossi	12.07	197	*e*Pn	Pn	03 13 37.9	+1.8
FITZ				S	S	03 15 49.8	-0.9
WRA	Warramunga Arr	14.24	160	P	Pn	03 14 02.1	-0.6
	0.5nm,0.3s,baz=343,slow=12,SNR=15						
COEN	Coen	15.56	120	*e*P	Pn	03 14 18.4	+0.1
	7.8nm,0.4s						
ASAR	Alice Springs	17.64	166	P	P	03 14 42.1	+2.1
	0.5nm,0.3s,baz=344,slow=10,SNR=19						
ASAR				S	S	03 17 49.2	-0.2
	0.1nm,0.3s,baz=347,slow=22,SNR=5.2						
MKAR	Makanchi Array	67.41	327	P	P	03 21 18.9	-0.3
	0.6nm,0.6s,mb3.5,baz=112,slow=7.9,SNR=11						
MKAR	Makanchi Array	67.41	327	P	P	03 21 18.9	-0.3
KURK	Kurchatov	71.71	329	P	P	03 21 45.2	-0.1
	0.6nm,0.5s,mb3.5,baz=131,slow=5.3,SNR=3.1						
KURK	Kurchatov	71.71	329	*e*P	P	03 21 44.3	-1.1
	0.5nm,0.4s,mb3.5						

CASC 18 03:11:05.0±1.3**, 12°.75N**×**87°.92W, h91**km±9km**, MD3.7, ML2.7, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	Conchagua	0.53	9	*e*P	Pn	03 11 20.0	-0.1
CNCH				*e*S	Sn	03 11 32.2	+0.8
BLLM	Bellamira	0.76	335	*e*P	Pn	03 11 21.9	-0.3
BLLM				*e*S	Sn	03 11 36.4	+1.4
CRIN	San Cristobal	0.85	93	*e*P	Pn	03 11 23.6	+0.5
MIRN	Miramar	1.22	105	*e*P	Pn	03 11 27.2	-0.1
COPN	Copaltepe	1.41	114	*e*P	Pn	03 11 29.7	0.0
LFRS	El Faro	1.41	308	*e*P	Pn	03 11 29.6	-0.2
LFRS				*e*S	Sn	03 11 49.0	+0.6
TGUH	Tegucigalpa,Un	1.44	26	*e*P	Pn	03 11 30.5	+0.4
LBRS	Las Brisas	1.47	312	*e*P	Pn	03 11 32.1	+1.6
CSAN		1.56	111	*e*P	Pn	03 11 32.3	+0.7
CSAN				AML	AML	03 11 55.9	
	comp=Z,3μm,0.2s						
MGAN	Managua	1.74	110	AML	AML	03 11 58.3	
	comp=N,15nm,0.4s						
SBLS	San Blas	1.98	303	*e*P	Pn	03 11 37.8	+0.7
SBLS				*e*S	Sn	03 12 03.3	+1.8
BOAB	BOACO BROADBAN	2.22	98	*e*P	Pn	03 11 39.4	-0.7
BOAB				AML	AML	03 12 23.9	
	comp=E,5.4nm,0.5s						

IDC 18 03:21:28.3±7.3**, 3°.32N**×**96°.66E, h0**km**, mb3.5**/4**, mb1 3.4**/5**, mb1mx3.3**/23**, mbtmp3.4**/5**, Error ellipse: s-maj=187.2km s-min=31.3km az=37.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.31	103	Pn	Pn	03 22 08.2	+0.5
	1.3nm,0.3s,baz=305,slow=12,SNR=7.0						
PSI				Sn	Sn	03 22 32.0	-4.9
	1.4nm,0.3s,baz=172,slow=2.1,SNR=5.5						
MKAR	Makanchi Array	45.07	346	P	P	03 29 45.8	-0.3
	0.3nm,0.6s,baz=152,slow=9.7,SNR=5.5						
SONM	Songino Array	45.14	9	P	P	03 29 46.7	+0.2
	0.1nm,0.3s,baz=188,slow=8.6,SNR=2.5						
KURK	Kurchatov	49.62	345	P	P	03 30 21.3	-0.1
	0.1nm,0.3s,baz=160,slow=6.9,SNR=4.2						
ZALV	Zalesovo Beam	51.40	351	P	P	03 30 34.5	-0.3
	0.5nm,0.4s,baz=178,slow=11,SNR=3.9						

NEIC ***18*** *03:54:15.0, 37°.18N×20°.50E, h20km, ML3.6(ATH), After ATH.*

ATH ***18*** *03:54:15.0, 37°.18N×20°.50E, h20km±1km, MD3.8/10, ML3.6*

THE ***18*** *03:54:15.9, 37°.20N×20°.54E, h1km±10km, ML4.0/3, Error ellipse: s-maj=13.0km s-min=1.6km az=232.0*

CSEM ***18*** *03:54:16.3±0.3, 37°.21N×20°.43E, h20km, ML4.0/3, Error ellipse: s-maj=7.3km s-min=3.7km az=15.0*

ISC 18 03:54:15.8±0.9**, 37°.24N**±0°.04×**20°.41E**±0°.03**, h13**km±6km**, n107, σ1ˢ.12**/134**, 3C-3D, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.95	9	P	Pg	03 54 33.8	-0.4
VLS				S	Sg	03 54 47.7	+1.1
VLS	Valsamata	0.95	9	*e*PN	Pg	03 54 33.8	-0.4
VLS				*e*SN	Sg	03 54 48.5	+1.9
VLS	Valsamata	0.95	9	*e*Pn	Pg	03 54 33.8	-0.4
VLS				*e*Sn	Sg	03 54 48.5	+1.9
PYL	PYLOS	1.12	107	P	Pg	03 54 34.7	-2.7
PYL				S	Sg	03 54 49.1	-2.9
PYL	PYLOS	1.12	107	*e*PN	Pg	03 54 34.8	-2.6
PYL				*e*SN	Sg	03 54 48.9	-3.1
PYL	PYLOS	1.12	107	*e*Pn	Pg	03 54 34.8	-2.6
PYL				*e*Sn	Sg	03 54 48.9	-3.1
RLS	Riolos of Patr	1.17	45	*e*PN	Pg	03 54 37.5	-1.0
RLS				*e*SN	Sg	03 54 53.0	-0.8
RLS	Riolos of Patr	1.17	45	*e*Pn	Pg	03 54 37.5	-1.0
RLS				*e*Sn	Sg	03 54 53.0	-0.8
ITM	Ithomi	1.21	92	*e*PN	Pg	03 54 37.0	-2.2
ITM				*e*SN	Sg	03 54 52.5	-2.5
ITM	Ithomi	1.21	92	*e*Pn	Pg	03 54 37.0	-2.2
ITM				*e*Sn	Sg	03 54 52.5	-2.5
VLX	Vlachokerasia	1.58	85	*e*PN	Pn	03 54 42.8	-0.7
VLX				*e*SN	Sn	03 55 03.9	+0.2
VLX	Vlachokerasia	1.58	85	*e*Pn	Pn	03 54 42.8	-0.7
VLX				*e*Sn	Sn	03 55 03.9	+0.2
LAKA	Lakka	1.60	51	P	Pn	03 54 44.3	+0.6
LAKA	Lakka	1.60	51	P	Pn	03 54 44.3	+0.6
EFP	Efpalio	1.68	45	*e*PN	Pn	03 54 45.8	+0.9
EFP	Efpalio	1.68	45	*e*Pn	Pn	03 54 45.8	+0.9
GUR	Goura	1.69	65	*e*PN	Pn	03 54 44.5	-0.5
GUR	Goura	1.69	65	*e*Pn	Pn	03 54 44.5	-0.5
TRIZ	Trizonia	1.73	49	P	Pn	03 54 46.6	+1.0
TRIZ	Trizonia	1.73	49	P	Pn	03 54 46.6	+1.0
EVR	Evrytania	2.01	33	*e*PN	Pn	03 54 51.5	+2.1
EVR	Evrytania	2.01	33	*e*Pn	Pn	03 54 51.5	+2.1
VLI	Veliai	2.09	104	*e*PN	Pn	03 54 50.5	0.0
VLI	Veliai	2.09	104	*e*Pn	Pn	03 54 50.5	0.0
LTK	Loutraki	2.18	68	P	Pn	03 54 50.8	-0.9
LTK	Loutraki	2.18	68	*e*PB	Pn	03 54 51.1	-0.6
LTK	Loutraki	2.18	68	P	Pn	03 54 50.8	-0.9
DID	Didima	2.27	82	P	Pn	03 54 51.8	-1.2
DID	Didima	2.27	82	*e*PB	Pn	03 54 52.1	-0.9
DID	Didima	2.27	82	P	Pn	03 54 51.8	-1.2
IGT	Igoumenitsa	2.29	359	P	Pn	03 54 53.8	+0.5
IGT	Igoumenitsa	2.29	359	P	Pn	03 54 53.8	+0.5
KYTH	Kithira	2.32	114	*e*PN	Pn	03 54 53.6	0.0
KYTH	Kithira	2.32	114	*e*Pn	Pn	03 54 53.6	0.0
AGG	Agios Georgios	2.34	40	*e*PB	Pn	03 54 54.7	+0.8
AGG	Agios Georgios	2.34	40	P	Pn	03 54 54.7	+0.8
JAN	Janina	2.44	8	*e*PB	Pn	03 54 57.0	+1.7
JAN	Janina	2.44	8	*e*Pb	Pn	03 54 57.0	+1.7
LKR	Lokris	2.49	55	*e*PN	Pn	03 54 56.0	0.0
LKR	Lokris	2.49	55	*e*Pn	Pn	03 54 56.0	0.0
NAIG	Nisos Aigina	2.50	77	*e*PN	Pn	03 54 56.0	-0.2
NAIG	Nisos Aigina	2.50	77	*e*Pn	Pn	03 54 56.0	-0.2
KEK	Kerkira	2.52	349	*e*PN	Pn	03 54 56.8	+0.4
KEK	Kerkira	2.52	349	*e*Pn	Pn	03 54 56.8	+0.4
MEV	Metsovon	2.62	14	P	Pn	03 54 59.8	+1.9
MEV	Metsovon	2.62	14	P	Pn	03 54 59.8	+1.9
THL	Klokotos Trika	2.65	28	*e*PN	Pn	03 54 59.2	+1.1
THL	Klokotos Trika	2.65	28	*e*Pn	Pn	03 54 59.2	+1.1
ATH	Athens Observa	2.73	73	*e*PB	Pn	03 55 00.3	+1.0
PTL	Penteli	2.86	73	*e*PN	Pn	03 54 59.8	-1.3
PTL	Penteli	2.86	73	*e*Pn	Pn	03 54 59.8	-1.3
KZN	Kozani	3.25	19	*e*PN	Pn	03 55 08.0	+1.6
KZN	Kozani	3.25	19	*e*Pn	Pn	03 55 08.0	+1.6
TIP	Timpagrande	3.47	305	P	Pn	03 55 10.8	+1.4
TIP	Timpagrande	3.47	305	P	Pn	03 55 10.8	+1.4
GRI	Girifalco	3.52	298	Pn	Pn	03 55 11.0	+0.8
GRI	Girifalco	3.52	298	Pn	Pn	03 55 11.0	+0.8
SOI	Samo	3.55	285	Pn	Pn	03 55 11.6	+1.0
SOI				Sn	Sn	03 55 50.6	-1.9
SOI	Samo	3.55	285	Pn	Pn	03 55 11.6	+1.0
SOI				Sn	Sn	03 55 50.6	-1.9
CEL	Celeste	3.72	287	*e*Pn	Pn	03 55 14.0	+1.0
CEL	Celeste	3.72	287	*e*Pn	Pn	03 55 14.0	+1.1
MTTG	Motta San Giov	3.82	283	Pn	Pn	03 55 15.3	+1.0
MTTG	Motta San Giov	3.82	283	Pn	Pn	03 55 15.3	+1.0
BIA	Bitola	3.84	10	*e*Pn	Pn	03 55 15.2	+0.6
BIA	Bitola	3.84	10	*e*Pn	Pn	03 55 15.1	+0.5
PLG	Polygyros	3.93	36	P	Pn	03 55 17.1	+1.3
PLG	Polygyros	3.93	36	P	Pn	03 55 17.1	+1.3
TAR1	Taranto	4.09	324	*e*Pn	Pn	03 55 18.5	+0.5
TAR1				*e*Sn	Sn	03 56 04.6	-1.1
TIR	Tirane	4.13	354	*e*Pn	Pn	03 55 19.8	+1.3
TIR	Tirane	4.13	354	*e*Pn	Pn	03 55 19.8	+1.3
KRUS	Krusevo	4.18	9	*e*Pn	Pn	03 55 19.0	-0.2
KRUS	Krusevo	4.18	9	*e*Pn	Pn	03 55 18.9	-0.3
HAVL	Avola	4.23	268	Pn	Pn	03 55 19.8	-0.2
HAVL	Avola	4.23	268	Pn	Pn	03 55 19.8	-0.2
PE1	Pezze di Greco	4.25	328	*e*Pn	Pn	03 55 20.5	+0.3
PE1				*e*Sn	Sn	03 56 07.5	-2.2
VAY	Valandovo	4.41	22	*e*Pn	Pn	03 55 22.5	+0.1
VAY	Valandovo	4.41	22	*e*Pn	Pn	03 55 22.5	+0.1
CUC	Castrocucco	4.53	309	*e*Pn	Pn	03 55 25.7	+1.6
CUC	Castrocucco	4.53	309	*e*Pn	Pn	03 55 25.7	+1.7
SG1	Sgolgore (BA)	4.62	322	*e*Pn	Pn	03 55 26.5	+1.2
SG1				*e*Sn	Sn	03 56 15.9	-2.9
BAI	Bari	4.74	326	*e*Pn	Pn	03 55 27.4	+0.5
BAI				*e*Sn	Sn	03 56 20.2	-1.5
BARS	Barje	5.68	11	*e*Pn	Pn	03 55 39.3	-0.5
RGNG	Rignano Grg	5.79	321	Pn	Pn	03 55 42.1	+0.7
RGNG	Rignano Grg	5.79	321	Pn	Pn	03 55 42.1	+0.7
STON	Ston	6.00	341	*e*Pn	Pn	03 55 43.1	-1.1
STON				Sn	Sn	03 56 46.5	-6.2
STON	Ston	6.00	341	*e*Pn	Pn	03 55 43.1	-1.1
BBLS	Lazići	6.67	354	*e*Pn	Pn	03 55 52.8	-0.6
DIVS	Divibare	6.86	357	*e*Pn	Pn	03 55 54.9	-1.2
NVLJ	Novalja	8.43	332	*e*Pn	Pn	03 56 16.0	-1.6
NVLJ				Sn	Sn	03 57 46.1	-6.5
NVLJ	Novalja	8.43	332	*e*Pn	Pn	03 56 16.0	-1.6
BOJS	Bojanci	9.12	337	*i* Pn	Pn	03 56 26.8	-0.2
BOJS				*i* Sn	Sn	03 58 05.0	-4.5
BOJS	Bojanci	9.12	337	*i* Pn	Pn	03 56 26.8	-0.2
VISS	Visnje	9.52	336	*i* Pn	Pn	03 56 32.6	+0.1
VISS				*i* Sn	Sn	03 58 13.9	-5.3
VISS	Visnje	9.52	336	*i* Pn	Pn	03 56 32.6	+0.1
SKDS	Skadanscina	9.59	332	*i* Pn	Pn	03 56 32.8	-0.7
SKDS				*i* Sn	Sn	03 58 14.8	-6.1
SKDS	Skadanscina	9.59	332	*i* Pn	Pn	03 56 32.8	-0.6
PDKS	Podkum	9.70	337	*i* Pn	Pn	03 56 34.4	-0.6
JAVS	Javornik	9.87	333	*i* Pn	Pn	03 56 37.1	-0.1
JAVS				*i* Sn	Sn	03 58 19.8	-8.0
JAVS	Javornik	9.87	333	*i* Pn	Pn	03 56 37.2	0.0
OBKA	Obir	10.24	337	⇑*i*Pn	Pn	03 56 41.8	-0.6
OBKA				⇓*i*Sn	Sn	03 58 31.8	-5.2
OBKA	Obir	10.24	337	Pn	Pn	03 56 41.8	-0.6
SOKA	Soboth	10.24	339	⇑*i*Pn	Pn	03 56 41.6	-0.9
SOKA				⇓*i*Sn	Sn	03 58 31.5	-5.6
SOKA	Soboth	10.24	339	Pn	Pn	03 56 41.6	-0.8
CADS	Cadrg	10.27	333	*i* Pn	Pn	03 56 42.2	-0.6
CADS	Cadrg	10.27	333	*i* Pn	Pn	03 56 42.2	-0.6
MOA	Molln	11.53	339	⇓*i*Pn	Pn	03 56 59.5	-0.4
MOA				⇑*i*Sn	Sn	03 59 02.8	-5.7
MOA	Molln	11.53	339	Pn	Pn	03 56 59.5	-0.5

ISCJB ***18*** *04:08:46.0±0.8, 28°.81N±0°.02×34°.67E±0°.06, h10km, Error ellipse: s-maj=7.3km s-min=3.0km az=168.7*

CSEM ***18*** *04:08:46.5±0.3, 28°.81N×34°.69E, h8km, ML2.6, Error ellipse: s-maj=6.6km s-min=2.6km az=95.0*

SGS ***18*** *04:08:46.4, 28°.80N×34°.71E, h19km*

GII ***18*** *04:08:46.3±1.0, 28°.89N×34°.72E, h1km, Md2.4/5*

ISC 18 04:08:46.2±0.8**, 28°.80N**±0°.02×**34°.65E**±0°.06**, h0**km±5km**, n20, σ0ˢ.78**/31**, Egypt**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAQS	Haql	0.34	43	P	Pg	04 08 53.4	+0.6
HAQS	Haql	0.34	43	P	Pg	04 08 53.4	+0.6
HAQS				S	Sg	04 08 58.5	+1.2
RSHS		0.51	165	P	Pg	04 08 56.4	+0.4
RSHS		0.51	165	P	Pg	04 08 56.4	+0.4
RSHS				S	Sg	04 09 03.8	+1.1
BDAS	Al Bad‘	0.54	133	P	Pg	04 08 56.5	-0.1
BDAS	Al Bad‘	0.54	133	P	Pg	04 08 56.5	0.0
BDAS				S	Sg	04 09 03.8	+0.3
HQLS		0.62	36	P	Pg	04 08 57.9	-0.2
HQLS		0.62	36	P	Pg	04 08 57.8	-0.2
HQLS				S	Sg	04 09 06.4	+0.4
JLOS		0.74	95	P	Pg	04 08 59.8	-0.6
JLOS		0.74	95	P	Pg	04 08 59.8	-0.6
JLOS				S	Sg	04 09 09.2	-0.8
EIL	Elat	0.91	17	Pg	Pg	04 09 03.4	-0.2
EIL				Sg	Sg	04 09 16.0	+0.6
AQBJ	Aqaba	0.99	21	Pg	Pg	04 09 04.9	-0.3
MBRI	Mt Berech	1.02	13	Pg	Pg	04 09 05.5	-0.2
MBRI				Sg	Sg	04 09 19.8	+0.8
KRMI	Paran Flat	1.32	3	Pg	Pg	04 09 10.5	-0.9
KRMI				Sg	Sg	04 09 28.3	-0.2
PRNI	Paran	1.58	11	Pn	Pn	04 09 14.8	-0.6
PRNI				Sn	Sg	04 09 36.3	-0.6
TBKS	Tabuk	1.76	109	P	Pn	04 09 17.2	-0.7
TBKS	Tabuk	1.76	109	P	Pn	04 09 17.2	-0.7
TBKS				S	Sn	04 09 39.9	-1.1
ZFRI	Zfri	1.81	15	Sn	Sn	04 09 43.1	+0.9
KZIT	Kziot	2.11	354	Pn	Pn	04 09 23.0	+0.3
KZIT				Sn	Sg	04 09 51.1	-3.0
YTIR	Yattir	2.59	9	Sn	Sn	04 10 02.5	+1.1

IDC 18 04:42:35.7±2.1**, 3°.00N**×**127°.59E, h0**km**, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.5**/20**, mbtmp3.5**/4**, Error ellipse: s-maj=123.1km s-min=25.1km az=70.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	21.05	185	P	P	04 47 21.4	-0.1
	1.3nm,0.4s,baz=15,slow=16,SNR=7.3						
WRA	Warramunga Arr	23.74	164	P	P	04 47 50.2	+0.3
	0.6nm,0.3s,baz=345,slow=12,SNR=28						
ASAR	Alice Springs	27.20	167	P	P	04 48 21.4	+0.1
	0.3nm,0.3s,baz=349,slow=12,SNR=6.7						
MKAR	Makanchi Array	58.64	325	P	P	04 52 34.6	-0.2
	0.2nm,0.4s,baz=120,slow=5.7,SNR=4.7						

IDC 18 04:56:44.9±2.2**, 6°.96S**×**129°.31E, h0**km**, mb3.3**/1**, mb1 3.5**/4**, mb1mx3.3**/17**, mbtmp3.3**/4**, ML3.4**/3**, Error ellipse: s-maj=104.5km s-min=27.8km az=76.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.64	198	Pn	Pn	04 59 33.0	+0.6
	0.2nm,0.3s,baz=13,slow=12,SNR=12						
FITZ				Sn	Sn	05 01 31.6	-12
	0.1nm,0.3s,baz=315,slow=17,SNR=2.3						
WRA	Warramunga Arr	13.80	160	Pn	Pn	05 00 01.6	-0.3
	0.2nm,0.3s,baz=334,slow=13,SNR=4.7						
WRA				Sn	Sn	05 02 23.6	-12
	0.3nm,0.3s,baz=333,slow=22,SNR=8.6						
ASAR	Alice Springs	17.19	166	P	Pn	05 00 46.4	-0.2
	0.1nm,0.3s,baz=342,slow=8.8,SNR=3.1						
ASAR				S	Sn	05 03 45.4	-13
	baz=334,slow=22,SNR=3.5						
MKAR	Makanchi Array	67.81	327	P	P	05 07 44.8	+0.1
	0.3nm,0.8s,baz=134,slow=6.2,SNR=3.2						

CSEM ***18*** *05:30:23.5, 36°.16N×21°.40E, h20km, ML3.0, After ATH*

NEIC ***18*** *05:30:23.5, 36°.16N×21°.40E, h20km, ML3.0(ATH), After ATH.*

ATH ***18*** *05:30:23.5, 36°.16N×21°.40E, h20km±3km, MD3.6/13, ML3.0*

ISC 18 05:30:24.9±1.3**, 36°.17N**±0°.07×**21°.5E**±0°.1**, h10**km**, n32, σ0ˢ.70**/36**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.76	18	*e*PN	Pg	05 30 39.2	-0.4
PYL				*e*SN	Sg	05 30 49.1	-0.4
PYL	PYLOS	0.76	18	*e*Pn	Pg	05 30 39.2	-0.4
PYL				*e*Sn	Sg	05 30 49.1	-0.4
ITM	Ithomi	1.08	21	*e*PN	Pg	05 30 44.4	-1.2
ITM				*e*SN	Sg	05 31 00.3	+0.6
ITM	Ithomi	1.08	21	*e*Pn	Pg	05 30 44.4	-1.2
ITM				*e*Sn	Sg	05 31 00.3	+0.6
KYTH	Kithira	1.29	85	*e*PN	Pn	05 30 48.5	-0.4
KYTH	Kithira	1.29	85	*e*Pn	Pn	05 30 48.5	-0.4
VLX	Vlachokerasia	1.41	32	*e*PN	Pn	05 30 50.0	-0.6
VLX	Vlachokerasia	1.41	32	*e*Pn	Pn	05 30 50.0	-0.6
GUR	Goura	1.90	22	*e*PN	Pn	05 30 57.3	-0.1
GUR	Goura	1.90	22	*e*Pn	Pn	05 30 57.3	-0.1
DID	Didima	1.96	47	*e*PB	Pn	05 30 57.0	-1.1
DID	Didima	1.96	47	*e*Pb	Pn	05 30 57.0	-1.1
VLS	Valsamata	2.12	341	*e*PB	Pn	05 30 59.5	-0.8
VLS	Valsamata	2.12	341	*e*Pb	Pn	05 30 59.5	-0.8
LTK	Loutraki	2.21	33	*e*PN	Pn	05 31 02.4	+0.8
LTK	Loutraki	2.21	33	*e*Pn	Pn	05 31 02.4	+0.8
NAIG	Nisos Aigina	2.28	45	*e*PB	Pn	05 31 03.0	+0.5
NAIG	Nisos Aigina	2.28	45	*e*Pb	Pn	05 31 03.0	+0.5
EFP	Efpalio	2.28	9	*e*PB	Pn	05 31 03.2	+0.6
EFP	Efpalio	2.28	9	*e*Pb	Pn	05 31 03.2	+0.6
ATH	Athens Observa	2.56	45	*e*PB	Pn	05 31 07.0	+0.7
ATH	Athens Observa	2.56	45	*e*Pb	Pn	05 31 07.0	+0.7
PTL	Penteli	2.69	45	*e*PN	Pn	05 31 08.5	+0.3
PTL	Penteli	2.69	45	*e*Pn	Pn	05 31 08.5	+0.3
EVR	Evrytania	2.76	6	*e*PB	Pn	05 31 10.0	+0.9
EVR	Evrytania	2.76	6	*e*Pb	Pn	05 31 10.0	+0.9
LKR	Lokris	2.77	26	*e*PN	Pn	05 31 09.1	-0.1
LKR	Lokris	2.77	26	*e*Pn	Pn	05 31 09.1	-0.1
AGG	Agios Georgios	2.93	14	*e*PB	Pn	05 31 12.7	+1.2
AGG	Agios Georgios	2.93	14	*e*Pb	Pn	05 31 12.7	+1.2
THL	Klokotos Trika	3.42	7	*e*PN	Pn	05 31 17.8	-0.4
THL	Klokotos Trika	3.42	7	*e*Pn	Pn	05 31 17.8	-0.4

NEIC ***18*** *05:53:22.5, 58°.41N×135°.10W, h10km, ML2.4(AEIC), ML2.5(PGC), After PGC.*

PGC 18 05:53:22.5±1.4**, 58°.41N**×**135°.10W, h10**km**, ML2.5**/4**, 1D, 41km west of Juneau, Ak Southeastern Alaska, Southeastern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKAG	Skagway	1.06	354	*e*Pn	Pn	05 53 41.7	-1.6
SKAG				*e*Sg	Sg	05 53 56.5	0.0
PLBC	Pleasant Camp	1.24	328	P	Pn	05 53 44.7	-1.1
PLBC				⇑S	Sb	05 54 01.2	-0.7
WHY	Whitehorse	2.26	3	*e*Pn	Pn	05 53 59.6	-0.2
WHY				*e*Pg	Pg	05 54 03.3	-2.5
WHY				*e*Sn	Sn	05 54 27.4	-0.2
WHY				*e*Sg	Sg	05 54 32.5	-2.5
WRAK	Wrangell Islan	2.49	142	*e*Pn	Pn	05 54 05.1	+2.1
WRAK				*e*Sg	Sg	05 54 43.8	+1.5
DLBC	Dease Lake	2.67	87	⇓Pn	Pn	05 54 05.5	+0.1
DLBC				⇑Sg	Sg	05 54 44.8	-3.3
DLBC	Dease Lake	2.67	87	*e*Pn	Pn	05 54 10.0	+4.6
HYT	Haines Junctio	2.71	334	*e*Pn	Pn	05 54 05.6	-0.4
HYT				*e*Pg	Pg	05 54 10.3	-4.2

CASC ***18*** *05:59:29.0±2.5, 11°.39N×87°.69W, h20km±20km, MD4.3, ML3.3*

IDC ***18*** *05:59:31.7±1.2, 12°.08N×86°.70W, h0km, mb3.2/4, mb1 3.6/6, mb1mx3.5/20, mbtmp3.3/6, ML3.0/2, Error ellipse: s-maj=59.9km s-min=17.0km az=48.0*

ISCJB ***18*** *05:59:35.6±1.4, 11°.49N±0°.09×87°.1W±0°.1, h59km±16km, mb3.4/5, Error ellipse: s-maj=25.5km s-min=6.8km az=149.2*

NEIC ***18*** *05:59:35.1±1.3, 11°.41N×87°.17W, h42km±11km, Error ellipse: s-maj=28.9km s-min=10.7km az=221.0*

ISC 18 05:59:37.0±1.0**, 11°.56N**±0°.07×**87°.1W**±0°.1**, h51**km±14km**, n33, σ0ˢ.85**/36**, mb3.4**/5**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	Copaltepe	0.80	39	*e*P	Pn	05 59 52.4	+0.3
COPN				*e*S	Sn	06 00 12.3	+9.2
COPN				AML	AML	06 00 13.7	
	comp=Z,2μm,0.5s						
CSAN		0.92	47	*e*P	Pn	05 59 53.6	0.0
CSAN				*e*S	Sn	06 00 14.9	+9.0
MIRN	Miramar	0.96	24	*e*P	Pn	05 59 54.2	-0.1
XAVN	Gruta Xavier	0.97	53	*e*P	Pn	05 59 54.3	0.0
TICN	Ticuantepe	0.98	61	*e*P	Pn	05 59 54.7	+0.2
TISN	Laguna Tiscapa	1.01	55	*e*P	Pn	05 59 54.8	0.0
MOMN	Momotombo	1.01	33	*e*P	Pn	05 59 55.6	+0.6
CNGN	Cerro Negro	1.02	23	*e*P	Pn	05 59 55.0	-0.1
CNGN				AML	AML	06 00 25.0	
	comp=E,379nm,0.3s						
MGAN	Managua	1.03	55	*e*P	Pn	05 59 55.7	+0.5
APON	Apoyo	1.08	71	*e*P	Pn	05 59 55.6	-0.2
WILN	Americas 2	1.09	56	*e*P	Pn	05 59 55.2	-0.7
CRIN	San Cristobal	1.14	3	AML	AML	06 00 31.4	
	comp=N,868nm,0.4s						
HUEN		1.20	50	*e*P	Pn	05 59 57.5	+0.1
BOAB	BOACO BROADBAN	1.67	58	*e*P	Pn	06 00 03.3	-0.5
JTS	JuntasAbangare	2.47	120	Pn	Pn	06 00 12.7	-2.0
	comp=N,1.3nm,0.3s,baz=318,slow=22,SNR=12						
JTS				Pg	Pn	06 00 17.6	+2.9
	comp=N,7.0nm,0.3s,baz=311,slow=19,SNR=36						
JTS				Sn	Sn	06 00 41.3	-2.3
	comp=N,4.9nm,0.3s,baz=299,slow=19,SNR=6.0						
TGUH	Tegucigalpa,Un	2.49	356	*e*Pn	Pn	06 00 15.3	+0.2
TGUH				*e*Sn	Sn	06 00 38.7	-5.6
JCR	Jicaral	2.60	131	*e*P	Pn	06 00 19.1	+2.6
FORC	Fortuna	2.63	114	*e*P	Pn	06 00 16.4	-0.6
CGA2	Cerro Gallo 2	3.02	120	*e*P	Pn	06 00 22.6	+0.3
LAJ	Bijagual	3.39	120	*e*P	Pn	06 00 22.9	-4.5
LCR2	La Lucha 2	3.55	120	*e*P	Pn	06 00 30.2	+0.6
URSC	Urasca	3.70	117	*e*P	Pn	06 00 32.7	+1.1
BUS	Buena Vista	3.85	121	*e*P	Pn	06 00 34.2	+0.5
BUS				*e*S	Sn	06 01 13.0	-4.8
BAR1		4.39	121	*e*P	Pn	06 00 41.2	+0.1
ACR	Cerro Adams	4.84	126	*e*P	Pn	06 00 46.6	-0.6
CMIG	Matias Romero	9.32	307	Pn	Pn	06 01 47.3	-1.5
	comp=N,0.3nm,0.3s,baz=121,slow=5.9,SNR=5.8						
TXAR	Lajitas Array	23.47	321	P	P	06 04 42.2	0.0
	comp=N,0.4nm,0.5s,mb3.1,baz=138,slow=9.6,SNR=9.0						
SMCO	Snowmass	32.69	331	*e*P	P	06 06 05.4	+0.9
	comp=N,2.8nm,0.6s,mb4.4						
PDAR	Pinedale Array	36.71	332	P	P	06 06 39.2	+0.1
	comp=N,0.3nm,0.8s,mb3.2,baz=123,slow=9.8,SNR=2.9						
NVAR	Mina Array Bea	38.59	319	P	P	06 06 55.4	+0.3
	comp=N,0.1nm,0.5s,mb2.8,baz=129,slow=11,SNR=2.3						
YKA	Yellowknife Ar	54.55	345	P	P	06 08 58.5	-1.1
	comp=N,0.2nm,0.5s,mb3.4,baz=142,slow=7.4,SNR=8.9						
CMAR	Chiang Mai Arr	149.58	349	PKPbc	PKPbc	06 19 21.4	-0.3
	comp=N,0.9nm,0.3s,baz=0.0,slow=3.6,SNR=4.2						
CMAR	Chiang Mai Arr	149.58	349	PKPbc	PKPbc	06 19 21.4	-0.3

ISCJB ***18** 06:09:59.4±0.2, 38°.39N±0°.01×118°.17W±0°.02, h10^{km}, Error ellipse: s-maj=2.1km s-min=1.6km az=156.5*

NEIC ***18** 06:09:59.8, 38°.40N×118°.19W, h12^{km}, ML2.5(REN), After REN.*

ISC 18 06:09:59.7±0.3**, 38°.40N**±0°.01×**118°.18W**±0°.02**, h8**^{km}±2^{km}**,** **n61,** σ**0^{s}90**/114**, 42C-39D, California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
R08A	Mina baz=0.1,SNR=1000	0.08	128	⇓P	Pg	06 10 02.3	+0.5
R08A	baz=0.1			⇓S	Sg	06 10 04.1	+0.8
Q08A	Gabbs baz=0.5,SNR=48	0.50	23	⇑P	Pg	06 10 09.5	0.0
Q08A	baz=0.5			⇑S	Sg	06 10 16.6	+0.5
Q07A	Schurz baz=0.7,SNR=10	0.73	318	⇑P	Pg	06 10 13.9	+0.1
Q07A	baz=0.7			⇓S	Sg	06 10 23.7	+0.4
TPH	Tonopah	0.82	113	*e*Pg	Pg	06 10 15.7	+0.1
TPH				*e*Sg	Sg	06 10 27.3	+1.1
R09A	Tonopah baz=0.9,SNR=356	0.89	100	⇓P	Pg	06 10 16.9	+0.1
R09A	baz=0.9			⇑S	Sg	06 10 28.8	+0.5
Q09A	Carvers baz=0.9,SNR=91	0.90	61	⇑P	Pg	06 10 17.1	0.0
Q09A	baz=0.9			⇓S	Sg	06 10 29.6	+0.9
MLAC	Mammoth Lakes baz=0.9,SNR=30	0.92	214	⇓P	Pg	06 10 17.1	-0.3
MLAC	baz=0.9			⇓S	Sg	06 10 29.4	0.0
R06C	Coleville baz=1.0,SNR=170	1.00	278	⇓P	Pg	06 10 18.4	-0.6
R06C	baz=1.0			⇑S	Sg	06 10 31.6	-0.4
S09A	Goldfield baz=1.0,SNR=806	1.01	131	⇓P	Pg	06 10 19.0	-0.2
S09A	baz=1.0			⇑S	Sg	06 10 32.2	-0.1
P07A	Fallon baz=1.3,SNR=35	1.27	334	⇓P	Pn	06 10 23.4	-0.3
P07A	baz=1.3			⇑S	Sb	06 10 40.2	0.0
P08A	Dixie Valley baz=1.3,SNR=62	1.30	4	⇑P	Pn	06 10 23.6	-0.6
P08A	baz=1.3			⇑Sg	Sg	06 10 42.7	+1.1
S10A	Tonopah Range, baz=1.3,SNR=318	1.34	110	⇑Pb	Pb	06 10 24.3	-0.7
S10A	baz=1.3			⇑Sb	Sb	06 10 43.4	+1.1
TIN	Tinemaha baz=1.3	1.34	182	⇑Pg	Pg	06 10 24.9	-0.5
TIN	baz=1.3			⇓Sg	Sg	06 10 43.5	+0.7
P09A	Austin baz=1.4,SNR=25	1.41	35	⇓Pn	Pn	06 10 24.9	-0.7
P09A	baz=1.4			⇓Pg	Pg	06 10 26.5	-0.3
P09A	baz=1.4			⇓Sn	Sn	06 10 44.1	-0.3
Q10A	Clear Creek Ra baz=1.5,SNR=320	1.46	72	⇑Pb	Pb	06 10 26.6	-0.6
Q10A	baz=1.5			⇓Pg	Pg	06 10 27.5	-0.3
R10A	Warm Springs baz=1.5,SNR=187	1.48	94	⇑Pb	Pb	06 10 26.8	-0.7
R10A	baz=1.5			⇑Pg	Pg	06 10 27.8	-0.4
R10A	baz=1.5			⇓Sg	Sg	06 10 48.3	+0.9
WCN	Washoe City baz=1.5,SNR=330	1.52	307	⇑Pn	Pn	06 10 26.7	-0.5
WCN	baz=1.5			⇓Sn	Sn	06 10 46.5	-0.7
WCN	baz=1.5			⇓Sb	Sb	06 10 48.0	+0.3
GRAC	Grapevine Rang baz=1.5,SNR=129	1.54	155	⇑Pb	Pb	06 10 27.7	-0.7
GRAC	baz=1.5			⇑Sg	Sg	06 10 50.1	+1.0
CMB	Columbia Colle	1.77	259	*e*Pn	Pn	06 10 31.9	+1.3
CMB				*e*Sg	Sg	06 10 55.0	-1.7
P10A	Eureka baz=1.8,SNR=35	1.81	47	⇑Pn	Pn	06 10 30.7	-0.5
P10A	baz=1.8			⇓Pb	Pb	06 10 32.5	-0.6
O07A	Toulon baz=1.8,SNR=202	1.84	343	⇑Pn	Pn	06 10 30.9	-0.7
O07A	baz=1.8			⇑Pb	Pb	06 10 33.0	-0.6
O07A	baz=1.8			⇓Sb	Sb	06 10 57.4	+0.6
P06A	Stead Airport, baz=1.8	1.85	314	⇑Pn	Pn	06 10 31.0	-0.7
P06A	baz=1.8			⇑Pb	Pb	06 10 33.0	-0.7
O08A	Rochester Mine baz=1.9,SNR=44	1.89	1	⇓Pn	Pn	06 10 31.7	-0.6
O08A	baz=1.9			⇑Pb	Pb	06 10 34.2	-0.3
O08A	baz=1.9			⇓Sn	Sn	06 10 55.9	-0.3
O08A	baz=1.9			⇓Sb	Sb	06 10 59.2	+0.9
O09A	Fish Creek Ran baz=1.9	1.93	23	⇑Sb	Sb	06 11 00.4	+1.1
Q11A	Duckwater baz=2.0	2.03	76	⇑Pb	Pb	06 10 36.3	-0.5
R11A	Troy Canyon, C baz=2.0,SNR=22	2.04	91	⇓Pn	Pn	06 10 33.6	-0.7
R11A	baz=2.0			⇓Pb	Pb	06 10 36.4	-0.6
S11A	Rachel baz=2.1	2.07	111	⇑Sg	Sg	06 11 06.9	+0.8
BMN	Battle Mountai	2.16	20	*e*Pn	Pn	06 10 38.5	+2.5
BMN				*e*Sg	Sg	06 11 09.6	+0.3
O06A	Flanigan baz=2.2	2.18	325	⇑Pb	Pb	06 10 38.5	-0.8
BEKR	Beckwourth baz=2.2,SNR=27	2.24	312	⇓Pb	Pb	06 10 39.8	-0.6
BEKR	baz=2.2			⇓Sb	Sb	06 11 09.3	+1.1
O10A	Cortez Mining, baz=2.3,SNR=14	2.30	34	⇑Pn	Pn	06 10 37.5	-0.4
O10A	baz=2.3			⇓Sb	Sb	06 11 11.2	+1.2
N08A	GE Springer Mi baz=2.4,SNR=19	2.38	1	⇓Pn	Pn	06 10 38.3	-0.7
N08A	baz=2.4			⇓Pb	Pb	06 10 42.4	-0.5
MPMC	Manual Prospec baz=2.4	2.40	166	⇓Pn	Pn	06 10 38.3	-0.9
N07B	Gerlach baz=2.5,SNR=17	2.46	346	⇓Pn	Pn	06 10 39.5	-0.5
N09A	Rock Creek Ran baz=2.5	2.50	12	⇑Sb	Sb	06 11 17.2	+1.3
T11A	Corn Creek, Al baz=2.6,SNR=10	2.62	115	⇑Pn	Pn	06 10 41.7	-0.5
VES	Vestal, Richgr baz=2.7	2.65	196	⇓Pb	Pb	06 10 46.6	-0.8
VES	baz=2.7			⇑Sb	Sb	06 11 21.1	+1.0
N10A	Dunphy baz=2.7	2.66	29	⇑Sn	Sn	06 11 14.8	-0.3
N06A	Buffalo Meadow baz=2.7	2.67	332	⇑Pb	Pb	06 10 47.1	-0.6
Q12A	Willow Creek R baz=2.7	2.70	75	⇑Pg	Pg	06 10 50.8	-0.7
ISA	Isabella baz=2.7	2.74	185	⇓Sb	Sb	06 11 23.4	+0.9
ISA	Isabella	2.74	185	*e*Pg	Pg	06 10 49.8	-2.4
ISA				*e*Sg	Sg	06 11 25.3	-2.4
S12A	Delamar Landin baz=2.7,SNR=9.5	2.75	106	⇑Pn	Pn	06 10 43.6	-0.5
S12A	baz=2.7			⇑Sb	Sb	06 11 24.3	+1.4
P12A	McGill baz=2.8	2.77	66	⇓Pg	Pg	06 10 52.1	-0.7
P12A	baz=2.8			⇓Sb	Sb	06 11 25.0	+1.5
R12A	Pony Springs, baz=2.8,SNR=5.8	2.81	90	⇓Pn	Pn	06 10 44.1	-0.8
M08A	Happy Creek Ra baz=3.1,SNR=10	3.05	357	⇓Pn	Pn	06 10 47.7	-0.5
M08A	baz=3.1			⇑Sb	Sb	06 11 33.1	+1.5
SAO	San Andreas Ge	3.06	239	*e*Pn	Pn	06 10 50.3	+2.0
SAO				*e*Pg	Pg	06 10 59.9	+1.5
SAO				*e*Sg	Sg	06 11 39.3	+1.2
M07A	Soldier Meadow baz=3.1	3.08	346	⇓Sb	Sb	06 11 34.0	+1.5
ELK	Elko	3.27	43	*e*Pn	Pn	06 10 51.4	+0.2
ELK				*e*Pg	Pg	06 11 00.9	-1.4
ELK				*e*Sg	Sg	06 11 44.3	-0.4
GSC	Goldstone	3.28	160	*e*Pn	Pn	06 10 51.8	+0.4
GSC				*e*Sg	Sg	06 11 48.5	+3.4
ARVC	Arvin baz=3.3	3.30	189	⇑Sb	Sb	06 11 40.1	+1.2
S13A	Holt Ranch, En baz=3.5	3.51	102	⇑Pg	Pg	06 11 06.3	-0.7
L09A	Wilkinson Ranc baz=3.6	3.64	6	⇑Sn	Sn	06 11 38.8	-0.5
ARUT	Antelope Range	3.79	98	*e*Pn	Pn	06 10 58.6	+0.2
ARUT				*e*Pg	Pg	06 11 12.7	+0.4
ARUT				*e*Sg	Sg	06 12 00.4	-1.1
MOD	Modoc	3.86	336	Pn	Pn	06 11 04.3	+5.0
MOD				*e*Sg	Sg	06 12 05.4	+1.7
CCUT	Cedar City	3.90	101	*e*Pn	Pn	06 10 59.6	-0.3
CCUT				*e*Sg	Sg	06 12 03.1	-1.9
LDFC	Landfair	4.13	142	Pn	Pn	06 11 03.6	+0.5
LDFC				*e*Sg	Sg	06 12 13.9	+1.5
DUG	Dugway	4.54	65	Pn	Pn	06 11 07.6	-1.0
DUG				*e*Pg	Pg	06 11 26.7	0.0
DUG				*e*Sg	Sg	06 12 23.7	-1.7
BGU	Big Grassy Mou	4.71	56	Pn	Pg	06 11 20.7	-9.3
BGU				*e*Sg	Sg	06 12 30.4	-0.6
MSU	Marysvale	4.72	87	Pn	Pg	06 11 23.7	-6.4
MSU				*e*Sg	Sg	06 12 32.0	+0.8
HVU	Hansel Valley	5.35	49	*e*Pn	Pn	06 11 24.8	+5.1

DDA ***18** 06:15:54.1, 41°.14N×39°.73E, h23^{km}±1^{km}, Md3.1*

ISK ***18** 06:15:56.0, 40°.90N×39°.86E, h8^{km}, MD3.1*

CSEM ***18** 06:15:57.0±0.4, 40°.93N×39°.85E, h8^{km}, MD3.1, Error ellipse: s-maj=10.8km s-min=8.0km az=140.0*

ISC 18 06:15:57.5±0.6**, 40°.92N**±0°.06×**39°.87E**±0°.05**, h8**^{km}±6^{km}**,** **n15,** σ**1^{s}15**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MACK	Trabzon	0.08	289	*i* P	Pg	06 15 59.6	+0.1
MACK				*i* S	Sg	06 16 03.0	+2.1
MACK	Trabzon	0.08	289	*i* P	Pg	06 15 59.6	+0.1
MACK				*i* S	Sg	06 16 03.0	+2.1
KTUT	Trabzon	0.10	313	PG	Pg	06 15 58.9	-1.0
KTUT				SG	Sg	06 16 01.2	-0.3
KTUT	Trabzon	0.10	313	*i* Pg	Pg	06 15 58.9	-1.0
KTUT				*i* Sg	Sg	06 16 01.2	-0.3
GUMT	Gumushane	0.54	213	PG	Pg	06 16 06.5	-1.5
GUMT				SG	Sg	06 16 14.4	-0.7
GUMT	Gumushane	0.54	213	*i* Pg	Pg	06 16 06.5	-1.5
GUMT				*i* Sg	Sg	06 16 14.4	-0.7
PZAR	Pazar-Rize	0.82	71	PG	Pg	06 16 12.2	-1.2
PZAR				SG	Sg	06 16 24.9	+0.9
PZAR	Pazar-Rize	0.82	71	*i* Pg	Pg	06 16 12.2	-1.1
PZAR				*i* Sg	Sg	06 16 24.9	+0.9
KOPT	Kop Dagi	1.02	152	*i* P	Pg	06 16 18.4	+1.3
KOPT				*i* S	Sg	06 16 35.5	+5.2
KOPT	Kop Dagi	1.02	152	*i* P	Pg	06 16 18.4	+1.3
EZC	Erzincan	1.17	182	PN	Pn	06 16 19.4	-0.8
KEMA	Kemaliye	1.96	213	*i* P	Pn	06 16 30.2	-0.7
KEMA				*i* S	Sn	06 16 58.1	+2.3
KEMA	Kemaliye	1.96	213	*i* P	Pn	06 16 30.2	-0.8
KEMA				*i* S	Sn	06 16 58.1	+2.4
SVSK	Karacayir	2.41	246	*e*PN	Pn	06 16 37.6	+0.4
SVSK	Karacayir	2.41	246	*e*Pn	Pn	06 16 37.6	+0.4

ISCJB ***18** 07:21:15.9±0.3, 33°.33N±0°.02×35°.41E±0°.03, h10^{km}, Error ellipse: s-maj=3.7km s-min=2.1km az=27.6*

CSEM ***18** 07:21:16.4±0.3, 33°.37N×35°.34E, h15^{km}, ML3.2, Error ellipse: s-maj=8.4km s-min=4.0km az=104.0*

GII ***18** 07:21:16.0±0.4, 33°.23N×35°.43E, h1^{km}±2^{km}, Md2.8/9, Mm2.3/4*

NSSC ***18** 07:21:16, 33°.34N×35°.43E, h10^{km}±2^{km}*

GRAL ***18** 07:21:16.9±0.3, 33°.31N×35°.41E, h3^{km}±2^{km}, MD3.2*

HLW ***18** 07:21:18.3, 33°.68N×34°.12E, h6^{km}, Mb3.2*

ISC 18 07:21:16.3±0.3**, 33°.34N**±0°.02×**35°.42E**±0°.03**, h10**^{km}**, n44,** σ**0^{s}73**/70**, 1C-6D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	335	*e*P	Pg	07 21 20.3	+0.4
MATL	Matirih	0.17	335	*e*P	Pg	07 21 20.3	+0.4
KSDI	Kefar Szold	0.25	125	Pg	Pg	07 21 21.1	-0.2
KSDI				Sg	Sg	07 21 25.2	+0.4
HRI	Mount Hermon	0.28	105	Pg	Pg	07 21 21.9	+0.1
MMA0B	Mount Meron ar	0.32	182	Pg	Pg	07 21 22.0	-0.6
MMA0B				Sg	Sg	07 21 26.7	-0.2
MMB1	Mount Meron ar	0.32	181	Pg	Pg	07 21 22.1	-0.5
MMA4	Mount Meron ar	0.32	183	Pg	Pg	07 21 22.2	-0.4
HNTI	Hanita	0.32	219	Pg	Pg	07 21 22.6	-0.1
HNTI				Sg	Sg	07 21 27.7	+0.7
RCY	Rachaya	0.37	66	*e*P	Pg	07 21 24.2	+0.6
RCY				*e*S	Sg	07 21 29.6	+1.2
RCY	Rachaya	0.37	66	*e*P	Pg	07 21 24.2	+0.7
RCY				*e*S	Sg	07 21 29.6	+1.1
BRBR	Barbar	0.45	80	⇑P	Pg	07 21 25.0	-0.1
BRBR				⇑S	Sg	07 21 32.0	+0.8
KSHT	Keshet	0.48	137	Pg	Pg	07 21 25.6	-0.1
KSHT				Sg	Sg	07 21 32.7	+0.6
BEYL	Beyrouth	0.54	7	*e*P	Pg	07 21 27.2	+0.4
BEYL	Beyrouth	0.54	7	*e*P	Pg	07 21 27.2	+0.5
BHL	Bhannes	0.60	19	*e*P	Pg	07 21 28.1	+0.2
BHL	Bhannes	0.60	19	*e*P	Pg	07 21 28.1	+0.2
BLGI	Bet Lehem HaGe	0.63	197	Pg	Pg	07 21 27.9	-0.6
BLGI				Sg	Sg	07 21 37.4	+0.7
QASN	Qassioun	0.75	75	⇑P	Pg	07 21 30.0	-0.7
QASN				⇑S	Sg	07 21 41.0	+0.6
OFRI	‘Ofer	0.80	207	Pg	Pg	07 21 31.2	-0.5
OFRI				Sg	Sg	07 21 42.7	+0.6
TCHB	Talchebab	0.81	145	⇓P	Pg	07 21 31.0	-0.9
TCHB				⇓S	Sg	07 21 42.0	-0.5
TOTH	TOTAH	0.85	88	⇓P	Pg	07 21 32.0	-0.6
MMLI	Mount Malkishu	0.90	180	Pg	Pg	07 21 32.6	-0.9
MMLI				Sg	Sg	07 21 45.0	-0.2
HWQ	Hawqa	1.04	25	*e*P	Pg	07 21 36.1	-0.1
HWQ				*e*S	Sg	07 21 50.2	+0.4
HWQ	Hawqa	1.04	25	*e*P	Pg	07 21 36.1	-0.1
HWQ				*e*S	Sg	07 21 50.2	+0.5
HMDT	Nahal Hemdat	1.08	175	Pg	Pg	07 21 35.9	-1.2
HMDT				Sg	Sg	07 21 51.4	+0.2
SLTI	Sal’it	1.14	196	Pg	Pg	07 21 37.2	-0.9
SLTI				Sg	Sg	07 21 52.8	-0.1
FKH	Fakeheh	1.22	42	*e*P	Pn	07 21 39.2	-0.1
FKH				*e*S	Sb	07 21 55.6	+0.5
FKH	Fakeheh	1.22	42	*e*P	Pn	07 21 39.2	-0.1
FKH				*e*S	Sb	07 21 55.6	+0.5
SALA	Sala	1.27	119	⇓P	Pn	07 21 39.0	-1.1
SALA				⇓S	Sb	07 21 56.0	-0.7
ZALF	Zalf	1.66	104	⇑P	Pn	07 21 46.0	+0.6
ZALF				⇑S	Sn	07 22 06.0	-0.8
DSI	Dead Sea	1.76	181	Pn	Pn	07 21 46.8	0.0
DSI				Sn	Sn	07 22 10.6	+1.3
BIDA	Albida	1.83	24	⇑P	Pn	07 21 48.0	+0.2
BIDA				⇑S	Sn	07 22 10.0	-1.1
YTIR	Yattir	1.98	187	Pn	Pn	07 21 50.5	+0.6
MZDA	Masada	2.02	181	Pn	Pn	07 21 50.9	+0.5
MZDA				Sn	Sn	07 22 17.1	+1.4
WRDH	Warideh	2.32	21	⇑P	Pn	07 21 55.0	+0.5
WRDH				⇑S	Sn	07 22 21.0	-2.0
PRNI	Paran	3.00	187	Pn	Pn	07 22 04.4	+0.6
AMAG	Maghara	3.27	216	P	Pn	07 22 07.5	-0.2
AMAG	Maghara	3.27	216	P	Pn	07 22 07.5	-0.1
MBRI	Mt Berech	3.56	187	Pn	Pn	07 22 12.8	+1.3
HNKL	Nakhl	3.61	200	P	Pn	07 22 16.1	+3.8
HNKL	Nakhl	3.61	200	P	Pn	07 22 16.1	+3.9
SUZ		4.12	213	⇑*e*P	Pn	07 22 19.4	+0.1
SUZ				S	Sn	07 23 04.1	-3.5
SUZ		4.12	213	P	Pn	07 22 19.4	+0.1
SUZ				S	Sn	07 23 04.1	-3.5
HBST	Basata	4.15	188	⇓P	Pn	07 22 26.3	+6.7

NEIC ***18** 07:49:05.3, 17°.17N×99°.75W, h30^{km}, MD3.7(MEX), After MEX.*

MEX 18 07:49:05.3±0.9**, 17°.17N×99°.75W, h30**^{km}±15^{km}**, MD3.7, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.34	208	*i* P	Pb	07 49 11.2	-2.2
ACX				*i* S	Sb	07 49 17.5	-1.3
CAIG	El Cayaco	0.51	257	*i* P	Pb	07 49 13.8	-2.1
CAIG				*i* S	Sb	07 49 21.6	-1.5
MEIG	Mezcala	0.77	9	*i* P	Pn	07 49 18.1	-2.0
MEIG				*i* S	Sb	07 49 26.9	-3.3
PNIG	Pinotepa	1.73	116	*i* P	Pn	07 49 31.7	-1.6
PNIG				*i* S	Sn	07 49 52.1	-2.4
UTMO	Huajuapan	1.97	70	*e*P	Pn	07 49 33.6	-3.0
UTMO				*i* S	Sn	07 49 58.1	-2.2
MZVM		2.07	14	*e*P	Pn	07 49 35.3	-2.8
MZVM				*i* S	Sn	07 49 59.3	-3.5
PPM	Popocatepetl	2.17	29	*e*P	Pn	07 49 38.4	-1.0
PPM				*i* S	Sn	07 50 04.2	-1.0
IIO	Organos	2.60	22	*e*P	Pn	07 49 44.5	-0.8
IIO				*i* S	Sn	07 50 13.8	-2.1
VHO	Vista Hermosa	2.89	91	*i* P	Pn	07 49 47.4	-1.8
VHO				*i* S	Sn	07 50 20.0	-2.9

NEIC ***18** 07:59:47.5, 17°.43N×95°.76W, h112^{km}, MD3.9(MEX), After MEX.*

MEX 18 07:59:47.4±0.9**, 17°.43N×95°.76W, h114**^{km}±10^{km}**, MD3.9, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.90	112	*i* P	Pn	08 00 06.8	-1.1
CMIG				*i* S	Sn	08 00 20.8	-2.5
OXX	Oaxaca	0.98	250	*i* P	Pn	08 00 08.0	-0.8
OXX				*i* S	Sn	08 00 23.9	-0.9
VHO	Vista Hermosa	1.00	249	*i* P	Pn	08 00 07.6	-1.2
VHO				*i* S	Sn	08 00 23.3	-1.8
TUIG	Tuzandepetl	1.41	65	*i* P	Pn	08 00 12.4	-0.9
TUIG				*i* S	Sn	08 00 31.3	-1.8
HUIG	Huatulco	1.69	192	*i* P	Pn	08 00 15.7	-1.0
HUIG				*i* S	Sn	08 00 36.8	-2.2
TPIG	Tehuac#an	1.82	303	*e*P	Pn	08 00 16.3	-2.0
TPIG				*i* S	Sn	08 00 39.2	-2.6
UTMO	Huajuapan	1.99	282	*i* P	Pn	08 00 19.4	-1.1
UTMO				*i* S	Sn	08 00 43.1	-2.5
PNIG	Pinotepa	2.49	246	*i* P	Pn	08 00 23.8	-3.1
PNIG				*i* S	Sn	08 00 53.4	-3.8
TGIG		2.60	104	*i* P	Pn	08 00 28.0	-0.3
TGIG				*i* S	Sn	08 00 58.0	-1.7
PCIG		2.98	125	*i* P	Pn	08 00 32.4	-0.8
PCIG				*i* S	Sn	08 01 08.1	-0.4
PPM	Popocatepetl	3.17	301	*i* P	Pn	08 00 37.4	+1.6
PPM				*i* S	Sn	08 01 12.2	-1.0
IIO	Organos	3.54	308	*e*P	Pn	08 00 39.7	-1.0
IIO				*i* S	Sn	08 01 20.3	-1.5
CCIG	Comitan	3.65	108	*e*P	Pn	08 00 44.5	+2.3
CCIG				*i* S	Sn	08 01 21.4	-3.1
MZVM		3.73	298	*i* P	Pn	08 00 42.3	-0.9
MZVM				*i* S	Sn	08 01 24.8	-1.7
CAIG	El Cayaco	4.33	266	*e*P	Pn	08 00 48.5	-2.7
CAIG				*i* S	Sn	08 01 41.8	+1.0

CSEM ***18** 08:11:43.3±0.2, 49°.36N×6°.70E, h2^{km}, ML2.5/7, Error ellipse: s-maj=3.9km s-min=2.7km az=121.0*

LDG ***18** 08:11:44.5±0.1, 49°.37N×6°.70E, h1^{km}, Md2.5/3, Ml2.5/7, Error ellipse: s-maj=1.3km s-min=1.0km az=114.0, Suspected Mining induced.*

NEIC ***18** 08:11:44.5, 49°.37N×6°.70E, h1^{km}, ML2.3(STR), ML2.5(LDG), After LDG.*

BGR 18 08:11:45.5±0.4**, 49°.33N×6°.84E, h1**^{km}**, ML1.7**/3**, Error ellipse: s-maj=6.7km s-min=4.4km az=39.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	Ruppelstein	0.40	21	Pg	Pg	08 11 52.6	-0.5
RUP	Ruppelstein	0.40	21	Pg	Pg	08 11 52.6	-0.5
WLF	Walferdange SNR=2.6	0.56	307	*e*Pg	Pg	08 11 56.3	+0.1
WLF				*e*Sg	Sg	08 12 03.3	-0.2
WLF	Walferdange SNR=2.6	0.56	307	Pg	Pg	08 11 56.3	+0.1
WLF				Sg	Sg	08 12 03.3	-0.1
ABH	Alteburg	0.71	40	Pg	Pg	08 11 58.4	-0.8
ABH	Alteburg	0.71	40	Pg	Pg	08 11 58.4	-0.8
CDF	Champ du Feu	0.97	163	*e*Pg	Pg	08 12 03.7	-0.3
CDF	29nm,0.5s			*e*Sg	Sg	08 12 16.8	+0.3
CDF	Champ du Feu	0.97	163	*e*Pg	Pg	08 12 03.7	-0.3
CDF	15nm,0.5s			*e*Sg	Sg	08 12 16.8	+0.3
ECH	Echery	1.14	169	Pg	Pg	08 12 06.6	-0.7
ECH				Sg	Sg	08 12 22.5	+0.4
ECH	Echery	1.14	169	Pg	Pg	08 12 06.6	-0.7
ECH				Sg	Sg	08 12 22.5	+0.4
RFYF	Reffroy	1.14	232	*e*Pg	Pg	08 12 05.1	-2.3
RFYF	Reffroy baz=45	1.14	232	*e*P	Pg	08 12 07.0	-0.4
RFYF	14nm,0.3s			*e*Sg	Sg	08 12 19.0	-3.3
RFYF	Reffroy	1.14	232	*e*Pg	Pg	08 12 05.1	-2.3
RFYF	Reffroy baz=45	1.14	232	*e*P	Pg	08 12 07.0	-0.4
RFYF	7.2nm,0.3s			*e*Sg	Sg	08 12 19.0	-3.3
THEF	They Montfort	1.24	207	Pg	Pg	08 12 07.1	-2.3
THEF				Sg	Sg	08 12 24.3	-1.2
THEF	They Montfort	1.24	207	Pg	Pg	08 12 07.1	-2.3
THEF				Sg	Sg	08 12 24.3	-1.2
TOD	Tromm	1.31	77	Pg	Pg	08 12 09.1	-1.5
TOD				Sg	Sg	08 12 27.6	0.0
TOD	Tromm	1.31	77	Pg	Pg	08 12 09.1	-1.5
TOD				Sg	Sg	08 12 27.6	0.0
HAU	Haudompre	1.37	194	*e*Pg	Pg	08 12 10.5	-1.2
HAU	12nm,0.2s			*e*Sn	Sn	08 12 27.5	-3.0
HAU	Haudompre	1.37	194	*e*Pg	Pg	08 12 10.5	-1.2
HAU	5.9nm,0.2s			*e*Sn	Sn	08 12 27.5	-3.0
TNS	Taunus Mts SNR=1.0	1.37	49	*e*Pn	Pn	08 12 09.8	-1.9
TNS	SNR=3.0			*e*Pg	Pg	08 12 11.0	-0.7
TNS				*e*Sg	Sg	08 12 29.4	-0.1
TNS	Taunus Mts SNR=1.0	1.37	49	Pn	Pn	08 12 09.8	-2.0
BFO	Black Forest SNR=1.1	1.41	135	*e*Pn	Pn	08 12 11.3	-0.9
BFO	SNR=2.1			*e*Pg	Pg	08 12 12.1	-0.3
BFO				*e*Sg	Sg	08 12 30.0	-0.7
BFO	Black Forest SNR=1.1	1.41	135	Pn	Pn	08 12 11.3	-0.9
BFO	Black Forest SNR=2.1	1.41	135	Pg	Pg	08 12 12.1	-0.4
BFO				Sg	Sg	08 12 30.0	-0.7
MOF	Molkenrain	1.50	172	Pg	Pg	08 12 12.8	-1.4
MOF				Sg	Sg	08 12 32.8	-0.8
MOF	Molkenrain	1.50	172	Pg	Pg	08 12 12.8	-1.4
MOF				Sg	Sg	08 12 32.8	-0.8
GIVF	Givet	1.52	301	*e*Pg	Pg	08 12 10.7	-3.9
GIVF	4.6nm,0.3s			*e*Sn	Sn	08 12 27.8	-6.4
GIVF	Givet	1.52	301	*e*Pg	Pg	08 12 10.7	-3.9
GIVF	2.3nm,0.3s			*e*Sn	Sn	08 12 27.8	-6.4
HINF	Hinteralfeld	1.52	180	*e*Pg	Pg	08 12 13.6	-1.0
HINF	17nm,0.3s			*e*Sn	Sn	08 12 31.4	-2.8
HINF	Hinteralfeld	1.52	180	*e*Pg	Pg	08 12 13.6	-1.0
HINF	8.6nm,0.3s			*e*Sn	Sn	08 12 31.4	-2.8
SFTF	Sexfontaines 8.2nm,0.4s	1.64	227	*e*Sg	Sg	08 12 34.9	-3.4
SFTF	Sexfontaines	1.64	227	*e*Sg	Sg	08 12 34.9	-3.4

	4.1nm,0.4s						
FELD	**Feldberg im Sc**	**1.65**	**152**	Pn	Pn	08 12 13.0	-2.6
FELD				Pg	Pg	08 12 15.8	-1.3
FELD				Sg	Sg	08 12 38.0	-0.5
FELD	**Feldberg im Sc**	**1.65**	**152**	Pn	Pn	08 12 13.0	-2.6
FELD	**Feldberg im Sc**	**1.65**	**152**	Pg	Pg	08 12 15.8	-1.3
LOR	**Lormes**	**2.87**	**225**	*e*Pn	Pn	08 12 28.3	-4.1
	baz=44						
LOR				*e*Sn	Sn	08 13 01.9	-5.6
	3.7nm,0.4s						
LOR	**Lormes**	**2.87**	**225**	*e*Pn	Pn	08 12 28.3	-4.1
	baz=44						
LOR				*e*Sn	Sn	08 13 01.9	-5.6
	1.9nm,0.4s						
GEC2	**GERESS Array S**	**4.54**	**94**	*e*Pn	Pn	08 12 54.8	-0.5
	SNR=1.9						
GEC2	**GERESS Array S**	**4.54**	**94**	Pn	Pn	08 12 54.8	-0.4
	SNR=1.9						

IDC 18 08:12:07.7±1.2, 50°.14N×28°.80W, h0^{km}, mb3.4/3, mb1 3.6/3, mb1mx3.2/27, mbtmp3.4/3, Error ellipse: s-maj=47.2km s-min=35.7km az=20.0, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TORD	**Torodi Ar. Bea**	**44.51**	**135**	P	P	08 20 21.0	+0.1
	0.4nm,0.4s,baz=336,slow=8.3,SNR=4.6						
TXAR	**Lajitas Array**	**58.68**	**279**	P	P	08 22 07.3	+0.4
	0.1nm,0.4s,baz=60,slow=7.6,SNR=3.8						
MKAR	**Makanchi Array**	**66.60**	**44**	P	P	08 23 00.1	+0.6
	0.2nm,0.6s,baz=336,slow=5.6,SNR=3.7						
ASAR	**Alice Springs**	**150.32**	**33**	PKPbc	PKPbc	08 31 59.3	-1.4
	0.4nm,0.5s,baz=343,slow=2.5,SNR=6.9						
ASAR				PKPab	PKPab	08 32 06.9	-0.1
	0.2nm,0.4s,baz=354,slow=2.8,SNR=3.2						

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*NIED **18** 08:24:00, 36°.40N×141°.80E, h23^{km}, Mw4.0 Best double couple: $M_0$9.51000×10^{14} NP1:ϕ_s31.00000°, δ67.00000°, λ94.00000°. NP2:ϕ_s202.00000°, δ23.00000°, λ81.00000°.*

*BJI **18** 08:24:16.6, 36°.40N×142°.00E, h10^{km}, mB4.9/3, mb4.2/5*

*IDC **18** 08:24:17.1±1.1, 36°.36N×141°.93E, h0^{km}, mb3.8/7, mb1 3.9/10, mb1mx3.8/25, mbtmp3.8/10, ML3.6/3, MS3.3/3, Ms1 3.4/3, ms1mx2.9/30, Error ellipse: s-maj=28.8km s-min=20.5km az=89.0*

*NEIC **18** 08:24:18.6±0.5, 36°.37N×141°.97E, h10^{km}, MG3.6(JMA), Error ellipse: s-maj=13.7km s-min=10.0km az=217.0*

*ISCJB **18** 08:24:18.8±2.3, 36°.35N±0°.04×142°.0E±0°.1, h25^{km}±15^{km}, mb3.9/9, Error ellipse: s-maj=15.7km s-min=7.5km az=2.1*

*JMA **18** 08:24:21.2±0.3, 36°.39N×141°.75E, h62^{km}, M3.6*

ISC 18 08:24:21.2±2.1, 36°.36N±0°.04×141°.83E±0°.08, h27^{km}±16^{km}, n33, σ0^{s}94/37, mb3.9/9, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOJ	**Chosi**	**1.02**	**230**	P	**Pn**	**08 24 39.6**	**-0.2**
CHOJ				*e*S	**Sn**	**08 24 53.7**	**+0.5**
JHO	**Hitachi**	**1.04**	**284**	P	**Pn**	**08 24 38.8**	**-1.3**
ONAJ	**Iwakimizuishiy**	**1.11**	**312**	P	**Pn**	**08 24 39.8**	**-1.2**
JFK	**Kawauchi**	**1.26**	**323**	P	**Pn**	**08 24 42.4**	**-0.7**
JFT	**Otama**	**1.66**	**315**	P	**Pn**	**08 24 48.9**	**+0.3**
JMM	**Marumori**	**1.72**	**331**	P	**Pn**	**08 24 48.9**	**-0.4**
BSO1	**Boso 1**	**1.84**	**202**	P	**Pn**	**08 24 50.5**	**-0.5**
BSO3	**Boso 3**	**1.89**	**215**	P	**Pn**	**08 24 51.8**	**+0.1**
JAG	**Ashikaga**	**1.92**	**273**	P	**Pn**	**08 24 51.6**	**-0.5**
JFY	**Yanaizu**	**2.00**	**302**	P	**Pn**	**08 24 53.7**	**+0.5**
JRY	**Ryogami san**	**2.39**	**263**	P	**Pn**	**08 24 58.5**	**-0.1**
JNS	**Sasagawa**	**2.48**	**307**	P	**Pn**	**08 25 01.4**	**+1.6**
JOD2	**Odawara 2**	**2.48**	**245**	P	**Pn**	**08 25 00.4**	**+0.6**
JMK	**Ichinoseki**	**2.63**	**350**	P	**Pn**	**08 25 02.0**	**+0.1**
MJAR	**Matsushiro Arr**	**2.92**	**275**	Pn	**Pn**	**08 25 06.3**	**+0.4**
	7.5nm,0.3s,baz=100,slow=8.6,SNR=67						
MJAR				LR	LR	08 26 20.3	
	comp=Z,272nm,21.1s,baz=135,slow=41						
MAJO	**Matsushiro**	**2.92**	**275**	*e*Pn	**Pn**	**08 25 07.4**	**+1.5**
MAJO				*e*Sn	**Sn**	**08 25 38.0**	**-2.2**
MAT	**Matsushiro**	**2.92**	**275**	P	**Pn**	**08 25 07.0**	**+1.1**
MAT				*e*S	**Sn**	**08 25 50.2**	**+10**
JHJ	**Hachijo jima 2**	**3.65**	**208**	Pn	**Pn**	**08 25 15.1**	**-0.7**
	30nm,0.3s,baz=235,slow=23,SNR=7.5						
JHJ				Sn	**Sn**	**08 25 55.4**	**-2.6**
	54nm,0.3s,baz=261,slow=24,SNR=6.4						
ASAJ	**Asahikawa**	**7.77**	**4**	Pn	**Pn**	**08 26 12.3**	**-0.2**
	0.5nm,0.3s,baz=280,slow=6.1,SNR=4.2						
ASAJ				Sn	**Sn**	**08 27 37.0**	**-2.5**
	0.5nm,0.3s,baz=30,slow=20,SNR=2.3						
KSRS	**Korea Array**	**11.19**	**280**	Pn	**Pn**	**08 27 04.1**	**+4.8**
	0.1nm,0.3s,baz=93,slow=14,SNR=4.7						
KSRS				LR	LR	08 31 13.6	
	comp=Z,99nm,20.2s,baz=161,slow=37						
SONM	**Songino Array**	**28.44**	**305**	P	**P**	**08 30 13.8**	**+0.2**
	3.1nm,0.8s,mb4.0,baz=100,slow=9.2,SNR=20						
ZAA0	**Zalesovo Array**	**42.62**	**313**	*e*P	**P**	**08 32 15.7**	**+0.8**
ZALV	**Zalesovo Beam**	**42.62**	**313**	P	**P**	**08 32 15.6**	**+0.7**
	2.0nm,0.6s,mb4.0,baz=77,slow=9.3,SNR=7.9						
MK31	**Makanchi Array**	**44.76**	**303**	*e*P	**P**	**08 32 32.8**	**+0.6**
MKAR	**Makanchi Array**	**44.76**	**303**	P	**P**	**08 32 32.0**	**-0.2**
	1.1nm,0.7s,mb3.8,baz=88,slow=10,SNR=9.9						
TKM2	**Tokmak 2**	**50.25**	**299**	*e*P	**P**	**08 33 16.3**	**+1.4**
	2.0nm,0.5s,mb4.4						
WRA	**Warramunga Arr**	**56.44**	**188**	P	**P**	**08 34 00.2**	**-0.3**
	0.3nm,0.4s,mb3.7,baz=6.5,slow=7.7,SNR=2.8						
ASAR	**Alice Springs**	**60.17**	**188**	P	**P**	**08 34 27.3**	**+0.8**
	0.2nm,0.6s,mb3.3,baz=16,slow=14,SNR=3.1						
YKA	**Yellowknife Ar**	**64.22**	**30**	P	**P**	**08 34 52.8**	**-0.5**
	0.2nm,0.7s,mb3.3,baz=301,slow=6.8,SNR=5.3						
YKA	**Yellowknife Ar**	**64.22**	**30**	P	**P**	**08 34 52.8**	**-0.5**
NOA	**NORSAR Array B**	**74.94**	**338**	P	**P**	**08 36 00.3**	**+0.9**
	1.0nm,0.9s,mb3.8,baz=52,slow=7.9,SNR=3.0						
URZ	**Urewera**	**81.10**	**153**	P	**P**	**08 36 33.6**	**-0.1**
	31nm,1.5s,mb5.0						
ESDC	**Sonseca Array**	**98.04**	**334**	LR	LR	09 24 38.3	
	comp=Z,46nm,20.0s,baz=340,slow=37						

DJA 18 08:40:54, 8°.52S×107°.17E, h82^{km}, MLv4.3/4, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEM	**Lembang**	**1.74**	**15**	P	Pn	08 41 23.2	+0.6
LEM				S	Sn	08 41 46.9	+2.7
CLJI	**Cilicap**	**1.99**	**67**	P	Pn	08 41 26.8	+0.9
CLJI				S	Sn	08 41 52.0	+1.8
DBJI	**Dramaga**	**2.00**	**348**	P	Pn	08 41 27.3	+1.3
DBJI				S	Sn	08 41 51.3	+1.0
CBJI	**Citeko**	**2.11**	**351**	P	Pn	08 41 25.1	-2.4
CBJI				S	Sn	08 41 54.0	+1.0
XMIS	**Christmas Isla**	**2.46**	**217**	P	Pn	08 41 32.4	+0.3
XMIS				S	Sn	08 42 02.4	+1.1
TGJI	**Tegal**	**2.54**	**50**	P	Pn	08 41 33.9	+0.8
TGJI				S	Sn	08 42 03.3	+0.1
SBJI	**Serang**	**2.60**	**337**	P	Pn	08 41 36.2	+2.2
SBJI				S	Sn	08 42 06.4	+1.7

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*MOS **18** 08:50:59.0±0.9, 31°.43S×68°.84W, h71^{km}, mb4.9/10, Error ellipse: s-maj=19.1km s-min=9.6km az=105.6*

*ISCJB **18** 08:51:01.6±0.6, 31°.48S±0°.03×68°.70W±0°.06, h96^{km}±4^{km}, mb4.7/53, Error ellipse: s-maj=8.0km s-min=4.6km az=165.7*

*GUC **18** 08:51:03.5±0.8, 31°.53S×69°.20W, h147^{km}±12^{km}, MD4.8, ML4.9*

*IDC **18** 08:51:03.9±0.4, 31°.53S×68°.72W, h106^{km}±2^{km}, mb4.4/14, mb1 4.4/16, mb1mx4.4/20, mbtmp4.3/16, MS3.5/2, Ms1 3.5/2, ms1mx3.1/25, Error ellipse: s-maj=14.3km s-min=10.4km az=49.0*

*NEIC **18** 08:51:03.2±0.3, 31°.48S×68°.78W, h98^{km}±3^{km}, mb4.7/36, MD4.8(GUC), Error ellipse: s-maj=6.0km s-min=4.1km az=81.0*

NEIC Felt [IV] at San Juan.

ISC 18 08:51:03.1±0.5, 31°.49S±0°.03×68°.75W±0°.05, h95^{km}±3^{km}, h110^{km}±2.4^{km}:pP-P, n484, σ0^{s}67/449, mb4.7/53, 151C-158D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	**Coronel Fontan**	**0.46**	**105**	P	**Pn**	**08 51 21.0**	**+3.1**
	baz=288,slow=7.8						
CFAA				S	**Sn**	**08 51 33.6**	**+4.6**
	253nm,0.3s,baz=162,slow=20,SNR=339						
CMCH	**Combarbala**	**1.95**	**279**	*e*P	**Pn**	**08 51 34.5**	**-0.3**
CMCH				*i* S	**Sn**	**08 51 57.7**	**-1.2**
CMCH	**Combarbala**	**1.95**	**279**	*e*P	**Pn**	**08 51 34.5**	**-0.3**
CMCH				*i* S	**Sn**	**08 51 57.7**	**-1.2**
CMCH				AML	AML	08 52 01.2	
	comp=E,72µm,0.6s						
TLL	**Tololo Astrono**	**2.20**	**306**	⇑*i*P	**Pn**	**08 51 39.0**	**+0.9**
TLL				*i* S	**Sn**	**08 52 05.0**	**+0.2**
TLL	**Tololo Astrono**	**2.20**	**306**	⇑*i*P	**Pn**	**08 51 39.0**	**+0.9**
TLL				*i* S	**Sn**	**08 52 05.0**	**+0.2**
TLL				AML	AML	08 52 09.6	
	comp=N,5µm,0.5s						
OVCH	**Ovalle**	**2.28**	**292**	⇑*e*P	**Pn**	**08 51 38.5**	**-0.5**
OVCH				*i* S	**Sn**	**08 52 05.0**	**-1.6**
OVCH	**Ovalle**	**2.28**	**292**	⇑*e*P	**Pn**	**08 51 38.5**	**-0.5**
OVCH				*i* S	**Sn**	**08 52 05.0**	**-1.6**
OVCH				AML	AML	08 52 06.6	
	comp=N,10µm,0.4s						
PEL	**Peldehue**	**2.32**	**224**	⇓*i*P	**Pn**	**08 51 39.4**	**-0.3**
PEL				*i* S	**Sn**	**08 52 06.6**	**-1.0**
PEL				AML	AML	08 52 08.7	
	comp=N,6µm,0.5s						
CHNG	**Los Chungos**	**2.37**	**260**	⇑*e*P	**Pn**	**08 51 38.8**	**-1.5**
CHNG				*i* S	**Sn**	**08 52 05.0**	**-3.9**
YECH	**El Yeso**	**2.44**	**207**	*e*P	**Pn**	**08 51 42.6**	**+1.4**
YECH				*i* S	**Sn**	**08 52 12.7**	**+2.2**
YECH				AML	AML	08 52 18.1	
	comp=N,3µm,0.4s						
FSR	**Penalolen**	**2.49**	**217**	*e*P	**Pn**	**08 51 42.6**	**+0.8**
FSR				*i* S	**Sn**	**08 52 11.9**	**+0.4**
FSR	**Penalolen**	**2.49**	**217**	*e*P	**Pn**	**08 51 42.6**	**+0.8**
FSR				*i* S	**Sn**	**08 52 11.9**	**+0.4**
PCH	**Pirque**	**2.59**	**215**	*e*P	**Pn**	**08 51 43.8**	**+0.6**
PCH	**Pirque**	**2.59**	**215**	*e*P	**Pn**	**08 51 43.8**	**+0.6**
ANTU	**Antumapu**	**2.61**	**217**	*e*P	**Pn**	**08 51 43.6**	**+0.1**
ANTU				*e*S	**Sn**	**08 52 13.8**	**-0.8**
ANTU	**Antumapu**	**2.61**	**217**	*e*P	**Pn**	**08 51 43.6**	**+0.1**
ANTU				*e*S	**Sn**	**08 52 13.8**	**-0.8**
ANTU				AML	AML	08 52 20.2	
	comp=N,3µm,0.3s						
TACH	**Talagante**	**2.84**	**220**	⇓*e*P	**Pn**	**08 51 45.7**	**-0.8**
TACH	**Talagante**	**2.84**	**220**	⇓*e*P	**Pn**	**08 51 45.7**	**-0.8**
CHCH	**Chadas Angostu**	**2.92**	**213**	⇓*e*P	**Pn**	**08 51 47.6**	**+0.1**
CHCH	**Chadas Angostu**	**2.92**	**213**	⇓*e*P	**Pn**	**08 51 47.6**	**+0.1**
LCO	**Las Campanas**	**2.99**	**325**	*e*Pn	**Pn**	**08 51 49.2**	**+0.6**
LCO				*e*Sn	**Sn**	**08 52 18.1**	**-5.4**
LCO	**Las Campanas**	**2.99**	**325**	⇑*i*P	**Pn**	**08 51 49.5**	**+1.0**
LCO				*i* S	**Sn**	**08 52 24.6**	**+1.1**
LCO				AML	AML	08 52 27.0	
	comp=N,2µm,0.7s						
CACH	**El Canelo**	**3.05**	**210**	⇑*e*P	**Pn**	**08 51 49.6**	**+0.4**
CACH	**El Canelo**	**3.05**	**210**	⇑*e*P	**Pn**	**08 51 49.6**	**+0.4**
LVC	**Limon Verde**	**8.84**	**359**	P	**Pn**	**08 53 07.0**	**-1.1**
	comp=N,6.2nm,0.3s,baz=180,slow=7.6,SNR=62						
LVC				S	**Sn**	**08 54 41.5**	**-4.5**
	comp=N,2.8nm,0.3s,baz=180,slow=19,SNR=3.8						
LVC				LR	LR	08 56 38.4	
	comp=N,147nm,20.9s,baz=360,slow=38						
LVC	**Limon Verde**	**8.84**	**359**	*e*Pn	**Pn**	**08 53 06.8**	**-1.2**
PLCA	**Paso Flores**	**9.34**	**188**	P	**Pn**	**08 53 13.1**	**-1.5**
	comp=N,0.6nm,0.3s,baz=355,slow=12,SNR=21						
CPUP	**Villa Florida**	**11.25**	**66**	P	**Pn**	**08 53 40.0**	**-0.7**
	comp=N,0.7nm,0.3s,baz=223,slow=12,SNR=19						
ARE	**Arequipa**	**15.16**	**350**	*e*P	**Pn**	**08 54 33.0**	**+0.8**
NNA	**Nana**	**20.79**	**337**	P	**P**	**08 55 37.5**	**+0.8**
	comp=N,7.4nm,0.6s,baz=188,slow=14,SNR=4.3						
NNA	**Nana**	**20.79**	**337**	*e*P	**P**	**08 55 37.2**	**+0.5**
USHA	**Ushuaia**	**23.33**	**180**	P	**P**	**08 56 02.3**	**-0.3**
	comp=N,31nm,0.6s,mb4.8,baz=340,slow=8.1,SNR=30						
USHA				LR	LR	09 05 08.1	
	comp=N,191nm,18.4s,baz=247,slow=36						
SDV	**Santo Domingo**	**40.18**	**357**	*e*P	**P**	**08 58 28.8**	**-1.4**
	comp=N,7.2nm,0.8s,mb4.5						
PCRV	**Puerto La Cruz**	**41.61**	**6**	P	**P**	**08 58 41.4**	**-0.5**
	comp=N,8.6nm,0.7s,mb4.6,baz=203,slow=5.3,SNR=3.1						
JTS	**JuntasAbangare**	**44.35**	**337**	P	**P**	**08 59 04.4**	**+0.4**
	comp=N,2.1nm,0.5s,mb4.2,baz=164,slow=9.4,SNR=4.0						
JTS	**JuntasAbangare**	**44.35**	**337**	P	**P**	**08 59 02.6**	**-1.4**
TGUH	**Tegucigalpa,Un**	**48.65**	**336**	*e*P	**P**	**08 59 37.1**	**-0.4**
	comp=N,161nm,0.6s						
OBIP	**Obispado Ponce**	**49.29**	**3**	*e*P	**P**	**08 59 42.2**	**-0.2**
	comp=N,36nm,0.8s,mb5.3						
VNA3	**Neumayer Olymp**	**50.67**	**159**	*e*P	**P**	**08 59 52.4**	**+0.1**
VNA2	**Neumayer--Watz**	**51.28**	**158**	*e*P	**P**	**08 59 56.7**	**-0.2**
VNA2				*e*	pP	09 00 24.0	+4.3
VNA2				*e*		09 00 35.1	
QSPA	**South Pole Qui**	**58.74**	**180**	⇓*i*P	**P**	**09 00 50.6**	**+0.2**
	comp=N,13nm,0.6s,mb5.1						
VBMS	**Vicksburg**	**66.62**	**340**	⇓*i*P	**P**	**09 01 43.7**	**+0.4**
	comp=N,56nm,0.9s,mb5.4						
VNDA	**Vanda**	**67.08**	**191**	P	**P**	**09 01 46.2**	**+0.5**
	comp=N,1.7nm,0.7s,mb4.0,baz=119,slow=3.0,SNR=8.5						
SYO	**Syowa Base**	**67.17**	**158**	⇑*e*P	**P**	**09 01 44.2**	**-2.2**
TKL	**Tuckaleechee C**	**68.27**	**347**	⇑*i*P	**P**	**09 01 52.8**	**-0.8**
SWET	**Sewanee**	**68.29**	**345**	⇓*i*P	**P**	**09 01 53.2**	**-0.6**
JCT	**Junction City**	**68.31**	**331**	⇓*i*P	**P**	**09 01 54.0**	**0.0**
PLAL	**Pickwick Lake**	**68.57**	**343**	*e*P	**P**	**09 01 54.5**	**-1.0**
TXAR	**Lajitas Array**	**69.00**	**328**	P	**P**	**09 01 58.4**	**+0.1**
	comp=N,4.7nm,0.6s,mb4.5,baz=153,slow=8.4,SNR=68						
MIAR	**Mount Ida**	**69.72**	**338**	⇑*i*P	**P**	**09 02 02.4**	**-0.2**
MIAR				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.8						
MIAR	**Mount Ida**	**69.72**	**338**	⇑*i*P	**P**	**09 02 02.4**	**-0.2**
	comp=Z,16nm,1.1s,mb4.8						
GNAR	**Gosnell**	**70.00**	**342**	*i* P	**P**	**09 02 04.3**	**0.0**
	comp=Z,550nm,0.8s						
UTMT	**University of**	**70.06**	**343**	⇓*i*P	**P**	**09 02 04.5**	**-0.2**
	comp=Z,136nm,0.9s,mb5.8						
PARMO	**Parma**	**70.59**	**342**	*i* P	**P**	**09 02 08.1**	**+0.2**
WCI	**Wyandotte Cave**	**71.26**	**345**	*e*P	**P**	**09 02 10.9**	**-1.0**
LIC	**Lamto**	**71.34**	**70**	*e*P	**P**	**09 02 12.9**	**-0.1**
	comp=Z,56nm,1.2s,mb5.3						
SIUC	**Southern Illin**	**71.45**	**343**	*i* P	**P**	**09 02 12.4**	**-0.6**
	comp=Z,9.8nm,0.8s,mb4.7						
TIC	**Toumodi**	**71.59**	**70**	*e*P	**P**	**09 02 14.5**	**0.0**
	comp=Z,31nm,0.7s,mb5.2						
KIC	**Kosan Boka**	**71.65**	**70**	*e*P	**P**	**09 02 14.9**	**+0.1**
	comp=Z,94nm,0.9s,mb5.6						
WMOK	**Wichita Mounta**	**71.68**	**334**	⇓*i*P	**P**	**09 02 13.5**	**-1.0**
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
WMOK	**Wichita Mounta**	**71.68**	**334**	⇓*i*P	**P**	**09 02 13.5**	**-1.0**
	comp=Z,5.2nm,0.9s,mb4.4						
DBIC	**Dimbokro**	**71.73**	**70**	P	**P**	**09 02 15.6**	**+0.2**
	comp=Z,12nm,0.8s,mb4.8,baz=212,slow=7.3,SNR=21						
DBIC	**Dimbokro**	**71.73**	**70**	P	**P**	**09 02 15.6**	**+0.2**
GDL2	**Guadalupe Moun**	**71.75**	**329**	*e*P	**P**	**09 02 15.4**	**+0.4**
FVM	**French Village**	**72.01**	**342**	⇓*i*P	**P**	**09 02 15.9**	**-0.5**
FVM				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.3						
FVM	**French Village**	**72.01**	**342**	⇓*i*P	**P**	**09 02 15.8**	**-0.6**
	comp=Z,30nm,0.6s,mb5.3						
OLIL	**Olney**	**72.15**	**344**	*e*P	**P**	**09 02 16.1**	**-1.1**
BLO	**Bloomington**	**72.22**	**346**	⇑*i*P	**P**	**09 02 16.6**	**-1.0**
BLO				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.0						
BLO	**Bloomington**	**72.22**	**346**	⇑*i*P	**P**	**09 02 16.6**	**-1.0**
	comp=Z,17nm,0.7s,mb5.0						
ACSO	**Alum Creek Sta**	**72.57**	**349**	*i* P	**P**	**09 02 19.1**	**-0.6**
	comp=Z,23nm,0.8s,mb5.1						
222A	**Williams Famil**	**72.92**	**327**	⇓P	**P**	**09 02 23.0**	**+1.0**
	baz=73						
AMTX	**Amarillo**	**72.93**	**332**	⇑*i*P	**P**	**09 02 22.0**	**0.0**
	comp=Z,9.4nm,0.8s,mb4.7						
320A	**Kipp Ranch, An**	**72.97**	**325**	⇓P	**P**	**09 02 22.5**	**+0.3**
	baz=73						
221A	**Mesquite Ranch**	**73.16**	**326**	⇓P	**P**	**09 02 24.6**	**+1.2**
	baz=73						
122A	**Conniff Cattle**	**73.37**	**327**	⇑P	**P**	**09 02 25.9**	**+1.3**
	baz=74						
319A	**Douglas**	**73.37**	**325**	⇓P	**P**	**09 02 25.4**	**+0.7**
	baz=74,SNR=13						
220A	**Playas Peak, P**	**73.44**	**325**	⇑P	**P**	**09 02 25.2**	**+0.2**
	baz=74						
SUR	**Sutherland**	**73.59**	**118**	*i* P	**P**	**09 02 27.7**	**+1.5**
	comp=Z,10.0nm,0.6s,mb4.7						
121A	**Cookes Peak, D**	**73.60**	**326**	⇑P	**P**	**09 02 26.9**	**+1.0**
	baz=74						
318A	**Bisbee**	**73.78**	**324**	⇓P	**P**	**09 02 27.6**	**+0.6**
	baz=74,SNR=13						
219A	**White Tail Can**	**73.87**	**325**	⇑P	**P**	**09 02 28.1**	**+0.5**
	baz=74						
120A	**U Bar Ranch, L**	**74.01**	**326**	⇓P	**P**	**09 02 29.2**	**+0.8**
	baz=74						
HDIL	**Hopedale**	**74.16**	**344**	⇓*i*P	**P**	**09 02 28.1**	**-1.0**
	comp=Z,27nm,0.5s,mb5.2						
217A	**Green Valley**	**74.47**	**324**	P	**P**	**09 02 31.6**	**+0.6**
	baz=75,SNR=8.2						
LPM	**Los Pinos Moun**	**74.54**	**328**	*e*P	**P**	**09 02 32.4**	**+1.0**
118A	**Homack Ranch,**	**74.74**	**325**	⇑P	**P**	**09 02 32.6**	**0.0**
	baz=75						
MAW	**Mawson**	**74.77**	**163**	P	**P**	**09 02 31.8**	**-0.6**
	comp=Z,15nm,0.7s,mb4.8,baz=228,slow=12,SNR=5.2						
LAZ	**Ladron**	**74.85**	**328**	*e*P	**P**	**09 02 34.0**	**+0.8**
	comp=Z,6.3nm,1.1s,mb4.3						
LAZ				*e*PP	PP	09 05 30.2	+8.0
KSU1	**Kansas State U**	**74.86**	**338**	⇓*i*P	**P**	**09 02 32.3**	**-0.8**
	comp=Z,13nm,0.6s,mb4.8						
X22A	**Bernardo**	**74.88**	**328**	⇓P	**P**	**09 02 34.9**	**+1.6**
	baz=75						
216A	**Three Points,**	**74.97**	**323**	⇑P	**P**	**09 02 34.4**	**+0.5**
	baz=75,SNR=5.8						
ANMO	**Albuquerque**	**75.00**	**329**	⇓*i*P	**P**	**09 02 34.8**	**+0.8**
ANMO				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ANMO	**Albuquerque**	**75.00**	**329**	⇓*i*P	**P**	**09 02 34.8**	**+0.8**
	comp=Z,4.3nm,0.7s,mb4.3						
117A	**Oracle**	**75.07**	**324**	P	**P**	**09 02 35.0**	**+0.5**
	baz=75,SNR=5.8						
W22A	**Albuquerque**	**75.28**	**328**	⇑P	**P**	**09 02 36.4**	**+0.8**
	baz=76						
Y19A	**Nutrioso**	**75.47**	**326**	P	**P**	**09 02 38.1**	**+1.4**
	baz=76,SNR=24						
116A	**Eloy**	**75.54**	**324**	⇓P	**P**	**09 02 37.1**	**-0.1**
	baz=76						
214A	**Organ Pipe Nat**	**75.63**	**322**	⇓P	**P**	**09 02 38.3**	**+0.6**
	baz=76,SNR=8.0						
CBKS	**Cedar Bluff**	**75.66**	**335**	*e*P	**P**	**09 02 36.9**	**-0.8**
115A	**Sonoran Desert**	**75.92**	**323**	⇑P	**P**	**09 02 40.0**	**+0.7**
	baz=76,SNR=5.9						
Y17A	**Roosevelt**	**76.02**	**325**	P	**P**	**09 02 40.8**	**+0.9**
	baz=76,SNR=13						
W20A	**Ramah**	**76.07**	**327**	⇑P	**P**	**09 02 40.7**	**+0.6**
	baz=76,SNR=12						
X18A	**Snowflake**	**76.26**	**326**	⇓P	**P**	**09 02 41.5**	**+0.2**
	baz=76						
114A	**Black Gap (USA**	**76.30**	**323**	⇓P	**P**	**09 02 41.7**	**+0.2**
	baz=76						
W19A	**Sanders**	**76.47**	**327**	⇓P	**P**	**09 02 43.7**	**+1.3**
	baz=77						
Y16A	**Circle Bar Ran**	**76.48**	**325**	⇓P	**P**	**09 02 43.1**	**+0.6**
	baz=77,SNR=8.3						
X17A	**Forest Lakes**	**76.52**	**325**	⇑P	**P**	**09 02 43.7**	**+1.0**
	baz=77,SNR=10						
113A	**Mohawk Valley,**	**76.77**	**322**	⇑P	**P**	**09 02 44.2**	**+0.1**
	baz=77						
V19A	**Window Rock**	**76.81**	**327**	⇓P	**P**	**09 02 44.9**	**+0.6**
	baz=77,SNR=7.1						
X16A	**Lo Mia Camp, P**	**76.90**	**325**	⇓P	**P**	**09 02 45.0**	**+0.2**
	baz=77,SNR=18						
T22A	**Edith**	**76.93**	**329**	⇑P	**P**	**09 02 46.0**	**+1.1**
	baz=77,SNR=12						
SDCO	**Great Sand Dun**	**76.95**	**331**	⇓*i*P	**P**	**09 02 45.6**	**+0.6**
	comp=Z,4.3nm,0.7s,mb4.3						
SDCO				*e*	pP	09 03 14.3	+4.8
Y15A	**Casa Rosa Ranc**	**76.97**	**324**	⇓P	**P**	**09 02 45.7**	**+0.4**
	baz=77,SNR=5.0						
Z13A	**Yuma Proving G**	**77.05**	**323**	⇑P	**P**	**09 02 45.9**	**+0.2**
	baz=77						
TSUM	**Tsumeb**	**77.20**	**105**	*i* P	**P**	**09 02 47.9**	**+0.9**
	comp=Z,10nm,0.9s,mb4.5						
TSUM				*e*	pP	09 03 10.6	-0.9
TSUM				*e*PP	PP	09 05 34.3	-7.6
V18A	**Ganado**	**77.22**	**327**	⇑P	**P**	**09 02 46.7**	**+0.2**
	baz=77,SNR=5.4						
Y14A	**Wickenburg**	**77.30**	**324**	⇑P	**P**	**09 02 47.1**	**0.0**
	baz=78,SNR=5.4						
X15A	**Humboldt**	**77.34**	**324**	P	**P**	**09 02 48.1**	**+0.8**
	baz=78,SNR=14						
W16A	**Flagstaff**	**77.48**	**325**	P	**P**	**09 02 49.2**	**+1.1**
	baz=78,SNR=14						
Y13A	**Salome**	**77.62**	**323**	⇑P	**P**	**09 02 49.1**	**+0.2**
	baz=78,SNR=16						
X14A	**Yava**	**77.66**	**324**	⇓P	**P**	**09 02 49.3**	**+0.2**
	baz=78,SNR=5.0						
T19A	**Beclabito**	**77.72**	**328**	⇑P	**P**	**09 02 49.7**	**+0.3**
	baz=78,SNR=12						
WUAZ	**Wupatki**	**77.75**	**326**	⇑P	**P**	**09 02 50.4**	**+0.9**
	baz=78,SNR=5.5						
WUAZ	**Wupatki**	**77.75**	**326**	⇑*i*P	**P**	**09 02 50.7**	**+1.1**
	comp=Z,11nm,0.9s,mb4.6						
U18A	**Rough Rock, Ch**	**77.77**	**327**	P	**P**	**09 02 50.5**	**+0.9**
	baz=78,SNR=13						
MVCO	**Mesa Verde**	**77.79**	**329**	⇓P	**P**	**09 02 50.3**	**+0.5**
	baz=78,SNR=7.2						
MVCO	**Mesa Verde**	**77.79**	**329**	⇓*i*P	**P**	**09 02 50.4**	**+0.6**
	comp=Z,6.3nm,0.7s,mb4.5						
Y12C	**Blythe**	**77.93**	**322**	⇑P	**P**	**09 02 50.6**	**0.0**
	baz=78						
U16A	**Tuba City**	**78.13**	**326**	⇓P	**P**	**09 02 52.1**	**+0.5**
	baz=78,SNR=7.9						
X13A	**Yucca**	**78.23**	**323**	P	**P**	**09 02 52.6**	**+0.4**
	baz=78,SNR=11						
BAR	**Barrett**	**78.26**	**320**	*e*P	**P**	**09 02 53.1**	**+0.6**
MONP	**Monument Peak**	**78.28**	**321**	⇓P	**P**	**09 02 52.7**	**+0.2**
	baz=78						
U17A	**Shonto**	**78.28**	**327**	⇓P	**P**	**09 02 53.4**	**+0.9**
	baz=78						
R21A	**Cimarron**	**78.34**	**330**	⇑P	**P**	**09 02 53.1**	**+0.4**
	baz=79						
W14A	**Seligman**	**78.34**	**324**	⇓P	**P**	**09 02 53.5**	**+0.7**
	baz=79,SNR=5.6						
BC3	**Big Chuckw Mtn**	**78.35**	**322**	⇑P	**P**	**09 02 53.3**	**+0.4**
	baz=79,SNR=8.8						
T18A	**Mexican Hat**	**78.35**	**328**	⇑P	**P**	**09 02 52.6**	**-0.3**
	baz=79,SNR=9.7						
V15A	**Kaibab Nationa**	**78.38**	**325**	⇓P	**P**	**09 02 53.8**	**+0.8**
	baz=79,SNR=13						
Q22A	**Crested Butte,**	**78.48**	**331**	⇑P	**P**	**09 02 53.6**	**+0.1**
	baz=79,SNR=8.9						
S19A	**Harvey Farm, M**	**78.52**	**328**	⇓P	**P**	**09 02 54.1**	**+0.4**
	baz=79,SNR=12						
R20A	**Redvale**	**78.55**	**329**	⇑P	**P**	**09 02 54.4**	**+0.5**
	baz=79,SNR=10.0						
IRM	**Iron Mountain**	**78.58**	**322**	⇑P	**P**	**09 02 54.3**	**+0.1**
	baz=79						
PV01	**Paradox Valley**	**78.59**	**329**	*e*P	**P**	**09 02 55.2**	**+1.1**
	comp=Z,756nm,1.1s						
W13A	**Hualapai Mount**	**78.66**	**324**	⇓P	**P**	**09 02 55.4**	**+0.8**
	baz=79						
T17A	**Navajo Res., N**	**78.67**	**327**	⇑P	**P**	**09 02 55.7**	**+1.1**
	baz=79,SNR=12						
V14A	**Boquillas Ranc**	**78.69**	**324**	⇑P	**P**	**09 02 55.6**	**+0.9**
	baz=79,SNR=8.2						
ISCO	**Idaho Springs**	**78.74**	**332**	⇑*i*P	**P**	**09 02 55.9**	**+1.0**
ISCO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
ISCO	**Idaho Springs**	**78.74**	**332**	⇑*i*P	**P**	**09 02 55.9**	**+1.0**
	comp=Z,5.8nm,0.8s,mb4.5						
BOSA	**Boshof**	**78.75**	**117**	P	**P**	**09 02 55.4**	**-0.1**
	comp=Z,14nm,0.8s,mb4.9,baz=234,slow=4.1,SNR=26						
BOSA				pP	pP	09 03 23.2	+3.2
	comp=Z,4.0nm,0.6s,baz=278,slow=1.3,SNR=3.3						
PFO	**Pinyon Flat Ob**	**78.84**	**321**	⇓P	**P**	**09 02 56.2**	**+0.6**
	baz=79,SNR=5.3						
PFO	**Pinyon Flat Ob**	**78.84**	**321**	*e*P	**P**	**09 02 56.4**	**+0.7**
S18A	**Hurst Farm, Bl**	**78.86**	**328**	⇑P	**P**	**09 02 56.3**	**+0.7**
	baz=79,SNR=19						
BELC	**Belle Mtn.**	**78.90**	**322**	⇓P	**P**	**09 02 56.3**	**+0.4**
	baz=79						
PV04	**Paradox Valley**	**78.95**	**329**	*e*P	**P**	**09 02 56.9**	**+0.8**
T16A	**Glen Canyon Da**	**78.99**	**326**	⇓P	**P**	**09 02 57.2**	**+0.9**
	baz=79,SNR=5.8						
R19A	**Curley Farm, L**	**79.03**	**329**	⇓P	**P**	**09 02 56.6**	**+0.1**
	baz=79,SNR=11						
ECSD	**EROS Data Cent**	**79.08**	**340**	⇓*i*P	**P**	**09 02 56.0**	**-0.6**
	comp=Z,18nm,0.6s,mb5.1						
Q20A	**Ridgley Place,**	**79.15**	**330**	⇑P	**P**	**09 02 56.9**	**-0.3**
	baz=79						
S17A	**Black Ridge (B**	**79.19**	**327**	⇑P	**P**	**09 02 57.7**	**+0.3**
	baz=79,SNR=6.1						
MURC	**Murrieta**	**79.24**	**321**	⇓P	**P**	**09 02 58.3**	**+0.5**
	baz=80						
P21A	**Newcastle**	**79.27**	**331**	⇓P	**P**	**09 02 58.5**	**+0.7**
	baz=80,SNR=5.3						
V13A	**Grand Canyon W**	**79.30**	**324**	⇑P	**P**	**09 02 58.6**	**+0.5**
	baz=80,SNR=8.9						
GMRC	**Granite Mounta**	**79.32**	**322**	⇓P	**P**	**09 02 59.0**	**+0.8**
	baz=80,SNR=5.4						
U14A	**Mt Trumbull**	**79.35**	**325**	⇓P	**P**	**09 02 59.0**	**+0.7**
	baz=80,SNR=12						

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R18A  Canyonlands Na   79.39 328 ⇓P    P      09 02 58.8 +0.3
      baz=80,SNR=5.5
T15A  Red Dirt Ranch   79.44 326 ⇓P    P      09 02 59.4 +0.6
      baz=80,SNR=12
Q19A  Hogan Spring (   79.57 329 ⇑P    P      09 02 59.9 +0.5
      baz=80
S16A  Weppner Ranch,   79.63 327 ⇑P    P      09 02 59.3 -0.5
      baz=80
V12A  Nelson           79.64 323  P    P      09 03 00.3 +0.4
      baz=80,SNR=7.4
P20A  De Beque         79.64 330 ⇑P    P      09 03 00.7 +0.9
      baz=80,SNR=8.2
HEC   Hector,Ludlow    79.71 322 ⇑P    P      09 03 00.7 +0.4
      baz=80
U13A  Pakoon Wash      79.73 324 ⇓P    P      09 03 00.9 +0.5
      baz=80,SNR=5.7
R17A  Hanksville Air   79.78 328 ⇓P    P      09 03 00.1 -0.5
      baz=80,SNR=10
O21A  Pagoda           79.85 331 ⇓P    P      09 03 02.1 +1.2
      baz=80
N22A  Wattenberg Ran   79.93 332 ⇓P    P      09 03 02.4 +1.0
      baz=80,SNR=7.5
S15A  Panguitch        79.95 326 ⇑P    P      09 03 02.0 +0.4
      baz=80
PHWY  Pilot Hill       79.96 333 eP    P      09 03 02.4 +0.9
TUQ   Turquoise Moun   79.97 323 ⇑P    P      09 03 02.1 +0.4
      baz=80
BFSC  Mount Baldy St   79.97 321 ⇓P    P      09 03 02.0 +0.2
      baz=80
P19A  Cripple Cowboy   80.01 330  P    P      09 03 02.6 +0.8
      baz=80,SNR=10
V11A  Goodsprings      80.02 323 ⇑P    P      09 03 02.0  0.0
      baz=80
R16A  Teasdale         80.03 327 ⇓P    P      09 03 02.3 +0.3
      baz=80
U12A  Valley of Fire   80.03 324 ⇓P    P      09 03 02.6 +0.6
      baz=80
Q18A  Rafter H Ranch   80.08 329 ⇑P    P      09 03 02.3 +0.1
      baz=80,SNR=8.2
O20A  White River Ci   80.11 330 ⇑P    P      09 03 02.8 +0.4
      baz=80
T13A  Saint George     80.18 325  P    P      09 03 03.6 +0.8
      baz=80,SNR=8.3
SRU   San Rafael       80.26 328 ⇑P    P      09 03 02.9 -0.3
      baz=80,SNR=11
SRU   San Rafael       80.26 328 eP    P      09 03 03.6 +0.4
GSC   Goldstone        80.32 322 ⇑P    P      09 03 03.8 +0.2
      baz=80
N21A  Black Mountain   80.33 331 ⇑P    P      09 03 04.4 +0.9
      baz=81,SNR=6.2
R15A  Junction         80.34 327 ⇑P    P      09 03 04.2 +0.6
      baz=81
DECC  Green Verdugo    80.35 320 ⇓P    P      09 03 03.8 +0.1
      baz=81
Q16A  Castle Valley    80.40 328 ⇑P    P      09 03 04.6 +0.7
      baz=81,SNR=8.1
SHPR  Sheep Range      80.40 324 eP    P      09 03 04.6 +0.6
S14A  Cedar City       80.40 326 ⇓P    P      09 03 04.4 +0.5
      baz=81,SNR=5.2
M22A  Cedar Creek Ra   80.50 332 ⇑P    P      09 03 04.5 +0.1
      baz=81
MSU   Marysvale        80.53 327 eP    P      09 03 05.3 +0.6
ARUT  Antelope Range   80.56 326 eP    P      09 03 06.0 +1.3
ARUT                             ePcP  PcP    09 03 11.6 +0.3
P18A  Preston Nutter   80.56 329 ⇑P    P      09 03 05.3 +0.5
      baz=81,SNR=13
S13A  Holt Ranch, En   80.60 325 ⇑P    P      09 03 05.8 +0.8
      baz=81,SNR=10
O19A  Miners Draw (B   80.62 330 ⇓P    P      09 03 05.2 +0.1
      baz=81,SNR=10.0
EDW2  Edwards Air Fo   80.64 321 ⇓P    P      09 03 05.2 -0.1
      baz=81
P17A  Butcher Ranch,   80.65 328 ⇑P    P      09 03 05.1 -0.2
      baz=81
N20A  Spence Gulch,    80.70 331 ⇑P    P      09 03 05.6 +0.2
      baz=81
TMUT  Trail Mountain   80.72 328 i P   P      09 03 06.2 +0.6
TORD  Torodi Ar. Bea   80.73  68  P    P      09 03 06.2 -0.1
      comp=Z,17nm,0.7s,mb5.0,baz=285,slow=6.3,SNR=94
U10A  Ash Meadows, A   80.93 323 ⇓P    P      09 03 07.3 +0.5
      baz=81
M21A  Separation Pea   80.98 332 ⇓P    P      09 03 07.1 +0.2
      baz=81,SNR=5.7
T11A  Corn Creek, Al   81.00 324 ⇓P    P      09 03 07.9 +0.7
      baz=81,SNR=15
S12A  Delamar Landin   81.10 325 ⇑P    P      09 03 08.4 +0.7
      baz=81
R13A  O’Grain Ranch,   81.12 326 ⇓P    P      09 03 08.7 +0.9
      baz=81
N19A  John Jarvie Ra   81.14 330 ⇓P    P      09 03 08.0 +0.2
      baz=81,SNR=6.2
P16A  Fountain Green   81.18 328 ⇓P    P      09 03 08.0 -0.1
      baz=81
M20A  Sweetwater, Wa   81.22 331 ⇓P    P      09 03 08.4 +0.2
      baz=82
O17A  Robinson Place   81.24 329 ⇑P    P      09 03 08.6 +0.2
      baz=82,SNR=5.9
FURC  Furnace Creek,   81.24 323 ⇓P    P      09 03 09.2 +0.7
      baz=82,SNR=5.8
MPMC  Manual Prospec   81.26 322 ⇑P    P      09 03 08.7 +0.1
      baz=82,SNR=6.1
L21A  Rawlins          81.28 332 ⇓P    P      09 03 08.5  0.0
      baz=82,SNR=14
P15A  Leamington       81.43 327 ⇑P    P      09 03 09.2 -0.2
      baz=82
Q14A  Sevier Lake (B   81.43 326 ⇓P    P      09 03 09.7 +0.3
      baz=82,SNR=7.4
ISA   Isabella         81.48 321⇓iP    P      09 03 10.3 +0.5
ISA                               pmax  pmax
      comp=Z,6.0nm,0.9s,mb4.4
ISA   Isabella         81.48 321 ⇑P    P      09 03 10.2 +0.4
      baz=82,SNR=6.4
ISA   Isabella         81.48 321⇓iP    P      09 03 10.3 +0.5
      comp=Z,5.8nm,0.9s,mb4.4
MPU   Maple Canyon     81.50 328 eP    P      09 03 10.3 +0.6
R12A  Pony Springs,    81.55 325 ⇓P    P      09 03 09.9 -0.1
      baz=82,SNR=7.0
S11A  Rachel           81.58 324 ⇑P    P      09 03 10.3 +0.1
      baz=82
O16A  Springville      81.59 328 ⇑P    P      09 03 10.3  0.0
      baz=82
L20A  Wamsutter        81.71 331 ⇑P    P      09 03 11.1 +0.3
      baz=82
Q13A  Wheeler Ranch,   81.76 326 ⇑P    P      09 03 11.4 +0.3
      baz=82,SNR=8.3
P14A  Drum Mountains   81.81 327 ⇓P    P      09 03 11.9 +0.5
      baz=82,SNR=10
RSSD  Black Hills      81.86 335 i P   P      09 03 11.8 +0.3
RSSD                              pmax  pmax
      comp=Z,13nm,1.1s,mb4.7
RSSD  Black Hills      81.86 335 i P   P      09 03 11.8 +0.3
      comp=Z,13nm,1.1s,mb4.7
N17A  Moffit Pass      81.89 329 ⇓P    P      09 03 11.9 +0.2
      baz=82,SNR=5.9
VES   Vestal, Richgr   81.95 321 ⇑P    P      09 03 12.2  0.0
      baz=82,SNR=6.7
R11A  Troy Canyon, C   82.05 325 ⇑P    P      09 03 13.0 +0.4
      baz=82,SNR=13
N16A  Rees Ranch, Co   82.11 329 ⇑P    P      09 03 13.5 +0.6
      baz=82
P13A  Bates Ranch, G   82.15 326 ⇓P    P      09 03 13.4 +0.3
      baz=82
DUG   Dugway           82.18 327 ⇑P    P      09 03 12.9 -0.4
      baz=82,SNR=8.0
L19A  Farson           82.21 331 ⇓P    P      09 03 13.4  0.0
      baz=82,SNR=14
S10A  Tonopah Range,   82.22 324 ⇑P    P      09 03 13.4 -0.2
      baz=82,SNR=5.3
K20A  Yellowstone Ra   82.26 332 ⇓P    P      09 03 13.3 -0.3
      baz=82,SNR=9.2
L18A  Fontenelle, Gr   82.35 330 ⇓P    P      09 03 14.4 +0.2
      baz=83
R10A  Warm Springs     82.36 324  P    P      09 03 15.2 +1.0
      baz=83,SNR=8.3
RCTC  Rector, Farmer   82.38 321 ⇓P    P      09 03 14.1 -0.4
      baz=83
S09A  Goldfield        82.39 323 ⇓P    P      09 03 14.9 +0.4
      baz=83,SNR=7.1
Q11A  Duckwater        82.46 325 ⇑P    P      09 03 15.2 +0.4
      baz=83,SNR=6.4
M16A  Huntsville       82.54 329 ⇑P    P      09 03 15.2  0.0
      baz=83
K19A  Absolon Red Bu   82.60 331  P    P      09 03 15.2 -0.2
      baz=83,SNR=11
N15A  Stansbury Isla   82.60 328 ⇑P    P      09 03 15.6 +0.1
      baz=83
TPH   Tonopah          82.66 323 eP    P      09 03 16.2 +0.4
TPH                               pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.5
TPH   Tonopah          82.66 323 eP    P      09 03 16.2 +0.4
      comp=Z,4.5nm,0.7s,mb4.4
R09A  Tonopah          82.70 324 ⇑P    P      09 03 16.3 +0.2
      baz=83,SNR=5.2
Q10A  Clear Creek Ra   82.82 324  P    P      09 03 17.3 +0.6
      baz=83,SNR=7.0
BW06  Boulder Array    82.84 331 ⇑P    P      09 03 16.3 -0.4
      baz=83,SNR=7.2
PDAR  Pinedale Array   82.84 331  P    P      09 03 16.2 -0.4
      comp=Z,3.4nm,0.7s,mb4.3,baz=135,slow=6.0,SNR=28
PDAR                             pP    pP     09 03 45.2 +3.8
      comp=Z,0.6nm,0.6s,baz=134,slow=8.5,SNR=2.9
L17A  Cokeville        82.85 330 ⇓P    P      09 03 15.8 -0.9
      baz=83,SNR=5.5
SPUT  South Promonto   82.90 328 eP    P      09 03 17.3 +0.3
K18A  Toltan Ranch,    82.94 331 ⇑P    P      09 03 17.0 -0.2
      baz=83,SNR=12
L16A  Fish Haven       83.03 329 ⇓P    P      09 03 17.1 -0.6
      baz=83,SNR=9.0
M15A  Larsen Ranch,    83.03 328 ⇑P    P      09 03 17.2 -0.5
      baz=83,SNR=7.7
MLAC  Mammoth Lakes    83.15 322 ⇓P    P      09 03 18.8 +0.4
      baz=83
J18A  Kendall Valley   83.40 331  P    P      09 03 19.4 -0.2
      baz=84,SNR=7.8
K17A  Gardner Place,   83.40 330 ⇓P    P      09 03 19.3 -0.3
      baz=84
HVU   Hansel Valley    83.43 328 eP    P      09 03 19.7  0.0
L15A  Malad City       83.43 329 ⇓P    P      09 03 19.3 -0.4
      baz=84,SNR=5.5
P10A  Eureka           83.46 325 ⇑P    P      09 03 20.0 +0.1
      baz=84
M14A  Sheep Mountain   83.46 328  P    P      09 03 19.8 -0.1
      baz=84,SNR=7.9
O11A  Cowboy Ranch,    83.46 326 ⇓P    P      09 03 19.9 -0.1
      baz=84,SNR=6.1
NVAR  Mina Array Bea   83.48 323  P    P      09 03 20.3 +0.3
      comp=Z,3.8nm,0.8s,mb4.3,baz=154,slow=5.8,SNR=20
NVAR                             pP    pP     09 03 47.0 +2.1
      comp=Z,0.9nm,0.8s,baz=158,slow=4.8,SNR=2.7
NVAR  Mina Array Bea   83.48 323  P    P      09 03 20.3 +0.3
NVAR                             pP    pP     09 03 47.0 +2.1
Q08A  Gabbs            83.61 324 ⇓P    P      09 03 20.9 +0.1
      baz=84,SNR=6.6
I18A  Diamond G Ranc   83.72 331 ⇑P    P      09 03 21.4 +0.2
      baz=84,SNR=5.5
M13A  Montello         83.72 327 ⇑P    P      09 03 20.9 -0.3
      baz=84,SNR=5.3
N12A  Clover Valley,   83.73 327 ⇑P    P      09 03 21.1 -0.2
      baz=84
K16A  Soda Springs     83.75 330 ⇓P    P      09 03 20.2 -1.1
      baz=84,SNR=5.2
J17A  Brown Place, J   83.82 331 ⇑P    P      09 03 20.8 -0.9
      baz=84
L14A  Malta            83.84 328 ⇑P    P      09 03 20.9 -0.9
      baz=84,SNR=6.3
REDW  Red Top Meadow   83.87 331 eP    P      09 03 21.7 -0.3
SNOW  Snow King Moun   83.92 331 eP    P      09 03 22.3 +0.1
      comp=Z,2.8nm,0.7s,mb4.2
LOHW  Long Hollow      83.97 331 i P   P      09 03 22.5  0.0
      comp=Z,2.2nm,0.6s,mb4.2
K15A  Arbon            84.05 329 ⇑P    P      09 03 22.5 -0.3
      baz=84
RRI2  Red Ridge        84.06 330 eP    P      09 03 22.8 -0.1
      comp=Z,3.5nm,0.8s,mb4.2
WAKR  Walker           84.12 322 eP    P      09 03 24.5 +1.1
J16A  Bone             84.12 330 ⇑P    P      09 03 23.3  0.0
      baz=84
R06C  Coleville        84.14 322 ⇓P    P      09 03 23.9 +0.4
      baz=84,SNR=7.2
L13A  Double Diamond   84.20 328 ⇓P    P      09 03 23.8 +0.2
      baz=84,SNR=16
I17A  Pilgrim Ck.      84.22 331  P    P      09 03 24.0 +0.3
      baz=84,SNR=7.2
K14A  Jones Ranch, D   84.22 329 ⇓P    P      09 03 23.3 -0.4
      baz=84
CMB   Columbia Colle   84.27 322 eP    P      09 03 23.8 -0.3
IMW   Indian Meadow    84.35 331 eP    P      09 03 24.4  0.0
M11A  Holland Ranch,   84.54 326 ⇑P    P      09 03 24.7 -0.7
      baz=85,SNR=9.6
I16A  Newdale          84.56 330 ⇓P    P      09 03 24.9 -0.5
      baz=85
J15A  Blackfoot        84.58 330  P    P      09 03 25.7 +0.2
      baz=85,SNR=7.2
RLMT  Red Lodge        84.68 332 ⇑P    P      09 03 25.7 -0.3
      baz=85
RLMT  Red Lodge        84.68 332 i P   P      09 03 26.2 +0.2
RLMT                             ePcP  PcP    09 03 29.4 +0.1
K13A  Stover Farm, H   84.71 328 ⇓P    P      09 03 25.9 -0.3
      baz=85
L12A  House Creek Ra   84.73 327 ⇑P    P      09 03 25.8 -0.5
      baz=85,SNR=7.1
O08A  Rochester Mine   84.81 324 ⇓P    P      09 03 26.3 -0.5
      baz=85
LAO   LASA Array       84.85 335 i P   P      09 03 26.4 -0.4
      comp=Z,7.4nm,0.8s,mb4.7
ULM   Lac du Bonnet    84.86 343  P    P      09 03 25.6 -1.2
      comp=Z,8.3nm,0.8s,mb4.7,baz=160,slow=3.6,SNR=14
ULM                              pP    pP     09 03 53.4 +1.8
      comp=Z,1.7nm,0.4s,baz=139,slow=5.9,SNR=2.4
G18A  Lazy EL Ranch,   84.96 332 ⇓P    P      09 03 27.2 -0.2
      baz=85
J14A  Carey            84.99 329 ⇑P    P      09 03 27.5 -0.1
      baz=85
K12A  Draper Farm, C   85.07 328  P    P      09 03 28.4 +0.3
      baz=85,SNR=11
O07A  Toulon           85.08 324 ⇑P    P      09 03 27.7 -0.4
      baz=85
I15A  Monteview        85.08 330  P    P      09 03 28.8 +0.7
      baz=85,SNR=5.1
L11A  Cat Creek Ranc   85.09 327  P    P      09 03 28.3 +0.2
      baz=85,SNR=5.4
H16A  Russell Place,   85.13 331 ⇑P    P      09 03 28.7 +0.4
      baz=85,SNR=5.7
N08A  GE Springer Mi   85.17 325 ⇑P    P      09 03 27.8 -0.8
      baz=85
QLMT  Earthquake Lak   85.31 331 eP    P      09 03 30.2 +1.1
J13A  Cove Ranch, Pi   85.34 329 ⇓P    P      09 03 29.4 +0.1
      baz=86,SNR=20
L10A  Juniper Basin    85.36 326 ⇓P    P      09 03 29.4 -0.1
      baz=86,SNR=7.9
G17A  Pierce Place,    85.43 332 ⇓P    P      09 03 30.2 +0.4
      baz=86
I14A  Mackay           85.44 329 ⇑P    P      09 03 29.9 +0.1
      baz=86,SNR=12
F18A  Big Timber       85.50 333 ⇓P    P      09 03 29.8 -0.3
      baz=86,SNR=12
O06A  Flanigan         85.56 323 ⇓P    P      09 03 30.1 -0.5
      baz=86
HLID  Hailey           85.58 329 ⇓P    P      09 03 30.5  0.0
      baz=86,SNR=18
HLID  Hailey           85.58 329⇓iP    P      09 03 30.8 +0.3
      comp=Z,7.3nm,0.9s,mb4.6
N07B  Gerlach          85.59 324  P    P      09 03 30.9 +0.2
      baz=86,SNR=6.0
BEKR  Beckwourth       85.61 323 ⇓P    P      09 03 30.5 -0.2
      baz=86,SNR=7.3
J12A  Stokes Ranch,    85.64 328 ⇓P    P      09 03 30.6 -0.2
      baz=86,SNR=9.8
H15A  Lima             85.65 330 ⇑P    P      09 03 30.5 -0.4
      baz=86,SNR=7.4
DGMT  Dagmar           85.68 337 ⇑P    P      09 03 30.5 -0.4
      baz=86,SNR=8.4
DGMT  Dagmar           85.68 337 eP    P      09 03 30.7 -0.2
      comp=Z,16nm,0.6s,mb5.1
K11A  Parker Ranch,    85.69 327 ⇓P    P      09 03 30.4 -0.7
      baz=86,SNR=5.7
I13A  Wildhorse Cree   85.72 329  P    P      09 03 31.8 +0.5
      baz=86,SNR=17
G16A  Moss Hill, Enn   85.79 331 ⇑P    P      09 03 31.1 -0.4
      baz=86
M08A  Happy Creek Ra   85.80 325 ⇓P    P      09 03 31.4 -0.3
      baz=86
F17A  Fitzpatrick Pl   85.88 332 ⇑P    P      09 03 30.9 -1.0
      baz=86
L09A  Wilkinson Ranc   85.89 326 ⇑P    P      09 03 31.3 -0.8
      baz=86
MCMT  McKenzie Canyo   85.90 330 eP    P      09 03 32.8 +0.7
      comp=Z,5.7nm,0.8s,mb4.5
MCMT                             e     pP     09 04 02.4 +5.4
SCHQ  Schefferville    85.98   1  P    P      09 03 31.3 -0.9
      comp=Z,7.3nm,0.9s,mb4.6,baz=150,slow=3.8,SNR=16
N06A  Buffalo Meadow   86.00 324 ⇓P    P      09 03 32.7  0.0
      baz=86,SNR=8.2
G15A  Dillon           86.03 331 ⇓P    P      09 03 32.4 -0.3
      baz=86,SNR=9.3
BOZ   Bozeman (W)      86.06 331 ⇓P    P      09 03 32.4 -0.5
      baz=86
I12A  Atlanta          86.08 328 ⇓P    P      09 03 32.9 -0.1
      baz=86,SNR=10
K10A  MacKenzie Ranc   86.09 327 ⇓P    P      09 03 33.1  0.0
      baz=86
MFID  Camas Ranch      86.10 328 ⇑P    P      09 03 32.4 -0.7
      baz=86
E18A  Harlowton        86.13 333 ⇓P    P      09 03 32.3 -0.8
      baz=86
M07A  Soldier Meadow   86.14 324 ⇑P    P      09 03 32.9 -0.5
      baz=86
DLMT  Dillon           86.23 331 eP    P      09 03 32.9 -0.8
H13A  Challis          86.30 329 ⇓P    P      09 03 34.1 +0.1
      baz=86,SNR=26
L08A  Fields           86.34 325 ⇓P    P      09 03 33.1 -1.3
      baz=87,SNR=5.1
E17A  Martinsdale      86.41 332 ⇑P    P      09 03 33.2 -1.4
      baz=87,SNR=5.5
K09A  Rome             86.43 326 ⇓P    P      09 03 33.4 -1.3
      baz=87,SNR=5.3
G14A  Jackson          86.50 330 ⇑P    P      09 03 34.4 -0.6
      baz=87
LRM   Limekiln Ridge   86.54 331 eP    P      09 03 35.4 +0.2
I11A  Placerville      86.55 328 ⇑P    P      09 03 34.4 -0.9
      baz=87
H12A  Diamond D Ranc   86.55 329 ⇑P    P      09 03 35.2 -0.1
      baz=87
F15A  Butte            86.57 331  P    P      09 03 35.7 +0.4
      baz=87,SNR=11
D18A  Linhart Farms,   86.61 333 ⇓P    P      09 03 34.8 -0.7
      baz=87,SNR=6.9
L07A  Adell            86.70 325 ⇓P    P      09 03 35.5 -0.6
      baz=87,SNR=5.5
G13A  Cobalt           86.71 330 ⇑P    P      09 03 35.9 -0.1
      baz=87,SNR=11
E16A  East Helena      86.80 332 ⇑P    P      09 03 35.6 -0.9
      baz=87,SNR=5.1
K08A  Mann Creek Ran   86.82 326 ⇓P    P      09 03 37.0 +0.4
      baz=87
D17A  Six Diamond Ra   86.91 333 ⇓P    P      09 03 36.3 -0.6
      baz=87,SNR=14
F14A  Wisdom           86.91 331 ⇓P    P      09 03 37.5 +0.5
      baz=87,SNR=9.8
J09A  Fry Pan Ranch,   86.94 327 ⇓P    P      09 03 37.1 -0.1
      baz=87
HRY   Holter Researc   87.00 332 eP    P      09 03 37.8 +0.3
I10A  Payette          87.07 328 ⇓P    P      09 03 37.3 -0.5
      baz=87
MOD   Modoc            87.09 324 eP    P      09 03 38.1 +0.1
      comp=Z,5.7nm,0.6s,mb4.7
E15A  Deer Lodge       87.10 331 ⇑P    P      09 03 38.0 +0.1
      baz=87,SNR=5.2
D16A  Dana Ranch, Ca   87.15 332 ⇓P    P      09 03 37.9 -0.2
      baz=87,SNR=12
K07A  Rock Creek Ran   87.16 325 ⇑P    P      09 03 38.2 -0.1
      baz=87,SNR=16
H11A  Donnelly         87.19 328 ⇑P    P      09 03 37.5 -0.9
      baz=87,SNR=7.8
G12A  Big Creek, Yel   87.21 329 ⇑P    P      09 03 37.3 -1.2
      baz=87
WDC   Whiskeytown Da   87.27 322 eP    P      09 03 37.5 -1.4
EGMT  Eagleton         87.27 334 ⇓P    P      09 03 37.3 -1.4
      baz=88
EGMT  Eagleton         87.27 334 eP    P      09 03 38.3 -0.4
J08A  Circle Bar Ran   87.29 326 ⇑P    P      09 03 38.5 -0.4
      baz=88,SNR=20
F13A  Darby            87.30 330 ⇑P    P      09 03 37.6 -1.3
      baz=88,SNR=9.1
C17A  Wharram Farm,    87.33 333 ⇓P    P      09 03 38.1 -0.9
      baz=88,SNR=10
H10A  Noah’s Angus R   87.43 328 ⇑P    P      09 03 39.2 -0.4
      baz=88,SNR=7.0
E14A  Clinton          87.45 331 ⇑P    P      09 03 38.9 -0.6
      baz=88,SNR=7.2
D15A  Lincoln          87.55 332 ⇓P    P      09 03 39.4 -0.7
      baz=88,SNR=11
B18A  Beardsley Farm   87.59 334 ⇑P    P      09 03 39.7 -0.5
      baz=88,SNR=18
F12A  Elk City         87.67 329 ⇑P    P      09 03 40.0 -0.7
      baz=88,SNR=6.0
E13A  Victor           87.76 330 ⇑P    P      09 03 40.3 -0.7
      baz=88,SNR=13
C16A  Fuhringer Ranc   87.86 333 ⇓P    P      09 03 41.1 -0.3
      baz=88
B17A  L&G Farms, Che   87.89 333 ⇓P    P      09 03 40.6 -1.0
      baz=88
LSZ   Lusaka           87.91 107 eP    P      09 03 42.7 +0.1
LSZ                               pmax  pmax
      comp=Z,4.0nm,0.7s,mb4.6
LSZ   Lusaka           87.91 107 eP    P      09 03 42.7 +0.1
      comp=Z,4.1nm,0.7s,mb4.6
D14A  Greenough        87.98 331 ⇓P    P      09 03 41.8 -0.3
      baz=88,SNR=5.5
K05A  Summer Lake      88.00 324 ⇓P    P      09 03 42.9 +0.6
      baz=88
J06A  Christmas Vall   88.02 325 ⇑P    P      09 03 42.1 -0.3
      baz=88
A18A  Metzger Ranch,   88.05 334 ⇑P    P      09 03 41.1 -1.3
      baz=88,SNR=6.6
SLMT  Seeley Lake      88.11 331 eP    P      09 03 42.5 -0.2
G10A  Bishop Farm, J   88.14 328 ⇓P    P      09 03 42.5 -0.4
      baz=88
F11A  Grangeville      88.17 329 ⇑P    P      09 03 41.7 -1.3
      baz=88
C15A  Salmond Ranch,   88.18 332 ⇓P    P      09 03 42.7 -0.3
      baz=88,SNR=12
H08A  Prairie City     88.26 327 ⇓P    P      09 03 42.8 -0.7
      baz=88
I07A  Izee             88.33 326 ⇑P    P      09 03 43.7 -0.1
      baz=88,SNR=6.3
A17A  Triple J Farms   88.39 334 ⇑P    P      09 03 43.0 -0.9
      baz=89,SNR=12
D13A  Huson            88.39 331 ⇑P    P      09 03 43.4 -0.7
      baz=89,SNR=5.3
G09A  Cove             88.43 328 ⇓P    P      09 03 43.7 -0.5
      baz=89,SNR=7.2
SWMT  Swartz Lake      88.53 331 eP    P      09 03 42.0 -2.7
E11A  Bogner Ranch,    88.56 329 ⇑P    P      09 03 44.0 -0.8
      baz=89
I06A  Prineville       88.56 326 ⇑P    P      09 03 44.8 -0.1
      baz=89,SNR=10
B15A  Bradely Ranch,   88.59 332 ⇓P    P      09 03 44.3 -0.7
      baz=89,SNR=8.0
C14A  Swan Lake        88.63 332 ⇓P    P      09 03 44.4 -0.8
      baz=89
F10A  Beach Ranch, E   88.71 329 ⇑P    P      09 03 44.9 -0.6
      baz=89
A16A  West Butte Ran   88.73 333  P    P      09 03 45.3 -0.3
      baz=89,SNR=18
H07A  Lands Inn, Kim   88.74 326 ⇓P    P      09 03 45.1 -0.6
      baz=89
JTMT  Jette            88.83 331 eP    P      09 03 43.3 -2.8
JTMT                             e     pP     09 04 11.0 -0.2
C13A  Hot Springs      88.90 331 ⇑P    P      09 03 46.0 -0.4
      baz=89
E10A  Myers Farm, Un   89.05 329 ⇓P    P      09 03 46.3 -0.9
      baz=89
A15A  Johnson Ranch,   89.19 333 ⇓P    P      09 03 46.9 -0.9
      baz=89
H06A  Lindquist Farm   89.21 326 ⇑P    P      09 03 48.6 +0.7
      baz=89,SNR=6.9
G07A  Ruggs Ranch, H   89.29 327 ⇑P    P      09 03 48.7 +0.4
      baz=90
B13A  Whitefish        89.41 331 ⇓P    P      09 03 48.1 -0.6
      baz=90
A14A  Double T Ranch   89.46 332 ⇑P    P      09 03 48.3 -0.7
      baz=90
D10A  Wagner Farm, O   89.56 329 ⇓P    P      09 03 48.6 -1.0
      baz=90
G06A  Carlson Farm,    89.72 326 ⇑P    P      09 03 50.3  0.0
      baz=90
WALA  Waterton Lakes   89.73 332 eP    P      09 03 50.3  0.0
A13A  Flathead Natio   89.83 332 ⇑P    P      09 03 50.6 -0.1
      baz=90
B12A  Libby            89.94 331 ⇑P    P      09 03 51.3  0.0
      baz=90
H04A  Detroit Lake     90.07 325 ⇑P    P      09 03 51.6 -0.4
      baz=90
C10A  Spilker Farm,    90.17 330 ⇓P    P      09 03 51.2 -1.1
      baz=90
D08A  Wollman Farm,    90.30 328 ⇓P    P      09 03 52.5 -0.4
      baz=90
E07A  Sunnyside        90.34 328 ⇑P    P      09 03 52.9 -0.3
      baz=91
NEW   Newport          90.43 330 eP    P      09 03 52.7 -0.8
NEW                               pmax  pmax
      comp=Z,1.0nm,0.7s
NEW   Newport          90.43 330 eP    P      09 03 52.7 -0.9
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	comp=Z,1.1nm,0.7s,mb4.1						
OD2	**Odessa Site #2**	**90.45**	**329**	*e*P	**P**	**09 03 53.5**	**-0.2**
C09A	**Chrisman Ranch**	**90.57**	**329**	⇑P	**P**	**09 03 53.9**	**-0.3**
	baz=91						
A11A	**Hall Mountain,**	**90.64**	**331**	⇓P	**P**	**09 03 53.6**	**-0.9**
	baz=91						
D07A	**Quincy**	**90.87**	**328**	⇓P	**P**	**09 03 55.3**	**-0.3**
	baz=91						
C07A	**Waterville**	**91.28**	**328**	⇓P	**P**	**09 03 57.1**	**-0.4**
	baz=92						
A09A	**Danville**	**91.60**	**330**	⇓P	**P**	**09 03 57.8**	**-1.2**
	baz=92						
A08A	**Turner Farm, O**	**91.88**	**329**	⇑P	**P**	**09 03 59.7**	**-0.5**
	baz=92						
B07A	**Winthrop**	**91.88**	**329**	⇓P	**P**	**09 03 59.6**	**-0.7**
	baz=92						
FCC	**Fort Churchill**	**92.36**	**347**	⇓*i*P	**P**	**09 04 01.8**	**-0.4**
	comp=Z,0.3nm,0.5s,mb3.8						
A07A	**Ashnola River,**	**92.44**	**329**	⇓P	**P**	**09 04 02.2**	**-0.7**
	baz=93						
EDM	**Edmonton**	**92.84**	**335**	*e*P	**P**	**09 04 02.6**	**-2.0**
YKA	**Yellowknife Ar**	**100.61**	**340**	P	Pdif	09 04 38.3	-1.9
	comp=Z,0.4nm,0.6s,baz=143,slow=4.0,SNR=8.8						
RES	**Resolute Bay**	**107.29**	**353**	*e*PKPdf	PKiKP	09 09 15.5	-1.7
PMR	**Palmer**	**112.84**	**329**	*e*PKIKP	PKiKP	09 09 27.9	-0.1
BRTR	**Keskin Array B**	**118.18**	**59**	PKP	PKPdf	09 09 38.2	-0.8
	comp=Z,1.0nm,0.7s,baz=122,slow=1.9,SNR=3.1						
AKASG	**Malin Array Be**	**118.46**	**46**	PKP	PKPdf	09 09 36.7	-2.4
	comp=Z,0.5nm,0.4s,baz=276,slow=2.1,SNR=5.0						
ASAR	**Alice Springs**	**121.02**	**204**	PKP	PKPdf	09 09 42.9	-2.2
	comp=Z,1.6nm,0.7s,baz=142,slow=2.1,SNR=19						
ASAR				pPKP	pPKPdf	09 10 13.2	+2.1
	comp=Z,0.7nm,0.7s,baz=127,slow=1.5,SNR=3.0						
ASAR				PKKPbc	PKKPbc	09 19 46.7	-0.9
	comp=Z,0.4nm,0.8s,baz=346,slow=2.9,SNR=6.4						
OBN	**Obninsk**	**123.72**	**42**	⇑*i*PKIKP	PKPdf	09 09 47.9	-1.2
OBN				*e*		09 10 08.2	
OBN				*i*		09 11 32.3	
OBN				pmax	pmax		
	comp=Z,14nm,1.2s						
WRA	**Warramunga Arr**	**124.27**	**207**	PKP	PKPdf	09 09 49.3	-2.1
	comp=Z,2.9nm,0.6s,baz=168,slow=1.6,SNR=40						
WRA				pPKP	pPKPdf	09 10 19.9	+2.5
	comp=Z,1.5nm,0.6s,baz=169,slow=1.6,SNR=5.2						
BILL	**Bilibino**	**131.74**	**336**	⇑*i*PKIKP	PKPdf	09 10 03.9	-0.1
BILL				*e*		09 10 33.1	
BILL				pmax	pmax		
	comp=Z,4.0nm,1.2s						
AB31	**Akbulak array**	**137.95**	**50**	PKIKP	PKPdf	09 10 15.6	-0.6
AB31				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BVAR	**Borovoye Array**	**143.56**	**42**	PKP	PKPdf	09 10 24.0	-2.2
	comp=Z,1.3nm,0.7s,baz=281,slow=1.8,SNR=7.1						
GUMO	**Guam**	**144.40**	**248**	PKP	PKPdf	09 10 25.9	-2.9
	comp=Z,135nm,0.8s,baz=24,slow=3.1,SNR=4.1						
KK31	**Karatay Array**	**145.89**	**58**	*i* PKP2	PKPab	09 10 30.1	-1.9
KK31				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YAK	**Yakutsk**	**147.19**	**344**	*e*PKIKP	PKPdf	09 10 32.5	+0.4
YAK				pmax	pmax		
	comp=Z,50nm,1.0s						
YAK	**Yakutsk**	**147.19**	**344**	*e*PKPdf	PKPdf	09 10 32.1	0.0
YAK				*e*PKPbc	PKPbc	09 10 33.8	-0.7
YAK				*e*PKPab	PKPab	09 10 36.3	-0.1
HYB	**Hyderabad**	**147.25**	**108**	*i* PKP	PKPdf	09 10 32.5	-1.1
EKS2	**Erkin-Say**	**148.33**	**59**	P	PKPbc	09 10 38.4	+0.2
	SNR=11						
EKS2	**Erkin-Say**	**148.33**	**59**	*e*PKPdf	PKPdf	09 10 36.2	+1.6
EKS2				*e*PKPbc	PKPbc	09 10 38.3	+0.1
EKS2				*e*PKPab	PKPab	09 10 41.4	-0.2
AML	**Almayashu**	**148.34**	**60**	P	PKPdf	09 10 35.6	+1.0
	SNR=10						
AML	**Almayashu**	**148.34**	**60**	*e*PKPdf	PKPdf	09 10 35.5	+0.8
AML				*e*PKPbc	PKPbc	09 10 38.5	+0.3
AML				*e*PKPab	PKPab	09 10 41.3	-0.3
USP	**Ospenovka**	**148.76**	**57**	P	PKPbc	09 10 39.4	+0.1
	SNR=14						
AAK	**Ala-Archa**	**148.86**	**59**	P	PKPbc	09 10 40.2	+0.7
	SNR=17						
AAK	**Ala-Archa**	**148.86**	**59**	PKPbc	PKPbc	09 10 39.9	+0.3
	comp=Z,12nm,0.7s,baz=185,slow=6.9,SNR=12						
UCH	**Uchtor**	**148.93**	**59**	P	PKPbc	09 10 40.8	+1.1
	SNR=15						
UCH	**Uchtor**	**148.93**	**59**	*e*PKPdf	PKPdf	09 10 36.7	+1.1
UCH				*e*PKPbc	PKPbc	09 10 40.7	+1.0
UCH				*e*PKPab	PKPab	09 10 45.1	+1.0
CHMS	**Chumysh**	**148.99**	**58**	P	PKPbc	09 10 40.2	+0.4
	SNR=5.0						
KURK	**Kurchatov**	**149.16**	**42**	PKP	PKPdf	09 10 32.5	-3.1
	comp=Z,0.4nm,0.3s,baz=299,slow=2.2,SNR=7.1						
KURK				PKPbc	PKPbc	09 10 39.0	-1.0
	comp=Z,8.8nm,0.8s,baz=295,slow=3.1,SNR=8.4						
KURK				pPKPbc	pPKPbc	09 11 09.4	+3.4
	comp=Z,3.7nm,0.8s,baz=294,slow=3.3,SNR=3.6						
KURK	**Kurchatov**	**149.16**	**42**	*e*PKPdf	PKPdf	09 10 35.8	+0.1
KURK				*e*PKPbc	PKPbc	09 10 39.7	-0.3
PSI	**Prapat**	**149.19**	**155**	PKPbc	PKPbc	09 10 39.8	-1.5
	comp=Z,12nm,0.7s,baz=238,slow=2.6,SNR=8.6						
NVS	**Novosibirsk**	**149.35**	**32**	*e*PKP2	PKPbc	09 10 39.2	-1.1
NVS				pmax	pmax		
	comp=Z,29nm,1.4s						
KZA	**Kyzart**	**149.50**	**60**	P	PKPbc	09 10 42.2	+1.1
	SNR=10						
TKM2	**Tokmak 2**	**149.61**	**58**	P	PKPbc	09 10 41.6	+0.2
	SNR=15						
TKM2	**Tokmak 2**	**149.61**	**58**	*e*PKPdf	PKPdf	09 10 36.8	+0.1
TKM2				*e*PKPbc	PKPbc	09 10 41.4	+0.1
TKM2				*e*PKPab	PKPab	09 10 47.3	+0.5
ULHL	**Ulahol**	**150.20**	**59**	P	PKPbc	09 10 41.9	-1.0
	SNR=6.8						
KSH	**Kashi**	**150.33**	**64**	*e*PKPbc	PKPbc	09 10 42.0	-1.2
KSH				*e*pPKP	pPKPdf	09 11 08.1	+4.0
KSH				*e*sPKP		09 11 18.9	
KSH				*e*PKS		09 14 16.1	
KSH				AMB	AMB		
	comp=Z,200nm,4.8s						
KSH				LR	LR		
	comp=N,140nm,4.0s						
KSH				LR	LR		
	comp=E,90nm,4.5s						
KSH				LR	LR		
	comp=Z,47nm,5.4s						
ZAA0	**Zalesovo Array**	**150.63**	**32**	*e*PKPbc	PKPbc	09 10 42.8	-0.6
ZALV	**Zalesovo Beam**	**150.63**	**32**	PKPbc	PKPbc	09 10 42.5	-1.0
	comp=Z,25nm,0.7s,baz=300,slow=3.1,SNR=88						
ZALV				PKPab	PKPab	09 10 49.7	-0.9
	comp=Z,5.3nm,0.9s,baz=330,slow=5.1,SNR=3.7						
ZALV				pPKPbc	pPKPbc	09 11 12.1	+2.6
	comp=Z,4.6nm,0.5s,baz=281,slow=2.3,SNR=3.7						
YSS	**Yuzh-Sakhalins**	**151.35**	**312**	*e*PKPdf	PKPdf	09 10 39.4	+0.1
YSS				*e*PKPbc	PKPbc	09 10 44.5	-0.9
YSS				*e*PKPab	PKPab	09 10 52.9	-1.0
MKAR	**Makanchi Array**	**153.03**	**47**	PKP	PKPdf	09 10 40.7	-1.1
	comp=Z,0.4nm,0.7s,baz=40,slow=2.1,SNR=4.1						
MKAR				PKPbc	PKPbc	09 10 48.4	-0.7
	comp=Z,6.0nm,0.8s,baz=303,slow=2.1,SNR=39						
MKAR				PKPab	PKPab	09 11 00.8	-0.2
	comp=Z,6.0nm,0.7s,baz=298,slow=3.9,SNR=26						
MKAR				pPKPbc	pPKPbc	09 11 18.1	+2.9
	comp=Z,2.8nm,0.8s,baz=298,slow=2.6,SNR=4.0						
MKAR				pPKPab	pPKPab	09 11 28.9	+2.6
	comp=Z,3.2nm,0.7s,baz=294,slow=3.4,SNR=6.1						
BOD	**Bodaibo**	**153.60**	**357**	*e*PKIKP	PKPbc	09 10 47.4	-2.6
MJAR	**Matsushiro Arr**	**157.12**	**290**	PKPab	PKPab	09 11 18.0	-0.8
	comp=Z,2.2nm,0.7s,baz=122,slow=2.5,SNR=6.4						
WMQ	**Urumqi**	**157.74**	**50**	*e*PKP	PKPdf	09 10 47.5	-0.7
CMAR	**Chiang Mai Arr**	**162.91**	**137**	PKP	PKPdf	09 10 54.4	-0.3
	comp=Z,1.0nm,0.5s,baz=250,slow=2.0,SNR=6.0						
CMAR				pPKP	pPKPdf	09 11 23.1	+2.1
	comp=Z,0.8nm,0.3s,baz=253,slow=1.7,SNR=2.1						
CMAR				PKPab	PKPab	09 11 42.8	-1.5
	comp=Z,0.9nm,0.4s,baz=249,slow=4.6,SNR=6.4						
SONM	**Songino Array**	**163.26**	**11**	PKP	PKPdf	09 10 54.2	+0.1
	comp=Z,0.9nm,0.9s,baz=253,slow=1.5,SNR=5.1						
SONM				PKPab	PKPab	09 11 45.1	+0.1
	comp=Z,2.4nm,0.8s,baz=326,slow=5.0,SNR=14						
GTA	**Gaotai**	**167.79**	**47**	PKP	PKPdf	09 10 58.4	+0.3
GTA				pPKP	pPKPdf	09 11 28.1	+3.7
GTA				PKPab	PKPab	09 12 06.3	+0.9
KMI	**Kunming**	**170.18**	**128**	PKP	PKPdf	09 10 57.6	-2.5
BJI	**Beijing**	**170.58**	**336**	PKP	PKPdf	09 10 59.3	-0.5
BJI				PP	PP	09 16 05.5	-2.0
BJI				LR	LR		
	comp=N,150nm,24.9s						
BJI				LR	LR		
	comp=E,240nm,25.2s						
BJI				LR	LR		
	comp=Z,120nm,21.4s						
HHC	**Hu-ho-hao-te**	**170.66**	**359**	*e*PKP	PKPdf	09 10 58.5	-1.3
HHC				pPKP	pPKPdf	09 11 25.4	-0.8
HHC				sPKP		09 11 35.8	
HHC				PKPab	PKPab	09 12 17.8	0.0
HHC				PKS		09 14 29.8	
HHC				PP	PP	09 16 09.4	+1.8
HHC				SKS	SKSdf	09 17 50.3	-4.4
HHC				SKKS	SKKSac	09 22 45.4	-0.8
HHC				SS	SS	09 36 58.9	-2.6
HHC				AMB	AMB		
	comp=Z,120nm,4.4s						
HHC				LR	LR		
	comp=N,180nm,19.0s						
HHC				LR	LR		
	comp=E,120nm,20.2s						
HHC				LR	LR		
	comp=Z,150nm,17.8s						
LZH	**Lanzhou**	**172.32**	**51**	*e*PKP	PKPdf	09 11 01.0	+0.2
LZH				sPKP		09 11 37.5	
NJ2	**Nanjing**	**173.50**	**277**	*e*PKP	PKPdf	09 11 01.6	+0.2
CD2	**Chengdu**	**173.56**	**93**	PKP	PKPdf	09 11 00.5	-1.0
GYA	**Guiyang**	**173.58**	**140**	*e*PKP	PKPdf	09 11 00.4	-1.2
GYA				pPKP	pPKPdf	09 11 30.3	+2.4
GYA				sPKP		09 11 39.8	
GYA				PKPab	PKPab	09 12 31.3	0.0
GYA				PP	PP	09 16 25.8	+3.0
GYA				AMB	AMB		
	comp=Z,70nm,8.4s						

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*IDC **18** 08:56:35.5±2.1, 27°.46N×88°.35E, h0^{km}, mb3.5/4, mb1 3.5/5, mb1mx3.4/24, mbtmp3.4/5, ML3.3/1, MS3.1/1, Ms1 3.1/1, ms1mx2.5/29, Error ellipse: s-maj=83.8km s-min=22.5km az=68.0*

*DMN **18** 08:56:40.1±0.4, 27°.35N×88°.69E, h10^{km}, Ml4.7/9, Error ellipse: s-maj=10.2km s-min=7.1km az=167.0*

*ISCJB **18** 08:56:41.8±0.7, 27°.47N±0°.06×88°.55E±0°.05, h65^{km}±9^{km}, mb3.3/3, Error ellipse: s-maj=11.1km s-min=6.5km az=16.9*

*NEIC **18** 08:56:42.2±5.6, 27°.51N×88°.29E, h52^{km}±44^{km}, Error ellipse: s-maj=59.4km s-min=17.5km az=57.0*

ISC 18 08:56:42.7±0.7**, 27°.47N**±0°.06×**88°.57E**±0°.05**, h54**^{km}±11^{km}**, n25, σ0^{s}99**/41**, mb3.5**/3**, Sikkim**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAPN	**Taplejung**	**0.77**	**261**	*e*Pg	**Pn**	**08 56 56.2**	**-1.3**
TAPN				*e*Sg	**Sn**	**08 57 07.4**	**-0.9**
	4μm,0.3s						
ODAN	**Odare**	**1.21**	**240**	*e*Pg	**Pn**	**08 57 03.6**	**+0.2**
ODAN				*e*Sg	**Sn**	**08 57 19.7**	**+0.9**
	16μm,0.4s						
RAMN	**Ramite**	**1.83**	**254**	*e*Pn	**Pn**	**08 57 11.7**	**0.0**
RAMN				*e*Sn	**Sn**	**08 57 34.2**	**+0.5**
	650nm,0.3s						
JIRN	**Jiri**	**2.12**	**276**	*e*Pn	**Pn**	**08 57 15.9**	**+0.2**
JIRN				*e*Sn	**Sn**	**08 57 41.7**	**+0.9**
	576nm,0.3s						
GUN	**Gumba**	**2.42**	**281**	*e*Pn	**Pn**	**08 57 20.3**	**+0.5**
GUN				*e*Sn	**Sn**	**08 57 48.3**	**0.0**
PKI	**Pulchoki**	**2.81**	**273**	*e*Pn	**Pn**	**08 57 24.8**	**-0.3**
PKI				*e*Sn	**Sn**	**08 57 58.0**	**+0.3**
PKI	**Pulchoki**	**2.81**	**273**	*e*Pn	**Pn**	**08 57 24.8**	**-0.3**
PKI				*e*Sn	**Sn**	**08 57 58.0**	**+0.3**
PKI				*e*Sn	**Sn**	**08 57 58.8**	**+1.1**
PKIN	**Phulchoki**	**2.82**	**273**	*e*Pn	**Pn**	**08 57 24.8**	**-0.4**
PKIN				*e*Sn	**Sn**	**08 57 58.8**	**+0.8**
KKN	**Kakani**	**2.93**	**277**	*e*Pn	**Pn**	**08 57 26.8**	**0.0**
KKN				*e*Sn	**Sn**	**08 58 00.5**	**-0.3**
	600nm,0.3s						
DMN	**Daman**	**3.08**	**273**	*e*Pn	**Pn**	**08 57 29.7**	**+0.9**
DMN				*e*Sn	**Sn**	**08 58 05.6**	**+1.3**
	335nm,0.4s						
LSA	**Lhasa**	**3.18**	**45**	Pn	**Pn**	**08 57 38.0**	**+7.8**
LSA				Sn	**Sn**	**08 58 16.6**	**+10**
LSA				smax			
	comp=N,60nm,0.7s						
LSA				smax			
	comp=E,110nm,0.9s						
LSA	**Lhasa**	**3.18**	**45**	*e*Pn	**Pn**	**08 57 31.9**	**+1.8**
LSA				*e*Sn	**Sn**	**08 58 17.9**	**+11**
GKN	**Gorkha**	**3.52**	**280**	*e*Pn	**Pn**	**08 57 35.2**	**+0.3**
GKN				*e*Sn	**Sn**	**08 58 15.6**	**+0.3**
	comp=E,404nm,0.4s						
SHL	**Shillong**	**3.53**	**122**	*e*PKP	**Pn**	**08 57 35.5**	**+0.5**
SHL				*e*S	**Sn**	**08 58 29.5**	**+14**
AGT	**Agartala**	**4.32**	**145**	*e*x	x	08 58 14.0	
DANN	**Dangsing**	**4.34**	**283**	*e*Pn	**Pn**	**08 57 46.0**	**-0.2**
DANN				*e*Sn	**Sn**	**08 58 36.3**	**+0.8**
	comp=E,226nm,0.4s						
BOK	**Bokaro**	**4.39**	**214**	*e*x	**Pn**	**08 57 46.2**	**-0.6**
BOK				*e*x	**Sn**	**08 58 34.2**	**-2.5**
KOLN	**Koldanda**	**4.42**	**275**	*e*Pn	**Pn**	**08 57 45.9**	**-1.3**
KOLN				*e*Sn	**Sn**	**08 58 36.1**	**-1.2**
	comp=E,231nm,0.4s						
AAK	**Ala-Archa**	**18.97**	**327**	LR	LR	09 09 37.0	
	comp=E,61nm,20.3s,baz=27,slow=41						
MKAR	**Makanchi Array**	**19.91**	**347**	P	**Pn**	**09 01 10.0**	**-1.8**
	comp=E,0.1nm,0.3s,baz=166,slow=11,SNR=5.4						
KURK	**Kurchatov**	**24.42**	**345**	P	**P**	**09 01 53.4**	**-2.6**
	comp=E,0.3nm,0.3s,mb3.3,baz=142,slow=8.0,SNR=3.0						
SONM	**Songino Array**	**24.64**	**30**	P	**P**	**09 01 59.1**	**+1.1**
	comp=E,0.4nm,0.5s,baz=220,slow=11,SNR=4.2						
ZAA0	**Zalesovo Array**	**26.59**	**355**	*e*P	**P**	**09 02 14.3**	**-1.4**
WRA	**Warramunga Arr**	**64.69**	**132**	P	**P**	**09 07 16.4**	**+1.1**
	comp=E,0.6nm,0.6s,mb3.8,baz=325,slow=6.8,SNR=12						
ASAR	**Alice Springs**	**67.08**	**135**	P	**P**	**09 07 31.9**	**+1.3**
	comp=E,0.2nm,0.4s,mb3.5,baz=318,slow=6.2,SNR=4.4						

CASC 18 08:59:11.6±2.5**, 16°.06N**×**88°.83W, h2**^{km}±30^{km}**, MD4.1, Belize**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRL	**Marmol**	**1.29**	**220**	*e*P	Pg	08 59 34.7	-1.6
MTO2	**Montecristo 2**	**1.73**	**197**	*e*P	Pn	08 59 41.7	-1.0
MTO2				*e*S	Sn	09 00 03.4	-1.9
NBG	**Las Nubes**	**2.07**	**225**	*e*P	Pn	08 59 47.0	-0.3
RBDL	**Robledal**	**2.10**	**203**	*e*P	Pn	08 59 45.5	-2.4
RBDL				*e*S	Sn	09 00 15.4	+0.8
RTR	**El Retiro**	**2.29**	**200**	*e*P	Pn	08 59 51.0	+0.6
RTR				*e*S	Sn	09 00 23.1	+3.9
SNJE	**San Jose**	**2.30**	**199**	*e*P	Pn	08 59 51.1	+0.5
SNJE				*e*S	Sn	09 00 21.4	+1.9
LBRS	**Las Brisas**	**2.32**	**185**	*e*P	Pn	08 59 50.6	-0.1
LBRS				*e*S	Sn	09 00 20.8	+0.9
SBLS	**San Blas**	**2.33**	**199**	*e*P	Pn	08 59 51.7	+0.6
SBLS				*e*S	Sn	09 00 21.6	+1.3
CAHU	**Cacacuatique**	**2.35**	**165**	*e*P	Pn	08 59 50.8	-0.5
LFRS	**El Faro**	**2.43**	**185**	*e*P	Pn	08 59 53.4	+1.1
LFRS				*e*S	Sn	09 00 24.9	+2.2
TP2	**Tecpan 2**	**2.46**	**239**	*e*P	Pn	08 59 54.0	+1.3
TGUH	**Tegucigalpa,Un**	**2.50**	**143**	*e*P	Pn	08 59 49.7	-3.5
TGUH				*e*S	Sn	09 00 24.6	+0.3

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*CSEM **18** 09:03:36.0, 36°.14N×21°.30E, h24^{km}, MD3.5, After ATH*

*NEIC **18** 09:03:36.0, 36°.14N×21°.30E, h24^{km}, MD3.5(ATH), After ATH.*

*ATH **18** 09:03:36.0, 36°.14N×21°.30E, h24^{km}±2^{km}, MD3.5/8*

ISC 18 09:03:35.8±2.3**, 36°.10N**±0°.09×**21°.3E**±0°.1**, h6**^{km}±10^{km}**, n24, σ0^{s}58**/30**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.86**	**24**	*e*PN	**Pg**	**09 03 52.6**	**+0.2**
PYL				*e*SN	**Sg**	**09 04 03.4**	**-0.3**
PYL	**PYLOS**	**0.86**	**24**	*e*Pn	**Pg**	**09 03 52.6**	**+0.2**
PYL				*e*Sn	**Sg**	**09 04 03.4**	**-0.3**
ITM	**Ithomi**	**1.19**	**25**	*e*PN	**Pg**	**09 03 57.7**	**-0.9**
ITM				*e*SN	**Sg**	**09 04 14.8**	**+0.9**
ITM	**Ithomi**	**1.19**	**25**	*e*Pn	**Pg**	**09 03 57.7**	**-0.9**
ITM				*e*Sn	**Sg**	**09 04 14.8**	**+0.9**
KYTH	**Kithira**	**1.41**	**82**	*e*PN	**Pn**	**09 04 02.4**	**+0.4**
KYTH	**Kithira**	**1.41**	**82**	*e*Pn	**Pn**	**09 04 02.4**	**+0.4**
VLI	**Veliai**	**1.45**	**64**	*e*PN	**Pn**	**09 04 03.0**	**+0.4**
VLI	**Veliai**	**1.45**	**64**	*e*Pn	**Pn**	**09 04 03.0**	**+0.4**
VLX	**Vlachokerasia**	**1.53**	**34**	*e*PN	**Pn**	**09 04 02.9**	**-0.8**
VLX				*e*SN	**Sn**	**09 04 23.7**	**-0.2**
VLX	**Vlachokerasia**	**1.53**	**34**	*e*Pn	**Pn**	**09 04 02.9**	**-0.8**
VLX				*e*Sn	**Sn**	**09 04 23.7**	**-0.2**
GUR	**Goura**	**2.01**	**24**	*e*PN	**Pn**	**09 04 10.6**	**+0.3**
GUR	**Goura**	**2.01**	**24**	*e*Pn	**Pn**	**09 04 10.6**	**+0.3**
DID	**Didima**	**2.09**	**47**	*e*PB	**Pn**	**09 04 10.5**	**-0.8**
DID	**Didima**	**2.09**	**47**	*e*Pb	**Pn**	**09 04 10.5**	**-0.8**
VLS	**Valsamata**	**2.15**	**345**	*e*PN	**Pn**	**09 04 12.9**	**+0.7**
VLS	**Valsamata**	**2.15**	**345**	*e*Pn	**Pn**	**09 04 12.9**	**+0.7**
LTK	**Loutraki**	**2.33**	**34**	*e*PB	**Pn**	**09 04 15.6**	**+0.9**
LTK	**Loutraki**	**2.33**	**34**	*e*Pb	**Pn**	**09 04 15.6**	**+0.9**
EFP	**Efpalio**	**2.37**	**11**	*e*PN	**Pn**	**09 04 14.6**	**-0.6**
EFP	**Efpalio**	**2.37**	**11**	*e*Pn	**Pn**	**09 04 14.6**	**-0.6**
AGG	**Agios Georgios**	**3.02**	**15**	*e*PN	**Pn**	**09 04 24.0**	**-0.2**
AGG	**Agios Georgios**	**3.02**	**15**	*e*Pn	**Pn**	**09 04 24.0**	**-0.2**
THL	**Klokotos Trika**	**3.50**	**9**	*e*PN	**Pn**	**09 04 30.7**	**-0.1**
THL	**Klokotos Trika**	**3.50**	**9**	*e*Pn	**Pn**	**09 04 30.7**	**-0.1**

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*ISCJB **18** 09:04:52.2±0.5, 27°.83S±0°.09×176°.13W±0°.08, h10^{km}, mb4.4/17, MS4.5/13, Error ellipse: s-maj=12.8km s-min=10.0km az=153.7*

*IDC **18** 09:04:52.7±0.6, 27°.77S×176°.21W, h0^{km}, mb4.3/14, mb1 4.5/15, mb1mx4.4/18, mbtmp4.3/15, ML4.5/1, MS4.5/14, Ms1 4.5/14, ms1mx4.3/27, Error ellipse: s-maj=21.1km s-min=18.7km az=167.0*

*NEIC **18** 09:04:53.5±0.4, 27°.81S×176°.09W, h10^{km}, mb4.8/5, Error ellipse: s-maj=12.4km s-min=9.0km az=154.0*

*GCMT **18** 09:04:53.5±0.3, 27°.74S×175°.69W, h15^{km}±1^{km}, MW5.0/66, Moment Tensor Solution. s34,c41; s66,c90; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.45±.22; M$_{\theta\theta}$-0.09±.15; M$_{\phi\phi}$-3.36±.15; M$_{r\theta}$-0.31±.37; M$_{\theta\phi}$-0.50±.10; M$_{\phi r}$1.98±.28; Best double couple: M$_0$3.98300×10^{16} NP1:φ$_s$197.00000°, δ31.00000°, λ104.00000°. NP2: φ$_s$0.00000°, δ60.00000°, λ82.00000°. Principal axes: T 4.0280, Plg74.0000°, Azm249.0000°; N -0.0880, Plg7.0000°, Azm4.0000°; P -3.9370, Plg15.0000°, Azm96.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 18 09:04:53.8±0.5**, 27°.82S**±0°.08×**176°.10W**±0°.08**, h10**^{km}**, n51, σ1^{s}20**/33**, mb4.4**/17**, MS4.5**/13**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**11.86**	**207**	Pn	**Pn**	**09 07 36.3**	**-6.8**
	0.5nm,0.3s,baz=283,slow=18,SNR=3.9						
URZ				Sn	**Sn**	**09 09 47.9**	**-7.5**
	1.6nm,0.3s,baz=317,slow=19,SNR=9.2						
AFI	**Afiamalu**	**14.42**	**17**	Pn	**Pn**	**09 08 13.5**	**-4.5**
	1.5nm,0.3s,baz=282,slow=12,SNR=5.8						
AFI				Sn	**Sn**	**09 10 42.2**	**-16**
	1.9nm,0.3s,baz=221,slow=20,SNR=2.8						
AFI	**Afiamalu**	**14.42**	**17**	*e*P	**Pn**	**09 08 24.0**	**+6.0**
AFI				Sn	**Sn**	**09 10 42.2**	**-16**
RAR	**Rarotonga**	**16.24**	**70**	Pn	**Pn**	**09 08 39.9**	**-2.3**
	6.7nm,0.3s,baz=121,slow=5.9,SNR=2.7						
RAR				LR	LR	09 13 49.2	
	comp=Z,2μm,18.9s,baz=265,slow=33						
DZM	**Mont Dzumac**	**16.83**	**286**	*e*P	**Pn**	**09 08 49.9**	**+0.3**
	86nm,1.5s						
KHZ	**Kahutara**	**16.83**	**207**	*e*Pn	**Pn**	**09 08 48.9**	**-0.5**
	42nm,0.8s						
RPZ	**Rata Peaks**	**18.94**	**210**	P	**Pn**	**09 09 14.6**	**-0.9**
	1.3nm,0.3s,baz=195,slow=18,SNR=5.7						
PPT	**Papeete**	**26.46**	**73**	*e*LQ		09 15 35.4	
	1μm,24.8s						
PPT				*e*LR	LR	09 16 53.4	
	1μm,21.8s						
PPT	**Papeete**	**26.46**	**73**	LR	LR	09 18 42.3	
	comp=Z,1μm,18.2s,MS4.5,baz=242,slow=31						
HNR	**Honiara**	**29.05**	**304**	P	**P**	**09 10 54.2**	**-0.2**
	37nm,0.5s,mb5.4,baz=194,slow=9.8,SNR=3.1						
HNR				LR	LR	09 21 09.2	
	comp=Z,661nm,18.9s,MS4.3,baz=149,slow=34						
HNR	**Honiara**	**29.05**	**304**	P	**P**	**09 10 54.2**	**-0.2**
HNR				LR	LR	09 21 09.2	
CTA	**Charters Tower**	**35.15**	**274**	P	**P**	**09 11 48.0**	**+0.2**
	5.3nm,0.6s,mb4.6,baz=86,slow=12,SNR=5.4						
STKA	**Stephens Creek**	**36.75**	**253**	P	**P**	**09 12 01.2**	**-0.2**
	2.4nm,0.7s,mb4.1,baz=76,slow=10.0,SNR=4.6						
STKA				LR	LR	09 25 53.8	
	comp=Z,788nm,20.2s,MS4.5,baz=69,slow=34						
RKT	**Rikitea**	**37.30**	**92**	*e*LR	LR	09 21 59.1	
	1μm,29.2s						
TAOE	**Nuku Hiva Isla**	**38.78**	**68**	*e*S	**S**	**09 18 12.6**	**-3.9**
	542nm,24.6s						
TAOE				*e*LR	LR	09 22 34.4	
	3μm,21.0s						
ASAR	**Alice Springs**	**44.98**	**264**	P	**P**	**09 13 09.2**	**-0.3**
	1.9nm,0.7s,mb4.1,baz=95,slow=6.9,SNR=34						
WRA	**Warramunga Arr**	**45.74**	**269**	P	**P**	**09 13 14.2**	**-1.3**
	4.2nm,0.8s,mb4.4,baz=109,slow=7.7,SNR=15						
WRA				LR	LR	09 30 37.5	
	comp=Z,389nm,18.3s,MS4.4,baz=125,slow=34						
VNDA	**Vanda**	**50.82**	**186**	LR	LR	09 31 52.3	
	comp=Z,435nm,19.6s,MS4.5,baz=103,slow=32						
FITZ	**Fitzroy Crossi**	**54.09**	**267**	P	**P**	**09 14 18.3**	**-0.8**
	2.3nm,0.9s,mb4.1,baz=78,slow=14,SNR=3.3						
FITZ				LR	LR	09 38 00.1	
	comp=Z,518nm,19.6s,MS4.6,baz=97,slow=37						
CASY	**Casey**	**58.19**	**207**	*e*P	**P**	**09 14 46.6**	**-1.1**
	24nm,1.4s,mb5.0						
QSPA	**South Pole Qui**	**62.28**	**180**	P	**P**	**09 15 17.8**	**+2.3**
	12nm,0.9s,mb5.0,baz=38,slow=3.3,SNR=20						
QSPA	**South Pole Qui**	**62.28**	**180**	*e*P	**P**	**09 15 17.5**	**+2.0**
	13nm,0.9s,mb5.1						
MAW	**Mawson**	**75.30**	**200**	LR	LR	09 50 28.0	
	comp=Z,370nm,18.9s,MS4.7,baz=117,slow=36						
JOW	**Kunigami**	**76.20**	**311**	LR	LR	09 47 56.7	
	comp=Z,151nm,20.2s,MS4.3,baz=155,slow=34						
MJAR	**Matsushiro Arr**	**77.11**	**324**	P	**P**	**09 16 46.7**	**-0.7**
	1.2nm,0.5s,mb4.1,baz=160,slow=6.4,SNR=5.0						
VNA3	**Neumayer Olymp**	**80.75**	**176**	*e*	**P**	**09 17 08.6**	**+1.6**
VNA2	**Neumayer--Watz**	**81.21**	**176**	*e*	**P**	**09 17 13.0**	**+3.6**
	baz=134,slow=1.6						
PLCA	**Paso Flores**	**83.03**	**132**	P	**P**	**09 17 19.6**	**0.0**
	3.5nm,1.0s,mb4.3,baz=117,slow=2.3,SNR=2.7						
PLCA				LR	LR	09 47 00.0	
	comp=Z,568nm,18.3s,MS5.0,baz=234,slow=30						
KSRS	**Korea Array**	**83.49**	**318**	P	**P**	**09 17 23.8**	**+2.0**
	1.4nm,0.8s,mb4.0,baz=150,slow=5.4,SNR=7.2						
PETK	**Petropavlovsk-**	**83.76**	**344**	P	**P**	**09 17 21.9**	**-0.8**
	3.7nm,1.0s,mb4.5,baz=128,slow=3.4,SNR=2.7						
NVAR	**Mina Array Bea**	**85.22**	**42**	P	**P**	**09 17 32.1**	**+1.6**
	1.3nm,0.8s,mb4.1,baz=219,slow=9.7,SNR=8.5						
TUC	**Tucson**	**86.20**	**50**	*e*P	**P**	**09 17 35.0**	**-0.5**
	7.0nm,1.4s,mb4.7						
PSI	**Prapat**	**86.85**	**275**	LR	LR	09 56 49.0	
	comp=Z,254nm,19.6s,MS4.6,baz=290,slow=36						
CFAA	**Coronel Fontan**	**89.41**	**126**	LR	LR	09 50 08.1	
	comp=Z,57nm,18.7s,MS4.0,baz=232,slow=30						
TXAR	**Lajitas Array**	**89.59**	**56**	P	**P**	**09 17 53.4**	**+1.6**
	0.5nm,0.9s,mb3.8,baz=231,slow=4.6,SNR=4.9						
TXAR				LR	LR	09 52 13.2	
	comp=Z,315nm,18.5s,MS4.8,baz=335,slow=32						
TXAR	**Lajitas Array**	**89.59**	**56**	P	**P**	**09 17 53.4**	**+1.6**
TXAR				LR	LR	09 52 13.2	
PDAR	**Pinedale Array**	**93.12**	**43**	P	**P**	**09 18 07.2**	**-0.7**
	0.5nm,0.8s,mb4.0,baz=243,slow=5.2,SNR=3.5						
PDAR				LR	LR	09 56 28.1	
	comp=Z,459nm,18.1s,MS5.0,baz=265,slow=33						
CMAR	**Chiang Mai Arr**	**94.14**	**289**	P	**P**	**09 18 15.0**	**+1.9**
	0.5nm,0.3s,mb4.5,baz=151,slow=4.1,SNR=5.0						
ZALV	**Zalesovo Beam**	**117.20**	**319**	PKP	PKPdf	09 23 38.6	-0.2
	0.5nm,0.3s,baz=55,slow=4.2,SNR=3.4						
ZALV	**Zalesovo Beam**	**117.20**	**319**	PKP	PKPdf	09 23 38.6	-0.2
MK31	**Makanchi Array**	**117.37**	**311**	*e*PKPdf	PKPdf	09 23 37.2	-2.2
MKAR	**Makanchi Array**	**117.37**	**311**	PKP	PKPdf	09 23 39.1	-0.3
	0.8nm,0.8s,baz=72,slow=4.0,SNR=7.0						
KURK	**Kurchatov**	**120.44**	**315**	PKP	PKPdf	09 23 44.9	-0.2
	0.8nm,0.9s,baz=100,slow=1.9,SNR=4.1						
KURK	**Kurchatov**	**120.44**	**315**	PKP	PKPdf	09 23 44.9	-0.2
BVAR	**Borovoye Array**	**125.69**	**317**	PKP	PKPdf	09 23 55.8	+0.6
	0.6nm,0.6s,baz=81,slow=4.7,SNR=3.9						
NB2	**NORSAR Subarra**	**146.42**	**354**	PKP	PKPdf	09 24 34.4	+1.3
	comp=Z,12nm,1.4s,baz=10,slow=3.2						
NOA	**NORSAR Array B**	**146.42**	**354**	PKPbc	PKPbc	09 24 35.1	+0.7
	comp=Z,5.7nm,1.0s,baz=11,slow=2.4,SNR=5.5						
AKASG	**Malin Array Be**	**150.16**	**327**	PKPbc	PKPbc	09 24 44.5	-0.1
	comp=Z,2.9nm,0.8s,baz=48,slow=2.8,SNR=9.5						
AKASG	**Malin Array Be**	**150.16**	**327**	PKPbc	PKPbc	09 24 44.5	-0.1
BRTR	**Keskin Array B**	**152.70**	**303**	PKPbc	PKPbc	09 24 50.8	0.0
	comp=Z,1.2nm,0.9s,baz=151,slow=2.3,SNR=2.5						
TORD	**Torodi Ar. Bea**	**165.26**	**172**	PKPab	PKPab	09 25 56.9	+0.5
	comp=Z,4.3nm,0.9s,baz=185,slow=4.0,SNR=13						

*ISCJB **18** 09:21:56.1±0.5, 21°.31S±0°.04×68°.8W±0°.1, h122^{km}±7^{km}, mb4.8/6, Error ellipse: s-maj=15.7km s-min=5.3km az=170.7*
*GUC **18** 09:21:56.6±1.3, 21°.44S×69°.05W, h125^{km}±9^{km}, ML4.4*
*NEIC **18** 09:21:56.6, 21°.44S×69°.05W, h125^{km}, MG4.4(GUC), After GUC.*
*IDC **18** 09:21:58.4±0.8, 21°.43S×68°.70W, h120^{km}±6^{km}, mb4.2/3, mb1 4.0/5, mb1mx3.6/17, mbtmp3.9/5, Error ellipse: s-maj=29.7km s-min=10.5km az=104.0*
ISC 18 09:21:57.2±0.5**, 21°.30S**±0°.04×**68°.8W**±0°.1**, h114**^{km}±7^{km}**, h126**^{km}±7.9^{km}**:pP-P, n23,** σ**0^{s}.81**/33**, mb4.8**/6**, 4C-1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB01	**Plate Boundary**	**0.74**	**290**	⇑*i*P	**Pn**	**09 22 16.3**	**+0.1**
PB01				*i* S	**Sn**	**09 22 30.4**	**-0.2**
PB01				AML	AML	09 22 31.6	
	comp=N,21µm,0.4s						
PB04	**Plate Boundary**	**1.18**	**215**	*e*P	**Pn**	**09 22 25.2**	**+4.6**
PB04				*i* S	**Sn**	**09 22 47.9**	**+10**
PB04				AML	AML	09 22 53.1	
	comp=N,4µm,0.3s						
MACH	**Maria Elena**	**1.30**	**226**	*e*P	**Pn**	**09 22 21.7**	**-0.2**
MACH				*i* S	**Sn**	**09 22 40.0**	**-0.6**
LVC	**Limon Verde**	**1.32**	**187**	P	**Pn**	**09 22 22.2**	**0.0**
	comp=N,213nm,0.3s,baz=0.0,slow=8.9,SNR=2109						
LVC				S	**Sn**	**09 22 41.1**	**0.0**
	comp=N,302nm,0.3s,baz=0.0,slow=7.5,SNR=39						
LVC	**Limon Verde**	**1.32**	**187**	⇑*e*P	**Pn**	**09 22 21.8**	**-0.3**
LVC				*i* S	**Sn**	**09 22 40.7**	**-0.3**
HMBC	**Humberston**	**1.47**	**313**	⇑*i*P	**Pn**	**09 22 24.4**	**+0.5**
HMBC				*i* S	**Sn**	**09 22 44.6**	**+0.4**
HMBC				AML	AML	09 22 46.5	
	comp=N,9µm,0.3s						
PECH	**Pedro de Valdi**	**1.55**	**213**	*e*P	**Pn**	**09 22 24.8**	**-0.1**
PECH				*i* S	**Sn**	**09 22 45.4**	**-0.5**
PSGC	**Pisagua**	**2.13**	**322**	⇑*i*P	**Pn**	**09 22 31.1**	**-0.9**
PSGC				*i* S	**Sn**	**09 22 57.9**	**-0.7**
PSGC				AML	AML	09 23 04.0	
	comp=E,2µm,0.5s						
MNMC	**Miæe Miæ**	**2.30**	**340**	⇓*i*P	**Pn**	**09 22 35.2**	**+1.1**
MNMC				*i* S	**Sn**	**09 23 05.0**	**+2.6**
MNMC				AML	AML	09 23 10.6	
	comp=E,3µm,0.4s						
CEN1	**Los Morros**	**2.48**	**213**	*e*P	**Pn**	**09 22 38.4**	**+2.0**
CEN1				*i* S	**Sn**	**09 23 07.2**	**+0.6**
CEN1				AML	AML	09 23 14.6	
	comp=N,716nm,0.9s						
ARE	**Arequipa**	**5.47**	**331**	*e*P	**Pn**	**09 23 15.0**	**-1.4**
ARE				*e*S	**Sn**	**09 24 17.0**	**-1.1**
LCO	**Las Campanas**	**7.88**	**193**	*e*Pn	**Pn**	**09 23 44.0**	**-5.0**
CFAA	**Coronel Fontan**	**10.28**	**178**	P	**Pn**	**09 24 17.1**	**-4.3**
	comp=N,0.1nm,0.3s,baz=357,slow=13,SNR=35						
CPUP	**Villa Florida**	**11.59**	**118**	P	**Pn**	**09 24 38.8**	**-0.2**
	comp=N,0.7nm,0.3s,baz=287,slow=9.8,SNR=6.3						
PLCA	**Paso Flores**	**19.44**	**184**	P	**P**	**09 26 14.4**	**-0.2**
	comp=N,0.3nm,0.3s,baz=7.2,slow=14,SNR=12						
LIC	**Lamto**	**68.19**	**74**	*e*P	**P**	**09 32 45.3**	**-0.5**
	comp=N,50nm,1.4s,mb5.2						
TIC	**Toumodi**	**68.37**	**73**	*e*P	**P**	**09 32 46.6**	**-0.3**
	comp=N,8.3nm,0.2s,mb5.2						
KIC	**Kosan Boka**	**68.50**	**74**	*e*P	**P**	**09 32 47.5**	**-0.2**
	comp=N,73nm,1.0s,mb5.5						
DBIC	**Dimbokro**	**68.53**	**73**	P	**P**	**09 32 48.1**	**+0.2**
	comp=N,5.6nm,0.5s,mb4.6,baz=206,slow=5.0,SNR=11						
DBIC				pP	pP	09 33 21.4	+5.2
	comp=N,2.6nm,0.6s,baz=248,slow=8.6,SNR=4.4						
TORD	**Torodi Ar. Bea**	**77.14**	**70**	P	**P**	**09 33 38.8**	**0.0**
	comp=N,6.2nm,0.7s,mb4.5,baz=254,slow=5.4,SNR=47						
TORD				pP	pP	09 34 10.6	+3.0
	comp=N,2.8nm,0.7s,baz=250,slow=5.3,SNR=5.3						
YKA	**Yellowknife Ar**	**91.05**	**341**	P	**P**	**09 34 49.2**	**+1.1**
	comp=N,0.4nm,0.5s,mb3.8,baz=132,slow=4.1,SNR=14						
YKA				pP	pP	09 35 18.5	+0.8
	comp=N,0.3nm,0.6s,baz=134,slow=4.7,SNR=4.0						
YKA	**Yellowknife Ar**	**91.05**	**341**	P	**P**	**09 34 49.2**	**+1.1**
YKA				pP	pP	09 35 18.6	+0.8
MKAR	**Makanchi Array**	**145.38**	**36**	PKPbc	PKPbc	09 41 23.2	+1.5
	comp=N,2.3nm,0.8s,baz=325,slow=4.2,SNR=25						
MKAR				pPKPbc	pPKPbc	09 41 53.9	+1.7
	comp=N,2.7nm,0.9s,baz=318,slow=3.3,SNR=9.3						

IDC 18 09:30:05.8±2.6**, 8°.06S**×**68°.25E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.4**/24**, mbtmp3.5**/4**, Error ellipse: s-maj=96.8km s-min=37.9km az=62.0, Chagos Archipelago region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**56.02**	**12**	P	P	09 39 45.2	-1.0
	0.3nm,0.5s,baz=200,slow=7.8,SNR=4.7						
BVAR	**Borovoye Array**	**60.87**	**1**	P	P	09 40 20.3	+0.3
	0.2nm,0.3s,baz=162,slow=5.8,SNR=3.5						
ASAR	**Alice Springs**	**64.54**	**112**	P	P	09 40 45.0	-0.1
	0.2nm,0.7s,baz=284,slow=5.0,SNR=4.6						
SONM	**Songino Array**	**65.05**	**27**	P	P	09 40 48.9	+1.0
	0.7nm,0.8s,baz=206,slow=6.4,SNR=5.0						
PDAR	**Pinedale Array**	**145.38**	**357**	PKPbc	PKPbc	09 49 44.5	-1.4
	0.3nm,0.6s,baz=67,slow=3.0,SNR=3.9						
NVAR	**Mina Array Bea**	**149.19**	**10**	PKPbc	PKPbc	09 49 57.4	+0.6
	0.2nm,0.3s,baz=36,slow=1.7,SNR=4.2						

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*BJI **18** 09:37:22.3, 3°.62S×135°.91E, h40^{km}, mB5.2/10, mb4.8/21, Ms4.5/6, Ms7 4.3/6*
*MOS **18** 09:37:22.1±0.8, 3°.62S×135°.67E, h33^{km}, mb5.0/12, Error ellipse: s-maj=20.6km s-min=8.5km az=110.0*
*ISCJB **18** 09:37:24.8±0.3, 3°.69S±0°.03×135°.49E±0°.06, h50^{km}, mb4.8/36, MS4.1/5, Error ellipse: s-maj=8.5km s-min=4.6km az=171.3*
*NEIC **18** 09:37:25.0±0.4, 3°.63S×135°.51E, h35^{km}, mb4.8/10, Error ellipse: s-maj=15.6km s-min=6.4km az=83.0*
*DJA **18** 09:37:25, 3°.59S×135°.50E, h10^{km}, mb5.2/9*
*GCMT **18** 09:37:25.0±0.6, 3°.64S×135°.73E, h43^{km}±1^{km}, MW5.0/23, Moment Tensor Solution. s23,c26; s23,c28; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.23±.30; M$_{\theta\theta}$-2.72±.17; M$_{\phi\phi}$-1.51±.19; M$_{r\theta}$0.05±.13; M$_{\theta\phi}$0.36±.17; M$_{\phi r}$-0.43±.16; Best double couple: M$_0$3.54300×10^{16} NP1:ϕ_s282.00000°, δ44.00000°, λ84.00000°. NP2: ϕ_s110.00000°, δ46.00000°, λ96.00000°. Principal axes: T 4.2620, Plg86.0000°, Azm88.0000°; N -1.4370, Plg4.0000°, Azm286.0000°; P -2.8250, Plg1.0000°, Azm196.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **18** 09:37:27.2±0.7, 3°.56S×135°.43E, h51^{km}±5^{km}, mb4.3/10, mb1 4.5/12, mb1mx4.4/16, mbtmp4.4/12, MS3.8/4, Ms1 3.8/4, ms1mx3.2/30 Error ellipse: s-maj=29.2km s-min=12.0km az=77.0*
ISC 18 09:37:26.9±0.3**, 3°.69S**±0°.03×**135°.53E**±0°.06**, h52**^{km}**, h52**^{km}±2.6^{km}**:pP-P, n99,** σ**1^{s}.11**/97**, mb4.8**/36**, MS4.1**/5**, 1C, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BAKI	**Biak**	**2.55**	**13**	P	**Pn**	**09 38 04.5**	**-1.4**
SWI	**Sorong**	**5.11**	**303**	P	**Pn**	**09 38 40.2**	**-0.8**
	273nm,0.6s,3.3nm						
JAY	**Jayapura**	**5.30**	**77**	P	**Pn**	**09 38 45.7**	**+2.1**
	120nm,0.5s,0.8nm						
MMPI	**Merauke**	**6.77**	**135**	P	**Pn**	**09 39 07.2**	**+3.5**
	521nm,0.7s,4.7nm						
LBMI	**Labuha**	**8.58**	**291**	P	Px	09 39 37.5	
KAKA	**Kakadu**	**9.47**	**199**	*e*P	**Pn**	**09 39 41.4**	**+0.7**
	170nm,0.4s						
KAKA				*e*S	**Sn**	**09 41 23.8**	**-2.0**
KAKA	**Kakadu**	**9.47**	**199**	*e*Pn	**Pn**	**09 39 41.4**	**+0.7**
	356nm,0.5s						
KAKA				*e*Sn	**Sn**	**09 41 24.5**	**-1.3**
KAKA	**Kakadu**	**9.47**	**199**	P	**Pn**	**09 39 41.8**	**+1.1**
	296nm,0.6s,4µm						
COEN	**Coen**	**12.69**	**144**	*e*Pn	**Pn**	**09 40 24.2**	**-0.5**
	985nm,0.5s						
COEN	**Coen**	**12.69**	**144**	P	**Pn**	**09 40 24.6**	**-0.1**
	772nm,0.6s						
KDI	**Kendari**	**12.88**	**268**	P	**Pn**	**09 40 28.9**	**+1.5**
	24nm,1.2s						
WRAB	**Tennant Creek**	**16.18**	**184**	*e*P	**Pn**	**09 41 08.8**	**-2.2**
WRAB				pmax	pmax		
	comp=Z,70nm,0.8s						
WRAB	**Tennant Creek**	**16.18**	**184**	*e*Pn	**Pn**	**09 41 08.8**	**-2.1**
	comp=Z,70nm,0.8s						
WRAB	**Tennant Creek**	**16.18**	**184**	P	**Pn**	**09 41 08.6**	**-2.4**
WB2	**Warramunga Arr**	**16.19**	**184**	*e*Pn	**Pn**	**09 41 08.7**	**-2.4**
WRA	**Warramunga Arr**	**16.19**	**184**	P	**Pn**	**09 41 09.0**	**-2.1**
WRA				S	**Sn**	**09 44 00.2**	**-10**
WRA	**Warramunga Arr**	**16.19**	**184**	P	**Pn**	**09 41 09.0**	**-2.1**
	comp=Z,4.5nm,0.3s,baz=3.6,slow=13,SNR=85						
WRA				S	**Sn**	**09 44 00.2**	**-10**
	comp=Z,2.2nm,0.3s,baz=6.4,slow=22,SNR=7.1						
WRA				LR	LR	09 48 04.6	
	comp=Z,390nm,21.0s,baz=15,slow=39						
FITZ	**Fitzroy Crossi**	**17.29**	**213**	*e*P	**Pn**	**09 41 24.3**	**-0.5**
	comp=Z,45nm,0.9s						
FITZ				*e*S	**Sn**	**09 44 23.8**	**-13**
FITZ	**Fitzroy Crossi**	**17.29**	**213**	P	**Pn**	**09 41 24.2**	**-0.6**
	comp=Z,1.3nm,0.3s,baz=38,slow=13,SNR=49						
FITZ				S	**Sn**	**09 44 24.5**	**-12**
	comp=Z,2.2nm,0.3s,baz=183,slow=10,SNR=6.4						
FITZ	**Fitzroy Crossi**	**17.29**	**213**	P	**Pn**	**09 41 26.2**	**+1.4**
	comp=Z,114nm,2.5s						
CTA	**Charters Tower**	**19.36**	**148**	*e*P	**Pn**	**09 41 51.5**	**+1.6**
	comp=Z,23nm,1.0s						
CTA	**Charters Tower**	**19.36**	**148**	P	**Pn**	**09 41 51.5**	**+1.6**
	comp=Z,2.2nm,0.3s,baz=324,slow=13,SNR=17						
CTAO	**Charters Tower**	**19.36**	**148**	P	**Pn**	**09 41 52.8**	**+2.9**
	comp=Z,49nm,1.0s						
GUMO	**Guam**	**19.51**	**28**	LR	LR	09 48 18.0	
	comp=Z,119nm,18.2s,baz=177,slow=34						
ASAR	**Alice Springs**	**19.92**	**184**	P	**Pn**	**09 41 57.1**	**+0.6**
	comp=Z,55nm,0.9s,baz=10,slow=11,SNR=216						
ASAR				S	**S**	**09 45 30.8**	**-5.1**
	comp=Z,9.2nm,0.8s,baz=11,slow=28,SNR=4.6						
SBUM	**Sibu**	**24.08**	**284**	P	**P**	**09 42 40.7**	**+2.9**
FORT	**Forrest**	**27.85**	**194**	*e*P	**P**	**09 43 13.4**	**+1.8**
	comp=Z,26nm,0.6s,mb5.0						
FORT	**Forrest**	**27.85**	**194**	*e*P	**P**	**09 43 12.5**	**+0.9**
	comp=Z,43nm,0.6s,mb5.2						
STKA	**Stephens Creek**	**28.61**	**169**	*e*P	**P**	**09 43 19.3**	**+0.9**
	comp=Z,4.4nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**28.61**	**169**	P	**P**	**09 43 19.5**	**+1.1**
	comp=Z,5.3nm,0.6s,mb4.5,baz=345,slow=8.0,SNR=30						
STKA				LR	LR	09 54 17.5	
	comp=Z,258nm,19.5s,MS3.8,baz=23,slow=35						
PPI	**Padang Panjang**	**35.25**	**274**	P	**P**	**09 44 17.7**	**+0.8**
JHJ	**Hachijo jima 2**	**36.83**	**6**	LR	LR	09 55 47.6	
	comp=Z,227nm,21.8s,MS3.9,baz=251,slow=30						
MJAR	**Matsushiro Arr**	**40.10**	**3**	P	**P**	**09 44 55.2**	**-2.3**
	comp=Z,2.6nm,0.8s,mb4.0,baz=181,slow=8.6,SNR=7.3						
MJAR				PcP	PcP	09 47 01.3	-0.1
	comp=Z,1.5nm,1.0s,baz=176,slow=4.0,SNR=4.2						
KSRS	**Korea Array**	**41.54**	**351**	P	**P**	**09 45 08.0**	**-1.4**
	comp=Z,3.7nm,0.9s,mb4.0,baz=169,slow=9.1,SNR=14						
KSRS				PcP	PcP	09 47 06.4	+0.4
	comp=Z,3.0nm,0.8s,baz=178,slow=3.8,SNR=11						
CMAR	**Chiang Mai Arr**	**42.23**	**303**	P	**P**	**09 45 14.6**	**-0.7**
	comp=Z,6.8nm,0.8s,mb4.3,baz=125,slow=6.4,SNR=25						
CHTO	**Chiang Mai**	**42.39**	**303**	*e*P	**P**	**09 45 15.7**	**-0.9**
CHTO				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.5						
CHTO	**Chiang Mai**	**42.39**	**303**	*e*P	**P**	**09 45 15.7**	**-0.9**
	comp=Z,8.3nm,0.6s,mb4.5						
XAN	**Xi'an**	**45.15**	**328**	P	**P**	**09 45 38.1**	**-0.4**
XAN				pP	pP	09 45 48.3	-4.1
XAN				sP	sP	09 45 52.9	-5.5
XAN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
XAN				pmax	pmax		
	comp=Z,100nm,10.4s						
XAN				LR	LR		
	comp=E,170nm,19.6s						
XAN				LR	LR		
	comp=Z,250nm,22.4s,MS4.1						
BJT	**Baijiatuau**	**46.99**	**340**	*e*P	**P**	**09 45 51.8**	**-1.1**
LZH	**Lanzhou**	**49.43**	**326**	*e*P	**P**	**09 46 12.5**	**+0.7**
LZH				pP	pP	09 46 28.5	+2.7
LZH				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
LZH				pmax	pmax		
	comp=Z,190nm,4.0s						
SHL	**Shillong**	**51.33**	**307**	*e*PKP	**P**	**09 46 25.5**	**-0.9**
KLR	**Kul'dur**	**52.81**	**357**	*e*P	**P**	**09 46 34.8**	**-2.1**
LSA	**Lhasa**	**53.91**	**311**	P	**P**	**09 46 47.3**	**+1.9**
LSA	**Lhasa**	**53.91**	**311**	*e*P	**P**	**09 46 46.3**	**+0.9**
LSA				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
LSA	**Lhasa**	**53.91**	**311**	*e*P	**P**	**09 46 46.3**	**+0.9**
	comp=Z,14nm,0.7s,mb5.0						
GTA	**Gaotai**	**54.04**	**326**	⇑P	**P**	**09 46 47.0**	**+0.9**
GTA				pP	pP	09 47 01.3	+1.0
GTA				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
GTA				pmax	pmax		
	comp=Z,99nm,7.4s						
GTA				LR	LR		
	comp=N,130nm,15.2s,MS4.3						
GTA				LR	LR		
	comp=E,150nm,16.3s,MS4.3						
GTA				LR	LR		
	comp=Z,220nm,20.5s,MS4.2						
TAPN	**Taplejung**	**55.47**	**307**	*e*P	**P**	**09 46 57.0**	**+0.3**
	comp=Z,52nm,0.8s,mb5.6						
ODAN	**Odare**	**55.52**	**306**	*e*P	**P**	**09 46 57.2**	**+0.1**
	comp=Z,66nm,0.8s						
RAMN	**Ramite**	**56.19**	**306**	*e*P	**P**	**09 47 02.4**	**+0.5**
	comp=Z,62nm,0.7s						
JIRN	**Jiri**	**56.82**	**306**	*e*P	**P**	**09 47 06.8**	**+0.4**
	comp=Z,35nm,0.8s,mb5.5						
ULN	**Ulaanbaatar**	**57.09**	**338**	*e*P	**P**	**09 47 08.0**	**+0.2**
ULN				*e**PP	pP	09 47 22.2	+0.1
ULN				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.5						
ULN	**Ulaanbaatar**	**57.09**	**338**	*e*P	**P**	**09 47 08.0**	**+0.2**
	comp=Z,7.1nm,1.4s,mb4.5						
ULN				*e*pP	pP	09 47 22.2	+0.1
GUN	**Gumba**	**57.18**	**307**	*e*P	**P**	**09 47 09.3**	**+0.4**
	comp=Z,60nm,0.7s						
SONM	**Songino Array**	**57.31**	**337**	P	**P**	**09 47 09.4**	**-0.1**
	comp=Z,1.7nm,0.9s,mb4.1,baz=151,slow=7.6,SNR=9.9						
SONM				pP	pP	09 47 23.2	-0.5
	comp=Z,1.4nm,0.6s,baz=149,slow=7.3,SNR=5.9						
SONM				PcP	PcP	09 48 03.3	+0.2
	comp=Z,1.5nm,0.6s,baz=146,slow=4.0,SNR=4.6						
PKI	**Pulchoki**	**57.41**	**306**	*e*P	**P**	**09 47 10.5**	**-0.1**
KKN	**Kakani**	**57.61**	**306**	*e*P	**P**	**09 47 12.1**	**+0.2**
	comp=Z,46nm,0.9s,mb5.5						
DMN	**Daman**	**57.67**	**306**	*e*P	**P**	**09 47 12.6**	**+0.2**
	comp=Z,70nm,1.0s						
GKN	**Gorkha**	**58.21**	**306**	*e*P	**P**	**09 47 16.3**	**+0.1**
	comp=Z,59nm,0.9s,mb5.6						
KOLN	**Koldanda**	**58.96**	**305**	*e*P	**P**	**09 47 21.8**	**+0.4**
	comp=Z,37nm,0.8s,mb5.5						
DANN	**Dangsing**	**59.06**	**306**	*e*P	**P**	**09 47 22.4**	**+0.3**
	comp=Z,31nm,0.6s,mb5.5						
PETK	**Petropavlovsk-**	**59.59**	**15**	P	**P**	**09 47 25.2**	**0.0**
	comp=Z,5.8nm,0.6s,mb4.8,baz=172,slow=5.8,SNR=14						
ZAK	**Zakamensk**	**60.58**	**337**	*i* P	**P**	**09 47 31.6**	**-0.4**
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.8						
TLY	**Talaya**	**61.48**	**338**	*e*P	**P**	**09 47 38.2**	**+0.1**
TLY				*e*	pP	09 47 53.0	+0.5
TLY				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.5						
MOY	**Mondy**	**62.49**	**337**	*e*P	**P**	**09 47 45.8**	**+0.9**
BOD	**Bodaibo**	**63.72**	**347**	*e*P	**P**	**09 47 52.0**	**-0.9**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
WMQ	**Urumqi**	**63.85**	**323**	P	**P**	**09 47 54.6**	**+0.5**
WMQ				pP	pP	09 48 04.0	-4.5
WMQ				sP	sP	09 48 08.0	-6.4
WMQ				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,260nm,4.2s						
WMQ				LR	LR		
	comp=N,180nm,17.7s						
WMQ				LR	LR		
	comp=E,140nm,23.2s						
WMQ				LR	LR		
	comp=Z,260nm,19.7s,MS4.4						
DDI	**Dehra Dun**	**64.42**	**306**	*e*x	**P**	**09 47 56.0**	**-2.1**
MK31	**Makanchi Array**	**68.66**	**324**	*i* P	**P**	**09 48 24.4**	**-0.4**
MK31				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
MKAR	**Makanchi Array**	**68.66**	**324**	P	**P**	**09 48 24.9**	**0.0**
	comp=Z,5.3nm,0.5s,mb4.7,baz=111,slow=8.0,SNR=103						
MKAR				pP	pP	09 48 39.4	0.0
	comp=Z,3.0nm,0.5s,baz=120,slow=7.3,SNR=7.3						
MKAR	**Makanchi Array**	**68.66**	**324**	P	**P**	**09 48 24.9**	**0.0**
MKAR				pP	pP	09 48 39.4	0.0
KSH	**Kashi**	**69.47**	**315**	P	**P**	**09 48 31.4**	**+1.4**
KSH				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
KSH				pmax	pmax		
	comp=Z,390nm,4.5s						
KSH				LR	LR		
	comp=N,220nm,6.2s						
KSH				LR	LR		
	comp=E,270nm,7.6s						
KSH				LR	LR		
	comp=Z,410nm,5.6s						
KZA	**Kyzart**	**71.00**	**317**	P	**P**	**09 48 40.8**	**+1.5**
	SNR=17						
TKM2	**Tokmak 2**	**71.10**	**318**	P	**P**	**09 48 40.5**	**+0.6**
	SNR=14						
ZALV	**Zalesovo Beam**	**71.22**	**331**	P	**P**	**09 48 39.5**	**-0.8**
	comp=Z,5.8nm,0.6s,mb4.7,baz=118,slow=5.2,SNR=16						
ZALV				pP	pP	09 48 54.1	-1.0
	comp=Z,3.3nm,0.8s,baz=103,slow=5.3,SNR=3.1						
UCH	**Uchtor**	**71.56**	**317**	P	**P**	**09 48 44.0**	**+1.3**
	SNR=14						
AAK	**Ala-Archa**	**71.73**	**317**	*e*P	**P**	**09 48 44.3**	**+0.6**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
AAK	**Ala-Archa**	**71.73**	**317**	P	**P**	**09 48 44.7**	**+1.0**
	SNR=5.4						
AAK	**Ala-Archa**	**71.73**	**317**	*e*P	**P**	**09 48 44.3**	**+0.5**
	comp=Z,5.4nm,0.8s,mb4.5						
USP	**Ospenovka**	**71.98**	**318**	P	**P**	**09 48 45.9**	**+0.7**
	SNR=14						
AML	**Almayashu**	**72.08**	**316**	P	**P**	**09 48 47.1**	**+1.3**
	SNR=28						
EKS2	**Erkin-Say**	**72.23**	**317**	P	**P**	**09 48 47.6**	**+0.9**
	SNR=12						
NVS	**Novosibirsk**	**72.49**	**331**	*e*P	**P**	**09 48 47.0**	**-1.0**
NVS				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.7						
NVS				pmax	pmax		
	comp=N,9.0nm,1.5s						
NVS				pmax	pmax		
	comp=E,7.0nm,1.0s						
KURK	**Kurchatov**	**72.72**	**326**	*e*P	**P**	**09 48 48.7**	**-0.8**
KURK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
KURK	**Kurchatov**	**72.72**	**326**	*e*P	**P**	**09 48 48.7**	**-0.7**
	comp=Z,8.3nm,0.8s,mb4.7						
KBL	**Kabul**	**72.99**	**308**	*e*P	**P**	**09 48 50.7**	**-0.7**
KBL				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
KBL	**Kabul**	**72.99**	**308**	*e*P	**P**	**09 48 50.7**	**-0.7**
	comp=Z,7.1nm,0.7s,mb4.7						
BRVK	**Borovoye**	**78.39**	**326**	*e*P	**P**	**09 49 21.6**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
BRVK	**Borovoye**	**78.39**	**326**	*e*P	**P**	**09 49 21.6**	**-0.2**
	comp=Z,21nm,1.0s,mb5.0						
AB31	**Akbulak array**	**83.43**	**320**	P	**P**	**09 49 47.6**	**-1.2**
AB31				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
CHUM	**Lake Minchumin**	**85.53**	**25**	*e*P	**P**	**09 49 59.1**	**0.0**
	comp=Z,4.2nm,0.7s,mb4.8						
QSPA	**South Pole Qui**	**86.26**	**180**	P	**P**	**09 50 03.6**	**+1.1**
	comp=Z,7.4nm,1.0s,mb4.9,baz=356,slow=0.3,SNR=28						
QSPA				pP	pP	09 50 18.3	+0.7
	comp=Z,5.8nm,1.0s,baz=289,slow=4.8,SNR=5.1						
QSPA	**South Pole Qui**	**86.26**	**180**	P	**P**	**09 50 03.6**	**+1.1**
QSPA				pP	pP	09 50 18.3	+0.7
PRGR	**Permogore**	**93.17**	**331**	*e*P	**P**	**09 50 32.3**	**-3.0**
PRGR				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb5.5						
ARCES	**ARCESS Array B**	**100.37**	**340**	P	Pdif	09 51 06.0	-2.0
	comp=Z,7.3nm,0.7s,baz=66,slow=5.7,SNR=24						
SCHQ	**Schefferville**	**125.88**	**16**	PKP	PKPdf	09 56 22.1	-0.8
	comp=Z,1.2nm,0.7s,baz=288,slow=15,SNR=3.9						
TORD	**Torodi Ar. Bea**	**133.45**	**285**	PKP	PKPdf	09 56 38.1	-0.4
	comp=Z,1.2nm,0.8s,baz=56,slow=1.1,SNR=7.1						
TORD				pPKP	pPKPdf	09 56 53.0	-1.2
	comp=Z,0.9nm,0.9s,baz=68,slow=1.1,SNR=3.8						
TORD	**Torodi Ar. Bea**	**133.45**	**285**	PKP	PKPdf	09 56 38.1	-0.4
TORD				pPKP	pPKPdf	09 56 53.0	-1.2
CPUP	**Villa Florida**	**147.66**	**158**	PKPbc	PKPbc	09 57 07.8	+1.3
	comp=Z,11nm,0.6s,baz=200,slow=1.9,SNR=43						
ROSC	**El Rosal**	**150.20**	**87**	PKPbc	PKPbc	09 57 14.6	+1.3
	comp=Z,8.5nm,0.5s,baz=97,slow=20,SNR=5.3						

NEIC 18 09:39:18.5, 39°.01S×**174°.99E, h221**^{km}**, MG3.7**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WNVZ	**Wahianoa**	**0.57**	**124**	P	Pn	09 39 48.4	+0.2
MOVZ	**Moawhango**	**0.71**	**124**	P	Pn	09 39 48.5	-0.3
WAZ	**Wanganui**	**0.74**	**180**	P	Pn	09 39 49.0	0.0
BKZ	**Black Stump Fm**	**1.18**	**98**	P	Pn	09 39 51.3	-0.3
TSZ	**Takapari Road**	**1.29**	**145**	P	Pn	09 39 52.6	+0.3
MRZ	**Mangatainoka R**	**1.71**	**165**	P	Pn	09 39 55.3	-0.5
URZ	**Urewera**	**1.82**	**66**	P	Pn	09 39 55.6	-1.3
KIW	**Kapiti Island**	**1.85**	**182**	P	Pn	09 39 56.2	-0.9
BFZ	**Birch Farm**	**1.93**	**150**	P	Pn	09 39 57.4	-0.4
KNZ	**Kokohu**	**2.09**	**91**	P	Pn	09 39 59.4	0.0
CAW	**Cannon Point**	**2.10**	**178**	P	Pn	09 39 58.5	-1.0
MWZ	**Matawai**	**2.10**	**72**	P	Pn	09 39 58.7	-0.8
MTW	**Mount Morrison**	**2.18**	**170**	P	Pn	09 39 59.4	-0.9
MRW	**Makara Radio**	**2.23**	**186**	P	Pn	09 39 59.6	-1.2
TCW	**Tory Channel**	**2.27**	**194**	P	Pn	09 40 00.1	-1.1
TCW				S	S	09 40 30.7	-4.1
SNZO	**South Karori**	**2.31**	**185**	P	Pn	09 40 00.3	-1.3
PAWZ	**Paruwai Farm**	**2.39**	**172**	P	Pn	09 40 01.5	-1.0
MSWZ	**Moikau Station**	**2.41**	**175**	P	Pn	09 40 01.5	-1.2
NNZ	**Nelson**	**2.53**	**209**	P	Pn	09 40 01.9	-2.0
NNZ				S	S	09 40 35.6	-4.1
QRZ	**Quartz Range**	**2.62**	**225**	P	Pn	09 40 02.1	-2.9
PUZ	**Puketiti**	**2.73**	**71**	P	Pn	09 40 05.1	-1.1
BSWZ	**Blackbirch Sta**	**2.83**	**197**	P	Pn	09 40 06.2	-1.1
MXZ	**Matakaoa Point**	**2.98**	**62**	P	Pn	09 40 08.0	-1.0
THZ	**Tophouse**	**3.18**	**209**	P	Pn	09 40 08.7	-2.5
KHZ	**Kahutara**	**3.58**	**197**	P	Pn	09 40 13.9	-2.0
DSZ	**Denniston Nort**	**3.66**	**221**	P	Pn	09 40 13.6	-3.3
LTZ	**Lake Taylor**	**4.30**	**208**	P	Pn	09 40 21.7	-2.9
MQZ	**McQueen's Vall**	**5.01**	**200**	P	Pn	09 40 29.6	-3.8
WVZ	**Waitaha Valley**	**5.18**	**217**	P	Pn	09 40 32.0	-3.6
RPZ	**Rata Peaks**	**5.56**	**211**	P	Pn	09 40 36.0	-4.3
FOZ	**Fox Glacier**	**6.05**	**220**	P	Pn	09 40 42.1	-4.5
ODZ	**Otahua Downs**	**6.84**	**207**	P	Pn	09 40 53.6	-3.1

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*SZGRF **18** 09:54:19.2, 23°.43S×170°.71E, h126^{km}, Southeast of Loyalty Islands*
*ISCJB **18** 09:54:21.2±0.2, 21°.63S±0°.04×170°.39E±0°.03, h122^{km}, mb5.1/55, Error ellipse: s-maj=6.4km s-min=3.4km az=156.1*
*MOS **18** 09:54:21.8±1.3, 21°.63S×170°.37E, h122^{km}, mb5.1/14, Error ellipse: s-maj=10.8km s-min=10.2km az=176.5*
*BJI **18** 09:54:21.6, 21°.21S×170°.38E, h112^{km}, mB5.0/24, mb4.8/26*
*IDC **18** 09:54:22.5±0.6, 21°.66S×170°.39E, h120^{km}±5^{km}, mb4.8/19, mb1 4.9/22, mb1mx4.9/23, mbtmp4.8/22, MS4.0/10, Ms1 4.0/10, ms1mx3.8/20, Error ellipse: s-maj=12.7km s-min=11.2km az=107.0*
*GCMT **18** 09:54:23.2±0.2, 21°.68S×170°.24E, h132^{km}±1^{km}, MW5.3/99, Moment Tensor Solution. s68,c96; s99,c163; Duration: 1^{s}.1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.31±.02; M$_{\theta\theta}$0.78±.02; M$_{\phi\phi}$-0.46±.02; M$_{r\theta}$0.58±.02; M$_{\theta\phi}$0.28±.02; M$_{\phi r}$-0.36±.02; Best double couple: M$_0$1.00100×10^{17} NP1:ϕ_s39.00000°, δ42.00000°, λ-162.00000°. NP2:ϕ_s295.00000°, δ78.00000°, λ-49.00000°. Principal axes: T 1.0400, Plg22.0000°, Azm355.0000°; N -0.0770, Plg40.0000°, Azm105.0000°; P -0.9620, Plg42.0000°, Azm244.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*BGS **18** 09:54:23.2±7.6, 21°.62S×170°.37E, h128^{km}, mb5.4(NEIC)*
*NEIC **18** 09:54:23.2±1.0, 21°.62S×170°.37E, h128^{km}±8^{km}, mb5.4/30, Error ellipse: s-maj=7.5km s-min=6.5km az=145.0*
*DJA **18** 09:54:23, 22°.19S×170°.90E, h169^{km}, mb5.5/6*

LDG ***18*** *09:54:25.1±0.2, 21°.39S×170°.09E, h140km, Mb4.8/2, Error ellipse: s-maj=20.5km s-min=3.8km az=159.0*

ISC 18 09:54:22.8±0.2**, 21°.61S**±0°.04×**170°.38E**±0°.03**, h124**km**,**
h124km±.5km**:pP-P, n453,** σ**0ˢ.78**/188**, mb5.1**/55**, 156C-112D,**
Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLUM	Mont Dore	3.54	259	*e*P	Pn	09 55 15.9	-0.3
PLUM				*e*S	Sn	09 55 57.2	-0.4
DZM	Mont Dzumac	3.69	262	*e*Pn	Pn	09 55 18.4	+0.1
DZM				*e*Sn	Sn	09 56 00.7	-0.5
ONTRN	Noumea	3.71	258	*e*P	Pn	09 55 18.2	-0.3
ONTRN				*e*S	Sn	09 56 00.7	-1.0
OUZ	Omahuta	13.85	169	*e*Pn	Pn	09 57 34.3	+0.5
	142nm,0.7s						
FUNA	Funafuti	15.53	34	*e*Pn	Pn	09 57 55.5	+0.3
	364nm,0.7s						
HNR	Honiara	15.72	319	*e*P	Pn	09 57 58.4	+0.9
HNR				pmax	pmax		
	comp=Z,982nm,0.9s						
HNR	Honiara	15.72	319	P	Pn	09 57 57.7	+0.2
	comp=Z,39nm,0.3s,baz=182,slow=4.4,SNR=40						
HNR				S	S	10 00 56.2	-1.9
	comp=Z,5.1nm,0.3s,baz=331,slow=19,SNR=2.0						
HNR	Honiara	15.72	319	*e*Pn	Pn	09 57 58.4	+0.9
	comp=Z,982nm,0.9s						
URZ	Urewera	17.58	162	P	Pn	09 58 20.4	+0.4
	comp=Z,2.7nm,0.3s,baz=350,slow=7.2,SNR=22						
URZ				LR	LR	10 04 10.9	
	comp=Z,314nm,20.9s,baz=345,slow=34						
URZ	Urewera	17.58	162	*e*Pn	Pn	09 58 20.5	+0.5
	comp=Z,226nm,1.3s						
EIDS	Eidsvold	18.09	254	*e*Pn	Pn	09 58 26.9	+0.6
	comp=Z,480nm,1.0s						
AFI	Afiamalu	18.62	69	*e*P	P	09 58 30.4	-0.5
AFI				pmax	pmax		
	comp=Z,47nm,0.8s						
AFI	Afiamalu	18.62	69	P	P	09 58 32.5	+1.6
	comp=Z,2.3nm,0.3s,baz=269,slow=15,SNR=4.1						
AFI	Afiamalu	18.62	69	*e*P	P	09 58 30.4	-0.4
	comp=Z,47nm,0.8s						
ARMA	Armidale	18.98	239	⇓*i*P	P	09 58 37.4	+2.8
ARMA	Armidale	18.98	239	*e*Pn	Pn	09 58 37.5	+0.8
RIV	Riverview	20.88	230	*e*P	P	09 58 56.6	+1.5
RPZ	Rata Peaks	22.05	179	P	P	09 59 07.5	+0.1
	comp=Z,25nm,0.8s,mb4.6,baz=60,slow=4.8,SNR=8.7						
RPZ				LR	LR	10 06 02.3	
	comp=Z,789nm,18.8s,baz=17,slow=32						
RPZ	Rata Peaks	22.05	179	*e*P	P	09 59 07.5	+0.1
	comp=Z,60nm,1.0s,mb4.9						
CTA	Charters Tower	22.60	269	⇓*i*P	P	09 59 13.6	+0.3
	comp=Z,76nm,1.0s,mb5.0						
CTA	Charters Tower	22.60	269	P	P	09 59 13.7	+0.4
	comp=Z,138nm,1.0s,mb5.2,baz=100,slow=12,SNR=58						
CTA				LR	LR	10 06 34.4	
	comp=Z,223nm,19.9s,baz=81,slow=32						
CTAO	Charters Tower	22.60	269	*e*P	P	09 59 13.2	-0.1
CTAO				pmax	pmax		
	comp=Z,122nm,0.9s,mb5.2						
CTAO	Charters Tower	22.60	269	*e*P	P	09 59 13.2	-0.1
	comp=Z,122nm,0.9s,mb5.2						
CNB	Canberra Magne	22.91	229	⇓*i*P	P	09 59 17.2	+1.1
TARA	Tarawa	22.96	7	*e*P	P	09 59 16.1	-0.5
	comp=Z,331nm,1.0s,mb5.6						
CAN	Canberra	23.17	229	*e*P	P	09 59 19.0	+0.6
CAN				pmax	pmax		
	comp=Z,357nm,0.9s,mb5.7						
CAN	Canberra	23.17	229	*e*P	P	09 59 19.0	+0.6
	comp=Z,357nm,0.9s,mb5.7						
TOO	Toolangi	26.75	228	⇓*i*P	P	09 59 51.5	+0.7
COEN	Coen	26.97	282	*e*P	P	09 59 53.8	+0.7
	comp=Z,499nm,1.3s,mb5.9						
STKA	Stephens Creek	27.59	242	⇓*i*P	P	09 59 59.1	+0.7
	comp=Z,49nm,0.6s,mb5.2						
STKA				*e*		10 06 44.3	
STKA	Stephens Creek	27.59	242	P	P	09 59 59.1	+0.7
	comp=Z,123nm,0.8s,mb5.5,baz=85,slow=9.9,SNR=238						
STKA				ScP	ScP	10 06 44.0	+1.6
	comp=Z,10.0nm,1.1s,baz=70,slow=5.9,SNR=7.1						
MOO	Moorlands	28.44	218	*e*P	P	10 00 06.1	+0.3
TAU	Tasmania Unive	28.67	217	*e*P	P	10 00 08.3	+0.5
TAU				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.2						
TAU	Tasmania Unive	28.67	217	*e*P	P	10 00 08.3	+0.5
	comp=Z,61nm,1.0s,mb5.2						
ASAR	Alice Springs	33.67	259	P	P	10 00 51.6	-0.5
ASAR						10 03 29.0	
ASAR	Alice Springs	33.67	259	P	P	10 00 51.5	-0.5
	comp=Z,93nm,0.8s,mb5.7,baz=85,slow=9.1,SNR=630						
ASAR				PcP	PcP	10 03 28.9	-0.3
	comp=Z,4.8nm,0.9s,baz=90,slow=4.2,SNR=4.8						
ASAR				ScP	ScP	10 07 03.9	+1.2
	comp=Z,4.0nm,1.0s,baz=88,slow=3.2,SNR=8.8						
WB2	Warramunga Arr	33.68	266	*e*P	P	10 00 51.1	-1.1
WRAB	Tennant Creek	33.69	266	P	P	10 00 51.9	-0.3
	comp=Z,550nm,1.3s,mb6.2,SNR=36						
WRAB	Tennant Creek	33.69	266	*e*P	P	10 00 51.2	-1.0
WRAB				pmax	pmax		
	comp=Z,326nm,1.7s,mb5.9						
WRAB	Tennant Creek	33.69	266	*e*P	P	10 00 51.2	-1.0
	comp=Z,326nm,1.7s,mb5.9						
WRA	Warramunga Arr	33.70	266	P	P	10 00 51.5	-0.8
WRA						10 03 28.7	
WRA	Warramunga Arr	33.70	266	P	P	10 00 51.5	-0.8
	comp=Z,53nm,0.8s,mb5.4,baz=98,slow=8.3,SNR=246						
WRA				PcP	PcP	10 03 28.7	-0.7
	comp=Z,5.9nm,0.9s,baz=105,slow=2.5,SNR=5.0						
WRA				ScP	ScP	10 07 04.0	+1.2
	comp=Z,4.8nm,1.1s,baz=91,slow=4.3,SNR=5.5						
WRA				LR	LR	10 12 47.3	
	comp=Z,205nm,21.6s,baz=75,slow=33						
KAKA	Kakadu	37.23	277	⇓*i*P	P	10 01 22.0	-0.6
	comp=Z,70nm,0.6s,mb5.8						
KAKA	Kakadu	37.23	277	*e*P	P	10 01 22.0	-0.6
	comp=Z,182nm,0.6s,mb6.2						
PPT	Papeete	37.87	91	*e*LR	LR	10 11 50.6	
	comp=Z,450nm,37.8s						
FORT	Forrest	38.87	247	⇓*i*P	P	10 01 35.6	-0.6
	comp=Z,177nm,0.7s,mb6.0						
FORT	Forrest	38.87	247	*e*P	P	10 01 35.8	-0.4
	comp=Z,525nm,1.3s,mb6.2						
FITZ	Fitzroy Crossi	42.12	267	⇓*i*P	P	10 02 03.1	0.0
	comp=Z,340nm,0.8s,mb6.1						
FITZ	Fitzroy Crossi	42.12	267	P	P	10 02 03.4	+0.3
	comp=Z,186nm,0.8s,mb5.9,baz=116,slow=7.3,SNR=183						
KLBR	Kellerberrin	47.71	246	⇓*i*P	P	10 02 46.4	-0.8
	comp=Z,538nm,1.2s,mb6.2						
NWAO	Narrogin (SRO)	48.13	245	*e*P	P	10 02 49.9	-0.5
NWAO				pmax	pmax		
	comp=Z,179nm,0.8s						
NWAO	Narrogin (SRO)	48.13	245	P	P	10 02 50.0	-0.4
	comp=Z,216nm,0.8s,mb6.0,baz=95,slow=6.6,SNR=80						
NWAO	Narrogin (SRO)	48.13	245	*e*P	P	10 02 49.9	-0.5
	comp=Z,179nm,0.8s,mb6.0						
MUN	Mundaring	49.02	246	*e*P	P	10 02 55.9	-1.3
TAOE	Nuku Hiva Isla	49.19	83	*e*LR	LR	10 17 07.7	
	comp=Z,681nm,28.5s						
KAPI	Kappang	51.70	281	P	P	10 03 17.6	0.0
	comp=Z,496nm,1.0s,mb6.5,SNR=5.5						
KAPI	Kappang	51.70	281	*e*P	P	10 03 17.1	-0.5
	comp=Z,263nm,1.6s,mb6.0						
VNDA	Vanda	56.11	182	P	P	10 03 47.9	-0.8
	comp=Z,8.2nm,0.9s,mb4.8,baz=23,slow=7.2,SNR=12						
VNDA				LR	LR	10 22 15.8	
	comp=Z,188nm,19.5s,baz=59,slow=30						
SBA	Scott Base	56.32	181	*e*P	P	10 03 50.7	+0.5
SBA				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.6						
SBA	Scott Base	56.32	181	*e*P	P	10 03 50.7	+0.5
	comp=Z,66nm,1.0s,mb5.6						
CASY	Casey	58.40	204	⇓*i*P	P	10 04 03.3	-1.6
MJAR	Matsushiro Arr	65.33	332	P	P	10 04 51.4	-0.3
	comp=Z,13nm,1.0s,mb4.7,baz=168,slow=6.9,SNR=21						
MAJO	Matsushiro	65.34	332	*e*P	P	10 04 51.6	-0.1
MAJO				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.2						
MAJO	Matsushiro	65.34	332	*e*P	P	10 04 51.6	-0.1
	comp=Z,51nm,1.3s,mb5.2						
MAT	Matsushiro	65.34	332	P	P	10 04 51.2	-0.5
QSPA	South Pole Qui	68.46	180	P	P	10 05 10.4	-0.5
	comp=Z,42nm,0.9s,mb5.2,baz=19,slow=3.1,SNR=81						
KSRS	Korea Array	71.06	325	P	P	10 05 27.8	+0.4
	comp=Z,4.6nm,0.9s,mb4.3,baz=142,slow=6.4,SNR=16						
KSRS				LR	LR	10 33 54.5	
	comp=Z,37nm,21.1s,baz=324,slow=33						
QIZ	Qiongzhong	71.68	300	P	P	10 05 29.6	-1.9
QIZ				sP	sP	10 06 13.3	-2.2
QIZ				S	S	10 14 43.1	+1.5
QIZ				SS	SS	10 19 14.1	-6.0
QIZ				pmax	pmax		
	comp=Z,50nm,2.0s,mb5.0						
QIZ				pmax	pmax		
	comp=Z,410nm,4.4s						
NJ2	Nanjing	72.65	316	*e*P	P	10 05 35.4	-1.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
YSS	Yuzh-Sakhalins	72.66	341	⇑*e*P	P	10 05 37.8	+1.1
YSS				*e*		10 06 19.0	
YSS				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.7						
YSS	Yuzh-Sakhalins	72.66	341	*e*P	P	10 05 38.0	+1.3
	comp=Z,32nm,1.0s,mb5.1						
PSI	Prapat	73.87	280	P	P	10 05 43.9	-0.8
	comp=Z,17nm,0.9s,mb4.8,baz=170,slow=3.8,SNR=13						
PET	Petropavlovsk	75.01	353	*e*P	P	10 05 49.4	-0.9
PET				*e*		10 06 02.3	
PET				*e**PP	pP	10 06 20.5	-0.7
PET				*e*S	S	10 15 16.6	-1.2
PET				*e*SS	SS	10 20 09.8	0.0
PET				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.8						
PETK	Petropavlovsk-	75.21	352	P	P	10 05 51.9	+0.5
PETK				*PP	pP	10 06 22.9	+0.6
PETK	Petropavlovsk-	75.21	352	P	P	10 05 51.9	+0.4
	comp=Z,31nm,0.9s,mb5.0,baz=146,slow=6.7,SNR=24						
PETK				pP	pP	10 06 22.9	+0.6
	comp=Z,7.3nm,1.0s,baz=56,slow=18,SNR=2.1						
PETK				LR	LR	10 32 22.2	
	comp=Z,55nm,20.9s,baz=344,slow=30						
PETK	Petropavlovsk-	75.21	352	P	P	10 05 51.9	+0.4
PETK				pP	pP	10 06 22.9	+0.6
PETK				LR	LR	10 32 22.2	
MDJ	Mudanjiang	75.70	331	P	P	10 05 55.8	+1.3
MDJ				pmax	pmax		
	comp=Z,80nm,5.3s						
HABR	Khabarovsk	76.59	337	*e*P	P	10 05 58.9	-0.5
HABR				*e*		10 06 09.8	
HABR				*e**PP	pP	10 06 28.2	-2.2
HABR				*e**SP	sP	10 06 41.6	-2.0
HABR				*e*		10 08 51.1	
HABR				S	S	10 15 35.8	+0.5
HABR						10 16 02.9	
HABR				*e**SS	sS	10 16 27.9	-0.9
HABR				*e*SS	SS	10 20 33.7	-0.1
HABR				*e*SSS		10 23 57.7	
HABR				pmax	pmax		
	comp=Z,34nm,1.6s,mb4.8						
HABR				pmax	pmax		
	comp=E,10.0nm,1.2s						
HABR				pmax	pmax		
	comp=N,9.0nm,1.6s						
HABR				MLR	MLR		
	comp=Z,46nm,20.0s						
MAW	Mawson	76.65	202	P	P	10 05 60.0	+0.4
	comp=Z,20nm,1.0s,mb4.8,baz=207,slow=5.8,SNR=4.5						
CN2	Changchun	77.03	328	⇓P	P	10 06 02.8	+0.9
CN2				*e*pP	pP	10 06 33.4	+0.4
CN2				*e*sP	sP	10 06 45.0	-1.2
CN2				*e*S	S	10 15 40.9	+0.6
CN2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
KLR	Kul'dur	78.46	335	*e*P	P	10 06 05.3	-4.4
KLR				pmax	pmax		
	comp=Z,56nm,1.8s,mb5.0						
BJI	Beijing	79.44	321	P	P	10 06 17.1	+1.8
BJI				pP	pP	10 06 47.4	+0.9
BJI				sP	sP	10 07 00.3	+0.6
BJI				PP	PP	10 09 19.1	+1.5
BJI				S	S	10 16 07.3	+1.0
BJI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
BJI				pmax	pmax		
	comp=Z,93nm,4.5s						
BJI				LR	LR		
	comp=N,210nm,25.6s						
BJI				LR	LR		
	comp=E,100nm,27.2s						
BJI				LR	LR		
	comp=Z,99nm,21.9s						
KMI	Kunming	80.43	302	P	P	10 06 22.5	+1.5
KMI				pP	pP	10 06 50.8	-1.5
KMI				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.8						
CMAR	Chiang Mai Arr	80.45	294	P	P	10 06 22.9	+1.7
	comp=Z,9.8nm,0.8s,mb4.7,baz=133,slow=3.9,SNR=46						
XAN	Xi'an	80.49	312	P	P	10 06 22.6	+1.5
XAN				PP	PP	10 09 27.8	+1.4
XAN				S	S	10 16 20.6	+3.0
XAN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
XAN				pmax	pmax		
	comp=Z,120nm,6.4s						
XAN				LR	LR		
	comp=N,140nm,10.4s						
XAN				LR	LR		
	comp=E,100nm,11.4s						
XAN				LR	LR		
	comp=Z,170nm,20.8s						
CHTO	Chiang Mai	80.61	294	*e*P	P	10 06 23.4	+1.3
CHTO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
CHTO	Chiang Mai	80.61	294	*e*P	P	10 06 23.4	+1.4
	comp=Z,14nm,0.9s,mb4.8						
CD2	Chengdu	82.52	307	P	P	10 06 34.0	+2.1
CD2				pP	pP	10 07 06.0	+2.7
CD2				sP	sP	10 07 19.6	+3.2
CD2				PP	PP	10 09 47.6	+4.4
CD2				SKS		10 16 39.4	
CD2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
CD2				pmax	pmax		
	comp=Z,150nm,4.9s						
CD2				LR	LR		
	comp=N,510nm,5.4s						
CD2				LR	LR		
	comp=Z,300nm,4.9s						
HHC	Hu-ho-hao-te	82.71	319	*e*P	P	10 06 34.0	+1.4
HHC				pP	pP	10 07 06.3	+2.3
HHC				sP	sP	10 07 19.0	+1.9
HHC				PP	PP	10 09 47.4	+2.9
HHC				*e*S	S	10 16 40.0	-0.1
HHC				sS	sS	10 17 35.1	+0.8
HHC				SS	SS	10 22 07.9	+2.2
HHC				pmax	pmax		
	comp=Z,140nm,5.7s						
HHC				LR	LR		
	comp=N,160nm,14.3s						
HHC				LR	LR		
	comp=E,140nm,14.3s						
HHC				LR	LR		
	comp=Z,150nm,17.8s						
SYO	Syowa Base	82.97	196	⇓*e*P	P	10 06 31.4	-2.2
LZH	Lanzhou	85.10	312	*e*P	P	10 06 46.5	+1.6
LZH				pP	pP	10 07 18.8	+2.3
LZH				PP	PP	10 10 09.0	+4.9
LZH				SKS		10 16 55.0	
LZH				S	S	10 17 05.0	+0.7
LZH				SS	SS	10 22 42.0	+0.8
LZH				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.1						
LZH				pmax	pmax		
	comp=Z,120nm,6.4s						
HOPS	Hopland	86.61	46	*e*P	P	10 06 49.6	-2.7
	comp=Z,42nm,1.4s,mb5.2						
HOPS				*e*pP	pP	10 07 24.1	+0.2
VNA3	Neumayer Olymp	87.40	180	*e*P	P	10 06 54.1	-1.5
VNA3				*e*		10 10 24.9	
ARVC	Arvin	87.63	51	⇓P	pP	10 07 28.8	-0.3
	baz=88						
VNA2	Neumayer--Watz	87.70	181	*e*P	P	10 06 56.2	-0.9
VNA2				*e*		10 07 41.9	
VNA2				*e*		10 10 23.6	
WDC	Whiskeytown Da	87.77	45	*e*P	P	10 06 58.8	+1.0
WDC				*e**PP	pP	10 07 29.6	0.0
WDC				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.1						
WDC	Whiskeytown Da	87.77	45	*e*P	P	10 06 58.8	+0.9
	comp=Z,28nm,1.4s,mb5.1						
WDC				*e*pP	pP	10 07 29.6	-0.1
VES	Vestal, Richgr	87.79	50	⇓P	pP	10 07 28.8	-1.0
	baz=88						
CMB	Columbia Colle	87.94	48	*e*P	P	10 06 58.8	+0.1
CMB				*e**PP	pP	10 07 30.0	-0.5
CMB				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
CMB	Columbia Colle	87.94	48	*e*P	P	10 06 58.8	+0.1
	comp=Z,14nm,1.2s,mb4.9						
CMB				*e*pP	pP	10 07 30.0	-0.5
VNA1	Neumayer--Stat	87.99	180	*e*P	P	10 06 57.7	-0.8
BFSC	Mount Baldy St	88.07	52	⇓P	pP	10 07 30.5	-0.7
	baz=88						
EDW2	Edwards Air Fo	88.12	51	⇓P	pP	10 07 31.0	-0.4
	baz=88,SNR=5.1						
ISA	Isabella	88.14	50	*e*P	P	10 07 00.2	+0.5
ISA				*e**PP	pP	10 07 30.8	-0.7
ISA				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
ISA	Isabella	88.14	50	⇑P	P	10 06 60.0	+0.3
	baz=88						
ISA				⇑P	pP	10 07 30.7	-0.8
	baz=88,SNR=7.4						
ISA	Isabella	88.14	50	*e*P	P	10 07 00.2	+0.5
	comp=Z,16nm,1.1s,mb5.0						
ISA				*e*pP	pP	10 07 30.8	-0.7
YBH	Yreka Blue Hor	88.26	44	*e*P	P	10 07 00.9	+0.8
YBH				*e**PP	pP	10 07 32.7	+0.8
YBH				pmax	pmax		
	comp=Z,25nm,1.4s						
YBH	Yreka Blue Hor	88.26	44	P	P	10 07 00.9	+0.8
	comp=Z,1.7nm,0.9s,mb4.1,baz=77,slow=1.7,SNR=8.9						
YBH				pP	pP	10 07 31.8	-0.1
	comp=Z,12nm,1.2s,baz=173,slow=3.7,SNR=11						
YBH	Yreka Blue Hor	88.26	44	*e*P	P	10 07 00.8	+0.8
	comp=Z,25nm,1.4s,mb5.0						
YBH				*e*pP	pP	10 07 32.7	+0.8
MONP	Monument Peak	88.37	54	⇑P	P	10 07 01.4	+0.5
	baz=88						
MONP				⇓P	pP	10 07 32.8	+0.2
	baz=88						
HUMO	Hull Mountain	88.55	43	*e*P	P	10 07 02.3	+0.8
	comp=Z,27nm,1.4s,mb5.1						
HUMO				*e*pP	pP	10 07 32.9	-0.3
BBRC	Big Bear Sol-O	88.62	52	⇓P	pP	10 07 33.7	-0.1
	baz=89						
PFO	Pinyon Flat Ob	88.67	53	⇑P	pP	10 07 33.6	-0.5
	baz=89						
PFO	Pinyon Flat Ob	88.67	53	PKKP	PKKPdf	10 24 34.7	-3.9
	comp=Z,2.5nm,0.6s,baz=326,slow=6.4,SNR=5.1						
R06C	Coleville	88.82	48	⇑P	pP	10 07 34.4	-0.2
	baz=89,SNR=7.1						
WAKR	Walker	88.82	48	*e*P	P	10 07 03.4	+0.6
WAKR				*e*pP	pP	10 07 34.9	+0.2
BEKR	Beckwourth	88.86	46	⇓P	P	10 07 02.9	-0.1
	baz=89						
BEKR				⇓P	pP	10 07 33.6	-1.2
	baz=89						
SWSC	Sam W. Stewart	88.86	54	⇑P	pP	10 07 34.5	-0.5
	baz=89						
WCN	Washoe City	88.99	47	⇓P	P	10 07 03.5	-0.1
	baz=89						
WCN				⇑P	pP	10 07 34.7	-0.7
	baz=89						
MPMC	Manual Prospec	89.03	50	⇑P	P	10 07 03.7	-0.2
	baz=89						
MPMC				⇑P	pP	10 07 35.1	-0.6
	baz=89						
GSC	Goldstone	89.18	51	*e*P	P	10 07 05.1	+0.5
GSC				*e**PP	pP	10 07 37.5	+1.1
GSC				pmax	pmax		
	comp=Z,17nm,1.6s,mb4.8						
GSC	Goldstone	89.18	51	⇑P	pP	10 07 35.4	-1.1
	baz=89						
GSC	Goldstone	89.18	51	*e*P	P	10 07 05.0	+0.5
	comp=Z,17nm,1.6s,mb4.8						
GSC				*e*pP	pP	10 07 37.5	+1.1
BELC	Belle Mtn.	89.18	53	⇑P	P	10 07 04.7	0.0
	baz=89						
BELC				⇑P	pP	10 07 35.3	-1.1
	baz=89						
HEC	Hector,Ludlow	89.31	52	⇓P	pP	10 07 36.5	-0.5
	baz=90						
O06A	Flanigan	89.36	46	⇑P	P	10 07 05.6	+0.2
	baz=90						
O06A				⇓P	pP	10 07 37.0	-0.2
	baz=90						
BILL	Bilibino	89.43	358	⇑*e*P	P	10 07 04.5	-0.5
BILL				*e*		10 10 45.1	
BILL				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.1						
BC3	Big Chuckw Mtn	89.44	53	⇑P	pP	10 07 38.1	+0.4
	baz=90						
PAHR	Pah Rah Range	89.44	47	*e*P	P	10 07 06.2	+0.6
	comp=Z,27nm,1.4s,mb5.1						
PAHR				*e*pP	pP	10 07 38.0	+0.5
GTA	Gaotai	89.52	313	*e*P	P	10 07 07.6	+1.5
GTA				pP	pP	10 07 39.3	+1.4
GTA				sP	sP	10 07 52.8	+1.9
GTA				PP	PP	10 10 44.8	+5.2
GTA				SKS		10 17 25.5	
GTA				S	S	10 17 46.0	-0.5
GTA				SS	SS	10 23 47.1	+1.5
GTA				pmax	pmax		
	comp=Z,150nm,4.8s						
GTA				LR	LR		
	comp=N,130nm,14.9s						
GTA				LR	LR		
	comp=E,130nm,17.2s						
GTA				LR	LR		
	comp=Z,130nm,14.3s						
NVAR	Mina Array Bea	89.57	48	P	P	10 07 06.4	0.0
	comp=Z,2.1nm,0.7s,mb4.3,baz=224,slow=9.0,SNR=9.7						
NVAR				pP	pP	10 07 37.4	-0.8
	comp=Z,3.4nm,0.9s,baz=226,slow=6.0,SNR=5.2						
N06A	Buffalo Meadow	89.64	45	⇑P	P	10 07 06.3	-0.4
	baz=90						
N06A				⇓P	pP	10 07 38.1	-0.3
	baz=90,SNR=5.7						
FURC	Furnace Creek,	89.67	50	⇑P	P	10 07 06.3	-0.6
	baz=90						
SONM	Songino Array	89.75	323	P	P	10 07 07.5	+0.6
	comp=Z,4.3nm,0.9s,mb4.6,baz=135,slow=4.4,SNR=20						
SONM				pP	pP	10 07 38.1	-0.7
	comp=Z,1.7nm,0.9s,baz=114,slow=3.1,SNR=2.4						
GMRC	Granite Mounta	89.78	52	⇑P	pP	10 07 39.7	+0.4
	baz=90						
SHOC	Shoshone	89.83	51	⇑P	P	10 07 07.6	-0.1
	baz=90						
TUQ	Turquoise Moun	89.88	52	⇑P	P	10 07 07.8	-0.1
	baz=90						
TUQ				⇓P	pP	10 07 39.8	+0.1
	baz=90						
IRM	Iron Mountain	89.89	53	⇓P	P	10 07 07.8	-0.1
	baz=90						
IRM				⇓P	pP	10 07 39.9	+0.2
	baz=90						
K05A	Summer Lake	89.92	43	⇑P	P	10 07 08.5	+0.6
	baz=90						
K05A				⇑P	pP	10 07 40.2	+0.5
	baz=90						
S09A	Goldfield	89.99	49	⇑P	P	10 07 07.9	-0.4
	baz=90						
S09A				⇓P	pP	10 07 39.6	-0.6
	baz=90						
O07A	Toulon	90.00	46	⇓P	P	10 07 07.4	-0.9
	baz=90						
O07A				⇓P	pP	10 07 39.3	-0.8
	baz=90						
Q08A	Gabbs	90.03	48	⇓P	P	10 07 08.4	-0.1
	baz=90						
Q08A				⇑P	pP	10 07 40.2	-0.2
	baz=90,SNR=5.6						
U10A	Ash Meadows, A	90.03	51	⇑P	pP	10 07 40.7	+0.3
	baz=90						
H04A	Detroit Lake	90.10	41	⇑P	pP	10 07 37.9	-2.6
	baz=90						
N07B	Gerlach	90.23	46	⇑P	P	10 07 09.6	+0.2
	baz=90						
R09A	Tonopah	90.34	49	⇑P	P	10 07 09.9	0.0
	baz=90						
M07A	Soldier Meadow	90.39	45	⇑P	pP	10 07 42.2	+0.3
	baz=91,SNR=5.1						
S10A	Tonopah Range,	90.53	49	⇓P	P	10 07 11.0	+0.2
	baz=91						
S10A				⇓P	pP	10 07 41.4	-1.2
	baz=91						
O08A	Rochester Mine	90.55	46	⇑P	P	10 07 11.1	+0.3
	baz=91						

O08A				⇑P	pP	10 07 42.5	-0.2
	baz=91,SNR=8.0						
L07A	Adell	90.58	45	⇑P	P	10 07 11.2	+0.3
	baz=91						
L07A				⇓P	pP	10 07 43.4	+0.6
	baz=91,SNR=6.5						
Z13A	Yuma Proving G	90.59	54	⇓P	P	10 07 11.8	+0.6
	baz=91						
Z13A				⇑P	pP	10 07 43.0	0.0
	baz=91						
J06A	Christmas Vall	90.66	43	⇑P	P	10 07 11.0	-0.3
	baz=91						
J06A				⇑P	pP	10 07 43.1	0.0
	baz=91,SNR=6.2						
PDMCI	Parker Dam,Lak	90.70	53	⇓P	P	10 07 11.6	-0.1
	baz=91						
PDMCI				⇓P	pP	10 07 43.5	-0.1
	baz=91						
214A	Organ Pipe Nat	90.70	56	⇑P	pP	10 07 43.2	-0.5
	baz=91						
Y13A	Salome	90.72	54	⇓P	P	10 07 11.7	-0.1
	baz=91						
Y13A				⇑P	pP	10 07 43.7	0.0
	baz=91						
N08A	GE Springer Mi	90.79	46	⇑P	P	10 07 11.4	-0.6
	baz=91						
N08A				⇓P	pP	10 07 43.8	0.0
	baz=91,SNR=6.3						
V12A	Nelson	90.80	52	⇑P	P	10 07 11.2	-0.9
	baz=91						
V12A				⇓P	pP	10 07 44.0	0.0
	baz=91						
R10A	Warm Springs	90.90	49	⇓P	P	10 07 13.1	+0.6
	baz=91						
R10A				⇑P	pP	10 07 43.9	-0.5
	baz=91						
SHPR	Sheep Range	90.91	51	eP	P	10 07 12.7	0.0
SHPR				epP	pP	10 07 45.5	+1.0
M08A	Happy Creek Ra	90.94	45	⇑P	pP	10 07 45.3	+0.8
	baz=91						
I06A	Prineville	90.96	43	⇓P	P	10 07 12.9	+0.2
	baz=91						
I06A				⇓P	pP	10 07 44.9	+0.4
	baz=91,SNR=7.7						
K07A	Rock Creek Ran	90.97	44	⇓P	P	10 07 12.3	-0.4
	baz=91						
K07A				⇑P	pP	10 07 44.8	+0.2
	baz=91,SNR=6.5						
114A	Black Gap (USA	90.98	55	⇓P	pP	10 07 44.6	-0.4
	baz=91						
S11A	Rachel	91.00	50	⇑P	P	10 07 12.8	-0.2
	baz=91						
X13A	Yucca	91.06	53	⇑P	P	10 07 13.7	+0.4
	baz=91						
X13A				⇑P	pP	10 07 44.5	-0.7
	baz=91						
Q10A	Clear Creek Ra	91.07	48	⇑P	P	10 07 13.4	+0.1
	baz=91						
Q10A				⇓P	pP	10 07 46.2	+1.0
	baz=91						
O09A	Fish Creek Ran	91.14	47	⇓P	pP	10 07 45.9	+0.4
	baz=91,SNR=6.0						
Z14A	Wintersburg	91.19	55	⇑P	pP	10 07 46.4	+0.5
	baz=91						
T11A	Corn Creek, Al	91.20	50	⇑P	P	10 07 13.5	-0.5
	baz=91						
T11A				⇑P	pP	10 07 45.9	+0.1
	baz=91,SNR=5.5						
C04A	Brinnon	91.20	38	⇑P	pP	10 07 44.5	-1.0
	baz=91						
N09A	Rock Creek Ran	91.23	46	⇑P	pP	10 07 46.1	+0.2
	baz=91						
W13A	Hualapai Mount	91.23	53	⇓P	pP	10 07 45.3	-0.8
	baz=91						
H06A	Lindquist Farm	91.27	42	⇑P	P	10 07 13.6	-0.5
	baz=92						
H06A				⇓P	pP	10 07 46.3	+0.4
	baz=92,SNR=8.2						
L08A	Fields	91.31	45	⇓P	P	10 07 14.1	-0.3
	baz=92						
L08A				⇑P	pP	10 07 46.9	+0.7
	baz=92,SNR=5.6						
G06A	Carlson Farm,	91.33	41	⇓P	P	10 07 14.5	+0.2
	baz=92						
G06A				⇑P	pP	10 07 45.5	-0.8
	baz=92						
P10A	Eureka	91.39	48	⇑P	pP	10 07 45.1	-1.5
	baz=92						
Y14A	Wickenburg	91.39	54	⇓P	pP	10 07 45.7	-1.1
	baz=92						
R11A	Troy Canyon, C	91.43	49	⇑P	P	10 07 15.4	+0.4
	baz=92						
R11A				⇑P	pP	10 07 45.5	-1.3
	baz=92						
I07A	Izee	91.47	43	⇑P	P	10 07 14.8	-0.3
	baz=92						
I07A				⇓P	pP	10 07 46.7	-0.2
	baz=92,SNR=5.4						
K08A	Mann Creek Ran	91.48	44	⇑P	pP	10 07 46.3	-0.7
	baz=92						
V13A	Grand Canyon W	91.48	52	⇓P	P	10 07 15.3	0.0
	baz=92						
V13A				⇓P	pP	10 07 47.4	+0.2
	baz=92						
D05A	Enumclaw	91.50	39	⇓P	pP	10 07 47.1	+0.1
	baz=92						
F06A	Goldendale	91.51	41	⇓P	pP	10 07 47.3	+0.3
	baz=92						
M09A	Marrel Ranch,	91.55	46	⇓P	pP	10 07 47.1	-0.2
	baz=92						
Q11A	Duckwater	91.60	49	⇓P	P	10 07 15.4	-0.4
	baz=92						
Q11A				⇓P	pP	10 07 47.4	-0.2
	baz=92						
S12A	Delamar Landin	91.62	50	⇑P	pP	10 07 46.8	-1.0
	baz=92,SNR=6.3						
H07A	Lands Inn, Kim	91.68	42	⇓P	P	10 07 15.6	-0.4
	baz=92						
H07A				⇑P	pP	10 07 47.7	-0.2
	baz=92,SNR=5.2						
L09A	Wilkinson Ranc	91.68	45	⇑P	pP	10 07 47.3	-0.6
	baz=92						
X14A	Yava	91.70	54	⇓P	pP	10 07 48.2	0.0
	baz=92						
U13A	Pakoon Wash	91.74	51	⇑P	P	10 07 15.8	-0.7
	baz=92						
U13A				⇑P	pP	10 07 48.2	-0.1
	baz=92						
E06A	Yakima	91.77	40	⇑P	pP	10 07 47.7	-0.5
	baz=92						
J08A	Circle Bar Ran	91.78	44	⇑P	P	10 07 15.8	-0.7
	baz=92						
J08A				P	pP	10 07 48.8	+0.4
	baz=92,SNR=6.1						
116A	Eloy	91.81	56	⇓P	pP	10 07 49.2	+0.4
	baz=92						
W14A	Seligman	91.88	53	⇑P	pP	10 07 48.5	-0.5
	baz=92						
Y15A	Casa Rosa Ranc	91.91	54	⇑P	P	10 07 17.8	+0.5
	baz=92						
Y15A				⇓P	pP	10 07 49.4	+0.2
	baz=92,SNR=5.4						
C05A	Tolt Reservoir	91.93	39	⇑P	pP	10 07 48.5	-0.5
	baz=92						
G07A	Ruggs Ranch, H	91.94	42	⇓P	P	10 07 16.8	-0.3
	baz=92						
G07A				⇑P	pP	10 07 48.7	-0.4
	baz=92,SNR=6.2						
K09A	Rome	91.96	45	⇑P	P	10 07 17.0	-0.4
	baz=92						
K09A				⇑P	pP	10 07 49.3	+0.1
	baz=92,SNR=7.4						
I08A	Drewsey	91.98	43	⇓P	pP	10 07 48.2	-1.0
	baz=92						
B05A	Bryant	91.98	38	⇓P	pP	10 07 48.3	-0.9
	baz=92						
V14A	Boquillas Ranc	92.04	52	⇓P	P	10 07 17.7	-0.2
	baz=92						
V14A				⇓P	pP	10 07 48.9	-0.9
	baz=92						
T13A	Saint George	92.04	51	⇓P	pP	10 07 49.3	-0.4
	baz=92						
R12A	Pony Springs,	92.11	49	⇓P	P	10 07 17.6	-0.5
	baz=92						
R12A				⇑P	pP	10 07 49.7	-0.3
	baz=92,SNR=7.2						
217A	Green Valley	92.17	57	⇑P	pP	10 07 50.4	-0.1
	baz=92						
O11A	Cowboy Ranch,	92.17	48	⇓P	pP	10 07 50.4	+0.1
	baz=92,SNR=5.8						
M10A	I.L. Ranch, Tu	92.20	46	⇑P	P	10 07 17.2	-1.3
	baz=92						
M10A				⇑P	pP	10 07 50.5	+0.1
	baz=92						
X15A	Humboldt	92.20	54	⇓P	P	10 07 19.0	+0.3
	baz=92						
X15A				⇓P	pP	10 07 49.7	-0.9
	baz=92						
H08A	Prairie City	92.21	43	⇓P	P	10 07 17.8	-0.6
	baz=92						
H08A				⇓pP	pP	10 07 50.8	+0.5
	baz=92						
J09A	Fry Pan Ranch,	92.24	44	⇓P	pP	10 07 50.3	-0.2
	baz=92,SNR=6.6						
Q12A	Willow Creek R	92.26	49	⇓P	P	10 07 18.4	-0.4
	baz=92						
Q12A				⇓pP	pP	10 07 51.4	+0.7
	baz=92						
U14A	Mt Trumbull	92.31	52	⇑P	P	10 07 19.1	0.0
	baz=92						
U14A				⇓pP	pP	10 07 50.7	-0.3
	baz=92,SNR=8.6						
PALK	Pallekele	92.34	277	P	P	10 07 20.2	+0.4
	comp=Z,1.8nm,0.3s,mb4.7,baz=128,slow=4.3,SNR=3.7						
PALK	Pallekele	92.34	277	P	P	10 07 20.2	+0.4
G08A	Pilot Rock	92.39	42	⇓P	P	10 07 18.9	-0.4
	baz=93						
G08A				⇓P	pP	10 07 50.9	-0.3
	baz=93						
P12A	McGill	92.40	48	⇓P	pP	10 07 50.4	-1.0
	baz=93						
E07A	Sunnyside	92.46	40	⇑P	pP	10 07 51.1	-0.4
	baz=93						
L10A	Juniper Basin	92.50	45	⇑P	P	10 07 19.3	-0.5
	baz=93						
L10A				⇓P	pP	10 07 52.1	+0.4
	baz=93,SNR=5.4						
R13A	O’Grain Ranch,	92.50	50	⇓P	pP	10 07 51.8	0.0
	baz=93						
Y16A	Circle Bar Ran	92.52	55	⇑P	pP	10 07 51.8	-0.3
	baz=93						
RSW	Rattlesnake Hi	92.54	41	eP	P	10 07 20.1	+0.2
RSW				epP	pP	10 07 53.1	+1.3
K10A	MacKenzie Ranc	92.55	45	⇑P	P	10 07 20.3	+0.2
	baz=93						
K10A				⇑P	pP	10 07 51.5	-0.4
	baz=93						
117A	Oracle	92.56	56	⇓P	P	10 07 19.8	-0.5
	baz=93						
117A				⇑P	pP	10 07 52.2	0.0
	baz=93						
T14A	Hurricane	92.66	51	⇓P	pP	10 07 52.5	-0.1
	baz=93						
M11A	Holland Ranch,	92.66	46	⇑P	pP	10 07 52.7	+0.2
	baz=93						
318A	Bisbee	92.68	57	⇑P	pP	10 07 52.1	-0.7
	baz=93						
D07A	Quincy	92.69	40	⇓P	pP	10 07 52.5	0.0
	baz=93						
ARUT	Antelope Range	92.71	50	eP	P	10 07 21.2	+0.3
ARUT				e*PP	pP	10 07 53.3	+0.5
X16A	Lo Mia Camp, P	92.77	54	⇑P	pP	10 07 53.7	+0.5
	baz=93						
V15A	Kaibab Nationa	92.80	53	⇓P	P	10 07 21.0	-0.4
	baz=93						
V15A				⇓P	pP	10 07 54.2	+0.9
	baz=93,SNR=7.8						
ZAK	Zakamensk	92.83	324	eP	P	10 07 21.6	+0.4
ZAK				e	pP	10 07 50.8	-2.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb4.5						
218A	Dragoon	92.85	57	⇓P	pP	10 07 54.1	+0.5
	baz=93						
O12A	Currie	92.86	48	⇓P	pP	10 07 53.1	-0.3
	baz=93						
C07A	Waterville	92.88	39	⇑P	P	10 07 22.6	+1.1
	baz=93						
C07A				⇓P	pP	10 07 52.9	-0.4
	baz=93						
H09A	Durkee	92.91	43	⇓P	pP	10 07 52.5	-1.1
	baz=93						
N12A	Clover Valley,	92.91	47	⇑P	pP	10 07 53.7	0.0
	baz=93						
P13A	Bates Ranch, G	93.01	49	⇑P	pP	10 07 53.4	-0.8
	baz=93						
L11A	Cat Creek Ranc	93.01	46	⇑P	P	10 07 23.2	+1.0
	baz=93						
L11A				⇑P	pP	10 07 54.3	+0.2
	baz=93						
K11A	Parker Ranch,	93.10	45	⇓P	pP	10 07 54.0	-0.4
	baz=93						
T15A	Red Dirt Ranch	93.15	51	⇑P	pP	10 07 54.9	0.0
	baz=93						
118A	Homack Ranch,	93.18	56	⇑P	pP	10 07 55.2	+0.1
	baz=93						
319A	Douglas	93.22	58	⇑P	pP	10 07 54.7	-0.6
	baz=93						
X17A	Forest Lakes	93.22	54	⇑P	pP	10 07 55.8	+0.5
	baz=93						
WUAZ	Wupatki	93.27	53	⇓P	pP	10 07 53.7	-1.8
	baz=93						
Q14A	Sevier Lake (B	93.33	49	⇑P	pP	10 07 53.9	-1.7
	baz=94						
H10A	Noah’s Angus R	93.46	43	⇑P	P	10 07 23.6	-0.6
	baz=94						
H10A				⇑P	pP	10 07 54.9	-1.2
	baz=94						
G10A	Bishop Farm, J	93.54	42	⇓P	P	10 07 24.2	-0.4
	baz=94						
G10A				⇑P	pP	10 07 55.2	-1.3
	baz=94						
U16A	Tuba City	93.71	53	⇓P	pP	10 07 56.4	-1.1
	baz=94,SNR=9.1						
M13A	Montello	93.73	47	⇓P	pP	10 07 57.0	-0.4
	baz=94						
320A	Kipp Ranch, An	93.79	58	⇑P	pP	10 07 57.9	-0.1
	baz=94						
EGAK	Eagle	93.81	19	eP	P	10 07 24.8	-0.5
	comp=Z,13nm,0.7s,mb5.4						
J12A	Stokes Ranch,	93.93	45	⇓P	pP	10 07 57.9	-0.4
	baz=94						
M14A	Sheep Mountain	94.35	47	⇑P	pP	10 07 59.2	-1.1
	baz=94						
U18A	Rough Rock, Ch	94.75	53	⇑P	pP	10 08 02.2	-0.1
	baz=95						
Q16A	Castle Valley	94.80	50	⇑P	pP	10 08 02.0	-0.4
	baz=95						
O17A	Robinson Place	95.62	49	⇑P	P	10 07 34.6	+0.4
	baz=96						
P18A	Preston Nutter	95.74	50	⇑P	P	10 07 34.1	-0.7
	baz=96						
PLCA	Paso Flores	96.06	138	P	P	10 07 36.5	+0.1
	comp=Z,2.1nm,0.9s,mb4.6,baz=207,slow=2.3,SNR=2.5						
PLCA				LR	LR	10 45 33.6	
	comp=Z,81nm,18.6s,baz=121,slow=32						
TXAR	Lajitas Array	96.95	61	pP	pP	10 08 11.9	-0.6
	comp=Z,1.5nm,1.0s,baz=219,slow=5.8,SNR=5.1						
TXAR				PKKPbc	PKKPbc	10 24 21.0	-0.6
	comp=Z,0.3nm,0.6s,baz=98,slow=3.8,SNR=4.4						
TXAR				LR	LR	10 41 43.9	
	comp=Z,132nm,21.8s,baz=180,slow=29						
PDAR	Pinedale Array	97.44	47	PKKPbc	PKKPbc	10 24 19.4	-1.5
	comp=Z,0.4nm,0.7s,baz=67,slow=5.0,SNR=4.1						
PDAR				LR	LR	10 44 36.5	
	comp=Z,79nm,21.1s,baz=136,slow=31						
WMQ	Urumqi	99.61	313	eP	Pdif	10 07 52.8	+0.7
WMQ				pP	pP	10 08 25.0	+0.9
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.5						
WMQ				pmax	pmax		
	comp=Z,150nm,5.2s						
YKA	Yellowknife Ar	102.27	27	P	Pdif	10 08 02.9	-1.0
	comp=Z,0.4nm,0.7s,baz=255,slow=4.9,SNR=6.6						
YKA				PKiKP	PKiKP	10 12 23.5	-1.1
	comp=Z,0.3nm,0.7s,baz=246,slow=1.4,SNR=4.5						
YKA				PKKPbc	PKKPbc	10 24 04.6	-3.2
	comp=Z,0.2nm,0.7s,baz=60,slow=2.8,SNR=4.4						
MKAR	Makanchi Array	104.17	315	Pdiff	Pdif	10 08 15.2	+2.8
	comp=Z,0.7nm,0.8s,baz=98,slow=5.4,SNR=6.6						
MKAR				PKKPbc	PKKPbc	10 23 58.9	-2.6
	comp=Z,0.6nm,0.7s,baz=277,slow=3.5,SNR=7.3						
BOSA	Boshof	119.79	215	PKP	PKPdf	10 12 58.8	-0.2
	comp=Z,2.6nm,0.7s,baz=168,slow=10.0,SNR=4.5						
ARCES	ARCESS Array B	127.62	345	PKP	PKPdf	10 13 11.4	-1.1
	comp=Z,6.6nm,0.7s,baz=59,slow=1.6,SNR=22						
KLMR	Klimovskoe	128.12	332	ePKIKP	PKPdf	10 13 11.6	-2.2
KLMR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KMBO	Kilima Mbogo	128.97	250	PKP	PKPdf	10 13 17.9	+1.0
	comp=Z,3.3nm,0.8s,baz=10,slow=4.7,SNR=4.6						
JOF	Joensuu	130.34	337	ePKIKP	PKPdf	10 13 16.4	-1.5
JOF				pmax	pmax		
	comp=Z,6.0nm,0.7s						
JOF	Joensuu	130.34	337	ep	PKPdf	10 13 16.4	-1.5
	comp=Z,5.9nm,0.7s						
OBN	Obninsk	132.05	326	⇑iPKHKP		10 13 07.9	
OBN				e		10 15 45.7	
OBN				pmax	pmax		
	comp=Z,9.0nm,0.6s						
KAF	Kangasniemi	132.64	338	ePKIKP	PKPdf	10 13 19.8	-2.5
KAF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
KAF	Kangasniemi	132.64	338	ep	PKPdf	10 13 19.8	-2.5
	comp=Z,5.1nm,0.6s						
NB2	NORSAR Subarra	138.00	345	PKP		10 13 21.8	
	comp=Z,6.7nm,1.2s,baz=17,slow=2.6						
NOA	NORSAR Array B	138.00	345	PKP	PKPdf	10 13 32.3	0.0
	comp=Z,1.8nm,0.7s,baz=32,slow=2.1,SNR=4.0						
NOA				SKPbc	SKPbc	10 16 54.0	-1.1
	comp=Z,3.5nm,0.9s,baz=17,slow=4.3,SNR=4.8						
NOA	NORSAR Array B	138.00	345	PKP	PKPdf	10 13 32.3	0.0
NOA				SKPbc	SKPbc	10 16 54.0	-1.1
AKASG	Malin Array Be	138.03	323	PKhKP		10 13 28.9	
	comp=Z,0.7nm,0.4s,baz=53,slow=2.8,SNR=4.0						
AKASG				PKP	PKPdf	10 13 32.6	-0.1
	comp=Z,3.3nm,0.8s,baz=65,slow=1.7,SNR=6.3						
AKASG				SKPbc	SKPbc	10 16 55.1	-0.4
	comp=Z,3.3nm,0.8s,baz=43,slow=3.3,SNR=9.8						
BURAR	Bucovina Array	141.85	321	⇑iP	PKPdf	10 13 39.2	-0.5
MLR	Muntele Rosu	142.44	318	⇓iP	PKPdf	10 13 39.0	-1.9
MLR	Muntele Rosu	142.44	318	PKP	PKPdf	10 13 39.1	-1.8
	comp=Z,4.1nm,0.7s,baz=315,slow=8.1,SNR=4.0						
MLR	Muntele Rosu	142.44	318	⇓P	PKPdf	10 13 39.0	-1.9
KOLS	Kolonicke sedl	142.77	325	ePKP	PKPdf	10 13 44.3	+3.0
UZH	Uzhgorod	142.94	324	ePKHKP		10 13 37.8	
UZH				i		10 13 40.8	
UZH				e		10 14 11.8	
VOIR		143.02	318	⇓iP	PKPdf	10 13 40.7	-1.2
VOIR		143.02	318	⇓P	PKPdf	10 13 40.7	-1.2
STHS	Stebnicka Huta	143.03	326	ePKP	PKPdf	10 13 40.2	-1.6
CRVS	Cervenica-Dubn	143.22	325	ePKP	PKPdf	10 13 40.9	-1.2
MVH1	Achvaich	143.51	355	eP	PKPdf	10 13 40.8	-1.6
DRGR		143.74	322	⇑iP	PKPdf	10 13 41.3	-1.8
DRGR		143.74	322	⇑P	PKPdf	10 13 41.3	-1.8
MCD	Coleburn Disti	143.77	354	eP	PKPdf	10 13 40.7	-2.1
MDO	Dochfour	144.00	355	eP	PKPdf	10 13 40.1	-3.1
MME1	Meikle Cairn	144.00	354	eP	PKPdf	10 13 39.9	-3.4
OKC	Ostrava-Krasne	144.31	329	ePKP	PKPdf	10 13 43.0	-1.0
BSEG	Bad Segeberg	144.34	340	ePKPbc	PKPdf	10 13 43.6	-0.3
BSEG				epPKPbc		10 14 19.1	
KSP	Ksiaz	144.47	332	ePKP	PKPdf	10 13 43.6	-0.6
KSP	Ksiaz	144.47	332	ePKP	PKPdf	10 13 43.3	-0.9
MORC	Moravsky Berou	144.64	329	⇑iP	PKPdf	10 13 43.8	-0.8
MORC	Moravsky Berou	144.64	329	⇑P	PKPdf	10 13 43.8	-0.7
PSZ	Piszkesteto	144.65	325	⇑iP	PKPdf	10 13 44.1	-0.6
PSZ	Piszkesteto	144.65	325	⇓ePKP	PKPdf	10 13 43.6	-1.1
PSZ	Piszkesteto	144.65	325	⇑P	PKPdf	10 13 44.1	-0.6
DPC	Dobruska-Polom	144.81	331	ePKP	PKPdf	10 13 44.8	0.0
DPC				epPKP	pPKPdf	10 14 19.0	+0.8
UPC	Upice	144.83	331	ePKP	PKPdf	10 13 44.6	-0.3
UPC				epPKP	pPKPdf	10 14 18.7	+0.5
VYHS	Vyhne	144.84	327	ePKP	PKPdf	10 13 44.9	-0.1
BZS	Buzias	145.01	321	⇑iP	PKPbc	10 13 44.8	-0.2
BZS	Buzias	145.01	321	⇑P	PKPbc	10 13 44.8	-0.1
EBH	Black Hill	145.11	354	eP	PKPbc	10 13 44.1	-0.9
EAB	Aberfoyle	145.24	355	⇑eP	PKPbc	10 13 44.4	-0.9
ESY	Stoneypath	145.34	353	⇑eP	PKPbc	10 13 44.1	-1.5
BUD	Budapest	145.38	325	⇑ePKP	PKPdf	10 13 46.6	+0.7
EDI	Edinburgh	145.40	354	eP	PKPdf	10 13 45.4	-0.3
EDI				AMb	AMB	10 13 46.8	
	comp=Z,64nm,1.9s						
VRAC	Vranov	145.41	329	⇑iP	PKPdf	10 13 46.7	+0.8
VRAC	Vranov	145.41	329	PKPbc	PKPbc	10 13 46.7	+0.6
	comp=Z,26nm,0.7s,baz=44,slow=3.0,SNR=20						
VRAC	Vranov	145.41	329	⇑P	PKPdf	10 13 46.6	+0.7
PVCC	Panska Ves	145.45	333	ePKP	PKPdf	10 13 46.4	+0.5
BRG	Berggiesshubel	145.46	333	ePKPbc	PKPbc	10 13 46.5	+0.3
BRG				epPKPbc	pPKPbc	10 14 20.5	+1.5
BRG	Berggiesshubel	145.46	333	i PKP	PKPdf	10 13 46.4	+0.5
	comp=Z,65nm,0.7s						
BRG				i pPKP	pPKPdf	10 14 20.7	+1.4
	comp=Z,29nm,1.1s						
BRG				e		10 26 08.4	
	comp=Z,3.0nm,0.9s						
EAU	Auchinoon	145.50	354	eP	PKPdf	10 13 45.6	-0.2
CLL	Collm	145.51	335	ePKPbc	PKPbc	10 13 46.3	0.0
CLL				epPKPbc	pPKPbc	10 14 19.8	+0.7
CLL	Collm	145.51	335	⇑iPKPbc	PKPbc	10 13 46.5	+0.2
	comp=Z,64nm,0.8s						
CLL				i pPKPbc	pPKPbc	10 14 20.1	+1.0
CLL				LmV		10 41 00.0	
	comp=Z,200nm,18.8s						
CLL	Collm	145.51	335	⇑iPKP	PKPdf	10 13 46.5	+0.5
CLL				i pPKP	pPKPdf	10 14 20.1	+0.8
EBL	Broad Law	145.53	353	⇑eP	PKPdf	10 13 45.5	-0.4
SMOL	Smolenice	145.54	328	ePKP	PKPdf	10 13 48.1	+1.9
NRDL	Niedersach Rie	145.62	339	ePKPbc	PKPbc	10 13 46.8	+0.2
NRDL				epPKPbc	pPKPbc	10 14 20.5	+1.1
PGBU	Glenifferbraes	145.63	355	eP	PKPdf	10 13 45.7	-0.3
PGBU				AMb	AMB	10 13 49.4	
	comp=Z,99nm,1.8s						
FBE	Freiberg	145.66	334	ePKPbc	PKPbc	10 13 47.2	+0.4
MODS	Modra-Piesok	145.71	328	ePKP	PKPdf	10 13 48.0	+1.5
MODS	Modra-Piesok	145.71	328	ePKP	PKPdf	10 13 48.1	+1.6
PRU	Pruhonice	145.86	332	ePKP	PKPdf	10 13 47.6	+0.9
PRU				epPKP	pPKPdf	10 14 19.7	-0.3
ZST	Bratislava	145.92	328	ePKP	PKPdf	10 13 48.7	+1.9
TREC	Trest	145.94	330	ePKP	PKPdf	10 13 48.0	+1.2
EKA	Eskdalemuir Ar	145.98	353	PKPbc	PKPbc	10 13 47.0	-0.6
	comp=Z,8.6nm,0.7s,baz=359,slow=2.5,SNR=7.6						
ESK	Eskdalemuir	146.00	353	⇑eP	PKPdf	10 13 46.3	-0.4
ESK				AMb	AMB	10 13 47.1	
	comp=Z,43nm,1.4s						
CLZ	Clausthal	146.07	338	ePKPbc	PKPbc	10 13 48.5	+0.5
CLZ				epPKPbc	pPKPbc	10 14 22.3	+1.4
ECK	Cauldkaine Hil	146.12	353	eP	PKPdf	10 13 47.2	+0.3
XAL	Allendale	146.33	352	⇑eP	PKPdf	10 13 47.7	+0.4
TANN	Tannenbergstha	146.42	334	ePKPbc	PKPbc	10 13 49.4	+0.3
TANN				epPKPbc	pPKPbc	10 14 23.7	+1.7
WERD	Werda	146.45	334	ePKPbc	PKPbc	10 13 49.5	+0.3
WERD				epPKPbc	pPKPbc	10 14 23.0	+0.9
GUNZ	Gunzen	146.51	334	ePKPbc	PKPbc	10 13 49.8	+0.4
VAY	Valandovo	146.51	313	ePKP	PKPdf	10 13 47.4	-0.6
SOP	Sopron	146.53	327	⇓ePKP	PKPdf	10 13 49.6	+1.7
IBBN	Ibbenburen	146.54	341	ePKPbc	PKPbc	10 13 49.5	+0.1
WERN	Wernitzgruen	146.55	334	ePKPbc	PKPbc	10 13 50.0	+0.5
NKC	Novy Kostel	146.56	334	ePKP	PKPdf	10 13 49.6	+1.8
NKC				epPKP	pPKPdf	10 14 24.2	+3.0
MOX	Moxa	146.57	335	ePKP	PKPdf	10 13 49.4	+1.6
	comp=Z,19nm,0.9s						
MOX	Moxa	146.57	335	ePKP2	PKPab	10 13 49.4	-1.4
MOX				pmax	pmax		
	comp=Z,134nm,0.9s						
MOX	Moxa	146.57	335	ePKPbc	PKPbc	10 13 49.5	0.0
GAL1	Galloway	146.59	355	⇑eP	PKPdf	10 13 48.4	+0.6
GAL1				AMb	AMB	10 13 49.9	
	comp=Z,49nm,2.1s						
CONA	Conrad Observa	146.71	328	⇓iPKPab	PKPab	10 13 50.2	-1.3
	comp=Z,30nm,1.1s,SNR=13						
CSNA	Conrad Observa	146.71	328	⇓iPKPab	PKPab	10 13 50.1	-1.3
	comp=Z,30nm,1.1s						
MANZ	Manzenberg	146.89	334	ePKPbc	PKPbc	10 13 50.7	+0.2
MANZ				epPKPbc	pPKPbc	10 14 24.5	+1.1
IDI	Anoyia	146.92	302	PKPbc	PKPbc	10 13 50.7	-0.3
	comp=Z,33nm,1.0s,baz=53,slow=5.1,SNR=4.3						
KHC	Kasperske Hory	146.92	332	ePKP	PKPbc	10 13 50.8	+0.2
KHC				epPKP	pPKPdf	10 14 23.6	+1.8
ROTZ	Rotzenmuhle	147.02	334	ePKPbc	PKPbc	10 13 51.3	+0.5
ROTZ				epPKPbc	pPKPbc	10 14 22.9	-0.9
UBBA	Unterbreizbach	147.04	337	ePKPbc	PKPbc	10 13 50.8	-0.1
UBBA				epPKPbc	pPKPbc	10 14 22.0	-1.8
GEC2	GERESS Array S	147.07	331	ePKPbc	PKPbc	10 13 51.2	+0.2
GEC2				epPKPbc	pPKPbc	10 14 22.8	-1.2
GERES	GERESS Array B	147.07	331	PKPbc	PKPbc	10 13 51.0	0.0
	comp=Z,29nm,0.7s,baz=33,slow=3.2,SNR=139						
GERES				SKPbc	SKPbc	10 17 18.0	0.0
	comp=Z,1.1nm,0.8s,baz=29,slow=2.2,SNR=4.9						
WTSB	Winterswijk	147.13	341	eP	PKPbc	10 13 51.4	+0.3
	comp=Z,31nm,0.5s						

HPK	Haverah Park	147.13	351	*e*P	PKPbc	10 13 51.0	0.0
HPK				AMb	AMB	10 13 53.3	
	comp=Z,65nm,1.2s						
WET	Wettzell	147.21	332	*e*PKPbc	PKPbc	10 13 51.6	+0.2
WET				*e*pPKPbc	pPKPbc	10 14 23.1	-1.3
KRUS	Krusevo	147.38	314	*e*PKP	PKPab	10 13 55.4	+1.0
BUG	Bochum--Univer	147.44	340	*e*PKPbc	PKPbc	10 13 52.7	+0.8
GRA1	Grafenberg Arr	147.48	335	*e*PKP	PKPbc	10 13 52.3	+0.2
GRF	Grafenberg Arr	147.48	335	*e*PKP	PKPbc	10 13 52.3	+0.2
MOA	Molln	147.54	329	⇑*i*PKPbc	PKPbc	10 13 52.0	-0.4
	comp=Z,13nm,0.7s						
OHR	Ohrid	147.80	314	*e*PKP	PKPbc	10 13 51.6	-1.6
GROS	Grobnik	147.89	326	*i* PKPbc	PKPbc	10 13 52.7	-0.6
PERS	Pernice	147.97	327	*i* PKPbc	PKPbc	10 13 52.6	-0.9
SOKA	Soboth	147.98	327	⇓*i*PKPbc	PKPbc	10 13 52.9	-0.6
	comp=Z,28nm,1.1s						
KWE	Weaver Farm	148.08	351	*e*P	PKPbc	10 13 52.9	-0.7
TNS	Taunus Mts	148.09	338	*e*PKPbc	PKPbc	10 13 53.8	+0.1
TNS				*e*pPKPbc	pPKPbc	10 14 28.6	+1.9
CWF	Charnwood Fore	148.27	350	*e*P	PKPbc	10 13 53.3	-0.8
CWF				AMb	AMB	10 13 54.8	
	comp=Z,51nm,1.0s						
RJOB	Jochberg	148.30	331	*e*PKPbc	PKPbc	10 13 54.0	-0.3
RJOB				*e*pPKPbc	pPKPbc	10 14 29.9	+2.5
PDKS	Podkum	148.41	326	*i* PKPbc	PKPbc	10 13 54.5	-0.2
HGN	Heimansgroeve	148.45	341	*e*P	PKPbc	10 13 54.4	-0.2
	comp=Z,16nm,0.7s						
TOD	Tromm	148.48	337	PKP	PKPbc	10 13 54.6	-0.1
KBA	Koelnbreinsper	148.53	329	⇑*i*PKPbc	PKPbc	10 13 54.2	-0.8
	comp=Z,24nm,0.7s,SNR=11						
MEM	Membach	148.56	341	PKPbc	PKPbc	10 13 54.7	-0.2
BOJS	Bojanci	148.65	325	*i* PKPbc	PKPbc	10 13 55.1	-0.2
VISS	Visnje	148.67	326	*e*PKPbc	PKPbc	10 13 54.8	-0.5
ABH	Alteburg	148.69	338	PKP	PKPbc	10 13 55.3	0.0
MYKA	Terra Mystica	148.70	328	⇓*i*PKPbc	PKPbc	10 13 54.3	-1.1
	comp=Z,22nm,0.6s						
UCC	Uccle	148.87	343	PKPbc	PKPbc	10 13 55.5	-0.1
CADS	Cadrg	148.94	328	*i* PKPbc	PKPbc	10 13 55.0	-1.0
BCLA	Clavier	148.94	341	PKPbc	PKPbc	10 13 55.6	-0.3
VOY	Vojsko	149.00	327	*e*PKPbc	PKPbc	10 13 55.3	-0.9
VOY				*e*		10 14 07.3	
PTCC	Patocco-Chiusa	149.00	328	P	PKPbc	10 13 55.2	-1.0
JAVS	Javornik	149.00	327	*i* PKPbc	PKPbc	10 13 55.4	-0.8
RUP	Ruppelstein	149.01	339	PKP	PKPbc	10 13 56.1	0.0
STU	Stuttgart	149.01	336	*e*PKPbc	PKPbc	10 13 56.1	0.0
WATA	Walderalm	149.15	331	⇑*i*PKPbc	PKPbc	10 13 56.1	-0.4
	comp=Z,16nm,0.6s						
GMNA	Gemona	149.15	328	P	PKPbc	10 13 56.1	-0.5
SNF	Seneffe	149.15	343	PKPbc	PKPbc	10 13 55.8	-0.6
WTTA	Wattenberg	149.18	331	⇓*i*PKPbc	PKPbc	10 13 56.2	-0.4
	comp=Z,57nm,1.4s,SNR=7.1						
MCH1	Michaelchurch	149.23	352	⇑*e*P	PKPbc	10 13 55.7	-0.9
MCH1				AMb	AMB	10 14 00.3	
	comp=Z,50nm,1.6s						
WLF	Walferdange	149.34	340	PKPbc	PKPbc	10 13 56.6	-0.3
WLF	Walferdange	149.34	340	*e*PKPbc	PKPbc	10 13 57.4	+0.5
WLF	Walferdange	149.34	340	*e*PKPbc	PKPbc	10 13 56.5	-0.4
MOTA	Moosalm	149.35	332	⇑*i*PKPbc	PKPbc	10 13 56.6	-0.4
	comp=Z,45nm,0.8s						
LANF	Langenberg	149.36	337	PKP	PKPbc	10 13 56.8	-0.2
GIVF	Givet	149.36	342	⇑*i*PKP1	PKPbc	10 13 56.8	-0.1
	comp=Z,79nm,0.7s						
DOU	Dourbes	149.44	342	PKPbc	PKPbc	10 13 56.8	-0.3
SWN1	Swindon	149.53	350	*e*P	PKPbc	10 13 56.6	-0.7
SWN1				AMb	AMB	10 13 57.7	
	comp=Z,126nm,1.0s						
BAIF	Baives	149.58	342	⇑*i*PKP1	PKPbc	10 13 57.4	-0.1
	comp=Z,62nm,0.9s						
WOL	Wolverton	149.63	350	*e*P	PKPbc	10 13 56.6	-1.0
WOL				AMb	AMB	10 14 07.1	
	comp=Z,158nm,1.7s						
MENF	Mencas	149.66	345	PKP	PKPbc	10 13 57.0	-0.7
BFO	Black Forest	149.71	336	*e*PKPbc	PKPbc	10 13 57.5	-0.3
SPAK	Spaichingen-Ko	149.72	335	PKP	PKPbc	10 13 57.2	-0.7
FETA	Feichten	149.76	332	*i* PKPbc	PKPbc	10 13 57.8	-0.3
	comp=Z,46nm,0.9s,SNR=26						
DAVA	Damuels	149.92	333	⇓*i*PKPbc	PKPbc	10 13 58.0	-0.4
	comp=Z,44nm,1.2s,SNR=9.7						
CDF	Champ du Feu	150.03	337	⇑*i*PKP1	PKPbc	10 13 58.4	-0.2
	comp=Z,61nm,0.8s						
CTI	Castel Tesino	150.08	330	PKIKP	PKPbc	10 13 58.5	-0.3
FELD	Feldberg im Sc	150.20	336	PKP	PKPbc	10 13 58.3	-0.8
ECH	Echery	150.24	337	PKP	PKPbc	10 13 58.5	-0.6
ECH	Echery	150.24	337	*e*PKPbc	PKPbc	10 13 58.2	-0.9
DAVOX	Davos/Dischmat	150.32	332	PKPbc	PKPbc	10 13 59.5	+0.1
	comp=Z,63nm,0.7s,baz=137,slow=0.2,SNR=98						
HTL	Hartland	150.40	353	⇑*e*P	PKPbc	10 13 58.8	-0.7
HTL				AMb	AMB	10 13 59.8	
	comp=Z,55nm,1.0s						
MOF	Molkenrain	150.55	337	PKP	PKPbc	10 13 59.2	-0.7
HINF	Hinteralfeld	150.68	337	⇑*i*PKP1	PKPbc	10 13 59.6	-0.6
	comp=Z,48nm,0.7s						
HAU	Haudompre	150.70	338	⇑*i*PKP1	PKPbc	10 13 59.9	-0.3
	comp=Z,93nm,0.8s						
MEZF	Maizieres J'vi	150.71	340	⇑*i*PKP1	PKPbc	10 14 00.4	+0.2
	comp=Z,145nm,0.8s						
TUE	Stuetta	150.79	333	*e*PKPbc	PKPbc	10 13 59.9	-0.6
DYA	Yadsworthy	150.88	353	*e*P	PKPbc	10 13 59.2	-1.3
DYA				AMb	AMB	10 14 01.1	
	comp=Z,61nm,1.2s						
LOMF	Lomont	151.08	337	PKP	PKPbc	10 14 00.7	-0.5
FLN	La Foliniere	151.94	347	⇑*i*PKP1	PKPbc	10 14 02.4	-0.7
	comp=Z,45nm,0.7s						
CABF	La Chapelle	151.98	337	⇑*i*PKP1	PKPbc	10 14 03.3	+0.1
	comp=Z,40nm,0.7s						
LDF	La Druitiere	152.02	346	⇑*i*PKP1	PKPbc	10 14 02.5	-0.8
	comp=Z,28nm,0.8s						
LOR	Lormes	152.18	340	⇑*i*PKP1	PKPbc	10 14 03.3	-0.4
	comp=Z,33nm,0.8s						
GRR	Gorron	152.37	347	⇑*i*PKP1	PKPbc	10 14 03.5	-0.6
	comp=Z,35nm,0.8s						
SSF	Saint Saulge	152.47	340	⇑*i*PKP1	PKPbc	10 14 03.9	-0.4
	comp=Z,24nm,0.8s						
LPL	La Plagne	152.64	334	⇑*i*PKP1	PKPbc	10 14 04.9	+0.1
	comp=Z,27nm,0.8s						
LPG	La Plagne	152.65	334	⇑*i*PKP1	PKPbc	10 14 05.0	+0.2
	comp=Z,32nm,0.8s						
SMF	Signal de Mont	152.73	340	⇑*i*PKP1	PKPbc	10 14 04.3	-0.6
	comp=Z,26nm,1.2s						
AVF	Avril sur Loir	152.76	340	⇑*i*PKP1	PKPbc	10 14 04.3	-0.7
	comp=Z,12nm,1.0s						
SGMF	Saint Gilles	152.82	350	⇑*i*PKP1	PKPbc	10 14 04.2	-0.8
	comp=Z,38nm,0.8s						
BNI	Bardonecchia	153.05	334	*e*PKIKP	PKPbc	10 14 05.3	-0.4
BGF	Bois d'Agland	153.12	341	⇑*i*PKP1	PKPbc	10 14 05.2	-0.6
	comp=Z,20nm,0.7s						
MBDF	Montbardon	153.27	333	⇑*i*PKP1	PKPbc	10 14 05.7	-0.5
	comp=Z,14nm,0.7s						
ORIF	Oris-en-Rattie	153.48	335	⇑*i*PKP1	PKPbc	10 14 06.3	-0.3
	comp=Z,29nm,0.7s						
SAOF	Saorge	153.53	331	PKP	PKPbc	10 14 06.2	-0.5
TCF	Toulx Ste Croi	153.56	341	⇑*i*PKP1	PKPbc	10 14 06.2	-0.5
AUTN	L'Aution	153.58	332	PKP	PKPbc	10 14 06.3	-0.5
TOUF	Mont Tournerai	153.64	332	PKP	PKPbc	10 14 06.1	-0.9
SBF	Sospel	153.68	331	*e*PKP1	PKPbc	10 14 07.2	+0.1
	comp=Z,53nm,1.0s						
PGF	Pioggiola	153.94	328	⇑*i*PKP1	PKPbc	10 14 07.1	-0.6
	comp=Z,49nm,1.0s						
VIVF	Saint-Julien-l	153.99	336	⇑*i*PKP1	PKPbc	10 14 07.4	-0.3
	comp=Z,13nm,0.8s						
LMR	La Mourre	154.51	332	*e*PKP1	PKPbc	10 14 08.3	-0.6
KEST	Kesra	158.26	314	PKPab	PKPab	10 14 40.9	+0.7
	comp=Z,1.4nm,0.8s,baz=326,slow=12,SNR=3.7						
LIC	Lamto	164.07	197	*e*PKIKP	PKPdf	10 14 10.8	-1.5
	comp=Z,37nm,1.3s						
LIC	Lamto	164.07	197	*e*P	PKPdf	10 14 08.8	-3.5
	comp=Z,84nm,1.4s						
KIC	Kosan Boka	164.12	198	*e*P	PKPdf	10 14 10.7	-1.7
	comp=Z,114nm,0.9s						
DBIC	Dimbokro	164.45	198	PKPab	PKPab	10 15 07.2	-0.3
	comp=Z,18nm,0.8s,baz=142,slow=5.1,SNR=24						
TIC	Toumodi	164.47	197	*e*P	PKPdf	10 14 11.8	-0.9
	comp=Z,100nm,1.1s						
TORD	Torodi Ar. Bea	166.32	234	PKP	PKPdf	10 14 12.9	-1.2
	comp=Z,1.7nm,0.8s,baz=19,slow=0.7,SNR=8.1						
TORD				PKPab	PKPab	10 15 15.1	-0.9
	comp=Z,4.6nm,0.9s,baz=127,slow=5.0,SNR=15						
TORD				PP	PP	10 18 58.1	-5.3
	comp=Z,1.3nm,1.0s,baz=111,slow=3.8,SNR=4.5						

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*NEIC **18** 10:08:45.9, 31°.67S×71°.51W, h44^{km}, MD4.0(GUC), After GUC.*

GUC 18 10:08:45.9±0.7**, 31°.67S×71°.51W, h44**^{km}±1^{km}**, MD4.0, ML3.1, 2C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.21	179	⇓*i*P	Pn	10 08 53.9	+0.2
CHNG				*i* S	Sn	10 08 59.4	+0.1
CMCH	Combarbala	0.66	41	⇑*i*P	Pn	10 08 59.4	+0.5
CMCH				*i* S	Sn	10 09 09.6	+1.4
CMCH	Combarbala	0.66	41	⇑*i*P	Pn	10 08 59.4	+0.5
CMCH				*i* S	Sn	10 09 09.6	+1.4
CMCH				AML	AML	10 09 11.3	
	comp=E,3µm,0.6s						
OVCH	Ovalle	1.09	14	*e*P	Pn	10 09 05.5	+0.8
OVCH				*i* S	Sn	10 09 20.3	+1.7
OVCH	Ovalle	1.09	14	*e*P	Pn	10 09 05.5	+0.8
OVCH				*i* S	Sn	10 09 20.3	+1.7
OVCH				AML	AML	10 09 21.1	
	comp=N,560nm,0.3s						
PEL	Peldehue	1.62	155	*e*P	Pn	10 09 14.8	+2.8
PEL				*i* S	Sn	10 09 37.8	+6.1
FCH	Farellones	1.94	148	*e*P	Pn	10 09 17.6	+1.2
FCH				*i* S	Sn	10 09 42.3	+2.6
FCH				AML	AML	10 09 46.3	
	comp=E,228nm,0.1s						
TACH	Talagante	2.03	167	*e*P	Pn	10 09 18.5	+0.8
TACH	Talagante	2.03	167	*e*P	Pn	10 09 18.5	+0.8
PCH	Pirque	2.12	157	*e*P	Pn	10 09 20.1	+1.3
PCH	Pirque	2.12	157	*e*P	Pn	10 09 20.1	+1.3

IDC 18 10:35:34.0±1.7**, 3°.59N×127°.27E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.4**/19**, mbtmp3.5**/4**, Error ellipse: s-maj=166.1km s-min=21.2km az=68.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.40	164	P	P	10 40 54.4	+0.2
	0.2nm,0.3s,baz=342,slow=10.0,SNR=5.4						
ASAR	Alice Springs	27.85	167	P	P	10 41 25.7	+0.2
	0.3nm,0.4s,baz=350,slow=7.2,SNR=8.1						
MKAR	Makanchi Array	57.98	325	P	P	10 45 30.2	+1.8
	0.4nm,0.4s,baz=120,slow=8.5,SNR=8.8						
ZALV	Zalesovo Beam	60.96	333	P	P	10 45 47.0	-1.9
	0.3nm,0.4s,baz=138,slow=8.8,SNR=2.4						

NEIC 18 10:40:06.1, 39°.26S×174°.78E, h207^{km}**, MG3.8**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRZ	Vera Road	0.14	353	P	Pn	10 40 32.7	-0.5
WAZ	Wanganui	0.52	162	P	Pn	10 40 34.7	+0.7
DFE	Dawson Falls	0.53	262	P	Pn	10 40 33.8	-0.3
NEZ	North Egmont	0.53	269	P	Pn	10 40 34.6	+0.5
WNVZ	Wahianoa	0.64	96	P	Pn	10 40 34.6	+0.1
NGZ	Ngauruhoe	0.64	83	P	Pn	10 40 34.4	-0.1
WTVZ	West Tongariro	0.65	77	P	Pn	10 40 34.3	-0.3
TUVZ	Tukino	0.68	91	P	Pn	10 40 34.8	+0.1
NWEZ	Newall Road	0.71	269	P	Pn	10 40 35.3	+0.4
NWEZ				S	Sn	10 40 52.0	-5.1
HIZ	Hauiti	0.75	5	P	Pn	10 40 34.1	-1.0
MOVZ	Moawhango	0.77	101	P	Pn	10 40 34.7	-0.4
TSZ	Takapari Road	1.21	132	P	Pn	10 40 38.1	+0.1
BKZ	Black Stump Fm	1.33	87	P	Pn	10 40 37.9	-1.1
MRZ	Mangatainoka R	1.53	157	P	Pn	10 40 40.3	-0.3
KIW	Kapiti Island	1.60	176	P	Pn	10 40 41.1	-0.1
BFZ	Birch Farm	1.81	142	P	Pn	10 40 42.5	-0.7
CAW	Cannon Point	1.86	173	P	Pn	10 40 43.2	-0.4
CAW				S	Sn	10 41 13.1	0.0
MRW	Makara Radio	1.97	182	P	Pn	10 40 44.2	-0.5
MTW	Mount Morrison	1.98	164	P	Pn	10 40 44.1	-0.7
TCW	Tory Channel	1.99	191	P	Pn	10 40 44.7	-0.2
SNZO	South Karori	2.05	182	P	Pn	10 40 44.9	-0.6
URZ	Urewera	2.08	62	P	Pn	10 40 42.8	-3.1
PAWZ	Paruwai Farm	2.18	167	P	Pn	10 40 46.0	-0.8
PAWZ				S	Sn	10 41 18.1	-0.8
MSWZ	Moikau Station	2.18	171	P	Pn	10 40 46.1	-0.8
NNZ	Nelson	2.23	208	P	Pn	10 40 46.8	-0.6
KNZ	Kokohu	2.26	85	P	Pn	10 40 46.0	-1.8
QRZ	Quartz Range	2.33	227	P	Pn	10 40 47.1	-1.4
MWZ	Matawai	2.34	68	P	Pn	10 40 45.8	-2.8
MWZ				S	Sn	10 41 16.6	-5.2
BSWZ	Blackbirch Sta	2.55	195	P	Pn	10 40 50.4	-0.4
THZ	Tophouse	2.88	209	P	Pn	10 40 53.6	-1.0
PUZ	Puketiti	2.97	68	P	Pn	10 40 52.3	-3.4
KHZ	Kahutara	3.29	196	P	Pn	10 40 58.2	-1.2
DSZ	Denniston Nort	3.37	221	P	Pn	10 40 58.4	-1.9
LTZ	Lake Taylor	4.00	208	P	Pn	10 41 05.9	-2.1
RPZ	Rata Peaks	5.26	211	P	Pn	10 41 21.0	-2.8
FOZ	Fox Glacier	5.76	220	P	Pn	10 41 25.6	-4.6
ODZ	Otahua Downs	6.55	207	P	Pn	10 41 38.0	-2.3
JCZ	Jackson Bay	6.59	221	P	Pn	10 41 37.3	-3.6

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*NEIC **18** 10:43:00.1, 33°.43N×138°.51E, h308^{km}, MG3.3(JMA), After JMA.*

*JMA **18** 10:43:00.1±0.2, 33°.43N×138°.51E, h308^{km}, M3.3*

*ISCJB **18** 10:43:01.1±0.8, 33°.62N±0°.08×138°.42E±0°.09, h309^{km}±6^{km}, mb2.9/4, Error ellipse: s-maj=13.3km s-min=11.0km az=143.2*

*IDC **18** 10:43:01.1±0.8, 33°.30N×138°.22E, h303^{km}±10^{km}, mb2.7/4, mb1 2.9/6, mb1mx2.8/25, mbtmp2.7/6, Error ellipse: s-maj=30.7km s-min=17.6km az=53.0*

ISC 18 10:43:01.6±0.7**, 33°.60N**±0°.07×**138°.47E**±0°.09**, h306**^{km}±6^{km}**, n23, σ1^{s}.09**/29**, mb2.9**/4**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	1.20	113	P	Pn	10 43 43.3	-0.3
	9.8nm,0.3s,baz=82,slow=16,SNR=3.5						
JHJ				S	S	10 44 18.1	+1.1
	9.4nm,0.3s,baz=255,slow=23,SNR=3.7						
JOD2	Odawara 2	1.73	17	P	Pn	10 43 48.2	+1.4
JNY	Yasuok	1.82	344	P	Pn	10 43 48.3	+0.8
BSO3	Boso 3	2.07	54	*e*S	S	10 44 27.8	+0.3
BSO4	Boso 4	2.08	48	*e*S	S	10 44 29.2	+1.6
BSO1	Boso 1	2.33	63	P	Pn	10 43 50.5	-1.1
BSO1				*e*S	S	10 44 29.0	-2.4
JHU	Hanno	2.34	16	P	Pn	10 43 51.8	+0.2
JHU				*e*S	S	10 44 31.9	+0.4
JRY	Ryogami san	2.44	8	P	Pn	10 43 53.7	+1.3
JWY	Kouya	2.47	285	P	Pn	10 43 51.7	-1.1
JGM	Miyama	2.54	326	P	Pn	10 43 53.7	+0.3
JAG	Ashikaga	2.93	16	P	Pn	10 43 57.4	+0.4
JAG				*e*S	S	10 44 40.9	-0.4
MJAR	Matsushiro Arr	2.94	356	P	Pn	10 43 57.8	+0.7
	0.5nm,0.3s,baz=164,slow=10,SNR=4.1						
MAJO	Matsushiro	2.94	356	Pn	Pn	10 43 57.4	+0.3
JYT	Yasato	2.98	28	*e*S	S	10 44 41.3	-0.8
JWT	Wachi	3.04	304	P	Pn	10 43 57.3	-0.8
JHO	Hitachi	3.46	29	P	Pn	10 44 02.5	+0.2
JHO				S	S	10 44 49.8	-1.1
JFK	Kawauchi	4.24	27	P	Pn	10 44 10.7	+0.1
JFK				S	S	10 45 04.7	-1.3
KSRS	Korea Array	9.41	297	P	Pn	10 45 11.1	-1.4
	0.1nm,0.3s,baz=112,slow=13,SNR=9.7						
SONM	Songino Array	27.93	310	P	P	10 48 25.9	+1.8
	0.4nm,0.5s,mb3.1,baz=114,slow=9.2,SNR=4.1						
MKAR	Makanchi Array	43.99	305	P	P	10 50 38.7	-0.5
	0.2nm,0.4s,mb2.7,baz=94,slow=9.0,SNR=3.4						
MKAR	Makanchi Array	43.99	305	P	P	10 50 38.7	-0.5
WRA	Warramunga Arr	53.39	185	P	P	10 51 47.6	-2.8
	0.2nm,0.8s,mb2.5,baz=360,slow=7.8,SNR=5.0						
NVAR	Mina Array Bea	78.99	51	P	P	10 54 33.9	+1.9
	0.3nm,0.6s,mb3.2,baz=283,slow=6.3,SNR=3.9						

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*ISCJB **18** 10:59:18.3±1.8, 39°.13N±0°.04×69°.26E±0°.06, h2^{km}±13^{km}, mb3.7/7, Error ellipse: s-maj=7.8km s-min=7.0km az=171.4*

*IDC **18** 10:59:19.8±0.9, 39°.02N×69°.46E, h0^{km}, mb3.7/8, mb1 3.9/14, mb1mx3.8/29, mbtmp3.8/14, ML3.6/6, MS2.8/2, Ms1 2.8/2, ms1mx2.5/44, Error ellipse: s-maj=15.2km s-min=12.2km az=154.0*

*NNC **18** 10:59:20.9±3.3, 39°.28N×69°.20E, h0^{km}, mb4.2, mpv4.1, Error ellipse: s-maj=29.6km s-min=16.0km az=4.0*

*BJI **18** 10:59:22.2, 39°.09N×69°.55E, h24^{km}, mB4.8/2, mb4.0/4, ML3.6/3*

*NEIC **18** 10:59:27.8±3.6, 39°.43N×69°.44E, h44^{km}±20^{km}, Error ellipse: s-maj=43.2km s-min=11.7km az=194.0*

ISC 18 10:59:20.0±2.0**, 39°.11N**±0°.04×**69°.23E**±0°.06**, h2**^{km}±14^{km}**, n48, σ1^{s}.19**/58**, mb3.7**/7**, 10C-5D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	4.11	13	⇑Pn	Pn	11 00 24.6	+0.9
	5.5nm,0.4s,baz=201,slow=16,SNR=247						
KK31				⇑Pg	Pg	11 00 34.7	-4.0
	12nm,0.3s,baz=196,slow=17,SNR=9.3						
KK31				Lg		11 01 27.7	
	89nm,0.6s,baz=192,slow=27,SNR=11						
AML	Almayashu	4.55	47	P	Pn	11 00 30.4	+0.7
	SNR=43						
AML	Almayashu	4.55	47	*e*Pn	Pn	11 00 29.0	-0.7
AML				*e*Sn	Sn	11 01 24.7	+1.6
EKS2	Erkin-Say	4.95	43	P	Pn	11 00 35.9	+0.6
	SNR=46						
EKS2	Erkin-Say	4.95	43	*e*Pn	Pn	11 00 35.8	+0.5
EKS2				*e*Sn	Sn	11 01 28.8	-4.2
UCH	Uchtor	5.08	50	P	Pn	11 00 38.0	+0.9
	SNR=39						
UCH	Uchtor	5.08	50	*e*Pn	Pn	11 00 37.5	+0.4
KSH	Kashi	5.25	83	Pn	Pn	11 00 37.0	-2.3
KSH				smax			
	comp=N,400nm,1.1s						
KSH				smax			
	comp=E,180nm,0.9s						
AAK	Ala-Archa	5.32	47	P	Pn	11 00 41.6	+1.2
	SNR=63						
AAK	Ala-Archa	5.32	47	Pn	Pn	11 00 41.4	+1.0
	comp=E,0.2nm,0.3s,baz=194,slow=3.6,SNR=95						
AAK				Sn	Sn	11 01 43.6	+1.3
	comp=E,0.1nm,0.3s,baz=207,slow=16,SNR=2.3						
KZA	Kyzart	5.46	55	P	Pn	11 00 43.3	+1.1
	SNR=85						
KBK	Karagaybulak	5.60	49	P	Pn	11 00 45.5	+1.3
	SNR=39						
CHMS	Chumysh	5.70	45	P	Pn	11 00 43.0	-2.6
	SNR=153						
USP	Ospenovka	5.75	42	P	Pn	11 00 46.5	+0.2
	SNR=16						
TKM2	Tokmak 2	6.14	50	⇑Pn	Pn	11 00 51.8	+0.2
	comp=E,14nm,0.6s						
TKM2				⇑Pg	Pg	11 01 11.2	-6.4
	comp=E,26nm,0.6s						
TKM2				⇓Sn	Sn	11 02 01.5	-0.8
	comp=E,22nm,0.8s						
TKM2				⇑Lg		11 02 33.0	
	comp=E,23nm,0.8s						
TKM2	Tokmak 2	6.14	50	P	Pn	11 00 53.2	+1.6
	SNR=15						
TKM2	Tokmak 2	6.14	50	*e*Pn	Pn	11 00 51.7	+0.1
	comp=E,71nm,1.0s						
ULHL	Ulahol	6.18	57	P	Pn	11 00 53.3	+1.1
	SNR=6.9						
AB09	Akbulak array	12.14	330	⇑Pn	Pn	11 02 12.7	-1.1
	comp=E,4.0nm,0.3s						
AB09				⇑Sn	Sn	11 04 23.4	-6.4
	comp=E,6.2nm,0.6s						
MK31	Makanchi Array	12.26	47	Pn	Pn	11 02 14.3	-1.1
	comp=E,1.9nm,0.7s,baz=231,slow=13,SNR=21						
MK31				⇑Lg		11 05 47.4	
	comp=E,3.1nm,0.8s						
MKAR	Makanchi Array	12.26	47	Pn	Pn	11 02 14.9	-0.6
	comp=E,0.2nm,0.3s,baz=233,slow=13,SNR=28						
MKAR				Lg		11 05 47.9	
	comp=E,0.1nm,0.3s,baz=239,slow=31,SNR=3.2						
KURBB	Kurchatov Arra	13.26	27	⇓Pn	Pn	11 02 26.1	-3.0
	comp=E,0.6nm,0.9s						
KURBB				⇑Lg		11 06 19.4	
	comp=E,2.4nm,0.8s						
KURK	Kurchatov	13.37	27	⇓Pn	Pn	11 02 25.8	-4.8
	comp=E,1.7nm,0.8s						
KURK				⇓Lg		11 06 21.2	
	comp=E,16nm,1.0s						
KURK	Kurchatov	13.37	27	Pn	Pn	11 02 25.1	-5.4
	comp=E,0.1nm,0.3s,baz=216,slow=12,SNR=12						
KURK				Lg		11 06 22.7	
	comp=E,0.1nm,0.3s,baz=219,slow=29,SNR=4.4						
KURK				LR	LR	11 07 43.5	
	comp=E,59nm,18.0s,baz=180,slow=38						
AKTK	Aktyubinsk	13.83	329	Pn	Pn	11 02 38.0	+1.2
AKTK				Sn	Sn	11 05 05.8	-5.0
AKTO	Aktyubinsk	13.83	329	⇑Pn	Pn	11 02 37.2	+0.4
	comp=E,0.9nm,0.8s						
AKTO				⇓Sn	Sn	11 05 07.7	-3.1
	comp=E,1.3nm,0.8s						
AKTO	Aktyubinsk	13.83	329	Pn	Pn	11 02 38.0	+1.2
	comp=E,0.7nm,0.3s,baz=145,slow=15,SNR=13						
AKTO				Sn	Sn	11 05 05.8	-5.0
	comp=E,0.8nm,0.3s,baz=92,slow=15,SNR=6.3						
BVAR	Borovoye Array	13.95	3	Pn	Pn	11 02 36.8	-1.6
	comp=E,0.4nm,0.3s,baz=173,slow=13,SNR=6.3						
BVAR				Lg		11 06 41.5	
	comp=E,0.2nm,0.3s,baz=179,slow=23,SNR=3.2						
BRVK	Borovoye	13.97	3	*e*Pn	Pn	11 02 39.7	+0.9
	comp=E,3.6nm,0.6s						
GKN	Gorkha	16.93	126	*e*P	Pn	11 03 19.1	+1.2
	comp=E,24nm,0.7s						
KKN	Kakani	17.48	125	*e*P	Pn	11 03 25.2	+0.3
	comp=E,20nm,0.7s						
DMN	Daman	17.50	126	*e*P	Pn	11 03 26.7	+1.6
	comp=E,15nm,0.6s						
PKI	Pulchoki	17.72	126	*e*P	Pn	11 03 27.7	-0.1
	comp=E,14nm,0.6s						
GUN	Gumba	17.79	124	*e*P	Pn	11 03 28.2	-0.4
	comp=E,21nm,0.8s						
JIRN	Jiri	18.16	124	*e*P	Pn	11 03 32.2	-1.0
	comp=E,17nm,0.6s						
ZAA0	Zalesovo Array	18.25	30	*e*Pn	Pn	11 03 33.5	-0.7
ZALV	Zalesovo Beam	18.25	30	P	Pn	11 03 32.4	-1.8
	comp=E,0.4nm,0.3s,baz=223,slow=10.0,SNR=9.5						
ZALV				LR	LR	11 11 49.3	
	comp=E,16nm,20.1s,baz=305,slow=41						
RAMN	Ramite	18.91	125	*e*P	Pn	11 03 40.9	-1.5
	comp=E,25nm,0.6s						
TAPN	Taplejung	19.36	122	*e*P	Pn	11 03 42.6	-5.2
ODAN	Odare	19.48	123	*e*P	Pn	11 03 45.0	-4.3
	comp=E,14nm,0.7s						
SONM	Songino Array	28.12	60	P	P	11 05 12.2	-0.8
	comp=E,0.2nm,0.5s,baz=256,slow=12,SNR=3.2						
ARCES	ARCESS Array B	38.20	337	P	P	11 06 42.3	+1.7
	comp=E,3.9nm,0.8s,mb4.2,baz=101,slow=6.4,SNR=6.9						
NOA	NORSAR Array B	41.47	321	P	P	11 07 08.4	+0.6
	comp=E,1.0nm,0.8s,mb3.5,baz=94,slow=8.4,SNR=2.9						
KSRS	Korea Array	45.40	73	P	P	11 07 39.2	-0.6
	comp=E,0.8nm,0.7s,mb3.6,baz=298,slow=6.4,SNR=3.9						
TORD	Torodi Ar. Bea	64.43	266	P	P	11 09 59.3	+1.4
	comp=E,0.6nm,0.4s,mb4.0,baz=51,slow=6.5,SNR=9.8						
YKA	Yellowknife Ar	78.70	2	P	P	11 11 22.7	-0.5
	comp=E,0.3nm,0.6s,mb3.4,baz=350,slow=5.8,SNR=7.5						
WRA	Warramunga Arr	84.54	121	P	P	11 11 54.4	-0.3
	comp=E,0.3nm,0.6s,mb3.6,baz=323,slow=4.9,SNR=5.1						
ASAR	Alice Springs	86.88	124	P	P	11 12 05.8	-0.4
	comp=E,0.4nm,0.9s,mb3.6,baz=304,slow=4.5,SNR=3.2						

IDC 18 11:01:48.0±7.2**, 16°.26S×174°.12W, h250**^{km}±215^{km}**, mb3.3**/4**, mb1 3.5**/5**, mb1mx3.2**/19**, mbtmp3.4**/5**, ML2.2**/1**, Error ellipse: s-maj=241.3km s-min=40.2km az=69.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.25	44	P	Pn	11 02 44.7	+1.5
	14nm,0.3s,baz=3.5,slow=1.8,SNR=30						
AFI				S	S	11 03 27.1	+0.1
	14nm,0.3s,baz=32,slow=22,SNR=14						
URZ	Urewera	23.24	198	P	P	11 06 32.9	-0.3
	2.5nm,0.6s,baz=24,slow=20,SNR=4.3						
STKA	Stephens Creek	43.01	241	P	P	11 09 22.9	-0.3
	1.4nm,0.5s,baz=85,slow=12,SNR=4.6						
WRA	Warramunga Arr	48.98	258	P	P	11 10 09.6	-0.2
	0.3nm,0.5s,baz=91,slow=7.6,SNR=5.6						
ASAR	Alice Springs	49.19	253	P	P	11 10 11.5	+0.1
	1.7nm,0.5s,baz=88,slow=8.3,SNR=26						

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*IDC **18** 11:02:40.5±1.4, 14°.77S×167°.64E, h0^{km}, mb4.0/6, mb1 4.1/6, mb1mx3.8/19, mbtmp4.0/6, Error ellipse: s-maj=37.7km s-min=32.8km az=23.0*

*ISCJB **18** 11:02:57.1±5.0, 15°.1S±0°.2×167°.3E±0°.2, h134^{km}±40^{km}, mb3.9/4, Error ellipse: s-maj=43.2km s-min=27.6km az=44.8*

ISC 18 11:02:57.4±4.6**, 15°.1S**±0°.2×**167°.4E**±0°.2**, h125**^{km}±35^{km}**, n9, σ0^{s}.95**/8**, mb3.9**/4**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	7.02	187	*e*P	Pn	11 04 37.8	+0.1
DZM				*e*S	Sn	11 05 56.1	0.0
URZ	**Urewera**	24.65	161	P	P	11 08 05.6	-0.7
	3.7nm,0.7s,mb3.9,baz=317,slow=19,SNR=3.0						
STKA	**Stephens Creek**	28.85	230	P	P	11 08 45.3	+1.2
	1.9nm,0.5s,mb4.0,baz=41,slow=8.8,SNR=11						
WRA	**Warramunga Arr**	31.84	256	P	P	11 09 09.5	-1.1
	0.5nm,0.7s,baz=86,slow=8.0,SNR=4.7						
ASAR	**Alice Springs**	32.65	250	P	P	11 09 17.3	-0.3
	1.4nm,0.6s,mb4.0,baz=80,slow=9.2,SNR=24						
QSPA	**South Pole Qui**	74.96	180	P	P	11 14 24.4	+0.2
	0.9nm,0.8s,baz=12,slow=4.1,SNR=5.6						
MKAR	**Makanchi Array**	97.52	316	P	P	11 16 17.7	+0.5
	0.1nm,0.5s,mb3.6,baz=94,slow=4.3,SNR=2.8						
ARCES	**ARCESS Array B**	120.61	345	PKP	PKPdf	11 21 32.8	-0.9
	4.6nm,0.8s,baz=38,slow=3.4,SNR=5.3						
TORD	**Torodi Ar. Bea**	165.98	264	PKP	PKPdf	11 22 48.0	-0.4
	0.3nm,0.7s,baz=81,slow=0.7,SNR=2.3						

FUNV 18 12:00:34.9, 8°.56N×71°.45W, h5^{km}, MW3.5, 3C, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIGV	**El Vigia**	0.29	17	⇑*e*P	Pg	12 00 39.8	-0.7
VIGV				*e*S	Sg	12 00 44.0	-0.3
SOCV	**Socops**	0.65	115	⇑*e*P	Pg	12 00 46.1	-1.3
CAPV	**Capacho**	1.10	231	*e*P	Pg	12 00 55.3	-0.8
CAPV				*e*S	Sg	12 01 10.6	+0.3
QARV	**Quebrada Arrib**	1.87	29	*e*P	Pn	12 01 07.7	+0.1
QARV				*e*S	Sn	12 01 30.9	-0.7
CURV	**Curarigua**	2.06	45	*e*P	Pn	12 01 10.5	+0.3
CURV				*e*S	Sn	12 01 35.2	-1.0
SANV	**Sanarito**	2.11	64	*e*P	Pn	12 01 10.9	+0.1
SANV				*e*S	Sn	12 01 36.2	-1.2
VIRV	**Villa del Rosa**	2.15	334	⇑*e*P	Pn	12 01 10.0	-1.4
VIRV				*e*S	Sn	12 01 38.3	-0.1
DABV	**Dabajuro**	2.48	19	*e*P	Pn	12 01 14.7	-1.3
DABV				*e*S	Sn	12 01 45.4	-1.2
ELOV	**Elorza**	2.49	128	*e*P	Pn	12 01 15.8	-0.3
ELOV				*e*S	Sn	12 01 45.4	-1.5
SIQV	**Siquisique**	2.63	38	*e*P	Pn	12 01 17.6	-0.4
SIQV				*e*S	Sn	12 01 48.8	-1.6
BAUV	**El Baul**	3.39	83	*e*P	Pn	12 01 27.5	-1.0
BAUV				*e*S	Sn	12 02 06.7	-2.4
MONV	**Montecano**	3.67	23	*e*P	Pn	12 01 31.4	-1.0
MONV				*e*S	Sn	12 02 13.2	-2.9

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*IDC **18** 12:01:06.1±1.2, 3°.96S×140°.75E, h0^{km}, mb3.9/5, mb1 4.2/6, mb1mx3.9/14, mbtmp4.1/6, ML4.5/1, Error ellipse: s-maj=51.7km s-min=21.5km az=102.0*

*NEIC **18** 12:01:11.6±0.8, 3°.93S×140°.49E, h30^{km}, mb4.2/1, Error ellipse: s-maj=23.3km s-min=10.4km az=97.0*

ISC 18 12:01:15.5±1.9**, 4°.2S**±0°.1×**140°.0E**±0°.1**, h50^{km}**±19^{km}**, n19, σ1^s.18**/19**, mb3.9**/3**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	**Coen**	10.23	162	*e*P	Pn	12 03 38.0	-1.8
COEN	**Coen**	10.23	162	*e*Pn	Pn	12 03 38.6	-1.2
KAKA	**Kakadu**	11.33	221	*e*P	Pn	12 03 59.6	+4.7
	168nm,0.6s						
KAKA				*e*S	Sn	12 05 59.2	-1.0
KAKA	**Kakadu**	11.33	221	*e*Pn	Pn	12 03 59.4	+4.5
	360nm,0.6s						
KNA	**Kununurra**	15.98	223	*e*P	Pn	12 05 01.1	+4.0
	86nm,0.8s						
KNA				*e*S	Sn	12 07 52.8	-0.5
WRAB	**Tennant Creek**	16.63	199	*e*Pn	Pn	12 05 05.8	+0.5
	13nm,0.6s						
WRA	**Warramunga Arr**	16.64	199	P	Pn	12 05 07.0	+1.5
	1.9nm,0.3s,baz=17,slow=13,SNR=35						
WRA				S	Sn	12 08 02.9	-6.5
	0.5nm,0.3s,baz=14,slow=22,SNR=3.7						
FITZ	**Fitzroy Crossi**	19.76	224	*e*P	Pn	12 05 44.5	+1.2
	15nm,0.6s						
FITZ				*e*S	S	12 09 22.1	+0.6
FITZ	**Fitzroy Crossi**	19.76	224	P	Pn	12 05 44.6	+1.3
	3.6nm,0.6s,baz=76,slow=9.7,SNR=7.9						
FITZ				S	S	12 09 21.2	-0.3
	16nm,0.6s,baz=135,slow=8.3,SNR=10.0						
ASAR	**Alice Springs**	20.28	196	P	P	12 05 49.0	+1.8
	6.4nm,0.7s,baz=29,slow=10,SNR=35						
ASAR				S	S	12 09 29.9	-2.0
	2.8nm,0.8s,baz=7.9,slow=28,SNR=5.6						
PETK	**Petropavlovsk-**	58.96	12	P	P	12 11 05.3	-4.3
	4.0nm,0.8s,mb4.5,baz=152,slow=6.0,SNR=8.2						
SONM	**Songino Array**	59.57	334	P	P	12 11 13.1	-0.8
	0.2nm,0.5s,mb3.4,baz=153,slow=9.7,SNR=2.8						
MKAR	**Makanchi Array**	71.72	322	P	P	12 12 31.8	-0.5
	0.8nm,0.8s,mb3.7,baz=118,slow=7.1,SNR=6.5						
TORD	**Torodi Ar. Bea**	137.90	285	PKP	PKPdf	12 20 35.3	-0.2
	0.5nm,0.6s,baz=63,slow=1.5,SNR=3.3						
KIC	**Kosan Boka**	144.84	275	*e*PKP1	PKPdf	12 20 46.2	-1.9
	74nm,1.5s						
DBIC	**Dimbokro**	144.94	276	PKPbc	PKPdf	12 20 46.5	-1.7
	4.0nm,0.5s,baz=76,slow=3.2,SNR=15						
TIC	**Toumodi**	145.11	276	*e*PKP1	PKPbc	12 20 46.9	-1.2
	12nm,0.2s						
LIC	**Lamto**	145.13	275	*e*PKP1	PKPbc	12 20 46.9	-1.3
	37nm,1.3s						
CPUP	**Villa Florida**	145.36	152	PKPbc	PKPbc	12 20 44.5	-4.1
	1.7nm,0.5s,baz=214,slow=2.7,SNR=11						

MEX 18 12:27:49.2±0.4**, 16°.27N×99°.76W, h4^{km}**±13^{km}**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	0.62	346	*i* P	Pg	12 28 00.6	-0.5
ACX				*i* S	Sg	12 28 09.5	+0.4
CAIG	**El Cayaco**	0.92	328	*i* P	Pg	12 28 04.6	-2.2
CAIG				*i* S	Sg	12 28 17.4	-1.2
PNIG	**Pinotepa**	1.58	85	*e*P	Pn	12 28 14.8	-3.2
PNIG				*i* S	Sn	12 28 33.6	-5.3
UTMO	**Huajuapan**	2.44	50	*e*P	Pn	12 28 26.9	-2.9
UTMO				*i* S	Sn	12 28 55.5	-4.6

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*ISCJB **18** 12:35:13.2±0.3, 35°.86N±0°.02×1°.88W±0°.02, h10^{km}, mb3.6/4, Error ellipse: s-maj=2.8km s-min=2.3km az=43.7*

*IDC **18** 12:35:13.3±1.2, 35°.94N×2°.12W, h0^{km}, mb3.7/4, mb1 3.5/7, mb1mx3.4/27, mbtmp3.5/7, ML3.0/3, Error ellipse: s-maj=28.2km s-min=18.2km az=93.0*

*NEIC **18** 12:35:15.3, 35°.89N×1°.95W, h0^{km}, MN2.6(MDD), After MDD.*

*MDD **18** 12:35:15.2±0.7, 35°.78N×1°.90W, h14^{km}±6^{km}, mb4.0/7, Error ellipse: s-maj=4.6km s-min=3.9km az=153.0, PRIMO*

*CSEM **18** 12:35:15.6±0.1, 35°.84N×1°.92W, h20^{km}, ML2.7, Error ellipse: s-maj=3.4km s-min=2.5km az=123.0*

*CNRM **18** 12:35:19.1, 35°.73N×1°.92W, h30^{km}, MD3.9*

*CRAAG **18** 12:35:21.8, 35°.93N×0°.27E, Ml3.7*

ISC 18 12:35:14.4±0.3**, 35°.87N**±0°.02×**1°.94W**±0°.02**, h10^{km}, n119, σ1^s.15**/210**, mb3.6**/4**, 1C, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EALB	**Alboran**	0.89	275	⇑P	Pg	12 35 31.3	-0.3
	1.2nm,0.2s,SNR=18						
EALB				S	Sg	12 35 43.5	+0.3
	431nm,0.6s						
EALB	**Alboran**	0.89	275	P	Pg	12 35 31.3	-0.3
EALB				S	Sg	12 35 43.5	+0.3
EALB	**Alboran**	0.89	275	P	Pg	12 35 31.3	-0.3
	1.2nm,0.2s,SNR=18						
EALB				S	Sg	12 35 43.5	+0.2
	431nm,0.6s						
EMLI	**Melilla**	1.00	236	P	Pg	12 35 33.3	-0.4
	11nm,0.2s,SNR=7.9						
EMLI				S	Sg	12 35 46.3	-0.4
	1µm,0.5s,SNR=7.9						
EMEL	**Melilla**	1.01	236	P	Pg	12 35 33.3	-0.4
	11nm,0.2s,SNR=7.9						
EMEL				S	Sg	12 35 46.3	-0.6
	1µm,0.5s,SNR=7.9						
ZAI	**Zaio**	1.11	217	P	Pb	12 35 35.0	-0.8
ZAI				S	Sg	12 35 48.0	-2.3
ZAI	**Zaio**	1.11	217	*e*P	Pb	12 35 35.0	-0.8
ZAI				*e*S	Sg	12 35 48.0	-2.3
ENIJ	**Nijar**	1.12	349	P	Pb	12 35 35.6	-0.3
	26nm,0.3s,SNR=19						
ENIJ				S	Sb	12 35 49.6	-1.0
	183nm,0.4s,SNR=11						
ENIJ	**Nijar**	1.12	349	P	Pb	12 35 35.6	-0.3
	26nm,0.3s,SNR=19						
ENIJ				S	Sb	12 35 49.6	-0.9
	183nm,0.4s,SNR=11						
USTO	**Oran**	1.14	96	P	Pb	12 35 36.0	-0.1
EBER	**Berja**	1.28	323	P	Pn	12 35 37.9	-0.4
	50nm,1.0s,SNR=17						
EBER				S	Sb	12 35 53.9	-1.3
	138nm,0.6s						
EBER	**Berja**	1.28	323	P	Pn	12 35 37.9	-0.4
EBER				S	Sb	12 35 55.4	+0.2
EBER	**Berja**	1.28	323	P	Pn	12 35 37.9	-0.5
	50nm,1.0s,SNR=17						
EBER				S	Sb	12 35 55.4	+0.2
ODJA	**Bouhanifia**	1.55	110	P	Pn	12 35 37.0	-5.1
EGUA	**Guajares**	1.63	307	P	Pn	12 35 42.6	-0.6
	4.1nm,0.3s,SNR=7.9						
EGUA				S	Sn	12 36 04.2	0.0
	104nm,0.6s,SNR=7.9						
EGUA	**Guajares**	1.63	307	P	Pn	12 35 43.5	+0.3
EGUA				S	Sn	12 36 04.2	0.0
EGUA	**Guajares**	1.63	307	P	Pn	12 35 43.5	+0.4
EGUA				S	Sn	12 36 04.2	0.0
	104nm,0.6s,SNR=7.9						
TOU	**Touzarine**	1.74	239	P	Pn	12 35 44.0	-0.6
TOU				S	Sn	12 36 05.0	-1.9
TOU	**Touzarine**	1.74	239	*i* P	Pn	12 35 44.0	-0.6
TOU				*i* S	Sn	12 36 05.0	-1.9
EQUE	**Quentar**	1.80	318	P	Pn	12 35 45.9	+0.4
	14nm,0.4s,SNR=14						
EQUE				S	Sn	12 36 07.6	-0.8
	26nm,0.4s,SNR=6.1						
EQUE	**Quentar**	1.80	318	P	Pn	12 35 45.9	+0.4
	14nm,0.4s,SNR=14						
EQUE				S	Sn	12 36 07.6	-0.8
	26nm,0.4s,SNR=6.1						
ERON	**Agron**	1.89	308	P	Pn	12 35 47.0	+0.2
	5.0nm,0.2s,SNR=7.9						
ERON				S	Sn	12 36 11.2	+0.5
	25nm,0.7s,SNR=7.9						
ERON	**Agron**	1.89	308	P	Pn	12 35 47.4	+0.6
ERON				S	Sn	12 36 11.2	+0.5
ERON	**Agron**	1.89	308	P	Pn	12 35 47.4	+0.6
ERON				S	Sn	12 36 11.2	+0.5
	25nm,0.7s,SNR=7.9						
ECOG	**Cogollos-Vega**	1.92	317	P	Pn	12 35 47.7	+0.5
	12nm,0.4s,SNR=5.1						
ECOG				S	Sn	12 36 12.5	+1.1
	42nm,0.6s,SNR=4.7						
ECOG	**Cogollos-Vega**	1.92	317	P	Pn	12 35 47.7	+0.5
	12nm,0.4s,SNR=5.1						
ECOG				S	Sn	12 36 12.5	+1.1
	42nm,0.6s,SNR=4.7						
EHUE	**Huescar**	2.01	345	P	Pn	12 35 51.1	+2.6
	3.8nm,0.3s,SNR=7.9						
EHUE				S	Sn	12 36 11.7	-1.9
	5.5nm,0.8s,SNR=7.9						
EHUE	**Huescar**	2.01	345	P	Pn	12 35 49.2	+0.8
EHUE				S	Sn	12 36 14.6	+1.0
EHUE	**Huescar**	2.01	345	P	Pn	12 35 49.2	+0.8
EHUE				S	Sn	12 36 14.6	+1.0
EMUR	**La Murta**	2.05	16	P	Pn	12 35 48.8	0.0
	27nm,0.3s,SNR=20						
EMUR				S	Sn	12 36 12.8	-1.7
	107nm,0.5s,SNR=12						
EMUR	**La Murta**	2.05	16	P	Pn	12 35 48.8	-0.1
	27nm,0.3s,SNR=20						
EMUR				S	Sn	12 36 12.8	-1.7
	107nm,0.5s,SNR=12						
EQES	**Quesada**	2.13	335	P	Pn	12 35 52.0	+1.9
	16nm,0.4s,SNR=21						
EQES				S	Sn	12 36 17.5	+0.9
	21nm,0.3s,SNR=5.5						
EQES	**Quesada**	2.13	335	P	Pn	12 35 50.4	+0.3
EQES				S	Sn	12 36 17.5	+0.9
EQES	**Quesada**	2.13	335	P	Pn	12 35 50.3	+0.2
EQES				S	Sn	12 36 17.5	+0.9
	21nm,0.3s,SNR=5.5						
ELOJ	**Sierra Loja**	2.19	306	P	Pn	12 35 52.0	+1.1
	7.7nm,0.4s,SNR=4.0						
ELOJ				S	Sn	12 36 18.1	0.0
	39nm,1.3s,SNR=7.9						
ELOJ	**Sierra Loja**	2.19	306	P	Pn	12 35 52.0	+1.1
	7.7nm,0.4s,SNR=4.0						
ELOJ				S	Sn	12 36 18.1	0.0
	39nm,1.3s,SNR=7.9						
EMIJ	**Mijas**	2.40	288	P	Pn	12 35 53.1	-0.6
	2.9nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	2.40	288	P	Pn	12 35 54.6	+0.9
EMIJ				S	Sn	12 36 22.8	-0.2
EMIJ	**Mijas**	2.40	288	P	Pn	12 35 54.6	+0.9
EMIJ				S	Sn	12 36 22.8	-0.3
EANR	**'Ain N'Sour**	2.47	87	P	Pn	12 35 53.0	-1.7
EANR	**'Ain N'Sour**	2.47	87	P	Pn	12 35 53.0	-1.7
TZK	**Tazeka**	2.56	227	P	Pn	12 35 56.5	+0.5
TZK				S	Sn	12 36 23.0	-4.2
TZK	**Tazeka**	2.56	227	*i* P	Pn	12 35 56.5	+0.5
TZK				*i* S	Sn	12 36 23.0	-4.2
ECHF	**Ech Chlef**	2.67	83	S	Sn	12 36 27.0	-2.9
ETRT	**Tiaret**	2.68	99	P	Pn	12 35 57.5	-0.1
ETRT	**Tiaret**	2.68	99	P	Pn	12 35 57.5	-0.1
ECHA	**Ech Chlef**	2.69	83	P	Sn	12 36 27.0	-3.4
EBAN	**Banos Encina**	2.73	328	P	Pn	12 36 00.1	+1.9
	1.1nm,0.3s,SNR=7.9						
EBAN	**Banos Encina**	2.73	328	P	Pn	12 35 59.5	+1.2
EBAN				S	Sn	12 36 31.1	-0.1
EBAN	**Banos Encina**	2.73	328	P	Pn	12 35 59.5	+1.3
EBAN				S	Sn	12 36 31.1	-0.1
ETOB	**Tobarra**	2.79	6	P	Pn	12 36 00.3	+1.2
	13nm,0.4s,SNR=19						
ETOB				S	Sn	12 36 32.2	-0.5
	11nm,0.3s,SNR=6.5						
ETOB	**Tobarra**	2.79	6	P	Pn	12 36 00.1	+1.1
ETOB				S	Sn	12 36 32.2	-0.5
ETOB	**Tobarra**	2.79	6	P	Pn	12 36 00.1	+1.0
ETOB				S	Sn	12 36 32.2	-0.6
	11nm,0.3s,SNR=6.5						
EVIA	**Vianos**	2.80	351	P	Pn	12 36 01.6	+2.4
	9.1nm,0.3s,SNR=9.3						
EVIA				S	Sn	12 36 33.4	+0.3
	58nm,0.7s,SNR=8.3						
EVIA	**Vianos**	2.80	351	P	Pn	12 36 00.4	+1.1
EVIA				S	Sn	12 36 33.4	+0.3
EVIA	**Vianos**	2.80	351	P	Pn	12 36 00.4	+1.1
EVIA				S	Sn	12 36 33.4	+0.3
	58nm,0.7s,SNR=8.3						
EBNR	**Beni Rached**	2.84	80	P	Sn	12 36 33.0	-1.0
EADA	**Adamuz**	3.12	318	P	Pn	12 36 02.8	-0.8
	14nm,0.5s,SNR=4.7						
EADA				S	Sn	12 36 39.8	-1.1
	6.0nm,0.4s,SNR=35						
EADA	**Adamuz**	3.12	318	P	Pn	12 36 04.9	+1.3
EADA				S	Sn	12 36 39.8	-1.1
EADA	**Adamuz**	3.12	318	P	Pn	12 36 04.9	+1.3
EADA				S	Sn	12 36 39.8	-1.1
	6.0nm,0.4s,SNR=35						
EBEN	**Beniarda**	3.14	25	P	Pn	12 36 04.3	+0.4
	12nm,0.5s,SNR=6.2						
EBEN				S	Sn	12 36 40.8	-0.7
	15nm,0.8s,SNR=7.9						
EBEN	**Beniarda**	3.14	25	P	Pn	12 36 05.2	+1.3
EBEN				S	Sn	12 36 40.8	-0.7
EBEN	**Beniarda**	3.14	25	P	Pn	12 36 04.3	+0.4
	12nm,0.5s,SNR=6.2						
EBEN				S	Sn	12 36 40.8	-0.7
	15nm,0.8s,SNR=7.9						
ECAB	**El Cabril**	3.55	309	P	Pn	12 36 10.9	+1.3
	1.8nm,0.1s,SNR=7.9						
ECAB				S	Sn	12 36 50.3	-1.3
	6.2nm,0.3s,SNR=7.9						
ECAB	**El Cabril**	3.55	309	P	Pn	12 36 10.9	+1.3
ECAB				S	Sn	12 36 51.5	-0.1
ECAB	**El Cabril**	3.55	309	P	Pn	12 36 10.9	+1.3
	1.8nm,0.1s,SNR=7.9						
ECAB				S	Sn	12 36 51.5	-0.1
MIF	**Mishlifen**	3.66	229	P	Pn	12 36 12.0	+0.9
MIF				S	Sn	12 36 49.0	-5.3
MIF	**Mishlifen**	3.66	229	*e*P	Pn	12 36 12.0	+0.9
MIF				*e*S	Sn	12 36 49.0	-5.3
MDT	**Midelt**	3.77	217	Pn	Pn	12 36 12.9	+0.4
	1.5nm,0.3s,baz=43,slow=13,SNR=43						
MDT				Pg	Pg	12 36 26.8	+0.3
	1.5nm,0.3s,baz=46,slow=17,SNR=16						
MDT				Sn	Sn	12 36 56.3	-0.6
	1.4nm,0.3s,baz=338,slow=7.7,SNR=3.7						
MDT	**Midelt**	3.77	217	Pn	Pn	12 36 12.9	+0.4
MDT	**Midelt**	3.77	217	Pg	Pg	12 36 26.8	+0.2
CZD	**Col de Zad**	3.82	223	P	Pn	12 36 15.0	+1.7
CZD				S	Sn	12 36 56.0	-2.2
CZD	**Col de Zad**	3.82	223	*i* P	Pn	12 36 15.0	+1.7
CZD				*i* S	Sn	12 36 56.0	-2.2
EIBI	**Ibiza**	4.09	39	P	Pn	12 36 17.2	+0.2
	14nm,0.8s,SNR=9.5						
EIBI				S	Sn	12 37 01.6	-3.4
	34nm,0.4s,SNR=7.9						
EIBI	**Ibiza**	4.09	39	P	Pn	12 36 17.2	+0.2
EIBI				S	Sn	12 37 02.8	-2.2
EIBI	**Ibiza**	4.09	39	P	Pn	12 36 17.2	+0.2
	14nm,0.8s,SNR=9.5						
EIBI				S	Sn	12 37 02.8	-2.1
ESDC	**Sonseca Array**	4.12	338	Pn	Pn	12 36 17.9	+0.4
	0.5nm,0.3s,baz=149,slow=13,SNR=4.4						
ESDC				Lg		12 37 18.4	
	2.9nm,0.3s,baz=152,slow=31,SNR=9.8						
ESDC	**Sonseca Array**	4.12	338	P	Pn	12 36 17.7	+0.3
ESDC				S	Sn	12 37 03.6	-2.1
ESDC	**Sonseca Array**	4.12	338	P	Pn	12 36 17.7	+0.3
ESDC				S	Sn	12 37 03.6	-2.1
EMIN	**Mina Concepcio**	4.25	298	P	Pn	12 36 19.2	+0.1
	0.3nm,0.1s,SNR=7.9						
EMIN				S	Sn	12 37 05.4	-3.3
	4.0nm,0.7s,SNR=7.9						
EMIN	**Mina Concepcio**	4.25	298	P	Pn	12 36 19.7	+0.6
EMIN				S	Sn	12 37 07.2	-1.5
EMIN	**Mina Concepcio**	4.25	298	P	Pn	12 36 19.7	+0.6
EMIN				S	Sn	12 37 07.2	-1.5
ZFT	**Errachidia**	4.32	208	P	Pn	12 36 20.0	-0.2
ZFT				S	Sn	12 37 05.0	-5.6
ZFT	**Errachidia**	4.32	208	*i* P	Pn	12 36 20.0	-0.2
ZFT				*i* S	Sn	12 37 05.0	-5.6
EMOS	**Mosqueruela**	4.63	14	P	Pn	12 36 26.8	+2.4
	12nm,0.8s,SNR=11						
EMOS				S	Sn	12 37 17.1	-1.2
	85nm,1.5s						
EMOS	**Mosqueruela**	4.63	14	P	Pn	12 36 25.4	+1.0
EMOS				S	Sn	12 37 17.1	-1.2
EMOS	**Mosqueruela**	4.63	14	P	Pn	12 36 25.4	+1.0
EMOS				S	Sn	12 37 17.1	-1.2
	85nm,1.5s						
KIB	**El Ksiba**	4.73	227	P	Pn	12 36 27.0	+1.3
KIB				S	Sn	12 37 16.0	-4.6
KIB	**El Ksiba**	4.73	227	*i* P	Pn	12 36 27.0	+1.3
KIB				*i* S	Sn	12 37 16.0	-4.6
EGRO	**El Granado**	4.76	292	P	Pn	12 36 27.2	+1.1
	SNR=7.9						
EGRO	**El Granado**	4.76	292	P	Pn	12 36 27.2	+1.1
EGRO				S	Sn	12 37 18.6	-2.7
EGRO	**El Granado**	4.76	292	P	Pn	12 36 27.2	+1.1
EGRO				S	Sn	12 37 18.6	-2.7
PVAQ	**Vaqueiros**	4.89	290	*e*P	Pn	12 36 29.0	+1.0
PVAQ				*e*S	Sn	12 37 21.6	-3.1
PVAQ				A		12 37 30.7	
	4.3nm,0.6s						
PVAQ	**Vaqueiros**	4.89	290	P	Pn	12 36 29.0	+1.0
PVAQ				S	Sn	12 37 21.6	-3.1
	4.3nm,0.6s						
PVAQ	**Vaqueiros**	4.89	290	*e*P	Pn	12 36 29.0	+1.0
PVAQ				*e*S	Sn	12 37 21.6	-3.1
	4.3nm,0.6s						
ETOR	**Torete**	4.94	359	P	Pn	12 36 29.6	+0.9
ETOR	**Torete**	4.94	359	P	Pn	12 36 29.6	+0.9
EBAD	**Badajoz**	4.97	307	P	Pn	12 36 29.6	+0.6
	1.2nm,0.2s,SNR=4.0						
EBAD				S	Sn	12 37 23.4	-3.0
	36nm,1.1s,SNR=7.9						
EBAD	**Badajoz**	4.97	307	P	Pn	12 36 30.5	+1.5
EBAD				S	Sn	12 37 23.4	-3.0
EBAD	**Badajoz**	4.97	307	P	Pn	12 36 29.6	+0.6
	1.2nm,0.2s,SNR=4.0						
PBDV	**Barranco-do-Ve**	5.02	288	*e*P	Pn	12 36 31.8	+2.1
PBDV	**Barranco-do-Ve**	5.02	288	*e*P	Pn	12 36 31.8	+2.1
ERTA	**Horta de San J**	5.38	19	P	Pn	12 36 36.0	+1.3
	1.7nm,0.2s,SNR=7.9						
ERTA				S	Sn	12 37 33.8	-3.0
	4.7nm,0.5s,SNR=7.9						
ERTA	**Horta de San J**	5.38	19	P	Pn	12 36 34.7	0.0
ERTA				S	Sn	12 37 33.8	-3.0
ERTA	**Horta de San J**	5.38	19	P	Pn	12 36 36.0	+1.3
	1.7nm,0.2s,SNR=7.9						
ETOS	**Mallorca**	5.41	43	P	Pn	12 36 35.6	+0.5
	20nm,0.8s,SNR=5.6						
ETOS				S	Sn	12 37 34.9	-2.6
	67nm,0.9s,SNR=8.3						
ETOS	**Mallorca**	5.41	43	P	Pn	12 36 36.1	+1.0
ETOS				S	Sn	12 37 36.0	-1.4
ETOS	**Mallorca**	5.41	43	P	Pn	12 36 35.6	+0.5
	20nm,0.8s,SNR=5.6						
ETOS				S	Sn	12 37 36.0	-1.5
EPOB	**Poblet**	5.96	22	P	Pn	12 36 44.0	+1.3
	1.7nm,0.3s,SNR=7.9						
EPOB				S	Sn	12 37 49.5	-1.5
	18nm,2.6s,SNR=7.9						
EPOB	**Poblet**	5.96	22	P	Pn	12 36 43.3	+0.6
EPOB				S	Sn	12 37 47.7	-3.3
EPOB	**Poblet**	5.96	22	P	Pn	12 36 43.3	+0.6
EPOB				S	Sn	12 37 49.5	-1.5
	18nm,2.6s,SNR=7.9						
EBIE	**Bielsa**	7.00	13	P	Pn	12 36 58.6	+1.7
	0.3nm,0.4s,SNR=7.9						
EBIE	**Bielsa**	7.00	13	P	Pn	12 36 57.8	+1.0
EBIE	**Bielsa**	7.00	13	P	Pn	12 36 57.8	+0.9
KEST	**Kesra**	9.17	88	Pn	Pn	12 37 28.1	+1.3
	0.1nm,0.3s,baz=118,slow=4.7,SNR=4.4						
TORD	**Torodi Ar. Bea**	22.86	171	P	P	12 40 18.9	+1.0
	0.4nm,0.7s,mb3.0,baz=345,slow=10,SNR=3.2						
ZALV	**Zalesovo Beam**	60.15	43	P	P	12 45 22.9	+1.0
	1.0nm,0.7s,mb3.9,baz=286,slow=6.9,SNR=5.4						
MKAR	**Makanchi Array**	61.32	51	P	P	12 45 31.0	+1.0
	1.1nm,0.6s,mb4.1,baz=284,slow=6.2,SNR=15						
SONM	**Songino Array**	74.99	41	P	P	12 46 56.9	+1.1
	0.8nm,1.1s,mb3.5,baz=321,slow=1.8,SNR=3.6						

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*ISCJB **18** 13:02:35.5±3.5, 8°.3S±0°.2×159°.2E±0°.2, h60^{km}±39^{km}, mb3.8/8, Error ellipse: s-maj=43.9km s-min=20.7km az=43.6*

*NEIC **18** 13:02:36.8±2.6, 8°.34S×159°.34E, h60^{km}±31^{km}, Error ellipse: s-maj=36.2km s-min=13.6km az=132.0*

*IDC **18** 13:02:37.2±3.9, 8°.35S×159°.30E, h62^{km}±47^{km}, mb3.6/8, mb1 3.7/8, mb1mx3.6/16, mbtmp3.6/8, MS3.2/1, Ms1 3.2/1, ms1mx2.8/21, Error ellipse: s-maj=44.5km s-min=22.4km az=130.0*

ISC 18 13:02:36.7±3.5**, 8°.3S**±0°.2×**159°.3E**±0°.2**, h57^{km}**±41^{km}**, n15, σ0^s.53**/16**, mb3.8**/8**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	1.28	150	P	Pn	13 02 58.1	-0.3
	335nm,0.3s,baz=277,slow=1.2,SNR=107						
HNR				S	Sn	13 03 14.7	+0.1
	837nm,0.3s,baz=349,slow=23,SNR=20						
HNR	**Honiara**	1.28	150	*e*Pn	Pn	13 02 57.9	-0.5
HNR				*e*Sn	Sn	13 03 15.1	+0.5
GUMO	**Guam**	26.05	327	LR	LR	13 15 26.4	
	comp=Z,58nm,20.7s,baz=95,slow=30						
WRAB	**Tennant Creek**	26.77	242	*e*P	P	13 08 11.8	+0.4
WRA	**Warramunga Arr**	26.78	242	P	P	13 08 11.3	-0.2
	0.8nm,0.5s,mb3.5,baz=64,slow=8.9,SNR=10						
STKA	**Stephens Creek**	28.66	213	P	P	13 08 28.7	+0.6
	0.5nm,0.3s,mb3.7,baz=181,slow=9.3,SNR=3.0						
ASAR	**Alice Springs**	28.72	235	P	P	13 08 27.8	-1.0
	0.3nm,0.4s,mb3.4,baz=61,slow=10,SNR=8.9						
PETK	**Petropavlovsk-**	61.19	359	P	P	13 12 45.4	+0.1
	4.1nm,1.0s,mb4.5,baz=119,slow=5.0,SNR=4.2						
PETK	**Petropavlovsk-**	61.19	359	P	P	13 12 45.4	+0.1
CMAR	**Chiang Mai Arr**	65.21	295	P	P	13 13 13.0	+0.4
	0.3nm,0.3s,mb3.8,baz=110,slow=5.2,SNR=5.1						
SONM	**Songino Array**	72.78	326	P	P	13 14 00.0	+1.0
	1.9nm,0.8s,mb4.1,baz=140,slow=6.6,SNR=15						
MK31	**Makanchi Array**	87.22	318	*e*P	P	13 15 16.5	-0.4
MKAR	**Makanchi Array**	87.22	318	P	P	13 15 16.7	-0.3
	0.6nm,0.6s,mb4.0,baz=94,slow=5.7,SNR=14						
MKAR	**Makanchi Array**	87.22	318	P	P	13 15 16.7	-0.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
YKA	**Yellowknife Ar**	95.50	28	P	P	13 15 54.6	-0.4
	0.1nm,0.4s,mb3.6,baz=256,slow=4.7,SNR=4.9						

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*ISCJB **18** 13:28:54.5±0.2, 49°.33N±0°.01×6°.76E±0°.02, h0^{km}, Error ellipse: s-maj=1.6km s-min=1.5km az=154.7*
*CSEM **18** 13:28:55.7±0.1, 49°.35N×6°.78E, h1^{km}, ML3.2/20, Error ellipse: s-maj=1.6km s-min=1.6km az=93.0*
*BGR **18** 13:28:56.9±0.4, 49°.36N×6°.86E, h1^{km}, ML2.8/7, Error ellipse: s-maj=5.6km s-min=4.4km az=37.0*
*STR **18** 13:28:56.4±0.2, 49°.37N×6°.81E, h1^{km}, Ml2.9, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*NEIC **18** 13:28:56.6, 49°.37N×6°.85E, h1^{km}, ML2.8(SZGRF), ML3.0(STR), ML3.2(LDG), After STR.*
*BNS **18** 13:28:57.0±0.7, 49°.38N×6°.93E, h1^{km}, ML2.4*
*LDG **18** 13:28:57.0±0.0, 49°.37N×6°.80E, h1^{km}, Md3.3/4, Ml3.2/30, Suspected Mining induced.*
ISC 18 13:28:55.5±0.2**, 49°.347N**±0°.010×**6°.75E**±0°.01**, h0^{km}, n180, σ1^{s}.19**/332**, 3C-4D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	**Ruppelstein**	0.41	29	Pg	Pg	13 29 03.7	+0.4
RUP	**Ruppelstein**	0.41	29	Pg	Pg	13 29 03.7	+0.4
RUP	**Ruppelstein**	0.41	29	Pb	Pg	13 29 04.0	+0.7
RUP				Sg	Sg	13 29 08.3	-0.3
WLF	**Walferdange**	0.50	309	P	Pg	13 29 07.6	+2.5
WLF	**Walferdange**	0.50	309	*e*Pg	Pg	13 29 07.6	+2.4
	SNR=6.7						
WLF				*e*Sg	Sg	13 29 14.1	+2.4
	SNR=4.9						
WLF	**Walferdange**	0.50	309	*e*Pg	Pg	13 29 06.5	+1.4
WLF	**Walferdange**	0.50	309	*e*Pg	Pg	13 29 06.5	+1.4
WLF				Sg	Sg	13 29 14.1	+2.4
	SNR=4.9						
ABH	**Alteburg**	0.74	44	Pg	Pg	13 29 09.4	-0.3
ABH	**Alteburg**	0.74	44	Pg	Pg	13 29 09.4	-0.3
LANF	**Langenberg**	0.78	118	Pg	Pg	13 29 10.3	-0.1
LANF				Sg	Sg	13 29 21.4	+0.8
LANF	**Langenberg**	0.78	118	Pg	Pg	13 29 10.3	-0.1
LANF				Sg	Sg	13 29 21.4	+0.8
KTD	**Kalmit**	0.87	91	P*	Pb	13 29 13.2	-0.2
KTD	**Kalmit**	0.87	91	Pg	Pg	13 29 12.9	+0.8
KTD	**Kalmit**	0.87	91	Pb	Pb	13 29 13.2	-0.2
KTD				Sg	Sg	13 29 24.6	+1.2
BGG	**Burgeitz**	0.94	24	*e*Pg	Pg	13 29 13.3	-0.1
BGG	**Burgeitz**	0.94	24	Pg	Pg	13 29 13.4	-0.1
HILG	**Hillesheim**	0.95	357	*e*Pg	Pg	13 29 14.5	+0.9
HILG	**Hillesheim**	0.95	357	Pg	Pg	13 29 14.5	+0.9
CDF	**Champ du Feu**	1.00	160	*e*Pn	Pn	13 29 16.3	-0.4
	SNR=1.0						
CDF				*e*Sg	Sg	13 29 29.2	+1.8
	126nm,0.2s,SNR=1.0						
CDF	**Champ du Feu**	1.00	160	*e*Pg	Pg	13 29 15.3	+0.8
CDF				*e*Pn	Pn	13 29 16.3	-0.4
CDF				*e*Sg	Sg	13 29 29.2	+1.8
CDF	**Champ du Feu**	1.00	160	*e*Pg	Pg	13 29 15.3	+0.8
CDF	**Champ du Feu**	1.00	160	*e*Pn	Pn	13 29 16.3	-0.4
	SNR=1.0						
CDF				*e*Sg	Sg	13 29 29.2	+1.8
	63nm,0.2s,SNR=1.0						
RFYF	**Reffroy**	1.11	230	*e*Pg	Pg	13 29 18.6	+1.9
	baz=49						
RFYF	**Reffroy**	1.11	230	*e*P	Pg	13 29 19.4	+2.7
	baz=47						
RFYF				*e*Sg	Sg	13 29 32.9	+1.9
	235nm,0.3s						
RFYF	**Reffroy**	1.11	230	*e*Pg	Pg	13 29 18.6	+1.9
RFYF				*e*P		13 29 19.4	
RFYF				*e*Sg	Sg	13 29 32.9	+1.9
RFYF	**Reffroy**	1.11	230	*e*Pg	Pg	13 29 18.6	+1.9
	baz=49						
RFYF				*e*Sg	Sg	13 29 32.9	+1.9
	118nm,0.3s						
ECH	**Echery**	1.16	167	P	Pg	13 29 18.7	+1.0
ECH				Pg	Pg	13 29 19.6	+1.9
ECH	**Echery**	1.16	167	Pg	Pg	13 29 19.2	+1.5
ECH				Sg	Sg	13 29 34.9	+2.1
ECH	**Echery**	1.16	167	*e*Pg	Pg	13 29 18.4	+0.7
ECH				*e*Sg	Sg	13 29 33.5	+0.8
ECH	**Echery**	1.16	167	*e*Pg	Pg	13 29 18.4	+0.7
ECH				*e*Sg	Sg	13 29 33.5	+0.7
THEF	**They Montfort**	1.23	205	Pg	Pg	13 29 20.1	+1.1
THEF				Sg	Sg	13 29 38.3	+3.4
THEF	**They Montfort**	1.23	205	Pg	Pg	13 29 20.1	+1.1
THEF				Sg	Sg	13 29 38.3	+3.4
STB	**Steinbach**	1.25	3	*e*Pg	Pg	13 29 20.0	+0.6
STB				*e*Sg	Sg	13 29 36.1	+0.5
	61nm,0.4s						
STB	**Steinbach**	1.25	3	Pg	Pg	13 29 20.0	+0.6
STB				Sg	Sg	13 29 36.1	+0.5
	61nm,0.4s						
KOE	**Koeppel**	1.25	30	*e*Pg	Pg	13 29 18.7	-0.7
KOE	**Koeppel**	1.25	30	Pg	Pg	13 29 18.7	-0.7
SWS	**Schriesheim-Wi**	1.28	83	P	Pg	13 29 19.7	-0.3
SWS				Sg	Sg	13 29 36.7	+0.1
SWS	**Schriesheim-Wi**	1.28	83	P	Pg	13 29 19.7	-0.3
SWS				Sg	Sg	13 29 36.7	+0.2
LIBD	**Limburg**	1.32	155	Pg	Pg	13 29 22.3	+1.5
LIBD	**Limburg**	1.32	155	Pg	Pg	13 29 22.3	+1.5
LIBD				Sg	Sg	13 29 39.9	+2.0
KLL	**Kalltalsperre**	1.33	348	*e*Pg	Pg	13 29 20.3	-0.7
KLL	**Kalltalsperre**	1.33	348	Pg	Pg	13 29 20.3	-0.7
MEM	**Membach**	1.35	339	P	Pg	13 29 21.4	0.0
MEM	**Membach**	1.35	339	P	Pg	13 29 21.4	0.0
DREG	**Dreilaegerbach**	1.36	346	*e*Pg	Pg	13 29 21.8	+0.3
DREG	**Dreilaegerbach**	1.36	346	Pg	Pg	13 29 21.8	+0.3
TOD	**Tromm**	1.36	78	P	Pg	13 29 20.5	-1.0
TOD				Pg	Pg	13 29 21.1	-0.5
TOD				Sg	Sg	13 29 39.6	+0.4
TOD	**Tromm**	1.36	78	Pg	Pg	13 29 20.8	-0.8
HAU	**Haudompre**	1.37	191	*e*Pg	Pg	13 29 23.3	+1.6
HAU				*e*Sg	Sg	13 29 41.0	+1.6
	102nm,0.3s						
HAU	**Haudompre**	1.37	191	*e*Pn	Pn	13 29 21.9	+0.1
HAU				*e*Pg	Pg	13 29 23.3	+1.6
HAU				*e*Sg	Sg	13 29 41.0	+1.6
HAU	**Haudompre**	1.37	191	*e*Pn	Pn	13 29 21.9	+0.1
	SNR=1.0						
HAU	**Haudompre**	1.37	191	*e*Pg	Pg	13 29 23.3	+1.6
HAU				*e*Sg	Sg	13 29 41.0	+1.6
	51nm,0.3s						
MEZF	**Maizieres J'vi**	1.41	234	*e*Pg	Pg	13 29 23.8	+1.4
	baz=54,SNR=1.0						
MEZF				*e*Sg	Sg	13 29 42.2	+1.6
	137nm,0.6s						
MEZF	**Maizieres J'vi**	1.41	234	*e*Pg	Pg	13 29 23.8	+1.4
	baz=54,SNR=1.0						
MEZF				*e*Sg	Sg	13 29 42.2	+1.6
	68nm,0.6s						
TNS	**Taunus Mts**	1.41	51	P	Pn	13 29 20.8	-1.5
TNS				*e*Pn	Pn	13 29 20.9	-1.4
	SNR=4.5						
TNS				Pg	Pg	13 29 23.1	+0.7
TNS				Sg	Sg	13 29 42.0	+1.4
TNS	**Taunus Mts**	1.41	51	*e*Pg	Pg	13 29 20.8	-1.6
TNS				*e*Sg	Sg	13 29 40.5	-0.1
TNS	**Taunus Mts**	1.41	51	Pn	Pn	13 29 20.9	-1.4
	SNR=4.5						
TNS	**Taunus Mts**	1.41	51	Pg	Pg	13 29 23.1	+0.7
TNS				*e*Sg	Sg	13 29 40.5	-0.1
BCLA	**Clavier**	1.43	319	P	Pn	13 29 23.0	+0.4
BCLA	**Clavier**	1.43	319	P	Pn	13 29 22.9	+0.3
BFO	**Black Forest**	1.46	134	P	Pn	13 29 22.2	-0.7
BFO				Pg	Pg	13 29 24.0	+0.7
BFO				S	Sg	13 29 41.0	-1.2
BFO				Sg	Sg	13 29 42.9	+0.6
BFO	**Black Forest**	1.46	134	*e*Pg	Pg	13 29 22.3	-1.0
BFO				*e*Sg	Sg	13 29 42.4	+0.2
BFO	**Black Forest**	1.46	134	P	Pn	13 29 22.2	-0.8
GIVF	**Givet**	1.46	302	*e*Pg	Pg	13 29 24.9	+1.4
GIVF				*e*Sg	Sg	13 29 43.7	+1.3
	193nm,0.5s						
GIVF	**Givet**	1.46	302	*e*Pn	Pn	13 29 23.6	+0.5
GIVF				*e*Pg	Pg	13 29 24.9	+1.4
GIVF				*e*Sg	Sg	13 29 43.7	+1.3
GIVF	**Givet**	1.46	302	*e*Pn	Pn	13 29 23.6	+0.5
	SNR=1.0						
GIVF	**Givet**	1.46	302	*e*Pg	Pg	13 29 24.9	+1.4
GIVF				*e*Sg	Sg	13 29 43.7	+1.3
	97nm,0.5s						
LBG	**Lerchenberg**	1.51	116	Pg	Pg	13 29 24.6	+0.3
LBG				S	Sg	13 29 41.3	-2.6
LBG				Sg	Sg	13 29 43.7	-0.2
LBG	**Lerchenberg**	1.51	116	Pg	Pg	13 29 24.6	+0.2
LBG				S	Sg	13 29 41.3	-2.6
LBG				Sg	Sg	13 29 43.7	-0.2
HGN	**Heimansgroeve**	1.51	340	*e*Pn	Pn	13 29 24.2	+0.4
	14nm,0.8s,baz=150						
HGN	**Heimansgroeve**	1.51	340	*e*Pg	Pg	13 29 26.2	+1.7
	43nm,0.3s						
HGN				*e*Sg	Sg	13 29 44.5	+0.4
HGN	**Heimansgroeve**	1.51	340	*e*Rg		13 30 06.6	
HGN	**Heimansgroeve**	1.51	340	*e*Pn	Pn	13 29 24.2	+0.4
	14nm,0.8s						
HGN	**Heimansgroeve**	1.51	340	*e*Pg	Pg	13 29 26.2	+1.7
	43nm,0.3s						
HGN				*e*Sg	Sg	13 29 44.5	+0.4
MOF	**Molkenrain**	1.52	170	Pg	Pg	13 29 25.3	+0.8
MOF				Sg	Sg	13 29 45.9	+1.7
MOF	**Molkenrain**	1.52	170	Pg	Pg	13 29 25.3	+0.8
MOF				Sg	Sg	13 29 46.0	+1.8
MOF	**Molkenrain**	1.52	170	Pg	Pg	13 29 25.3	+0.8
MOF				Sg	Sg	13 29 45.9	+1.7
HINF	**Hinteralfeld**	1.53	177	*e*Pg	Pg	13 29 25.9	+1.1
	SNR=1.0						
HINF				*e*Sg	Sg	13 29 46.2	+1.5
	120nm,0.5s						
HINF	**Hinteralfeld**	1.53	177	*e*Pg	Pg	13 29 25.9	+1.1
	SNR=1.0						
HINF				*e*Sg	Sg	13 29 46.2	+1.5
	60nm,0.5s						
DOU	**Dourbes**	1.59	299	P	Pn	13 29 25.6	+0.8
DOU	**Dourbes**	1.59	299	P	Pn	13 29 25.6	+0.8
KIZ	**Kirchzarten**	1.59	151	Pg	Pg	13 29 26.6	+0.7
KIZ				S	Sn	13 29 43.3	-2.8
KIZ				Sg	Sg	13 29 47.2	+0.6
KIZ	**Kirchzarten**	1.59	151	Pg	Pg	13 29 26.6	+0.7
KIZ				S	Sn	13 29 43.3	-2.8
KIZ				Sg	Sg	13 29 47.2	+0.6
BEBN	**Eben Emael**	1.61	335	P	Pn	13 29 25.8	+0.7
BEBN	**Eben Emael**	1.61	335	P	Pn	13 29 25.8	+0.7
SFTF	**Sexfontaines**	1.61	225	*e*Pn	Pn	13 29 25.7	+0.6
SFTF				*e*Sg	Sg	13 29 48.6	+1.5
	58nm,0.4s						
SFTF	**Sexfontaines**	1.61	225	*e*Pn	Pn	13 29 25.7	+0.6
SFTF				*e*Sg	Sg	13 29 48.6	+1.5
	29nm,0.4s						
FELD	**Feldberg im Sc**	1.69	150	P	Pn	13 29 25.9	-0.3
FELD				Pg	Pg	13 29 28.7	+0.9
FELD				Sg	Sg	13 29 51.0	+1.3
FELD	**Feldberg im Sc**	1.69	150	P	Pn	13 29 25.9	-0.3
STU	**Stuttgart**	1.71	109	*e*Sn	Sn	13 29 45.9	-3.0
	SNR=2.8						
STU	**Stuttgart**	1.71	109	Sn	Sn	13 29 45.9	-3.0
	SNR=2.8						
BAIF	**Baives**	1.80	294	*e*Pg	Pg	13 29 31.0	+1.1
BAIF				*e*Sg	Sg	13 29 54.3	+1.0
	48nm,0.4s						
BAIF	**Baives**	1.80	294	*e*Pn	Pn	13 29 28.2	+0.5
BAIF				*e*Pg	Pg	13 29 31.0	+1.1
BAIF				*e*Sg	Sg	13 29 54.3	+1.0
BAIF	**Baives**	1.80	294	*e*Pn	Pn	13 29 28.2	+0.5
	SNR=1.0						
BAIF	**Baives**	1.80	294	*e*Pg	Pg	13 29 31.0	+1.1
BAIF				*e*Sg	Sg	13 29 54.3	+1.0
	24nm,0.4s						
SPAK	**Spaichingen-Ko**	1.83	132	Pg	Pg	13 29 30.7	+0.1
SPAK	**Spaichingen-Ko**	1.83	132	Pg	Pg	13 29 31.0	+0.4
SIND	**Sindeldorf**	1.87	89	Pg	Pg	13 29 35.7	+4.5
BUCH	**Bad Urach**	1.94	117	Pg	Pg	13 29 32.8	+0.3
BUCH				Sg	Sg	13 29 56.7	-0.9
BUCH	**Bad Urach**	1.94	117	Pg	Pg	13 29 32.8	+0.2
BUCH				Sg	Sg	13 29 56.7	-0.9
SNF	**Seneffe**	1.98	307	P	Pn	13 29 31.1	+1.0
SNF	**Seneffe**	1.98	307	P	Pn	13 29 31.1	+1.0
LOMF	**Lomont**	2.00	179	Pg	Pg	13 29 34.7	+0.9
LOMF				Sg	Sg	13 30 01.5	+1.9
LOMF	**Lomont**	2.00	179	Pg	Pg	13 29 34.4	+0.7
LOMF	**Lomont**	2.00	179	Pg	Pg	13 29 34.7	+1.0
LOMF				Sg	Sg	13 30 01.5	+1.9
GUT	**Gutenstein**	2.02	128	Pg	Pg	13 29 34.4	+0.3
GUT				Sg	Sg	13 29 59.9	-0.4
GUT	**Gutenstein**	2.02	128	Pg	Pg	13 29 34.4	+0.3
GUT				Sg	Sg	13 29 59.9	-0.4
BUG	**Bochum--Univer**	2.12	9	*e*Sg	Sg	13 30 02.9	-0.7
	SNR=2.1						
CABF	**La Chapelle**	2.77	190	*e*Pg	Pg	13 29 48.9	+0.3
	SNR=1.0						
CABF				*e*Sg	Sg	13 30 24.8	+0.3
	48nm,0.7s,SNR=1.0						
CABF	**La Chapelle**	2.77	190	*e*Pn	Pn	13 29 41.2	+0.1
CABF				*e*Pg	Pg	13 29 48.9	+0.3
CABF				*e*Sg	Sg	13 30 24.8	+0.3
CABF	**La Chapelle**	2.77	190	*e*Pn	Pn	13 29 41.2	+0.1
	SNR=1.0						
CABF	**La Chapelle**	2.77	190	*e*Pg	Pg	13 29 48.9	+0.3
	SNR=1.0						
CABF				*e*Sg	Sg	13 30 24.8	+0.3
	24nm,0.7s,SNR=1.0						
UBR	**Ueberruh**	2.79	126	P	Pn	13 29 42.2	+0.9
UBR				S	Sn	13 30 13.9	-1.6
UBR	**Ueberruh**	2.79	126	P	Pn	13 29 42.2	+1.0
UBR				S	Sn	13 30 13.9	-1.6
LOR	**Lormes**	2.84	224	*e*Pn	Pn	13 29 42.4	+0.4
	baz=47,SNR=1.0						
LOR				*e*Sn	Sn	13 30 15.4	-1.4
	SNR=1.0						
LOR				*e*Sg	Sg	13 30 26.9	+0.3
	28nm,0.3s						
LOR	**Lormes**	2.84	224	*e*Pn	Pn	13 29 42.4	+0.4
	baz=47,SNR=1.0						
LOR				*e*Sn	Sn	13 30 15.4	-1.4
	SNR=1.0						
LOR				*e*Sg	Sg	13 30 26.9	+0.3
	14nm,0.3s						
GRA1	**Grafenberg Arr**	2.93	82	Sg	Sg	13 30 29.4	-0.2
GRF	**Grafenberg Arr**	2.93	82	*e*Sg	Sg	13 30 29.4	-0.2
DAVA	**Damuels**	2.93	133	⇓*i*Sn	Sn	13 30 19.7	+0.5
DAVA				⇓*i*Sg	Sg	13 30 30.3	+0.6
	37nm,0.7s						
DAVA	**Damuels**	2.93	133	Sn	Sn	13 30 19.7	+0.5
DAVA				Sg	Sg	13 30 30.3	+0.6
	37nm,0.7s						
SSF	**Saint Saulge**	3.15	225	*e*Pn	Pn	13 29 46.4	+0.1
	SNR=1.0						
SSF				*e*Sn	Sn	13 30 22.7	-1.9
SSF				*e*Sg	Sg	13 30 37.2	+0.5
	23nm,0.4s						
SSF	**Saint Saulge**	3.15	225	*e*Pn	Pn	13 29 46.4	+0.1
	SNR=1.0						
SSF				*e*Sn	Sn	13 30 22.7	-1.9
SSF				*e*Sg	Sg	13 30 37.2	+0.5
	11nm,0.4s						
SMF	**Signal de Mont**	3.34	217	*e*Pn	Pn	13 29 47.9	-0.9
	SNR=1.0						
SMF				*e*Sn	Sn	13 30 27.3	-1.8
	SNR=1.0						
SMF				*e*Sg	Sg	13 30 42.5	-0.1
	16nm,0.3s,SNR=1.0						
SMF	**Signal de Mont**	3.34	217	*e*Pn	Pn	13 29 47.9	-0.9
	SNR=1.0						
SMF				*e*Sn	Sn	13 30 27.3	-1.8
	SNR=1.0						
SMF				*e*Sg	Sg	13 30 42.5	-0.1
	8.1nm,0.3s,SNR=1.0						
TUE	**Stuetta**	3.36	148	*e*Pn	Pn	13 29 51.3	+2.1
TUE	**Stuetta**	3.36	148	*e*Pn	Pn	13 29 51.3	+2.1
MOX	**Moxa**	3.40	66	*e*PG	Pg	13 29 59.0	-1.5
MOX				*e*SG	Sg	13 30 42.9	-1.6
MOX	**Moxa**	3.40	66	*e*Pg	Pg	13 29 59.1	-1.4
	SNR=2.1						
MOX				*e*Sg	Sg	13 30 43.0	-1.5
MOX	**Moxa**	3.40	66	Pg	Pg	13 29 59.1	-1.4
	SNR=2.1						
MOX				Sg	Sg	13 30 43.0	-1.5
CLZ	**Clausthal**	3.40	41	*e*Pg	Pg	13 29 59.6	-1.0
	SNR=2.5						
CLZ	**Clausthal**	3.40	41	*e*Pg	Pg	13 29 59.6	-1.0
CLZ	**Clausthal**	3.40	41	Pg	Pg	13 29 59.6	-1.0
	SNR=2.5						
AVF	**Avril sur Loir**	3.43	223	*e*Pn	Pn	13 29 49.9	-0.2
	SNR=1.0						
AVF				*e*Sn	Sn	13 30 29.2	-2.1
	SNR=1.0						
AVF				*e*Sg	Sg	13 30 45.5	0.0
	16nm,0.5s,SNR=1.0						
AVF	**Avril sur Loir**	3.43	223	*e*Pn	Pn	13 29 49.9	-0.2
	SNR=1.0						
AVF				*e*Sn	Sn	13 30 29.2	-2.1
	SNR=1.0						
AVF				*e*Sg	Sg	13 30 45.5	0.0
	7.8nm,0.5s,SNR=1.0						
HYF	**Humbligny**	3.44	234	*e*Pn	Pn	13 29 50.2	-0.1
HYF				*e*Sg	Sg	13 30 45.7	-0.3
HYF	**Humbligny**	3.44	234	*e*Pn	Pn	13 29 50.2	-0.1
HYF				*e*Sg	Sg	13 30 45.7	-0.3
FETA	**Feichten**	3.53	130	⇑*i*Pn	Pn	13 29 53.4	+1.9
FETA				⇓*i*Sn	Sn	13 30 33.7	-0.3
FETA				⇑*i*Sg	Sg	13 30 49.6	+0.6
	4.3nm,0.5s						
FETA	**Feichten**	3.53	130	Pn	Pn	13 29 53.4	+1.9
FETA				Sn	Sn	13 30 33.7	-0.3
FETA				Sg	Sg	13 30 49.6	+0.7
	4.3nm,0.5s						
GUNZ	**Gunzen**	3.75	72	*e*Sn	Sn	13 30 36.9	-2.4
	SNR=1.2						
GUNZ	**Gunzen**	3.75	72	Sn	Sn	13 30 36.9	-2.4
	SNR=1.2						
BGF	**Bois d'Agland**	3.83	225	*e*Pn	Pn	13 29 55.4	-0.2
BGF				*e*Sn	Sn	13 30 38.9	-2.4
	SNR=1.0						
BGF				*e*Sg	Sg	13 30 57.8	-0.7
	53nm,0.5s,SNR=1.0						
BGF	**Bois d'Agland**	3.83	225	*e*Pn	Pn	13 29 55.4	-0.2
BGF				*e*Sn	Sn	13 30 38.9	-2.4
	SNR=1.0						
BGF				*e*Sg	Sg	13 30 57.8	-0.7
	26nm,0.5s,SNR=1.0						
LPL	**La Plagne**	3.83	180	*e*Pn	Pn	13 29 55.6	0.0
LPL				*e*Sn	Sn	13 30 39.3	-2.0
	5.4nm,0.3s						
LPL	**La Plagne**	3.83	180	*e*Pn	Pn	13 29 55.6	0.0
LPL				*e*Sn	Sn	13 30 39.3	-2.0
	2.7nm,0.3s						
TANN	**Tannenbergstha**	3.84	72	*e*Sg	Sg	13 30 55.8	-3.0
	SNR=4.1						
LPG	**La Plagne**	3.85	180	*e*Pn	Pn	13 29 56.2	+0.3
LPG				*e*Sn	Sn	13 30 39.7	-2.1
	3.0nm,0.2s						
LPG	**La Plagne**	3.85	180	*e*Pn	Pn	13 29 56.2	+0.3
LPG				*e*Sn	Sn	13 30 39.7	-2.1
	1.5nm,0.2s						
WET	**Wettzell**	4.02	91	*e*Pn	Pn	13 29 58.8	+0.6
	SNR=3.6						
WET	**Wettzell**	4.02	91	*e*Pn	Pn	13 29 58.7	+0.5
WET	**Wettzell**	4.02	91	*e*Pn	Pn	13 29 58.7	+0.5
TCF	**Toulx Ste Croi**	4.33	227	*e*Pn	Pn	13 30 02.0	-0.4
TCF				*e*Sn	Sn	13 30 50.6	-3.0
TCF				*e*Sg	Sg	13 31 13.6	-0.8
	16nm,0.5s						
TCF	**Toulx Ste Croi**	4.33	227	*e*Pn	Pn	13 30 02.0	-0.4
TCF				*e*Sn	Sn	13 30 50.6	-3.0
TCF				*e*Sg	Sg	13 31 13.6	-0.8
	7.8nm,0.5s						
CLL	**Collm**	4.46	62	*e*(Pg)	Pg	13 30 19.0	-1.9
CLL				*e*Sg	Sg	13 31 18.0	-0.6
ORIF	**Oris-en-Rattie**	4.47	188	*e*Pn	Pn	13 30 04.1	-0.3
ORIF				*e*Sn	Sn	13 30 54.8	-2.3
ORIF				*e*Sg	Sg	13 31 18.0	-1.0
	6.0nm,0.6s						
ORIF	**Oris-en-Rattie**	4.47	188	*e*Pn	Pn	13 30 04.1	-0.3
ORIF				*e*Sn	Sn	13 30 54.8	-2.3
ORIF				*e*Sg	Sg	13 31 18.0	-1.0
	3.0nm,0.6s						
LDF	**La Druitiere**	4.59	263	*e*Pn	Pn	13 30 06.0	-0.1
LDF				*e*Sn	Sn	13 30 57.0	-3.0
LDF				*e*Sg	Sg	13 31 21.6	-1.3
	19nm,0.6s						
LDF	**La Druitiere**	4.59	263	*e*Pn	Pn	13 30 06.0	-0.1
LDF				*e*Sn	Sn	13 30 57.0	-3.0
LDF				*e*Sg	Sg	13 31 21.6	-1.3
	9.6nm,0.6s						
GEC2	**GERESS Array S**	4.59	94	*e*Pn	Pn	13 30 06.6	+0.5
	SNR=7.7						
GEC2				*e*Sn	Sn	13 30 57.0	-3.1
	SNR=3.0						
GEC2	**GERESS Array S**	4.59	94	*e*Pn	Pn	13 30 06.7	+0.6
GEC2	**GERESS Array S**	4.59	94	Pn	Pn	13 30 06.6	+0.5
	SNR=7.7						
GEC2				Sn	Sn	13 30 57.0	-3.1
	SNR=3.0						
MBDF	**Montbardon**	4.62	180	*e*Pn	Pn	13 30 06.9	+0.4
MBDF				*e*Sn	Sn	13 30 57.9	-2.9
MBDF				*e*Sg	Sg	13 31 22.4	-1.5
	2.9nm,0.5s						
MBDF	**Montbardon**	4.62	180	*e*Pn	Pn	13 30 06.9	+0.4
MBDF				*e*Sn	Sn	13 30 57.9	-2.9
MBDF				*e*Sg	Sg	13 31 22.4	-1.5
	1.5nm,0.5s						
VIVF	**Saint-Julien-l**	4.71	198	*e*Pn	Pn	13 30 07.8	+0.1
VIVF				*e*Sn	Sn	13 31 00.2	-2.8
VIVF				*e*Sg	Sg	13 31 24.9	-1.8
	13nm,0.7s						
VIVF	**Saint-Julien-l**	4.71	198	*e*Pn	Pn	13 30 07.8	+0.1
VIVF				*e*Sn	Sn	13 31 00.2	-2.8
VIVF				*e*Sg	Sg	13 31 24.9	-1.8
	6.3nm,0.7s						
FLN	**La Foliniere**	4.79	266	*e*Pn	Pn	13 30 08.8	0.0
FLN				*e*Sn	Sn	13 31 01.9	-3.1
	SNR=1.0						
FLN				*e*Sg	Sg	13 31 27.9	-1.5
	13nm,0.5s						
FLN	**La Foliniere**	4.79	266	*e*Pn	Pn	13 30 08.8	0.0
FLN				*e*Sn	Sn	13 31 01.9	-3.1
	SNR=1.0						
FLN				*e*Sg	Sg	13 31 27.9	-1.5
	6.3nm,0.5s						
GRR	**Gorron**	5.11	262	*e*Pn	Pn	13 30 13.0	-0.2
GRR				*e*Sn	Sn	13 31 09.4	-3.5
	SNR=1.0						
GRR				*e*Sg	Sg	13 31 37.7	-2.0
	6.8nm,0.4s						
GRR	**Gorron**	5.11	262	*e*Pn	Pn	13 30 13.0	-0.2
GRR				*e*Sn	Sn	13 31 09.4	-3.5
	SNR=1.0						
GRR				*e*Sg	Sg	13 31 37.7	-2.0
	3.4nm,0.4s						
MOA	**Molln**	5.21	104	⇓*i*Pn	Pn	13 30 15.0	+0.5
MOA				⇑*i*Sn	Sn	13 31 12.2	-3.0
MOA	**Molln**	5.21	104	Pn	Pn	13 30 15.0	+0.5
MOA				Sn	Sn	13 31 12.2	-3.0
MFF	**Saint Martin d**	5.38	242	*e*Pn	Pn	13 30 17.0	0.0
MFF				*e*Sg	Sg	13 31 46.5	-1.8
	8.9nm,0.6s						
MFF	**Saint Martin d**	5.38	242	*e*Pn	Pn	13 30 17.0	0.0
RJF	**Les Rejaudoux**	5.39	223	*e*Pn	Pn	13 30 16.9	-0.1
RJF				*e*Sg	Sg	13 31 46.6	-1.8
	8.7nm,0.6s						
RJF	**Les Rejaudoux**	5.39	223	*e*Pn	Pn	13 30 16.9	-0.1
CAF	**Calviac**	5.46	218	*e*Pn	Pn	13 30 17.9	-0.1
CAF				*e*Sn	Sn	13 31 18.1	-3.3
	3.6nm,0.3s						
CAF	**Calviac**	5.46	218	*e*Pn	Pn	13 30 17.9	-0.1
SGMF	**Saint Gilles**	6.25	263	*e*Pn	Pn	13 30 28.6	-0.2
SGMF				*e*Sn	Sn	13 31 36.7	-4.2
	2.6nm,0.4s						
SGMF	**Saint Gilles**	6.25	263	*e*Pn	Pn	13 30 28.6	-0.2
QUIF	**Quistinic**	6.73	261	*e*Pn	Pn	13 30 34.9	-0.5
QUIF				*e*Sn	Sn	13 31 47.8	-4.9
	2.2nm,0.3s						
QUIF	**Quistinic**	6.73	261	*e*Pn	Pn	13 30 34.9	-0.5

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*ISCJB **18** 13:34:35.9±1.2, 32°.8N±0°.1×95°.4E±0°.2, h10^{km}, mb3.4/4, MS3.9/2, Error ellipse: s-maj=21.5km s-min=18.5km az=1.2*
*BJI **18** 13:34:35.0, 32°.90N×95°.23E, h8^{km}, ML3.6/3*
*IDC **18** 13:34:36.2±1.3, 32°.85N×95°.55E, h0^{km}, mb3.3/4, mb1 3.5/6, mb1mx3.3/24, mbtmp3.4/6, ML3.3/2, MS3.9/2, Ms1 3.9/2, ms1mx2.7/35, Error ellipse: s-maj=51.6km s-min=23.7km az=63.0*
ISC 18 13:34:37.8±1.2**, 32°.8N**±0°.1×**95°.3E**±0°.2**, h10^{km}, n10, σ1^{s}.25**/8**, mb3.4**/4**, MS3.9**/2**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	4.75	230	Pg	Pn	13 35 57.4	+7.9
GTA	**Gaotai**	7.50	28	*e*P	Pn	13 36 28.5	+1.3

GTA				pP		13 36 34.4	
GTA				sP		13 36 37.9	
GTA				pmax	pmax		
	comp=Z,2.0nm,1.2s						
MKAR	Makanchi Array	17.14	328	P	Pn	13 38 36.4	-0.9
	comp=Z,0.1nm,0.3s,baz=133,slow=14,SNR=5.7						
SONM	Songino Array	17.17	26	P	Pn	13 38 36.4	-1.2
	comp=Z,0.1nm,0.3s,baz=210,slow=14,SNR=7.7						
KURK	Kurchatov	21.70	330	P	P	13 39 27.4	-1.3
	comp=Z,1.2nm,0.7s,mb3.5,baz=136,slow=11,SNR=4.9						
ZALV	Zalesovo Beam	22.40	344	P	P	13 39 37.8	+1.6
	comp=Z,0.2nm,0.4s,mb2.9,baz=150,slow=15,SNR=2.6						
MJAR	Matsushiro Arr	35.24	72	LR	LR	13 56 00.7	
	comp=Z,149nm,18.5s,MS3.8,baz=135,slow=37						
DAVOX	Davos/Dischmat	64.04	310	LR	LR	14 14 59.8	
	comp=Z,116nm,18.5s,MS4.1,baz=77,slow=38						
ASAR	Alice Springs	67.16	142	P	P	13 45 31.2	-0.7
	comp=Z,0.2nm,0.5s,mb3.4,baz=326,slow=6.6,SNR=7.6						
TORD	Torodi Ar. Bea	86.00	283	P	P	13 47 20.3	+1.4
	comp=Z,0.5nm,1.0s,mb3.7,baz=46,slow=4.2,SNR=2.1						

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*NEIC **18** 13:49:48.0, 15°.31N×93°.38W, h87km, MD3.9(MEX), After MEX.*

MEX 18 13:49:47.9±0.8**, 15°.30N×93°.40W, h86**km±9km**, MD3.9, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		0.44	23	iP	Pn	13 50 00.5	-1.4
PCIG				iS	Sn	13 50 10.6	-1.6
THIG		1.16	109	eP	Pn	13 50 07.9	-1.3
THIG				iS	Sn	13 50 23.3	-1.9
TGIG		1.50	10	iP	Pn	13 50 12.5	-1.0
TGIG				iS	Sn	13 50 31.1	-1.7
CCIG	Comitan	1.56	51	iP	Pn	13 50 14.0	-0.2
CCIG				iS	Sn	13 50 30.9	-3.3
SCX	San Cristobal	1.61	27	eP	Pn	13 50 13.1	-1.8
SCX				iS	Sn	13 50 32.2	-3.1
CMIG	Matias Romero	2.29	322	iP	Pn	13 50 23.7	-0.1
CMIG				iS	Sn	13 50 49.3	-2.0
HUIG	Huatulco	2.66	281	eP	Pn	13 50 28.6	-0.1
HUIG				iS	Sn	13 50 56.4	-3.8
VHO	Vista Hermosa	3.66	299	eP	Pn	13 50 42.0	-0.3
VHO				iS	Sn	13 51 21.6	-2.9
VHO	Vista Hermosa	3.66	299	eP	Pn	13 50 42.8	+0.5
VHO				iS	Sn	13 51 21.6	-2.9
PNIG	Pinotepa	4.68	284	eP	Pn	13 50 55.2	-1.0
PNIG				iS	Sn	13 51 48.6	-0.7
PNIG	Pinotepa	4.68	284	eP	Pn	13 50 55.2	-1.0
PNIG				iS	Sn	13 51 43.1	-6.2
UTMO	Huajuapan	4.92	301	eP	Pn	13 51 04.1	+4.7
UTMO				iS	Sn	13 51 57.1	+2.0

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*NIED **18** 13:50:00, 28°.90N×142°.40E, h20km, Mw4.4 Best double couple: $M_0$4.72000×10^{15} NP1:ϕ_s316.00000°, δ82.00000°, λ91.00000°. NP2:ϕ_s132.00000°, δ8.00000°, λ86.00000°.*

*NEIC **18** 13:50:56.5±4.4, 28°.81N×142°.56E, h8km±26km, mb4.6/8, MW4.4(NIED), Error ellipse: s-maj=12.0km s-min=7.3km az=87.0*

*ISCJB **18** 13:50:56.1±1.3, 28°.95N±0°.03×142°.53E±0°.08, h15km±9km, mb4.5/39, MS3.6/6, Error ellipse: s-maj=12.2km s-min=4.0km az=173.7*

*BJI **18** 13:50:56.5, 28°.80N×142°.60E, h28km, mB4.7/11, mb4.4/16, Ms4.6/3, Ms7 4.4/3*

*JMA **18** 13:50:58.3±0.2, 28°.88N×142°.43E, h44km, M4.3*

*MOS **18** 13:50:58.3±0.9, 28°.84N×142°.56E, h36km, mb4.6/19, Error ellipse: s-maj=18.8km s-min=7.5km az=123.2*

*IDC **18** 13:51:01.2±0.7, 28°.81N×142°.50E, h41km±6km, mb3.8/15, mb1 4.0/17, mb1mx4.0/23, mbtmp3.8/17, ML3.7/2, MS3.5/7, Ms1 3.6/7, ms1mx3.2/35, Error ellipse: s-maj=18.4km s-min=13.5km az=82.0*

ISC 18 13:50:58.9±1.3**, 28°.91N**±0°.02×**142°.56E**±0°.08**, h23**km±9km**, h41**km±2.2km**: pP-P, n99, σ1ˢ11**/115**, mb4.5**/39**, MS3.6**/6**, 1C-1D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.84	190	P	Pn	13 51 27.8	-1.3
CBIJ				eS	Sn	13 51 49.1	-2.5
CBIJ	Chichi jima	1.84	190	P	Pn	13 51 27.9	-1.2
	64nm,0.3s,baz=80,slow=22,SNR=7.7						
CBIJ				S	Sn	13 51 48.2	-3.4
	141nm,0.3s,baz=98,slow=23,SNR=17						
JHHJ	Haha-jima-NKT	2.30	189	P	Pn	13 51 34.4	-1.0
JHHJ				eS	Sn	13 52 00.6	-2.3
BSO1	Boso 1	5.88	347	P	Pn	13 52 23.7	-1.0
BSO1				eS	Sn	13 53 29.6	-1.8
BSO2	Boso 2	6.02	346	eS	Sn	13 53 34.9	+0.1
BSO3	Boso 3	6.13	344	P	Pn	13 52 27.8	-0.2
BSO3				eS	Sn	13 53 37.8	+0.4
BSO4	Boso 4	6.35	343	P	Pn	13 52 33.1	+2.0
BSO4				eS	Sn	13 53 40.9	-1.9
JIM2	Oshima 3	6.37	336	P	Pn	13 52 32.0	+0.6
JIM2				eS	Sn	13 53 44.3	+0.9
KTJJ	Kamata 2	6.69	335	P	Pn	13 52 37.5	+1.7
JOD2	Odawara 2	6.99	336	P	Pn	13 52 40.9	+1.1
JOD2				eS	Sn	13 53 58.0	-0.5
JYN	Shimob	7.40	334	P	Pn	13 52 48.1	+2.7
JHU	Hanno	7.46	339	P	Pn	13 52 46.0	-0.3
JHU				eS	Sn	13 54 07.2	-2.9
JYT	Yasato	7.56	345	P	Pn	13 52 47.7	-0.1
JYT				eS	Sn	13 54 10.3	-2.5
JRY	Ryogami san	7.73	337	P	Pn	13 52 50.7	+0.7
JRY				eS	Sn	13 54 16.2	-0.6
JHO	Hitachi	7.86	348	P	Pn	13 52 50.5	-1.3
JHO				eS	Sn	13 54 15.7	-4.3
JAG	Ashikaga	7.94	342	P	Pn	13 52 51.5	-1.4
JAG				eS	Sn	13 54 18.4	-3.5
JKT	Katashina	8.31	341	eS	Sn	13 54 28.1	-3.1
JNG	Nsakai	8.37	334	P	Pn	13 53 01.1	+2.3
MJAR	Matsushiro Arr	8.45	335	P	Pn	13 53 00.1	+0.3
MJAR				S	Sn	13 54 33.5	-0.9
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	8.45	335	P	Pn	13 53 00.1	+0.2
	comp=N,2.5nm,0.3s,baz=163,slow=12,SNR=16						
MJAR				S	Sn	13 54 33.5	-0.9
	comp=N,0.5nm,0.3s,baz=163,slow=18,SNR=3.0						
MAJO	Matsushiro	8.45	335	eP	Pn	13 53 00.3	+0.4
MAJO				pmax	pmax		
	comp=Z,18nm,0.8s						
MAJO	Matsushiro	8.45	335	ePn	Pn	13 53 00.3	+0.5
	comp=Z,18nm,0.8s						
MAT	Matsushiro	8.45	335	P	Pn	13 52 59.6	-0.3
MAT				S	Sn	13 54 32.4	-2.1
MAT	Matsushiro	8.45	335	P	Pn	13 53 00.4	+0.5
JFK	Kawauchi	8.55	351	P	Pn	13 52 59.3	-2.0
JFK				eS	Sn	13 54 29.8	-7.2
JOW	Kunigami	12.81	264	LR	LR	13 58 30.4	
	comp=Z,207nm,19.0s,baz=141,slow=35						
KSRS	Korea Array	14.91	309	P	Pn	13 54 28.6	+0.3
	comp=Z,0.1nm,0.3s,baz=209,slow=27,SNR=2.8						
KSRS				LR	LR	14 00 06.5	
	comp=Z,152nm,18.7s,baz=150,slow=36						
GUMO	Guam	15.39	172	LR	LR	13 58 48.2	
	comp=Z,75nm,18.6s,baz=326,slow=30						
YSS	Yuzh-Sakhalins	18.02	0	eP	Pn	13 55 04.7	-3.0
MDJ	Mudanjiang	18.77	330	P	Pn	13 55 17.4	+0.5
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.2s						
MDJ				pmax	pmax		
	comp=Z,120nm,5.3s						
SSLB	Suanglung	20.01	260	ePn	P	13 55 32.3	+2.2
	comp=Z,40nm,0.9s						
HABR	Khabarovsk	20.38	346	eP	P	13 55 40.2	+6.4
HABR				e		13 55 49.2	
HABR				eS	S	13 59 20.4	-0.5
HABR				eSS		13 59 41.2	
HABR				MLR	MLR		
	comp=Z,100nm,15.0s,MS3.3						
KLR	Kul'dur	21.92	341	eP	P	13 55 46.2	-4.2
HIA	Hailar	26.78	326	eP	P	13 56 38.5	+1.6
HIA				pmax	pmax		
	comp=Z,21nm,1.2s						
HIA	Hailar	26.78	326	eP	P	13 56 38.5	+1.6
	comp=Z,21nm,1.2s,mb4.5						
ULN	Ulaanbaatar	33.26	315	eP	P	13 57 35.3	+0.9
ULN				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
ULN	Ulaanbaatar	33.26	315	eP	P	13 57 35.3	+1.0
	comp=Z,9.1nm,1.2s,mb4.6						
SONM	Songino Array	33.66	314	P	P	13 57 38.7	+0.8
SONM				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,93nm,18.2s						
SONM	Songino Array	33.66	314	P	P	13 57 38.7	+0.8
	comp=Z,3.0nm,0.9s,mb4.2,baz=118,slow=8.7,SNR=16						
SONM				LR	LR	14 12 08.8	
	comp=Z,93nm,18.2s,MS3.5,baz=181,slow=38						
BOD	Bodaibo	35.08	334	eP	P	13 57 50.0	+0.1
ZAK	Zakamensk	36.49	317	⇑iP	P	13 58 03.4	+1.2
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
TLY	Talaya	36.77	319	eP	P	13 58 06.4	+1.9
TLY				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.6						
TLY				MLR	MLR		
	comp=Z,129nm,19.0s,MS3.7						
TLY	Talaya	36.77	319	eP	P	13 58 05.9	+1.4
	comp=Z,13nm,1.3s,mb4.6						
MOY	Mondy	38.30	318	eP	P	13 58 19.0	+1.5
MOY				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.6						
CMAR	Chiang Mai Arr	41.08	265	P	P	13 58 40.0	-1.0
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR				MLR	MLR		
	comp=Z,84nm,18.4s						
CMAR	Chiang Mai Arr	41.08	265	P	P	13 58 40.0	-1.0
	comp=Z,0.7nm,0.7s,mb3.4,baz=61,slow=7.2,SNR=6.3						
CMAR				LR	LR	14 16 52.9	
	comp=Z,84nm,18.4s,MS3.6,baz=146,slow=38						
BILL	Bilibino	41.62	13	⇓eP	P	13 58 44.9	+0.1
BILL				e		14 00 25.2	
BILL				eS	S	14 05 00.8	+1.3
BILL				pmax	pmax		
	comp=Z,12nm,2.5s,mb4.1						
HNR	Honiara	41.65	154	LR	LR	14 14 30.4	
	comp=Z,102nm,19.6s,MS3.7,baz=83,slow=34						
TAPN	Taplejung	48.03	282	eP	P	13 59 36.6	+0.1
ZALV	Zalesovo Beam	48.35	318	P	P	13 59 39.2	+0.6
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
ZALV				MLR	MLR		
	comp=Z,61nm,18.1s,MS3.6						
ZALV	Zalesovo Beam	48.35	318	P	P	13 59 39.2	+0.6
	comp=Z,1.6nm,0.3s,mb4.5,baz=89,slow=8.7,SNR=13						
ZALV				LR	LR	14 20 39.8	
	comp=Z,61nm,18.1s,MS3.6,baz=138,slow=37						
ODAN	Odare	48.44	281	eP	P	13 59 39.3	-0.3
	comp=Z,6.7nm,0.4s,mb5.0						
WRAB	Tennant Creek	49.20	190	eP	P	13 59 44.2	-1.2
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
WRAB	Tennant Creek	49.20	190	eP	P	13 59 44.2	-1.2
	comp=Z,12nm,0.8s,mb5.0						
WB2	Warramunga Arr	49.21	190	eP	P	13 59 44.4	-1.1
WRA	Warramunga Arr	49.21	190	P	P	13 59 44.7	-0.8
WRA				pmax	pmax		
	comp=Z,12nm,0.7s						
WRA	Warramunga Arr	49.21	190	P	P	13 59 44.7	-0.8
	comp=Z,12nm,0.7s,mb5.0,baz=8.8,slow=8.7,SNR=51						
JIRN	Jiri	49.25	283	eP	P	13 59 45.8	-0.1
GUN	Gumba	49.45	283	eP	P	13 59 47.5	+0.1
	comp=Z,27nm,1.0s,mb5.2						
MK31	Makanchi Array	49.59	308	iP	P	13 59 48.3	+0.1
MK31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
MKAR	Makanchi Array	49.59	308	P	P	13 59 48.9	+0.7
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	49.59	308	P	P	13 59 48.9	+0.6
	comp=Z,1.7nm,0.7s,mb4.2,baz=88,slow=9.6,SNR=12						
PKI	Pulchoki	49.94	283	eP	P	13 59 51.0	-0.1
KKN	Kakani	49.99	283	eP	P	13 59 51.0	-0.5
DMN	Daman	50.19	283	eP	P	13 59 52.8	-0.2
GKN	Gorkha	50.48	284	eP	P	13 59 54.9	-0.3
DANN	Dangsing	51.13	284	eP	P	14 00 00.4	+0.2
	comp=Z,37nm,0.9s,mb5.3						
KOLN	Koldanda	51.43	284	eP	P	14 00 02.4	0.0
	comp=Z,34nm,1.1s,mb5.2						
KURK	Kurchatov	51.97	314	eP	P	14 00 06.3	+0.3
KURK				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
KURK	Kurchatov	51.97	314	eP	P	14 00 06.3	+0.2
	comp=Z,17nm,1.0s,mb4.9						
ASAR	Alice Springs	52.93	190	P	P	14 00 12.0	-1.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	52.93	190	P	P	14 00 12.0	-1.4
	comp=Z,0.8nm,0.7s,mb3.8,baz=6.4,slow=6.7,SNR=13						
KSH	Kashi	54.95	300	eP	P	14 00 32.0	+3.9
KSH				epP	pP	14 00 42.1	+6.7
KSH				esP	sP	14 00 46.0	+7.8
KSH				ePcP	PcP	14 01 32.1	+2.3
KSH				ePP	PP	14 02 37.0	+5.9
KSH				eScP	ScP	14 05 26.4	-0.7
KSH				ePcS	PcS	14 05 30.4	+0.8
KSH				eS	S	14 08 12.8	+4.2
KSH				esS	sS	14 08 29.4	+8.8
KSH				eScS	ScS	14 10 15.3	-0.7
KSH				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
KSH				pmax	pmax		
	comp=Z,82nm,3.5s						
KSH				LR	LR		
	comp=N,250nm,5.0s						
KSH				LR	LR		
	comp=E,240nm,5.1s						
KSH				LR	LR		
	comp=Z,200nm,5.9s						
AAK	Ala-Archa	55.51	304	eP	P	14 00 32.0	-0.1
AML	Almayashu	56.18	303	eP	P	14 00 38.2	+1.2
	comp=Z,2.8nm,0.8s,mb4.3						
VOSK	Vostochnaya	56.62	316	P	P	14 00 40.0	+0.2
VOSK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
BVAR	Borovoye Array	56.95	317	P	P	14 00 42.4	+0.2
BVAR				*PP	pP	14 00 54.7	+5.2
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BVAR	Borovoye Array	56.95	317	P	P	14 00 42.4	+0.2
	comp=Z,2.0nm,0.5s,mb4.5,baz=87,slow=8.9,SNR=16						
BVAR				pP	pP	14 00 54.7	+5.2
	comp=Z,1.7nm,0.6s,baz=95,slow=6.4,SNR=4.0						
BRVK	Borovoye	57.01	317	P	P	14 00 43.0	+0.4
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
BRVK	Borovoye	57.01	317	P	P	14 00 43.0	+0.4
	comp=Z,3.7nm,0.7s,mb4.5						
KK31	Karatay Array	58.31	305	iP	P	14 00 52.4	+0.5
KK31				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
STKA	Stephens Creek	60.46	181	P	P	14 01 06.8	+0.1
	comp=Z,1.2nm,0.8s,mb4.0,baz=354,slow=10,SNR=3.1						
AKTO	Aktyubinsk	64.97	315	P	P	14 01 36.7	-0.1
AKTO				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.7						
YKA	Yellowknife Ar	70.40	29	P	P	14 02 10.9	+0.2
YKA				*PP	pP	14 02 23.5	+5.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	Yellowknife Ar	70.40	29	P	P	14 02 10.9	+0.2
	comp=Z,0.9nm,0.6s,mb3.9,baz=294,slow=6.4,SNR=14						
YKA				pP	pP	14 02 23.5	+5.3
	comp=Z,1.5nm,0.9s,baz=293,slow=6.0,SNR=7.3						
KIV	Kislovodsk	77.05	313	eP	P	14 02 49.6	-0.6
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
NVAR	Mina Array Bea	79.14	52	P	P	14 03 02.4	+0.5
	comp=Z,0.5nm,0.7s,mb3.6,baz=281,slow=5.4,SNR=6.4						
NVAR				pP	pP	14 03 15.2	+5.8
	comp=Z,0.9nm,0.7s,baz=273,slow=5.9,SNR=5.2						
MIB	Mutribah	80.30	299	eP	P	14 03 08.9	+0.6
MIB				AMb	AMB	14 03 09.7	
	comp=Z,29nm,1.0s,mb5.2						
KBD	Kabd	80.32	298	eP	P	14 03 09.1	+0.7
KBD				AMb	AMB	14 03 09.6	
	comp=Z,10nm,0.4s,mb5.1						
RDF	Al-Radifah	80.54	298	eP	P	14 03 10.3	+0.7
RDF				AMb	AMB	14 03 12.4	
	comp=Z,45nm,0.9s,mb5.4						
NAY	Al-Naaiem	80.63	298	eP	P	14 03 10.7	+0.6
NAY				AMb	AMB	14 03 12.8	
	comp=Z,35nm,1.1s,mb5.2						
AKASG	Malin Array Be	81.36	324	P	P	14 03 12.6	-0.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	81.36	324	P	P	14 03 12.6	-0.9
	comp=Z,0.6nm,0.4s,mb3.8,baz=51,slow=5.4,SNR=1.8						
NOA	NORSAR Array B	82.05	338	P	P	14 03 16.7	-0.3
	comp=Z,0.4nm,0.5s,mb3.6,baz=60,slow=6.3,SNR=2.9						
PDAR	Pinedale Array	82.70	45	P	P	14 03 21.2	+0.5
	comp=Z,0.6nm,0.9s,mb3.6,baz=285,slow=2.9,SNR=4.2						
BRTR	Keskin Array B	85.02	313	P	P	14 03 33.8	+1.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	85.02	313	P	P	14 03 33.8	+1.1
	comp=Z,1.4nm,0.8s,mb4.2,baz=108,slow=4.7,SNR=5.2						
TXAR	Lajitas Array	94.26	53	P	P	14 04 18.7	+2.1
	comp=Z,0.3nm,0.6s,mb3.9,baz=316,slow=11,SNR=3.9						
PMSA	Palmer Station	140.40	162	PKPdf	PKPdf	14 10 26.0	+0.7

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*ISCJB **18** 13:53:31.5±0.7, 37°.97N±0°.03×20°.54E±0°.05, h10km, Error ellipse: s-maj=6.2km s-min=3.3km az=156.2*

*CSEM **18** 13:53:31.0±0.3, 37°.96N×20°.58E, h2km, ML3.2, Error ellipse: s-maj=5.9km s-min=3.4km az=55.0*

*NEIC **18** 13:53:31.6, 38°.03N×20°.65E, h17km, ML3.2(ATH), After ATH.*

*THE **18** 13:53:31.9, 37°.98N×20°.63E, h0km±1km, ML3.6/6, Error ellipse: s-maj=2.0km s-min=0.9km az=232.0*

*ATH **18** 13:53:31.6, 38°.03N×20°.65E, h17km±1km, MD3.5/13, ML3.2*

ISC 18 13:53:31.8±0.7**, 37°.94N**±0°.03×**20°.54E**±0°.05**, h10**km**, n66, σ0ˢ98**/98**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.24	10	P	Pg	13 53 36.2	-0.5
VLS				S	Sg	13 53 39.2	-0.8
VLS	Valsamata	0.24	10	ePB	Pg	13 53 36.2	-0.5
VLS	Valsamata	0.24	10	P	Pg	13 53 36.2	-0.5
VLS				S	Sg	13 53 39.2	-0.8
RLS	Riolos of Patr	0.74	81	ePN	Pg	13 53 44.3	-1.9
RLS	Riolos of Patr	0.74	81	ePn	Pg	13 53 44.3	-1.9
LAKA	Lakka	1.18	75	P	Pb	13 53 51.9	-2.3
LAKA				S	Sb	13 54 08.7	-0.8
LAKA	Lakka	1.18	75	P	Pb	13 53 51.9	-2.3
EFP	Efpalio	1.18	65	ePN	Pn	13 53 51.7	-2.7
TRIZ	Trizonia	1.28	70	P	Pn	13 53 53.4	-2.4
TRIZ				S	Sb	13 54 11.6	-0.9
TRIZ	Trizonia	1.28	70	P	Pn	13 53 53.4	-2.4
TRIZ				S	Sb	13 54 11.6	-0.9
ITM	Ithomi	1.34	124	ePN	Pn	13 53 56.6	0.0
ITM				eSN	Sn	13 54 15.0	+0.6
ITM	Ithomi	1.34	124	ePn	Pn	13 53 56.6	0.0
ITM				eSn	Sn	13 54 15.0	+0.6
PYL	PYLOS	1.42	137	P	Pn	13 53 58.3	+0.7
PYL				S	Sn	13 54 18.1	+1.8
PYL	PYLOS	1.42	137	ePN	Pn	13 53 58.0	+0.4
PYL				eSN	Sn	13 54 18.0	+1.7
PYL	PYLOS	1.42	137	ePn	Pn	13 53 58.0	+0.4
PYL				eSn	Sn	13 54 18.0	+1.7
GUR	Goura	1.43	90	ePN	Pn	13 53 56.3	-1.5
GUR	Goura	1.43	90	ePn	Pn	13 53 56.3	-1.5
VLX	Vlachokerasia	1.57	111	ePN	Pn	13 54 00.8	+1.1
VLX	Vlachokerasia	1.57	111	ePn	Pn	13 54 00.8	+1.1
IGT	Igoumenitsa	1.60	354	P	Pn	13 53 59.3	-0.8
IGT				S	Sn	13 54 21.8	+1.1
IGT	Igoumenitsa	1.60	354	P	Pn	13 53 59.3	-0.8
IGT				S	Sn	13 54 21.8	+1.1
JAN	Janina	1.73	8	ePN	Pn	13 54 01.5	-0.4
JAN	Janina	1.73	8	ePn	Pn	13 54 01.5	-0.4
AGG	Agios Georgios	1.77	52	P	Pn	13 54 02.0	-0.5
AGG				S	Sn	13 54 25.9	+0.8
AGG	Agios Georgios	1.77	52	ePN	Pn	13 54 02.8	+0.3
AGG	Agios Georgios	1.77	52	ePn	Pn	13 54 02.8	+0.3
AGG				S	Sn	13 54 25.9	+0.8
KEK	Kerkira	1.86	342	ePN	Pn	13 54 03.9	+0.2
KEK	Kerkira	1.86	342	ePn	Pn	13 54 03.9	+0.2
MEV	Metsovon	1.92	16	P	Pn	13 54 04.6	+0.1
MEV				S	Sn	13 54 30.6	+1.9
MEV	Metsovon	1.92	16	P	Pn	13 54 04.6	+0.1
MEV				S	Sn	13 54 30.6	+1.9
LTK	Loutraki	1.92	87	P	Pn	13 54 04.4	-0.2
LTK				S	Sn	13 54 29.7	+0.9
LTK	Loutraki	1.92	87	ePN	Pn	13 54 04.3	-0.3
LTK	Loutraki	1.92	87	ePn	Pn	13 54 04.3	-0.3
LTK				S	Sn	13 54 29.7	+0.9
THL	Klokotos Trika	1.99	35	P	Pn	13 54 05.6	+0.1
THL				S	Sn	13 54 31.9	+1.5
THL	Klokotos Trika	1.99	35	ePN	Pn	13 54 05.6	+0.1
THL	Klokotos Trika	1.99	35	ePn	Pn	13 54 05.6	+0.1
THL				S	Sn	13 54 31.9	+1.5
LKR	Lokris	2.06	69	P	Pn	13 54 06.3	-0.2
LKR				S	Sn	13 54 32.5	+0.3
LKR	Lokris	2.06	69	ePN	Pn	13 54 06.2	-0.3
LKR	Lokris	2.06	69	ePn	Pn	13 54 06.2	-0.3
LKR				S	Sn	13 54 32.5	+0.3
NAIG	Nisos Aigina	2.34	94	ePN	Pn	13 54 10.9	+0.5
NAIG	Nisos Aigina	2.34	94	ePn	Pn	13 54 10.9	+0.5
ATH	Athens Observa	2.51	88	ePB	Pn	13 54 12.7	0.0
XOR	Xorichti	2.52	55	P	Pn	13 54 13.0	+0.2
XOR				S	Sn	13 54 44.4	+0.9
XOR	Xorichti	2.52	55	P	Pn	13 54 13.0	+0.2
XOR				S	Sn	13 54 44.4	+0.9
KZN	Kozani	2.55	22	ePB	Pn	13 54 12.6	-0.6
ATHU	Athens Univers	2.57	88	P	Pn	13 54 13.2	-0.2
ATHU				S	Sn	13 54 44.8	+0.1
ATHU	Athens Univers	2.57	88	P	Pn	13 54 13.2	-0.2
ATHU				S	Sn	13 54 44.8	+0.1
KYTH	Kithira	2.60	129	ePB	Pn	13 54 16.7	+2.9
PTL	Penteli	2.63	87	ePN	Pn	13 54 13.9	-0.4
PTL	Penteli	2.63	87	ePn	Pn	13 54 13.9	-0.4
LIT	Litokhoron	2.64	35	P	Pn	13 54 13.8	-0.6
LIT				S	Sn	13 54 47.3	+0.9
LIT	Litokhoron	2.64	35	ePN	Pn	13 54 13.6	-0.8
LIT	Litokhoron	2.64	35	ePn	Pn	13 54 13.6	-0.8
LIT				S	Sn	13 54 47.3	+0.9
FNA	Florina	2.91	13	P	Pn	13 54 18.1	-0.1
FNA				S	Sn	13 54 54.1	+0.9
FNA	Florina	2.91	13	P	Pn	13 54 18.1	-0.1
FNA				S	Sn	13 54 54.1	+0.9
PLG	Polygyros	3.32	42	P	Pn	13 54 23.2	-0.5
PLG				S	Sn	13 55 04.2	+1.0
PLG	Polygyros	3.32	42	ePN	Pn	13 54 22.8	-0.9
PLG	Polygyros	3.32	42	ePn	Pn	13 54 22.8	-0.9
PLG				S	Sn	13 55 04.2	+1.0
GRG	Griva	3.34	25	P	Pn	13 54 24.2	+0.2
GRG	Griva	3.34	25	P	Pn	13 54 24.2	+0.2
SOH	Sokhos	3.61	36	ePN	Pn	13 54 27.1	-0.7
SOH	Sokhos	3.61	36	ePn	Pn	13 54 27.1	-0.7
NVR	Nevrokopi	4.26	36	ePN	Pn	13 54 36.4	-0.3
NVR	Nevrokopi	4.26	36	ePn	Pn	13 54 36.4	-0.3
CHOS	Chios island	4.37	82	ePN	Pn	13 54 38.4	+0.2
CHOS	Chios island	4.37	82	ePn	Pn	13 54 38.4	+0.2

IDC 18 13:59:45.7±38.0**, 23°.20S**×**176°.18W, h373**km±122km**, mb3.9**/4**, mb1 4.0**/4**, mb1mx3.5**/17**, mbtmp3.9**/4**, Error ellipse: s-maj=501.8km s-min=89.9km az=78.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RMQ	Roma	31.92	257	eP	P	14 05 37.5	-0.7
	7.6nm,0.6s						
CMSA	Cobar Meteorol	34.72	248	eP	P	14 06 01.2	-0.9
CTA	Charters Tower	34.99	268	eP	P	14 06 04.7	+0.2
	13nm,0.3s						
CTA	Charters Tower	34.99	268	P	P	14 06 04.8	+0.2
	14nm,0.3s,baz=99,slow=11,SNR=35						
STKA	Stephens Creek	38.23	248	eP	P	14 06 31.0	-0.4
	2.2nm,0.7s						
STKA	Stephens Creek	38.23	248	P	P	14 06 30.8	-0.6
	1.9nm,0.4s,baz=99,slow=10.0,SNR=16						
BBOO	Buckleboo	42.93	246	eP	P	14 07 08.7	-0.8
	4.6nm,0.4s						

ASAR	Alice Springs	45.60	259	P	P	14 07 30.6	+0.1
	2.0nm,0.4s,baz=94,slow=7.3,SNR=52						
ASAR				ScP	ScP	14 12 17.9	-0.5
	0.6nm,0.9s,baz=100,slow=4.0,SNR=5.2						
WRA	Warramunga Arr	45.95	264	P	P	14 07 33.2	0.0
	4.7nm,0.4s,baz=97,slow=8.3,SNR=186						
KNA	Kununurra	52.18	268	eP	P	14 08 21.7	+1.7
	3.8nm,0.3s						
FITZ	Fitzroy Crossi	54.38	264	eP	P	14 08 37.7	+1.9
	7.7nm,0.6s						

HLW **18** *14:03:38.9, 35.°22N×23.°35E, h26km, Mb4.8*

MOS **18** *14:03:38.7±1.3, 34.°99N×23.°25E, h33km, mb4.5/33, Error ellipse: s-maj=6.9km s-min=3.7km az=96.4*

ISCJB **18** *14:03:39.4±0.3, 35.°02N±0.°02×23.°30E±0.°03, h43km±3km, mb4.5/47, MS3.6/6, Error ellipse: s-maj=4.0km s-min=2.7km az=140.0*

BJI **18** *14:03:40.8, 35.°21N×23.°01E, h65km, mB4.9/2, mb4.6/10, Ms4.9/1, Ms7 4.6/1*

CSEM **18** *14:03:41.7±0.1, 35.°02N×23.°23E, h47km±1km, mb4.4/29, Error ellipse: s-maj=4.0km s-min=2.6km az=45.0*

NEIC **18** *14:03:43.3±0.5, 35.°16N×23.°23E, h58km±4km, mb4.1/25, Error ellipse: s-maj=6.8km s-min=3.9km az=200.0*

THE **18** *14:03:43.1, 35.°17N×23.°17E, h73km±3km, ML4.5/9, Error ellipse: s-maj=3.2km s-min=0.6km az=108.0*

ATH **18** *14:03:43.0, 35.°24N×23.°38E, h85km±5km, ML3.9*

IDC **18** *14:03:44.4±1.1, 35.°25N×23.°14E, h67km±9km, mb4.0/16, mb1 4.0/21, mb1mx3.9/31, mbtmp4.0/21, MS3.5/10, Ms1 3.5/10, ms1mx3.2/40, Error ellipse: s-maj=15.4km s-min=9.2km az=6.0*

GII **18** *14:03:49.3±0.0, 34.°65N×24.°31E, h1km, Mb4.3/6, Md4.1/6*

SOF **18** *14:04:10.1, 37.°46N×23.°61E, h2km, MD3.1*

ISC 18 14:03:41.6±0.3**, 35.°04N**±0.°02×**23.°25E**±0.°02**, h45**km±3km**,**
n429, σ1.s18/478**, mb4.5**/47**, MS3.6**/6**, 11C-20D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARN	Karanos	0.66	56	P	Pn	14 03 56.2	+1.6
KARN				S	Sn	14 04 08.4	+4.5
KARN	Karanos	0.66	56	P	Pn	14 03 56.2	+1.6
VAM	Vamos	0.86	64	eP	Pn	14 03 59.2	+1.9
VAM	Vamos	0.86	64	eP	Pn	14 03 59.2	+1.9
KYTH	Kithira	1.25	352	⇑iP	Pn	14 04 04.0	+1.3
KYTH	Kithira	1.25	352	⇑iP	Pn	14 04 04.0	+1.3
SIVA	Sivas	1.28	90	P	Pn	14 04 05.4	+2.4
SIVA				S	Sn	14 04 24.2	+5.2
SIVA	Sivas	1.28	90	P	Pn	14 04 05.4	+2.4
IDI	Anoyia	1.37	79	⇓iP	Pn	14 04 06.6	+2.4
IDI	Anoyia	1.37	79	P	Pn	14 04 06.6	+2.3
	65nm,0.3s,baz=276,slow=15,SNR=99						
IDI				S	Sn	14 04 26.9	+5.7
	125nm,0.3s,baz=320,slow=20,SNR=18						
IDI				LR	LR	14 04 46.3	
	comp=Z,2μm,19.5s,baz=5.3,slow=43						
IDI	Anoyia	1.37	79	⇓iP	Pn	14 04 06.6	+2.4
VLI	Veliai	1.70	352	eP	Pn	14 04 10.5	+1.7
VLI	Veliai	1.70	352	eP	Pn	14 04 10.5	+1.7
LAST	Lasithi	1.83	85	P	Pn	14 04 13.7	+3.1
LAST				S	Sn	14 04 36.4	+3.8
LAST	Lasithi	1.83	85	P	Pn	14 04 13.7	+3.1
NPS	Neapolis	1.95	83	⇑iP	Pn	14 04 14.5	+2.3
NPS	Neapolis	1.95	83	⇑iP	Pn	14 04 14.5	+2.3
PYL	PYLOS	2.22	327	P	Pn	14 04 15.9	0.0
PYL				S	Sn	14 04 41.9	-0.3
PYL	PYLOS	2.22	327	eP	Pn	14 04 16.4	+0.5
PYL	PYLOS	2.22	327	P	Pn	14 04 15.9	0.0
PYL				S	Sn	14 04 41.9	-0.3
ITM	Ithomi	2.39	334	eP	Pn	14 04 19.6	+1.3
ITM	Ithomi	2.39	334	eP	Pn	14 04 19.6	+1.3
VLX	Vlachokerasia	2.44	343	eP	Pn	14 04 20.9	+2.1
VLX	Vlachokerasia	2.44	343	eP	Pn	14 04 20.9	+2.1
ZKR	Zakros	2.44	87	P	Pn	14 04 21.6	+2.7
ZKR				S	Sn	14 04 52.0	+4.6
ZKR	Zakros	2.44	87	P	Pn	14 04 21.6	+2.7
NAIG	Nisos Aigina	2.73	4	eP	Pn	14 04 24.0	+1.2
NAIG	Nisos Aigina	2.73	4	eP	Pn	14 04 24.0	+1.2
ATH	Athens Observa	2.96	7	eP	Pn	14 04 26.8	+0.8
ATH	Athens Observa	2.96	7	eP	Pn	14 04 26.8	+0.8
ATHU	Athens Univers	2.96	8	P	Pn	14 04 26.7	+0.7
ATHU				S	Sn	14 05 00.2	-0.1
ATHU	Athens Univers	2.96	8	P	Pn	14 04 26.7	+0.7
ATHU				S	Sn	14 05 00.2	-0.1
GUR	Goura	2.99	346	eP	Pn	14 04 27.8	+1.4
GUR	Goura	2.99	346	eP	Pn	14 04 27.8	+1.4
LTK	Loutraki	2.99	356	P	Pn	14 04 27.1	+0.6
LTK				S	Sn	14 05 00.4	-0.7
LTK	Loutraki	2.99	356	eP	Pn	14 04 27.4	+0.9
LTK	Loutraki	2.99	356	P	Pn	14 04 27.1	+0.6
LTK				S	Sn	14 05 00.4	-0.7
LTBQ	Tobruq	3.02	169	iP	Pn	14 04 30.5	+3.6
	SNR=24						
PTL	Penteli	3.05	9	⇓iP	Pn	14 04 28.1	+0.8
PTL	Penteli	3.05	9	⇓iP	Pn	14 04 28.1	+0.8
KARP	Karpathos	3.24	80	eP	Pn	14 04 30.4	+0.5
KARP	Karpathos	3.24	80	eP	Pn	14 04 30.4	+0.5
RLS	Riolos of Patr	3.34	335	eP	Pn	14 04 32.3	+1.0
RLS	Riolos of Patr	3.34	335	eP	Pn	14 04 32.3	+1.0
LAKA	Lakka	3.36	343	P	Pn	14 04 32.3	+0.8
LAKA				S	Sn	14 05 09.1	-1.0
LAKA	Lakka	3.36	343	P	Pn	14 04 32.3	+0.8
LAKA				S	Sn	14 05 09.1	-1.0
TRIZ	Trizonia	3.46	344	P	Pn	14 04 33.7	+0.8
TRIZ				S	Sn	14 05 11.6	-0.9
TRIZ	Trizonia	3.46	344	P	Pn	14 04 33.7	+0.8
TRIZ				S	Sn	14 05 11.6	-0.9
EFP	Efpalio	3.55	343	eP	Pn	14 04 35.3	+1.1
EFP	Efpalio	3.55	343	eP	Pn	14 04 35.3	+1.1
LKR	Lokris	3.62	357	P	Pn	14 04 35.7	+0.7
LKR				S	Sn	14 05 14.8	-1.6
LKR	Lokris	3.62	357	eP	Pn	14 04 35.6	+0.6
LKR	Lokris	3.62	357	eP	Pn	14 04 35.6	+0.6
LKR				S	Sn	14 05 14.8	-1.6
VLS	Valsamata	3.80	326	P	Pn	14 04 36.8	-0.7
VLS				S	Sn	14 05 19.5	-1.4
VLS	Valsamata	3.80	326	P	Pn	14 04 36.8	-0.7
VLS				S	Sn	14 05 19.5	-1.4
SMG	Samos	3.94	46	eP	Pn	14 04 39.6	+0.1
SMG	Samos	3.94	46	eP	Pn	14 04 39.6	+0.1
BDRM	Kayabasi	3.96	58	iP	Pn	14 04 35.9	-3.9
BDRM	Kayabasi	3.96	58	iP	Pn	14 04 35.9	-3.8
CHOS	Chios island	4.03	33	P	Pn	14 04 41.5	+0.7
CHOS				S	Sn	14 05 27.5	+0.7
CHOS	Chios island	4.03	33	eP	Pn	14 04 41.2	+0.4
CHOS	Chios island	4.03	33	P	Pn	14 04 41.5	+0.7
CHOS				S	Sn	14 05 27.5	+0.7
AGG	Agios Georgios	4.05	350	P	Pn	14 04 41.3	+0.3
AGG				S	Sn	14 05 25.4	-1.7
AGG	Agios Georgios	4.05	350	eP	Pn	14 04 41.8	+0.8
AGG	Agios Georgios	4.05	350	P	Pn	14 04 41.3	+0.3
AGG				S	Sn	14 05 25.4	-1.7
ARG	Arkhangelos	4.14	72	eP	Pn	14 04 43.9	+1.6
ARG	Arkhangelos	4.14	72	eP	Pn	14 04 43.9	+1.6
AOS	Alonnisos	4.16	7	P	Pn	14 04 42.6	+0.1
AOS	Alonnisos	4.16	7	P	Pn	14 04 42.6	+0.1
XOR	Xorichti	4.32	359	P	Pn	14 04 45.5	+0.7
XOR				S	Sn	14 05 33.0	-0.9
XOR	Xorichti	4.32	359	P	Pn	14 04 45.5	+0.7
XOR				S	Sn	14 05 33.0	-0.9
THL	Klokotos Trika	4.63	348	P	Pn	14 04 49.1	+0.2
THL				S	Sn	14 05 39.6	-1.8
THL	Klokotos Trika	4.63	348	eP	Pn	14 04 49.0	+0.1
THL	Klokotos Trika	4.63	348	P	Pn	14 04 49.1	+0.2
THL				S	Sn	14 05 39.6	-1.8
SIGR	SIGRI	4.66	26	P	Pn	14 04 49.5	+0.1
SIGR				S	Sn	14 05 43.4	+1.2
SIGR	SIGRI	4.66	26	P	Pn	14 04 49.5	+0.1
SIGR				S	Sn	14 05 43.4	+1.2
LJBD	Adjabya	4.84	213	iP	Pn	14 04 53.4	+1.5
	SNR=23						
PRK	Paraskevi	4.85	29	P	Pn	14 04 52.4	+0.4
PRK	Paraskevi	4.85	29	eP	Pn	14 04 51.7	-0.3
PRK	Paraskevi	4.85	29	P	Pn	14 04 52.4	+0.4
PAIG	Paliouri	4.90	4	P	Pn	14 04 52.5	-0.1
PAIG	Paliouri	4.90	4	P	Pn	14 04 52.5	-0.1
JAN	Janina	4.99	338	eP	Pn	14 04 54.2	+0.2
JAN	Janina	4.99	338	eP	Pn	14 04 54.2	+0.2
MEV	Metsovon	5.01	342	P	Pn	14 04 54.9	+0.8
MEV	Metsovon	5.01	342	P	Pn	14 04 54.9	+0.8
IGT	Igoumenitsa	5.06	333	P	Pn	14 04 54.5	-0.3
IGT				S	Sn	14 05 50.8	-1.1
IGT	Igoumenitsa	5.06	333	P	Pn	14 04 54.5	-0.3
IGT				S	Sn	14 05 50.8	-1.1
AYVA	Ayvalik	5.07	32	iP	Pn	14 04 54.6	-0.5
AYVA	Ayvalik	5.07	32	iP	Pn	14 04 54.6	-0.5
LIA	Limnos Island	5.09	17	P	Pn	14 04 55.0	-0.3
LIA	Limnos Island	5.09	17	eP	Pn	14 04 54.5	-0.8
LIA	Limnos Island	5.09	17	P	Pn	14 04 55.0	-0.3
LIT	Litokhoron	5.09	353	P	Pn	14 04 55.4	+0.1
LIT				S	Sn	14 05 51.6	-1.2
LIT	Litokhoron	5.09	353	eP	Pn	14 04 54.8	-0.5
LIT	Litokhoron	5.09	353	P	Pn	14 04 55.4	+0.1
LIT				S	Sn	14 05 51.6	-1.2
AKAS	Kas	5.31	75	iP	Pn	14 04 59.0	+0.6
AKAS	Kas	5.31	75	iP	Pn	14 04 59.0	+0.6
AKAS				iS	Sn	14 05 55.2	-3.1
OUR	Ouranopolis	5.32	6	P	Pn	14 04 58.6	+0.1
OUR	Ouranopolis	5.32	6	P	Pn	14 04 58.6	+0.1
PLG	Polygyros	5.33	2	P	Pn	14 04 58.4	-0.2
PLG	Polygyros	5.33	2	eP	Pn	14 04 58.0	-0.6
PLG	Polygyros	5.33	2	P	Pn	14 04 58.4	-0.2
KZN	Kozani	5.39	348	eP	Pn	14 04 59.5	+0.1
KZN	Kozani	5.39	348	eP	Pn	14 04 59.5	+0.1
SOH	Sokhos	5.78	1	P	Pn	14 05 05.2	+0.5
SOH				S	Sn	14 06 08.9	-0.8
SOH	Sokhos	5.78	1	eP	Pn	14 05 04.9	+0.2
SOH	Sokhos	5.78	1	P	Pn	14 05 05.2	+0.5
SOH				S	Sn	14 06 08.9	-0.8
BALY	Balya	5.84	35	iP	Pn	14 05 06.5	+0.8
FNA	Florina	5.93	346	P	Pn	14 05 06.5	-0.3
FNA				S	Sn	14 06 11.8	-1.5
FNA	Florina	5.93	346	P	Pn	14 05 06.5	-0.3
FNA				S	Sn	14 06 11.8	-1.5
GRG	Griva	5.95	354	P	Pn	14 05 06.5	-0.6
GRG	Griva	5.95	354	P	Pn	14 05 06.5	-0.6
SWA2		6.07	161	⇓P	Pn	14 05 09.0	+0.3
SWA2				S	Sn	14 06 14.2	-2.7
SRS	Serrai	6.08	2	P	Pn	14 05 09.5	+0.7
SRS	Serrai	6.08	2	P	Pn	14 05 09.5	+0.7
ALN	Alexandroupoli	6.26	20	P	Pn	14 05 11.5	+0.2
ALN	Alexandroupoli	6.26	20	eP	Pn	14 05 11.3	0.0
ALN	Alexandroupoli	6.26	20	P	Pn	14 05 11.5	+0.2
VAY	Valandovo	6.30	355	eP	Pn	14 05 13.1	+1.2
NVR	Nevrokopi	6.32	4	eP	Pn	14 05 11.9	-0.3
NVR	Nevrokopi	6.32	4	eP	Pn	14 05 11.9	-0.3
RDO	Rodhopi	6.36	16	eP	Pn	14 05 12.1	-0.6
RDO	Rodhopi	6.36	16	eP	Pn	14 05 12.1	-0.6
SOI	Samo	6.54	300	P	Pn	14 05 13.7	-1.4
SOI				pmax	pmax		
	comp=Z,21nm,0.5s						
SOI	Samo	6.54	300	Pn	Pn	14 05 13.7	-1.4
	comp=Z,21nm,0.5s						
SOI	Samo	6.54	300	Pn	Pn	14 05 13.7	-1.4
	comp=Z,21nm,0.5s						
MMB	Musomiste	6.55	3	P	Pn	14 05 15.4	0.0
TIP	Timpagrande	6.63	310	ePn	Pn	14 05 14.6	-1.9
	comp=Z,19nm,0.3s						
TIP	Timpagrande	6.63	310	ePn	Pn	14 05 14.6	-1.8
	comp=Z,19nm,0.3s						
CEL	Celeste	6.73	301	Pn	Pn	14 05 15.6	-2.2
	comp=Z,114nm,1.7s						
CEL	Celeste	6.73	301	Pn	Pn	14 05 15.6	-2.2
	comp=Z,114nm,1.7s						
RZN	Rozhen	6.74	9	eP	Pn	14 05 18.5	+0.6
KDZ	Kurdzhali	6.82	14	P	Pn	14 05 19.4	+0.4
KKB	Krupnik	6.82	359	P	Pn	14 05 28.8	+10
HAVL	Avola	6.86	289	Pn	Pn	14 05 17.2	-2.4
	comp=Z,109nm,0.2s						
HAVL	Avola	6.86	289	Pn	Pn	14 05 17.2	-2.4
	comp=Z,109nm,0.2s						
ULDT	Uludag	6.92	41	iP	Pn	14 05 19.8	-0.5
ULDT	Uludag	6.92	41	iP	Pn	14 05 19.8	-0.5
TAR1	Taranto	7.23	321	ePn	Pn	14 05 24.0	-0.7
PE1	Pezze di Greco	7.37	323	ePn	Pn	14 05 26.4	-0.2
ESKT	Eskisehir	7.53	51	iP	Pn	14 05 32.2	+3.4
LTRZ	Laterza	7.53	319	Pn	Pn	14 05 26.5	-2.3
	comp=Z,77nm,1.3s						
LTRZ	Laterza	7.53	319	Pn	Pn	14 05 26.5	-2.3
	comp=Z,77nm,1.3s						
VAE	Valguarnera	7.54	291	P	Pn	14 05 29.3	+0.4
	comp=Z,2.1nm,0.3s,baz=169,slow=3.1,SNR=2.1						
VAE				S	Sn	14 06 53.2	+0.1
	comp=Z,7.2nm,0.3s,baz=318,slow=14,SNR=4.0						
VAE				LR	LR	14 08 52.6	
	comp=Z,158nm,19.8s,baz=307,slow=42						
VAE	Valguarnera	7.54	291	P	Pn	14 05 29.3	+0.4
VAE				S	Sn	14 06 53.2	+0.1
VTS	Vitosha	7.55	360	P	Pn	14 05 31.1	+2.1
CUC	Castrocucco	7.70	312	ePn	Pn	14 05 31.4	+0.3
	comp=Z,39nm,0.8s						
CUC	Castrocucco	7.70	312	ePn	Pn	14 05 31.4	+0.3
	comp=Z,39nm,0.8s						
BARS	Barje	7.85	352	⇑iPn	Pn	14 05 31.8	-1.3
KDHN	Kadinhani	7.92	61	iP	Pn	14 05 35.5	+1.4
KDHN	Kadinhani	7.92	61	iP	Pn	14 05 35.5	+1.4
MGR	Morigerati	7.95	312	Pn	Pn	14 05 33.4	-1.1
	comp=Z,56nm,1.4s						
MGR	Morigerati	7.95	312	Pn	Pn	14 05 33.4	-1.1
	comp=Z,56nm,1.4s						
AWBH		8.25	143	⇓P	Pn	14 05 38.2	-0.5
AWBH		8.25	143	P	Pn	14 05 38.2	-0.4
SQR		8.45	125	P	Pn	14 05 40.5	-1.0
SQR		8.45	125	P	Pn	14 05 40.5	-1.0
HSAF	As Saff	8.86	125	P	Pn	14 05 45.9	-1.1
HSAF	As Saff	8.86	125	P	Pn	14 05 45.9	-1.1
HFRF	Wahat Farafira	8.98	150	P	Pn	14 05 49.0	+0.3
HFRF	Wahat Farafira	8.98	150	P	Pn	14 05 49.0	+0.3
GLL	Jalalah	8.99	125	P	Pn	14 05 47.8	-1.0
GLL	Jalalah	8.99	125	P	Pn	14 05 47.8	-1.0
LSHF	Shwairf	9.11	239	iP	Pn	14 05 48.8	-1.7
	SNR=22						
AMAG	Maghara	9.45	115	⇓P	Pn	14 05 53.5	-1.7
AMAG	Maghara	9.45	115	P	Pn	14 05 53.5	-1.6
BRTR	Keskin Array B	9.50	57	P	Pn	14 05 57.0	+1.2
	comp=Z,0.4nm,0.3s,baz=236,slow=13,SNR=24						
BRTR				LR	LR	14 10 21.1	
	comp=Z,381nm,20.5s,baz=313,slow=42						
BRTR	Keskin Array B	9.50	57	P	Pn	14 05 57.0	+1.3
	comp=Z,381nm,20.5s						
TIRR	Tirgusor	10.21	21	⇓iP	Pn	14 06 09.8	+4.3
KZIT	Kziot	10.23	111	Pn	Pn	14 06 04.2	-1.6
KZIT				Sn	Sn	14 07 50.1	-8.9
MMA0	Mount Meron ar	10.29	98	Pn	Pn	14 06 05.6	-0.9
MMA0				Sn	Sn	14 07 53.6	-6.9
MMAI	Mount Meron Ar	10.29	98	P	Pn	14 06 04.3	-2.2
	comp=Z,4.9nm,0.3s,baz=284,slow=11,SNR=15						
MMAI				S	Sn	14 07 53.0	-7.5
	comp=Z,3.7nm,0.3s,baz=280,slow=22,SNR=5.0						
KSDI	Kefar Szold	10.45	97	Sn	Sn	14 07 56.3	-8.2
MMLI	Mount Malkishu	10.46	101	Pn	Pn	14 06 07.8	-1.1
MMLI				Sn	Sn	14 07 56.8	-8.0
VOIR		10.48	7	⇓iP	Pn	14 06 10.6	+1.5
VOIR		10.48	7	⇓iP	Pn	14 06 10.6	+1.5
HMDT	Nahal Hemdat	10.60	102	Pn	Pn	14 06 09.8	-1.1
HMDT				Sn	Sn	14 08 00.8	-7.4
BZS	Buzias	10.64	354	⇑iP	Pn	14 06 09.0	-2.3
MLR	Muntele Rosu	10.64	10	⇓iP	Pn	14 06 09.2	-2.2
MLR	Muntele Rosu	10.64	10	P	Pn	14 06 07.0	-4.4
	comp=Z,0.3nm,0.3s,baz=292,slow=23,SNR=2.3						
MLR				LR	LR	14 10 47.5	
	comp=Z,290nm,19.6s,baz=204,slow=40						
DSI	Dead Sea	10.72	105	Pn	Pn	14 06 10.8	-1.7
DSI				Sn	Sn	14 08 03.1	-8.1
MZDA	Masada	10.81	107	Pn	Pn	14 06 11.9	-1.8
MZDA				Sn	Sn	14 08 04.6	-8.7
HDK1	Dakhla	10.85	149	⇓P	Pn	14 06 14.4	+0.2
HDK1	Dakhla	10.85	149	P	Pn	14 06 14.4	+0.1
KRMI	Paran Flat	10.85	114	Sn	Sn	14 08 05.8	-8.5
PRNI	Paran	10.95	112	Pn	Pn	14 06 14.5	-1.1
PRNI				Sn	Sn	14 08 07.4	-9.3
ZFRI	Zfri	10.99	111	Sn	Sn	14 08 08.6	-9.0
PLOR	Plostina	11.11	12	⇑iP	Pn	14 06 21.0	+3.3
VRI	Vrincioaia	11.14	13	⇑iP	Pn	14 06 17.7	-0.4
VRI	Vrincioaia	11.14	13	⇑iP	Pn	14 06 17.7	-0.4
MBRI	Mt Berech	11.15	115	Pn	Pn	14 06 17.2	-1.2
MBRI				Sn	Sn	14 08 13.9	-7.8
EIL	Elat	11.25	115	P	Pn	14 06 17.8	-1.9
	comp=Z,2.4nm,0.3s,baz=183,slow=11,SNR=9.6						
EIL				S	Sn	14 08 17.3	-6.7
	comp=Z,1.7nm,0.3s,baz=72,slow=20,SNR=4.8						
EIL	Elat	11.25	115	P	Pn	14 06 17.8	-1.9
EIL				S	Sn	14 08 17.3	-6.7
EIL	Elat	11.25	115	Pn	Pn	14 06 17.9	-1.8
EIL				Sn	Sn	14 08 16.4	-7.6
EIL	Elat	11.25	115	P	Pn	14 06 17.8	-1.9
KEST	Kesra	11.37	278	LR	LR	14 11 01.5	
	comp=Z,61nm,20.0s,baz=326,slow=39						
AKRG	Al Kharijah	11.38	145	P	Pn	14 06 21.5	0.0
ASF	Jabal al Asfar	11.73	100	P	Pn	14 06 25.7	-0.6
ASF				S	Sn	14 08 28.7	-7.2
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	11.73	100	P	Pn	14 06 25.7	-0.6
	comp=Z,0.5nm,0.3s,baz=166,slow=13,SNR=3.2						
ASF				S	Sn	14 08 28.7	-7.1
	comp=Z,0.3nm,0.3s,baz=164,slow=23,SNR=2.4						
HDK2	Wahat Dakhilah	11.77	154	P	Pn	14 06 26.8	-0.1
HDK2	Wahat Dakhilah	11.77	154	P	Pn	14 06 26.8	-0.1
PGF	Pioggiola	13.40	308	eP	Pn	14 06 44.0	-5.0
VYHS	Vyhne	13.84	348	eP	Pn	14 07 03.0	+8.0
CRVS	Cervenica-Dubn	13.92	355	eP	Pn	14 07 05.1	+9.0
MODS	Modra-Piesok	14.05	343	eP	Pn	14 07 05.7	+7.9
MODS	Modra-Piesok	14.05	343	eP	Pn	14 07 05.7	+7.9
STHS	Stebnicka Huta	14.45	355	eP	Pn	14 07 10.0	+6.8
STHS	Stebnicka Huta	14.45	355	eP	Pn	14 07 10.0	+6.8
MOA	Molln	14.45	335	⇑iP	Pn	14 07 10.3	+7.0
	comp=Z,6.4nm,0.7s						
MOA	Molln	14.45	335	P	Pn	14 07 10.3	+7.0
	comp=Z,6.4nm,0.7s						
ANN	Anapa	14.60	44	eP	Pn	14 07 00.9	-4.3
ANN				eS	Sn	14 09 42.5	-3.0
ANN				pmax	pmax		
	comp=Z,82nm,1.6s						
SBF	Sospel	15.05	311	eP	Pn	14 07 06.7	-4.4
VRAC	Vranov	15.08	343	eP	Pn	14 07 16.4	+4.9
FETA	Feichten	15.23	326	⇑iP	Pn	14 07 18.5	+5.0
	comp=Z,14nm,1.0s						
FETA	Feichten	15.23	326	P	Pn	14 07 18.5	+5.1
	comp=Z,14nm,1.0s						
OKC	Ostrava-Krasne	15.26	347	⇓eP	Pn	14 07 18.8	+5.0
OKC	Ostrava-Krasne	15.26	347	eP	Pn	14 07 18.8	+5.0
MORC	Moravsky Berou	15.32	346	eP	Pn	14 07 18.6	+4.1
MORC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
MORC	Moravsky Berou	15.32	346	eP	Pn	14 07 18.6	+4.0
	comp=Z,4.5nm,0.6s						
MORC	Moravsky Berou	15.32	346	eP	Pn	14 07 18.6	+4.1
	comp=Z,4.5nm,0.6s						
TREC	Trest	15.35	340	⇓eP	Pn	14 07 19.5	+4.4
TREC	Trest	15.35	340	eP	Pn	14 07 19.5	+4.4
DAVOX	Davos/Dischmat	15.46	323	P	Pn	14 07 16.3	-0.2
	comp=Z,0.4nm,0.3s,baz=158,slow=6.2,SNR=4.3						
GEC2	GERESS Array S	15.50	336	eP	Pn	14 07 21.9	+4.9
GEC2				pmax	pmax		
	comp=Z,19nm,0.9s						
GEC2	GERESS Array S	15.50	336	eP	Pn	14 07 21.9	+4.9
	comp=Z,8.0nm,0.9s						
GEC2	GERESS Array S	15.50	336	eP	Pn	14 07 21.9	+4.9
	comp=Z,8.0nm,0.9s						
GERES	GERESS Array B	15.50	336	P	Pn	14 07 15.9	-1.0
	comp=Z,0.1nm,0.3s,baz=146,slow=11,SNR=3.1						
TUE	Stuetta	15.51	322	eP	Pn	14 07 22.3	+5.2
	comp=Z,7.8nm,0.8s						
TUE	Stuetta	15.51	322	eP	Pn	14 07 22.3	+5.2
	comp=Z,7.8nm,0.8s						
DAVOS	Davos	15.54	323	P	Pn	14 07 16.3	-1.2
KHC	Kasperske Hory	15.79	336	eP	Pn	14 07 24.5	+3.8
KHC	Kasperske Hory	15.79	336	⇓iP	Pn	14 07 24.9	+4.2
KHC				esP	sP	14 07 42.5	+2.3
KHC	Kasperske Hory	15.79	336	⇓iP	Pn	14 07 24.9	+4.2
KHC				e		14 07 42.5	
KHC	Kasperske Hory	15.79	336	iP	Pn	14 07 24.9	+4.2
MBDF	Montbardon	15.90	312	eP	Pn	14 07 18.3	-3.8
	comp=Z,11nm,1.0s						
MBDF	Montbardon	15.90	312	eP	Pn	14 07 18.3	-3.8
MBDF				pmax	pmax		
	comp=Z,6.0nm,1.0s						
MBDF	Montbardon	15.90	312	eP	Pn	14 07 18.3	-3.8
	comp=Z,5.6nm,1.0s						
WET	Wettzell	16.04	335	eP	Pn	14 07 26.6	+2.7
WET				pmax	pmax		
	comp=Z,9.0nm,1.0s						
WET	Wettzell	16.04	335	eP	Pn	14 07 26.6	+2.7
	comp=Z,13nm,1.0s						
WET	Wettzell	16.04	335	eP	Pn	14 07 26.6	+2.7
	comp=Z,13nm,1.0s						
DPC	Dobruska-Polom	16.12	344	⇓iP	Pn	14 07 28.1	+3.2
DPC				epP	pP	14 07 42.3	+4.2
DPC	Dobruska-Polom	16.12	344	iP	Pn	14 07 28.1	+3.2
KIEV	Kiev	16.24	14	eP	Pn	14 07 23.8	-2.6
PRU	Pruhonice	16.25	340	⇓eP	Pn	14 07 29.3	+2.8
PRU				epP	pP	14 07 43.9	+4.4
PRU				AMS	AMS	14 14 50.0	
	comp=Z,400nm,20.1s						
PRU	Pruhonice	16.25	340	eP	Pn	14 07 29.3	+2.8
PRU				e		14 07 43.9	
PRU	Pruhonice	16.25	340	eP	Pn	14 07 29.3	+2.8
	comp=Z,400nm,20.1s						
AKASG	Malin Array Be	16.25	14	P	Pn	14 07 24.2	-2.3
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.3s						
AKASG	Malin Array Be	16.25	14	P	Pn	14 07 24.2	-2.3
	comp=Z,6.9nm,0.3s,baz=206,slow=9.9,SNR=6.5						
UPC	Upice	16.34	343	⇓eP	Pn	14 07 30.3	+2.7
UPC				epP	pP	14 07 43.2	+2.7
UPC	Upice	16.34	343	eP	Pn	14 07 30.3	+2.7
ROTZ	Rotzenmuhle	16.80	335	eP	Pn	14 07 36.1	+2.7
	comp=Z,7.0nm,1.0s						
MANZ	Manzenberg	17.02	335	eP	Pn	14 07 37.9	+1.7
	comp=Z,10.0nm,1.0s						
GRA1	Grafenberg Arr	17.10	333	eP	Pn	14 07 39.4	+2.2
	comp=Z,36nm,1.1s						
GRA1	Grafenberg Arr	17.10	333	eP	Pn	14 07 39.4	+2.2
	comp=Z,36nm,1.1s						
GRF	Grafenberg Arr	17.10	333	eP	Pn	14 07 39.4	+2.2
GRF				pmax	pmax		
	comp=Z,15nm,1.1s						
GRF	Grafenberg Arr	17.10	333	eP	Pn	14 07 39.4	+2.2
GRF				pmax	pmax		
	comp=Z,36nm,1.1s						
GRF	Grafenberg Arr	17.10	333	eP	Pn	14 07 39.4	+2.2
	comp=Z,36nm,1.1s						
GRF	Grafenberg Arr	17.10	333	eP	Pn	14 07 39.4	+2.2
	comp=Z,36nm,1.1s						
BRG	Berggiesshubel	17.21	340	eP	Pn	14 07 40.1	+1.6
BRG				pmax	pmax		
	comp=Z,2.0nm,1.2s						
BRG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BRG	Berggiesshubel	17.21	340	eP	Pn	14 07 40.1	+1.6
	comp=Z,8.7nm,1.2s						
BRG				e		14 07 55.3	
	comp=Z,6.2nm,0.9s						
BRG	Berggiesshubel	17.21	340	eP	Pn	14 07 40.1	+1.6
	comp=Z,5.0nm,0.9s						
KIV	Kislovodsk	17.42	53	eP	Pn	14 07 43.0	+1.9
KIV				pmax	pmax		
	comp=Z,16nm,1.1s						
KIV				MLR	MLR		
	comp=Z,56nm,11.0s						
KIV	Kislovodsk	17.42	53	eP	Pn	14 07 43.0	+1.9
	comp=Z,56nm,11.0s						
MOX	Moxa	17.75	335	eP	Pn	14 07 45.6	+0.5
	comp=Z,8.0nm,1.0s						
CDF	Champ du Feu	17.86	323	eP	Pn	14 07 45.8	-0.8
	comp=Z,7.9nm,0.6s						
CDF	Champ du Feu	17.86	323	eP	Pn	14 07 45.8	-0.8
CDF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CDF	Champ du Feu	17.86	323	eP	Pn	14 07 45.8	-0.8
	comp=Z,4.0nm,0.6s						
CDF	Champ du Feu	17.86	323	eP	Pn	14 07 45.8	-0.8
	comp=Z,4.0nm,0.6s						
CLL	Collm	17.87	339	iP	Pn	14 07 47.8	+1.2
CLL				pmax	pmax		
	comp=Z,64nm,0.7s						
CLL				MLR	MLR		
	comp=Z,200nm,21.1s						
CLL	Collm	17.87	339	eP	Pn	14 07 47.6	+1.0
	comp=Z,6.0nm,0.7s						
CLL	Collm	17.87	339	iP	Pn	14 07 47.8	+1.2
	comp=Z,6.0nm,0.7s						
CLL	Collm	17.87	339	iP	Pn	14 07 47.8	+1.2
	comp=Z,6.0nm,0.7s						
LOR	Lormes	18.98	316	eP	Pn	14 08 00.8	+0.7

LOR	Lormes	18.98	316	*e*P	Pn	14 08 00.8	+0.7
AVF	Avril sur Loir	19.02	314	*e*P	Pn	14 08 01.3	+0.7
AVF	Avril sur Loir	19.02	314	*e*P	Pn	14 08 01.3	+0.7
CLZ	Clausthal	19.18	335	*e*P	Pn	14 08 01.5	-0.9
CLZ				pmax	pmax		
	comp=Z,16nm,0.7s						
CLZ	Clausthal	19.18	335	*e*P	Pn	14 08 01.5	-0.9
	comp=Z,7.0nm,0.7s						
CLZ	Clausthal	19.18	335	*e*P	Pn	14 08 01.5	-0.9
	comp=Z,7.0nm,0.7s						
BGF	Bois d’Agland	19.20	313	*e*P	Pn	14 08 03.7	+0.9
	comp=Z,12nm,0.7s						
BGF	Bois d’Agland	19.20	313	*e*P	Pn	14 08 03.7	+0.9
BGF				pmax	pmax		
	comp=Z,6.0nm,0.7s						
BGF	Bois d’Agland	19.20	313	*e*P	Pn	14 08 03.7	+0.9
	comp=Z,5.8nm,0.7s						
BGF	Bois d’Agland	19.20	313	*e*P	Pn	14 08 03.7	+0.9
	comp=Z,5.8nm,0.7s						
GIVF	Givet	20.19	324	*e*P	P	14 08 13.1	+0.9
	comp=Z,16nm,0.8s						
GIVF	Givet	20.19	324	*e*P	P	14 08 13.1	+0.9
GIVF				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GIVF	Givet	20.19	324	*e*P	P	14 08 13.1	+0.9
	comp=Z,8.1nm,0.8s						
GIVF	Givet	20.19	324	*e*P	P	14 08 13.1	+0.9
	comp=Z,8.1nm,0.8s						
BAIF	Baives	20.46	323	*e*P	P	14 08 15.3	+0.1
	comp=Z,14nm,0.6s						
BAIF	Baives	20.46	323	*e*P	P	14 08 15.3	+0.1
BAIF				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BAIF	Baives	20.46	323	*e*P	P	14 08 15.3	+0.1
	comp=Z,6.8nm,0.6s						
BAIF	Baives	20.46	323	*e*P	P	14 08 15.3	+0.1
	comp=Z,6.8nm,0.6s						
BSEG	Bad Segeberg	20.97	338	*e*P	P	14 08 19.3	-1.3
BSEG				pmax	pmax		
	comp=Z,19nm,1.0s						
BSEG	Bad Segeberg	20.97	338	*e*P	P	14 08 19.3	-1.3
	comp=Z,30nm,1.0s						
BSEG	Bad Segeberg	20.97	338	*e*P	P	14 08 19.3	-1.3
	comp=Z,19nm,1.0s						
MIB	Mutribah	20.98	98	*e*P	P	14 08 21.0	+0.1
MIB				AMb	AMB	14 08 22.3	
	comp=Z,146nm,0.5s						
MIB	Mutribah	20.98	98	*e*P	P	14 08 21.0	0.0
	comp=Z,146nm,0.5s						
NAY	Al-Naaiem	21.10	99	*e*P	P	14 08 22.4	+0.2
NAY				AMb	AMB	14 08 23.4	
	comp=Z,36nm,0.5s,mb5.0						
NAY	Al-Naaiem	21.10	99	*e*P	P	14 08 22.4	+0.1
	comp=Z,36nm,0.5s,mb5.0						
UMR	Umm Al-Rimmam	21.37	98	*e*P	P	14 08 25.4	+0.2
UMR				AMb	AMB	14 08 26.6	
	comp=Z,204nm,0.4s						
UMR	Umm Al-Rimmam	21.37	98	*e*P	P	14 08 25.4	+0.2
	comp=Z,204nm,0.4s						
LDF	La Druitiere	21.96	315	*e*P	P	14 08 31.1	-0.2
	comp=Z,12nm,0.6s,mb4.2						
LDF	La Druitiere	21.96	315	*e*P	P	14 08 31.1	-0.2
LDF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.2						
LDF	La Druitiere	21.96	315	*e*P	P	14 08 31.1	-0.2
	comp=Z,6.3nm,0.6s,mb4.2						
LDF	La Druitiere	21.96	315	*e*P	P	14 08 31.1	-0.2
	comp=Z,6.2nm,0.6s,mb4.2						
MDT	Midelt	23.20	273	LR	LR	14 18 47.0	
	comp=Z,133nm,21.2s,MS3.4,baz=81,slow=39						
SGMF	Saint Gilles	23.24	312	*e*P	P	14 08 45.1	+0.2
	comp=Z,7.4nm,0.6s,mb4.0						
SGMF	Saint Gilles	23.24	312	*e*P	P	14 08 45.1	+0.2
SGMF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
SGMF	Saint Gilles	23.24	312	*e*P	P	14 08 45.1	+0.2
	comp=Z,3.7nm,0.6s,mb4.0						
SGMF	Saint Gilles	23.24	312	*e*P	P	14 08 45.1	+0.2
	comp=Z,3.7nm,0.6s,mb4.0						
QUIF	Quistinic	23.47	311	*e*P	P	14 08 46.4	-0.7
QUIF	Quistinic	23.47	311	*e*P	P	14 08 46.4	-0.7
ROSF	Rostrenen	23.71	312	*e*P	P	14 08 48.9	-0.4
ROSF	Rostrenen	23.71	312	*e*P	P	14 08 48.9	-0.4
HFS	Hagfors	25.87	349	P	P	14 09 07.5	-1.3
HFS				pmax	pmax		
	comp=Z,7.0nm,0.5s						
HFS	Hagfors	25.87	349	P	P	14 09 07.5	-1.3
	comp=Z,6.7nm,0.5s,mb4.5,baz=146,slow=11,SNR=31						
HFS	Hagfors	25.87	349	P	P	14 09 07.5	-1.3
	comp=Z,7.0nm,0.5s,mb4.5						
NB2	NORSAR Subarra	27.15	347	P	P	14 09 17.9	-2.3
	comp=Z,1.8nm,0.6s,mb3.8,baz=161,slow=9.3						
NOA	NORSAR Array B	27.15	347	P	P	14 09 19.2	-1.0
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA				MLR	MLR		
	comp=Z,70nm,20.0s						
NOA	NORSAR Array B	27.15	347	P	P	14 09 19.2	-1.0
	comp=Z,1.9nm,0.6s,mb3.8,baz=152,slow=11,SNR=13						
NOA				LR	LR	14 21 33.7	
	comp=Z,70nm,20.0s,MS3.2,baz=105,slow=40						
NOA	NORSAR Array B	27.15	347	P	P	14 09 19.2	-1.0
	comp=Z,70nm,20.0s						
KAF	Kangasniemi	27.17	3	*e*P	P	14 09 17.4	-3.0
KAF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
KAF	Kangasniemi	27.17	3	*e*p	P	14 09 17.4	-3.0
	comp=Z,3.7nm,0.6s,mb4.1						
EKA	Eskdalemuir Ar	27.26	326	P	P	14 09 21.2	-0.1
EKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
EKA	Eskdalemuir Ar	27.26	326	P	P	14 09 21.1	-0.2
	comp=Z,2.0nm,0.6s,mb3.8,baz=128,slow=8.1,SNR=5.8						
EKA	Eskdalemuir Ar	27.26	326	P	P	14 09 21.2	-0.1
	comp=Z,2.0nm,0.6s,mb3.8						
JOF	Joensuu	28.36	8	*e*P	P	14 09 27.7	-3.4
JOF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
JOF	Joensuu	28.36	8	*e*p	P	14 09 27.7	-3.4
	comp=Z,1.5nm,0.6s,mb3.8						
TOA0	Torodi Ar. Sit	29.23	227	*e*P	P	14 09 40.1	+0.9
TOA0	Torodi Ar. Sit	29.23	227	*e*P	P	14 09 40.1	+0.8
TORD	Torodi Ar. Bea	29.23	227	P	P	14 09 40.5	+1.2
	comp=Z,1.5nm,0.3s,mb4.2,baz=31,slow=8.8,SNR=37						
TORD	Torodi Ar. Bea	29.23	227	P	P	14 09 40.5	+1.2
AKTK	Aktyubinsk	29.49	48	P	P	14 09 40.0	-1.2
AKTK				LR	LR	14 24 11.6	
AKTK	Aktyubinsk	29.49	48	P	P	14 09 40.0	-1.2
	comp=Z,89nm,18.9s						
AKTO	Aktyubinsk	29.49	48	P	P	14 09 40.0	-1.2
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
AKTO				MLR	MLR		
	comp=Z,89nm,18.9s,MS3.4						
AKTO	Aktyubinsk	29.49	48	P	P	14 09 40.0	-1.2
	comp=Z,0.8nm,0.4s,mb3.8,baz=34,slow=4.9,SNR=4.7						
AKTO				LR	LR	14 24 11.6	
	comp=Z,89nm,18.9s,MS3.4,baz=190,slow=42						
SVE	Sverdlovsk	33.30	37	*e*P	P	14 10 13.9	-0.8
SVE				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
SVE	Sverdlovsk	33.30	37	*e*P	P	14 10 13.9	-0.8
	comp=Z,12nm,0.8s,mb4.9						
ARCES	ARCESS Array B	34.58	1	P	P	14 10 23.2	-2.4
ARCES						14 12 59.1	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	34.58	1	P	P	14 10 23.2	-2.4
	comp=Z,3.1nm,0.6s,mb4.4,baz=178,slow=7.9,SNR=11						
ARCES				PcP	PcP	14 12 59.0	-0.2
	comp=Z,3.7nm,0.9s,baz=194,slow=2.9,SNR=7.5						
ARCES	ARCESS Array B	34.58	1	P	P	14 10 23.2	-2.4
ARCES				PcP	PcP	14 12 59.0	-0.2
ARCES	ARCESS Array B	34.58	1	PcP	PcP	14 12 59.1	-0.1
	comp=Z,4.0nm,0.9s						
KEV	Kevo	34.84	2	*e*p	P	14 10 26.4	-1.4
KEV	Kevo	34.84	2	*e*P	P	14 10 26.4	-1.4
DBIC	Dimbokro	38.28	229	P	P	14 10 58.7	+0.9
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.5s						
DBIC	Dimbokro	38.28	229	P	P	14 10 58.6	+0.9
	comp=Z,2.6nm,0.5s,mb4.2,baz=19,slow=8.4,SNR=11						
DBIC	Dimbokro	38.28	229	P	P	14 10 58.7	+0.9
	comp=Z,3.0nm,0.5s,mb4.3						
TIC	Toumodi	38.40	229	*e*P	P	14 11 00.4	+1.6
	comp=Z,9.6nm,0.2s,mb5.2						
KIC	Kosan Boka	38.45	229	*e*P	P	14 11 00.1	+0.9
	comp=Z,165nm,1.6s,mb5.5						
LIC	Lamto	38.73	229	*e*P	P	14 11 02.6	+1.0
	comp=Z,9.4nm,0.4s,mb4.5						
LIC	Lamto	38.73	229	*e*P	P	14 11 02.2	+0.6
	comp=Z,68nm,1.5s,mb5.2						
LIC	Lamto	38.73	229	*e*P	P	14 11 02.6	+1.0
	comp=Z,4.7nm,0.4s,mb4.6						
LIC	Lamto	38.73	229	*e*P	P	14 11 02.6	+1.0
	comp=Z,4.7nm,0.4s,mb4.6						
AML	Almayashu	39.59	64	*e*P	P	14 11 09.8	+1.4
	comp=Z,1.8nm,0.6s,mb4.0						
AML	Almayashu	39.59	64	*e*P	P	14 11 09.8	+1.4
	comp=Z,1.8nm,0.6s,mb4.0						
AAK	Ala-Archa	40.12	63	*e*P	P	14 11 13.4	+0.6
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
AAK	Ala-Archa	40.12	63	*e*P	P	14 11 13.4	+0.5
	comp=Z,5.3nm,1.0s,mb4.2						
AAK	Ala-Archa	40.12	63	*e*P	P	14 11 13.4	+0.6
	comp=Z,5.3nm,1.0s,mb4.2						
TKM2	Tokmak 2	40.89	63	*e*P	P	14 11 20.1	+0.9
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
TKM2	Tokmak 2	40.89	63	*e*P	P	14 11 20.1	+0.9
	comp=Z,2.1nm,0.6s,mb3.9						
TKM2	Tokmak 2	40.89	63	*e*P	P	14 11 20.1	+0.9
	comp=Z,2.1nm,0.6s,mb3.9						
KSH	Kashi	41.70	68	P	P	14 11 25.3	-0.6
KSH				*e*pP	pP	14 11 43.1	+4.9
KSH				*e*sP	sP	14 11 52.3	+8.8
KSH				*e*PP	PP	14 13 05.3	+2.5
KSH				*e*PcP	PcP	14 13 21.3	-0.6
KSH				*e*ScP	ScP	14 17 04.3	-4.1
KSH				*e*PcS	PcS	14 17 13.3	0.0
KSH				*e*S	S	14 17 36.3	-3.3
KSH				*e*sS	sS	14 18 07.0	+6.9
KSH				*e*SS	SS	14 20 38.1	-8.1
KSH				*e*ScS	ScS	14 21 19.1	-6.1
KSH				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.5						
KSH				pmax	pmax		
	comp=Z,110nm,7.0s						
KSH				LR	LR		
	comp=N,280nm,6.5s						
KSH				LR	LR		
	comp=E,210nm,5.2s						
KSH				LR	LR		
	comp=Z,280nm,6.2s						
KURK	Kurchatov	42.47	51	*e*P	P	14 11 31.5	-0.6
KURK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
KURK	Kurchatov	42.47	51	*e*P	P	14 11 31.5	-0.6
	comp=Z,2.6nm,0.6s,mb4.0						
KURK	Kurchatov	42.47	51	*e*P	P	14 11 31.5	-0.6
	comp=Z,2.5nm,0.6s,mb4.0						
MK31	Makanchi Array	45.15	56	*e*P	P	14 11 53.0	-0.6
MK31	Makanchi Array	45.15	56	*e*P	P	14 11 53.0	-0.6
MKAR	Makanchi Array	45.15	56	P	P	14 11 53.2	-0.4
MKAR						14 13 34.3	
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	45.15	56	P	P	14 11 53.1	-0.5
	comp=Z,2.6nm,0.4s,mb4.4,baz=268,slow=7.5,SNR=27						
MKAR				PcP	PcP	14 13 34.3	+1.0
	comp=Z,0.5nm,0.5s,baz=270,slow=4.4,SNR=1.9						
MKAR	Makanchi Array	45.15	56	P	P	14 11 53.2	-0.4
	comp=Z,3.0nm,0.4s,mb4.5						
MKAR	Makanchi Array	45.15	56	PcP	PcP	14 13 34.3	+0.9
	comp=Z,1.0nm,0.5s						
NVS	Novosibirsk	45.28	45	*e*P	P	14 11 54.0	-0.5
NVS				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.7						
NVS				pmax	pmax		
	comp=N,1.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,1.0nm,0.4s						
NVS	Novosibirsk	45.28	45	*e*P	P	14 11 54.0	-0.5
	comp=E,1.0nm,0.7s,mb3.8						
ZALV	Zalesovo Beam	46.22	46	P	P	14 12 00.8	-1.2
ZALV				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
ZALV	Zalesovo Beam	46.22	46	P	P	14 12 00.8	-1.2
	comp=Z,7.1nm,0.4s,mb5.0,baz=268,slow=9.2,SNR=37						
ZALV	Zalesovo Beam	46.22	46	P	P	14 12 00.8	-1.2
DANN	Dangsing	51.24	80	*e*P	P	14 12 41.6	+0.7
KOLN	Koldanda	51.35	80	*e*P	P	14 12 42.4	+0.7
	comp=Z,4.3nm,0.4s,mb4.8						
GKN	Gorkha	52.09	80	*e*P	P	14 12 47.3	+0.1
	comp=Z,20nm,0.4s,mb5.4						
DMN	Daman	52.63	80	*e*P	P	14 12 51.8	+0.6
	comp=Z,15nm,0.3s,mb5.3						
KKN	Kakani	52.70	80	*e*P	P	14 12 52.4	+0.7
	comp=Z,17nm,0.6s,mb5.1						
PKI	Pulchoki	52.89	80	*e*P	P	14 12 53.4	+0.2
GUN	Gumba	53.13	79	*e*P	P	14 12 55.3	+0.4
	comp=Z,24nm,0.4s,mb5.4						
JIRN	Jiri	53.49	79	*e*P	P	14 12 58.0	+0.5
	comp=Z,14nm,0.4s,mb5.2						
ODAN	Odare	54.79	80	*e*P	P	14 13 07.9	+0.9
TAPN	Taplejung	54.84	79	*e*P	P	14 13 07.5	+0.1
	comp=Z,5.4nm,0.4s,mb4.9						
LSA	Lhasa	56.61	75	*e*P	P	14 13 21.5	+1.4
LSA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
LSA	Lhasa	56.61	75	*e*P	P	14 13 21.5	+1.4
	comp=Z,6.1nm,0.8s,mb4.7						
LSA	Lhasa	56.61	75	*e*P	P	14 13 21.5	+1.4
	comp=Z,6.1nm,0.8s,mb4.7						
TLY	Talaya	57.83	46	*e*P	P	14 13 29.0	+0.7
TLY				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.3						
TLY	Talaya	57.83	46	*e*P	P	14 13 29.0	+0.7
	comp=Z,4.0nm,1.3s,mb4.3						
ZAK	Zakamensk	58.00	48	⇓*i*P	P	14 13 30.2	+0.7
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
ZAK	Zakamensk	58.00	48	*i* P	P	14 13 30.2	+0.7
	comp=Z,4.0nm,1.0s,mb4.4						
GTA	Gaotai	59.40	61	P	P	14 13 39.9	+0.5
GTA				pP	pP	14 13 55.8	+3.6
GTA				sP	sP	14 14 02.3	+4.9
GTA				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
SONM	Songino Array	60.77	50	P	P	14 13 49.0	+0.3
SONM				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	Songino Array	60.77	50	P	P	14 13 49.0	+0.3
	comp=Z,2.5nm,0.4s,mb4.7,baz=286,slow=7.1,SNR=29						
SONM	Songino Array	60.77	50	P	P	14 13 49.0	+0.3
	comp=Z,3.0nm,0.4s,mb4.8						
ULN	Ulaanbaatar	61.17	50	*e*P	P	14 13 51.3	-0.1
ULN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
ULN	Ulaanbaatar	61.17	50	*e*P	P	14 13 51.3	-0.1
	comp=Z,6.7nm,0.9s,mb4.8						
ULN	Ulaanbaatar	61.17	50	*e*P	P	14 13 51.3	-0.1
	comp=Z,6.7nm,0.9s,mb4.8						
BOD	Bodaibo	61.51	38	*e*P	P	14 13 52.6	-0.9
BOD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
BOD	Bodaibo	61.51	38	*e*P	P	14 13 52.6	-0.9
	comp=Z,5.0nm,0.8s,mb4.7						
TIXI	Tiksi	61.83	20	*e*P	P	14 13 54.7	-0.8
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.9						
TIXI	Tiksi	61.83	20	*e*P	P	14 13 54.7	-0.8
	comp=Z,3.0nm,0.3s,mb4.9						
TIXI	Tiksi	61.83	20	*e*P	P	14 13 54.7	-0.8
	comp=Z,3.0nm,0.3s,mb4.9						
SCHQ	Schefferville	62.26	319	P	P	14 13 58.9	+0.3
	comp=Z,1.0nm,0.4s,mb4.3,baz=257,slow=2.4,SNR=5.7						
SCHQ	Schefferville	62.26	319	P	P	14 13 58.9	+0.3
YAK	Yakutsk	66.76	29	*e*P	P	14 14 26.3	-1.6
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
YAK	Yakutsk	66.76	29	*e*P	P	14 14 26.3	-1.6
	comp=Z,8.0nm,0.9s,mb4.8						
CMAR	Chiang Mai Arr	68.14	82	P	P	14 14 37.8	+0.4
	comp=Z,1.8nm,0.8s,mb4.2,baz=301,slow=8.1,SNR=16						
CMAR				LR	LR	14 50 03.2	
	comp=Z,31nm,18.4s,MS3.6,baz=200,slow=41						
CMAR	Chiang Mai Arr	68.14	82	P	P	14 14 37.8	+0.4
CMAR				LR	LR	14 50 03.2	
CMAR	Chiang Mai Arr	68.14	82	P	P	14 14 37.8	+0.5
	comp=Z,2.0nm,0.8s,mb4.2						
CN2	Changchun	74.42	47	*e*P	P	14 15 14.6	-0.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
KLR	Kul’dur	74.88	40	*e*P	P	14 15 12.5	-4.9
YKA	Yellowknife Ar	77.08	341	P	P	14 15 29.9	+0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA				MLR	MLR		
	comp=Z,90nm,19.1s						
YKA	Yellowknife Ar	77.08	341	P	P	14 15 29.9	+0.2
	comp=Z,1.2nm,0.5s,mb4.0,baz=34,slow=5.5,SNR=27						
YKA				LR	LR	14 52 34.0	
	comp=Z,90nm,19.1s,MS4.1,baz=25,slow=38						
YKA	Yellowknife Ar	77.08	341	P	P	14 15 29.9	+0.2
	comp=Z,90nm,19.1s						
KSRS	Korea Array	79.59	52	P	P	14 15 44.2	+0.1
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,39nm,18.8s,MS3.8						
KSRS	Korea Array	79.59	52	P	P	14 15 44.2	+0.1
	comp=Z,2.2nm,0.5s,mb4.4,baz=311,slow=4.5,SNR=20						
KSRS				LR	LR	14 52 37.4	
	comp=Z,38nm,18.8s,MS3.8,baz=300,slow=37						
KSRS	Korea Array	79.59	52	P	P	14 15 44.2	+0.1
	comp=Z,39nm,18.8s						
ASAJ	Asahikawa	83.87	39	P	P	14 16 07.1	+0.6
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ASAJ	Asahikawa	83.87	39	P	P	14 16 07.0	+0.6
	comp=Z,1.6nm,0.4s,mb4.5,baz=288,slow=3.2,SNR=4.5						
MJAR	Matsushiro Arr	86.57	47	P	P	14 16 19.8	-0.3
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJAR	Matsushiro Arr	86.57	47	P	P	14 16 19.8	-0.3
	comp=Z,1.1nm,0.7s,mb4.2,baz=309,slow=3.6,SNR=3.9						
MJAR	Matsushiro Arr	86.57	47	P	P	14 16 19.8	-0.3
	comp=Z,1.0nm,0.7s,mb4.2						
WRA	Warramunga Arr	118.14	96	PKIKP	PKPdf	14 22 24.2	+0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	118.14	96	PKP	PKPdf	14 22 24.2	+0.2
	comp=Z,0.5nm,0.6s,baz=323,slow=1.5,SNR=9.2						
ASAR	Alice Springs	119.57	99	PKIKP	PKPdf	14 22 27.0	+0.3
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	119.57	99	PKP	PKPdf	14 22 26.9	+0.3
	comp=Z,0.8nm,0.6s,baz=311,slow=1.1,SNR=17						

ATH ***18*** *14:14:11.0, 35°.00N×23°.03E, h30^{km}±3^{km}, MD3.4/7*

ISCJB ***18*** *14:14:13.9±0.7, 35°.15N±0°.07×23°.23E±0°.07, h74^{km}±6^{km}, mb3.7/11, Error ellipse: s-maj=12.4km s-min=8.5km az=34.9*

IDC ***18*** *14:14:13.7±2.2, 35°.15N×23°.16E, h53^{km}±21^{km}, mb3.6/11, mb1 3.6/15, mb1mx3.5/27, mbtmp3.5/15, ML3.6/4, Error ellipse: s-maj=20.9km s-min=16.4km az=141.0*

NEIC ***18*** *14:14:14.9±0.7, 35°.17N×23°.21E, h65^{km}±6^{km}, MD3.4(ATH), Error ellipse: s-maj=8.8km s-min=7.1km az=210.0*

CSEM ***18*** *14:14:15.1±0.3, 35°.17N×23°.27E, h67^{km}±2^{km}, MD3.4, Error ellipse: s-maj=8.5km s-min=6.2km az=42.0*

ISC 18 14:14:14.8±0.7**, 35°.14N**±0°.07×**23°.23E**±0°.07**, h64**^{km}±6^{km}**, n56, σ0^s.85**/57**, mb3.8**/11**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARN	Karanos	0.62	65	*e*PN	Pn	14 14 27.2	-1.2
KARN				*e*SN	Sn	14 14 39.4	+1.0
KARN	Karanos	0.62	65	*e*Pn	Pn	14 14 27.2	-1.2
KARN				*e*Sn	Sn	14 14 39.4	+1.0
VAM	Vamos	0.84	71	*e*PN	Pn	14 14 31.0	+0.1
VAM	Vamos	0.84	71	*e*Pn	Pn	14 14 31.0	+0.1
KYTH	Kithira	1.15	352	*e*PN	Pn	14 14 35.0	+0.1
KYTH	Kithira	1.15	352	*e*Pn	Pn	14 14 35.0	+0.1
IDI	Anoyia	1.37	83	P	Pn	14 14 38.1	+0.3
	7.9nm,0.3s,baz=264,slow=17,SNR=22						
IDI				S	Sn	14 15 01.3	+6.2
	36nm,0.3s,baz=324,slow=18,SNR=11						
IDI	Anoyia	1.37	83	P	Pn	14 14 38.0	+0.2
NPS	Neapolis	1.96	86	*e*PN	Pn	14 14 46.4	+0.7
NPS	Neapolis	1.96	86	*e*Pn	Pn	14 14 46.4	+0.7
PYL	PYLOS	2.13	326	*e*PB	Pn	14 14 47.9	-0.1
VLX	Vlachokerasia	2.33	343	*e*PN	Pn	14 14 50.5	-0.2
VLX	Vlachokerasia	2.33	343	*e*Pn	Pn	14 14 50.5	-0.2
NAIG	Nisos Aigina	2.62	5	*e*PN	Pn	14 14 55.2	+0.5
NAIG	Nisos Aigina	2.62	5	*e*Pn	Pn	14 14 55.2	+0.5
GUR	Goura	2.88	346	*e*PN	Pn	14 14 59.4	+1.1
GUR	Goura	2.88	346	*e*Pn	Pn	14 14 59.4	+1.1
LTK	Loutraki	2.89	356	*e*PN	Pn	14 14 58.5	+0.2
LTK	Loutraki	2.89	356	*e*Pn	Pn	14 14 58.5	+0.2
LKR	Lokris	3.51	357	*e*PN	Pn	14 15 07.5	+0.7
LKR	Lokris	3.51	357	*e*Pn	Pn	14 15 07.5	+0.7
AGG	Agios Georgios	3.94	350	*e*PN	Pn	14 15 13.1	+0.4
AGG	Agios Georgios	3.94	350	*e*Pn	Pn	14 15 13.1	+0.4
TIP	Timpagrande	6.55	310	*e*Pn	Pn	14 15 46.4	-2.0
TIP				*e*Sn	Sn	14 16 48.3	-13
BRTR	Keskin Array B	9.46	58	P	Pn	14 16 27.9	-0.3
	0.1nm,0.3s,baz=255,slow=14,SNR=3.6						
BRTR	Keskin Array B	9.46	58	P	Pn	14 16 27.9	-0.3
MMAI	Mount Meron Ar	10.32	98	P	Pn	14 16 38.0	-1.9
	1.8nm,0.3s,baz=297,slow=13,SNR=3.5						
GERES	GERESS Array B	15.40	336	P	Pn	14 17 48.2	+0.3
	0.1nm,0.3s,baz=135,slow=11,SNR=2.2						
AKASG	Malin Array Be	16.15	14	P	Pn	14 17 55.9	-1.6
	0.5nm,0.3s,baz=207,slow=9.2,SNR=3.2						
AKASG	Malin Array Be	16.15	14	P	Pn	14 17 55.9	-1.6
HFS	Hagfors	25.77	349	P	P	14 19 38.3	-0.9
	1.4nm,0.5s,mb3.7,baz=160,slow=9.3,SNR=5.9						
HFS	Hagfors	25.77	349	P	P	14 19 38.3	-0.8
NOA	NORSAR Array B	27.04	347	P	P	14 19 50.9	+0.3
	0.3nm,0.4s,mb3.1,baz=148,slow=11,SNR=2.9						
NOA	NORSAR Array B	27.04	347	P	P	14 19 50.9	+0.3
NOA	NORSAR Array B	27.04	347	P	P	14 19 50.9	+0.3
TOA0	Torodi Ar. Sit	29.29	227	*e*P	P	14 20 11.8	+0.7
TOA0	Torodi Ar. Sit	29.29	227	*e*P	P	14 20 11.8	+0.7
TORD	Torodi Ar. Bea	29.29	227	P	P	14 20 11.3	+0.2
	0.5nm,0.6s,mb3.4,baz=34,slow=9.4,SNR=6.1						
ARCES	ARCESS Array B	34.47	1	P	P	14 20 54.7	-1.3
	3.6nm,0.9s,mb4.3,baz=172,slow=9.7,SNR=3.3						
ARCES	ARCESS Array B	34.47	1	P	P	14 20 54.7	-1.3
DBIC	Dimbokro	38.34	229	P	P	14 21 28.3	-1.2
	3.6nm,1.0s,mb4.0,baz=8.1,slow=7.1,SNR=3.0						
DBIC	Dimbokro	38.34	229	*e*P	P	14 21 29.9	+0.4
DBIC	Dimbokro	38.34	229	*e*P	P	14 21 29.9	+0.4
MKAR	Makanchi Array	45.11	56	P	P	14 22 24.6	+0.2
	0.3nm,0.3s,mb3.6,baz=272,slow=7.9,SNR=14						
MKAR				PcP	PcP	14 24 05.1	+1.1
	0.1nm,0.8s,baz=265,slow=3.7,SNR=1.9						
MKAR	Makanchi Array	45.11	56	P	P	14 22 24.6	+0.2
MKAR	Makanchi Array	45.11	56	PcP	PcP	14 24 05.1	+1.1
ZALV	Zalesovo Beam	46.16	46	P	P	14 22 32.0	-0.6
	1.0nm,0.4s,mb4.1,baz=276,slow=8.9,SNR=7.1						
SONM	Songino Array	60.72	50	P	P	14 24 20.1	+0.7
	0.4nm,0.5s,mb3.8,baz=287,slow=6.9,SNR=4.8						
SONM	Songino Array	60.72	50	P	P	14 24 20.1	+0.7
SCHQ	Schefferville	62.17	319	P	P	14 24 29.2	+0.1
	0.9nm,0.4s,mb4.2,baz=82,slow=17,SNR=2.8						
SCHQ	Schefferville	62.17	319	P	P	14 24 29.2	+0.1
YKA	Yellowknife Ar	76.97	341	P	P	14 26 01.4	+1.4
	0.2nm,0.5s,mb3.3,baz=29,slow=5.0,SNR=5.3						
YKA	Yellowknife Ar	76.97	341	P	P	14 26 01.5	+1.5
KSRS	Korea Array	79.54	52	P	P	14 26 15.3	+0.6
	0.5nm,0.4s,mb3.8,baz=323,slow=4.1,SNR=3.6						
ASAR	Alice Springs	119.61	99	PKP	PKPdf	14 32 57.4	-0.1
	0.3nm,0.9s,baz=354,slow=0.9,SNR=4.2						
ASAR	Alice Springs	119.61	99	PKIKP	PKPdf	14 32 57.4	-0.1

CSEM ***18*** *14:46:51.1, 35°.71N×23°.87E, h20^{km}, MD3.6, After ATH*

NEIC ***18*** *14:46:51.1, 35°.71N×23°.87E, h20^{km}, MD3.6(ATH), After ATH.*

ATH 18 14:46:51.1, 35°.71N×23°.87E, h20^{km}±2^{km}**, MD3.6**/6**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	Kithira	0.88	310	*e*PN	Pb	14 47 08.0	+0.3
KYTH	Kithira	0.88	310	*e*Pn	Pb	14 47 08.0	+0.3
IDI	Anoyia	0.93	117	*e*PN	Pb	14 47 08.9	+0.3

IDI	Anoyia	0.93	117	*e*Pn	Pb	14 47 08.9	+0.3
DID	Didima	1.86	344	*e*PN	Pn	14 47 24.5	+2.6
DID	Didima	1.86	344	*e*Pn	Pn	14 47 24.5	+2.6
VLX	Vlachokerasia	2.05	325	*e*PN	Pn	14 47 26.8	+2.4
VLX	Vlachokerasia	2.05	325	*e*Pn	Pn	14 47 26.8	+2.4
NAIG	Nisos Aigina	2.07	352	*e*PN	Pn	14 47 27.5	+2.8
NAIG	Nisos Aigina	2.07	352	*e*Pn	Pn	14 47 27.5	+2.8
PYL	PYLOS	2.09	305	*e*PN	Pn	14 47 27.6	+2.7
PYL	PYLOS	2.09	305	*e*Pn	Pn	14 47 27.6	+2.7
ITM	Ithomi	2.15	314	*e*PB	Pn	14 47 27.8	+2.1
ITM	Ithomi	2.15	314	*e*Pb	Pn	14 47 27.8	+2.1
LTK	Loutraki	2.42	343	*e*PN	Pn	14 47 31.3	+1.8
LTK	Loutraki	2.42	343	*e*Pn	Pn	14 47 31.3	+1.8
GUR	Goura	2.54	332	*e*PN	Pn	14 47 33.4	+2.3
GUR	Goura	2.54	332	*e*Pn	Pn	14 47 33.4	+2.3
LKR	Lokris	3.02	347	*e*PN	Pn	14 47 39.6	+1.9
LKR	Lokris	3.02	347	*e*Pn	Pn	14 47 39.6	+1.9
AGG	Agios Georgios	3.53	340	*e*PN	Pn	14 47 47.1	+2.4
AGG	Agios Georgios	3.53	340	*e*Pn	Pn	14 47 47.1	+2.4

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*BJI **18** 14:55:23.7, 45°.80N×153°.70E, h39^{km}, mB4.6/3, mb4.3/5*

*MOS **18** 14:55:25.7±1.2, 45°.80N×153°.59E, h39^{km}, mb4.1/6, Error ellipse: s-maj=22.8km s-min=13.8km az=72.9*

*NEIC **18** 14:55:27.7±0.5, 45°.79N×153°.66E, mb4.1/1, Error ellipse: s-maj=14.2km s-min=9.3km az=125.0*

*IDC **18** 14:55:27.7±0.8, 45°.72N×153°.61E, h38^{km}±6^{km}, mb3.5/11, mb1 3.8/13, mb1mx3.7/25, mbtmp3.6/13, ML3.4/2, MS2.5/1, Ms1 2.5/1, ms1mx2.1/32, Error ellipse: s-maj=19.3km s-min=15.8km az=141.0*

ISC 18 14:55:23.4±5.8, **45°.7N**±0°.1×**153°.7E**±0°.1, **h7**^{km}±36^{km}, **h40**^{km}±1.2^{km}**:pP-P, n30,** σ**0^s.64**/29, **mb3.8**/12, **1C, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PEA0B	Petropavlovsk-	7.85	18	*e*P	Pn	14 57 17.9	0.0
PETK	Petropavlovsk-	7.85	18	PN	Pn	14 57 18.0	+0.1
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK				MLR	MLR		
	comp=Z,33nm,18.4s						
PETK	Petropavlovsk-	7.85	18	Pn	Pn	14 57 18.0	+0.2
	comp=Z,0.6nm,0.3s,baz=178,slow=12,SNR=11						
PETK				LR	LR	15 00 17.8	
	comp=Z,33nm,18.4s,baz=123,slow=37						
PET	Petropavlovsk	8.00	22	PN	Pn	14 57 19.2	-0.7
ASAJ	Asahikawa	8.05	263	PN	Pn	14 57 20.5	-0.2
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.05	263	Pn	Pn	14 57 20.5	-0.2
	comp=Z,0.5nm,0.3s,baz=106,slow=8.3,SNR=5.4						
KSRS	Korea Array	20.91	256	P	P	15 00 07.3	+0.9
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KSRS	Korea Array	20.91	256	P	P	15 00 07.3	+0.9
	comp=Z,0.5nm,0.6s,baz=65,slow=7.6,SNR=5.7						
BILL	Bilibino	23.32	12	⇑*e*P	P	15 00 32.0	+0.2
BILL				*e**PP		15 00 49.8	
BILL				*e*		15 01 00.6	
BILL				*e*S	S	15 04 35.7	-8.4
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.5						
SONM	Songino Array	32.09	291	P	P	15 01 50.7	-0.1
	comp=Z,0.2nm,0.4s,mb3.3,baz=88,slow=7.5,SNR=2.3						
GTA	Gaotai	39.56	281	*e*P	P	15 02 56.1	+1.1
GTA				pP	pP	15 03 08.1	+11
GTA				sP	sP	15 03 13.3	+15
GTA				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.1						
MKAR	Makanchi Array	47.80	298	P	P	15 04 00.6	-0.6
	comp=Z,0.4nm,0.5s,mb3.7,baz=71,slow=6.9,SNR=8.8						
MKAR				pP	pP	15 04 11.5	+8.2
	comp=Z,0.3nm,0.4s,baz=71,slow=8.2,SNR=3.7						
MKAR	Makanchi Array	47.80	298	P	P	15 04 00.6	-0.6
MKAR				pP	pP	15 04 11.5	+8.2
KURK	Kurchatov	48.30	305	P	P	15 04 05.1	+0.2
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
KURK	Kurchatov	48.30	305	P	P	15 04 05.1	+0.2
	comp=Z,0.8nm,0.5s,mb4.0,baz=63,slow=7.7,SNR=2.2						
KURK	Kurchatov	48.30	305	*e*P	P	15 04 04.6	-0.3
	comp=Z,1.7nm,0.8s,mb4.1						
YKA	Yellowknife Ar	51.52	36	P	P	15 04 29.5	+0.3
	comp=Z,0.6nm,0.7s,mb3.6,baz=293,slow=7.0,SNR=7.6						
NVAR	Mina Array Bea	62.55	62	P	P	15 05 48.6	+0.8
	comp=Z,0.6nm,0.6s,mb3.9,baz=302,slow=6.2,SNR=5.1						
PDAR	Pinedale Array	65.03	54	P	P	15 06 04.2	+0.1
	comp=Z,0.7nm,0.9s,mb3.7,baz=302,slow=3.3,SNR=5.3						
WRA	Warramunga Arr	67.67	200	P	P	15 06 19.7	-1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	67.67	200	P	P	15 06 19.7	-1.3
	comp=Z,0.8nm,0.8s,mb3.8,baz=16,slow=6.7,SNR=8.4						
ASAR	Alice Springs	71.35	199	P	P	15 06 43.8	+0.1
ASAR				*PP	pP	15 06 55.4	+9.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	71.35	199	P	P	15 06 43.8	0.0
	comp=Z,0.9nm,0.8s,mb3.8,baz=12,slow=5.9,SNR=13						
ASAR				pP	pP	15 06 55.4	+9.3
	comp=Z,0.9nm,0.7s,baz=18,slow=5.2,SNR=6.4						
AKASG	Malin Array Be	72.65	327	P	P	15 06 50.2	-1.1
AKASG				*PP	pP	15 07 02.1	+8.5
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	72.65	327	P	P	15 06 50.2	-1.2
	comp=Z,1.8nm,0.5s,mb4.3,baz=34,slow=6.3,SNR=8.8						
AKASG				pP	pP	15 07 02.1	+8.5
	comp=Z,1.1nm,0.6s,baz=34,slow=5.8,SNR=3.4						
AKASG	Malin Array Be	72.65	327	P	P	15 06 50.2	-1.2
AKASG				pP	pP	15 07 02.1	+8.5
TXAR	Lajitas Array	77.64	61	P	P	15 07 20.7	+0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	77.64	61	P	P	15 07 20.7	+0.2
	comp=Z,1.0nm,0.6s,mb3.9,baz=306,slow=5.0,SNR=6.2						
PLCA	Paso Flores	147.68	97	PKP2	PKPab	15 15 07.5	-3.0
PLCA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
PLCA	Paso Flores	147.68	97	PKPbc	PKPbc	15 15 07.5	-0.7
	comp=Z,1.0nm,0.6s,baz=337,slow=17,SNR=3.1						

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*IDC **18** 15:04:03.2±1.2, 7°.01S×129°.03E, h0^{km}, mb3.9/4, mb1 4.1/7, mb1mx3.9/18, mbtmp4.0/7, ML4.1/3, Error ellipse: s-maj=73.2km s-min=20.5km az=71.0*

*ISCJB **18** 15:04:18.0±2.6, 7°.6S±0°.1×128°.8E±0°.1, h152^{km}±29^{km}, mb3.7/3, Error ellipse: s-maj=24.8km s-min=17.3km az=16.6*

*NEIC **18** 15:04:19.4±1.9, 7°.49S×128°.80E, h144^{km}±22^{km}, mb3.8/1, Error ellipse: s-maj=18.7km s-min=13.0km az=217.0*

ISC 18 15:04:19.2±2.3, **7°.6S**±0°.1×**128°.8E**±0°.1, **h145**^{km}±27^{km}**, n19,** σ**1^s.12**/19, **mb3.7**/3, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.22	145	*e*P	Pn	15 05 49.4	+0.6
	46nm,0.6s						
KAKA				*e*S	Sx	15 06 56.8	
KAKA	Kakadu	6.22	145	*e*P	Pn	15 05 49.6	+0.8
	163nm,0.5s						
KAKA				*e*S	Sx	15 06 56.4	
KNA	Kununurra	8.10	180	*e*P	Pn	15 06 14.8	+0.8
	13nm,0.2s						
KNA				*e*S	Sx	15 07 40.4	
FITZ	Fitzroy Crossi	10.88	196	*e*P	Pn	15 06 49.8	-1.2
	7.8nm,0.3s						
FITZ				*e*S	Sx	15 08 45.9	
FITZ	Fitzroy Crossi	10.88	196	Pn	Pn	15 06 49.8	-1.1
	1.3nm,0.3s,baz=24,slow=7.6,SNR=27						
FITZ				Sn	Sx	15 08 45.9	
	1.2nm,0.3s,baz=68,slow=19,SNR=5.9						
FITZ	Fitzroy Crossi	10.88	196	*e*P	Pn	15 06 49.5	-1.4
FITZ				Sn	Sx	15 08 45.9	
WRAB	Tennant Creek	13.39	157	*e*P	Pn	15 07 22.2	-1.4
WRA	Warramunga Arr	13.40	157	Pn	Pn	15 07 22.1	-1.5
	0.9nm,0.3s,baz=336,slow=13,SNR=55						
WRA				Sn	Sx	15 09 44.1	
	1.2nm,0.3s,baz=339,slow=22,SNR=11						
WB2	Warramunga Arr	13.40	157	*e*P	Pn	15 07 22.2	-1.5
COEN	Coen	15.47	115	*e*P	Pn	15 07 50.8	+1.1
MBWA	Marble Bar	16.08	212	*e*P	Pn	15 07 58.0	+0.9
ASAR	Alice Springs	16.71	164	P	Pn	15 08 05.8	+1.0
	0.5nm,0.3s,baz=338,slow=12,SNR=74						
ASAR				S	Sx	15 11 05.0	
	0.4nm,0.3s,baz=346,slow=25,SNR=6.4						
KSM	Kuching	20.53	295	P	P	15 08 47.3	+1.0
STKA	Stephens Creek	26.94	155	P	P	15 09 49.4	+2.4
	0.9nm,0.4s,mb3.7,baz=342,slow=8.4,SNR=4.8						
MK31	Makanchi Array	68.08	328	P	P	15 15 02.7	-0.4
MKAR	Makanchi Array	68.08	328	P	P	15 15 02.8	-0.3
	0.5nm,0.4s,mb3.6,baz=125,slow=6.9,SNR=8.4						
ZALV	Zalesovo Beam	71.59	334	P	P	15 15 23.4	-1.0
	0.2nm,0.3s,baz=140,slow=4.7,SNR=2.3						
KURK	Kurchatov	72.41	329	P	P	15 15 29.0	-0.4
	0.7nm,0.4s,mb3.8,baz=126,slow=4.7,SNR=3.3						
KURK	Kurchatov	72.41	329	*e*P	P	15 15 29.3	0.0
	0.8nm,0.4s,mb3.8						

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*NEIC **18** 15:10:31.7±1.1, 34°.51N×5°.56W, h10^{km}, MG3.7(MDD), Error ellipse: s-maj=15.2km s-min=8.0km az=147.0*

*CNRM **18** 15:10:32.7, 34°.50N×5°.42W, h10^{km}, MD3.4*

*MDD **18** 15:10:32.5±0.7, 34°.47N×5°.47W, h10^{km}±6^{km}, mb3.9/11, Error ellipse: s-maj=5.8km s-min=3.2km az=71.0, PRIMO*

*CSEM **18** 15:10:33.2±0.2, 34°.49N×5°.54W, h30^{km}, MD3.4, Error ellipse: s-maj=5.6km s-min=3.3km az=82.0*

*INMG **18** 15:10:33.5±1.2, 34°.62N×5°.55W, h4^{km}±10^{km}, ML2.6, Error ellipse: s-maj=5.6km s-min=3.9km az=161.0*

ISC 18 15:10:33.7±0.7, **34°.51N**±0°.02×**5°.52W**±0°.04, **h33**^{km}±5^{km}**, n80,** σ**1^s.09**/142, **Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSA	Sarsar	0.44	325	P	Pb	15 10 42.0	-1.5
RSA				S	Sb	15 10 50.0	-0.2
RSA	Sarsar	0.44	325	*i* P	Pb	15 10 42.0	-1.5
RSA				*i* S	Sb	15 10 50.0	-0.2
TSY	Tnine Yamani	0.93	337	P	Pn	15 10 49.0	-1.5
TSY				S	Sn	15 11 03.0	+0.3
TSY	Tnine Yamani	0.93	337	*e*P	Pn	15 10 49.0	-1.5
TSY				*e*S	Sn	15 11 03.0	+0.3
MIF	Mishlifen	1.13	167	P	Pn	15 10 51.5	-1.6
MIF				S	Sn	15 11 06.5	-0.9
MIF	Mishlifen	1.13	167	*i* P	Pn	15 10 51.5	-1.6
MIF				*i* S	Sn	15 11 06.5	-0.9
TZK	Tazeka	1.19	110	P	Pn	15 10 52.5	-1.4
TZK				S	Sn	15 11 07.0	-1.9
TZK	Tazeka	1.19	110	*i* P	Pn	15 10 52.5	-1.4
RTC	Rabat Centre	1.22	245	P	Pn	15 10 54.0	-0.4
RTC				S	Sn	15 11 12.0	+2.2
RTC	Rabat Centre	1.22	245	P	Pn	15 10 54.4	0.0
RTC	Rabat Centre	1.22	245	P	Pn	15 10 54.4	0.0
RTC				*i* S	Sn	15 11 12.0	+2.2
CZD	Col de Zad	1.53	165	P	Pn	15 10 59.0	+0.3
CZD				S	Sn	15 11 18.0	+0.7
CZD	Col de Zad	1.53	165	*i* P	Pn	15 10 59.0	+0.3
CZD				*i* S	Sn	15 11 18.0	+0.7
EJIF	Jimena Fronter	1.94	1	P	Pn	15 11 06.1	+1.8
	1.6nm,0.2s,SNR=7.9						
EJIF	Jimena Fronter	1.94	1	P	Pn	15 11 06.0	+1.7
EJIF	Jimena Fronter	1.94	1	P	Pn	15 11 06.0	+1.7
KIB	El Ksiba	1.98	193	P	Pn	15 11 05.0	+0.1
KIB				S	Sn	15 11 29.0	+0.5
KIB	El Ksiba	1.98	193	*i* P	Pn	15 11 05.0	+0.1
KIB				*i* S	Sn	15 11 29.0	+0.5
EMIJ	Mijas	2.14	16	P	Pn	15 11 07.4	+0.4
	4.6nm,0.3s,SNR=5.0						
EMIJ				S	Sn	15 11 34.1	+1.7
	12nm,0.4s						
EMIJ	Mijas	2.14	16	P	Pn	15 11 07.4	+0.4
	4.6nm,0.3s,SNR=5.0						
EMIJ				S	Sn	15 11 34.1	+1.7
	12nm,0.4s						
ESPR	Espera	2.37	354	P	Pn	15 11 11.1	+0.9
	4.9nm,0.2s,SNR=7.9						
ESPR				S	Sn	15 11 40.1	+2.0
	8.8nm,0.3s,SNR=7.9						
ESPR	Espera	2.37	354	P	Pn	15 11 10.6	+0.4
ESPR				S	Sn	15 11 40.1	+2.0
ESPR	Espera	2.37	354	P	Pn	15 11 10.6	+0.4
ESPR				S	Sn	15 11 40.1	+2.0
	8.8nm,0.3s,SNR=7.9						
ZFT	Errachidia	2.66	158	P	Pn	15 11 13.0	-1.2
ZFT				S	Sn	15 11 45.0	-0.3
ZFT	Errachidia	2.66	158	*i* P	Pn	15 11 13.0	-1.2
ZFT				*i* S	Sn	15 11 45.0	-0.3
EGUA	Guajares	2.81	34	P	Pn	15 11 16.7	+0.4
	12nm,0.3s,SNR=7.9						
EGUA				S	Sn	15 11 49.9	+0.9
	15nm,0.4s,SNR=7.9						
EGUA	Guajares	2.81	34	P	Pn	15 11 16.1	-0.2
EGUA				S	Sn	15 11 49.9	+0.9
EGUA	Guajares	2.81	34	P	Pn	15 11 16.7	+0.4
	12nm,0.3s,SNR=7.9						
EGUA				S	Sn	15 11 49.9	+0.9
	15nm,0.4s,SNR=7.9						
EQUE	Quentar	3.17	32	P	Pn	15 11 23.6	+2.3
	1.0nm,0.2s,SNR=7.9						
EQUE	Quentar	3.17	32	P	Pn	15 11 23.6	+2.3
	1.0nm,0.2s,SNR=7.9						
EBER	Berja	3.20	41	P	Pn	15 11 22.0	+0.3
	3.7nm,0.4s,SNR=5.8						
EBER				S	Sn	15 11 59.5	+0.8
	4.9nm,0.3s						
EBER	Berja	3.20	41	P	Pn	15 11 22.2	+0.5
EBER				S	Sn	15 11 59.5	+0.8
EBER	Berja	3.20	41	P	Pn	15 11 22.0	+0.3
	3.7nm,0.4s,SNR=5.8						
EBER				S	Sn	15 11 59.5	+0.8
	4.9nm,0.3s						
PBDV	Barranco-do-Ve	3.35	325	*e*P	Pn	15 11 23.7	-0.1
PBDV				*e*S	Sn	15 12 02.0	-0.4
PBDV				A		15 12 04.9	
	10nm,1.1s						
PBDV	Barranco-do-Ve	3.35	325	P	Pn	15 11 23.7	-0.1
PBDV				S	Sn	15 12 02.0	-0.4
	10nm,1.1s						
PBDV	Barranco-do-Ve	3.35	325	*e*P	Pn	15 11 23.7	-0.1
PBDV				*e*S	Sn	15 12 02.0	-0.4
	10nm,1.1s						
EMIN	Mina Concepcio	3.38	344	P	Pn	15 11 24.1	0.0
	1.5nm,0.2s,SNR=12						
EMIN				S	Sn	15 12 02.1	-0.9
	1.3nm,0.1s						
EMIN	Mina Concepcio	3.38	344	P	Pn	15 11 22.9	-1.2
EMIN				S	Sn	15 12 02.1	-0.9
EMIN	Mina Concepcio	3.38	344	P	Pn	15 11 24.1	0.0
	1.5nm,0.2s,SNR=12						
EMIN				S	Sn	15 12 02.1	-0.9
	1.3nm,0.1s						
PVAQ	Vaqueiros	3.39	329	*e*P	Pn	15 11 24.2	-0.1
PVAQ				*e*S	Sn	15 12 02.3	-1.0
PVAQ				A		15 12 04.6	
	29nm,0.3s						
PVAQ	Vaqueiros	3.39	329	P	Pn	15 11 24.2	-0.1
PVAQ				S	Sn	15 12 02.3	-1.0
	29nm,0.3s						
PVAQ	Vaqueiros	3.39	329	*e*P	Pn	15 11 24.2	-0.1
PVAQ				*e*S	Sn	15 12 02.3	-1.0
	29nm,0.3s						
EGRO	El Granado	3.41	333	P	Pn	15 11 24.5	-0.1
	4.0nm,0.1s,SNR=14						
EGRO				S	Sn	15 12 03.7	0.0
	18nm,0.3s						
EGRO	El Granado	3.41	333	P	Pn	15 11 24.5	0.0
	4.0nm,0.1s,SNR=14						
EGRO				S	Sn	15 12 03.7	-0.1
	18nm,0.3s						
ECAB	El Cabril	3.56	1	P	Pn	15 11 26.6	+0.1
	2.3nm,0.1s,SNR=6.0						
ECAB				S	Sn	15 12 06.6	-0.8
	4.9nm,0.1s,SNR=5.5						
ECAB	El Cabril	3.56	1	P	Pn	15 11 28.1	+1.5
ECAB				S	Sn	15 12 06.6	-0.8
ECAB	El Cabril	3.56	1	P	Pn	15 11 26.6	+0.1
	2.3nm,0.1s,SNR=6.0						
ECAB				S	Sn	15 12 06.6	-0.8
	4.9nm,0.1s,SNR=5.5						
EADA	Adamuz	3.73	12	P	Pn	15 11 29.4	+0.6
	0.6nm,0.1s,SNR=7.9						
EADA				S	Sn	15 12 10.7	-0.9
	3.1nm,0.1s,SNR=7.9						
EADA	Adamuz	3.73	12	P	Pn	15 11 28.9	0.0
EADA				S	Sn	15 12 10.7	-0.9
EADA	Adamuz	3.73	12	P	Pn	15 11 28.9	0.0
EADA				S	Sn	15 12 10.7	-0.9
	3.1nm,0.1s,SNR=7.9						
EQES	Quesada	3.84	30	S	Sn	15 12 17.2	+2.9
	3.0nm,0.2s,SNR=4.0						
EQES	Quesada	3.84	30	P	Pn	15 11 32.5	+2.1
EQES				S	Sn	15 12 14.7	+0.4
EQES	Quesada	3.84	30	P	Pn	15 11 32.5	+2.1
EQES				S	Sn	15 12 14.7	+0.4
EBAN	Banos Encina	3.91	21	P	Pn	15 11 32.4	+1.1
	1.1nm,0.1s,SNR=7.9						
EBAN				S	Sn	15 12 15.7	-0.3
	1.9nm,0.2s,SNR=7.9						
EBAN	Banos Encina	3.91	21	P	Pn	15 11 32.4	+1.1
	1.1nm,0.1s,SNR=7.9						
EBAN				S	Sn	15 12 15.7	-0.3
	1.9nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.40	345	P	Pn	15 11 39.1	+1.0
	2.0nm,0.1s,SNR=8.6						
EBAD				S	Sn	15 12 26.8	-1.4
	7.1nm,0.2s						
EBAD	Badajoz	4.40	345	P	Pn	15 11 39.1	+0.9
	2.0nm,0.1s,SNR=8.6						
EBAD				S	Sn	15 12 26.8	-1.4
	7.1nm,0.2s						
EVO	Evora	4.49	334	*e*S	Sn	15 12 30.0	-0.3
EVO				A		15 12 31.9	
	8.7nm,0.3s						
EVO	Evora	4.49	334	S	Sn	15 12 30.0	-0.3
	8.7nm,0.3s						
EVO	Evora	4.49	334	*e*S	Sn	15 12 30.0	-0.3
	8.7nm,0.3s						
PESTR	Estremoz	4.65	340	*e*P	Pn	15 11 42.4	+0.8
PESTR				*e*S	Sn	15 12 34.8	+0.4
PESTR				A		15 12 51.3	
	4.0nm,0.6s						
PESTR	Estremoz	4.65	340	P	Pn	15 11 42.4	+0.8
PESTR				S	Sn	15 12 34.8	+0.4
	4.0nm,0.6s						
PESTR	Estremoz	4.65	340	*e*P	Pn	15 11 42.4	+0.8
PESTR				*e*S	Sn	15 12 34.8	+0.4
	4.0nm,0.6s						
PMRV	Marv??o	5.13	344	*e*P	Pn	15 11 49.0	+0.8
PMRV				*e*S	Sn	15 12 45.1	-1.1
PMRV				A		15 12 47.7	
	3.0nm,0.6s						
PMRV	Marv??o	5.13	344	P	Pn	15 11 49.0	+0.8
PMRV				S	Sn	15 12 45.1	-1.1
	3.0nm,0.6s						
PMRV	Marv??o	5.13	344	*e*P	Pn	15 11 49.0	+0.8
PMRV				*e*S	Sn	15 12 45.1	-1.1
	3.0nm,0.6s						
ETOB	Tobarra	5.22	37	P	Pn	15 11 50.9	+1.5
ETOB	Tobarra	5.22	37	P	Pn	15 11 50.9	+1.5
ESDC	Sonseca Array	5.30	13	P	Pn	15 11 50.6	+0.1
ESDC				S	Sn	15 12 48.7	-1.7
ESDC	Sonseca Array	5.30	13	P	Pn	15 11 50.6	+0.1
ESDC				S	Sn	15 12 48.7	-1.7
EPLA	Plasencia	5.56	356	P	Pn	15 11 54.6	+0.6
	4.1nm,0.2s,SNR=4.7						
EPLA				S	Sn	15 12 55.1	-1.7
	2.3nm,0.2s						
EPLA	Plasencia	5.56	356	P	Pn	15 11 54.6	+0.5
	4.1nm,0.2s,SNR=4.7						
EPLA				S	Sn	15 12 55.1	-1.7
	2.3nm,0.2s						
MVO	Moncorvo	6.75	350	*e*P	Pn	15 12 11.1	+0.7
MVO	Moncorvo	6.75	350	*e*P	Pn	15 12 11.1	+0.7
ETOR	Torete	6.87	23	P	Pn	15 12 11.2	-0.8
	4.0nm,0.3s,SNR=7.9						
ETOR				S	Sn	15 13 26.3	-2.7
	6.1nm,0.5s,SNR=7.9						
ETOR	Torete	6.87	23	P	Pn	15 12 11.2	-0.8
	4.0nm,0.3s,SNR=7.9						
ECAL	Calabor	7.48	353	P	Pn	15 12 20.7	+0.3
	2.0nm,0.3s,SNR=4.6						
ECAL				S	Sn	15 13 40.9	-3.0
	2.5nm,0.3s						
ECAL	Calabor	7.48	353	P	Pn	15 12 20.7	+0.3
	2.0nm,0.3s,SNR=4.6						
ELOB	Lobios	7.61	346	P	Pn	15 12 22.6	+0.4
ELOB				S	Sn	15 13 42.5	-4.7
ELOB	Lobios	7.61	346	P	Pn	15 12 22.6	+0.4

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*ISCJB **18** 15:15:30.2±0.2, 36°.57N±0°.01×117°.97W±0°.02, h10^{km}, Error ellipse: s-maj=2.2km s-min=1.8km az=9.1*

*NEIC **18** 15:15:30.6, 36°.60N×118°.02W, h0^{km}, ML3.9(NCEDC), After NCEDC.*

ISC 18 15:15:30.9±0.2, **36°.58N**±0°.01×**117°.98W**±0°.02, **h10**^{km}**, n93,** σ**1^s.08**/153, **34C-49D, California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CWC	Cottonwood Cre	0.16	210	⇑P	Pg	15 15 34.6	+0.2
	baz=0.1,SNR=1000						
CWC				⇓S	Sg	15 15 37.6	+0.8
	baz=0.1						
TIN	Tinemaha	0.52	337	⇑P	Pg	15 15 40.8	-0.1
	baz=0.5						
TIN				⇓S	Sg	15 15 47.9	+0.2
	baz=0.5						
GRAC	Grapevine Rang	0.65	49	⇓P	Pg	15 15 44.2	+0.8
	baz=0.7,SNR=827						
GRAC				⇑S	Sg	15 15 53.2	+1.4
	baz=0.7						
MPMC	Manual Prospec	0.65	142	⇓P	Pg	15 15 43.7	+0.2
	baz=0.7,SNR=680						
MPMC				⇓S	Sg	15 15 52.8	+0.8
	baz=0.7						
FURC	Furnace Creek,	0.91	97	⇑P	Pg	15 15 48.7	+0.4
	baz=0.9,SNR=114						
FURC				⇓S	Sg	15 16 01.7	+1.5
	baz=0.9						
ISA	Isabella	1.00	204	P	Pg	15 15 49.7	-0.4
	baz=1.0,SNR=1000						
ISA				⇑S	Sg	15 16 02.6	-0.4
	baz=1.0						
ISA	Isabella	1.00	204	⇓*i*Pg	Pg	15 15 49.6	-0.4
ISA				*e*Sg	Sg	15 16 02.6	-0.4
RCTC	Rector, Farmer	1.05	256	⇑P	Pg	15 15 50.0	-1.1
	baz=1.0,SNR=33						
RCTC				⇓S	Sg	15 16 03.0	-1.7
	baz=1.0						
VES	Vestal, Richgr	1.16	231	⇓P	Pb	15 15 52.2	-0.7
	baz=1.1,SNR=111						
MLAC	Mammoth Lakes	1.25	327	⇑P	Pn	15 15 53.9	-0.5
	baz=1.2,SNR=137						
MLAC				⇑S	Sb	15 16 10.6	-0.1
	baz=1.2						
S09A	Goldfield	1.29	28	⇓P	Pn	15 15 55.0	0.0
	baz=1.3,SNR=930						
U10A	Ash Meadows, A	1.34	96	⇓P	Pn	15 15 55.7	+0.1
	baz=1.4,SNR=54						
U10A				⇓S	Sb	15 16 14.1	+0.8
	baz=1.4						
TPNV	Topopah Spring	1.44	75	⇑Pn	Pn	15 15 57.3	+0.3
	baz=1.5						
TPNV				⇑Pg	Pg	15 15 59.1	+0.7
	baz=1.5,SNR=24						
TPNV	Topopah Spring	1.44	75	*e*Pn	Pn	15 15 57.4	+0.4
TPNV				*e*S	Sn	15 16 19.0	+3.1
SHOC	Shoshone	1.53	116	⇑Pb	Pb	15 15 59.7	+0.3
	baz=1.6,SNR=15						
GSC	Goldstone	1.59	143	⇓Pn	Pn	15 15 59.0	-0.1
	baz=1.6						
GSC				⇑Pg	Pg	15 16 01.4	0.0
	baz=1.6						
GSC	Goldstone	1.59	143	*e*Pn	Pn	15 15 58.8	-0.3
GSC				*e*Pg	Pg	15 16 01.2	-0.2
ARVC	Arvin	1.60	206	⇓Pg	Pg	15 16 01.1	-0.5
	baz=1.6,SNR=108						
TPH	Tonopah	1.61	22	*e*Pn	Pn	15 15 59.3	-0.1
TPH				*e*Pg	Pg	15 16 00.9	-0.9
TPH				*e*Sg	Sg	15 16 23.2	+0.5
EDW2	Edwards Air Fo	1.69	180	⇓Pn	Pn	15 16 00.1	-0.3
	baz=1.7						
EDW2				⇑Pg	Pg	15 16 02.9	-0.5
	baz=1.7						
EDW2				⇓Sb	Sb	15 16 24.2	+0.7
	baz=1.7						
S10A	Tonopah Range,	1.74	39	Pn	Pn	15 16 01.2	+0.1
	baz=1.8,SNR=854						

S10A				⇓Pg	Pg	15 16 04.2	0.0
	baz=1.8						
R08A	**Mina**	**1.77**	**357**	⇓Pg	**Pg**	**15 16 04.4**	**-0.4**
	baz=1.8						
R08A				⇑Sb	**Sb**	**15 16 27.2**	**+1.6**
	baz=1.8						
R09A	**Tonopah**	**1.81**	**23**	⇑Pn	**Pn**	**15 16 02.2**	**+0.1**
	baz=1.8,SNR=469						
R09A				⇑Pg	**Pg**	**15 16 05.6**	**0.0**
	baz=1.8						
R09A				⇓Sb	**Sb**	**15 16 28.4**	**+1.7**
	baz=1.8						
RRX	**Edison Barstow**	**1.87**	**155**	⇑Sg	**Sg**	**15 16 33.1**	**+2.0**
	baz=1.9						
TUQ	**Turquoise Moun**	**2.02**	**124**	⇓Pn	**Pn**	**15 16 04.6**	**-0.3**
	baz=2.1						
TUQ				⇓Pb	**Pb**	**15 16 07.4**	**-0.2**
	baz=2.1						
TUQ				⇓Sb	**Sb**	**15 16 35.2**	**+2.4**
	baz=2.1						
OSI	**Osito Adit**	**2.05**	**197**	⇑Pg	**Pg**	**15 16 09.6**	**-0.5**
	baz=2.0						
OSI	**Osito Adit**	**2.05**	**197**	Pn	**Pn**	**15 16 06.0**	**+0.7**
OSI				*e*Pg	**Pg**	**15 16 09.7**	**-0.5**
SMMC	**Simmler**	**2.07**	**233**	⇑Pb	**Pb**	**15 16 07.1**	**-1.4**
	baz=2.0,SNR=20						
SMMC				⇓Sb	**Sb**	**15 16 34.1**	**-0.2**
	baz=2.0						
S11A	**Rachel**	**2.08**	**59**	⇑Pn	**Pn**	**15 16 05.8**	**0.0**
	baz=2.1						
S11A				⇓Pg	**Pg**	**15 16 11.0**	**+0.3**
	baz=2.1						
U11A	**Corn Creek**	**2.10**	**93**	⇓Pn	**Pn**	**15 16 06.5**	**+0.5**
	baz=2.1						
V11A	**Goodsprings**	**2.19**	**109**	⇓Pn	**Pn**	**15 16 07.1**	**-0.2**
	baz=2.2,SNR=8.1						
V11A				⇑Pb	**Pb**	**15 16 10.6**	**0.0**
	baz=2.2						
HEC	**Hector,Ludlow**	**2.20**	**142**	⇑P	**Pn**	**15 16 07.3**	**-0.2**
	baz=2.2						
T11A	**Corn Creek, Al**	**2.31**	**73**	⇑Pn	**Pn**	**15 16 09.1**	**+0.2**
	baz=2.3,SNR=24						
Q09A	**Carvers**	**2.34**	**15**	⇓Pg	**Pg**	**15 16 15.5**	**-0.2**
	baz=2.4						
DECC	**Green Verdugo**	**2.34**	**187**	⇑Pg	**Pg**	**15 16 15.1**	**-0.7**
	baz=2.3						
BFSC	**Mount Baldy St**	**2.35**	**173**	⇑Pg	**Pg**	**15 16 15.5**	**-0.4**
	baz=2.4						
MWC	**Mount Wilson**	**2.35**	**182**	*e*Pn	**Pn**	**15 16 09.5**	**0.0**
MWC				*e*Pg	**Pg**	**15 16 14.5**	**-1.5**
MWC				*e*Sg	**Sg**	**15 16 45.4**	**-1.0**
CMB	**Columbia Colle**	**2.41**	**308**	*e*Pn	**Pn**	**15 16 10.8**	**+0.6**
CMB				*e*S	**Sn**	**15 16 42.3**	**+2.5**
Q07A	**Schurz**	**2.44**	**345**	⇓Pg	**Pg**	**15 16 17.3**	**-0.4**
	baz=2.4						
BBRC	**Big Bear Sol-O**	**2.47**	**159**	⇑Pg	**Pg**	**15 16 17.8**	**-0.4**
	baz=2.5						
Q10A	**Clear Creek Ra**	**2.57**	**29**	⇓Pn	**Pn**	**15 16 12.8**	**+0.3**
	baz=2.6,SNR=8.6						
R11A	**Troy Canyon, C**	**2.60**	**46**	⇑Pn	**Pn**	**15 16 13.0**	**+0.1**
	baz=2.6,SNR=43						
GMRC	**Granite Mounta**	**2.61**	**133**	⇑Pn	**Pn**	**15 16 12.4**	**-0.7**
	baz=2.6						
GMRC				⇓Pb	**Pb**	**15 16 17.3**	**-0.3**
	baz=2.6						
T12A	**Moapa**	**2.63**	**86**	⇑Pb	**Pb**	**15 16 18.5**	**+0.4**
	baz=2.7						
S12A	**Delamar Landin**	**2.71**	**67**	⇓Pn	**Pn**	**15 16 14.7**	**+0.3**
	baz=2.7,SNR=36						
LDFC	**Landfair**	**2.77**	**122**	*e*Pn	**Pn**	**15 16 14.7**	**-0.6**
LDFC				*e*Pg	**Pg**	**15 16 21.6**	**-2.4**
LDFC				*e*Sg	**Sg**	**15 16 59.9**	**0.0**
U12A	**Valley of Fire**	**2.78**	**92**	⇓Sb	**Sb**	**15 16 57.8**	**+3.2**
	baz=2.8						
SAO	**San Andreas Ge**	**2.79**	**275**	*e*Pn	**Pn**	**15 16 15.2**	**-0.4**
SAO				S	**Sn**	**15 16 52.9**	**+3.6**
Q11A	**Duckwater**	**2.92**	**38**	⇓Pn	**Pn**	**15 16 17.7**	**+0.4**
	baz=2.9,SNR=5.9						
MURC	**Murrieta**	**3.04**	**168**	⇓Sb	**Sb**	**15 17 04.9**	**+2.7**
	baz=3.1						
BELC	**Belle Mtn.**	**3.04**	**147**	⇑Pn	**Pn**	**15 16 18.9**	**-0.1**
	baz=3.1,SNR=63						
PFO	**Pinyon Flat Ob**	**3.22**	**157**	⇑Sb	**Sb**	**15 17 10.6**	**+3.3**
	baz=3.2						
PFO	**Pinyon Flat Ob**	**3.22**	**157**	*e*Pn	**Pn**	**15 16 21.6**	**+0.2**
PFO				*e*Pg	**Pg**	**15 16 30.7**	**-1.7**
U13A	**Pakoon Wash**	**3.24**	**92**	⇓Sb	**Sb**	**15 17 11.8**	**+3.9**
	baz=3.3						
V13A	**Grand Canyon W**	**3.31**	**101**	⇓Pb	**Pb**	**15 16 29.7**	**0.0**
	baz=3.3						
IRM	**Iron Mountain**	**3.34**	**135**	⇓Pn	**Pn**	**15 16 22.7**	**-0.5**
	baz=3.4						
S13A	**Holt Ranch, En**	**3.44**	**72**	⇓Pn	**Pn**	**15 16 24.9**	**+0.4**
	baz=3.5						
Q12A	**Willow Creek R**	**3.50**	**44**	⇑Pn	**Pn**	**15 16 25.4**	**+0.1**
	baz=3.5						
R13A	**O'Grain Ranch,**	**3.57**	**62**	⇑Pn	**Pn**	**15 16 26.5**	**+0.2**
	baz=3.6						
R13A				⇓Pg	**Pg**	**15 16 39.4**	**+0.1**
	baz=3.6,SNR=16						
BC3	**Big Chuckw Mtn**	**3.58**	**144**	⇓Pn	**Pn**	**15 16 26.0**	**-0.4**
	baz=3.6						
O07A	**Toulon**	**3.65**	**349**	⇓Pn	**Pn**	**15 16 26.9**	**-0.4**
	baz=3.6,SNR=7.2						
P12A	**McGill**	**3.77**	**39**	⇓Pn	**Pn**	**15 16 29.1**	**+0.1**
	baz=3.8,SNR=9.3						
CCUT	**Cedar City**	**3.82**	**74**	*e*Pn	**Pn**	**15 16 30.3**	**+0.6**
CCUT				*e*Pg	**Pg**	**15 16 43.0**	**-1.0**
CCUT				*e*Sg	**Sg**	**15 17 33.5**	**+0.1**
ARUT	**Antelope Range**	**3.82**	**70**	Pn	**Pn**	**15 16 29.0**	**-0.7**
ARUT				*e*Pg	**Pg**	**15 16 43.4**	**-0.7**
ARUT				*e*Sg	**Sg**	**15 17 33.7**	**+0.2**
O10A	**Cortez Mining,**	**3.88**	**17**	⇓Pn	**Pn**	**15 16 31.2**	**+0.6**
	baz=3.9,SNR=20						
BMN	**Battle Mountai**	**3.89**	**9**	*e*Pn	**Pn**	**15 16 31.1**	**+0.4**
BMN				*e*Pg	**Pg**	**15 16 41.3**	**-4.1**
BMN				*e*Sg	**Sg**	**15 17 34.0**	**-1.9**
BAR	**Barrett**	**4.04**	**164**	*e*Pn	**Pn**	**15 16 33.3**	**+0.6**
BAR				*e*Sg	**Sg**	**15 17 35.5**	**-5.0**
MCCM	**Marconi Confer**	**4.20**	**293**	*e*Pn	**Pn**	**15 16 36.1**	**+1.1**
P13A	**Bates Ranch, G**	**4.25**	**46**	⇓Pn	**Pn**	**15 16 36.7**	**+1.1**
	baz=4.3,SNR=7.2						
GLA	**Glamis**	**4.37**	**143**	*e*Pn	**Pn**	**15 16 37.2**	**-0.1**
Q14A	**Sevier Lake (B**	**4.43**	**56**	⇓Pn	**Pn**	**15 16 39.1**	**+0.9**
	baz=4.5,SNR=13						
O12A	**Currie**	**4.47**	**34**	⇑Pn	**Pn**	**15 16 39.6**	**+0.9**
	baz=4.5,SNR=32						
S15A	**Panguitch**	**4.62**	**75**	⇓Pg	**Pg**	**15 16 58.6**	**-0.8**
	baz=4.7						
ELK	**Elko**	**4.68**	**26**	*e*Pn	**Pn**	**15 16 42.6**	**+1.1**
ELK				*e*Pg	**Pg**	**15 16 58.6**	**-1.9**
ELK				*e*Sg	**Sg**	**15 17 58.8**	**-2.3**
HOPS	**Hopland**	**4.70**	**302**	*e*Pn	**Pn**	**15 16 42.8**	**+1.0**
N12A	**Clover Valley,**	**4.85**	**27**	⇓Pn	**Pn**	**15 16 45.1**	**+1.3**
	baz=4.9,SNR=183						
Z13A	**Yuma Proving G**	**4.90**	**132**	⇓Pn	**Pn**	**15 16 44.2**	**-0.3**
	baz=4.9						
MSU	**Marysvale**	**5.00**	**66**	*e*Pn	**Pn**	**15 16 47.2**	**+1.3**
	43nm,0.8s						
MSU				*e*Pg	**Pg**	**15 17 03.9**	**-2.7**
MSU				*e*Sg	**Sg**	**15 18 10.6**	**-0.7**
N13A	**Wendover, West**	**5.19**	**34**	⇓Pn	**Pn**	**15 16 49.4**	**+0.9**
	baz=5.2,SNR=7.1						
WDC	**Whiskeytown Da**	**5.36**	**320**	Pn	**Pn**	**15 16 49.3**	**-1.6**
	20nm,1.0s						
WDC				Sg	**Sb**	**15 18 09.7**	**+0.8**
DUG	**Dugway**	**5.43**	**47**	Pn	**Pn**	**15 16 55.4**	**+3.6**
	59nm,0.9s						
DUG				*e*Pg	**Pg**	**15 17 13.3**	**-1.6**
DUG				*e*Sg	**Sg**	**15 18 23.8**	**-1.4**
WUAZ	**Wupatki**	**5.46**	**99**	*e*Pg	**Pg**	**15 17 11.9**	**-3.5**
	7.4nm,0.7s						
MOD	**Modoc**	**5.61**	**342**	*e*Pn	**Pn**	**15 16 56.6**	**+2.2**
	14nm,0.6s						
MOD				*e*Pg	**Pg**	**15 17 14.1**	**-4.2**
NLU	**North Lily Min**	**5.74**	**52**	*e*Pg	**Pg**	**15 17 19.5**	**-1.2**
	22nm,0.9s						
BGU	**Big Grassy Mou**	**5.81**	**40**	*e*Pn	**Pn**	**15 17 00.2**	**+3.1**
	14nm,0.4s						
BGU				*e*Pg	**Pg**	**15 17 19.6**	**-2.6**
BGU				*e*Sg	**Sg**	**15 18 35.1**	**-2.4**
WVOR	**Wild Horse Val**	**5.87**	**355**	Pg	**Pg**	**15 17 23.3**	**+0.1**
	6.9nm,0.8s						
TMUT	**Trail Mountain**	**6.00**	**61**	*e*Pn	**Pn**	**15 17 02.1**	**+2.5**
	22nm,0.8s						
TMUT				*e*Pg	**Pg**	**15 17 25.6**	**-0.2**
TMUT				*e*Sg	**Sg**	**15 18 42.3**	**-1.2**
YBH	**Yreka Blue Hor**	**6.32**	**326**	Pn	**Pn**	**15 17 06.9**	**+2.8**
	3.3nm,0.8s						
SPUT	**South Promonto**	**6.39**	**41**	Pn	**Pn**	**15 17 09.7**	**+4.7**
	7.1nm,0.5s						
SRU	**San Rafael**	**6.42**	**65**	Pn	**Pn**	**15 17 08.7**	**+3.3**
	7.8nm,0.6s						
SRU				*e*Pg	**Pg**	**15 17 31.3**	**-2.4**
SRU				*e*Sg	**Sg**	**15 18 54.8**	**-2.1**
HVU	**Hansel Valley**	**6.58**	**36**	*e*Pg	**Pg**	**15 17 33.2**	**-3.6**
	28nm,0.8s						
PV04	**Paradox Valley**	**7.44**	**73**	Pn	**Pn**	**15 17 24.5**	**+5.1**
PV04				*e*Pg	**Pg**	**15 17 51.3**	**-2.0**
HLID	**Hailey**	**7.49**	**20**	Pn	**Pn**	**15 17 21.1**	**+1.0**
	7.4nm,0.7s						
HLID				*e*Sg	**Sg**	**15 19 25.2**	**-6.0**

ISCJB ***18*** *15:26:57.6±0.4, 49°.88N±0°.03×18°.36E±0°.03, h0^{km}, Error ellipse: s-maj=4.1km s-min=2.2km az=11.7*
CSEM ***18*** *15:26:59.7±0.2, 49°.79N×18°.33E, h2^{km}, ML2.6/6, Error ellipse: s-maj=6.0km s-min=3.5km az=18.0*
VIE ***18*** *15:26:59.2±0.4, 49°.70N×18°.40E, h0^{km}, mb1.9/2, ML2.3/4, Error ellipse: s-maj=2.6km s-min=1.8km az=84.0 19 km SE of Ostrava Suspected Mining induced.*
PRU ***18*** *15:27:00.0, 49°.87N×18°.34E, h0^{km}, Rockburst In Mine Lazy, 2 Miners Wounded-felt In Orlova Mining induced.*
ISC 18 15:26:59.5±0.4**, 49°.83N**±0°.03×**18°.33E**±0°.03**, h0^{km}, n38, σ1^{s}38**/69**, 3C, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	**0.12**	**272**	*e*PG	**Pg**	**15 27 03.2**	**+1.4**
OKC				*e*SG	**Sg**	**15 27 05.2**	**+1.9**
	comp=Z,322nm,0.5s						
OKC	**Ostrava-Krasne**	**0.12**	**272**	Pg	**Pg**	**15 27 03.2**	**+1.4**
OKC				Sg	**Sg**	**15 27 05.2**	**+1.9**
	comp=Z,322nm,0.5s						
RAC	**Raciborz**	**0.27**	**340**	*e*Pg	**Pg**	**15 27 06.0**	**+1.4**
RAC				*e*Sg	**Sg**	**15 27 10.7**	**+2.7**
RAC	**Raciborz**	**0.27**	**340**	*e*Pg	**Pg**	**15 27 06.0**	**+1.4**
RAC				*e*Sg	**Sg**	**15 27 10.7**	**+2.7**
MORC	**Moravsky Berou**	**0.52**	**264**	*e*Pg	**Pg**	**15 27 10.5**	**+1.1**
MORC				*e*Sg	**Sg**	**15 27 17.5**	**+1.5**
OJC	**Ojcow**	**1.02**	**67**	*e*Pg	**Pg**	**15 27 16.2**	**-2.9**
OJC				*e*Sg	**Sg**	**15 27 29.5**	**-2.8**
OJC	**Ojcow**	**1.02**	**67**	*e*Pg	**Pg**	**15 27 16.2**	**-2.9**
OJC				*e*Sg	**Sg**	**15 27 29.5**	**-2.8**
VRAC	**Vranov**	**1.25**	**246**	*e*Pg	**Pg**	**15 27 23.4**	**0.0**
VRAC				*e*Sg	**Sg**	**15 27 40.6**	**+1.0**
NIE	**Niedzica**	**1.35**	**107**	*e*Pg	**Pg**	**15 27 23.5**	**-1.9**
NIE				*e*Sg	**Sg**	**15 27 42.1**	**-0.9**
NIE	**Niedzica**	**1.35**	**107**	*e*Pg	**Pg**	**15 27 23.5**	**-1.9**
NIE				*e*Sg	**Sg**	**15 27 42.1**	**-0.9**
VYHS	**Vyhne**	**1.38**	**166**	*e*PG	**Pg**	**15 27 24.0**	**-2.0**
VYHS				*e*SG	**Sg**	**15 27 44.7**	**+0.8**
VYHS	**Vyhne**	**1.38**	**166**	*e*Pg	**Pg**	**15 27 24.0**	**-2.0**
VYHS				*e*Sg	**Sg**	**15 27 44.7**	**+0.8**
DPC	**Dobruska-Polom**	**1.39**	**293**	*e*PG	**Pg**	**15 27 25.7**	**-0.5**
DPC				*e*SG	**Sg**	**15 27 44.8**	**+0.5**
	comp=Z,14nm,0.6s						
DPC	**Dobruska-Polom**	**1.39**	**293**	Pg	**Pg**	**15 27 25.7**	**-0.5**
DPC				Sg	**Sg**	**15 27 44.8**	**+0.5**
	comp=Z,14nm,0.6s						
MODS	**Modra-Piesok**	**1.62**	**206**	*e*PN	**Pn**	**15 27 29.0**	**-0.3**
MODS				*e*SN	**Sn**	**15 27 51.4**	**+0.6**
MODS	**Modra-Piesok**	**1.62**	**206**	*e*Pn	**Pn**	**15 27 29.0**	**-0.3**
MODS				*e*Sn	**Sn**	**15 27 51.4**	**+0.6**
UPC	**Upice**	**1.64**	**295**	*e*PG	**Pg**	**15 27 30.0**	**-0.9**
UPC				*e*SG	**Sg**	**15 27 53.1**	**+1.0**
UPC	**Upice**	**1.64**	**295**	Pg	**Pg**	**15 27 30.0**	**-0.9**
UPC				Sg	**Sg**	**15 27 53.1**	**+1.0**
KSP	**Ksiaz**	**1.65**	**308**	*e*Pg	**Pg**	**15 27 29.5**	**-1.6**
KSP				*e*Sg	**Sg**	**15 27 53.4**	**+0.9**
ZST	**Bratislava**	**1.83**	**207**	*e*PN	**Pn**	**15 27 31.6**	**-0.5**
ZST				*e*SN	**Sn**	**15 27 56.3**	**+0.3**
ZST	**Bratislava**	**1.83**	**207**	*e*Pn	**Pn**	**15 27 31.6**	**-0.5**
ZST				*e*Sn	**Sn**	**15 27 56.3**	**+0.3**
STHS	**Stebnicka Huta**	**1.94**	**101**	*e*PN	**Pn**	**15 27 34.0**	**+0.3**
STHS				*e*SN	**Sn**	**15 28 00.6**	**+1.9**
STHS	**Stebnicka Huta**	**1.94**	**101**	*e*Pn	**Pn**	**15 27 34.0**	**+0.3**
STHS				*e*Sn	**Sn**	**15 28 00.6**	**+1.9**
CRVS	**Cervenica-Dubn**	**2.25**	**113**	*e*PN	**Pn**	**15 27 39.8**	**+1.9**
CRVS				*e*SG	**Sg**	**15 28 12.9**	**+1.2**
CRVS	**Cervenica-Dubn**	**2.25**	**113**	*e*Pn	**Pn**	**15 27 39.8**	**+1.9**
CRVS				*e*Sg	**Sg**	**15 28 12.9**	**+1.2**
PRU	**Pruhonice**	**2.46**	**275**	*e*PG	**Pg**	**15 27 43.5**	**-3.0**
PRU				*e*SG	**Sg**	**15 28 18.1**	**-0.2**
	comp=Z,6.3nm,0.5s						
CONA	**Conrad Observa**	**2.51**	**221**	⇑*i*Pn	**Pn**	**15 27 40.4**	**-1.1**
CONA	**Conrad Observa**	**2.51**	**221**	Pn	**Pn**	**15 27 40.4**	**-1.1**
CSNA	**Conrad Observa**	**2.51**	**221**	⇑*i*Pn	**Pn**	**15 27 40.4**	**-1.1**
CSNA	**Conrad Observa**	**2.51**	**221**	Pn	**Pn**	**15 27 40.4**	**-1.1**
PVCC	**Panska Ves**	**2.52**	**287**	*e*SG	**Sg**	**15 28 19.9**	**-0.4**
	comp=Z,12nm,0.5s						
PVCC	**Panska Ves**	**2.52**	**287**	Sg	**Sg**	**15 28 19.9**	**-0.4**
	comp=Z,12nm,0.5s						
KOLS	**Kolonicke sedl**	**2.73**	**108**	*e*PG	**Pg**	**15 27 51.8**	**0.0**
KOLS				*e*SG	**Sg**	**15 28 28.6**	**+1.5**
KOLS	**Kolonicke sedl**	**2.73**	**108**	*e*Pg	**Pg**	**15 27 51.8**	**0.0**
KOLS				*e*Sg	**Sg**	**15 28 28.6**	**+1.5**
BRG	**Berggiesshubel**	**3.00**	**292**	PG	**Pg**	**15 27 54.6**	**-2.3**
BRG				SG	**Sg**	**15 28 34.4**	**-1.4**
	comp=Z,5.7nm,0.3s						
KHC	**Kasperske Hory**	**3.18**	**259**	*e*PG	**Pg**	**15 27 58.1**	**-2.3**
KHC				*e*SN	**Sn**	**15 28 27.5**	**-1.8**
KHC				*e*SG	**Sg**	**15 28 40.4**	**-1.2**
	comp=Z,6.4nm,0.5s						
MOA	**Molln**	**3.34**	**235**	⇑*i*Sg	**Sg**	**15 28 48.6**	**+1.8**
	comp=Z,3.1nm,0.5s						
MOA	**Molln**	**3.34**	**235**	Sg	**Sg**	**15 28 48.6**	**+1.8**
	comp=Z,3.1nm,0.5s						

ISCJB ***18*** *15:29:52.4±0.3, 21°.29S±0°.02×69°.75W±0°.06, h63^{km}±3^{km}, mb4.3/23, Error ellipse: s-maj=9.2km s-min=4.0km az=173.3*
GUC ***18*** *15:29:52.1±0.7, 21°.30S×69°.91W, h51^{km}±6^{km}, ML4.7*
IDC ***18*** *15:29:52.6±0.5, 21°.20S×69°.74W, h56^{km}±4^{km}, mb4.1/11, mb1 4.3/14, mb1mx4.2/18, mbtmp4.1/14, MS3.4/5, Ms1 3.4/5, ms1mx3.3/17, Error ellipse: s-maj=21.7km s-min=7.1km az=63.0*
NEIC ***18*** *15:29:52.2±0.3, 21°.30S×69°.79W, mb4.5/11, Error ellipse: s-maj=10.8km s-min=6.6km az=70.0*
NEIC Felt [IV] at Quillagua; [III] at Huara, Pica and Pozo Almonte; [II] at Alto Hospicio, Iquique and Tocopilla.
BJI ***18*** *15:29:53.2, 21°.30S×69°.80W, h43^{km}, mB5.1/6, Ms5.1/4, Ms7 4.5/5*
ISC 18 15:29:53.2±0.3**, 21°.31S**±0°.02×**69°.76W**±0°.06**, h54^{km}**±3^{km}**, h55^{km}**±.7^{km}**:pP-P, n107, σ0^{s}94**/98**, mb4.3**/23**, MS4.0**/3**, 27C-23D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB01	**Plate Boundary**	**0.37**	**43**	⇓*i*P	**Pn**	**15 30 03.4**	**+0.1**
PB01				*i* S	**Sn**	**15 30 11.4**	**+0.8**
PB01				AML	AML	15 30 12.5	
	comp=E,128µm,0.4s						
MACH	**Maria Elena**	**0.88**	**180**	⇑*i*P	**Pn**	**15 30 09.2**	**-0.3**
MACH				*i* S	**Sn**	**15 30 21.7**	**+0.3**
TOCH	**Tocopilla**	**0.88**	**208**	*e*P	**Pn**	**15 30 07.9**	**-1.6**
TOCH				*i* S	**Sn**	**15 30 20.1**	**-1.3**
PB04	**Plate Boundary**	**0.98**	**165**	⇑*i*P	**Pn**	**15 30 11.1**	**+0.2**
PB04				*i* S	**Sn**	**15 30 25.1**	**+1.3**
PB04				AML	AML	15 30 28.9	
	comp=N,30µm,0.6s						
HMBC	**Humberston**	**1.03**	**353**	⇑*i*P	**Pn**	**15 30 10.8**	**-0.8**
HMBC				*i* S	**Sn**	**15 30 25.1**	**0.0**
HMBC				AML	AML	15 30 26.6	
	comp=N,27µm,0.7s						
PECH	**Pedro de Valdi**	**1.28**	**177**	⇓*e*P	**Pn**	**15 30 15.0**	**+0.1**
PECH				*i* S	**Sn**	**15 30 32.5**	**+1.4**
PECH				AML	AML	15 30 36.5	
	comp=N,18µm,0.2s						
LVC	**Limon Verde**	**1.52**	**149**	P	**Pn**	**15 30 19.8**	**+1.8**
	comp=N,265nm,0.3s,baz=360,slow=7.5,SNR=873						
LVC				S	**Sn**	**15 30 38.7**	**+2.1**
	baz=180,slow=19						
LVC	**Limon Verde**	**1.52**	**149**	⇓*i*Pn	**Pn**	**15 30 19.8**	**+1.8**
LVC				*e*Sn	**Sn**	**15 30 39.0**	**+2.3**
LVC	**Limon Verde**	**1.52**	**149**	⇓*e*P	**Pn**	**15 30 19.6**	**+1.6**
LVC				*i* S	**Sn**	**15 30 40.0**	**+3.4**
PSGC	**Pisagua**	**1.74**	**349**	⇑*e*P	**Pn**	**15 30 19.8**	**-1.3**
PSGC				*i* S	**Sn**	**15 30 41.6**	**-0.5**
MNMC	**Miæe Miæ**	**2.17**	**4**	⇑*e*P	**Pn**	**15 30 27.1**	**+0.2**
MNMC				*i* S	**Sn**	**15 30 54.3**	**+1.6**
MNMC				AML	AML	15 31 02.7	
	comp=E,13µm,0.5s						
ARE	**Arequipa**	**5.09**	**341**	*e*P	**Pn**	**15 31 05.0**	**-2.0**
ARE				*e*S	Sn	15 32 25.0	+20
LCO	**Las Campanas**	**7.71**	**186**	*e*Pn	**Pn**	**15 31 40.8**	**-2.1**
	comp=E,41nm,0.4s						
LCO				*e*S	**Sn**	**15 33 27.2**	**+18**
SIV	**San Ignacio**	**9.78**	**59**	P	**Pn**	**15 32 11.0**	**-0.3**
	comp=E,13nm,0.3s,baz=249,slow=11,SNR=105						
SIV				S	**Sn**	**15 33 52.0**	**-7.7**
	comp=E,0.6nm,0.3s,baz=188,slow=15,SNR=1.5						
CMCH	**Combarbala**	**9.88**	**186**	*e*P	Sx	15 34 16.6	
CFAA	**Coronel Fontan**	**10.34**	**173**	P	**Pn**	**15 32 15.9**	**-2.9**
	comp=E,0.1nm,0.3s,baz=354,slow=13,SNR=5.4						
CFAA				S	**Sn**	**15 34 18.9**	**+5.6**
	comp=E,0.2nm,0.3s,baz=7.6,slow=15,SNR=2.4						
CFAA				LR	LR	15 36 46.7	
	comp=E,53nm,21.9s,baz=340,slow=40						
NNA	**Nana**	**11.49**	**323**	LR	LR	15 37 01.9	
	comp=E,97nm,21.1s,baz=138,slow=38						
CPUP	**Villa Florida**	**12.42**	**116**	P	**Pn**	**15 32 46.5**	**-0.8**
	comp=E,1.5nm,0.3s,baz=290,slow=11,SNR=16						
PLCA	**Paso Flores**	**19.37**	**182**	P	**Pn**	**15 34 15.4**	**-0.6**
	comp=E,0.3nm,0.3s,baz=12,slow=11,SNR=6.0						
PLCA				LR	LR	15 41 47.1	
	comp=E,255nm,20.8s,baz=6.4,slow=37						
OTAV	**Otavalo**	**23.04**	**337**	P	**P**	**15 34 56.8**	**+2.8**
	comp=E,8.2nm,0.9s,mb4.2						
SDV	**Santo Domingo**	**30.02**	**358**	*e*P	**P**	**15 35 55.0**	**-2.0**
	comp=E,4.8nm,0.6s,mb4.4						
RCBR	**Riachuelo**	**36.21**	**70**	*e*P	**P**	**15 36 51.1**	**0.0**
MIAR	**Mount Ida**	**59.99**	**337**	P	**P**	**15 39 52.4**	**-1.7**
	comp=E,15nm,1.3s,mb4.9						
TXAR	**Lajitas Array**	**60.02**	**326**	P	**P**	**15 39 53.6**	**-0.9**
	comp=E,0.6nm,0.8s,mb3.7,baz=139,slow=7.8,SNR=4.8						
TXAR				LR	LR	16 03 10.3	
	comp=E,44nm,21.7s,MS3.6,baz=5.0,slow=33						
220A	**Playas Peak, P**	**64.64**	**324**	⇓P	**P**	**15 40 25.0**	**-0.3**
	baz=65						
121A	**Cookes Peak, D**	**64.72**	**325**	⇑P	**P**	**15 40 26.2**	**+0.4**
	baz=65						
219A	**White Tail Can**	**65.12**	**323**	⇑P	**P**	**15 40 28.6**	**+0.2**
	baz=65						
120A	**U Bar Ranch, L**	**65.19**	**324**	⇓P	**P**	**15 40 29.3**	**+0.4**
	baz=65						
218A	**Dragoon**	**65.54**	**323**	⇑P	**P**	**15 40 31.9**	**+0.8**
	baz=66						
Y19A	**Nutrioso**	**66.60**	**325**	⇓P	**P**	**15 40 39.0**	**+1.1**
	baz=67,SNR=8.7						
214A	**Organ Pipe Nat**	**67.12**	**321**	⇑P	**P**	**15 40 41.8**	**+0.6**
	baz=67						
Y17A	**Roosevelt**	**67.27**	**324**	⇑P	**P**	**15 40 42.8**	**+0.6**
	baz=68						
W16A	**Flagstaff**	**68.69**	**324**	⇓P	**P**	**15 40 52.2**	**+1.1**
	baz=69						
MVCO	**Mesa Verde**	**68.71**	**328**	*e*P	**P**	**15 40 50.8**	**-0.4**
	comp=E,1.9nm,0.5s,mb4.3						
MVCO				*e*pP	pP	15 41 05.8	-0.5
QSPA	**South Pole Qui**	**68.88**	**180**	*e*P	**P**	**15 40 52.0**	**+0.3**
QSPA				*e*pP	pP	15 41 07.0	+0.2
R20A	**Redvale**	**69.41**	**328**	⇓P	**P**	**15 40 56.1**	**+0.6**
	baz=70						
DBIC	**Dimbokro**	**69.44**	**74**	P	**P**	**15 40 54.9**	**-1.3**
	comp=E,7.4nm,0.8s,mb4.7,baz=224,slow=6.4,SNR=13						
DBIC				LR	LR	16 10 31.7	
	comp=E,63nm,18.4s,MS3.9,baz=228,slow=35						
S19A	**Harvey Farm, M**	**69.44**	**328**	⇓P	**P**	**15 40 56.0**	**+0.3**
	baz=70						
T17A	**Navajo Res., N**	**69.72**	**326**	⇑P	**P**	**15 40 58.4**	**+1.0**
	baz=70,SNR=5.4						
S18A	**Hurst Farm, Bl**	**69.84**	**327**	⇑P	**P**	**15 40 58.2**	**+0.1**
	baz=70,SNR=8.8						
R17A	**Hanksville Air**	**70.76**	**327**	⇓P	**P**	**15 41 03.5**	**-0.2**
	baz=71,SNR=6.6						
GMRC	**Granite Mounta**	**70.80**	**321**	⇑P	**P**	**15 41 04.9**	**+0.9**
	baz=71						
P19A	**Cripple Cowboy**	**70.83**	**329**	⇑P	**P**	**15 41 04.1**	**-0.1**
	baz=71						
P18A	**Preston Nutter**	**71.45**	**328**	⇓P	**P**	**15 41 08.5**	**+0.6**
	baz=72						
MSU	**Marysvale**	**71.58**	**326**	*e*P	**P**	**15 41 08.9**	**+0.2**
	comp=E,9.9nm,1.3s,mb4.6						
MSU				*e*pP	pP	15 41 24.0	+0.2
ARUT	**Antelope Range**	**71.71**	**325**	*e*P	**P**	**15 41 10.7**	**+1.2**
	comp=E,5.4nm,0.9s,mb4.5						
ARUT				*e*pP	pP	15 41 25.4	+0.7
O17A	**Robinson Place**	**72.12**	**328**	⇑P	**P**	**15 41 12.6**	**+0.7**
	baz=72,SNR=5.9						
R13A	**O'Grain Ranch,**	**72.28**	**325**	⇓P	**P**	**15 41 14.1**	**+1.1**
	baz=72						
T11A	**Corn Creek, Al**	**72.29**	**323**	⇑P	**P**	**15 41 13.9**	**+0.9**
	baz=72						
Q14A	**Sevier Lake (B**	**72.51**	**326**	⇑P	**P**	**15 41 15.2**	**+1.0**
	baz=73						
N17A	**Moffit Pass**	**72.74**	**329**	⇑P	**P**	**15 41 16.3**	**+0.7**
	baz=73,SNR=7.0						
P14A	**Drum Mountains**	**72.85**	**326**	⇑P	**P**	**15 41 17.0**	**+0.8**
	baz=73,SNR=5.7						
DUG	**Dugway**	**73.17**	**327**	*e*P	**P**	**15 41 18.6**	**+0.5**
	comp=E,3.9nm,1.2s,mb4.2						
DUG				*e*pP	pP	15 41 32.8	-0.5
PDAR	**Pinedale Array**	**73.56**	**331**	P	**P**	**15 41 19.2**	**-1.1**
	comp=E,0.4nm,0.6s,mb3.5,baz=156,slow=7.5,SNR=4.7						
K16A	**Soda Springs**	**74.55**	**329**	⇓P	**P**	**15 41 26.6**	**+0.4**
	baz=75,SNR=7.4						
RRI2	**Red Ridge**	**74.82**	**330**	*e*P	**P**	**15 41 27.5**	**-0.1**
	comp=E,1.9nm,0.7s,mb4.1						
RRI2				*e*pP	pP	15 41 43.0	+0.1
NVAR	**Mina Array Bea**	**74.86**	**322**	P	**P**	**15 41 28.3**	**+0.3**
	comp=E,1.1nm,0.8s,mb3.8,baz=148,slow=7.0,SNR=8.2						
NVAR				pP	pP	15 41 43.8	+0.4
	comp=E,2.0nm,0.9s,baz=144,slow=6.7,SNR=7.7						
ULM	**Lac du Bonnet**	**74.90**	**343**	P	**P**	**15 41 25.9**	**-2.0**
	comp=E,2.4nm,0.7s,mb4.3,baz=139,slow=7.8,SNR=4.8						
RLMT	**Red Lodge**	**75.28**	**332**	*e*P	**P**	**15 41 30.8**	**+0.5**
	comp=E,11nm,0.7s,mb4.9						
G18A	**Lazy EL Ranch,**	**75.56**	**332**	⇓P	**P**	**15 41 31.9**	**0.0**
	baz=76						
SCHQ	**Schefferville**	**75.87**	**2**	P	**P**	**15 41 32.1**	**-1.3**
	comp=E,5.1nm,0.8s,mb4.5,baz=171,slow=3.3,SNR=7.4						
L10A	**Juniper Basin**	**76.42**	**326**	⇓P	**P**	**15 41 37.4**	**+0.5**
	baz=77						
J12A	**Stokes Ranch,**	**76.57**	**328**	⇓P	**P**	**15 41 38.1**	**+0.4**
	baz=77						
SYO	**Syowa Base**	**76.95**	**160**	⇑*i*P	**P**	**15 41 38.2**	**-1.4**
H13A	**Challis**	**77.13**	**329**	⇑P	**P**	**15 41 41.0**	**+0.2**
	baz=77						
F15A	**Butte**	**77.27**	**331**	⇑P	**P**	**15 41 41.7**	**+0.1**
	baz=78						
M07A	**Soldier Meadow**	**77.38**	**324**	⇑P	**P**	**15 41 42.3**	**0.0**
	baz=78						
TORD	**Torodi Ar. Bea**	**78.04**	**71**	P	**P**	**15 41 45.0**	**-1.5**
	comp=E,12nm,0.7s,mb4.9,baz=252,slow=5.2,SNR=64						
F13A	**Darby**	**78.08**	**330**	⇓P	**P**	**15 41 46.4**	**+0.4**
	baz=78,SNR=7.8						
C15A	**Salmond Ranch,**	**78.79**	**332**	⇓P	**P**	**15 41 50.2**	**+0.3**
	baz=79,SNR=5.3						
G10A	**Bishop Farm, J**	**79.05**	**328**	⇓P	**P**	**15 41 51.9**	**+0.5**
	baz=79						
J06A	**Christmas Vall**	**79.19**	**325**	⇓P	**P**	**15 41 52.2**	**0.0**
	baz=79						
G09A	**Cove**	**79.37**	**328**	⇑P	**P**	**15 41 53.5**	**+0.3**
	baz=80						
I07A	**Izee**	**79.41**	**326**	⇓P	**P**	**15 41 53.8**	**+0.4**
	baz=80						
I06A	**Prineville**	**79.69**	**326**	⇑P	**P**	**15 41 55.8**	**+0.8**
	baz=80						
A13A	**Flathead Natio**	**80.46**	**332**	⇓P	**P**	**15 41 58.5**	**-0.5**
	baz=81,SNR=7.6						
TSUM	**Tsumeb**	**80.85**	**107**	*e*P	**P**	**15 42 01.8**	**-0.1**
	comp=E,6.9nm,0.8s,mb4.6						
C07A	**Waterville**	**82.18**	**328**	⇑P	**P**	**15 42 07.8**	**-0.4**
	baz=82						
FCC	**Fort Churchill**	**82.27**	**347**	*e*P	**P**	**15 42 06.8**	**-1.5**
	comp=E,0.5nm,1.5s,mb3.2						
B07A	**Winthrop**	**82.74**	**329**	⇑P	**P**	**15 42 10.3**	**-0.7**
	baz=83						
BOSA	**Boshof**	**84.23**	**118**	P	**P**	**15 42 18.7**	**-0.7**
	comp=E,7.6nm,0.8s,mb4.9,baz=248,slow=6.9,SNR=10						
BOSA	**Boshof**	**84.23**	**118**	P	**P**	**15 42 18.7**	**-0.7**
TAM	**Tamanrasset**	**85.44**	**64**	*e*P	**P**	**15 42 25.6**	**+0.2**

	comp=E,2.3nm,0.8s,mb4.4						
ESDC	Sonseca Array	86.25	45	P	P	15 42 27.9	-1.1
	comp=E,1.8nm,0.7s,mb4.4,baz=243,slow=6.2,SNR=5.0						
ESDC				sP	sP	15 42 50.6	+0.1
	comp=E,2.1nm,0.7s,baz=231,slow=4.9,SNR=2.3						
YKA	Yellowknife Ar	90.75	341	P	P	15 42 48.6	-1.1
	comp=E,2.1nm,0.8s,mb4.5,baz=135,slow=4.5,SNR=42						
YKA				pP	pP	15 43 03.6	-1.8
	comp=E,1.0nm,0.7s,baz=135,slow=4.6,SNR=6.4						
KEST	Kesra	93.82	53	P	P	15 43 04.4	-0.3
	comp=E,1.5nm,1.0s,mb4.4,baz=297,slow=9.0,SNR=2.9						
ASAR	Alice Springs	129.71	209	PKP	PKPdf	15 48 54.9	-2.2
	comp=E,0.5nm,0.7s,baz=132,slow=1.8,SNR=7.0						
ASAR				pPKP	pPKPdf	15 49 11.4	-1.8
	comp=E,0.7nm,0.7s,baz=140,slow=1.5,SNR=5.2						
WRA	Warramunga Arr	132.71	212	PKP	PKPdf	15 49 01.6	-1.2
	comp=E,0.7nm,0.6s,baz=162,slow=1.8,SNR=11						
WRA				pPKP	pPKPdf	15 49 18.1	-0.9
	comp=E,1.1nm,0.7s,baz=156,slow=1.7,SNR=6.5						
ZALV	Zalesovo Beam	142.11	24	PKhKP		15 49 14.2	
	comp=E,4.3nm,0.6s,baz=304,slow=3.3,SNR=7.1						
ZALV				PKP	PKPdf	15 49 17.8	-1.2
	comp=E,4.4nm,0.7s,baz=318,slow=1.9,SNR=22						
ZALV				pPKP	pPKPdf	15 49 33.8	-1.4
	comp=E,3.2nm,0.7s,baz=305,slow=2.6,SNR=5.3						
UCH	Uchtor	143.53	47	ePKPpre	PKPdf	15 49 20.4	-1.5
KSH	Kashi	145.59	50	PKPbc	PKPbc	15 49 25.6	-0.3
KSH				ePKS		15 53 00.3	
KSH				LR	LR		
	comp=N,84nm,3.4s						
KSH				LR	LR		
	comp=E,71nm,3.4s						
KSH				LR	LR		
	comp=Z,71nm,8.3s						
MKAR	Makanchi Array	145.94	35	PKPbc	PKPbc	15 49 25.3	-1.3
	comp=Z,10.0nm,0.7s,baz=312,slow=3.8,SNR=86						
MKAR				pPKPbc	pPKPbc	15 49 42.1	-0.6
	comp=Z,3.9nm,0.7s,baz=299,slow=1.5,SNR=4.9						
TLY	Talaya	149.25	8	ePKPbc	PKPbc	15 49 35.3	-0.3
TLY				PKPab	PKPab	15 49 40.6	+0.5
DDI	Dehra Dun	149.75	66	ex	PKPbc	15 49 35.3	-2.2
HYB	Hyderabad	149.88	92	i PKP	PKPbc	15 49 37.0	-1.1
SONM	Songino Array	153.36	6	PKP	PKPdf	15 49 37.0	-0.6
	comp=Z,1.0nm,0.9s,baz=351,slow=0.4,SNR=7.4						
SONM				PKPbc	PKPbc	15 49 44.5	-0.7
	comp=Z,2.3nm,0.9s,baz=336,slow=1.3,SNR=13						
SONM				PKPab	PKPab	15 49 54.1	-3.2
	comp=Z,1.4nm,0.8s,baz=54,slow=2.5,SNR=5.7						
SONM				pPKPbc	pPKPbc	15 50 00.4	-1.0
	comp=Z,1.5nm,0.8s,baz=346,slow=0.8,SNR=5.2						
CN2	Changchun	154.25	334	ePKPbc	PKPdf	15 49 41.3	+2.3
GTA	Gaotai	159.87	24	PKP	PKPdf	15 49 46.1	-0.2
GTA				sPKP		15 50 02.4	
GTA				SKS	SKSdf	15 56 46.0	-1.1
GTA				AMB	AMB		
	comp=Z,100nm,5.9s						
GTA				LR	LR		
	comp=N,64nm,13.1s,MS4.9						
GTA				LR	LR		
	comp=E,89nm,12.5s,MS4.9						
GTA				LR	LR		
	comp=Z,47nm,15.5s,MS4.4						
HHC	Hu-ho-hao-te	160.49	357	ePKP	PKPdf	15 49 47.0	+0.1
HHC				pPKP	pPKPdf	15 49 58.3	-4.9
HHC				sPKP		15 50 02.8	
HHC				PKPab	PKPab	15 50 31.8	+3.6
HHC				PKS		15 53 19.4	
HHC				PP	PP	15 54 15.9	+6.2
HHC				SKS	SKSdf	15 56 47.3	-0.3
HHC				SKKS	SKKSac	16 00 58.8	+4.3
HHC				SS	SS	16 14 22.3	+5.9
HHC				AMB	AMB		
	comp=Z,76nm,4.7s						
HHC				LR	LR		
	comp=N,150nm,14.3s						
HHC				LR	LR		
	comp=E,100nm,14.3s						
HHC				LR	LR		
	comp=Z,110nm,13.1s						
BJI	Beijing	160.66	346	PKP	PKPdf	15 49 46.5	-0.7
BJI				pPKP	pPKPdf	15 50 01.8	-1.6
BJI				PP	PP	15 54 11.5	+0.8
BJI				LR	LR		
	comp=N,200nm,14.7s						
BJI				LR	LR		
	comp=E,120nm,14.6s						
BJI				LR	LR		
	comp=Z,31nm,15.1s						
LZH	Lanzhou	164.25	19	ePKP	PKPdf	15 49 51.5	+0.6
LZH				pPKP	pPKPdf	15 50 01.0	-6.2
NJ2	Nanjing	166.83	326	ePKP	PKPdf	15 49 54.9	+1.8
CD2	Chengdu	168.81	30	PKP	PKPdf	15 49 54.1	-0.4
CMAR	Chiang Mai Arr	169.00	103	PKP	PKPdf	15 49 54.0	-0.9
	comp=Z,0.2nm,0.3s,baz=252,slow=1.8,SNR=4.3						
CMAR				pPKP	pPKPdf	15 50 10.2	-1.1
	comp=Z,1.1nm,0.9s,baz=264,slow=2.7,SNR=3.1						
CMAR				PKPab	PKPab	15 51 05.9	-0.6
	comp=Z,0.3nm,0.4s,baz=260,slow=5.4,SNR=4.2						
CMAR	Chiang Mai Arr	169.00	103	PKP	PKPdf	15 49 54.0	-0.9
CMAR				pPKP	pPKPdf	15 50 10.2	-1.1
CMAR				PKPab	PKPab	15 51 05.9	-0.6
KMI	Kunming	172.12	60	PKP	PKPdf	15 49 55.8	-0.7
KMI				pPKP	pPKPdf	15 50 09.5	-3.3
KMI				sPKP		15 50 16.6	
GYA	Guiyang	173.92	32	ePKP	PKPdf	15 49 55.8	-1.4
GYA				pPKP	pPKPdf	15 50 12.0	-1.5
GYA				sPKP		15 50 18.4	
GYA				PKPab	PKPab	15 51 28.9	+1.0
GYA				PKS		15 53 26.5	
GYA				PP	PP	15 55 22.4	+3.3
GYA				AMB	AMB		
	comp=Z,70nm,7.9s						

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*NEIC **18** 15:32:43.8±0.9, 24°.48N×127°.33E, h10^{km}, Error ellipse: s-maj=17.5km s-min=14.3km az=148.0*
*ISCJB **18** 15:32:45.1±0.6, 24°.47N±0°.04×127°.33E±0°.04, h33^{km}, mb3.5/6, Error ellipse: s-maj=7.1km s-min=3.6km az=142.3*
*JMA **18** 15:32:45.8±0.2, 24°.50N×127°.36E, h60^{km}, M3.4*
*IDC **18** 15:32:48.5±0.8, 24°.63N×127°.71E, h42^{km}±8^{km}, mb3.3/6, mb1 3.5/7, mb1mx3.4/22, mbtmp3.4/7, Error ellipse: s-maj=26.8km s-min=9.3km az=96.0*
ISC 18 15:32:46.9±0.6, **24°.52N**±0°.04×**127°.30E**±0°.04, **h35**^{km}, **(h47**^{km}±1.5^{km}**:pP-P), n30,** σ**1^{s}17**/45, **mb3.5**/6, **Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JJT2	Tamagusuku 2	1.66	14	P	Pn	15 33 13.4	-0.1
JJT2				eS	Sn	15 33 33.7	0.0
NAH1	Naha	1.72	12	eS	Sn	15 33 34.4	-0.5
JOGS	Gusukube	1.74	278	P	Pn	15 33 15.2	+0.7
JOGS				eS	Sn	15 33 36.7	+1.2
JMJ	Miyako jima 2	1.85	280	P	Pn	15 33 16.8	+0.7
JMJ				eS	Sn	15 33 39.7	+1.5
JKE	Kume jima 2	1.86	346	P	Pn	15 33 16.6	+0.4
JKE				eS	Sn	15 33 39.7	+1.2
JAGN	Aguni-jima	2.06	359	P	Pn	15 33 19.2	+0.2
JAGN				eS	Sn	15 33 44.0	+0.5
JTJ	Tarama	2.37	274	P	Pn	15 33 23.2	0.0
JTJ				eS	Sn	15 33 50.9	-0.1
JOW	Kunigami	2.47	21	P	Pn	15 33 24.0	-0.6
JOW				eS	Sn	15 33 52.3	-1.2
JOW	Kunigami	2.47	21	P	Pn	15 33 23.9	-0.7
	7.0nm,0.3s,baz=190,slow=12,SNR=94						
JOW				S	Sn	15 33 49.6	-3.9
	15nm,0.3s,baz=121,slow=22,SNR=6.6						
JIH	Iheya	2.58	13	P	Pn	15 33 26.5	+0.4
JIH				eS	Sn	15 33 55.3	-0.9
JIJ	Ishigaki jima	2.88	268	P	Pn	15 33 30.0	-0.3
JIJ				eS	Sn	15 34 01.2	-2.5
JKRS	Kuro-shima	3.01	265	P	Pn	15 33 32.3	+0.2
JKRS				eS	Sn	15 34 05.7	-1.3
HATJ	Hateruma jima	3.22	263	eS	Sn	15 34 10.6	-1.5
IRIF	Iriomote-Funau	3.26	268	P	Pn	15 33 35.1	-0.4
IRIF				eS	Sn	15 34 11.5	-1.5
JTK	Tokunoshima	3.58	24	P	Pn	15 33 39.5	-0.3
JTK				eS	Sn	15 34 18.0	-2.9
JMZ	Minamidaito 2	3.78	69	P	Pn	15 33 39.0	-3.7
JMZ				eS	Sn	15 34 19.5	-6.4
JAM	Amami Oshima	4.39	28	P	Pn	15 33 50.5	-0.6
JAM				eS	Sn	15 34 36.7	-4.3
JZK	Kikaishima	4.48	32	P	Pn	15 33 52.4	+0.2
NACB	Ninganchiao	5.21	267	eP	Pn	15 34 00.9	-1.4
YHNB	Yeheng	5.39	273	eP	Pn	15 34 07.4	+2.6
YULB	Yu-li	5.60	260	eP	Pn	15 34 05.7	-2.0
TWG	Pinlang	5.95	255	eP	Pn	15 34 04.0	-8.5
XAN	Xi'an	18.61	305	P	Pn	15 37 03.8	+2.2
XAN				pP	pP	15 37 09.8	-0.5
XAN				pmax	pmax		
	comp=Z,5.0nm,0.8s						
XAN				pmax	pmax		
	comp=Z,85nm,7.0s						
SONM	Songino Array	28.57	330	P	P	15 38 42.8	+3.4
	comp=Z,0.3nm,0.6s,mb3.2,baz=143,slow=8.4,SNR=2.5						
MKAR	Makanchi Array	42.07	314	P	P	15 40 36.9	+1.7
	comp=Z,0.9nm,0.5s,mb3.7,baz=98,slow=10,SNR=7.8						
MKAR				pP	pP	15 40 49.5	+4.0
	comp=Z,0.6nm,0.6s,baz=97,slow=11,SNR=2.9						
ZALV	Zalesovo Beam	43.12	324	P	P	15 40 44.7	+1.1
	comp=Z,0.8nm,0.7s,mb3.6,baz=127,slow=9.3,SNR=4.2						
WRA	Warramunga Arr	44.72	171	P	P	15 40 56.9	+0.1
	comp=Z,1.2nm,0.9s,mb3.7,baz=350,slow=8.8,SNR=9.7						
WRA				pP	pP	15 41 09.4	+2.3
	comp=Z,1.1nm,0.7s,baz=352,slow=8.6,SNR=5.3						
ASAR	Alice Springs	48.32	172	P	P	15 41 25.9	+0.9
	comp=Z,0.3nm,0.7s,mb3.4,baz=355,slow=6.7,SNR=5.9						
ASAR				pP	pP	15 41 38.5	+3.2
	comp=Z,0.4nm,0.6s,baz=359,slow=11,SNR=2.9						
YKA	Yellowknife Ar	80.43	25	P	P	15 44 55.7	+1.1
	comp=Z,0.2nm,0.6s,mb3.2,baz=300,slow=6.3,SNR=3.1						
YKA				pP	pP	15 45 08.0	+2.5
	comp=Z,0.2nm,0.6s,baz=300,slow=5.4,SNR=4.2						
YKA	Yellowknife Ar	80.43	25	P	P	15 44 55.7	+1.1
YKA				pP	pP	15 45 08.1	+2.5

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*TEH **18** 15:41:05.9, 29°.18N×51°.27E, h7^{km}*
*CSEM **18** 15:41:06.1, 29°.42N×51°.32E, h33^{km}, ML2.6*
*KISR **18** 15:41:06.1±0.8, 29°.42N×51°.32E, h34^{km}±97^{km}, ML2.6*
ISC 18 15:41:07.5±1.5, **29°.31N**±0°.06×**51°.36E**±0°.05, **h6**^{km}±12^{km}, **n23,** σ**0^{s}54**/36, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMOK	Mouk	1.22	102	ePn	Pn	15 41 30.4	-0.6
IMOK				e		15 41 52.0	
	comp=Z,15µm,0.4s						
ISRV	Sarvestan	1.54	87	ePn	Pn	15 41 35.5	+0.1
ISRV				e		15 42 04.3	
	comp=Z,5µm,0.2s						
IPAR	Pars	1.56	70	ePn	Pn	15 41 35.6	-0.2
IPAR				eSg	Sg	15 41 58.6	+0.8
IPAR				e		15 42 04.6	
	comp=Z,3µm,0.4s						
UMR	Umm Al-Rimmam	3.19	275	eP	Pn	15 41 58.2	+0.1
UMR				eS	Sn	15 42 36.6	+0.2
UMR				AML	AML	15 42 38.1	
	comp=Z,26nm,0.4s						
UMR	Umm Al-Rimmam	3.19	275	eP	Pn	15 41 58.2	+0.1
UMR				eS	Sn	15 42 36.6	+0.2
KBD	Kabd	3.20	268	eP	Pn	15 41 58.3	-0.1
KBD				eS	Sn	15 42 37.2	+0.4
KBD				AML	AML	15 42 39.0	
	comp=Z,9.0nm,0.5s						
KBD	Kabd	3.20	268	eP	Pn	15 41 58.3	-0.1
KBD				eS	Sn	15 42 37.2	+0.3
ISAD	Sadrabad	3.28	37	ePn	Pn	15 41 59.8	+0.4
ISAD				e		15 43 03.3	
	comp=Z,643nm,0.3s						
RDF	Al-Radifah	3.35	264	eP	Pn	15 42 00.5	0.0
RDF				eS	Sn	15 42 40.9	+0.3
RDF				AML	AML	15 42 44.3	
	comp=Z,10nm,0.3s						
RDF	Al-Radifah	3.35	264	eP	Pn	15 42 00.4	0.0
RDF				eS	Sn	15 42 40.9	+0.4
IPIR	Pirpir	3.38	353	ePn	Pn	15 42 00.6	-0.2
IPIR				eSn	Sn	15 42 41.3	+0.1
IPIR				e		15 43 00.9	
	comp=Z,286nm,0.3s						
IMEH	Mehriz	3.49	53	e	Pn	15 42 06.0	+3.7
	comp=Z,329nm,0.1s						
IMEH				ePn	Pn	15 42 02.6	+0.3
MIB	Mutribah	3.53	279	eP	Pn	15 42 02.0	-0.9
MIB	Mutribah	3.53	279	eP	Pn	15 42 02.0	-0.9
NAY	Al-Naaiem	3.59	270	eP	Pn	15 42 03.4	-0.3
NAY				eS	Sn	15 42 47.0	+0.5
NAY				AML	AML	15 42 48.6	
	comp=Z,6.3nm,0.6s						
NAY	Al-Naaiem	3.59	270	eP	Pn	15 42 03.4	-0.3
NAY				eS	Sn	15 42 47.0	+0.5
IZEF	Zefreh	3.67	13	ePn	Pn	15 42 04.3	-0.4
IZEF				e		15 42 50.6	
	comp=Z,147nm,0.2s						
ICHK	Chekchek	3.93	41	e	Pg	15 42 22.7	-0.1
	comp=Z,205nm,0.3s						
IKLH	Kolahrood	4.00	3	e	Pn	15 42 12.0	+2.8
	comp=Z,211nm,0.2s						
IKLH				ePn	Pn	15 42 09.4	+0.1
IKLH				eSn	Sn	15 42 56.3	-0.1
IBAF	Bafgh	4.29	57	e	Pg	15 42 37.9	+8.3
	comp=Z,123nm,0.2s						
IRAZ	Razeghan	6.19	349	ePn	Pn	15 42 38.9	-0.5
IRAZ				e		15 42 44.0	
	comp=Z,70nm,0.1s						
IDMV	Damavand	6.27	5	ePn	Pn	15 42 39.9	-0.6
IDMV				e		15 42 42.5	
	comp=Z,120nm,0.2s						
IFIR	Firoozkooh	6.42	10	e	Pn	15 42 48.4	+5.8
	comp=Z,95nm,0.1s						

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*CSEM **18** 16:21:43.7, 46°.28N×7°.26E, h1^{km}, ML1.6/5, After ZUR*
ZUR 18 16:21:43.7, 46°.28N×7°.26E, h-1^{km}±2^{km}, **ML0.7**/6, **2C-4D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SENIN	Lac Senin/Sane	0.09	19⇓	iPg		16 21 45.9	
	85nm,0.2s						
SENIN				eSg		16 21 47.5	
	85nm,0.2s						
SENIN	Lac Senin/Sane	0.09	19⇓	iPg		16 21 45.9	
	85nm,0.2s						
SENIN				eSg		16 21 47.5	
	85nm,0.2s						
GRYON	Gryon	0.10	255⇓	iPg		16 21 46.0	
	40nm,0.1s						
GRYON				i Sg		16 21 47.6	
	40nm,0.1s						
GRYON	Gryon	0.10	255⇓	iPg		16 21 46.0	
	40nm,0.1s						
GRYON				i Sg		16 21 47.6	
	40nm,0.1s						
AIGLE	Aigle	0.22	287	ePg		16 21 48.4	
	71nm,0.1s						
AIGLE				i Sg		16 21 51.5	
	71nm,0.1s						
AIGLE	Aigle	0.22	287	ePg		16 21 48.4	
	71nm,0.1s						
AIGLE				i Sg		16 21 51.5	
	71nm,0.1s						
DIX	Grande Dixence	0.22	152	ePg		16 21 48.7	
	31nm,0.3s						
DIX				i Sg		16 21 48.8	
	31nm,0.3s						
DIX	Grande Dixence	0.22	152	ePg		16 21 48.7	
	31nm,0.3s						
DIX				i Sg		16 21 48.8	
	31nm,0.3s						
SALAN	Lac Salanfe	0.24	236⇑	iPg		16 21 52.2	
	8.9nm,0.3s						
SALAN	Lac Salanfe	0.24	236⇑	iPg		16 21 52.2	
	8.9nm,0.3s						
LKBD	Leukerbad	0.28	67	eSg		16 21 50.3	
	8.9nm,0.3s						
LKBD	Leukerbad	0.28	67	eSg		16 21 50.3	
	8.9nm,0.3s						
EMV	Vieux Emosson	0.33	229	ePg		16 21 53.6	
	8.9nm,0.6s						
EMV	Vieux Emosson	0.33	229	ePg		16 21 53.6	
	8.9nm,0.6s						

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*IDC **18** 16:39:38.9±0.9, 11°.43N×86°.44W, h0^{km}, mb4.0/8, mb1 4.3/9, mb1mx4.0/20, mbtmp4.1/9, ML3.9/1, MS3.6/2, Ms1 3.7/2, ms1mx3.0/26, Error ellipse: s-maj=35.5km s-min=15.8km az=42.0*
*ISCJB **18** 16:39:39.8±0.7, 10°.82N±0°.04×86°.90W±0°.05, h40^{km}±6^{km}, mb4.1/15, Error ellipse: s-maj=10.0km s-min=3.8km az=135.6*
*NEIC **18** 16:39:39.6±0.6, 11°.19N×86°.55W, h10^{km}, mb4.2/7, Error ellipse: s-maj=21.0km s-min=5.9km az=45.0*
*CASC **18** 16:39:40.2±2.4, 10°.84N×86°.84W, h26^{km}±14^{km}, MD4.0, ML3.9, mb4.2(NEIC)*
ISC 18 16:39:40.9±1.5, **10°.88N**±0°.04×**86°.85W**±0°.04, **h30**^{km}±12^{km}, **n84,** σ**1^{s}16**/86, **mb4.1**/15, **2C, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSN	San Juan del S	1.06	66	eP	Pn	16 39 58.7	-1.0
SSN				eS	Sn	16 40 15.0	+1.5
CRUN	El Crucero	1.23	26	eP	Pn	16 40 02.7	+0.7
APON	Apoyo	1.29	36	eP	Pn	16 40 03.1	+0.3
MASN	Masaya	1.30	32	eP	Pn	16 40 03.3	+0.3
TICN	Ticuantepe	1.30	28	eP	Pn	16 40 03.0	0.0
COPN	Copaltepe	1.32	11	eP	Pn	16 40 03.3	0.0
CSAN		1.36	18	eP	Pn	16 40 03.5	-0.3
XAVN	Gruta Xavier	1.36	22	eP	Pn	16 40 03.8	0.0
GBS3	Finca Las Imˆ¡	1.37	94	i P	Pn	16 40 03.0	-0.9
CONN	Concepcion	1.38	60	eP	Pn	16 40 03.8	-0.3
TISN	Laguna Tiscapa	1.38	24	eP	Pn	16 40 03.3	-0.8
MGAN	Managua	1.39	25	eP	Pn	16 40 04.4	+0.2
MGAN				eS	Sn	16 40 23.6	+2.0
VCR	Vista de Mar	1.41	122	eP	Pn	16 40 01.9	-2.5
VCR	Vista de Mar	1.41	122	eP	Pn	16 40 01.9	-2.5
GB1A	Borinquen Arri	1.43	92	i P	Pn	16 40 03.8	-0.9
WILN	Americas 2	1.43	27	eP	Pn	16 40 04.4	-0.4
MOMN	Momotombo	1.55	11	eP	Pn	16 40 06.8	+0.4
MIRN	Miramar	1.56	5	eP	Pn	16 40 07.0	+0.4
LIM1	Limonal	1.58	96	i P	Pn	16 40 05.9	-0.9
LIM1				i S	Sn	16 40 25.9	-0.3
HUEN		1.60	24	eP	Pn	16 40 06.9	-0.1
GUAB	Guayabo de Bag	1.60	96	i P	Pn	16 40 05.7	-1.4
CNGN	Cerro Negro	1.62	5⇑	eP	Pn	16 40 07.3	-0.1
CRIN	San Cristobal	1.82	354	eP	Pn	16 40 10.8	+0.6
CRIN				AML	AML	16 40 46.2	
	comp=E,1µm,0.5s						
PTEN	Parque Tenorio	1.83	95	i P	Pn	16 40 11.0	+0.7
BOAB	BOACO BROADBAN	1.95	36	eP	Pn	16 40 11.4	-0.4
JTS	JuntasAbangare	1.95	107	Pn	Pn	16 40 10.7	-1.2
	comp=E,4.1nm,0.3s,baz=298,slow=8.3,SNR=79						
JTS				Sn	Sn	16 40 36.3	+0.9
	comp=E,41nm,0.3s,baz=306,slow=19,SNR=6.9						
JTS				Lg		16 40 47.8	
	comp=E,20nm,0.3s,baz=94,slow=23,SNR=5.6						
JTS	JuntasAbangare	1.95	107	ePn	Pn	16 40 10.2	-1.8
JTS				Sn	Sn	16 40 36.3	+0.9
JTS				Lg		16 40 47.8	
JCR	Jicaral	1.99	121	eP	Pn	16 40 10.7	-1.8
JCR	Jicaral	1.99	121	eP	Pn	16 40 09.7	-2.8
FORC	Fortuna	2.18	101	eP	Pn	16 40 14.8	-0.2
FORC	Fortuna	2.18	101	eP	Pn	16 40 14.0	-1.0
CGA2	Cerro Gallo 2	2.49	110	eP	Pn	16 40 19.0	-0.3
CGA2	Cerro Gallo 2	2.49	110	eP	Pn	16 40 18.4	-0.9
CNCH	Conchagua	2.57	338	eP	Pn	16 40 21.1	+0.6
PRS1	Puriscal	2.65	109	eP	Pn	16 40 23.2	+1.7
PRS1	Puriscal	2.65	109	eP	Pn	16 40 23.2	+1.7
LAJ	Bijagual	2.87	110	eP	Pn	16 40 19.8	-4.7
LAJ	Bijagual	2.87	110	eP	Pn	16 40 20.6	-3.9
BLLM	Bellamira	2.89	332	eP	Pn	16 40 25.3	+0.4
BLLM				eS	Sn	16 40 57.9	-0.7
QCR	Quepos	3.01	118	eP	Pn	16 40 26.8	+0.3
QCR	Quepos	3.01	118	eP	Pn	16 40 26.8	+0.4
LCR2	La Lucha 2	3.02	112	eP	Pn	16 40 27.4	+0.9
LCR2	La Lucha 2	3.02	112	eP	Pn	16 40 27.5	+0.9
CAHU	Cacacuatique	3.17	335	eP	Pn	16 40 29.5	+0.8
CAHU				eS	Sn	16 41 04.7	-0.8
TGUH	Tegucigalpa,Un	3.19	353	ePn	Pn	16 40 27.6	-1.4
URSC	Urasca	3.19	109	eP	Pn	16 40 31.0	+2.0
URSC	Urasca	3.19	109	eP	Pn	16 40 31.1	+2.1
BUS	Buena Vista	3.31	113	eP	Pn	16 40 30.9	+0.3
BUS	Buena Vista	3.31	113	eP	Pn	16 40 30.9	+0.3
LFRS	El Faro	3.48	322	eP	Pn	16 40 33.4	+0.4
LFRS				eS	Sn	16 41 12.5	-0.8
BAR1		3.84	115	eP	Pn	16 40 37.7	-0.2
ACR	Cerro Adams	4.25	121⇑	eP	Pn	16 40 44.2	+0.7
ACR	Cerro Adams	4.25	121	eP	Pn	16 40 44.2	+0.7
BCIP	Isla Barro Col	7.11	103	eP	Pn	16 41 24.1	+1.2
CMIG	Matias Romero	9.95	309	Pn	Pn	16 42 03.6	+1.8
	comp=E,1.0nm,0.3s,baz=128,slow=9.4,SNR=12						
CMIG				Sn	Sn	16 43 49.6	-2.9
	comp=E,0.2nm,0.3s,baz=119,slow=19,SNR=1.6						
SDV	Santo Domingo	16.10	96	Pn	Pn	16 43 26.6	+1.5
	comp=E,0.4nm,0.3s,baz=287,slow=6.3,SNR=18						
SDV	Santo Domingo	16.10	96	eP	Pn	16 43 28.2	+3.1
ATAH	Atahualpa	19.65	154	LR	LR	16 50 28.3	
	comp=E,135nm,21.2s,baz=198,slow=32						
PCRV	Puerto La Cruz	21.85	90	P	P	16 44 30.7	-0.4
	comp=E,18nm,0.9s,mb4.5,baz=326,slow=8.0,SNR=2.9						
TXAR	Lajitas Array	24.16	322	P	P	16 44 56.0	+1.5
	comp=E,4.5nm,0.9s,mb3.9,baz=136,slow=9.9,SNR=25						
TXAR				PcP	PcP	16 48 39.1	+4.2
	comp=E,1.2nm,0.8s,baz=146,slow=5.5,SNR=5.9						
TXAR	Lajitas Array	24.16	322	P	P	16 44 56.0	+1.5
TXAR				PcP	PcP	16 48 39.1	+4.2
SWET	Sewanee	24.25	2	eP	P	16 44 53.2	-2.0
CPCT	Cooper Cave	24.55	5	eP	P	16 44 57.0	-1.0
TKL	Tuckaleechee C	24.83	6	P	P	16 44 58.8	-1.7
	comp=E,5.7nm,0.7s,mb4.2,baz=185,slow=12,SNR=3.4						
TKL				PcP	PcP	16 48 38.6	+2.3
	comp=E,3.7nm,0.5s,baz=122,slow=12,SNR=5.1						
WMOK	Wichita Mounta	26.13	337	P	P	16 45 12.0	-0.3
	comp=E,11nm,0.9s,mb4.4						
SDCO	Great Sand Dun	31.57	331	eP	P	16 46 02.6	+2.0
	comp=E,1.6nm,0.6s,mb4.0						
ECSD	EROS Data Cent	33.81	347	eP	P	16 46 18.7	-1.5
	comp=E,2.4nm,0.6s,mb4.3						
SRU	San Rafael	35.15	327	eP	P	16 46 33.4	+1.5
	comp=E,3.7nm,0.6s,mb4.5						
PDAR	Pinedale Array	37.43	332	P	P	16 46 51.9	+0.5
	comp=E,1.1nm,0.6s,mb3.9,baz=131,slow=9.6,SNR=12						
REDW	Red Top Meadow	38.49	332	eP	P	16 47 01.3	+1.0
	comp=E,4.5nm,0.7s,mb4.3						
NVAR	Mina Array Bea	39.27	320	P	P	16 47 07.3	+0.4
	comp=E,1.3nm,1.1s,mb3.6,baz=110,slow=7.8,SNR=3.6						
NVAR				PcP	PcP	16 49 18.6	+3.1
	comp=E,1.3nm,0.7s,baz=132,slow=4.2,SNR=9.0						
ULM	Lac du Bonnet	39.96	351	P	P	16 47 09.3	-3.1
	comp=E,4.1nm,0.8s,mb4.2,baz=176,slow=7.7,SNR=4.9						
ULM	Lac du Bonnet	39.96	351	P	P	16 47 09.3	-3.1
HLID	Hailey	40.38	329	eP	P	16 47 18.5	+2.4
	comp=E,1.2nm,0.6s,mb3.8						
MCMT	McKenzie Canyo	40.54	331	eP	P	16 47 19.6	+2.3
	comp=E,1.0nm,0.7s,mb3.5						
SCHQ	Schefferville	46.62	16	P	P	16 48 03.5	-2.6
	comp=E,2.6nm,0.6s,mb4.3,baz=200,slow=7.7,SNR=8.0						
YKA	Yellowknife Ar	55.28	345	P	P	16 49 09.9	-1.2
	comp=E,0.4nm,0.7s,mb3.6,baz=140,slow=7.1,SNR=10						
YKA				PcP	PcP	16 50 12.5	+0.9
	comp=E,0.2nm,0.5s,baz=145,slow=3.8,SNR=4.1						
YKA	Yellowknife Ar	55.28	345	P	P	16 49 09.8	-1.2
YKA				PcP	PcP	16 50 12.5	+0.9
NOA	NORSAR Array B	84.45	29	LR	LR	17 27 17.8	
	comp=E,43nm,18.1s,baz=220,slow=34						
SONM	Songino Array	120.38	350	PKP	PKPdf	16 58 30.0	+0.7
	comp=E,0.5nm,0.9s,baz=24,slow=0.4,SNR=3.3						
KSRS	Korea Array	121.91	328	PKP	PKPdf	16 58 35.1	+2.5
	comp=E,1.4nm,0.7s,baz=0.4,slow=1.7,SNR=6.0						
ASAR	Alice Springs	139.21	246	PKP	PKPdf	16 59 10.3	+4.7
	comp=E,0.4nm,0.7s,baz=107,slow=2.4,SNR=6.8						
WRA	Warramunga Arr	139.38	252	PKP	PKPdf	16 59 10.6	+4.5
	comp=E,0.8nm,0.9s,baz=93,slow=2.0,SNR=6.4						
CMAR	Chiang Mai Arr	150.30	349	PKP	PKPdf	16 59 26.4	+1.6
	comp=E,1.0nm,0.8s,baz=330,slow=2.7,SNR=5.3						
CMAR				PKPbc	PKPbc	16 59 31.3	+1.3
	comp=E,1.7nm,0.8s,baz=324,slow=2.5,SNR=13						

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*ISCJB **18** 17:13:14.2±0.5, 33°.33N±0°.03×35°.38E±0°.05, h5^{km}±5^{km}, Error ellipse: s-maj=7.0km s-min=3.7km az=21.3*
*CSEM **18** 17:13:14.4±0.3, 33°.36N×35°.36E, h5^{km}, ML3.0, Error ellipse: s-maj=8.1km s-min=3.5km az=99.0*
*GII **18** 17:13:14.5±0.4, 33°.25N×35°.40E, h1^{km}±1^{km}, Md2.3/10*
*GRAL **18** 17:13:15.3±0.4, 33°.34N×35°.39E, h0^{km}±137^{km}, MD3.0*
ISC 18 17:13:14.6±0.5, **33°.34N**±0°.03×**35°.38E**±0°.05, **h4**^{km}±5^{km}, **n23,** σ**0^{s}47**/34, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

MATL	**Matirih**	0.15	344	*e*P	Pg	17 13 18.1	+0.5
MATL	**Matirih**	0.15	344	*e*P	Pg	17 13 18.1	+0.5
KSDI	**Kefar Szold**	0.28	122	Pg	Pg	17 13 19.9	0.0
KSDI				Sg	Sg	17 13 24.0	+0.4
HNTI	**Hanita**	0.31	214	Pg	Pg	17 13 20.6	+0.1
HNTI				Sg	Sg	17 13 25.6	+1.0
MMA0B	**Mount Meron ar**	0.33	176	Pg	Pg	17 13 20.7	-0.1
MMA0B				Sg	Sg	17 13 25.4	+0.3
MMA4	**Mount Meron ar**	0.33	177	Pg	Pg	17 13 20.7	-0.2
MMB1	**Mount Meron ar**	0.33	175	Pg	Pg	17 13 20.6	-0.3
RCY	**Rachaya**	0.40	69	*e*P	Pg	17 13 22.3	+0.1
RCY				*e*S	Sg	17 13 27.8	+0.5
RCY	**Rachaya**	0.40	69	*e*P	Pg	17 13 22.3	+0.1
RCY				*e*S	Sg	17 13 27.8	+0.5
BEYL	**Beyrouth**	0.54	10	*e*P	Pg	17 13 25.2	+0.3
BHL	**Bhannes**	0.61	22	*e*P	Pg	17 13 26.2	0.0
BHL	**Bhannes**	0.61	22	*e*P	Pg	17 13 26.2	0.0
BLGI	**Bet Lehem HaGe**	0.63	195	Pg	Pg	17 13 26.5	-0.1
BLGI				Sg	Sg	17 13 35.3	+0.6
OFRI	**‘Ofer**	0.79	205	Pg	Pg	17 13 29.4	-0.3
MMLI	**Mount Malkishu**	0.90	178	Pg	Pg	17 13 31.2	-0.7
MMLI				Sg	Sg	17 13 43.6	+0.1
HWQ	**Hawqa**	1.05	27	*e*P	Pg	17 13 34.1	-0.5
HWQ	**Hawqa**	1.05	27	*e*P	Pg	17 13 34.1	-0.5
HMDT	**Nahal Hemdat**	1.09	173	Pg	Pg	17 13 34.5	-1.0
HMDT				Sg	Sg	17 13 49.4	-0.3
SLTI	**Sal’it**	1.13	195	Pg	Pg	17 13 35.6	-0.7
SLTI				Sg	Sg	17 13 51.2	+0.2
DSI	**Dead Sea**	1.77	180	Pn	Pn	17 13 45.2	-0.7
DSI				Sn	Sn	17 14 08.9	+0.1
YTIR	**Yattir**	1.98	186	Pn	Pn	17 13 48.8	-0.1
MZDA	**Masada**	2.03	180	Pn	Pn	17 13 49.1	-0.3
MZDA				Sn	Sn	17 14 16.2	+1.0
PRNI	**Paran**	3.00	186	Pn	Pn	17 14 02.8	0.0

CSEM **18** *17:16:11.6±0.3, 39°.36N×40°.78E, h2^{km}, MD3.2, Error ellipse: s-maj=6.7km s-min=4.5km az=120.0*
ISK **18** *17:16:11.6, 39°.43N×40°.65E, h5^{km}, MD3.2*
DDA **18** *17:16:11.5, 39°.36N×40°.71E, h7^{km}±5^{km}, Md2.9*
ISCJB **18** *17:16:12.5±0.5, 39°.40N±0°.03×40°.75E±0°.04, h10^{km}, Error ellipse: s-maj=4.9km s-min=3.7km az=36.3*
ISC 18 17:16:12.4±1.0, 39°.37N±0°.05×40°.72E±0°.04, h2^{km}±10^{km}, n20, σ0^{s}.87/30, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOPT	**Kop Dagi**	0.67	345	*i* P	Pg	17 16 24.6	-0.7
KOPT				*i* S	Sg	17 16 35.4	+1.3
KOPT	**Kop Dagi**	0.67	345	*i* P	Pg	17 16 24.6	-0.7
KOPT				*i* S	Sg	17 16 35.4	+1.3
EZM	**Erzurum**	0.73	42	*e*PG	Pg	17 16 26.8	+0.4
ERZM	**Erzurum**	0.73	42	*i* P	Pg	17 16 25.7	-0.7
ERZM				*i* S	Sg	17 16 33.9	-2.1
ERZM	**Erzurum**	0.73	42	*i* P	Pg	17 16 25.7	-0.8
ERZM				*i* S	Sg	17 16 33.9	-2.1
EZC	**Erzincan**	0.80	299	*e*PG	Px	17 16 32.6	
EZC				*e*SG	Sx	17 16 48.6	
HOMI	**Horasan**	1.14	53	*i* P	Pg	17 16 33.2	-1.0
HOMI				*i* S	Sg	17 16 50.4	+1.4
GUMT	**Gumushane**	1.45	319	*e*PN	Pn	17 16 39.1	-0.5
GUMT	**Gumushane**	1.45	319	*e*Pn	Pn	17 16 39.1	-0.5
DIYA	**Diyarbakir**	1.52	198	*i* P	Pn	17 16 39.6	-0.9
DIYA				*i* S	Sn	17 17 00.6	-0.1
DIYA	**Diyarbakir**	1.52	198	*i* P	Pn	17 16 39.6	-0.9
DIYA				*i* S	Sn	17 17 00.6	-0.1
BEST	**Besiri**	1.53	164	*i* P	Pn	17 16 41.4	+0.7
BEST				*i* S	Sn	17 17 00.8	-0.4
KEMA	**Kemaliye**	1.73	267	*i* P	Pn	17 16 43.2	-0.2
KEMA				*i* S	Sg	17 17 08.2	+0.1
KEMA	**Kemaliye**	1.73	267	*i* P	Pn	17 16 43.2	-0.3
KEMA				*i* S	Sg	17 17 08.1	+0.1
AGRB	**Hanur-Agry**	1.77	82	*e*PN	Pn	17 16 44.6	+0.7
AGRB				*e*SN	Sg	17 17 10.0	+0.8
AGRB	**Hanur-Agry**	1.77	82	*e*Pn	Pn	17 16 44.6	+0.6
PZAR	**Pazar-Rize**	1.81	4	*e*PN	Pn	17 16 44.5	-0.1
PZAR	**Pazar-Rize**	1.81	4	*e*Pn	Pn	17 16 44.5	-0.1
MALT	**Malatya**	2.08	240	*e*PN	Pn	17 16 49.4	+1.1
MALT	**Malatya**	2.08	240	*e*Pn	Pn	17 16 49.4	+1.2

ISCJB **18** *17:16:43.7±0.5, 2°.87N±0°.03×125°.47E±0°.06, h46^{km}±5^{km}, mb4.4/25, MS3.4/7, Error ellipse: s-maj=9.7km s-min=4.7km az=167.5*
DJA **18** *17:16:44, 2°.86N×125°.43E, h20^{km}, MLv4.5/6*
IDC **18** *17:16:48.4±6.2, 2°.79N×125°.35E, h75^{km}±60^{km}, mb3.8/13, mb1 3.9/13, mb1mx3.9/21, mbtmp3.8/13, MS3.4/8, Ms1 3.4/8, ms1mx3.1/35, Error ellipse: s-maj=29.9km s-min=13.7km az=73.0*
NEIC **18** *17:16:52.3±0.9, 2°.76N×125°.48E, h116^{km}±10^{km}, mb4.8/12, Error ellipse: s-maj=13.2km s-min=4.9km az=65.0*
ISC 18 17:16:46.0±0.5, 2°.82N±0°.03×125°.46E±0°.06, h49^{km}±6^{km}, n65, σ1^{s}.22/64, mb4.4/25, MS3.4/7, 3C, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGSI	**Sangihe**	0.86	5	P	Pn	17 16 58.8	-3.1
SGSI				S	Sn	17 17 11.1	-2.3
MNI	**Manado**	1.50	204	P	Pn	17 17 08.4	-2.2
TNTI	**Ternate**	2.79	137	P	Pn	17 17 28.1	-0.2
LBMI	**Labuha**	4.00	149	P	Pn	17 17 45.7	+0.8
MATI	**Mati**	4.17	11	*e*P	Pn	17 17 44.5	-2.7
MATI				*e*S	Sn	17 18 31.6	-3.2
KCP	**Kidapawan**	4.17	355⇑	*e*P	Pn	17 17 46.4	-0.8
KCP				*e*S	Sn	17 18 32.7	-2.1
DAV	**Davao City (W)**	4.22	2	P	Pn	17 17 55.8	+7.9
	29nm,0.3s,baz=157,slow=5.0,SNR=3.7						
DAV				S	Sn	17 18 47.3	+11
	54nm,0.3s,baz=301,slow=21,SNR=3.2						
DAV				LR	LR	17 19 09.0	
	comp=Z,208nm,19.5s,baz=168,slow=33						
DMPH	**Davao City--Mi**	4.23	1⇑	*e*P	Pn	17 17 49.1	+1.1
DMPH				*e*S	Sn	17 18 38.9	+2.7
BUKP	**Musuan**	5.04	356	*e*P	Pn	17 18 02.0	+2.9
ZMPH	**Zamboanga City**	5.32	321⇑	*e*P	Pn	17 17 59.1	-3.8
PAGZ	**Pagadian**	5.40	338	*e*P	Pn	17 18 01.4	-2.7
AAI	**Ambon**	7.02	157	P	Pn	17 18 27.1	+0.7
	66nm,0.8s,0.3nm						
KDI	**Kendari**	7.31	203	P	Pn	17 18 30.7	+0.4
MYLDM	**Lahad Datu**	7.32	289	P	Pn	17 18 31.0	+0.5
MYLDM	**Lahad Datu**	7.32	289	P	Pn	17 18 30.0	-0.5
	161nm,0.8s,0.4nm						
TSM	**Tawau**	7.71	281	P	Pn	17 18 32.4	-3.3
SDKM	**Sandakan**	8.70	289	P	Pn	17 18 49.2	-0.1
KDM	**Kudat**	9.50	296	P	Pn	17 19 03.1	+2.7
KAKA	**Kakadu**	16.92	156	*e*P	Pn	17 20 42.7	+3.2
	19nm,0.7s						
KAKA	**Kakadu**	16.92	156	*e*P	Pn	17 20 40.5	+1.0
	55nm,0.7s						
KAKA	**Kakadu**	16.92	156	P	Pn	17 20 42.9	+3.4
KNA	**Kununurra**	18.74	170	*e*P	Pn	17 21 00.5	-1.3
	15nm,0.8s						
FITZ	**Fitzroy Crossi**	20.79	180	*e*P	P	17 21 22.5	-0.8
	14nm,0.6s						
FITZ	**Fitzroy Crossi**	20.79	180	P	P	17 21 22.9	-0.4
	7.1nm,0.6s,baz=9.9,slow=6.7,SNR=25						
JOW	**Kunigami**	24.02	6	LR	LR	17 30 41.7	
	comp=Z,57nm,19.7s,MS3.1,baz=150,slow=35						
WRAB	**Tennant Creek**	24.24	159	*e*P	P	17 21 58.1	-0.4
	9.3nm,0.6s,mb4.4						
WRA	**Warramunga Arr**	24.25	159	P	P	17 21 58.0	-0.6
	10nm,0.6s,mb4.4,baz=341,slow=10,SNR=91						
KULM	**Kulim**	24.86	276	P	P	17 21 58.5	-5.8
ASAR	**Alice Springs**	27.59	163	P	P	17 22 28.6	-0.2
	1.5nm,0.6s,mb3.8,baz=343,slow=7.4,SNR=33						
CBIJ	**Chichi jima**	28.97	32	LR	LR	17 34 36.9	
	comp=Z,58nm,19.6s,MS3.2,baz=174,slow=37						
CMAR	**Chiang Mai Arr**	30.26	303	P	P	17 22 53.1	+0.5
	5.0nm,0.9s,mb4.2,baz=115,slow=7.1,SNR=30						
CHTO	**Chiang Mai**	30.43	303	*e*P	P	17 22 55.1	+1.0
	10nm,0.8s,mb4.6						
FORT	**Forrest**	33.51	176	*e*P	P	17 23 21.2	+0.3
	21nm,0.6s,mb5.2						
KSRS	**Korea Array**	34.54	3	P	P	17 23 29.6	-0.2
	2.5nm,0.9s,mb4.1,baz=184,slow=9.2,SNR=6.8						
KSRS				LR	LR	17 39 05.2	
	comp=Z,37nm,18.5s,MS3.2,baz=175,slow=39						
MJAR	**Matsushiro Arr**	35.56	18	LR	LR	17 38 01.7	
	comp=Z,63nm,18.1s,MS3.4,baz=100,slow=36						
HNR	**Honiara**	36.46	110	LR	LR	17 39 23.2	
	comp=Z,95nm,19.5s,MS3.6,baz=329,slow=37						
BBOO	**Buckleboo**	36.84	165	*e*P	P	17 23 49.5	0.0
	3.6nm,0.5s,mb4.5						
STKA	**Stephens Creek**	37.76	157	*e*P	P	17 23 58.0	+0.6
	2.9nm,0.9s,mb4.0						
STKA	**Stephens Creek**	37.76	157	P	P	17 23 58.0	+0.6
	3.6nm,0.8s,mb4.2,baz=347,slow=7.6,SNR=8.8						
ARMA	**Armidale**	41.44	145	*e*P	P	17 24 29.6	+1.6
LSA	**Lhasa**	42.10	313	*e*P	P	17 24 35.2	+1.7
	3.0nm,0.8s,mb4.0						
TAPN	**Taplejung**	43.54	308	*e*P	P	17 24 44.7	-0.5
	16nm,1.1s,mb4.7						
ODAN	**Odare**	43.58	307	*e*P	P	17 24 46.0	+0.5
	14nm,0.8s,mb4.8						
ASAJ	**Asahikawa**	43.83	18	P	P	17 24 48.0	+0.8
	4.6nm,0.7s,mb4.3,baz=219,slow=13,SNR=5.9						
RAMN	**Ramite**	44.25	307	*e*P	P	17 24 51.9	+1.0
	19nm,1.0s,mb4.8						
JIRN	**Jiri**	44.89	307	*e*P	P	17 24 56.6	+0.6
	24nm,0.9s,mb5.0						
GUN	**Gumba**	45.24	307	*e*P	P	17 24 59.6	+0.8
	20nm,0.7s,mb5.1						
PKI	**Pulchoki**	45.47	307	*e*P	P	17 25 00.6	0.0
KKN	**Kakani**	45.67	307	*e*P	P	17 25 02.8	+0.6
DMN	**Daman**	45.73	307	*e*P	P	17 25 02.8	+0.1
	14nm,1.0s,mb4.9						
GKN	**Gorkha**	46.27	307	*e*P	P	17 25 06.7	-0.2
KOLN	**Koldanda**	47.01	306	*e*P	P	17 25 13.5	+0.8
	24nm,0.8s,mb5.2						
DANN	**Dangsing**	47.12	307	*e*P	P	17 25 14.1	+0.5
SONM	**Songino Array**	47.76	343	P	P	17 25 18.0	-0.2
	2.1nm,0.9s,mb4.2,baz=155,slow=9.1,SNR=15						
SONM				PcP	PcP	17 26 46.8	+0.2
	1.5nm,0.8s,baz=171,slow=4.1,SNR=7.7						
SONM				LR	LR	17 46 02.5	
	comp=Z,63nm,19.4s,MS3.6,baz=237,slow=37						
PETK	**Petropavlovsk-**	56.75	23	P	P	17 26 24.9	+0.1
	2.5nm,0.6s,mb4.4,baz=172,slow=3.5,SNR=5.8						
MKAR	**Makanchi Array**	57.58	326	P	P	17 26 29.8	-1.1
	0.5nm,0.6s,mb3.7,baz=118,slow=8.0,SNR=7.5						
MKAR				PcP	PcP	17 27 22.4	-1.2
	0.8nm,0.8s,baz=114,slow=4.3,SNR=4.3						
YAK	**Yakutsk**	59.15	2	*e*P	P	17 26 40.9	-0.5
	19nm,0.9s,mb5.1						
ZALV	**Zalesovo Beam**	60.82	334	P	P	17 26 52.0	-1.1
	0.3nm,0.3s,mb3.9,baz=132,slow=6.0,SNR=2.5						
KURK	**Kurchatov**	61.83	328	*e*P	P	17 26 59.1	-0.8
BVAR	**Borovoye Array**	67.39	328	P	P	17 27 34.7	-1.5
	0.8nm,0.8s,mb3.8,baz=155,slow=8.2,SNR=4.7						
BRVK	**Borovoye**	67.46	328	P	P	17 27 35.9	-0.7
AKTK	**Aktyubinsk**	73.58	322	P	P	17 28 12.3	-1.7
AKTO	**Aktyubinsk**	73.58	322	P	P	17 28 12.3	-1.7
	0.7nm,0.5s,mb3.9,baz=99,slow=13,SNR=3.8						
NOA	**NORSAR Array B**	99.02	333	LR	LR	18 18 47.6	
	comp=Z,35nm,19.4s,MS3.9,baz=155,slow=38						
TORD	**Torodi Ar. Bea**	121.98	287	PKP	PKPdf	17 35 35.0	-1.1
	0.7nm,0.7s,baz=67,slow=1.9,SNR=4.4						

IDC **18** *17:17:59.2±1.1, 16°.84N×119°.15E, h0^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.6/20, mbtmp3.6/7, Error ellipse: s-maj=40.9km s-min=19.3km az=76.0*
NEIC **18** *17:18:00.8±0.8, 16°.95N×119°.34E, h10^{km}, mb4.5/1, Error ellipse: s-maj=28.0km s-min=13.9km az=77.0*
ISCJB **18** *17:18:04.1±2.6, 16°.8N±0°.1×119°.1E±0°.2, h51^{km}±26^{km}, mb3.6/7, Error ellipse: s-maj=35.4km s-min=17.1km az=165.5*
ISC 18 17:18:06.0±2.9, 16°.8N±0°.1×119°.1E±0°.2, h51^{km}±30^{km}, n12, σ0^{s}.80/12, mb3.6/7, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOLP	**Bolinao**	0.87	122	*e*P	Pn	17 18 18.6	-3.4
CAUP	**Cauayan**	2.57	87	*e*P	Pn	17 18 45.9	+0.8
BALP	**Baler**	2.58	115	*e*P	Pn	17 18 46.2	+0.9
SSLB	**Suanglung**	7.12	14	P	Pn	17 19 41.4	-6.2
KSRS	**Korea Array**	21.95	19	P	P	17 22 54.7	-0.6
	1.9nm,0.8s,mb3.6,baz=203,slow=11,SNR=6.9						
MJAR	**Matsushiro Arr**	25.89	37	P	P	17 23 33.0	-0.1
	1.4nm,0.9s,mb3.5,baz=214,slow=10,SNR=3.1						
SONM	**Songino Array**	32.64	344	P	P	17 24 31.8	-1.1
	0.2nm,0.5s,mb3.3,baz=174,slow=11,SNR=3.1						
WRA	**Warramunga Arr**	39.48	157	P	P	17 25 31.7	0.0
	0.9nm,0.8s,mb3.6,baz=339,slow=9.0,SNR=5.9						
MKAR	**Makanchi Array**	42.63	323	P	P	17 25 57.6	+0.3
	0.5nm,0.9s,baz=119,slow=7.3,SNR=4.5						
ASAR	**Alice Springs**	42.77	160	P	P	17 25 58.4	-0.2
	0.3nm,0.3s,mb3.4,baz=337,slow=7.3,SNR=5.7						
ZALV	**Zalesovo Beam**	45.59	332	P	P	17 26 21.4	+0.5
	0.3nm,0.3s,mb3.7,baz=133,slow=8.3,SNR=3.6						
KURK	**Kurchatov**	46.76	325	*e*P	P	17 26 31.0	+0.8
	2.9nm,0.6s,mb4.4						

IDC **18** *17:26:01.9±5.8, 10°.25S×161°.23E, h83^{km}±37^{km}, mb3.3/4, mb1 3.5/4, mb1mx3.3/18, mbtmp3.3/4, MS2.8/1, Ms1 2.8/1, ms1mx2.6/12, Error ellipse: s-maj=55.0km s-min=34.8km az=104.0*
ISC 18 17:26:01.1±5.8, 10°.3S±0°.3×161°.3E±0°.4, h76^{km}±37^{km}, n6, σ0^{s}.06/6, mb3.4/4, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	1.56	303	P	Pn	17 26 27.0	0.0
	24nm,0.3s,baz=165,slow=4.6,SNR=30						
HNR				S	Sn	17 26 46.6	0.0
	73nm,0.3s,baz=165,slow=11,SNR=18						
WRA	**Warramunga Arr**	27.67	247	P	P	17 31 42.2	0.0
	0.6nm,0.6s,mb3.3,baz=75,slow=9.1,SNR=12						
ASAR	**Alice Springs**	29.28	240	P	P	17 31 56.5	0.0
	0.1nm,0.4s,mb2.8,baz=62,slow=10.0,SNR=5.6						
FITZ	**Fitzroy Crossi**	35.35	253	P	P	17 32 49.5	-0.1
	2.6nm,1.0s,mb4.0,baz=61,slow=13,SNR=2.7						
CBIJ	**Chichi jima**	41.52	334	LR	LR	17 50 21.7	
	comp=Z,12nm,18.1s,baz=68,slow=35						
SONM	**Songino Array**	75.50	325	P	P	17 37 37.2	0.0
	0.4nm,0.7s,mb3.3,baz=142,slow=5.8,SNR=4.0						

ISCJB **18** *17:41:25.4±1.6, 15°.8S±0°.5×175°.2W±0°.4, h267^{km}±25^{km}, mb3.7/5, Error ellipse: s-maj=104.3km s-min=25.1km az=146.0*
IDC **18** *17:41:25.6±1.7, 16°.07S×175°.06W, h261^{km}±21^{km}, mb3.5/4, mb1 3.7/5, mb1mx3.3/18, mbtmp3.5/5, Error ellipse: s-maj=74.9km s-min=19.8km az=144.0*
NEIC **18** *17:41:26.7±1.3, 15°.99S×175°.13W, h271^{km}±17^{km}, mb3.7/1, Error ellipse: s-maj=69.9km s-min=17.2km az=146.0*
ISC 18 17:41:26.3±1.6, 15°.9S±0°.5×175°.2W±0°.4, h264^{km}±24^{km}, n7, σ0^{s}.72/7, mb3.7/5, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	3.82	59	P	Pn	17 42 29.8	+1.1
	6.6nm,0.3s,baz=39,slow=14,SNR=5.2						
AFI				S	S	17 43 17.6	-0.8
	11nm,0.3s,baz=99,slow=23,SNR=6.0						
WRAB	**Tennant Creek**	48.07	257	*e*P	P	17 49 39.8	-0.1
	2.5nm,0.6s,mb3.7						
WRA	**Warramunga Arr**	48.08	257	P	P	17 49 39.8	-0.2
	1.7nm,0.5s,mb3.7,baz=96,slow=7.9,SNR=79						
WRA				PcP	PcP	17 51 02.5	-0.9
	0.4nm,0.6s,baz=93,slow=3.4,SNR=3.9						
ASAR	**Alice Springs**	48.34	252	P	P	17 49 41.7	-0.2
	3.6nm,0.3s,mb4.1,baz=89,slow=7.6,SNR=112						
PETK	**Petropavlovsk-**	72.60	343	P	P	17 52 24.9	+0.2
	1.1nm,0.7s,mb3.6,baz=106,slow=9.3,SNR=4.3						
PDAR	**Pinedale Array**	83.77	42	P	P	17 53 26.1	0.0
	0.3nm,0.5s,mb3.4,baz=223,slow=6.1,SNR=4.0						
BRTR	**Keskin Array B**	145.45	319	PKPbc	PKPbc	18 00 34.2	+0.5
	1.3nm,0.9s,baz=77,slow=3.1,SNR=4.5						

NEIC **18** *18:11:40.4, 15°.64N×97°.41W, h20^{km}, MD3.7(MEX), After MEX.*
MEX 18 18:11:40.1±0.4, 15°.62N×97°.41W, h24^{km}±20^{km}, MD3.7, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	**Pinotepa**	1.03	318	*i* P	Pn	18 11 56.2	-2.9
PNIG				*i* S	Sb	18 12 08.7	-3.6
HUIG	**Huatulco**	1.26	83	*i* P	Pn	18 11 58.6	-3.7
HUIG				*e*P		18 11 59.6	
HUIG				*i* S	Sn	18 12 14.3	-4.2
HUIG	**Huatulco**	1.26	83	*e*P	Pn	18 11 59.6	-2.6
HUIG				*i* S	Sn	18 12 15.8	-2.7
VHO	**Vista Hermosa**	1.58	24	*i* P	Pn	18 12 04.7	-2.0
VHO				*i* S	Sn	18 12 22.7	-3.7
OXX	**Oaxaca**	1.59	24	*i* P	Pn	18 12 04.7	-2.2
OXX				*i* S	Sn	18 12 22.8	-3.9
UTMO	**Huajuapan**	2.23	350	*i* P	Pn	18 12 14.0	-1.6
UTMO				*i* S	Sn	18 12 39.1	-3.2
TPIG	**Tehuac#an**	2.78	1	*i* S	Sn	18 12 56.1	+0.1
CMIG	**Matias Romero**	2.83	59	*i* P	Pn	18 12 21.4	-2.4
CMIG				*i* S	Sn	18 12 54.5	-2.7
PPM	**Popocatepetl**	3.62	341	*e*P	Pn	18 12 35.0	+0.4
PPM				*i* S	Sn	18 13 16.1	-0.6
IIO	**Organos**	4.14	343	*e*P	Pn	18 12 40.2	-1.7
IIO				*i* S	Sn	18 13 27.3	-2.3

ISCJB **18** *18:31:03.7±1.9, 10°.78N±0°.08×86°.95W±0°.06, h15^{km}±15^{km}, mb3.6/4, Error ellipse: s-maj=14.9km s-min=6.6km az=31.5*
IDC **18** *18:31:05.0±1.4, 11°.96N×85°.77W, h0^{km}, mb3.5/4, mb1 3.9/4, mb1mx3.6/19, mbtmp3.5/4, Error ellipse: s-maj=73.1km s-min=19.1km az=65.0*
CASC **18** *18:31:05.0±1.7, 10°.81N×86°.93W, h20^{km}±12^{km}, MD3.8, ML2.8*
ISC 18 18:31:03.8±2.7, 10°.81N±0°.07×86°.90W±0°.06, h8^{km}±17^{km}, n23, σ0^{s}.79/26, mb3.6/4, 2D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSN	**San Juan del S**	1.14	64	*e*P	Pb	18 31 25.3	-0.5
APON	**Apoyo**	1.37	37	*e*P	Pn	18 31 29.4	+0.2
APON				*e*S	Sb	18 31 48.3	+0.9
TICN	**Ticuantepe**	1.38	28	*e*P	Pn	18 31 29.2	-0.2
COPN	**Copaltepe**	1.40	13⇓	*e*P	Pn	18 31 29.4	-0.2
COPN			⇓	*i*P		18 31 29.6	
GBS2	**Las Lilas**	1.42	89	*i* S	Sn	18 31 50.1	+1.3
CSAN		1.44	19	*e*P	Pn	18 31 29.7	-0.5
CONN	**Concepcion**	1.46	59	*e*P	Pn	18 31 30.1	-0.4
TISN	**Laguna Tiscapa**	1.46	25	*e*P	Pn	18 31 30.5	0.0
MGAN	**Managua**	1.48	26	*e*P	Pn	18 31 30.4	-0.3
MGAN				*e*P		18 31 30.4	
GB1A	**Borinquen Arri**	1.48	90	*i* P	Pn	18 31 30.6	-0.1
MOMN	**Momotombo**	1.63	13	*e*P	Pn	18 31 33.3	+0.6
MIRN	**Miramar**	1.63	7	*e*P	Pn	18 31 33.1	+0.3
HUEN		1.68	25	*e*P	Pn	18 31 32.8	-0.6
HUEN				*e*P		18 31 33.0	
CNGN	**Cerro Negro**	1.69	7	*e*P	Pn	18 31 33.2	-0.5
CNGN				AML	AML	18 32 05.3	
	comp=N,214nm,0.3s						
PTEN	**Parque Tenorio**	1.88	93	*i* P	Pn	18 31 37.3	+1.0
JTS	**JuntasAbangare**	1.98	105	Pn	Pn	18 31 38.5	+0.8
	comp=N,4.7nm,0.3s,baz=312,slow=21,SNR=15						
JTS				Sn	Sn	18 32 01.7	-1.0
	comp=N,16nm,0.3s,baz=289,slow=18,SNR=6.8						
JTS	**JuntasAbangare**	1.98	105	*e*P	Pn	18 31 36.6	-1.0
BOAB	**BOACO BROADBAN**	2.03	36	*e*P	Pn	18 31 37.5	-0.8
BOAB				AML	AML	18 32 15.8	
	comp=E,43nm,0.8s						
LFRS	**El Faro**	3.50	323	*e*P	Pn	18 32 00.4	+1.9
LFRS				*e*S	Sn	18 32 39.6	-0.7
TXAR	**Lajitas Array**	24.18	322	P	P	18 36 22.0	+1.3
	comp=E,1.1nm,0.9s,mb3.3,baz=142,slow=9.9,SNR=8.2						
TKL	**Tuckaleechee C**	24.90	6	P	P	18 36 18.8	-8.4
	comp=E,12nm,0.9s,mb4.4,baz=240,slow=20,SNR=5.1						
PDAR	**Pinedale Array**	37.46	332	P	P	18 38 16.7	-1.0
	comp=E,0.4nm,0.7s,mb3.4,baz=121,slow=9.9,SNR=3.0						
YKA	**Yellowknife Ar**	55.33	345	P	P	18 40 33.3	-4.4
	comp=E,0.1nm,0.3s,mb3.3,baz=142,slow=7.1,SNR=3.5						

CSEM **18** *18:40:25.8±1.1, 36°.82N×44°.11E, h2^{km}, MD3.4, Error ellipse: s-maj=25.0km s-min=9.9km az=116.0*
DDA **18** *18:40:38.4, 36°.87N×42°.59E, h7^{km}±7^{km}, Md3.1*
ISK 18 18:40:24.5, 36°.85N×44°.09E, h5^{km}, MD3.4, Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CUKT	**Cukurca**	0.55	316	*e*PG	Pg	18 40 34.8	-0.4
CUKT				*e*SG	Sg	18 40 45.5	+3.1
CUKT	**Cukurca**	0.55	316	*e*Pg	Pg	18 40 34.8	-0.4
CUKT				*e*Sg	Sg	18 40 45.5	+3.1
HAKT	**HAKKARI**	0.77	337	*i* P	Pg	18 40 59.8	+20
HAKT				*i* S	Sg	18 41 12.8	+23
HAKT	**HAKKARI**	0.77	337	*i* P	Pg	18 40 59.8	+20
HAKT				*i* S	Sg	18 41 12.8	+23
MSL	**Mosul**	0.90	241	*e*x	x	18 40 42.0	
MSL				*e*x	x	18 40 43.0	
MSL				*e*x	x	18 40 44.5	
MSL				*i* x	x	18 40 51.5	
MSL				*i* x	x	18 40 53.0	
MSL				*i* x	x	18 40 56.0	
VANT	**Van**	1.69	341	*e*PN	Pn	18 40 56.7	+2.1
VANT				*e*SN	Sn	18 41 20.5	+3.8
VANT	**Van**	1.69	341	*e*Pn	Pn	18 40 56.7	+2.0
VANT				*e*Sn	Sn	18 41 20.5	+3.8
TVAN	**Van**	1.76	342	*i* P	Pn	18 40 58.0	+2.3
TVAN				*i* S	Sn	18 41 26.6	+8.1
TVAN	**Van**	1.76	342	*i* P	Pn	18 40 58.0	+2.3
TVAN				*i* S	Sn	18 41 26.6	+8.1
VANB	**Van**	1.83	343	*e*PN	Pn	18 40 57.9	+1.3
VANB				*e*SN	Sn	18 41 22.6	+2.5
VANB	**Van**	1.83	343	*e*Pn	Pn	18 40 57.9	+1.3
VANB				*e*Sn	Sn	18 41 22.7	+2.5
TATV	**Tatvan**	2.20	320	*i* P	Pn	18 41 04.4	+2.8
TATV				*i* S	Sn	18 41 35.1	+5.8
TATV	**Tatvan**	2.20	320	*i* P	Pn	18 41 04.4	+2.7
TATV				*i* S	Sn	18 41 35.1	+5.9
CLDR	**Caldiran**	2.30	357	*e*PN	Pn	18 41 05.5	+2.5
CLDR	**Caldiran**	2.30	357	*e*Pn	Pn	18 41 05.6	+2.6
BEST	**Besiri**	2.47	296	*e*P	Pn	18 41 06.8	+1.3
BEST				*i* S	Sn	18 41 40.2	+4.2
MARD	**Mardin**	2.69	281	*e*P	Pn	18 41 06.0	-2.4
MARD				*i* S	Sn	18 41 38.8	-2.5
AGRB	**Hanur-Agry**	2.86	343	*e*PN	Pn	18 41 13.5	+2.8
AGRB	**Hanur-Agry**	2.86	343	*e*Pn	Pn	18 41 13.5	+2.8
DIY	**Diyarbakir**	3.25	290	*e*PN	Pn	18 41 19.1	+3.0
DIY	**Diyarbakir**	3.25	290	*e*Pn	Pn	18 41 19.1	+3.0
DIYA	**Diyarbakir**	3.34	290	*i* P	Pn	18 41 22.4	+5.1
DIYA				*i* S	Sn	18 42 05.3	+8.0
DIYA	**Diyarbakir**	3.34	290	*i* P	Pn	18 41 22.4	+5.1
DIYA				*i* S	Sn	18 42 05.3	+8.0
URFA	**Urfa**	4.25	280	*e*PN	Pn	18 41 32.9	+3.1
URFA	**Urfa**	4.25	280	*e*Pn	Pn	18 41 32.9	+3.1

NEIC **18** *18:47:19.2, 28°.68S×71°.03W, h109^{km}, MD3.3(GUC), After GUC.*
GUC 18 18:47:19.2±0.5, 28°.68S×71°.03W, h109^{km}±12^{km}, MD3.3, ML3.5, 4C-4D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	**Las Campanas**	0.44	140⇓	*i*P	Pn	18 47 36.6	+1.0
LCO				*i* S	Sn	18 47 49.3	+1.5
LCO	**Las Campanas**	0.44	140⇓	*i*P	Pn	18 47 36.6	+1.0
LCO				*i* S	Sn	18 47 49.3	+1.5
LCO				AML	AML	18 47 50.8	
	comp=N,1μm,0.5s						
CPCH	**Copiapo**	1.44	24⇓	*i*P	Pn	18 47 45.5	+0.2
CPCH				*i* S	Sn	18 48 05.7	+0.6
CPCH	**Copiapo**	1.44	24⇓	*i*P	Pn	18 47 45.5	+0.2
CPCH				*i* S	Sn	18 48 05.7	+0.6
CPCH				AML	AML	18 48 08.7	
	comp=N,3μm,0.1s						
TLL	**Tololo Astrono**	1.50	173⇑	*i*P	Pn	18 47 47.7	+1.8
TLL				*i* S	Sn	18 48 08.8	+2.5
TLL	**Tololo Astrono**	1.50	173⇑	*i*P	Pn	18 47 47.7	+1.8
TLL				*i* S	Sn	18 48 08.8	+2.5
TLL				AML	AML	18 48 10.2	
	comp=E,323nm,0.2s						
CMCH	**Combarbala**	2.49	180⇑	*i*P	Pn	18 47 59.0	+0.5
CMCH				*i* S	Sn	18 48 29.4	+0.8
CMCH	**Combarbala**	2.49	180⇑	*i*P	Pn	18 47 59.0	+0.5
CMCH				*i* S	Sn	18 48 29.4	+0.8
CMCH				AML	AML	18 48 31.6	
	comp=N,452nm,0.3s						

ISCJB **18** *18:53:47.1±0.6, 39°.54N±0°.02×26°.01E±0°.05, h6^{km}±6^{km},*

Error ellipse: s-maj=6.7km s-min=4.1km az=173.6
*CSEM **18** 18:53:47.1±0.1, 39°.54N×26°.03E, h10^{km}, ML3.0/5, Error ellipse: s-maj=1.5km s-min=1.3km az=66.0*
*DDA **18** 18:53:47.0, 39°.55N×26°.07E, h7^{km}±3^{km}, Md2.7*
*THE **18** 18:53:47.3, 39°.53N×26°.00E, h8^{km}±1^{km}, ML3.0/5, Error ellipse: s-maj=1.5km s-min=0.5km az=232.0*
ISC 18 18:53:47.3±0.5, **39°.54N**±0°.03×**26°.02E**±0°.05, **h10**^{km}±6^{km}, **n15, σ0ˢ.47**/30, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	Bozcaada	0.30	5	i P	Pg	18 53 52.9	-0.4
BOZC				i S	Sg	18 53 57.7	+0.3
PRK	Paraskevi	0.35	147	P	Pg	18 53 54.3	0.0
PRK				S	Sg	18 53 59.5	+0.5
PRK	Paraskevi	0.35	147	P	Pg	18 53 54.3	0.0
PRK				S	Sg	18 53 59.5	+0.5
SIGR	SIGRI	0.35	201	P	Pg	18 53 54.1	-0.2
SIGR				S	Sg	18 53 59.0	0.0
SIGR	SIGRI	0.35	201	P	Pg	18 53 54.1	-0.2
SIGR				S	Sg	18 53 59.0	0.0
LIA	Limnos Island	0.74	299	P	Pg	18 54 01.5	-0.1
LIA				S	Sg	18 54 11.7	+0.5
LIA	Limnos Island	0.74	299	P	Pg	18 54 01.5	-0.1
LIA				S	Sg	18 54 11.7	+0.5
CHOS	Chios island	1.15	179	P	Pb	18 54 08.3	-1.0
CHOS				S	Sb	18 54 25.1	+0.8
CHOS	Chios island	1.15	179	P	Pb	18 54 08.3	-1.0
CHOS				S	Sb	18 54 25.1	+0.8
BALY	Balya	1.25	80	i P	Pn	18 54 10.6	-0.2
BALY				i S	Sb	18 54 26.8	-0.3
BALY	Balya	1.25	80	i P	Pn	18 54 10.6	-0.2
BALY				i S	Sb	18 54 26.8	-0.3
ALN	Alexandroupoli	1.35	1	P	Pn	18 54 11.9	-0.4
ALN				S	Sb	18 54 29.9	-0.2
ALN	Alexandroupoli	1.35	1	P	Pn	18 54 11.9	-0.4
ALN				S	Sb	18 54 29.9	-0.2
SART	Tekirdag	1.45	37	i P	Pn	18 54 13.5	0.0
SART				i S	Sn	18 54 33.5	+0.9
SART	Tekirdag	1.45	37	i P	Pn	18 54 13.5	-0.1
SART				i S	Sn	18 54 33.5	+0.9

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*ISCJB **18** 19:19:25.0±0.2, 47°.95N±0°.01×114°.82W±0°.02, h10^{km}, Error ellipse: s-maj=2.1km s-min=1.7km az=9.1*
*NEIC **18** 19:19:25.0, 47°.95N×114°.80W, h12^{km}, ML3.0(BUT), After BUT.*
ISC 18 19:19:25.4±0.2, **47°.97N**±0°.01×**114°.80W**±0°.02, **h10**^{km}, **n87, σ0ˢ.95**/114, **43C-43D, Montana**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSMT	Bassoo Peak	0.12	174	eP	Pg	19 19 25.8	-2.5
C13A	Hot Springs	0.33	152	⇑P	Pg	19 19 31.6	-0.4
	baz=0.3,SNR=1000						
C13A				⇓S	Sg	19 19 35.9	-0.4
	baz=0.3						
JTMT	Jette	0.42	122	eP	Pg	19 19 30.4	-3.1
B13A	Whitefish	0.46	29	⇓P	Pg	19 19 34.6	+0.1
	baz=0.5,SNR=476						
B13A				⇓S	Sg	19 19 40.7	+0.1
	baz=0.5						
C12B	Naegeli Ranch,	0.52	240	⇑P	Pg	19 19 35.6	+0.1
	baz=0.5,SNR=33						
C12B				⇓S	Sg	19 19 42.0	-0.4
	baz=0.5						
YBMT	Yellow Bay	0.54	101	eP	Pg	19 19 33.0	-3.0
SWMT	Swartz Lake	0.71	130	eP	Pg	19 19 36.2	-3.0
B12A	Libby	0.73	314	⇓P	Pg	19 19 39.7	+0.2
	baz=0.7,SNR=165						
B12A				⇑S	Sg	19 19 48.9	0.0
	baz=0.7						
C14A	Swan Lake	0.74	105	⇓P	Pg	19 19 39.6	-0.1
	baz=0.7						
C14A				⇑S	Sg	19 19 48.7	-0.7
	baz=0.7						
D13A	Huson	0.91	165	⇑P	Pg	19 19 42.2	-0.6
	baz=0.9,SNR=274						
A13A	Flathead Natio	1.00	15	⇑P	Pg	19 19 44.6	-0.1
	baz=1.0,SNR=128						
A13A				⇓S	Sg	19 19 57.8	+0.2
	baz=1.0						
A12A	Yaak River Ran	1.12	330	⇓P	Pb	19 19 46.3	-0.6
	baz=1.1,SNR=51						
A12A				⇓S	Sb	19 20 01.6	+0.2
	baz=1.1						
B11A	Sandpoint	1.15	295	⇑P	Pb	19 19 47.1	-0.2
	baz=1.2,SNR=45						
SLMT	Seeley Lake	1.15	129	eP	Pb	19 19 46.9	-0.4
D14A	Greenough	1.25	135	⇓P	Pn	19 19 48.3	-0.6
	baz=1.2,SNR=362						
D14A				⇓S	Sb	19 20 03.4	-1.7
	baz=1.2						
MSO	Missoula	1.28	152	eP	Pn	19 19 48.8	-0.5
A14A	Double T Ranch	1.36	42	⇑Pg	Pg	19 19 51.2	-0.4
	baz=1.4,SNR=147						
A14A				⇑Sg	Sg	19 20 09.4	+0.2
	baz=1.4						
D11A	Klaveano Farm,	1.39	229	⇑Pg	Pg	19 19 51.7	-0.3
	baz=1.4,SNR=121						
A11A	Hall Mountain,	1.43	314	⇓Pb	Pb	19 19 51.7	-0.5
	baz=1.4,SNR=57						
A11A				⇑Pg	Pg	19 19 52.5	-0.5
	baz=1.4						
A11A				⇑Sn	Sn	19 20 10.3	0.0
	baz=1.4						
CHMT	Chamberlain Mo	1.49	134	P	Pn	19 19 52.4	+0.1
C15A	Salmond Ranch,	1.49	97	⇑Pg	Pg	19 19 53.2	-0.8
	baz=1.5,SNR=102						
C15A				⇓Sb	Sb	19 20 12.3	+0.2
	baz=1.5						
B15A	Bradely Ranch,	1.54	76	⇑Pb	Pb	19 19 53.1	-0.9
	baz=1.5,SNR=311						
B15A				⇓Sb	Sb	19 20 13.7	+0.2
	baz=1.5						
NEW	Newport	1.58	282	eP	Pn	19 19 54.9	+1.4
NEW				eS	Sn	19 20 15.2	+1.2
E13A	Victor	1.58	164	⇓Pb	Pb	19 19 53.7	-1.0
	baz=1.6,SNR=206						
B10A	Chitwood Farm,	1.66	282	⇓Pb	Pb	19 19 55.5	-0.5
	baz=1.7,SNR=7.9						
B10A				⇑Pg	Pg	19 19 56.6	-0.5
	baz=1.7						
C10A	Spilker Farm,	1.69	266	⇑Sb	Sb	19 20 18.8	+0.9
	baz=1.7						
A15A	Johnson Ranch,	1.71	53	⇑Pb	Pb	19 19 56.0	-0.9
	baz=1.7,SNR=89						
A15A				⇑Sb	Sb	19 20 19.0	+0.6
	baz=1.7						
E14A	Clinton	1.79	150	⇓Pb	Pb	19 19 57.1	-1.2
	baz=1.8,SNR=101						
D15A	Lincoln	1.81	120	⇑Pb	Pb	19 19 57.6	-0.9
	baz=1.8,SNR=83						
D15A				⇓Sb	Sb	19 20 21.2	0.0
	baz=1.8						
E11A	Bogner Ranch,	1.88	211	⇑Pb	Pb	19 19 59.1	-0.6
	baz=1.9,SNR=72						
D10A	Wagner Farm, O	1.91	242	⇑Pb	Pb	19 19 59.9	-0.4
	baz=1.9,SNR=27						
C16A	Fuhringer Ranc	2.06	94	⇓Pb	Pb	19 20 01.4	-1.6
	baz=2.1,SNR=225						
C16A				⇑Sb	Sb	19 20 28.9	+0.3
	baz=2.1						
A10A	Northport	2.09	300	⇑Sb	Sb	19 20 30.3	+0.9
	baz=2.1						
B16A	M & M Farms, S	2.12	77	⇑Pb	Pb	19 20 02.8	-1.1
	baz=2.1,SNR=27						
E15A	Deer Lodge	2.14	136	⇓Sb	Sb	19 20 31.3	+0.6
	baz=2.1						
E10A	Myers Farm, Un	2.16	227	⇑Pn	Pn	19 20 01.4	0.0
	baz=2.1,SNR=11						
F13A	Darby	2.20	171	⇓Pn	Pn	19 20 01.8	-0.2
	baz=2.2,SNR=61						
F12A	Elk City	2.23	188	⇑Pn	Pn	19 20 02.2	-0.2
	baz=2.2,SNR=25						
F11A	Grangeville	2.28	204	⇑Sb	Sb	19 20 35.7	+0.9
	baz=2.3						
B09A	Rice	2.28	283	⇓Pn	Pn	19 20 02.6	-0.5
	baz=2.3						
B09A				⇑Sb	Sb	19 20 36.1	+1.2
	baz=2.3						
DPW	Davenport	2.29	269	P	Pn	19 20 02.9	-0.3
A16A	West Butte Ran	2.35	64	⇓Pb	Pb	19 20 06.6	-1.1
	baz=2.3,SNR=22						
A16A				⇑Sb	Sb	19 20 37.6	+0.8
	baz=2.3						
F14A	Wisdom	2.37	155	⇑Pn	Pn	19 20 04.3	0.0
	baz=2.4,SNR=40						
HRY	Holter Researc	2.38	121	eP	Pn	19 20 05.6	+1.2
HRY				eS	Sn	19 20 37.5	+3.8
D16A	Dana Ranch, Ca	2.40	112	⇓Sb	Sb	19 20 38.9	+0.7
	baz=2.4						
E16A	East Helena	2.57	123	⇓Pn	Pn	19 20 06.3	-0.7
	baz=2.5,SNR=10						
E16A				⇑Sb	Sb	19 20 44.2	+1.1
	baz=2.5						
F10A	Beach Ranch, E	2.59	221	⇑Pn	Pn	19 20 07.3	-0.1
	baz=2.6,SNR=17						
F15A	Butte	2.65	142	⇓Pn	Pn	19 20 08.0	-0.1
	baz=2.6,SNR=38						
LRM	Limekiln Ridge	2.69	142	eP	Pn	19 20 08.8	+0.2
B17A	L&G Farms, Che	2.70	82	⇓Sb	Sb	19 20 47.8	+0.8
	baz=2.7						
C17A	Wharram Farm,	2.75	96	⇑Pb	Pb	19 20 13.5	-1.0
	baz=2.7						
C17A				⇓Sb	Sb	19 20 48.9	+0.7
	baz=2.7						
A17A	Triple J Farms	2.90	69	⇓Pb	Pb	19 20 16.2	-1.0
	baz=2.9						
A17A				⇑Sb	Sb	19 20 53.9	+1.2
	baz=2.9						
D17A	Six Diamond Ra	2.91	105	⇓Pb	Pb	19 20 16.3	-0.9
	baz=2.9						
D17A				⇓Sb	Sb	19 20 54.0	+1.1
	baz=2.9						
DLMT	Dillon	3.02	149	ePn	Pn	19 20 13.0	-0.2
B08A	Colville Reser	3.06	279	⇑Pn	Pn	19 20 13.1	-0.6
	baz=3.1						
F16A	Kennard Place,	3.09	134	⇑Pg	Pg	19 20 23.0	-1.5
	baz=3.1						
G10A	Bishop Farm, J	3.12	212	⇓Sb	Sb	19 21 00.1	+1.2
	baz=3.1						
A08A	Turner Farm, O	3.13	290	⇓Pn	Pn	19 20 14.6	-0.1
	baz=3.1						
BOZ	Bozeman (W)	3.19	136	ePn	Pn	19 20 16.9	+1.4
H11A	Donnelly	3.37	195	⇑Pn	Pn	19 20 18.5	+0.5
	baz=3.4,SNR=6.3						
G09A	Cove	3.38	218	⇓Sb	Sb	19 21 08.6	+2.0
	baz=3.4						
EGMT	Eagleton	3.39	87	⇓Sb	Sb	19 21 08.7	+1.9
	baz=3.4						
EGMT	Eagleton	3.39	87	ePn	Pn	19 20 19.6	+1.3
EGMT				eS	Sn	19 21 06.8	+8.3
MCMT	McKenzie Canyo	3.42	156	ePn	Pn	19 20 18.9	+0.1
H13A	Challis	3.43	173	⇓Pn	Pn	19 20 18.5	-0.3
	baz=3.4,SNR=14						
G16A	Moss Hill, Enn	3.43	142	⇑Pn	Pn	19 20 18.9	0.0
	baz=3.4,SNR=28						
A18A	Metzger Ranch,	3.44	72	⇓Sb	Sb	19 21 10.1	+2.1
	baz=3.4						
D18A	Linhart Farms,	3.47	101	⇓Sb	Sb	19 21 11.0	+1.9
	baz=3.5						
C07A	Waterville	3.55	267	⇑Pn	Pn	19 20 19.7	-0.8
	baz=3.5						
BMO	Blue Mountains	3.56	210	ePn	Pn	19 20 21.6	+0.9
B07A	Winthrop	3.59	280	⇑Pn	Pn	19 20 20.5	-0.6
	baz=3.6						
HAWA	Hanford	3.59	246	ePn	Pn	19 20 22.2	+1.1
HAWA				eSn	Sg	19 21 19.6	-1.0
G08A	Pilot Rock	3.92	228	⇓Pn	Pn	19 20 25.4	-0.2
	baz=3.9						
H16A	Russell Place,	4.09	142	⇑Pn	Pn	19 20 27.5	-0.4
	baz=4.1						
I12A	Atlanta	4.18	183	⇓Pg	Pg	19 20 42.6	-2.9
	baz=4.2						
YMR	Madison River	4.24	140	ePn	Pn	19 20 31.2	+1.3
I15A	Monteview	4.29	157	⇓Sg	Sg	19 21 46.0	+3.0
	baz=4.3						
H08A	Prairie City	4.37	219	⇑Sb	Sb	19 21 37.8	+2.8
	baz=4.4						
HLID	Hailey	4.42	176	ePn	Pn	19 20 33.2	+0.8
G18A	Lazy EL Ranch,	4.48	124	⇓Sb	Sb	19 21 41.5	+3.4
	baz=4.5						
J13A	Cove Ranch, Pi	4.59	174	⇓Pn	Pn	19 20 34.5	-0.4
	baz=4.6,SNR=7.4						
J14A	Carey	4.73	169	⇑Pn	Pn	19 20 37.4	+0.6
	baz=4.7,SNR=8.7						
IMW	Indian Meadow	4.88	145	ePn	Pn	19 20 40.0	+1.1
MOOW	Moose Ponds	5.08	145	Pn	Pn	19 20 42.1	+0.5
RRI2	Red Ridge	5.23	151	Pn	Pn	19 20 43.4	-0.2
	3.3nm,0.7s						
EDM	Edmonton	5.34	9	ePn	Pn	19 20 44.6	-0.4
LAO	LASA Array	5.97	99	ePn	Pn	19 20 53.4	-0.4
	6.4nm,0.4s						

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*IDC **18** 19:20:52.4±2.3, 18°.09S×169°.05E, h0^{km}, mb3.9/5, mb1 4.0/5, mb1mx3.8/17, mbtmp3.9/5, Error ellipse: s-maj=49.3km s-min=35.2km az=50.0*
*NOU **18** 19:20:53.5±0.8, 17°.10S×169°.61E, h30^{km}±999^{km}, MD3.2, ML3.3*
ISC 18 19:20:46.4±1.3, **16°.9S**±0°.1×**170°.0E**±0°.2, **h35**^{km}, **n10, σ1ˢ.32**/10, **mb3.9**/4, **Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	6.12	213	eP	Pn	19 22 18.9	+4.5
DZM				AMP		19 23 30.2	
	comp=Z,304nm,2.6s						
LASL	Noumea	6.21	211	eP	Pn	19 22 20.6	+5.0
NOUC	Port Laguerre	6.22	214	eP	Pn	19 22 21.0	+5.2
NOUC				eS	Sn	19 23 25.4	-0.3
NOUC				AMP		19 23 32.1	
	comp=Z,19nm,0.8s						
URZ	Urewera	22.13	165	P	P	19 25 40.4	+1.5
	comp=Z,12nm,0.9s,mb4.3,baz=283,slow=5.3,SNR=5.9						
STKA	Stephens Creek	29.74	235	P	P	19 26 47.6	-2.0
	comp=Z,0.9nm,0.8s,mb3.6,baz=90,slow=11,SNR=3.7						
WRA	Warramunga Arr	33.95	259	P	P	19 27 28.0	+1.4
	comp=Z,0.2nm,0.4s,mb3.4,baz=90,slow=8.3,SNR=9.0						
ASAR	Alice Springs	34.47	253	P	P	19 27 31.7	+0.6
	comp=Z,2.2nm,0.4s,mb4.4,baz=82,slow=8.7,SNR=58						
SONM	Songino Array	85.85	323	P	pP	19 33 36.2	+2.8
	comp=Z,0.4nm,0.7s,baz=134,slow=6.2,SNR=4.0						
VNA3	Neumayer Olymp	92.04	180	e	P	19 33 51.1	-0.3
VNA2	Neumayer--Watz	92.34	181	e	P	19 33 50.7	-2.1
	baz=179,slow=6.9						

IDC 18 19:20:49.0±13.0, **24°.02S**×**178°.56W**, **h545**^{km}±150^{km}, **mb3.1**/4, **mb1 3.3**/5, **mb1mx3.0**/18, **mbtmp3.2**/5, **Error ellipse: s-maj=245.7km s-min=85.5km az=69.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	14.66	194	P	P	19 23 54.8	0.0
	1.2nm,0.3s,baz=57,slow=16,SNR=5.3						
CTA	Charters Tower	32.80	270	P	P	19 26 38.0	+0.3
	5.3nm,0.4s,baz=110,slow=11,SNR=8.8						
STKA	Stephens Creek	35.90	248	P	P	19 27 02.9	-0.6
	1.6nm,0.9s,baz=85,slow=11,SNR=3.6						
ASAR	Alice Springs	43.32	260	P	P	19 28 03.0	-0.2
	0.6nm,0.5s,baz=93,slow=7.1,SNR=6.1						
WRA	Warramunga Arr	43.71	266	P	P	19 28 06.4	+0.1
	1.1nm,0.3s,baz=101,slow=8.3,SNR=49						

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*ISCJB **18** 19:47:30.1±0.5, 23°.72N±0°.02×121°.89E±0°.02, h10^{km}±3^{km}, Error ellipse: s-maj=3.3km s-min=2.3km az=145.6*
*TAP **18** 19:47:31.2, 23°.76N×121°.80E, h18^{km}, ML3.5, C*
*JMA **18** 19:47:33.1±0.3, 24°.00N×121°.88E, h92^{km}, M2.4*
ISC 18 19:47:30.5±0.4, **23°.73N**±0°.02×**121°.87E**±0°.02, **h12**^{km}±2^{km}, **n51, σ0ˢ.80**/88, **6C-13D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEGC	Jichi Village	0.30	267	eP	Pg	19 47 37.6	+1.0
	baz=258						
TEGC				S	Sg	19 47 42.8	+2.0
	baz=258						
HWA	Hwalien	0.35	316	⇑iP	Pg	19 47 37.7	+0.2
	baz=321						
HWA				eS	Sg	19 47 43.3	+1.2
	baz=321						
ESF	Shoufeng Towns	0.36	294	i P	Pg	19 47 37.6	-0.1
	baz=293						
ESF				eS	Sg	19 47 42.5	-0.1
	baz=293						
ESL	Shilin	0.41	282	⇑iP	Pg	19 47 38.5	-0.1
	baz=279						
ESL				S	Sg	19 47 43.4	-0.7
	baz=279						
TWD	Chiawan	0.43	325	⇑iP	Pg	19 47 39.1	+0.1
	baz=330						
TWD				i S	Sg	19 47 44.9	+0.1
	baz=330						
EHY	Hungye	0.55	246	⇓iP	Pg	19 47 41.6	+0.4
	baz=246						
EHY				eS	Sg	19 47 50.0	+1.6
	baz=246						
TWF1	Yuli	0.64	235	⇓iP	Pg	19 47 43.5	+0.5
	baz=228						
TWF1				eS	Sg	19 47 52.2	+0.7
	baz=228						
WHF	Hehuan Shan	0.69	307	⇑iP	Pg	19 47 43.5	-0.4
	baz=297						
WHF				eS	Sg	19 47 52.0	-1.0
	baz=297						
ENA	Nanau	0.71	351	⇓iP	Pg	19 47 44.4	+0.1
	baz=356						
ENA				eS	Sg	19 47 54.5	+1.0
	baz=356						
CHKT	Chengkung	0.78	217	eP	Pg	19 47 44.9	-0.6
	baz=194						
CHKT				eS	Sg	19 47 54.5	-1.2
	baz=194						
TWT	Tachien	0.82	310	P	Pg	19 47 46.0	-0.3
	baz=301						
TWT				eS	Sg	19 47 57.0	-0.2
	baz=301						
NNS	Nan Shan	0.84	328	⇓iP	Pg	19 47 46.3	-0.5
	baz=320						
NNS				S	Sg	19 47 57.2	-0.6
	baz=320						
YUS	Yu-Shan	0.87	254	⇓iP	Pg	19 47 47.3	0.0
	baz=250						
YUS				eS	Sg	19 47 59.6	+0.8
	baz=250						
TWC	Suao	0.88	359	P	Pg	19 47 47.4	-0.1
	baz=17						
TWC				S	Sg	19 48 00.0	+1.1
	baz=17						
SMLT	Sun Moon Lake	0.90	280	⇓iP	Pg	19 47 47.2	-0.7
	baz=279						
SMLT				eS	Sg	19 47 58.4	-1.3
	baz=279						
TYC	Yuchr	0.94	281	⇓iP	Pg	19 47 47.8	-0.9
	baz=280						
TYC				S	Sg	19 48 00.6	-0.4
	baz=280						
ELDTW	Lidau	0.95	236	⇓P	Pg	19 47 47.6	-1.1
	baz=233						
ENTT	Nioudou	0.95	343	i P	Pg	19 47 48.5	-0.3
	baz=357						
ENTT				S	Sg	19 48 01.5	+0.3
	baz=357						
ALS	Alishan	1.00	258	⇓P	Pb	19 47 49.5	-0.3
	baz=255						
ALS				eS	Sb	19 48 03.2	+0.3
	baz=255						
TWE	Neicheng	1.01	350	P	Pb	19 47 49.2	-0.7
	baz=354						
TWE				eS	Sb	19 48 04.0	+0.9
	baz=354						
NSK	Sanguang	1.05	334	i P	Pb	19 47 49.8	-0.9
	baz=338						
NSK				S	Sb	19 48 03.2	-1.3
	baz=338						
WNT	Mingjian	1.09	278	eP	Pb	19 47 51.4	0.0
	baz=277						
WNT				eS	Sb	19 48 06.0	+0.4
	baz=277						
CHN5	Tsauling	1.10	263	P	Pb	19 47 51.2	-0.2
	baz=260						
CHN5				S	Sb	19 48 06.6	+0.9
	baz=260						
TWG	Pinlang	1.16	219	eP	Pb	19 47 50.5	-2.0
	baz=217						
STYT	Tauyuan	1.16	241	⇓iP	Pb	19 47 51.9	-0.6
	baz=232						
STYT				eS	Sb	19 48 06.8	-0.8
	baz=232						
TCU	Taichung	1.17	291	eP	Pb	19 47 52.6	0.0
	baz=292						
TWQ1	Liyutan	1.18	302	P	Pn	19 47 52.7	0.0
	baz=303						
TWQ1				eS	Sb	19 48 07.9	-0.1
	baz=303						
WGK	Gukeng	1.20	268	eP	Pn	19 47 52.8	-0.3
	baz=266						
WGK				eS	Sb	19 48 08.1	-0.5
	baz=266						
NSTT	Nanjuang	1.20	319	⇑iP	Pn	19 47 52.7	-0.3
	baz=321						
NSTT				eS	Sb	19 48 07.0	-1.6
	baz=321						
NSY	Sanyi	1.22	304	eP	Pn	19 47 53.9	+0.5
	baz=306						
CHN4	Tsaushan	1.23	253	⇓P	Pn	19 47 53.5	+0.1
	baz=249						
CHN4				eS	Sb	19 48 10.4	+0.9
	baz=249						
WTP	Ta-pu	1.25	248	⇓iP	Pn	19 47 53.5	-0.2
	baz=244						
WTP				eS	Sb	19 48 11.8	+1.8
	baz=244						
YOJ	Yonaguni jima	1.27	55	P	Pn	19 47 54.8	+0.7
YOJ				eS	Sb	19 48 10.4	-0.4
CHN2	Minshiung	1.29	262	eP	Pn	19 47 54.7	+0.3
	baz=261						
NWF	Wu-fen Shan	1.34	357	eP	Pn	19 47 55.5	+0.5
	baz=343						
CHN1	Nanshi	1.34	247	⇑P	Pn	19 47 55.6	+0.5
	baz=242						
CHN1				eS	Sb	19 48 14.4	+1.6
	baz=242						
CHY	Chiayi	1.34	261	eP	Pn	19 47 55.5	+0.4
	baz=260						
SGST	Jiashian	1.34	242	⇓P	Pn	19 47 55.2	+0.1
	baz=228						
SGST				eS	Sb	19 48 13.5	+0.7
	baz=228						
TWK	Hsinying	1.35	250	P	Pn	19 47 55.4	+0.3
	baz=246						
TWK				eS	Sb	19 48 13.0	+0.1
	baz=246						
ECL	Taimali	1.40	217	eP	Pn	19 47 53.2	-2.7
	baz=215						
TWS1	Kuangyinshan	1.43	343	eP	Pn	19 47 55.9	-0.4
	baz=346						
WTCT	Ta-ch'eng	1.46	276	eP	Pn	19 47 57.1	+0.4
	baz=276						
SSD	Sandimen	1.50	230	eP	Pn	19 47 56.4	-0.8
	baz=217						
WSF	Szhu	1.51	267	eP	Pn	19 47 57.2	-0.1
	baz=264						
WSF				eS	Sn	19 48 17.4	+0.4
	baz=264						
LAY	Lan-yu	1.71	190	eP	Pn	19 47 58.0	-2.0
	baz=189						
SCZT	Fangliau	1.77	221	eP	Pn	19 48 00.1	-0.8
	baz=212						
HATJ	Hateruma jima	1.80	79	eS	Sn	19 48 24.8	+0.6
IRIF	Iriomote-Funau	1.81	70	P	Pn	19 48 02.0	+0.5
IRIF				eS	Sn	19 48 25.0	+0.7
JKRS	Kuro-shima	2.02	75	P	Pn	19 48 05.4	+1.0
JKRS				eS	Sn	19 48 30.5	+0.8
JIJ	Ishigaki jima	2.17	73	P	Pn	19 48 06.9	+0.4
JIJ				eS	Sn	19 48 32.5	-0.9
JTJ	Tarama	2.74	70	P	Pn	19 48 14.9	+0.6
JTJ				eS	Sn	19 48 47.2	-0.2

IDC 18 19:52:17.2±3.6, **30°.01S**×**177°.57W**, **h0**^{km}, **mb4.2**/4, **mb1 4.4**/4, **mb1mx4.0**/16, **mbtmp4.2**/4, **Error ellipse: s-maj=141.5km s-min=51.6km az=158.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	9.34	207	Sn	Sn	19 56 05.9	-13
	1.1nm,0.3s,baz=171,slow=18,SNR=4.2						
CTA	Charters Tower	34.11	278	P	P	19 59 05.3	+1.6
	7.4nm,0.7s,baz=104,slow=13,SNR=4.0						
STKA	Stephens Creek	34.93	256	P	P	19 59 11.6	+0.8
	4.2nm,0.8s,baz=81,slow=10,SNR=8.2						
ASAR	Alice Springs	43.51	266	P	P	20 00 21.6	-0.9
	0.4nm,0.4s,baz=104,slow=7.4,SNR=26						

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
WRA	Warramunga Arr	44.46	272	P	P	20 00 29.3	-1.0
	1.6nm,0.4s,baz=110,slow=8.1,SNR=72						
AKASG	Malin Array Be	151.21	323	PKPbc	PKPbc	20 12 12.1	-0.1
	1.1nm,0.5s,baz=48,slow=2.7,SNR=6.3						

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*ISCJB **18** 19:57:28.8±0.7, 38.°42N±0.°04×39.°35E±0.°03, h4km±6km, Error ellipse: s-maj=7.6km s-min=3.4km az=23.3*
*DDA **18** 19:57:28.4, 38.°42N×39.°36E, h7km±4km, Md3.1, Ml3.4*
*ISK **18** 19:57:28.8, 38.°38N×39.°33E, h10km, MD3.2*
*CSEM **18** 19:57:29.2±0.1, 38.°41N×39.°33E, h5km, ML3.4, Error ellipse: s-maj=3.1km s-min=1.7km az=30.0*
ISC 18 19:57:29.3±0.6, **38.°43N**±0.°04×**39.°35E**±0.°03, **h6**km±5km, **n28, σ0.s82**/43, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.30	283	*i* P	Pg	19 57 34.8	-0.3
ELZG				*i* S	Sg	19 57 40.0	+1.0
ELZG	Elazig	0.30	283	*i* P	Pg	19 57 34.8	-0.3
ELZG				*i* S	Sg	19 57 40.0	+1.0
MYA	Malataya	0.74	262	*e*PG	Pg	19 57 42.3	-1.1
MYA	Malataya	0.74	262	*e*Pg	Pg	19 57 42.3	-1.2
MALT	Malatya	0.74	261	PG	Pg	19 57 43.0	-0.4
MALT				*e*SG	Sg	19 57 53.8	+0.7
MALT	Malatya	0.74	261	*i* Pg	Pg	19 57 43.0	-0.5
MALT				*e*Sg	Sg	19 57 53.8	+0.8
DIYA	Diyarbakir	0.79	130	*i* P	Pg	19 57 44.2	-0.3
DIYA				*i* S	Sg	19 57 55.4	+0.7
DIYA	Diyarbakir	0.79	130	*i* P	Pg	19 57 44.2	-0.2
DIYA				*i* S	Sg	19 57 55.4	+0.7
DIY	Diyarbakir	0.87	128	*e*PG	Pg	19 57 45.9	-0.1
DIY				*e*SG	Sg	19 57 58.1	+0.8
DIY	Diyarbakir	0.87	128	*e*Pg	Pg	19 57 45.9	-0.1
DIY				*e*Sg	Sg	19 57 58.1	+0.8
KEMA	Kemaliye	1.07	322	*i* P	Pg	19 57 48.4	-1.5
KEMA				*i* S	Sg	19 58 04.8	+1.0
KEMA	Kemaliye	1.07	322	*i* P	Pg	19 57 48.4	-1.5
KEMA				*i* S	Sg	19 58 04.8	+0.9
AKCD	Akcadag	1.13	264	*i* P	Pg	19 57 49.5	-1.5
AKCD				*i* S	Sg	19 58 06.5	+0.8
AKCD	Akcadag	1.13	264	*i* P	Pg	19 57 49.5	-1.5
AKCD				*i* S	Sg	19 58 06.5	+0.8
EZC	Erzincan	1.36	15	*e*PN	Pn	19 57 54.5	-0.4
EZC				*e*SN	Sn	19 58 13.5	+0.2
MARD	Mardin	1.58	134	*i* P	Pn	19 57 57.4	-0.6
MARD				*i* S	Sn	19 58 18.2	-0.5
BEST	Besiri	1.60	109	*i* P	Pn	19 57 57.8	-0.4
BEST				*i* S	Sn	19 58 20.1	+0.9
SARI	SarD1z-Kayseri	2.10	278	*e*PN	Pn	19 58 07.6	+2.6
SARI	SarD1z-Kayseri	2.10	278	*e*Pn	Pn	19 58 07.6	+2.6
GAZ	Gaziantep	2.11	234	*e*PN	Pn	19 58 04.9	-0.3
GAZ	Gaziantep	2.11	234	*e*Pn	Pn	19 58 04.9	-0.3
KMRS	Kahramanmaras	2.15	245	*e*PN	Pn	19 58 05.3	-0.4
KMRS	Kahramanmaras	2.15	245	*e*Pn	Pn	19 58 05.3	-0.4
SVSK	Karacayir	2.36	310	*e*PN	Pn	19 58 08.6	0.0
SVSK	Karacayir	2.36	310	*e*Pn	Pn	19 58 08.6	0.0
BNN	Bunyan	2.78	280	*e*PN	Pn	19 58 14.4	0.0
BNN	Bunyan	2.78	280	*e*Pn	Pn	19 58 14.4	0.0
KOZT	Kozan	2.94	252	*e*PN	Pn	19 58 16.7	+0.1

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*NIED **18** 20:02:00, 26.°00N×129.°50E, h8km, Mw3.6 Best double couple: M0 3.27000×10¹⁴ NP1:φs204.00000°, δ72.00000°, λ-111.00000°. NP2:φs75.00000°, δ28.00000°, λ-42.00000°.*
JMA 18 20:02:09.3±0.1, **26.°01N**×**129.°49E, h45**km, **M3.7, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	Kunigami	1.36	307	P	Pn	20 02 32.5	+0.6
JOW				*e*S	Sn	20 02 47.7	-1.1
JMZ	Minamidaito 2	1.57	97	P	Pn	20 02 35.4	+0.7
JMZ				*e*S	Sn	20 02 53.3	-0.5
JJT2	Tamagusuku 2	1.57	275	P	Pn	20 02 35.7	+1.0
JJT2				*e*S	Sn	20 02 54.3	+0.4
NAH1	Naha	1.63	277	P	Pn	20 02 36.3	+0.8
NAH1				*e*S	Sn	20 02 55.8	+0.5
JIH	Iheya	1.70	307	P	Pn	20 02 37.4	+0.9
JIH				*e*S	Sn	20 02 57.8	+0.7
JTK	Tokunoshima	1.83	345	P	Pn	20 02 39.4	+1.1
JTK				*e*S	Sn	20 03 00.5	+0.2
JAGN	Aguni-jima	2.10	286	P	Pn	20 02 42.9	+1.0
JAGN				*e*S	Sn	20 03 07.0	+0.2
JZK	Kikaishima	2.33	10	P	Pn	20 02 47.2	+2.0
JZK				*e*S	Sn	20 03 14.2	+1.5
JAM	Amami Oshima	2.39	2	P	Pn	20 02 47.2	+1.2
JAM				*e*S	Sn	20 03 13.9	-0.2
JKE	Kume jima 2	2.45	278	P	Pn	20 02 46.9	+0.1
JKE				*e*S	Sn	20 03 14.0	-1.5
JNN	Nakanoshima	3.83	5	P	Pn	20 03 08.0	+2.2
JNN				*e*X		20 03 50.4	
JOGS	Gusukube	3.90	252	P	Pn	20 03 08.0	+1.3

KRSC 18 20:21:33.8±0.9, **55.°74N**×**162.°47E, h23**km±22km, **ML3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.51	23	*e*P	Pb	20 21 45.3	+1.2
KBTR				*i* S	Sb	20 21 53.7	+2.7
ZLN	Zelenaya	0.98	287	*e*P	Pb	20 21 52.5	+0.5
ZLN				*i* S	Sb	20 22 06.0	+1.5
SMKR	Semkarok	1.01	327	*e*P	Pn	20 21 52.9	+0.3
SMKR				*i* S	Sb	20 22 06.4	+0.9
CIRR	Tsirk	1.04	292	*e*P	Pn	20 21 53.2	+0.3
CIRR				*i* S	Sb	20 22 07.1	+0.9
BDR	Baidarnaya	1.09	320	*e*P	Pn	20 21 54.3	+0.7
BDR				*i* S	Sb	20 22 09.0	+1.3
BZMR	Bezymyannaya	1.13	281	*e*P	Pn	20 21 54.2	0.0
BZMR				*i* S	Sb	20 22 09.1	+0.1
SRKR	Sorokina	1.17	322	*e*P	Pn	20 21 55.3	+0.6
SRKR				*i* S	Sn	20 22 11.5	+1.6
KLY	Klyuchi	1.17	300	*e*P	Pn	20 21 53.5	-1.2
KLY				*i* S	Sn	20 22 07.8	-2.1
KRSR	Krestovskiy	1.17	295	*e*P	Pn	20 21 54.7	0.0
KRSR				*i* S	Sn	20 22 09.7	-0.3
KIRR	Kirishev	1.22	281	*e*P	Pn	20 21 56.3	+0.9
KIRR				*i* S	Sn	20 22 12.4	+1.3
MKZ	Mys Kozlova	1.26	200	*e*P	Pn	20 21 56.8	+0.9
KMNR	Kamenistaya	1.26	272	*e*P	Pn	20 21 57.2	+1.2
KMNR				*i* S	Sn	20 22 14.4	+2.2
KPT	Kopyto	1.29	281	*e*P	Pn	20 21 57.2	+0.9
KPT				*i* S	Sn	20 22 14.5	+1.7
TUMR	Tumrok	1.40	252	*e*P	Pn	20 21 59.7	+1.9
TUMR				*i* S	Sn	20 22 18.3	+2.7
KOZ	Kozyrevsk	1.50	283	*e*P	Pn	20 22 01.0	+1.8
KOZ				*i* S	Sn	20 22 20.9	+2.9
SRDR	Sredinnyy	1.65	292	*e*P	Pn	20 22 02.8	+1.5
SRDR				*i* S	Sn	20 22 23.8	+2.1
SPN	Mys Shipunski	3.01	209	*e*P	Pn	20 22 21.0	+1.0
SPN				*i* S	Sn	20 22 55.6	+0.4
NLC	Nalytchevo	3.15	217	*e*P	Pn	20 22 23.8	+1.8
NLC				*i* S	Sn	20 23 00.2	+1.4
AVH	Avacha	3.30	223	*e*P	Pn	20 22 26.9	+2.9
GNL	Ganaly	3.33	234	*e*P	Pn	20 22 27.0	+2.6
PET	Petropavlovsk	3.52	221	P	Pn	20 22 29.3	+2.3
PET				*i* S	Sn	20 23 09.5	+1.7

IDC 18 20:46:18.1±3.4, **48.°63S**×**121.°28E, h0**km, **mb3.6**/3, **mb1 3.9**/3, **mb1mx3.6**/13, **mbtmp3.6**/3, **MS3.5**/3, **Ms1 3.5**/3, **ms1mx3.1**/15, **Error ellipse: s-maj=89.1km s-min=64.7km az=147.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	22.70	50	LR	LR	20 58 39.6	
	comp=Z,78nm,18.6s,baz=205,slow=33						
ASAR	Alice Springs	26.84	26	P	P	20 52 00.8	+0.6
	0.3nm,0.6s,baz=193,slow=10,SNR=4.2						
WRA	Warramunga Arr	30.49	25	P	P	20 52 32.1	-0.5
	0.8nm,1.0s,baz=199,slow=7.9,SNR=2.9						
VNDA	Vanda	32.87	165	LR	LR	21 04 53.7	
	comp=Z,73nm,20.7s,baz=88,slow=34						
MAW	Mawson	34.48	215	LR	LR	21 06 16.4	
	comp=Z,121nm,18.1s,baz=82,slow=35						
CMAR	Chiang Mai Arr	69.69	337	P	P	20 57 29.5	+0.1
	0.3nm,0.7s,baz=190,slow=5.8,SNR=4.4						
YKA	Yellowknife Ar	146.66	44	PKPbc	PKPbc	21 05 59.6	-0.8
	0.1nm,0.4s,baz=267,slow=3.2,SNR=5.3						

IDC 18 21:21:32.4±5.6, **5.°94S**×**154.°65E, h0**km, **mb3.5**/3, **mb1 3.8**/3, **mb1mx3.5**/16, **mbtmp3.5**/3, **Error ellipse: s-maj=166.2km s-min=41.7km az=110.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.15	233	P	P	21 26 50.6	+0.1
	1.4nm,0.6s,baz=58,slow=9.3,SNR=12						
ASAR	Alice Springs	26.63	226	P	P	21 27 12.9	0.0
	0.2nm,0.5s,baz=59,slow=9.0,SNR=5.5						
MKAR	Makanchi Array	82.39	319	P	P	21 33 56.6	+0.2
	0.2nm,0.7s,baz=114,slow=3.6,SNR=3.6						

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*IDC **18** 21:38:29.5±10.0, 16.°88N×105.°34W, h0km, mb3.5/4, mb1 3.9/5, mb1mx3.8/19, mbtmp3.5/5, ML3.3/1, MS3.2/2, Ms1 3.2/2, ms1mx2.7/20, Error ellipse: s-maj=172.9km s-min=97.0km az=144.0*
*NEIC **18** 21:38:30.4±1.0, 16.°86N×105.°30W, h10km, mb3.9/9, Error ellipse: s-maj=24.0km s-min=8.2km az=47.0*
*ISCJB **18** 21:38:32.2±7.4, 17.°0N±0.°2×105.°3W±0.°2, h29km±52km, mb3.6/10, Error ellipse: s-maj=37.5km s-min=11.5km az=44.6*
ISC 18 21:38:34.6±7.0, **17.°0N**±0.°2×**105.°3W**±0.°2, **h35**km±49km, **n23, σ0.s80**/21, **mb3.6**/10, **Off coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	Lajitas Array	12.42	7	Pn	Pn	21 41 30.9	+1.9
	0.0nm,0.3s,baz=184,slow=12,SNR=5.0						
TEIG	Tepich	16.43	76	LR	LR	21 48 28.6	
	comp=Z,87nm,20.7s,baz=320,slow=36						
BNM	Barren Site	17.18	356	*e*Pn	Pn	21 42 31.3	-0.6
TGUH	Tegucigalpa,Un	17.58	97	P	Pn	21 42 36.2	-0.9
WUAZ	Wupatki	19.28	345	*e*P	Pn	21 42 56.3	-1.3
	5.3nm,1.0s						
SDCO	Great Sand Dun	20.72	359	*e*P	P	21 43 12.3	+0.2
	11nm,1.7s						
JTS	JuntasAbangare	20.81	106	*e*P	P	21 43 09.5	-3.7
	5.7nm,0.6s						
PV01	Paradox Valley	21.31	353	*e*P	P	21 43 18.9	+0.5
ARUT	Antelope Range	21.97	342	*e*P	P	21 43 25.9	+0.3
	8.0nm,1.1s,mb4.1						
ISA	Isabella	22.04	330	*e*P	P	21 43 26.1	-0.1
	2.1nm,0.9s,mb3.6						
MSU	Marysvale	22.32	346	*e*P	P	21 43 29.0	-0.3
	5.1nm,1.2s,mb3.8						
NVAR	Mina Array Bea	24.26	334	P	P	21 43 49.4	+0.8
	0.6nm,0.7s,mb3.1,baz=144,slow=7.8,SNR=8.2						
DWPF	Disney	24.61	59	P	P	21 43 52.2	+0.4
CMB	Columbia Colle	24.86	331	*e*P	P	21 43 53.7	-0.2
ELK	Elko	25.23	342	P	P	21 43 57.8	+0.5
	1.9nm,0.9s,mb3.6,baz=170,slow=6.7,SNR=5.8						
PDAR	Pinedale Array	26.00	353	P	P	21 44 03.8	-0.4
	0.7nm,0.8s,mb3.2,baz=171,slow=6.2,SNR=4.7						
TKL	Tuckaleechee C	26.70	42	LR	LR	21 57 21.2	
	comp=Z,52nm,18.4s,baz=303,slow=42						
LOHW	Long Hollow	26.96	351	*e*P	P	21 44 12.2	-0.7
	5.7nm,1.2s,mb4.0						
HLID	Hailey	27.64	346	*e*P	P	21 44 17.7	-1.3
	0.9nm,0.7s,mb3.5						
OTAV	Otavalo	31.20	119	*e*P	P	21 44 51.4	+0.5
	0.6nm,0.5s,mb3.7						
BBSR	BB Station	39.68	60	P	P	21 46 03.2	-0.4
NNA	Nana	40.20	134	*e*P	P	21 46 08.7	+0.7
YKA	Yellowknife Ar	45.97	354	P	P	21 46 54.8	+0.8
	0.6nm,0.7s,mb3.6,baz=169,slow=7.3,SNR=11						

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*ISK **18** 21:38:55.0, 36.°98N×29.°24E, h5km, MD2.9*
*ISCJB **18** 21:38:56.5±0.7, 37.°00N±0.°03×29.°20E±0.°07, h1km±9km, Error ellipse: s-maj=9.3km s-min=4.9km az=176.3*
*CSEM **18** 21:38:57.0±0.3, 36.°97N×29.°15E, h6km±4km, MD2.9, Error ellipse: s-maj=7.0km s-min=5.1km az=86.0*
*DDA **18** 21:38:57.5, 37.°01N×29.°22E, h7km±4km, Md2.9*
ISC 18 21:38:57.3±0.6, **36.°98N**±0.°03×**29.°18E**±0.°06, **h13**km±8km, **n21, σ0.s94**/28, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.35	192	*e*PG	Pg	21 39 03.1	-1.3
FETY				*e*SG	Sg	21 39 09.2	0.0
FETY	Fethiye	0.35	192	*e*Pg	Pg	21 39 03.1	-1.3
FETY				*e*Sg	Sg	21 39 09.2	0.0
TURN	Turunc	0.47	257	*i* P	Px	21 39 11.6	
TURN				*i* S	Sx	21 39 22.5	
DALT	Dalyan (Mudla)	0.48	244	*e*PG	Pg	21 39 06.3	-0.5
DALT	Dalyan (Mudla)	0.48	244	*e*Pg	Pg	21 39 06.3	-0.5
YER	Yerkesik	0.73	282	*e*PG	Pg	21 39 10.9	-0.6
YER	Yerkesik	0.73	282	*e*Pg	Pg	21 39 10.9	-0.6
DENT	Denizli	0.78	352	*e*PG	Pg	21 39 11.5	-1.0
DENT	Denizli	0.78	352	*e*Pg	Pg	21 39 11.5	-1.0
AKAS	Kas	0.82	155	*i* P	Pg	21 39 13.0	-0.2
AKAS				*i* S	Sg	21 39 26.3	+2.4
AKAS	Kas	0.82	155	*i* P	Pg	21 39 13.0	-0.2
AKAS				*i* S	Sg	21 39 26.3	+2.3
MLSB	Milas	1.16	286	*e*PN	Pn	21 39 19.1	-0.2
MLSB	Milas	1.16	286	*e*Pn	Pn	21 39 19.1	-0.2
AYDN	Tasoluk	1.24	304	*i* P	Pg	21 39 21.4	+0.3
AYDN				*i* S	Sg	21 39 39.2	+2.0
AYDN	Tasoluk	1.24	304	*i* P	Pg	21 39 21.4	+0.3
AYDN				*i* S	Sg	21 39 39.2	+2.0
KHL	Karahalli	1.37	12	*e*PN	Pn	21 39 21.8	-0.4
KHL	Karahalli	1.37	12	*e*Pn	Pn	21 39 21.8	-0.4
KHAL	Karahalli	1.41	10	*e*P	Pg	21 39 23.8	-0.6
KHAL				*i* S	Sg	21 39 43.4	+0.6
KHAL	Karahalli	1.41	10	*e*P	Pg	21 39 23.8	-0.6
KHAL				*i* S	Sg	21 39 43.3	+0.5
KULA	Kula-Manisa	1.58	345	*e*PN	Pn	21 39 25.7	+0.5
KULA	Kula-Manisa	1.58	345	*e*Pn	Pn	21 39 25.7	+0.6

IDC 18 21:48:53.3±10.0, **12.°36S**×**167.°09E, h0**km, **mb3.6**/4, **mb1 3.8**/4, **mb1mx3.6**/17, **mbtmp3.6**/4, **Error ellipse: s-maj=296.9km s-min=48.8km az=122.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	33.42	246	P	P	21 55 33.9	-0.1
	0.4nm,0.6s,baz=68,slow=9.6,SNR=6.8						
CMAR	Chiang Mai Arr	73.84	293	P	P	22 00 30.9	+0.5
	0.5nm,0.6s,baz=108,slow=4.8,SNR=4.8						
SONM	Songino Array	80.50	323	P	P	22 01 08.1	+0.9
	0.1nm,0.5s,baz=120,slow=5.7,SNR=2.4						
MKAR	Makanchi Array	95.38	317	P	P	22 02 18.0	-1.6
	0.3nm,0.6s,baz=93,slow=5.8,SNR=3.8						

IDC 18 21:51:03.6±1.9, **3.°68S**×**127.°85E, h0**km, **mb3.5**/2, **mb1 3.8**/3, **mb1mx3.4**/18, **mbtmp3.6**/3, **ML3.7**/1, **Error ellipse: s-maj=139.6km s-min=26.8km az=67.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.36	159	P	Pn	21 55 07.0	-0.5
	0.3nm,0.3s,baz=337,slow=13,SNR=24						
ASAR	Alice Springs	20.71	164	P	P	21 55 46.4	+0.6
	1.4nm,0.4s,baz=349,slow=11,SNR=14						
MKAR	Makanchi Array	64.29	327	P	P	22 01 40.9	0.0
	0.5nm,1.0s,baz=115,slow=6.5,SNR=2.7						

GUC 18 21:54:14.1±0.6, **21.°91S**×**68.°55W, h133**km±3km, **MD3.9, ML3.8, 4C-2D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.78	205	⇓*i*P	Pn	21 54 36.5	+1.2
LVC				*i* S	Sn	21 54 52.9	+1.4
LVC				AML	AML	21 54 54.9	
	comp=E,1μm,0.3s						
PB04	Plate Boundary	0.94	248	⇑*i*P	Pn	21 54 43.6	+7.0
PB04				*i* S	Sn	21 55 05.9	+12
PB04				AML	AML	21 55 08.7	
	comp=N,731nm,0.2s						
MACH	Maria Elena	1.16	255	⇑*i*P	Pn	21 54 39.6	+0.9
MACH				*i* S	Sn	21 54 59.0	+1.5
PECH	Pedro de Valdi	1.25	236	*e*P	Pn	21 54 40.6	+1.0
PECH				*i* S	Sn	21 55 00.9	+1.8
PECH				AML	AML	21 55 02.6	
	comp=E,2μm,0.4s						
TOCH	Tocopilla	1.54	263	⇓*i*P	Pn	21 54 43.2	+0.4
TOCH				*i* S	Sn	21 55 05.4	+0.7
TOCH				AML	AML	21 55 06.3	
	comp=N,2μm,0.1s						
CEN1	Los Morros	2.12	226	⇑*i*P	Pn	21 54 53.2	+3.5
CEN1				*i* S	Sn	21 55 23.4	+6.4
CEN1				AML	AML	21 55 31.5	
	comp=E,367nm,0.4s						
PSGC	Pisagua	2.73	327	AML	AML	21 55 26.7	
	comp=N,678nm,0.2s						
CPN1	Cerro Paranal	3.20	212	⇑*i*P	Pn	21 55 05.4	+2.1
CPN1				*i* S	Sn	21 55 44.3	+2.9
CPN1				AML	AML	21 55 54.8	
	comp=N,239nm,0.8s						

IDC 18 22:17:08.1±3.7, **5.°53S**×**152.°28E, h0**km, **mb3.7**/2, **mb1 4.0**/2, **mb1mx3.4**/16, **mbtmp3.7**/2, **Error ellipse: s-maj=153.8km s-min=48.9km az=120.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.57	229	P	P	22 22 10.2	0.0
	1.3nm,0.4s,baz=53,slow=9.8,SNR=22						
ASAR	Alice Springs	25.26	223	P	P	22 22 36.1	-0.1
	0.9nm,0.5s,baz=57,slow=8.6,SNR=12						
TORD	Torodi Ar. Bea	150.03	287	PKPbc	PKPbc	22 37 01.6	-0.1
	0.2nm,0.7s,baz=78,slow=2.1,SNR=5.3						

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*ISCJB **18** 22:23:29.2±2.2, 47.°4N±0.°3×152.°7E±0.°3, h78km±16km, mb3.5/5, Error ellipse: s-maj=53.1km s-min=16.3km az=148.0*
*MOS **18** 22:23:30.1±0.4, 47.°47N×152.°58E, h86km, mb3.9/3, Error ellipse: s-maj=44.0km s-min=24.3km az=61.2*
*IDC **18** 22:23:32.0±4.9, 47.°19N×152.°74E, h94km±51km, mb3.3/5, mb1 3.5/6, mb1mx3.3/22, mbtmp3.3/6, Error ellipse: s-maj=68.0km s-min=28.8km az=178.0*
ISC 18 22:23:31.0±2.0, **47.°4N**±0.°3×**152.°8E**±0.°3, **h78**km±15km, **n11, σ0.s37**/10, **mb3.5**/5, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.99	32	*e*PN	Pn	22 24 29.6	-0.1
SKR				*e*		22 25 16.2	
ASAJ	Asahikawa	7.81	249	PN	Pn	22 25 22.0	+0.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.81	249	P	Pn	22 25 21.9	+0.1
	comp=Z,0.5nm,0.3s,baz=73,slow=17,SNR=5.6						
ZALV	Zalesovo Beam	42.06	305	PcP	PcP	22 33 08.1	+0.1
	comp=Z,0.7nm,0.6s,baz=46,slow=4.2,SNR=4.6						
MKAR	Makanchi Array	46.45	297	P	P	22 31 49.5	-0.3
	comp=Z,0.2nm,0.7s,mb2.9,baz=64,slow=8.4,SNR=4.3						
MKAR				PcP	PcP	22 33 22.6	-0.6
	comp=Z,0.1nm,0.5s,baz=82,slow=3.5,SNR=5.6						
YKA	Yellowknife Ar	50.58	37	P	P	22 32 21.6	+0.4
	comp=Z,0.2nm,0.6s,mb3.3,baz=297,slow=6.9,SNR=3.4						
YKA				pP	pP	22 32 36.0	-4.5
	comp=Z,0.5nm,0.7s,baz=297,slow=7.2,SNR=6.8						
NOA	NORSAR Array B	67.57	341	P	P	22 34 19.2	+0.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	NORSAR Array B	67.57	341	P	P	22 34 19.2	+0.6
	comp=Z,1.4nm,0.9s,mb3.8,baz=40,slow=6.9,SNR=3.6						
AKASG	Malin Array Be	70.91	326	P	P	22 34 38.9	-0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	70.91	326	P	P	22 34 38.9	-0.5
	comp=Z,0.9nm,0.4s,mb4.0,baz=31,slow=5.9,SNR=3.3						
TXAR	Lajitas Array	77.40	60	P	P	22 35 17.2	-0.3
	comp=Z,0.4nm,0.5s,mb3.5,baz=296,slow=4.3,SNR=11						
TXAR				pP	pP	22 35 32.8	-5.5
	comp=Z,0.4nm,0.6s,baz=301,slow=4.3,SNR=6.2						

IDC 18 22:27:51.0±2.4, **5.°61S**×**130.°53E, h0**km, **mb3.2**/1, **mb1 3.6**/4, **mb1mx3.5**/16, **mbtmp3.4**/4, **ML3.4**/2, **Error ellipse: s-maj=99.5km s-min=29.2km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.31	201	Pn	Pn	22 31 02.1	+0.8
	0.3nm,0.3s,baz=32,slow=11,SNR=9.0						
FITZ				Sn	Sn	22 33 17.2	-13
	0.2nm,0.3s,baz=306,slow=17,SNR=2.9						
WRA	Warramunga Arr	14.72	166	Pn	Pn	22 31 21.1	+0.4
	0.1nm,0.3s,baz=345,slow=9.6,SNR=3.8						
WRA				Sn	Sn	22 33 50.9	-14
	0.2nm,0.3s,baz=338,slow=22,SNR=7.6						
ASAR	Alice Springs	18.25	170	P	Pn	22 32 05.2	-0.7
	0.1nm,0.3s,baz=352,slow=9.4,SNR=6.2						
MKAR	Makanchi Array	67.36	326	P	P	22 38 48.1	+0.1
	0.1nm,0.3s,baz=124,slow=7.3,SNR=5.2						

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*NEIC **18** 22:29:37.9, 39.°55N×26.°03E, h5km, MD3.1(ATH), MD3.2(ISK), After ISK.*
*DDA **18** 22:29:37.9, 39.°53N×26.°06E, h6km±5km, Md3.3*
*ISCJB **18** 22:29:38.9±0.5, 39.°55N±0.°02×26.°04E±0.°04, h2km±4km, Error ellipse: s-maj=4.6km s-min=3.3km az=169.4*
*ISK **18** 22:29:38.6, 39.°57N×26.°01E, h4km, MD3.3*
*CSEM **18** 22:29:39.0±0.2, 39.°55N×26.°01E, h2km, MD3.3, Error ellipse: s-maj=6.0km s-min=4.1km az=79.0*
*ATH **18** 22:29:39.1, 39.°55N×26.°03E, h7km±1km, MD3.1/7*
ISC 18 22:29:39.6±0.5, **39.°56N**±0.°02×**26.°05E**±0.°04, **h5**km±4km, **n65, σ1.s00**/92, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZN	Ezine	0.35	38	PG	Pg	22 29 46.2	0.0
EZN				*e*SG	Sg	22 29 52.0	+1.3
EZN	Ezine	0.35	38	Pg	Pg	22 29 46.2	0.0
EZN				Sg	Sg	22 29 52.2	+1.5
EZN	Ezine	0.35	38	*i* Pg	Pg	22 29 46.2	-0.1
EZN				*e*Sg	Sg	22 29 52.0	+1.2
PRK	Paraskevi	0.35	150	*e*PB	Pg	22 29 46.3	-0.1
PRK				*e*SB	Sg	22 29 51.5	+0.5
PRK	Paraskevi	0.35	150	*e*Pb	Pg	22 29 46.3	-0.1
PRK				*e*Sb	Sg	22 29 51.5	+0.5
GADA	Gvkgeada	0.65	350	*e*PG	Pg	22 29 51.5	-0.5
GADA				*e*SG	Sg	22 30 00.7	+0.4
GADA	Gvkgeada	0.65	350	*e*Pg	Pg	22 29 51.5	-0.5
GADA				*e*Sg	Sg	22 30 00.7	+0.3
LIA	Limnos Island	0.75	298	*e*PB	Pg	22 29 53.4	-0.5
LIA				*e*SB	Sg	22 30 03.5	-0.2
LIA	Limnos Island	0.75	298	*e*Pb	Pg	22 29 53.4	-0.5
LIA				*e*Sb	Sg	22 30 03.5	-0.2
LPK	Lapseki	0.98	34	*e*PG	Pg	22 29 57.9	-0.6
LPK				*e*SG	Sg	22 30 12.1	+0.8
LPK	Lapseki	0.98	34	*e*Pg	Pg	22 29 57.9	-0.5
LPK				*e*Sg	Sg	22 30 12.1	+0.9
CHOS	Chios island	1.17	180	*e*PN	Pg	22 30 00.8	-1.1
CHOS				*e*SB	Sg	22 30 17.2	+0.2
CHOS	Chios island	1.17	180	*e*Pn	Pg	22 30 00.8	-1.1
CHOS				*e*Sb	Sg	22 30 17.2	+0.2
ENEZ	Enez	1.18	4	*e*PN	Pn	22 30 01.6	-1.2
ENEZ	Enez	1.18	4	*e*Pn	Pn	22 30 01.6	-1.2
BALY	Balya	1.23	81	*i* P	Pn	22 30 02.2	-1.2
BALY				*i* S	Sn	22 30 19.1	-1.3
BALY	Balya	1.23	81	*i* P	Pn	22 30 02.2	-1.2
BALY				*i* S	Sn	22 30 19.1	-1.3
URLA	Izmir	1.27	160	*i* P	Pn	22 30 02.0	-1.9
URLA				*i* S	Sn	22 30 17.6	-3.7
URLA	Izmir	1.27	160	*i* P	Pn	22 30 02.0	-1.9
URLA				*i* S	Sn	22 30 17.6	-3.7
ALN	Alexandroupoli	1.34	360	*e*PB	Pn	22 30 04.0	-1.0
ALN				*e*SB	Sn	22 30 22.6	-0.6
ALN	Alexandroupoli	1.34	360	*e*Pb	Pn	22 30 04.0	-1.0
ALN				*e*Sb	Sn	22 30 22.6	-0.6
BALB	Balikesir	1.42	86	*e*PN	Pn	22 30 06.3	+0.3
BALB	Balikesir	1.42	86	*e*Pn	Pn	22 30 06.3	+0.3
SART	Tekirdag	1.43	37	*i* P	Pn	22 30 05.3	-0.9
SART				*i* S	Sb	22 30 25.3	+0.1
SART	Tekirdag	1.43	37	*i* P	Pn	22 30 05.3	-0.9
SART				*i* S	Sb	22 30 25.3	+0.1

IZM	Izmir	1.49	140	*e*PN	Pn	22 30 07.1	0.0
IZM	Izmir	1.49	140	*e*Pn	Pn	22 30 07.1	0.0
AKHS	Akhisar	1.53	116	*e*P	Pn	22 30 06.2	-1.4
AKHS				*i* S	Sn	22 30 28.3	+0.5
AKHS	Akhisar	1.53	116	*e*P	Pn	22 30 06.2	-1.3
AKHS				*i* S	Sn	22 30 28.3	+0.5
EDC	Edincik	1.60	60	*e*PN	Pn	22 30 08.3	-0.2
EDC	Edincik	1.60	60	Pn	Pn	22 30 08.4	-0.2
RDO	Rodhopi	1.64	346	*e*PG	Pg	22 30 08.7	-2.2
RDO	Rodhopi	1.64	346	*e*Pg	Pg	22 30 08.7	-2.2
BNT	Bandirma	1.65	60	*e*PN	Pn	22 30 09.1	-0.1
TKR	Tekirdag	1.83	38	*e*PN	Pn	22 30 12.3	+0.7
TKR	Tekirdag	1.83	38	*e*Pn	Pn	22 30 12.4	+0.7
DURS	Dursunbey	1.88	88	*e*P	Pn	22 30 10.7	-1.6
DURS				*i* S	Sn	22 30 34.3	-2.1
DURS	Dursunbey	1.88	88	*e*P	Pn	22 30 10.7	-1.6
DURS				*i* S	Sn	22 30 34.3	-2.1
KCT	Karacabey	1.91	67	*e*PN	Pn	22 30 13.2	+0.4
KCT	Karacabey	1.91	67	*e*Pn	Pn	22 30 13.2	+0.4
SMG	Samos	1.94	161	*e*PN	Pn	22 30 14.6	+1.4
SMG				*e*SN	Sn	22 30 41.0	+3.0
SMG	Samos	1.94	161	*e*Pn	Pn	22 30 14.6	+1.4
SMG				*e*Sn	Sn	22 30 41.0	+3.0
DST	Dursunbey	2.00	88	*e*PN	Pn	22 30 14.2	+0.3
CRLT	Corlu	2.03	39	*e*PN	Pn	22 30 14.7	+0.2
CRLT	Corlu	2.03	39	*e*Pn	Pn	22 30 14.7	+0.2
PLG	Polygyros	2.16	293	*e*PN	Pn	22 30 17.1	+0.9
PLG	Polygyros	2.16	293	*e*Pn	Pn	22 30 17.1	+0.9
KULA	Kula-Manisa	2.29	116	*e*PN	Pn	22 30 18.8	+0.8
KULA	Kula-Manisa	2.29	116	*e*Pn	Pn	22 30 18.8	+0.9
EDRB	Edirne	2.35	13	*e*PN	Pn	22 30 19.4	+0.5
EDRB	Edirne	2.35	13	*e*Pn	Pn	22 30 19.4	+0.6
SOH	Sokhos	2.42	302	*e*PN	Pn	22 30 20.7	+0.9
SOH	Sokhos	2.42	302	*e*Pn	Pn	22 30 20.7	+0.9
CTKS	Kestanelik-??a	2.52	47	*e*PN	Pn	22 30 22.1	+0.9
CTKS	Kestanelik-??a	2.52	47	*e*Pn	Pn	22 30 22.1	+0.9
CTYL	Yal??k??y-??at	2.57	41	*e*PN	Pn	22 30 22.6	+0.8
CTYL	Yal??k??y-??at	2.57	41	*e*Pn	Pn	22 30 22.7	+0.9
BGKT	Bogazkoy	2.64	51	*e*PN	Pn	22 30 23.9	+1.1
BGKT	Bogazkoy	2.64	51	*e*Pn	Pn	22 30 23.9	+1.1
YLV	Yalova	2.75	67	*e*PN	Pn	22 30 25.7	+1.5
YLV	Yalova	2.75	67	*e*Pn	Pn	22 30 25.7	+1.4
ISK	Istanbul-Kandi	2.75	56	*e*PN	Pn	22 30 25.5	+1.1
ISK	Istanbul-Kandi	2.75	56	*e*Pn	Pn	22 30 25.5	+1.1
AGG	Agios Georgios	2.93	261	*e*PB	Pn	22 30 27.8	+1.0
AGG	Agios Georgios	2.93	261	*e*Pb	Pn	22 30 27.8	+1.0

MOS 18 22:35:15.3±1.1, 51°.80N×98°.40E, h9^{km}, mb4.2/1, 3D, Error ellipse: s-maj=29.8km s-min=18.8km az=161.0, Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KZLR	Kyzyl	2.46	269	⇓*e*PN	Pn	22 35 56.8	+1.3
KZLR				*e*		22 36 01.1	
KZLR						22 36 31.5	
ARS	Arshan	2.50	86	*e*PN	Pn	22 36 00.1	+4.1
ARS				*e*		22 36 33.9	
ARS				pmax	pmax		
	comp=Z,36nm,0.3s						
ARS				smax			
	comp=N,443nm,0.4s						
HVS	Khovu-Aksy	3.01	259	⇓*e*PN	Pn	22 36 04.3	+1.2
HVS						22 36 46.6	
TLY	Talaya	3.26	90	*e*PN	Pn	22 36 12.8	+6.3
TLY				*e*		22 36 56.5	
TLY				pmax	pmax		
	comp=Z,10.0nm,0.4s						
TLY				smax			
	comp=N,102nm,1.6s						
IRK	Irkutsk	3.65	81	*e*PN	Pn	22 36 20.3	+8.4
IRK				*e*		22 37 07.0	
IRK				pmax	pmax		
	comp=Z,37nm,0.2s						
IRK				smax			
	comp=N,181nm,0.4s						
ORY	Orie	3.77	330	⇓*e*PN	Pn	22 36 20.6	+7.1
ORY				*e*		22 36 21.9	
ORY						22 37 13.0	
OGRR	Ongureny	5.88	68	*e*PN	Pn	22 36 42.4	-0.2
OGRR				*e*		22 37 00.0	
OGRR				*e*		22 38 15.0	
OGRR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
OGRR				smax			
	comp=N,34nm,1.2s						
NIZ	Nizh Angarsk	7.71	55	*e*P	Pn	22 37 08.6	+1.1
NIZ				*e*S	Sn	22 38 42.0	+7.2
NIZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NIZ				smax			
	comp=N,23nm,1.0s						

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*DJA **18** 22:39:38, 2°.12S×123°.01E, h67^{km}, MLv4.1/6*
*ISCJB **18** 22:39:39.1±1.5, 2°.08S±0°.07×122°.8E±0°.1, h59^{km}±17^{km}, mb3.5/5, Error ellipse: s-maj=20.4km s-min=11.7km az=170.9*
*IDC **18** 22:39:41.2±7.4, 2°.04S×122°.77E, h64^{km}±76^{km}, mb3.2/5, mb1 3.4/6, mb1mx3.3/19, mbtmp3.3/6, ML3.6/1, Error ellipse: s-maj=52.8km s-min=19.6km az=52.0*
ISC 18 22:39:39.8±1.7, 2°.08S±0°.07×122°.9E±0°.1, h46^{km}±20^{km}, n12, σ0^{s}.97/12, mb3.5/4, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APSI	Ampana	1.70	313	P	Pn	22 40 06.5	-0.5
APSI				S	Sn	22 40 31.5	+3.9
KDI	Kendari	1.88	188	P	Pn	22 40 08.6	-0.9
PCI	Palu	3.27	291	P	Pn	22 40 29.5	+0.9
BNSI	Bone	3.61	230	P	Pn	22 40 32.6	-0.7
KAPI	Kappang	4.28	227	P	Pn	22 40 41.9	-0.6
	3.1nm,0.3s,baz=15,slow=7.8,SNR=12						
KAPI				S	Sn	22 41 31.8	+0.6
	2.3nm,0.3s,baz=231,slow=19,SNR=2.4						
NLAI	Namlea	4.36	105	P	Px	22 40 40.7	
LBMI	Labuha	4.82	73	P	Px	22 40 46.9	
WRA	Warramunga Arr	20.98	149	P	P	22 44 21.4	+2.0
	1.7nm,0.6s,baz=331,slow=10.0,SNR=12						
ASAR	Alice Springs	23.96	154	P	P	22 44 50.3	+0.3
	0.9nm,0.6s,mb3.4,baz=335,slow=8.2,SNR=9.4						
STKA	Stephens Creek	34.48	151	P	P	22 46 23.4	-0.1
	1.8nm,0.8s,mb4.1,baz=336,slow=11,SNR=3.4						
SONM	Songino Array	51.76	346	P	P	22 48 42.8	+0.1
	0.4nm,0.7s,mb3.5,baz=166,slow=8.9,SNR=3.7						
MKAR	Makanchi Array	60.32	329	P	P	22 49 42.3	-1.6
	0.1nm,0.5s,mb3.1,baz=121,slow=5.6,SNR=3.0						

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*ISCJB **18** 22:57:47.1±0.6, 24°.33S±0°.04×66°.95W±0°.06, h175^{km}±6^{km}, mb4.0/8, Error ellipse: s-maj=9.2km s-min=6.3km az=2.7*
*IDC **18** 22:57:47.9±1.1, 24°.35S×66°.86W, h158^{km}±14^{km}, mb3.5/1, mb1 3.3/5, mb1mx3.2/19, mbtmp3.3/5, Error ellipse: s-maj=19.2km s-min=13.2km az=79.0*
*NEIC **18** 22:57:48.5±0.6, 24°.32S×66°.87W, h170^{km}±6^{km}, mb4.2/7, Error ellipse: s-maj=9.3km s-min=6.8km az=90.0*
*GUC **18** 22:57:51.1±0.4, 24°.00S×67°.50W, h220^{km}±6^{km}, ML4.7*
ISC 18 22:57:47.8±0.5, 24°.34S±0°.04×66°.90W±0°.06, h163^{km}±6^{km}, n33, σ1^{s}.10/42, mb4.0/8, 2C-2D, Salta Province

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	2.52	313	P	Pn	22 58 32.0	+2.2
	45nm,0.3s,baz=180,slow=2.8,SNR=618						
LVC				S	Sn	22 59 03.3	+0.9
	97nm,0.3s,baz=180,slow=2.9,SNR=57						
LVC	Limon Verde	2.52	313	P	Pn	22 58 32.0	+2.2
LVC				S	Sn	22 59 03.3	+0.9
LVC	Limon Verde	2.52	313	⇓*i*P	Pn	22 58 32.0	+2.1
LVC				*i* S	Sn	22 59 03.2	+0.9
LVC				AML	AML	22 59 07.1	
	comp=N,674nm,0.6s						
PECH	Pedro de Valdi	3.08	304	*i* P	Pn	22 58 37.7	+1.0
PECH				*i* S	Sn	22 59 13.1	-1.5
PECH				AML	AML	22 59 14.7	
	comp=E,4µm,0.3s						
PB04	Plate Boundary	3.15	310	⇑*i*P	Pn	22 58 43.9	+6.4
PB04				*i* S	Sn	22 59 23.8	+7.7
PB04				AML	AML	22 59 26.4	
	comp=E,2µm,0.4s						
CEN1	Los Morros	3.16	287	⇓*i*P	Pn	22 58 39.3	+1.5
CEN1				*i* S	Sn	22 59 16.3	-0.2
CEN1				AML	AML	22 59 18.4	
	comp=N,985nm,0.5s						
TOCH	Tocopilla	3.77	306	*e*P	Pn	22 58 45.4	0.0
TOCH				*i* S	Sn	22 59 26.4	-3.9
PB01	Plate Boundary	4.05	323	⇑*i*P	Pn	22 58 49.4	+0.3
PB01				*i* S	Sn	22 59 34.1	-2.8
LCO	Las Campanas	5.76	215	*e*Pn	Pn	22 59 11.5	0.0
	comp=N,33nm,0.3s						
LCO				*e*S	Sn	23 00 15.1	-2.0
CFAA	Coronel Fontan	7.34	189	P	Pn	22 59 33.9	+1.5
	comp=N,0.1nm,0.3s,baz=14,slow=16,SNR=9.4						
CFAA				S	Sn	23 00 51.8	-2.8
	comp=N,0.3nm,0.3s,baz=284,slow=23,SNR=7.6						
CPUP	Villa Florida	8.88	105	P	Pn	22 59 53.4	+0.5
	comp=N,0.3nm,0.3s,baz=254,slow=7.4,SNR=2.6						
CPUP	Villa Florida	8.88	105	P	Pn	22 59 53.4	+0.5
SIV	San Ignacio	9.94	34	P	Pn	23 00 06.9	0.0
	comp=N,0.8nm,0.3s,baz=221,slow=14,SNR=31						
SIV				S	Sn	23 01 56.1	-1.2
	comp=N,0.2nm,0.3s,baz=288,slow=20,SNR=3.2						
PLCA	Paso Flores	16.64	190	P	Pn	23 01 32.5	+1.0
	comp=N,0.1nm,0.3s,baz=13,slow=13,SNR=2.9						
PLCA	Paso Flores	16.64	190	P	Pn	23 01 32.5	+1.0
OTAV	Otavalo	26.87	334	Pn	P	23 03 13.7	+0.2
ROSC	El Rosal	29.90	345	*e*P	P	23 03 39.2	-1.2
SDV	Santo Domingo	33.22	353	*e*P	P	23 04 06.2	-3.1
RCBR	Riachuelo	34.99	63	P	P	23 04 24.8	0.0
	comp=N,12nm,0.9s,mb4.5						
MTP	Monte Pirata	42.20	2	*e*P	P	23 05 24.1	-0.5
	comp=N,27nm,1.2s,mb4.8						
HKT	Hockley	60.70	331	P	P	23 07 43.1	+1.1
	comp=N,4.6nm,0.9s,mb4.3						
CBN	Corbin	62.98	351	*e*P	P	23 07 57.0	0.0
ACSO	Alum Creek Sta	65.96	347	P	P	23 08 16.8	+0.5
KSU1	Kansas State U	68.95	336	*e*P	P	23 08 35.4	+0.2
	comp=N,3.7nm,0.5s,mb4.4						
SDCO	Great Sand Dun	71.62	329	*e*P	P	23 08 51.4	+0.1
	comp=N,0.5nm,0.7s,mb3.4						
SBA	Scott Base	73.38	190	P	P	23 09 00.5	-0.9
VNDA	Vanda	74.39	190	*e*P	P	23 09 07.6	+0.4
	comp=N,432nm,2.6s						
RSSD	Black Hills	76.14	333	P	P	23 09 18.2	+0.6
	comp=N,1.0nm,0.5s,mb3.7						
TORD	Torodi Ar. Bea	76.61	69	P	P	23 09 21.0	+0.2
	comp=N,0.6nm,0.5s,mb3.5,baz=259,slow=5.4,SNR=23						
TORD	Torodi Ar. Bea	76.61	69	P	P	23 09 21.0	+0.2
TSUM	Tsumeb	77.48	106	*e*P	P	23 09 24.9	-0.8
	comp=N,2.4nm,0.9s,mb3.8						
WRA	Warramunga Arr	131.37	207	PKP	PKPdf	23 16 41.7	+0.3
	comp=N,0.2nm,0.4s,baz=158,slow=1.7,SNR=4.5						
MKAR	Makanchi Array	146.72	40	PKPbc	PKPbc	23 17 11.0	+0.7
	comp=N,0.2nm,0.4s,baz=306,slow=3.4,SNR=4.4						

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*ISCJB **18** 23:00:28.1±0.3, 43°.57N±0°.02×105°.34W±0°.03, h0^{km}, mb3.7/3, Error ellipse: s-maj=3.2km s-min=2.7km az=141.1*
*IDC **18** 23:00:29.8±2.0, 43°.56N×105°.26W, h0^{km}, mb3.7/3, mb1 3.6/7, mb1mx3.5/24, mbtmp3.5/7, ML2.6/3, MS2.5/1, Ms1 2.4/1, ms1mx2.2/44, Error ellipse: s-maj=50.8km s-min=9.1km az=151.0*
*NEIC **18** 23:00:30.2±0.5, 43°.63N×105°.28W, h0^{km}, ML3.0, Error ellipse: s-maj=6.7km s-min=6.5km az=153.0, Suspected Mining explosion.*
NEIC 75 km [45 miles] SSE of Gillette.
ISC 18 23:00:29.9±0.3, 43°.61N±0°.02×105°.32W±0°.02, h0^{km}, n45, σ1^{s}.37/115, mb3.7/3, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	1.06	61	*e*P	Pg	23 00 50.0	-0.2
RSSD				*e*S	Sg	23 01 07.8	+3.8
PHWY	Pilot Hill	2.31	183	*e*Pn	Pn	23 01 09.5	+0.3
PHWY				*e*Pg	Pg	23 01 13.7	-0.4
PHWY				*e*S	Sg	23 01 46.8	+2.8
RWWY	Rawlins	2.37	217	*e*Pn	Pn	23 01 07.4	-2.6
RWWY				*e*Pg	Pg	23 01 15.1	-0.2
RWWY				*e*S	Sn	23 01 46.5	+6.7
LAO	LASA Array	3.15	349	*e*Pn	Pn	23 01 20.3	-0.3
LAO				*e*Pg	Pg	23 01 30.8	+0.6
LAO				*e*S	Sn	23 02 04.2	+5.3
RLMT	Red Lodge	3.21	299	*e*Pn	Pn	23 01 22.9	+1.3
RLMT				*e*Pg	Pg	23 01 29.9	-1.5
RLMT				*e*S	Sg	23 02 09.7	-3.3
PDAR	Pinedale Array	3.21	256	Pn	Pn	23 01 24.4	+2.8
	2.4nm,0.3s,baz=72,slow=15,SNR=50						
PDAR				Lg		23 02 11.3	
	6.3nm,0.3s,baz=76,slow=34,SNR=17						
OGNE	Ogallala	3.61	136	*e*Pn	Pn	23 01 28.8	+1.7
OGNE				*e*Pg	Pg	23 01 38.6	-0.4
OGNE				*e*S	Sg	23 02 26.1	+0.3
LKWY	Lake	3.78	286	*e*Pn	Pn	23 01 30.4	+1.0
LKWY				*e*Pg	Pg	23 01 43.3	+0.9
LKWY				*e*S	Sn	23 02 15.9	+1.2
ISCO	Idaho Springs	3.81	183	*e*Pn	Pn	23 01 29.9	+0.1
ISCO				*e*Pg	Pg	23 01 43.1	+0.2
ISCO				*e*S	Sg	23 02 32.1	-0.3
LOHW	Long Hollow	3.84	272	*e*Pn	Pn	23 01 31.4	+1.3
LOHW				*e*Pg	Pg	23 01 42.0	-1.4
LOHW				*e*S	Sn	23 02 15.8	-0.1
MOOW	Moose Ponds	3.94	274	*e*Pn	Pn	23 01 30.7	-0.9
MOOW				*e*Pg	Pg	23 01 45.9	+0.6
MOOW				*e*S	Sb	23 02 27.1	-1.2
SNOW	Snow King Moun	3.96	270	*e*Pn	Pn	23 01 34.5	+2.7
SNOW				*e*Pg	Pg	23 01 43.0	-2.6
SNOW				*e*S	Sb	23 02 29.9	+1.1
YNR	Norris Junctio	4.01	288	*e*Pn	Pn	23 01 32.6	0.0
YNR				*e*Pg	Pg	23 01 44.4	-2.4
YNR				*e*S	Sn	23 02 21.4	+1.1
REDW	Red Top Meadow	4.03	268	*e*Pn	Pn	23 01 35.6	+2.7
REDW				*e*Pg	Pg	23 01 46.2	-1.0
REDW				*e*Sn	Sn	23 02 22.1	+1.3
YFT	Old Faithful	4.07	284	*e*Pn	Pn	23 01 32.7	-0.6
YFT				*e*Pg	Pg	23 01 47.6	-0.2
YFT				*e*S	Sn	23 02 24.4	+2.8
IMW	Indian Meadow	4.08	276	*e*Pn	Pn	23 01 35.3	+1.8
IMW				*e*Pg	Pg	23 01 46.9	-1.2
IMW				*e*S	Sn	23 02 24.0	+2.0
TPAW	Teton Pass	4.10	270	*e*Pn	Pn	23 01 35.1	+1.4
TPAW				*e*Pg	Pg	23 01 47.1	-1.3
TPAW				*e*S	Sn	23 02 23.6	+1.3
DCID1	Drake Creek	4.26	272	*e*Pn	Pn	23 01 35.5	-0.4
DCID1				*e*Pg	Pg	23 01 47.8	-3.7
AHID	Auburn Hatcher	4.31	261	Pn	Pn	23 01 38.0	+1.3
AHID				*e*Pg	Pg	23 01 52.0	-0.5
AHID				*e*S	Sn	23 02 24.8	-2.8
RRI2	Red Ridge	4.38	269	*e*Pn	Pn	23 01 39.1	+1.6
RRI2				*e*Pg	Pg	23 01 49.8	-3.9
RRI2				*e*Sn	Sn	23 02 29.9	+0.7
DGMT	Dagmar	4.93	9	*e*Pn	Pn	23 01 46.1	+1.0
DGMT				*e*Pg	Pg	23 01 58.4	-5.8
DGMT				*e*Sn	Sn	23 02 44.7	+1.9
DGMT				*e*Sg	Sg	23 03 05.9	-2.1
BOZ	Bozeman (W)	4.94	297	*e*Pn	Pn	23 01 46.2	+0.8
BOZ				*e*Pg	Pg	23 01 57.1	-7.5
BOZ				*e*S	Sg	23 03 06.1	-2.6
EGMT	Eagleton	5.39	326	*e*Pn	Pn	23 01 51.6	0.0
	15nm,0.5s						
EGMT				*e*Pg	Pg	23 02 10.8	-2.5
EGMT				*e*S	Sn	23 02 56.0	+1.7
DAU	Daniels Canyon	5.45	236	*e*Pn	Pn	23 01 52.5	+0.1
	8.6nm,0.6s						
DAU				*e*Pg	Pg	23 02 14.1	-0.3
DLMT	Dillon	5.49	291	*e*Pn	Pn	23 01 53.5	+0.6
	2.4nm,0.5s						
DLMT				*e*Pg	Pg	23 02 13.5	-1.6
DLMT				*e*Sg	Sg	23 03 24.6	-1.7
LRM	Limekiln Ridge	5.54	296	*e*Pn	Pn	23 01 55.5	+1.9
	19nm,0.7s						
LRM				*e*Pg	Pg	23 02 17.1	+1.1
LRM				*e*S	Sg	23 03 22.3	-5.6
MCMT	McKenzie Canyo	5.55	285	Pn	Pn	23 01 50.5	-3.2
	1.2nm,0.6s						
MCMT				*e*Pg	Pg	23 02 14.7	-1.5
MCMT				*e*S	Sg	23 03 30.1	+2.0
HRY	Holter Researc	5.55	306	*e*Pn	Pn	23 01 54.4	+0.7
	9.6nm,0.5s						
HRY				*e*Pg	Pg	23 02 13.7	-2.6
HRY				*e*S	Sn	23 02 58.0	-0.2
SPUT	South Promonto	5.75	249	*e*Pn	Pn	23 01 58.5	+2.0
	4.4nm,0.6s						
SPUT				*e*Pg	Pg	23 02 17.4	-2.8
SPUT				*e*S	Sn	23 03 09.1	+5.9
HVU	Hansel Valley	5.79	254	*e*Pn	Pn	23 01 56.5	-0.5
	7.4nm,0.9s						
HVU				*e*Pg	Pg	23 02 13.3	-7.5
HVU				*e*S	Sn	23 03 12.5	+8.5
SDCO	Great Sand Dun	5.86	181	*e*Pn	Pn	23 01 59.7	+1.7
	1.9nm,0.6s						
SDCO				*e*Pg	Pg	23 02 19.8	-2.4
SDCO				*e*Sg	Sg	23 03 38.1	+0.1
PV04	Paradox Valley	5.87	209	Pn	Pn	23 01 58.1	-0.1
PV04				*e*Pg	Pg	23 02 22.0	-0.4
PV04				*e*Sg	Sg	23 03 35.4	-3.1
SRU	San Rafael	5.96	223	*e*Pn	Pn	23 01 59.4	0.0
	10nm,0.7s						
SRU				*e*Pg	Pg	23 02 18.8	-5.3
SRU				*e*S	Sn	23 03 07.6	-0.7
PV01	Paradox Valley	6.00	205	*e*Pn	Pn	23 02 00.8	+0.9
	378nm,0.7s						
PV01				*e*Pg	Pg	23 02 23.3	-1.5
PV01				*e*S	Sg	23 03 38.9	-3.6
TMUT	Trail Mountain	6.17	228	*e*Pn	Pn	23 02 04.2	+1.9
	8.3nm,0.6s						
TMUT				*e*S	Sg	23 03 54.1	+5.9
ECSD	EROS Data Cent	6.32	86	*e*Pn	Pn	23 02 03.4	-0.8
	6.2nm,0.7s						
ECSD				*e*Pg	Pg	23 02 27.2	-3.7
ECSD				*e*Sg	Sg	23 03 51.2	-1.4
CHMT	Chamberlain Mo	6.50	303	*e*Pn	Pn	23 02 07.6	+0.8
	2.0nm,0.8s						
CHMT				*e*S	Sg	23 03 57.1	-1.5
DUG	Dugway	6.55	241	*e*Pn	Pn	23 02 07.4	0.0
	3.9nm,0.7s						
DUG				*e*S	Sn	23 03 21.4	-1.4
MSU	Marysvale	7.26	228	*e*Pn	Pn	23 02 21.3	+4.1
	5.6nm,0.6s						
MSU				*e*Pg	Pg	23 02 48.6	-0.4
ULM	Lac du Bonnet	9.26	41	Pn	Pn	23 02 43.1	-1.5
	0.6nm,0.3s,baz=251,slow=8.0,SNR=3.7						
ULM				Lg		23 05 14.3	
	0.1nm,0.3s,baz=104,slow=19,SNR=3.0						
ULM				LR	LR	23 06 31.9	
	comp=Z,33nm,20.9s,baz=356,slow=39						
NVAR	Mina Array Bea	11.09	247	Pn	Pn	23 03 14.1	+4.5
	0.1nm,0.3s,baz=58,slow=12,SNR=2.6						
YKA	Yellowknife Ar	19.69	347	P	Pn	23 05 01.4	-0.2
	0.0nm,0.3s,baz=158,slow=12,SNR=4.5						
ZALV	Zalesovo Beam	82.43	354	P	P	23 12 53.2	-0.5
	0.3nm,0.3s,mb3.9,baz=1.7,slow=4.9,SNR=4.0						
SONM	Songino Array	84.75	339	P	P	23 13 06.5	+0.8
	0.3nm,0.7s,mb3.6,baz=31,slow=2.7,SNR=3.0						
MKAR	Makanchi Array	89.73	355	P	P	23 13 29.6	-0.2
	0.3nm,0.7s,mb3.6,baz=25,slow=4.8,SNR=3.8						

IDC 18 23:01:24.6±4.1, 2°.28S×140°.19E, h0^{km}, mb3.5/2, mb1 3.8/3, mb1mx3.5/14, mbtmp3.6/3, ML3.7/1, Error ellipse: s-maj=154.2km s-min=28.1km az=87.0, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.46	198	P	Pn	23 05 41.0	-1.1
	0.3nm,0.3s,baz=20,slow=12,SNR=19						
ASAR	Alice Springs	22.11	195	P	P	23 06 21.9	+0.1
	1.3nm,0.7s,baz=23,slow=10,SNR=11						
MKAR	Makanchi Array	70.36	322	P	P	23 12 40.7	+0.4
	0.4nm,0.6s,baz=103,slow=8.0,SNR=10						

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*IDC **18** 23:07:14.1±0.9, 18°.28N×121°.92E, h0^{km}, mb3.8/7, mb1 4.1/8, mb1mx3.8/23, mbtmp3.9/8, ML4.1/1, Error ellipse: s-maj=50.3km s-min=16.3km az=73.0*
*MAN **18** 23:07:27, 18°.58N×121°.70E, h114^{km}, mb4.0, ML2.8, MS2.5*
*ISCJB **18** 23:07:28.0±0.6, 18°.42N±0°.08×121°.74E±0°.08, h134^{km}±6^{km}, mb3.6/7, Error ellipse: s-maj=14.2km s-min=11.6km az=39.7*
ISC 18 23:07:29.3±0.6, 18°.42N±0°.08×121°.72E±0°.08, h129^{km}±5^{km}, n15, σ1^{s}.29/18, mb3.6/7, 1C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	0.36	119	*e*P	Pn	23 07 47.1	-0.5
SGCP				*e*S	Sn	23 08 00.2	-1.1
ABRA	Dolores	1.23	232	*e*P	Pn	23 07 53.4	-1.0
SIPP	Brgy, Tapao	1.29	248	⇑*e*P	Pn	23 07 54.3	-0.8
SIPP				*i* S	Sn	23 08 14.7	0.0
CAUP	Cauayan	1.47	176	*e*P	Pn	23 07 58.6	+1.5
PALP	Palanan	1.50	153	*e*P	Pn	23 07 58.6	+1.1
PALP				*e*S	Sn	23 08 20.3	+1.4
BOLP	Bolinao	2.66	221	*e*P	Pn	23 08 11.3	-0.2
BALP	Baler	2.66	183	*e*P	Pn	23 08 12.4	+0.8
KSRS	Korea Array	19.73	15	P	P	23 11 47.1	-1.7
	0.5nm,0.3s,baz=194,slow=11,SNR=14						
SONM	Songino Array	31.90	340	P	P	23 13 43.7	+1.4
	0.4nm,0.4s,mb3.5,baz=159,slow=11,SNR=5.3						
FITZ	Fitzroy Crossi	36.49	174	P	P	23 14 19.7	-2.5
	1.6nm,0.8s,mb3.7,baz=340,slow=12,SNR=2.3						
WRA	Warramunga Arr	40.08	161	P	P	23 14 49.7	-2.5
	0.8nm,0.3s,mb3.8,baz=334,slow=10,SNR=22						
MKAR	Makanchi Array	42.94	320	P	P	23 15 16.7	+1.4
	0.3nm,0.4s,mb3.3,baz=109,slow=7.1,SNR=10.0						
ASAR	Alice Springs	43.48	164	P	P	23 15 18.2	-1.6
	1.3nm,0.4s,mb3.9,baz=343,slow=6.8,SNR=17						
KURK	Kurchatov	46.91	324	P	P	23 15 47.7	+1.0
	0.5nm,0.4s,mb3.5,baz=118,slow=7.7,SNR=6.5						
YKA	Yellowknife Ar	88.07	23	P	P	23 20 05.6	+0.7
	0.6nm,0.5s,mb3.7,baz=308,slow=4.4,SNR=11						

IDC 18 23:07:55.3±1.5, 2°.16N×128°.37E, h0^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.6/19, mbtmp3.7/6, Error ellipse: s-maj=93.5km s-min=18.3km az=73.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.31	188	P	P	23 12 33.8	+0.7
	1.3nm,0.6s,baz=350,slow=11,SNR=2.4						
WRA	Warramunga Arr	22.73	165	P	P	23 12 59.6	+0.5
	1.6nm,0.3s,baz=345,slow=11,SNR=52						
ASAR	Alice Springs	26.23	168	P	P	23 13 30.9	-1.2
	0.2nm,0.5s,baz=358,slow=8.3,SNR=2.8						
SONM	Songino Array	49.31	341	P	P	23 16 47.5	+1.4
	0.3nm,0.7s,baz=148,slow=5.5,SNR=3.2						
MKAR	Makanchi Array	59.77	325	P	P	23 18 02.0	-0.2
	0.6nm,0.4s,baz=114,slow=8.3,SNR=18						
KURK	Kurchatov	63.94	327	P	P	23 18 29.9	-0.3
	1.2nm,0.5s,baz=128,slow=6.1,SNR=10						

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*CSEM **18** 23:16:52.6, 37°.24N×20°.58E, h28^{km}, MD3.5, After ATH*
*NEIC **18** 23:16:52.6, 37°.24N×20°.58E, h28^{km}, MD3.5(ATH), After ATH.*
ATH 18 23:16:52.6, 37°.24N×20°.58E, h28^{km}±2^{km}, MD3.5/9, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.94	0	*e*PN	Pn	23 17 11.4	+1.5
VLS	Valsamata	0.94	0	*e*Pn	Pn	23 17 11.4	+1.5
PYL	PYLOS	0.99	110	*e*PN	Pn	23 17 11.4	+0.8
PYL				*e*SN	Sn	23 17 26.2	+2.5
PYL	PYLOS	0.99	110	*e*Pn	Pn	23 17 11.4	+0.8
PYL				*e*Sn	Sn	23 17 26.2	+2.5
ITM	Ithomi	1.08	93	*e*PN	Pn	23 17 12.9	+1.1
ITM				*e*SN	Sn	23 17 28.8	+3.0
ITM	Ithomi	1.08	93	*e*Pn	Pn	23 17 12.9	+1.1
ITM				*e*Sn	Sn	23 17 28.8	+3.0
RLS	Riolos of Patr	1.08	40	*e*PB	Pn	23 17 12.5	+0.7
RLS	Riolos of Patr	1.08	40	*e*Pb	Pn	23 17 12.5	+0.7
VLX	Vlachokerasia	1.44	84	*e*PB	Pn	23 17 18.0	+1.2
VLX				*e*SN	Sn	23 17 37.7	+2.9
VLX	Vlachokerasia	1.44	84	*e*Pb	Pn	23 17 18.0	+1.2
VLX				*e*Sn	Sn	23 17 37.7	+2.9
GUR	Goura	1.56	63	*e*PN	Pn	23 17 20.6	+2.1
GUR	Goura	1.56	63	*e*Pn	Pn	23 17 20.6	+2.1
EFP	Efpalio	1.58	41	*e*PN	Pn	23 17 21.3	+2.5
EFP	Efpalio	1.58	41	*e*Pn	Pn	23 17 21.3	+2.5
LTK	Loutraki	2.05	67	*e*PN	Pn	23 17 26.5	+1.3
LTK	Loutraki	2.05	67	*e*Pn	Pn	23 17 26.5	+1.3
DID	Didima	2.13	82	*e*PN	Pn	23 17 27.7	+1.4

DID	**Didima**	2.13	82	*e*Pn	Pn	23 17 27.7	+1.4
KYTH	**Kithira**	2.19	115	*e*PB	Pn	23 17 30.1	+3.0
KYTH	**Kithira**	2.19	115	*e*Pb	Pn	23 17 30.1	+3.0
AGG	**Agios Georgios**	2.25	37	*e*PB	Pn	23 17 31.0	+3.0
AGG	**Agios Georgios**	2.25	37	*e*Pb	Pn	23 17 31.0	+3.0
LKR	**Lokris**	2.38	53	*e*PN	Pn	23 17 32.0	+2.3
LKR	**Lokris**	2.38	53	*e*Pn	Pn	23 17 32.0	+2.3
THL	**Klokotos Trika**	2.58	25	*e*PN	Pn	23 17 35.1	+2.6
THL	**Klokotos Trika**	2.58	25	*e*Pn	Pn	23 17 35.1	+2.6
LIT	**Litokhoron**	3.22	27	*e*PN	Pn	23 17 43.8	+2.5
LIT	**Litokhoron**	3.22	27	*e*Pn	Pn	23 17 43.8	+2.5

NEIC ***18*** *23:51:17.0±3.7, 36°.87N×70°.86E, h170^{km}±24^{km}, mb3.9/3, Error ellipse: s-maj=56.7km s-min=19.5km az=157.0*

IDC ***18*** *23:51:18.1±8.1, 36°.98N×70°.83E, h168^{km}±65^{km}, mb3.0/1, mb1 3.0/5, mb1mx2.8/26, mbtmp3.0/5, Error ellipse: s-maj=128.6km s-min=44.6km az=140.0*

ISCJB ***18*** *23:51:21.7±2.1, 37°.1N±0°.1×71°.5E±0°.2, h188^{km}±22^{km}, mb3.4/2, Error ellipse: s-maj=22.8km s-min=18.7km az=153.2*

NNC ***18*** *23:51:25.2±9.5, 37°.29N×71°.51E, h192^{km}±168^{km}, mb2.1, mpv2.9, Error ellipse: s-maj=105.1km s-min=43.9km az=5.0*

ISC 18 23:51:22.8±2.4**, 37°.1N**±0°.2×**71°.5E**±0°.1**, h180**^{km}±23^{km}**, n17, σ0^{s}76**/25**, mb3.4**/2**, 4C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	4.28	54	Pn	Pn	23 52 22.6	-4.9
KSH				Sn	Sn	23 53 09.3	-8.8
KSH				smax			
	comp=N,120nm,0.5s						
KSH				smax			
	comp=E,170nm,0.2s						
AML	**Almayashu**	5.30	18	*e*Pn	Pn	23 52 40.9	+0.3
	comp=E,11nm,0.3s						
AML				*e*Sn	Sn	23 53 42.2	+0.5
UCH	**Uchtor**	5.63	24	*e*Pn	Pn	23 52 44.5	-0.3
	comp=E,2.5nm,0.4s						
UCH				*e*S	Sn	23 53 48.3	-1.0
EKS2	**Erkin-Say**	5.82	17	*e*Pn	Pn	23 52 46.2	-1.2
EKS2				*e*S	Sn	23 53 53.9	-0.1
AAK	**Ala-Archa**	5.99	22	P	Pn	23 52 50.2	+0.6
	comp=E,0.0nm,0.3s,baz=146,slow=8.1,SNR=8.6						
AAK				S	Sn	23 54 00.1	+2.2
	comp=E,0.0nm,0.3s,baz=164,slow=22,SNR=12						
AAK	**Ala-Archa**	5.99	22	*e*Pn	Pn	23 52 50.2	+0.6
AAK				*e*S	Sn	23 54 00.6	+2.7
KK31	**Karatay Array**	6.03	353	⇑P	Pn	23 52 50.1	0.0
	comp=E,0.6nm,0.2s,baz=177,slow=13,SNR=85						
KK31				⇑S	Sn	23 53 58.5	-0.4
	comp=E,1.5nm,0.3s,baz=170,slow=22,SNR=14						
TKM2	**Tokmak 2**	6.61	27	⇓P	Pn	23 52 58.6	+0.9
	comp=E,0.2nm,0.3s						
TKM2				⇑S	Sn	23 54 12.0	-0.7
	comp=E,1.8nm,0.7s						
MKAR	**Makanchi Array**	12.58	36	P	Pn	23 54 14.9	-0.6
	comp=E,0.1nm,0.3s,baz=214,slow=9.6,SNR=4.5						
KURK	**Kurchatov**	14.54	18	P	Pn	23 54 39.8	-0.1
	comp=E,0.1nm,0.3s,baz=211,slow=9.3,SNR=3.5						
AB01	**Akbulak array**	14.74	329	⇑P	Pn	23 54 42.8	+0.3
	comp=E,0.3nm,0.5s						
ZALV	**Zalesovo Beam**	19.21	25	P	P	23 55 32.9	+0.2
	comp=E,0.4nm,0.3s,baz=216,slow=9.5,SNR=5.8						
ZALV	**Zalesovo Beam**	19.21	25	P	P	23 55 32.9	+0.2
KIV	**Kislovodsk**	22.84	296	*e*P	P	23 56 01.9	-8.4
TIRR	**Tirgusor**	33.11	296	*e*P	P	23 57 34.0	-7.5
	comp=E,0.8nm,0.6s,mb3.6						
PSZ	**Piszkesteto**	38.85	303	P	P	23 58 22.9	-7.4
TORD	**Torodi Ar. Bea**	66.11	269	P	P	00 01 44.0	-6.8
	comp=E,0.2nm,0.5s,mb3.2,baz=49,slow=5.4,SNR=5.4						

IDC ***18*** *23:57:10.7±0.7, 2°.54S×139°.23E, h0^{km}, mb4.3/14, mb1 4.5/15, mb1mx4.4/19, mbtmp4.3/15, ML4.8/2, MS4.1/13, Ms1 4.1/13, ms1mx3.8/23, Error ellipse: s-maj=23.7km s-min=13.8km az=75.0*

BJI ***18*** *23:57:13.8, 3°.44S×138°.49E, h37^{km}, mB5.1/21, mb4.7/29, Ms4.7/17, Ms7 4.4/18*

MOS ***18*** *23:57:13.5±1.1, 2°.59S×139°.05E, h28^{km}, mb5.0/15, Error ellipse: s-maj=13.9km s-min=7.5km az=108.6*

ISCJB ***18*** *23:57:15.7±0.8, 2°.62S±0°.04×139°.13E±0°.05, h44^{km}±7^{km}, mb4.8/59, MS4.2/19, Error ellipse: s-maj=9.4km s-min=5.3km az=158.5*

DJA ***18*** *23:57:16, 2°.52S×139°.45E, h20^{km}, mb5.3/10*

NEIC ***18*** *23:57:16.6±1.3, 2°.59S×139°.09E, h39^{km}±12^{km}, mb4.8/23, Error ellipse: s-maj=8.3km s-min=6.6km az=59.0*

GCMT ***18*** *23:57:16.6±0.2, 2°.33S×139°.50E, h37^{km}±1^{km}, MW5.1/67, Moment Tensor Solution. s44,c54; s67,c98; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.09±.21; $M_{\theta\theta}$-1.77±.16; $M_{\phi\phi}$1.85±.19; $M_{r\theta}$0.20±.19; $M_{\theta\phi}$4.74±.12; $M_{\phi r}$-0.48±.21; Best double couple: $M_0$5.10100×10^{16} NP1:ϕ_s259.00000°, δ84.00000°, λ-1.00000°. NP2: ϕ_s350.00000°, δ89.00000°, λ-174.00000°. Principal axes: T 5.1300, Plg3.0000°, Azm124.0000°; N -0.0660, Plg84.0000°, Azm2.0000°; P -5.0720, Plg5.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 18 23:57:17.8±0.7**, 2°.63S**±0°.04×**139°.12E**±0°.05**, h45**^{km}±6^{km}**, h34**^{km}±1.5^{km}**:pP-P, n158, σ1^{s}14**/149**, mb4.8**/58**, MS4.2**/19**, 1C-1D, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMPI	**Sarmi**	0.76	327	P	Pn	23 57 31.9	-0.3
SMPI				S	Sn	23 57 48.3	+5.7
JAY	**Jayapura**	1.59	86	P	Px	23 57 37.2	
JAY				S	Sx	23 57 53.7	
JAY	**Jayapura**	1.59	86	P	Px	23 57 37.2	
JAY				S	Sx	23 57 53.6	
BAKI	**Biak**	3.33	295	P	Pn	23 58 08.0	+0.5
BAKI				S	Sn	23 58 46.9	+1.0
BAKI	**Biak**	3.33	295	P	Pn	23 58 08.8	+1.3
BAKI				S	Sn	23 58 53.3	+7.4
MMPI	**Merauke**	5.93	168	P	Sn	23 59 54.9	+5.0
TLE	**Tual**	7.03	245	P	Px	23 59 21.5	
	0.5nm559nm20nm,0.6s						
AAI	**Ambon**	10.96	264	P	Px	00 00 04.1	
	108nm,1.0s						
LBMI	**Labuha**	11.78	279	P	Pn	00 00 11.6	+8.2
LBMI	**Labuha**	11.78	279	P	Pn	00 00 10.1	+6.7
	115nm,1.0s						
COEN	**Coen**	11.95	161	*e*Pn	Pn	00 00 05.2	-0.4
	294nm,0.8s						
COEN				*e*S	Sn	00 02 16.6	-0.9
COEN	**Coen**	11.95	161	P	Pn	00 00 06.7	+1.1
	176nm,1.2s						
KAKA	**Kakadu**	12.00	213	*e*Pn	Pn	00 00 05.8	-0.5
KAKA	**Kakadu**	12.00	213	P	Pn	00 00 06.7	+0.3
	393nm,0.8s						
NLAI	**Namlea**	12.02	267	P	Pn	00 00 14.4	+7.8
	954nm114nm,1.0s						
NLAI	**Namlea**	12.02	267	P	Pn	00 00 11.1	+4.5
	114nm,1.0s						
TNTI	**Ternate**	12.23	286	P	Pn	00 00 09.1	-0.4
	134nm,1.1s						
KDI	**Kendari**	16.52	265	P	Px	00 01 18.7	
KDI	**Kendari**	16.52	265	P	Px	00 01 20.5	
	2µm50nm,1.2s						
DAV	**Davao City (W)**	16.60	306	LR	LR	00 07 18.4	
	comp=Z,339nm,21.4s,baz=119,slow=36						
GUMO	**Guam**	17.09	19	LR	LR	00 07 01.5	
	comp=Z,231nm,20.0s,baz=264,slow=35						
APSI	**Ampana**	17.55	275	P	Pn	00 01 25.4	+6.1
	2µm132nm,1.1s						
APSI	**Ampana**	17.55	275	P	Pn	00 01 25.7	+6.4
	2µm132nm,1.1s						
WRAB	**Tennant Creek**	17.82	195	*e*P	Pn	00 01 21.5	-1.0
WRAB				pmax	pmax		
	comp=Z,110nm,0.8s						
WRAB	**Tennant Creek**	17.82	195	*e*P	Pn	00 01 21.5	-1.0
	comp=Z,110nm,0.8s						
WRAB	**Tennant Creek**	17.82	195	P	Pn	00 01 22.3	-0.2
	comp=Z,202nm,1.1s						
WRA	**Warramunga Arr**	17.83	195	P	Pn	00 01 21.3	-1.4
WRA				S	S	00 04 32.4	-13
WRA	**Warramunga Arr**	17.83	195	P	Pn	00 01 21.3	-1.4
	comp=Z,4.7nm,0.3s,baz=16,slow=13,SNR=94						
WRA				S	S	00 04 32.4	-13
	comp=Z,2.8nm,0.3s,baz=14,slow=22,SNR=7.0						
WRA				LR	LR	00 09 11.4	
	comp=Z,1µm,19.1s,baz=15,slow=40						
CTA	**Charters Tower**	18.70	159	*e*P	Pn	00 01 33.6	+0.4
	comp=Z,23nm,1.2s						
CTA				*e*S	S	00 05 02.9	+0.2
CTA	**Charters Tower**	18.70	159	P	Pn	00 01 32.2	-1.0
	comp=Z,1.1nm,0.3s,baz=338,slow=11,SNR=14						
CTAO	**Charters Tower**	18.70	159	*e*P	Pn	00 01 33.3	+0.1
CTAO				pmax	pmax		
	comp=Z,50nm,1.1s						
CTAO	**Charters Tower**	18.70	159	*e*P	Pn	00 01 33.3	+0.1
	comp=Z,50nm,1.1s						
BNSI	**Bone**	19.06	264	P	Pn	00 01 43.8	+6.1
	comp=Z,70nm,1.1s						
BNSI	**Bone**	19.06	264	P	Pn	00 01 46.1	+8.4
	comp=Z,70nm,1.1s						
PCI	**Palu**	19.35	275	P	Pn	00 01 45.2	+4.0
	comp=Z,244nm,1.1s						
PCI	**Palu**	19.35	275	P	Pn	00 01 45.9	+4.7
FITZ	**Fitzroy Crossi**	20.27	220	*e*P	P	00 01 51.0	+1.2
	comp=Z,82nm,0.9s						
FITZ				*e*S	S	00 05 31.9	-2.9
FITZ	**Fitzroy Crossi**	20.27	220	P	P	00 01 51.2	+1.4
	comp=Z,42nm,1.0s,baz=52,slow=9.5,SNR=29						
FITZ				S	S	00 05 32.9	-2.0
	comp=Z,50nm,1.0s,baz=167,slow=12,SNR=5.6						
FITZ				LR	LR	00 10 43.8	
	comp=Z,1µm,18.2s,MS4.2,baz=34,slow=40						
FITZ	**Fitzroy Crossi**	20.27	220	*e*P	P	00 01 51.4	+1.7
	comp=Z,79nm,1.0s						
FITZ	**Fitzroy Crossi**	20.27	220	P	P	00 01 51.6	+1.8
	comp=Z,138nm,1.2s						
ASAR	**Alice Springs**	21.51	193	P	P	00 02 03.4	+0.3
	comp=Z,62nm,0.9s,mb5.0,baz=23,slow=9.6,SNR=216						
ASAR				S	S	00 05 56.5	-2.6
	comp=Z,2.7nm,0.9s,baz=9.3,slow=24,SNR=2.8						
HNR	**Honiara**	21.77	109	*e*P	P	00 02 05.8	-0.2
HNR				pmax	pmax		
	comp=Z,90nm,0.8s,mb5.2						
HNR	**Honiara**	21.77	109	P	P	00 02 04.7	-1.3
	comp=Z,71nm,0.4s,mb5.5,baz=240,slow=7.7,SNR=5.4						
HNR	**Honiara**	21.77	109	*e*P	P	00 02 05.8	-0.2
	comp=Z,90nm,0.8s,mb5.2						
MYLDM	**Lahad Datu**	22.01	291	P	P	00 02 14.4	+5.8
MYLDM	**Lahad Datu**	22.01	291	P	P	00 02 14.6	+6.1
	comp=Z,127nm,1.2s,mb5.2						
TSM	**Tawau**	22.32	288	P	P	00 02 14.2	+2.4
KBKI	**Kotabaru**	22.93	268	P	Px	00 02 29.0	
SDKM	**Sandakan**	23.39	291	P	P	00 02 25.5	+2.5
KHKI	**Kahang-Kahang**	24.08	255	P	P	00 02 35.1	+5.8
KSM	**Kuching**	29.09	278	P	P	00 03 13.1	-1.4
STKA	**Stephens Creek**	29.18	176	*e*P	P	00 03 16.1	+1.1
	comp=Z,4.8nm,0.4s,mb4.6						
STKA	**Stephens Creek**	29.18	176	P	P	00 03 14.4	-0.6
	comp=Z,7.4nm,0.6s,mb4.6,baz=7.7,slow=8.8,SNR=17						
STKA				LR	LR	00 17 28.9	
	comp=Z,702nm,18.1s,MS4.3,baz=355,slow=42						
FORT	**Forrest**	29.89	199	*e*P	P	00 03 22.2	+0.9
	comp=Z,35nm,0.8s,mb5.1						
FORT	**Forrest**	29.89	199	*e*P	P	00 03 22.1	+0.9
	comp=Z,46nm,0.9s,mb5.2						
ARMA	**Armidale**	30.07	158	*e*P	P	00 03 24.8	+1.9
CNB	**Canberra Magne**	33.88	165	*e*P	P	00 03 58.5	+2.2
TOO	**Toolangi**	35.26	171	*e*P	P	00 04 10.6	+2.4
QIZ	**Qiongzhong**	35.95	308	P	P	00 04 18.8	+4.5
QIZ				S	S	00 09 49.1	-0.8
QIZ				pmax	pmax		
	comp=Z,34nm,1.4s,mb5.1						
QIZ				pmax	pmax		
	comp=Z,420nm,3.9s						
NWAO	**Narrogin (SRO)**	36.46	212	*e*P	P	00 04 17.9	-0.6
MJAR	**Matsushiro Arr**	38.98	359	P	P	00 04 38.5	-1.3
	comp=Z,1.2nm,0.8s,mb3.7,baz=168,slow=14,SNR=2.8						
MAJO	**Matsushiro**	38.98	359	P	P	00 04 39.7	-0.1
KULM	**Kulim**	39.23	282	*e*P	P	00 04 41.6	-0.6
	comp=Z,9.7nm,1.0s,mb4.5						
NJ2	**Nanjing**	39.49	332	*e*P	P	00 04 45.3	+1.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
MOO	**Moorlands**	40.29	171	*e*P	P	00 04 53.4	+2.8
PSI	**Prapat**	40.54	277	P	P	00 04 53.1	0.0
	comp=Z,6.8nm,0.5s,mb4.5,baz=65,slow=5.1,SNR=8.3						
KSRS	**Korea Array**	41.22	346	P	P	00 04 57.1	-1.1
	comp=Z,0.4nm,0.3s,baz=164,slow=6.3,SNR=3.3						
GYA	**Guiyang**	42.66	315	P	P	00 05 10.3	+0.1
GYA				pP	pP	00 05 20.4	-2.2
GYA				sP	sP	00 05 25.8	-2.2
GYA				PP	PP	00 06 52.0	+2.1
GYA				PcP	PcP	00 07 01.4	-0.3
GYA				S	S	00 11 32.0	+1.5
GYA				sS	sS	00 11 48.5	-2.7
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
GYA				pmax	pmax		
	comp=Z,120nm,4.8s						
GYA				LR	LR		
	comp=N,490nm,16.4s,MS4.6						
GYA				LR	LR		
	comp=E,460nm,17.2s,MS4.6						
GYA				LR	LR		
	comp=Z,510nm,17.3s,MS4.5						
CMAR	**Chiang Mai Arr**	44.75	300	P	P	00 05 27.6	+0.4
	comp=Z,2.8nm,0.7s,mb4.2,baz=120,slow=6.5,SNR=18						
CMAR				LR	LR	00 23 02.4	
	comp=Z,117nm,19.2s,MS3.8,baz=330,slow=35						
KMI	**Kunming**	44.78	310	P	P	00 05 27.8	+0.5
KMI				pP	pP	00 05 36.6	-3.2
KMI				sP	sP	00 05 41.0	-4.1
KMI				PcP	PcP	00 07 09.0	+0.1
KMI				PP	PP	00 07 14.6	+2.0
KMI				S	S	00 12 00.1	-1.5
KMI				SS	SS	00 15 15.1	-8.6
KMI				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.2						
KMI				pmax	pmax		
	comp=Z,71nm,4.5s						
KMI				LR	LR		
	comp=N,260nm,11.1s,MS4.4						
KMI				LR	LR		
	comp=E,180nm,15.0s,MS4.4						
KMI				LR	LR		
	comp=Z,280nm,20.0s,MS4.2						
CHTO	**Chiang Mai**	44.90	300	*e*P	P	00 05 28.0	-0.4
CHTO				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
CHTO	**Chiang Mai**	44.90	300	*e*P	P	00 05 27.9	-0.4
	comp=Z,8.8nm,1.0s,mb4.5						
XAN	**Xi’an**	46.25	325	P	P	00 05 37.9	-0.9
XAN				pP	pP	00 05 48.5	-2.8
XAN				PP	PP	00 07 28.3	+0.3
XAN				S	S	00 12 25.1	+2.7
XAN				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.2						
XAN				pmax	pmax		
	comp=Z,83nm,8.5s						
XAN				LR	LR		
	comp=E,130nm,11.8s						
XAN				LR	LR		
	comp=Z,190nm,16.5s,MS4.1						
BJT	**Baijiatuau**	47.37	336	*e*P	P	00 05 46.9	-0.6
BJI	**Beijing**	47.39	336	P	P	00 05 49.0	+1.4
BJI				S	S	00 12 39.8	+1.3
BJI				SS	SS	00 16 03.6	-3.2
BJI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
BJI				pmax	pmax		
	comp=Z,130nm,4.1s						
BJI				LR	LR		
	comp=N,110nm,30.5s,MS4.0						
BJI				LR	LR		
	comp=E,190nm,28.5s,MS4.0						
BJI				LR	LR		
	comp=Z,110nm,35.7s						
CD2	**Chengdu**	47.40	317	P	P	00 05 48.0	+0.1
CD2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CD2				pmax	pmax		
	comp=Z,170nm,4.5s						
MDJ	**Mudanjiang**	47.80	351	*e*P	P	00 05 49.1	-1.6
CN2	**Changchun**	47.83	347	*e*P	P	00 05 58.0	+7.1
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
YSS	**Yuzh-Sakhalins**	49.48	3	*e*P	P	00 06 09.6	+6.0
YSS				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.3						
HHC	**Hu-ho-hao-te**	50.05	333	*e*P	P	00 06 09.5	+1.5
HHC				pP	pP	00 06 19.0	-1.7
HHC				sP	sP	00 06 23.4	-2.5
HHC				PP	PP	00 08 04.8	+1.3
HHC				PcS	PcS	00 11 24.8	+0.5
HHC				*e*S	S	00 13 16.3	+0.3
HHC				ScS	ScS	00 15 54.1	-1.5
HHC				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
HHC				pmax	pmax		
	comp=Z,130nm,4.5s						
HHC				LR	LR		
	comp=N,160nm,16.7s,MS4.2						
HHC				LR	LR		
	comp=E,98nm,15.5s,MS4.2						
HHC				LR	LR		
	comp=Z,180nm,15.5s,MS4.2						
LZH	**Lanzhou**	50.66	323	*e*P	P	00 06 13.0	+0.2
LZH				pP	pP	00 06 22.5	-2.9
LZH				sP	sP	00 06 27.5	-3.2
LZH				PP	PP	00 08 11.0	+1.8
LZH				*e*S	S	00 13 26.0	+1.3
LZH				sS	sS	00 13 41.0	-4.8
LZH				SS	SS	00 16 55.0	-4.7
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,84nm,4.0s						
LZH				LR	LR		
	comp=N,1µm,16.5s						
LZH				LR	LR		
	comp=Z,1µm,17.9s,MS5.0						
KLR	**Kul’dur**	52.05	354	*e*P	P	00 06 24.7	+1.8
SHL	**Shillong**	53.63	305	*e*PKP	P	00 06 35.0	0.0
GTA	**Gaotai**	55.25	323	*e*P	P	00 06 46.9	+0.4
GTA				pP	pP	00 06 56.1	-3.2
GTA				sP	sP	00 07 00.6	-4.0
GTA				PP	PP	00 08 52.8	+2.3
GTA				S	S	00 14 28.8	+1.7
GTA				sS	sS	00 14 43.9	-4.5
GTA				SS	SS	00 18 13.4	+1.4
GTA				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
GTA				pmax	pmax		
	comp=Z,75nm,4.5s						
GTA				LR	LR		
	comp=N,88nm,15.2s,MS4.2						
GTA				LR	LR		
	comp=E,120nm,11.6s,MS4.2						
GTA				LR	LR		
	comp=Z,120nm,13.1s,MS4.2						
LSA	**Lhasa**	55.98	309	*e*P	P	00 06 53.0	+1.0
LSA				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
LSA	**Lhasa**	55.98	309	*e*P	P	00 06 53.0	+1.0
	comp=Z,8.8nm,0.7s,mb4.9						
ULN	**Ulaanbaatar**	57.57	335	*e*P	P	00 07 02.0	-0.9
ULN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
ULN	**Ulaanbaatar**	57.57	335	*e*P	P	00 07 02.0	-0.9
	comp=Z,5.8nm,1.0s,mb4.6						
PETK	**Petropavlovsk-**	57.69	13	LR	LR	00 27 02.6	
	comp=Z,124nm,21.1s,MS4.0,baz=205,slow=31						
TAPN	**Taplejung**	57.77	305	*e*P	P	00 07 04.2	-0.5
	comp=Z,45nm,1.0s,mb5.5						
SONM	**Songino Array**	57.82	335	P	P	00 07 04.6	0.0
	comp=Z,0.6nm,0.5s,mb3.9,baz=160,slow=7.2,SNR=6.4						
SONM				LR	LR	00 33 09.9	
	comp=Z,135nm,18.3s,MS4.1,baz=152,slow=37						
PET	**Petropavlovsk**	57.84	14	*e*P	P	00 07 10.4	+5.8
PET				*e*S	S	00 15 08.7	+7.9
ODAN	**Odare**	57.84	304	*e*P	P	00 07 05.3	+0.1
	comp=Z,51nm,0.8s,mb5.6						
RAMN	**Ramite**	58.53	304	*e*P	P	00 07 10.2	+0.2
	comp=Z,36nm,0.8s,mb5.4						
JIRN	**Jiri**	59.13	304	*e*P	P	00 07 14.4	+0.2
	comp=Z,17nm,0.6s,mb5.3						
GUN	**Gumba**	59.48	305	*e*P	P	00 07 16.8	+0.2
	comp=Z,61nm,1.0s,mb5.6						
KKN	**Kakani**	59.93	304	*e*P	P	00 07 19.7	0.0
	comp=Z,48nm,0.8s,mb5.6						
DMN	**Daman**	60.01	304	*e*P	P	00 07 20.3	+0.1
	comp=Z,43nm,0.8s,mb5.5						
GKN	**Gorkha**	60.54	304	*e*P	P	00 07 23.8	0.0
	comp=Z,47nm,0.7s,mb5.7						
ZAK	**Zakamensk**	61.09	335	*e*P	P	00 07 26.1	-1.0
ZAK				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.9						
KOLN	**Koldanda**	61.31	304	*e*P	P	00 07 29.4	+0.3
	comp=Z,24nm,0.8s,mb5.4						
DANN	**Dangsing**	61.38	304	*e*P	P	00 07 29.3	-0.3
	comp=Z,44nm,0.8s,mb5.6						
TLY	**Talaya**	61.91	336	*e*P	P	00 07 37.2	+4.5
TLY				*e*S	sS	00 16 23.9	+9.0
TLY				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
TLY				MLR	MLR		
	comp=Z,101nm,22.0s,MS3.9						
TLY	**Talaya**	61.91	336	*e*P	P	00 07 32.3	-0.4
	comp=Z,9.6nm,1.2s,mb4.8						
BOD	**Bodaibo**	63.54	345	*e*P	P	00 07 41.6	-1.8
BOD				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.6						
YAK	**Yakutsk**	64.89	355	*e*P	P	00 07 55.1	+3.0
YAK				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.2						
YAK				pmax	pmax		
	comp=N,13nm,1.1s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.5s						
YAK	**Yakutsk**	64.89	355	*e*P	P	00 07 51.3	-0.8
WMQ	**Urumqi**	65.20	321	*e*P	P	00 07 54.8	+0.2
WMQ				pP	pP	00 08 05.0	-2.6
WMQ				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
WMQ				pmax	pmax		
	comp=Z,120nm,4.6s						
WMQ				LR	LR		
	comp=Z,230nm,22.5s,MS4.3						
THN	**Thein Dam**	69.28	306	*e*PKP	P	00 08 24.8	+4.2
MKAR	**Makanchi Array**	69.98	322	P	P	00 08 24.2	-0.4
	comp=Z,2.4nm,0.8s,mb4.2,baz=97,slow=7.7,SNR=38						
MKAR				LR	LR	00 38 12.6	
	comp=Z,47nm,19.1s,MS3.8,baz=226,slow=35						
PPT	**Papeete**	71.39	108	*e*LR	LR	00 30 27.7	
	comp=Z,425nm,26.5s						
PPT	**Papeete**	71.39	108	LR	LR	00 36 56.2	
	comp=Z,122nm,20.6s,MS4.2,baz=230,slow=34						
ZAA0	**Zalesovo Array**	72.07	330	*e*P	P	00 08 35.1	-2.0
ZALV	**Zalesovo Beam**	72.07	330	P	P	00 08 35.6	-1.6
	comp=Z,1.4nm,0.6s,mb4.1,baz=111,slow=6.1,SNR=8.7						
TKM2	**Tokmak 2**	72.77	316	*e*P	P	00 08 41.3	-0.3
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TKM2	**Tokmak 2**	72.77	316	*e*P	P	00 08 41.3	-0.2
	comp=Z,5.6nm,0.8s,mb4.5						
BILL	**Bilibino**	73.02	10	⇑*e*P	P	00 08 44.9	+2.4
BILL				*e**PP	pP	00 09 01.8	+6.1
BILL				*e*		00 11 23.4	
BILL				*e*S	S	00 18 02.5	-3.5
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
BILL	**Bilibino**	73.02	10	*e*P	P	00 08 42.2	-0.3
	comp=Z,3.3nm,0.8s,mb4.3						
UCH	**Uchtor**	73.28	316	*e*P	P	00 08 44.5	-0.1
	comp=Z,19nm,1.3s,mb4.9						
NVS	**Novosibirsk**	73.33	330	*e*P	P	00 08 41.6	-3.0
NVS				pmax	pmax		
	comp=N,16nm,1.5s						
NVS				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.0						
NVS				pmax	pmax		
	comp=E,27nm,1.8s						
AAK	**Ala-Archa**	73.43	316	*e*P	P	00 08 45.5	0.0
AAK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
AAK	**Ala-Archa**	73.43	316	*e*P	P	00 08 45.5	0.0
	comp=Z,6.4nm,1.0s,mb4.5						
AML	**Almayashu**	73.83	315	*e*P	P	00 08 48.7	+0.9
	comp=Z,18nm,1.1s,mb4.9						
KURK	**Kurchatov**	73.89	325	*e*P	P	00 08 46.5	-1.5
KURK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
KURK	**Kurchatov**	73.89	325	P	P	00 08 47.2	-0.7
	comp=Z,1.7nm,0.7s,mb4.1,baz=112,slow=4.5,SNR=9.4						

KURK	**Kurchatov**	73.89	325	*e*P	P	00 08 46.5	-1.5
	comp=Z,11nm,0.9s,mb4.8						
EKS2	**Erkin-Say**	73.94	316	*e*P	P	00 08 48.0	-0.5
	comp=Z,9.6nm,1.0s,mb4.7						
KBL	**Kabul**	75.21	307	*e*P	P	00 08 54.9	-1.1
KBL				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
KBL	**Kabul**	75.21	307	*e*P	P	00 08 54.9	-1.1
	comp=Z,8.9nm,1.0s,mb4.7						
VNDA	**Vanda**	75.82	175	LR	LR	00 43 30.0	
	comp=Z,159nm,18.9s,MS4.3,baz=89,slow=37						
BVAR	**Borovoye Array**	79.48	325	P	P	00 09 18.8	-0.8
	comp=Z,1.4nm,0.4s,mb4.3,baz=113,slow=7.7,SNR=16						
BRVK	**Borovoye**	79.55	325	*e*P	P	00 09 19.2	-0.7
BRVK				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
BRVK	**Borovoye**	79.55	325	*e*P	P	00 09 19.2	-0.7
	comp=Z,25nm,1.2s,mb5.0						
TAOE	**Nuku Hiva Isla**	80.45	98	*e*LR	LR	00 34 42.9	
	comp=Z,713nm,29.2s						
MAW	**Mawson**	82.35	202	LR	LR	00 46 36.6	
	comp=Z,215nm,18.1s,MS4.5,baz=226,slow=36						
CHUM	**Lake Minchumin**	83.07	25	*e*P	P	00 09 40.0	+1.7
	comp=Z,22nm,1.0s,mb5.1						
MCK	**McKinley**	84.44	25	*e*P	P	00 09 44.5	-0.8
COLD	**Coldfoot**	85.03	22	*e*P	P	00 09 50.0	+1.8
	comp=Z,5.4nm,0.9s,mb4.7						
COLA	**College**	85.22	24	*e*P	P	00 09 49.1	-0.2
AKTK	**Aktyubinsk**	86.35	321	P	P	00 09 53.6	-1.5
AKTO	**Aktyubinsk**	86.35	321	P	P	00 09 53.6	-1.5
	comp=Z,0.6nm,0.5s,mb4.1,baz=124,slow=3.6,SNR=2.1						
ARU	**Arti**	86.95	327	*d i*P	P	00 09 55.2	-2.8
ARU				S	SKSac	00 20 18.1	-3.2
ARU				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.5						
ARU	**Arti**	86.95	327	*e*P	P	00 09 55.7	-2.2
	comp=Z,7.9nm,1.0s,mb4.9						
EGAK	**Eagle**	87.98	25	*e*P	P	00 10 04.6	+1.9
	comp=Z,14nm,1.1s,mb5.1						
DAWY	**Dawson**	88.62	26	*e*P	P	00 10 10.8	+5.1
YKA	**Yellowknife Ar**	99.81	27	P	Pdif	00 10 57.4	+0.2
	comp=Z,0.1nm,0.3s,baz=290,slow=5.1,SNR=3.7						
YKA				LR	LR	00 52 01.4	
	comp=Z,163nm,20.4s,MS4.5,baz=175,slow=33						
YKA	**Yellowknife Ar**	99.81	27	P	Pdif	00 10 57.4	+0.2
YKA				LR	LR	00 52 01.4	
NVAR	**Mina Array Bea**	101.48	51	P	Pdif	00 11 05.7	+1.0
	comp=Z,0.2nm,0.7s,baz=281,slow=6.3,SNR=2.4						
TORD	**Torodi Ar. Bea**	136.63	286	PKP	PKPdf	00 16 35.0	-1.2
	comp=Z,0.6nm,0.8s,baz=50,slow=1.5,SNR=3.7						
KIC	**Kosan Boka**	143.79	277	*e*P	PKPdf	00 16 51.2	+2.0
	comp=Z,66nm,1.0s						
DBIC	**Dimbokro**	143.88	278	PKP	PKPdf	00 16 46.7	-2.6
	comp=Z,8.8nm,1.0s,baz=101,slow=5.2,SNR=5.0						
DBIC	**Dimbokro**	143.88	278	PKP	PKPdf	00 16 46.7	-2.6
TIC	**Toumodi**	144.04	278	*e*P	PKPdf	00 16 51.7	+2.1
	comp=Z,38nm,0.8s						
LIC	**Lamto**	144.08	277	*e*P	PKPdf	00 16 52.9	+3.2
	comp=Z,72nm,1.5s						
ROSC	**El Rosal**	146.55	85	PKPdf	PKPdf	00 16 55.3	+1.4
CPUP	**Villa Florida**	147.11	152	PKPbc	PKPbc	00 16 53.7	-3.0
	comp=Z,0.3nm,0.3s,baz=180,slow=5.1,SNR=2.0						
CPUP	**Villa Florida**	147.11	152	PKPbc	PKPbc	00 16 53.7	-3.0
SDV	**Santo Domingo**	149.77	77	*e*PKPdf	PKPdf	00 16 59.4	+0.1

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*NEIC **18** 23:59:45.9±1.7, 37°.37N×71°.82E, h189^{km}±17^{km}, mb3.8/4, Error ellipse: s-maj=19.5km s-min=12.8km az=197.0*

*IDC **18** 23:59:46.5±9.3, 37°.36N×71°.85E, h195^{km}±60^{km}, mb2.9/1, mb1 2.6/5, mb1mx2.5/26, mbtmp2.6/5, Error ellipse: s-maj=183.3km s-min=41.7km az=142.0*

*ISCJB **18** 23:59:47.3±2.0, 37°.6N±0°.1×71°.9E±0°.1, h217^{km}±21^{km}, mb3.4/2, Error ellipse: s-maj=23.6km s-min=15.8km az=21.6*

ISC 18 23:59:47.2±2.0, 37°.5N±0°.1×71°.9E±0°.1, h198^{km}±21^{km}, n16, σ1ˢ.12/22, mb3.4/2, 1C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	**Kashi**	3.77	56	⇓*i*Pn	Pn	00 00 40.5	-5.4
KSH				Sn	Sn	00 01 19.1	-13
KSH				smax			
	comp=N,44nm,0.4s						
KSH				smax			
	comp=E,47nm,0.4s						
AML	**Almayashu**	4.82	16	*e*Pn	Pn	00 00 59.9	+0.7
AML				*e*S	Sn	00 01 54.8	-1.2
EKS2	**Erkin-Say**	5.35	15	*e*Pn	Pn	00 01 06.8	+0.9
	comp=E,3.4nm,0.6s						
EKS2				*e*S	Sn	00 02 06.0	-2.1
AAK	**Ala-Archa**	5.50	20	P	Pn	00 01 08.9	+1.1
	comp=E,0.0nm,0.3s,baz=171,slow=8.9,SNR=18						
AAK				S	Sn	00 02 11.6	+0.1
	comp=E,0.0nm,0.3s,baz=175,slow=19,SNR=6.4						
AAK	**Ala-Archa**	5.50	20	*e*Pn	Pn	00 01 08.7	+0.9
	comp=E,30nm,1.8s						
AAK				*e*Sn	Sn	00 02 10.5	-1.0
KK31	**Karatay Array**	5.70	350	⇑P	Pn	00 01 11.9	+1.5
	comp=E,1.6nm,0.5s,baz=163,slow=12,SNR=46						
KK31				⇓S	Sn	00 02 15.5	-0.7
	comp=E,1.0nm,0.3s,baz=174,slow=24,SNR=3.6						
TKM2	**Tokmak 2**	6.10	26	*e*Pn	Pn	00 01 15.9	+0.3
	comp=E,1.3nm,0.5s						
MKAR	**Makanchi Array**	12.05	36	P	Pn	00 02 34.7	+2.0
	comp=E,0.0nm,0.3s,baz=209,slow=11,SNR=2.5						
KURK	**Kurchatov**	14.05	18	P	Pn	00 02 58.6	+0.9
	comp=E,0.0nm,0.3s,baz=201,slow=11,SNR=2.7						
LSA	**Lhasa**	17.80	110	*e*P	Pn	00 03 40.9	-2.0
ZALV	**Zalesovo Beam**	18.70	24	P	P	00 03 51.0	+0.4
	comp=E,0.2nm,0.3s,baz=224,slow=10,SNR=4.4						
ZALV	**Zalesovo Beam**	18.70	24	P	P	00 03 51.0	+0.4
MALT	**Malatya**	26.36	282	P	P	00 05 04.5	-0.5
PSZ	**Piszkesteto**	38.94	302	*e*P	P	00 06 53.4	-0.3
	comp=E,1.8nm,0.7s,mb3.7						
TORD	**Torodi Ar. Bea**	66.47	269	P	P	00 10 15.0	-0.7
	comp=E,0.2nm,0.4s,mb3.1,baz=52,slow=5.8,SNR=8.3						
TORD	**Torodi Ar. Bea**	66.47	269	P	P	00 10 15.0	-0.7

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*CSEM **19** 00:30:32.8, 43°.06N×45°.38E, h14^{km}, mb3.7, After OBN*

*MOS **19** 00:30:32.8±1.4, 43°.06N×45°.38E, h14^{km}, mb3.7/1, Error ellipse: s-maj=14.6km s-min=8.6km az=12.0*

*ISCJB **19** 00:30:33.1±0.5, 43°.03N±0°.04×45°.35E±0°.03, h8^{km}±6^{km}, Error ellipse: s-maj=6.1km s-min=3.6km az=14.3*

ISC 19 00:30:33.8±0.5, 43°.01N±0°.04×45°.34E±0°.03, h11^{km}±6^{km}, n34, σ1ˢ.18/60, 1C-4D, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNJR	**Sundja**	0.39	278	⇑*e*PG	Pg	00 30 41.5	0.0
SNJR				*e*S	Sg	00 30 47.1	+0.4
SNJR	**Sundja**	0.39	278	*e*Pg	Pg	00 30 41.5	0.0
SNJR				*e*Sg	Sg	00 30 47.1	+0.4
VLKR	**Vladikavkaz**	0.48	274	*e*PG	Pg	00 30 43.2	-0.1
VLKR				*e*S	Sg	00 30 49.9	+0.2
VLKR	**Vladikavkaz**	0.48	274	*e*Pg	Pg	00 30 43.2	-0.1
VLKR				*e*Sg	Sg	00 30 49.9	+0.2
LACR	**Lac**	0.79	257	⇓*i*PG	Pg	00 30 46.7	-2.3
LACR				*i* S	Sg	00 30 57.2	-2.1
LACR	**Lac**	0.79	257	*i* Pg	Pg	00 30 46.7	-2.3
LACR				*i* Sg	Sg	00 30 57.2	-2.1
ARNR	**Ardon**	0.79	283	*i* PG	Pg	00 30 49.3	+0.2
ARNR				*e*S	Sg	00 31 00.5	+1.0
ARNR	**Ardon**	0.79	283	*i* Pg	Pg	00 30 49.3	+0.2
ARNR				*e*Sg	Sg	00 31 00.5	+1.0
TRKR	**Terskaya**	0.83	328	*e*PG	Pg	00 30 48.5	-1.4
TRKR				*e*S	Sg	00 31 01.0	+0.2
TRKR	**Terskaya**	0.83	328	*e*Pg	Pg	00 30 48.5	-1.4
TRKR				*e*Sg	Sg	00 31 01.0	+0.2
KMSR	**Komsomolskaya**	0.84	295	⇓*i*PG	Pg	00 30 50.4	+0.3
KMSR				*e*S	Sg	00 31 02.4	+1.3
KMSR	**Komsomolskaya**	0.84	295	*i* Pg	Pg	00 30 50.4	+0.3
KMSR				*e*Sg	Sg	00 31 02.4	+1.3
PRTR	**Priterechnaya**	1.06	314	*e*PG	Pg	00 30 54.7	+0.4
PRTR				*e*S	Sg	00 31 09.9	+1.7
PRTR	**Priterechnaya**	1.06	314	*e*Pg	Pg	00 30 54.7	+0.4
PRTR				*e*Sg	Sg	00 31 09.9	+1.7
ZEI	**Tsey**	1.08	258	⇓*i*PG	Pg	00 30 53.4	-1.3
ZEI				*i* S	Sb	00 31 07.9	-0.9
ZEI	**Tsey**	1.08	258	*i* Pg	Pg	00 30 53.4	-1.3
ZEI				*i* Sg	Sb	00 31 07.9	-0.9
DBC	**Dubki**	1.09	89	*e*PG	Pg	00 30 50.0	-4.9
DBC	**Dubki**	1.09	89	*e*Pg	Pg	00 30 50.0	-4.9
LSNR	**Lesken**	1.14	284	*i* PG	Pg	00 30 54.9	-0.9
LSNR				*e*S	Sg	00 31 10.8	+0.2
LSNR	**Lesken**	1.14	284	*i* Pg	Pg	00 30 54.9	-0.9
LSNR				*e*Sg	Sg	00 31 10.8	+0.2
KRNR	**Karanay**	1.17	99	*e*PG	Pg	00 30 53.2	-3.1
KRNR				*i* S	Sb	00 31 09.9	-1.3
KRNR	**Karanay**	1.17	99	*e*Pg	Pg	00 30 53.2	-3.1
KRNR				*i* Sg	Sb	00 31 09.9	-1.3
DIGR	**Digorskoe uzhe**	1.29	266	⇓*i*PG	Pg	00 30 57.3	-1.4
DIGR				*i* S	Sb	00 31 14.4	-0.4
DIGR	**Digorskoe uzhe**	1.29	266	*i* Pg	Pg	00 30 57.3	-1.4
DIGR				*i* Sg	Sb	00 31 14.4	-0.4
BUJR	**Buynaksk**	1.31	98	*e*PG	Pg	00 30 59.3	+0.2
BUJR				*i* S	Sg	00 31 17.8	+1.7
BUJR	**Buynaksk**	1.31	98	*e*Pg	Pg	00 30 59.3	+0.2
BUJR				*i* Sg	Sg	00 31 17.8	+1.7
TBLG	**Delisi**	1.36	199	PG	Pg	00 31 00.2	+0.3
TBLG				*e*S	Sg	00 31 20.5	+3.0
TBLG	**Delisi**	1.36	199	Pg	Pg	00 31 00.2	+0.3
TBLG				*e*Sg	Sg	00 31 20.5	+3.0
GOR	**Gori**	1.37	222	P	Pn	00 31 00.9	+1.9
MTA	**Mtatsminda**	1.38	197	P	Pn	00 31 00.4	+1.3
ONI	**Oni**	1.46	253	P	Pn	00 31 00.4	+0.4
ONI	**Oni**	1.46	253	P	Pn	00 31 00.2	+0.1
GOF	**Gofitskoye**	2.63	322	*e*PN	Pn	00 31 02.2	-14
GOF				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GOF	**Gofitskoye**	2.63	322	*e*Pn	Pn	00 31 02.2	-14
	comp=Z,10.0nm,0.9s						

IDC 19 00:41:03.5±2.1, 6°.56S×130°.03E, h0^{km}, mb3.6/1, mb1 3.9/4, mb1mx3.6/17, mbtmp3.7/4, ML3.8/3, MS3.3/1, Ms1 3.3/1, ms1mx2.8/19, Error ellipse: s-maj=93.2km s-min=27.0km az=77.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	12.24	200	Pn	Pn	00 43 59.0	-0.2
	0.5nm,0.3s,baz=30,slow=11,SNR=11						
FITZ				Sn	Sn	00 46 00.3	-16
	0.4nm,0.3s,baz=220,slow=17,SNR=4.7						
WRA	**Warramunga Arr**	13.94	163	Pn	Pn	00 44 21.6	-0.9
	0.5nm,0.3s,baz=346,slow=13,SNR=42						
WRA				Sn	Sn	00 46 48.5	-10
	0.4nm,0.3s,baz=334,slow=21,SNR=6.3						
ASAR	**Alice Springs**	17.41	168	P	Pn	00 45 08.9	+1.0
	0.3nm,0.3s,baz=345,slow=12,SNR=7.9						
ASAR				S	Sn	00 48 11.2	-11
	0.1nm,0.3s,baz=343,slow=24,SNR=3.4						
GUMO	**Guam**	24.86	36	LR	LR	00 55 06.6	
	comp=Z,70nm,21.1s,baz=97,slow=34						
MKAR	**Makanchi Array**	67.88	327	P	P	00 52 03.9	+0.1
	0.3nm,0.4s,baz=129,slow=6.8,SNR=15						

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*ISCJB **19** 01:01:01.6±1.1, 34°.64N±0°.08×27°.10E±0°.08, h27^{km}±14^{km}, Error ellipse: s-maj=16.5km s-min=6.1km az=33.4*

*HLW **19** 01:01:02.8, 34°.95N×27°.05E, h49^{km}, Mb3.8*

*CSEM **19** 01:01:03.4±0.3, 34°.83N×27°.14E, h40^{km}, ML3.8, Error ellipse: s-maj=17.2km s-min=3.4km az=32.0*

*THE **19** 01:01:04.5, 34°.89N×27°.01E, h13^{km}±1^{km}, Error ellipse: s-maj=9.6km s-min=1.1km az=24.0*

ISC 19 01:01:03.1±1.2, 34°.71N±0°.09×27°.05E±0°.08, h25^{km}±14^{km}, n25, σ0ˢ.77/32, 1C-2D, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	**Zakros**	0.80	301	P	Pb	01 01 17.7	-0.6
ZKR				S	Sb	01 01 28.2	-0.5
ZKR	**Zakros**	0.80	301	P	Pb	01 01 17.7	-0.6
ZKR				S	Sb	01 01 28.2	-0.5
LAST	**Lasithi**	1.37	290	P	Pn	01 01 26.4	-0.2
LAST				S	Sn	01 01 43.7	-0.2
LAST	**Lasithi**	1.37	290	P	Pn	01 01 26.4	-0.2
LAST				S	Sn	01 01 43.7	-0.2
SIVA	**Sivas**	1.87	280	P	Pn	01 01 33.8	+0.4
SIVA	**Sivas**	1.87	280	P	Pn	01 01 33.8	+0.4
KARN	**Karanos**	2.66	286	P	Pn	01 01 44.7	+0.4
KARN	**Karanos**	2.66	286	P	Pn	01 01 44.7	+0.4
SWA2		5.61	194	P	Pn	01 02 26.0	+1.1
SWA2				S	Sn	01 03 27.6	-1.0
KOT	**Kottamia**	6.25	138	⇓P	Pn	01 02 33.9	+0.2
KOT	**Kottamia**	6.25	138	P	Pn	01 02 33.9	+0.2
HSAF	**As Saff**	6.35	142	⇓P	Pn	01 02 35.5	+0.4
HSAF				S	Sn	01 03 44.3	-2.4
HSAF	**As Saff**	6.35	142	P	Pn	01 02 35.5	+0.4
HSAF				S	Sn	01 03 44.3	-2.4
GLL	**Jalalah**	6.46	141	P	Pn	01 02 36.9	+0.3
GLL	**Jalalah**	6.46	141	P	Pn	01 02 36.9	+0.3
AWBH		6.56	166	P	Pn	01 02 38.9	+1.0
AWBH		6.56	166	P	Pn	01 02 38.9	+0.9
AMAG	**Maghara**	6.59	126	P	Pn	01 02 37.8	-0.5
AMAG	**Maghara**	6.59	126	P	Pn	01 02 37.8	-0.5
SUZ		6.89	133	P	Pn	01 02 42.9	+0.4
SUZ		6.89	133	P	Pn	01 02 42.9	+0.4
HFRF	**Wahat Farafira**	7.61	171	⇑P	Pn	01 02 53.3	+0.9
HFRF	**Wahat Farafira**	7.61	171	P	Pn	01 02 53.3	+0.9
HKAT	**Jabal Katrina**	8.54	134	P	Pn	01 03 04.8	-0.4
HKAT	**Jabal Katrina**	8.54	134	P	Pn	01 03 04.8	-0.4

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*ISCJB **19** 01:28:05.8±0.5, 39°.51N±0°.02×26°.34E±0°.03, h5^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=2.9km az=163.0*

*CSEM **19** 01:28:05.9±0.1, 39°.49N×26°.33E, h8^{km}, ML2.9/4, Error ellipse: s-maj=2.4km s-min=1.9km az=79.0*

*ISK **19** 01:28:05.6, 39°.49N×26°.25E, h17^{km}, MD3.1*

*DDA **19** 01:28:05.5, 39°.50N×26°.34E, h6^{km}±3^{km}, Md2.9*

*THE **19** 01:28:06.6, 39°.48N×26°.31E, h6^{km}±2^{km}, ML2.9/4, Error ellipse: s-maj=2.8km s-min=0.6km az=243.0*

ISC 19 01:28:06.3±0.4, 39°.50N±0°.02×26°.33E±0°.03, h10^{km}±4^{km}, n45, σ0ˢ.63/76, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	**Paraskevi**	0.26	190	P	Pg	01 28 10.9	-0.6
PRK				S	Sg	01 28 15.7	+0.7
PRK	**Paraskevi**	0.26	190	P	Pg	01 28 10.9	-0.6
PRK				S	Sg	01 28 15.7	+0.7
AYVA	**Ayvalik**	0.34	124	*i* P	Pg	01 28 12.5	-0.5
AYVA				*i* S	Sg	01 28 17.6	+0.1
AYVA	**Ayvalik**	0.34	124	*i* P	Pg	01 28 12.5	-0.5
AYVA				*i* S	Sg	01 28 17.6	0.0
BOZC	**Bozcaada**	0.40	328	*i* P	Pg	01 28 14.0	-0.2
BOZC				*i* S	Sg	01 28 19.9	+0.4
SIGR	**SIGRI**	0.47	232	P	Pg	01 28 14.7	-0.7
SIGR				S	Sg	01 28 21.6	+0.1
SIGR	**SIGRI**	0.47	232	P	Pg	01 28 14.7	-0.7
SIGR				S	Sg	01 28 21.6	+0.1
GADA	**Gvkgeada**	0.77	335	*e*PG	Pg	01 28 20.4	-0.7
GADA				*e*SG	Sg	01 28 31.5	+0.4
GADA	**Gvkgeada**	0.77	335	*e*Pg	Pg	01 28 20.4	-0.7
GADA				*e*Sg	Sg	01 28 31.5	+0.4
LIA	**Limnos Island**	0.97	295	P	Pg	01 28 24.5	-0.4
LIA				S	Sg	01 28 39.0	+1.5
LIA	**Limnos Island**	0.97	295	P	Pg	01 28 24.5	-0.4
LIA				S	Sg	01 28 39.0	+1.5
BALY	**Balya**	1.03	76	*i* P	Pg	01 28 25.3	-0.7
BALY				*i* S	Sg	01 28 39.4	0.0
BALY	**Balya**	1.03	76	*i* P	Pg	01 28 25.3	-0.7
BALY				*i* S	Sg	01 28 39.4	0.0
CHOS	**Chios island**	1.13	191	P	Pb	01 28 27.1	-0.9
CHOS				S	Sg	01 28 43.5	+0.8
CHOS	**Chios island**	1.13	191	P	Pb	01 28 27.1	-0.9
CHOS				S	Sg	01 28 43.5	+0.8
URLA	**Izmir**	1.16	170	*i* P	Pb	01 28 27.2	-1.1
URLA				*i* S	Sb	01 28 43.6	+0.1
URLA	**Izmir**	1.16	170	*i* P	Pb	01 28 27.2	-1.2
URLA				*i* S	Sb	01 28 43.6	+0.1
ENEZ	**Enez**	1.24	354	*e*PN	Pn	01 28 29.8	0.0
ENEZ				*e*SN	Sn	01 28 45.6	-0.9
ENEZ	**Enez**	1.24	354	*e*Pn	Pn	01 28 29.8	0.0
ENEZ				*e*Sn	Sn	01 28 45.6	-1.0
BLCB	**Balcova**	1.24	153	*e*PN	Pn	01 28 29.4	-0.4
BLCB				*e*SN	Sn	01 28 46.2	-0.4
BLCB	**Balcova**	1.24	153	P	Pn	01 28 29.5	-0.3
BLCB				S	Sb	01 28 47.0	+1.0
BLCB	**Balcova**	1.24	153	*e*Pn	Pn	01 28 29.4	-0.4
BLCB				*e*Sn	Sn	01 28 46.2	-0.4
BLCB				S	Sb	01 28 47.0	+1.0
AKHS	**Akhisar**	1.31	118	*i* P	Pn	01 28 30.1	-0.6
AKHS				*i* S	Sb	01 28 49.6	+1.8
AKHS	**Akhisar**	1.31	118	*i* P	Pn	01 28 30.1	-0.6
AKHS				*i* S	Sb	01 28 49.7	+1.8
IZM	**Izmir**	1.32	146	*e*PN	Pn	01 28 30.7	-0.2
IZM	**Izmir**	1.32	146	*e*Pn	Pn	01 28 30.7	-0.1
SART	**Tekirdag**	1.36	29	*i* P	Pn	01 28 31.1	-0.3
SART				*i* S	Sb	01 28 49.7	+0.5
SART	**Tekirdag**	1.36	29	*i* P	Pn	01 28 31.1	-0.2
SART				*i* S	Sb	01 28 49.7	+0.5
ALN	**Alexandroupoli**	1.41	351	P	Pn	01 28 32.2	+0.1
ALN				S	Sn	01 28 51.2	+0.4
ALN	**Alexandroupoli**	1.41	351	P	Pn	01 28 32.2	+0.1
ALN				S	Sn	01 28 51.2	+0.4
EDC	**Edincik**	1.45	54	*e*PN	Pn	01 28 32.6	-0.1
EDC	**Edincik**	1.45	54	*e*Pn	Pn	01 28 32.6	-0.1
BNT	**Bandirma**	1.49	55	*e*PN	Pn	01 28 33.0	-0.2
DURS	**Dursunbey**	1.66	86	*i* P	Pn	01 28 34.9	-0.6
DURS				*i* S	Sn	01 28 57.1	+0.1
DURS	**Dursunbey**	1.66	86	*i* P	Pn	01 28 34.9	-0.6
DURS				*i* S	Sn	01 28 57.1	+0.2
KCT	**Karacabey**	1.74	63	*e*PN	Pn	01 28 36.9	+0.3
KCT	**Karacabey**	1.74	63	*e*Pn	Pn	01 28 36.9	+0.3
KULA	**Kula-Manisa**	2.07	118	*e*PN	Pn	01 28 41.0	0.0
KULA	**Kula-Manisa**	2.07	118	*e*Pn	Pn	01 28 41.1	0.0
EDRB	**Edirne**	2.37	8	*e*PN	Pn	01 28 45.3	+0.1
EDRB	**Edirne**	2.37	8	*e*Pn	Pn	01 28 45.3	+0.1
ISK	**Istanbul-Kandi**	2.61	52	*e*PN	Pn	01 28 49.0	+0.5
ISK	**Istanbul-Kandi**	2.61	52	*e*Pn	Pn	01 28 49.0	+0.4
ADVT	**Abdulvahap**	2.78	69	*e*PN	Pn	01 28 51.7	+0.8
ADVT	**Abdulvahap**	2.78	69	*e*Pn	Pn	01 28 51.7	+0.8

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*ISCJB **19** 01:54:00.8±0.5, 41°.82N±0°.02×22°.75E±0°.03, h1^{km}±8^{km}, Error ellipse: s-maj=4.4km s-min=3.6km az=137.5*

*SOF **19** 01:54:00.1, 41°.82N×22°.78E, h15^{km}, MD2.6*

*SKO **19** 01:54:00.9, 41°.80N×22°.79E, h13^{km}, M1.2, ML1.7*

*CSEM **19** 01:54:01.0±0.1, 41°.81N×22°.80E, h10^{km}, ML1.7, Error ellipse: s-maj=2.3km s-min=1.0km az=106.0*

*BEO **19** 01:54:05.5±1.4, 41°.92N×22°.74E, h0^{km}, ML1.6/2*

ISC 19 01:54:01.7±0.4, 41°.81N±0°.02×22°.77E±0°.03, h3^{km}±7^{km}, n21, σ0ˢ.48/40, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKB	**Krupnik**	0.24	76	Pg	Pg	01 54 06.4	+0.1
KKB				Sg	Sg	01 54 09.7	+0.3
STIP	**Stip**	0.45	256	*e*Pg	Pg	01 54 10.3	-0.1
STIP				*e*Sg	Sg	01 54 16.9	+0.7
STIP	**Stip**	0.45	256	*e*Pg	Pg	01 54 10.2	-0.1
STIP				*e*Sg	Sg	01 54 16.8	+0.6
VAY	**Valandovo**	0.51	197	*e*Pg	Pg	01 54 11.0	-0.4
VAY				*e*Sg	Sg	01 54 17.8	-0.2
VAY				*e*Lg		01 54 18.1	
	comp=E,19nm,0.2s						
VAY				*e*Lg		01 54 18.5	
	comp=N,22nm,0.3s						
VAY	**Valandovo**	0.51	197	Pg	Pg	01 54 10.9	-0.5
VAY				Sg	Sg	01 54 18.0	0.0
VAY	**Valandovo**	0.51	197	*e*Pg	Pg	01 54 11.0	-0.4
VAY				*e*Sg	Sg	01 54 17.8	-0.2
MMB	**Musomiste**	0.75	107	Pg	Pg	01 54 15.6	-0.4
MMB				Sg	Sg	01 54 25.8	+0.1
VTS	**Vitosha**	0.85	22	*e*Pg	Pg	01 54 19.5	+1.6
VTS				*e*Sg	Sg	01 54 28.7	-0.2
VTS	**Vitosha**	0.85	22	Pg	Pg	01 54 17.5	-0.4
VTS				Sg	Sg	01 54 29.2	+0.3
VTS	**Vitosha**	0.85	22	*e*Pg	Pg	01 54 19.5	+1.6
VTS				*e*Sg	Sg	01 54 28.7	-0.2
KRUS	**Krusevo**	1.22	249	*e*Pg	Pg	01 54 25.0	-0.1
KRUS				*e*Sg	Sg	01 54 41.4	+0.4
KRUS				*e*Lg		01 54 41.5	
	comp=E,1.1nm,0.2s						
KRUS				*e*Lg		01 54 41.8	
	comp=N,1.3nm,0.2s						
KRUS	**Krusevo**	1.22	249	*e*Pg	Pg	01 54 24.9	-0.2
KRUS				*e*Sg	Sg	01 54 41.3	+0.4
BARS	**Barje**	1.23	325	*e*Pg	Pg	01 54 25.3	0.0
BARS				*e*Sg	Sg	01 54 41.0	-0.2
BARS	**Barje**	1.23	325	*e*Pg	Pg	01 54 25.3	0.0
BARS				*e*Sg	Sg	01 54 41.0	-0.2
BIA	**Bitola**	1.34	235	*e*Pg	Pg	01 54 27.4	0.0
BIA				*e*Sg	Sg	01 54 44.9	+0.1
BIA				*e*Lg		01 54 45.1	
	comp=E,2.9nm,0.2s						
BIA				*e*Lg		01 54 45.2	
	comp=N,3.7nm,0.3s						
BIA	**Bitola**	1.34	235	*e*Pg	Pg	01 54 27.3	-0.1
BIA				*e*Sg	Sg	01 54 44.9	+0.1
RZN	**Rozhen**	1.46	94	P	Pn	01 54 27.8	-1.1
RZN				S	Sb	01 54 48.5	+0.1
ZAPS	**Zavoj**	1.47	356	*e*Pg	Pg	01 54 29.7	-0.1
ZAPS				*e*Sg	Sg	01 54 48.8	0.0
NISS		1.71	339	*e*Sg	Sg	01 54 56.1	-0.4
NISS		1.71	339	*e*Sg	Sg	01 54 56.1	-0.4
KDZ	**Kurdzhali**	1.99	94	P	Pn	01 54 35.7	-0.4
KDZ				S	Sn	01 55 02.5	+1.0

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*ISCJB **19** 02:25:09.6±0.6, 24°.33S±0°.06×67°.01W±0°.08, h172^{km}±8^{km}, mb3.6/5, Error ellipse: s-maj=12.8km s-min=8.9km az=151.0*

*IDC **19** 02:25:09.9±1.0, 24°.42S×66°.98W, h162^{km}±10^{km}, mb3.5/6, mb1 3.7/10, mb1mx3.6/19, mbtmp3.4/10, Error ellipse: s-maj=18.7km s-min=11.2km az=66.0*

*GUC **19** 02:25:13.0±0.8, 24°.20S×67°.63W, h210^{km}±13^{km}, ML4.7*

*NEIC **19** 02:25:13.0, 24°.20S×67°.63W, h210^{km}, MG4.7(GUC), After GUC.*

ISC 19 02:25:10.3±0.6, 24°.37S±0°.05×67°.01W±0°.08, h165^{km}±8^{km}, n30, σ1ˢ.17/38, mb3.6/5, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	2.48	315	P	Pn	02 25 53.9	+1.9
	106nm,0.3s,baz=180,slow=4.6,SNR=1253						
LVC				S	Sn	02 26 24.9	+0.8
	197nm,0.3s,baz=180,slow=4.2,SNR=37						
LVC	**Limon Verde**	2.48	315	*e*Pn	Pn	02 25 53.7	+1.8
LVC				*e*Sn	Sn	02 26 24.4	+0.3
LVC	**Limon Verde**	2.48	315	*e*P	Pn	02 25 53.5	+1.6
LVC				*i* S	Sn	02 26 24.6	+0.5
LVC				AML	AML	02 26 27.2	
	comp=E,837nm,0.6s						
PECH	**Pedro de Valdi**	3.02	305	*e*P	Pn	02 25 59.4	+0.8
PECH				*i* S	Sn	02 26 34.1	-1.8
PECH				AML	AML	02 26 35.4	
	comp=E,3µm,0.1s						
CEN1	**Los Morros**	3.08	288	*i* P	Pn	02 26 02.1	+2.8
CEN1				*i* S	Sn	02 26 38.5	+1.2
PB04	**Plate Boundary**	3.10	312	*e*P	Pn	02 26 05.2	+5.6
PB04				*i* S	Sn	02 26 44.9	+7.2
PB04				AML	AML	02 26 47.8	
	comp=N,2µm,0.3s						
MACH	**Maria Elena**	3.33	310	*e*P	Pn	02 26 03.1	+0.6
MACH				*i* S	Sn	02 26 41.0	-1.9
TOCH	**Tocopilla**	3.71	307	*e*P	Pn	02 26 07.1	-0.2
TOCH				*i* S	Sn	02 26 47.8	-3.9
TOCH				AML	AML	02 26 49.8	
	comp=N,1µm,0.6s						
PSGC	**Pisagua**	5.56	328	*e*P	Pn	02 26 28.9	-2.5
PSGC				*i* S	Sn	02 27 29.2	-5.8
LCO	**Las Campanas**	5.68	215	*e*Pn	Pn	02 26 32.7	-0.1
LCO				*e*Sn	Sn	02 27 28.0	-10
CFAA	**Coronel Fontan**	7.29	188	P	Pn	02 26 54.7	+0.6
	comp=N,0.1nm,0.3s,baz=8.1,slow=12,SNR=14						
CFAA				S	Sn	02 28 12.4	-3.4
	comp=N,0.3nm,0.3s,baz=149,slow=20,SNR=10						
CFAA	**Coronel Fontan**	7.29	188	P	Pn	02 26 54.7	+0.6
CFAA				S	Sn	02 28 12.4	-3.4
ARE	**Arequipa**	8.92	331	*e*P	Pn	02 27 08.0	-7.9
ARE				*e*S	Sn	02 28 48.0	-7.3
CPUP	**Villa Florida**	8.97	105	P	Pn	02 27 17.0	+0.6
	comp=N,0.4nm,0.3s,baz=262,slow=11,SNR=5.9						
CPUP	**Villa Florida**	8.97	105	P	Pn	02 27 17.0	+0.6
SIV	**San Ignacio**	10.03	35	P	Pn	02 27 29.8	-0.7
	comp=N,0.4nm,0.3s,baz=221,slow=13,SNR=10						
PLCA	**Paso Flores**	16.58	189	P	Pn	02 28 53.6	+0.4
	comp=N,0.1nm,0.3s,baz=90,slow=5.2,SNR=2.9						
PLCA				S	S	02 31 56.5	-0.8

	comp=N,0.2nm,0.3s,baz=84,slow=11,SNR=4.1						
TXAR	Lajitas Array	63.98	325	P	P	02 35 25.8	-0.3
	comp=N,0.3nm,0.7s,mb3.2,baz=134,slow=5.4,SNR=3.8						
TXAR	Lajitas Array	63.98	325	P	P	02 35 25.8	-0.3
TORD	Torodi Ar. Bea	76.71	69	P	P	02 36 43.5	-0.1
	comp=N,1.7nm,0.6s,mb3.9,baz=256,slow=5.4,SNR=21						
PDAR	Pinedale Array	77.46	329	P	P	02 36 48.0	+0.8
	comp=N,0.3nm,0.5s,baz=138,slow=7.7,SNR=3.9						
NVAR	Mina Array Bea	78.82	321	P	P	02 36 56.0	+1.2
	comp=N,0.4nm,0.6s,mb3.2,baz=151,slow=6.5,SNR=3.8						
BOSA	Boshof	80.57	117	P	P	02 37 03.6	-1.1
	comp=N,2.0nm,0.7s,mb3.9,baz=236,slow=3.4,SNR=6.3						
YKA	Yellowknife Ar	94.47	340	P	P	02 38 11.1	0.0
	comp=N,0.5nm,0.5s,mb3.9,baz=130,slow=4.8,SNR=13						
ASAR	Alice Springs	128.12	205	PKP	PKPdf	02 43 57.5	+0.1
	comp=N,0.3nm,0.5s,baz=159,slow=2.0,SNR=3.5						
WRA	Warramunga Arr	131.29	207	PKP	PKPdf	02 44 03.7	+0.2
	comp=N,0.2nm,0.5s,baz=161,slow=1.7,SNR=8.4						
BVAR	Borovoye Array	137.10	37	PKP	PKPdf	02 44 14.3	+1.0
	comp=N,0.4nm,0.5s,baz=250,slow=4.2,SNR=3.0						
KURK	Kurchatov	142.68	36	PKP	PKPdf	02 44 23.8	+0.2
	comp=N,0.4nm,0.8s,baz=284,slow=0.9,SNR=2.9						
ZALV	Zalesovo Beam	143.72	28	PKP	PKPdf	02 44 23.9	-1.3
	comp=N,1.7nm,0.6s,baz=300,slow=4.5,SNR=9.0						
MKAR	Makanchi Array	146.81	40	PKPbc	PKPbc	02 44 31.7	-1.2
	comp=N,2.2nm,0.6s,baz=324,slow=2.2,SNR=30						

IDC 19 02:30:16.7±3.2, 4°.74S×151°.48E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.7/17, mbtmp3.7/5, Error ellipse: s-maj=106.5km s-min=28.1km az=111.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.52	226	P	P	02 35 18.5	+0.4
	1.2nm,0.7s,baz=50,slow=10,SNR=17						
ASAR	Alice Springs	25.32	220	P	P	02 35 45.4	+0.1
	0.8nm,0.4s,baz=56,slow=8.9,SNR=11						
FITZ	Fitzroy Crossi	28.54	240	P	P	02 36 14.1	-0.3
	1.9nm,0.6s,baz=54,slow=4.5,SNR=6.2						
MKAR	Makanchi Array	79.42	319	P	P	02 42 26.5	+1.7
	0.1nm,0.5s,baz=94,slow=5.6,SNR=3.6						
ZALV	Zalesovo Beam	80.38	327	P	P	02 42 29.7	-0.2
	0.4nm,0.3s,baz=64,slow=3.4,SNR=2.9						
TORD	Torodi Ar. Bea	149.04	288	PKPbc	PKPbc	02 50 06.4	-1.5
	0.2nm,0.4s,baz=96,slow=2.1,SNR=13						

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*ISCJB **19** 02:43:40.0±0.3, 54°.94N±0°.02×107°.99E±0°.04, h10^{km}, mb3.3/3, Error ellipse: s-maj=4.0km s-min=2.2km az=137.0*

*IDC **19** 02:43:40.6±1.8, 54°.96N×107°.92E, h0^{km}, mb3.3/2, mb1 3.5/6, mb1mx3.3/28, mbtmp3.4/6, ML3.3/4, Error ellipse: s-maj=28.0km s-min=22.0km az=107.0*

*MOS **19** 02:43:41.9±1.0, 55°.01N×107°.85E, h15^{km}, mb4.4/1, Error ellipse: s-maj=14.4km s-min=8.1km az=64.9*

*NEIC **19** 02:43:42.6, 54°.94N×107°.84E, h9^{km}, mb3.5/1, After BYKL.*

*BYKL **19** 02:43:42.0±0.3, 54°.95N×107°.82E, h1^{km}±14^{km}*

ISC 19 02:43:42.2±0.3, **54°.92N**±0°.02×**108°.00E**±0°.04, **h10^{km}, n50, σ1^{s}.57**/110, **mb3.3**/3, **2C-3D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIZ	Nizh Angarsk	1.23	45	ePG	Pg	02 44 05.2	-0.6
NIZ				e		02 44 21.5	
NIZ	Nizh Angarsk	1.23	45	ePg	Pg	02 44 04.9	-0.9
NIZ				eSg	Sg	02 44 21.8	+0.1
NIZ				Pmax			
	74nm,0.2s						
NIZ				Smax			
	695nm,0.6s						
OGRR	Ongureny	1.30	191	⇓iPg	Pg	02 44 06.4	-0.8
	75nm,0.5s						
OGRR				⇓iPg	Pg	02 44 06.4	-0.8
	22nm,0.5s						
OGRR				⇑iPg	Pg	02 44 06.4	-0.8
	68nm,0.5s						
OGRR				eSg	Sg	02 44 23.2	-0.9
OGRR				eSb	Sb	02 44 26.0	+2.5
OGRR				LR	LR	02 44 39.4	
OGRR				Pmax			
	113nm,0.2s						
OGRR				max			
	1µm,0.4s						
OGRR	Ongureny	1.30	191	⇑iPg	Pg	02 44 06.5	-0.7
OGRR				eSg	Sg	02 44 25.0	+0.9
MXMB	Maximikha	1.72	165	ePg	Pg	02 44 14.5	-0.6
MXMB				i		02 44 15.0	
MXMB				eSg	Sg	02 44 38.1	+0.7
MXMB				max			
	563nm,0.2s						
MXMB				Smax			
	1µm,0.7s						
SYVR	Suvo	1.73	136	ePn	Pn	02 44 14.2	+2.0
SYVR				ePg	Pg	02 44 15.1	-0.2
SYVR				eSg	Sg	02 44 39.2	+1.6
SYVR				Pmax			
	456nm,0.4s						
SYVR				Smax			
	413nm,0.9s						
SYVR	Suvo	1.73	136	ePg	Pg	02 44 14.3	-1.0
SYVR				eSg	Sg	02 44 38.8	+1.2
YLYR	Ulyunkhan	1.83	90	ePn	Pn	02 44 15.9	+2.3
YLYR				ePg	Pg	02 44 16.4	-0.8
YLYR				eSg	Sg	02 44 41.3	+0.4
YLYR				Pmax			
	86nm,0.3s						
YLYR				Smax			
	852nm,0.6s						
YLYR	Ulyunkhan	1.83	90	ePn	Pn	02 44 15.9	+2.3
YLYR				ePg	Pg	02 44 16.7	-0.5
YLYR				eSg	Sg	02 44 41.8	+0.9
KMO	Kumora	2.06	61	ePN	Pn	02 44 19.4	+2.5
KMO	Kumora	2.06	61	⇓iPg	Pg	02 44 19.5	-2.3
KMO				eSg	Sg	02 44 47.3	-1.2
KMO				Pmax			
	57nm,0.3s						
KMO				Smax			
	371nm,0.8s						
KELR	Kotokel	2.17	179	ePg	Pg	02 44 22.1	-1.6
KELR				eSg	Sg	02 44 50.8	-1.0
KELR				Pmax			
	175nm,0.3s						
KELR				Smax			
	811nm,0.5s						
TRG	Tyrgan	2.38	205	ePn	Pn	02 44 22.6	+1.4
TRG				ePg	Pg	02 44 24.4	-3.3
TRG				eSn	Sn	02 44 51.3	+1.0
TRG				eSg	Sg	02 44 55.4	-3.1
TRG				Pmax			
	34nm,0.3s						
TRG				Smax			
	325nm,0.7s						
TRG	Tyrgan	2.38	205	ePg	Pg	02 44 23.3	-4.4
TRG				eS	Sn	02 44 50.2	-0.1
TRG				eSg	Sg	02 44 54.2	-4.3
ZRHB	Zarechye	2.42	192	ePn	Pn	02 44 24.4	+2.6
ZRHB				eSg	Sg	02 44 55.4	-4.7
ZRHB				max			
	66nm,0.8s						
ZRHB				Smax			
	645nm,0.8s						
YOA	Uoyan	2.44	59	eSg	Sg	02 45 00.8	+0.3
YOA				Smax			
	1µm,1.3s						
FFNB	Fofonovo	2.97	195	ePn	Pn	02 44 30.5	+1.1
FFNB				ePg	Pg	02 44 35.2	-3.9
FFNB				eSn	Sn	02 45 06.3	+1.3
FFNB				eSg	Sg	02 45 13.8	-3.8
FFNB				Pmax			
	168nm,0.2s						
FFNB				Smax			
	457nm,0.5s						
UUDB	Ulan-Yde	3.07	184	ePn	Pn	02 44 33.2	+2.5
UUDB				ePg	Pg	02 44 37.7	-3.2
UUDB				eSn	Sn	02 45 08.9	+1.5
UUDB				eSg	Sg	02 45 17.9	-2.7
UUDB				Pmax			
	29nm,0.7s						
UUDB				Smax			
	206nm,1.3s						
UKT	Uakit	3.27	78	ePn	Pn	02 44 36.0	+2.5
UKT				ePg	Pg	02 44 42.7	-2.2
UKT				eSn	Sn	02 45 15.4	+2.9
UKT				eSg	Sg	02 45 25.8	-1.5
UKT				Pmax			
	22nm,1.2s						
UKT				Smax			
	314nm,1.4s						
HRMR	Khuramsha	3.36	191	ePn	Pn	02 44 36.1	+1.4
HRMR				ePg	Pg	02 44 43.2	-3.3
HRMR				eSn	Sn	02 45 16.6	+2.0
HRMR				eSg	Sg	02 45 26.5	-3.5
HRMR				Pmax			
	86nm,0.5s						
HRMR				Smax			
	703nm,0.7s						
SVKR	Severomuysk	3.38	67	eSg	Sg	02 45 30.8	+0.1
SVKR				Smax			
	373nm,0.8s						
IRK	Irkutsk	3.48	221	ePN	Pb	02 44 44.9	+1.0
IRK				e		02 45 28.5	
LSTR	Listvyanka	3.60	213	ePn	Pn	02 44 37.8	-0.2
LSTR				ePg	Pg	02 44 45.9	-5.2
LSTR				eSn	Sn	02 45 19.2	-1.3
LSTR				eSg	Sg	02 45 30.7	-7.0
LSTR				Pmax			
	32nm,0.4s						
LSTR				Smax			
	293nm,1.4s						
TLY	Talaya	4.17	221	ePN	Pn	02 44 45.6	-0.2
TLY				e		02 44 56.7	
TLY				eS	Sn	02 45 34.3	-0.2
TLY				e		02 45 50.7	
TLY				pmax	pmax		
	comp=Z,17nm,0.6s						
TLY				smax			
	comp=E,109nm,0.6s						
TLY	Talaya	4.17	221	ePn	Pn	02 44 46.2	+0.4
TLY				ePg	Pg	02 44 56.4	-5.6
TLY				eSn	Sn	02 45 32.8	-1.7
TLY				eSg	Sg	02 45 48.6	-7.3
TLY				LR	LR	02 46 43.1	
TLY				Pmax			
	comp=E,17nm,0.6s						
TLY				Smax			
	comp=E,109nm,0.5s						
TLY	Talaya	4.17	221	ePn	Pn	02 44 45.8	0.0
TLY				ePg	Pg	02 44 56.6	-5.4
TLY				eSg	Sg	02 45 49.0	-7.0
BOD	Bodaibo	4.42	47	ePn	Pn	02 44 51.0	+1.7
BOD				ePg	Pg	02 45 01.7	-5.2
BOD				eSn	Sn	02 45 40.6	-0.2
BOD				eSg	Sg	02 45 58.3	-5.8
BOD				Pmax			
	comp=E,14nm,0.5s						
BOD				Smax			
	comp=E,70nm,1.1s						
ARS	Arshan	4.49	230	ePN	Pn	02 44 51.0	+0.8
ARS				e		02 45 02.6	
ARS				e		02 46 00.3	
ARS				pmax	pmax		
	comp=Z,8.0nm,0.1s						
ARS				smax			
	comp=E,871nm,0.8s						
ARS	Arshan	4.49	230	ePn	Pn	02 44 50.7	+0.5
ARS				ePg	Pg	02 45 02.5	-5.7
ARS				eSn	Sn	02 45 40.1	-2.3
ARS				eSg	Sg	02 45 59.8	-6.5
ARS				Pmax			
	comp=E,36nm,0.6s						
ARS				Smax			
	comp=E,871nm,0.8s						
NLYR	Nelyaty	4.63	67	ePN	Pn	02 44 52.4	+0.2
NLYR				e		02 45 07.4	
NLYR				e		02 46 08.1	
NLYR				pmax	pmax		
	comp=Z,17nm,0.9s						
NLYR				smax			
	comp=E,92nm,0.9s						
NLYR	Nelyaty	4.63	67	ePg	Pg	02 45 07.1	-3.8
NLYR				eSg	Sg	02 46 08.6	-2.2
NLYR				Pmax			
	comp=E,12nm,0.8s						
NLYR				Smax			
	comp=E,92nm,0.9s						
MOY	Mondy	5.32	235	ePN	Pn	02 45 03.5	+1.9
MOY				e		02 45 18.7	
MOY				e		02 46 26.3	
MOY				pmax	pmax		
	comp=Z,9.0nm,0.4s						
MOY				smax			
	comp=E,63nm,0.7s						
MOY	Mondy	5.32	235	ePn	Pn	02 45 03.3	+1.7
MOY				eSn	Sn	02 46 01.5	-1.3
MOY				eSg	Sg	02 46 24.8	-8.0
MOY				max			
	comp=E,20nm,0.5s						
MOY				Smax			
	comp=E,70nm,0.9s						
ZAK	Zakamensk	5.38	214	ePN	Pn	02 45 04.2	+1.8
ZAK				e		02 45 18.4	
ZAK				pmax	pmax		
	comp=Z,14nm,0.5s						
ZAK	Zakamensk	5.38	214	ePg	Pb	02 45 18.5	+2.3
ZAK				eSg	Sg	02 46 27.6	-7.1
ZAK				Pmax			
	comp=Z,14nm,0.5s						
ZAK				Smax			
	comp=Z,71nm,1.2s						
ORL	Orlik	5.42	247	ePN	Pn	02 45 03.7	+0.8
ORL				e		02 45 18.8	
ORL				e		02 46 25.6	
ORL				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ORL				smax			
	comp=N,100nm,0.9s						
ORL	Orlik	5.42	247	ePn	Pn	02 45 03.9	+1.0
ORL				eSn	Sn	02 46 03.2	-2.0
ORL				eSg	Sg	02 46 27.2	-8.8
ORL				max			
	comp=N,5.0nm,0.4s						
ORL				Smax			
	comp=N,100nm,1.4s						
CRS	Chara	6.11	67	ePG	Pg	02 45 35.4	-3.6
CRS				e		02 46 54.0	
CRS				pmax	pmax		
	comp=Z,19nm,1.1s						
CRS				smax			
	comp=E,55nm,1.2s						
CRS	Chara	6.11	67	ePg	Pg	02 45 34.8	-4.2
CRS				eSg	Sg	02 46 55.9	-2.1
CRS				Pmax			
	comp=E,5.0nm,1.0s						
CRS				Smax			
	comp=E,55nm,1.5s						
TUP	Tupik	6.95	89	ePN	Pn	02 45 26.2	+2.2
TUP				e		02 45 48.8	
TUP				e		02 47 20.4	
TUP				pmax	pmax		
	comp=Z,3.0nm,0.5s						
TUP				smax			
	comp=N,49nm,1.3s						
TUP	Tupik	6.95	89	ePn	Pn	02 45 25.8	+1.8
TUP				eSg	Sg	02 47 20.2	-4.9
TUP				Smax			
	comp=N,49nm,1.4s						
SONM	Songino Array	7.17	189	Pn	Pn	02 45 29.2	+2.2
	comp=N,0.3nm,0.3s,baz=2.5,slow=15,SNR=9.4						
SONM				Sn	Sn	02 46 50.9	+2.5
	comp=N,0.3nm,0.3s,baz=3.7,slow=29,SNR=5.8						
SONM				Lg		02 47 26.4	
	comp=N,1.2nm,0.3s,baz=7.7,slow=27,SNR=8.8						
SONM	Songino Array	7.17	189	Pn	Pn	02 45 29.2	+2.2
SONM				Sn	Sn	02 46 50.9	+2.5
TDJR	Todzha	7.51	255	ePg	Pb	02 45 56.0	+3.6
TDJR				eSg	Sg	02 47 31.0	-12
ZALV	Zalesovo Beam	13.52	275	Pn	Pn	02 46 53.9	+0.1
	comp=N,0.1nm,0.3s,baz=104,slow=6.1,SNR=2.5						
ZALV				Lg		02 50 46.0	
	comp=N,0.5nm,0.3s,baz=82,slow=30,SNR=3.9						
MKAR	Makanchi Array	18.07	254	P	Pn	02 47 52.0	-1.2
	comp=N,0.1nm,0.3s,baz=56,slow=12,SNR=8.3						
KURK	Kurchatov	18.18	269	P	Pn	02 47 53.5	-0.9
	comp=N,0.1nm,0.3s,baz=63,slow=11,SNR=5.4						
BVAR	Borovoye Array	22.03	281	P	P	02 48 36.9	+0.4
	comp=N,0.5nm,0.3s,mb3.4,baz=89,slow=13,SNR=5.5						
TKM2	Tokmak 2	24.21	254	P	P	02 48 60.0	+1.3
	comp=N,0.5nm,0.4s,mb3.3						
YKA	Yellowknife Ar	58.27	22	P	P	02 53 35.6	-0.7
	comp=N,0.1nm,0.4s,mb3.2,baz=335,slow=7.3,SNR=4.5						

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*NIED **19** 02:48:00, 28°.80N×142°.40E, h11^{km}, Mw4.0 Best double couple: M$_0$1.20000×10^{15} NP1:φ$_s$139.00000°, δ88.00000°, λ-103.00000°. NP2:φ$_s$38.00000°, δ13.00000°, λ-11.00000°.*

*IDC **19** 02:48:02.6±0.8, 28°.82N×142°.60E, h0^{km}, mb4.0/14, mb1 4.1/16, mb1mx4.0/25, mbtmp3.9/16, ML3.5/2, MS3.1/1, Ms1 3.1/1, ms1mx2.4/38, Error ellipse: s-maj=22.9km s-min=18.3km az=78.0*

*ISCJB **19** 02:48:03.1±4.0, 28°.84N±0°.06×142°.5E±0°.1, h13^{km}±24^{km}, mb4.0/13, Error ellipse: s-maj=21.1km s-min=9.4km az=0.9*

*JMA **19** 02:48:05.7±0.1, 28°.84N×142°.42E, h50^{km}, M4.0*

*NEIC **19** 02:48:08.0±0.7, 28°.83N×142°.52E, h35^{km}, MG4.0(JMA), Error ellipse: s-maj=18.7km s-min=15.9km az=47.0*

ISC 19 02:48:04.9±4.4, **28°.78N**±0°.06×**142°.6E**±0°.1, **h15^{km}**±27^{km}, **n23, σ0^{s}.84**/25, **mb4.0**/13, **Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.71	192	P	Pn	02 48 34.4	+0.2
CBIJ				S	Sn	02 48 55.7	-0.1
CBIJ	Chichi jima	1.71	192	Pn	Pn	02 48 34.6	+0.4
	10nm,0.3s,baz=78,slow=23,SNR=5.9						
CBIJ				Sn	Sn	02 48 55.2	-0.6
	29nm,0.3s,baz=100,slow=22,SNR=11						
JHU	Hanno	7.58	339	P	Pn	02 49 55.6	+0.8
JHU				S	Sn	02 51 13.3	-7.2
JRY	Ryogami san	7.85	338	P	Pn	02 49 57.7	-0.9
JRY				S	Sn	02 51 22.6	-4.6
MJAR	Matsushiro Arr	8.57	336	Pn	Pn	02 50 07.1	-1.3
	0.8nm,0.3s,baz=155,slow=10,SNR=5.7						
JOW	Kunigami	12.80	265	LR	LR	02 55 27.1	
	comp=Z,78nm,18.3s,baz=125,slow=35						
KSRS	Korea Array	15.00	309	Pn	Pn	02 51 37.4	+1.1
	0.1nm,0.3s,baz=114,slow=12,SNR=2.6						
SONM	Songino Array	33.76	314	P	P	02 54 45.7	-0.2
	0.9nm,0.8s,mb3.7,baz=119,slow=6.6,SNR=5.9						
CMAR	Chiang Mai Arr	41.08	265	P	P	02 55 47.5	-0.7
	1.0nm,0.3s,mb3.9,baz=66,slow=7.0,SNR=3.3						
ZALV	Zalesovo Beam	48.46	318	P	P	02 56 47.4	+0.8
	0.4nm,0.3s,mb3.9,baz=91,slow=10,SNR=2.2						
WRA	Warramunga Arr	49.08	190	P	P	02 56 51.6	-0.1
	5.7nm,1.0s,mb4.6,baz=11,slow=8.3,SNR=16						
MKAR	Makanchi Array	49.68	309	P	P	02 56 56.1	0.0
	0.9nm,0.7s,mb3.9,baz=89,slow=10.0,SNR=10						
KURK	Kurchatov	52.06	314	P	P	02 57 14.2	+0.3
	2.0nm,0.6s,mb4.2,baz=90,slow=7.8,SNR=9.2						
BVAR	Borovoye Array	57.05	317	P	P	02 57 50.0	-0.2
	1.4nm,0.6s,mb4.2,baz=87,slow=7.0,SNR=7.1						
AKTK	Aktyubinsk	65.07	315	P	P	02 58 45.0	+0.3
AKTO	Aktyubinsk	65.07	315	P	P	02 58 45.0	+0.3
	1.6nm,0.6s,mb4.2,baz=80,slow=13,SNR=4.7						
YKA	Yellowknife Ar	70.50	29	P	P	02 59 17.7	-0.9
	0.6nm,0.7s,mb3.6,baz=294,slow=6.6,SNR=8.7						
NVAR	Mina Array Bea	79.22	52	P	P	03 00 09.9	+0.4
	0.5nm,0.8s,baz=280,slow=4.4,SNR=4.0						
NOA	NORSAR Array B	82.18	338	P	P	03 00 26.1	+1.2
	1.1nm,0.9s,mb3.8,baz=42,slow=5.3,SNR=2.4						
BRTR	Keskin Array B	85.11	313	P	P	03 00 39.8	-0.7
	0.9nm,0.7s,mb4.0,baz=6.3,slow=14,SNR=2.4						
ULM	Lac du Bonnet	85.85	33	P	P	03 00 42.2	-1.7
	1.4nm,0.5s,mb4.5,baz=3.9,slow=3.2,SNR=3.0						
TXAR	Lajitas Array	94.33	53	P	P	03 01 26.1	+1.9
	0.5nm,1.0s,mb3.9,baz=317,slow=4.9,SNR=3.3						
TORD	Torodi Ar. Bea	123.72	312	PKP	PKPdf	03 07 05.2	+2.3
	0.4nm,1.1s,baz=195,slow=2.9,SNR=3.3						

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*BUC **19** 03:17:52.0±0.7, 44°.64N×25°.77E, h1^{km}±7^{km}, MD3.1/3, Error ellipse: s-maj=6.2km s-min=3.2km az=99.0*

*ISCJB **19** 03:17:53.7±1.2, 44°.69N±0°.03×25°.75E±0°.04, h5^{km}±9^{km}, Error ellipse: s-maj=5.8km s-min=5.1km az=178.3*

*CSEM **19** 03:17:53.4±0.2, 44°.65N×25°.75E, h5^{km}, MD3.1/3*

*SOF **19** 03:17:59.5, 44°.37N×25°.67E, h36^{km}, MD2.8*

ISC 19 03:17:54.4±0.8, **44°.68N**±0°.03×**25°.75E**±0°.05, **h7^{km}**±7^{km}, **n25, σ1^{s}.09**/39, **6C-12D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLR	Muntele Rosu	0.83	10	⇓iP	Pg	03 18 10.0	-0.2
MLR				i S	Sg	03 18 22.0	+1.0
MLR	Muntele Rosu	0.83	10	⇓iP	Pg	03 18 10.0	-0.2
MLR				i S	Sg	03 18 22.0	+1.0
VOIR		0.91	327	⇑iP	Pg	03 18 10.8	-1.0
VOIR				i S	Sg	03 18 24.4	+0.8
VOIR		0.91	327	⇑iP	Pg	03 18 10.8	-1.0
VOIR				i S	Sg	03 18 24.4	+0.8
ZIMR		1.05	195	i S	Sg	03 18 29.1	+0.8
VRI	Vrincioaia	1.38	30	⇑iP	Pn	03 18 19.2	-0.7
VRI	Vrincioaia	1.38	30	⇑iP	Pn	03 18 19.2	-0.7
SZH	Strazhica	1.42	174	P	Pn	03 18 18.6	-1.9
SZH				S	Sb	03 18 38.9	-0.3
HARR	Harsova	1.56	89	⇓iP	Pn	03 18 21.2	-1.2
HARR				i S	Sn	03 18 42.4	-0.4
HARR	Harsova	1.56	89	⇓iP	Pn	03 18 21.2	-1.2
HARR				i S	Sn	03 18 42.4	-0.4
PRD	Provadia	1.90	140	eP	Pn	03 18 27.9	+0.8
PRD				S	Sn	03 18 53.5	+2.3
TIRR	Tirgusor	1.92	96	⇓iP	Pn	03 18 26.4	-1.0
TIRR				i S	Sn	03 18 51.8	+0.1
TIRR	Tirgusor	1.92	96	⇓iP	Pn	03 18 26.4	-1.0
TIRR				i S	Sn	03 18 51.8	+0.1
PSN	Preselentsi	2.02	119	P	Pn	03 18 30.8	+2.1
GZR	Gura Zlata	2.22	290	⇓iP	Pn	03 18 31.3	-0.3
GZR				i S	Sn	03 19 01.0	+1.7
GZR	Gura Zlata	2.22	290	⇓iP	Pn	03 18 31.3	-0.3
GZR				i S	Sn	03 19 01.0	+1.7
TLCR		2.24	76	⇓iP	Pn	03 18 31.7	-0.1
TLCR				i S	Sn	03 18 59.9	+0.3
TLCR		2.24	76	⇓iP	Pn	03 18 31.7	-0.1
TLCR				i S	Sn	03 18 59.9	+0.3
ZAPS	Zavoj	2.65	239	ePn	Pn	03 18 41.5	+4.1
BURAR	Bucovina Array	2.96	353	⇓iP	Pn	03 18 41.7	0.0
BURAR	Bucovina Array	2.96	353	⇓iP	Pn	03 18 41.7	0.0
BZS	Buzias	3.07	289	⇑iP	Pn	03 18 43.5	+0.3
BZS	Buzias	3.07	289	⇑iP	Pn	03 18 43.5	+0.3
BARS	Barje	3.40	238	ePn	Pn	03 18 47.0	-0.8
DIVS	Divibare	4.17	264	ePn	Pn	03 18 56.0	-2.2

IDC 19 03:36:14.2±1.9, **16°.47S**×**178°.69W, h0^{km}, mb3.8**/3, **mb1 4.0**/4, **mb1mx3.7**/18, **mbtmp3.9**/4, **ML2.1**/1, **Error ellipse: s-maj=160.0km s-min=32.8km az=160.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.14	70	Pn	Pn	03 38 00.0	+0.1
	2.0nm,0.3s,baz=216,slow=23,SNR=1.8						
STKA	Stephens Creek	39.11	240	P	P	03 43 43.9	+0.4
	0.6nm,0.3s,baz=90,slow=12,SNR=2.4						
WRA	Warramunga Arr	44.65	258	P	P	03 44 28.4	-0.5
	0.4nm,0.8s,baz=95,slow=7.5,SNR=5.9						
ASAR	Alice Springs	44.94	253	P	P	03 44 31.0	-0.2
	1.8nm,0.5s,baz=88,slow=8.2,SNR=30						

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*ISCJB **19** 03:50:51.7±1.5, 20°.2S±0°.2×177°.8W±0°.2, h469^{km}±25^{km}, mb3.6/6, Error ellipse: s-maj=33.3km s-min=17.5km az=42.3*

*NEIC **19** 03:50:52.8±1.3, 20°.35S×177°.69W, h475^{km}±19^{km}, mb3.6/1, Error ellipse: s-maj=25.1km s-min=14.8km az=139.0*

*IDC **19** 03:50:57.4±3.1, 20°.51S×177°.71W, h534^{km}±38^{km}, mb3.1/5, mb1 3.4/6, mb1mx3.2/18, mbtmp3.2/6, Error ellipse: s-maj=33.7km s-min=19.9km az=154.0*

ISC 19 03:50:52.0±1.6, **20°.3S**±0°.2×**177°.7W**±0°.2, **h462^{km}**±26^{km}, **n10, σ0^{s}.80**/10, **mb3.6**/6, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.50	42	P	P	03 52 54.5	+1.4
	1.0nm,0.3s,baz=339,slow=14,SNR=2.8						
AFI				S	S	03 54 31.4	-1.1
	1.2nm,0.3s,baz=198,slow=20,SNR=3.0						

URZ	**Urewera**	18.45	193	P	P	03 54 37.6	-0.7
	2.0nm,0.3s,baz=340,slow=8.4,SNR=11						
CTA	**Charters Tower**	33.81	264	P	P	03 56 55.3	+0.8
	2.7nm,0.4s,mb4.0,baz=82,slow=7.1,SNR=3.1						
ASAR	**Alice Springs**	44.85	256	P	P	03 58 24.1	+0.1
	1.7nm,0.5s,mb3.7,baz=94,slow=7.6,SNR=22						
ASAR				S	S	04 04 22.8	-4.4
	0.9nm,0.8s,baz=94,slow=16,SNR=5.1						
WRAB	**Tennant Creek**	44.91	262	*e*P	P	03 58 24.2	-0.3
	1.3nm,0.6s,mb3.5						
WRA	**Warramunga Arr**	44.92	262	P	P	03 58 24.4	-0.2
	0.9nm,0.3s,mb3.7,baz=96,slow=7.5,SNR=42						
MJAR	**Matsushiro Arr**	70.23	323	P	P	04 01 16.7	-0.8
	1.3nm,0.5s,mb3.7,baz=136,slow=6.6,SNR=4.8						
TXAR	**Lajitas Array**	86.70	57	P	P	04 02 47.0	+0.9
	0.2nm,0.6s,mb3.0,baz=222,slow=2.4,SNR=3.3						
AKASG	**Malin Array Be**	142.99	331	PKP	PKPdf	04 09 27.5	-4.6
	0.8nm,0.4s,baz=43,slow=4.0,SNR=6.2						
BRTR	**Keskin Array B**	146.93	313	PKPbc	PKPbc	04 09 41.0	-1.0
	0.7nm,0.7s,baz=30,slow=41,SNR=3.6						

ISCJB **19** *03:58:56.9±0.1, 35°.92N±0°.01×31°.50E±0°.02, h10^{km}, mb3.9/20, Error ellipse: s-maj=2.6km s-min=1.5km az=136.1*
MOS **19** *03:58:57.1±1.8, 35°.87N×31°.64E, h33^{km}, mb4.1/17, Error ellipse: s-maj=8.6km s-min=4.5km az=125.7*
NEIC **19** *03:58:57.0, 35°.98N×31°.57E, h10^{km}, mb3.8/12, ML3.7(ATH), ML3.9(NIC), ML4.1(ISK), After ISK.*
ISK **19** *03:58:57.8, 35°.98N×31°.57E, h10^{km}, ML4.1*
DDA **19** *03:59:00.0, 36°.03N×31°.51E, h12^{km}, Md3.8*
GII **19** *03:59:01.2±0.0, 35°.92N×31°.51E, h30^{km}±1^{km}, Mb4.1/7, Md3.9/8*
CSEM **19** *03:59:01.0±0.1, 35°.98N×31°.49E, h30^{km}, mb3.9/5, Mw3.9, Error ellipse: s-maj=4.3km s-min=2.6km az=46.0*
IDC **19** *03:59:01.4±1.0, 35°.99N×31°.51E, h71^{km}±11^{km}, mb3.7/14, mb1 3.8/24, mb1mx3.8/32, mbtmp3.8/24, Error ellipse: s-maj=9.7km s-min=8.6km az=40.0*
NIC **19** *03:59:02.8±0.2, 36°.22N×31°.90E, h30^{km}, mb4.2, ML3.9, MW3.9*
HLW **19** *03:59:03.3, 35°.89N×31°.52E, h35^{km}, Mb4.1*
NSSC **19** *03:59:18, 35°.79N×33°.12E, h40^{km}*
ATH **19** *03:59:20.8, 36°.21N×29°.59E, h40^{km}±7^{km}, MD4.0/8, ML3.7*
ISC 19 03:58:58.6±0.1, **35°.95N**±0°.01×**31°.51E**±0°.02, **h10^{km}, n325,** σ1^{s}.**18**/391, **mb3.9**/20, **7C-14D, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANTB	**Antalya**	1.18	324	*e*PN	Pn	03 59 20.7	-0.4
ANTB	**Antalya**	1.18	324	*e*Pn	Pn	03 59 20.7	-0.4
ALFC	**Alevga**	1.18	131	P	Pb	03 59 21.0	-0.1
	61nm,0.2s						
ALFC				S	Sb	03 59 35.7	-0.8
ALFC	**Alevga**	1.18	131	P	Pb	03 59 21.0	-0.1
	61nm,0.2s						
ALFC				S	Sb	03 59 35.7	-0.8
PPCY	**Paphos**	1.26	147	P	Pg	03 59 24.0	+1.3
PPCY				S	Sg	03 59 40.1	+1.1
PPCY	**Paphos**	1.26	147	P	Pg	03 59 24.0	+1.3
PPCY				S	Sg	03 59 40.1	+1.1
HDMB	**Hadim**	1.28	37	*e*PN	Pn	03 59 21.4	-1.1
HDMB				*e*SN	Sn	03 59 38.7	-1.1
LEF	**Lefka**	1.39	126	*e*PN	Pn	03 59 22.9	-1.1
LEF	**Lefka**	1.39	126	*e*Pn	Pn	03 59 22.9	-1.1
ELL	**Elmali**	1.52	302	*e*PN	Pn	03 59 26.0	+0.2
ELL	**Elmali**	1.52	302	*e*Pn	Pn	03 59 26.0	+0.2
AKAS	**Kas**	1.57	281	*i* P	Pn	03 59 27.0	+0.5
AKAS	**Kas**	1.57	281	*i* P	Pn	03 59 27.0	+0.5
KSL	**Kastellorizon**	1.58	278	*e*P	Pn	03 59 27.5	+0.9
KSL	**Kastellorizon**	1.58	278	*e*P	Pn	03 59 27.5	+0.9
SZAC	**Souni-Zanaja**	1.63	136	P	Pg	03 59 28.1	-1.7
	32nm,0.3s						
SZAC				S	Sn	03 59 47.8	-0.5
SZAC	**Souni-Zanaja**	1.63	136	P	Pg	03 59 28.1	-1.7
	32nm,0.3s						
SZAC				S	Sn	03 59 47.8	-0.5
BCK	**Bucak**	1.69	334	*e*PN	Pn	03 59 27.8	-0.2
BCK	**Bucak**	1.69	334	*e*Pn	Pn	03 59 27.8	-0.2
LFK	**Lefkose**	1.77	111	*e*PN	Pn	03 59 28.8	-0.5
LFK	**Lefkose**	1.77	111	*e*Pn	Pn	03 59 28.8	-0.5
CSS	**Prodhromos**	1.78	123	P	Pn	03 59 28.4	-0.9
CSS				S	Sn	03 59 48.8	-3.2
CSS	**Prodhromos**	1.78	123	*e*Pn	Pn	03 59 27.9	-1.4
CSS				S	Sn	03 59 48.8	-3.2
CSS	**Prodhromos**	1.78	123	*e*Pn	Pn	03 59 27.9	-1.4
CSS	**Prodhromos**	1.78	123	P	Pn	03 59 28.4	-0.9
CSS				S	Sn	03 59 48.8	-3.2
IKL	**Isikli**	1.78	80	*e*PN	Pn	03 59 28.8	-0.6
IKL	**Isikli**	1.78	80	*e*Pn	Pn	03 59 28.8	-0.6
ISP	**Isparta**	2.06	337	*e*PN	Pn	03 59 33.1	0.0
ISP	**Isparta**	2.06	337	*e*Pn	Pn	03 59 32.9	-0.3
ISP				*e*Sn	Sn	03 59 56.8	-2.1
ISP	**Isparta**	2.06	337	Pn	Pn	03 59 33.0	-0.2
ISP				Sn	Sn	03 59 58.5	-0.4
FETY	**Fethiye**	2.08	290	*e*PN	Pn	03 59 34.7	+1.2
FETY	**Fethiye**	2.08	290	*e*Pn	Pn	03 59 34.7	+1.2
EREN	**Erenkoy**	2.20	100	*e*PN	Pn	03 59 34.9	-0.2
EREN	**Erenkoy**	2.20	100	*e*Pn	Pn	03 59 34.9	-0.2
DALT	**Dalyan (Mudla)**	2.46	290	*e*PN	Pn	03 59 39.8	+1.0
DALT	**Dalyan (Mudla)**	2.46	290	*e*Pn	Pn	03 59 39.8	+1.1
TURN	**Turunc**	2.52	292	*i* P	Pg	03 59 43.8	-3.1
TURN				*i* S	Sg	04 00 15.0	-4.7
TURN	**Turunc**	2.52	292	*i* P	Pg	03 59 43.8	-3.1
TURN				*i* S	Sg	04 00 15.0	-4.6
MERS	**Mersin**	2.59	68	*e*PN	Pn	03 59 40.8	+0.2
MERS	**Mersin**	2.59	68	*e*Pn	Pn	03 59 40.8	+0.2
DENT	**Denizli**	2.69	313	*e*PN	Pn	03 59 42.6	+0.8
DENT	**Denizli**	2.69	313	*e*Pn	Pn	03 59 42.6	+0.8
SHUT	**Suhut-Afyon**	2.71	344	*e*PN	Pn	03 59 42.4	+0.2
SHUT	**Suhut-Afyon**	2.71	344	*e*Pn	Pn	03 59 42.4	+0.2
ARG	**Arkhangelos**	2.76	277	*e*P	Pn	03 59 43.0	+0.2
ARG	**Arkhangelos**	2.76	277	*e*P	Pn	03 59 43.0	+0.2
SULT	**Sultanhani-AKS**	2.76	35	*e*PN	Pn	03 59 42.3	-0.5
SULT	**Sultanhani-AKS**	2.76	35	*e*Pn	Pn	03 59 42.3	-0.5
KHL	**Karahalli**	2.86	327	*e*PN	Pn	03 59 44.7	+0.5
KHL	**Karahalli**	2.86	327	*e*Pn	Pn	03 59 44.7	+0.5
YER	**Yerkesik**	2.86	295	*e*PN	Pn	03 59 45.3	+1.1
YER	**Yerkesik**	2.86	295	*e*Pn	Pn	03 59 45.3	+1.1
KHAL	**Karahalli**	2.91	327	*i* P	Pn	03 59 46.1	+1.2
KHAL				*i* S	Sn	04 00 19.0	-0.9
KHAL	**Karahalli**	2.91	327	*i* P	Pn	03 59 46.1	+1.2
KHAL				*i* S	Sn	04 00 19.0	-0.9
KRTS	**Karatas**	3.18	78	*e*PN	Pn	03 59 49.1	+0.4
KRTS	**Karatas**	3.18	78	*e*Pn	Pn	03 59 49.1	+0.5
DAT	**Datca**	3.27	285	*e*PN	Pn	03 59 50.5	+0.7
DAT	**Datca**	3.27	285	*e*Pn	Pn	03 59 50.5	+0.6
NIG	**Nigde**	3.29	48	*e*PN	Pn	03 59 50.2	+0.1
NIG	**Nigde**	3.29	48	*e*Pn	Pn	03 59 50.2	+0.1
MLSB	**Milas**	3.29	295	*e*PN	Pn	03 59 51.2	+1.1
MLSB	**Milas**	3.29	295	*e*Pn	Pn	03 59 51.2	+1.0
ALT	**Altintas**	3.30	341	*e*PN	Pn	03 59 50.7	+0.4
ALT	**Altintas**	3.30	341	*e*Pn	Pn	03 59 50.7	+0.5
AYDN	**Tasoluk**	3.38	301	*i* P	Pn	03 59 52.2	+0.9
AYDN				*i* S	Sn	04 00 29.9	-1.6
AYDN	**Tasoluk**	3.38	301	*i* P	Pn	03 59 52.2	+0.8
AYDN				*i* S	Sn	04 00 29.9	-1.7
KULA	**Kula-Manisa**	3.43	319	*e*PN	Pn	03 59 53.0	+0.9
KULA	**Kula-Manisa**	3.43	319	*e*Pn	Pn	03 59 53.0	+1.0
BDRM	**Kayabasi**	3.46	290	*i* P	Pn	03 59 53.4	+0.9
BDRM				*i* S	Sn	04 00 32.5	-1.1
BDRM	**Kayabasi**	3.46	290	*i* P	Pn	03 59 53.4	+0.9
BDRM				*i* S	Sn	04 00 32.5	-1.1
SVRH	**Sivrihisar-ESK**	3.50	0	*e*PN	Pn	03 59 53.1	+0.1
SVRH	**Sivrihisar-ESK**	3.50	0	*e*Pn	Pn	03 59 53.1	+0.2
GDZ	**Gediz**	3.53	333	*i* P	Pn	03 59 54.0	+0.6
GDZ				*i* S	Sn	04 00 34.1	-1.1
GDZ	**Gediz**	3.53	333	*i* P	Pn	03 59 54.0	+0.6
GDZ				*i* S	Sn	04 00 34.1	-1.1
KARP	**Karpathos**	3.56	265	*e*P	Pn	03 59 54.6	+0.7
KARP	**Karpathos**	3.56	265	*e*P	Pn	03 59 54.6	+0.7
BODT	**Bodrum**	3.56	289	*e*PN	Pn	03 59 54.6	+0.7
BODT	**Bodrum**	3.56	289	*e*Pn	Pn	03 59 54.6	+0.7
ESKT	**Eskisehir**	3.61	352	*e*PN	Pn	03 59 55.0	+0.5
ESKT	**Eskisehir**	3.61	352	*i* P	Pn	03 59 55.0	+0.6
ESKT				*i* S	Sn	04 00 31.6	-5.5
ESKT	**Eskisehir**	3.61	352	*e*Pn	Pn	03 59 55.0	+0.5
SEYT	**Eskypehyr**	3.61	352	*i* S	Sn	04 00 31.6	-5.5
HTY	**Hatay**	3.75	86	*e*PN	Pn	03 59 57.4	+0.9
HTY	**Hatay**	3.75	86	*e*Pn	Pn	03 59 57.4	+0.9
KOZT	**Kozan**	3.79	65	*e*PN	Pn	03 59 56.9	-0.1
BALAT	**Bala**	3.82	19	*i* P	Pn	03 59 57.8	+0.3
BALAT				*i* S	Sn	04 00 41.7	-0.7
KAMT	**Kaman**	3.84	26	*e*PN	Pn	03 59 58.2	+0.6
KAMT	**Kaman**	3.84	26	*e*Pn	Pn	03 59 58.2	+0.6
SLNF	**Slenfeh**	3.84	94	⇑P	Pn	03 59 58.0	+0.3
SLNF				⇑S	Sn	04 00 25.0	-18
GCAM	**G?zelcaml?**	3.85	298	*i* P	Pn	03 59 58.2	+0.3
GCAM				*i* S	Sn	04 00 38.6	-4.6
GCAM	**G?zelcaml?**	3.85	298	*i* P	Pn	03 59 58.2	+0.3
GCAM				*i* S	Sn	04 00 38.6	-4.6
BHL	**Bhannes**	3.96	120	*e*Pn	Pn	04 00 00.3	+0.9
BHL	**Bhannes**	3.96	120	*e*Pn	Pn	04 00 00.3	+0.9
HWQ	**Hawqa**	4.00	113	*e*Pn	Pn	04 00 01.1	+1.3
HWQ	**Hawqa**	4.00	113	*e*Pn	Pn	04 00 01.1	+1.3
WRDH	**Warideh**	4.01	95	⇓P	Pn	04 00 00.0	0.0
WRDH				⇓S	Sn	04 00 29.0	-18
BTCH	**Batrach**	4.01	87	⇓P	Pn	03 59 59.0	-1.0
BTCH				⇓S	Sn	04 00 30.0	-17
BIDA	**Albida**	4.03	102	⇑P	Pn	04 00 00.0	-0.3
BIDA				⇑S	Sn	04 00 30.0	-18
LOD	**Lodumlu**	4.06	14	*e*PN	Pn	04 00 01.1	+0.4
LOD	**Lodumlu**	4.06	14	*e*Pn	Pn	04 00 01.1	+0.4
BRTR	**Keskin Array B**	4.13	23	P	Pn	04 00 02.2	+0.5
BRTR				S	Sn	04 00 49.3	-0.7
BRTR				pmax	pmax		
	comp=Z,12nm,0.3s						
BRTR				smax			
	comp=N,4.0nm,0.3s						
BRTR	**Keskin Array B**	4.13	23	P	Pn	04 00 02.1	+0.5
	comp=N,12nm,0.3s,baz=189,slow=15,SNR=366						
BRTR				S	Sn	04 00 49.3	-0.7
	comp=N,3.9nm,0.3s,baz=191,slow=26,SNR=5.4						
BRTR	**Keskin Array B**	4.13	23	P	Pn	04 00 02.2	+0.5
	comp=N,12nm,0.3s						
BRTR				S	Sn	04 00 49.3	-0.7
	comp=N,4.0nm,0.3s						
SMG	**Samos**	4.14	297	*e*P	Pn	04 00 03.0	+1.1
SMG	**Samos**	4.14	297	*e*P	Pn	04 00 03.0	+1.1
HNTI	**Hanita**	4.16	132	Pn	Pn	04 00 02.5	+0.5
HNTI				Sn	Sn	04 00 49.3	-1.4
IZM	**Izmir**	4.18	307	*e*PN	Pn	04 00 03.6	+1.2
DRWC	**Darouich**	4.22	79	⇑P	Pn	04 00 03.0	+0.1
DRWC				⇑S	Sn	04 00 37.0	-15
DST	**Dursunbey**	4.31	329	*e*PN	Pn	04 00 05.5	+1.4
DST	**Dursunbey**	4.31	329	*e*Pn	Pn	04 00 05.5	+1.4
RCY	**Rachaya**	4.31	123	*e*Pn	Pn	04 00 05.0	+0.8
RCY	**Rachaya**	4.31	123	*e*Pn	Pn	04 00 05.0	+0.8
MMA0	**Mount Meron ar**	4.34	131	Pn	Pn	04 00 05.2	+0.6
MMA0				Sn	Sn	04 00 54.7	-0.6
MMAI	**Mount Meron Ar**	4.34	131	P	Pn	04 00 05.5	+0.9
	comp=N,51nm,0.3s,baz=316,slow=13,SNR=112						
MMAI				S	Sn	04 00 54.5	-0.8
	comp=N,78nm,0.3s,baz=328,slow=28,SNR=12						
KSDI	**Kefar Szold**	4.39	128	Pn	Pn	04 00 06.2	+1.0
KSDI				Sn	Sn	04 00 55.7	-0.6
OFRI	**‘Ofer**	4.39	138	Pn	Pn	04 00 05.5	+0.3
ZKR	**Zakros**	4.40	261	P	Pn	04 00 06.4	+1.0
ZKR	**Zakros**	4.40	261	P	Pn	04 00 06.4	+1.0
BLGI	**Bet Lehem HaGe**	4.42	135	Pn	Pn	04 00 07.0	+1.4
BRBR	**Barbar**	4.45	123	⇓P	Pn	04 00 08.0	+2.0
BRBR				⇓S	Sn	04 00 45.0	-13
CAVI	**Cavuskoy**	4.45	343	*e*PN	Pn	04 00 07.0	+0.9
CAVI	**Cavuskoy**	4.45	343	*e*Pn	Pn	04 00 07.0	+1.0
BNN	**Bunyan**	4.51	49	*e*PN	Pn	04 00 07.8	+1.0
BNN	**Bunyan**	4.51	49	*e*Pn	Pn	04 00 07.8	+1.0
MDU	**Mudurnu**	4.52	357	*e*PN	Pn	04 00 07.6	+0.6
MDU	**Mudurnu**	4.52	357	*e*Pn	Pn	04 00 07.6	+0.6
KMRS	**Kahramanmaras**	4.60	69	*e*PN	Pn	04 00 08.4	+0.3
KMRS	**Kahramanmaras**	4.60	69	*e*Pn	Pn	04 00 08.4	+0.3
QASN	**Qassioun**	4.60	120	⇑P	Pn	04 00 10.0	+1.9
QASN				⇑S	Sn	04 00 47.0	-15
URLA	**Izmir**	4.61	303	*i* P	Pn	04 00 08.0	-0.3
URLA				*i* S	Sn	04 00 59.2	-2.6
URLA	**Izmir**	4.61	303	*i* P	Pn	04 00 08.0	-0.2
URLA				*i* S	Sn	04 00 59.2	-2.6
BALB	**Balikesir**	4.68	323	*e*PN	Pn	04 00 10.8	+1.7
BALB	**Balikesir**	4.68	323	*e*Pn	Pn	04 00 10.8	+1.6
ADVT	**Abdulvahap**	4.69	343	*e*PN	Pn	04 00 10.3	+0.9
ADVT	**Abdulvahap**	4.69	343	*e*Pn	Pn	04 00 10.3	+0.9
SLTI	**Sal’it**	4.71	141	Pn	Pn	04 00 09.9	+0.2
SLTI				Sn	Sn	04 01 03.2	-1.2
GAZ	**Gaziantep**	4.75	73	*e*PN	Pn	04 00 10.6	+0.4
GAZ	**Gaziantep**	4.75	73	*e*Pn	Pn	04 00 10.6	+0.5
YOZ	**Yozgat**	4.76	38	*e*PN	Pn	04 00 11.2	+0.9
YOZ	**Yozgat**	4.76	38	*e*Pn	Pn	04 00 11.2	+0.9
MMLI	**Mount Malkishu**	4.77	136	Pn	Pn	04 00 11.0	+0.6
MMLI				Sn	Sn	04 01 04.7	-1.0
TOTH	**TOTAH**	4.80	121	⇑P	Pn	04 00 13.0	+2.1
NPS	**Neapolis**	4.86	264	*e*P	Pn	04 00 12.8	+1.1
NPS	**Neapolis**	4.86	264	*e*P	Pn	04 00 12.8	+1.1
BALY	**Balya**	4.88	322	*i* P	Pn	04 00 13.7	+1.7
BALY				*i* S	Sn	04 01 06.1	-2.5
BALY	**Balya**	4.88	322	*i* P	Pn	04 00 13.7	+1.7
BALY				*i* S	Sn	04 01 06.1	-2.5
CANT	**Cankiri**	4.94	19	*e*PN	Pn	04 00 13.2	+0.5
SARI	**SarD1z-Kayseri**	4.95	55	*e*PN	Pn	04 00 09.5	-3.5
HMDT	**Nahal Hemdat**	4.96	137	Pn	Pn	04 00 13.9	+0.8
HMDT				Sn	Sn	04 01 09.9	-0.7
AYVA	**Ayvalik**	5.09	313	*e*P	Pn	04 00 18.0	+3.1
AYVA				*i* S	Sn	04 01 10.9	-2.8
AYVA	**Ayvalik**	5.09	313	*e*P	Pn	04 00 18.0	+3.1
AYVA				*i* S	Sn	04 01 10.9	-2.8
PRK	**Paraskevi**	5.31	310	*e*P	Pn	04 00 22.0	+4.2
PRK	**Paraskevi**	5.31	310	*e*P	Pn	04 00 22.0	+4.2
SALA	**Sala**	5.39	125	⇑P	Pn	04 00 22.0	+3.0
DSI	**Dead Sea**	5.42	142	Pn	Pn	04 00 19.5	+0.1
DSI				Sn	Sn	04 01 20.9	-1.0
IDI	**Anoyia**	5.44	265	P	Pn	04 00 19.6	0.0
	comp=N,23nm,0.3s,baz=59,slow=12,SNR=112						
IDI				S	Sn	04 01 20.7	-1.5
	comp=N,21nm,0.3s,baz=274,slow=19,SNR=5.0						
IDI	**Anoyia**	5.44	265	*e*Pn	Pn	04 00 19.2	-0.4
	comp=N,51nm,0.3s						
IDI				*e*Sn	Sn	04 01 18.1	-4.1
IDI	**Anoyia**	5.44	265	*e*Pn	Pn	04 00 19.2	-0.4
	comp=N,51nm,0.3s						
TOS	**Tosya**	5.45	20	*e*PN	Pn	04 00 20.4	+0.6
TOS	**Tosya**	5.45	20	*e*Pn	Pn	04 00 20.4	+0.6
AMAG	**Maghara**	5.47	165	P	Pn	04 00 20.3	+0.1
AMAG	**Maghara**	5.47	165	P	Pn	04 00 20.3	+0.1
MZDA	**Masada**	5.63	144	Pn	Pn	04 00 23.1	+0.8
MZDA				Sn	Sn	04 01 26.2	-0.8
DARE	**Darende-Malaty**	5.83	57	*e*PN	Pn	04 00 20.9	-4.2
ASF	**Jabal al Asfar**	5.84	129	P	Pn	04 00 26.2	+1.0
ASF				S	Sn	04 01 36.2	+4.0
ASF				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASF				smax			
	comp=N,6.0nm,0.3s						
ASF	**Jabal al Asfar**	5.84	129	P	Pn	04 00 26.2	+1.0
	comp=N,4.3nm,0.3s,baz=186,slow=15,SNR=35						
ASF				S	Sn	04 01 36.2	+4.0
	comp=N,6.0nm,0.3s,baz=49,slow=18,SNR=3.5						
VAM	**Vamos**	5.98	267	*e*P	Pn	04 00 28.5	+1.4
KOT	**Kottamia**	6.01	177	P	Pn	04 00 27.6	+0.1
KOT				S	Sn	04 01 30.5	-5.8
KOT	**Kottamia**	6.01	177	P	Pn	04 00 27.6	+0.1
MALT	**Malatya**	6.01	65	⇓*i*P	Pn	04 00 28.0	+0.5
MALT	**Malatya**	6.01	65	*e*Pn	Pn	04 00 27.0	-0.4
MALT	**Malatya**	6.01	65	Pn	Pn	04 00 27.5	0.0
MALT				Sn	Sn	04 01 36.2	-0.1
MALT	**Malatya**	6.01	65	P	Pn	04 00 28.0	+0.5
SUZ		6.19	169	P	Pn	04 00 30.5	+0.5
SUZ		6.19	169	P	Pn	04 00 30.5	+0.5
ZFRI	**Zfri**	6.19	149	Sn	Sn	04 01 40.1	-0.7
AYT	**Al ‘Ayyat**	6.23	183	P	Pn	04 00 31.2	+0.6
AYT	**Al ‘Ayyat**	6.23	183	P	Pn	04 00 31.2	+0.6
PRNI	**Paran**	6.30	151	Pn	Pn	04 00 31.5	0.0
PRNI				Sn	Sn	04 01 40.7	-2.8
HNAT	**Natroun**	6.34	187	P	Pn	04 00 32.5	+0.5
HNAT	**Natroun**	6.34	187	P	Pn	04 00 32.5	+0.4
HNKL	**Nakhl**	6.35	160	P	Pn	04 00 33.0	+0.8
HNKL	**Nakhl**	6.35	160	P	Pn	04 00 33.0	+0.8
GLL	**Jalalah**	6.35	178	P	Pn	04 00 32.9	+0.7
GLL	**Jalalah**	6.35	178	P	Pn	04 00 32.9	+0.7
KRMI	**Paran Flat**	6.41	154	Pn	Pn	04 00 33.1	+0.1
KRMI				Sn	Sn	04 01 44.8	-1.4
ATH	**Athens Observa**	6.56	290	*e*P	Pn	04 00 36.4	+1.3
ZNM		6.65	170	P	Pn	04 00 36.9	+0.6
ZNM		6.65	170	P	Pn	04 00 36.9	+0.6
MBRI	**Mt Berech**	6.77	154	Pn	Pn	04 00 38.0	+0.1
MBRI				Sn	Sn	04 01 53.9	-1.1
KYTH	**Kithira**	6.87	275	*e*P	Pn	04 00 40.0	+0.7
AQBJ	**Aqaba**	6.88	153	Pn	Pn	04 00 39.8	+0.4
EIL	**Elat**	6.89	154	P	Pn	04 00 39.9	+0.2
	comp=N,2.3nm,0.3s,baz=312,slow=8.4,SNR=29						
EIL				S	Sn	04 01 56.3	-1.9
	comp=N,9.9nm,0.3s,baz=322,slow=21,SNR=9.3						
EIL	**Elat**	6.89	154	Pn	Pn	04 00 39.6	-0.1
EIL				Sn	Sn	04 01 57.3	-0.9
EIL	**Elat**	6.89	154	P	Pn	04 00 39.9	+0.2
EIL				S	Sn	04 01 56.3	-1.9
VLI	**Veliai**	6.97	279	*e*P	Pn	04 00 41.0	+0.4
HBST	**Basata**	7.24	157	P	Pn	04 00 44.9	+0.6
HBST	**Basata**	7.24	157	P	Pn	04 00 44.9	+0.5
LTBQ	**Tobruq**	7.40	241	*i* P	Pn	04 00 45.9	-0.7
	comp=N,161nm,1.4s,SNR=76						
HKAT	**Jabal Katrina**	7.69	163	P	Pn	04 00 50.8	+0.2
HKAT	**Jabal Katrina**	7.69	163	P	Pn	04 00 50.8	+0.2
ITM	**Ithomi**	7.81	282	P	Pn	04 00 53.8	+1.6
ITM	**Ithomi**	7.81	282	P	Pn	04 00 53.8	+1.6
AWBH		7.92	197	P	Pn	04 00 54.1	+0.4
AWBH				S	Sn	04 02 16.4	-6.9
AWBH		7.92	197	P	Pn	04 00 54.1	+0.4
RLS	**Riolos of Patr**	8.31	288	P	Pn	04 01 03.2	+4.1
SWA2		8.41	219	P	Pn	04 01 00.4	-0.1
SWA2				S	Sn	04 02 28.3	-7.2
TIRR	**Tirgusor**	8.83	345	⇓*i*P	Pn	04 01 07.4	+1.3
TIRR	**Tirgusor**	8.83	345	P	Pn	04 01 07.4	+1.3
VLS	**Valsamata**	9.01	288	P	Pn	04 01 10.4	+1.7
VLS	**Valsamata**	9.01	288	P	Pn	04 01 10.4	+1.7
HFRF	**Wahat Farafira**	9.19	198	P	Pn	04 01 10.7	-0.4
HFRF	**Wahat Farafira**	9.19	198	P	Pn	04 01 10.7	-0.4
TLCR		9.46	348	⇓*i*P	Pn	04 01 17.4	+2.7
TLCR		9.46	348	⇓P	Pn	04 01 17.4	+2.7
TLCR		9.46	348	P	Pn	04 01 17.4	+2.7
VRI	**Vrincioaia**	10.55	341	⇑*i*P	Pn	04 01 32.2	+2.5
VRI	**Vrincioaia**	10.55	341	⇑P	Pn	04 01 32.2	+2.5
VRI	**Vrincioaia**	10.55	341	P	Pn	04 01 32.2	+2.5
PLOR	**Plostina**	10.55	341	⇑*i*P	Pn	04 01 32.8	+3.0
GZR	**Gura Zlata**	11.53	328	⇓*i*P	Pn	04 01 47.3	+4.2
GZR	**Gura Zlata**	11.53	328	⇓P	Pn	04 01 47.3	+4.2
BZS	**Buzias**	12.22	325	⇓*i*P	Pn	04 01 54.8	+2.2
BZS	**Buzias**	12.22	325	⇓P	Pn	04 01 54.8	+2.2
BZS	**Buzias**	12.22	325	P	Pn	04 01 54.8	+2.2
VAE	**Valguarnera**	13.81	281	P	Pn	04 02 15.3	+1.0
	comp=N,2.3nm,0.3s,baz=90,slow=21,SNR=3.8						
VAE				S	Sn	04 04 44.1	-3.6
	comp=N,2.0nm,0.3s,baz=57,slow=13,SNR=3.4						
AKASG	**Malin Array Be**	14.84	354	P	Pn	04 02 26.9	-1.4
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.3s						
AKASG	**Malin Array Be**	14.84	354	P	Pn	04 02 26.9	-1.4
	comp=Z,3.1nm,0.3s,baz=177,slow=9.0,SNR=17						
KEST	**Kesra**	17.98	276	P	Pn	04 03 08.0	-0.5
	comp=Z,0.3nm,0.3s,baz=345,slow=2.0,SNR=26						
GERES	**GERESS Array B**	18.36	320	P	Pn	04 03 11.6	-1.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES	**GERESS Array B**	18.36	320	P	Pn	04 03 11.6	-1.5
	comp=Z,0.5nm,0.3s,baz=119,slow=8.1,SNR=13						
GERES	**GERESS Array B**	18.36	320	P	Pn	04 03 11.6	-1.5
	comp=Z,1.0nm,0.3s						
KHC	**Kasperske Hory**	18.60	321	*e*P	Pn	04 03 10.5	-5.5
PGF	**Pioggiola**	18.61	298	*e*P	Pn	04 03 14.7	-1.6
PGF	**Pioggiola**	18.61	298	*e*P	Pn	04 03 14.7	-1.6
MOTA	**Moosalm**	18.98	313	⇑*i*Pn	Pn	04 03 18.6	-2.0
	comp=Z,4.4nm,0.7s						
MOTA	**Moosalm**	18.98	313	Pn	Pn	04 03 18.6	-2.0
	comp=Z,4.4nm,0.7s						
FETA	**Feichten**	19.04	312	⇑*i*Pn	Pn	04 03 20.1	-1.3
	comp=Z,4.7nm,0.9s						
FETA	**Feichten**	19.04	312	Pn	Pn	04 03 20.1	-1.3
	comp=Z,4.7nm,0.9s						
RETA	**Reutte**	19.25	313	⇑*i*P	Pn	04 03 21.0	-2.9
	comp=Z,2.6nm,0.4s						
RETA	**Reutte**	19.25	313	P	Pn	04 03 21.0	-2.9
	comp=Z,2.6nm,0.4s						
DAVOX	**Davos/Dischmat**	19.45	310	P	Pn	04 03 22.2	-4.1
	comp=Z,0.2nm,0.3s,baz=138,slow=16,SNR=4.3						
DAVOX	**Davos/Dischmat**	19.45	310	P	Pn	04 03 22.2	-4.1
DAVOS	**Davos**	19.53	311	P	Pn	04 03 22.3	-5.0
BRG	**Berggiesshubel**	19.56	325	*e*P	Pn	04 03 23.7	-3.9
BRG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRG	**Berggiesshubel**	19.56	325	*e*(P)	Pn	04 03 23.7	-3.9
	comp=Z,3.3nm,0.7s						
BRG	**Berggiesshubel**	19.56	325	P	Pn	04 03 23.7	-3.9
	comp=Z,2.0nm,0.7s						
DAVA	**Damuels**	19.68	312	⇑*i*P	Pn	04 03 25.7	-3.4
	comp=Z,4.1nm,0.5s						
DAVA	**Damuels**	19.68	312	P	Pn	04 03 25.7	-3.4
	comp=Z,4.1nm,0.5s						
GRA1	**Grafenberg Arr**	20.17	319	*e*P	P	04 03 29.8	-3.1
	comp=Z,3.0nm,0.8s						
GRA1	**Grafenberg Arr**	20.17	319	*e*P	P	04 03 29.8	-3.1
	comp=Z,3.0nm,0.8s						
GRF	**Grafenberg Arr**	20.17	319	*e*P	P	04 03 29.8	-3.1
GRF				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GRF	**Grafenberg Arr**	20.17	319	*e*P	P	04 03 29.8	-3.1
GRF				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GRF	**Grafenberg Arr**	20.17	319	*e*P	P	04 03 29.8	-3.1
	comp=Z,3.0nm,0.8s						
GRF	**Grafenberg Arr**	20.17	319	*e*P	P	04 03 29.8	-3.1
	comp=Z,3.0nm,0.8s						
MBDF	**Montbardon**	20.74	303	*e*P	P	04 03 38.0	-1.2
	comp=Z,13nm,0.9s						
MBDF	**Montbardon**	20.74	303	*e*P	P	04 03 38.0	-1.2
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MBDF	**Montbardon**	20.74	303	*e*P	P	04 03 38.0	-1.2
	comp=Z,6.6nm,0.9s						
MBDF	**Montbardon**	20.74	303	*e*P	P	04 03 38.0	-1.2
	comp=Z,6.6nm,0.9s						
LPG	**La Plagne**	20.98	305	*e*P	P	04 03 40.3	-1.5
	comp=Z,4.9nm,0.6s						
LPG	**La Plagne**	20.98	305	*e*P	P	04 03 40.3	-1.5
LPG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
LPG	**La Plagne**	20.98	305	*e*P	P	04 03 40.3	-1.5
	comp=Z,2.5nm,0.6s						
LPG	**La Plagne**	20.98	305	*e*P	P	04 03 40.3	-1.5
	comp=Z,2.5nm,0.6s						
LPL	**La Plagne**	21.00	305	*e*P	P	04 03 40.6	-1.4
	comp=Z,4.3nm,0.6s,mb3.6						
LPL	**La Plagne**	21.00	305	*e*P	P	04 03 40.6	-1.4
LPL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.6						
LPL	**La Plagne**	21.00	305	*e*P	P	04 03 40.6	-1.4
	comp=Z,2.2nm,0.6s,mb3.7						
LPL	**La Plagne**	21.00	305	*e*P	P	04 03 40.6	-1.4
	comp=Z,2.2nm,0.6s,mb3.7						
ORIF	**Oris-en-Rattie**	21.40	303	*e*P	P	04 03 44.5	-1.8
ORIF	**Oris-en-Rattie**	21.40	303	*e*P	P	04 03 44.5	-1.8
HINF	**Hinteralfeld**	21.76	311	*e*P	P	04 03 47.8	-2.3
HINF	**Hinteralfeld**	21.76	311	*e*P	P	04 03 47.8	-2.3
CABF	**La Chapelle**	21.79	307	*e*P	P	04 03 49.3	-1.2
	comp=Z,4.4nm,0.6s,mb3.8						
CABF	**La Chapelle**	21.79	307	*e*P	P	04 03 49.3	-1.2
CABF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
CABF	**La Chapelle**	21.79	307	*e*P	P	04 03 49.3	-1.2
	comp=Z,2.2nm,0.6s,mb3.8						
CABF	**La Chapelle**	21.79	307	*e*P	P	04 03 49.3	-1.2
	comp=Z,2.2nm,0.6s,mb3.8						
SMF	**Signal de Mont**	23.26	306	*e*P	P	04 04 03.0	-3.1
	comp=Z,4.0nm,0.6s,mb3.8						
SMF	**Signal de Mont**	23.26	306	*e*P	P	04 04 03.0	-3.1
SMF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
SMF	**Signal de Mont**	23.26	306	*e*P	P	04 04 03.0	-3.1
	comp=Z,2.0nm,0.6s,mb3.7						
SMF	**Signal de Mont**	23.26	306	*e*P	P	04 04 03.0	-3.1
	comp=Z,2.0nm,0.6s,mb3.7						
LOR	**Lormes**	23.45	307	*e*P	P	04 04 03.9	-4.2
	comp=Z,5.7nm,0.6s,mb3.9						
LOR	**Lormes**	23.45	307	*e*P	P	04 04 03.9	-4.2
LOR				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
LOR	**Lormes**	23.45	307	*e*P	P	04 04 03.9	-4.2
	comp=Z,2.8nm,0.6s,mb3.9						
LOR	**Lormes**	23.45	307	*e*P	P	04 04 03.9	-4.2
	comp=Z,2.8nm,0.6s,mb3.9						

SSF	Saint Saulge	23.61	307	*e*P	P	04 04 06.3	-3.4
	comp=Z,4.0nm,0.6s,mb3.8						
SSF	Saint Saulge	23.61	307	*e*P	P	04 04 06.3	-3.4
SSF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
SSF	Saint Saulge	23.61	307	*e*P	P	04 04 06.3	-3.4
	comp=Z,2.0nm,0.6s,mb3.7						
SSF	Saint Saulge	23.61	307	*e*P	P	04 04 06.3	-3.4
	comp=Z,2.0nm,0.6s,mb3.7						
AVF	Avril sur Loir	23.63	306	*e*P	P	04 04 06.3	-3.5
	comp=Z,10nm,1.0s,mb3.9						
AVF	Avril sur Loir	23.63	306	*e*P	P	04 04 06.3	-3.5
AVF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb3.9						
AVF	Avril sur Loir	23.63	306	*e*P	P	04 04 06.3	-3.5
	comp=Z,5.3nm,1.0s,mb3.9						
AVF	Avril sur Loir	23.63	306	*e*P	P	04 04 06.3	-3.5
	comp=Z,5.2nm,1.0s,mb3.9						
BGF	Bois d'Agland	23.89	305	*e*P	P	04 04 09.2	-3.1
BGF	Bois d'Agland	23.89	305	*e*P	P	04 04 09.2	-3.1
AKTK	Aktyubinsk	23.98	45	P	P	04 04 09.2	-3.8
AKTO	Aktyubinsk	23.98	45	P	P	04 04 09.3	-3.7
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.1						
AKTO	Aktyubinsk	23.98	45	P	P	04 04 09.2	-3.8
	comp=Z,3.2nm,0.4s,mb4.1,baz=237,slow=6.8,SNR=13						
ETSF	Etsaut	25.62	296	*e*P	P	04 04 26.1	-2.0
	comp=Z,19nm,1.1s,mb4.2						
ETSF	Etsaut	25.62	296	*e*P	P	04 04 26.1	-2.0
ETSF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.3						
ETSF	Etsaut	25.62	296	*e*P	P	04 04 26.1	-2.0
	comp=Z,9.6nm,1.1s,mb4.2						
ETSF	Etsaut	25.62	296	*e*P	P	04 04 26.1	-2.0
	comp=Z,9.6nm,1.1s,mb4.2						
HFS	Hagfors	26.80	340	P	P	04 04 34.7	-3.8
HFS				pmax	pmax		
	comp=Z,7.0nm,1.2s						
HFS	Hagfors	26.80	340	P	P	04 04 34.7	-3.8
	comp=Z,6.8nm,1.2s,mb4.1,baz=145,slow=9.6,SNR=18						
NB2	NORSAR Subarra	28.24	339	P	P	04 04 46.4	-5.0
	comp=Z,0.9nm,0.5s,mb3.7,baz=143,slow=9.3						
NB2	NORSAR Subarra	28.24	339	P	P	04 04 46.4	-5.0
	comp=Z,0.9nm,0.5s,mb3.7,SNR=3.9						
NOA	NORSAR Array B	28.24	339	P	P	04 04 46.6	-4.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	28.24	339	P	P	04 04 46.5	-4.9
	comp=Z,1.0nm,0.6s,mb3.6,baz=142,slow=9.4,SNR=4.5						
ARCES	ARCESS Array B	33.81	356	P	P	04 05 35.3	-5.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ARCES	ARCESS Array B	33.81	356	P	P	04 05 35.3	-5.1
	comp=Z,2.8nm,0.6s,mb4.4,baz=166,slow=7.5,SNR=21						
TORD	Torodi Ar. Bea	35.13	237	P	P	04 05 50.1	-2.2
	comp=Z,1.6nm,0.8s,mb4.0,baz=31,slow=7.2,SNR=16						
MKAR	Makanchi Array	39.00	58	P	P	04 06 21.5	-3.4
MKAR						04 12 11.6	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	Makanchi Array	39.00	58	P	P	04 06 21.5	-3.5
	comp=Z,0.5nm,0.4s,mb3.6,baz=287,slow=6.3,SNR=13						
MKAR				ScP	ScP	04 12 11.6	-12
	comp=Z,0.2nm,0.6s,baz=300,slow=2.8,SNR=4.5						
MKAR	Makanchi Array	39.00	58	P	P	04 06 21.5	-3.4
	comp=Z,1.0nm,0.4s,mb3.9						
ZALV	Zalesovo Beam	40.71	47	P	P	04 06 34.0	-5.1
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
ZALV	Zalesovo Beam	40.71	47	P	P	04 06 34.0	-5.1
	comp=Z,1.1nm,0.5s,mb3.8,baz=282,slow=9.8,SNR=4.1						
SPITS	Spitsbergen Ar	42.83	355	P	P	04 06 50.8	-5.4
SPITS				pmax	pmax		
	comp=Z,17nm,1.1s						
SPITS	Spitsbergen Ar	42.83	355	P	P	04 06 50.8	-5.4
	comp=Z,17nm,1.1s,baz=305,slow=6.9,SNR=16						
DBIC	Dimbokro	44.24	238	P	P	04 07 03.9	-4.3
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
DBIC	Dimbokro	44.24	238	P	P	04 07 03.9	-4.3
	comp=Z,5.2nm,0.9s,mb4.2,baz=13,slow=8.2,SNR=5.7						
DBIC	Dimbokro	44.24	238	P	P	04 07 03.9	-4.3
SONM	Songino Array	54.94	53	P	P	04 08 24.4	-5.0
	comp=Z,0.2nm,0.4s,mb3.5,baz=292,slow=8.2,SNR=3.6						
SCHQ	Schefferville	65.89	321	P	P	04 09 38.0	-6.2
	comp=Z,1.9nm,0.8s,mb4.2,baz=53,slow=10,SNR=4.0						
YKA	Yellowknife Ar	78.18	345	P	P	04 10 51.8	-5.9
	comp=Z,0.2nm,0.5s,mb3.3,baz=23,slow=5.3,SNR=5.5						
ULM	Lac du Bonnet	82.43	329	P	P	04 11 15.3	-5.5
	comp=Z,0.8nm,0.4s,mb4.0,baz=79,slow=5.0,SNR=3.1						
ULM	Lac du Bonnet	82.43	329	P	P	04 11 15.3	-5.5
PDAR	Pinedale Array	93.98	332	P	P	04 12 10.8	-5.9
	comp=Z,0.2nm,0.6s,mb3.8,baz=15,slow=3.7,SNR=2.6						

PGC 19 03:59:35.7±1.4, 50°.59N×130°.46W, h10^{km}, ML2.9/7, Mw3.5, 5D, 214km west of Pt. Hardy, Bc Vancouver Island Region, Vancouver Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOLB	Holberg	1.48	87	Pn	Pn	04 00 00.2	-2.1
HOLB				⇑Sn	Sn	04 00 17.5	-4.3
PHC	Port Hardy	1.93	85	Pn	Pn	04 00 06.5	-2.0
PHC				⇑Sn	Sn	04 00 28.5	-4.2
MAYB	Maynard	2.10	94	⇑Pn	Pn	04 00 09.2	-1.7
MAYB				⇑Sn	Sn	04 00 33.5	-3.7
BNB	Barry Inlet	2.15	338	⇓Pn	Pn	04 00 09.7	-1.9
BNB				⇓Sn	Sn	04 00 35.4	-2.9
BBB	Bella Bella	2.17	42	⇑Pn	Pn	04 00 10.3	-1.5
BBB				⇑Sn	Sn	04 00 35.0	-3.8
WOSB	Woss	2.52	98	⇓Pn	Pn	04 00 15.5	-1.1
WOSB				⇑Sn	Sn	04 00 44.3	-3.1
MOBC	Moresby Island	2.73	340	⇓Sn	Sn	04 00 49.3	-3.2
BCBC	Bella Coola	2.92	51	⇓Sn	Sn	04 00 54.7	-2.6

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*IDC **19** 04:13:56.8±0.7, 1°.93S×97°.61E, h0^{km}, mb4.2/16, mb1 4.3/17, mb1mx4.1/27, mbtmp4.2/17, ML4.1/1, MS3.3/2, Ms1 3.3/2, ms1mx2.7/28, Error ellipse: s-maj=24.0km s-min=15.9km az=57.0*

*BJI **19** 04:13:56.9, 2°.40S×97°.38E, h33^{km}, mB4.9/6, mb4.7/12*

*DJA **19** 04:13:57, 1°.99S×97°.60E, h21^{km}, MLv5.2/9*

*ISCJB **19** 04:13:59.7±3.3, 1°.97S±0°.07×97°.85E±0°.10, h33^{km}±23^{km}, mb4.5/32, Error ellipse: s-maj=18.0km s-min=8.5km az=149.3*

*MOS **19** 04:14:00.0±1.1, 1°.89S×97°.66E, h33^{km}, mb4.4/6, Error ellipse: s-maj=20.9km s-min=11.5km az=104.2*

*NEIC **19** 04:14:02.2±0.5, 1°.99S×97°.71E, h35^{km}, mb4.3/3, Error ellipse: s-maj=17.8km s-min=8.8km az=59.0*

ISC 19 04:14:01.9±1.4, 1°.99S±0°.07×97°.88E±0°.10, h35^{km}±12^{km}, n76, σ1^{s}.07/75, mb4.5/32, 6C-1D, Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	Saibi	1.38	61	P	Pn	04 14 24.1	-0.6
PPSI	Pulau Pagai	2.26	110	P	Pn	04 14 36.6	-0.2
PDSI	Padang	2.80	67	P	Pn	04 14 42.6	-1.6
PPI	Padang Panjang	2.94	59	P	Pn	04 14 45.9	-0.3
KRJI	Kerinci	3.58	92	P	Pn	04 14 56.4	+1.4
RGRI	Rengat	4.74	70	P	Pn	04 15 11.6	+0.6
	459nm,0.6s,4.5nm						
PSI	Prapat	4.88	12	P	Pn	04 15 11.6	-1.2
PSI						04 16 01.5	
PSI	Prapat	4.88	12	Pn	Pn	04 15 11.6	-1.2
	7.9nm,0.3s,baz=319,slow=5.3,SNR=18						
PSI				Sn	Sn	04 16 01.5	-6.6
	9.6nm,0.3s,baz=119,slow=23,SNR=9.8						
PSI				LR	LR	04 17 26.0	
	comp=Z,154nm,20.0s,baz=351,slow=44						
PSI	Prapat	4.88	12	Pn	Pn	04 15 11.6	-1.2
PSI				Sn	Sn	04 16 01.5	-6.5
PSI				LR	LR	04 17 26.0	
KSI	Kapahiang	4.99	109	P	Pn	04 15 14.3	0.0
	386nm,0.6s,1.5nm						
MNAI	Manna	5.59	115	P	Pn	04 15 22.4	-0.2
	2μm,0.6s,6.4nm						
MDSI	Maura Dua	6.76	112	P	Pn	04 15 38.5	-0.2
	106nm,0.8s						
MYKOM	Kota Tinggi	7.05	58	P	Pn	04 15 42.5	-0.2
	85nm,0.6s,0.3nm						
KASI	Kota Agung	7.48	118	P	Pn	04 15 48.1	-0.4
	150nm,0.7s,0.6nm						
BSI	Banda Aceh	7.88	341	P	Pn	04 15 49.0	-5.0
PALK	Pallekele	19.46	298	LR	LR	04 24 43.8	
	comp=Z,143nm,18.3s,baz=116,slow=34						
CMAR	Chiang Mai Arr	20.35	3	P	P	04 18 36.2	+0.8
	10nm,0.8s,baz=193,slow=9.9,SNR=50						
CHTO	Chiang Mai	20.70	3	*e*P	P	04 18 39.8	+0.6
CHTO				pmax	pmax		
	comp=Z,13nm,1.1s						
CHTO	Chiang Mai	20.70	3	*e*P	P	04 18 39.8	+0.6
	comp=Z,13nm,1.1s						
SHL	Shillong	28.01	348	*e*PKP	P	04 19 50.0	+0.4
ODAN	Odare	30.42	341	*e*P	P	04 20 12.1	+1.0
	comp=Z,27nm,0.8s,mb5.1						
RAMN	Ramite	30.76	340	*e*P	P	04 20 15.6	+1.5
	comp=Z,28nm,0.5s,mb5.3						
TAPN	Taplejung	30.77	342	*e*P	P	04 20 15.8	+1.6
	comp=Z,26nm,0.8s,mb5.1						
JIRN	Jiri	31.56	340	*e*P	P	04 20 22.3	+1.2
PKI	Pulchoki	31.75	339	*e*P	P	04 20 23.6	+0.8
GUN	Gumba	31.89	340	*e*P	P	04 20 25.3	+1.3
	comp=Z,23nm,0.7s,mb5.2						
DMN	Daman	31.90	338	*e*P	P	04 20 24.6	+0.5
KKN	Kakani	32.00	339	*e*P	P	04 20 25.9	+0.9
GKN	Gorkha	32.43	338	*e*P	P	04 20 29.5	+0.8
KOLN	Koldanda	32.63	336	*e*P	P	04 20 31.4	+0.9
	comp=Z,41nm,0.8s,mb5.4						
DANN	Dangsing	33.08	337	*e*P	P	04 20 35.4	+1.0
XAN	Xi'an	37.32	15	P	P	04 21 11.0	+0.1
XAN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
XAN				pmax	pmax		
	comp=Z,66nm,4.2s						
NJ2	Nanjing	39.27	29	*e*P	P	04 21 24.8	-2.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
WRA	Warramunga Arr	39.83	119	P	P	04 21 32.8	+0.5
	comp=Z,1.3nm,0.8s,mb3.7,baz=304,slow=9.0,SNR=8.0						
WRAB	Tennant Creek	39.84	119	*e*P	P	04 21 33.8	+1.5
WRAB				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
WRAB	Tennant Creek	39.84	119	*e*P	P	04 21 33.8	+1.5
	comp=Z,4.9nm,1.1s,mb4.2						
ASAR	Alice Springs	40.98	125	P	P	04 21 44.8	+3.1
	comp=Z,0.9nm,0.8s,mb3.4,baz=311,slow=9.5,SNR=6.5						
GTA	Gaotai	41.24	2	*e*P	P	04 21 44.5	+1.0
GTA				pP	pP	04 21 54.1	+0.3
GTA				sP	sP	04 21 57.8	-0.2
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
KSRS	Korea Array	48.12	32	P	P	04 22 38.9	+0.4
	comp=Z,1.1nm,0.7s,mb4.0,baz=225,slow=7.7,SNR=2.9						
UCH	Uchtor	48.83	337	P	P	04 22 45.1	+1.3
	SNR=6.2						
TKM2	Tokmak 2	49.01	338	P	P	04 22 46.0	+0.7
	SNR=6.0						
AML	Almayashu	49.08	336	P	P	04 22 46.6	+0.9
	SNR=8.9						
AAK	Ala-Archa	49.18	337	⇑*e*P	P	04 22 47.5	+1.0
AAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.0						
AAK	Ala-Archa	49.18	337	P	P	04 22 45.9	-0.7
	comp=Z,0.5nm,0.4s,mb3.9,baz=165,slow=9.1,SNR=5.1						
EKS2	Erkin-Say	49.49	337	P	P	04 22 49.9	+1.0
	SNR=6.8						
USP	Ospenovka	49.72	338	P	P	04 22 51.0	+0.4
	SNR=14						
SONM	Songino Array	50.18	7	P	P	04 22 54.7	+0.7
	comp=Z,2.6nm,0.9s,mb4.3,baz=188,slow=8.4,SNR=14						
ULN	Ulaanbaatar	50.30	8	⇑*e*P	P	04 22 55.3	+0.4
MKAR	Makanchi Array	50.48	346	P	P	04 22 56.1	-0.2
	comp=Z,6.0nm,0.6s,mb4.8,baz=149,slow=8.6,SNR=88						
STKA	Stephens Creek	50.75	131	P	P	04 23 01.9	+3.2
	comp=Z,1.1nm,0.7s,mb3.9,baz=360,slow=20,SNR=3.3						
ZAK	Zakamensk	52.38	4	*e*P	P	04 23 10.5	+0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
HIA	Hailar	54.45	17	*e*P	P	04 23 25.0	-0.6
KURK	Kurchatov	55.03	345	⇑*e*P	P	04 23 28.8	-1.1
KURK				pmax	pmax		
	comp=Z,8.0nm,2.5s,mb4.3						
KURK	Kurchatov	55.03	345	P	P	04 23 27.8	-2.0
	comp=Z,0.8nm,0.3s,mb4.2,baz=166,slow=6.6,SNR=5.7						
ZALV	Zalesovo Beam	56.80	351	P	P	04 23 42.0	-0.4
	comp=Z,13nm,0.5s,mb5.2,baz=183,slow=6.6,SNR=39						
NVS	Novosibirsk	57.92	350	*e*P	P	04 23 48.6	-1.7
BVAR	Borovoye Array	59.47	341	P	P	04 23 59.8	-1.4
	comp=Z,1.7nm,0.6s,mb4.3,baz=157,slow=7.9,SNR=9.3						
AKTK	Aktyubinsk	62.35	332	P	P	04 24 19.2	-1.6
AKTO	Aktyubinsk	62.35	332	P	P	04 24 19.2	-1.6
	comp=Z,1.6nm,0.8s,mb4.2,baz=90,slow=2.0,SNR=4.7						
ARU	Arti	66.37	337	*d i*P	P	04 24 45.4	-1.6
ARU				*e*		04 27 07.9	
ARU				S	S	04 33 32.8	-1.5
ARU				SS	SS	04 37 51.6	+0.2
ARU				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.5						
YAK	Yakutsk	68.29	16	⇑*e*P	P	04 24 57.5	-1.5
YAK				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
SOC	Sochi	68.94	319	*e*P	P	04 25 01.8	-1.7
SOC				*e*S	S	04 33 53.0	-13
SOC				*e*		04 34 47.6	
LSZ	Lusaka	69.89	255	P	P	04 25 09.8	-0.1
	comp=Z,3.6nm,0.3s,mb4.8,baz=104,slow=12,SNR=15						
BRTR	Keskin Array B	71.76	313	P	P	04 25 19.1	-1.7
	comp=Z,1.7nm,0.7s,mb4.1,baz=129,slow=6.9,SNR=7.8						
VSR	Storozhevoye	72.57	326	*e*P	P	04 25 23.7	-1.7
VSR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
VSR				pmax	pmax		
	comp=N,6.0nm,1.1s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.5s						
OBN	Obninsk	75.68	329	*e*P	P	04 25 41.6	-1.9
OBN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
TIXI	Tiksi	76.19	10	⇑*e*P	P	04 25 45.7	-0.4
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.4						
SEY	Seymchan	76.42	23	⇑*e*P	P	04 25 47.9	+0.4
KAF	Kangasniemi	83.22	333	*e*P	P	04 26 23.0	-1.4
KAF				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
KAF	Kangasniemi	83.22	333	*e*p	P	04 26 23.0	-1.4
	comp=Z,5.0nm,0.5s,mb4.8						
BILL	Bilibino	83.89	21	*e*P	P	04 26 27.8	+0.1
BILL				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.9						
ARCES	ARCESS Array B	85.75	340	P	P	04 26 36.8	-0.3
	comp=Z,3.7nm,0.8s,mb4.6,baz=93,slow=4.5,SNR=4.7						
GERES	GERESS Array B	87.65	319	P	P	04 26 46.5	-0.3
	comp=Z,0.7nm,0.7s,mb4.0,baz=116,slow=3.1,SNR=7.2						
BFO	Black Forest	91.17	318	*i* P	P	04 27 03.7	+0.4
NVAR	Mina Array Bea	130.91	38	PKP	PKPdf	04 33 10.3	+0.1
	comp=Z,0.1nm,0.3s,baz=277,slow=0.7,SNR=2.7						
TXAR	Lajitas Array	145.95	35	PKPbc	PKPbc	04 33 38.6	+0.1
	comp=Z,1.3nm,0.6s,baz=289,slow=1.0,SNR=23						

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*NEIC **19** 04:20:42.8±5.0, 0°.11N×121°.87E, h248^{km}±53^{km}, mb3.7/1, Error ellipse: s-maj=64.7km s-min=15.1km az=66.0*

IDC 19 04:20:40.7±5.9, 0°.16N×121°.95E, h224^{km}±61^{km}, mb3.3/6, mb1 3.3/7, mb1mx3.2/21, mbtmp3.2/7, Error ellipse: s-maj=82.6km s-min=15.0km az=67.0, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	18.51	169	P	P	04 24 40.5	0.0
	0.1nm,0.3s,baz=347,slow=9.9,SNR=3.9						
WRAB	Tennant Creek	23.38	149	*e*P	P	04 25 29.8	+0.2
	2.1nm,0.9s						
WRA	Warramunga Arr	23.38	149	P	P	04 25 29.2	-0.3
	1.0nm,0.5s,baz=324,slow=11,SNR=15						
WRA				pP	pP	04 26 15.1	+5.1
	0.5nm,0.6s,baz=332,slow=10,SNR=2.5						
ASAR	Alice Springs	26.38	155	P	P	04 25 57.2	+0.6
	0.5nm,0.8s,baz=344,slow=14,SNR=5.0						
ASAR				PcP	PcP	04 29 16.6	+0.3
	0.2nm,0.4s,baz=354,slow=2.0,SNR=4.1						
SONM	Songino Array	49.37	346	P	P	04 29 07.8	+0.3
	1.2nm,0.6s,baz=165,slow=9.2,SNR=12						
MKAR	Makanchi Array	57.93	329	P	P	04 30 09.8	+0.4
	0.9nm,0.3s,baz=124,slow=8.7,SNR=12						
ZALV	Zalesovo Beam	61.73	336	P	P	04 30 34.0	-1.3
	0.4nm,0.3s,baz=130,slow=5.8,SNR=2.8						
KURK	Kurchatov	62.31	330	P	P	04 30 39.2	+0.1
	0.5nm,0.4s,baz=139,slow=6.9,SNR=3.4						
TORD	Torodi Ar. Bea	119.35	285	PKP	PKPdf	04 39 03.7	-0.7
	0.1nm,0.3s,baz=111,slow=1.9,SNR=4.1						

MAN 19 04:27:02, 18°.26N×122°.33E, h12^{km}, mb4.2, ML3.0, MS2.7, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	0.27	266	*e*P	Pg	04 27 09.1	+1.5
SGCP				*e*S	Sg	04 27 13.6	+2.3
APYP	Conner	1.11	249	*e*P	Pb	04 27 23.1	0.0
APYP				*e*S	Sb	04 27 39.2	+1.8
PALP	Palanan	1.20	176	*e*P	Pn	04 27 23.5	-1.0
PALP				*e*S	Sb	04 27 42.4	+2.3
CAUP	Cauayan	1.40	200	*e*P	Pn	04 27 24.1	-3.2
BALP	Baler	2.61	196	*e*P	Pn	04 27 48.5	+4.6

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*NEIC **19** 04:29:37.9, 16°.18N×98°.41W, h20^{km}, MD3.8(MEX), After MEX.*

MEX 19 04:29:37.9±0.4, 16°.18N×98°.41W, h20^{km}±18^{km}, MD3.8, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.34	51	*i* P	Pg	04 29 44.0	-1.3
PNIG				*i* S	Sg	04 29 49.1	-1.3
ACX	Acapulco	1.60	296	*e*P	Pn	04 30 02.3	-2.8
ACX				*i* S	Sn	04 30 21.1	-4.1
UTMO	Huajuapan	1.74	19	*e*P	Pn	04 30 04.5	-2.5
UTMO				*i* S	Sn	04 30 25.4	-3.3
CAIG	El Cayaco	1.98	296	*e*P	Pn	04 30 07.8	-2.6
CAIG				*i* S	Sn	04 30 29.2	-5.4
MEIG	Mezcala	2.09	326	*e*P	Pn	04 30 09.6	-2.3
MEIG				*i* S	Sn	04 30 33.8	-3.5
HUIG	Huatulco	2.25	100	*e*P	Pn	04 30 11.5	-2.4
HUIG				*i* S	Sn	04 30 37.6	-3.5
TPIG	Tehuac#an	2.44	24	*e*P	Pn	04 30 15.6	-1.0
TPIG				*i* S	Sn	04 30 43.8	-2.2
PPM	Popocatepetl	2.88	356	*e*P	Pn	04 30 20.4	-2.3
PPM				*i* S	Sn	04 30 55.6	-1.2
MZVM		3.10	345	*e*P	Pn	04 30 22.9	-2.8
MZVM				*i* S	Sn	04 30 58.4	-3.8
IIO	Organos	3.41	355	*e*P	Pn	04 30 29.0	-1.0
IIO				*i* S	Sn	04 31 08.6	-1.2
CMIG	Matias Romero	3.50	74	*e*P	Pn	04 30 28.5	-2.7
CMIG				*i* S	Sn	04 31 11.5	-0.4

IDC 19 04:36:33.7±8.1, 6°.98S×129°.52E, h147^{km}±81^{km}, mb2.7/1, mb1 3.2/4, mb1mx3.1/17, mbtmp3.0/4, Error ellipse: s-maj=71.2km s-min=32.6km az=63.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.69	199	P	Pn	04 39 17.6	+1.5
	0.4nm,0.3s,baz=27,slow=8.9,SNR=16						
FITZ				S	Sn	04 41 23.4	-1.8
	0.4nm,0.3s,baz=92,slow=19,SNR=6.9						
WRA	Warramunga Arr	13.71	161	P	Pn	04 39 40.3	-1.8
	0.1nm,0.3s,baz=342,slow=13,SNR=5.3						
WRA				S	Sn	04 42 07.6	-6.4
	0.5nm,0.3s,baz=344,slow=22,SNR=12						
ASAR	Alice Springs	17.12	166	P	Pn	04 40 25.6	+1.4
	0.2nm,0.3s,baz=346,slow=10.0,SNR=12						
ASAR				S	S	04 43 34.0	-0.4
	0.2nm,0.3s,baz=2.2,slow=27,SNR=4.1						
MKAR	Makanchi Array	67.95	327	P	P	04 47 16.4	-0.2
	0.2nm,0.7s,baz=131,slow=6.5,SNR=3.0						

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*NEIC **19** 04:45:15.6, 9°.40N×62°.01W, h49^{km}, MD3.4(CAR), MD3.8(TRN), After TRN.*

*ISCJB **19** 04:45:16.3±0.5, 9°.57N±0°.03×62°.00W±0°.03, h80^{km}±8^{km}, Error ellipse: s-maj=5.6km s-min=4.0km az=39.6*

*FUNV **19** 04:45:16.2, 9°.58N×61°.90W, h20^{km}, MW3.5*

*TRN **19** 04:45:17.6, 9°.64N×62°.06W, h71^{km}, MD3.7*

ISC 19 04:45:17.4±0.5, 9°.57N±0°.03×61°.99W±0°.03, h70^{km}±10^{km}, n31, σ0^{s}.81/55, 4C-1D, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUAY	Buenos Aires	0.61	29	⇑*i*P	Pn	04 45 31.6	+0.2
BUAY				*e*S	Sn	04 45 40.8	-0.9
TPP	Pointe-a-Pierr	0.92	35	*e*P	Pn	04 45 34.0	-0.9
TPP				*e*S	Sn	04 45 48.9	+1.1
GUIV	Guiria	1.10	348	⇑*e*P	Pn	04 45 36.6	-0.6
GUIV				*e*S	Sn	04 45 51.4	-0.4
GUNV	Guanoco	1.11	302	⇓*i*P	Pn	04 45 37.0	-0.2
GUNV				*e*S	Sn	04 45 52.8	+0.7
TCE	Chacachacare	1.15	12	⇑*i*P	Pn	04 45 37.5	-0.3
TCE				*e*S	Sn	04 45 52.6	-0.3
TRN	Trinidad (W)	1.22	28	*e*P	Pn	04 45 38.6	-0.1
TRN				*e*S	Sn	04 45 55.0	+0.3
TRN	Trinidad (W)	1.22	28	*e*P	Pn	04 45 38.6	-0.1
TRN				*e*S	Sn	04 45 53.6	-1.0
TBH	Brigand Hill	1.29	45	*e*P	Pn	04 45 40.8	+1.2
TBH				*e*S	Sn	04 45 56.2	0.0
TBH	Brigand Hill	1.29	45	*e*P	Pn	04 45 40.8	+1.2
TBH				*e*S	Sn	04 45 58.8	+2.6
ORIV	Oritupano	1.48	251	*e*P	Pn	04 45 42.8	+0.6
ORIV				*e*S	Sn	04 46 02.6	+1.7
RIOV	Rio Grande	1.50	173	*e*P	Pn	04 45 41.4	-0.9
RIOV				*e*S	Sn	04 46 01.5	+0.3
CRUV	Carupano	1.65	312	*e*P	Pn	04 45 44.5	+0.2
CRUV				*e*S	Sn	04 46 03.8	-0.9
TPR	Prospect	2.00	36	*e*P	Pn	04 45 49.1	0.0
TPR				*e*S	Sn	04 46 04.2	-9.0
BOT	Bacolet	2.02	38	*e*P	Pn	04 45 48.6	-0.8
BOT				*e*S	Sn	04 46 04.4	-9.4
GURV	El Guri	2.10	211	*e*P	Pn	04 45 50.6	+0.2
GURV				*e*S	Sn	04 46 15.7	+0.2
ITEV	Isla Los Testi	2.10	328	⇑*e*P	Pn	04 45 49.9	-0.5
ITEV				*e*S	Sn	04 46 14.8	-0.9
TOSP	Speyside	2.24	40	*e*P	Pn	04 45 52.2	0.0
TOSP				*e*S	Sn	04 46 18.1	-0.8
GRGR	Grenville	2.57	7	*e*Pn	Pn	04 45 56.5	-0.4
GRGR				*e*Sn	Sn	04 46 28.7	+1.6
GRW	Mount Saint Ca	2.60	7	*e*P	Pn	04 45 57.0	-0.2
GRW				*e*S	Sn	04 46 24.0	-3.7
GRW	Mount Saint Ca	2.60	7	*e*P	Pn	04 45 57.0	-0.2
GRW				*e*S	Sn	04 46 19.7	-8.0
PCRV	Puerto La Cruz	2.68	283	*e*P	Pn	04 45 58.6	+0.4
PCRV				*e*S	Sn	04 46 28.8	-0.8
PRGV	PARIAGUAN	2.74	253	*e*P	Pn	04 46 00.0	+0.9
LUEV	Luepa	3.74	172	*e*P	Pn	04 46 11.9	-0.8
SVB	Belmont	3.75	11	*e*P	Pn	04 46 14.5	+1.6
SVB				*e*S	Sn	04 46 57.0	+1.1
SVB	Belmont	3.75	11	*e*P	Pn	04 46 14.5	+1.6
SVB				*e*S	Sn	04 46 58.5	+2.6
CUPV	Cœpira	3.77	278	*e*P	Pn	04 46 13.5	+0.3
CUPV				*e*S	Sn	04 46 56.8	+0.4
MERV	Las Mercedes	4.26	266	*e*P	Pn	04 46 19.9	+0.1
CAOV	Caicara del Or	4.83	243	*e*P	Pn	04 46 26.7	-0.9
TURV	Turiamo	5.83	279	*e*P	Pn	04 46 41.6	+0.4
BAUV	El Baul	6.01	265	*e*P	Pn	04 46 42.9	-0.8
MONV	Montecano	8.19	288	*e*P	Pn	04 47 13.0	-0.6

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*ISCJB **19** 05:05:06.7±0.4, 38°.13N±0°.02×23°.70E±0°.03, h7^{km}±3^{km}, Error ellipse: s-maj=3.9km s-min=3.3km az=152.5*

*NEIC **19** 05:05:06.3, 38°.12N×23°.72E, h20^{km}, ML3.5(ATH), After ATH.*

*ATH **19** 05:05:06.3, 38°.12N×23°.72E, h20^{km}±1^{km}, MD3.3/8, ML3.5*

*CSEM **19** 05:05:07.2±0.1, 38°.12N×23°.68E, h10^{km}, ML3.5, Error ellipse: s-maj=3.2km s-min=2.7km az=86.0*

*THE **19** 05:05:07.3, 38°.13N×23°.68E, h6^{km}±1^{km}, ML3.2/4, Error ellipse: s-maj=1.2km s-min=0.6km az=188.0*

ISC 19 05:05:07.2±0.4, 38°.13N±0°.02×23°.69E±0°.03, h8^{km}±3^{km}, n75, σ0^{s}.54/107, 3C, Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTL	Penteli	0.16	121	*e*PB	Pg	05 05 10.7	+0.1
PTL				*e*SB	Sg	05 05 13.0	+0.2
PTL	Penteli	0.16	121	*e*Pb	Pg	05 05 10.7	+0.1
PTL				*e*Sb	Sg	05 05 13.0	+0.2
ATH	Athens Observa	0.16	173	⇑*i*PB	Pg	05 05 10.4	-0.2
ATH				*e*SB	Sg	05 05 13.2	+0.4

ATH	Athens Observa	0.16	173	⇑iPb	Pg	05 05 10.4	-0.2
ATH				eSb	Sg	05 05 13.2	+0.4
ATHU	Athens Univers	0.18	156	P	Pg	05 05 10.9	0.0
ATHU				S	Sg	05 05 13.2	-0.2
ATHU	Athens Univers	0.18	156	P	Pg	05 05 10.9	0.0
ATHU				S	Sg	05 05 13.2	-0.2
NAIG	Nisos Aigina	0.41	203	ePB	Pg	05 05 14.7	-0.4
NAIG	Nisos Aigina	0.41	203	ePb	Pg	05 05 14.7	-0.4
LTK	Loutraki	0.58	259	P	Pg	05 05 17.9	-0.5
LTK				S	Sg	05 05 26.5	+0.5
LTK	Loutraki	0.58	259	ePN	Pg	05 05 18.1	-0.3
LTK				eSN	Sg	05 05 26.5	+0.5
LTK	Loutraki	0.58	259	P	Pg	05 05 17.9	-0.5
LTK	Loutraki	0.58	259	ePn	Pg	05 05 18.1	-0.3
LTK				S	Sg	05 05 26.5	+0.5
DID	Didima	0.72	210	P	Pg	05 05 20.1	-1.0
DID				S	Sg	05 05 31.2	+0.7
DID	Didima	0.72	210	ePN	Pg	05 05 20.2	-0.9
DID				eSN	Sg	05 05 31.2	+0.7
DID	Didima	0.72	210	P	Pg	05 05 20.1	-1.0
DID				S	Sg	05 05 31.2	+0.7
LKR	Lokris	0.75	314	P	Pg	05 05 20.9	-0.8
LKR				S	Sg	05 05 32.5	+1.1
LKR	Lokris	0.75	314	⇑iPN	Pg	05 05 21.0	-0.7
LKR				eSN	Sg	05 05 33.0	+1.6
LKR	Lokris	0.75	314	P	Pg	05 05 20.9	-0.8
LKR				S	Sg	05 05 32.5	+1.1
LKR				eSn	Sg	05 05 33.0	+1.6
AOS	Alonnisos	1.05	8	P	Pg	05 05 26.9	-0.4
AOS				S	Sg	05 05 41.7	+0.8
AOS	Alonnisos	1.05	8	P	Pg	05 05 26.9	-0.4
AOS				S	Sg	05 05 41.7	+0.8
GUR	Goura	1.08	260	ePN	Pg	05 05 27.5	-0.5
GUR	Goura	1.08	260	ePn	Pg	05 05 27.5	-0.5
VLX	Vlachokerasia	1.29	234	ePN	Pn	05 05 30.8	-0.7
VLX	Vlachokerasia	1.29	234	ePn	Pn	05 05 30.8	-0.7
XOR	Xorichti	1.29	343	P	Pn	05 05 31.3	-0.3
XOR				S	Sb	05 05 48.4	-0.2
XOR	Xorichti	1.29	343	P	Pn	05 05 31.3	-0.3
XOR				S	Sb	05 05 48.4	-0.2
TRIZ	Trizonia	1.29	281	P	Pn	05 05 30.8	-0.8
TRIZ				S	Sb	05 05 48.8	+0.2
TRIZ	Trizonia	1.29	281	P	Pn	05 05 30.8	-0.8
TRIZ				S	Sb	05 05 48.8	+0.2
LAKA	Lakka	1.35	275	P	Pn	05 05 32.0	-0.4
LAKA				S	Sb	05 05 50.9	+0.6
LAKA	Lakka	1.35	275	P	Pn	05 05 32.0	-0.4
LAKA				S	Sb	05 05 50.9	+0.6
AGG	Agios Georgios	1.39	310	P	Pn	05 05 32.5	-0.4
AGG				S	Sb	05 05 51.3	0.0
AGG	Agios Georgios	1.39	310	ePN	Pn	05 05 33.1	+0.2
AGG	Agios Georgios	1.39	310	P	Pn	05 05 32.5	-0.4
AGG	Agios Georgios	1.39	310	ePn	Pn	05 05 33.1	+0.2
AGG				S	Sb	05 05 51.3	0.0
EFP	Efpalio	1.44	282	ePN	Pn	05 05 33.5	-0.1
EFP	Efpalio	1.44	282	ePn	Pn	05 05 33.5	-0.1
RLS	Riolos of Patr	1.76	268	ePN	Pn	05 05 38.8	+0.8
RLS	Riolos of Patr	1.76	268	ePn	Pn	05 05 38.8	+0.8
PAIG	Paliouri	1.79	360	P	Pn	05 05 37.8	-0.7
PAIG	Paliouri	1.79	360	P	Pn	05 05 37.8	-0.7
CHOS	Chios island	1.88	81	P	Pn	05 05 39.6	0.0
CHOS				S	Sn	05 06 04.1	+0.6
CHOS	Chios island	1.88	81	P	Pn	05 05 39.6	0.0
CHOS				S	Sn	05 06 04.1	+0.6
KYTH	Kithira	1.92	196	ePN	Pn	05 05 40.0	-0.2
KYTH	Kithira	1.92	196	ePn	Pn	05 05 40.0	-0.2
THL	Klokotos Trika	1.94	318	P	Pn	05 05 40.7	+0.2
THL				S	Sn	05 06 05.2	+0.2
THL	Klokotos Trika	1.94	318	ePB	Pn	05 05 40.2	-0.3
THL	Klokotos Trika	1.94	318	P	Pn	05 05 40.7	+0.2
THL				S	Sn	05 06 05.2	+0.2
PYL	PYLOS	1.98	232	P	Pn	05 05 39.8	-1.3
PYL	PYLOS	1.98	232	ePN	Pn	05 05 42.0	+0.9
PYL	PYLOS	1.98	232	P	Pn	05 05 39.8	-1.3
PYL	PYLOS	1.98	232	ePn	Pn	05 05 42.0	+0.9
SIGR	SIGRI	2.01	57	P	Pn	05 05 40.7	-0.7
SIGR	SIGRI	2.01	57	P	Pn	05 05 40.7	-0.7
LIT	Litokhoron	2.18	335	P	Pn	05 05 43.7	0.0
LIT	Litokhoron	2.18	335	ePB	Pn	05 05 43.8	+0.1
LIT	Litokhoron	2.18	335	P	Pn	05 05 43.7	0.0
OUR	Ouranopolis	2.21	6	P	Pn	05 05 43.8	-0.4
OUR	Ouranopolis	2.21	6	P	Pn	05 05 43.8	-0.4
PLG	Polygyros	2.25	355	P	Pn	05 05 44.6	-0.1
PLG	Polygyros	2.25	355	ePN	Pn	05 05 44.5	-0.2
PLG	Polygyros	2.25	355	P	Pn	05 05 44.6	-0.1
VLS	Valsamata	2.44	272	P	Pn	05 05 47.2	-0.2
VLS	Valsamata	2.44	272	P	Pn	05 05 47.2	-0.2
HORT	Hortiatis	2.50	350	P	Pn	05 05 48.7	+0.4
HORT	Hortiatis	2.50	350	P	Pn	05 05 48.7	+0.4
SOH	Sokhos	2.70	355	P	Pn	05 05 50.6	-0.3
SOH	Sokhos	2.70	355	P	Pn	05 05 50.6	-0.3
KARN	Karanos	2.73	176	P	Pn	05 05 51.8	+0.4
KARN				S	Sn	05 06 24.9	+0.3
KARN	Karanos	2.73	176	P	Pn	05 05 51.8	+0.4
KARN				S	Sn	05 06 24.9	+0.3
SRS	Serrai	2.98	359	P	Pn	05 05 54.8	0.0
SRS	Serrai	2.98	359	P	Pn	05 05 54.8	0.0
KNT	Kendrikon	3.09	349	P	Pn	05 05 57.1	+0.8
KNT	Kendrikon	3.09	349	P	Pn	05 05 57.1	+0.8
LAST	Lasithi	3.29	154	P	Pn	05 06 00.2	+1.1
LAST	Lasithi	3.29	154	P	Pn	05 06 00.2	+1.1

ISCJB ***19*** *05:15:03.1±0.9, 52.°3N±0.°1×179.°59E±0.°08, h154^{km}±9^{km}, mb3.7/12, Error ellipse: s-maj=23.4km s-min=8.4km az=175.9*

NEIC ***19*** *05:15:04.9, 52.°20N×179.°68E, h161^{km}, MG3.3(AEIC), After AEIC.*

IDC ***19*** *05:15:11.8±4.9, 52.°26N×179.°61E, h225^{km}±47^{km}, mb3.4/11, mb1 3.6/13, mb1mx3.4/27, mbtmp3.4/13, Error ellipse: s-maj=24.9km s-min=12.4km az=171.0*

ISC 19 05:15:04.0±0.9**, 52.°2N**±0.°1×**179.°59E**±0.°08**, h148**^{km}±8^{km}**, n21, σ0^{s}76**/21**, mb3.7**/12**, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATKA	Atka Island	3.82	88	P	Pn	05 16 01.7	-0.1
FX1	Attu Island--F	3.98	282	P	Pn	05 16 04.3	+0.5
FX1				S	Sn	05 16 50.5	+0.2
NIKO	Nikolski	7.08	79	P	Pn	05 16 45.0	0.0
SPIA	Saint Paul Isl	7.71	46	P	Pn	05 16 50.5	-2.8
PETK	Petropavlovsk-	13.31	283	P	Pn	05 18 11.9	+4.9
	0.2nm,0.3s,baz=89,slow=18,SNR=4.7						
KDAK	Kodiak Island	16.84	60	P	Pn	05 18 51.2	+0.6
	1.6nm,0.3s,baz=259,slow=10,SNR=20						
KDAK	Kodiak Island	16.84	60	P	Pn	05 18 51.2	+0.6
DLBC	Dease Lake	28.74	57	P	P	05 20 48.4	+1.3
	1.8nm,0.8s,mb3.8,baz=289,slow=12,SNR=4.9						
DLBC	Dease Lake	28.74	57	P	P	05 20 48.4	+1.3
YKA	Yellowknife Ar	35.39	47	P	P	05 21 45.4	+0.5
	0.3nm,0.4s,mb3.3,baz=271,slow=8.1,SNR=10.0						
YKA				pP	pP	05 22 24.3	+7.4
	0.6nm,0.7s,baz=281,slow=8.3,SNR=4.5						
NVAR	Mina Array Bea	44.44	83	P	P	05 23 00.6	+0.8
	1.9nm,0.8s,mb3.8,baz=290,slow=7.6,SNR=12						
SONM	Songino Array	45.38	295	P	P	05 23 08.0	+0.8
	0.7nm,0.6s,mb3.5,baz=65,slow=7.7,SNR=8.2						
PDAR	Pinedale Array	47.01	72	P	P	05 23 19.9	0.0
	1.8nm,0.6s,mb3.9,baz=324,slow=3.5,SNR=21						
ARCES	ARCESS Array B	57.10	349	P	P	05 24 33.7	-0.4
	4.9nm,0.9s,mb4.3,baz=22,slow=9.7,SNR=3.5						
MKAR	Makanchi Array	58.73	307	P	P	05 24 44.8	-1.1
	0.1nm,0.3s,mb3.1,baz=52,slow=7.0,SNR=4.1						
TXAR	Lajitas Array	59.51	81	P	P	05 24 51.0	-0.4
	0.2nm,0.3s,mb3.4,baz=308,slow=4.8,SNR=5.9						
SCHQ	Schefferville	59.97	38	P	P	05 24 53.9	-0.2
	1.8nm,1.1s,mb3.8,baz=315,slow=11,SNR=2.8						
WRA	Warramunga Arr	81.94	222	P	P	05 27 06.1	-0.8
	1.4nm,0.5s,mb3.8,baz=34,slow=6.1,SNR=7.0						
FITZ	Fitzroy Crossi	84.20	231	P	P	05 27 18.3	-0.2
	4.0nm,1.0s,mb4.1,baz=63,slow=9.0,SNR=3.5						
ASAR	Alice Springs	85.44	221	P	P	05 27 24.6	+0.1
	0.5nm,0.5s,mb3.5,baz=23,slow=5.0,SNR=7.3						
TORD	Torodi Ar. Bea	114.89	358	PKiKP	PKiKP	05 33 24.8	-2.4
	0.6nm,1.2s,baz=340,slow=2.7,SNR=3.3						

IDC 19 05:15:06.0±3.8**, 30.°13S×138.°31E, h0**^{km}**, mb1 3.1**/3**, mb1mx3.1**/15**, mbtmp2.9**/3**, ML2.6**/3**, Error ellipse: s-maj=103.7km s-min=19.9km az=47.0, South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	3.32	123	Pn	Pn	05 15 59.1	-0.1
	0.7nm,0.3s,baz=304,slow=10,SNR=5.3						
STKA				Pg	Pg	05 16 07.0	-2.6
	0.6nm,0.3s,baz=300,slow=15,SNR=3.4						
STKA				Sn	Sn	05 16 39.3	0.0
	1.4nm,0.3s,baz=214,slow=23,SNR=5.2						
STKA				Lg		05 16 45.3	
	2.1nm,0.3s,baz=22,slow=23,SNR=7.3						
ASAR	Alice Springs	7.54	328	Pn	Pn	05 16 56.4	-0.8
	0.1nm,0.3s,baz=150,slow=12,SNR=4.6						
WRA	Warramunga Arr	10.76	340	Pn	Pn	05 17 42.5	+1.1
	0.0nm,0.3s,baz=157,slow=14,SNR=3.2						
WRA				Sn	Sn	05 19 43.4	+0.8
	0.0nm,0.3s,baz=162,slow=24,SNR=2.7						

IDC 19 05:30:37.4±2.1**, 3.°85N×127.°92E, h0**^{km}**, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.5**/17**, mbtmp3.5**/3**, Error ellipse: s-maj=113.7km s-min=25.1km az=65.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.47	165	P	P	05 35 58.5	+0.2
	1.6nm,0.8s,baz=345,slow=10,SNR=6.5						
ASAR	Alice Springs	27.97	168	P	P	05 36 29.9	0.0
	0.6nm,0.7s,baz=356,slow=7.9,SNR=4.6						
MKAR	Makanchi Array	58.14	325	P	P	05 40 33.0	0.0
	0.3nm,0.4s,baz=117,slow=8.2,SNR=9.8						
KMBO	Kilima Mbogo	90.74	269	P	P	05 43 43.5	+0.3
	2.4nm,0.3s,baz=56,slow=11,SNR=5.9						

NNC ***19*** *05:50:37.6±9.6, 35.°33N×68.°56E, h0^{km}, mb3.8, mpv3.2, Error ellipse: s-maj=152.4km s-min=75.5km az=97.0*

ISC 19 05:50:34.7±5.1**, 34.°7N**±0.°2×**68.°9E**±0.°6**, h35**^{km}**, n9, σ0^{s}36**/11**, 3C-2D, Southeastern Afghanistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AML	Almayashu	8.38	26	P	Pn	05 52 33.4	-0.2
	SNR=22						
KK31	Karatay Array	8.54	8	⇑Pn	Pn	05 52 35.9	+0.1
	0.5nm,0.3s,baz=188,slow=13,SNR=14						
KK31				⇑Sn	Sn	05 54 10.9	0.0
	2.9nm,0.5s,baz=194,slow=28,SNR=5.3						
UCH	Uchtor	8.77	29	P	Pn	05 52 39.2	+0.2
	SNR=13						
EKS2	Erkin-Say	8.88	24	P	Pn	05 52 40.8	+0.3
	SNR=5.8						
AAK	Ala-Archa	9.11	27	P	Pn	05 52 43.9	+0.2
	SNR=10.0						
USP	Ospenovka	9.66	25	P	Pn	05 52 50.4	-0.8
	SNR=14						
TKM2	Tokmak 2	9.79	30	⇓Pn	Pn	05 52 53.3	+0.3
	8.1nm,0.5s						
TKM2	Tokmak 2	9.79	30	P	Pn	05 52 53.1	+0.1
	SNR=18						
AB09	Akbulak array	16.02	338	⇓Pn	Pn	05 54 23.2	+5.9
	0.1nm,0.3s						
AB09				⇑Sn	Sn	05 56 58.0	-16
	7.0nm,1.9s						

ISK ***19*** *06:13:21.7, 39.°96N×41.°70E, h4^{km}, MD3.1*

CSEM ***19*** *06:13:22.9±0.5, 39.°98N×41.°76E, h5^{km}, MD3.1, Error ellipse: s-maj=30.7km s-min=11.2km az=4.0*

DDA ***19*** *06:13:24.1, 39.°87N×41.°79E, h6^{km}±2^{km}, Md3.0*

ISCJB ***19*** *06:13:26.4±0.7, 39.°99N±0.°06×41.°86E±0.°05, h16^{km}±6^{km}, Error ellipse: s-maj=10.2km s-min=6.5km az=170.4*

ISC 19 06:13:26.4±0.7**, 39.°99N**±0.°06×**41.°87E**±0.°05**, h15**^{km}±4^{km}**, n11, σ1^{s}44**/19**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HOMI	Horasan	0.06	30	iP	Pg	06 13 28.4	-1.0
HOMI				iS	Sg	06 13 32.9	+1.7
AGRB	Hanur-Agry	0.96	115	ePG	Pg	06 13 42.3	-2.8
AGRB				eSG	Sg	06 13 58.4	+0.7
AGRB	Hanur-Agry	0.96	115	ePg	Pg	06 13 42.3	-2.7
AGRB				eSg	Sg	06 13 58.4	+0.8
KOPT	Kop Dagi	1.05	272	iP	Pb	06 13 43.4	-2.9
KOPT				iS	Sb	06 14 00.6	+0.7
KOPT	Kop Dagi	1.05	272	iP	Pb	06 13 43.4	-2.9
KOPT				iS	Sb	06 14 00.6	+0.7
KARS	Kars	1.12	56	ePN	Pn	06 13 46.9	-0.7
KARS				eSN	Sn	06 14 03.5	+0.8
KARS	Kars	1.12	56	ePn	Pn	06 13 46.9	-0.7
KARS				eSn	Sn	06 14 03.6	+0.8
EZC	Erzincan	1.60	262	ePN	Pn	06 13 55.4	+1.3
GUMT	Gumushane	1.89	285	ePN	Pn	06 13 53.4	-4.6
GUMT	Gumushane	1.89	285	ePn	Pn	06 13 53.4	-4.7
BEST	Besiri	2.15	193	iP	Pn	06 14 00.1	-1.6
BEST				iS	Sn	06 14 29.6	+1.6

IDC ***19*** *06:13:26.7±2.8, 1.°17S×95.°16E, h0^{km}, mb3.3/5, mb1 3.6/6, mb1mx3.4/23, mbtmp3.4/6, ML4.3/1, Error ellipse: s-maj=97.7km s-min=21.2km az=59.0*

ISCJB ***19*** *06:13:29.4±1.4, 1.°1S±0.°1×95.°6E±0.°1, h33^{km}, mb3.3/5, Error ellipse: s-maj=24.1km s-min=10.3km az=40.9*

DJA ***19*** *06:13:29, 1.°09S×95.°70E, h10^{km}, MLv4.8/4*

ISC 19 06:13:32.2±1.4**, 1.°0S**±0.°1×**95.°6E**±0.°1**, h35**^{km}**, n15, σ0^{s}89**/13**, mb3.3**/5**, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSI	Gunungsitoli	3.04	40	P	Pn	06 14 18.4	+0.6
GSI				S	Sx	06 14 53.5	
SISI	Saibi	3.48	95	P	Pn	06 14 23.7	-0.2
SISI				S	Sx	06 15 03.1	
PPSI	Pulau Pagai	4.71	111	P	Px	06 14 33.9	
PPI	Padang Panjang	4.81	83	P	Pn	06 14 42.7	+0.5
PDSI	Padang	4.84	89	P	Pn	06 14 42.5	-0.1
SDSI	Sungai Dareh	5.81	89	P	Pn	06 14 55.8	-0.1
	14nm,0.8s						
BSI	Banda Aceh	6.50	357	P	Pn	06 15 03.9	-1.5
	16nm,1.3s,0.4nm						
KSI	Kapahiang	7.43	111	P	Pn	06 15 16.8	-1.4
JMBI	JAMBI	8.04	94	P	Px	06 15 24.7	
CMAR	Chiang Mai Arr	19.65	9	P	Pn	06 18 00.1	+0.5
	0.3nm,0.3s,baz=199,slow=11,SNR=11						
WRA	Warramunga Arr	42.27	119	P	P	06 21 26.5	+3.9
	0.5nm,0.8s,mb3.2,baz=302,slow=9.0,SNR=2.8						
ASAR	Alice Springs	43.38	124	P	P	06 21 32.3	+0.7
	0.3nm,0.6s,mb3.2,baz=298,slow=8.2,SNR=3.5						
MKAR	Makanchi Array	49.05	348	P	P	06 22 16.4	+0.6
	0.4nm,0.6s,mb3.6,baz=164,slow=8.7,SNR=6.6						
SONM	Songino Array	49.58	10	P	P	06 22 20.9	+1.1
	0.2nm,0.7s,mb3.3,baz=200,slow=3.8,SNR=2.3						
KURK	Kurchatov	53.56	347	P	P	06 22 48.4	-1.1
	0.1nm,0.3s,mb3.2,baz=162,slow=6.3,SNR=2.8						

NNC 19 06:14:42.9±1.3**, 52.°00N×73.°41E, h0**^{km}**, mb2.8, mpv3.7, 4C-4D, Error ellipse: s-maj=64.1km s-min=9.5km az=24.0, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VOSK	Vostochnaya	1.66	297	⇓Pn	Pn	06 15 12.3	-0.9
	0.6nm,0.3s						
VOSK				⇓Lg		06 15 35.4	
	1.3nm,0.3s						
BRVK	Borovoye	2.19	300	⇑Pn	Pn	06 15 22.1	+1.7
	2.5nm,0.7s						
BRVK				⇑Lg		06 15 51.5	
	4.2nm,0.5s						
KURBB	Kurchatov Arra	3.49	111	⇓Pn	Pn	06 15 39.3	+0.9
	7µm,0.1s,baz=295,slow=20						
KURBB				⇓Lg		06 16 32.3	
	0.1nm,0.3s						
KURK	Kurchatov	3.51	109	⇑Pn	Pn	06 15 38.0	-0.5
	4.9nm,2.0s						
KURK				⇑Lg		06 16 33.1	
	1.4nm,0.8s						

IDC 19 06:21:07.2±7.9**, 30.°81S×179.°15E, h361**^{km}±54^{km}**, mb3.1**/4**, mb1 3.3**/5**, mb1mx3.2**/16**, mbtmp3.2**/5**, Error ellipse: s-maj=92.9km s-min=27.9km az=46.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	7.62	192	P	Pn	06 22 58.1	+1.1
	5.8nm,0.3s,baz=308,slow=1.9,SNR=28						
URZ				S	S	06 24 25.2	-1.3
	2.3nm,0.3s,baz=208,slow=23,SNR=18						
STKA	Stephens Creek	31.99	258	P	P	06 27 02.5	+1.3
	1.2nm,0.5s,baz=103,slow=14,SNR=4.1						
ASAR	Alice Springs	40.64	269	P	P	06 28 13.2	-0.5
	0.6nm,0.6s,baz=107,slow=7.1,SNR=6.6						
WRA	Warramunga Arr	41.67	274	P	P	06 28 21.5	-0.5
	0.7nm,0.3s,baz=113,slow=8.0,SNR=40						
QSPA	South Pole Qui	59.30	180	P	P	06 30 31.9	+0.4
	0.8nm,0.9s,baz=280,slow=10,SNR=3.2						

ISCJB ***19*** *06:22:26.4±0.5, 19.°58S±0.°04×69.°10W±0.°06, h96^{km}±5^{km}, mb4.3/34, Error ellipse: s-maj=10.4km s-min=5.3km az=148.0*

GUC ***19*** *06:22:28.4±0.5, 19.°73S×69.°32W, h101^{km}±4^{km}, ML4.9*

NEIC ***19*** *06:22:28.8±0.3, 19.°56S×69.°08W, mb4.3/18, Error ellipse: s-maj=11.0km s-min=6.9km az=59.0*

IDC ***19*** *06:22:28.6±0.5, 19.°56S×69.°08W, h105^{km}±5^{km}, mb4.0/16, mb1 4.1/20, mb1mx4.1/26, mbtmp4.1/20, MS3.4/1, Ms1 3.4/1, ms1mx2.6/21, Error ellipse: s-maj=15.8km s-min=8.0km az=79.0*

ISC 19 06:22:27.7±0.4**, 19.°61S**±0.°04×**69.°12W**±0.°06**, h91**^{km}±4^{km}**, h104**^{km}±1.5^{km}**:pP-P, n66, σ0^{s}94**/71**, mb4.3**/34**, 4C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNMC	Miæe Miæ	0.66	317	⇑iP	Pn	06 22 46.2	+2.3
MNMC				iS	Sn	06 22 59.4	+3.5
PSGC	Pisagua	0.95	271	⇑iP	Pn	06 22 46.6	-0.2
PSGC				iS	Sn	06 23 00.5	-0.8
PSGC				AML	AML	06 23 03.3	
	comp=N,21µm,0.5s						
HMBC	Humberston	0.98	227	⇑iP	Pn	06 22 46.9	-0.4
HMBC				iS	Sn	06 23 00.7	-1.2
HMBC				AML	AML	06 23 01.7	
	comp=E,61µm,0.7s						
PB01	Plate Boundary	1.47	194	⇑iP	Pn	06 22 53.0	-0.1
PB01				iS	Sn	06 23 11.7	-0.6
PB01				AML	AML	06 23 12.8	
	comp=E,39µm,0.5s						
MACH	Maria Elena	2.64	193	eP	Pn	06 23 08.7	+0.3
PB04	Plate Boundary	2.66	187	eP	Pn	06 23 10.3	+1.6
PB04				AML	AML	06 24 02.9	
	comp=N,4µm,0.7s						
LVC	Limon Verde	2.99	176	P	Pn	06 23 14.3	+1.2
	comp=N,76nm,0.3s,baz=0.0,slow=7.6,SNR=233						
LVC				S	Sn	06 23 52.7	+4.6
	comp=N,184nm,0.3s,baz=180,slow=22,SNR=22						
LVC	Limon Verde	2.99	176	ePn	Pn	06 23 14.3	+1.2
LVC	Limon Verde	2.99	176	eP	Pn	06 23 14.1	+1.0
LVC				iS	Sn	06 23 48.5	+0.4
PECH	Pedro de Valdi	3.02	190	iP	Pn	06 23 14.1	+0.7
PECH				iS	Sn	06 23 45.0	-3.7
PECH				AML	AML	06 23 53.4	
	comp=E,6µm,0.4s						
ARE	Arequipa	3.86	324	⇓iP	Pn	06 23 24.6	-0.2
ARE				iS	Sn	06 24 09.0	-0.2
SIV	San Ignacio	8.47	66	P	Pn	06 24 27.9	+0.4
	comp=E,6.0nm,0.3s,baz=258,slow=12,SNR=310						
LCO	Las Campanas	9.47	188	Pn	Pn	06 24 45.6	+4.4
LCO				eSn	Sn	06 26 47.1	+21
NNA	Nana	10.61	314	P	Pn	06 24 55.8	-1.0
	comp=E,1.1nm,0.3s,baz=147,slow=14,SNR=2.4						
NNA				S	Sn	06 26 53.2	-0.7
	comp=E,1.2nm,0.3s,baz=230,slow=14,SNR=2.0						
NNA	Nana	10.61	314	Pn	Pn	06 24 55.6	-1.2
CFAA	Coronel Fontan	11.97	176	P	Pn	06 25 10.0	-5.1
	baz=348,slow=15						
CFAA				S	Sn	06 27 13.9	-13
	comp=E,0.0nm,0.3s,baz=252,slow=19,SNR=2.0						
CPUP	Villa Florida	12.75	124	P	Pn	06 25 24.9	-0.6
	comp=E,1.1nm,0.3s,baz=292,slow=12,SNR=13						
SPB	Sao Paulo	20.54	105	eP	P	06 26 58.9	0.0
	comp=E,15nm,0.3s						
PLCA	Paso Flores	21.09	183	P	P	06 27 03.4	-1.2
	comp=E,5.6nm,0.8s,mb3.9,baz=2.6,slow=12,SNR=10						
PLCA				pP		06 27 24.6	
	comp=E,8.2nm,1.0s,baz=1.1,slow=12,SNR=5.3						
OTAV	Otavalo	21.75	334	eP	P	06 27 12.1	+0.3
	comp=E,4.4nm,0.8s,mb3.8						
ROSC	El Rosal	24.85	348	P	P	06 27 41.8	+0.1
	comp=E,1.9nm,0.5s,mb3.8,baz=102,slow=19,SNR=2.4						
SDV	Santo Domingo	28.36	357	P	P	06 28 12.8	-0.4
	comp=E,2.4nm,0.6s,mb3.9,baz=239,slow=13,SNR=7.0						
SDV	Santo Domingo	28.36	357	eP	P	06 28 10.8	-2.4
	comp=E,4.6nm,0.8s,mb4.1						
PCRV	Puerto La Cruz	29.93	9	P	P	06 28 27.3	+0.1
	comp=E,5.4nm,0.4s,mb4.5,baz=144,slow=13,SNR=6.5						
PCRV				LR	LR	06 40 47.9	
	comp=E,65nm,19.3s,baz=237,slow=37						
RCBR	Riachuelo	35.09	71	eP	P	06 29 13.7	+1.4
	comp=E,25nm,0.7s,mb5.2						
TEIG	Tepich	43.81	334	P	P	06 30 24.6	-0.1
	comp=E,9.2nm,0.9s,mb4.5,baz=101,slow=3.0,SNR=3.3						
CMIG	Matias Romero	44.40	324	P	P	06 30 29.3	-0.1
	comp=E,6.0nm,1.1s,mb4.2,baz=95,slow=3.4,SNR=6.5						
MIAR	Mount Ida	58.67	336	eP	P	06 32 14.4	-1.1
	comp=E,3.7nm,0.7s,mb4.5						
TXAR	Lajitas Array	58.98	325	P	P	06 32 17.0	-0.8
	comp=E,0.7nm,0.8s,mb3.8,baz=147,slow=7.1,SNR=5.5						
SDCO	Great Sand Dun	66.53	329	eP	P	06 33 08.2	+0.4
	comp=E,1.8nm,0.6s,mb4.1						
WUAZ	Wupatki	67.90	324	eP	P	06 33 17.5	+1.0
	comp=E,3.3nm,0.7s,mb4.3						
LIC	Lamto	68.06	75	eP	P	06 33 16.8	-1.2
	comp=E,110nm,1.7s						
TIC	Toumodi	68.24	74	eP	P	06 33 18.0	-1.1
	comp=E,9.6nm,0.3s,mb5.2						
KIC	Kosan Boka	68.38	75	eP	P	06 33 19.0	-1.0
	comp=E,40nm,0.8s,mb5.3						
DBIC	Dimbokro	68.40	74	P	P	06 33 19.1	-1.0
	comp=E,5.8nm,0.6s,mb4.6,baz=221,slow=5.3,SNR=10						
PFO	Pinyon Flat Ob	69.55	319	eP	P	06 33 27.5	+0.7
	comp=E,5.3nm,1.0s,mb4.3						
MSU	Marysvale	70.52	325	eP	P	06 33 33.8	+1.1
	comp=E,4.0nm,1.0s,mb4.2						
QSPA	South Pole Qui	70.57	180	P	P	06 33 32.8	+0.5
	comp=E,2.7nm,0.5s,mb4.3,baz=157,slow=1.2,SNR=28						
QSPA				pP	pP	06 33 58.7	+3.0
	comp=E,1.7nm,0.7s,baz=188,slow=8.9,SNR=3.6						
QSPA	South Pole Qui	70.57	180	P	P	06 33 32.8	+0.4
QSPA				pP	pP	06 33 58.7	+3.0
GSC	Goldstone	70.91	320	eP	P	06 33 34.1	-1.0
	comp=E,3.1nm,0.6s,mb4.3						
RSSD	Black Hills	71.02	334	eP	P	06 33 35.7	+0.2
	comp=E,3.0nm,0.7s,mb4.2						
DUG	Dugway	72.08	326	eP	P	06 33 42.8	+0.8
	comp=E,3.3nm,1.2s,mb4.0						
ISA	Isabella	72.16	320	eP	P	06 33 43.5	+0.9
	comp=E,4.2nm,0.7s,mb4.4						
PDAR	Pinedale Array	72.38	330	P	P	06 33 42.6	-1.1
	comp=E,0.9nm,0.7s,mb3.7,baz=131,slow=7.5,SNR=6.7						
ULM	Lac du Bonnet	73.47	342	P	P	06 33 47.8	-2.1
	comp=E,3.1nm,0.5s,mb4.4,baz=136,slow=3.9,SNR=5.8						
RRI2	Red Ridge	73.67	329	eP	P	06 33 51.8	+0.5
	comp=E,7.4nm,0.9s,mb4.4						
NVAR	Mina Array Bea	73.89	322	P	P	06 33 53.5	+0.8
	comp=E,2.0nm,0.7s,mb3.9,baz=157,slow=6.5,SNR=14						
NVAR				pP	pP	06 34 19.1	+2.8
	comp=E,0.8nm,0.8s,baz=157,slow=6.3,SNR=3.0						
IMW	Indian Meadow	73.90	330	eP	P	06 33 53.0	+0.4
	comp=E,1.5nm,0.7s,mb3.8						
SCHQ	Schefferville	74.17	1	P	P	06 33 53.1	-0.8
	comp=E,3.1nm,0.9s,mb4.0,baz=194,slow=5.8,SNR=2.7						
WAKR	Walker	74.61	321	eP	P	06 33 58.6	+1.7
HLID	Hailey	75.35	328	eP	P	06 34 02.0	+0.9
	comp=E,6.3nm,1.1s,mb4.3						
PAHR	Pah Rah Range	75.37	322	eP	P	06 34 02.9	+1.6
	comp=E,8.7nm,0.8s,mb4.3						
EGMT	Eagleton	76.53	333	eP	P	06 34 07.5	-0.1
	comp=E,6.4nm,1.0s,mb4.3						
TORD	Torodi Ar. Bea	76.91	71	P	P	06 34 09.2	-1.4
	comp=E,3.2nm,0.4s,mb4.2,baz=253,slow=5.4,SNR=68						
TORD				pP	pP	06 34 37.1	+2.8
	comp=E,4.4nm,0.6s,baz=251,slow=5.5,SNR=5.1						
WALA	Waterton Lakes	79.12	332	eP	P	06 34 22.3	+0.4
	comp=E,0.1nm,0.6s						
OD2	Odessa Site #2	80.19	328	eP	P	06 34 28.8	+1.0
FCC	Fort Churchill	80.76	347	eP	P	06 34 30.3	-0.3

	comp=E,0.1nm,0.6s						
ETW	Entiat	81.14	328	*e*P	P	06 34 34.0	+1.1
EDM	Edmonton	81.98	335	*e*P	P	06 34 36.4	-0.8
BOSA	Boshof	84.51	118	P	P	06 34 51.4	+0.5
	comp=E,1.6nm,0.9s,mb3.9,baz=276,slow=9.2,SNR=1.8						
BOSA				pP	pP	06 35 18.0	+3.0
	comp=E,4.3nm,1.0s,baz=243,slow=11,SNR=3.3						
YKA	Yellowknife Ar	89.35	341	P	P	06 35 13.1	-0.3
	comp=E,8.8nm,0.8s,mb4.9,baz=134,slow=4.6,SNR=138						
YKA				pP	pP	06 35 40.4	+2.7
	comp=E,2.9nm,0.9s,baz=138,slow=4.9,SNR=3.7						
ASAR	Alice Springs	131.48	209	PKP	PKPdf	06 41 29.1	-1.2
	comp=E,1.1nm,0.5s,baz=127,slow=1.7,SNR=4.6						
WRA	Warramunga Arr	134.46	212	PKP	PKPdf	06 41 35.1	-0.9
	comp=E,1.6nm,0.5s,baz=158,slow=1.8,SNR=5.1						
MJAR	Matsushiro Arr	150.72	311	PKPbc	PKPbc	06 42 09.0	-0.6
	comp=E,1.1nm,0.4s,baz=75,slow=1.9,SNR=4.6						
SONM	Songino Array	151.61	6	PKPbc	PKPbc	06 42 11.3	0.0
	comp=E,2.2nm,0.5s,baz=295,slow=1.6,SNR=6.4						
SONM				pPKP	pPKPdf	06 42 31.8	+1.4
	comp=E,1.3nm,0.5s,baz=311,slow=1.6,SNR=2.5						
HHC	Hu-ho-hao-te	158.82	359	*e*PKP	PKPdf	06 42 18.5	+3.5
HHC				pPKP	pPKPdf	06 42 45.3	+4.9
HHC				PKPab	PKPab	06 42 55.6	+4.6
HHC				PKS		06 45 50.6	
HHC				PP	PP	06 46 36.5	+5.7
HHC				SKS	SKSdf	06 49 12.3	-0.1
HHC				SKKS	SKKSac	06 53 13.8	+1.5
HHC				SS	SS	07 06 27.5	+1.7
HHC				AMB	AMB		
	comp=Z,99nm,7.9s						
HHC				LR	LR		
	comp=N,85nm,15.5s						
HHC				LR	LR		
	comp=E,120nm,15.7s						
HHC				LR	LR		
	comp=Z,90nm,16.2s						

BJI ***19*** *06:29:46.3, 3°.99S×100°.78E, h35^{km}, mB5.2/40, mb5.2/51, Ms5.3/58, Ms7 5.0/52*

IDC ***19*** *06:29:48.2±0.4, 3°.29S×100°.87E, h0^{km}, mb4.9/29, mb1 4.9/30, mb1mx4.9/32, mbtmp4.9/30, ML4.5/1, MS4.7/19, Ms1 4.8/19, ms1mx4.7/23, Error ellipse: s-maj=15.6km s-min=9.6km az=54.0*

ISCJB ***19*** *06:29:52.3±0.2, 3°.33S±0°.03×100°.77E±0°.03, h34^{km}, mb5.2/121, MS4.9/47, Error ellipse: s-maj=4.7km s-min=2.7km az=40.5*

MOS ***19*** *06:29:52.0±1.2, 3°.18S×101°.00E, h33^{km}, mb5.4/38, MS5.1/7, Error ellipse: s-maj=10.7km s-min=5.6km az=115.1*

NEIC ***19*** *06:29:53.9±0.2, 3°.29S×100°.93E, mb5.3/53, Error ellipse: s-maj=8.8km s-min=4.7km az=52.0*

NEIC Felt [III] at Mukomuko, Sumatra.

GCMT ***19*** *06:29:53.9±0.2, 3°.61S×100°.62E, h36^{km}, MW5.3/72, Moment Tensor Solution. s66,c100; s72,c110; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}0.86±.03; $M_{\theta\theta}$-0.57±.02; $M_{\phi\phi}$-0.28±.03; $M_{r\theta}$0.69±.03; $M_{\theta\phi}$0.59±.02; $M_{\phi r}$-0.34±.03; Best double couple: $M_0$1.22500×10^{17} NP1:ϕ_s319.00000°, δ27.00000°, λ108.00000°. NP2:ϕ_s120.00000°, δ65.00000°, λ81.00000°. Principal axes: T 1.1480, Plg69.0000°, Azm12.0000°; N 0.1540, Plg8.0000°, Azm123.0000°; P -1.3020, Plg19.0000°, Azm216.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

DJA ***19*** *06:29:54, 3°.34S×100°.73E, h28^{km}, mb5.4/38*

ISC 19 06:29:54.4±0.2**, 3°.33S**±0°.03×**100°.77E**±0°.03**, h36**^{km}**, h36**^{km}±1.2^{km}**:pP-P, n348,** σ**1**^{s}**23**/322**, mb5.2**/120**, MS4.9**/47**,**
21C-12D, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.95	307	P	Pn	06 30 11.5	+0.3
KSI	Kapahiang	1.85	100	P	Pn	06 30 22.6	-1.0
MNAI	Manna	2.41	115	P	Pn	06 30 31.7	+0.4
PDSI	Padang	2.43	353	P	Pn	06 30 31.3	-0.3
SISI	Saibi	2.61	320	P	Pn	06 30 33.6	-0.5
LHSI	Lahat	2.79	100	P	Pn	06 30 35.4	-1.2
PPI	Padang Panjang	2.88	353	P	Pn	06 30 38.5	+0.6
RGRI	Rengat	3.35	28	P	Pn	06 30 45.6	+1.3
MDSI	Maura Dua	3.59	109	P	Pn	06 30 47.7	+0.1
PMBI	Palembang	4.02	84	P	Pn	06 30 52.6	-0.9
KASI	Kota Agung	4.30	120	P	Pn	06 30 56.9	-0.5
KLI	Kotabumi	4.35	111	P	Pn	06 31 00.2	+2.1
RBSI	Rajabasa	5.55	117	P	Pn	06 31 15.5	+1.0
	876nm,1.0s,3.0nm						
GSI	Gunungsitoli	5.61	325	P	Pn	06 31 14.4	-0.9
	243nm,0.7s,4.2nm						
KGM	Kluang	5.89	26	P	Pn	06 31 20.5	+1.2
MYKOM	Kota Tinggi	5.95	31	P	Pn	06 31 21.3	+1.2
MYKOM	Kota Tinggi	5.95	31	P	Pn	06 31 20.9	+0.9
	272nm,0.7s,4.8nm						
SBJI	Serang	6.02	118	P	Pn	06 31 24.6	+3.6
	528nm,1.1s,2.7nm						
PSI	Prapat	6.37	343	Pn	Pn	06 31 23.7	-2.1
	12nm,0.3s,baz=179,slow=9.3,SNR=28						
PSI				Lg		06 32 52.8	
	1.3nm,0.3s,baz=151,slow=19,SNR=3.5						
PSI				LR	LR	06 34 37.7	
	comp=Z,14µm,18.6s,baz=46,slow=46						
FRIM	Kepong	6.58	7	P	Pn	06 31 30.3	+1.5
DBJI	Dramaga	6.76	118	P	Pn	06 31 31.6	+0.4
	425nm,1.4s						
CBJI	Citeko	6.79	117	P	Pn	06 31 35.1	+3.5
	2µm,0.7s						
TPI	Tanjungpandan	6.90	85	P	Pn	06 31 34.3	+1.2
	79nm,0.9s,1.2nm						
LEM	Lembang	7.65	117	P	Pn	06 31 45.2	+1.8
	349nm,1.1s,1.4nm						
IPM	Ipoh	7.77	2	P	Pn	06 31 48.2	+3.2
	123nm,0.7s,2µm1.4nm						
KULM	Kulim	8.57	359	P	Pn	06 31 57.6	+1.5
KULM	Kulim	8.57	359	*e*Pn	Pn	06 31 56.3	+0.3
	83nm,0.8s						
KULM	Kulim	8.57	359	P	Pn	06 31 59.0	+3.0
	114nm,1.1s,2µm0.4nm						
XMIS	Christmas Isla	8.60	146	*e*P	Pn	06 31 48.5	-7.9
XMIS				*e*S	Sn	06 33 16.3	-16
XMIS	Christmas Isla	8.60	146	P	Pn	06 31 59.2	+2.8
	229nm,1.0s						
KTGM	Kuala Trenggan	8.92	15	P	Pn	06 32 03.5	+2.7
COCO	West Island	9.62	204	*i* P	Pn	06 32 08.7	-1.8
COCO	West Island	9.62	204	*e*Pn	Pn	06 32 07.1	-3.4
	228nm,0.8s						
COCO	West Island	9.62	204	P	Pn	06 32 13.1	+2.6
	417nm,0.8s						
BSI	Banda Aceh	10.34	328	P	Pn	06 32 20.1	-0.2
	141nm,0.9s,1µm						
SNG	Songkhla	10.44	359	P	Pn	06 32 21.0	-0.7
	140nm,0.8s						
UGM	Wanagama	10.72	116	P	Pn	06 32 24.0	-1.5
	375nm,1.1s						
NGJI	Ngawi	11.37	111	P	Pn	06 32 36.8	+2.3
	127nm,1.2s						
SJI	Sawahan	11.79	112	P	Pn	06 32 39.6	-0.5
	236nm,0.8s						
PWJI	Pagerwojo	11.92	113	P	Pn	06 32 43.8	+1.8
	141nm,0.7s						
SBUM	Sibu	12.81	63	P	Pn	06 32 57.9	+3.8
	90nm,1.5s,2µm						
GMJI	Gumukmas	13.53	112	P	Pn	06 33 03.5	-0.4
	84nm,1.3s						
BBKI	Banjar Baru	14.05	91	P	Pn	06 33 18.5	+7.5
	391nm,0.8s,5µm						
ABJI	Asem Bagus	14.11	109	P	Pn	06 33 13.7	+1.8
	349nm,0.7s						
KBKI	Kotabaru	15.37	90	P	Pn	06 33 33.6	+4.8
	94nm,0.9s,2µm						
SDKM	Sandakan	18.67	62	P	Pn	06 34 10.0	-0.1
TSM	Tawau	18.69	66	P	Pn	06 34 10.3	-0.1
KDM	Kudat	18.99	58	P	Pn	06 34 13.6	-0.4
KAPI	Kappang	19.00	96	Pn	Pn	06 34 11.4	-2.8
	686nm,0.7s,SNR=19						
TTSI	Tana Toraja	19.02	90	P	Pn	06 34 14.6	+0.2
	94nm,1.0s,2µm						
PCI	Palu	19.20	83	P	Pn	06 34 16.7	+0.1
	158nm,1.0s						
BNSI	Bone	19.32	94	P	Pn	06 34 17.4	-0.6
	152nm,0.9s,3µm						
MYLDM	Lahad Datu	19.63	65	P	Pn	06 34 21.5	-0.1
	106nm,1.6s,3µm						
BDT	Bhumibol Dam	20.52	355	P	P	06 34 27.0	-2.7
APSI	Ampana	21.00	84	P	P	06 34 36.0	+1.0
	199nm,0.9s,mb5.5						
CMAR	Chiang Mai Arr	21.73	355	P	P	06 34 39.5	-3.2
CMAR						06 38 43.6	
CMAR	Chiang Mai Arr	21.73	355	P	P	06 34 39.5	-3.2
	14nm,0.5s,mb4.6,baz=184,slow=10,SNR=40						
CMAR				PcP	PcP	06 38 43.6	+0.8
	1.0nm,0.3s,baz=193,slow=3.7,SNR=4.2						
CMAR				LR	LR	06 44 16.0	
	comp=Z,3µm,18.4s,MS4.7,baz=185,slow=40						
KDI	Kendari	21.81	92	P	P	06 34 44.0	+0.3
	74nm,0.9s,1µm,mb5.1						
CHG	Chiang Mai	22.08	355	P	P	06 34 47.7	+1.3
CHTO	Chiang Mai	22.08	355	*e*P	P	06 34 43.8	-2.6
CHTO				pmax	pmax		
	comp=Z,152nm,2.4s,mb5.0						
CHTO	Chiang Mai	22.08	355	*e*P	P	06 34 43.8	-2.7
	comp=Z,152nm,2.4s,mb5.0						
CHTO	Chiang Mai	22.08	355	P	P	06 34 47.5	+1.1
	comp=Z,20nm,1.3s,comp=Z,560nm,mb4.4						
PALK	Pallekele	22.63	298	*e*P	P	06 34 55.1	+2.7
PALK				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.0						
PALK	Pallekele	22.63	298	P	P	06 34 53.3	+0.9
	comp=Z,3.1nm,0.5s,mb4.0,baz=140,slow=7.9,SNR=2.4						
PALK				LR	LR	06 42 20.4	
	comp=Z,3µm,20.8s,MS4.7,baz=118,slow=33						
PALK	Pallekele	22.63	298	*e*P	P	06 34 55.1	+2.7
	comp=Z,70nm,1.0s,mb5.0						
PALK	Pallekele	22.63	298	P	P	06 34 54.5	+2.1
	comp=Z,14nm,1.9s,mb4.0						
CHRT	Chiangrai	23.08	358	P	P	06 34 54.5	-2.5
	comp=Z,145nm,0.8s,mb5.5						
KMSI	Cibinong	23.52	81	P	P	06 35 03.2	+1.6
	comp=Z,203nm,1.0s,mb5.5						
QIZ	Qiongzhong	23.95	22	P	P	06 35 04.8	-0.6
QIZ				sP	sP	06 35 19.5	-0.6
QIZ				S	S	06 39 23.3	+3.6
QIZ				sS	sS	06 39 38.8	+2.1
QIZ				pmax	pmax		
	comp=Z,74nm,1.5s,mb4.9						
QIZ				pmax	pmax		
	comp=Z,600nm,6.0s						
QIZ				LR	LR		
	comp=E,3µm,18.3s						
QIZ				LR	LR		
	comp=Z,3µm,19.6s,MS4.8						
MNI	Manado	24.52	79	P	P	06 35 11.2	+0.4
	comp=Z,281nm,0.8s,mb5.9						
MBWA	Marble Bar	25.58	135	*e*P	P	06 35 19.8	-0.4
	comp=Z,18nm,0.8s,mb4.7						
MBWA	Marble Bar	25.58	135	P	P	06 35 22.2	+2.0
	comp=Z,63nm,1.4s,mb4.9						
NLAI	Namlea	26.29	91	P	P	06 35 28.9	+2.1
	comp=Z,36nm,0.7s,mb5.0						
TGY	Tagaytay City	26.46	49	P	P	06 35 27.7	-0.5
	comp=Z,346nm,0.2s,mb6.5,baz=194,slow=8.3,SNR=3.8						
TGY				LR	LR	06 47 06.3	
	comp=Z,14nm,18.0s,baz=119,slow=39						
TRD	Trivandrum	26.50	296	*e*x	x	06 35 39.0	
TRD				*e*x	x	06 39 51.0	
DAV	Davao City (W)	26.83	67	LR	LR	06 46 53.6	
	comp=Z,2µm,20.3s,MS4.6,baz=339,slow=38						
VIS	Vishakhapatnam	27.09	321	*e*PKP	P	06 35 33.7	-0.2
KMI	Kunming	28.35	4	P	P	06 35 46.5	+1.4
KMI				pP	pP	06 35 57.3	+1.9
KMI				sP	sP	06 36 01.9	+2.1
KMI				PP	PP	06 36 41.8	-7.9
KMI				S	S	06 40 31.5	+2.0
KMI				sS	sS	06 40 50.3	+3.7
KMI				SS	SS	06 41 58.9	-32
KMI				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						
KMI				pmax	pmax		
	comp=Z,180nm,4.4s						
KMI				LR	LR		
	comp=N,3µm,17.3s,MS5.2						
KMI				LR	LR		
	comp=E,4µm,15.7s,MS5.2						
KMI				LR	LR		
	comp=Z,4µm,17.8s,MS5.0						
FITZ	Fitzroy Crossi	28.44	123	*e*P	P	06 35 44.6	-1.4
	comp=Z,45nm,0.8s,mb5.2						
FITZ	Fitzroy Crossi	28.44	123	P	P	06 35 44.6	-1.4
	comp=Z,19nm,0.8s,mb4.8,baz=297,slow=5.4,SNR=21						
FITZ	Fitzroy Crossi	28.44	123	*e*P	P	06 35 44.2	-1.8
	comp=Z,38nm,0.9s,mb5.0						
FITZ	Fitzroy Crossi	28.44	123	P	P	06 35 45.7	-0.3
	comp=Z,91nm,1.0s,mb5.4						
CAL	Calcutta	28.44	335	*e*x	x	06 35 53.7	
CAL				*e*x	x	06 40 20.6	
AGT	Agartala	28.60	342	*e*PKP	P	06 35 45.0	-2.3
IMP	Imphal	28.73	347	*e*PKP	P	06 35 49.0	+0.5
GZH	Guangzhou	28.98	24	P	P	06 35 52.3	+1.5
GZH				S	S	06 40 44.8	+5.3
GZH				LR	LR		
	comp=N,2µm,17.4s,MS5.0						
GZH				LR	LR		
	comp=E,2µm,12.8s,MS5.0						
GZH				LR	LR		
	comp=Z,4µm,17.1s,MS5.1						
SHL	Shillong	29.99	344	*e*PKP	P	06 36 00.5	+0.8
SHL				*e*x	x	06 40 52.5	
HYB	Hyderabad	30.10	314	*i* P	P	06 36 03.5	+2.8
HYB	Hyderabad	30.10	314	*e*P	P	06 36 00.0	-0.7
GYA	Guiyang	30.16	11⇑	*i*P	P	06 36 02.8	+1.6
GYA				pP	pP	06 36 15.0	+3.5
GYA				sP	sP	06 36 18.3	+2.4
GYA				PP	PP	06 37 02.4	-7.4
GYA				PcP	PcP	06 39 02.1	+0.1
GYA				S	S	06 41 00.3	+2.4
GYA				sS	sS	06 41 18.3	+3.3
GYA				SS	SS	06 42 40.5	-27
GYA				ScS	ScS	06 46 34.5	-2.9
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,140nm,4.9s						
GYA				LR	LR		
	comp=N,890nm,16.8s,MS4.6						
GYA				LR	LR		
	comp=E,660nm,17.0s,MS4.6						
GYA				LR	LR		
	comp=Z,710nm,17.5s,MS4.4						
BOK	Bokaro	30.61	332	*e*PKP	P	06 36 05.2	0.0
BOK				AMb	AMB	06 36 11.5	
	comp=Z,60nm,1.0s,mb5.4						
MUN	Mundaring	31.98	155	*e*P	P	06 36 17.7	+0.6
KAKA	Kakadu	32.68	108	*e*P	P	06 36 19.6	-3.9
	comp=Z,45nm,0.6s,mb5.6						
KAKA	Kakadu	32.68	108	P	P	06 36 24.5	+1.0
	comp=Z,40nm,0.7s,mb5.5						
ODAN	Odare	32.68	337	*e*P	P	06 36 24.4	+1.0
	comp=Z,132nm,0.5s,mb6.1						
TAPN	Taplejung	33.01	338	*e*P	P	06 36 27.6	+1.4
	comp=Z,348nm,0.9s,mb6.3						
RAMN	Ramite	33.07	336	*e*P	P	06 36 28.1	+1.3
	comp=Z,114nm,0.6s,mb6.0						
NWAO	Narrogin (SRO)	33.23	154	*e*P	P	06 36 27.9	-0.2
NWAO				pmax	pmax		
	comp=Z,24nm,1.0s						
NWAO	Narrogin (SRO)	33.23	154	P	P	06 36 27.9	-0.2
	comp=Z,9.1nm,0.6s,mb4.9,baz=325,slow=13,SNR=6.2						
NWAO	Narrogin (SRO)	33.23	154	*e*P	P	06 36 27.9	-0.2
	comp=Z,24nm,1.0s,mb5.1						
JIRN	Jiri	33.87	336	*e*P	P	06 36 35.0	+1.3
	comp=Z,222nm,0.6s,mb6.2						
PKI	Pulchoki	34.11	335	*e*P	P	06 36 36.5	+0.7
LSA	Lhasa	34.12	345	P	P	06 36 37.3	+1.5
LSA				pP	pP	06 36 45.0	-1.2
LSA				sP	sP	06 36 48.8	-1.8
LSA				PP	PP	06 37 54.1	+0.5
LSA				PcP	PcP	06 39 11.9	-0.8
LSA				S	S	06 41 58.4	-1.1
LSA				sS	sS	06 42 16.9	+0.2
LSA				ScP	ScP	06 42 48.8	-6.3
LSA				PcS	PcS	06 42 58.8	-0.1
LSA				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.5						
LSA				LR	LR		
	comp=N,1µm,23.4s,MS4.6						
LSA				LR	LR		
	comp=E,850nm,22.8s,MS4.6						
LSA				LR	LR		
	comp=Z,2µm,25.3s,MS4.8						
CD2	Chengdu	34.17	5	P	P	06 36 39.1	+2.8
CD2				pP	pP	06 36 48.8	+2.1
CD2				sP	sP	06 36 52.8	+1.7
CD2				PP	PP	06 37 55.3	+1.1
CD2				S	S	06 42 03.9	+3.6
CD2				sS	sS	06 42 19.9	+2.4
CD2				SS	SS	06 44 15.3	-14
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.3						
CD2				pmax	pmax		
	comp=Z,290nm,4.5s						
CD2				LR	LR		
	comp=N,6µm,19.6s,MS5.4						
CD2				LR	LR		
	comp=E,4µm,21.4s,MS5.4						
GUN	Gumba	34.22	336	*e*P	P	06 36 38.1	+1.4
	comp=E,225nm,0.5s,mb6.4						
DMN	Daman	34.27	335	*e*P	P	06 36 38.0	+0.8
POO	Poona	34.28	310	*e*PKP	P	06 36 36.0	-1.4
KKN	Kakani	34.35	335	*e*P	P	06 36 38.7	+0.8
	comp=E,100nm,0.5s,mb6.0						
KKN	Kakani	34.35	335	*e*P	P	06 36 38.7	+0.8
KKN				pmax	pmax		
	comp=Z,100nm,0.5s,mb6.0						
GKN	Gorkha	34.81	335	*e*P	P	06 36 42.8	+0.9
	comp=Z,105nm,0.5s,mb6.0						
KOLN	Koldanda	35.07	333	*e*P	P	06 36 45.2	+1.1
	comp=Z,102nm,0.6s,mb5.9						
DANN	Dangsing	35.50	334	*e*P	P	06 36 48.7	+0.9
	comp=Z,285nm,0.5s,mb6.5						
WHN	Wuhan	36.10	20	*e*P	P	06 36 54.1	+1.2
WHN				LR	LR		
	comp=N,4µm,12.6s						
WHN				LR	LR		
	comp=E,3µm,17.9s						
WHN				LR	LR		
	comp=Z,7µm,15.0s,MS5.6						
WRA	Warramunga Arr	36.66	119	P	P	06 36 56.4	-1.5
WRA						06 39 20.0	
WRA				S	S	06 42 34.0	-5.0
WRA	Warramunga Arr	36.66	119	P	P	06 36 56.4	-1.5
	comp=Z,12nm,0.4s,mb5.1,baz=280,slow=7.5,SNR=149						
WRA				PcP	PcP	06 39 20.0	-0.4
	comp=Z,5.0nm,0.6s,baz=311,slow=2.1,SNR=4.9						
WRA				S	S	06 42 34.0	-5.0
	comp=Z,9.5nm,1.0s,baz=291,slow=22,SNR=9.1						
WRA				LR	LR	06 54 14.9	
	comp=Z,1µm,19.8s,MS4.7,baz=300,slow=40						
WRAB	Tennant Creek	36.67	119	P	P	06 36 56.0	-2.0
	comp=Z,373nm,0.6s,mb6.4,SNR=56						
WRAB	Tennant Creek	36.67	119⇑	*e*P	P	06 36 56.6	-1.4
WRAB	Tennant Creek	36.67	119	*e*P	P	06 36 56.0	-2.0
	comp=Z,48nm,0.9s,mb5.3						
WRAB	Tennant Creek	36.67	119	P	P	06 36 56.7	-1.3
	comp=Z,63nm,0.8s,mb5.5						
ASAR	Alice Springs	37.85	125	P	P	06 37 06.9	-1.1
	comp=Z,30nm,0.5s,mb5.3,baz=300,slow=8.1,SNR=90						
ASAR				PcP	PcP	06 39 23.8	-0.2
	comp=Z,5.7nm,0.6s,baz=296,slow=2.3,SNR=6.6						
ASAR				S	S	06 42 54.2	-2.8
	comp=Z,12nm,1.0s,baz=298,slow=16,SNR=10						
SMPI	Sarmi	37.92	89	P	P	06 37 08.7	0.0
XAN	Xi’an	37.96	11	P	P	06 37 07.8	-0.9
XAN				pP	pP	06 37 18.9	-0.3
XAN				PP	PP	06 38 35.3	-0.6
XAN				S	S	06 43 06.5	+8.3
XAN				SS	SS	06 45 38.3	-7.8
XAN				pmax	pmax		
	comp=Z,57nm,0.6s,mb5.5						
XAN				pmax	pmax		
	comp=Z,250nm,5.5s						
XAN				LR	LR		
	comp=N,1µm,20.8s,MS5.1						
XAN				LR	LR		
	comp=E,3µm,19.1s,MS5.1						
XAN				LR	LR		
	comp=Z,3µm,20.8s,MS5.1						
LGTI	Lohaghat	38.07	330	*e*PKP	P	06 37 08.1	-1.6
NJ2	Nanjing	39.16	25	*e*P	P	06 37 20.5	+1.7
NJ2				pP	pP	06 37 30.3	+1.0
NJ2				sP	sP	06 37 34.3	+0.6
NJ2				PP	PP	06 38 55.3	+6.2
NJ2				S	S	06 43 18.5	+2.0
NJ2				sS	sS	06 43 34.5	+0.7
NJ2				SS	SS	06 46 05.5	-4.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
NJ2				pmax	pmax		
	comp=Z,160nm,7.0s						
NJ2				LR	LR		
	comp=N,1µm,18.7s,MS5.1						
NJ2				LR	LR		
	comp=E,2µm,19.0s,MS5.1						
NJ2				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
LZH	Lanzhou	39.32	4	*e*P	P	06 37 19.6	-0.4
LZH				pP	pP	06 37 29.8	-0.8
LZH				sP	sP	06 37 33.4	-1.5
LZH				PP	PP	06 38 57.0	+6.2
LZH				PcP	PcP	06 39 28.6	+0.3
LZH				*e*S	S	06 43 20.3	+1.6
LZH				sS	sS	06 43 37.4	+1.3
LZH				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,170nm,4.4s						
LZH				LR	LR		
	comp=N,3µm,15.8s						
LZH				LR	LR		
	comp=Z,4µm,16.1s,MS5.4						
SSE	Sheshan	39.38	28	P	P	06 37 20.5	-0.2
SSE				pmax	pmax		
	comp=Z,42nm,0.7s,mb5.3						
SSE				pmax	pmax		
	comp=Z,240nm,3.7s						
SSE				LR	LR		
	comp=N,2µm,14.0s,MS5.1						
SSE				LR	LR		
	comp=E,970nm,14.2s,MS5.1						
SSE				LR	LR		
	comp=Z,2µm,15.1s,MS5.0						
DDI	Dehra Dun	39.89	329	*e*x	P	06 37 24.1	-0.8
BHJ	Bhuj	40.23	313	*e*PKP	P	06 37 27.2	-0.7
SDNR	Sundarnagar	41.39	329	*e*PKP	P	06 37 38.0	+0.7
GTA	Gaotai	42.54	359	P	P	06 37 46.1	-0.4
GTA				pP	pP	06 37 57.8	+0.7
GTA				sP	sP	06 38 02.5	+1.0
GTA				S	S	06 44 06.8	+0.3
GTA				SS	SS	06 47 11.6	-5.8
GTA				pmax	pmax		
	comp=Z,21nm,2.0s,mb4.5						
GTA				pmax	pmax		
	comp=Z,260nm,7.1s						
GTA				LR	LR		
	comp=N,2µm,17.5s,MS5.1						
GTA				LR	LR		
	comp=E,2µm,19.3s,MS5.1						
GTA				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
THN	Thein Dam	42.78	328	*e*PKP	P	06 37 46.8	-1.8
COEN	Coen	43.15	107	*e*P	P	06 37 53.0	+1.1
	comp=Z,39nm,0.7s,mb5.2						
BTO	Baotou	44.54	10	*e*P	P	06 38 00.9	-1.7
HHC	Hu-ho-hao-te	45.06	12	*e*P	P	06 38 06.9	+0.1
HHC				pP	pP	06 38 16.8	-0.7
HHC				sP	sP	06 38 21.0	-0.8
HHC				PP	PP	06 39 53.0	+0.3
HHC				PcS	PcS	06 43 39.3	-1.6
HHC				*e*S	S	06 44 42.3	-1.0
HHC				sS	sS	06 45 00.0	-0.9
HHC				SS	SS	06 47 58.3	-8.2
HHC				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.0						
HHC				pmax	pmax		
	comp=Z,400nm,4.3s						
HHC				LR	LR		
	comp=N,2µm,14.8s,MS5.2						
HHC				LR	LR		
	comp=E,1µm,13.2s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,13.0s,MS5.2						
BJI	Beijing	45.42	17	P	P	06 38 08.8	-0.8
BJI				PP	PP	06 39 57.8	+1.3
BJI				S	S	06 44 47.8	-0.7
BJI				pmax	pmax		

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            comp=Z,43nm,0.5s,mb5.5
BJI                                  pmax     pmax
            comp=Z,460nm,3.5s
BJI                                  LR       LR
            comp=N,3µm,18.1s,MS5.3
BJI                                  LR       LR
            comp=E,2µm,19.4s,MS5.3
BJI                                  LR       LR
            comp=Z,3µm,20.0s,MS5.2
DL2    Dalian              46.23  23  P       P          06 38 12.5  -3.6
DL2                                  eS       S          06 44 54.3  -5.9
DL2                                  pmax     pmax
            comp=Z,20nm,1.2s,mb4.9
DL2                                  pmax     pmax
            comp=Z,110nm,7.5s
DL2                                  LR       LR
            comp=N,920nm,16.8s
DL2                                  LR       LR
            comp=Z,1µm,14.9s,MS4.9
CTA    Charters Tower      47.34 114 eP       P          06 38 24.3  -0.8
            comp=Z,16nm,0.6s,mb5.1
CTA    Charters Tower      47.34 114  P       P          06 38 23.4  -1.7
            comp=Z,28nm,0.9s,mb5.2,baz=286,slow=8.8,SNR=16
CTA    Charters Tower      47.34 114  P       P          06 38 23.4  -1.7
CTAO   Charters Tower      47.34 114 eP       P          06 38 23.8  -1.3
CTAO                                 e*PP     pP         06 38 34.5  -1.3
CTAO                                 pmax     pmax
            comp=Z,39nm,1.0s,mb5.3
CTAO   Charters Tower      47.34 114 eP       P          06 38 23.8  -1.3
            comp=Z,39nm,1.0s,mb5.3
CTAO                                 epP      pP         06 38 34.5  -1.3
STKA   Stephens Creek      47.70 131 eP       P          06 38 27.2  -0.5
            comp=Z,16nm,0.5s,mb5.3
STKA   Stephens Creek      47.70 131  P       P          06 38 27.2  -0.5
            comp=Z,32nm,0.8s,mb5.4,baz=305,slow=7.8,SNR=48
STKA                                 LR       LR         06 58 46.5
            comp=Z,2µm,20.6s,MS5.0,baz=293,slow=36
KSRS   Korea Array         47.78  29  P       P          06 38 27.1  -1.2
            comp=Z,20nm,0.8s,mb5.2,baz=227,slow=8.5,SNR=41
KSRS                                 LR       LR         07 01 10.3
            comp=Z,733nm,18.1s,MS4.7,baz=83,slow=40
KBL    Kabul               48.06 324 eP       P          06 38 30.4   0.0
KBL                                  e*PP     pP         06 38 42.5  +1.4
KBL                                  pmax     pmax
            comp=Z,9.0nm,0.6s,mb5.0
KBL    Kabul               48.06 324 eP       P          06 38 30.4   0.0
            comp=Z,9.0nm,0.6s,mb5.0
KBL                                  epP      pP         06 38 42.5  +1.4
KSH    Kashi               48.36 334⇑iP       P          06 38 31.6  -1.0
KSH                                  epP      pP         06 38 40.0  -3.4
KSH                                  sP       sP         06 38 44.9  -2.8
KSH                                  ePcP     PcP        06 39 59.1  +0.2
KSH                                  ePP      PP         06 40 22.1  -3.4
KSH                                  eScP     ScP        06 43 50.0  -1.0
KSH                                  ePcS     PcS        06 43 53.1  -1.6
KSH                                  S        S          06 45 26.3  -4.2
KSH                                  eScS     ScS        06 48 19.0  -3.7
KSH                                  pmax     pmax
            comp=Z,17nm,0.8s,mb5.1
KSH                                  pmax     pmax
            comp=Z,310nm,4.2s
KSH                                  LR       LR
            comp=N,590nm,14.8s,MS5.0
KSH                                  LR       LR
            comp=E,1µm,18.4s,MS5.0
KSH                                  LR       LR
            comp=Z,1µm,17.9s,MS5.0
WMQ    Urumqi              48.39 347⇑iP       P          06 38 33.3  +0.5
WMQ                                  pP       pP         06 38 43.0  -0.5
WMQ                                  sP       sP         06 38 47.0  -0.8
WMQ                                  PcP      PcP        06 39 59.0  +0.1
WMQ                                  PP       PP         06 40 26.0  +0.3
WMQ                                  S        S          06 45 31.0  +0.2
WMQ                                  sS       sS         06 45 47.0  -1.5
WMQ                                  SS       SS         06 48 56.0  -5.0
WMQ                                  pmax     pmax
            comp=Z,85nm,0.7s,mb5.9
WMQ                                  pmax     pmax
            comp=Z,460nm,4.4s
WMQ                                  LR       LR
            comp=N,1µm,17.0s,MS5.2
WMQ                                  LR       LR
            comp=E,2µm,18.2s,MS5.2
WMQ                                  LR       LR
            comp=Z,1µm,25.0s
SNY    Shenyang            49.50  22 ⇑P       P          06 38 39.3  -2.0
SNY                                  S        S          06 45 48.3  +1.8
SNY                                  pmax     pmax
            comp=Z,21nm,1.9s,mb4.8
SNY                                  LR       LR
            comp=N,750nm,17.7s,MS5.0
SNY                                  LR       LR
            comp=E,1µm,17.4s,MS5.0
SNY                                  LR       LR
            comp=Z,950nm,21.0s,MS4.8
BSY    Bisya               49.79 304  P       P          06 38 46.4  +2.5
            SNR=5.7
ULHL   Ulahol              50.53 336  P       P          06 38 49.8  +0.6
            SNR=20
KZA    Kyzart              50.79 336  P       P          06 38 52.1  +1.0
            SNR=24
SONM   Songino Array       51.19   5  P       P          06 38 54.4  +0.4
            comp=Z,94nm,0.7s,mb5.8,baz=190,slow=9.3,SNR=589
SONM                                 PcP      PcP        06 40 08.6  -0.4
            comp=Z,9.1nm,0.5s,baz=183,slow=3.6,SNR=6.5
UCH    Uchtor              51.22 335  P       P          06 38 55.3  +1.0
            SNR=27
UCH    Uchtor              51.22 335 eP       P          06 38 54.9  +0.5
            comp=Z,18nm,0.7s,mb5.1
ULN    Ulaanbaatar         51.28   5⇑eP       P          06 38 54.8  +0.1
ULN    Ulaanbaatar         51.28   5 eP       P          06 38 55.0  +0.3
            comp=Z,53nm,0.9s,mb5.5
ULN    Ulaanbaatar         51.28   5 ⇓P       P          06 38 55.3  +0.6
            SNR=28
ULN                                  ⇓P                  06 38 55.3
            SNR=28
TKM2   Tokmak 2            51.35 336 eP       P          06 38 55.7  +0.4
TKM2                                 pmax     pmax
            comp=Z,77nm,0.7s,mb5.7
TKM2   Tokmak 2            51.35 336  P       P          06 38 55.9  +0.6
            SNR=119
TKM2   Tokmak 2            51.35 336 eP       P          06 38 55.7  +0.4
            comp=Z,76nm,0.7s,mb5.7
KBK    Karagaybulak        51.40 336  P       P          06 38 56.8  +1.2
            SNR=41
AML    Almayashu           51.49 334  P       P          06 38 57.2  +0.9
            SNR=39
AML    Almayashu           51.49 334 eP       P          06 38 56.8  +0.4
            comp=Z,34nm,0.8s,mb5.3
AML                                  epP      pP         06 39 09.2  +2.0
AAK    Ala-Archa           51.56 335  P       P          06 38 57.9  +1.0
            comp=Z,111nm,0.8s,mb5.8,SNR=19
AAK    Ala-Archa           51.56 335⇑eP       P          06 38 57.6  +0.7
AAK                                  pmax     pmax
            comp=Z,36nm,2.5s,mb4.9
AAK    Ala-Archa           51.56 335  P       P          06 38 57.7  +0.8
            SNR=19
AAK    Ala-Archa           51.56 335  P       P          06 38 57.6  +0.7
            comp=Z,9.9nm,0.7s,mb4.9,baz=137,slow=6.1,SNR=34
AAK    Ala-Archa           51.56 335 eP       P          06 38 57.3  +0.4
            comp=Z,17nm,0.7s,mb5.1
AAK    Ala-Archa           51.56 335  P       P          06 38 58.0  +1.1
            SNR=17
AAK                                  P                   06 38 58.0
            SNR=17
EKS2   Erkin-Say           51.89 335  P       P          06 39 00.2  +0.8
            SNR=80
EKS2   Erkin-Say           51.89 335 eP       P          06 38 59.9  +0.6
            comp=Z,51nm,0.7s,mb5.6
CN2    Changchun           51.90  23 ⇑P       P          06 38 57.8  -1.6
CN2                                  epP      pP         06 39 07.8  -2.4
CN2                                  esP      sP         06 39 11.8  -2.7
CN2                                  eS       S          06 46 17.5  -2.2
CN2                                  pmax     pmax
            comp=Z,40nm,0.6s,mb5.5
CN2                                  LR       LR
            comp=N,2µm,18.0s,MS5.2
CN2                                  LR       LR
            comp=E,1µm,18.0s,MS5.2
CN2                                  LR       LR
            comp=Z,1µm,19.0s,MS5.0
USP    Ospenovka           52.09 336  P       P          06 39 00.8  +0.1
            SNR=64
MKAR   Makanchi Array      52.51 344  P       P          06 39 03.5  -0.4
            comp=Z,25nm,0.7s,mb5.3,baz=148,slow=7.8,SNR=244
MAJO   Matsushiro          52.83  38 eP       P          06 39 04.2  -2.3
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MAJO                                 pmax     pmax
            comp=Z,15nm,0.7s,mb5.0
MAJO   Matsushiro          52.83  38 eP       P          06 39 04.2  -2.3
            comp=Z,15nm,0.7s,mb5.0
MAT    Matsushiro          52.83  38  P       P          06 39 04.0  -2.5
MAT                                  S        S          06 46 27.0  -5.7
MJAR   Matsushiro Arr      52.83  38  P       P          06 39 04.2  -2.3
            comp=Z,14nm,0.7s,mb5.0,baz=213,slow=7.4,SNR=34
EIDS   Eidsvold            53.03 119 eP       P          06 39 08.1   0.0
            comp=Z,240nm,2.4s,mb5.7
TOO    Toolangi            53.22 136 eP       P          06 39 10.4  +1.1
ZAK    Zakamensk           53.55   2⇓iP       P          06 39 11.2  -0.2
ZAK                                  pmax     pmax
            comp=Z,29nm,0.8s,mb5.3
MDJ    Mudanjiang          54.25  25  P       P          06 39 15.4  -1.3
MDJ                                  pP       pP         06 39 24.8  -2.8
MDJ                                  sP       sP         06 39 28.0  -3.8
MDJ                                  PcP      PcP        06 40 16.4  -4.2
MDJ                                  PP       PP         06 41 18.3  -0.6
MDJ                                  ScP      ScP        06 44 12.8  -3.5
MDJ                                  PcS      PcS        06 44 17.4  -2.5
MDJ                                  S        S          06 46 54.3  +2.6
MDJ                                  pmax     pmax
            comp=Z,20nm,0.7s,mb5.2
MDJ                                  pmax     pmax
            comp=Z,210nm,7.6s
MDJ                                  LR       LR
            comp=N,630nm,14.5s,MS5.2
MDJ                                  LR       LR
            comp=E,1µm,14.5s,MS5.2
MDJ                                  LR       LR
            comp=Z,2µm,14.5s,MS5.4
CAN    Canberra            54.75 132 eP       P          06 39 20.5  -0.1
CAN                                  pmax     pmax
            comp=Z,108nm,1.9s,mb5.5
CAN    Canberra            54.75 132 eP       P          06 39 20.5  -0.1
            comp=Z,108nm,1.9s,mb5.5
MOY    Mondy               54.79   0 eP       P          06 39 19.8  -0.7
MOY                                  pmax     pmax
            comp=Z,84nm,2.4s,mb5.3
TLY    Talaya              54.86   2  P       P          06 39 21.9  +0.9
            comp=Z,322nm,0.9s,mb6.3,SNR=31
TLY    Talaya              54.86   2 eP       pP         06 39 32.2  +0.4
TLY                                  eS       S          06 46 53.6  -6.0
TLY                                  e                   06 47 19.1
TLY                                  e                   06 48 56.9
TLY                                  pmax     pmax
            comp=Z,45nm,0.8s,mb5.5
TLY                                  MLR      MLR
            comp=Z,2µm,15.0s,MS5.2
TLY    Talaya              54.86   2 eP       P          06 39 21.4  +0.5
            comp=Z,43nm,0.8s,mb5.5
TLY    Talaya              54.86   2 ⇑P       P          06 39 21.4  +0.5
            SNR=25
TLY                                  ⇑P                  06 39 21.4
            SNR=25
ARMA   Armidale            55.01 125 eP       P          06 39 23.5  +1.0
ARMA   Armidale            55.01 125 eP       P          06 39 23.7  +1.2
            comp=Z,18nm,0.9s,mb5.1
CNB    Canberra Magne      55.02 132 eP       P          06 39 22.8  +0.3
KURK   Kurchatov           57.10 343  P       P          06 39 36.1  -0.9
            comp=Z,269nm,0.7s,mb6.4,SNR=42
KURK   Kurchatov           57.10 343 eP       P          06 39 36.4  -0.6
KURK                                 pmax     pmax
            comp=Z,39nm,0.9s,mb5.4
KURK   Kurchatov           57.10 343 eP       P          06 39 36.4  -0.6
            comp=Z,39nm,0.9s,mb5.4
KURK   Kurchatov           57.10 343  P       P          06 39 36.8  -0.1
            SNR=13
KURK                                 P                   06 39 36.8
            SNR=13
ZALV   Zalesovo Beam       58.61 349  P       P          06 39 46.8  -0.8
            comp=Z,35nm,0.6s,mb5.5,baz=190,slow=7.0,SNR=95
ZALV                                 LR       LR         07 08 16.3
            comp=Z,667nm,20.5s,MS4.8,baz=159,slow=39
KLR    Kul'dur             58.84  23⇓eP       P          06 39 43.0  -6.2
KLR                                  pmax     pmax
            comp=E,42nm,1.8s
KLR                                  pmax     pmax
            comp=Z,140nm,1.8s,mb5.7
KLR                                  MLR      MLR
            comp=E,1µm,15.0s
KLR                                  MLR      MLR
            comp=Z,2µm,15.0s,MS5.4
HABR   Khabarovsk          59.61  26 eP       P          06 39 52.1  -2.5
HABR                                 e*PP     pP         06 40 02.2  -3.4
HABR                                 e                   06 40 38.3
HABR                                 e                   06 42 04.2
HABR                                 eS       S          06 48 01.0  -1.3
HABR                                 e*SS     sS         06 48 18.3  -2.1
HABR                                 e                   06 49 39.9
HABR                                 eSS      SS         06 51 58.7  +0.2
HABR                                 pmax     pmax
            comp=E,25nm,0.9s
HABR                                 pmax     pmax
            comp=Z,31nm,0.8s,mb5.4
HABR                                 pmax     pmax
            comp=N,19nm,0.9s
HABR                                 MLR      MLR
            comp=Z,2µm,21.0s,MS5.2
NVS    Novosibirsk         59.77 348⇑iP       P          06 39 54.2  -1.3
NVS                                  pmax     pmax
            comp=N,24nm,1.4s
NVS                                  pmax     pmax
            comp=E,6.0nm,0.6s
BVAR   Borovoye Array      61.69 340  P       P          06 40 07.5  -1.2
            comp=E,16nm,0.5s,mb5.4,baz=146,slow=9.0,SNR=165
BRVK   Borovoye            61.76 340  P       P          06 40 08.7  -0.4
            comp=E,187nm,0.5s,mb6.5,SNR=21
BRVK   Borovoye            61.76 340 eP       P          06 40 07.8  -1.3
BRVK                                 pmax     pmax
            comp=Z,17nm,0.5s,mb5.4
BRVK   Borovoye            61.76 340 eP       P          06 40 07.8  -1.3
            comp=Z,16nm,0.5s,mb5.4
BRVK   Borovoye            61.76 340 ⇓P       P          06 40 09.3  +0.2
            SNR=7.6
BRVK                                 ⇓P                  06 40 09.3
            SNR=7.6
BOD    Bodaibo             61.88   8⇓iP       P          06 40 08.9  -1.0
BOD                                  pmax     pmax
            comp=Z,24nm,0.8s,mb5.4
YSS    Yuzh-Sakhalins      62.21  31⇑eP       P          06 40 11.0  -1.3
YSS                                  MLR      MLR
            comp=N,500nm,18.0s
YSS                                  MLR      MLR
            comp=Z,500nm,18.0s,MS4.7
YSS    Yuzh-Sakhalins      62.21  31 eP       P          06 40 11.3  -1.0
            comp=Z,40nm,0.7s,mb5.7
KMBO   Kilima Mbogo        63.50 270  P       P          06 40 22.8  +1.2
            comp=Z,1.0nm,0.4s,mb4.3,baz=70,slow=14,SNR=4.0
KMBO                                 LR       LR         07 02 42.7
            comp=Z,501nm,21.6s,MS4.7,baz=277,slow=31
AKTK   Aktyubinsk          64.89 331  P       P          06 40 28.6  -1.4
AKTO   Aktyubinsk          64.89 331  P       P          06 40 28.6  -1.4
            comp=Z,3.4nm,0.5s,mb4.7,baz=123,slow=5.8,SNR=13
MAK    Makhachkala         66.48 320 eP       P          06 40 42.4  +2.1
MAK                                  e                   06 41 12.3
MAK                                  eS       S          06 49 31.2  +2.8
MAK                                  eSS      SS         06 53 39.8  -6.1
MAK                                  pmax     pmax
            comp=Z,269nm,1.7s,mb6.0
SVE    Sverdlovsk          68.20 338⇑eP       P          06 40 50.9   0.0
SVE                                  e                   06 43 30.7
SVE                                  eS       S          06 49 57.0  +8.4
SVE                                  pmax     pmax
            comp=Z,47nm,1.4s,mb5.3
SVE                                  MLR      MLR
            comp=Z,1µm,22.0s,MS5.0
ARU    Arti                68.73 336c iP      P          06 40 53.4  -0.9
ARU                                  e                   06 43 22.2
ARU                                  S        S          06 49 56.9  +2.0
ARU                                  SS       SS         06 54 15.0  -5.3
ARU                                  pmax     pmax
            comp=Z,46nm,1.7s,mb5.1
ARU    Arti                68.73 336 eP       P          06 40 53.5  -0.7
            comp=Z,14nm,0.8s,mb5.0
ARU                                  epP      pP         06 41 04.8  -0.6
YAK    Yakutsk             68.83  14 eP       P          06 40 52.6  -2.2
YAK                                  e*PP     pP         06 41 04.9  -1.0
YAK                                  e                   06 41 11.5
YAK                                  e                   06 43 22.8
YAK                                  eS       S          06 49 52.5  -3.4
YAK                                  e*SS     sS         06 50 17.7  +3.4
YAK                                  e                   06 50 49.3
YAK                                  pmax     pmax
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            comp=Z,47nm,1.0s,mb5.4
YAK                                  pmax     pmax
            comp=N,11nm,1.1s
YAK                                  pmax     pmax
            comp=E,4.0nm,1.0s
YAK                                  pmax     pmax
            comp=Z,11nm,0.5s,mb5.0
YAK                                  pmax     pmax
            comp=N,5.0nm,0.7s
YAK                                  pmax     pmax
            comp=E,3.0nm,0.6s
YAK                                  smax
            comp=N,92nm,4.6s
YAK                                  smax
            comp=E,85nm,4.2s
YAK                                  MLR      MLR
            comp=Z,3µm,18.0s,MS5.6
YAK                                  MLR      MLR
            comp=N,2µm,18.0s,MS5.4
YAK                                  MLR      MLR
            comp=E,1µm,17.0s,MS5.4
YAK    Yakutsk             68.83  14 eP       P          06 40 52.5  -2.3
            comp=E,52nm,0.6s,mb5.6
YAK                                  epP      pP         06 41 04.3  -1.6
MAW    Mawson              69.19 195  LR      LR         07 04 34.4
            comp=E,1µm,21.6s,MS5.1,baz=40,slow=30
KIV    Kislovodsk          70.05 319 eP       P          06 41 02.0  -0.7
KIV                                  e                   06 41 27.2
KIV                                  e                   06 43 35.8
KIV                                  eS       S          06 50 08.9  -2.0
KIV                                  pmax     pmax
            comp=Z,13nm,1.1s,mb4.8
KIV    Kislovodsk          70.05 319 eP       P          06 41 02.1  -0.6
            comp=Z,9.6nm,0.6s,mb4.9
MALT   Malatya             70.80 312 eP       P          06 41 08.1  +0.7
MALT                                 pmax     pmax
            comp=Z,11nm,1.2s,mb4.7
MALT   Malatya             70.80 312⇓iP       P          06 41 08.7  +1.3
MALT   Malatya             70.80 312 eP       P          06 41 08.1  +0.7
            comp=Z,11nm,1.2s,mb4.7
SOC    Sochi               71.85 318 eP       P          06 41 11.8  -1.9
SOC                                  e                   06 43 53.1
SOC                                  ePPP                06 45 34.1
SOC                                  eS       S          06 50 21.7   -10
SOC                                  e                   06 51 16.4
LSZ    Lusaka              72.33 255 eP       P          06 41 16.8  -0.3
LSZ                                  e*PP     pP         06 41 26.8  -1.5
LSZ                                  pmax     pmax
            comp=Z,15nm,1.3s,mb4.8
LSZ    Lusaka              72.33 255 eP       P          06 41 16.8  -0.3
            comp=Z,14nm,1.3s,mb4.8
LSZ                                  epP      pP         06 41 26.8  -1.5
RPZ    Rata Peaks          73.50 135  P       P          06 41 22.1  -1.4
            comp=Z,10.0nm,0.6s,mb4.9,baz=221,slow=5.6,SNR=13
RPZ    Rata Peaks          73.50 135  P       P          06 41 22.1  -1.4
PETK   Petropavlovsk-      73.60  32  P       P          06 41 21.8  -2.0
            comp=Z,14nm,0.6s,mb5.1,baz=230,slow=1.0,SNR=21
PETK                                 LR       LR         07 18 30.7
            comp=Z,302nm,19.4s,MS4.6,baz=142,slow=40
ANN    Anapa               73.84 319 eP       P          06 41 26.2  +0.8
ANN                                  eS       S          06 50 58.9  +4.5
ANN                                  pmax     pmax
            comp=Z,36nm,1.0s,mb5.3
VRHR   Novokhopersk        73.86 326 eP       P          06 41 25.0  -0.4
VRHR                                 pmax     pmax
            comp=Z,90nm,0.6s,mb5.9
VRHR                                 pmax     pmax
            comp=N,30nm,0.5s
PET    Petropavlovsk       74.06  32 eP       P          06 41 24.9  -1.6
PET                                  eS       S          06 50 52.0  -4.7
PET                                  eSS      SS         06 55 34.8  -7.4
PET                                  pmax     pmax
            comp=Z,63nm,0.6s,mb5.7
PET    Petropavlovsk       74.06  32 eP       P          06 41 24.7  -1.8
            comp=Z,31nm,0.6s,mb5.4
BRTR   Keskin Array B      74.78 313  P       P          06 41 30.1  -0.9
            comp=Z,5.6nm,0.5s,mb4.7,baz=138,slow=6.5,SNR=32
BRTR                                 LR       LR         07 17 23.3
            comp=Z,200nm,18.4s,MS4.5,baz=227,slow=38
VORD   Divnogorie          75.13 325 eP       P          06 41 30.9  -1.8
VORD                                 pmax     pmax
            comp=Z,10.0nm,0.4s,mb5.1
VORD                                 pmax     pmax
            comp=N,20nm,0.6s
VORD                                 pmax     pmax
            comp=E,10.0nm,0.3s
VSR    Storozhevoye        75.30 325 eP       P          06 41 32.5  -1.3
VSR                                  pmax     pmax
            comp=Z,20nm,0.5s,mb5.3
VSR                                  pmax     pmax
            comp=N,10.0nm,0.8s
VSR                                  pmax     pmax
            comp=E,8.0nm,0.4s
BOSA   Boshof              75.69 241  P       P          06 41 36.7  +0.2
            comp=E,10nm,0.8s,mb4.8,baz=101,slow=5.5,SNR=19
BOSA                                 LR       LR         07 13 20.1
            comp=E,515nm,18.2s,MS4.9,baz=144,slow=34
BOSA   Boshof              75.69 241  P       P          06 41 36.7  +0.2
BOSA                                 LR       LR         07 13 20.1
SEY    Seymchan            76.57  22⇑eP       P          06 41 40.1  -0.6
TIXI   Tiksi               77.05   9⇑eP       P          06 41 41.3  -2.0
TIXI                                 pmax     pmax
            comp=Z,15nm,0.6s,mb5.1
TIXI   Tiksi               77.05   9 eP       P          06 41 41.2  -2.0
            comp=Z,13nm,0.4s,mb5.2
TIXI                                 epP      pP         06 41 52.5  -2.1
PRGR   Permogore           77.19 336 eP       P          06 41 42.2  -2.0
PRGR                                 pmax     pmax
            comp=Z,22nm,0.6s,mb5.3
URZ    Urewera             77.22 128  P       P          06 41 43.8  -1.2
            comp=Z,7.2nm,0.5s,mb4.8,baz=334,slow=2.9,SNR=8.2
OBN    Obninsk             78.33 328ceP       P          06 41 48.9  -1.8
OBN                                  e        pP         06 41 59.2  -2.8
OBN                                  i                   06 42 03.7
OBN                                  e                   06 44 47.4
OBN                                  pmax     pmax
            comp=Z,93nm,1.8s,mb5.4
OBN                                  MLR      MLR
            comp=Z,200nm,19.0s,MS4.5
OBN    Obninsk             78.33 328 eP       P          06 41 48.3  -2.4
            comp=Z,21nm,0.6s,mb5.2
OBN                                  epP      pP         06 42 01.6  -0.5
KLMR   Klimovskoe          79.36 334 eP       P          06 41 53.3  -3.0
KLMR                                 pmax     pmax
            comp=Z,59nm,1.6s,mb5.3
SUR    Sutherland          79.74 238 eP       P          06 42 00.3  +1.3
            comp=Z,29nm,1.0s,mb5.2
SUR                                  epP      pP         06 42 09.5  -0.8
TIRR   Tirgusor            79.84 316⇓iP       P          06 41 59.2  -0.1
VNDA   Vanda               80.71 169  LR      LR         07 16 19.5
            comp=Z,449nm,18.4s,MS4.8,baz=312,slow=35
AKASG  Malin Array Be      81.00 322  P       P          06 42 04.2  -1.2
            comp=Z,2.1nm,0.6s,mb4.3,baz=94,slow=4.4,SNR=10
AKASG                                LR       LR         07 21 49.0
            comp=Z,318nm,21.0s,MS4.7,baz=95,slow=38
VRI    Vrincioaia          81.35 317⇓iP       P          06 42 08.6  +1.3
MLR    Muntele Rosu        81.79 317⇑iP       pP         06 42 21.4  +0.4
VOIR                       82.39 316⇓iP       P          06 42 13.2  +0.4
TSUM   Tsumeb              82.48 251 eP       P          06 42 14.6  +0.7
            comp=Z,17nm,1.3s,mb4.8
TSUM                                 epP      pP         06 42 24.2  -1.0
BURAR  Bucovina Array      82.76 319⇑iP       P          06 42 15.6  +0.9
JOF    Joensuu             83.74 334 eP       P          06 42 18.3  -1.1
JOF                                  pmax     pmax
            comp=Z,10.0nm,0.6s,mb5.1
JOF    Joensuu             83.74 334 ep       P          06 42 18.3  -1.1
            comp=Z,9.6nm,0.6s,mb5.1
BILL   Bilibino            84.14  20 eP       P          06 42 20.3  -1.0
BILL                                 pmax     pmax
            comp=Z,4.0nm,0.6s,mb4.7
BILL   Bilibino            84.14  20 eP       P          06 42 20.2  -1.1
            comp=Z,3.8nm,0.6s,mb4.7
APA    Apatity             84.60 339⇑eP       P          06 42 25.5  +1.8
APA                                  pmax     pmax
            comp=Z,10.0nm,0.8s,mb5.0
UZH    Uzhgorod            84.89 319 eP       pP         06 42 36.2  -0.7
UZH                                  e                   06 42 45.0
UZH                                  e                   06 42 54.0
KOLS   Kolonicke sedl      84.96 320 i P      P          06 42 27.1  +1.2
KOLS                                 pmax     pmax
            comp=Z,58nm,1.9s,mb5.4
KOLS   Kolonicke sedl      84.96 320 i P      P          06 42 27.1  +1.2
            comp=Z,58nm,1.9s,mb5.4
CRVS   Cervenica-Dubn      85.48 319 eP       P          06 42 30.1  +1.6
CRVS                                 pmax     pmax
            comp=Z,76nm,2.7s,mb5.3
```

CRVS	**Cervenica-Dubn**	**85.48**	**319**	*e*P	**P**	**06 42 30.1**	**+1.6**
	comp=Z,76nm,2.7s,mb5.3						
STHS	**Stebnicka Huta**	**85.71**	**320**	*i* P	**P**	**06 42 31.0**	**+1.4**
STHS				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.7						
STHS	**Stebnicka Huta**	**85.71**	**320**	*i* P	**P**	**06 42 31.0**	**+1.4**
	comp=Z,3.1nm,0.6s,mb4.7						
KAF	**Kangasniemi**	**85.71**	**333**	*e*P	**P**	**06 42 28.1**	**-1.2**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb5.1						
KAF	**Kangasniemi**	**85.71**	**333**	*e*p	**P**	**06 42 28.1**	**-1.2**
	comp=Z,8.1nm,0.6s,mb5.1						
QSPA	**South Pole Qui**	**86.64**	**180**	P	**P**	**06 42 33.4**	**-0.2**
	comp=Z,2.6nm,0.9s,mb4.5,baz=232,slow=3.7,SNR=7.8						
QSPA	**South Pole Qui**	**86.64**	**180**	P	**P**	**06 42 33.4**	**-0.3**
PKSM	**Moragy**	**86.94**	**316**	⇑*i*P	pP	06 42 48.8	+1.6
VYHS	**Vyhne**	**87.13**	**319**	*e*P	**P**	**06 42 37.7**	**+1.1**
ARCES	**ARCESS Array B**	**87.98**	**340**	P	**P**	**06 42 39.9**	**-0.4**
	comp=Z,6.4nm,0.6s,mb5.0,baz=124,slow=2.7,SNR=30						
ARCES				LR	LR	07 25 46.2	
	comp=Z,670nm,21.2s,MS5.0,baz=108,slow=38						
MODS	**Modra-Piesok**	**88.14**	**318**	*e*P	**P**	**06 42 41.8**	**+0.3**
MODS				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.7						
MODS	**Modra-Piesok**	**88.14**	**318**	*e*P	**P**	**06 42 41.8**	**+0.3**
	comp=Z,7.3nm,1.5s,mb4.7						
MORC	**Moravsky Berou**	**88.15**	**320**	*e*P	**P**	**06 42 41.9**	**+0.4**
MORC				pmax	pmax		
	comp=Z,16nm,1.6s,mb5.0						
MORC	**Moravsky Berou**	**88.15**	**320**	⇓*i*P	**P**	**06 42 42.5**	**+1.0**
MORC	**Moravsky Berou**	**88.15**	**320**	*e*P	**P**	**06 42 41.9**	**+0.5**
	comp=Z,16nm,1.6s,mb5.0						
KOGS	**Kog**	**88.61**	**316**	*i* P	**P**	**06 42 43.9**	**+0.2**
GCIS	**Gornji Cirnik**	**88.98**	**316**	*e*P	**P**	**06 42 46.2**	**+0.7**
KSP	**Ksiaz**	**89.07**	**321**	*e*P	**P**	**06 42 47.0**	**+1.2**
BOJS	**Bojanci**	**89.21**	**315**	*i* P	**P**	**06 42 46.7**	**+0.1**
BOJS				*i* pP	pP	06 42 55.7	-2.3
LJU	**Ljubljana**	**89.76**	**316**	*e*P	**P**	**06 42 49.6**	**+0.4**
GEC2	**GERESS Array S**	**90.55**	**319**	*e*P	**P**	**06 42 54.5**	**+1.7**
GEC2				pmax	pmax		
	comp=Z,16nm,1.4s,mb5.2						
GEC2	**GERESS Array S**	**90.55**	**319**	*e*P	**P**	**06 42 54.5**	**+1.7**
	comp=Z,16nm,1.4s,mb5.2						
GERES	**GERESS Array B**	**90.55**	**319**	P	**P**	**06 42 52.7**	**-0.1**
	comp=Z,1.7nm,0.7s,mb4.5,baz=100,slow=5.5,SNR=12						
BRG	**Berggiesshubel**	**90.56**	**321**	*e*P	**P**	**06 42 53.7**	**+1.0**
BRG				*e*	pP	06 43 05.3	+1.1
BRG				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb4.2						
BRG				MLR	MLR		
	comp=N,6µm,18.3s,MS6.1						
BRG				MLR	MLR		
	comp=E,219nm,19.4s,MS6.1						
BRG				MLR	MLR		
	comp=Z,160nm,15.7s,MS4.6						
BRG	**Berggiesshubel**	**90.56**	**321**	*e*P	**P**	**06 42 53.7**	**+1.0**
	comp=Z,19nm,1.7s,mb5.2						
BRG				*e*	pP	06 43 05.3	+1.1
	comp=Z,11nm,1.2s						
BRG							
	comp=N,366nm,18.3s						
BRG							
	comp=E,267nm,19.4s						
BRG							
	comp=Z,454nm,15.7s						
BRG	**Berggiesshubel**	**90.56**	**321**	*e*P	**P**	**06 42 53.7**	**+1.0**
	comp=Z,11nm,1.7s,mb4.9						
BRG				*e*	pP	06 43 05.3	+1.1
BRG				LR	LR		
	comp=Z,270nm,15.7s,MS4.8						
KHC	**Kasperske Hory**	**90.66**	**319**	*e*P	**P**	**06 42 52.5**	**-0.7**
WET	**Wettzell**	**91.11**	**319**	*e*P	**P**	**06 42 56.3**	**+0.9**
WET				pmax	pmax		
	comp=Z,26nm,1.8s,mb5.3						
WET	**Wettzell**	**91.11**	**319**	*e*P	**P**	**06 42 56.3**	**+0.9**
	comp=Z,26nm,1.8s,mb5.3						
CLL	**Collm**	**91.18**	**321**	*e*P	**P**	**06 42 54.0**	**-1.6**
CLL				*e*pP	pP	06 43 05.0	-2.1
CLL				*e*S	S	06 53 53.0	+1.8
CLL				*e*PPS		06 55 36.0	
CLL				*e*SSSS		07 06 48.0	
CLL	**Collm**	**91.18**	**321**	*e*P	**P**	**06 42 54.0**	**-1.6**
CLL				*e*	pP	06 43 05.0	-2.1
CLL				*e*S	S	06 53 53.0	+1.8
TANN	**Tannenbergstha**	**91.46**	**320**	*e*P	**P**	**06 42 56.8**	**-0.2**
	comp=Z,11nm,1.5s,mb5.0						
ROTZ	**Rotzenmuhle**	**91.59**	**320**	*e*P	**P**	**06 42 57.4**	**-0.2**
	comp=Z,164nm,3.6s						
MANZ	**Manzenberg**	**91.67**	**320**	*e*P	**P**	**06 42 58.5**	**+0.6**
	comp=Z,28nm,1.7s,mb5.3						
MOX	**Moxa**	**92.02**	**320**	*e*P	**P**	**06 42 59.7**	**+0.2**
	comp=Z,22nm,2.0s,mb5.1						
GRA1	**Grafenberg Arr**	**92.22**	**319**	*e*P	**P**	**06 43 01.1**	**+0.6**
	comp=Z,15nm,1.0s,mb5.3						
GRA1				*e*pP	pP	06 43 11.1	-0.9
GRA1				*e*S	S	06 54 03.2	+2.4
GRA1				LR	LR		
	comp=Z,300nm,18.4s,MS4.8						
GRF	**Grafenberg Arr**	**92.22**	**319**	*e*P	**P**	**06 43 01.1**	**+0.6**
GRF				*e**PP	pP	06 43 11.1	-0.9
GRF				*e*S	S	06 54 03.2	+2.4
GRF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.3						
GRF				MLR	MLR		
	comp=Z,300nm,18.4s,MS4.8						
GRF	**Grafenberg Arr**	**92.22**	**319**	*e*P	**P**	**06 43 01.1**	**+0.6**
	comp=Z,15nm,1.0s,mb5.3						
GRF				*e*pP	pP	06 43 11.1	-0.9
GRF				*e*S	S	06 54 03.2	+2.4
GRF				*e*L		07 32 34.2	
	comp=Z,292nm,18.4s						
NB2	**NORSAR Subarra**	**92.68**	**331**	P	**P**	**06 43 01.7**	**-0.6**
	comp=Z,6.5nm,1.1s,mb5.0,baz=91,slow=5.1						
NOA	**NORSAR Array B**	**92.68**	**331**	P	**P**	**06 43 01.6**	**-0.7**
	comp=Z,0.7nm,0.6s,mb4.3,baz=95,slow=5.0,SNR=4.3						
NOA				LR	LR	07 29 34.6	
	comp=Z,315nm,20.1s,MS4.8,baz=105,slow=39						
KEST	**Kesra**	**93.08**	**305**	P	**P**	**06 43 04.5**	**-0.3**
	comp=Z,1.2nm,0.9s,mb4.3,baz=96,slow=9.2,SNR=2.8						
KEST				LR	LR	07 27 24.4	
	comp=Z,167nm,18.4s,MS4.5,baz=314,slow=37						
TORD	**Torodi Ar. Bea**	**99.58**	**283**	P	Pdif	06 43 34.3	+0.5
	comp=Z,0.4nm,0.8s,baz=84,slow=2.5,SNR=2.7						
TORD				PKiKP	PKiKP	06 48 03.2	-0.7
	comp=Z,0.4nm,0.8s,baz=105,slow=1.6,SNR=2.7						
TORD				LR	LR	07 24 31.4	
	comp=Z,372nm,21.2s,MS4.9,baz=75,slow=33						
PPT	**Papeete**	**107.64**	**109**	*e*LR	LR	07 19 49.5	
	comp=Z,614nm,26.0s						
YKA	**Yellowknife Ar**	**115.41**	**17**	PKP	PKPdf	06 48 30.2	-1.8
	comp=Z,0.5nm,0.7s,baz=342,slow=2.4,SNR=12						
YKA				PP	PP	06 49 39.8	+6.7
	comp=Z,0.3nm,0.7s,baz=327,slow=6.7,SNR=5.2						
YKA				PKKPab	PKKPab	06 59 17.6	+5.8
	comp=Z,0.2nm,0.7s,baz=140,slow=4.2,SNR=5.9						
YKA	**Yellowknife Ar**	**115.41**	**17**	PKP	PKPdf	06 48 30.2	-1.8
YKA				PP	PP	06 49 39.8	+6.7
YKA				PKKPab	PKKPab	06 59 17.6	+5.8
TAOE	**Nuku Hiva Isla**	**118.08**	**102**	*e*PS	PS	06 59 33.4	-6.9
	comp=Z,613nm,25.7s						
TAOE				*e*LR	LR	07 24 36.7	
	comp=Z,1µm,23.4s						
EDM	**Edmonton**	**122.90**	**24**	*e*PKIKP	PKPdf	06 48 45.2	-1.5
FCC	**Fort Churchill**	**123.52**	**9**	*e*PKIKP	PKPdf	06 48 46.4	-1.3
SLMT	**Seeley Lake**	**127.19**	**29**	*e*PKPdf	PKPdf	06 48 52.7	-2.4
CHMT	**Chamberlain Mo**	**127.54**	**29**	*e*PKPdf	PKPdf	06 48 54.9	-0.8
SCHQ	**Schefferville**	**127.68**	**351**	PKP	PKPdf	06 48 55.1	-0.7
	comp=Z,2.6nm,0.8s,baz=62,slow=9.7,SNR=9.4						
DLMT	**Dillon**	**128.96**	**30**	*e*PKPdf	PKPdf	06 48 58.7	+0.2
MCMT	**McKenzie Canyo**	**129.21**	**31**	*e*PKPdf	PKPdf	06 48 59.6	+0.6
NVAR	**Mina Array Bea**	**130.13**	**40**	PKP	PKPdf	06 49 01.6	+0.6
	comp=Z,1.5nm,0.6s,baz=289,slow=2.1,SNR=16						
RRI2	**Red Ridge**	**131.04**	**31**	*e*PKPdf	PKPdf	06 49 03.0	+0.4
ULM	**Lac du Bonnet**	**131.18**	**14**	PKP	PKPdf	06 49 00.5	-2.1
	comp=Z,3.2nm,0.6s,baz=328,slow=2.8,SNR=7.0						
PDAR	**Pinedale Array**	**132.35**	**30**	PKP	PKPdf	06 49 03.3	-1.8
	comp=Z,0.6nm,0.5s,baz=128,slow=1.6,SNR=12						
DUG	**Dugway**	**132.39**	**35**	*e*PKIKP	PKPdf	06 49 06.1	+0.9
MSU	**Marysvale**	**133.87**	**36**	*e*PKIKP	PKPdf	06 49 09.3	+1.2
CPUP	**Villa Florida**	**143.69**	**214**	PKP	PKPdf	06 49 23.7	-2.7
	comp=Z,2.1nm,0.6s,baz=154,slow=1.5,SNR=10						
CFAA	**Coronel Fontan**	**143.71**	**196**	PKP	PKPdf	06 49 24.2	-2.1
	comp=Z,0.6nm,0.6s,baz=157,slow=4.3,SNR=5.2						
WMOK	**Wichita Mounta**	**143.86**	**28**	*e*PKIKP	PKPdf	06 49 22.4	-4.0
SIUC	**Southern Illin**	**144.58**	**14**	*e*PKPdf	PKPdf	06 49 25.0	-2.6
WCI	**Wyandotte Cave**	**144.68**	**10**	*e*PKIKP	PKPdf	06 49 24.8	-2.9
TXAR	**Lajitas Array**	**145.26**	**39**	PKPbc	PKPbc	06 49 28.6	-0.1
	comp=Z,40nm,0.6s,baz=258,slow=0.7,SNR=453						
GLAT	**Glass**	**145.94**	**15**	*e*PKPdf	PKPdf	06 49 29.8	-0.2
GNAR	**Gosnell**	**146.03**	**16**	*e*PKPdf	PKPdf	06 49 30.1	0.0
MIAR	**Mount Ida**	**146.20**	**22**	*e*PKP2	PKPbc	06 49 30.1	-1.4
ELN	**Prospectdale**	**146.24**	**2**	*e*PKPdf	PKPdf	06 49 29.4	-1.0
UALR	**University of**	**146.43**	**20**	*e*PKPdf	PKPdf	06 49 31.6	+0.7
TZTN	**Tazewell**	**146.71**	**6**	*e*PKPdf	PKPdf	06 49 31.2	0.0
JCT	**Junction City**	**146.73**	**34**	*e*PKP2	PKPbc	06 49 32.0	-1.1
LCO	**Las Campanas**	**146.81**	**194**	*e*PKPbc	PKPbc	06 49 33.2	-0.2
PLAL	**Pickwick Lake**	**147.46**	**14**	*e*PKPdf	PKPdf	06 49 32.8	+0.2
CPCT	**Cooper Cave**	**147.67**	**8**	*e*PKPdf	PKPdf	06 49 34.2	+1.3
SWET	**Sewanee**	**147.67**	**10**	*e*PKPdf	PKPdf	06 49 33.5	+0.6
NATX	**Nacogdoches**	**148.22**	**25**	*e*PKPbc	PKPbc	06 49 36.6	-0.6
JSC	**Jenkinsville**	**149.15**	**3**	*e*PKP2	PKPbc	06 49 38.0	-1.5
HKT	**Hockley**	**149.21**	**29**	*e*PKP2	PKPbc	06 49 38.8	-1.0
LVC	**Limon Verde**	**152.31**	**201**	PKPbc	PKPbc	06 49 48.4	+1.0
	comp=Z,3.9nm,0.6s,baz=179,slow=0.5,SNR=3.9						
LVC				PKPab	PKPab	06 49 58.0	+0.9
	comp=Z,5.3nm,0.7s,baz=181,slow=2.6,SNR=3.5						
SIV	**San Ignacio**	**153.71**	**223**	PKP	PKPdf	06 49 42.8	+0.1
	comp=Z,0.4nm,0.6s,baz=127,slow=10,SNR=3.5						
SIV				PKPbc	PKPbc	06 49 50.0	-0.6
	comp=Z,1.1nm,0.7s,baz=110,slow=4.0,SNR=8.6						
SDV	**Santo Domingo**	**169.83**	**303**	PKPab	PKPab	06 51 13.6	-0.2
	comp=Z,1.1nm,0.7s,baz=17,slow=11,SNR=3.7						
OTAV	**Otavalo**	**176.83**	**194**	*e*PKPdf	PKPdf	06 50 01.9	-0.1

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*NEIC **19** 06:38:25.9, 31°.08S×71°.37W, h57^{km}, MD3.6(GUC), After GUC.*

GUC 19 06:38:25.9±0.5**, 31°.08S×71°.37W, h57**^{km}±4^{km}**, MD3.6, ML3.5, 6C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	**Combarbala**	**0.33**	**107**	⇑*i*P	Pn	06 38 36.3	+0.4
CMCH				*i* S	Sn	06 38 44.2	+1.1
CMCH	**Combarbala**	**0.33**	**107**	⇑*i*P	Pn	06 38 36.3	+0.4
CMCH				*i* S	Sn	06 38 44.2	+1.1
CMCH				AML	AML	06 38 45.1	
	comp=E,7µm,0.6s						
CHNG	**Los Chungos**	**0.81**	**188**	*e*P	Pn	06 38 41.7	+0.4
CHNG				*i* S	Sn	06 38 53.4	+0.7
TLL	**Tololo Astrono**	**1.03**	**29**	⇑*i*P	Pn	06 38 45.4	+1.2
TLL				*i* S	Sn	06 38 59.6	+1.9
TLL	**Tololo Astrono**	**1.03**	**29**	⇑*i*P	Pn	06 38 45.4	+1.2
TLL				*i* S	Sn	06 38 59.6	+1.9
TLL				AML	AML	06 39 01.6	
	comp=N,1µm,0.5s						
LCO	**Las Campanas**	**2.14**	**16**	⇑*e*P	Pn	06 39 00.6	+1.4
LCO				*i* S	Sn	06 39 26.3	+1.7
LCO	**Las Campanas**	**2.14**	**16**	⇑*e*P	Pn	06 39 00.6	+1.4
LCO				*i* S	Sn	06 39 26.3	+1.7
LCO				AML	AML	06 39 28.3	
	comp=E,514nm,0.4s						
PEL	**Peldehue**	**2.14**	**164**	*e*P	Pn	06 38 59.9	+0.7
FCH	**Farellones**	**2.42**	**158**	*e*P	Pn	06 39 04.5	+1.4
RCDM	**Rinconada Maip**	**2.45**	**169**	*e*P	Pn	06 39 03.9	+0.4
RCDM				*i* S	Sn	06 39 33.4	+1.1
RCDM	**Rinconada Maip**	**2.45**	**169**	*e*P	Pn	06 39 03.9	+0.4
RCDM				*i* S	Sn	06 39 33.4	+1.1
TACH	**Talagante**	**2.60**	**172**	⇓*i*P	Pn	06 39 05.9	+0.4
TACH	**Talagante**	**2.60**	**172**	⇓*i*P	Pn	06 39 05.9	+0.4
PCH	**Pirque**	**2.64**	**164**	*e*P	Pn	06 39 06.8	+0.7
PCH	**Pirque**	**2.64**	**164**	*e*P	Pn	06 39 06.8	+0.7

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*NNC **19** 06:41:41.3±2.8, 38°.83N×70°.04E, h0^{km}, mb3.9, mpv3.5, Error ellipse: s-maj=20.7km s-min=18.7km az=19.0*

ISC 19 06:41:34.4±2.3**, 38°.0N**±0°.1×**70°.2E**±0°.1**, h35**^{km}**, n4,** σ**1**^{s}**35**/8**, 6C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	**Kashi**	**4.77**	**70**	*e*Pn	**Pn**	**06 42 42.8**	**-0.9**
KSH				Sn	**Sn**	**06 43 33.4**	**-4.3**
KSH				smax			
	comp=N,61nm,0.5s						
KSH				smax			
	comp=E,37nm,0.7s						
KK31	**Karatay Array**	**5.11**	**3**	⇑Pn	**Pn**	**06 42 50.9**	**+2.5**
	comp=E,2.0nm,0.4s,baz=179,slow=12,SNR=54						
KK31				⇑Sn	**Sn**	**06 43 45.0**	**-1.1**
	comp=E,6.7nm,0.6s						
KK31				⇓Lg		06 44 00.5	
	comp=E,7.2nm,0.6s,baz=181,slow=35,SNR=6.8						
TKM2	**Tokmak 2**	**6.41**	**38**	⇑Pn	**Pn**	**06 43 09.9**	**+3.6**
	comp=E,5.8nm,0.7s						
TKM2				⇓Sn	**Sn**	**06 44 18.8**	**+0.6**
	comp=E,3.5nm,0.7s						
TKM2				⇑Lg		06 44 44.7	
	comp=E,3.4nm,0.6s						
AB09	**Akbulak array**	**13.48**	**330**	⇑Pn	**Pn**	**06 44 42.7**	**-0.4**
	comp=E,1.5nm,0.6s						
AB09				⇑Sn	**Sn**	**06 47 04.0**	**-7.4**
	comp=E,0.6nm,0.6s						

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*ISCJB **19** 06:52:54.5±1.3, 36°.28N±0°.06×21°.69E±0°.09, h30^{km}±8^{km}, Error ellipse: s-maj=13.1km s-min=8.2km az=150.1*

*CSEM **19** 06:52:55.8, 36°.31N×21°.74E, h23^{km}, ML3.5/1, After THE*

*THE **19** 06:52:55.8, 36°.31N×21°.74E, h23^{km}±2^{km}, ML3.5/1, Error ellipse: s-maj=3.1km s-min=1.6km az=241.0*

ISC 19 06:52:54.9±1.4**, 36°.28N**±0°.06×**21°.69E**±0°.09**, h24**^{km}±10^{km}**, n28,** σ**0**^{s}**79**/42**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.62**	**4**	P	**Pb**	**06 53 07.0**	**-0.1**
PYL				S	**Sb**	**06 53 15.4**	**+0.1**
PYL	**PYLOS**	**0.62**	**4**	P	**Pb**	**06 53 07.0**	**-0.1**
PYL				S	**Sb**	**06 53 15.4**	**+0.1**
DID	**Didima**	**1.75**	**45**	P	**Pn**	**06 53 23.5**	**-0.2**
DID				S	**Sn**	**06 53 44.8**	**-0.4**
DID	**Didima**	**1.75**	**45**	P	**Pn**	**06 53 23.5**	**-0.2**
DID				S	**Sn**	**06 53 44.8**	**-0.4**
LAKA	**Lakka**	**1.97**	**7**	P	**Pn**	**06 53 27.4**	**+0.6**
LAKA				S	**Sn**	**06 53 51.8**	**+1.0**
LAKA	**Lakka**	**1.97**	**7**	P	**Pn**	**06 53 27.4**	**+0.6**
LAKA				S	**Sn**	**06 53 51.8**	**+1.0**
KARN	**Karanos**	**2.01**	**115**	P	**Pn**	**06 53 27.2**	**-0.2**
KARN	**Karanos**	**2.01**	**115**	P	**Pn**	**06 53 27.2**	**-0.2**
LTK	**Loutraki**	**2.02**	**30**	P	**Pn**	**06 53 27.3**	**-0.2**
LTK				S	**Sn**	**06 53 51.6**	**-0.4**
LTK	**Loutraki**	**2.02**	**30**	P	**Pn**	**06 53 27.3**	**-0.2**
LTK				S	**Sn**	**06 53 51.6**	**-0.4**
VLS	**Valsamata**	**2.09**	**336**	P	**Pn**	**06 53 28.2**	**-0.2**
VLS				S	**Sn**	**06 53 53.6**	**0.0**
VLS	**Valsamata**	**2.09**	**336**	P	**Pn**	**06 53 28.2**	**-0.2**
VLS				S	**Sn**	**06 53 53.6**	**0.0**
LKR	**Lokris**	**2.59**	**23**	P	**Pn**	**06 53 34.5**	**-0.8**
LKR	**Lokris**	**2.59**	**23**	P	**Pn**	**06 53 34.5**	**-0.8**
AGG	**Agios Georgios**	**2.79**	**10**	P	**Pn**	**06 53 38.3**	**+0.3**
AGG				S	**Sn**	**06 54 10.8**	**-0.1**
AGG	**Agios Georgios**	**2.79**	**10**	P	**Pn**	**06 53 38.3**	**+0.3**
AGG				S	**Sn**	**06 54 10.8**	**-0.1**
LAST	**Lasithi**	**3.28**	**109**	P	**Pn**	**06 53 45.6**	**+0.8**
LAST	**Lasithi**	**3.28**	**109**	P	**Pn**	**06 53 45.6**	**+0.8**
THL	**Klokotos Trika**	**3.29**	**4**	P	**Pn**	**06 53 45.4**	**+0.4**
THL	**Klokotos Trika**	**3.29**	**4**	P	**Pn**	**06 53 45.4**	**+0.4**
XOR	**Xorichti**	**3.31**	**21**	P	**Pn**	**06 53 44.4**	**-0.7**
XOR	**Xorichti**	**3.31**	**21**	P	**Pn**	**06 53 44.4**	**-0.7**
MEV	**Metsovon**	**3.52**	**354**	P	**Pn**	**06 53 49.9**	**+1.8**
MEV	**Metsovon**	**3.52**	**354**	P	**Pn**	**06 53 49.9**	**+1.8**
LIT	**Litokhoron**	**3.87**	**9**	P	**Pn**	**06 53 53.9**	**+1.0**
LIT	**Litokhoron**	**3.87**	**9**	P	**Pn**	**06 53 53.9**	**+1.0**
KRUS	**Krusevo**	**5.09**	**356**	*e*Pn	**Pn**	**06 54 08.7**	**-1.0**
KRUS				*e*Sg	**Sn**	**06 55 02.4**	**-5.3**
STON	**Ston**	**7.27**	**336**	*e*Pn	**Pn**	**06 54 36.7**	**-2.9**
STON				Sn	**Sn**	**06 55 50.1**	**-11**

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*ISCJB **19** 06:53:15.4±0.8, 23°.96S±0°.06×67°.01W±0°.09, h172^{km}±11^{km}, mb3.8/4, Error ellipse: s-maj=14.6km s-min=8.7km az=20.1*

*IDC **19** 06:53:15.8±1.3, 23°.99S×66°.92W, h159^{km}±13^{km}, mb3.7/4, mb1 3.7/7, mb1mx3.4/19, mbtmp3.6/7, Error ellipse: s-maj=20.4km s-min=12.7km az=88.0*

*GUC **19** 06:53:19.0±0.8, 23°.53S×67°.47W, h217^{km}±9^{km}, ML4.2*

*NEIC **19** 06:53:19.0, 23°.53S×67°.47W, h217^{km}, MG4.2(GUC), After GUC.*

ISC 19 06:53:16.2±0.7**, 23°.94S**±0°.06×**66°.98W**±0°.09**, h164**^{km}±10^{km}**, n19,** σ**0**^{s}**98**/24**, mb3.8**/4**, 1C, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.21**	**306**	P	**Pn**	**06 53 56.8**	**+2.1**
	14nm,0.3s,baz=180,slow=4.5,SNR=410						
LVC				S	**Sn**	**06 54 25.5**	**+1.2**
	37nm,0.3s,baz=360,slow=18,SNR=37						
LVC	**Limon Verde**	**2.21**	**306**	P	**Pn**	**06 53 56.8**	**+2.1**
LVC				S	**Sn**	**06 54 25.5**	**+1.2**
LVC	**Limon Verde**	**2.21**	**306**	⇑*i*P	**Pn**	**06 53 56.8**	**+2.1**
LVC				*i* S	**Sn**	**06 54 25.5**	**+1.2**
LVC				AML	AML	06 54 27.9	
	comp=E,401nm,0.9s						
PECH	**Pedro de Valdi**	**2.81**	**298**	*e*P	**Pn**	**06 54 03.0**	**+1.1**
PECH				*i* S	**Sn**	**06 54 36.2**	**-1.0**
PECH				AML	AML	06 54 37.3	
	comp=E,1µm,0.4s						
CPN1	**Cerro Paranal**	**3.19**	**257**	*e*P	**Pn**	**06 54 06.6**	**0.0**
TOCH	**Tocopilla**	**3.49**	**301**	*e*P	**Pn**	**06 54 10.5**	**+0.2**
TOCH				*i* S	**Sn**	**06 54 49.0**	**-3.4**
HMBC	**Humberston**	**4.53**	**323**	*e*P	**Pn**	**06 54 23.0**	**-0.9**
HMBC				*i* S	**Sn**	**06 55 12.4**	**-4.2**
HMBC				AML	AML	06 55 21.4	
	comp=N,126nm,0.5s						
LCO	**Las Campanas**	**6.05**	**213**	*e*Pn	**Pn**	**06 54 41.7**	**-2.0**
CFAA	**Coronel Fontan**	**7.71**	**188**	P	**Pn**	**06 55 06.1**	**+0.4**
	comp=N,0.1nm,0.3s,baz=356,slow=12,SNR=13						
CFAA				S	**Sn**	**06 56 27.1**	**-4.9**
	comp=N,0.1nm,0.3s,baz=277,slow=23,SNR=9.7						
SIV	**San Ignacio**	**9.67**	**36**	P	**Pn**	**06 55 31.5**	**-0.2**
	comp=N,1.5nm,0.3s,baz=219,slow=14,SNR=33						
SIV				S	**Sn**	**06 57 18.6**	**-0.5**
	comp=N,0.1nm,0.3s,baz=307,slow=20,SNR=3.0						
PLCA	**Paso Flores**	**17.01**	**189**	P	**Pn**	**06 57 04.1**	**-0.1**
	comp=N,0.1nm,0.3s,baz=315,slow=8.6,SNR=2.7						
USHA	**Ushuaia**	**30.87**	**182**	P	**P**	**06 59 17.4**	**+0.6**
	comp=N,5.4nm,0.7s,mb4.4,baz=0.0,slow=15,SNR=2.8						
TORD	**Torodi Ar. Bea**	**76.53**	**69**	P	**P**	**07 04 48.6**	**-0.1**
	comp=N,0.3nm,0.4s,mb3.3,baz=259,slow=5.9,SNR=13						
ULM	**Lac du Bonnet**	**78.18**	**342**	P	**P**	**07 04 57.2**	**+0.2**
	comp=N,1.5nm,0.6s,mb3.8,baz=135,slow=2.9,SNR=3.1						
YKA	**Yellowknife Ar**	**94.08**	**340**	P	**P**	**07 06 15.4**	**+0.2**
	comp=N,0.3nm,0.7s,mb3.5,baz=129,slow=3.9,SNR=6.5						
YKA	**Yellowknife Ar**	**94.08**	**340**	P	**P**	**07 06 15.4**	**+0.2**
ASAR	**Alice Springs**	**128.51**	**205**	PKP	PKPdf	07 12 04.5	+0.2
	comp=N,0.4nm,0.7s,baz=182,slow=4.6,SNR=3.4						
WRA	**Warramunga Arr**	**131.68**	**207**	PKP	PKPdf	07 12 09.9	-0.4
	comp=N,0.3nm,0.3s,baz=158,slow=1.7,SNR=5.1						
MKAR	**Makanchi Array**	**146.47**	**39**	PKPbc	PKPbc	07 12 37.0	-0.9
	comp=N,0.2nm,0.5s,baz=294,slow=3.6,SNR=5.3						

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*NEIC **19** 07:44:56.2, 32°.58S×71°.54W, h36^{km}, MD3.9(GUC), After GUC.*

GUC 19 07:44:56.2±0.7**, 32°.58S×71°.54W, h36**^{km}±2^{km}**, MD3.9, ML3.6, 7C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	**Papudo**	**0.10**	**64**	⇑*i*P	Pn	07 45 02.8	+0.4
PACH				*i* S	Sn	07 45 07.1	+0.5
PACH	**Papudo**	**0.10**	**64**	⇑*i*P	Pn	07 45 02.8	+0.4
PACH				*i* S	Sn	07 45 07.1	+0.5
IHA	**Instituto Hidr**	**0.45**	**191**	⇑*i*P	Pn	07 45 05.9	-0.3
IHA				S	Sn	07 45 12.5	-0.7
IHA	**Instituto Hidr**	**0.45**	**191**	⇑*i*P	Pn	07 45 05.9	-0.3
IHA				*i* S	Sn	07 45 12.5	-0.7
CHNG	**Los Chungos**	**0.69**	**3**	*e*P	Pn	07 45 09.6	+0.1
CHNG				*i* S	Sn	07 45 19.2	+0.2
JACH	**Jahuel**	**0.80**	**98**	⇑*i*P	Pn	07 45 11.6	+0.6
JACH				*i* S	Sn	07 45 23.2	+1.5
JACH	**Jahuel**	**0.80**	**98**	⇑*i*P	Pn	07 45 11.6	+0.6
JACH				*i* S	Sn	07 45 23.2	+1.5
PEL	**Peldehue**	**0.91**	**128**	⇑*i*P	Pn	07 45 13.4	+0.9
PEL				*i* S	Sn	07 45 25.8	+1.3
RCDM	**Rinconada Maip**	**1.10**	**146**	*e*P	Pn	07 45 15.8	+0.7
RCDM				*i* S	Sn	07 45 30.4	+1.5
RCDM	**Rinconada Maip**	**1.10**	**146**	*e*P	Pn	07 45 15.8	+0.7
RCDM				*i* S	Sn	07 45 30.4	+1.5
RCDM				AML	AML	07 45 31.4	
	comp=E,2µm,0.2s						
ANTU	**Antumapu**	**1.25**	**143**	*e*P	Pn	07 45 17.9	+0.8
ANTU				*i* S	Sn	07 45 34.6	+2.0
ANTU	**Antumapu**	**1.25**	**143**	*e*P	Pn	07 45 17.9	+0.8
ANTU				*i* S	Sn	07 45 34.6	+2.0
FCH	**Farellones**	**1.29**	**126**	*e*P	Pn	07 45 18.9	+1.2
FCH				*i* S	Sn	07 45 36.0	+2.4
CMCH	**Combarbala**	**1.47**	**18**	*e*P	Pn	07 45 21.5	+1.3
CMCH				*i* S	Sn	07 45 41.2	+2.9
CMCH	**Combarbala**	**1.47**	**18**	*e*P	Pn	07 45 21.5	+1.3
CMCH				*i* S	Sn	07 45 41.2	+2.9
CMCH				AML	AML	07 45 42.4	
	comp=E,2µm,0.4s						
CHCH	**Chadas Angostu**	**1.54**	**151**	*e*P	Pn	07 45 22.8	+1.7
CHCH	**Chadas Angostu**	**1.54**	**151**	*e*P	Pn	07 45 22.8	+1.7
CACH	**El Canelo**	**1.72**	**153**	*e*P	Pn	07 45 25.9	+2.3
CACH	**El Canelo**	**1.72**	**153**	*e*P	Pn	07 45 25.9	+2.3

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*ISCJB **19** 07:45:12.1±0.6, 42°.2S±0°.1×84°.5E±0°.1, h10^{km}, mb4.3/13, MS4.0/8, Error ellipse: s-maj=19.7km s-min=13.3km az=170.8*

*IDC **19** 07:45:12.5±0.7, 42°.14S×84°.48E, h0^{km}, mb4.2/12, mb1 4.3/12, mb1mx4.2/21, mbtmp4.2/12, MS4.0/8, Ms1 4.0/8, ms1mx3.6/32, Error ellipse: s-maj=24.5km s-min=16.3km az=170.0*

*NEIC **19** 07:45:13.7±0.5, 42°.16S×84°.51E, h10^{km}, mb4.7/2, Error ellipse: s-maj=18.3km s-min=12.5km az=170.0*

ISC 19 07:45:14.0±0.6**, 42°.2S**±0°.1×**84°.5E**±0°.1**, h10**^{km}**, n24,** σ**1**^{s}**08**/16**, mb4.3**/13**, MS4.0**/8**, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	**Mawson**	**28.05**	**197**	LR	LR	07 59 33.0	
	comp=Z,276nm,19.5s,MS3.9,baz=192,slow=31						
FITZ	**Fitzroy Crossi**	**42.34**	**68**	LR	LR	08 06 39.1	
	comp=Z,141nm,21.8s,MS3.8,baz=142,slow=30						
ASAR	**Alice Springs**	**44.71**	**82**	P	**P**	**07 53 26.9**	**-0.5**
	2.5nm,0.9s,mb4.0,baz=228,slow=7.8,SNR=11						
ASAR				PcP	PcP	07 55 10.9	+1.3
	0.5nm,0.7s,baz=221,slow=4.3,SNR=4.4						
STKA	**Stephens Creek**	**45.96**	**97**	P	**P**	**07 53 37.0**	**-0.1**
	4.0nm,1.1s,mb4.3,baz=277,slow=8.1,SNR=3.1						
STKA				LR	LR	08 09 03.7	
	comp=Z,107nm,18.1s,MS3.8,baz=206,slow=31						
VNDA	**Vanda**	**46.51**	**163**	LR	LR	08 10 33.8	
	comp=Z,142nm,21.0s,MS3.9,baz=42,slow=33						
WRA	**Warramunga Arr**	**47.31**	**78**	P	**P**	**07 53 47.4**	**-0.5**
	6.5nm,1.0s,mb4.5,baz=231,slow=7.5,SNR=12						
QSPA	**South Pole Qui**	**47.99**	**180**	P	**P**	**07 53 53.4**	**+1.0**
	2.9nm,0.5s,mb4.5,baz=281,slow=2.2,SNR=42						
QSPA	**South Pole Qui**	**47.99**	**180**	*e*P	**P**	**07 53 53.3**	**+0.9**
	3.3nm,0.6s,mb4.5						
BOSA	**Boshof**	**49.25**	**266**	P	**P**	**07 54 03.0**	**+0.3**
	3.1nm,1.0s,mb4.3,baz=143,slow=9.0,SNR=3.6						
BOSA				LR	LR	08 10 08.1	
	comp=Z,185nm,20.0s,MS4.1,baz=157,slow=30						
PALK	**Pallekele**	**49.32**	**355**	P	**P**	**07 54 04.6**	**+1.3**
	6.6nm,0.9s,mb4.7,baz=180,slow=10,SNR=3.8						
SUR	**Sutherland**	**50.57**	**259**	P	**P**	**07 54 13.3**	**+0.6**
	4.2nm,0.9s,mb4.4,baz=212,slow=20,SNR=3.4						
LBTB	**Lobatse**	**50.99**	**270**	P	**P**	**07 54 15.0**	**-1.0**
	2.7nm,0.9s,mb4.2,baz=133,slow=7.8,SNR=3.0						
LSZ	**Lusaka**	**55.04**	**281**	P	**P**	**07 54 45.2**	**-0.7**
	1.5nm,0.5s,mb4.3,baz=139,slow=3.9,SNR=3.8						
CMAR	**Chiang Mai Arr**	**61.77**	**16**	P	**P**	**07 55 31.9**	**-0.9**
	1.9nm,0.7s,mb4.3,baz=209,slow=7.1,SNR=9.7						
CMAR				LR	LR	08 18 08.8	
	comp=Z,126nm,19.7s,MS4.1,baz=188,slow=32						
KBL	**Kabul**	**77.64**	**347**	*e*P	**P**	**07 57 10.2**	**-0.1**
	9.5nm,1.1s,mb4.6						
GTA	**Gaotai**	**82.38**	**12**	*e*P	**P**	**07 57 38.1**	**+2.4**
GTA				pP	pP	07 57 42.3	+3.3
GTA				sP	sP	07 57 44.8	+4.6
GTA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
AAK	**Ala-Archa**	**84.90**	**353**	LR	LR	08 30 38.9	
	comp=Z,94nm,20.6s,MS4.2,baz=194,slow=32						
MKAR	**Makanchi Array**	**88.60**	**358**	P	**P**	**07 58 08.1**	**+1.7**
	comp=Z,0.4nm,0.9s,baz=171,slow=5.4,SNR=3.1						
SONM	**Songino Array**	**91.68**	**15**	P	**P**	**07 58 18.8**	**-2.0**

	comp=Z,0.6nm,1.0s,mb3.9,baz=194,slow=3.0,SNR=2.9						
TORD	Torodi Ar. Bea	93.48	284	P	P	07 58 29.0	-1.0
	comp=Z,0.2nm,0.6s,baz=111,slow=4.1,SNR=2.1						
DBIC	Dimbokro	93.96	275	LR	LR	08 34 24.7	
	comp=Z,80nm,19.8s,MS4.2,baz=205,slow=31						
RES	Resolute Bay	147.38	360	PKPbc	PKPbc	08 04 56.0	-0.6
	comp=Z,1.3nm,0.8s,baz=11,slow=8.7,SNR=5.8						
YKA	Yellowknife Ar	156.70	23	PKPab	PKPab	08 05 38.2	+0.6
	comp=Z,0.2nm,0.6s,baz=318,slow=0.8,SNR=4.4						
PDAR	Pinedale Array	169.58	82	PKPab	PKPab	08 06 36.4	+1.5
	comp=Z,0.6nm,1.0s,baz=249,slow=1.7,SNR=3.5						

IDC 19 07:46:14.3±8.2**, 0°.66N×97°.21E, h0^{km}, mb3.8**/3**, mb1 3.8**/5**, mb1mx3.5**/23**, mbtmp3.7**/5**, ML3.6**/2**, Error ellipse: s-maj=154.9km s-min=54.5km az=161.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	2.73	39	Pn	Pn	07 46 58.8	-0.7
	1.0nm,0.3s,baz=190,slow=8.9,SNR=2.9						
CMAR	Chiang Mai Arr	17.77	5	P	Pn	07 50 23.1	-0.2
	0.3nm,0.3s,baz=196,slow=12,SNR=6.8						
SONM	Songino Array	47.66	8	P	P	07 54 52.1	-0.2
	0.4nm,0.8s,baz=199,slow=7.2,SNR=3.1						
MKAR	Makanchi Array	47.77	346	P	P	07 54 53.4	+0.2
	1.3nm,0.7s,baz=160,slow=8.1,SNR=12						
ZALV	Zalesovo Beam	54.09	351	P	P	07 55 40.7	0.0
	1.0nm,0.5s,baz=176,slow=7.9,SNR=4.5						

*ISCJB **19** 07:56:52.0±0.4, 38°.12N±0°.02×23°.71E±0°.03, h10^{km}, Error ellipse: s-maj=3.9km s-min=3.0km az=148.1*

*CSEM **19** 07:56:52.0±0.1, 38°.12N×23°.70E, h8^{km}, ML1.7, Error ellipse: s-maj=2.5km s-min=2.1km az=57.0*

*THE **19** 07:56:52.0, 38°.14N×23°.69E, h3^{km}±1^{km}, ML2.7/1, Error ellipse: s-maj=1.6km s-min=0.6km az=166.0*

*ATH **19** 07:56:52.3, 38°.10N×23°.68E, h13^{km}±5^{km}, MD2.8/3, ML1.7*

ISC 19 07:56:52.3±0.5**, 38°.13N**±0°.03×**23°.71E**±0°.04**, h8**^{km}±5^{km}**, n29, σ0^{s}.48**/54**, 2C, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTL	Penteli	0.15	122	*e*PG	Pg	07 56 55.8	+0.4
PTL				*e*SG	Sg	07 56 58.1	+0.5
PTL	Penteli	0.15	122	*e*Pg	Pg	07 56 55.8	+0.4
PTL				*e*Sg	Sg	07 56 58.1	+0.5
ATH	Athens Observa	0.15	177	⇑*i*PG	Pg	07 56 55.5	-0.1
ATH				*e*SG	Sg	07 56 57.9	+0.1
ATH	Athens Observa	0.15	177	⇑*i*Pg	Pg	07 56 55.5	-0.1
ATH				*e*Sg	Sg	07 56 57.9	+0.1
ATHU	Athens Univers	0.17	159	P	Pg	07 56 55.9	0.0
ATHU				S	Sg	07 56 58.2	-0.1
ATHU	Athens Univers	0.17	159	P	Pg	07 56 55.9	0.0
ATHU				S	Sg	07 56 58.2	-0.1
NAIG	Nisos Aigina	0.41	205	*e*PB	Pg	07 56 59.8	-0.4
NAIG	Nisos Aigina	0.41	205	*e*Pb	Pg	07 56 59.8	-0.4
LTK	Loutraki	0.59	260	P	Pg	07 57 03.1	-0.6
LTK				S	Sg	07 57 11.7	+0.2
LTK	Loutraki	0.59	260	P	Pg	07 57 03.1	-0.6
LTK				S	Sg	07 57 11.7	+0.2
DID	Didima	0.72	211	P	Pg	07 57 05.4	-0.8
DID				S	Sg	07 57 16.4	+0.8
DID	Didima	0.72	211	P	Pg	07 57 05.4	-0.8
DID				S	Sg	07 57 16.4	+0.8
LKR	Lokris	0.76	313	P	Pg	07 57 05.9	-1.1
LKR				S	Sg	07 57 17.5	+0.6
LKR	Lokris	0.76	313	*e*PB	Pg	07 57 06.0	-1.0
LKR				*e*SB	Sg	07 57 18.1	+1.2
LKR	Lokris	0.76	313	P	Pg	07 57 05.9	-1.1
LKR				S	Sg	07 57 17.5	+0.6
AOS	Alonnisos	1.05	7	P	Pg	07 57 12.1	-0.4
AOS				S	Sg	07 57 26.4	+0.3
AOS	Alonnisos	1.05	7	P	Pg	07 57 12.1	-0.4
AOS				S	Sg	07 57 26.4	+0.3
GUR	Goura	1.09	260	*e*PN	Pg	07 57 13.0	-0.3
GUR				*e*SB	Sg	07 57 27.1	-0.4
GUR	Goura	1.09	260	*e*Pn	Pg	07 57 13.0	-0.3
GUR				*e*Sb	Sg	07 57 27.1	-0.4
XOR	Xorichti	1.30	342	P	Pn	07 57 16.4	-0.3
XOR				S	Sb	07 57 33.7	-0.1
XOR	Xorichti	1.30	342	P	Pn	07 57 16.4	-0.3
XOR				S	Sb	07 57 33.7	-0.1
TRIZ	Trizonia	1.31	281	P	Pn	07 57 16.4	-0.4
TRIZ				S	Sb	07 57 34.5	+0.5
TRIZ	Trizonia	1.31	281	P	Pn	07 57 16.4	-0.4
TRIZ				S	Sb	07 57 34.5	+0.5
LAKA	Lakka	1.37	275	P	Pn	07 57 17.2	-0.4
LAKA				S	Sb	07 57 36.4	+0.8
LAKA	Lakka	1.37	275	P	Pn	07 57 17.2	-0.4
LAKA				S	Sb	07 57 36.4	+0.8
AGG	Agios Georgios	1.40	310	P	Pn	07 57 18.2	+0.1
AGG				S	Sb	07 57 37.1	+0.4
AGG	Agios Georgios	1.40	310	P	Pn	07 57 18.2	+0.1
AGG				S	Sb	07 57 37.1	+0.4
CHOS	Chios island	1.87	81	P	Pn	07 57 24.6	+0.1
CHOS	Chios island	1.87	81	P	Pn	07 57 24.6	+0.1

IDC 19 08:03:52.6±0.8**, 17°.49S×177°.61W, h0^{km}, mb4.2**/7**, mb1 4.4**/7**, mb1mx4.1**/18**, mbtmp4.2**/7**, Error ellipse: s-maj=43.6km s-min=17.0km az=168.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	23.23	287	P	P	08 09 03.3	+1.6
	104nm,0.6s,baz=94,slow=10,SNR=5.0						
PPT	Papeete	26.72	94	P	P	08 09 33.9	-0.1
	29nm,0.6s,baz=125,slow=5.5,SNR=6.2						
CTA	Charters Tower	34.27	260	P	P	08 10 42.0	+1.2
	3.7nm,0.6s,baz=95,slow=12,SNR=5.2						
STKA	Stephens Creek	39.50	241	P	P	08 11 25.6	+0.4
	2.0nm,0.5s,baz=87,slow=11,SNR=13						
WRA	Warramunga Arr	45.46	259	P	P	08 12 13.4	-0.4
	1.9nm,0.4s,baz=97,slow=7.0,SNR=16						
ASAR	Alice Springs	45.64	254	P	P	08 12 14.4	-0.9
	3.9nm,0.4s,baz=92,slow=7.5,SNR=79						
FITZ	Fitzroy Crossi	53.85	260	P	P	08 13 15.9	-2.0
	2.9nm,0.9s,baz=72,slow=6.4,SNR=4.6						
NVAR	Mina Array Bea	78.59	44	P	P	08 15 57.2	+0.9
	0.6nm,0.8s,baz=224,slow=7.8,SNR=5.7						
TXAR	Lajitas Array	85.12	57	P	P	08 16 30.2	-0.7
	0.7nm,0.7s,baz=201,slow=6.7,SNR=6.4						
TORD	Torodi Ar. Bea	175.63	171	PKPab	PKPab	08 25 43.8	+0.8
	0.1nm,0.4s,baz=242,slow=3.1,SNR=2.6						

IDC 19 08:29:52.5±4.2**, 47°.03S×73°.54W, h48**^{km}±40^{km}**, mb3.6**/4**, mb1 3.8**/6**, mb1mx3.7**/15**, mbtmp3.6**/6**, ML4.1**/2**, Error ellipse: s-maj=34.8km s-min=27.3km az=83.0, Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLCA	Paso Flores	6.66	20	P	Pn	08 31 28.1	+0.4
	2.2nm,0.3s,baz=198,slow=14,SNR=38						
PLCA				Lg		08 33 11.3	
	0.6nm,0.3s,baz=92,slow=18,SNR=2.4						
CFAA	Coronel Fontan	15.94	17	P	Pn	08 33 32.8	-0.6
	0.1nm,0.3s,baz=186,slow=14,SNR=4.2						
CPUP	Villa Florida	24.32	37	P	P	08 35 05.9	+0.4
	0.5nm,0.5s,baz=252,slow=20,SNR=3.2						
QSPA	South Pole Qui	43.22	180	P	P	08 37 47.1	-1.0
	2.7nm,1.0s,baz=216,slow=4.4,SNR=5.2						
PPT	Papeete	67.90	268	P	P	08 40 48.0	+1.9
	43nm,0.6s,baz=18,slow=5.3,SNR=3.7						
BOSA	Boshof	75.19	116	P	P	08 41 30.9	+1.1
	5.5nm,1.2s,baz=169,slow=5.2,SNR=3.4						
TXAR	Lajitas Array	80.73	334	P	P	08 41 59.1	-1.2
	0.8nm,0.9s,baz=152,slow=8.3,SNR=4.5						
PETK	Petropavlovsk-	147.16	300	PKPbc	PKPbc	08 49 27.6	-1.6
	4.1nm,0.8s,baz=132,slow=8.7,SNR=7.1						
CMAR	Chiang Mai Arr	150.84	165	PKP	PKPdf	08 49 34.1	+0.1
	0.9nm,0.3s,baz=201,slow=3.9,SNR=4.2						
CMAR				PKPbc	PKPbc	08 49 39.8	+0.1
	1.0nm,0.5s,baz=203,slow=5.9,SNR=4.4						

*NIED **19** 08:31:00, 24°.50N×122°.50E, h68^{km}, Mw4.0 Best double couple: $M_0$1.30000×10^{15} NP1:ϕ_s155.00000°, δ81.00000°, λ21.00000°. NP2:ϕ_s62.00000°, δ70.00000°, λ171.00000°.*

*NEIC **19** 08:31:05.9±0.7, 24°.34N×122°.52E, h52^{km}±7^{km}, mb3.9/2, Error ellipse: s-maj=9.6km s-min=8.7km az=98.0*

*ISCJB **19** 08:31:05.7±0.2, 24°.29N±0°.02×122°.53E±0°.02, h62^{km}±3^{km}, mb3.8/11, Error ellipse: s-maj=3.4km s-min=2.3km az=160.1*

*JMA **19** 08:31:06.5±0.2, 24°.45N×122°.54E, h61^{km}±1^{km}, M3.5*

*TAP **19** 08:31:06.2, 24°.29N×122°.50E, h51^{km}, ML4.5, B*

*IDC **19** 08:31:07.2±4.1, 24°.47N×122°.59E, h63^{km}±37^{km}, mb3.7/9, mb1 3.8/10, mb1mx3.7/23, mbtmp3.7/10, ML3.7/1, Error ellipse: s-maj=27.2km s-min=17.5km az=55.0*

ISC 19 08:31:06.5±0.2**, 24°.29N**±0°.02×**122°.53E**±0°.02**, h55**^{km}±4^{km}**, n90, σ1^{s}.00**/150**, mb3.8**/11**, 20C-2D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.47	69	P	Pn	08 31 17.8	0.0
YOJ				S	Sn	08 31 26.1	+0.2
YOJ	Yonaguni jima	0.47	69	⇓*i*P	Pn	08 31 17.9	+0.1
	baz=68						
YOJ				*i* S	Sn	08 31 25.7	-0.2
	baz=68						
TWC	Suao	0.69	297	⇑*i*P	Pn	08 31 20.0	-0.3
	baz=292						
TWC				S	Sn	08 31 29.8	-0.7
	baz=292						
ENA	Nanau	0.73	281	⇑*i*P	Pn	08 31 20.4	-0.5
	baz=281						
ENA				*e*S	Sn	08 31 30.7	-0.6
	baz=281						
ILA	Ilan	0.85	304	*e*P	Pn	08 31 22.2	-0.2
	baz=315						
ILA				*e*S	Sn	08 31 34.5	+0.5
	baz=315						
NACB	Ninganchiao	0.86	262	*e*Pn	Pn	08 31 21.4	-1.1
NACB				*e*Sn	Sn	08 31 32.7	-1.5
TWB1	Santiao Chiao	0.86	326	P	Pn	08 31 22.2	-0.4
	baz=326						
TWB1				*i* S	Sn	08 31 33.6	-0.8
	baz=326						
TWD	Chiawan	0.88	256	*i* P	Pn	08 31 21.8	-0.9
	baz=245						
TWD				*e*S	Sn	08 31 33.2	-1.4
	baz=245						
TWE	Neicheng	0.89	299	⇑*i*P	Pn	08 31 23.1	+0.2
	baz=308						
TWE				S	Sn	08 31 35.5	+0.5
	baz=308						
HWA	Hwalien	0.90	250	P	Pn	08 31 22.5	-0.5
	baz=249						
HWA				S	Sn	08 31 34.3	-0.8
	baz=249						
ENTT	Nioudou	0.94	292	⇑*i*P	Pn	08 31 24.0	+0.5
	baz=283						
ENTT				*e*S	Sn	08 31 36.5	+0.4
	baz=283						
ESF	Shoufeng Towns	1.02	246	*e*P	Pn	08 31 24.1	-0.5
	baz=239						
ESF				*e*S	Sn	08 31 36.9	-1.2
	baz=239						
NWF	Wu-fen Shan	1.03	319	⇑*i*P	Pn	08 31 24.9	+0.2
	baz=319						
NWF				S	Sn	08 31 37.7	-0.6
	baz=319						
NNS	Nan Shan	1.06	278	⇑*i*P	Pn	08 31 25.1	0.0
	baz=268						
TEGC	Jichi Village	1.07	237	*e*P	Pn	08 31 24.6	-0.8
	baz=226						
TEGC				*e*S	Sn	08 31 39.0	-0.2
	baz=226						
TWA	Mucha	1.10	309	⇑*i*P	Pn	08 31 25.9	+0.3
	baz=320						
TWA				*e*S	Sn	08 31 39.6	-0.3
	baz=320						
IRIF	Iriomote-Funau	1.10	88	P	Pn	08 31 25.7	0.0
IRIF				S	Sn	08 31 40.6	+0.7
ESL	Shilin	1.11	245	P	Pn	08 31 24.6	-1.2
	baz=235						
ESL				*e*S	Sn	08 31 38.3	-1.7
	baz=235						
YHNB	Yeheng	1.11	290	*e*Pn	Pn	08 31 25.8	0.0
NSK	Sanguang	1.13	290	⇑*i*P	Pn	08 31 26.5	+0.4
	baz=279						
NSK				S	Sn	08 31 40.3	-0.3
	baz=279						
WHF	Hehuan Shan	1.16	263	⇑*i*P	Pn	08 31 26.3	-0.2
	baz=263						
WHF				*e*S	Sn	08 31 40.6	-0.7
	baz=263						
TATO	Taipei	1.16	306	*e*Pn	Pn	08 31 26.2	-0.4
TATO				*e*Sn	Sn	08 31 41.3	-0.2
TAP1	Taipei	1.18	309	P	Pn	08 31 26.7	0.0
	baz=309						
TAP1				S	Sn	08 31 41.4	-0.3
	baz=309						
HATJ	Hateruma jima	1.19	101	P	Pn	08 31 27.8	+0.9
HATJ				*e*S	Sn	08 31 42.7	+0.6
TWT	Tachien	1.23	268	*e*P	Pn	08 31 27.6	+0.1
	baz=268						
TWT				S	Sn	08 31 43.3	+0.2
	baz=268						
TWS1	Kuangyinshan	1.29	309	P	Pn	08 31 28.5	+0.2
	baz=318						
TWS1				*e*S	Sn	08 31 44.6	+0.1
	baz=318						
TWY	Chenhua	1.29	320	*e*P	Pn	08 31 28.4	+0.2
	baz=320						
TWY				*e*S	Sn	08 31 44.5	0.0
	baz=320						
EHY	Hungye	1.35	235	⇑P	Pn	08 31 28.1	-1.0
	baz=231						
JKRS	Kuro-shima	1.36	92	P	Pn	08 31 29.8	+0.7
JKRS				*e*S	Sn	08 31 47.5	+1.4
NCU	National Centr	1.39	299	*e*P	Pn	08 31 30.4	+0.8
	baz=299						
NCU				*e*S	Sn	08 31 47.8	+0.9
	baz=299						
PCYT	Pengchaiyu	1.39	343	*e*P	Pn	08 31 29.5	-0.1
	baz=343						
NSTT	Nanjuang	1.43	284	⇑*i*P	Pn	08 31 31.0	+0.8
	baz=284						
NSTT				S	Sn	08 31 48.6	+0.8
	baz=284						
YULB	Yu-li	1.44	232	*e*Pn	Pn	08 31 29.0	-1.2
YULB				*e*Sn	Sn	08 31 45.5	-2.6
TWF1	Yuli	1.46	230	⇑P	Pn	08 31 29.9	-0.7
	baz=242						
TWF1				*e*S	Sn	08 31 46.1	-2.6
	baz=242						
JIJ	Ishigaki jima	1.48	87	P	Pn	08 31 30.6	-0.2
JIJ				S	Sn	08 31 49.0	0.0
HSN	Hsinchu	1.50	290	*e*P	Pn	08 31 30.8	-0.3
	baz=291						
SSLB	Suanglung	1.52	251	*e*Pn	Pn	08 31 30.8	-0.6
SSLB				*e*Sn	Sn	08 31 47.8	-2.3
SMLT	Sun Moon Lake	1.54	255	⇑*i*P	Pn	08 31 31.9	+0.3
	baz=254						
SMLT				S	Sn	08 31 49.9	-0.7
	baz=254						
TYC	Yuchr	1.57	256	⇑*i*P	Pn	08 31 32.3	+0.3
	baz=248						
TYC				S	Sn	08 31 50.5	-0.8
	baz=248						
CHKT	Chengkung	1.59	222	*e*P	Pn	08 31 30.9	-1.5
	baz=213						
TWQ1	Liyutan	1.60	272	⇑P	Pn	08 31 33.4	+1.0
	baz=272						
TWQ1				*e*S	Sn	08 31 53.5	+1.5
	baz=272						
NSY	Sanyi	1.61	275	*e*P	Pn	08 31 33.2	+0.6
	baz=274						
NSY				*e*S	Sn	08 31 54.2	+1.9
	baz=274						
YUS	Yu-Shan	1.65	241	⇑*i*P	Pn	08 31 33.7	+0.6
	baz=240						
YUS				S	Sn	08 31 51.9	-1.2
	baz=240						
TCU	Taichung	1.69	265	⇑P	Pn	08 31 34.9	+1.2
	baz=265						
TCU				*e*S	Sn	08 31 55.8	+1.4
	baz=265						
WNT	Mingjian	1.73	257	⇑P	Pn	08 31 35.7	+1.5
	baz=256						
WNT				S	Sn	08 31 56.4	+1.1
	baz=256						
ALS	Alishan	1.76	244	⇑*i*P	Pn	08 31 35.3	+0.8
	baz=236						
ALS				*e*S	Sn	08 31 56.0	+0.2
	baz=236						
ELDTW	Lidau	1.77	232	*e*P	Pn	08 31 33.9	-0.8
	baz=222						
WGK	Gukeng	1.89	252	*e*P	Pn	08 31 37.3	+0.9
	baz=240						
WGK				*e*S	Sn	08 32 01.0	+1.8
	baz=240						
STYT	Tauyuan	1.97	236	P	Pn	08 31 37.9	+0.4
	baz=235						
STYT				*e*S	Sn	08 32 00.8	-0.3
	baz=235						
TWG	Pinlang	1.98	223	*e*Pn	Pn	08 31 36.1	-1.6
TWG	Pinlang	1.98	223	*e*P	Pn	08 31 36.4	-1.3
	baz=230						
TWG				*e*S	Sn	08 31 58.2	-3.1
	baz=230						
TTN	Taitung	1.99	220	*e*P	Pn	08 31 34.5	-3.2
	baz=219						
TPUB	Ta-pu	2.00	241	*e*Pn	Pn	08 31 38.6	+0.7
TPUB				*e*Sn	Sn	08 32 01.4	-0.3
CHN4	Tsaushan	2.00	242	P	Pn	08 31 39.2	+1.3
	baz=242						
CHN4				S	Sn	08 32 03.3	+1.4
	baz=242						
JTJ	Tarama	2.01	80	P	Pn	08 31 38.8	+0.7
JTJ				*e*S	Sn	08 32 02.7	+0.6
CHN2	Minshiung	2.02	248	*e*P	Pn	08 31 39.5	+1.3
	baz=248						
CHN2				*e*S	Sn	08 32 04.6	+2.3
	baz=248						
WTP	Ta-pu	2.04	240	⇑P	Pn	08 31 39.4	+1.0
	baz=239						
WTP				S	Sn	08 32 03.7	+1.0
	baz=239						
CHY	Chiayi	2.08	248	*e*P	Pn	08 31 39.3	+0.3
	baz=247						
CHY				*e*S	Sn	08 32 05.2	+1.5
	baz=247						
WTCT	Ta-ch'eng	2.10	259	*e*P	Pn	08 31 38.8	-0.4
	baz=258						
WTCT				*e*S	Sn	08 32 05.0	+0.9
	baz=258						
TWK	Hsinying	2.13	242	*e*P	Pn	08 31 40.7	+1.1
	baz=241						
TWK				*e*S	Sn	08 32 06.1	+1.2
	baz=241						
CHN1	Nanshi	2.14	239	*e*P	Pn	08 31 40.8	+1.0
	baz=238						
CHN1				*e*S	Sn	08 32 05.9	+0.8
	baz=238						
SGST	Jiashian	2.15	236	*e*P	Pn	08 31 41.3	+1.3
	baz=235						
SGST				*e*S	Sn	08 32 07.3	+1.9
	baz=235						
CHN8	Yiju	2.32	246	*e*P	Pn	08 31 41.4	-0.8
	baz=246						
CHN8				*e*S	Sn	08 32 10.2	+0.6
	baz=246						
SSD	Sandimen	2.32	229	*e*P	Pn	08 31 43.5	+1.2
	baz=221						
SSD				*e*S	Sn	08 32 10.6	+1.0
	baz=221						
LAY	Lan-yu	2.42	202	*e*P	Pn	08 31 41.6	-2.0
	baz=201						
TWM1	Shoushan	2.42	233	*e*P	Pn	08 31 46.5	+2.8
	baz=244						
SCZT	Fangliau	2.59	223	*e*P	Pn	08 31 46.2	+0.2
	baz=220						
SCZT				*e*S	Sn	08 32 16.9	+0.6
	baz=220						
PNG	Penghu	2.81	256	*e*P	Pn	08 31 48.0	-1.0
	baz=255						
PNG				*e*S	Sn	08 32 20.6	-1.1
	baz=255						
TSEB	Hengchuen, Pin	2.81	212	*e*P	Pn	08 31 47.3	-1.7
	baz=219						
WDGT	Dungji	2.82	249	*e*P	Pn	08 31 49.2	+0.1
	baz=248						
TWK1	Hengchun	2.82	214	*e*P	Pn	08 31 48.9	-0.3
	baz=219						
TWK1				*e*S	Sn	08 32 20.9	-1.1
	baz=219						
QZH	Quanzhou	3.64	281	⇓*i*Pn	Pn	08 32 00.6	+0.3
QZH				Sn	Sn	08 32 39.0	-3.0
QZH				smax			
	comp=N,190nm,0.4s						
QZH				smax			
	comp=E,110nm,0.5s						
KNM	Kinmen	3.73	273	*e*P	Pn	08 32 01.4	-0.2
	baz=271						
JKE	Kume jima 2	4.36	61	P	Pn	08 32 11.0	+0.8
JOW	Kunigami	5.78	63	P	Pn	08 32 29.1	-0.5
JOW	Kunigami	5.78	63	P	Pn	08 32 28.9	-0.8
	comp=E,4.7nm,0.3s,baz=105,slow=20,SNR=8.5						
JOW				S	Sn	08 33 32.6	-1.9
	comp=E,0.7nm,0.3s,baz=198,slow=20,SNR=2.4						
JTK	Tokunoshima	6.75	58	P	Pn	08 32 42.2	-0.7
JAM	Amami Oshima	7.56	56	P	Pn	08 32 52.8	-1.3
KSRS	Korea Array	13.91	18	P	Pn	08 34 23.4	+2.7
	comp=E,0.6nm,0.3s,baz=197,slow=11,SNR=20						
ULN	Ulaanbaatar	26.54	336	*e*P	P	08 36 38.5	-0.5
	comp=E,1.6nm,0.4s,mb3.9						
SONM	Songino Array	26.76	335	P	P	08 36 40.4	-0.6
	comp=E,3.0nm,0.8s,mb3.9,baz=146,slow=9.3,SNR=22						
MKAR	Makanchi Array	39.12	315	P	P	08 38 28.1	-0.4
	comp=E,1.2nm,0.5s,mb3.9,baz=100,slow=10,SNR=39						
MKAR				PcP	PcP	08 40 36.5	-0.7
	comp=E,0.6nm,0.7s,baz=87,slow=4.6,SNR=5.5						
ZALV	Zalesovo Beam	40.83	326	P	P	08 38 40.8	-1.7
	comp=E,0.8nm,0.3s,mb3.8,baz=124,slow=7.7,SNR=6.5						
ZALV				PcP	PcP	08 40 40.8	-1.8
	comp=E,0.8nm,0.4s,baz=120,slow=4.6,SNR=2.9						
TKM2	Tokmak 2	42.66	308	*e*P	P	08 38 58.5	+0.7
	comp=E,1.0nm,0.4s,mb3.9						
KURK	Kurchatov	42.80	320	P	P	08 38 57.8	-0.9
	comp=E,0.3nm,0.4s,mb3.4,baz=107,slow=7.6,SNR=5.1						
WRA	Warramunga Arr	45.45	164	P	P	08 39 20.9	+0.7
	comp=E,1.0nm,0.7s,mb3.8,baz=345,slow=8.4,SNR=2.6						
ASAR	Alice Springs	48.94	166	P	P	08 39 48.5	+1.2
	comp=E,0.8nm,0.7s,mb3.8,baz=349,slow=6.3,SNR=6.0						
ARCES	ARCESS Array B	69.89	338	P	P	08 42 09.8	-1.5
	comp=E,2.3nm,0.8s,mb4.2,baz=51,slow=4.7,SNR=3.9						
YKA	Yellowknife Ar	82.39	23	P	P	08 43 21.3	-1.1
	comp=E,0.5nm,0.8s,mb3.5,baz=315,slow=5.2,SNR=11						
NVAR	Mina Array Bea	95.52	44	P	P	08 44 25.8	+0.1
	comp=E,0.3nm,0.7s,mb3.9,baz=316,slow=4.1,SNR=4.1						

*NEIC **19** 08:34:12.4, 19°.87N×64°.91W, h77^{km}, MD3.6(RSPR), After RSPR.*

RSPR 19 08:34:12.4, 19°.86N×64°.91W, h77^{km}±11^{km}**, MD3.6**/5**, MD3.6**/5**, 8C, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABV	Anegada	1.25	154	*e*S	Sn	08 34 50.2	-0.8
ABV	Anegada	1.25	154	*e*S	Sn	08 34 50.2	-0.8
TBVI	Tortola	1.47	169	⇑*e*P	Pn	08 34 36.0	-1.3
TBVI				*e*S	Sn	08 34 55.4	-0.5
STVI	Saint Thomas	1.51	182	⇑*e*P	Pn	08 34 36.7	-1.0
STVI				*e*S	Sn	08 34 56.8	-0.1
CBYP	Canovanas	1.82	210	⇑*e*P	Pn	08 34 41.4	-0.5
CBYP				*e*S	Sn	08 35 03.6	-0.6
MTP	Monte Pirata	1.86	199	⇑*e*P	Pn	08 34 41.9	-0.5
MTP				*e*S	Sn	08 35 05.0	-0.2
HUMP	Col San Antoni	1.93	208	⇑*e*P	Pn	08 34 42.6	-0.7
HUMP				*e*S	Sn	08 35 06.4	-0.5
CPD	Cerro la Pandu	2.05	208	⇑*e*P	Pn	08 34 43.9	-1.1
CPD				*e*S	Sn	08 35 09.5	-0.3
CPD	Cerro la Pandu	2.05	208	⇑*e*P	Pn	08 34 43.9	-1.1
CPD				*e*S	Sn	08 35 09.1	-0.7
CRPR	Cabo Rojo, PR	2.79	229	⇑*e*P	Pn	08 34 54.9	0.0

*MOS **19** 08:51:22.3±0.8, 24°.75S×179°.02E, h497^{km}, mb4.9/20, Error ellipse: s-maj=13.6km s-min=10.7km az=148.6*

*BJI **19** 08:51:24.6, 24°.90S×179°.00E, h539^{km}, mB4.9/16, mb4.4/21*

*NEIC **19** 08:51:26.7±0.2, 24°.88S×178°.99E, mb4.8/46, Error ellipse: s-maj=8.2km s-min=4.8km az=145.0*

*ISCJB **19** 08:51:26.6±0.1, 24°.91S±0°.05×178°.97E±0°.04, h546^{km}, mb4.7/73, Error ellipse: s-maj=6.6km s-min=4.0km az=149.6*

*IDC **19** 08:51:27.6±0.6, 24°.77S×178°.98E, h551^{km}±5^{km}, mb4.1/18,*

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          mb1 4.2/20,mb1mx4.2/21,mbtmp4.1/20,Error ellipse:
          s-maj=11.5km s-min=10.4km az=143.0
      DJA 19 08:51:36,25.°07S×178.°42E,h637km,mb5.0/14
      ISC 19 08:51:27.7±0.2,24.°89S±0.°05×178.°98E±0.°04,h548km,
          h548km±3.2km:pP-P,n488,σ0.s52/450,mb4.7/73,
          156C-159D,South of Fiji Islands
Code  Station Name      Δ°   AZ°   Phase ID        Time      Res
                               Op       ISC       h  m  s    ISC
OUZ   Omahuta          11.30 203  ePn      P        08 54 01.9 +3.1
DZM   Mont Dzumac      11.84 281  eP       P        08 54 05.4 +0.7
NOUC  Port Laguerre    11.96 281  eP       P        08 54 07.2 +1.4
URZ   Urewera          13.42 186   P       P        08 54 18.2 -2.5
      2.5nm,0.3s,baz=338,slow=19,SNR=15
URZ                                S       S        08 56 38.7 -4.5
      0.5nm,0.3s,baz=66,slow=20,SNR=6.8
URZ   Urewera          13.42 186  ePn      P        08 54 18.0 -2.8
      15nm,0.4s
AFI   Afiamalu         13.97  40   P       P        08 54 26.2 -0.5
      3.3nm,0.3s,baz=120,slow=8.1,SNR=5.6
AFI                                S       S        08 56 44.1  -10
      5.6nm,0.3s,baz=76,slow=19,SNR=6.4
SNZO  South Karori     16.76 191  eP       P        08 54 52.4 -1.7
      516nm,2.3s
KHZ   Kahutara         18.05 193  eP       P        08 55 03.9 -2.0
      40nm,0.9s
RPZ   Rata Peaks       19.87 197   P       P        08 55 21.8 -0.6
      1.9nm,0.3s,baz=39,slow=8.7,SNR=7.9
RPZ   Rata Peaks       19.87 197  eP       P        08 55 22.3 -0.1
      18nm,0.9s
RAR   Rarotonga        19.89  84   P       P        08 55 18.4 -4.6
RAR                                pmax    pmax
      comp=Z,32nm,0.6s
RAR   Rarotonga        19.89  84   P       P        08 55 18.9 -4.1
      comp=Z,14nm,0.3s,baz=66,slow=5.3,SNR=8.2
RAR   Rarotonga        19.89  84   P       P        08 55 18.4 -4.6
      comp=Z,32nm,0.6s
HNR   Honiara          23.76 307   P       P        08 55 56.2 -1.5
      comp=Z,135nm,0.8s,mb5.6,baz=156,slow=5.9,SNR=4.1
ARMA  Armidale         24.81 251  eP       P        08 56 08.5 +1.6
ARMA  Armidale         24.81 251  eP       P        08 56 08.2 +1.3
      comp=Z,22nm,0.8s,mb4.8
EIDS  Eidsvold         25.25 263  eP       P        08 56 11.2 +0.4
      comp=Z,41nm,0.9s,mb5.1
CNB   Canberra Magne   27.55 241⇓iP       P        08 56 32.2 +1.2
PAE   Paea             30.12  82  eP       P        08 56 52.6 -0.9
      comp=Z,35nm,1.1s,mb4.8
PPT   Papeete          30.15  82  eP       P        08 56 53.2 -0.6
      comp=Z,44nm,1.2s,mb4.9
TIAR  Tiarei           30.36  82  eP       P        08 56 55.1 -0.5
      comp=Z,104nm,1.0s,mb5.3
TVO   Taravao          30.38  83  eP       P        08 56 54.9 -0.8
      comp=Z,46nm,0.9s,mb5.0
CTA   Charters Tower   30.57 272⇓iP       P        08 56 57.7 +0.4
      comp=Z,71nm,0.4s,mb5.5
CTA   Charters Tower   30.57 272   P       P        08 56 57.9 +0.6
      comp=Z,84nm,0.4s,mb5.6,baz=96,slow=11,SNR=152
CTA                                ScP     ScP      09 02 29.8 +0.1
      comp=Z,9.2nm,1.0s,baz=60,slow=3.0,SNR=3.7
CTA   Charters Tower   30.57 272   P       P        08 56 57.9 +0.6
CTA                                ScP     ScP      09 02 29.8 +0.1
CTAO  Charters Tower   30.57 272  eP       P        08 56 57.7 +0.4
CTAO                               pmax    pmax
      comp=Z,92nm,0.5s,mb5.6
CTAO  Charters Tower   30.57 272  eP       P        08 56 57.7 +0.4
      comp=Z,92nm,0.5s,mb5.6
TOO   Toolangi         31.13 238  eP       P        08 57 02.8 +0.9
TAU   Tasmania Unive   31.58 227  eP       P        08 57 06.8 +1.2
TAU                                pmax    pmax
      comp=Z,49nm,1.3s,mb4.9
TAU   Tasmania Unive   31.58 227  eP       P        08 57 06.8 +1.1
      comp=Z,49nm,1.3s,mb4.9
PMOR  Pomariorio Ree   32.58  79  eP       P        08 57 13.7 -0.8
      comp=Z,86nm,1.1s,mb5.2
VAH   Vaihoa           32.73  79  eP       P        08 57 14.8 -1.0
      comp=Z,67nm,1.2s,mb5.0
STKA  Stephens Creek   33.50 249⇓iP       P        08 57 22.6 +0.5
      comp=Z,24nm,0.4s,mb5.1
STKA  Stephens Creek   33.50 249   P       P        08 57 22.7 +0.6
      comp=Z,28nm,0.4s,mb5.1,baz=94,slow=10,SNR=144
STKA                               ScP     ScP      09 02 39.7 +0.1
      comp=Z,4.5nm,1.1s,baz=150,slow=3.4,SNR=3.8
STKA  Stephens Creek   33.50 249   P       P        08 57 22.7 +0.6
STKA                               ScP     ScP      09 02 39.7 +0.1
COEN  Coen             35.37 281  eP       P        08 57 37.9  0.0
      comp=Z,466nm,0.9s
ASAR  Alice Springs    40.96 262   P       P        08 58 23.1 -0.2
ASAR                               *PP     pP       08 59 59.9 -0.1
ASAR  Alice Springs    40.96 262   P       P        08 58 23.1 -0.2
      comp=Z,43nm,0.9s,mb5.0,baz=95,slow=8.2,SNR=140
ASAR                               pP      pP       08 59 59.9 -0.1
      comp=Z,2.7nm,1.0s,baz=97,slow=7.8,SNR=2.2
ASAR                               ScP     ScP      09 03 09.0 +0.9
      comp=Z,1.0nm,0.8s,baz=79,slow=4.8,SNR=3.1
WRAB  Tennant Creek    41.41 268d iP       P        08 58 25.7 -1.2
WRAB  Tennant Creek    41.41 268  eP       P        08 58 26.0 -0.8
      comp=Z,81nm,1.1s,mb5.2
WRA   Warramunga Arr   41.42 268   P       P        08 58 26.2 -0.7
      comp=Z,34nm,0.5s,mb5.1,baz=104,slow=8.0,SNR=203
WRA                                ScP     ScP      09 03 11.2 +1.2
      comp=Z,6.0nm,1.1s,baz=103,slow=4.1,SNR=9.6
WRA                                S       S        09 04 00.1 -2.8
      comp=Z,2.5nm,1.0s,baz=100,slow=15,SNR=5.2
TAOE  Nuku Hiva Isla   42.04  75  eP       P        08 58 31.8 -0.1
      comp=Z,690nm,1.0s
FORT  Forrest          45.10 251  eP       P        08 58 54.2 -1.2
      comp=Z,43nm,0.5s,mb5.2
FORT  Forrest          45.10 251  eP       P        08 58 53.6 -1.8
      comp=Z,55nm,0.6s,mb5.3
KAKA  Kakadu           45.48 277⇓iP       P        08 58 57.2 -1.4
      comp=Z,19nm,0.5s,mb4.9
KAKA  Kakadu           45.48 277  eP       P        08 58 57.0 -1.5
      comp=Z,33nm,0.5s,mb5.1
FITZ  Fitzroy Crossi   49.83 267⇓iP       P        08 59 30.7 -0.4
      comp=Z,49nm,0.6s,mb5.1
FITZ  Fitzroy Crossi   49.83 267   P       P        08 59 30.8 -0.3
      comp=Z,36nm,0.8s,mb4.8,baz=104,slow=7.9,SNR=38
FITZ  Fitzroy Crossi   49.83 267  eP       P        08 59 30.5 -0.5
      comp=Z,24nm,0.6s,mb4.8
VNDA  Vanda            53.32 185   P       P        08 59 56.2 +1.0
      comp=Z,3.3nm,0.6s,mb3.9,baz=31,slow=5.9,SNR=4.2
QSPA  South Pole Qui   65.20 180   P       P        09 01 15.6 +1.1
      comp=Z,22nm,0.5s,mb4.9,baz=7.6,slow=0.8,SNR=130
MJAR  Matsushiro Arr   72.19 326   P       P        09 01 56.3 -1.0
      comp=Z,10nm,0.9s,mb4.2,baz=164,slow=5.8,SNR=19
MJAR                               pP      pP       09 03 49.9 -1.2
      comp=Z,2.5nm,0.8s,baz=168,slow=5.6,SNR=6.1
MAJO  Matsushiro       72.20 326  eP       P        09 01 56.4 -0.9
MAJO                               pmax    pmax
      comp=Z,12nm,0.8s,mb4.4
MAJO  Matsushiro       72.20 326  eP       P        09 01 56.4 -0.9
      comp=Z,12nm,0.8s,mb4.4
MAT   Matsushiro       72.20 326   P       P        09 01 55.5 -1.8
MAW   Mawson           76.50 201   P       P        09 02 21.2  0.0
      comp=Z,7.8nm,0.9s,mb4.2,baz=174,slow=9.2,SNR=6.2
KSRS  Korea Array      78.41 321   P       P        09 02 31.6 -0.3
      comp=Z,4.3nm,0.8s,mb3.8,baz=135,slow=6.0,SNR=13
KSRS                               pP      pP       09 04 28.4 +0.1
      comp=Z,1.2nm,0.8s,baz=150,slow=4.4,SNR=3.2
YSS   Yuzh-Sakhalins   78.64 336⇓iP       P        09 02 33.0 +0.1
YSS                                pmax    pmax
      comp=Z,30nm,0.9s,mb4.6
YSS   Yuzh-Sakhalins   78.64 336  eP       P        09 02 33.4 +0.5
      comp=Z,23nm,1.0s,mb4.5
PETK  Petropavlovsk-   79.85 347   P       P        09 02 38.2 -0.9
      comp=Z,4.6nm,0.9s,mb3.8,baz=128,slow=9.6,SNR=4.1
NJ2   Nanjing          80.61 312  eP       P        09 02 44.0 +0.4
NJ2                                pmax    pmax
      comp=Z,10.0nm,0.6s,mb4.4
MDJ   Mudanjiang       82.57 327   P       P        09 02 53.6 +0.3
MDJ                                pP      pP       09 04 49.6 -1.6
MDJ                                sP      sP       09 05 45.0 -1.8
MDJ                                PP      PP       09 06 10.9 -2.5
MDJ                                S       S        09 12 24.3 -0.8
MDJ                                sS      sS       09 15 53.9 -1.3
MDJ                                SS      SS       09 18 07.3 +3.6
MDJ                                pmax    pmax
      comp=Z,14nm,1.1s,mb4.4
MDJ                                pmax    pmax
      comp=Z,73nm,5.4s
HABR  Khabarovsk       82.94 332  eP       P        09 02 54.0 -1.1
HABR                              ePPP              09 08 10.1
HABR                               S       S        09 12 22.9 -5.7
HABR                              eSSS              09 21 43.6
HABR                               MLR     MLR
      comp=Z,54nm,19.0s
SAO   San Andreas Ge   83.11  44  eP       P        09 02 55.4 -0.9
SAO                                pmax    pmax
      comp=Z,17nm,1.1s,mb4.5
SAO   San Andreas Ge   83.11  44  eP       P        09 02 55.4 -0.9
      comp=Z,17nm,1.1s,mb4.5
SMMC  Simmler          83.17  46 ⇓P        P        09 02 57.0 +0.5
      baz=83
109C  Camp Elliot, M   83.70  49 ⇓P        P        09 02 59.3 +0.1
      baz=84
PASC  Pasadena Art C   83.70  48  eP       P        09 02 59.3 +0.1
ARVC  Arvin            83.83  47 ⇓P        P        09 02 59.7 -0.1
      baz=84,SNR=5.7
BAR   Barrett          83.88  50  eP       P        09 02 59.8 -0.4
      comp=Z,5.8nm,0.9s,mb4.1
VNA3  Neumayer Olymp   83.94 177  eP       P        09 02 59.2 -0.6
MURC  Murrieta         84.04  49 ⇑P        P        09 03 01.0 +0.1
      baz=84
VES   Vestal, Richgr   84.08  46 ⇓P        P        09 03 00.4 -0.7
      baz=84,SNR=7.7
BFSC  Mount Baldy St   84.09  48 ⇑P        P        09 03 01.1 -0.1
      baz=84
CN2   Changchun        84.14 324  eP       P        09 03 00.8 -0.3
CN2                               epP      pP       09 04 58.9 -0.7
CN2                               eS       S        09 12 41.4 +0.9
CN2                                pmax    pmax
      comp=Z,30nm,0.8s,mb4.9
CN2                                pmax    pmax
      comp=Z,200nm,3.0s
MONP  Monument Peak    84.17  50 ⇑P        P        09 03 01.9 +0.3
      baz=84,SNR=16
EDW2  Edwards Air Fo   84.24  47 ⇓P        P        09 03 01.9  0.0
      baz=84,SNR=13
DVTC  Desert V Tower   84.27  50 ⇑P        P        09 03 02.4 +0.3
      baz=84,SNR=6.2
VNA2  Neumayer--Watz   84.34 178  eP       P        09 03 01.1 -0.7
ISA   Isabella         84.38  47  eP       P        09 03 02.6 +0.1
ISA                                pmax    pmax
      comp=Z,25nm,1.0s,mb4.7
ISA   Isabella         84.38  47 ⇓P        P        09 03 02.6  0.0
      baz=85,SNR=24
ISA   Isabella         84.38  47  eP       P        09 03 02.6  0.0
      comp=Z,25nm,1.0s,mb4.7
PFO   Pinyon Flat Ob   84.56  49  i P      P        09 03 04.3 +0.8
PFO   Pinyon Flat Ob   84.56  49 ⇓P        P        09 03 03.5 +0.1
      baz=85,SNR=5.1
PFO   Pinyon Flat Ob   84.56  49  eP       P        09 03 03.5 +0.1
      comp=Z,10nm,1.1s,mb4.3
CMB   Columbia Colle   84.56  44  eP       P        09 03 03.1 -0.3
CMB                                pmax    pmax
      comp=Z,22nm,1.0s,mb4.6
CMB   Columbia Colle   84.56  44  eP       P        09 03 03.1 -0.3
      comp=Z,22nm,1.0s,mb4.6
BBRC  Big Bear Sol-O   84.61  48 ⇓P        P        09 03 04.0 +0.2
      baz=85
SWSC  Sam W. Stewart   84.64  50 ⇓P        P        09 03 04.0 +0.1
      baz=85,SNR=9.5
OHCM  Honcut           84.67  42  eP       P        09 03 04.0 +0.1
RRX   Edison Barstow   84.91  48 ⇑P        P        09 03 05.2  0.0
      baz=85
KLR   Kul'dur          84.94 331  eP       P        09 03 00.0 -4.9
CWC   Cottonwood Cre   85.09  46 ⇑P        P        09 03 06.0  0.0
      baz=85
BELC  Belle Mtn.       85.09  49 ⇑P        P        09 03 06.3 +0.2
      baz=85,SNR=16
MPMC  Manual Prospec   85.26  47 ⇓P        P        09 03 06.7 -0.1
      baz=86,SNR=6.7
112A  Yuma             85.26  51 ⇓P        P        09 03 07.4 +0.5
      baz=86
BC3   Big Chuckw Mtn   85.27  50 ⇑P        P        09 03 07.4 +0.5
      baz=86,SNR=5.0
GSC   Goldstone        85.28  48  eP       P        09 03 06.6 -0.3
GSC                                pmax    pmax
      comp=Z,17nm,1.1s,mb4.5
GSC   Goldstone        85.28  48 ⇓P        P        09 03 06.8 -0.2
      baz=86,SNR=6.3
GSC   Goldstone        85.28  48  eP       P        09 03 06.5 -0.4
      comp=Z,17nm,1.1s,mb4.5
MLAC  Mammoth Lakes    85.30  45 ⇓P        P        09 03 07.4 +0.5
      baz=86
MTUM  Tungsten Hills   85.31  45  eP       P        09 03 07.7 +0.6
HEC   Hector,Ludlow    85.33  48 ⇓P        P        09 03 07.0 -0.2
      baz=86,SNR=20
TIN   Tinemaha         85.35  46 ⇑P        P        09 03 07.5 +0.3
      baz=86
GLA   Glamis           85.37  50  eP       P        09 03 08.0 +0.5
GLA                                pmax    pmax
      comp=Z,29nm,1.1s,mb4.7
GLA   Glamis           85.37  50 ⇑P        P        09 03 08.0 +0.6
      baz=86,SNR=6.9
GLA   Glamis           85.37  50  eP       P        09 03 08.0 +0.6
      comp=Z,28nm,1.1s,mb4.7
WAKR  Walker           85.44  44  eP       P        09 03 07.9 +0.3
R06C  Coleville        85.44  44 ⇓P        P        09 03 07.8 +0.1
      baz=86,SNR=12
YBH   Yreka Blue Hor   85.44  40  eP       P        09 03 08.0 +0.5
YBH                                pmax    pmax
      comp=Z,29nm,1.6s
YBH   Yreka Blue Hor   85.44  40  eP       P        09 03 08.0 +0.4
      comp=Z,29nm,1.6s,mb4.6
BEKR  Beckwourth       85.69  42 ⇑P        P        09 03 08.5 -0.2
      baz=86,SNR=5.6
WCN   Washoe City      85.72  43 ⇑P        P        09 03 08.9  0.0
      baz=86,SNR=8.8
GMRC  Granite Mounta   85.76  49 ⇑P        P        09 03 09.3 +0.1
      baz=86
IRM   Iron Mountain    85.76  49 ⇓P        P        09 03 09.5 +0.2
      baz=86,SNR=13
HUMO  Hull Mountain    85.85  39  eP       P        09 03 09.0 -0.5
      comp=Z,19nm,1.4s,mb4.5
P06A  Stead Airport,   85.85  43 ⇓P        P        09 03 09.8 +0.2
      baz=86
GRAC  Grapevine Rang   85.88  46 ⇓P        P        09 03 09.8  0.0
      baz=86
FURC  Furnace Creek,   85.91  47 ⇓P        P        09 03 09.9  0.0
      baz=86
TUQ   Turquoise Moun   85.95  48 ⇑P        P        09 03 10.4 +0.2
      baz=86,SNR=5.0
113A  Mohawk Valley,   85.97  51 ⇓P        P        09 03 10.4 +0.1
      baz=86
Y12C  Blythe           85.97  50 ⇑P        P        09 03 10.5 +0.2
      baz=86
SHOC  Shoshone         85.97  47 ⇑P        P        09 03 10.3  0.0
      baz=86
NVAR  Mina Array Bea   86.11  44   P       P        09 03 10.8 -0.1
      comp=Z,6.9nm,0.8s,mb4.3,baz=224,slow=8.5,SNR=51
NVAR                               pP      pP       09 05 13.1 +3.2
      comp=Z,1.0nm,0.8s,baz=222,slow=9.3,SNR=5.3
PAHR  Pah Rah Range    86.19  43  eP       P        09 03 11.5 +0.3
O06A  Flanigan         86.19  42 ⇓P        P        09 03 11.4 +0.2
      baz=86,SNR=8.8
214A  Organ Pipe Nat   86.21  52 ⇑P        P        09 03 12.0 +0.5
      baz=86,SNR=7.7
U10A  Ash Meadows, A   86.23  47 ⇓P        P        09 03 11.6 +0.1
      baz=86
LDFC  Landfair         86.30  49  eP       P        09 03 12.3 +0.5
      comp=Z,61nm,1.4s,mb5.0
S09A  Goldfield        86.39  45 ⇓P        P        09 03 11.6 -0.6
      baz=87,SNR=5.1
P07A  Fallon           86.40  43 ⇑P        P        09 03 12.4 +0.3
      baz=87
GYA   Guiyang          86.45 301⇓iP       P        09 03 13.8 +1.1
GYA                                pP      pP       09 05 13.3 +1.3
GYA                                sP      sP       09 06 06.5 -0.8
GYA                                PP      PP       09 06 47.4 +2.6
GYA                                SKS              09 12 46.8
GYA                                S       S        09 13 03.6 +0.1
GYA                                pmax    pmax
      comp=Z,10.0nm,1.0s,mb4.4
GYA                                pmax    pmax
      comp=Z,70nm,5.3s
NEE2  Needles Airpor   86.46  49 ⇑P        P        09 03 12.8 +0.2
      baz=87
Y13A  Salome           86.49  50 ⇓P        P        09 03 13.1 +0.3
      baz=87,SNR=5.5
V11A  Goodsprings      86.50  48 ⇑P        P        09 03 12.8  0.0
      baz=87
PDMCI Parker Dam,Lak   86.54  50 ⇑P        P        09 03 13.2 +0.3
      baz=87
N06A  Buffalo Meadow   86.54  42 ⇓P        P        09 03 12.6 -0.2
      baz=87,SNR=15
114A  Black Gap (USA   86.58  52 ⇑P        P        09 03 13.6 +0.3
      baz=87
W12A  Cal Nev Ari      86.59  49 ⇓P        P        09 03 13.1  0.0
      baz=87
TPH   Tonopah          86.59  45  eP       P        09 03 13.5 +0.4
TPH                                pmax    pmax
      comp=Z,14nm,0.9s,mb4.6
TPH   Tonopah          86.59  45  eP       P        09 03 13.5 +0.3
      comp=Z,14nm,0.9s,mb4.6
Q08A  Gabbs            86.60  44 ⇑P        P        09 03 12.9 -0.2
      baz=87,SNR=11
O07A  Toulon           86.77  43 ⇑P        P        09 03 13.7 -0.2
      baz=87,SNR=13
R09A  Tonopah          86.79  45 ⇑P        P        09 03 13.9 -0.1
      baz=87,SNR=10
V12A  Nelson           86.83  48 ⇑P        P        09 03 14.5 +0.2
      baz=87
U11A  Corn Creek       86.86  47 ⇓P        P        09 03 14.5 +0.1
      baz=87
Z14A  Wintersburg      86.86  51 ⇑P        P        09 03 14.8 +0.3
      baz=87
X13A  Yucca            86.91  50 ⇑P        P        09 03 14.6 -0.1
      baz=87,SNR=6.9
S10A  Tonopah Range,   86.91  46 ⇓P        P        09 03 14.4 -0.2
      baz=87,SNR=21
MOD   Modoc            86.96  41  eP       P        09 03 14.4 -0.3
P08A  Dixie Valley     86.99  43 ⇑P        P        09 03 15.4 +0.4
      baz=87
115A  Sonoran Desert   87.02  52 ⇑P        P        09 03 15.7 +0.4
      baz=87
Q09A  Carvers          87.06  45 ⇓P        P        09 03 15.9 +0.6
      baz=87
SHPR  Sheep Range      87.06  47  eP       P        09 03 16.0 +0.7
N07B  Gerlach          87.08  42 ⇓P        P        09 03 15.5 +0.1
      baz=87
BJI   Beijing          87.11 317   P       P        09 03 15.5  0.0
BJI                                sP      sP       09 06 10.5 +0.3
BJI                                pmax    pmax
      comp=Z,10.0nm,1.1s,mb4.4
K05A  Summer Lake      87.11  40 ⇓P        P        09 03 16.0 +0.5
      baz=87
Y14A  Wickenburg       87.13  51 ⇑P        P        09 03 15.9 +0.2
      baz=87
W13A  Hualapai Mount   87.15  49 ⇑P        P        09 03 16.0 +0.2
      baz=87,SNR=5.9
216A  Three Points,    87.21  53 ⇓P        P        09 03 16.8 +0.6
      baz=87,SNR=6.9
O08A  Rochester Mine   87.29  43 ⇑P        P        09 03 16.3 -0.1
      baz=88,SNR=18
S11A  Rachel           87.31  46 ⇓P        P        09 03 16.6 +0.1
      baz=88
R10A  Warm Springs     87.31  45 ⇑P        P        09 03 16.7 +0.2
      baz=88,SNR=9.4
M07A  Soldier Meadow   87.32  42 ⇓P        P        09 03 16.7 +0.2
      baz=88,SNR=15
116A  Eloy             87.33  52 ⇑P        P        09 03 17.1 +0.4
      baz=88,SNR=7.2
Z15A  Gila River Ind   87.38  51 ⇑P        P        09 03 17.0  0.0
      baz=88
T11A  Corn Creek, Al   87.43  47 ⇑P        P        09 03 17.3 +0.2
      baz=88,SNR=21
U12A  Valley of Fire   87.44  48 ⇑P        P        09 03 17.6 +0.4
      baz=88
V13A  Grand Canyon W   87.49  48 ⇑P        P        09 03 17.4  0.0
      baz=88,SNR=11
X14A  Yava             87.50  50 ⇓P        P        09 03 17.6 +0.2
      baz=88
P09A  Austin           87.50  44 ⇓P        P        09 03 17.4  0.0
      baz=88
Q10A  Clear Creek Ra   87.55  45 ⇑P        P        09 03 18.1 +0.5
      baz=88
217A  Green Valley     87.56  53 ⇑P        P        09 03 18.7 +0.9
      baz=88,SNR=27
N08A  GE Springer Mi   87.59  43 ⇑P        P        09 03 17.8  0.0
      baz=88,SNR=10
H04A  Detroit Lake     87.60  38 ⇓P        P        09 03 17.3 -0.4
      baz=88
L07A  Adell            87.60  41 ⇑P        P        09 03 18.1 +0.4
      baz=88,SNR=23
Y15A  Casa Rosa Ranc   87.61  51 ⇑P        P        09 03 18.4 +0.4
      baz=88,SNR=6.0
F03A  Seaside          87.64  36 ⇑P        P        09 03 18.7 +0.8
      baz=88
W14A  Seligman         87.76  49 ⇑P        P        09 03 19.3 +0.7
      baz=88,SNR=6.4
G04A  Mulino           87.76  37 ⇑P        P        09 03 18.6 +0.2
      baz=88
R11A  Troy Canyon, C   87.81  46 ⇑P        P        09 03 18.8  0.0
      baz=88
U13A  Pakoon Wash      87.81  48 ⇑P        P        09 03 19.2 +0.3
      baz=88,SNR=14
O09A  Fish Creek Ran   87.82  43 ⇓P        P        09 03 18.8  0.0
      baz=88,SNR=5.5
M08A  Happy Creek Ra   87.84  42 ⇓P        P        09 03 19.3 +0.4
      baz=88,SNR=12
TUC   Tucson           87.86  53  eP       P        09 03 19.8 +0.6
TUC                                pmax    pmax
      comp=Z,18nm,1.1s,mb4.7
TUC   Tucson           87.86  53  eP       P        09 03 19.8 +0.6
      comp=Z,18nm,1.1s,mb4.7
TUC                               e        pP       09 05 23.3 +4.4
J06A  Christmas Vall   87.86  40 ⇓P        P        09 03 18.9 -0.1
      baz=88
S12A  Delamar Landin   87.88  47 ⇑P        P        09 03 19.9 +0.7
      baz=88,SNR=12
Z16A  Peralta Trail,   87.93  52 ⇓P        P        09 03 19.9 +0.3
      baz=88,SNR=5.2
BMN   Battle Mountai   87.96  43  eP       P        09 03 19.1 -0.4
BMN                                pmax    pmax
      comp=Z,32nm,1.3s,mb4.9
BMN   Battle Mountai   87.96  43  eP       P        09 03 19.1 -0.4
      comp=Z,32nm,1.3s,mb4.9
X15A  Humboldt         87.96  50 ⇑P        P        09 03 19.9 +0.2
      baz=88,SNR=8.9
P10A  Eureka           87.97  44 ⇓P        P        09 03 19.8 +0.2
      baz=88
V14A  Boquillas Ranc   87.97  49 ⇑P        P        09 03 20.0 +0.4
      baz=88,SNR=11
318A  Bisbee           87.99  54 ⇓P        P        09 03 20.7 +0.8
      baz=88,SNR=21
N09A  Rock Creek Ran   88.01  43 ⇓P        P        09 03 19.7  0.0
      baz=88,SNR=8.3
117A  Oracle           88.03  53 ⇑P        P        09 03 20.7 +0.7
      baz=88,SNR=18
E03A  Lebam            88.03  36 ⇑P        P        09 03 19.9 +0.2
      baz=88
Q11A  Duckwater        88.04  45 ⇑P        P        09 03 19.9  0.0
      baz=88,SNR=6.4
K07A  Rock Creek Ran   88.06  41 ⇓P        P        09 03 20.0 +0.2
      baz=88,SNR=22
Y16A  Circle Bar Ran   88.18  51 ⇓P        P        09 03 21.2 +0.5
      baz=88,SNR=16
T13A  Saint George     88.18  48 ⇓P        P        09 03 21.0 +0.4
      baz=88,SNR=6.9
218A  Dragoon          88.22  54 ⇓P        P        09 03 21.6 +0.7
      baz=88,SNR=28
PLCA  Paso Flores      88.24 135   P       P        09 03 21.0  0.0
      comp=Z,3.1nm,0.8s,mb4.1,baz=248,slow=6.4,SNR=5.9
PLCA  Paso Flores      88.24 135   P       P        09 03 21.0  0.0
I06A  Prineville       88.25  39 ⇑P        P        09 03 21.2 +0.5
      baz=88
F04A  Amboy            88.25  37 ⇓P        P        09 03 20.4 -0.3
      baz=88,SNR=5.9
WVOR  Wild Horse Val   88.27  41  eP       P        09 03 20.4 -0.4
WVOR                               pmax    pmax
      comp=Z,23nm,1.0s,mb4.9
WVOR  Wild Horse Val   88.27  41  eP       P        09 03 20.4 -0.4
      comp=Z,23nm,1.0s,mb4.9
L08A  Fields           88.30  41 ⇑P        P        09 03 21.3 +0.3
      baz=89,SNR=29
O10A  Cortez Mining,   88.33  44 ⇓P        P        09 03 21.2  0.0
      baz=89
U14A  Mt Trumbull      88.34  48 ⇓P        P        09 03 21.9 +0.5
      baz=89,SNR=16
P11A  Circle Ranch,    88.38  45 ⇑P        P        09 03 21.3 -0.2
      baz=89
M09A  Marrel Ranch,    88.39  42 ⇓P        P        09 03 21.8 +0.4
      baz=89,SNR=12
J07A  Hines            88.43  40 ⇑P        P        09 03 21.8 +0.2
      baz=89
R12A  Pony Springs,    88.44  46 ⇑P        P        09 03 21.9 +0.1
      baz=89,SNR=9.0
319A  Douglas          88.48  54 ⇑P        P        09 03 23.0 +0.9
      baz=89
X16A  Lo Mia Camp, P   88.48  51 ⇑P        P        09 03 22.6 +0.5
      baz=89,SNR=15
S13A  Holt Ranch, En   88.52  47 ⇓P        P        09 03 22.4 +0.2
      baz=89,SNR=9.4
K08A  Mann Creek Ran   88.53  41 ⇑P        P        09 03 22.3 +0.2
      baz=89,SNR=30
Y17A  Roosevelt        88.53  52 ⇑P        P        09 03 22.5 +0.2
      baz=89,SNR=6.0
Z17A  San Carlos Hig   88.59  52 ⇓P        P        09 03 23.4 +0.7
      baz=89
L09A  Wilkinson Ranc   88.61  42 ⇑P        P        09 03 22.6 +0.2
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      baz=89,SNR=11
118A  Homack Ranch,      88.62  53 ⇑P    P       09 03 23.5 +0.8
      baz=89
XAN   Xi’an              88.62 309 P     P       09 03 23.1 +0.4
XAN                                PP    PP      09 07 02.8 +1.0
XAN                                S     S       09 13 25.9 +2.6
XAN                                SS    SS      09 19 35.8 +4.0
XAN                                pmax  pmax
      comp=Z,10.0nm,1.2s,mb4.5
XAN                                pmax  pmax
      comp=Z,74nm,5.8s
H06A  Lindquist Farm     88.66  38 ⇓P    P       09 03 22.7  0.0
      baz=89
Q12A  Willow Creek R     88.69  45 ⇓P    P       09 03 23.0 +0.1
      baz=89,SNR=7.9
V15A  Kaibab Nationa     88.71  49 ⇑P    P       09 03 23.6 +0.5
      baz=89,SNR=9.4
I07A  Izee               88.74  39 ⇑P    P       09 03 23.4 +0.4
      baz=89
T14A  Hurricane          88.76  48 ⇑P    P       09 03 23.6 +0.3
      baz=89,SNR=6.9
O11A  Cowboy Ranch,      88.77  44 ⇑P    P       09 03 23.4 +0.2
      baz=89,SNR=12
R13A  O’Grain Ranch,     88.77  47 ⇓P    P       09 03 23.7 +0.4
      baz=89,SNR=6.1
W16A  Flagstaff          88.78  50 ⇓P    P       09 03 23.7 +0.2
      baz=89,SNR=9.8
Z18A  Geronimo           88.80  53 ⇑P    P       09 03 24.1 +0.6
      baz=89
G06A  Carlson Farm,      88.80  38 ⇓P    P       09 03 23.1 -0.2
      baz=89
P12A  McGill             88.88  45 ⇓P    P       09 03 23.9 +0.1
      baz=89,SNR=6.2
X17A  Forest Lakes       88.89  51 ⇑P    P       09 03 24.8 +0.8
      baz=89
KMI   Kunming            88.91 298 P     P       09 03 25.5 +1.3
KMI                                pP    pP      09 05 22.3 -2.0
KMI                                sP    sP      09 06 11.4 -8.0
KMI                                PP    PP      09 07 08.9 +4.8
KMI                                S     S       09 13 24.8 -1.5
KMI                                sS    sS      09 17 00.1 -0.2
KMI                                SS    SS      09 19 40.6 +4.5
KMI                                pmax  pmax
      comp=Z,12nm,0.6s,mb4.9
KMI                                pmax  pmax
      comp=Z,110nm,6.2s
J08A  Circle Bar Ran     88.91  40 ⇓P    P       09 03 23.9 +0.1
      baz=89,SNR=12
ARUT  Antelope Range     88.91  47 eP    P       09 03 23.7 -0.3
ARUT                               pmax  pmax
      comp=Z,20nm,1.5s,mb4.7
ARUT  Antelope Range     88.91  47 eP    P       09 03 23.7 -0.3
      comp=Z,20nm,1.5s,mb4.7
K09A  Rome               88.97  41 ⇑P    P       09 03 24.2 +0.1
      baz=89,SNR=25
CMAR  Chiang Mai Arr     89.00 291 P     P       09 03 25.6 +0.8
      comp=Z,2.9nm,0.8s,mb4.1,baz=137,slow=3.1,SNR=9.7
CMAR                               pP    pP      09 05 25.4 +0.5
      comp=Z,0.9nm,0.6s,baz=139,slow=3.2,SNR=2.2
M10A  I.L. Ranch, Tu     89.00  43 ⇑P    P       09 03 24.7 +0.4
      baz=89,SNR=17
H07A  Lands Inn, Kim     89.01  39 ⇓P    P       09 03 24.2 -0.1
      baz=89
F06A  Goldendale         89.05  37 ⇓P    P       09 03 24.7 +0.3
      baz=89
S14A  Cedar City         89.08  47 ⇑P    P       09 03 24.9 +0.2
      baz=89,SNR=6.2
LON   Longmire           89.10  36 eP    P       09 03 24.0 -0.6
LON                                pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.3
LON   Longmire           89.10  36 eP    P       09 03 24.0 -0.6
      comp=Z,4.2nm,0.8s,mb4.3
N11A  Elko Archery C     89.10  44 ⇓P    P       09 03 25.0 +0.3
      baz=89
WUAZ  Wupatki            89.11  50 ⇓P    P       09 03 24.8 -0.1
      baz=89,SNR=5.3
WUAZ  Wupatki            89.11  50 eP    P       09 03 25.0  0.0
      comp=Z,14nm,1.1s,mb4.7
Q13A  Wheeler Ranch,     89.17  46 ⇓P    P       09 03 25.0 -0.1
      baz=89,SNR=13
119A  Ashpeak Ranch,     89.17  53 ⇓P    P       09 03 25.8 +0.5
      baz=89
I08A  Drewsey            89.18  40 ⇓P    P       09 03 25.1  0.0
      baz=89
T15A  Red Dirt Ranch     89.21  48 ⇓P    P       09 03 25.6 +0.2
      baz=89,SNR=11
D05A  Enumclaw           89.28  36 ⇓P    P       09 03 25.8 +0.4
      baz=90,SNR=7.9
J09A  Fry Pan Ranch,     89.33  41 ⇑P    P       09 03 25.7 -0.1
      baz=90,SNR=20
G07A  Ruggs Ranch, H     89.36  38 ⇑P    P       09 03 25.6 -0.3
      baz=90
L10A  Juniper Basin      89.36  42 ⇓P    P       09 03 26.0  0.0
      baz=90,SNR=31
ELK   Elko               89.38  44 eP    P       09 03 26.1 +0.1
ELK                                pmax  pmax
      comp=Z,11nm,1.0s
ELK   Elko               89.38  44 eP    P       09 03 26.1  0.0
      comp=Z,11nm,1.0s,mb4.6
M11A  Holland Ranch,     89.42  43 ⇓P    P       09 03 26.5 +0.3
      baz=90,SNR=22
E06A  Yakima             89.42  37 ⇓P    P       09 03 26.0 -0.1
      baz=90
O12A  Currie             89.42  44 ⇓P    P       09 03 26.2 -0.1
      baz=90,SNR=8.0
P13A  Bates Ranch, G     89.44  45 ⇑P    P       09 03 26.6 +0.2
      baz=90,SNR=20
R14A  James Farms, M     89.47  47 ⇑P    P       09 03 26.9 +0.4
      baz=90
H08A  Prairie City       89.48  39 ⇓P    P       09 03 26.4  0.0
      baz=90
K10A  MacKenzie Ranc     89.53  42 ⇑P    P       09 03 26.7  0.0
      baz=90,SNR=14
120A  U Bar Ranch, L     89.54  54 ⇑P    P       09 03 27.6 +0.5
      baz=90
N12A  Clover Valley,     89.56  44 ⇓P    P       09 03 26.9  0.0
      baz=90,SNR=13
S15A  Panguitch          89.57  48 ⇓P    P       09 03 28.1 +1.0
      baz=90,SNR=9.6
X18A  Snowflake          89.60  51 ⇑P    P       09 03 27.4 +0.2
      baz=90
F07A  Phinny Hill Vi     89.60  38 ⇑P    P       09 03 27.2 +0.3
      baz=90
U16A  Tuba City          89.60  49 ⇓P    P       09 03 27.8 +0.6
      baz=90,SNR=7.6
Q14A  Sevier Lake (B     89.67  46 ⇓P    P       09 03 27.7 +0.2
      baz=90,SNR=20
I09A  Lost Marbles R     89.70  40 ⇓P    P       09 03 27.1 -0.4
      baz=90
C05A  Tolt Reservoir     89.75  36 ⇑P    P       09 03 27.2 -0.4
      baz=90,SNR=6.9
G08A  Pilot Rock         89.78  39 ⇓P    P       09 03 27.7 -0.1
      baz=90,SNR=9.8
T16A  Glen Canyon Da     89.78  49 ⇓P    P       09 03 28.3 +0.2
      baz=90,SNR=6.5
Y19A  Nutrioso           89.80  52 ⇑P    P       09 03 28.9 +0.7
      baz=90,SNR=13
O13A  Hicks Ranch, I     89.83  45 ⇓P    P       09 03 28.7 +0.5
      baz=90
L11A  Cat Creek Ranc     89.86  42 ⇑P    P       09 03 28.5 +0.3
      baz=90,SNR=13
A04A  Legoe Bay, Lum     89.87  34 ⇑P    P       09 03 28.8 +0.6
      baz=90
D06A  Cle Elum           89.89  36 ⇓P    P       09 03 28.4 +0.1
      baz=90
B05A  Bryant             89.90  35 ⇓P    P       09 03 28.4 +0.1
      baz=90
R15A  Junction           89.91  47 ⇓P    P       09 03 29.1 +0.5
      baz=90,SNR=7.4
K11A  Parker Ranch,      90.03  42 ⇓P    P       09 03 29.0  0.0
      baz=90,SNR=9.9
SEY   Seymchan           90.04 348⇑eP    P       09 03 28.0 -0.6
E07A  Sunnyside          90.04  37 ⇓P    P       09 03 29.0  0.0
      baz=90,SNR=7.5
RSW   Rattlesnake Hi     90.09  37 eP    P       09 03 29.7 +0.5
N13A  Wendover, West     90.09  44 ⇓P    P       09 03 29.3  0.0
      baz=90,SNR=12
S16A  Weppner Ranch,     90.11  48 ⇓P    P       09 03 29.4 -0.1
      baz=90
HAWA  Hanford            90.12  37 eP    P       09 03 29.6 +0.2
P14A  Drum Mountains     90.13  46 ⇓P    P       09 03 29.4 -0.2
      baz=90
MSU   Marysvale          90.14  47 eP    P       09 03 30.8 +1.2
H09A  Durkee             90.15  40 ⇓P    P       09 03 29.4 -0.1
      baz=90
U17A  Shonto             90.16  49 ⇑P    P       09 03 30.2 +0.4
      baz=90
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F08A  Pendleton          90.18  38 ⇑P    P       09 03 29.2 -0.4
      baz=90
V18A  Ganado             90.21  50 ⇑P    P       09 03 30.1 +0.1
      baz=90,SNR=6.7
Q15A  Fillmore           90.26  47 ⇓P    P       09 03 30.3 +0.1
      baz=90,SNR=12
T17A  Navajo Res., N     90.27  49 ⇓P    P       09 03 30.7 +0.4
      baz=90,SNR=7.5
W19A  Sanders            90.29  51 ⇑P    P       09 03 30.5  0.0
      baz=90,SNR=6.2
L12A  House Creek Ra     90.30  43 ⇓P    P       09 03 30.5 +0.2
      baz=90,SNR=13
I10A  Payette            90.32  40 ⇑P    P       09 03 30.3  0.0
      baz=91
D07A  Quincy             90.36  37 ⇑P    P       09 03 31.0 +0.5
      baz=91
M13A  Montello           90.39  44 ⇑P    P       09 03 31.0 +0.2
      baz=91
ETW   Entiat             90.42  36 eP    P       09 03 30.9 +0.2
E08A  Dider Farm, El     90.44  38 ⇑P    P       09 03 30.7 -0.1
      baz=91
G09A  Cove               90.44  39 ⇑P    P       09 03 30.6 -0.3
      baz=91,SNR=5.1
HHC   Hu-ho-hao-te       90.47 316 eP    P       09 03 31.5 +0.4
HHC                                pP    pP      09 05 31.3 -0.1
HHC                                sP    sP      09 06 24.0 -2.4
HHC                                PP    PP      09 07 18.4 +2.4
HHC                                eS    S       09 13 40.0 +0.4
HHC                                sS    sS      09 17 11.8 -2.9
HHC                                SS    SS      09 20 03.0 +5.2
HHC                                pmax  pmax
      comp=Z,18nm,1.0s,mb4.9
HHC                                pmax  pmax
      comp=Z,130nm,3.9s
R16A  Teasdale           90.48  48 ⇑P    P       09 03 31.6 +0.4
      baz=91,SNR=12
MFID  Camas Ranch        90.52  41 ⇓P    P       09 03 30.8 -0.4
      baz=91
S17A  Black Ridge (B     90.60  48 ⇑P    P       09 03 31.3 -0.5
      baz=91,SNR=9.2
C07A  Waterville         90.62  36 ⇑P    P       09 03 31.1 -0.5
      baz=91
U18A  Rough Rock, Ch     90.62  50 ⇓P    P       09 03 31.8 -0.1
      baz=91,SNR=5.3
DUG   Dugway             90.62  45 eP    P       09 03 31.5 -0.3
DUG                                pmax  pmax
      comp=Z,6.0nm,1.1s,mb4.4
DUG   Dugway             90.62  45 ⇓P    P       09 03 31.5 -0.3
      baz=91,SNR=6.1
DUG   Dugway             90.62  45 eP    P       09 03 31.5 -0.3
      comp=Z,6.2nm,1.1s,mb4.5
K12A  Draper Farm, C     90.64  42 ⇓P    P       09 03 31.8  0.0
      baz=91,SNR=7.5
H10A  Noah’s Angus R     90.64  40 ⇓P    P       09 03 31.7 -0.1
      baz=91,SNR=5.9
I11A  Placerville        90.72  41 ⇓P    P       09 03 31.9 -0.2
      baz=91,SNR=5.1
N14A  Grayback Hills     90.73  45 ⇓P    P       09 03 31.6 -0.8
      baz=91
A06A  Chilliwack         90.74  35 ⇑P    P       09 03 32.0 -0.1
      baz=91
122A  Conniff Cattle     90.82  54 ⇑P    P       09 03 33.6 +0.6
      baz=91
G10A  Bishop Farm, J     90.83  39 ⇑P    P       09 03 32.0 -0.7
      baz=91
CD2   Chengdu            90.85 304 P     P       09 03 33.8 +0.7
CD2                                pP    pP      09 05 33.6 +0.1
CD2                                PP    PP      09 07 23.1 +3.9
CD2                                SKS           09 13 13.6
CD2                                S     S       09 13 43.8 +0.3
CD2                                sS    sS      09 17 16.1 -2.7
CD2                                SS    SS      09 20 08.3 +4.6
CD2                                pmax  pmax
      comp=Z,20nm,1.2s,mb4.9
CD2                                pmax  pmax
      comp=Z,240nm,6.4s
D08A  Wollman Farm,      90.85  37 ⇓P    P       09 03 32.3 -0.5
      baz=91
J12A  Stokes Ranch,      90.86  42 ⇓P    P       09 03 32.8 -0.1
      baz=91,SNR=11
O15A  The Old Anders     90.89  45 ⇓P    P       09 03 33.3 +0.2
      baz=91
W20A  Ramah              90.93  51 ⇑P    P       09 03 33.5 +0.2
      baz=91
L13A  Double Diamond     90.93  43 ⇑P    P       09 03 33.2 -0.1
      baz=91,SNR=5.6
E09A  Wood Farm, Sta     90.96  38 ⇑P    P       09 03 32.7 -0.6
      baz=91
T18A  Mexican Hat        90.98  49 ⇓P    P       09 03 33.5 -0.1
      baz=91,SNR=14
M14A  Sheep Mountain     90.98  44 ⇓P    P       09 03 33.3 -0.2
      baz=91,SNR=16
Q16A  Castle Valley      91.02  47 ⇑P    P       09 03 34.3 +0.6
      baz=91,SNR=6.8
B07A  Winthrop           91.05  36 ⇑P    P       09 03 32.8 -0.8
      baz=91
P16A  Fountain Green     91.06  46 ⇓P    P       09 03 34.6 +0.7
      baz=91
R17A  Hanksville Air     91.07  48 ⇑P    P       09 03 33.6 -0.3
      baz=91,SNR=7.1
H11A  Donnelly           91.14  40 ⇓P    P       09 03 33.6 -0.4
      baz=91,SNR=8.9
I12A  Atlanta            91.15  41 ⇑P    P       09 03 34.1  0.0
      baz=91
K13A  Stover Farm, H     91.15  43 ⇓P    P       09 03 34.2  0.0
      baz=91,SNR=7.8
F10A  Beach Ranch, E     91.16  39 ⇑P    P       09 03 33.4 -0.8
      baz=91
S18A  Hurst Farm, Bl     91.18  49 ⇑P    P       09 03 34.3 -0.2
      baz=91
D09A  Jones Farm, Ri     91.19  37 ⇑P    P       09 03 33.8 -0.5
      baz=92
TMUT  Trail Mountain     91.19  47 eP    P       09 03 35.1 +0.6
      comp=Z,20nm,0.8s,mb5.1
C08A  Higginbotham F     91.22  37 ⇑P    P       09 03 33.8 -0.6
      baz=92
A07A  Ashnola River,     91.27  35 ⇓P    P       09 03 34.0 -0.6
      baz=92
MPU   Maple Canyon       91.29  46 eP    P       09 03 35.1 +0.2
      comp=Z,11nm,0.9s,mb4.8
L14A  Malta              91.34  44 ⇑P    P       09 03 34.8 -0.3
      baz=92,SNR=6.2
SPUT  South Promonto     91.45  45 eP    P       09 03 35.1 -0.5
      comp=Z,14nm,1.0s,mb4.8
HLID  Hailey             91.45  42 ⇓P    P       09 03 35.5 -0.1
      baz=92
HVU   Hansel Valley      91.50  44 eP    P       09 03 35.4 -0.4
HVU                                pmax  pmax
      comp=Z,16nm,1.2s,mb4.8
HVU   Hansel Valley      91.50  44 eP    P       09 03 35.4 -0.4
      comp=Z,16nm,1.2s,mb4.8
J13A  Cove Ranch, Pi     91.51  42 ⇑P    P       09 03 35.8  0.0
      baz=92,SNR=6.5
E10A  Myers Farm, Un     91.53  38 ⇓P    P       09 03 35.5 -0.4
      baz=92
M15A  Larsen Ranch,      91.53  44 ⇓P    P       09 03 35.6 -0.4
      baz=92,SNR=12
SRU   San Rafael         91.55  47 eP    P       09 03 36.1 -0.1
SRU                                pmax  pmax
      comp=Z,22nm,1.2s,mb5.1
SRU   San Rafael         91.55  47 ⇑P    P       09 03 35.8 -0.3
      baz=92,SNR=13
SRU   San Rafael         91.55  47 eP    P       09 03 36.1 -0.1
      comp=Z,22nm,1.2s,mb5.1
P17A  Butcher Ranch,     91.60  47 ⇑P    P       09 03 36.7 +0.4
      baz=92
R18A  Canyonlands Na     91.60  48 ⇑P    P       09 03 35.9 -0.5
      baz=92
K14A  Jones Ranch, D     91.66  43 ⇑P    P       09 03 36.3 -0.3
      baz=92
JLU   Jordanelle         91.72  46 eP    P       09 03 37.2 +0.3
F11A  Grangeville        91.73  39 ⇑P    P       09 03 35.2 -1.6
      baz=92
H12A  Diamond D Ranc     91.73  41 ⇓P    P       09 03 36.4 -0.4
      baz=92,SNR=7.7
TXAR  Lajitas Array      91.74  58 P     P       09 03 37.6 +0.3
      comp=Z,4.3nm,0.8s,mb4.5,baz=214,slow=6.4,SNR=37
TXAR                               pP    pP      09 05 41.8 +4.0
      comp=Z,0.8nm,0.9s,baz=224,slow=5.2,SNR=4.0
DAU   Daniels Canyon     91.75  46 eP    P       09 03 37.4 +0.4
D10A  Wagner Farm, O     91.76  38 ⇑P    P       09 03 35.6 -1.3
      baz=92
S19A  Harvey Farm, M     91.79  49 ⇓P    P       09 03 36.8 -0.5
      baz=92
A08A  Turner Farm, O     91.80  36 ⇓P    P       09 03 36.7 -0.3
      baz=92
Q18A  Rafter H Ranch     91.81  47 ⇑P    P       09 03 37.0 -0.3
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      baz=92
I13A  Wildhorse Cree     91.83  42 ⇑P    P       09 03 37.1 -0.2
      baz=92
L15A  Malad City         91.86  44 ⇓P    P       09 03 37.2 -0.3
      baz=92,SNR=7.7
J14A  Carey              91.87  42 ⇑P    P       09 03 37.9 +0.4
      baz=92,SNR=7.2
N16A  Rees Ranch, Co     91.88  45 ⇑P    P       09 03 37.7 +0.1
      baz=92,SNR=5.0
O17A  Robinson Place     91.97  46 ⇑P    P       09 03 38.1 +0.1
      baz=92,SNR=29
M16A  Huntsville         91.98  45 ⇓P    P       09 03 38.0 -0.1
      baz=92
R19A  Curley Farm, L     91.98  48 ⇑P    P       09 03 37.9 -0.3
      baz=92
P18A  Preston Nutter     92.00  47 ⇑P    P       09 03 38.3 +0.1
      baz=92
B09A  Rice               92.08  36 ⇓P    P       09 03 37.7 -0.7
      baz=92
H13A  Challis            92.10  41 ⇓P    P       09 03 38.5  0.0
      baz=92
K15A  Arbon              92.13  43 ⇑P    P       09 03 38.6 -0.2
      baz=92
F12A  Elk City           92.17  40 ⇑P    P       09 03 38.1 -0.7
      baz=92,SNR=9.7
D11A  Klaveano Farm,     92.28  38 ⇑P    P       09 03 39.3  0.0
      baz=93
N17A  Moffit Pass        92.30  46 ⇓P    P       09 03 39.4 -0.1
      baz=92
ANMO  Albuquerque        92.30  52⇑eP    P       09 03 39.3 -0.4
ANMO                               pmax  pmax
      comp=Z,8.0nm,1.4s
ANMO  Albuquerque        92.30  52 eP    P       09 03 39.2 -0.4
      comp=Z,3.7nm,0.9s,mb4.4
ANMO                               e             09 05 46.7
Q19A  Hogan Spring (     92.32  48 ⇓P    P       09 03 39.3 -0.4
      baz=92
PV01  Paradox Valley     92.38  49 eP    P       09 03 39.2 -0.8
      comp=Z,415nm,1.0s
G13A  Cobalt             92.40  41 ⇓P    P       09 03 39.2 -0.7
      baz=93,SNR=5.2
L16A  Fish Haven         92.47  44 ⇑P    P       09 03 39.8 -0.5
      baz=93
R20A  Redvale            92.53  49 ⇑P    P       09 03 40.1 -0.6
      baz=93
J15A  Blackfoot          92.57  43 ⇓P    P       09 03 40.9 +0.2
      baz=93
M17A  Scullys Gap (B     92.68  45 ⇓P    P       09 03 40.6 -0.7
      baz=93
F13A  Darby              92.73  40 ⇑P    P       09 03 40.5 -0.9
      baz=93
K16A  Soda Springs       92.80  44 ⇑P    P       09 03 41.9 +0.1
      baz=93
P19A  Cripple Cowboy     92.85  47 ⇓P    P       09 03 42.1  0.0
      baz=93
G14A  Jackson            92.94  41 ⇓P    P       09 03 42.9 +0.5
      baz=93,SNR=6.1
Q20A  Ridgley Place,     92.97  48 ⇓P    P       09 03 42.6 -0.1
      baz=93
J16A  Bone               93.02  43 ⇓P    P       09 03 42.9 +0.1
      baz=93
M18A  Lyman              93.04  45 ⇑P    P       09 03 43.4 +0.5
      baz=93
B11A  Sandpoint          93.06  37 ⇓P    P       09 03 42.2 -0.6
      baz=93
MCMT  McKenzie Canyo     93.08  41 eP    P       09 03 43.1 +0.1
      comp=Z,2.0nm,1.1s,mb4.1
O19A  Miners Draw (B     93.09  47 ⇓P    P       09 03 43.4 +0.3
      baz=93
H15A  Lima               93.09  42 ⇓P    P       09 03 43.4 +0.3
      baz=93
P20A  De Beque           93.18  48 ⇓P    P       09 03 43.4 -0.2
      baz=93
K17A  Gardner Place,     93.18  44 ⇓P    P       09 03 43.7 +0.2
      baz=93
RRI2  Red Ridge          93.24  43 eP    P       09 03 43.7 -0.1
      comp=Z,4.4nm,0.9s,mb4.5
LZH   Lanzhou            93.25 308 eP    P       09 03 44.5 +0.5
LZH                                pP    pP      09 05 48.0 +3.4
LZH                                pmax  pmax
      comp=Z,13nm,1.0s,mb4.9
LZH                                pmax  pmax
      comp=Z,59nm,4.2s
Q21A  Lamborn Mesa,      93.40  49 ⇓P    P       09 03 44.4 -0.2
      baz=94
I16A  Newdale            93.41  43 ⇑P    P       09 03 44.8 +0.3
      baz=94
G15A  Dillon             93.48  41 ⇑P    P       09 03 44.9  0.0
      baz=94
REDW  Red Top Meadow     93.54  43 eP    P       09 03 44.6 -0.6
      comp=Z,6.7nm,1.3s,mb4.6
E14A  Clinton            93.56  40 ⇑P    P       09 03 44.8 -0.3
      baz=94
O20A  White River Ci     93.59  47 ⇑P    P       09 03 45.3 -0.1
      baz=94
SNOW  Snow King Moun     93.65  43 eP    P       09 03 45.7  0.0
      comp=Z,5.1nm,0.9s,mb4.7
R22A  Saguache, Gunn     93.67  49 ⇑P    P       09 03 45.9  0.0
      baz=94
M19A  Rock Springs       93.67  46 ⇓P    P       09 03 45.6 -0.2
      baz=94
K18A  Toltan Ranch,      93.67  44 ⇓P    P       09 03 45.8  0.0
      baz=94
IMW   Indian Meadow      93.76  43 eP    P       09 03 45.9 -0.3
      comp=Z,2.5nm,1.0s,mb4.3
P21A  Newcastle          93.82  48 ⇓P    P       09 03 46.1 -0.5
      baz=94
L19A  Farson             93.84  45 ⇓P    P       09 03 46.3 -0.3
      baz=94
Q22A  Crested Butte,     93.87  49 ⇑P    P       09 03 46.5 -0.3
      baz=94
N20A  Spence Gulch,      93.92  47 ⇑P    P       09 03 46.8 -0.2
      baz=94
G16A  Moss Hill, Enn     93.92  41 ⇑P    P       09 03 46.4 -0.5
      baz=94
J18A  Kendall Valley     93.98  44 ⇑P    P       09 03 47.0 -0.2
      baz=94
H16A  Russell Place,     93.99  42 ⇑P    P       09 03 47.2 +0.1
      baz=94
I17A  Pilgrim Ck.        94.00  43 ⇑P    P       09 03 46.9 -0.4
      baz=94
BW06  Boulder Array      94.05  44 ⇓P    P       09 03 46.9 -0.6
      baz=94
PDAR  Pinedale Array     94.05  44 P     P       09 03 46.4 -1.1
      comp=Z,1.1nm,1.0s,mb4.0,baz=195,slow=2.8,SNR=6.8
PDAR                               pP    pP      09 05 50.1 +2.0
      comp=Z,0.5nm,0.9s,baz=298,slow=1.9,SNR=2.5
BOZ   Bozeman (W)        94.25  41 ⇑P    P       09 03 48.0 -0.3
      baz=94
SDCO  Great Sand Dun     94.31  50 eP    P       09 03 48.3 -0.5
      comp=Z,3.5nm,1.0s,mb4.4
D15A  Lincoln            94.46  40 ⇓P    P       09 03 48.7 -0.5
      baz=95
E16A  East Helena        94.68  40 ⇓P    P       09 03 49.6 -0.6
      baz=95
M21A  Separation Pea     94.89  46 ⇓P    P       09 03 50.9 -0.5
      baz=95
A14A  Double T Ranch     94.98  38 ⇓P    P       09 03 51.2 -0.3
      baz=95
D16A  Dana Ranch, Ca     95.02  40 ⇑P    P       09 03 51.6 -0.2
      baz=95
N22A  Wattenberg Ran     95.11  47 ⇑P    P       09 03 52.1 -0.2
      baz=95
C16A  Fuhringer Ranc     95.31  39 ⇓P    P       09 03 52.9 -0.2
      baz=96
D17A  Six Diamond Ra     95.58  40 ⇑P    P       09 03 53.7 -0.6
      baz=96
B16A  M & M Farms, S     95.65  39 ⇓P    P       09 03 53.9 -0.7
      baz=96
C17A  Wharram Farm,      95.79  40 ⇓P    P       09 03 54.8 -0.4
      baz=96
A16A  West Butte Ran     95.99  38 ⇓P    P       09 03 55.5 -0.6
      baz=96
A17A  Triple J Farms     96.49  39 ⇑P    P       09 03 57.9 -0.4
      baz=97
ULN   Ulaanbaatar        96.88 320⇑eP    P       09 04 00.1  0.0
SONM  Songino Array      97.25 320 P     P       09 04 00.7 -1.1
      comp=Z,0.7nm,0.8s,mb3.9,baz=146,slow=2.9,SNR=4.1
SONM                               pP    pP      09 06 01.3 -1.4
      comp=Z,0.9nm,1.0s,baz=123,slow=5.3,SNR=3.2
SONM                               PP    PP      09 08 02.0 -6.0
      comp=Z,0.4nm,0.7s,baz=111,slow=6.3,SNR=2.8
TIXI  Tiksi             102.27 346⇑iP    Pdif    09 04 21.3 -3.0
WMQ   Urumqi            107.67 311 eP    Pdif    09 04 48.0 -0.3
MKAR  Makanchi Array    112.14 313 PKIKP PKiKP   09 08 59.6 -1.3
MKAR                                             09 19 53.0
MKAR  Makanchi Array    112.14 313 PKiKP PKiKP   09 08 59.6 -1.4
      comp=Z,0.2nm,0.7s,baz=121,slow=2.5,SNR=2.9
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MKAR				PP	PP	09 09 48.9	-7.6
	comp=Z,0.7nm,1.1s,baz=96,slow=8.8,SNR=3.0						
MKAR				PKKPbc	PKKPbc	09 19 53.0	-1.6
	comp=Z,1.0nm,0.9s,baz=292,slow=2.3,SNR=6.2						
MKAR				PKKPab	PKKPab	09 20 02.5	-0.8
	comp=Z,0.5nm,0.6s,baz=296,slow=2.6,SNR=6.4						
KURK	Kurchatov	115.27	316	PKP	PKPdf	09 09 05.0	-1.8
	comp=Z,0.7nm,0.8s,baz=106,slow=1.9,SNR=5.1						
KURK				PP	PP	09 10 11.5	-6.7
	comp=Z,0.6nm,0.9s,baz=106,slow=5.2,SNR=3.9						
KURK				PKKPbc	PKKPbc	09 19 43.1	-1.0
	comp=Z,0.8nm,0.9s,baz=279,slow=3.7,SNR=3.7						
BVAR	Borovoye Array	120.56	318	PKIKP	PKPdf	09 09 15.5	-1.4
BVAR						09 10 56.1	
BVAR	Borovoye Array	120.56	318	PKP	PKPdf	09 09 15.5	-1.5
	comp=Z,1.2nm,0.7s,baz=67,slow=3.9,SNR=4.7						
BVAR				PP	PP	09 10 56.1	+1.9
	comp=Z,0.9nm,1.0s,baz=69,slow=9.7,SNR=3.6						
BVAR				pPKP	pPKPdf	09 11 21.3	-3.8
	comp=Z,0.7nm,0.7s,baz=43,slow=3.0,SNR=2.6						
BOSA	Boshof	121.10	207	PKP	PKPdf	09 09 21.7	+2.8
	comp=Z,0.8nm,0.4s,baz=140,slow=2.6,SNR=3.8						
SCHQ	Schefferville	123.83	39	PKP	PKPdf	09 09 20.7	-2.5
	comp=Z,3.6nm,1.0s,baz=343,slow=4.0,SNR=3.9						
ARCES	ARCESS Array B	132.66	348	PKP	PKPdf	09 09 38.9	-0.6
	comp=Z,5.4nm,0.9s,baz=40,slow=1.5,SNR=4.3						
ARCES	ARCESS Array B	132.66	348	PKP	PKPdf	09 09 38.9	-0.6
NB2	NORSAR Subarra	142.90	350	PKP	PKPdf	09 09 54.5	-4.0
	comp=Z,2.6nm,0.7s,baz=18,slow=3.3						
NOA	NORSAR Array B	142.90	350	PKP	PKPdf	09 09 55.2	-3.3
	comp=Z,5.0nm,0.8s,baz=16,slow=4.9,SNR=14						
NOA				SKP		09 12 43.8	
	comp=Z,1.8nm,0.9s,baz=15,slow=4.3,SNR=3.4						
ANN	Anapa	143.16	312	*i* PKHKP		09 09 55.2	
ANN				pmax	pmax		
	comp=Z,57nm,1.5s						
MALT	Malatya	144.10	302	*e*PKIKP	PKPdf	09 10 00.5	-0.8
AKASG	Malin Array Be	145.28	326	PKPbc	PKPbc	09 10 01.3	-2.8
	comp=Z,1.0nm,0.4s,baz=44,slow=3.4,SNR=10						
KIEV	Kiev	145.29	326	*e*PKIKP	PKPdf	09 10 02.5	-0.5
BRTR	Keskin Array B	147.41	305	PKPbc	PKPbc	09 10 09.4	-0.8
	comp=Z,3.4nm,0.8s,baz=134,slow=5.3,SNR=4.5						
BRTR				pPKPbc	pPKPbc	09 12 16.1	-0.7
	comp=Z,1.1nm,0.9s,baz=192,slow=1.1,SNR=2.7						
BSEG	Bad Segeberg	149.78	347	*e*PKP	pPKPbc	09 12 23.2	+0.3
KSP	Ksiaz	150.85	337	*e*PKIKP	PKPbc	09 10 17.8	-0.4
OKC	Ostrava-Krasne	150.98	334	*e*pPKP	pPKPbc	09 12 27.5	+1.5
OKC				*e*x	x	09 12 31.8	
UPC	Upice	151.23	337	*e*pPKP	pPKPbc	09 12 26.3	-0.3
UPC				*e*x	x	09 12 32.7	
DPC	Dobruska-Polom	151.25	337	*e*pPKP	pPKPbc	09 12 26.5	-0.1
DPC				*e*x	x	09 12 32.7	
CLL	Collm	151.51	341	⇓*i*PKIKP	PKPbc	09 10 19.1	-0.6
CLL				*e*		09 10 29.0	
CLL				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CLL				pmax	pmax		
	comp=Z,13nm,1.3s						
CLL	Collm	151.51	341	*e*PKPbc	PKPbc	09 10 19.0	-0.7
CLL				*e*pPKPbc	pPKPbc	09 12 32.8	+5.6
CLL	Collm	151.51	341	⇓*i*PKPbc	PKPbc	09 10 19.1	-0.6
	comp=Z,13nm,0.8s						
CLL				*e*PKPab	PKPab	09 10 29.0	-1.8
	comp=Z,13nm,1.3s						
CLL				*e*pPKPbc	pPKPbc	09 12 27.0	-0.2
CLL				*i* pPKPab	pPKPab	09 12 33.0	-0.1
CLL				*e*		09 12 38.0	
BRG	Berggiesshubel	151.61	340	*e*PKIKP	PKPbc	09 10 19.2	-0.7
BRG	Berggiesshubel	151.61	340	*e*PKPbc	PKPbc	09 10 19.3	-0.6
BRG				*e*pPKPbc	pPKPbc	09 12 33.3	+5.8
BRG				*e*pPKPab	pPKPab	09 12 39.8	+6.3
BRG	Berggiesshubel	151.61	340	*e*P	PKPbc	09 10 19.2	-0.7
	comp=Z,6.2nm,1.0s						
PVCC	Panska Ves	151.71	339	*e*pPKP	pPKPbc	09 12 27.7	0.0
PVCC				*e*x	x	09 12 33.6	
FBE	Freiberg	151.75	341	*e*PKPbc	PKPbc	09 10 19.5	-0.7
FBE				*e*pPKPbc	pPKPab	09 12 33.7	-0.4
TANN	Tannenbergstha	152.46	341	*e*PKPbc	PKPbc	09 10 21.2	-0.6
WERD	Werda	152.48	341	*e*pPKPbc	pPKPab	09 12 35.4	-1.7
MOX	Moxa	152.50	342	*e*pPKPab	pPKPab	09 12 43.2	+6.0
WERN	Wernitzgruen	152.60	341	*e*pPKPab	pPKPab	09 12 44.0	+6.4
NKC	Novy Kostel	152.63	341	*e*pPKPab	pPKPab	09 12 44.1	+6.4
KHC	Kasperske Hory	153.24	338	*e*pPKP	pPKPdf	09 12 31.0	+6.6
KHC				*e*x	x	09 12 36.9	
GERES	GERESS Array B	153.44	338	PKPbc	PKPbc	09 10 23.1	-0.9
	comp=Z,0.6nm,0.6s,baz=72,slow=4.3,SNR=4.9						
GERES				PKPab	PKPab	09 10 39.2	+0.2
	comp=Z,0.3nm,0.3s,baz=45,slow=4.7,SNR=4.4						
GERES				pPKPbc	pPKPbc	09 12 31.7	0.0
	comp=Z,0.4nm,0.2s,baz=54,slow=2.3,SNR=2.8						
GRF	Grafenberg Arr	153.47	342	*e*pPKPab	pPKPab	09 12 47.8	+6.6
ESDC	Sonseca Array	165.05	9	PKPab	PKPab	09 11 27.0	-2.8
	comp=Z,0.6nm,0.3s,baz=336,slow=5.6,SNR=6.3						
TORD	Torodi Ar. Bea	168.04	193	PKP	PKPdf	09 10 30.5	-1.8
	comp=Z,2.7nm,1.2s,baz=342,slow=1.5,SNR=7.7						
TORD				PKPab	PKPab	09 11 43.0	-0.6
	comp=Z,4.7nm,0.7s,baz=168,slow=3.7,SNR=25						

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*ISCJB **19** 09:15:09.1±0.4, 32°.18N±0°.02×115°.77W±0°.02, h10^{km}±3^{km}, Error ellipse: s-maj=3.5km s-min=2.5km az=7.8*

*NEIC **19** 09:15:10.8, 32°.17N×115°.79W, h10^{km}, ML3.2(PAS), ML3.3(ECX), After ECX.*

*ECX **19** 09:15:10.8±0.7, 32°.17N×115°.79W, h10^{km}±3^{km}, MD3.3, ML3.4*

ISC 19 09:15:10.2±0.3**, 32°.19N**±0°.02×**115°.82W**±0°.02**, h14**^{km}±3^{km}**, n59,** σ1§**13**/88**, 37C-28D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RDX	Rancho Dawling	0.28	202	⇑*i*P	Pg	09 15 15.5	-0.5
RDX				⇑*e*P		09 15 15.5	
RDX				*e*S	Sg	09 15 19.5	-0.4
RDX				⇑*e*		09 15 20.3	
	comp=N,4µm,0.5s						
RMX	La Rumorosa	0.47	332	⇓*i*P	Pg	09 15 19.9	+0.3
RMX				*e*S	Sg	09 15 26.5	+0.6
CPBX	Cerro Prieto	0.49	62	⇓*e*P	Pg	09 15 19.4	-0.6
DVTC	Desert V Tower	0.53	333	⇓P	Pg	09 15 20.8	+0.1
	baz=0.5,SNR=42						
DVTC				⇓S	Sg	09 15 28.1	+0.3
	baz=0.5						
EMX	El Mayor	0.53	112	⇑*e*P	Pg	09 15 22.9	+2.3
EMX				*e*S	Sg	09 15 29.6	+1.9
EMX				⇓*e*		09 15 31.7	
	comp=N,2µm,0.2s						
CBX	Cerro Bola	0.73	280	⇑*i*P	Pg	09 15 24.2	-0.2
CBX				*e*S	Sg	09 15 34.1	+0.2
SWSC	Sam W. Stewart	0.75	2	⇑P	Pg	09 15 25.0	+0.1
	baz=0.8,SNR=79						
SWSC				⇓S	Sg	09 15 35.5	+0.7
	baz=0.8						
ECNX	Esteban Cantu	0.84	232	⇑*i*P	Pg	09 15 26.1	-0.5
ECNX				*e*P		09 15 24.9	
ECNX				*e*S	Sg	09 15 35.8	-1.9
ECNX				*e*S	Sg	09 15 37.5	-0.2
MONP	Monument Peak	0.87	324	P	Pg	09 15 26.9	-0.2
	baz=0.9,SNR=723						
MONP				⇓S	Sg	09 15 38.6	+0.2
	baz=0.9						
BAR	Barrett	0.87	305	*e*Pg	Pg	09 15 26.5	-0.6
BAR				*e*Sg	Sg	09 15 38.0	-0.7
PBX	Punta Banda	0.89	240	⇑*e*P	Pb	09 15 26.9	-0.5
PBX				*e*S	Sg	09 15 39.0	-0.1
PBX				⇑*e*		09 15 40.1	
	comp=N,1µm,0.2s						
ECBX	El Chinero	0.97	137	⇑*e*P	Pb	09 15 29.9	+1.1
ECBX				*e*S	Sb	09 15 42.8	+1.4
112A	Yuma	1.11	71	⇓P	Pb	09 15 29.3	-1.9
	baz=1.1,SNR=57						
112A				⇑S	Sb	09 15 45.0	-0.4
	baz=1.1						
GLA	Glamis	1.20	44	P	Pn	09 15 31.2	-1.4
	baz=1.3,SNR=106						
GLA				⇓S	Sb	09 15 46.7	-1.5
	baz=1.3						
GLA	Glamis	1.20	44	*e*Pg	Pg	09 15 31.2	-2.3
GLA				*e*Sg	Sg	09 15 46.3	-2.9
109C	Camp Elliot, M	1.29	303	⇑P	Pn	09 15 33.4	-0.5
	baz=1.3,SNR=47						
109C				⇑S	Sb	09 15 50.1	-0.7
	baz=1.3						
BC3	Big Chuckw Mtn	1.50	12	P	Pn	09 15 36.1	-0.6
	baz=1.5,SNR=15						
BC3				⇓S	Sn	09 15 53.9	-2.2
	baz=1.5						
PFO	Pinyon Flat Ob	1.52	340	P	Pn	09 15 36.5	-0.5
	baz=1.5,SNR=50						
PFO	Pinyon Flat Ob	1.52	340	⇓*i*Pn	Pn	09 15 36.4	-0.6
PFO				*e*Sn	Sn	09 15 55.0	-1.5
BELC	Belle Mtn.	1.82	355	⇑P	Pn	09 15 40.8	-0.3
	baz=1.9						
MURC	Murrieta	1.83	321	⇑P	Pn	09 15 41.2	0.0
	baz=1.8,SNR=25						
MURC				⇑Sb	Sb	09 16 07.2	+1.0
	baz=1.8						
113A	Mohawk Valley,	1.83	71	⇑P	Pn	09 15 40.1	-1.2
	baz=1.9,SNR=9.2						
113A				⇑S	Sn	09 16 02.4	-1.9
	baz=1.9						
Y12C	Blythe	1.90	35	⇓P	Pn	09 15 41.5	-0.8
	baz=2.0						
IRM	Iron Mountain	2.05	16	⇓P	Pn	09 15 43.8	-0.5
	baz=2.1,SNR=12						
BBRC	Big Bear Sol-O	2.27	336	⇑P	Pn	09 15 48.1	+0.8
	baz=2.3,SNR=5.9						
BBRC				⇓Sb	Sb	09 16 20.4	+1.5
	baz=2.3						
CIS	Catalina Islan	2.49	300	⇓P	Pn	09 15 50.4	0.0
	baz=2.5,SNR=9.9						
CIS				⇑S	Sn	09 16 21.2	+0.6
	baz=2.5						
114A	Black Gap (USA	2.55	76	⇓P	Pn	09 15 49.9	-1.2
	baz=2.6,SNR=8.0						
BFSC	Mount Baldy St	2.56	324	⇑Pb	Pb	09 15 56.2	+0.2
	baz=2.6						
BFSC				⇓Sb	Sb	09 16 28.6	+1.2
	baz=2.6						
214A	Organ Pipe Nat	2.56	94	⇓P	Pn	09 15 49.4	-2.0
	baz=2.6,SNR=31						
Z14A	Wintersburg	2.69	63	⇓P	Pn	09 15 52.4	-0.7
	baz=2.7						
NEE2	Needles Airpor	2.77	21	⇑P	Pn	09 15 54.1	0.0
	baz=2.8						
MWC	Mount Wilson	2.77	318	Pn	Pn	09 15 52.2	-1.9
MWC				*e*Sg	Sg	09 16 39.6	+0.5
X13A	Yucca	2.92	34	⇑P	Pn	09 15 56.0	-0.3
	baz=3.0,SNR=12						
DECC	Green Verdugo	2.94	315	⇑Sb	Sb	09 16 40.4	+2.0
	baz=2.9						
LDFC	Landfair	2.95	11	*e*Pn	Pn	09 15 57.8	+1.2
LDFC				*e*Sg	Sg	09 16 53.8	+8.9
115A	Sonoran Desert	3.08	79	⇑P	Pn	09 15 57.8	-0.7
	baz=3.1						
EDW2	Edwards Air Fo	3.24	327	⇓P	Pn	09 16 01.0	+0.3
	baz=3.3						
Z15A	Gila River Ind	3.28	69	⇑P	Pn	09 16 00.3	-0.8
	baz=3.3,SNR=7.2						
W13A	Hualapai Mount	3.33	29	⇑P	Pn	09 16 01.7	-0.1
	baz=3.4						
Y15A	Casa Rosa Ranc	3.42	58	⇑P	Pn	09 16 02.5	-0.6
	baz=3.5						
X15A	Humboldt	3.78	52	⇓P	Pn	09 16 08.5	+0.5
	baz=3.8						
W14A	Seligman	3.79	36	⇑P	Pn	09 16 09.1	+0.9
	baz=3.8						
V13A	Grand Canyon W	3.96	22	⇓P	Pn	09 16 12.0	+1.4
	baz=4.0						
Y16A	Circle Bar Ran	4.02	64	⇑P	Pn	09 16 10.8	-0.6
	baz=4.1,SNR=10.0						
ISA	Isabella	4.11	328	*e*Pn	Pn	09 16 13.5	+0.9
ISA				*e*Pg	Pg	09 16 27.7	-1.3
ISA				*e*Sg	Sg	09 17 20.5	-1.7
V14A	Boquillas Ranc	4.12	33	⇑P	Pn	09 16 13.9	+1.3
	baz=4.2						
TUC	Tucson	4.27	87	Pn	Pn	09 16 16.4	+1.6
TUC				*e*Pg	Pg	09 16 35.1	+3.1
TUC				*e*Sg	Sg	09 17 30.1	+2.8
X16A	Lo Mia Camp, P	4.29	58	⇓P	Pn	09 16 15.9	+0.8
	baz=4.3						
117A	Oracle	4.32	84	⇑P	Pn	09 16 14.0	-1.4
	baz=4.3						
Y17A	Roosevelt	4.45	69	⇑P	Pn	09 16 16.6	-0.7
	baz=4.5						
U13A	Pakoon Wash	4.49	19	⇓P	Pn	09 16 19.3	+1.5
	baz=4.5						
W16A	Flagstaff	4.61	50	⇑P	Pn	09 16 20.7	+1.3
	baz=4.7						
V15A	Kaibab Nationa	4.72	39	⇑P	Pn	09 16 22.8	+1.8
	baz=4.8						
U14A	Mt Trumbull	4.75	27	⇓P	Pn	09 16 23.0	+1.6
	baz=4.8						
118A	Homack Ranch,	4.97	83	⇓P	Pn	09 16 23.9	-0.5
	baz=5.0						
318A	Bisbee	5.02	97	⇑P	Pn	09 16 24.8	-0.3
	baz=5.0						
T14A	Hurricane	5.36	24	⇑P	Pn	09 16 31.5	+1.7
	baz=5.4						
X18A	Snowflake	5.44	63	⇓P	Pn	09 16 31.9	+1.1
	baz=5.5						
T15A	Red Dirt Ranch	5.59	30	⇓P	Pn	09 16 34.9	+2.0
	baz=5.6						

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*ISCJB **19** 09:26:07.0±1.7, 35°.73S±0°.04×178°.30E±0°.07, h8^{km}±11^{km}, mb4.7/16, MS4.5/18, Error ellipse: s-maj=10.1km s-min=6.4km az=172.7*

*IDC **19** 09:26:07.5±0.8, 35°.76S×178°.28E, h0^{km}, mb4.6/9, mb1 4.7/11, mb1mx4.6/16, mbtmp4.5/11, ML4.1/2, MS4.4/20, Ms1 4.4/20, ms1mx4.3/26, Error ellipse: s-maj=22.5km s-min=18.7km az=50.0*

*NEIC **19** 09:26:08.9±0.6, 35°.75S×178°.26E, h10^{km}, mb4.9/4, ML5.0(WEL), Error ellipse: s-maj=11.2km s-min=6.5km az=86.0*

NEIC Felt [IV] at Ohope and Whakatane. Also felt at Gisborne.

*GCMT **19** 09:26:09.4±0.2, 35°.66S×178°.42E, h12^{km}, MW5.2/90, Moment Tensor Solution. s39,c59; s90,c148; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.29±.17; $M_{\theta\theta}$-4.16±.15; $M_{\phi\phi}$6.45±.14; $M_{r\theta}$0.05±.44; $M_{\theta\phi}$3.71±.14; $M_{\phi r}$-0.12±.41; Best double couple: $M_0$6.47500×10^{16} NP1:ϕ_s242.00000°, δ88.00000°, λ-1.00000°. NP2: ϕ_s332.00000°, δ89.00000°, λ-178.00000°. Principal axes: T 7.6200, Plg1.0000°, Azm107.0000°; N -2.2890, Plg88.0000°, Azm357.0000°; P -5.3310, Plg2.0000°, Azm197.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*DJA **19** 09:26:12, 35°.53S×178°.54E, h30^{km}, mb5.2/9*

ISC 19 09:26:07.9±2.0**, 35°.74S**±0°.04×**178°.30E**±0°.08**, h2**^{km}±13^{km}**, n89,** σ1§**46**/72**, mb4.7**/16**, MS4.5**/18**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.82	180	P	Pn	09 26 38.2	-2.0
MXZ				S	Sn	09 27 01.7	-2.1
KUZ	Kuaotunu	2.31	244	P	Pn	09 26 46.3	-0.7
KUZ				S	Sn	09 27 15.1	-0.9
PUZ	Puketiti	2.33	181	P	Pn	09 26 48.2	+1.0
PUZ				S	Sn	09 27 20.5	+4.2
MWZ	Matawai	2.66	193	P	Pn	09 26 51.7	-0.1
EDRZ	Edgecumbe	2.67	207	P	Pn	09 26 53.4	+1.5
URZ	Urewera	2.69	200	Pn	Pn	09 26 52.0	-0.1
	33nm,0.3s,baz=29,slow=7.4,SNR=129						
URZ				Sn	Sn	09 27 25.6	+0.4
	102nm,0.3s,baz=268,slow=22,SNR=14						
URZ				LR	LR	09 28 08.5	
	comp=Z,10µm,18.9s,baz=35,slow=45						
URZ	Urewera	2.69	200	*e*Pn	Pn	09 26 51.7	-0.4
LIRZ	Lichensteins R	2.73	214	P	Pn	09 26 53.8	+1.1
MKAZ	Moumakai	2.87	241	P	Pn	09 26 54.6	-0.1
TOZ	Tahuroa Road	3.00	228	P	Pn	09 26 57.5	+1.1
WCZ	Waipu Caves	3.22	265	P	Pn	09 26 58.6	-0.8
KNZ	Kokohu	3.31	188	P	Pn	09 27 01.8	+1.1
BKZ	Black Stump Fm	3.71	202	P	Pn	09 27 03.9	-2.3
KATZ	Kakaramea	3.84	212	*e*P	Pn	09 27 10.4	+2.5
OUZ	Omahuta	3.87	276	P	Pn	09 27 06.1	-2.3
HIZ	Hauiti	3.90	224	P	Pn	09 27 10.5	+1.7
WTVZ	West Tongariro	4.00	212	P	Pn	09 27 13.1	+2.9
NGZ	Ngauruhoe	4.04	211	*e*P	Pn	09 27 13.6	+2.8
TUVZ	Tukino	4.10	210	P	Pn	09 27 15.0	+3.4
WNVZ	Wahianoa	4.17	210	P	Pn	09 27 15.8	+3.2
MOVZ	Moawhango	4.18	208	P	Pn	09 27 14.6	+1.9
TSZ	Takapari Road	4.69	203	P	Pn	09 27 19.9	+0.2
WAZ	Wanganui	4.79	212	P	Pn	09 27 24.2	+3.2
BFZ	Birch Farm	5.19	198	P	Pn	09 27 25.5	-1.0
MRZ	Mangatainoka R	5.36	203	P	Pn	09 27 27.9	-0.9
KIW	Kapiti Island	5.76	207	*e*P	Pn	09 27 34.0	-0.4
MTW	Mount Morrison	5.84	201	*e*P	Pn	09 27 33.3	-2.1
CAW	Cannon Point	5.93	204	P	Pn	09 27 35.4	-1.2
SNZO	South Karori	6.23	206	*e*Pn	Pn	09 27 39.7	-1.1
	149nm,0.9s						
NNZ	Nelson	6.69	214	P	Pn	09 27 46.6	-0.5
QRZ	Quartz Range	6.81	220	P	Pn	09 27 49.9	+1.2
THZ	Tophouse	7.34	213	P	Pn	09 27 54.9	-1.2
KHZ	Kahutara	7.62	208	P	Pn	09 27 58.8	-1.1
LTZ	Lake Taylor	8.44	212	P	Pn	09 28 05.8	-5.3
RPZ	Rata Peaks	9.72	213	Pn	Pn	09 28 26.4	-2.3
	2.1nm,0.3s,baz=8.8,slow=4.2,SNR=12						
RPZ				Sn	Sn	09 30 14.8	-3.5
	1.5nm,0.3s,baz=324,slow=19,SNR=6.3						
RPZ				LR	LR	09 32 35.2	
	comp=Z,4µm,19.1s,baz=34,slow=40						
RPZ	Rata Peaks	9.72	213	*e*Pn	Pn	09 28 26.0	-2.7
RPZ				Sn	Sn	09 30 14.8	-3.5
RPZ				*e*Sn	Sn	09 30 20.5	+2.1
RPZ				LR	LR	09 32 35.2	
ODZ	Otahua Downs	10.97	210	P	Pn	09 28 42.2	-3.5
JCZ	Jackson Bay	11.08	218	P	Pn	09 28 43.7	-3.6
DZM	Mont Dzumac	17.10	320	*e*P	Pn	09 30 07.2	-0.9
	52nm,1.0s						
ARMA	Armidale	22.94	276	*e*P	P	09 31 16.5	+3.2
AFI	Afiamalu	23.50	25	LR	LR	09 37 29.6	
	comp=Z,355nm,21.3s,MS3.8,baz=218,slow=29						
CNB	Canberra Magne	23.52	263	*e*P	P	09 31 21.7	+2.3
RAR	Rarotonga	24.03	59	LR	LR	09 37 57.1	
	comp=Z,914nm,21.7s,MS4.2,baz=232,slow=30						
TOO	Toolangi	26.31	256	*e*P	P	09 31 48.0	+3.1
STKA	Stephens Creek	30.63	267	P	P	09 32 24.2	+0.8
	8.6nm,0.9s,mb4.6,baz=89,slow=10,SNR=9.1						
STKA				LR	LR	09 44 10.2	
	comp=Z,2µm,18.6s,MS4.7,baz=100,slow=35						
HNR	Honiara	31.07	323	LR	LR	09 42 32.1	
	comp=Z,688nm,19.1s,MS4.3,baz=254,slow=32						
CTA	Charters Tower	32.15	290	*e*P	P	09 32 37.2	+0.3
	18nm,1.1s,mb4.8						
CTA	Charters Tower	32.15	290	P	P	09 32 36.7	-0.2
	17nm,1.0s,mb4.8,baz=101,slow=9.6,SNR=7.7						
CTA				LR	LR	09 43 31.4	
	comp=Z,368nm,18.8s,MS4.1,baz=133,slow=32						
CTA	Charters Tower	32.15	290	P	P	09 32 36.7	-0.2
CTA				LR	LR	09 43 31.4	
CTAO	Charters Tower	32.15	290	*e*P	P	09 32 36.8	-0.1
	46nm,1.3s,mb5.2						
PPT	Papeete	33.73	66	*e*LQ		09 39 58.4	
	1µm,23.2s						
PPT				*e*LR	LR	09 41 33.0	
	3µm,28.8s,baz=234						
COEN	Coen	38.25	296	*e*P	P	09 33 29.3	-0.2
	376nm,1.2s,mb6.0						
ASAR	Alice Springs	40.09	275	P	P	09 33 44.3	-0.6
	10nm,0.8s,mb4.6,baz=114,slow=7.5,SNR=63						
WRAB	Tennant Creek	41.57	280	*e*P	P	09 33 56.3	-0.9
	15nm,0.8s,mb4.7						
WRA	Warramunga Arr	41.58	280	P	P	09 33 56.4	-0.8
	6.8nm,0.8s,mb4.3,baz=119,slow=7.7,SNR=19						
WRA				LR	LR	09 51 14.8	
	comp=Z,2µm,18.1s,MS5.0,baz=115,slow=36						
FORT	Forrest	41.93	262	*e*P	P	09 33 59.3	-0.7
	36nm,0.8s,mb5.1						
RKT	Rikitea	42.23	86	*e*LQ		09 43 42.1	
	1µm,28.0s						
RKT				*e*LR	LR	09 45 20.7	
	2µm,28.0s,baz=242						
VNDA	Vanda	42.49	185	LR	LR	09 49 18.3	
	comp=Z,266nm,20.3s,MS4.1,baz=26,slow=33						
TAOE	Nuku Hiva Isla	46.33	65	*e*LQ		09 45 19.7	
	5µm,30.5s						
TAOE				*e*LR	LR	09 47 48.9	
	4µm,25.8s,baz=243						
FITZ	Fitzroy Crossi	49.54	276	*e*P	P	09 34 59.5	-0.8
	32nm,1.6s,mb5.1						
FITZ	Fitzroy Crossi	49.54	276	P	P	09 34 59.9	-0.4
	5.2nm,0.9s,mb4.6,baz=64,slow=9.1,SNR=3.9						
FITZ				LR	LR	09 56 08.8	
	comp=Z,1µm,19.3s,MS4.9,baz=126,slow=36						
QSPA	South Pole Qui	54.38	180	P	P	09 35 37.0	+1.5
	25nm,0.9s,mb5.1,baz=37,slow=3.6,SNR=41						
MAW	Mawson	66.22	202	LR	LR	10 02 32.7	
	comp=Z,576nm,20.6s,MS4.8,baz=117,slow=33						
CBIJ	Chichi jima	71.19	326	LR	LR	10 05 35.4	
	comp=Z,66nm,20.4s,MS3.9,baz=67,slow=33						
VNA3	Neumayer Olymp	73.16	177	*e*	P	09 37 39.2	-0.3
VNA3				*e*		09 37 49.6	
VNA2	Neumayer--Watz	73.56	178	*e*	P	09 37 39.6	-2.2
	baz=174,slow=2.2						
VNA2				*e*		09 37 51.1	
JOW	Kunigami	78.12	316	LR	LR	10 05 58.4	
	comp=Z,120nm,19.2s,MS4.2,baz=137,slow=31						
MJAR	Matsushiro Arr	81.00	328	P	P	09 38 25.8	+1.9
	2.8nm,1.1s,mb4.1,baz=169,slow=4.9,SNR=5.1						
MJAR				LR	LR	10 11 25.8	
	comp=Z,90nm,19.7s,MS4.1,baz=135,slow=34						
PLCA	Paso Flores	81.09	134	P	P	09 38 24.8	+0.3
	4.2nm,0.6s,mb4.5,baz=210,slow=9.0,SNR=7.4						
PLCA				LR	LR	10 06 09.1	
	comp=Z,246nm,18.3s,MS4.6,baz=229,slow=30						
PSI	Prapat	83.02	278	LR	LR	10 14 39.8	
	comp=Z,711nm,22.0s,MS5.0,baz=170,slow=35						
KSRS	Korea Array	86.52	322	P	P	09 38 56.6	+4.5
	4.8nm,0.9s,mb4.7,baz=143,slow=5.1,SNR=10.0						
KSRS				LR	LR	10 15 41.6	
	comp=Z,100nm,18.5s,MS4.2,baz=331,slow=34						
PETK	Petropavlovsk-	90.28	348	P	P	09 39 14.1	+4.5
	2.1nm,0.7s,mb4.6,baz=99,slow=5.5,SNR=4.2						
PETK				LR	LR	10 14 43.6	
	comp=Z,121nm,19.4s,MS4.3,baz=158,slow=32						
PETK	Petropavlovsk-	90.28	348	P	P	09 39 14.1	+4.5
PETK				LR	LR	10 14 43.6	
CMAR	Chiang Mai Arr	92.31	291	P	P	09 39 22.9	+2.9
	1.8nm,0.4s,mb4.7,baz=108,slow=2.9,SNR=9.5						
LDFC	Landfair	93.88	49	*e*P	P	09 39 33.9	+7.2
	5.6nm,0.9s,mb5.0						
NVAR	Mina Array Bea	94.23	45	P	P	09 39 27.8	-0.5
	0.2nm,0.4s,mb3.9,baz=214,slow=7.6,SNR=4.0						
TXAR	Lajitas Array	97.83	60	LR	LR	10 19 33.7	
	comp=Z,250nm,18.8s,MS4.7,baz=120,slow=33						
CPUP	Villa Florida	98.95	131	LR	LR	10 16 55.9	
	comp=Z,444nm,19.9s,MS5.0,baz=205,slow=31						
MKAR	Makanchi Array	118.75	309	PKP	PKPdf	09 44 56.2	-1.0
	0.2nm,0.8s,baz=81,slow=4.5,SNR=3.0						
MKAR	Makanchi Array	118.75	309	PKP	PKPdf	09 44 56.2	-1.0
KURK	Kurchatov	122.40	312	PKP	PKPdf	09 45 02.5	-1.5
	0.3nm,0.5s,baz=112,slow=1.7,SNR=3.6						
BVAR	Borovoye Array	127.92	313	PKP	PKPdf	09 45 19.6	+5.1
	0.4nm,0.4s,baz=82,slow=3.1,SNR=3.7						
LIC	Lamto	150.47	173	*e*PKP1	PKPab	09 46 05.2	-2.8
	107nm,1.6s						
KIC	Kosan Boka	150.63	174	*e*PKP1	PKPab	09 46 05.6	-3.0
	92nm,1.2s						
TIC	Toumodi	150.88	173	*e*P	PKPab	09 46 06.2	-3.5
DBIC	Dimbokro	150.92	174	PKPbc	PKPbc	09 46 02.0	-0.7
	6.1nm,1.0s,baz=209,slow=7.1,SNR=4.0						
BRTR	Keskin Array B	151.88	289	PKPbc	PKPbc	09 46 08.3	+4.1
	2.5nm,1.0s,baz=72,slow=4.4,SNR=6.2						
TORD	Torodi Ar. Bea	157.30	189	PKP	PKPdf	09 46 07.4	+1.4
	1.0nm,1.1s,baz=181,slow=1.9,SNR=4.0						
TORD				PKPab	PKPab	09 46 34.8	-2.0
	2.2nm,0.9s,baz=179,slow=2.1,SNR=6.8						
GERES	GERESS Array B	162.69	324	PKPab	PKPab	09 47 02.7	+3.2
	0.4nm,0.2s,baz=79,slow=2.9,SNR=4.3						

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*NNC **19** 09:43:56.8±4.1, 42°.52N×75°.11E, h0^{km}, mb3.1, mpv2.8, Error ellipse: s-maj=57.3km s-min=12.5km az=150.0*

*ISCJB **19** 09:43:57.7±0.7, 43°.06N±0°.04×74°.91E±0°.04, h6^{km}±6^{km}, Error ellipse: s-maj=6.3km s-min=5.1km az=18.3*

*KNET **19** 09:43:57.1±0.3, 43°.05N×74°.90E, h16^{km}±2^{km}, ml2.0, Error ellipse: s-maj=3.0km s-min=1.5km az=39.0*

ISC 19 09:43:58.1±0.7**, 43°.06N**±0°.04×**74°.88E**±0°.04**, h6**^{km}±8^{km}**, n15,** σ1§**01**/23**, 17C-5D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHMS	Chumysh	0.11	238	⇑P	Pg	09 44 00.4	0.0
	33nm,0.1s,SNR=167						
USP	Ospenovka	0.35	307	⇑P	Pg	09 44 05.2	+0.4
	93nm,0.2s,SNR=288						
USP				⇑S	Sg	09 44 10.5	+1.2
	179nm,0.2s						
KBK	Karagaybulak	0.41	173	⇑P	Pg	09 44 05.9	0.0
	212nm,0.2s,SNR=79						

KBK				⇓S	Sg	09 44 12.1	+0.9
	819nm,0.4s						
AAK	Ala-Archa	0.51	214	⇑P	Pg	09 44 07.8	-0.1
	27nm,0.2s,SNR=40						
AAK				⇑S	Sg	09 44 15.0	+0.5
	127nm,0.3s						
TKM2	Tokmak 2	0.54	104	⇓P	Pg	09 44 07.7	-0.8
	25nm,0.6s						
TKM2				⇑S	Sg	09 44 15.0	-0.5
	16nm,0.2s						
TKM2	Tokmak 2	0.54	104	P	Pg	09 44 07.8	-0.7
	16nm,0.2s,SNR=64						
TKM2				⇓S	Sg	09 44 15.1	-0.5
	121nm,0.2s						
UCH	Uchtor	0.87	198	⇑P	Pg	09 44 14.4	-0.4
	7.8nm,0.2s,SNR=34						
EKS2	Erkin-Say	0.90	244	⇑P	Pg	09 44 15.4	+0.1
	14nm,0.1s,SNR=83						
EKS2				⇑S	Sg	09 44 28.3	+1.2
	24nm,0.4s						
KZA	Kyzart	1.02	164	⇑P	Pg	09 44 17.0	-0.5
	15nm,0.2s,SNR=26						
KZA				⇑S	Sg	09 44 31.3	+0.5
	41nm,0.4s						
AML	Almayashu	1.27	224	⇑P	Pn	09 44 21.9	-0.5
	8.1nm,0.2s,SNR=35						
AML				⇓S	Sb	09 44 39.0	-0.1
	31nm,0.2s						
KK31	Karatay Array	3.20	272	⇑Pn	Pg	09 44 57.1	-2.3
	0.5nm,0.3s,baz=90,slow=13,SNR=52						
KK31				Sn	Sg	09 45 38.0	-2.8
	1.8nm,0.3s,baz=92,slow=30,SNR=7.2						
KSH	Kashi	3.63	167	*e*Pn	Pg	09 45 03.8	-3.9
KSH				Sn	Sg	09 46 04.1	+9.4
KSH				smax			
	comp=N,6.0nm,0.8s						
KSH				smax			
	comp=E,8.0nm,0.3s						
MK31	Makanchi Array	6.45	52	⇑Pn	Pn	09 45 35.5	+2.0
	comp=E,0.4nm,0.3s,baz=229,slow=13,SNR=22						
MK31				⇑Lg		09 47 21.9	
	comp=E,0.8nm,0.6s						
KURBB	Kurchatov Arra	7.97	17	⇓Lg		09 48 18.5	
	comp=E,0.6nm,0.7s						
KURK	Kurchatov	8.07	17	⇑Lg		09 48 22.4	
	comp=E,2.4nm,1.1s						

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*NEIC **19** 09:55:27.1, 18°.78N×65°.08W, h69^{km}, MD3.5(RSPR), After RSPR.*

RSPR 19 09:55:27.1, 18°.78N×65°.08W, h69^{km}±2^{km}, MD3.5/12, MD3.5/12, 17C-1D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STVI	Saint Thomas	0.44	165	⇑*e*P	Pn	09 55 38.7	-0.6
STVI				*e*S	Sn	09 55 48.1	-0.2
TBVI	Tortola	0.57	130	⇑*e*P	Pn	09 55 39.4	-1.2
TBVI				*e*S	Sn	09 55 49.1	-1.3
ABV	Anegada	0.71	94	⇑*e*P	Pn	09 55 41.5	-0.6
ABV				*e*S	Sn	09 55 52.3	-0.8
MTP	Monte Pirata	0.82	214	⇓*e*P	Pn	09 55 42.7	-0.6
MTP				*e*S	Sn	09 55 54.8	-0.5
CBYP	Canovanas	0.90	236	⇑*e*P	Pn	09 55 44.1	-0.2
CBYP				*e*S	Sn	09 55 56.9	-0.1
HUMP	Col San Antoni	0.97	229	⇑*e*P	Pn	09 55 44.4	-0.8
HUMP				*e*S	Sn	09 55 57.6	-1.0
CDVI	St. Croix	1.07	164	⇑*e*P	Pn	09 55 46.0	-0.5
CDVI				*e*S	Sn	09 56 00.4	-0.3
CPD	Cerro la Pandu	1.09	227	⇑*e*P	Pn	09 55 46.0	-0.7
CPD				*e*S	Sn	09 56 00.2	-1.0
SJG	San Juan	1.22	237	⇑*e*P	Pn	09 55 47.3	-1.0
SJG				*e*S	Sn	09 56 03.9	-0.3
SJG	San Juan	1.22	237	⇑*e*P	Pn	09 55 47.3	-1.0
SJG				*e*S	Sn	09 56 03.1	-1.1
OBIP	Obispado Ponce	1.63	243	⇑*e*P	Pn	09 55 53.0	-0.8
OBIP				*e*S	Sn	09 56 13.7	-0.2
ICM	Isla Caja Muer	1.63	237	⇑*e*P	Pn	09 55 53.7	-0.1
ICM				*e*S	Sn	09 56 13.2	-0.7
AOPR	Arecibo Observ	1.65	255	⇑*e*P	Pn	09 55 53.4	-0.6
AOPR				*e*S	Sn	09 56 14.1	-0.3
AGPR	Aguadilla, PR	1.95	261	⇑*e*P	Pn	09 55 57.4	-0.8
AGPR				*e*S	Sn	09 56 21.3	-0.4
AGPR	Aguadilla, PR	1.95	261	⇑*e*P	Pn	09 55 57.4	-0.8
AGPR				*e*S	Sn	09 56 21.0	-0.7
CRPR	Cabo Rojo, PR	2.08	249	⇑*e*P	Pn	09 56 00.0	+0.2
CRPR	Cabo Rojo, PR	2.08	249	⇑*e*P	Pn	09 56 00.2	+0.4
CRPR				*e*S	Sn	09 56 24.8	+0.1
CRPR	Cabo Rojo, PR	2.08	249	⇑*e*P	Pn	09 56 00.0	+0.2
CRPR				*e*S	Sn	09 56 24.8	+0.1

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*ISCJB **19** 09:58:48.2±1.9, 16°.9N±0°.1×119°.4E±0°.2, h115^{km}±22^{km}, mb3.6/8, Error ellipse: s-maj=29.0km s-min=17.1km az=153.3*

*NEIC **19** 09:58:49.5±1.6, 16°.91N×119°.47E, h113^{km}±18^{km}, mb4.4/1, Error ellipse: s-maj=28.3km s-min=13.0km az=55.0*

*IDC **19** 09:58:49.1±2.7, 16°.92N×119°.45E, h108^{km}±28^{km}, mb3.2/7, mb1 3.4/9, mb1mx3.3/22, mbtmp3.3/9, Error ellipse: s-maj=30.5km s-min=15.7km az=67.0*

ISC 19 09:58:49.5±1.7, 16°.9N±0°.1×119°.5E±0°.2, h112^{km}±20^{km}, n12, σ0^{s}.67/11, mb3.6/8, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGY	Tagaytay City	3.14	153	P	Pn	09 59 37.5	+0.1
	48nm,0.3s,baz=294,slow=20,SNR=2.5						
CMAR	Chiang Mai Arr	19.63	278	P	P	10 03 09.9	+0.5
	0.4nm,0.3s,baz=86,slow=6.2,SNR=6.9						
KSRS	Korea Array	21.76	18	P	P	10 03 31.8	-0.2
	3.8nm,0.8s,mb3.8,baz=205,slow=12,SNR=9.7						
SONM	Songino Array	32.65	344	P	P	10 05 10.3	-0.3
	0.2nm,0.5s,mb3.2,baz=165,slow=6.0,SNR=2.3						
WRA	Warramunga Arr	39.44	158	P	P	10 06 07.7	-1.0
	0.5nm,0.9s,mb3.4,baz=338,slow=9.2,SNR=4.6						
ASAR	Alice Springs	42.73	160	P	P	10 06 36.0	+0.3
	0.5nm,0.7s,mb3.4,baz=338,slow=6.9,SNR=4.9						
MKAR	Makanchi Array	42.77	322	P	P	10 06 35.4	-0.3
	1.4nm,0.9s,mb3.7,baz=128,slow=7.9,SNR=13						
MKAR	Makanchi Array	42.77	322	P	P	10 06 35.4	-0.3
ZALV	Zalesovo Beam	45.67	332	P	P	10 06 58.2	-0.6
	0.3nm,0.4s,mb3.4,baz=149,slow=12,SNR=3.0						
KURK	Kurchatov	46.88	325	*e*P	P	10 07 08.1	-0.2
	5.0nm,0.6s,mb4.4						
YKA	Yellowknife Ar	90.25	22	P	P	10 11 38.9	+1.7
	0.3nm,0.7s,mb3.5,baz=314,slow=5.1,SNR=7.2						
LKWY	Lake	103.80	34	*e*Pdif	Pdif	10 12 40.0	+1.3

IDC 19 10:06:50.7±1.4, 16°.77N×119°.29E, h0^{km}, mb3.4/4, mb1 3.5/4, mb1mx3.3/20, mbtmp3.4/4, Error ellipse: s-maj=65.9km s-min=23.7km az=75.0, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	21.96	19	P	P	10 11 46.0	-0.1
	1.7nm,0.8s,baz=198,slow=11,SNR=4.2						
WRA	Warramunga Arr	39.37	157	P	P	10 14 21.5	-0.6
	0.5nm,0.8s,baz=337,slow=8.9,SNR=4.6						
ASAR	Alice Springs	42.66	160	P	P	10 14 49.6	+0.5
	0.2nm,0.5s,baz=344,slow=7.1,SNR=3.3						
MKAR	Makanchi Array	42.77	322	P	P	10 14 49.8	-0.1
	0.4nm,0.8s,baz=119,slow=9.9,SNR=4.0						

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*ISCJB **19** 10:28:56.7±0.6, 28°.92N±0°.05×47°.58E±0°.06, h17^{km}±3^{km}, mb3.9/14, Error ellipse: s-maj=8.8km s-min=7.1km az=148.3*

*KISR **19** 10:28:56.5±0.6, 28°.96N×47°.66E, h7^{km}±8^{km}, MD2.4*

*IDC **19** 10:28:56.5±1.8, 29°.03N×47°.60E, h0^{km}, mb3.8/11, mb1 3.9/12, mb1mx3.8/28, mbtmp3.8/12, ML2.6/1, Error ellipse: s-maj=42.8km s-min=19.3km az=164.0*

*CSEM **19** 10:28:57.4±0.2, 28°.93N×47°.63E, h10^{km}, mb4.3/3, Error ellipse: s-maj=6.4km s-min=5.3km az=46.0*

*NEIC **19** 10:28:57.7±0.8, 28°.97N×47°.62E, h10^{km}, mb4.3/3, Error ellipse: s-maj=17.0km s-min=7.7km az=178.0*

NEIC Felt at Kuwait, Kuwait.

ISC 19 10:28:57.7±0.5, 28°.94N±0°.04×47°.62E±0°.05, h11^{km}±3^{km}, n44, σ0^{s}.62/51, mb3.9/14, Eastern Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RDF	Al-Radifah	0.06	260	*e*P	Pg	10 28 59.4	-0.6
RDF				*e*S	Sg	10 29 01.9	+0.2
RDF				AML	AML	10 29 02.9	
	comp=Z,18μm,0.2s						
RDF	Al-Radifah	0.06	260	*e*P	Pg	10 28 59.4	-0.6
RDF				*e*S	Sg	10 29 01.9	+0.2
KBD	Kabd	0.25	15	*e*P	Pg	10 29 02.2	-0.7
KBD				*e*S	Sg	10 29 06.2	-0.1
KBD				AML	AML	10 29 07.7	
	comp=Z,18μm,0.6s						
KBD	Kabd	0.25	15	*e*P	Pg	10 29 02.2	-0.7
KBD				*e*S	Sg	10 29 06.2	-0.1
QRN	Al-Qurain	0.33	126	*e*P	Pg	10 29 03.8	-0.4
QRN				*e*S	Sg	10 29 09.4	+0.8
QRN				AML	AML	10 29 11.4	
	comp=Z,1μm,0.4s						
QRN	Al-Qurain	0.33	126	*e*P	Pg	10 29 03.8	-0.4
QRN				*e*S	Sg	10 29 09.4	+0.8
UMR	Umm Al-Rimmam	0.62	8	*e*P	Pg	10 29 09.6	-0.2
UMR				*e*S	Sg	10 29 19.0	+1.1
UMR				AML	AML	10 29 24.9	
	comp=Z,7μm,0.4s						
UMR	Umm Al-Rimmam	0.62	8	*e*P	Pg	10 29 09.6	-0.2
UMR				*e*S	Sg	10 29 19.0	+1.1
	comp=Z,7μm,0.4s						
ASF	Jabal al Asfar	9.79	292	Sn	Sn	10 33 01.7	-6.6
	comp=Z,0.7nm,0.3s,baz=139,slow=2.5,SNR=3.8						
ASF				Lg		10 34 11.8	
	comp=Z,1.8nm,0.3s,baz=185,slow=21,SNR=5.4						
EIL	Elat	11.08	277	Lg		10 34 59.5	
	comp=Z,0.7nm,0.3s,baz=86,slow=14,SNR=2.8						
MALT	Malatya	12.08	323	Pn	Pn	10 31 50.0	+0.3
MALT	Malatya	12.08	323	Pn	Pn	10 31 50.0	+0.3
BRTR	Keskin Array B	15.76	317	Pn	Pn	10 32 40.1	+0.6
	comp=Z,0.0nm,0.3s,baz=136,slow=12,SNR=7.4						
BRTR	Keskin Array B	15.76	317	Pn	Pn	10 32 40.2	+0.6
IDI	Anoyia	20.25	294	P	P	10 33 33.4	+0.5
	comp=Z,2.2nm,0.4s,baz=106,slow=13,SNR=5.2						
IDI	Anoyia	20.25	294	P	P	10 33 33.4	+0.5
AKTK	Aktyubinsk	22.87	17	P	P	10 34 00.5	-0.5
AKTK	Aktyubinsk	22.87	17	P	P	10 34 00.5	-0.4
AKTO	Aktyubinsk	22.87	17	P	P	10 34 00.5	-0.4
	comp=Z,1.1nm,0.5s,mb3.6,baz=200,slow=9.9,SNR=6.7						
AML	Almayashu	24.86	51	*e*P	P	10 34 21.6	+1.5
	comp=Z,3.3nm,0.8s,mb3.9						
AML	Almayashu	24.86	51	*e*P	P	10 34 21.6	+1.5
	comp=Z,3.3nm,0.8s,mb3.9						
KSH	Kashi	25.61	58	P	P	10 34 25.6	-1.4
KSH				*e*pP	pP	10 34 36.0	+5.5
KSH				*e*sP	sP	10 34 40.0	+8.1
KSH				*e*PP		10 36 03.1	
KSH				*e*PcP	PcP	10 36 29.3	-88
KSH				*e*ScP	ScP	10 40 13.5	-84
KSH				*e*PcS	PcS	10 40 18.0	-80
KSH				*e*S	S	10 40 32.0	+97
KSH				*e*sS	sS	10 40 48.1	
KSH				*e*SS		10 43 26.4	
KSH				*e*ScS	ScS	10 44 27.6	-59
KSH				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.2						
KSH				pmax	pmax		
	comp=Z,83nm,4.4s						
KSH				LR	LR		
	comp=N,340nm,5.2s						
KSH				LR	LR		
	comp=E,170nm,6.8s						
KSH				LR	LR		
	comp=Z,360nm,4.8s						
AKASG	Malin Array Be	25.79	333	P	P	10 34 28.4	-0.1
	comp=Z,2.1nm,0.5s,mb3.9,baz=140,slow=9.1,SNR=8.2						
AKASG	Malin Array Be	25.79	333	P	P	10 34 28.4	-0.1
KIEV	Kiev	25.79	333	*e*P	P	10 34 28.6	+0.1
	comp=Z,5.9nm,0.8s,mb4.2						
KIEV	Kiev	25.79	333	*e*P	P	10 34 28.6	+0.1
	comp=Z,5.9nm,0.8s,mb4.2						
BVAR	Borovoye Array	29.33	29	P	P	10 34 59.0	-1.2
	comp=Z,1.4nm,0.8s,mb3.8,baz=216,slow=6.4,SNR=6.0						
BVAR	Borovoye Array	29.33	29	P	P	10 34 59.0	-1.2
KURK	Kurchatov	31.88	38	P	P	10 35 22.6	-0.1
	comp=Z,2.6nm,0.8s,mb4.1,baz=241,slow=9.7,SNR=23						
KURK	Kurchatov	31.88	38	P	P	10 35 22.6	-0.1
MKAR	Makanchi Array	32.32	47	P	P	10 35 27.1	+0.5
	comp=Z,0.5nm,0.7s,mb3.5,baz=240,slow=9.1,SNR=6.6						
MKAR	Makanchi Array	32.32	47	P	P	10 35 27.1	+0.4
BFO	Black Forest	35.79	314	*e*P	P	10 35 56.5	-0.2
	comp=Z,4.6nm,0.5s,mb4.7						
BFO	Black Forest	35.79	314	*e*P	P	10 35 56.5	-0.2
	comp=Z,4.6nm,0.5s,mb4.7						
ZALV	Zalesovo Beam	36.78	37	P	P	10 36 05.3	+0.2
	comp=Z,0.8nm,0.3s,mb4.0,baz=247,slow=9.4,SNR=6.8						
ZALV	Zalesovo Beam	36.78	37	P	P	10 36 05.3	+0.2
NOA	NORSAR Array B	40.20	333	P	P	10 36 33.2	-0.5
	comp=Z,1.0nm,0.8s,mb3.6,baz=127,slow=8.4,SNR=2.8						
NOA	NORSAR Array B	40.20	333	P	P	10 36 33.2	-0.5
TORD	Torodi Ar. Bea	45.35	260	P	P	10 37 16.6	+0.4
	comp=Z,0.4nm,0.7s,mb3.4,baz=60,slow=8.8,SNR=3.5						
SONM	Songino Array	48.56	50	P	P	10 37 41.1	+0.3
	comp=Z,0.3nm,0.7s,mb3.4,baz=278,slow=9.7,SNR=4.4						
SONM	Songino Array	48.56	50	P	P	10 37 41.1	+0.3
YKA	Yellowknife Ar	87.78	352	P	P	10 41 46.5	+0.1
	comp=Z,0.5nm,0.8s,mb3.8,baz=20,slow=5.0,SNR=9.1						
YKA	Yellowknife Ar	87.78	352	P	P	10 41 46.5	+0.1
YKA	Yellowknife Ar	87.78	352	P	P	10 41 46.5	+0.1

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*CSEM **19** 10:33:10.2±0.1, 39°.76N×33°.03E, h2^{km}, MD2.9, Error ellipse: s-maj=1.6km s-min=1.3km az=25.0*

*DDA **19** 10:33:10.6, 39°.76N×33°.07E, h8^{km}±5^{km}, Md3.0*

*ISK **19** 10:33:10.5, 39°.82N×33°.01E, h9^{km}, MD2.9*

*ISCJB **19** 10:33:11.1±0.5, 39°.81N±0°.03×33°.01E±0°.04, h10^{km}, Error ellipse: s-maj=5.3km s-min=4.1km az=37.7*

ISC 19 10:33:11.2±0.6, 39°.79N±0°.03×33°.00E±0°.04, h5^{km}±6^{km}, n26, σ1^{s}.06/39, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOD	Lodumlu	0.21	298	*e*PG	Pg	10 33 15.0	-0.3
LOD				*e*SG	Sg	10 33 18.4	+0.3
LOD	Lodumlu	0.21	298	*e*Pg	Pg	10 33 15.0	-0.3
LOD				*e*Sg	Sg	10 33 18.4	+0.3
BALAT	Bala	0.25	159	*i* P	Pg	10 33 15.5	-0.6
BALAT				*i* S	Sg	10 33 19.3	0.0
CANT	Cankiri	0.94	30	*e*PG	Pg	10 33 28.6	-0.6
SGKT	Sivrigoynuk	1.07	317	*i* P	Pg	10 33 31.7	0.0
SGKT				*i* S	Sg	10 33 48.8	+3.3
SGKT	Sivrigoynuk	1.07	317	*i* P	Pg	10 33 31.7	+0.1
SGKT				*i* S	Sg	10 33 48.8	+3.3
CDAG	Cicekdag	1.07	99	*i* P	Pg	10 33 29.5	-2.2
CDAG				*i* S	Sg	10 33 47.2	+1.7
CDAG	Cicekdag	1.07	99	*i* P	Pg	10 33 29.5	-2.2
CDAG				*i* S	Sg	10 33 47.2	+1.7
SVRH	Sivrihisar-ESK	1.19	254	*e*PN	Pn	10 33 34.1	-0.3
SVRH	Sivrihisar-ESK	1.19	254	*e*Pn	Pn	10 33 34.1	-0.3
ILGA	Ilgaz	1.37	23	*i* P	Pn	10 33 35.8	-1.1
ILGA				*i* S	Sg	10 33 57.2	+1.9
ILGA	Ilgaz	1.37	23	*i* P	Pn	10 33 35.8	-1.1
ILGA				*i* S	Sg	10 33 57.2	+1.9
KDHN	Kadinhani	1.44	209	*i* P	Pn	10 33 37.1	-0.7
KDHN				*i* S	Sb	10 33 58.4	+1.3
KDHN	Kadinhani	1.44	209	*i* P	Pn	10 33 37.1	-0.8
KDHN				*i* S	Sb	10 33 58.4	+1.3
TOS	Tosya	1.47	32	*e*PN	Pn	10 33 37.2	-1.0
TOS	Tosya	1.47	32	*e*Pn	Pn	10 33 37.2	-1.0
MDU	Mudurnu	1.53	297	*e*PN	Pn	10 33 39.0	-0.1
MDU	Mudurnu	1.53	297	*e*Pn	Pn	10 33 39.0	0.0
SULT	Sultanhani-AKS	1.64	166	*e*PN	Pn	10 33 40.9	+0.3
SULT	Sultanhani-AKS	1.64	166	*e*Pn	Pn	10 33 40.9	+0.3
AVNT	Avonos	1.76	124	*i* P	Pn	10 33 41.4	-0.8
AVNT				*i* S	Sn	10 34 06.8	+1.9
AVNT	Avonos	1.76	124	*i* P	Pn	10 33 41.3	-0.9
AVNT				*i* S	Sn	10 34 06.8	+1.9
YOZ	Yozgat	1.79	94	*e*PN	Pn	10 33 42.3	-0.4
YOZ	Yozgat	1.79	94	*e*Pn	Pn	10 33 42.3	-0.4
BNN	Bunyan	2.40	112	*e*PN	Pn	10 33 51.0	+0.1
BNN	Bunyan	2.40	112	*e*Pn	Pn	10 33 51.0	0.0

IDC 19 10:43:31.2±1.8, 10°.34S×160°.95E, h62^{km}±9^{km}, mb3.5/3, mb1 3.7/4, mb1mx3.4/18, mbtmp3.6/4, Error ellipse: s-maj=31.1km s-min=10.7km az=61.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	1.34	312	P	Pn	10 43 52.7	-1.1
	44nm,0.3s,baz=164,slow=6.2,SNR=21						
HNR				S	Sn	10 44 10.8	0.0
	186nm,0.3s,baz=336,slow=20,SNR=15						
CTA	Charters Tower	17.16	234	P	Pn	10 47 27.7	+0.7
	0.1nm,0.3s,baz=40,slow=11,SNR=2.1						
WRA	Warramunga Arr	27.37	246	P	P	10 49 10.4	-0.5
	1.2nm,0.5s,baz=76,slow=9.0,SNR=18						
WRA				pP	pP	10 49 27.2	+1.3
	1.3nm,0.7s,baz=75,slow=9.2,SNR=5.9						
ASAR	Alice Springs	28.99	239	P	P	10 49 24.1	-1.2
	0.3nm,0.4s,baz=61,slow=10,SNR=12						
ASAR				pP	pP	10 49 42.1	+1.7
	0.5nm,0.6s,baz=63,slow=9.8,SNR=3.5						
SONM	Songino Array	75.37	325	P	P	10 55 09.8	+1.8
	0.5nm,0.6s,baz=135,slow=4.9,SNR=5.8						
SONM				pP	pP	10 55 23.6	-1.5
	0.3nm,0.6s,baz=130,slow=4.5,SNR=2.4						

IDC 19 11:02:12.7±3.8, 5°.37S×151°.52E, h0^{km}, mb3.2/3, mb1 3.5/3, mb1mx3.3/15, mbtmp3.3/3, Error ellipse: s-maj=126.9km s-min=30.3km az=107.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.12	228	P	P	11 07 10.6	+0.6
	0.8nm,0.7s,baz=54,slow=10.0,SNR=9.0						
ASAR	Alice Springs	24.88	221	P	P	11 07 36.2	-1.0
	1.5nm,0.8s,baz=57,slow=9.1,SNR=9.8						
SONM	Songino Array	66.14	329	P	P	11 13 01.0	-0.8
	0.1nm,0.5s,baz=143,slow=3.6,SNR=2.6						
TORD	Torodi Ar. Bea	149.26	287	PKPbc	PKPbc	11 22 05.9	+1.4
	0.5nm,0.9s,baz=66,slow=1.0,SNR=2.5						

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*NEIC **19** 11:40:58.0, 32°.64S×71°.73W, h34^{km}, ML3.0(GUC), After GUC.*

GUC 19 11:40:58.0±0.6, 32°.64S×71°.73W, h34^{km}±4^{km}, MD3.8, ML3.0, 3D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	Papudo	0.27	68	⇓*i*P	Pb	11 41 05.5	0.0
PACH				*i* S	Sb	11 41 11.0	+0.5
PACH	Papudo	0.27	68	⇓*i*P	Pb	11 41 05.5	0.0
PACH				*i* S	Sb	11 41 11.0	+0.5
CHNG	Los Chungos	0.78	15	*e*P	Pn	11 41 12.2	-0.4
CHNG				*i* S	Sn	11 41 23.6	+0.5
JACH	Jahuel	0.96	93	*i* P	Pn	11 41 15.5	+0.3
JACH				*i* S	Sn	11 41 29.3	+1.7
JACH	Jahuel	0.96	93	*i* P	Pn	11 41 15.5	+0.3
JACH				*i* S	Sn	11 41 29.3	+1.7
TACH	Talagante	1.21	147	*e*P	Pn	11 41 19.3	+0.8
TACH	Talagante	1.21	147	*e*P	Pn	11 41 19.3	+0.8
FCH	Farellones	1.40	120	⇓*e*P	Pn	11 41 22.7	+1.7
FCH				*i* S	Sn	11 41 41.6	+3.3
FCH				AML	AML	11 41 44.5	
	comp=E,385nm,0.2s						
PCH	Pirque	1.42	134	*e*P	Pn	11 41 22.9	+1.5
PCH	Pirque	1.42	134	*e*P	Pn	11 41 22.9	+1.5
CHCH	Chadas Angostu	1.58	145	*e*P	Pn	11 41 25.5	+1.9
CHCH	Chadas Angostu	1.58	145	*e*P	Pn	11 41 25.5	+1.9
CACH	El Canelo	1.75	148	*e*P	Pn	11 41 28.1	+2.1
CACH	El Canelo	1.75	148	*e*P	Pn	11 41 28.1	+2.1

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*NEIC **19** 11:43:04.3±1.1, 23°.99S×179°.96W, h509^{km}±17^{km}, Error ellipse: s-maj=24.7km s-min=12.9km az=136.0*

IDC 19 11:43:04.5±3.0, 23°.95S×179°.99E, h507^{km}±36^{km}, mb3.3/5, mb1 3.4/7, mb1mx3.2/19, mbtmp3.4/7, Error ellipse: s-maj=49.5km s-min=24.3km az=152.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	12.66	39	P	P	11 45 50.0	-0.1
	1.7nm,0.3s,baz=336,slow=22,SNR=4.0						
URZ	Urewera	14.48	189	P	P	11 46 08.3	-0.6
	0.6nm,0.3s,baz=296,slow=19,SNR=3.1						
CTA	Charters Tower	31.47	270	P	P	11 48 45.1	+1.0
	4.1nm,0.3s,baz=89,slow=12,SNR=9.6						
STKA	Stephens Creek	34.70	248	P	P	11 49 11.4	0.0
	2.7nm,1.1s,baz=108,slow=6.4,SNR=3.6						
ASAR	Alice Springs	42.02	261	P	P	11 50 10.8	-0.3
	0.7nm,0.4s,baz=95,slow=6.7,SNR=14						
WRA	Warramunga Arr	42.39	266	P	P	11 50 13.3	-0.8
	2.7nm,0.5s,baz=98,slow=8.4,SNR=17						
FITZ	Fitzroy Crossi	50.82	266	P	P	11 51 18.3	+0.3
	2.1nm,0.6s,baz=127,slow=5.1,SNR=3.5						
BVAR	Borovoye Array	120.47	319	PKP	PKPdf	12 00 57.5	-0.2
	0.2nm,0.3s,baz=72,slow=4.7,SNR=3.0						
ARCES	ARCESS Array B	131.93	348	PKP	PKPdf	12 01 19.3	+0.3
	4.5nm,0.9s,baz=48,slow=1.3,SNR=4.3						
AKASG	Malin Array Be	145.00	327	PKPbc	PKPbc	12 01 43.2	-0.8
	1.0nm,0.4s,baz=46,slow=4.1,SNR=4.4						
CLL	Collm	150.90	343	*i* PKPbc	PKPbc	12 01 59.6	+0.5

FUNV 19 11:43:13.2, 13°.03N×71°.45W, h35^{km}, MW3.6, 1D, Caribbean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MONV	Montecano	1.80	126	*e*P	Pn	11 43 40.6	-1.1
MONV				*e*S	Sn	11 44 02.1	-1.2
DABV	Dabajuro	2.24	159	*e*P	Pn	11 43 46.9	-1.0
DABV				*e*S	Sn	11 44 12.1	-2.2
VIRV	Villa del Rosa	2.68	201	⇓*e*P	Pn	11 43 52.4	-1.5
VIRV				*e*S	Sn	11 44 21.8	-3.4
SIQV	Siquisique	2.86	146	*e*P	Pn	11 43 55.9	-0.5
SIQV				*e*S	Sn	11 44 26.6	-3.0
QARV	Quebrada Arrib	2.95	162	*e*P	Pn	11 43 56.7	-0.9
QARV				*e*S	Sn	11 44 29.0	-2.8
JACV	Jacura	3.21	127	*e*P	Pn	11 43 59.4	-1.8
JACV				*e*S	Sn	11 44 34.5	-3.7
CURV	Curarigua	3.34	154	*e*P	Pn	11 44 01.9	-1.1
CURV				*e*S	Sn	11 44 37.1	-4.3
TEPV	Terepaima	3.77	144	*e*P	Pn	11 44 08.2	-0.6
TEPV				*e*S	Sn	11 44 48.3	-3.7
SANV	Sanarito	3.98	152	*e*P	Pn	11 44 11.1	-0.7
SANV				*e*S	Sn	11 44 52.7	-4.5
VIGV	El Vigia	4.17	179	*e*P	Pn	11 44 13.3	-1.0
VIGV				*e*S	Sn	11 44 57.2	-4.7
TURV	Turiamo	4.37	126	*e*P	Pn	11 44 14.9	-2.2
TURV				*e*S	Sn	11 45 01.4	-5.4
SOCV	Socops	4.75	173	*e*P	Pn	11 44 21.2	-1.3
SOCV				*e*S	Sn	11 45 10.9	-5.4
CAPV	Capacho	5.21	189	*e*P	Pn	11 44 26.9	-1.8
CAPV				*e*S	Sn	11 45 22.1	-5.3
BAUV	El Baul	5.26	140	*e*P	Pn	11 44 28.2	-1.2
BAUV				*e*S	Sn	11 45 22.6	-6.3
CUPV	Cœpira	6.29	117	*e*P	Pn	11 44 41.2	-2.3
CAOV	Caicara del Or	7.59	138	*e*P	Pn	11 44 59.5	-1.9
CAOV				*e*S	Sn	11 46 17.4	-8.9
PAYV	Puerto Ayacuch	8.44	153	*e*P	Pn	11 45 10.0	-3.1

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*MOS **19** 11:43:27.3±0.9, 6°.30N×125°.13E, h116^{km}, mb4.8/4, Error ellipse: s-maj=30.3km s-min=11.4km az=106.9*

*MAN **19** 11:43:29, 6°.28N×125°.21E, h117^{km}, mb4.7, ML3.6, MS3.5*

*IDC **19** 11:43:29.9±0.8, 6°.27N×125°.17E, h121^{km}±7^{km}, mb3.6/13, mb1 3.7/13, mb1mx3.7/23, mbtmp3.6/13, MS3.7/1, Ms1 3.7/1, ms1mx2.8/30, Error ellipse: s-maj=25.6km s-min=11.2km az=76.0*

*ISCJB **19** 11:43:29.1±0.4, 6°.26N±0°.05×125°.17E±0°.07, h131^{km}±3^{km}, mb4.1/21, Error ellipse: s-maj=11.9km s-min=7.6km az=168.2*

*NEIC **19** 11:43:30.3±0.9, 6°.27N×125°.10E, h124^{km}±9^{km}, mb4.4/2, Error ellipse: s-maj=21.2km s-min=8.4km az=73.0*

*DJA **19** 11:43:33, 6°.15N×125°.52E, h90^{km}, mb4.8/16*

*BJI **19** 11:43:35.1, 7°.21N×125°.49E, h124^{km}, mB4.9/4, mb4.5/7*

ISC 19 11:43:30.2±0.4, 6°.26N±0°.05×125°.19E±0°.07, h124^{km}±3^{km}, n40, σ0^{s}.84/48, mb4.2/21, 5C-4D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	0.29	234	⇓*i*P	Pn	11 43 47.2	-0.5
GSPH				*i* S	Sn	11 43 59.6	-1.2
KCP	Kidapawan	0.75	353	⇑*i*P	Pn	11 43 52.3	+1.9
KCP				*i* S	Sn	11 44 07.6	+1.9

DMPH	**Davao City--Mi**	0.88	21⇑	*e*P	Pn	11 43 51.6	+0.2
DMPH				*e*S	Sn	11 44 07.5	-0.1
DAV	**Davao City (W)**	0.89	26	P	Pn	11 43 51.7	+0.1
	203nm,0.3s,baz=318,slow=1.9,SNR=16						
DAV				S	Sn	11 44 07.6	-0.2
	988nm,0.3s,baz=294,slow=23,SNR=74						
DAV	**Davao City (W)**	0.89	26	*e*Pg	Pn	11 43 52.1	+0.5
DAV				*e*Sg	Sn	11 44 07.1	-0.7
DAV				S	Sn	11 44 07.6	-0.2
MATI	**Mati**	1.26	57	*e*P	Pn	11 43 53.8	-1.5
CTBH	**Cotabato--PC H**	1.34	316⇓	*i*P	Pn	11 43 56.1	0.0
CTBH				*i* S	Sn	11 44 15.1	-0.7
BUKP	**Musuan**	1.61	356	*e*P	Pn	11 43 59.2	-0.1
CGP	**Cagayan de Oro**	2.23	347⇑	*e*P	Pn	11 44 07.0	+0.2
CGP				*e*S	Sn	11 44 35.0	+0.1
BUTP	**Butuan**	2.73	9	*e*P	Pn	11 44 13.7	+0.6
SCPH	**Surigao**	3.51	5	*e*P	Pn	11 44 22.3	-1.0
TBP	**Tagbilaran**	3.65	339	*e*P	Pn	11 44 25.8	+0.5
MSLP	**Maasin**	3.86	355	*e*P	Pn	11 44 28.3	+0.3
FITZ	**Fitzroy Crossi**	24.21	179	P	P	11 48 35.0	-0.4
	1.7nm,0.5s,mb3.6,baz=13,slow=9.0,SNR=5.6						
CBIJ	**Chichi jima**	26.28	36	P	P	11 48 53.7	-0.5
	42nm,0.7s,mb5.0,baz=197,slow=17,SNR=4.5						
NJ2	**Nanjing**	26.33	348	*e*P	P	11 48 54.3	-0.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.3						
WRAB	**Tennant Creek**	27.55	161	*e*P	P	11 49 07.5	+2.0
WRAB				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.4						
WRAB	**Tennant Creek**	27.55	161	*e*P	P	11 49 07.5	+2.0
	comp=Z,15nm,1.2s,mb4.4						
WRA	**Warramunga Arr**	27.55	161	P	P	11 49 05.1	-0.5
	comp=Z,0.7nm,0.5s,mb3.4,baz=330,slow=11,SNR=11						
CMAR	**Chiang Mai Arr**	28.31	298	P	P	11 49 12.0	-0.3
	comp=Z,0.3nm,0.3s,mb3.3,baz=97,slow=6.6,SNR=4.1						
ASAR	**Alice Springs**	30.94	164	P	P	11 49 35.4	-0.1
	comp=Z,0.6nm,0.4s,mb3.7,baz=340,slow=6.9,SNR=23						
KSRS	**Korea Array**	31.15	4	P	P	11 49 37.4	+0.2
	comp=Z,2.0nm,0.6s,mb4.0,baz=182,slow=9.9,SNR=9.8						
XAN	**Xi'an**	31.48	334	P	P	11 49 40.4	+0.2
XAN				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
LZH	**Lanzhou**	35.56	330	*e*P	P	11 50 18.0	+2.5
LZH				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,74nm,4.5s						
STKA	**Stephens Creek**	41.03	159	P	P	11 51 02.6	+1.3
	comp=Z,4.4nm,1.1s,mb4.2,baz=323,slow=11,SNR=2.9						
HIA	**Hailar**	43.10	355⇓	*i*P	P	11 51 17.8	-0.1
KLR	**Kul'dur**	43.18	6	*e*P	P	11 51 12.2	-6.3
ULN	**Ulaanbaatar**	44.26	343⇑	*i*P	P	11 51 27.0	-0.2
SONM	**Songino Array**	44.43	342	P	P	11 51 27.6	-1.0
	comp=Z,0.8nm,0.6s,mb3.6,baz=155,slow=8.7,SNR=8.1						
SONM				LR	LR	12 10 12.1	
	comp=Z,78nm,18.8s,baz=155,slow=36						
PETK	**Petropavlovsk-**	53.71	24	P	P	11 52 39.3	+0.1
	comp=Z,1.0nm,0.6s,mb4.0,baz=202,slow=2.0,SNR=5.2						
MKAR	**Makanchi Array**	54.62	325	P	P	11 52 46.3	+0.4
	comp=Z,2.3nm,0.5s,mb4.5,baz=120,slow=7.9,SNR=53						
YAK	**Yakutsk**	55.75	3	*e*P	P	11 52 52.0	-1.7
YAK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
YAK				pmax	pmax		
	comp=N,4.0nm,1.2s						
ZALV	**Zalesovo Beam**	57.65	333	P	P	11 53 06.7	-0.6
	comp=N,1.2nm,0.6s,mb4.1,baz=132,slow=5.1,SNR=6.3						
KURK	**Kurchatov**	58.80	327⇓	*i*P	P	11 53 15.1	-0.2
KURK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
KURK	**Kurchatov**	58.80	327	P	P	11 53 15.4	+0.1
	comp=Z,1.8nm,0.5s,mb4.4,baz=124,slow=7.1,SNR=9.9						
BVAR	**Borovoye Array**	64.38	327	P	P	11 53 52.6	-0.1
	comp=Z,0.5nm,0.4s,mb3.7,baz=57,slow=5.4,SNR=4.8						
KIV	**Kislovodsk**	80.29	313	*e*P	P	11 55 27.1	-0.4
KIV				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
BPAW	**Bear Paw Mtn.**	81.70	26	*e*P	P	11 55 35.5	+1.0
	comp=Z,4.4nm,0.7s,mb4.4						
COLA	**College**	83.08	25⇑	*i*P	P	11 55 41.0	-0.7
YKA	**Yellowknife Ar**	97.83	24	P	P	11 56 51.4	0.0
	comp=Z,0.2nm,0.6s,mb3.9,baz=302,slow=4.8,SNR=6.4						

IDC 19 11:43:51.0±5.2**, 19°.88S**×**68°.87W, h84**^{km}±50^{km}**, mb3.3**/3**, mb1 3.5**/5**, mb1mx3.3**/19**, mbtmp3.3**/5**, ML4.6**/2**, Error ellipse: s-maj=47.4km s-min=37.2km az=140.0, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	2.72	181	P	Pn	11 44 33.5	+0.8
	27nm,0.3s,baz=360,slow=8.7,SNR=151						
LVC				S	Sn	11 45 05.1	+0.4
	13nm,0.3s,baz=360,slow=11,SNR=3.9						
CPUP	**Villa Florida**	12.40	123	P	Pn	11 46 46.1	+1.6
	0.4nm,0.3s,baz=282,slow=14,SNR=3.0						
PLCA	**Paso Flores**	20.84	184	P	P	11 48 27.2	+1.4
	1.4nm,0.6s,baz=347,slow=15,SNR=4.7						
TORD	**Torodi Ar. Bea**	76.78	71	P	P	11 55 33.4	-0.6
	0.3nm,0.4s,baz=251,slow=5.3,SNR=6.7						
YKA	**Yellowknife Ar**	89.68	341	P	P	11 56 39.3	+0.2
	0.2nm,0.6s,baz=137,slow=4.5,SNR=6.8						

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*IDC **19** 11:51:57.9±1.0, 35°.61S×178°.39E, h0^{km}, mb4.4/7, mb1 4.6/8, mb1mx4.4/16, mbtmp4.4/8, ML4.0/1, MS4.5/16, Ms1 4.5/16, ms1mx4.4/21, Error ellipse: s-maj=31.1km s-min=21.2km az=33.0*

*ISCJB **19** 11:51:59.8±2.1, 35°.71S±0°.05×178°.29E±0°.08, h19^{km}±15^{km}, mb4.5/9, MS4.5/14, Error ellipse: s-maj=11.1km s-min=8.1km az=156.6*

*NEIC **19** 11:51:59.4±0.7, 35°.66S×178°.36E, h10^{km}, ML4.8(WEL), Error ellipse: s-maj=11.5km s-min=8.8km az=90.0*

*GCMT **19** 11:52:03.2±0.2, 35°.66S×178°.45E, h12^{km}, MW5.1/75, Moment Tensor Solution. s36,c49; s75,c123; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.81±.17; $M_{\theta\theta}$-4.49±.15; $M_{\phi\phi}$5.30±.14; $M_{r\theta}$0.10±.42; $M_{\theta\phi}$3.86±.14; $M_{\phi r}$0.54±.40; Best double couple: $M_0$6.25400×10^{16} NP1:ϕ_s64.00000°, δ86.00000°, λ2.00000°. NP2: ϕ_s334.00000°, δ88.00000°, λ176.00000°. Principal axes: T 6.6780, Plg4.0000°, Azm289.0000°; N -0.8470, Plg86.0000°, Azm122.0000°; P -5.8300, Plg1.0000°, Azm19.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 19 11:52:01.3±1.9**, 35°.73S**±0°.04×**178°.27E**±0°.07**, h18**^{km}±13^{km}**, n61, σ1**^{s}**.40**/53**, mb4.5**/9**, MS4.5**/14**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	1.83	179	P	Pn	11 52 29.8	-2.0
MXZ				S	Sn	11 52 53.4	-1.1
KUZ	**Kuaotunu**	2.30	243	P	Pn	11 52 37.7	-0.6
KUZ				S	Sn	11 53 05.9	-0.2
PUZ	**Puketiti**	2.34	180	P	Pn	11 52 39.7	+0.9
PUZ				S	Sn	11 53 10.7	+3.6
MWZ	**Matawai**	2.67	193	P	Pn	11 52 43.5	+0.2
MWZ				S	Sn	11 53 17.4	+2.2
URZ	**Urewera**	2.69	200	Pn	Pn	11 52 43.4	-0.3
	21nm,0.3s,baz=2.5,slow=4.4,SNR=60						
URZ				Sn	Sn	11 53 10.6	-5.2
	51nm,0.3s,baz=340,slow=12,SNR=6.8						
URZ				LR	LR	11 54 00.7	
	comp=Z,11μm,19.6s,baz=245,slow=43						
URZ	**Urewera**	2.69	200	P	Pn	11 52 43.5	-0.1
MKAZ	**Moumakai**	2.86	240	P	Pn	11 52 46.1	+0.1
OTAZ	**Otara**	2.96	245	P	Pn	11 52 48.5	+1.1
WCZ	**Waipu Caves**	3.20	265	P	Pn	11 52 50.3	-0.3
KNZ	**Kokohu**	3.32	188	P	Pn	11 52 52.8	+0.5
BKZ	**Black Stump Fm**	3.71	202	P	Pn	11 52 59.0	+1.3
RATZ	**Rangitukua**	3.71	212	P	Pn	11 53 01.4	+3.7
OUZ	**Omahuta**	3.85	276	P	Pn	11 52 57.5	-2.1
HIZ	**Hauiti**	3.90	223	P	Pn	11 53 02.1	+1.9
NGZ	**Ngauruhoe**	4.04	211	*e*P	Pn	11 53 04.8	+2.6
TUVZ	**Tukino**	4.10	210	P	Pn	11 53 06.0	+3.0
WNVZ	**Wahianoa**	4.17	210	P	Pn	11 53 07.1	+3.1
MOVZ	**Moawhango**	4.18	208	P	Pn	11 53 05.7	+1.6
TSZ	**Takapari Road**	4.69	202	P	Pn	11 53 11.2	0.0
WAZ	**Wanganui**	4.79	212	P	Pn	11 53 15.7	+3.2
BFZ	**Birch Farm**	5.19	197	P	Pn	11 53 17.0	-1.0
MRZ	**Mangatainoka R**	5.36	202	P	Pn	11 53 19.3	-1.0
KIW	**Kapiti Island**	5.76	206	P	Pn	11 53 26.2	+0.3
MTW	**Mount Morrison**	5.84	201	P	Pn	11 53 25.5	-1.4
CAW	**Cannon Point**	5.93	204	P	Pn	11 53 27.2	-0.9
QRZ	**Quartz Range**	6.80	220	P	Pn	11 53 41.3	+1.2
THZ	**Tophouse**	7.34	213	P	Pn	11 53 46.5	-1.0
KHZ	**Kahutara**	7.62	207	*e*Pn	Pn	11 53 50.0	-1.4
	32nm,0.8s						
KHZ				*e*Sn	Sn	11 55 17.0	-0.3
LTZ	**Lake Taylor**	8.44	212	P	Pn	11 53 59.8	-2.8
RPZ	**Rata Peaks**	9.72	213	Pn	Pn	11 54 17.8	-2.3
	1.9nm,0.3s,baz=113,slow=2.0,SNR=17						
RPZ				Sn	Sn	11 56 05.6	-3.1
	1.0nm,0.3s,baz=9.0,slow=19,SNR=4.0						
RPZ				LR	LR	11 58 36.7	
	comp=Z,4μm,19.1s,baz=130,slow=40						
RPZ	**Rata Peaks**	9.72	213	*e*Pn	Pn	11 54 18.1	-2.0
RPZ				Sn	Sn	11 56 05.6	-3.1
RPZ				*e*Sn	Sn	11 56 06.7	-2.1
RPZ				LR	LR	11 58 36.7	
ODZ	**Otahua Downs**	10.97	210	P	Pn	11 54 33.9	-3.3
STKA	**Stephens Creek**	30.60	267	P	P	11 58 15.7	+1.5
	4.0nm,0.9s,mb4.2,baz=120,slow=9.7,SNR=4.0						
STKA				LR	LR	12 09 52.6	
	comp=Z,1μm,18.5s,MS4.6,baz=98,slow=35						
HNR	**Honiara**	31.05	323	LR	LR	12 08 12.8	
	comp=Z,677nm,19.4s,MS4.3,baz=337,slow=31						
CTA	**Charters Tower**	32.12	290	P	P	11 58 28.8	+1.1
	8.0nm,0.8s,mb4.6,baz=121,slow=9.2,SNR=4.9						
CTA				LR	LR	12 10 22.9	
	comp=Z,207nm,21.4s,MS3.8,baz=128,slow=34						
PPT	**Papeete**	33.74	66	*e*LQ		12 06 01.4	
	1μm,23.8s						
PPT				*e*LR	LR	12 07 26.1	
	1μm,25.2s,baz=230						
PPT	**Papeete**	33.74	66	LR	LR	12 08 30.7	
	comp=Z,592nm,18.8s,MS4.3,baz=245,slow=30						
ASAR	**Alice Springs**	40.06	275	P	P	11 59 35.6	0.0
	4.9nm,0.8s,mb4.3,baz=116,slow=7.4,SNR=32						
WRA	**Warramunga Arr**	41.55	280	P	P	11 59 46.6	-1.3
	1.9nm,0.7s,baz=120,slow=7.7,SNR=19						
WRA				LR	LR	12 16 57.4	
	comp=Z,2μm,19.6s,MS4.9,baz=115,slow=36						
RKT	**Rikitea**	42.25	86	*e*LQ		12 09 32.9	
	1μm,28.5s						
RKT				*e*LR	LR	12 11 27.1	
	2μm,28.8s,baz=245						
VNDA	**Vanda**	42.50	185	LR	LR	12 14 34.6	
	comp=Z,305nm,20.7s,MS4.2,baz=28,slow=32						
TAOE	**Nuku Hiva Isla**	46.34	65	*e*LQ		12 11 13.3	
	4μm,30.2s						
TAOE				*e*LR	LR	12 13 15.7	
	2μm,25.8s,baz=238						
FITZ	**Fitzroy Crossi**	49.52	276	P	P	12 00 54.5	+3.4
	5.1nm,0.8s,mb4.6,baz=144,slow=14,SNR=4.4						
FITZ				LR	LR	12 22 09.6	
	comp=Z,1μm,19.4s,MS4.8,baz=123,slow=36						
QSPA	**South Pole Qui**	54.39	180	P	P	12 01 27.7	+1.2
	5.7nm,0.7s,mb4.6,baz=17,slow=2.1,SNR=36						
QSPA	**South Pole Qui**	54.39	180	P	P	12 01 27.7	+1.2
MAW	**Mawson**	66.22	202	LR	LR	12 28 49.0	
	comp=Z,622nm,21.3s,MS4.8,baz=112,slow=33						
PLCA	**Paso Flores**	81.11	134	P	P	12 04 15.8	+0.3
	2.3nm,0.8s,mb4.2,baz=16,slow=20,SNR=4.2						
PLCA				LR	LR	12 32 00.6	
	comp=Z,226nm,20.2s,MS4.5,baz=228,slow=30						
PLCA	**Paso Flores**	81.11	134	P	P	12 04 15.8	+0.3
PLCA				LR	LR	12 32 00.6	
KSRS	**Korea Array**	86.50	322	LR	LR	12 41 53.1	
	comp=Z,81nm,19.2s,MS4.1,baz=326,slow=35						
PETK	**Petropavlovsk-**	90.26	348	LR	LR	12 40 34.8	
	comp=Z,126nm,20.1s,MS4.3,baz=161,slow=32						
CMAR	**Chiang Mai Arr**	92.29	291	P	P	12 05 15.2	+4.7
	1.0nm,0.7s,mb4.2,baz=148,slow=3.9,SNR=6.0						
CMAR				LR	LR	12 50 12.2	
	comp=Z,306nm,18.7s,MS4.8,baz=174,slow=38						
GLA	**Glamis**	92.72	51	*e*P	P	12 05 11.8	-0.4
	9.8nm,1.2s,mb5.1						
NVAR	**Mina Array Bea**	94.24	45	P	P	12 05 18.1	-1.0
	0.9nm,0.8s,mb4.2,baz=217,slow=7.1,SNR=7.0						
TXAR	**Lajitas Array**	97.84	60	LR	LR	12 44 13.6	
	comp=Z,217nm,18.2s,MS4.7,baz=345,slow=32						
CPUP	**Villa Florida**	98.98	131	LR	LR	12 42 57.6	
	comp=Z,370nm,19.3s,MS4.9,baz=196,slow=31						
MKAR	**Makanchi Array**	118.73	309	PKP	PKPdf	12 10 47.8	-0.1
	0.2nm,0.8s,baz=72,slow=4.7,SNR=2.4						
LIC	**Lamto**	150.48	173	*e*P	PKPab	12 11 57.2	-1.6
	34nm,1.1s						
KIC	**Kosan Boka**	150.64	174	*e*P	PKPab	12 12 00.0	+0.6
	34nm,0.9s						
TIC	**Toumodi**	150.90	173	*e*P	PKPab	12 11 58.3	-2.2
	7.4nm,0.2s						
DBIC	**Dimbokro**	150.94	174	PKPbc	PKPbc	12 11 51.4	-2.1
	3.2nm,0.9s,baz=79,slow=5.2,SNR=2.6						
TORD	**Torodi Ar. Bea**	157.30	189	PKPab	PKPab	12 12 27.9	+0.3
	2.0nm,0.7s,baz=180,slow=2.6,SNR=8.9						

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*IDC **19** 12:06:41.2±3.6, 5°.71S×128°.71E, h356^{km}±40^{km}, mb3.1/3, mb1 3.2/6, mb1mx3.0/18, mbtmp3.1/6, Error ellipse: s-maj=39.1km s-min=11.5km az=78.0*

ISC 19 12:06:40.8±2.8**, 5°.71S**±0°.07×**128°.8E**±0°.2**, h350**^{km}±33^{km}**, n6, σ0**^{s}**.45**/9**, mb3.3**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	12.69	194	P	P	12 09 30.3	+0.3
	1.0nm,0.3s,baz=41,slow=7.1,SNR=20						
FITZ				S	S	12 11 49.8	-0.3
	0.3nm,0.3s,baz=95,slow=13,SNR=2.7						
WRA	**Warramunga Arr**	15.16	159	P	P	12 09 56.9	-0.3
	0.4nm,0.3s,baz=341,slow=12,SNR=23						
WRA				S	S	12 12 39.3	-0.7
	0.2nm,0.3s,baz=335,slow=21,SNR=4.5						
ASAR	**Alice Springs**	18.53	165	P	P	12 10 33.6	+0.3
	0.3nm,0.3s,baz=345,slow=12,SNR=15						
ASAR				S	S	12 13 47.1	+0.9
	0.3nm,0.3s,baz=343,slow=17,SNR=9.3						
KSRS	**Korea Array**	42.94	359	P	P	12 14 06.6	+0.3
	0.5nm,0.7s,mb2.8,baz=179,slow=8.5,SNR=4.4						
PETK	**Petropavlovsk-**	63.50	19	P	P	12 16 34.1	-0.2
	0.8nm,0.7s,mb3.5,baz=194,slow=5.2,SNR=3.0						
MKAR	**Makanchi Array**	66.47	327	P	P	12 16 53.4	-0.1
	0.5nm,0.3s,mb3.6,baz=126,slow=7.3,SNR=20						

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*IDC **19** 12:11:15.2±3.2, 4°.27S×101°.97E, h0^{km}, mb3.8/6, mb1 3.9/6, mb1mx3.7/20, mbtmp3.8/6, Error ellipse: s-maj=145.9km s-min=19.3km az=56.0*

*ISCJB **19** 12:11:22.2±1.2, 4°.2S±0°.2×102°.1E±0°.1, h70^{km}±10^{km}, mb3.8/6, Error ellipse: s-maj=32.4km s-min=10.5km az=37.7*

*DJA **19** 12:11:22, 4°.23S×102°.04E, h30^{km}, MLv4.2/4*

ISC 19 12:11:23.3±1.2**, 4°.2S**±0°.2×**102°.1E**±0°.1**, h60**^{km}±10^{km}**, n13, σ0**^{s}**.54**/12**, mb3.9**/6**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
KSI	**Kapahiang**	0.76	43	P	Pn	12 11 38.1	-0.2
MNAI	**Manna**	0.90	100	P	Pn	12 11 39.4	-0.6
MDSI	**Maura Dua**	2.12	97	P	Pn	12 11 57.2	+0.8
PPSI	**Pulau Pagai**	2.51	305	P	Pn	12 12 02.0	+0.3
KASI	**Kota Agung**	2.75	118	P	Pn	12 12 05.3	+0.3
GSI	**Gunungsitoli**	7.08	321	P	Pn	12 13 04.2	-0.2
WRA	**Warramunga Arr**	35.11	119	P	P	12 18 10.5	-0.7
	0.8nm,0.5s,mb3.9,baz=301,slow=9.0,SNR=12						
ASAR	**Alice Springs**	36.29	125	P	P	12 18 20.9	-0.4
	0.2nm,0.4s,mb3.4,baz=298,slow=8.4,SNR=4.2						
STKA	**Stephens Creek**	46.15	131	P	P	12 19 42.6	+0.6
	1.8nm,0.5s,mb4.2,baz=307,slow=8.5,SNR=6.3						
SONM	**Songino Array**	51.97	4	P	P	12 20 27.2	+0.9
	0.5nm,0.6s,mb3.6,baz=186,slow=9.7,SNR=3.7						
MKAR	**Makanchi Array**	53.71	343	P	P	12 20 39.1	0.0
	0.5nm,0.4s,mb3.8,baz=151,slow=9.3,SNR=20						
ZALV	**Zalesovo Beam**	59.72	348	P	P	12 21 21.1	-0.6
	0.7nm,0.3s,mb4.1,baz=119,slow=5.1,SNR=4.6						
TXAR	**Lajitas Array**	145.09	41	PKPbc	PKPbc	12 30 54.8	+0.5
	0.5nm,0.5s,baz=242,slow=0.9,SNR=12						

MEX 19 12:27:21.9±0.7**, 16°.75N**×**98°.99W, h10**^{km}±8^{km}**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	0.90	278	*e*P	Pg	12 27 36.8	-2.4
ACX				*i* S	Sg	12 27 47.7	-3.2
PNIG	**Pinotepa**	0.90	113	*i* P	Pg	12 27 36.8	-2.5
PNIG				*i* S	Sg	12 27 48.3	-2.7
CAIG	**El Cayaco**	1.26	284	*i* P	Pn	12 27 42.6	-2.9
CAIG				*i* S	Sb	12 27 57.8	-4.3
UTMO	**Huajuapan**	1.56	46	*e*P	Pn	12 27 45.8	-3.9
UTMO				*i* S	Sn	12 28 06.2	-3.8

IDC 19 12:37:07.8±2.5**, 5°.51S**×**131°.07E, h0**^{km}**, mb3.7**/1**, mb1 3.6**/4**, mb1mx3.4**/16**, mbtmp3.4**/4**, ML3.3**/3**, Error ellipse: s-maj=114.3km s-min=28.0km az=78.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	13.60	203	Pn	Pn	12 40 21.7	-0.3
	0.1nm,0.3s,baz=24,slow=11,SNR=4.6						
WRA	**Warramunga Arr**	14.70	168	Pn	Pn	12 40 38.1	+1.0
	0.1nm,0.3s,baz=352,slow=12,SNR=11						
WRA				Sn	Sn	12 43 08.4	-12
	0.2nm,0.3s,baz=344,slow=21,SNR=7.7						
ASAR	**Alice Springs**	18.26	172	P	Pn	12 41 22.4	-0.4
	0.1nm,0.3s,baz=356,slow=8.7,SNR=8.5						
MKAR	**Makanchi Array**	67.58	326	P	P	12 48 06.3	+0.1
	0.3nm,0.4s,baz=114,slow=8.2,SNR=9.2						

IDC 19 12:54:48.0±2.0**, 8°.45S**×**129°.06E, h0**^{km}**, mb3.3**/1**, mb1 3.7**/4**, mb1mx3.5**/17**, mbtmp3.5**/4**, ML3.4**/3**, Error ellipse: s-maj=70.0km s-min=28.9km az=75.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	10.15	199	Pn	Pn	12 57 15.2	0.0
	0.2nm,0.3s,baz=236,slow=23,SNR=4.3						
FITZ				Sn	Sn	12 59 03.0	-6.9
	0.2nm,0.3s,baz=263,slow=17,SNR=2.2						
WRA	**Warramunga Arr**	12.52	156	Pn	Pn	12 57 47.6	0.0
	0.2nm,0.3s,baz=335,slow=13,SNR=16						
WRA				Sn	Sn	13 00 03.5	-4.3
	0.3nm,0.3s,baz=337,slow=21,SNR=6.1						
ASAR	**Alice Springs**	15.83	163	Pn	Pn	12 58 32.5	+0.1
	0.1nm,0.3s,baz=336,slow=9.0,SNR=13						
MKAR	**Makanchi Array**	68.93	328	P	P	13 05 55.0	+0.1
	0.4nm,1.0s,baz=120,slow=7.9,SNR=4.6						

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*IDC **19** 12:58:52.0±0.6, 5°.11N×94°.14E, h0^{km}, mb4.3/17, mb1 4.4/17, mb1mx4.2/29, mbtmp4.3/17, MS3.6/2, Ms1 3.6/2, ms1mx2.9/35, Error ellipse: s-maj=24.5km s-min=14.4km az=55.0*

*BJI **19** 12:58:53.4, 4°.85N×94°.27E, h47^{km}, mB4.8/3, mb4.6/11, Ms4.7/1, Ms7 4.5/1*

*ISCJB **19** 12:58:57.9±1.4, 5°.11N±0°.07×94°.19E±0°.07, h58^{km}±14^{km}, mb4.5/31, Error ellipse: s-maj=14.9km s-min=8.0km az=136.6*

*NEIC **19** 12:58:57.3±0.3, 5°.13N×94°.16E, h35^{km}, mb4.7/12, Error ellipse: s-maj=9.2km s-min=5.5km az=45.0*

ISC 19 12:58:59.4±1.1**, 5°.16N**±0°.07×**94°.19E**±0°.07**, h55**^{km}±11^{km}**, n51, σ0**^{s}**.82**/48**, mb4.5**/31**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	5.27	116	Pn	Pn	13 00 15.6	0.0
	5.3nm,0.3s,baz=327,slow=13,SNR=18						
PSI				Sn	Sn	13 01 16.9	+1.9
	6.4nm,0.3s,baz=329,slow=15,SNR=4.2						
KULM	**Kulim**	6.43	89	*e*Pn	Pn	13 00 31.1	-0.6
	18nm,0.6s						
KULM				*e*Sn	Sn	13 01 40.1	-3.6
PALK	**Pallekele**	13.57	280	Pn	Pn	13 02 08.7	-0.7
	0.8nm,0.3s,baz=102,slow=13,SNR=4.0						
PALK				LR	LR	13 07 37.4	
	comp=Z,206nm,18.1s,baz=124,slow=39						
CMAR	**Chiang Mai Arr**	14.01	19	Pn	Pn	13 02 15.7	+0.5
	1.4nm,0.3s,baz=211,slow=13,SNR=29						
CHTO	**Chiang Mai**	14.35	18	*e*P	Pn	13 02 23.6	+4.0
	21nm,1.0s						
ODAN	**Odare**	22.54	344	*e*P	P	13 03 54.1	-0.7
RAMN	**Ramite**	22.85	342	*e*P	P	13 03 57.3	-0.8
	19nm,0.5s,mb4.7						
TAPN	**Taplejung**	22.92	345	*e*P	P	13 03 59.2	+0.4
JIRN	**Jiri**	23.64	342	*e*P	P	13 04 06.0	+0.2
PKI	**Pulchoki**	23.81	340	*e*P	P	13 04 07.9	+0.5
DMN	**Daman**	23.95	340	*e*P	P	13 04 08.5	-0.1
	14nm,0.6s,mb4.6						
GUN	**Gumba**	23.97	342	*e*P	P	13 04 09.6	+0.8
	13nm,0.5s,mb4.6						
KKN	**Kakani**	24.05	340	*e*P	P	13 04 09.9	+0.3
GKN	**Gorkha**	24.47	339	*e*P	P	13 04 13.5	+0.1
	19nm,0.5s,mb4.8						
LSA	**Lhasa**	24.58	354	P	P	13 04 15.6	+1.2
LSA	**Lhasa**	24.58	354	*e*P	P	13 04 14.6	+0.2
	11nm,0.8s,mb4.4						
KOLN	**Koldanda**	24.65	337	*e*P	P	13 04 15.4	+0.4
	33nm,0.7s,mb5.0						
DANN	**Dangsing**	25.11	338	*e*P	P	13 04 19.4	+0.2
	58nm,0.6s,mb5.3						
XAN	**Xi'an**	31.83	24	P	P	13 05 17.4	-1.7
XAN				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.0						
XAN				pmax	pmax		
	comp=Z,78nm,7.1s						
GTA	**Gaotai**	34.48	8	P	P	13 05 41.8	-0.3
GTA				pP	pP	13 05 49.8	-6.2
GTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
KSH	**Kashi**	37.96	337	*e*P	P	13 06 10.8	-1.1
KSH				*e*pP	pP	13 06 20.5	-5.5
KSH				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
KSH				pmax	pmax		
	comp=Z,38nm,2.7s,mb4.7						
KSH				LR	LR		
	comp=N,170nm,5.4s						
KSH				LR	LR		
	comp=E,140nm,4.4s						
KSH				LR	LR		
	comp=Z,190nm,5.6s						
FITZ	**Fitzroy Crossi**	38.68	127	P	P	13 06 17.3	-0.9
	comp=Z,4.2nm,0.8s,mb4.2,baz=282,slow=11,SNR=6.3						
AML	**Almayashu**	41.09	337	*e*P	P	13 06 39.1	+1.3
	comp=Z,4.6nm,0.6s,mb4.3						
AML				*e*PcP	PcP	13 08 39.3	+2.6
AAK	**Ala-Archa**	41.21	338	P	P	13 06 40.4	+1.5
	comp=Z,1.0nm,0.6s,mb3.6,baz=348,slow=19,SNR=4.5						
AAK	**Ala-Archa**	41.21	338	*e*P	P	13 06 40.7	+1.9
	comp=Z,2.7nm,0.8s,mb3.9						
MKAR	**Makanchi Array**	42.74	348	P	P	13 06 51.4	+0.2
	comp=Z,4.6nm,0.6s,mb4.4,baz=168,slow=8.3,SNR=70						
SONM	**Songino Array**	43.79	12	P	P	13 06 59.3	-0.4
	comp=Z,3.6nm,0.7s,mb4.2,baz=192,slow=8.1,SNR=33						
SONM				PcP	PcP	13 08 46.3	+0.8
	comp=Z,0.8nm,0.5s,baz=201,slow=4.4,SNR=4.5						
ULN	**Ulaanbaatar**	43.96	12	*e*P	P	13 06 59.8	-1.3
	comp=Z,1.8nm,0.6s,mb4.0						
KSRS	**Korea Array**	44.50	39	LR	LR	13 28 17.6	
	comp=Z,60nm,18.1s,baz=235,slow=40						
WRA	**Warramunga Arr**	46.69	124	P	P	13 07 22.8	-0.2
	comp=Z,5.1nm,0.6s,mb4.6,baz=302,slow=9.2,SNR=51						
WRAB	**Tennant Creek**	46.69	124	*e*P	P	13 07 23.1	-0.1
	comp=Z,9.6nm,0.8s,mb4.8						
KURK	**Kurchatov**	47.25	347	P	P	13 07 26.9	0.0
	comp=Z,5.9nm,0.5s,mb4.7,baz=173,slow=7.1,SNR=55						
KURK				PcP	PcP	13 08 58.0	+0.6
	comp=Z,1.5nm,0.6s,baz=158,slow=2.7,SNR=5.3						
ASAR	**Alice Springs**	48.17	128	P	P	13 07 34.3	-0.3
	comp=Z,1.9nm,0.6s,mb4.3,baz=301,slow=7.8,SNR=33						
ZAA0	**Zalesovo Array**	49.24	353	*e*P	P	13 07 42.4	+0.1
ZALV	**Zalesovo Beam**	49.24	353	P	P	13 07 42.5	+0.2
	comp=Z,3.9nm,0.5s,mb4.7,baz=187,slow=7.5,SNR=28						
BVAR	**Borovoye Array**	51.57	342	P	P	13 07 59.6	-0.2
	comp=Z,2.4nm,0.6s,mb4.3,baz=144,slow=11,SNR=11						
OPO	**Ambohidratompo**	51.97	242	P	P	13 08 03.3	-0.2
	comp=Z,5.0nm,0.4s,mb4.8,baz=321,slow=0.5,SNR=9.6						
BRTR	**Keskin Array B**	64.25	312	P	P	13 09 29.2	+0.2
	comp=Z,2.4nm,0.7s,mb4.4,baz=137,slow=7.1,SNR=10.0						
TIXI	**Tiksi**	69.87	11	*e*P	P	13 10 02.9	-1.2
	comp=Z,4.1nm,0.6s,mb4.5						
AKASG	**Malin Array Be**	70.31	322	P	P	13 10 05.7	-1.4
	comp=Z,1.1nm,0.5s,mb4.0,baz=91,slow=5.5,SNR=4.6						
ARCES	**ARCESS Array B**	77.83	340	P	P	13 10 51.2	+0.6
	comp=Z,10nm,1.0s,mb4.7,baz=101,slow=7.5,SNR=3.6						
FX1	**Attu Island--F**	79.25	37	P	P	13 11 00.7	+1.9

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
GERES	GERESS Array B	79.88	319	P	P	13 11 03.4	+1.0
	comp=Z,1.3nm,0.6s,mb4.0,baz=90,slow=6.7,SNR=11						
HFS	Hagfors	80.82	330	P	P	13 11 07.0	-0.1
	comp=Z,2.2nm,0.5s,mb4.3,baz=121,slow=7.4,SNR=11						
NB2	NORSAR Subarra	82.11	331	P	P	13 11 13.6	-0.3
	comp=Z,1.2nm,0.7s,mb3.9,baz=98,slow=4.8						
NOA	NORSAR Array B	82.11	331	P	P	13 11 13.7	-0.3
	comp=Z,0.9nm,0.7s,mb3.8,baz=94,slow=6.0,SNR=3.8						
EKA	Eskdalemuir Ar	89.97	325	P	P	13 11 53.1	+0.3
	comp=Z,1.6nm,0.7s,mb4.5,baz=89,slow=6.3,SNR=5.3						
TXAR	Lajitas Array	141.66	26	PKhKP		13 18 19.8	
	comp=Z,0.2nm,0.6s,baz=288,slow=1.2,SNR=3.7						
TXAR				PKP	PKPdf	13 18 25.6	+0.2
	comp=Z,0.2nm,0.6s,baz=39,slow=1.2,SNR=3.6						
TXAR	Lajitas Array	141.66	26	PKP		13 18 19.8	
TXAR				PKP	PKPdf	13 18 25.6	+0.2
CPUP	Villa Florida	145.59	229	PKPbc	PKPbc	13 18 33.2	+0.6
	comp=Z,0.6nm,0.4s,baz=167,slow=2.0,SNR=6.8						
CPUP	Villa Florida	145.59	229	PKPbc	PKPbc	13 18 33.2	+0.6

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*ISCJB **19** 13:49:00.4±1.1, 18°.6S±0°.1×177°.8W±0°.1, h461^{km}±15^{km}, mb3.7/13, Error ellipse: s-maj=28.0km s-min=12.1km az=141.6*

*NEIC **19** 13:49:02.4±1.0, 18°.75S×177°.75W, h478^{km}±12^{km}, mb4.2/1, Error ellipse: s-maj=20.2km s-min=9.2km az=145.0*

*IDC **19** 13:49:03.6±1.8, 18°.75S×177°.80W, h490^{km}±22^{km}, mb3.4/12, mb1 3.7/14, mb1mx3.6/18, mbtmp3.4/14, Error ellipse: s-maj=21.9km s-min=11.2km az=142.0*

ISC 19 13:49:02.5±1.4**, 18°.7S**±0°.2×**177°.8W**±0°.1**, h476**^{km}±18^{km}**, n29, σ0.^{s}74**/22**, mb3.7**/13**, 3C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.51	51	P	P	13 50 53.0	-0.3
	6.1nm,0.3s,baz=354,slow=5.7,SNR=12						
AFI				S	S	13 52 18.2	-5.8
	4.5nm,0.3s,baz=22,slow=22,SNR=5.3						
URZ	Urewera	19.95	192	P	P	13 53 01.4	-0.5
	4.8nm,0.3s,baz=284,slow=2.9,SNR=23						
URZ				S	S	13 56 05.8	-11
	1.3nm,0.3s,baz=52,slow=14,SNR=6.2						
URZ	Urewera	19.95	192	*e*P	P	13 53 01.1	-0.8
URZ				S	S	13 56 05.8	-11
CTAO	Charters Tower	33.90	262	P	P	13 55 05.2	+0.3
	5.0nm,0.6s,mb4.1						
STKA	Stephens Creek	38.75	242	P	P	13 55 46.4	+1.4
	2.8nm,0.2s,mb4.2,baz=82,slow=9.1,SNR=23						
WB2	Warramunga Arr	45.05	260	*e*P	P	13 56 34.8	-0.3
WRAB	Tennant Creek	45.05	260	*e*P	P	13 56 34.7	-0.4
WRA	Warramunga Arr	45.06	260	P	P	13 56 34.7	-0.5
	0.7nm,0.2s,mb3.6,baz=95,slow=8.0,SNR=58						
ASAR	Alice Springs	45.14	255	P	P	13 56 36.1	+0.4
	8.1nm,0.7s,mb4.3,baz=89,slow=8.5,SNR=106						
ASAR				S	S	14 02 37.0	-2.8
	1.7nm,1.0s,baz=80,slow=18,SNR=6.8						
MJAR	Matsushiro Arr	68.92	323	P	P	13 59 18.5	-0.5
	1.8nm,0.5s,mb3.9,baz=37,slow=2.5,SNR=7.2						
PETK	Petropavlovsk-	74.63	345	P	P	13 59 52.1	+0.2
	1.8nm,0.6s,mb3.8,baz=107,slow=8.4,SNR=7.6						
KSRS	Korea Array	75.71	318	P	P	13 59 58.5	+0.1
	1.0nm,0.7s,mb3.5,baz=136,slow=6.0,SNR=3.9						
NVAR	Mina Array Bea	79.62	43	P	P	14 00 19.7	+0.1
	0.9nm,0.6s,mb3.5,baz=221,slow=8.7,SNR=8.2						
TXAR	Lajitas Array	85.94	57	P	P	14 00 52.8	+1.0
	1.1nm,0.8s,mb3.6,baz=225,slow=6.6,SNR=14						
PDAR	Pinedale Array	87.55	43	P	P	14 00 59.1	0.0
	0.4nm,0.8s,mb3.2,baz=245,slow=3.7,SNR=3.8						
CMAR	Chiang Mai Arr	89.71	289	P	P	14 01 10.4	+0.8
	0.7nm,0.3s,mb3.9,baz=110,slow=3.4,SNR=4.9						
SONM	Songino Array	94.56	319	P	P	14 01 31.6	+0.3
	0.2nm,0.6s,mb3.4,baz=120,slow=2.6,SNR=2.6						
YKA	Yellowknife Ar	94.84	25	P	P	14 01 30.6	-1.5
	0.3nm,0.7s,mb3.4,baz=244,slow=3.9,SNR=5.8						
MKAR	Makanchi Array	110.13	314	PKiKP	PKiKP	14 06 38.1	-1.3
	0.4nm,0.5s,baz=212,slow=1.0,SNR=13						
AKASG	Malin Array Be	141.56	332	PKhKP		14 07 32.6	
	1.7nm,0.5s,baz=44,slow=4.3,SNR=7.5						
BUR08	Bucovina Ar. S	145.60	332	*e*PKPbc	PKPbc	14 07 47.9	+0.8
BURAR	Bucovina Array	145.62	332	⇑*i*P	PKPbc	14 07 48.0	+0.8
BRTR	Keskin Array B	145.78	314	PKPbc	PKPbc	14 07 47.6	-0.3
	2.1nm,0.6s,baz=154,slow=4.7,SNR=7.6						
CLL	Collm	146.40	348	⇑*i*PKPbc	PKPbc	14 07 49.1	-0.2
	comp=Z,11nm,0.7s						
BRG	Berggiesshubel	146.61	346	*e*(P)	PKPbc	14 07 49.8	-0.1
	comp=Z,4.8nm,0.8s						
GZR	Gura Zlata	148.40	332	⇑*i*P	PKPbc	14 07 53.8	-0.9
GEC2	GERESS Array S	148.56	345	*e*PKP	PKPbc	14 07 53.7	-1.3
GERES	GERESS Array B	148.56	345	PKPbc	PKPbc	14 07 54.6	-0.4
	comp=Z,1.6nm,0.6s,baz=29,slow=3.0,SNR=14						
BFO	Black Forest	150.07	352	*e*PKP	PKPbc	14 07 57.6	-1.0

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*ISCJB **19** 13:52:57.7±0.3, 46°.38N±0°.02×10°.86E±0°.03, h10^{km}, Error ellipse: s-maj=2.7km s-min=2.3km az=45.0*

*CSEM **19** 13:52:57.5±0.1, 46°.37N×10°.87E, h20^{km}, ML3.0/14, Error ellipse: s-maj=1.6km s-min=1.2km az=156.0*

*VIE **19** 13:52:57.8±0.4, 46°.38N×10°.87E, h13^{km}±8^{km}, mb2.0/9, ML2.5/13, Error ellipse: s-maj=1.7km s-min=1.2km az=5.0 12 km S of St.Gertraud*

*ZUR **19** 13:52:58.3, 46°.36N×10°.85E, h9^{km}±3^{km}, ML2.2/4*

*ROM **19** 13:52:58.0±0.1, 46°.39N×10°.88E, h12^{km}±3^{km}, Md2.5/10, Ml2.3/6, Error ellipse: s-maj=1.6km s-min=1.4km az=167.0*

ISC 19 13:52:58.4±0.3**, 46°.37N**±0°.02×**10°.87E**±0°.03**, h4**^{km}±6^{km}**, n47, σ0.^{s}81**/86**, 14C-10D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APPI	Appiano	0.27	66	Pg	Pg	13 53 03.9	+0.2
APPI				Sg	Sg	13 53 07.9	+0.7
	388nm,0.3s						
APPI	Appiano	0.27	66	Pg	Pg	13 53 03.9	+0.2
APPI				Sg	Sg	13 53 07.9	+0.7
	388nm,0.3s						
BRMO	Bormio	0.36	287	Pg	Pg	13 53 05.6	+0.2
BRMO				Sg	Sg	13 53 10.3	+0.3
	275nm,0.2s						
BRMO	Bormio	0.36	287	Pg	Pg	13 53 05.6	+0.2
BRMO				Sg	Sg	13 53 10.3	+0.3
	275nm,0.2s						
MABI	Malga Bissina	0.40	218	Pg	Pg	13 53 06.1	0.0
MABI				Sg	Sg	13 53 11.4	0.0
	173nm,0.2s						
MABI	Malga Bissina	0.40	218	Pg	Pg	13 53 06.1	0.0
MABI				Sg	Sg	13 53 11.4	0.0
	173nm,0.2s						
FUORN	Ofenpass-Fuorn	0.49	301	Pg	Pg	13 53 07.9	+0.1
FUORN				Sg	Sg	13 53 14.4	+0.3
FUORN	Ofenpass-Fuorn	0.49	301	⇓*i*Pg	Pg	13 53 07.9	+0.1
	504nm,0.5s						
FUORN				*e*Sg	Sg	13 53 14.3	+0.2
	504nm,0.5s						
FUORN	Ofenpass-Fuorn	0.49	301	⇓*i*Pg	Pg	13 53 07.9	+0.1
	504nm,0.5s						
FUORN				*e*Sg	Sg	13 53 14.3	+0.2
	504nm,0.5s						
BERNI	Berninapass	0.59	274	Pg	Pg	13 53 09.6	-0.1
BERNI				Sg	Sg	13 53 17.1	-0.3
BERNI	Berninapass	0.59	274	⇑*i*Pg	Pg	13 53 09.6	-0.1
	187nm,0.3s						
BERNI	Berninapass	0.59	274	⇑*i*Pg	Pg	13 53 09.6	-0.1
	187nm,0.3s						
BERNI				Sg	Sg	13 53 17.1	-0.3
MAGA	Magasa	0.62	196	Pg	Pg	13 53 10.2	-0.1
MAGA				Sg	Sg	13 53 19.1	+0.8
	390nm,0.3s						
MAGA	Magasa	0.62	196	Pg	Pg	13 53 10.2	-0.1
MAGA				Sg	Sg	13 53 19.1	+0.8
	390nm,0.3s						
CTI	Castel Tesino	0.63	121	Pg	Pg	13 53 10.6	+0.1
CTI				Sg	Sg	13 53 18.6	-0.1
	77nm,0.1s						
CTI	Castel Tesino	0.63	121	Pg	Pg	13 53 10.6	+0.1
CTI				Sg	Sg	13 53 18.6	-0.1
	77nm,0.1s						
FETA	Feichten	0.66	352	⇓*i*Pg	Pg	13 53 11.0	0.0
FETA				⇓*i*Sg	Sg	13 53 19.9	+0.3
	17nm,0.1s						
FETA	Feichten	0.66	352	Pg	Pg	13 53 11.0	0.0
FETA				Sg	Sg	13 53 19.9	+0.3
	17nm,0.1s						
SALO	Salr	0.79	198	Pg	Pg	13 53 13.5	-0.1
SALO				Sg	Sg	13 53 25.1	+1.3
SALO	Salr	0.79	198	Pg	Pg	13 53 13.5	-0.1
SALO				Sg	Sg	13 53 25.1	+1.3
DAVOX	Davos/Dischmat	0.80	301	Pg	Pg	13 53 13.5	-0.2
DAVOX				Sg	Sg	13 53 24.1	+0.1
DAVOX	Davos/Dischmat	0.80	301	⇑*i*Pg	Pg	13 53 13.6	-0.1
	121nm,0.3s						
DAVOX	Davos/Dischmat	0.80	301	⇑*i*Pg	Pg	13 53 13.6	-0.1
	121nm,0.3s						
DAVOX				Sg	Sg	13 53 24.1	+0.1
MOTA	Moosalm	0.99	9	⇑*i*Pg	Pg	13 53 17.2	-0.1
MOTA				⇑*i*Sg	Sg	13 53 30.5	+0.3
	13nm,0.3s						
MOTA	Moosalm	0.99	9	Pg	Pg	13 53 17.2	-0.1
MOTA				Sg	Sg	13 53 30.5	+0.4
	13nm,0.3s						
MDI	Monti di Nese	1.00	234	Pg	Pg	13 53 17.1	-0.5
MDI				Sg	Sg	13 53 31.0	+0.4
	40nm,0.3s						
MDI	Monti di Nese	1.00	234	Pg	Pg	13 53 17.1	-0.5
MDI				Sg	Sg	13 53 31.0	+0.4
	40nm,0.3s						
WTTA	Wattenberg	1.04	30	⇑*i*Pg	Pg	13 53 18.4	+0.1
WTTA				*i* Sg	Sg	13 53 32.2	+0.5
	15nm,0.2s						
WTTA	Wattenberg	1.04	30	Pg	Pg	13 53 18.4	+0.1
TUE	Stuetta	1.06	276	Pg	Pg	13 53 17.5	-1.2
TUE				Sg	Sg	13 53 32.0	-0.4
	19nm,0.4s						
TUE	Stuetta	1.06	276	Pg	Pg	13 53 17.5	-1.2
TUE				Sg	Sg	13 53 32.0	-0.4
	19nm,0.4s						
WATA	Walderalm	1.08	26	⇓*i*Pg	Pg	13 53 19.0	-0.2
WATA				⇑*i*Sg	Sg	13 53 33.0	-0.2
	11nm,0.1s						
WATA	Walderalm	1.08	26	Pg	Pg	13 53 19.0	-0.1
RETA	Reutte	1.12	356	⇓*i*Pg	Pg	13 53 19.5	-0.3
RETA				⇑*i*Sg	Sg	13 53 34.6	+0.2
	26nm,0.4s						
RETA	Reutte	1.12	356	Pg	Pg	13 53 19.5	-0.4
DAVA	Damuels	1.14	324	⇑*i*Pg	Pg	13 53 19.7	-0.6
DAVA				⇓*i*Sg	Sg	13 53 35.4	+0.3
	21nm,0.3s						
DAVA	Damuels	1.14	324	Pg	Pg	13 53 19.7	-0.6
DAVA				Sg	Sg	13 53 35.4	+0.3
	21nm,0.3s						
ABTA	Abfaltersbach	1.19	71	⇑*i*Pg	Pn	13 53 20.8	-1.0
ABTA				⇑*i*Sg	Sn	13 53 36.3	-2.1
	8.7nm,0.1s						
ABTA	Abfaltersbach	1.19	71	Pg	Pn	13 53 20.8	-1.0
ABTA				Sg	Sn	13 53 36.3	-2.2
	8.7nm,0.1s						
MUGIO	Muggio	1.35	251	⇓*i*P	Pn	13 53 23.0	-1.0
	76nm,1.0s						
MUGIO	Muggio	1.35	251	Pg	Pn	13 53 23.0	-1.0
KBA	Koelnbreinsper	1.84	67	⇓*i*Pg	Pn	13 53 32.4	+1.6
KBA				⇑*i*Sg	Sn	13 53 57.1	+2.6
	5.2nm,0.2s						
KBA	Koelnbreinsper	1.84	67	Pg	Pn	13 53 32.4	+1.6
KBA				Sg	Sn	13 53 57.1	+2.6
	5.2nm,0.2s						
MYKA	Terra Mystica	1.93	81	⇓*i*Pg	Pn	13 53 34.4	+2.4
MYKA				⇑*i*Sg	Sn	13 54 01.0	+4.3
	4.6nm,0.3s						
MYKA	Terra Mystica	1.93	81	Pg	Pn	13 53 34.4	+2.4
MYKA				Sg	Sn	13 54 01.0	+4.3
	4.6nm,0.3s						
VOY	Vojsko	2.13	98	*e*Pn	Pg	13 53 37.7	-1.5
VOY				*e*Sn	Sg	13 54 05.4	-1.3
VOY	Vojsko	2.13	98	Pn	Pg	13 53 37.7	-1.5

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*ISCJB **19** 14:02:16.0±0.6, 33°.34N±0°.03×35°.38E±0°.04, h2^{km}±5^{km}, Error ellipse: s-maj=6.4km s-min=3.9km az=25.4*

*CSEM **19** 14:02:16.5, 33°.30N×35°.37E, h0^{km}, ML2.9, After GRAL*

*GII **19** 14:02:16.0±0.8, 33°.25N×35°.43E, h1^{km}±3^{km}, Md2.1/6*

*GRAL **19** 14:02:16.5±0.3, 33°.30N×35°.37E, h0^{km}±160^{km}, MD2.9*

ISC 19 14:02:16.4±0.6**, 33°.35N**±0°.03×**35°.38E**±0°.04**, h2**^{km}±6^{km}**, n20, σ0.^{s}59**/32**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.14	344	*e*P	Pg	14 02 19.8	+0.5
MATL	Matirih	0.14	344	*e*P	Pg	14 02 19.8	+0.5
KSDI	Kefar Szold	0.28	124	Pg	Pg	14 02 21.1	-0.8
KSDI				Sg	Sg	14 02 25.5	0.0
HNTI	Hanita	0.32	213	Pg	Pg	14 02 22.7	+0.2
HNTI				Sg	Sg	14 02 27.7	+1.1
MMA0B	Mount Meron ar	0.33	176	Pg	Pg	14 02 22.1	-0.7
MMA0B				Sg	Sg	14 02 27.4	+0.2
RCY	Rachaya	0.39	70	*e*P	Pg	14 02 24.2	+0.2
RCY				*e*S	Sg	14 02 29.9	+0.9
RCY	Rachaya	0.39	70	*e*P	Pg	14 02 24.2	+0.2
RCY				*e*S	Sg	14 02 29.9	+0.8
KSHT	Keshet	0.52	135	Pg	Pg	14 02 26.7	+0.4
KSHT				Sg	Sg	14 02 33.3	+0.3
BHL	Bhannes	0.60	22	*e*P	Pg	14 02 28.0	0.0
BHL	Bhannes	0.60	22	*e*P	Pg	14 02 28.0	+0.1
BLGI	Bet Lehem HaGe	0.63	194	Pg	Pg	14 02 28.5	-0.1
BLGI				Sg	Sg	14 02 37.5	+0.7
OFRI	‘Ofer	0.80	205	Pg	Pg	14 02 31.6	-0.1
MMLI	Mount Malkishu	0.91	178	Pg	Pg	14 02 32.9	-1.0
MMLI				Sg	Sg	14 02 45.3	-0.3
HWQ	Hawqa	1.04	27	*e*P	Pg	14 02 36.1	-0.3
HWQ	Hawqa	1.04	27	*e*P	Pg	14 02 36.1	-0.3
HMDT	Nahal Hemdat	1.10	173	Pg	Pg	14 02 36.3	-1.2
HMDT				Sg	Sg	14 02 52.4	+0.6
SLTI	Sal’it	1.14	195	Pg	Pg	14 02 37.5	-0.8
SLTI				Sg	Sg	14 02 53.3	+0.2
DSI	Dead Sea	1.77	180	Pn	Pn	14 02 47.0	-1.1
DSI				Sn	Sn	14 03 11.6	+0.4
YTIR	Yattir	1.99	186	Pn	Pn	14 02 51.0	-0.1
MZDA	Masada	2.03	180	Pn	Pn	14 02 51.6	0.0
MZDA				Sn	Sn	14 03 18.1	+0.5

IDC 19 14:04:11.3±5.0**, 7°.36N**×**138°.25E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.3**/18**, mbtmp3.4**/3**, Error ellipse: s-maj=216.5km s-min=29.9km az=77.0, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	27.40	188	P	P	14 09 59.5	+0.8
	0.4nm,0.6s,baz=6.6,slow=7.7,SNR=6.8						
ASAR	Alice Springs	31.12	188	P	P	14 10 30.9	-0.9
	0.6nm,1.0s,baz=8.5,slow=6.9,SNR=2.9						
MKAR	Makanchi Array	61.71	320	P	P	14 14 31.7	+0.3
	0.5nm,0.9s,baz=111,slow=6.6,SNR=4.3						

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*NNC **19** 14:06:36.2±1.2, 43°.69N×76°.46E, h0^{km}, mb2.8, mpv2.7, Error ellipse: s-maj=9.2km s-min=3.4km az=7.0*

*KNET **19** 14:06:37.8±0.6, 42°.63N×76°.80E, h11^{km}±2^{km}, ml2.1, Error ellipse: s-maj=4.1km s-min=2.5km az=95.0*

ISC 19 14:06:37.0±1.5**, 42°.63N**±0°.06×**76°.9E**±0°.1**, h4**^{km}±9^{km}**, n9, σ0.^{s}71**/15**, 7C-9D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNDC	Almaty	0.59	3	⇑P	Pg	14 06 48.1	-0.2
	23nm,0.2s						
KNDC				⇓S	Sg	14 06 56.4	+0.5
	73nm,0.2s						
ULHL	Ulahol	0.63	233	⇓P	Pg	14 06 49.4	+0.2
	8.5nm,0.1s,SNR=6.2						
ULHL				⇑S	Sg	14 06 57.8	+0.4
	100nm,0.1s						
TKM2	Tokmak 2	1.02	287	⇑P	Pg	14 06 55.6	-0.9
	1.4nm,0.3s						
TKM2				⇓S	Sg	14 07 09.3	-0.4
	13nm,0.3s						
TKM2	Tokmak 2	1.02	287	⇓P	Pg	14 06 55.7	-0.8
	3.5nm,0.1s,SNR=12						
TKM2				⇑S	Sg	14 07 09.6	-0.1
	70nm,0.1s						
KZA	Kyzart	1.36	246	⇑P	Pn	14 07 02.0	-0.7
	2.9nm,0.1s,SNR=5.6						
KZA				⇓S	Sg	14 07 20.6	0.0
	10nm,0.2s						
KBK	Karagaybulak	1.46	272	⇓P	Pn	14 07 03.9	-0.2
	4.9nm,0.1s,SNR=15						
KBK				⇑S	Sb	14 07 24.0	+0.4
	17nm,0.2s						
AAK	Ala-Archa	1.79	271	⇓P	Pn	14 07 09.6	+0.9
	2.2nm,0.1s,SNR=7.6						
USP	Ospenovka	1.89	290	⇓P	Pn	14 07 10.6	+0.6
	6.1nm,0.2s,SNR=12						
KK31	Karatay Array	4.73	278	⇓Pn	Pn	14 07 46.0	-3.2
	0.3nm,0.4s,baz=263,slow=1.8,SNR=4.2						
KK31				⇑Lg		14 08 56.4	
	0.6nm,0.4s,baz=88,slow=26,SNR=6.5						

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*IDC **19** 14:08:44.7±0.5, 16°.76N×119°.23E, h0^{km}, mb4.5/15, mb1 4.6/16, mb1mx4.5/23, mbtmp4.4/16, ML4.2/1, MS3.7/16, Ms1 3.8/16, ms1mx3.6/32, Error ellipse: s-maj=23.3km s-min=12.5km az=73.0*

*MAN **19** 14:08:45, 16°.86N×118°.91E, h28^{km}, mb5.1, ML4.1, MS4.3*

*MOS **19** 14:08:47.8±1.1, 16°.80N×119°.26E, h33^{km}, mb4.7/14, Error ellipse: s-maj=12.9km s-min=7.5km az=117.3*

*BJI **19** 14:08:49.1, 16°.53N×119°.48E, h54^{km}, mB4.8/23, mb4.5/26, Ms4.5/24, Ms7 4.2/21*

*ISCJB **19** 14:08:50.4±0.5, 16°.75N±0°.03×119°.26E±0°.04, h54^{km}±5^{km}, mb4.6/51, MS3.9/20, Error ellipse: s-maj=6.5km s-min=4.8km az=158.0*

*NEIC **19** 14:08:52.9±0.7, 16°.75N×119°.20E, h62^{km}±7^{km}, mb4.8/20, Error ellipse: s-maj=6.7km s-min=5.4km az=61.0*

ISC 19 14:08:52.1±0.5**, 16°.76N**±0°.03×**119°.22E**±0°.04**, h52**^{km}±5^{km}**, h60**^{km}±1.4^{km}**:pP-P, n130, σ1.^{s}11**/136**, mb4.6**/51**, MS3.9**/20**, 8C-2D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	Bolinao	0.77	119	*e*P	Pn	14 09 04.6	-2.1
SCZP	Santa Cruz	1.18	146	*e*P	Pn	14 09 09.8	-2.4
SIPP	Brgy, Tapao	1.65	45	⇓*e*P	Pn	14 09 14.9	-3.8
SIPP				*e*S	Sn	14 09 34.0	-4.7
ABRA	Dolores	1.68	58	*e*P	Pn	14 09 16.4	-2.6
PIP	Pasuquin	2.05	40	⇑*e*P	Pn	14 09 20.0	-4.1
PCPH	Palayan	2.16	123	⇑*e*P	Pn	14 09 24.6	-1.1
PCPH				*e*S	Sn	14 09 53.8	+2.6
BALP	Baler	2.48	114	*e*P	Pn	14 09 30.5	+0.5
CAUP	Cauayan	2.50	85	*e*P	Pn	14 09 31.5	+1.3
SGCP	Mt. Cagua	3.07	61	*e*P	Pn	14 09 37.3	-0.8
PALP	Palanan	3.08	84	*e*P	Pn	14 09 38.7	+0.4
TGY	Tagaytay City	3.12	148	Pn	Pn	14 09 41.3	+2.5
	102nm,0.3s,baz=198,slow=9.6,SNR=3.2						
TGY				Sn	Sn	14 10 16.4	+1.6
	60nm,0.3s,baz=314,slow=21,SNR=3.1						
LUBP	Lubang	3.17	162	*e*P	Pn	14 09 38.4	-1.0
POLP	Polilio Island	3.31	127	*e*P	Pn	14 09 42.6	+1.3
SJMP	San Jose	4.65	156	*e*P	Pn	14 10 00.8	+1.0
BUSP	Coron	4.82	169	*e*P	Pn	14 10 00.1	-2.1
ENPP	El Nido	5.53	178	*e*P	Pn	14 10 09.7	-2.1
TWG	Pinlang	6.28	16	P	Pn	14 10 22.1	+0.1
YULB	Yu-li	6.88	16	*e*P	Pn	14 10 30.7	+0.4
	71nm,1.0s						
QIZ	Qiongzhong	9.21	286	P	Pn	14 10 58.0	-4.3
QIZ				S	Sn	14 12 34.3	-10
QIZ				LR	LR		
	comp=N,890nm,10.3s						
QIZ				LR	LR		
	comp=Z,1µm,18.8s						
JOW	Kunigami	13.08	38	LR	LR	14 17 12.7	
	comp=Z,119nm,18.8s,baz=115,slow=39						
GYA	Guiyang	15.14	312	P	Pn	14 12 23.6	+1.0
GYA				pP	pP	14 12 34.8	-3.6
GYA				sP	sP	14 12 43.3	-1.7
GYA				S	S	14 15 10.5	-13
GYA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NJ2	Nanjing	15.23	359	*e*P	Pn	14 12 25.3	+1.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KMI	Kunming	17.48	301	P	Pn	14 12 57.3	+5.0
KMI				pP	pP	14 13 06.3	+1.8
KMI				PP		14 13 09.9	
KMI				sP	sP	14 13 14.4	+3.3
KMI				S	S	14 16 05.6	-6.4
KMI				sS	sS	14 16 23.6	-7.0
KMI				SS		14 16 30.1	
KMI				pmax	pmax		
	comp=Z,240nm,5.3s						
KMI				LR	LR		
	comp=N,580nm,11.8s						
KMI				LR	LR		
	comp=E,620nm,14.3s						
KMI				LR	LR		
	comp=Z,680nm,17.4s						
CMAR	Chiang Mai Arr	19.40	278	P	Pn	14 13 13.9	-1.6
	comp=Z,0.3nm,0.3s,baz=91,slow=7.9,SNR=26						
CMAR				PcP	PcP	14 17 35.8	+1.7
	comp=Z,0.1nm,0.3s,baz=122,slow=0.4,SNR=6.1						
CMAR				LR	LR	14 20 22.0	
	comp=Z,257nm,20.9s,baz=273,slow=36						
CHTO	Chiang Mai	19.41	279	*e*P	Pn	14 13 15.4	-0.3
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CHTO	Chiang Mai	19.41	279	*e*P	Pn	14 13 15.4	-0.3
	comp=Z,3.4nm,0.8s						
XAN	Xi’an	19.54	334	P	Pn	14 13 18.3	+1.3
XAN				pP	pP	14 13 29.0	+2.0
XAN				sP	sP	14 13 36.9	+3.3
XAN				S	S	14 16 53.9	+0.7
XAN				ScP	ScP	14 21 04.3	-1.7
XAN				pmax	pmax		
	comp=Z,280nm,11.0s						
XAN				LR	LR		
	comp=N,550nm,13.6s						
XAN				LR	LR		
	comp=E,870nm,13.6s						
XAN				LR	LR		
	comp=Z,670nm,13.6s						
CD2	Chengdu	19.93	318	P	Pn	14 13 22.1	+0.5
CD2				pP	pP	14 13 34.9	+3.5
CD2				sP	sP	14 13 42.3	+4.4
CD2				PP		14 13 43.8	
CD2				S	S	14 16 59.6	-1.5
CD2				sS	sS	14 17 16.8	-3.3
CD2				SS		14 17 28.3	
CD2				pmax	pmax		
	comp=Z,20nm,0.7s						
CD2				pmax	pmax		
	comp=Z,370nm,7.1s						
CD2				LR	LR		
	comp=N,850nm,12.5s						
CD2				LR	LR		
	comp=Z,700nm,16.1s						
KSRS	Korea Array	22.00	19	P	P	14 13 40.6	-1.2
	comp=Z,20nm,0.8s,mb4.6,baz=202,slow=11,SNR=50						
KSRS				LR	LR	14 23 24.3	
	comp=Z,94nm,18.2s,MS3.2,baz=80,slow=40						
BJI	Beijing	23.35	354	P	P	14 13 56.0	+0.1
BJI				sP	sP	14 14 19.0	+4.4
BJI				S	S	14 18 05.3	+0.6
BJI				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.3						
BJI				pmax	pmax		
	comp=Z,220nm,4.8s						
BJI				LR	LR		
	comp=N,130nm,19.4s,MS3.9						
BJI				LR	LR		
	comp=E,360nm,20.8s,MS3.9						
LZH	Lanzhou	23.61	328	*e*P	P	14 13 59.1	+0.8
LZH				pP		14 14 13.4	
LZH				sP	sP	14 14 20.1	+2.7
LZH				PP		14 14 35.1	
LZH				PcP	PcP	14 17 40.1	-1.9
LZH				*e*S	S	14 18 07.0	-2.0
LZH				sS	sS	14 18 30.4	-0.6
LZH				SS		14 18 58.4	
LZH				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.7						
LZH				pmax	pmax		
	comp=Z,160nm,6.7s						
LZH				LR	LR		
	comp=N,1µm,13.8s						
LZH				LR	LR		
	comp=Z,2µm,14.9s,MS4.6						
CBIJ	Chichi jima	23.62	60	LR	LR	14 22 05.0	
	comp=Z,62nm,18.2s,MS3.1,baz=315,slow=34						
PSI	Prapat	24.30	237	P	P	14 14 04.9	0.0
	comp=Z,11nm,0.9s,mb4.3,baz=44,slow=4.4,SNR=7.5						
PSI				LR	LR	14 22 25.2	
	comp=Z,289nm,19.3s,MS3.8,baz=321,slow=34						
HHC	Hu-ho-hao-te	24.90	346	*e*P	P	14 14 11.3	+1.2
HHC				pP		14 14 25.4	
HHC				sP	sP	14 14 32.8	+3.4

HHC				PP		14 14 50.1	
HHC				PcP	PcP	14 17 47.4	+2.6
HHC				eS	**S**	**14 18 26.4**	**-3.3**
HHC				sS	sS	14 18 51.3	-0.6
HHC				SS		14 19 27.5	
HHC				PcS	PcS	14 21 25.3	+0.5
HHC				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.4						
HHC				pmax	pmax		
	comp=Z,180nm,4.6s						
HHC				LR	LR		
	comp=N,280nm,11.6s						
HHC				LR	LR		
	comp=E,240nm,9.8s						
HHC				LR	LR		
	comp=Z,270nm,9.0s						
GUMO	**Guam**	**24.95**	**94**	LR	LR	14 21 49.0	
	comp=Z,228nm,20.9s,MS3.7,baz=295,slow=32						
MAT	**Matsushiro**	**25.91**	**37**	P	**P**	**14 14 18.6**	**-0.7**
MAT				S	**S**	**14 18 57.0**	**+11**
MJAR	**Matsushiro Arr**	**25.91**	**37**	LR	LR	14 24 17.8	
	comp=Z,65nm,20.8s,MS3.1,baz=185,slow=36						
SHL	**Shillong**	**26.91**	**294**	ePKP	**P**	**14 14 29.0**	**+0.5**
CN2	**Changchun**	**27.47**	**10**	eP	**P**	**14 14 34.8**	**+1.6**
CN2				epP	pP	14 14 49.4	+3.0
CN2				eS	**S**	**14 19 08.9**	**-1.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,200nm,15.0s,MS4.0						
CN2				LR	LR		
	comp=E,200nm,15.0s,MS4.0						
GTA	**Gaotai**	**28.20**	**327**	eP	**P**	**14 14 40.8**	**+0.9**
GTA				pP	pP	14 14 55.9	+2.8
GTA				sP	sP	14 15 02.8	+3.6
GTA				PP	PP	14 15 36.0	-8.3
GTA				S	**S**	**14 19 24.8**	**+2.9**
GTA				sS	sS	14 19 52.1	+7.8
GTA				pmax	pmax		
	comp=Z,100nm,8.4s						
GTA				LR	LR		
	comp=N,340nm,15.0s,MS4.3						
GTA				LR	LR		
	comp=E,540nm,14.7s,MS4.3						
GTA				LR	LR		
	comp=Z,760nm,13.2s,MS4.5						
LSA	**Lhasa**	**28.74**	**302**	eP	**P**	**14 14 45.1**	**+0.3**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
LSA	**Lhasa**	**28.74**	**302**	eP	**P**	**14 14 45.1**	**+0.3**
	comp=Z,4.2nm,0.9s,mb4.2						
MDJ	**Mudanjiang**	**29.11**	**15**	P	**P**	**14 14 47.9**	**0.0**
MDJ				pP	pP	14 15 02.1	+1.0
MDJ				sP	sP	14 15 10.8	+3.5
MDJ				PcP	PcP	14 17 54.3	-0.4
MDJ				S	**S**	**14 19 33.6**	**-2.5**
MDJ				ScP	ScP	14 21 30.3	-1.8
MDJ				PcS	PcS	14 21 37.5	+0.1
MDJ				ScS	ScS	14 25 26.6	+0.6
MDJ				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,51nm,4.7s						
MDJ	**Mudanjiang**	**29.11**	**15**	eP	**P**	**14 14 48.5**	**+0.6**
	comp=Z,5.7nm,0.8s,mb4.3						
TAPN	**Taplejung**	**30.96**	**295**	eP	**P**	**14 15 04.4**	**-0.1**
	comp=Z,15nm,0.9s,mb4.8						
ODAN	**Odare**	**31.14**	**294**	eP	**P**	**14 15 06.0**	**0.0**
	comp=Z,32nm,0.6s,mb5.3						
RAMN	**Ramite**	**31.84**	**294**	eP	**P**	**14 15 12.4**	**+0.2**
	comp=Z,37nm,0.6s,mb5.4						
JIRN	**Jiri**	**32.35**	**295**	eP	**P**	**14 15 16.9**	**+0.2**
	comp=Z,30nm,0.6s,mb5.3						
ULN	**Ulaanbaatar**	**32.59**	**345**	P	**P**	**14 15 19.8**	**+1.3**
ULN				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
ULN	**Ulaanbaatar**	**32.59**	**345**	P	**P**	**14 15 19.8**	**+1.3**
	comp=Z,1.1nm,0.4s,mb4.1						
GUN	**Gumba**	**32.67**	**296**	eP	**P**	**14 15 19.4**	**-0.1**
	comp=Z,41nm,0.7s,mb5.5						
SONM	**Songino Array**	**32.74**	**344**	P	**P**	**14 15 19.4**	**-0.3**
	comp=Z,1.2nm,0.6s,mb4.0,baz=165,slow=10,SNR=13						
SONM				LR	LR	14 28 08.7	
	comp=Z,233nm,20.5s,MS3.9,baz=178,slow=36						
PKI	**Pulchoki**	**33.01**	**295**	eP	**P**	**14 15 22.0**	**-0.4**
KKN	**Kakani**	**33.16**	**295**	eP	**P**	**14 15 23.3**	**-0.5**
DMN	**Daman**	**33.28**	**295**	eP	**P**	**14 15 24.4**	**-0.4**
	comp=Z,27nm,0.9s,mb5.2						
GKN	**Gorkha**	**33.77**	**295**	eP	**P**	**14 15 28.2**	**-0.8**
	comp=Z,28nm,0.8s,mb5.2						
KLR	**Kul'dur**	**33.95**	**15**	eP	**P**	**14 15 24.7**	**-5.6**
KLR				MLR	MLR		
	comp=Z,600nm,12.0s,MS4.5						
DANN	**Dangsing**	**34.59**	**296**	eP	**P**	**14 15 35.6**	**-0.6**
	comp=Z,30nm,0.7s,mb5.3						
KOLN	**Koldanda**	**34.62**	**295**	eP	**P**	**14 15 35.9**	**-0.5**
FITZ	**Fitzroy Crossi**	**35.21**	**169**	P	**P**	**14 15 40.8**	**-0.7**
	comp=Z,4.2nm,0.8s,mb4.4,baz=9.5,slow=12,SNR=3.5						
YSS	**Yuzh-Sakhalins**	**35.86**	**28**	eP	**P**	**14 15 47.3**	**+0.5**
ZAK	**Zakamensk**	**35.91**	**343**	eP	**P**	**14 15 46.1**	**-1.1**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
TLY	**Talaya**	**36.98**	**344**	eP	**P**	**14 15 57.1**	**+0.8**
TLY				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
TLY				MLR	MLR		
	comp=Z,135nm,20.0s,MS3.7						
WRA	**Warramunga Arr**	**39.38**	**157**	P	**P**	**14 16 15.4**	**-1.4**
	comp=Z,6.9nm,0.6s,mb4.6,baz=340,slow=9.2,SNR=42						
WRA				PcP	PcP	14 18 25.2	+0.8
	comp=Z,1.9nm,0.5s,baz=341,slow=3.1,SNR=9.6						
BOD	**Bodaibo**	**41.17**	**356**	eP	**P**	**14 16 28.4**	**-2.8**
ASAR	**Alice Springs**	**42.66**	**160**	P	**P**	**14 16 43.0**	**-0.8**
	comp=Z,3.9nm,0.6s,mb4.3,baz=338,slow=6.8,SNR=50						
ASAR				PcP	PcP	14 18 35.8	+0.7
	comp=Z,1.7nm,0.6s,baz=337,slow=3.1,SNR=7.9						
MKAR	**Makanchi Array**	**42.74**	**323**	P	**P**	**14 16 44.8**	**+0.6**
	comp=Z,7.2nm,0.9s,mb4.4,baz=132,slow=8.6,SNR=64						
MKAR				PcP	PcP	14 18 35.0	0.0
	comp=Z,2.2nm,0.9s,baz=104,slow=5.1,SNR=6.0						
KSH	**Kashi**	**43.83**	**310**	eP	**P**	**14 16 55.8**	**+2.7**
KSH				epP	pP	14 17 10.3	+3.5
KSH				esP	sP	14 17 18.1	+5.3
KSH				ePP	PP	14 18 39.1	+3.3
KSH				ePcP	PcP	14 18 40.1	+1.3
KSH				eScP	ScP	14 22 25.0	-1.3
KSH				ePcS	PcS	14 22 32.1	+0.4
KSH				eS	**S**	**14 23 21.8**	**+1.5**
KSH				esS	sS	14 23 49.1	+5.7
KSH				eSS	SS	14 26 32.3	-5.5
KSH				eScS	ScS	14 26 47.5	-0.2
KSH				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
KSH				pmax	pmax		
	comp=Z,160nm,4.8s						
KSH				LR	LR		
	comp=N,280nm,11.2s						
KSH				LR	LR		
	comp=E,230nm,5.9s						
KSH				LR	LR		
	comp=Z,250nm,9.6s						
ULHL	**Ulahol**	**44.57**	**314**	P	**P**	**14 17 00.5**	**+1.5**
	SNR=5.2						
KZA	**Kyzart**	**45.20**	**313**	P	**P**	**14 17 05.8**	**+1.8**
	SNR=11						
CTA	**Charters Tower**	**45.23**	**143**	eP	**P**	**14 17 04.9**	**+0.5**
	comp=Z,5.3nm,0.8s,mb4.4						
KBK	**Karagaybulak**	**45.61**	**314**	P	**P**	**14 17 08.6**	**+1.4**
	SNR=6.9						
ZAA0	**Zalesovo Array**	**45.70**	**332**	eP	**P**	**14 17 07.2**	**-0.5**
ZALV	**Zalesovo Beam**	**45.70**	**332**	P	**P**	**14 17 07.7**	**0.0**
ZALV						14 18 43.7	
ZALV	**Zalesovo Beam**	**45.70**	**332**	P	**P**	**14 17 07.7**	**0.0**
	comp=Z,3.8nm,0.7s,mb4.4,baz=122,slow=7.2,SNR=20						
ZALV				PcP	PcP	14 18 43.7	-1.2
	comp=Z,1.0nm,0.5s,baz=107,slow=5.0,SNR=3.3						
ZALV				LR	LR	14 36 52.6	
	comp=Z,92nm,18.9s,MS3.7,baz=248,slow=37						
UCH	**Uchtor**	**45.76**	**313**	P	**P**	**14 17 10.2**	**+1.7**
	SNR=15						
UCH	**Uchtor**	**45.76**	**313**	eP	**P**	**14 17 09.9**	**+1.5**
	comp=Z,10nm,0.9s,mb4.8						
YAK	**Yakutsk**	**45.82**	**7⇑**	eP	**P**	**14 17 06.2**	**-2.3**
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
AAK	**Ala-Archa**	**45.91**	**314⇑**	eP	**P**	**14 17 10.6**	**+1.0**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.9s,mb4.0						
AAK	**Ala-Archa**	**45.91**	**314**	eP	**P**	**14 17 10.6**	**+1.0**
	comp=Z,2.3nm,0.8s,mb4.2						
AML	**Almayashu**	**46.30**	**313**	P	**P**	**14 17 14.3**	**+1.6**
	SNR=11						
AML	**Almayashu**	**46.30**	**313**	eP	**P**	**14 17 13.6**	**+0.9**
	comp=Z,9.7nm,1.0s,mb4.7						
EKS2	**Erkin-Say**	**46.42**	**313**	P	**P**	**14 17 14.7**	**+1.0**
	SNR=6.3						
EKS2	**Erkin-Say**	**46.42**	**313**	eP	**P**	**14 17 14.4**	**+0.8**
	comp=Z,2.2nm,0.8s,mb4.1						
KURK	**Kurchatov**	**46.87**	**325⇑**	eP	**P**	**14 17 16.0**	**-1.0**
KURK				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.3						
KURK	**Kurchatov**	**46.87**	**325**	eP	**P**	**14 17 17.1**	**+0.1**
	comp=Z,30nm,0.8s,mb5.3						
NVS	**Novosibirsk**	**46.98**	**332**	i P	**P**	**14 17 17.4**	**-0.4**
PETK	**Petropavlovsk-**	**47.09**	**31**	P	**P**	**14 17 18.8**	**+0.1**
	comp=Z,9.3nm,1.0s,mb4.7,baz=252,slow=4.0,SNR=12						
PETK	**Petropavlovsk-**	**47.09**	**31**	P	**P**	**14 17 18.8**	**+0.1**
KK31	**Karatay Array**	**48.84**	**313**	P	**P**	**14 17 32.0**	**-0.3**
KK31				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
SEY	**Seymchan**	**51.56**	**19⇑**	eP	**P**	**14 17 52.5**	**-0.1**
BBOO	**Buckleboo**	**51.85**	**162**	eP	**P**	**14 17 55.0**	**-0.1**
	comp=Z,12nm,0.5s,mb5.1						
VOSK	**Vostochnaya**	**52.01**	**325**	P	**P**	**14 17 55.3**	**-0.8**
VOSK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	**52.53**	**325**	eP	**P**	**14 18 00.0**	**0.0**
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	**52.53**	**325**	eP	**P**	**14 17 60.0**	**0.0**
	comp=Z,3.7nm,0.8s,mb4.4						
STKA	**Stephens Creek**	**52.91**	**156**	eP	**P**	**14 18 03.4**	**+0.4**
	comp=Z,4.6nm,0.6s,mb4.6						
STKA	**Stephens Creek**	**52.91**	**156**	P	**P**	**14 18 02.8**	**-0.2**
	comp=Z,6.0nm,0.7s,mb4.6,baz=352,slow=7.0,SNR=14						
STKA				LR	LR	14 44 00.7	
	comp=Z,81nm,19.7s,MS3.8,baz=23,slow=40						
CMSA	**Cobar Meteorol**	**54.33**	**152**	eP	**P**	**14 18 14.6**	**+1.2**
TIXI	**Tiksi**	**55.18**	**4⇑**	eP	**P**	**14 18 17.5**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
TIXI	**Tiksi**	**55.18**	**4**	eP	**P**	**14 18 17.6**	**-1.4**
	comp=Z,5.2nm,0.6s,mb4.7						
ARMA	**Armidale**	**56.34**	**146**	eP	**P**	**14 18 28.6**	**+0.7**
AB31	**Akbulak array**	**57.51**	**318**	P	**P**	**14 18 35.2**	**-0.8**
AB31				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
BILL	**Bilibino**	**59.26**	**19⇓**	i P	**P**	**14 18 47.1**	**-0.8**
BILL				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.8						
TOO	**Toolangi**	**59.43**	**156**	eP	**P**	**14 18 50.1**	**+0.7**
ARU	**Arti**	**60.06**	**326⇑**	eP	**P**	**14 18 52.7**	**-0.8**
ARU				pmax	pmax		
	comp=Z,18nm,2.5s,mb4.7						
IMA2	**Indian Mountai**	**73.65**	**25**	eP	**P**	**14 20 20.6**	**+0.7**
JOF	**Joensuu**	**74.29**	**332**	eP	**P**	**14 20 22.1**	**-1.5**
JOF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
JOF	**Joensuu**	**74.29**	**332**	ep	**P**	**14 20 22.1**	**-1.5**
	comp=Z,4.2nm,0.5s,mb4.6						
ASF	**Jabal al Asfar**	**74.91**	**299**	LR	LR	14 59 19.8	
	comp=Z,52nm,19.0s,MS3.9,baz=60,slow=40						
ARCES	**ARCESS Array B**	**75.73**	**339**	P	**P**	**14 20 31.5**	**-0.3**
	comp=Z,9.1nm,0.9s,mb4.7,baz=89,slow=9.8,SNR=5.4						
ARCES				LR	LR	14 54 46.1	
	comp=Z,131nm,18.1s,MS4.3,baz=75,slow=36						
ARCES	**ARCESS Array B**	**75.73**	**339**	P	**P**	**14 20 31.5**	**-0.3**
ARCES				LR	LR	14 54 46.1	
MMAI	**Mount Meron Ar**	**75.99**	**301**	LR	LR	14 56 51.4	
	comp=Z,76nm,19.7s,MS4.0,baz=75,slow=38						
BRTR	**Keskin Array B**	**76.15**	**308**	LR	LR	15 00 50.9	
	comp=Z,37nm,18.2s,MS3.7,baz=270,slow=41						
AKASG	**Malin Array Be**	**77.22**	**319**	P	**P**	**14 20 39.7**	**-0.9**
	comp=Z,1.5nm,0.5s,mb4.2,baz=65,slow=5.4,SNR=7.8						
AKASG	**Malin Array Be**	**77.22**	**319**	P	**P**	**14 20 39.7**	**-0.9**
BUR08	**Bucovina Ar. S**	**80.46**	**317**	eP	**P**	**14 20 58.8**	**+0.4**
CRVS	**Cervenica-Dubn**	**82.53**	**319**	eP	**P**	**14 21 09.9**	**+0.6**
NB2	**NORSAR Subarra**	**83.90**	**332**	P	**P**	**14 21 15.2**	**-1.0**
	comp=Z,6.0nm,1.2s,mb4.6,baz=63,slow=5.3						
NOA	**NORSAR Array B**	**83.90**	**332**	P	**P**	**14 21 14.9**	**-1.3**
	comp=Z,2.1nm,0.7s,mb4.4,baz=66,slow=4.9,SNR=8.8						
NOA				LR	LR	15 00 39.8	
	comp=Z,110nm,19.3s,MS4.2,baz=280,slow=37						
NOA	**NORSAR Array B**	**83.90**	**332**	P	**P**	**14 21 14.9**	**-1.3**
NOA				LR	LR	15 00 39.8	
VYHS	**Vyhne**	**84.31**	**319**	eP	**P**	**14 21 12.7**	**-5.8**
RES	**Resolute Bay**	**86.24**	**9**	eP	**P**	**14 21 26.5**	**-1.2**
RES				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
RES	**Resolute Bay**	**86.24**	**9**	eP	**P**	**14 21 26.5**	**-1.1**
	comp=Z,2.9nm,0.9s,mb4.5						
BRG	**Berggiesshubel**	**86.46**	**322**	eP	**P**	**14 21 29.4**	**+0.3**
BRG				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.7						
BRG	**Berggiesshubel**	**86.46**	**322**	eP	**P**	**14 21 29.4**	**+0.2**
	comp=Z,6.0nm,0.6s,mb5.0						
GERES	**GERESS Array B**	**87.37**	**320**	P	**P**	**14 21 33.9**	**+0.2**
	comp=Z,0.5nm,0.2s,mb4.4,baz=35,slow=4.9,SNR=7.7						
GERES				LR	LR	15 06 25.5	
	comp=Z,82nm,19.2s,MS4.2,baz=278,slow=40						
YKA	**Yellowknife Ar**	**90.50**	**22**	P	**P**	**14 21 48.3**	**+0.3**
	comp=Z,2.3nm,0.7s,mb4.6,baz=315,slow=4.5,SNR=56						
TORD	**Torodi Ar. Bea**	**111.50**	**292**	PP	PP	14 27 57.0	-5.8
	comp=Z,0.9nm,1.0s,baz=67,slow=5.0,SNR=5.2						
TXAR	**Lajitas Array**	**118.25**	**42**	PKP	PKPdf	14 27 34.9	+0.7
	comp=Z,0.6nm,0.8s,baz=193,slow=1.0,SNR=5.6						
SDV	**Santo Domingo**	**152.72**	**22**	ePKPbc	PKPbc	14 28 44.4	+0.3

IDC 19 14:15:54.2±3.3**, 6°.48S**×**129°.66E, h0**km**, mb3.4**/1**, mb1 3.5**/3**, mb1mx3.3**/16**, mbtmp3.3**/3**, ML3.1**/2**, Error ellipse: s-maj=290.9km s-min=32.9km az=69.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**14.14**	**162**	Pn	Pn	14 19 15.2	-0.6
	0.1nm,0.3s,baz=340,slow=15,SNR=4.0						
ASAR	**Alice Springs**	**17.57**	**167**	P	Pn	14 20 01.2	+0.6
	0.1nm,0.3s,baz=349,slow=8.9,SNR=3.8						
MKAR	**Makanchi Array**	**67.60**	**327**	P	P	14 26 52.8	+0.1
	0.4nm,0.8s,baz=138,slow=7.7,SNR=3.9						

GUC 19 14:32:48.0±0.8**, 20°.91S**×**69°.36W, h103**km±5km**, ML3.6, 1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB01	**Plate Boundary**	**0.18**	**223⇓**	eP	Pn	14 33 02.4	-0.1
PB01				i S	Sn	14 33 14.0	+0.7
PB01				AML	AML	14 33 14.8	
	comp=N,8µm,0.3s						
MACH	**Maria Elena**	**1.33**	**196**	eP	Pn	14 33 13.6	+1.3
MACH				i S	Sn	14 33 32.5	+1.7
PB04	**Plate Boundary**	**1.35**	**185**	eP	Pn	14 33 16.6	+3.9
PB04				i S	Sn	14 33 37.6	+6.3
PB04				AML	AML	14 33 38.5	
	comp=E,577nm,0.2s						
TOCH	**Tocopilla**	**1.41**	**214**	eP	Pn	14 33 14.1	+0.7
TOCH				i S	Sn	14 33 33.5	+1.0
TOCH				AML	AML	14 33 36.2	
	comp=N,1µm,0.1s						
PECH	**Pedro de Valdi**	**1.70**	**190**	eP	Pn	14 33 17.9	+1.0
PECH				i S	Sn	14 33 40.4	+1.5
PECH				AML	AML	14 33 43.0	
	comp=E,668nm,0.2s						
LVC	**Limon Verde**	**1.74**	**166**	eP	Pn	14 33 19.2	+1.8
LVC				i S	Sn	14 33 42.8	+3.0

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*IDC **19** 14:38:50.7±0.7, 46°.74N×155°.71E, h0km, mb3.8/15, mb1 4.0/17, mb1mx3.9/27, mbtmp3.8/17, ML3.3/2, Error ellipse: s-maj=21.1km s-min=15.1km az=160.0*

*NEIC **19** 14:38:52.3±0.6, 46°.87N×155°.68E, h10km, mb4.2/3, Error ellipse: s-maj=13.7km s-min=9.8km az=137.0*

*MOS **19** 14:38:53.3±1.4, 46°.91N×155°.68E, h32km, mb4.1/12, Error ellipse: s-maj=18.0km s-min=11.4km az=86.5*

*ISCJB **19** 14:38:54.5±0.7, 47°.04N±0°.09×155°.7E±0°.1, h33km, mb3.9/16, Error ellipse: s-maj=15.3km s-min=9.3km az=138.1*

ISC 19 14:38:56.6±0.7**, 47°.01N**±0°.09×**155°.6E**±0°.1**, h35**km**, n37,** σ**1ˢ.07**/37**, mb3.9**/16**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**3.69**	**5**	ePN	**Pn**	**14 39 50.0**	**-1.1**
KUR	**Kuril'sk**	**5.66**	**255**	ePN	**Pn**	**14 40 13.0**	**-5.2**
KUR				pmax	pmax		
	comp=Z,110nm,0.5s						
PEA0B	**Petropavlovsk-**	**6.25**	**12**	eP	**Pn**	**14 40 25.4**	**-0.8**
PETK	**Petropavlovsk-**	**6.25**	**12**	Pn	**Pn**	**14 40 25.7**	**-0.5**
	comp=Z,0.4nm,0.3s,baz=191,slow=11,SNR=28						
PET	**Petropavlovsk**	**6.33**	**17**	PN	**Pn**	**14 40 26.8**	**-0.5**
ASAJ	**Asahikawa**	**9.57**	**257**	Pn	**Pn**	**14 41 09.8**	**-2.0**
	comp=Z,0.4nm,0.3s,baz=185,slow=5.9,SNR=5.1						
KSRS	**Korea Array**	**22.51**	**255**	P	**P**	**14 43 53.0**	**0.0**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.4						
KSRS	**Korea Array**	**22.51**	**255**	P	**P**	**14 43 53.0**	**0.0**
	comp=Z,1.3nm,0.7s,mb3.4,baz=62,slow=9.3,SNR=4.3						
SONM	**Songino Array**	**32.85**	**290**	P	**P**	**14 45 26.1**	**-0.6**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**32.85**	**290**	P	**P**	**14 45 26.1**	**-0.6**
	comp=Z,0.5nm,0.7s,mb3.5,baz=66,slow=8.8,SNR=4.6						
ZALV	**Zalesovo Beam**	**43.84**	**306**	P	**P**	**14 46 59.2**	**+0.3**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.0						
ZALV	**Zalesovo Beam**	**43.84**	**306**	P	**P**	**14 46 59.2**	**+0.3**
	comp=Z,0.6nm,0.3s,mb3.8,baz=72,slow=11,SNR=2.9						
MKAR	**Makanchi Array**	**48.33**	**298**	P	**P**	**14 47 34.7**	**+0.4**
	comp=Z,0.1nm,0.3s,mb3.3,baz=78,slow=8.9,SNR=4.1						
KURK	**Kurchatov**	**48.63**	**304**	eP	**P**	**14 47 36.0**	**-0.6**
KURK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
KURK	**Kurchatov**	**48.63**	**304**	P	**P**	**14 47 39.4**	**+2.7**
	comp=Z,0.9nm,0.4s,mb4.2,baz=68,slow=8.5,SNR=4.1						
KURK	**Kurchatov**	**48.63**	**304**	eP	**P**	**14 47 36.0**	**-0.7**
	comp=Z,3.6nm,1.0s,mb4.4						
YKA	**Yellowknife Ar**	**49.69**	**38**	P	**P**	**14 47 43.6**	**-0.9**
YKA	**Yellowknife Ar**	**49.69**	**38**	P	**P**	**14 47 43.6**	**-0.9**
	comp=Z,0.1nm,0.6s,baz=295,slow=7.8,SNR=4.1						
BVAR	**Borovoye Array**	**52.00**	**310**	P	**P**	**14 48 02.3**	**+0.2**
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	**Borovoye Array**	**52.00**	**310**	P	**P**	**14 48 02.3**	**+0.2**
	comp=Z,1.1nm,0.6s,mb4.0,baz=64,slow=7.8,SNR=7.2						
BRVK	**Borovoye**	**52.04**	**310**	eP	**P**	**14 48 03.8**	**+1.4**
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
BRVK	**Borovoye**	**52.04**	**310**	eP	**P**	**14 48 03.8**	**+1.4**
	comp=Z,1.3nm,0.5s,mb4.1						
CMAR	**Chiang Mai Arr**	**54.09**	**258**	P	**P**	**14 48 18.7**	**+0.8**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**54.09**	**258**	P	**P**	**14 48 18.7**	**+0.8**
	comp=Z,0.9nm,0.8s,mb3.8,baz=33,slow=7.2,SNR=5.8						
AAK	**Ala-Archa**	**55.24**	**297**	P	**P**	**14 48 27.8**	**+1.9**
AAK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
AAK	**Ala-Archa**	**55.24**	**297**	P	**P**	**14 48 27.8**	**+1.8**
	comp=Z,0.6nm,0.6s,mb3.8,baz=352,slow=20,SNR=3.8						
NVAR	**Mina Array Bea**	**60.79**	**64**	P	**P**	**14 49 05.8**	**+0.9**
	comp=Z,0.8nm,0.6s,mb4.0,baz=301,slow=7.4,SNR=6.2						
BW06	**Boulder Array**	**63.20**	**55**	eP	**P**	**14 49 21.4**	**+0.3**
	comp=Z,1.4nm,0.8s,mb4.1						
PDAR	**Pinedale Array**	**63.20**	**55**	P	**P**	**14 49 21.8**	**+0.7**
	comp=Z,1.0nm,0.9s,mb4.0,baz=302,slow=3.3,SNR=7.0						
WRA	**Warramunga Arr**	**69.35**	**201**	P	**P**	**14 49 57.1**	**-3.3**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	**69.35**	**201**	P	**P**	**14 49 57.1**	**-3.3**
	comp=Z,1.1nm,0.7s,mb3.9,baz=21,slow=7.0,SNR=8.4						
ASAR	**Alice Springs**	**73.03**	**201**	P	**P**	**14 50 20.9**	**-1.8**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	**73.03**	**201**	P	**P**	**14 50 20.9**	**-1.8**
	comp=Z,0.9nm,0.7s,mb3.8,baz=17,slow=6.2,SNR=15						
TXAR	**Lajitas Array**	**75.87**	**62**	P	**P**	**14 50 39.8**	**+0.4**
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	**Lajitas Array**	**75.87**	**62**	P	**P**	**14 50 39.8**	**+0.4**
	comp=Z,1.7nm,0.6s,mb4.1,baz=298,slow=4.0,SNR=18						
BRTR	**Keskin Array B**	**79.35**	**318**	P	**P**	**14 51 00.2**	**+1.6**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	**Keskin Array B**	**79.35**	**318**	P	**P**	**14 51 00.2**	**+1.5**
	comp=Z,1.1nm,0.9s,mb3.8,baz=317,slow=46,SNR=4.0						

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*CASC **19** 14:39:15.7±2.1, 6°.43N×82°.40W, h34km±65km, MD4.3, mb4.6(NEIC)*

*IDC **19** 14:39:15.9±1.2, 6°.75N×82°.29W, h0km, mb4.0/8, mb1 4.4/12, mb1mx4.2/22, mbtmp4.2/12, ML4.3/3, MS3.5/8, Ms1 3.5/8, ms1mx3.3/22, Error ellipse: s-maj=37.4km s-min=17.8km az=45.0*

*BJI **19** 14:39:17.1, 6°.90N×82°.30W, h10km, mB5.3/5*

*NEIC **19** 14:39:19.1±0.8, 6°.93N×82°.30W, h10km, mb4.6/10, Error ellipse: s-maj=16.8km s-min=7.6km az=206.0*

*ISCJB **19** 14:39:21.4±0.4, 7°.02N±0°.06×82°.18W±0°.05, h33km, mb4.3/18, MS3.4/3, Error ellipse: s-maj=10.3km s-min=5.1km az=35.7*

ISC 19 14:39:23.7±0.4**, 7°.06N**±0°.07×**82°.17W**±0°.05**, h35**km**, n294,** σ**0ˢ.75**/293**, mb4.3**/18**, MS3.4**/3**, 137C-102D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	**Cerro Adams**	**1.86**	**328⇓**	eP	**Pn**	**14 39 50.4**	**-2.8**
ACR	**Cerro Adams**	**1.86**	**328⇓**	eP	**Pn**	**14 39 50.4**	**-2.8**
CNI	**Changuinola**	**2.36**	**352⇑**	eP	Px	14 50 01.7	
CNI				eS	Sx	14 50 37.0	
BAR1		**2.44**	**333⇓**	i P	**Pn**	**14 39 59.7**	**-1.5**
BUS	**Buena Vista**	**2.93**	**328⇑**	eP	**Pn**	**14 40 06.6**	**-1.3**
BUS	**Buena Vista**	**2.93**	**328⇑**	eP	**Pn**	**14 40 06.6**	**-1.3**
BCIP	**Isla Barro Col**	**3.12**	**48**	ePn	**Pn**	**14 40 11.7**	**+1.3**
URSC	**Urasca**	**3.18**	**330⇑**	eP	**Pn**	**14 40 09.9**	**-1.4**
URSC				eS	**Sn**	**14 40 53.6**	**+5.6**
URSC	**Urasca**	**3.18**	**330⇑**	eP	**Pn**	**14 40 09.9**	**-1.4**
URSC				eS	**Sn**	**14 40 53.6**	**+5.6**
LCR2	**La Lucha 2**	**3.22**	**326⇑**	eP	**Pn**	**14 40 10.2**	**-1.6**
LCR2				eS	**Sn**	**14 40 53.4**	**+4.3**
LCR2	**La Lucha 2**	**3.22**	**326⇑**	eP	**Pn**	**14 40 10.2**	**-1.6**
LCR2				eS	**Sn**	**14 40 53.4**	**+4.3**
UPIG		**3.24**	**54**	eP	**Pn**	**14 40 13.3**	**+1.3**
UPIG				eS	**Sn**	**14 40 55.6**	**+6.1**
LAJ	**Bijagual**	**3.39**	**325⇑**	eP	**Pn**	**14 40 13.1**	**-1.1**
LAJ	**Bijagual**	**3.39**	**325⇑**	eP	**Pn**	**14 40 13.1**	**-1.1**
SJS	**Escuela Geolog**	**3.41**	**327**	eP	**Pn**	**14 40 13.6**	**-0.9**
SJS	**Escuela Geolog**	**3.41**	**327**	eP	**Pn**	**14 40 13.6**	**-0.9**
PRS1	**Puriscal**	**3.59**	**324⇓**	eP	**Pn**	**14 40 13.9**	**-3.0**
PRS1				eS	**Sn**	**14 40 59.1**	**+0.9**
PRS1	**Puriscal**	**3.59**	**324⇓**	eP	**Pn**	**14 40 13.9**	**-3.0**
PRS1				eS	**Sn**	**14 40 59.1**	**+0.9**
CGA2	**Cerro Gallo 2**	**3.71**	**322⇑**	eP	**Pn**	**14 40 16.1**	**-2.4**
CGA2	**Cerro Gallo 2**	**3.71**	**322⇑**	eP	**Pn**	**14 40 16.1**	**-2.4**
TRTC	**Tortuguero**	**3.81**	**337**	eP	**Pn**	**14 40 21.3**	**+1.4**
TRTC				eS	**Sn**	**14 41 11.2**	**+7.7**
JCR	**Jicaral**	**4.02**	**314⇑**	eP	**Pn**	**14 40 19.1**	**-3.7**
JCR	**Jicaral**	**4.02**	**314⇑**	eP	**Pn**	**14 40 19.1**	**-3.7**
FORC	**Fortuna**	**4.19**	**324**	eP	**Pn**	**14 40 23.8**	**-1.4**
FORC	**Fortuna**	**4.19**	**324**	eP	**Pn**	**14 40 23.8**	**-1.4**
JTS	**JuntasAbangare**	**4.22**	**320**	Pn	**Pn**	**14 40 22.8**	**-2.9**
	69nm,0.3s,baz=164,slow=5.4,SNR=225						
JTS				Sn	**Sn**	**14 41 13.5**	**-0.3**
	19nm,0.3s,baz=338,slow=22,SNR=6.1						
JTS				LR	LR	14 42 18.0	
	comp=Z,618nm,19.9s,baz=134,slow=41						
JTS	**JuntasAbangare**	**4.22**	**320**	ePn	**Pn**	**14 40 22.8**	**-2.9**
CHPA	**Chiripa**	**4.31**	**321**	i P	**Pn**	**14 40 25.4**	**-1.5**
AMAS	**Alto Masis**	**4.50**	**322**	i P	**Pn**	**14 40 28.1**	**-1.3**
PTEN	**Parque Tenorio**	**4.57**	**323**	i P	**Pn**	**14 40 30.2**	**-0.3**
VCR	**Vista de Mar**	**4.58**	**312**	eP	**Pn**	**14 40 27.3**	**-3.2**
VCR	**Vista de Mar**	**4.58**	**312**	eP	**Pn**	**14 40 27.3**	**-3.2**
COLC	**Colonia**	**4.67**	**320**	i P	**Pn**	**14 40 30.2**	**-1.6**
COLC				i S	**Sn**	**14 41 28.0**	**+3.2**
MESS	**Mesas**	**4.72**	**321**	i P	**Pn**	**14 40 30.5**	**-2.0**
MESS				i S	**Sn**	**14 41 28.7**	**+2.6**
NY14	**Universidad de**	**4.87**	**317**	i P	**Pn**	**14 40 33.1**	**-1.4**
ROSC	**El Rosal**	**8.10**	**105**	LR	LR	14 43 49.6	

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      comp=Z,166nm,19.0s,baz=190,slow=34
TGUH  Tegucigalpa,Un    8.57 325  P     Pn   14 41 24.8 -0.5
      21nm,0.6s
SDV   Santo Domingo    11.57  80  Pn    Pn   14 42 06.9 +0.4
      0.6nm,0.3s,baz=291,slow=7.4,SNR=7.3
SDV   Santo Domingo    11.57  80  eP    Pn   14 42 07.1 +0.6
      11nm,0.9s
TEIG  Tepich           14.36 336  LR    LR   14 48 16.1
      comp=Z,204nm,19.2s,baz=147,slow=37
ATAH  Atahualpa        14.47 165  Pn    Pn   14 42 40.5 -5.6
      0.1nm,0.3s,baz=43,slow=15,SNR=4.3
ATAH                              LR    LR   14 47 20.3
      comp=Z,373nm,21.6s,baz=128,slow=34
CMIG  Matias Romero    15.92 310  Pn    Pn   14 43 05.5 +0.2
      0.4nm,0.3s,baz=89,slow=9.6,SNR=12
CMIG                              LR    LR   14 48 45.2
      comp=Z,154nm,20.1s,baz=127,slow=36
CMIG  Matias Romero    15.92 310  Pn    Pn   14 43 05.5 +0.2
CMIG                              LR    LR   14 48 45.2
PCRV  Puerto La Cruz   17.61  79  P     Pn   14 43 26.1 -0.4
      0.7nm,0.3s,baz=346,slow=12,SNR=3.3
TKL   Tuckaleechee C   28.50 357  P     P    14 45 14.9 -0.8
      5.2nm,0.5s,mb4.5,baz=125,slow=20,SNR=13
TKL                               LR    LR   14 57 21.8
      comp=Z,68nm,19.3s,MS3.3,baz=122,slow=38
TXAR  Lajitas Array    30.02 320  P     P    14 45 29.2 -0.1
      0.4nm,0.7s,mb3.3,baz=139,slow=9.9,SNR=4.9
TXAR                              LR    LR   14 57 05.3
      comp=Z,59nm,21.3s,MS3.2,baz=185,slow=35
SIV   San Ignacio      31.00 138  P     P    14 45 32.3 -5.8
      1.4nm,0.8s,mb3.9,baz=294,slow=10.0,SNR=5.4
320A  Kipp Ranch, An   34.49 318 ⇓P     P    14 46 09.8 +1.2
      baz=34
121A  Cookes Peak, D   34.78 320 ⇑P     P    14 46 11.8 +0.8
      baz=35
220A  Playas Peak, P   34.85 319 ⇓P     P    14 46 11.7 +0.1
      baz=35
319A  Douglas          35.02 317 ⇓P     P    14 46 13.8 +0.6
      baz=35
120A  U Bar Ranch, L   35.33 319 ⇑P     P    14 46 16.8 +1.0
      baz=35
219A  White Tail Can   35.39 318 ⇑P     P    14 46 16.5 +0.2
      baz=35
318A  Bisbee           35.54 317 ⇓P     P    14 46 18.3 +0.7
      baz=36
ANMO  Albuquerque      35.63 325  eP    P    14 46 19.2 +0.9
      6.7nm,0.8s,mb4.6
X22A  Bernardo         35.64 323 ⇑P     P    14 46 19.9 +1.5
      baz=36
218A  Dragoon          35.90 317 ⇑P     P    14 46 21.1 +0.4
      baz=36
118A  Homack Ranch,    36.26 318 ⇑P     P    14 46 24.6 +0.8
      baz=36
217A  Green Valley     36.31 316 ⇑P     P    14 46 24.3 +0.1
      baz=36
W21A  San Fidel        36.44 324 ⇓P     P    14 46 26.2 +1.0
      baz=36
Y19A  Nutrioso         36.64 321 ⇑P     P    14 46 27.8 +0.8
      baz=37
117A  Oracle           36.73 318 ⇑P     P    14 46 28.1 +0.3
      baz=37
SDCO  Great Sand Dun   37.16 329  eP    P    14 46 32.0 +0.6
T22A  Edith            37.37 327 ⇑P     P    14 46 33.9 +0.8
      baz=38
116A  Eloy             37.38 317 ⇓P     P    14 46 33.8 +0.5
      baz=37
X18A  Snowflake        37.45 321 ⇓P     P    14 46 33.9  0.0
      baz=38
Y17A  Roosevelt        37.49 319 ⇓P     P    14 46 35.4 +1.1
      baz=38
V19A  Window Rock      37.68 323 ⇑P     P    14 46 36.9 +1.1
      baz=38
214A  Organ Pipe Nat   37.79 315 ⇓P     P    14 46 36.3 -0.5
      baz=38
115A  Sonoran Desert   37.82 316 ⇑P     P    14 46 36.3 -0.7
      baz=38
X17A  Forest Lakes     37.87 320 ⇑P     P    14 46 38.5 +1.1
      baz=38
Y16A  Circle Bar Ran   38.02 319 ⇑P     P    14 46 39.4 +0.7
      baz=38
R22A  Saguache, Gunn   38.18 328 ⇑P     P    14 46 40.5 +0.5
      baz=38,SNR=5.3
V18A  Ganado           38.21 322 ⇓P     P    14 46 40.9 +0.6
      baz=38
114A  Black Gap (USA   38.30 316 ⇑P     P    14 46 41.1 +0.1
      baz=38
X16A  Lo Mia Camp, P   38.33 319 ⇓P     P    14 46 41.9 +0.6
      baz=38
MVCO  Mesa Verde       38.39 325 ⇓P     P    14 46 42.4 +0.6
      baz=38,SNR=7.5
MVCO  Mesa Verde       38.39 325  eP    P    14 46 42.4 +0.6
      30nm,1.4s,mb4.8
T19A  Beclabito        38.43 324 ⇑P     P    14 46 42.5 +0.4
      baz=38,SNR=5.5
Y15A  Casa Rosa Ranc   38.63 318 ⇑P     P    14 46 44.4 +0.6
      baz=39
Q22A  Crested Butte,   38.73 329 ⇑P     P    14 46 45.1 +0.5
      baz=39,SNR=5.3
W16A  Flagstaff        38.81 320 ⇓P     P    14 46 45.7 +0.4
      baz=39
X15A  Humboldt         38.89 319 ⇓P     P    14 46 46.1 +0.1
      baz=39
113A  Mohawk Valley,   38.92 315 ⇓P     P    14 46 46.0 -0.3
      baz=39
WUAZ  Wupatki          38.98 321 ⇑P     P    14 46 47.3 +0.6
      baz=39
WUAZ  Wupatki          38.98 321  eP    P    14 46 47.5 +0.8
      6.0nm,0.9s,mb4.3
R20A  Redvale          39.02 326 ⇓P     P    14 46 47.7 +0.7
      baz=39
Q21A  Lamborn Mesa,    39.06 328 ⇑P     P    14 46 48.0 +0.7
      baz=39
Y14A  Wickenburg       39.07 317 ⇓P     P    14 46 47.7 +0.2
      baz=39
Z13A  Yuma Proving G   39.09 316 ⇓P     P    14 46 47.7  0.0
      baz=39
S19A  Harvey Farm, M   39.13 325 ⇓P     P    14 46 48.2 +0.2
      baz=39,SNR=6.4
T18A  Mexican Hat      39.13 324 ⇓P     P    14 46 48.1 +0.1
      baz=39
U16A  Tuba City        39.23 322 ⇓P     P    14 46 49.3 +0.5
      baz=39,SNR=5.3
U17A  Shonto           39.24 323 ⇑P     P    14 46 49.3 +0.4
      baz=39
X14A  Yava             39.31 318 ⇑P     P    14 46 49.9 +0.4
      baz=39
P21A  Newcastle        39.50 329 ⇓P     P    14 46 51.9 +0.9
      baz=40
Q20A  Ridgley Place,   39.53 327 ⇑P     P    14 46 51.9 +0.6
      baz=40
S18A  Hurst Farm, Bl   39.58 324 ⇑P     P    14 46 52.2 +0.5
      baz=40
R19A  Curley Farm, L   39.58 326 ⇓P     P    14 46 52.1 +0.3
      baz=40,SNR=5.6
T17A  Navajo Res., N   39.59 323 ⇑P     P    14 46 52.5 +0.7
      baz=40
V15A  Kaibab Nationa   39.67 320 ⇓P     P    14 46 53.7 +1.2
      baz=40,SNR=12
W14A  Seligman         39.88 319 ⇓P     P    14 46 54.8 +0.5
      baz=40
P20A  De Beque         39.98 328 ⇑P     P    14 46 55.4 +0.5
      baz=40
R18A  Canyonlands Na   40.01 325 ⇑P     P    14 46 54.8 -0.5
      baz=40,SNR=5.2
X13A  Yucca            40.01 318 ⇓P     P    14 46 55.2 -0.1
      baz=40
O21A  Pagoda           40.03 329 ⇑P     P    14 46 56.0 +0.6
      baz=40
Q19A  Hogan Spring (   40.05 327 ⇑P     P    14 46 55.8 +0.2
      baz=40
V14A  Boquillas Ranc   40.15 320 ⇓P     P    14 46 57.4 +0.9
      baz=40,SNR=8.0
W13A  Hualapai Mount   40.34 318 ⇓P     P    14 46 58.4 +0.3
      baz=40,SNR=5.3
N21A  Black Mountain   40.47 330 ⇓P     P    14 47 00.5 +1.5
      baz=41
R17A  Hanksville Air   40.49 325 ⇓P     P    14 46 59.5 +0.2
      baz=41,SNR=14
S16A  Weppner Ranch,   40.54 323 ⇑P     P    14 47 00.2 +0.5
      baz=41
T15A  Red Dirt Ranch   40.56 322 ⇑P     P    14 47 00.7 +0.8
      baz=41
BC3   Big Chuckw Mtn   40.59 315 ⇑P     P    14 47 00.2  0.0
      baz=41
Q18A  Rafter H Ranch   40.64 326 ⇑P     P    14 47 00.4 -0.1
      baz=41,SNR=7.5
IRM   Iron Mountain    40.65 316 ⇑P     P    14 47 00.4 -0.2
      baz=41
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U14A  Mt Trumbull      40.68 320 ⇓P     P    14 47 01.1 +0.2
      baz=41
R16A  Teasdale         40.85 324 ⇑P     P    14 47 02.8 +0.6
      baz=41
V13A  Grand Canyon W   40.85 319 ⇓P     P    14 47 02.7 +0.4
      baz=41
SRU   San Rafael       40.86 326 ⇑P     P    14 47 02.8 +0.5
      baz=41
SRU   San Rafael       40.86 326  eP    P    14 47 02.3  0.0
      15nm,0.9s,mb4.6
N20A  Spence Gulch,    40.90 329 ⇓P     P    14 47 03.2 +0.6
      baz=41
S15A  Panguitch        40.97 323 ⇑P     P    14 47 03.8 +0.5
      baz=41
CPUP  Villa Florida    41.02 145  LR    LR   15 05 37.3
      comp=Z,101nm,18.6s,MS3.7,baz=92,slow=39
M21A  Separation Pea   41.03 331 ⇑P     P    14 47 04.3 +0.7
      baz=41
P18A  Preston Nutter   41.07 326 ⇓P     P    14 47 04.6 +0.6
      baz=41
BELC  Belle Mtn.       41.15 315 ⇑P     P    14 47 04.6 -0.2
      baz=41
U13A  Pakoon Wash      41.18 320 ⇑P     P    14 47 05.6 +0.6
      baz=41
P17A  Butcher Ranch,   41.23 326 ⇓P     P    14 47 06.1 +0.7
      baz=41
PFO   Pinyon Flat Ob   41.26 315 ⇑P     P    14 47 06.4 +0.7
      baz=41
V12A  Nelson           41.35 318 ⇑P     P    14 47 06.7 +0.3
      baz=41
M20A  Sweetwater, Wa   41.35 330 ⇓P     P    14 47 06.8 +0.5
      baz=42
O18A  Roosevelt        41.39 327 ⇓P     P    14 47 07.4 +0.8
      baz=42
T13A  Saint George     41.51 321 ⇓P     P    14 47 08.4 +0.7
      baz=42
ARUT  Antelope Range   41.70 322  eP    P    14 47 09.8 +0.6
      4.9nm,0.8s,mb4.2
O17A  Robinson Place   41.74 327 ⇑P     P    14 47 10.8 +1.3
      baz=42
L20A  Wamsutter        41.81 330 ⇓P     P    14 47 10.6 +0.5
      baz=42
S13A  Holt Ranch, En   41.83 321 ⇑P     P    14 47 11.4 +1.1
      baz=42,SNR=7.4
HEC   Hector,Ludlow    41.84 316 ⇓P     P    14 47 10.8 +0.4
      baz=42
TUQ   Turquoise Moun   41.90 317 ⇑P     P    14 47 11.0 +0.2
      baz=42
O16A  Springville      42.16 326 ⇓P     P    14 47 13.6 +0.6
      baz=42
DAU   Daniels Canyon   42.17 326  eP    P    14 47 14.0 +1.0
      14nm,1.4s,mb4.4
R13A  O'Grain Ranch,   42.27 322 ⇓P     P    14 47 14.2 +0.3
      baz=42,SNR=7.2
N17A  Moffit Pass      42.31 327 ⇑P     P    14 47 14.6 +0.4
      baz=42
Q14A  Sevier Lake (B   42.37 323 ⇑P     P    14 47 14.9 +0.2
      baz=42,SNR=6.1
SHOC  Shoshone         42.40 318 ⇓P     P    14 47 15.3 +0.4
      baz=42
S12A  Delamar Landin   42.47 321 ⇑P     P    14 47 15.7 +0.2
      baz=42
T11A  Corn Creek, Al   42.48 320 ⇑P     P    14 47 16.0 +0.4
      baz=42
L18A  Fontenelle, Gr   42.60 329 ⇑P     P    14 47 16.7 +0.3
      baz=43
N16A  Rees Ranch, Co   42.60 327 ⇓P     P    14 47 16.8 +0.3
      baz=43
M17A  Scullys Gap (B   42.60 328 ⇓P     P    14 47 16.1 -0.4
      baz=43,SNR=15
FMP   Fort Macarthur   42.63 313 ⇑P     P    14 47 16.5 -0.3
      baz=43
P14A  Drum Mountains   42.64 324 ⇓P     P    14 47 17.7 +0.9
      baz=43
K19A  Absolon Red Bu   42.67 331 ⇑P     P    14 47 17.2 +0.1
      baz=43
R12A  Pony Springs,    42.76 322 ⇑P     P    14 47 18.6 +0.8
      baz=43
Q13A  Wheeler Ranch,   42.79 323 ⇓P     P    14 47 18.7 +0.6
      baz=43,SNR=7.6
DUG   Dugway           42.89 325 ⇑P     P    14 47 19.4 +0.5
      baz=43
BW06  Boulder Array    42.98 330 ⇓P     P    14 47 19.6  0.0
      baz=43
PDAR  Pinedale Array   42.98 330  P     P    14 47 18.4 -1.1
      1.3nm,1.1s,mb3.6,baz=120,slow=8.8,SNR=5.0
M16A  Huntsville       43.00 327 ⇑P     P    14 47 19.8  0.0
      baz=43
EDW2  Edwards Air Fo   43.01 315 ⇓P     P    14 47 20.0  0.0
      baz=43
FURC  Furnace Creek,   43.10 318 ⇑P     P    14 47 20.9 +0.2
      baz=43
P13A  Bates Ranch, G   43.11 323 ⇓P     P    14 47 21.5 +0.8
      baz=43
K18A  Toltan Ranch,    43.12 330 ⇑P     P    14 47 21.3 +0.6
      baz=43
L17A  Cokeville        43.16 328 ⇓P     P    14 47 20.8 -0.2
      baz=43
MPMC  Manual Prospec   43.30 317 ⇑P     P    14 47 22.1 -0.2
      baz=43
Q12A  Willow Creek R   43.34 322 ⇓P     P    14 47 22.8 +0.3
      baz=43
R11A  Troy Canyon, C   43.38 321 ⇑P     P    14 47 23.2 +0.3
      baz=43,SNR=5.3
L16A  Fish Haven       43.39 328 ⇑P     P    14 47 22.3 -0.6
      baz=44
J18A  Kendall Valley   43.54 330 ⇑P     P    14 47 23.7 -0.3
      baz=44,SNR=6.1
N14A  Grayback Hills   43.54 325 ⇑P     P    14 47 24.4 +0.3
      baz=44,SNR=7.3
M15A  Larsen Ranch,    43.55 327 ⇑P     P    14 47 24.2  0.0
      baz=44,SNR=6.8
P12A  McGill           43.65 323 ⇑P     P    14 47 25.3 +0.3
      baz=44
Q11A  Duckwater        43.72 321 ⇑P     P    14 47 25.9 +0.3
      baz=44
GRAC  Grapevine Rang   43.74 318 ⇓P     P    14 47 26.0 +0.2
      baz=44
ISA   Isabella         43.76 316 ⇓P     P    14 47 25.8 -0.2
      baz=44
S10A  Tonopah Range,   43.76 320 ⇑P     P    14 47 26.3 +0.4
      baz=44,SNR=6.9
R10A  Warm Springs     43.79 320 ⇑P     P    14 47 26.4 +0.2
      baz=44
L15A  Malad City       43.89 327 ⇑P     P    14 47 26.4 -0.5
      baz=44,SNR=9.4
J17A  Brown Place, J   43.99 330 ⇓P     P    14 47 28.0 +0.3
      baz=44
K16A  Soda Springs     44.05 329 ⇓P     P    14 47 28.1  0.0
      baz=44
S09A  Goldfield        44.05 319 ⇑P     P    14 47 28.8 +0.5
      baz=44
O12A  Currie           44.06 324 ⇓P     P    14 47 28.5 +0.2
      baz=44
M14A  Sheep Mountain   44.07 326 ⇓P     P    14 47 28.5 +0.1
      baz=44,SNR=12
Q10A  Clear Creek Ra   44.17 321 ⇓P     P    14 47 29.5 +0.3
      baz=44
RRI2  Red Ridge        44.28 329  eP    P    14 47 29.6 -0.4
      6.2nm,1.1s,mb4.2
I17A  Pilgrim Ck.      44.33 331 ⇑P     P    14 47 30.2 -0.2
      baz=44
L14A  Malta            44.37 327 ⇑P     P    14 47 30.9 +0.1
      baz=44,SNR=6.8
J16A  Bone             44.38 329 ⇑P     P    14 47 30.7 -0.1
      baz=44,SNR=5.7
K15A  Arbon            44.44 328 ⇓P     P    14 47 31.2 -0.1
      baz=44
O11A  Cowboy Ranch,    44.52 323 ⇑P     P    14 47 31.8 -0.1
      baz=45
ULM   Lac du Bonnet    44.55 347  P     P    14 47 29.9 -2.2
      1.8nm,0.6s,mb4.1,baz=188,slow=7.1,SNR=2.7
K14A  Jones Ranch, D   44.69 327 ⇑P     P    14 47 32.8 -0.5
      baz=45,SNR=8.4
I16A  Newdale          44.75 330 ⇑P     P    14 47 33.6 -0.1
      baz=45
L13A  Double Diamond   44.80 326 ⇑P     P    14 47 34.6 +0.5
      baz=45
J15A  Blackfoot        44.89 329 ⇑P     P    14 47 35.4 +0.5
      baz=45,SNR=9.2
N11A  Elko Archery C   44.99 324 ⇑P     P    14 47 36.1 +0.3
      baz=45
NVAR  Mina Array Bea   45.16 319  P     P    14 47 37.4 +0.3
      3.2nm,0.7s,mb4.3,baz=126,slow=6.5,SNR=30
K13A  Stover Farm, H   45.25 327 ⇓P     P    14 47 37.8 +0.1
      baz=45
J14A  Carey            45.40 328 ⇓P     P    14 47 39.1 +0.1
      baz=46,SNR=12
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M11A  Holland Ranch,   45.41 324 ⇓P     P    14 47 38.9 -0.2
      baz=46
F18A  Big Timber       45.42 333 ⇓P     P    14 47 38.8 -0.3
      baz=46
L12A  House Creek Ra   45.43 326 ⇓P     P    14 47 39.0 -0.2
      baz=46
K12A  Draper Farm, C   45.69 326 ⇑P     P    14 47 41.2  0.0
      baz=46
I14A  Mackay           45.79 328 ⇑P     P    14 47 42.9 +0.9
      baz=46
J13A  Cove Ranch, Pi   45.80 327 ⇑P     P    14 47 42.3 +0.2
      baz=46
H15A  Lima             45.86 330 ⇑P     P    14 47 43.5 +0.9
      baz=46,SNR=18
L11A  Cat Creek Ranc   45.86 325 ⇓P     P    14 47 42.2 -0.5
      baz=46
G16A  Moss Hill, Enn   45.89 331 ⇑P     P    14 47 43.6 +0.8
      baz=46,SNR=6.9
R06C  Coleville        45.95 319 ⇓P     P    14 47 43.8 +0.4
      baz=46
HLID  Hailey           46.04 327 ⇑P     P    14 47 43.8 -0.2
      baz=46,SNR=5.6
N09A  Rock Creek Ran   46.08 322 ⇑P     P    14 47 44.2 -0.2
      baz=46
BOZ   Bozeman (W)      46.11 331 ⇑P     P    14 47 44.6 +0.1
      baz=46
BOZ   Bozeman (W)      46.11 331  eP    P    14 47 44.0 -0.5
      5.5nm,1.1s,mb4.4
I13A  Wildhorse Cree   46.13 328 ⇑P     P    14 47 44.9 +0.3
      baz=46,SNR=10.0
G15A  Dillon           46.18 330 ⇑P     P    14 47 45.2 +0.2
      baz=46
J12A  Stokes Ranch,    46.20 327 ⇑P     P    14 47 44.9 -0.4
      baz=46,SNR=6.2
F16A  Kennard Place,   46.21 332 ⇓P     P    14 47 45.4 +0.1
      baz=46
L10A  Juniper Basin    46.22 324 ⇑P     P    14 47 45.1 -0.3
      baz=46
K11A  Parker Ranch,    46.41 325 ⇓P     P    14 47 46.4 -0.5
      baz=46
O07A  Toulon           46.51 321 ⇓P     P    14 47 47.0 -0.8
      baz=47
WCN   Washoe City      46.58 319 ⇓P     P    14 47 47.3 -1.1
      baz=47
I12A  Atlanta          46.59 327 ⇑P     P    14 47 47.9 -0.4
      baz=47
LRM   Limekiln Ridge   46.63 331  eP    P    14 47 48.3 -0.3
      35nm,1.1s,mb5.2
H13A  Challis          46.64 329 ⇓P     P    14 47 48.2 -0.5
      baz=47
F15A  Butte            46.67 331 ⇑P     P    14 47 48.1 -0.8
      baz=47
G14A  Jackson          46.71 330 ⇑P     P    14 47 48.6 -0.7
      baz=47
MFID  Camas Ranch      46.71 326 ⇑P     P    14 47 49.0 -0.2
      baz=47
E16A  East Helena      46.79 332 ⇑P     P    14 47 49.5 -0.3
      baz=47
K10A  MacKenzie Ranc   46.89 325 ⇓P     P    14 47 50.4 -0.3
      baz=47
H12A  Diamond D Ranc   46.95 328 ⇑P     P    14 47 50.3 -0.8
      baz=47
M08A  Happy Creek Ra   46.95 323 ⇑P     P    14 47 50.5 -0.7
      baz=47
G13A  Cobalt           47.00 329 ⇑P     P    14 47 50.7 -0.8
      baz=47
EGMT  Eagleton         47.07 335 ⇓P     P    14 47 51.5 -0.5
      baz=47
F14A  Wisdom           47.07 330 ⇓P     P    14 47 51.6 -0.5
      baz=47
D16A  Dana Ranch, Ca   47.10 333 ⇑P     P    14 47 52.1 -0.1
      baz=47
O06A  Flanigan         47.11 320 ⇓P     P    14 47 51.8 -0.6
      baz=47
I11A  Placerville      47.11 327 ⇑P     P    14 47 52.1 -0.3
      baz=47
E15A  Deer Lodge       47.16 331 ⇓P     P    14 47 52.5 -0.2
      baz=47
K09A  Rome             47.33 324 ⇑P     P    14 47 53.6 -0.5
      baz=47,SNR=12
B18A  Beardsley Farm   47.37 335 ⇑P     P    14 47 53.6 -0.7
      baz=48
L08A  Fields           47.38 323 ⇓P     P    14 47 53.7 -0.8
      baz=47,SNR=10
M07A  Soldier Meadow   47.40 322 ⇓P     P    14 47 53.5 -1.2
      baz=48
N06A  Buffalo Meadow   47.44 321 ⇑P     P    14 47 53.6 -1.4
      baz=48
F13A  Darby            47.53 330 ⇑P     P    14 47 54.8 -0.8
      baz=48,SNR=7.9
D15A  Lincoln          47.55 332 ⇓P     P    14 47 55.5 -0.3
      baz=48
E14A  Clinton          47.56 331 ⇓P     P    14 47 55.2 -0.6
      baz=48,SNR=5.1
G12A  Big Creek, Yel   47.59 328 ⇑P     P    14 47 55.4 -0.7
      baz=48
H11A  Donnelly         47.66 328 ⇑P     P    14 47 55.6 -1.1
      baz=48,SNR=5.7
WVOR  Wild Horse Val   47.70 323  eP    P    14 47 56.1 -0.9
      9.8nm,1.0s,mb4.8
K08A  Mann Creek Ran   47.79 324 ⇑P     P    14 47 57.1 -0.6
      baz=48
L07A  Adell            47.87 323 ⇓P     P    14 47 57.9 -0.5
      baz=48
E13A  Victor           47.92 330 ⇑P     P    14 47 57.9 -0.8
      baz=48
F12A  Elk City         47.98 329 ⇑P     P    14 47 58.7 -0.4
      baz=48
H10A  Noah's Angus R   47.98 327 ⇓P     P    14 47 57.7 -1.4
      baz=48
C15A  Salmond Ranch,   48.13 333 ⇓P     P    14 47 60.0 -0.3
      baz=48
J08A  Circle Bar Ran   48.17 325 ⇓P     P    14 48 00.2 -0.4
      baz=48
K07A  Rock Creek Ran   48.21 323 ⇓P     P    14 48 00.1 -0.9
      baz=48
B15A  Bradely Ranch,   48.51 333 ⇑P     P    14 48 02.2 -0.9
      baz=49
D13A  Huson            48.51 331 ⇑P     P    14 48 02.3 -0.9
      baz=49
F11A  Grangeville      48.53 329 ⇑P     P    14 48 02.3 -1.0
      baz=49
G10A  Bishop Farm, J   48.64 327 ⇑P     P    14 48 03.5 -0.7
      baz=49
E11A  Bogner Ranch,    48.87 329 ⇑P     P    14 48 05.3 -0.6
      baz=49
C13A  Hot Springs      48.98 331 ⇓P     P    14 48 06.3 -0.4
      baz=49
G09A  Cove             48.99 327 ⇓P     P    14 48 06.1 -0.8
      baz=49
A15A  Johnson Ranch,   49.08 334 ⇓P     P    14 48 06.8 -0.7
      baz=49
F10A  Beach Ranch, E   49.15 328 ⇑P     P    14 48 07.5 -0.5
      baz=49
I07A  Izee             49.20 325 ⇑P     P    14 48 07.7 -0.8
      baz=49
D11A  Klaveano Farm,   49.40 330 ⇓P     P    14 48 09.3 -0.7
      baz=50
B13A  Whitefish        49.43 332 ⇓P     P    14 48 10.2  0.0
      baz=50
I06A  Prineville       49.52 324 ⇓P     P    14 48 10.4 -0.6
      baz=50
A13A  Flathead Natio   49.80 333 ⇑P     P    14 48 12.8 -0.2
      baz=50
F08A  Pendleton        49.86 327 ⇓P     P    14 48 12.4 -1.1
      baz=50
D10A  Wagner Farm, O   49.88 329 ⇑P     P    14 48 12.3 -1.4
      baz=50
E09A  Wood Farm, Sta   49.98 328 ⇓P     P    14 48 13.4 -1.0
      baz=50
B11A  Sandpoint        50.37 331 ⇑P     P    14 48 16.6 -0.7
      baz=50
A11A  Hall Mountain,   50.73 331 ⇑P     P    14 48 19.8 -0.3
      baz=51
G05A  Wamic            50.93 325 ⇑P     P    14 48 21.3 -0.3
      baz=51
B09A  Rice             51.23 330 ⇓P     P    14 48 23.0 -0.8
      baz=51
B08A  Colville Reser   51.79 329 ⇓P     P    14 48 27.2 -0.8
      baz=52
A09A  Danville         51.82 330 ⇑P     P    14 48 28.2  0.0
      baz=52
A08A  Turner Farm, O   52.15 330 ⇓P     P    14 48 30.1 -0.6
      baz=52
A07A  Ashnola River,   52.77 329 ⇑P     P    14 48 35.0 -0.3
      baz=53
YKA   Yellowknife Ar   60.19 343  P     P    14 49 26.4 -1.4
      1.8nm,1.0s,mb4.1,baz=138,slow=6.8,SNR=20
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YKA	Yellowknife Ar	60.19	343	P	P	14 49 26.4	-1.4
TORD	Torodi Ar. Bea	82.48	78	P	P	14 51 44.1	+0.7
	0.4nm,0.8s,mb3.4,baz=271,slow=3.6,SNR=2.7						
CN2	Changchun	123.54	336	ePKP	PKPdf	14 58 19.3	+1.6
NJ2	Nanjing	136.24	334	ePKP	PKPdf	14 58 38.1	-4.1
LZH	Lanzhou	136.71	353	ePKP	PKPdf	14 58 37.0	-6.0
LZH				sPKP		14 58 50.0	
LZH				AMB	AMB		
	comp=Z,57nm,4.3s						
ASAR	Alice Springs	141.66	240	PKP	PKPdf	14 58 51.6	-0.7
	comp=Z,0.4nm,0.7s,baz=136,slow=2.2,SNR=3.7						
CD2	Chengdu	141.82	352	PKP	PKPdf	14 58 53.5	+1.1
WRA	Warramunga Arr	142.36	246	PKP	PKPdf	14 58 51.0	-2.6
	comp=Z,0.6nm,1.0s,baz=180,slow=0.8,SNR=3.0						
GYA	Guiyang	145.59	346	ePKPbc	PKPbc	14 58 57.8	-1.5
GYA				PP	PP	15 02 22.1	+4.0
GYA				AMB	AMB		
	comp=Z,70nm,7.5s						
KMI	Kunming	147.65	352	PKPbc	PKPdf	14 59 00.8	-1.9

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*BJI **19** 14:48:53.6, 36°.41N×69°.55E, h116^{km}, mb4.9/2*
*NEIC **19** 14:48:54.0±1.9, 36°.14N×69°.56E, h121^{km}±14^{km}, mb4.5/8, Error ellipse: s-maj=23.8km s-min=6.1km az=62.0*
*IDC **19** 14:48:55.9±5.6, 36°.24N×69°.70E, h137^{km}±44^{km}, mb3.2/6, mb1 3.4/11, mb1mx3.2/28, mbtmp3.3/11, Error ellipse: s-maj=45.7km s-min=22.7km az=60.0*
*ISCJB **19** 14:48:56.3±0.9, 36°.34N±0°.04×69°.90E±0°.08, h145^{km}±10^{km}, mb3.4/6, Error ellipse: s-maj=11.6km s-min=4.7km az=157.8*
*NNC **19** 14:49:06.1±6.5, 37°.03N×69°.73E, h202^{km}±78^{km}, mb3.0, mpv4.4, Error ellipse: s-maj=59.9km s-min=39.1km az=36.0*

ISC 19 14:48:56.7±1.0**, 36°.28N**±0°.04×**69°.89E**±0°.09**, h130**^{km}±9^{km}**, n57,** σ**1^{s}.21**/74**, mb3.4**/6**, 3C-4D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	5.79	54	eP	Pn	14 50 18.1	-2.3
KSH				pmax	pmax		
	comp=Z,54nm,0.6s						
KSH	Kashi	5.79	54	Pn	Pn	14 50 18.0	-2.4
KSH				Sn	Sn	14 51 17.6	-8.1
KSH				pmax	pmax		
	comp=Z,54nm,0.6s						
KSH				smax			
	comp=N,400nm,0.6s						
KSH				smax			
	comp=E,180nm,0.8s						
THN	Thein Dam	6.16	127	ePKP	Pn	14 50 25.7	+0.4
THN				eS	Sn	14 51 33.9	-0.5
AML	Almayashu	6.55	26	P	Pn	14 50 31.5	+1.0
	SNR=262						
AML	Almayashu	6.55	26	eP	Pn	14 50 31.3	+0.8
	comp=E,127nm,0.6s						
AML				eS	Sn	14 51 40.9	-2.9
KK31	Karatay Array	6.83	4	⇓P	Pn	14 50 34.1	-0.2
	comp=E,16nm,0.6s,baz=192,slow=13,SNR=174						
KK31				⇓S	Sn	14 51 45.7	-5.0
	comp=E,3.7nm,0.3s,baz=198,slow=26,SNR=5.0						
UCH	Uchtor	6.94	30	P	Pn	14 50 37.0	+1.2
	SNR=39						
UCH	Uchtor	6.94	30	eP	Pn	14 50 36.8	+1.0
	comp=E,45nm,0.6s						
UCH				eS	Sn	14 51 52.4	-0.8
EKS2	Erkin-Say	7.05	24	P	Pn	14 50 38.1	+0.9
	SNR=70						
EKS2	Erkin-Say	7.05	24	eP	Pn	14 50 38.0	+0.7
	comp=E,28nm,0.6s						
EKS2				eS	Sn	14 51 53.8	-2.0
KZA	Kyzart	7.13	34	P	Pn	14 50 39.2	+0.8
	SNR=26						
AAK	Ala-Archa	7.28	28	P	Pn	14 50 41.5	+1.1
	SNR=38						
AAK	Ala-Archa	7.28	28	P	Pn	14 50 41.6	+1.3
	comp=E,0.2nm,0.3s,baz=180,slow=6.4,SNR=104						
AAK				S	Sn	14 52 01.5	+0.1
	comp=E,0.1nm,0.3s,baz=111,slow=20,SNR=16						
AAK	Ala-Archa	7.28	28	eP	Pn	14 50 41.2	+0.9
	comp=E,27nm,0.4s						
AAK				eS	Sn	14 52 02.7	+1.3
KBK	Karagaybulak	7.47	30	P	Pn	14 50 44.5	+1.5
	SNR=27						
SDNR	Sundarnagar	7.57	127	ePKP	Px	14 51 01.0	
SDNR				eS	Sn	14 52 06.0	-2.6
CHMS	Chumysh	7.69	28	P	Pn	14 50 46.3	+0.5
	SNR=6.6						
ULHL	Ulahol	7.73	38	P	Pn	14 50 47.6	+1.2
	SNR=6.7						
USP	Ospenovka	7.83	26	P	Pn	14 50 47.8	+0.1
	SNR=48						
TKM2	Tokmak 2	7.96	32	⇓P	Pn	14 50 50.5	+0.9
	comp=E,16nm,0.6s						
TKM2				⇑S	Sn	14 52 16.3	-1.6
	comp=E,12nm,0.8s						
TKM2	Tokmak 2	7.96	32	P	Pn	14 50 50.2	+0.7
	SNR=22						
TKM2	Tokmak 2	7.96	32	eP	Pn	14 50 49.9	+0.4
	comp=E,20nm,0.5s						
KHET	Khetri	9.59	147	eS	Sn	14 52 48.6	-8.9
NDI	New Delhi	9.77	139	eS	Sn	14 52 55.0	-7.0
KUDL	Kundal	9.84	144	eS	Sn	14 52 55.4	-8.2
AYAN	Aya Nagar	9.89	140	eS	Sn	14 52 58.7	-6.0
SONA	Sohna	10.05	141	ePKP	Pn	14 51 18.7	+1.0
SONA				AMb	AMB	14 51 20.2	
	comp=Z,11nm,0.2s						
SONA				eS	Sn	14 53 01.8	-6.9
MKAR	Makanchi Array	14.00	38	P	Pn	14 52 11.6	+2.3
	comp=Z,0.4nm,0.3s,baz=222,slow=14,SNR=14						
MKAR	Makanchi Array	14.00	38	P	Pn	14 52 11.6	+2.3
DANN	Dangsing	14.13	120	eP	Pn	14 52 10.1	-0.9
AB09	Akbulak array	14.88	334	P	Pn	14 52 18.8	-1.5
AB09				⇑S	Sn	14 54 52.8	-12
	comp=Z,1.8nm,0.5s						
GKN	Gorkha	14.96	119	eP	Pn	14 52 19.9	-1.5
DMN	Daman	15.52	120	eP	Pn	14 52 28.3	-0.2
KKN	Kakani	15.54	119	eP	Pn	14 52 29.1	+0.4
	comp=Z,56nm,0.7s						
KURK	Kurchatov	15.74	21	P	Pn	14 52 28.0	-3.0
	baz=212,slow=12,SNR=2.6						
KURK				S	S	14 55 16.8	-14
	comp=Z,0.7nm,0.3s,baz=48,slow=54,SNR=2.9						
KURK	Kurchatov	15.74	21	eP	Pn	14 52 31.6	+0.6
	comp=Z,4.2nm,1.2s						
KURK				S	S	14 55 16.8	-14
PKI	Pulchoki	15.76	119	eP	Pn	14 52 31.3	-0.1
GUN	Gumba	15.89	117	eP	Pn	14 52 33.7	+0.6
	comp=Z,26nm,0.4s						
JIRN	Jiri	16.26	117	eP	Pn	14 52 38.5	+0.9
	comp=Z,18nm,0.3s						
AKTK	Aktyubinsk	16.55	332	P	Pn	14 52 40.4	-0.5
AKTK				S	S	14 55 35.8	-9.3
AKTO	Aktyubinsk	16.55	332	⇓P	Pn	14 52 40.9	+0.1
	comp=Z,1.0nm,1.6s						
AKTO				⇑S	S	14 55 31.8	-13
	comp=Z,0.8nm,1.1s						
AKTO	Aktyubinsk	16.55	332	P	Pn	14 52 40.4	-0.5
	comp=Z,0.1nm,0.3s,baz=152,slow=9.1,SNR=4.9						
AKTO				S	S	14 55 35.8	-9.3
	comp=Z,0.7nm,0.3s,baz=235,slow=22,SNR=6.6						
BVAR	Borovoye Array	16.75	1	P	Pn	14 52 42.0	-1.3
	comp=Z,0.6nm,0.3s,baz=174,slow=10.0,SNR=11						
BVAR				S	S	14 55 51.2	+1.4
	comp=Z,0.1nm,0.3s,baz=175,slow=18,SNR=3.6						
BRVK	Borovoye	16.78	1	P	Pn	14 52 43.7	0.0
	comp=Z,1.9nm,0.6s						
RAMN	Ramite	16.98	119	eP	Pn	14 52 46.4	+0.1
	comp=Z,20nm,0.5s						
TAPN	Taplejung	17.54	115	eP	Pn	14 52 54.6	+1.5
	comp=Z,30nm,0.6s						
ODAN	Odare	17.60	117	eP	Pn	14 52 54.0	+0.2
LSA	Lhasa	18.98	104	eP	P	14 53 11.5	+3.5
	comp=Z,2.7nm,0.8s						
ZAA0	Zalesovo Array	20.50	26	eP	P	14 53 23.9	-0.3
ZALV	Zalesovo Beam	20.50	26	P	P	14 53 24.1	0.0
	comp=Z,3.3nm,0.5s,baz=222,slow=10,SNR=21						
SONM	Songino Array	29.20	55	P	P	14 54 46.9	+1.2
	comp=Z,0.6nm,0.8s,mb3.4,baz=251,slow=8.6,SNR=6.2						
CMAR	Chiang Mai Arr	31.14	117	P	P	14 55 04.0	+0.8
	comp=Z,0.7nm,0.6s,mb3.5,baz=296,slow=8.8,SNR=5.8						
GYA	Guiyang	32.72	97	eP	P	14 55 19.5	+2.6
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
YKA	Yellowknife Ar	81.51	2	P	P	15 00 58.0	-1.1
	comp=Z,0.1nm,0.5s,mb2.7,baz=348,slow=5.5,SNR=4.7						
YKA	Yellowknife Ar	81.51	2	P	P	15 00 58.0	-1.1
WRA	Warramunga Arr	82.64	121	P	P	15 01 03.6	-2.0
	comp=Z,0.4nm,0.8s,mb3.2,baz=323,slow=4.3,SNR=4.1						
ASAR	Alice Springs	84.86	124	P	P	15 01 15.1	-1.8
	comp=Z,0.2nm,0.6s,mb3.1,baz=311,slow=4.6,SNR=4.8						

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*IDC **19** 14:52:48.6±1.5, 10°.68N×127°.45E, h0^{km}, mb3.5/6, mb1 3.7/6, mb1mx3.6/20, mbtmp3.5/6, MS2.8/1, Ms1 2.8/1, ms1mx2.1/23, Error ellipse: s-maj=75.1km s-min=19.3km az=63.0*
*ISCJB **19** 14:52:55.3±1.2, 10°.19N±0°.05×126°.28E±0°.09, h55^{km}±13^{km}, mb3.5/5, Error ellipse: s-maj=14.9km s-min=7.3km az=158.2*
*MAN **19** 14:52:56, 10°.14N×126°.18E, h29^{km}, mb4.8, ML3.7, MS3.7*

ISC 19 14:52:56.8±1.3**, 10°.18N**±0°.05×**126°.25E**±0°.09**, h50**^{km}±15^{km}**, n18,** σ**0^{s}.93**/23**, mb3.5**/5**, 2C-1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	1.35	207	eP	Pn	14 53 18.3	-1.0
BUTP				eS	Sn	14 53 34.0	-2.0
MSLP	Maasin	1.37	268	eP	Pn	14 53 17.8	-1.7
MSLP				eS	Sn	14 53 36.1	-0.4
OCLP	Ormoc	1.83	299	eP	Pn	14 53 25.9	0.0
OCLP				eS	Sn	14 53 47.4	-0.4
LLP	Lapu-Lapu	2.25	274	⇓eP	Pn	14 53 31.4	-0.2
LLP				i S	Sn	14 54 00.3	+2.1
TBP	Tagbilaran	2.40	259	eP	Pn	14 53 33.5	-0.2
TBP				eS	Sn	14 54 01.7	-0.2
BUKP	Musuan	2.56	207	eP	Pn	14 53 36.2	+0.3
BUKP				eS	Sn	14 54 07.7	+1.8
DAV	Davao City (W)	3.16	192	LR	LR	14 55 12.5	
	comp=Z,123nm,19.1s,baz=252,slow=36						
DMPH	Davao City--Mi	3.16	193	⇑eP	Pn	14 53 45.4	+1.3
GUIM	Jordan	3.63	277	eP	Pn	14 53 50.2	-0.3
PAGZ	Pagadian	3.66	231	eP	Pn	14 53 50.8	-0.1
RCP	Roxas	3.70	292	⇑eP	Pn	14 53 52.5	+0.9
PVCP	Virac	3.97	329	eP	Pn	14 53 56.0	+0.9
CMAR	Chiang Mai Arr	27.68	290	P	P	14 58 47.9	+7.5
	0.8nm,0.8s,mb3.4,baz=102,slow=7.1,SNR=5.6						
WRA	Warramunga Arr	30.97	165	P	P	14 59 09.6	+0.2
	0.4nm,0.9s,mb3.3,baz=346,slow=10,SNR=5.7						
ASAR	Alice Springs	34.46	168	P	P	14 59 40.0	+0.1
	0.4nm,0.4s,mb3.7,baz=349,slow=7.0,SNR=17						
SONM	Songino Array	41.10	340	P	P	15 00 35.4	-0.3
	0.2nm,0.5s,baz=142,slow=10,SNR=3.1						
STKA	Stephens Creek	44.32	161	P	P	15 01 02.1	+0.2
	1.0nm,0.5s,mb3.8,baz=351,slow=8.7,SNR=2.9						
MKAR	Makanchi Array	52.09	323	P	P	15 02 00.9	-0.8
	0.5nm,0.7s,mb3.6,baz=124,slow=8.4,SNR=6.1						

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*NEIC **19** 14:54:33.3, 15°.42N×97°.54W, h20^{km}, MD3.9(MEX), After MEX.*

MEX 19 14:54:32.8±0.5**, 15°.36N×97°.56W, h21**^{km}±18^{km}**, MD3.9, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	1.17	332	i P	Pn	14 54 51.0	-3.0
PNIG				i S	Sb	14 55 04.9	-4.1
PNIG	Pinotepa	1.17	332	i P	Pn	14 54 51.0	-3.0
PNIG				i S	Sb	14 55 03.8	-5.2
HUIG	Huatulco	1.46	73	i P	Pn	14 54 54.6	-3.4
HUIG				i S	Sn	14 55 12.6	-3.8
HUIG	Huatulco	1.46	73	i P	Pn	14 54 54.6	-3.4
HUIG				i S	Sn	14 55 12.0	-4.4
UTMO	Huajuapan	2.47	355	eP	Pn	14 55 09.6	-2.3
UTMO				i S	Sn	14 55 38.4	-3.1
ACX	Acapulco	2.72	304	eP	Pn	14 55 13.7	-1.6
ACX				i S	Sn	14 55 43.8	-3.7
CMIG	Matias Romero	3.10	56	i P	Pn	14 55 18.0	-2.5
CMIG				i S	Sn	14 55 54.5	-2.3
CAIG	El Cayaco	3.10	303	i P	Pn	14 55 18.1	-2.4
CAIG				i S	Sn	14 55 50.2	-6.7
CAIG	El Cayaco	3.10	303	eP	Pn	14 55 19.6	-0.9
CAIG				i S	Sn	14 55 50.2	-6.7
PLIG	Platanillo	3.55	329	eP	Pn	14 55 25.4	-1.2
PLIG				i S	Sn	14 56 04.7	-3.3
PPM	Popocatepetl	3.83	345	eP	Pn	14 55 29.1	-1.5
PPM				i S	Sn	14 56 11.7	-3.2

IDC 19 15:01:02.0±4.0**, 58°.70S×24°.39W, h0**^{km}**, mb3.7**/1**, mb1 3.7**/1**, mb1mx3.5**/14**, mbtmp3.7**/1**, Error ellipse: s-maj=224.1km s-min=92.3km az=95.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	74.69	26	P	P	15 12 43.2	+0.1
	0.3nm,0.4s,baz=196,slow=6.0,SNR=6.8						
YKA	Yellowknife Ar	139.14	315	PKP	PKPdf	15 20 28.5	-0.4
	0.2nm,0.6s,baz=132,slow=2.4,SNR=4.2						
SONM	Songino Array	149.32	89	PKPbc	PKPbc	15 20 51.2	-0.3
	0.2nm,0.6s,baz=245,slow=2.4,SNR=3.6						

NEIC 19 15:01:12.2, 56°.15N×158°.00W, h64^{km}**, ML3.6**(AEIC)**, After AEIC., Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHGN	Chignik	0.28	304	P	Pn	15 01 21.9	-0.7
SDPT	Sand Point	1.61	241	P	Pn	15 01 37.5	-1.0
SDPT				S	Sn	15 01 58.0	-0.3
SII	Sitkinak Islan	2.17	77	P	Pn	15 01 45.5	-0.4
SII				S	Sn	15 02 11.7	0.0
OHAK	Old Harbor	2.81	66	P	Pn	15 01 53.7	-1.1
FALS	False Pass	3.34	250	P	Pn	15 02 01.1	-0.8
KDAK	Kodiak Island	3.39	59	P	Pn	15 02 02.4	-0.2
AKLV	Akutan Long Va	4.98	250	P	Pn	15 02 22.2	-2.1
SLKM	Skilak Lake	5.99	40	P	Pn	15 02 36.3	-1.8
SEW	Seward	6.02	45	P	Pn	15 02 35.8	-2.7
RC01	Rabbit Creek A	6.57	38	P	Pn	15 02 44.3	-1.7
SPIA	Saint Paul Isl	6.83	284	P	Pn	15 02 47.9	-1.8
TT01	Tatalina	6.86	8	P	Pn	15 02 47.7	-2.3
PPLA	Purkeypile	7.38	21	ePn	Pn	15 02 57.3	+0.1
PNL	Peninsula	10.50	63	ePn	Pn	15 03 38.5	-1.2

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*IDC **19** 15:03:36.0±1.3, 2°.23N×126°.16E, h0^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.7/19, mbtmp3.7/6, Error ellipse: s-maj=101.1km s-min=19.3km az=70.0*
*DJA **19** 15:03:42, 2°.74N×127°.10E, h50^{km}, MLv3.9/5*
*ISCJB **19** 15:03:43.9±1.0, 2°.3N±0°.2×126°.4E±0°.4, h83^{km}±12^{km}, mb3.6/5, Error ellipse: s-maj=69.7km s-min=12.2km az=155.7*

ISC 19 15:03:44.7±1.1**, 2°.3N**±0°.2×**126°.4E**±0°.4**, h74**^{km}±12^{km}**, n11,** σ**0^{s}.64**/9**, mb3.6**/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGSI	Sangihe	1.65	326	P	Pn	15 04 11.5	-0.3
TNTI	Ternate	1.78	149	P	Pn	15 04 12.9	-0.7
MNI	Manado	1.82	242	P	Px	15 04 19.7	
KMSI	Cibinong	3.00	235	P	Px	15 04 40.4	
LBMI	Labuha	3.11	160	P	Pn	15 04 32.9	+1.4
FITZ	Fitzroy Crossi	20.30	182	P	P	15 08 14.5	-0.2
	1.2nm,0.5s,baz=7.1,slow=8.1,SNR=3.0						
WRA	Warramunga Arr	23.43	161	P	P	15 08 46.6	-0.9
	0.6nm,0.3s,mb3.4,baz=335,slow=10,SNR=34						
ASAR	Alice Springs	26.82	165	P	P	15 09 17.9	-0.3
	0.5nm,0.6s,mb3.2,baz=346,slow=7.4,SNR=16						
STKA	Stephens Creek	36.91	158	P	P	15 10 47.0	+0.6
	3.5nm,0.8s,mb4.3,baz=340,slow=10,SNR=4.2						
SONM	Songino Array	48.55	342	P	P	15 12 20.6	+0.3
	0.2nm,0.5s,mb3.4,baz=169,slow=7.3,SNR=3.0						
MKAR	Makanchi Array	58.56	326	P	P	15 13 34.0	+0.3
	0.5nm,0.5s,mb3.8,baz=118,slow=8.8,SNR=5.3						

NEIC 19 15:04:58.4, 45°.12S×167°.70E, h122^{km}**, MG3.9**(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	Milford Sound	0.47	20	P	Pn	15 05 16.3	-0.1
MSZ				S	Sn	15 05 29.2	-0.7
WKZ	Wanaka	0.98	73	P	Pn	15 05 22.1	+1.7
LBZ	Lake Benmore	1.92	68	P	Pn	15 05 30.7	-0.2
LBZ				S	Sn	15 05 54.8	-0.9
RPZ	Rata Peaks	2.78	61	P	Pn	15 05 40.8	-1.1
WVZ	Waitaha Valley	2.99	48	P	Pn	15 05 43.3	-1.3
LTZ	Lake Taylor	4.04	56	P	Pn	15 05 57.1	-1.4
DSZ	Denniston Nort	4.50	43	P	Pn	15 06 02.8	-1.9
THZ	Tophouse	5.06	50	P	Pn	15 06 10.1	-2.0
QRZ	Quartz Range	5.56	41	P	Pn	15 06 17.6	-1.3

IDC 19 15:07:40.8±1.9**, 1°.10N×125°.97E, h0**^{km}**, mb3.3**/3**, mb1 3.6**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, Error ellipse: s-maj=174.5km s-min=25.2km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.46	159	P	P	15 12 41.0	-0.7
	0.4nm,0.3s,baz=337,slow=11,SNR=7.5						
ASAR	Alice Springs	25.80	163	P	P	15 13 14.6	+0.8
	0.1nm,0.3s,baz=346,slow=8.2,SNR=5.4						
MKAR	Makanchi Array	59.29	327	P	P	15 17 44.4	0.0
	0.3nm,0.4s,baz=116,slow=6.6,SNR=4.2						

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*ISCJB **19** 15:47:35.6±0.4, 51°.47N±0°.02×16°.09E±0°.02, h0^{km}, Error ellipse: s-maj=3.2km s-min=1.9km az=10.4*
*NEIC **19** 15:47:36.7±0.4, 51°.56N×16°.16E, h5^{km}, ML2.7(BRA), ML3.1(SZGRF), Error ellipse: s-maj=5.0km s-min=4.3km az=219.0*
*CSEM **19** 15:47:37.3±0.2, 51°.49N×16°.09E, h2^{km}, ML3.7/7, Error ellipse: s-maj=3.6km s-min=2.3km az=9.0*
*IDC **19** 15:47:38.1±0.7, 51°.48N×16°.01E, h0^{km}, mb1 3.4/8, mb1mx3.3/26, mbtmp3.3/8, ML3.2/8, Error ellipse: s-maj=11.7km s-min=6.6km az=95.0*
*PRU **19** 15:47:38.7, 51°.47N×16°.07E, h0^{km}, Felt In Harrachov*
*WAR **19** 15:47:38.6, 51°.49N×16°.09E, ML2.8, Mining Induced*
*VIE **19** 15:47:39.7±0.4, 51°.29N×16°.16E, h0^{km}, mb2.6/4, ML3.1/4, Error ellipse: s-maj=2.5km s-min=2.4km az=109.0 63 km WNW of Wroclaw Suspected Mining induced.*
*BGR **19** 15:47:39.3±0.4, 51°.40N×16°.08E, h1^{km}, ML3.1, Error ellipse: s-maj=5.6km s-min=2.2km az=16.0*

ISC 19 15:47:37.1±0.3**, 51°.50N**±0°.02×**16°.11E**±0°.02**, h0**^{km}**, n107,** σ**0^{s}.97**/195**, 2C-5D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.67	170	ePg	Pg	15 47 50.7	+0.8
KSP				eSg	Sg	15 47 59.4	+0.9
KSP	Ksiaz	0.67	170	i Pg	Pg	15 47 50.6	+0.8
KSP				i		15 47 51.3	
KSP				i Sg	Sg	15 47 59.4	+0.9
KSP				eL		15 48 02.7	
KSP	Ksiaz	0.67	170	ePg	Pg	15 47 50.6	+0.8
KSP				eSg	Sg	15 47 59.9	+1.4
KSP	Ksiaz	0.67	170	⇓iPg	Pg	15 47 50.6	+0.8
KSP				i		15 47 51.3	
KSP				i Sg	Sg	15 47 59.3	+0.8
KSP				e		15 48 02.7	
KSP	Ksiaz	0.67	170	Pg	Pg	15 47 50.6	+0.8
KSP				Sg	Sg	15 47 59.9	+1.4
UPC	Upice	1.00	184	ePG	Pg	15 47 56.7	+0.6
UPC	Upice	1.00	184	Pg	Pg	15 47 56.7	+0.6
DPC	Dobruska-Polom	1.16	173	ePn	Pn	15 47 59.4	-1.0
DPC				eSg	Sg	15 48 13.7	-0.5
DPC	Dobruska-Polom	1.16	173	ePG	Pg	15 47 59.5	+0.2
DPC				eSG	Sg	15 48 14.1	-0.2
	comp=Z,80nm,0.4s						
DPC	Dobruska-Polom	1.16	173	Pg	Pg	15 47 59.5	+0.2
DPC				Sg	Sg	15 48 13.7	-0.6
PVCC	Panska Ves	1.38	226	ePG	Pg	15 48 03.4	0.0
PVCC				eSG	Sg	15 48 21.0	-0.2
	comp=Z,266nm,0.2s						
PVCC	Panska Ves	1.38	226	Pg	Pg	15 48 03.4	0.0
PVCC				Sg	Sg	15 48 21.0	-0.2
	comp=Z,266nm,0.2s						
BRG	Berggiesshubel	1.50	246	ePn	Pn	15 48 04.5	-0.7
BRG				eSg	Sg	15 48 26.4	+1.2
BRG	Berggiesshubel	1.50	246	PN	Pn	15 48 03.8	-1.4
BRG				PG	Pg	15 48 06.3	+0.5
BRG				SG	Sg	15 48 26.3	+1.0
	comp=Z,130nm,0.4s						
BRG	Berggiesshubel	1.50	246	Pn	Pn	15 48 04.5	-0.7
RUE	Ruedersdorf	1.74	305	ePn	Pn	15 48 07.5	-1.0
RUE	Ruedersdorf	1.74	305	ePn	Pn	15 48 07.5	-1.0
PRU	Pruhonice	1.81	214	ePG	Pg	15 48 11.1	-0.7
PRU				eSG	Sg	15 48 34.8	-0.4
	comp=Z,40nm,0.4s						
PRU	Pruhonice	1.81	214	Pg	Pg	15 48 11.1	-0.7
PRU				Sg	Sg	15 48 34.8	-0.4
	comp=Z,40nm,0.4s						
FBE	Freiberg	1.83	253	ePn	Pn	15 48 10.7	+1.0
FBE				eSg	Sg	15 48 36.4	+0.6
FBE	Freiberg	1.83	253	Pn	Pn	15 48 10.7	+1.0
FBE				Sg	Sg	15 48 36.4	+0.7
RAC	Raciborz	1.94	136	ePg	Pg	15 48 14.4	+0.2
RAC				eSg	Sg	15 48 39.9	+0.6
MORC	Moravsky Berou	1.95	152	ePn	Pn	15 48 11.3	0.0
MORC				eSg	Sg	15 48 39.1	-0.6
MORC	Moravsky Berou	1.95	152	ePn	Pn	15 48 11.2	-0.2
MORC				eSg	Sg	15 48 38.9	-0.8
MORC	Moravsky Berou	1.95	152	Pn	Pn	15 48 11.3	-0.1
MORC				Sg	Sg	15 48 39.1	-0.6
CLL	Collm	1.96	266	ePn	Pn	15 48 11.0	-0.5
CLL				ePg	Pg	15 48 14.0	-0.5
CLL				eSg	Sg	15 48 40.7	+0.9
CLL	Collm	1.96	266	ePn	Pn	15 48 11.0	-0.4
CLL				ePg	Pg	15 48 14.0	-0.5
CLL				e		15 48 18.0	
CLL				i Sg	Sg	15 48 39.9	+0.1
	comp=Z,33nm,0.7s						
CLL	Collm	1.96	266	ePn	Pn	15 48 11.0	-0.4
CLL				ePg	Pg	15 48 14.0	-0.5
CLL				i Sg	Sg	15 48 39.9	+0.1
CLL	Collm	1.96	266	Pn	Pn	15 48 11.0	-0.4
CLL	Collm	1.96	266	Pg	Pg	15 48 14.0	-0.5
CLL				Sg	Sg	15 48 40.7	+0.9
OKC	Ostrava-Krasne	2.11	141	ePn	Pn	15 48 15.5	+2.0
OKC				eSg	Sg	15 48 44.5	-0.3
OKC	Ostrava-Krasne	2.11	141	ePG	Pg	15 48 17.3	-0.2
OKC				eSG	Sg	15 48 43.6	-1.2
	comp=Z,65nm,0.7s						
OKC	Ostrava-Krasne	2.11	141	Pn	Pn	15 48 15.5	+1.9
OKC	Ostrava-Krasne	2.11	141	Pg	Pg	15 48 17.3	-0.2
OKC				Sg	Sg	15 48 44.5	-0.3
VRAC	Vranov	2.22	172	Pn	Pn	15 48 15.3	+0.2
	comp=Z,2.7nm,0.3s,baz=338,slow=18,SNR=10						
VRAC				Pg	Pg	15 48 19.2	-0.3
	comp=Z,5.8nm,0.3s,baz=352,slow=18,SNR=16						
VRAC				Lg		15 48 47.8	
	comp=Z,2.8nm,0.3s,baz=252,slow=20,SNR=4.6						
VRAC	Vranov	2.22	172	ePn	Pn	15 48 15.1	+0.1
VRAC	Vranov	2.22	172	Pg	Pg	15 48 19.2	-0.3
VRAC				eSg	Sg	15 48 47.6	-0.6
TREC	Trest	2.25	190	ePN	Pn	15 48 16.8	+1.4
TREC				ePG	Pg	15 48 18.5	-1.5
TREC	Trest	2.25	190	Pn	Pn	15 48 16.8	+1.4
TANN	Tannenbergstha	2.55	246	ePn	Pn	15 48 19.9	+0.3
TANN	Tannenbergstha	2.55	246	Pn	Pn	15 48 19.9	+0.3
WERD	Werda	2.63	248	ePn	Pn	15 48 21.1	+0.4
WERD				eSg	Sg	15 49 01.7	+0.3
WERD	Werda	2.63	248	Pn	Pn	15 48 21.1	+0.5
WERD				Sg	Sg	15 49 01.7	+0.4
NKC	Novy Kostel	2.65	243	ePN	Pn	15 48 21.6	+0.7
NKC				ePG	Pg	15 48 27.9	+0.2
NKC				eSG	Sg	15 49 02.7	+0.7
	comp=Z,64nm,0.4s						
NKC	Novy Kostel	2.65	243	Pn	Pn	15 48 21.6	+0.7
OJC	Ojcow	2.67	117	ePg	Pg	15 48 28.1	0.0
OJC				eSg	Sg	15 49 04.1	+1.5
OJC	Ojcow	2.67	117	ePn	Pn	15 48 21.3	+0.1
OJC				eSg	Sg	15 49 04.6	+2.0
OJC	Ojcow	2.67	117	ePg	Pg	15 48 28.1	0.0
OJC				eSg	Sg	15 49 04.1	+1.5
OJC	Ojcow	2.67	117	Pn	Pn	15 48 21.3	+0.1
OJC	Ojcow	2.67	117	ePg	Pg	15 48 28.1	0.0
OJC				eSg	Sg	15 49 04.1	+1.5
KHC	Kasperske Hory	2.88	215	ePN	Pn	15 48 24.2	+0.1
KHC				ePG	Pg	15 48 30.4	-1.7
KHC				eSN	Sn	15 48 58.7	-0.6

KHC				*e*SG	**Sg**	**15 49 07.5**	**-1.8**
	comp=Z,24nm,0.5s						
KHC	**Kasperske Hory**	**2.88**	**215**	Pn	**Pn**	**15 48 24.2**	**+0.1**
MANZ	**Manzenberg**	**2.96**	**241**	*e*Pn	**Pn**	**15 48 25.7**	**+0.5**
MANZ				*e*Sg	**Sg**	**15 49 10.9**	**-1.2**
MANZ	**Manzenberg**	**2.96**	**241**	Pn	**Pn**	**15 48 25.7**	**+0.5**
MANZ				Sg	**Sg**	**15 49 10.9**	**-1.2**
MOX	**Moxa**	**2.96**	**255**	*e*PN	**Pn**	**15 48 25.5**	**+0.2**
MOX				*e*PG	**Pg**	**15 48 33.5**	**-0.3**
MOX				*e*SG	**Sg**	**15 49 13.3**	**+1.2**
MOX	**Moxa**	**2.96**	**255**	*e*Pn	**Pn**	**15 48 25.5**	**+0.2**
MOX				*e*Pg	**Pg**	**15 48 33.5**	**-0.3**
MOX				*e*Sg	**Sg**	**15 49 13.6**	**+1.4**
MOX	**Moxa**	**2.96**	**255**	*e*Pn	**Pn**	**15 48 25.5**	**+0.2**
MOX				*e*Pg	**Pg**	**15 48 33.5**	**-0.3**
MOX				*e*Sg	**Sg**	**15 49 13.3**	**+1.2**
MOX	**Moxa**	**2.96**	**255**	Pn	**Pn**	**15 48 25.5**	**+0.2**
ROTZ	**Rotzenmuhle**	**3.03**	**237**	*e*Pn	**Pn**	**15 48 26.9**	**+0.7**
ROTZ				*e*Sg	**Sg**	**15 49 13.9**	**-0.4**
ROTZ	**Rotzenmuhle**	**3.03**	**237**	Pn	**Pn**	**15 48 26.9**	**+0.7**
ROTZ				Sg	**Sg**	**15 49 13.9**	**-0.5**
GEC2	**GERESS Array S**	**3.08**	**211**	*e*Pn	**Pn**	**15 48 28.1**	**+1.3**
GEC2				*e*Sg	**Sg**	**15 49 13.3**	**-2.5**
GEC2	**GERESS Array S**	**3.08**	**211**	*e*Pn	**Pn**	**15 48 28.1**	**+1.3**
GEC2				*e*Sg	**Sg**	**15 49 13.3**	**-2.5**
GEC2	**GERESS Array S**	**3.08**	**211**	Pn	**Pn**	**15 48 28.1**	**+1.3**
GEC2				Sg	**Sg**	**15 49 13.3**	**-2.5**
GERES	**GERESS Array B**	**3.08**	**211**	Pn	**Pn**	**15 48 27.2**	**+0.3**
	comp=Z,2.7nm,0.3s,baz=29,slow=12,SNR=56						
GERES				Pg	**Pg**	**15 48 34.0**	**-2.0**
	comp=Z,6.0nm,0.3s,baz=27,slow=17,SNR=34						
GERES				Sn	**Sn**	**15 49 04.1**	**-0.2**
	comp=Z,3.4nm,0.3s,baz=38,slow=29,SNR=6.3						
GERES				Lg		15 49 13.7	
	comp=Z,6.6nm,0.3s,baz=30,slow=27,SNR=6.3						
GERES	**GERESS Array B**	**3.08**	**211**	Pn	**Pn**	**15 48 27.2**	**+0.4**
GERES	**GERESS Array B**	**3.08**	**211**	Pg	**Pg**	**15 48 34.0**	**-2.0**
WET	**Wettzell**	**3.14**	**223**	*e*Pn	**Pn**	**15 48 28.2**	**+0.5**
WET				*e*Sg	**Sg**	**15 49 18.7**	**+0.9**
WET	**Wettzell**	**3.14**	**223**	*e*Pn	**Pn**	**15 48 28.2**	**+0.5**
WET				*e*Sg	**Sg**	**15 49 18.7**	**+0.8**
WET	**Wettzell**	**3.14**	**223**	Pn	**Pn**	**15 48 28.2**	**+0.5**
WET				Sg	**Sg**	**15 49 18.7**	**+0.8**
MODS	**Modra-Piesok**	**3.22**	**166**	*e*PN	**Pn**	**15 48 30.2**	**+1.4**
MODS				*e*PG	**Pg**	**15 48 39.0**	**+0.3**
MODS				*e*SG	**Sg**	**15 49 22.8**	**+2.4**
MODS	**Modra-Piesok**	**3.22**	**166**	*e*Pn	**Pn**	**15 48 30.2**	**+1.4**
NIE	**Niedzica**	**3.40**	**126**	*e*P	**Pg**	**15 48 41.7**	**-0.5**
NIE				*e*S	**Sg**	**15 49 28.4**	**+2.2**
NIE	**Niedzica**	**3.40**	**126**	*e*P	**Pg**	**15 48 41.7**	**-0.5**
NIE				*e*S	**Sg**	**15 49 28.2**	**+2.0**
VYHS	**Vyhne**	**3.49**	**149**	*e*PN	**Pn**	**15 48 31.8**	**-0.7**
VYHS				*e*PG	**Pg**	**15 48 43.5**	**-0.3**
VYHS				*e*SG	**Sg**	**15 49 35.2**	**+6.2**
VYHS	**Vyhne**	**3.49**	**149**	*e*Pn	**Pn**	**15 48 31.9**	**-0.6**
VYHS				*e*Pg	**Pg**	**15 48 43.5**	**-0.3**
VYHS				*e*Sg	**Sg**	**15 49 35.2**	**+6.2**
VYHS	**Vyhne**	**3.49**	**149**	*e*Pn	**Pn**	**15 48 31.9**	**-0.6**
CONA	**Conrad Observa**	**3.58**	**183**	⇓*i*Pn	**Pn**	**15 48 33.7**	**0.0**
CONA				⇑*i*Sg	**Sg**	**15 49 31.8**	**-0.2**
	comp=Z,40nm,0.7s						
CONA	**Conrad Observa**	**3.58**	**183**	Pn	**Pn**	**15 48 33.7**	**-0.1**
CONA				Sg	**Sg**	**15 49 31.8**	**-0.2**
	comp=Z,40nm,0.7s						
CSNA	**Conrad Observa**	**3.58**	**183**	⇓*i*Pn	**Pn**	**15 48 33.6**	**-0.1**
CSNA				⇓*i*Sg	**Sg**	**15 49 31.4**	**-0.6**
	comp=Z,27nm,0.7s						
CSNA	**Conrad Observa**	**3.58**	**183**	Pn	**Pn**	**15 48 33.6**	**-0.2**
CSNA				Sg	**Sg**	**15 49 31.4**	**-0.6**
	comp=Z,27nm,0.7s						
CLZ	**Clausthal**	**3.59**	**278**	*e*Sg	**Sg**	**15 49 33.4**	**+1.1**
CLZ	**Clausthal**	**3.59**	**278**	Sg	**Sg**	**15 49 33.4**	**+1.1**
GRA1	**Grafenberg Arr**	**3.60**	**242**	Sg	**Sg**	**15 49 33.7**	**+1.0**
GRF	**Grafenberg Arr**	**3.60**	**242**	*e*Sg	**Sg**	**15 49 33.7**	**+1.0**
BSD	**Bornholm Skovb**	**3.69**	**349**	*i* P	**Pn**	**15 48 34.7**	**-0.6**
BSD				*i* S	**Sn**	**15 49 14.9**	**-4.5**
BSD				*i* S	**Sn**	**15 49 15.0**	**-4.4**
BSD				*i* LG		15 49 17.2	
BSD	**Bornholm Skovb**	**3.69**	**349**	*i* P	**Pn**	**15 48 34.7**	**-0.6**
BSD				*i* S	**Sn**	**15 49 14.9**	**-4.5**
BSD				*i* Lg		15 49 17.2	
BSD	**Bornholm Skovb**	**3.69**	**349**	*i* P	**Pn**	**15 48 34.7**	**-0.6**
MOA	**Molln**	**3.85**	**199**	⇓*i*Pn	**Pn**	**15 48 37.8**	**+0.4**
MOA				⇑*i*Sg	**Sg**	**15 49 40.2**	**-0.3**
	comp=Z,28nm,0.6s						
MOA	**Molln**	**3.85**	**199**	Pn	**Pn**	**15 48 37.8**	**+0.4**
MOA				Sg	**Sg**	**15 49 40.2**	**-0.3**
	comp=Z,28nm,0.6s						
STHS	**Stebnicka Huta**	**3.89**	**120**	*e*PN	**Pn**	**15 48 38.4**	**+0.4**
STHS				*e*PG	**Pg**	**15 48 52.2**	**+0.7**
STHS				*e*SG	**Sg**	**15 49 45.7**	**+3.9**
STHS	**Stebnicka Huta**	**3.89**	**120**	*e*Pn	**Pn**	**15 48 38.4**	**+0.4**
KECS	**Kecovo**	**4.13**	**135**	*e*PN	**Pn**	**15 48 40.9**	**-0.5**
KECS				*e*PG	**Pg**	**15 48 56.0**	**-0.2**
KECS				*e*SG	**Sg**	**15 49 48.0**	**-1.8**
CRVS	**Cervenica-Dubn**	**4.31**	**125**	*e*PN	**Pn**	**15 48 44.6**	**+0.8**
CRVS				*e*PG	**Pg**	**15 49 01.8**	**+2.2**
CRVS				*e*SG	**Sg**	**15 49 53.7**	**-1.7**
CRVS	**Cervenica-Dubn**	**4.31**	**125**	*e*Pn	**Pn**	**15 48 44.6**	**+0.8**
KWP	**Kalwaria Pacla**	**4.60**	**111**	*e*Pg	**Pg**	**15 49 02.3**	**-2.9**
KWP	**Kalwaria Pacla**	**4.60**	**111**	*e*Pg	**Pg**	**15 49 02.3**	**-2.9**
KOLS	**Kolonicke sedl**	**4.72**	**121**	*e*PN	**Pn**	**15 48 48.3**	**-1.1**
KOLS				*e*PG	**Pg**	**15 49 09.3**	**+1.9**
KOLS	**Kolonicke sedl**	**4.72**	**121**	*e*Pn	**Pn**	**15 48 48.3**	**-1.1**
DAVOX	**Davos/Dischmat**	**6.25**	**223**	Pn	**Pn**	**15 49 09.9**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=15,slow=19,SNR=2.4						
DAVOX	**Davos/Dischmat**	**6.25**	**223**	Pn	**Pn**	**15 49 09.9**	**-0.5**
AKASG	**Malin Array Be**	**8.30**	**90**	Pn	**Pn**	**15 49 37.6**	**-0.8**
	comp=Z,1.4nm,0.3s,baz=280,slow=12,SNR=5.6						
AKASG	**Malin Array Be**	**8.30**	**90**	Pn	**Pn**	**15 49 37.7**	**-0.8**
HFS	**Hagfors**	**8.76**	**352**	Pn	**Pn**	**15 49 44.1**	**-0.7**
	comp=Z,0.1nm,0.3s,baz=170,slow=19,SNR=3.8						
HFS				Sn	**Sn**	**15 51 19.1**	**-5.0**
	comp=Z,0.2nm,0.3s,baz=160,slow=26,SNR=3.3						
HFS	**Hagfors**	**8.76**	**352**	Pn	**Pn**	**15 49 44.0**	**-0.8**
NOA	**NORSAR Array B**	**9.94**	**346**	Pn	**Pn**	**15 49 59.1**	**-1.8**
	comp=Z,0.1nm,0.3s,baz=162,slow=15,SNR=2.6						
EKA	**Eskdalemuir Ar**	**12.11**	**296**	Pn	**Pn**	**15 50 30.2**	**-0.5**
	baz=100,slow=12,SNR=4.8						
ARCES	**ARCESS Array B**	**18.63**	**10**	Pn	**Pn**	**15 51 51.6**	**-4.4**
	comp=Z,0.1nm,0.3s,baz=194,slow=15,SNR=5.8						

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*CSEM **19** 15:53:37.0, 35°.33N×0°.30W, h0^{km}, ML3.7, After ALG*

CRAAG 19 15:53:37.0, 35°.33N×0°.30W, Ml3.7, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ODJA	**Bouhanifia**	**0.13**	**90**	P	Pg	15 53 47.0	+7.6
OJBR	**Djebel Berber**	**0.59**	**64**	P	Pg	15 53 51.0	+2.7
OJBR	**Djebel Berber**	**0.59**	**64**	P	Pg	15 53 51.0	+2.7
OJGS	**Djebel Guires**	**0.88**	**78**	P	Pg	15 54 02.0	+8.2
OJGS	**Djebel Guires**	**0.88**	**78**	P	Pg	15 54 02.0	+8.2
OKGL	**Djebel Kef Gue**	**1.05**	**47**	P	Pg	15 53 58.0	+0.9
OKGL	**Djebel Kef Gue**	**1.05**	**47**	P	Pg	15 53 58.0	+0.9
EANR	**'Ain N'Sour**	**1.30**	**61**	P	Pg	15 54 03.0	+1.1
EANR	**'Ain N'Sour**	**1.30**	**61**	P	Pg	15 54 03.0	+1.1
ETRT	**Tiaret**	**1.31**	**87**	P	Pg	15 54 16.0	+14
ETRT	**Tiaret**	**1.31**	**87**	P	Pg	15 54 16.0	+14

IDC 19 15:53:49.7±6.2**, 7°.77S×157°.52E, h0^{km}, mb3.4**/4**, mb1 3.5**/4**, mb1mx3.4**/16**, mbtmp3.4**/4**, Error ellipse: s-maj=182.7km s-min=33.2km az=112.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**25.51**	**239**	P	P	15 59 21.4	+1.4
	0.3nm,0.7s,baz=63,slow=8.7,SNR=6.7						
ASAR	**Alice Springs**	**27.61**	**232**	P	P	15 59 38.0	-1.0
	0.2nm,0.5s,baz=64,slow=10,SNR=3.8						
SONM	**Songino Array**	**71.34**	**326**	P	P	16 05 13.0	+1.7
	0.6nm,0.8s,baz=123,slow=5.0,SNR=4.6						
MKAR	**Makanchi Array**	**85.64**	**318**	P	P	16 06 28.9	-1.4
	0.1nm,0.2s,baz=104,slow=6.1,SNR=2.2						

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*NEIC **19** 15:53:49.6, 31°.64S×69°.90W, h132^{km}, MD3.8(GUC), After GUC.*

GUC 19 15:53:49.6±0.6**, 31°.64S×69°.90W, h132^{km}**±7^{km}**, MD3.8, ML4.0, 5C-4D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	**Combarbala**	**1.05**	**296**	⇓*i*P	Pn	15 54 13.7	+0.5
CMCH				*i* S	Sn	15 54 31.9	+0.8
CMCH	**Combarbala**	**1.05**	**296**	⇓*i*P	Pn	15 54 13.7	+0.5
CMCH				*i* S	Sn	15 54 31.9	+0.8
CMCH				AML	AML	15 54 34.0	
	comp=N,5μm,0.5s						
JACH	**Jahuel**	**1.19**	**210**	*i* P	Pn	15 54 14.9	+0.4
JACH	**Jahuel**	**1.19**	**210**	*i* P	Pn	15 54 14.9	+0.4
CHNG	**Los Chungos**	**1.39**	**260**	*e*P	Pn	15 54 17.1	+0.5
CHNG				*i* S	Sn	15 54 37.4	+0.3
OVCH	**Ovalle**	**1.52**	**312**	*e*P	Pn	15 54 18.6	+0.5
OVCH				*i* S	Sn	15 54 40.3	+0.5
OVCH	**Ovalle**	**1.52**	**312**	*e*P	Pn	15 54 18.6	+0.5
OVCH				*i* S	Sn	15 54 40.3	+0.5
PEL	**Peldehue**	**1.64**	**204**	*e*P	Pn	15 54 19.6	+0.2
PEL				*i* S	Sn	15 54 42.4	+0.3
PEL				AML	AML	15 54 43.8	
	comp=N,1μm,0.4s						
TLL	**Tololo Astrono**	**1.67**	**332**	⇑*e*P	Pn	15 54 20.7	+1.0
TLL				*i* S	Sn	15 54 44.0	+1.3
TLL	**Tololo Astrono**	**1.67**	**332**	⇑*e*P	Pn	15 54 20.7	+1.0
TLL				*i* S	Sn	15 54 44.0	+1.3
TLL				AML	AML	15 54 45.3	
	comp=N,709nm,0.5s						
FCH	**Farellones**	**1.71**	**191**	⇑*e*P	Pn	15 54 21.6	+1.4
FCH				*e*S	Sn	15 54 45.8	+2.2
FCH				AML	AML	15 54 47.6	
	comp=E,1μm,0.3s						
RCDM	**Rinconada Maip**	**1.99**	**202**	*e*P	Pn	15 54 24.2	+0.6
RCDM				*i* S	Sn	15 54 50.5	+0.9
RCDM	**Rinconada Maip**	**1.99**	**202**	*e*P	Pn	15 54 24.2	+0.6
RCDM				*i* S	Sn	15 54 50.5	+0.9
RCDM				AML	AML	15 54 51.1	
	comp=E,2μm,0.2s						
ANTU	**Antumapu**	**2.02**	**198**	P	Pn	15 54 23.8	-0.1
ANTU				*i* S	Sn	15 54 50.9	+0.7
ANTU	**Antumapu**	**2.02**	**198**	*e*P	Pn	15 54 23.8	-0.1
ANTU				*i* S	Sn	15 54 50.9	+0.7
ANTU				AML	AML	15 54 52.8	
	comp=E,2μm,0.5s						
PCH	**Pirque**	**2.04**	**195**	*e*P	Pn	15 54 24.9	+0.8
PCH	**Pirque**	**2.04**	**195**	*e*P	Pn	15 54 24.9	+0.8
TACH	**Talagante**	**2.19**	**203**	⇓*e*P	Pn	15 54 26.2	+0.3
TACH	**Talagante**	**2.19**	**203**	⇓*e*P	Pn	15 54 26.2	+0.3
CHCH	**Chadas Angostu**	**2.37**	**195**	⇑*e*P	Pn	15 54 28.8	+0.6
CHCH	**Chadas Angostu**	**2.37**	**195**	⇑*e*P	Pn	15 54 28.8	+0.6
CACH	**El Canelo**	**2.54**	**193**	*e*P	Pn	15 54 31.4	+1.1
CACH	**El Canelo**	**2.54**	**193**	*e*P	Pn	15 54 31.4	+1.1

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*ISCJB **19** 16:08:43.1±0.5, 32°.50N±0°.03×115°.30W±0°.03, h12^{km}±4^{km}, Error ellipse: s-maj=5.4km s-min=3.6km az=170.3*

*ECX **19** 16:08:45.1±0.5, 32°.51N×115°.33W, h6^{km}, MD2.7, ML2.8*

ISC 19 16:08:43.1±0.5**, 32°.49N**±0°.03×**115°.30W**±0°.03**, h17^{km}**±3^{km}**, n21, σ0ˢ.73**/32**, 13C-10D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	**0.07**	**183**	*e*P	**Pg**	**16 08 44.8**	**-1.5**
CPBX				*e*S	**Sg**	**16 08 46.8**	**-1.6**
CPBX				*e*		16 08 48.0	
	comp=N,20μm,0.3s						
SGL	**Mount Signal**	**0.39**	**294**	⇑*i*P	**Pg**	**16 08 51.4**	**+0.3**
COA	**Coachella**	**0.40**	**22**	⇓*i*P	**Pg**	**16 08 52.5**	**+1.2**
COK	**Cook Ranch**	**0.51**	**315**	*e*P	**Pg**	**16 08 53.8**	**+0.5**
YUH	**Yuha Desert**	**0.55**	**287**	⇑*i*P	**Pg**	**16 08 54.0**	**-0.1**
112A	**Yuma**	**0.61**	**85**	⇑P	**Pg**	**16 08 55.6**	**+0.5**
	baz=0.6						
112A				⇓S	**Sg**	**16 09 04.4**	**+1.2**
	baz=0.6						
SWSC	**Sam W. Stewart**	**0.61**	**317**	⇓P	**Pg**	**16 08 55.0**	**-0.2**
	baz=0.7,SNR=6.8						
SWSC				⇑S	**Sg**	**16 09 04.3**	**+0.8**
	baz=0.7						
RMX	**La Rumorosa**	**0.67**	**280**	⇓*e*P	**Pg**	**16 08 56.3**	**+0.1**
RMX				*e*S	**Sg**	**16 09 05.6**	**+0.5**
GLA	**Glamis**	**0.69**	**35**	⇑P	**Pg**	**16 08 56.7**	**0.0**
	baz=0.8,SNR=26						
GLA				⇑S	**Sg**	**16 09 06.0**	**+0.3**
	baz=0.8						
CRR	**Carrizo Plain**	**0.69**	**305**	*e*P	**Pg**	**16 08 56.5**	**-0.1**
DVTC	**Desert V Tower**	**0.70**	**284**	⇑P	**Pg**	**16 08 56.7**	**-0.1**
	baz=0.7,SNR=7.4						
DVTC				⇓S	**Sg**	**16 09 06.4**	**+0.4**
	baz=0.7						
RDX	**Rancho Dawling**	**0.78**	**225**	*e*P	**Pb**	**16 08 58.3**	**+0.1**
RDX				*e*S	**Sb**	**16 09 09.2**	**+0.6**
RDX				⇓*e*		16 09 11.6	
	comp=N,136nm,0.6s						
MONP	**Monument Peak**	**1.03**	**293**	⇑P	**Pb**	**16 09 01.8**	**-0.6**
	baz=1.1,SNR=9.4						
MONP				⇑S	**Sb**	**16 09 15.7**	**+0.1**
	baz=1.1						
CBX	**Cerro Bola**	**1.17**	**262**	*e*P	**Pn**	**16 09 05.0**	**+0.4**
CBX				*e*S	**Sb**	**16 09 20.6**	**+0.9**
BC3	**Big Chuckw Mtn**	**1.17**	**354**	⇓P	**Pn**	**16 09 03.5**	**-1.2**
	baz=1.3,SNR=49						
113A	**Mohawk Valley,**	**1.32**	**77**	⇑P	**Pn**	**16 09 06.1**	**-0.7**
	baz=1.3						
113A				⇓S	**Sn**	**16 09 24.4**	**+0.4**
	baz=1.3						
ECNX	**Esteban Cantu**	**1.38**	**233**	*e*P	**Pn**	**16 09 08.6**	**+1.0**
Y12C	**Blythe**	**1.42**	**27**	⇑Pb	**Pb**	**16 09 08.6**	**-0.5**
	baz=1.5,SNR=15						
PFO	**Pinyon Flat Ob**	**1.48**	**319**	⇓P	**Pn**	**16 09 08.1**	**-0.9**
	baz=1.6,SNR=11						
PFO				⇑S	**Sn**	**16 09 26.8**	**-1.2**
	baz=1.6						
109C	**Camp Elliot, M**	**1.57**	**285**	⇓S	**Sn**	**16 09 29.6**	**-0.7**
	baz=1.6						
IRM	**Iron Mountain**	**1.67**	**4**	⇑Pb	**Pb**	**16 09 13.4**	**-0.1**
	baz=1.8,SNR=18						

ISC 19 16:10:29.2±0.7**, 49°.43N**±0°.04×**20°.94E**±0°.05**, h0^{km}, n6, σ0ˢ.94**/12**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STHS	**Stebnicka Huta**	**0.20**	**94**	*e*PG	**Pg**	**16 10 32.2**	**-0.9**
STHS				*e*SG	**Sg**	**16 10 35.3**	**-0.3**
NIE	**Niedzica**	**0.41**	**268**	*e*Pg	**Pg**	**16 10 36.8**	**-0.3**
NIE				*e*Sg	**Sg**	**16 10 43.9**	**+1.6**
CRVS	**Cervenica-Dubn**	**0.63**	**147**	*e*PG	**Pg**	**16 10 40.9**	**-0.4**
CRVS				*e*SG	**Sg**	**16 10 52.8**	**+3.3**
KECS	**Kecovo**	**0.99**	**198**	*e*PG	**Pg**	**16 10 47.7**	**-0.6**
KECS				*e*SG	**Sg**	**16 11 00.1**	**-1.1**
KOLS	**Kolonicke sedl**	**1.01**	**119**	*e*PG	**Pg**	**16 10 48.6**	**+0.1**
KOLS				*e*SG	**Sg**	**16 11 03.1**	**+1.5**
OJC	**Ojcow**	**1.08**	**317**	*e*Pg	**Pg**	**16 10 49.8**	**-0.1**
OJC				*e*Sg	**Sg**	**16 11 03.8**	**-0.1**

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*IDC **19** 16:21:55.6±1.0, 47°.18N×153°.58E, h0^{km}, mb3.9/8, mb1 4.1/9, mb1mx3.8/23, mbtmp3.9/9, ML3.4/1, Error ellipse: s-maj=35.7km s-min=19.8km az=113.0*

*ISCJB **19** 16:22:00.8±1.2, 47°.18N±0°.10×153°.6E±0°.2, h49^{km}±10^{km}, mb4.0/9, Error ellipse: s-maj=23.6km s-min=6.6km az=42.3*

*MOS **19** 16:22:00.5±1.6, 47°.13N×153°.60E, h45^{km}, mb4.1/7, Error ellipse: s-maj=15.7km s-min=8.7km az=59.3*

*NEIC **19** 16:22:03.5±1.1, 47°.22N×153°.49E, h60^{km}±10^{km}, mb3.9/1, Error ellipse: s-maj=20.6km s-min=7.7km az=133.0*

ISC 19 16:22:03.3±1.0**, 47°.2N**±0°.1×**153°.6E**±0°.2**, h54^{km}**±9^{km}**, n37, σ1ˢ.16**/37**, mb4.0**/9**, 4C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**3.87**	**25**	*e*PN	**Pn**	**16 23 01.2**	**+1.0**
SKR				*e*S	**Sn**	**16 23 42.9**	**-1.5**
SKR				pmax	pmax		
	comp=N,40nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,80nm,0.5s						
SKR				smax			
	comp=E,80nm,0.5s						
SKR				smax			
	comp=Z,50nm,0.5s						
KUR	**Kuril'sk**	**4.42**	**246**	*e*PN	**Pn**	**16 23 05.0**	**-2.7**
KUR				pmax	pmax		
	comp=Z,110nm,0.8s						
YUK	**Yuzh-Kuril'sk**	**6.26**	**242**	PN	**Pn**	**16 23 32.8**	**-0.2**
PEA0B	**Petropavlovsk-**	**6.49**	**23**	*e*Pn	**Pn**	**16 23 36.6**	**+0.6**
PETK	**Petropavlovsk-**	**6.49**	**23**	PN	**Pn**	**16 23 36.0**	**0.0**
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK	**Petropavlovsk-**	**6.49**	**23**	Pn	**Pn**	**16 23 36.0**	**0.0**
	comp=Z,0.9nm,0.3s,baz=180,slow=12,SNR=36						
PET	**Petropavlovsk**	**6.69**	**27**	*e*PN	**Pn**	**16 23 38.0**	**-0.8**
YSS	**Yuzh-Sakhalins**	**7.39**	**272**	⇑*e*PN	**Pn**	**16 23 50.3**	**+1.9**
YSS				pmax	pmax		
	comp=Z,10.0nm,0.8s						
YSS	**Yuzh-Sakhalins**	**7.39**	**272**	P	**Pn**	**16 23 48.7**	**+0.3**
ASAJ	**Asahikawa**	**8.28**	**252**	PN	**Pn**	**16 24 01.7**	**+1.1**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**8.28**	**252**	Pn	**Pn**	**16 24 01.6**	**+1.0**
	comp=Z,0.6nm,0.3s,baz=78,slow=19,SNR=6.6						
ERM	**Erimo**	**9.05**	**239**	⇑*i*PN	**Pn**	**16 24 11.9**	**+0.7**
ERM	**Erimo**	**9.05**	**239**	*e*P	**Pn**	**16 24 11.4**	**+0.2**
MJAR	**Matsushiro Arr**	**15.60**	**232**	*e*P	**Pn**	**16 25 39.9**	**+0.3**
MJAR	**Matsushiro Arr**	**15.60**	**232**	Pn	**Pn**	**16 25 38.2**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=22,slow=9.5,SNR=4.1						
YAK	**Yakutsk**	**20.12**	**326**	⇑*i*P	**P**	**16 26 36.0**	**+3.7**
YAK				pmax	pmax		
	comp=Z,9.0nm,1.3s						
KSRS	**Korea Array**	**21.23**	**252**	P	**P**	**16 26 45.1**	**+0.6**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.5						
KSRS	**Korea Array**	**21.23**	**252**	P	**P**	**16 26 45.0**	**+0.5**
	comp=Z,1.9nm,0.8s,mb3.5,baz=55,slow=10,SNR=5.1						
ULN	**Ulaanbaatar**	**31.05**	**289**	*e*P	**P**	**16 28 13.3**	**-2.5**
ULN				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
ULN	**Ulaanbaatar**	**31.05**	**289**	*e*P	**P**	**16 28 13.3**	**-2.4**
	comp=Z,1.3nm,0.5s,mb4.0						
YKA	**Yellowknife Ar**	**50.38**	**37**	P	**P**	**16 30 55.3**	**+0.8**
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	**Yellowknife Ar**	**50.38**	**37**	P	**P**	**16 30 55.4**	**+0.9**
YKA	**Yellowknife Ar**	**50.38**	**37**	P	**P**	**16 30 55.3**	**+0.9**
	comp=Z,1.8nm,0.7s,mb4.2,baz=296,slow=7.2,SNR=21						
CMAR	**Chiang Mai Arr**	**52.78**	**256**	P	**P**	**16 31 13.2**	**+0.2**
	comp=Z,0.4nm,0.5s,mb3.6,baz=29,slow=6.6,SNR=4.3						
ARU	**Arti**	**54.89**	**317**	⇑*i*P	**P**	**16 31 29.4**	**+1.5**
ARU				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
ARCES	**ARCESS Array B**	**57.53**	**341**	P	**P**	**16 31 46.0**	**-0.5**
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ARCES	**ARCESS Array B**	**57.53**	**341**	P	**P**	**16 31 46.0**	**-0.5**
	comp=Z,6.0nm,1.1s,mb4.5,baz=27,slow=8.3,SNR=2.5						
FFC	**Flin Flon**	**60.20**	**40**	*i* P	**P**	**16 32 07.3**	**+2.1**
NB2	**NORSAR Subarra**	**67.91**	**341**	P	**P**	**16 32 55.0**	**-0.6**
	comp=Z,1.0nm,0.6s,mb4.0,baz=28,slow=6.5						
NOA	**NORSAR Array B**	**67.91**	**341**	*e*P	**P**	**16 32 55.3**	**-0.3**
NOA	**NORSAR Array B**	**67.91**	**341**	P	**P**	**16 32 55.3**	**-0.3**
	comp=Z,1.1nm,0.6s,mb4.1,baz=27,slow=6.3,SNR=7.3						
WRA	**Warramunga Arr**	**69.04**	**199**	P	**P**	**16 33 01.9**	**-1.2**
	comp=Z,0.4nm,0.8s,baz=15,slow=6.8,SNR=3.0						
AKASG	**Malin Array Be**	**71.35**	**326**	P	**P**	**16 33 15.7**	**-1.3**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	**71.35**	**326**	P	**P**	**16 33 15.7**	**-1.3**
	comp=Z,1.1nm,0.5s,mb4.1,baz=33,slow=5.9,SNR=4.0						
ASAR	**Alice Springs**	**72.73**	**199**	P	**P**	**16 33 25.4**	**0.0**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	**72.73**	**199**	P	**P**	**16 33 25.4**	**0.0**
	comp=Z,0.7nm,0.7s,mb3.7,baz=8.0,slow=6.0,SNR=13						
ABPO	**Ambohimpanom**	**114.73**	**268**	*i* PKIKP	PKiKP	16 40 36.0	-1.7

IDC 19 16:26:41.6±3.9**, 15°.12S×174°.47W, h117^{km}**±57^{km}**, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.4**/18**, mbtmp3.7**/4**, Error ellipse: s-maj=162.2km s-min=45.1km az=154.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**2.88**	**66**	P	Pn	16 27 27.7	+1.5
	59nm,0.3s,baz=72,slow=0.6,SNR=120						
AFI				S	Sn	16 28 00.7	+0.2
	68nm,0.3s,baz=83,slow=21,SNR=5.8						
STKA	**Stephens Creek**	**43.28**	**239**	P	P	16 34 31.3	-0.5
	0.9nm,0.5s,baz=110,slow=12,SNR=3.1						
WRA	**Warramunga Arr**	**48.90**	**257**	P	P	16 35 15.9	-0.1
	0.9nm,0.5s,baz=91,slow=7.0,SNR=32						
WRA				PcP	PcP	16 36 39.1	+0.4
	0.3nm,0.5s,baz=96,slow=3.6,SNR=5.3						
ASAR	**Alice Springs**	**49.21**	**252**	P	P	16 35 18.1	-0.3
	2.7nm,0.7s,baz=88,slow=7.2,SNR=53						

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*IDC **19** 16:39:27.6±1.9, 4°.24S×101°.15E, h0^{km}, mb4.0/9, mb1 4.1/9, mb1mx4.0/21, mbtmp4.0/9, Error ellipse: s-maj=74.3km s-min=16.6km az=58.0*

*ISCJB **19** 16:39:32.9±2.0, 4°.2S±0°.1×101°.1E±0°.2, h57^{km}±13^{km}, mb4.1/8, Error ellipse: s-maj=35.0km s-min=8.8km az=140.3*

*NEIC **19** 16:39:32.4±1.4, 4°.29S×101°.05E, h35^{km}, mb4.1/2, Error ellipse: s-maj=56.7km s-min=8.1km az=57.0*

*DJA **19** 16:39:41, 3°.61S×101°.87E, h45^{km}, MLv3.9/8*

ISC 19 16:39:34.9±1.8**, 4°.2S**±0°.1×**101°.2E**±0°.2**, h53^{km}**±12^{km}**, n26, σ0ˢ.91**/24**, mb4.1**/8**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSI	**Kapahiang**	**1.47**	**69**	P	**Pn**	**16 39 59.0**	**0.0**
MNAI	**Manna**	**1.74**	**96**	P	**Pn**	**16 40 02.0**	**-0.7**
PPSI	**Pulau Pagai**	**1.86**	**319**	P	Px	16 40 17.5	
MDSI	**Maura Dua**	**2.96**	**96**	P	**Pn**	**16 40 18.8**	**-0.7**
SDSI	**Sungai Dareh**	**3.23**	**4**	P	**Pn**	**16 40 23.0**	**-0.3**
KASI	**Kota Agung**	**3.52**	**112**	P	**Pn**	**16 40 28.8**	**+1.6**
PPI	**Padang Panjang**	**3.79**	**347**	P	**Pn**	**16 40 33.7**	**+2.8**
GSI	**Gunungsitoli**	**6.55**	**326**	P	**Pn**	**16 41 08.1**	**-0.7**
CMAR	**Chiang Mai Arr**	**22.61**	**354**	P	**P**	**16 44 29.9**	**-1.3**
	2.3nm,0.7s,baz=183,slow=8.7,SNR=21						
CHTO	**Chiang Mai**	**22.96**	**354**	P	**P**	**16 44 34.6**	**-0.3**
FITZ	**Fitzroy Crossi**	**27.61**	**122**	*e*P	**P**	**16 45 17.2**	**-0.3**
WRA	**Warramunga Arr**	**35.86**	**119**	P	**P**	**16 46 29.3**	**-0.7**
	1.0nm,0.8s,mb3.8,baz=300,slow=10,SNR=5.3						
WRAB	**Tennant Creek**	**35.87**	**119**	*e*P	**P**	**16 46 29.6**	**-0.5**
WB2	**Warramunga Arr**	**35.87**	**119**	*e*P	**P**	**16 46 31.9**	**+1.8**
ASAR	**Alice Springs**	**37.00**	**125**	P	**P**	**16 46 39.4**	**-0.2**
	0.9nm,0.8s,baz=299,slow=7.8,SNR=14						
STKA	**Stephens Creek**	**46.80**	**131**	P	**P**	**16 47 59.1**	**-0.4**
	2.6nm,0.7s,mb4.3,baz=128,slow=20,SNR=4.8						
KSRS	**Korea Array**	**48.30**	**29**	P	**P**	**16 48 10.7**	**-0.3**
	2.0nm,0.9s,mb4.2,baz=217,slow=8.7,SNR=5.3						
SONM	**Songino Array**	**51.99**	**4**	P	**P**	**16 48 40.0**	**+1.2**
	2.8nm,0.8s,mb4.3,baz=185,slow=9.1,SNR=19						
ULN	**Ulaanbaatar**	**52.08**	**5**	*e*P	**P**	**16 48 40.7**	**+1.3**
	1.0nm,0.8s,mb3.8						
MKAR	**Makanchi Array**	**53.45**	**344**	P	**P**	**16 48 49.8**	**+0.3**
	2.5nm,0.7s,mb4.2,baz=148,slow=8.4,SNR=28						
KURK	**Kurchatov**	**58.03**	**343**	P	**P**	**16 49 21.8**	**-0.6**
	1.7nm,0.8s,mb4.1,baz=163,slow=7.1,SNR=9.3						
KURK	**Kurchatov**	**58.03**	**343**	*e*P	**P**	**16 49 21.7**	**-0.6**
	3.6nm,1.0s,mb4.4						
ZAA0	**Zalesovo Array**	**59.53**	**349**	*e*P	**P**	**16 49 32.7**	**+0.1**
ZALV	**Zalesovo Beam**	**59.53**	**349**	P	**P**	**16 49 32.2**	**-0.4**
	2.0nm,0.7s,mb4.3,baz=181,slow=5.9,SNR=11						
ZALV	**Zalesovo Beam**	**59.53**	**349**	P	**P**	**16 49 32.2**	**-0.4**
TXAR	**Lajitas Array**	**145.62**	**41**	PKPbc	PKPbc	16 59 09.2	+0.9
	1.6nm,0.8s,baz=288,slow=0.9,SNR=11						

IDC 19 16:45:45.7±3.7**, 4°.43S×100°.94E, h0^{km}, mb3.5**/6**, mb1 3.6**/6**, mb1mx3.5**/21**, mbtmp3.5**/6**, MS3.1**/1**, Ms1 3.1**/1**, ms1mx2.9**/32**, Error ellipse: s-maj=144.3km s-min=20.6km az=56.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**22.82**	**355**	P	P	16 50 50.6	+0.2
	0.6nm,0.6s,baz=187,slow=8.2,SNR=6.4						
TGY	**Tagaytay City**	**27.07**	**47**	LR	LR	17 02 00.1	
	comp=Z,40nm,18.5s,baz=0.3,slow=36						
WRA	**Warramunga Arr**	**36.00**	**118**	P	P	16 52 48.3	-0.4
	0.7nm,1.0s,baz=312,slow=8.8,SNR=5.5						
ASAR	**Alice Springs**	**37.10**	**124**	P	P	16 52 58.4	+0.4
	0.3nm,0.7s,baz=300,slow=7.4,SNR=3.7						

SONM	Songino Array	52.26	5	P	P	16 54 58.9	+0.3
	1.0nm,0.8s,baz=184,slow=9.1,SNR=6.8						
MKAR	Makanchi Array	53.60	344	P	P	16 55 08.9	+0.3
	0.8nm,0.7s,baz=149,slow=7.7,SNR=8.5						
ZALV	Zalesovo Beam	59.71	349	P	P	16 55 51.3	-0.7
	0.2nm,0.3s,baz=169,slow=8.2,SNR=3.8						

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*IDC **19** 16:53:29.9±1.2, 10°.89S×119°.83E, h0^{km}, mb4.0/3, mb1 4.1/6, mb1mx3.9/19, mbtmp4.0/6, ML3.7/3, Error ellipse: s-maj=54.9km s-min=19.5km az=61.0*

*DJA **19** 16:53:41, 10°.86S×119°.12E, h30^{km}, MLv4.8/5*

ISC 19 16:53:33.3±3.3**, 11°.0S**±0°.1×**119°.6E**±0°.1**, h25**^{km}±29^{km}**, n20,** σ**1^{s}.46**/20**, mb4.3**/3**, 1C, South of Sumba**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	1.53	27	P	Px	16 54 08.0	
WSI				S	Sx	16 54 30.1	
KHKI	Kahang-Kahang	4.75	304	P	Pn	16 54 45.0	+1.6
KHKI				S	Sn	16 55 35.1	-2.6
IGBI	Denpasar	4.92	296	P	Pn	16 54 43.9	-1.7
DNP	Denpasar	4.92	298	P	Pn	16 54 44.1	-1.6
SRBI	Singaraja	5.23	304	P	Pn	16 54 52.6	+2.6
ABJI	Asem Bagus	6.20	301	P	Pn	16 55 04.3	+1.0
FITZ	Fitzroy Crossi	9.13	141	eP	Pn	16 55 41.8	-1.7
	20nm,0.8s						
FITZ				eS	Sx	16 57 15.1	
FITZ	Fitzroy Crossi	9.13	141	Pn	Pn	16 55 42.3	-1.2
	0.5nm,0.3s,baz=303,slow=7.3,SNR=11						
FITZ				Sn	Sx	16 57 12.9	
	4.7nm,0.3s,baz=196,slow=18,SNR=15						
MBWA	Marble Bar	10.06	179	⇑iP	Pn	16 55 50.0	-6.2
MBWA				eS	Sx	16 57 29.4	
KNA	Kununurra	10.07	119	eP	Pn	16 55 57.4	+1.0
	11nm,0.6s						
KNA				eS	Sx	16 57 38.7	
MEEK	Meekatharra	15.54	183	eP	Pn	16 57 04.0	-6.8
	19nm,0.3s						
MEEK				eS	Sx	16 59 36.7	
WRA	Warramunga Arr	16.72	124	Pn	Pn	16 57 23.5	-2.4
	0.3nm,0.3s,baz=298,slow=13,SNR=17						
WRA				Sn	Sx	17 00 15.2	
	0.8nm,0.3s,baz=84,slow=8.8,SNR=9.4						
MORW	Morawa	18.24	190	eP	Pn	16 57 38.5	-6.2
	12nm,0.4s						
MORW				eS	Sx	17 00 37.1	
ASAR	Alice Springs	18.52	135	P	Pn	16 57 48.5	+0.2
	0.2nm,0.3s,baz=315,slow=11,SNR=20						
ASAR				S	Sx	17 01 01.8	
	0.5nm,0.3s,baz=305,slow=22,SNR=9.5						
KMBL	Kambalda	20.34	174	eP	P	16 58 07.4	-0.3
	51nm,0.7s						
MUN	Mundaring	21.07	188	eP	P	16 58 16.1	+0.4
MUN				eS	Sx	17 01 43.6	
NWAO	Narrogin (SRO)	21.89	185	eP	P	16 58 26.5	+2.0
	120nm,0.6s,mb5.5						
NWAO	Narrogin (SRO)	21.89	185	P	P	16 58 26.4	+1.9
	23nm,0.7s,mb4.7,baz=11,slow=11,SNR=21						
CMAR	Chiang Mai Arr	35.70	325	P	P	17 00 30.5	+0.5
	0.4nm,0.4s,mb3.7,baz=156,slow=6.9,SNR=4.4						
MKAR	Makanchi Array	66.53	333	P	P	17 04 21.5	+0.5
	0.9nm,0.5s,mb4.0,baz=154,slow=7.1,SNR=17						

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*NIED **19** 16:57:00, 20°.20N×121°.30E, h20^{km}, Mw5.2 Best double couple: M$_0$6.78000×10^{16} NP1:φ$_s$310.00000°,δ61.00000°, λ-85.00000°. NP2:φ$_s$119.00000°,δ29.00000°, λ-100.00000°.*

*IDC **19** 16:57:06.2±0.3, 20°.25N×121°.14E, h0^{km}, mb5.2/36, mb1 5.3/38, mb1mx5.3/41, mbtmp5.2/38, ML4.6/2, MS4.8/11, Ms1 4.8/11, ms1mx4.4/32, Error ellipse: s-maj=11.8km s-min=8.3km az=86.0*

*GCMT **19** 16:57:07.8±0.2, 20°.26N×120°.90E, h19^{km}, MW5.2/92, Moment Tensor Solution. s68,c99; s92,c161; Duration: 1^{s}.0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.91±.02; M$_{\theta\theta}$0.44±.01; M$_{\phi\phi}$0.46±.02; M$_{r\theta}$0.04±.03; M$_{\theta\phi}$-0.36±.01; M$_{\phi r}$-0.10±.04; Best double couple: M$_0$0.87000×10^{17} NP1:φ$_s$134.00000°,δ42.00000°,λ-93.00000°. NP2: φ$_s$318.00000°,δ48.00000°,λ-87.00000°. Principal axes: T 0.8210, Plg3.0000°, Azm46.0000°; N 0.0950, Plg2.0000°, Azm136.0000°; P -0.9180, Plg86.0000°, Azm261.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **19** 16:57:07.8±0.1, 20°.28N×121°.10E, h10^{km}, mb5.5/132, MW5.2 Error ellipse: s-maj=3.6km s-min=3.1km az=97.0, Moment Tensor Solution. s19 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-6.49; M$_{\theta\theta}$2.73; M$_{\phi\phi}$3.77; M$_{r\theta}$1.59; M$_{\theta\phi}$-1.78; M$_{\phi r}$4.25; Best double couple: M$_0$7.50000×10^{16} NP1: φ$_s$313.00000°,δ34.00000°,λ-123.00000°. NP2: φ$_s$171.00000°,δ62.00000°,λ-70.00000°. Principal axes: T 5.7700, Plg14.0000°, Azm246.0000°; N 2.6600, Plg17.0000°, Azm341.0000°; P -8.4200, Plg66.0000°, Azm118.0000°;*

NEIC Felt [II PIVS] at Basco.

*BGS **19** 16:57:07.2±2.5, 20°.28N×121°.10E, h10^{km}, mb5.6*

*ISCJB **19** 16:57:09.9±0.1, 20°.27N±0°.01×121°.15E±0°.02, h35^{km}, mb5.4/234, MS4.9/42, Error ellipse: s-maj=2.8km s-min=1.9km az=24.9*

*MOS **19** 16:57:09.8±0.8, 20°.29N×121°.15E, h33^{km}, mb5.8/92, MS4.9/20, Error ellipse: s-maj=7.8km s-min=3.8km az=119.0*

*BJI **19** 16:57:09.5, 20°.35N×121°.11E, h30^{km}, mB5.2/34, mb5.0/55, ML4.7/2, Ms5.0/64, Ms7 4.9/54*

*SZGRF **19** 16:57:10.5, 19°.91N×121°.44E, h36^{km}, mb5.6, MS5.2, Philippine Islands region*

*JMA **19** 16:57:11.7±0.4, 20°.24N×121°.30E, h111^{km}, M5.2*

*MAN **19** 16:57:14, 19°.91N×121°.08E, h23^{km}, mb5.5, ML4.5, MS4.9*

MAN INTENSITY II - BASCO BATANES.

*DJA **19** 16:57:17, 20°.40N×121°.07E, h88^{km}, Mw5.4/14*

ISC 19 16:57:11.8±0.1**, 20°.26N**±0°.01×**121°.12E**±0°.02**, h37**^{km}**, h37**^{km}±1.9^{km}**:pP-P, n692,** σ**0^{s}.89**/703**, mb5.4**/234**, MS4.9**/42**, 40C-70D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	1.99	194	⇑iP	Pn	16 57 41.0	-1.9
PIP				eS	Sn	16 58 03.6	-3.0
SGCP	Mt. Cagua	2.19	156	eP	Pn	16 57 45.9	+0.1
SIPP	Brgy, Tapao	2.41	195	eP	Pn	16 57 48.3	-0.5
SIPP				eS	Sn	16 58 15.1	-2.0
TWG	Pinlang	2.54	359	ePn	Pn	16 57 47.6	-3.0
ABRA	Dolores	2.63	189	eP	Pn	16 57 50.6	-1.2
TPUB	Ta-pu	3.06	351	ePn	Pn	16 57 55.6	-2.0
YULB	Yu-li	3.12	3	ePn	Pn	16 57 55.9	-2.6
CAUP	Cauayan	3.37	169	eP	Pn	16 58 04.1	+2.1
PALP	Palanan	3.41	159	eP	Pn	16 58 02.9	+0.3
SSLB	Suanglung	3.51	357	ePn	Pn	16 58 02.1	-1.8
BCPH	Baguio City Da	3.90	188	i P	Pn	16 58 08.4	-0.8
BCPH				i S	Sn	16 58 55.0	+1.2
NACB	Ninganchiao	3.92	6	ePn	Pn	16 58 07.7	-1.8
BOLP	Bolinao	4.03	197	eP	Pn	16 58 10.5	-0.5
YHNB	Yeheng	4.39	3	ePn	Pn	16 58 15.4	-0.6
BALP	Baler	4.52	174	eP	Pn	16 58 19.1	+1.3
HATJ	Hateruma jima	4.52	33	P	Pn	16 58 18.4	+0.6
HATJ				S	Sn	16 59 08.9	-0.2
YOJ	Yonaguni jima	4.53	22	P	Pn	16 58 18.4	+0.5
YOJ				S	Sn	16 59 12.1	+2.8
SCZP	Santa Cruz	4.61	195	eP	Pn	16 58 18.1	-1.0
PCPH	Palayan	4.68	180	i P	Pn	16 58 20.7	+0.8
PCPH				eS	Sn	16 59 14.6	+1.6
TATO	Taipei	4.70	4	ePn	Pn	16 58 20.3	0.0
IRIF	Iriomote-Funau	4.71	30	P	Pn	16 58 21.2	+0.7
IRIF				S	Sn	16 59 15.2	+1.3
JKRS	Kuro-shima	4.77	34	P	Pn	16 58 22.0	+0.8
JKRS				S	Sn	16 59 15.2	-0.1
JIJ	Ishigaki jima	4.95	34	P	Pn	16 58 23.4	-0.2
JIJ				S	Sn	16 59 18.3	-1.3
QZH	Quanzhou	5.21	334	⇓iPn	Pn	16 58 25.9	-1.4
QZH				Sn	Sn	16 59 15.8	-10
QZH				smax			
	comp=N,710nm,0.8s						
QZH				smax			
	comp=E,1µm,0.9s						
QZH				LR	LR		
	comp=N,18µm,15.2s						
QZH				LR	LR		
	comp=E,12µm,6.1s						
QZH				LR	LR		
	comp=Z,11µm,13.4s						
JTJ	Tarama	5.47	37	P	Pn	16 58 31.3	+0.5
JTJ				S	Sn	16 59 32.5	0.0
POLP	Polilio Island	5.56	172	eP	Pn	16 58 33.0	+0.9
JMJ	Miyako jima 2	5.95	40	eS	Sn	16 59 43.1	-1.2
JOGS	Gusukube	5.97	41	P	Pn	16 58 38.0	+0.2
JOGS				S	Sn	16 59 45.4	+0.5
TGY	Tagaytay City	6.13	182	Pn	Pn	16 58 41.2	+1.2
	comp=Z,25nm,0.3s,baz=194,slow=5.1,SNR=8.8						
GQP	Guinayangan	6.45	168	⇑eP	Pn	16 58 45.1	+0.8
GQP				eS	Sn	16 59 54.4	-2.3
GZH	Guangzhou	7.76	293	Pg	Pn	16 58 58.5	-3.8
GZH				Sg	Sn	17 00 17.3	-12
GZH				smax			
	comp=N,630nm,0.8s						
GZH				smax			
	comp=E,560nm,0.9s						
JKE	Kume jima 2	7.97	40	P	Pn	16 59 04.4	-0.7
JAGN	Aguni-jima	8.44	41	P	Pn	16 59 12.0	+0.4
JJT2	Tamagusuku 2	8.44	45	P	Pn	16 59 12.0	+0.3
NAH1	Naha	8.45	44	P	Pn	16 59 11.8	+0.1
JIH	Iheya	9.20	42	P	Pn	16 59 21.8	-0.3
JOW	Kunigami	9.26	44	P	Pn	16 59 22.1	-0.7
JOW				S	Sn	17 01 02.2	-3.6
JOW	Kunigami	9.26	44	Pn	Pn	16 59 22.0	-0.8
	comp=E,12nm,0.3s,baz=227,slow=12,SNR=61						
JOW				LR	LR	17 03 07.4	
	comp=E,7µm,21.1s,baz=240,slow=39						
JTK	Tokunoshima	10.35	42	P	Pn	16 59 36.4	-1.4
QIZ	Qiongzhong	10.70	265	P	Pn	16 59 39.8	-2.8
QIZ				pmax	pmax		
	comp=Z,47nm,1.6s						
QIZ				pmax	pmax		
	comp=Z,260nm,4.2s						
QIZ				LR	LR		
	comp=E,5µm,15.1s						
QIZ				LR	LR		
	comp=Z,8µm,15.3s						
QIZ	Qiongzhong	10.70	265	ePn	Pn	16 59 40.2	-2.5
	comp=Z,94nm,0.8s						
SSE	Sheshan	10.79	0	P	Pn	16 59 43.3	-0.4
SSE				S	Sn	17 01 46.5	+3.3
SSE				pmax	pmax		
	comp=Z,29nm,0.7s						
SSE				pmax	pmax		
	comp=Z,54nm,3.4s						
SSE				LR	LR		
	comp=N,1µm,13.3s						
SSE				LR	LR		
	comp=E,2µm,13.3s						
SSE				LR	LR		
	comp=Z,4µm,15.3s						
JMZ	Minamidaito 2	10.81	57	P	Pn	16 59 42.5	-1.6
JAM	Amami Oshima	11.20	42	P	Pn	16 59 47.2	-2.2
NJ2	Nanjing	11.91	351	eP	Pn	16 59 58.9	-0.3
NJ2				pP		17 00 02.3	
NJ2				sP		17 00 05.5	
NJ2				PP		17 00 08.5	
NJ2				S	Sn	17 02 11.5	+0.7
NJ2				SS		17 02 26.5	
NJ2				pmax	pmax		
	comp=Z,20nm,0.7s						
NJ2				pmax	pmax		
	comp=Z,260nm,6.7s						
NJ2				LR	LR		
	comp=N,2µm,17.2s						
NJ2				LR	LR		
	comp=E,3µm,17.5s						
NJ2				LR	LR		
	comp=Z,3µm,17.5s						
WHN	Wuhan	11.92	330	⇓P	Pn	16 59 58.1	-1.2
WHN				LR	LR		
	comp=N,10µm,12.0s						
WHN				LR	LR		
	comp=E,4µm,11.7s						
WHN				LR	LR		
	comp=Z,11µm,11.8s						
DAV	Davao City (W)	13.81	161	Pn	Pn	17 00 34.1	+9.0
	comp=Z,53nm,0.3s,baz=173,slow=1.8,SNR=4.9						
DAV				LR	LR	17 06 25.4	
	comp=Z,3µm,18.6s,baz=324,slow=40						
DAV	Davao City (W)	13.81	161	P	Pn	17 00 25.1	0.0
DAV				LR	LR	17 06 25.4	
JSU	Suzuyama	13.98	35	P	Pn	17 00 27.6	+0.1
JFU	Fukue jima 2	14.10	27	P	Pn	17 00 31.7	+2.7
GYA	Guiyang	14.64	298	⇑iP	Pn	17 00 34.3	-2.1
GYA				PP		17 00 45.8	
GYA				S	Sn	17 03 16.4	-0.9
GYA				SS		17 03 33.6	
GYA				pmax	pmax		
	comp=Z,20nm,0.8s						
GYA				pmax	pmax		
	comp=Z,130nm,4.6s						
GYA				LR	LR		
	comp=N,4µm,15.8s						
GYA				LR	LR		
	comp=E,4µm,15.0s						
GYA				LR	LR		
	comp=Z,3µm,15.5s						
JNU	Nakatsue	15.48	32	P	Pn	17 00 47.0	-0.4
JTU	Tsushima	15.98	26	P	Pn	17 00 54.7	+0.8
UBT	Ubonrachathani	16.13	255	P	Pn	17 01 00.0	+4.1
TIA	Tai’an	16.27	348	eP	Pn	17 00 59.0	+1.4
TIA				LR	LR		
	comp=N,1µm,10.0s						
XAN	Xi’an	17.48	324	P	Pn	17 01 13.6	+0.9
XAN				pP	pP	17 01 15.6	-7.4
XAN				S	S	17 04 27.1	-6.2
XAN				PcP	PcP	17 05 52.0	-0.2
XAN				ScP	ScP	17 09 27.1	+2.6
XAN				ScS	ScS	17 13 07.3	+2.8
XAN				pmax	pmax		
	comp=Z,56nm,1.6s						
XAN				pmax	pmax		
	comp=Z,180nm,5.0s						
XAN				LR	LR		
	comp=N,3µm,18.5s						
XAN				LR	LR		
	comp=Z,5µm,16.7s						
JMN	Monobe	17.56	38	P	Pn	17 01 16.7	+3.0
KMI	Kunming	17.64	289	P	Pn	17 01 15.1	+0.4
KMI				pP	pP	17 01 17.4	-7.5
KMI				PP		17 01 29.3	
KMI				S	S	17 04 29.8	-6.9
KMI				SS		17 04 51.6	
KMI				pmax	pmax		
	comp=Z,50nm,1.6s						
KMI				pmax	pmax		
	comp=Z,380nm,3.1s						
KMI				LR	LR		
	comp=N,3µm,12.0s						
KMI				LR	LR		
	comp=E,4µm,13.1s						
KMI				LR	LR		
	comp=Z,4µm,13.1s						
KKTK	Khon Kaen	17.81	260	P	Pn	17 01 17.2	+0.3
	comp=Z,309nm,0.9s						
INCN	Inchon	17.82	14	eP	Pn	17 01 15.8	-1.0
	comp=Z,57nm,0.8s						
INCN	Inchon	17.82	14	P	Pn	17 01 18.1	+1.2
	SNR=7.7						
INCN				P		17 01 18.1	
	SNR=7.7						
JHS	Saijyo	18.09	33	P	Pn	17 01 20.1	-0.2
KSRS	Korea Array	18.12	18	P	Pn	17 01 19.9	-0.7
	comp=Z,2.7nm,0.3s,baz=200,slow=13,SNR=60						
KSRS				S	S	17 04 42.4	-4.0
	baz=199,slow=22,SNR=5.7						
KSRS				PcP	PcP	17 05 53.5	+0.3
	comp=Z,0.1nm,0.3s,baz=175,slow=1.7,SNR=8.3						
KSRS				LR	LR	17 09 43.3	
	comp=Z,3µm,18.1s,baz=198,slow=42						
JWZ	Kozaga	18.52	41	P	Pn	17 01 29.3	+3.9
DL2	Dalian	18.58	1	P	Pn	17 01 25.8	-0.4
DL2				S	S	17 04 52.3	-3.3
DL2				pmax	pmax		
	comp=Z,20nm,0.9s						
DL2				pmax	pmax		
	comp=Z,170nm,6.1s						
DL2				LR	LR		
	comp=N,1µm,17.1s						
DL2				LR	LR		
	comp=E,1µm,14.1s						
DL2				LR	LR		
	comp=Z,1µm,16.9s						
CD2	Chengdu	18.89	308	P	Pn	17 01 28.8	-1.2
CD2				PP		17 01 45.0	
CD2				S	S	17 04 57.9	-3.7
CD2				SS		17 05 23.3	
CD2				pmax	pmax		
	comp=Z,330nm,0.9s						
CD2				pmax	pmax		
	comp=Z,1µm,3.6s						
CD2				LR	LR		
	comp=N,5µm,16.7s						
CD2				LR	LR		
	comp=Z,6µm,15.5s						
JWT	Wachi	19.55	37	P	Pn	17 01 38.3	+0.5
JIE	Ise	19.70	41	P	Pn	17 01 40.2	+0.5
SBUM	Sibu	19.72	207	P	Pn	17 01 38.9	-1.2
CHRT	Chiangrai	20.05	273	⇓P	P	17 01 43.0	+1.1
	comp=Z,268nm,1.0s						
BJT	Baijiatuau	20.14	349	eP	P	17 01 43.5	+0.8
BJT				pmax	pmax		
	comp=Z,496nm,0.9s						
BJT	Baijiatuau	20.14	349	eP	P	17 01 43.5	+0.8
	comp=Z,496nm,0.9s						
BJI	Beijing	20.16	349	P	P	17 01 43.4	+0.4
BJI				S	S	17 05 28.0	+0.7
BJI				pmax	pmax		
	comp=Z,180nm,1.3s						
BJI				LR	LR		
	comp=N,3µm,18.1s,MS4.7						
BJI				LR	LR		
	comp=E,2µm,20.4s,MS4.7						
BJI				LR	LR		
	comp=Z,2µm,21.5s,MS4.5						
CBIJ	Chichi jima	20.44	67	P	P	17 01 45.8	-0.3
	comp=Z,90nm,0.7s,baz=262,slow=14,SNR=2.8						
CBIJ				LR	LR	17 08 20.2	
	comp=Z,2µm,19.0s,MS4.5,baz=276,slow=33						
NST	Nakhon Sawan	20.48	261	P	P	17 01 47.0	+0.4
	comp=Z,58nm,1.0s						
JGF	Kuroka	20.91	40	P	P	17 01 52.6	+1.5
CHG	Chiang Mai	20.95	270	⇓P	P	17 01 51.9	+0.2
	comp=Z,80nm,1.1s						
CHG	Chiang Mai	20.95	270	S	S	17 05 45.4	+2.1
CHTO	Chiang Mai	20.95	270	eP	P	17 01 51.8	+0.1
CHTO				pmax	pmax		
	comp=Z,122nm,1.2s						
CHTO	Chiang Mai	20.95	270	eP	P	17 01 51.8	0.0
	comp=Z,122nm,1.2s						
CHTO	Chiang Mai	20.95	270	P	P	17 01 52.2	+0.5
	SNR=35						
CHTO				P		17 01 52.2	
	SNR=35						
JHJ	Hachijo jima 2	20.98	49	P	P	17 01 53.6	+1.7
	comp=Z,143nm,0.7s,baz=239,slow=19,SNR=3.6						
JHJ				LR	LR	17 09 12.2	
	comp=Z,2µm,19.4s,MS4.4,baz=234,slow=35						
CMAR	Chiang Mai Arr	21.00	269	P	P	17 01 52.5	+0.2
	comp=Z,29nm,0.8s,mb4.6,baz=75,slow=9.3,SNR=185						
CMAR				PcP	PcP	17 05 59.6	+1.0
	comp=Z,14nm,0.7s,baz=60,slow=0.6,SNR=51						
BDT	Bhumibol Dam	21.16	266	P	P	17 01 54.0	0.0
	comp=Z,20nm,0.9s,mb4.5						
KSM	Kuching	21.46	211	P	P	17 01 58.9	+1.7
KSM	Kuching	21.46	211	eP	P	17 01 56.7	-0.5
	comp=Z,286nm,1.4s,mb5.4						
SNY	Shenyang	21.60	5	⇓P	P	17 01 57.6	-0.8
SNY				S	S	17 05 47.4	-8.2
SNY				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.3						
SNY				LR	LR		
	comp=N,1µm,16.5s,MS4.6						
SNY				LR	LR		
	comp=E,1µm,15.9s,MS4.6						
SNY				LR	LR		
	comp=Z,2µm,15.0s,MS4.7						
JOD2	Odawara 2	21.76	43	P	P	17 02 01.9	+1.6
LZH	Lanzhou	21.87	320	⇓iP	P	17 02 02.6	+1.2
LZH				pP		17 02 06.6	
LZH				sP	sP	17 02 09.9	-5.8
LZH				eS	S	17 06 01.1	+0.2
LZH				sS	sS	17 06 05.0	-11
LZH				SS		17 06 33.0	
LZH				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.3						
LZH				pmax	pmax		
	comp=Z,630nm,4.3s						
LZH				LR	LR		
	comp=E,3µm,14.2s						
LZH				LR	LR		
	comp=Z,3µm,15.7s,MS4.9						
MAJO	Matsushiro	22.05	39	eP	P	17 02 03.3	-0.1
	comp=Z,520nm,1.8s,mb5.7						
MAJO				LR	LR		
	comp=Z,2µm,20.0s,MS4.5						
MAT	Matsushiro	22.05	39	P	P	17 02 02.5	-0.9
MAT				S	S	17 06 01.0	-3.5
MAT	Matsushiro	22.05	39	P	P	17 02 03.5	+0.1
MJAR	Matsushiro Arr	22.05	39	P	P	17 02 03.7	+0.3
	comp=Z,21nm,0.8s,mb4.6,baz=226,slow=8.6,SNR=50						
MJAR				ScP	ScP	17 09 36.7	+1.7
	comp=Z,2.5nm,0.9s,baz=193,slow=1.9,SNR=6.3						
HHC	Hu-ho-hao-te	22.08	340	eP	P	17 02 05.1	+1.5
HHC				pP		17 02 09.3	
HHC				sP	sP	17 02 12.1	-5.8
HHC				PP		17 02 31.1	
HHC				S	S	17 06 02.8	-2.2
HHC				SS		17 06 40.5	
HHC				pmax	pmax		
	comp=Z,50nm,0.9s,mb4.9						
HHC				pmax	pmax		
	comp=Z,790nm,4.2s						
HHC				LR	LR		
	comp=N,5µm,15.3s,MS5.1						
HHC				LR	LR		
	comp=E,2µm,17.9s,MS5.1						
HHC				LR	LR		
	comp=Z,5µm,15.4s,MS5.0						
JRY	Ryogami san	22.12	41	P	P	17 02 04.1	0.0
BTO	Baotou	22.38	337	eP	P	17 02 05.6	-1.2
KTGM	Kuala Trenggan	22.94	232	P	P	17 02 13.8	+0.8
GUMO	Guam	23.65	103	LR	LR	17 11 27.0	
	comp=Z,2µm,19.0s,MS4.6,baz=35,slow=36						
CN2	Changchun	23.75	8	eP	P	17 02 19.4	-1.3
CN2				epP		17 02 23.6	
CN2				eS	S	17 06 31.3	-2.0
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
CN2				pmax	pmax		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,3µm,16.0s,MS4.9						
CN2				LR	LR		
	comp=E,1µm,16.0s,MS4.9						
CN2				LR	LR		
	comp=Z,4µm,19.0s,MS4.8						
JYA	Atsumi	24.32	37	P	P	17 02 26.2	+0.2
JMM	Marumori	24.47	40	P	P	17 02 26.1	-1.3
KULM	Kulim	24.85	236	eP	P	17 02 30.8	-0.3
	comp=Z,184nm,1.3s,mb5.5						
MYKOM	Kota Tinggi	24.94	225	P	P	17 02 33.5	+1.7
IPM	Ipoh	25.08	234	P	P	17 02 32.6	-0.5
KGM	Kluang	25.13	226	P	P	17 02 35.0	+1.5
KAPI	Kappang	25.16	183	P	P	17 02 33.1	-0.6
	comp=Z,564nm,1.0s,mb6.0,SNR=5.5						
MDJ	Mudanjiang	25.28	14	P	P	17 02 34.9	+0.2
MDJ				PcP	PcP	17 06 07.8	+0.7
MDJ				S	S	17 07 01.9	+3.9
MDJ				ScP	ScP	17 09 45.9	+2.4
MDJ				PcS	PcS	17 09 47.8	+0.5
MDJ				ScS	ScS	17 13 36.0	+3.9
MDJ				pmax	pmax		
	comp=Z,48nm,1.1s,mb4.9						
MDJ				pmax	pmax		
	comp=Z,190nm,8.3s						
MDJ				LR	LR		
	comp=N,1µm,21.0s						
MDJ				LR	LR		
	comp=E,2µm,13.4s						
MDJ				LR	LR		
	comp=Z,3µm,18.4s,MS4.8						
MDJ	Mudanjiang	25.28	14	eP	P	17 02 34.1	-0.6
	comp=Z,53nm,1.0s,mb5.0						
FRIM	Kepong	25.45	231	P	P	17 02 36.1	-0.4
OFUJ	Ofunato	25.78	39	P	P	17 02 38.3	-1.0

JOM	**Ohasama**	**25.82**	**38**	P	**P**	**17 02 38.6**	**-1.0**
GTA	**Gaotai**	**26.45**	**321**	⇓P	**P**	**17 02 45.9**	**+0.6**
GTA				pP	pP	17 02 49.3	-6.4
GTA				PP		17 03 31.3	
GTA				PcP	PcP	17 06 10.8	+0.9
GTA				S	**S**	**17 07 20.5**	**+3.9**
GTA				sS	sS	17 07 26.8	-7.1
GTA				pmax	pmax		
	comp=Z,45nm,1.3s,mb4.8						
GTA				pmax	pmax		
	comp=Z,280nm,4.7s						
GTA				LR	LR		
	comp=N,1µm,16.8s,MS4.8						
GTA				LR	LR		
	comp=E,2µm,16.7s,MS4.8						
GTA				LR	LR		
	comp=Z,2µm,15.9s,MS4.8						
JTM	**Tenmabayashi**	**26.60**	**35**	P	**P**	**17 02 45.8**	**-0.8**
JOT	**Ohata**	**27.00**	**34**	P	**P**	**17 02 49.4**	**-0.9**
JSH	**Shimam**	**27.41**	**31**	P	**P**	**17 02 53.9**	**0.0**
SHL	**Shillong**	**27.41**	**287**	i P	**P**	**17 02 55.0**	**+0.9**
SHL				ex	x	17 06 14.5	
AGT	**Agartala**	**27.89**	**283**	ePKP	**P**	**17 02 56.0**	**-2.4**
AGT				ex	x	17 03 21.0	
AGT				ex	x	17 03 21.0	
JEW	**Eniwo**	**28.26**	**33**	P	**P**	**17 03 01.2**	**-0.3**
LSA	**Lhasa**	**28.68**	**295**	eP	**P**	**17 03 06.3**	**+0.9**
LSA				pmax	pmax		
	comp=Z,89nm,0.9s,mb5.5						
LSA	**Lhasa**	**28.68**	**295**	eP	**P**	**17 03 06.3**	**+0.9**
	comp=Z,88nm,0.9s,mb5.5						
HIA	**Hailar**	**28.96**	**358**	eP	**P**	**17 03 05.7**	**-1.9**
HIA				pmax	pmax		
	comp=Z,30nm,0.8s						
HIA				MLR	MLR		
	comp=Z,2µm,19.0s						
HIA	**Hailar**	**28.96**	**358**	eP	**P**	**17 03 05.7**	**-1.9**
	comp=Z,30nm,0.8s,mb5.1						
HIA				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
ASAJ	**Asahikawa**	**29.76**	**32**	P	**P**	**17 03 15.0**	**+0.2**
ASAJ	**Asahikawa**	**29.76**	**32**	P	**P**	**17 03 14.1**	**-0.7**
	comp=Z,27nm,0.9s,mb5.0,baz=231,slow=17,SNR=11						
ASAJ				LR	LR	17 15 30.8	
	comp=Z,1µm,19.2s,MS4.6,baz=58,slow=37						
ULN	**Ulaanbaatar**	**29.80**	**341**	P	**P**	**17 03 15.6**	**+0.5**
ULN				pmax	pmax		
	comp=Z,120nm,1.4s,mb5.4						
ULN	**Ulaanbaatar**	**29.80**	**341**	eP	**P**	**17 03 15.3**	**+0.3**
	comp=Z,116nm,1.4s,mb5.4						
ULN				LR	LR		
	comp=Z,3µm,19.0s,MS4.9						
ULN	**Ulaanbaatar**	**29.80**	**341**	⇑P	**P**	**17 03 16.9**	**+1.8**
	SNR=25						
ULN				⇑P		17 03 16.9	
	SNR=25						
SONM	**Songino Array**	**29.98**	**340**	P	**P**	**17 03 17.0**	**+0.3**
SONM						17 06 18.9	
SONM	**Songino Array**	**29.98**	**340**	P	**P**	**17 03 17.0**	**+0.3**
	comp=Z,13nm,1.0s,mb4.6,baz=161,slow=10,SNR=39						
SONM				PcP	PcP	17 06 18.9	+0.5
	comp=Z,3.2nm,0.8s,baz=155,slow=3.6,SNR=4.9						
SONM				ScP	ScP	17 10 00.6	+2.8
	comp=Z,2.1nm,0.9s,baz=115,slow=2.1,SNR=5.0						
SONM				LR	LR	17 16 22.6	
	comp=Z,2µm,20.4s,MS4.7,baz=167,slow=38						
JMP	**Maruseppu**	**30.07**	**33**	P	**P**	**17 03 18.1**	**+0.6**
KLR	**Kul'dur**	**30.13**	**14**	eP	**P**	**17 03 12.3**	**-5.7**
KLR				eS	**S**	**17 08 17.5**	**+3.3**
KLR				MLR	MLR		
	comp=E,1µm,15.0s						
KLR				MLR	MLR		
	comp=Z,2µm,15.0s,MS4.8						
HABR	**Khabarovsk**	**30.30**	**19**	eP	**P**	**17 03 17.9**	**-1.6**
HABR				e*PP	pP	17 03 27.4	-2.5
HABR				e*SP	sP	17 03 31.6	-2.8
HABR				e		17 04 15.4	
HABR				e		17 06 17.6	
HABR				S	**S**	**17 08 16.6**	**-0.3**
HABR				e*SS	sS	17 08 32.7	-1.5
HABR				eSS	SS	17 09 53.2	-34
HABR				e		17 13 53.1	
HABR				pmax	pmax		
	comp=E,32nm,1.4s						
HABR				pmax	pmax		
	comp=N,13nm,0.9s						
HABR				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.8						
HABR				MLR	MLR		
	comp=Z,936nm,16.0s,MS4.5						
JWK2	**Keihoku**	**30.30**	**30**	P	**P**	**17 03 20.7**	**+1.1**
TAPN	**Taplejung**	**31.31**	**289**	eP	**P**	**17 03 29.0**	**+0.3**
	comp=Z,117nm,1.0s,mb5.7						
YUK	**Yuzh-Kuril'sk**	**31.41**	**35**	P	**P**	**17 03 30.0**	**+0.7**
YUK				pmax	pmax		
	comp=E,2µm,2.0s						
YUK				pmax	pmax		
	comp=Z,650nm,1.0s,mb6.4						
YUK				pmax	pmax		
	comp=N,2µm,3.0s						
ODAN	**Odare**	**31.55**	**289**	eP	**P**	**17 03 30.9**	**+0.1**
	comp=N,82nm,0.7s,mb5.7						
YSS	**Yuzh-Sakhalins**	**31.93**	**29**	⇑eP	**P**	**17 03 33.8**	**-0.1**
YSS				e*SP	sP	17 03 42.3	-6.5
YSS				eS	**S**	**17 08 44.0**	**+1.5**
YSS				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
YSS				pmax	pmax		
	comp=N,30nm,0.9s						
YSS				pmax	pmax		
	comp=E,30nm,0.9s						
YSS				MLR	MLR		
	comp=N,1µm,17.0s,MS4.8						
YSS				MLR	MLR		
	comp=E,900nm,17.0s,MS4.8						
YSS				MLR	MLR		
	comp=Z,2µm,17.0s,MS4.8						
YSS	**Yuzh-Sakhalins**	**31.93**	**29**	eP	**P**	**17 03 33.4**	**-0.5**
	comp=Z,104nm,1.0s,mb5.6						
CIT	**Chita**	**32.24**	**351**	eP	**P**	**17 03 32.8**	**-3.7**
CIT				e		17 03 38.7	
CIT				e		17 06 25.9	
CIT				e		17 08 44.8	
CIT				pmax	pmax		
	comp=Z,156nm,1.6s,mb5.6						
RAMN	**Ramite**	**32.26**	**289**	eP	**P**	**17 03 37.6**	**+0.6**
	comp=Z,135nm,0.8s,mb5.8						
JIRN	**Jiri**	**32.68**	**290**	eP	**P**	**17 03 41.4**	**+0.7**
	comp=Z,102nm,0.8s,mb5.8						
BOK	**Bokaro**	**32.80**	**283**	ePKP	**P**	**17 03 42.2**	**+0.4**
GUN	**Gumba**	**32.98**	**290**	eP	**P**	**17 03 43.9**	**+0.6**
	comp=Z,234nm,0.8s,mb6.2						
ZAK	**Zakamensk**	**33.21**	**339**	⇓iP	**P**	**17 03 44.9**	**-0.2**
ZAK				e		17 06 27.1	
ZAK				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
PKI	**Pulchoki**	**33.36**	**290**	eP	**P**	**17 03 46.6**	**-0.1**
	comp=Z,91nm,1.0s,mb5.6						
PKI	**Pulchoki**	**33.36**	**290**	eP	**P**	**17 03 46.6**	**-0.1**
PKI				pmax	pmax		
	comp=Z,91nm,1.0s,mb5.7						
KKN	**Kakani**	**33.49**	**290**	eP	**P**	**17 03 47.7**	**-0.1**
	comp=Z,120nm,1.0s,mb5.8						
KKN	**Kakani**	**33.49**	**290**	eP	**P**	**17 03 47.7**	**-0.1**
KKN				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
DMN	**Daman**	**33.63**	**290**	eP	**P**	**17 03 49.0**	**-0.1**
GKN	**Gorkha**	**34.08**	**290**	eP	**P**	**17 03 52.5**	**-0.4**
TLY	**Talaya**	**34.21**	**341**	P	**P**	**17 03 54.9**	**+1.2**
	comp=Z,105nm,1.5s,mb5.5,SNR=6.2						
TLY	**Talaya**	**34.21**	**341**	eP	**P**	**17 03 54.3**	**+0.6**
TLY				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
TLY	**Talaya**	**34.21**	**341**	eP	**P**	**17 03 54.3**	**+0.6**
	comp=Z,16nm,0.8s,mb5.0						
TLY	**Talaya**	**34.21**	**341**	⇑P	**P**	**17 03 55.1**	**+1.4**
	SNR=14						
TLY				⇑P		17 03 55.1	
	SNR=14						
IRK	**Irkutsk**	**34.51**	**342**	⇓iP	**P**	**17 03 56.4**	**+0.1**
IRK				e		17 05 26.4	
IRK				pmax	pmax		
	comp=Z,104nm,1.4s,mb5.6						
KAKA	**Kakadu**	**34.61**	**160**	⇑iP	**P**	**17 03 55.5**	**-2.0**
	comp=Z,22nm,0.6s,mb5.3						
KAKA				epP	pP	17 04 07.8	-0.2
DANN	**Dangsing**	**34.88**	**291**	eP	**P**	**17 03 59.8**	**-0.1**
KOLN	**Koldanda**	**34.98**	**290**	eP	**P**	**17 04 00.5**	**-0.2**
	comp=Z,136nm,0.9s,mb5.9						
MOY	**Mondy**	**35.08**	**338**	eP	**P**	**17 04 02.1**	**+0.9**
MOY				pmax	pmax		
	comp=Z,59nm,2.7s,mb5.0						
WMQ	**Urumqi**	**36.42**	**318**	⇑iP	**P**	**17 04 13.0**	**+0.2**
WMQ				pP	pP	17 04 17.0	-6.4
WMQ				PP	PP	17 05 36.0	-0.1
WMQ				SS	SS	17 12 18.0	-14
WMQ				pmax	pmax		
	comp=Z,21nm,1.6s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,340nm,3.5s						
WMQ				LR	LR		
	comp=N,5µm,15.2s,MS5.5						
WMQ				LR	LR		
	comp=E,3µm,13.8s,MS5.5						
WMQ				LR	LR		
	comp=Z,3µm,17.0s,MS5.1						
CLNS	**Chul'man**	**36.63**	**3**	eP	**P**	**17 04 14.1**	**-0.3**
CLNS				e*PP	pP	17 04 30.0	+5.0
CLNS				e		17 05 34.5	
CLNS				e		17 06 36.5	
CLNS				eS	**S**	**17 09 50.0**	**-4.7**
CLNS				eSS	SS	17 12 22.2	-13
CLNS				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.7						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,13nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
CLNS				pmax	pmax		
	comp=N,7.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,15nm,1.1s						
CLNS				smax			
	comp=N,118nm,10.8s						
CLNS				smax			
	comp=E,43nm,12.1s						
CLNS				MLR	MLR		
	comp=N,1µm,13.0s						
BOD	**Bodaibo**	**37.87**	**354**	eP	**P**	**17 04 24.9**	**0.0**
BOD				e	pP	17 04 33.9	-1.6
BOD				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.1						
LGTI	**Lohaghat**	**38.04**	**292**	ex	**P**	**17 04 24.8**	**-2.0**
JBP	**Jabalpur**	**38.24**	**282**	⇓iP	**P**	**17 04 28.3**	**-0.3**
JBP				ex	x	17 04 30.8	
	comp=Z,123nm,1.1s						
FITZ	**Fitzroy Crossi**	**38.38**	**173**	⇓iP	**P**	**17 04 27.8**	**-1.9**
	comp=Z,86nm,0.8s,mb5.5						
FITZ	**Fitzroy Crossi**	**38.38**	**173**	P	**P**	**17 04 28.3**	**-1.3**
	comp=Z,49nm,0.8s,mb5.3,baz=2.6,slow=6.5,SNR=40						
FITZ				LR	LR	17 21 05.3	
	comp=Z,3µm,21.3s,MS5.0,baz=308,slow=38						
FITZ	**Fitzroy Crossi**	**38.38**	**173**	eP	**P**	**17 04 28.2**	**-1.5**
	comp=Z,55nm,0.9s,mb5.3						
HYB	**Hyderabad**	**40.31**	**273**	i P	**P**	**17 04 45.0**	**-0.9**
HYB				eS	**S**	**17 11 00.0**	**+8.7**
HYB	**Hyderabad**	**40.31**	**273**	eP	**P**	**17 04 45.0**	**-0.9**
HYB				eS	S	17 11 14.0	+23
COEN	**Coen**	**40.33**	**146**	P	**P**	**17 04 45.9**	**-0.1**
	comp=Z,125nm,0.9s,mb5.6						
SKR	**Severo-Kuril's**	**40.98**	**34**	eP	pP	17 05 02.4	+0.8
SKR				e		17 05 14.1	
SKR				pmax	pmax		
	comp=Z,160nm,0.9s,mb5.7						
MKAR	**Makanchi Array**	**41.18**	**319**	P	**P**	**17 04 53.5**	**+0.8**
	comp=Z,42nm,0.7s,mb5.2,baz=113,slow=10.0,SNR=223						
MKAR				PcP	PcP	17 06 51.6	+0.2
	comp=Z,12nm,0.8s,baz=101,slow=4.9,SNR=4.1						
MKAR	**Makanchi Array**	**41.18**	**319**	P	**P**	**17 04 53.5**	**+0.8**
MKAR				PcP	PcP	17 06 51.6	+0.2
PALK	**Pallekele**	**41.20**	**258**	i P	**P**	**17 04 54.0**	**+0.7**
PALK	**Pallekele**	**41.20**	**258**	P	**P**	**17 04 53.2**	**-0.1**
	comp=Z,14nm,0.8s,mb4.7,baz=72,slow=7.6,SNR=12						
PALK	**Pallekele**	**41.20**	**258**	eP	**P**	**17 04 53.4**	**+0.1**
	comp=Z,135nm,1.0s,mb5.5						
BHK	**Bhakra**	**41.49**	**295**	ePKP	**P**	**17 04 55.6**	**+0.1**
WRAB	**Tennant Creek**	**42.00**	**161**	P	**P**	**17 04 58.0**	**-1.6**
	comp=Z,1µm,0.7s,mb6.6,SNR=61						
WRAB	**Tennant Creek**	**42.00**	**161**	d iP	**P**	**17 04 58.4**	**-1.2**
WRAB				i *PP	pP	17 05 09.0	-1.3
WRA	**Warramunga Arr**	**42.00**	**161**	P	**P**	**17 04 58.6**	**-1.0**
	comp=Z,132nm,0.7s,mb5.7,baz=342,slow=9.0,SNR=324						
WRA				PcP	PcP	17 06 54.4	0.0
	comp=Z,22nm,0.9s,baz=345,slow=3.5,SNR=8.7						
YAK	**Yakutsk**	**42.15**	**6**	eP	**P**	**17 04 58.8**	**-1.6**
YAK				e*PP	pP	17 05 14.2	+3.1
YAK				e		17 06 53.5	
YAK				eS	**S**	**17 11 17.0**	**-0.5**
YAK				eSS	SS	17 14 26.0	-0.1
YAK				e		17 14 56.8	
YAK				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.0						
YAK				pmax	pmax		
	comp=N,10.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.5s						
YAK				pmax	pmax		
	comp=Z,93nm,5.1s						
YAK				pmax	pmax		
	comp=N,57nm,3.1s						
YAK				pmax	pmax		
	comp=E,86nm,4.4s						
YAK				smax			
	comp=N,62nm,2.1s						
YAK				smax			
	comp=E,89nm,3.5s						
YAK				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.0						
YAK				MLR	MLR		
	comp=N,2µm,19.0s,MS5.0						
YAK				MLR	MLR		
	comp=E,483nm,18.0s,MS5.0						
YAK	**Yakutsk**	**42.15**	**6**	eP	**P**	**17 04 58.7**	**-1.7**
	comp=E,60nm,0.8s,mb5.3						
YAK				LR	LR		
	comp=Z,637nm,20.0s,MS4.5						
THN	**Thein Dam**	**42.17**	**296**	ePKP	**P**	**17 04 58.7**	**-2.3**
AJM	**Ajmer**	**42.94**	**287**	ePKP	**P**	**17 05 06.0**	**-1.3**
KSH	**Kashi**	**43.08**	**307**	⇓iP	**P**	**17 05 11.8**	**+3.5**
KSH				epP	pP	17 05 16.0	-3.0
KSH				esP	sP	17 05 18.6	-4.9
KSH				ePP	PP	17 06 54.0	+5.3
KSH				ePcP	PcP	17 07 00.9	+3.1
KSH				eScP	ScP	17 10 50.0	+3.7
KSH				ePcS	PcS	17 10 52.0	+1.8
KSH				eS	**S**	**17 11 38.5**	**+6.6**
KSH				esS	sS	17 11 46.3	-3.3
KSH				eScS	ScS	17 15 08.1	+2.1
KSH				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.6						
KSH				LR	LR		
	comp=N,950nm,15.6s,MS5.2						
KSH				LR	LR		
	comp=E,2µm,14.2s,MS5.2						
KSH				LR	LR		
	comp=Z,2µm,12.1s,MS5.3						
PEA0B	**Petropavlovsk-**	**43.18**	**32**	P	**P**	**17 05 08.5**	**-0.4**
PETK	**Petropavlovsk-**	**43.18**	**32**	P	**P**	**17 05 08.4**	**-0.5**
	comp=Z,8.1nm,0.8s,mb4.5,baz=243,slow=3.5,SNR=19						
PETK				LR	LR	17 23 39.9	
	comp=Z,728nm,19.2s,MS4.6,baz=62,slow=37						
ZAA0	**Zalesovo Array**	**43.54**	**329**	eP	**P**	**17 05 11.6**	**-0.1**
ZALV	**Zalesovo Beam**	**43.54**	**329**	P	**P**	**17 05 12.1**	**+0.4**
ZALV						17 06 58.1	
ZALV	**Zalesovo Beam**	**43.54**	**329**	P	**P**	**17 05 12.1**	**+0.4**
	comp=Z,68nm,0.8s,mb5.4,baz=108,slow=4.8,SNR=178						
ZALV				PcP	PcP	17 06 58.1	-0.9
	comp=Z,5.8nm,0.5s,baz=108,slow=4.7,SNR=4.6						
ZALV				ScP	ScP	17 10 51.7	+3.9
	comp=Z,2.3nm,0.8s,baz=104,slow=3.1,SNR=4.2						
ZALV	**Zalesovo Beam**	**43.54**	**329**	P	**P**	**17 05 12.1**	**+0.4**
ZALV				PcP	PcP	17 06 58.1	-0.9
ZALV				ScP	ScP	17 10 51.7	+3.9
ULHL	**Ulahol**	**43.57**	**311**	P	**P**	**17 05 13.9**	**+1.8**
	SNR=62						
PET	**Petropavlovsk**	**43.60**	**32**	eP	**P**	**17 05 11.4**	**-0.9**
PET				eS	**S**	**17 11 39.1**	**0.0**
PET				pmax	pmax		
	comp=Z,200nm,15.3s						
PET				pmax	pmax		
	comp=Z,109nm,1.0s,mb5.5						
PET				MLR	MLR		
	comp=Z,700nm,17.0s,MS4.6						
PET	**Petropavlovsk**	**43.60**	**32**	eP	**P**	**17 05 11.8**	**-0.5**
	comp=Z,128nm,1.1s,mb5.6						
TKM2	**Tokmak 2**	**44.21**	**311**	P	**P**	**17 05 18.9**	**+1.6**
	SNR=27						
KZA	**Kyzart**	**44.23**	**310**	P	**P**	**17 05 19.9**	**+2.4**
	SNR=56						
POO	**Poona**	**44.51**	**276**	⇓iP	**P**	**17 05 19.0**	**-1.1**
	comp=Z,80nm,1.0s,mb5.5						
KBK	**Karagaybulak**	**44.60**	**311**	P	**P**	**17 05 22.3**	**+1.9**
	SNR=44						
UCH	**Uchtor**	**44.80**	**310**	P	**P**	**17 05 24.4**	**+2.4**
	SNR=95						
NVS	**Novosibirsk**	**44.81**	**330**	i P	**P**	**17 05 21.7**	**-0.2**
NVS				pmax	pmax		
	comp=N,86nm,1.8s						
NVS				pmax	pmax		
	comp=Z,98nm,1.8s,mb5.3						
NVS				pmax	pmax		
	comp=E,51nm,1.3s						
MNGI	**Mangalore**	**44.85**	**268**	i P	pP	17 05 33.3	-0.2
AAK	**Ala-Archa**	**44.92**	**311**	P	**P**	**17 05 24.0**	**+1.0**
	comp=E,146nm,0.8s,mb5.9,SNR=16						
AAK	**Ala-Archa**	**44.92**	**311**	P	**P**	**17 05 24.4**	**+1.4**
AAK				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
AAK	**Ala-Archa**	**44.92**	**311**	P	**P**	**17 05 24.6**	**+1.6**
	SNR=21						
AAK	**Ala-Archa**	**44.92**	**311**	P	**P**	**17 05 24.3**	**+1.3**
	comp=Z,10nm,0.8s,mb4.7,baz=106,slow=5.2,SNR=41						
AAK				PcP	PcP	17 07 04.4	+0.4
	comp=Z,4.3nm,0.6s,baz=137,slow=4.3,SNR=5.3						
AAK	**Ala-Archa**	**44.92**	**311**	eP	**P**	**17 05 24.3**	**+1.3**
	comp=Z,21nm,0.9s,mb5.0						
AAK	**Ala-Archa**	**44.92**	**311**	⇓P	**P**	**17 05 24.2**	**+1.3**
	SNR=14						
AAK				⇓P		17 05 24.2	
	SNR=14						
USP	**Ospenovka**	**45.08**	**311**	P	**P**	**17 05 25.3**	**+1.0**
	SNR=31						
KURK	**Kurchatov**	**45.11**	**323**	P	**P**	**17 05 24.5**	**+0.1**
	comp=Z,350nm,1.1s,mb6.1,SNR=38						
KURK	**Kurchatov**	**45.11**	**323**	P	**P**	**17 05 24.7**	**+0.3**
KURK				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.6						
KURK	**Kurchatov**	**45.11**	**323**	P	**P**	**17 05 24.8**	**+0.4**
	comp=Z,50nm,0.8s,mb5.4,baz=120,slow=9.0,SNR=232						
KURK				PcP	PcP	17 07 04.2	-0.3
	comp=Z,4.3nm,0.6s,baz=280,slow=10,SNR=4.7						
KURK				ScP	ScP	17 10 59.2	+5.0
	comp=Z,1.9nm,0.7s,baz=104,slow=4.2,SNR=3.7						
KURK	**Kurchatov**	**45.11**	**323**	eP	**P**	**17 05 24.6**	**+0.3**
	comp=Z,148nm,1.4s,mb5.6						
KURK				LR	LR		
	comp=Z,562nm,20.0s,MS4.5						
KURK	**Kurchatov**	**45.11**	**323**	⇓P	**P**	**17 05 25.4**	**+1.0**
	SNR=38						
KURK				⇓P		17 05 25.4	
	SNR=38						
AML	**Almayashu**	**45.37**	**310**	P	**P**	**17 05 28.7**	**+2.1**
	SNR=72						
ASAR	**Alice Springs**	**45.41**	**163**	P	**P**	**17 05 26.6**	**-0.4**
	comp=Z,61nm,0.8s,mb5.5,baz=339,slow=7.0,SNR=266						
ASAR				PcP	PcP	17 07 05.5	-0.4
	comp=Z,12nm,0.9s,baz=357,slow=3.4,SNR=4.3						
EKS2	**Erkin-Say**	**45.44**	**310**	P	**P**	**17 05 28.6**	**+1.5**
	SNR=31						
EKS2	**Erkin-Say**	**45.44**	**310**	eP	**P**	**17 05 26.6**	**-0.5**
EKS2				e		17 05 40.9	
CTA	**Charters Tower**	**47.05**	**147**	eP	**P**	**17 05 39.8**	**-0.2**
	comp=Z,24nm,0.6s,mb5.3						
CTA				epP	pP	17 05 52.7	+1.9
CTA				ePCP	PcP	17 07 12.9	+1.2
CTA	**Charters Tower**	**47.05**	**147**	P	**P**	**17 05 40.4**	**+0.4**
	comp=Z,48nm,1.0s,mb5.4,baz=327,slow=9.3,SNR=30						
CTA				PcP	PcP	17 07 12.5	+0.8
	comp=Z,20nm,0.8s,baz=332,slow=3.8,SNR=7.3						
CTA	**Charters Tower**	**47.05**	**147**	P	**P**	**17 05 40.4**	**+0.4**
CTA				PcP	PcP	17 07 12.5	+0.8
CTAO	**Charters Tower**	**47.05**	**147**	P	**P**	**17 05 41.0**	**+1.0**
CTAO				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						
CTAO	**Charters Tower**	**47.05**	**147**	eP	**P**	**17 05 40.8**	**+0.8**
	comp=Z,54nm,1.0s,mb5.4						
CTAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
SEY	**Seymchan**	**47.68**	**19**	⇑eP	**P**	**17 05 44.4**	**+0.1**
SEY	**Seymchan**	**47.68**	**19**	⇑eP	**P**	**17 05 44.5**	**+0.2**
KK31	**Karatay Array**	**47.87**	**310**	i P	**P**	**17 05 46.7**	**+0.5**
KK31				pmax	pmax		
	comp=Z,57nm,1.2s,mb5.5						
KBL	**Kabul**	**47.89**	**299**	eP	**P**	**17 05 46.8**	**+0.4**
KBL				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.6						
KBL	**Kabul**	**47.89**	**299**	eP	**P**	**17 05 46.8**	**+0.3**
	comp=Z,80nm,1.2s,mb5.6						
VOSK	**Vostochnaya**	**50.26**	**323**	P	**P**	**17 06 03.6**	**-0.7**
VOSK				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
BVAR	**Borovoye Array**	**50.70**	**323**	P	**P**	**17 06 08.2**	**+0.6**
BVAR						17 07 24.1	
BVAR	**Borovoye Array**	**50.70**	**323**	P	**P**	**17 06 08.2**	**+0.6**
	comp=Z,17nm,0.8s,mb5.0,baz=113,slow=11,SNR=92						
BVAR				PcP	PcP	17 07 24.1	-0.4
	comp=Z,28nm,0.7s,baz=113,slow=4.0,SNR=18						
BVAR				ScP	ScP	17 11 22.9	+5.0
	comp=Z,4.1nm,0.7s,baz=112,slow=4.0,SNR=8.5						
BRVK	**Borovoye**	**50.78**	**323**	P	**P**	**17 06 08.8**	**+0.6**
	comp=Z,393nm,1.1s,mb6.2,SNR=38						
BRVK	**Borovoye**	**50.78**	**323**	P	**P**	**17 06 08.1**	**-0.1**
BRVK				pmax	pmax		
	comp=Z,139nm,1.1s,mb5.8						
BRVK	**Borovoye**	**50.78**	**323**	eP	**P**	**17 06 08.6**	**+0.4**
	comp=Z,61nm,0.9s,mb5.5						
BRVK				LR	LR		
	comp=Z,753nm,19.0s,MS4.7						
BRVK	**Borovoye**	**50.78**	**323**	P	**P**	**17 06 09.2**	**+1.0**
	SNR=27						
BRVK				P		17 06 09.2	
	SNR=27						
FORT	**Forrest**	**51.18**	**172**	eP	**P**	**17 06 10.9**	**-0.5**
	comp=Z,61nm,0.7s,mb5.6						
FORT	**Forrest**	**51.18**	**172**	eP	**P**	**17 06 11.2**	**-0.2**
	comp=Z,91nm,0.8s,mb5.8						
TIXI	**Tiksi**	**51.59**	**3**	⇑eP	**P**	**17 06 13.2**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,42nm,1.7s,mb5.1						
TIXI	**Tiksi**	**51.59**	**3**	eP	**P**	**17 06 13.2**	**-0.8**
	comp=Z,137nm,1.4s,mb5.7						
MUN	**Mundaring**	**52.16**	**185**	eP	**P**	**17 06 17.4**	**-1.3**
MUN				epP	pP	17 06 29.2	-0.4
NWAO	**Narrogin (SRO)**	**53.02**	**184**	P	**P**	**17 06 25.0**	**0.0**
NWAO				e	pP	17 06 34.3	-1.7
NWAO				pmax	pmax		
	comp=Z,170nm,1.4s						
NWAO	**Narrogin (SRO)**	**53.02**	**184**	P	**P**	**17 06 24.7**	**-0.4**
	comp=Z,73nm,0.9s,mb5.6,baz=4.1,slow=8.5,SNR=18						
NWAO	**Narrogin (SRO)**	**53.02**	**184**	eP	**P**	**17 06 24.7**	**-0.3**
	comp=Z,171nm,1.4s,mb5.8						
NWAO				e	pP	17 06 36.6	+0.6
EIDS	**Eidsvold**	**53.90**	**146**	eP	**P**	**17 06 31.5**	**-0.2**
	comp=Z,34nm,1.0s,mb5.2						
BILL	**Bilibino**	**55.38**	**19**	⇑eP	**P**	**17 06 41.3**	**-0.6**
BILL				i	pP	17 06 51.1	-1.8
BILL				i		17 06 56.0	
BILL				eS	**S**	**17 14 27.6**	**+4.1**
BILL				eSS	SS	17 18 09.9	+1.8
BILL				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
BILL	**Bilibino**	**55.38**	**19**	eP	**P**	**17 06 41.3**	**-0.5**
	comp=Z,546nm,0.6s,mb6.8						
STKA	**Stephens Creek**	**55.43**	**159**	eP	**P**	**17 06 42.5**	**-0.1**
	comp=Z,36nm,0.9s,mb5.4						
STKA				epP	pP	17 06 54.9	+1.2
STKA	**Stephens Creek**	**55.43**	**159**	P	**P**	**17 06 42.6**	**0.0**
	comp=Z,36nm,0.8s,mb5.5,baz=338,slow=7.4,SNR=42						
AB31	**Akbulak array**	**56.18**	**316**	P	**P**	**17 06 48.2**	**+0.3**
AB31				pmax	pmax		
	comp=Z,47nm,0.7s,mb5.6						
ABKT	**Ailbek**	**56.79**	**303**	P	**P**	**17 06 53.3**	**+0.9**
	comp=Z,173nm,1.4s,mb5.9,SNR=9.3						
SVE	**Sverdlovsk**	**57.19**	**325**	⇑eP	**P**	**17 06 55.7**	**+0.8**
SVE				ePPP		17 10 30.5	

SVE				*e*S	**S**	**17 15 05.5**	**+18**
SVE				pmax	pmax		
	comp=Z,213nm,1.0s,mb6.1						
SVE				MLR	MLR		
	comp=Z,942nm,15.0s,MS5.0						
WBK	**Wadi Bani Khal**	**57.53**	**284**	⇓P	**P**	**17 06 58.4**	**+0.5**
	SNR=24						
AKTO	**Aktyubinsk**	**57.57**	**317**	P	**P**	**17 06 57.8**	**+0.1**
AKTO				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
BIDO	**Bidbid**	**58.14**	**286**	⇓P	**P**	**17 07 03.1**	**+0.9**
	SNR=23						
ARU	**Arti**	**58.22**	**325**	P	**P**	**17 07 02.7**	**+0.5**
	comp=Z,865nm,0.9s,mb6.8,SNR=47						
ARU	**Arti**	**58.22**	**325**	*d i*P	**P**	**17 07 02.2**	**0.0**
ARU				*e*		17 09 07.9	
ARU				S	**S**	**17 15 04.1**	**+2.8**
ARU				SS	SS	17 18 59.4	+6.3
ARU				pmax	pmax		
	comp=Z,155nm,1.0s,mb6.0						
ARU				MLR	MLR		
	comp=Z,935nm,17.0s,MS5.0						
ARU	**Arti**	**58.22**	**325**	*e*P	**P**	**17 07 02.3**	**+0.1**
	comp=Z,119nm,0.8s,mb6.0						
SMDO	**Samad**	**58.29**	**285**	⇑P	**P**	**17 07 03.5**	**+0.2**
	SNR=20						
ARMA	**Armidale**	**58.31**	**149**	*e*P	**P**	**17 07 04.3**	**+1.2**
ARMA	**Armidale**	**58.31**	**149**	*e*P	**P**	**17 07 05.2**	**+2.1**
	comp=Z,108nm,1.6s,mb5.6						
JMDO	**Jabal Madar**	**58.36**	**284**	P	**P**	**17 07 03.9**	**+0.1**
	SNR=31						
HOQ	**Hoqain**	**58.86**	**286**	⇑P	**P**	**17 07 07.4**	**+0.2**
	SNR=38						
BSY	**Bisya**	**59.12**	**285**	P	**P**	**17 07 09.2**	**+0.3**
	SNR=30						
BANOM	**Banah**	**59.38**	**289**	⇑P	**P**	**17 07 11.1**	**+0.4**
	SNR=11						
ARQ	**Araqi**	**59.62**	**286**	⇓P	**P**	**17 07 12.7**	**+0.3**
	SNR=10						
HATD	**Hatta, Dubai**	**59.71**	**288**	⇑P	**P**	**17 07 13.5**	**+0.4**
	SNR=14						
SOKR	**Solikamsk**	**59.78**	**328**	*d i*P	**P**	**17 07 12.0**	**-0.9**
SOKR				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.7						
SOKR				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.2						
NAZ	**Nazwa, Dubai**	**60.10**	**288**	⇑P	**P**	**17 07 16.5**	**+0.7**
	SNR=17						
FAQ	**Al Faqa, Dubai**	**60.21**	**288**	⇑P	**P**	**17 07 16.6**	**+0.1**
	SNR=15						
CAN	**Canberra**	**61.28**	**154**	*e*P	**P**	**17 07 24.7**	**+1.3**
CAN				pmax	pmax		
	comp=Z,92nm,1.2s,mb5.8						
CAN	**Canberra**	**61.28**	**154**	*e*P	**P**	**17 07 24.7**	**+1.3**
	comp=Z,92nm,1.2s,mb5.8						
CNB	**Canberra Magne**	**61.42**	**154**	*e*P	**P**	**17 07 24.4**	**0.0**
CNB				*e*pP	pP	17 07 35.9	+0.4
TOO	**Toolangi**	**61.93**	**158**	*e*P	**P**	**17 07 28.7**	**+0.9**
TOO				*e*pP	pP	17 07 37.8	-1.1
GAMB	**Gambell**	**61.95**	**28**	P	**P**	**17 07 25.7**	**-1.9**
	comp=Z,87nm,1.3s,mb5.7						
RBK	**Rabkut**	**62.99**	**280**	⇓P	**P**	**17 07 34.6**	**-0.7**
	SNR=36						
WHFO	**Wadi Hawf**	**63.29**	**280**	⇑P	**P**	**17 07 36.1**	**-1.2**
	SNR=26						
TNA	**Tin City**	**63.86**	**26**	*e*P	**P**	**17 07 40.9**	**+0.6**
	comp=Z,119nm,1.7s,mb5.6						
ABTO	**Aybut**	**63.87**	**280**	⇓P	**P**	**17 07 40.4**	**-0.7**
	SNR=24						
PRGR	**Permogore**	**65.50**	**329**	⇑*i*P	**P**	**17 07 51.0**	**0.0**
PRGR				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.8						
KBD	**Kabd**	**66.35**	**294**	*e*P	**P**	**17 07 56.7**	**-0.4**
KBD				AMb	AMB	17 08 00.6	
	comp=Z,72nm,1.5s,mb5.5						
RDF	**Al-Radifah**	**66.52**	**294**	*e*P	**P**	**17 07 57.8**	**-0.4**
RDF				AMb	AMB	17 07 58.6	
	comp=Z,249nm,0.7s,mb6.3						
MIB	**Mutribah**	**66.54**	**295**	*e*P	**P**	**17 07 57.9**	**-0.4**
MIB				AMb	AMB	17 07 58.9	
	comp=Z,131nm,0.7s,mb6.1						
MTA	**Mtatsminda**	**66.78**	**308**	P	**P**	**17 08 00.0**	**+0.4**
TBLG	**Delisi**	**66.81**	**308**	P	**P**	**17 08 01.0**	**+1.2**
GOR	**Gori**	**67.25**	**308**	P	**P**	**17 08 04.1**	**+1.5**
ONI	**Oni**	**67.66**	**309**	P	**P**	**17 08 06.7**	**+1.5**
VRHR	**Novokhopersk**	**67.97**	**318**	*d i*P	**P**	**17 08 06.6**	**-0.4**
VRHR				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.7						
VRHR				pmax	pmax		
	comp=N,4.0nm,0.7s						
KIV	**Kislovodsk**	**68.03**	**310**	P	**P**	**17 08 08.2**	**+0.7**
	comp=N,802nm,0.8s,mb6.8,SNR=14						
KIV	**Kislovodsk**	**68.03**	**310**	*d i*P	**P**	**17 08 08.3**	**+0.8**
KIV				*e*		17 10 46.4	
KIV				*e*S	S	17 17 06.0	+1.6
KIV				pmax	pmax		
	comp=Z,85nm,0.7s,mb5.9						
KIV				pmax	pmax		
	comp=Z,96nm,4.3s						
KIV				MLR	MLR		
	comp=Z,565nm,18.0s,MS4.8						
KIV	**Kislovodsk**	**68.03**	**310**	*e*P	**P**	**17 08 08.4**	**+0.9**
	comp=Z,76nm,0.7s,mb5.8						
KIV				LR	LR		
	comp=Z,724nm,19.0s,MS4.9						
KIV	**Kislovodsk**	**68.03**	**310**	⇓P	**P**	**17 08 08.3**	**+0.8**
	SNR=10.0						
KIV				⇓P		17 08 08.3	
	SNR=10.0						
KLMR	**Klimovskoe**	**68.45**	**329**	⇓*i*P	**P**	**17 08 09.4**	**-0.4**
KLMR				pmax	pmax		
	comp=Z,194nm,1.4s,mb5.9						
MSEY	**Mahe Island**	**69.02**	**257**	P	**P**	**17 08 14.5**	**+0.3**
	comp=Z,277nm,1.2s,mb6.1,SNR=9.0						
MSEY	**Mahe Island**	**69.02**	**257**	*i* P	**P**	**17 08 14.3**	**+0.1**
MSEY	**Mahe Island**	**69.02**	**257**	*e*P	**P**	**17 08 13.4**	**-0.8**
	comp=Z,74nm,1.3s,mb5.5						
MSEY	**Mahe Island**	**69.02**	**257**	P	**P**	**17 08 14.9**	**+0.7**
	SNR=6.1						
MSEY				P		17 08 14.9	
	SNR=6.1						
SVW2	**Sparrevohn**	**69.26**	**31**	*e*P	**P**	**17 08 15.7**	**+0.9**
VOR	**Voronezh**	**69.41**	**319**	*e*P	**P**	**17 08 15.0**	**-1.0**
VOR				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
VORD	**Divnogorie**	**69.45**	**318**	*d i*P	**P**	**17 08 15.1**	**-1.1**
VORD				*e**SP	sP	17 08 26.9	-4.9
VORD				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
VORD				pmax	pmax		
	comp=N,7.0nm,0.4s						
VORD				pmax	pmax		
	comp=E,50nm,0.9s						
VSR	**Storozhevoye**	**69.50**	**318**	*d i*P	**P**	**17 08 15.9**	**-0.6**
VSR				*e**SP	sP	17 08 27.5	-4.6
VSR				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.7						
VSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,90nm,1.0s						
VSR				MLR	MLR		
	comp=Z,680nm,17.0s,MS5.0						
VSR				MLR	MLR		
	comp=N,540nm,16.0s,MS5.0						
VSR				MLR	MLR		
	comp=E,600nm,21.0s,MS5.0						
IMA2	**Indian Mountai**	**69.73**	**26**	*e*P	**P**	**17 08 18.2**	**+0.6**
SOC	**Sochi**	**70.22**	**310**	*e*P	**P**	**17 08 20.5**	**-0.6**
SOC				*e**PP	pP	17 08 29.9	-2.5
SOC				*e**SP	sP	17 08 34.6	-2.1
SOC				*e*		17 08 40.0	
SOC				*e*		17 10 56.8	
SOC				*e*PPP		17 12 42.3	
SOC				*e*S	S	17 17 30.6	+0.4
SOC				*e**SS	sS	17 17 51.3	+2.4
SOC				*e*		17 18 23.7	
SOC				*e*SS	SS	17 22 00.5	+0.1
SOC				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.3						
SOC				MLR	MLR		
	comp=Z,396nm,15.0s,MS4.8						
CHUM	**Lake Minchumin**	**70.51**	**28**	*e*P	**P**	**17 08 23.6**	**+1.1**
	comp=Z,18nm,0.7s,mb5.1						
OBN	**Obninsk**	**70.55**	**323**	*d i*P	**P**	**17 08 22.3**	**-0.6**
OBN				*e*		17 08 42.0	
OBN				*e*S	S	17 17 40.9	+7.3
OBN				pmax	pmax		
	comp=Z,111nm,1.2s,mb5.7						
OBN				MLR	MLR		
	comp=Z,700nm,18.0s,MS5.0						
OBN	**Obninsk**	**70.55**	**323**	*e*P	**P**	**17 08 22.1**	**-0.8**
	comp=Z,102nm,1.3s,mb5.6						
OBN				LR	LR		
	comp=Z,881nm,21.0s,MS5.0						
APA	**Apatity**	**70.59**	**336**	⇑*i*P	**P**	**17 08 23.7**	**+0.8**
APA				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.4						
APA				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.3						
PPLA	**Purkeypile**	**70.68**	**29**	*e*P	**P**	**17 08 24.3**	**+0.8**
	comp=Z,52nm,1.2s,mb5.3						
COLD	**Coldfoot**	**71.00**	**24**	*e*P	**P**	**17 08 26.5**	**+1.1**
	comp=Z,14nm,1.0s,mb4.8						
BPAW	**Bear Paw Mtn.**	**71.07**	**28**	*e*P	**P**	**17 08 26.4**	**+0.6**
	comp=Z,55nm,1.2s,mb5.4						
KDAK	**Kodiak Island**	**71.14**	**34**	P	**P**	**17 08 27.4**	**+0.9**
	comp=Z,34nm,0.7s,mb5.4,baz=148,slow=7.2,SNR=9.6						
KDAK	**Kodiak Island**	**71.14**	**34**	*e*P	**P**	**17 08 26.9**	**+0.5**
KTH	**Kantishna Hill**	**71.16**	**28**	*e*P	**P**	**17 08 26.6**	**+0.1**
	comp=Z,24nm,1.0s,mb5.1						
ANN	**Anapa**	**71.63**	**312**	*e*P	**P**	**17 08 28.1**	**-1.5**
ANN				*e*S	S	17 17 46.6	+0.1
ANN				pmax	pmax		
	comp=Z,146nm,1.3s,mb5.8						
MCK	**McKinley**	**72.02**	**28**	*e*P	**P**	**17 08 31.7**	**+0.1**
MCK				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
MCK	**McKinley**	**72.02**	**28**	*e*P	**P**	**17 08 31.7**	**+0.2**
	comp=Z,44nm,1.0s,mb5.3						
JOF	**Joensuu**	**72.09**	**331**	*e*P	**P**	**17 08 31.2**	**-0.8**
JOF				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
JOF	**Joensuu**	**72.09**	**331**	*e*p	**P**	**17 08 31.2**	**-0.8**
	comp=Z,52nm,1.0s,mb5.4						
MALT	**Malatya**	**72.16**	**305**	*e*P	**P**	**17 08 33.9**	**+1.0**
MALT				pmax	pmax		
	comp=Z,106nm,0.9s,mb5.8						
MALT	**Malatya**	**72.16**	**305**	⇑*i*P	**P**	**17 08 34.0**	**+1.1**
MALT	**Malatya**	**72.16**	**305**	*e*P	**P**	**17 08 33.9**	**+1.0**
	comp=Z,106nm,0.9s,mb5.8						
PMR	**Palmer**	**72.28**	**30**	P	**P**	**17 08 33.0**	**-0.2**
PMR				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.2						
PMR	**Palmer**	**72.28**	**30**	*e*P	**P**	**17 08 32.8**	**-0.4**
	comp=Z,28nm,0.9s,mb5.2						
COLA	**College**	**72.29**	**27**	P	**P**	**17 08 34.0**	**+0.8**
COLA				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
COLA				MLR	MLR		
	comp=Z,329nm,19.0s,MS4.6						
COLA	**College**	**72.29**	**27**	P	**P**	**17 08 34.0**	**+0.8**
	comp=Z,16nm,0.9s,mb5.0						
COLA				LR	LR		
	comp=Z,329nm,19.0s,MS4.6						
KEV	**Kevo**	**72.58**	**339**	*e*P	**P**	**17 08 33.9**	**-1.0**
KEV				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
KEV	**Kevo**	**72.58**	**339**	*e*p	**P**	**17 08 33.9**	**-1.0**
	comp=Z,33nm,0.8s,mb5.3						
ARCES	**ARCESS Array B**	**73.14**	**339**	P	**P**	**17 08 38.7**	**+0.5**
	comp=Z,17nm,0.9s,mb5.0,baz=74,slow=5.4,SNR=14						
MENT	**Mentasta**	**74.48**	**28**	P	**P**	**17 08 46.5**	**+0.4**
KAF	**Kangasniemi**	**74.53**	**331**	*e*P	**P**	**17 08 45.2**	**-1.2**
KAF				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.2						
KAF	**Kangasniemi**	**74.53**	**331**	*e*p	**P**	**17 08 45.2**	**-1.2**
	comp=Z,35nm,1.0s,mb5.2						
ASF	**Jabal al Asfar**	**74.78**	**299**	P	**P**	**17 08 49.6**	**+1.1**
	comp=Z,32nm,1.1s,mb5.2,baz=28,slow=2.6						
EGAK	**Eagle**	**75.10**	**26**	*e*P	**P**	**17 08 50.0**	**+0.3**
	comp=Z,15nm,0.8s,mb5.0						
VSU	**Vasula**	**75.22**	**327**	⇓*i*P	**P**	**17 08 50.4**	**-0.1**
VSU				pmax	pmax		
	comp=Z,173nm,1.7s,mb5.7						
BRTR	**Keskin Array B**	**75.47**	**307**	P	**P**	**17 08 52.4**	**+0.1**
	comp=Z,18nm,0.8s,mb5.0,baz=124,slow=4.7,SNR=49						
MICGM	**Minsk**	**75.60**	**323**	*e*P	**P**	**17 08 51.0**	**-1.8**
MNK	**Minsk**	**75.63**	**323**	*e*P	**P**	**17 08 51.0**	**-1.9**
MNK				pmax	pmax		
	comp=Z,280nm,1.0s,mb6.2						
AKASG	**Malin Array Be**	**75.76**	**319**	P	**P**	**17 08 53.0**	**-0.7**
	comp=Z,12nm,0.6s,mb5.0,baz=62,slow=5.5,SNR=47						
KIEV	**Kiev**	**75.78**	**319**	P	**P**	**17 08 53.0**	**-0.8**
KIEV				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
KIEV	**Kiev**	**75.78**	**319**	*e*P	**P**	**17 08 52.9**	**-1.0**
	comp=Z,20nm,0.9s,mb5.0						
DAWY	**Dawson**	**76.04**	**27**	*e*P	**P**	**17 08 55.9**	**+0.8**
NACGM	**Naroch**	**76.11**	**324**	*e*	**P**	**17 08 53.0**	**-2.7**
EIL	**Elat**	**77.05**	**297**	P	**P**	**17 09 01.7**	**+0.2**
	comp=Z,46nm,1.1s,mb5.3,baz=84,slow=2.2						
ALE	**Alert**	**77.39**	**0**	P	**P**	**17 09 03.0**	**+0.5**
	comp=Z,111nm,1.0s,mb5.7,SNR=13						
KHU	**Kahuku**	**77.47**	**74**	P	**P**	**17 09 06.7**	**+2.7**
TLCR		**77.49**	**314**	⇑*i*P	**P**	**17 09 04.0**	**+0.4**
TIRR	**Tirgusor**	**77.97**	**313**	P	**P**	**17 09 06.6**	**+0.3**
TIRR	**Tirgusor**	**77.97**	**313**	⇓*i*P	**P**	**17 09 06.4**	**+0.1**
TIRR	**Tirgusor**	**77.97**	**313**	*e*P	**P**	**17 09 06.4**	**+0.1**
	comp=Z,26nm,0.9s,mb5.2						
HARR	**Harsova**	**78.23**	**313**	⇑*i*P	**P**	**17 09 08.6**	**+0.8**
HARR	**Harsova**	**78.23**	**313**	P	**P**	**17 09 08.5**	**+0.7**
ISP	**Isparta**	**78.33**	**306**	P	**P**	**17 09 08.1**	**-0.3**
ISP				pmax	pmax		
	comp=Z,130nm,1.1s,mb5.8						
ISP	**Isparta**	**78.33**	**306**	*e*P	**P**	**17 09 07.9**	**-0.5**
	comp=Z,133nm,1.1s,mb5.8						
SUW	**Suwalki**	**78.38**	**323**	*e*P	**P**	**17 09 08.2**	**-0.2**
SUW	**Suwalki**	**78.38**	**323**	P	**P**	**17 09 08.2**	**-0.2**
SUW				pmax	pmax		
	comp=Z,260nm,1.1s,mb6.1						
SUW	**Suwalki**	**78.38**	**323**	*e*P	**P**	**17 09 08.2**	**-0.2**
VRI	**Vrincioaia**	**78.70**	**315**	⇑*i*P	**P**	**17 09 11.4**	**+1.1**
VRI	**Vrincioaia**	**78.70**	**315**	P	**P**	**17 09 11.6**	**+1.2**
PLOR	**Plostina**	**78.75**	**315**	P	**P**	**17 09 12.0**	**+1.4**
PLOR	**Plostina**	**78.75**	**315**	⇑*i*P	**P**	**17 09 10.7**	**+0.1**
PRD	**Provadia**	**79.03**	**312**	*i* P	**P**	**17 09 12.5**	**+0.3**
BURAR	**Bucovina Array**	**79.16**	**317**	⇓*i*P	**P**	**17 09 13.1**	**+0.3**
BURAR	**Bucovina Array**	**79.16**	**317**	⇓P	**P**	**17 09 13.1**	**+0.3**
BUR08	**Bucovina Ar. S**	**79.16**	**317**	*e*P	**P**	**17 09 13.1**	**+0.3**
LVV	**L'vov**	**79.21**	**319**	*e*P	**P**	**17 09 12.9**	**-0.1**
MLR	**Muntele Rosu**	**79.33**	**315**	⇓*i*P	**P**	**17 09 14.4**	**+0.6**
MLR	**Muntele Rosu**	**79.33**	**315**	P	**P**	**17 09 14.5**	**+0.7**
	comp=Z,35nm,0.7s,mb5.4,baz=199,slow=1.4,SNR=17						
MLR	**Muntele Rosu**	**79.33**	**315**	P	**P**	**17 09 14.7**	**+0.9**
VOIR		**79.95**	**315**	⇓*i*P	**P**	**17 09 17.5**	**+0.3**
VOIR		**79.95**	**315**	P	**P**	**17 09 18.1**	**+0.9**
SZH	**Strazhica**	**80.03**	**312**	*i* P	**P**	**17 09 17.8**	**+0.1**
KWP	**Kalwaria Pacla**	**80.08**	**319**	*e*P	**P**	**17 09 18.3**	**+0.5**
KWP				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.7						
KWP	**Kalwaria Pacla**	**80.08**	**319**	⇓*i*P	**P**	**17 09 18.3**	**+0.5**
DAG	**Danmarks Havn**	**80.22**	**351**	⇑*i*P	**P**	**17 09 17.7**	**-0.3**
DAG				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.4						
DAG	**Danmarks Havn**	**80.22**	**351**	⇑*i*P	**P**	**17 09 17.7**	**-0.3**
	comp=Z,44nm,0.9s,mb5.4						
DAG				*i*		17 15 07.6	
KOLS	**Kolonicke sedl**	**80.59**	**319**	*i* P	**P**	**17 09 20.3**	**-0.2**
KOLS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
KOLS	**Kolonicke sedl**	**80.59**	**319**	*i* P	**P**	**17 09 20.3**	**-0.2**
	comp=Z,6.9nm,0.9s,mb4.6						
UZH	**Uzhgorod**	**80.68**	**318**	⇑*i*P	**P**	**17 09 21.0**	**0.0**
KDZ	**Kurdzhali**	**80.91**	**311**	*i* P	**P**	**17 09 22.6**	**+0.2**
HFS	**Hagfors**	**80.95**	**331**	P	**P**	**17 09 21.8**	**-0.4**
	comp=Z,28nm,0.9s,mb5.2,baz=73,slow=5.1,SNR=33						
DRGR		**81.04**	**317**	⇓*i*P	**P**	**17 09 23.5**	**+0.5**
DRGR		**81.04**	**317**	P	**P**	**17 09 23.8**	**+0.8**
STHS	**Stebnicka Huta**	**81.05**	**319**	*i* P	**P**	**17 09 23.4**	**+0.4**
STHS				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
STHS	**Stebnicka Huta**	**81.05**	**319**	*i* P	**P**	**17 09 23.4**	**+0.4**
	comp=Z,9.7nm,1.1s,mb4.7						
CRVS	**Cervenica-Dubn**	**81.10**	**319**	*i* P	**P**	**17 09 23.9**	**+0.6**
CRVS				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.2						
CRVS	**Cervenica-Dubn**	**81.10**	**319**	*i* P	**P**	**17 09 23.9**	**+0.6**
	comp=Z,50nm,1.4s,mb5.2						
RZN	**Rozhen**	**81.39**	**311**	*i* P	**P**	**17 09 25.1**	**+0.1**
GZR	**Gura Zlata**	**81.47**	**315**	⇓*i*P	**P**	**17 09 26.2**	**+0.9**
GZR	**Gura Zlata**	**81.47**	**315**	P	**P**	**17 09 26.0**	**+0.7**
PGB	**Panagyurishte**	**81.49**	**312**	*i* P	**P**	**17 09 25.8**	**+0.3**
NIE	**Niedzica**	**81.62**	**320**	*e*P	**P**	**17 09 27.0**	**+1.0**
OJC	**Ojcow**	**81.64**	**320**	*e*P	**P**	**17 09 26.4**	**+0.3**
OJC				*e*PcP	PcP	17 09 30.8	-1.1
NOA	**NORSAR Array B**	**81.65**	**332**	P	**P**	**17 09 25.4**	**-0.6**
	comp=Z,29nm,0.9s,mb5.2,baz=64,slow=5.1,SNR=61						
NOA				LR	LR	17 50 20.8	
	comp=Z,2µm,18.3s,MS5.4,baz=55,slow=39						
KECS	**Kecovo**	**81.85**	**319**	*i* P	**P**	**17 09 27.5**	**+0.3**
GKP	**Gorka Klasztor**	**81.96**	**324**	*e*P	**P**	**17 09 27.9**	**+0.2**
GKP	**Gorka Klasztor**	**81.96**	**324**	*e*P	**P**	**17 09 27.9**	**+0.2**
MMB	**Musomiste**	**82.12**	**311**	*i* P	**P**	**17 09 28.1**	**-0.7**
VTS	**Vitosha**	**82.14**	**312**	*i* P	**P**	**17 09 29.0**	**+0.1**
BZS	**Buzias**	**82.16**	**316**	⇓*i*P	**P**	**17 09 28.7**	**-0.2**
BZS	**Buzias**	**82.16**	**316**	P	**P**	**17 09 28.7**	**-0.2**
DLBC	**Dease Lake**	**82.34**	**30**	P	**P**	**17 09 31.1**	**+1.5**
	comp=Z,6.6nm,0.9s,mb4.5,baz=288,slow=5.9,SNR=6.5						
PSZ	**Piszkesteto**	**82.43**	**318**	P	**P**	**17 09 30.7**	**+0.4**
PSZ				pmax	pmax		
	comp=Z,39nm,1.4s,mb5.1						
PSZ	**Piszkesteto**	**82.43**	**318**	⇑*i*P	**P**	**17 09 30.5**	**+0.2**
PSZ	**Piszkesteto**	**82.43**	**318**	⇓*e*PcP	**P**	**17 09 30.6**	**+0.3**
PSZ	**Piszkesteto**	**82.43**	**318**	*e*P	**P**	**17 09 30.6**	**+0.3**
	comp=Z,39nm,1.4s,mb5.2						
BSD	**Bornholm Skovb**	**82.46**	**326**	*i* P	**P**	**17 09 30.4**	**+0.1**
	comp=Z,32nm,1.0s,mb5.2						
BSD							
	comp=Z,820nm,18.0s						
KKB	**Krupnik**	**82.48**	**312**	*i* P	**P**	**17 09 30.9**	**+0.2**
RES	**Resolute Bay**	**82.52**	**9**	*e*P	**P**	**17 09 30.6**	**+0.3**
RES				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.3						
RES	**Resolute Bay**	**82.52**	**9**	P	**P**	**17 09 30.4**	**+0.2**
	comp=Z,20nm,1.0s,mb5.1,baz=316,slow=5.3,SNR=53						
RES	**Resolute Bay**	**82.52**	**9**	*e*P	**P**	**17 09 30.5**	**+0.3**
	comp=Z,35nm,1.2s,mb5.3						
OKC	**Ostrava-Krasne**	**82.77**	**321**	⇓*i*P	**P**	**17 09 32.4**	**+0.4**
OKC				*e*x	x	17 09 44.0	
VYHS	**Vyhne**	**82.87**	**319**	*i* P	**P**	**17 09 32.9**	**+0.3**
KONO	**Kongsberg**	**83.01**	**332**	*e*P	**P**	**17 09 32.9**	**-0.2**
VAY	**Valandovo**	**83.03**	**311**	*e*P	**P**	**17 09 32.2**	**-1.4**
BUD	**Budapest**	**83.14**	**318**	⇓*e*PcP	**P**	**17 09 34.4**	**+0.4**
MORC	**Moravsky Berou**	**83.15**	**321**	⇓*i*P	**P**	**17 09 34.3**	**+0.3**
MORC	**Moravsky Berou**	**83.15**	**321**	*e*P	**P**	**17 09 34.0**	**0.0**
	comp=Z,81nm,1.7s,mb5.5						
IDI	**Anoyia**	**83.42**	**305**	P	**P**	**17 09 34.0**	**-1.7**
	comp=Z,14nm,1.1s,mb4.9,baz=13,slow=14,SNR=3.2						
KSP	**Ksiaz**	**83.46**	**322**	*e*P	**P**	**17 09 36.3**	**+0.8**
KSP	**Ksiaz**	**83.46**	**322**	⇓*i*P	**P**	**17 09 36.2**	**+0.6**
KSP				LR	LR		
	comp=Z,1µm,19.3s,MS5.3						
COP	**Copenhagen**	**83.49**	**327**	*e*P	**P**	**17 09 36.0**	**+0.4**
COP				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
COP				MLR	MLR		
	comp=Z,390nm,19.0s,MS4.8						
COP	**Copenhagen**	**83.49**	**327**	*i* P	**P**	**17 09 36.0**	**+0.4**
	comp=Z,18nm,0.9s,mb5.1						
COP							
	comp=Z,380nm,19.0s						
COP	**Copenhagen**	**83.49**	**327**	*e*P	**P**	**17 09 36.0**	**+0.4**
	comp=Z,18nm,0.9s,mb5.1						
COP				LR	LR		
	comp=Z,390nm,19.0s,MS4.8						
SKO	**Skopje**	**83.59**	**312**	*e*P	**P**	**17 09 36.7**	**+0.3**
DPC	**Dobruska-Polom**	**83.64**	**321**	⇓*i*P	**P**	**17 09 37.3**	**+0.8**
DPC				*e*x	x	17 09 45.7	
SMOL	**Smolenice**	**83.72**	**319**	*i* P	**P**	**17 09 37.8**	**+0.8**
UPC	**Upice**	**83.76**	**322**	⇓*e*x	x	17 09 45.9	
MODS	**Modra-Piesok**	**83.87**	**319**	*i* P	**P**	**17 09 38.5**	**+0.8**
MODS				pmax	pmax		
	comp=Z,27nm,1.7s,mb5.1						
MODS	**Modra-Piesok**	**83.87**	**319**	*i* P	**P**	**17 09 38.5**	**+0.8**
	comp=Z,27nm,1.7s,mb5.1						
VRAC	**Vranov**	**83.91**	**320**	⇑*i*P	**P**	**17 09 38.3**	**+0.4**
VRAC	**Vranov**	**83.91**	**320**	P	**P**	**17 09 38.2**	**+0.3**
	comp=Z,43nm,1.0s,mb5.5,baz=75,slow=4.9,SNR=49						
VRAC	**Vranov**	**83.91**	**320**	P	**P**	**17 09 38.8**	**+0.9**
KRUS	**Krusevo**	**83.94**	**312**	*e*P	**P**	**17 09 36.0**	**-2.2**
ZST	**Bratislava**	**84.05**	**319**	*i* P	**P**	**17 09 39.5**	**+0.9**
ZST				pmax	pmax		
	comp=Z,110nm,2.4s,mb5.6						
ZST	**Bratislava**	**84.05**	**319**	*i* P	**P**	**17 09 39.5**	**+0.9**
	comp=Z,110nm,2.4s,mb5.6						
RUE	**Ruedersdorf**	**84.19**	**324**	*e*P	**P**	**17 09 40.0**	**+0.7**
	comp=Z,139nm,1.3s,mb5.9						
TREC	**Trest**	**84.57**	**321**	⇓*i*P	**P**	**17 09 41.8**	**+0.5**
TREC				*e*x	x	17 09 50.9	
PVCC	**Panska Ves**	**84.59**	**322**	⇓*i*P	**P**	**17 09 42.0**	**+0.7**
SOP	**Sopron**	**84.59**	**319**	⇓*e*PcP	**P**	**17 09 41.8**	**+0.4**
KMBO	**Kilima Mbogo**	**84.64**	**267**	P	**P**	**17 09 42.9**	**+0.6**
	comp=Z,41nm,1.0s,mb5.5,baz=41,slow=7.1,SNR=50						
MUD	**Monsted U'grnd**	**84.75**	**329**	*i* P	**P**	**17 09 41.9**	**-0.1**
	comp=Z,33nm,1.0s,mb5.4						
MUD							
	comp=Z,950nm,18.0s						
BRG	**Berggiesshubel**	**84.80**	**323**	*i* P	**P**	**17 09 42.6**	**+0.2**
BRG				*e*		17 20 10.0	
BRG				pmax	pmax		
	comp=Z,78nm,1.0s,mb5.8						
BRG	**Berggiesshubel**	**84.80**	**323**	*e*P	**P**	**17 09 42.7**	**+0.3**
	comp=Z,53nm,1.0s,mb5.6						
BRG	**Berggiesshubel**	**84.80**	**323**	*i* P	**P**	**17 09 42.6**	**+0.3**
	comp=Z,53nm,1.0s,mb5.6						
BRG				*e*		17 20 10.0	
PRU	**Pruhonice**	**84.84**	**322**	⇓*i*P	**P**	**17 09 43.2**	**+0.6**
PRU				*e*x	x	17 09 53.4	
CONA	**Conrad Observa**	**84.92**	**319**	*i* P	**P**	**17 09 43.6**	**+0.6**
	comp=Z,61nm,1.3s,mb5.6,SNR=19						
TIR	**Tirane**	**84.92**	**312**	P	**P**	**17 09 42.9**	**-0.3**
TIR				pmax	pmax		
	comp=Z,86nm,1.0s,mb5.8						
TIR	**Tirane**	**84.92**	**312**	*e*P	**P**	**17 09 42.8**	**-0.4**
	comp=Z,86nm,1.0s,mb5.8						
CSNA	**Conrad Observa**	**84.92**	**319**	⇓*i*PcP	PcP	17 09 43.7	-2.6
	comp=Z,55nm,1.3s						
CLL	**Collm**	**85.14**	**323**	⇓*i*P	**P**	**17 09 43.9**	**-0.2**
CLL				*e*	pP	17 09 52.0	-3.6
CLL				*e*	pP	17 09 56.0	+0.4
CLL				*e*S	S	17 20 12.0	+0.9
CLL				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.9						
CLL				MLR	MLR		
	comp=Z,1µm,18.5s,MS5.2						
CLL	**Collm**	**85.14**	**323**	*e*P	**P**	**17 09 44.2**	**+0.1**
	comp=Z,63nm,1.1s,mb5.7						
CLL	**Collm**	**85.14**	**323**	⇓*i*P	**P**	**17 09 43.9**	**-0.2**
	comp=Z,63nm,1.1s,mb5.7						
CLL				*e*pP	pP	17 09 46.0	-10
CLL				*e*	pP	17 09 52.0	-3.6
CLL				*e*S	S	17 20 12.0	+0.9
CLL				Lm		17 53 00.0	
	comp=N,600nm,19.2s						
CLL				Lm		17 53 00.0	
	comp=E,600nm,18.1s						
CLL				Lm		17 53 00.0	
	comp=Z,1µm,18.5s						
CLL	**Collm**	**85.14**	**323**	⇓*i*P	**P**	**17 09 43.9**	**-0.2**
	comp=Z,63nm,1.1s,mb5.7						
CLL				*e*	pP	17 09 52.0	-3.6
CLL				*e*	pP	17 09 56.0	+0.4
CLL				*e*S	S	17 20 12.0	+0.9
CLL				LR	LR		
	comp=Z,1µm,18.5s,MS5.2						
KOGS	**Kog**	**85.29**	**318**	⇓*e*P	**P**	**17 09 45.0**	**+0.1**
BSEG	**Bad Segeberg**	**85.39**	**326**	*e*P	**P**	**17 09 45.7**	**+0.5**
BSEG				pmax	pmax		
	comp=Z,103nm,1.3s,mb5.8						
BSEG	**Bad Segeberg**	**85.39**	**326**	*e*P	**P**	**17 09 45.7**	**+0.5**
	comp=Z,103nm,1.3s,mb5.8						
ARSA	**Arzberg**	**85.41**	**319**	*i* P	**P**	**17 09 45.7**	**+0.2**
	comp=Z,29nm,1.1s,mb5.3,SNR=15						
KHC	**Kasperske Hory**	**85.77**	**321**	⇓*i*P	**P**	**17 09 47.4**	**+0.1**
KHC				*e*x	x	17 09 56.9	
GEC2	**GERESS Array S**	**85.83**	**321**	*e*P	**P**	**17 09 47.8**	**+0.3**
GEC2				*e**PP	pP	17 09 58.0	-1.1
GEC2				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.6						
GEC2	**GERESS Array S**	**85.83**	**321**	*e*P	**P**	**17 09 47.8**	**+0.3**
	comp=Z,43nm,1.1s,mb5.6						
GEC2				*e*pP	pP	17 09 58.0	-1.1
GERES	**GERESS Array B**	**85.83**	**321**	P	**P**	**17 09 47.8**	**+0.3**
	comp=Z,16nm,0.9s,mb5.3,baz=57,slow=4.9,SNR=102						
TANN	**Tannenbergstha**	**85.85**	**323**	*e*P	**P**	**17 09 47.7**	**+0.1**

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          comp=Z,117nm,2.2s,mb5.7
SCO   Scoresbysund     85.87 348  i P      P        17 09 47.6 +0.3
SCO                                 pmax   pmax
          comp=Z,13nm,1.1s,mb5.1
SCO                                 MLR    MLR
          comp=Z,460nm,20.0s,MS4.9
SCO   Scoresbysund     85.87 348  i P      P        17 09 47.6 +0.3
          comp=Z,12nm,1.1s,mb5.1
SCO
          comp=Z,460nm,20.0s
PERS  Pernice          85.92 318⇓iP      P        17 09 48.3 +0.2
MOA   Molln            85.92 320  i PcP    PcP      17 09 48.7  -2.1
          comp=Z,58nm,1.2s,SNR=23
GCIS  Gornji Cirnik    85.93 318⇓eP      P        17 09 48.5 +0.4
NKC   Novy Kostel      85.94 322⇓eP      P        17 09 47.6  -0.5
SOKA  Soboth           85.96 318⇑iP      P        17 09 48.4 +0.2
          comp=Z,40nm,1.2s,mb5.5
WET   Wettzell         86.18 321  eP       P        17 09 49.5 +0.2
WET                               e*PP     pP       17 09 59.5  -1.3
WET                                 pmax   pmax
          comp=Z,55nm,1.6s,mb5.5
WET   Wettzell         86.18 321  eP       P        17 09 49.5 +0.2
          comp=Z,55nm,1.6s,mb5.5
WET                               epP      pP       17 09 59.5  -1.3
NRDL  Niedersach Rie   86.18 325  eP       P        17 09 49.6 +0.4
          comp=Z,89nm,1.4s,mb5.8
MOX   Moxa             86.22 323  eP       P        17 09 49.4  -0.1
          comp=Z,72nm,1.9s,mb5.6
MOX                               ePP      sP       17 10 01.9  -3.3
MOX
          comp=Z,800nm,18.0s
MOX   Moxa             86.22 323  eP       P        17 09 49.4  -0.1
MOX                               e        pP       17 10 01.9 +0.9
MOX                                 pmax   pmax
          comp=Z,48nm,1.9s,mb5.4
MOX                                 MLR    MLR
          comp=Z,72µm,18.0s
MOX   Moxa             86.22 323  eP       P        17 09 49.6 +0.1
          comp=Z,96nm,2.0s,mb5.7
MOX                               epP      pP       17 10 01.2 +0.2
MANZ  Manzenberg       86.25 322  eP       P        17 09 49.8 +0.2
          comp=Z,86nm,2.0s,mb5.6
ROTZ  Rotzenmuhle      86.29 322  eP       P        17 09 50.3 +0.5
          comp=Z,44nm,1.4s,mb5.5
BOJS  Bojanci          86.32 317⇓iP      P        17 09 50.5 +0.4
BOJS                              epP      pP       17 10 01.7 +0.1
OBKA  Obir             86.33 318⇓iP      P        17 09 49.9  -0.2
          comp=Z,28nm,0.9s,mb5.5
CLZ   Clausthal        86.35 324  eP       P        17 09 50.5 +0.4
CLZ                                 pmax   pmax
          comp=Z,82nm,1.4s,mb5.8
CLZ   Clausthal        86.35 324  eP       P        17 09 50.5 +0.4
          comp=Z,82nm,1.4s,mb5.8
SUMG  Summit           86.38 354  eP       P        17 09 50.5 +0.7
          comp=Z,94nm,1.1s,mb5.9
LJU   Ljubljana        86.55 318⇓eP      P        17 09 51.3 +0.1
LJU                               i pP     pP       17 10 02.7   0.0
YKA   Yellowknife Ar   86.59  23    P      P        17 09 50.4  -0.6
          comp=Z,5.3nm,0.8s,mb4.8,baz=314,slow=4.6,SNR=59
YKA                                 PKKPbc PKKPbc   17 27 44.6  -3.5
          comp=Z,0.6nm,0.5s,baz=132,slow=2.5,SNR=13
KBA   Koelnbreinsper   86.83 319  i P      P        17 09 52.4  -0.1
          comp=Z,24nm,1.1s,mb5.3,SNR=10
MYKA  Terra Mystica    86.84 319⇓iP      P        17 09 52.1  -0.5
          comp=Z,10nm,1.0s,mb5.0
RJOB  Jochberg         86.86 320  eP       P        17 09 52.8 +0.1
          comp=Z,35nm,1.4s,mb5.4
GRA1  Grafenberg Arr   86.89 322  eP       P        17 09 53.3 +0.5
          comp=Z,146nm,2.0s,mb5.9
GRA1                              epP      pP       17 10 03.4  -0.9
GRA1                              eS       S        17 20 30.9 +2.6
GRA1                                LR     LR
          comp=Z,800nm,19.5s,MS5.1
GRF   Grafenberg Arr   86.89 322  eP       P        17 09 53.3 +0.5
GRF                               e*PP     pP       17 10 03.4  -0.9
GRF                               eS       S        17 20 30.9 +2.6
GRF                                 pmax   pmax
          comp=Z,146nm,2.0s,mb5.9
GRF                                 MLR    MLR
          comp=Z,800nm,19.5s,MS5.1
GRF   Grafenberg Arr   86.89 322  eP       P        17 09 53.3 +0.5
GRF                               e*PP     pP       17 10 03.4  -0.9
GRF                               eS       S        17 20 30.9 +2.6
GRF                                 pmax   pmax
          comp=Z,146nm,2.0s,mb5.9
GRF                                 MLR    MLR
          comp=Z,800nm,19.5s,MS5.1
GRF   Grafenberg Arr   86.89 322  eP       P        17 09 53.3 +0.5
          comp=Z,146nm,2.0s,mb5.9
GRF                               epP      pP       17 10 03.4  -0.9
GRF                               eS       S        17 20 30.9 +2.6
GRF                               eL                17 52 57.3
          comp=Z,832nm,19.5s
VOY   Vojsko           86.95 318  eP       P        17 09 52.5  -0.6
VOY                               epP      pP       17 10 03.7  -1.0
UBBA  Unterbreizbach   87.05 324  eP       P        17 09 53.2  -0.3
          comp=Z,40nm,1.8s,mb5.3
SKDS  Skadanscina      87.09 318⇓eP      P        17 09 53.5  -0.3
PTCC  Patocco-Chiusa   87.12 319    P      P        17 09 53.9   0.0
          comp=Z,25nm,1.4s,mb5.2
ABTA  Abfaltersbach    87.48 319⇑iP      P        17 09 54.4  -1.3
          comp=Z,23nm,1.2s,mb5.3,SNR=11
IBBN  Ibbenburen       87.53 326  eP       P        17 09 56.1 +0.3
          comp=Z,82nm,1.4s,mb5.8
FUR   Furstenfeldbru   87.57 321  eP       P        17 09 56.6 +0.5
FUR                                 pmax   pmax
          comp=Z,51nm,1.4s,mb5.6
FUR   Furstenfeldbru   87.57 321  eP       P        17 09 56.6 +0.5
          comp=Z,51nm,1.4s,mb5.6
WTTA  Wattenberg       87.78 320  i P      P        17 09 56.9  -0.2
          comp=Z,30nm,1.3s,mb5.4,SNR=11
PTRP  Pietrapertosa    87.89 313    P      P        17 09 57.4  -0.4
TIP   Timpagrande      87.96 311  eP       P        17 09 58.4 +0.2
          comp=Z,47nm,1.4s,mb5.5
TNS   Taunus Mts       88.20 324  eP       P        17 09 59.0   0.0
TNS                                 pmax   pmax
          comp=Z,38nm,1.4s,mb5.4
TNS   Taunus Mts       88.20 324  eP       P        17 09 59.0   0.0
          comp=Z,38nm,1.4s,mb5.4
WTSB  Winterswijk      88.21 326  eP       P        17 09 58.7  -0.3
          comp=Z,34nm,1.2s,mb5.4
BUG   Bochum--Univer   88.23 325  eP       P        17 09 59.3 +0.1
          comp=Z,32nm,1.0s,mb5.5
CUC   Castrocucco      88.28 312  eP       P        17 09 57.8  -1.9
          comp=Z,17nm,1.4s,mb5.1
CTI   Castel Tesino    88.33 319    P      P        17 09 59.7  -0.1
CTI                                 pmax   pmax
          comp=Z,68nm,1.8s,mb5.6
CTI   Castel Tesino    88.33 319    P      P        17 09 59.7  -0.1
          comp=Z,68nm,1.8s,mb5.6
GRI   Girifalco        88.35 311    P      P        17 10 00.9 +0.9
GRI                                 pmax   pmax
          comp=Z,6.0nm,0.3s,mb5.3
GRI   Girifalco        88.35 311    P      P        17 10 00.9 +0.9
          comp=Z,5.6nm,0.3s,mb5.3
SGO   Sicignano        88.39 313    P      P        17 10 00.1  -0.1
SGO                                 pmax   pmax
          comp=Z,2.0nm,0.3s,mb4.8
SGO   Sicignano        88.39 313    P      P        17 10 00.1  -0.1
          comp=Z,1.9nm,0.3s,mb4.8
FETA  Feichten         88.44 320⇓iPcP    P        17 10 00.1  -0.1
          comp=Z,22nm,1.5s,mb5.2,SNR=10
TERO  Teramo           88.64 315    P      P        17 10 01.5 +0.2
FSSB  Fossombrone      88.70 316    P      P        17 10 02.1 +0.5
          comp=Z,72nm,0.3s,mb6.5
SNTG  Esanatoglia      88.80 316    P      P        17 10 02.8 +0.8
          comp=Z,88nm,0.2s,mb6.8
DAVA  Damuels          88.82 321⇓iPcP    P        17 10 01.9  -0.1
          comp=Z,10.0nm,0.9s,mb5.2
NRCA  Norcia           88.87 316    P      P        17 10 03.0 +0.6
          comp=Z,16nm,0.2s,mb6.0
AQU   L'Aquila         88.90 315    P      P        17 10 03.1 +0.6
SDI   San Donato       88.91 314    P      P        17 10 02.5  -0.1
SOI   Samo             88.92 310    P      P        17 10 03.0 +0.3
SOI                                 pmax   pmax
          comp=Z,70nm,1.7s,mb5.7
SOI   Samo             88.92 310    P      P        17 10 03.0 +0.3
          comp=Z,70nm,1.7s,mb5.7
CEL   Celeste          88.96 311  eP       P        17 10 03.1 +0.2
          comp=Z,108nm,1.4s,mb6.0
PTQR  Pietraquaria     89.05 315    P      P        17 10 03.3 +0.1
          comp=Z,90nm,0.2s,mb6.8
DAVOX Davos/Dischmat   89.07 320    P      P        17 10 02.9  -0.3
          comp=Z,11nm,0.9s,mb5.2,baz=65,slow=4.6,SNR=13
DAVOS Davos            89.09 320    P      P        17 10 02.9  -0.4
LANF  Langenberg       89.19 323  eP       P        17 10 03.6  -0.1
SFI   Santa Sofia      89.20 317    P      P        17 10 05.4 +1.5
MTTG  Motta San Giov   89.21 310    P      P        17 10 04.8 +0.7
          comp=Z,34nm,0.7s,mb5.8
BFO   Black Forest     89.22 322  i P      P        17 10 04.3 +0.4
BFO   Black Forest     89.22 322  eP       P        17 10 03.6  -0.3
          comp=Z,14nm,1.2s,mb5.2
HGN   Heimansgroeve    89.30 325  eP       P        17 10 03.8  -0.5
          comp=Z,24nm,1.1s,mb5.5
MEM   Membach          89.34 325    P      P        17 10 04.6 +0.1
          comp=Z,18nm,1.5s,mb5.2
TUE   Stuetta          89.54 320  eP       P        17 10 05.5 +0.1
          comp=Z,25nm,1.1s,mb5.5
FNVD  Fontana Vidola   89.54 317    P      P        17 10 07.1 +1.6
WLF   Walferdange      89.76 324    P      P        17 10 06.8 +0.4
          comp=Z,35nm,1.3s,mb5.5
WLF   Walferdange      89.76 324    P      P        17 10 07.3 +0.9
WLF                                 pmax   pmax
          comp=Z,54nm,1.1s,mb5.8
WLF   Walferdange      89.76 324  eP       P        17 10 06.7 +0.3
          comp=Z,59nm,1.1s,mb5.8
WLF   Walferdange      89.76 324  eP       P        17 10 07.1 +0.7
          comp=Z,54nm,1.1s,mb5.8
CDF   Champ du Feu     89.78 322  eP       P        17 10 06.2  -0.3
          comp=Z,62nm,1.3s,mb5.5
CDF   Champ du Feu     89.78 322  eP       P        17 10 06.2  -0.3
CDF                                 pmax   pmax
          comp=Z,31nm,1.3s,mb5.5
CDF   Champ du Feu     89.78 322  eP       P        17 10 06.2  -0.3
          comp=Z,31nm,1.3s,mb5.5
BCLA  Clavier          89.83 325    P      P        17 10 06.8 +0.2
          comp=Z,21nm,1.8s,mb5.2
ERBM  Eremo            89.87 318    P      P        17 10 08.6 +1.6
ECH   Echery           89.95 322  eP       P        17 10 06.9  -0.4
ECH   Echery           89.95 322  eP       P        17 10 07.0  -0.3
ECH                                 pmax   pmax
          comp=Z,13nm,1.3s,mb5.1
ECH   Echery           89.95 322  eP       P        17 10 07.0  -0.3
          comp=Z,13nm,1.3s,mb5.1
UCC   Uccle            90.13 325    P      P        17 10 08.2 +0.1
MOF   Molkenrain       90.15 322  eP       P        17 10 07.8  -0.4
VAI   Varese           90.19 320    P      P        17 10 07.9  -0.5
VAI                                 pmax   pmax
          comp=Z,33nm,1.0s,mb5.6
VAI   Varese           90.19 320    P      P        17 10 07.9  -0.5
          comp=Z,33nm,1.0s,mb5.6
GIVF  Givet            90.26 325  eP       P        17 10 08.4  -0.3
          comp=Z,76nm,1.3s,mb5.6
GIVF  Givet            90.26 325  eP       P        17 10 08.4  -0.3
GIVF                                pmax   pmax
          comp=Z,38nm,1.3s,mb5.6
GIVF  Givet            90.26 325  eP       P        17 10 08.4  -0.3
          comp=Z,38nm,1.3s,mb5.6
HINF  Hinteralfeld     90.33 322  eP       P        17 10 08.5  -0.6
          comp=Z,37nm,1.3s,mb5.3
HINF  Hinteralfeld     90.33 322  eP       P        17 10 08.5  -0.6
HINF                                pmax   pmax
          comp=Z,18nm,1.3s,mb5.2
HINF  Hinteralfeld     90.33 322  eP       P        17 10 08.5  -0.6
          comp=Z,18nm,1.3s,mb5.2
DOU   Dourbes          90.38 325    P      P        17 10 09.1  -0.2
          comp=Z,14nm,1.2s,mb5.2
ESY   Stoneypath       90.52 332⇑eP      P        17 10 09.4  -0.4
HAU   Haudompre        90.52 322  eP       P        17 10 09.2  -0.8
          comp=Z,12nm,0.9s,mb4.9
HAU   Haudompre        90.52 322  eP       P        17 10 09.2  -0.8
HAU                                 pmax   pmax
          comp=Z,6.0nm,0.9s,mb4.9
HAU   Haudompre        90.52 322  eP       P        17 10 09.2  -0.8
          comp=Z,6.2nm,0.9s,mb4.9
MBAR  Mbarara          90.57 270⇑iP      P        17 10 10.3  -0.5
LOMF  Lomont           90.59 322  eP       P        17 10 09.5  -0.8
BAIF  Baives           90.61 325  eP       P        17 10 10.0  -0.3
          comp=Z,76nm,1.4s,mb5.5
BAIF  Baives           90.61 325  eP       P        17 10 10.0  -0.3
BAIF                                pmax   pmax
          comp=Z,38nm,1.4s,mb5.5
BAIF  Baives           90.61 325  eP       P        17 10 10.0  -0.3
          comp=Z,38nm,1.4s,mb5.5
THEF  They Montfort    90.61 323  eP       P        17 10 09.7  -0.7
ORO   Oropa            90.78 320    P      P        17 10 10.8  -0.4
ORO                                 pmax   pmax
          comp=Z,44nm,1.4s,mb5.6
ORO   Oropa            90.78 320    P      P        17 10 10.8  -0.4
          comp=Z,44nm,1.4s,mb5.6
EBL   Broad Law        90.80 332⇑eP      P        17 10 11.1   0.0
MEZF  Maizieres J'vi   90.99 323  eP       P        17 10 12.1   0.0
          comp=Z,111nm,1.4s,mb5.7
MEZF  Maizieres J'vi   90.99 323  eP       P        17 10 12.1   0.0
          comp=Z,111nm,1.4s,mb6.0
EKA   Eskdalemuir Ar   91.12 332    P      P        17 10 12.3  -0.3
          comp=Z,9.1nm,1.1s,mb5.0,baz=85,slow=1.4,SNR=13
ESK   Eskdalemuir      91.16 332  eP       P        17 10 12.6  -0.1
ESK                                 AMb    AMB      17 10 14.0
          comp=Z,35nm,1.4s,mb5.5
ESK   Eskdalemuir      91.16 332  i P      P        17 10 13.4 +0.7
ECK   Cauldkaine Hil   91.21 332  eP       P        17 10 12.5  -0.4
HPK   Haverah Park     91.28 330  eP       P        17 10 12.4  -1.0
HPK                                 AMb    AMB      17 10 24.1
          comp=Z,72nm,1.9s,mb5.7
HPK   Haverah Park     91.28 330    P      P        17 10 12.4  -1.0
HPK                                 AMb    AMB      17 10 24.1
          comp=Z,72nm,1.9s,mb5.7
CABF  La Chapelle      91.41 321  eP       P        17 10 14.0  -0.1
          comp=Z,70nm,1.6s,mb5.5
CABF  La Chapelle      91.41 321  eP       P        17 10 14.0  -0.1
CABF                                pmax   pmax
          comp=Z,35nm,1.6s,mb5.4
CABF  La Chapelle      91.41 321  eP       P        17 10 14.0  -0.1
          comp=Z,35nm,1.6s,mb5.4
LPG   La Plagne        91.59 320  eP       P        17 10 15.3 +0.3
          comp=Z,77nm,1.2s,mb5.6
LPG   La Plagne        91.59 320  eP       P        17 10 15.3 +0.3
LPG                                 pmax   pmax
          comp=Z,38nm,1.2s,mb5.6
LPG   La Plagne        91.59 320  eP       P        17 10 15.3 +0.3
          comp=Z,38nm,1.2s,mb5.6
LPL   La Plagne        91.59 320  eP       P        17 10 15.2 +0.2
          comp=Z,59nm,1.0s,mb5.5
LPL   La Plagne        91.59 320  eP       P        17 10 15.2 +0.2
LPL                                 pmax   pmax
          comp=Z,29nm,1.0s,mb5.6
LPL   La Plagne        91.59 320  eP       P        17 10 15.2 +0.2
          comp=Z,29nm,1.0s,mb5.6
JCW   Jim Creek        91.65  37  eP       P        17 10 17.0 +1.8
PGF   Pioggiola        91.68 317  eP       P        17 10 15.5   0.0
          comp=Z,219nm,1.2s,mb6.1
PGF   Pioggiola        91.68 317  eP       P        17 10 15.5   0.0
PGF                                 pmax   pmax
          comp=Z,110nm,1.2s,mb6.1
PGF   Pioggiola        91.68 317  eP       P        17 10 15.5   0.0
          comp=Z,110nm,1.2s,mb6.1
BNI   Bardonecchia     91.87 320  eP       P        17 10 16.2  -0.1
BNI                                 pmax   pmax
          comp=Z,31nm,1.1s,mb5.5
BNI   Bardonecchia     91.87 320  eP       P        17 10 16.2  -0.1
          comp=Z,31nm,1.1s,mb5.5
SAOF  Saorge           91.88 319  eP       P        17 10 16.2  -0.1
AUTN  L'Aution         91.95 319  eP       P        17 10 16.4  -0.3
MBDF  Montbardon       91.98 319  eP       P        17 10 16.0  -0.8
          comp=Z,46nm,1.3s,mb5.4
MBDF  Montbardon       91.98 319  eP       P        17 10 16.0  -0.8
MBDF                                pmax   pmax
          comp=Z,23nm,1.3s,mb5.3
MBDF  Montbardon       91.98 319  eP       P        17 10 16.0  -0.8
          comp=Z,23nm,1.3s,mb5.3
OSPF  L'Ospedale       91.99 316  eP       P        17 10 16.6  -0.3
SBF   Sospel           92.01 318  eP       P        17 10 16.4  -0.6
          comp=Z,86nm,1.0s,mb5.7
SBF   Sospel           92.01 318  eP       P        17 10 16.4  -0.6
SBF                                 pmax   pmax
          comp=Z,43nm,1.0s,mb5.7
SBF   Sospel           92.01 318  eP       P        17 10 16.4  -0.6
          comp=Z,43nm,1.0s,mb5.7
TOUF  Mont Tournerai   92.05 319  eP       P        17 10 16.8  -0.4
LUCF  Luceram          92.05 319  eP       P        17 10 16.8  -0.4
LOR   Lormes           92.34 323  eP       P        17 10 17.8  -0.6
          comp=Z,64nm,1.3s,mb5.5
LOR   Lormes           92.34 323  eP       P        17 10 17.8  -0.6
LOR                                 pmax   pmax
          comp=Z,32nm,1.3s,mb5.5
LOR   Lormes           92.34 323  eP       P        17 10 17.8  -0.6
          comp=Z,32nm,1.3s,mb5.5
ORIF  Oris-en-Rattie   92.42 320  eP       P        17 10 18.8   0.0
          comp=Z,99nm,1.6s,mb5.6
ORIF  Oris-en-Rattie   92.42 320  eP       P        17 10 18.8   0.0
ORIF                                pmax   pmax
          comp=Z,50nm,1.6s,mb5.6
ORIF  Oris-en-Rattie   92.42 320  eP       P        17 10 18.8   0.0
          comp=Z,50nm,1.6s,mb5.6
SSF   Saint Saulge     92.65 323  eP       P        17 10 19.3  -0.6
          comp=Z,38nm,1.2s,mb5.4
SSF   Saint Saulge     92.65 323  eP       P        17 10 19.3  -0.6
SSF                                 pmax   pmax
          comp=Z,19nm,1.2s,mb5.4
SSF   Saint Saulge     92.65 323  eP       P        17 10 19.3  -0.6
          comp=Z,19nm,1.2s,mb5.4
FRF   La Foret Royal   92.66 319  eP       P        17 10 19.5  -0.5
          comp=Z,96nm,1.3s,mb5.8
FRF   La Foret Royal   92.66 319  eP       P        17 10 19.5  -0.5
FRF                                 pmax   pmax
          comp=Z,48nm,1.3s,mb5.8
FRF   La Foret Royal   92.66 319  eP       P        17 10 19.5  -0.5
          comp=Z,48nm,1.3s,mb5.8
SMF   Signal de Mont   92.69 322  eP       P        17 10 19.5  -0.5
          comp=Z,55nm,1.3s,mb5.5
SMF   Signal de Mont   92.69 322  eP       P        17 10 19.5  -0.5
SMF                                 pmax   pmax
          comp=Z,27nm,1.3s,mb5.5
SMF   Signal de Mont   92.69 322  eP       P        17 10 19.5  -0.5
          comp=Z,28nm,1.3s,mb5.5
SFJD  Kangerlussuaq    92.79 357    P      P        17 10 20.1   0.0
SFJD                              e        pP       17 10 30.0  -1.7
SFJD                                pmax   pmax
          comp=Z,57nm,1.6s,mb5.8
SFJD  Kangerlussuaq    92.79 357  i P      P        17 10 19.5  -0.6
          comp=Z,15nm,0.8s,mb5.5
LMR   La Mourre        92.86 318  eP       P        17 10 20.7  -0.2
          comp=Z,133nm,1.4s,mb5.9
LMR   La Mourre        92.86 318  eP       P        17 10 20.7  -0.2
LMR                                 pmax   pmax
          comp=Z,67nm,1.4s,mb5.9
LMR   La Mourre        92.86 318  eP       P        17 10 20.7  -0.2
          comp=Z,67nm,1.4s,mb5.9
AVF   Avril sur Loir   92.89 323  eP       P        17 10 20.3  -0.7
          comp=Z,32nm,1.1s,mb5.4
AVF   Avril sur Loir   92.89 323  eP       P        17 10 20.3  -0.7
AVF                                 pmax   pmax
          comp=Z,16nm,1.1s,mb5.4
AVF   Avril sur Loir   92.89 323  eP       P        17 10 20.3  -0.7
          comp=Z,16nm,1.1s,mb5.4
HYF   Humbligny        93.03 323  eP       P        17 10 21.7 +0.1
EDM   Edmonton         93.03  29  eP       P        17 10 22.6 +1.1
SMRF  Simiane la Rot   93.10 319  eP       P        17 10 20.8  -1.2
          comp=Z,60nm,1.4s,mb5.5
SMRF  Simiane la Rot   93.10 319  eP       P        17 10 20.8  -1.2
          comp=Z,60nm,1.4s,mb5.8
MCH1  Michaelchurch    93.15 329⇑eP      P        17 10 21.4  -0.7
MCH1                                AMb    AMB      17 10 27.4
          comp=Z,51nm,1.7s,mb5.7
VIVF  Saint-Julien-l   93.18 320  eP       P        17 10 20.9  -1.4
          comp=Z,35nm,1.3s,mb5.3
VIVF  Saint-Julien-l   93.18 320  eP       P        17 10 20.9  -1.4
VIVF                                pmax   pmax
          comp=Z,17nm,1.3s,mb5.3
VIVF  Saint-Julien-l   93.18 320  eP       P        17 10 20.9  -1.4
          comp=Z,17nm,1.3s,mb5.3
BGF   Bois d'Agland    93.31 323  eP       P        17 10 22.5  -0.4
LDF   La Druitiere     93.78 325  eP       P        17 10 24.0  -1.0
LBL   Lubilhac         93.82 321  eP       P        17 10 25.3   0.0
TCF   Toulx Ste Croi   93.83 323  eP       P        17 10 24.9  -0.4
          comp=Z,37nm,1.2s,mb5.4
TCF   Toulx Ste Croi   93.83 323  eP       P        17 10 24.9  -0.4
TCF                                 pmax   pmax
          comp=Z,19nm,1.2s,mb5.4
TCF   Toulx Ste Croi   93.83 323  eP       P        17 10 24.9  -0.4
          comp=Z,19nm,1.2s,mb5.4
FLN   La Foliniere     93.87 326  eP       P        17 10 24.4  -1.0
          comp=Z,45nm,1.3s,mb5.5
FLN   La Foliniere     93.87 326  eP       P        17 10 24.4  -1.0
FLN                                 pmax   pmax
          comp=Z,22nm,1.3s,mb5.4
FLN   La Foliniere     93.87 326  eP       P        17 10 24.4  -1.0
          comp=Z,22nm,1.3s,mb5.4
LASF  Ste Croix        94.09 320  eP       P        17 10 25.4  -1.2
          comp=Z,58nm,1.4s,mb5.5
CAF   Calviac          94.68 321  eP       P        17 10 29.4 +0.2
          comp=Z,15nm,1.1s,mb5.0
CAF   Calviac          94.68 321  eP       P        17 10 29.4 +0.2
CAF                                 pmax   pmax
          comp=Z,8.0nm,1.1s,mb5.1
CAF   Calviac          94.68 321  eP       P        17 10 29.4 +0.2
          comp=Z,7.5nm,1.1s,mb5.0
RJF   Les Rejaudoux    94.79 322  eP       P        17 10 29.8 +0.1
          comp=Z,71nm,1.3s,mb5.7
RJF   Les Rejaudoux    94.79 322  eP       P        17 10 29.8 +0.1
RJF                                 pmax   pmax
          comp=Z,36nm,1.3s,mb5.6
RJF   Les Rejaudoux    94.79 322  eP       P        17 10 29.8 +0.1
          comp=Z,36nm,1.3s,mb5.6
MFF   Saint Martin d   94.97 324  eP       P        17 10 30.2  -0.3
          comp=Z,35nm,1.1s,mb5.4
MFF   Saint Martin d   94.97 324  eP       P        17 10 30.2  -0.3
MFF                                 pmax   pmax
          comp=Z,17nm,1.1s,mb5.4
MFF   Saint Martin d   94.97 324  eP       P        17 10 30.2  -0.3
          comp=Z,17nm,1.1s,mb5.4
LFF   La Frestale      95.45 322  eP       P        17 10 31.6  -1.1
ROSF  Rostrenen        95.59 326  eP       P        17 10 32.2  -1.1
          comp=Z,70nm,1.3s,mb5.6
ROSF  Rostrenen        95.59 326  eP       P        17 10 32.2  -1.1
ROSF                                pmax   pmax
          comp=Z,35nm,1.3s,mb5.6
ROSF  Rostrenen        95.59 326  eP       P        17 10 32.2  -1.1
          comp=Z,35nm,1.3s,mb5.6
QUIF  Quistinic        95.80 326  eP       P        17 10 33.1  -1.2
          comp=Z,54nm,1.4s,mb5.5
QUIF  Quistinic        95.80 326  eP       P        17 10 33.1  -1.2
QUIF                                pmax   pmax
          comp=Z,27nm,1.4s,mb5.5
QUIF  Quistinic        95.80 326  eP       P        17 10 33.1  -1.2
          comp=Z,27nm,1.4s,mb5.5
FFC   Flin Flon        96.73  24  eP       P        17 10 38.5 +0.2
FFC                                 pmax   pmax
          comp=Z,9.0nm,1.1s,mb5.1
FFC   Flin Flon        96.73  24  eP       P        17 10 38.5 +0.1
          comp=Z,9.1nm,1.1s,mb5.1
EPF   Esparros         96.79 321  eP       P        17 10 37.0  -1.9
LSZ   Lusaka           97.85 257    P      P        17 10 43.2  -0.9
LSZ                                 pmax   pmax
          comp=Z,22nm,1.0s,mb5.6
LSZ   Lusaka           97.85 257  eP       P        17 10 43.2  -0.9
          comp=Z,22nm,0.9s,mb5.7
NVAR  Mina Array Bea   99.32  43    P      P        17 10 51.2 +0.8
          comp=Z,1.7nm,0.9s,mb4.6,baz=285,slow=5.2,SNR=6.6
RKT   Rikitea         110.00 108  eLR      LR       17 48 20.9
          comp=Z,298nm,26.5s
TORD  Torodi Ar. Bea  111.81 294    PKiKP  PKiKP    17 15 42.3  -1.4
          comp=Z,4.9nm,0.8s,baz=19,slow=2.0,SNR=18
TORD                                PKKPbc PKKPbc   17 26 45.2 +9.2
          comp=Z,1.5nm,0.9s,baz=264,slow=3.7,SNR=6.8
TXAR  Lajitas Array   114.46  43    PKP    PKiKP    17 15 48.5 +0.1
          comp=Z,3.3nm,0.8s,baz=270,slow=0.8,SNR=22
TXAR                                PKKPbc PKKPbc   17 26 32.7 +5.1
          comp=Z,0.9nm,0.7s,baz=144,slow=9.6,SNR=5.1
TXAR  Lajitas Array   114.46  43    PKP    PKiKP    17 15 48.5 +0.1
TXAR                                PKKPbc PKKPbc   17 26 32.7 +5.1
ACSO  Alum Creek Sta  115.76  20  ePKPdf   PKPdf    17 15 49.7  -0.9
DBIC  Dimbokro        120.54 291    PKP    PKPdf    17 15 59.7  -0.8
          comp=Z,9.8nm,0.8s,baz=334,slow=4.9,SNR=10.0
KIC   Kosan Boka      120.59 291  ePKIKP   PKPdf    17 15 59.6  -1.0
          comp=Z,56nm,0.8s
TIC   Toumodi         120.70 291  ePKIKP   PKPdf    17 15 59.6  -1.2
          comp=Z,54nm,0.9s
LIC   Lamto           120.90 291  ePKIKP   PKPdf    17 15 59.9  -1.3
          comp=Z,31nm,0.8s
LIC   Lamto           120.90 291  ePKIKP   PKPdf    17 16 00.0  -1.2
          comp=Z,46nm,0.8s
VNA2  Neumayer--Watz  121.16 197  ePKPdf   PKPdf    17 16 00.2 +0.3
          baz=15,slow=1.5
BCIP  Isla Barro Col  144.21  37  ePKP     PKPdf    17 16 42.8  -1.9
USHA  Ushuaia         144.73 170    PKP    PKPdf    17 16 44.0  -0.4
          comp=Z,55nm,1.1s,baz=12,slow=1.6,SNR=6.3
SDV   Santo Domingo   148.81  23  ePKPdf   PKPdf    17 16 52.8 +0.3
SDV                               ePKPbc   PKPbc    17 16 56.4   0.0
PCRV  Puerto La Cruz  149.23  11    PKPbc  PKPbc    17 16 55.4  -2.0
          baz=326,slow=3.6
ROSC  El Rosal        150.78  33    PKP    PKPdf    17 16 57.2 +1.6
          comp=Z,7.8nm,0.3s,baz=93,slow=21,SNR=11
ROSC                                PKPbc  PKPbc    17 17 03.7 +2.5
          comp=Z,16nm,0.4s,baz=37,slow=5.1,SNR=22
OTAV  Otavalo         152.03  46  ePKPdf   PKPdf    17 16 59.0 +1.4
ATAH  Atahualpa       156.94  58    PKP    PKPdf    17 17 06.5 +2.1
          comp=Z,5.3nm,0.4s,baz=283,slow=3.8,SNR=11
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PLCA	**Paso Flores**	**157.29**	**157**	PKP	PKPdf	17 17 02.7	-1.2
	comp=Z,1.1nm,0.6s,baz=176,slow=3.8,SNR=3.6						
PLCA				PKPab	PKPab	17 17 35.8	+0.7
	comp=Z,13nm,0.9s,baz=217,slow=5.5,SNR=14						
PLCA	**Paso Flores**	**157.29**	**157**	PKP	PKPdf	17 17 02.7	-1.2
PLCA				PKPab	PKPab	17 17 35.8	+0.7
NNA	**Nana**	**160.89**	**67**	PKP	PKPdf	17 17 09.1	+0.2
	comp=Z,6.9nm,0.4s,baz=298,slow=2.6,SNR=5.9						
CFAA	**Coronel Fontan**	**165.92**	**145**	PKP	PKPdf	17 17 13.2	0.0
	comp=Z,1.3nm,1.1s,baz=286,slow=2.6,SNR=7.8						
CFAA				PKPab	PKPab	17 18 13.0	-0.1
	comp=Z,0.2nm,0.4s,baz=284,slow=2.9,SNR=3.5						
CPUP	**Villa Florida**	**173.80**	**193**	PKP	PKPdf	17 17 16.7	-1.3
	comp=Z,4.1nm,1.1s,baz=213,slow=1.1,SNR=6.2						
CPUP				PKPab	PKPab	17 18 47.5	-0.4
	comp=Z,1.1nm,0.5s,baz=105,slow=4.2,SNR=5.1						
CPUP	**Villa Florida**	**173.80**	**193**	PKP	PKPdf	17 17 16.7	-1.3
CPUP				PKPab	PKPab	17 18 47.5	-0.4
SIV	**San Ignacio**	**175.26**	**27**	PKP	PKPdf	17 17 18.6	0.0
	comp=Z,13nm,1.0s,baz=125,slow=0.9,SNR=26						

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*BJI **19** 17:01:26.0, 2.°87S×99.°76E, $h27^{km}$, mB5.6/29, mb5.4/52, Ms5.5/53, Ms7 5.3/48*

*IDC **19** 17:01:27.9±0.4, 2.°34S×99.°86E, $h0^{km}$, mb5.2/36, mb1 5.2/37, mb1mx5.2/40, mbtmp5.2/37, ML4.0/1, MS5.0/12, Ms1 5.0/12, ms1mx4.7/24, Error ellipse: s-maj=13.9km s-min=10.0km az=47.0*

*GCMT **19** 17:01:29.6±0.2, 2.°61S×99.°58E, $h20^{km}$, MW5.4/68, Moment Tensor Solution. s61,c91; s68,c94; Duration: 1^s3 Moment tensor: Scale 10^{17}Nm; M_{rr}0.70±.03; $M_{\theta\theta}$-0.48±.02; $M_{\phi\phi}$-0.21±.03; $M_{r\theta}$1.16±.04; $M_{\theta\phi}$0.47±.01; $M_{\phi r}$-0.86±.05; Best double couple: $M_0$1.63900×10^{17} NP1:ϕ_s308.00000°,δ14.00000°,λ91.00000°. NP2: ϕ_s127.00000°,δ76.00000°,λ90.00000°. Principal axes: T 1.5710, Plg59.0000°, Azm36.0000°; N 0.1360, Plg0.0000°, Azm127.0000°; P -1.7060, Plg31.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **19** 17:01:29.6±2.1, 2.°43S×99.°95E, $h14^{km}\pm12^{km}$, mb5.5/79, MS5.2/4, MW5.3 Error ellipse: s-maj=5.8km s-min=4.2km az=222.0, Moment Tensor Solution. s29 Moment tensor: Scale 10^{17}Nm; M_{rr}0.00; $M_{\theta\theta}$0.00; $M_{\phi\phi}$0.00; $M_{r\theta}$0.00; $M_{\theta\phi}$0.00; $M_{\phi r}$0.00; Best double couple: $M_0$1.20000×10^{17} NP1:ϕ_s133.00000°,δ66.00000°,λ106.00000°. NP2: ϕ_s277.00000°,δ29.00000°,λ58.00000°. Principal axes: T 1.1900, Plg65.0000°, Azm71.0000°; N 0.1100, Plg15.0000°, Azm305.0000°; P -1.2900, Plg19.0000°, Azm210.0000°;*

NEIC Felt [II] at Padang, Sumatra.

*MOS **19** 17:01:30.9±0.8, 2.°33S×99.°91E, $h33^{km}$, mb5.7/63, MS5.0/20 Error ellipse: s-maj=29.8km s-min=10.5km az=94.2*

*ISCJB **19** 17:01:31.3±0.2, 2.°32S±0.°03×99.°85E±0.°03, $h30^{km}$, mb5.4/172, MS5.2/44, Error ellipse: s-maj=4.3km s-min=3.3km az=36.5*

*DJA **19** 17:01:31, 2.°42S×99.°69E, $h21^{km}$, MLv5.7/12*

*SZGRF **19** 17:01:33.8, 1.°21S×101.°21E, $h34^{km}$, mb5.6, Southern Sumatera, Indonesia*

ISC 19 17:01:33.1±0.2**, 2.°36S**±0.°03×**99.°82E**±0.°03**,** $h32^{km}$**,** $h32^{km}\pm.4^{km}$**:pP-P, n730,** $\sigma 0^s97$/451**, mb5.4**/172**, MS5.2**/44**, 167C-134D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	**0.44**	**154**	P	**Pb**	**17 01 41.5**	**-1.3**
SISI	**Saibi**	**1.26**	**325**	P	**Pn**	**17 01 54.0**	**-0.5**
PDSI	**Padang**	**1.58**	**24**	P	**Pn**	**17 01 58.5**	**-0.4**
PPI	**Padang Panjang**	**1.98**	**17**	P	**Pn**	**17 02 04.5**	**+0.1**
KSI	**Kapahiang**	**3.06**	**115**	P	**Pn**	**17 02 19.4**	**+0.1**
RGRI	**Rengat**	**3.21**	**52**	P	**Pn**	**17 02 23.3**	**+1.9**
MNAI	**Manna**	**3.71**	**122**	P	**Pn**	**17 02 27.3**	**-1.0**
GSI	**Gunungsitoli**	**4.27**	**328**	P	**Pn**	**17 02 34.5**	**-1.5**
MDSI	**Maura Dua**	**4.84**	**116**	P	**Pn**	**17 02 45.6**	**+1.8**
PMBI	**Palembang**	**4.98**	**97**	P	**Pn**	**17 02 47.1**	**+1.3**
	816nm,1.2s,7.4nm						
PSI	**Prapat**	**5.20**	**350**	Pn	**Pn**	**17 02 46.7**	**-2.1**
	5.8nm,0.3s,baz=160,slow=10.0,SNR=47						
PSI	**Prapat**	**5.20**	**350**	Pn	**Pn**	**17 02 46.7**	**-2.1**
KGM	**Kluang**	**5.58**	**39**	P	**Pn**	**17 02 55.7**	**+1.7**
KASI	**Kota Agung**	**5.63**	**124**	P	**Pn**	**17 02 54.8**	**+0.1**
	724nm,0.8s,4.2nm						
MYKOM	**Kota Tinggi**	**5.77**	**44**	P	**Pn**	**17 02 58.6**	**+2.1**
FRIM	**Kepong**	**5.85**	**18**	P	**Pn**	**17 02 59.8**	**+2.1**
IPM	**Ipoh**	**6.90**	**10**	P	**Pn**	**17 03 14.5**	**+2.4**
IPM	**Ipoh**	**6.90**	**10**	P	**Pn**	**17 03 14.3**	**+2.2**
	188nm,1.4s,2.4nm						
SBJI	**Serang**	**7.32**	**121**	P	**Pn**	**17 03 18.9**	**+1.0**
	659nm,1.3s,2.0nm						
KULM	**Kulim**	**7.64**	**6**	P	**Pn**	**17 03 23.3**	**+0.9**
KULM	**Kulim**	**7.64**	**6⇑**	*e*Pn	**Pn**	**17 03 21.6**	**-0.8**
KULM				*e*Sn	**Sn**	**17 05 01.9**	**+14**
TNG	**Tangerang**	**7.79**	**119**	P	**Pn**	**17 03 25.6**	**+1.2**
	1µm,1.3s,4.6nm						
KTGM	**Kuala Trenggan**	**8.33**	**23**	P	**Pn**	**17 03 33.2**	**+1.5**
LEM	**Lembang**	**8.95**	**120**	P	**Pn**	**17 03 41.8**	**+1.5**
BSI	**Banda Aceh**	**9.02**	**330**	P	**Pn**	**17 03 40.1**	**-1.1**
	151nm,0.8s						
COCO	**West Island**	**10.20**	**197**	*i* P	**Pn**	**17 03 58.1**	**+0.7**
COCO	**West Island**	**10.20**	**197**	*e*Pn	**Pn**	**17 03 53.4**	**-4.1**
KSM	**Kuching**	**11.16**	**70**	*e*Pn	**Pn**	**17 04 06.1**	**-4.5**
SBUM	**Sibu**	**13.29**	**69**	P	**Pn**	**17 04 43.5**	**+3.8**
PLKI	**Palangkaraya**	**14.12**	**90**	P	**Pn**	**17 04 58.8**	**+7.7**
SDKM	**Sandakan**	**19.09**	**65**	P	**Pn**	**17 05 53.7**	**-0.6**
TSM	**Tawau**	**19.22**	**70**	P	**Pn**	**17 05 55.1**	**-0.8**
KDM	**Kudat**	**19.32**	**61**	P	**Pn**	**17 05 56.6**	**-0.5**
BDT	**Bhumibol Dam**	**19.50**	**358**	P	**Pn**	**17 05 56.5**	**-2.6**
	18nm,0.9s						
KAPI	**Kappang**	**20.07**	**98**	Pn	**P**	**17 06 02.2**	**-1.8**
	929nm,1.1s,SNR=10						
KAPI	**Kappang**	**20.07**	**98**	*e*P	**P**	**17 06 01.8**	**-2.2**
	568nm,1.5s						
MYLDM	**Lahad Datu**	**20.11**	**68**	P	**P**	**17 06 06.7**	**+2.2**
CMAR	**Chiang Mai Arr**	**20.70**	**358**	P	**P**	**17 06 09.4**	**-1.4**
	65nm,0.9s,baz=187,slow=9.7,SNR=98						
CMAR				PcP	PcP	17 10 20.9	+0.7
	5.5nm,1.0s,baz=209,slow=4.4,SNR=5.0						
CHTO	**Chiang Mai**	**21.06**	**358**	*e*P	**P**	**17 06 14.0**	**-0.7**
CHTO	**Chiang Mai**	**21.06**	**358**	P	**P**	**17 06 14.6**	**-0.1**
	SNR=12						
CHTO				P		17 06 14.6	
	SNR=12						
PALK	**Pallekele**	**21.34**	**297**	*i* P	**P**	**17 06 20.7**	**+2.9**
PALK	**Pallekele**	**21.34**	**297**	P	**P**	**17 06 19.0**	**+1.2**
	26nm,1.0s,mb4.5,baz=121,slow=5.2,SNR=6.0						
PALK	**Pallekele**	**21.34**	**297**	*e*P	**P**	**17 06 19.3**	**+1.5**
	74nm,1.0s,mb5.0						
QIZ	**Qiongzhong**	**23.43**	**24**	P	**P**	**17 06 39.4**	**-0.5**
QIZ				S	**S**	**17 10 54.0**	**+3.0**
QIZ				pmax	pmax		
	comp=Z,78nm,1.4s,mb5.0						
QIZ				LR	LR		
	comp=E,4µm,13.3s						
QIZ				LR	LR		
	comp=Z,5µm,16.1s,MS5.1						
QIZ	**Qiongzhong**	**23.43**	**24**	*e*P	**P**	**17 06 38.5**	**-1.4**
	comp=Z,158nm,1.4s,mb5.2						
TRD	**Trivandrum**	**25.22**	**296⇓**	*e*x	**P**	**17 07 00.0**	**+3.7**
TRD				*e*S	**S**	**17 11 22.0**	**+2.1**
CAL	**Calcutta**	**27.17**	**336**	*e*PKP	**P**	**17 07 13.2**	**-0.6**
CAL				*e*S	S	17 12 20.3	+30
CAL	**Calcutta**	**27.17**	**336**	*e*PKP	**P**	**17 07 13.2**	**-0.6**
CAL				*e*x	x	17 12 20.3	
DAV	**Davao City (W)**	**27.37**	**70**	P	**P**	**17 07 15.4**	**-0.4**
	comp=Z,185nm,0.4s,mb6.0,baz=216,slow=3.4,SNR=6.3						
DAV	**Davao City (W)**	**27.37**	**70**	P	**P**	**17 07 16.7**	**+1.0**
	SNR=8.4						
DAV				P		17 07 16.7	
	SNR=8.4						
AGT	**Agartala**	**27.39**	**343**	*e*PKP	**P**	**17 07 13.0**	**-2.7**
AGT				*e*x	x	17 08 02.0	
AGT				*e*x	x	17 08 02.0	
KMI	**Kunming**	**27.47**	**6**	P	**P**	**17 07 17.6**	**+1.1**
KMI				pP	pP	17 07 27.4	+1.6
KMI				sP	sP	17 07 31.5	+1.8
KMI				PP		17 08 08.6	
KMI				S	**S**	**17 11 58.8**	**+3.6**
KMI				sS	sS	17 12 15.3	+4.8
KMI				SS		17 13 17.3	
KMI				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.7						
KMI				LR	LR		
	comp=N,4µm,10.9s,MS5.5						
KMI				LR	LR		
	comp=E,5µm,12.5s,MS5.5						
KMI				LR	LR		
	comp=Z,4µm,14.5s,MS5.1						
SHL	**Shillong**	**28.80**	**345⇓**	*i*P	**P**	**17 07 29.0**	**+0.6**
SHL				*e*x	x	17 12 53.0	
MNGI	**Mangalore**	**29.10**	**302**	*e*PKP	**P**	**17 07 30.0**	**-1.2**
MNGI	**Mangalore**	**29.10**	**302**	*i* S	**S**	**17 12 20.8**	**-0.4**
BOK	**Bokaro**	**29.32**	**333**	*e*PKP	**P**	**17 07 33.9**	**+0.9**
BOK	**Bokaro**	**29.32**	**333**	*e*x	**P**	**17 07 33.9**	**+0.9**
GYA	**Guiyang**	**29.40**	**13⇑**	*i*P	**P**	**17 07 33.8**	**+0.1**
GYA				pP	pP	17 07 44.3	+1.3
GYA				sP	sP	17 07 48.9	+2.0
GYA				PP	PP	17 08 31.6	-8.9
GYA				PcP	PcP	17 10 39.8	+0.4
GYA				S	**S**	**17 12 26.5**	**+0.8**
GYA				SS	SS	17 14 00.8	-31
GYA				ScP	ScP	17 14 17.4	-1.6
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,160nm,4.9s						
GYA				LR	LR		
	comp=N,8µm,16.8s,MS5.5						
GYA				LR	LR		
	comp=E,4µm,16.0s,MS5.5						
GYA				LR	LR		
	comp=Z,7µm,16.5s,MS5.3						
FITZ	**Fitzroy Crossi**	**29.77**	**123**	*e*P	**P**	**17 07 36.0**	**-1.1**
	comp=Z,35nm,1.0s,mb5.0						
FITZ	**Fitzroy Crossi**	**29.77**	**123**	P	**P**	**17 07 36.2**	**-0.8**
	comp=Z,19nm,0.9s,mb4.8,baz=301,slow=4.0,SNR=3.7						
FITZ	**Fitzroy Crossi**	**29.77**	**123**	*e*P	**P**	**17 07 34.4**	**-2.7**
	comp=Z,29nm,1.0s,mb5.0						
ODAN	**Odare**	**31.43**	**338**	*e*P	**P**	**17 07 52.1**	**+0.5**
	comp=Z,283nm,1.3s,mb6.0						
TAPN	**Taplejung**	**31.76**	**339**	*e*P	**P**	**17 07 55.5**	**+1.0**
	comp=Z,315nm,1.0s,mb6.1						
RAMN	**Ramite**	**31.81**	**337**	*e*P	**P**	**17 07 56.0**	**+1.1**
	comp=Z,57nm,0.6s,mb5.5						
JBP	**Jabalpur**	**31.90**	**324**	*e*PKP	**P**	**17 07 55.9**	**+0.1**
JBP				AMb	AMB	17 07 59.0	
	comp=Z,42nm,1.3s,mb5.1						
JBP	**Jabalpur**	**31.90**	**324**	*i* x	**S**	**17 13 04.2**	**-0.6**
JIRN	**Jiri**	**32.60**	**337**	*e*P	**P**	**17 08 02.8**	**+0.9**
	comp=Z,300nm,1.1s,mb6.1						
QZH	**Quanzhou**	**32.69**	**33⇓**	*i*P	**P**	**17 08 04.3**	**+1.6**
QZH				S	**S**	**17 13 20.1**	**+3.0**
QZH				LR	LR		
	comp=N,5µm,15.2s,MS5.5						
QZH				LR	LR		
	comp=E,4µm,13.2s,MS5.5						
QZH				LR	LR		
	comp=Z,5µm,15.4s,MS5.3						
PKI	**Pulchoki**	**32.83**	**336**	*e*P	**P**	**17 08 04.1**	**+0.2**
POO	**Poona**	**32.92**	**310⇓**	*i*P	**P**	**17 08 03.0**	**-1.9**
	comp=Z,60nm,1.0s,mb5.5						
LSA	**Lhasa**	**32.94**	**346**	*e*P	**P**	**17 08 05.6**	**+0.8**
LSA				pmax	pmax		
	comp=Z,86nm,1.0s,mb5.6						
LSA	**Lhasa**	**32.94**	**346**	*e*P	**P**	**17 08 05.6**	**+0.7**
	comp=Z,86nm,1.0s,mb5.6						
GUN	**Gumba**	**32.95**	**337**	*e*P	**P**	**17 08 05.5**	**+0.6**
	comp=Z,123nm,0.7s,mb6.0						
DMN	**Daman**	**32.99**	**336**	*e*P	**P**	**17 08 05.9**	**+0.6**
KKN	**Kakani**	**33.08**	**336**	*e*P	**P**	**17 08 06.3**	**+0.2**
	comp=Z,111nm,1.0s,mb5.7						
KKN	**Kakani**	**33.08**	**336**	*e*P	**P**	**17 08 06.3**	**+0.2**
KKN				pmax	pmax		
	comp=Z,111nm,1.0s,mb5.8						
SSLB	**Suanglung**	**33.15**	**37**	*e*P	**P**	**17 08 06.4**	**-0.4**
	comp=Z,141nm,1.2s,mb5.8						
CD2	**Chengdu**	**33.30**	**6**	P	**P**	**17 08 11.3**	**+3.4**
CD2				pP	pP	17 08 21.0	+3.7
CD2				sP	sP	17 08 24.8	+3.6
CD2				PP	PP	17 09 23.9	+0.2
CD2				S	**S**	**17 13 29.9**	**+3.5**
CD2				sS	sS	17 13 45.8	+3.9
CD2				SS	SS	17 15 34.3	-17
CD2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
CD2				pmax	pmax		
	comp=Z,2µm,9.8s						
CD2				LR	LR		
	comp=N,7µm,16.6s						
CD2				LR	LR		
	comp=Z,5µm,17.8s,MS5.2						
GKN	**Gorkha**	**33.53**	**335**	*e*P	**P**	**17 08 10.3**	**+0.2**
KOLN	**Koldanda**	**33.78**	**334**	*e*P	**P**	**17 08 13.1**	**+0.9**
DANN	**Dangsing**	**34.21**	**334**	*e*P	**P**	**17 08 16.2**	**+0.3**
NWAO	**Narrogin (SRO)**	**34.52**	**154**	*e*P	**P**	**17 08 15.7**	**-2.9**
NWAO				pmax	pmax		
	comp=Z,57nm,1.3s						
NWAO	**Narrogin (SRO)**	**34.52**	**154**	P	**P**	**17 08 19.1**	**+0.5**
	comp=Z,19nm,1.0s,mb5.0,baz=329,slow=13,SNR=3.1						
NWAO				LR	LR	17 21 20.9	
	comp=Z,4µm,21.1s,MS5.1,baz=330,slow=35						
NWAO	**Narrogin (SRO)**	**34.52**	**154**	*e*P	**P**	**17 08 15.7**	**-2.9**
	comp=Z,57nm,1.3s,mb5.3						
NWAO				P		17 08 19.1	
NWAO				LR	LR	17 21 20.9	
AGRA	**Agra**	**36.19**	**326**	*e*PKP	**P**	**17 08 32.3**	**-0.8**
AGRA				AMb	AMB	17 08 34.4	
	comp=Z,34nm,0.3s,mb5.8						
LGTI	**Lohaghat**	**36.76**	**331**	*e*PKP	**P**	**17 08 35.7**	**-2.2**
XAN	**Xi'an**	**37.21**	**13**	P	**P**	**17 08 40.3**	**-1.3**
XAN				pP	pP	17 08 45.5	-5.5
XAN				PP	PP	17 10 08.0	+1.1
XAN				PcP	PcP	17 11 00.8	-0.3
XAN				S	**S**	**17 14 31.8**	**+5.3**
XAN				ScP	ScP	17 14 48.0	+2.0
XAN				PcS	PcS	17 14 49.3	-0.1
XAN				pmax	pmax		
	comp=Z,100nm,1.2s,mb5.5						
XAN				LR	LR		
	comp=E,5µm,16.7s						
XAN				LR	LR		
	comp=Z,11µm,15.9s,MS5.7						
SONA	**Sohna**	**37.46**	**326**	*e*PKP	**P**	**17 08 42.8**	**-1.0**
AYAN	**Aya Nagar**	**37.62**	**326**	*e*PKP	**P**	**17 08 44.0**	**-1.2**
AYAN				AMb	AMB	17 08 45.6	
	comp=Z,25nm,0.9s,mb5.0						
KUDL	**Kundal**	**37.72**	**325**	*e*PKP	**P**	**17 08 44.9**	**-1.1**
KUDL				AMb	AMB	17 08 46.4	
	comp=Z,30nm,1.1s,mb4.9						
NDI	**New Delhi**	**37.72**	**327**	*e*PKP	**P**	**17 08 44.0**	**-2.0**
WRA	**Warramunga Arr**	**37.97**	**120**	P	**P**	**17 08 46.2**	**-2.1**
	comp=Z,107nm,0.9s,mb5.6,baz=298,slow=9.4,SNR=55						
WRA				LR	LR	17 26 27.4	
	comp=Z,2µm,21.0s,MS4.9,baz=290,slow=40						
WRAB	**Tennant Creek**	**37.98**	**120**	P	**P**	**17 08 47.0**	**-1.3**
	comp=Z,767nm,0.6s,mb6.6,SNR=20						
WRAB	**Tennant Creek**	**37.98**	**120***c*	*i*P	**P**	**17 08 46.7**	**-1.6**
WRAB	**Tennant Creek**	**37.98**	**120**	*e*P	**P**	**17 08 46.8**	**-1.6**
	comp=Z,187nm,1.1s,mb5.7						
JOSI	**Joshimath**	**38.01**	**331**	*e*PKP	**P**	**17 08 49.2**	**+0.8**
JOSI				AMb	AMB	17 08 55.9	
	comp=Z,424nm,1.3s,mb6.0						
KHET	**Khetri**	**38.06**	**324**	*e*PKP	**P**	**17 08 48.3**	**-0.6**
LZH	**Lanzhou**	**38.43**	**5⇓**	*i*P	**P**	**17 08 51.8**	**-0.1**
LZH				pP	pP	17 09 00.3	-1.0
LZH				sP	sP	17 09 05.4	+0.2
LZH				PP	PP	17 10 22.0	+1.7
LZH				PcP	PcP	17 11 06.4	+1.6
LZH				*e*S	**S**	**17 14 41.4**	**-3.6**
LZH				SS	SS	17 17 26.4	-8.7
LZH				pmax	pmax		
	comp=Z,180nm,1.3s,mb5.6						
LZH				pmax	pmax		
	comp=Z,500nm,4.1s						
LZH				LR	LR		
	comp=N,4µm,14.2s						
LZH				LR	LR		
	comp=Z,5µm,15.6s,MS5.5						
DDI	**Dehra Dun**	**38.57**	**329**	*e*x	x	17 08 41.3	
NJ2	**Nanjing**	**38.70**	**26**	*e*P	**P**	**17 08 54.8**	**+0.6**
NJ2				pP	pP	17 09 04.8	+1.1
NJ2				sP	sP	17 09 08.5	+1.0
NJ2				PP	PP	17 10 27.1	+3.9
NJ2				S	**S**	**17 14 48.0**	**-1.1**
NJ2				sS	sS	17 15 06.0	+1.3
NJ2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.0						
NJ2				pmax	pmax		
	comp=Z,380nm,5.0s						
NJ2				LR	LR		
	comp=N,770nm,25.0s,MS5.0						
NJ2				LR	LR		
	comp=E,3µm,23.7s,MS5.0						
NJ2				LR	LR		
	comp=Z,3µm,23.7s,MS5.0						
KKR	**Kurukshetra**	**38.94**	**327**	*e*PKP	**P**	**17 08 55.1**	**-1.1**
KKR				AMb	AMB	17 09 01.4	
	comp=Z,99nm,0.1s,mb6.5						
SSE	**Sheshan**	**39.00**	**30**	P	**P**	**17 08 56.9**	**+0.2**
SSE				S	**S**	**17 14 57.3**	**+3.6**
SSE				pmax	pmax		
	comp=Z,100nm,1.3s,mb5.4						
SSE				pmax	pmax		
	comp=Z,880nm,7.7s						
SSE				LR	LR		
	comp=N,2µm,14.5s,MS5.3						
SSE				LR	LR		
	comp=E,3µm,14.5s,MS5.3						
SSE				LR	LR		
	comp=Z,4µm,13.7s,MS5.4						
ASAR	**Alice Springs**	**39.19**	**126**	P	**P**	**17 08 57.5**	**-1.0**
	comp=Z,21nm,0.7s,mb5.0,baz=301,slow=6.7,SNR=37						
ASAR				PcP	PcP	17 11 08.1	+0.5
	comp=Z,6.9nm,1.1s,baz=289,slow=2.6,SNR=5.0						
JOW	**Kunigami**	**39.95**	**42**	P	**P**	**17 09 04.1**	**-0.7**
	comp=Z,19nm,0.6s,mb5.0,baz=225,slow=5.0,SNR=7.1						
JOW				LR	LR	17 23 36.0	
	comp=Z,923nm,20.6s,MS4.6,baz=61,slow=33						
THN	**Thein Dam**	**41.46**	**329**	*e*PKP	**P**	**17 09 15.6**	**-1.5**
GTA	**Gaotai**	**41.57**	**360**	P	**P**	**17 09 17.8**	**0.0**
GTA				pP	pP	17 09 27.3	-0.1
GTA				sP	sP	17 09 31.5	+0.3
GTA				PP	PP	17 10 57.3	+2.9
GTA				S	**S**	**17 15 30.4**	**-1.4**
GTA				sS	sS	17 15 46.6	-0.8
GTA				SS	SS	17 18 32.3	-5.3
GTA				pmax	pmax		
	comp=Z,82nm,1.3s,mb5.2						
GTA				pmax	pmax		
	comp=Z,530nm,5.4s						
GTA				LR	LR		
	comp=N,3µm,15.9s,MS5.5						
GTA				LR	LR		
	comp=E,4µm,15.9s,MS5.5						
GTA				LR	LR		
	comp=Z,4µm,15.6s,MS5.3						
MSEY	**Mahe Island**	**44.31**	**266**	*e*P	**P**	**17 09 41.0**	**+0.5**
MSEY				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.0						
MSEY	**Mahe Island**	**44.31**	**266**	*e*P	**P**	**17 09 41.0**	**+0.4**
	comp=Z,34nm,1.1s,mb5.0						
HHC	**Hu-ho-hao-te**	**44.32**	**13**	*e*P	**P**	**17 09 40.6**	**+0.5**
HHC				pP	pP	17 09 50.3	+0.6
HHC				sP	sP	17 09 54.5	+0.9
HHC				PP	PP	17 11 25.9	+1.9
HHC				PcS	PcS	17 15 15.5	-1.6
HHC				*e*S	**S**	**17 16 11.6**	**-0.6**
HHC				sS	sS	17 16 28.6	+0.6
HHC				ScS	ScS	17 19 34.0	-2.1
HHC				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.2						
HHC				pmax	pmax		
	comp=Z,520nm,4.5s						
HHC				LR	LR		
	comp=N,3µm,17.8s,MS5.3						
HHC				LR	LR		
	comp=E,3µm,18.0s,MS5.3						
HHC				LR	LR		
	comp=Z,5µm,14.2s,MS5.6						
BJT	**Baijiatuau**	**44.76**	**18**	*e*P	**P**	**17 09 43.5**	**-0.2**
BJT				pmax	pmax		
	comp=Z,227nm,1.1s						
BJT	**Baijiatuau**	**44.76**	**18**	*e*P	**P**	**17 09 43.5**	**-0.2**
	comp=Z,227nm,1.1s,mb5.9						
BJI	**Beijing**	**44.78**	**18**	P	**P**	**17 09 44.4**	**+0.6**
BJI				S	**S**	**17 16 22.9**	**+4.0**
BJI				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.7						
BJI				pmax	pmax		
	comp=Z,1µm,7.9s						
BJI				LR	LR		
	comp=N,3µm,15.7s						
KBL	**Kabul**	**46.72**	**325**	*e*P	**P**	**17 09 57.7**	**-1.5**
KBL				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
KBL	**Kabul**	**46.72**	**325**	*e*P	**P**	**17 09 57.7**	**-1.5**
	comp=Z,30nm,1.3s,mb5.1						
KSH	**Kashi**	**47.08**	**335**	P	**P**	**17 10 01.0**	**-1.0**
KSH				pP	pP	17 10 08.8	-2.8
KSH				sP	sP	17 10 14.6	-0.8
KSH				PcP	PcP	17 11 35.1	+1.5
KSH				*e*PP	PP	17 11 50.4	-2.7
KSH				*e*ScP	ScP	17 15 24.6	-0.7
KSH				*e*PcS	PcS	17 15 28.8	+0.1
KSH				S	**S**	**17 16 47.1**	**-4.9**
KSH				*e*ScS	ScS	17 19 50.6	-3.4
KSH				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
KSH				pmax	pmax		
	comp=Z,590nm,3.8s						
KSH				LR	LR		
	comp=N,1µm,12.6s,MS5.3						
KSH				LR	LR		
	comp=E,2µm,13.6s,MS5.3						
KSH				LR	LR		
	comp=Z,2µm,14.3s,MS5.2						
WMQ	**Urumqi**	**47.24**	**348**	P	**P**	**17 10 04.4**	**+1.2**
WMQ				pP	pP	17 10 14.3	+1.5
WMQ				sP	sP	17 10 18.0	+1.4
WMQ				PcP	PcP	17 11 35.0	+0.9
WMQ				PcS	PcS	17 15 28.0	-1.2
WMQ				S	**S**	**17 16 55.0**	**+0.8**
WMQ				sS	sS	17 17 12.0	+2.0
WMQ				ScS	ScS	17 19 53.0	-1.9
WMQ				pmax	pmax		
	comp=Z,720nm,3.8s						
WMQ				LR	LR		
	comp=N,2µm,15.3s,MS5.4						
WMQ				LR	LR		
	comp=E,3µm,18.2s,MS5.4						
WMQ				LR	LR		
	comp=Z,2µm,25.6s						
KSRS	**Korea Array**	**47.42**	**31**	P	**P**	**17 10 04.0**	**-0.6**
	comp=Z,56nm,0.9s,mb5.5,baz=224,slow=8.3,SNR=98						
KSRS				LR	LR	17 30 11.5	
	comp=Z,1µm,20.6s,MS4.9,baz=227,slow=36						
CTA	**Charters Tower**	**48.61**	**115**	*e*P	**P**	**17 10 12.8**	**-1.4**
	comp=Z,64nm,0.9s,mb5.7						
CTA	**Charters Tower**	**48.61**	**115**	P	**P**	**17 10 13.1**	**-1.1**
	comp=Z,101nm,1.0s,mb5.8,baz=289,slow=9.2,SNR=29						
CTA				LR	LR	17 32 56.9	
	comp=Z,2µm,21.7s,MS5.1,baz=289,slow=39						
CTA	**Charters Tower**	**48.61**	**115**	P	**P**	**17 10 13.1**	**-1.1**
CTA				LR	LR	17 32 56.9	
CTAO	**Charters Tower**	**48.61**	**115**	*e*P	**P**	**17 10 12.9**	**-1.3**
CTAO				pmax	pmax		
	comp=Z,139nm,1.1s,mb5.9						
CTAO	**Charters Tower**	**48.61**	**115**	*e*P	**P**	**17 10 12.9**	**-1.3**
	comp=Z,140nm,1.1s,mb5.9						
STKA	**Stephens Creek**	**49.05**	**131**	*e*P	**P**	**17 10 16.9**	**-0.5**
	comp=Z,31nm,0.8s,mb5.4						
STKA	**Stephens Creek**	**49.05**	**131**	P	**P**	**17 10 17.0**	**-0.4**
	comp=Z,56nm,1.0s,mb5.5,baz=309,slow=8.5,SNR=18						
ULHL	**Ulahol**	**49.26**	**337**	P	**P**	**17 10 20.1**	**+1.3**
	SNR=25						
KZA	**Kyzart**	**49.52**	**336**	P	**P**	**17 10 22.1**	**+1.3**
	SNR=24						
UCH	**Uchtor**	**49.95**	**335**	P	**P**	**17 10 25.3**	**+1.3**
	SNR=30						
UCH	**Uchtor**	**49.95**	**335**	*e*P	**P**	**17 10 24.7**	**+0.7**
	comp=Z,64nm,1.2s,mb5.5						
TKM2	**Tokmak 2**	**50.09**	**337**	*e*P	**P**	**17 10 25.1**	**0.0**
TKM2				pmax	pmax		
	comp=Z,134nm,1.2s,mb5.8						
TKM2	**Tokmak 2**	**50.09**	**337**	P	**P**	**17 10 25.6**	**+0.5**
	SNR=55						
TKM2	**Tokmak 2**	**50.09**	**337**	*e*P	**P**	**17 10 25.1**	**0.0**
	comp=Z,134nm,1.2s,mb5.8						
KBK	**Karagaybulak**	**50.12**	**336**	P	**P**	**17 10 27.0**	**+1.6**
	SNR=50						
AML	**Almayashu**	**50.21**	**335**	P	**P**	**17 10 26.7**	**+0.7**

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       SNR=26
AAK   Ala-Archa         50.29 336   P      P       17 10 28.0 +1.4
       comp=Z,221nm,1.6s,mb5.9,SNR=10
AAK   Ala-Archa         50.29 336⇑ eP      P       17 10 27.2 +0.6
AAK                                 pmax   pmax
       comp=Z,51nm,2.5s,mb5.1
AAK   Ala-Archa         50.29 336   P      P       17 10 27.3 +0.7
       SNR=13
AAK   Ala-Archa         50.29 336   P      P       17 10 27.5 +0.9
       comp=Z,6.9nm,0.8s,mb4.7,baz=150,slow=5.2,SNR=16
AAK   Ala-Archa         50.29 336  eP      P       17 10 27.0 +0.4
       comp=Z,292nm,1.8s,mb6.0
AAK   Ala-Archa         50.29 336 ⇑P       P       17 10 27.6 +1.0
       SNR=21
AAK                               ⇑P               17 10 27.6
       SNR=21
SONM  Songino Array     50.32   6   P      P       17 10 27.1 +0.4
       comp=Z,109nm,1.0s,mb5.9,baz=187,slow=6.6,SNR=138
SONM                                PcP    PcP     17 11 46.3 +1.1
       comp=Z,19nm,1.0s,baz=188,slow=4.0,SNR=3.6
ULN   Ulaanbaatar       50.42   6⇑ eP      P       17 10 27.5  0.0
ULN   Ulaanbaatar       50.42   6  eP      P       17 10 27.6 +0.1
       comp=Z,161nm,1.1s,mb6.0
ULN   Ulaanbaatar       50.42   6   P      P       17 10 29.0 +1.5
       SNR=23
ULN                                 P              17 10 29.0
       SNR=23
EKS2  Erkin-Say         50.61 335   P      P       17 10 29.8 +0.7
       SNR=48
EKS2  Erkin-Say         50.61 335  eP      P       17 10 29.4 +0.3
       comp=Z,48nm,0.9s,mb5.4
USP   Ospenovka         50.81 336   P      P       17 10 30.5  0.0
       SNR=92
MKAR  Makanchi Array    51.32 345   P      P       17 10 34.3  0.0
       comp=Z,71nm,0.9s,mb5.6,baz=153,slow=8.2,SNR=113
MKAR                                PKPPKP         17 41 20.8
       comp=Z,0.6nm,0.9s,baz=304,slow=0.9,SNR=4.3
CN2   Changchun         51.39  24 ⇓P       P       17 10 34.3 -0.6
CN2                                epP     pP      17 10 44.3 -0.3
CN2                                eS      S       17 17 51.3 -1.0
CN2                                 pmax   pmax
       comp=Z,10.0nm,1.1s,mb4.7
CN2                                 pmax   pmax
       comp=Z,200nm,6.0s
CN2                                 LR     LR
       comp=N,2µm,16.0s,MS5.3
CN2                                 LR     LR
       comp=E,1µm,16.0s,MS5.3
CN2                                 LR     LR
       comp=Z,3µm,17.0s,MS5.3
MAJO  Matsushiro        52.67  39  eP      P       17 10 43.1 -1.4
MAJO                                pmax   pmax
       comp=Z,83nm,1.2s,mb5.5
MAJO  Matsushiro        52.67  39  eP      P       17 10 43.0 -1.5
       comp=Z,83nm,1.2s,mb5.5
MAT   Matsushiro        52.67  39   P      P       17 10 42.5 -2.0
MJAR  Matsushiro Arr    52.67  39   P      P       17 10 43.0 -1.5
       comp=Z,43nm,1.1s,mb5.3,baz=222,slow=7.6,SNR=50
MJAR                                LR     LR      17 34 50.4
       comp=Z,893nm,18.4s,MS4.8,baz=250,slow=38
MDJ   Mudanjiang        53.79  26   P      P       17 10 53.1 +0.5
MDJ                                 PcP    PcP     17 11 57.4 -0.8
MDJ                                 PP     PP      17 12 54.3 +0.3
MDJ                                 PcS    PcS     17 15 57.0 -0.3
MDJ                                 S      S       17 18 27.8 +2.7
MDJ                                 pmax   pmax
       comp=Z,47nm,1.1s,mb5.3
MDJ                                 LR     LR
       comp=N,2µm,17.2s,MS5.3
MDJ                                 LR     LR
       comp=E,2µm,18.6s,MS5.3
MDJ                                 LR     LR
       comp=Z,2µm,19.9s,MS5.2
MDJ   Mudanjiang        53.79  26  eP      P       17 10 52.7  0.0
       comp=Z,73nm,1.3s,mb5.5
TLY   Talaya            53.94   3   P      P       17 10 54.7 +1.2
       comp=Z,155nm,1.0s,mb5.9,SNR=8.9
TLY   Talaya            53.94   3  eP      P       17 10 54.2 +0.7
TLY                                e       pP      17 11 02.2 -1.1
TLY                                 pmax   pmax
       comp=Z,70nm,1.6s,mb5.3
TLY                                 MLR    MLR
       comp=Z,1µm,15.0s,MS5.2
TLY   Talaya            53.94   3  eP      P       17 10 54.3 +0.8
TLY                                e       pP      17 11 03.6 +0.3
TLY   Talaya            53.94   3 ⇑P       P       17 10 54.9 +1.4
       SNR=12
TLY                               ⇑P               17 10 54.9
       SNR=12
HIA   Hailar            54.24  16  eP      P       17 10 55.4 -0.4
HIA                                e       pP      17 11 04.4 -1.2
HIA                                 pmax   pmax
       comp=Z,66nm,1.2s
HIA   Hailar            54.24  16  eP      P       17 10 55.4 -0.4
       comp=Z,66nm,1.2s,mb5.4
HIA                                e       pP      17 11 04.4 -1.2
IRK   Irkutsk           54.53   3⇓ iP      P       17 10 58.5 +0.6
IRK                                 pmax   pmax
       comp=Z,159nm,1.8s,mb5.8
CIT   Chita             55.42  10  eP      P       17 11 05.8 +1.5
CIT                                e       pP      17 11 14.7 +0.6
CIT                                e               17 11 22.9
CIT                                 pmax   pmax
       comp=Z,324nm,1.7s,mb6.1
ABKT  Ailbek            55.60 320   P      P       17 11 05.3 -0.6
       comp=Z,154nm,0.9s,mb6.0,SNR=6.3
KURK  Kurchatov         55.90 344   P      P       17 11 08.6 +0.8
       comp=Z,576nm,1.0s,mb6.6,SNR=24
KURK  Kurchatov         55.90 344⇑ eP      P       17 11 07.4 -0.4
KURK                                pmax   pmax
       comp=Z,229nm,1.7s,mb5.9
KURK  Kurchatov         55.90 344   P      P       17 11 07.8  0.0
       comp=Z,48nm,0.9s,mb5.5,baz=160,slow=6.7,SNR=69
KURK  Kurchatov         55.90 344  eP      P       17 11 07.9 +0.1
       comp=Z,130nm,1.0s,mb5.9
KURK  Kurchatov         55.90 344   P      P       17 11 08.6 +0.9
       SNR=28
KURK                                P              17 11 08.6
       SNR=28
CAN   Canberra          56.11 132  eP      P       17 11 10.2 +0.6
CAN                                 pmax   pmax
       comp=Z,64nm,1.3s,mb5.5
CAN   Canberra          56.11 132  eP      P       17 11 10.2 +0.6
       comp=Z,64nm,1.3s,mb5.5
ARMA  Armidale          56.34 125⇓ iP      P       17 11 12.9 +1.5
ZAA0  Zalesovo Array    57.49 350  eP      P       17 11 18.2 -0.8
ZALV  Zalesovo Beam     57.49 350   P      P       17 11 18.5 -0.5
       comp=Z,97nm,0.9s,mb5.8,baz=173,slow=6.0,SNR=114
ZALV                                PKPPKP         17 41 16.0
       comp=Z,0.3nm,0.3s,baz=338,slow=1.6,SNR=3.6
KLR   Kul'dur           58.33  24  eP      P       17 11 19.7 -5.3
KLR                                 pmax   pmax
       comp=E,100nm,1.6s
KLR                                 pmax   pmax
       comp=Z,340nm,1.6s,mb6.1
ERM   Erimo             59.05  37⇑ iP      P       17 11 30.3 +0.1
ERM                                 pmax   pmax
       comp=Z,42nm,1.3s,mb5.3
HABR  Khabarovsk        59.17  27  eP      P       17 11 27.9 -2.9
HABR                               e*PP    pP      17 11 37.8 -2.9
HABR                               e*SP    sP      17 11 42.1 -2.4
HABR                               e               17 12 16.6
HABR                                S      S       17 19 33.4 -2.8
HABR                                *SS    sS      17 19 50.1 -2.3
HABR                                               17 21 15.5
HABR                                SS     SS      17 23 29.2 -1.8
HABR                                pmax   pmax
       comp=N,25nm,1.3s
HABR                                pmax   pmax
       comp=E,52nm,1.5s
HABR                                pmax   pmax
       comp=Z,100nm,1.6s,mb5.6
HABR                                MLR    MLR
       comp=Z,1µm,19.0s,MS5.1
HABR                                MLR    MLR
       comp=E,2µm,14.0s,MS5.4
HABR                                MLR    MLR
       comp=N,1µm,16.0s,MS5.4
ASAJ  Asahikawa         60.01  34   P      P       17 11 36.6 -0.2
       comp=N,18nm,0.5s,mb5.3,baz=228,slow=10,SNR=23
HNR   Honiara           60.16  99  eP      P       17 11 36.9 -1.4
HNR                                 pmax   pmax
       comp=Z,76nm,0.9s,mb5.7
HNR   Honiara           60.16  99   LR     LR      17 41 29.9
       comp=Z,449nm,19.4s,MS4.6,baz=263,slow=40
HNR   Honiara           60.16  99  eP      P       17 11 36.9 -1.5
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       comp=Z,76nm,0.9s,mb5.7
BVAR  Borovoye Array    60.46 340   P      P       17 11 38.3 -1.3
       comp=Z,16nm,0.8s,mb5.1,baz=143,slow=8.3,SNR=25
BRVK  Borovoye          60.52 340   P      P       17 11 39.9 -0.1
       comp=Z,163nm,0.9s,mb6.2,SNR=7.5
BRVK  Borovoye          60.52 340  eP      P       17 11 38.4 -1.7
       comp=Z,44nm,1.1s,mb5.5
BRVK  Borovoye          60.52 340 ⇑P       P       17 11 40.9 +0.9
       SNR=8.5
BRVK                              ⇑P               17 11 40.9
       SNR=8.5
BOD   Bodaibo           61.06   9  eP      P       17 11 42.7 -0.9
BOD                                e       pP      17 11 52.5 -1.0
BOD                                 pmax   pmax
       comp=Z,70nm,1.5s,mb5.6
BOD                                 pmax   pmax
       comp=Z,102nm,1.4s,mb5.8
YSS   Yuzh-Sakhalins    61.88  32c iP      P       17 11 49.0 -0.4
YSS                                e*PP    pP      17 11 58.0 -1.3
YSS                                eS      S       17 20 06.0 -5.0
YSS                                 pmax   pmax
       comp=N,80nm,1.4s
YSS                                 pmax   pmax
       comp=Z,320nm,1.4s,mb6.3
YSS                                 pmax   pmax
       comp=E,160nm,1.5s
YSS                                 MLR    MLR
       comp=N,700nm,14.0s,MS5.0
YSS                                 MLR    MLR
       comp=E,400nm,14.0s,MS5.0
YSS                                 MLR    MLR
       comp=Z,800nm,14.0s,MS5.0
YSS   Yuzh-Sakhalins    61.88  32  eP      P       17 11 49.0 -0.5
       comp=Z,282nm,1.4s,mb6.2
CLNS  Chul'man          62.41  15c iP      P       17 11 51.3 -1.4
CLNS                               e*PP    pP      17 12 01.0 -1.6
CLNS                               e               17 12 28.7
CLNS                               eS      S       17 20 15.7 -1.6
CLNS                               eSS     SS      17 24 27.1 +5.6
CLNS                               eSSS            17 27 08.7
CLNS                                pmax   pmax
       comp=Z,36nm,1.3s,mb5.3
CLNS                                pmax   pmax
       comp=N,21nm,1.3s
CLNS                                pmax   pmax
       comp=E,13nm,0.9s
CLNS                                pmax   pmax
       comp=Z,5.0nm,1.0s,mb4.6
CLNS                                pmax   pmax
       comp=N,4.0nm,1.0s
CLNS                                pmax   pmax
       comp=E,5.0nm,0.9s
CLNS                                smax
       comp=N,398nm,15.8s
CLNS                                smax
       comp=E,812nm,14.0s
CLNS                                MLR    MLR
       comp=Z,2µm,14.0s,MS5.4
CLNS                                MLR    MLR
       comp=N,1µm,13.0s,MS5.4
CLNS                                MLR    MLR
       comp=E,1µm,14.0s,MS5.4
KMBO  Kilima Mbogo      62.54 270   P      P       17 11 56.5 +1.9
       comp=E,4.4nm,0.9s,mb4.6,baz=59,slow=9.6,SNR=3.8
AKTK  Aktyubinsk        63.58 332   P      P       17 11 59.5 -1.2
AKTO  Aktyubinsk        63.58 332   P      P       17 11 59.5 -1.2
       comp=E,36nm,1.0s,mb5.3,baz=130,slow=6.4,SNR=35
MAK   Makhachkala       65.12 320  eP      P       17 12 14.1 +3.2
MAK                                 MLR    MLR
       comp=Z,716nm,16.0s,MS5.0
SVE   Sverdlovsk        66.94 338⇓ eP      P       17 12 22.2 -0.1
SVE                                e               17 12 39.8
SVE                                e               17 14 47.0
SVE                                ePPP            17 16 27.7
SVE                                 pmax   pmax
       comp=Z,118nm,1.1s,mb5.8
SVE                                 MLR    MLR
       comp=Z,938nm,18.0s,MS5.0
ARU   Arti              67.46 337   P      P       17 12 24.6 -1.0
       comp=Z,288nm,1.0s,mb6.3,SNR=12
ARU   Arti              67.46 337c iP      P       17 12 24.9 -0.7
ARU                                 S      S       17 21 20.2 +0.7
ARU                                 SS     SS      17 25 44.4 +4.1
ARU                                 pmax   pmax
       comp=Z,84nm,1.2s,mb5.7
ARU                                 MLR    MLR
       comp=Z,1µm,19.0s,MS5.1
ARU   Arti              67.46 337  eP      P       17 12 24.0 -1.6
       comp=Z,62nm,1.0s,mb5.6
YAK   Yakutsk           68.14  15  eP      P       17 12 28.0 -1.7
YAK                                e       pP      17 12 38.1 -1.6
YAK                                eS      S       17 21 25.8 -1.5
YAK                                 pmax   pmax
       comp=Z,132nm,1.0s,mb5.9
YAK                                 pmax   pmax
       comp=N,56nm,1.4s
YAK                                 pmax   pmax
       comp=E,39nm,1.3s
YAK                                 pmax   pmax
       comp=Z,55nm,2.4s,mb5.2
YAK                                 pmax   pmax
       comp=N,134nm,4.2s
YAK                                 pmax   pmax
       comp=E,52nm,3.3s
YAK                                 smax
       comp=N,282nm,5.3s
YAK                                 smax
       comp=E,170nm,2.8s
YAK                                 MLR    MLR
       comp=Z,2µm,16.0s,MS5.4
YAK                                 MLR    MLR
       comp=N,826nm,15.0s,MS5.2
YAK                                 MLR    MLR
       comp=E,981nm,17.0s,MS5.2
YAK   Yakutsk           68.14  15  eP      P       17 12 28.1 -1.7
       comp=E,208nm,1.1s,mb6.1
ASF   Jabal al Asfar    68.65 306   P      P       17 12 33.3 -0.3
       comp=E,10.0nm,0.9s,mb4.8,baz=1.2,slow=6.1,SNR=5.9
KIV   Kislovodsk        68.69 319   P      P       17 12 34.1 +0.5
       comp=E,325nm,1.2s,mb6.1,SNR=6.0
KIV   Kislovodsk        68.69 319  eP      P       17 12 33.9 +0.3
KIV                                eS      S       17 21 34.3 -0.4
KIV                                 pmax   pmax
       comp=Z,58nm,1.0s,mb5.5
KIV                                 pmax   pmax
       comp=Z,58nm,1.0s,mb5.5
KIV   Kislovodsk        68.69 319  eP      P       17 12 33.8 +0.2
KIV   Kislovodsk        68.69 319   P      P       17 12 34.3 +0.6
       SNR=6.6
KIV                                 P              17 12 34.3
       SNR=6.6
MBAR  Mbarara           69.07 270⇑ iP      P       17 12 37.3 +0.7
MALT  Malatya           69.44 312⇑ iP      P       17 12 38.8 +0.4
MALT  Malatya           69.44 312  eP      P       17 12 38.8 +0.3
       comp=Z,28nm,1.1s,mb5.1
EIL   Elat              69.56 303   P      P       17 12 38.5 -0.8
       comp=Z,32nm,1.1s,mb5.2,baz=120,slow=4.1,SNR=7.4
EIL   Elat              69.56 303   P      P       17 12 38.5 -0.8
MAW   Mawson            69.89 194   LR     LR      17 37 11.4
       comp=Z,1µm,18.8s,MS5.1,baz=39,slow=31
SOKR  Solikamsk         70.33 338c iP      P       17 12 43.5 +0.1
SOKR                                pmax   pmax
       comp=Z,80nm,1.0s,mb5.6
SOKR                                MLR    MLR
       comp=Z,1µm,25.0s,MS5.1
SOC   Sochi             70.50 318c iP      P       17 12 43.0 -1.8
SOC                                e*PP    pP      17 12 53.1 -1.7
SOC                                e*SP    sP      17 12 57.0 -1.6
SOC                                e               17 13 03.3
SOC                                ePPP            17 17 03.7
SOC                                eS      S       17 21 51.7 -4.2
SOC                                eSS     SS      17 26 29.0 +1.3
SOC                                 pmax   pmax
       comp=Z,32nm,0.9s,mb5.2
SOC                                 MLR    MLR
       comp=Z,459nm,17.0s,MS4.8
SKR   Severo-Kuril's    71.27  34  eP      P       17 12 49.5 +0.2
SKR                                e               17 13 06.2
SKR                                 pmax   pmax
       comp=N,70nm,1.0s
SKR                                 pmax   pmax
       comp=E,70nm,1.0s
SKR                                 pmax   pmax
       comp=Z,220nm,1.0s,mb6.0
LSZ   Lusaka            71.66 255  eP      P       17 12 52.5 +0.1
LSZ                                e       pP      17 13 00.8 -1.6
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LSZ                                 pmax   pmax
       comp=Z,14nm,0.9s,mb4.9
LSZ   Lusaka            71.66 255  eP      P       17 12 52.5 +0.1
       comp=Z,14nm,0.9s,mb4.9
LSZ                                e       pP      17 13 00.8 -1.7
ANN   Anapa             72.48 319  eP      P       17 12 52.8 -3.9
ANN                                eS      S       17 22 16.5 -2.3
ANN                                 pmax   pmax
       comp=Z,78nm,1.3s,mb5.5
VRHR  Novokhopersk      72.52 326c iP      P       17 12 55.8 -1.0
VRHR                                pmax   pmax
       comp=Z,130nm,1.0s,mb5.8
VRHR                                pmax   pmax
       comp=N,80nm,1.3s
PEA0B Petropavlovsk-    73.28  32  eP      P       17 13 00.7 -0.6
PETK  Petropavlovsk-    73.28  32   P      P       17 13 00.2 -1.1
       comp=N,17nm,0.9s,mb5.0,baz=186,slow=1.5,SNR=34
PETK  Petropavlovsk-    73.28  32   P      P       17 13 00.2 -1.1
BRTR  Keskin Array B    73.43 313   P      P       17 13 01.2 -1.2
       comp=N,15nm,0.9s,mb4.9,baz=142,slow=6.6,SNR=24
PET   Petropavlovsk     73.76  33  eP      P       17 13 02.7 -1.4
PET                                e               17 13 18.7
PET                                eS      S       17 22 29.7 -3.2
PET                                 pmax   pmax
       comp=Z,100nm,1.0s,mb5.7
PET                                 pmax   pmax
       comp=Z,400nm,16.8s
PET   Petropavlovsk     73.76  33  eP      P       17 13 02.9 -1.1
       comp=Z,115nm,1.1s,mb5.7
VSR   Storozhevoye      73.97 325c iP      P       17 13 04.2 -1.1
VSR                                e*PP    pP      17 13 12.9 -2.5
VSR                                 pmax   pmax
       comp=N,30nm,0.9s
VSR                                 pmax   pmax
       comp=E,80nm,0.9s
VSR                                 pmax   pmax
       comp=Z,130nm,0.9s,mb5.9
VOR   Voronezh          74.17 326  eP      P       17 13 07.0 +0.5
VOR                                 pmax   pmax
       comp=Z,260nm,1.4s,mb6.0
RPZ   Rata Peaks        74.86 135   LR     LR      17 44 32.8
       comp=Z,1µm,19.2s,MS5.3,baz=287,slow=34
BOSA  Boshof            75.32 241   P      P       17 13 13.7 -0.1
       comp=Z,6.8nm,0.8s,mb4.6,baz=81,slow=6.7,SNR=9.0
PRGR  Permogore         75.92 336⇑ iP      P       17 13 15.7 -0.7
PRGR                                pmax   pmax
       comp=Z,137nm,1.1s,mb5.8
SEY   Seymchan          76.03  22⇑ eP      P       17 13 16.0 -1.0
TIXI  Tiksi             76.24   9⇑ eP      P       17 13 16.0 -2.0
TIXI                                pmax   pmax
       comp=Z,104nm,1.7s,mb5.5
TIXI  Tiksi             76.24   9  eP      P       17 13 16.7 -1.3
       comp=Z,92nm,1.2s,mb5.6
OBN   Obninsk           77.00 328   P      P       17 13 22.1 -0.6
       comp=Z,590nm,1.5s,mb6.3,SNR=5.5
OBN   Obninsk           77.00 328c iP      P       17 13 22.1 -0.6
OBN                                i               17 13 28.7
OBN                                i       pP      17 13 32.5 -0.3
OBN                                i               17 13 36.5
OBN                                eS      S       17 23 10.6 +1.8
OBN                                 pmax   pmax
       comp=Z,219nm,1.6s,mb5.8
OBN                                 MLR    MLR
       comp=Z,800nm,24.0s,MS5.0
OBN   Obninsk           77.00 328  eP      P       17 13 22.0 -0.6
       comp=Z,184nm,1.3s,mb5.8
SYO   Syowa Base        77.47 199⇓ ePcP    PcP     17 13 33.2 -2.1
KLMR  Klimovskoe        78.07 334⇑ iP      P       17 13 28.3 -0.2
KLMR                               eS      S       17 23 14.9 -5.3
KLMR                                pmax   pmax
       comp=Z,103nm,1.2s,mb5.6
TLCR                    78.40 317⇑ iP      P       17 13 30.7  0.0
TIRR  Tirgusor          78.48 316⇑ iP      P       17 13 30.8 -0.4
TIRR  Tirgusor          78.48 316  eP      P       17 13 29.9 -1.3
       comp=Z,38nm,1.0s,mb5.3
HARR  Harsova           78.88 316⇑ iP      P       17 13 33.9 +0.6
HARR  Harsova           78.88 316 ⇑P       P       17 13 33.9 +0.6
KIS   Kishinev          78.88 319  eP      P       17 13 33.0 -0.3
KIS                                 MLR    MLR
       comp=Z,600nm,20.0s,MS4.9
KIS                                 MLR    MLR
       comp=Z,500nm,20.0s
IDI   Anoyia            79.10 306   P      P       17 13 34.3 -0.5
       comp=Z,20nm,1.1s,mb5.0,baz=86,slow=9.1,SNR=4.5
SUR   Sutherland        79.45 238  eP      P       17 13 38.1 +1.3
       comp=Z,22nm,1.2s,mb5.0
AKASG Malin Array Be    79.66 322   P      P       17 13 36.1 -1.3
       comp=Z,7.4nm,0.8s,mb4.7,baz=91,slow=4.6,SNR=19
AKASG                               PP     PP      17 16 35.9 -2.7
       comp=Z,0.5nm,0.4s,baz=104,slow=6.3,SNR=4.8
AKASG Malin Array Be    79.66 322   P      P       17 13 36.1 -1.3
AKASG                               PP     PP      17 16 35.9 -2.7
KIEV  Kiev              79.66 322  eP      P       17 13 37.0 -0.5
KIEV                               e               17 13 42.7
KIEV  Kiev              79.66 322  eP      P       17 13 35.5 -2.0
       comp=Z,20nm,1.1s,mb5.0
VRI   Vrincioaia        79.99 317⇑ iP      P       17 13 39.9 +0.5
VRI   Vrincioaia        79.99 317 ⇑P       P       17 13 39.9 +0.5
MLR   Muntele Rosu      80.43 317⇑ iP      P       17 13 42.6 +0.8
MLR   Muntele Rosu      80.43 317   P      P       17 13 41.4 -0.4
       comp=Z,59nm,1.1s,mb5.4,baz=37,slow=12,SNR=19
VOIR                    81.04 317⇑ iP      P       17 13 44.5 -0.5
VOIR                    81.04 317 ⇑P       P       17 13 44.5 -0.5
BURAR Bucovina Array    81.41 319⇓ iP      P       17 13 47.2 +0.3
BURAR Bucovina Array    81.41 319 ⇓P       P       17 13 47.1 +0.2
BUR08 Bucovina Ar. S    81.42 319  eP      P       17 13 47.1 +0.1
MICGM Minsk             81.52 326  e       P       17 13 46.0 -1.3
MNK   Minsk             81.55 326  eP      P       17 13 46.0 -1.5
VNDA  Vanda             81.84 169   LR     LR      17 49 05.5
       comp=Z,872nm,18.4s,MS5.2,baz=318,slow=35
PUL   Pulkovo           81.85 331⇑ eP      P       17 13 49.7 +0.7
TSUM  Tsumeb            81.89 251  eP      pP      17 13 58.4 -1.9
       comp=Z,6.7nm,0.9s
NACGM Naroch            82.24 326  e       P       17 13 49.0 -2.1
JOF   Joensuu           82.46 335  eP      P       17 13 47.1 -5.0
JOF                                 pmax   pmax
       comp=Z,36nm,1.0s,mb5.3
JOF   Joensuu           82.46 335  ep      P       17 13 47.1 -5.0
       comp=Z,36nm,1.0s,mb5.3
GZR   Gura Zlata        82.59 316⇑ iP      P       17 13 53.5 +0.3
GZR   Gura Zlata        82.59 316 ⇑P       P       17 13 53.5 +0.3
LVV   L'vov             82.66 321  eP      P       17 13 52.7 -0.7
DRGR                    82.91 318⇑ iP      P       17 13 55.5 +0.7
DRGR                    82.91 318 ⇑P       P       17 13 55.5 +0.7
SBA   Scott Base        82.94 169   P      P       17 13 53.6 -0.8
VSU   Vasula            83.22 330d iP      P       17 13 56.4 +0.3
VSU                                 pmax   pmax
       comp=Z,75nm,1.3s,mb5.6
BZS   Buzias            83.44 316⇑ iP      P       17 13 57.6  0.0
BZS   Buzias            83.44 316 ⇑P       P       17 13 57.6  0.0
KWP   Kalwaria Pacla    83.46 320  eP      P       17 13 58.0 +0.4
KWP                                e       pP      17 14 08.4 +0.6
KWP   Kalwaria Pacla    83.46 320⇓ iP      P       17 13 57.5 -0.1
KWP   Kalwaria Pacla    83.46 320  eP      P       17 13 58.0 +0.4
KWP                                e       pP      17 14 08.4 +0.6
UZH   Uzhgorod          83.53 319  eP      P       17 13 58.0  0.0
UZH                                e               17 14 05.0
UZH                                eS      S       17 24 15.0 -2.7
UZH                                e               17 25 14.0
BILL  Bilibino          83.56  20⇑ eP      P       17 13 57.0 -0.7
BILL                                pmax   pmax
       comp=Z,27nm,1.6s,mb5.1
BILL  Bilibino          83.56  20  eP      P       17 13 57.6  0.0
       comp=Z,35nm,1.2s,mb5.4
KOLS  Kolonicke sedl    83.61 320  i P     P       17 13 59.6 +1.3
KOLS                                pmax   pmax
       comp=Z,64nm,1.1s,mb5.7
KOLS  Kolonicke sedl    83.61 320  i P     P       17 13 59.6 +1.3
       comp=Z,64nm,1.1s,mb5.7
SUW   Suwalki           84.07 325  eP      P       17 14 00.5 -0.2
SUW                                e       pP      17 14 10.2 -0.6
SUW   Suwalki           84.07 325  eP      P       17 14 00.4 -0.2
SUW                                e       pP      17 14 10.2 -0.6
CRVS  Cervenica-Dubn    84.12 319  i P     P       17 14 01.6 +0.6
CRVS                                pmax   pmax
       comp=Z,17nm,1.2s,mb5.0
CRVS  Cervenica-Dubn    84.12 319  i P     P       17 14 01.6 +0.6
       comp=Z,17nm,1.2s,mb5.1
STHS  Stebnicka Huta    84.36 320  i P     P       17 14 03.2 +1.0
KAF   Kangasniemi       84.42 333  eP      P       17 14 01.6 -0.6
KAF                                 pmax   pmax
       comp=Z,47nm,0.9s,mb5.6
KAF   Kangasniemi       84.42 333  ep      P       17 14 01.6 -0.6
       comp=Z,47nm,0.9s,mb5.6
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KECS	**Kecovo**	**84.69**	**319**	*e*P	**P**	**17 14 04.2**	**+0.3**
KECS				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.9						
KECS	**Kecovo**	**84.69**	**319**	*e*P	**P**	**17 14 04.2**	**+0.3**
	comp=Z,14nm,1.4s,mb4.9						
NIE	**Niedzica**	**84.96**	**320**	*e*P	**P**	**17 14 06.0**	**+0.8**
NIE				*e*pP	pP	17 14 15.9	+0.5
PSZ	**Piszkesteto**	**84.99**	**318**	⇑*i*P	**P**	**17 14 05.6**	**+0.2**
PSZ	**Piszkesteto**	**84.99**	**318**	⇓*e*PcP	PcP	17 14 06.1	-2.5
PSZ	**Piszkesteto**	**84.99**	**318**	*e*P	**P**	**17 14 04.6**	**-0.8**
	comp=Z,42nm,1.4s,mb5.4						
OJC	**Ojcow**	**85.42**	**321**	*e*P	**P**	**17 14 07.8**	**+0.3**
OJC				*e*PcP	PcP	17 14 10.3	-0.2
OJC				*e*pP	pP	17 14 17.3	-0.4
BUD	**Budapest**	**85.50**	**318**	⇓*e*PcP	PcP	17 14 08.4	-2.5
VYHS	**Vyhne**	**85.78**	**319**	*e*P	**P**	**17 14 09.7**	**+0.4**
TIP	**Timpagrande**	**86.09**	**309**	*e*P	**P**	**17 14 11.1**	**0.0**
	comp=Z,65nm,1.6s,mb5.6						
OKC	**Ostrava-Krasne**	**86.41**	**320**	*e*P	**P**	**17 14 12.9**	**+0.5**
OKC				*e*pP	pP	17 14 21.8	-0.9
OKC				*e*S	S	17 24 43.5	-2.7
OKC				AMS	AMS	17 50 10.0	
	comp=Z,500nm,16.5s						
OKC	**Ostrava-Krasne**	**86.41**	**320**	*e*P	**P**	**17 14 12.9**	**+0.5**
OKC				*e*pP	pP	17 14 21.8	-0.9
OKC				*e*SKS		17 24 43.5	
CEL	**Celeste**	**86.67**	**308**	*e*P	**P**	**17 14 14.9**	**+0.9**
	comp=Z,25nm,1.0s,mb5.4						
CEL				*e*	pP	17 14 24.8	+0.6
ARCES	**ARCESS Array B**	**86.75**	**340**	P	**P**	**17 14 13.1**	**-0.5**
	comp=Z,25nm,0.9s,mb5.4,baz=107,slow=4.2,SNR=20						
ARCES				LR	LR	17 57 13.4	
	comp=Z,1µm,19.7s,MS5.3,baz=109,slow=39						
MODS	**Modra-Piesok**	**86.79**	**319**	*e*P	**P**	**17 14 15.0**	**+0.7**
MODS				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.1						
MODS	**Modra-Piesok**	**86.79**	**319**	*e*P	**P**	**17 14 15.0**	**+0.7**
MODS	**Modra-Piesok**	**86.79**	**319**	*e*P	**P**	**17 14 15.0**	**+0.7**
	comp=Z,16nm,1.2s,mb5.1						
MORC	**Moravsky Berou**	**86.79**	**320**	*e*P	**P**	**17 14 14.8**	**+0.5**
MORC				pmax	pmax		
	comp=Z,75nm,1.7s,mb5.6						
MORC	**Moravsky Berou**	**86.79**	**320**	⇑*i*P	**P**	**17 14 14.8**	**+0.5**
MORC	**Moravsky Berou**	**86.79**	**320**	*e*P	**P**	**17 14 14.6**	**+0.3**
	comp=Z,75nm,1.8s,mb5.6						
ZST	**Bratislava**	**86.88**	**318**	*e*P	**P**	**17 14 15.5**	**+0.7**
ZST				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.3						
ZST	**Bratislava**	**86.88**	**318**	*e*P	**P**	**17 14 15.5**	**+0.7**
	comp=Z,23nm,1.2s,mb5.3						
KOGS	**Kog**	**87.26**	**317**	⇑*e*P	**P**	**17 14 16.6**	**0.0**
VRAC	**Vranov**	**87.35**	**319**	P	**P**	**17 14 17.1**	**+0.1**
	comp=Z,4.8nm,0.9s,mb4.7,baz=97,slow=5.6,SNR=5.2						
GKP	**Gorka Klasztor**	**87.43**	**323**	*e*P	**P**	**17 14 17.6**	**+0.3**
GKP				*e*	pP	17 14 27.4	-0.1
GKP	**Gorka Klasztor**	**87.43**	**323**	*e*P	**P**	**17 14 17.6**	**+0.3**
GKP				*e*	pP	17 14 27.4	-0.2
QSPA	**South Pole Qui**	**87.60**	**180**	*e*P	**P**	**17 14 17.8**	**+0.1**
	comp=Z,23nm,1.1s,mb5.3						
QSPA				*e*	pP	17 14 26.3	-1.7
GCIS	**Gornji Cirnik**	**87.62**	**316**	⇑*e*P	**P**	**17 14 18.4**	**0.0**
GCIS				*e*pP	pP	17 14 27.6	-1.1
DPC	**Dobruska-Polom**	**87.64**	**320**	*e*P	**P**	**17 14 19.4**	**+1.0**
DPC				*e*pP	pP	17 14 29.4	+0.7
DPC				*e*S	S	17 24 57.2	-0.8
DPC				AMS	AMS	17 52 20.0	
	comp=Z,800nm,16.6s						
CONA	**Conrad Observa**	**87.68**	**318**	⇓*i*P	**P**	**17 14 18.4**	**-0.2**
	comp=Z,9.2nm,1.1s,mb4.9						
CSNA	**Conrad Observa**	**87.68**	**318**	⇑*i*P	**P**	**17 14 18.4**	**-0.2**
	comp=Z,10.0nm,1.3s,mb4.9						
KSP	**Ksiaz**	**87.72**	**321**	*e*P	**P**	**17 14 19.4**	**+0.6**
KSP				*e*	pP	17 14 30.0	+1.0
KSP	**Ksiaz**	**87.72**	**321**	*e*P	**P**	**17 14 19.1**	**+0.4**
KSP				*e*pP	pP	17 14 29.5	+0.5
KSP				*e*S	S	17 24 53.0	-5.7
KSP				LR	LR		
	comp=Z,1µm,19.7s,MS5.3						
ARSA	**Arzberg**	**87.84**	**317**	⇓*i*P	**P**	**17 14 19.4**	**0.0**
	comp=Z,29nm,1.4s,mb5.3,SNR=10						
BOJS	**Bojanci**	**87.85**	**316**	⇑*e*P	**P**	**17 14 19.7**	**+0.2**
BOJS				*e*pP	pP	17 14 28.7	-1.1
UPC	**Upice**	**87.86**	**321**	*e*P	**P**	**17 14 20.3**	**+0.9**
UPC				*e*pP	pP	17 14 30.3	+0.6
PERS	**Pernice**	**88.05**	**317**	⇑*e*P	**P**	**17 14 20.8**	**+0.3**
PERS				*e*S	S	17 25 01.7	-0.4
TREC	**Trest**	**88.07**	**319**	*e*P	**P**	**17 14 21.0**	**+0.6**
TREC				*e*pP	pP	17 14 30.9	+0.2
TREC				AMS	AMS	17 53 30.0	
	comp=Z,500nm,13.0s						
SOKA	**Soboth**	**88.11**	**317**		**P**	**17 14 21.1**	**+0.4**
	comp=Z,35nm,1.3s,mb5.4						
LJU	**Ljubljana**	**88.41**	**316**	⇑*e*P	**P**	**17 14 22.2**	**+0.1**
LJU				*e*pP	pP	17 14 31.6	-0.8
LJU				*e*S	S	17 25 04.5	-1.0
OBKA	**Obir**	**88.43**	**316**	⇑*i*P	**P**	**17 14 21.2**	**-1.0**
	comp=Z,26nm,1.4s,mb5.3						
MOA	**Molln**	**88.74**	**318**	⇑*i*P	**P**	**17 14 23.7**	**0.0**
	comp=Z,16nm,1.6s,mb5.1						
PRU	**Pruhonice**	**88.75**	**320**	*e*P	**P**	**17 14 24.4**	**+0.8**
PRU				*e*pP	pP	17 14 33.9	0.0
PRU				*e*S	S	17 25 06.5	-2.0
PRU				AMS	AMS	17 51 00.0	
	comp=Z,700nm,20.4s						
PVCC	**Panska Ves**	**88.78**	**320**	*e*P	**P**	**17 14 24.9**	**+1.1**
PVCC				*e*pP	pP	17 14 34.4	+0.4
PVCC				AMS	AMS	17 50 40.0	
	comp=Z,600nm,17.0s						
MYKA	**Terra Mystica**	**89.07**	**317**	⇑*i*P	**P**	**17 14 25.3**	**+0.1**
	comp=Z,24nm,1.4s,mb5.3						
GEC2	**GERESS Array S**	**89.20**	**319**	*e*P	**P**	**17 14 26.4**	**+0.6**
GEC2				*e*S	S	17 25 12.3	-0.5
GEC2				pmax	pmax		
	comp=Z,70nm,1.5s,mb5.8						
GEC2	**GERESS Array S**	**89.20**	**319**	*e*P	**P**	**17 14 26.4**	**+0.6**
	comp=Z,70nm,1.5s,mb5.8						
GEC2				*e*S	S	17 25 12.3	-0.5
GERES	**GERESS Array B**	**89.20**	**319**	P	**P**	**17 14 25.9**	**+0.1**
	comp=Z,12nm,1.0s,mb5.2,baz=101,slow=4.2,SNR=30						
BRG	**Berggiesshubel**	**89.20**	**321**	*e*P	**P**	**17 14 26.4**	**+0.7**
BRG				*e*		17 25 11.0	
BRG				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.5						
BRG				MLR	MLR		
	comp=N,31µm,16.9s,MS6.8						
BRG				MLR	MLR		
	comp=E,205nm,18.2s,MS6.8						
BRG				MLR	MLR		
	comp=Z,323nm,15.7s,MS4.8						
BRG	**Berggiesshubel**	**89.20**	**321**	*e*P	**P**	**17 14 26.5**	**+0.8**
	comp=Z,52nm,1.4s,mb5.7						
BRG				*e*pP	pP	17 14 36.5	+0.5
BRG				*e*S	S	17 25 14.3	+1.5
BRG	**Berggiesshubel**	**89.20**	**321**	*e*P	**P**	**17 14 26.4**	**+0.7**
	comp=Z,52nm,1.4s,mb5.7						
BRG				*e*		17 25 11.0	
BRG							
	comp=N,342nm,16.9s						
BRG							
	comp=E,539nm,18.2s						
BRG							
	comp=Z,855nm,15.7s						
BRG	**Berggiesshubel**	**89.20**	**321**	*e*P	**P**	**17 14 26.4**	**+0.7**
	comp=Z,31nm,1.4s,mb5.5						
BRG				*e*		17 25 11.0	
BRG				LR	LR		
	comp=Z,510nm,15.7s,MS5.0						
KHC	**Kasperske Hory**	**89.30**	**319**	*e*P	**P**	**17 14 26.6**	**+0.4**
KHC				*e*pP	pP	17 14 35.8	-0.7
KHC				*e*S	S	17 25 10.4	-3.4
KHC				AMS	AMS	17 54 00.0	
	comp=Z,700nm,15.5s						
KBA	**Koelnbreinsper**	**89.30**	**317**	⇑*i*P	**P**	**17 14 25.4**	**-0.9**
	comp=Z,15nm,1.3s,mb5.2						
RUE	**Ruedersdorf**	**89.43**	**322**	*e*P	**P**	**17 14 27.6**	**+0.8**
	comp=Z,136nm,1.3s,mb6.1						
RUE				*e*pP	pP	17 14 37.8	+0.7
RUE				*e*S	S	17 25 12.8	-2.1
RUE	**Ruedersdorf**	**89.43**	**322**	*e*P	**P**	**17 14 27.8**	**+1.0**
	comp=Z,116nm,1.1s,mb6.1						
RUE				*e*	pP	17 14 37.7	+0.7
FBE	**Freiberg**	**89.58**	**321**	*e*P	**P**	**17 14 28.3**	**+0.8**
	comp=Z,68nm,1.4s,mb5.8						
RJOB	**Jochberg**	**89.72**	**318**	*e*P	**P**	**17 14 28.2**	**-0.1**
	comp=Z,19nm,1.1s,mb5.3						
RJOB				*e*S	S	17 25 19.4	+1.6
WET	**Wettzell**	**89.76**	**319**	*e*P	**P**	**17 14 28.9**	**+0.5**
WET				*e*S	S	17 25 19.6	+1.5
WET				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.7						
WET	**Wettzell**	**89.76**	**319**	*e*P	**P**	**17 14 28.9**	**+0.5**
	comp=Z,48nm,1.3s,mb5.7						
WET				*e*S	S	17 25 19.6	+1.5
CLL	**Collm**	**89.83**	**321**	⇓*i*P	**P**	**17 14 29.2**	**+0.5**
CLL				*i*	pP	17 14 37.9	-1.1
CLL				*i*		17 14 43.1	
CLL				*e*S	S	17 25 17.0	-1.6
CLL				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.8						
CLL	**Collm**	**89.83**	**321**	*e*P	**P**	**17 14 28.9**	**+0.2**
	comp=Z,36nm,1.3s,mb5.5						
CLL				*e*S	S	17 25 18.8	+0.2
CLL	**Collm**	**89.83**	**321**	⇓*i*P	**P**	**17 14 29.2**	**+0.5**
	comp=Z,36nm,1.3s,mb5.5						
CLL				*i*	pP	17 14 37.9	-1.1
CLL				*e*S	S	17 25 17.0	-1.6
CLL				*e*PS	PS	17 26 38.0	+10
CLL				*e*SSSS		17 38 18.0	
CLL	**Collm**	**89.83**	**321**	⇓*i*P	**P**	**17 14 29.2**	**+0.5**
	comp=Z,36nm,1.3s,mb5.5						
CLL				*i*	pP	17 14 37.9	-1.1
CLL				*i*		17 14 43.1	
CLL				*i*		17 14 47.2	
CLL				*e*S	S	17 25 17.0	-1.6
RGN	**Rugen**	**89.86**	**324**	*e*P	**P**	**17 14 30.4**	**+1.6**
	comp=Z,97nm,1.4s,mb5.9						
RGN				*e*S	S	17 25 18.6	-0.2
HFS	**Hagfors**	**90.09**	**330**	P	**P**	**17 14 29.8**	**+0.2**
	comp=Z,14nm,1.1s,mb5.2,baz=90,slow=3.0,SNR=8.7						
HFS	**Hagfors**	**90.09**	**330**	P	**P**	**17 14 29.8**	**+0.1**
NKC	**Novy Kostel**	**90.11**	**320**	*e*P	**P**	**17 14 31.1**	**+1.1**
NKC				*e*pP	pP	17 14 40.2	-0.1
NKC				*e*S	S	17 25 27.7	+6.5
NKC				AMS	AMS	17 51 50.0	
	comp=Z,800nm,18.1s						
NKC	**Novy Kostel**	**90.11**	**320**	*e*P	**P**	**17 14 31.1**	**+1.1**
NKC				*e*pP	pP	17 14 40.2	-0.1
NKC				*e*SKS		17 25 27.7	
TANN	**Tannenbergstha**	**90.11**	**320**	*e*P	**P**	**17 14 30.7**	**+0.7**
	comp=Z,23nm,1.4s,mb5.3						
TANN				*e*S	S	17 25 23.4	+2.1
WERN	**Wernitzgruen**	**90.16**	**320**	*e*P	**P**	**17 14 31.1**	**+0.9**
	comp=Z,23nm,1.2s,mb5.4						
GUNZ	**Gunzen**	**90.19**	**320**	*e*P	**P**	**17 14 31.1**	**+0.7**
	comp=Z,37nm,1.3s,mb5.5						
WERD	**Werda**	**90.21**	**320**	*e*P	**P**	**17 14 31.1**	**+0.6**
	comp=Z,31nm,1.2s,mb5.5						
WERD				*e*pP	pP	17 14 41.1	+0.3
ROTZ	**Rotzenmuhle**	**90.23**	**320**	*e*P	**P**	**17 14 31.7**	**+1.1**
	comp=Z,33nm,1.2s,mb5.5						
ROTZ				*e*S	S	17 25 24.6	+2.2
MANZ	**Manzenberg**	**90.31**	**320**	*e*P	**P**	**17 14 32.1**	**+1.1**
	comp=Z,60nm,1.2s,mb5.8						
MANZ				*e*S	S	17 25 25.3	+2.2
WTTA	**Wattenberg**	**90.48**	**317**	⇑*i*P	**P**	**17 14 31.6**	**-0.2**
	comp=Z,39nm,1.1s,mb5.7						
MOX	**Moxa**	**90.66**	**320**	*e*P	**P**	**17 14 33.3**	**+0.7**
	comp=Z,48nm,1.6s,mb5.6						
MOX				*e*PP	pP	17 14 43.2	+0.3
MOX				*e*S	S	17 25 27.0	+0.7
MOX	**Moxa**	**90.66**	**320**	*e*P	**P**	**17 14 33.3**	**+0.7**
MOX				*e*	pP	17 14 43.2	+0.3
MOX				*e*S	S	17 25 27.0	+0.7
MOX				pmax	pmax		
	comp=Z,1.0nm,1.6s,mb3.9						
MOX	**Moxa**	**90.66**	**320**	*e*P	**P**	**17 14 33.2**	**+0.6**
	comp=Z,42nm,1.4s,mb5.6						
MOX				*e*pP	pP	17 14 43.2	+0.3
MOX				*e*S	S	17 25 28.0	+1.7
FUR	**Furstenfeldbru**	**90.76**	**318**	*e*P	**P**	**17 14 33.5**	**+0.4**
FUR				*e**PP	pP	17 14 43.5	+0.1
FUR				*e*S	S	17 25 26.8	-0.6
FUR				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.5						
FUR	**Furstenfeldbru**	**90.76**	**318**	*e*P	**P**	**17 14 33.5**	**+0.4**
	comp=Z,21nm,0.8s,mb5.5						
FUR				*e*pP	pP	17 14 43.5	+0.1
FUR				*e*S	S	17 25 26.8	-0.6
MOTA	**Moosalm**	**90.84**	**317**	⇑*i*P	**P**	**17 14 33.3**	**-0.2**
	comp=Z,26nm,0.9s,mb5.5,SNR=8.8						
GRA1	**Grafenberg Arr**	**90.87**	**320**	*e*P	**P**	**17 14 34.3**	**+0.7**
	comp=Z,63nm,1.2s,mb5.8						
GRA1				*e*pP	pP	17 14 44.3	+0.4
GRA1				*e*S	S	17 25 29.9	+1.6
GRF	**Grafenberg Arr**	**90.87**	**320**	*e*P	**P**	**17 14 34.3**	**+0.7**
GRF				*e**PP	pP	17 14 44.3	+0.4
GRF				*e*S	S	17 25 29.9	+1.6
GRF				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.8						
GRF	**Grafenberg Arr**	**90.87**	**320**	*e*P	**P**	**17 14 34.3**	**+0.7**
GRF				*e**PP	pP	17 14 44.3	+0.4
GRF				*e*S	S	17 25 29.9	+1.6
GRF				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.8						
GRF	**Grafenberg Arr**	**90.87**	**320**	*e*P	**P**	**17 14 34.3**	**+0.7**
	comp=Z,63nm,1.2s,mb5.8						
GRF				*e*pP	pP	17 14 44.3	+0.4
GRF				*e*S	S	17 25 29.9	+1.6
GRFO	**Grafenberg**	**90.87**	**320**	*e*S	S	17 25 30.1	+1.8
SPITS	**Spitsbergen Ar**	**90.95**	**348**	P	**P**	**17 14 32.6**	**-0.8**
	comp=Z,30nm,1.1s,mb5.5,baz=2.5,slow=14,SNR=12						
RETA	**Reutte**	**91.08**	**317**	⇓*i*P	**P**	**17 14 34.7**	**+0.1**
	comp=Z,33nm,1.2s,mb5.5						
FETA	**Feichten**	**91.08**	**317**	⇑*i*P	**P**	**17 14 34.3**	**-0.3**
	comp=Z,27nm,1.1s,mb5.5						
NOA	**NORSAR Array B**	**91.37**	**331**	P	**P**	**17 14 34.8**	**-0.8**
	comp=Z,5.9nm,1.0s,mb4.9,baz=93,slow=4.7,SNR=8.6						
NOA				PP	PP	17 18 21.4	+8.2
	comp=Z,0.7nm,0.8s,baz=106,slow=7.9,SNR=3.5						
CLZ	**Clausthal**	**91.49**	**322**	*e*P	**P**	**17 14 36.9**	**+0.5**
CLZ				*e*S	S	17 25 33.2	-0.6
CLZ				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.6						
CLZ	**Clausthal**	**91.49**	**322**	*e*P	**P**	**17 14 36.9**	**+0.5**
	comp=Z,42nm,1.4s,mb5.6						
CLZ				*e*S	S	17 25 33.2	-0.6
BSEG	**Bad Segeberg**	**91.59**	**324**	*e*P	**P**	**17 14 37.9**	**+1.1**
BSEG				*e*S	S	17 25 34.1	-0.6
BSEG				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.2						
BSEG	**Bad Segeberg**	**91.59**	**324**	*e*P	**P**	**17 14 37.9**	**+1.1**
	comp=Z,10.0nm,0.7s,mb5.2						
BSEG				*e*S	S	17 25 34.1	-0.6
DAVOX	**Davos/Dischmat**	**91.66**	**317**	P	**P**	**17 14 37.7**	**+0.4**
	comp=Z,22nm,1.0s,mb5.5,baz=116,slow=5.8,SNR=16						
DAVA	**Damuels**	**91.67**	**317**	⇑*i*PcP	PcP	17 14 37.7	-0.5
	comp=Z,49nm,1.1s,SNR=15						
NRDL	**Niedersach Rie**	**91.68**	**322**	*e*P	**P**	**17 14 38.0**	**+0.8**
	comp=Z,39nm,1.5s,mb5.5						
NRDL				*e*S	S	17 25 34.1	-1.4
UBBA	**Unterbreizbach**	**91.69**	**321**	*e*P	**P**	**17 14 37.7**	**+0.3**
	comp=Z,25nm,1.5s,mb5.3						
UBBA				*e*pP	pP	17 14 47.4	-0.3
UBBA				*e*S	S	17 25 36.3	+0.6
DAVOS	**Davos**	**91.72**	**317**	P	**P**	**17 14 37.7**	**+0.1**
KEST	**Kesra**	**91.75**	**306**	P	**P**	**17 14 39.5**	**+1.5**
	comp=Z,12nm,1.0s,mb5.2,baz=31,slow=1.9,SNR=16						
TUE	**Stuetta**	**92.02**	**316**	*e*P	**P**	**17 14 39.6**	**+0.7**
	comp=Z,12nm,1.0s,mb5.2						
KONO	**Kongsberg**	**92.13**	**329**	⇑*e*P	**P**	**17 14 39.2**	**0.0**
STU	**Stuttgart**	**92.17**	**319**	*e*P	**P**	**17 14 40.0**	**+0.4**
STU				*e*S	S	17 25 40.4	+0.3
TNS	**Taunus Mts**	**92.67**	**320**	*e*P	**P**	**17 14 42.7**	**+0.8**
TNS				*e*S	S	17 25 45.8	+1.3
TNS				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.9						
TNS	**Taunus Mts**	**92.67**	**320**	*e*P	**P**	**17 14 42.7**	**+0.8**
	comp=Z,55nm,1.1s,mb5.9						
TNS				*e*S	S	17 25 45.8	+1.3
BFO	**Black Forest**	**92.74**	**318**	*e*P	**P**	**17 14 42.3**	**+0.1**
BFO				*e*S	S	17 25 45.3	+0.1
BFO				pmax	pmax		
	comp=Z,13nm,1.2s,mb5.2						
BFO	**Black Forest**	**92.74**	**318**	*e*P	**P**	**17 14 42.3**	**+0.1**
	comp=Z,13nm,1.2s,mb5.2						
BFO				*e*S	S	17 25 45.3	+0.1
HLG	**Helgoland**	**93.03**	**324**	*e*S	S	17 25 46.3	-1.2
IBBN	**Ibbenburen**	**93.11**	**322**	*e*P	**P**	**17 14 44.7**	**+0.8**
BUG	**Bochum--Univer**	**93.42**	**321**	*e*P	**P**	**17 14 45.6**	**+0.3**
	comp=Z,29nm,1.4s,mb5.5						
BUG				*e*S	S	17 25 51.9	+0.8
CDF	**Champ du Feu**	**93.44**	**318**	*e*P	**P**	**17 14 45.1**	**-0.4**
	comp=Z,22nm,1.2s,mb5.2						
CDF	**Champ du Feu**	**93.44**	**318**	*e*P	**P**	**17 14 45.1**	**-0.4**
CDF				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.2						
CDF	**Champ du Feu**	**93.44**	**318**	*e*P	**P**	**17 14 45.1**	**-0.4**
	comp=Z,11nm,1.2s,mb5.2						
HINF	**Hinteralfeld**	**93.73**	**318**	*e*P	**P**	**17 14 46.0**	**-0.8**
MBDF	**Montbardon**	**93.81**	**314**	*e*P	**P**	**17 14 46.4**	**-0.9**
LPG	**La Plagne**	**93.82**	**315**	*e*P	**P**	**17 14 47.3**	**0.0**
	comp=Z,14nm,1.0s,mb5.1						
LPG	**La Plagne**	**93.82**	**315**	*e*P	**P**	**17 14 47.3**	**0.0**
LPG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
LPG	**La Plagne**	**93.82**	**315**	*e*P	**P**	**17 14 47.3**	**0.0**
	comp=Z,7.0nm,1.0s,mb5.0						
LPL	**La Plagne**	**93.83**	**315**	*e*P	**P**	**17 14 47.4**	**0.0**
	comp=Z,21nm,1.0s,mb5.2						
LPL	**La Plagne**	**93.83**	**315**	*e*P	**P**	**17 14 47.4**	**0.0**
LPL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.2						
LPL	**La Plagne**	**93.83**	**315**	*e*P	**P**	**17 14 47.4**	**0.0**
	comp=Z,10nm,1.0s,mb5.2						
FRF	**La Foret Royal**	**93.91**	**313**	*e*P	**P**	**17 14 47.7**	**-0.1**
	comp=Z,62nm,1.3s,mb5.6						
FRF	**La Foret Royal**	**93.91**	**313**	*e*P	**P**	**17 14 47.7**	**-0.1**
FRF				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.6						
FRF	**La Foret Royal**	**93.91**	**313**	*e*P	**P**	**17 14 47.7**	**-0.1**
	comp=Z,31nm,1.3s,mb5.6						
HAU	**Haudompre**	**94.06**	**318**	*e*P	**P**	**17 14 47.9**	**-0.5**
	comp=Z,58nm,1.4s,mb5.5						
HAU				*e*MLR	MLR		
	comp=Z,649nm,19.2s,MS4.8						
HAU	**Haudompre**	**94.06**	**318**	*e*P	**P**	**17 14 47.9**	**-0.5**
HAU				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.5						
HAU				MLR	MLR		
	comp=Z,650nm,19.3s,MS5.1						
HAU	**Haudompre**	**94.06**	**318**	*e*P	**P**	**17 14 47.9**	**-0.5**
	comp=Z,29nm,1.4s,mb5.5						
HAU				LR	LR		
	comp=Z,650nm,19.3s,MS5.1						
WLF	**Walferdange**	**94.16**	**319**	P	**P**	**17 14 49.6**	**+0.8**
	comp=Z,12nm,1.8s,mb5.0						
WLF	**Walferdange**	**94.16**	**319**	*e*P	**P**	**17 14 49.0**	**+0.2**
	comp=Z,30nm,1.5s,mb5.5						
WLF				*e*pP	pP	17 14 59.4	+0.3
WLF				*e*S	S	17 25 58.9	+1.3
CABF	**La Chapelle**	**94.27**	**316**	*e*P	**P**	**17 14 49.4**	**+0.1**
	comp=Z,18nm,1.1s,mb5.1						
CABF	**La Chapelle**	**94.27**	**316**	*e*P	**P**	**17 14 49.4**	**+0.1**
CABF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
CABF	**La Chapelle**	**94.27**	**316**	*e*P	**P**	**17 14 49.4**	**+0.1**
	comp=Z,8.8nm,1.1s,mb5.1						
ORIF	**Oris-en-Rattie**	**94.45**	**315**	*e*P	**P**	**17 14 50.1**	**-0.1**
	comp=Z,33nm,1.3s,mb5.3						
ORIF				*e*MLR	MLR		
	comp=Z,579nm,21.0s,MS4.7						
ORIF	**Oris-en-Rattie**	**94.45**	**315**	*e*P	**P**	**17 14 50.1**	**-0.1**
ORIF				pmax	pmax		
	comp=Z,17nm,1.3s,mb5.3						
ORIF	**Oris-en-Rattie**	**94.45**	**315**	*e*P	**P**	**17 14 50.1**	**-0.1**
	comp=Z,16nm,1.3s,mb5.3						
BCLA	**Clavier**	**94.69**	**320**	P	**P**	**17 14 51.5**	**+0.3**
	comp=Z,5.5nm,1.2s,mb4.9						
TAM	**Tamanrasset**	**94.86**	**293**	*e*P	**P**	**17 14 52.1**	**-0.5**
TAM				pmax	pmax		
	comp=Z,20nm,2.0s,mb5.2						
TAM	**Tamanrasset**	**94.86**	**293**	*e*P	**P**	**17 14 52.1**	**-0.5**
	comp=Z,20nm,2.0s,mb5.2						
MEZF	**Maizieres J'vi**	**94.92**	**318**	*e*P	**P**	**17 14 52.1**	**-0.2**
GIVF	**Givet**	**95.01**	**320**	*e*P	**P**	**17 14 52.3**	**-0.3**
DOU	**Dourbes**	**95.16**	**320**	P	**P**	**17 14 53.4**	**+0.1**
BAIF	**Baives**	**95.41**	**320**	*e*P	**P**	**17 14 54.4**	**-0.1**
	comp=Z,31nm,1.2s,mb5.3						
BAIF	**Baives**	**95.41**	**320**	*e*P	**P**	**17 14 54.4**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.3						
BAIF	**Baives**	**95.41**	**320**	*e*P	**P**	**17 14 54.4**	**-0.1**
	comp=Z,15nm,1.2s,mb5.3						
LOR	**Lormes**	**95.77**	**317**	*e*P	**P**	**17 14 55.9**	**-0.3**
	comp=Z,24nm,1.2s,mb5.2						
LOR				*e*MLR	MLR		
	comp=Z,782nm,18.5s,MS4.9						
LOR	**Lormes**	**95.77**	**317**	*e*P	**P**	**17 14 55.9**	**-0.3**
LOR				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.2						
LOR				MLR	MLR		
	comp=Z,780nm,18.5s,MS5.2						
LOR	**Lormes**	**95.77**	**317**	*e*P	**P**	**17 14 55.9**	**-0.3**
	comp=Z,12nm,1.2s,mb5.2						
LOR				LR	LR		
	comp=Z,780nm,18.5s,MS5.2						
SMF	**Signal de Mont**	**95.81**	**316**	*e*P	**P**	**17 14 56.0**	**-0.4**
	comp=Z,26nm,1.1s,mb5.3						
SMF	**Signal de Mont**	**95.81**	**316**	*e*P	**P**	**17 14 56.0**	**-0.4**
SMF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.3						
SMF	**Signal de Mont**	**95.81**	**316**	*e*P	**P**	**17 14 56.0**	**-0.4**
	comp=Z,13nm,1.1s,mb5.3						
AVF	**Avril sur Loir**	**96.14**	**317**	*e*P	**P**	**17 14 57.5**	**-0.4**
BGF	**Bois d'Agland**	**96.50**	**316**	*e*P	**P**	**17 14 59.6**	**+0.1**
TORD	**Torodi Ar. Bea**	**98.44**	**283**	LR	LR	17 57 33.4	
	comp=Z,610nm,19.4s,MS5.1,baz=60,slow=34						
IMA2	**Indian Mountai**	**98.81**	**23**	*e*P	**P**	**17 15 09.4**	**-0.1**
MCK	**McKinley**	**101.41**	**25**	*e*P	Pdif	17 15 20.2	-1.1
MCK				pmax	pmax		
	comp=Z,18nm,1.1s						
MCK	**McKinley**	**101.41**	**25**	*e*Pdif	Pdif	17 15 20.2	-1.1
	comp=Z,18nm,1.1s						
RES	**Resolute Bay**	**107.23**	**4**	*e*PKPdf	PKiKP	17 19 51.4	-4.2
PPT	**Papeete**	**108.86**	**109**	*e*LR	LR	17 52 00.5	
	comp=Z,699nm,23.8s						
YKA	**Yellowknife Ar**	**114.77**	**17**	PKP	PKiKP	17 20 08.8	-1.3
	comp=Z,1.3nm,0.9s,baz=317,slow=2.2,SNR=11						
YKA				PKKPbc	PKKPbc	17 30 59.1	+9.1
	comp=Z,0.2nm,0.6s,baz=108,slow=2.3,SNR=3.8						
TAOE	**Nuku Hiva Isla**	**119.21**	**101**	*e*LR	LR	17 56 49.9	
	comp=Z,2µm,23.3s						
RKT	**Rikitea**	**120.96**	**119**	*e*LR	LR	17 57 32.3	
	comp=Z,720nm,25.0s						
A07A	**Ashnola River,**	**122.20**	**30**	⇑P	PKPdf	17 20 24.1	-0.7
	baz=122						
C05A	**Tolt Reservoir**	**122.39**	**32**	⇑P	PKPdf	17 20 24.7	-0.5
	baz=122						
FCC	**Fort Churchill**	**122.71**	**9**	*e*PKIKP	PKPdf	17 20 24.2	-1.3
FCC				*e*		17 20 33.1	
B07A	**Winthrop**	**122.72**	**31**	⇑P	PKPdf	17 20 25.5	-0.4
	baz=123						
A08A	**Turner Farm, O**	**122.82**	**30**	⇑P	PKPdf	17 20 25.9	-0.1
	baz=123						
LON	**Longmire**	**122.91**	**33**	*e*PKIKP	PKPdf	17 20 25.7	-0.6
F04A	**Amboy**	**123.07**	**34**	⇑P	PKPdf	17 20 26.6	0.0
	baz=123						
A09A	**Danville**	**123.14**	**29**	⇓P	PKPdf	17 20 26.8	+0.1
	baz=123						
B08A	**Colville Reser**	**123.18**	**30**	⇓P	PKPdf	17 20 26.7	0.0
	baz=123						
C07A	**Waterville**	**123.25**	**31**	⇓P	PKPdf	17 20 26.3	-0.6
	baz=123						
E06A	**Yakima**	**123.48**	**33**	⇓P	PKPdf	17 20 27.4	0.0
	baz=123						
D07A	**Quincy**	**123.61**	**32**	⇓P	PKPdf	17 20 27.5	-0.1
	baz=124						
A10A	**Northport**	**123.64**	**29**	⇓P	PKPdf	17 20 27.7	+0.1
	baz=124						
C08A	**Higginbotham F**	**123.70**	**31**	⇓P	PKPdf	17 20 27.5	-0.3
	baz=124						
B09A	**Rice**	**123.73**	**30**	⇑P	PKPdf	17 20 27.6	-0.2
	baz=124						
H04A	**Detroit Lake**	**123.94**	**35**	⇓P	PKPdf	17 20 28.2	-0.2
	baz=124						
F06A	**Goldendale**	**124.08**	**33**	⇑P	PKPdf	17 20 28.0	-0.5
	baz=124						
E07A	**Sunnyside**	**124.08**	**32**	⇓P	PKPdf	17 20 28.4	-0.1
	baz=124						
C09A	**Chrisman Ranch**	**124.08**	**30**	⇓P	PKPdf	17 20 28.4	-0.1
	baz=124						
G05A	**Wamic**	**124.10**	**34**	⇓P	PKPdf	17 20 28.1	-0.5
	baz=124						
A11A	**Hall Mountain,**	**124.22**	**28**	⇓P	PKPdf	17 20 28.8	+0.1
	baz=124						

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D08A  Wollman Farm,      124.25  31 ⇓P       PKPdf   17 20 28.9  0.0
      baz=124
F07A  Phinny Hill Vi     124.46  33 ⇓P       PKPdf   17 20 29.3  0.0
      baz=124
G06A  Carlson Farm,      124.48  34 ⇓P       PKPdf   17 20 28.8 -0.5
      baz=124
E08A  Dider Farm, El     124.54  32 ⇓P       PKPdf   17 20 28.9 -0.5
      baz=124
D09A  Jones Farm, Ri     124.56  31 ⇓P       PKPdf   17 20 29.3 -0.1
      baz=124
A12A  Yaak River Ran     124.57  28 ⇑P       PKPdf   17 20 29.5 +0.1
      baz=124
B11A  Sandpoint          124.58  29 ⇓P       PKPdf   17 20 29.3 -0.2
      baz=124
FFC   Flin Flon          124.86  15 i PKIKP  PKPdf   17 20 29.9 +0.1
FFC   Flin Flon          124.86  15 ePKPdf   PKPdf   17 20 28.6 -1.2
H06A  Lindquist Farm     124.96  34 ⇑P       PKPdf   17 20 30.5 +0.2
      baz=125
G07A  Ruggs Ranch, H     125.00  33 ⇑P       PKPdf   17 20 30.2 -0.2
      baz=125
E09A  Wood Farm, Sta     125.00  31 ⇑P       PKPdf   17 20 30.1 -0.2
      baz=125
D10A  Wagner Farm, O     125.09  30 ⇓P       PKPdf   17 20 30.2 -0.2
      baz=125
F08A  Pendleton          125.14  32 ⇓P       PKPdf   17 20 30.3 -0.3
      baz=125
G08A  Pilot Rock         125.37  33 ⇑P       PKPdf   17 20 30.8 -0.3
      baz=125
B13A  Whitefish          125.52  27 ⇑P       PKPdf   17 20 31.0 -0.2
      baz=125
A14A  Double T Ranch     125.55  26 ⇓P       PKPdf   17 20 31.0 -0.3
      baz=126
E10A  Myers Farm, Un     125.56  31 ⇓P       PKPdf   17 20 31.1 -0.3
      baz=126
D11A  Klaveano Farm,     125.56  30 ⇑P       PKPdf   17 20 31.2 -0.1
      baz=126
I07A  Izee               125.83  34 ⇓P       PKPdf   17 20 32.9 +0.9
      baz=126
F10A  Beach Ranch, E     125.84  31 ⇓P       PKPdf   17 20 31.8 -0.2
      baz=126
A15A  Johnson Ranch,     125.85  26 ⇓P       PKPdf   17 20 31.7 -0.2
      baz=126
K05A  Summer Lake        125.86  36 ⇓P       PKPdf   17 20 31.8 -0.3
      baz=126
C13A  Hot Springs        125.97  28 ⇑P       PKPdf   17 20 32.0 -0.1
      baz=126
J06A  Christmas Vall     125.98  35 ⇓P       PKPdf   17 20 32.8 +0.5
      baz=126
H08A  Prairie City       126.02  33 ⇑P       PKPdf   17 20 32.6 +0.3
      baz=126
E11A  Bogner Ranch,      126.10  30 ⇓P       PKPdf   17 20 32.5 +0.1
      baz=126
G10A  Bishop Farm, J     126.35  32 ⇓P       PKPdf   17 20 32.6 -0.3
      baz=126
A16A  West Butte Ran     126.36  25 ⇑P       PKPdf   17 20 32.9 +0.1
      baz=126
B15A  Bradely Ranch,     126.42  26 ⇑P       PKPdf   17 20 32.9 -0.1
      baz=126
D13A  Huson              126.44  29 ⇓P       PKPdf   17 20 32.5 -0.5
      baz=126
F11A  Grangeville        126.45  31 ⇓P       PKPdf   17 20 32.8 -0.3
      baz=126
I08A  Drewsey            126.47  34 ⇑P       PKPdf   17 20 33.5 +0.3
      baz=126
H09A  Durkee             126.47  33 ⇓P       PKPdf   17 20 33.2  0.0
      baz=126
SCHQ  Schefferville      126.57 350  PKP     PKPdf   17 20 33.0  0.0
      comp=Z,6.3nm,0.9s,baz=53,slow=1.4,SNR=5.6
MOD   Modoc              126.70  37 ePKPdf   PKPdf   17 20 33.9 +0.2
MOD                                 e                17 20 43.7
B16A  M & M Farms, S     126.72  26 ⇓P       PKPdf   17 20 33.4 -0.1
      baz=127
A17A  Triple J Farms     126.75  25  P       PKPdf   17 20 34.4 +0.9
      baz=127,SNR=10
C15A  Salmond Ranch,     126.81  27 ⇓P       PKPdf   17 20 33.7  0.0
      baz=127,SNR=8.7
K07A  Rock Creek Ran     126.84  35 ⇓P       PKPdf   17 20 34.7 +0.7
      baz=127
J08A  Circle Bar Ran     126.87  34 ⇑P       PKPdf   17 20 35.0 +1.0
      baz=127
F12A  Elk City           127.00  30 ⇓P       PKPdf   17 20 33.8 -0.3
      baz=127
H10A  Noah's Angus R     127.02  32 ⇑P       PKPdf   17 20 33.8 -0.5
      baz=127
E13A  Victor             127.04  29 ⇑P       PKPdf   17 20 33.7 -0.5
      baz=127
A18A  Metzger Ranch,     127.12  24 ⇓P       PKPdf   17 20 34.1 -0.2
      baz=127
CHMT  Chamberlain Mo     127.14  28 ePKPdf   PKPdf   17 20 34.0 -0.4
C16A  Fuhringer Ranc     127.17  26 ⇑P       PKPdf   17 20 33.8 -0.6
      baz=127
L07A  Adell              127.20  36 ⇑P       PKPdf   17 20 34.8 +0.2
      baz=127
B17A  L&G Farms, Che     127.21  25 ⇓P       PKPdf   17 20 34.4 -0.1
      baz=127
K08A  Mann Creek Ran     127.26  35 ⇑P       PKPdf   17 20 34.8 +0.1
      baz=127
J09A  Fry Pan Ranch,     127.28  34 ⇑P       PKPdf   17 20 35.9 +1.1
      baz=127
H11A  Donnelly           127.33  32 ⇑P       PKPdf   17 20 34.7 -0.1
      baz=127
WVOR  Wild Horse Val     127.36  35 ePKIKP   PKPdf   17 20 35.3 +0.4
WVOR                                e                17 20 44.5
D15A  Lincoln            127.39  27 ⇑P       PKPdf   17 20 34.6 -0.2
      baz=127,SNR=5.2
F13A  Darby              127.43  30 ⇓P       PKPdf   17 20 35.0 +0.1
      baz=127
B18A  Beardsley Farm     127.56  25 ⇓P       PKPdf   17 20 35.1  0.0
      baz=128
N06A  Buffalo Meadow     127.67  38 ⇓P       PKPdf   17 20 35.5 -0.1
      baz=128,SNR=7.7
L08A  Fields             127.68  35 ⇑P       PKPdf   17 20 36.6 +1.1
      baz=128
M07A  Soldier Meadow     127.69  37 ⇓P       PKPdf   17 20 36.4 +0.8
      baz=128
K09A  Rome               127.71  35 ⇓P       PKPdf   17 20 36.6 +1.0
      baz=128
C17A  Wharram Farm,      127.73  26 ⇓P       PKPdf   17 20 35.7 +0.2
      baz=128
D16A  Dana Ranch, Ca     127.84  27  P       PKPdf   17 20 36.7 +1.0
      baz=128,SNR=9.8
EGMT  Eagleton           127.86  25  P       PKPdf   17 20 36.8 +1.1
      baz=128,SNR=6.4
BEKR  Beckwourth         127.86  39 ⇓P       PKPdf   17 20 36.2 +0.2
      baz=128
F14A  Wisdom             127.89  29 ⇑P       PKPdf   17 20 36.6 +0.8
      baz=128
G13A  Cobalt             127.97  30 ⇑P       PKPdf   17 20 36.4 +0.4
      baz=128
O06A  Flanigan           128.02  38 ⇑P       PKPdf   17 20 36.4 +0.1
      baz=128
M08A  Happy Creek Ra     128.12  36 ⇑P       PKPdf   17 20 37.1 +0.7
      baz=128,SNR=5.2
D17A  Six Diamond Ra     128.13  26 ⇓P       PKPdf   17 20 36.2  0.0
      baz=128
K10A  MacKenzie Ranc     128.14  34 ⇑P       PKPdf   17 20 36.8 +0.3
      baz=128
E16A  East Helena        128.16  27 ⇓P       PKPdf   17 20 36.5 +0.2
      baz=128
N07B  Gerlach            128.18  37 ⇓P       PKPdf   17 20 37.4 +0.8
      baz=128,SNR=6.0
G14A  Jackson            128.25  30 ⇑P       PKPdf   17 20 37.1 +0.6
      baz=128,SNR=5.5
F15A  Butte              128.29  28 ⇑P       PKPdf   17 20 36.6  0.0
      baz=128
MFID  Camas Ranch        128.29  33 ⇓P       PKPdf   17 20 37.3 +0.6
      baz=128,SNR=6.8
H13A  Challis            128.33  31 ⇓P       PKPdf   17 20 37.3 +0.5
      baz=128,SNR=9.5
D18A  Linhart Farms,     128.48  26 ⇑P       PKPdf   17 20 37.4 +0.5
      baz=128
E17A  Martinsdale        128.58  27 ⇓P       PKPdf   17 20 37.2 +0.1
      baz=128
DLMT  Dillon             128.59  29 ePKPdf   PKPdf   17 20 37.6 +0.4
O07A  Toulon             128.60  38 ⇑P       PKPdf   17 20 37.3 -0.1
      baz=128
K11A  Parker Ranch,      128.61  33 ⇑P       PKPdf   17 20 37.4 +0.1
      baz=128
N08A  GE Springer Mi     128.68  37 ⇑P       PKPdf   17 20 37.3 -0.2
      baz=129
F16A  Kennard Place,     128.74  28 ⇑P       PKPdf   17 20 37.6 +0.2
      baz=129
G15A  Dillon             128.78  29  P       PKPdf   17 20 39.2 +1.6
      baz=129,SNR=6.3
J12A  Stokes Ranch,      128.80  32  P       PKPdf   17 20 38.9 +1.2
      baz=129,SNR=8.1
L10A  Juniper Basin      128.82  34  P       PKPdf   17 20 39.4 +1.6
      baz=129,SNR=8.7
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BOZ   Bozeman (W)        128.84  28 ⇓P       PKPdf   17 20 38.2 +0.5
      baz=129
I13A  Wildhorse Cree     128.86  31  P       PKPdf   17 20 39.5 +1.7
      baz=129,SNR=7.4
E18A  Harlowton          128.92  26 ⇑P       PKPdf   17 20 38.6 +0.8
      baz=129
HLID  Hailey             128.95  32  P       PKPdf   17 20 39.2 +1.3
      baz=129,SNR=6.2
G16A  Moss Hill, Enn     129.06  29  P       PKPdf   17 20 39.6 +1.5
      baz=129,SNR=6.0
F17A  Fitzpatrick Pl     129.09  27 ⇑P       PKPdf   17 20 38.5 +0.4
      baz=129
H15A  Lima               129.10  30 ⇑P       PKPdf   17 20 38.9 +0.7
      baz=129
M10A  I.L. Ranch, Tu     129.14  35 ⇑P       PKPdf   17 20 38.6 +0.3
      baz=129
L11A  Cat Creek Ranc     129.17  34  P       PKPdf   17 20 39.7 +1.3
      baz=129,SNR=7.5
J13A  Cove Ranch, Pi     129.19  32  P       PKPdf   17 20 40.3 +1.9
      baz=129,SNR=10
R06C  Coleville          129.21  40 ⇑P       PKPdf   17 20 39.1 +0.5
      baz=129
K12A  Draper Farm, C     129.32  33 ⇑P       PKPdf   17 20 39.3 +0.7
      baz=129
F18A  Big Timber         129.52  26 ⇑P       PKPdf   17 20 39.7 +0.8
      baz=129
O09A  Fish Creek Ran     129.62  37 ⇓P       PKPdf   17 20 40.0 +0.7
      baz=130
M11A  Holland Ranch,     129.63  35 ⇑P       PKPdf   17 20 40.2 +0.9
      baz=130
H16A  Russell Place,     129.72  29 ⇓P       PKPdf   17 20 40.7 +1.4
      baz=130
NVAR  Mina Array Bea     129.99  39  PKP     PKPdf   17 20 40.9 +0.8
      comp=Z,1.2nm,0.7s,baz=274,slow=2.6,SNR=5.1
NVAR                                 PP      PP      17 22 49.8 -2.0
      comp=Z,0.6nm,0.8s,baz=256,slow=5.5,SNR=4.8
J15A  Blackfoot          130.09  31 ⇑P       PKPdf   17 20 41.1 +1.0
      baz=130
I16A  Newdale            130.22  29 ⇑P       PKPdf   17 20 41.0 +0.7
      baz=130
LKWY  Lake               130.22  28 ePKIKP   PKPdf   17 20 42.5 +2.2
H17A  Grant Village      130.27  28 ⇑P       PKPdf   17 20 41.5 +1.1
      baz=130
K14A  Jones Ranch, D     130.31  32 ⇓P       PKPdf   17 20 41.6 +1.0
      baz=130
RLMT  Red Lodge          130.32  27 ⇓P       PKPdf   17 20 41.4 +0.8
      baz=130
LAO   LASA Array         130.37  23 ePKPdf   PKPdf   17 20 41.4 +0.9
LAO                                 e                17 20 51.2
P10A  Eureka             130.40  37 ⇑P       PKPdf   17 20 41.8 +0.9
      baz=130
N12A  Clover Valley,     130.44  35 ⇑P       PKPdf   17 20 41.8 +1.0
      baz=130
Q09A  Carvers            130.45  38 ⇓P       PKPdf   17 20 41.4 +0.4
      baz=130
ULM   Lac du Bonnet      130.46  13  PKP     PKPdf   17 20 39.8 -0.8
      comp=Z,6.9nm,0.8s,baz=351,slow=4.1,SNR=8.6
K15A  Arbon              130.55  31 ⇓P       PKPdf   17 20 42.3 +1.3
      baz=130
O11A  Cowboy Ranch,      130.55  36 ⇑P       PKPdf   17 20 41.9 +0.8
      baz=130
J16A  Bone               130.59  30 ⇑P       PKPdf   17 20 41.9 +0.8
      baz=130
L14A  Malta              130.63  32 ⇓P       PKPdf   17 20 42.2 +1.0
      baz=130
REDW  Red Top Meadow     130.90  29 ePKPdf   PKPdf   17 20 41.5 -0.1
REDW                                e                17 20 52.9
REDW                                ePP      PP      17 23 01.2 +3.9
K16A  Soda Springs       130.92  30 ⇓P       PKPdf   17 20 42.7 +1.0
      baz=131
Q10A  Clear Creek Ra     130.94  38 ⇑P       PKPdf   17 20 42.8 +0.9
      baz=131
M14A  Sheep Mountain     130.94  33 ⇓P       PKPdf   17 20 43.1 +1.4
      baz=131
O12A  Currie             130.99  35 ⇓P       PKPdf   17 20 42.7 +0.8
      baz=131
S09A  Goldfield          131.10  39 ⇑P       PKPdf   17 20 43.2 +1.0
      baz=131
L15A  Malad City         131.10  32 ⇑P       PKPdf   17 20 42.9 +0.9
      baz=131
I18A  Diamond G Ranc     131.15  28 ⇓P       PKPdf   17 20 42.8 +0.7
      baz=131
S10A  Tonopah Range,     131.37  39 ⇓P       PKPdf   17 20 44.5 +1.8
      baz=131
Q11A  Duckwater          131.38  37 ⇓P       PKPdf   17 20 44.7 +2.0
      baz=131
P12A  McGill             131.42  36 ⇑P       PKPdf   17 20 43.8 +1.1
      baz=131
J18A  Kendall Valley     131.42  29 ⇑P       PKPdf   17 20 43.8 +1.1
      baz=131
M15A  Larsen Ranch,      131.45  32 ⇓P       PKPdf   17 20 43.7 +1.0
      baz=131
N14A  Grayback Hills     131.48  33 ⇓P       PKPdf   17 20 44.0 +1.2
      baz=131
ISA   Isabella           131.48  42 ⇑P       PKPdf   17 20 43.9 +0.9
      baz=131
O13A  Hicks Ranch, I     131.52  35 ⇑P       PKPdf   17 20 43.7 +0.8
      baz=131
R11A  Troy Canyon, C     131.73  38 ⇑P       PKPdf   17 20 45.1 +1.7
      baz=132
Q12A  Willow Creek R     131.75  36 ⇓P       PKPdf   17 20 44.0 +0.6
      baz=132
N15A  Stansbury Isla     131.81  33 ⇑P       PKPdf   17 20 43.9 +0.4
      baz=132
K18A  Toltan Ranch,      131.84  30 ⇓P       PKPdf   17 20 43.8 +0.4
      baz=132
MPMC  Manual Prospec     131.91  41 ⇓P       PKPdf   17 20 44.8 +1.0
      baz=132
BW06  Boulder Array      131.98  29 ⇓P       PKPdf   17 20 44.0 +0.2
      baz=132
PDAR  Pinedale Array     131.98  29  PKhKP           17 20 38.9
      comp=Z,3.0nm,1.2s,baz=48,slow=2.2,SNR=4.7
PDAR                                 PP      PP      17 23 04.0 -0.2
      comp=Z,2.4nm,1.2s,baz=330,slow=5.1,SNR=5.2
DUG   Dugway             132.13  34 ⇓P       PKPdf   17 20 44.9 +0.8
      baz=132
DUG   Dugway             132.13  34 ePKPdf   PKPdf   17 20 44.8 +0.7
EDW2  Edwards Air Fo     132.25  43 ⇓P       PKPdf   17 20 45.1 +0.6
      baz=132
O15A  The Old Anders     132.27  34 ⇑P       PKPdf   17 20 44.9 +0.5
      baz=132
Q13A  Wheeler Ranch,     132.28  36 ⇓P       PKPdf   17 20 45.4 +1.0
      baz=132
K19A  Absolon Red Bu     132.28  28 ⇑P       PKPdf   17 20 44.9 +0.6
      baz=132
L18A  Fontenelle, Gr     132.37  30 ⇑P       PKPdf   17 20 44.9 +0.5
      baz=132
M17A  Scullys Gap (B     132.38  31 ⇓P       PKPdf   17 20 45.0 +0.4
      baz=132
P14A  Drum Mountains     132.40  35 ⇓P       PKPdf   17 20 45.6 +1.0
      baz=132
L19A  Farson             132.58  30 ⇓P       PKPdf   17 20 45.8 +1.0
      baz=132
S12A  Delamar Landin     132.65  38 ⇓P       PKPdf   17 20 46.1 +0.9
      baz=132
T11A  Corn Creek, Al     132.65  39 ⇓P       PKPdf   17 20 47.0 +1.8
      baz=132
FMP   Fort Macarthur     132.68  44 ⇓P       PKPdf   17 20 45.8 +0.5
      baz=133
Q14A  Sevier Lake (B     132.69  35 ⇓P       PKPdf   17 20 46.0 +0.9
      baz=133
GSC   Goldstone          132.80  42 ⇓P       PKPdf   17 20 46.3 +0.8
      baz=133
GSC   Goldstone          132.80  42 ePKPdf   PKPdf   17 20 45.8 +0.3
R13A  O'Grain Ranch,     132.82  37 ⇓P       PKPdf   17 20 46.5 +1.1
      baz=133
BFSC  Mount Baldy St     132.83  43 ⇑P       PKPdf   17 20 46.1 +0.5
      baz=133
Q15A  Fillmore           133.20  35 ⇓P       PKPdf   17 20 46.7 +0.6
      baz=133
O17A  Robinson Place     133.27  32 ⇑P       PKPdf   17 20 47.7 +1.5
      baz=133
S13A  Holt Ranch, En     133.27  37 ⇓P       PKPdf   17 20 47.3 +0.9
      baz=133
TUQ   Turquoise Moun     133.31  41 ⇑P       PKPdf   17 20 47.6 +1.1
      baz=133
RSSD  Black Hills        133.36  24 ePKIKP   PKPdf   17 20 43.5 -2.8
RSSD                                e                17 20 54.5
HEC   Hector,Ludlow      133.39  42 ⇑P       PKPdf   17 20 47.4 +0.7
      baz=133
U12A  Valley of Fire     133.59  39 ⇓P       PKPdf   17 20 47.5 +0.5
      baz=134
L21A  Rawlins            133.64  28 ⇓P       PKPdf   17 20 47.3 +0.4
      baz=134
P17A  Butcher Ranch,     133.78  33 ⇓P       PKPdf   17 20 47.8 +0.6
      baz=134
R15A  Junction           133.79  35 ⇑P       PKPdf   17 20 47.7 +0.4
      baz=134
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V12A  Nelson             133.82  40 ⇓P       PKPdf   17 20 47.8 +0.4
      baz=134
GMRC  Granite Mounta     133.87  42 ⇑P       PKPdf   17 20 47.9 +0.3
      baz=134
M21A  Separation Pea     133.92  28 ⇓P       PKPdf   17 20 47.6 +0.2
      baz=134
Q16A  Castle Valley      133.93  34 ⇑P       PKPdf   17 20 47.7 +0.2
      baz=134
P18A  Preston Nutter     133.94  32 ⇑P       PKPdf   17 20 48.1 +0.6
      baz=134
U13A  Pakoon Wash        133.95  39 ⇑P       PKPdf   17 20 48.2 +0.5
      baz=134
PFO   Pinyon Flat Ob     134.01  43 ePKIKP   PKPdf   17 20 46.3 -1.5
V13A  Grand Canyon W     134.30  39 ⇑P       PKPdf   17 20 47.9 -0.4
      baz=134
Q18A  Rafter H Ranch     134.37  33 ⇓P       PKPdf   17 20 48.3  0.0
      baz=134
U14A  Mt Trumbull        134.44  38 ⇓P       PKPdf   17 20 48.7 +0.1
      baz=134
M22A  Cedar Creek Ra     134.44  28 ⇑P       PKPdf   17 20 48.6 +0.2
      baz=134
MONP  Monument Peak      134.44  44 ⇑P       PKPdf   17 20 48.7  0.0
      baz=134
N21A  Black Mountain     134.50  29 ⇓P       PKPdf   17 20 48.7 +0.1
      baz=134
R17A  Hanksville Air     134.54  34 ⇑P       PKPdf   17 20 48.9 +0.2
      baz=134
P19A  Cripple Cowboy     134.60  31 ⇑P       PKPdf   17 20 49.0 +0.2
      baz=134
O20A  White River Ci     134.61  30 ⇑P       PKPdf   17 20 49.0 +0.2
      baz=134
SWSC  Sam W. Stewart     134.85  44 ⇓P       PKPdf   17 20 49.4  0.0
      baz=135
Q19A  Hogan Spring (     134.95  32 ⇓P       PKPdf   17 20 49.6 +0.2
      baz=135
V14A  Boquillas Ranc     134.99  39 ⇓P       PKPdf   17 20 49.6  0.0
      baz=135
R18A  Canyonlands Na     135.02  33 ⇑P       PKPdf   17 20 49.6 +0.1
      baz=135
S17A  Black Ridge (B     135.03  35 ⇓P       PKPdf   17 20 49.7  0.0
      baz=135
X13A  Yucca              135.18  40 ⇓P       PKPdf   17 20 50.2 +0.2
      baz=135
W14A  Seligman           135.27  39 ⇓P       PKPdf   17 20 50.1  0.0
      baz=135
V15A  Kaibab Nationa     135.45  38 ⇑P       PKPdf   17 20 50.4  0.0
      baz=135
S18A  Hurst Farm, Bl     135.45  34 ⇑P       PKPdf   17 20 50.1 -0.3
      baz=135
T17A  Navajo Res., N     135.47  36 ⇑P       PKPdf   17 20 51.3 +0.9
      baz=135
Y13A  Salome             135.66  41 ⇓P       PKPdf   17 20 52.2 +1.3
      baz=136
W15A  Williams           135.81  39 ⇑P       PKPdf   17 20 52.7 +1.6
      baz=136
U17A  Shonto             135.83  36 ⇓P       PKPdf   17 20 51.9 +0.7
      baz=136
U16A  Tuba City          135.86  37 ⇑P       PKPdf   17 20 52.3 +1.1
      baz=136
X14A  Yava               135.86  40 ⇑P       PKPdf   17 20 51.2 -0.1
      baz=136
S19A  Harvey Farm, M     135.89  33 ⇓P       PKPdf   17 20 51.6 +0.4
      baz=136
T18A  Mexican Hat        135.91  35 ⇑P       PKPdf   17 20 51.9 +0.6
      baz=136
R20A  Redvale            135.98  32 ⇑P       PKPdf   17 20 51.7 +0.3
      baz=136
WUAZ  Wupatki            136.13  38 ⇑P       PKPdf   17 20 52.2 +0.4
      baz=136
X15A  Humboldt           136.27  39 ⇓P       PKPdf   17 20 52.4 +0.4
      baz=136
ECSD  EROS Data Cent     136.29  17 ePKPdf   PKPdf   17 20 48.0 -3.7
ECSD                                ePP      PP      17 23 23.7 -7.5
113A  Mohawk Valley,     136.33  42 ⇑P       PKPdf   17 20 52.6 +0.4
      baz=136
U18A  Rough Rock, Ch     136.41  35 ⇓P       PKPdf   17 20 52.5 +0.2
      baz=136
Y15A  Casa Rosa Ranc     136.55  40 ⇓P       PKPdf   17 20 52.7 +0.1
      baz=136
T19A  Beclabito          136.61  34 ⇓P       PKPdf   17 20 52.9 +0.4
      baz=136
MVCO  Mesa Verde         136.63  33 ⇑P       PKPdf   17 20 53.1 +0.5
      baz=136
R22A  Saguache, Gunn     136.80  31 ⇓P       PKPdf   17 20 53.4 +0.5
      baz=137
X16A  Lo Mia Camp, P     136.81  39 ⇓P       PKPdf   17 20 53.8 +0.8
      baz=137
114A  Black Gap (USA     136.94  42 ⇑P       PKPdf   17 20 53.9 +0.6
      baz=137
Y16A  Circle Bar Ran     137.14  39 ⇑P       PKPdf   17 20 54.8 +1.1
      baz=137
X17A  Forest Lakes       137.26  38 ⇑P       PKPdf   17 20 54.8 +0.9
      baz=137
V19A  Window Rock        137.38  35 ⇓P       PKPdf   17 20 55.0 +0.9
      baz=137
W18A  Petrified Fore     137.39  37 ⇑P       PKPdf   17 20 55.1 +1.0
      baz=137
214A  Organ Pipe Nat     137.47  43 ⇓P       PKPdf   17 20 55.0 +0.7
      baz=137
W19A  Sanders            137.60  36 ⇑P       PKPdf   17 20 55.5 +1.0
      baz=138
LONY  Lake Ozonia        137.63 354 ePKPdf   PKPdf   17 20 53.9 -0.4
T22A  Edith              137.64  32 ⇑P       PKPdf   17 20 56.2 +1.7
      baz=138
X18A  Snowflake          137.66  37 ⇑P       PKPdf   17 20 56.1 +1.5
      baz=138
Y17A  Roosevelt          137.66  39 ⇑P       PKPdf   17 20 56.2 +1.6
      baz=138
116A  Eloy               137.83  41 ⇓P       PKPdf   17 20 55.9 +1.0
      baz=138
117A  Oracle             138.45  40 ⇑P       PKPdf   17 20 57.1 +0.9
      baz=138
Y19A  Nutrioso           138.47  38 ⇑P       PKPdf   17 20 57.0 +0.9
      baz=138
TUC   Tucson             138.59  41 ePKIKP   PKPdf   17 20 52.9 -3.5
W21A  San Fidel          138.61  35 ⇓P       PKPdf   17 20 57.0 +0.6
      baz=138
ANMO  Albuquerque        139.40  34⇑iPKIKP   PKPdf   17 20 59.3 +1.5
ANMO                                 pmax    pmax
      comp=Z,15nm,2.5s
BNM   Barren Site        139.89  35 ePKPdf   PKPdf   17 20 59.9 +1.2
WMOK  Wichita Mounta     143.43  26 ePKIKP   PKPdf   17 21 01.1 -3.9
WCI   Wyandotte Cave     143.87   8 ePKIKP   PKPdf   17 21 02.3 -3.4
CPUP  Villa Florida      143.92 216  PKP     PKPdf   17 21 03.9 -2.3
      comp=Z,3.5nm,0.8s,baz=105,slow=2.9,SNR=5.1
CFAA  Coronel Fontan     144.36 198  PKP     PKPdf   17 21 05.3 -1.5
      comp=Z,0.3nm,0.6s,baz=216,slow=2.9,SNR=4.2
PARMO Parma              144.74  13 ePKPdf   PKPdf   17 21 05.6 -1.7
TXAR  Lajitas Array      145.10  37  PKPbc   PKPbc   17 21 07.8 +0.2
      comp=Z,123nm,1.0s,baz=255,slow=1.2,SNR=248
ELN   Prospectdale       145.30   1 ePKPdf   PKPdf   17 21 06.6 -1.6
BLA   Blacksburg         145.32   0 ePKIKP   PKPdf   17 21 06.3 -1.9
GNAR  Gosnell            145.34  14 ePKPdf   PKPdf   17 21 07.8 -0.5
HALT  Halls              145.56  13 ePKPdf   PKPdf   17 21 08.1 -0.6
HALT                                e                17 21 16.9
HBAR  Harrisburg         145.57  15 ePKPdf   PKPdf   17 21 08.4 -0.3
MIAR  Mount Ida          145.63  20 ePKP2    PKPab   17 21 08.2 -1.1
UALR  University of      145.82  18 ePKPdf   PKPdf   17 21 10.8 +1.6
UALR                                e                17 21 20.9
TZTN  Tazewell           145.84   5 ePKPdf   PKPdf   17 21 08.3 -0.8
JCT   Junction City      146.43  32 ePKPdf   PKPdf   17 21 10.8 +0.5
JCT                                 e                17 21 20.9
TKL   Tuckaleechee C     146.70   5 ePKP2    PKPab   17 21 10.8 -2.6
PLAL  Pickwick Lake      146.72  12 ePKPdf   PKPdf   17 21 10.2 -0.5
CPCT  Cooper Cave        146.83   6 ePKPdf   PKPdf   17 21 11.3 +0.5
OXF   Oxford             146.88  14 ePKPbc   PKPbc   17 21 11.4 -1.4
OXF                                 e                17 21 21.4
SWET  Sewanee            146.88   9 ePKPdf   PKPdf   17 21 10.9 -0.1
JSC   Jenkinsville       148.23   2 ePKP2    PKPbc   17 21 15.3 -1.2
VBMS  Vicksburg          148.75  17 ePKPbc   PKPbc   17 21 18.2 +0.3
HKT   Hockley            148.80  27 ePKP2    PKPbc   17 21 18.7 +0.6
GOGA  Godfrey            148.96   5 ePKP2    PKPbc   17 21 16.3 -2.1
LVC   Limon Verde        152.85 203  PKPbc   PKPbc   17 21 29.0 +1.1
      comp=Z,4.7nm,0.8s,baz=177,slow=2.1,SNR=3.3
LVC                                  PKPab   PKPab   17 21 41.0 +2.2
      comp=Z,17nm,1.0s,baz=0.9,slow=0.3,SNR=6.4
LVC   Limon Verde        152.85 203 ePKPbc   PKPbc   17 21 26.7 -1.2
SIV   San Ignacio        153.74 225  PKP     PKPdf   17 21 21.4 -0.7
      comp=Z,1.4nm,1.1s,baz=333,slow=23,SNR=3.1
SIV                                  PKPbc   PKPbc   17 21 29.3 -0.7
      comp=Z,2.0nm,0.9s,baz=144,slow=8.2,SNR=4.4
SIV                                  PKPab   PKPab   17 21 41.7 -1.1
      comp=Z,6.5nm,0.9s,baz=134,slow=3.6,SNR=9.6
OTAV  Otavalo            177.27 219 ePKPdf   PKPdf   17 21 41.8 +0.3
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IDC ***19*** *17:26:31.7±0.8, 2.°44S×99.°76E, h0^{km}, mb4.5/20, mb1 4.6/21, mb1mx4.4/29, mbtmp4.5/21, ML3.5/1, MS3.9/1, Ms1 3.9/1, ms1mx2.7/26, Error ellipse: s-maj=31.1km s-min=11.6km az=54.0*

BJI ***19*** *17:26:34.0, 2.°31S×100.°12E, h22^{km}, mB5.4/4, mb4.7/16, Ms4.8/2, Ms7 4.8/2*

MOS ***19*** *17:26:34.9±0.9, 2.°35S×99.°86E, h33^{km}, mb5.1/17, Error ellipse: s-maj=14.2km s-min=7.0km az=100.4*

NEIC ***19*** *17:26:36.0±3.2, 2.°40S×99.°87E, h26^{km}±21^{km}, mb4.9/24, Error ellipse: s-maj=14.9km s-min=5.7km az=51.0*

ISCJB ***19*** *17:26:36.5±0.8, 2.°41S±0.°05×99.°77E±0.°05, h47^{km}±6^{km}, mb4.7/54, MS4.3/2, Error ellipse: s-maj=10.3km s-min=6.0km az=139.3*

DJA ***19*** *17:26:38, 2.°42S×99.°89E, h10^{km}, mb4.7/14*

ISC 19 17:26:38.3±0.8**, 2.°44S**±0.°05×**99.°80E**±0.°05**, h45**^{km}±5^{km}**, h34**^{km}±6.0^{km}**:pP-P, n136,** σ**1.^{s}06**/129**, mb4.7**/54**, MS4.3**/2**, 10C-1D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.39	147	P	Pn	17 26 45.7	-2.3
SISI	Saibi	1.31	327	P	Pn	17 27 02.8	+2.6
PDSI	Padang	1.65	24	P	Pn	17 27 03.0	-1.9
PDSI	Padang	1.65	24	P	Pn	17 27 03.3	-1.6
PPI	Padang Panjang	2.06	17	P	Pn	17 27 09.1	-1.3
PPI	Padang Panjang	2.06	17	P	Pn	17 27 09.7	-0.7
KSI	Kapahiang	3.04	113	P	Pn	17 27 25.9	+1.9
KSI	Kapahiang	3.04	113	P	Pn	17 27 24.1	+0.1
RGRI	Rengat	3.27	51	P	Pn	17 27 27.3	+0.1
RGRI	Rengat	3.27	51	P	Pn	17 27 27.2	0.0
GSI	Gunungsitoli	4.33	329	P	Pn	17 27 41.0	-0.6
GSI	Gunungsitoli	4.33	329	P	Pn	17 27 39.2	-2.4
MDSI	Maura Dua	4.82	115	P	Pn	17 27 47.0	-1.4
PSI	Prapat	5.27	350	Pn	Pn	17 27 49.8	-4.9
	1.5nm,0.3s,baz=168,slow=13,SNR=9.9						
PSI				LR	LR	17 30 12.7	
	comp=Z,1µm,21.0s,baz=313,slow=43						
KLI	Kotabumi	5.59	116	P	Px	17 27 42.1	
	188nm,0.8s						
KASI	Kota Agung	5.60	123	P	Pn	17 27 54.8	-4.3
	118nm,0.7s,1.0nm						
KGM	Kluang	5.65	39	P	Pn	17 28 00.8	+1.0
MYKOM	Kota Tinggi	5.83	44	P	Pn	17 28 03.1	+0.7
MYKOM	Kota Tinggi	5.83	44	P	Pn	17 28 02.9	+0.6
	120nm,1.0s,0.6nm						
MYKOM	Kota Tinggi	5.83	44	P	Pn	17 28 02.3	0.0
	101nm,1.2s,0.6nm						
FRIM	Kepong	5.92	18	P	Pn	17 28 03.7	+0.2
IPM	Ipoh	6.98	10	P	Pn	17 28 18.5	+0.4
IPM	Ipoh	6.98	10	P	Pn	17 28 20.0	+2.0
	29nm,1.3s,0.1nm						
IPM	Ipoh	6.98	10	P	Pn	17 28 18.5	+0.5
KULM	Kulim	7.72	6	P	Pn	17 28 27.6	-0.6
KULM	Kulim	7.72	6	*e*Pn	Pn	17 28 26.9	-1.4
	33nm,1.0s						
KULM	Kulim	7.72	6	P	Px	17 28 42.5	
	0.1nm46nm,1.3s						
KTGM	Kuala Trenggan	8.40	23	P	Pn	17 28 38.6	+1.1
BTM	Bintulu	14.41	67	P	Pn	17 30 02.4	+2.7
SDKM	Sandakan	19.14	65	P	Pn	17 30 58.8	-0.3
TSM	Tawau	19.26	70	P	Pn	17 30 59.8	-0.8
KDM	Kudat	19.38	61	P	Pn	17 31 01.3	-0.7
PCI	Palu	20.09	86	P	P	17 31 09.0	+0.7
	61nm,1.1s						
MYLDM	Lahad Datu	20.16	68	P	P	17 31 10.5	+1.5
MYLDM	Lahad Datu	20.16	68	P	P	17 31 10.9	+1.8
	47nm,1.1s						
BNSI	Bone	20.37	96	P	P	17 31 12.7	+1.4
	47nm,1.5s						
CMAR	Chiang Mai Arr	20.78	358	P	P	17 31 14.5	-1.2
	9.1nm,0.9s,baz=186,slow=9.6,SNR=8.2						
CMAR				PcP	PcP	17 35 24.9	+1.1
	0.6nm,0.4s,baz=193,slow=2.8,SNR=4.6						
CHTO	Chiang Mai	21.13	358	*e*P	P	17 31 18.0	-1.5
CHTO				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.0						
CHTO	Chiang Mai	21.13	358	*e*P	P	17 31 18.0	-1.5
	comp=Z,11nm,1.4s,mb4.0						
CHTO	Chiang Mai	21.13	358	P	P	17 31 18.7	-0.8
	comp=Z,10nm,2.3s,mb3.8						
APSI	Ampana	21.89	86	P	P	17 31 29.5	+1.7
	comp=Z,55nm,1.0s,mb4.9						
KDI	Kendari	22.84	94	P	P	17 31 38.7	+0.9
	comp=Z,22nm,1.6s,mb4.3						
KMSI	Cibinong	24.36	83	P	Px	17 32 03.6	
	comp=Z,86nm,1.2s						
LBMI	Labuha	27.75	87	P	P	17 32 26.1	+3.1
	comp=Z,34nm,1.3s,mb4.8						
SHL	Shillong	28.87	345	*e*PKP	P	17 32 34.0	+1.2
FITZ	Fitzroy Crossi	29.74	123	P	P	17 32 40.1	-0.5
	comp=Z,4.6nm,0.8s,mb4.2,baz=195,slow=8.5,SNR=5.7						
ODAN	Odare	31.49	338	*e*P	P	17 32 57.2	+1.2
	comp=Z,18nm,0.7s,mb5.0						
TAPN	Taplejung	31.82	339	*e*P	P	17 33 00.4	+1.5
	comp=Z,24nm,0.8s,mb5.1						
RAMN	Ramite	31.87	337	*e*P	P	17 33 00.4	+1.1
	comp=Z,11nm,0.6s,mb4.8						
JIRN	Jiri	32.66	337	*e*P	P	17 33 07.6	+1.3
	comp=Z,42nm,1.0s,mb5.3						
LSA	Lhasa	33.01	346	*e*P	P	17 33 10.1	+0.9
LSA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
LSA	Lhasa	33.01	346	*e*P	P	17 33 10.1	+0.8
	comp=Z,5.0nm,0.7s,mb4.5						
GUN	Gumba	33.01	337	*e*P	P	17 33 10.0	+0.7
KKN	Kakani	33.14	336	*e*P	P	17 33 11.1	+0.7
GKN	Gorkha	33.59	335	*e*P	P	17 33 15.1	+0.7
DANN	Dangsing	34.27	334	*e*P	P	17 33 21.3	+1.0
XAN	Xi'an	37.28	13	P	P	17 33 44.8	-1.2
XAN				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
WRA	Warramunga Arr	37.95	120	P	P	17 33 51.6	-0.3
	comp=Z,17nm,0.7s,mb4.9,baz=305,slow=9.0,SNR=164						
WRAB	Tennant Creek	37.96	120	⇑*i*P	P	17 33 52.5	+0.6
WRAB	Tennant Creek	37.96	120	*e*P	P	17 33 51.6	-0.3
	comp=Z,18nm,0.6s,mb5.0						
WRAB	Tennant Creek	37.96	120	P	P	17 33 52.6	+0.7
	comp=Z,41nm,0.8s,mb5.2						
ASAR	Alice Springs	39.16	126	P	P	17 34 02.0	0.0
	comp=Z,4.3nm,0.5s,mb4.4,baz=300,slow=7.0,SNR=70						
ASAR				PcP	PcP	17 36 11.1	+0.1
	comp=Z,1.3nm,0.7s,baz=332,slow=2.6,SNR=5.4						
BJT	Baijiatuau	44.84	18	*e*P	P	17 34 48.0	0.0
BJT				pmax	pmax		
	comp=Z,19nm,0.7s						
BJT	Baijiatuau	44.84	18	*e*P	P	17 34 48.0	0.0
	comp=Z,19nm,0.7s,mb5.0						
KSH	Kashi	47.14	335	*e*P	P	17 35 11.8	+5.6
KSH				*e*PcP	PcP	17 36 40.3	+2.9
KSH				*e*ScP	ScP	17 40 29.1	+1.3
KSH				*e*PcS	PcS	17 40 35.0	+2.6
KSH				*e*S	S	17 42 03.6	+8.1
KSH				*e*ScS	ScS	17 44 58.0	+1.3
KSH				pmax	pmax		
	comp=Z,40nm,2.6s,mb4.9						
KSH				LR	LR		
	comp=N,300nm,13.4s,MS4.6						
KSH				LR	LR		
	comp=E,290nm,11.5s,MS4.6						
KSH				LR	LR		
	comp=Z,380nm,6.2s						
KSRS	Korea Array	47.49	31	P	P	17 35 08.7	-0.3
	comp=Z,11nm,0.8s,mb4.8,baz=224,slow=8.4,SNR=28						
CTA	Charters Tower	48.60	115	P	P	17 35 16.6	-1.3
	comp=Z,21nm,1.1s,mb5.1,baz=284,slow=9.3,SNR=9.5						
CTAO	Charters Tower	48.60	115	*e*P	P	17 35 16.8	-1.0
CTAO				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
CTAO	Charters Tower	48.60	115	*e*P	P	17 35 16.8	-1.0
	comp=Z,11nm,0.7s,mb5.0						
STKA	Stephens Creek	49.01	131	P	P	17 35 21.7	+0.9
	comp=Z,5.9nm,0.7s,mb4.8,baz=308,slow=8.2,SNR=12						
UCH	Uchtor	50.01	336	*e*P	P	17 35 28.2	0.0
	comp=Z,6.2nm,1.0s,mb4.6						
TKM2	Tokmak 2	50.15	337	*e*P	P	17 35 30.3	+1.0
TKM2				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
TKM2	Tokmak 2	50.15	337	*e*P	P	17 35 30.3	+1.0
	comp=Z,18nm,1.1s,mb5.0						
AML	Almayashu	50.27	335	*e*P	P	17 35 30.3	+0.2
	comp=Z,108nm,0.6s						
AAK	Ala-Archa	50.35	336	⇑*e*P	P	17 35 32.0	+1.2
AAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.9						
AAK	Ala-Archa	50.35	336	P	P	17 35 31.7	+0.9
	comp=Z,0.9nm,0.5s,mb4.0,baz=126,slow=5.6,SNR=4.7						
AAK	Ala-Archa	50.35	336	P	P	17 35 31.3	+0.5
	comp=Z,5.4nm,1.1s,mb4.5						
SONM	Songino Array	50.39	6	P	P	17 35 31.9	+0.9
	comp=Z,16nm,0.7s,mb5.2,baz=187,slow=9.3,SNR=135						
ULN	Ulaanbaatar	50.49	6	⇑*e*P	P	17 35 32.5	+0.7
ULN	Ulaanbaatar	50.49	6	*e*P	P	17 35 32.3	+0.5
	comp=Z,13nm,0.8s,mb5.0						
EKS2	Erkin-Say	50.67	335	*e*P	P	17 35 34.1	+1.0
	comp=Z,14nm,0.9s,mb4.9						
MKAR	Makanchi Array	51.39	345	P	P	17 35 39.1	+0.6
	comp=Z,11nm,0.6s,mb4.9,baz=147,slow=8.1,SNR=157						
CN2	Changchun	51.46	24	*e*P	P	17 35 37.8	-1.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAK	Zakamensk	52.70	3	*e*P	P	17 35 48.1	-0.1
ZAK				*e*		17 36 58.4	
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
MAJO	Matsushiro	52.74	39	P	P	17 35 48.0	-0.8
MAJO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
MAJO	Matsushiro	52.74	39	P	P	17 35 48.0	-0.7
	comp=Z,6.3nm,0.9s,mb4.5						
MAT	Matsushiro	52.74	39	P	P	17 35 47.5	-1.3
MJAR	Matsushiro Arr	52.74	39	P	P	17 35 47.8	-1.0
	comp=Z,6.6nm,1.0s,mb4.5,baz=222,slow=7.0,SNR=9.4						
MDJ	Mudanjiang	53.87	26	P	P	17 35 57.5	+0.6
	comp=Z,9.2nm,0.9s,mb4.7						
TLY	Talaya	54.01	3	*e*P	P	17 35 58.8	+1.0
TLY				*e*	pP	17 36 07.0	-3.5
TLY				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
TLY	Talaya	54.01	3	*e*P	P	17 35 58.4	+0.6
	comp=Z,4.1nm,0.8s,mb4.4						
HIA	Hailar	54.31	16	*e*P	P	17 35 59.7	-0.4
HIA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
HIA	Hailar	54.31	16	*e*P	P	17 35 59.7	-0.4
	comp=Z,10nm,1.0s,mb4.7						
KURK	Kurchatov	55.97	344	⇑*e*P	P	17 36 12.1	+0.2
KURK				*i* *PP	pP	17 36 21.6	-3.1
KURK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
KURK	Kurchatov	55.97	344	P	P	17 36 11.7	-0.3
	comp=Z,4.8nm,0.8s,mb4.6,baz=167,slow=7.0,SNR=32						
KURK	Kurchatov	55.97	344	P	P	17 36 11.7	-0.3
KURK				*e*	pP	17 36 26.8	+2.1
ZAA0	Zalesovo Array	57.56	350	*e*P	P	17 36 23.0	-0.1
ZAA0				*e*	pP	17 36 38.1	+2.2
ZALV	Zalesovo Beam	57.56	350	P	P	17 36 23.3	+0.1
	comp=Z,6.9nm,0.7s,mb4.8,baz=179,slow=5.9,SNR=36						
ZALV	Zalesovo Beam	57.56	350	P	P	17 36 23.3	+0.1
KLR	Kul'dur	58.41	24	*e*P	P	17 36 24.3	-4.9
NVS	Novosibirsk	58.70	349	*e*P	P	17 36 29.9	-1.2
ERM	Erimo	59.12	37	⇑*i*P	P	17 36 34.4	0.0
ERM				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.1						
HABR	Khabarovsk	59.24	27	P	P	17 36 32.6	-2.4
HABR				*e**PP	pP	17 36 42.2	-5.7
HABR				*e**SP	sP	17 36 46.6	-6.5
HABR				*e*		17 37 20.4	
HABR				*e*		17 38 43.3	
HABR				*e*S	S	17 44 38.1	-1.6
HABR				*e**SS	sS	17 44 55.3	-5.9
HABR				*e*		17 46 19.7	
HABR				*e*SS	SS	17 48 34.0	-1.0
HABR				MLR	MLR		
	comp=Z,103nm,18.0s,MS4.0						
BVAR	Borovoye Array	60.52	340	P	P	17 36 43.2	-0.5
	comp=Z,1.5nm,0.6s,mb4.3,baz=134,slow=8.9,SNR=15						
BRVK	Borovoye	60.59	340	*e*P	P	17 36 42.7	-1.4
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
BRVK	Borovoye	60.59	340	*e*P	P	17 36 42.7	-1.4
	comp=Z,5.7nm,1.0s,mb4.7						
YSS	Yuzh-Sakhalins	61.96	32	⇑*i*P	P	17 36 53.0	-0.6
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
YSS	Yuzh-Sakhalins	61.96	32	*e*P	P	17 36 53.0	-0.6
	comp=Z,16nm,0.8s,mb5.2						
AKTK	Aktyubinsk	63.64	332	P	P	17 37 03.2	-1.5
AKTO	Aktyubinsk	63.64	332	P	P	17 37 03.2	-1.5
	comp=Z,2.3nm,0.9s,mb4.2,baz=117,slow=5.6,SNR=7.0						
SVE	Sverdlovsk	67.01	338	⇓*e*P	P	17 37 20.6	-5.8
SVE				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
ARU	Arti	67.52	337	*c* *i*P	P	17 37 29.3	-0.3
ARU				*e*		17 39 55.3	
ARU				S	S	17 46 24.5	+1.8
ARU				SS	SS	17 50 44.7	+0.7
ARU				pmax	pmax		
	comp=Z,20nm,2.5s,mb4.7						
ARU	Arti	67.52	337	*e*P	P	17 37 28.4	-1.2
	comp=Z,3.7nm,0.7s,mb4.5						
YAK	Yakutsk	68.21	15	*e*P	P	17 37 32.6	-1.3
YAK				*e*	pP	17 37 41.6	-5.3
YAK				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.0s						
YAK	Yakutsk	68.21	15	*e*P	P	17 37 32.5	-1.4
	comp=E,19nm,0.8s,mb5.2						
VRHR	Novokhopersk	72.57	326	*e*P	P	17 38 09.2	+8.5
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
VRHR				pmax	pmax		
	comp=N,20nm,0.8s						
PETK	Petropavlovsk-	73.36	32	P	P	17 38 04.6	-0.8
	comp=N,3.3nm,0.7s,mb4.4,baz=162,slow=2.4,SNR=11						
PETK	Petropavlovsk-	73.36	32	P	P	17 38 04.6	-0.8
BRTR	Keskin Array B	73.47	313	P	P	17 38 06.0	-0.3
	comp=N,1.0nm,0.7s,mb3.9,baz=142,slow=6.3,SNR=5.2						
VSR	Storozhevoye	74.02	325	*e*P	P	17 38 08.6	-0.6
VSR				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.0						
VSR				pmax	pmax		
	comp=N,6.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,9.0nm,0.9s						
PRGR	Permogore	75.98	336	*e*P	P	17 38 19.7	-0.7
PRGR				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
SEY	Seymchan	76.10	22	⇑*e*P	P	17 38 21.4	+0.4
TIXI	Tiksi	76.32	9	⇑*e*P	P	17 38 21.2	-0.9
TIXI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
TIXI	Tiksi	76.32	9	*e*P	P	17 38 21.4	-0.7
	comp=Z,12nm,0.9s,mb4.8						
OBN	Obninsk	77.06	328	⇑*e*P	P	17 38 26.4	-0.2
OBN				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
URZ	Urewera	78.53	128	P	P	17 38 35.5	+0.3
	comp=Z,5.4nm,0.8s,mb4.5,baz=352,slow=7.1,SNR=3.8						
BUR08	Bucovina Ar. S	81.47	319	*e*P	P	17 38 52.4	+1.6
ARCES	ARCESS Array B	86.81	340	P	P	17 39 17.7	+0.2
	comp=Z,4.2nm,0.8s,mb4.7,baz=99,slow=4.7,SNR=3.7						
QSPA	South Pole Qui	87.53	180	*e*Pn	P	17 39 22.1	+1.2
	comp=Z,5.7nm,1.2s,mb4.7						
GERES	GERESS Array B	89.24	319	P	P	17 39 27.8	-1.7
	comp=Z,0.6nm,0.7s,mb4.0,baz=113,slow=2.2,SNR=4.1						
PPT	Papeete	108.85	109	*e*LR	LR	17 41 15.5	
	comp=Z,535nm,25.2s						
TAOE	Nuku Hiva Isla	119.21	101	*e*LR	LR	17 43 56.2	
	comp=Z,1µm,25.2s						
ULM	Lac du Bonnet	130.54	13	PKP	PKPdf	17 45 44.8	+0.6
	comp=Z,1.1nm,0.5s,baz=225,slow=4.3,SNR=2.9						
TXAR	Lajitas Array	145.17	37	PKPbc	PKPbc	17 46 12.6	+1.4
	comp=Z,14nm,0.6s,baz=286,slow=0.9,SNR=125						
JCT	Junction City	146.50	32	*e*PKP2	PKPab	17 46 16.0	-0.3
PLAL	Pickwick Lake	146.80	12	*e*PKPdf	PKPdf	17 46 13.6	-0.7

NEIC ***19*** *17:29:23.9±0.6, 27.°75S×176.°11W, h10^{km}, mb5.2/3, Error ellipse: s-maj=19.1km s-min=12.5km az=148.0*

IDC ***19*** *17:29:24.5±1.0, 27.°49S×176.°40W, h0^{km}, mb4.1/8, mb1 4.3/9, mb1mx4.2/17, mbtmp4.1/9, ML4.2/1, Error ellipse: s-maj=35.6km s-min=23.9km az=151.0*

ISC 19 17:29:26.8±0.7**, 27.°81S**±0.°08×**176.°0W**±0.°1**, h35**^{km}**, n28,** σ**1.^{s}28**/23**, mb4.4**/11**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	11.90	207	Pn	Pn	17 32 12.1	-1.8
	0.2nm,0.3s,baz=173,slow=17,SNR=3.1						
URZ				Sn	Sn	17 34 25.7	+0.3
	3.2nm,0.3s,baz=75,slow=20,SNR=17						
URZ	Urewera	11.90	207	Pn	Pn	17 32 12.1	-1.8
URZ				*e*Sn	Sn	17 34 25.6	+0.2
URZ				Sn	Sn	17 34 25.7	+0.3
SNZO	South Karori	15.47	207	Pn	Pn	17 33 07.7	+5.5
SNZO				*e*Sn	Sn	17 35 44.3	-8.1
RAR	Rarotonga	16.17	70	Pn	Pn	17 33 10.3	-1.2
RPZ	Rata Peaks	18.98	210	P	Pn	17 33 47.3	+1.2
	0.8nm,0.3s,baz=63,slow=2.3,SNR=4.4						
RPZ	Rata Peaks	18.98	210	P	Pn	17 33 47.3	+1.2
RPZ				*e*S	S	17 37 04.5	-14
HNR	Honiara	29.11	304	P	P	17 35 22.5	-1.9
	34nm,0.6s,mb5.3						
CTA	Charters Tower	35.22	274	P	P	17 36 19.1	+1.1
	2.9nm,0.3s,mb4.6,baz=94,slow=11,SNR=8.7						
CTAO	Charters Tower	35.22	274	*e*P	P	17 36 18.9	+0.9
ASAR	Alice Springs	45.05	263	P	P	17 37 39.6	+0.2
	1.0nm,0.5s,mb3.9,baz=96,slow=7.2,SNR=7.8						
WRAB	Tennant Creek	45.81	269	*e*P	P	17 37 45.1	-0.4
	3.6nm,0.7s,mb4.4						
WRA	Warramunga Arr	45.82	269	P	P	17 37 45.0	-0.5
	2.2nm,0.7s,mb4.2,baz=104,slow=8.0,SNR=19						
KAKA	Kakadu	50.28	277	*e*P	P	17 38 18.9	-1.2
	49nm,0.7s,mb5.7						
FITZ	Fitzroy Crossi	54.16	267	P	P	17 38 48.9	0.0
	6.8nm,1.2s,mb4.4,baz=71,slow=9.0,SNR=3.4						
MJAR	Matsushiro Arr	77.15	324	P	P	17 41 16.3	-0.4
	2.8nm,0.8s,mb4.2,baz=164,slow=5.8,SNR=5.9						
KSRS	Korea Array	83.54	318	P	P	17 41 52.7	+1.6
	2.2nm,0.9s,mb4.3,baz=138,slow=5.7,SNR=5.6						
NVAR	Mina Array Bea	85.16	42	P	P	17 42 02.3	+3.0
	0.2nm,0.5s,mb3.5,baz=212,slow=4.9,SNR=3.5						
CMAR	Chiang Mai Arr	94.21	289	P	P	17 42 45.5	+3.0
	0.4nm,0.6s,mb4.0,baz=111,slow=3.9,SNR=4.2						
MKAR	Makanchi Array	117.42	311	PKP	PKPdf	17 48 09.7	+1.2
	0.5nm,0.8s,baz=69,slow=2.1,SNR=4.1						
ARCES	ARCESS Array B	136.41	349	PKP	PKPdf	17 48 46.3	+2.3
	2.8nm,0.8s,baz=14,slow=4.6,SNR=4.7						
ARCES	ARCESS Array B	136.41	349	PKP	PKPdf	17 48 46.3	+2.3
NB2	NORSAR Subarra	146.42	354	PKP	PKPdf	17 49 05.4	+3.3
	comp=Z,2.9nm,0.9s,baz=16,slow=3.2						
NOA	NORSAR Array B	146.42	354	PKPbc	PKPbc	17 49 05.3	+1.9
	comp=Z,2.0nm,0.8s,baz=14,slow=4.5,SNR=7.3						
NOA	NORSAR Array B	146.42	354	PKPbc	PKPbc	17 49 05.3	+1.9
AKASG	Malin Array Be	150.19	327	PKPbc	PKPbc	17 49 15.0	+1.4
	comp=Z,0.9nm,0.4s,baz=38,slow=3.5,SNR=8.1						
AKASG	Malin Array Be	150.19	327	PKPbc	PKPbc	17 49 15.0	+1.4
BRTR	Keskin Array B	152.76	304	PKPbc	PKPbc	17 49 23.2	+3.2
	comp=Z,0.9nm,0.9s,baz=158,slow=2.0,SNR=2.6						
TORD	Torodi Ar. Bea	165.25	171	PKPab	PKPab	17 50 31.4	+6.0
	comp=Z,0.6nm,0.7s,baz=192,slow=5.4,SNR=4.5						

TRN 19 17:37:11.3, 14.°61N×58.°98W, h3^{km}**, MD4.1, M3.5**(FDF)**, 2C-1D, North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MVM	Montagne Vaucl	1.86	269	⇑*e*P	Pn	17 37 46.2	+2.1
MVM				⇑*e*S	Sn	17 38 13.1	+5.0
BIM	Bigot	2.03	268	⇓*e*P	Pn	17 37 48.9	+2.5
MCLT	Moule a Chique	2.10	245	*e*P	Pn	17 37 49.9	+2.5
MCLT				*e*S	Sn	17 38 16.0	+1.9
FDF	Fort de France	2.11	274	*e*P	Pn	17 37 49.3	+1.8
FDF				*e*S	Sn	17 38 17.8	+3.6
SLB	Belfond	2.15	249	*e*P	Pn	17 37 51.2	+3.2
SLB				*e*S	Sn	17 38 19.4	+4.2
SSV	Crater Summit	2.50	240	*e*P	Pn	17 37 55.9	+3.0
SSV				*e*S	Sn	17 38 27.5	+3.6
SVV	Soufriere Volc	2.52	240	*e*P	Pn	17 37 56.9	+3.7
SVV				*e*S	Sn	17 38 27.5	+3.0
SVB	Belmont	2.58	239	*e*P	Pn	17 37 57.5	+3.6
SVB				*e*S	Sn	17 38 29.8	+3.9
DEG	La Desirade	2.63	310	*e*P	Pn	17 37 54.2	-0.4
FCV	Fort Charlotte	2.63	237	*e*P	Pn	17 37 58.7	+4.0
FCV				*e*S	Sn	17 38 30.4	+3.2
DOG	Dongo Capester	2.92	299	*e*P	Pn	17 38 00.9	+2.2
PHG	Guadaloupe-2	2.93	299	*e*P	Pn	17 38 01.1	+2.3
SCG	Saint Claude	2.97	299	*e*P	Pn	17 37 59.0	-0.4
LZG	Guadaloupe-1	3.10	300	*e*P	Pn	17 38 03.8	+2.6
TOSP	Speyside	3.62	205	*e*P	Pn	17 38 09.7	+1.3
TOSP				*e*S	Sn	17 38 49.9	-1.7

NEIC 19 17:47:01.7, 64.°88N×148.°77W, h8^{km}**, ML2.8**(AEIC)**, ML3.5**(PMR)**, After AEIC., Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COLA	College	0.39	90	*e*Pg	Pg	17 47 10.4	+1.1
IL1	Eielson Array	0.81	96	P	Pg	17 47 17.1	-0.3
MCK	McKinley	1.15	184	P	Pg	17 47 23.0	-0.8
MCK				S	Sg	17 47 39.5	+0.9
BPAW	Bear Paw Mtn.	1.23	232	P	Pn	17 47 23.9	-1.4
TRF	Thorofare Moun	1.58	206	*e*Pn	Pn	17 47 29.2	-0.7
KTH	Kantishna Hill	1.63	216	P	Pn	17 47 30.8	+0.1
CHUM	Lake Minchumin	1.83	239	P	Pn	17 47 34.0	+0.5
CHUM				S	Sn	17 47 59.1	+2.3
IM3	Indian Mountai	2.36	300	P	Pn	17 47 41.0	+0.4
IMA2	Indian Mountai	2.38	303	*e*P	Pn	17 47 43.0	+2.1
PAX	Paxson	2.40	141	*e*Pn	Pn	17 47 37.8	-3.5
COLD	Coldfoot	2.43	347	P	Pn	17 47 41.9	+0.2
PPLA	Purkeypile	2.50	219	P	Pn	17 47 42.7	+0.2
MENT	Mentasta	2.96	129	*e*Pn	Pn	17 47 52.4	+3.5
BM3	Burnt Mountain	3.06	32	P	Pn	17 47 49.8	-0.5
SKT	Skwentna	3.16	204	P	Pn	17 47 52.6	+0.9
EGAK	Eagle	3.25	88	*e*Pn	Pn	17 47 54.3	+1.4
PMR	Palmer	3.30	183	*e*P	Pn	17 47 54.1	+0.5
BCA3	Beaver Creek A	3.58	117	P	Pn	17 47 57.8	+0.4
RC01	Rabbit Creek A	3.83	187	Pn	Pn	17 47 58.5	-2.3
DAWY	Dawson	4.14	97	*e*Pn	Pn	17 48 08.5	+3.4
SVW2	Sparrevohn	4.90	222	*e*Pg	Pg	17 48 31.6	-3.8

IDC ***19*** *18:02:32.3±2.2, 4.°53S×138.°50E, h0^{km}, mb3.0/1, mb1 3.9/4, mb1mx3.5/14, mbtmp3.7/4, ML3.8/2, Error ellipse: s-maj=51.5km s-min=18.3km az=114.0*

NEIC ***19*** *18:02:44.9±4.8, 4.°81S×138.°40E, h107^{km}±37^{km}, Error ellipse: s-maj=55.5km s-min=22.1km az=72.0*

ISC 19 18:02:33.6±1.5**, 4.°41S**±0.°10×**139.°3E**±0.°2**, h35**^{km}**, n10,** σ**1.^{s}19**/16**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	10.69	219	*e*P	Pn	18 05 03.7	-0.7
	11nm,0.4s						
KAKA	Kakadu	10.69	219	*e*Pn	Pn	18 05 03.4	-1.0
KAKA				*e*Sn	Sn	18 07 02.6	-0.4
WRAB	Tennant Creek	16.17	197	*e*Pn	Pn	18 06 18.6	+0.3
WRAB				*e*Sn	Sn	18 09 18.7	+1.9
WB2	Warramunga Arr	16.18	197	*e*Pn	Pn	18 06 18.0	-0.5
WB2				*e*Sn	Sn	18 09 12.6	-4.3
WRA	Warramunga Arr	16.19	197	Pn	Pn	18 06 18.2	-0.3
	0.3nm,0.3s,baz=19,slow=13,SNR=24						
WRA				Sn	Sn	18 09 17.5	+0.5
	0.2nm,0.3s,baz=15,slow=22,SNR=5.0						
FITZ	Fitzroy Crossi	19.09	223	*e*P	Pn	18 06 49.9	-4.6
	9.7nm,1.2s						
FITZ	Fitzroy Crossi	19.09	223	P	Pn	18 06 49.2	-5.2
	0.3nm,0.3s,baz=18,slow=7.5,SNR=5.3						
FITZ				S	S	18 10 17.2	-11
	0.1nm,0.3s,baz=236,slow=18,SNR=2.0						
ASAR	Alice Springs	19.85	195	P	Pn	18 07 01.1	-2.3
	0.3nm,0.3s,baz=18,slow=9.7,SNR=48						
ASAR				S	S	18 10 51.8	+8.5
	0.1nm,0.3s,baz=11,slow=25,SNR=5.3						
MKAR	Makanchi Array	71.50	323	P	P	18 13 52.6	+1.8
	0.1nm,0.5s,baz=130,slow=6.3,SNR=2.8						
MKAR	Makanchi Array	71.50	323	P	P	18 13 52.6	+1.8

PGC ***19*** *18:37:15.8±2.2, 61.°41N×140.°34W, h1^{km}, ML2.9/4, 168km Wnw of Haines Jct., Yt Southern Yukon Territory, Canada*

NEIC 19 18:37:15.8, 61.°41N×140.°34W, h1^{km}**, ML2.8**(AEIC)**, ML2.9**(PGC)**, 8D, After PGC., Southern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYT	Haines Junctio	1.50	112	⇓Pn	Pn	18 37 42.5	-1.2

HYT				⇓Sg	Sg	18 38 02.1	-1.7
BCA3	Beaver Creek A	1.79	338	P	Pn	18 37 47.4	-0.4
PNL	Peninsula	1.81	165	P	Pn	18 37 47.9	-0.1
PNL				S	Sn	18 38 11.8	+0.3
MENT	Mentasta	2.21	316	*e*Pn	Pn	18 37 52.8	-0.7
DAWY	Dawson	2.70	9	⇓Pn	Pn	18 37 60.0	-0.3
DAWY				⇑Sg	Sg	18 38 39.2	-3.2
DAWY	Dawson	2.70	9	P	Pn	18 37 59.6	-0.7
WHY	Whitehorse	2.76	103	⇓Pn	Pn	18 38 00.4	-0.6
WHY				⇓Pg	Pg	18 38 05.7	-3.0
WHY				⇓Sg	Sg	18 38 41.5	-2.8
WHY	Whitehorse	2.76	103	P	Pn	18 37 59.9	-1.1
WHY				S	Sn	18 38 34.6	-0.4
EYAK	Cordova Ski Ar	2.77	254	P	Pn	18 38 01.8	+0.6
PLBC	Pleasant Camp	2.78	133	⇑Pn	Pn	18 38 00.1	-1.2
PLBC				⇑Pg	Pg	18 38 05.5	-3.5
PLBC				⇓Sg	Sg	18 38 41.9	-3.1
DOT	Dot Lake	2.83	324	P	Pn	18 38 01.9	-0.1
EGAK	Eagle	3.40	354	*e*Pn	Pn	18 38 10.2	+0.4
EGAK				*e*Pg	Pg	18 38 19.2	-1.7
EGAK				*e*Sg	Sg	18 39 02.9	-2.0
DLBC	Dease Lake	5.98	115	⇓Sg	Sg	18 40 20.6	-7.1

DJA ***19*** *18:43:07,6°.65N×126°.86E,h45^{km},mb4.9/6*
ISCJB ***19*** *18:43:09.4±0.6,6°.36N±0°.05×126°.21E±0°.06,h79^{km}±6^{km}, mb4.0/14,Error ellipse: s-maj=10.4km s-min=7.4km az=167.5*
NEIC ***19*** *18:43:11.1±1.2,6°.18N×125°.50E,h75^{km}±12^{km},mb4.1/3, Error ellipse: s-maj=36.2km s-min=8.5km az=75.0*
IDC ***19*** *18:43:11.1±0.9,6°.26N×125°.75E,h79^{km}±11^{km},mb3.6/10, mb1 3.8/10,mb1mx3.6/23,mbtmp3.6/10,Error ellipse: s-maj=95.1km s-min=11.9km az=71.0*
MAN ***19*** *18:43:13,6°.51N×126°.05E,h21^{km},mb4.8,ML3.7,MS3.8*
ISC 19 18:43:10.4±0.6,**6°.35N**±0°.05×**126°.21E**±0°.06,**h71**^{km}±6^{km}, **n33,**σ**1^s.21**/43,**mb4.0**/14,**2C-3D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.60	5	*e*P	Pn	18 43 23.1	-1.2
MATI				*e*S	Sn	18 43 33.5	-1.1
DAV	Davao City (W)	0.95	319	P	Pn	18 43 28.3	-0.1
	111nm,0.3s,baz=232,slow=2.6,SNR=14						
DAV				S	Sn	18 43 41.7	-0.1
	573nm,0.3s,baz=223,slow=0.7,SNR=54						
DAV	Davao City (W)	0.95	319	P	Pn	18 43 28.3	-0.1
DAV				*e*Sn	Sn	18 43 37.1	-4.7
DMPH	Davao City--Mi	1.01	316	⇑*e*P	Pn	18 43 28.7	-0.4
DMPH				*e*S	Sn	18 43 43.3	+0.3
GSPH	General Santos	1.28	258	*i* P	Pn	18 43 30.0	-2.5
GSPH				*e*S	Sn	18 43 43.2	-5.9
KCP	Kidapawan	1.29	301	⇓*i*P	Pn	18 43 34.7	+2.1
KCP				*i* S	Sn	18 43 51.2	+1.8
BUKP	Musuan	1.90	323	*e*P	Pn	18 43 40.8	+0.1
BUKP				*e*S	Sn	18 44 02.6	-1.2
CTBH	Cotabato--PC H	2.13	294	⇓*e*P	Pn	18 43 42.7	-1.2
CTBH				*i* S	Sn	18 44 09.0	-0.5
CGP	Cagayan de Oro	2.58	324	⇑*i*P	Pn	18 43 52.5	+2.6
CGP				*i* S	Sn	18 44 24.4	+4.2
BUTP	Butuan	2.67	347	*e*P	Pn	18 43 53.4	+2.2
BUTP				*e*S	Sn	18 44 21.7	-0.7
PAGZ	Pagadian	3.18	298	*e*P	Pn	18 43 57.7	-0.3
SCPH	Surigao	3.49	348	*e*P	Pn	18 44 03.8	+1.5
SCPH				*e*S	Sn	18 44 41.8	-0.6
MSLP	Maasin	3.99	341	*e*P	Pn	18 44 11.2	+2.0
ZMPH	Zamboanga City	4.16	279	⇓*e*P	Pn	18 44 11.7	+0.3
KAKA	Kakadu	19.92	162	*e*P	Pn	18 47 37.6	-1.1
	13nm,0.6s						
FITZ	Fitzroy Crossi	24.30	181	*e*P	P	18 48 21.8	+0.5
	11nm,0.5s,mb4.4						
FITZ	Fitzroy Crossi	24.30	181	P	P	18 48 21.7	+0.4
	6.7nm,0.5s,mb4.2,baz=22,slow=5.1,SNR=23						
WRAB	Tennant Creek	27.32	163	*e*P	P	18 48 49.9	+1.4
	5.0nm,1.0s,mb4.0						
WRA	Warramunga Arr	27.32	163	P	P	18 48 48.4	-0.2
	1.0nm,0.4s,mb3.7,baz=336,slow=10,SNR=22						
ASAR	Alice Springs	30.76	166	P	P	18 49 19.2	+0.1
	1.2nm,0.3s,mb4.1,baz=344,slow=7.2,SNR=26						
FORT	Forrest	36.96	177	*e*P	P	18 50 12.6	-0.1
	14nm,0.9s,mb4.9						
MUN	Mundaring	39.28	193	*e*P	P	18 50 33.9	+1.6
NWAO	Narrogin (SRO)	39.98	192	P	P	18 50 36.5	-1.6
	13nm,1.0s,mb4.7						
STKA	Stephens Creek	40.74	160	*e*P	P	18 50 45.3	+0.9
	6.5nm,1.4s,mb4.3						
STKA	Stephens Creek	40.74	160	P	P	18 50 45.3	+0.9
	2.6nm,0.7s,mb4.2,baz=312,slow=2.2,SNR=3.9						
ULN	Ulaanbaatar	44.49	342	P	P	18 51 15.2	+0.7
	0.7nm,0.5s,mb3.6						
SONM	Songino Array	44.67	341	P	P	18 51 17.2	+1.2
	0.2nm,0.4s,mb3.2,baz=152,slow=5.8,SNR=3.5						
MKAR	Makanchi Array	55.13	324	P	P	18 52 34.1	-1.2
	0.3nm,0.4s,mb3.7,baz=112,slow=7.5,SNR=9.4						
ZALV	Zalesovo Beam	58.04	333	P	P	18 52 55.1	-0.8
	0.4nm,0.3s,mb3.9,baz=142,slow=7.3,SNR=3.6						
KURK	Kurchatov	59.27	327	P	P	18 53 03.2	-1.3
	0.5nm,0.5s,mb3.8,baz=124,slow=7.5,SNR=4.7						
BVAR	Borovoye Array	64.86	326	P	P	18 53 39.0	-2.9
	0.1nm,0.4s,mb3.0,baz=74,slow=5.1,SNR=2.8						
ARCES	ARCESS Array B	87.83	340	P	P	18 55 51.1	-0.4
	3.8nm,0.9s,mb4.4,baz=89,slow=7.3,SNR=2.8						
TORD	Torodi Ar. Bea	121.59	290	PKP	PKPdf	19 01 55.4	-1.5
	0.4nm,0.7s,baz=63,slow=2.2,SNR=6.7						

IDC 19 18:48:56.0±3.5,**30°.34N**×**113°.50W,h0**^{km}**,mb1 3.5**/4, **mb1mx3.3**/22,**mbtmp3.1**/4,**ML3.0**/3,**Error ellipse: s-maj=53.9km s-min=14.2km az=34.0,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANMO	Albuquerque	7.51	50	Pn	Pn	18 50 45.5	-1.2
	0.1nm,0.3s,baz=225,slow=16,SNR=1.6						
TXAR	Lajitas Array	8.60	94	Pn	Pn	18 51 02.5	+0.8
	0.1nm,0.3s,baz=264,slow=13,SNR=8.8						
TXAR				Lg		18 53 30.5	
	0.3nm,0.3s,baz=297,slow=30,SNR=7.8						
NVAR	Mina Array Bea	8.99	335	Pn	Pn	18 51 08.9	+1.9
	0.1nm,0.3s,baz=159,slow=15,SNR=2.7						
PDAR	Pinedale Array	12.80	13	Pn	Pn	18 52 02.6	+3.5
	baz=188,slow=11,SNR=1.5						

IDC 19 18:54:23.9±4.6,**30°.04N**×**113°.73W,h0**^{km}**,mb1 3.7**/3, **mb1mx3.4**/21,**mbtmp3.2**/3,**ML3.0**/2,**Error ellipse: s-maj=68.9km s-min=17.8km az=33.0,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANMO	Albuquerque	7.85	50	Pn	Pn	18 56 25.3	+6.0
	0.2nm,0.3s,baz=220,slow=8.8,SNR=3.6						
ANMO				Lg		18 58 48.3	
	0.1nm,0.3s,baz=354,slow=18,SNR=3.1						
TXAR	Lajitas Array	8.78	92	Pn	Pn	18 56 32.9	+0.8
	0.1nm,0.3s,baz=258,slow=13,SNR=3.2						
TXAR				Lg		18 59 02.0	
	0.1nm,0.3s,baz=274,slow=29,SNR=3.0						
NVAR	Mina Array Bea	9.19	337	Pn	Pn	18 56 39.4	+1.8
	0.1nm,0.3s,baz=162,slow=12,SNR=2.6						
PDAR	Pinedale Array	13.13	14	Pn	Pn	18 57 35.3	+3.6
	baz=181,slow=8.1,SNR=2.4						

NEIC ***19*** *19:00:31.3±1.9,29°.20N×114°.51W,h10^{km},mb4.3/14, Error ellipse: s-maj=26.6km s-min=9.1km az=211.0*
GCMT ***19*** *19:00:31.3±0.4,29°.65N×114°.24W,h12^{km},MW5.0/69, Moment Tensor Solution. s16,c17; s69,c95; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.75±.12; $M_{\theta\theta}$0.35±.12; $M_{\phi\phi}$2.40±.09; $M_{r\theta}$-2.83±.56; $M_{\theta\phi}$-0.84±.09; $M_{\phi r}$-0.85±.32; Best double couple: $M_0$3.66700×10^{16} NP1:ϕ_s5.00000°,δ50.00000°,λ-46.00000°. NP2: ϕ_s129.00000°,δ57.00000°,λ-129.00000°. Principal axes: T 2.7130, Plg4.0000°, Azm246.0000°; N 1.9050, Plg32.0000°, Azm153.0000°; P -4.6200, Plg58.0000°, Azm342.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISCJB ***19*** *19:00:35.4±1.1,29°.63N±0°.10×114°.03W±0°.10,h10^{km}, mb3.9/6,MS4.3/22 Error ellipse: s-maj=17.2km s-min=7.1km az=37.9*
IDC ***19*** *19:00:37.4±1.4,29°.90N×113°.85W,h0^{km},mb3.9/5, mb1 3.9/12,mb1mx3.8/26,mbtmp3.8/12,ML3.1/4,MS4.2/27, Ms1 4.2/27,ms1mx4.1/39,Error ellipse: s-maj=23.8km s-min=11.7km az=48.0*
ISC 19 19:00:36.8±1.2,**29°.6N**±0°.1×**114°.05W**±0°.09,**h10**^{km}**,n60,** σ**1^s.16**/42,**mb3.9**/6,**MS4.3**/22,**Baja California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLA	Glamis	3.52	349	*e*Pn	Pn	19 01 24.8	-6.9
BAR	Barrett	3.82	325	*e*Pn	Pn	19 01 29.1	-6.7
BAR				*e*Sn	Sn	19 02 22.6	+2.0
TUC	Tucson	3.91	45	*e*Pn	Pn	19 01 45.6	+8.7
PFO	Pinyon Flat Ob	4.51	334	*e*Pn	Pn	19 01 40.4	-4.7
MWC	Mount Wilson	5.75	325	*e*Pn	Pn	19 01 59.7	-2.5
	137nm,1.3s						
MWC				*e*Sn	Sn	19 03 23.6	+15
LPIG	La Paz	6.40	148	Pn	Pn	19 02 17.1	+5.9
	13nm,0.3s,baz=104,slow=3.3,SNR=4.1						
LPIG				Lg		19 04 06.2	
	2.7nm,0.3s,baz=191,slow=16,SNR=1.8						
LPIG				LR	LR	19 04 44.7	
	comp=Z,2µm,19.3s,baz=337,slow=38						
ANMO	Albuquerque	8.36	48	Pn	Pn	19 02 35.1	-2.9
	0.2nm,0.3s,baz=223,slow=9.2,SNR=3.9						
ANMO				Lg		19 04 54.0	
	0.2nm,0.3s,baz=273,slow=5.5,SNR=2.8						
ANMO				LR	LR	19 05 50.6	
	comp=Z,3µm,18.6s,baz=236,slow=39						
MSU	Marysvale	9.04	9	*e*Pn	Pn	19 02 52.6	+5.2
	11nm,0.7s						
TXAR	Lajitas Array	9.05	89	Pn	Pn	19 02 48.7	+1.1
	0.3nm,0.3s,baz=259,slow=13,SNR=8.3						
TXAR				Lg		19 05 24.4	
	0.4nm,0.3s,baz=252,slow=34,SNR=5.1						
NVAR	Mina Array Bea	9.50	339	Pn	Pn	19 02 55.7	+2.0
	0.1nm,0.3s,baz=171,slow=13,SNR=8.8						
NVAR				Lg		19 05 36.6	
	0.1nm,0.3s,baz=148,slow=20,SNR=4.0						
SDCO	Great Sand Dun	10.81	39	*e*Pn	Pn	19 03 13.5	+1.9
	12nm,1.3s						
ELK	Elko	11.18	355	Pn	Pn	19 03 16.0	-0.7
	0.1nm,0.3s,baz=190,slow=17,SNR=3.0						
ELK				LR	LR	19 07 18.5	
	comp=Z,403nm,18.4s,baz=171,slow=37						
AMTX	Amarillo	11.73	60	*e*Pn	Pn	19 03 29.8	+5.6
	21nm,1.1s						
MOD	Modoc	13.29	339	*e*Pn	Pn	19 03 46.0	+0.4
WVOR	Wild Horse Val	13.35	345	*e*Pn	Pn	19 03 46.4	+0.1
	66nm,1.6s						
PDAR	Pinedale Array	13.64	14	Pn	Pn	19 03 50.6	+0.3
	baz=206,slow=18,SNR=2.9						
PDAR				Lg		19 07 38.2	
	0.0nm,0.3s,baz=172,slow=14,SNR=2.1						
PDAR				LR	LR	19 09 16.1	
	comp=Z,479nm,20.1s,baz=211,slow=39						
HLID	Hailey	13.96	359	*e*Pn	Pn	19 03 55.0	+0.4
	46nm,2.1s						
YBH	Yreka Blue Hor	14.01	332	Pn	Pn	19 03 55.9	+0.6
	baz=276,slow=7.0,SNR=3.3						
YBH				LR	LR	19 09 18.1	
	comp=Z,983nm,18.3s,baz=153,slow=38						
MOOW	Moose Ponds	14.38	10	*e*Pn	Pn	19 04 00.7	+0.3
	6.5nm,1.1s						
YFT	Old Faithful	15.06	9	*e*Pn	Pn	19 04 11.2	+1.6
	37nm,1.4s						
MCMT	McKenzie Canyo	15.25	3	*e*Pn	Pn	19 04 12.2	+0.1
	8.7nm,1.5s						
YMR	Madison River	15.26	8	*e*Pn	Pn	19 04 12.6	+0.4
	33nm,1.4s						
YNR	Norris Junctio	15.34	9	*e*Pn	Pn	19 04 14.2	+0.9
	23nm,1.3s						
BMO	Blue Mountains	15.46	351	*e*Pn	Pn	19 04 13.9	-0.9
	29nm,1.6s						
BOZ	Bozeman (W)	16.15	6	*e*Pn	Pn	19 04 23.8	0.0
	31nm,1.8s						
HOOD	Mount Hood Mea	16.82	341	*e*Pn	Pn	19 04 30.6	-1.8
	75nm,1.5s						
CHMT	Chamberlain Mo	17.32	2	*e*Pn	Pn	19 04 37.9	-0.6
	13nm,1.4s						
HAWA	Hanford	17.32	347	*e*Pn	Pn	19 04 38.9	+0.2
	17nm,1.4s						
MIAR	Mount Ida	18.04	69	*e*P	Pn	19 04 46.8	-0.8
	26nm,1.4s						
BSMT	Bassoo Peak	18.25	358	*e*Pn	Pn	19 04 48.9	-1.2
	13nm,1.4s						
ECSD	EROS Data Cent	19.82	40	*e*P	Pn	19 05 08.3	-0.8
	35nm,1.4s						
DGMT	Dagmar	20.32	19	P	P	19 05 13.4	+0.5
	99nm,1.2s						
CMIG	Matias Romero	21.51	121	P	P	19 05 27.8	+1.8
	5.8nm,1.1s,mb3.9,baz=282,slow=9.1,SNR=4.9						
CMIG				LR	LR	19 14 14.2	
	comp=Z,1µm,18.5s,MS4.3,baz=289,slow=38						
PLAL	Pickwick Lake	22.58	69	*e*P	P	19 05 37.7	+0.3
	29nm,1.2s,mb4.6						
ULM	Lac du Bonnet	24.78	29	P	P	19 05 57.0	-1.7
	2.1nm,0.6s,mb3.8,baz=217,slow=10,SNR=4.0						
ULM				LR	LR	19 15 34.7	
	comp=Z,456nm,20.2s,MS4.0,baz=57,slow=37						
BBB	Bella Bella	24.87	339	LR	LR	19 15 26.2	
	comp=Z,492nm,18.3s,MS4.0,baz=321,slow=36						
TEIG	Tepich	25.12	106	LR	LR	19 19 20.5	
	comp=Z,611nm,18.2s,MS4.2,baz=273,slow=45						
SADO	Sadowa	31.40	51	LR	LR	19 20 32.0	
	comp=Z,594nm,19.5s,MS4.3,baz=269,slow=38						
YKA	Yellowknife Ar	32.92	360	P	P	19 07 09.2	-1.8
	0.1nm,0.4s,mb3.1,baz=178,slow=10,SNR=3.0						
JTS	JuntasAbangare	33.26	119	LR	LR	19 21 08.2	
	comp=Z,313nm,19.2s,MS4.0,baz=178,slow=37						
SCHQ	Schefferville	42.02	39	P	P	19 08 27.0	-1.1
	5.3nm,1.0s,mb4.1,baz=268,slow=7.7,SNR=3.9						
SCHQ				LR	LR	19 25 30.5	
	comp=Z,603nm,21.4s,MS4.5,baz=78,slow=36						
SCHQ	Schefferville	42.02	39	P	P	19 08 27.0	-1.1
SCHQ				LR	LR	19 25 30.4	
ROSC	El Rosal	44.85	115	LR	LR	19 30 02.5	
	comp=Z,211nm,18.7s,MS4.1,baz=207,slow=39						
TAOE	Nuku Hiva Isla	45.74	217	*e*LR	LR	19 21 51.9	
	1µm,23.8s						
RKT	Rikitea	56.13	203	*e*LR	LR	19 26 44.0	
	246nm,27.2s						
PPT	Papeete	58.07	221	*e*S	S	19 18 38.8	+7.3
	473nm,24.0s						
PPT				*e*LR	LR	19 27 43.2	
	696nm,27.0s						
PETK	Petropavlovsk-	65.93	319	LR	LR	19 34 27.0	
	comp=Z,95nm,21.7s,MS4.0,baz=261,slow=31						
AFI	Afiamalu	70.47	241	LR	LR	19 36 14.2	
	comp=Z,238nm,18.1s,MS4.5,baz=62,slow=30						
CPUP	Villa Florida	77.75	130	LR	LR	19 45 43.0	
	comp=Z,88nm,18.5s,MS4.1,baz=114,slow=35						
NOA	NORSAR Array B	79.38	24	LR	LR	19 45 25.8	
	comp=Z,135nm,19.7s,MS4.3,baz=320,slow=34						
PLCA	Paso Flores	80.74	148	LR	LR	19 42 40.2	
	comp=Z,79nm,18.4s,MS4.1,baz=106,slow=31						
ESDC	Sonseca Array	85.33	47	LR	LR	19 51 47.6	
	comp=Z,138nm,18.6s,MS4.4,baz=340,slow=36						
MJAR	Matsushiro Arr	85.56	310	LR	LR	19 45 07.1	
	comp=Z,120nm,20.0s,MS4.3,baz=70,slow=31						
CBIJ	Chichi jima	87.84	300	LR	LR	19 44 19.2	
	comp=Z,147nm,21.1s,MS4.4,baz=84,slow=30						
GERES	GERESS Array B	89.06	31	LR	LR	19 52 57.5	
	comp=Z,217nm,19.8s,MS4.6,baz=288,slow=35						
HNR	Honiara	91.15	260	LR	LR	19 48 48.6	
	comp=Z,252nm,18.1s,MS4.7,baz=209,slow=32						
AKASG	Malin Array Be	93.72	22	LR	LR	19 57 32.4	
	comp=Z,159nm,18.4s,MS4.5,baz=310,slow=37						
SONM	Songino Array	94.80	334	P	P	19 13 58.8	+0.1
	0.5nm,0.9s,mb4.0,baz=60,slow=3.6,SNR=4.3						
SONM				LR	LR	19 59 27.6	
	comp=Z,116nm,18.6s,MS4.4,baz=20,slow=37						
KEST	Kesra	96.00	43	LR	LR	19 55 05.6	
	comp=Z,85nm,21.5s,MS4.2,baz=313,slow=34						
JOW	Kunigami	98.11	307	LR	LR	19 52 47.3	
	comp=Z,80nm,20.2s,MS4.2,baz=123,slow=32						

IDC ***19*** *19:07:09.8±1.2,32°.66N×86°.70E,h0^{km},mb3.3/6, mb1 3.5/9,mb1mx3.4/26,mbtmp3.4/9,ML3.2/3,MS3.7/1, Ms1 3.7/1,ms1mx2.8/24,Error ellipse: s-maj=37.1km s-min=21.3km az=66.0*
NEIC ***19*** *19:07:14.1±0.5,33°.00N×86°.44E,h10^{km},mb3.6/2,Error ellipse: s-maj=14.2km s-min=5.7km az=92.0*
DMN ***19*** *19:07:27.2±2.9,31°.98N×86°.36E,h194^{km}±37^{km},Error ellipse: s-maj=78.2km s-min=13.8km az=11.0*
ISC 19 19:07:14.8±3.4,**32°.97N**±0°.05×**86°.7E**±0°.1,**h16**^{km}±25^{km}, **n24,**σ**0^s.90**/24,**mb3.4**/6,**Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	4.99	130	*e*Pn	Pn	19 08 34.8	+5.7
	16nm,0.8s						
LSA				*e*Sn	Sg	19 09 54.1	-0.8
GUN	Gumba	5.10	189	*e*P	Pn	19 08 30.8	+0.3
	23nm,0.6s						
DANN	Dangsing	5.27	210	*e*P	Pn	19 08 33.2	+0.3
GKN	Gorkha	5.28	201	*e*P	Pn	19 08 32.6	-0.3
	6.9nm,0.4s						
JIRN	Jiri	5.32	185	*e*P	Pn	19 08 34.1	+0.6
	11nm,0.5s						
KKN	Kakani	5.32	194	*e*P	Pn	19 08 33.2	-0.3
	8.5nm,0.5s						
PKI	Pulchoki	5.51	192	*e*P	Pn	19 08 36.4	+0.3
	8.0nm,0.2s						
DMN	Daman	5.53	195	*e*P	Pn	19 08 36.5	+0.1
	15nm,0.4s						
TAPN	Taplejung	5.67	171	*e*P	Pn	19 08 39.9	+1.6
RAMN	Ramite	6.00	181	*e*P	Pn	19 08 42.7	-0.3
ODAN	Odare	6.12	175	*e*P	Pn	19 08 44.7	+0.2
MKAR	Makanchi Array	14.21	347	Pn	Pn	19 10 35.7	+0.4
	0.0nm,0.3s,baz=143,slow=14,SNR=2.7						
CMAR	Chiang Mai Arr	18.14	140	P	Pn	19 11 20.9	-5.1
	0.1nm,0.3s,baz=315,slow=11,SNR=3.2						
KURK	Kurchatov	18.71	344	P	Pn	19 11 32.4	-0.4
	0.1nm,0.3s,baz=159,slow=11,SNR=4.4						
KURK	Kurchatov	18.71	344	Pn	Pn	19 11 31.3	-1.5
	5.3nm,1.1s						
SONM	Songino Array	20.99	39	P	P	19 11 57.3	0.0
	0.2nm,0.3s,baz=223,slow=12,SNR=3.1						
ZALV	Zalesovo Beam	21.01	357	P	P	19 11 58.9	+1.5
	1.6nm,0.8s,mb3.4,baz=172,slow=12,SNR=7.3						
ZALV	Zalesovo Beam	21.01	357	P	P	19 11 58.9	+1.5
ULN	Ulaanbaatar	21.36	40	P	P	19 12 02.6	+1.3
	1.8nm,0.8s,mb3.5						
BVAR	Borovoye Array	23.23	334	P	P	19 12 20.4	-0.7
	0.2nm,0.5s,mb2.8,baz=144,slow=10,SNR=3.0						
KMBO	Kilima Mbogo	57.63	244	LR	LR	19 40 24.4	
	comp=Z,71nm,20.4s,baz=97,slow=35						
ASAR	Alice Springs	72.07	135	P	P	19 18 34.8	-3.5
	0.5nm,0.5s,mb3.7,baz=314,slow=6.1,SNR=4.7						
TORD	Torodi Ar. Bea	78.86	278	P	P	19 19 15.6	-2.0
	0.7nm,0.7s,mb3.7,baz=37,slow=4.4,SNR=4.5						
YKA	Yellowknife Ar	83.33	10	P	P	19 19 40.1	-0.4
	0.4nm,0.8s,mb3.5,baz=334,slow=5.0,SNR=5.0						

IDC ***19*** *19:18:31.6±4.1,29°.91N×114°.24W,h0^{km},mb1 3.5/3, mb1mx3.3/21,mbtmp3.0/3,ML3.3/2,Error ellipse: s-maj=62.1km s-min=15.0km az=34.0*
NEIC ***19*** *19:18:33.4±2.3,29°.88N×114°.24W,h10^{km},ML3.3,Error ellipse: s-maj=33.1km s-min=10.5km az=205.0*
ISC 19 19:18:34.1±2.4,**29°.9N**±0°.2×**114°.3W**±0°.1,**h10**^{km}**,n11,** σ**1^s.33**/13,**Baja California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLA	Glamis	3.15	353	*e*Pn	Pn	19 19 23.9	+0.1
BAR	Barrett	3.40	325	*e*Pn	Pn	19 19 27.9	+0.8
BAR				*e*Sg	Sg	19 20 21.9	-1.4
TUC	Tucson	3.87	51	*e*Pn	Pn	19 19 36.1	+2.5
PFO	Pinyon Flat Ob	4.10	335	*e*Pn	Pn	19 19 36.3	-0.4
PFO				*e*Pg	Pg	19 19 51.9	-0.7
WUAZ	Wupatki	6.12	23	*e*Pn	Pn	19 20 04.7	+0.1
	3.5nm,0.7s						
ISA	Isabella	6.70	330	*e*Pn	Pn	19 20 16.1	+3.6
CCUT	Cedar City	7.66	6	Pn	Pn	19 20 20.5	-5.1
ANMO	Albuquerque	8.34	51	Pn	Pn	19 20 33.2	-1.8
NVAR	Mina Array Bea	9.10	340	Pn	Pn	19 20 46.4	+1.0
	0.1nm,0.3s,baz=165,slow=14,SNR=2.5						
TXAR	Lajitas Array	9.31	91	Pn	Pn	19 20 46.8	-1.6
	0.1nm,0.3s,baz=268,slow=15,SNR=8.3						
TXAR				Lg		19 23 25.9	
	0.1nm,0.3s,baz=276,slow=34,SNR=6.4						
PDAR	Pinedale Array	13.39	15	Pn	Pn	19 21 46.0	+1.9
	baz=195,slow=10,SNR=2.0						

IDC ***19*** *19:36:25.5±0.6,44°.32N×148°.08E,h0^{km},mb3.8/15, mb1 4.0/17,mb1mx3.9/23,mbtmp3.7/17,ML3.3/2,MS2.9/2, Ms1 2.9/2,ms1mx2.7/44,Error ellipse: s-maj=21.4km s-min=15.3km az=149.0*
BJI ***19*** *19:36:30.5,44°.29N×148°.33E,h70^{km},mB5.0/2*
MOS ***19*** *19:36:30.8±1.2,44°.30N×147°.97E,h50^{km},mb4.1/12,Error ellipse: s-maj=10.7km s-min=9.1km az=94.1*
SKHL ***19*** *19:36:31.8±1.7,44°.34N×148°.09E,h46^{km}±7^{km},mb4.7/3*
JMA ***19*** *19:36:31.8±0.2,43°.97N×147°.73E,h0^{km},M4.7*
ISCJB ***19*** *19:36:31.3±0.8,44°.29N±0°.05×148°.00E±0°.08,h53^{km}±6^{km}, mb3.9/23,Error ellipse: s-maj=11.7km s-min=5.4km az=42.4*
NEIC ***19*** *19:36:32.6±1.1,44°.25N×148°.06E,h53^{km}±9^{km},mb4.8/4, Error ellipse: s-maj=10.9km s-min=7.8km az=139.0*
ISC 19 19:36:32.4±0.8,**44°.32N**±0°.05×**148°.00E**±0°.08,**h44**^{km}±6^{km}, **n77,**σ**1^s.16**/90,**mb3.9**/23,**5C-9D,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	0.92	354	⇓*i*PN	Pn	19 36 46.7	-2.2
KUR				*e*S	Sn	19 36 59.2	-1.7
KUR				pmax	pmax		
	comp=Z,480nm,0.5s						
KUR				pmax	pmax		
	comp=Z,2µm,1.0s						
KUR				pmax	pmax		
	comp=N,380nm,0.5s						
KUR				pmax	pmax		
	comp=E,300nm,0.5s						
KUR				smax			
	comp=N,3µm,0.4s						
KUR				smax			
	comp=E,4µm,0.4s						
KUR				smax			
	comp=N,4µm,1.0s						
KUR				smax			
	comp=E,8µm,1.0s						
KUR	Kuril'sk	0.92	354	⇓*i*P	Pn	19 36 46.7	-2.2
KUR				AMB	AMB	19 36 47.3	
	comp=E,380nm,0.5s						
KUR				AMB	AMB	19 36 47.3	
	comp=E,300nm,0.5s						
KUR				AMB	AMB	19 36 47.3	
	comp=E,480nm,0.5s						
KUR				AMB	AMB	19 36 47.4	
	comp=E,2µm,1.0s						
KUR				*i* S	Sn	19 36 59.2	-1.7
KUR				A		19 37 02.0	
	comp=E,3µm,0.4s						
KUR				A		19 37 02.0	
	comp=E,4µm,0.4s						
KUR				A		19 37 02.4	
	comp=E,4µm,1.0s						
KUR				A		19 37 02.4	
	comp=E,8µm,1.0s						
YUK	Yuzh-Kuril'sk	1.56	260	⇓*i*PN	Pn	19 36 57.5	-0.1
YUK				*i* S	Sn	19 37 15.5	-1.2
YUK				pmax	pmax		
	comp=E,210nm,0.4s						
YUK				pmax	pmax		
	comp=Z,810nm,0.4s						
YUK				smax			
	comp=E,2µm,0.4s						
YUK				smax			
	comp=E,6µm,0.5s						
YUK				smax			
	comp=N,6µm,1.0s						
YUK	Yuzh-Kuril'sk	1.56	260	⇓*i*P	Pn	19 36 57.5	-0.1
YUK				AMB	AMB	19 36 57.7	
	comp=N,210nm,0.4s						
YUK				AMB	AMB	19 36 57.7	
	comp=N,810nm,0.4s						
YUK				*i* S	Sn	19 37 15.5	-1.2
YUK				A		19 37 22.9	
	comp=N,2µm,0.5s						
YUK				A		19 37 22.9	
	comp=N,6µm,0.5s						
YUK				A		19 37 26.3	
	comp=N,6µm,1.0s						
NEM2	Nemuro 2	1.89	240	P	Pn	19 37 01.0	-1.1
NEM2				*e*S	Sn	19 37 22.0	-2.7
JRA	Rausu	2.10	261	P	Pn	19 37 05.8	+0.7
JNK	Nakash	2.48	254	P	Pn	19 37 10.6	+0.4
JNK				*e*S	Sn	19 37 39.1	-0.1
JAK	Akkeshi	2.74	242	P	Pn	19 37 13.0	-0.7

JAK				eS	Sn	19 37 43.0	-2.5
JTKR	Abashiri--Toko	2.96	265	P	Pn	19 37 18.0	+1.1
JAR	Ashorobuto	3.23	253	P	Pn	19 37 21.5	+1.0
JAR				eS	Sn	19 37 58.5	+0.9
JOB	Onbets	3.34	246	P	Pn	19 37 22.4	+0.4
JOB				eS	Sn	19 37 59.1	-1.3
JMP	Maruseppu	3.35	266	P	Pn	19 37 23.8	+1.6
JCH	Churui	3.78	245	P	Pn	19 37 27.9	-0.2
JCH				eS	Sn	19 38 09.5	-1.7
JKK2	Kamakawa 2	3.81	265	P	Pn	19 37 30.7	+2.3
ASAJ	Asahikawa	3.89	269	PN	Pn	19 37 32.0	+2.5
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,146nm,20.3s						
ASAJ	Asahikawa	3.89	269	Pn	Pn	19 37 31.9	+2.4
	comp=Z,2.6nm,0.3s,baz=70,slow=18,SNR=19						
ASAJ				LR	LR	19 39 08.5	
	comp=Z,146nm,20.3s,baz=156,slow=41						
JSE	Soyaes	3.92	281	P	Pn	19 37 31.7	+1.8
JFR	Furan	4.08	255	P	Pn	19 37 34.5	+2.3
JFR				eS	Sn	19 38 21.2	+2.5
ERM	Erimo	4.22	239	eP	Pn	19 37 34.7	+0.6
ERM	Erimo	4.22	239	ePn	Pn	19 37 35.1	+1.0
ERM				eSn	Sn	19 38 17.1	-5.0
JNBK	Urakawa-nobuka	4.34	244	P	Pn	19 37 35.2	-0.5
JWK2	Keihoku	4.45	285	P	Pn	19 37 40.7	+3.4
YSS	Yuzh-Sakhalins	4.52	307	⇓iPN	Pn	19 37 39.9	+1.7
YSS				eS	Sn	19 38 28.0	-1.5
YSS				pmax	pmax		
	comp=Z,50nm,0.6s						
YSS				pmax	pmax		
	comp=N,20nm,0.4s						
YSS				pmax	pmax		
	comp=E,30nm,0.4s						
YSS	Yuzh-Sakhalins	4.52	307	⇓iP	Pn	19 37 39.9	+1.7
YSS				AMB	AMB	19 37 40.9	
	comp=E,20nm,0.4s						
YSS				AMB	AMB	19 37 40.9	
	comp=E,30nm,0.4s						
YSS				AMB	AMB	19 37 40.9	
	comp=E,50nm,0.6s						
YSS				eS	Sn	19 38 28.0	-1.5
YSS	Yuzh-Sakhalins	4.52	307	ePn	Pn	19 37 40.2	+1.9
JHR	Hokuryu	4.56	265	P	Pn	19 37 42.5	+3.7
JEW	Eniwo	4.98	255	P	Pn	19 37 47.7	+3.2
HABR	Khabarovsk	9.86	299	PN	Pn	19 38 50.0	-1.4
HABR				MLR	MLR		
	comp=Z,44nm,17.0s						
MJAR	Matsushiro Arr	10.76	227	Pn	Pn	19 39 02.1	-1.7
	comp=Z,0.2nm,0.3s,baz=30,slow=18,SNR=3.8						
MAJO	Matsushiro	10.76	227	PN	Pn	19 38 58.0	-5.8
KSRS	Korea Array	16.64	253	Pn	Pn	19 40 20.4	-1.9
	comp=Z,0.1nm,0.3s,baz=50,slow=12,SNR=2.8						
KSRS				LR	LR	19 46 18.3	
	comp=Z,43nm,21.8s,baz=55,slow=35						
SEY	Seymchan	18.82	6	⇓iP	Pn	19 40 48.6	-0.3
YAK	Yakutsk	20.73	335	⇑iP	P	19 41 08.3	-0.4
YAK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
BILL	Bilibino	25.64	16	⇑eP	P	19 41 57.8	+0.4
BILL				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.6						
BILL	Bilibino	25.64	16	eP	P	19 41 57.4	0.0
	comp=Z,24nm,1.0s,mb4.7						
SONM	Songino Array	28.82	292	P	P	19 42 27.0	+0.9
	comp=Z,0.3nm,0.6s,mb3.2,baz=75,slow=11,SNR=3.1						
TIXI	Tiksi	28.93	348	⇓iP	P	19 42 28.1	+1.3
TIXI				pmax	pmax		
	comp=Z,5.0nm,2.5s,mb3.8						
COLA	College	40.25	36	⇓iP	P	19 44 05.4	+1.0
ZALV	Zalesovo Beam	41.15	307	P	P	19 44 11.7	-0.2
ZALV						19 46 09.9	
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
ZALV	Zalesovo Beam	41.15	307	P	P	19 44 11.7	-0.2
	comp=Z,0.4nm,0.4s,mb3.4,baz=76,slow=6.1,SNR=2.4						
ZALV				PcP	PcP	19 46 09.9	-0.5
	comp=Z,1.9nm,0.6s,baz=101,slow=2.1,SNR=8.9						
MKAR	Makanchi Array	44.86	297	P	P	19 44 42.0	-0.1
MKAR						19 46 22.7	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	44.86	297	P	P	19 44 42.0	-0.1
	comp=Z,0.9nm,0.6s,mb3.8,baz=76,slow=9.5,SNR=16						
MKAR				PcP	PcP	19 46 22.7	-0.4
	comp=Z,0.7nm,0.6s,baz=70,slow=4.2,SNR=7.9						
MKAR	Makanchi Array	44.86	297	P	P	19 44 42.0	-0.1
MKAR				PcP	PcP	19 46 22.7	-0.4
KURK	Kurchatov	45.72	304	⇑iP	P	19 44 48.5	-0.3
KURK				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.1						
CMAR	Chiang Mai Arr	48.27	254	P	P	19 45 09.4	+0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	48.27	254	P	P	19 45 09.4	+0.3
	comp=Z,0.7nm,0.7s,mb3.8,baz=44,slow=7.2,SNR=7.4						
TAPN	Taplejung	50.61	272	eP	P	19 45 27.0	+0.2
	comp=Z,5.5nm,0.8s,mb4.5						
JIRN	Jiri	51.52	273	eP	P	19 45 34.1	+0.5
GUN	Gumba	51.59	273	eP	P	19 45 34.6	+0.4
RAMN	Ramite	51.64	272	eP	P	19 45 34.2	-0.4
	comp=Z,10nm,0.5s,mb5.0						
AAK	Ala-Archa	51.66	296	⇑iP	P	19 45 34.8	+0.3
AAK				pmax	pmax		
	comp=Z,2.0nm,2.5s,mb3.6						
KKN	Kakani	52.09	274	eP	P	19 45 38.2	+0.3
PKI	Pulchoki	52.13	273	eP	P	19 45 37.9	-0.3
DMN	Daman	52.32	274	eP	P	19 45 39.9	+0.3
	comp=Z,10nm,0.7s,mb4.9						
GKN	Gorkha	52.43	274	eP	P	19 45 40.0	-0.4
DANN	Dangsing	52.85	275	eP	P	19 45 44.2	+0.7
ARU	Arti	54.35	317	⇑iP	P	19 45 53.5	-0.6
ARU				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.1						
YKA	Yellowknife Ar	54.99	34	P	P	19 45 59.0	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	54.99	34	P	P	19 45 59.0	+0.4
	comp=Z,0.9nm,0.6s,mb4.0,baz=299,slow=7.1,SNR=13						
YKA	Yellowknife Ar	54.99	34	P	P	19 45 59.0	+0.4
FFC	Flin Flon	64.88	37	i P	P	19 47 07.7	+1.1
WRA	Warramunga Arr	65.16	194	P	P	19 47 08.0	-0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	65.16	194	P	P	19 47 08.0	-0.7
	comp=Z,0.9nm,0.8s,mb3.8,baz=8.4,slow=6.6,SNR=5.9						
NVAR	Mina Array Bea	66.76	59	P	P	19 47 19.7	+0.8
	comp=Z,0.3nm,0.6s,mb3.5,baz=306,slow=7.7,SNR=2.4						
ASAR	Alice Springs	68.87	194	P	P	19 47 32.1	-0.1
	comp=Z,0.2nm,0.5s,mb3.4,baz=12,slow=6.2,SNR=2.8						
PDAR	Pinedale Array	69.08	50	P	P	19 47 32.0	-1.4
	comp=Z,0.3nm,0.7s,mb3.4,baz=298,slow=3.2,SNR=3.7						
NB2	NORSAR Subarra	69.29	339	P	P	19 47 33.4	-1.1
	comp=Z,0.5nm,0.5s,mb3.7,baz=30,slow=6.5						
NOA	NORSAR Array B	69.29	339	P	P	19 47 33.6	-0.9
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	69.29	339	P	P	19 47 33.6	-0.9
	comp=Z,0.5nm,0.5s,mb3.7,baz=31,slow=6.2,SNR=5.4						
ULM	Lac du Bonnet	70.68	38	P	P	19 47 42.0	-1.2
	comp=Z,1.1nm,0.5s,mb4.1,baz=323,slow=20,SNR=2.5						
SCHQ	Schefferville	76.88	20	P	P	19 48 19.0	-0.4
	comp=Z,2.9nm,0.9s,mb4.2,baz=319,slow=11,SNR=3.7						
BRTR	Keskin Array B	77.59	314	P	P	19 48 23.8	+0.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
BRTR	Keskin Array B	77.59	314	P	P	19 48 23.8	+0.1
	comp=Z,1.7nm,1.1s,mb3.9,baz=19,slow=6.1,SNR=2.9						
GERES	GERESS Array B	78.96	331	P	P	19 48 29.9	-1.1
	comp=Z,0.4nm,0.5s,mb3.6,baz=38,slow=6.8,SNR=4.2						
TXAR	Lajitas Array	81.83	57	P	P	19 48 46.8	0.0
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	81.83	57	P	P	19 48 46.8	0.0
	comp=Z,0.5nm,0.6s,mb3.6,baz=300,slow=3.7,SNR=8.4						
TORD	Torodi Ar. Bea	115.11	323	PKP	PKiKP	19 55 07.3	-1.7
	comp=Z,0.2nm,0.3s,baz=31,slow=1.9,SNR=3.8						

IDC 19 19:54:32.4±2.7, 30.°30N×113.°42W, h0km, mb1 3.7/4, mb1mx3.4/22, mbtmp3.3/4, ML3.5/4, Error ellipse: s-maj=38.8km s-min=15.0km az=33.0, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANMO	Albuquerque	7.47	50	Pn	Pn	19 56 23.3	+0.6
	0.4nm,0.3s,baz=235,slow=14,SNR=5.8						
ANMO				Lg		19 58 32.6	
	0.0nm,0.3s,baz=292,slow=19,SNR=2.3						
TXAR	Lajitas Array	8.52	94	Pn	Pn	19 56 38.2	+1.1
	0.4nm,0.3s,baz=268,slow=8.7,SNR=14						
TXAR				Lg		19 58 58.8	
	0.1nm,0.3s,baz=301,slow=18,SNR=2.5						
NVAR	Mina Array Bea	9.05	335	Pn	Pn	19 56 46.0	+1.7
	0.1nm,0.3s,baz=161,slow=13,SNR=3.9						
PDAR	Pinedale Array	12.82	13	Pn	Pn	19 57 39.0	+3.1
	0.0nm,0.3s,baz=183,slow=12,SNR=3.7						

PRE 19 20:15:08.8±1.3, 29.°52S×18.°29E, h5km, ML3.5, South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UPI	Upington	2.84	67	eP	Pn	20 15 56.2	+1.5
UPI				eS	Sn	20 16 28.9	-0.4
UPI				AML	AML	20 16 42.9	
	comp=Z,70nm,0.7s						
SUR	Sutherland	3.58	143	eP	Pn	20 16 05.6	+0.7
SUR				eS	Sn	20 16 48.0	+0.4
PKA	Prieska	3.89	93	eP	Pn	20 16 10.3	+1.1
PKA				eS	Sn	20 16 53.9	-1.4
PKA				AML	AML	20 17 11.9	
	comp=Z,58nm,0.3s						
ELIM	Elim	5.21	167	eP	Pn	20 16 27.2	-0.2
ELIM				eS	Sn	20 17 25.6	-2.1
ELIM				AML	AML	20 17 54.3	
	comp=Z,26nm,0.4s						
BOSA	Boshof	6.16	83	eP	Pn	20 16 42.0	+1.5
BOSA				eS	Sn	20 17 48.5	-2.8
BOSA				AML	AML	20 18 23.2	
	comp=Z,37nm,0.5s						
SOE	Somerset East	6.99	119	eP	Pn	20 16 52.8	+0.9
SOE				eS	Sn	20 18 09.7	-2.1

NEIC 19 20:17:53.2, 35.°78S×178.°60E, h216km, MG3.9(WEL), After WEL., Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.80	187	P	Pn	20 18 30.7	-0.2
MXZ				S	S	20 19 01.1	+0.6
PUZ	Puketiti	2.31	187	P	Pn	20 18 36.0	+0.1
MWZ	Matawai	2.69	198	P	Pn	20 18 40.9	+0.8
URZ	Urewera	2.75	205	P	Pn	20 18 40.6	-0.1
KNZ	Kokohu	3.32	193	P	Pn	20 18 47.2	-0.1
BKZ	Black Stump Fm	3.77	206	P	Pn	20 18 52.8	+0.1
MOVZ	Moawhango	4.27	211	P	Pn	20 18 57.8	-1.0
WNVZ	Wahianoa	4.27	213	P	Pn	20 18 59.0	+0.2
TSZ	Takapari Road	4.75	205	P	Pn	20 19 03.7	-1.1
BFZ	Birch Farm	5.23	200	P	Pn	20 19 09.4	-1.4
MRZ	Mangatainoka R	5.42	205	P	Pn	20 19 11.2	-2.0
KIW	Kapiti Island	5.84	209	P	Pn	20 19 16.4	-2.2
MTW	Mount Morrison	5.89	203	P	Pn	20 19 16.9	-2.3
CAW	Cannon Point	6.00	206	P	Pn	20 19 18.2	-2.4
PAWZ	Paruwai Farm	6.12	203	P	Pn	20 19 19.5	-2.6
TCW	Tory Channel	6.40	211	P	Pn	20 19 22.8	-2.9
NNZ	Nelson	6.80	215	P	Pn	20 19 28.1	-2.7
THZ	Tophouse	7.45	215	P	Pn	20 19 37.3	-1.9
LTZ	Lake Taylor	8.54	213	P	Pn	20 19 50.1	-3.2

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*BJI **19** 20:24:24.0, 29.°83N×113.°85W, h19km, mB4.7/1, mb4.8/4, Ms4.8/2, Ms7 4.6/4*

*ISCJB **19** 20:24:27.0±0.5, 29.°81N±0.°04×113.°98W±0.°04, h10km, mb4.3/11, MS4.4/29, Error ellipse: s-maj=6.6km s-min=4.8km az=30.3*

*NEIC **19** 20:24:27.9±0.9, 29.°79N×114.°06W, h10km, mb4.4/30, Error ellipse: s-maj=12.2km s-min=6.8km az=214.0*

*GCMT **19** 20:24:27.9±0.2, 29.°87N×114.°22W, h12km, MW5.1/90, Moment Tensor Solution. s34,c41; s90,c150; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.26±.13; $M_{\theta\theta}$-1.27±.12; $M_{\phi\phi}$5.53±.10; $M_{r\theta}$-0.55±.42; $M_{\theta\phi}$-1.16±.10; $M_{\phi r}$-1.24±.30; Best double couple: $M_0$5.20700×10^{16} NP1:ϕ_s157.00000°,δ40.00000°,λ-111.00000°. NP2: ϕ_s3.00000°,δ53.00000°,λ-73.00000°. Principal axes: T 5.8510, Plg6.0000°, Azm81.0000°; N -1.2880, Plg13.0000°, Azm173.0000°; P -4.5630, Plg75.0000°, Azm326.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **19** 20:24:27.6±1.1, 29.°99N×113.°87W, h0km, mb3.9/7, mb1 4.1/14, mb1mx4.0/27, mbtmp3.9/14, ML3.7/7, MS4.4/34, Ms1 4.4/34, ms1mx4.3/48 Error ellipse: s-maj=20.2km s-min=10.9km az=44.0*

ISC 19 20:24:27.5±0.6, 29.°68N±0.°05×114.°09W±0.°04, h10km, n116, σ1.s28/97, mb4.3/11, MS4.4/29, Baja California

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLA	Glamis	3.42	349	ePn	Pn	20 25 15.4	-5.5
GLA				ePg	Pg	20 25 31.9	-1.2
BAR	Barrett	3.72	324	ePn	Pn	20 25 19.3	-5.7
BAR				eSn	Sn	20 26 14.6	+5.7
TUC	Tucson	3.86	46	ePn	Pn	20 25 22.3	-4.6
TUC				eSg	Sg	20 26 33.0	+1.6
PFO	Pinyon Flat Ob	4.41	333	ePn	Pn	20 25 28.7	-5.8
MWC	Mount Wilson	5.65	324	ePn	Pn	20 25 46.6	-4.9
	58nm,0.9s						
MWC				eS	Sb	20 27 14.3	+0.3
WUAZ	Wupatki	6.25	21	ePn	Pn	20 25 57.8	-2.0
	87nm,1.1s						
LPIG	La Paz	6.50	148	Pn	Pn	20 26 07.8	+4.6
	12nm,0.3s,baz=96,slow=9.2,SNR=5.6						
LPIG				Lg		20 27 59.1	
	10nm,0.3s,baz=126,slow=17,SNR=2.4						
LPIG				LR	LR	20 28 44.5	
	comp=Z,5µm,18.2s,baz=334,slow=38						
ISA	Isabella	7.02	329	ePn	Pn	20 26 08.2	-2.1
	14nm,0.9s						
LAZ	Ladron	7.54	50	ePn	Pn	20 26 14.4	-3.1
	19nm,1.2s						
LAZ				eSg	Sg	20 28 32.6	+3.0
BNM	Barren Site	7.75	53	ePn	Pn	20 26 17.4	-2.9
	9.6nm,0.3s						
BNM				eSg	Sg	20 28 34.9	-1.2
CCUT	Cedar City	7.87	4	ePn	Pn	20 26 20.5	-1.5
	38nm,0.8s						
ARUT	Antelope Range	8.11	4	ePn	Pn	20 26 23.2	-2.0
	172nm,0.8s						
ANMO	Albuquerque	8.32	49	Pn	Pn	20 26 25.3	-2.8
	0.5nm,0.3s,baz=214,slow=11,SNR=9.2						
ANMO				Sn	Sn	20 27 57.0	-5.2
	0.4nm,0.3s,baz=234,slow=19,SNR=2.4						
ANMO				Lg		20 28 42.1	
	0.3nm,0.3s,baz=230,slow=13,SNR=3.5						
ANMO				LR	LR	20 29 52.8	
	comp=Z,5µm,18.1s,baz=235,slow=41						
ANMO	Albuquerque	8.32	49	ePn	Pn	20 26 25.4	-2.7
	18nm,0.7s						
TPH	Tonopah	8.77	344	ePn	Pn	20 26 35.4	+1.1
	19nm,1.2s						
MVCO	Mesa Verde	8.84	30	ePn	Pn	20 26 34.2	-1.1
	59nm,0.9s						
MSU	Marysvale	8.95	10	ePn	Pn	20 26 31.8	-4.9
	49nm,1.1s						
TXAR	Lajitas Array	9.09	90	Pn	Pn	20 26 38.6	-0.1
	0.5nm,0.3s,baz=267,slow=14,SNR=16						
TXAR				Lg		20 29 13.6	
	0.5nm,0.3s,baz=283,slow=29,SNR=3.9						
TXAR				LR	LR	20 30 20.9	
	comp=Z,4µm,21.4s,baz=25,slow=40						
TXAR	Lajitas Array	9.09	90	Pn	Pn	20 26 38.6	-0.1
TXAR				Lg		20 29 13.6	
TXAR				LR	LR	20 30 20.9	
NVAR	Mina Array Bea	9.40	339	Pn	Pn	20 26 43.4	+0.5
	0.2nm,0.3s,baz=173,slow=11,SNR=17						
NVAR				Lg		20 29 28.5	
	0.1nm,0.3s,baz=171,slow=34,SNR=2.4						
PV01	Paradox Valley	9.59	27	ePn	Pn	20 26 45.6	-0.1
	1µm,0.9s						
PV04	Paradox Valley	9.69	25	ePn	Pn	20 26 47.0	0.0
SRU	San Rafael	9.86	16	ePn	Pn	20 26 48.2	-1.0
	10nm,0.7s						
MPU	Maple Canyon	10.51	10	ePn	Pn	20 26 59.3	+1.2
	8.7nm,0.7s						
SDCO	Great Sand Dun	10.76	39	ePn	Pn	20 27 04.1	+2.5
	11nm,1.2s						
DAU	Daniels Canyon	10.96	11	ePn	Pn	20 27 02.9	-1.4
	29nm,1.4s						
ELK	Elko	11.08	355	Pn	Pn	20 27 04.0	-1.9
	0.1nm,0.3s,baz=170,slow=12,SNR=3.2						
ELK				LR	LR	20 31 17.7	
	comp=Z,1µm,19.9s,baz=194,slow=38						
SPUT	South Promonto	11.68	6	ePn	Pn	20 27 15.7	+1.5
	26nm,1.4s						
HVU	Hansel Valley	12.12	5	ePn	Pn	20 27 21.4	+1.2
	22nm,1.4s						
ISCO	Idaho Springs	12.26	32	ePn	Pn	20 27 25.5	+3.5
	18nm,1.5s						
JCT	Junction City	12.40	83	ePn	Pn	20 27 24.9	+0.9
	19nm,0.9s						
MOD	Modoc	13.19	339	ePn	Pn	20 27 36.0	+1.2
WVOR	Wild Horse Val	13.25	345	ePn	Pn	20 27 36.0	+0.5
	53nm,1.5s						
AHID	Auburn Hatcher	13.28	10	ePn	Pn	20 27 36.6	+0.7
	14nm,1.0s						
PDAR	Pinedale Array	13.56	14	Pn	Pn	20 27 41.4	+1.5
	0.0nm,0.3s,baz=187,slow=10,SNR=15						
PDAR				Lg		20 31 32.3	
	0.1nm,0.3s,baz=127,slow=24,SNR=2.7						
PDAR				LR	LR	20 33 06.4	
	comp=Z,1µm,18.3s,baz=207,slow=39						
RRI2	Red Ridge	13.82	8	ePn	Pn	20 27 44.3	+1.0
	46nm,1.6s						
HLID	Hailey	13.86	359	ePn	Pn	20 27 45.3	+1.4
	28nm,1.6s						
REDW	Red Top Meadow	13.90	10	ePn	Pn	20 27 40.6	-3.9
	31nm,1.4s						
YBH	Yreka Blue Hor	13.91	332	Pn	Pn	20 27 46.5	+1.9
	0.1nm,0.3s,baz=112,slow=10,SNR=3.7						
YBH				LR	LR	20 33 02.4	
	comp=Z,1µm,21.0s,baz=151,slow=38						
YBH	Yreka Blue Hor	13.91	332	ePn	Pn	20 27 45.0	+0.5
	40nm,1.6s						
TPAW	Teton Pass	14.01	9	ePn	Pn	20 27 46.6	+0.6
	73nm,1.8s						
DCID1	Drake Creek	14.08	9	ePn	Pn	20 27 47.6	+0.7
	85nm,1.6s						
LOHW	Long Hollow	14.18	10	ePn	Pn	20 27 49.0	+0.7
	24nm,1.5s						
MOOW	Moose Ponds	14.29	10	ePn	Pn	20 27 50.6	+0.8
	16nm,1.3s						
IMW	Indian Meadow	14.41	9	ePn	Pn	20 27 52.3	+0.9
	32nm,1.4s						
YFT	Old Faithful	14.97	9	ePn	Pn	20 28 00.7	+1.6
	77nm,1.6s						
LKWY	Lake	15.14	10	Pn	Pn	20 28 03.9	+2.5
	47nm,1.5s						
MCMT	McKenzie Canyo	15.15	3	ePn	Pn	20 28 02.9	+1.4
	8.6nm,1.2s						
YMR	Madison River	15.16	9	ePn	Pn	20 28 02.4	+0.8
	96nm,1.8s						
YNR	Norris Junctio	15.25	9	ePn	Pn	20 28 04.2	+1.5
	40nm,1.3s						
BMO	Blue Mountains	15.36	351	ePn	Pn	20 28 02.7	-1.5
	31nm,1.4s						
DLMT	Dillon	15.70	4	ePn	Pn	20 28 10.0	+1.4
	31nm,1.4s						
HKT	Hockley	15.85	84	ePn	Pn	20 28 11.2	+0.6
	96nm,1.9s						
RLMT	Red Lodge	15.88	13	ePn	Pn	20 28 10.9	-0.1
	28nm,1.4s						
BOZ	Bozeman (W)	16.06	6	ePn	Pn	20 28 13.4	+0.2
	27nm,1.5s						
LRM	Limekiln Ridge	16.17	4	ePn	Pn	20 28 15.5	+0.9
	162nm,1.5s						
RSSD	Black Hills	16.48	26	ePn	Pn	20 28 17.7	-1.1
	25nm,1.4s						
HOOD	Mount Hood Mea	16.71	341	ePn	Pn	20 28 21.8	+0.1
	141nm,1.5s						
MSO	Missoula	17.12	0	ePn	Pn	20 28 26.6	-0.1
	24nm,1.4s						
CHMT	Chamberlain Mo	17.22	2	ePn	Pn	20 28 28.2	+0.2
	30nm,1.5s						
HAWA	Hanford	17.22	347	ePn	Pn	20 28 28.0	0.0
	57nm,1.7s						
SLMT	Seeley Lake	17.54	1	ePn	Pn	20 28 32.1	+0.1
	36nm,1.4s						
SWMT	Swartz Lake	17.80	0	ePn	Pn	20 28 34.8	-0.4
	9.7nm,1.2s						
MIAR	Mount Ida	18.03	69	ePn	Pn	20 28 39.8	+1.6
	65nm,1.7s						
JTMT	Jette	18.04	360	ePn	Pn	20 28 37.8	-0.4
	13nm,1.2s						
LAO	LASA Array	18.05	18	ePn	Pn	20 28 37.0	-1.3
	62nm,1.3s						
LON	Longmire	18.07	343	ePn	Pn	20 28 37.5	-1.1
	21nm,1.2s						
BSMT	Bassoo Peak	18.15	358	ePn	Pn	20 28 38.8	-0.7
	12nm,1.0s						
EGMT	Eagleton	18.62	9	ePn	Pn	20 28 44.9	-0.3
	44nm,1.6s						
ECSD	EROS Data Cent	19.77	40	eP	Pn	20 28 57.5	-1.6
	19nm,1.2s						
DGMT	Dagmar	20.24	19	eP	P	20 29 02.7	0.0
	45nm,1.2s						
SCIA	State Center	20.80	48	P	P	20 29 08.4	-0.5
CMIG	Matias Romero	21.58	121	P	P	20 29 19.8	+2.4
	4.2nm,0.9s,mb3.9,baz=338,slow=5.8,SNR=6.7						
CMIG				LR	LR	20 36 46.9	
	comp=Z,899nm,21.1s,MS4.1,baz=289,slow=34						
PLAL	Pickwick Lake	22.57	70	eP	P	20 29 27.4	-0.6
	146nm,2.0s,mb5.1						
WVT	Waverly	22.92	67	eP	P	20 29 31.0	-0.6
	297nm,2.4s,mb5.3						
EDM	Edmonton	23.53	1	eP	P	20 29 35.5	-2.3
SWET	Sewanee	24.35	70	eP	P	20 29 46.8	+1.3
ULM	Lac du Bonnet	24.71	29	P	P	20 29 46.8	-1.9
	2.1nm,0.5s,mb3.9,baz=229,slow=11,SNR=4.8						
ULM				LR	LR	20 39 59.0	
	comp=Z,617nm,19.8s,MS4.1,baz=52,slow=38						
BBB	Bella Bella	24.77	339	LR	LR	20 38 54.6	
	comp=Z,955nm,21.1s,MS4.3,baz=163,slow=35						
TEIG	Tepich	25.17	106	LR	LR	20 42 55.1	
	comp=Z,666nm,18.1s,MS4.2,baz=136,slow=44						
EYMN	Ely	25.19	37	eP	P	20 29 50.9	-2.2
	16nm,1.1s,mb4.5						
TKL	Tuckaleechee C	26.14	69	LR	LR	20 40 54.4	
	comp=Z,2µm,19.3s,MS4.7,baz=266,slow=38						
FFC	Flin Flon	26.51	16	eP	P	20 30 03.8	-1.1
	5.7nm,1.0s,mb4.1						
DLBC	Dease Lake	30.78	344	P	P	20 30 43.6	+0.7
	3.1nm,0.8s,mb4.2,baz=180,slow=5.1,SNR=4.4						
YKA	Yellowknife Ar	32.82	360	P	P	20 30 58.8	-2.0
	0.1nm,0.6s,baz=176,slow=9.5,SNR=3.2						
JTS	JuntasAbangare	33.33	119	LR	LR	20 47 58.7	
	comp=Z,390nm,18.2s,MS4.2,baz=313,slow=42						
SCHQ	Schefferville	41.96	39	LR	LR	20 49 55.9	
	comp=Z,1µm,18.1s,MS4.8,baz=80,slow=37						
IMA2	Indian Mountai	43.67	338	eP	P	20 32 31.8	-0.3
ROSC	El Rosal	44.92	116	LR	LR	20 54 14.2	
	comp=Z,287nm,19.1s,MS4.2,baz=203,slow=40						
CBYP	Canovanas	45.22	93	eP	P	20 32 51.1	+6.0
TAOE	Nuku Hiva Isla	45.80	217	eLR	LR	20 45 43.2	
	3µm,26.0s						
RKT	Rikitea	56.21	203	eLR	LR	20 50 29.4	
	322nm,26.5s						
PPT	Papeete	58.12	221	eLQ		20 49 08.1	
	293nm,24.2s						
PPT				eLR	LR	20 51 23.3	
	987nm,27.8s,baz=28						
PPT	Papeete	58.12	221	LR	LR	20 54 48.9	
	comp=Z,379nm,18.4s,MS4.5,baz=99,slow=31						
PETK	Petropavlovsk-	65.83	319	LR	LR	20 57 07.1	
	comp=Z,70nm,21.8s,MS3.8,baz=276,slow=30						
AFI	Afiamalu	70.49	241	LR	LR	20 58 45.4	
	comp=Z,300nm,21.7s,MS4.5,baz=74,slow=29						
ARCES	ARCESS Array B	76.81	14	LR	LR	21 10 49.6	
	comp=Z,279nm,21.3s,MS4.5,baz=350,slow=36						
NOA	NORSAR Array B	79.30	24	LR	LR	21 13 21.7	
	comp=Z,157nm,18.7s,MS4.4,baz=300,slow=37						
HFS	Hagfors	80.81	24	LR	LR	21 14 00.5	
	comp=Z,232nm,18.0s,MS4.6,baz=284,slow=37						
PLCA	Paso Flores	80.84	148	LR	LR	21 07 14.0	
	comp=Z,160nm,18.8s,MS4.4,baz=100,slow=32						
ESDC	Sonseca Array	85.28	47	LR	LR	21 14 44.4	
	comp=Z,196nm,19.3s,MS4.5,baz=290,slow=36						
MJAR	Matsushiro Arr	85.47	310	P	P	20 37 06.3	+0.6
	1.8nm,1.1s,mb4.1,baz=55,slow=5.9,SNR=3.6						
MJAR				LR	LR	21 08 37.6	
	comp=Z,162nm,19.6s,MS4.4,baz=75,slow=31						

DAVOX	Davos/Dischmat	88.64	35	LR	LR	21 17 34.3	
	comp=Z,488nm,19.1s,MS4.9,baz=302,slow=36						
MDT	Midelt	88.77	53	LR	LR	21 15 18.2	
	comp=Z,281nm,19.9s,MS4.7,baz=337,slow=34						
GERES	GERESS Array B	88.99	31	LR	LR	21 21 21.7	
	comp=Z,208nm,18.1s,MS4.6,baz=182,slow=38						
VRAC	Vranov	89.93	30	LR	LR	21 18 01.1	
	comp=Z,270nm,19.6s,MS4.7,baz=315,slow=36						
KSRS	Korea Array	91.53	315	LR	LR	21 14 42.2	
	comp=Z,69nm,19.1s,MS4.1,baz=255,slow=33						
GUMO	Guam	92.70	287	LR	LR	21 09 58.2	
	comp=Z,310nm,20.3s,MS4.8,baz=69,slow=29						
AKASG	Malin Array Be	93.64	22	LR	LR	21 19 08.4	
	comp=Z,203nm,20.2s,MS4.6,baz=310,slow=35						
ULN	Ulaanbaatar	94.42	334	eP	P	20 37 47.7	0.0
	5.8nm,1.3s,mb4.8						
SONM	Songino Array	94.70	334	P	P	20 37 50.4	+1.5
	0.5nm,0.8s,mb4.0,baz=20,slow=4.7,SNR=5.1						
SONM				LR	LR	21 23 26.1	
	comp=Z,146nm,20.1s,MS4.4,baz=36,slow=37						
ZALV	Zalesovo Beam	95.12	349	P	P	20 37 50.4	-0.4
	0.3nm,0.4s,mb4.1,baz=45,slow=5.1,SNR=2.7						
ZALV				LR	LR	21 22 30.9	
	comp=Z,72nm,20.8s,MS4.1,baz=252,slow=37						
ZALV	Zalesovo Beam	95.12	349	P	P	20 37 50.4	-0.4
ZALV				LR	LR	21 22 30.9	
BVAR	Borovoye Array	97.55	357	LR	LR	21 24 38.3	
	comp=Z,130nm,20.6s,MS4.4,baz=8.7,slow=37						
JOW	Kunigami	98.02	307	LR	LR	21 17 52.1	
	comp=Z,98nm,19.8s,MS4.3,baz=110,slow=33						
HHC	Hu-ho-hao-te	98.08	327	eP	P	20 38 01.6	-2.8
HHC				pP	pP	20 38 06.4	-1.4
HHC				PP	PP	20 42 03.3	+0.7
HHC				SKS		20 48 37.1	
HHC				S	S	20 49 23.5	-8.1
HHC				SS	SS	20 56 07.9	-4.3
HHC				LR	LR		
	comp=N,130nm,19.0s,MS4.5						
HHC				LR	LR		
	comp=E,91nm,17.8s,MS4.5						
HHC				LR	LR		
	comp=Z,140nm,19.0s,MS4.5						

SKHL 19 20:26:40.6±0.5**, 51°.80N**×**139°.20E, h10**^{km}±10^{km}**, mb3.9**/3**, 1D, Primorye**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NKL	Nikolayevsk	1.63	33	⇓iPg	Pg	20 27 09.5	-2.3
NKL				AMB	AMB	20 27 10.5	
	51nm,0.4s						
NKL				AMB	AMB	20 27 10.5	
	77nm,0.4s						
NKL				pPg		20 27 13.0	
NKL				eSg	Sg	20 27 31.0	-1.9
NKL				A		20 27 34.0	
	220nm,0.4s						
GRNR	Gornyy	2.03	240	ePn	Pn	20 27 15.2	+0.4
GRNR				ePg	Pg	20 27 17.0	-2.4
GRNR				AMB	AMB	20 27 19.0	
	34nm,0.5s						
GRNR				eSn	Sn	20 27 39.6	-0.5
GRNR				eSg	Sg	20 27 43.2	-2.5
GRNR				A		20 27 46.8	
	162nm,0.5s						
TYV	Tymovskoe	2.36	112	erx	rx	20 27 30.0	
TYV				eSg	Sg	20 27 56.0	-0.4
OKH	Okha	2.87	51	eSg	Sg	20 28 12.5	-0.2
OKH				A		20 28 35.4	
	100nm,0.9s						
UGL	Uglegorsk	3.28	145	eSg	Sg	20 28 22.8	-3.2
UGL				A		20 28 29.0	
	47nm,0.7s						
EKMR	Ekimchan	4.03	291	ePn	Pn	20 27 40.9	-1.4
EKMR				ePg	Pg	20 27 55.9	-1.9
EKMR				AMB	AMB	20 27 58.2	
	4.0nm,0.5s						
EKMR				AMB	AMB	20 27 58.2	
	5.0nm,0.5s						
EKMR				eSn	Sn	20 28 31.3	+1.8
EKMR				eSg	Sg	20 28 47.5	-2.4
EKMR				A		20 28 53.5	
	30nm,0.5s						
EKMR				A		20 28 53.5	
	20nm,0.5s						
KLR	Kul'dur	5.40	244	eS	Sn	20 29 05.2	+1.9
KLR				eSg	Sg	20 29 29.8	-4.2
BMKR	Bomnak	6.86	299	erx	rx	20 28 36.3	
BMKR				eSg	Sg	20 30 15.3	-5.4
BMKR				A		20 30 29.5	
	6.0nm,0.7s						
TEY	Ternei	6.99	195	eSg	Sg	20 30 20.5	-4.2
YASR	Yasnyy	7.00	287	erx	rx	20 28 51.5	
YASR				eSg	Sg	20 30 19.9	-5.3
YASR				A		20 30 31.5	
	6.0nm,0.6s						
ZEA	Zeya	7.51	290	eSg	Sg	20 30 34.0	-7.3
KROS	Kirovskiy	7.82	295	eSg	Sn	20 30 44.5	+42
KROS				A		20 30 54.2	
	3.0nm,0.6s						

IDC 19 20:32:50.9±4.4**, 22°.44S**×**177°.55W, h0**^{km}**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.7**/16**, mbtmp3.9**/3**, Error ellipse: s-maj=179.4km s-min=56.6km az=145.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	37.37	246	P	P	20 40 04.2	-1.3
	1.5nm,0.7s,baz=92,slow=12,SNR=4.8						
ASAR	Alice Springs	44.52	259	P	P	20 41 04.2	-0.3
	0.3nm,0.3s,baz=95,slow=7.5,SNR=5.7						
WRA	Warramunga Arr	44.78	264	P	P	20 41 07.6	+1.0
	1.2nm,0.4s,baz=99,slow=8.3,SNR=38						
BRTR	Keskin Array B	148.43	310	PKPbc	PKPbc	20 52 39.2	-0.4
	1.7nm,1.0s,baz=46,slow=4.2,SNR=3.2						

IDC 19 20:41:19.1±27.0**, 21°.84S**×**173°.55W, h0**^{km}**, mb4.3**/4**, mb1 4.5**/4**, mb1mx4.0**/18**, mbtmp4.3**/4**, Error ellipse: s-maj=493.5km s-min=151.2km az=76.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	37.50	265	P	P	20 48 35.7	+0.8
	6.7nm,0.5s,baz=92,slow=10,SNR=16						
STKA	Stephens Creek	41.00	246	P	P	20 49 02.6	-1.5
	3.7nm,1.1s,baz=80,slow=11,SNR=5.2						
ASAR	Alice Springs	48.27	257	P	P	20 50 02.2	0.0
	1.8nm,0.7s,baz=91,slow=8.4,SNR=11						
WRA	Warramunga Arr	48.53	262	P	P	20 50 04.4	+0.1
	1.5nm,0.8s,baz=95,slow=8.2,SNR=32						

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*ISCJB **19** 20:41:27.8±1.2, 30°.03N±0°.09×113°.86W±0°.07, h10^{km}, mb3.8/2, MS3.5/4, Error ellipse: s-maj=14.1km s-min=6.9km az=25.6*

*IDC **19** 20:41:27.6±1.6, 30°.02N×113°.92W, h0^{km}, mb3.8/2, mb1 3.7/7, mb1mx3.6/24, mbtmp3.5/7, ML3.2/4, MS3.4/8, Ms1 3.5/8, ms1mx3.3/39, Error ellipse: s-maj=23.8km s-min=13.7km az=38.0*

*NEIC **19** 20:41:28.4±1.7, 30°.01N×114°.01W, h10^{km}, mb3.6/3, Error ellipse: s-maj=23.3km s-min=13.2km az=205.0*

ISC 19 20:41:29.9±1.2**, 29°.99N**±0°.09×**113°.86W**±0°.08**, h10**^{km}**, n29, σ1ˢ15**/26**, mb3.8**/2**, MS3.5**/4**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLA	Glamis	3.16	345	ePn	Pn	20 42 15.4	-4.3
TUC	Tucson	3.51	48	ePn	Pn	20 42 22.6	-1.9
BAR	Barrett	3.60	319	ePn	Pn	20 42 20.3	-5.5
BAR				eSg	Sb	20 43 13.3	-4.1
MWC	Mount Wilson	5.52	321	ePn	Pn	20 42 52.4	+0.2
	33nm,1.0s						
WUAZ	Wupatki	5.90	20	ePn	Pn	20 42 56.8	-0.5
	24nm,0.8s						
LPIG	La Paz	6.67	151	LR	LR	20 44 47.4	
	comp=Z,72nm,20.8s,baz=22,slow=30						
LAZ	Ladron	7.20	51	ePn	Pn	20 43 07.4	-7.8
	3.9nm,1.0s						
BNM	Barren Site	7.41	54	ePn	Pn	20 43 17.5	-0.6
	3.7nm,0.3s						
CCUT	Cedar City	7.55	3	ePn	Pn	20 43 20.0	0.0
	18nm,1.1s						
ANMO	Albuquerque	7.97	50	Pn	Pn	20 43 25.5	-0.3
	0.3nm,0.3s,baz=239,slow=12,SNR=3.2						
ANMO				Sn	Sn	20 44 55.4	-0.6
	0.3nm,0.3s,baz=205,slow=17,SNR=2.0						
ANMO				Lg		20 45 44.2	
	baz=0.0,slow=19,SNR=3.0						
ANMO				LR	LR	20 46 31.7	
	comp=Z,274nm,21.2s,baz=280,slow=38						
ANMO	Albuquerque	7.97	50	Pn	Pn	20 43 25.5	-0.3
ANMO				Sn	Sn	20 44 55.4	-0.6
ANMO				Lg		20 45 44.2	
ANMO				LR	LR	20 46 31.6	
MSU	Marysvale	8.61	9	ePn	Pn	20 43 35.0	+0.4
	7.3nm,0.7s						
TXAR	Lajitas Array	8.90	92	Pn	Pn	20 43 38.8	+0.3
	0.2nm,0.3s,baz=266,slow=14,SNR=12						
TXAR				Lg		20 46 09.2	
	0.1nm,0.3s,baz=279,slow=34,SNR=3.7						
TXAR				LR	LR	20 47 07.9	
	comp=Z,378nm,21.9s,baz=80,slow=38						
NVAR	Mina Array Bea	9.18	338	Pn	Pn	20 43 41.7	-0.7
	0.1nm,0.3s,baz=160,slow=13,SNR=2.4						
PV01	Paradox Valley	9.23	27	Pn	Pn	20 43 46.1	+3.0
	247nm,0.6s						
PV04	Paradox Valley	9.33	25	ePn	Pn	20 43 47.0	+2.6
ELK	Elko	10.79	354	Pn	Pn	20 44 03.8	-0.6
	0.1nm,0.3s,baz=173,slow=16,SNR=3.2						
PDAR	Pinedale Array	13.21	14	Pn	Pn	20 44 40.9	+3.4
	baz=195,slow=11,SNR=8.7						
YBH	Yreka Blue Hor	13.73	331	LR	LR	20 50 00.3	
	comp=Z,179nm,21.1s,baz=165,slow=38						
MCMT	McKenzie Canyo	14.83	3	ePn	Pn	20 45 00.3	+0.7
	2.2nm,1.0s						
RLMT	Red Lodge	15.53	12	ePn	Pn	20 45 09.5	+0.6
	2.5nm,1.0s						
CHMT	Chamberlain Mo	16.91	1	ePn	Pn	20 45 28.0	+1.5
	8.8nm,1.5s						
BSMT	Bassoo Peak	17.85	358	ePn	Pn	20 45 36.3	-1.9
	6.0nm,1.1s						
CMIG	Matias Romero	21.58	122	P	P	20 46 19.6	-0.3
	4.2nm,1.0s,mb3.8,baz=332,slow=11,SNR=3.7						
CMIG				LR	LR	20 55 14.0	
	comp=Z,210nm,19.0s,MS3.6,baz=13,slow=38						
ULM	Lac du Bonnet	24.35	29	P	P	20 46 48.7	+1.0
	1.8nm,0.6s,mb3.7,baz=221,slow=10,SNR=3.2						
BBB	Bella Bella	24.55	339	LR	LR	20 58 01.4	
	comp=Z,147nm,19.7s,MS3.5,baz=120,slow=41						
TEIG	Tepich	25.08	107	LR	LR	20 58 50.8	
	comp=Z,73nm,21.3s,MS3.2,baz=3.6,slow=42						
TKL	Tuckaleechee C	25.85	69	LR	LR	20 57 43.4	
	comp=Z,206nm,19.9s,MS3.7,baz=268,slow=38						
ASAR	Alice Springs	119.97	258	PKP	PKPdf	21 00 20.8	-0.3
	0.5nm,0.8s,baz=64,slow=3.4,SNR=4.6						

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*NEIC **19** 20:42:16.4±0.7, 1°.39S×122°.90E, h10^{km}, mb4.4/3, Error ellipse: s-maj=19.3km s-min=9.7km az=61.0*

*IDC **19** 20:42:18.8±0.9, 2°.79S×121°.20E, h0^{km}, mb3.7/7, mb1 3.9/7, mb1mx3.8/19, mbtmp3.8/7, Error ellipse: s-maj=106.8km s-min=16.8km az=59.0*

*DJA **19** 20:42:22, 2°.06S×123°.02E, h10^{km}, MLv4.5/7*

*ISCJB **19** 20:42:24.1±0.8, 2°.01S±0°.06×122°.98E±0°.07, h44^{km}±11^{km}, mb3.9/7, Error ellipse: s-maj=12.3km s-min=10.0km az=158.5*

ISC 19 20:42:25.4±0.8**, 2°.01S**±0°.06×**122°.98E**±0°.07**, h36**^{km}±12^{km}**, n20, σ0ˢ84**/20**, mb3.9**/8**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APSI	Ampana	1.72	309	P	Pn	20 42 52.8	0.0
KDI	Kendari	1.97	190	P	Pn	20 42 54.9	-1.4
KMSI	Cibinong	2.75	21	P	Pn	20 43 07.0	-0.1
TTSI	Tana Toraja	3.32	252	P	Pn	20 43 15.3	+0.4
PCI	Palu	3.33	289	P	Pn	20 43 16.3	+1.4
BNSI	Bone	3.73	230	P	Pn	20 43 20.3	-0.1
NLAI	Namlea	4.29	107	P	Pn	20 43 27.9	-0.4
KAPI	Kappang	4.39	227	ePn	Pn	20 43 28.9	-0.7
FITZ	Fitzroy Crossi	16.21	171	Pn	Pn	20 46 11.1	+0.6
	0.1nm,0.3s,baz=0.0,slow=15,SNR=3.0						
WRAB	Tennant Creek	21.00	149	eP	P	20 47 06.0	+0.1
	11nm,1.2s						
WRA	Warramunga Arr	21.00	149	P	P	20 47 07.6	+1.7
	1.3nm,0.6s,mb3.4,baz=335,slow=9.5,SNR=18						
ASAR	Alice Springs	23.99	155	P	P	20 47 36.9	+0.1
	2.0nm,0.8s,mb3.6,baz=328,slow=7.4,SNR=12						
ASAR				PcP	PcP	20 51 18.6	+0.2
	0.3nm,0.5s,baz=352,slow=2.8,SNR=3.1						
CMAR	Chiang Mai Arr	31.19	312	P	P	20 48 32.0	-9.4
	0.4nm,0.5s,mb3.5,baz=137,slow=9.5,SNR=4.6						
STKA	Stephens Creek	34.51	151	P	P	20 49 10.1	-0.1
	4.0nm,0.7s,mb4.4,baz=319,slow=11,SNR=6.3						
STKA	Stephens Creek	34.51	151	P	P	20 49 10.1	-0.1
SONM	Songino Array	51.71	346	P	P	20 51 29.6	+0.6
	1.0nm,0.7s,mb3.8,baz=162,slow=8.5,SNR=10						
MKAR	Makanchi Array	60.30	329	P	P	20 52 29.3	-1.2
	0.8nm,1.0s,mb3.7,baz=119,slow=7.6,SNR=3.7						
TKM2	Tokmak 2	61.74	322	eP	P	20 52 31.5	-8.8
	3.5nm,0.8s,mb4.5						
KURK	Kurchatov	64.70	331	P	P	20 52 57.8	-1.9
	0.4nm,0.6s,mb3.6,baz=147,slow=5.4,SNR=3.8						
KURK	Kurchatov	64.70	331	eP	P	20 52 51.0	-8.7
	2.8nm,1.1s,mb4.2						

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*ISCJB **19** 21:09:34.3±0.3, 51°.48N±0°.02×16°.10E±0°.03, h0^{km}, Error ellipse: s-maj=2.8km s-min=2.3km az=15.7*

*NEIC **19** 21:09:36.1±0.5, 51°.49N×16°.13E, h5^{km}, ML2.8(PRU), ML2.9(SZGRF), Error ellipse: s-maj=5.8km s-min=3.9km az=197.0*

*CSEM **19** 21:09:36.2±0.1, 51°.47N×16°.11E, h2^{km}, ML3.5/9, Error ellipse: s-maj=2.9km s-min=2.7km az=74.0*

*WAR **19** 21:09:37.4, 51°.46N×16°.10E, ML2.7, Mining Induced*

*PRU **19** 21:09:38.0, 51°.43N×16°.06E, h0^{km}*

*VIE **19** 21:09:39.3±0.5, 51°.25N×16°.15E, h0^{km}, mb2.3/3, ML3.0/4, Error ellipse: s-maj=4.1km s-min=3.1km az=81.0 63 km WNW of Wroclaw Suspected Mining induced.*

*UPP **19** 21:09:42.2, 51°.82N×15°.57E, h0^{km}, ML1.7, Suspected Mining explosion.*

ISC 19 21:09:36.2±0.3**, 51°.47N**±0°.02×**16°.11E**±0°.03**, h0**^{km}**, n75, σ1ˢ00**/125**, 4C-3D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSP	Ksiaz	0.64	169	ePg	Pg	21 09 48.9	+0.5
KSP				eSg	Sg	21 09 57.5	+1.0
KSP	Ksiaz	0.64	169	i Pg	Pg	21 09 48.8	+0.5
KSP				eSg	Sg	21 09 57.2	+0.7
KSP				eL		21 10 01.5	
KSP	Ksiaz	0.64	169	⇓iPg	Pg	21 09 48.8	+0.5
KSP				eSg	Sg	21 09 57.2	+0.7
UPC	Upice	0.96	184	ePG	Pg	21 09 54.7	+0.1
UPC	Upice	0.96	184	Pg	Pg	21 09 54.7	+0.1
DPC	Dobruska-Polom	1.12	173	ePG	Pg	21 09 57.7	0.0
DPC				eSG	Sg	21 10 12.2	-0.1
	comp=Z,57nm,0.6s						
DPC	Dobruska-Polom	1.12	173	Pg	Pg	21 09 57.7	0.0
DPC				Sg	Sg	21 10 12.2	-0.1
	comp=Z,57nm,0.6s						
PVCC	Panska Ves	1.35	227	ePG	Pg	21 10 02.5	+0.4
PVCC				eSG	Sg	21 10 20.1	+0.6
	comp=Z,211nm,0.4s						
PVCC	Panska Ves	1.35	227	Pg	Pg	21 10 02.5	+0.4
PVCC				Sg	Sg	21 10 20.1	+0.6
	comp=Z,211nm,0.4s						
BRG	Berggiesshubel	1.48	247	PG	Pg	21 10 04.8	+0.2
BRG				SG	Sg	21 10 24.8	+0.9
	comp=Z,114nm,0.4s						
BRG	Berggiesshubel	1.48	247	Pg	Pg	21 10 04.8	+0.2
BRG				Sg	Sg	21 10 24.8	+0.9
PRU	Pruhonice	1.78	215	ePG	Pg	21 10 09.5	-0.8
PRU				eSG	Sg	21 10 33.1	-0.3
	comp=Z,58nm,0.4s						
PRU	Pruhonice	1.78	215	Pg	Pg	21 10 09.5	-0.8
PRU				Sg	Sg	21 10 33.1	-0.3
	comp=Z,58nm,0.4s						
RAC	Raciborz	1.92	135	ePg	Pg	21 10 12.8	-0.1
RAC				eSg	Sg	21 10 37.8	+0.1
MORC	Moravsky Berou	1.92	151	ePn	Pn	21 10 09.7	-0.4
MORC				eS	Sn	21 10 36.8	+1.9
MORC	Moravsky Berou	1.92	151	ePn	Pn	21 10 09.7	-0.4
MORC				eSg	Sg	21 10 35.6	-2.3
MORC				eS	Sn	21 10 36.8	+1.8
CLL	Collm	1.95	267	ePn	Pn	21 10 10.0	-0.5
CLL				i Pg	Pg	21 10 13.8	+0.2
CLL				eSg	Sg	21 10 38.0	-0.8
	comp=Z,27nm,0.4s						
CLL	Collm	1.95	267	ePn	Pn	21 10 10.0	-0.5
OKC	Ostrava-Krasne	2.08	141	ePG	Pg	21 10 15.3	-0.8
OKC				eSG	Sg	21 10 41.6	-1.5
	comp=Z,28nm,0.6s						
OKC	Ostrava-Krasne	2.08	141	Pg	Pg	21 10 15.3	-0.8
OKC				Sg	Sg	21 10 41.6	-1.5
	comp=Z,28nm,0.6s						
VRAC	Vranov	2.18	172	ePn	Pn	21 10 13.8	+0.1
VRAC				eSg	Sg	21 10 44.4	-1.9
TREC	Trest	2.21	191	ePN	Pn	21 10 15.4	+1.3
TREC				ePG	Pg	21 10 18.2	-0.3
TREC	Trest	2.21	191	Pn	Pn	21 10 15.4	+1.3
NKC	Novy Kostel	2.63	243	ePG	Pg	21 10 27.0	+0.5
NKC				eSG	Sg	21 11 02.3	+1.8
	comp=Z,54nm,0.4s						
NKC	Novy Kostel	2.63	243	Pg	Pg	21 10 27.0	+0.5
NKC				Sg	Sg	21 11 02.3	+1.8
	comp=Z,54nm,0.4s						
OJC	Ojcow	2.65	117	ePn	Pn	21 10 18.2	-2.0
OJC				ePg	Pg	21 10 28.7	+1.7
OJC				eSg	Sg	21 11 04.1	+2.7
OJC	Ojcow	2.65	117	ePn	Pn	21 10 18.2	-2.0
KHC	Kasperske Hory	2.84	216	ePN	Pn	21 10 23.1	+0.3
KHC				ePG	Pg	21 10 29.0	-1.7
KHC				eSN	Sn	21 10 56.5	-1.2
KHC				eSG	Sg	21 11 06.0	-1.5
	comp=Z,18nm,0.5s						
KHC	Kasperske Hory	2.84	216	Pn	Pn	21 10 23.1	+0.3
MOX	Moxa	2.95	256	ePG	Pg	21 10 32.8	+0.1
MOX				eSG	Sg	21 11 11.9	+1.0
MOX	Moxa	2.95	256	ePg	Pg	21 10 32.8	+0.1
MOX				eSg	Sg	21 11 11.9	+1.0
GEC2	GERESS Array S	3.04	211	ePn	Pn	21 10 26.2	+0.7
GEC2				eSg	Sg	21 11 13.5	-0.5
GEC2	GERESS Array S	3.04	211	ePn	Pn	21 10 26.2	+0.7
GEC2				eSg	Sg	21 11 13.5	-0.5
SMOL	Smolenice	3.08	163	eSG	Sg	21 11 17.7	+2.8
SMOL	Smolenice	3.08	163	ePg	Pg	21 10 35.4	+0.3
SMOL				eSg	Sg	21 11 17.7	+2.8
SMOL	Smolenice	3.08	163	e	Pn	21 10 35.3	+9.3
SMOL	Smolenice	3.08	163	ePg	Pg	21 10 35.4	+0.3
SMOL				eSg	Sg	21 11 17.7	+2.8
WET	Wettzell	3.11	223	ePn	Pn	21 10 27.2	+0.7
WET	Wettzell	3.11	223	ePn	Pn	21 10 27.2	+0.7
MODS	Modra-Piesok	3.19	166	eSG	Sg	21 11 16.3	-2.2
MODS	Modra-Piesok	3.19	166	ePg	Pg	21 10 37.7	+0.5
MODS				eSn	Sg	21 11 16.3	-2.2
MODS	Modra-Piesok	3.19	166	e	Pg	21 10 37.7	+0.5
MODS	Modra-Piesok	3.19	166	ePg	Pg	21 10 37.7	+0.5
NIE	Niedzica	3.38	126	ePn	Pn	21 10 30.6	+0.4
NIE				ePg	Pg	21 10 40.4	-0.6
NIE				eSg	Sg	21 11 25.3	+0.6
NIE	Niedzica	3.38	126	ePn	Pn	21 10 30.6	+0.4
NIE				ePg	Pg	21 10 40.4	-0.6
NIE	Niedzica	3.38	126	ePn	Pn	21 10 30.6	+0.4
VYHS	Vyhne	3.46	148	ePN	Pn	21 10 30.6	-0.6
VYHS				ePG	Pg	21 10 42.2	-0.2
VYHS	Vyhne	3.46	148	ePn	Pn	21 10 30.6	-0.6
CONA	Conrad Observa	3.54	183	⇑iPn	Pn	21 10 33.4	+1.0
CONA				⇑iSg	Sg	21 11 29.3	-0.7
	comp=Z,22nm,0.4s						
CONA	Conrad Observa	3.54	183	Pn	Pn	21 10 33.4	+1.0
CONA				Sg	Sg	21 11 29.3	-0.7
	comp=Z,22nm,0.4s						
CSNA	Conrad Observa	3.54	183	⇑iPn	Pn	21 10 33.2	+0.8
CSNA				⇓iSg	Sg	21 11 29.4	-0.6
	comp=Z,16nm,0.4s						
CSNA	Conrad Observa	3.54	183	Pn	Pn	21 10 33.2	+0.8
CSNA				Sg	Sg	21 11 29.4	-0.6
	comp=Z,16nm,0.4s						
CLZ	Clausthal	3.59	278	ePn	Pn	21 10 33.4	+0.4
CLZ	Clausthal	3.59	278	ePn	Pn	21 10 33.4	+0.4
BSD	Bornholm Skovb	3.73	349	i P	Pn	21 10 32.8	-2.1
BSD				eS	Sn	21 11 14.1	-5.3
BSD				i S	Sn	21 11 15.4	-4.0
BSD	Bornholm Skovb	3.73	349	i P	Pn	21 10 32.8	-2.1
BSD				eS	Sn	21 11 14.1	-5.3
MOA	Molln	3.81	199	⇑iPn	Pn	21 10 36.6	+0.5
MOA				⇓iSg	Sg	21 11 39.1	+0.5
	comp=Z,28nm,0.6s						
MOA	Molln	3.81	199	Pn	Pn	21 10 36.6	+0.5
MOA				Sg	Sg	21 11 39.1	+0.5
	comp=Z,28nm,0.6s						
STHS	Stebnicka Huta	3.87	120	ePN	Pn	21 10 37.1	+0.2
STHS				e		21 10 52.2	
STHS	Stebnicka Huta	3.87	120	eSG	Sg	21 11 46.2	+5.7
STHS	Stebnicka Huta	3.87	120	ePn	Pn	21 10 37.1	+0.2
STHS				ePg	Pg	21 10 52.2	+1.8
STHS				eSg	Sg	21 11 46.2	+5.7
STHS	Stebnicka Huta	3.87	120	ePn	Pn	21 10 37.1	+0.2
STHS	Stebnicka Huta	3.87	120	ePg	Pg	21 10 52.2	+1.8
CRVS	Cervenica-Dubn	4.29	125	ePN	Pn	21 10 42.3	-0.4
CRVS	Cervenica-Dubn	4.29	125	ePn	Pn	21 10 42.3	-0.4
KOLS	Kolonicke sedl	4.70	120	ePN	Pn	21 10 48.1	-0.2
KOLS				e		21 11 09.6	
KOLS	Kolonicke sedl	4.70	120	ePn	Pn	21 10 48.1	-0.2
KOLS	Kolonicke sedl	4.70	120	ePg	Pg	21 11 09.6	+3.3
VXJU	Vaexsjoe	5.51	353	P	Pn	21 10 58.9	-0.5
OSKU	Oskarshamn	5.74	360	P	Pn	21 11 02.0	-0.6
BYXU	Byxelkrok	5.86	5	P	Pn	21 11 03.8	-0.4
ASPU	Aespoe	5.97	3	P	Pn	21 11 05.6	-0.1
VSTU	Vaestervik	6.21	2	P	Pn	21 11 08.8	-0.2
NASU	Vaermlandsnaes	7.66	349	P	Pn	21 11 28.5	-0.4
FLYU	Flymyra	8.74	6	P	Pn	21 11 44.1	+0.4

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*IDC **19** 21:17:47.6±3.6, 16°.87S×174°.80W, h171^{km}±36^{km}, mb3.5/3, mb1 3.8/4, mb1mx3.4/18, mbtmp3.7/4, Error ellipse: s-maj=169.1km s-min=31.0km az=142.0*

NEIC 19 21:17:47.9±1.5**, 16°.85S**×**174°.76W, h179**^{km}±22^{km}**, mb3.8**/1**, Error ellipse: s-maj=32.5km s-min=20.0km az=124.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	4.10	45	P	Pn	21 18 50.3	+0.1
	33nm,0.3s,baz=80,slow=1.1,SNR=24						
AFI				S	Sn	21 19 33.9	-5.0
	60nm,0.3s,baz=33,slow=20,SNR=9.6						
SNZO	South Karori	26.02	198	P	P	21 23 04.2	-0.1
STKA	Stephens Creek	42.19	241	P	P	21 25 23.4	+0.2
	2.1nm,0.5s,baz=85,slow=11,SNR=3.6						
WRAB	Tennant Creek	48.25	258	eP	P	21 26 10.6	-0.4
	1.8nm,0.6s						
WRA	Warramunga Arr	48.26	258	P	P	21 26 11.0	-0.1
	0.3nm,0.5s,baz=95,slow=6.6,SNR=11						
ASAR	Alice Springs	48.43	253	P	P	21 26 12.6	+0.2
	2.4nm,0.5s,baz=89,slow=8.4,SNR=29						
FITZ	Fitzroy Crossi	56.65	259	P	P	21 27 13.2	+0.4
CLL	Collm	145.06	351	ePKPbc	PKPbc	21 37 03.0	-0.5
GERES	GERESS Array B	147.35	350	PKPbc	PKPbc	21 37 10.5	+0.2
	0.1nm,0.4s,baz=24,slow=3.6,SNR=4.6						

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*ISCJB **19** 21:36:55.5±0.5, 14°.81N±0°.08×90°.90W±0°.06, h219^{km}±3^{km}, mb3.5/5, Error ellipse: s-maj=13.4km s-min=8.3km az=23.0*

*CASC **19** 21:36:55.8±1.8, 14°.84N×90°.89W, h211^{km}±10^{km}, MD3.4, mb3.8(NEIC)*

*NEIC **19** 21:36:56.2±0.8, 14°.82N×90°.86W, h208^{km}±8^{km}, mb3.8/4, Error ellipse: s-maj=13.9km s-min=7.8km az=48.0*

*IDC **19** 21:36:56.2±1.7, 14°.82N×90°.83W, h206^{km}±16^{km}, mb3.4/5, mb1 3.5/9, mb1mx3.3/23, mbtmp3.4/9, Error ellipse: s-maj=29.2km s-min=14.7km az=40.0*

ISC 19 21:36:56.5±0.5**, 14°.80N**±0°.08×**90°.89W**±0°.06**, h214**^{km}±3^{km}**, n34, σ0ˢ89**/42**, mb3.5**/5**, 6C-1D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TP2	Tecpan 2	0.13	262	⇑eP	Pn	21 37 24.5	+0.1
TP2				eS	S	21 37 47.0	+0.9
FG6		0.24	179	⇑eP	Pn	21 37 24.5	-0.2
FUG	Fuego 3	0.35	173	eP	Pn	21 37 24.2	-0.7
GCG	Guatemala City	0.41	122	eP	Pn	21 37 24.3	-0.7
GCG				eS	S	21 37 46.2	-0.9
PCG	Pacaya	0.49	146	⇑eP	Pn	21 37 25.1	-0.2
PCG				eS	S	21 37 50.4	+2.8

NBG	Las Nubes	0.57	112⇑	eP	Pn	21 37 26.0	+0.5
NBG				eS	S	21 37 48.1	+0.1
IXG	Ixpaco	0.75	146⇑	eP	Pn	21 37 26.3	-0.1
IXG				eS	S	21 37 50.7	+1.1
PSG	Pto de San Jos	0.85	174	eP	Pn	21 37 26.2	-0.7
JAT	Jato	0.87	237⇑	eP	Pn	21 37 25.5	-1.5
JAT				eS	S	21 37 50.7	+0.1
MRL	Marmol	1.19	77⇓	eP	Pn	21 37 30.1	+1.1
MRL				eS	S	21 37 53.8	-0.5
TGUH	Tegucigalpa,Un	3.58	101	ePn	Pn	21 37 53.4	-0.3
TGUH				eS	S	21 38 38.9	+0.2
CMIG	Matias Romero	4.47	301	P	Pn	21 38 02.9	-1.7
	3.2nm,0.3s,baz=129,slow=9.8,SNR=40						
CMIG				S	S	21 38 51.2	-7.2
	11nm,0.3s,baz=154,slow=16,SNR=17						
CMIG	Matias Romero	4.47	301	P	Pn	21 38 02.9	-1.7
CMIG				S	S	21 38 51.2	-7.2
TEIG	Tepich	5.94	24	P	Pn	21 38 23.2	0.0
	6.5nm,0.3s,baz=182,slow=1.9,SNR=28						
TEIG	Tepich	5.94	24	P	Pn	21 38 23.2	0.0
JTS	JuntasAbangare	7.33	127	P	Pn	21 38 41.5	+0.4
	2.2nm,0.3s,baz=329,slow=16,SNR=7.7						
JTS				S	S	21 39 58.6	-6.0
	0.6nm,0.3s,baz=288,slow=20,SNR=3.5						
DWPF	Disney	15.89	32	P	Pn	21 40 26.7	-2.1
TXAR	Lajitas Array	18.67	323	P	P	21 41 01.1	+2.5
	0.1nm,0.3s,baz=151,slow=11,SNR=8.2						
OTAV	Otavalo	18.99	139	eP	P	21 41 01.9	-0.3
	2.7nm,1.0s						
MIAR	Mount Ida	19.81	353	eP	P	21 41 11.0	+0.3
	2.8nm,0.7s						
SDV	Santo Domingo	20.67	104	P	P	21 41 19.9	-0.2
	4.0nm,0.6s,baz=302,slow=10,SNR=3.8						
SDV	Santo Domingo	20.67	104	eP	P	21 41 19.7	-0.4
	3.0nm,0.4s						
WMOK	Wichita Mounta	21.09	342	eP	P	21 41 24.1	-0.2
	2.1nm,0.7s,mb3.8						
WVT	Waverly	21.42	7	P	P	21 41 27.9	+0.1
ISCO	Idaho Springs	28.05	335	P	P	21 42 29.3	+1.5
CMB	Columbia Colle	34.86	317	P	P	21 43 27.6	+0.3
ULM	Lac du Bonnet	35.59	354	P	P	21 43 32.9	-0.5
	1.2nm,0.5s,mb3.7,baz=159,slow=14,SNR=2.6						
SCHQ	Schefferville	44.10	20	P	P	21 44 44.1	+0.8
	2.2nm,0.6s,mb3.7,baz=213,slow=8.4,SNR=8.0						
YKA	Yellowknife Ar	50.51	346	P	P	21 45 32.5	+0.1
	0.2nm,0.5s,mb2.8,baz=149,slow=7.4,SNR=4.4						
YKA				pP	pP	21 46 19.8	+0.3
	0.2nm,0.5s,baz=150,slow=7.4,SNR=3.3						
YKA	Yellowknife Ar	50.51	346	P	P	21 45 32.5	+0.1
YKA				pP	pP	21 46 19.8	+0.3
FRB	Frobisher Bay	51.30	13	P	P	21 45 38.2	-0.2
	0.7nm,0.3s,mb3.5,baz=225,slow=6.4,SNR=4.3						
WRA	Warramunga Arr	136.63	257	PKP	PKPdf	21 55 54.6	+0.7
	0.5nm,0.6s,baz=88,slow=2.6,SNR=5.1						
ASAR	Alice Springs	136.94	251	PKP	PKPdf	21 55 56.3	+1.9
	0.3nm,0.6s,baz=90,slow=2.8,SNR=3.2						
CMAR	Chiang Mai Arr	145.56	343	PKPbc	PKPbc	21 56 10.2	-0.3
	0.4nm,0.4s,baz=336,slow=3.8,SNR=4.9						

IDC 19 21:40:13.0±3.6, 6°.11S×128°.68E, h439km±45km, mb2.8/2, mb1 2.8/4, mb1mx2.6/16, mbtmp2.7/4, Error ellipse: s-maj=103.0km s-min=15.1km az=70.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.81	159	P	P	21 43 22.4	0.0
	0.2nm,0.3s,baz=339,slow=11,SNR=20						
WRA				S	S	21 45 58.1	-0.9
	0.2nm,0.3s,baz=331,slow=20,SNR=10						
ASAR	Alice Springs	18.17	164	P	P	21 43 57.9	0.0
	0.3nm,0.3s,baz=347,slow=12,SNR=9.0						
ASAR				S	S	21 47 03.3	+0.8
	0.1nm,0.3s,baz=344,slow=25,SNR=4.3						
MKAR	Makanchi Array	66.77	327	P	P	21 50 19.4	0.0
	0.2nm,0.6s,baz=122,slow=8.0,SNR=4.6						
ZALV	Zalesovo Beam	70.21	334	P	P	21 50 40.3	+0.1
	0.3nm,0.3s,baz=143,slow=5.0,SNR=3.0						

MAN 19 21:42:04, 15°.63N×121°.77E, h13km, mb4.4, ML3.3, MS3.1, 2C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALP	Baler	0.22	302	eP	Pg	21 42 10.6	+1.9
BALP				eS	Sg	21 42 14.7	+2.7
PCPH	Palayan	0.65	264⇓	iP	Pg	21 42 17.4	+0.7
PCPH				i S	Sg	21 42 27.0	+1.7
POLP	Polilio Island	0.91	170	eP	Pg	21 42 22.4	+0.8
POLP				eS	Sg	21 42 35.8	+2.3
CAUP	Cauayan	1.31	2	eP	Pn	21 42 27.9	-0.2
CAUP				eS	Sb	21 42 40.0	-5.2
BCPH	Baguio City Da	1.37	303⇑	iP	Pn	21 42 29.0	+0.2
BCPH				i S	Sn	21 42 47.5	+0.7
PALP	Palanan	1.56	24	eP	Pn	21 42 31.2	-0.3
PALP				eS	Sn	21 42 57.6	+6.0
SCZP	Santa Cruz	1.79	275	eP	Pn	21 42 35.6	+1.0
SCZP				eS	Sn	21 42 59.7	+2.3
GQP	Guinayangan	1.83	159⇑	eP	Pn	21 42 36.6	+1.4
GQP				eS	Sn	21 42 59.9	+1.6
ABRA	Dolores	2.25	333	eP	Pn	21 42 42.5	+1.5
ABRA				eS	Sn	21 43 08.5	-0.1
LUBP	Lubang	2.39	218	eP	Pn	21 42 47.6	+4.7

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*ISCJB **19** 21:53:27.4±0.4, 49°.81N±0°.02×18°.41E±0°.03, h0km, Error ellipse: s-maj=3.5km s-min=2.5km az=19.3*
*CSEM **19** 21:53:29.4±0.3, 49°.77N×18°.39E, h2km, ML2.6/5, Error ellipse: s-maj=6.4km s-min=4.3km az=35.0*
*PRU **19** 21:53:29.8, 49°.84N×18°.42E, h0km*
*VIE **19** 21:53:29.4±0.7, 49°.67N×18°.45E, h0km, mb2.0/4, ML2.2/4, Error ellipse: s-maj=4.6km s-min=3.0km az=81.0 24 km SE of Ostrava Suspected Mining induced.*

ISC 19 21:53:28.8±0.4, 49°.81N±0°.02×18°.44E±0°.03, h0km, n33, σ1ˢ.14/56, 5C, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.19	277	ePG	Pg	21 53 34.1	+1.7
OKC				eSG	Sg	21 53 36.4	+1.5
	comp=Z,158nm,0.4s						
OKC	Ostrava-Krasne	0.19	277	Pg	Pg	21 53 34.1	+1.7
OKC				Sg	Sg	21 53 36.4	+1.5
	comp=Z,158nm,0.4s						
RAC	Raciborz	0.31	330	ePg	Pg	21 53 36.2	+1.4
RAC				eSg	Sg	21 53 40.5	+1.7
RAC	Raciborz	0.31	330	ePg	Pg	21 53 36.2	+1.4
RAC				eSg	Sg	21 53 40.5	+1.7
MORC	Moravsky Berou	0.58	267	ePg	Pg	21 53 40.9	+1.0
MORC				eSg	Sg	21 53 49.4	+1.9
OJC	Ojcow	0.97	65	ePg	Pg	21 53 46.2	-1.1
OJC				eSg	Sg	21 53 59.0	-0.8
NIE	Niedzica	1.28	107	ePg	Pg	21 53 52.9	-0.4
NIE				eSg	Sg	21 54 10.8	+0.9
VYHS	Vyhne	1.35	169	i PG	Pg	21 53 54.4	-0.2
VYHS				eSG	Sg	21 54 12.8	+0.8
VYHS	Vyhne	1.35	169	i Pg	Pg	21 53 54.4	-0.2
VYHS				eSg	Sg	21 54 12.8	+0.8
SMOL	Smolenice	1.46	207	i Pg	Pg	21 53 56.6	-0.1
SMOL				eSG	Sg	21 54 16.9	+1.2
SMOL	Smolenice	1.46	207	i PG	Pg	21 53 56.6	-0.1
DPC	Dobruska-Polom	1.47	292	ePG	Pg	21 53 56.6	-0.2
DPC				eSG	Sg	21 54 16.8	+1.0
	comp=Z,13nm,0.3s						
DPC	Dobruska-Polom	1.47	292	Pg	Pg	21 53 56.6	-0.2
DPC				Sg	Sg	21 54 16.8	+1.0
	comp=Z,13nm,0.3s						
MODS	Modra-Piesok	1.63	208	ePg	Pg	21 53 59.7	-0.3
MODS				eSG	Sg	21 54 21.8	+0.7
MODS	Modra-Piesok	1.63	208	ePG	Pg	21 53 59.7	-0.3
UPC	Upice	1.71	295	ePG	Pg	21 54 00.3	-1.2
UPC				eSG	Sg	21 54 23.7	+0.1
UPC	Upice	1.71	295	Pg	Pg	21 54 00.3	-1.2
UPC				Sg	Sg	21 54 23.7	+0.1
KSP	Ksiaz	1.72	308	ePg	Pg	21 54 00.9	-0.8
KSP				eSg	Sg	21 54 24.7	+0.7
ZST	Bratislava	1.84	209	ePG	Pg	21 54 02.3	-1.8
ZST	Bratislava	1.84	209	ePg	Pg	21 54 02.3	-1.8
STHS	Stebnicka Huta	1.87	101	ePG	Pg	21 54 04.3	-0.2
STHS	Stebnicka Huta	1.87	101	ePg	Pg	21 54 04.3	-0.2
KECS	Kecovo	1.89	134	ePN	Pn	21 54 02.0	-0.3
KECS				eSN	Sn	21 54 26.8	0.0
CRVS	Cervenica-Dubn	2.18	114	ePN	Pn	21 54 08.9	+2.7
CRVS	Cervenica-Dubn	2.18	114	ePn	Pn	21 54 08.9	+2.7
PRU	Pruhonice	2.53	275	ePG	Pg	21 54 14.8	-2.4
PRU				eSG	Sg	21 54 48.5	-1.4
	comp=Z,5.2nm,0.7s						
CONA	Conrad Observa	2.54	223⇑	iPn	Pn	21 54 11.1	-0.1
CONA			⇑	iSn	Sn	21 54 41.6	-1.2
CSNA	Conrad Observa	2.54	223⇑	iPn	Pn	21 54 10.6	-0.7
KOLS	Kolonicke sedl	2.66	108	ePN	Pg	21 54 20.7	+1.1
BRG	Berggiesshubel	3.07	292	PG	Pg	21 54 25.1	-2.5
BRG				SG	Sg	21 55 06.4	-0.9
	comp=Z,4.3nm,0.5s						
KHC	Kasperske Hory	3.24	260	ePG	Pg	21 54 28.2	-2.7
KHC				eSG	Sg	21 55 12.6	-0.3
	comp=Z,3.7nm,0.4s						
MOA	Molln	3.39	236⇑	iPn	Pn	21 54 22.8	-0.1
MOA			⇑	iSg	Sg	21 55 17.8	+0.3
	comp=Z,4.3nm,0.5s						
MOA	Molln	3.39	236	Pn	Pn	21 54 22.8	0.0
MOA				Sg	Sg	21 55 17.8	+0.3
	comp=Z,4.3nm,0.5s						

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*ISCJB **19** 21:58:47.9±0.3, 43°.57N±0°.02×13°.02E±0°.03, h51km±3km, Error ellipse: s-maj=4.0km s-min=3.7km az=154.5*
*CSEM **19** 21:58:48.2±0.1, 43°.50N×13°.00E, h35km, ML2.8/12, Error ellipse: s-maj=3.4km s-min=3.1km az=58.0*
*LDG **19** 21:58:48.4±0.1, 43°.55N×13°.07E, h25km, Ml2.8/5, Error ellipse: s-maj=4.0km s-min=2.5km az=52.0*
*NEIC **19** 21:58:49.0, 43°.51N×13°.00E, h35km, ML2.5(ROM), ML2.8(LDG), After ROM.*
*ROM **19** 21:58:49.0±0.1, 43°.51N×13°.00E, h35km±1km, Ml2.5/23, Error ellipse: s-maj=1.8km s-min=1.4km az=24.0*

ISC 19 21:58:48.9±0.3, 43°.54N±0°.02×13°.02E±0°.03, h41km±4km, n106, σ0ˢ.88/144, 13C-8D, Central Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARVD	Arcevia	0.07	231⇓	iPg	Pn	21 58 54.5	-1.1
ARVD				Sg	Sn	21 58 59.2	-1.0
	379nm,0.2s						
ARVD	Arcevia	0.07	231⇓	iPg	Pn	21 58 54.5	-1.1
ARVD				Sg	Sn	21 58 59.2	-1.0
	379nm,0.2s						
CING	Cingoli	0.21	142⇑	iPg	Pn	21 58 55.7	-0.7
CING				Sg	Sn	21 59 01.5	-0.2
	1μm,0.5s						
CING	Cingoli	0.21	142⇑	iPg	Pn	21 58 55.7	-0.7
CING				Sg	Sn	21 59 01.5	-0.2
	1μm,0.5s						
SENI	Senigallia	0.23	44⇑	iPg	Pn	21 58 56.7	+0.1
SENI				Sg	Sn	21 59 03.1	+1.2
	734nm,0.2s						
SENI	Senigallia	0.23	44⇑	iPg	Pn	21 58 56.7	+0.1
SENI				Sg	Sn	21 59 03.1	+1.2
	734nm,0.2s						
FSSB	Fossombrone	0.23	311⇓	iPg	Pn	21 58 55.9	-0.7
FSSB				Sg	Sn	21 59 01.8	-0.2
	999nm,0.3s						
FSSB	Fossombrone	0.23	311⇓	iPg	Pn	21 58 55.9	-0.7
FSSB				Sg	Sn	21 59 01.8	-0.2
	999nm,0.3s						
SNTG	Esanatoglia	0.29	191⇓	iPg	Pn	21 58 56.4	-0.8
SNTG				Sg	Sn	21 59 02.5	-0.5
	169nm,0.2s						
SNTG	Esanatoglia	0.29	191⇓	iPg	Pn	21 58 56.4	-0.8
SNTG				Sg	Sn	21 59 02.5	-0.5
	169nm,0.2s						
PIEI	Pieia	0.35	269⇓	iPg	Pn	21 58 57.1	-0.8
PIEI				Sg	Sn	21 59 04.1	0.0
	402nm,0.4s						
PIEI	Pieia	0.35	269⇓	iPg	Pn	21 58 57.1	-0.8
PIEI				Sg	Sn	21 59 04.1	0.0
	402nm,0.4s						
PESA	Pesaro	0.42	342	Pg	Pn	21 58 58.7	0.0
PESA				Sg	Sn	21 59 06.6	+1.1
	316nm,0.3s						
PESA	Pesaro	0.42	342	Pg	Pn	21 58 58.7	0.0
PESA				Sg	Sn	21 59 06.6	+1.1
	316nm,0.3s						
AOI	Ancona	0.42	89⇑	iPg	Pn	21 58 58.6	-0.1
AOI				Sg	Sn	21 59 06.7	+1.1
	441nm,0.4s						
AOI	Ancona	0.42	89⇑	iPg	Pn	21 58 58.6	-0.1
AOI				Sg	Sn	21 59 06.7	+1.1
	441nm,0.4s						
MURB	Monte Urbino	0.46	232	Pg	Pn	21 58 58.6	-0.5
MURB				Sg	Sn	21 59 06.6	+0.3
	1μm,0.3s						
MURB	Monte Urbino	0.46	232	Pg	Pn	21 58 58.6	-0.5
MURB				Sg	Sn	21 59 06.6	+0.3
	1μm,0.3s						
CESI	CESI - Serrava	0.54	189	Pg	Pn	21 58 59.7	-0.6
CESI				Sg	Sn	21 59 08.8	+0.5
	116nm,0.3s						
CESI	CESI - Serrava	0.54	189	Pg	Pn	21 58 59.7	-0.6
CESI				Sg	Sn	21 59 08.8	+0.5
	116nm,0.3s						
ASS	Assisi	0.55	209	Pg	Pn	21 58 59.8	-0.6
	163nm,0.5s						
ASS	Assisi	0.55	209	Pg	Pn	21 58 59.8	-0.6
	163nm,0.5s						
BADI	Badiali	0.56	267	Pg	Pn	21 59 00.5	0.0
BADI				Sg	Sn	21 59 10.5	+1.7
	376nm,0.4s						
BADI	Badiali	0.56	267	Pg	Pn	21 59 00.5	0.0
BADI				Sg	Sn	21 59 10.5	+1.7
	376nm,0.4s						
RSM	Repubblica di	0.56	313	Pg	Pn	21 59 01.1	+0.5
	29nm,0.7s						
RSM	Repubblica di	0.56	313	Pg	Pn	21 59 01.1	+0.5
	29nm,0.7s						
CDCA	Citt‘ di Caste	0.58	262	Pg	Pn	21 59 01.1	+0.4
	113nm,0.3s						
CDCA	Citt‘ di Caste	0.58	262	Pg	Pn	21 59 01.1	+0.4
	113nm,0.3s						
NRCA	Norcia	0.71	174	Pg	Pn	21 59 02.4	-0.2
	58nm,0.3s						
NRCA	Norcia	0.71	174	Pg	Pn	21 59 02.4	-0.2
	58nm,0.3s						
CRE	Caprese Michel	0.78	276	Pg	Pn	21 59 04.6	+1.1
	77nm,0.4s						
CRE	Caprese Michel	0.78	276	Pg	Pn	21 59 04.6	+1.1
	77nm,0.4s						
OFFI	Offida	0.78	141	Pg	Pn	21 59 04.3	+0.8
	355nm,0.5s						
OFFI	Offida	0.78	141	Pg	Pn	21 59 04.3	+0.8
	355nm,0.5s						
CAFI	Castiglion Fio	0.80	255⇑	iPg	Pn	21 59 04.3	+0.6
CAFI	Castiglion Fio	0.80	255⇑	iPg	Pn	21 59 04.3	+0.6
SFI	Santa Sofia	0.92	293	Pg	Pn	21 59 06.5	+1.1
	81nm,0.4s						
SFI	Santa Sofia	0.92	293	Pg	Pn	21 59 06.5	+1.1
	81nm,0.4s						
ASQU	Asqua	0.93	286	Pg	Pn	21 59 06.7	+1.2
	185nm,0.7s						
ASQU	Asqua	0.93	286	Pg	Pn	21 59 06.7	+1.2
	185nm,0.7s						
LNSS	Leonessa	0.94	179	Pg	Pn	21 59 06.1	+0.5
	344nm,0.2s						
LNSS	Leonessa	0.94	179	Pg	Pn	21 59 06.1	+0.5
	344nm,0.2s						
TERO	Teramo	1.01	155	Pg	Pn	21 59 06.8	+0.1
	100nm,0.5s						
TERO	Teramo	1.01	155	Pg	Pn	21 59 06.8	+0.1
	100nm,0.5s						
CAMP	Campotosto	1.05	164	Pg	Pn	21 59 07.4	+0.3
	19nm,0.6s						
CAMP	Campotosto	1.05	164	Pg	Pn	21 59 07.4	+0.3
	19nm,0.6s						
SACS	San Casciano d	1.07	230	Pg	Pn	21 59 07.7	+0.3
	65nm,0.6s						
MNS	Montasola	1.18	192	Pg	Pn	21 59 09.6	+0.6
	86nm,0.5s						
MNS	Montasola	1.18	192	Pg	Pn	21 59 09.6	+0.6
	86nm,0.5s						
CSNT	Castellina Chi	1.26	267	Pg	Pn	21 59 10.4	+0.4
	42nm,0.8s						
CSNT	Castellina Chi	1.26	267	Pg	Pn	21 59 10.4	+0.4
	42nm,0.8s						
FIAM	Fiamignano	1.28	177	Pg	Pn	21 59 11.6	+1.3
	61nm,0.7s						
FIAM	Fiamignano	1.28	177	Pg	Pn	21 59 11.6	+1.3
	61nm,0.7s						
VCEL	Villa Celiera	1.30	152	Pg	Pn	21 59 10.9	+0.4
	102nm,0.8s						
ARCI	Arcidosso	1.32	239	Pg	Pn	21 59 11.2	+0.3
	13nm,0.3s						
ARCI	Arcidosso	1.32	239	Pg	Pn	21 59 11.2	+0.3
	13nm,0.3s						
NVLJ	Novalja	1.68	52	ePn	Pn	21 59 15.6	-0.2
NVLJ				Sg	Sn	21 59 35.6	-0.5
NVLJ	Novalja	1.68	52	ePn	Pn	21 59 15.6	-0.2
POPM	Popiglio	1.71	288	P	Pn	21 59 16.8	+0.6
POPM				S	Sn	21 59 37.1	+0.2
MAIM	Mastiano	1.87	282	P	Pn	21 59 19.2	+0.8
MAIM				S	Sn	21 59 41.0	+0.3
SARO	Sassorosso	2.00	290	P	Pn	21 59 20.8	+0.6
SKDS	Skadanscina	2.13	19	i Pn	Pn	21 59 21.3	-0.6
SKDS	Skadanscina	2.13	19	i Pn	Pn	21 59 21.3	-0.6
VALM	Valbona	2.16	293	P	Pn	21 59 23.5	+1.2
KNDS	Knezji Dol	2.21	26	ePn	Pn	21 59 23.1	0.0
KNDS	Knezji Dol	2.21	26	ePn	Pn	21 59 23.1	0.0
BACM	Baccana	2.25	290	P	Pn	21 59 24.5	+0.9
VOJS	Vojsko	2.56	14	i Pn	Pn	21 59 27.9	0.0
VOJS	Vojsko	2.56	14	i Pn	Pn	21 59 28.0	+0.1
CADS	Cadrg	2.73	11	ePn	Pn	21 59 29.9	-0.3
CADS	Cadrg	2.73	11	ePn	Pn	21 59 29.9	-0.3
PGF	Pioggiola	3.11	253	ePn	Pn	21 59 35.9	+0.5
PGF				eSn	Sn	22 00 09.4	-1.9
	2.1nm,0.4s						
PGF	Pioggiola	3.11	253	ePn	Pn	21 59 35.9	+0.5
PGF				eSn	Sn	22 00 09.4	-1.9
	1.0nm,0.4s						
ABTA	Abfaltersbach	3.22	354⇑	iPn	Pn	21 59 37.8	+0.8
ABTA	Abfaltersbach	3.22	354	Pn	Pn	21 59 37.8	+0.8
STON	Ston	3.49	99	ePn	Pn	21 59 40.6	0.0
STON				Sn	Sn	22 00 18.9	-1.8
STON	Ston	3.49	99	ePn	Pn	21 59 40.6	0.0
STON				Sn	Sn	22 00 18.9	-1.7
KBA	Koelnbreinsper	3.54	4⇑	iPn	Pn	21 59 41.8	+0.4
KBA			⇑	iSn	Sn	22 00 22.9	+0.9
KBA	Koelnbreinsper	3.54	4	Pn	Pn	21 59 41.8	+0.4
KBA				Sn	Sn	22 00 22.9	+0.9
TRAV	Traversella	4.25	299	P	Pn	21 59 49.1	-2.0
MOA	Molln	4.39	11⇑	iPn	Pn	21 59 54.0	+0.9
MOA			⇑	iSn	Sn	22 00 43.2	+0.3
MOA	Molln	4.39	11	Pn	Pn	21 59 54.0	+0.9
MOA				Sn	Sn	22 00 43.2	+0.3
FRF	La Foret Royal	4.63	272	ePn	Pn	21 59 56.6	+0.3
FRF	La Foret Royal	4.63	272	ePn	Pn	21 59 56.6	+0.3
MBDF	Montbardon	4.65	287	ePn	Pn	21 59 56.1	-0.5
MBDF	Montbardon	4.65	287	ePn	Pn	21 59 56.1	-0.5
LMR	La Mourre	4.75	270	ePn	Pn	21 59 57.8	-0.1
LMR	La Mourre	4.75	270	ePn	Pn	21 59 57.8	-0.1
LPG	La Plagne	4.89	296	ePn	Pn	21 59 58.9	-0.9
LPG				eSn	Sn	22 00 51.9	-3.2
	0.8nm,0.2s						
LPG	La Plagne	4.89	296	ePn	Pn	21 59 58.9	-0.9
LPG				eSn	Sn	22 00 51.9	-3.2
	0.4nm,0.2s						
SMRF	Simiane la Rot	5.41	277	eP	Pn	22 00 09.7	+2.7
SMRF	Simiane la Rot	5.41	277	eP	Pn	22 00 09.7	+2.7
CABF	La Chapelle	5.79	304	ePn	Pn	22 00 10.9	-1.3
CABF	La Chapelle	5.79	304	ePn	Pn	22 00 10.9	-1.3
HINF	Hinteralfeld	6.08	317	ePn	Pn	22 00 14.8	-1.3
HINF				eSn	Sn	22 01 19.3	-5.0
	3.8nm,0.4s						
HINF	Hinteralfeld	6.08	317	ePn	Pn	22 00 14.8	-1.3
VIVF	Saint-Julien-l	6.14	285	ePn	Pn	22 00 15.9	-1.1
VIVF	Saint-Julien-l	6.14	285	ePn	Pn	22 00 15.9	-1.1
CDF	Champ du Feu	6.30	323	ePn	Pn	22 00 18.1	-1.1
CDF	Champ du Feu	6.30	323	ePn	Pn	22 00 18.1	-1.1
HAU	Haudompre	6.45	316	ePn	Pn	22 00 20.3	-1.0
HAU				eSn	Sn	22 01 29.0	-4.6
	3.8nm,0.3s						
HAU	Haudompre	6.45	316	ePn	Pn	22 00 20.3	-1.0
LOR	Lormes	7.44	303	ePn	Pn	22 00 33.4	-1.5
LOR				eSn	Sn	22 01 52.5	-5.4
	1.2nm,0.3s						
LOR	Lormes	7.44	303	ePn	Pn	22 00 33.4	-1.5
BGF	Bois d’Agland	7.81	296	ePn	Pn	22 00 38.3	-1.6
BGF	Bois d’Agland	7.81	296	ePn	Pn	22 00 38.3	-1.6

IDC 19 22:00:50.1±1.8, 0°.60S×99°.48E, h0km, mb3.7/5, mb1 3.7/6, mb1mx3.5/22, mbtmp3.6/6, ML2.6/1, MS3.0/1, Ms1 3.0/1, ms1mx2.7/40, Error ellipse: s-maj=55.4km s-min=26.7km az=49.0, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.42	351	Pn	Pn	22 01 45.0	+0.3
	0.6nm,0.3s,baz=130,slow=16,SNR=4.7						
PSI				LR	LR	22 02 49.2	
	comp=Z,246nm,19.5s,baz=87,slow=36						
PALK	Pallekele	20.30	293	P	P	22 05 28.6	+0.8
	1.6nm,0.5s,baz=109,slow=10,SNR=3.6						
WRA	Warramunga Arr	39.15	122	P	P	22 08 20.0	+0.2
	0.5nm,0.8s,baz=297,slow=11,SNR=3.9						
SONM	Songino Array	48.61	6	P	P	22 09 36.7	+1.2
	0.4nm,0.8s,baz=193,slow=5.9,SNR=3.8						
MKAR	Makanchi Array	49.55	345	P	P	22 09 42.0	-0.7
	0.9nm,0.6s,baz=161,slow=8.5,SNR=16						
ZALV	Zalesovo Beam	55.71	350	P	P	22 10 27.1	-1.1
	0.8nm,0.5s,baz=173,slow=7.6,SNR=4.9						

IDC 19 22:12:35.3±2.2, 0°.03S×97°.17E, h0km, mb3.7/4, mb1 3.7/6, mb1mx3.5/23, mbtmp3.6/6, ML3.1/2, Error ellipse: s-maj=62.3km s-min=26.7km az=61.0, Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.32	32	Pn	Pn	22 13 27.6	-0.9
	0.9nm,0.3s,baz=325,slow=4.2,SNR=4.0						
CMAR	Chiang Mai Arr	18.46	5	P	Pn	22 16 53.5	+0.8
	0.1nm,0.3s,baz=200,slow=12,SNR=7.1						
WRA	Warramunga Arr	41.42	121	P	P	22 20 23.8	-0.2
	0.8nm,0.7s,baz=304,slow=8.9,SNR=4.4						
SONM	Songino Array	48.35	8	P	P	22 21 18.7	+0.1
	0.3nm,0.6s,baz=194,slow=12,SNR=3.6						
MKAR	Makanchi Array	48.42	346	P	P	22 21 19.1	-0.1
	0.5nm,0.6s,baz=159,slow=7.9,SNR=7.4						
ZALV	Zalesovo Beam	54.76	351	P	P	22 22 06.4	-0.1
	0.9nm,0.3s,baz=171,slow=7.4,SNR=6.2						

IDC 19 22:18:08.4±2.4, 25°.24N×95°.37E, h0km, mb3.1/2, mb1 3.2/3, mb1mx3.1/24, mbtmp3.1/3, ML3.5/1, MS3.4/1, Ms1 3.4/1, ms1mx2.6/13, Error ellipse: s-maj=66.4km s-min=31.5km az=71.0, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.52	153	Pn	Pn	22 19 59.6	+0.2
	0.2nm,0.3s,baz=328,slow=13,SNR=10.0						
PALK	Pallekele	22.71	221	LR	LR	22 32 25.2	
	comp=Z,98nm,21.4s,baz=104,slow=38						
MKAR	Makanchi Array	23.90	337	P	P	22 23 24.4	+0.6
	0.3nm,0.4s,baz=150,slow=10,SNR=8.6						
SONM	Songino Array	24.18	18	P	P	22 23 25.9	-0.3
	0.2nm,0.5s,baz=196,slow=8.6,SNR=3.2						

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*IDC **19** 22:23:38.7±1.2, 11°.97N×143°.73E, h0km, mb3.7/6, mb1 4.0/6, mb1mx3.8/21, mbtmp3.7/6, Error ellipse: s-maj=34.5km s-min=25.7km az=107.0*
*ISCJB **19** 22:23:41.9±6.0, 12°.0N±0°.1×143°.8E±0°.2, h15km±38km, mb3.8/6, Error ellipse: s-maj=36.0km s-min=14.5km az=38.4*

ISC 19 22:23:40.3±6.5, 12°.0N±0°.1×143°.8E±0°.2, h8km±47km, n7, σ1ˢ.60/8, mb3.8/6, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.86	33	Pn	Pn	22 24 12.6	+0.1
	35nm,0.3s,baz=188,slow=17,SNR=5.5						
GUMO				Sn	Sn	22 24 34.7	-1.5
	27nm,0.3s,baz=343,slow=20,SNR=5.6						
WRA	Warramunga Arr	33.10	197	P	P	22 30 15.7	-1.3
	0.6nm,0.7s,mb3.7,baz=21,slow=9.8,SNR=7.3						
SONM	Songino Array	47.45	326	P	P	22 32 16.1	+0.6
	0.5nm,0.5s,mb3.7,baz=148,slow=8.6,SNR=8.7						
MKAR	Makanchi Array	61.93	317	P	P	22 34 00.9	+0.3
	0.4nm,0.6s,mb3.7,baz=86,slow=8.7,SNR=5.8						
ZALV	Zalesovo Beam	62.32	325	P	P	22 34 00.9	-2.2
	0.5nm,0.5s,mb3.9,baz=109,slow=7.8,SNR=3.6						

YKA	**Yellowknife Ar**	84.71	27	P	P	22 36 14.7	0.0
	0.7nm,0.6s,mb4.0,baz=286,slow=5.1,SNR=10						
NVAR	**Mina Array Bea**	88.69	51	P	P	22 36 35.9	+1.3
	0.6nm,0.6s,mb4.1,baz=269,slow=6.3,SNR=5.5						

IDC 19 22:37:19.2±3.1**, 6°.08S×152°.78E, h0^{km}, mb3.7**/8**, mb1 3.8**/8**, mb1mx3.7**/18**, mbtmp3.8**/8**, Error ellipse: s-maj=111.7km s-min=24.0km az=114.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	22.60	231	P	P	22 42 21.4	-0.3
	0.9nm,0.7s,baz=56,slow=9.9,SNR=6.1						
ASAR	**Alice Springs**	25.21	224	P	P	22 42 48.1	+1.3
	1.0nm,0.8s,baz=57,slow=7.8,SNR=7.0						
PETK	**Petropavlovsk-**	59.11	3	P	P	22 47 22.3	+1.0
	1.0nm,0.4s,baz=160,slow=5.8,SNR=3.8						
SONM	**Songino Array**	67.39	328	P	P	22 48 17.8	+1.4
	0.4nm,0.7s,baz=140,slow=5.7,SNR=3.7						
MKAR	**Makanchi Array**	81.27	319	P	P	22 49 37.8	+0.5
	0.3nm,0.8s,baz=102,slow=4.9,SNR=3.1						
ZALV	**Zalesovo Beam**	82.20	326	P	P	22 49 41.3	-0.8
	0.3nm,0.3s,baz=87,slow=7.8,SNR=3.5						
KURK	**Kurchatov**	84.75	322	P	P	22 49 55.1	-0.2
	0.3nm,0.3s,baz=108,slow=4.0,SNR=2.5						
BVAR	**Borovoye Array**	90.24	323	P	P	22 50 20.9	-0.8
	0.5nm,0.7s,baz=104,slow=6.1,SNR=3.8						
TORD	**Torodi Ar. Bea**	150.66	286	PKPbc	PKPbc	22 57 13.0	-1.4
	1.1nm,0.8s,baz=60,slow=2.7,SNR=8.1						

ECX ***19*** *22:41:28.7±0.4, 32°.46N×115°.37W, h8^{km}, MD5.0, ML5.2, MW5.0, Fault plane solution: NP1:ϕ_s120.00000°, δ90.00000°, λ0.00000°.*

ISCJB ***19*** *22:41:28.7±0.2, 32°.51N±0°.01×115°.27W±0°.01, h10^{km}, mb4.6/43, MS4.5/22, Error ellipse: s-maj=1.8km s-min=1.3km az=5.7*

BJI ***19*** *22:41:30.2, 32°.27N×116°.18W, h16^{km}, mB5.1/5, mb4.9/13, Ms5.1/8, Ms7 4.6/11*

NEIC ***19*** *22:41:30.7, 32°.47N×115°.32W, h11^{km}, mb4.6/32, ML5.0(PAS), ML5.3(ECX), After ECX.*

NEIC Felt [V] at Mexicali. Also felt at Algodones. Felt [V] at Calexico; [IV] at Brawley, El Centro, Imperial, Solana Beach and Winterhaven; [III] at Blythe, Chula Vista, Heber, La Jolla and San Diego; [II] at Aliso Viejo, Carlsbad, El Cajon, La Mesa, Mission Viejo and Pine Valley, California. Also felt at Aguanga, Coronado, Earp, Encinitas, Holtville, Indio, Irvine, Lemon Grove, Los Angeles, National City, Newport Beach, Niland, Oceanside, San Marcos, Santa Ana, Santa Monica, Santee, Sherman Oaks, Westmorland and Woodland Hills. Felt [IV] at Somerton and [III] at Yuma, Arizona. Also felt at Cibola and Parker.

GCMT ***19*** *22:41:30.7±0.2, 32°.41N×115°.37W, h12^{km}, MW5.1/94, Moment Tensor Solution. s43,c51; s94,c147; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.60±.13; $M_{\theta\theta}$-4.15±.12; $M_{\phi\phi}$5.74±.12; $M_{r\theta}$-1.20±.34; $M_{\theta\phi}$-0.71±.12; $M_{\phi r}$-2.26±.34; Best double couple: $M_0$5.62300×10^{16} NP1:ϕ_s131.00000°, δ60.00000°, λ-172.00000°. NP2: ϕ_s37.00000°, δ83.00000°, λ-30.00000°. Principal axes: T 6.3920, Plg15.0000°, Azm88.0000°; N -1.5470, Plg59.0000°, Azm206.0000°; P -4.8550, Plg26.0000°, Azm350.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

MOS ***19*** *22:41:31.5±1.5, 32°.67N×115°.18W, h19^{km}, mb4.9/18 Error ellipse: s-maj=6.4km s-min=4.2km az=96.0*

IDC ***19*** *22:41:31.4±0.9, 32°.69N×114°.97W, h0^{km}, mb4.2/9, mb1 4.3/15, mb1mx4.1/26, mbtmp4.1/15, ML4.0/6, MS4.5/20, Ms1 4.5/20, ms1mx4.4/39, Error ellipse: s-maj=20.1km s-min=9.4km az=56.0*

ISC 19 22:41:29.4±0.2**, 32°.46N**±0°.01×**115°.31W**±0°.01**, h5^{km}**±1^{km}**, n358, σ1^{s}.31**/475**, mb4.6**/44**, MS4.5**/22**, 74C-58D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	0.04	170	⇓iP	Pg	22 41 32.2	+1.6
CHIX	**Chihuahua**	0.07	67	⇑iP	Pg	22 41 32.9	+1.9
DELX	**Delta**	0.15	135	iP	Pg	22 41 34.7	+2.2
SGL	**Mount Signal**	0.40	298	iP	Pg	22 41 37.4	+0.3
SNR	**Schaffner Ranc**	0.41	345	⇓iP	Pg	22 41 38.5	+1.1
COA	**Coachella**	0.43	22	⇑iP	Pg	22 41 38.8	+1.0
EMX	**El Mayor**	0.47	173	⇓eP	Pg	22 41 46.1	+7.5
EMX				eS	Sg	22 41 54.3	+10
COK	**Cook Ranch**	0.52	318	⇓iP	Pg	22 41 39.8	+0.4
YUH	**Yuha Desert**	0.55	290	⇑iP	Pg	22 41 39.9	-0.1
112A	**Yuma**	0.62	83	⇑P	Pg	22 41 41.3	-0.2
	baz=0.6,SNR=1000						
112A				⇓S	Sg	22 41 50.4	+0.9
	baz=0.6						
SWSC	**Sam W. Stewart**	0.63	320	⇓P	Pg	22 41 41.3	-0.3
	baz=0.7,SNR=1000						
SWSC				⇓S	Sg	22 41 49.6	-0.1
	baz=0.7						
YMD	**Yuma Desert**	0.66	82	⇑eP	Pg	22 41 42.1	0.0
RMX	**La Rumorosa**	0.66	283	⇑eP	Pg	22 41 42.3	+0.1
RMX				eS	Sg	22 41 51.3	+0.5
DVTC	**Desert V Tower**	0.69	287	P	Pg	22 41 42.6	-0.1
	baz=0.7,SNR=1000						
DVTC				⇑S	Sg	22 41 51.5	-0.3
	baz=0.7						
CRR	**Carrizo Plain**	0.70	308	⇓iP	Pg	22 41 42.5	-0.3
GLA	**Glamis**	0.72	35	⇓P	Pg	22 41 42.9	-0.3
	baz=0.7,SNR=1000						
GLA				⇓S	Sg	22 41 52.3	-0.3
	baz=0.7						
GLA	**Glamis**	0.72	35	ePg	Pg	22 41 43.0	-0.2
GLA				eS	Sg	22 41 52.7	+0.2
RDX	**Rancho Dawling**	0.75	225	⇑eP	Pg	22 41 44.2	+0.3
RDX				eS	Sg	22 41 54.5	+0.9
ECBX	**El Chinero**	1.01	167	⇓eP	Pg	22 41 55.8	+7.0
ECBX				eS	Sg	22 42 10.2	+8.3
MONP	**Monument Peak**	1.03	295	P	Pg	22 41 47.8	-1.3
	baz=1.0,SNR=1000						
MONP				⇓S	Sg	22 42 01.6	-0.9
	baz=1.0						
CBX	**Cerro Bola**	1.15	263	⇑eP	Pg	22 41 50.4	-1.1
CBX				iS	Sg	22 42 06.5	0.0
CBX				iS	Sg	22 42 06.8	+0.3
CBX				⇑e		22 42 09.4	
	comp=Z,56μm,0.7s						
BAR	**Barrett**	1.17	281	⇑eP	Pg	22 41 50.6	-1.2
BAR				eS	Sg	22 42 06.7	-0.3
BC3	**Big Chuckw Mtn**	1.20	354	⇓P	Pg	22 41 50.0	-2.4
	baz=1.2,SNR=1000						
113A	**Mohawk Valley,**	1.34	76	P	Pn	22 41 52.4	-2.4
	baz=1.3,SNR=896						
ECNX	**Esteban Cantu**	1.35	234	⇑ePN	Pn	22 41 55.3	+0.3
ECNX				ePN	Pn	22 41 54.0	-1.0
PBX	**Punta Banda**	1.40	239	⇑ePN	Pn	22 41 55.7	+0.1
SPX	**San Pedro Mart**	1.42	185	⇓eP	Pn	22 41 54.6	-1.2
SPX				eS	Sb	22 42 15.2	+0.5
SPX				⇓e		22 42 25.4	
	comp=E,16μm,0.7s						
SPX				⇓e		22 42 26.6	
	comp=N,20μm,0.8s						
Y12C	**Blythe**	1.45	27	⇓P	Pn	22 41 53.8	-2.4
	baz=1.5,SNR=76						
Y12C				⇑Sb	Sb	22 42 14.5	-1.1
	baz=1.5						
PFO	**Pinyon Flat Ob**	1.49	320	P	Pn	22 41 54.0	-2.9
	baz=1.5,SNR=272						
PFO	**Pinyon Flat Ob**	1.49	320	⇓iPn	Pn	22 41 53.8	-3.2
PFO				eS	Sn	22 42 13.5	-3.3
109C	**Camp Elliot, M**	1.57	286	⇓P	Pn	22 41 55.9	-2.0
	baz=1.6,SNR=118						
109C				⇑S	Sn	22 42 16.0	-2.7
	baz=1.6						
BELC	**Belle Mtn.**	1.64	340	⇑P	Pn	22 41 56.1	-2.8
	baz=1.7,SNR=66						
IRM	**Iron Mountain**	1.70	5	P	Pn	22 41 57.3	-2.5
	baz=1.7,SNR=1000						
Y13A	**Salome**	1.84	42	⇑P	Pn	22 41 59.4	-2.2
	baz=1.9,SNR=18						
Y13A				⇓Sb	Sb	22 42 26.6	-0.2
	baz=1.9						
MURC	**Murrieta**	1.95	306	⇑P	Pn	22 42 00.5	-2.7
	baz=2.0,SNR=35						
114A	**Black Gap (USA**	2.07	81	P	Pn	22 42 03.0	-1.9
	baz=2.1,SNR=462						
PDMCI	**Parker Dam,Lak**	2.08	28	⇑P	Pn	22 42 03.0	-2.0
	baz=2.1						
PDMCI				⇓Sb	Sb	22 42 33.3	-0.6
	baz=2.1						
214A	**Organ Pipe Nat**	2.18	103	⇓P	Pn	22 42 03.6	-2.7
	baz=2.2						
BBRC	**Big Bear Sol-O**	2.24	324	⇓P	Pn	22 42 04.7	-2.5
	baz=2.3						
GMRC	**Granite Mounta**	2.33	353	⇑P	Pn	22 42 06.2	-2.2
	baz=2.4,SNR=207						
NEE2	**Needles Airpor**	2.37	14	⇓P	Pn	22 42 06.9	-2.1
	baz=2.4						
Y14A	**Wickenburg**	2.43	52	⇑P	Pn	22 42 07.9	-2.0
	baz=2.4,SNR=22						
X13A	**Yucca**	2.46	30	⇓P	Pn	22 42 08.6	-1.6
	baz=2.5,SNR=211						
X13A				⇑Sb	Sb	22 42 45.0	+0.2
	baz=2.5						
HEC	**Hector,Ludlow**	2.51	341	⇑P	Pn	22 42 08.4	-2.5
	baz=2.5						
115A	**Sonoran Desert**	2.62	84	P	Pn	22 42 10.5	-1.9
	baz=2.6,SNR=410						
LDFC	**Landfair**	2.62	4	ePn	Pn	22 42 11.5	-0.8
LDFC				ePg	Pg	22 42 19.8	+0.2
LDFC				eS	Sg	22 42 57.0	+3.5
BFSC	**Mount Baldy St**	2.65	313	⇑P	Pn	22 42 10.5	-2.3
	baz=2.7						
CIS	**Catalina Islan**	2.76	291	⇑Sb	Sb	22 42 53.1	-0.4
	baz=2.8						
SCI	**San Clemente I**	2.77	282	⇑P	Pn	22 42 12.4	-2.2
	baz=2.8						
SCI				⇑Sb	Sb	22 42 53.9	+0.1
	baz=2.8						
Z15A	**Gila River Ind**	2.78	72	⇓P	Pn	22 42 12.8	-1.8
	baz=2.8,SNR=16						
FMP	**Fort Macarthur**	2.80	297	⇓P	Pn	22 42 13.0	-1.8
	baz=2.8						
FMP				⇓Sb	Sb	22 42 54.9	+0.4
	baz=2.8						
X14A	**Yava**	2.85	45	⇓P	Pn	22 42 13.7	-1.9
	baz=2.9						
W12A	**Cal Nev Ari**	2.86	7	⇓P	Pn	22 42 13.8	-1.9
	baz=2.9						
W13A	**Hualapai Mount**	2.89	24	P	Pn	22 42 14.6	-1.5
	baz=2.9,SNR=98						
MWC	**Mount Wilson**	2.89	308	eP	Pn	22 42 15.2	-1.0
MWC				e		22 42 51.5	
MWC	**Mount Wilson**	2.89	308	ePn	Pn	22 42 15.2	-1.0
MWC				ePg	Pg	22 42 23.5	-1.4
MWC				eSn	Sn	22 42 51.5	+0.2
MWC				eSg	Sg	22 43 01.4	-1.0
Y15A	**Casa Rosa Ranc**	2.91	58	⇓P	Pn	22 42 14.4	-2.0
	baz=2.9,SNR=118						
PASC	**Pasadena Art C**	2.95	306	ePn	Pn	22 42 20.3	+3.3
PASC				eSn	Sn	22 42 55.6	+2.9
TUQ	**Turquoise Moun**	3.01	350	⇓P	Pn	22 42 15.6	-2.2
	baz=3.0,SNR=5.3						
116A	**Eloy**	3.05	87	⇓P	Pn	22 42 15.9	-2.4
	baz=3.0,SNR=56						
GSC	**Goldstone**	3.09	337	⇑P	Pn	22 42 16.3	-2.6
	baz=3.1						
GSC	**Goldstone**	3.09	337	ePn	Pn	22 42 16.7	-2.2
GSC				ePg	Pg	22 42 28.9	+0.1
GSC				eSn	Sn	22 42 56.0	-0.3
X15A	**Humboldt**	3.27	51	⇑P	Pn	22 42 19.4	-2.0
	baz=3.3						
V12A	**Nelson**	3.28	7	⇓P	Pn	22 42 19.4	-2.0
	baz=3.3						
216A	**Three Points,**	3.30	97	⇑P	Pn	22 42 19.2	-2.6
	baz=3.3,SNR=56						
W14A	**Seligman**	3.31	33	⇑P	Pn	22 42 20.9	-1.0
	baz=3.3						
V11A	**Goodsprings**	3.37	358	⇑P	Pn	22 42 20.7	-2.1
	baz=3.4						
Z16A	**Peralta Trail,**	3.38	74	⇑P	Pn	22 42 20.8	-2.2
	baz=3.4,SNR=12						
Y16A	**Circle Bar Ran**	3.51	65	⇑P	Pn	22 42 23.0	-1.7
	baz=3.5,SNR=70						
V13A	**Grand Canyon W**	3.56	18	⇑P	Pn	22 42 24.7	-0.6
	baz=3.6						
OSI	**Osito Adit**	3.57	308	ePn	Pn	22 42 25.9	+0.4
OSI				ePg	Pg	22 42 38.3	+0.5
OSI				eSg	Sg	22 43 19.2	-4.9
SNCC	**San Nicolas Is**	3.63	284	ePn	Pn	22 42 26.4	+0.1
SNCC				ePg	Pg	22 42 40.7	+1.7
SNCC				eSn	Sn	22 43 09.6	+0.1
SNCC				eSg	Sg	22 43 23.6	-2.5
V14A	**Boquillas Ranc**	3.66	29	⇓P	Pn	22 42 25.9	-0.8
	baz=3.7						
W15A	**Williams**	3.71	42	⇑P	Pn	22 42 27.2	-0.2
	baz=3.7						
X16A	**Lo Mia Camp, P**	3.78	58	⇓P	Pn	22 42 27.9	-0.5
	baz=3.8						
TUC	**Tucson**	3.83	91	eP	Pn	22 42 25.8	-3.3
TUC				e		22 43 14.7	
TUC	**Tucson**	3.83	91	ePn	Pn	22 42 25.8	-3.4
TUC				ePg	Pg	22 42 42.6	-0.3
TUC				eSn	Sn	22 43 14.7	+0.2
TUC				eSg	Sg	22 43 33.7	+1.1
117A	**Oracle**	3.87	87	⇓P	Pn	22 42 27.1	-2.4
	baz=3.9,SNR=160						
217A	**Green Valley**	3.88	99	⇑P	Pn	22 42 27.5	-2.2
	baz=3.9,SNR=85						
Y17A	**Roosevelt**	3.95	71	P	Pn	22 42 28.8	-1.9
	baz=4.0,SNR=336						
U12A	**Valley of Fire**	4.01	9	⇑P	Pn	22 42 30.3	-1.3
	baz=4.0						
SHPR	**Sheep Range**	4.04	2	ePn	Pn	22 42 30.7	-1.2
U13A	**Pakoon Wash**	4.10	15	⇓P	Pn	22 42 31.6	-1.1
	baz=4.1						
W16A	**Flagstaff**	4.10	49	⇑P	Pn	22 42 32.5	-0.2
	baz=4.1						
ISA	**Isabella**	4.13	321	eP	Pn	22 42 31.0	-2.2
ISA				e		22 43 24.6	
ISA	**Isabella**	4.13	321	ePn	Pn	22 42 31.0	-2.2
ISA				ePg	Pg	22 42 50.9	+2.3
ISA				eSn	Sn	22 43 24.6	+2.6
ISA				eSg	Sg	22 43 41.2	-1.0
Z17A	**San Carlos Hig**	4.16	77	P	Pn	22 42 32.0	-1.5
	baz=4.2,SNR=17						
X17A	**Forest Lakes**	4.21	62	⇓P	Pn	22 42 33.2	-1.1
	baz=4.2						
V15A	**Kaibab Nationa**	4.24	37	⇓P	Pn	22 42 34.0	-0.7
	baz=4.3						
U14A	**Mt Trumbull**	4.32	23	⇑P	Pn	22 42 35.2	-0.6
	baz=4.4						
WUAZ	**Wupatki**	4.47	46	ePn	Pn	22 42 37.6	-0.2
WUAZ				ePg	Pg	22 42 54.4	-0.8
WUAZ				eSn	Sn	22 43 29.6	-0.7
WUAZ				eSg	Sg	22 43 55.5	+2.4
Z18A	**Geronimo**	4.49	81	⇑P	Pn	22 42 36.6	-1.5
	baz=4.5						
218A	**Dragoon**	4.49	95	⇓P	Pn	22 42 35.9	-2.3
	baz=4.5,SNR=51						
118A	**Homack Ranch,**	4.52	86	⇑P	Pn	22 42 36.7	-1.8
	baz=4.5,SNR=132						
TPNV	**Topopah Spring**	4.54	350	ePn	Pn	22 42 37.1	-1.8
TPNV				ePg	Pg	22 43 03.0	+6.6
TPNV				eS	Sg	22 43 54.2	-1.1
W17A	**Winslow**	4.64	54	⇓P	Pn	22 42 39.8	-0.4
	baz=4.7						
318A	**Bisbee**	4.64	101	⇑P	Pn	22 42 38.1	-2.0
	baz=4.6,SNR=136						
T13A	**Saint George**	4.69	14	⇓P	Pn	22 42 39.9	-1.0
	baz=4.7						
T11A	**Corn Creek, Al**	4.77	1	⇑P	Pn	22 42 41.2	-0.8
	baz=4.8						
X18A	**Snowflake**	4.93	64	⇓P	Pn	22 42 43.4	-0.8
	baz=4.9						
T14A	**Hurricane**	4.94	21	⇑P	Pn	22 42 44.1	-0.2
	baz=5.0						
119A	**Ashpeak Ranch,**	5.08	85	⇑P	Pn	22 42 44.6	-1.7
	baz=5.1,SNR=49						
T15A	**Red Dirt Ranch**	5.15	27	⇑P	Pn	22 42 46.8	-0.4
	baz=5.2						
S12A	**Delamar Landin**	5.15	4	⇓P	Pn	22 42 47.0	-0.1
	baz=5.2						
219A	**White Tail Can**	5.15	94	⇑P	Pn	22 42 45.1	-2.2
	baz=5.1,SNR=51						
Z19A	**T-Link Ranch,**	5.16	79	⇑P	Pn	22 42 46.2	-1.0
	baz=5.2,SNR=65						
319A	**Douglas**	5.24	100	⇓P	Pn	22 42 46.8	-1.7
	baz=5.2,SNR=58						
Y19A	**Nutrioso**	5.29	72	⇑P	Pn	22 42 48.6	-0.5
	baz=5.3						
CCUT	**Cedar City**	5.32	17	ePn	Pn	22 42 50.1	+0.5
	comp=N,528nm,0.8s						
CCUT				ePg	Pg	22 43 09.1	-2.3
S09A	**Goldfield**	5.48	344	⇑P	Pn	22 42 51.0	-0.7
	baz=5.5						
ARUT	**Antelope Range**	5.53	16	eP	Pn	22 42 53.0	+0.6
ARUT				e		22 43 57.0	
ARUT				pmax	pmax		
	comp=Z,603nm,0.7s						
ARUT	**Antelope Range**	5.53	16	ePn	Pn	22 42 53.0	+0.5
	comp=Z,603nm,0.7s						
ARUT				ePg	Pg	22 43 15.1	-0.3
ARUT				eSn	Sn	22 43 57.0	+0.6
ARUT				eSg	Sg	22 44 23.0	-4.1
S10A	**Tonopah Range,**	5.55	349	⇓P	Pn	22 42 52.4	-0.2
	baz=5.6						
MTUM	**Tungsten Hills**	5.56	332	ePn	Pn	22 42 56.8	+3.9
W19A	**Sanders**	5.60	60	⇑P	Pn	22 42 53.3	0.0
	baz=5.6						
120A	**U Bar Ranch, L**	5.64	87	⇓P	Pn	22 42 52.7	-1.3
	baz=5.6,SNR=50						
R13A	**O'Grain Ranch,**	5.81	11	⇓P	Pn	22 42 55.8	-0.4
	baz=5.9						
TPH	**Tonopah**	5.81	345	ePn	Pn	22 42 56.3	0.0
TPH				ePg	Pg	22 43 19.1	-1.7
TPH				eS	Sb	22 44 20.2	-1.0
R11A	**Troy Canyon, C**	5.88	358	⇓P	Pn	22 42 56.7	-0.5
	baz=5.9						
R12A	**Pony Springs,**	5.88	5	⇓P	Pn	22 42 56.9	-0.3
	baz=5.9						
R09A	**Tonopah**	5.94	347	⇑P	Pn	22 42 57.3	-0.7
	baz=6.0						
V19A	**Window Rock**	6.13	56	⇑P	Pn	22 43 01.0	+0.4
	baz=6.1						
Q10A	**Clear Creek Ra**	6.41	352	⇓P	Pn	22 43 04.6	+0.1
	baz=6.5						
NVAR	**Mina Array Bea**	6.43	339	Pn	Pn	22 43 05.0	+0.2
	comp=Z,0.9nm,0.3s,baz=161,slow=14,SNR=23						
NVAR				Lg		22 45 03.5	
	baz=150,slow=38,SNR=2.0						
T18A	**Mexican Hat**	6.46	42	⇑P	Pn	22 43 06.1	+0.9
	baz=6.5						
MSU	**Marysvale**	6.56	22	eP	Pn	22 43 09.0	+2.5
MSU				e		22 44 20.6	
MSU	**Marysvale**	6.56	22	ePn	Pn	22 43 09.0	+2.5
MSU				ePg	Pg	22 43 35.7	+0.6
MSU				eSn	Sn	22 44 20.6	-1.1
MSU				eSg	Sg	22 44 57.4	-2.6
Q13A	**Wheeler Ranch,**	6.56	9	⇑P	Pn	22 43 06.7	0.0
	baz=6.6						
Q12A	**Willow Creek R**	6.58	3	⇑P	Pn	22 43 06.8	0.0
	baz=6.6						
SAO	**San Andreas Ge**	6.63	312	eP	Pn	22 43 09.6	+2.1
SAO				e		22 44 23.3	
SAO	**San Andreas Ge**	6.63	312	ePn	Pn	22 43 09.6	+2.1
SAO				ePg	Pg	22 43 41.8	+5.3
SAO				eSn	Sn	22 44 23.3	-0.2
SAO				Sg	Sg	22 45 02.4	0.0
Q14A	**Sevier Lake (B**	6.72	14	⇑P	Pn	22 43 08.8	+0.1
	baz=6.8						
WAKR	**Walker**	6.90	332	ePn	Pn	22 43 17.8	+6.6
CMB	**Columbia Colle**	6.94	325	eP	Pn	22 43 12.1	+0.4
CMB				e		22 44 30.9	
CMB	**Columbia Colle**	6.94	325	ePn	Pn	22 43 12.1	+0.4
CMB				ePg	Pg	22 43 41.3	-1.0
CMB				eSn	Sn	22 44 30.9	-0.1
CMB				eSg	Sg	22 45 12.1	-0.1
P12A	**McGill**	7.00	3	⇑P	Pn	22 43 13.3	+0.6
	baz=7.0						
122A	**Conniff Cattle**	7.02	86	⇑P	Pn	22 43 12.5	-0.4
	baz=7.0						
P11A	**Circle Ranch,**	7.09	357	⇑P	Pn	22 43 14.3	+0.5
	baz=7.1						
LAZ	**Ladron**	7.10	72	ePn	Pn	22 43 13.9	-0.1
	comp=Z,7.9nm,0.3s						
LAZ				ePg	Pg	22 43 47.0	+1.5
LAZ				eSn	Sn	22 44 35.1	0.0
LAZ				eSg	Sg	22 45 25.3	+7.8
LENM	**Lemitar**	7.18	74	ePn	Pn	22 43 14.9	-0.3
Y22D	**IRIS PASSCAL I**	7.21	75	⇑P	Pn	22 43 16.2	+0.7
	baz=7.2						
X22A	**Bernardo**	7.23	71	⇓P	Pn	22 43 16.3	+0.5
	baz=7.2						
MVCO	**Mesa Verde**	7.34	48	ePn	Pn	22 43 18.9	+1.7
MVCO				ePg	Pg	22 43 50.1	+0.2
MVCO				eS	Sg	22 45 24.4	-0.6
P14A	**Drum Mountains**	7.34	14	⇓P	Pn	22 43 18.4	+1.1
	baz=7.4						
BNM	**Barren Site**	7.46	75	ePn	Pn	22 43 18.4	-0.6
	comp=Z,22nm,0.4s						
BNM				Pg	Pg	22 43 53.4	+1.0
BNM				eS	Sg	22 45 24.4	-4.6
LPM	**Los Pinos Moun**	7.49	73	ePn	Pn	22 43 19.1	-0.3
W22A	**Albuquerque**	7.50	67	⇓P	Pn	22 43 20.8	+1.3
	baz=7.5						
P08A	**Dixie Valley**	7.56	344	⇑P	Pn	22 43 21.0	+0.8
	baz=7.6						
TMUT	**Trail Mountain**	7.59	25	ePn	Pn	22 43 22.9	+2.2
TMUT				ePg	Pg	22 43 54.9	+0.1
TMUT				Sn	Sn	22 44 46.6	-0.4
TMUT				eSg	Sg	22 45 33.0	-0.1
O11A	**Cowboy Ranch,**	7.66	358	⇑P	Pn	22 43 21.7	+0.1
	baz=7.7						
SRU	**San Rafael**	7.69	29	ePn	Pn	22 43 23.7	+1.7
SRU				ePg	Pg	22 43 57.2	+0.5
SRU				eSg	Sg	22 45 36.5	+0.2
ANMO	**Albuquerque**	7.78	69	Pn	Pn	22 43 23.8	+0.4
	comp=Z,1.1nm,0.3s,baz=259,slow=12,SNR=26						
ANMO				Lg		22 45 28.6	
	comp=Z,1.8nm,0.3s,baz=290,slow=14,SNR=1.8						
ANMO				LR	LR	22 46 41.2	
	comp=Z,7μm,18.1s,baz=252,slow=42						
ANMO	**Albuquerque**	7.78	69	ePn	Pn	22 43 23.6	+0.2
ANMO				ePg	Pg	22 44 00.3	+1.8
ANMO				eS	Sg	22 45 41.9	+2.6
PV04	**Paradox Valley**	7.90	40	ePn	Pn	22 43 27.3	+2.4
PV04				Pg	Pg	22 44 03.1	+2.5
PV04				eSn	Sn	22 44 53.6	-1.0
PV04				eSg	Sg	22 45 43.1	+0.2
PV01	**Paradox Valley**	7.90	42	ePn	Pn	22 43 26.5	+1.6
	comp=Z,20μm,0.9s						
PV01				eSn	Sn	22 44 55.1	+0.4
NLU	**North Lily Min**	7.92	18	ePn	Pn	22 43 30.0	+4.8
NLU				ePg	Pg	22 44 00.8	-0.3
NLU				eSn	Sn	22 44 55.5	+0.3
NLU				eSg	Sg	22 45 44.0	+0.2
PAHR	**Pah Rah Range**	7.94	337	ePn	Px	22 43 35.9	
DUG	**Dugway**	7.98	14	ePn	Pn	22 43 23.6	-2.4
DUG				eS	Sg	22 45 45.7	+0.2
R20A	**Redvale**	8.05	43	⇑P	Pn	22 43 28.7	+1.7
	baz=8.1						
BMN	**Battle Mountai**	8.10	350	eP	Pn	22 43 29.7	+2.0
BMN				pmax	pmax		
	comp=Z,85nm,0.9s						
BMN	**Battle Mountai**	8.10	350	ePn	Pn	22 43 29.7	+2.0
	comp=Z,84nm,0.9s						
BMN				ePg	Pg	22 44 08.5	+3.9
BMN				eSg	Sg	22 45 53.2	+3.7
MPU	**Maple Canyon**	8.10	20	ePn	Pn	22 43 26.8	-0.9
MPU				ePg	Pg	22 44 09.4	+4.8
MPU				Sn	Sn	22 44 58.0	-1.7
MPU				eSg	Sg	22 45 49.5	0.0
ELK	**Elko**	8.27	0	eP	Pn	22 43 29.1	-0.9
ELK				pmax	pmax		
	comp=Z,126nm,0.9s						
ELK	**Elko**	8.27	0	Pn	Pn	22 43 30.2	+0.2
	comp=Z,0.7nm,0.3s,baz=183,slow=10,SNR=14						
ELK				Lg		22 45 40.8	
	comp=Z,0.7nm,0.3s,baz=72,slow=13,SNR=1.7						
ELK	**Elko**	8.27	0	ePn	Pn	22 43 29.1	-0.9
	comp=Z,126nm,0.9s						
ELK				ePg	Pg	22 44 07.9	+0.1
ELK				eSg	Sg	22 45 43.8	-11
T22A	**Edith**	8.28	54	⇑P	Pn	22 43 30.8	+0.7
	baz=8.3						
N12A	**Clover Valley,**	8.38	1	⇓P	Pn	22 43 31.7	+0.2
	baz=8.4						
NOQ	**North Oquirrh**	8.57	17	ePn	Pn	22 43 34.8	+0.7
NOQ				ePg	Pn	22 44 12.6	+38
NOQ				eSg	Sn	22 46 05.2	+54
DAU	**Daniels Canyon**	8.58	21	eP	Pn	22 43 38.8	+4.5
DAU				e		22 45 12.7	
DAU	**Daniels Canyon**	8.58	21	ePn	Pn	22 43 38.8	+4.5
DAU				ePg	Pn	22 44 16.7	+42

DAU				eSn	Sn	22 45 12.7	+1.3
DAU				eSg	Sn	22 46 05.2	+54
BGU	Big Grassy Mou	8.64	12	ePn	Pn	22 43 37.1	+1.9
	comp=Z,1.9nm,0.2s						
BGU				ePg	Pn	22 44 14.6	+39
BGU				eSn	Sn	22 45 13.4	+0.5
BGU				eSg	Sn	22 46 07.4	+54
JLU	Jordanelle	8.70	20	ePn	Pn	22 43 41.7	+5.8
R22A	Saguache, Gunn	9.05	48	⇑P	Pn	22 43 42.6	+1.8
	baz=9.1						
SPUT	South Promonto	9.12	14	ePn	Pn	22 43 42.7	+1.0
SPUT				eSn	Sn	22 45 27.3	+2.6
M14A	Sheep Mountain	9.16	9	⇓P	Pn	22 43 43.8	+1.5
	baz=9.2						
TCUT	Toone Canyon	9.19	19	ePn	Px	22 43 16.6	
TCUT				eSn	Sn	22 45 28.8	+2.4
GDL2	Guadalupe Moun	9.27	89	ePn	Pn	22 43 44.6	+0.9
LPIG	La Paz	9.42	151	Pn	Pn	22 43 50.4	+4.5
	comp=Z,11nm,0.3s,baz=271,slow=1.3,SNR=14						
LPIG				Lg		22 46 31.9	
	baz=256,slow=17,SNR=1.5						
LPIG				LR	LR	22 47 29.0	
	comp=Z,2µm,21.6s,baz=338,slow=38						
HVU	Hansel Valley	9.52	12	ePn	Pn	22 43 46.9	-0.3
HVU				eSn	Sn	22 45 39.5	+5.0
SDCO	Great Sand Dun	9.61	54	ePn	Pn	22 43 49.2	+0.8
SDCO				eSn	Sn	22 45 38.5	+1.7
WDC	Whiskeytown Da	9.97	326	eP	Pn	22 43 53.1	-0.2
WDC				e		22 45 48.1	
WDC				pmax	pmax		
	comp=Z,11nm,1.3s						
WDC	Whiskeytown Da	9.97	326	ePn	Pn	22 43 53.1	-0.2
	comp=Z,11nm,1.3s						
WDC				eSn	Sn	22 45 48.1	+2.5
MOD	Modoc	10.23	339	ePn	Pn	22 43 57.0	+0.2
WVOR	Wild Horse Val	10.30	346	eP	Pn	22 44 00.1	+2.3
WVOR				e		22 45 57.6	
WVOR				pmax	pmax		
	comp=Z,54nm,1.0s						
WVOR	Wild Horse Val	10.30	346	ePn	Pn	22 44 00.1	+2.3
	comp=Z,54nm,1.0s						
WVOR				eSn	Sn	22 45 57.5	+4.0
TXAR	Lajitas Array	10.48	104	Pn	Pn	22 44 00.5	+0.2
	comp=Z,2.4nm,0.3s,baz=287,slow=13,SNR=84						
TXAR				Lg		22 47 00.4	
	comp=Z,0.9nm,0.3s,baz=290,slow=26,SNR=5.4						
TXAR				LR	LR	22 48 17.2	
	comp=Z,4µm,21.2s,baz=45,slow=40						
TXAR	Lajitas Array	10.48	104	Pn	Pn	22 44 00.5	+0.2
TXAR				Lg		22 47 00.4	
TXAR				LR	LR	22 48 17.2	
ISCO	Idaho Springs	10.72	44	ePn	Pn	22 44 05.0	+1.3
ISCO				eSn	Sn	22 46 04.7	+0.6
AHID	Auburn Hatcher	10.81	17	ePn	Pn	22 44 03.6	-1.2
AHID				eSn	Sn	22 46 08.9	+2.7
YBH	Yreka Blue Hor	10.97	330	Pn	Pn	22 44 10.8	+3.7
	comp=Z,0.1nm,0.3s,baz=148,slow=9.9,SNR=5.7						
YBH				Lg		22 47 23.1	
	comp=Z,0.1nm,0.3s,baz=91,slow=11,SNR=3.9						
YBH				LR	LR	22 48 42.6	
	comp=Z,2µm,19.7s,baz=324,slow=40						
YBH	Yreka Blue Hor	10.97	330	ePn	Pn	22 44 08.3	+1.3
YBH				eSn	Sn	22 46 14.8	+4.7
HLID	Hailey	11.11	3	ePn	Pn	22 44 11.3	+2.4
HLID				eSn	Sn	22 46 17.6	+4.3
PDAR	Pinedale Array	11.25	22	Pn	Pn	22 44 13.1	+2.3
	comp=Z,0.1nm,0.3s,baz=211,slow=8.4,SNR=12						
PDAR				Lg		22 47 18.5	
	comp=Z,0.2nm,0.3s,baz=165,slow=29,SNR=2.3						
REDW	Red Top Meadow	11.44	17	ePn	Pn	22 44 15.8	+2.4
REDW				eSn	Sn	22 46 20.6	-0.9
TPAW	Teton Pass	11.53	16	ePn	Pn	22 44 15.5	+0.8
TPAW				eSn	Sn	22 46 21.4	-2.4
SNOW	Snow King Moun	11.55	17	ePn	Pn	22 44 15.0	0.0
SNOW				eSn	Sn	22 46 24.0	-0.4
AMTX	Amarillo	11.61	74	ePn	Pn	22 44 17.0	+1.2
	comp=Z,30nm,0.7s						
AMTX				eSn	Sn	22 46 26.0	+0.1
LOHW	Long Hollow	11.73	17	ePn	Pn	22 44 19.2	+1.8
LOHW				eSn	Sn	22 46 29.0	+0.3
MOOW	Moose Ponds	11.83	16	ePn	Pn	22 44 21.1	+2.4
MOOW				eSn	Sn	22 46 30.2	-0.8
IMW	Indian Meadow	11.92	15	ePn	Pn	22 44 23.0	+3.0
IMW				eSn	Sn	22 46 35.0	+1.7
BMO	Blue Mountains	12.47	353	ePn	Pn	22 44 31.4	+3.9
	comp=Z,30nm,1.3s						
BMO				eSn	Sn	22 46 47.2	+0.5
YFT	Old Faithful	12.47	15	ePn	Pn	22 44 29.1	+1.5
YFT				eSn	Sn	22 46 50.4	+3.5
MCMT	McKenzie Canyo	12.50	8	ePn	Pn	22 44 33.6	+5.8
	comp=Z,25nm,1.1s						
MCMT				eSn	Sn	22 46 49.0	+1.6
YMR	Madison River	12.65	14	ePn	Pn	22 44 31.9	+1.9
	comp=Z,82nm,1.3s						
YMR				eSn	Sn	22 46 50.3	-0.9
LKWY	Lake	12.68	16	eP	Pn	22 44 29.2	-1.2
LKWY				pmax	pmax		
	comp=Z,29nm,1.1s						
LKWY	Lake	12.68	16	ePn	Pn	22 44 29.2	-1.2
	comp=Z,29nm,1.1s						
LKWY				Sn	Sn	22 46 38.6	-13
QLMT	Earthquake Lak	12.72	13	ePn	Pn	22 44 36.5	+5.7
YNR	Norris Junctio	12.76	15	ePn	Pn	22 44 33.2	+1.8
YNR				eSn	Sn	22 46 51.8	-2.0
DLMT	Dillon	13.05	9	ePn	Pn	22 44 35.6	+0.1
DLMT				eSn	Sn	22 47 04.2	+3.2
JCT	Junction City	13.39	94	eP	Pn	22 44 40.5	+0.4
JCT				e		22 47 05.0	
JCT				pmax	pmax		
	comp=Z,21nm,0.8s						
JCT	Junction City	13.39	94	ePn	Pn	22 44 40.5	+0.4
	comp=Z,21nm,0.8s						
JCT				eSn	Sn	22 47 05.0	-4.4
BOZ	Bozeman (W)	13.47	11	ePn	Pn	22 44 44.2	+3.0
BOZ				eSn	Sn	22 47 11.6	+0.3
RLMT	Red Lodge	13.49	19	ePn	Pn	22 44 41.9	+0.5
	comp=Z,56nm,1.4s						
RLMT				eSn	Sn	22 47 12.0	+0.4
LRM	Limekiln Ridge	13.53	9	ePn	Pn	22 44 44.5	+2.6
LRM				eSn	Sn	22 47 11.5	-1.0
LNOR	Lincton Mounta	13.59	351	eP	Pn	22 44 48.3	+5.6
OGNE	Ogallala	13.60	48	Pn	Pn	22 44 40.8	-2.2
HOOD	Mount Hood Mea	13.75	341	ePn	Pn	22 44 47.0	+2.0
WMOK	Wichita Mounta	13.97	76	ePn	Pn	22 44 47.4	-0.7
WMOK				eSn	Sn	22 47 28.4	+5.0
HAWA	Hanford	14.29	348	ePn	Pn	22 44 52.9	+0.7
HAWA				eSn	Sn	22 47 30.2	-0.9
RSW	Rattlesnake Hi	14.30	348	ePn	Pn	22 44 56.9	+4.5
MSO	Missoula	14.39	4	ePn	Pn	22 44 54.9	+1.2
	comp=Z,22nm,1.1s						
MSO				eSn	Sn	22 47 32.1	-1.5
HRY	Holter Researc	14.48	10	ePn	Pn	22 44 56.9	+2.0
CHMT	Chamberlain Mo	14.52	6	ePn	Pn	22 44 58.3	+2.8
CHMT				eSn	Sn	22 47 36.7	-0.1
RSSD	Black Hills	14.61	34	eP	Pn	22 44 56.3	-0.4
RSSD				e		22 47 38.9	
RSSD				pmax	pmax		
	comp=Z,14nm,0.8s						
RSSD	Black Hills	14.61	34	ePn	Pn	22 44 56.3	-0.4
	comp=Z,14nm,0.8s						
RSSD				eSn	Sn	22 47 38.9	-0.1
SLMT	Seeley Lake	14.83	5	ePn	Pn	22 45 00.2	+0.6
SLMT				eSn	Sn	22 47 43.7	-0.6
SWMT	Swartz Lake	15.06	3	ePn	Pn	22 45 03.2	+0.3
SWMT				eSn	Sn	22 47 48.8	-1.3
SWMT				ePcP	PcP	22 50 11.3	+0.5
LON	Longmire	15.11	343	eP	Pn	22 45 05.6	+2.0
LON				pmax	pmax		
	comp=Z,41nm,1.1s						
LON	Longmire	15.11	343	ePn	Pn	22 45 05.6	+2.0
	comp=Z,41nm,1.1s						
LON				ePcP	PcP	22 50 02.4	-8.5
OD2	Odessa Site #2	15.13	351	ePn	Pn	22 45 08.2	+4.4
JTMT	Jette	15.29	3	ePn	Pn	22 45 11.2	+5.4
BSMT	Bassoo Peak	15.38	1	ePn	Pn	22 45 07.7	+0.7
YBMT	Yellow Bay	15.42	3	ePn	Pn	22 45 10.0	+2.5
	comp=Z,12nm,0.7s						
LAO	LASA Array	15.83	24	ePn	Pn	22 45 13.1	+0.3
	comp=Z,80nm,1.3s						
LAO				eSn	Sn	22 47 59.8	-8.7
NEW	Newport	15.85	356	eP	Pn	22 45 15.1	+2.0
NEW				pmax	pmax		
	comp=Z,103nm,0.8s						
NEW	Newport	15.85	356	ePn	Pn	22 45 15.1	+2.0
	comp=Z,103nm,0.8s						
EGMT	Eagleton	16.11	14	ePn	Pn	22 45 18.5	+2.0
	comp=Z,34nm,1.1s						
EGMT				eSn	Sn	22 48 14.8	-0.6
NLWA	Neilton Lookou	16.27	339	ePn	Pn	22 45 18.7	0.0
	comp=Z,69nm,1.3s						
JCW	Jim Creek	16.49	344	ePn	Pn	22 45 24.5	+3.0
KSU1	Kansas State U	16.55	61	ePn	Pn	22 45 23.1	+0.8
	comp=Z,57nm,1.1s						
KSU1				eSn	Sn	22 48 25.9	-0.3
WALA	Waterton Lakes	16.61	3	ePn	Pn	22 45 25.0	+2.0
	comp=Z,0.9nm,0.8s						
HKT	Hockley	16.85	93	eP	Pn	22 45 26.5	+0.3
HKT						22 48 32.4	
HKT				pmax	pmax		
	comp=Z,69nm,1.4s						
HKT	Hockley	16.85	93	ePn	Pn	22 45 26.5	+0.3
	comp=Z,69nm,1.4s						
HKT				Sn	Sn	22 48 32.4	-1.3
PGC	Sidney	17.30	342	ePn	Pn	22 45 32.8	+1.2
	comp=Z,13nm,1.4s						
NATX	Nacogdoches	17.51	87	ePn	Pn	22 45 35.3	+0.9
	comp=Z,41nm,0.9s						
DGMT	Dagmar	18.06	24	ePn	Pn	22 45 41.3	+0.3
	comp=Z,140nm,1.5s						
MIAR	Mount Ida	18.25	78	eP	Pn	22 45 44.1	+0.6
MIAR				pmax	pmax		
	comp=Z,33nm,1.0s						
MIAR	Mount Ida	18.25	78	ePn	Pn	22 45 44.1	+0.7
	comp=Z,33nm,1.0s						
ECSD	EROS Data Cent	18.48	47	ePn	Pn	22 45 45.1	-1.1
	comp=Z,16nm,1.1s						
ECSD				Sn	Sn	22 49 11.2	-1.8
SCIA	State Center	19.93	55	P	Pn	22 46 00.7	-2.9
	comp=Z,10nm,0.5s						
PPM	Popocatepetl	20.06	128	eP	P	22 46 09.3	+5.7
PPM				i S	S	22 49 39.2	-10
CCM	Cathedral Cave	20.41	67	eP	P	22 46 07.9	+0.6
CCM				pmax	pmax		
	comp=Z,26nm,1.3s						
CCM	Cathedral Cave	20.41	67	eP	P	22 46 07.9	+0.6
	comp=Z,26nm,1.3s						
EDM	Edmonton	20.80	3	eP	P	22 46 11.6	+0.2
VBMS	Vicksburg	20.94	84	eP	P	22 46 13.5	+0.3
	comp=Z,111nm,0.3s						
FVM	French Village	21.04	68	eP	P	22 46 12.8	-1.3
FVM				eS	S	22 50 07.8	-1.0
FVM				pmax	pmax		
	comp=Z,119nm,1.6s,mb5.0						
FVM	French Village	21.04	68	eP	P	22 46 12.8	-1.4
	comp=Z,119nm,1.6s,mb5.0						
FVM				eS	S	22 50 07.8	-0.9
LVIG	Laguna Verde	21.14	122	eP	P	22 46 15.2	-0.2
LVIG				i S	S	22 50 10.3	-0.7
AGMN	Agassiz Refuge	21.58	37	eP	P	22 46 20.7	+0.9
	comp=Z,45nm,0.9s,mb4.9						
OXF	Oxford	21.69	77	eP	P	22 46 21.5	+0.4
OXF				pmax	pmax		
	comp=Z,90nm,1.3s,mb5.0						
OXF	Oxford	21.69	77	eP	P	22 46 21.4	+0.3
	comp=Z,90nm,1.3s,mb5.0						
BBB	Bella Bella	21.80	338	LR	LR	22 55 04.6	
	comp=Z,2µm,18.1s,MS4.5,baz=162,slow=38						
SIUC	Southern Illin	21.96	69	eP	P	22 46 23.3	-0.7
JFWS	Jewell Farm	22.34	55	eP	P	22 46 26.1	-1.9
JFWS				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.5						
JFWS	Jewell Farm	22.34	55	eP	P	22 46 26.1	-1.9
	comp=Z,16nm,0.9s,mb4.4						
PLAL	Pickwick Lake	22.77	76	eP	P	22 46 33.0	+0.4
	comp=Z,52nm,1.3s,mb4.8						
ULM	Lac du Bonnet	22.88	33	P	P	22 46 35.5	+1.8
	comp=Z,11nm,1.0s,mb4.2,baz=229,slow=9.9,SNR=11						
ULM				Lg		22 53 32.0	
	comp=Z,0.7nm,0.3s,baz=72,slow=3.2,SNR=3.2						
OLIL	Olney	22.95	67	eP	P	22 46 34.4	-0.1
	comp=Z,49nm,1.1s,mb4.8						
WVT	Waverly	22.97	73	eP	P	22 46 34.7	-0.1
WVT				pmax	pmax		
	comp=Z,29nm,1.3s,mb4.5						
WVT	Waverly	22.97	73	eP	P	22 46 34.7	0.0
	comp=Z,29nm,1.3s,mb4.5						
USIN	University of	23.20	69	eP	P	22 46 38.4	+1.1
	comp=Z,52nm,1.0s,mb4.9						
CMIG	Matias Romero	23.98	125	P	P	22 46 46.4	+1.4
	comp=Z,4.8nm,0.7s,mb4.0,baz=308,slow=9.6,SNR=6.7						
CMIG				LR	LR	22 57 14.1	
	comp=Z,1µm,19.1s,MS4.4,baz=289,slow=40						
BRAL	Brewton	24.05	86	eP	P	22 46 46.8	+1.2
FFC	Flin Flon	24.18	19	i P	P	22 46 48.8	+2.3
FFC	Flin Flon	24.18	19	eP	P	22 46 45.8	-0.7
	comp=Z,15nm,1.0s,mb4.4						
SWET	Sewanee	24.52	75	eP	P	22 46 49.5	-0.3
CPCT	Cooper Cave	25.66	75	P	P	22 46 59.8	-0.4
TKL	Tuckaleechee C	26.27	74	LR	LR	22 57 54.0	
	comp=Z,3µm,19.8s,MS4.9,baz=271,slow=38						
TEIG	Tepich	27.04	110	LR	LR	23 01 18.0	
	comp=Z,1µm,18.1s,MS4.5,baz=228,slow=44						
ACSO	Alum Creek Sta	27.06	64	eP	P	22 47 13.8	+1.0
DLBC	Dease Lake	27.82	343	P	P	22 47 22.0	+2.6
	comp=Z,11nm,0.8s,mb4.5,baz=226,slow=9.8,SNR=3.9						
DLBC				LR	LR	23 00 03.3	
	comp=Z,712nm,21.4s,MS4.2,baz=165,slow=40						
DLBC	Dease Lake	27.82	343	eP	P	22 47 21.8	+2.4
FCC	Fort Churchill	29.94	22	eP	P	22 47 43.2	+5.0
FCC				pmax	pmax		
	comp=Z,2.0nm,2.3s						
FCC	Fort Churchill	29.94	22	eP	P	22 47 43.2	+5.0
	comp=Z,1.8nm,2.3s						
YKA	Yellowknife Ar	30.05	1	P	P	22 47 39.3	+0.2
	comp=Z,1.3nm,0.7s,mb3.8,baz=180,slow=8.7,SNR=16						
YKA				LR	LR	23 00 24.8	
	comp=Z,1µm,18.9s,MS4.5,baz=45,slow=38						
TGUH	Tegucigalpa,Un	31.46	119	eP	P	22 47 52.4	+0.3
PMR	Palmer	36.39	333	eP	P	22 48 34.0	-0.4
MCK	McKinley	37.66	336	eP	P	22 48 44.8	-0.4
COLA	College	38.06	338	⇑iP	P	22 48 49.1	+0.5
COLA	College	38.06	338	P	P	22 48 49.0	+0.4
	comp=Z,4.9nm,0.8s,mb4.3						
SVW2	Sparrevohn	38.72	330	eP	P	22 48 54.9	+0.8
COLD	Coldfoot	40.36	340	eP	P	22 49 10.7	+2.9
	comp=Z,12nm,1.3s,mb4.5						
SCHQ	Schefferville	40.55	42	LR	LR	23 06 43.1	
	comp=Z,853nm,20.3s,MS4.6,baz=78,slow=38						
IMA2	Indian Mountai	40.71	337	eP	P	22 49 11.3	+0.7
FRB	Frobisher Bay	42.61	29	LR	LR	23 06 04.5	
	comp=Z,560nm,19.0s,MS4.5,baz=57,slow=35						
RES	Resolute Bay	43.49	8	eP	P	22 49 34.3	+1.1
RES				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.5						
RES	Resolute Bay	43.49	8	LR	LR	23 08 23.2	
	comp=Z,818nm,18.4s,MS4.7,baz=12,slow=37						
RES	Resolute Bay	43.49	8	eP	P	22 49 34.3	+1.1
	comp=Z,13nm,1.3s,mb4.5						
ROSC	El Rosal	47.09	117	LR	LR	23 09 30.5	
	comp=Z,513nm,21.0s,MS4.5,baz=178,slow=36						
OTAV	Otavalo	47.27	125	eP	P	22 50 05.1	+1.2
	comp=Z,7.4nm,0.9s,mb4.6						
SDV	Santo Domingo	47.47	109	eP	P	22 50 05.5	0.0
PCRV	Puerto La Cruz	51.60	104	LR	LR	23 15 16.7	
	comp=Z,353nm,20.1s,MS4.4,baz=168,slow=39						
SUMG	Summit	55.44	21	eP	P	22 51 05.3	+0.8
	comp=Z,13nm,1.2s,mb4.8						
BILL	Bilibino	56.03	334	⇑eP	P	22 51 09.9	+1.2
BILL				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
RKT	Rikitea	58.37	201	eLR	LR	23 08 24.5	
	comp=Z,420nm,28.2s						
PPT	Papeete	59.59	219	eLQ		23 06 31.2	
	comp=Z,525nm,25.0s						
PET	Petropavlovsk	62.55	317	eP	P	22 52 00.9	+6.8
PET				eS	S	23 00 26.4	+4.3
PET				eSS	SS	23 04 32.2	+6.6
PET				pmax	pmax		
	comp=Z,100nm,6.4s						
PET				pmax	pmax		
	comp=Z,19nm,1.3s,mb5.1						
PET				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.5						
SEY	Seymchan	62.65	329	⇑iP	P	22 51 56.7	+2.1
PETK	Petropavlovsk-	63.07	318	P	P	22 52 02.2	+4.7
	comp=Z,4.8nm,0.8s,mb4.7,baz=65,slow=12,SNR=5.8						
PETK				LR	LR	23 13 59.8	
	comp=Z,103nm,21.5s,MS4.0,baz=260,slow=31						
SPITS	Spitsbergen Ar	66.00	10	LR	LR	23 21 22.3	
	comp=Z,758nm,18.5s,MS4.9,baz=135,slow=36						
TIXI	Tiksi	67.05	342	⇑iP	P	22 52 26.1	+3.0
TIXI				pmax	pmax		
	comp=Z,19nm,1.7s,mb4.8						
YAK	Yakutsk	72.39	333	eP	P	22 52 59.2	+3.0
YAK				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.6						
YAK				pmax	pmax		
	comp=N,2.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
LCO	Las Campanas	74.37	140	eP	P	22 53 09.7	+1.5
YSS	Yuzh-Sakhalins	74.37	316	⇑iP	P	22 53 08.2	+0.1
YSS				pmax	pmax		
	comp=Z,20nm,2.5s,mb4.6						
ERM	Erimo	76.69	311	⇑iP	P	22 53 22.9	+1.4
ERM				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
NB2	NORSAR Subarra	77.19	24	P	P	22 53 27.0	+3.0
	comp=Z,8.4nm,1.4s,mb4.5,baz=316,slow=5.6						
NOA	NORSAR Array B	77.19	24	P	P	22 53 26.9	+3.0
	comp=Z,1.3nm,0.8s,mb3.9,baz=317,slow=5.6,SNR=4.4						
CPUP	Villa Florida	80.41	129	P	P	22 53 43.8	+1.7
	comp=Z,0.9nm,0.4s,mb4.0,baz=315,slow=6.5,SNR=5.4						
BOD	Bodaibo	81.01	336	eP	P	22 53 43.8	-1.2
BOD				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.2						
MJAR	Matsushiro Arr	82.90	309	LR	LR	23 23 57.6	
	comp=Z,184nm,21.5s,MS4.4,baz=75,slow=31						
MAT	Matsushiro	82.90	309	P	P	22 53 51.3	-4.1
MDJ	Mudanjiang	83.23	319	P	P	22 53 55.8	-1.1
MDJ				pmax	pmax		
	comp=Z,8.0nm,2.2s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,93nm,4.7s						
MEZF	Maizieres J’vi	83.42	35	eP	P	22 53 58.0	+0.2
	comp=Z,9.3nm,0.8s,mb4.5						
MEZF	Maizieres J’vi	83.42	35	eP	P	22 53 58.0	+0.2
	comp=Z,9.3nm,0.8s,mb4.9						
BGF	Bois d’Agland	83.61	38	eP	P	22 53 59.1	+0.3
SSF	Saint Saulge	83.61	37	eP	P	22 53 57.9	-0.9
	comp=Z,5.7nm,0.9s,mb4.4						
SSF	Saint Saulge	83.61	37	eP	P	22 53 57.9	-0.9
SSF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
SSF	Saint Saulge	83.61	37	eP	P	22 53 57.9	-0.9
	comp=Z,2.8nm,0.9s,mb4.4						
LOR	Lormes	83.66	37	eP	P	22 53 59.6	+0.6
	comp=Z,14nm,0.9s,mb4.8						
LOR	Lormes	83.66	37	eP	P	22 53 59.6	+0.6
LOR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
LOR	Lormes	83.66	37	eP	P	22 53 59.6	+0.6
	comp=Z,6.9nm,0.9s,mb4.8						
AVF	Avril sur Loir	83.72	37	eP	P	22 53 59.3	0.0
PLCA	Paso Flores	83.75	147	LR	LR	23 24 14.3	
	comp=Z,218nm,20.3s,MS4.5,baz=90,slow=31						
SMF	Signal de Mont	84.06	37	eP	P	22 54 01.2	+0.1
HINF	Hinteralfeld	84.76	35	eP	P	22 54 05.0	+0.3
KLMR	Klimovskoe	84.77	12	eP	P	22 54 09.3	+4.9
KLMR				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.2						
PRGR	Permogore	84.97	9	eP	P	22 54 05.8	+0.4
PRGR				pmax	pmax		
	comp=Z,135nm,1.8s						
HIA	Hailar	85.04	327	⇑iP	P	22 54 06.5	+0.5
CABF	La Chapelle	85.22	36	eP	P	22 54 07.2	+0.2
CBIJ	Chichi jima	85.48	299	LR	LR	23 28 24.0	
	comp=Z,102nm,19.0s,MS4.2,baz=54,slow=33						
CN2	Changchun	86.02	321	eP	P	22 54 11.5	+0.5
CN2				eS	S	23 04 44.1	-1.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.2						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,200nm,11.0s,MS4.9						
CN2				LR	LR		
	comp=E,200nm,11.0s,MS4.9						
CN2				LR	LR		
	comp=Z,200nm,16.0s,MS4.6						
TLY	Talaya	89.50	337	eP	P	22 54 30.2	+2.7
TLY				e		23 05 23.6	
TLY				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
ZAK	Zakamensk	90.73	336	eP	P	22 54 35.4	+2.1
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.5						
AKASG	Malin Array Be	91.47	22	P	P	22 54 39.2	+2.5
	comp=Z,0.1nm,0.3s,mb3.6,baz=344,slow=5.0,SNR=4.5						
AKASG	Malin Array Be	91.47	22	P	P	22 54 39.2	+2.5
ULN	Ulaanbaatar	91.47	333	⇓iP	P	22 54 39.0	+2.2
SONM	Songino Array	91.75	333	P	P	22 54 45.0	+6.9
	comp=Z,0.4nm,0.6s,mb3.9,baz=16,slow=3.7,SNR=3.9						
ZALV	Zalesovo Beam	92.20	348	P	P	22 54 42.3	+2.2
	comp=Z,0.6nm,0.6s,mb4.1,baz=335,slow=6.6,SNR=4.0						
BJI	Beijing	93.55	323	P	P	22 54 44.8	-1.7
BJI				PP	PP	22 58 28.3	-2.0
BJI				S	S	23 05 47.1	-8.6
BJI				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb5.1						
BJI				LR	LR		
	comp=N,180nm,15.7s,MS4.8						
BJI				LR	LR		
	comp=E,170nm,16.6s,MS4.8						
BJI				LR	LR		
	comp=Z,100nm,24.8s						
BVAR	Borovoye Array	94.73	357	P	P	22 54 55.3	+3.6
	comp=Z,0.8nm,0.7s,mb4.3,baz=336,slow=3.2,SNR=2.5						
HHC	Hu-ho-hao-te	95.18	326	eP	P	22 54 53.1	-0.9
HHC				pP	pP	22 54 57.6	+1.9
HHC				PP	PP	22 58 44.3	+1.3
HHC				SKS		23 05 26.4	
HHC				eS	S	23 06 03.6	-6.4
HHC				SS	SS	23 12 31.9	-2.6
HHC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.2						
HHC				LR	LR		
	comp=N,120nm,17.8s,MS4.7						
HHC				LR	LR		
	comp=E,190nm,16.6s,MS4.7						
HHC				LR	LR		
	comp=Z,100nm,17.8s,MS4.3						
KURK	Kurchatov	96.28	351	P	P	22 55 04.7	+5.9
	comp=Z,0.4nm,0.3s,mb4.3,baz=6.8,slow=5.6,SNR=3.3						
NJ2	Nanjing	97.94	316	eP	P	22 55 05.8	-0.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.5						
WMQ	Urumqi	101.23	343	eP	Pdif	22 55 24.0	+2.9
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.7s						
CD2	Chengdu	106.92	326	Pdif	Pdif	22 55 46.6	+0.2
CD2				PP	PP	23 00 14.8	+3.0
CD2				S	Sdif	23 07 44.3	-4.4
CD2				SS	SS	23 15 16.8	-1.0
GYA	Guiyang	109.07	321	Pdif	Pdif	22 55 54.8	-1.2
GYA				PKP	PKiKP	22 59 58.0	-2.7
GYA				PKS		23 03 34.8	
GYA				SS	SS	23 15 45.3	-1.9
GYA				LR	LR		
	comp=N,190nm,20.8s,MS4.8						
GYA				LR	LR		
	comp=E,160nm,19.0s,MS4.8						
GYA				LR	LR		
	comp=Z,110nm,21.5s,MS4.4						
KMI	Kunming	112.20	323	PKP	PKiKP	23 00 05.5	-1.1
KMI				LR	LR		
	comp=Z,120nm,19.2s,MS4.5						
BOSA	Boshof	145.95	94	PKPbc	PKPbc	23 01 10.9	+0.5
	comp=Z,4.0nm,0.9s,baz=284,slow=5.5,SNR=3.3						

IDC 19 22:45:08.7±2.0, 16°.64S×172°.94W, h0km, mb4.1/5, mb1 4.2/6, mb1mx3.9/21, mbtmp4.1/6, ML1.9/1, Error ellipse: s-maj=52.3km s-min=28.0km az=110.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.93	23	Pn	Pn	22 45 56.5	-0.1
	8.9nm,0.3s,baz=258,slow=12,SNR=5.2						
AFI				Sn	Sn	22 46 30.5	-2.1
	45nm,0.3s,baz=0.5,slow=22,SNR=9.0						
URZ	Urewera	23.25	200	P	P	22 50 16.9	-0.9
	7.1nm,0.6s,baz=211,slow=4.1,SNR=5.4						
RPZ	Rata Peaks	30.22	203	P	P	22 51 21.7	+0.7

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	6.6nm,1.0s,baz=165,slow=12,SNR=2.3						
STKA	Stephens Creek	43.82	241	P	P	22 53 17.0	+0.3
	0.5nm,0.4s,baz=129,slow=14,SNR=2.1						
WRA	Warramunga Arr	50.01	258	P	P	22 54 05.1	-0.2
	0.6nm,0.4s,baz=96,slow=7.1,SNR=15						
ASAR	Alice Springs	50.16	253	P	P	22 54 06.2	-0.2
	1.9nm,0.6s,baz=88,slow=9.0,SNR=22						

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*NEIC **19** 22:47:32.3, 32°.40N×115°.29W, h6km, ML3.5(PAS), After PAS.*

ECX 19 22:47:31.2±0.2**, 32°.45N×115°.34W, h8km, MD3.4, ML3.5, 2C-3D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.04	132	⇓eP	Pg	22 47 34.0	+1.2
CPBX				eS	Sg	22 47 36.2	+2.3
CPBX				e		22 47 37.2	
	comp=N,72µm,0.3s						
SGL	Mount Signal	0.38	302	⇑iP	Pg	22 47 40.6	+1.9
SNR	Schaffner Ranc	0.42	349	eP	Pg	22 47 41.4	+2.0
COA	Coachella	0.46	24	⇓iP	Pg	22 47 41.6	+1.5
EMX	El Mayor	0.46	170	eP	Pg	22 47 49.8	+10
EMX				eS	Sg	22 47 57.8	+12
EMX				⇑e		22 47 58.9	
	comp=N,3µm,0.8s						
COK	Cook Ranch	0.52	321	⇓iP	Pg	22 47 43.0	+1.7
YUH	Yuha Desert	0.53	292	eP	Pg	22 47 43.1	+1.6
YMD	Yuma Desert	0.68	81	eP	Pg	22 47 45.3	+0.9
CRR	Carrizo Plain	0.69	310	eP	Pg	22 47 45.7	+1.2
GLA	Glamis	0.74	35	eP	Pg	22 47 46.1	+0.6
GLA				eS	Sg	22 47 55.0	-0.2
ECBX	El Chinero	1.00	166	eP	Pg	22 47 59.8	+9.3
ECBX				eS	Sg	22 48 14.1	+11
CBX	Cerro Bola	1.13	264	ePN	Pn	22 47 54.4	+1.2
CBX				eS	Sg	22 48 09.4	+1.9
PFO	Pinyon Flat Ob	1.49	321	ePn	Pn	22 47 57.8	-0.5
PFO				ePn	Pn	22 47 59.0	+0.7
PFO				eS	Sn	22 48 20.6	+2.7
TUC	Tucson	3.86	91	eS	Sn	22 49 32.0	+16
ISA	Isabella	4.13	322	ePn	Pn	22 48 37.4	+2.8

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*IDC **19** 22:48:01.1±1.2, 36°.29N×21°.93E, h0km, mb3.5/6, mb1 3.6/6, mb1mx3.5/23, mbtmp3.5/6, MS2.9/1, Ms1 3.0/1, ms1mx2.3/29, Error ellipse: s-maj=44.0km s-min=24.0km az=135.0*

*NEIC **19** 22:48:02.2, 36°.11N×21°.64E, h17km, ML3.3(ATH), ML4.1(THE), After ATH.*

*ATH **19** 22:48:02.2, 36°.11N×21°.64E, h17km±1km, MD3.9/4, ML3.3*

*CSEM **19** 22:48:07.2±0.3, 36°.17N×21°.74E, h40km, ML3.3, Error ellipse: s-maj=7.7km s-min=5.6km az=31.0*

ISC 19 22:48:03.4±1.1**, 36°.12N**±0°.04×**21°.67E**±0°.04**, h5**km±6km**, n84, σ1°.03**/96**, mb3.5**/6**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.77	4	ePB	Pg	22 48 17.1	-1.1
PYL				eSN	Sg	22 48 28.5	+0.3
ITM	Ithomi	1.07	11	ePN	Pg	22 48 22.7	-1.3
ITM				eSN	Sg	22 48 38.1	+0.2
ITM	Ithomi	1.07	11	ePn	Pg	22 48 22.7	-1.3
ITM				eSn	Sg	22 48 38.1	+0.2
KYTH	Kithira	1.11	82	ePN	Pg	22 48 24.2	-0.5
KYTH	Kithira	1.11	82	ePn	Pg	22 48 24.2	-0.5
VLI	Veliai	1.18	59	ePN	Pn	22 48 25.0	-1.5
VLI	Veliai	1.18	59	ePn	Pn	22 48 25.0	-1.5
VLX	Vlachokerasia	1.37	24	ePN	Pn	22 48 27.9	-1.2
VLX				eSN	Sn	22 48 47.6	-0.1
VLX	Vlachokerasia	1.37	24	ePn	Pn	22 48 27.9	-1.2
VLX				eSn	Sn	22 48 47.6	-0.1
DID	Didima	1.86	42	ePB	Pn	22 48 35.3	-0.7
DID				eSN	Sn	22 49 00.7	+0.8
GUR	Goura	1.89	16	ePN	Pn	22 48 37.0	+0.7
GUR	Goura	1.89	16	ePn	Pn	22 48 37.0	+0.7
RLS	Riolos of Patr	1.94	355	ePN	Pn	22 48 38.0	+1.0
RLS	Riolos of Patr	1.94	355	ePn	Pn	22 48 38.0	+1.0
LTK	Loutraki	2.16	28	ePN	Pn	22 48 41.0	+1.0
LTK	Loutraki	2.16	28	ePn	Pn	22 48 41.0	+1.0
VAM	Vamos	2.18	108	ePN	Pn	22 48 40.0	-0.2
VAM	Vamos	2.18	108	ePn	Pn	22 48 40.0	-0.2
NAIG	Nisos Aigina	2.19	41	ePB	Pn	22 48 39.9	-0.5
VLS	Valsamata	2.23	337	ePN	Pn	22 48 40.9	0.0
VLS	Valsamata	2.23	337	ePn	Pn	22 48 40.9	0.0
EFP	Efpalio	2.31	5	ePN	Pn	22 48 44.0	+2.0
EFP	Efpalio	2.31	5	ePn	Pn	22 48 44.0	+2.0
ATH	Athens Observa	2.46	41	ePN	Pn	22 48 44.2	0.0
ATH	Athens Observa	2.46	41	ePn	Pn	22 48 44.2	0.0
PTL	Penteli	2.60	42	ePN	Pn	22 48 45.4	-0.7
PTL	Penteli	2.60	42	ePn	Pn	22 48 45.4	-0.7
LKR	Lokris	2.73	22	ePN	Pn	22 48 48.5	+0.6
LKR	Lokris	2.73	22	ePn	Pn	22 48 48.5	+0.6
SIVA	Sivas	2.79	112	P	Pn	22 48 49.9	+1.3
SIVA	Sivas	2.79	112	P	Pn	22 48 49.9	+1.3
EVR	Evrytania	2.79	2	ePB	Pn	22 48 50.5	+1.8
AGG	Agios Georgios	2.94	10	ePB	Pn	22 48 52.3	+1.5
LAST	Lasithi	3.25	106	P	Pn	22 48 55.6	+0.7
LAST	Lasithi	3.25	106	P	Pn	22 48 55.6	+0.7
THL	Klokotos Trika	3.45	4	ePN	Pn	22 48 58.0	+0.3
THL	Klokotos Trika	3.45	4	ePn	Pn	22 48 58.0	+0.3
XOR	Xorichti	3.45	20	P	Pn	22 48 58.5	+0.7
XOR	Xorichti	3.45	20	P	Pn	22 48 58.5	+0.7
AOS	Alonnisos	3.51	29	P	Pn	22 48 58.0	-0.6
AOS	Alonnisos	3.51	29	P	Pn	22 48 58.0	-0.6
IGT	Igoumenitsa	3.56	343	P	Pn	22 48 59.0	-0.3
IGT	Igoumenitsa	3.56	343	P	Pn	22 48 59.0	-0.3
JAN	Janina	3.59	350	ePN	Pn	22 48 59.7	+0.1
JAN	Janina	3.59	350	ePn	Pn	22 48 59.7	+0.1
MEV	Metsovon	3.67	355	P	Pn	22 49 02.3	+1.5
MEV	Metsovon	3.67	355	P	Pn	22 49 02.3	+1.5
KEK	Kerkira	3.88	338	ePN	Pn	22 49 03.3	-0.3
KEK	Kerkira	3.88	338	ePn	Pn	22 49 03.3	-0.3
LIT	Litokhoron	4.02	9	P	Pn	22 49 06.1	+0.5
LIT	Litokhoron	4.02	9	P	Pn	22 49 06.1	+0.5
KZN	Kozani	4.18	1	ePN	Pn	22 49 08.4	+0.6
KZN	Kozani	4.18	1	ePn	Pn	22 49 08.4	+0.6
HORT	Hortiatis	4.61	14	P	Pn	22 49 13.7	+0.1
HORT	Hortiatis	4.61	14	P	Pn	22 49 13.7	+0.1
FNA	Florina	4.66	357	P	Pn	22 49 14.1	-0.3
FNA	Florina	4.66	357	P	Pn	22 49 14.1	-0.3
GRG	Griva	4.86	7	P	Pn	22 49 16.8	-0.3
GRG	Griva	4.86	7	P	Pn	22 49 16.8	-0.3
SOH	Sokhos	4.87	15	P	Pn	22 49 18.0	+0.7
SOH	Sokhos	4.87	15	P	Pn	22 49 18.0	+0.7
TIP	Timpagrande	4.95	309	ePn	Pn	22 49 18.9	+0.6
TIP				eSn	Sn	22 50 13.6	-2.4
TIP	Timpagrande	4.95	309	ePn	Pn	22 49 19.0	+0.6
TIP				eSn	Sn	22 50 13.6	-2.4
CEL	Celeste	5.08	297	ePn	Pn	22 49 20.7	+0.5
	14nm,0.8s						
CEL				eSn	Sn	22 50 19.7	+0.4
CEL	Celeste	5.08	297	ePn	Pn	22 49 20.7	+0.5
	14nm,0.8s						
CEL				eSn	Sn	22 50 19.7	+0.4
KNT	Kendrikon	5.12	10	P	Pn	22 49 20.5	-0.2
KNT	Kendrikon	5.12	10	P	Pn	22 49 20.5	-0.2
SRS	Serrai	5.21	16	P	Pn	22 49 22.0	+0.1
SRS	Serrai	5.21	16	P	Pn	22 49 22.0	+0.1
KRUS	Krusevo	5.25	357	ePn	Pn	22 49 21.0	-1.5
KRUS				eSg	Sn	22 50 18.7	-4.7
KRUS	Krusevo	5.25	357	ePn	Pn	22 49 20.9	-1.6
CUC	Castrocucco	6.02	312	ePn	Pn	22 49 35.0	+1.9
	8.5nm,0.6s						
CUC				eSn	Sn	22 50 41.5	-0.9
CUC	Castrocucco	6.02	312	ePn	Pn	22 49 35.0	+1.9
	8.5nm,0.6s						
CUC				eSn	Sn	22 50 41.5	-0.9
HFS	Hagfors	24.57	350	P	P	22 53 21.1	-2.8
HFS				pmax	pmax		
	comp=Z,1.0nm,0.5s						
HFS	Hagfors	24.57	350	P	P	22 53 21.1	-2.8
	comp=Z,0.7nm,0.5s,mb3.5,baz=165,slow=11,SNR=5.0						
HFS	Hagfors	24.57	350	P	P	22 53 21.1	-2.8
NOA	NORSAR Array B	25.81	348	LR	LR	23 03 09.6	
	comp=Z,27nm,18.1s,baz=65,slow=35						
TORD	Torodi Ar. Bea	29.09	223	P	P	22 54 05.5	+0.5
	comp=Z,0.3nm,0.8s,mb3.1,baz=49,slow=9.5,SNR=2.4						
TORD				ScP	ScP	23 00 56.0	+0.7
	comp=Z,0.5nm,0.9s,baz=29,slow=3.3,SNR=3.2						
MKAR	Makanchi Array	45.62	57	P	P	22 56 21.2	-3.4
	comp=Z,0.5nm,0.6s,mb3.6,baz=280,slow=6.9,SNR=4.3						
ZALV	Zalesovo Beam	46.40	47	P	P	22 56 25.8	-4.8
	comp=Z,0.9nm,0.6s,mb3.9,baz=266,slow=9.8,SNR=3.7						
SONM	Songino Array	61.06	50	P	P	22 58 15.3	-2.8
	comp=Z,0.3nm,0.7s,mb3.6,baz=295,slow=7.8,SNR=2.6						
YKA	Yellowknife Ar	75.63	341	P	P	22 59 47.4	-1.6
	comp=Z,0.2nm,0.6s,mb3.2,baz=36,slow=5.3,SNR=4.3						
YKA	Yellowknife Ar	75.63	341	P	P	22 59 47.4	-1.6
YKA	Yellowknife Ar	75.63	341	P	P	22 59 47.4	-1.6

NNC 19 22:50:40.0±4.1**, 40°.32N×65°.87E, h33km±38km, mb3.9, mpv3.5, 9C-5D, Error ellipse: s-maj=38.0km s-min=19.6km az=25.0, Southeastern Uzbekistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	4.45	50	⇓Pn	Pn	22 51 48.4	+3.3
	3.1nm,0.7s,baz=221,slow=15						
KK31				⇑Sn	Sn	22 52 41.4	+5.7
	2.4nm,0.3s,baz=238,slow=22						
KK31				⇑Lg		22 53 01.7	
	11nm,0.5s,baz=232,slow=32						
TKM2	Tokmak 2	7.74	67	⇓Pn	Pn	22 52 28.9	-1.3
	3.8nm,0.9s						
TKM2				⇑Lg		22 54 48.9	
	4.4nm,0.5s						
AB09	Akbulak array	9.88	337	⇑Pn	Pn	22 52 59.2	-0.4
	0.7nm,0.5s						
AB09				⇑Sn	Sn	22 54 49.8	+0.5
	0.7nm,0.7s						
AB09				⇑Lg		22 55 48.7	
	5.2nm,0.9s						
AKTO	Aktyubinsk	11.51	334	⇓Pn	Pn	22 53 20.4	-1.5
	1.3nm,2.0s						
AKTO				⇑Sn	Sn	22 55 30.8	+1.6
	2.5nm,3.2s						
VOSK	Vostochnaya	12.89	14	⇑Pn	Pn	22 53 42.0	+1.3
	0.8nm,0.4s						
VOSK				⇓Sn	Sn	22 56 02.7	-0.1
	1.2nm,0.5s						
BRVK	Borovoye	13.09	12	⇓Pn	Pn	22 53 45.4	+1.9
	11nm,0.5s						
BRVK				⇑Sn	Sn	22 56 06.3	-1.4
	3.5nm,0.6s						

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*ISCJB **19** 23:03:19.9±1.7, 74°.66N±0°.04×72°.7W±0°.1, h19km±13km, mb4.3/56, MS4.5/2, Error ellipse: s-maj=7.2km s-min=4.6km az=138.6*

*BJI **19** 23:03:19.4, 74°.90N×72°.30W, h10km, mB5.0/6, mb4.7/11, Ms4.8/6, Ms7 4.5/6*

*IDC **19** 23:03:19.5±0.6, 74°.81N×72°.53W, h0km, mb4.0/20, mb1 4.1/24, mb1mx4.1/29, mbtmp4.0/24, ML4.3/5, Error ellipse: s-maj=16.5km s-min=13.4km az=143.0*

*NEIC **19** 23:03:21.4, 74°.86N×72°.33W, h18km, mb4.4/29, ML4.4(OTT), After OTT.*

ISC 19 23:03:22.0±2.1**, 74°.71N**±0°.04×**72°.4W**±0°.1**, h16**km±13km**, h15**km±.7km**:pP-P, n150, σ1°.03**/177**, mb4.3**/56**, MS4.5**/2**, 5C-2D, Baffin Bay**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GIFN	Gifford Fjord,	5.51	215	Pn	Pn	23 04 44.7	+1.5
GIFN				Sn	Sn	23 05 44.5	-1.5
RES	Resolute Bay	5.94	281	Pn	Pn	23 04 48.1	-1.0
	54nm,0.3s,baz=64,slow=12,SNR=1224						
RES				Sn	Sn	23 05 50.8	-5.9
	32nm,0.3s,baz=216,slow=11,SNR=7.6						
RES	Resolute Bay	5.94	281	ePn	Pn	23 04 48.1	-1.0
	176nm,0.5s						
RES				eSn	Sn	23 05 51.2	-5.5
ILON	Igloolik, Nuna	6.10	213	Pn	Pn	23 04 52.5	+1.2
ILON				Sn	Sn	23 05 57.5	-3.1
LAIN	Lailor River,	6.60	217	Pn	Pn	23 04 59.0	+0.8
LAIN				Sn	Sn	23 06 10.5	-2.4
SRLN	Sarcpa Lake, N	7.08	215	Pn	Pn	23 05 05.2	+0.6
SRLN				Sn	Sn	23 06 20.0	-4.5
QILN	Qililugaq Expl	9.29	217	Pn	Pn	23 05 34.7	-0.3
QILN				Sn	Sn	23 07 11.7	-7.3
SUMG	Summit	9.71	86	ePn	Pn	23 05 36.0	-4.6
	50nm,0.7s						
SUMG				eSn	Sn	23 07 14.1	-15
SFJD	Kangerlussuaq	10.45	127	i P	Pn	23 05 50.1	-0.7
SFJD	Kangerlussuaq	10.45	127	i P	Pn	23 05 50.2	-0.6
SFJD				i S	Sn	23 07 38.0	-9.3
SFJD				i S	Sn	23 07 39.1	-8.2
SFJD	Kangerlussuaq	10.45	127	Pn	Pn	23 05 50.9	+0.1
	0.5nm,0.3s,baz=298,slow=17,SNR=3.8						
SFJD				Sn	Sn	23 07 37.2	-10
	1.4nm,0.3s,baz=12,slow=16,SNR=3.5						
SFJD	Kangerlussuaq	10.45	127	Pn	Pn	23 05 48.9	-2.0
SFJD				Sn	Sn	23 07 36.1	-11
BULN	Bullion Camp,	10.75	230	Pn	Pn	23 05 54.7	-0.3
BULN				Sn	Sn	23 07 48.7	-6.0
FRB	Frobisher Bay	11.10	171	Pn	Pn	23 05 59.6	-0.2
	0.9nm,0.3s,baz=351,slow=12,SNR=14						
FRB				Sn	Sn	23 07 52.7	-11
	2.4nm,0.3s,baz=266,slow=13,SNR=6.1						
FRB	Frobisher Bay	11.10	171	Pn	Pn	23 05 58.2	-1.6
FRB				Sn	Sn	23 07 54.0	-9.3
NUNN	Nunuq Camp, NU	11.41	223	Pn	Pn	23 06 03.8	-0.2
NUNN				Sn	Sn	23 08 04.2	-6.6
DAG	Danmarks Havn	12.99	56	⇓iP	Pn	23 06 18.4	-7.2
	65nm,0.5s						
DAG	Danmarks Havn	12.99	56	⇓eP	Pn	23 06 18.4	-7.2
	66nm,0.5s						
SCO	Scoresbysund	15.23	80	i P	Pn	23 06 48.7	-7.2
SCO				i		23 06 59.6	
SCO				i S	Sn	23 09 17.0	-27
SCO				i LG		23 09 20.8	
ARVN	Arviat, NU	15.75	221	Pn	Pn	23 06 54.7	-8.0
ARVN				Sn	Sn	23 09 43.8	-13
KUQ	Kuujjuuaa	16.75	173	Pn	Pn	23 07 09.0	-6.5
KUQ				Sn	Sn	23 10 05.7	-15
KUQ				Lg		23 11 38.0	
CTLN	Castor Lake	17.83	258	Pn	Pn	23 07 25.8	-3.2
CTLN				Sn	Sn	23 10 30.2	-17
FCC	Fort Churchill	17.95	219	ePn	Pn	23 07 28.0	-2.4
	0.5nm,0.9s						
FCC				eSn	Sn	23 10 38.9	-11
KBS	Kingsbay	18.00	38	ePn	Pn	23 07 28.2	-2.8
	227nm,2.2s						
YKW3	Yellowknife Ar	19.01	253	Pn	Pn	23 07 39.7	-3.6
YKW3				Sn	Sn	23 10 59.0	-16
YKW3				Lg		23 13 00.4	
YKA	Yellowknife Ar	19.06	253	P	Pn	23 07 40.9	-3.1
	1.2nm,0.3s,baz=34,slow=12,SNR=67						
YKA				S	Sn	23 11 01.5	-15
	0.4nm,0.3s,baz=30,slow=22,SNR=4.1						
SPITS	Spitsbergen Ar	19.16	39	P	Pn	23 07 43.2	-1.8
	baz=243,slow=8.5,SNR=7.9						
SCHQ	Schefferville	20.09	171	P	P	23 07 54.8	+0.5
	2.7nm,0.7s,baz=5.4,slow=11,SNR=6.8						
SCHQ				S	S	23 11 28.8	-10
	2.1nm,0.7s,baz=18,slow=20,SNR=3.2						
SCHQ	Schefferville	20.09	171	Pn	P	23 07 55.5	+1.1
SCHQ				Sn	S	23 11 25.3	-14
SILO	Sutton Inlier	20.92	201	Pn	P	23 08 06.2	+2.9
SILO				Sn	S	23 11 43.9	-12
LG4Q	La Grande 4	21.18	183	Pn	P	23 08 08.6	+2.3
LG4Q				Sn	S	23 11 44.8	-16
WEMQ	Wemindji, Queb	21.86	189	Pn	P	23 08 15.2	+1.7
WEMQ				Sn	S	23 12 04.8	-9.3
FFC	Flin Flon	23.19	227	eP	P	23 08 31.0	+3.4
	12nm,0.8s,mb4.4						
EGAK	Eagle	24.17	283	eP	P	23 08 39.0	+2.2
	16nm,1.3s,mb4.3						
DAWY	Dawson	24.29	280	eP	P	23 08 41.2	+3.3
COLA	College	25.80	288	eP	P	23 08 54.0	+2.2
	7.0nm,1.0s,mb4.2						
ULM	Lac du Bonnet	26.43	215	P	P	23 08 58.2	+0.6
	1.6nm,0.6s,mb3.8,baz=3.6,slow=16,SNR=2.0						
ULM	Lac du Bonnet	26.43	215	P	P	23 08 58.2	+0.6
MCK	McKinley	27.01	288	eP	P	23 09 06.2	+3.5
EDM	Edmonton	27.02	240	eP	P	23 09 08.8	+6.1
ARCES	ARCESS Array B	27.16	50	P	P	23 09 02.9	-1.0
	2.3nm,0.9s,mb3.7,baz=330,slow=7.0,SNR=2.4						
PMR	Palmer	28.86	285	P	P	23 09 22.3	+3.2
NB2	NORSAR Subarra	31.06	70	P	P	23 09 38.7	+0.2
	comp=Z,3.0nm,0.7s,mb4.2,baz=324,slow=7.9						
NOA	NORSAR Array B	31.06	70	P	P	23 09 38.8	+0.3
	comp=Z,0.5nm,0.6s,mb3.5,baz=321,slow=8.5,SNR=4.7						
ESK	Eskdalemuir	32.33	88	P	P	23 09 48.8	-0.9
HFS	Hagfors	32.46	69	P	P	23 09 50.9	+0.1
	comp=Z,1.7nm,0.8s,mb3.9,baz=351,slow=7.5,SNR=4.7						
BILL	Bilibino	32.71	324	P	P	23 09 53.3	+0.3
DSB	Dublin	33.34	92	eP	P	23 09 57.8	-0.8
PDAR	Pinedale Array	36.10	229	P	P	23 10 26.5	+3.9
	comp=Z,0.7nm,0.7s,mb3.7,baz=54,slow=7.5,SNR=3.7						
FLN	La Foliniere	38.97	90	eP	P	23 10 46.1	-0.7
QUIF	Quistinic	39.04	93	eP	P	23 10 47.3	-0.1
GRR	Gorron	39.22	91	eP	P	23 10 48.7	-0.1
LDF	La Druitiere	39.22	90	eP	P	23 10 48.3	-0.6
	comp=Z,30nm,1.2s,mb4.6						
LDF	La Druitiere	39.22	90	eP	P	23 10 48.3	-0.6
	comp=Z,15nm,1.2s,mb4.6						
MOD	Modoc	39.26	241	eP	P	23 10 55.6	+6.3
	comp=Z,8.3nm,1.1s,mb4.4						
MEZF	Maizieres J'vi	40.68	85	eP	P	23 11 01.0	0.0
CDF	Champ du Feu	41.35	83	eP	P	23 11 06.5	0.0
	comp=Z,6.3nm,0.8s,mb4.0						
CDF	Champ du Feu	41.35	83	eP	P	23 11 06.5	0.0
	comp=Z,3.2nm,0.8s,mb4.0						
KSP	Ksiaz	41.45	73	eP	P	23 11 08.2	+0.9
HAU	Haudompre	41.48	84	eP	P	23 11 08.2	+0.7
LOR	Lormes	41.50	87	eP	P	23 11 07.5	-0.2
SSF	Saint Saulge	41.59	87	eP	P	23 11 08.3	-0.2
	comp=Z,7.0nm,0.9s,mb4.0						
SSF	Saint Saulge	41.59	87	eP	P	23 11 08.3	-0.2
	comp=Z,3.5nm,0.9s,mb4.0						
HINF	Hinteralfeld	41.78	84	eP	P	23 11 09.8	-0.3
AVF	Avril sur Loir	41.80	87	eP	P	23 11 09.9	-0.3
	comp=Z,20nm,1.1s,mb4.4						
AVF	Avril sur Loir	41.80	87	eP	P	23 11 09.9	-0.3
	comp=Z,10.0nm,1.1s,mb4.4						
BGF	Bois d'Agland	41.88	88	eP	P	23 11 10.6	-0.3
	comp=Z,16nm,1.0s,mb4.3						
BGF	Bois d'Agland	41.88	88	eP	P	23 11 10.6	-0.3
	comp=Z,8.1nm,1.0s,mb4.3						
TCF	Toulx Ste Croi	41.97	89	eP	P	23 11 11.2	-0.4
	comp=Z,12nm,1.0s,mb4.2						
TCF	Toulx Ste Croi	41.97	89	eP	P	23 11 11.2	-0.4
	comp=Z,6.2nm,1.0s,mb4.2						
SMF	Signal de Mont	42.07	87	eP	P	23 11 12.0	-0.4
	comp=Z,9.5nm,0.8s,mb4.2						
SMF	Signal de Mont	42.07	87	eP	P	23 11 12.0	-0.4
	comp=Z,4.8nm,0.8s,mb4.2						
NVAR	Mina Array Bea	42.12	237	P	P	23 11 13.8	+0.9
	comp=Z,0.1nm,0.4s,baz=160,slow=12,SNR=2.3						
OBN	Obninsk	42.30	54	eP	P	23 11 12.2	-1.9
GERES	GERESS Array B	42.63	77	P	P	23 11 18.1	+1.2
	comp=Z,0.9nm,0.9s,mb3.5,baz=350,slow=6.8,SNR=7.1						
RJF	Les Rejaudoux	42.69	90	eP	P	23 11 17.1	-0.4
CABF	La Chapelle	42.69	85	eP	P	23 11 17.4	-0.1
	comp=Z,3.8nm,0.7s,mb3.9						
CABF	La Chapelle	42.69	85	eP	P	23 11 17.4	-0.1
	comp=Z,1.9nm,0.7s,mb3.9						
MORC	Moravsky Berou	42.75	73	eP	P	23 11 16.8	-1.1
	comp=Z,1.9nm,0.8s,mb3.9						
LFF	La Frestale	42.82	91	eP	P	23 11 18.8	+0.2
	comp=Z,28nm,1.0s,mb4.6						
LFF	La Frestale	42.82	91	eP	P	23 11 18.8	+0.2
	comp=Z,14nm,1.0s,mb4.6						
DAVOX	Davos/Dischmat	43.54	81	P	P	23 11 24.9	+0.6
	comp=Z,2.5nm,0.8s,mb4.0,baz=305,slow=12,SNR=4.4						
DAVOX	Davos/Dischmat	43.54	81	P	P	23 11 24.9	+0.6
LPL	La Plagne	43.88	85	eP	P	23 11 27.8	+0.8
LPG	La Plagne	43.90	85	eP	P	23 11 28.2	+1.0
VIVF	Saint-Julien-l	43.94	87	eP	P	23 11 27.7	+0.1
STHS	Stebnicka Huta	44.01	70	eP	P	23 11 28.8	+0.7
KWP	Kalwaria Pacla	44.18	68	P	P	23 11 28.0	-1.4
ORIF	Oris-en-Rattie	44.21	86	eP	P	23 11 30.0	+0.3
	comp=Z,5.0nm,0.6s,mb4.1						
ORIF	Oris-en-Rattie	44.21	86	eP	P	23 11 30.0	+0.3
	comp=Z,2.5nm,0.6s,mb4.1						
VYHS	Vyhne	44.26	72	eP	P	23 11 30.2	+0.1
LASF	Ste Croix	44.45	88	eP	P	23 11 32.2	+0.5
	comp=Z,12nm,0.8s,mb4.4						
MBDF	Montbardon	44.62	85	eP	P	23 11 33.6	+0.6
	comp=Z,8.0nm,0.7s,mb4.3						
MBDF	Montbardon	44.62	85	eP	P	23 11 33.6	+0.6
	comp=Z,4.0nm,0.7s,mb4.4						
MTLF	Montolieu	44.70	90	eP	P	23 11 33.8	+0.1
	comp=Z,16nm,1.0s,mb4.5						
MTLF	Montolieu	44.70	90	eP	P	23 11 33.8	+0.1
	comp=Z,7.8nm,1.0s,mb4.5						
KOLS	Kolonicke sedl	44.72	69	eP	P	23 11 33.7	0.0
AKASG	Malin Array Be	44.75	62	P	P	23 11 32.7	-1.3
	comp=Z,1.1nm,0.5s,mb4.0,baz=334,slow=8.3,SNR=4.0						
AKASG	Malin Array Be	44.75	62	P	P	23 11 32.7	-1.3
SMRF	Simiane la Rot	45.00	87	eP	P	23 11 36.4	+0.4
PSZ	Piszkesteto	45.06	72	eP	P	23 11 35.9	-0.6
	comp=Z,4.5nm,0.7s,mb4.4						
ARU	Arti	45.16	36	eP	P	23 11 36.3	-0.9
	comp=Z,5.7nm,0.7s,mb4.5						
SBF	Sospel	45.60	85	eP	P	23 11 40.8	0.0
FRF	La Foret Royal	45.67	86	eP	P	23 11 41.0	-0.4
LMR	La Mourre	45.85	86	eP	P	23 11 43.0	+0.3
ESDC	Sonseca Array	46.50	98	P	P	23 11 48.6	+0.7
	comp=Z,1.5nm,0.5s,mb4.2,baz=346,slow=7.9,SNR=12						
PAB	San Pablo	46.52	99	eP	P	23 11 49.4	+1.3
	comp=Z,2.9nm,0.6s,mb4.4						
BUR08	Bucovina Ar. S	46.64	67	eP	P	23 11 48.9	0.0
BURAR	Bucovina Array	46.67	67	⇑iP	P	23 11 49.5	+0.4
PGF	Pioggiola	47.24	84	eP	P	23 11 53.2	-0.5
BZS	Buzias	47.64	71	⇑iP	P	23 11 57.3	+0.6
TXAR	Lajitas Array	48.09	218	P	P	23 12 04.6	+4.2
	comp=Z,1.3nm,0.9s,mb4.0,baz=27,slow=4.8,SNR=6.1						
GZR	Gura Zlata	48.14	70	⇑iP	P	23 12 01.1	+0.5
SFS	San Fernando	48.93	102	eP	P	23 12 06.8	-0.1
BRVK	Borovoye	50.10	28	eP	P	23 12 15.4	-0.2
	comp=Z,1.9nm,0.8s,mb4.2						
ZAA0	Zalesovo Array	50.72	17	eP	P	23 12 19.5	-0.7
ZALV	Zalesovo Beam	50.72	17	P	P	23 12 19.7	-0.5
	comp=Z,5.0nm,0.7s,mb4.6,baz=348,slow=8.0,SNR=28						
KURK	Kurchatov	53.36	23	P	P	23 12 39.8	-0.1
	comp=Z,3.7nm,0.9s,mb4.3,baz=352,slow=6.5,SNR=12						
KURK	Kurchatov	53.36	23	eP	P	23 12 39.4	-0.6
	comp=Z,4.2nm,1.0s,mb4.3						
KEST	Kesra	53.73	87	P	P	23 12 43.6	+0.8
	comp=Z,1.7nm,0.9s,mb4.0,baz=305,slow=16,SNR=4.3						
KIV	Kislovodsk	54.15	54	P	P	23 12 46.1	+0.4
BRTR	Keskin Array B	56.13	63	P	P	23 12 60.0	-0.2
	comp=Z,2.3nm,1.2s,mb4.1,baz=313,slow=4.9,SNR=4.4						
MKAR	Makanchi Array	57.60	20	P	P	23 13 09.6	-0.9
	comp=Z,1.9nm,1.0s,mb4.1,baz=21,slow=5.2,SNR=10						
MKAR	Makanchi Array	57.60	20	P	P	23 13 09.6	-0.9
ULN	Ulaanbaatar	57.71	0	eP	P	23 13 10.8	-0.4
	comp=Z,3.6nm,1.0s,mb4.4						
SONM	Songino Array	57.74	1	P	P	23 13 11.9	+0.5
	comp=Z,0.9nm,0.8s,mb3.9,baz=347,slow=7.3,SNR=9.0						
MALT	Malatya	58.59	59	eP	P	23 13 16.8	-0.7
	comp=Z,3.1nm,0.8s,mb4.4						
TKM2	Tokmak 2	60.73	27	eP	P	23 13 32.2	+0.1
EKS2	Erkin-Say	60.76	28	P	P	23 13 32.6	+0.3
AAK	Ala-Archa	60.88	27	eP	P	23 13 33.8	+0.7
	comp=Z,4.3nm,0.8s,mb4.6						
AML	Almayashu	61.27	28	eP	P	23 13 35.5	-0.3
	comp=Z,3.2nm,0.8s,mb4.5						
AML				ePcP	PcP	23 14 19.0	+0.8
UCH	Uchtor	61.28	28	eP	P	23 13 35.7	-0.1
MMAI	Mount Meron Ar	62.95	64	P	P	23 13 47.7	+0.5
	comp=Z,9.2nm,1.0s,mb4.9,baz=357,slow=7.2,SNR=2.9						
KSH	Kashi	64.13	27	P	P	23 13 57.8	+2.9
KSH				epP	pP	23 14 02.0	+1.9
KSH				esP	sP	23 14 04.8	+2.8
KSH				ePcP	PcP	23 14 33.1	+3.2
KSH				ePP	PP	23 16 20.1	+4.7
KSH				eScP		23 18 32.1	
KSH				ePcS		23 18 36.1	
KSH				eS	S	23 22 31.6	+0.9
KSH				esS	sS	23 22 39.1	-0.2
KSH				ScS	ScS	23 23 46.0	-1.7
KSH				eSS	SS	23 26 41.3	+2.4
KSH				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
KSH				pmax	pmax		
	comp=Z,68nm,2.7s,mb5.2						
KSH				LR	LR		
	comp=N,120nm,5.5s						
KSH				LR	LR		
	comp=E,130nm,6.3s						
KSH				LR	LR		
	comp=Z,180nm,5.9s						
HHC	Hu-ho-hao-te	64.70	357	eP	P	23 13 58.3	-0.3
HHC				pP	pP	23 14 02.9	-0.9
HHC				PcP	PcP	23 14 33.5	+1.3
HHC				PP	PP	23 16 20.3	0.0

HHC				PcS		23 18 35.5	
HHC				eS	S	23 22 32.3	-5.4
HHC				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
HHC				pmax	pmax		
	comp=Z,100nm,5.0s						
HHC				LR	LR		
	comp=N,110nm,16.7s,MS4.5						
HHC				LR	LR		
	comp=E,250nm,20.2s,MS4.5						
HHC				LR	LR		
	comp=Z,250nm,20.2s,MS4.4						
BJI	Beijing	65.39	353	P	P	23 14 00.0	-3.1
BJI				S	S	23 22 42.5	-3.7
BJI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
BJI				LR	LR		
	comp=N,230nm,19.2s,MS4.5						
BJI				LR	LR		
	comp=E,240nm,21.0s,MS4.5						
BJI				LR	LR		
	comp=Z,200nm,28.2s						
GTA	Gaotai	66.05	7	eP	P	23 14 08.0	+0.7
GTA				pP	pP	23 14 11.3	-1.2
GTA				sP	sP	23 14 14.3	-0.2
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
LZH	Lanzhou	69.45	3	eP	P	23 14 31.0	+2.1
LZH				pP	pP	23 14 35.5	+1.4
LZH				sP	sP	23 14 37.5	+1.5
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,54nm,4.3s						
TORD	Torodi Ar. Bea	73.21	102	P	P	23 14 51.7	-0.1
	comp=Z,1.1nm,0.5s,mb4.1,baz=332,slow=7.3,SNR=44						
TORD	Torodi Ar. Bea	73.21	102	P	P	23 14 51.7	-0.1
CD2	Chengdu	74.61	3	P	P	23 15 00.0	+0.1
CD2				pP	pP	23 15 04.8	-0.3
CD2				sP	sP	23 15 07.1	0.0
CD2				PP	PP	23 17 47.4	+1.4
CD2				S	S	23 24 39.8	+5.3
CD2				SKS		23 25 02.3	
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,160nm,5.6s						
CD2				LR	LR		
	comp=N,160nm,7.7s						
CD2				LR	LR		
	comp=Z,200nm,8.9s						
LSA	Lhasa	75.29	15	eP	P	23 15 05.0	+1.2
	comp=Z,4.3nm,1.2s,mb4.2						
DBIC	Dimbokro	77.76	110	P	P	23 15 17.8	-0.1
	comp=Z,3.7nm,1.1s,mb4.2,baz=51,slow=12,SNR=4.2						
LIC	Lamto	78.15	110	⇑iP	P	23 15 19.9	-0.1
	comp=Z,10nm,0.8s,mb4.5						
LIC	Lamto	78.15	110	⇑iP	P	23 15 19.9	-0.1
	comp=Z,5.3nm,0.8s,mb4.5						
GYA	Guiyang	79.08	1	eP	P	23 15 24.3	-0.8
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
KMI	Kunming	80.36	4	P	P	23 15 32.3	+0.3
KMI				pP	pP	23 15 36.8	-0.6
KMI				sP	sP	23 15 39.6	+0.3
KMI				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.3						
CMAR	Chiang Mai Arr	86.88	8	P	P	23 16 04.8	-0.7
	comp=Z,0.9nm,0.4s,mb4.3,baz=354,slow=5.8,SNR=7.4						
WRA	Warramunga Arr	123.36	330	PKP	PKPdf	23 22 17.0	-0.5
	comp=Z,0.5nm,0.7s,baz=338,slow=1.9,SNR=7.4						
ASAR	Alice Springs	127.08	329	PKP	PKPdf	23 22 24.9	+0.4
	comp=Z,0.8nm,0.7s,baz=4.1,slow=1.5,SNR=6.3						

ISCJB ***19*** *23:14:35.7±0.4, 15°.15N±0°.03×61°.18W±0°.07, h154^{km}±2^{km}, mb3.7/8, Error ellipse: s-maj=12.1km s-min=3.7km az=166.2*

NEIC ***19*** *23:14:35.7, 15°.15N×61°.13W, h151^{km}, MD3.7(TRN), After TRN.*

TRN ***19*** *23:14:35.3, 15°.18N×61°.08W, h151^{km}, MD3.7, M3.4(FDF)*

IDC ***19*** *23:14:36.0±0.6, 15°.11N×61°.28W, h140^{km}±5^{km}, mb3.4/8, mb1 3.6/9, mb1mx3.5/20, mbtmp3.5/9, MS3.8/1, Ms1 3.8/1, ms1mx3.0/26, Error ellipse: s-maj=19.6km s-min=8.3km az=83.0*

ISC 19 23:14:36.7±0.4**, 15°.16N**±0°.03×**61°.17W**±0°.08**, h149**^{km}±2^{km}**, n46, σ0^{s}81**/68**, mb3.7**/8**, 4C-11D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DSTT	Stowe	0.15	306	⇑eP	Pn	23 14 57.6	+0.8
DSTT				eS	Sn	23 15 12.8	+0.7
DFBT	Forest Bistro	0.19	296	⇓eP	Pn	23 14 57.4	+0.6
DFBT				eS	Sn	23 15 12.7	+0.6
DSHT	Scott's Head	0.20	287	eP	Pn	23 14 57.7	+0.8
DSHT				eS	Sn	23 15 13.1	+0.9
DPMT	Pointe Michel	0.22	298	eP	Pn	23 14 57.4	+0.5
DPMT				eS	Sn	23 15 12.3	+0.1
MDN	Morne-Daniel	0.27	308	⇓eP	Pn	23 14 57.9	+0.9
MDN				eS	Sn	23 15 13.3	+0.8
FDF	Fort de France	0.42	177	⇓iP	Pn	23 14 57.3	-0.3
FDF				⇓eS	Sn	23 15 12.7	-0.8
FDF	Fort de France	0.42	177	ePn	Pn	23 14 57.1	-0.5
FDF				eS	Sn	23 15 11.2	-2.4
BIM	Bigot	0.64	171	eP	Pn	23 14 58.2	-0.5
BIM				eS	Sn	23 15 16.2	+0.6
MVM	Montagne Vaucl	0.66	156	⇓iP	Pn	23 14 58.3	-0.6
MGG	Marie-Galante	0.77	350	eP	Pn	23 14 59.5	-0.1
TBG	Guadaloupe-3	0.83	327	⇓iP	Pn	23 14 59.9	-0.1
HMG	Houelmont	0.97	328	⇓iP	Pn	23 15 01.2	+0.1
PHG	Guadaloupe-2	0.97	332	eP	Pn	23 15 01.4	+0.3
DOG	Dongo Capester	0.97	334	⇓iP	Pn	23 15 01.2	0.0
SCG	Saint Claude	1.00	331	⇓iP	Pn	23 15 01.7	+0.3
SCG				⇓eS	Sn	23 15 20.4	+0.2
BCG	Bois Riant Cap	1.02	335	eP	Pn	23 15 01.7	+0.1
LZG	Guadaloupe-1	1.14	329	⇓iP	Pn	23 15 02.8	+0.1
SLW	Petit Monier	1.15	169	⇑eP	Pn	23 15 02.7	-0.1
SLW				eS	Sn	23 15 21.6	-1.1
DEG	La Desirade	1.16	5	eP	Pn	23 15 02.6	-0.2
DEG				eS	Sn	23 15 22.0	-0.8
SEG	Port Louis	1.28	346	eP	Pn	23 15 04.2	+0.2
SLB	Belfond	1.33	174	eP	Pn	23 15 05.5	+1.1
SLB				eS	Sn	23 15 26.3	+0.6
SLDE	Delcer	1.35	175	eP	Pn	23 15 05.5	+0.8
SLDE				eS	Sn	23 15 25.7	-0.4
MCLT	Moule a Chique	1.46	171	eP	Pn	23 15 04.9	-0.9
MCLT				eS	Sn	23 15 27.9	-0.1
SSV	Crater Summit	1.82	181	eP	Pn	23 15 10.2	+0.4
SSV				eS	Sn	23 15 35.9	+0.9
SVV	Soufriere Volc	1.83	181	⇑eP	Pn	23 15 10.8	+1.0
SVV				eS	Sn	23 15 35.4	+0.1
SVV	Soufriere Volc	1.83	181	⇑iP	Pn	23 15 11.1	+1.3
SVV				eS	Sn	23 15 35.4	+0.1
SVB	Belmont	1.87	182	eP	Pn	23 15 09.7	-0.6
SVB				eS	Sn	23 15 35.1	-1.1
BPA	Boggy Peak	1.99	341	eP	Pn	23 15 11.6	-0.1
BPA				eS	Sn	23 15 36.9	-1.7
BBGH	Gun Hill	2.54	142	ePn	Pn	23 15 18.7	+0.4
BBGH				eSn	Sn	23 15 49.5	-0.9
ANWB	Willy Bob	2.57	347	ePn	Pn	23 15 17.8	-0.8
ANWB				eSn	Sn	23 15 48.8	-2.2
SKI	Saint Kitts	2.64	325	eP	Pn	23 15 19.9	+0.4
SKI				eS	Sn	23 15 52.3	-0.2
GRGR	Grenville	3.04	189	ePn	Pn	23 15 23.4	-1.2
GRGR				eSn	Sn	23 15 58.8	-2.8
TOSP	Speyside	3.88	171	eP	Pn	23 15 35.0	-0.5
ROSC	El Rosal	16.50	233	P	Pn	23 18 20.3	+0.6
	1.1nm,0.3s,baz=89,slow=19,SNR=3.2						
SCHQ	Schefferville	39.84	355	P	P	23 21 56.2	+1.0
	4.8nm,1.2s,mb4.0,baz=238,slow=15,SNR=2.7						
SCHQ	Schefferville	39.84	355	P	P	23 21 56.2	+1.0
TXAR	Lajitas Array	41.55	297	P	P	23 22 09.4	-0.4
	0.3nm,0.4s,mb3.3,baz=120,slow=7.5,SNR=10						
ULM	Lac du Bonnet	44.86	329	P	P	23 22 35.1	-0.8
	1.0nm,0.3s,mb3.9,baz=132,slow=12,SNR=3.0						
PDAR	Pinedale Array	49.60	314	P	P	23 23 12.8	-0.1
	1.1nm,0.5s,mb3.8,baz=117,slow=10,SNR=9.8						
NVAR	Mina Array Bea	55.08	306	P	P	23 23 53.7	+0.5
	0.8nm,0.8s,mb3.5,baz=87,slow=4.9,SNR=3.9						
PLCA	Paso Flores	56.28	189	LR	LR	23 49 48.3	
	comp=Z,86nm,18.4s,baz=166,slow=38						
YKA	Yellowknife Ar	60.18	335	P	P	23 24 27.7	-0.8
	0.3nm,0.4s,mb3.5,baz=103,slow=7.6,SNR=6.0						
YKA	Yellowknife Ar	60.18	335	P	P	23 24 27.7	-0.8
TORD	Torodi Ar. Bea	60.81	83	P	P	23 24 33.7	+0.1
	0.6nm,0.5s,mb3.7,baz=280,slow=6.1,SNR=4.7						
TORD	Torodi Ar. Bea	60.81	83	P	P	23 24 33.7	+0.1
KEST	Kesra	65.60	57	P	P	23 25 07.2	+2.3
	0.9nm,0.7s,mb3.7,baz=231,slow=6.7,SNR=4.7						

PRU ***19*** *23:15:35.5, 36°.17N×21°.25E, h0^{km}, M4.9*

HLW ***19*** *23:15:38.6, 36°.48N×22°.01E, h33^{km}, Mb4.8*

IDC ***19*** *23:15:38.1±0.5, 36°.34N×21°.96E, h0^{km}, mb4.6/30, mb1 4.6/40, mb1mx4.6/42, mbtmp4.5/40, ML4.2/9, MS4.8/27, Ms1 4.8/27, ms1mx4.7/37, Error ellipse: s-maj=11.3km s-min=10.9km az=25.0*

BJI ***19*** *23:15:39.0, 36°.35N×21°.42E, h33^{km}, mB5.2/26, mb4.9/41, Ms5.1/39, Ms7 4.8/36*

NEIC ***19*** *23:15:40.0, 36°.19N×21°.77E, h22^{km}, mb4.9/121, MS4.7/2, ML5.1(ATH), ML5.5(THE), After ATH.*

NEIC Felt at Kalamata and Peuki.

ATH ***19*** *23:15:40.0, 36°.19N×21°.77E, h22^{km}±2^{km}, MD4.7/12, ML5.1*

GCMT ***19*** *23:15:40.0±0.1, 36°.21N×21°.72E, h21^{km}, MW5.4/95, Moment Tensor Solution. s75,c119; s95,c184; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}0.05±.02; $M_{\theta\theta}$-0.66±.02; $M_{\phi\phi}$0.60±.02; $M_{r\theta}$0.24±.04; $M_{\theta\phi}$1.11±.02; $M_{\phi r}$-0.33±.04; Best double couple: $M_0$1.33800×10^{17} NP1:ϕ_s254.00000°, δ74.00000°, λ-5.00000°. NP2:ϕ_s346.00000°, δ85.00000°, λ-164.00000°. Principal axes: T 1.2740, Plg8.0000°, Azm119.0000°; N 0.1290, Plg73.0000°, Azm1.0000°; P -1.4030, Plg15.0000°, Azm211.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BGS ***19*** *23:15:41.4±2.2, 36°.66N×22°.57E, h22^{km}, mb5.1, MS4.8*

ISCJB ***19*** *23:15:41.4±0.4, 36°.34N±0°.02×21°.81E±0°.01, h30^{km}±3^{km}, mb4.9/157, MS4.8/61, Error ellipse: s-maj=2.6km s-min=1.6km az=15.3*

MOS ***19*** *23:15:41.1±1.2, 36°.33N×21°.82E, h30^{km}, mb5.1/68, MS4.8/35, Error ellipse: s-maj=3.7km s-min=1.9km az=105.3*

PDG ***19*** *23:15:41.1±0.7, 36°.41N×21°.64E, h5^{km}±4^{km}, MD5.4/9, ML5.2/10, Error ellipse: s-maj=2.6km s-min=1.8km az=90.0*

CSEM ***19*** *23:15:42.5±0.1, 36°.24N×21°.80E, h30^{km}, mb5.1/54, Ms4.7, Mw5.3, Error ellipse: s-maj=3.1km s-min=2.1km az=22.0*

SZGRF ***19*** *23:15:42.5, 36°.87N×22°.00E, h33^{km}, mb5.0, MS5.0, Southern Greece*

SFS ***19*** *23:15:45.0, 36°.40N×21°.80E, h43^{km}, ML4.9*

ISC 19 23:15:43.7±0.2**, 36°.31N**±0°.01×**21°.81E**±0°.01**, h35**^{km}±1^{km}**, h40**^{km}±2.2^{km}**:pP-P, n1281, σ1^{s}27**/1406**, mb4.9**/157**, MS4.8**/61**, 58C-76D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.59	354	ePN	Pn	23 15 53.4	-2.2
PYL				eSN	Sn	23 16 03.8	-0.2
PYL	PYLOS	0.59	354	ePn	Pn	23 15 53.4	-2.2
PYL				eSn	Sn	23 16 03.8	-0.2
ITM	Ithomi	0.88	6	ePN	Pn	23 15 59.1	-0.5
ITM				eSN	Sn	23 16 12.9	+1.8
ITM	Ithomi	0.88	6	ePn	Pn	23 15 59.1	-0.5
ITM				eSn	Sn	23 16 12.9	+1.8
KYTH	Kithira	0.99	91	ePN	Pn	23 16 00.3	-0.8
KYTH	Kithira	0.99	91	ePn	Pn	23 16 00.3	-0.8
VLI	Veliai	0.99	65	ePN	Pn	23 16 00.5	-0.7
VLI	Veliai	0.99	65	ePn	Pn	23 16 00.5	-0.7
VLX	Vlachokerasia	1.16	23	ePN	Pn	23 16 03.7	+0.3
VLX				eSN	Sn	23 16 21.8	+3.9
VLX	Vlachokerasia	1.16	23	ePn	Pn	23 16 03.7	+0.3
DID	Didima	1.65	43	ePN	Pn	23 16 11.9	+1.7
DID	Didima	1.65	43	ePn	Pn	23 16 11.9	+1.7
GUR	Goura	1.68	14	ePN	Pn	23 16 12.3	+1.7
GUR	Goura	1.68	14	ePn	Pn	23 16 12.3	+1.7
RLS	Riolos of Patr	1.77	351	ePN	Pn	23 16 13.9	+2.1
RLS	Riolos of Patr	1.77	351	ePn	Pn	23 16 13.9	+2.1
LTK	Loutraki	1.95	28	ePN	Pn	23 16 17.4	+3.1
NAIG	Nisos Aigina	1.97	42	ePB	Pn	23 16 15.7	+1.1
VLS	Valsamata	2.11	333	ePB	Pn	23 16 16.9	+0.4
EFP	Efpalio	2.12	2	ePB	Pn	23 16 19.5	+2.9
VAM	Vamos	2.14	114	ePN	Pn	23 16 17.0	+0.1
VAM	Vamos	2.14	114	ePn	Pn	23 16 17.0	+0.1
ATH	Athens Observa	2.25	42	ePN	Pn	23 16 19.1	+0.6
ATH	Athens Observa	2.25	42	ePn	Pn	23 16 19.1	+0.6
PTL	Penteli	2.39	43	ePN	Pn	23 16 21.5	+1.2
PTL	Penteli	2.39	43	ePn	Pn	23 16 21.5	+1.2
LKR	Lokris	2.52	22	ePN	Pn	23 16 23.4	+1.2
LKR	Lokris	2.52	22	ePn	Pn	23 16 23.4	+1.2
EVR	Evrytania	2.61	360	⇓iPB	Pn	23 16 26.8	+3.5
IDI	Anoyia	2.70	111	ePN	Pn	23 16 24.6	0.0
IDI	Anoyia	2.70	111	Pn	Pn	23 16 23.8	-0.8
	24nm,0.3s,baz=283,slow=15,SNR=141						
IDI				Pg	Pn	23 16 31.2	+6.5
	92nm,0.3s,baz=288,slow=17,SNR=68						
IDI	Anoyia	2.70	111	ePn	Pn	23 16 24.6	0.0
AGG	Agios Georgios	2.74	8	ePB	Pn	23 16 28.1	+2.9
SIVA	Sivas	2.76	117	P	Pn	23 16 25.0	-0.4
SIVA	Sivas	2.76	117	P	Pn	23 16 25.0	-0.4
XOR	Xorichti	3.24	19	P	Pn	23 16 32.2	+0.1
XOR	Xorichti	3.24	19	P	Pn	23 16 32.2	+0.1
THL	Klokotos Trika	3.26	3	ePN	Pn	23 16 34.0	+1.7
THL	Klokotos Trika	3.26	3	ePn	Pn	23 16 34.0	+1.7
AOS	Alonnisos	3.29	29	P	Pn	23 16 32.8	0.0
AOS	Alonnisos	3.29	29	P	Pn	23 16 32.8	0.0
IGT	Igoumenitsa	3.43	340	P	Pn	23 16 35.0	+0.4
IGT	Igoumenitsa	3.43	340	P	Pn	23 16 35.0	+0.4
JAN	Janina	3.43	347	ePN	Pn	23 16 36.4	+1.7
JAN	Janina	3.43	347	ePn	Pn	23 16 36.4	+1.7
MEV	Metsovon	3.50	353	P	Pn	23 16 38.1	+2.4
MEV	Metsovon	3.50	353	P	Pn	23 16 38.1	+2.4
KEK	Kerkira	3.75	336	ePN	Pn	23 16 39.1	0.0
KEK	Kerkira	3.75	336	ePn	Pn	23 16 39.1	0.0
ZKR	Zakros	3.77	107	ePN	Pn	23 16 39.3	-0.1
ZKR	Zakros	3.77	107	ePn	Pn	23 16 39.3	-0.1
LIT	Litokhoron	3.83	8	P	Pn	23 16 40.8	+0.7
LIT	Litokhoron	3.83	8	P	Pn	23 16 40.8	+0.7
PAIG	Paliouri	3.90	22	P	Pn	23 16 40.6	-0.6
PAIG	Paliouri	3.90	22	P	Pn	23 16 40.6	-0.6
KZN	Kozani	3.99	360	ePN	Pn	23 16 44.0	+1.6
KZN	Kozani	3.99	360	ePn	Pn	23 16 44.0	+1.6
SMG	Samos	4.26	69	ePN	Pn	23 16 47.0	+1.0
SMG	Samos	4.26	69	ePn	Pn	23 16 47.0	+1.0
PLG	Polygyros	4.26	17	ePN	Pn	23 16 47.1	+1.1
PLG	Polygyros	4.26	17	ePn	Pn	23 16 47.1	+1.1
SIGR	SIGRI	4.32	47	P	Pn	23 16 46.6	-0.3
SIGR	SIGRI	4.32	47	P	Pn	23 16 46.6	-0.3
URLA	Izmir	4.33	60	iP	Pn	23 16 47.5	+0.5
URLA	Izmir	4.33	60	iP	Pn	23 16 47.5	+0.5
OUR	Ouranopolis	4.37	22	P	Pn	23 16 47.6	+0.1
OUR	Ouranopolis	4.37	22	P	Pn	23 16 47.6	+0.1
HORT	Hortiatis	4.40	13	P	Pn	23 16 48.4	+0.4
HORT	Hortiatis	4.40	13	P	Pn	23 16 48.4	+0.4
KARP	Karpathos	4.41	98	ePN	Pn	23 16 48.0	-0.1
KARP	Karpathos	4.41	98	ePn	Pn	23 16 48.0	-0.1
THE	Thessaloniki	4.41	11	P	Pn	23 16 48.6	+0.4
THE	Thessaloniki	4.41	11	P	Pn	23 16 48.6	+0.4
LIA	Limnos Island	4.46	36	P	Pn	23 16 48.4	-0.4
LIA	Limnos Island	4.46	36	P	Pn	23 16 48.4	-0.4
BODT	Bodrum	4.48	79	ePN	Pn	23 16 50.1	+1.0
BODT	Bodrum	4.48	79	ePn	Pn	23 16 50.1	+1.0
FNA	Florina	4.48	356	P	Pn	23 16 50.3	+1.2
FNA	Florina	4.48	356	P	Pn	23 16 50.3	+1.2
LTBQ	Tobruq	4.58	157	iP	Pn	23 16 48.9	-1.7
	SNR=43						
BDRM	Kayabasi	4.59	79	iP	Pn	23 16 50.1	-0.5
BDRM	Kayabasi	4.59	79	iP	Pn	23 16 50.1	-0.5
PRK	Paraskevi	4.59	49	ePN	Pn	23 16 51.7	+1.1
PRK	Paraskevi	4.59	49	ePn	Pn	23 16 51.7	+1.1
BLCB	Balcova	4.65	62	ePN	Pn	23 16 52.6	+1.1
BLCB	Balcova	4.65	62	P	Pn	23 16 50.7	-0.8
BLCB	Balcova	4.65	62	P	Pn	23 16 50.7	-0.8
BLCB	Balcova	4.65	62	ePn	Pn	23 16 52.6	+1.1
DAT	Datca	4.66	83	ePN	Pn	23 16 52.6	+1.0
DAT	Datca	4.66	83	ePn	Pn	23 16 52.6	+1.0
GRG	Griva	4.67	5	P	Pn	23 16 52.4	+0.8
GRG	Griva	4.67	5	P	Pn	23 16 52.4	+0.8
SOH	Sokhos	4.67	15	P	Pn	23 16 52.4	+0.8
SOH	Sokhos	4.67	15	P	Pn	23 16 52.4	+0.8
IZM	Izmir	4.82	63	ePN	Pn	23 16 55.8	+2.1
BOZC	Bozcaada	4.86	42	iP	Pn	23 16 50.1	-4.2
MLSB	Milas	4.89	77	ePN	Pn	23 16 55.8	+1.1
MLSB	Milas	4.89	77	ePn	Pn	23 16 55.8	+1.1
AYVA	Ayvalik	4.89	51	iP	Pn	23 16 55.3	+0.7
AYVA	Ayvalik	4.89	51	iP	Pn	23 16 55.3	+0.6
KNT	Kendrikon	4.92	10	P	Pn	23 16 55.7	+0.6
KNT	Kendrikon	4.92	10	P	Pn	23 16 55.7	+0.6
SOI	Samo	4.92	293	P	Pn	23 16 54.6	-0.6
SOI	Samo	4.92	293	Pn	Pn	23 16 54.6	-0.6
TIP	Timpagrande	4.93	307	ePn	Pn	23 16 54.6	-0.7
TIP	Timpagrande	4.93	307	ePn	Pn	23 16 54.6	-0.6
GRI	Girifalco	4.97	302	P	Pn	23 16 55.1	-0.7
GRI	Girifalco	4.97	302	Pn	Pn	23 16 55.1	-0.7
EZN	Ezine	5.00	44	ePN	Pn	23 16 59.0	+2.8
EZN	Ezine	5.00	44	ePn	Pn	23 16 59.0	+2.8
SRS	Serrai	5.00	16	P	Pn	23 16 56.5	+0.3
SRS	Serrai	5.00	16	P	Pn	23 16 56.5	+0.3
GADA	Gvkgeada	5.04	38	ePN	Pn	23 17 00.1	+3.4
GADA	Gvkgeada	5.04	38	ePn	Pn	23 17 00.1	+3.4
AYDN	Tasoluk	5.04	73	iP	Pn	23 16 54.5	-2.3
AYDN	Tasoluk	5.04	73	iP	Pn	23 16 54.5	-2.3
KRUS	Krusevo	5.08	355	ePn	Pn	23 16 57.5	+0.3
KRUS				eSg	Sn	23 17 55.4	+0.8
KRUS	Krusevo	5.08	355	ePn	Pn	23 16 57.5	+0.3
ARG	Arkhangelos	5.10	89	ePN	Pn	23 16 58.1	+0.5
ARG	Arkhangelos	5.10	89	ePn	Pn	23 16 58.1	+0.5
CEL	Celeste	5.11	294	ePn	Pn	23 16 57.0	-0.7
	447nm,0.8s						
CEL				eSn	Sn	23 17 51.4	-4.1
CEL	Celeste	5.11	294	ePn	Pn	23 16 57.0	-0.7
	447nm,0.8s						
CEL				eSn	Sn	23 17 51.3	-4.1
MTTG	Motta San Giov	5.17	291	Pn	Pn	23 16 58.0	-0.6
	2µm,0.9s						
MTTG	Motta San Giov	5.17	291	Pn	Pn	23 16 58.0	-0.6
	2µm,0.9s						
SCLL	Scilla	5.24	294	Pn	Pn	23 16 58.9	-0.6
	415nm,1.1s						
SCLL	Scilla	5.24	294	Pn	Pn	23 16 58.9	-0.6
	415nm,1.1s						
TIR	Tirane	5.26	344	P	Pn	23 16 59.5	-0.3
TIR	Tirane	5.26	344	P	Pn	23 16 59.5	-0.3
YER	Yerkesik	5.26	79	ePN	Pn	23 17 01.2	+1.3
YER	Yerkesik	5.26	79	ePn	Pn	23 17 01.2	+1.4
MSI	Messina ING	5.34	293	P	Pn	23 17 00.8	-0.1
MSI				pmax	pmax		
	comp=Z,1µm,0.4s						
MSI	Messina ING	5.34	293	Pn	Pn	23 17 00.8	-0.1
	comp=Z,1µm,0.4s						
MSI	Messina ING	5.34	293	Pn	Pn	23 17 00.8	-0.1
	comp=Z,1µm,0.4s						
AKS	Akhisar	5.41	60	ePN	Pn	23 17 04.5	+2.6
AKS	Akhisar	5.41	60	ePn	Pn	23 17 04.5	+2.6
HAVL	Avola	5.42	279	Pn	Pn	23 17 00.1	-1.9
	comp=Z,346nm,0.6s						
HAVL	Avola	5.42	279	Pn	Pn	23 17 00.1	-1.9
	comp=Z,346nm,0.6s						
SSY	Sortino	5.48	281	Pn	Pn	23 17 01.6	-1.2
	comp=Z,441nm,0.7s						
SSY	Sortino	5.48	281	Pn	Pn	23 17 01.6	-1.2
	comp=Z,441nm,0.7s						
MMB	Musomiste	5.48	15	iP	Pn	23 17 02.6	-0.2
DALT	Dalyan (Mudla)	5.51	83	ePN	Pn	23 17 04.4	+1.1
DALT	Dalyan (Mudla)	5.51	83	ePn	Pn	23 17 04.4	+1.1
LJBD	Adjabya	5.54	195	iP	Pn	23 17 01.6	-2.1
	SNR=43						
ENEZ	Enez	5.58	36	ePN	Pn	23 17 09.8	+5.6
LPK	Lapseki	5.62	42	ePN	Pn	23 17 07.6	+2.9
LPK	Lapseki	5.62	42	ePn	Pn	23 17 07.6	+2.9
KKB	Krupnik	5.64	10	iP	Pn	23 17 06.1	+1.1
ORI	Oriolo Calabro	5.65	313	P	Pn	23 17 05.1	0.0
ORI				pmax	pmax		
	comp=Z,1µm,0.4s						
ORI	Oriolo Calabro	5.65	313	Pn	Pn	23 17 05.1	0.0
	comp=Z,1µm,0.4s						
ORI	Oriolo Calabro	5.65	313	Pn	Pn	23 17 05.1	0.0
	comp=Z,1µm,0.4s						
ALN	Alexandroupoli	5.66	35	P	Pn	23 17 00.6	-4.6
SKO	Skopje	5.67	357	ePn	Pn	23 17 06.3	+0.9
SKO				eSg	Sn	23 18 11.1	+2.0
HMDC	Modica	5.69	279	Pn	Pn	23 17 04.6	-1.1
	comp=Z,398nm,0.7s						
HMDC	Modica	5.69	279	Pn	Pn	23 17 04.6	-1.1
	comp=Z,398nm,0.7s						
HVZN	Vizzini	5.77	281	Pn	Pn	23 17 05.9	-0.9
	comp=Z,691nm,0.5s						
HVZN	Vizzini	5.77	281	Pn	Pn	23 17 05.9	-0.9
	comp=Z,691nm,0.5s						
MANT	Manisa	5.79	66	iP	Pn	23 17 07.6	+0.4
LTRZ	Laterza	5.81	319	Pn	Pn	23 17 06.4	-0.9
	comp=Z,181nm,0.3s						
LTRZ	Laterza	5.81	319	Pn	Pn	23 17 06.4	-0.9
	comp=Z,181nm,0.3s						
RZN	Rozhen	5.83	22	iP	Pn	23 17 08.8	+1.2
BALB	Balikesir	5.83	53	ePN	Pn	23 17 10.8	+3.2
FETY	Fethiye	5.87	85	ePN	Pn	23 17 08.7	+0.5
FETY	Fethiye	5.87	85	ePn	Pn	23 17 08.7	+0.5
KULA	Kula-Manisa	5.88	66	ePN	Pn	23 17 11.9	+3.6
WDD	Wield Dalam	5.92	268	ePn	Pn	23 17 08.5	-0.4
	comp=Z,1µm,1.0s						
WDD				eSn	Sn	23 18 11.4	-4.1
WDD	Wield Dalam	5.92	268	ePn	Pn	23 17 08.5	-0.4
	comp=Z,1µm,1.0s						
DENT	Denizli	5.95	74	ePN	Pn	23 17 11.9	+2.6
DENT	Denizli	5.95	74	ePn	Pn	23 17 11.9	+2.6
CUC	Castrocucco	5.99	310	ePn	Pn	23 17 09.6	-0.2
	comp=Z,729nm,0.6s						
CUC				eSn	Sn	23 18 17.2	+0.1
CUC	Castrocucco	5.99	310	ePn	Pn	23 17 09.6	-0.2
	comp=Z,729nm,0.6s						
CUC				eSn	Sn	23 18 17.2	0.0
ULC	Ulcinj	5.99	341	⇓iPn	Pn	23 17 08.8	-1.0
ULC				eSn	Sn	23 18 16.9	-0.2
ULC	Ulcinj	5.99	341	⇓iPn	Pn	23 17 08.8	-1.0
ULC				eSn	Sn	23 18 16.9	-0.2
SLNA	Salina	5.99	294	Pn	Pn	23 17 09.4	-0.5
	comp=Z,556nm,0.5s						
SLNA	Salina	5.99	294	Pn	Pn	23 17 09.4	-0.5
	comp=Z,556nm,0.5s						
KDZ	Kurdzhali	6.03	27	iP	Pn	23 17 08.8	-1.5
VAE	Valguarnera	6.05	283	Pn	Pn	23 17 11.8	+1.2
	comp=Z,6.7nm,0.3s,baz=311,slow=2.1,SNR=22						
VAE				Sn	Sn	23 18 18.0	-0.6
	comp=Z,24nm,0.3s,baz=215,slow=11,SNR=4.2						
VAE				LR	LR	23 19 03.1	
	comp=Z,6µm,21.9s,baz=353,slow=33						
VAE	Valguarnera	6.05	283	Pn	Pn	23 17 11.8	+1.2
VAE				Sn	Sn	23 18 18.0	-0.6
VAE				LR	LR	23 19 03.1	
VAE	Valguarnera	6.05	283	Pn	Pn	23 17 11.8	+1.2
VAE				Sn	Sn	23 18 18.0	-0.6
RAFF	Raffo Rosso	6.05	281	Pn	Pn	23 17 10.9	+0.2
	comp=Z,555nm,0.9s						
RAFF	Raffo Rosso	6.05	281	Pn	Pn	23 17 10.9	+0.2
	comp=Z,555nm,0.9s						
PTRP	Pietrapertosa	6.17	315	Pn	Pn	23 17 12.8	+0.5
	comp=Z,768nm,0.6s						
PTRP	Pietrapertosa	6.17	315	Pn	Pn	23 17 12.8	+0.5
	comp=Z,768nm,0.6s						
PLD	Plovdiv	6.21	20	iP	Pn	23 17 13.0	+0.2
PLD	Plovdiv	6.21	20	P	Pn	23 17 05.3	-7.5
EDC	Edincik	6.24	48	ePN	Pn	23 17 15.1	+1.9
EDC	Edincik	6.24	48	ePn	Pn	23 17 15.1	+1.9
MGR	Morigerati	6.24	310	Pn	Pn	23 17 12.7	-0.5
	comp=Z,224nm,0.5s						
MGR	Morigerati	6.24	310	Pn	Pn	23 17 12.7	-0.5
	comp=Z,224nm,0.5s						
BNT	Bandirma	6.28	48	ePN	Pn	23 17 17.3	+3.5
AKAS	Kas	6.29	88	iP	Pn	23 17 11.1	-3.0
DST	Dursunbey	6.31	56	ePN	Pn	23 17 18.3	+4.1
VTS	Vitosha	6.37	9	iP	Pn	23 17 17.2	+2.2
VTS	Vitosha	6.37	9	P	Pn	23 17 13.9	-1.1
VTS	Vitosha	6.37	9	P	Pn	23 17 13.9	-1.1
BUM	Brajici-Budva	6.40	340	⇑iPn	Pn	23 17 14.2	-1.2
BUM				eSn	Sn	23 18 26.3	-0.9
BUM	Brajici-Budva	6.40	340	⇑iPn	Pn	23 17 14.2	-1.2
BUM				eSn	Sn	23 18 26.3	-0.9
CSLB	Castelbuono	6.41	287	Pn	Pn	23 17 16.4	+0.8
	comp=Z,263nm,0.8s						
ACER	Acerenza	6.42	316	Pn	Pn	23 17 15.4	-0.3
	comp=Z,520nm,0.4s						

ACER	Acerenza	6.42	316	Pn	Pn	23 17 15.4	-0.3
	comp=Z,520nm,0.4s						
DIM	Dimitrovgrad	6.42	26	i P	Pn	23 17 18.6	+2.9
PDG	Podgorica	6.43	343	⇑iPn	Pn	23 17 14.6	-1.2
PDG				eSn	Sn	23 18 26.7	-1.2
TTG	Podgorica	6.43	343	⇑iPn	Pn	23 17 14.6	-1.2
TTG				eSn	Sn	23 18 26.7	-1.2
TTG	Podgorica	6.43	343	⇑iPn	Pn	23 17 14.6	-1.2
TTG				eSn	Sn	23 18 26.7	-1.2
PVY	Plav	6.44	348	⇓iPn	Pn	23 17 16.6	+0.6
PVY				eSn	Sn	23 18 28.2	0.0
PVY	Plav	6.44	348	⇓iPn	Pn	23 17 16.6	+0.6
PVY				eSn	Sn	23 18 28.2	0.0
GIB	Gibilmanna	6.44	287	P	Pn	23 17 16.7	+0.7
GIB				pmax	pmax		
	comp=Z,1µm,0.7s						
GIB	Gibilmanna	6.44	287	Pn	Pn	23 17 16.7	+0.7
	comp=Z,1µm,0.7s						
GIB	Gibilmanna	6.44	287	Pn	Pn	23 17 16.7	+0.7
	comp=Z,1µm,0.7s						
TKR	Tekirdag	6.47	42	ePN	Pn	23 17 19.4	+2.9
TKR	Tekirdag	6.47	42	ePn	Pn	23 17 19.4	+2.9
BARS	Barje	6.50	0	⇓iPn	Pn	23 17 17.2	+0.4
ELL	Elmali	6.53	84	ePN	Pn	23 17 18.3	+1.0
ELL	Elmali	6.53	84	ePn	Pn	23 17 18.3	+1.0
SGO	Sicignano	6.64	312	P	Pn	23 17 18.8	0.0
SGO	Sicignano	6.64	312	Pn	Pn	23 17 18.8	0.0
HCY	Herceg Novi	6.65	338	⇓iPn	Pn	23 17 16.7	-2.1
HCY				eSn	Sn	23 18 32.4	-0.9
HCY	Herceg Novi	6.65	338	⇓iPn	Pn	23 17 16.7	-2.1
HCY				eSn	Sn	23 18 32.4	-0.9
MRLC	Muro Lucano	6.66	314	Pn	Pn	23 17 19.0	0.0
	comp=Z,714nm,1.3s						
MRLC	Muro Lucano	6.66	314	Pn	Pn	23 17 19.0	0.0
	comp=Z,714nm,1.3s						
CRLT	Corlu	6.68	42	ePN	Pn	23 17 21.6	+2.3
CRLT	Corlu	6.68	42	ePn	Pn	23 17 21.6	+2.3
BEY	Berane	6.72	348	⇓iPn	Pn	23 17 20.1	+0.3
BEY				eSn	Sn	23 18 34.6	-0.5
IVA	Berane	6.72	348	⇓iPn	Pn	23 17 20.1	+0.3
IVA				eSn	Sn	23 18 34.6	-0.5
IVA	Berane	6.72	348	⇓iPn	Pn	23 17 20.1	+0.3
IVA				eSn	Sn	23 18 34.6	-0.5
EDRB	Edirne	6.73	33	ePN	Pn	23 17 24.8	+4.8
LSRT	Sirt	6.75	221	i P	Pn	23 17 17.4	-2.9
	SNR=41						
NKY	Niksic	6.85	342	⇓iPn	Pn	23 17 20.4	-1.2
NKY				eSn	Sn	23 18 37.6	-0.7
NKY	Niksic	6.85	342	⇓iPn	Pn	23 17 20.4	-1.2
NKY				eSn	Sn	23 18 37.6	-0.7
LMSR	Misrath	6.90	237	i P	Pn	23 17 19.6	-2.7
	SNR=41						
CSSN	Cassano Irpino	7.00	313	Pn	Pn	23 17 23.8	+0.2
	comp=Z,151nm,0.5s						
CSSN	Cassano Irpino	7.00	313	Pn	Pn	23 17 23.8	+0.2
	comp=Z,151nm,0.5s						
SLVT	Silivri	7.01	44	ePN	Pn	23 17 25.8	+2.0
SLVT	Silivri	7.01	44	ePn	Pn	23 17 25.8	+2.0
BRY	Bratogost	7.05	340	⇓iPn	Pn	23 17 22.6	-1.8
BRY				eSn	Sn	23 18 42.3	-1.0
BRY	Bratogost	7.05	340	⇓iPn	Pn	23 17 22.6	-1.8
BRY				eSn	Sn	23 18 42.3	-1.0
NISS		7.09	1	⇓iPn	Pn	23 17 24.8	-0.1
SJES	Sjenica	7.09	349	⇓iPn	Pn	23 17 25.5	+0.6
ISP	Isparta	7.12	75	ePN	Pn	23 17 27.5	+2.2
ISP	Isparta	7.12	75	c iP	Pn	23 17 28.1	+2.8
ISP	Isparta	7.12	75	ePn	Pn	23 17 28.8	+3.5
BCK	Bucak	7.13	78	ePN	Pn	23 17 26.9	+1.5
BCK	Bucak	7.13	78	ePn	Pn	23 17 26.9	+1.5
ALT	Altintas	7.13	65	ePN	Pn	23 17 29.1	+3.6
CTKS	Kestanelik-??a	7.18	45	ePN	Pn	23 17 28.0	+1.8
CTKS	Kestanelik-??a	7.18	45	ePn	Pn	23 17 28.0	+1.9
LUJL	Ujela	7.18	184	i P	Pn	23 17 23.6	-2.6
	SNR=41						
MRB1	Monte Rocchett	7.19	314	Pn	Pn	23 17 26.9	+0.6
	comp=Z,1µm,0.5s						
MRB1	Monte Rocchett	7.19	314	Pn	Pn	23 17 26.9	+0.6
	comp=Z,1µm,0.5s						
MPEP	Malo Peshtene	7.20	11	i P	Pn	23 17 28.2	+1.9
CTYL	Yal??k??y-??at	7.22	42	ePN	Pn	23 17 31.2	+4.5
RGNG	Rignano Grg	7.23	320	Pn	Pn	23 17 25.9	-0.9
RGNG	Rignano Grg	7.23	320	Pn	Pn	23 17 25.9	-0.9
UPM	Unac-Piva	7.24	343	⇓iPn	Pn	23 17 26.8	-0.2
UPM				eSn	Sn	23 18 47.7	-0.2
UPM	Unac-Piva	7.24	343	⇓iPn	Pn	23 17 26.8	-0.2
UPM				eSn	Sn	23 18 47.7	-0.2
PLE	Pljevlja	7.26	346	⇑iPn	Pn	23 17 27.1	-0.1
PLE				eSn	Sn	23 18 48.0	-0.3
PLE	Pljevlja	7.26	346	⇑iPn	Pn	23 17 27.1	-0.1
PLE				eSn	Sn	23 18 48.0	-0.3
STON	Ston	7.29	335	⇓iPn	Pn	23 17 25.5	-2.1
STON				Sn	Sn	23 18 45.9	-3.0
STON	Ston	7.29	335	⇓iPn	Pn	23 17 25.5	-2.1
BGKT	Bogazkoy	7.30	46	ePN	Pn	23 17 31.2	+3.4
SHUT	Suhut-Afyon	7.30	70	ePN	Pn	23 17 29.1	+1.2
SHUT	Suhut-Afyon	7.30	70	ePn	Pn	23 17 29.1	+1.2
PSB1	Pescosannita	7.35	314	Pn	Pn	23 17 28.8	+0.3
	comp=Z,535nm,1.0s						
PSB1	Pescosannita	7.35	314	Pn	Pn	23 17 28.8	+0.3
	comp=Z,535nm,1.0s						
ISK	Istanbul-Kandi	7.39	48	ePN	Pn	23 17 32.3	+3.2
ADVT	Abdulvahap	7.46	54	ePN	Pn	23 17 32.3	+2.2
ADVT	Abdulvahap	7.46	54	ePn	Pn	23 17 32.3	+2.3
KLYT	Kilyos	7.50	47	ePN	Pn	23 17 32.3	+1.7
KLYT	Kilyos	7.50	47	ePn	Pn	23 17 32.3	+1.8
BOLS	Boljevac	7.51	1	⇓iPn	Pn	23 17 29.9	-0.8
FG2	Serracapriola	7.54	319	Pn	Pn	23 17 30.9	-0.2
	comp=Z,3µm,1.6s						
FG2	Serracapriola	7.54	319	Pn	Pn	23 17 30.9	-0.2
	comp=Z,3µm,1.6s						
CIGN	Sant'Elia a Pi	7.58	317	Pn	Pn	23 17 32.0	+0.4
	comp=Z,481nm,0.8s						
CIGN	Sant'Elia a Pi	7.58	317	Pn	Pn	23 17 32.0	+0.4
	comp=Z,481nm,0.8s						
GRUS	Gruza	7.62	354	⇓iPn	Pn	23 17 30.6	-1.6
SWA2		7.68	155	⇑P	Pn	23 17 30.1	-2.9
SWA2				S	Sn	23 18 51.8	-7.0
SILT	Sile	7.80	49	ePN	Pn	23 17 38.7	+4.1
ESKT	Eskisehir	7.83	63	ePN	Pn	23 17 38.7	+3.6
DIVS	Divibare	7.91	350	⇓iPn	Pn	23 17 34.8	-1.3
MIDA	Miranda	7.94	314	Pn	Pn	23 17 36.8	+0.2
	comp=Z,336nm,0.6s						
MIDA	Miranda	7.94	314	Pn	Pn	23 17 36.8	+0.2
	comp=Z,336nm,0.6s						
RNI2	Rionero Sannit	8.04	314	Pn	Pn	23 17 39.4	+1.5
	comp=Z,933nm,1.3s						
RNI2	Rionero Sannit	8.04	314	Pn	Pn	23 17 39.4	+1.5
	comp=Z,933nm,1.3s						
CRAR	CRAIOVA	8.15	10	P	Pn	23 17 41.5	+2.0
CRAR	CRAIOVA	8.15	10	P	Pn	23 17 41.5	+2.0
SDI	San Donato	8.24	313	P	Pn	23 17 40.1	-0.6
SDI				pmax	pmax		
	comp=Z,76nm,0.4s						
SDI	San Donato	8.24	313	Pn	Pn	23 17 40.1	-0.6
	comp=Z,76nm,0.4s						
SDI	San Donato	8.24	313	Pn	Pn	23 17 40.1	-0.6
	comp=Z,76nm,0.4s						
SVRH	Sivrihisar-ESK	8.29	65	ePN	Pn	23 17 45.1	+3.7
INTR	Introdacqua	8.38	315	Pn	Pn	23 17 43.1	+0.6
	comp=Z,614nm,1.0s						
INTR	Introdacqua	8.38	315	Pn	Pn	23 17 43.1	+0.6
	comp=Z,614nm,1.0s						
VVLD	Villa Vallelon	8.45	314	Pn	Pn	23 17 43.1	-0.5
	comp=Z,434nm,1.0s						
VVLD	Villa Vallelon	8.45	314	Pn	Pn	23 17 43.1	-0.5
	comp=Z,434nm,1.0s						
MDU	Mudurnu	8.47	58	ePN	Pn	23 17 47.3	+3.5
KONT	Konya--Tatoy	8.58	76	ePN	Pn	23 17 47.3	+1.9
KONT	Konya--Tatoy	8.58	76	ePn	Pn	23 17 47.3	+1.9
HDMB	Hadim	8.61	82	ePN	Pn	23 17 45.1	-0.6
HDMB	Hadim	8.61	82	ePn	Pn	23 17 45.1	-0.6
PTQR	Pietraquaria	8.67	314	Pn	Pn	23 17 46.8	+0.2
	comp=Z,367nm,0.9s						
PTQR	Pietraquaria	8.67	314	Pn	Pn	23 17 46.8	+0.2
	comp=Z,367nm,0.9s						
CERT	Cerreto	8.88	312	Pn	Pn	23 17 48.8	-0.6
	comp=Z,107nm,0.8s						
CERT	Cerreto	8.88	312	Pn	Pn	23 17 48.8	-0.6
	comp=Z,107nm,0.8s						
TERO	Teramo	8.95	317	Pn	Pn	23 17 50.9	+0.5
	comp=Z,171nm,0.8s						
TERO	Teramo	8.95	317	Pn	Pn	23 17 50.9	+0.5
	comp=Z,171nm,0.8s						
FIAM	Fiamignano	8.99	314	Pn	Pn	23 17 51.8	+0.8
	comp=Z,503nm,1.5s						
FIAM	Fiamignano	8.99	314	Pn	Pn	23 17 51.8	+0.8
	comp=Z,503nm,1.5s						
MTCE	Montecelio	9.06	312	Pn	Pn	23 17 51.6	-0.4
	comp=Z,131nm,1.1s						
MTCE	Montecelio	9.06	312	Pn	Pn	23 17 51.6	-0.4
	comp=Z,131nm,1.1s						
ALAS	Alassa	9.09	251	i P	Pn	23 17 49.4	-3.0
	SNR=41						
GZR	Gura Zlata	9.11	4	⇑iP	Pn	23 17 53.0	+0.4
GZR	Gura Zlata	9.11	4	P	Pn	23 17 53.0	+0.4
BZS	Buzias	9.30	359	⇑iP	Pn	23 17 54.1	-1.1
BZS	Buzias	9.30	359	⇑P	Pn	23 17 54.1	-1.1
BZS	Buzias	9.30	359	P	Pn	23 17 54.1	-1.1
MNS	Montasola	9.32	313	P	Pn	23 17 55.4	-0.1
MNS				pmax	pmax		
	comp=Z,396nm,1.9s						
MNS	Montasola	9.32	313	Pn	Pn	23 17 55.4	-0.1
	comp=Z,396nm,1.9s						
MNS	Montasola	9.32	313	Pn	Pn	23 17 55.4	-0.1
	comp=Z,396nm,1.9s						
NRCA	Norcia	9.36	317	Pn	Pn	23 17 56.9	+0.9
	comp=Z,104nm,0.7s						
NRCA	Norcia	9.36	317	Pn	Pn	23 17 56.9	+0.9
	comp=Z,104nm,0.7s						
VOIR		9.44	14	⇓iP	Pn	23 17 58.7	+1.5
VOIR		9.44	14	⇓P	Pn	23 17 58.7	+1.5
VOIR		9.44	14	P	Pn	23 17 58.7	+1.5
CSS	Prodhromos	9.47	95	ePn	Pn	23 17 58.0	+0.3
	comp=Z,86nm,0.8s						
CSS				eSn	Sn	23 19 41.0	-1.8
CSS	Prodhromos	9.47	95	ePn	Pn	23 17 58.0	+0.4
	comp=Z,86nm,0.8s						
SULT	Sultanhani-AKS	9.52	75	ePN	Pn	23 18 00.1	+1.9
SULT	Sultanhani-AKS	9.52	75	ePn	Pn	23 18 00.2	+2.0
TIRR	Tirgusor	9.57	30	⇓iP	Pn	23 18 00.4	+1.5
TIRR	Tirgusor	9.57	30	ePn	Pn	23 17 59.8	+0.9
	comp=Z,283nm,1.7s						
TIRR	Tirgusor	9.57	30	ePn	Pn	23 17 59.8	+0.9
	comp=Z,283nm,1.7s						
HARR	Harsova	9.58	27	⇑iP	Pn	23 18 00.3	+1.3
HARR	Harsova	9.58	27	⇑P	Pn	23 18 00.2	+1.2
HARR	Harsova	9.58	27	⇑P	Pn	23 18 00.2	+1.2
AOI	Ancona	9.59	321	Pn	Pn	23 17 57.8	-1.4
	comp=Z,254nm,1.1s						
AOI	Ancona	9.59	321	Pn	Pn	23 17 57.8	-1.4
	comp=Z,254nm,1.1s						
CING	Cingoli	9.68	319	Pn	Pn	23 18 00.2	-0.2
	comp=Z,107nm,0.8s						
CING	Cingoli	9.68	319	Pn	Pn	23 18 00.2	-0.2
	comp=Z,107nm,0.8s						
MLR	Muntele Rosu	9.69	18	⇑iP	Pn	23 18 03.2	+2.6
MLR	Muntele Rosu	9.69	18	Pn	Pn	23 17 59.5	-1.1
	comp=Z,0.3nm,0.3s,baz=225,slow=5.7,SNR=3.9						
MLR	Muntele Rosu	9.69	18	⇑P	Pn	23 18 03.1	+2.6
MLR	Muntele Rosu	9.69	18	P	Pn	23 18 03.2	+2.6
SNTG	Esanatoglia	9.73	318	Pn	Pn	23 18 01.6	+0.5
	comp=Z,274nm,1.3s						
SNTG	Esanatoglia	9.73	318	Pn	Pn	23 18 01.6	+0.5
	comp=Z,274nm,1.3s						
ASS	Assisi	9.76	317	P	Pn	23 18 03.1	+1.6
ASS				pmax	pmax		
	comp=Z,108nm,0.9s						
ASS	Assisi	9.76	317	Pn	Pn	23 18 03.1	+1.6
	comp=Z,108nm,0.9s						
ASS	Assisi	9.76	317	Pn	Pn	23 18 03.1	+1.6
	comp=Z,108nm,0.9s						
NVLJ	Novalja	9.79	329	ePn	Pn	23 18 01.9	-0.1
NVLJ				Sn	Sn	23 19 44.3	-6.4
NVLJ	Novalja	9.79	329	ePn	Pn	23 18 01.8	-0.2
BRTR	Keskin Array B	9.94	66	Pn	Pn	23 18 06.1	+2.2
	comp=Z,0.4nm,0.3s,baz=249,slow=13,SNR=19						
BRTR	Keskin Array B	9.94	66	Pn	Pn	23 18 06.1	+2.2
RHK3	Tenkes	9.94	345	⇑eP	Pn	23 18 01.9	-2.1
HNAT	Natroun	9.94	130	⇓P	Pn	23 18 00.3	-3.8
HNAT	Natroun	9.94	130	P	Pn	23 18 00.3	-3.8
HMYD	Mayadein	9.95	128	⇓P	Pn	23 18 00.3	-3.8
HMYD	Mayadein	9.95	128	P	Pn	23 18 00.3	-3.9
MURB	Monte Urbino	9.96	317	Pn	Pn	23 18 06.2	+1.9
	comp=Z,276nm,0.9s						
MURB	Monte Urbino	9.96	317	Pn	Pn	23 18 06.2	+1.9
	comp=Z,276nm,0.9s						
AWBH		9.96	141	⇓P	Pn	23 18 00.9	-3.5
AWBH		9.96	141	P	Pn	23 18 00.9	-3.5
FSSB	Fossombrone	10.12	320	Pn	Pn	23 18 05.9	-0.5
	comp=Z,138nm,0.5s						
FSSB	Fossombrone	10.12	320	Pn	Pn	23 18 05.9	-0.5
	comp=Z,138nm,0.5s						
KEST	Kesra	10.12	270	Pn	Pn	23 18 07.2	+0.7
	comp=Z,0.3nm,0.3s,baz=46,slow=8.6,SNR=14						
KEST				LR	LR	23 22 04.7	
	comp=Z,2µm,21.4s,baz=29,slow=38						
PIEI	Pieia	10.14	318	Pn	Pn	23 18 06.7	0.0
	comp=Z,175nm,1.5s						
PIEI	Pieia	10.14	318	Pn	Pn	23 18 06.7	0.0
	comp=Z,175nm,1.5s						
FYM	Al Fayyum	10.17	128	P	Pn	23 18 03.4	-3.8
CANT	Cankiri	10.20	62	ePN	Pn	23 18 09.8	+2.2
PLOR	Plostina	10.21	19	⇓iP	Pn	23 18 09.5	+1.9
PLOR	Plostina	10.21	19	P	Pn	23 18 09.5	+1.9
AYT	Al ‘Ayyat	10.23	127	⇓P	Pn	23 18 03.8	-4.2
AYT	Al ‘Ayyat	10.23	127	P	Pn	23 18 03.8	-4.3
MERS	Mersin	10.24	83	ePN	Pn	23 18 07.7	-0.4
MERS	Mersin	10.24	83	ePn	Pn	23 18 07.7	-0.4
VRI	Vrincioaia	10.24	20	⇑iP	Pn	23 18 12.8	+4.7
BADI	Badiali	10.28	317	Pn	Pn	23 18 10.5	+1.9
	comp=Z,197nm,1.0s						
BADI	Badiali	10.28	317	Pn	Pn	23 18 10.5	+1.9
	comp=Z,197nm,1.0s						
VSL	Villasalto	10.33	292	ePn	Px	23 18 24.0	
TLCR		10.33	29	⇑iP	Pn	23 18 11.7	+2.3
TLCR		10.33	29	⇑P	Pn	23 18 11.7	+2.3
TLCR		10.33	29	P	Pn	23 18 11.7	+2.3
BOJS	Bojanci	10.44	334	i Pn	Pn	23 18 09.2	-1.6
BOJS				eSn	Sn	23 20 00.5	-5.9
BOJS							
	comp=Z,12µm,8.7s						
BOJS	Bojanci	10.44	334	i Pn	Pn	23 18 09.2	-1.6
BOJS				eSn	Sn	23 20 00.5	-5.9
BOJS	Bojanci	10.44	334	i Pn	Pn	23 18 09.2	-1.6
DRGR		10.50	3	⇑iP	Pn	23 18 12.2	+0.6
DRGR		10.50	3	⇑P	Pn	23 18 12.2	+0.6
DRGR		10.50	3	P	Pn	23 18 12.2	+0.6
CRE	Caprese Michel	10.51	317	P	Pn	23 18 14.2	+2.4
CRE				pmax	pmax		
	comp=Z,51nm,0.9s						
CRE	Caprese Michel	10.51	317	Pn	Pn	23 18 14.2	+2.4
	comp=Z,51nm,0.9s						
CRE	Caprese Michel	10.51	317	Pn	Pn	23 18 14.2	+2.4
	comp=Z,51nm,0.9s						
KOT	Kottamia	10.53	124	⇓P	Pn	23 18 08.0	-4.2
KOT				S	Sn	23 19 57.2	-12
KOT	Kottamia	10.53	124	P	Pn	23 18 08.0	-4.1
KOT				S	Sn	23 19 57.2	-12
HSAF	As Saff	10.55	126	⇓P	Pn	23 18 08.6	-3.8
HSAF	As Saff	10.55	126	P	Pn	23 18 08.6	-3.8
PKS9	Tamasi	10.61	347	⇓eP	Pn	23 18 10.9	-2.2
CRES	Cresnjev	10.65	335	i Pn	Pn	23 18 11.6	-2.1
CRES	Cresnjev	10.65	335	i Pn	Pn	23 18 11.6	-2.0
KARA	Karaisali	10.66	81	ePN	Pn	23 18 14.1	+0.2
KARA	Karaisali	10.66	81	ePn	Pn	23 18 14.1	+0.2
HFRF	Wahat Farafira	10.67	147	P	Pn	23 18 10.6	-3.4
HFRF	Wahat Farafira	10.67	147	P	Pn	23 18 10.6	-3.5
GLL	Jalalah	10.68	126	⇓P	Pn	23 18 10.2	-3.9
GLL	Jalalah	10.68	126	P	Pn	23 18 10.2	-4.0
SFI	Santa Sofia	10.76	318	P	Pn	23 18 16.8	+1.6
SFI				pmax	pmax		
	comp=Z,217nm,1.4s						
SFI	Santa Sofia	10.76	318	Pn	Pn	23 18 16.8	+1.6
	comp=Z,217nm,1.4s						
BEHE	Becsehely	10.83	341	⇓eP	Pn	23 18 15.4	-0.8
PKS7	Kunszentmiklos	10.91	350	⇑eP	Pn	23 18 16.7	-0.6
SKDS	Skadanscina	10.95	330	ePn	Pn	23 18 15.4	-2.4
SKDS				eSn	Sn	23 20 12.5	-6.4
SKDS	Skadanscina	10.95	330	ePn	Pn	23 18 15.4	-2.4
KOGS	Kog	10.96	339	ePn	Pn	23 18 15.2	-2.7
KOGS				eSn	Sn	23 20 12.0	-7.1
KOGS							
	comp=Z,5µm,5.2s						
KOGS	Kog	10.96	339	ePn	Pn	23 18 15.2	-2.7
KOGS				eSn	Sn	23 20 12.0	-7.1
LJU	Ljubljana	11.16	333	ePn	Pn	23 18 19.4	-1.3
LJU				eSn	Sn	23 20 17.9	-6.2
LJU							
	comp=Z,4µm,4.5s						
LJU	Ljubljana	11.16	333	ePn	Pn	23 18 19.4	-1.3
LJU				eSn	Sn	23 20 17.9	-6.2
LJU	Ljubljana	11.16	333	ePn	Pn	23 18 19.4	-1.3
SUZ		11.26	122	P	Pn	23 18 18.5	-3.7
SUZ		11.26	122	P	Pn	23 18 18.5	-3.7
KOZT	Kozan	11.29	80	ePN	Pn	23 18 22.7	+0.3
KOZT	Kozan	11.29	80	ePn	Pn	23 18 22.7	+0.3
BUD	Budapest	11.36	350	⇓eP	Pn	23 18 22.9	-0.5
BUD	Budapest	11.36	350	⇓eP	Pn	23 18 22.9	-0.5
PKSG		11.37	348	⇑eP	Pn	23 18 22.5	-1.0
VOY	Vojsko	11.40	331	ePn	Pn	23 18 22.3	-1.6
VOY				e		23 18 23.5	
VOY				e		23 18 33.0	
VOY				eSn	Sn	23 20 24.2	-5.7
VOY	Vojsko	11.40	331	ePn	Pn	23 18 22.3	-1.6
BNN	Bunyan	11.42	73	ePN	Pn	23 18 24.8	+0.5
BNN	Bunyan	11.42	73	ePn	Pn	23 18 24.8	+0.5
ZAF		11.43	125	⇓P	Pn	23 18 20.6	-3.8
ZAF		11.43	125	P	Pn	23 18 20.6	-3.8
SOKA	Soboth	11.54	336	⇑iPn	Pn	23 18 23.3	-2.5
SOKA				⇓iSn	Sn	23 20 27.9	-5.4
OBKA	Obir	11.55	334	⇑iPn	Pn	23 18 24.5	-1.6
	SNR=12						
OBKA				⇑iSn	Sn	23 20 29.2	-4.5
BURAR	Bucovina Array	11.58	12	⇓iP	Pn	23 18 28.2	+1.8
BURAR	Bucovina Array	11.58	12	⇓P	Pn	23 18 28.2	+1.8
BURAR	Bucovina Array	11.58	12	⇓P	Pn	23 18 28.2	+1.8
ZNM		11.58	123	⇓P	Pn	23 18 22.6	-3.9
ZNM		11.58	123	P	Pn	23 18 22.6	-3.9
CMAH	Djebel Manchou	11.60	276	P	Px	23 18 45.0	
BUR08	Bucovina Ar. S	11.60	11	ePn	Pn	23 18 26.7	0.0
BUR08				Sn	Sn	23 20 32.8	-2.1
BUR08	Bucovina Ar. S	11.60	11	ePn	Pn	23 18 26.7	0.0
MMAI	Mount Meron Ar	11.66	102	Pn	Pn	23 18 23.4	-4.2
	comp=Z,1.8nm,0.3s,baz=310,slow=11,SNR=8.2						
MMAI				Sn	Sn	23 20 28.5	-8.0
	comp=Z,7.0nm,0.3s,baz=292,slow=23,SNR=4.9						
PSZ	Piszkesteto	11.69	354	P	Pn	23 18 27.2	-0.7
PSZ	Piszkesteto	11.69	354	⇓iP	Pn	23 18 27.0	-0.9
PSZ	Piszkesteto	11.69	354	⇓eP	Pn	23 18 27.3	-0.6
PSZ	Piszkesteto	11.69	354	ePn	Pn	23 18 26.3	-1.6
PSZ	Piszkesteto	11.69	354	ePn	Pn	23 18 26.3	-1.6
PSZ	Piszkesteto	11.69	354	P	Pn	23 18 27.2	-0.7
PGF	Pioggiola	11.70	306	eP	Pn	23 18 28.1	0.0
	comp=Z,259nm,1.5s						
PGF	Pioggiola	11.70	306	eP	Pn	23 18 28.1	0.0
PGF				pmax	pmax		
	comp=Z,130nm,1.5s						
PGF	Pioggiola	11.70	306	eP	Pn	23 18 28.1	0.0
	comp=Z,130nm,1.5s						
PGF	Pioggiola	11.70	306	eP	Pn	23 18 28.1	0.0
	comp=Z,130nm,1.5s						
HWQ	Hawqa	11.73	96	ePn	Pn	23 18 26.2	-2.3
VLC	Villacollemand	11.73	315	ePn	Pn	23 18 30.6	+2.1
	comp=Z,38nm,0.9s						
VLC				eSn	Sn	23 20 44.3	+6.2
VLC	Villacollemand	11.73	315	ePn	Pn	23 18 30.6	+2.1
	comp=Z,38nm,0.9s						
TRPA	Tarpa	11.83	2	⇑eP	Pn	23 18 30.5	+0.7
RCY	Rachaya	11.84	100	ePn	Pn	23 18 24.8	-5.2
KIS	Kishinev	11.89	24	eP	Pn	23 18 35.0	+4.4
KIS				eS	Sn	23 20 40.0	-2.0
KIS				MLR	MLR		
	comp=Z,3µm,10.0s						
KIS				MLR	MLR		
	comp=N,5µm,12.0s						
KIS				MLR	MLR		
	comp=E,2µm,8.0s						
KIS				MLR	MLR		
	comp=Z,3µm,14.0s						
KIS	Kishinev	11.89	24	ePP		23 18 44.0	
KIS				sS	Sn	23 20 40.0	-2.0
KIS				eLi		23 21 20.0	
KIS				eLR	LR	23 21 54.0	
	comp=Z,3µm,14.0s						
ARSA	Arzberg	11.89	339	⇓iPn	Pn	23 18 29.0	-1.7
	SNR=18						
ARSA				⇑iSn	Sn	23 20 37.3	-4.8
MYKA	Terra Mystica	11.99	332	⇓iPn	Pn	23 18 31.1	-0.8
MYKA				⇑iSn	Sn	23 20 39.8	-4.6
HNKL	Nakhl	12.01	118	⇓P	Pn	23 18 28.5	-3.9
HNKL	Nakhl	12.01	118	P	Pn	23 18 28.5	-3.9
SOP	Sopron	12.02	343	⇓eP	Pn	23 18 33.1	+0.7
SOP	Sopron	12.02	343	⇓eP	Pn	23 18 33.1	+0.7
KECS	Kecovo	12.21	356	ePN	Pn	23 18 34.3	-0.7
KECS				eSN	Sn	23 20 44.4	-5.3
KECS	Kecovo	12.21	356	ePn	Pn	23 18 34.3	-0.7
UZH	Uzhgorod	12.32	1	eP	Pn	23 18 36.0	-0.5
UZH				eS	Sn	23 20 47.3	-5.2
UZH				MLR	MLR		
	comp=N,6µm,12.0s						
UZH				MLR	MLR		
	comp=E,6µm,12.0s						
UZH				MLR	MLR		
	comp=Z,5µm,12.0s						
UZH	Uzhgorod	12.32	1	eP	Pn	23 18 36.0	-0.5
VYHS	Vyhne	12.38	351	ePN	Pn	23 18 35.7	-1.6
VYHS				eSN	Sn	23 20 50.2	-3.6
VYHS	Vyhne	12.38	351	ePn	Pn	23 18 35.7	-1.6
GAZ	Gaziantep	12.38	81	ePN	Pn	23 18 37.7	+0.2
GAZ	Gaziantep	12.38	81	ePn	Pn	23 18 37.7	+0.2
CONA	Conrad Observa	12.42	341	⇑iPn	Pn	23 18 36.7	-1.2
	SNR=8.9						
CONA				⇓iSn	Sn	23 20 50.5	-4.4
CSNA	Conrad Observa	12.42	341	⇓iPn	Pn	23 18 36.1	-1.8
CSNA				⇑iSn	Sn	23 20 50.6	-4.3
KBA	Koelnbreinsper	12.48	332	⇑iPn	Pn	23 18 37.7	-0.9
	SNR=11						
KBA				⇓iSn	Sn	23 20 50.8	-5.5
SVSK	Karacayir	12.49	69	ePN	Pn	23 18 40.9	+2.0
SVSK	Karacayir	12.49	69	ePn	Pn	23 18 40.9	+2.0
MODS	Modra-Piesok	12.51	346	ePN	Pn	23 18 37.9	-1.2
MODS				eSN	Sn	23 20 52.8	-4.4
MODS	Modra-Piesok	12.51	346	ePn	Pn	23 18 37.9	-1.2
ABTA	Abfaltersbach	12.54	329	⇑iPn	Pn	23 18 38.3	-1.1
	SNR=20						
ABTA				⇑iSn	Sn	23 20 53.9	-3.8
HDK1	Dakhla	12.54	147	⇓P	Pn	23 18 36.6	-3.1
HDK1	Dakhla	12.54	147	P	Pn	23 18 36.6	-3.1
CRVS	Cervenica-Dubn	12.59	359	ePN	Pn	23 18 39.1	-1.1
CRVS	Cervenica-Dubn	12.59	359	ePn	Pn	23 18 39.1	-1.1
SMOL	Smolenice	12.62	347	ePN	Pn	23 18 38.5	-2.1
SMOL	Smolenice	12.62	347	ePn	Pn	23 18 38.5	-2.1
KOLS	Kolonicke sedl	12.62	1	ePN	Pn	23 18 41.0	+0.4
KOLS	Kolonicke sedl	12.62	1	ePn	Pn	23 18 41.0	+0.4
SIM	Simferopol'	12.71	43	deP	Pn	23 18 47.2	+5.4
SIM				pmax	pmax		
	comp=Z,24nm,1.1s						
SIM				MLR	MLR		
	comp=Z,4µm,17.0s						
MOA	Molln	12.82	336	⇑iPn	Pn	23 18 42.2	-1.1
	SNR=33						
MOA				⇓iSn	Sn	23 20 59.2	-5.4
DFRA	Djebel Bou Aff	12.84	276	P	Pn	23 18 47.0	+3.3
EIL	Elat	12.86	117	Pn	Pn	23 18 38.9	-5.0
	comp=Z,1.4nm,0.3s,baz=280,slow=5.2,SNR=16						
EIL				Sn	Sn	23 20 52.6	-13
	comp=Z,4.0nm,0.3s,baz=96,slow=12,SNR=5.1						
EIL	Elat	12.86	117	Pn	Pn	23 18 38.9	-5.0
EIL				Sn	Sn	23 20 52.6	-13
HKAT	Jabal Katrina	12.88	124	⇓P	Pn	23 18 39.9	-4.3
HKAT	Jabal Katrina	12.88	124	P	Pn	23 18 39.9	-4.4
AKCD	Akcadag	12.98	76	i P	Pn	23 18 46.3	+0.7
STHS	Stebnicka Huta	13.11	358	ePN	Pn	23 18 48.1	+0.8
STHS	Stebnicka Huta	13.11	358	ePn	Pn	23 18 48.1	+0.8
ASF	Jabal al Asfar	13.14	104	P	Pn	23 18 43.5	-4.3
ASF						23 21 07.1	
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF				smax			
	comp=N,1.0nm,0.3s						
ASF				MLR	MLR		
	comp=Z,2µm,18.8s						
ASF	Jabal al Asfar	13.14	104	Pn	Pn	23 18 43.5	-4.4
	comp=Z,0.5nm,0.3s,baz=146,slow=6.8,SNR=10						
ASF				Sn	Sn	23 21 07.1	-5.6
	comp=Z,0.6nm,0.3s,baz=163,slow=19,SNR=2.6						
ASF				LR	LR	23 26 03.8	
	comp=Z,2µm,18.8s,baz=2.4,slow=48						
HQLS		13.14	118	P	Pn	23 18 42.6	-5.3
NIE	Niedzica	13.15	356	eP	Pn	23 18 47.9	+0.1

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NIE                             ePP              23 18 57.7
NIE    Niedzica          13.15 356 eP      Pn    23 18 47.9 +0.1
RJOB   Jochberg          13.23 332 eP      Pn    23 18 48.1  -0.8
RJOB                               eS      Sn    23 21 40.4  +26
SET    Setif             13.25 274  P      Px    23 19 05.0
WTTA   Wattenberg        13.31 328⇑iPn     Pn    23 18 49.8  -0.2
       SNR=17
WTTA                            ⇑iSn       Sn    23 21 11.9  -4.8
SAOF   Saorge            13.32 310 eP      Pn    23 18 49.4  -0.8
SAOF   Saorge            13.32 310 eP      Pn    23 18 49.4  -0.8
KWP    Kalwaria Pacla    13.33   3 eP      Pn    23 18 51.3 +1.0
KWP                                e             23 18 57.4
KWP                                e             23 19 18.8
KWP                                 LMZ          23 24 38.6
       comp=Z,8µm,16.2s
KWP    Kalwaria Pacla    13.33   3⇑iP      Pn    23 18 51.6 +1.3
KWP    Kalwaria Pacla    13.33   3 eP      Pn    23 18 51.3 +1.0
KWP                                e             23 18 57.4
KWP                                e             23 19 18.8
KWP    Kalwaria Pacla    13.33   3 eP      Pn    23 18 51.3 +1.0
SBF    Sospel            13.34 309 eP      Pn    23 18 50.3  -0.1
       comp=Z,94nm,0.8s
SBF    Sospel            13.34 309 eP      Pn    23 18 50.3  -0.1
SBF                                 pmax   pmax
       comp=Z,47nm,0.8s
SBF    Sospel            13.34 309 eP      Pn    23 18 50.3  -0.1
       comp=Z,47nm,0.8s
SBF    Sospel            13.34 309 eP      Pn    23 18 50.3  -0.1
       comp=Z,47nm,0.8s
MALT   Malatya           13.38  76 eP      Pn    23 18 52.1 +1.1
MALT                                pmax   pmax
       comp=Z,31nm,0.8s
MALT   Malatya           13.38  76⇓iP      Pn    23 18 54.6 +3.6
MALT   Malatya           13.38  76 ePn     Pn    23 18 52.1 +1.1
       comp=Z,31nm,0.8s
MALT   Malatya           13.38  76 ePn     Pn    23 18 52.1 +1.1
       comp=Z,31nm,0.8s
SHRM                     13.38 125  P      Pn    23 18 48.1  -3.1
SHRM                     13.38 125  P      Pn    23 18 48.1  -3.1
WATA   Walderalm         13.39 329⇓iPn     Pn    23 18 50.4  -0.7
       SNR=15
WATA                            ⇑iSn       Sn    23 21 13.9  -4.7
AUTN   L'Aution          13.41 309 eP      Pn    23 18 50.4  -1.0
AUTN   L'Aution          13.41 309 eP      Pn    23 18 50.4  -1.0
LUCF   Luceram           13.41 309 eP      Pn    23 18 54.3 +2.9
HHRG   Al Ghardaqah      13.48 129 ⇓P      Pn    23 18 48.7  -3.8
HHRG   Al Ghardaqah      13.48 129  P      Pn    23 18 48.7  -3.8
FETA   Feichten          13.52 326⇓iPn     Pn    23 18 53.1 +0.2
FETA                            ⇓iSn       Sn    23 21 18.6  -3.2
MVIF   Mont Vial         13.53 309 eP      Pn    23 18 53.0  -0.1
MVIF   Mont Vial         13.53 309 eP      Pn    23 18 53.0  -0.1
VRAC   Vranov            13.54 345⇑iP      Pn    23 18 50.9  -2.3
VRAC   Vranov            13.54 345  Pn     Pn    23 18 51.2  -2.0
       comp=Z,0.3nm,0.3s,baz=157,slow=12,SNR=14
VRAC   Vranov            13.54 345 ⇑P      Pn    23 18 50.9  -2.2
VRAC   Vranov            13.54 345  P      Pn    23 18 50.9  -2.3
MOTA   Moosalm           13.60 327⇑iPn     Pn    23 18 53.4  -0.5
       SNR=18
MOTA                            ⇑iSn       Sn    23 21 19.7  -4.0
LVV    L'vov             13.60   6 eP      Pn    23 18 55.0 +1.0
LVV                                eS      Sn    23 21 28.2 +4.5
LVV    L'vov             13.60   6 eP      Pn    23 18 55.0 +1.0
CALN   Calern            13.63 308 eP      Pn    23 18 53.7  -0.7
CALN   Calern            13.63 308 eP      Pn    23 18 53.7  -0.7
LMR    La Mourre         13.69 306 eP      Pn    23 18 56.2 +1.0
       comp=Z,38nm,1.1s
LMR    La Mourre         13.69 306 eP      Pn    23 18 56.2 +1.0
LMR                                 pmax   pmax
       comp=Z,19nm,1.1s
LMR    La Mourre         13.69 306 eP      Pn    23 18 56.2 +1.0
       comp=Z,19nm,1.1s
LMR    La Mourre         13.69 306 eP      Pn    23 18 56.2 +1.0
       comp=Z,19nm,1.1s
FRF    La Foret Royal    13.70 307 eP      Pn    23 18 55.1  -0.2
       comp=Z,50nm,1.0s
FRF    La Foret Royal    13.70 307 eP      Pn    23 18 55.1  -0.2
FRF                                 pmax   pmax
       comp=Z,25nm,1.0s
FRF    La Foret Royal    13.70 307 eP      Pn    23 18 55.1  -0.2
       comp=Z,25nm,1.0s
FRF    La Foret Royal    13.70 307 eP      Pn    23 18 55.1  -0.2
       comp=Z,25nm,1.0s
DAVOX  Davos/Dischmat    13.74 323  Pn     Pn    23 18 55.6  -0.3
       baz=138,slow=18
DAVOX                               Sn     Sn    23 21 21.7  -5.5
       comp=Z,1.7nm,0.3s,baz=117,slow=18,SNR=5.0
DAVOX  Davos/Dischmat    13.74 323  Pn     Pn    23 18 55.7  -0.3
TREC   Trest             13.78 342 eP      Pn    23 18 55.0  -1.4
TREC                                AMS    AMS   23 25 00.0
       comp=Z,8µm,9.9s
JLOS                     13.78 119  P      Pn    23 18 51.1  -5.5
OKC    Ostrava-Krasne    13.79 350 eP      Pn    23 18 54.8  -1.7
OKC                                ex      x     23 19 02.6
OKC                                 AMS    AMS   23 25 40.0
       comp=Z,6µm,14.0s
OKC    Ostrava-Krasne    13.79 350 eP      Pn    23 18 54.8  -1.7
OKC                                e             23 19 02.6
TUE    Stuetta           13.79 321 ePn     Pn    23 18 56.7 +0.1
       comp=Z,52nm,0.9s
TUE                                eSn     Sn    23 21 26.0  -2.4
TUE    Stuetta           13.79 321 ePn     Pn    23 18 56.7 +0.1
       comp=Z,52nm,0.9s
MORC   Moravsky Berou    13.82 348  P      Pn    23 18 56.4  -0.5
MORC   Moravsky Berou    13.82 348⇑iP      Pn    23 18 55.7  -1.2
MORC   Moravsky Berou    13.82 348 ePn     Pn    23 18 55.5  -1.4
MORC   Moravsky Berou    13.82 348 ePn     Pn    23 18 55.5  -1.4
DAVOS  Davos             13.83 323  P      Pn    23 18 55.7  -1.4
DAVOS                                            23 21 21.7
RETA   Reutte            13.86 327⇓iSn     Sn    23 21 26.0  -4.0
GEC2   GERESS Array S    13.87 337 eP      Pn    23 18 55.1  -2.6
GEC2                               eS      Sn    23 22 01.2  +31
GERES  GERESS Array B    13.87 337  P      Pn    23 18 55.3  -2.4
GERES                                            23 21 24.8
GERES                               pmax   pmax
       comp=Z,2.0nm,0.3s
GERES                               smax
       comp=N,1.0nm,0.3s
GERES  GERESS Array B    13.87 337  Pn     Pn    23 18 55.3  -2.4
       comp=N,1.6nm,0.3s,baz=156,slow=14,SNR=30
GERES                               Sn     Sn    23 21 24.8  -5.5
       comp=N,1.3nm,0.3s,baz=153,slow=24,SNR=6.0
GERES  GERESS Array B    13.87 337  Pn     Pn    23 18 55.3  -2.4
OJC    Ojcow             13.98 355 eP      Pn    23 18 59.9 +0.7
OJC                                ePP           23 19 09.4
OJC                                ePPP          23 19 16.5
RAC    Raciborz          14.02 350 eP      Pn    23 19 03.2 +3.5
RAC                                 MLR    MLR
       comp=Z,4µm,14.0s
RAC    Raciborz          14.02 350 eP      Pn    23 19 03.2 +3.5
RAC                                eS      Sn    23 21 46.7  +13
SURF   Saint Ours        14.03 310 eP      Pn    23 19 03.1 +3.2
DAVA   Damuels           14.11 325⇓iPn     Pn    23 19 00.4  -0.5
DAVA                            ⇓iSn       Sn    23 21 30.6  -5.5
KHC    Kasperske Hory    14.16 337 eP      Pn    23 18 59.5  -2.1
KHC                                ex      x     23 19 10.5
KHC                                ex      x     23 19 20.5
KHC                                eS      Sn    23 21 32.6  -4.8
KHC                                 AMS    AMS   23 25 30.0
       comp=Z,8µm,11.8s
KHC    Kasperske Hory    14.16 337 eP      Pn    23 18 59.5  -2.1
KHC                                e             23 19 10.5
KHC                                e             23 19 20.5
KHC                                eS      Sn    23 21 32.6  -4.8
FUR    Furstenfeldbru    14.17 330 eP      Pn    23 19 01.1  -0.7
MBDF   Montbardon        14.18 311 eP      Pn    23 19 02.0   0.0
       comp=Z,101nm,0.9s
MBDF   Montbardon        14.18 311 eP      Pn    23 19 02.0   0.0
MBDF                                pmax   pmax
       comp=Z,51nm,0.9s
MBDF   Montbardon        14.18 311 eP      Pn    23 19 02.0   0.0
       comp=Z,51nm,0.9s
WET    Wettzell          14.40 336 eP      Pn    23 19 02.0  -2.8
BNI    Bardonecchia      14.41 312 eP      Pn    23 19 08.1 +3.0
ANN    Anapa             14.57  50 eP      Pn    23 19 02.9  -4.4
ANN                                eS      Sn    23 21 41.7  -5.8
ANN                                 pmax   pmax
       comp=Z,129nm,1.0s
ANN                                 MLR    MLR
       comp=E,2µm,13.0s
ANN                                 MLR    MLR
       comp=Z,1µm,13.0s
SMRF   Simiane la Rot    14.58 307 eP      Pn    23 19 07.8 +0.5
       comp=Z,96nm,1.4s
SMRF   Simiane la Rot    14.58 307 eP      Pn    23 19 07.8 +0.5
       comp=Z,96nm,1.4s
DPC    Dobruska-Polom    14.59 346 eP      Pn    23 19 07.1  -0.3
DPC                                ex      x     23 19 13.0
DPC                                 AMS    AMS   23 25 50.0
       comp=Z,8µm,10.1s
DPC    Dobruska-Polom    14.59 346 eP      Pn    23 19 07.1  -0.3
DPC                                e             23 19 13.0
LPG    La Plagne         14.61 314 eP      Pn    23 19 08.4 +0.6
       comp=Z,88nm,1.2s
LPG    La Plagne         14.61 314 eP      Pn    23 19 08.4 +0.6
LPG                                 pmax   pmax
       comp=Z,44nm,1.2s
LPG    La Plagne         14.61 314 eP      Pn    23 19 08.4 +0.6
       comp=Z,44nm,1.2s
LPL    La Plagne         14.63 314 eP      Pn    23 19 07.3  -0.8
       comp=Z,62nm,1.1s
LPL    La Plagne         14.63 314 eP      Pn    23 19 07.3  -0.8
LPL                                 pmax   pmax
       comp=Z,31nm,1.0s
LPL    La Plagne         14.63 314 eP      Pn    23 19 07.3  -0.8
       comp=Z,31nm,1.0s
PRU    Pruhonice         14.66 341 eP      Pn    23 19 06.8  -1.6
PRU                                 AMS    AMS   23 25 30.0
       comp=Z,6µm,9.3s
UPC    Upice             14.80 345 eP      Pn    23 19 09.9  -0.4
UPC                                ex      x     23 19 17.0
ORIF   Oris-en-Rattie    14.83 310 eP      Pn    23 19 10.6  -0.1
       comp=Z,197nm,1.4s
ORIF                               eMLR    MLR
       comp=Z,8µm,20.8s
ORIF   Oris-en-Rattie    14.83 310 eP      Pn    23 19 10.6  -0.1
ORIF                                pmax   pmax
       comp=Z,99nm,1.4s
ORIF   Oris-en-Rattie    14.83 310 eP      Pn    23 19 10.6  -0.1
       comp=Z,99nm,1.4s
KSP    Ksiaz             15.06 346 eP      Pn    23 19 17.9 +4.1
KSP                                e             23 19 24.5
KSP                                 LMZ          23 25 18.9
       comp=Z,13µm,18.0s
KSP    Ksiaz             15.06 346 eP      Pn    23 19 16.0 +2.2
KSP                                epP     pP    23 19 20.1  -7.7
KSP                                eS      S     23 22 00.0   -16
PVCC   Panska Ves        15.15 342 eP      Pn    23 19 14.3  -0.6
PVCC                                AMS    AMS   23 25 50.0
       comp=Z,8µm,9.0s
ROTZ   Rotzenmuhle       15.16 336 eP      Pn    23 19 12.9  -2.1
ROTZ                               eS      S     23 22 16.6  -1.1
SPAK   Spaichingen-Ko    15.21 325 eP      Pn    23 19 15.7   0.0
EMHD   Djebel Mahouad    15.22 275  P      Pn    23 19 20.9 +5.0
EMHD   Djebel Mahouad    15.22 275  P      Pn    23 19 20.9 +5.0
KIEV   Kiev              15.34  18 eP      Pn    23 19 14.5  -2.8
KIEV                               e             23 22 05.2
KIEV                                pmax   pmax
       comp=Z,25nm,0.7s
KIEV   Kiev              15.34  18 ePn     Pn    23 19 14.5  -2.8
       comp=Z,25nm,0.7s
KIEV                               eSn     Sn    23 22 05.2  -0.8
AKASG  Malin Array Be    15.35  18  P      Pn    23 19 13.6  -3.9
AKASG                               pmax   pmax
       comp=Z,2.0nm,0.3s
AKASG                               MLR    MLR
       comp=Z,1µm,20.9s
AKASG  Malin Array Be    15.35  18  Pn     Pn    23 19 13.6  -3.9
       comp=Z,1.7nm,0.3s,baz=209,slow=13,SNR=11
AKASG                               LR     LR    23 25 26.8
       comp=Z,1µm,20.9s,baz=200,slow=38
AKASG  Malin Array Be    15.35  18  Pn     Pn    23 19 13.6  -3.8
AKASG                               LR     LR    23 25 26.8
MANZ   Manzenberg        15.38 336 eP      Pn    23 19 16.6  -1.3
BBS    Basel-Blauen      15.39 321 eP      Pn    23 19 18.3 +0.2
FELD   Feldberg im Sc    15.42 323 eP      Pn    23 19 14.2  -4.3
GRA1   Grafenberg Arr    15.44 333 eP      Pn    23 19 17.6  -1.1
GRF    Grafenberg Arr    15.44 333 eP      Pn    23 19 17.6  -1.1
GRF                                eL            23 26 37.0
       comp=Z,11µm,18.8s
NKC    Novy Kostel       15.48 337 eP      Pn    23 19 19.6 +0.4
NKC                                 AMS    AMS   23 26 20.0
       comp=Z,8µm,12.7s
STU    Stuttgart         15.52 327 eP      Pn    23 19 18.7  -1.0
STU                                 pmax   pmax
       comp=Z,42nm,0.9s
STU    Stuttgart         15.52 327 eP      Pn    23 19 19.1  -0.6
STU                                eS      S     23 22 18.0  -7.1
STU    Stuttgart         15.52 327 ePn     Pn    23 19 18.7  -1.0
       comp=Z,42nm,0.9s
STU    Stuttgart         15.52 327 ePn     Pn    23 19 18.7  -1.0
       comp=Z,42nm,0.9s
SOC    Sochi             15.52  57 eP      Pn    23 19 17.6  -2.2
SOC                                e             23 22 02.2
SOC                                 MLR    MLR
       comp=Z,2µm,15.0s
VIVF   Saint-Julien-l    15.55 309 eP      Pn    23 19 21.1 +0.9
       comp=Z,199nm,1.7s
VIVF   Saint-Julien-l    15.55 309 eP      Pn    23 19 21.1 +0.9
VIVF                                pmax   pmax
       comp=Z,100nm,1.7s
VIVF   Saint-Julien-l    15.55 309 eP      Pn    23 19 21.1 +0.9
       comp=Z,100nm,1.7s
BFO    Black Forest      15.59 325 eP      Pn    23 19 20.7 +0.1
BFO                                eS      S     23 22 21.3  -5.2
BFO                                 pmax   pmax
       comp=Z,64nm,1.2s
BFO    Black Forest      15.59 325 eP      Pn    23 19 20.7 +0.1
       comp=Z,64nm,1.2s
BFO                                eS      S     23 22 21.3  -5.2
BRG    Berggiesshubel    15.62 341 eP      Pn    23 19 20.0  -1.1
BRG    Berggiesshubel    15.62 341 i P     Pn    23 19 20.4  -0.7
       comp=Z,55nm,1.9s
BRG                                 S      S     23 22 16.0   -11
BRG
       comp=N,11µm,19.6s
BRG
       comp=E,20µm,16.0s
BRG
       comp=Z,7µm,15.4s
CABF   La Chapelle       15.62 316 eP      Pn    23 19 18.4  -2.7
       comp=Z,45nm,0.8s
CABF   La Chapelle       15.62 316 eP      Pn    23 19 18.4  -2.7
CABF                                pmax   pmax
       comp=Z,22nm,0.8s
CABF   La Chapelle       15.62 316 eP      Pn    23 19 18.4  -2.7
       comp=Z,22nm,0.8s
TANN   Tannenbergstha    15.64 337 eP      Pn    23 19 19.4  -1.8
       comp=Z,44nm,1.4s
LOMF   Lomont            15.67 319 eP      Pn    23 19 20.3  -1.4
LASF   Ste Croix         15.74 305 eP      Pn    23 19 22.8 +0.1
       comp=Z,36nm,1.0s
SSB    Saint Sauveur     15.83 310 eP      Pn    23 19 23.2  -0.6
SSB                                e             23 22 17.8
SSB                                 pmax   pmax
       comp=Z,31nm,1.1s
SSB    Saint Sauveur     15.83 310 ePn     Pn    23 19 23.2  -0.6
       comp=Z,31nm,1.1s
SSB                                eSn     Sn    23 22 17.8  -0.3
SSB    Saint Sauveur     15.83 310 ePn     Pn    23 19 23.2  -0.6
       comp=Z,31nm,1.1s
SSB                                eSn     Sn    23 22 17.8  -0.2
MOF    Molkenrain        15.84 321 eP      Pn    23 19 21.3  -2.6
WAR    Warsaw            15.94 358 eP      Pn    23 19 28.9 +3.7
WAR                                e             23 19 30.4
WAR                                eS      S     23 22 30.8  -2.9
WAR                                 LMZ          23 26 44.2
       comp=Z,6µm,16.7s
WAR    Warsaw            15.94 358 eP      Pn    23 19 28.8 +3.6
WAR                                e             23 19 30.4
WAR                                eS      S     23 22 30.8  -2.9
WAR    Warsaw            15.94 358 eP      Pn    23 19 28.8 +3.6
HINF   Hinteralfeld      15.96 321 eP      Pn    23 19 25.3  -0.1
       comp=Z,196nm,1.3s
HINF   Hinteralfeld      15.96 321 eP      Pn    23 19 25.3  -0.1
HINF                                pmax   pmax
       comp=Z,98nm,1.3s
HINF   Hinteralfeld      15.96 321 eP      Pn    23 19 25.3  -0.1
       comp=Z,98nm,1.3s
ECH    Echery            16.07 322 eP      Pn    23 19 24.8  -2.0
ECH    Echery            16.07 322 eP      Pn    23 19 26.2  -0.6
ECH                                e             23 22 20.0
ECH                                 pmax   pmax
       comp=Z,175nm,1.3s
ECH    Echery            16.07 322 ePn     Pn    23 19 26.2  -0.6
       comp=Z,175nm,1.3s
ECH                                eSn     Sn    23 22 20.0  -3.8
ECH    Echery            16.07 322 ePn     Pn    23 19 26.2  -0.6
       comp=Z,175nm,1.3s
MOX    Moxa              16.11 336 eP      Pn    23 19 27.7 +0.4
       comp=Z,38nm,1.4s
MOX                                eS      S     23 22 42.0 +4.9
MOX
       comp=Z,6µm,22.0s
MOX    Moxa              16.11 336 eP      Pn    23 19 27.7 +0.4
MOX                                 pmax   pmax
       comp=Z,48nm,1.4s
MOX                                 MLR    MLR
       comp=Z,38µm,22.0s
MOX    Moxa              16.11 336 eP      Pn    23 19 27.0  -0.3
       comp=Z,22nm,1.0s
MOX    Moxa              16.11 336 eP      Pn    23 19 27.7 +0.4
       comp=Z,38nm,1.4s
MOX                                eS      S     23 22 42.0 +4.9
MOX    Moxa              16.11 336 eP      Pn    23 19 27.7 +0.4
       comp=Z,38nm,1.4s
CDF    Champ du Feu      16.15 323 eP      Pn    23 19 26.9  -0.9
       comp=Z,168nm,1.1s
CDF    Champ du Feu      16.15 323 eP      Pn    23 19 26.9  -0.9
CDF                                 pmax   pmax
       comp=Z,84nm,1.1s
CDF    Champ du Feu      16.15 323 eP      Pn    23 19 26.9  -0.9
       comp=Z,84nm,1.1s
CLL    Collm             16.27 340 eP      Pn    23 19 28.6  -0.7
       comp=Z,136nm,2.0s
CLL                                eS      S     23 22 39.9  -0.5
CLL    Collm             16.27 340 eP      Pn    23 19 29.0  -0.3
CLL                                i pP    pP    23 19 33.2  -8.0
       comp=Z,136nm,2.0s
CLL                                i PP          23 19 38.3
CLL                                i (PPP)       23 19 47.9
CLL                                i             23 19 52.2
CLL                                e             23 20 04.0
CLL                                eS      S     23 22 37.0  -3.4
CLL                                 LmV          23 25 00.0
       comp=Z,5µm,19.6s
CLL                                 Lmax         23 27 06.0
CLL    Collm             16.27 340 eP      Pn    23 19 29.0  -0.3
CLL                                i             23 19 33.2
CLL                                i             23 19 38.3
CLL                                eS      S     23 22 39.0  -1.4
LANF   Langenberg        16.29 325 eP      Pn    23 19 30.7 +1.0
LANF   Langenberg        16.29 325 eP      Pn    23 19 30.7 +1.0
TOD    Tromm             16.32 329 eP      Pn    23 19 30.9 +0.9
TOD    Tromm             16.32 329 eP      Pn    23 19 30.9 +0.9
HAU    Haudompre         16.34 320 eP      Pn    23 19 29.4  -0.9
       comp=Z,455nm,1.2s
HAU                                eMLR    MLR
       comp=Z,4µm,18.0s
HAU    Haudompre         16.34 320 eP      Pn    23 19 29.4  -0.9
HAU                                 pmax   pmax
       comp=Z,227nm,1.2s
HAU    Haudompre         16.34 320 eP      Pn    23 19 29.4  -0.9
       comp=Z,227nm,1.2s
EBNR   Beni Rached       16.36 276  P      Pn    23 19 34.0 +3.4
EBNR   Beni Rached       16.36 276  P      Pn    23 19 34.0 +3.4
EIBI   Ibiza             16.43 286  P      Pn    23 19 35.4 +3.8
       comp=Z,732nm,2.8s
EIBI   Ibiza             16.43 286  P      Pn    23 19 35.3 +3.8
       comp=Z,732nm,2.8s
ECHA   Ech Chlef         16.50 276  P      Pn    23 19 37.0 +4.6
MTLF   Montolieu         16.59 301 eP      Pn    23 19 32.3  -1.2
       comp=Z,96nm,1.6s
MTLF   Montolieu         16.59 301 eP      Pn    23 19 32.3  -1.2
MTLF                                pmax   pmax
       comp=Z,48nm,1.6s
MTLF   Montolieu         16.59 301 eP      Pn    23 19 32.3  -1.2
       comp=Z,48nm,1.6s
LBL    Lubilhac          16.62 308 eP      Pn    23 19 33.6  -0.3
LBL    Lubilhac          16.62 308 eP      Pn    23 19 33.6  -0.3
ETRT   Tiaret            16.66 273  P      Pn    23 19 38.5 +4.1
THEF   They Montfort     16.67 321 eP      Pn    23 19 35.0 +0.6
THEF   They Montfort     16.67 321 eP      Pn    23 19 35.0 +0.6
PLDF   La Plantade       16.73 311 eP      Pn    23 19 33.3  -1.9
EANR   'Ain N'Sour       16.74 275  P      Pn    23 19 39.0 +3.6
EANR   'Ain N'Sour       16.74 275  P      Pn    23 19 39.0 +3.6
UBBA   Unterbreizbach    16.81 333 eP      Pn    23 19 35.8  -0.4
       comp=Z,142nm,1.9s
EPOB   Poblet            16.91 294  P      Pn    23 19 37.1  -0.5
       comp=Z,230nm,2.3s
EPOB   Poblet            16.91 294  P      Pn    23 19 37.1  -0.5
       comp=Z,230nm,2.3s
SMF    Signal de Mont    16.93 313 eP      Pn    23 19 36.0  -1.8
       comp=Z,41nm,0.9s
SMF    Signal de Mont    16.93 313 eP      Pn    23 19 36.0  -1.8
SMF                                 pmax   pmax
       comp=Z,21nm,0.9s
SMF    Signal de Mont    16.93 313 eP      Pn    23 19 36.0  -1.8
       comp=Z,21nm,0.9s
TNS    Taunus Mts        16.94 329 eP      Pn    23 19 36.8  -1.0
TNS                                 pmax   pmax
       comp=Z,175nm,1.3s
TNS    Taunus Mts        16.94 329 eP      Pn    23 19 36.8  -1.0
       comp=Z,175nm,1.3s
TNS                                eS      S     23 22 53.5  -0.6
TNS    Taunus Mts        16.94 329 eP      Pn    23 19 36.8  -1.0
       comp=Z,175nm,1.3s
TNS                                eS      S     23 22 53.5  -0.6
PYM    Petit Puy Mans    17.00 309 eP      Pn    23 19 36.4  -2.3
OJGS   Djebel Guires     17.09 274  P      Px    23 19 55.0
OKGL   Djebel Kef Gue    17.10 275  P      Px    23 19 56.0
RUE    Ruedersdorf       17.14 343  Pn     Pn    23 19 40.3   0.0
       comp=Z,54nm,0.8s
RUE                                eSn     Sn    23 22 48.6  -1.1
RUE    Ruedersdorf       17.14 343  Pn     Pn    23 19 40.3   0.0
       comp=Z,54nm,0.8s
RUE                                eSn     Sn    23 22 48.6  -1.1
RUP    Ruppelstein       17.15 326 eP      Pn    23 19 41.3 +0.8
RUP    Ruppelstein       17.15 326 eP      Pn    23 19 41.3 +0.8
LOR    Lormes            17.26 315 eP      Pn    23 19 40.1  -1.7
       comp=Z,114nm,1.3s
LOR                                eMLR    MLR
       comp=Z,5µm,17.8s
LOR    Lormes            17.26 315 eP      Pn    23 19 40.1  -1.7
LOR                                 pmax   pmax
       comp=Z,57nm,1.3s
LOR    Lormes            17.26 315 eP      Pn    23 19 40.1  -1.7
       comp=Z,57nm,1.3s
CAF    Calviac           17.26 306 eP      Pn    23 19 42.8 +1.0
       comp=Z,184nm,1.4s
CAF    Calviac           17.26 306 eP      Pn    23 19 42.8 +1.0
CAF                                 pmax   pmax
       comp=Z,92nm,1.4s
CAF    Calviac           17.26 306 eP      Pn    23 19 42.8 +1.0
       comp=Z,92nm,1.4s
CAF    Calviac           17.26 306 eP      Pn    23 19 42.8 +1.0
       comp=Z,92nm,1.4s
GKP    Gorka Klasztor    17.26 351 eP      Pn    23 19 44.5 +2.7
GKP                                e             23 19 47.6
GKP                                e             23 19 51.8
GKP                                 LMZ          23 28 01.6
       comp=Z,8µm,16.1s
GKP    Gorka Klasztor    17.26 351 eP      Pn    23 19 44.5 +2.7
GKP                                e             23 19 47.6
GKP                                e             23 19 51.8
GKP    Gorka Klasztor    17.26 351 eP      Pn    23 19 44.5 +2.7
AVF    Avril sur Loir    17.30 313 eP      Pn    23 19 40.4  -1.9
       comp=Z,33nm,0.8s
AVF    Avril sur Loir    17.30 313 eP      Pn    23 19 40.4  -1.9
AVF                                 pmax   pmax
       comp=Z,17nm,0.8s
AVF    Avril sur Loir    17.30 313 eP      Pn    23 19 40.4  -1.9
       comp=Z,16nm,0.8s
MEZF   Maizieres J'vi    17.32 320 eP      Pn    23 19 40.9  -1.7
       comp=Z,157nm,1.0s
MEZF   Maizieres J'vi    17.32 320 eP      Pn    23 19 40.9  -1.7
       comp=Z,157nm,1.0s
MEZF   Maizieres J'vi    17.32 320 eP      Pn    23 19 40.9  -1.7
       comp=Z,79nm,1.0s
SSF    Saint Saulge      17.35 314 eP      Pn    23 19 41.1  -1.8
       comp=Z,64nm,1.1s
SSF    Saint Saulge      17.35 314 eP      Pn    23 19 41.1  -1.8
SSF                                 pmax   pmax
       comp=Z,32nm,1.1s
SSF    Saint Saulge      17.35 314 eP      Pn    23 19 41.1  -1.8
       comp=Z,32nm,1.1s
ERTA   Horta de San J    17.40 292  P      Pn    23 19 51.2 +7.5
       comp=Z,274nm,3.4s
BGF    Bois d'Agland     17.48 312 eP      Pn    23 19 44.4  -0.2
       comp=Z,147nm,1.2s
BGF    Bois d'Agland     17.48 312 eP      Pn    23 19 44.4  -0.2
BGF                                 pmax   pmax
       comp=Z,73nm,1.2s
BGF    Bois d'Agland     17.48 312 eP      Pn    23 19 44.4  -0.2
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	comp=Z,73nm,1.2s						
BGF	Bois d'Agland	17.48	312	*e*P	Pn	23 19 44.4	-0.2
	comp=Z,73nm,1.2s						
CLZ	Clausthal	17.54	336	*e*P	Pn	23 19 45.7	+0.5
CLZ				pmax	pmax		
	comp=Z,55nm,1.4s						
CLZ	Clausthal	17.54	336	*e*P	Pn	23 19 45.7	+0.5
	comp=Z,55nm,1.4s						
CLZ				*e*S	S	23 23 08.1	+1.9
CLZ	Clausthal	17.54	336	*e*P	Pn	23 19 45.7	+0.5
	comp=Z,55nm,1.4s						
CLZ				*e*S	S	23 23 08.1	+1.9
WLF	Walferdange	17.54	324	P	Pn	23 19 46.5	+1.2
	comp=Z,90nm,1.4s						
WLF	Walferdange	17.54	324	*e*P	Pn	23 19 46.8	+1.5
WLF				pmax	pmax		
	comp=Z,103nm,1.0s						
WLF	Walferdange	17.54	324	*e*S	S	23 23 11.3	+4.9
WLF	Walferdange	17.54	324	*e*P	Pn	23 19 46.8	+1.5
	comp=Z,103nm,1.0s						
WLF	Walferdange	17.54	324	*e*P	Pn	23 19 46.8	+1.5
	comp=Z,103nm,1.0s						
EBEN	Beniarda	17.65	284	P	Pn	23 19 50.9	+4.2
	comp=Z,159nm,2.0s						
KIV	Kislovodsk	17.67	58	*e*P	Pn	23 19 46.0	-0.9
KIV				*e*S	S	23 23 02.3	-6.7
KIV				pmax	pmax		
	comp=Z,48nm,1.1s						
KIV				MLR	MLR		
	comp=Z,628nm,11.0s						
KIV	Kislovodsk	17.67	58	*e*P	Pn	23 19 48.9	+2.0
KIV	Kislovodsk	17.67	58	*e*P	Pn	23 19 48.9	+2.0
SUW	Suwalki	17.73	3	*e*P	Pn	23 19 47.2	-0.4
SUW				*e*		23 19 50.5	
SUW				*e*S	S	23 23 07.7	-2.5
SUW				LMZ		23 26 55.6	
	comp=Z,3µm,22.3s						
SUW	Suwalki	17.73	3	*e*P	Pn	23 19 47.2	-0.4
SUW				*e*		23 19 50.5	
SUW				*e*S	S	23 23 07.7	-2.5
SUW	Suwalki	17.73	3	*e*P	Pn	23 19 47.2	-0.4
TCF	Toulx Ste Croi	17.75	310	*e*P	Pn	23 19 46.8	-1.0
	comp=Z,121nm,1.2s						
TCF	Toulx Ste Croi	17.75	310	*e*P	Pn	23 19 46.8	-1.0
TCF				pmax	pmax		
	comp=Z,60nm,1.2s						
TCF	Toulx Ste Croi	17.75	310	*e*P	Pn	23 19 46.8	-1.0
	comp=Z,60nm,1.2s						
TCF	Toulx Ste Croi	17.75	310	*e*P	Pn	23 19 46.8	-1.0
	comp=Z,60nm,1.2s						
RJF	Les Rejaudoux	17.76	307	*e*P	Pn	23 19 48.9	+0.8
	comp=Z,267nm,1.5s						
RJF				*e*MLR	MLR		
	comp=Z,2µm,19.8s						
RJF	Les Rejaudoux	17.76	307	*e*P	Pn	23 19 48.9	+0.8
RJF				pmax	pmax		
	comp=Z,134nm,1.5s						
RJF	Les Rejaudoux	17.76	307	*e*P	Pn	23 19 48.9	+0.8
	comp=Z,134nm,1.5s						
RJF	Les Rejaudoux	17.76	307	*e*P	Pn	23 19 48.9	+0.8
	comp=Z,134nm,1.5s						
EPF	Esparros	17.82	299	*e*P	Pn	23 19 49.0	+0.2
	comp=Z,133nm,1.5s						
EPF	Esparros	17.82	299	*e*P	Pn	23 19 49.0	+0.2
EPF				pmax	pmax		
	comp=Z,67nm,1.5s						
EPF	Esparros	17.82	299	*e*P	Pn	23 19 49.0	+0.2
	comp=Z,67nm,1.5s						
EPF	Esparros	17.82	299	*e*P	Pn	23 19 49.0	+0.2
	comp=Z,67nm,1.5s						
ONI	Oni	17.83	63	P	Pn	23 19 52.6	+3.7
ODJA	Bouhanifia	17.84	273	P	Pn	23 19 54.0	+4.9
EBIE	Bielsa	17.88	297	P	Pn	23 19 49.3	-0.2
	comp=Z,338nm,3.2s						
EBIE	Bielsa	17.88	297	P	Pn	23 19 49.3	-0.2
	comp=Z,338nm,3.2s						
EMOS	Mosqueruela	17.94	290	P	Pn	23 19 55.0	+4.8
	comp=Z,329nm,2.3s						
HYF	Humbligny	17.96	314	*e*P	Pn	23 19 48.3	-2.2
HYF	Humbligny	17.96	314	*e*P	Pn	23 19 48.3	-2.2
VIEF	Viey	18.01	298	*e*P	Pn	23 19 48.2	-2.9
LABF	Labassere	18.01	299	*e*P	Pn	23 19 51.8	+0.6
LABF	Labassere	18.01	299	*e*P	Pn	23 19 51.8	+0.6
ESAC	San Caprasio	18.12	294	P	Pn	23 20 02.4	+10
LFF	La Frestale	18.14	305	*e*P	Pn	23 19 53.3	+0.7
	comp=Z,277nm,1.7s						
LFF	La Frestale	18.14	305	*e*P	Pn	23 19 53.3	+0.7
LFF				pmax	pmax		
	comp=Z,139nm,1.7s						
LFF	La Frestale	18.14	305	*e*P	Pn	23 19 53.3	+0.7
	comp=Z,138nm,1.7s						
LFF	La Frestale	18.14	305	*e*P	Pn	23 19 53.3	+0.7
	comp=Z,138nm,1.7s						
NRDL	Niedersach Rie	18.18	337	*e*P	Pn	23 19 54.5	+1.4
	comp=Z,342nm,2.0s						
NRDL				*e*S	S	23 23 23.2	+4.0
ECHE	Chera	18.25	287	P	Pn	23 19 59.3	+5.2
ECHE				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ECHE	Chera	18.25	287	P	Pn	23 19 59.3	+5.1
	comp=Z,6.3nm,0.7s						
MEM	Membach	18.27	326	P	Pn	23 19 55.6	+1.3
	comp=Z,41nm,1.5s						
CART	Cartagena	18.28	281	*i* P	Pn	23 19 53.4	-1.0
REYF	Montagne du Re	18.35	298	*e*P	Pn	23 19 53.6	-1.7
REYF	Montagne du Re	18.35	298	*e*P	Pn	23 19 53.6	-1.7
BUG	Bochum--Univer	18.35	330	*e*P	Pn	23 19 57.1	+1.9
	comp=Z,366nm,1.9s						
HGN	Heimansgroeve	18.42	327	*e*P	Pn	23 19 57.4	+1.4
	comp=Z,90nm,2.1s						
HGN	Heimansgroeve	18.42	327	*e*S	S	23 23 35.1	+11
HGN	Heimansgroeve	18.42	327	*e*P	Pn	23 19 57.4	+1.4
	comp=Z,90nm,2.1s						
ETSF	Etsaut	18.43	298	*e*P	Pn	23 19 55.3	-0.9
	comp=Z,83nm,1.2s						
ETSF	Etsaut	18.43	298	*e*P	Pn	23 19 55.3	-0.9
ETSF				pmax	pmax		
	comp=Z,42nm,1.2s						
ETSF	Etsaut	18.43	298	*e*P	Pn	23 19 55.3	-0.9
	comp=Z,42nm,1.2s						
ETSF	Etsaut	18.43	298	*e*P	Pn	23 19 55.3	-0.9
	comp=Z,42nm,1.2s						
BCLA	Clavier	18.46	325	P	Pn	23 19 56.2	-0.3
	comp=Z,56nm,2.4s						
GIVF	Givet	18.47	324	*e*P	Pn	23 19 57.5	+0.8
	comp=Z,253nm,1.1s						
GIVF	Givet	18.47	324	*e*P	Pn	23 19 57.5	+0.8
GIVF				pmax	pmax		
	comp=Z,127nm,1.1s						
GIVF	Givet	18.47	324	*e*P	Pn	23 19 57.5	+0.8
	comp=Z,127nm,1.1s						
GIVF	Givet	18.47	324	*e*P	Pn	23 19 57.5	+0.8
	comp=Z,127nm,1.1s						
BEBN	Eben Emael	18.56	326	P	Pn	23 19 58.9	+1.2
ATE	Arette	18.57	298	*e*P	Pn	23 19 54.6	-3.4
ATE	Arette	18.57	298	*e*P	Pn	23 19 54.6	-3.4
DOU	Dourbes	18.58	323	P	Pn	23 19 59.1	+1.1
	comp=Z,50nm,1.4s						
TBLG	Delisi	18.60	66	P	Pn	23 20 01.6	+3.3
MTA	Mtatsminda	18.63	66	P	Pn	23 20 01.6	+2.9
MNK	Minsk	18.67	11	*e*P	Pn	23 19 53.0	-6.0
MNK				MLR	MLR		
	comp=Z,6µm,10.0s						
MICGM	Minsk	18.67	11	*e*P	Pn	23 19 53.0	-6.1
ETOB	Tobarra	18.68	284	P	Pn	23 20 02.3	+2.9
	comp=Z,340nm,3.0s						
BAIF	Baives	18.74	323	*e*P	Pn	23 20 01.5	+1.5
	comp=Z,206nm,1.2s						
BAIF	Baives	18.74	323	*e*P	Pn	23 20 01.5	+1.5
BAIF				pmax	pmax		
	comp=Z,103nm,1.2s						
BAIF	Baives	18.74	323	*e*P	Pn	23 20 01.5	+1.5
	comp=Z,103nm,1.2s						
BAIF	Baives	18.74	323	*e*P	Pn	23 20 01.5	+1.5
	comp=Z,103nm,1.2s						
IBBN	Ibbenburen	18.84	332	*e*P	Pn	23 20 02.7	+1.6
	comp=Z,313nm,2.2s						
IBBN				*e*S	S	23 23 34.3	+2.2
WTSB	Winterswijk	18.94	330	*e*P	Pn	23 20 01.0	-1.4
	comp=Z,102nm,2.1s						
WTSB	Winterswijk	18.94	330	*e*P	Pn	23 20 01.0	-1.4
	comp=Z,102nm,2.1s						
SJPF	Ste Jean	18.95	298	*e*P	Pn	23 20 02.7	+0.1
	comp=Z,137nm,1.1s						
SJPF	Ste Jean	18.95	298	*e*P	Pn	23 20 02.7	+0.1
SJPF				pmax	pmax		
	comp=Z,69nm,1.1s						
SJPF	Ste Jean	18.95	298	*e*P	Pn	23 20 02.7	+0.1
	comp=Z,68nm,1.1s						
SJPF	Ste Jean	18.95	298	*e*P	Pn	23 20 02.7	+0.1
	comp=Z,68nm,1.1s						
UCC	Uccle	19.16	325	P	Pn	23 20 06.6	+1.7
ELIZ	Elizondo	19.18	298	P	Pn	23 20 06.4	+1.1
ELIZ				pmax	pmax		
	comp=Z,44nm,0.8s						
ELIZ	Elizondo	19.18	298	P	Pn	23 20 06.4	+1.1
	comp=Z,44nm,0.8s						
ETOR	Torete	19.18	291	P	Pn	23 20 08.2	+2.9
ETOR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ETOR	Torete	19.18	291	P	Pn	23 20 08.2	+2.8
	comp=Z,6.7nm,0.8s						
ENIJ	Nijar	19.28	279	P	Pn	23 20 07.8	+1.2
ENIJ				pmax	pmax		
	comp=Z,4.0nm,0.2s						
ENIJ	Nijar	19.28	279	P	Pn	23 20 07.8	+1.3
	comp=Z,4.0nm,0.2s						
VORD	Divnogorie	19.29	35	*e*P	Pn	23 20 04.9	-1.6
VORD				pmax	pmax		
	comp=Z,20nm,0.8s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.4s						
VORD				pmax	pmax		
	comp=E,60nm,0.8s						
VORD				MLR	MLR		
	comp=Z,1µm,12.0s						
VORD				MLR	MLR		
	comp=N,2µm,11.0s						
VORD				MLR	MLR		
	comp=E,670nm,12.0s						
VORD	Divnogorie	19.29	35	*e*P	Pn	23 20 04.9	-1.6
	comp=E,2µm,11.0s						
MFF	Saint Martin d	19.35	309	*e*P	Pn	23 20 07.4	+0.1
	comp=E,256nm,1.4s						
MFF	Saint Martin d	19.35	309	*e*P	Pn	23 20 07.4	+0.1
MFF				pmax	pmax		
	comp=Z,128nm,1.4s						
MFF	Saint Martin d	19.35	309	*e*P	Pn	23 20 07.4	+0.1
	comp=Z,128nm,1.4s						
MFF	Saint Martin d	19.35	309	*e*P	Pn	23 20 07.4	+0.1
	comp=Z,128nm,1.4s						
BSD	Bornholm Skovb	19.40	348	*i* P	Pn	23 20 05.8	-2.0
BSD				pmax	pmax		
	comp=Z,70nm,0.8s						
BSD	Bornholm Skovb	19.40	348	*i* P	Pn	23 20 05.8	-2.0
	comp=Z,70nm,0.8s						
BSD	Bornholm Skovb	19.40	348	*i* P	Pn	23 20 05.8	-2.0
	comp=Z,70nm,0.8s						
VSR	Storozhevoye	19.40	34	*e*P	Pn	23 20 06.3	-1.5
VSR				*e*S	S	23 23 45.3	+1.4
VSR				pmax	pmax		
	comp=Z,20nm,0.6s						
VSR				pmax	pmax		
	comp=N,50nm,1.3s						
VSR				pmax	pmax		
	comp=E,60nm,1.3s						
VSR				smax			
	comp=E,70nm,1.0s						
VSR				smax			
	comp=Z,50nm,1.9s						
VSR				smax			
	comp=N,40nm,1.1s						
VSR				MLR	MLR		
	comp=Z,2µm,12.0s						
VSR				MLR	MLR		
	comp=N,2µm,14.0s						
VSR				MLR	MLR		
	comp=E,1µm,12.0s						
VSR	Storozhevoye	19.40	34	*e*P	Pn	23 20 06.3	-1.5
	comp=E,20nm,0.6s						
VSR				*e*S	S	23 23 45.3	+1.4
	comp=E,2µm,14.0s						
EVIA	Vianos	19.43	284	P	Pn	23 20 14.1	+5.8
EVIA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
EVIA	Vianos	19.43	284	P	Pn	23 20 14.1	+5.8
	comp=Z,9.9nm,0.6s						
TAM	Tamanrasset	19.51	231	*e*P	Pn	23 20 08.6	-0.8
TAM				*e*		23 23 45.3	
TAM				pmax	pmax		
	comp=Z,15nm,0.9s						
TAM	Tamanrasset	19.51	231	*e*Pn	Pn	23 20 08.6	-0.8
	comp=Z,15nm,0.9s						
TAM				*e*Sn	Sn	23 23 45.3	-2.1
TAM	Tamanrasset	19.51	231	*e*P	Pn	23 20 08.6	-0.8
	comp=Z,15nm,0.9s						
TAM				*e*S	S	23 23 45.3	-1.2
EHUE	Huescar	19.53	282	P	Pn	23 20 11.3	+1.8
EHUE				pmax	pmax		
	comp=Z,28nm,1.1s						
EHUE	Huescar	19.53	282	P	Pn	23 20 11.3	+1.8
	comp=Z,28nm,1.1s						
WIT	Witteveen	19.65	332	*e*P	Pn	23 20 15.5	+4.7
	comp=Z,275nm,2.3s						
VOR	Voronezh	19.77	33	*e*P	Pn	23 20 10.0	-2.3
VOR				pmax	pmax		
	comp=Z,200nm,1.0s						
VOR	Voronezh	19.77	33	*e*P	Pn	23 20 10.0	-2.3
	comp=Z,200nm,1.0s						
ECRI	Cripan	19.77	296	P	Pn	23 20 13.2	+0.8
ECRI				pmax	pmax		
	comp=Z,11nm,0.7s						
ECRI	Cripan	19.77	296	P	Pn	23 20 13.2	+0.8
	comp=Z,11nm,0.7s						
EBER	Berja	19.83	279	P	Pn	23 20 15.3	+2.2
	comp=Z,116nm,1.4s						
EQES	Quesada	19.91	282	P	Pn	23 20 14.8	+0.8
	comp=Z,14nm,0.7s						
MENF	Mencas	20.08	321	*e*P	P	23 20 10.1	-3.8
LDF	La Druitiere	20.23	314	*e*P	P	23 20 15.3	-0.3
	comp=Z,123nm,1.1s						
LDF	La Druitiere	20.23	314	*e*P	P	23 20 15.3	-0.3
LDF				pmax	pmax		
	comp=Z,62nm,1.1s						
LDF	La Druitiere	20.23	314	*e*P	P	23 20 15.3	-0.3
	comp=Z,62nm,1.1s						
LDF	La Druitiere	20.23	314	*e*P	P	23 20 15.3	-0.3
	comp=Z,62nm,1.1s						
ECOG	Cogollos-Vega	20.34	280	P	P	23 20 21.2	+4.4
ECOG				pmax	pmax		
	comp=Z,33nm,0.9s						
ECOG	Cogollos-Vega	20.34	280	P	P	23 20 21.2	+4.3
	comp=Z,33nm,0.9s						
EGUA	Guajares	20.38	279	P	P	23 20 20.7	+3.4
EGUA				pmax	pmax		
	comp=Z,285nm,1.1s						
EGUA	Guajares	20.38	279	P	P	23 20 20.7	+3.4
	comp=Z,285nm,1.1s						
COP	Copenhagen	20.41	345⇑	*i*P	P	23 20 18.1	+0.6
COP				pmax	pmax		
	comp=Z,40nm,0.8s						
COP	Copenhagen	20.41	345⇑	*i*P	P	23 20 18.1	+0.6
	comp=Z,40nm,0.8s						
COP	Copenhagen	20.41	345⇑	*i*P	P	23 20 18.1	+0.6
	comp=Z,40nm,0.8s						
EBAN	Banos Encina	20.45	283	P	P	23 20 22.4	+4.3
EBAN				pmax	pmax		
	comp=Z,38nm,1.0s						
EBAN	Banos Encina	20.45	283	P	P	23 20 22.4	+4.3
	comp=Z,38nm,1.0s						
VRHR	Novokhopersk	20.49	38	*e*P	P	23 20 17.6	-0.8
VRHR				*e*S	S	23 24 09.4	+3.8
VRHR				pmax	pmax		
	comp=Z,100nm,0.8s						
VRHR				pmax	pmax		
	comp=N,90nm,1.3s						
VRHR				smax			
	comp=N,330nm,1.6s						
VRHR				smax			
	comp=Z,20nm,1.7s						
VRHR				MLR	MLR		
	comp=Z,510nm,12.0s,MS4.1						
VRHR				MLR	MLR		
	comp=N,2µm,13.0s						
VRHR	Novokhopersk	20.49	38	*e*P	P	23 20 17.6	-0.8
	comp=N,90nm,1.3s						
FLN	La Foliniere	20.52	314	*e*P	P	23 20 18.7	-0.1
	comp=N,106nm,0.9s						
FLN				*e*MLR	MLR		
	comp=Z,3µm,18.2s,MS4.4						
FLN	La Foliniere	20.52	314	*e*P	P	23 20 18.7	-0.1
FLN				pmax	pmax		
	comp=Z,53nm,0.9s						
FLN				MLR	MLR		
	comp=Z,3µm,18.3s,MS4.7						
FLN	La Foliniere	20.52	314	*e*P	P	23 20 18.7	-0.1
	comp=Z,53nm,0.9s						
FLN				LR	LR		
	comp=Z,3µm,18.3s,MS4.7						
FLN	La Foliniere	20.52	314	*e*P	P	23 20 18.7	-0.1
	comp=Z,53nm,0.9s						
ERON	Agron	20.55	280	P	P	23 20 22.2	+3.0
ELAN	Lanestosa	20.56	297	P	P	23 20 21.4	+2.2
	comp=Z,797nm,2.8s						
GRR	Gorron	20.57	313	*e*P	P	23 20 18.7	-0.5
	comp=Z,54nm,0.8s						
GRR	Gorron	20.57	313	*e*P	P	23 20 18.7	-0.5
GRR				pmax	pmax		
	comp=Z,27nm,0.8s						
GRR	Gorron	20.57	313	*e*P	P	23 20 18.7	-0.5
	comp=Z,27nm,0.8s						
GRR	Gorron	20.57	313	*e*P	P	23 20 18.7	-0.5
	comp=Z,27nm,0.8s						
ESDC	Sonseca Array	20.57	287	P	P	23 20 18.4	-0.9
	comp=Z,8.0nm,0.7s,baz=86,slow=12,SNR=28						
ESDC	Sonseca Array	20.57	287	P	P	23 20 21.3	+1.9
	comp=Z,13nm,1.0s						
ESDC	Sonseca Array	20.57	287	P	P	23 20 21.3	+1.9
	comp=Z,13nm,1.0s						
GUD	Guadarrama	20.76	290	P	P	23 20 24.0	+2.6
ELOJ	Sierra Loja	20.81	280	P	P	23 20 26.2	+4.2
ELOJ				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ELOJ	Sierra Loja	20.81	280	P	P	23 20 26.2	+4.1
	comp=Z,6.0nm,0.8s						
MAK	Makhachkala	20.83	64	*e*P	P	23 20 24.0	+1.9
MAK				*e*		23 20 38.5	
MAK				*e*S	S	23 24 15.6	+3.2
MAK				*e*SS		23 24 35.8	
MAK				*e*SSS		23 24 52.5	
MAK				pmax	pmax		
	comp=Z,366nm,1.5s						
MAK				MLR	MLR		
	comp=Z,3µm,16.0s,MS4.7						
MAK	Makhachkala	20.83	64	*e*P	P	23 20 24.0	+1.9
	comp=Z,366nm,1.5s						
MAK				*e*S	S	23 24 15.6	+3.2
PAB	San Pablo	20.86	287	*e*P	P	23 20 23.5	+0.9
PAB				pmax	pmax		
	comp=Z,67nm,1.2s						
PAB	San Pablo	20.86	287	*e*P	P	23 20 23.5	+1.0
	comp=Z,67nm,1.2s						
PAB	San Pablo	20.86	287	*e*P	P	23 20 23.5	+0.9
	comp=Z,67nm,1.2s						
TFO1	Folkestone	20.93	321	AMS	AMS	23 30 19.0	
	comp=Z,5µm,18.4s,MS4.9						
EADA	Adamuz	21.07	283	P	P	23 20 28.0	+3.2
	comp=Z,196nm,2.1s,mb5.1						
EMAL	Malaga-Limoner	21.08	279	*i* S	S	23 24 14.9	-2.6
OBN	Obninsk	21.36	24*d*	*i*P	P	23 20 25.8	-2.0
OBN				*i*		23 20 33.0	
OBN				*i* S	S	23 24 21.5	-1.3
OBN				pmax	pmax		
	comp=Z,78nm,1.3s,mb4.9						
OBN				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.6						
OBN	Obninsk	21.36	24	*e*P	P	23 20 26.0	-1.8
	comp=Z,590nm,1.5s,mb5.7						
OBN	Obninsk	21.36	24	*e*P	P	23 20 26.0	-1.8
	comp=Z,590nm,1.5s,mb5.7						
OBN				*i* S	S	23 24 21.5	-1.3
EMIJ	Mijas	21.37	279	P	P	23 20 33.4	+5.3
	comp=Z,137nm,1.3s,mb5.1						
SGMF	Saint Gilles	21.52	311	*e*P	P	23 20 29.1	-0.5
	comp=Z,46nm,0.7s,mb4.7						
SGMF	Saint Gilles	21.52	311	*e*P	P	23 20 29.1	-0.5
SGMF				pmax	pmax		
	comp=Z,23nm,0.7s,mb4.7						
SGMF	Saint Gilles	21.52	311	*e*P	P	23 20 29.1	-0.5
	comp=Z,23nm,0.7s,mb4.7						
SGMF	Saint Gilles	21.52	311	*e*P	P	23 20 29.1	-0.5
	comp=Z,23nm,0.7s,mb4.7						
JSA	Saint Aubin	21.70	314	*e*P	P	23 20 31.9	+0.5
JSA				AMb	AMB	23 20 42.1	
	comp=Z,122nm,1.5s,mb5.1						
ECAB	El Cabril	21.74	283	P	P	23 20 35.1	+3.1
	comp=Z,367nm,2.6s,mb5.3						
QUIF	Quistinic	21.76	310	*e*P	P	23 20 31.6	-0.5
	comp=Z,162nm,1.0s,mb5.1						
QUIF	Quistinic	21.76	310	*e*P	P	23 20 31.6	-0.5
QUIF				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.1						
QUIF	Quistinic	21.76	310	*e*P	P	23 20 31.6	-0.5
	comp=Z,81nm,1.0s,mb5.1						
QUIF	Quistinic	21.76	310	*e*P	P	23 20 31.6	-0.5
	comp=Z,81nm,1.0s,mb5.1						
EARI	Arriondas	21.85	297	P	P	23 20 37.5	+4.5
	comp=Z,223nm,2.1s,mb5.2						
MUD	Monsted U'grnd	21.89	341	*i* P	P	23 20 37.5	+4.1
MUD				pmax	pmax		
	comp=Z,35nm,0.8s,mb4.8						
MUD	Monsted U'grnd	21.89	341	*i* P	P	23 20 37.5	+4.1
	comp=Z,35nm,0.8s,mb4.8						
EJIF	Jimena Fronter	21.94	279	P	P	23 20 38.5	+4.3
ROSF	Rostrenen	22.00	311	*e*P	P	23 20 33.7	-0.9
	comp=Z,61nm,0.9s,mb4.7						
ROSF	Rostrenen	22.00	311	*e*P	P	23 20 33.7	-0.9
ROSF				pmax	pmax		
	comp=Z,31nm,0.9s,mb4.7						
ROSF	Rostrenen	22.00	311	*e*P	P	23 20 33.7	-0.9
	comp=Z,31nm,0.9s,mb4.7						
MDT	Midelt	22.02	269	P	P	23 20 34.9	-0.1
	comp=Z,17nm,0.8s,mb4.5,baz=84,slow=10,SNR=45						
ZFT	Errachidia	22.04	266	*i* P	P	23 20 36.5	+1.3
ESPR	Espera	22.20	280	P	P	23 20 39.4	+2.5
	comp=Z,262nm,2.7s,mb5.2						
EPLA	Plasencia	22.21	288	P	P	23 20 39.6	+2.7
EPLA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.4						
EPLA	Plasencia	22.21	288	P	P	23 20 39.6	+2.6
	comp=Z,14nm,0.8s,mb4.5						
WOL	Wolverton	22.26	320	*e*P	P	23 20 39.3	+1.9
WOL				AMb	AMB	23 20 48.6	
	comp=Z,281nm,1.5s,mb5.5						
WOL	Wolverton	22.26	320	*e*P	P	23 20 39.3	+1.9
	comp=Z,281nm,1.5s,mb5.5						
MIB	Mutribah	22.32	100	*e*P	P	23 20 36.3	-2.0
MIB				AMb	AMB	23 20 45.9	
	comp=Z,253nm,0.7s,mb5.8						
MIB	Mutribah	22.32	100	*e*P	P	23 20 36.3	-1.9
	comp=Z,253nm,0.7s,mb5.8						
MIF	Mishlifen	22.35	271	*i* P	P	23 20 40.0	+1.4
VSU	Vasula	22.40	7*c*	*i*P	P	23 20 37.0	-1.8
VSU				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.2						
SFS	San Fernando	22.53	279	P	P	23 20 44.0	+3.6
SWN1	Swindon	22.67	319	*e*P	P	23 20 42.5	+0.7
SWN1				AMb	AMB	23 20 46.2	
	comp=Z,242nm,1.9s,mb5.3						
SWN1				AMS	AMS	23 31 46.6	
	comp=Z,3µm,18.3s,MS4.8						
SWN1	Swindon	22.67	319	*e*P	P	23 20 42.5	+0.8
	comp=Z,242nm,1.9s,mb5.3						
UMR	Umm Al-Rimmam	22.72	100	*e*P	P	23 20 40.2	-2.3
UMR				AMb	AMB	23 20 54.9	
	comp=Z,329nm,1.1s,mb5.7						
UMR	Umm Al-Rimmam	22.72	100	*e*P	P	23 20 40.2	-2.3
	comp=Z,329nm,1.1s,mb5.7						
EMIN	Mina Concepcio	22.75	282	P	P	23 20 44.1	+1.4
	comp=Z,28nm,0.9s,mb4.7						
PBRG	Braganca	22.79	293	*e*P	P	23 20 44.7	+1.6
	comp=Z,55nm,1.9s,mb4.7						
PBRG	Braganca	22.79	293	*e*P	P	23 20 44.7	+1.6
	comp=Z,55nm,1.9s,mb4.7						
ECAL	Calabor	22.80	293	P	P	23 20 46.2	+3.0
	comp=Z,11nm,0.9s,mb4.3						
RDF	Al-Radifah	22.85	101	*e*P	P	23 20 42.0	-1.8
RDF				AMb	AMB	23 20 45.4	
	comp=Z,88nm,1.3s,mb5.0						
RDF	Al-Radifah	22.85	101	*e*P	P	23 20 42.0	-1.9
	comp=Z,88nm,1.3s,mb5.0						
EBAD	Badajoz	22.95	285	P	P	23 20 48.3	+3.4
	comp=Z,78nm,1.6s,mb4.9						
MVO	Moncorvo	22.96	291	*e*P	P	23 20 45.4	+0.5
	comp=Z,95nm,2.0s,mb4.9						
MVO				*e*S	S	23 24 54.5	+1.8
MVO	Moncorvo	22.96	291	*e*P	P	23 20 45.4	+0.5
	comp=Z,95nm,2.0s,mb4.9						
MVO				*e*S	S	23 24 54.5	+1.8

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CWF   Charnwood Fore   23.11 323  eP     P      23 20 46.5 +0.1
CWF                               AMb    AMB    23 20 55.8
      comp=Z,103nm,1.4s,mb5.1
CWF                               AMS    AMS    23 31 23.3
      comp=Z,2µm,17.9s,MS4.7
CWF   Charnwood Fore   23.11 323  eP     P      23 20 46.5 +0.1
      comp=Z,103nm,1.4s,mb5.1
PMRV  Marv??o          23.22 287  eP     P      23 20 48.6 +0.9
      comp=Z,73nm,1.4s,mb4.9
PMRV                              eS     S      23 24 58.4 +1.4
PMRV  Marv??o          23.22 287  eP     P      23 20 48.6 +0.9
      comp=Z,73nm,1.4s,mb4.9
PMRV                              eS     S      23 24 58.4 +1.4
KIB   El Ksiba         23.24 269  i P    P      23 20 49.0 +1.1
EPON  Pontenova        23.25 296   P     P      23 20 51.1 +3.2
      comp=Z,9.3nm,0.8s,mb4.3
PCBR  Castelo Branco   23.28 288  eP     P      23 20 53.5 +5.2
      comp=Z,54nm,1.5s,mb4.8
PCBR  Castelo Branco   23.28 288  eP     P      23 20 53.5 +5.2
      comp=Z,54nm,1.5s,mb4.8
DYA   Yadsworthy       23.29 315  eP     P      23 20 49.7 +1.4
DYA                               AMb    AMB    23 20 51.7
      comp=Z,70nm,2.0s,mb4.8
DYA                               AMS    AMS    23 32 13.6
      comp=Z,2µm,17.8s,MS4.6
DYA   Yadsworthy       23.29 315  eP     P      23 20 49.7 +1.4
      comp=Z,70nm,2.0s,mb4.8
MTE   Manteigas        23.33 289  eP     P      23 20 50.8 +2.0
      comp=Z,53nm,1.6s,mb4.7
MTE                               eS     S      23 24 59.9 +1.2
MTE   Manteigas        23.33 289  eP     P      23 20 50.1 +1.3
      comp=Z,24nm,1.0s,mb4.6
PESTR Estremoz         23.40 285  eP     P      23 20 51.0 +1.5
      comp=Z,91nm,1.4s,mb5.0
PESTR                             eS     S      23 25 02.0 +2.2
PESTR Estremoz         23.40 285  eP     P      23 20 51.0 +1.5
      comp=Z,91nm,1.4s,mb5.0
PESTR                             eS     S      23 25 02.0 +2.2
EGRO  El Granado       23.42 282   P     P      23 20 51.9 +2.2
      comp=Z,239nm,2.1s,mb5.3
PVRL  Vila Real        23.48 291  eP     P      23 20 52.4 +2.1
      comp=Z,36nm,1.6s,mb4.6
PVRL  Vila Real        23.48 291  eP     P      23 20 52.4 +2.1
      comp=Z,36nm,1.6s,mb4.6
HEX   Exmoor           23.52 317  eP     P      23 20 51.1 +0.7
HEX   Exmoor           23.52 317  eP     P      23 20 51.2 +0.7
KBI1  Birley Grange    23.53 323  eP     P      23 20 50.4 -0.2
KBI1  Birley Grange    23.53 323  eP     P      23 20 50.4 -0.2
KWE   Weaver Farm      23.54 323  eP     P      23 20 50.5 -0.2
KWE   Weaver Farm      23.54 323  eP     P      23 20 50.5 -0.2
MCH1  Michaelchurch    23.56 320  eP     P      23 20 51.9 +1.0
MCH1                              AMb    AMB    23 20 55.8
      comp=Z,85nm,1.9s,mb4.8
MCH1                              AMS    AMS    23 32 14.2
      comp=Z,4µm,18.5s,MS4.9
MCH1  Michaelchurch    23.56 320  eP     P      23 20 51.9 +1.1
      comp=Z,85nm,1.9s,mb4.8
PVIS  Viseu            23.60 290  eP     P      23 20 53.5 +2.1
      comp=Z,41nm,1.5s,mb4.6
PVIS  Viseu            23.60 290  eP     P      23 20 53.5 +2.1
      comp=Z,41nm,1.5s,mb4.6
PVAQ  Vaqueiros        23.62 282  eP     P      23 20 54.0 +2.5
      comp=Z,133nm,1.7s,mb5.1
PVAQ                              eS     S      23 25 04.0 +0.6
PVAQ  Vaqueiros        23.62 282  eP     P      23 20 54.0 +2.5
      comp=Z,133nm,1.7s,mb5.1
PVAQ                              eS     S      23 25 04.0 +0.6
PBEJ  Beja             23.67 283  eP     P      23 20 52.4 +0.4
      comp=Z,159nm,1.5s,mb5.2
PBEJ  Beja             23.67 283  eP     P      23 20 52.4 +0.4
      comp=Z,159nm,1.5s,mb5.2
PCAB  Cabril           23.74 292  eP     P      23 20 54.7 +2.1
      comp=Z,79nm,1.6s,mb4.9
PCAB  Cabril           23.74 292  eP     P      23 20 54.7 +2.1
      comp=Z,79nm,1.6s,mb4.9
EVO   Evora            23.75 284  eP     P      23 20 53.3 +0.6
      comp=Z,52nm,1.1s,mb4.6
EVO                               eMLR   MLR
      comp=Z,2µm,18.2s,MS4.3
EVO   Evora            23.75 284  eP     P      23 20 54.6 +1.9
      comp=Z,65nm,1.7s,mb4.8
EVO   Evora            23.75 284  eP     P      23 20 54.6 +1.9
      comp=Z,65nm,1.7s,mb4.8
PBDV  Barranco-do-Ve   23.80 281  eP     P      23 20 55.7 +2.5
      comp=Z,177nm,1.7s,mb5.2
PBDV                              eS     S      23 25 08.0 +1.6
PBDV  Barranco-do-Ve   23.80 281  eP     P      23 20 55.7 +2.5
      comp=Z,177nm,1.7s,mb5.2
PBDV                              eS     S      23 25 08.0 +1.6
HTL   Hartland         23.86 316  eP     P      23 20 55.1 +1.4
HTL                               AMb    AMB    23 21 09.4
      comp=Z,114nm,1.8s,mb5.0
HTL                               AMS    AMS    23 32 14.7
      comp=Z,2µm,17.9s,MS4.7
HTL   Hartland         23.86 316  eP     P      23 20 55.1 +1.5
      comp=Z,114nm,1.8s,mb5.0
HPK   Haverah Park     24.00 325   AMS   AMS    23 30 56.9
      comp=Z,2µm,19.3s,MS4.7
PTOM  Tomar            24.00 287  eP     P      23 20 56.4 +1.3
      comp=Z,69nm,1.3s,mb4.9
PTOM  Tomar            24.00 287  eP     P      23 20 56.4 +1.3
      comp=Z,69nm,1.3s,mb4.9
MORF  Marmelete        24.37 282  eS     S      23 25 22.9 +7.4
MORF  Marmelete        24.37 282  eS     S      23 25 22.9 +7.4
PTEO  Sao Teotonio     24.40 282  eP     P      23 20 59.8 +1.1
      comp=Z,186nm,1.7s,mb5.2
PTEO  Sao Teotonio     24.40 282  eP     P      23 20 59.8 +1.1
      comp=Z,186nm,1.7s,mb5.2
HFS   Hagfors          24.41 350   P     P      23 20 57.4 -1.1
HFS                                pmax  pmax
      comp=Z,16nm,0.5s
HFS                                MLR   MLR
      comp=Z,2µm,21.7s
HFS   Hagfors          24.41 350   P     P      23 20 57.4 -1.2
      comp=Z,16nm,0.5s,mb4.7,baz=155,slow=12,SNR=78
HFS                                LR    LR     23 30 39.4
      comp=Z,2µm,21.7s,MS4.5,baz=167,slow=37
PFVI  Vila Bisbo       24.53 281  eP     P      23 21 01.6 +1.8
      comp=Z,83nm,2.0s,mb4.9
PFVI                              eS     S      23 25 19.5 +1.4
PFVI  Vila Bisbo       24.53 281  eP     P      23 21 01.6 +1.8
      comp=Z,83nm,2.0s,mb4.9
PFVI                              eS     S      23 25 19.5 +1.4
KONO  Kongsberg        24.67 345  eP     P      23 21 00.8 -0.1
KONO                                            23 24 37.3
KONO                               pmax  pmax
      comp=Z,144nm,1.1s,mb5.4
KONO  Kongsberg        24.67 345   AMS   AMS    23 30 14.7
      comp=Z,3µm,20.2s,MS4.7
KONO  Kongsberg        24.67 345  eP     P      23 21 00.8 -0.1
      comp=Z,144nm,1.1s,mb5.4
KONO                               PcP   PcP    23 24 37.3  0.0
OSL   Oslo             24.71 347  eP     P      23 21 00.6 -0.7
OSL                                AMb   AMB    23 21 01.8
      comp=Z,68nm,1.6s,mb4.9
XAL   Allendale        24.83 326  eP     P      23 21 02.2 -0.2
XAL   Allendale        24.83 326  eP     P      23 21 02.2 -0.2
BLS5  Blasjo           25.20 341  eP     P      23 21 08.1 +2.4
ECK   Cauldkaine Hil   25.44 326  eP     P      23 21 08.5 +0.6
ECK   Cauldkaine Hil   25.44 326  eP     P      23 21 08.5 +0.5
EKA   Eskdalemuir Ar   25.55 326   P     P      23 21 08.1 -0.9
EKA                                             23 24 41.1
EKA                                pmax  pmax
      comp=Z,16nm,0.8s
EKA                                pmax  pmax
      comp=Z,2.0nm,0.7s
EKA   Eskdalemuir Ar   25.55 326   P     P      23 21 08.1 -0.9
      comp=Z,16nm,0.8s,mb4.6,baz=130,slow=7.4,SNR=24
EKA                                PcP   PcP    23 24 41.0 +1.7
      comp=Z,1.6nm,0.7s,baz=122,slow=5.3,SNR=4.1
ESK   Eskdalemuir      25.56 326  eP     P      23 21 09.8 +0.7
ESK                                AMb   AMB    23 21 16.0
      comp=Z,55nm,1.5s,mb4.9
ESK                                AMS   AMS    23 33 36.2
      comp=Z,3µm,17.1s,MS4.8
ESK   Eskdalemuir      25.56 326  eP     P      23 21 09.2 +0.1
ESK                                pmax  pmax
      comp=Z,31nm,0.8s,mb4.9
ESK   Eskdalemuir      25.56 326  eP     P      23 21 09.2 +0.2
      comp=Z,31nm,0.8s,mb4.9
ESK   Eskdalemuir      25.56 326  eP     P      23 21 09.8 +0.8
      comp=Z,55nm,1.5s,mb4.9
ODD1  Odda             25.58 342  eP     P      23 21 12.0 +2.9
NB2   NORSAR Subarra   25.66 348   P     P      23 21 08.9 -0.9
      comp=Z,14nm,0.7s,mb4.6,baz=155,slow=9.3
NB2   NORSAR Subarra   25.66 348   P     P      23 21 08.9 -0.9
      comp=Z,14nm,0.7s,mb4.6,baz=155,slow=9.0,SNR=7.9
NOA   NORSAR Array B   25.66 348   P     P      23 21 09.0 -0.8
NOA                                pmax  pmax
      comp=Z,8.0nm,0.6s
NOA                                MLR   MLR
      comp=Z,2µm,19.3s
NOA   NORSAR Array B   25.66 348   P     P      23 21 09.0 -0.8
      comp=Z,8.4nm,0.6s,mb4.4,baz=154,slow=9.2,SNR=36
NOA                                LR    LR     23 31 37.4
      comp=Z,2µm,19.3s,MS4.6,baz=175,slow=37
ESY   Stoneypath       25.68 327  eP     P      23 21 10.0 -0.1
ESY   Stoneypath       25.68 327  eP     P      23 21 10.0 -0.1
EBL   Broad Law        25.77 327  eP     P      23 21 10.3 -0.6
EBL   Broad Law        25.77 327  eP     P      23 21 10.4 -0.6
EDI   Edinburgh        25.93 327  eP     P      23 21 12.8 +0.5
EDI                                AMb   AMB    23 21 26.6
      comp=Z,124nm,1.2s,mb5.3
EDI                                AMS   AMS    23 33 41.2
      comp=Z,3µm,17.9s,MS4.8
EDI   Edinburgh        25.93 327   P     P      23 21 12.8 +0.5
EDI                                AMb   AMB    23 21 26.6
      comp=Z,124nm,1.2s,mb5.3
EDI                                AMS   AMS    23 33 41.2
      comp=Z,3µm,17.9s
EDI   Edinburgh        25.93 327  eP     P      23 21 12.8 +0.4
      comp=Z,124nm,1.2s,mb5.3
DSB   Dublin           25.97 320  eP     P      23 21 13.1 +0.4
      comp=Z,43nm,1.3s,mb4.8
KAF   Kangasniemi      25.98   5  eP     P      23 21 12.1 -0.7
KAF                                pmax  pmax
      comp=Z,73nm,0.9s,mb5.2
KAF   Kangasniemi      25.98   5  ep     P      23 21 12.1 -0.7
      comp=Z,73nm,0.9s,mb5.2
EAU   Auchinoon        26.00 327  eP     P      23 21 12.7 -0.3
EAU   Auchinoon        26.00 327  eP     P      23 21 12.7 -0.3
DLF   Lyons Farm       26.07 320  eP     P      23 21 15.0 +1.3
EBH   Black Hill       26.27 327  eP     P      23 21 15.6 +0.1
EBH   Black Hill       26.27 327  eP     P      23 21 15.6 +0.1
BER   Bergen           26.31 341   AMS   AMS    23 31 30.1
      comp=Z,3µm,21.8s,MS4.8
DCN   Croghan          26.49 319  eP     P      23 21 19.4 +1.9
EAB   Aberfoyle        26.60 327  eP     P      23 21 18.1 -0.3
EAB   Aberfoyle        26.60 327  eP     P      23 21 18.1 -0.3
DOMB  Dombas           26.97 347  eP     P      23 21 26.3 +4.6
MCD   Coleburn Disti   27.03 330  eP     P      23 21 21.7 -0.5
MCD   Coleburn Disti   27.03 330  eP     P      23 21 21.7 -0.5
KLMR  Klimovskoe       27.03  19⇓iP     P      23 21 21.5 -0.8
KLMR                              e*PP   pP     23 21 30.9 -1.4
KLMR                              e*SP   sP     23 21 35.8 -0.8
KLMR                              eS     S      23 26 00.8 +3.5
KLMR                               pmax  pmax
      comp=Z,113nm,1.1s,mb5.3
JOF   Joensuu          27.28   9  eP     P      23 21 22.8 -1.7
JOF                                pmax  pmax
      comp=Z,8.0nm,0.3s,mb4.7
JOF   Joensuu          27.28   9  ep     P      23 21 22.8 -1.7
      comp=Z,8.3nm,0.3s,mb4.7
KAR1  Arisaig          27.70 327  eP     P      23 21 28.6 +0.2
KAR1  Arisaig          27.70 327  eP     P      23 21 28.5 +0.2
KPL   Plockton         27.88 328  eP     P      23 21 29.0 -0.9
KPL                                AMb   AMB    23 21 30.6
      comp=Z,63nm,1.8s,mb4.9
KPL                                AMS   AMS    23 34 59.5
      comp=Z,3µm,17.6s,MS5.0
KPL   Plockton         27.88 328  eP     P      23 21 29.0 -0.9
      comp=Z,63nm,1.8s,mb4.9
LRW   Lerwick          28.05 335  eP     P      23 21 29.8 -1.6
LRW                                AMb   AMB    23 21 37.0
      comp=Z,88nm,2.3s,mb5.0
LRW                                AMS   AMS    23 33 29.9
      comp=Z,3µm,21.4s,MS4.8
LRW   Lerwick          28.05 335  eP     P      23 21 29.8 -1.6
      comp=Z,88nm,2.3s,mb5.0
NSS   Namsos           28.87 351  eP     P      23 21 38.3 -0.4
NSS                                AMS   AMS    23 35 09.7
      comp=Z,4µm,17.5s,MS5.1
TORD  Torodi Ar. Bea   29.30 223   P     P      23 21 42.5 -0.3
      comp=Z,35nm,0.8s,mb5.1,baz=34,slow=8.1,SNR=168
TORD                               LR    LR     23 34 52.6
      comp=Z,3µm,18.5s,MS5.0,baz=40,slow=39
PRGR  Permogore        29.44  23  eP     P      23 21 41.5 -2.2
PRGR                              e*PP   pP     23 21 52.6 -1.2
PRGR                              eS     S      23 26 32.5 -2.7
PRGR                               pmax  pmax
      comp=Z,26nm,1.0s,mb4.9
AKTK  Aktyubinsk       29.54  50   P     P      23 21 43.0 -1.7
AKTK                               LR    LR     23 35 29.5
AKTK  Aktyubinsk       29.54  50   P     P      23 21 43.1 -1.6
      comp=Z,4.0nm,1.3s,mb4.0
AKTO  Aktyubinsk       29.54  50   P     P      23 21 43.1 -1.6
AKTO                               pmax  pmax
      comp=Z,4.0nm,1.3s,mb4.0
AKTO  Aktyubinsk       29.54  50   P     P      23 21 43.0 -1.7
      comp=Z,3.0nm,0.4s,mb4.4,baz=262,slow=9.4,SNR=16
AKTO                               LR    LR     23 35 29.5
      comp=Z,697nm,18.5s,MS4.3,baz=257,slow=40
MOR8  Moi Rana         30.22 354  eP     P      23 21 52.3 +1.8
MOR8  Moi Rana         30.22 354  eP     P      23 21 52.3 +1.8
      SNR=31
AB31  Akbulak array    30.50  53   P     P      23 21 51.8 -1.4
AB31                               pmax  pmax
      comp=Z,6.0nm,0.5s,mb4.6
AB31  Akbulak array    30.50  53   P     P      23 21 51.8 -1.4
      comp=Z,6.0nm,0.5s,mb4.6
NAZ   Nazwa, Dubai     31.08 102   P     P      23 21 58.7  0.0
      SNR=5.9
NAZ   Nazwa, Dubai     31.08 102   P     P      23 21 58.7 +0.1
      SNR=5.9
FAQ   Al Faqa, Dubai   31.14 102   P     P      23 21 59.1 -0.1
      SNR=5.6
FAQ   Al Faqa, Dubai   31.14 102   P     P      23 21 59.1 -0.1
      SNR=5.6
HATD  Hatta, Dubai     31.53 102   P     P      23 22 02.3 -0.3
      SNR=7.8
HATD  Hatta, Dubai     31.53 102   P     P      23 22 02.3 -0.3
      SNR=7.8
ARU   Arti             31.82  39d iP     P      23 22 02.5 -2.2
ARU                                pmax  pmax
      comp=Z,24nm,1.3s,mb4.9
ARU   Arti             31.82  39  eP     P      23 22 03.2 -1.5
      comp=Z,47nm,1.0s,mb5.3
ARU   Arti             31.82  39  eP     P      23 22 03.2 -1.5
      comp=Z,47nm,1.0s,mb5.3
APA   Apatity          32.00   8⇑iP     P      23 22 07.8 +1.6
APA                               e             23 27 06.0
APA                                pmax  pmax
      comp=Z,18nm,0.8s,mb5.0
APA                                MLR   MLR
      comp=Z,3µm,14.0s,MS5.2
APA   Apatity          32.00   8  i P    P      23 22 07.8 +1.6
      comp=Z,3µm,14.0s
SOKR  Solikamsk        32.40  33d iP     P      23 22 09.9 +0.1
SOKR                               pmax  pmax
      comp=Z,20nm,0.8s,mb5.0
SOKR                               MLR   MLR
      comp=Z,1µm,15.0s,MS4.8
SOKR  Solikamsk        32.40  33  i P    P      23 22 09.9 +0.1
      comp=Z,1µm,15.0s
LVZ   Lovozero         32.47   9⇓iP     P      23 22 10.3  0.0
LVZ                                pmax  pmax
      comp=Z,74nm,1.7s,mb5.2
LVZ   Lovozero         32.47   9  i P    P      23 22 10.3  0.0
      comp=Z,74nm,1.7s,mb5.2
ARQ   Araqi            32.59 104   P     P      23 22 11.9  0.0
      SNR=8.1
ARQ   Araqi            32.59 104   P     P      23 22 11.9  0.0
      SNR=8.1
SVE   Sverdlovsk       33.03  39⇓eP     P      23 22 14.6 -0.7
SVE                               ePPP          23 23 41.4
SVE                               eS     S      23 27 32.3 +0.9
SVE                                pmax  pmax
      comp=Z,75nm,1.2s,mb5.5
SVE                                MLR   MLR
      comp=Z,1µm,14.0s,MS4.8
SVE   Sverdlovsk       33.03  39  eP     P      23 22 14.6 -0.7
      comp=Z,75nm,1.2s,mb5.5
HOQ   Hoqain           33.08 103   P     P      23 22 15.2 -1.0
      SNR=16
HOQ   Hoqain           33.08 103   P     P      23 22 15.2 -1.0
      SNR=16
ARE0  ARCESS Array S   33.35   2  eP     P      23 22 17.7 -0.3
ARE0  ARCESS Array S   33.35   2  eP     P      23 22 17.7 -0.3
ARCES ARCESS Array B   33.35   2   P     P      23 22 16.8 -1.2
ARCES                              pmax  pmax
      comp=Z,11nm,0.7s
ARCES                              MLR   MLR
      comp=Z,3µm,19.7s
ARCES ARCESS Array B   33.35   2   P     P      23 22 16.8 -1.2
      comp=Z,11nm,0.7s,mb4.9,baz=188,slow=11,SNR=28
ARCES                              LR    LR     23 37 09.6
      comp=Z,3µm,19.7s,MS5.0,baz=184,slow=39
ARCES ARCESS Array B   33.35   2   P     P      23 22 16.8 -1.2
      comp=Z,3µm,19.7s
TRO   Tromso           33.42 358  eP     P      23 22 19.0 +0.4
TRO                                AMS   AMS    23 37 37.6
      comp=Z,4µm,14.9s,MS5.2
TRO   Tromso           33.42 358  eP     P      23 22 19.0 +0.4
      SNR=31
BSY   Bisya            33.43 104   P     P      23 22 18.9 -0.4
      SNR=15
BSYO  Bisya            33.47 104   P     P      23 22 18.9 -0.7
      SNR=15
KEV   Kevo             33.63   3  eP     P      23 22 19.5 -0.9
KEV                                pmax  pmax
      comp=Z,44nm,0.9s,mb5.4
KEV   Kevo             33.63   3  ep     P      23 22 19.5 -0.9
      comp=Z,44nm,0.9s,mb5.4
KEV   Kevo             33.63   3  eP     P      23 22 19.5 -0.9
      comp=Z,44nm,0.9s,mb5.4
ABTO  Aybut            33.63 116   P     P      23 22 21.1 +0.1
      SNR=10
ABTO  Aybut            33.63 116   P     P      23 22 21.1 +0.1
      SNR=10
SMDO  Samad            33.93 103   P     P      23 22 22.9 -0.7
      SNR=19
SMDO  Samad            33.93 103   P     P      23 22 22.9 -0.7
      SNR=19
RBK   Rabkut           34.20 115   P     P      23 22 25.8 -0.1
      SNR=13
RBK   Rabkut           34.20 115   P     P      23 22 25.8 -0.1
      SNR=13
JMDO  Jabal Madar      34.34 104   P     P      23 22 26.3 -0.8
      SNR=20
JMDO  Jabal Madar      34.34 104   P     P      23 22 26.3 -0.8
      SNR=20
WBK   Wadi Bani Khal   34.89 103   P     P      23 22 32.0  0.0
      SNR=25
BRVK  Borovoye         37.51  48  eP     P      23 22 53.5 -0.4
BRVK                              e             23 24 20.4
BRVK                               pmax  pmax
      comp=Z,37nm,1.1s,mb5.0
BRVK  Borovoye         37.51  48  eP     P      23 22 53.5 -0.4
      comp=Z,37nm,1.1s,mb5.0
BRVK                              ePP    PP     23 24 20.4 +0.7
BRVK  Borovoye         37.51  48  eP     P      23 22 53.5 -0.4
      comp=Z,37nm,1.1s,mb5.0
KK31  Karatay Array    37.64  64  i P    P      23 22 54.7 -0.5
KK31                               pmax  pmax
      comp=Z,9.0nm,0.4s,mb4.8
KK31  Karatay Array    37.64  64  i P    P      23 22 54.7 -0.5
      comp=Z,9.0nm,0.4s,mb4.8
MBAR  Mbarara          37.65 165⇑iP     P      23 22 56.8 +1.4
MBAR  Mbarara          37.65 165  i P    P      23 22 56.8 +1.4
VOSK  Vostochnaya      37.89  49   P     P      23 22 55.4 -1.8
VOSK                               pmax  pmax
      comp=Z,25nm,1.3s,mb4.8
VOSK  Vostochnaya      37.89  49   P     P      23 22 55.4 -1.8
      comp=Z,25nm,1.3s,mb4.8
JMIC  Jan Mayen        38.24 344   LR    LR     23 39 51.3
      comp=Z,557nm,18.2s,MS4.4,baz=99,slow=38
DBIC  Dimbokro         38.28 226   P     P      23 23 00.2 -0.6
DBIC                               pmax  pmax
      comp=Z,34nm,0.8s
DBIC                               MLR   MLR
      comp=Z,2µm,18.8s
DBIC  Dimbokro         38.28 226   P     P      23 23 00.1 -0.7
      comp=Z,34nm,0.8s,mb5.1,baz=21,slow=10,SNR=37
DBIC                               LR    LR     23 40 47.8
      comp=Z,2µm,18.8s,MS4.9,baz=11,slow=39
DBIC  Dimbokro         38.28 226   P     P      23 23 00.2 -0.6
      comp=Z,2µm,18.8s
TIC   Toumodi          38.39 226  eP     P      23 23 01.2 -0.6
      comp=Z,159nm,1.0s,mb5.7
KIC   Kosan Boka       38.46 226  eP     P      23 23 01.8 -0.6
      comp=Z,180nm,0.9s,mb5.8
LIC   Lamto            38.74 226  eP     P      23 23 04.2 -0.5
      comp=Z,118nm,0.9s,mb5.3
LIC                               eMLR   MLR
      comp=Z,3µm,19.2s,MS4.8
LIC   Lamto            38.74 226  eP     P      23 23 04.2 -0.5
      comp=Z,59nm,0.9s,mb5.3
LIC                                LR    LR
      comp=Z,1µm,19.3s,MS4.8
LIC   Lamto            38.74 226  eP     P      23 23 04.2 -0.5
      comp=Z,59nm,0.9s,mb5.3
KMBO  Kilima Mbogo     39.92 155   P     P      23 23 15.5 +1.0
KMBO                               pmax  pmax
      comp=Z,3.0nm,0.8s
KMBO                               MLR   MLR
      comp=Z,1µm,18.9s
KMBO  Kilima Mbogo     39.92 155   P     P      23 23 15.5 +1.0
      comp=Z,3.0nm,0.8s,mb4.1,baz=227,slow=23,SNR=4.7
KMBO                               LR    LR     23 41 42.8
      comp=Z,1µm,18.9s,MS4.7,baz=332,slow=39
KMBO  Kilima Mbogo     39.92 155   P     P      23 23 15.5 +1.0
      comp=Z,1µm,18.9s
EKS2  Erkin-Say        40.08  64   P     P      23 23 15.7 +0.1
      SNR=23
EKS2  Erkin-Say        40.08  64  eP     P      23 23 15.6  0.0
      comp=Z,23nm,0.8s,mb5.0
EKS2  Erkin-Say        40.08  64  eP     P      23 23 15.6  0.0
      comp=Z,23nm,0.8s,mb5.0
AML   Almayashu        40.10  65   P     P      23 23 16.4 +0.6
      SNR=6.1
AML   Almayashu        40.10  65  eP     P      23 23 16.3 +0.5
      comp=Z,11nm,0.7s,mb4.7
AML   Almayashu        40.10  65  eP     P      23 23 16.3 +0.5
      comp=Z,11nm,0.7s,mb4.7
USP   Ospenovka        40.51  63   P     P      23 23 19.0 -0.2
      SNR=14
AAK   Ala-Archa        40.60  64⇑iP     P      23 23 19.5 -0.5
AAK                                pmax  pmax
      comp=Z,8.0nm,1.3s,mb4.2
AAK   Ala-Archa        40.60  64   P     P      23 23 19.3 -0.7
      SNR=6.6
AAK   Ala-Archa        40.60  64  eP     P      23 23 20.1 +0.1
      comp=Z,32nm,1.0s,mb4.9
AAK   Ala-Archa        40.60  64  eP     P      23 23 20.1 +0.1
      comp=Z,32nm,1.0s,mb4.9
UCH   Uchtor           40.69  65  eP     P      23 23 21.1 +0.5
      comp=Z,8.5nm,0.6s,mb4.5
UCH                               ePcP   PcP    23 25 22.6 +0.8
UCH   Uchtor           40.69  65  eP     P      23 23 21.1 +0.5
      comp=Z,8.5nm,0.6s,mb4.5
SCO   Scoresbysund     41.30 339  i P    P      23 23 26.9 +1.6
SCO                                pmax  pmax
      comp=Z,18nm,1.0s,mb4.7
SCO   Scoresbysund     41.30 339  i P    P      23 23 26.9 +1.6
      comp=Z,18nm,1.0s,mb4.7
SCO   Scoresbysund     41.30 339  i P    P      23 23 26.9 +1.6
      comp=Z,18nm,1.0s,mb4.7
TKM2  Tokmak 2         41.36  64  eP     P      23 23 25.7 -0.5
TKM2                               pmax  pmax
      comp=Z,18nm,1.0s,mb4.7
TKM2  Tokmak 2         41.36  64  eP     P      23 23 25.7 -0.4
      comp=Z,18nm,1.0s,mb4.7
TKM2  Tokmak 2         41.36  64  eP     P      23 23 25.7 -0.5
      comp=Z,18nm,1.0s,mb4.7
ULHL  Ulahol           41.95  65   P     P      23 23 29.5 -1.5
      SNR=17
KSH   Kashi            42.31  69   P     P      23 23 33.3 -0.7
KSH                               epP    pP     23 23 45.0 +0.6
KSH                               esP    sP     23 23 51.1 +2.5
KSH                               ePP    PP     23 25 14.0 +1.7
KSH                               ePcP   PcP    23 25 29.0 +1.8
KSH                               eScP   ScP    23 29 14.1 -0.9
KSH                               ePcS   PcS    23 29 19.0  0.0
KSH                                S     S      23 29 47.8 -4.7
KSH                                sS    sS     23 30 08.0 -1.6
KSH                               eScS   ScS    23 33 30.3 -2.8
KSH                                pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.4
KSH                                pmax  pmax
      comp=Z,200nm,3.9s
KSH                                LR    LR
      comp=N,670nm,15.8s,MS5.0
KSH                                LR    LR
      comp=E,2µm,18.6s,MS5.0
KSH                                LR    LR
      comp=Z,570nm,10.6s
KURK  Kurchatov        42.59  52  eP     P      23 23 34.7 -1.4
KURK                               pmax  pmax
      comp=Z,21nm,1.1s,mb4.8
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KURK	**Kurchatov**	**42.59**	**52**	*e*P	**P**	**23 23 34.7**	**-1.4**
	comp=Z,21nm,1.1s,mb4.8						
KURK	**Kurchatov**	**42.59**	**52**	*e*P	**P**	**23 23 34.7**	**-1.4**
	comp=Z,21nm,1.1s,mb4.8						
KBS	**Kingsbay**	**42.92**	**357**	*e*P	**P**	**23 23 39.3**	**+0.8**
KBS				*e*SS	SS	23 33 11.1	-1.5
KBS				AMS	AMS	23 43 49.5	
	comp=Z,1µm,16.3s,MS5.0						
KBS	**Kingsbay**	**42.92**	**357**	*e*P	**P**	**23 23 39.3**	**+0.8**
	SNR=28						
THN	**Thein Dam**	**44.19**	**79**	*e*PKP	**P**	**23 23 48.6**	**-0.6**
NVS	**Novosibirsk**	**45.22**	**46**	⇑*i*P	**P**	**23 23 56.6**	**-0.5**
NVS				*e*		23 25 46.9	
NVS				*e*S	**S**	**23 30 32.9**	**-1.6**
NVS				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.2						
NVS				pmax	pmax		
	comp=N,18nm,1.5s						
NVS				pmax	pmax		
	comp=E,21nm,1.3s						
NVS				pmax	pmax		
	comp=Z,44nm,2.1s,mb4.9						
NVS				pmax	pmax		
	comp=N,10.0nm,1.6s						
NVS				pmax	pmax		
	comp=E,15nm,1.0s						
NVS				smax			
	comp=N,107nm,2.3s						
NVS				smax			
	comp=E,39nm,2.1s						
NVS	**Novosibirsk**	**45.22**	**46**	*i* P	**P**	**23 23 56.6**	**-0.5**
	comp=E,18nm,1.5s,mb4.7						
MKAR	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 23 57.3**	**-1.6**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MKAR				MLR	MLR		
	comp=Z,1µm,18.5s						
MKAR	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 23 57.3**	**-1.6**
	comp=Z,4.0nm,0.3s,mb4.7,baz=271,slow=7.9,SNR=92						
MKAR				LR	LR	23 47 13.5	
	comp=Z,1µm,18.5s,MS4.8,baz=268,slow=42						
MKAR	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 23 57.3**	**-1.6**
	comp=Z,1µm,18.5s						
SDNR	**Sundarnagar**	**45.51**	**79**	*e*PKP	**P**	**23 24 00.0**	**+0.2**
KHET	**Khetri**	**45.92**	**84**	*e*PKP	**P**	**23 24 02.4**	**-0.7**
KHET				AMb	AMB	23 24 11.5	
	comp=Z,16nm,1.2s,mb4.8						
ZAA0	**Zalesovo Array**	**46.19**	**47**	*e*P	**P**	**23 24 02.9**	**-2.0**
ZAA0				S	**S**	**23 30 48.6**	**+0.1**
ZAA0	**Zalesovo Array**	**46.19**	**47**	*e*P	**P**	**23 24 02.8**	**-2.0**
ZALV	**Zalesovo Beam**	**46.19**	**47**	P	**P**	**23 24 03.1**	**-1.7**
ZALV				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.0						
ZALV				MLR	MLR		
	comp=Z,713nm,18.1s,MS4.7						
ZALV	**Zalesovo Beam**	**46.19**	**47**	P	**P**	**23 24 03.1**	**-1.7**
	comp=Z,10nm,0.5s,mb5.0,baz=271,slow=8.7,SNR=38						
ZALV				LR	LR	23 46 52.6	
	comp=Z,713nm,18.1s,MS4.7,baz=268,slow=41						
ZALV	**Zalesovo Beam**	**46.19**	**47**	P	**P**	**23 24 03.1**	**-1.7**
	comp=Z,713nm,18.1s						
KUDL	**Kundal**	**46.45**	**84**	*e*PKP	**P**	**23 24 06.7**	**-0.5**
KUDL				AMb	AMB	23 24 25.4	
	comp=Z,39nm,1.4s,mb5.2						
NDI	**New Delhi**	**46.81**	**83**	*e*PKP	**P**	**23 24 09.0**	**-1.0**
NDI				*e*S	**S**	**23 30 56.0**	**-2.0**
AYAN	**Aya Nagar**	**46.82**	**83**	*e*PKP	**P**	**23 24 09.6**	**-0.5**
AYAN				AMb	AMB	23 24 10.6	
	comp=Z,18nm,1.1s,mb4.9						
SONA	**Sohna**	**46.88**	**83**	*e*PKP	**P**	**23 24 09.7**	**-0.8**
SONA				AMb	AMB	23 24 28.6	
	comp=Z,28nm,1.3s,mb5.0						
SUMG	**Summit**	**46.94**	**339**	*e*P	**P**	**23 24 10.8**	**+0.4**
	comp=Z,33nm,1.1s,mb5.2						
SUMG				PcP	PcP	23 25 42.4	-0.1
SUMG	**Summit**	**46.94**	**339**	*e*P	**P**	**23 24 10.8**	**+0.4**
	comp=Z,33nm,1.1s,mb5.2						
JOSI	**Joshimath**	**47.93**	**79**	*e*PKP	**P**	**23 24 18.7**	**0.0**
AGRA	**Agra**	**48.00**	**84**	*e*PKP	**P**	**23 24 18.3**	**-1.0**
AGRA				AMb	AMB	23 24 30.4	
	comp=Z,41nm,0.2s,mb6.2						
POO	**Poona**	**48.88**	**97**	⇓*i*P	**P**	**23 24 24.0**	**-2.1**
	comp=Z,60nm,1.0s,mb5.6						
LGTI	**Lohaghat**	**48.91**	**80**	*e*x	x	23 24 22.1	
WMQ	**Urumqi**	**49.78**	**60**	*e*P	**P**	**23 24 32.4**	**-0.4**
WMQ				pP	pP	23 24 45.0	+1.7
WMQ				sP	sP	23 24 50.0	+2.5
WMQ				PcP	PcP	23 25 54.0	+0.8
WMQ				*e*S	**S**	**23 31 37.0**	**-2.7**
WMQ				sS	sS	23 31 59.0	+2.0
WMQ				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.1						
WMQ				pmax	pmax		
	comp=Z,270nm,4.9s						
WMQ				LR	LR		
	comp=N,2µm,18.7s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,17.4s,MS5.2						
WMQ				LR	LR		
	comp=Z,1µm,18.0s,MS4.9						
KAD	**Karad**	**49.80**	**98**	⇑*e*PKP	**P**	**23 24 32.4**	**-0.8**
SFJD	**Kangerlussuaq**	**50.37**	**331**	*i* P	**P**	**23 24 40.0**	**+3.2**
SFJD				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
SFJD	**Kangerlussuaq**	**50.37**	**331**	*i* P	**P**	**23 24 40.0**	**+3.2**
	comp=Z,7.9nm,1.1s,mb4.7						
SFJD	**Kangerlussuaq**	**50.37**	**331**	P	**P**	**23 24 37.1**	**+0.3**
	comp=Z,11nm,1.1s,mb4.8,baz=64,slow=7.7,SNR=6.0						
SFJD				LR	LR	23 48 21.8	
	comp=Z,2µm,18.8s,MS5.1,baz=64,slow=39						
LSZ	**Lusaka**	**51.65**	**172**	*e*P	**P**	**23 24 46.9**	**-0.1**
LSZ				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
LSZ	**Lusaka**	**51.65**	**172**	*e*P	**P**	**23 24 46.9**	**-0.1**
	comp=Z,6.9nm,0.8s,mb4.6						
DANN	**Dangsing**	**52.17**	**80**	*e*P	**P**	**23 24 50.8**	**-0.1**
KOLN	**Koldanda**	**52.29**	**81**	*e*P	**P**	**23 24 51.0**	**-0.8**
	comp=Z,66nm,0.8s,mb5.6						
GKN	**Gorkha**	**53.02**	**80**	*e*P	**P**	**23 24 56.4**	**-0.8**
	comp=Z,41nm,0.5s,mb5.6						
HYB	**Hyderabad**	**53.25**	**95**	*i* P	**P**	**23 24 58.0**	**-1.0**
HYB	**Hyderabad**	**53.25**	**95**	*e*P	**P**	**23 24 58.0**	**-1.0**
DMN	**Daman**	**53.56**	**80**	*e*P	**P**	**23 25 00.7**	**-0.5**
KKN	**Kakani**	**53.62**	**80**	*e*P	**P**	**23 25 00.7**	**-1.0**
	comp=Z,40nm,0.6s,mb5.5						
KKN	**Kakani**	**53.62**	**80**	*e*P	**P**	**23 25 00.7**	**-1.0**
KKN				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.5						
PKI	**Pulchoki**	**53.82**	**80**	*e*P	**P**	**23 25 02.4**	**-0.7**
GUN	**Gumba**	**54.05**	**79**	*e*P	**P**	**23 25 04.2**	**-0.5**
JIRN	**Jiri**	**54.40**	**80**	*e*P	**P**	**23 25 06.8**	**-0.6**
	comp=Z,73nm,0.7s,mb5.7						
RAMN	**Ramite**	**55.05**	**80**	*e*P	**P**	**23 25 10.7**	**-1.3**
	comp=Z,77nm,0.7s,mb5.9						
ODAN	**Odare**	**55.72**	**80**	*e*P	**P**	**23 25 15.9**	**-0.9**
TAPN	**Taplejung**	**55.75**	**79**	*e*P	**P**	**23 25 16.3**	**-0.8**
	comp=Z,37nm,0.6s,mb5.6						
MOY	**Mondy**	**56.24**	**47**	*e*P	**P**	**23 25 26.3**	**+6.1**
LSA	**Lhasa**	**57.41**	**75**	P	**P**	**23 25 29.8**	**+0.9**
LSA				pP	pP	23 25 37.6	-1.9
LSA				sP	sP	23 25 41.1	-2.6
LSA				PcP	PcP	23 26 18.6	-3.9
LSA				PP	PP	23 27 37.3	+1.0
LSA				S	**S**	**23 33 22.3**	**-1.1**
LSA				ScS	ScS	23 35 16.1	+0.4
LSA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
LSA				LR	LR		
	comp=N,590nm,25.9s						
LSA				LR	LR		
	comp=E,680nm,20.6s						
LSA				LR	LR		
	comp=Z,750nm,25.2s,MS4.7						
LSA	**Lhasa**	**57.41**	**75**	*e*P	**P**	**23 25 28.5**	**-0.4**
LSA				*e*S	**S**	**23 33 24.2**	**+0.8**
LSA				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
LSA	**Lhasa**	**57.41**	**75**	*e*P	**P**	**23 25 28.5**	**-0.4**
	comp=Z,26nm,0.7s,mb5.4						
LSA				*e*S	**S**	**23 33 24.2**	**+0.8**
TLY	**Talaya**	**57.81**	**47**	*e*P	**P**	**23 25 31.2**	**-0.1**
TLY				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
TLY				MLR	MLR		
	comp=Z,856nm,16.0s,MS5.0						
TLY	**Talaya**	**57.81**	**47**	*e*P	**P**	**23 25 32.2**	**+1.0**
ZAK	**Zakamensk**	**58.02**	**48**	*e*P	**P**	**23 25 32.4**	**-0.4**
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
GTA	**Gaotai**	**59.81**	**61**	*e*P	**P**	**23 25 45.3**	**-0.1**
GTA				pP	pP	23 25 56.8	+0.7
GTA				sP	sP	23 26 02.3	+2.0
GTA				PP	PP	23 28 00.3	+2.9
GTA				S	**S**	**23 33 53.4**	**-1.0**
GTA				sS	sS	23 34 14.3	+2.3
GTA				SS	SS	23 37 50.3	0.0
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
GTA				pmax	pmax		
	comp=Z,130nm,6.5s						
GTA				LR	LR		
	comp=N,740nm,20.2s,MS4.9						
GTA				LR	LR		
	comp=E,560nm,20.5s,MS4.9						
GTA				LR	LR		
	comp=Z,750nm,20.5s,MS4.8						
SHL	**Shillong**	**59.89**	**79**	*e*PKP	**P**	**23 25 46.0**	**-0.1**
SHL				*e*x	x	23 33 52.0	
AGT	**Agartala**	**60.20**	**81**	*e*x	x	23 25 59.0	
SCHQ	**Schefferville**	**60.54**	**318**	P	**P**	**23 25 50.4**	**+0.3**
	comp=Z,5.9nm,0.8s,mb4.8,baz=47,slow=5.7,SNR=20						
SCHQ				LR	LR	23 51 45.9	
	comp=Z,914nm,18.6s,MS5.0,baz=70,slow=36						
SCHQ	**Schefferville**	**60.54**	**318**	P	**P**	**23 25 50.4**	**+0.3**
SCHQ				LR	LR	23 51 45.9	
PALK	**Pallekele**	**60.78**	**103**	*e*P	**P**	**23 25 51.9**	**-0.5**
SONM	**Songino Array**	**60.86**	**50**	P	**P**	**23 25 51.5**	**-0.9**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.5s						
SONM				MLR	MLR		
	comp=Z,2µm,19.4s						
SONM	**Songino Array**	**60.86**	**50**	P	**P**	**23 25 51.5**	**-1.0**
	comp=Z,3.0nm,0.5s,mb4.7,baz=282,slow=8.1,SNR=22						
SONM				LR	LR	23 55 41.5	
	comp=Z,2µm,19.4s,MS5.2,baz=131,slow=40						
TIXI	**Tiksi**	**61.05**	**20**	⇑*i*P	**P**	**23 25 53.0**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
TIXI	**Tiksi**	**61.05**	**20**	*e*P	**P**	**23 25 53.3**	**0.0**
	comp=Z,7.0nm,0.5s,mb5.0						
BOD	**Bodaibo**	**61.22**	**38**	*e*P	**P**	**23 25 52.3**	**-2.4**
BOD				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
BOD				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
ULN	**Ulaanbaatar**	**61.25**	**50**	⇑*i*P	**P**	**23 25 54.2**	**-0.9**
ULN	**Ulaanbaatar**	**61.25**	**50**	*e*P	**P**	**23 25 54.7**	**-0.4**
	comp=Z,7.6nm,0.7s,mb4.9						
RES	**Resolute Bay**	**61.85**	**344**	*e*P	**P**	**23 26 00.0**	**+1.3**
RES				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
RES	**Resolute Bay**	**61.85**	**344**	P	**P**	**23 25 59.7**	**+1.0**
	comp=Z,3.5nm,0.8s,mb4.6,baz=31,slow=9.1,SNR=7.3						
RES	**Resolute Bay**	**61.85**	**344**	*e*P	**P**	**23 25 60.0**	**+1.2**
	comp=Z,8.6nm,1.1s,mb4.8						
LZH	**Lanzhou**	**64.12**	**63**	*e*P	**P**	**23 26 16.8**	**+2.3**
LZH				pP	pP	23 26 26.6	+1.4
LZH				sP	sP	23 26 30.8	+1.4
LZH				PcP	PcP	23 26 50.8	+1.4
LZH				PP	PP	23 28 40.0	+4.6
LZH				*e*S	**S**	**23 34 43.5**	**-5.4**
LZH				sS	sS	23 35 01.3	-5.4
LZH				SS	SS	23 39 00.1	+2.2
LZH				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
LZH				pmax	pmax		
	comp=Z,67nm,4.6s						
LZH				LR	LR		
	comp=N,830nm,15.4s						
LZH				LR	LR		
	comp=Z,930nm,17.3s,MS5.0						
BOSA	**Boshof**	**64.66**	**177**	P	**P**	**23 26 17.9**	**+0.1**
BOSA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
BOSA				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.1						
BOSA	**Boshof**	**64.66**	**177**	P	**P**	**23 26 17.9**	**+0.1**
	comp=Z,7.7nm,0.6s,mb4.9,baz=2.6,slow=6.1,SNR=31						
BOSA				LR	LR	23 56 45.9	
	comp=Z,1µm,18.0s,MS5.1,baz=0.1,slow=38						
YAK	**Yakutsk**	**66.23**	**29**	*e*P	**P**	**23 26 26.4**	**-1.3**
YAK				*e**PP	pP	23 26 35.7	-2.8
YAK				*e*PPP		23 30 25.4	
YAK				*e*S	S	23 35 14.0	+0.1
YAK				*e*		23 36 11.8	
YAK				*e*SSS		23 42 24.7	
YAK				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,3.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
YAK				smax			
	comp=N,155nm,4.7s						
YAK				smax			
	comp=E,40nm,2.5s						
YAK	**Yakutsk**	**66.23**	**29**	*e*P	**P**	**23 26 26.4**	**-1.2**
	comp=E,34nm,0.6s,mb5.6						
CD2	**Chengdu**	**66.51**	**68**	P	**P**	**23 26 29.3**	**-0.7**
CD2				pP	pP	23 26 42.3	+1.5
CD2				sP	sP	23 26 47.6	+2.7
CD2				PP	PP	23 28 57.8	+1.4
CD2				S	S	23 35 14.0	-4.3
CD2				sS	sS	23 35 35.8	-0.4
CD2				SS	SS	23 39 32.3	-2.9
CD2				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
CD2				pmax	pmax		
	comp=Z,150nm,5.4s						
CD2				LR	LR		
	comp=N,880nm,26.2s						
CD2				LR	LR		
	comp=Z,660nm,19.6s						
HHC	**Hu-ho-hao-te**	**67.25**	**55**	*e*P	**P**	**23 26 33.8**	**-0.7**
HHC				pP	pP	23 26 46.8	+1.4
HHC				sP	sP	23 26 51.8	+2.3
HHC				PP	PP	23 29 02.3	-0.3
HHC				PcS		23 31 05.0	
HHC				*e*S	S	23 35 21.4	-5.5
HHC				sS	sS	23 35 44.0	-0.8
HHC				ScS	ScS	23 36 23.0	-6.7
HHC				SS	SS	23 39 43.3	-2.9
HHC				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
HHC				pmax	pmax		
	comp=Z,160nm,4.9s						
HHC				LR	LR		
	comp=N,370nm,19.4s,MS4.9						
HHC				LR	LR		
	comp=E,660nm,19.0s,MS4.9						
HHC				LR	LR		
	comp=Z,660nm,19.1s,MS4.9						
HIA	**Hailar**	**68.13**	**44**	*e*P	**P**	**23 26 39.2**	**-0.7**
HIA						23 29 10.0	
HIA				pmax	pmax		
	comp=Z,15nm,0.9s						
HIA	**Hailar**	**68.13**	**44**	*e*P	**P**	**23 26 39.2**	**-0.8**
	comp=Z,15nm,0.9s,mb5.0						
HIA				PP	PP	23 29 10.0	-0.1
KMI	**Kunming**	**68.63**	**74**	P	**P**	**23 26 44.6**	**+1.1**
KMI				pP	pP	23 26 57.4	+3.1
KMI				PcP	PcP	23 27 09.3	+1.0
KMI				PP	PP	23 29 18.0	+3.0
KMI				S	S	23 35 41.4	-2.5
KMI				sS	sS	23 36 03.1	+1.3
KMI				SS	SS	23 40 06.4	-1.9
KMI				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.3						
KMI				LR	LR		
	comp=N,620nm,20.5s,MS4.9						
KMI				LR	LR		
	comp=E,460nm,18.8s,MS4.9						
KMI				LR	LR		
	comp=Z,470nm,19.7s,MS4.7						
XAN	**Xi’an**	**68.76**	**63**	P	**P**	**23 26 43.8**	**-0.3**
XAN				pP	pP	23 26 53.0	-2.0
XAN				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.5						
CHTO	**Chiang Mai**	**68.94**	**82**	*e*P	**P**	**23 26 44.5**	**-0.9**
CHTO				*e*		23 29 18.5	
CHTO				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
CHTO	**Chiang Mai**	**68.94**	**82**	*e*P	**P**	**23 26 44.5**	**-0.9**
	comp=Z,25nm,1.4s,mb5.0						
CHTO				*e*PP	PP	23 29 18.5	+0.7
CMAR	**Chiang Mai Arr**	**69.13**	**82**	P	**P**	**23 26 45.4**	**-1.2**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
CMAR				MLR	MLR		
	comp=Z,451nm,21.9s						
CMAR	**Chiang Mai Arr**	**69.13**	**82**	P	**P**	**23 26 45.4**	**-1.3**
	comp=Z,2.0nm,0.4s,mb4.4,baz=303,slow=8.5,SNR=20						
CMAR				LR	LR	00 01 40.1	
	comp=Z,451nm,21.9s,MS4.7,baz=100,slow=40						
BJI	**Beijing**	**70.70**	**54**	P	**P**	**23 26 55.5**	**-0.5**
BJI				S	S	23 36 07.8	+0.1
BJI				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
BJI				pmax	pmax		
	comp=Z,163µm,3.4s						
BJI				LR	LR		
	comp=N,610nm,31.7s,MS4.8						
BJI				LR	LR		
	comp=E,470nm,27.8s,MS4.8						
BJI				LR	LR		
	comp=Z,610nm,30.6s,MS4.7						
BJT	**Baijiatuau**	**70.70**	**54**	*e*P	**P**	**23 26 56.1**	**+0.1**
BJT				pmax	pmax		
	comp=Z,14nm,0.6s						
BJT	**Baijiatuau**	**70.70**	**54**	*e*P	**P**	**23 26 56.1**	**+0.1**
	comp=Z,14nm,0.6s,mb5.1						
GYA	**Guiyang**	**70.96**	**71**	P	**P**	**23 26 57.9**	**+0.1**
GYA				pP	pP	23 27 11.4	+2.7
GYA				PP	PP	23 29 37.8	+2.7
GYA				S	S	23 36 08.8	-2.4
GYA				sS	sS	23 36 30.0	+0.8
GYA				SS	SS	23 40 43.8	-0.3
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,120nm,5.1s						
GYA				LR	LR		
	comp=N,490nm,18.8s,MS4.9						
GYA				LR	LR		
	comp=E,460nm,19.4s,MS4.9						
GYA				LR	LR		
	comp=Z,410nm,19.5s,MS4.7						
FCC	**Fort Churchill**	**71.38**	**330**	*e*P	**P**	**23 27 00.7**	**+1.0**
	comp=Z,0.2nm,0.8s						
SADO	**Sadowa**	**72.28**	**313**	P	**P**	**23 27 05.2**	**-0.2**
	comp=Z,4.0nm,0.5s,mb4.6,baz=0.0,slow=0.0,SNR=2.6						
BILL	**Bilibino**	**72.60**	**13**	*e*P	**P**	**23 27 06.1**	**-0.8**
BILL				*e*		23 27 22.9	
BILL				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
BILL				MLR	MLR		
	comp=Z,800nm,16.0s,MS5.1						
BILL	**Bilibino**	**72.60**	**13**	*e*P	**P**	**23 27 06.3**	**-0.7**
	comp=Z,19nm,1.1s,mb4.9						
SEY	**Seymchan**	**73.51**	**21**	⇑*i*P	**P**	**23 27 12.4**	**0.0**
ERPA	**Erie**	**74.28**	**311**	Pn	**P**	**23 27 16.3**	**-0.9**
CN2	**Changchun**	**74.41**	**47**	*e*P	**P**	**23 27 17.6**	**-0.4**
CN2				*e*pP	pP	23 27 30.8	+1.8
CN2				*e*S	S	23 36 45.3	-4.7
CN2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.9						
CN2				LR	LR		
	comp=E,300nm,15.0s,MS4.9						
CN2				LR	LR		
	comp=Z,200nm,16.0s,MS4.5						
SNY	**Shenyang**	**74.42**	**49**	⇓P	**P**	**23 27 16.5**	**-1.6**
SNY				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
SNY				LR	LR		
	comp=N,560nm,24.3s						
SNY				LR	LR		
	comp=E,490nm,16.5s						
SNY				LR	LR		
	comp=Z,360nm,30.0s						
KLR	**Kul’dur**	**74.66**	**40**	*e*P	**P**	**23 27 14.1**	**-5.2**
KLR				*e*		23 37 00.0	
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**23 27 23.9**	**0.0**
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA				MLR	MLR		
	comp=Z,666nm,18.3s						
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**23 27 23.9**	**0.0**
	comp=Z,1.9nm,0.7s,mb4.2,baz=32,slow=5.4,SNR=19						
YKA				LR	LR	00 01 27.1	
	comp=Z,666nm,18.3s,MS5.0,baz=125,slow=36						
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**23 27 23.9**	**0.0**
MDJ	**Mudanjiang**	**76.32**	**44**	P	**P**	**23 27 28.9**	**0.0**
MDJ				pmax	pmax		
	comp=Z,87nm,3.7s						
COLD	**Coldfoot**	**76.61**	**357**	*e*P	**P**	**23 27 30.5**	**+0.3**
	comp=Z,9.8nm,1.0s,mb4.7						
ACSO	**Alum Creek Sta**	**77.21**	**311**	*e*P	**P**	**23 27 34.1**	**0.0**
FFC	**Flin Flon**	**77.32**	**330**	*e*P	**P**	**23 27 34.5**	**+0.1**
FFC				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
FFC	**Flin Flon**	**77.32**	**330**	*e*P	**P**	**23 27 34.5**	**+0.1**
	comp=Z,11nm,0.8s,mb4.8						
ULM	**Lac du Bonnet**	**77.82**	**324**	P	**P**	**23 27 36.9**	**-0.4**
	comp=Z,2.5nm,0.6s,mb4.3,baz=22,slow=5.2,SNR=3.0						
ULM				LR	LR	00 01 38.5	
	comp=Z,2µm,20.9s,MS5.3,baz=170,slow=36						
IMA2	**Indian Mountai**	**77.89**	**358**	*e*P	**P**	**23 27 38.8**	**+1.4**
COLA	**College**	**78.83**	**356**	⇓*i*P	**P**	**23 27 42.1**	**-0.4**
COLA	**College**	**78.83**	**356**	*e*P	**P**	**23 27 43.0**	**+0.5**
DAWY	**Dawson**	**78.86**	**352**	*e*P	**P**	**23 27 44.1**	**+1.4**
KSRS	**Korea Array**	**79.71**	**51**	P	**P**	**23 27 47.3**	**-0.6**
	comp=Z,6.9nm,0.6s,mb4.8,baz=307,slow=3.7,SNR=14						
KSRS				LR	LR	00 11 00.6	
	comp=Z,586nm,19.0s,MS5.0,baz=310,slow=42						
MCK	**McKinley**	**80.03**	**356**	*e*P	**P**	**23 27 49.8**	**+0.7**
MCK				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
MCK	**McKinley**	**80.03**	**356**	*e*P	**P**	**23 27 49.8**	**+0.7**
	comp=Z,21nm,1.1s,mb5.0						
TKL	**Tuckaleechee C**	**80.48**	**307**	P	**P**	**23 27 53.3**	**+1.2**
TKL				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
TKL	**Tuckaleechee C**	**80.48**	**307**	P	**P**	**23 27 53.3**	**+1.2**
	comp=Z,2.3nm,0.8s,mb4.2,baz=108,slow=6.4,SNR=2.7						
YSS	**Yuzh-Sakhalins**	**81.67**	**36**	*e*P	**P**	**23 27 58.7**	**+0.5**
YSS				*e*	pP	23 28 07.6	-1.6
YSS				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
YSS				MLR	MLR		
	comp=Z,900nm,16.0s,MS5.2						
YSS				MLR	MLR		
	comp=N,500nm,19.0s,MS5.1						
YSS				MLR	MLR		
	comp=E,600nm,17.0s,MS5.1						
YSS	**Yuzh-Sakhalins**	**81.67**	**36**	*e*P	**P**	**23 27 57.1**	**-1.1**
PMR	**Palmer**	**82.17**	**356**	P	**P**	**23 27 59.0**	**-1.5**
SIUC	**Southern Illin**	**82.58**	**312**	*e*P	**P**	**23 28 02.9**	**-0.2**
DLBC	**Dease Lake**	**82.72**	**346**	P	**P**	**23 28 04.0**	**+0.5**
	comp=E,2.0nm,0.9s,mb4.2,baz=323,slow=18,SNR=1.8						
DLBC	**Dease Lake**	**82.72**	**346**	*e*P	**P**	**23 28 04.0**	**+0.6**
WVT	**Waverly**	**82.75**	**310**	*e*P	**P**	**23 28 04.0**	**-0.1**
YHNB	**Yeheng**	**82.96**	**65**	*e*P	**P**	**23 28 05.1**	**-0.2**
PETK	**Petropavlovsk-**	**83.07**	**25**	LR	LR	00 12 19.0	
	comp=E,626nm,19.3s,MS5.0,baz=317,slow=41						
NACB	**Ninganchiao**	**83.41**	**65**	*e*P	**P**	**23 28 07.5**	**-0.2**
KSU1	**Kansas State U**	**85.92**	**317**	*e*P	**P**	**23 28 20.4**	**+0.3**
	comp=E,18nm,1.1s,mb5.2						
RSSD	**Black Hills**	**86.09**	**324**	*e*P	**P**	**23 28 21.6**	**+0.8**
KDAK	**Kodiak Island**	**86.15**	**357**	P	**P**	**23 28 20.1**	**-0.7**
KDAK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.4						
KDAK	**Kodiak Island**	**86.15**	**357**	P	**P**	**23 28 20.1**	**-0.8**
	comp=Z,23nm,1.0s,mb5.4,baz=313,slow=18,SNR=2.0						
WALA	**Waterton Lakes**	**86.36**	**333**	*e*P	**P**	**23 28 22.1**	**+0.1**
	comp=Z,0.4nm,1.1s,mb3.6						
MAJO	**Matsushiro**	**86.54**	**46**	*e*P	**P**	**23 28 23.2**	**0.0**
MAT	**Matsushiro**	**86.54**	**46**	P	**P**	**23 28 23.0**	**-0.2**
MAT				S	S	23 38 54.0	-3.3
MJAR	**Matsushiro Arr**	**86.55**	**46**	P	**P**	**23 28 23.6**	**+0.4**
	comp=Z,3.7nm,0.8s,mb4.7,baz=316,slow=5.2,SNR=11						
MJAR				LR	LR	00 15 23.0	
	comp=Z,336nm,19.8s,MS4.8,baz=355,slow=42						

SDV	**Santo Domingo**	**86.77**	**279**	P	**P**	**23 28 26.0**	**+1.4**
	comp=Z,4.0nm,0.8s,mb4.7,baz=11,slow=6.8,SNR=5.0						
SDV	**Santo Domingo**	**86.77**	**279**	eP	**P**	**23 28 25.3**	**+0.7**
MIAR	**Mount Ida**	**87.31**	**312**	eP	**P**	**23 28 27.8**	**+0.8**
MIAR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
MIAR	**Mount Ida**	**87.31**	**312**	eP	**P**	**23 28 27.8**	**+0.8**
	comp=Z,7.4nm,0.9s,mb4.9						
YBMT	**Yellow Bay**	**87.38**	**332**	eP	**P**	**23 28 28.8**	**+1.8**
	comp=Z,45nm,0.6s,mb5.9						
JTMT	**Jette**	**87.58**	**332**	eP	**P**	**23 28 29.5**	**+1.5**
SWMT	**Swartz Lake**	**87.67**	**332**	eP	**P**	**23 28 30.3**	**+1.9**
NEW	**Newport**	**88.19**	**334**	eP	**P**	**23 28 32.4**	**+1.5**
NEW				pmax	pmax		
	comp=Z,18nm,1.1s						
NEW	**Newport**	**88.19**	**334**	eP	**P**	**23 28 32.4**	**+1.5**
	comp=Z,18nm,1.1s,mb5.2						
BOZ	**Bozeman (W)**	**88.25**	**329**	eP	**P**	**23 28 31.5**	**+0.3**
LKWY	**Lake**	**88.61**	**328**	eP	**P**	**23 28 33.9**	**+1.0**
LKWY				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.6						
LKWY	**Lake**	**88.61**	**328**	eP	**P**	**23 28 33.9**	**+1.0**
	comp=Z,2.7nm,0.9s,mb4.6						
PHWY	**Pilot Hill**	**88.91**	**323**	eP	**P**	**23 28 36.4**	**+2.0**
	comp=Z,8.3nm,1.1s,mb5.0						
MOOW	**Moose Ponds**	**89.41**	**328**	eP	**P**	**23 28 38.5**	**+1.8**
	comp=Z,5.8nm,1.1s,mb4.8						
BW06	**Boulder Array**	**89.67**	**326**	eP	**P**	**23 28 37.9**	**-0.1**
PDAR	**Pinedale Array**	**89.67**	**326**	P	**P**	**23 28 38.5**	**+0.6**
	comp=Z,0.6nm,0.7s,mb4.1,baz=66,slow=5.0,SNR=4.0						
PDAR				LR	LR	00 11 57.3	
	comp=Z,745nm,18.8s,MS5.1,baz=38,slow=38						
RRI2	**Red Ridge**	**89.98**	**328**	eP	**P**	**23 28 39.9**	**+0.5**
	comp=Z,7.9nm,1.1s,mb5.0						
WMOK	**Wichita Mounta**	**90.24**	**315**	eP	**P**	**23 28 42.5**	**+1.7**
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
WMOK	**Wichita Mounta**	**90.24**	**315**	eP	**P**	**23 28 42.5**	**+1.7**
	comp=Z,5.5nm,0.9s,mb4.9						
BMO	**Blue Mountains**	**91.15**	**332**	eP	**P**	**23 28 45.1**	**+0.3**
BMO				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.6						
BMO	**Blue Mountains**	**91.15**	**332**	eP	**P**	**23 28 45.1**	**+0.3**
	comp=Z,2.9nm,0.9s,mb4.6						
SDCO	**Great Sand Dun**	**91.65**	**321**	eP	**P**	**23 28 47.9**	**+0.6**
PV01	**Paradox Valley**	**92.88**	**323**	eP	**P**	**23 28 54.5**	**+1.6**
	comp=Z,419nm,0.9s						
NVAR	**Mina Array Bea**	**97.00**	**330**	P	**P**	**23 29 12.5**	**+0.7**
	comp=Z,0.2nm,0.4s,mb3.9,baz=59,slow=4.4,SNR=3.3						
TXAR	**Lajitas Array**	**97.01**	**314**	P	**P**	**23 29 13.6**	**+1.6**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TXAR				MLR	MLR		
	comp=Z,537nm,19.0s						
TXAR	**Lajitas Array**	**97.01**	**314**	P	**P**	**23 29 13.6**	**+1.6**
	comp=Z,0.6nm,0.9s,mb4.0,baz=64,slow=5.7,SNR=3.6						
TXAR				LR	LR	00 13 01.9	
	comp=Z,537nm,19.0s,MS5.0,baz=355,slow=36						
CPUP	**Villa Florida**	**97.09**	**243**	LR	LR	00 14 51.0	
	comp=Z,1μm,19.9s,MS5.4,baz=33,slow=36						
WRA	**Warramunga Arr**	**119.41**	**94**	PKIKP	PKPdf	23 34 27.6	-2.1
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	**Warramunga Arr**	**119.41**	**94**	PKP	PKPdf	23 34 27.6	-2.1
	comp=Z,1.5nm,0.8s,baz=318,slow=1.4,SNR=14						
WRAB	**Tennant Creek**	**119.41**	**94**	ePKIKP	PKPdf	23 34 29.4	-0.3
ASAR	**Alice Springs**	**120.92**	**98**	PKIKP	PKPdf	23 34 32.0	-0.5
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	**Alice Springs**	**120.92**	**98**	PKP	PKPdf	23 34 31.9	-0.6
	comp=Z,1.9nm,0.7s,baz=306,slow=1.2,SNR=10						
STKA	**Stephens Creek**	**130.63**	**103**	PKP	PKPdf	23 34 52.9	+2.0
	comp=Z,1.7nm,0.7s,baz=326,slow=3.6,SNR=3.4						
TAOE	**Nuku Hiva Isla**	**148.12**	**325**	eLR	LR	00 24 43.0	
	comp=Z,820nm,22.5s						
RKT	**Rikitea**	**156.01**	**297**	eLR	LR	00 28 21.5	
	comp=Z,761nm,35.8s						
PPT	**Papeete**	**159.84**	**336**	eLR	LR	00 30 11.4	
	comp=Z,1μm,34.8s						

CSEM ***19*** *23:15:58.7, 35°.56N×27°.33E, h18km, MD3.0, After ATH*

ATH 19 23:15:58.7, 35°.56N×27°.33E, h18km±1km, MD3.0/3, 2C, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	**Karpathos**	**0.14**	**265**	⇑iPB	Pg	23 16 02.6	-0.2
KARP				eSB	Sg	23 16 05.9	+0.4
KARP	**Karpathos**	**0.14**	**265**	⇑iPb	Pg	23 16 02.6	-0.2
KARP				eSb	Sg	23 16 05.9	+0.4
ARG	**Arkhangelos**	**0.92**	**44**	ePN	Pg	23 16 16.5	-0.1
ARG				eSN	Sg	23 16 29.2	+0.5
ARG	**Arkhangelos**	**0.92**	**44**	ePn	Pg	23 16 16.5	-0.1
ARG				eSn	Sg	23 16 29.2	+0.5
ZKR	**Zakros**	**1.01**	**244**	ePN	Pn	23 16 18.0	0.0
ZKR	**Zakros**	**1.01**	**244**	ePn	Pn	23 16 18.0	0.0
NPS	**Neapolis**	**1.43**	**259**	eP	Pn	23 16 25.2	+1.4
NPS	**Neapolis**	**1.43**	**259**	ePN	Pn	23 16 25.2	+1.4
NPS	**Neapolis**	**1.43**	**259**	ePn	Pn	23 16 25.2	+1.4
NPS	**Neapolis**	**1.43**	**259**	ePn	Pn	23 16 25.2	+1.4
LAST	**Lasithi**	**1.56**	**256**	ePN	Pn	23 16 27.7	+2.1
LAST	**Lasithi**	**1.56**	**256**	ePn	Pn	23 16 27.7	+2.1
LAST	**Lasithi**	**1.56**	**256**	ePn	Pn	23 16 27.7	+2.1

CSEM ***19*** *23:18:20.3, 36°.10N×21°.63E, h10km, MD3.6, After ATH*

ATH 19 23:18:20.3, 36°.10N×21°.63E, h10km±2km, MD3.6/3, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.80**	**6**	ePG	Pg	23 18 35.4	-0.3
PYL				eSB	Sg	23 18 47.2	+1.0
PYL	**PYLOS**	**0.80**	**6**	ePg	Pg	23 18 35.4	-0.3
PYL				eSb	Sg	23 18 47.2	+1.0
ITM	**Ithomi**	**1.10**	**12**	ePG	Pg	23 18 40.5	-1.0
ITM				eSB	Sg	23 18 56.8	+0.9
ITM	**Ithomi**	**1.10**	**12**	ePg	Pg	23 18 40.5	-1.0
ITM				eSb	Sg	23 18 56.8	+0.9
KYTH	**Kithira**	**1.15**	**81**	ePB	Pg	23 18 42.2	-0.2
KYTH	**Kithira**	**1.15**	**81**	ePb	Pg	23 18 42.2	-0.2
VLX	**Vlachokerasia**	**1.40**	**25**	ePG	Pn	23 18 46.4	+0.5
VLX				eSB	Sn	23 19 05.8	+1.3
VLX	**Vlachokerasia**	**1.40**	**25**	ePg	Pn	23 18 46.4	+0.5
VLX				eSb	Sn	23 19 05.8	+1.3
DID	**Didima**	**1.91**	**42**	ePN	Pn	23 18 55.0	+2.2
DID	**Didima**	**1.91**	**42**	ePn	Pn	23 18 55.0	+2.2
GUR	**Goura**	**1.92**	**17**	ePN	Pn	23 18 55.7	+2.7
GUR	**Goura**	**1.92**	**17**	ePn	Pn	23 18 55.7	+2.7
EFP	**Efpalio**	**2.33**	**5**	ePN	Pn	23 19 01.0	+2.3
EFP	**Efpalio**	**2.33**	**5**	ePn	Pn	23 19 01.0	+2.3

CSEM ***19*** *23:20:43.5, 36°.16N×21°.62E, h12km, MD3.5, After ATH*

ATH 19 23:20:43.5, 36°.16N×21°.62E, h12km±4km, MD3.5/3, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.74**	**8**	ePB	Pb	23 20 57.8	-0.5
PYL				eSB	Sb	23 21 07.4	-1.0
PYL	**PYLOS**	**0.74**	**8**	ePb	Pb	23 20 57.8	-0.5
PYL				eSb	Sb	23 21 07.4	-1.0
ITM	**Ithomi**	**1.05**	**14**	ePB	Pb	23 21 03.2	-0.4
ITM				eSB	Sb	23 21 18.0	+0.8
ITM	**Ithomi**	**1.05**	**14**	ePb	Pb	23 21 03.2	-0.4
ITM				eSb	Sb	23 21 18.0	+0.8
KYTH	**Kithira**	**1.15**	**84**	ePG	Pg	23 21 04.8	-0.9
KYTH	**Kithira**	**1.15**	**84**	ePg	Pg	23 21 04.8	-0.9
VLI	**Veliai**	**1.20**	**62**	ePB	Pb	23 21 06.8	+0.7
VLI	**Veliai**	**1.20**	**62**	ePb	Pb	23 21 06.8	+0.7
VLX	**Vlachokerasia**	**1.35**	**27**	ePG	Pg	23 21 08.5	-1.0
VLX	**Vlachokerasia**	**1.35**	**27**	ePg	Pg	23 21 08.5	-1.0
GUR	**Goura**	**1.86**	**18**	ePN	Pn	23 21 17.4	+2.2
GUR	**Goura**	**1.86**	**18**	ePn	Pn	23 21 17.4	+2.2
DID	**Didima**	**1.87**	**44**	ePN	Pn	23 21 17.4	+2.1
DID	**Didima**	**1.87**	**44**	ePn	Pn	23 21 17.4	+2.1
LTK	**Loutraki**	**2.15**	**30**	ePN	Pn	23 21 20.8	+1.7
LTK	**Loutraki**	**2.15**	**30**	ePn	Pn	23 21 20.8	+1.7
EFP	**Efpalio**	**2.27**	**6**	ePN	Pn	23 21 24.0	+3.1
EFP	**Efpalio**	**2.27**	**6**	ePn	Pn	23 21 24.0	+3.1

NEIC 19 23:33:49.1, 40°.39S×173°.56E, h156km, MG3.7(WEL), After WEL., Cook Strait

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNZ	**Nelson**	**0.84**	**189**	P	Pn	23 34 12.9	-0.2
NNZ				S	Sn	23 34 29.9	-1.7
QRZ	**Quartz Range**	**0.90**	**241**	P	Pn	23 34 13.1	-0.5
TCW	**Tory Channel**	**0.99**	**147**	P	Pn	23 34 14.4	+0.1
KIW	**Kapiti Island**	**1.13**	**115**	P	Pn	23 34 15.3	-0.2
NWEZ	**Newall Road**	**1.14**	**12**	P	Pn	23 34 15.6	0.0
DFE	**Dawson Falls**	**1.14**	**22**	P	Pn	23 34 15.5	-0.1
NEZ	**North Egmont**	**1.19**	**20**	P	Pn	23 34 16.2	+0.1
MRW	**Makara Radio**	**1.21**	**134**	P	Pn	23 34 16.3	+0.1
PKE	**Pukeiti**	**1.24**	**16**	P	Pn	23 34 16.3	-0.2
SNZO	**South Karori**	**1.27**	**137**	P	Pn	23 34 16.7	0.0
BSWZ	**Blackbirch Sta**	**1.34**	**170**	P	Pn	23 34 17.6	+0.1
CAW	**Cannon Point**	**1.35**	**123**	P	Pn	23 34 17.5	-0.1
THZ	**Tophouse**	**1.46**	**200**	P	Pn	23 34 18.4	-0.2
MRZ	**Mangatainoka R**	**1.56**	**101**	P	Pn	23 34 19.4	-0.3
MSWZ	**Moikau Station**	**1.64**	**129**	P	Pn	23 34 20.4	-0.1
MTW	**Mount Morrison**	**1.66**	**118**	P	Pn	23 34 20.5	-0.3
PAWZ	**Paruwai Farm**	**1.73**	**126**	P	Pn	23 34 21.3	-0.2
TSZ	**Takapari Road**	**1.87**	**81**	P	Pn	23 34 22.1	-0.9
WNVZ	**Wahianoa**	**1.89**	**57**	P	Pn	23 34 22.8	-0.5
DSZ	**Denniston Nort**	**1.90**	**224**	P	Pn	23 34 22.9	-0.4
MOVZ	**Moawhango**	**1.95**	**61**	P	Pn	23 34 23.0	-1.0
TUVZ	**Tukino**	**1.96**	**56**	P	Pn	23 34 23.6	-0.5
NGZ	**Ngauruhoe**	**1.98**	**53**	P	Pn	23 34 23.6	-0.8
WTVZ	**West Tongariro**	**2.02**	**52**	P	Pn	23 34 24.0	-0.7
KHZ	**Kahutara**	**2.03**	**180**	P	Pn	23 34 24.6	-0.2
BFZ	**Birch Farm**	**2.07**	**99**	P	Pn	23 34 24.8	-0.5
HIZ	**Hauiti**	**2.12**	**29**	P	Pn	23 34 25.1	-0.9
KATZ	**Kakaramea**	**2.17**	**50**	P	Pn	23 34 26.0	-0.5
BKZ	**Black Stump Fm**	**2.57**	**63**	P	Pn	23 34 29.9	-1.4
LTZ	**Lake Taylor**	**2.58**	**202**	P	Pn	23 34 30.5	-0.9
MQZ	**McQueen's Vall**	**3.38**	**191**	P	Pn	23 34 39.3	-2.2
WVZ	**Waitaha Valley**	**3.42**	**217**	P	Pn	23 34 40.4	-1.5
KNZ	**Kokohu**	**3.46**	**68**	P	Pn	23 34 40.8	-1.6

NIED ***19*** *23:40:00, 36°.80N×141°.80E, h32km, Mw3.8 Best double couple: $M_0$5.21000×10^{14} NP1:ϕ_s159.00000°, δ84.00000°, λ-57.00000°. NP2:ϕ_s258.00000°, δ33.00000°, λ-170.00000°.*

JMA ***19*** *23:40:18.4±0.2, 36°.78N×141°.81E, h31km±3km, M3.7*

ISCJB ***19*** *23:40:19.6±1.1, 36°.75N±0°.05×141°.75E±0°.09, h47km±8km, mb3.7/10, Error ellipse: s-maj=12.9km s-min=7.7km az=18.9*

NEIC ***19*** *23:40:23.8±1.4, 36°.59N×141°.56E, h70km±11km, mb4.1/4, Error ellipse: s-maj=13.9km s-min=9.3km az=85.0*

IDC ***19*** *23:40:23.8±4.3, 36°.63N×141°.61E, h68km±39km, mb3.3/7, mb1 3.5/8, mb1mx3.4/23, mbtmp3.3/8, ML3.6/1, MS2.9/1, Ms1 2.9/1, ms1mx2.7/15, Error ellipse: s-maj=34.6km s-min=25.5km az=39.0*

ISC 19 23:40:19.1±1.8, **36°.75N**±0°.04×**141°.78E**±0°.08, **h27**km±11km, **n32, σ1s.11**/41, **mb3.8**/10, **4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	**Iwakimizuishiy**	**0.87**	**294**	⇓P	**Pn**	**23 40 34.7**	**-0.8**
ONAJ				S	**Sb**	**23 40 46.0**	**-0.8**
JFK	**Kawauchi**	**0.95**	**311**	⇓P	**Pn**	**23 40 35.7**	**-1.1**
JHO	**Hitachi**	**0.99**	**262**	P	**Pn**	**23 40 36.4**	**-0.8**
JMM	**Marumori**	**1.37**	**325**	⇓P	**Pn**	**23 40 41.7**	**-0.7**
JMM				eS	**Sn**	**23 40 58.3**	**-1.4**
JFT	**Otama**	**1.39**	**304**	⇓P	**Pn**	**23 40 43.2**	**+0.5**
JFT				S	**Sn**	**23 41 00.3**	**+0.1**
JIO	**Ouri**	**1.74**	**349**	P	**Pn**	**23 40 46.6**	**-0.9**
JIO				eS	**Sn**	**23 41 08.2**	**-0.6**
JFY	**Yanaizu**	**1.79**	**292**	P	**Pn**	**23 40 49.4**	**+1.2**
JOU	**Okura**	**1.84**	**331**	P	**Pn**	**23 40 49.3**	**+0.3**
JOU				eS	**Sn**	**23 41 11.6**	**+0.2**
JAG	**Ashikaga**	**1.90**	**261**	P	**Pn**	**23 40 50.1**	**+0.3**
MJAR	**Matsushiro Arr**	**2.88**	**267**	P	**Pn**	**23 41 04.9**	**+1.7**
	10nm,0.3s,baz=110,slow=11,SNR=73						
MJAR				S	**Sn**	**23 41 41.7**	**+4.7**
	5.2nm,0.3s,baz=77,slow=15,SNR=4.8						
MJAR				LR	LR	23 42 21.0	
	comp=Z,228nm,21.0s,baz=120,slow=43						
MJAR	**Matsushiro Arr**	**2.88**	**267**	P	**Pn**	**23 41 04.9**	**+1.7**
MJAR				S	**Sn**	**23 41 41.7**	**+4.7**
MJAR				LR	LR	23 42 21.0	
MAJO	**Matsushiro**	**2.88**	**267**	ePn	**Pn**	**23 41 05.9**	**+2.6**
MAJO				S	**Sn**	**23 41 37.6**	**+0.5**
MAT	**Matsushiro**	**2.88**	**267**	P	**Pn**	**23 41 05.1**	**+1.8**
MAT				S	**Sn**	**23 41 32.4**	**-4.7**
MDJ	**Mudanjiang**	**12.13**	**314**	P	**Pn**	**23 43 12.5**	**+2.4**
TATO	**Taipei**	**20.96**	**242**	eP	**P**	**23 44 59.1**	**-0.9**
	14nm,0.3s						
YHNB	**Yeheng**	**21.23**	**241**	P	**P**	**23 45 01.3**	**-1.6**
YULB	**Yu-li**	**22.11**	**239**	eP	**P**	**23 45 09.8**	**-2.6**
GUMO	**Guam**	**23.23**	**172**	P	**P**	**23 45 23.6**	**-0.6**
YAK	**Yakutsk**	**26.41**	**347**	eP	**P**	**23 45 54.9**	**+1.7**
	24nm,0.4s,mb5.1						
ULN	**Ulaanbaatar**	**27.76**	**305**	P	**P**	**23 46 05.2**	**-0.3**
SONM	**Songino Array**	**28.19**	**304**	P	**P**	**23 46 10.4**	**+1.1**
	0.6nm,0.7s,mb3.4,baz=99,slow=8.8,SNR=7.4						
ZALV	**Zalesovo Beam**	**42.33**	**313**	P	**P**	**23 48 10.7**	**+0.3**
	0.3nm,0.4s,mb3.2,baz=41,slow=9.6,SNR=3.2						
MKAR	**Makanchi Array**	**44.52**	**302**	P	**P**	**23 48 28.4**	**+0.2**
	0.3nm,0.6s,mb3.3,baz=86,slow=7.4,SNR=4.2						
KURK	**Kurchatov**	**46.34**	**308**	eP	**P**	**23 48 42.9**	**+0.3**
	0.6nm,0.4s,mb3.9						
TKM2	**Tokmak 2**	**50.03**	**299**	eP	**P**	**23 49 10.4**	**-0.8**
AAK	**Ala-Archa**	**50.89**	**299**	P	**P**	**23 49 15.7**	**-1.9**
	0.7nm,0.3s,mb4.0,baz=350,slow=17,SNR=4.1						
AAK	**Ala-Archa**	**50.89**	**299**	eP	**P**	**23 49 16.0**	**-1.7**
	1.2nm,0.4s,mb4.2						
UCH	**Uchtor**	**51.00**	**298**	eP	**P**	**23 49 17.7**	**-0.8**
	0.6nm,0.4s,mb3.9						
BRVK	**Borovoye**	**51.04**	**313**	P	**P**	**23 49 19.6**	**+1.0**
WRA	**Warramunga Arr**	**56.82**	**188**	P	**P**	**23 50 00.4**	**-0.7**
	0.6nm,0.9s,mb3.6,baz=6.1,slow=7.3,SNR=4.6						
NVAR	**Mina Array Bea**	**74.92**	**53**	P	**P**	**23 51 58.9**	**+1.2**
	0.2nm,0.4s,mb3.4,baz=297,slow=7.9,SNR=2.7						
TXAR	**Lajitas Array**	**90.06**	**53**	P	**P**	**23 53 17.1**	**+0.4**
	0.2nm,0.7s,mb3.6,baz=313,slow=5.7,SNR=2.9						

ISCJB ***19*** *23:50:43.1±0.6, 32°.43N±0°.04×115°.27W±0°.03, h10km, Error ellipse: s-maj=6.3km s-min=3.7km az=165.1*

NEIC ***19*** *23:50:44.2, 32°.40N×115°.31W, h6km, ML2.9(PAS), After PAS.*

ECX ***19*** *23:50:46.0±0.5, 32°.48N×115°.35W, h6km, MD3.0, ML3.1*

ISC 19 23:50:44.2±0.5, **32°.45N**±0°.04×**115°.32W**±0°.03, **h10**km, **n16, σ0s.88**/23, **4C-1D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	**Mount Signal**	**0.40**	**301**	⇑iP	**Pg**	**23 50 52.2**	**+0.3**
SNR	**Schaffner Ranc**	**0.42**	**347**	⇑iP	**Pg**	**23 50 53.6**	**+1.0**
COA	**Coachella**	**0.45**	**22**	⇑iP	**Pg**	**23 50 53.8**	**+0.8**
COK	**Cook Ranch**	**0.53**	**320**	eP	**Pg**	**23 50 54.7**	**+0.2**
YUH	**Yuha Desert**	**0.55**	**292**	⇑iP	**Pg**	**23 50 54.8**	**0.0**
RMX	**La Rumorosa**	**0.66**	**284**	eP	**Pg**	**23 50 56.9**	**0.0**
RMX				eS	**Sg**	**23 51 06.0**	**+0.4**
YMD	**Yuma Desert**	**0.67**	**81**	eP	**Pg**	**23 50 56.7**	**-0.4**
CRR	**Carrizo Plain**	**0.70**	**309**	eP	**Pg**	**23 50 57.5**	**-0.2**
GLA	**Glamis**	**0.73**	**35**	eP	**Pg**	**23 50 58.0**	**-0.4**
GLA				eS	**Sg**	**23 51 07.3**	**-0.6**
RDX	**Rancho Dawling**	**0.74**	**226**	eP	**Pg**	**23 50 59.1**	**+0.7**
RDX				eS	**Sg**	**23 51 09.2**	**+1.1**
RDX				⇓e		23 51 12.1	
	comp=N,582nm,0.5s						
CBX	**Cerro Bola**	**1.14**	**264**	eP	**Pb**	**23 51 05.8**	**-0.3**
CBX				eS	**Sb**	**23 51 21.0**	**0.0**
BAR	**Barrett**	**1.16**	**282**	eP	**Pb**	**23 51 05.5**	**-0.9**
BAR				eS	**Sb**	**23 51 20.4**	**-1.2**
ECNX	**Esteban Cantu**	**1.34**	**234**	eP	**Pn**	**23 51 07.5**	**-1.5**
PFO	**Pinyon Flat Ob**	**1.50**	**321**	ePn	**Pn**	**23 51 07.6**	**-3.6**
PFO				eS	**Sn**	**23 51 27.1**	**-3.7**
GSC	**Goldstone**	**3.10**	**337**	ePg	**Pg**	**23 51 46.1**	**+2.4**
TUC	**Tucson**	**3.84**	**91**	ePg	**Pg**	**23 51 57.9**	**+0.1**
TUC				eS	**Sg**	**23 52 47.6**	**+0.1**

DJA ***20*** *00:18:42, 3°.99S×99°.30E, h30km, MLv4.5/4*

IDC ***20*** *00:18:59.7±2.3, 2°.40S×99°.93E, h0km, mb4.0/7, mb1 4.1/8, mb1mx3.9/22, mbtmp4.0/8, ML3.2/1, Error ellipse: s-maj=82.6km s-min=18.1km az=59.0*

ISCJB ***20*** *00:19:03.6±0.9, 2°.39S±0°.07×99°.8E±0°.1, h48km±7km, mb4.1/12, Error ellipse: s-maj=18.8km s-min=9.4km az=154.5*

NEIC ***20*** *00:19:05.3±0.4, 2°.26S×100°.07E, h35km, mb4.1/6, Error ellipse: s-maj=12.4km s-min=5.9km az=57.0*

ISC 20 00:19:04.3±1.1, **2°.38S**±0°.07×**99°.88E**±0°.09, **h32**km±9km, **n32, σ1s.05**/28, **mb4.1**/12, **Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	**0.40**	**162**	P	**Pb**	**00 19 13.5**	**+0.2**
SISI	**Saibi**	**1.31**	**323**	P	**Pn**	**00 19 24.9**	**-1.5**
PDSI	**Padang**	**1.57**	**22**	P	**Pn**	**00 19 30.7**	**+0.8**
PPI	**Padang Panjang**	**1.98**	**15**	P	**Pn**	**00 19 36.8**	**+1.2**
SDSI	**Sungai Dareh**	**2.11**	**47**	P	**Pn**	**00 19 40.0**	**+2.6**
KSI	**Kapahiang**	**2.99**	**115**	P	Px	00 19 33.4	
MNSI	**Mandailing Nat**	**3.17**	**355**	P	**Pn**	**00 19 53.7**	**+1.8**
PSI	**Prapat**	**5.24**	**349**	Pn	**Pn**	**00 20 18.3**	**-2.1**
	0.8nm,0.3s,baz=167,slow=13,SNR=2.6						
PSI	**Prapat**	**5.24**	**349**	Pn	**Pn**	**00 20 18.3**	**-2.1**
KULM	**Kulim**	**7.66**	**6**	Pn	**Pn**	**00 20 53.0**	**-0.7**
KSM	**Kuching**	**11.10**	**70**	Pn	**Pn**	**00 21 38.5**	**-2.4**
CMAR	**Chiang Mai Arr**	**20.73**	**357**	P	**P**	**00 23 41.3**	**-0.9**
	1.2nm,0.5s,baz=186,slow=10,SNR=9.4						
DAV	**Davao City (W)**	**27.31**	**70**	eP	**P**	**00 24 45.2**	**-1.1**
	143nm,0.5s						
LSA	**Lhasa**	**32.98**	**346**	eP	**P**	**00 25 36.3**	**0.0**
	1.4nm,0.5s,mb4.2						
NWAO	**Narrogin (SRO)**	**34.47**	**154**	P	**P**	**00 25 50.8**	**+1.5**
WRA	**Warramunga Arr**	**37.90**	**120**	P	**P**	**00 26 18.0**	**-0.8**
	2.1nm,0.5s,mb4.1,baz=304,slow=9.1,SNR=36						
WRAB	**Tennant Creek**	**37.91**	**120**	eP	**P**	**00 26 18.9**	**0.0**
	2.7nm,0.5s,mb4.2						
ASAR	**Alice Springs**	**39.13**	**126**	P	**P**	**00 26 28.7**	**-0.4**
	0.7nm,0.6s,mb3.6,baz=301,slow=7.7,SNR=11						
KSRS	**Korea Array**	**47.40**	**31**	P	**P**	**00 27 35.7**	**0.0**
	2.4nm,0.9s,mb4.1,baz=224,slow=10,SNR=4.7						
TKM2	**Tokmak 2**	**50.13**	**337**	eP	**P**	**00 27 57.1**	**+0.5**
	1.1nm,0.5s,mb4.1						
SONM	**Songino Array**	**50.33**	**6**	P	**P**	**00 27 58.9**	**+1.0**
	3.1nm,0.7s,mb4.5,baz=187,slow=9.5,SNR=36						
ULN	**Ulaanbaatar**	**50.43**	**6**	eP	**P**	**00 27 59.0**	**+0.3**
	1.0nm,0.6s,mb4.0						
EKS2	**Erkin-Say**	**50.66**	**335**	eP	**P**	**00 28 00.9**	**+0.4**
	1.1nm,0.5s,mb4.0						
MKAR	**Makanchi Array**	**51.36**	**345**	P	**P**	**00 28 06.2**	**+0.5**
	3.2nm,0.6s,mb4.4,baz=158,slow=8.8,SNR=46						
MKAR	**Makanchi Array**	**51.36**	**345**	P	**P**	**00 28 06.2**	**+0.5**
KURK	**Kurchatov**	**55.94**	**344**	eP	**P**	**00 28 38.3**	**-0.9**
	1.2nm,0.4s,mb4.3						
ZAA0	**Zalesovo Array**	**57.52**	**350**	eP	**P**	**00 28 50.0**	**-0.3**
ZALV	**Zalesovo Beam**	**57.52**	**350**	P	**P**	**00 28 50.2**	**-0.1**
	0.7nm,0.3s,mb4.1,baz=163,slow=5.7,SNR=9.3						
BRVK	**Borovoye**	**60.56**	**340**	P	**P**	**00 29 12.1**	**+0.6**
TXAR	**Lajitas Array**	**145.07**	**38**	PKPbc	PKPbc	00 38 39.7	+1.1
	3.6nm,0.6s,baz=208,slow=1.1,SNR=60						
TXAR	**Lajitas Array**	**145.07**	**38**	PKPbc	PKPbc	00 38 39.7	+1.1
JCT	**Junction City**	**146.41**	**32**	ePKPdf	PKPdf	00 38 42.0	+0.6

NEIC ***20*** *00:30:04.6, 32°.51N×115°.32W, h5km, ML3.0(PAS), ML3.5(ECX), After ECX.*

ECX 20 00:30:04.5±0.6, **32°.50N×115°.32W, h6**km, **MD3.1, ML3.2, 13C-9D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	**Mount Signal**	**0.37**	**293**	⇑iP	Pg	00 30 10.9	-0.8
SGL	**Mount Signal**	**0.37**	**293**	⇑P	Pg	00 30 10.9	-0.8
SNR	**Schaffner Ranc**	**0.37**	**345**	⇓iP	Pg	00 30 11.8	+0.1
ERPC	**Ernies Place**	**0.37**	**310**	⇓P	Pg	00 30 11.7	-0.1
COA	**Coachella**	**0.40**	**25**	⇓iP	Pg	00 30 12.0	-0.2
COK	**Cook Ranch**	**0.48**	**315**	⇑iP	Pg	00 30 13.3	-0.5
EMX	**El Mayor**	**0.52**	**172**	⇓eP	Pg	00 30 20.4	+5.9
EMX				eS	Sg	00 30 27.6	+6.4
EMX				⇑e		00 30 28.6	
	comp=N,906nm,0.6s						
YUH	**Yuha Desert**	**0.53**	**286**	⇑iP	Pg	00 30 13.4	-1.2
YUH				eS	Sg	00 30 21.2	-0.3
YUH	**Yuha Desert**	**0.53**	**286**	⇑P	Pg	00 30 13.4	-1.2
RUN	**Ruthven**	**0.55**	**32**	⇓iP	Pg	00 30 14.1	-1.0
RMX	**La Rumorosa**	**0.64**	**279**	⇓eP	Pg	00 30 15.8	-1.1
RMX				eS	Sg	00 30 24.9	-0.4
YMD	**Yuma Desert**	**0.66**	**85**	⇑iP	Pg	00 30 16.0	-1.2
CRR	**Carrizo Plain**	**0.67**	**305**	eP	Pg	00 30 16.1	-1.2
GLA	**Glamis**	**0.69**	**37**	⇓iP	Pg	00 30 16.2	-1.5
GLA	**Glamis**	**0.69**	**37**	eP	Pg	00 30 16.3	-1.4
GLA				eS	Sg	00 30 25.8	-0.9
RDX	**Rancho Dawling**	**0.78**	**223**	⇑eP	Pg	00 30 18.0	-1.5
RDX				⇑e		00 30 30.8	
	comp=N,859nm,0.6s						
ECBX	**El Chinero**	**1.05**	**167**	⇑eP	Pg	00 30 30.3	+5.5
ECBX				eS	Sg	00 30 44.3	+5.9
ECBX				⇑e		00 30 45.0	
	comp=E,394nm,0.5s						
ECBX				⇓e		00 30 46.1	
	comp=N,456nm,0.9s						
CBX	**Cerro Bola**	**1.15**	**261**	⇑eP	Pg	00 30 24.6	-1.9
CBX				eS	Sg	00 30 40.0	-1.5
BAR	**Barrett**	**1.15**	**279**	eP	Pg	00 30 24.5	-2.1
BAR				eS	Sg	00 30 39.4	-2.1
ECNX	**Esteban Cantu**	**1.37**	**232**	eP	Pn	00 30 27.7	-2.5
ECNX				eP		00 30 26.8	
ECNX				eS	Sb	00 30 44.8	-3.5
ECNX				eS	Sb	00 30 47.0	-1.3
PBX	**Punta Banda**	**1.41**	**238**	eP	Pn	00 30 28.8	-1.9
PBX				eS	Sb	00 30 47.8	-1.7
PBX	**Punta Banda**	**1.41**	**238**	eP	Pn	00 30 29.5	-1.2
PBX				eS	Sb	00 30 48.4	-1.1
PFO	**Pinyon Flat Ob**	**1.46**	**320**	ePn	Pn	00 30 27.3	-4.0
PFO				eS	Sn	00 30 46.0	-4.8
SPX	**San Pedro Mart**	**1.46**	**185**	ePN	Pn	00 30 31.3	0.0
SPX				eS	Sn	00 30 49.8	-1.0
SPX				⇑e		00 30 53.0	
	comp=E,116nm,0.5s						
SPX				⇓e		00 30 56.7	
	comp=N,135nm,0.4s						
LDFC	**Landfair**	**2.57**	**4**	Pn	Pn	00 30 46.4	-0.3
MWC	**Mount Wilson**	**2.86**	**308**	ePn	Pn	00 30 51.3	+0.7
MWC				ePg	Pg	00 30 57.8	-1.5
MWC				Sn	Sn	00 31 24.6	-0.7
MWC				eSn	Sn	00 31 34.7	+9.3
GSC	**Goldstone**	**3.05**	**337**	Pn	Pn	00 30 54.0	+0.8
TUC	**Tucson**	**3.84**	**92**	ePn	Pn	00 31 04.5	+0.4
WUAZ	**Wupatki**	**4.45**	**46**	ePn	Pn	00 31 12.3	-0.2
WUAZ				Sn	Sn	00 32 04.9	+0.3
CCUT	**Cedar City**	**5.29**	**17**	ePn	Pn	00 31 22.6	-1.4
	comp=N,7.3nm,1.0s						
CCUT				ePg	Pg	00 31 45.2	-0.6
CCUT				Sn	Sn	00 32 26.3	+1.1
ARUT	**Antelope Range**	**5.49**	**16**	ePn	Pn	00 31 27.7	+0.9
	comp=N,4.6nm,0.4s						
ARUT				eSn	Sn	00 32 29.9	-0.4
MSU	**Marysvale**	**6.52**	**22**	Pn	Pn	00 31 38.9	-2.1
	comp=N,3.6nm,0.7s						

ISCJB ***20*** *00:45:16.0±0.4, 11°.19N±0°.02×61°.89W±0°.03, h79km±6km, Error ellipse: s-maj=4.6km s-min=3.2km az=32.6*

FUNV ***20*** *00:45:17.2, 11°.18N×61°.78W, h30km, MW3.6*

NEIC ***20*** *00:45:18.6, 11°.30N×61°.74W, h20km, MD3.6(TRN), After TRN.*

TRN ***20*** *00:45:18.6, 11°.28N×61°.78W, h26km, MD3.6*

ISC 20 00:45:17.3±0.4, **11°.19N**±0°.02×**61°.89W**±0°.03, **h68**km±7km, **n39, σ1s.08**/72, **4C-1D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	**Chacachacare**	**0.51**	**165**	eP	**Pn**	**00 45 30.4**	**+0.3**
TCE				eS	**Sn**	**00 45 39.6**	**+0.3**
GUIV	**Guiria**	**0.63**	**211**	eP	**Pn**	**00 45 30.6**	**-0.7**
GUIV				eS	**Sn**	**00 45 40.2**	**-1.3**
TRN	**Trinidad (W)**	**0.72**	**139**	⇑iP	**Pn**	**00 45 33.0**	**+0.7**
TRN				eS	**Sn**	**00 45 43.2**	**-0.1**
GRGR	**Grenville**	**0.96**	**14**	ePn	**Pn**	**00 45 34.1**	**-1.1**
GRGR				eSn	**Sn**	**00 45 46.6**	**-1.8**
TPP	**Pointe-a-Pierr**	**0.97**	**154**	eP	**Pn**	**00 45 37.9**	**+2.6**
TPP				eS	**Sn**	**00 45 50.3**	**+1.7**
TPP	**Pointe-a-Pierr**	**0.97**	**154**	eP	**Pn**	**00 45 37.9**	**+2.6**

TPP				*e*S	Sn	00 45 53.0	+4.3
GRW	Mount Saint Ca	0.99	13	*e*P	Pn	00 45 35.8	+0.3
GRW				*e*S	Sn	00 45 46.6	-2.4
GRW	Mount Saint Ca	0.99	13	*e*P	Pn	00 45 35.8	+0.3
GRW				*e*S	Sn	00 45 43.3	-5.7
GRHS	Sauteurs	1.05	13	*e*P	Pn	00 45 36.2	-0.2
GRHS				*e*S	Sn	00 45 50.0	-0.5
TBH	Brigand Hill	1.07	131	*e*P	Pn	00 45 37.1	+0.6
TBH				*e*S	Sn	00 45 52.0	+1.0
TPR	Prospect	1.09	90	*e*P	Pn	00 45 36.4	-0.4
TPR				*e*S	Sn	00 45 50.9	-0.5
GRIC	Isle de Caille	1.13	15	*e*P	Pn	00 45 37.5	+0.3
GRIC				*e*S	Sn	00 45 52.2	+0.1
GRSS	Sisters	1.13	14	*e*P	Pn	00 45 37.9	+0.6
GRSS				*e*S	Sn	00 45 52.1	-0.2
GRSS	Sisters	1.13	14	*e*P	Pn	00 45 37.9	+0.6
GRSS				*e*S	Sn	00 45 52.6	+0.3
BOT	Bacolet	1.15	91	*e*P	Pn	00 45 37.9	+0.3
BOT				*e*S	Sn	00 45 52.4	-0.3
ITEV	Isla Los Testi	1.23	278	*e*P	Pn	00 45 39.3	+0.8
ITEV				*e*S	Sn	00 45 56.1	+1.5
TOSP	Speyside	1.33	85	*e*P	Pn	00 45 41.1	+1.2
TOSP				*e*S	Sn	00 45 55.0	-2.0
CRUV	Carupano	1.42	249	*e*P	Pn	00 45 41.4	+0.3
CRUV				*e*S	Sn	00 46 00.4	+1.3
GUNV	Guanoco	1.46	225	*e*P	Pn	00 45 42.0	+0.4
GUNV				*e*S	Sn	00 46 00.8	+0.9
SVB	Belmont	2.16	17	*e*P	Pn	00 45 51.2	+0.2
SVB				*e*S	Sn	00 46 16.1	-0.6
SVB	Belmont	2.16	17	*e*P	Pn	00 45 53.4	+2.4
SVB				*e*S	Sn	00 46 18.1	+1.3
ORIV	Oritupano	2.59	215	⇑*i*P	Pn	00 45 57.6	+0.8
ORIV				*e*S	Sn	00 46 26.8	-0.4
MCLT	Moule a Chique	2.67	20	*e*P	Pn	00 45 57.9	0.0
MCLT				*e*S	Sn	00 46 27.9	-1.2
IBAV	Isla La Blanqu	2.71	284	*e*P	Pn	00 45 59.0	+0.6
IBAV				*e*S	Sn	00 46 29.8	-0.3
PCRV	Puerto La Cruz	2.88	250	*e*P	Pn	00 46 01.9	+1.0
PCRV				*e*S	Sn	00 46 32.8	-1.6
RIOV	Rio Grande	3.10	179	*e*P	Pn	00 46 03.8	-0.1
RIOV				*e*S	Sn	00 46 36.9	-2.9
GURV	El Guri	3.61	199	⇑*e*P	Pn	00 46 10.0	-0.8
PRGV	PARIAGUAN	3.63	229	⇑*e*P	Pn	00 46 11.3	+0.2
CUPV	Cœpira	4.00	254	⇓*e*P	Pn	00 46 17.9	+1.9
CUPV				*e*S	Sn	00 47 00.3	-1.4
MERV	Las Mercedes	4.75	246	*e*P	Pn	00 46 27.2	+0.9
MERV				*e*S	Sn	00 47 18.6	-1.6
HMG	Houelmont	4.76	2	*e*P	Pn	00 46 27.6	+1.1
LZG	Guadaloupe-1	4.92	1	*e*P	Pn	00 46 30.0	+1.4
LUEV	Luepa	5.33	175	*e*P	Pn	00 46 32.5	-1.9
CAOV	Caicara del Or	5.82	229	*e*P	Pn	00 46 40.4	-0.7
CAOV				*e*S	Sn	00 47 42.6	-3.8
TURV	Turiamo	5.89	263	*e*P	Pn	00 46 42.1	+0.1
SKI	Saint Kitts	6.16	352	*e*P	Pn	00 46 47.6	+2.0
SKI				*e*S	Sn	00 47 53.9	-0.8
SKI	Saint Kitts	6.16	352	*e*P	Pn	00 46 46.8	+1.1
SKI				*e*S	Sn	00 47 52.7	-2.0
BAUV	El Baul	6.46	250	*e*P	Pn	00 46 49.2	-0.5
BAUV				*e*S	Sn	00 47 58.4	-3.6
PAYV	Puerto Ayacuch	8.09	225	*e*P	Pn	00 47 11.0	-1.1
PAYV				*e*S	Sn	00 48 34.9	-7.2

IDC 20 01:00:23.0±51.0**,15°.93S**×**174°.33W,h0^{km},mb4.4**/3**, mb1 4.6**/3**,mb1mx3.9**/17**,mbtmp4.4**/3**,Error ellipse: s-maj=969.1km s-min=173.0km az=78.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	43.00	240	P	P	01 08 24.7	+0.3
	3.1nm,0.7s,baz=100,slow=11,SNR=5.5						
WRA	Warramunga Arr	48.85	257	P	P	01 09 10.5	-0.3
	1.3nm,0.5s,baz=92,slow=7.3,SNR=43						
ASAR	Alice Springs	49.10	252	P	P	01 09 12.4	-0.1
	8.8nm,0.6s,baz=94,slow=8.2,SNR=106						

MAN 20 01:00:56,12°.64N×**124°.82E,h24^{km},mb3.7,ML2.4,MS2.0, 2C,Samar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNP	Catarman	0.20	232	*e*P	Pb	01 01 03.4	+1.8
CNP				*e*S	Sb	01 01 06.8	+1.5
PVCP	Virac	1.16	326	*e*P	Pn	01 01 17.0	+0.3
PVCP				*e*S	Sn	01 01 32.5	+0.7
PLP	Palo	1.47	174	⇑*i*P	Pn	01 01 21.6	+0.6
PLP				*i* S	Sn	01 01 40.4	+1.0
RCP	Roxas	2.30	243	⇑*e*P	Pn	01 01 33.9	+1.5
RCP				*e*S	Sn	01 02 01.6	+1.7

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*THR **20** 01:13:41.6±0.9,33°.75N×48°.88E,h17^{km}±11^{km},ML3.8*
*NEIC **20** 01:13:41.6,33°.75N×48°.90E,h14^{km},mb3.8/1, ML3.8(THR),MN4.0(TEH),After THR.*
*CSEM **20** 01:13:44.4±0.2,33°.64N×48°.87E,h20^{km},ML4.0*
*TEH **20** 01:13:45.1,33°.64N×48°.86E,h20^{km}*
*IDC **20** 01:13:47.1±3.4,33°.80N×48°.58E,h44^{km}±32^{km},mb3.3/8, mb1 3.5/12,mb1mx3.4/27,mbtmp3.4/12,ML3.3/4,Error ellipse: s-maj=40.2km s-min=19.5km az=155.0*
ISC 20 01:13:43.0±1.0**,33°.65N**±0°.03×**48°.82E**±0°.03**,h10^{km}**±7^{km}**, n111,**σ**1^{s}19**/124**,mb3.5**/9**,Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAO	Ashtian	1.34	48	Pg	Pn	01 14 04.0	-3.7
ASAO	Ashtian	1.34	48	*e*Pg	Pn	01 14 04.5	-3.2
ASAO				AML	AML	01 14 26.6	
	comp=E,1µm,1.0s						
ASAO	Ashtian	1.34	48	*e*Pg	Pn	01 14 04.5	-3.2
SHGR	Shooshtar-Gavs	1.54	181	Pn	Pn	01 14 11.0	+0.6
SHGR	Shooshtar-Gavs	1.54	181	*e*Pg	Pg	01 14 11.8	-0.7
SHGR				AML	AML	01 14 38.5	
	comp=E,1µm,0.5s						
SHGR	Shooshtar-Gavs	1.54	181	Pn	Pn	01 14 11.0	+0.6
IVIS	Veis	1.85	299	Pn	Pn	01 14 16.2	+1.4
IVIS	Veis	1.85	299	*e*	Pg	01 14 17.5	-1.0
	comp=Z,10µm,0.2s						
IVIS	Veis	1.85	299	Pn	Pn	01 14 16.2	+1.4
SNGE	Sanandaj	1.89	320	Pg	Pn	01 14 15.0	-0.2
SNGE	Sanandaj	1.89	320	*e*Pg	Pn	01 14 15.6	+0.4
SNGE				AML	AML	01 14 48.7	
	comp=N,934nm,0.3s						
SNGE	Sanandaj	1.89	320	*e*Pg	Pn	01 14 15.6	+0.4
IRAZ	Razeghan	1.98	27	Pn	Pn	01 14 15.4	-1.0
IRAZ	Razeghan	1.98	27	*e*Pn	Pn	01 14 15.5	-0.9
IRAZ				*e*		01 14 56.4	
	comp=Z,12µm,0.3s						
IRAZ	Razeghan	1.98	27	*e*Pn	Pn	01 14 15.5	-0.9
IPIR	Pirpir	1.99	118	Pn	Pn	01 14 16.4	-0.2
IPIR				Sn	Sn	01 14 41.3	-0.2
IPIR	Pirpir	1.99	118	*e*Pn	Pn	01 14 16.5	-0.1
IPIR				*e*Sn	Sn	01 14 41.4	-0.1
IPIR				*e*		01 14 52.5	
	comp=Z,12µm,0.3s						
IPIR	Pirpir	1.99	118	*e*Pn	Pn	01 14 16.5	-0.1
IPIR				*e*Sn	Sn	01 14 41.4	-0.1
IGHG	Ghaleghazi	1.99	291	Pn	Pn	01 14 18.0	+1.4
IGHG				Sn	Sn	01 14 44.0	+2.4
IGHG	Ghaleghazi	1.99	291	*e*Pn	Pn	01 14 18.1	+1.5
IGHG				*e*Sn	Sn	01 14 44.0	+2.4
IGHG				*e*		01 15 04.8	
	comp=Z,11µm,0.3s						
IGHG	Ghaleghazi	1.99	291	*e*Pn	Pn	01 14 18.1	+1.5
IGHG				*e*Sn	Sn	01 14 44.0	+2.4
ILIN	Lien	1.99	310	Pn	Pn	01 14 18.8	+2.1
ILIN	Lien	1.99	310	*e*Pn	Pn	01 14 18.8	+2.1
ILIN				*e*		01 14 21.5	
	comp=Z,6µm,0.2s						
ILIN	Lien	1.99	310	*e*Pn	Pn	01 14 18.8	+2.1
GHVR	GHOM	2.21	67	Pg	Pn	01 14 19.0	-0.7
GHVR	GHOM	2.21	67	*e*Pg	Pn	01 14 19.4	-0.4
GHVR				*e*Sg	Sn	01 14 48.0	+0.9
GHVR				AML	AML	01 14 56.2	
	comp=E,546nm,0.9s						
GHVR				AML	AML	01 15 02.8	
	comp=N,774nm,1.1s						
GHVR	GHOM	2.21	67	*e*Pg	Pn	01 14 19.1	-0.6
IKLH	Kolahrood	2.33	97	Pn	Pn	01 14 21.9	+0.6
IKLH				Sn	Sn	01 14 48.8	-1.2
IKLH	Kolahrood	2.33	97	*e*Pn	Pn	01 14 22.0	+0.7
IKLH				*e*Sn	Sn	01 14 48.9	-1.1
IKLH				*e*		01 15 00.7	
	comp=Z,10µm,0.3s						
IKLH	Kolahrood	2.33	97	*e*Pn	Pn	01 14 22.0	+0.7
IKLH				*e*Sn	Sn	01 14 48.9	-1.1
IMHD	Mahdasht	2.54	36	Pn	Pn	01 14 25.4	+1.2
IMHD				Sn	Sn	01 14 54.0	-1.1
IMHD	Mahdasht	2.54	36	*e*Pn	Pn	01 14 25.4	+1.2
IMHD				*e*Sn	Sn	01 14 54.0	-1.1
IMHD				*e*		01 15 00.5	
	comp=Z,5µm,0.1s						
IMHD	Mahdasht	2.54	36	*e*Pn	Pn	01 14 25.4	+1.2
IMHD				*e*Sn	Sn	01 14 54.0	-1.1
IR3	Iran Long-Peri	2.57	44	*e*Pn	Pn	01 14 25.7	+1.0
IR3	Iran Long-Peri	2.57	44	*e*Pn	Pn	01 14 25.7	+1.0
IVRN	Varamin	2.75	60	Pn	Pn	01 14 27.0	-0.2
IVRN	Varamin	2.75	60	*e*Pn	Pn	01 14 27.7	+0.5
IVRN				*e*		01 14 40.1	
	comp=Z,4µm,0.3s						
IVRN	Varamin	2.75	60	*e*Pn	Pn	01 14 27.7	+0.5
ISFB	Sefidab	2.93	75	Pn	Pn	01 14 30.2	+0.7
ISFB	Sefidab	2.93	75	*e*Pn	Pn	01 14 30.3	+0.8
ISFB				*e*		01 15 15.6	
	comp=Z,5µm,0.3s						
ISFB	Sefidab	2.93	75	*e*Pn	Pn	01 14 30.3	+0.8
IGAR	Gharneh	2.98	114	*e*Pn	Pn	01 14 31.0	+0.8
IGAR				*e*		01 15 27.0	
	comp=Z,4µm,0.2s						
IZEF	Zefreh	3.04	103	Pn	Pn	01 14 31.6	+0.6
IZEF	Zefreh	3.04	103	*e*	Sg	01 15 25.0	+4.5
	comp=Z,3µm,0.3s						
IZEF	Zefreh	3.04	103	Pn	Pn	01 14 31.6	+0.6
DAMV	Damavand	3.26	52	Pn	Pn	01 14 33.0	-1.1
DAMV	Damavand	3.26	52	Pn	Pn	01 14 33.0	-1.1
IDMV	Damavand	3.27	53	Pn	Pn	01 14 35.3	+1.0
IDMV	Damavand	3.27	53	*e*Pn	Pn	01 14 35.3	+1.0
IDMV				*e*		01 15 29.5	
	comp=Z,4µm,0.4s						
IDMV	Damavand	3.27	53	*e*Pn	Pn	01 14 35.3	+1.0
NASN	Na’in	3.45	103	Pn	Pn	01 14 36.0	-0.7
NASN	Na’in	3.45	103	*e*Pn	Pn	01 14 36.7	0.0
NASN				*e*Sg	Sg	01 15 28.6	-5.2
NASN	Na’in	3.45	103	*e*Pn	Pn	01 14 36.7	0.0
BHD	Baghdad	3.73	265	*e*x	x	01 14 43.0	
BHD				*e*x	x	01 15 27.0	
BHD	Baghdad	3.73	265	*e*Pn	Pn	01 14 43.0	+2.4
BHD				*e*Sn	Sn	01 15 27.0	+2.5
IPRN	Peran	3.88	47	Pn	Pn	01 14 44.0	+1.4
IPRN	Peran	3.88	47	*e*Pn	Pn	01 14 42.5	-0.1
IPRN				*e*		01 15 50.4	
	comp=Z,3µm,0.3s						
IPRN	Peran	3.88	47	*e*Pn	Pn	01 14 42.5	-0.1
MIB	Mutribah	4.04	199	*e*P	Pn	01 14 45.7	+0.9
MIB				AML	AML	01 15 41.5	
	comp=Z,131nm,0.6s						
MIB	Mutribah	4.04	199	*e*P	Pn	01 14 45.7	+0.9
IALA	Alasht	4.08	52	Pn	Pn	01 14 45.9	+0.5
IALA	Alasht	4.08	52	*e*Pn	Pn	01 14 45.9	+0.5
IALA				*e*		01 16 05.6	
	comp=Z,2µm,0.3s						
IALA	Alasht	4.08	52	*e*Pn	Pn	01 14 45.9	+0.5
UMR	Umm Al-Rimmam	4.19	193	*e*P	Pn	01 14 47.3	+0.4
UMR	Umm Al-Rimmam	4.19	193	*e*P	Pn	01 14 47.3	+0.4
ISHM	Shahmirzad	4.26	58	Pn	Pn	01 14 48.8	+0.9
ISHM	Shahmirzad	4.26	58	*e*Pn	Pn	01 14 48.4	+0.5
ISHM				*e*		01 15 57.5	
	comp=Z,3µm,0.2s						
ISHM	Shahmirzad	4.26	58	*e*Pn	Pn	01 14 48.4	+0.5
IBST	Bostanabad	4.33	339	Pn	Pn	01 14 50.0	+1.1
IBST	Bostanabad	4.33	339	*e*Pn	Pn	01 14 50.0	+1.1
IBST				*e*		01 15 12.7	
	comp=Z,309nm,0.3s						
KBD	Kabd	4.56	192	*e*P	Pn	01 14 52.5	+0.5
KBD				AML	AML	01 15 46.1	
	comp=Z,50nm,0.5s						
KBD	Kabd	4.56	192	*e*P	Pn	01 14 52.5	+0.5
IANJ	Anjilo	4.58	65	Pn	Pn	01 14 52.1	-0.1
IANJ	Anjilo	4.58	65	*e*Pn	Pn	01 14 52.1	-0.1
IANJ				*e*		01 16 24.3	
	comp=Z,983nm,0.3s						
IANJ	Anjilo	4.58	65	*e*Pn	Pn	01 14 52.1	-0.1
RDF	Al-Radifah	4.83	193	*e*P	Pn	01 14 56.5	+0.8
RDF				AML	AML	01 15 51.9	
	comp=Z,43nm,0.5s						
RDF	Al-Radifah	4.83	193	*e*P	Pn	01 14 56.5	+0.8
IHRS	Heris	4.88	343	Pn	Pn	01 14 58.2	+1.9
IHRS	Heris	4.88	343	*e*Pn	Pn	01 14 58.2	+1.9
IHRS				*e*		01 15 24.3	
	comp=Z,467nm,0.3s						
ICHK	Chekchek	4.90	105	Pn	Pn	01 15 05.5	+8.8
ICHK	Chekchek	4.90	105	*e*Pn	Pn	01 15 05.5	+8.8
ICHK				*e*		01 16 35.4	
	comp=Z,1µm,0.3s						
IPAR	Pars	5.23	135	Pn	Pn	01 15 00.4	-0.8
IPAR	Pars	5.23	135	*e*Pn	Pn	01 15 00.5	-0.7
IPAR	Pars	5.23	135	*e*Pn	Pn	01 15 00.5	-0.7
MSL	Mosul	5.43	302	*e*x	x	01 15 06.0	
MSL				*e*x	x	01 16 08.0	
MALT	Malatya	9.62	302	*e*Pn	Pn	01 15 58.6	-2.8
ASF	Jabal al Asfar	10.13	265	P	Pn	01 16 07.3	-1.1
	comp=Z,0.4nm,0.3s,baz=49,slow=19,SNR=4.5						
MMAI	Mount Meron Ar	11.24	270	P	Pn	01 16 22.9	-0.7
	comp=Z,0.2nm,0.3s,baz=72,slow=19,SNR=2.2						
EIL	Elat	12.46	255	P	Pn	01 16 39.1	-1.3
	comp=Z,0.6nm,0.3s,baz=84,slow=7.1,SNR=6.2						
BRTR	Keskin Array B	13.60	301	P	Pn	01 16 54.2	-1.6
	comp=Z,0.0nm,0.3s,baz=138,slow=11,SNR=2.4						
AKASG	Malin Array Be	22.27	326	P	P	01 18 38.3	-1.7
	comp=Z,0.2nm,0.3s,mb3.1,baz=129,slow=9.8,SNR=4.7						
AKASG	Malin Array Be	22.27	326	P	P	01 18 38.3	-1.7
BUR08	Bucovina Ar. S	22.61	315	*e*P	P	01 18 43.7	0.0
BUR08	Bucovina Ar. S	22.61	315	*e*P	P	01 18 43.7	+0.1
ARU	Arti	23.75	14	*e*P	P	01 18 51.2	-4.0
	comp=Z,2.7nm,0.9s,mb3.7						
BVAR	Borovoye Array	24.75	32	P	P	01 19 04.8	+0.3
	comp=Z,1.2nm,0.6s,mb3.6,baz=232,slow=7.3,SNR=4.9						
BVAR	Borovoye Array	24.75	32	P	P	01 19 04.8	+0.4
MKAR	Makanchi Array	28.50	53	P	P	01 19 38.2	-0.1
	comp=Z,0.3nm,0.6s,mb3.1,baz=247,slow=7.1,SNR=4.0						
MKAR	Makanchi Array	28.50	53	P	P	01 19 38.2	-0.1
GERES	GERESS Array B	30.14	311	P	P	01 19 50.2	-2.6
	comp=Z,0.2nm,0.3s,mb3.3,baz=119,slow=8.2,SNR=3.3						
ZALV	Zalesovo Beam	32.46	40	P	P	01 20 13.4	+0.2
	comp=Z,0.4nm,0.4s,mb3.6,baz=236,slow=10,SNR=2.4						
BNI	Bardonecchia	34.16	302	*e*P	P	01 20 26.6	-1.5
BNI	Bardonecchia	34.16	302	*e*P	P	01 20 26.6	-1.5
NB2	NORSAR Subarra	36.54	330	P	P	01 20 47.2	-1.2
	comp=Z,2.2nm,1.2s,mb3.9,baz=121,slow=8.6						
NB2	NORSAR Subarra	36.54	330	P	P	01 20 47.2	-1.2
	comp=Z,2.2nm,1.2s,mb3.9,SNR=3.7						
NOA	NORSAR Array B	36.54	330	P	P	01 20 45.1	-3.2
	comp=Z,0.5nm,0.8s,mb3.4,baz=131,slow=6.7,SNR=2.8						
ESDC	Sonseca Array	42.26	294	P	P	01 21 34.8	-1.6
	comp=Z,0.5nm,0.6s,mb3.3,baz=74,slow=8.6,SNR=2.8						
ESDC	Sonseca Array	42.26	294	P	P	01 21 34.8	-1.6
TOA0	Torodi Ar. Sit	47.35	256	*e*P	P	01 22 15.9	-1.3
TOA0	Torodi Ar. Sit	47.35	256	*e*P	P	01 22 15.9	-1.4
TORD	Torodi Ar. Bea	47.35	256	P	P	01 22 15.7	-1.6
	comp=Z,0.5nm,0.4s,mb3.8,baz=74,slow=6.7,SNR=21						

PGC 20 01:13:51.6±1.7**,48°.03N**×**128°.18W,h10^{km},ML2.9**/4**, Mw3.5,2D,208km Wsw of Tofino, Bc Vancouver Island Region,Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WOSB	Woss	2.38	26	⇓Pn	Pn	01 14 29.6	-1.1
WOSB				⇑Sn	Sn	01 14 56.5	-3.3
MAYB	Maynard	2.46	15	Pn	Pn	01 14 30.3	-1.5
MAYB				⇑Sn	Sn	01 14 58.3	-3.6
MGB	Mount Grey	2.52	66	⇑Pn	Pn	01 14 31.0	-1.5
MGB				⇓Sn	Sn	01 14 58.9	-4.3
PFB	Port Renfrew	2.56	76	Pn	Pn	01 14 31.2	-1.9
PHC	Port Hardy	2.72	10	⇑Pn	Pn	01 14 34.4	-0.9
PHC				⇑Sn	Sn	01 15 04.9	-3.4
BBB	Bella Bella	4.16	1	⇑Pn	Pn	01 14 54.1	-1.0

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*ISCJB **20** 01:14:10.0±0.7,36°.23N±0°.04×21°.71E±0°.05,h10^{km},Error ellipse: s-maj=7.0km s-min=4.7km az=144.8*
*CSEM **20** 01:14:10.2±0.4,36°.24N×21°.76E,h2^{km},ML2.9,Error ellipse: s-maj=8.8km s-min=5.0km az=42.0*
*THE **20** 01:14:11.4,36°.29N×21°.65E,h5^{km}±1^{km},ML3.5/3,Error ellipse: s-maj=2.3km s-min=1.6km az=222.0*
*NEIC **20** 01:14:12.8,36°.39N×21°.92E,h12^{km},ML2.9(ATH),After ATH.*
*ATH **20** 01:14:12.8,36°.39N×21°.92E,h12^{km}±2^{km},MD3.4/13, ML2.9*
ISC 20 01:14:11.3±0.7**,36°.24N**±0°.04×**21°.76E**±0°.05**,h10^{km},n82,** σ**1^{s}06**/109**,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.66	359	P	Pg	01 14 22.4	-1.7
PYL				S	Sg	01 14 32.1	-0.6
PYL	PYLOS	0.66	359	*e*PB	Pg	01 14 22.4	-1.7
PYL				*e*SB	Sg	01 14 31.2	-1.5
PYL	PYLOS	0.66	359	*e*Pb	Pg	01 14 22.4	-1.7
PYL				*e*Sb	Sg	01 14 31.2	-1.5
PYL				S	Sg	01 14 32.1	-0.6
ITM	Ithomi	0.95	8	*e*PB	Pg	01 14 27.8	-1.8
ITM				*e*SB	Sg	01 14 39.2	-2.8
ITM	Ithomi	0.95	8	*e*Pb	Pg	01 14 27.8	-1.8
ITM				*e*Sb	Sg	01 14 39.2	-2.8
KYTH	Kithira	1.03	87	*e*PG	Pg	01 14 29.6	-1.5
KYTH	Kithira	1.03	87	*e*Pg	Pg	01 14 29.6	-1.5
VLI	Veliai	1.06	63	*e*PB	Pg	01 14 30.0	-1.7
VLI	Veliai	1.06	63	*e*Pb	Pg	01 14 30.0	-1.7
VLX	Vlachokerasia	1.24	23	*e*PB	Pn	01 14 32.7	-1.9
VLX				*e*SB	Sn	01 14 46.7	-4.7
VLX	Vlachokerasia	1.24	23	*e*Pb	Pn	01 14 32.7	-1.9
DID	Didima	1.73	43	P	Pn	01 14 41.1	-0.4
DID				S	Sn	01 15 05.5	+1.9
DID	Didima	1.73	43	*e*PG	Pn	01 14 40.9	-0.6
DID				*e*SB	Sn	01 15 02.3	-1.3
DID	Didima	1.73	43	P	Pn	01 14 41.1	-0.4
DID				S	Sn	01 15 05.5	+1.9
GUR	Goura	1.76	15	*e*PB	Pn	01 14 42.4	+0.6
GUR				*e*SB	Sn	01 15 04.8	+0.5
GUR	Goura	1.76	15	*e*Pb	Pn	01 14 42.4	+0.6
RLS	Riolos of Patr	1.83	353	*e*PN	Pn	01 14 44.0	+1.1
RLS				*e*SN	Sn	01 15 08.1	+2.0
RLS	Riolos of Patr	1.83	353	*e*Pn	Pn	01 14 44.0	+1.1
RLS				*e*Sn	Sn	01 15 08.1	+2.0
LAKA	Lakka	2.01	5	P	Pn	01 14 45.6	+0.4
LAKA				S	Sn	01 15 10.9	+0.5
LAKA	Lakka	2.01	5	P	Pn	01 14 45.6	+0.4
LAKA				S	Sn	01 15 10.9	+0.5
LTK	Loutraki	2.03	28	P	Pn	01 14 45.5	0.0
LTK	Loutraki	2.03	28	*e*PN	Pn	01 14 46.2	+0.7
LTK	Loutraki	2.03	28	P	Pn	01 14 45.5	0.0
LTK	Loutraki	2.03	28	*e*Pn	Pn	01 14 46.2	+0.7
NAIG	Nisos Aigina	2.05	42	*e*PN	Pn	01 14 46.3	+0.4
NAIG	Nisos Aigina	2.05	42	*e*Pn	Pn	01 14 46.3	+0.4
TRIZ	Trizonia	2.14	7	P	Pn	01 14 48.0	+0.9
TRIZ				S	Sn	01 15 14.6	+0.9
TRIZ	Trizonia	2.14	7	P	Pn	01 14 48.0	+0.9
TRIZ				S	Sn	01 15 14.6	+0.9
VAM	Vamos	2.15	112	*e*PG	Pn	01 14 51.0	+3.9
VAM	Vamos	2.15	112	*e*Pg	Pn	01 14 51.0	+3.9
VLS	Valsamata	2.15	335	P	Pn	01 14 46.3	-0.9
VLS				S	Sn	01 15 13.0	-1.0
VLS	Valsamata	2.15	335	*e*PN	Pn	01 14 49.9	+2.7
VLS	Valsamata	2.15	335	P	Pn	01 14 46.3	-0.9
VLS				S	Sn	01 15 13.0	-1.0
EFP	Efpalio	2.19	3	*e*PN	Pn	01 14 48.8	+1.1
EFP	Efpalio	2.19	3	*e*Pn	Pn	01 14 48.8	+1.1
ATH	Athens Observa	2.33	41	*e*PN	Pn	01 14 50.5	+0.8
ATH	Athens Observa	2.33	41	*e*Pn	Pn	01 14 50.5	+0.8
ATHU	Athens Univers	2.37	42	P	Pn	01 14 49.3	-0.9
ATHU	Athens Univers	2.37	42	P	Pn	01 14 49.3	-0.9
PTL	Penteli	2.47	42	*e*PB	Pn	01 14 51.1	-0.5
LKR	Lokris	2.60	22	P	Pn	01 14 52.0	-1.4
LKR	Lokris	2.60	22	*e*PN	Pn	01 14 54.5	+1.1
LKR	Lokris	2.60	22	P	Pn	01 14 52.0	-1.4
LKR	Lokris	2.60	22	*e*Pn	Pn	01 14 54.5	+1.1
IDI	Anoyia	2.71	109	P	Pn	01 14 54.5	-0.4
IDI	Anoyia	2.71	109	P	Pn	01 14 54.5	-0.4
AGG	Agios Georgios	2.82	9	P	Pn	01 14 56.2	-0.2
AGG	Agios Georgios	2.82	9	*e*PB	Pn	01 14 57.4	+1.0
AGG	Agios Georgios	2.82	9	P	Pn	01 14 56.2	-0.2
NPS	Neapolis	3.28	106	*e*PN	Pn	01 15 04.4	+1.7
NPS	Neapolis	3.28	106	*e*Pn	Pn	01 15 04.4	+1.7
XOR	Xorichti	3.32	19	P	Pn	01 15 03.7	+0.4
XOR	Xorichti	3.32	19	P	Pn	01 15 03.7	+0.4
THL	Klokotos Trika	3.33	3	P	Pn	01 15 03.2	-0.2
THL				S	Sn	01 15 43.4	+0.4
THL	Klokotos Trika	3.33	3	*e*PN	Pn	01 15 03.7	+0.3
THL	Klokotos Trika	3.33	3	*e*Pn	Pn	01 15 03.7	+0.3
THL				S	Sn	01 15 43.4	+0.4
AOS	Alonnisos	3.38	29	P	Pn	01 15 04.6	+0.5
AOS	Alonnisos	3.38	29	P	Pn	01 15 04.6	+0.5
IGT	Igoumenitsa	3.48	341	P	Pn	01 15 04.4	-1.1
IGT				S	Sn	01 15 46.3	-0.4
IGT	Igoumenitsa	3.48	341	P	Pn	01 15 04.4	-1.1
IGT				S	Sn	01 15 46.3	-0.4
JAN	Janina	3.49	348	*e*PN	Pn	01 15 07.4	+1.8
JAN	Janina	3.49	348	*e*Pn	Pn	01 15 07.4	+1.8
MEV	Metsovon	3.57	353	P	Pn	01 15 07.5	+0.8
MEV				S	Sn	01 15 49.1	+0.2
MEV	Metsovon	3.57	353	P	Pn	01 15 07.5	+0.8
MEV				S	Sn	01 15 49.1	+0.2
LIT	Litokhoron	3.90	8	P	Pn	01 15 11.4	+0.1
LIT				S	Sn	01 15 58.2	+1.1
LIT	Litokhoron	3.90	8	P	Pn	01 15 11.4	+0.1
LIT				S	Sn	01 15 58.2	+1.1
PAIG	Paliouri	3.98	22	P	Pn	01 15 12.1	-0.3
PAIG	Paliouri	3.98	22	P	Pn	01 15 12.1	-0.3
KZN	Kozani	4.07	0	P	Pn	01 15 14.7	+1.2
KZN	Kozani	4.07	0	P	Pn	01 15 14.7	+1.2
FNA	Florina	4.55	356	P	Pn	01 15 19.4	-0.8
FNA	Florina	4.55	356	P	Pn	01 15 19.4	-0.8
SOH	Sokhos	4.75	15	P	Pn	01 15 23.0	+0.1
SOH	Sokhos	4.75	15	P	Pn	01 15 23.0	+0.1
TIP	Timpagrande	4.94	308	P	Pn	01 15 25.0	-0.5
TIP	Timpagrande	4.94	308	P	Pn	01 15 25.0	-0.5
KNT	Kendrikon	5.00	10	P	Pn	01 15 26.3	0.0
KNT	Kendrikon	5.00	10	P	Pn	01 15 26.3	0.0
SRS	Serrai	5.08	16	P	Pn	01 15 27.2	-0.3
SRS	Serrai	5.08	16	P	Pn	01 15 27.2	-0.3
CEL	Celeste	5.10	295	P	Pn	01 15 26.4	-1.3
CEL	Celeste	5.10	295	P	Pn	01 15 26.4	-1.3

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*BJI **20** 01:28:52.0,32°.40N×115°.30W,h7^{km},mb4.8/4,Ms4.9/3, Ms7 4.8/3*
*ECX **20** 01:28:52.3±0.2,32°.32N×115°.33W,h7^{km},MD4.8,ML5.0, Fault plane solution: NP1:ϕ_s115.00000°,δ90.00000°, λ0.00000°.*
*ISCJB **20** 01:28:54.1±0.2,32°.45N±0°.02×115°.29W±0°.01,h10^{km}, mb4.3/15,MS4.0/17,Error ellipse: s-maj=2.5km s-min=1.6km az=7.1*
*GCMT **20** 01:28:56.0±0.6,32°.45N×115°.33W,h17^{km}±2^{km},MW4.8/65, Moment Tensor Solution. s9,c10; s65,c84; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.77±.14; $M_{\theta\theta}$-1.14±.09; $M_{\phi\phi}$1.91±.12; $M_{r\theta}$-1.17±.39; $M_{\theta\phi}$-0.73±.10; $M_{\phi r}$-0.84±.28; Best double couple: $M_0$2.31200×10^{16} NP1:ϕ_s130.00000°,δ52.00000°,λ-158.00000°. NP2: ϕ_s26.00000°,δ73.00000°,λ-40.00000°. Principal axes: T 2.2040, Plg13.0000°, Azm82.0000°; N 0.2170, Plg47.0000°, Azm186.0000°; P -2.4200, Plg40.0000°, Azm341.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **20** 01:28:56.3±1.1,32°.52N×115°.10W,h0^{km},mb4.0/8, mb1 4.2/14,mb1mx4.0/28,mbtmp4.0/14,ML3.6/5,MS4.0/21, Ms1 4.0/21,ms1mx3.8/37 Error ellipse: s-maj=18.4km s-min=9.0km az=46.0*
*NEIC **20** 01:28:56.0,32°.43N×115°.30W,h5^{km},mb4.6/20, ML4.7(ECX),ML4.8(PAS),After ECX.*
NEIC Felt [IV] at Mexicali. Felt [V] at Calexico; [IV] at El Centro; [III] at Blythe, Holtville, Imperial and San Diego; [II] at La Jolla, California. Also felt at Brawley, Carlsbad, Chula Vista, Heber, Lakeside, La Mesa, Niland, Pine Valley, Westmorland and Winterhaven. Felt [III] at Yuma, Arizona. Also felt at Cibola, Parker and Wellton.
ISC 20 01:28:55.3±0.2**,32°.47N**±0°.02×**115°.33W**±0°.01**,h10^{km},**

n272,σ1ˢ35/302,mb4.3/15,MS4.0/17,61C-72D,
California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.06	157	⇓*i*P	Pg	01 28 56.1	-1.2
SGL	Mount Signal	0.38	298	*i*P	Pg	01 29 03.3	+0.5
SNR	Schaffner Ranc	0.40	347	⇓*i*P	Pg	01 29 04.5	+1.2
COA	Coachella	0.43	24	⇓*i*P	Pg	01 29 04.8	+1.1
EMX	El Mayor	0.48	171	⇓*i*P	Pg	01 29 12.8	+8.1
EMX				*e*S	Sg	01 29 19.3	+8.2
COK	Cook Ranch	0.51	319	⇓*i*P	Pg	01 29 05.7	+0.5
YUH	Yuha Desert	0.53	290	*i*P	Pg	01 29 05.8	+0.2
SWSC	Sam W. Stewart	0.61	320	P	Pg	01 29 07.1	-0.1
	baz=0.7,SNR=935						
SWSC				⇑S	Sg	01 29 16.0	+0.8
	baz=0.7						
112A	Yuma	0.64	84	⇓P	Pg	01 29 07.6	0.0
	baz=0.6,SNR=114						
112A				⇑S	Sg	01 29 16.7	+0.8
	baz=0.6						
RMX	La Rumorosa	0.65	282	⇓*i*P	Pg	01 29 08.2	+0.3
YMD	Yuma Desert	0.67	82	⇑*i*P	Pg	01 29 08.0	-0.2
DVTC	Desert V Tower	0.68	286	P	Pg	01 29 08.6	+0.2
	baz=0.7,SNR=665						
DVTC				⇓S	Sg	01 29 18.0	+0.7
	baz=0.7						
CRR	Carrizo Plain	0.68	308	⇓*i*P	Pg	01 29 08.6	+0.1
GLA	Glamis	0.72	36	⇑P	Pg	01 29 08.8	-0.4
	baz=0.7,SNR=1000						
GLA				⇑S	Sg	01 29 18.2	-0.4
	baz=0.7						
GLA	Glamis	0.72	36	*e*Pg	Pg	01 29 08.7	-0.5
GLA				*e*Sg	Sg	01 29 18.5	-0.1
RDX	Rancho Dawling	0.75	224	⇑*i*P	Pg	01 29 10.1	+0.4
RDX				*e*S	Sg	01 29 21.2	+1.7
MONP	Monument Peak	1.01	295	P	Pg	01 29 13.7	-1.0
	baz=1.0,SNR=919						
MONP				⇓S	Sg	01 29 27.5	-0.4
	baz=1.0						
ECBX	El Chinero	1.02	167	⇓*i*P	Pg	01 29 20.9	+5.9
ECBX				*e*S	Sg	01 29 33.7	+5.5
ECBX				⇓*e*		01 29 40.6	
	comp=N,33µm,1.0s						
ECBX				⇓*e*		01 29 51.9	
	comp=E,23µm,0.9s						
CBX	Cerro Bola	1.14	263	⇑*i*PN	Pn	01 29 16.3	-1.0
CBX				*e*S	Sb	01 29 30.0	-2.0
BAR	Barrett	1.15	281	*e*Pg	Pg	01 29 16.0	-1.5
BAR				*e*Sb	Sb	01 29 29.2	-3.1
BC3	Big Chuckw Mtn	1.19	355	P	Pb	01 29 15.9	-2.0
	baz=1.2,SNR=807						
BC3				⇑S	Sb	01 29 31.4	-1.9
	baz=1.2						
ECNX	Esteban Cantu	1.35	233	⇑*e*PN	Pn	01 29 18.6	-1.6
113A	Mohawk Valley,	1.35	77	P	Pn	01 29 18.3	-1.9
	baz=1.3,SNR=1000						
PBX	Punta Banda	1.39	239	⇑*e*PN	Pn	01 29 19.6	-1.2
SPX	San Pedro Mart	1.42	185	⇓*e*PN	Pn	01 29 20.4	-0.8
SPX				⇑*e*		01 29 50.1	
	comp=E,23µm,1.0s						
Y12C	Blythe	1.45	28	⇑P	Pn	01 29 19.6	-1.9
	baz=1.5,SNR=131						
Y12C				⇑Sb	Sb	01 29 40.3	-0.4
	baz=1.5						
PFO	Pinyon Flat Ob	1.48	321	P	Pn	01 29 19.8	-2.1
	baz=1.5,SNR=455						
PFO				⇑S	Sn	01 29 38.6	-2.8
	baz=1.5						
PFO	Pinyon Flat Ob	1.48	321	*e*Pn	Pn	01 29 19.8	-2.2
109C	Camp Elliot, M	1.56	286	⇓P	Pn	01 29 21.7	-1.3
	baz=1.6,SNR=164						
109C				⇓Sb	Sb	01 29 43.9	0.0
	baz=1.6						
BELC	Belle Mtn.	1.63	340	⇑P	Pn	01 29 22.0	-2.0
	baz=1.7,SNR=8.3						
IRM	Iron Mountain	1.69	5	⇓P	Pn	01 29 22.9	-2.0
	baz=1.7,SNR=390						
IRM				⇓Sb	Sb	01 29 48.5	+0.6
	baz=1.7						
Y13A	Salome	1.84	43	⇓P	Pn	01 29 25.3	-1.7
	baz=1.9,SNR=22						
MURC	Murrieta	1.93	306	⇑P	Pn	01 29 26.5	-1.8
	baz=2.0,SNR=32						
MURC				⇓Sb	Sb	01 29 55.3	+0.5
	baz=2.0						
PDMCI	Parker Dam,Lak	2.08	28	⇑P	Pn	01 29 29.0	-1.3
	baz=2.1						
PDMCI				⇓Sb	Sb	01 29 59.1	+0.1
	baz=2.1						
114A	Black Gap (USA	2.08	82	P	Pn	01 29 28.8	-1.5
	baz=2.1,SNR=273						
Z14A	Wintersburg	2.19	65	⇓P	Pn	01 29 30.3	-1.5
	baz=2.2						
214A	Organ Pipe Nat	2.19	103	P	Pn	01 29 29.5	-2.3
	baz=2.2,SNR=382						
BBRC	Big Bear Sol-O	2.23	324	⇓P	Pn	01 29 31.0	-1.3
	baz=2.3						
GMRC	Granite Mounta	2.32	353	⇑P	Pn	01 29 32.0	-1.6
	baz=2.4,SNR=175						
NEE2	Needles Airpor	2.37	14	⇓P	Pn	01 29 32.9	-1.3
	baz=2.4						
Y14A	Wickenburg	2.44	52	⇑P	Pn	01 29 33.8	-1.4
	baz=2.4,SNR=30						
X13A	Yucca	2.46	30	⇑P	Pn	01 29 34.4	-1.1
	baz=2.5,SNR=94						
X13A				⇑Sb	Sb	01 30 11.4	+1.4
	baz=2.5						
HEC	Hector,Ludlow	2.50	341	⇑P	Pn	01 29 34.4	-1.6
	baz=2.6						
LDFC	Landfair	2.61	4	*e*Pn	Pn	01 29 37.4	-0.1
LDFC				*e*Pg	Pg	01 29 44.6	-0.7
LDFC				*e*Sg	Sg	01 30 18.7	-0.5
115A	Sonoran Desert	2.63	84	P	Pn	01 29 36.4	-1.4
	baz=2.6,SNR=345						
BFSC	Mount Baldy St	2.63	313	⇓P	Pn	01 29 36.5	-1.3
	baz=2.7						
CIS	Catalina Islan	2.75	291	⇑P	Pn	01 29 38.1	-1.3
	baz=2.8						
CIS				⇓Sb	Sb	01 30 19.8	+1.5
	baz=2.8						
SCI	San Clemente I	2.76	282	⇑Sb	Sb	01 30 19.9	+1.3
	baz=2.8						
FMP	Fort Macarthur	2.78	297	⇑Sb	Sb	01 30 20.4	+1.2
	baz=2.8						
Z15A	Gila River Ind	2.79	72	⇓P	Pn	01 29 38.5	-1.5
	baz=2.8,SNR=18						
W12A	Cal Nev Ari	2.85	8	⇑P	Pn	01 29 39.3	-1.6
	baz=2.9						
X14A	Yava	2.85	45	⇑P	Pn	01 29 39.5	-1.3
	baz=2.9,SNR=74						
MWC	Mount Wilson	2.88	308	*e*Pn	Pn	01 29 40.1	-1.1
MWC				*e*Pg	Pg	01 29 46.7	-3.8
MWC				*e*Sn	Sn	01 30 21.2	+5.3
W13A	Hualapai Mount	2.89	24	⇓P	Pn	01 29 40.0	-1.3
	baz=2.9,SNR=64						
Y15A	Casa Rosa Ranc	2.92	59	⇑P	Pn	01 29 40.1	-1.6
	baz=2.9,SNR=65						
PASC	Pasadena Art C	2.93	306	*e*Pn	Pn	01 29 44.1	+2.2
TUQ	Turquoise Moun	3.00	351	⇓P	Pn	01 29 41.4	-1.5
	baz=3.1,SNR=45						
116A	Eloy	3.06	87	⇓P	Pn	01 29 41.8	-2.0
	baz=3.0,SNR=68						
DECC	Green Verdugo	3.08	306	⇑Sb	Sb	01 30 29.2	+1.5
	baz=3.1						
GSC	Goldstone	3.08	337	⇑P	Pn	01 29 42.4	-1.6
	baz=3.1						
GSC	Goldstone	3.08	337	*e*Pn	Pn	01 29 42.5	-1.5
EDW2	Edwards Air Fo	3.27	318	⇓P	Pn	01 29 45.4	-1.2
	baz=3.3						
EDW2				⇓Sb	Sb	01 30 35.5	+2.2
	baz=3.3						
V12A	Nelson	3.27	7	⇓P	Pn	01 29 45.3	-1.4
	baz=3.3,SNR=64						
X15A	Humboldt	3.28	51	⇓P	Pn	01 29 45.7	-1.0
	baz=3.3						
216A	Three Points,	3.31	97	⇑P	Pn	01 29 45.1	-2.1
	baz=3.3,SNR=50						
V11A	Goodsprings	3.36	359	⇑P	Pn	01 29 47.0	-0.8
	baz=3.4,SNR=28						
Z16A	Peralta Trail,	3.40	74	⇑P	Pn	01 29 46.7	-1.7
	baz=3.4,SNR=26						
Y16A	Circle Bar Ran	3.52	65	⇓P	Pn	01 29 48.9	-1.2
	baz=3.5,SNR=100						
OSI	Osito Adit	3.55	308	*e*Pn	Pn	01 29 51.3	+0.9
OSI				*e*Pg	Pg	01 30 00.6	-2.7
V13A	Grand Canyon W	3.56	18	⇓P	Pn	01 29 50.8	+0.2
	baz=3.6						
SNCC	San Nicolas Is	3.62	284	*e*Pn	Pn	01 29 51.4	+0.1
V14A	Boquillas Ranc	3.66	30	⇑P	Pn	01 29 52.1	+0.2
	baz=3.7						
W15A	Williams	3.71	42	⇓P	Pn	01 29 52.0	-0.7
	baz=3.7						
X16A	Lo Mia Camp, P	3.79	58	⇑P	Pn	01 29 53.1	-0.6
	baz=3.8						
TUC	Tucson	3.85	91	*e*Pn	Pn	01 29 53.4	-1.2
117A	Oracle	3.88	87	⇑P	Pn	01 29 53.4	-1.6
	baz=3.9,SNR=223						
217A	Green Valley	3.89	99	⇓P	Pn	01 29 53.5	-1.6
	baz=3.9,SNR=195						
ARVC	Arvin	3.94	313	⇓P	Pn	01 29 54.3	-1.5
	baz=4.0						
Y17A	Roosevelt	3.96	71	⇓P	Pn	01 29 54.7	-1.4
	baz=3.9,SNR=250						
MPMC	Manual Prospec	4.00	334	⇓P	Pn	01 29 55.2	-1.5
	baz=4.1						
U12A	Valley of Fire	4.01	9	⇑P	Pn	01 29 55.6	-1.2
	baz=4.1						
U10A	Ash Meadows, A	4.03	348	⇓P	Pn	01 29 55.9	-1.1
	baz=4.1,SNR=11						
SHPR	Sheep Range	4.03	2	*e*Pn	Pn	01 29 56.8	-0.2
SHPR				*e*Sn	Sn	01 30 49.3	+5.0
U13A	Pakoon Wash	4.09	16	⇓P	Pn	01 29 57.0	-0.9
	baz=4.1						
W16A	Flagstaff	4.11	49	⇑P	Pn	01 29 58.1	0.0
	baz=4.1						
ISA	Isabella	4.12	322	⇓P	Pn	01 29 56.7	-1.5
	baz=4.2						
ISA	Isabella	4.12	322	*e*Pn	Pn	01 29 57.0	-1.2
Z17A	San Carlos Hig	4.17	77	⇓P	Pn	01 29 57.9	-1.1
	baz=4.2,SNR=34						
X17A	Forest Lakes	4.22	63	⇓P	Pn	01 29 59.5	-0.2
	baz=4.2						
V15A	Kaibab Nationa	4.25	37	⇑P	Pn	01 30 00.6	+0.6
	baz=4.3						
T12A	Moapa	4.28	7	⇓P	Pn	01 30 00.8	+0.4
	baz=4.3						
U14A	Mt Trumbull	4.32	24	⇑P	Pn	01 30 01.7	+0.7
	baz=4.4						
WUAZ	Wupatki	4.48	46	⇑P	Pn	01 30 04.1	+0.9
	baz=4.5						
WUAZ	Wupatki	4.48	46	*e*Pn	Pn	01 30 03.7	+0.5
Z18A	Geronimo	4.50	81	⇓P	Pn	01 30 02.3	-1.2
	baz=4.5						
218A	Dragoon	4.50	95	⇑P	Pn	01 30 01.9	-1.7
	baz=4.5,SNR=44						
118A	Homack Ranch,	4.53	86	⇑P	Pn	01 30 02.7	-1.2
	baz=4.5,SNR=138						
TPNV	Topopah Spring	4.53	351	*e*Pg	Pg	01 30 20.8	-1.3
CWC	Cottonwood Cre	4.57	331	⇑P	Pn	01 30 03.2	-1.2
	baz=4.6						
W17A	Winslow	4.64	55	⇓P	Pn	01 30 05.9	+0.5
	baz=4.6						
318A	Bisbee	4.65	101	⇓P	Pn	01 30 04.3	-1.3
	baz=4.6,SNR=333						
T13A	Saint George	4.69	14	⇑P	Pn	01 30 06.4	+0.3
	baz=4.7						
T11A	Corn Creek, Al	4.76	1	⇑P	Pn	01 30 07.2	+0.1
	baz=4.8						
GRAC	Grapevine Rang	4.82	340	⇓P	Pn	01 30 06.9	-1.1
	baz=4.9						
T14A	Hurricane	4.94	21	⇑P	Pn	01 30 10.1	+0.6
	baz=5.0						
X18A	Snowflake	4.94	64	⇑P	Pn	01 30 09.5	-0.1
	baz=4.9						
U16A	Tuba City	5.05	42	⇑P	Pn	01 30 12.0	+1.0
	baz=5.1						
119A	Ashpeak Ranch,	5.09	85	⇓P	Pn	01 30 10.4	-1.2
	baz=5.1,SNR=54						
S12A	Delamar Landin	5.14	4	⇓P	Pn	01 30 13.3	+1.0
	baz=5.2						
T15A	Red Dirt Ranch	5.15	27	⇓P	Pn	01 30 13.5	+1.1
	baz=5.2						
219A	White Tail Can	5.17	94	⇑P	Pn	01 30 11.0	-1.7
	baz=5.1,SNR=51						
Z19A	T-Link Ranch,	5.17	79	⇑P	Pn	01 30 12.4	-0.3
	baz=5.1,SNR=47						
S13A	Holt Ranch, En	5.24	13	⇑P	Pn	01 30 14.0	+0.3
	baz=5.3						
319A	Douglas	5.26	100	⇑P	Pn	01 30 12.3	-1.6
	baz=5.2,SNR=130						
Y19A	Nutrioso	5.30	72	⇓P	Pn	01 30 14.7	+0.1
	baz=5.3						
CCUT	Cedar City	5.32	17	*e*Pn	Pn	01 30 15.4	+0.6
	comp=E,134nm,1.3s						
CCUT				*e*Pg	Pg	01 30 37.0	-0.2
CCUT				*e*Sg	Sg	01 31 40.8	-5.3
W18A	Petrified Fore	5.35	59	⇓P	Pn	01 30 16.1	+0.9
	baz=5.4						
T16A	Glen Canyon Da	5.50	34	⇓P	Pn	01 30 18.0	+0.9
	baz=5.5						
V18A	Ganado	5.52	53	⇑P	Pn	01 30 18.7	+1.1
	baz=5.5						
ARUT	Antelope Range	5.53	16	*e*Pn	Pn	01 30 18.2	+0.6
	comp=E,78nm,0.7s						
ARUT				*e*Pb	Pb	01 30 30.9	-1.0
ARUT				*e*Pg	Pg	01 30 40.1	-1.0
ARUT				*e*Sg	Sg	01 31 50.1	-2.7
S10A	Tonopah Range,	5.54	350	⇓P	Pn	01 30 18.3	+0.5
	baz=5.6						
MTUM	Tungsten Hills	5.55	332	*e*Pn	Pn	01 30 24.7	+6.8
W19A	Sanders	5.61	60	⇓P	Pn	01 30 19.3	+0.6
	baz=5.6						
U17A	Shonto	5.64	42	⇓P	Pn	01 30 21.0	+1.8
	baz=5.7						
120A	U Bar Ranch, L	5.66	87	⇓P	Pn	01 30 18.5	-1.0
	baz=5.6,SNR=59						
S15A	Panguitch	5.74	24	⇓P	Pn	01 30 22.5	+2.0
	baz=5.8						
TPH	Tonopah	5.80	345	*e*Pn	Pn	01 30 29.3	+7.9
R13A	O'Grain Ranch,	5.81	11	⇑P	Pn	01 30 22.3	+0.8
	baz=5.9						
T17A	Navajo Res., N	5.86	38	⇓P	Pn	01 30 24.1	+1.9
	baz=5.9						
R11A	Troy Canyon, C	5.87	358	⇑P	Pn	01 30 22.5	+0.2
	baz=5.9						
R12A	Pony Springs,	5.88	6	⇓P	Pn	01 30 23.0	+0.6
	baz=5.9						
U18A	Rough Rock, Ch	5.99	47	⇓P	Pn	01 30 26.1	+2.2
	baz=6.0						
V19A	Window Rock	6.14	56	⇑P	Pn	01 30 27.2	+1.2
	baz=6.1						
W20A	Ramah	6.27	63	⇓P	Pn	01 30 28.2	+0.3
	baz=6.3						
S17A	Black Ridge (B	6.35	35	⇓P	Pn	01 30 31.0	+2.0
	baz=6.4						
Q10A	Clear Creek Ra	6.40	352	⇑P	Pn	01 30 30.8	+1.2
	baz=6.5						
NVAR	Mina Array Bea	6.42	339	Pn	Pn	01 30 33.8	+3.8
	comp=E,0.4nm,0.3s,baz=161,slow=15,SNR=14						
NVAR				Pg	Pg	01 31 00.1	+1.8
	comp=E,3.2nm,0.3s,baz=153,slow=14,SNR=27						
NVAR				Lg		01 32 18.3	
	baz=160,slow=29,SNR=1.5						
T18A	Mexican Hat	6.47	42	⇓P	Pn	01 30 32.3	+1.8
	baz=6.5						
MSU	Marysvale	6.55	22	*e*Pn	Pn	01 30 36.0	+4.3
MSU				*e*Pb	Pb	01 30 48.4	-0.9
MSU				*e*Pg	Pg	01 31 00.2	-0.6
MSU				*e*Sg	Sg	01 32 22.0	-3.6
Q13A	Wheeler Ranch,	6.56	9	⇓P	Pn	01 30 32.4	+0.6
	baz=6.6						
SAO	San Andreas Ge	6.62	312	*e*Pn	Pn	01 30 32.6	0.0
SAO				*e*Pg	Pg	01 31 02.4	+0.4
Q14A	Sevier Lake (B	6.72	14	⇓P	Pn	01 30 34.8	+0.9
	baz=6.8						
S18A	Hurst Farm, Bl	6.80	39	⇓P	Pn	01 30 37.6	+2.5
	baz=6.8						
WAKR	Walker	6.89	332	*e*Pn	Pn	01 30 41.6	+5.3
CMB	Columbia Colle	6.92	325	*e*Pn	Pn	01 30 35.4	-1.4
CMB				*e*Pg	Pg	01 31 06.2	-1.6
CMB				*e*Sg	Sg	01 32 32.4	-5.1
P12A	McGill	7.00	3	⇑P	Pn	01 30 38.9	+1.1
	baz=7.1						
P11A	Circle Ranch,	7.08	357	⇑P	Pn	01 30 40.5	+1.6
	baz=7.1						
LAZ	Ladron	7.11	72	*e*Pn	Pn	01 30 39.7	+0.3
	comp=E,126nm,1.1s						
LAZ				*e*Pg	Pg	01 31 11.5	0.0
LENM	Lemitar	7.20	74	*e*Pn	Pn	01 30 41.1	+0.6
Y22D	IRIS PASSCAL I	7.22	75	⇓P	Pn	01 30 41.6	+0.7
	baz=7.2						
X22A	Bernardo	7.24	71	⇑P	Pn	01 30 42.3	+1.1
	baz=7.2						
MVCO	Mesa Verde	7.34	48	*e*Pn	Pn	01 30 45.2	+2.7
MVCO				*e*Pg	Pg	01 31 11.0	-4.8
MVCO				*e*Sg	Sg	01 32 46.6	-4.3
BNM	Barren Site	7.47	75	*e*Pn	Pn	01 30 44.3	0.0
	comp=E,29nm,0.3s						
BNM				*e*Pg	Pg	01 31 16.1	-2.3
BNM				*e*Sg	Sg	01 32 53.7	-1.5
LPM	Los Pinos Moun	7.50	73	*e*Pn	Pn	01 30 45.0	+0.2
TMUT	Trail Mountain	7.59	25	*e*Pn	Pn	01 30 44.4	-1.5
TMUT				*e*Pg	Pg	01 31 18.3	-2.3
TMUT				*e*Sg	Sg	01 32 57.0	-1.8
SRU	San Rafael	7.69	29	*e*Pn	Pn	01 30 48.7	+1.4
SRU				*e*Pb	Pb	01 31 06.5	-2.2
SRU				*e*Pg	Pg	01 31 20.2	-2.4
SRU				*e*Sg	Sg	01 32 56.9	-5.2
ANMO	Albuquerque	7.79	69	Pn	Pn	01 30 49.9	+1.1
	comp=E,0.7nm,0.3s,baz=257,slow=12,SNR=35						
ANMO				Lg		01 32 57.7	
	comp=E,0.5nm,0.3s,baz=137,slow=7.0,SNR=3.7						
ANMO				LR	LR	01 34 06.8	
	comp=E,2µm,18.6s,baz=250,slow=41						
ANMO	Albuquerque	7.79	69	*e*Pn	Pn	01 30 49.3	+0.5
	comp=E,56nm,0.6s						
ANMO				*e*Pg	Pn	01 31 23.0	+34
ANMO				*e*Sg	Sn	01 32 58.2	+41
PV04	Paradox Valley	7.90	40	*e*Pn	Pn	01 30 53.2	+3.0
PV04				*e*Pg	Pn	01 31 24.4	+34
PV04				*e*Sg	Sn	01 33 05.8	+46
PV01	Paradox Valley	7.90	42	*e*Pn	Pn	01 30 52.5	+2.3
	comp=E,17µm,1.1s						
PV01				*e*Pg	Pn	01 31 24.0	+34
PV01				*e*Sg	Sn	01 33 06.7	+47
NLU	North Lily Min	7.92	18	*e*Pn	Pn	01 30 50.5	0.0
NLU				*e*Sg	Sn	01 33 08.1	+48
PAHR	Pah Rah Range	7.93	337	*e*Pb	Px	01 31 22.8	
DUG	Dugway	7.97	14	*e*Pn	Pn	01 30 56.2	+5.0
DUG				*e*Pg	Pn	01 31 24.5	+33
DUG				*e*Sg	Sn	01 33 05.0	+44
BMN	Battle Mountai	8.09	350	*e*Pg	Px	01 31 28.8	
MPU	Maple Canyon	8.10	21	*e*Pn	Pn	01 30 53.9	+1.0
MPU				*e*Pg	Pn	01 31 27.3	+34
ELK	Elko	8.26	0	Pn	Pn	01 30 56.0	+0.9
	comp=E,0.6nm,0.3s,baz=168,slow=11,SNR=13						
ELK				Pg	Pn	01 31 33.1	+38
	comp=E,1.2nm,0.3s,baz=177,slow=13,SNR=11						
ELK				Sn	Sn	01 32 26.2	-2.3
	baz=127,slow=20,SNR=3.2						
ELK				Lg		01 33 14.2	
	comp=E,1.0nm,0.3s,baz=256,slow=17,SNR=2.7						
ELK				LR	LR	01 34 30.8	
	comp=E,956nm,21.3s,baz=180,slow=41						
ELK	Elko	8.26	0	*e*Pn	Pn	01 30 55.6	+0.5
OHCM	Honcut	8.48	326	*e*Pb	Px	01 31 28.8	
OHCM				*e*Sg	Sx	01 33 25.0	
NOQ	North Oquirrh	8.56	17	*e*Pn	Pn	01 31 03.3	+4.0
	comp=E,57nm,1.4s						
DAU	Daniels Canyon	8.58	21	*e*Pn	Pn	01 31 05.1	+5.6
BGU	Big Grassy Mou	8.64	12	*e*Pn	Pn	01 31 04.6	+4.3
	comp=E,37nm,1.1s						
JLU	Jordanelle	8.70	20	*e*Pn	Pn	01 31 08.6	+7.5
SPUT	South Promonto	9.12	14	*e*Pn	Pn	01 31 07.4	+0.6
GDL2	Guadalupe Moun	9.28	89	*e*Pn	Pn	01 31 10.2	+1.0
LPIG	La Paz	9.44	151	Pn	Pn	01 31 15.6	+4.3
	comp=E,3.5nm,0.3s,baz=40,slow=2.9,SNR=6.1						
LPIG				Lg		01 33 59.9	
	comp=E,2.9nm,0.3s,baz=202,slow=19,SNR=4.0						
LPIG				LR	LR	01 34 53.6	
	comp=E,329nm,21.1s,baz=149,slow=38						
HVU	Hansel Valley	9.51	12	*e*Pn	Pn	01 31 11.5	-0.8
SDCO	Great Sand Dun	9.62	54	*e*Pn	Pn	01 31 15.2	+1.4
MOD	Modoc	10.21	339	*e*Pn	Pn	01 31 21.3	-0.7
WVOR	Wild Horse Val	10.29	346	*e*Pn	Pn	01 31 28.3	+5.4
	comp=E,7.6nm,1.3s						
TXAR	Lajitas Array	10.49	104	Pn	Pn	01 31 26.6	+0.8
	comp=E,4.7nm,0.3s,baz=284,slow=13,SNR=256						
TXAR				Lg		01 34 22.6	
	comp=E,0.2nm,0.3s,baz=308,slow=31,SNR=3.9						
TXAR				LR	LR	01 35 42.2	
	comp=E,858nm,20.9s,baz=325,slow=39						
ISCO	Idaho Springs	10.73	44	*e*Pn	Pn	01 31 32.9	+3.9
AHID	Auburn Hatcher	10.81	17	*e*Pn	Pn	01 31 33.3	+3.3
YBH	Yreka Blue Hor	10.96	330	Pn	Pn	01 31 37.3	+5.2
	comp=E,0.1nm,0.3s,baz=128,slow=7.0,SNR=7.2						
YBH				Lg		01 34 44.0	
	comp=E,0.1nm,0.3s,baz=66,slow=20,SNR=2.1						
YBH				LR	LR	01 36 08.2	
	comp=E,417nm,20.8s,baz=286,slow=39						
HLID	Hailey	11.10	3	*e*Pn	Pn	01 31 38.2	+4.2
BW06	Boulder Array	11.25	22	*e*Pn	Pn	01 31 41.5	+5.4
PDAR	Pinedale Array	11.25	22	Pn	Pn	01 31 41.4	+5.3
	comp=E,0.1nm,0.3s,baz=210,slow=11,SNR=15						
PDAR				Lg		01 34 49.0	
	baz=211,slow=23,SNR=3.0						
RRI2	Red Ridge	11.31	15	*e*Pn	Pn	01 31 40.8	+3.9
REDW	Red Top Meadow	11.43	17	*e*Pn	Pn	01 31 42.0	+3.4
TPAW	Teton Pass	11.53	16	*e*Pn	Pn	01 31 43.7	+3.8
SNOW	Snow King Moun	11.55	17	*e*Pn	Px	01 31 50.5	
DCID1	Drake Creek	11.58	15	*e*Pn	Pn	01 31 41.7	+1.2
AMTX	Amarillo	11.62	74	*e*Pn	Pn	01 31 42.6	+1.4
LOHW	Long Hollow	11.73	17	*e*Pn	Pn	01 31 44.6	+2.0
MOOW	Moose Ponds	11.82	16	*e*Pn	Pn	01 31 47.8	+3.9
IMW	Indian Meadow	11.92	16	*e*Pn	Pn	01 31 48.8	+3.6
BMO	Blue Mountains	12.46	353	*e*Pn	Pn	01 32 01.0	+8.4
MCMT	McKenzie Canyo	12.49	8	*e*Pn	Pn	01 31 59.3	+6.3
	comp=E,8.7nm,1.2s						
YMR	Madison River	12.65	14	*e*Pn	Pn	01 32 00.3	+5.2
	comp=E,21nm,1.1s						
LKWY	Lake	12.68	16	*e*Pn	Pn	01 31 58.5	+2.9
QLMT	Earthquake Lak	12.71	13	*e*Pn	Px	01 32 18.4	
YNR	Norris Junctio	12.75	15	*e*Pn	Px	01 32 06.9	
DLMT	Dillon	13.05	9	*e*P	Pn	01 32 06.2	+5.5
JCT	Junction City	13.40	94	*e*Pn	Pn	01 32 08.1	+2.5
RLMT	Red Lodge	13.48	19	*e*Pn	Pn	01 32 10.1	+3.5
LRM	Limekiln Ridge	13.52	9	*e*Pn	Pn	01 32 11.9	+4.8
LNOR	Lincton Mounta	13.58	351	*e*Pn	Pn	01 32 14.8	+6.9
HOOD	Mount Hood Mea	13.74	341	*e*Pn	Pn	01 32 10.3	+0.2
WMOK	Wichita Mounta	13.98	76	*e*Pn	Pn	01 32 13.5	+0.1
CBKS	Cedar Bluff	14.16	59	*e*Pn	Pn	01 32 19.4	+3.4
	comp=E,24nm,1.0s						
HAWA	Hanford	14.28	348	*e*Pn	Pn	01 32 18.7	+1.3
RSW	Rattlesnake Hi	14.29	348	*e*Pn	Pn	01 32 22.9	+5.3
MSO	Missoula	14.38	4	*e*Pn	Pn	01 32 26.8	+7.9
HRY	Holter Researc	14.47	10	*e*Pn	Pn	01 32 25.6	+5.5
	comp=E,19nm,1.5s						
CHMT	Chamberlain Mo	14.52	6	*e*Pn	Pn	01 32 24.5	+3.9
RSSD	Black Hills	14.61	34	*e*Pn	Pn	01 32 22.1	+0.2
SLMT	Seeley Lake	14.82	5	*e*Pn	Pn	01 32 28.5	+3.7
SWMT	Swartz Lake	15.06	3	*e*Pn	Pn	01 32 35.1	+7.1
LON	Longmire	15.10	343	*e*Pn	Pn	01 32 33.0	+4.4
	comp=E,27nm,1.3s						
OD2	Odessa Site #2	15.13	351	P	Pn	01 32 33.3	+4.4
EPH	Ephrata	15.22	349	P	Pn	01 32 34.9	+4.7
JTMT	Jette	15.28	3	*e*Pn	Pn	01 32 38.0	+7.0
BSMT	Bassoo Peak	15.37	1	*e*Pn	Pn	01 32 35.8	+3.6
YBMT	Yellow Bay	15.41	3	*e*Pn	Pn	01 32 37.4	+4.8
ETW	Entiat	15.59	347	*e*Pn	Pn	01 32 41.1	+6.1
WTV	Waterville	15.61	348	P	Pn	01 32 38.7	+3.4
NEW	Newport	15.84	356	*e*Pn	Pn	01 32 41.4	+3.2
	comp=E,44nm,1.1s						
NLW	Nelson Butte	16.05	348	P	Pn	01 32 44.4	+3.5
EGMT	Eagleton	16.10	14	*e*Pn	Pn	01 32 45.6	+3.9
	comp=E,24nm,1.3s						
JCW	Jim Creek	16.48	344	*e*P	Pn	01 32 50.4	+3.9
KSU1	Kansas State U	16.56	61	*e*Pn	Pn	01 32 49.3	+1.8
	comp=E,42nm,0.9s						
WALA	Waterton Lakes	16.61	3	*e*Pn	Pn	01 32 51.7	+3.6
	comp=E,0.8nm,1.1s						
HKT	Hockley	16.87	93	*e*P	Pn	01 32 53.1	+1.6
	comp=E,71nm,1.5s						
PGC	Sidney	17.28	342	*e*Pn	Pn	01 33 01.6	+5.0
	comp=E,8.5nm,1.8s						
NATX	Nacogdoches	17.53	87	*e*P	Pn	01 33 02.3	+2.5
	comp=E,41nm,0.9s						
DGMT	Dagmar	18.06	24	*e*P	Pn	01 33 08.0	+1.9
	comp=E,30nm,1.1s						
MIAR	Mount Ida	18.26	78	*e*P	Pn	01 33 09.7	+0.9
	comp=E,50nm,1.2s						
ECSD	EROS Data Cent	18.49	47	*e*P	Pn	01 33 11.8	+0.3
	comp=E,85nm,2.3s						
SCIA	State Center	19.93	56	*e*P	Pn	01 33 27.9	-1.0
	comp=E,34nm,1.1s						
CCM	Cathedral Cave	20.42	67	*e*P	P	01 33 32.9	+0.3
	comp=E,40nm,1.5s						
EDM	Edmonton	20.79	3	*e*P	P	01 33 36.8	+0.4

VBMS	Vicksburg	20.96	84	eP	P	01 33 40.4	+2.0
	comp=E,110nm,1.1s						
FVM	French Village	21.05	68	eP	P	01 33 40.4	+1.1
	comp=E,81nm,1.5s,mb4.8						
BBB	Bella Bella	21.79	338	LR	LR	01 42 52.7	
	comp=E,520nm,19.4s,MS4.0,baz=158,slow=38						
PLAL	Pickwick Lake	22.78	76	eP	P	01 33 58.5	+0.6
	comp=E,17nm,1.0s,mb4.4						
ULM	Lac du Bonnet	22.88	33	P	P	01 34 00.8	+2.0
	comp=E,5.7nm,1.0s,mb4.0,baz=221,slow=9.9,SNR=5.0						
ULM				LR	LR	01 43 31.3	
	comp=E,120nm,20.4s,MS3.3,baz=270,slow=38						
OLIL	Olney	22.96	67	eP	P	01 34 00.9	+1.2
	comp=E,25nm,0.9s,mb4.7						
WVT	Waverly	22.98	73	eP	P	01 34 01.3	+1.3
	comp=E,24nm,1.3s,mb4.5						
CMIG	Matias Romero	24.00	125	P	P	01 34 11.8	+1.5
	comp=E,12nm,1.0s,mb4.3,baz=293,slow=7.8,SNR=9.9						
CMIG				LR	LR	01 43 20.4	
	comp=E,516nm,18.0s,MS4.0,baz=288,slow=36						
FFC	Flin Flon	24.18	19	eP	P	01 34 12.9	+1.4
	comp=E,44nm,1.6s,mb4.6						
TKL	Tuckaleechee C	26.28	74	LR	LR	01 45 19.2	
	comp=E,908nm,19.2s,MS4.3,baz=273,slow=38						
TEIG	Tepich	27.05	110	LR	LR	01 46 38.1	
	comp=E,194nm,20.5s,MS3.6,baz=48,slow=40						
DLBC	Dease Lake	27.81	343	P	P	01 34 46.6	+2.3
	comp=E,8.0nm,1.0s,mb4.3,baz=167,slow=5.1,SNR=5.4						
DLBC				LR	LR	01 47 04.4	
	comp=E,745nm,18.4s,MS4.3,baz=336,slow=39						
FCC	Fort Churchill	29.94	22	eP	P	01 35 05.0	+1.7
	comp=E,0.2nm,1.2s						
YKA	Yellowknife Ar	30.04	1	P	P	01 35 05.2	+1.0
	comp=E,1.4nm,1.1s,mb3.6,baz=179,slow=8.9,SNR=11						
SADO	Sadowa	30.58	56	LR	LR	01 47 18.5	
	comp=E,456nm,20.2s,MS4.1,baz=273,slow=36						
SCHQ	Schefferville	40.55	42	LR	LR	01 53 11.5	
	comp=E,161nm,18.1s,MS3.9,baz=269,slow=36						
RES	Resolute Bay	43.48	8	P	P	01 37 00.6	+2.3
	comp=E,2.3nm,1.0s,mb3.9,baz=207,slow=11,SNR=3.6						
RES	Resolute Bay	43.48	8	P	P	01 37 00.6	+2.3
ROSC	El Rosal	47.11	117	LR	LR	01 57 48.9	
	comp=E,143nm,20.1s,MS3.9,baz=21,slow=37						
OTAV	Otavalo	47.28	125	eP	P	01 37 31.6	+2.5
	comp=E,9.4nm,1.2s,mb4.6						
SUMG	Summit	55.44	21	eP	P	01 38 30.7	+1.2
	comp=E,8.8nm,1.1s,mb4.7						
PETK	Petropavlovsk-	63.05	318	P	P	01 39 27.4	+5.0
	comp=E,5.7nm,0.9s,mb4.7,baz=81,slow=9.2,SNR=3.9						
PETK				LR	LR	02 03 42.7	
	comp=E,41nm,20.6s,MS3.6,baz=248,slow=33						
RAR	Rarotonga	68.23	225	LR	LR	02 02 18.9	
	comp=E,114nm,21.2s,MS4.1,baz=127,slow=29						
ARCES	ARCESS Array B	74.36	13	LR	LR	02 18 05.1	
	comp=E,122nm,19.7s,MS4.2,baz=179,slow=40						
NOA	NORSAR Array B	77.19	24	P	P	01 40 51.6	+2.6
	comp=E,1.1nm,0.9s,mb3.8,baz=320,slow=5.7,SNR=3.6						
NOA				LR	LR	02 14 40.8	
	comp=E,90nm,18.1s,MS4.1,baz=190,slow=36						
MJAR	Matsushiro Arr	82.89	309	LR	LR	02 10 38.1	
	comp=E,61nm,20.0s,MS4.0,baz=60,slow=30						
ESDC	Sonseca Array	84.14	46	P	P	01 41 28.3	+1.6
	comp=E,0.1nm,0.3s,mb3.5,baz=303,slow=5.0,SNR=3.7						
ESDC				LR	LR	02 17 25.1	
	comp=E,82nm,18.5s,MS4.1,baz=345,slow=35						
SONM	Songino Array	91.73	333	LR	LR	02 28 55.3	
	comp=E,102nm,18.3s,MS4.3,baz=347,slow=39						
LZH	Lanzhou	102.56	328	eP	Pdif	01 42 54.5	+2.4
LZH				pP		01 42 58.0	
LZH				sP		01 43 00.0	
LZH				pmax	pmax		
	comp=Z,13nm,1.2s						
GYA	Guiyang	109.05	321	Pdif	Pdif	01 43 20.3	-0.6
GYA				PKP	PKiKP	01 47 24.3	-1.3
GYA				PP	PP	01 47 55.0	+2.4
GYA				PKS		01 51 00.8	
GYA				SS	SS	02 03 08.9	-2.6
GYA				LR	LR		
	comp=N,120nm,20.2s,MS4.6						
GYA				LR	LR		
	comp=E,130nm,19.8s,MS4.6						
GYA				LR	LR		
	comp=Z,110nm,21.0s,MS4.4						
KMI	Kunming	112.19	323	PKP	PKiKP	01 47 29.8	-1.8
BOSA	Boshof	145.97	94	PKPbc	PKPbc	01 48 35.9	+0.4
	comp=Z,5.6nm,1.1s,baz=256,slow=1.9,SNR=3.0						

NEIC ***20*** *01:31:47.3±5.0, 53°.41N×172°.02E, h9^{km}±33^{km}, mb4.3/9, Error ellipse: s-maj=23.8km s-min=7.3km az=183.0*

KRSC ***20*** *01:31:47.8±1.9, 53°.15N×171°.57E, h14^{km}±16^{km}, ML4.3*

MOS ***20*** *01:31:47.1±1.1, 53°.49N×171°.98E, h18^{km}, mb4.3/12, Error ellipse: s-maj=16.6km s-min=12.3km az=17.1*

ISCJB ***20*** *01:31:48.2±1.5, 53°.45N±0°.08×171°.97E±0°.05, h25^{km}±11^{km}, mb4.2/28, MS2.9/2, Error ellipse: s-maj=13.1km s-min=4.7km az=13.0*

IDC ***20*** *01:31:50.6±0.7, 53°.59N×171°.96E, h24^{km}±4^{km}, mb3.8/13, mb1 4.0/14, mb1mx3.8/29, mbtmp3.8/14, ML3.8/1, MS3.0/3, Ms1 3.0/3, ms1mx2.9/25, Error ellipse: s-maj=25.7km s-min=12.3km az=174.0*

ISC 20 01:31:52.3±0.9**, 53°.56N**±0°.09×**171°.99E**±0°.07**, h37**^{km}±8^{km}**, h23**^{km}±2.9^{km}**:pP-P, n73,** σ**0^{s}.97**/81**, mb4.2**/28**, MS2.9**/2**, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMY	Shemya	1.52	122	ePn	Pn	01 32 11.8	-5.1
SMY				eSn	Sn	01 32 30.0	-5.5
BKI	Bering	3.88	298	eP	Pn	01 32 48.3	-1.1
BKI				i S	Sn	01 33 32.7	-1.0
KBTR	Krutoberegovo	5.92	300	eP	Pn	01 33 18.2	+0.8
KBTR				i S	Sn	01 34 22.8	-1.0
SMKR	Semkarok	6.76	301	eP	Pn	01 33 30.5	+1.7
ZLN	Zelenaya	6.92	295	eP	Pn	01 33 33.1	+2.0
ZLN				i S	Sn	01 34 49.4	+1.0
SRKR	Sorokina	6.94	301	P	Pn	01 33 32.4	+1.1
CIRR	Tsirk	6.98	296	eP	Pn	01 33 32.7	+0.8
TUMR	Tumrok	7.12	289	eP	Pn	01 33 35.0	+1.1
TUMR				i S	Sn	01 34 52.0	-1.4
KIRR	Kirishev	7.15	294	P	Pn	01 33 35.4	+1.1
KMNR	Kamenistaya	7.16	293	eP	Pn	01 33 35.1	+0.7
KMNR				i S	Sn	01 34 52.8	-1.6
SPN	Mys Shipunski	7.18	271	eP	Pn	01 33 32.7	-2.0
SPN				i S	Sn	01 34 48.2	-6.7
KPT	Kopyto	7.22	294	eP	Pn	01 33 36.1	+0.9
NLC	Nalytchevo	7.58	272	eP	Pn	01 33 38.4	-1.7
NLC				i S	Sn	01 34 58.4	-6.2
SRDR	Sredinnyy	7.59	296	eP	Pn	01 33 41.8	+1.6
AVH	Avacha	7.92	273	eP	Pn	01 33 43.7	-1.2
RUS	Russkaya	8.21	268	eP	Pn	01 33 47.2	-1.6
RUS				i S	Sn	01 35 15.0	-5.1
GNL	Ganaly	8.35	277	eP	Pn	01 33 50.3	-0.4
PETK	Petropavlovsk-	8.57	273	P	Pn	01 33 53.2	-0.5
PETK						01 35 29.7	
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK				smax			
	comp=N,1.0nm,0.3s						
PETK				MLR	MLR		
	comp=Z,90nm,21.5s						
PETK	Petropavlovsk-	8.57	273	Pn	Pn	01 33 53.2	-0.5
	comp=Z,1.2nm,0.3s,baz=88,slow=18,SNR=12						
PETK				Sn	Sn	01 35 29.7	+0.8
	comp=Z,1.3nm,0.3s,baz=91,slow=22,SNR=4.7						
PETK				LR	LR	01 37 02.7	
	comp=Z,90nm,21.4s,baz=101,slow=36						
PETK	Petropavlovsk-	8.57	273	Pn	Pn	01 33 53.2	-0.5
PETK				Sn	Sn	01 35 29.7	+0.8
PETK				LR	LR	01 37 02.7	
KDAK	Kodiak Island	20.27	64	P	P	01 36 24.3	0.0
KDAK				pmax	pmax		
	comp=Z,21nm,0.8s						
KDAK	Kodiak Island	20.27	64	P	P	01 36 24.2	0.0
	comp=Z,20nm,0.8s,baz=211,slow=5.9,SNR=4.7						
COLA	College	23.02	45	eP	P	01 36 51.1	-2.5
COLA				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.2						
COLA	College	23.02	45	eP	P	01 36 51.1	-2.5
	comp=Z,14nm,1.3s,mb4.2						
MJAR	Matsushiro Arr	28.94	248	LR	LR	01 48 29.4	
	comp=Z,41nm,19.4s,MS3.0,baz=110,slow=34						
BOD	Bodaibo	32.09	301	eP	P	01 38 15.1	-0.3
BOD				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.1						
KSRS	Korea Array	34.19	260	LR	LR	01 53 05.6	
	comp=Z,18nm,18.6s,MS2.8,baz=235,slow=37						
BBB	Bella Bella	35.25	67	P	P	01 38 44.5	+1.5
	comp=Z,26nm,1.0s,mb5.1,baz=273,slow=5.2,SNR=3.4						
YKA	Yellowknife Ar	37.83	47	P	P	01 39 05.0	+0.3
	comp=Z,0.4nm,0.7s,mb3.3,baz=289,slow=7.9,SNR=6.4						
YKA	Yellowknife Ar	37.83	47	P	P	01 39 05.0	+0.3
SONM	Songino Array	40.61	290	P	P	01 39 28.6	+0.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM	Songino Array	40.61	290	P	P	01 39 28.6	+0.5
	comp=Z,1.2nm,0.4s,mb3.9,baz=62,slow=7.8,SNR=17						
NEW	Newport	43.32	67	eP	P	01 39 49.7	-0.5
NEW				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NEW	Newport	43.32	67	eP	P	01 39 49.7	-0.5
	comp=Z,1.7nm,0.7s,mb3.9						
YBH	Yreka Blue Hor	44.05	78	P	P	01 39 56.6	+0.4
YBH				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YBH	Yreka Blue Hor	44.05	78	P	P	01 39 56.6	+0.4
	comp=Z,1.9nm,0.6s,mb4.0,baz=334,slow=7.9,SNR=4.9						
BOZ	Bozeman (W)	47.90	67	eP	P	01 40 25.9	-0.5
BOZ				e*PP	pP	01 40 32.6	-4.7
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
BOZ	Bozeman (W)	47.90	67	eP	P	01 40 25.9	-0.6
	comp=Z,2.9nm,0.6s,mb4.5						
BOZ				epP	pP	01 40 32.6	-4.7
NVAR	Mina Array Bea	48.76	78	P	P	01 40 32.8	-0.4
	comp=Z,1.0nm,0.5s,mb4.1,baz=294,slow=8.2,SNR=5.3						
GTA	Gaotai	49.54	284	eP	P	01 40 42.0	+2.9
GTA				pP	pP	01 40 48.4	-1.6
GTA				sP	sP	01 40 51.6	-2.7
GTA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BW06	Boulder Array	50.89	68	eP	P	01 40 48.6	-0.7
	comp=Z,1.3nm,0.7s,mb4.0						
PDAR	Pinedale Array	50.89	68	P	P	01 40 49.0	-0.2
	comp=Z,1.1nm,0.8s,mb3.8,baz=312,slow=2.7,SNR=7.6						
KURK	Kurchatov	53.33	308	P	P	01 41 07.5	+0.2
KURK				*PP	pP	01 41 15.3	-2.9
KURK				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
KURK				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
KURK	Kurchatov	53.33	308	P	P	01 41 07.5	+0.1
	comp=Z,1.8nm,0.2s,mb4.6,baz=52,slow=7.5,SNR=1.4						
KURK				pP	pP	01 41 15.3	-2.9
	comp=Z,1.3nm,0.3s,baz=51,slow=7.6,SNR=1.0						
KURK	Kurchatov	53.33	308	eP	P	01 41 06.4	-0.9
	comp=Z,4.3nm,1.1s,mb4.3						
KURK				pP	pP	01 41 15.3	-2.9
MKAR	Makanchi Array	54.18	302	P	P	01 41 12.5	-1.1
	comp=Z,0.4nm,0.4s,mb3.7,baz=55,slow=6.7,SNR=16						
MVCO	Mesa Verde	55.26	73	eP	P	01 41 21.9	+0.3
	comp=Z,13nm,0.8s,mb5.0						
BVAR	Borovoye Array	55.45	314	P	P	01 41 22.6	-0.1
BVAR				pmax	pmax		
	comp=Z,1.0nm,1.1s						
BVAR	Borovoye Array	55.45	314	P	P	01 41 22.6	-0.1
	comp=Z,1.3nm,1.1s,mb3.9,baz=33,slow=3.4,SNR=3.3						
AAK	Ala-Archa	61.04	303	eP	P	01 42 02.0	+0.1
AAK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.1						
AAK	Ala-Archa	61.04	303	eP	P	01 42 02.0	+0.1
	comp=Z,1.0nm,0.6s,mb4.1						
EKS2	Erkin-Say	61.38	304	eP	P	01 42 04.0	-0.1
	comp=Z,1.5nm,0.7s,mb4.2						
SCHQ	Schefferville	61.58	34	P	P	01 42 05.0	-0.4
	comp=Z,4.0nm,1.1s,mb4.5,baz=293,slow=17,SNR=2.7						
SCHQ	Schefferville	61.58	34	P	P	01 42 05.0	-0.4
WMOK	Wichita Mounta	62.50	68	eP	P	01 42 11.2	-0.6
TXAR	Lajitas Array	63.74	76	P	P	01 42 19.7	-0.4
TXAR				*PP	pP	01 42 28.3	-3.0
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	63.74	76	P	P	01 42 19.7	-0.4
	comp=Z,0.6nm,0.5s,mb3.9,baz=304,slow=5.2,SNR=17						
TXAR				pP	pP	01 42 28.2	-3.0
	comp=Z,0.7nm,0.6s,baz=293,slow=4.0,SNR=6.0						
TAPN	Taplejung	65.19	283	eP	P	01 42 29.7	+0.1
GUN	Gumba	65.82	285	eP	P	01 42 34.5	+0.8
	comp=Z,8.7nm,0.4s,mb5.1						
JIRN	Jiri	65.83	284	eP	P	01 42 34.6	+0.8
	comp=Z,4.9nm,0.5s,mb4.8						
RAMN	Ramite	66.13	283	eP	P	01 42 35.9	+0.2
	comp=Z,17nm,0.4s						
KKN	Kakani	66.26	285	eP	P	01 42 36.8	+0.3
PKI	Pulchoki	66.35	285	eP	P	01 42 37.4	+0.3
	comp=Z,7.4nm,0.5s,mb4.9						
PKIN	Phulchoki	66.35	285	eP	P	01 42 37.3	+0.2
	comp=Z,4.5nm,0.5s,mb4.8						
GKN	Gorkha	66.47	286	eP	P	01 42 38.1	+0.2
DMN	Daman	66.50	285	eP	P	01 42 38.3	+0.2
	comp=Z,3.2nm,0.4s,mb4.7						
KBL	Kabul	69.96	301	eP	P	01 42 58.5	-1.2
KBL				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
KBL	Kabul	69.96	301	eP	P	01 42 58.5	-1.2
	comp=Z,1.9nm,0.7s,mb4.1						
WRA	Warramunga Arr	80.08	216	P	P	01 43 58.1	+0.1
WRA				*PP	pP	01 44 05.8	-3.6
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	Warramunga Arr	80.08	216	P	P	01 43 58.1	+0.2
	comp=Z,0.2nm,0.5s,mb3.3,baz=28,slow=6.0,SNR=3.3						
WRA				pP	pP	01 44 05.8	-3.6
	comp=Z,1.6nm,0.8s,baz=30,slow=6.3,SNR=7.2						
ASAR	Alice Springs	83.67	215	P	P	01 44 17.5	+0.7
ASAR				*PP	pP	01 44 25.2	-3.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	83.67	215	P	P	01 44 17.4	+0.7
	comp=Z,0.5nm,0.9s,mb3.6,baz=19,slow=5.2,SNR=3.7						
ASAR				pP	pP	01 44 25.1	-3.1
	comp=Z,0.9nm,0.8s,baz=17,slow=4.8,SNR=4.6						
BOSA	Boshof	145.18	302	PKPbc	PKPbc	01 51 25.1	0.0
	comp=Z,1.9nm,0.8s,baz=100,slow=6.3,SNR=3.4						

ECX ***20*** *01:37:34.6±0.2, 32°.36N×115°.31W, h4^{km}, MD3.5, ML3.5*

ISCJB ***20*** *01:37:36.4±0.4, 32°.44N±0°.02×115°.28W±0°.02, h9^{km}±2^{km}, Error ellipse: s-maj=3.9km s-min=2.5km az=175.6*

NEIC ***20*** *01:37:38.2, 32°.43N×115°.30W, h0^{km}, ML3.3(ECX), ML3.4(PAS), After ECX.*

ISC 20 01:37:37.5±0.3**, 32°.45N**±0°.02×**115°.31W**±0°.02**, h15**^{km}±2^{km}**, n55,** σ**1^{s}.00**/80**, 20C-27D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.04	167	⇓iP	Pg	01 37 37.4	-2.8
CPBX				eS	Sg	01 37 39.4	-2.6
CPBX				⇑e		01 37 41.2	
	comp=N,106µm,0.5s						
SGL	Mount Signal	0.40	300	⇑iP	Pg	01 37 45.8	+0.2
SNR	Schaffner Ranc	0.42	346	⇓iP	Pg	01 37 47.0	+1.0
COA	Coachella	0.44	21	⇓iP	Pg	01 37 47.3	+1.0
EMX	El Mayor	0.47	173	⇓eP	Pg	01 37 55.0	+8.3
EMX				eS	Sg	01 38 02.3	+9.3
EMX	El Mayor	0.47	173	eP	Pg	01 37 55.0	+8.3
EMX				eS	Sg	01 38 02.0	+9.0
COK	Cook Ranch	0.53	319	eP	Pg	01 37 48.2	+0.2
YUH	Yuha Desert	0.55	291	⇑iP	Pg	01 37 48.3	-0.1
112A	Yuma	0.62	82	P	Pg	01 37 50.0	+0.3
	baz=0.6,SNR=324						
112A				⇑S	Sg	01 37 59.0	+1.0
	baz=0.6						
SWSC	Sam W. Stewart	0.64	320	P	Pg	01 37 49.6	-0.3
	baz=0.7,SNR=118						
SWSC				⇓S	Sg	01 37 58.5	+0.2
	baz=0.7						
YMD	Yuma Desert	0.66	81	⇑iP	Pg	01 37 50.5	+0.2
RMX	La Rumorosa	0.66	283	eP	Pg	01 37 50.6	+0.1
RMX				eS	Sg	01 37 59.4	+0.1
DVTC	Desert V Tower	0.70	287	⇓P	Pg	01 37 51.0	0.0
	baz=0.7,SNR=73						
DVTC				⇓S	Sg	01 38 00.2	-0.1
	baz=0.7						
CRR	Carrizo Plain	0.70	308	eP	Pg	01 37 50.9	-0.4
GLA	Glamis	0.72	34	P	Pg	01 37 51.3	-0.3
	baz=0.7,SNR=92						
GLA				⇓S	Sg	01 38 00.9	-0.4
	baz=0.7						
GLA	Glamis	0.72	34	⇑iP	Pg	01 37 51.3	-0.3
GLA	Glamis	0.72	34	ePg	Pg	01 37 51.2	-0.5
GLA				ePn	Pn	01 37 54.8	+1.7
GLA				eSg	Sg	01 38 00.8	-0.4
RDX	Rancho Dawling	0.75	226	⇑eP	Pg	01 37 52.5	+0.4
RDX				eS	Sg	01 38 04.1	+2.2
RDX				⇓e		01 38 04.8	
	comp=E,5µm,0.7s						
RDX				⇓e		01 38 05.3	
	comp=N,2µm,0.4s						
ECBX	El Chinero	1.00	167	⇓eP	Pb	01 38 04.8	+8.3
ECBX				eS	Sb	01 38 18.5	+9.1
MONP	Monument Peak	1.03	295	⇑P	Pb	01 37 56.2	-0.8
	baz=1.0,SNR=115						
MONP				⇑S	Sb	01 38 09.9	-0.4
	baz=1.0						
CBX	Cerro Bola	1.15	263	ePN	Pn	01 37 59.2	+0.3
CBX				eS	Sb	01 38 13.9	+0.1
BAR	Barrett	1.17	282	ePg	Pg	01 37 58.7	-1.3
BC3	Big Chuckw Mtn	1.21	354	⇓P	Pn	01 37 58.4	-1.3
	baz=1.2,SNR=90						
BC3				⇓S	Sb	01 38 13.3	-2.0
	baz=1.2						
113A	Mohawk Valley,	1.34	76	⇓P	Pn	01 38 00.8	-0.8
	baz=1.3,SNR=179						
113A				⇓Sb	Sb	01 38 19.8	+0.5
	baz=1.3						
PBX	Punta Banda	1.39	240	ePN	Pn	01 38 02.8	+0.5
PBX	Punta Banda	1.39	240	eP	Pn	01 38 04.0	+1.7
PBX				eS	Sn	01 38 22.4	+2.0
SPX	San Pedro Mart	1.41	185	ePN	Pn	01 38 03.0	+0.4
SPX				⇑e		01 38 26.6	
	comp=N,437nm,0.3s						
SPX				⇑e		01 38 27.0	
	comp=E,546nm,0.6s						
Y12C	Blythe	1.45	27	⇑Sb	Sb	01 38 22.8	+0.3
	baz=1.5						
PFO	Pinyon Flat Ob	1.50	321	P	Pn	01 38 02.4	-1.4
	baz=1.5,SNR=36						
PFO				⇑S	Sn	01 38 20.7	-2.4
	baz=1.5						
PFO	Pinyon Flat Ob	1.50	321	ePn	Pn	01 38 02.1	-1.6
PFO				eSg	Sg	01 38 20.5	-5.4
109C	Camp Elliot, M	1.57	287	⇑Pb	Pb	01 38 05.8	-0.4
	baz=1.6						
109C				⇓Sb	Sb	01 38 26.1	+0.2
	baz=1.6						
BELC	Belle Mtn.	1.65	340	⇓P	Pn	01 38 04.6	-1.2
	baz=1.7						
Y13A	Salome	1.84	42	⇓Sb	Sb	01 38 35.0	+1.3
	baz=1.9						
MURC	Murrieta	1.96	306	⇓Sb	Sb	01 38 37.9	+1.0
	baz=2.0						
114A	Black Gap (USA	2.07	81	⇑P	Pn	01 38 11.2	-0.5
	baz=2.1,SNR=25						
PDMCI	Parker Dam,Lak	2.09	28	⇓Sb	Sb	01 38 41.7	+1.0
	baz=2.1						
214A	Organ Pipe Nat	2.18	102	P	Pn	01 38 12.0	-1.1
	baz=2.2,SNR=31						
Z14A	Wintersburg	2.19	65	⇑P	Pn	01 38 12.5	-0.8
	baz=2.2						
X13A	Yucca	2.47	30	⇓Sb	Sb	01 38 53.8	+2.1
	baz=2.5						
115A	Sonoran Desert	2.62	84	⇓P	Pn	01 38 18.8	-0.3
	baz=2.6,SNR=21						
LDFC	Landfair	2.62	4	ePn	Pn	01 38 19.9	+0.7
LDFC				ePg	Pg	01 38 28.5	+0.7
MWC	Mount Wilson	2.90	308	ePg	Pg	01 38 30.4	-2.6
116A	Eloy	3.05	87	⇑P	Pn	01 38 24.6	-0.5
	baz=3.0						
GSC	Goldstone	3.10	337	ePg	Pg	01 38 37.9	+1.0
216A	Three Points,	3.30	97	⇓P	Pn	01 38 28.1	-0.5
	baz=3.3						
Y16A	Circle Bar Ran	3.52	65	⇓P	Pn	01 38 31.5	0.0
	baz=3.5,SNR=14						
TUC	Tucson	3.83	91	ePn	Pn	01 38 35.4	-0.5
TUC				ePg	Pg	01 38 51.2	+0.3
TUC				eSg	Sg	01 39 40.8	+0.2
117A	Oracle	3.87	87	⇑P	Pn	01 38 35.6	-0.7
	baz=3.9						
217A	Green Valley	3.88	99	⇑P	Pn	01 38 36.0	-0.4
	baz=3.9,SNR=8.5						
Y17A	Roosevelt	3.95	71	⇓P	Pn	01 38 37.1	-0.4
	baz=4.0,SNR=13						
W16A	Flagstaff	4.11	49	⇑P	Pn	01 38 39.5	-0.1
	baz=4.1						
ISA	Isabella	4.14	322	ePn	Pn	01 38 42.7	+2.7
ISA				ePg	Pg	01 38 57.8	+1.1
318A	Bisbee	4.64	101	⇓P	Pn	01 38 46.5	-0.4
	baz=4.6						
319A	Douglas	5.24	100	⇓P	Pn	01 38 54.9	-0.3
	baz=5.2,SNR=8.0						
CCUT	Cedar City	5.33	17	ePn	Pn	01 39 00.8	+4.3
	comp=E,5.0nm,0.7s						
CCUT				ePg	Pg	01 39 19.9	+0.3

IDC ***20*** *01:41:04.8±0.6, 32°.69S×178°.84W, h0^{km}, mb4.8/6, mb1 5.0/7, mb1mx4.6/16, mbtmp4.8/7, ML4.9/1, MS3.7/5, Ms1 3.7/5, ms1mx3.5/17, Error ellipse: s-maj=23.9km s-min=21.9km az=116.0*

ISCJB ***20*** *01:41:08.2±1.0, 33°.18S±0°.05×178°.8W±0°.2, h33^{km}, mb5.0/14, MS3.6/5, Error ellipse: s-maj=20.1km s-min=7.4km az=3.4*

MOS ***20*** *01:41:11.9±1.1, 32°.38S×179°.22W, h33^{km}, mb5.3/3, Error ellipse: s-maj=45.1km s-min=18.8km az=15.1*

NEIC ***20*** *01:41:25.0±1.9, 34°.29S×179°.09W, h178^{km}±15^{km}, mb5.0/6, Error ellipse: s-maj=20.5km s-min=13.9km az=215.0*

ISC 20 01:41:12.5±2.0**, 33°.3S**±0°.1×**179°.0W**±0°.2**, h45**^{km}±18^{km}**, n106,** σ**1^{s}.54**/57**, mb5.0**/14**, MS3.6**/5**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	Puketiti	5.30	204	P	Pn	01 42 31.7	+2.7
PUZ				S	Sn	01 43 35.7	+7.0
MWZ	Matawai	5.80	208	P	Pn	01 42 37.3	+1.4
URZ	Urewera	5.91	211	Pn	Pn	01 42 39.2	+1.9
	28nm,0.3s,baz=289,slow=1.8,SNR=55						
URZ				Sn	Sn	01 43 51.5	+7.8
	37nm,0.3s,baz=236,slow=21,SNR=8.2						
URZ	Urewera	5.91	211	P	Pn	01 42 39.2	+1.8
WCZ	Waipu Caves	6.10	242	P	Pn	01 42 46.1	+6.1
MKAZ	Moumakai	6.12	229	P	Pn	01 42 46.9	+6.6
KNZ	Kokohu	6.35	204	P	Pn	01 42 44.5	+1.1
OUZ	Omahuta	6.43	250	P	Pn	01 42 50.0	+5.5
BKZ	Black Stump Fm	6.93	210	P	Pn	01 42 52.7	+1.3
NGZ	Ngauruhoe	7.34	215	P	Pn	01 43 00.1	+3.1
TUVZ	Tukino	7.39	214	P	Pn	01 43 00.6	+2.9
MOVZ	Moawhango	7.45	213	P	Pn	01 42 59.2	+0.6
WNVZ	Wahianoa	7.46	214	P	Pn	01 43 01.4	+2.7
BFZ	Birch Farm	8.33	206	P	Pn	01 43 09.5	-1.0
KIW	Kapiti Island	9.01	211	P	Pn	01 43 18.1	-1.8
MTW	Mount Morrison	9.02	207	P	Pn	01 43 19.2	-0.8
MSWZ	Moikau Station	9.34	208	P	Pn	01 43 23.3	-1.1
MRW	Makara Radio	9.40	210	P	Pn	01 43 25.0	-0.3
MRW				S	Sn	01 45 08.6	-1.0
SNZO	South Karori	9.47	210	ePn	Pn	01 43 24.6	-1.5
TCW	Tory Channel	9.57	212	P	Pn	01 43 25.6	-2.0
BSWZ	Blackbirch Sta	10.16	212	P	Pn	01 43 34.9	-0.7
THZ	Tophouse	10.64	215	P	Pn	01 43 40.4	-1.8
KHZ	Kahutara	10.88	211	P	Pn	01 43 43.1	-2.3
MQZ	McQueen's Vall	12.30	210	P	Pn	01 44 00.6	-4.3
RPZ	Rata Peaks	13.01	214	Pn	Pn	01 44 10.8	-3.8
	2.0nm,0.3s,baz=66,slow=3.5,SNR=12						
RPZ				Sn	Sn	01 46 32.2	-5.7
	4.0nm,0.3s,baz=119,slow=0.9,SNR=11						
RPZ	Rata Peaks	13.01	214	P	Pn	01 44 11.0	-3.6
LBZ	Lake Benmore	13.93	214	P	Pn	01 44 22.8	-4.3
ODZ	Otahua Downs	14.23	211	P	Pn	01 44 26.9	-4.3
JCZ	Jackson Bay	14.40	218	P	Pn	01 44 29.3	-4.2
EIDS	Eidsvold	27.16	279	eP	P	01 46 53.4	+1.8
CMSA	Cobar Meteorol	29.77	264	eP	P	01 47 17.5	+2.7
HNR	Honiara	30.62	316	LR	LR	01 57 37.4	
	comp=Z,111nm,20.5s,MS3.5,baz=129,slow=33						
PAE	Paea	30.64	67	eT		02 18 44.5	
	96nm,0.3s						
PPT	Papeete	30.70	67	eLR	LR	01 55 37.5	
	497nm,27.0s						

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TVO   Taravao            30.82  67 eT                02 19 00.0
      14nm,0.4s
TIAR  Tiarei             30.88  67 eT                02 19 03.0
      19nm,0.4s
MEH   Mehetia            31.69  69 eT                02 20 08.8
      66nm,0.3s
STKA  Stephens Creek     33.09 261  P       P        01 47 46.1 +2.1
      1.8nm,0.4s,mb4.3,baz=93,slow=8.7,SNR=6.5
STKA                                LR      LR       01 59 34.2
      comp=Z,281nm,19.6s,MS4.0,baz=292,slow=33
CTA   Charters Tower     33.53 284 eP       P        01 47 49.3 +1.4
      22nm,0.6s,mb5.3
CTA   Charters Tower     33.53 284  P       P        01 47 49.1 +1.2
      25nm,0.5s,mb5.4,baz=112,slow=10,SNR=50
CTA                                 LR      LR       01 58 17.4
      comp=Z,63nm,20.4s,MS3.3,baz=50,slow=31
CTAO  Charters Tower     33.53 284 eP       P        01 47 49.1 +1.2
CTAO                                pmax    pmax
      comp=Z,25nm,0.6s,mb5.3
CTAO  Charters Tower     33.53 284 eP       P        01 47 49.1 +1.2
      comp=Z,25nm,0.6s,mb5.3
PMOR  Pomariorio Ree     33.53  65 eT                02 22 14.4
      comp=Z,9.7nm,0.3s
VAH   Vaihoa             33.59  65 eT                02 22 20.4
      comp=Z,64nm,0.2s
BBOO  Buckleboo          37.45 258 eP       P        01 48 20.7 -0.7
      comp=Z,16nm,1.7s,mb4.6
COEN  Coen               39.33 290 eP       P        01 48 38.1 +0.7
COEN  Coen               39.33 290 eP       P        01 48 37.9 +0.5
      comp=Z,100nm,0.5s,mb5.8
RKT   Rikitea            39.86  87 eLR      LR       01 59 39.0
      comp=Z,349nm,30.2s
RKT                                eT                02 31 07.9
      comp=Z,3.8nm,0.3s
ASAR  Alice Springs      42.18 271  P       P        01 49 01.1 +0.2
      comp=Z,23nm,0.7s,mb4.9,baz=111,slow=7.4,SNR=140
ASAR                                PKiKP   PKiKP    01 57 58.2 -1.9
      comp=Z,0.3nm,0.6s,baz=116,slow=1.1,SNR=4.6
TAOE  Nuku Hiva Isla     43.26  65 eLR      LR       02 00 49.1
      comp=Z,651nm,30.0s
WB2   Warramunga Arr     43.42 276 eP       P        01 49 10.5 -0.5
WRAB  Tennant Creek      43.42 276 eP       P        01 49 10.5 -0.5
WRAB                                pmax    pmax
      comp=Z,27nm,0.6s,mb5.2
WRAB  Tennant Creek      43.42 276 eP       P        01 49 10.5 -0.5
      comp=Z,27nm,0.6s,mb5.2
WRA   Warramunga Arr     43.43 276  P       P        01 49 10.6 -0.4
      comp=Z,22nm,0.4s,mb5.3,baz=114,slow=7.8,SNR=450
WRA                                 PKiKP   PKiKP    01 57 59.3 -2.1
      comp=Z,0.2nm,0.5s,baz=109,slow=0.2,SNR=6.1
WRA                                 LR      LR       02 07 54.1
      comp=Z,73nm,18.6s,MS3.6,baz=160,slow=37
FORT  Forrest            44.55 258 eP       P        01 49 19.5 -0.4
      comp=Z,35nm,0.6s,mb5.4
VNDA  Vanda              45.18 186  LR      LR       02 06 18.2
      comp=Z,96nm,18.7s,MS3.8,baz=30,slow=33
KAKA  Kakadu             48.65 283 eP       P        01 49 50.5 -1.7
      comp=Z,18nm,0.6s,mb5.3
FITZ  Fitzroy Crossi     51.56 273 eP       P        01 50 13.8 -0.4
      comp=Z,22nm,0.8s,mb5.1
MBWA  Marble Bar         55.11 266 eP       P        01 50 38.7 -1.6
      comp=Z,11nm,0.7s,mb5.0
QSPA  South Pole Qui     56.87 180  P       P        01 50 56.5 +4.5
      comp=Z,17nm,0.8s,mb5.2,baz=43,slow=1.1,SNR=35
QSPA  South Pole Qui     56.87 180 eP       Px       01 50 38.8
      comp=Z,11nm,0.7s
VNA3  Neumayer Olymp     75.53 176 e        P        01 52 53.9 +2.3
VNA3                               e                 01 52 59.7
VNA2  Neumayer--Watz     75.95 177 e        P        01 52 57.0 +3.0
      baz=188,slow=4.2
VNA2                               e                 01 53 01.9
PETK  Petropavlovsk-     88.36 346  P       P        01 53 55.7 -3.1
      comp=Z,2.9nm,0.8s,mb4.6,baz=134,slow=6.2,SNR=3.5
NVAR  Mina Array Bea     90.91  43  P       P        01 54 10.1 -1.0
      comp=Z,1.3nm,0.8s,mb4.3,baz=221,slow=8.2,SNR=7.4
CMAR  Chiang Mai Arr     93.53 290  PP      PP       01 58 07.7 -1.4
      comp=Z,1.0nm,0.4s,baz=131,slow=7.5,SNR=6.9
YKA   Yellowknife Ar    108.38  26  PKiKP   PKiKP    01 59 33.1 -1.8
      comp=Z,0.2nm,0.5s,baz=258,slow=1.4,SNR=4.7
YKA                                 PKKPbc  PKKPbc   02 10 45.4 -1.8
      comp=Z,0.7nm,0.6s,baz=41,slow=3.1,SNR=17
YKA   Yellowknife Ar    108.38  26  PKPdf   PKiKP    01 59 33.1 -1.8
YKA                                 PKKPbc  PKKPbc   02 10 45.4 -1.8
BOSA  Boshof            114.31 203  PKP     PKiKP    01 59 47.7 +0.2
      comp=Z,1.6nm,0.8s,baz=153,slow=2.3,SNR=3.7
MKAR  Makanchi Array    118.92 309  PKP     PKPdf    01 59 52.9 -2.7
      comp=Z,1.4nm,0.6s,baz=95,slow=0.9,SNR=16
ZALV  Zalesovo Beam     119.56 317  PKP     PKPdf    01 59 53.2 -3.4
      comp=Z,1.8nm,0.6s,baz=157,slow=1.6,SNR=8.9
TKM2  Tokmak 2          122.25 303 ePKIKP   PKPdf    01 59 59.7 -2.4
KURK  Kurchatov         122.36 313 ePKIKP   PKPdf    01 59 59.2 -2.9
UCH   Uchtor            122.81 302 ePKPdf   PKPdf    02 00 01.1 -2.1
AAK   Ala-Archa         122.94 303 ePKIKP   PKPdf    02 00 01.5 -1.9
AML   Almayashu         123.36 302 ePKPdf   PKPdf    02 00 03.2 -1.0
EKS2  Erkin-Say         123.46 302 ePKPdf   PKPdf    02 00 02.1 -2.3
LSZ   Lusaka            125.20 213 ePKIKP   PKPdf    02 00 08.5 -0.1
BRVK  Borovoye          127.87 314 ePKIKP   PKPdf    02 00 10.9 -1.6
ARU   Arti              134.70 319 ePKIKP   PKPdf    02 00 23.4 -1.9
ARU   Arti              134.70 319 ePKPdf   PKPdf    02 00 23.4 -2.0
ARCES ARCESS Array B    141.17 347  PKhKP            02 00 24.9
      comp=Z,4.5nm,0.9s,baz=73,slow=1.7,SNR=16
ARCES                               PKP     PKPdf    02 00 36.9  0.0
      comp=Z,4.8nm,0.6s,baz=40,slow=1.5,SNR=13
ARCES ARCESS Array B    141.17 347  PKP              02 00 24.9
ARCES                               PKP     PKPdf    02 00 36.9  0.0
JOF   Joensuu           144.71 336 ePKHKP   PKPdf    02 00 39.3 -4.0
JOF                                 pmax    pmax
      comp=Z,4.0nm,0.5s
JOF   Joensuu           144.71 336 ep       PKPdf    02 00 39.3 -4.0
      comp=Z,4.1nm,0.5s
KAF   Kangasniemi       146.91 338 ePKIKP   PKPdf    02 00 45.6 -1.5
KAF                                 pmax    pmax
      comp=Z,11nm,0.6s
KAF   Kangasniemi       146.91 338 ep       PKPdf    02 00 45.6 -1.5
      comp=Z,11nm,0.6s
OBN   Obninsk           146.95 322 ePKIKP   PKPdf    02 00 46.2 -1.2
OBN                                 pmax    pmax
      comp=Z,5.0nm,1.0s
MALT  Malatya           149.35 290 ePKIKP   PKPbc    02 00 55.7 -0.6
MMAI  Mount Meron Ar    151.25 279  PKPbc   PKPbc    02 01 00.2 -0.8
      baz=86,slow=7.4
NB2   NORSAR Subarra151.41 350      PKP     PKPbc    02 00 58.4 -2.0
      comp=Z,16nm,0.7s,baz=17,slow=2.6
NOA   NORSAR Array B151.41 350      PKPbc   PKPbc    02 00 58.3 -2.1
      comp=Z,11nm,0.6s,baz=15,slow=4.1,SNR=67
LIC   Lamto             152.53 167 ePKIKP   PKPbc    02 01 04.7 +0.2
      comp=Z,38nm,0.7s
KIC   Kosan Boka        152.72 168 ePKIKP   PKPbc    02 01 05.2 +0.3
      comp=Z,126nm,1.1s
TIC   Toumodi           152.95 167 ePKIKP   PKPbc    02 01 05.2 -0.2
      comp=Z,41nm,0.8s
AKASG Malin Array Be    152.95 319  PKPbc   PKPbc    02 01 01.7 -2.6
      comp=Z,3.2nm,0.6s,baz=58,slow=2.0,SNR=12
AKASG                               PKPab   PKPab    02 01 13.3 -2.3
      comp=Z,0.5nm,0.4s,baz=56,slow=2.4,SNR=3.6
AKASG Malin Array Be    152.95 319  PKPbc   PKPbc    02 01 01.7 -2.6
AKASG                               PKPab   PKPab    02 01 13.3 -2.3
AKBB  Malin Array Si    152.95 319 ePKIKP   PKPbc    02 01 02.2 -2.0
KIEV  Kiev              152.96 319 ePKIKP   PKPbc    02 01 02.1 -2.2
DBIC  Dimbokro          153.00 167  PKPbc   PKPbc    02 01 04.8 -0.7
      comp=Z,3.2nm,0.4s,baz=307,slow=3.4,SNR=9.5
DBIC                                PKPab   PKPab    02 01 17.9 +1.2
      comp=Z,6.0nm,0.8s,baz=187,slow=7.1,SNR=6.0
DBIC  Dimbokro          153.00 167 ePKPbc   PKPbc    02 01 02.3 -3.2
DBIC                                PKPab   PKPab    02 01 17.9 +1.2
BRTR  Keskin Array B    153.06 293  PKPbc   PKPbc    02 01 03.0 -1.9
      comp=Z,2.7nm,0.7s,baz=162,slow=4.8,SNR=9.4
BUR08 Bucovina Ar. S    156.75 315 ePKPab   PKPab    02 01 32.1 +0.2
TORD  Torodi Ar. Bea    159.98 182  PKP     PKPdf    02 01 07.3 +0.1
      comp=Z,1.0nm,0.9s,baz=162,slow=0.5,SNR=7.3
TORD                                PKPab   PKPab    02 01 47.6 +1.0
      comp=Z,3.7nm,0.6s,baz=171,slow=4.2,SNR=19
GERES GERESS Array B    161.75 332  PKP     PKPdf    02 01 05.5 -2.5
      comp=Z,0.3nm,0.6s,baz=114,slow=1.6,SNR=3.8
GERES                               PKPab   PKPab    02 01 51.3 -2.3
      comp=Z,0.6nm,0.8s,baz=25,slow=4.4,SNR=5.6
ESDC  Sonseca Array     172.45  30  PKPab   PKPab    02 02 38.9 -2.2
      comp=Z,0.5nm,0.8s,baz=313,slow=2.8,SNR=4.9
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*NEIC **20** 01:46:10.1, 33°.98S×69°.18W, h12^{km}, ML2.9(GUC), After GUC.*

GUC 20 01:46:10.1±0.8**, 33°.98S×69°.18W, h12**^{km}±7^{km}**, MD3.8, ML2.9, 2C-6D, Chile-Argentina border region**

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Code  Station Name        Δ°  AZ°   Phase ID          Time      Res
                                   Op      ISC       h  m  s    ISC
YECH  El Yeso             0.82 292  eP     Pg        01 46 26.0 +0.1
YECH                                i S    Sg        01 46 38.2 +1.6
YECH                                 AML   AML       01 46 38.5
      comp=N,420nm,0.3s
FCH   Farellones          1.13 305⇓ iP     Pb        01 46 31.5 -0.1
FCH                                 i S    Sb        01 46 47.5 +1.2
FCH                                  AML   AML       01 46 48.1
      comp=E,1μm,0.3s
CACH  El Canelo           1.19 263⇓ iP     Pn        01 46 31.6 -1.0
CACH  El Canelo           1.19 263⇓ iP     Pn        01 46 31.6 -1.0
CHCH  Chadas Angostu      1.23 272⇑ iP     Pn        01 46 32.8 -0.3
CHCH                                i S    Sb        01 46 49.5 +0.4
CHCH  Chadas Angostu      1.23 272⇑ iP     Pn        01 46 32.8 -0.3
CHCH                                i S    Sb        01 46 49.5 +0.4
RCDM  Rinconada Maip      1.44 289⇓ iP     Pn        01 46 36.9 +0.8
RCDM                                i S    Sn        01 46 57.0 +2.0
RCDM  Rinconada Maip      1.44 289⇓ iP     Pn        01 46 36.9 +0.8
RCDM                                i S    Sn        01 46 57.0 +2.0
RCDM                                 AML   AML       01 46 58.5
      comp=N,145nm,0.2s
PEL   Peldehue            1.51 303⇓ eP     Pn        01 46 37.7 +0.7
PEL                                 i S    Sn        01 46 58.5 +1.9
PEL                                  AML   AML       01 47 00.0
      comp=N,677nm,0.4s
TLL   Tololo Astrono      4.04 340   P     Pn        01 47 15.3 +3.4
TLL   Tololo Astrono      4.04 340  eP     Pn        01 47 15.3 +3.4
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*ISCJB **20** 02:12:37.5±0.4, 53°.00S±0°.07×46°.7W±0°.1, h10^{km}, mb5.2/21, MS4.5/9, Error ellipse: s-maj=11.1km s-min=8.4km az=37.0*

*IDC **20** 02:12:37.5±0.6, 53°.01S×46°.61W, h0^{km}, mb4.9/12, mb1 4.9/13, mb1mx4.7/19, mbtmp4.9/13, ML5.1/1, MS4.5/10, Ms1 4.5/10, ms1mx4.4/13, Error ellipse: s-maj=22.4km s-min=13.9km az=35.0*

*NEIC **20** 02:12:39.1±0.3, 53°.03S×46°.62W, h10^{km}, mb5.3/11, Error ellipse: s-maj=10.1km s-min=7.7km az=38.0*

*GCMT **20** 02:12:39.1±0.2, 53°.11S×46°.66W, h19^{km}±1^{km}, MW5.1/76, Moment Tensor Solution. s32,c43; s76,c101; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.05±.20; $M_{\theta\theta}$-0.76±.15; $M_{\phi\phi}$-1.29±.14; $M_{r\theta}$0.80±.30; $M_{\theta\phi}$3.17±.10; $M_{\phi r}$5.20±.62; Best double couple: $M_0$6.36800×10^{16} NP1:ϕ_s104.00000°, δ32.00000°, λ20.00000°. NP2: ϕ_s357.00000°, δ79.00000°, λ121.00000°. Principal axes: T 6.7280, Plg47.0000°, Azm299.0000°; N -0.7160, Plg30.0000°, Azm171.0000°; P -6.0090, Plg28.0000°, Azm63.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **20** 02:12:41.0, 53°.00S×46°.60W, h10^{km}, mB5.3/3*

ISC 20 02:12:39.4±0.4**, 53°.03S**±0°.07×**46°.7W**±0°.1**, h10**^{km}**, n63, σ0^{s}83**/35**, mb5.2**/21**, MS4.5**/9**, South Atlantic Ocean**

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Code  Station Name        Δ°  AZ°   Phase ID          Time      Res
                                   Op      ISC       h  m  s    ISC
EFI   East Falkland       7.12 276  Pn      Pn       02 14 23.1 -0.5
      2μm,0.9s,SNR=5.3
USHA  Ushuaia            12.96 253  Pn      Pn       02 15 32.4 -11
      0.6nm,0.3s,baz=70,slow=14,SNR=8.0
USHA                                Sn      Sn       02 17 54.7 -13
      10nm,0.3s,baz=299,slow=12,SNR=12
PMSA  Palmer Station     14.74 210  Pn      Pn       02 16 07.3 -0.3
      0.9nm,0.3s,baz=31,slow=18,SNR=2.2
PMSA                                LR      LR       02 20 48.6
      comp=Z,2μm,18.2s,baz=316,slow=33
PLCA  Paso Flores        20.33 298  P       P        02 17 16.2 +0.7
      34nm,0.9s,baz=134,slow=11,SNR=43
PLCA                                LR      LR       02 26 12.5
      comp=Z,3μm,18.3s,MS4.7,baz=133,slow=40
VNA3  Neumayer Olymp     24.47 152 e        P        02 17 58.2 +0.2
VNA3                               e                 02 18 06.9
VNA2  Neumayer--Watz     24.98 150 e        P        02 18 02.8 +0.1
      baz=300,slow=9.3
VNA2                               e                 02 18 11.6
CFAA  Coronel Fontan     26.51 315  P       P        02 18 15.0 -1.9
      0.8nm,0.5s,baz=150,slow=11,SNR=13
CFAA                                LR      LR       02 29 05.4
      comp=Z,69nm,20.0s,baz=151,slow=37
CFAA  Coronel Fontan     26.51 315  P       P        02 18 15.0 -1.9
CFAA                                LR      LR       02 29 05.4
CPUP  Villa Florida      27.84 339  P       P        02 18 28.1 -0.8
      8.4nm,0.8s,mb4.4,baz=145,slow=7.9,SNR=17
LCO   Las Campanas       29.81 314 eP       P        02 18 49.5 +3.1
      65nm,0.9s,mb5.4
LVC   Limon Verde        34.79 322  P       P        02 19 29.6 -0.5
      9.8nm,0.7s,mb4.8,baz=139,slow=11,SNR=16
LVC   Limon Verde        34.79 322 eP       P        02 19 30.1  0.0
      10nm,0.7s,mb4.9
QSPA  South Pole Qui     37.23 180  P       P        02 19 50.8 +0.4
      45nm,0.8s,mb5.3,baz=182,slow=2.4,SNR=51
QSPA                                LR      LR       02 37 00.4
      comp=Z,373nm,18.1s,MS4.2,baz=325,slow=39
SIV   San Ignacio        38.66 337  P       P        02 20 03.1 +0.1
      7.0nm,0.7s,mb4.5,baz=169,slow=8.0,SNR=39
NNA   Nana               47.52 318 eP       P        02 21 14.6 -0.1
      24nm,1.2s,mb5.1
VNDA  Vanda              48.52 188  LR      LR       02 41 38.8
      comp=Z,477nm,18.4s,MS4.5,baz=160,slow=36
MAW   Mawson             48.79 151  LR      LR       02 41 59.5
      comp=Z,256nm,18.4s,MS4.2,baz=38,slow=36
SUR   Sutherland         51.64  95  P       P        02 21 46.2 +0.2
      28nm,0.9s,mb5.2,baz=212,slow=3.8,SNR=12
SUR   Sutherland         51.64  95 eP       P        02 21 46.3 +0.2
      40nm,0.9s,mb5.3
BOSA  Boshof             57.00  95  P       P        02 22 24.1 -1.0
      26nm,1.0s,mb5.2,baz=228,slow=7.0,SNR=19
BOSA                                LR      LR       02 43 00.5
      comp=Z,706nm,18.8s,MS4.8,baz=221,slow=32
BOSA  Boshof             57.00  95 eP       P        02 22 23.9 -1.2
      56nm,1.2s,mb5.5
BOSA                                LR      LR       02 43 00.5
OTAV  Otavalo            59.33 322 eP       P        02 22 43.3 +1.8
      57nm,1.4s,mb5.4
LBTB  Lobatse            59.85  92  P       P        02 22 44.4 -0.7
      30nm,0.8s,mb5.4,baz=234,slow=8.3,SNR=38
ROSC  El Rosal           62.23 328  P       P        02 23 02.4 +1.2
      8.1nm,0.7s,mb5.0,baz=109,slow=23,SNR=6.7
ROSC                                LR      LR       02 53 30.2
      comp=Z,270nm,18.5s,MS4.4,baz=15,slow=39
SDV   Santo Domingo      64.97 334 eP       P        02 23 18.5 -0.8
      10nm,0.8s,mb4.9
LIC   Lamto              68.71  45 eP       P        02 23 43.1 -0.1
      114nm,1.1s,mb5.7
LSZ   Lusaka             68.83  87 eP       P        02 23 44.1 +0.1
      36nm,1.0s,mb5.3
KIC   Kosan Boka         68.96  45 eP       P        02 23 44.6 -0.1
      101nm,1.0s,mb5.7
TIC   Toumodi            69.09  45 eP       P        02 23 45.4 -0.1
      177nm,1.1s,mb5.9
DBIC  Dimbokro           69.18  45  P       P        02 23 45.8 -0.3
      9.5nm,0.8s,mb4.8,baz=180,slow=9.1,SNR=11
JTS   JuntasAbangare     71.03 320 eP       P        02 23 56.6 -0.8
      29nm,0.9s,mb5.2
TOA0  Torodi Ar. Sit     77.82  48 eP       P        02 24 37.0 +0.1
TORD  Torodi Ar. Bea     77.82  48  P       P        02 24 37.0 +0.1
      13nm,0.9s,mb4.8,baz=225,slow=5.8,SNR=62
TORD                                LR      LR       02 55 06.4
      comp=Z,257nm,18.3s,MS4.6,baz=205,slow=33
PPT   Papeete            83.67 249 eLR      LR       02 51 39.1
      569nm,28.5s
KMBO  Kilima Mbogo       85.43  86  LR      LR       03 01 55.2
      comp=Z,240nm,18.3s,MS4.6,baz=278,slow=35
TAM   Tamanrasset        88.00  47 eP       P        02 25 31.5 +2.0
      18nm,1.5s,mb5.1
JCT   Junction City      95.13 316 eP       P        02 26 02.5  0.0
      4.1nm,0.8s,mb4.9
STKA  Stephens Creek     95.15 187  LR      LR       03 03 39.2
      comp=Z,314nm,20.5s,MS4.8,baz=204,slow=32
TXAR  Lajitas Array      95.81 313  P       P        02 26 05.7 +0.2
      0.3nm,0.8s,baz=108,slow=5.8,SNR=2.8
ASAR  Alice Springs     103.63 181  Pdiff   Pdif     02 26 40.3 -0.7
      1.0nm,0.9s,baz=182,slow=3.4,SNR=5.2
ASAR                                PP      PP       02 30 55.2 -0.9
      0.5nm,0.8s,baz=187,slow=6.4,SNR=4.3
WRA   Warramunga Arr    107.33 181  Pdiff   Pdif     02 26 56.5 -0.9
      1.5nm,1.1s,baz=187,slow=4.2,SNR=3.2
BRTR  Keskin Array B    115.39  57  PKKPbc  PKKPbc   02 41 55.0 +1.5
      1.1nm,0.9s,baz=91,slow=2.5,SNR=3.9
NOA   NORSAR Array B122.67  29      PKP     PKPdf    02 31 33.8 -0.1
      0.9nm,0.8s,baz=213,slow=1.6,SNR=3.0
SUMG  Summit            125.44   3 ePKPdf   PKPdf    02 31 39.5 +0.7
YKA   Yellowknife Ar    126.91 327  PKP     PKPdf    02 31 41.4 -0.6
      0.7nm,0.8s,baz=131,slow=2.4,SNR=13
YKA                                 PP      PP       02 33 41.8 +1.0
      0.4nm,0.9s,baz=129,slow=7.5,SNR=5.2
YKW3  Yellowknife Ar    126.96 327 ePKPdf   PKPdf    02 31 41.5 -0.5
ARCES ARCESS Array B    132.92  27  PKP     PKPdf    02 31 52.1 -1.1
      3.2nm,0.9s,baz=235,slow=3.0,SNR=3.3
SPITS Spitsbergen Ar    136.33  15  PKP     PKPdf    02 31 58.2 -1.2
      8.7nm,0.9s,baz=222,slow=2.6,SNR=3.6
KSH   Kashi             139.20  86  PKP     PKPdf    02 32 07.1 +1.3
EKS2  Erkin-Say         139.80  80 ePKPdf   PKPdf    02 32 07.1 +0.3
UCH   Uchtor            139.98  81 ePKPpre           02 32 03.2
UCH                                ePKPdf   PKPdf    02 32 08.3 +1.2
AAK   Ala-Archa         140.21  81 ePKPpre           02 32 02.9
AAK                                ePKPdf   PKPdf    02 32 07.8 +0.3
BRVK  Borovoye          143.18  64 ePKPpre           02 32 08.2
BRVK                               ePKPdf   PKPdf    02 32 12.7 +0.2
KURK  Kurchatov         146.82  71  PKP     PKPdf    02 32 18.0 -0.8
      5.7nm,0.8s,baz=238,slow=3.2,SNR=21
KURK                                PKPbc   PKPbc    02 32 20.1 -0.7
      8.7nm,0.9s,baz=238,slow=3.4,SNR=25
KURK  Kurchatov         146.82  71  PKP     PKPdf    02 32 18.0 -0.8
KURK                               ePKPbc   PKPbc    02 32 19.8 -0.9
KURK                                PKPbc   PKPbc    02 32 20.1 -0.7
MKAR  Makanchi Array    147.13  80  PKPbc   PKPbc    02 32 20.2 -1.5
      2.6nm,0.8s,baz=235,slow=2.8,SNR=18
WMQ   Urumqi            148.81  89  PKPbc   PKPbc    02 32 27.3 +1.0
WMQ                                 AMB     AMB
      comp=Z,130nm,4.0s
GAMB  Gambell           150.24 313 ePKPbc   PKPbc    02 32 29.2  0.0
ZALV  Zalesovo Beam     151.55  68  PKPbc   PKPbc    02 32 31.0 -1.6
      comp=Z,1.7nm,0.7s,baz=262,slow=3.0,SNR=9.1
ZALV                                PKPab   PKPab    02 32 39.9 -1.3
      comp=Z,1.4nm,0.6s,baz=251,slow=4.5,SNR=3.5
ZALV  Zalesovo Beam     151.55  68  PKPbc   PKPbc    02 32 31.0 -1.6
ZALV                                PKPab   PKPab    02 32 39.9 -1.3
XAN   Xi'an             154.25 128  PKPbc   PKPbc    02 32 37.9 -1.3
XAN                                 AMB     AMB
      comp=Z,82nm,6.2s
SONM  Songino Array     162.12  96  PKP     PKPdf    02 32 40.0  0.0
      comp=Z,0.4nm,0.6s,baz=336,slow=3.2,SNR=3.7
PETK  Petropavlovsk-    165.38 280  PKPab   PKPab    02 33 40.2 -0.8
      comp=Z,8.8nm,0.9s,baz=102,slow=6.6,SNR=9.5
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*BJI **20** 02:35:56.8, 33°.75N×73°.95E, h37^{km}*

*IDC **20** 02:35:58.6±1.0, 33°.82N×74°.50E, h0^{km}, mb3.7/8, mb1 3.8/12, mb1mx3.7/28, mbtmp3.7/12, ML3.5/4, Error ellipse: s-maj=26.6km s-min=20.2km az=80.0*

*ISCJB **20** 02:36:01.5±0.8, 34°.01N±0°.03×74°.58E±0°.06, h21^{km}±6^{km}, mb3.6/8, Error ellipse: s-maj=8.9km s-min=4.2km az=161.3*

*NEIC **20** 02:36:04.0±1.7, 33°.82N×74°.52E, h37^{km}±14^{km}, mb3.6/2, Error ellipse: s-maj=17.3km s-min=11.5km az=151.0*

*NDI **20** 02:36:04.5±4.5, 33°.88N×74°.31E, h37^{km}, ML3.6, mb3.6(NEIC)*

*NNC **20** 02:36:08.4±11.0, 34°.52N×74°.23E, h0^{km}, mb3.4, mpv3.8, Error ellipse: s-maj=151.1km s-min=79.9km az=114.0*

ISC 20 02:36:02.5±0.9**, 33°.99N**±0°.03×**74°.61E**±0°.06**, h12**^{km}±5^{km}**, n38, σ1^{s}31**/53**, mb3.6**/8**, 5C-1D, Southwestern Kashmir**

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Code  Station Name        Δ°  AZ°   Phase ID          Time      Res
                                   Op      ISC       h  m  s    ISC
SRNI  Srinagar            0.23  61 ePKP     Pg       02 36 07.0 -0.4
SRNI                               eS       Sg       02 36 10.0 -0.7
THN   Thein Dam           1.81 149 ePKP     Pn       02 36 33.6 +0.2
THN                                eS       Sn       02 36 56.6 +0.4
CEP   Cherat              2.25 267 ⇑P       Pn       02 36 42.8 +3.3
CEP                                 S       Sn       02 37 13.0 +5.8
SARP  Sargodha            2.62 219  P       Pn       02 36 46.2 +1.6
SDNR  Sundarnagar         3.18 141 ePKP     Pn       02 36 53.0 +0.7
SDNR                               ex       x        02 37 43.0
SMLA  Simla               3.58 142 ePKP     Pn       02 37 01.0 +3.3
SMLA                               eS       Sn       02 37 40.0 +0.1
KLP   Kalpa               3.92 128 ePKP     Pn       02 37 04.3 +1.8
KLP                                eS       Sn       02 37 49.0 +0.6
KLP                                 AML     AML      02 38 05.7
      comp=E,300nm,0.5s
KLP                                 AML     AML      02 38 06.0
      comp=N,152nm,0.5s
KBL   Kabul               4.64 278 ePn      Pn       02 37 10.8 -1.6
KBL                                eSn      Sn       02 38 00.8 -5.4
DDI   Dehra Dun           4.68 140 ex       Sn       02 38 13.0 +5.9
JOSI  Joshimath           5.41 128 ePKP     Pn       02 37 24.1 +1.1
JOSI                               eS       Sn       02 38 21.6 -3.5
JOSI                                AML     AML      02 38 52.7
      comp=N,102nm,0.4s
JOSI                                AML     AML      02 38 52.8
      comp=E,69nm,0.8s
KSH   Kashi               5.63  11 eP       Pn       02 37 26.5 +0.6
KHET  Khetri              5.98 170 ePKP     Pn       02 37 29.8 -1.0
KHET                               ex       x        02 38 22.1
KUDL  Kundal              6.04 164 ePKP     Pn       02 37 30.9 -0.7
KUDL                               eS       Sn       02 38 33.4 -7.4
SONA  Sohna               6.10 159 ePKP     Pn       02 37 32.3 -0.1
SONA                               eS       Sn       02 38 33.0 -9.1
UCH   Uchtor              8.23 360 ePn      Pn       02 38 04.6 +3.0
      comp=E,3.5nm,0.5s
UCH                                eSn      Sn       02 39 35.9 +1.5
AAK   Ala-Archa           8.63 359  Pn      Pn       02 38 09.8 +2.7
      comp=E,0.0nm,0.3s,baz=163,slow=4.7,SNR=5.7
AAK   Ala-Archa           8.63 359 ePn      Pn       02 38 09.8 +2.7
EKS2  Erkin-Say           8.69 356 ePn      Pn       02 38 09.5 +1.6
EKS2                               eSn      Sn       02 39 46.4 +0.8
TKM2  Tokmak 2            8.95   5 ⇑P       Pn       02 38 14.8 +3.2
      comp=E,2.4nm,0.5s
TKM2                               ⇑S       Sn       02 39 48.8 -3.5
      comp=E,2.7nm,0.8s
TKM2  Tokmak 2            8.95   5 ePn      Pn       02 38 14.3 +2.7
KK31  Karatay Array       9.65 342  P       Pn       02 38 22.2 +1.1
      comp=E,0.4nm,0.3s,baz=149,slow=12,SNR=17
KK31                               ⇑S       Sn       02 40 04.6 -4.7
      comp=E,1.2nm,0.4s,baz=147,slow=24,SNR=6.6
MKAR  Makanchi Array     14.06  22  Pn      Pn       02 39 21.2 -0.1
      comp=E,0.3nm,0.3s,baz=200,slow=12,SNR=19
MKAR                                Sn      Sn       02 41 55.6 -1.5
      comp=E,0.1nm,0.3s,baz=198,slow=23,SNR=2.8
MKAR  Makanchi Array     14.06  22  Pn      Pn       02 39 21.2 -0.1
MKAR                                Sn      Sn       02 41 55.6 -1.5
KURK  Kurchatov          16.97   9  P       Pn       02 39 57.0 -2.6
      comp=E,0.1nm,0.3s,baz=199,slow=11,SNR=3.5
KURK  Kurchatov          16.97   9 eP       Pn       02 40 00.4 +0.8
      comp=E,1.5nm,0.4s
AB01  Akbulak array      18.73 329 ⇑P       Pn       02 40 20.5 -0.8
      comp=E,0.5nm,0.6s
BVAR  Borovoye Array     19.27 352  P       Pn       02 40 26.8 -0.9
      comp=E,0.5nm,0.3s,baz=153,slow=8.8,SNR=9.6
AKTK  Aktyubinsk         20.45 328  P       P        02 40 39.0 -0.6
AKTO  Aktyubinsk         20.45 328 ⇓P       P        02 40 39.4 -0.2
      comp=E,0.2nm,0.6s
AKTO  Aktyubinsk         20.45 328  P       P        02 40 39.0 -0.6
      comp=E,1.5nm,0.3s,baz=132,slow=9.5,SNR=16
ZALV  Zalesovo Beam      21.22  17  P       P        02 40 47.1 -0.9
      comp=E,1.3nm,0.5s,mb3.5,baz=222,slow=10,SNR=6.4
SONM  Songino Array      27.50  50  P       P        02 41 49.2 +0.7
      comp=E,0.7nm,0.7s,mb3.3,baz=248,slow=7.6,SNR=3.4
ULN   Ulaanbaatar        27.93  50 eP       P        02 41 51.1 -1.3
      comp=E,1.0nm,0.4s,mb3.8
ARCES ARCESS Array B     44.59 338  P       P        02 44 14.0  0.0
      comp=E,3.7nm,0.9s,mb4.2,baz=116,slow=8.3,SNR=6.7
TORD  Torodi Ar. Bea     68.68 272  P       P        02 47 03.1 -3.0
      comp=E,0.2nm,0.5s,mb3.4,baz=53,slow=5.7,SNR=7.0
WRA   Warramunga Arr     78.15 124  P       P        02 47 59.9 -1.8
      comp=E,0.7nm,0.9s,mb3.6,baz=315,slow=5.6,SNR=5.4
ASAR  Alice Springs      80.39 127  P       P        02 48 12.1 -1.8
      comp=E,0.3nm,0.5s,mb3.5,baz=316,slow=6.5,SNR=3.1
YKA   Yellowknife Ar     83.57   4  P       P        02 48 29.4 -0.7
      comp=E,0.2nm,0.4s,mb3.6,baz=345,slow=4.7,SNR=5.8
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*IDC **20** 03:00:23.0±1.8, 41°.76S×86°.36W, h0^{km}, mb4.2/6, mb1 4.2/7, mb1mx4.1/15, mbtmp4.0/7, ML3.5/1, MS3.7/11, Ms1 3.7/11, ms1mx3.6/19, Error ellipse: s-maj=63.1km s-min=30.4km az=172.0*

*NEIC **20** 03:00:25.2±1.0, 41°.56S×86°.51W, h10^{km}, mb4.3/7, Error ellipse: s-maj=27.2km s-min=12.9km az=3.0*

ISC 20 03:00:24.8±1.3**, 41°.7S**±0°.3×**86°.3W**±0°.2**, h10**^{km}**, n24, σ0^{s}38**/16**, mb4.1**/11**, MS3.8**/8**, West Chile Rise**

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Code  Station Name        Δ°  AZ°   Phase ID          Time      Res
                                   Op      ISC       h  m  s    ISC
PLCA  Paso Flores        11.93  90  Pn      Pn       03 03 19.6 +4.7
      0.1nm,0.3s,baz=246,slow=12,SNR=4.0
PLCA                                LR      LR       03 07 00.5
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	comp=Z,188nm,19.8s,baz=62,slow=33						
USHA	Ushuaia	17.63	144	LR	LR	03 10 18.5	
	comp=Z,443nm,21.9s,baz=48,slow=34						
CFAA	Coronel Fontan	17.66	61	P	Pn	03 04 30.5	-0.4
	0.2nm,0.3s,baz=222,slow=12,SNR=12						
CFAA				LR	LR	03 09 44.3	
	comp=Z,49nm,20.0s,baz=231,slow=32						
LCO	Las Campanas	17.96	50	eP	Pn	03 04 35.1	+0.6
	21nm,1.2s						
RPN	Rapa Nui	23.82	300	LR	LR	03 11 52.4	
	comp=Z,184nm,19.7s,MS3.6,baz=38,slow=29						
LVC	Limon Verde	24.03	43	P	P	03 05 40.1	+0.2
	8.3nm,0.9s,mb4.2,baz=222,slow=7.4,SNR=9.1						
LVC				LR	LR	03 12 30.1	
	comp=Z,314nm,19.6s,MS3.8,baz=232,slow=30						
LVC	Limon Verde	24.03	43	eP	P	03 05 39.9	0.0
	11nm,0.8s,mb4.3						
LVC				LR	LR	03 12 30.1	
PMSA	Palmer Station	26.36	159	LR	LR	03 14 10.9	
	comp=Z,130nm,21.7s,MS3.4,baz=161,slow=31						
CPUP	Villa Florida	28.36	66	P	P	03 06 19.2	+0.2
	1.8nm,0.7s,mb3.8,baz=250,slow=7.4,SNR=6.1						
CPUP				LR	LR	03 17 07.9	
	comp=Z,148nm,18.5s,MS3.6,baz=198,slow=35						
CPUP	Villa Florida	28.36	66	P	P	03 06 19.2	+0.1
CPUP				LR	LR	03 17 07.9	
ATAH	Atahualpa	35.31	14	LR	LR	03 17 49.1	
	comp=Z,194nm,20.4s,MS3.9,baz=305,slow=30						
OTAV	Otavalo	42.39	12	eP	P	03 08 18.6	-0.8
	6.6nm,1.3s,mb4.1						
ROSC	El Rosal	47.65	16	LR	LR	03 26 57.5	
	comp=Z,106nm,18.3s,MS3.9,baz=25,slow=34						
VNDA	Vanda	54.06	194	LR	LR	03 31 27.3	
	comp=Z,102nm,18.6s,MS3.9,baz=268,slow=34						
AMTX	Amarillo	77.55	347	eP	P	03 12 20.3	-0.2
	4.8nm,0.8s,mb4.5						
ANMO	Albuquerque	78.53	343	eP	P	03 12 26.1	+0.1
	3.5nm,1.0s,mb4.2						
NVAR	Mina Array Bea	84.95	335	P	P	03 12 59.8	+0.1
	0.4nm,0.6s,mb3.8,baz=157,slow=6.7,SNR=4.5						
DUG	Dugway	85.03	340	eP	P	03 12 59.9	-0.2
	1.2nm,0.8s,mb4.1						
BOSA	Boshof	85.76	125	LR	LR	03 49 48.2	
	comp=Z,94nm,18.1s,MS4.2,baz=156,slow=35						
PDAR	Pinedale Array	86.69	343	P	P	03 13 08.7	+0.4
	0.8nm,0.8s,mb4.0,baz=143,slow=5.2,SNR=7.0						
DBIC	Dimbokro	88.08	79	P	P	03 13 15.7	0.0
	2.1nm,0.9s,mb4.4,baz=180,slow=9.1,SNR=3.0						
HLID	Hailey	88.60	340	eP	P	03 13 17.8	+0.4
	1.5nm,1.0s,mb4.3						
TORD	Torodi Ar. Bea	97.17	79	P	P	03 13 57.2	-0.5
	0.6nm,1.1s,mb4.0,baz=266,slow=2.4,SNR=3.8						
MJAR	Matsushiro Arr	145.36	276	PKPbc	PKPbc	03 20 01.5	-1.0
	1.7nm,0.8s,baz=133,slow=3.9,SNR=4.2						

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*NEIC **20** 03:35:41.4, 36°.16N×21°.43E, h27^{km}, ML3.2(ATH), After ATH.*
*ATH **20** 03:35:41.4, 36°.16N×21°.43E, h27^{km}±2^{km}, MD3.5/10, ML3.2*
*CSEM **20** 03:35:42.4±0.5, 36°.17N×21°.46E, h19^{km}±1^{km}, ML3.8/3, Error ellipse: s-maj=9.9km s-min=5.5km az=67.0*
*HLW **20** 03:35:45.1, 36°.52N×22°.52E, h33^{km}, Mb3.9*
*THE **20** 03:35:46.7, 36°.40N×21°.64E, h28^{km}±1^{km}, ML3.8/3, Error ellipse: s-maj=3.0km s-min=2.0km az=47.0*
ISC 20 03:35:42.1±1.1, **36°.19N**±0°.04×**21°.40E**±0°.07, **h15**^{km}±5^{km}, **n62**, σ**0^{s}98**/84, **1D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.76	21	P	Pg	03 35 56.4	-0.5
PYL				S	Sg	03 36 05.1	-1.8
PYL	PYLOS	0.76	21	ePN	Pg	03 35 56.5	-0.4
PYL				eSN	Sg	03 36 08.1	+1.2
PYL	PYLOS	0.76	21	ePn	Pg	03 35 56.5	-0.4
PYL				S	Sg	03 36 05.1	-1.8
PYL				eSn	Sg	03 36 08.1	+1.2
ITM	Ithomi	1.08	23	ePN	Pg	03 36 01.8	-1.1
ITM				eSN	Sg	03 36 17.6	+0.6
ITM	Ithomi	1.08	23	ePn	Pg	03 36 01.8	-1.1
ITM				eSn	Sg	03 36 17.6	+0.6
KYTH	Kithira	1.33	86	ePN	Pn	03 36 06.5	+0.5
KYTH	Kithira	1.33	86	ePn	Pn	03 36 06.5	+0.5
VLI	Veliai	1.35	66	ePN	Pn	03 36 06.0	-0.3
VLI	Veliai	1.35	66	ePn	Pn	03 36 06.0	-0.3
VLX	Vlachokerasia	1.42	33	ePN	Pn	03 36 07.2	-0.1
VLX				eSN	Sn	03 36 25.9	+0.2
VLX	Vlachokerasia	1.42	33	ePn	Pn	03 36 07.2	-0.1
VLX				eSn	Sn	03 36 25.9	+0.2
RLS	Riolos of Patr	1.87	2	ePN	Pn	03 36 14.6	+1.1
RLS	Riolos of Patr	1.87	2	ePn	Pn	03 36 14.6	+1.1
GUR	Goura	1.90	23	ePN	Pn	03 36 14.9	+1.0
GUR				eSN	Sn	03 36 38.8	+1.2
GUR	Goura	1.90	23	ePn	Pn	03 36 14.9	+1.0
GUR				eSn	Sn	03 36 38.8	+1.2
DID	Didima	1.98	48	ePN	Pn	03 36 14.2	-0.8
DID	Didima	1.98	48	ePn	Pn	03 36 14.2	-0.8
VLS	Valsamata	2.09	342	P	Pn	03 36 17.4	+0.9
VLS				S	Sn	03 36 41.9	-0.3
VLS	Valsamata	2.09	342	ePN	Pn	03 36 17.4	+0.9
VLS	Valsamata	2.09	342	ePn	Pn	03 36 17.4	+0.9
VLS				S	Sn	03 36 41.9	-0.3
LAKA	Lakka	2.10	13	P	Pn	03 36 17.7	+1.0
LAKA	Lakka	2.10	13	P	Pn	03 36 17.7	+1.0
LTK	Loutraki	2.22	34	P	Pn	03 36 17.9	-0.4
LTK	Loutraki	2.22	34	P	Pn	03 36 17.9	-0.4
TRIZ	Trizonia	2.24	14	P	Pn	03 36 19.0	+0.4
TRIZ	Trizonia	2.24	14	P	Pn	03 36 19.0	+0.4
EFP	Efpalio	2.27	10	ePB	Pn	03 36 20.8	+1.8
EFP	Efpalio	2.27	10	ePb	Pn	03 36 20.8	+1.8
ATH	Athens Observa	2.57	45	ePN	Pn	03 36 23.4	+0.3
ATH				eSN	Sn	03 36 54.5	+0.4
ATH	Athens Observa	2.57	45	ePn	Pn	03 36 23.4	+0.3
ATH				eSn	Sn	03 36 54.5	+0.4
PTL	Penteli	2.71	46	ePN	Pn	03 36 25.3	+0.3
PTL	Penteli	2.71	46	ePn	Pn	03 36 25.3	+0.3
LKR	Lokris	2.77	27	P	Pn	03 36 24.6	-1.2
LKR				S	Sn	03 36 54.3	-4.7
LKR	Lokris	2.77	27	P	Pn	03 36 24.6	-1.2
AGG	Agios Georgios	2.92	14	P	Pn	03 36 29.0	+1.0
AGG	Agios Georgios	2.92	14	ePN	Pn	03 36 29.1	+1.1
AGG	Agios Georgios	2.92	14	ePn	Pn	03 36 29.1	+1.1
THL	Klokotos Trika	3.41	8	P	Pn	03 36 35.2	+0.6
THL				S	Sn	03 37 13.0	-1.7
THL	Klokotos Trika	3.41	8	ePN	Pn	03 36 35.2	+0.6
THL	Klokotos Trika	3.41	8	ePn	Pn	03 36 35.2	+0.6
IGT	Igoumenitsa	3.44	346	P	Pn	03 36 35.8	+0.7
IGT				S	Sn	03 37 15.0	-0.6
IGT	Igoumenitsa	3.44	346	P	Pn	03 36 35.8	+0.7
IGT				S	Sn	03 37 15.0	-0.6
XOR	Xorichti	3.48	24	P	Pn	03 36 34.7	-0.9
XOR	Xorichti	3.48	24	P	Pn	03 36 34.7	-0.9
AOS	Alonnisos	3.57	33	P	Pn	03 36 35.1	-1.7
AOS	Alonnisos	3.57	33	P	Pn	03 36 35.1	-1.7
MEV	Metsovon	3.59	358	P	Pn	03 36 38.7	+1.5
MEV	Metsovon	3.59	358	P	Pn	03 36 38.7	+1.5
LIT	Litokhoron	4.00	12	P	Pn	03 36 43.1	+0.3
LIT	Litokhoron	4.00	12	P	Pn	03 36 43.1	+0.3
PLG	Polygyros	4.48	20	P	Pn	03 36 49.3	0.0
PLG	Polygyros	4.48	20	P	Pn	03 36 49.3	0.0
FNA	Florina	4.59	360	P	Pn	03 36 51.0	+0.1
FNA				S	Sn	03 37 42.1	-1.8
FNA	Florina	4.59	360	P	Pn	03 36 51.0	+0.1
KNT	Kendrikon	5.10	13	P	Pn	03 36 58.1	+0.2
KNT	Kendrikon	5.10	13	P	Pn	03 36 58.1	+0.2
STON	Ston	7.26	338	ePn	Pn	03 37 25.4	-2.1
STON				Sn	Sn	03 38 42.1	-7.5
SWA2		7.72	153	⇓P	Pn	03 37 35.0	+1.1
AWBH		10.09	139	P	Pn	03 38 05.2	-1.2
AWBH				S	Sn	03 39 46.4	-13
AWBH		10.09	139	P	Pn	03 38 05.2	-1.2
HFRF	Wahat Farafira	10.76	145	P	Pn	03 38 14.6	-1.0
HFRF				S	Sn	03 40 05.3	-10
HFRF	Wahat Farafira	10.76	145	P	Pn	03 38 14.6	-1.0

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*ISK **20** 03:39:59.9, 39°.83N×40°.42E, h5^{km}, MD3.0*
*ISCJB **20** 03:40:00.9±0.8, 39°.85N±0°.05×40°.46E±0°.05, h10^{km}, Error ellipse: s-maj=7.4km s-min=4.8km az=13.0*
*CSEM **20** 03:40:00.3±0.4, 39°.79N×40°.34E, h2^{km}, MD3.0, Error ellipse: s-maj=10.6km s-min=6.1km az=20.0*
*DDA **20** 03:40:00.5, 39°.85N×40°.43E, h7^{km}±3^{km}, Md3.0*
ISC 20 03:40:00.7±1.4, **39°.82N**±0°.07×**40°.43E**±0°.05, **h0**^{km}±14^{km}, **n13**, σ**0^{s}86**/21, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOPT	Kop Dagi	0.20	14	iP	Pg	03 40 03.7	-0.8
KOPT				iS	Sg	03 40 07.7	+0.5
KOPT	Kop Dagi	0.20	14	iP	Pg	03 40 03.7	-0.9
KOPT				iS	Sg	03 40 07.7	+0.5
EZM	Erzurum	0.72	83	ePG	Pg	03 40 14.6	+0.1
EZM				eSG	Sg	03 40 24.7	+0.9
GUMT	Gumushane	0.97	312	ePG	Pg	03 40 18.8	-0.5
GUMT				eSG	Sg	03 40 32.6	+0.8
GUMT	Gumushane	0.97	312	ePg	Pg	03 40 18.8	-0.4
GUMT				eSg	Sg	03 40 32.6	+0.8
MACK	Trabzon	1.23	336	iP	Pg	03 40 23.5	-0.8
MACK				iS	Sg	03 40 40.8	+0.6
MACK	Trabzon	1.23	336	iP	Pg	03 40 23.5	-0.7
MACK				iS	Sg	03 40 40.8	+0.6
KTUT	Trabzon	1.27	337	ePN	Pn	03 40 24.7	-0.9
KTUT	Trabzon	1.27	337	ePn	Pn	03 40 24.7	-0.9
KEMA	Kemaliye	1.60	250	iP	Pn	03 40 28.8	-1.3
KEMA				iS	Sn	03 40 53.1	+1.8
KEMA	Kemaliye	1.60	250	iP	Pn	03 40 28.8	-1.3
AGRB	Hanur-Agry	1.99	96	ePN	Pn	03 40 35.3	-0.2
AGRB	Hanur-Agry	1.99	96	ePn	Pn	03 40 35.3	-0.2

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*IDC **20** 03:40:20.7±1.2, 36°.72N×143°.66E, h0^{km}, mb3.3/4, mb1 3.6/6, mb1mx3.5/23, mbtmp3.4/6, ML3.5/2, Error ellipse: s-maj=29.4km s-min=25.1km az=136.0*
*ISCJB **20** 03:40:24.9±0.8, 36°.97N±0°.05×143°.51E±0°.06, h33^{km}, mb3.4/5, Error ellipse: s-maj=7.5km s-min=6.2km az=147.1*
*NEIC **20** 03:40:25.8±0.8, 36°.66N×143°.63E, h35^{km}, mb4.0/1, Error ellipse: s-maj=22.8km s-min=12.8km az=170.0*
*JMA **20** 03:40:25.4±0.1, 36°.91N×143°.44E, h57^{km}, M3.9*
ISC 20 03:40:26.5±0.8, **36°.93N**±0°.04×**143°.46E**±0°.06, **h35**^{km}, **n21**, σ**1^{s}20**/34, **mb3.4**/5, **Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	Kawauchi	2.11	283	P	Pn	03 40 59.0	-0.3
JFK				S	Sn	03 41 24.1	-0.2
ONAJ	Iwakimizuishiy	2.14	275	P	Pn	03 40 59.3	-0.4
ONAJ				eS	Sn	03 41 24.3	-0.7
JIO	Ouri	2.26	313	P	Pn	03 41 01.4	0.0
JIO				S	Sn	03 41 28.4	+0.4
JMM	Marumori	2.32	294	P	Pn	03 41 02.3	+0.1
JMM				eS	Sn	03 41 30.0	+0.5
JMK	Ichinoseki	2.69	319	P	Pn	03 41 06.8	-0.4
JMK				eS	Sn	03 41 38.6	+0.1
JOM	Ohasama	3.06	327	P	Pn	03 41 12.4	+0.1
JOM				S	Sn	03 41 47.8	+0.1
JYK	Kaneyama	3.15	310	P	Pn	03 41 14.6	+1.0
JYK				eS	Sn	03 41 52.4	+2.4
JRY	Ryogami san	3.79	257	P	Pn	03 41 21.8	-0.6
JRY				S	Sn	03 42 03.6	-2.1
JOD2	Odawara 2	3.92	246	eS	Sn	03 42 06.2	-2.6
MJAR	Matsushiro Arr	4.24	266	Pn	Pn	03 41 29.7	+1.2
	2.5nm,0.3s,baz=79,slow=8.0,SNR=15						
MJAR				Sn	Sn	03 42 18.4	+1.6
	1.4nm,0.3s,baz=80,slow=27,SNR=4.5						
MAJO	Matsushiro	4.24	266	ePn	Pn	03 41 29.9	+1.3
MAT	Matsushiro	4.24	266	P	Pn	03 41 30.7	+2.1
MAT				eS	Sn	03 42 15.8	-1.0
JOT	Ohata	4.82	338	P	Pn	03 41 37.3	+0.7
JOT				eS	Sn	03 42 29.7	-1.5
JKB	Kayabe	5.29	340	eS	Sn	03 42 40.8	-2.0
JCH	Churui	5.67	359	P	Pn	03 41 46.4	-1.9
JCH				eS	Sn	03 42 47.7	-4.4
ASAJ	Asahikawa	7.21	355	Pn	Pn	03 42 09.2	0.0
	0.7nm,0.3s,baz=204,slow=18,SNR=3.7						
ASAJ				Sn	Sn	03 43 25.9	-3.9
	0.7nm,0.3s,baz=285,slow=32,SNR=3.7						
MKAR	Makanchi Array	45.56	303	P	P	03 48 44.5	+1.8
	0.2nm,0.7s,mb3.1,baz=91,slow=9.1,SNR=3.4						
KURK	Kurchatov	47.28	308	eP	P	03 48 57.0	+0.8
	0.8nm,0.5s,mb3.9						
WRA	Warramunga Arr	57.22	190	P	P	03 50 07.6	-2.6
	0.4nm,0.6s,mb3.6,baz=8.6,slow=7.0,SNR=8.0						
YKA	Yellowknife Ar	63.07	31	P	P	03 50 49.7	0.0
	0.1nm,0.7s,mb3.1,baz=301,slow=6.4,SNR=2.9						
NVAR	Mina Array Bea	73.73	54	P	P	03 51 57.7	+0.8
	0.5nm,0.8s,mb3.5,baz=292,slow=7.4,SNR=3.3						

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*BJI **20** 03:48:03.3, 7°.29S×154°.77E, h35^{km}, mB5.0/6, mb4.6/8, Ms4.7/1, Ms7 4.1/1*
*ISCJB **20** 03:48:10.1±0.5, 6°.80S±0°.07×153°.94E±0°.09, h33^{km}, mb4.4/27, Error ellipse: s-maj=12.8km s-min=9.5km az=24.9*
*NEIC **20** 03:48:12.0±0.3, 6°.81S×153°.89E, h35^{km}, mb4.6/13, Error ellipse: s-maj=10.5km s-min=6.9km az=117.0*
*IDC **20** 03:48:12.4±1.0, 6°.70S×153°.70E, h32^{km}±4^{km}, mb4.0/13, mb1 4.2/14, mb1mx4.2/18, mbtmp4.0/14, ML3.6/1, MS3.1/2, Ms1 3.1/2, ms1mx2.7/18, Error ellipse: s-maj=31.3km s-min=15.1km az=112.0*
ISC 20 03:48:12.2±0.5, **6°.81S**±0°.07×**153°.91E**±0°.08, **h35**^{km}, **(h35**^{km}±1.5^{km}**:pP-P)**, **n39**, σ**0^{s}88**/37, **mb4.4**/27, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.52	114	Pn	Pn	03 49 44.7	-0.9
	3.8nm,0.3s,baz=80,slow=2.0,SNR=3.7						
HNR				LR	LR	03 51 54.6	
	comp=Z,96nm,18.7s,baz=1.2,slow=33						
COEN	Coen	12.72	235	ePn	Pn	03 51 17.1	+6.4
CTA	Charters Tower	15.15	209	Pn	Pn	03 51 43.5	-0.1
	0.2nm,0.3s,baz=45,slow=14,SNR=2.7						
CTA				LR	LR	03 56 50.0	
	comp=Z,93nm,21.1s,baz=229,slow=34						
CTA	Charters Tower	15.15	209	Pn	Pn	03 51 43.5	-0.1
CTA				LR	LR	03 56 50.0	
CTAO	Charters Tower	15.15	209	eP	Pn	03 51 42.6	-1.0
	13nm,0.9s						
KAKA	Kakadu	21.95	253	eP	P	03 53 01.5	-1.5
	21nm,0.6s,mb4.7						
KAKA	Kakadu	21.95	253	eP	P	03 53 01.5	-1.5
	103nm,0.9s,mb5.3						
WRAB	Tennant Creek	23.03	234	eP	P	03 53 15.8	+1.3
	18nm,1.1s,mb4.4						
WRA	Warramunga Arr	23.05	234	P	P	03 53 14.2	-0.4
	6.9nm,0.8s,mb4.2,baz=58,slow=11,SNR=12						
ASAR	Alice Springs	25.50	227	P	P	03 53 37.8	+0.3
	4.8nm,0.6s,mb4.2,baz=58,slow=9.2,SNR=34						
STKA	Stephens Creek	27.46	203	P	P	03 53 56.0	+1.0
	1.7nm,0.6s,mb3.8,baz=41,slow=17,SNR=2.2						
FITZ	Fitzroy Crossi	29.75	245	P	P	03 54 14.3	-1.3
	4.6nm,0.7s,mb4.3,baz=77,slow=8.8,SNR=6.1						
MJAR	Matsushiro Arr	45.56	342	P	P	03 56 26.9	-1.8
	1.5nm,0.7s,mb4.0,baz=163,slow=8.7,SNR=3.6						
KSRS	Korea Array	50.28	333	P	P	03 57 04.4	-0.7
	3.7nm,0.8s,mb4.5,baz=151,slow=8.4,SNR=11						
KSRS				pP	pP	03 57 13.8	-1.8
	2.9nm,0.8s,baz=144,slow=7.1,SNR=4.8						
CMAR	Chiang Mai Arr	59.73	296	P	P	03 58 13.7	-0.3
	1.5nm,0.6s,mb4.2,baz=127,slow=5.2,SNR=6.7						
CMAR				pP	pP	03 58 23.4	-1.2
	1.7nm,0.6s,baz=118,slow=4.7,SNR=2.3						
PETK	Petropavlovsk-	59.77	3	P	P	03 58 13.2	-0.3
	3.6nm,0.7s,mb4.5,baz=156,slow=6.6,SNR=6.0						
PETK				pP	pP	03 58 23.8	-0.4
	3.2nm,0.7s,baz=162,slow=6.0,SNR=3.4						
PETK	Petropavlovsk-	59.77	3	P	P	03 58 13.2	-0.3
PETK				pP	pP	03 58 23.8	-0.4
HIA	Hailar	63.30	336	eP	P	03 58 37.2	-0.2
	8.5nm,0.8s,mb4.9						
LZH	Lanzhou	63.43	316	eP	P	03 58 39.0	+0.5
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb5.0						
LZH				pmax	pmax		
	comp=Z,94nm,5.0s						
GTA	Gaotai	67.87	317	eP	P	03 59 08.0	+0.9
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	68.27	328	eP	P	03 59 10.3	+0.8
	comp=Z,2.3nm,0.8s,mb4.3						
SONM	Songino Array	68.60	328	P	P	03 59 11.9	+0.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=138,slow=5.3,SNR=10						
BILL	Bilibino	75.18	5	eP	P	03 59 51.0	+0.4
	comp=Z,4.3nm,0.8s,mb4.4						
MCK	McKinley	82.29	22	eP	P	04 00 28.9	-0.9
	comp=Z,9.2nm,0.9s,mb4.7						
MK31	Makanchi Array	82.55	319	eP	P	04 00 31.5	0.0
MKAR	Makanchi Array	82.55	319	P	P	04 00 31.3	-0.2
	comp=Z,1.0nm,0.5s,mb4.1,baz=101,slow=5.8,SNR=18						
COLA	College	83.30	21	eP	P	04 00 34.6	-0.4
	comp=Z,4.4nm,0.8s,mb4.5						
ZALV	Zalesovo Beam	83.42	326	P	P	04 00 35.0	-0.9
	comp=Z,1.2nm,0.4s,mb4.3,baz=119,slow=6.4,SNR=5.2						
ZALV	Zalesovo Beam	83.42	326	P	P	04 00 35.0	-0.9
KURK	Kurchatov	86.02	322	eP	P	04 00 48.2	-0.8
	comp=Z,2.2nm,0.9s,mb4.4						
TKM2	Tokmak 2	86.11	314	eP	P	04 00 49.7	+0.1
	comp=Z,4.7nm,1.0s,mb4.7						
UCH	Uchtor	86.74	313	eP	P	04 00 54.0	+1.3
	comp=Z,5.9nm,1.4s,mb4.6						
AAK	Ala-Archa	86.84	313	eP	P	04 00 54.0	+0.7
	comp=Z,1.6nm,0.8s,mb4.3						
AML	Almayashu	87.31	313	eP	P	04 00 56.8	+1.2
	comp=Z,5.1nm,0.9s,mb4.8						
NVAR	Mina Array Bea	92.45	52	P	P	04 01 21.8	+2.0
	comp=Z,0.4nm,0.5s,mb4.0,baz=252,slow=5.5,SNR=4.3						
YKA	Yellowknife Ar	96.67	28	P	P	04 01 38.8	+0.3
	comp=Z,0.1nm,0.5s,mb3.5,baz=263,slow=4.1,SNR=3.4						
YKA				PKiKP	PKiKP	04 06 16.3	+1.0
	comp=Z,0.2nm,0.6s,baz=273,slow=1.7,SNR=4.9						
YKA	Yellowknife Ar	96.67	28	P	P	04 01 38.8	+0.3
NOA	NORSAR Array B	119.16	340	PKP	PKPdf	04 06 57.8	+0.6
	comp=Z,0.8nm,0.9s,baz=344,slow=1.6,SNR=3.2						
TORD	Torodi Ar. Bea	151.94	285	PKPbc	PKPbc	04 08 04.5	-0.1
	comp=Z,4.1nm,0.6s,baz=58,slow=2.0,SNR=62						
TORD				pPKPbc	pPKPbc	04 08 14.8	-1.2
	comp=Z,4.0nm,0.8s,baz=69,slow=1.8,SNR=11						

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*NEIC **20** 03:58:59.5±0.5, 12°.76N×143°.06E, h100^{km}, mb3.9/1, Error ellipse: s-maj=15.0km s-min=11.2km az=101.0*
IDC 20 03:59:03.7±0.9, **12°.92N**×**144°.54E**, **h190**^{km}±21^{km}, **mb3.1**/6, **mb1 3.2**/6, **mb1mx3.1**/23, **mbtmp3.1**/6, **Error ellipse: s-maj=111.4km s-min=15.6km az=83.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	0.74	26	P	Pn	03 59 31.4	+0.6
	11nm,0.3s,baz=204,slow=20,SNR=3.4						
GUMO				S	Sn	03 59 52.6	+0.8
	37nm,0.3s,baz=98,slow=22,SNR=13						
WRAB	Tennant Creek	34.15	197	eP	P	04 05 30.1	-0.8
	0.9nm,0.4s						
WRA	Warramunga Arr	34.16	197	P	P	04 05 30.6	-0.4
	1.3nm,0.4s,baz=21,slow=9.5,SNR=17						
ASAR	Alice Springs	37.82	196	P	P	04 06 02.3	+0.3
	0.6nm,0.5s,baz=24,slow=11,SNR=7.6						
SONM	Songino Array	47.10	325	P	P	04 07 15.9	-0.6
	0.3nm,0.5s,baz=128,slow=9.3,SNR=3.5						
MKAR	Makanchi Array	61.75	316	P	P	04 09 02.1	0.0
	0.2nm,0.8s,baz=92,slow=4.3,SNR=3.9						
KURK	Kurchatov	64.89	320	P	P	04 09 23.0	+0.4
	0.7nm,0.5s,baz=106,slow=6.8,SNR=5.0						
BVAR	Borovoye Array	70.25	322	P	P	04 09 57.0	+0.8
	0.5nm,0.4s,baz=113,slow=8.2,SNR=4.3						

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*ISCJB **20** 04:05:05.8±0.3, 43°.84N±0°.02×7°.83E±0°.02, h16^{km}±2^{km}, Error ellipse: s-maj=3.5km s-min=2.2km az=164.0*
*ROM **20** 04:05:05.6±0.4, 43°.88N×7°.83E, h8^{km}±1^{km}, Md2.9/24, Ml2.8/19, Error ellipse: s-maj=5.7km s-min=2.3km az=6.0*
*GEN **20** 04:05:05.8, 43°.85N×7°.85E, h6^{km}, ML2.7*
*NEIC **20** 04:05:05.6, 43°.88N×7°.83E, h8^{km}, ML2.8(ROM), ML3.0(STR), ML3.2(LDG), After ROM.*
NEIC Felt [IV] at San Remo, Italy.
*CSEM **20** 04:05:05.3±0.1, 43°.87N×7°.87E, h10^{km}, ML3.4/23, Error ellipse: s-maj=3.1km s-min=2.0km az=166.0*
*LDG **20** 04:05:06.8±0.1, 43°.82N×7°.84E, h2^{km}, Md3.2/2, Ml3.2/26, Error ellipse: s-maj=2.8km s-min=1.7km az=153.0*
*STR **20** 04:05:07.1±0.3, 43°.92N×7°.80E, h5^{km}, Ml3.0, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
ISC 20 04:05:05.9±0.3, **43°.86N**±0°.02×**7°.85E**±0°.02, **h11**^{km}±1^{km}, **n144**, σ**1^{s}11**/240, **9C-1D, Near south coast of France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMI	Imperia	0.06	31	⇑iPg	Pg	04 05 07.8	-0.4
IMI				Sg	Sg	04 05 09.0	-0.9
	5μm,0.3s						
IMI	Imperia	0.06	31	⇑iPg	Pg	04 05 07.8	-0.4
IMI				Sg	Sg	04 05 09.0	-0.9
	5μm,0.3s						
NEGI	Seborga	0.11	264	P	Pg	04 05 08.6	-0.1
NEGI				S	Sg	04 05 10.3	-0.5
RONM	Roccetta Nervi	0.18	275	P	Pg	04 05 09.7	-0.2
RONM				S	Sg	04 05 12.5	-0.1
SAOF	Saorge	0.25	301	Pg	Pg	04 05 10.7	-0.3
SAOF				Sg	Sg	04 05 14.6	+0.1
SAOF	Saorge	0.25	301	Pg	Pg	04 05 10.7	-0.3
SAOF				Sg	Sg	04 05 14.6	+0.1
RORO	Rocca Rossa	0.30	32	P	Pg	04 05 12.1	+0.2
RORO				S	Sg	04 05 16.1	+0.1
SBF	Sospel	0.30	271	ePg	Pg	04 05 12.0	0.0
	SNR=1.0						
SBF				eSg	Sg	04 05 16.5	+0.5
	4μm,0.5s						
SBF	Sospel	0.30	271	ePg	Pg	04 05 12.0	0.0
	SNR=1.0						
SBF				eSg	Sg	04 05 16.5	+0.5
	2μm,0.5s						
AUTN	L'Aution	0.33	294	Pg	Pg	04 05 12.5	-0.1
AUTN				Sg	Sg	04 05 17.5	+0.4
AUTN	L'Aution	0.33	294	Pg	Pg	04 05 12.5	-0.1
AUTN				Sg	Sg	04 05 17.5	+0.4
LUCF	Luceram	0.37	275	Pg	Pg	04 05 13.3	+0.1
LUCF				Sg	Sg	04 05 18.8	+0.7
LUCF	Luceram	0.37	275	Pg	Pg	04 05 13.3	+0.1
LUCF				Sg	Sg	04 05 18.8	+0.7
REVF	Revere	0.37	251	Pg	Pg	04 05 13.6	+0.4
REVF				Sg	Sg	04 05 19.9	+1.7
REVF	Revere	0.37	251	Pg	Pg	04 05 13.6	+0.4
REVF				Sg	Sg	04 05 19.9	+1.7
TOUF	Mont Tournerai	0.46	290	Pg	Pg	04 05 15.0	+0.1
TOUF				Sg	Sg	04 05 21.2	+0.1
TOUF	Mont Tournerai	0.46	290	Pg	Pg	04 05 15.0	+0.1
TOUF				Sg	Sg	04 05 21.2	+0.1
MVIF	Mont Vial	0.51	274	Pg	Pg	04 05 15.9	+0.1
MVIF	Mont Vial	0.51	274	Pg	Pg	04 05 15.9	+0.1
STV	Sant Anna di V	0.54	316	Pg	Pg	04 05 17.1	+0.7
STV				Sg	Sg	04 05 23.8	+0.2
	243nm,0.3s						
STV	Sant Anna di V	0.54	316	Pg	Pg	04 05 17.1	+0.7
STV				Sg	Sg	04 05 23.8	+0.2
	243nm,0.3s						
QLNO	Quiliano	0.59	37	Pg	Pg	04 05 17.4	+0.1
QLNO				Sg	Sg	04 05 25.8	+0.8
	763nm,0.3s						
QLNO	Quiliano	0.59	37	Pg	Pg	04 05 17.4	+0.1
QLNO				Sg	Sg	04 05 25.8	+0.8
	763nm,0.3s						
CALN	Calern	0.70	262	Pg	Pg	04 05 19.8	+0.3
CALN				Sg	Sg	04 05 29.4	+0.7
CALN	Calern	0.70	262	Pg	Pg	04 05 19.8	+0.3
CALN				Sg	Sg	04 05 29.4	+0.7
DOI	San Damiano	0.78	326	Pg	Pg	04 05 20.3	-0.6
DOI				Sg	Sg	04 05 30.8	-0.3
	504nm,0.5s						
DOI	San Damiano	0.78	326	Pg	Pg	04 05 20.3	-0.6
DOI				Sg	Sg	04 05 30.8	-0.3
	504nm,0.5s						
PZZ	Stroppo	0.83	321	Pg	Pg	04 05 21.5	-0.5
PZZ				Sg	Sg	04 05 32.4	-0.5
	271nm,0.5s						
PZZ	Stroppo	0.83	321	Pg	Pg	04 05 21.5	-0.5
PZZ				Sg	Sg	04 05 32.4	-0.5
	271nm,0.5s						
PCP	Piancastagn	0.84	36	Pg	Pg	04 05 22.0	-0.2
PCP				Sg	Sg	04 05 34.2	+1.0
	642nm,0.4s						
PCP	Piancastagn	0.84	36	Pg	Pg	04 05 22.0	-0.2
PCP				S	Sg	04 05 32.6	-0.6
PCP				Sg	Sg	04 05 34.2	+1.0
	642nm,0.4s						
FRF	La Foret Royal	0.92	252	ePg	Pg	04 05 23.5	-0.1

FRF				eSg	Sg	04 05 35.6	-0.1
	344nm,0.2s						
SURF	Saint Ours	0.97	310	Pg	Pg	04 05 24.1	-0.5
SURF				Sg	Sg	04 05 36.9	-0.3
SURF	Saint Ours	0.97	310	Pg	Pg	04 05 24.1	-0.5
SURF				Sg	Sg	04 05 36.9	-0.3
ROTM	Rocchetta Tana	1.05	20	P	Pb	04 05 26.8	+0.7
ROTM				S	Sb	04 05 41.2	+1.4
LMR	La Mourre	1.11	242	ePn	Pn	04 05 26.5	-0.7
	SNR=1.0						
LMR				eSg	Sg	04 05 40.9	-0.6
	223nm,0.2s						
LMR	La Mourre	1.11	242	ePg	Pg	04 05 26.1	-1.1
LMR				ePn	Pn	04 05 26.5	-0.7
LMR				eSg	Sg	04 05 40.9	-0.6
LMR	La Mourre	1.11	242	ePg	Pg	04 05 26.1	-1.1
LMR	La Mourre	1.11	242	ePn	Pn	04 05 26.5	-0.7
	SNR=1.0						
LMR				eSg	Sg	04 05 40.9	-0.6
	111nm,0.2s						
MBDF	Montbardon	1.16	319	ePg	Pg	04 05 27.2	-1.0
	SNR=1.0						
MBDF				eSg	Sg	04 05 45.2	+1.8
	133nm,0.2s,SNR=1.0						
MBDF	Montbardon	1.16	319	ePg	Pg	04 05 27.2	-1.0
	SNR=1.0						
MBDF				eSg	Sg	04 05 45.2	+1.8
	67nm,0.2s,SNR=1.0						
MONC	Moncucco Torin	1.22	3	Pg	Pg	04 05 29.6	+0.4
	208nm,0.3s						
MONC	Moncucco Torin	1.22	3	Pg	Pg	04 05 29.6	+0.4
	208nm,0.3s						
TAVF	Tavernes	1.32	260	Pg	Pg	04 05 31.0	-0.3
TAVF				Sg	Sg	04 05 49.4	+1.0
SC2M	Scurtabo	1.33	65	⇑iPg	Pg	04 05 29.4	-2.0
	85nm,0.6s						
SC2M	Scurtabo	1.33	65	⇑iPg	Pg	04 05 29.4	-2.0
	85nm,0.6s						
SC2M				S	Sb	04 05 45.7	-2.1
RSP	Reno Superiore	1.35	342	Pg	Pg	04 05 29.6	-2.3
	65nm,0.2s						
RSP	Reno Superiore	1.35	342	Pg	Pg	04 05 29.6	-2.3
	65nm,0.2s						
RSP				S	Sb	04 05 46.2	-2.3
STOF	St-Etienne Org	1.41	276	Pn	Pn	04 05 33.3	+1.9
BNI	Bardonecchia	1.46	325	Pg	Pg	04 05 32.0	-1.9
	140nm,1.0s						
BNI	Bardonecchia	1.46	325	ePn	Pn	04 05 31.8	-0.3
BNI				Pg	Pg	04 05 32.0	-1.9
BNI				eSn	Sn	04 05 52.2	+1.0
BNI	Bardonecchia	1.46	325	ePn	Pn	04 05 31.8	-0.3
BNI	Bardonecchia	1.46	325	Pg	Pg	04 05 32.0	-1.9
	140nm,1.0s						
BOB	Bobbio (Coli)	1.46	51	Pg	Pg	04 05 32.5	-1.5
	68nm,0.6s						
BOB	Bobbio (Coli)	1.46	51	Pg	Pg	04 05 32.5	-1.5
	68nm,0.6s						
CODM	Codolo	1.54	69	P	Pn	04 05 32.2	-0.9
VILF	Villemus	1.54	270	Pn	Pn	04 05 34.5	+1.3
VILF				Sg	Sg	04 05 56.7	+1.2
PGF	Pioggiola	1.56	147	ePn	Pn	04 05 31.6	-1.8
	SNR=1.0						
PGF				eSn	Sn	04 05 49.4	-4.1
	56nm,0.2s,SNR=1.0						
PGF	Pioggiola	1.56	147	ePn	Pn	04 05 31.6	-1.8
	SNR=1.0						
PGF				eSn	Sn	04 05 49.4	-4.1
	28nm,0.2s,SNR=1.0						
SMRF	Simiane la Rot	1.65	275	ePn	Pn	04 05 35.5	+0.8
	SNR=1.0						
SMRF				eSg	Sg	04 05 58.8	-0.1
	343nm,0.4s,SNR=1.0						
TRAV	Traversella	1.66	357	Pg	Pn	04 05 34.4	-0.4
	40nm,0.3s						
TRAV	Traversella	1.66	357	P	Pn	04 05 34.3	-0.5
BACM	Baccana	1.66	75	P	Pn	04 05 34.1	-0.7
BACM				S	Sn	04 05 53.1	-2.9
BERF	Bertagne	1.66	252	Pn	Pn	04 05 36.6	+1.7
BERF	Bertagne	1.66	252	Pn	Pn	04 05 36.6	+1.7
LSD	Lago del Serru	1.68	343	Pg	Pn	04 05 35.1	0.0
	68nm,0.3s						
GRAM	Graiana	1.71	68	P	Pn	04 05 35.6	0.0
ORIF	Oris-en-Rattie	1.77	308	eP	Pn	04 05 38.4	+2.1
	SNR=1.0						
ORIF				eSg	Sg	04 06 03.6	+1.0
	250nm,0.4s,SNR=1.0						
ORO	Oropa	1.77	3	Pg	Pn	04 05 37.1	+0.7
	27nm,0.2s						
ORO	Oropa	1.77	3	Pg	Pn	04 05 37.1	+0.7
	27nm,0.2s						
VALM	Valbona	1.79	73	P	Pn	04 05 36.6	-0.1
VALM				S	Sn	04 05 57.4	-2.0
TREF	Trevaresse	1.80	263	Pn	Pn	04 05 37.5	+0.7
TREF	Trevaresse	1.80	263	Pn	Pn	04 05 37.5	+0.7
LPG	La Plagne	1.82	335	ePn	Pn	04 05 37.8	+0.8
	SNR=1.0						
LPG				eSn	Sn	04 06 00.9	+1.0
	75nm,0.6s						
LPL	La Plagne	1.84	335	ePn	Pn	04 05 38.3	+1.0
	SNR=1.0						
LPL				eSn	Sn	04 06 01.6	+1.1
	49nm,0.4s,SNR=1.0						
SARO	Sassorosso	1.87	79	P	Pn	04 05 37.1	-0.6
MAIM	Mastiano	1.91	87	P	Pn	04 05 37.4	-0.9
ERBM	Eremo	1.93	72	Pg	Pn	04 05 39.5	+1.0
	436nm,3.2s						
PRAF	Pradon	1.94	269	Pn	Pn	04 05 39.6	+0.9
PRAF				Sg	Sg	04 06 09.9	+1.7
MRGE	Morge	1.99	344	Pg	Pn	04 05 40.4	+1.0
	47nm,0.6s						
BDI	Bagni Di Lucca	1.99	83	Pg	Pn	04 05 39.0	-0.4
POPM	Popiglio	2.11	84	P	Pn	04 05 40.5	-0.5
MMK	Mattmark	2.19	2	Pg	Pn	04 05 43.0	+0.8
MUGIO	Muggio	2.23	22	Pg	Pn	04 05 44.1	+1.4
EMV	Vieux Emosson	2.31	343	Pg	Pg	04 05 46.4	-3.7
VIVF	Saint-Julien-l	2.49	295	ePn	Pn	04 05 46.4	+0.2
	SNR=1.0						
VIVF				eSn	Sn	04 06 15.9	-0.6
	45nm,0.4s						
VIVF	Saint-Julien-l	2.49	295	ePn	Pn	04 05 46.4	+0.2
	SNR=1.0						
VIVF				eSn	Sn	04 06 15.9	-0.6
	22nm,0.4s						
MAGA	Magasa	2.75	45	Pg	Pn	04 05 51.1	+1.2
	91nm,0.6s						
SSB	Saint Sauveur	2.76	302	ePn	Pn	04 05 50.4	+0.5
SSB				ePg	Pg	04 05 58.4	-0.3
SSB				eSn	Sn	04 06 24.2	+1.0
SSB				eSg	Sg	04 06 32.8	-1.6
SSB	Saint Sauveur	2.76	302	ePn	Pn	04 05 50.4	+0.5
TUE	Stuetta	2.82	22	Pg	Pn	04 05 53.0	+2.2
	17nm,0.4s						
TUE	Stuetta	2.82	22	ePn	Pn	04 05 52.8	+2.0
TUE				Pg	Pn	04 05 53.0	+2.2
TUE				eSn	Sn	04 06 26.4	+1.7
TUE	Stuetta	2.82	22	ePn	Pn	04 05 52.8	+2.0
LASF	Ste Croix	2.89	276	ePg	Pg	04 05 59.9	-1.4
LASF				eSn	Sn	04 06 24.4	-2.1
	11nm,0.2s						
LASF	Ste Croix	2.89	276	ePn	Pn	04 05 51.4	-0.4
LASF				ePg	Pg	04 05 59.9	-1.4
LASF				eSn	Sn	04 06 24.4	-2.1
LASF	Ste Croix	2.89	276	ePg	Pg	04 05 59.9	-1.4
LASF				eSn	Sn	04 06 24.4	-2.1
	5.7nm,0.2s						
MABI	Malga Bissina	2.90	40	Pg	Pn	04 05 53.5	+1.6
CABF	La Chapelle	3.02	336	ePn	Pn	04 05 54.9	+1.4
	SNR=1.0						
CABF				eSn	Sn	04 06 30.4	+0.8
	8.3nm,0.3s,SNR=1.0						
APPI	Appiano	3.54	41	Pg	Pn	04 06 02.9	+2.2
	23nm,0.4s						
PLDF	La Plantade	3.67	307	Pn	Pn	04 06 01.6	-0.9
PLDF	La Plantade	3.67	307	Pn	Pn	04 06 01.6	-0.9
DAVA	Damuels	3.71	22	⇑iPn	Pn	04 06 06.1	+3.0
DAVA				⇑iSn	Sn	04 06 50.7	+4.0
DAVA	Damuels	3.71	22	Pn	Pn	04 06 06.1	+3.1
DAVA				Sn	Sn	04 06 50.7	+4.0
FETA	Feichten	3.75	32	⇓iPn	Pn	04 06 06.4	+2.7
FETA				⇑iSn	Sn	04 06 52.2	+4.4
FETA	Feichten	3.75	32	Pn	Pn	04 06 06.4	+2.8
SMF	Signal de Mont	3.97	316	ePg	Pg	04 06 21.0	-0.9
	SNR=1.0						
SMF				eSn	Sn	04 06 51.9	-1.2
	12nm,0.4s,SNR=1.0						
SMF	Signal de Mont	3.97	316	ePn	Pn	04 06 07.3	+0.7
SMF				ePg	Pg	04 06 21.0	-0.9
SMF				eSn	Sn	04 06 51.9	-1.2
SMF	Signal de Mont	3.97	316	ePg	Pg	04 06 21.0	-0.9
	SNR=1.0						
SMF				eSn	Sn	04 06 51.9	-1.2
	5.8nm,0.4s,SNR=1.0						
HINF	Hinteralfeld	4.02	350	ePn	Pn	04 06 07.8	+0.5
	SNR=1.0						
HINF				eSn	Sn	04 06 53.6	-0.7
	5.9nm,0.3s,SNR=1.0						
HINF	Hinteralfeld	4.02	350	ePn	Pn	04 06 07.8	+0.5
	SNR=1.0						
HINF				eSn	Sn	04 06 53.6	-0.7
	3.0nm,0.3s,SNR=1.0						
MTLF	Montolieu	4.12	265	ePn	Pn	04 06 08.2	-0.5
	SNR=1.0						
MTLF				eSn	Sn	04 06 55.1	-1.8
	4.9nm,0.3s,SNR=1.0						
MTLF	Montolieu	4.12	265	ePn	Pn	04 06 08.2	-0.5
	SNR=1.0						
MTLF				eSn	Sn	04 06 55.1	-1.8
	2.5nm,0.3s,SNR=1.0						
MOTA	Moosalm	4.17	32	⇑iPn	Pn	04 06 12.1	+2.8
MOTA				⇑iSn	Sn	04 07 02.5	+4.6
MOTA	Moosalm	4.17	32	Pn	Pn	04 06 12.1	+2.8
HAU	Haudompre	4.28	346	ePn	Pn	04 06 11.4	+0.6
	SNR=1.0						
HAU				eSn	Sn	04 07 00.0	-0.6
	21nm,0.3s,SNR=1.0						
HAU	Haudompre	4.28	346	ePn	Pn	04 06 11.4	+0.6
	SNR=1.0						
HAU				eSn	Sn	04 07 00.0	-0.6
	11nm,0.3s,SNR=1.0						
CAF	Calviac	4.28	286	ePn	Pn	04 06 11.4	+0.5
	SNR=1.0						
CAF				eSn	Sn	04 06 58.7	-2.0
	12nm,0.6s,SNR=1.0						
AVF	Avril sur Loir	4.32	314	ePg	Pg	04 06 26.5	-2.1
	SNR=1.0						
AVF				eSn	Sn	04 06 59.3	-2.3
	7.5nm,0.6s,SNR=1.0						
AVF	Avril sur Loir	4.32	314	ePn	Pn	04 06 12.5	+1.1
AVF				ePg	Pg	04 06 26.5	-2.1
AVF				eSn	Sn	04 06 59.3	-2.3
AVF	Avril sur Loir	4.32	314	ePg	Pg	04 06 26.5	-2.1
	SNR=1.0						
AVF				eSn	Sn	04 06 59.3	-2.3
	3.8nm,0.6s,SNR=1.0						
LOR	Lormes	4.41	322	ePn	Pn	04 06 13.7	+1.0
	baz=144,SNR=1.0						
LOR				eSn	Sn	04 07 02.1	-1.9
	6.0nm,0.2s,baz=147,SNR=1.0						
SSF	Saint Saulge	4.43	318	ePn	Pn	04 06 13.9	+1.1
	SNR=1.0						
SSF				eSn	Sn	04 07 02.7	-1.6
	5.1nm,0.3s,SNR=1.0						
BGF	Bois d'Agland	4.45	309	ePn	Pn	04 06 13.0	-0.1
BGF				ePg	Pg	04 06 29.2	-1.8
BGF	Bois d'Agland	4.45	309	ePn	Pn	04 06 13.0	-0.1
	SNR=1.0						
CDF	Champ du Feu	4.57	355	ePn	Pn	04 06 15.5	+0.7
	SNR=1.0						
CDF				eSn	Sn	04 07 06.6	-1.3
	3.7nm,0.3s,SNR=1.0						
CDF	Champ du Feu	4.57	355	ePn	Pn	04 06 15.5	+0.7
	SNR=1.0						
CDF				eSn	Sn	04 07 06.6	-1.3
	1.9nm,0.3s,SNR=1.0						
TCF	Toulx Ste Croi	4.67	303	ePn	Pn	04 06 17.5	+1.2
	SNR=1.0						
TCF				eSn	Sn	04 07 08.5	-1.9
	5.2nm,0.5s						
RJF	Les Rejaudoux	4.75	290	ePn	Pn	04 06 17.6	+0.3
	SNR=1.0						
RJF				eSn	Sn	04 07 09.7	-2.6
	4.0nm,0.4s,SNR=1.0						
HYF	Humbligny	5.00	315	ePn	Pn	04 06 21.2	+0.5
MEZF	Maizieres J'vi	5.03	338	ePn	Pn	04 06 21.3	+0.1
MEZF				eSn	Sn	04 07 17.6	-1.7
	5.7nm,0.3s,baz=156,SNR=1.0						
MEZF	Maizieres J'vi	5.03	338	ePn	Pn	04 06 21.3	+0.1
MEZF				eSn	Sn	04 07 17.6	-1.7
	2.8nm,0.3s,baz=156,SNR=1.0						
LFF	La Frestale	5.21	284	ePn	Pn	04 06 23.0	-0.6
LFF				eSn	Sn	04 07 20.7	-2.9
	4.6nm,0.5s						
EPF	Esparros	5.53	264	ePn	Pn	04 06 27.6	-0.4
EPF	Esparros	5.53	264	ePn	Pn	04 06 27.6	-0.4
MFF	Saint Martin d	6.28	299	ePn	Pn	04 06 38.1	-0.2
MFF				eP		04 06 42.8	
BAIF	Baives	6.68	339	ePn	Pn	04 06 43.6	-0.2
	SNR=1.0						
BAIF	Baives	6.68	339	ePn	Pn	04 06 43.6	-0.2
	SNR=1.0						
LDF	La Druitiere	7.28	313	ePn	Pn	04 06 52.6	+0.6
GRR	Gorron	7.56	310	ePn	Pn	04 06 56.2	+0.4
FLN	La Foliniere	7.57	313	ePn	Pn	04 06 56.4	+0.4
	baz=132						
FLN	La Foliniere	7.57	313	ePn	Pn	04 06 56.4	+0.4
	baz=132						
CLL	Collm	8.22	23	ePKPdf	Pn	04 07 11.0	+6.0
SGMF	Saint Gilles	8.46	305	ePn	Pn	04 07 08.6	+0.3
SGMF	Saint Gilles	8.46	305	ePn	Pn	04 07 08.6	+0.3

NEIC 20 04:14:47.7, 19°.32N×155°.22W, h10^{km}, ML3.9(HVO), **After HVO., Hawaiian Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUH	Pauahi	0.06	2	ePg	Pg	04 14 49.8	-0.1
PUH				eSg	Sg	04 14 51.8	+0.5
STCH	Steam Cracks	0.11	52	ePg	Pg	04 14 50.4	-0.1
STCH				eSg	Sg	04 14 52.1	-0.4
KHU	Kahuku	0.38	259	ePg	Pg	04 14 54.9	-0.4
KHU				eSg	Sg	04 14 59.6	-0.8
POHA	Pohakuloa	0.53	326	ePg	Pg	04 15 10.0	+12
POHA				eSg	Sg	04 15 15.6	+11

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*NEIC **20** 04:17:41.3, 17°.45N×101°.11W, h14^{km}, MD3.7(MEX), After MEX.*

MEX 20 04:17:41.3±0.5**, 17°.45N×101°.11W, h14^{km}**±72^{km}**, MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.90	116	i P	Pb	04 17 55.6	-3.1
CAIG				i S	Sb	04 18 06.7	-4.0
ACX	Acapulco	1.28	117	eP	Pn	04 18 01.7	-3.1
ACX				i S	Sb	04 18 17.2	-4.4
MZVM		2.49	46	eP	Pn	04 18 17.9	-3.5
MZVM				i S	Sn	04 18 47.8	-3.7
PNIG	Pinotepa	3.05	110	eP	Pn	04 18 27.9	-1.1
PNIG				i S	Sn	04 19 04.5	-0.9
IIO	Organos	3.11	46	eP	Pn	04 18 27.1	-2.8
IIO				i S	Sn	04 19 03.8	-3.1
UTMO	Huajuapan	3.18	83	eP	Pn	04 18 28.6	-2.3
UTMO				i S	Sn	04 19 05.3	-3.3

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*IDC **20** 04:19:32.3±1.6, 9°.23N×126°.49E, h0^{km}, mb3.9/5, mb1 4.1/5, mb1mx3.7/21, mbtmp3.9/5, MS3.6/2, Ms1 3.6/2, ms1mx2.8/42, Error ellipse: s-maj=137.5km s-min=21.1km az=68.0*

*ISCJB **20** 04:19:43.6±0.8, 9°.02N±0°.05×126°.0E±0°.1, h108^{km}±7^{km}, mb3.9/6, Error ellipse: s-maj=17.5km s-min=6.2km az=162.3*

*NEIC **20** 04:19:43.3±4.7, 9°.18N×126°.43E, h92^{km}±37^{km}, mb4.0/2, Error ellipse: s-maj=83.1km s-min=11.1km az=63.0*

ISC 20 04:19:44.4±0.8**, 9°.02N**±0°.05×**126°.01E**±0°.10**, h96^{km}**±8^{km}**, n24, σ0^{s}.92**/27**, mb3.9**/6**, 4C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	0.39	262	eP	Pn	04 19 54.6	-4.3
BIPH	Bislig	0.90	157	⇑eP	Pn	04 19 57.3	-6.2
BIPH				i S	Sn	04 20 09.5	-8.3
CGP	Cagayan de Oro	1.42	247	⇑iP	Pn	04 20 08.1	-1.3
CGP				i S	Sn	04 20 27.6	-0.8
BUKP	Musuan	1.47	220	eP	Pn	04 20 09.0	-1.1
MSLP	Maasin	1.58	314	eP	Pn	04 20 11.0	-0.5
DAV	Davao City (W)	1.99	192	Pn	Pn	04 20 19.2	+2.5
	29nm,0.3s,baz=246,slow=20,SNR=2.8						
DAV				Sn	Sn	04 20 42.7	+1.5
	71nm,0.3s,baz=253,slow=20,SNR=12						
DAV				LR	LR	04 21 27.2	
	comp=Z,378nm,19.9s,baz=156,slow=49						
DMPH	Davao City--Mi	1.99	194	⇑eP	Pn	04 20 15.9	-0.8
DMPH				eS	Sn	04 20 41.9	+0.6
MATI	Mati	2.08	173	eP	Pn	04 20 17.6	-0.2
TBP	Tagbilaran	2.22	288	eP	Pn	04 20 19.9	+0.3
TBP				eS	Sn	04 20 46.5	-0.1
PLP	Palo	2.36	335	⇑iP	Pn	04 20 21.1	-0.4
PLP				i S	Sn	04 20 51.0	+1.1
PAGZ	Pagadian	2.85	246	eP	Pn	04 20 28.9	+0.9
KAKA	Kakadu	22.52	163	eP	P	04 24 35.3	-1.0
FITZ	Fitzroy Crossi	26.95	181	P	P	04 25 18.2	+1.2
	2.9nm,0.8s,mb3.9,baz=352,slow=7.1,SNR=3.0						
WRA	Warramunga Arr	29.93	164	P	P	04 25 42.0	-1.4
	0.7nm,0.5s,baz=346,slow=9.7,SNR=4.9						
ASAR	Alice Springs	33.39	167	P	P	04 26 13.4	-0.3
	0.7nm,0.5s,mb3.8,baz=349,slow=6.8,SNR=12						
STKA	Stephens Creek	43.31	161	P	P	04 27 36.9	+0.1
	1.5nm,0.5s,mb4.0,baz=356,slow=9.7,SNR=6.2						
STKA	Stephens Creek	43.31	161	P	P	04 27 36.9	+0.1
MKAR	Makanchi Array	52.86	323	P	P	04 28 50.7	+0.5
	0.6nm,0.8s,mb3.7,baz=120,slow=8.4,SNR=6.8						
MKAR				PcP	PcP	04 30 00.5	+2.3
	0.2nm,0.6s,baz=110,slow=4.8,SNR=2.5						
MKAR	Makanchi Array	52.86	323	P	P	04 28 50.7	+0.5
MKAR				PcP	PcP	04 30 00.5	+2.3
EKS2	Erkin-Say	56.53	316	eP	P	04 29 16.9	+0.1
	1.2nm,0.8s,mb4.0						
KURK	Kurchatov	56.95	326	eP	P	04 29 20.0	+0.4
	1.0nm,0.6s,mb4.0						
URZ	Urewera	66.91	138	LR	LR	04 57 14.6	
	comp=Z,158nm,21.7s,baz=29,slow=34						
TORD	Torodi Ar. Bea	120.48	291	PKP	PKPdf	04 38 25.8	+0.1
	0.1nm,0.5s,baz=90,slow=1.4,SNR=3.4						
PLCA	Paso Flores	145.16	158	PKPbc	PKPbc	04 39 11.2	+0.5
	1.7nm,0.8s,baz=238,slow=5.5,SNR=4.2						

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*ISCJB **20** 04:41:15.4±1.3, 20°.4S±0°.1×177°.8W±0°.1, h460^{km}±15^{km}, mb3.8/20, Error ellipse: s-maj=25.5km s-min=11.0km az=144.0*

*NEIC **20** 04:41:17.7±1.2, 20°.59S×177°.63W, h488^{km}±13^{km}, mb3.9/8, Error ellipse: s-maj=20.5km s-min=9.4km az=146.0*

*IDC **20** 04:41:17.7±2.2, 20°.58S×177°.60W, h484^{km}±25^{km}, mb3.4/12, mb1 3.7/14, mb1mx3.6/19, mbtmp3.5/14, Error ellipse: s-maj=26.3km s-min=13.4km az=147.0*

ISC 20 04:41:17.2±1.5**, 20°.5S**±0°.1×**177°.7W**±0°.1**, h473^{km}**±17^{km}**, n34, σ0^{s}.72**/24**, mb3.8**/20**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.67	41	P	P	04 43 20.3	0.0
	9.9nm,0.3s,baz=15,slow=3.4,SNR=7.3						
AFI				S	S	04 44 54.1	-7.1
	6.9nm,0.3s,baz=162,slow=16,SNR=2.8						
URZ	Urewera	18.23	193	P	P	04 45 00.1	-0.8
	1.9nm,0.3s,baz=6.7,slow=6.5,SNR=7.7						
CTA	Charters Tower	33.78	264	P	P	04 47 19.9	+1.1
	1.9nm,0.4s,mb3.9,baz=124,slow=11,SNR=3.2						
STKA	Stephens Creek	38.04	244	P	P	04 47 54.3	+0.2
	1.4nm,0.5s,mb3.7,baz=102,slow=9.3,SNR=3.0						
ASAR	Alice Springs	44.80	257	P	P	04 48 48.2	+0.3
	2.6nm,0.5s,mb3.9,baz=94,slow=7.7,SNR=35						
ASAR				PcP	PcP	04 50 19.6	-0.7
	0.4nm,0.5s,baz=97,slow=4.4,SNR=4.3						
ASAR				S	S	04 54 46.2	-3.9
	1.2nm,1.0s,baz=104,slow=16,SNR=5.4						
WRAB	Tennant Creek	44.88	262	eP	P	04 48 47.8	-0.8
	1.7nm,0.5s,mb3.7						
WRA	Warramunga Arr	44.89	262	P	P	04 48 48.5	-0.2
	1.5nm,0.3s,mb3.9,baz=97,slow=7.9,SNR=44						
FITZ	Fitzroy Crossi	53.32	262	P	P	04 49 51.8	+0.4
	2.7nm,0.8s,mb3.7,baz=107,slow=14,SNR=3.8						
MJAR	Matsushiro Arr	70.41	323	P	P	04 51 42.1	-0.8
	1.1nm,0.4s,mb3.7,baz=64,slow=1.2,SNR=7.3						
MAJO	Matsushiro	70.42	323	eP	P	04 51 42.5	-0.3
	5.6nm,0.4s,mb4.5						
PETK	Petropavlovsk-	76.38	345	P	P	04 52 16.2	-0.4
	4.6nm,0.9s,mb4.0,baz=130,slow=9.1,SNR=4.1						
KSRS	Korea Array	77.11	318	P	P	04 52 21.4	+0.4
	1.2nm,0.7s,mb3.6,baz=129,slow=6.0,SNR=3.9						
NVAR	Mina Array Bea	80.85	43	P	P	04 52 41.8	+0.8
	1.3nm,0.8s,mb3.5,baz=227,slow=10,SNR=11						
TUC	Tucson	82.77	52	eP	P	04 52 52.0	+1.0
	1.8nm,0.8s,mb3.6						
WVOR	Wild Horse Val	82.97	40	eP	P	04 52 52.1	+0.4
	2.3nm,0.9s,mb3.7						
HLID	Hailey	86.16	41	eP	P	04 53 07.2	-0.2
	1.1nm,0.9s,mb3.5						
COLA	College	88.18	12	eP	P	04 53 14.7	-1.7
	3.8nm,0.7s,mb4.2						
BW06	Boulder Array	88.78	43	eP	P	04 53 19.8	0.0
	1.6nm,0.8s,mb3.9						
PDAR	Pinedale Array	88.78	43	P	P	04 53 19.9	+0.1
	1.2nm,0.8s,mb3.8,baz=221,slow=2.0,SNR=9.5						
BOZ	Bozeman (W)	88.95	40	eP	P	04 53 21.0	+0.5
	2.0nm,0.9s,mb4.0						
CMAR	Chiang Mai Arr	90.41	289	P	P	04 53 28.9	+1.0
	0.9nm,0.3s,mb4.1,baz=108,slow=2.9,SNR=6.1						
YKA	Yellowknife Ar	96.42	25	P	P	04 53 53.1	-1.1
	0.1nm,0.6s,mb3.2,baz=256,slow=4.0,SNR=3.5						
MK31	Makanchi Array	111.44	313	ePKP	PKiKP	04 58 54.9	-1.9
MKAR	Makanchi Array	111.44	313	PKiKP	PKiKP	04 58 54.8	-2.0
	0.3nm,0.6s,baz=247,slow=1.7,SNR=4.8						
TKM2	Tokmak 2	115.77	309	ePKPdf	PKPdf	04 59 03.2	-2.0
AKASG	Malin Array Be	143.19	331	PKhKP		04 59 52.5	
	2.1nm,0.5s,baz=40,slow=4.5,SNR=10						
AKASG	Malin Array Be	143.19	331	PKP		04 59 52.5	
MALT	Malatya	144.19	308	ePKPdf	PKPdf	04 59 58.0	-0.7
BRTR	Keskin Array B	147.08	312	PKPbc	PKPbc	05 00 05.5	-1.0
	1.1nm,0.7s,baz=163,slow=6.3,SNR=4.0						
CLL	Collm	148.16	347	i PKPbc	PKPbc	05 00 08.1	-0.8
	comp=Z,6.0nm,0.7s						
BRG	Berggiesshubel	148.37	346	e(P)	PKPbc	05 00 09.0	-0.4
	comp=Z,3.7nm,0.9s						
PSZ	Piszkesteto	149.21	337	ePKPdf	PKPdf	05 00 05.5	-1.2
PSZ				ePKPab	PKPbc	05 00 11.0	-0.6
GERES	GERESS Array B	150.31	345	PKPbc	PKPbc	05 00 13.4	-0.7
	comp=Z,0.8nm,0.7s,baz=5.7,slow=2.7,SNR=7.1						
TORD	Torodi Ar. Bea	172.63	175	PKP	PKPdf	05 00 29.8	-2.3
	comp=Z,0.4nm,0.8s,baz=205,slow=2.5,SNR=2.4						

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*UPP **20** 04:53:10.9, 55°.58N×4°.67E, h0^{km}, ML1.7, Suspected Mining explosion.*

*BER **20** 04:53:10.3±0.9, 55°.40N×4°.41E, h10^{km}, MD2.6, ML1.9*

*CSEM **20** 04:53:11.7±0.6, 55°.68N×4°.78E, h2^{km}, ML2.6, Error ellipse: s-maj=13.3km s-min=7.2km az=44.0, Suspected Mining explosion.*

ISC 20 04:53:11.3±1.6**, 55°.69N**±0°.07×**4°.7E**±0°.1**, h0^{km}, n14, σ0^{s}.77**/25**, North Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUD	Monsted U'grnd	2.62	71	i P	Pn	04 53 55.0	+0.3
MUD	Monsted U'grnd	2.62	71	P	Pn	04 53 55.0	+0.3
MUD				S	Sn	04 54 28.0	+0.8
SNART	Snartemo	2.99	26	eP	Pn	04 54 00.5	+0.7
SNART				eS	Sn	04 54 37.9	+1.6
SNART				AML	AML	04 54 39.2	
	comp=Z,11nm,0.1s						
KMY	Karmoy	3.55	4	eP	Pn	04 54 07.8	+0.2
KMY				eS	Sn	04 54 50.5	+0.4
KMY	Karmoy	3.55	4	eP	Pn	04 54 07.8	+0.3
	SNR=49						
KMY				eS	Sn	04 54 50.5	+0.4
	SNR=49						
BLS5	Blasjo	3.86	13	eP	Pn	04 54 13.1	+1.3
BLS5				eS	Sn	04 54 58.3	+0.4
BLS5				AML	AML	04 55 01.5	
	comp=Z,2.8nm,0.2s						
BLS5	Blasjo	3.86	13	eP	Pn	04 54 13.1	+1.3
	SNR=49						
BLS5				eS	Sn	04 54 58.3	+0.4
	comp=Z,2.8nm,0.2s,SNR=49						
ODD1	Odda	4.36	13	eP	Pn	04 54 18.6	-0.1
ODD1				eS	Sn	04 55 09.6	-0.5
ODD1				AML	AML	04 55 11.3	
	comp=Z,5.3nm,0.1s						
ODD1	Odda	4.36	13	eP	Pn	04 54 18.5	-0.2
	SNR=49						
ODD1				eS	Sn	04 55 09.6	-0.5

	comp=Z,5.3nm,0.1s,SNR=49						
ASK	Askoy	4.82	3	*e*P	Pn	04 54 24.5	-0.5
ASK				*e*S	Sn	04 55 19.8	-1.6
STRU	Stroemstad	4.85	44	P	Pn	04 54 25.2	-0.2
STRU				S	Sn	04 55 21.8	-0.4
NASU	Vaermlandsnaes	5.62	51	P	Pn	04 54 35.9	-0.1
NASU				S	Sn	04 55 40.2	-1.1
VXJU	Vaexsjoe	5.83	74	P	Pn	04 54 38.0	-0.8
LNKU	Linkoeping	6.43	62	P	Pn	04 54 46.7	-0.4

ISCJB 20 05:07:33.9±0.5, 37°.41N±0°.03×71°.96E±0°.05, h129^{km}±7^{km}, mb3.8/10, Error ellipse: s-maj=7.1km s-min=4.1km az=176.3

NEIC 20 05:07:34.9±0.6, 37°.36N×72°.00E, h126^{km}±8^{km}, mb4.4/6, Error ellipse: s-maj=8.8km s-min=4.7km az=62.0

IDC 20 05:07:34.7±4.9, 37°.45N×71°.72E, h104^{km}±36^{km}, mb3.6/8, mb1 3.7/14, mb1mx3.5/30, mbtmp3.6/14, Error ellipse: s-maj=44.9km s-min=26.6km az=152.0

NNC 20 05:07:40.3±6.7, 37°.85N×71°.48E, h135^{km}±83^{km}, mb3.3, mpv3.9, Error ellipse: s-maj=58.9km s-min=34.1km az=12.0

ISC 20 05:07:35.1±0.4, **37°.40N**±0°.03×**71°.99E**±0°.05, **h125**^{km}±6^{km}, **n59**, σ**1ˢ.20**/72, **mb3.9**/10, **3C-6D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	3.56	181	P	Pn	05 08 31.4	+2.4
CEP				S	Sn	05 09 15.0	+4.3
KBL	Kabul	3.72	221	*e*Pn	Pn	05 08 31.6	+0.5
KBL				*e*Sn	Sn	05 09 13.5	-0.8
KSH	Kashi	3.78	55	*i* P	Pn	05 08 29.9	-1.8
KSH				S	Sn	05 09 10.8	-4.8
AML	Almayashu	4.91	15	P	Pn	05 08 48.0	+1.2
	SNR=95						
AML	Almayashu	4.91	15	*e*Pn	Pn	05 08 47.6	+0.8
AML				*e*Sn	Sn	05 09 39.6	-3.0
UCH	Uchtor	5.20	21	P	Pn	05 08 52.3	+1.5
	SNR=17						
UCH	Uchtor	5.20	21	*e*Pn	Pn	05 08 51.9	+1.2
	46nm,0.4s						
UCH				*e*Sn	Sn	05 09 47.5	-2.1
KZA	Kyzart	5.31	27	P	Pn	05 08 53.8	+1.6
	SNR=9.1						
EKS2	Erkin-Say	5.43	14	P	Pn	05 08 55.2	+1.3
	SNR=32						
EKS2	Erkin-Say	5.43	14	*e*Pn	Pn	05 08 54.6	+0.7
	10nm,0.5s						
EKS2				*e*Sn	Sn	05 09 54.3	-1.0
AAK	Ala-Archa	5.57	19	P	Pn	05 08 57.3	+1.6
	SNR=22						
AAK	Ala-Archa	5.57	19	P	Pn	05 08 57.2	+1.5
	0.1nm,0.3s,baz=184,slow=6.7,SNR=58						
AAK				S	Sn	05 09 58.7	+0.1
	0.1nm,0.3s,baz=96,slow=23,SNR=17						
KK31	Karatay Array	5.81	349	⇑P	Pn	05 08 58.0	-0.9
	9.8nm,0.2s,baz=172,slow=10,SNR=370						
KK31				⇓S	Sn	05 09 58.9	-5.5
	22nm,0.5s,baz=165,slow=21,SNR=12						
THN	Thein Dam	5.82	147	*e*PKP	Pn	05 09 00.8	+1.6
THN				*e*x	x	05 10 06.6	
ULHL	Ulahol	5.84	33	P	Pn	05 09 01.0	+1.6
	SNR=6.0						
CHMS	Chumysh	5.98	20	P	Sn	05 10 10.1	+1.6
	SNR=12						
USP	Ospenovka	6.17	17	P	Pn	05 09 02.0	-1.8
	SNR=6.5						
TKM2	Tokmak 2	6.17	25	⇓P	Pn	05 09 05.3	+1.5
	3.4nm,0.6s						
TKM2				⇓S	Sn	05 10 14.0	+1.0
	8.3nm,0.7s						
DDI	Dehra Dun	8.67	143	*e*x	x	05 10 42.5	
JOSI	Joshimath	9.27	135	*e*PKP	Pn	05 09 45.6	-0.2
JOSI				AMb	AMB	05 09 49.9	
	comp=Z,27nm,0.9s						
JOSI				*e*S	Sn	05 11 19.7	-8.6
KHET	Khetri	9.83	160	*e*PKP	Pn	05 09 53.7	+0.4
KHET				*e*S	Sn	05 11 33.2	-8.7
KUDL	Kundal	9.97	156	*e*S	Sn	05 11 37.3	-7.9
SONA	Sohna	10.07	153	*e*S	Sn	05 11 38.5	-9.2
MKAR	Makanchi Array	12.10	36	P	Pn	05 10 24.8	+1.6
	comp=Z,0.1nm,0.3s,baz=227,slow=13,SNR=8.0						
DANN	Dangsing	13.38	129	*e*P	Pn	05 10 39.1	-0.9
KOLN	Koldanda	13.70	131	*e*P	Pn	05 10 42.8	-1.4
	comp=Z,9.2nm,0.3s						
KURBB	Kurchatov Arra	14.03	17	⇓P	Pn	05 10 52.3	+4.1
	comp=Z,0.5nm,0.6s						
KURK	Kurchatov	14.13	17	P	Pn	05 10 48.5	-1.0
	comp=Z,0.2nm,0.3s,baz=205,slow=11,SNR=4.5						
KURK	Kurchatov	14.13	17	P	Pn	05 10 48.5	-1.0
GKN	Gorkha	14.17	128	*e*P	Pn	05 10 50.0	-0.2
AB01	Akbulak array	14.72	327	⇑P	Pn	05 10 53.3	-3.6
	comp=Z,3.5nm,0.7s						
AB01				⇓S	Sn	05 13 26.1	-13
	comp=Z,2.9nm,0.5s						
DMN	Daman	14.74	128	*e*P	Pn	05 10 56.9	-0.5
PKIN	Phulchoki	14.95	127	*e*P	Pn	05 10 58.7	-1.3
PKI	Pulchoki	14.96	127	*e*P	Pn	05 10 59.7	-0.4
GUN	Gumba	15.03	125	*e*P	Pn	05 11 00.7	-0.3
VOSK	Vostochnaya	15.34	358	⇑P	Pn	05 11 01.4	-3.3
	comp=Z,2.9nm,0.8s						
JIRN	Jiri	15.40	125	*e*P	Pn	05 11 05.1	-0.6
	comp=Z,16nm,0.3s						
BVAR	Borovoye Array	15.67	356	P	Pn	05 11 07.0	-1.8
	comp=Z,0.7nm,0.3s,baz=154,slow=14,SNR=7.7						
BRVK	Borovoye	15.71	356	*e*Pn	Pn	05 11 08.4	-0.8
	comp=Z,3.6nm,0.6s						
RAMN	Ramite	16.15	126	*e*P	Pn	05 11 14.3	-0.6
	comp=Z,13nm,0.5s						
AKTK	Aktyubinsk	16.43	327	P	Pn	05 11 16.6	-1.6
AKTK				S	S	05 14 06.8	-14
AKTO	Aktyubinsk	16.43	327	⇓P	Pn	05 11 18.3	+0.1
	comp=Z,2.3nm,0.6s						
AKTO	Aktyubinsk	16.43	327	P	Pn	05 11 16.6	-1.6
	comp=Z,3.5nm,0.3s,baz=138,slow=8.7,SNR=54						
AKTO				S	S	05 14 06.8	-14
	comp=Z,0.3nm,0.3s,baz=20,slow=20,SNR=4.9						
TAPN	Taplejung	16.61	123	*e*P	Pn	05 11 20.8	+0.2
ODAN	Odare	16.73	124	*e*P	Pn	05 11 22.3	+0.3
	comp=Z,7.8nm,0.5s						
ZALV	Zalesovo Beam	18.77	24	P	P	05 11 45.7	+1.4
	comp=Z,1.0nm,0.3s,baz=222,slow=11,SNR=20						
GTA	Gaotai	21.87	76	*e*P	P	05 12 23.3	+5.6
GTA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
AKASG	Malin Array Be	33.02	308	P	P	05 13 57.4	-0.7
	comp=Z,1.1nm,0.6s,mb3.9,baz=111,slow=9.5,SNR=3.6						
AKASG	Malin Array Be	33.02	308	P	P	05 13 57.4	-0.7
JOF	Joensuu	35.50	329	*e*p	P	05 14 20.3	+0.9
	comp=Z,2.7nm,0.5s,mb4.3						
ARCES	ARCESS Array B	40.63	337	P	P	05 15 02.7	+0.5
	comp=Z,1.3nm,0.5s,mb4.0,baz=116,slow=9.9,SNR=14						
HFS	Hagfors	42.86	321	P	P	05 15 21.1	+0.6
	comp=Z,3.8nm,0.4s,mb4.5,baz=102,slow=11,SNR=30						
NB2	NORSAR Subarra	44.15	322	P	P	05 15 31.4	+0.6
	comp=Z,0.8nm,0.5s,mb3.7,baz=92,slow=7.9						
NOA	NORSAR Array B	44.15	322	P	P	05 15 31.4	+0.6
	comp=Z,0.9nm,0.5s,mb3.7,baz=95,slow=8.3,SNR=7.7						
EKA	Eskdalemuir Ar	52.20	316	P	P	05 16 33.2	+0.5
	comp=Z,2.2nm,1.1s,mb4.1,baz=75,slow=6.0,SNR=3.6						
ESDC	Sonseca Array	57.74	298	P	P	05 17 13.2	+0.3
	comp=Z,0.2nm,0.3s,mb3.6,baz=57,slow=7.6,SNR=4.1						
TORD	Torodi Ar. Bea	66.53	269	P	P	05 18 11.8	0.0
	comp=Z,0.3nm,0.5s,mb3.4,baz=51,slow=6.1,SNR=8.4						
TORD	Torodi Ar. Bea	66.53	269	P	P	05 18 11.8	0.0
YKA	Yellowknife Ar	80.31	3	P	P	05 19 33.5	+1.7
	comp=Z,1.2nm,0.5s,mb4.0,baz=350,slow=5.5,SNR=30						

NEIC 20 05:09:26.9, 53°.05N×167°.41W, h26^{km}**, ML3.0**(AEIC), **ML3.6**(PMR)**, After AEIC., Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	Nikolski	0.88	265	P	Pb	05 09 42.8	-0.6
NIKO				S	Sb	05 09 55.4	+0.6
UNV	Unalaska Valle	0.96	34	P	Pn	05 09 43.6	-1.1
UNV				S	Sb	05 09 56.6	-0.6
AKLV	Akutan Long Va	1.41	37	P	Pn	05 09 50.8	0.0
AKGG	Akutan Green G	1.42	36	P	Pn	05 09 51.3	+0.2
AKUT	Akutan	1.46	41	P	Pn	05 09 51.3	-0.3
SDPT	Sand Point	4.67	58	*e*P	Pn	05 10 34.9	-0.8

IDC 20 05:20:30.7±0.9**, 4°.37N×127°.27E, h0**^{km}**, mb4.1**/9**, mb1 4.1**/9**, mb1mx4.0**/20**, mbtmp4.1**/9**, Error ellipse: s-maj=77.8km s-min=15.8km az=71.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	3.17	328	Sn	Sn	05 22 10.4	+10
	60nm,0.3s,baz=46,slow=20,SNR=7.0						
WRA	Warramunga Arr	25.14	164	P	P	05 25 57.8	+0.1
	1.7nm,0.6s,baz=344,slow=10,SNR=9.6						
ASAR	Alice Springs	28.61	167	P	P	05 26 29.4	+0.4
	0.8nm,0.5s,baz=354,slow=8.0,SNR=15						
KSRS	Korea Array	32.93	1	P	P	05 27 07.0	+0.1
	2.0nm,0.9s,baz=183,slow=7.4,SNR=3.7						
STKA	Stephens Creek	38.54	160	P	P	05 27 54.7	-0.5
	2.6nm,0.9s,baz=331,slow=12,SNR=3.1						
SONM	Songino Array	46.87	341	P	P	05 29 02.4	-0.2
	0.6nm,0.6s,baz=165,slow=6.0,SNR=3.7						
MKAR	Makanchi Array	57.34	325	P	P	05 30 21.4	+0.8
	2.4nm,0.5s,baz=116,slow=8.0,SNR=49						
ZALV	Zalesovo Beam	60.27	333	P	P	05 30 40.1	-0.8
	0.3nm,0.3s,baz=116,slow=10,SNR=3.8						
KURK	Kurchatov	61.50	327	P	P	05 30 49.6	+0.3
	3.2nm,0.6s,baz=123,slow=7.2,SNR=24						
BRTR	Keskin Array B	90.03	310	P	P	05 33 31.8	-0.9
	0.6nm,0.7s,baz=44,slow=4.4,SNR=3.8						

IDC 20 05:24:03.0±1.5, 15°.15S×168°.06E, h0^{km}, mb4.5/11, mb1 4.6/11, mb1mx4.4/18, mbtmp4.4/11, MS3.7/6, Ms1 3.7/6, ms1mx3.4/23, Error ellipse: s-maj=62.2km s-min=21.0km az=145.0

NEIC 20 05:24:04.6±0.7, 15°.16S×168°.06E, h10^{km}, Error ellipse: s-maj=19.9km s-min=12.3km az=128.0

ISCJB 20 05:24:05.3±6.3, 15°.29S±0°.09×168°.0E±0°.1, h24^{km}±44^{km}, mb4.3/12, MS3.6/6, Error ellipse: s-maj=24.1km s-min=14.5km az=5.5

ISC 20 05:24:07.4±6.4**, 15°.22S**±0°.09×**168°.0E**±0°.1**, h28**^{km}±44^{km}**, n38,** σ**0ˢ.79**/22**, mb4.3**/12**, MS3.6**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.98	192	*e*P	Pn	05 25 47.5	-0.3
DZM				*e*S	Sn	05 27 06.4	0.0
DZM	Mont Dzumac	6.98	192	*e*Pn	Pn	05 25 47.7	-0.2
	25nm,0.6s						
DZM				*e*Sn	Sn	05 27 06.2	-0.1
CTA	Charters Tower	21.30	254	P	P	05 28 53.2	+1.1
	8.4nm,0.7s,mb4.2,baz=89,slow=11,SNR=8.9						
CTA				LR	LR	05 35 29.5	
	comp=Z,240nm,18.9s,MS3.6,baz=56,slow=32						
CTA	Charters Tower	21.30	254	P	P	05 28 53.2	+1.1
CTA				LR	LR	05 35 29.4	
CTAO	Charters Tower	21.30	254	*e*P	P	05 28 53.5	+1.4
STKA	Stephens Creek	29.24	231	P	P	05 30 08.2	+1.1
	2.2nm,0.6s,mb4.1,baz=38,slow=6.5,SNR=3.5						
STKA				LR	LR	05 39 28.8	
	comp=Z,107nm,21.0s,MS3.4,baz=26,slow=32						
WRAB	Tennant Creek	32.41	257	*e*P	P	05 30 33.9	-1.3
WRA	Warramunga Arr	32.42	257	P	P	05 30 34.7	-0.6
	8.2nm,0.7s,mb4.7,baz=85,slow=8.9,SNR=72						
WRA				LR	LR	05 42 24.1	
	comp=Z,171nm,19.6s,MS3.8,baz=80,slow=34						
ASAR	Alice Springs	33.19	250	P	P	05 30 41.7	-0.3
	18nm,0.7s,mb5.1,baz=78,slow=9.0,SNR=150						
GUMO	Guam	36.66	320	LR	LR	05 43 25.5	
	comp=Z,68nm,20.5s,MS3.4,baz=88,slow=32						
FITZ	Fitzroy Crossi	40.65	260	P	P	05 31 45.6	+0.1
	18nm,0.6s,mb4.9,baz=95,slow=7.4,SNR=45						
FITZ				LR	LR	05 47 31.3	
	comp=Z,154nm,21.6s,MS3.8,baz=16,slow=35						
FITZ	Fitzroy Crossi	40.65	260	*e*P	P	05 31 44.9	-0.6
FITZ				LR	LR	05 47 31.3	
NWAO	Narrogin (SRO)	49.13	240	LR	LR	05 51 11.3	
	comp=Z,112nm,19.7s,MS3.9,baz=268,slow=33						
CMAR	Chiang Mai Arr	75.81	294	P	P	05 35 52.2	+0.7
	0.6nm,0.3s,mb4.0,baz=137,slow=4.2,SNR=5.3						
SONM	Songino Array	83.32	323	P	P	05 36 32.0	+0.2
	1.0nm,0.8s,mb3.9,baz=163,slow=5.4,SNR=4.4						
GTA	Gaotai	83.53	314	P	P	05 36 39.3	+6.3
GTA				pP	pP	05 36 46.3	+4.4
GTA				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb4.3						
NVAR	Mina Array Bea	87.04	49	P	P	05 36 51.5	+1.0
	comp=Z,0.6nm,0.6s,mb4.0,baz=232,slow=8.4,SNR=4.8						
YKA	Yellowknife Ar	97.65	27	P	P	05 37 38.0	-1.1
	comp=Z,0.6nm,0.8s,mb4.2,baz=258,slow=4.5,SNR=11						
YKA	Yellowknife Ar	97.65	27	P	P	05 37 38.0	-1.1
MKAR	Makanchi Array	98.06	316	P	P	05 37 41.9	+0.5
	comp=Z,1.2nm,0.9s,mb4.4,baz=88,slow=6.2,SNR=8.0						
MKAR	Makanchi Array	98.06	316	P	P	05 37 41.9	+0.5
ZALV	Zalesovo Beam	98.22	324	P	P	05 37 41.1	-0.8
	comp=Z,0.5nm,0.5s,mb4.3,baz=134,slow=6.2,SNR=3.3						
ARCES	ARCESS Array B	120.91	346	PKP	PKPdf	05 42 55.5	-1.0
	comp=Z,2.4nm,0.9s,baz=23,slow=4.0,SNR=4.6						
FLN	La Foliniere	145.24	347	*e*PKP1	PKPbc	05 43 40.5	-1.7
	comp=Z,18nm,0.9s						
CABF	La Chapelle	145.26	338	*e*PKP1	PKPbc	05 43 42.4	+0.1
	comp=Z,32nm,1.3s						
LDF	La Druitiere	145.32	346	*e*PKP1	PKPbc	05 43 41.5	-1.0
LOR	Lormes	145.44	341	*e*PKP1	PKPbc	05 43 42.5	-0.4
	comp=Z,25nm,1.4s						
GRR	Gorron	145.68	347	*e*PKP1	PKPbc	05 43 43.1	-0.5
	comp=Z,27nm,1.2s						
SSF	Saint Saulge	145.74	341	*e*PKP1	PKPbc	05 43 43.6	-0.2
	comp=Z,24nm,1.0s						
LPL	La Plagne	145.94	336	*e*PKP1	PKPbc	05 43 44.6	+0.1
LPG	La Plagne	145.94	336	*e*PKP1	PKPbc	05 43 44.8	+0.3
	comp=Z,20nm,1.0s						
SMF	Signal de Mont	146.00	340	*e*PKP1	PKPbc	05 43 44.4	-0.3
	comp=Z,14nm,1.1s						
AVF	Avril sur Loir	146.02	341	*e*PKP1	PKPbc	05 43 44.6	-0.1
	comp=Z,8.1nm,1.0s						
ORIF	Oris-en-Rattie	146.77	337	*e*PKP1	PKPbc	05 43 46.8	-0.2
	comp=Z,12nm,0.8s						
TCF	Toulx Ste Croi	146.82	342	*e*PKP1	PKPbc	05 43 46.6	-0.5
	comp=Z,14nm,1.2s						
MFF	Saint Martin d	147.19	345	*e*PKP1	PKPbc	05 43 47.5	-0.6
	comp=Z,38nm,1.3s						
ETSF	Etsaut	150.73	343	*e*PKP1	PKPbc	05 43 56.6	-0.7
TORD	Torodi Ar. Bea	166.59	263	PKPab	PKPab	05 45 13.2	-0.5
	comp=Z,0.4nm,0.9s,baz=89,slow=2.6,SNR=2.5						

CSEM 20 05:36:20.0, 36°.22N×21°.36E, h32^{km}, MD3.6, After ATH

NEIC 20 05:36:20.0, 36°.22N×21°.36E, h32^{km}, MD3.6(ATH), After ATH.

ATH 20 05:36:20.0, 36°.22N×21°.36E, h32^{km}±13^{km}**, MD3.6**/9**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.74	24	*e*PN	Pn	05 36 34.9	+0.7
PYL				*e*SN	Sn	05 36 45.5	+1.1
PYL	PYLOS	0.74	24	*e*Pn	Pn	05 36 34.9	+0.7
PYL				*e*Sn	Sn	05 36 45.5	+1.1
ITM	Ithomi	1.06	25	*e*PN	Pn	05 36 40.1	+1.5
ITM	Ithomi	1.06	25	*e*Pn	Pn	05 36 40.1	+1.5
KYTH	Kithira	1.36	87	*e*PN	Pn	05 36 45.2	+2.5
KYTH	Kithira	1.36	87	*e*Pn	Pn	05 36 45.2	+2.5
VLI	Veliai	1.36	68	*e*PN	Pn	05 36 44.5	+1.7
VLI	Veliai	1.36	68	*e*Pn	Pn	05 36 44.5	+1.7
VLX	Vlachokerasia	1.41	35	*e*PN	Pn	05 36 45.9	+2.5
VLX	Vlachokerasia	1.41	35	*e*Pn	Pn	05 36 45.9	+2.5
RLS	Riolos of Patr	1.84	3	*e*PN	Pn	05 36 51.1	+1.8
RLS	Riolos of Patr	1.84	3	*e*Pn	Pn	05 36 51.1	+1.8
GUR	Goura	1.89	24	*e*PB	Pb	05 36 53.0	-0.7
GUR	Goura	1.89	24	*e*Pb	Pb	05 36 53.0	-0.7
DID	Didima	1.98	49	*e*PN	Pn	05 36 52.9	+1.7
DID	Didima	1.98	49	*e*Pn	Pn	05 36 52.9	+1.7
LTK	Loutraki	2.21	35	*e*PN	Pn	05 36 56.4	+2.0
LTK	Loutraki	2.21	35	*e*Pn	Pn	05 36 56.4	+2.0
EFP	Efpalio	2.25	11	*e*PN	Pn	05 36 57.1	+2.2
EFP	Efpalio	2.25	11	*e*Pn	Pn	05 36 57.1	+2.2
LKR	Lokris	2.75	28	*e*PN	Pn	05 37 03.0	+1.1
LKR	Lokris	2.75	28	*e*Pn	Pn	05 37 03.0	+1.1
AGG	Agios Georgios	2.90	15	*e*PN	Pn	05 37 07.1	+3.2
AGG	Agios Georgios	2.90	15	*e*Pn	Pn	05 37 07.1	+3.2
IDI	Anoyia	3.02	107	*e*PN	Pn	05 37 07.6	+2.1
IDI	Anoyia	3.02	107	*e*Pn	Pn	05 37 07.6	+2.1
THL	Klokotos Trika	3.38	9	*e*PN	Pn	05 37 12.3	+1.8
THL	Klokotos Trika	3.38	9	*e*Pn	Pn	05 37 12.3	+1.8
LAST	Lasithi	3.52	106	*e*PN	Pn	05 37 14.5	+2.1
LAST	Lasithi	3.52	106	*e*Pn	Pn	05 37 14.5	+2.1

IDC 20 05:38:48.0±6.7, 2°.69S×100°.40E, h0^{km}, mb3.7/4, mb1 3.8/4, mb1mx3.6/21, mbtmp3.7/4, Error ellipse: s-maj=321.8km s-min=24.8km az=53.0

ISCJB 20 05:38:56.6±0.6, 2°.47S±0°.05×100°.62E±0°.07, h79^{km}±7^{km}, mb3.7/4, Error ellipse: s-maj=12.5km s-min=7.0km az=155.8

DJA 20 05:38:56, 2°.37S×100°.73E, h10^{km}, MLv3.9/5

ISC 20 05:38:57.8±0.6**, 2°.45S**±0°.05×**100°.64E**±0°.07**, h70**^{km}±8^{km}**, n12,** σ**1ˢ.18**/15**, mb3.7**/4**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.70	244	P	Pn	05 39 10.5	-2.1
PPSI				S	Sn	05 39 24.5	+0.9
PDSI	Padang	1.54	353	P	Pn	05 39 21.6	-1.7
PDSI				S	Sn	05 39 41.3	-1.2
SDSI	Sungai Dareh	1.70	28	P	Pn	05 39 24.9	-0.6
PPI	Padang Panjang	2.00	353	P	Pn	05 39 31.0	+1.6
PPI				S	Sn	05 39 54.6	+1.2
KSI	Kapahiang	2.29	121	P	Pn	05 39 34.6	+1.3
MNAI	Manna	2.99	129	P	Pn	05 39 44.2	+1.3
MNAI				S	Sn	05 40 16.2	-1.4
MDSI	Maura Dua	4.07	120	P	Pn	05 39 58.4	+0.8
WRA	Warramunga Arr	37.22	120	P	P	05 46 01.7	-1.0
	0.4nm,0.5s,mb3.6,baz=302,slow=8.3,SNR=4.7						
ASAR	Alice Springs	38.47	126	P	P	05 46 12.9	-0.3
	0.3nm,0.4s,mb3.5,baz=294,slow=7.2,SNR=3.5						
MKAR	Makanchi Array	51.63	344	P	P	05 47 57.9	+0.7
	0.2nm,0.4s,mb3.5,baz=156,slow=8.9,SNR=7.8						
ZALV	Zalesovo Beam	57.73	349	P	P	05 48 41.2	0.0
	1.0nm,0.4s,mb4.2,baz=176,slow=5.8,SNR=3.7						
TXAR	Lajitas Array	144.66	38	PKPbc	PKPdf	05 58 27.2	0.0
	0.3nm,0.5s,baz=211,slow=1.1,SNR=5.6						

IDC 20 06:00:34.0±4.2, 28°.47N×138°.61E, h396^{km}±123^{km}, mb2.8/4, mb1 3.0/5, mb1mx2.7/22, mbtmp2.9/5, Error ellipse: s-maj=245.5km s-min=19.8km az=68.0

ISCJB 20 06:00:34.2±1.0, 28°.8N±0°.1×139°.4E±0°.6, h452^{km}±33^{km}, mb3.1/4, Error ellipse: s-maj=87.9km s-min=9.2km az=170.8

JMA 20 06:00:35.5±0.3, 28°.82N×139°.29E, h431^{km}, M3.5

ISC 20 06:00:35.3±0.9**, 28°.8N**±0°.1×**139°.7E**±0°.6**, h453**^{km}±31^{km}**, n11,** σ**0ˢ.64**/13**, mb3.1**/4**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.84	127	P	P	06 01 42.0	+0.5
CBIJ				*e*S	S	06 02 34.2	-0.9
CBIJ	Chichi jima	2.84	127	P	P	06 01 42.0	+0.5
	18nm,0.3s,baz=293,slow=9.8,SNR=7.0						
CBIJ				S	S	06 02 34.6	-0.5
	27nm,0.3s,baz=271,slow=22,SNR=13						
JHHJ	Haha-jima-NKT	3.14	134	P	P	06 01 44.5	+0.8
BSO3	Boso 3	5.99	7	*e*S	S	06 03 26.5	+0.1
BSO4	Boso 4	6.16	5	*e*S	S	06 03 28.4	-1.2
JAG	Ashikaga	7.56	359	P	P	06 02 26.5	+0.6
JHO	Hitachi	7.78	5	*e*S	S	06 04 01.6	+0.6
MKAR	Makanchi Array	47.64	308	P	P	06 08 28.7	-0.2
	0.2nm,0.6s,mb2.7,baz=106,slow=8.9,SNR=3.1						
WRA	Warramunga Arr	48.77	187	P	P	06 08 36.7	-0.9
	1.1nm,0.4s,mb3.5,baz=2.4,slow=7.7,SNR=9.9						
KURK	Kurchatov	50.16	314	P	P	06 08 47.7	+0.1
	0.4nm,0.4s,mb3.1,baz=90,slow=8.3,SNR=2.1						
ASAR	Alice Springs	52.50	187	P	P	06 09 05.3	+0.4
	0.5nm,0.6s,mb3.0,baz=17,slow=11,SNR=7.8						

IDC 20 06:11:51.2±2.2**, 53°.14S×46°.66W, h0**^{km}**, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.8**/13**, mbtmp3.7**/3**, MS3.4**/1**, Ms1 3.3**/1**, ms1mx3.1**/13**, Error ellipse: s-maj=78.9km s-min=36.8km az=21.0, South Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLCA	Paso Flores	20.38	298	P	P	06 16 29.2	-0.1
	2.1nm,0.8s,baz=136,slow=9.2,SNR=6.7						
PLCA				LR	LR	06 24 47.4	
	comp=Z,100nm,20.5s,baz=340,slow=38						
CPUP	Villa Florida	27.94	339	P	P	06 17 43.0	-0.1
	0.3nm,0.4s,baz=141,slow=14,SNR=3.4						
TORD	Torodi Ar. Bea	77.90	48	P	P	06 23 51.0	+0.3
	0.8nm,0.8s,baz=203,slow=6.0,SNR=4.8						
YKA	Yellowknife Ar	127.01	327	PKP	PKPdf	06 30 56.1	+0.4
	0.1nm,0.7s,baz=129,slow=1.4,SNR=3.0						
MKAR	Makanchi Array	147.16	80	PKPbc	PKPbc	06 31 34.0	-1.3
	0.2nm,0.5s,baz=237,slow=2.9,SNR=3.8						

JMA 20 06:15:14.6±0.2**, 37°.79N×142°.17E, h34**^{km}±2^{km}**, M3.7, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIO	Ouri	0.93	316	P	Pn	06 15 31.6	+0.4
JIO				S	Sn	06 15 43.4	+0.1
JMM	Marumori	1.09	274	P	Pn	06 15 34.0	+0.5
JMM				*e*S	Sn	06 15 47.5	+0.1
JFK	Kawauchi	1.11	248	P	Pn	06 15 34.1	+0.4
JFK				*e*S	Sn	06 15 48.5	+0.6
JOU	Okura	1.32	296	P	Pn	06 15 37.9	+1.3
JMK	Ichinoseki	1.38	328	P	Pn	06 15 38.4	+1.0
JMK				*e*S	Sn	06 15 55.4	+0.9
JFT	Otama	1.48	260	P	Pn	06 15 40.6	+1.8
JFT				*e*S	Sn	06 15 58.8	+1.9
JYS	Shirataka	1.72	285	P	Pn	06 15 44.1	+2.0
JYS				*e*S	Sn	06 16 04.4	+1.6
JYK	Kaneyama	1.81	309	P	Pn	06 15 45.2	+1.8
JOM	Ohasama	1.82	338	P	Pn	06 15 44.5	+1.1
JOM				*e*S	Sn	06 16 06.5	+1.3
MAT	Matsushiro	3.40	250	P	Pn	06 16 11.5	+6.3

IDC 20 06:24:41.1±21.0**, 21°.94S×177°.36W, h159**^{km}±178^{km}**, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.5**/16**, mbtmp3.7**/4**, ML4.2**/1**, Error ellipse: s-maj=101.1km s-min=34.9km az=37.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	16.95	195	P	Pn	06 28 28.2	-0.6
	0.8nm,0.3s,baz=152,slow=17,SNR=2.3						
ARMA	Armidale	29.01	247	*e*P	P	06 30 27.9	+1.8
CTA	Charters Tower	33.97	266	*e*P	P	06 31 11.5	+1.8
	4.8nm,0.4s						
CMSA	Cobar Meteorol	34.22	246	*e*P	P	06 31 12.1	+0.4
STKA	Stephens Creek	37.73	246	*e*P	P	06 31 41.8	+0.3
	3.1nm,0.4s						
STKA	Stephens Creek	37.73	246	P	P	06 31 41.8	+0.3
	4.0nm,0.5s,baz=97,slow=9.9,SNR=16						
BBOO	Buckleboo	42.47	245	*e*P	P	06 32 19.4	-1.1
ASAR	Alice Springs	44.79	258	P	P	06 32 39.3	+0.1
	2.0nm,0.6s,baz=97,slow=7.7,SNR=19						
WRA	Warramunga Arr	45.01	263	P	P	06 32 40.5	-0.6
	0.6nm,0.3s,baz=96,slow=8.1,SNR=16						
FORT	Forrest	49.29	248	*e*P	P	06 33 12.5	-1.5
	20nm,0.6s						
ARCES	ARCESS Array B	130.44	350	PKP	PKPdf	06 43 32.2	+0.2
	3.0nm,0.9s,baz=348,slow=4.2,SNR=3.6						
AKASG	Malin Array Be	144.56	331	PKP	PKPdf	06 43 57.6	-0.8
	0.9nm,0.4s,baz=42,slow=3.8,SNR=4.4						
BRTR	Keskin Array B	148.24	311	PKPbc	PKPbc	06 44 08.3	-0.2
	1.8nm,1.1s,baz=22,slow=8.0,SNR=3.6						
TORD	Torodi Ar. Bea	171.21	174	PKP	PKPdf	06 44 30.4	-0.8
	0.6nm,1.1s,baz=207,slow=1.3,SNR=2.3						
TORD				PKPab	PKPab	06 45 51.0	-0.5
	0.4nm,0.7s,baz=165,slow=6.1,SNR=2.4						

ISK 20 06:28:28.8, 39°.09N×29°.48E, h19^{km}, MD2.8

ISCJB 20 06:28:29.0±0.6, 39°.14N±0°.04×29°.47E±0°.04, h11^{km}±4^{km}, Error ellipse: s-maj=6.6km s-min=5.1km az=145.3

CSEM 20 06:28:29.0±0.1, 39°.14N×29°.47E, h12^{km}, MD2.9, Error ellipse: s-maj=3.1km s-min=2.6km az=125.0

DDA 20 06:28:29.9, 39°.11N×29°.41E, h7^{km}±1^{km}, Md2.9

ISC 20 06:28:29.2±0.5**, 39°.15N**±0°.04×**29°.46E**±0°.04**, h14**^{km}±4^{km}**, n24,** σ**0ˢ.41**/36**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

GDZ	**Gediz**	0.06	165	*i* P	**Pg**	**06 28 31.8**	**-0.1**
GDZ				*i* S	**Sg**	**06 28 33.5**	**-0.2**
GDZ	**Gediz**	0.06	165	*i* P	**Pg**	**06 28 31.8**	**0.0**
GDZ				*i* S	**Sg**	**06 28 33.5**	**-0.2**
ALT	**Altintas**	0.51	100	*e*PG	**Pg**	**06 28 39.5**	**+0.2**
ALT				*e*SG	**Sg**	**06 28 46.2**	**+0.1**
ALT	**Altintas**	0.51	100	*e*Pg	**Pg**	**06 28 39.5**	**+0.2**
ALT				*e*Sg	**Sg**	**06 28 46.2**	**+0.1**
KHAL	**Karahalli**	0.77	178	*i* P	**Pg**	**06 28 44.5**	**+0.2**
KHAL				*i* S	**Sg**	**06 28 55.1**	**+0.7**
KHAL	**Karahalli**	0.77	178	*i* P	**Pg**	**06 28 44.5**	**+0.3**
KHAL				*i* S	**Sg**	**06 28 55.1**	**+0.7**
KHL	**Karahalli**	0.82	177	*e*PG	**Pg**	**06 28 44.6**	**-0.5**
KHL	**Karahalli**	0.82	177	*e*Pg	**Pg**	**06 28 44.6**	**-0.5**
KULA	**Kula-Manisa**	0.89	225	*e*PG	**Pg**	**06 28 45.9**	**-0.5**
KULA				*e*SG	**Sg**	**06 28 58.2**	**+0.2**
KULA	**Kula-Manisa**	0.89	225	*e*Pg	**Pg**	**06 28 45.9**	**-0.5**
KULA				*e*Sg	**Sg**	**06 28 58.2**	**+0.2**
DURS	**Dursunbey**	0.89	301	*i* P	**Pg**	**06 28 46.6**	**+0.2**
DURS				*i* S	**Sg**	**06 28 58.0**	**-0.1**
DURS	**Dursunbey**	0.89	301	*i* P	**Pg**	**06 28 46.7**	**+0.2**
DURS				*i* S	**Sg**	**06 28 58.0**	**-0.1**
MANT	**Manisa**	0.96	228	*i* P	**Pb**	**06 28 47.4**	**-0.2**
MANT				*i* S	**Sb**	**06 29 00.1**	**-0.1**
MANT	**Manisa**	0.96	228	*i* P	**Pb**	**06 28 47.4**	**-0.2**
MANT				*i* S	**Sb**	**06 29 00.1**	**-0.1**
CAVI	**Cavuskoy**	1.10	15	*e*PN	**Pn**	**06 28 50.5**	**+0.3**
CAVI	**Cavuskoy**	1.10	15	*e*Pn	**Pn**	**06 28 50.5**	**+0.4**
ESKT	**Eskisehir**	1.14	70	*e*PN	**Pn**	**06 28 50.4**	**-0.4**
ESKT	**Eskisehir**	1.14	70	*e*Pn	**Pn**	**06 28 50.4**	**-0.3**
ADVT	**Abdulvahap**	1.30	9	*e*PN	**Pn**	**06 28 52.6**	**-0.4**
ADVT	**Abdulvahap**	1.30	9	*e*Pn	**Pn**	**06 28 52.6**	**-0.4**
YLV	**Yalova**	1.42	357	*e*PN	**Pn**	**06 28 55.6**	**+1.0**
YLV	**Yalova**	1.42	357	*e*Pn	**Pn**	**06 28 55.6**	**+1.0**
SVRH	**Sivrihisar-ESK**	1.63	79	*e*PN	**Pn**	**06 28 56.9**	**-0.6**
SVRH	**Sivrihisar-ESK**	1.63	79	*e*Pn	**Pn**	**06 28 56.9**	**-0.5**

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*ISCJB **20** 06:35:47.0±1.2, 9°.5S±0°.1×107°.92E±0°.09, h35km±13km, mb3.6/5, Error ellipse: s-maj=20.0km s-min=13.7km az=162.7*
*DJA **20** 06:35:46, 9°.48S×107°.99E, h20km, MLv4.2/5*
*IDC **20** 06:35:57.5±4.0, 7°.01S×110°.25E, h28km±6km, mb3.5/5, mb1 3.6/5, mb1mx3.4/20, mbtmp3.5/5, MS3.4/1, Ms1 3.4/1, ms1mx2.7/30, Error ellipse: s-maj=267.5km s-min=17.1km az=49.0*
ISC 20 06:35:47.3±3.4, 9°.5S±0°.1×107°.95E±0°.08, h23km±28km, h28km±.5km:pP-P, n11, σ1ˢ.34/11, mb3.6/5, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CLJI	**Cilicap**	2.02	31	P	**Pn**	**06 36 17.7**	**-2.4**
XMIS	**Christmas Isla**	2.48	246	P	**Pn**	**06 36 25.1**	**-1.3**
LEM	**Lembang**	2.64	353	P	**Pn**	**06 36 29.5**	**+1.0**
PWJI	**Pagerwojo**	4.07	70	P	**Pn**	**06 36 48.5**	**+0.3**
PWJI				S	**Sn**	**06 37 32.0**	**-3.1**
SJI	**Sawahan**	4.14	66	P	**Pn**	**06 36 51.4**	**+2.2**
WRA	**Warramunga Arr**	27.52	115	P	**P**	**06 41 33.1**	**+0.6**
	0.1nm,0.5s,mb2.7,baz=291,slow=9.9,SNR=2.8						
ASAR	**Alice Springs**	28.53	123	P	**P**	**06 41 48.3**	**+6.9**
	0.2nm,0.4s,mb3.2,baz=302,slow=9.9,SNR=4.7						
ASAR				pP	pP	06 41 55.8	+7.4
	0.8nm,0.8s,baz=298,slow=8.7,SNR=4.1						
SONM	**Songino Array**	57.06	359	pP	pP	06 45 31.1	-7.7
	0.7nm,0.5s,baz=184,slow=8.4,SNR=3.9						
MKAR	**Makanchi Array**	60.51	340	P	**P**	**06 45 55.1**	**-0.3**
	2.1nm,0.5s,mb4.5,baz=143,slow=7.6,SNR=40						
MKAR				pP	pP	06 46 03.6	+0.8
	2.0nm,0.5s,baz=147,slow=8.0,SNR=10						
MKAR				LR	LR	07 15 16.7	
	comp=Z,35nm,21.9s,baz=170,slow=40						
KURK	**Kurchatov**	65.12	340	P	**P**	**06 46 25.9**	**-0.2**
	0.4nm,0.3s,mb4.0,baz=152,slow=5.8,SNR=3.4						
KURK				pP	pP	06 46 34.3	+0.8
	0.8nm,0.5s,baz=152,slow=4.2,SNR=2.7						
BVAR	**Borovoye Array**	69.99	337	P	**P**	**06 46 57.9**	**+1.1**
	0.6nm,0.5s,mb3.8,baz=156,slow=9.3,SNR=5.2						

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*ISCJB **20** 06:42:41.6±1.0, 6°.6S±0°.1×155°.0E±0°.2, h33km, mb4.2/11, Error ellipse: s-maj=27.9km s-min=13.4km az=24.6*
*IDC **20** 06:42:41.4±0.8, 6°.59S×154°.99E, h25km±5km, mb3.9/8, mb1 4.1/9, mb1mx4.0/17, mbtmp3.9/9, ML3.4/1, MS3.2/2, Ms1 3.2/2, ms1mx2.9/21, Error ellipse: s-maj=35.4km s-min=21.2km az=128.0*
*NEIC **20** 06:42:46.0±5.1, 7°.14S×156°.04E, h115km±57km, mb5.0/5, Error ellipse: s-maj=86.5km s-min=27.1km az=117.0*
ISC 20 06:42:43.2±1.0, 6°.7S±0°.1×155°.1E±0°.2, h35km, n28, σ0ˢ.90/24, mb4.2/11, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	5.53	120	LR	LR	06 46 04.1	
	comp=Z,166nm,21.5s,baz=141,slow=36						
CTA	**Charters Tower**	15.86	212	Pn	**Pn**	**06 46 23.9**	**0.0**
	0.1nm,0.3s,baz=59,slow=12,SNR=1.8						
CTAO	**Charters Tower**	15.86	212	Pn	**Pn**	**06 46 25.7**	**+1.8**
WRAB	**Tennant Creek**	24.07	235	*e*P	**P**	**06 47 54.7**	**-0.7**
WRA	**Warramunga Arr**	24.09	235	P	**P**	**06 47 55.0**	**-0.6**
	1.7nm,0.7s,mb3.6,baz=58,slow=9.4,SNR=20						
WRA				PcP	PcP	06 51 36.2	-0.4
	1.1nm,0.6s,baz=59,slow=2.3,SNR=11						
ASAR	**Alice Springs**	26.46	228	P	**P**	**06 48 16.2**	**-0.9**
	0.6nm,0.5s,mb3.4,baz=59,slow=9.4,SNR=8.0						
STKA	**Stephens Creek**	28.07	205	LR	LR	07 00 04.7	
	comp=Z,73nm,21.2s,baz=205,slow=37						
CMAR	**Chiang Mai Arr**	60.74	295	P	**P**	**06 52 52.5**	**+0.7**
	5.6nm,0.7s,mb4.8,baz=122,slow=5.2,SNR=25						
SONM	**Songino Array**	69.12	327	P	**P**	**06 53 43.9**	**-1.8**
	0.8nm,0.6s,mb3.8,baz=138,slow=6.2,SNR=4.7						
TAPN	**Taplejung**	73.32	301	*e*P	**P**	**06 54 12.5**	**+0.9**
ODAN	**Odare**	73.45	300	*e*P	**P**	**06 54 13.1**	**+0.7**
	29nm,0.7s						
RAMN	**Ramite**	74.16	300	*e*P	**P**	**06 54 17.0**	**+0.4**
	6.2nm,0.4s,mb4.9						
JIRN	**Jiri**	74.70	301	*e*P	**P**	**06 54 20.4**	**+0.7**
GUN	**Gumba**	75.04	301	*e*P	**P**	**06 54 22.5**	**+0.8**
	22nm,0.7s						
PKI	**Pulchoki**	75.35	301	*e*P	**P**	**06 54 23.6**	**+0.2**
KKN	**Kakani**	75.52	301	*e*P	**P**	**06 54 24.7**	**+0.3**
	14nm,0.5s,mb5.1						
DMN	**Daman**	75.62	301	*e*P	**P**	**06 54 25.6**	**+0.6**
	16nm,0.6s						
GKN	**Gorkha**	76.12	301	*e*P	**P**	**06 54 28.3**	**+0.4**
KOLN	**Koldanda**	76.95	300	*e*P	**P**	**06 54 32.5**	**0.0**
	9.1nm,0.9s,mb4.7						
DANN	**Dangsing**	76.96	301	*e*P	**P**	**06 54 32.5**	**-0.1**
MKAR	**Makanchi Array**	83.23	319	P	**P**	**06 55 03.9**	**-2.1**
	1.1nm,0.9s,mb3.9,baz=105,slow=5.5,SNR=8.5						
MKAR	**Makanchi Array**	83.23	319	P	**P**	**06 55 03.9**	**-2.1**
ZALV	**Zalesovo Beam**	83.97	326	P	**P**	**06 55 08.0**	**-1.7**
	0.6nm,0.5s,mb4.0,baz=120,slow=8.5,SNR=2.5						
ZALV	**Zalesovo Beam**	83.97	326	P	**P**	**06 55 08.0**	**-1.7**
NVAR	**Mina Array Bea**	91.44	52	P	**P**	**06 55 46.9**	**+0.9**
	0.6nm,0.7s,mb4.0,baz=252,slow=6.8,SNR=5.2						
NVAR				pP	pP	06 55 55.2	-1.9
	0.3nm,0.7s,baz=243,slow=6.5,SNR=3.6						
YKA	**Yellowknife Ar**	96.00	28	P	**P**	**06 56 06.3**	**-0.1**
	1.3nm,0.8s,mb4.4,baz=268,slow=4.5,SNR=20						
YKA				pP	pP	06 56 14.9	-2.7
	0.7nm,0.7s,baz=268,slow=4.7,SNR=7.8						
CPUP	**Villa Florida**	134.55	138	PKP	PKPdf	07 01 57.5	-1.2
	0.7nm,0.6s,baz=241,slow=15,SNR=3.9						
CPUP				pPKP	pPKPdf	07 02 06.0	-4.0
	0.2nm,0.3s,baz=116,slow=6.3,SNR=2.0						
TORD	**Torodi Ar. Bea**	153.04	286	PKPbc	PKPbc	07 02 36.9	-1.1
	1.4nm,0.7s,baz=50,slow=2.4,SNR=10						
TORD				pPKPbc	pPKPbc	07 02 45.1	-4.4
	1.3nm,0.8s,baz=43,slow=2.6,SNR=7.0						

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*BJI **20** 07:09:28.7, 47°.03N×90°.09E, h12km, mB4.6/3, mb4.3/5, ML4.5/7, Ms4.5/2, Ms7 4.4/1*
*MOS **20** 07:09:30.2±1.4, 46°.87N×89°.89E, h18km, mb4.1/6, Error ellipse: s-maj=12.5km s-min=8.1km az=129.5*
*IDC **20** 07:09:31.9±2.4, 46°.92N×89°.94E, h14km±15km, mb3.6/11, mb1 3.8/17, mb1mx3.8/31, mbtmp3.8/17, ML4.1/5, MS2.8/3, Ms1 2.8/3, ms1mx2.6/31, Error ellipse: s-maj=16.3km s-min=10.9km az=18.0*
*NEIC **20** 07:09:33.2±2.8, 46°.89N×89°.91E, h24km±20km, mb4.6/2, Error ellipse: s-maj=14.0km s-min=9.1km az=197.0*
*ASRS **20** 07:09:36.1±0.9, 46°.96N×89°.79E, h15km, Ms3.8/3*
*NNC **20** 07:09:37.3±3.5, 47°.12N×89°.40E, h18km±16km, mb4.5, mpv4.3, Error ellipse: s-maj=24.1km s-min=17.4km az=92.0*
ISC 20 07:09:32.5±0.9, 47°.01N±0°.03×89°.98E±0°.05, h18km±6km, n67, σ1ˢ.21/90, mb3.7/13, 11C-13D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
WMQ	**Urumqi**	3.57	208	Pn	**Pn**	**07 10 28.3**	**+1.4**
WMQ				Pg	**Pg**	**07 10 37.0**	**-3.9**
WMQ				Sn	**Sn**	**07 11 12.0**	**+3.4**
WMQ				smax			
	comp=N,730nm,0.6s						
WMQ				smax			
	comp=E,750nm,0.9s						
AKAR	**Aktash**	3.66	336	*e*PN	**Pn**	**07 10 33.4**	**+5.2**
AKAR				*e*		07 10 43.0	
AKAR				*e*		07 11 29.5	
AKAR	**Aktash**	3.66	336	*e*Pn	**Pn**	**07 10 33.4**	**+5.2**
AKAR				*e*Pg	**Pg**	**07 10 43.0**	**+0.4**
AKAR				*e*Sg	**Sg**	**07 11 29.5**	**-0.5**
MK31	**Makanchi Array**	5.27	270	⇑Pn	**Pn**	**07 10 50.7**	**+0.4**
	comp=E,7.8nm,0.5s,baz=93,slow=15						
MK31				⇓Pg	**Pg**	**07 11 04.9**	**-8.5**
	comp=E,22nm,0.4s,baz=84,slow=18						
MK31				⇓Sn	**Sn**	**07 11 46.8**	**-3.7**
	comp=E,87nm,0.5s,baz=87,slow=28						
MK31				⇓Lg		07 12 14.8	
	comp=E,189nm,0.5s,baz=80,slow=30						
MK31	**Makanchi Array**	5.27	270	PN	**Pn**	**07 10 51.1**	**+0.8**
MK31						07 11 53.0	
MK31				pmax	pmax		
	comp=Z,6.0nm,0.2s						
MK31				smax			
	comp=N,100nm,0.4s						
MK31				pmax	pmax		
	comp=N,169nm,0.3s						
MKAR	**Makanchi Array**	5.27	270	Pn	**Pn**	**07 10 50.9**	**+0.6**
	comp=N,6.2nm,0.3s,baz=92,slow=15,SNR=192						
MKAR				Pg	**Pg**	**07 11 03.6**	**-10**
	comp=N,20nm,0.3s,baz=88,slow=17,SNR=41						
MKAR				Sn	**Sn**	**07 11 51.4**	**+0.9**
	comp=N,70nm,0.3s,baz=86,slow=28,SNR=11						
MKAR				Lg		07 12 16.1	
	comp=N,73nm,0.3s,baz=90,slow=29,SNR=6.4						
TASR	**Tashtagol**	5.91	348	*e*P*	**Pg**	**07 11 24.4**	**-1.2**
TASR	**Tashtagol**	5.91	348	*e*Pg	**Pg**	**07 11 24.4**	**-1.2**
TASR				*e*Sg	**Sg**	**07 12 43.1**	**+1.0**
CERR	**Cheremushki**	5.92	8	*i* P*	**Pg**	**07 11 26.0**	**+0.2**
CERR	**Cheremushki**	5.92	8	*i* Pg	**Pg**	**07 11 26.0**	**+0.2**
CERR				*i* Sg	**Sg**	**07 12 42.2**	**-0.2**
ELT	**Yel’tsovka**	6.70	340	*e*PN	**Pn**	**07 11 14.5**	**+4.6**
ELT				*e*		07 11 36.3	
ELT	**Yel’tsovka**	6.70	340	*e*Pn	**Pn**	**07 11 14.5**	**+4.6**
ELT				*e*Pg		07 11 36.3	
ELT				*e*Sg		07 13 05.2	
ZAA0	**Zalesovo Array**	7.68	337	*e*Pn	**Pn**	**07 11 25.4**	**+2.1**
ZALV	**Zalesovo Beam**	7.68	337	Pn	**Pn**	**07 11 25.8**	**+2.5**
	comp=N,1.4nm,0.3s,baz=158,slow=13,SNR=14						
ZALV				Lg		07 13 36.2	
	comp=N,9.0nm,0.3s,baz=152,slow=26,SNR=8.9						
KURK	**Kurchatov**	8.35	301	⇑Pn	**Pn**	**07 11 32.7**	**+0.2**
	comp=N,62nm,0.9s						
KURK				⇓Sn	**Sn**	**07 13 02.2**	**-4.1**
	comp=N,44nm,0.6s						
KURK				⇑Lg		07 13 52.0	
	comp=N,292nm,1.1s						
KURK	**Kurchatov**	8.35	301	P	**Pn**	**07 11 32.7**	**+0.2**
KURK						07 13 03.0	
KURK				pmax	pmax		
	comp=Z,62nm,0.9s						
KURK				smax			
	comp=N,44nm,0.6s						
KURK				pmax	pmax		
	comp=N,292nm,1.1s						
KURK	**Kurchatov**	8.35	301	Pn	**Pn**	**07 11 33.2**	**+0.6**
	comp=N,4.3nm,0.3s,baz=108,slow=14,SNR=151						
KURK				Sn	**Sn**	**07 13 06.2**	**-0.1**
	comp=N,2.4nm,0.3s,baz=283,slow=10,SNR=4.1						
KURK				Lg		07 13 57.0	
	comp=N,4.4nm,0.3s,baz=287,slow=26,SNR=5.7						
KURK				LR	LR	07 14 58.9	
	comp=N,81nm,18.3s,baz=135,slow=39						
KURK	**Kurchatov**	8.35	301	Pn	**Pn**	**07 11 33.2**	**+0.6**
KURK				Sn	**Sn**	**07 13 06.2**	**-0.1**
KURK				Lg		07 13 57.0	
KURK				LR	LR	07 14 58.9	
KURBB	**Kurchatov Arra**	8.37	300	⇑Pn	**Pn**	**07 11 33.1**	**+0.3**
	comp=N,3.7nm,0.3s						
KURBB				⇓Sn	**Sn**	**07 13 01.7**	**-5.1**
	comp=N,15nm,0.7s						
KURBB				⇓Lg		07 13 50.3	
	comp=N,62nm,0.6s						
NVS	**Novosibirsk**	8.92	334	*e*P	**Pn**	**07 11 44.8**	**+4.6**
NVS				*e*		07 13 26.1	
NVS	**Novosibirsk**	8.92	334	*e*Pn	**Pn**	**07 11 44.8**	**+4.6**
NVS				*e*Pg	Pn	07 12 18.0	+38
NVS				*e*Sg	Sn	07 14 14.2	+54
TLY	**Talaya**	10.07	57	*e*P	**Pn**	**07 12 06.9**	**+11**
TLY				pmax	pmax		
	comp=Z,8.0nm,1.0s						
GTA	**Gaotai**	10.45	133	*e*P	**Pn**	**07 12 00.0**	**-1.3**
GTA				pP		07 12 03.8	
GTA				sP		07 12 06.5	
GTA				S	**Sn**	**07 13 52.3**	**-5.5**
GTA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GTA				LR	LR		
	comp=N,450nm,7.1s						
GTA				LR	LR		
	comp=E,460nm,3.6s						
ULHL	**Ulahol**	10.88	249	P	**Pn**	**07 12 08.0**	**+0.8**
	SNR=10						
TKM2	**Tokmak 2**	10.98	253	⇓Pn	**Pn**	**07 12 07.9**	**-0.6**
	comp=E,9.9nm,0.8s						
TKM2				⇑Sn	**Sn**	**07 14 08.7**	**-2.0**
	comp=E,12nm,0.6s						
TKM2				⇑Lg		07 15 17.3	
	comp=E,83nm,1.4s						
SONM	**Songino Array**	11.16	80	Pn	**Pn**	**07 12 12.0**	**+1.0**
	comp=E,0.2nm,0.3s,baz=265,slow=15,SNR=2.9						
SONM				Pg	Pn	07 12 57.2	+46
	comp=E,1.1nm,0.3s,baz=275,slow=16,SNR=7.4						
SONM				Lg		07 15 22.3	
	comp=E,2.9nm,0.3s,baz=269,slow=29,SNR=7.4						
KBK	**Karagaybulak**	11.52	253	P	**Pn**	**07 12 17.4**	**+1.5**
	SNR=8.6						
USP	**Ospenovka**	11.55	257	P	**Pn**	**07 12 16.1**	**-0.3**
	SNR=13						
KZA	**Kyzart**	11.60	250	P	**Pn**	**07 12 18.5**	**+1.5**
	SNR=8.8						
AAK	**Ala-Archa**	11.83	254	P	**Pn**	**07 12 21.0**	**+0.8**
AAK						07 14 27.0	
AAK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AAK				smax			
	comp=N,1.0nm,0.3s						
AAK				MLR	MLR		
	comp=Z,37nm,19.5s						
AAK	**Ala-Archa**	11.83	254	Pn	**Pn**	**07 12 21.0**	**+0.8**
	comp=Z,0.0nm,0.3s,baz=75,slow=4.3,SNR=11						
AAK				Sn	**Sn**	**07 14 27.0**	**-4.6**
	comp=Z,0.0nm,0.3s,baz=282,slow=20,SNR=3.1						
AAK				Lg		07 15 43.0	
	comp=Z,0.0nm,0.3s,baz=287,slow=20,SNR=2.1						
AAK				LR	LR	07 17 11.2	
	comp=Z,37nm,19.5s,baz=182,slow=39						
UCH	**Uchtor**	12.01	252	P	**Pn**	**07 12 25.4**	**+2.9**
	SNR=9.5						
EKS2	**Erkin-Say**	12.29	255	P	**Pn**	**07 12 27.8**	**+1.3**
	SNR=9.1						
AML	**Almayashu**	12.59	253	P	**Pn**	**07 12 32.2**	**+1.7**
	SNR=8.1						
VOSK	**Vostochnaya**	13.50	302	⇑Pn	**Pn**	**07 12 41.7**	**-1.3**
	comp=Z,4.3nm,0.4s						
VOSK				⇓Sn	**Sn**	**07 15 10.6**	**-1.9**
	comp=Z,14nm,0.8s						
VOSK				⇓Lg		07 16 36.2	
	comp=Z,47nm,0.9s						
VOSK	**Vostochnaya**	13.50	302	P	**Pn**	**07 12 41.7**	**-1.3**
VOSK						07 15 04.9	
VOSK				pmax	pmax		
	comp=Z,5.0nm,0.5s						
VOSK				smax			
	comp=N,7.0nm,0.8s						
VOSK				pmax	pmax		
	comp=N,38nm,0.8s						
BVAR	**Borovoye Array**	13.94	303	P	**Pn**	**07 12 47.4**	**-1.5**
BVAR						07 15 16.9	
BVAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BVAR				smax			
	comp=N,1.0nm,0.3s						
BVAR				MLR	MLR		
	comp=Z,32nm,19.4s						
BVAR	**Borovoye Array**	13.94	303	Pn	**Pn**	**07 12 47.4**	**-1.5**
	comp=Z,2.0nm,0.3s,baz=102,slow=14,SNR=51						
BVAR				Sn	**Sn**	**07 15 16.9**	**-6.1**
	comp=Z,1.2nm,0.3s,baz=107,slow=21,SNR=3.7						
BVAR				Lg		07 16 53.5	
	comp=Z,0.6nm,0.3s,baz=112,slow=27,SNR=2.9						
BVAR				LR	LR	07 18 18.8	
	comp=Z,32nm,19.4s,baz=231,slow=38						
BRVK	**Borovoye**	14.01	303	⇑Pn	**Pn**	**07 12 48.9**	**-1.0**
	comp=Z,13nm,0.6s						
BRVK				⇓Sn	**Sn**	**07 15 21.7**	**-3.0**
	comp=Z,13nm,0.6s						
BRVK				⇑Lg		07 16 51.7	
	comp=Z,73nm,1.2s						
BRVK	**Borovoye**	14.01	303	P	**Pn**	**07 12 48.8**	**-1.0**
BRVK						07 15 17.8	
BRVK				pmax	pmax		
	comp=Z,13nm,0.6s						
BRVK				smax			
	comp=N,11nm,0.6s						
BRVK				pmax	pmax		
	comp=N,59nm,1.0s						
BRVK	**Borovoye**	14.01	303	*e*Pn	**Pn**	**07 12 48.9**	**-0.9**
	comp=N,10nm,0.6s						
BRVK				*e*Sn	**Sn**	**07 15 17.6**	**-7.1**
KK31	**Karatay Array**	14.30	261	⇓Pn	**Pn**	**07 12 51.5**	**-2.3**
	comp=N,8.6nm,0.7s,baz=59,slow=14,SNR=59						
KK31				⇑Sn	**Sn**	**07 15 27.3**	**-4.5**
	comp=N,4.3nm,0.6s,baz=52,slow=30						
KK31				⇓Lg		07 17 00.4	
	comp=N,13nm,0.7s,baz=61,slow=30						
KK31	**Karatay Array**	14.30	261	*e*P	**Pn**	**07 12 51.7**	**-2.1**
KK31						07 15 24.7	
KK31				pmax	pmax		
	comp=Z,6.0nm,0.5s						
KK31				smax			
	comp=N,4.0nm,0.5s						
LZH	**Lanzhou**	15.04	132	*e*P	**Pn**	**07 13 00.0**	**-4.0**
LZH				pP	pP	07 13 05.8	-8.4
LZH				sP	sP	07 13 09.9	-6.7
LZH				*e*S	**Sn**	**07 15 47.5**	**-2.5**
LZH				sS	sS	07 15 56.0	-19
LZH				SS		07 16 05.6	
LZH				pmax	pmax		
	comp=Z,13nm,1.0s						
LZH				pmax	pmax		
	comp=Z,53nm,4.1s						
BOD	**Bodaibo**	18.11	45	*e*P	**Pn**	**07 13 43.4**	**+0.6**
BOD				pmax	pmax		
	comp=Z,2.0nm,1.6s						
AB01	**Akbulak array**	20.11	287	⇑P	**P**	**07 14 05.4**	**+0.3**
	comp=Z,2.6nm,0.6s						
AB31	**Akbulak array**	20.11	287	P	**P**	**07 14 05.3**	**+0.3**
AB31				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AKTK	**Aktyubinsk**	21.27	291	P	**P**	**07 14 17.5**	**-0.1**
AKTO	**Aktyubinsk**	21.27	291	P	**P**	**07 14 17.5**	**-0.1**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.6						
AKTO	**Aktyubinsk**	21.27	291	P	**P**	**07 14 17.5**	**-0.1**
	comp=Z,1.3nm,0.3s,mb3.7,baz=85,slow=12,SNR=7.9						
ARU	**Arti**	21.45	308	*d i*P	**P**	**07 14 19.7**	**+0.3**
ARU				*e*		07 14 38.3	
ARU				S	**S**	**07 18 14.5**	**-1.9**
ARU				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.0						
ARU	**Arti**	21.45	308	*e*P	**P**	**07 14 19.8**	**+0.4**
	comp=Z,25nm,1.1s,mb4.5						
ARCES	**ARCESS Array B**	38.16	329	P	**P**	**07 16 51.5**	**+1.3**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	**ARCESS Array B**	38.16	329	P	**P**	**07 16 51.5**	**+1.3**
	comp=Z,4.4nm,0.9s,mb4.2,baz=92,slow=9.0,SNR=6.1						
AKASG	**Malin Array Be**	39.16	299	P	**P**	**07 16 57.8**	**-1.1**
	comp=Z,0.4nm,0.3s,mb3.6,baz=64,slow=7.5,SNR=4.4						
PALK	**Pallekele**	40.38	194	P	**P**	**07 17 09.1**	**-0.2**
	comp=Z,3.7nm,0.6s,mb4.3,baz=90,slow=7.1,SNR=3.4						
BRTR	**Keskin Array B**	40.83	281	P	**P**	**07 17 14.0**	**+1.2**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	**Keskin Array B**	40.83	281	P	**P**	**07 17 13.9**	**+1.2**
	comp=Z,0.6nm,0.4s,mb3.6,baz=39,slow=9.3,SNR=5.2						
NB2	**NORSAR Subarra**	45.42	318	P	sP	07 18 00.0	+2.5
	comp=Z,1.7nm,0.8s,baz=65,slow=7.9						
NOA	**NORSAR Array B**	45.42	318	P	**P**	**07 17 50.2**	**+0.6**
	comp=Z,0.3nm,0.5s,mb3.4,baz=58,slow=7.9,SNR=3.3						
CLL	**Collm**	48.36	305	*i* P	**P**	**07 18 13.7**	**+1.0**
	comp=Z,3.0nm,0.5s,mb4.6						
CLL				*e*sP	sP	07 18 24.0	+3.4
ESDC	**Sonseca Array**	64.70	302	P	**P**	**07 20 09.4**	**+0.2**
	comp=Z,0.5nm,0.3s,mb4.0,baz=44,slow=6.5,SNR=3.8						
YKA	**Yellowknife Ar**	69.09	12	P	**P**	**07 20 37.2**	**+0.4**
	comp=Z,0.1nm,0.7s,mb2.9,baz=338,slow=6.0,SNR=3.0						
WRA	**Warramunga Arr**	77.70	138	P	**P**	**07 21 27.5**	**-0.4**
WRA				pmax	pmax		
	comp=Z,1.0nm,1.1s						
WRA	**Warramunga Arr**	77.70	138	P	**P**	**07 21 27.5**	**-0.4**
	comp=Z,0.6nm,1.1s,mb3.5,baz=338,slow=6.4,SNR=2.6						
TORD	**Torodi Ar. Bea**	79.35	278	P	**P**	**07 21 36.0**	**-1.3**
	comp=Z,0.1nm,0.4s,mb3.1,baz=36,slow=4.3,SNR=2.7						
ASAR	**Alice Springs**	80.74	140	P	**P**	**07 21 43.0**	**-1.5**
	comp=Z,0.1nm,0.3s,mb3.2,baz=339,slow=5.0,SNR=2.9						

IDC 20 07:40:18.1±1.4, 1°.68N×126°.39E, h0km, mb3.3/4, mb1 3.5/4, mb1mx3.4/17, mbtmp3.3/4, Error ellipse: s-maj=176.5km s-min=22.2km az=70.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	22.86	160	P	P	07 45 22.2	-1.1
	0.9nm,0.8s,baz=340,slow=11,SNR=4.4						
ASAR	**Alice Springs**	26.23	164	P	P	07 45 55.9	+0.9
	0.3nm,0.3s,baz=347,slow=12,SNR=7.3						
SONM	**Songino Array**	49.13	342	P	P	07 49 08.0	+0.5
	0.2nm,0.4s,baz=157,slow=7.8,SNR=2.3						
MKAR	**Makanchi Array**	59.04	326	P	P	07 50 19.5	-0.5
	0.2nm,0.5s,baz=116,slow=6.6,SNR=2.8						

OTT 20 07:48:09.9±0.1, 66°.01N×91°.54W, h22km, MN3.6/10, 2D, Wager Bay region, Nu 245km west from Repulse Bay, Nu Boothia Ungava Seismic Zone., Northwest Territories

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
BULN	**Bullion Camp,**	0.75	302	PG	Pb	07 48 24.4	+0.2
BULN				SG	Sb	07 48 34.0	-0.1
BULN				Trac		07 48 37.4	
	comp=Z,132nm,0.1s						
NUNN	**Nunuq Camp, NU**	0.82	166	⇓PG	Pb	07 48 25.7	+0.2
NUNN				SG	Sb	07 48 36.2	+0.2
NUNN				Trac		07 48 36.6	
	comp=Z,388nm,0.2s						
WAGN	**Wager Bay**	0.87	98	⇓PG	Pb	07 48 26.3	+0.1
WAGN				SG	Sb	07 48 37.5	+0.1
QILN	**Qililugaq Expl**	2.18	70	PN	Pn	07 48 44.6	-0.2
QILN				PG	Pn	07 48 47.9	+3.1
QILN				SN	Sn	07 49 09.6	-1.5
QILN				SG	Sn	07 49 15.2	+4.1
QILN				Trac		07 49 20.4	
	comp=Z,136nm,0.1s						
YBKN	**Baker Lake, Hu**	2.54	230	PN	Pn	07 48 49.0	-0.7
YBKN				SN	Sn	07 49 19.4	-0.5
YBKN				LG		07 49 30.1	
YBKN				Trac		07 49 33.0	
	comp=Z,38nm,0.1s						
SEDN	**First Sedna Si**	2.78	177	PN	Pn	07 48 52.4	-0.6
SEDN				PG	Pn	07 48 58.0	+5.1
SEDN				SN	Sn	07 49 22.1	-3.6
SEDN				SG	Sn	07 49 30.5	+4.8
SEDN				Trac		07 49 38.6	
	comp=Z,76nm,0.2s						

SRLN	**Sarcpa Lake, N**	**4.08**	**48**	PN	Pn	07 49 12.0	+1.2
SRLN				SN	Sn	07 49 52.6	-5.2
SRLN				LG		07 50 13.3	
SRLN				Trac		07 50 16.4	
	comp=Z,39nm,0.1s						
LAIN	**Lailor River,**	**4.37**	**41**	PN	Pn	07 49 11.7	-3.1
LAIN				SN	Sn	07 49 56.1	-8.7
LAIN				LG		07 50 22.1	
LAIN				Trac		07 50 31.3	
	comp=Z,29nm,0.1s						
ILON	**Igloolik, Nuna**	**5.00**	**43**	PN	Pn	07 49 21.4	-2.1
ILON				SN	Sn	07 50 13.6	-6.9
ILON				LG		07 50 41.2	
ILON				Trac		07 50 48.3	
	comp=Z,36nm,0.2s						
ARVN	**Arviat, NU**	**5.07**	**194**	PN	Pn	07 49 23.8	-0.6
ARVN				SN	Sn	07 50 18.0	-4.2
ARVN				LG		07 50 45.2	
ARVN				Trac		07 50 51.4	
	comp=Z,25nm,0.2s						
GIFN	**Gifford Fjord,**	**5.46**	**38**	PN	Pn	07 49 27.6	-2.2
GIFN				SN	Sn	07 50 27.8	-4.0
GIFN				LG		07 50 55.2	
GIFN				Trac		07 51 08.1	
	comp=Z,17nm,0.2s						
IVKQ	**Ivujivik**	**6.95**	**115**	PN	Pn	07 49 47.9	-2.3
IVKQ				SN	Sn	07 51 04.3	-4.1
IVKQ				LG		07 51 42.1	
IVKQ				Trac		07 51 52.6	
	comp=Z,20nm,0.5s						
FCC	**Fort Churchill**	**7.37**	**190**	PN	Pn	07 49 54.9	-1.1
FCC				SN	Sn	07 51 13.1	-5.8
FCC				LG		07 51 57.8	
FCC				Trac		07 52 08.7	
	comp=Z,24nm,0.5s						
AKVQ	**Akulivik**	**7.93**	**125**	PN	Pn	07 50 01.4	-2.3
AKVQ				SN	Sn	07 51 24.9	-7.7
AKVQ				LG		07 52 08.9	
JERN	**Jeri Cho Mine,**	**8.11**	**279**	PN	Pn	07 50 03.3	-2.8
JERN				SN	Sn	07 51 30.9	-6.1
JERN				LG		07 52 15.3	
JERN				Trac		07 52 22.2	
	comp=Z,30nm,0.4s						
RES	**Resolute Bay**	**8.79**	**354**	PN	Pn	07 50 14.2	-1.2
RES				SN	Sn	07 51 45.6	-7.9
RES				LG		07 52 36.6	
RES				Trac		07 52 49.2	
	comp=Z,16nm,0.4s						
INUQ	**Inukjuak**	**9.81**	**134**	SN	Sn	07 52 09.3	-9.5
INUQ				LG		07 53 11.2	
FRB	**Frobisher Bay**	**10.01**	**92**	PN	Pn	07 50 29.7	-2.5
FRB				SN	Sn	07 52 13.1	-11
FRB				LG		07 53 11.2	
FRB				Trac		07 53 17.6	
	comp=Z,16nm,0.5s						
CTLN	**Castor Lake**	**10.37**	**273**	PN	Pn	07 50 35.2	-1.9
CTLN				SN	Sn	07 52 22.0	-10
CTLN				LG		07 53 25.1	
YKW3	**Yellowknife Ar**	**10.58**	**262**	PN	Pn	07 50 36.9	-3.0
YKW3				SN	Sn	07 52 24.9	-13
YKW3				LG		07 53 31.2	
YKW3				Trac		07 53 44.0	
	comp=Z,9.2nm,0.4s						
SILO	**Sutton Inlier**	**12.02**	**161**	PN	Pn	07 50 56.6	-3.0
SILO				SN	Sn	07 53 02.1	-11
SILO				LG		07 54 25.1	
FFC	**Flin Flon**	**12.42**	**209**	PN	Pn	07 51 07.2	+2.1
FFC				SN	Sn	07 53 07.8	-15
FFC				LG		07 54 28.9	
FFC				Trac		07 54 47.6	
	comp=Z,12nm,0.7s						
KUQ	**Kuujjuuaa**	**13.35**	**115**	LG		07 54 59.2	
KUQ				Trac		07 55 10.3	
	comp=Z,0.8nm,0.1s						
VIMO	**Victor Mine**	**13.80**	**160**	PN	Pn	07 51 19.0	-4.9
VIMO				SN	Sn	07 53 44.5	-12
LG4Q	**La Grande 4**	**15.12**	**137**	PN	Pn	07 51 41.5	-0.3
LG4Q				SN	Sn	07 54 13.7	-15
LG4Q				LG		07 55 52.2	
NANO	**Nakina Ontario**	**15.88**	**169**	SN	Sn	07 54 29.3	-18
ULM	**Lac du Bonnet**	**15.97**	**190**	SN	Sn	07 54 40.2	-8.8

MOS ***20*** *07:48:47.1±2.3, 56°.21N×112°.79E, h10^{km}, mb4.3/1, Error ellipse: s-maj=18.1km s-min=16.1km az=141.5*

BYKL 20 07:48:47.2±0.3, 56°.31N×112°.76E, h14^{km}±9^{km}, 7C-2D, Lake Baykal region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SVKR	**Severomuysk**	**0.49**	**113**	*e*PG	Pg	07 48 55.7	-1.1
SVKR				*e*		07 49 01.9	
SVKR				pmax	pmax		
	comp=Z,656nm,0.1s						
SVKR				smax			
	comp=N,9µm,0.7s						
SVKR	**Severomuysk**	**0.49**	**113**	⇓*i*Pg	Pg	07 48 55.8	-1.0
SVKR				*i* Sg	Sg	07 49 02.3	-1.0
SVKR				Pmax			
	comp=N,714nm,0.1s						
SVKR				Smax			
	comp=N,9µm,0.4s						
YOA	**Uoyan**	**0.60**	**253**	⇓*i*PG	Pg	07 48 59.5	+0.5
YOA				*e*		07 49 08.5	
YOA				pmax	pmax		
	comp=Z,275nm,0.2s						
YOA				smax			
	comp=E,2µm,0.3s						
YOA	**Uoyan**	**0.60**	**253**	*e*Pg	Pg	07 48 58.5	-0.5
YOA				*e*Sg	Sg	07 49 06.1	-0.9
YOA				Pmax			
	comp=E,248nm,0.2s						
YOA				Smax			
	comp=E,2µm,0.3s						
UKT	**Uakit**	**0.96**	**149**	*e*PG	Pg	07 49 04.4	-1.3
UKT				*e*		07 49 16.6	
UKT				pmax	pmax		
	comp=Z,194nm,0.2s						
UKT				smax			
	comp=E,237nm,0.4s						
UKT	**Uakit**	**0.96**	**149**	⇑*i*Pg	Pg	07 49 04.5	-1.2
UKT				*i* Sg	Sg	07 49 17.2	-1.0
UKT				*e*		07 49 21.2	
UKT				Pmax			
	comp=E,235nm,0.5s						
UKT				Smax			
	comp=E,657nm,0.4s						
KMO	**Kumora**	**0.97**	**245**	*e*PG	Pg	07 49 05.5	-0.4
KMO				*e*		07 49 17.9	
KMO				pmax	pmax		
	comp=Z,117nm,0.3s						
KMO				smax			
	comp=N,164nm,0.6s						
KMO	**Kumora**	**0.97**	**245**	*e*Pg	Pg	07 49 05.5	-0.4
KMO				*e*Pb	Pb	07 49 07.5	+1.7
KMO				*e*Sg	Sg	07 49 19.6	+1.0
KMO				max			
	comp=N,126nm,0.4s						
KMO				Smax			
	comp=N,662nm,0.6s						
NLYR	**Nelyaty**	**1.65**	**82**	⇑*i*PN	Pn	07 49 16.1	+0.5
NLYR				*e*		07 49 37.8	
NLYR				pmax	pmax		
	comp=Z,93nm,0.6s						
NLYR				smax			
	comp=E,413nm,0.9s						
NLYR	**Nelyaty**	**1.65**	**82**	*e*Pg	Pg	07 49 16.2	-2.6
NLYR				*e*Sg	Sg	07 49 38.4	-1.7
NLYR				Pmax			
	comp=E,91nm,0.6s						
NLYR				Smax			
	comp=E,414nm,1.0s						
BOD	**Bodaibo**	**1.66**	**24**	⇑*i*PN	Pn	07 49 16.4	+0.6
BOD				*e*		07 49 38.0	
BOD				pmax	pmax		
	comp=Z,78nm,0.2s						
BOD				smax			
	comp=N,585nm,0.2s						
BOD	**Bodaibo**	**1.66**	**24**	⇑*i*Pg	Pg	07 49 16.6	-2.4
	comp=N,76nm,0.6s						
BOD				⇑*i*Pg	Pg	07 49 16.6	-2.4
	comp=N,28nm,0.6s						
BOD				⇑*i*Pg	Pg	07 49 16.6	-2.4
	comp=N,61nm,0.6s						
BOD				*e*Sg	Sg	07 49 38.2	-2.3
BOD				Pmax			
	comp=N,99nm,0.5s						
BOD				Smax			
	comp=N,583nm,0.3s						
YLYR	**Ulyunkhan**	**1.70**	**213**	*i* Pg	Pg	07 49 17.8	-2.0
YLYR				*e*Sg	Sg	07 49 40.8	-1.0
YLYR				Pmax			
	comp=N,77nm,0.5s						
YLYR				Smax			
	comp=N,514nm,0.4s						
NIZ	**Nizh Angarsk**	**1.88**	**255**	*e*PN	Pn	07 49 20.6	+1.7
NIZ				*e*		07 49 21.7	
NIZ				*e*		07 49 47.2	
NIZ				pmax	pmax		
	comp=Z,48nm,0.5s						
NIZ				smax			
	comp=N,325nm,0.9s						
NIZ	**Nizh Angarsk**	**1.88**	**255**	⇑*i*Pg	Pg	07 49 20.6	-2.7
NIZ				*e*Sg	Sg	07 49 46.0	-1.7
NIZ				Pmax			
	comp=N,48nm,0.5s						
NIZ				Smax			
	comp=N,302nm,0.9s						
SYVR	**Suvo**	**3.10**	**212**	*e*Pn	Pn	07 49 36.1	+0.5
SYVR				*e*Pg	Pg	07 49 41.9	-4.6
SYVR				*e*Sn	Sn	07 50 12.5	+0.2
SYVR				*e*Sg	Sg	07 50 22.4	-4.2
SYVR				Pmax			
	comp=N,13nm,0.6s						
SYVR				Smax			
	comp=N,124nm,0.8s						
CRS	**Chara**	**3.10**	**77**	*e*PN	Pn	07 49 42.6	+7.0
CRS				*e*		07 50 21.6	
CRS				pmax	pmax		
	comp=Z,36nm,0.8s						
CRS				smax			
	comp=E,147nm,1.3s						
CRS	**Chara**	**3.10**	**77**	*e*Pn	Pn	07 49 36.4	+0.8
CRS				*e*Pg	Pg	07 49 42.7	-3.9
CRS				*e*Sg	Sg	07 50 22.6	-4.1
CRS				Pmax			
	comp=E,36nm,1.0s						
CRS				Smax			
	comp=E,149nm,1.4s						
OGRR	**Ongureny**	**4.00**	**230**	*e*Pn	Pn	07 49 49.2	+1.2
OGRR				*e*Pg	Pg	07 49 58.7	-5.0
OGRR				*e*Sn	Sn	07 50 35.5	+0.9
OGRR				*e*Sg	Sg	07 50 50.0	-5.5
OGRR				Pmax			
	comp=E,4.0nm,0.3s						
OGRR				Smax			
	comp=E,47nm,0.5s						
TUP	**Tupik**	**4.52**	**112**	*e*PN	Pn	07 49 55.0	-0.1
TUP				*e*		07 50 07.6	
TUP				*e*		07 51 06.0	
TUP				pmax	pmax		
	comp=Z,7.0nm,0.4s						
TUP				smax			
	comp=N,96nm,0.8s						
TUP	**Tupik**	**4.52**	**112**	*e*Pn	Pn	07 49 54.9	-0.2
TUP				*e*Sn	Sn	07 50 47.2	-0.1
TUP				*e*Sg	Sg	07 51 06.2	-5.9
TUP				Smax			
	comp=N,96nm,0.7s						
TRTB	**Turuntaevo**	**5.07**	**218**	*e*Pg	Pg	07 50 19.2	-5.1
TRTB				*e*Sg	Sg	07 51 25.0	-4.9
TRTB				Pmax			
	comp=N,7.0nm,0.6s						
TRTB				Smax			
	comp=N,39nm,0.8s						
TRG	**Tyrgan**	**5.16**	**229**	*e*Pn	Pn	07 50 04.8	+1.0
TRG				*e*Pg	Pg	07 50 18.1	-7.7
TRG				*e*Sn	Sn	07 51 02.6	-0.5
TRG				*e*Sg	Sg	07 51 25.0	-7.5
TRG				Pmax			
	comp=N,2.0nm,0.5s						
TRG				Smax			
	comp=N,23nm,0.4s						
UUDB	**Ulan-Yde**	**5.37**	**216**	*e*Sg	Sg	07 51 33.1	-6.2
UUDB				Smax			
	comp=N,63nm,1.3s						
FFNB	**Fofonovo**	**5.53**	**222**	*e*Sg	Sg	07 51 39.5	-5.2
FFNB				Smax			
	comp=N,62nm,0.5s						
HRMR	**Khuramsha**	**5.81**	**219**	*e*Pg	Pg	07 50 31.7	-6.6
HRMR				*e*Sg	Sg	07 51 48.2	-5.2
HRMR				Pmax			
	comp=N,8.0nm,0.6s						
HRMR				Smax			
	comp=N,125nm,0.9s						
LSTR	**Listvyanka**	**6.44**	**230**	*e*Sg	Sg	07 52 05.3	-8.5
LSTR				Smax			
	comp=N,20nm,0.8s						
IENR	**Iengra**	**6.74**	**86**	*e*Sg	Sg	07 52 16.0	-7.3
TLY	**Talaya**	**7.10**	**233**	*e*Sg	Sn	07 52 24.9	+34
TLY				Smax			
	comp=N,21nm,1.4s						
ARS	**Arshan**	**7.50**	**238**	*e*Sn	Sn	07 52 01.3	+0.6
ARS				*e*Sg	Sn	07 52 39.7	+39
ARS				Smax			
	comp=N,55nm,0.9s						
MOY	**Mondy**	**8.35**	**241**	*e*Sg	Sn	07 53 05.3	+44
MOY				Smax			
	comp=N,26nm,1.4s						
ORL	**Orlik**	**8.44**	**249**	*e*Sn	Sn	07 52 23.7	-0.2
ORL				*e*Sg	Sn	07 53 08.1	+44
ORL				Smax			
	comp=N,24nm,1.2s						

CASC 20 08:00:14.2±1.8, 11°.43N×86°.28W, h32^{km}±8^{km}, MD3.8, ML3.1, 5D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSN	**San Juan del S**	**0.44**	**107**	*e*P	Pb	08 00 23.4	-0.4
APON	**Apoyo**	**0.53**	**24**	⇓*e*P	Pb	08 00 25.9	+0.8
TICN	**Ticuantepe**	**0.60**	**5**	*e*P	Pb	08 00 26.6	+0.3
CONN	**Concepcion**	**0.66**	**78**	⇓*e*P	Pb	08 00 26.3	-1.0
TISN	**Laguna Tiscapa**	**0.70**	**1**	*e*P	Pn	08 00 27.7	-0.3
MGAN	**Managua**	**0.71**	**3**	*e*P	Pn	08 00 27.6	-0.4
XAVN	**Gruta Xavier**	**0.71**	**357**	*e*P	Pn	08 00 28.1	0.0
CSAN		**0.76**	**350**	*e*P	Pn	08 00 28.2	-0.5
COPN	**Copaltepe**	**0.80**	**338**	*e*P	Pn	08 00 28.9	-0.5
COPN				AML	AML	08 00 42.2	
	comp=Z,553nm,0.2s						
HUEN		**0.91**	**7**	⇓*e*P	Pn	08 00 30.4	-0.4
MOMN	**Momotombo**	**1.00**	**345**	⇓*e*P	Pn	08 00 32.1	0.0
MIRN	**Miramar**	**1.08**	**337**	*e*P	Pn	08 00 32.9	-0.4
BOAB	**BOACO BROADBAN**	**1.18**	**31**	⇓*e*P	Pn	08 00 33.5	-1.0
VCR	**Vista de Mar**	**1.45**	**154**	*e*P	Pn	08 00 34.7	-3.5
JCR	**Jicaral**	**1.95**	**144**	*e*S	Sn	08 01 11.2	+2.6
CGA2	**Cerro Gallo 2**	**2.27**	**128**	*e*S	Sn	08 01 21.3	+4.7
PRS1	**Puriscal**	**2.41**	**126**	*e*P	Pn	08 00 53.1	+1.6
LAJ	**Bijagual**	**2.64**	**126**	*e*P	Pn	08 00 52.3	-2.3
LCR2	**La Lucha 2**	**2.80**	**127**	*e*P	Pn	08 00 57.6	+0.8
URSC	**Urasca**	**2.93**	**123**	*e*P	Pn	08 00 58.5	-0.1
BAR1		**3.65**	**126**	*e*P	Pn	08 01 09.6	+1.2

SZGRF ***20*** *08:06:11.7, 40°.89N×14°.17E, h10^{km}, mb3.4, Southern Italy*
ISCJB ***20*** *08:06:18.9±0.2, 41°.59N±0°.01×13°.76E±0°.01, h10^{km}±1^{km}, mb4.4/29, Error ellipse: s-maj=2.4km s-min=1.5km az=30.6*
STR ***20*** *08:06:19.5±0.0, 41°.57N×13°.85E, h10^{km}, Ml3.8, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
CSEM ***20*** *08:06:19.1±0.1, 41°.57N×13°.74E, h2^{km}, mb4.6/15, ML4.5/6, Error ellipse: s-maj=2.8km s-min=1.7km az=26.0*
PDG ***20*** *08:06:19.5±0.9, 41°.58N×13°.79E, h9^{km}±1^{km}, ML4.0/7, Error ellipse: s-maj=0.9km s-min=1.1km az=0.0*
ROM ***20*** *08:06:19.1±0.1, 41°.58N×13°.78E, h8^{km}±1^{km}, Ml3.9/74, Error ellipse: s-maj=1.7km s-min=0.9km az=31.0*
LDG ***20*** *08:06:19.5±0.1, 41°.58N×13°.85E, h10^{km}, Ml3.8/5, Error ellipse: s-maj=3.7km s-min=2.2km az=29.0*
NEIC ***20*** *08:06:19.1, 41°.58N×13°.78E, h8^{km}, mb4.6/16, ML3.8(LDG), ML3.9(ROM), ML4.0(PDG), After ROM.*
NEIC Felt [IV] at Cassino. Also felt at Atina, Castrocielo, Sora and Venafro.
IDC ***20*** *08:06:19.3±0.7, 41°.68N×13°.66E, h0^{km}, mb4.1/11, mb1 4.1/23, mb1mx4.1/34, mbtmp4.0/23, ML3.9/10, MS3.1/5, Ms1 3.2/5, ms1mx3.0/48, Error ellipse: s-maj=13.2km s-min=10.4km az=110.0*
BJI ***20*** *08:06:19.1, 41°.60N×13°.80E, h20^{km}, mb4.9/1, Ms4.9/2, Ms7 4.8/3*
SOF ***20*** *08:06:23.0, 41°.35N×14°.29E, h0^{km}, MD3.3*
THE ***20*** *08:06:23.0, 41°.63N×13°.99E, h16^{km}±30^{km}, ML4.9/2, Error ellipse: s-maj=40.3km s-min=3.1km az=277.0*

ISC 20 08:06:19.3±0.3, 41°.56N±0°.01×13°.74E±0°.01, h2^{km}±2^{km}, n521, σ1°.08/592, mb4.4/29, 26C-59D, Southern Italy

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
POFI	**Posta Fibreno**	**0.16**	**352**	⇓*i*Pg	**Pg**	**08 06 22.9**	**+0.5**
POFI				Sg	**Sg**	**08 06 26.3**	**+1.8**
	70µm,0.7s						
POFI	**Posta Fibreno**	**0.16**	**352**	⇓*i*Pg	**Pg**	**08 06 22.9**	**+0.5**
SDI	**San Donato**	**0.16**	**19**	⇓*i*Pg	**Pg**	**08 06 22.6**	**+0.2**
SDI	**San Donato**	**0.16**	**19**	⇓*i*Pg	**Pg**	**08 06 22.6**	**+0.2**
CERA	**Filignano**	**0.21**	**79**	Pg	**Pg**	**08 06 23.2**	**-0.2**
CERA				Sg	**Sg**	**08 06 26.4**	**+0.2**
	108µm,0.8s						
CERA	**Filignano**	**0.21**	**79**	Pg	**Pg**	**08 06 23.2**	**-0.2**
CERA				Sg	**Sg**	**08 06 26.4**	**+0.2**
	108µm,0.8s						
VVLD	**Villa Vallelon**	**0.32**	**344**	⇓*i*Pg	**Pg**	**08 06 25.6**	**0.0**
VVLD				Sg	**Sg**	**08 06 31.3**	**+1.5**
	79µm,1.0s						
VVLD	**Villa Vallelon**	**0.32**	**344**	⇓*i*Pg	**Pg**	**08 06 25.6**	**0.0**
VVLD				Sg	**Sg**	**08 06 31.3**	**+1.5**
	79µm,1.0s						
RNI2	**Rionero Sannit**	**0.34**	**65**	⇓*i*Pg	**Pg**	**08 06 26.0**	**+0.1**
RNI2				Sg	**Sg**	**08 06 30.8**	**+0.5**
	100µm,1.3s						
RNI2	**Rionero Sannit**	**0.34**	**65**	⇓*i*Pg	**Pg**	**08 06 26.0**	**+0.1**
RNI2				Sg	**Sg**	**08 06 30.8**	**+0.5**
	100µm,1.3s						
GIUL	**Giuliano Di Ro**	**0.36**	**270**	Pg	**Pg**	**08 06 27.4**	**+1.1**
	16µm,1.0s						
GIUL	**Giuliano Di Ro**	**0.36**	**270**	Pg	**Pg**	**08 06 27.4**	**+1.1**
	16µm,1.0s						
MIDA	**Miranda**	**0.39**	**78**	⇓*i*Pg	**Pg**	**08 06 26.5**	**-0.4**
MIDA				Sg	**Sg**	**08 06 32.4**	**+0.4**
	48µm,1.2s						
MIDA	**Miranda**	**0.39**	**78**	⇓*i*Pg	**Pg**	**08 06 26.5**	**-0.4**
MIDA				Sg	**Sg**	**08 06 32.4**	**+0.4**
	48µm,1.2s						
VAGA	**Valle Agricola**	**0.40**	**111**	Pg	**Pg**	**08 06 26.8**	**-0.1**
VAGA				Sg	**Sg**	**08 06 33.8**	**+1.7**
	38µm,1.2s						
VAGA	**Valle Agricola**	**0.40**	**111**	Pg	**Pg**	**08 06 26.8**	**-0.1**
VAGA				Sg	**Sg**	**08 06 33.8**	**+1.7**
	38µm,1.2s						
MODR	**Mondragone**	**0.43**	**166**	⇑*i*Pg	**Pg**	**08 06 27.6**	**+0.1**
	5µm,0.8s						
MODR	**Mondragone**	**0.43**	**166**	⇑*i*Pg	**Pg**	**08 06 27.6**	**+0.1**
	5µm,0.8s						
INTR	**Introdacqua**	**0.47**	**15**	⇓*i*Pg	**Pg**	**08 06 27.9**	**-0.4**
	24nm,0.7s						
INTR	**Introdacqua**	**0.47**	**15**	⇓*i*Pg	**Pg**	**08 06 27.9**	**-0.4**
	24nm,0.7s						
SGG	**Gregorio Mates**	**0.51**	**110**	Pg	**Pg**	**08 06 28.7**	**-0.4**
SGG				Sg	**Sg**	**08 06 37.1**	**+1.4**
	18µm,0.9s						
SGG	**Gregorio Mates**	**0.51**	**110**	Pg	**Pg**	**08 06 28.7**	**-0.4**
SGG				Sg	**Sg**	**08 06 37.1**	**+1.4**
	18µm,0.9s						
PTRJ	**Pietraroja**	**0.62**	**108**	⇓*i*Pg	**Pg**	**08 06 30.9**	**-0.4**
	60µm,1.2s						
PTRJ	**Pietraroja**	**0.62**	**108**	⇓*i*Pg	**Pg**	**08 06 30.9**	**-0.4**
	60µm,1.2s						
BSSO	**Busso**	**0.64**	**91**	⇓*i*Pg	**Pg**	**08 06 31.3**	**-0.3**
	32µm,1.5s						
BSSO	**Busso**	**0.64**	**91**	⇓*i*Pg	**Pg**	**08 06 31.3**	**-0.3**
	32µm,1.5s						
CERT	**Cerreto**	**0.69**	**305**	⇓*i*Pg	**Pg**	**08 06 32.3**	**-0.2**
CERT				Sg	**Sg**	**08 06 43.8**	**+2.4**
	15µm,1.0s						
CERT	**Cerreto**	**0.69**	**305**	⇓*i*Pg	**Pg**	**08 06 32.3**	**-0.2**
FAGN	**Fagnano**	**0.72**	**351**	⇓*i*Pg	**Pg**	**08 06 32.3**	**-0.8**
	16µm,0.5s						
FAGN	**Fagnano**	**0.72**	**351**	⇓*i*Pg	**Pg**	**08 06 32.3**	**-0.8**
	16µm,0.5s						
SACR	**S. Croce Del S**	**0.74**	**102**	Pg	**Pg**	**08 06 32.9**	**-0.7**
	10µm,1.1s						
SACR	**S. Croce Del S**	**0.74**	**102**	Pg	**Pg**	**08 06 32.9**	**-0.7**
	10µm,1.1s						
LAV9	**Lanuvio**	**0.79**	**279**	Pg	**Pg**	**08 06 35.2**	**+0.7**
LAV9	**Lanuvio**	**0.79**	**279**	Pg	**Pg**	**08 06 35.2**	**+0.7**
RDP	**Rocca di Papa**	**0.79**	**285**	⇑*i*Pg	**Pg**	**08 06 35.0**	**+0.5**
	48µm,1.5s						
RDP	**Rocca di Papa**	**0.79**	**285**	⇑*i*Pg	**Pg**	**08 06 35.0**	**+0.5**
	48µm,1.5s						
VENT	**Ventotene**	**0.80**	**198**	Pg	**Pg**	**08 06 34.5**	**-0.2**
	6µm,0.9s						
VENT	**Ventotene**	**0.80**	**198**	Pg	**Pg**	**08 06 34.5**	**-0.2**
	6µm,0.9s						
CAFR	**Castel Frentan**	**0.81**	**34**	⇓*i*Pg	**Pg**	**08 06 33.9**	**-0.9**
	26µm,0.9s						
CAFR	**Castel Frentan**	**0.81**	**34**	⇓*i*Pg	**Pg**	**08 06 33.9**	**-0.9**
	26µm,0.9s						
FRES	**Fresagrandinar**	**0.81**	**59**	⇓*i*Pg	**Pg**	**08 06 33.6**	**-1.2**
	15µm,1.1s						
FRES	**Fresagrandinar**	**0.81**	**59**	⇓*i*Pg	**Pg**	**08 06 33.6**	**-1.2**
	15µm,1.1s						
AQU	**L'Aquila**	**0.83**	**342**	Pg	**Pg**	**08 06 34.2**	**-1.1**
	19µm,1.2s						
AQU	**L'Aquila**	**0.83**	**342**	Pg	**Pg**	**08 06 34.2**	**-1.1**
	19µm,1.2s						
MA9	**Marino**	**0.84**	**285**	Pg	**Pg**	**08 06 35.6**	**+0.2**
MA9	**Marino**	**0.84**	**285**	Pg	**Pg**	**08 06 35.6**	**+0.2**
VCEL	**Villa Celiera**	**0.84**	**5**	⇓*i*Pg	**Pg**	**08 06 34.5**	**-0.9**
	10µm,0.8s						
VCEL	**Villa Celiera**	**0.84**	**5**	⇓*i*Pg	**Pg**	**08 06 34.5**	**-0.9**
	10µm,0.8s						
FIAM	**Fiamignano**	**0.85**	**327**	Pg	**Pg**	**08 06 34.6**	**-1.0**
FIAM	**Fiamignano**	**0.85**	**327**	Pg	**Pg**	**08 06 34.6**	**-1.0**
PSB1	**Pescosannita**	**0.87**	**112**	Pg	**Pg**	**08 06 36.1**	**+0.1**
	12µm,0.9s						
PSB1	**Pescosannita**	**0.87**	**112**	Pg	**Pg**	**08 06 36.1**	**+0.1**
	12µm,0.9s						
CIGN	**Sant'Elia a Pi**	**0.88**	**83**	Pg	**Pg**	**08 06 35.3**	**-0.9**
	6µm,0.9s						
CIGN	**Sant'Elia a Pi**	**0.88**	**83**	Pg	**Pg**	**08 06 35.3**	**-0.9**
	6µm,0.9s						
MTCE	**Montecelio**	**0.88**	**302**	⇓*i*Pg	**Pg**	**08 06 35.5**	**-0.7**
	8µm,1.0s						
MTCE	**Montecelio**	**0.88**	**302**	⇓*i*Pg	**Pg**	**08 06 35.5**	**-0.7**
	8µm,1.0s						
ROM9	**Roma**	**0.96**	**287**	Pg	**Pg**	**08 06 37.7**	**+0.1**
	18µm,1.0s						
ROM9	**Roma**	**0.96**	**287**	Pg	**Pg**	**08 06 37.7**	**+0.1**
	18µm,1.0s						
CAMP	**Campotosto**	**1.01**	**346**	⇓*i*Pg	**Pg**	**08 06 37.2**	**-1.4**
	2µm,1.3s						
CAMP	**Campotosto**	**1.01**	**346**	⇓*i*Pg	**Pg**	**08 06 37.2**	**-1.4**
	2µm,1.3s						
MRB1	**Monte Rocchett**	**1.02**	**115**	Pg	**Pg**	**08 06 39.3**	**+0.4**
	10µm,0.9s						
MRB1	**Monte Rocchett**	**1.02**	**115**	Pg	**Pg**	**08 06 39.3**	**+0.4**
	10µm,0.9s						
TERO	**Teramo**	**1.07**	**355**	⇓*i*Pg	**Pg**	**08 06 37.9**	**-1.9**
	5µm,0.8s						
TERO	**Teramo**	**1.07**	**355**	⇓*i*Pg	**Pg**	**08 06 37.9**	**-1.9**
	5µm,0.8s						
MOCO	**Biccari - m.te**	**1.08**	**100**	Pg	**Pg**	**08 06 40.5**	**+0.4**
	6µm,1.6s						
FG2	**Serracapriola**	**1.09**	**77**	Pg	**Pg**	**08 06 40.5**	**+0.3**
MNS	**Montasola**	**1.14**	**317**	Pg	**Pg**	**08 06 39.6**	**-1.6**
	4µm,0.7s						
MNS	**Montasola**	**1.14**	**317**	Pg	**Pg**	**08 06 39.6**	**-1.6**
	4µm,0.7s						
LNSS	**Leonessa**	**1.17**	**334**	Pg	**Pn**	**08 06 40.8**	**-1.8**
	14µm,0.9s						
LNSS	**Leonessa**	**1.17**	**334**	Pg	**Pn**	**08 06 40.8**	**-1.8**
	14µm,0.9s						
CSSN	**Cassano Irpino**	**1.19**	**125**	Pg	**Pn**	**08 06 41.3**	**-1.7**
CSSN	**Cassano Irpino**	**1.19**	**125**	Pg	**Pn**	**08 06 41.3**	**-1.7**
CAFE	**Carife**	**1.25**	**115**	⇓*i*Pg	**Pn**	**08 06 42.5**	**-1.2**
	4µm,1.2s						
CAFE	**Carife**	**1.25**	**115**	⇓*i*Pg	**Pn**	**08 06 42.5**	**-1.2**
	4µm,1.2s						
SNAL	**S. Angelo Dei**	**1.28**	**119**	⇓*i*Pg	**Pn**	**08 06 42.7**	**-1.4**
	12µm,1.4s						
SNAL	**S. Angelo Dei**	**1.28**	**119**	⇓*i*Pg	**Pn**	**08 06 42.7**	**-1.4**
	12µm,1.4s						

SGTA	**Sant Agata di**	**1.29**	**109**	⇓*i*Pg	**Pn**	**08 06 43.6**	**-0.8**
	2µm,0.8s						
SGTA	**Sant Agata di**	**1.29**	**109**	⇓*i*Pg	**Pn**	**08 06 43.6**	**-0.8**
	2µm,0.8s						
MCRV	**Calabrutti - M**	**1.33**	**125**	⇓*i*Pg	**Pn**	**08 06 43.2**	**-1.7**
	4µm,1.3s						
MCRV	**Calabrutti - M**	**1.33**	**125**	⇓*i*Pg	**Pn**	**08 06 43.2**	**-1.7**
	4µm,1.3s						
NRCA	**Norcia**	**1.36**	**340**	Pg	**Pn**	**08 06 43.7**	**-1.6**
NRCA	**Norcia**	**1.36**	**340**	Pg	**Pn**	**08 06 43.7**	**-1.6**
OFFI	**Offida**	**1.38**	**358**	Pg	**Pn**	**08 06 44.9**	**-0.6**
	9µm,0.7s						
OFFI	**Offida**	**1.38**	**358**	Pg	**Pn**	**08 06 44.9**	**-0.6**
	9µm,0.7s						
RGNG	**Rignano Grg**	**1.39**	**85**	Pg	**Pn**	**08 06 44.6**	**-1.1**
RGNG	**Rignano Grg**	**1.39**	**85**	Pg	**Pn**	**08 06 44.6**	**-1.1**
SGRT	**San Giovanni R**	**1.51**	**82**	Pg	**Pn**	**08 06 46.4**	**-1.0**
	3µm,0.9s						
SGRT	**San Giovanni R**	**1.51**	**82**	Pg	**Pn**	**08 06 46.4**	**-1.0**
	3µm,0.9s						
VULT	**Monte Vulture**	**1.54**	**113**	⇓*i*Pg	**Pn**	**08 06 46.9**	**-0.8**
	3µm,1.2s						
VULT	**Monte Vulture**	**1.54**	**113**	⇓*i*Pg	**Pn**	**08 06 46.9**	**-0.8**
	3µm,1.2s						
MRLC	**Muro Lucano**	**1.54**	**121**	Pg	**Pn**	**08 06 46.6**	**-1.2**
	845nm,0.9s						
MRLC	**Muro Lucano**	**1.54**	**121**	Pg	**Pn**	**08 06 46.6**	**-1.2**
	845nm,0.9s						
SGO	**Sicignano**	**1.55**	**130**	Pg	**Pn**	**08 06 47.0**	**-0.9**
SGO	**Sicignano**	**1.55**	**130**	Pg	**Pn**	**08 06 47.0**	**-0.9**
CESI	**CESI - Serrava**	**1.57**	**337**	Pg	**Pn**	**08 06 47.7**	**-0.5**
	2µm,1.1s						
CESI	**CESI - Serrava**	**1.57**	**337**	Pg	**Pn**	**08 06 47.7**	**-0.5**
	2µm,1.1s						
CDRU	**Civita di Ruta**	**1.59**	**132**	Pg	**Pn**	**08 06 47.3**	**-1.2**
	816nm,1.0s						
CDRU	**Civita di Ruta**	**1.59**	**132**	Pg	**Pn**	**08 06 47.3**	**-1.2**
	816nm,1.0s						
MSAG	**Monte S. Angel**	**1.63**	**84**	Pg	**Pn**	**08 06 48.1**	**-1.0**
MSAG	**Monte S. Angel**	**1.63**	**84**	Pg	**Pn**	**08 06 48.1**	**-1.0**
MS1	**Monte Sant'Ang**	**1.66**	**84**	*e*Pn	**Pn**	**08 06 48.2**	**-1.2**
ASS	**Assisi**	**1.71**	**332**	Pg	**Pn**	**08 06 50.7**	**+0.6**
ASS	**Assisi**	**1.71**	**332**	Pg	**Pn**	**08 06 50.7**	**+0.6**
CMPR	**Campora**	**1.71**	**136**	Pg	**Pn**	**08 06 48.5**	**-1.7**
	867nm,0.9s						
ACER	**Acerenza**	**1.83**	**114**	Pg	**Pn**	**08 06 50.9**	**-0.9**
	3µm,1.2s						
CING	**Cingoli**	**1.86**	**348**	Pg	**Pn**	**08 06 52.3**	**+0.1**
	2µm,1.1s						
CING	**Cingoli**	**1.86**	**348**	Pg	**Pn**	**08 06 52.3**	**+0.1**
	2µm,1.1s						
SACS	**San Casciano d**	**1.87**	**314**	Pg	**Pn**	**08 06 52.3**	**-0.1**
	2µm,1.2s						
MRVN	**Minervino Murg**	**1.92**	**104**	Pg	**Pn**	**08 06 51.8**	**-1.1**
	1µm,1.2s						
MGR	**Morigerati**	**1.98**	**135**	Pg	**Pn**	**08 06 53.0**	**-0.8**
	1µm,1.2s						
MCEL	**Monticello**	**1.99**	**128**	Pg	**Pn**	**08 06 53.2**	**-0.8**
	1µm,0.9s						
AOI	**Ancona**	**1.99**	**357**	Pg	**Pn**	**08 06 54.5**	**+0.5**
	1µm,0.6s						
MTSN	**Montesano sull**	**2.00**	**130**	Pg	**Pn**	**08 06 53.4**	**-0.7**
	2µm,1.1s						
PTRP	**Pietrapertosa**	**2.04**	**120**	Pg	**Pn**	**08 06 55.4**	**+0.8**
	3µm,1.3s						
SIRI	**Monte Sirino -**	**2.12**	**130**	Pg	**Pn**	**08 06 56.3**	**+0.6**
	2µm,1.7s						
ARCI	**Arcidosso**	**2.12**	**308**	Pg	**Pn**	**08 06 56.2**	**+0.4**
	658nm,1.3s						
MAON	**Monte Argentar**	**2.13**	**295**	Pg	**Pn**	**08 06 55.2**	**-0.7**
	1µm,1.7s						
PIEI	**Pieia**	**2.17**	**336**	Pg	**Pn**	**08 06 57.1**	**+0.7**
	2µm,1.2s						
CAFI	**Castiglion Fio**	**2.20**	**324**	Pg	**Pn**	**08 06 57.2**	**+0.3**
CUC	**Castrocucco**	**2.22**	**134**	*e*Pn	**Pn**	**08 06 56.3**	**-0.9**
CUC	**Castrocucco**	**2.22**	**134**	*e*Pn	**Pn**	**08 06 56.3**	**-0.8**
SCHR	**S. Chirico Rap**	**2.23**	**127**	Pg	**Pn**	**08 06 57.2**	**-0.1**
	466nm,1.1s						
AMUR	**Altamura**	**2.26**	**106**	Pg	**Pn**	**08 06 57.4**	**-0.2**
	890nm,1.1s						
SG1	**Sgolgore (BA)**	**2.33**	**107**	*e*Pn	**Pn**	**08 06 58.3**	**-0.3**
CRAC	**Craco**	**2.36**	**119**	Pg	**Pn**	**08 06 58.8**	**-0.3**
BAI	**Bari**	**2.41**	**100**	*e*Pn	**Pn**	**08 06 59.1**	**-0.6**
CRE	**Caprese Michel**	**2.45**	**328**	Pg	**Pn**	**08 07 00.9**	**+0.7**
	423nm,1.1s						
CASP	**Castiglione de**	**2.47**	**301**	Pg	**Pn**	**08 07 00.3**	**-0.2**
	292nm,1.1s						
LTRZ	**Laterza**	**2.52**	**111**	Pg	**Pn**	**08 07 00.3**	**-0.9**
	1µm,1.5s						
CSNT	**Castellina Chi**	**2.63**	**317**	Pg	**Pn**	**08 07 01.5**	**-1.3**
ASQU	**Asqua**	**2.66**	**328**	Pg	**Pn**	**08 07 04.2**	**+1.0**
	933nm,1.3s						
SFI	**Santa Sofia**	**2.73**	**330**	Pg	**Pn**	**08 07 04.4**	**+0.3**
	1µm,1.2s						
TAR1	**Taranto**	**2.87**	**110**	*e*Pn	**Pn**	**08 07 07.9**	**+1.8**
PE1	**Pezze di Greco**	**2.88**	**104**	*e*Pn	**Pn**	**08 07 05.1**	**-1.1**
CARO	**Carolei**	**2.98**	**140**	Pg	**Pn**	**08 07 07.3**	**-0.3**
	676nm,1.2s						
NVLJ	**Novalja**	**3.12**	**15**	*e*Pn	**Pn**	**08 07 08.9**	**-0.5**
NVLJ				Sn	**Sn**	**08 07 47.2**	**0.0**
NVLJ	**Novalja**	**3.12**	**15**	*e*Pn	**Pn**	**08 07 08.9**	**-0.5**
NVLJ				Sn	**Sn**	**08 07 47.1**	**-0.1**
STON	**Ston**	**3.22**	**65**	*e*Pn	**Pn**	**08 07 10.2**	**-0.6**
STON	**Ston**	**3.22**	**65**	*e*Pn	**Pn**	**08 07 10.2**	**-0.7**
TIP	**Timpagrande**	**3.31**	**135**	*e*Pn	**Pn**	**08 07 13.5**	**+1.4**
TIP	**Timpagrande**	**3.31**	**135**	*e*Pn	**Pn**	**08 07 13.5**	**+1.4**
PZZT	**Monte Pizzetto**	**3.33**	**321**	Pg	**Pn**	**08 07 13.7**	**+1.3**
	194nm,0.9s						
MAIM	**Mastiano**	**3.36**	**316**	P	**Pn**	**08 07 14.3**	**+1.6**
DGI	**Dorgali Grotta**	**3.37**	**250**	Pg	**Pn**	**08 07 11.9**	**-1.0**
	94nm,0.8s						
JOPP	**Joppolo**	**3.38**	**150**	Pg	**Pn**	**08 07 13.5**	**+0.5**
	135nm,1.2s						
SERS	**Sersale**	**3.38**	**137**	Pg	**Pn**	**08 07 13.7**	**+0.6**
	203nm,1.2s						
OSPF	**L'Ospedale**	**3.41**	**273**	P	**Pn**	**08 07 12.1**	**-1.4**
OSPF	**L'Ospedale**	**3.41**	**273**	*e*P	**Pn**	**08 07 12.0**	**-1.5**
OSPF	**L'Ospedale**	**3.41**	**273**	P	**Pn**	**08 07 12.1**	**-1.4**
VLC	**Villacollemand**	**3.58**	**318**	*e*Pn	**Pn**	**08 07 16.7**	**+0.8**
VLC	**Villacollemand**	**3.58**	**318**	*e*Pn	**Pn**	**08 07 16.7**	**+0.9**
HCY	**Herceg Novi**	**3.66**	**74**	⇓*i*Pn	**Pn**	**08 07 16.4**	**-0.5**
HCY				*e*Sn	**Sn**	**08 08 00.9**	**+0.4**
HCY	**Herceg Novi**	**3.66**	**74**	⇓*i*Pn	**Pn**	**08 07 16.4**	**-0.5**
HCY				*e*Sn	**Sn**	**08 08 00.9**	**+0.4**
PGF	**Pioggiola**	**3.67**	**287**	*e*Pn	**Pn**	**08 07 16.7**	**-0.3**
PGF				*e*Sn	**Sn**	**08 07 56.2**	**-4.6**
	126nm,1.0s						
PGF	**Pioggiola**	**3.67**	**287**	*e*Pn	**Pn**	**08 07 16.7**	**-0.3**
PGF				*e*Sn	**Sn**	**08 07 56.2**	**-4.6**
	63nm,1.0s						
CEL	**Celeste**	**3.69**	**153**	Pg	**Pn**	**08 07 17.5**	**+0.2**
	81nm,0.8s						
CEL	**Celeste**	**3.69**	**153**	*e*Pn	**Pn**	**08 07 16.8**	**-0.6**
CEL	**Celeste**	**3.69**	**153**	*e*Pn	**Pn**	**08 07 16.8**	**-0.5**
PLAC	**Placanica**	**3.73**	**145**	Pg	**Pn**	**08 07 18.1**	**+0.2**
	111nm,1.4s						
BRY	**Bratogost**	**3.81**	**68**	*e*Pn	**Pn**	**08 07 18.7**	**-0.3**
BRY				*e*Sn	**Sn**	**08 08 04.7**	**+0.4**
BRY	**Bratogost**	**3.81**	**68**	*e*Pn	**Pn**	**08 07 18.7**	**-0.3**
BRY				*e*Sn	**Sn**	**08 08 04.7**	**+0.4**
VSL	**Villasalto**	**3.91**	**240**	Pg	**Pn**	**08 07 20.1**	**-0.3**
	195nm,1.1s						
VSL	**Villasalto**	**3.91**	**240**	*e*Pn	**Pn**	**08 07 18.6**	**-1.7**
VSL				*e*Sn	**Sn**	**08 08 04.7**	**-2.1**
VSL	**Villasalto**	**3.91**	**240**	*e*Pn	**Pn**	**08 07 18.6**	**-1.8**
VSL				*e*Sn	**Sn**	**08 08 04.7**	**-2.1**
BUM	**Brajici-Budva**	**3.92**	**77**	⇑*i*Pn	**Pn**	**08 07 20.6**	**+0.1**
BUM				*e*Sn	**Sn**	**08 08 07.5**	**+0.5**
BUM	**Brajici-Budva**	**3.92**	**77**	⇑*i*Pn	**Pn**	**08 07 20.6**	**+0.1**
BUM				*e*Sn	**Sn**	**08 08 07.5**	**+0.5**
MPAZ	**Palizzi**	**4.00**	**153**	Pg	**Pn**	**08 07 23.5**	**+1.9**
BLY	**Banja Luka**	**4.06**	**37**	⇑*i*Pn	**Pn**	**08 07 22.7**	**+0.2**
BOJS	**Bojanci**	**4.09**	**15**	*i* Pn	**Pn**	**08 07 22.8**	**-0.1**
BOJS				*i* Sn	**Sn**	**08 08 11.7**	**+0.4**
BOJS	**Bojanci**	**4.09**	**15**	*i* Pn	**Pn**	**08 07 22.8**	**-0.1**
BOJS				*i* Sn	**Sn**	**08 08 11.7**	**+0.4**
NKY	**Niksic**	**4.10**	**70**	⇑*i*Pn	**Pn**	**08 07 22.9**	**-0.1**
NKY				*e*Sn	**Sn**	**08 08 11.5**	**-0.1**
NKY	**Niksic**	**4.10**	**70**	⇑*i*Pn	**Pn**	**08 07 22.9**	**-0.1**
NKY				*e*Sn	**Sn**	**08 08 11.5**	**-0.1**
VAE	**Valguarnera**	**4.11**	**173**	Pn	**Pn**	**08 07 27.2**	**+4.1**
	2.5nm,0.3s,baz=323,slow=5.4,SNR=4.9						
VAE				LR	LR	08 08 50.6	
	comp=Z,220nm,20.5s,baz=122,slow=36						
VAE	**Valguarnera**	**4.11**	**173**	Pn	**Pn**	**08 07 27.2**	**+4.1**
ULC	**Ulcinj**	**4.14**	**83**	*e*Pn	**Pn**	**08 07 23.2**	**-0.3**
ULC				*e*Sn	**Sn**	**08 08 12.3**	**-0.2**
ULC	**Ulcinj**	**4.14**	**83**	*e*Pn	**Pn**	**08 07 23.2**	**-0.3**
ULC				*e*Sn	**Sn**	**08 08 12.3**	**-0.2**
UPM	**Unac-Piva**	**4.17**	**65**	⇑*i*Pn	**Pn**	**08 07 24.3**	**+0.4**
UPM				*e*Sn	**Sn**	**08 08 13.1**	**0.0**
UPM	**Unac-Piva**	**4.17**	**65**	⇑*i*Pn	**Pn**	**08 07 24.3**	**+0.4**
UPM				*e*Sn	**Sn**	**08 08 13.1**	**0.0**
PDG	**Podgorica**	**4.21**	**76**	⇓*i*Pn	**Pn**	**08 07 24.4**	**0.0**
PDG				*e*Sn	**Sn**	**08 08 13.6**	**-0.5**
TTG	**Podgorica**	**4.21**	**76**	⇓*i*Pn	**Pn**	**08 07 24.4**	**0.0**
TTG				*e*Sn	**Sn**	**08 08 13.6**	**-0.5**
TTG	**Podgorica**	**4.21**	**76**	⇓*i*Pn	**Pn**	**08 07 24.4**	**0.0**
TTG				*e*Sn	**Sn**	**08 08 13.6**	**-0.5**
VISS	**Visnje**	**4.32**	**10**	*i* Pn	**Pn**	**08 07 27.1**	**+1.2**
VISS	**Visnje**	**4.32**	**10**	*i* Pn	**Pn**	**08 07 27.1**	**+1.2**
JAVS	**Javornik**	**4.34**	**3**	*i* Pn	**Pn**	**08 07 25.4**	**-0.8**
JAVS				*i* Sn	**Sn**	**08 08 03.5**	**-14**
JAVS	**Javornik**	**4.34**	**3**	*i* Pn	**Pn**	**08 07 25.5**	**-0.7**
SISC	**Sisak**	**4.35**	**25**	*e*Pn	**Pn**	**08 07 24.5**	**-2.0**
SISC	**Sisak**	**4.35**	**25**	*e*Pn	**Pn**	**08 07 24.5**	**-1.9**
LJU	**Ljubljana**	**4.52**	**7**	*i* Pn	**Pn**	**08 07 30.9**	**+2.1**
LJU	**Ljubljana**	**4.52**	**7**	*i* Pn	**Pn**	**08 07 30.9**	**+2.2**
TIR	**Tirane**	**4.61**	**91**	P	**Pn**	**08 07 30.4**	**+0.5**
TIR	**Tirane**	**4.61**	**91**	P	**Pn**	**08 07 30.4**	**+0.5**
GMNA	**Gemona**	**4.73**	**356**	Pg	**Pn**	**08 07 31.2**	**-0.4**
	443nm,0.9s						
CTI	**Castel Tesino**	**4.74**	**342**	Pg	**Pn**	**08 07 31.1**	**-0.6**
	42nm,0.4s						
BBLS	**Lazići**	**4.77**	**59**	⇑*i*Pn	**Pn**	**08 07 32.8**	**+0.7**
MAGA	**Magasa**	**4.78**	**333**	Pg	**Pn**	**08 07 32.0**	**-0.3**
	308nm,0.6s						
PCP	**Piancastagn**	**4.83**	**310**	P	**Pn**	**08 07 33.5**	**+0.4**
PTCC	**Patocco-Chiusa**	**4.85**	**357**	Pg	**Pn**	**08 07 32.4**	**-0.9**
	31nm,0.6s						
RORO	**Rocca Rossa**	**4.89**	**303**	P	**Pn**	**08 07 35.1**	**+1.3**
IMI	**Imperia**	**4.91**	**301**	Pg	**Pn**	**08 07 34.2**	**+0.2**
	85nm,1.0s						
IMI	**Imperia**	**4.91**	**301**	P	**Pn**	**08 07 33.9**	**-0.1**
OBKA	**Obir**	**4.98**	**6**	⇑*i*Pn	**Pn**	**08 07 35.1**	**0.0**
	SNR=15						
OBKA	**Obir**	**4.98**	**6**	Pn	**Pn**	**08 07 35.1**	**0.0**
	SNR=15						
MABI	**Malga Bissina**	**5.06**	**334**	Pg	**Pn**	**08 07 36.2**	**0.0**
	58nm,0.9s						
MYKA	**Terra Mystica**	**5.07**	**359**	⇑*i*Pn	**Pn**	**08 07 36.0**	**-0.3**
MYKA				⇑*i*Sn	**Sn**	**08 08 35.8**	**+0.4**
MYKA	**Terra Mystica**	**5.07**	**359**	Pn	**Pn**	**08 07 36.0**	**-0.3**
MYKA				Sn	**Sn**	**08 08 35.8**	**+0.4**
SAOF	**Saorge**	**5.16**	**300**	P	**Pn**	**08 07 37.6**	**+0.1**
SAOF	**Saorge**	**5.16**	**300**	*e*P	**Pn**	**08 07 37.7**	**+0.2**
SAOF	**Saorge**	**5.16**	**300**	P	**Pn**	**08 07 37.6**	**+0.1**
PERS	**Pernice**	**5.17**	**11**	*i* Pn	**Pn**	**08 07 38.6**	**+0.9**
PERS	**Pernice**	**5.17**	**11**	*i* Pn	**Pn**	**08 07 38.6**	**+0.9**
SBF	**Sospel**	**5.18**	**298**	*e*Pn	**Pn**	**08 07 37.4**	**-0.5**
SBF				*e*Sn	**Sn**	**08 08 32.2**	**-6.0**
	36nm,0.7s						
SBF	**Sospel**	**5.18**	**298**	*e*Pn	**Pn**	**08 07 37.4**	**-0.5**
SOKA	**Soboth**	**5.20**	**10**	⇓*i*Pn	**Pn**	**08 07 38.8**	**+0.7**
SOKA	**Soboth**	**5.20**	**10**	Pn	**Pn**	**08 07 38.8**	**+0.7**
APPI	**Appiano**	**5.24**	**341**	Pg	**Pn**	**08 07 39.3**	**+0.7**
	104nm,0.9s						
AUTN	**L'Aution**	**5.25**	**300**	P	**Pn**	**08 07 39.1**	**+0.4**
AUTN	**L'Aution**	**5.25**	**300**	*e*P	**Pn**	**08 07 39.0**	**+0.3**
AUTN	**L'Aution**	**5.25**	**300**	*e*P	**Pn**	**08 07 39.0**	**+0.3**
DIVS	**Divibare**	**5.25**	**59**	⇑*i*Pn	**Pn**	**08 07 38.6**	**-0.2**
LUCF	**Luceram**	**5.25**	**298**	P	**Pn**	**08 07 38.8**	**0.0**
LUCF	**Luceram**	**5.25**	**298**	P	**Pn**	**08 07 38.8**	**0.0**
ABTA	**Abfaltersbach**	**5.26**	**351**	⇓*i*Pn	**Pn**	**08 07 38.7**	**-0.2**
	SNR=33						
ABTA				⇓*i*Sn	**Sn**	**08 08 39.5**	**-0.6**
ABTA	**Abfaltersbach**	**5.26**	**351**	Pn	**Pn**	**08 07 38.7**	**-0.2**
	SNR=33						
ABTA				Sn	**Sn**	**08 08 39.5**	**-0.6**
OHR	**Ohrid**	**5.33**	**92**	*e*Pg	**Pn**	**08 07 39.6**	**-0.3**
TOUF	**Mont Tournerai**	**5.37**	**299**	P	**Pn**	**08 07 40.9**	**+0.5**
TOUF	**Mont Tournerai**	**5.37**	**299**	*e*P	**Pn**	**08 07 40.9**	**+0.5**
TOUF	**Mont Tournerai**	**5.37**	**299**	P	**Pn**	**08 07 40.9**	**+0.5**
STV	**Sant Anna di V**	**5.42**	**302**	Pg	**Pn**	**08 07 43.3**	**+2.2**
BRMO	**Bormio**	**5.48**	**335**	Pg	**Pn**	**08 07 43.9**	**+2.0**
	42nm,0.8s						
CALN	**Calern**	**5.51**	**296**	P	**Pn**	**08 07 42.2**	**-0.1**
CALN	**Calern**	**5.51**	**296**	*e*P	**Pn**	**08 07 42.2**	**-0.1**
CALN	**Calern**	**5.51**	**296**	P	**Pn**	**08 07 42.2**	**-0.1**
KBA	**Koelnbreinsper**	**5.53**	**357**	*i* Pn	**Pn**	**08 07 42.9**	**+0.4**
	SNR=13						
KBA				⇑*i*Sn	**Sn**	**08 08 46.6**	**0.0**
KBA	**Koelnbreinsper**	**5.53**	**357**	Pn	**Pn**	**08 07 42.9**	**+0.4**
	SNR=13						
KBA				Sn	**Sn**	**08 08 46.6**	**0.0**
TRUS	**Trudelj**	**5.57**	**59**	⇑*i*Pn	**Pn**	**08 07 42.8**	**-0.4**
DOI	**San Damiano**	**5.59**	**304**	Pg	**Pn**	**08 07 45.6**	**+2.1**
FRF	**La Foret Royal**	**5.61**	**293**	*e*Pn	**Pn**	**08 07 42.6**	**-1.1**
FRF	**La Foret Royal**	**5.61**	**293**	*e*Pn	**Pn**	**08 07 42.6**	**-1.1**
GRUS	**Gruza**	**5.64**	**63**	⇑*i*Pn	**Pn**	**08 07 43.8**	**-0.3**
FUORN	**Ofenpass-Fuorn**	**5.64**	**335**	Pg	**Pn**	**08 07 45.4**	**+1.2**
PZZ	**Stroppo**	**5.68**	**303**	P	**Pn**	**08 07 43.9**	**-0.7**
SKO	**Skopje**	**5.77**	**83**	*e*Pg	**Pn**	**08 07 47.8**	**+1.9**
SKO	**Skopje**	**5.77**	**83**	P	**Pn**	**08 07 47.9**	**+2.0**
FNA	**Florina**	**5.81**	**95**	P	**Pn**	**08 07 47.6**	**+1.1**
FNA				S	**Sn**	**08 08 52.4**	**-1.3**
FNA	**Florina**	**5.81**	**95**	P	**Pn**	**08 07 47.6**	**+1.1**
FNA				S	**Sn**	**08 08 52.4**	**-1.3**
ARSA	**Arzberg**	**5.83**	**12**	*e*Pn	**Pn**	**08 07 45.4**	**-1.3**
TUE	**Stuetta**	**5.84**	**329**	*e*Pn	**Pn**	**08 07 48.4**	**+1.5**
	46nm,1.0s						
TUE	**Stuetta**	**5.84**	**329**	*e*Pn	**Pn**	**08 07 48.4**	**+1.5**
	46nm,1.0s						
PKSM	**Moragy**	**5.84**	**36**	⇓*e*P	**Pn**	**08 07 46.2**	**-0.7**
SURF	**Saint Ours**	**5.86**	**302**	P	**Pn**	**08 07 48.0**	**+0.9**
SURF	**Saint Ours**	**5.86**	**302**	*e*P	**Pn**	**08 07 49.9**	**+2.8**
SURF	**Saint Ours**	**5.86**	**302**	P	**Pn**	**08 07 48.0**	**+0.9**
FETA	**Feichten**	**5.87**	**339**	⇓*i*Pn	**Pn**	**08 07 47.4**	**+0.1**
	SNR=14						
FETA	**Feichten**	**5.87**	**339**	Pn	**Pn**	**08 07 47.4**	**+0.1**
	SNR=14						
WTTA	**Wattenberg**	**5.90**	**346**	⇑*i*Pn	**Pn**	**08 07 49.6**	**+2.0**
WTTA	**Wattenberg**	**5.90**	**346**	Pn	**Pn**	**08 07 49.6**	**+1.9**
DAVOX	**Davos/Dischmat**	**5.91**	**333**	Pn	**Pn**	**08 07 47.6**	**-0.3**
	0.7nm,0.3s,baz=175,slow=12,SNR=7.7						
DAVOX				Sn	**Sn**	**08 08 52.2**	**-3.9**
	0.4nm,0.3s,baz=160,slow=22,SNR=1.6						
DAVOX	**Davos/Dischmat**	**5.91**	**333**	Pn	**Pn**	**08 07 47.6**	**-0.2**
RSP	**Reno Superiore**	**5.93**	**309**	P	**Pn**	**08 07 47.4**	**-0.7**
MEV	**Metsovon**	**5.96**	**105**	P	**Pn**	**08 07 50.8**	**+2.2**
MEV	**Metsovon**	**5.96**	**105**	P	**Pn**	**08 07 50.8**	**+2.2**
WATA	**Walderalm**	**5.98**	**346**	⇓*i*Pn	**Pn**	**08 07 50.9**	**+2.1**
WATA	**Walderalm**	**5.98**	**346**	Pn	**Pn**	**08 07 50.9**	**+2.1**
MBDF	**Montbardon**	**6.00**	**304**	*e*Pn	**Pn**	**08 07 48.7**	**-0.4**
MBDF	**Montbardon**	**6.00**	**304**	*e*Pn	**Pn**	**08 07 48.7**	**-0.4**
TAVF	**Tavernes**	**6.03**	**292**	P	**Pn**	**08 07 49.9**	**+0.4**
TAVF	**Tavernes**	**6.03**	**292**	*e*P	**Pn**	**08 07 49.8**	**+0.3**
TAVF	**Tavernes**	**6.03**	**292**	*e*P	**Pn**	**08 07 49.8**	**+0.3**
MOTA	**Moosalm**	**6.08**	**343**	⇑*i*Pn	**Pn**	**08 07 51.3**	**+1.1**
	SNR=10						
MOTA	**Moosalm**	**6.08**	**343**	Pn	**Pn**	**08 07 51.3**	**+1.1**
	SNR=10						
BARS	**Barje**	**6.13**	**75**	⇑*i*Pn	**Pn**	**08 07 50.9**	**+0.1**
RJOB	**Jochberg**	**6.21**	**354**	*e*Pn	**Pn**	**08 07 52.6**	**+0.6**
RJOB				*e*Sn	**Sn**	**08 09 05.4**	**+1.9**
BNI	**Bardonecchia**	**6.22**	**306**	*e*Pn	**Pn**	**08 07 53.9**	**+1.8**
BNI	**Bardonecchia**	**6.22**	**306**	*e*Pn	**Pn**	**08 07 53.9**	**+1.8**
VLS	**Valsamata**	**6.26**	**120**	P	**Pn**	**08 07 52.4**	**-0.2**
VLS	**Valsamata**	**6.26**	**120**	P	**Pn**	**08 07 52.4**	**-0.2**
MOA	**Molln**	**6.30**	**3**	*e*Pn	**Pn**	**08 07 53.1**	**-0.1**
MOA	**Molln**	**6.30**	**3**	⇑*i*Pn	**Pn**	**08 07 53.3**	**+0.2**
	SNR=40						
MOA				⇓*i*Sn	**Sn**	**08 09 05.0**	**-0.7**
MOA	**Molln**	**6.30**	**3**	Pn	**Pn**	**08 07 53.3**	**+0.1**
	SNR=40						
MOA				Sn	**Sn**	**08 09 05.0**	**-0.7**
VILF	**Villemus**	**6.34**	**294**	P	**Pn**	**08 07 54.2**	**+0.5**
VILF	**Villemus**	**6.34**	**294**	*e*P	**Pn**	**08 07 54.2**	**+0.5**
VILF	**Villemus**	**6.34**	**294**	P	**Pn**	**08 07 54.2**	**+0.5**
SOP	**Sopron**	**6.44**	**17**	⇓*e*Pn	**Pn**	**08 07 56.9**	**+1.8**
SOP	**Sopron**	**6.44**	**17**	⇓*e*P	**Pn**	**08 07 56.9**	**+1.8**
SMRF	**Simiane la Rot**	**6.48**	**295**	*e*Pn	**Pn**	**08 07 55.7**	**+0.1**
SMRF	**Simiane la Rot**	**6.48**	**295**	*e*Pn	**Pn**	**08 07 55.7**	**+0.1**
CSNA	**Conrad Observa**	**6.54**	**13**	⇑*i*Pn	**Pn**	**08 07 56.8**	**+0.3**
CSNA				⇓*i*Sn	**Sn**	**08 09 11.1**	**-0.6**
CSNA	**Conrad Observa**	**6.54**	**13**	Pn	**Pn**	**08 07 56.8**	**+0.3**
CSNA				Sn	**Sn**	**08 09 11.1**	**-0.6**
CONA	**Conrad Observa**	**6.54**	**13**	⇓*i*Pn	**Pn**	**08 07 56.7**	**+0.2**
CONA	**Conrad Observa**	**6.54**	**13**	Pn	**Pn**	**08 07 56.7**	**+0.2**
GRG	**Griva**	**6.55**	**92**	P	**Pn**	**08 07 56.8**	**+0.1**
GRG	**Griva**	**6.55**	**92**	P	**Pn**	**08 07 56.8**	**+0.1**
THL	**Klokotos Trika**	**6.61**	**105**	P	**Pn**	**08 07 59.2**	**+1.8**
THL	**Klokotos Trika**	**6.61**	**105**	P	**Pn**	**08 07 59.2**	**+1.8**
RSL	**Roselend**	**6.61**	**311**	P	**Pn**	**08 07 59.9**	**+2.5**
RSL	**Roselend**	**6.61**	**311**	*e*P	**Pn**	**08 08 01.7**	**+4.3**
RSL	**Roselend**	**6.61**	**311**	P	**Pn**	**08 07 59.9**	**+2.5**
VAY	**Valandovo**	**6.64**	**89**	*e*Pg	**Pn**	**08 07 57.5**	**-0.4**
VAY	**Valandovo**	**6.64**	**89**	*i* P	**Pn**	**08 07 57.1**	**-0.8**
ORIF	**Oris-en-Rattie**	**6.65**	**303**	*e*P	**Pn**	**08 08 01.2**	**+3.2**
PKSG		**6.71**	**28**	*e*P	**Pn**	**08 07 59.9**	**+1.1**
KEST	**Kesra**	**6.76**	**212**	Pn	**Pn**	**08 08 02.4**	**+2.9**
	2.0nm,0.3s,baz=312,slow=3.9,SNR=43						
KEST				Sn	**Sn**	**08 09 15.6**	**-1.4**
	baz=8.1,slow=22,SNR=1.4						
KEST				LR	LR	08 10 44.8	
	comp=Z,195nm,19.5s,baz=201,slow=39						
LIT	**Litokhoron**	**6.79**	**100**	P	**Pn**	**08 08 00.3**	**+0.3**
LIT	**Litokhoron**	**6.79**	**100**	P	**Pn**	**08 08 00.3**	**+0.3**
ZAPS	**Zavoj**	**6.80**	**72**	⇑*i*Pn	**Pn**	**08 08 01.1**	**+1.0**
FUR	**Furstenfeldbru**	**6.83**	**346**	*e*L		08 11 16.0	
	comp=Z,660nm,15.6s						
KNT	**Kendrikon**	**6.90**	**90**	P	**Pn**	**08 08 01.9**	**+0.4**
KNT	**Kendrikon**	**6.90**	**90**	P	**Pn**	**08 08 01.9**	**+0.4**
OG01	**Vacheresse**	**6.98**	**315**	P	**Pn**	**08 08 05.1**	**+2.6**
OG01	**Vacheresse**	**6.98**	**315**	*e*P	**Pn**	**08 08 06.0**	**+3.5**
KKB	**Krupnik**	**7.00**	**84**	*i* P	**Pn**	**08 08 04.2**	**+1.4**
KKB				S	**Sn**	**08 09 23.8**	**+0.9**
AGG	**Agios Georgios**	**7.04**	**108**	P	**Pn**	**08 08 04.3**	**+1.0**
AGG				S	**Sn**	**08 09 24.2**	**+0.3**
AGG	**Agios Georgios**	**7.04**	**108**	P	**Pn**	**08 08 04.3**	**+1.0**
AGG				S	**Sn**	**08 09 24.2**	**+0.3**
ZST	**Bratislava**	**7.05**	**19**	*e*PN	**Pn**	**08 08 00.9**	**-2.6**
ZST	**Bratislava**	**7.05**	**19**	*e*Pn	**Pn**	**08 08 00.9**	**-2.6**
VTS	**Vitosha**	**7.12**	**79**	P	**Pn**	**08 08 05.7**	**+1.3**
VTS				S	**Sn**	**08 09 23.6**	**-2.3**
VTS	**Vitosha**	**7.12**	**79**	*i* P	**Pn**	**08 08 04.8**	**+0.4**
VTS				S	**Sn**	**08 09 23.0**	**-2.9**
VTS	**Vitosha**	**7.12**	**79**	P	**Pn**	**08 08 05.7**	**+1.3**
VTS				S	**Sn**	**08 09 23.6**	**-2.3**
DJES	**Djerdap**	**7.13**	**61**	⇑*i*Pn	**Pn**	**08 08 04.9**	**+0.3**
HORT	**Hortiatis**	**7.14**	**95**	P	**Pn**	**08 08 05.1**	**+0.4**
HORT	**Hortiatis**	**7.14**	**95**	P	**Pn**	**08 08 05.1**	**+0.4**
LAKA	**Lakka**	**7.15**	**115**	P	**Pn**	**08 08 06.0**	**+1.2**
LAKA	**Lakka**	**7.15**	**115**	P	**Pn**	**08 08 06.0**	**+1.2**
MODS	**Modra-Piesok**	**7.26**	**19**	*e*PN	**Pn**	**08 08 05.9**	**-0.4**
MODS	**Modra-Piesok**	**7.26**	**19**	*e*Pn	**Pn**	**08 08 05.9**	**-0.4**
GEC2	**GERESS Array S**	**7.29**	**360**	*e*Pn	**Pn**	**08 08 06.6**	**-0.1**
GEC2	**GERESS Array S**	**7.29**	**360**	*e*Pn	**Pn**	**08 08 06.6**	**-0.1**
GERES	**GERESS Array B**	**7.29**	**360**	Pn	**Pn**	**08 08 05.9**	**-0.8**
	comp=Z,2.6nm,0.3s,baz=185,slow=11,SNR=61						
GERES				Sn	**Sn**	**08 09 28.1**	**-1.8**
	comp=Z,0.9nm,0.3s,baz=182,slow=25,SNR=3.0						
GERES				LR	LR	08 11 06.4	
	comp=Z,73nm,18.0s,baz=342,slow=40						
GERES	**GERESS Array B**	**7.29**	**360**	Pn	**Pn**	**08 08 05.9**	**-0.8**
GERES				Sn	**Sn**	**08 09 28.1**	**-1.8**
VIVF	**Saint-Julien-l**	**7.40**	**299**	*e*Pn	**Pn**	**08 08 07.3**	**-0.9**
VIVF	**Saint-Julien-l**	**7.40**	**299**	*e*Pn	**Pn**	**08 08 07.3**	**-0.9**
SMOL	**Smolenice**	**7.43**	**19**	*e*PN	**Pn**	**08 08 08.8**	**+0.2**
SMOL	**Smolenice**	**7.43**	**19**	*e*Pn	**Pn**	**08 08 08.8**	**+0.2**
PLG	**Polygyros**	**7.44**	**96**	P	**Pn**	**08 08 09.7**	**+0.9**
PLG	**Polygyros**	**7.44**	**96**	P	**Pn**	**08 08 09.7**	**+0.9**
CABF	**La Chapelle**	**7.47**	**315**	*e*P	**Pn**	**08 08 11.4**	**+2.1**
CABF	**La Chapelle**	**7.47**	**315**	*e*P	**Pn**	**08 08 11.4**	**+2.1**
MMB	**Musomiste**	**7.49**	**86**	*i* P	**Pn**	**08 08 09.0**	**-0.5**
FELD	**Feldberg im Sc**	**7.52**	**329**	*e*P	**Pn**	**08 08 08.5**	**-1.4**
FELD	**Feldberg im Sc**	**7.52**	**329**	P	**Pn**	**08 08 08.6**	**-1.3**
XOR	**Xorichti**	**7.53**	**104**	P	**Pn**	**08 08 10.8**	**+0.7**
XOR	**Xorichti**	**7.53**	**104**	P	**Pn**	**08 08 10.8**	**+0.7**
KHC	**Kasperske Hory**	**7.57**	**359**	*e*PN	**Pn**	**08 08 09.8**	**-0.8**
KHC				*e*SN	**Sn**	**08 09 35.0**	**-2.0**
KHC				AMS	AMS	08 11 30.0	
	comp=Z,300nm,16.4s						
KHC	**Kasperske Hory**	**7.57**	**359**	*e*Pn	**Pn**	**08 08 09.8**	**-0.8**
KHC				*e*Sn	**Sn**	**08 09 35.0**	**-2.0**
KHC				*e*Sn	**Sn**	**08 09 37.9**	**+0.9**
KHC	**Kasperske Hory**	**7.57**	**359**	Pn	**Pn**	**08 08 09.8**	**-0.8**
KHC				Sn	**Sn**	**08 09 35.0**	**-2.0**
LOMF	**Lomont**	**7.61**	**322**	*e*P	**Pn**	**08 08 11.8**	**+0.6**
LOMF	**Lomont**	**7.61**	**322**	*e*P	**Pn**	**08 08 11.8**	**+0.6**
SSB	**Saint Sauveur**	**7.66**	**302**	*e*Pn	**Pn**	**08 08 11.5**	**-0.3**
	comp=Z,9.0nm,0.7s						
SSB	**Saint Sauveur**	**7.66**	**302**	*e*Pn	**Pn**	**08 08 11.5**	**-0.3**
	comp=Z,9.0nm,0.7s						
LKR	**Lokris**	**7.67**	**109**	P	**Pn**	**08 08 13.9**	**+1.9**
LKR	**Lokris**	**7.67**	**109**	P	**Pn**	**08 08 13.9**	**+1.9**
LASF	**Ste Croix**	**7.69**	**292**	*e*Pn	**Pn**	**08 08 10.7**	**-1.5**
LASF	**Ste Croix**	**7.69**	**292**	*e*Pn	**Pn**	**08 08 10.7**	**-1.5**
PSZ	**Piszkesteto**	**7.72**	**32**	⇓*e*Pn	**Pn**	**08 08 12.8**	**+0.2**
PSZ	**Piszkesteto**	**7.72**	**32**	*e*Pn	**Pn**	**08 08 12.7**	**+0.1**
PSZ	**Piszkesteto**	**7.72**	**32**	*e*Pn	**Pn**	**08 08 12.7**	**+0.1**
PAIG	**Paliouri**	**7.72**	**99**	P	**Pn**	**08 08 11.4**	**-1.3**
PAIG	**Paliouri**	**7.72**	**99**	P	**Pn**	**08 08 11.4**	**-1.3**
KOLL	**Kolacno**	**7.75**	**24**	*i* PN	**Pn**	**08 08 12.0**	**-1.1**
KOLL	**Kolacno**	**7.75**	**24**	*i* Pn	**Pn**	**08 08 12.0**	**-1.1**
BFO	**Black Forest**	**7.78**	**332**	*e*Pn	**Pn**	**08 08 14.1**	**+0.6**
BFO	**Black Forest**	**7.78**	**332**	*e*Pn	**Pn**	**08 08 14.2**	**+0.7**
BFO	**Black Forest**	**7.78**	**332**	*e*Pn	**Pn**	**08 08 14.2**	**+0.7**
VYHS	**Vyhne**	**7.81**	**26**	*i* PN	**Pn**	**08 08 12.8**	**-1.2**
VYHS				*e*SN	**Sn**	**08 09 38.5**	**-4.4**
VYHS	**Vyhne**	**7.81**	**26**	*e*Pn	**Pn**	**08 08 12.8**	**-1.2**
VYHS				*e*Sn	**Sn**	**08 09 38.5**	**-4.4**
VYHS	**Vyhne**	**7.81**	**26**	*i* Pn	**Pn**	**08 08 12.8**	**-1.2**
PGB	**Panagyurishte**	**7.82**	**79**	*i* P	**Pn**	**08 08 15.6**	**+1.5**
PGB				S	**Sn**	**08 09 31.0**	**-12**
TREC	**Trest**	**7.83**	**8**	*e*PN	**Pn**	**08 08 13.5**	**-0.7**
TREC				AMS	AMS	08 11 40.0	
	comp=Z,1µm,11.1s						
TREC	**Trest**	**7.83**	**8**	Pn	**Pn**	**08 08 13.5**	**-0.7**
MOF	**Molkenrain**	**7.85**	**325**	P	**Pn**	**08 08 14.0**	**-0.5**
MOF	**Molkenrain**	**7.85**	**325**	*e*P	**Pn**	**08 08 13.9**	**-0.6**
MOF	**Molkenrain**	**7.85**	**325**	P	**Pn**	**08 08 14.0**	**-0.5**
STU	**Stuttgart**	**7.89**	**338**	*e*Pn	**Pn**	**08 08 14.3**	**-0.7**
STU	**Stuttgart**	**7.89**	**338**	*e*Pn	**Pn**	**08 08 14.3**	**-0.7**
LTK	**Loutraki**	**7.93**	**113**	P	**Pn**	**08 08 17.3**	**+1.7**
LTK	**Loutraki**	**7.93**	**113**	P	**Pn**	**08 08 17.3**	**+1.7**
HINF	**Hinteralfeld**	**7.95**	**324**	*e*Pn	**Pn**	**08 08 13.9**	**-1.9**
HINF				*e*Sn	**Sn**	**08 09 37.3**	**-8.9**
	comp=Z,16nm,0.7s						
HINF	**Hinteralfeld**	**7.95**	**324**	*e*Pn	**Pn**	**08 08 13.9**	**-1.9**
VRAC	**Vranov**	**8.00**	**14**	Pn	**Pn**	**08 08 16.3**	**-0.3**
	comp=Z,0.7nm,0.3s,baz=208,slow=23,SNR=2.9						
VRAC	**Vranov**	**8.00**	**14**	Pn	**Pn**	**08 08 16.2**	**-0.3**
ECH	**Echery**	**8.13**	**327**	P	**Pn**	**08 08 17.3**	**-1.0**
ECH	**Echery**	**8.13**	**327**	*e*Pn	**Pn**	**08 08 17.1**	**-1.2**
	comp=Z,9.4nm,0.8s						
ECH	**Echery**	**8.13**	**327**	*e*Pn	**Pn**	**08 08 17.1**	**-1.2**
	comp=Z,9.4nm,0.8s						
CDF	**Champ du Feu**	**8.24**	**328**	*e*Pn	**Pn**	**08 08 18.8**	**-1.0**
CDF				*e*Sn	**Sn**	**08 09 45.7**	**-7.7**
	comp=Z,12nm,0.6s						
CDF	**Champ du Feu**	**8.24**	**328**	*e*Pn	**Pn**	**08 08 18.8**	**-1.0**
HAU	**Haudompre**	**8.31**	**323**	*e*Pn	**Pn**	**08 08 18.9**	**-1.9**
HAU				*e*Sn	**Sn**	**08 09 46.3**	**-8.9**
	comp=Z,29nm,0.8s						
HAU	**Haudompre**	**8.31**	**323**	*e*Pn	**Pn**	**08 08 18.9**	**-1.9**
GRF	**Grafenberg Arr**	**8.32**	**349**	*e*L		08 12 17.0	
	comp=Z,590nm,16.5s						
KECS	**Kecovo**	**8.41**	**32**	*i* PN	**Pn**	**08 08 20.4**	**-1.7**
PRU	**Pruhonice**	**8.45**	**4**	*e*PN	**Pn**	**08 08 23.5**	**+0.9**
PRU				*e*SN	**Sn**	**08 09 54.1**	**-4.4**
PRU				AMS	AMS	08 12 10.0	
	comp=Z,600nm,10.6s						
PRU	**Pruhonice**	**8.45**	**4**	*e*Pn	**Pn**	**08 08 23.5**	**+0.9**
PRU				*e*Sn	**Sn**	**08 09 54.1**	**-4.4**
PRU	**Pruhonice**	**8.45**	**4**	Pn	**Pn**	**08 08 23.5**	**+0.9**
LBL	**Lubilhac**	**8.48**	**299**	*e*P	**Pn**	**08 08 25.0**	**+2.0**
LBL	**Lubilhac**	**8.48**	**299**	*e*P	**Pn**	**08 08 25.0**	**+2.0**
LANF	**Langenberg**	**8.52**	**333**	P	**Pn**	**08 08 22.1**	**-1.5**
LANF	**Langenberg**	**8.52**	**333**	*e*P	**Pn**	**08 08 25.8**	**+2.2**
LANF	**Langenberg**	**8.52**	**333**	P	**Pn**	**08 08 22.1**	**-1.5**
PLDF	**La Plantade**	**8.55**	**304**	P	**Pn**	**08 08 24.1**	**+0.1**
PLDF	**La Plantade**	**8.55**	**304**	*e*P	**Pn**	**08 08 27.5**	**+3.5**
PLDF	**La Plantade**	**8.55**	**304**	P	**Pn**	**08 08 24.1**	**+0.1**
MORC	**Moravsky Berou**	**8.64**	**17**	*e*Pn	**Pn**	**08 08 26.2**	**+0.9**
MORC	**Moravsky Berou**	**8.64**	**17**	*e*Pn	**Pn**	**08 08 25.3**	**+0.1**
THEF	**They Montfort**	**8.64**	**323**	P	**Pn**	**08 08 24.7**	**-0.6**
THEF	**They Montfort**	**8.64**	**323**	*e*P	**Pn**	**08 08 26.3**	**+1.0**

THEF	They Montfort	8.64	323	P	Pn	08 08 24.7	-0.6
MTLF	Montolieu	8.71	286	ePn	Pn	08 08 23.9	-2.3
MTLF	Montolieu	8.71	286	ePn	Pn	08 08 23.9	-2.3
SMF	Signal de Mont	8.75	309	eP	Pn	08 08 29.7	+2.9
OKC	Ostrava-Krasne	8.83	19	AMS	AMS	08 12 50.0	
	comp=Z,700nm,10.0s						
DPC	Dobruska-Polom	8.97	11	AMS	AMS	08 12 20.0	
	comp=Z,800nm,12.8s						
PVCC	Panska Ves	8.99	3	AMS	AMS	08 12 20.0	
	comp=Z,700nm,7.9s						
SFTF	Sexfontaines	9.07	320	ePn	Pn	08 08 28.8	-2.3
	baz=138						
SFTF	Sexfontaines	9.07	320	ePn	Pn	08 08 28.8	-2.3
	baz=138						
LOR	Lormes	9.08	312	ePn	Pn	08 08 29.5	-1.9
	baz=128						
LOR	Lormes	9.08	312	ePn	Pn	08 08 29.5	-1.9
	baz=128						
CRVS	Cervenica-Dubn	9.14	34	i PN	Pn	08 08 34.0	+1.9
CRVS	Cervenica-Dubn	9.14	34	i Pn	Pn	08 08 34.0	+1.9
CAF	Calviac	9.16	295	ePn	Pn	08 08 29.8	-2.6
CAF	Calviac	9.16	295	ePn	Pn	08 08 29.8	-2.6
MOX	Moxa	9.21	352	ePN	Pn	08 08 33.5	+0.5
MOX	Moxa	9.21	352	ePn	Pn	08 08 32.9	-0.1
MOX	Moxa	9.21	352	ePn	Pn	08 08 33.5	+0.5
BGF	Bois d'Agland	9.30	306	ePn	Pn	08 08 32.2	-2.1
BGF	Bois d'Agland	9.30	306	ePn	Pn	08 08 32.2	-2.1
BRG	Berggiesshubel	9.32	1	ePn	Pn	08 08 33.8	-0.7
BRG	Berggiesshubel	9.32	1	PN	Pn	08 08 34.1	-0.4
BRG				e		08 08 41.6	
BRG				e		08 10 26.5	
BRG				e		08 11 27.0	
	comp=Z,23nm,1.2s						
BRG							
	comp=N,392nm,14.1s						
BRG							
	comp=E,376nm,12.0s						
BRG							
	comp=Z,429nm,15.0s						
STHS	Stebnicka Huta	9.46	31	i PN	Pn	08 08 39.5	+3.1
MLR	Muntele Rosu	9.70	62	Pn	Pn	08 08 41.4	+1.6
	comp=Z,0.3nm,0.3s,baz=219,slow=6.2,SNR=18						
MLR	Muntele Rosu	9.70	62	Pn	Pn	08 08 41.4	+1.7
CLL	Collm	9.77	357	ePn	Pn	08 08 39.2	-1.5
CLL	Collm	9.77	357	i Pn	Pn	08 08 40.6	-0.1
CLL				ePb	Pn	08 09 19.0	+38
CLL				eSn	Sn	08 10 32.0	+1.2
CLL				e		08 10 53.0	
CLL				e		08 11 00.0	
CLL				eSg	Sn	08 11 43.0	+72
	comp=N,100nm,23.6s						
CLL				eSg	Sn	08 11 43.0	+72
	comp=E,200nm,20.1s						
CLL	Collm	9.77	357	i Pn	Pn	08 08 40.6	-0.1
CLL				eSn	Sn	08 10 32.0	+1.2
CLL				eSg	Sn	08 11 59.0	+88
CLL	Collm	9.77	357	i Pn	Pn	08 08 40.6	-0.1
CLL				eSn	Sn	08 10 32.0	+1.2
MEM	Membach	10.52	332	P	Px	08 09 23.0	
HGN	Heimansgroeve	10.67	332	ePg	Px	08 09 21.1	
	comp=E,9.5nm,0.1s,baz=40						
HGN				eSg	Sx	08 09 36.0	
IDI	Anoyia	10.75	122	Pn	Pn	08 08 55.5	+1.3
	comp=E,0.3nm,0.3s,baz=79,slow=15,SNR=2.2						
IDI				Sn	Sn	08 10 51.1	-4.1
	comp=E,0.2nm,0.3s,baz=173,slow=18,SNR=2.4						
IDI	Anoyia	10.75	122	Pn	Pn	08 08 55.5	+1.3
ESDC	Sonseca Array	13.58	268	Pn	Pn	08 09 32.6	-0.4
	comp=E,0.6nm,0.3s,baz=73,slow=14,SNR=8.7						
ESDC				LR	LR	08 14 35.7	
	comp=E,80nm,20.6s,baz=10.0,slow=37						
ESDC	Sonseca Array	13.58	268	Pn	Pn	08 09 32.6	-0.3
AKASG	Malin Array Be	14.08	44	Pn	Pn	08 09 39.1	-0.5
	comp=E,0.3nm,0.3s,baz=236,slow=14,SNR=4.4						
AKASG	Malin Array Be	14.08	44	Pn	Pn	08 09 39.1	-0.5
BRTR	Keskin Array B	15.22	90	Pn	Pn	08 10 00.7	+5.5
	comp=E,0.1nm,0.3s,baz=294,slow=11,SNR=3.9						
MDT	Midelt	17.01	245	Pn	Pn	08 10 22.0	+3.8
	comp=E,0.0nm,0.3s,baz=56,slow=13,SNR=5.7						
MDT				LR	LR	08 16 04.9	
	comp=E,132nm,18.2s,baz=237,slow=34						
EKA	Eskdalemuir Ar	17.70	327	P	Pn	08 10 26.2	-0.5
	baz=263,slow=17,SNR=3.6						
EKA	Eskdalemuir Ar	17.70	327	P	Pn	08 10 26.2	-0.5
HFS	Hagfors	18.60	360	P	Pn	08 10 37.2	-0.5
	comp=E,0.1nm,0.3s,baz=193,slow=12,SNR=5.1						
HFS	Hagfors	18.60	360	P	Pn	08 10 37.2	-0.5
NB2	NORSAR Subarra	19.57	356	P	Pn	08 10 48.1	-1.3
	comp=Z,12nm,1.2s,baz=176,slow=12						
NB2	NORSAR Subarra	19.57	356	P	Pn	08 10 48.1	-1.3
	comp=Z,12nm,1.2s,baz=176,slow=12,SNR=7.4						
NOA	NORSAR Array B	19.57	356	P	Pn	08 10 47.2	-2.2
	comp=Z,0.1nm,0.3s,baz=172,slow=12,SNR=3.8						
NOA	NORSAR Array B	19.57	356	P	Pn	08 10 47.2	-2.2
TAM	Tamanrasset	19.94	203	eP	Pn	08 10 56.6	+2.4
	comp=Z,24nm,1.3s						
DIYA	Diyarbakir	20.58	91	i P	Px	08 11 18.1	
MARD	Mardin	21.27	93	i P	P	08 11 12.4	+5.5
BEST	Besiri	21.45	91	i P	P	08 11 03.8	-5.0
KAF	Kangasniemi	21.92	16	ep	P	08 11 12.0	-1.6
	comp=Z,4.6nm,0.7s,mb4.0						
KAF	Kangasniemi	21.92	16	eP	P	08 11 12.0	-1.6
	comp=Z,4.6nm,0.7s,mb4.0						
HAKT	HAKKARI	23.39	90	i P	P	08 11 26.4	-3.1
JOF	Joensuu	23.79	20	ep	P	08 11 38.3	+5.2
	comp=Z,5.2nm,0.7s,mb4.1						
TORD	Torodi Ar. Bea	30.19	204	P	P	08 12 32.1	+1.1
	comp=Z,4.1nm,0.8s,mb4.2,baz=20,slow=8.6,SNR=29						
ARU	Arti	32.30	47	eP	P	08 12 49.1	-0.2
	comp=Z,11nm,1.0s,mb4.7						
ARU	Arti	32.30	47	eP	P	08 12 49.1	-0.2
	comp=Z,11nm,1.0s,mb4.7						
DBIC	Dimbokro	38.48	211	P	P	08 13 43.6	+0.8
	comp=Z,5.5nm,0.8s,mb4.4,baz=358,slow=8.7,SNR=7.5						
DBIC	Dimbokro	38.48	211	P	P	08 13 43.7	+0.8
TIC	Toumodi	38.57	211	eP	P	08 13 40.5	-3.1
	comp=Z,5.3nm,0.2s,mb4.9						
KIC	Kosan Boka	38.72	210	eP	P	08 13 39.8	-5.1
	comp=Z,42nm,0.9s,mb5.2						
LIC	Lamto	38.96	211	eP	P	08 13 47.4	+0.6
	comp=Z,29nm,0.8s,mb4.7,baz=28						
LIC	Lamto	38.96	211	eP	P	08 13 42.7	-4.1
	comp=Z,84nm,1.4s,mb5.3						
LIC	Lamto	38.96	211	eP	P	08 13 47.4	+0.6
	comp=Z,14nm,0.8s,mb4.8						
LIC	Lamto	38.96	211	eP	P	08 13 47.4	+0.6
	comp=Z,14nm,0.8s,mb4.7,baz=28						
BRVK	Borovoye	39.04	53	eP	P	08 13 47.4	+0.2
	comp=Z,7.3nm,0.8s,mb4.5						
BRVK	Borovoye	39.04	53	eP	P	08 13 47.4	+0.2
	comp=Z,7.3nm,0.8s,mb4.5						
BVAR	Borovoye Array	39.11	53	P	P	08 13 48.0	+0.3
	comp=Z,3.3nm,0.8s,mb4.1,baz=263,slow=7.2,SNR=12						
BVAR	Borovoye Array	39.11	53	P	P	08 13 48.0	+0.2
KURK	Kurchatov	44.55	55	P	P	08 14 31.0	-1.2
	comp=Z,2.3nm,1.0s,mb4.0,baz=295,slow=9.5,SNR=8.2						
KURK	Kurchatov	44.55	55	P	P	08 14 31.0	-1.3
ZALV	Zalesovo Beam	47.40	49	P	P	08 14 53.8	-0.9
	comp=Z,1.1nm,0.6s,mb4.0,baz=282,slow=8.5,SNR=6.1						
ZALV	Zalesovo Beam	47.40	49	P	P	08 14 53.8	-0.9
MKAR	Makanchi Array	48.03	59	P	P	08 14 59.4	-0.3
	comp=Z,1.9nm,0.7s,mb4.2,baz=285,slow=6.3,SNR=23						
SCHQ	Schefferville	52.40	314	P	P	08 15 31.6	-1.1
	comp=Z,2.4nm,0.7s,mb4.2,baz=90,slow=6.5,SNR=7.5						
SCHQ	Schefferville	52.40	314	P	P	08 15 31.6	-1.1
WMQ	Urumqi	52.69	61	eP	P	08 15 38.0	+3.0
SONM	Songino Array	62.29	49	P	P	08 16 42.9	+0.2
	comp=Z,1.8nm,0.8s,mb4.2,baz=297,slow=6.3,SNR=7.8						
SONM	Songino Array	62.29	49	P	P	08 16 42.9	+0.2
YKA	Yellowknife Ar	68.34	337	P	P	08 17 21.3	-0.3
	comp=Z,1.6nm,1.0s,mb4.0,baz=44,slow=6.1,SNR=18						
YKA	Yellowknife Ar	68.34	337	P	P	08 17 21.3	-0.3
YKA	Yellowknife Ar	68.34	337	P	P	08 17 21.3	-0.3
HHC	Hu-ho-hao-te	69.32	53	eP	P	08 17 28.9	+0.8
HHC				pP		08 17 34.8	
HHC				sP	sP	08 17 38.4	+9.4
HHC				PP	PP	08 20 02.8	+2.0
HHC				PcS		08 21 55.9	
HHC				S	S	08 26 31.0	-4.5
HHC				sS	sS	08 26 41.1	+4.5
HHC				SS	SS	08 30 59.4	-2.1
ULM	Lac du Bonnet	69.82	320	P	P	08 17 30.1	-1.0
	comp=Z,1.6nm,0.6s,mb4.2,baz=40,slow=6.7,SNR=3.4						
ULM	Lac du Bonnet	69.82	320	P	P	08 17 30.0	-1.0
CD2	Chengdu	70.27	66	P	P	08 17 34.8	+0.7
CD2				pP		08 17 41.0	
CD2				sP	sP	08 17 43.8	+8.8
CD2				PP	PP	08 20 11.8	+2.5
CD2				S	S	08 26 43.4	-3.5
CD2				sS	sS	08 26 53.8	+5.8
CD2				SS	SS	08 31 14.8	-1.7
CD2				LR	LR		
	comp=Z,580nm,15.3s						
DAWY	Dawson	72.59	348	eP	P	08 17 48.1	+0.5
DAWY	Dawson	72.59	348	eP	P	08 17 48.1	+0.5
KMI	Kunming	73.09	71	P	P	08 17 53.8	+2.6
EGMT	Eagleton	77.77	325	eP	P	08 18 19.0	+1.3
	comp=Z,54nm,2.0s,mb5.1						
EGMT	Eagleton	77.77	325	eP	P	08 18 19.0	+1.3
	comp=Z,54nm,2.0s,mb5.1						
NJ2	Nanjing	79.46	56	eP	P	08 18 29.3	+2.0
JTMT	Jette	79.88	327	eP	P	08 18 30.3	+1.0
	comp=Z,3.7nm,1.4s,mb4.1						
JTMT	Jette	79.88	327	eP	P	08 18 30.3	+1.0
	comp=Z,3.7nm,1.4s,mb4.1						
SDV	Santo Domingo	79.97	273	eP	P	08 18 30.9	+0.6
	comp=Z,7.7nm,0.8s,mb4.7						
SDV	Santo Domingo	79.97	273	eP	P	08 18 30.9	+0.6
	comp=Z,7.7nm,0.8s,mb4.7						
BOZ	Bozeman (W)	80.43	325	eP	P	08 18 33.3	+1.0
	comp=Z,2.7nm,1.0s,mb4.1						
BOZ	Bozeman (W)	80.43	325	eP	P	08 18 33.3	+1.0
	comp=Z,2.7nm,1.0s,mb4.1						
DLMT	Dillon	81.07	325	eP	P	08 18 37.0	+1.2
	comp=Z,5.7nm,1.4s,mb4.3						
DLMT	Dillon	81.07	325	eP	P	08 18 37.0	+1.2
	comp=Z,5.7nm,1.4s,mb4.3						
IMW	Indian Meadow	81.49	323	eP	P	08 18 36.0	-2.1
	comp=Z,3.9nm,1.3s,mb4.2						
IMW	Indian Meadow	81.49	323	eP	P	08 18 36.0	-2.0
	comp=Z,3.9nm,1.3s,mb4.2						
PDAR	Pinedale Array	81.74	322	P	P	08 18 38.8	-0.5
	comp=Z,0.8nm,0.8s,mb3.7,baz=66,slow=5.0,SNR=6.0						
PDAR	Pinedale Array	81.74	322	P	P	08 18 38.8	-0.5
REDW	Red Top Meadow	81.87	323	eP	P	08 18 41.7	+1.7
	comp=Z,11nm,1.5s,mb4.6						
REDW	Red Top Meadow	81.87	323	eP	P	08 18 41.7	+1.7
	comp=Z,11nm,1.5s,mb4.6						
ISCO	Idaho Springs	82.07	317	eP	P	08 18 42.5	+1.3
	comp=Z,15nm,1.8s,mb4.6						
ISCO	Idaho Springs	82.07	317	eP	P	08 18 42.5	+1.3
	comp=Z,15nm,1.8s,mb4.6						
BMO	Blue Mountains	83.45	327	eP	P	08 18 48.1	-0.1
	comp=Z,9.3nm,1.0s,mb4.8						
BMO	Blue Mountains	83.45	327	eP	P	08 18 48.1	-0.1
	comp=Z,9.3nm,1.0s,mb4.8						
SDCO	Great Sand Dun	83.56	316	eP	P	08 18 48.9	0.0
	comp=Z,4.2nm,1.2s,mb4.4						
SDCO	Great Sand Dun	83.56	316	eP	P	08 18 48.9	0.0
	comp=Z,4.2nm,1.2s,mb4.4						
PV04	Paradox Valley	84.80	318	eP	P	08 18 56.0	+0.7
PV04	Paradox Valley	84.80	318	eP	P	08 18 56.0	+0.8
SRU	San Rafael	85.04	320	eP	P	08 18 56.5	+0.1
	comp=Z,4.0nm,0.9s,mb4.5						
SRU	San Rafael	85.04	320	eP	P	08 18 56.5	+0.1
	comp=Z,4.0nm,0.9s,mb4.5						

BJI **20** *08:08:26.8, 2°.54N×95°.89E, h30^{km}, mB6.8/36, mb6.1/59, Ms7.7/73, Ms7 7.5/60*

ISCJB **20** *08:08:29.4±0.1, 2°.77N±0°.02×95°.99E±0°.01, h30^{km}, mb6.3/376, MS7.5/262, Error ellipse: s-maj=3.0km s-min=1.7km az=22.6*

MOS **20** *08:08:29.4±0.9, 2°.77N×95°.99E, h33^{km}, mb6.7/122, MS7.4/81, Error ellipse: s-maj=6.6km s-min=3.7km az=121.8 Broadband fault plane solution: P waves. $M_0$7.00000×10^{19} NP1:ϕ_s4.00000°, δ11.00000°, λ146.00000°. NP2:ϕ_s128.00000°, δ84.00000°, λ81.00000°. Principal axes: T Plg50.0000°, Azm27.0000°; N Plg9.0000°, Azm129.0000°; P Plg38.0000°, Azm226.0000°;*

BGS **20** *08:08:29.8±6.2, 2°.77N×95°.96E, h26^{km}, mb6.2, MS7.3*

SZGRF **20** *08:08:29.7, 2°.60N×96°.16E, h33^{km}, mb6.5, MS7.4, Northern Sumatera, Indonesia*

NEIC **20** *08:08:30.5±0.1, 2°.77N×95°.96E, h26^{km}, mb6.5/214, ME7.1, MS7.5/184, MW7.4, Error ellipse: s-maj=4.3km s-min=2.8km az=28.0 Broadband fault plane solution: P waves. NP1:ϕ_s310.00000°, δ10.00000°, λ90.00000°. NP2:ϕ_s130.00000°, δ80.00000°, λ90.00000°. Principal axes: T Plg55.0000°, Azm40.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm220.0000°; Complex earthquake observed on broadband displacement seismograms. A small event is followed by at least one larger event about 10 seconds later. Depth and focal mechanism from synthetics of broadband displacement seismograms based on the first large event. Energy computed from BB mechanism.*

NEIC Three people killed and 25 seriously injured in western Aceh Province, Sumatra. Felt [V] at Meulaboh; [IV] at Banda Aceh, Medan and Tapaktuan; [III] at Padang and Sibolga; [II] at Bukittinggi and Payakumbuh. Also felt at Duri and Lhokseumawe. Felt [III] at Gunungsitoli, Nias. Felt [III] at Butterworth, George Town, Kampong Gelugor, Kampung Sungai Ara, Kuala Lumpur, Petaling Jaya and Tanjong Tokong and [II] at Perai, Malaysia. Also felt at Alor Setar, Ayer Itam, Johor Bahru, Juru, Kajang-Sungai Chua, Kampong Baharu Balakong, Kampung Tanjung Bongor, Kampung Tanjung Karang, Klang, Kuah, Kulim, Nibung Tebal and Shah Alam. Felt [III] in Singapore. Also felt at Kathu, Thailand.

IDC **20** *08:08:30.9±0.9, 2°.74N×96°.00E, h31^{km}±5^{km}, mb5.5/45, mb1 5.5/47, mb1mx5.5/47, mbtmp5.5/47, ML4.8/3, MS7.3/34, Ms1 7.3/34, ms1mx7.3/41 Error ellipse: s-maj=7.8km s-min=5.5km az=46.0*

GCMT **20** *08:08:30.5±0.1, 2°.69N×95°.98E, h15^{km}, MW7.3/120, Moment Tensor Solution. s120,c315; s118,c536; Duration: 12^{s}6 Moment tensor: Scale 10^{20}Nm; M_{rr}0.43±.00; $M_{\theta\theta}$-0.29±.00; $M_{\phi\phi}$-0.13±.00; $M_{r\theta}$0.79±.03; $M_{\theta\phi}$0.20±.00; $M_{\phi r}$-0.66±.02; Best double couple: $M_0$1.11800×10^{20} NP1:ϕ_s299.00000°, δ11.00000°, λ80.00000°. NP2:ϕ_s130.00000°, δ79.00000°, λ92.00000°. Principal axes: T 1.1170, Plg56.0000°, Azm42.0000°; N 0.0020, Plg2.0000°, Azm309.0000°; P -1.1190, Plg34.0000°, Azm218.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=150s.*

DJA **20** *08:08:31, 2°.65N×96°.00E, h21^{km}, Mw7.3/43*

IGIL **20** *08:08:32.7, 2°.75N×95°.97E, h34^{km}, MS7.3*

TEH **20** *08:08:32.0, 2°.78N×95°.98E, h35^{km}*

ISC 20 08:08:31.4±0.1**, 2°.76N**±0°.02×**95°.96E**±0°.01**, h31^{km}, h31^{km}**±.7^{km}**:pP-P, n2044,** σ**1^{s}11**/1392**, mb6.3**/375**, MS7.5**/262**, 460C-240D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	2.17	132	P	Pn	08 09 04.5	-0.9
BSI	Banda Aceh	2.79	346	P	Pn	08 09 15.0	+1.0
PSI	Prapat	2.96	89	Pn	Pn	08 09 16.6	+0.4
	244nm,0.3s,baz=276,slow=7.6,SNR=572						
SISI	Saibi	5.12	142	P	Pn	08 09 45.3	-0.8
	8μm,1.4s						
KULM	Kulim	5.30	62	P	Pn	08 09 50.3	+1.7
KULM	Kulim	5.30	62	ePn	Pn	08 09 49.2	+0.6
	16μm,0.9s						
KULM				eSn	Sn	08 10 49.3	+0.6
KULM	Kulim	5.30	62	P	Pn	08 09 49.4	+0.8
IPM	Ipoh	5.33	71	P	Pn	08 09 50.6	+1.7
IPM	Ipoh	5.33	71	P	Pn	08 09 50.3	+1.4
PPI	Padang Panjang	5.46	126	P	Pn	08 09 50.6	-0.2
	8μm,1.0s,78nm						
FRIM	Kepong	5.67	85	P	Pn	08 09 54.9	+1.3
PKT	Phuket	5.73	23	P	Pn	08 09 57.0	+2.6
PDSI	Padang	5.79	129	P	Pn	08 09 54.0	-1.3
	6μm,0.8s						
SNG	Songkhla	6.38	46	P	Pn	08 10 04.0	+0.7
	3μm,1.1s						
SDSI	Sungai Dareh	6.58	124	P	Pn	08 10 05.7	-0.4
PPSI	Pulau Pagai	6.82	144	P	Pn	08 10 08.1	-1.3
	8μm,1.0s,138nm						
RGRI	Rengat	7.08	116	P	Pn	08 10 13.3	+0.4
KGM	Kluang	7.39	96	P	Pn	08 10 18.2	+1.0
KTGM	Kuala Trenggan	7.59	70	P	Pn	08 10 20.8	+0.8
MYKOM	Kota Tinggi	7.94	97	P	Pn	08 10 25.8	+1.0
MYKOM	Kota Tinggi	7.94	97	P	Pn	08 10 25.3	+0.5
	4μm,0.8s,58nm						
KSI	Kapahiang	9.19	134	P	Pn	08 10 41.4	-0.6
MNAI	Manna	9.94	135	P	Pn	08 10 51.4	-0.9
PMBI	Palembang	10.46	123	P	Pn	08 10 59.7	+0.3
	3μm,1.0s						
MDSI	Maura Dua	10.92	131	P	Pn	08 11 03.7	-1.9
KLI	Kotabumi	11.68	130	P	Pn	08 11 14.9	-1.1
KASI	Kota Agung	11.85	134	P	Pn	08 11 15.2	-3.2
TPI	Tanjungpandan	12.91	115	P	Pn	08 11 33.9	+1.0
	960nm,1.4s						
SBJI	Serang	13.45	131	P	Pn	08 11 37.8	-2.5
	3μm,1.3s						
NST	Nakhon Sawan	13.47	17	⇑P	Pn	08 11 39.5	-1.0
	975nm,0.8s						
TNG	Tangerang	13.88	130	P	Pn	08 11 50.5	+4.4
CBJI	Citeko	14.19	130	P	Pn	08 11 50.1	-0.3
DBJI	Dramaga	14.20	131	P	Pn	08 11 46.9	-3.6
KSM	Kuching	14.39	95	P	Pn	08 11 54.4	+1.2
KSM	Kuching	14.39	95	ePn	Pn	08 11 53.2	+0.1
	1μm,0.9s						
KSM	Kuching	14.39	95	P	Pn	08 11 54.3	+1.2
	2μm,1.5s						
BDT	Bhumibol Dam	14.70	12	P	Pn	08 11 57.0	-0.3
	249nm,0.8s						
COCO	West Island	14.88	177	ePn	Pn	08 12 00.2	+0.4
COCO	West Island	14.88	177	P	Pn	08 12 07.9	+8.1
	SNR=15						
COCO				P		08 12 07.9	
	SNR=15						
COCO	West Island	14.88	177	P	Pn	08 11 59.3	-0.5
	2μm,1.2s						
LEM	Lembang	15.04	129	P	Pn	08 12 00.5	-1.3
	1μm,1.3s						
PALK	Pallekele	15.85	287	eP	Pn	08 12 11.7	-0.7
PALK				e		08 15 06.9	
PALK				pmax	pmax		
	comp=Z,64nm,0.5s						
PALK	Pallekele	15.85	287	Pn	Pn	08 12 11.7	-0.7
	comp=Z,1.7nm,0.3s,baz=104,slow=12,SNR=28						
PALK				Sn	Sn	08 15 06.2	-1.0
	comp=Z,133nm,0.3s,baz=200,slow=23,SNR=9.7						
PALK	Pallekele	15.85	287	ePn	Pn	08 12 11.7	-0.7
	comp=Z,64nm,0.5s						
PALK				eSn	Sn	08 15 06.8	-0.4
PALK	Pallekele	15.85	287	⇓P	Pn	08 12 17.6	+5.2
	SNR=92						
PALK				⇓P		08 12 17.6	
	SNR=92						
PALK	Pallekele	15.85	287	P	Pn	08 12 12.9	+0.5
	comp=Z,1μm,1.1s						
CMAR	Chiang Mai Arr	15.87	10	P	Pn	08 12 12.1	-0.5
CMAR						08 15 11.3	
CMAR	Chiang Mai Arr	15.87	10	Pn	Pn	08 12 12.1	-0.6
	comp=Z,1.7nm,0.3s,baz=196,slow=14,SNR=96						
CMAR				Sn	Sn	08 15 11.3	+3.7
	baz=204,slow=6.3,SNR=2.4						
CMAR				LR	LR	08 18 58.0	
	comp=Z,2207μm,20.7s,baz=191,slow=40						
CMAR				P3KP		08 48 01.4	
	baz=317,slow=3.7,SNR=5.8						
CMAR	Chiang Mai Arr	15.87	10	Pn	Pn	08 12 12.1	-0.6
CMAR				Sn	Sn	08 15 11.3	+3.7
CMAR				LR	LR	08 18 58.0	
CHG	Chiang Mai	16.22	10	⇑P	Pn	08 12 16.7	-0.4
CHTO	Chiang Mai	16.22	10	eP	Pn	08 12 16.4	-0.7
CHTO				pmax	pmax		
	comp=Z,2μm,1.2s						
CHTO	Chiang Mai	16.22	10	ePn	Pn	08 12 16.4	-0.6
	comp=Z,2μm,1.2s						
SBUM	Sibu	16.24	91	P	Pn	08 12 17.7	+0.3
SBUM	Sibu	16.24	91	P	Pn	08 12 18.0	+0.5
	comp=Z,2μm,1.0s						
XMIS	Christmas Isla	16.31	144	eP	Pn	08 12 12.3	-6.0
XMIS				eS	Sn	08 15 00.1	-18
XMIS	Christmas Isla	16.31	144	ePn	Pn	08 12 12.4	-5.9
	comp=Z,1μm,1.0s						
XMIS	Christmas Isla	16.31	144	P	Pn	08 12 14.2	-4.2
	comp=Z,2μm,1.4s						
BTM	Bintulu	17.10	88	P	Pn	08 12 30.9	+2.6
CHRT	Chiangrai	17.41	12	⇑P	Pn	08 12 31.0	-1.0
	comp=Z,3μm,0.8s						
SMRI	Semarang	17.43	124	P	Pn	08 12 36.7	+4.3
UGM	Wanagama	17.98	126	P	Pn	08 12 40.5	+1.3
	comp=Z,2μm,1.1s						
MDRS	Chennai	18.62	304	ex	Pn	08 12 52.2	+5.3
PWJI	Pagerwojo	19.09	124	P	Pn	08 12 51.6	-1.1
	comp=Z,552nm,1.1s						
VIS	Vishakhapatnam	19.36	321	ePKP	Pn	08 12 55.5	-0.4
VIS				ex	x	08 16 16.5	
KRKI	Karangkates	19.70	124	P	Pn	08 13 03.0	+3.0
TRD	Trivandrum	19.75	288	⇓ePKP	Pn	08 13 08.0	+7.4
TRD				eS	Sn	08 16 52.0	+10
BBKI	Banjar Baru	19.86	108	P	Pn	08 13 00.9	-0.9
BWNR	Bhubaneshwar	20.05	331	ePKP	Px	08 12 51.0	
BWNR				eS	S	08 16 34.1	-12
KMMI	Kalianget	20.44	119	P	P	08 13 07.0	+0.5
CAL	Calcutta	21.01	340	ePKP	P	08 13 14.1	+1.7
CAL				ex	x	08 17 12.6	
KBKI	Kotabaru	21.07	106	P	P	08 13 14.1	+0.8
	comp=Z,2μm,1.9s,mb6.1						
KDM	Kudat	21.20	78	P	P	08 13 15.0	+0.4
SDKM	Sandakan	21.36	82	P	P	08 13 17.1	+0.6
AGT	Agartala	21.48	348	ePKP	P	08 13 17.0	-0.6
AGT				ex	x	08 16 10.0	
TSM	Tawau	21.92	85	P	P	08 13 22.6	+0.2
IGBI	Denpasar	22.32	121	P	P	08 13 28.6	+2.0
	comp=Z,2μm,1.2s,mb6.4						
HYB	Hyderabad	22.45	312	eP	P	08 13 27.5	-0.5
HYB				eS	S	08 17 31.0	-2.3
HYB				pmax	pmax		
	comp=Z,870nm,1.0s,mb6.1						
HYB	Hyderabad	22.45	312	i P	P	08 13 27.5	-0.5
	comp=Z,870nm,1.0s,mb6.1						
HYB				eS	S	08 17 29.0	-4.3
HYB				LR	LR	08 24 00.0	
	comp=Z,272nm,12.0s						
HYB	Hyderabad	22.45	312	eP	P	08 13 27.5	-0.5
	comp=Z,870nm,1.0s,mb6.1						
HYB				eS	S	08 17 31.0	-2.3
BATP	Bataraza	22.53	74	eP	P	08 13 28.7	-0.2
MYLDM	Lahad Datu	22.61	83	P	P	08 13 30.9	+1.1
MYLDM	Lahad Datu	22.61	83	P	P	08 13 30.8	+1.1
	comp=Z,5μm,1.3s,mb6.8						
SHL	Shillong	23.01	351	i P	P	08 13 33.5	-0.3
SHL				i S	S	08 17 44.0	+1.6
HMDM	Hanimaadhoo	23.05	281	P	P	08 13 36.7	+2.3
	comp=Z,785nm,2.0s,mb5.8						
BOK	Bokaro	23.07	336	ePKP	P	08 13 33.8	-0.7
BOK				ex	x	08 17 50.5	
KMI	Kunming	23.17	16	⇑P	P	08 13 35.8	+0.3
KMI				pP		08 13 44.8	
KMI				sP	sP	08 13 48.4	+0.4
KMI				PP		08 14 07.3	
KMI				S	S	08 17 42.5	-2.5
KMI				sS	sS	08 17 57.6	-2.3
KMI				SS		08 18 27.3	
KMI				pmax	pmax		
	comp=Z,200nm,1.1s,mb5.5						
KMI				LR	LR		
	comp=N,2230μm,16.7s,MS7.7						
KMI				LR	LR		
	comp=E,1250μm,19.8s,MS7.7						
KMI				LR	LR		
	comp=Z,2640μm,18.6s,MS7.7						
MNGI	Mangalore	23.23	297	ePKP	P	08 13 36.6	+0.3
MNGI				i x	x	08 18 01.0	
PPR	Puerto Princes	23.66	72	⇓eP	P	08 13 42.0	+1.5
SHBG	Sahibganj	23.71	341	ex	x	08 13 31.5	
PCI	Palu	24.14	98	P	P	08 13 44.8	-0.1
	comp=Z,4μm,1.5s,mb6.6						
TTSI	Tana Toraja	24.53	103	P	P	08 13 49.8	+1.3
LATR	Latur	24.56	311	ex	P	08 13 51.7	+3.0
LATR				ex	x	08 18 35.0	
ENPP	El Nido	24.73	69	eP	P	08 13 50.2	-0.1
SLGI	Shiliguri	24.88	344	ex	P	08 13 54.5	+3.1
KAPI	Kappang	24.99	108	P	P	08 13 51.4	-1.2
	comp=Z,669nm,1.0s,mb6.1,baz=295,slow=8.8,SNR=97						
KAPI				LR	LR	08 25 11.1	
	comp=Z,404μm,18.6s,MS7.0,baz=171,slow=40						
KAPI	Kappang	24.99	108	eP	P	08 13 51.5	-1.2

	comp=Z,5µm,1.2s,mb6.9						
KAPI				LR	LR		
	comp=Z,1106µm,20.0s,MS7.4						
BNSI	**Bone**	**25.15**	**106**	P	**P**	**08 13 55.3**	**+1.2**
	comp=Z,3µm,0.8s,mb6.9						
ODAN	**Odare**	**25.33**	**342**	*e*P	**P**	**08 13 55.7**	**+0.1**
	comp=Z,1µm,0.8s,mb6.5						
GTK	**Gangtok**	**25.42**	**345**	*e*PKP	**P**	**08 13 57.0**	**+0.6**
GTK				*e*x	x	08 14 03.0	
JBP	**Jabalpur**	**25.52**	**324**	⇑*i*P	**P**	**08 13 57.8**	**+0.5**
JBP				*e*x	x	08 18 33.6	
RAMN	**Ramite**	**25.67**	**340**	*e*P	**P**	**08 13 59.8**	**+1.2**
	comp=Z,1µm,0.6s,mb6.6						
AKL	**Akola**	**25.67**	**315**	*e*x	x	08 13 14.1	
AKL				*e*x	x	08 17 12.6	
TAPN	**Taplejung**	**25.69**	**343**	*e*P	**P**	**08 13 58.9**	**+0.1**
	comp=Z,2µm,0.9s,mb6.6						
GYA	**Guiyang**	**25.70**	**23**	⇑*i*P	**P**	**08 13 57.8**	**-1.1**
GYA				pP	pP	08 14 07.8	-0.2
GYA				sP	sP	08 14 13.8	+2.0
GYA				PP		08 14 41.3	
GYA				S	**S**	**08 18 31.4**	**+5.7**
GYA				sS	sS	08 18 41.3	+0.5
GYA				SS		08 19 30.5	
GYA				ScP	ScP	08 21 03.4	-2.9
GYA				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.3						
GYA				LR	LR		
	comp=N,2246µm,19.0s,MS7.7						
GYA				LR	LR		
	comp=E,770µm,19.0s,MS7.7						
GYA				LR	LR		
	comp=Z,1616µm,19.0s,MS7.6						
BUSP	**Coron**	**25.70**	**68**	*e*P	**P**	**08 13 58.4**	**-0.7**
KAD	**Karad**	**25.81**	**306**	*e*PKP	**P**	**08 13 58.3**	**-1.8**
APSI	**Ampana**	**25.93**	**98**	P	**P**	**08 14 02.0**	**+0.8**
CUYO	**Cuyo Island**	**26.12**	**71**	*e*P	**P**	**08 14 05.7**	**+2.8**
ALBI	**Allahabad**	**26.23**	**330**	*e*PKP	**P**	**08 14 02.5**	**-1.3**
HKC	**Hong Kong Obse**	**26.26**	**41**	⇑*i*P	**P**	**08 14 04.0**	**-0.1**
GZH	**Guangzhou**	**26.30**	**38**	P	**P**	**08 14 07.0**	**+2.6**
GZH				S	**S**	**08 18 33.6**	**-1.7**
GZH				LR	LR		
	comp=N,1186µm,20.8s,MS7.5						
GZH				LR	LR		
	comp=E,695µm,17.6s,MS7.5						
GZH				LR	LR		
	comp=Z,2015µm,20.3s,MS7.7						
ZMPH	**Zamboanga City**	**26.33**	**80**	⇑*e*P	**P**	**08 14 04.5**	**-0.3**
LUBP	**Lubang**	**26.35**	**64**	*e*P	**P**	**08 14 04.2**	**-0.8**
JIRN	**Jiri**	**26.46**	**340**	*e*P	**P**	**08 14 06.4**	**+0.6**
	comp=Z,2µm,0.8s,mb6.6						
PKI	**Pulchoki**	**26.65**	**339**	*e*P	**P**	**08 14 08.1**	**+0.6**
	comp=Z,1µm,1.0s,mb6.4						
PKI	**Pulchoki**	**26.65**	**339**	*e*P	**P**	**08 14 08.1**	**+0.6**
PKI				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.5						
PKIN	**Phulchoki**	**26.66**	**339**	*e*P	**P**	**08 14 08.1**	**+0.5**
	comp=Z,2µm,1.3s,mb6.5						
SJMP	**San Jose**	**26.70**	**68**	*e*P	**P**	**08 14 08.2**	**0.0**
POO	**Poona**	**26.73**	**307**	*e*PKP	**P**	**08 14 09.7**	**+1.3**
POO				AMS	AMS	08 24 43.8	
	comp=Z,1342µm,20.0s,MS7.5						
GUN	**Gumba**	**26.80**	**340**	*e*P	**P**	**08 14 09.9**	**+1.1**
	comp=Z,2µm,0.8s,mb6.7						
DMN	**Daman**	**26.80**	**338**	*e*P	**P**	**08 14 09.4**	**+0.6**
	comp=Z,2µm,1.0s,mb6.6						
SCZP	**Santa Cruz**	**26.89**	**60**	*e*P	**P**	**08 14 10.9**	**+1.1**
KKN	**Kakani**	**26.90**	**339**	*e*P	**P**	**08 14 10.4**	**+0.7**
	comp=Z,2µm,0.8s,mb6.6						
KKN	**Kakani**	**26.90**	**339**	*e*P	**P**	**08 14 10.4**	**+0.7**
KKN				pmax	pmax		
	comp=Z,2µm,0.8s,mb6.7						
PGP	**Puerto Galera**	**26.91**	**65**	⇓*i*P	**P**	**08 14 10.3**	**+0.3**
TGY	**Tagaytay City**	**27.11**	**64**	P	**P**	**08 14 12.0**	**+0.2**
	comp=Z,1µm,0.8s,mb6.5,baz=187,slow=5.1,SNR=21						
TGY				LR	LR	08 24 54.9	
	comp=Z,3µm,19.7s,baz=87,slow=36						
TGY	**Tagaytay City**	**27.11**	**64**	⇑*i*P	**P**	**08 14 13.4**	**+1.6**
BHPL	**Bhopal**	**27.14**	**320**	*e*PKP	**P**	**08 14 13.3**	**+1.2**
BOLP	**Bolinao**	**27.16**	**59**	*e*P	**P**	**08 14 11.4**	**-0.8**
LSA	**Lhasa**	**27.18**	**351**	P	**P**	**08 14 12.6**	**+0.4**
LSA				pP	pP	08 14 21.3	0.0
LSA				sP	sP	08 14 24.3	-0.8
LSA				ScS	ScS	08 24 52.3	-10
LSA				LR	LR		
	comp=N,440µm,24.1s,MS7.1						
LSA				LR	LR		
	comp=E,540µm,26.9s,MS7.1						
LSA				LR	LR		
	comp=Z,820µm,25.3s,MS7.2						
LSA	**Lhasa**	**27.18**	**351**	*e*P	**P**	**08 14 12.8**	**+0.6**
LSA				pmax	pmax		
	comp=Z,2µm,0.8s,mb6.6						
LSA				MLR	MLR		
	comp=Z,856µm,21.0s,MS7.3						
LSA	**Lhasa**	**27.18**	**351**	*e*P	**P**	**08 14 12.8**	**+0.6**
	comp=Z,2µm,0.8s,mb6.6						
LSA				LR	LR		
	comp=Z,856µm,21.0s,MS7.3						
WSI	**Waingapu**	**27.21**	**117**	P	**P**	**08 14 12.7**	**0.0**
	comp=Z,3µm,0.7s,mb7.0						
GKN	**Gorkha**	**27.33**	**338**	*e*P	**P**	**08 14 14.2**	**+0.6**
	comp=Z,3µm,1.1s,mb6.8						
KDI	**Kendari**	**27.46**	**104**	P	**P**	**08 14 14.4**	**-0.6**
	comp=Z,577nm,1.2s,mb6.0						
OTRP	**Odiongan**	**27.50**	**68**	*e*P	**P**	**08 14 15.5**	**+0.2**
KOLN	**Koldanda**	**27.53**	**336**	*e*P	**P**	**08 14 16.4**	**+1.0**
	comp=Z,2µm,0.9s,mb6.8						
GUIM	**Jordan**	**27.55**	**72**	*e*P	**P**	**08 14 16.0**	**+0.2**
BCPH	**Baguio City Da**	**27.74**	**59**	⇑*i*P	**P**	**08 14 16.9**	**-0.5**
PAGZ	**Pagadian**	**27.75**	**78**	*e*P	**P**	**08 14 18.4**	**+0.8**
BOM	**Bombay**	**27.75**	**307**	*e*x	x	08 14 06.1	
BOM				*e*S	**S**	**08 18 58.9**	**+0.5**
BOM				*e*x	x	08 19 04.5	
	comp=E,8µm,6.6s						
PCPH	**Palayan**	**27.83**	**61**	⇑*e*P	**P**	**08 14 16.2**	**-2.0**
RCP	**Roxas**	**27.95**	**70**	*e*P	**P**	**08 14 19.7**	**+0.4**
DANN	**Dangsing**	**27.98**	**337**	*e*P	**P**	**08 14 20.0**	**+0.6**
	comp=E,3µm,1.0s,mb6.8						
KMSI	**Cibinong**	**28.09**	**94**	P	**P**	**08 14 25.2**	**+4.6**
POLP	**Polilio Island**	**28.25**	**64**	*e*P	**P**	**08 14 21.8**	**-0.2**
BALP	**Baler**	**28.32**	**61**	*e*P	**P**	**08 14 27.4**	**+4.7**
GQP	**Guinayangan**	**28.40**	**66**	⇓*i*P	**P**	**08 14 22.3**	**-1.0**
AUQP	**San Andres**	**28.41**	**67**	*e*P	**P**	**08 14 27.4**	**+3.9**
ABRA	**Dolores**	**28.43**	**57**	*e*P	**P**	**08 14 27.3**	**+3.7**
CTBH	**Cotabato--PC H**	**28.51**	**80**	⇑*e*P	**P**	**08 14 24.0**	**-0.4**
TBP	**Tagbilaran**	**28.56**	**75**	*e*P	**P**	**08 14 24.9**	**+0.2**
LLP	**Lapu-Lapu**	**28.79**	**74**	⇓*e*P	**P**	**08 14 27.9**	**+1.0**
MNI	**Manado**	**28.89**	**92**	P	**P**	**08 14 28.7**	**+1.0**
	comp=E,2µm,1.1s,mb6.8						
CD2	**Chengdu**	**28.95**	**14**	P	**P**	**08 14 26.9**	**-1.1**
CD2				pP	pP	08 14 36.4	-0.7
CD2				sP	sP	08 14 40.5	-0.5
CD2				PP	PP	08 15 22.0	-12
CD2				S	**S**	**08 19 26.3**	**+9.4**
CD2				sS	sS	08 19 30.9	-1.0
CD2				SS	SS	08 20 47.1	-33
CD2				pmax	pmax		
	comp=Z,970nm,1.1s,mb6.5						
CD2				LR	LR		
	comp=N,1299µm,20.2s						
CD2				LR	LR		
	comp=Z,1161µm,25.0s,MS7.4						
APYP	**Conner**	**28.98**	**57**	*e*P	**P**	**08 14 30.8**	**+2.3**
GSPH	**General Santos**	**29.08**	**82**	⇓*e*P	sP	08 14 41.0	-1.4
CGP	**Cagayan de Oro**	**29.13**	**78**	⇑*i*P	**P**	**08 14 30.1**	**+0.2**
KCP	**Kidapawan**	**29.32**	**81**	⇑*e*P	**P**	**08 14 38.8**	**+7.2**
BUKP	**Musuan**	**29.40**	**79**	*e*P	**P**	**08 14 33.0**	**+0.7**
SGSI	**Sangihe**	**29.53**	**87**	P	**P**	**08 14 34.8**	**+1.3**
	comp=Z,2µm,1.0s,mb6.8						
MSLP	**Maasin**	**29.61**	**74**	*e*P	**P**	**08 14 33.9**	**-0.2**
PALP	**Palanan**	**29.62**	**60**	⇑*e*P	pP	08 14 41.5	-1.7
DMPH	**Davao City--Mi**	**29.74**	**81**	⇑*e*P	**P**	**08 14 36.4**	**+1.1**
DAV	**Davao City (W)**	**29.81**	**81**	P	**P**	**08 14 35.9**	**0.0**
	comp=Z,104nm,0.3s,mb6.0,baz=56,slow=14,SNR=13						
DAV				S	**S**	**08 19 42.1**	**+11**
	comp=Z,134nm,0.4s,baz=21,slow=16,SNR=2.2						
DAV	**Davao City (W)**	**29.81**	**81**	⇑*e*P	**P**	**08 14 34.3**	**-1.6**
DAV	**Davao City (W)**	**29.81**	**81**	*e*P	**P**	**08 14 37.8**	**+1.9**
	comp=Z,2µm,1.0s,mb6.8						
DAV				LR	LR		
	comp=Z,268µm,19.0s,MS6.9						
PVCP	**Virac**	**29.86**	**67**	*e*P	**P**	**08 14 35.2**	**-1.2**
BHV	**Bhavnagar**	**29.87**	**311**	*e*x	x	08 14 39.5	
PLP	**Palo**	**29.96**	**72**	⇓*i*P	**P**	**08 14 39.3**	**+2.0**
CNP	**Catarman**	**30.01**	**70**	*e*P	**P**	**08 14 38.1**	**+0.4**
SCPH	**Surigao**	**30.14**	**75**	*e*P	**P**	**08 14 37.8**	**-1.0**
LGTI	**Lohaghat**	**30.45**	**332**	*e*PKP	**P**	**08 14 39.0**	**-2.4**
LGTI				*e*x	x	08 14 41.0	
MATI	**Mati**	**30.46**	**81**	*e*P	**P**	**08 14 44.1**	**+2.4**
PTH	**Pithoragarh**	**30.55**	**332**	*e*PKP	**P**	**08 14 42.0**	**-0.2**
PTH				*e*x	x	08 19 49.0	
BIPH	**Bislig**	**30.72**	**79**	⇑*e*P	**P**	**08 14 41.5**	**-2.5**
QZH	**Quanzhou**	**31.01**	**43**	⇑*i*P	**P**	**08 14 47.0**	**+0.6**
QZH				S	**S**	**08 19 56.0**	**+6.5**
QZH				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.5						
QZH				pmax	pmax		
	comp=Z,6µm,4.9s						
QZH				LR	LR		
	comp=N,1221µm,16.0s,MS7.9						
QZH				LR	LR		
	comp=E,1631µm,15.8s,MS7.9						
QZH				LR	LR		
	comp=Z,2178µm,16.5s,MS7.9						
AJM	**Ajmer**	**31.22**	**321**	*i* P	**P**	**08 14 49.0**	**+0.8**
AJM				AMS	AMS	08 27 54.3	
	comp=Z,699µm,20.5s,MS7.3						
NDI	**New Delhi**	**31.36**	**327**	*e*PKP	**P**	**08 14 47.5**	**-1.9**
NDI				*e*x	x	08 20 00.0	
TPUB	**Ta-pu**	**31.42**	**47**	*e*P	**P**	**08 14 50.2**	**+0.3**
	comp=Z,468nm,0.9s,mb6.3						
TNTI	**Ternate**	**31.45**	**93**	P	**P**	**08 14 51.6**	**+1.2**
	comp=Z,614nm,1.0s,mb6.4						
TWG	**Pinlang**	**31.46**	**49**	*e*P	**P**	**08 14 50.8**	**+0.4**
	comp=Z,714nm,1.0s,mb6.5						
NLAI	**Namlea**	**31.69**	**101**	P	**P**	**08 14 52.9**	**+0.4**
	comp=Z,764nm,1.0s,mb6.5						
LBMI	**Labuha**	**31.71**	**96**	P	**P**	**08 14 52.6**	**-0.1**
SSLB	**Suanglung**	**31.95**	**47**	*e*P	**P**	**08 14 53.9**	**-0.8**
	comp=Z,558nm,0.9s,mb6.4						
YULB	**Yu-li**	**31.96**	**48**	*e*P	**P**	**08 14 55.0**	**+0.2**
	comp=Z,522nm,0.8s,mb6.4						
DDI	**Dehra Dun**	**32.23**	**330**	*e*PKP	**P**	**08 14 57.8**	**+0.7**
DDI				*e*x	x	08 20 30.2	
BHJ	**Bhuj**	**32.62**	**311**	*e*PKP	**P**	**08 15 00.3**	**-0.2**
BHJ				AMS	AMS	08 28 30.1	
	comp=Z,729µm,21.1s,MS7.3						
NACB	**Ninganchiao**	**32.65**	**47**	*e*P	**P**	**08 15 01.2**	**+0.4**
	comp=Z,330nm,0.8s,mb6.3						
WHN	**Wuhan**	**32.65**	**30**	⇑*i*P	**P**	**08 15 00.5**	**-0.2**
WHN				LR	LR		
	comp=N,937µm,15.6s,MS7.8						
WHN				LR	LR		
	comp=E,1253µm,14.3s,MS7.8						
WHN				LR	LR		
	comp=Z,2036µm,17.7s,MS7.9						
YHNB	**Yeheng**	**32.78**	**46**	*e*P	**P**	**08 15 02.4**	**+0.4**
	comp=Z,578nm,1.1s,mb6.4						
YHNB				LR	LR		
	comp=Z,692µm,19.0s,MS7.4						
AAI	**Ambon**	**32.84**	**101**	P	**P**	**08 15 01.6**	**-1.1**
	comp=Z,1µm,1.0s,mb6.8						
TATO	**Taipei**	**33.05**	**46**	*e*P	**P**	**08 15 03.5**	**-0.8**
	comp=Z,1µm,1.5s,mb6.6						
TATO				LR	LR		
	comp=Z,674µm,19.0s,MS7.4						
MBWA	**Marble Bar**	**33.27**	**137**	*e*P	**P**	**08 15 05.5**	**-0.7**
	comp=Z,4.9nm,0.6s						
MBWA				*e*pP	pP	08 15 15.1	-0.3
MBWA				LR	LR		
	comp=Z,256µm,22.0s						
XAN	**Xi’an**	**33.38**	**20**	P	**P**	**08 15 05.3**	**-1.8**
XAN				pP	pP	08 15 18.3	+2.1
XAN				sP	sP	08 15 24.8	+4.8
XAN				PP	PP	08 16 18.5	-4.5
XAN				pmax	pmax		
	comp=Z,420nm,1.0s,mb6.3						
SDNR	**Sundarnagar**	**33.73**	**330**	*e*PKP	**P**	**08 15 09.0**	**-1.1**
SDNR				*e*x	x	08 20 58.4	
BHK	**Bhakra**	**33.94**	**329**	*e*x	x	08 15 18.0	
BHK				*e*x	x	08 20 08.6	
LZH	**Lanzhou**	**33.95**	**11**	⇑*i*P	**P**	**08 15 11.5**	**-0.5**
LZH				pP	pP	08 15 20.1	-1.0
LZH				sP	sP	08 15 26.4	+1.4
LZH				PP	PP	08 16 27.9	-1.3
LZH				PcP	PcP	08 17 43.5	-6.4
LZH				S	**S**	**08 20 35.6**	**+0.7**
LZH				sS	sS	08 20 51.4	+1.4
LZH				SS	SS	08 22 43.1	-19
LZH				pmax	pmax		
	comp=Z,47µm,5.9s						
LZH				LR	LR		
	comp=E,866µm,16.3s						
LZH				LR	LR		
	comp=Z,922µm,17.7s,MS7.6						
DLH	**Dalhousie**	**35.07**	**330**	*e*PKP	**P**	**08 15 22.0**	**+0.3**
DLH				*e*x	x	08 21 08.0	
THN	**Thein Dam**	**35.11**	**329**	*e*PKP	**P**	**08 15 20.4**	**-1.7**
THN				*e*x	x	08 21 05.2	
SWI	**Sorong**	**35.47**	**95**	P	**P**	**08 15 24.6**	**-0.8**
	comp=Z,1µm,0.9s,mb6.9						
JMU	**Jammu**	**35.75**	**329**	*e*x	x	08 15 42.5	
FITZ	**Fitzroy Crossi**	**35.84**	**126**	⇑*i*P	**P**	**08 15 26.7**	**-1.8**
	comp=Z,234nm,0.9s,mb6.1						
FITZ				*e*pP	pP	08 15 36.0	-1.7
FITZ				*e*		08 15 59.4	
FITZ				*e*S	**S**	**08 20 58.6**	**-5.9**
FITZ	**Fitzroy Crossi**	**35.84**	**126**	P	**P**	**08 15 27.1**	**-1.5**
	baz=292,slow=5.5						
FITZ				S	**S**	**08 21 04.3**	**-0.2**
	comp=Z,23nm,0.8s,baz=164,slow=14,SNR=2.0						
FITZ				LR	LR	08 31 34.9	
	comp=Z,250µm,20.5s,MS7.0,baz=303,slow=39						
FITZ	**Fitzroy Crossi**	**35.84**	**126**	*e*P	**P**	**08 15 26.8**	**-1.8**
	comp=Z,4.2nm,0.6s						
FITZ	**Fitzroy Crossi**	**35.84**	**126**	P	**P**	**08 15 27.2**	**-1.3**
	comp=Z,785nm,1.2s,mb6.5						
GTA	**Gaotai**	**36.64**	**5**	⇑*i*P	**P**	**08 15 34.9**	**-0.2**
GTA				pP	pP	08 15 45.3	+1.0
GTA				sP	sP	08 15 49.3	+1.2
GTA				PP	PP	08 17 03.8	+4.9
GTA				S	**S**	**08 21 22.3**	**+6.1**
GTA				sS	sS	08 21 38.4	+7.0
GTA				pmax	pmax		
	comp=Z,280nm,1.1s,mb6.0						
GTA				pmax	pmax		
	comp=Z,11µm,7.4s						
GTA				LR	LR		
	comp=N,458µm,21.0s,MS7.3						
GTA				LR	LR		
	comp=E,318µm,18.7s,MS7.3						
GTA				LR	LR		
	comp=Z,649µm,23.5s,MS7.3						
SSE	**Sheshan**	**36.89**	**38**	P	**P**	**08 15 37.3**	**-0.1**
SSE				pP	pP	08 15 47.1	+0.5
SSE				S	**S**	**08 21 27.3**	**+7.1**
SSE				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.6						
SSE				LR	LR		
	comp=N,868µm,21.6s,MS7.5						
SSE				LR	LR		
	comp=E,433µm,21.6s,MS7.5						
SSE				LR	LR		
	comp=Z,1118µm,23.3s,MS7.6						
TIA	**Tai’an**	**38.60**	**28**	*e*P	**P**	**08 15 50.9**	**-0.8**
TIA				sP	sP	08 16 02.5	-2.3
TIA				S	**S**	**08 21 56.0**	**+10**
TIA				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.3						
TIA				pmax	pmax		
	comp=Z,3µm,8.0s						
TIA				LR	LR		
	comp=N,30µm,21.2s,MS6.8						
TIA				LR	LR		
	comp=E,145µm,18.9s,MS6.8						
QUE	**Quetta**	**38.72**	**318**	*e*P	**P**	**08 15 53.0**	**+0.2**
QUE				*e*S	**S**	**08 21 58.0**	**+10**
JOW	**Kunigami**	**39.12**	**49**	P	**P**	**08 15 55.4**	**-0.8**
	comp=E,193nm,0.8s,mb5.9,baz=225,slow=7.8,SNR=16						
JOW				S	**S**	**08 21 55.5**	**+1.4**
	comp=E,11nm,0.5s,baz=87,slow=26,SNR=2.2						
JOW				LR	LR	08 31 29.1	
	comp=E,343µm,20.9s,MS7.2,baz=236,slow=35						
KAKA	**Kakadu**	**39.35**	**114**	*e*P	**P**	**08 16 03.6**	**+5.3**
	comp=E,1µm,0.6s,mb6.8						
KAKA	**Kakadu**	**39.35**	**114**	*e*P	**P**	**08 15 56.2**	**-2.1**
	comp=E,221nm,0.5s,mb6.2						
KAKA				*e*pP	pP	08 16 04.1	-3.5
KAKA				*e*sP	sP	08 16 11.0	-0.4
KAKA	**Kakadu**	**39.35**	**114**	P	**P**	**08 15 56.4**	**-1.9**
	comp=E,3µm,0.7s,mb7.1						
MUN	**Mundaring**	**39.54**	**152**	*e*P	**P**	**08 16 00.4**	**+0.8**
MUN				*e*S	**S**	**08 22 03.0**	**+2.8**
MUN				*e*SS	SS	08 25 38.6	+43
BTO	**Baotou**	**39.76**	**17**	*e*P	**P**	**08 16 01.1**	**-0.2**
BTO				S	**S**	**08 21 56.3**	**-7.0**
BTO				pmax	pmax		
	comp=Z,96nm,1.4s,mb5.3						
BTO				LR	LR		
	comp=N,368µm,10.8s						
BTO				LR	LR		
	comp=E,217µm,16.7s						
BAKI	**Biak**	**40.32**	**95**	P	**P**	**08 16 08.9**	**+2.5**
	comp=E,1µm,1.1s,mb6.5						
HHC	**Hu-ho-hao-te**	**40.45**	**18**	⇑P	**P**	**08 16 08.0**	**+1.0**
HHC				pP	pP	08 16 12.5	-3.8
HHC				sP	sP	08 16 19.8	-0.3
HHC				PP	PP	08 17 45.8	+5.3
HHC				PcP	PcP	08 18 12.8	+3.3
HHC				PcS	PcS	08 22 00.3	+0.3
HHC				S	**S**	**08 22 15.3**	**+1.7**
HHC				SS	SS	08 25 08.1	-5.6
HHC				ScS	ScS	08 26 10.8	0.0
HHC				pmax	pmax		
	comp=Z,270nm,1.0s,mb5.9						
HHC				pmax	pmax		
	comp=Z,10µm,4.3s						
HHC				LR	LR		
	comp=N,946µm,16.3s,MS7.8						
HHC				LR	LR		
	comp=E,390µm,14.7s,MS7.8						
HHC				LR	LR		
	comp=Z,720µm,16.5s,MS7.6						
NWAO	**Narrogin (SRO)**	**40.80**	**152**	P	**P**	**08 16 09.9**	**-0.2**
	comp=Z,61nm,0.9s,mb5.2,baz=323,slow=9.8,SNR=16						
NWAO				S	**S**	**08 22 17.4**	**-1.7**
	comp=Z,27nm,0.9s,baz=18,slow=18,SNR=1.9						
NWAO				LR	LR	08 33 26.6	
	comp=Z,349µm,19.4s,MS7.2,baz=329,slow=37						
NWAO				T		08 59 02.4	
	comp=Z,11nm,0.4s,baz=58,slow=6.6,SNR=5.5						
NWAO	**Narrogin (SRO)**	**40.80**	**152**	*e*P	**P**	**08 16 10.5**	**+0.4**
	comp=Z,691nm,1.0s,mb6.2						
NWAO				LR	LR		
	comp=Z,277µm,20.0s,MS7.1						
KSH	**Kashi**	**40.85**	**336**	⇑*i*P	**P**	**08 16 09.3**	**-1.1**
KSH				pP	pP	08 16 17.8	-1.9
KSH				sP	sP	08 16 22.9	-0.6
KSH				PP	PP	08 17 46.3	+1.4
KSH				*e*PcP	PcP	08 18 12.5	+1.6
KSH				ScP	ScP	08 21 58.0	-0.4
KSH				PcS	PcS	08 22 02.1	+0.4
KSH				S	**S**	**08 22 15.6**	**-4.0**
KSH				ScS	ScS	08 26 10.6	-2.7
KSH				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.1						
KSH				pmax	pmax		
	comp=Z,10µm,4.9s						
KSH				LR	LR		
	comp=N,518µm,17.2s,MS7.7						
KSH				LR	LR		
	comp=E,619µm,16.4s,MS7.7						
KSH				LR	LR		
	comp=Z,471µm,16.1s,MS7.4						
WBK	**Wadi Bani Khal**	**40.93**	**302**	⇓P	**P**	**08 16 13.0**	**+1.7**
	SNR=105						
MSEY	**Mahe Island**	**41.12**	**260**	P	**P**	**08 16 14.2**	**+1.2**
	comp=Z,1µm,1.3s,mb6.4,SNR=20						
MSEY	**Mahe Island**	**41.12**	**260**	*e*P	**P**	**08 16 13.6**	**+0.5**
	comp=Z,2µm,1.6s,mb6.4						
MSEY				LR	LR		
	comp=Z,796µm,22.0s,MS7.5						
MSEY	**Mahe Island**	**41.12**	**260**	P	**P**	**08 16 14.8**	**+1.8**
	SNR=44						
MSEY				P		08 16 14.8	
	SNR=44						
BJT	**Baijiatuau**	**41.36**	**24**	*e*P	**P**	**08 16 15.3**	**+0.7**
BJT				pmax	pmax		
	comp=Z,3µm,0.8s						
BJT				MLR	MLR		
	comp=Z,425µm,19.0s						
BJT	**Baijiatuau**	**41.36**	**24**	*e*P	**P**	**08 16 15.3**	**+0.7**
	comp=Z,3µm,0.8s,mb7.0						
BJT				LR	LR		
	comp=Z,425µm,19.0s,MS7.3						
BJI	**Beijing**	**41.38**	**24**	P	**P**	**08 16 15.6**	**+0.8**
BJI				pP	pP	08 16 25.3	+1.2
BJI				sP	sP	08 16 28.8	+0.9
BJI				PP	PP	08 17 52.4	+1.7
BJI				PcP	PcP	08 18 13.9	+1.3
BJI				pmax	pmax		
	comp=Z,2µm,0.9s,mb6.7						
BJI				pmax	pmax		
	comp=Z,11µm,7.0s						
BJI				LR	LR		
	comp=N,487µm,21.2s,MS7.6						
BJI				LR	LR		
	comp=E,627µm,21.2s,MS7.6						
BJI				LR	LR		
	comp=Z,378µm,27.8s						
WMQ	**Urumqi**	**41.54**	**351**	⇑*i*P	**P**	**08 16 16.6**	**+0.6**
WMQ				pP	pP	08 16 26.5	+1.2
WMQ				sP	sP	08 16 30.5	+1.4
WMQ				PP	PP	08 17 57.0	+4.7
WMQ				S	**S**	**08 22 30.0**	**+0.3**
WMQ				sS	sS	08 22 50.0	+4.9
WMQ				ScS	ScS	08 26 15.0	-2.3
WMQ				pmax	pmax		
	comp=Z,4µm,1.8s,mb6.7						
WMQ				pmax	pmax		
	comp=Z,11µm,4.0s						
WMQ				LR	LR		
	comp=N,438µm,17.9s						
WMQ				LR	LR		
	comp=E,394µm,23.0s						
WMQ				LR	LR		
	comp=Z,488µm,22.0s,MS7.3						
JMDO	**Jabal Madar**	**41.58**	**301**	P	**P**	**08 16 17.6**	**+0.9**
	SNR=85						
SMDO	**Samad**	**41.89**	**302**	P	**P**	**08 16 20.9**	**+1.8**
	SNR=82						
BIDO	**Bidbid**	**42.01**	**303**	P	**P**	**08 16 22.1**	**+2.0**
	SNR=137						
BSY	**Bisya**	**42.49**	**301**	P	**P**	**08 16 26.0**	**+1.9**
	SNR=131						
HOQ	**Hoqain**	**42.72**	**302**	P	**P**	**08 16 28.1**	**+2.1**
	SNR=66						
DL2	**Dalian**	**42.91**	**30**	⇓*i*P	**P**	**08 16 27.6**	**+0.4**
DL2				PP	PP	08 18 12.5	+5.3
DL2				S	**S**	**08 22 50.0**	**-0.2**
DL2				sS	sS	08 23 08.3	+2.8
DL2				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.6						
DL2				LR	LR		
	comp=E,333µm,17.4s						
DL2				LR	LR		
	comp=Z,329µm,20.3s,MS7.2						
ULHL	**Ulahol**	**43.09**	**338**	P	**P**	**08 16 29.3**	**+0.7**
	SNR=67						
ARQ	**Araqi**	**43.29**	**302**	⇑P	**P**	**08 16 32.4**	**+1.8**
	SNR=47						
KZA	**Kyzart**	**43.32**	**337**	P	**P**	**08 16 31.3**	**+0.8**
	SNR=115						
RBK	**Rabkut**	**43.50**	**293**	P	**P**	**08 16 33.9**	**+1.5**
	SNR=144						
UCH	**Uchtor**	**43.73**	**337**	P	**P**	**08 16 34.8**	**+1.0**
	SNR=197						
UCH	**Uchtor**	**43.73**	**337**	PFAKE		08 16 50.0	+16
UCH				LR	LR		
	comp=Z,337µm,22.0s,MS7.2						
AAA	**Alma-Ata**	**43.74**	**340**	*i* P	**P**	**08 16 35.4**	**+1.5**
AAA				*i* S	**S**	**08 23 07.0**	**+4.8**
AAA				pmax	pmax		
	comp=Z,43µm,6.5s						
AAA				smax			
	comp=E,203µm,15.3s						
AAA				MLR	MLR		
	comp=Z,341µm,18.0s,MS7.3						
WRA	**Warramunga Arr**	**43.91**	**123**	P	**P**	**08 16 34.3**	**-1.3**
WRA				S	**S**	**08 23 00.9**	**-4.4**
WRA	**Warramunga Arr**	**43.91**	**123**	P	**P**	**08 16 34.3**	**-1.3**
	comp=Z,77nm,0.8s,mb5.5,baz=300,slow=9.0,SNR=167						
WRA				S	**S**	**08 23 00.9**	**-4.4**
	comp=Z,28nm,0.8s,baz=316,slow=3.8,SNR=4.0						

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WRA                               LR     LR      08 35 34.9
     comp=Z,227µm,21.1s,MS7.1,baz=300,slow=37
WRA                               PKPPKP         08 48 20.4
     comp=Z,4.8nm,1.0s,baz=91,slow=2.4,SNR=4.9
WRAB Tennant Creek    43.91 123  eP      P       08 16 34.6  -1.0
     comp=Z,961nm,0.9s,mb6.5
WRAB                              LR     LR
     comp=Z,270µm,21.0s,MS7.1
WRAB Tennant Creek    43.91 123   P      P       08 16 34.5  -1.1
     comp=Z,1µm,1.1s,mb6.6
TKM2 Tokmak 2         43.92 338   P      P       08 16 36.3 +1.0
     SNR=71
TKM2 Tokmak 2         43.92 338  eP      P       08 16 36.0 +0.7
     comp=Z,4.2nm,0.6s
TKM2                              LR     LR
     comp=Z,640µm,22.0s
KBK  Karagaybulak     43.93 338   P      P       08 16 37.0 +1.6
     SNR=187
AML  Almayashu        43.98 336   P      P       08 16 36.6 +0.8
     SNR=236
AML  Almayashu        43.98 336   PFAKE          08 16 50.0  +14
AML                               LR     LR
     comp=Z,331µm,21.0s,MS7.2
WHFO Wadi Hawf        44.01 293   P      P       08 16 37.6 +1.2
     SNR=150
AAK  Ala-Archa        44.09 337⥣eP      P       08 16 37.3 +0.6
AAK                               pmax   pmax
     comp=Z,309nm,1.4s,mb5.8
AAK                               MLR    MLR
     comp=Z,274µm,20.0s,MS7.2
AAK  Ala-Archa        44.09 337   P      P       08 16 37.9 +1.2
     SNR=94
AAK  Ala-Archa        44.09 337   P      P       08 16 37.4 +0.8
     comp=Z,43nm,0.6s,mb5.3,baz=148,slow=7.0,SNR=67
AAK                               S      S       08 23 05.8  -1.4
     comp=Z,21nm,0.8s,baz=34,slow=10,SNR=3.2
AAK                               LR     LR      08 36 40.7
     comp=Z,575µm,21.5s,MS7.5,baz=146,slow=38
AAK                               PKPPKP         08 48 18.6
     comp=Z,1.3nm,0.5s,baz=322,slow=0.7,SNR=3.9
AAK                               PKP2bc         08 48 44.3
     comp=Z,3.1nm,0.8s,baz=100,slow=0.5,SNR=4.1
AAK  Ala-Archa        44.09 337  eP      P       08 16 37.8 +1.1
     comp=Z,1µm,1.1s,mb6.5
AAK                               LR     LR
     comp=Z,569µm,22.0s,MS7.4
AAK  Ala-Archa        44.09 337   P      P       08 16 38.2 +1.6
     SNR=232
AAK                               P              08 16 38.2
     SNR=232
AAK  Ala-Archa        44.09 337   P      P       08 16 37.6 +0.9
     comp=Z,288nm,1.5s,comp=Z,10µm,mb5.8
HATD Hatta, Dubai     44.20 303 ⥣P      P       08 16 39.4 +1.6
     SNR=144
CHMS Chumysh          44.30 338   P      P       08 16 47.7 +9.3
     SNR=5.2
ABTO Aybut            44.30 292   P      P       08 16 40.2 +1.4
     SNR=111
EKS2 Erkin-Say        44.39 337   P      P       08 16 40.3 +1.2
     SNR=156
EKS2 Erkin-Say        44.39 337   PFAKE          08 16 50.0  +11
EKS2                              LR     LR
     comp=Z,335µm,21.0s,MS7.2
BANOM Banah           44.50 305 ⥥P      P       08 16 42.2 +1.9
     SNR=30
INCN Inchon           44.56  35  eP      P       08 16 39.3  -1.3
     comp=Z,2µm,2.0s,mb6.6
INCN                              LR     LR
     comp=Z,957µm,19.0s,MS7.7
FAQ  Al Faqa, Dubai   44.61 303 ⥣P      P       08 16 43.3 +2.1
     SNR=115
USP  Ospenovka        44.62 338   P      P       08 16 43.9 +3.0
     SNR=16
NAZ  Nazwa, Dubai     44.65 303 ⥥P      P       08 16 43.1 +1.7
     SNR=56
FORT Forrest          45.26 140  eP      P       08 16 46.3 +0.1
     comp=Z,525nm,0.8s,mb6.4
FORT                             eS      S       08 23 26.1 +1.5
FORT                             eSS     SS      08 27 08.4  +20
FORT Forrest          45.26 140  eP      P       08 16 46.2  0.0
     comp=Z,1µm,0.7s,mb6.8
FORT                             epP     pP      08 16 56.1 +0.5
KSRS Korea Array      45.30  36   P      P       08 16 45.0  -1.5
     comp=Z,132nm,0.8s,mb5.8,baz=230,slow=9.0,SNR=135
KSRS                              S      S       08 23 32.5 +7.5
     comp=Z,4.8nm,0.9s,baz=236,slow=4.2,SNR=2.1
KSRS                              LR     LR      08 38 15.5
     comp=Z,979µm,18.7s,MS7.8,baz=227,slow=39
KSRS                              PKP2bc         08 48 44.7
     comp=Z,1.5nm,0.8s,baz=45,slow=1.9,SNR=4.2
ASAR Alice Springs    45.32 128   P      P       08 16 45.7  -1.1
     comp=Z,22nm,0.6s,mb5.2,baz=302,slow=7.9,SNR=116
ASAR                              PKPPKP         08 48 13.6
     comp=Z,4.3nm,0.9s,baz=107,slow=0.8,SNR=4.6
MKAR Makanchi Array   45.44 347   P      P       08 16 47.1  -0.3
MKAR                              S      S       08 23 27.6 +0.8
MKAR Makanchi Array   45.44 347   P      P       08 16 47.1  -0.3
     comp=Z,253nm,0.7s,mb6.2,baz=159,slow=7.3,SNR=450
MKAR                              S      S       08 23 27.6 +0.8
     comp=Z,11nm,0.7s,baz=125,slow=10,SNR=1.5
MKAR                              LR     LR      08 40 41.0
     comp=Z,263µm,20.3s,MS7.2,baz=160,slow=42
MKAR                              PKP2bc         08 48 46.6
     comp=Z,4.0nm,0.9s,baz=299,slow=3.5,SNR=4.2
MKAR Makanchi Array   45.44 347   P      P       08 16 47.1  -0.3
MKAR                              S      S       08 23 27.6 +0.8
MKAR                              LR     LR      08 40 41.0
MKAR                            ⥣e               08 48 46.6
SONM Songino Array    45.79  10   P      P       08 16 50.2 +0.1
SONM                              S      S       08 23 35.5 +3.7
SONM Songino Array    45.79  10   P      P       08 16 50.2  0.0
     comp=Z,381nm,1.0s,mb6.3,baz=195,slow=6.5,SNR=245
SONM                              S      S       08 23 35.5 +3.7
     comp=Z,10.0nm,0.9s,baz=204,slow=3.3,SNR=1.7
SONM                              LR     LR      08 38 21.6
     comp=Z,1265µm,20.8s,MS7.8,baz=190,slow=39
SONM Songino Array    45.79  10   P      P       08 16 50.2  0.0
SONM                              S      S       08 23 35.5 +3.7
SONM                              LR     LR      08 38 21.6
ULN  Ulaanbaatar      45.94  10  eP      P       08 16 51.5 +0.2
     comp=Z,441nm,0.8s,mb6.4
ULN                               LR     LR
     comp=Z,1160µm,21.0s,MS7.8
RER  Riviere de l'E   45.99 237  eP      P       08 16 53.7 +1.5
     comp=Z,862nm,1.0s,mb6.6
RER                               LR     LR
     comp=Z,302µm,21.0s,MS7.2
SNY  Shenyang         46.11  29 ⥣P      P       08 16 52.1  -0.6
SNY                               pP     pP      08 16 56.8  -5.3
SNY                               PP     PP      08 18 45.8 +4.5
SNY                               S      S       08 23 33.1  -3.4
SNY                               sS     sS      08 23 51.4  -0.6
SNY                               pmax   pmax
     comp=Z,200nm,1.1s,mb6.0
SNY                               pmax   pmax
     comp=Z,7µm,4.3s
SNY                               LR     LR
     comp=N,877µm,20.0s,MS7.8
SNY                               LR     LR
     comp=E,655µm,19.4s,MS7.8
SNY                               LR     LR
     comp=Z,641µm,21.6s,MS7.5
KK31 Karatay Array    46.12 334  i P     P       08 16 52.8  0.0
KK31                              pmax   pmax
     comp=Z,2µm,1.2s,mb6.8
IMYA Miami            47.01 320  eP      P       08 17 01.1 +1.2
IMOG Moghan           47.37 319  eP      P       08 17 05.6 +2.9
ISRO Mashad           47.40 319  eP      P       08 17 02.2  -0.8
IBAF Bafgh            47.61 312  eP      P       08 17 05.3 +0.6
MUKL Al Mukalla       47.73 287  eP      P       08 17 07.3 +1.4
IPAY Payeh            47.80 319  eP      P       08 17 05.5  -0.5
ZAK  Zakamensk        47.85   6  eP      P       08 17 06.4 +0.2
ZAK                              e               08 18 51.2
ZAK                               pmax   pmax
     comp=Z,600nm,1.1s,mb6.5
IAKL Akhelmad         48.04 319  eP      P       08 17 07.5  -0.4
IKRD Kardeh           48.30 319  eP      P       08 17 06.0  -3.9
CN2  Changchun        48.50  28 ⥣P      P       08 17 10.8  -0.5
CN2                              epP     pP      08 17 20.8  0.0
CN2                               PP     PP      08 19 06.8 +2.4
CN2                              eS      S       08 24 11.4 +0.9
CN2                               SS     SS      08 27 32.4  -8.4
ISRV Sarvestan        48.51 308  eP      P       08 17 17.2 +5.5
IEMG Emamgholi        48.58 320  eP      P       08 17 12.4 +0.3
IPAR Pars             48.76 308  eP      P       08 17 13.7 +0.1
ISFR Sfrayin          48.80 319  eP      P       08 17 11.2  -2.6
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MOY  Mondy            48.92   4  eP      P       08 17 14.8 +0.4
MOY                               pmax   pmax
     comp=Z,1µm,2.7s,mb6.4
ASH  Ashkhabad        49.09 320 ⥣P      P       08 17 15.0  -1.0
ASH                               S      S       08 24 21.0 +1.9
TLY  Talaya           49.17   6   P      P       08 17 17.8 +1.5
     comp=Z,3µm,0.9s,mb7.3,SNR=63
TLY  Talaya           49.17   6c iP      P       08 17 16.7 +0.4
TLY                              eS      S       08 24 27.9 +8.2
TLY                              e               08 24 44.6
TLY                               pmax   pmax
     comp=Z,728nm,0.8s,mb6.8
TLY                               MLR    MLR
     comp=Z,1083µm,23.0s,MS7.8
TLY  Talaya           49.17   6  eP      P       08 17 16.9 +0.6
     comp=Z,730nm,0.9s,mb6.7
TLY                               LR     LR
     comp=Z,682µm,21.0s,MS7.6
TLY  Talaya           49.17   6   P      P       08 17 17.2 +0.9
     SNR=326
TLY                               P              08 17 17.2
     SNR=326
ABKT Ailbek           49.23 320   P      P       08 17 17.8 +0.7
     comp=Z,6µm,1.1s,mb7.5,SNR=68
GUMO Guam             49.49  75   P      P       08 17 17.7  -1.7
     comp=Z,123nm,0.4s,mb6.3,baz=334,slow=2.8,SNR=6.5
GUMO Guam             49.49  75  eP      P       08 17 18.9  -0.5
     comp=Z,3µm,1.4s,mb7.1
GUMO                              LR     LR
     comp=Z,385µm,21.0s,MS7.4
COEN Coen             49.66 111  eP      P       08 17 19.1  -1.6
     comp=Z,3µm,1.0s,mb7.3
COEN Coen             49.66 111   P      P       08 17 19.7  -1.0
     comp=Z,2µm,0.9s,mb7.1
IRK  Irkutsk          49.80   7  eP      P       08 17 21.0  -0.1
IRK                              eS      S       08 24 34.8 +6.4
IRK                               pmax   pmax
     comp=Z,1µm,1.5s,mb6.7
KURK Kurchatov        49.98 346   P      P       08 17 22.6 +0.1
KURK                              pmax   pmax
     comp=Z,2µm,1.4s,mb6.9
KURK Kurchatov        49.98 346   P      P       08 17 21.9  -0.6
     comp=Z,258nm,0.7s,mb6.4,baz=165,slow=6.7,SNR=241
KURK                              S      S       08 24 31.2 +0.2
     comp=Z,8.8nm,1.0s,baz=14,slow=27,SNR=1.8
KURK                              PKPPKP         08 48 17.0
     comp=Z,6.0nm,1.0s,baz=299,slow=3.5,SNR=4.4
KURK Kurchatov        49.98 346  eP      P       08 17 22.5  0.0
     comp=Z,3µm,1.5s,mb7.1
KURK                              LR     LR
     comp=Z,452µm,22.0s,MS7.4
KURK Kurchatov        49.98 346 ⥣P      P       08 17 23.9 +1.4
     SNR=340
KURK                            ⥣P               08 17 23.9
     SNR=340
HIA  Hailar           50.58  20  eP      P       08 17 27.1  0.0
HIA                               pmax   pmax
     comp=Z,929nm,0.9s
HIA                               MLR    MLR
     comp=Z,1284µm,20.0s
HIA  Hailar           50.58  20  eP      P       08 17 27.1  0.0
     comp=Z,929nm,0.9s,mb6.7
HIA                               LR     LR
     comp=Z,1284µm,20.0s,MS7.9
IZEF Zefreh           50.65 311  eP      P       08 17 26.3  -1.6
IANJ Anjilo           50.72 315  eP      P       08 17 27.7  -0.7
JHJ  Hachijo jima 2   50.89  48   P      P       08 17 27.9  -1.8
     comp=Z,115nm,0.9s,mb5.8,baz=246,slow=23,SNR=2.4
JHJ                               LR     LR      08 37 53.9
     comp=Z,225µm,21.4s,MS7.2,baz=75,slow=35
BDHA Al Bayda'        50.98 286  eP      P       08 17 32.8 +2.1
BDHA                              AMb    AMB     08 17 35.7
     comp=Z,216nm,1.4s,mb5.9
MDJ  Mudanjiang       51.13  31   P      P       08 17 31.6 +0.2
MDJ                               pP     pP      08 17 40.8  -0.1
MDJ                               sP     sP      08 17 44.5  -0.1
MDJ                               PP     PP      08 19 24.1  -4.2
MDJ                               S      S       08 24 47.6 +0.3
MDJ                               sS     sS      08 25 03.9 +1.0
MDJ                               ScS    ScS     08 27 20.1 +0.4
MDJ                               SS     SS      08 28 24.5 +1.6
MDJ                               pmax   pmax
     comp=Z,220nm,1.1s,mb6.0
MDJ                               pmax   pmax
     comp=Z,4µm,7.1s
MDJ                               LR     LR
     comp=N,410µm,22.4s,MS7.6
MDJ                               LR     LR
     comp=E,465µm,20.0s,MS7.6
MDJ                               LR     LR
     comp=Z,659µm,20.8s,MS7.6
MDJ  Mudanjiang       51.13  31  eP      P       08 17 31.4  0.0
     comp=Z,1µm,1.3s,mb6.7
MDJ                               LR     LR
     comp=Z,705µm,21.0s,MS7.7
CIT  Chita            51.24  14  eP      P       08 17 32.4 +0.4
CIT                              e               08 17 50.7
CIT                              e               08 24 55.7
IKIA Kiasar           51.26 316  eP      P       08 17 31.5  -0.9
ISHM Shahmirzad       51.33 315  eP      P       08 17 33.1 +0.1
ILAS Lasjerd          51.35 314  eP      P       08 17 32.9  -0.3
ISFB Sefidab          51.38 313  eP      P       08 17 32.2  -1.2
MAJO Matsushiro       51.40  44  eP      P       08 17 35.2 +1.7
MAJO                             e*PP    pP      08 17 43.8 +0.8
MAJO                              pmax   pmax
     comp=Z,249nm,0.9s,mb6.1
MAJO                              MLR    MLR
     comp=Z,399µm,20.0s,MS7.4
MAJO Matsushiro       51.40  44  eP      P       08 17 35.2 +1.7
     comp=Z,249nm,0.9s,mb6.1
MAJO                             epP     pP      08 17 43.8 +0.8
MAJO                              LR     LR
     comp=Z,399µm,20.0s,MS7.4
MAT  Matsushiro       51.40  44   P      P       08 17 31.2  -2.3
MAT                               S      S       08 25 02.0  +11
MJAR Matsushiro Arr   51.40  44   P      P       08 17 32.5  -1.0
MJAR                                             08 18 49.0
MJAR                              S      S       08 24 53.7 +2.4
MJAR Matsushiro Arr   51.40  44   P      P       08 17 32.5  -1.1
     comp=Z,21nm,0.8s,mb5.1,baz=240,slow=7.7,SNR=22
MJAR                              PcP    PcP     08 18 49.0 +1.2
     comp=Z,57nm,0.8s,baz=239,slow=2.5,SNR=7.0
MJAR                              S      S       08 24 53.7 +2.4
     comp=Z,2.1nm,0.7s,baz=40,slow=28,SNR=1.9
MJAR                              LR     LR      08 41 35.8
     comp=Z,352µm,19.6s,MS7.4,baz=235,slow=39
MJAR                              PKP2bc         08 48 20.9
     comp=Z,4.8nm,1.0s,baz=20,slow=3.1,SNR=5.4
MJAR Matsushiro Arr   51.40  44   P      P       08 17 32.5  -1.1
MJAR                              PcP    PcP     08 18 49.0 +1.2
MJAR                              S      S       08 24 53.7 +2.4
MJAR                              LR     LR      08 41 35.8
MJAR                            ⥣e               08 48 20.9
IFIR Firoozkooh       51.63 315  eP      P       08 17 34.8  -0.4
IPIR Pirpir           51.64 310  eP      P       08 17 35.8 +0.4
IALA Alasht           51.80 315  eP      P       08 17 35.1  -1.5
ZAA0 Zalesovo Array   51.84 352  eP      P       08 17 36.0  -0.4
ZALV Zalesovo Beam    51.84 352   P      P       08 17 36.1  -0.3
ZALV                              S      S       08 24 57.9 +1.3
ZALV Zalesovo Beam    51.84 352   P      P       08 17 36.1  -0.3
     comp=Z,428nm,0.8s,mb6.4,baz=175,slow=6.8,SNR=237
ZALV                              S      S       08 24 57.9 +1.3
     comp=Z,12nm,0.7s,baz=186,slow=13,SNR=1.9
ZALV                              LR     LR      08 44 21.7
     comp=Z,208µm,19.6s,MS7.2,baz=177,slow=42
ZALV                              PKPPKP         08 48 15.8
     comp=Z,1.9nm,0.4s,baz=308,slow=4.9,SNR=4.3
IVRN Varamin          52.06 313  eP      P       08 17 38.3  -0.1
IDMV Damavand         52.11 314  eP      P       08 17 38.1  -0.7
DHBB Dhamar BB        52.19 286  eP      P       08 17 41.6 +1.8
DHBB                              AMb    AMB     08 17 46.3
     comp=Z,3µm,1.5s,mb7.0
IPRN Peran            52.22 315  eP      P       08 17 39.1  -0.5
TRBA At Turbah        52.28 285  eP      P       08 17 42.1 +1.7
OPO  Ambohidratompo   52.47 244   S      S       08 25 10.8 +4.4
     comp=Z,5.7nm,1.0s,baz=37,slow=9.0,SNR=1.8
ABPO Ambohimpanom     52.57 244  eP      P       08 17 42.5  0.0
ABPO                              pmax   pmax
     comp=Z,1µm,1.1s,mb6.8
ABPO                              MLR    MLR
     comp=Z,328µm,22.0s,MS7.3
ABPO Ambohimpanom     52.57 244  eP      P       08 17 42.5  0.0
     comp=Z,1µm,1.1s,mb6.8
ABPO                              LR     LR
     comp=Z,328µm,22.0s,MS7.3
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IR3  Iran Long-Peri   52.79 314  eP      P       08 17 42.5  -1.4
KBD  Kabd             52.80 305  eP      P       08 17 44.2 +0.1
KBD                               AMb    AMB     08 18 02.9
     comp=Z,1µm,1.1s,mb6.7
RDF  Al-Radifah       52.83 305  eP      P       08 17 45.0 +0.7
RDF                               AMb    AMB     08 18 03.0
     comp=Z,3µm,1.1s,mb7.1
UMR  Umm Al-Rimmam    52.91 305  eP      P       08 17 45.4 +0.5
UMR                               AMb    AMB     08 18 00.9
     comp=Z,938nm,1.2s,mb6.6
NVS  Novosibirsk      52.94 351⥣iP      P       08 17 44.0  -0.6
NVS                              e               08 18 48.5
NVS                              i S     S       08 25 15.0 +3.3
NVS                              e               08 27 28.7
NVS                               pmax   pmax
     comp=Z,2µm,1.9s,mb6.8
NVS                               pmax   pmax
     comp=N,2µm,2.0s
NVS                               pmax   pmax
     comp=E,664nm,1.8s
NVS                               smax
     comp=N,2µm,2.6s
NVS                               smax
     comp=E,515nm,1.8s
CTA  Charters Tower   54.30 117   P      P       08 17 54.4  -0.8
CTA                               S      S       08 25 31.3  -0.1
CTA  Charters Tower   54.30 117⥣iP      P       08 17 54.7  -0.5
     comp=E,138nm,0.8s,mb5.9
CTA                              epP     pP      08 18 04.1  -0.7
CTA                              e               08 18 15.9
CTA                              eS      S       08 25 30.8  -0.6
CTA  Charters Tower   54.30 117   P      P       08 17 54.4  -0.9
     comp=E,118nm,0.8s,mb5.8,baz=290,slow=8.8,SNR=92
CTA                               S      S       08 25 31.3  -0.1
     comp=E,8.9nm,0.8s,baz=199,slow=22,SNR=2.0
CTA                               LR     LR      08 41 09.4
     comp=E,225µm,21.9s,MS7.2,baz=283,slow=36
CTAO Charters Tower   54.30 117  eP      P       08 17 54.6  -0.6
     comp=E,1µm,1.3s,mb6.7
CTAO                              LR     LR
     comp=Z,251µm,22.0s,MS7.2
BVAR Borovoye Array   54.38 341   P      P       08 17 54.6  -0.6
BVAR                              S      S       08 25 30.4  -0.9
BVAR Borovoye Array   54.38 341   P      P       08 17 54.6  -0.6
     comp=Z,170nm,0.8s,mb6.0,baz=142,slow=7.5,SNR=139
BVAR                              S      S       08 25 30.4  -0.9
     comp=Z,33nm,1.2s,baz=245,slow=6.4,SNR=3.1
BVAR                              LR     LR      08 43 31.4
     comp=Z,433µm,21.8s,MS7.5,baz=152,slow=39
BVAR                              PKP2ab         08 48 43.7
     comp=Z,1.5nm,0.7s,baz=8.5,slow=3.0,SNR=4.8
BRVK Borovoye         54.44 341  eP      P       08 17 54.9  -0.7
BRVK                              pmax   pmax
     comp=Z,948nm,0.9s,mb6.7
BRVK                              MLR    MLR
     comp=Z,442µm,22.0s,MS7.5
BRVK Borovoye         54.44 341  eP      P       08 17 54.9  -0.8
     comp=Z,948nm,0.9s,mb6.7
BRVK                              LR     LR
     comp=Z,442µm,22.0s,MS7.5
STKA Stephens Creek   55.31 132⥣iP      P       08 18 01.8  -0.6
     comp=Z,107nm,0.9s,mb5.9
STKA                             epP     pP      08 18 11.2  -0.7
STKA                             e               08 18 23.3
STKA                             eS      S       08 25 44.4  -0.2
STKA Stephens Creek   55.31 132   P      P       08 18 01.1  -1.2
     comp=Z,65nm,0.8s,mb5.7,baz=312,slow=7.0,SNR=72
STKA                              S      S       08 25 42.8  -1.7
     comp=Z,14nm,1.0s,baz=222,slow=23,SNR=1.6
STKA                              LR     LR      08 44 11.6
     comp=Z,175µm,21.2s,MS7.1,baz=305,slow=39
STKA                              PKPPKP         08 48 10.3
     comp=Z,4.3nm,0.8s,baz=19,slow=3.0,SNR=3.7
KLR  Kul'dur          55.44  28⥥eP      P       08 17 58.0  -4.9
KLR                               pmax   pmax
     comp=E,300nm,1.6s
KLR                               pmax   pmax
     comp=Z,740nm,1.6s,mb6.5
AB31 Akbulak array    55.56 332   P      P       08 18 03.0  -0.8
AB31                              pmax   pmax
     comp=Z,2µm,0.9s,mb7.2
ISRB Sarab            56.26 315  eP      P       08 18 11.5 +2.5
DESE Dese             56.45 281  eP      P       08 18 15.8 +5.0
DESE                              S      S       08 26 06.5 +6.2
PAF  Port-aux-Franc   56.49 200   PFAKE          08 18 20.0  +10
PAF                               LR     LR
     comp=Z,166µm,20.0s,MS7.1
HABR Khabarovsk       56.52  30c iP      P       08 18 09.9  -0.8
HABR                             e*PP    pP      08 18 18.4  -1.9
HABR                             e*SP    sP      08 18 22.9  -1.1
HABR                             e               08 19 05.2
HABR                             e               08 20 14.4
HABR                              PPP            08 21 29.2
HABR                             eS      S       08 25 59.0  -1.0
HABR                             e*SS    sS      08 26 14.2  -1.6
HABR                             e               08 27 55.5
HABR                              pmax   pmax
     comp=Z,247nm,1.0s,mb6.2
HABR                              pmax   pmax
     comp=Z,5µm,7.9s
HABR                              pmax   pmax
     comp=N,69nm,1.1s
HABR                              pmax   pmax
     comp=E,186nm,1.1s
HABR                              MLR    MLR
     comp=N,376µm,20.0s,MS7.8
HABR                              MLR    MLR
     comp=E,632µm,18.0s,MS7.8
HABR                              MLR    MLR
     comp=Z,718µm,19.0s,MS7.8
BOD  Bodaibo          56.72  11  eP      P       08 18 11.4  -0.5
BOD                               pmax   pmax
     comp=Z,580nm,1.7s,mb6.3
IBST Bostanabad       56.76 314  eP      P       08 18 10.8  -1.8
BHD  Baghdad          56.90 308  i x     x       08 18 13.0
BHD                              i x     x       08 26 03.0
IHRS Heris            56.92 315  eP      P       08 18 12.8  -0.9
FURI Furi             57.26 279  eP      P       08 18 19.0 +2.4
FURI                              S      S       08 26 23.3  +12
AKTK Aktyubinsk       57.28 332   P      P       08 18 15.3  -0.7
AKTK                              S      S       08 26 09.3  -0.8
AKTO Aktyubinsk       57.28 332   P      P       08 18 15.3  -0.7
     comp=Z,150nm,0.8s,mb6.0,baz=130,slow=7.7,SNR=83
AKTO                              S      S       08 26 09.3  -0.8
     comp=Z,52nm,1.4s,baz=6.6,slow=19,SNR=3.6
ERM  Erimo            57.47  40  i P     P       08 18 17.4  -0.1
ERM                               MLR    MLR
     comp=Z,590µm,22.0s,MS7.7
ERM  Erimo            57.47  40  eP      P       08 18 18.0 +0.5
     comp=Z,297nm,1.0s,mb6.3
ERM                               LR     LR
     comp=Z,303µm,20.0s,MS7.4
IMRD Marand           58.04 315  eP      P       08 18 21.7 +0.1
ASAJ Asahikawa        58.18  38   P      P       08 18 21.9  -0.5
     comp=Z,31nm,0.8s,mb5.4,baz=251,slow=12,SNR=11
ASAJ                              S      S       08 26 25.5 +3.4
     comp=Z,11nm,1.1s,baz=238,slow=26,SNR=2.4
ASAJ                              LR     LR      08 43 27.3
     comp=Z,440µm,21.6s,MS7.5,baz=227,slow=36
CLNS Chul'man         58.63  18  eP      P       08 18 25.6 +0.2
CLNS                             e*PP    pP      08 18 38.4 +3.4
CLNS                             e               08 20 31.0
CLNS                             ePPP            08 21 54.6
CLNS                             eS      S       08 26 29.9 +2.4
CLNS                              pmax   pmax
     comp=Z,274nm,1.0s,mb6.2
CLNS                              pmax   pmax
     comp=E,123nm,0.9s
CLNS                              pmax   pmax
     comp=N,127nm,0.8s
CLNS                              pmax   pmax
     comp=Z,138nm,1.0s,mb5.9
CLNS                              pmax   pmax
     comp=N,191nm,1.1s
CLNS                              pmax   pmax
     comp=E,223nm,1.3s
CLNS                              smax
     comp=N,20µm,12.1s
CLNS                              smax
     comp=E,24µm,14.3s
CLNS                              MLR    MLR
     comp=N,252µm,18.0s,MS7.5
CLNS                              MLR    MLR
     comp=Z,368µm,25.0s
CLNS                              MLR    MLR
     comp=E,260µm,20.0s,MS7.5
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MAK	**Makhachkala**	**58.75**	**320**	*d* *i*P	**P**	**08 18 28.1**	**+1.6**
MAK				*i*		08 19 23.2	
MAK				*i*		08 20 37.6	
MAK				*i* S	**S**	**08 26 36.1**	**+6.6**
MAK				*i* SS	SS	08 30 28.5	+5.4
MAK				pmax	pmax		
	comp=E,440nm,1.5s						
MAK				pmax	pmax		
	comp=Z,591nm,1.1s,mb6.5						
MAK				pmax	pmax		
	comp=N,136nm,0.7s						
MAK				pmax	pmax		
	comp=Z,29µm,12.4s						
MAK				pmax	pmax		
	comp=N,12µm,9.6s						
MAK				pmax	pmax		
	comp=E,21µm,10.6s						
KMBO	**Kilima Mbogo**	**58.82**	**267**	P	**P**	**08 18 27.0**	**-0.5**
KMBO				S	**S**	**08 26 33.8**	**+2.3**
KMBO	**Kilima Mbogo**	**58.82**	**267**	P	**P**	**08 18 27.0**	**-0.5**
	comp=E,40nm,1.0s,mb5.4,baz=60,slow=9.9,SNR=24						
KMBO				S	**S**	**08 26 33.8**	**+2.3**
	comp=E,2.4nm,0.8s,baz=68,slow=22,SNR=1.8						
KMBO				LR	LR	08 41 05.6	
	comp=E,809µm,19.4s,MS7.9,baz=78,slow=33						
KMBO	**Kilima Mbogo**	**58.82**	**267**	P	**P**	**08 18 27.0**	**-0.5**
KMBO				S	**S**	**08 26 33.8**	**+2.3**
KMBO				LR	LR	08 41 05.5	
CUKT	**Cukurca**	**58.96**	**312**	*e*P	**P**	**08 18 25.7**	**-2.3**
HKR	**Hakkari**	**58.99**	**313**	*e*P	**P**	**08 18 27.1**	**-1.1**
MSL	**Mosul**	**59.01**	**311**	*e*x	x	08 18 33.0	
MSL				*e*x	x	08 26 44.0	
GNI	**Garni**	**59.32**	**316**	PFAKE		08 18 40.0	+10
GNI				LR	LR		
	comp=Z,173µm,20.0s,MS7.2						
CLDR	**Caldiran**	**59.48**	**315**	*e*P	**P**	**08 18 31.3**	**-0.4**
VANB	**Van**	**59.64**	**314**	*e*P	**P**	**08 18 29.4**	**-3.3**
YSS	**Yuzh-Sakhalins**	**59.78**	**35**	⇑*e*P	**P**	**08 18 33.6**	**+0.1**
YSS				*e*		08 20 43.0	
YSS				*e*PPP		08 22 14.0	
YSS				*e*SS	SS	08 30 55.0	+16
YSS				*e*SSS		08 33 20.0	
YSS				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
YSS				pmax	pmax		
	comp=E,140nm,0.9s						
YSS				MLR	MLR		
	comp=N,174µm,18.0s,MS7.6						
YSS				MLR	MLR		
	comp=Z,410µm,18.0s,MS7.6						
YSS				MLR	MLR		
	comp=E,378µm,19.0s,MS7.6						
YSS	**Yuzh-Sakhalins**	**59.78**	**35**	*e*P	**P**	**08 18 33.2**	**-0.3**
	comp=E,1µm,1.1s,mb6.8						
YSS				LR	LR		
	comp=Z,284µm,21.0s,MS7.4						
DYDN	**Diyadin**	**59.80**	**315**	⇑*i*P	**P**	**08 18 34.4**	**+0.6**
YUK	**Yuzh-Kuril'sk**	**60.18**	**39**	⇑*i*P	**P**	**08 18 35.0**	**-1.4**
YUK				*e*SP		08 18 51.0	
YUK				*e*		08 20 54.0	
YUK				*e*PPP		08 22 15.0	
YUK				*e*S	**S**	**08 26 59.0**	**+11**
YUK				*e*		08 28 15.0	
YUK				pmax	pmax		
	comp=N,2µm,8.0s						
YUK				pmax	pmax		
	comp=E,3µm,8.0s						
YUK				pmax	pmax		
	comp=Z,5µm,8.0s						
YUK				MLR	MLR		
	comp=Z,272µm,23.0s,MS7.3						
YUK				MLR	MLR		
	comp=N,248µm,21.0s,MS7.6						
YUK				MLR	MLR		
	comp=E,390µm,22.0s,MS7.6						
EIDS	**Eidsvold**	**60.24**	**121**	*e*P	**P**	**08 18 36.4**	**-0.6**
	comp=E,3µm,2.6s,mb6.9						
AGRB	**Hanur-Agry**	**60.31**	**315**	*e*P	**P**	**08 18 37.9**	**+0.5**
TATV	**Tatvan**	**60.42**	**313**	⇑*i*P	**P**	**08 18 38.7**	**+0.6**
KARS	**Kars**	**60.66**	**316**	*e*P	**P**	**08 18 40.9**	**+1.3**
SVE	**Sverdlovsk**	**60.79**	**339**	⇓*e*P	**P**	**08 18 39.9**	**-0.3**
SVE				*e*		08 20 58.4	
SVE				*e*PPP		08 22 32.2	
SVE				*e*S	**S**	**08 27 00.0**	**+4.7**
SVE				*e*		08 28 20.9	
SVE				*e*SS	SS	08 31 01.2	+6.6
SVE				*e*SSS		08 33 28.7	
SVE				pmax	pmax		
	comp=Z,2µm,1.2s,mb7.0						
SVE				pmax	pmax		
	comp=Z,33µm,19.1s						
SVE				MLR	MLR		
	comp=Z,221µm,18.0s,MS7.3						
TOO	**Toolangi**	**60.92**	**136**	⇑*i*P	**P**	**08 18 42.2**	**+0.7**
TOO				*e*		08 19 00.9	
TOO				*e*S	**S**	**08 27 00.9**	**+3.3**
BEST	**Besiri**	**60.92**	**312**	⇑*i*P	**P**	**08 18 43.3**	**+1.8**
MARD	**Mardin**	**61.08**	**312**	⇑*i*P	**P**	**08 18 43.7**	**+1.0**
HOMI	**Horasan**	**61.27**	**315**	⇑*i*P	**P**	**08 18 44.7**	**+0.8**
ARU	**Arti**	**61.27**	**337**	P	**P**	**08 18 42.9**	**-0.6**
	comp=Z,4µm,1.3s,mb7.4,SNR=34						
ARU	**Arti**	**61.27**	**337**	*e*P	**P**	**08 18 42.8**	**-0.7**
ARU	**Arti**	**61.27**	**337**	*e*P	**P**	**08 18 42.8**	**-0.7**
ARU				*e*pP	pP	08 18 51.2	-2.0
ARU				LR	LR		
	comp=Z,508µm,20.0s,MS7.7						
EZM	**Erzurum**	**61.60**	**315**	*e*P	**P**	**08 18 47.5**	**+1.4**
DIYA	**Diyarbakir**	**61.78**	**312**	⇑*i*P	**P**	**08 18 47.7**	**+0.3**
KOPT	**Kop Dagi**	**62.26**	**314**	⇑*i*P	**P**	**08 18 51.4**	**+0.9**
KIV	**Kislovodsk**	**62.33**	**319**	P	**P**	**08 18 51.3**	**+0.4**
	comp=Z,5µm,1.0s,mb7.6,SNR=16						
KIV	**Kislovodsk**	**62.33**	**319**	*c* *i*P	**P**	**08 18 50.6**	**-0.3**
KIV				*e*		08 21 12.2	
KIV				*e*PPP		08 22 47.3	
KIV				*e*S	**S**	**08 27 14.4**	**-0.9**
KIV				*e*SS	SS	08 31 20.9	+1.7
KIV				pmax	pmax		
	comp=Z,698nm,4.0s						
KIV				pmax	pmax		
	comp=Z,712nm,1.1s,mb6.7						
KIV				MLR	MLR		
	comp=Z,119µm,17.0s,MS7.1						
KIV	**Kislovodsk**	**62.33**	**319**	*e*P	**P**	**08 18 50.7**	**-0.1**
KIV				*e*pP	pP	08 18 59.5	-1.1
KIV				*e*sP	sP	08 19 05.3	+1.1
KIV				LR	LR		
	comp=Z,169µm,21.0s,MS7.2						
KIV	**Kislovodsk**	**62.33**	**319**	⇑P	**P**	**08 18 51.7**	**+0.8**
	SNR=52						
KIV				⇑P		08 18 51.7	
	SNR=52						
CAN	**Canberra**	**62.38**	**132**	P	**P**	**08 18 51.4**	**0.0**
CAN				pmax	pmax		
	comp=Z,490nm,1.2s,mb6.5						
CAN	**Canberra**	**62.38**	**132**	*e*P	**P**	**08 18 51.2**	**-0.2**
	comp=Z,489nm,1.2s,mb6.5						
CAN				LR	LR		
	comp=Z,216µm,20.0s,MS7.3						
ARMA	**Armidale**	**62.45**	**126**	⇑*i*P	**P**	**08 18 52.5**	**+0.5**
ARMA				*e*pP	pP	08 19 01.8	+0.1
ARMA				*e*S	**S**	**08 27 19.3**	**+2.0**
ARMA	**Armidale**	**62.45**	**126**	*e*P	**P**	**08 18 52.8**	**+0.8**
ASF	**Jabal al Asfar**	**62.56**	**305**	P	**P**	**08 18 53.2**	**+0.5**
	comp=Z,41nm,1.0s,mb5.5,baz=345,slow=5.6,SNR=23						
ASF				S	**S**	**08 27 20.7**	**+2.0**
	comp=Z,3.9nm,0.9s,baz=221,slow=19,SNR=1.6						
URFA	**Urfa**	**62.59**	**311**	*e*P	**P**	**08 18 53.3**	**+0.5**
CNB	**Canberra Magne**	**62.65**	**132**	*e*P	**P**	**08 18 52.7**	**-0.5**
CNB				*e*pP	pP	08 19 01.3	-1.6
CNB				*e*S	**S**	**08 27 19.0**	**-0.6**
ELZG	**Elazig**	**62.82**	**312**	*i* P	**P**	**08 18 56.8**	**+2.5**
ATAB	**Bozova**	**63.00**	**311**	⇑*i*P	**P**	**08 18 56.8**	**+1.3**
MACK	**Trabzon**	**63.11**	**315**	⇑*i*P	**P**	**08 18 56.0**	**-0.2**
GUMT	**Gumushane**	**63.14**	**315**	*e*P	**P**	**08 18 56.0**	**-0.4**
MALT	**Malatya**	**63.17**	**312**	*e*P	**P**	**08 18 55.7**	**-0.9**
MALT	**Malatya**	**63.17**	**312**	⇑*i*P	**P**	**08 18 57.0**	**+0.4**
MALT	**Malatya**	**63.17**	**312**	⇑P	**P**	**08 18 57.0**	**+0.3**
MALT	**Malatya**	**63.17**	**312**	P	**P**	**08 18 56.9**	**+0.3**
	comp=Z,578nm,2.1s,mb6.3						
RIV	**Riverview**	**63.38**	**130**	*e*P	**P**	**08 18 58.9**	**+0.8**
KEMA	**Kemaliye**	**63.44**	**313**	⇑*i*P	**P**	**08 18 59.4**	**+1.0**
FKH	**Fakeheh**	**63.51**	**307**	*e*P	**P**	**08 18 58.4**	**-0.6**
AKCD	**Akcadag**	**63.54**	**312**	⇑*i*P	**P**	**08 19 01.2**	**+2.1**
EIL	**Elat**	**63.59**	**302**	P	**P**	**08 18 59.5**	**-0.1**
	comp=Z,59nm,0.9s,mb5.6,baz=59,slow=1.7,SNR=28						
EIL				S	**S**	**08 27 33.4**	**+1.9**
	comp=Z,2.6nm,0.4s,baz=248,slow=23,SNR=1.6						
EIL				LR	LR	08 46 58.2	
	comp=Z,443µm,19.2s,MS7.7,baz=106,slow=36						
EIL	**Elat**	**63.59**	**302**	P	**P**	**08 18 59.5**	**-0.1**
EIL				S	**S**	**08 27 33.4**	**+1.9**
EIL				LR	LR	08 46 58.2	
KUZU	**Kuzuini**	**63.71**	**310**	⇑*i*P	**P**	**08 19 01.3**	**+1.0**
RCY	**Rachaya**	**63.78**	**306**	*e*P	**P**	**08 19 02.0**	**+1.3**
ESPY	**Espiye-Giresun**	**63.84**	**315**	*e*P	**P**	**08 18 59.8**	**-1.2**
MMAI	**Mount Meron Ar**	**63.99**	**305**	P	**P**	**08 19 03.0**	**+0.8**
	comp=Z,55nm,0.9s,mb5.6,baz=95,slow=8.6,SNR=26						
MMAI				S	**S**	**08 27 36.6**	**0.0**
	comp=Z,0.8nm,0.3s,baz=48,slow=40,SNR=3.3						
MMAI				LR	LR	08 49 09.2	
	comp=Z,259µm,18.4s,MS7.5,baz=95,slow=38						
BHL	**Bhannes**	**64.02**	**307**	*e*P	**P**	**08 19 03.1**	**+0.8**
SOC	**Sochi**	**64.14**	**318**	*c* *i*P	**P**	**08 19 01.2**	**-1.7**
SOC				*e**PP	pP	08 19 10.6	-2.0
SOC				*e**SP	sP	08 19 15.1	-1.2
SOC				*e*		08 19 35.8	
SOC				*e*		08 21 30.9	
SOC				*e*S	**S**	**08 27 36.0**	**-1.9**
SOC				*e**SS	sS	08 27 59.7	+5.7
SOC				*e*		08 28 50.5	
SOC				pmax	pmax		
	comp=Z,246nm,0.9s,mb6.2						
SOC				pmax	pmax		
	comp=Z,1µm,4.8s						
SOC				MLR	MLR		
	comp=Z,78µm,20.0s,MS6.9						
SOC	**Sochi**	**64.14**	**318**	*e*P	**P**	**08 19 00.9**	**-2.0**
SOKR	**Solikamsk**	**64.19**	**339**	*c* *i*P	**P**	**08 19 02.7**	**-0.2**
SOKR				S	**S**	**08 27 37.0**	**-1.0**
SOKR				pmax	pmax		
	comp=Z,500nm,1.0s,mb6.5						
SOKR				pmax	pmax		
	comp=Z,2µm,1.2s,mb6.9						
SOKR				MLR	MLR		
	comp=Z,294µm,21.0s,MS7.5						
HTY	**Hatay**	**64.24**	**309**	*e*P	**P**	**08 18 58.3**	**-5.4**
YAK	**Yakutsk**	**64.28**	**17**	*c* *i*P	**P**	**08 19 02.5**	**-1.0**
YAK				*e**PP	pP	08 19 15.1	+1.9
YAK				*e*		08 19 34.2	
YAK				*e*		08 21 24.9	
YAK				*e*S	**S**	**08 27 41.2**	**+2.2**
YAK				*e*		08 28 53.2	
YAK				pmax	pmax		
	comp=E,409nm,1.1s						
YAK				pmax	pmax		
	comp=Z,2µm,1.1s,mb7.0						
YAK				pmax	pmax		
	comp=N,458nm,1.1s						
YAK				pmax	pmax		
	comp=Z,749nm,2.3s,mb6.3						
YAK				pmax	pmax		
	comp=E,625nm,2.1s						
YAK				pmax	pmax		
	comp=N,568nm,2.3s						
YAK				smax			
	comp=N,7µm,4.0s						
YAK				smax			
	comp=E,11µm,5.2s						
YAK				MLR	MLR		
	comp=Z,853µm,17.0s,MS8.0						
YAK				MLR	MLR		
	comp=N,477µm,18.0s,MS7.8						
YAK				MLR	MLR		
	comp=E,371µm,18.0s,MS7.8						
YAK	**Yakutsk**	**64.28**	**17**	*e*P	**P**	**08 19 02.6**	**-0.9**
YAK				LR	LR		
	comp=Z,684µm,19.0s,MS7.9						
MOO	**Moorlands**	**64.48**	**140**	*e*P	**P**	**08 19 06.6**	**+1.5**
MOO				*e*S	**S**	**08 27 44.4**	**+2.3**
PINB	**Pinarbasi**	**64.79**	**312**	*i* P	**P**	**08 19 07.5**	**+0.2**
TAU	**Tasmania Unive**	**64.80**	**141**	*e*P	**P**	**08 19 07.3**	**+0.1**
TAU				pmax	pmax		
	comp=Z,992nm,1.6s,mb6.6						
TAU				MLR	MLR		
	comp=Z,132µm,21.0s,MS7.1						
TAU	**Tasmania Unive**	**64.80**	**141**	*e*P	**P**	**08 19 07.3**	**+0.1**
	comp=Z,992nm,1.6s,mb6.6						
TAU				LR	LR		
	comp=Z,132µm,21.0s,MS7.1						
KOZT	**Kozan**	**64.87**	**310**	*e*P	**P**	**08 18 58.0**	**-10**
HNR	**Honiara**	**64.88**	**102**	*e*P	**P**	**08 19 07.1**	**-1.2**
HNR				pmax	pmax		
	comp=Z,2µm,0.9s,mb7.1						
HNR				MLR	MLR		
	comp=Z,86µm,21.0s,MS6.9						
HNR	**Honiara**	**64.88**	**102**	P	**P**	**08 19 06.4**	**-1.9**
	comp=Z,282nm,0.9s,mb6.3,baz=225,slow=5.2,SNR=8.6						
HNR	**Honiara**	**64.88**	**102**	*e*P	**P**	**08 19 07.1**	**-1.2**
	comp=Z,2µm,0.9s,mb7.1						
HNR				LR	LR		
	comp=Z,86µm,21.0s,MS6.9						
KRTS	**Karatas**	**64.96**	**309**	*e*P	**P**	**08 19 04.5**	**-4.0**
TOKT	**Tokat**	**65.20**	**314**	*e*P	**P**	**08 19 00.3**	**-10**
TOKA	**Tokat**	**65.25**	**314**	⇑*i*P	**P**	**08 19 11.2**	**+1.0**
MBAR	**Mbarara**	**65.29**	**268**	⇓*e*P	**P**	**08 19 11.8**	**+0.8**
KARA	**Karaisali**	**65.40**	**310**	*e*P	**P**	**08 19 06.8**	**-4.5**
EREN	**Erenkoy**	**65.62**	**308**	*e*P	**P**	**08 19 20.9**	**+8.2**
MERS	**Mersin**	**65.70**	**309**	*e*P	**P**	**08 19 12.7**	**-0.5**
KVT	**Kavak**	**65.81**	**314**	*e*P	**P**	**08 19 10.0**	**-3.8**
YOZ	**Yozgat**	**65.89**	**312**	*e*P	**P**	**08 19 07.7**	**-6.7**
AVNT	**Avonos**	**65.98**	**311**	⇑*i*P	**P**	**08 19 13.7**	**-1.3**
LFK	**Lefkose**	**66.06**	**307**	*e*P	**P**	**08 19 23.8**	**+8.2**
ANN	**Anapa**	**66.12**	**318**	*e*P	**P**	**08 19 13.5**	**-2.2**
ANN				*i*		08 19 43.6	
ANN				*e*		08 21 42.4	
ANN				*e*PPP		08 23 16.5	
ANN				*i* S	S	08 28 00.9	-1.3
ANN				pmax	pmax		
	comp=Z,288nm,1.4s,mb6.1						
ANN				pmax	pmax		
	comp=Z,15µm,12.1s						
ANN	**Anapa**	**66.12**	**318**	*e*P	**P**	**08 19 13.6**	**-2.1**
CSS	**Prodhromos**	**66.14**	**307**	*e*P	**P**	**08 19 16.1**	**0.0**
	comp=Z,674nm,1.1s,mb6.6						
CSS				LR	LR		
	comp=Z,230µm,19.0s,MS7.4						
VRHR	**Novokhopersk**	**66.15**	**326**	*e*P	**P**	**08 19 14.3**	**-1.5**
VRHR				*e**PP	pP	08 19 24.3	-1.3
VRHR				*e*		08 19 38.7	
VRHR				*e*		08 21 50.7	
VRHR				*e*PPP		08 23 18.4	
VRHR				*e*S	S	08 27 57.2	-5.1
VRHR				*e*SS	SS	08 32 21.9	+3.4
VRHR				pmax	pmax		
	comp=E,180nm,0.8s						
VRHR				pmax	pmax		
	comp=Z,220nm,0.8s,mb6.2						
VRHR				pmax	pmax		
	comp=N,60nm,1.4s						
VRHR				pmax	pmax		
	comp=Z,4µm,11.1s						
VRHR				pmax	pmax		
	comp=N,2µm,12.6s						
VRHR				smax			
	comp=N,6µm,4.6s						
VRHR				smax			
	comp=Z,720nm,3.2s						
BSTP	**Nigde**	**66.31**	**310**	⇑*i*P	**P**	**08 19 18.5**	**+1.4**
LEF	**Lefka**	**66.53**	**307**	*e*P	**P**	**08 19 18.3**	**-0.3**
CDAG	**Cicekdag**	**66.58**	**312**	⇑*i*P	**P**	**08 19 18.1**	**-0.8**
SULT	**Sultanhani-AKS**	**66.83**	**311**	*e*P	**P**	**08 19 19.2**	**-1.2**
BRTR	**Keskin Array B**	**67.15**	**312**	P	**P**	**08 19 20.7**	**-1.8**
BRTR				S	S	08 28 15.8	+0.9
BRTR	**Keskin Array B**	**67.15**	**312**	P	**P**	**08 19 20.6**	**-1.8**
	comp=Z,38nm,0.8s,mb5.5,baz=124,slow=6.1,SNR=48						
BRTR				S	S	08 28 15.8	+0.8
	comp=Z,2.2nm,1.1s,baz=238,slow=38,SNR=2.2						
BRTR				PKP2bc		08 48 04.0	
	comp=Z,9.5nm,1.2s,baz=165,slow=5.1,SNR=5.8						
BRTR				LR	LR	08 53 37.2	
	comp=Z,111µm,18.0s,MS7.1,baz=236,slow=40						
BRTR	**Keskin Array B**	**67.15**	**312**	P	**P**	**08 19 20.6**	**-1.8**
BRTR				S	S	08 28 15.8	+0.8
BRTR				⇑*e*		08 48 04.0	
BRTR				LR	LR	08 53 37.2	
TOS	**Tosya**	**67.25**	**314**	*e*P	**P**	**08 19 22.4**	**-0.6**
HDMB	**Hadim**	**67.30**	**309**	*e*P	**P**	**08 19 22.0**	**-1.5**
VORD	**Divnogorie**	**67.41**	**325**	*e*P	**P**	**08 19 21.9**	**-1.9**
VORD				*e**PP	pP	08 19 31.5	-2.1
VORD				*e*		08 19 46.8	
VORD				*e*		08 21 59.3	
VORD				*e*PPP		08 23 28.5	
VORD				*e*S	S	08 28 19.6	+2.0
VORD				*e*SS	SS	08 32 37.2	-0.9
VORD				pmax	pmax		
	comp=Z,410nm,1.2s,mb6.3						
VORD				pmax	pmax		
	comp=N,200nm,1.0s						
VORD				pmax	pmax		
	comp=E,270nm,0.9s						
VORD				pmax	pmax		
	comp=Z,5µm,11.2s						
VORD				pmax	pmax		
	comp=N,3µm,14.3s						
VORD				pmax	pmax		
	comp=E,4µm,12.7s						
VORD				smax			
	comp=N,7µm,5.7s						
VORD				smax			
	comp=Z,2µm,4.5s						
VORD				smax			
	comp=E,4µm,4.3s						
CANT	**Cankiri**	**67.42**	**313**	*e*P	**P**	**08 19 23.8**	**-0.3**
BALAT	**Bala**	**67.49**	**312**	⇑*i*P	**P**	**08 19 24.8**	**+0.2**
BZK	**Bozkurt**	**67.54**	**315**	*e*P	**P**	**08 19 24.3**	**-0.6**
VSR	**Storozhevoye**	**67.59**	**325**	*e*P	**P**	**08 19 23.1**	**-1.9**
VSR				*e**PP	pP	08 19 32.5	-2.2
VSR				*e*		08 19 47.9	
VSR				*e*		08 21 56.5	
VSR				*e*PPP		08 23 31.3	
VSR				*e*S	S	08 28 21.5	+1.8
VSR				*e*SS	SS	08 32 36.2	-4.6
VSR				pmax	pmax		
	comp=N,270nm,2.6s						
VSR				pmax	pmax		
	comp=Z,940nm,2.6s,mb6.4						
VSR				pmax	pmax		
	comp=E,790nm,2.8s						
VSR				pmax	pmax		
	comp=Z,4µm,9.9s						
VSR				pmax	pmax		
	comp=N,1µm,9.5s						
VSR				pmax	pmax		
	comp=E,2µm,10.7s						
VSR				smax			
	comp=Z,330nm,3.0s						
VSR				smax			
	comp=N,6µm,4.8s						
VSR				smax			
	comp=E,3µm,3.8s						
VSR				MLR	MLR		
	comp=Z,177µm,18.0s,MS7.3						
VSR				MLR	MLR		
	comp=N,246µm,20.0s,MS7.5						
VSR				MLR	MLR		
	comp=E,115µm,19.0s,MS7.5						
KONT	**Konya--Tatoy**	**67.64**	**310**	*e*P	**P**	**08 19 22.9**	**-2.7**
LOD	**Lodumlu**	**67.85**	**312**	*e*P	**P**	**08 19 24.7**	**-2.1**
KDHN	**Kadinhani**	**67.97**	**311**	⇑*i*P	**P**	**08 19 27.4**	**-0.3**
SIM	**Simferopol'**	**68.39**	**318**	*c* *e*P	pP	08 19 38.7	-1.2
SIM				*e*		08 22 10.0	
SIM				*e*S	S	08 28 25.8	-3.7
SIM				pmax	pmax		
	comp=Z,10µm,11.6s						
SVRH	**Sivrihisar-ESK**	**68.66**	**311**	*e*P	**P**	**08 19 30.7**	**-1.2**
ANTB	**Antalya**	**68.71**	**309**	*e*P	**P**	**08 19 35.8**	**+3.5**
BCK	**Bucak**	**68.89**	**309**	*e*P	**P**	**08 19 38.5**	**+5.1**
ISP	**Isparta**	**69.04**	**310**	*e*P	**P**	**08 19 31.9**	**-2.4**
ISP	**Isparta**	**69.04**	**310**	*i* P	**P**	**08 19 34.3**	**0.0**
ISP	**Isparta**	**69.04**	**310**	P	**P**	**08 19 33.0**	**-1.3**
ISP	**Isparta**	**69.04**	**310**	⇑*i*P	**P**	**08 19 33.4**	**-0.9**
MDU	**Mudurnu**	**69.14**	**312**	*e*P	**P**	**08 19 34.0**	**-1.0**
SHUT	**Suhut-Afyon**	**69.17**	**310**	*e*P	**P**	**08 19 33.5**	**-1.7**
ESKT	**Eskisehir**	**69.18**	**311**	*e*P	**P**	**08 19 33.5**	**-1.7**
MIR	**Mirnyy**	**69.19**	**181**	κ *i*P	**P**	**08 19 41.0**	**+6.4**
MIR				*i*		08 19 55.0	
MIR				*i* S	S	08 28 41.0	+2.9
MIR				pmax	pmax		
	comp=Z,300nm,2.0s,mb5.9						
MIR				pmax	pmax		
	comp=Z,2µm,4.0s						
KDZE	**Karadeniz Ereo**	**69.20**	**313**	*e*P	**P**	**08 19 30.3**	**-5.0**
ELL	**Elmali**	**69.26**	**308**	*e*P	**P**	**08 19 33.9**	**-1.8**
SKR	**Severo-Kuril's**	**69.32**	**36**	α *i*P	**P**	**08 19 35.0**	**-0.8**
SKR				*e*		08 22 10.0	
SKR				*e*PS		08 29 33.0	
SKR				pmax	pmax		
	comp=Z,1µm,0.9s,mb6.9						
SKR				pmax	pmax		
	comp=N,2µm,1.3s						
SKR				pmax	pmax		
	comp=E,1µm,1.3s						
SKR				pmax	pmax		
	comp=Z,46µm,20.0s						
SKR				pmax	pmax		
	comp=N,17µm,18.0s						
SKR				pmax	pmax		
	comp=E,20µm,18.0s						
SKR				pmax	pmax		
	comp=Z,19µm,24.0s						
SKR				pmax	pmax		
	comp=N,6µm,16.0s						
SKR				pmax	pmax		
	comp=E,12µm,16.0s						
SKR				MLR	MLR		
	comp=N,80µm,18.0s,MS7.3						
SKR				MLR	MLR		
	comp=E,124µm,18.0s,MS7.3						
SKR				MLR	MLR		
	comp=Z,212µm,18.0s,MS7.4						
LSZ	**Lusaka**	**69.39**	**253**	*e*P	**P**	**08 19 37.6**	**+0.7**
LSZ				pmax	pmax		
	comp=Z,995nm,1.7s,mb6.5						
LSZ				MLR	MLR		
	comp=Z,456µm,22.0s,MS7.7						
LSZ	**Lusaka**	**69.39**	**253**	LR	LR	08 47 02.1	
	comp=Z,313µm,19.6s,MS7.6,baz=95,slow=33						
LSZ				PKP2bc		08 47 52.2	
	comp=Z,1.8nm,0.3s,baz=241,slow=10,SNR=3.7						
LSZ	**Lusaka**	**69.39**	**253**	*e*P	**P**	**08 19 37.6**	**+0.7**
	comp=Z,995nm,1.7s,mb6.5						
LSZ				LR	LR		
	comp=Z,456µm,22.0s,MS7.7						
AKAS	**Kas**	**69.39**	**308**	⇑*i*P	**P**	**08 19 37.0**	**+0.4**
KSL	**Kastellorizon**	**69.39**	**308**	*e*P	**P**	**08 19 39.0**	**+2.5**
ALT	**Altintas**	**69.62**	**311**	*e*P	**P**	**08 19 29.3**	**-8.6**
GOLH	**Golhisar**	**69.64**	**309**	⇑*i*P	**P**	**08 19 37.0**	**-1.1**
CASY	**Casey**	**69.68**	**174**	*e*P	**P**	**08 19 39.2**	**+1.5**
CASY				*e*S	S	08 28 46.9	+3.0
CASY				*e*		08 33 37.6	
CASY	**Casey**	**69.68**	**174**	*e*P	**P**	**08 19 38.9**	**+1.3**
	comp=Z,1µm,0.9s,mb6.8						
CASY				*e*PcP	PcP	08 19 59.2	-1.1
CASY				LR	LR		
	comp=Z,210µm,21.0s,MS7.4						
PRGR	**Permogore**	**69.72**	**337**	⇑*i*P	**P**	**08 19 37.2**	**-0.9**
PRGR				*e*		08 19 59.1	
PRGR				*e*S	S	08 28 46.9	+2.2
PRGR				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.8						
FETY	**Fethiye**	**69.88**	**308**	*e*P	**P**	**08 19 38.1**	**-1.5**
KHAL	**Karahalli**	**69.94**	**310**	⇑*i*P	**P**	**08 19 39.2**	**-0.7**
CAVI	**Cavuskoy**	**70.09**	**312**	*e*P	**P**	**08 19 38.1**	**-2.7**
GDZ	**Gediz**	**70.11**	**311**	⇑*i*P	**P**	**08 19 40.5**	**-0.4**
DENT	**Denizli**	**70.16**	**309**	*e*P	**P**	**08 19 43.9**	**+2.6**
ADVT	**Abdulvahap**	**70.23**	**312**	*e*P	**P**	**08 19 37.2**	**-4.4**
DALT	**Dalyan (Mudla)**	**70.26**	**308**	*e*P	**P**	**08 19 39.9**	**-2.0**
TURN	**Turunc**	**70.31**	**308**	⇑*i*P	**P**	**08 19 43.9**	**+1.7**
MOS	**Moscow**	**70.37**	**329**	*e*P	**P**	**08 19 39.8**	**-2.3**
MOS				*i*		08 20 01.2	
MOS				*e*		08 22 18.5	
MOS				*i* PPP		08 24 03.6	
MOS				*i* S	S	08 28 48.3	-4.1
MOS				*e*		08 29 40.3	
MOS				pmax	pmax		
	comp=Z,1µm,1.5s,mb6.7						
MOS				pmax	pmax		
	comp=Z,3µm,2.0s,mb6.9						
MOS				MLR	MLR		
	comp=E,299µm,21.0s						
MOS				MLR	MLR		
	comp=Z,388µm,21.0s,MS7.6						
MOS	**Moscow**	**70.37**	**329**	⇑*i*P	**P**	**08 19 40.7**	**-1.4**

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HRT   Hereke             70.37 312  eP     P      08 19 42.9 +0.5
SILT  Sile               70.47 313  eP     P      08 19 40.9 -2.2
YLV   Yalova             70.53 312  eP     P      08 19 42.9 -0.6
ARG   Arkhangelos        70.56 307  eP     P      08 19 43.3 -0.4
KULA  Kula-Manisa        70.61 310  eP     P      08 19 42.2 -1.7
YER   Yerkesik           70.61 308  eP     P      08 19 40.9 -3.2
OBN   Obninsk            70.65 328   P     P      08 19 43.0 -0.9
      comp=Z,3µm,1.4s,mb7.1,SNR=26
OBN   Obninsk            70.65 328c eP     P      08 19 43.1 -0.8
OBN                                 i      pP     08 19 51.6 -2.1
OBN                                 i             08 20 00.3
OBN                                 i S    S      08 28 56.5 +0.8
OBN                                 i SS   SS     08 33 29.4 +1.6
OBN                                  pmax  pmax
      comp=Z,589nm,1.6s,mb6.3
OBN                                  MLR   MLR
      comp=Z,162µm,16.0s,MS7.4
OBN   Obninsk            70.65 328  eP     P      08 19 43.2 -0.7
OBN                                  LR    LR
      comp=Z,214µm,20.0s,MS7.4
ISK   Istanbul-Kandi     70.88 313  eP     P      08 19 43.6 -1.9
KLYT  Kilyos             70.93 313  eP     P      08 19 44.1 -1.8
DURS  Dursunbey          70.98 311  i P    P      08 19 45.6 -0.6
AYDN  Tasoluk            71.03 309⇑iP     P      08 19 46.4 -0.2
MLSB  Milas              71.04 308  eP     P      08 19 45.5 -1.2
DAT   Datca              71.09 308  eP     P      08 19 43.6 -3.3
BGKT  Bogazkoy           71.11 313  eP     P      08 19 45.0 -2.0
PEA0B Petropavlovsk-     71.13  34  eP     P      08 19 45.9 -0.9
PETK  Petropavlovsk-     71.13  34   P     P      08 19 46.2 -0.6
PETK                                 S     S      08 29 00.6 -0.8
PETK  Petropavlovsk-     71.13  34   P     P      08 19 46.2 -0.7
      comp=Z,41nm,0.9s,mb5.4,baz=203,slow=2.9,SNR=26
PETK                                 S     S      08 29 00.6 -0.9
      comp=Z,1.0nm,0.4s,baz=2.9,slow=33,SNR=5.0
PETK                                 LR    LR     08 54 21.3
      comp=Z,248µm,20.0s,MS7.5,baz=259,slow=39
PETK  Petropavlovsk-     71.13  34   P     P      08 19 46.2 -0.7
PETK                                 S     S      08 29 00.6 -0.9
PETK                                 LR    LR     08 54 21.3
KARP  Karpathos          71.20 307  eP     P      08 19 48.0 +0.3
BDRM  Kayabasi           71.26 308⇑iP     P      08 19 47.1 -0.8
CTKS  Kestanelik-??a     71.32 313  eP     P      08 19 45.9 -2.3
AKHS  Akhisar            71.33 310⇑iP     P      08 19 49.2 +0.8
AKS   Akhisar            71.33 310  eP     P      08 19 51.5 +3.1
ELBA  Catalca            71.36 313⇑iP     P      08 19 48.8 +0.4
BODT  Bodrum             71.36 308  eP     P      08 19 45.5 -3.1
BALB  Balikesir          71.44 311  eP     P      08 19 45.5 -3.5
KWAJ  Kwajalein Atol     71.45  82  eP     P      08 19 51.0 +1.4
      comp=Z,3µm,1.7s,mb7.0
CTYL  Yal??k??y-??at     71.54 313  eP     P      08 19 46.9 -2.7
SLVT  Silivri            71.54 313  eP     P      08 19 45.9 -3.6
GCAM  G?zelcaml?         71.55 309⇑iP     P      08 19 49.5 -0.2
BNT   Bandirma           71.56 312  eP     P      08 19 50.8 +1.1
PET   Petropavlovsk      71.64  34αiP     P      08 19 48.6 -1.3
PET                                 e             08 22 25.6
PET                                 ePPP          08 24 07.8
PET                                 eS     S      08 29 03.8 -3.5
PET                                 ePS           08 29 44.0
PET                                  pmax  pmax
      comp=Z,610nm,0.9s,mb6.5
PET                                  pmax  pmax
      comp=Z,52µm,18.9s
PET                                  pmax  pmax
      comp=Z,30µm,16.8s
PET                                  pmax  pmax
      comp=Z,22µm,22.0s
PET                                  MLR   MLR
      comp=Z,294µm,20.0s,MS7.5
PET                                  MLR   MLR
      comp=Z,378µm,21.0s
PET   Petropavlovsk      71.64  34⇑eP     P      08 19 49.5 -0.4
PET                                  LR    LR
      comp=Z,317µm,20.0s,MS7.6
BALY  Balya              71.66 311⇑iP     P      08 19 50.1 -0.2
IZM   Izmir              71.66 310  eP     P      08 19 50.1 -0.3
KLMR  Klimovskoe         71.82 335⇑iP     P      08 19 49.8 -1.0
KLMR                                e             08 22 28.8
KLMR                                eS     S      08 29 06.2 -2.9
KLMR                                 pmax  pmax
      comp=Z,2µm,1.4s,mb6.9
BLCB  Balcova            71.83 309  eP     P      08 19 47.8 -3.6
BLCB  Balcova            71.83 309   P     P      08 19 50.9 -0.5
SMG   Samos              71.86 309  eP     P      08 19 51.3 -0.3
CRLT  Corlu              71.87 312  eP     P      08 19 51.9 +0.4
TIXI  Tiksi              71.88  10⇑iP     P      08 19 49.6 -1.4
TIXI                                 pmax  pmax
      comp=Z,618nm,1.3s,mb6.4
TIXI                                 MLR   MLR
      comp=Z,625µm,20.0s,MS7.9
TIXI  Tiksi              71.88  10  eP     P      08 19 49.5 -1.5
      comp=Z,5.3nm,0.4s,mb4.8
TIXI                                 LR    LR
      comp=Z,615µm,20.0s,MS7.9
ZKR   Zakros             71.89 306  eP     P      08 19 52.3 +0.5
TKR   Tekirdag           71.98 312  eP     P      08 19 50.5 -1.7
TLCR                     72.05 317⇑iP     P      08 19 54.1 +1.5
PSN   Preselentsi        72.12 315   P     P      08 19 54.7 +1.7
TIRR  Tirgusor           72.15 316   P     P      08 19 52.7 -0.5
TIRR  Tirgusor           72.15 316⇑iP     P      08 19 52.2 -1.0
TIRR  Tirgusor           72.15 316  eP     P      08 19 52.0 -1.1
      comp=Z,312nm,0.8s,mb6.3
URLA  Izmir              72.17 309⇑iP     P      08 19 53.2 -0.1
SART  Tekirdag           72.18 312⇑iP     P      08 19 52.9 -0.6
AYVA  Ayvalik            72.27 310⇑iP     P      08 19 53.5 -0.5
NPS   Neapolis           72.40 306  eP     P      08 19 57.3 +2.4
LPK   Lapseki            72.43 311  eP     P      08 19 53.8 -1.2
LAST  Lasithi            72.49 306  eP     P      08 19 55.8 +0.4
KIS   Kishinev           72.52 319αiP     P      08 19 54.0 -1.3
KIS                                 i S    S      08 29 14.0 -3.6
KIS                                 i PS          08 29 50.0
KIS                                  pmax  pmax
      comp=Z,400nm,1.0s,mb6.3
KIS                                  pmax  pmax
      comp=Z,7µm,12.0s
KIS                                  pmax  pmax
      comp=Z,8µm,12.0s
KIS                                  smax
      comp=N,32µm,13.0s
KIS                                  smax
      comp=E,16µm,11.0s
KIS   Kishinev           72.52 319⇑iP     P      08 19 54.0 -1.3
      comp=E,400nm,1.0s,mb6.3
KIS   Kishinev           72.52 319  i PcP  PcP    08 20 10.0 -2.9
KIS   Kishinev           72.52 319  i PP   PP     08 22 46.0 +9.2
      comp=E,6µm,10.0s
KIS   Kishinev           72.52 319  i PsP         08 25 48.0
KIS                                 i S    S      08 29 14.0 -3.6
      comp=E,32µm,13.0s
HARR  Harsova            72.54 316⇓iP     P      08 19 56.3 +0.8
HARR  Harsova            72.54 316   P     P      08 19 55.2 -0.3
PRD   Provadia           72.57 314  i P    P      08 19 55.3 -0.4
PRK   Paraskevi          72.58 310   P     P      08 19 55.0 -0.9
PRK   Paraskevi          72.58 310  eP     P      08 19 55.8 -0.1
EZN   Ezine              72.65 311  eP     P      08 19 53.3 -3.0
EDRB  Edirne             72.75 313  eP     P      08 19 55.1 -1.6
SEY   Seymchan           72.82  24⇑eP     P      08 19 56.2 -0.6
BOZC  Bozcaada           72.86 311⇑iP     P      08 19 56.2 -1.3
SIGR  SIGRI              72.89 310   P     P      08 19 52.6 -5.1
NOUC  Port Laguerre      72.92 114  eP     P      08 19 59.3 +1.2
ENEZ  Enez               72.96 312  eP     P      08 19 53.8 -4.3
IDI   Anoyia             72.99 306  eP     P      08 19 58.8 +0.4
IDI   Anoyia             72.99 306   P     P      08 19 57.8 -0.5
      comp=E,74nm,0.7s,mb5.7,baz=100,slow=7.6,SNR=42
JMB   Yambol             72.99 314   P     P      08 19 58.3 +0.1
JMB   Yambol             72.99 314  i P    P      08 20 00.1 +1.9
SIVA  Sivas              73.01 306  eP     P      08 19 58.1 -0.4
DZM   Mont Dzumac        73.04 114  eP     P      08 19 58.3 -0.6
DZM   Mont Dzumac        73.04 114  eP     P      08 19 59.0 +0.1
      comp=E,701nm,1.4s,mb6.4
GADA  Gvkgeada           73.04 311  eP     P      08 19 53.8 -4.8
ALN   Alexandroupoli     73.07 312   P     P      08 19 57.5 -1.2
ALN   Alexandroupoli     73.07 312  eP     P      08 19 58.2 -0.5
PLUM  Mont Dore          73.25 114  eP     P      08 19 60.0 -0.2
AKASG Malin Array Be     73.27 322   P     P      08 19 58.3 -1.4
AKASG                                S     S      08 29 27.8 +1.7
AKASG Malin Array Be     73.27 322   P     P      08 19 58.3 -1.4
      comp=E,108nm,0.8s,mb5.8,baz=90,slow=4.7,SNR=74
AKASG                                S     S      08 29 27.8 +1.7
      comp=E,0.6nm,0.4s,baz=217,slow=31,SNR=2.4
AKASG                                LR    LR     08 58 26.1
      comp=E,147µm,20.5s,MS7.2,baz=120,slow=41
KIEV  Kiev               73.28 322  eP     P      08 19 58.0 -1.8
KIEV                                 pmax  pmax
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      comp=Z,339nm,0.9s,mb6.3
KIEV                                 MLR   MLR
      comp=Z,146µm,21.0s,MS7.2
KIEV  Kiev               73.28 322  eP     P      08 19 58.0 -1.7
      comp=Z,339nm,0.9s,mb6.3
KIEV                                 LR    LR
      comp=Z,146µm,21.0s,MS7.2
LIA   Limnos Island      73.53 311   P     P      08 20 00.5 -1.0
LIA   Limnos Island      73.53 311  eP     P      08 20 00.2 -1.3
LOS   Limnos             73.61 311   P     P      08 20 03.6 +1.7
SZH   Strazhica          73.63 314  i P    P      08 20 00.1 -1.9
VRI   Vrincioaia         73.64 317⇑iP     P      08 20 01.6 -0.4
VRI   Vrincioaia         73.64 317   P     P      08 20 02.0 +0.1
DIM   Dimitrovgrad       73.67 313  i P    P      08 20 01.3 -0.9
KDZ   Kurdzhali          73.68 313  i P    P      08 20 00.7 -1.6
PLOR  Plostina           73.69 317⇓iP     P      08 20 02.7 +0.4
BUC1  Bucharest          73.79 315⇑iP     P      08 20 12.7  +10
MAW   Mawson             73.95 193   P     P      08 20 03.1 -0.2
MAW                                  S     S      08 29 34.4 +1.3
MAW   Mawson             73.95 193  eP     P      08 20 08.4 +5.1
      comp=Z,148nm,1.7s,mb5.6
MAW                                 eS     S      08 28 55.2  -38
MAW   Mawson             73.95 193   P     P      08 20 03.1 -0.2
      comp=Z,16nm,1.0s,mb4.9,baz=61,slow=20,SNR=1.7
MAW                                  S     S      08 29 34.4 +1.3
      comp=Z,24nm,1.0s,baz=257,slow=6.3,SNR=2.3
MAW                                  LR    LR     08 49 36.5
      comp=Z,166µm,18.3s,MS7.4,baz=33,slow=33
PVL   Pavlikeni          74.05 314   P     P      08 20 04.3 -0.1
MLR   Muntele Rosu       74.09 317⇓iP     P      08 20 04.8 +0.2
MLR   Muntele Rosu       74.09 317   P     P      08 20 05.0 +0.4
      baz=80,slow=6.3
MLR   Muntele Rosu       74.09 317   P     P      08 20 04.8 +0.2
RZN   Rozhen             74.20 313  i P    P      08 20 05.0 -0.4
PTL   Penteli            74.23 309  eP     P      08 20 04.9 -0.7
ATHU  Athens Univers     74.28 309   P     P      08 20 03.6 -2.3
PLD   Plovdiv            74.29 313   P     P      08 20 04.8 -1.1
PLD   Plovdiv            74.29 313  i P    P      08 20 04.3 -1.6
ATH   Athens Observa     74.33 309  eP     P      08 20 06.8 +0.6
ATH   Athens Observa     74.33 309   P     P      08 20 03.6 -2.6
AOS   Alonnisos          74.40 310   P     P      08 20 07.6 +1.1
BOSA  Boshof             74.50 239   P     P      08 20 06.8 -0.5
BOSA                                 S     S      08 29 40.9 +0.2
BOSA  Boshof             74.50 239   P     P      08 20 06.8 -0.5
      comp=Z,49nm,1.0s,mb5.4,baz=81,slow=6.1,SNR=29
BOSA                                 S     S      08 29 40.9 +0.2
      comp=Z,2.5nm,0.8s,baz=66,slow=16,SNR=2.2
BOSA                                 LR    LR     08 50 32.8
      comp=Z,443µm,18.5s,MS7.8,baz=58,slow=34
OUR   Ouranopolis        74.51 311   P     P      08 20 08.2 +1.0
KYTH  Kithira            74.62 307  eP     P      08 20 08.3 +0.4
DID   Didima             74.64 308   P     P      08 20 05.4 -2.6
PAIG  Paliouri           74.67 311   P     P      08 20 06.8 -1.3
VOIR                     74.69 316⇓iP     P      08 20 09.1 +1.0
VOIR                     74.69 316   P     P      08 20 09.1 +0.9
PGB   Panagyurishte      74.76 313  i P    P      08 20 07.5 -1.1
NVR   Nevrokopi          74.77 312  eP     P      08 20 07.2 -1.5
MMB   Musomiste          74.91 312  i P    P      08 20 08.1 -1.4
PLG   Polygyros          74.92 311   P     P      08 20 07.9 -1.7
PLG   Polygyros          74.92 311  eP     P      08 20 08.7 -0.9
LTK   Loutraki           74.93 309   P     P      08 20 06.8 -2.9
SRS   Serrai             74.94 312   P     P      08 20 07.2 -2.4
XOR   Xorichti           74.95 310   P     P      08 20 07.3 -2.5
LKR   Lokris             74.99 309   P     P      08 20 07.3 -2.7
LKR   Lokris             74.99 309  eP     P      08 20 09.9 -0.1
BUR02 Bucovina Ar. S     75.04 319   P     P      08 20 10.2 +0.1
BURAR Bucovina Array     75.04 319⇓iP     P      08 20 11.1 +1.0
BURAR Bucovina Array     75.04 319   P     P      08 20 10.7 +0.6
BUR08 Bucovina Ar. S     75.06 319  eP     P      08 20 10.2  0.0
SOH   Sokhos             75.06 311   P     P      08 20 08.8 -1.6
SOH   Sokhos             75.06 311  eP     P      08 20 09.3 -1.1
MICGM Minsk              75.15 326⇑iP     P      08 20 08.0 -2.5
MNK   Minsk              75.17 326c iP     P      08 20 08.0 -2.7
MNK                                 e             08 22 58.0
MNK                                 ePPP          08 24 50.0
MNK                                 eS     S      08 29 40.0 -7.2
MNK                                  pmax  pmax
      comp=Z,390nm,1.0s,mb6.3
MNK                                  pmax  pmax
      comp=Z,54µm,10.0s
MNK                                  pmax  pmax
      comp=Z,16µm,10.0s
MNK                                  smax
      comp=E,51µm,10.0s
MNK                                  smax
      comp=N,81µm,12.0s
HORT  Hortiatis          75.22 311   P     P      08 20 09.6 -1.7
KKB   Krupnik            75.44 312  i P    P      08 20 12.3 -0.2
KNT   Kendrikon          75.46 312   P     P      08 20 10.6 -2.0
VTS   Vitosha            75.47 313   P     P      08 20 11.6 -1.1
VTS   Vitosha            75.47 313  i P    P      08 20 11.7 -1.0
PUL   Pulkovo            75.54 332⇑eP     P      08 20 12.9 +0.2
AGG   Agios Georgios     75.57 309   P     P      08 20 09.7 -3.6
AGG   Agios Georgios     75.57 309  eP     P      08 20 11.0 -2.3
LIT   Litokhoron         75.60 311   P     P      08 20 11.6 -1.9
LIT   Litokhoron         75.60 311  eP     P      08 20 11.0 -2.5
ITM   Ithomi             75.63 308  eP     P      08 20 12.3 -1.4
TRIZ  Trizonia           75.67 309   P     pP     08 20 22.4 -1.4
LAKA  Lakka              75.73 309   P     P      08 20 12.5 -1.8
PYL   PYLOS              75.74 307   P     P      08 20 09.1 -5.2
GRG   Griva              75.80 311   P     P      08 20 12.6 -2.0
NACGM Naroch             75.87 326  eP     P      08 20 11.0 -3.7
THL   Klokotos Trika     75.89 310   P     pP     08 20 23.4 -1.6
THL   Klokotos Trika     75.89 310  eP     P      08 20 14.4 -0.7
DRV   Dumont d'Urvil     75.99 163   P     Px     08 20 43.0
DRV                                  S     S      08 29 59.0 +3.2
DRV                                  SS    SS     08 34 41.0 -8.0
DRV                                  L            08 40 00.0
RLS   Riolos of Patr     76.11 308  eP     P      08 20 16.2 -0.2
KZN   Kozani             76.18 311  eP     P      08 20 13.6 -3.2
JOF   Joensuu            76.21 335  eP     P      08 20 14.9 -1.6
JOF                                  pmax  pmax
      comp=Z,437nm,1.0s,mb6.3
JOF   Joensuu            76.21 335  ep     P      08 20 14.9 -1.6
      comp=Z,437nm,1.0s,mb6.3
DEV   Deva               76.26 317⇑iP     P      08 20 16.0 -1.1
DEV   Deva               76.26 317 ⇑P     P      08 20 16.0 -1.1
GZR   Gura Zlata         76.26 316 ⇓P     P      08 20 17.6 +0.5
GZR   Gura Zlata         76.26 316⇓iP     P      08 20 17.5 +0.4
GZR   Gura Zlata         76.26 316   P     P      08 20 17.2 +0.1
LVV   L'vov              76.28 321  eP     P      08 20 16.6 -0.5
LVV                                 e             08 23 04.4
LVV                                 ePPP          08 24 52.6
LVV                                 eS     S      08 29 58.8 -0.9
LVV                                 i PS          08 30 31.6
LVV                                 eSS    SS     08 34 58.4 +4.4
LVV                                  MLR   MLR
      comp=N,29µm,20.0s,MS6.7
LVV                                  MLR   MLR
      comp=E,21µm,20.0s,MS6.7
LVV                                  MLR   MLR
      comp=Z,31µm,20.0s,MS6.6
MEV   Metsovon           76.52 310   P     P      08 20 16.7 -2.0
FNA   Florina            76.54 311   P     P      08 20 16.8 -2.0
DRGR                     76.55 317⇓iP     P      08 20 18.8 +0.1
DRGR                     76.55 317   P     P      08 20 18.8 +0.1
SKO   Skopje             76.67 312  eP     P      08 20 18.7 -0.8
JAN   Janina             76.79 310  eP     P      08 20 21.6 +1.4
VLS   Valsamata          76.81 308   P     P      08 20 18.7 -1.7
VLS   Valsamata          76.81 308  eP     P      08 20 19.5 -0.9
VSU   Vasula             76.88 330c iP     P      08 20 19.6 -0.8
VSU                                  MLR   MLR
      comp=Z,137µm,19.0s,MS7.3
LVZ   Lovozero           76.95 340   P     P      08 20 21.6 +1.0
      comp=Z,3µm,1.0s,mb7.2,SNR=9.5
LVZ   Lovozero           76.95 340⇑eP     P      08 20 21.4 +0.8
LVZ                                  pmax  pmax
      comp=Z,166nm,0.8s,mb6.0
MCQ   Macquarie Isla     76.96 148  eP     P      08 20 18.9 -1.9
      comp=Z,8µm,1.4s,mb7.5
KWP   Kalwaria Pacla     77.09 320  eP     P      08 20 21.9 +0.2
KWP                                 ePcP   PcP    08 20 30.7 -1.8
KWP                                 ePP    PP     08 23 17.4 +1.9
KWP                                 eS     S      08 30 03.3 -5.2
KWP                                 eSKS          08 30 20.3
KWP                                  LMZ          08 58 54.8
      comp=Z,104µm,23.0s
KWP   Kalwaria Pacla     77.09 320⇑iP     P      08 20 21.6 -0.1
KWP   Kalwaria Pacla     77.09 320  eP     P      08 20 21.9 +0.2
KWP                                 ePcP   PcP    08 20 30.7 -1.8
KWP                                 ePP    PP     08 23 17.4 +1.9
KWP                                 eS     S      08 30 03.3 -5.2
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KWP                                 eSKS          08 30 20.3
BZS   Buzias             77.10 316⇓iP     P      08 20 21.6 -0.3
BZS   Buzias             77.10 316   P     P      08 20 21.6 -0.3
UZH   Uzhgorod           77.17 319  eP     P      08 20 22.0 -0.2
UZH                                 e      pP     08 20 30.0 -2.1
UZH                                 e             08 20 34.7
UZH                                 e             08 23 14.0
UZH                                 eS     S      08 30 09.0 -0.4
UZH                                 e             08 30 47.0
UZH                                  MLR   MLR
      comp=N,61µm,19.0s,MS7.1
UZH                                  MLR   MLR
      comp=E,59µm,19.0s,MS7.1
UZH                                  MLR   MLR
      comp=Z,45µm,19.0s,MS6.8
IGT   Igoumenitsa        77.17 310   P     P      08 20 20.6 -1.8
KOLS  Kolonicke sedl     77.23 320  i P    P      08 20 23.3 +0.8
KOLS                                 pmax  pmax
      comp=Z,600nm,1.3s,mb6.4
KOLS  Kolonicke sedl     77.23 320  i P    P      08 20 23.3 +0.8
      comp=Z,600nm,1.3s,mb6.4
KOLS                                i S    S      08 30 10.8 +0.7
APA   Apatity            77.24 340⇓iP     P      08 20 22.0 -0.2
APA                                 i S    S      08 30 07.0 -2.5
APA                                 i SS   SS     08 35 10.0 +2.3
APA                                  pmax  pmax
      comp=Z,190nm,1.1s,mb5.9
APA                                  pmax  pmax
      comp=Z,34µm,24.0s
APA                                  MLR   MLR
      comp=Z,304µm,21.0s,MS7.6
KEK   Kerkira            77.60 310  eP     P      08 20 23.7 -1.1
SUW   Suwalki            77.69 325  eP     P      08 20 24.2 -0.7
SUW                                 ePcP   PcP    08 20 33.1 -1.9
SUW                                 eS     S      08 30 23.3 +8.4
SUW                                 eSKS          08 30 33.8
SUW                                  LMZ          08 58 24.1
      comp=Z,115µm,26.9s
SUW   Suwalki            77.69 325  eP     P      08 20 24.2 -0.8
SUW                                 ePcP   PcP    08 20 33.1 -1.9
SUW                                 eS     S      08 30 23.3 +8.4
SUW                                 eSKS          08 30 33.8
TIR   Tirane             77.75 312   P     P      08 20 23.7 -1.9
CRVS  Cervenica-Dubn     77.75 319  i P    P      08 20 25.8 +0.3
CRVS                                 pmax  pmax
      comp=Z,790nm,1.4s,mb6.5
CRVS  Cervenica-Dubn     77.75 319  i P    P      08 20 25.8 +0.3
      comp=Z,790nm,1.4s,mb6.5
CRVS                                i S    S      08 30 14.1 -1.7
CRVS                                eSS    SS     08 35 15.5 -0.8
PVY   Plav               77.83 313⇑iP     P      08 20 25.9 -0.1
PVY   Plav               77.83 313⇑iP     P      08 20 26.0  0.0
IVA   Berane             77.92 313⇑iP     P      08 20 27.8 +1.3
IVA   Berane             77.92 313⇑iP     P      08 20 27.8 +1.3
STHS  Stebnicka Huta     77.98 320  i P    P      08 20 27.7 +1.0
STHS                                i S    S      08 30 17.0 -1.2
KAF   Kangasniemi        78.14 333  eP     P      08 20 26.0 -1.3
KAF                                  pmax  pmax
      comp=Z,499nm,1.0s,mb6.4
KAF   Kangasniemi        78.14 333  ep     P      08 20 26.0 -1.3
      comp=Z,499nm,1.0s,mb6.4,baz=102,slow=5.0
ULC   Ulcinj             78.28 312⇑iP     P      08 20 28.4 -0.1
ULC   Ulcinj             78.28 312⇑iP     P      08 20 28.5 -0.1
KECS  Kecovo             78.32 319  i P    P      08 20 28.7 +0.1
KECS                                 pmax  pmax
      comp=Z,142nm,1.3s,mb5.7
KECS  Kecovo             78.32 319  i P    P      08 20 28.7 +0.1
      comp=Z,142nm,1.3s,mb5.7
KECS                                eS     S      08 30 21.2 -0.7
TTG   Podgorica          78.33 313⇑iP     P      08 20 27.5 -1.3
TTG   Podgorica          78.33 313⇑iP     P      08 20 27.6 -1.2
PLE   Pljevlja           78.34 314⇑iP     P      08 20 28.9  0.0
PLE   Pljevlja           78.34 314⇑iP     P      08 20 28.9 +0.1
NKY   Niksic             78.57 313⇑iP     P      08 20 29.5 -0.6
NKY   Niksic             78.57 313⇑iP     P      08 20 29.6 -0.6
BUM   Brajici-Budva      78.58 312⇑iP     P      08 20 30.7 +0.5
NIE   Niedzica           78.58 320  eP     P      08 20 30.3 +0.3
NIE                                 ePcP   PcP    08 20 39.3 +0.3
NIE                                 esP    sP     08 20 44.4 +0.8
WAR   Warsaw             78.62 323  eP     P      08 20 32.3 +2.2
WAR                                 ePcP   PcP    08 20 39.3 +0.2
WAR                                 eS     S      08 30 25.8 +0.8
WAR                                 eSKS          08 30 36.0
WAR                                  LMZ          09 01 26.4
      comp=Z,161µm,22.8s
WAR   Warsaw             78.62 323  eP     P      08 20 32.3 +2.1
WAR                                 ePcP   PcP    08 20 39.3 +0.2
WAR                                 eS     S      08 30 25.8 +0.9
WAR                                 eSKS          08 30 36.0
WAR                                  LR    LR
      comp=Z,161µm,22.8s,MS7.3
PSZ   Piszkesteto        78.63 318   P     P      08 20 30.2 -0.1
PSZ   Piszkesteto        78.63 318⇑iP     P      08 20 30.0 -0.3
PSZ   Piszkesteto        78.63 318⇑eP     P      08 20 30.1 -0.2
PSZ   Piszkesteto        78.63 318  eP     P      08 20 30.1 -0.3
      comp=Z,1µm,1.3s,mb6.6
PSZ                                  LR    LR
      comp=Z,107µm,19.0s,MS7.2
UPM   Unac-Piva          78.68 313⇑iP     P      08 20 29.9 -0.8
UPM   Unac-Piva          78.68 313⇑iP     P      08 20 29.9 -0.8
HCY   Herceg Novi        78.89 313⇑iP     P      08 20 31.6 -0.3
HCY   Herceg Novi        78.89 313⇑iP     P      08 20 31.7 -0.2
BRY   Bratogost          78.91 313⇑iP     P      08 20 30.4 -1.6
BRY   Bratogost          78.91 313⇑iP     P      08 20 30.4 -1.6
SUR   Sutherland         78.99 236  eP     P      08 20 34.2 +1.6
      comp=Z,1µm,1.3s,mb6.7
SUR                                  LR    LR
      comp=Z,321µm,19.0s,MS7.7
SUR   Sutherland         78.99 236   P     P      08 20 34.9 +2.3
      SNR=26
SUR                                  P            08 20 34.9
      SNR=26
OJC   Ojcow              79.04 321  eP     P      08 20 32.4 -0.1
OJC                                 ePcP   PcP    08 20 41.3 +0.3
OJC                                 esP    sP     08 20 46.2 +0.1
OJC                                 eS     S      08 30 29.0 -0.5
OJC                                 eSKSac SKSac  08 30 45.9 -0.2
OJC                                 eSS    SS     08 35 38.5 +3.0
OJC                                  L            09 05 27.2
      comp=Z,86nm,20.2s
OJC   Ojcow              79.04 321  eP     P      08 20 32.4 -0.1
OJC                                 e      pP     08 20 41.3 -1.2
OJC                                 e*SP   sP     08 20 46.2 +0.1
OJC                                 eS     S      08 30 29.0 -0.5
OJC                                 e             08 30 45.9
OJC                                 eSS    SS     08 35 38.5 +3.0
BUD   Budapest           79.15 318⇑eP     P      08 20 33.3 +0.1
VYHS  Vyhne              79.41 319  i P    P      08 20 34.4 -0.2
VYHS                                 pmax  pmax
      comp=Z,481nm,2.1s,mb6.1
VYHS  Vyhne              79.41 319  i P    P      08 20 34.4 -0.2
      comp=Z,481nm,2.1s,mb6.1
VYHS                                i S    S      08 30 32.3 -1.2
VYHS                                eSS    SS     08 35 44.1 +2.9
STON  Ston               79.52 313   P     P      08 20 33.6 -1.7
STON  Ston               79.52 313  i P    P      08 20 33.6 -1.7
KOLL  Kolacno            79.71 319  i P    P      08 20 36.5 +0.3
KOLL                                eS     S      08 30 38.5 +1.8
KOLL  Kolacno            79.71 319  i P    P      08 20 36.6 +0.4
KOLL                                eS     S      08 30 38.5 +1.8
TIP   Timpagrande        79.89 309  eP     P      08 20 37.0 -0.4
      comp=Z,359nm,1.0s,mb6.2
TIP                                  LR    LR
      comp=Z,126µm,21.0s,MS7.2
LTRZ  Laterza            79.96 311   P     P      08 20 37.8  0.0
OKC   Ostrava-Krasne     80.04 320⇑iP     P      08 20 38.0  0.0
OKC                                 e      pP     08 20 46.6 -1.3
OKC                                 eS     S      08 30 40.8 +0.7
OKC                                  MLR   MLR
      comp=Z,58µm,19.4s,MS6.9
OKC   Ostrava-Krasne     80.04 320⇑iP     P      08 20 38.0  0.0
OKC                                 epP    pP     08 20 46.6 -1.3
OKC                                 ex     x      08 23 54.2
OKC                                 eS     S      08 30 40.8 +0.7
OKC                                  AMS   AMS    09 06 00.0
      comp=Z,58µm,19.4s
OKC   Ostrava-Krasne     80.04 320⇑iP     P      08 20 38.0  0.0
OKC                                 e      pP     08 20 46.6 -1.3
OKC                                 e             08 23 54.2
OKC                                 eS     S      08 30 40.8 +0.7
RAC   Raciborz           80.04 320  eP     P      08 20 38.6 +0.6
RAC                                 eS     S      08 30 40.4 +0.3
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RAC                                e              08 30 50.0
RAC                                 MLR   MLR
      comp=N,118µm,20.0s
GRI   Girifalco        80.12 309    P     P       08 20 39.0 +0.3
BILL  Bilibino         80.16  21⇑ eP     P       08 20 37.3 -0.9
BILL                               i      pP      08 20 45.4 -2.8
BILL                               i S    S       08 30 47.3 +6.7
BILL                                pmax  pmax
      comp=Z,457nm,1.8s,mb6.1
BILL                                MLR   MLR
      comp=Z,678µm,17.0s
BILL  Bilibino         80.16  21   eP     P       08 20 37.7 -0.5
      comp=Z,377nm,1.1s,mb6.2
BILL                                LR    LR
      comp=Z,718µm,19.0s,MS8.0
ORI   Oriolo Calabro   80.20 310    P     P       08 20 39.8 +0.7
KEV   Kevo             80.23 341   eP     P       08 20 37.6 -1.0
KEV                                 pmax  pmax
      comp=Z,403nm,1.0s,mb6.3
KEV   Kevo             80.23 341   ep     P       08 20 37.6 -1.0
      comp=Z,403nm,1.0s,mb6.3
SOI   Samo             80.36 308    P     P       08 20 40.3 +0.3
MORC  Moravsky Berou   80.42 320⇓ iP     P       08 20 40.1 +0.1
MORC  Moravsky Berou   80.42 320   eP     P       08 20 39.7 -0.3
      comp=Z,392nm,1.1s,mb6.2
MODS  Modra-Piesok     80.42 318   eP     P       08 20 39.9 -0.2
MODS                                pmax  pmax
      comp=Z,143nm,1.3s,mb5.7
MODS  Modra-Piesok     80.42 318   eP     P       08 20 39.9 -0.2
      comp=Z,143nm,1.3s,mb5.7
MODS                               i S    S       08 30 40.5 -3.7
MODS                               eSS    SS      08 35 22.9  -33
CEL   Celeste          80.50 308   eP     P       08 20 41.3 +0.6
      comp=Z,628nm,1.0s,mb6.5
CEL                                 LR    LR
      comp=Z,109µm,22.0s,MS7.2
ZST   Bratislava       80.52 318   eP     P       08 20 41.2 +0.6
ZST                                 pmax  pmax
      comp=Z,602nm,1.5s,mb6.3
ZST   Bratislava       80.52 318   eP     P       08 20 41.1 +0.5
ZST                                i S    S       08 30 45.4 +0.2
ZST   Bratislava       80.52 318   eP     P       08 20 41.2 +0.6
      comp=Z,602nm,1.5s,mb6.3
ZST                                i S    S       08 30 45.4 +0.2
PTRP  Pietrapertosa    80.53 310    P     P       08 20 41.2 +0.4
SMY   Shemya           80.62  37   eP     P       08 20 41.2 +0.2
SMY                                 pmax  pmax
      comp=Z,611nm,1.5s,mb6.3
SMY   Shemya           80.62  37   eP     P       08 20 41.2 +0.2
      comp=Z,611nm,1.5s,mb6.3
MTTG  Motta San Giov   80.64 308    P     P       08 20 42.2 +0.7
SCLL  Scilla           80.64 308    P     P       08 20 44.0 +2.5
ACER  Acerenza         80.64 311    P     P       08 20 41.5 +0.1
ARCES ARCESS Array B   80.66 340    P     P       08 20 41.0 +0.1
ARCES                               S     S       08 30 44.8 -1.1
ARCES ARCESS Array B   80.66 340    P     P       08 20 41.0 +0.1
      comp=Z,84nm,0.8s,mb5.7,baz=104,slow=5.1,SNR=59
ARCES                               S     S       08 30 44.8 -1.1
      comp=Z,4.0nm,0.9s,baz=118,slow=21,SNR=2.5
ARCES                               LR    LR      09 02 08.7
      comp=Z,284µm,19.8s,MS7.6,baz=114,slow=40
ARCES ARCESS Array B   80.66 340    P     P       08 20 41.0 +0.1
ARCES                               S     S       08 30 44.8 -1.1
ARCES                               LR    LR      09 02 08.7
CUC   Castrocucco      80.68 310   eP     P       08 20 41.0 -0.7
      comp=Z,418nm,1.0s,mb6.3
CUC                                ePP    PP      08 23 44.8 -0.9
CUC                                 LR    LR
      comp=Z,214µm,21.0s,MS7.5
SISC  Sisak            80.73 315    P     P       08 20 40.4 -1.4
SISC  Sisak            80.73 315   i P    P       08 20 40.4 -1.4
SOP   Sopron           80.83 318⇑ eP     P       08 20 42.7 +0.4
KOGS  Kog              80.91 316   eP     P       08 20 42.5 -0.3
RGNG  Rignano Grg      80.98 312    P     P       08 20 43.2  0.0
VRAC  Vranov           80.98 319⇓ iP     P       08 20 43.1 +0.1
VRAC  Vranov           80.98 319    P     P       08 20 43.1 +0.1
GKP   Gorka Klasztor   81.05 323   eP     P       08 20 43.2 -0.1
GKP                                ePcP   PcP     08 20 52.1 +2.5
GKP                                eS     S       08 30 46.9 -3.6
GKP                                eSKS           08 30 58.7
GKP                                 LMZ           08 57 58.4
      comp=Z,128µm,25.0s
GKP   Gorka Klasztor   81.05 323   eP     P       08 20 43.2 -0.1
GKP                                ePcP   PcP     08 20 52.1 +2.4
GKP                                eS     S       08 30 46.9 -3.7
GKP                                eSKS           08 30 58.7
GKP                                 LR    LR
      comp=Z,128µm,25.0s,MS7.2
SYO   Syowa Base       81.10 198⇑ iP     P       08 20 49.0 +5.8
SGO   Sicignano        81.11 310    P     P       08 20 44.0 +0.1
SGO                                 pmax  pmax
      comp=Z,870nm,1.2s,mb6.6
SGO   Sicignano        81.11 310    P     P       08 20 44.0 +0.1
      comp=Z,870nm,1.2s,mb6.6
RPZ   Rata Peaks       81.18 135    P     P       08 20 43.5 -0.7
      comp=Z,46nm,0.6s,mb5.6,baz=139,slow=0.9,SNR=27
RPZ                                 S     S       08 30 50.5 -1.7
      comp=Z,7.7nm,1.0s,baz=46,slow=22,SNR=2.1
RPZ   Rata Peaks       81.18 135   eP     P       08 20 43.0 -1.2
      comp=Z,416nm,1.0s,mb6.3
ODZ   Otahua Downs     81.18 136   eP     P       08 20 45.3 +1.2
      comp=Z,108nm,1.0s,mb5.7
DPC   Dobruska-Polom   81.27 320⇑ iP     P       08 20 45.0 +0.5
DPC                                epP    pP      08 20 53.8 -0.7
DPC                                eS     S       08 30 54.3 +1.4
DPC                                 AMS   AMS     09 04 40.0
      comp=Z,83µm,16.8s
KTK1  Kautokeino       81.28 340   eP     P       08 20 43.8 -0.4
CONA  Conrad Observa   81.32 318   i P    P       08 20 44.5 -0.4
      comp=Z,179nm,1.1s,mb5.9,SNR=23
CSNA  Conrad Observa   81.32 318⇑ iP     P       08 20 44.7 -0.2
      comp=Z,178nm,1.1s,mb5.9
KSP   Ksiaz            81.34 321   eP     P       08 20 45.7 +0.8
KSP                                ePcP   PcP     08 20 55.8 +4.8
KSP                                eS     S       08 30 46.0 -7.7
KSP                                eSKS           08 31 04.0
KSP                                 LMZ           09 03 28.1
      comp=Z,167µm,22.0s
KSP   Ksiaz            81.34 321⇑ eP     P       08 20 45.0 +0.1
KSP                                e*PP   pP      08 20 53.6 -1.3
KSP                                e              08 21 00.9
KSP                                eS     S       08 30 52.3 -1.4
KSP                                eSSS           08 39 40.0
KSP   Ksiaz            81.34 321⇑ eP     P       08 20 45.0 +0.1
KSP                                epP    pP      08 20 53.6 -1.3
KSP                                e              08 21 00.9
KSP                                ePP    PP      08 24 01.0  +10
KSP                                eS     S       08 30 52.3 -1.4
KSP                                eSSS           08 39 40.0
KSP                                 LR    LR
      comp=Z,192µm,22.0s,MS7.4
CSSN  Cassano Irpino   81.34 311    P     P       08 20 44.7 -0.5
      comp=Z,288nm,1.0s,mb6.2
MRB1  Monte Rocchett   81.40 311    P     P       08 20 44.9 -0.6
      comp=Z,2µm,1.9s,mb6.8
WDD   Wield Dalam      81.45 306   eP     P       08 20 47.0 +1.1
      comp=Z,220nm,0.8s,mb6.1
WDD                                 LR    LR
      comp=Z,120µm,20.0s,MS7.2
UPC   Upice            81.48 321⇑ iP     P       08 20 45.9 +0.2
UPC                                epP    pP      08 20 54.5 -1.1
ARSA  Arzberg          81.49 317   i P    P       08 20 45.8  0.0
      comp=Z,319nm,1.2s,mb6.1,SNR=33
OUZ   Omahuta          81.51 126   eP     P       08 20 45.8 -0.3
      comp=Z,232nm,1.3s,mb6.0
BOJS  Bojanci          81.52 315   i P    P       08 20 45.5 -0.5
BOJS                               eS     S       08 31 01.2 +5.4
PSB1  Pescosannita     81.53 311    P     P       08 20 45.5 -0.6
TREC  Trest            81.70 319⇑ iP     P       08 20 46.5 -0.3
TREC                               eS     S       08 30 57.8 +0.4
TREC                                AMS   AMS     09 03 00.0
      comp=Z,97µm,20.3s
PERS  Pernice          81.71 317   i P    P       08 20 46.9 -0.1
PERS                               eS     S       08 30 55.0 -2.6
NVLJ  Novalja          81.72 314    P     P       08 20 45.2 -1.9
NVLJ  Novalja          81.72 314   i P    P       08 20 45.2 -1.9
SOKA  Soboth           81.77 317⇑ iP     P       08 20 47.4 +0.1
      comp=Z,750nm,1.4s,mb6.4
MIDA  Miranda          81.97 311    P     P       08 20 47.8 -0.7
      comp=Z,532nm,1.2s,mb6.3
LJU   Ljubljana        82.07 316   i P    P       08 20 48.8 -0.1
LJU                                e      pP      08 20 57.9 -1.0
LJU                                e              08 24 03.8
LJU                                eS     S       08 30 58.2 -3.2
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LJU   Ljubljana        82.07 316   i P    P       08 20 48.8  0.0
LJU                                e      pP      08 20 57.9 -1.0
LJU                                ePP    PP      08 24 03.8 +6.8
LJU                                eS     S       08 30 58.2 -3.2
LJU                                eSS    SS      08 36 48.5  +27
OBKA  Obir             82.09 316   i P    P       08 20 49.3 +0.4
      comp=Z,647nm,1.6s,mb6.3,SNR=6.4
INTR  Introdacqua      82.25 312    P     P       08 20 49.1 -0.8
PRU   Pruhonice        82.37 320⇑ iP     P       08 20 50.4  0.0
PRU                                e      pP      08 20 58.2 -2.2
PRU                                eS     S       08 31 05.3 +1.0
PRU                                 MLR   MLR
      comp=Z,90µm,18.2s,MS7.2
PRU   Pruhonice        82.37 320⇑ iP     P       08 20 50.4  0.0
PRU                                epP    pP      08 20 58.2 -2.2
PRU                                ex     x       08 24 22.1
PRU                                eS     S       08 31 05.3 +1.0
PRU                                 AMS   AMS     09 03 50.0
      comp=Z,90µm,18.2s
JAVS  Javornik         82.38 316   eP     P       08 20 49.6 -0.9
JAVS                               eS     S       08 31 00.4 -4.2
MOA   Molln            82.38 318   i P    P       08 20 49.9 -0.6
      comp=Z,427nm,1.6s,mb6.1,SNR=22
PVCC  Panska Ves       82.40 320⇑ eP     P       08 20 50.4 -0.1
PVCC                               epP    pP      08 20 59.3 -1.2
PVCC                               eS     S       08 31 05.7 +1.1
PVCC                                AMS   AMS     09 07 00.0
      comp=Z,123µm,21.3s
VVLD  Villa Vallelon   82.46 312    P     P       08 20 50.2 -0.8
TERO  Teramo           82.51 312    P     P       08 20 50.9 -0.4
TRI   Trieste          82.58 316    PFAKE         08 21 00.0 +8.5
TRI                                 LR    LR
      comp=Z,100µm,21.0s,MS7.2
BSD   Bornholm Skovb   82.62 325   i P    P       08 20 50.3 -1.2
      comp=Z,217nm,1.0s,mb6.1
BSD                                i S    S       08 31 03.3 -3.3
BSD
      comp=Z,101µm,19.0s
BSD   Bornholm Skovb   82.62 325   i P    P       08 20 50.3 -1.2
      comp=Z,217nm,1.0s,mb6.1
BSD                                i S    S       08 31 03.3 -3.3
KHZ   Kahutara         82.71 133   eP     P       08 20 51.0 -1.2
      comp=Z,448nm,1.3s,mb6.3
MYKA  Terra Mystica    82.72 316⇑ iP     P       08 20 52.0 -0.3
      comp=Z,728nm,1.6s,mb6.5
BRG   Berggiesshubel   82.83 321   i P    P       08 20 52.6 -0.1
BRG                                i      pP      08 21 02.2 -0.5
BRG                                i              08 21 08.9
BRG                                i              08 24 07.4
BRG                                 pmax  pmax
      comp=Z,355nm,1.5s,mb6.2
BRG                                 MLR   MLR
      comp=E,93µm,21.0s
BRG                                 MLR   MLR
      comp=Z,53µm,21.6s,MS6.9
BRG   Berggiesshubel   82.83 321   eP     P       08 20 52.3 -0.4
      comp=Z,926nm,1.9s,mb6.5
BRG                                eS     S       08 31 09.9 +1.0
BRG   Berggiesshubel   82.83 321   i P    P       08 20 52.6 -0.1
      comp=Z,14nm,1.3s,mb4.8
BRG                                i              08 20 55.0
      comp=Z,24nm,1.1s
BRG                                i      pP      08 21 02.2 -0.5
      comp=Z,94nm,1.3s
BRG                                i              08 21 08.9
      comp=Z,166nm,1.5s
BRG                                i              08 21 35.1
      comp=Z,593nm,1.4s
BRG                                i PP   PP      08 24 07.4 +4.3
      comp=Z,73nm,1.4s
BRG                                i              08 24 20.8
      comp=Z,309nm,1.6s
BRG                                 S     S       08 31 22.0  +13
BRG                                 SS    SS      08 36 54.0  +22
BRG                                ePKPPKP        08 47 53.0
      comp=Z,5.2nm,1.2s
BRG
      comp=N,156µm,21.6s
BRG
      comp=E,88µm,21.0s
BRG
      comp=Z,156µm,21.6s
BRG   Berggiesshubel   82.83 321   i P    P       08 20 52.6 -0.1
      comp=Z,8.7nm,1.3s
BRG                                i              08 20 55.0
BRG                                i      pP      08 21 02.2 -0.5
BRG                                i              08 21 08.9
BRG                                i              08 21 35.1
BRG                                i PP   PP      08 24 07.4 +4.3
BRG                                i              08 24 20.8
BRG                                 S     S       08 31 22.0  +13
BRG                                 SS    SS      08 36 54.0  +22
BRG                                eP'P'          08 47 53.0
BRG                                 LR    LR
      comp=Z,93µm,21.6s
GERES GERESS Array B   82.83 319    P     P       08 20 52.7 -0.1
GERES                               S     S       08 31 08.4 -0.7
GERES GERESS Array B   82.83 319    P     P       08 20 52.7 -0.1
      comp=Z,85nm,0.9s,mb5.8,baz=98,slow=4.7,SNR=126
GERES                               S     S       08 31 08.4 -0.6
      comp=Z,0.3nm,0.3s,baz=198,slow=1.3,SNR=2.0
GERES                               PKKPbc PKKPbc 08 39 28.3  +10
      comp=Z,0.3nm,0.4s,baz=204,slow=2.9,SNR=3.7
GERES                               LR    LR      09 04 34.8
      comp=Z,122µm,20.3s,MS7.3,baz=92,slow=41
CING  Cingoli          82.85 313    P     P       08 20 52.9 -0.1
FIAM  Fiamignano       82.85 312    P     P       08 20 52.8 -0.3
NRCA  Norcia           82.88 313    P     P       08 20 52.4 -0.8
PTCC  Patocco-Chiusa   82.91 316    P     P       08 20 52.5 -0.7
TRO   Tromso           82.92 340   eP     P       08 20 52.0 -0.8
TRO                                 AMS   AMS     09 03 33.9
      comp=Z,287µm,19.5s,MS7.7
KHC   Kasperske Hory   82.93 319⇑ iP     P       08 20 53.0 -0.3
KHC                                e      pP      08 21 04.0 +0.7
KHC                                eS     S       08 31 10.9 +0.8
KHC                                 MLR   MLR
      comp=Z,105µm,22.8s,MS7.2
KHC   Kasperske Hory   82.93 319⇑ iP     P       08 20 53.0 -0.3
KHC                                epP    pP      08 21 00.4 -2.9
KHC                                esP    sP      08 21 04.0 -2.9
KHC                                ex     x       08 21 12.0
KHC                                ex     x       08 21 37.5
KHC                                eS     S       08 31 10.9 +0.8
KHC                                 AMS   AMS     09 04 50.0
      comp=Z,105µm,22.8s
KBA   Koelnbreinsper   82.95 317   i P    P       08 20 52.8 -0.7
      comp=Z,226nm,0.8s,mb6.2,SNR=25
RUE   Ruedersdorf      83.05 322   eP     P       08 20 53.5 -0.3
      comp=Z,2µm,1.8s,mb6.9
RUE   Ruedersdorf      83.05 322   eP     P       08 20 53.6 -0.3
      comp=Z,794nm,0.9s,mb6.8
RDP   Rocca di Papa    83.13 312    P     P       08 20 54.0 -0.5
PESA  Pesaro           83.14 314    P     P       08 20 54.7 +0.2
FSSB  Fossombrone      83.17 313    P     P       08 20 54.9 +0.2
FBE   Freiberg         83.20 321   eP     P       08 20 54.3 -0.3
      comp=Z,1µm,1.9s,mb6.6
RJOB  Jochberg         83.37 318   eP     P       08 20 54.5 -1.1
      comp=Z,214nm,1.1s,mb6.1
RJOB                               eS     S       08 31 13.1 -1.4
SNZO  South Karori     83.37 132    PFAKE         08 21 10.0  +14
SNZO                                LR    LR
      comp=Z,212µm,21.0s,MS7.5
WET   Wettzell         83.39 319   eP     P       08 20 55.3 -0.4
WET                                eS     S       08 31 16.0 +1.2
WET                                 pmax  pmax
      comp=Z,690nm,1.6s,mb6.4
WET   Wettzell         83.39 319   eP     P       08 20 55.3 -0.4
      comp=Z,690nm,1.6s,mb6.4
WET                                eS     S       08 31 16.0 +1.2
RSM   Repubblica di    83.42 314    P     P       08 20 56.4 +0.5
CLL   Collm            83.45 321   eP     P       08 20 55.0 -0.9
CLL                                i      pP      08 21 04.8 -1.1
CLL                                i              08 21 10.7
CLL                                 MLR   MLR
      comp=Z,132µm,20.0s,MS7.3
CLL   Collm            83.45 321   eP     P       08 20 55.1 -0.8
      comp=Z,439nm,1.6s,mb6.2
CLL                                eS     S       08 31 15.2  0.0
CLL   Collm            83.45 321   eP     P       08 20 55.0 -0.9
CLL                                 LmV           08 06 00.0
      comp=Z,132µm,20.0s
CLL                                i              08 20 57.8
CLL                                i (pP) pP      08 21 04.8 -1.1
CLL                                i              08 21 10.7
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      comp=Z,439nm,1.6s
CLL                                 Pmax          08 21 13.0
CLL                                ePlp           08 21 15.0
      comp=Z,21µm,26.9s
CLL                                i              08 21 34.2
CLL                                i              08 21 37.6
CLL                                ePPP           08 26 24.0
CLL                                ePPPP          08 28 06.0
CLL                                eS     S       08 31 25.0  +10
      comp=N,100µm,28.4s
CLL                                eS     S       08 31 25.0  +10
      comp=E,12µm,22.6s
CLL                                ePPS           08 32 33.0
CLL                                eSS    SS      08 36 57.0  +16
CLL                                e              08 39 36.0
CLL                                eSSS           08 40 19.0
CLL                                e              08 42 00.0
CLL                                eSSSS          08 43 18.0
CLL                                e              08 47 41.0
CLL                                 Lmax          09 05 35.0
CLL   Collm            83.45 321   eP     P       08 20 55.0 -0.9
      comp=E,439nm,1.6s,mb6.2
CLL                                i      pP      08 21 04.8 -1.1
CLL                                i              08 21 10.7
CLL                                eS     S       08 31 25.0  +10
CLL                                eP'P'          08 47 41.0
CLL                                 LR    LR
      comp=Z,132µm,20.0s,MS7.3
RGN   Rugen            83.49 324   eP     P       08 20 55.8 -0.2
      comp=Z,938nm,1.6s,mb6.6
RGN   Rugen            83.49 324   eP     P       08 20 53.9 -2.1
      comp=Z,132nm,1.4s,mb5.8
ABTA  Abfaltersbach    83.51 317⇑ iP     P       08 20 55.7 -0.7
      comp=Z,253nm,1.2s,mb6.2,SNR=23
BADI  Badiali          83.55 313    P     P       08 20 56.0 -0.6
NKC   Novy Kostel      83.73 320⇑ iP     P       08 20 57.5 +0.1
NKC                                eS     S       08 31 19.3 +1.1
NKC                                 AMS   AMS     09 04 30.0
      comp=Z,132µm,19.0s
NKC   Novy Kostel      83.73 320⇑ iP     P       08 20 57.5 +0.1
NKC                                eS     S       08 31 19.3 +1.1
TANN  Tannenbergstha   83.74 320   eP     P       08 20 56.9 -0.5
      comp=Z,358nm,1.6s,mb6.2
TANN                               eS     S       08 31 20.5 +2.3
HFS   Hagfors          83.76 330    P     P       08 20 56.7 -0.6
      comp=Z,148nm,0.9s,mb6.1,baz=111,slow=3.3,SNR=66
HFS                                 PP    PP      08 24 09.6 -0.9
      comp=Z,60nm,0.9s,baz=84,slow=15,SNR=3.9
CRE   Caprese Michel   83.77 313    P     P       08 20 57.3 -0.4
WERN  Wernitzgruen     83.78 320   eP     P       08 20 57.4 -0.3
      comp=Z,335nm,1.7s,mb6.2
GUNZ  Gunzen           83.82 320   eP     P       08 20 57.6 -0.2
      comp=Z,552nm,1.7s,mb6.4
BJO   Bjornoya         83.83 345   eP     P       08 20 59.8 +2.4
BJO                                 AMb   AMB     08 21 14.6
      comp=Z,437nm,1.9s,mb6.2
BJO                                eS     S       08 31 24.2 +6.0
BJO                                 AMS   AMS     09 05 57.3
      comp=Z,176µm,19.2s,MS7.5
WERD  Werda            83.84 320   eP     P       08 20 57.2 -0.7
      comp=Z,406nm,1.6s,mb6.3
SFI   Santa Sofia      83.85 314    P     P       08 20 58.9 +0.7
ROTZ  Rotzenmuhle      83.86 320   eP     P       08 20 58.2 +0.1
      comp=Z,425nm,1.5s,mb6.3
ROTZ                               eS     S       08 31 22.3 +2.8
MANZ  Manzenberg       83.94 320   eP     P       08 20 58.4 -0.1
      comp=Z,736nm,1.6s,mb6.6
MANZ                               eS     S       08 31 22.9 +2.7
STEI  Steigen          83.96 338   eP     P       08 20 57.9 -0.3
MOR8  Moi Rana         84.06 336   eP     P       08 20 57.5 -1.2
WTTA  Wattenberg       84.13 317   i P    P       08 20 58.7 -0.8
      comp=Z,463nm,1.3s,mb6.5,SNR=37
WATA  Walderalm        84.17 317⇑ iP     P       08 20 58.8 -0.9
      comp=Z,135nm,0.8s,mb6.1,SNR=8.9
MOX   Moxa             84.29 320ceP     P       08 20 59.8 -0.4
      comp=Z,489nm,1.6s,mb6.4
MOX                                eS     S       08 31 27.0 +3.3
MOX   Moxa             84.29 320   eP     P       08 20 59.8 -0.4
      comp=Z,348nm,1.4s,mb6.3
MOX                                eS     S       08 31 25.4 +1.7
MOX   Moxa             84.29 320   ePu            08 20 59.8
      comp=Z,489nm,1.6s
MOX                                eS     S       08 31 27.0 +3.3
APPI  Appiano          84.38 316    P     P       08 21 00.7 -0.1
FNVD  Fontana Vidola   84.38 314    P     P       08 21 01.6 +0.7
FUR   Furstenfeldbru   84.41 318   eP     P       08 20 59.7 -1.2
      comp=Z,420nm,1.4s,mb6.4
FUR                                eS     S       08 31 24.0 -1.0
FUR   Furstenfeldbru   84.41 318   eP     P       08 20 59.7 -1.2
      comp=Z,420nm,1.4s,mb6.4
FUR                                eS     S       08 31 24.0 -1.0
FUR                                 LR    LR
      comp=Z,700nm,15.6s,MS5.2
MOTA  Moosalm          84.49 317⇑ iP     P       08 21 00.2 -1.1
      comp=Z,286nm,1.0s,mb6.3,SNR=42
GRA1  Grafenberg Arr   84.50 319   eP     P       08 21 01.3  0.0
      comp=Z,978nm,1.7s,mb6.7
GRA1                               eS     S       08 31 28.1 +2.2
GRA1                                LR    LR
      comp=Z,160µm,18.7s,MS7.4
GRF   Grafenberg Arr   84.50 319   eP     P       08 21 01.3  0.0
GRF                                eS     S       08 31 28.1 +2.2
GRF                                 pmax  pmax
      comp=Z,978nm,1.7s,mb6.7
GRF                                 MLR   MLR
      comp=Z,160µm,18.7s,MS7.4
GRF   Grafenberg Arr   84.50 319   eP     P       08 21 01.3  0.0
      comp=Z,978nm,1.7s,mb6.7
GRF                                eS     S       08 31 28.1 +2.2
GRF                                eL             09 05 22.1
      comp=Z,160µm,18.7s
KONS  Konsvik          84.62 336   eP     P       08 21 03.0 +1.4
LOF   Lofoten          84.62 338   eP     P       08 21 03.2 +1.7
STOK  Stokkvaagen      84.64 336   eP     P       08 21 03.0 +1.3
RETA  Reutte           84.73 317   i P    P       08 21 01.9 -0.6
      comp=Z,516nm,1.2s,mb6.5,SNR=39
FETA  Feichten         84.74 317   i P    P       08 21 02.2 -0.4
      comp=Z,627nm,1.9s,mb6.4,SNR=54
URZ   Urewera          84.75 129    P     P       08 21 01.5 -1.4
      comp=Z,11nm,0.5s,mb5.3,baz=9.6,slow=3.7,SNR=18
URZ                                 S     S       08 31 22.7 -6.1
      comp=Z,3.7nm,0.7s,baz=319,slow=23,SNR=1.9
URZ   Urewera          84.75 129   eP     P       08 21 01.9 -0.9
      comp=Z,402nm,1.2s,mb6.4
MAIM  Mastiano         84.83 314    P     P       08 21 01.6 -1.5
VLC   Villacollemand   84.91 314   eP     P       08 21 04.6 +1.1
      comp=Z,147nm,0.9s,mb6.1
VLC                                 LR    LR
      comp=Z,103µm,22.0s,MS7.2
NSS   Namsos           84.93 334   eP     P       08 21 02.2 -0.9
NSS                                eSS    SS      08 37 03.5 +1.1
NSS                                 AMS   AMS     09 04 11.2
      comp=Z,214µm,21.2s,MS7.5
NB2   NORSAR Subarra   85.05 331    P     P       08 21 03.0 -0.8
      comp=Z,434nm,1.2s,mb6.5,baz=93,slow=5.1
NOA   NORSAR Array B   85.05 331    P     P       08 21 03.1 -0.7
NOA                                               08 24 20.9
NOA                                 S     S       08 31 25.2 -5.6
NOA   NORSAR Array B   85.05 331    P     P       08 21 03.0 -0.8
      comp=Z,74nm,0.9s,mb5.8,baz=94,slow=5.4,SNR=92
NOA                                 PP    PP      08 24 20.9  0.0
      comp=Z,18nm,0.8s,baz=104,slow=8.8,SNR=3.2
NOA                                 S     S       08 31 25.2 -5.7
      comp=Z,2.5nm,0.8s,baz=31,slow=2.6,SNR=2.3
NOA                                 PKKPbc PKKPbc 08 39 27.1  +14
      comp=Z,1.9nm,0.8s,baz=282,slow=2.2,SNR=5.3
NOA                                 LR    LR      09 03 36.9
      comp=Z,132µm,21.1s,MS7.3,baz=85,slow=39
NOA   NORSAR Array B   85.05 331    P     P       08 21 03.0 -0.8
NOA                                 PP    PP      08 24 20.9  0.0
NOA                                 S     S       08 31 25.2 -5.7
NOA                                 PKKPbc PKKPbc 08 39 27.1  +14
NOA                                 LR    LR      09 03 36.9
CLZ   Clausthal        85.11 322   eP     P       08 21 04.1 -0.3
CLZ                                eS     S       08 31 31.8 -0.1
CLZ                                 pmax  pmax
      comp=Z,401nm,1.4s,mb6.4
CLZ   Clausthal        85.11 322   eP     P       08 21 04.1 -0.3
      comp=Z,401nm,1.4s,mb6.4
CLZ                                eS     S       08 31 31.8 -0.1
HSP   Hornsund         85.17 347   eP     P       08 21 03.8 -0.4
SPITS Spitsbergen Ar   85.18 348    LR    LR      09 10 04.3
      comp=Z,118µm,19.4s,MS7.3,baz=335,slow=43
BSEG  Bad Segeberg     85.21 324   eP     P       08 21 04.7 -0.1
BSEG                               eS     S       08 31 33.2 +0.4
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BSEG				pmax	pmax		
	comp=Z,1µm,1.9s,mb6.7						
BSEG	Bad Segeberg	85.21	324	eP	P	08 21 04.7	-0.1
	comp=Z,1µm,1.9s,mb6.7						
BSEG				eS	S	08 31 33.2	+0.4
OSL	Oslo	85.23	330	eP	P	08 21 04.9	+0.1
DAVA	Damuels	85.32	317	i P	P	08 21 05.3	-0.2
	comp=Z,444nm,1.0s,mb6.5,SNR=45						
VSL	Villasalto	85.62	309	eP	P	08 21 07.2	0.0
	comp=Z,376nm,1.0s,mb6.6						
VSL				LR	LR		
	comp=Z,59µm,21.0s,MS7.0						
KEST	Kesra	85.65	305	P	P	08 21 08.0	+0.5
	comp=Z,42nm,0.8s,mb5.7,baz=314,slow=1.4,SNR=33						
KEST				S	S	08 31 31.1	-6.8
	comp=Z,2.6nm,1.0s,baz=294,slow=14,SNR=2.1						
KEST				LR	LR	09 00 56.5	
	comp=Z,87µm,20.0s,MS7.2,baz=217,slow=37						
TUE	Stuetta	85.68	316	eP	P	08 21 06.9	-0.4
	comp=Z,612nm,1.4s,mb6.6						
TUE				eS	S	08 31 39.3	+1.6
TUE				LR	LR		
	comp=Z,114µm,20.0s,MS7.3						
OSPF	L'Ospedale	85.77	311	eP	P	08 21 06.4	-1.4
KONO	Kongsberg	85.79	329c	iP	P	08 21 07.3	-0.3
KONO	Kongsberg	85.79	329	eP	P	08 21 06.8	-0.7
KONO	Kongsberg	85.79	329	PFAKE		08 21 20.0	+12
KONO				LR	LR		
	comp=Z,143µm,20.0s,MS7.4						
STU	Stuttgart	85.81	319	eP	P	08 21 07.4	-0.5
STU				pmax	pmax		
	comp=Z,128nm,0.8s,mb6.2						
STU	Stuttgart	85.81	319	eP	P	08 21 07.2	-0.7
	comp=Z,4µm,3.9s						
STU				eS	S	08 31 39.8	+1.0
STU	Stuttgart	85.81	319	eP	P	08 21 07.4	-0.5
	comp=Z,128nm,0.8s,mb6.2						
PGF	Pioggiola	85.91	312	⇑iP	P	08 21 08.1	-0.4
	comp=Z,1µm,1.5s,mb6.6						
PGF	Pioggiola	85.91	312	⇑iP	P	08 21 08.1	-0.4
PGF				pmax	pmax		
	comp=Z,603nm,1.5s,mb6.6						
PGF	Pioggiola	85.91	312	⇑iP	P	08 21 08.1	-0.4
	comp=Z,603nm,1.5s,mb6.6						
MUD	Monsted U'grnd	85.94	326	⇑iP	P	08 21 08.7	+0.4
	comp=Z,326nm,1.0s,mb6.5						
MUD				i S	S	08 31 46.8	+7.0
MUD							
	comp=Z,117µm,20.0s						
MUD	Monsted U'grnd	85.94	326	⇑iP	P	08 21 08.7	+0.4
	comp=Z,326nm,1.0s,mb6.5						
MUD				i S	S	08 31 46.8	+7.0
TOD	Tromm	86.07	319	eP	P	08 21 08.5	-0.7
SPAK	Spaichingen-Ko	86.07	318	eP	P	08 21 08.8	-0.4
DOMB	Dombas	86.12	332	eP	P	08 21 09.4	+0.3
DOMB				esP	sP	08 21 20.4	-2.4
KBS	Kingsbay	86.15	349	eP	P	08 21 06.3	-2.7
KBS				eS	S	08 31 45.1	+3.9
KBS				AMS	AMS	09 05 18.1	
	comp=Z,190µm,19.2s,MS7.5						
KBS	Kingsbay	86.15	349	eP	P	08 21 07.3	-1.8
	comp=Z,296nm,0.9s,mb6.5						
KBS				ePP	PP	08 24 29.4	-0.2
KBS				LR	LR		
	comp=Z,202µm,19.0s,MS7.5						
ADK	Adak	86.20	38	P	P	08 21 09.1	-0.7
ADK				pmax	pmax		
	comp=Z,370nm,1.0s,mb6.6						
ADK	Adak	86.20	38	eP	P	08 21 08.6	-1.2
	comp=Z,369nm,0.9s,mb6.6						
ADK				LR	LR		
	comp=Z,152µm,22.0s,MS7.3						
TNS	Taunus Mts	86.30	320	eP	P	08 21 10.0	-0.3
TNS				eS	S	08 31 46.0	+2.4
TNS				pmax	pmax		
	comp=Z,365nm,1.4s,mb6.4						
TNS	Taunus Mts	86.30	320	eP	P	08 21 09.9	-0.4
	comp=Z,365nm,1.4s,mb6.4						
TNS				eS	S	08 31 46.0	+2.4
TNS	Taunus Mts	86.30	320	eP	P	08 21 10.0	-0.3
	comp=Z,365nm,1.4s,mb6.4						
TNS				eS	S	08 31 46.0	+2.4
BFO	Black Forest	86.38	318	eP	P	08 21 09.6	-1.1
BFO				eS	S	08 31 45.2	+0.8
BFO				pmax	pmax		
	comp=Z,147nm,1.0s,mb6.2						
BFO	Black Forest	86.38	318	i P	P	08 21 10.2	-0.5
BFO	Black Forest	86.38	318	eP	P	08 21 09.6	-1.1
	comp=Z,147nm,1.0s,mb6.2						
BFO				eS	S	08 31 45.2	+0.8
KTD	Kalmit	86.54	319	eP	P	08 21 13.0	+1.5
FELD	Feldberg im Sc	86.60	318	eP	P	08 21 12.9	+1.1
HLG	Helgoland	86.65	324	eP	P	08 21 11.9	0.0
	comp=Z,620nm,1.5s,mb6.6						
LANF	Langenberg	86.72	319	eP	P	08 21 11.8	-0.6
IBBN	Ibbenburen	86.73	322	eP	P	08 21 12.2	-0.2
	comp=Z,1µm,1.6s,mb6.8						
IBBN				eS	S	08 31 47.7	0.0
MOL	Molde	86.83	332	eP	P	08 21 11.9	-0.7
MOL				AMb	AMB	08 21 42.8	
	comp=Z,466nm,1.9s,mb6.4						
MOL				eS	S	08 31 49.1	+0.8
MOL				AMS	AMS	09 06 24.9	
	comp=Z,158µm,21.0s,MS7.4						
LIBD	Limburg	86.86	318	eP	P	08 21 12.9	-0.2
ABH	Alteburg	86.88	320	eP	P	08 21 13.0	-0.2
BBS	Basel-Blauen	86.94	317	eP	P	08 21 15.6	+2.1
SAOF	Saorge	86.95	314	eP	P	08 21 13.2	-0.4
SBF	Sospel	87.04	314	⇑iP	P	08 21 13.7	-0.4
	comp=Z,760nm,1.0s,mb6.6						
SBF	Sospel	87.04	314	⇑iP	P	08 21 13.7	-0.4
SBF				pmax	pmax		
	comp=Z,380nm,1.0s,mb6.6						
SBF	Sospel	87.04	314	⇑iP	P	08 21 13.7	-0.4
	comp=Z,380nm,1.0s,mb6.6						
BUG	Bochum--Univer	87.04	321	eP	P	08 21 13.5	-0.4
	comp=Z,590nm,1.5s,mb6.6						
BUG				eS	S	08 31 52.0	+1.3
AUTN	L'Aution	87.05	314	eP	P	08 21 14.7	+0.6
CDF	Champ du Feu	87.08	318	⇑iP	P	08 21 13.5	-0.6
	comp=Z,255nm,1.0s,mb6.1						
CDF	Champ du Feu	87.08	318	⇑iP	P	08 21 13.5	-0.6
CDF				pmax	pmax		
	comp=Z,128nm,1.0s,mb6.1						
CDF	Champ du Feu	87.08	318	⇑iP	P	08 21 13.5	-0.6
	comp=Z,128nm,1.0s,mb6.1						
REVF	Revere	87.09	313	eP	P	08 21 14.2	-0.1
LUCF	Luceram	87.11	314	eP	P	08 21 14.4	0.0
ABSA	Djebel Ababsia	87.16	306	P	P	08 21 17.8	+3.0
ECH	Echery	87.16	318	eP	P	08 21 13.7	-0.8
ECH				pmax	pmax		
	comp=Z,115nm,0.8s,mb6.2						
ECH				MLR	MLR		
	comp=Z,84µm,20.0s,MS7.1						
ECH	Echery	87.16	318	eP	P	08 21 13.7	-0.9
	comp=Z,114nm,0.8s,mb6.2						
ECH				LR	LR		
	comp=Z,84µm,20.0s,MS7.1						
TOUF	Mont Tournerai	87.17	314	eP	P	08 21 15.3	+0.6
MOF	Molkenrain	87.19	318	eP	P	08 21 13.7	-1.0
CMAH	Djebel Manchou	87.20	306	P	P	08 21 18.2	+3.2
RUP	Ruppelstein	87.20	319	eP	P	08 21 14.6	-0.1
MVIF	Mont Vial	87.25	314	eP	P	08 21 16.2	+1.1
ODD1	Odda	87.30	330	eP	P	08 21 14.0	-0.9
WTSB	Winterswijk	87.33	322	eP	P	08 21 15.0	-0.2
	comp=Z,495nm,1.6s,mb6.5						
HINF	Hinteralfeld	87.37	318	⇑iP	P	08 21 15.3	-0.3
	comp=Z,266nm,1.2s,mb6.0						
HINF	Hinteralfeld	87.37	318	⇑iP	P	08 21 15.3	-0.3
HINF				pmax	pmax		
	comp=Z,133nm,1.2s,mb6.0						
HINF	Hinteralfeld	87.37	318	⇑iP	P	08 21 15.3	-0.3
	comp=Z,133nm,1.2s,mb6.0						
OG22	Abries	87.37	315	eP	P	08 21 14.4	-1.3
BLS5	Blasjo	87.39	329	eP	P	08 21 16.9	+1.5
WIT	Witteveen	87.39	323	eP	P	08 21 16.1	+0.5
	comp=Z,2µm,1.4s,mb7.1						
LOMF	Lomont	87.40	317	eP	P	08 21 13.3	-2.4
CALN	Calern	87.44	314	eP	P	08 21 16.2	+0.2
SURF	Saint Ours	87.48	314	eP	P	08 21 15.6	-0.6
HYA	Hoyanger	87.49	331	eP	P	08 21 16.1	+0.2
HYA				esP	sP	08 21 27.4	-2.2
LPG	La Plagne	87.50	315	⇑iP	P	08 21 16.2	0.0
	comp=Z,517nm,0.8s,mb6.5						
LPG	La Plagne	87.50	315	⇑iP	P	08 21 16.2	0.0
LPG				pmax	pmax		
	comp=Z,258nm,0.8s,mb6.5						
LPG	La Plagne	87.50	315	⇑iP	P	08 21 16.2	0.0
	comp=Z,258nm,0.8s,mb6.5						
MBDF	Montbardon	87.50	314	⇑iP	P	08 21 15.3	-1.0
	comp=Z,457nm,1.2s,mb6.3						
MBDF	Montbardon	87.50	314	⇑iP	P	08 21 15.3	-1.0
MBDF				pmax	pmax		
	comp=Z,229nm,1.2s,mb6.3						
MBDF	Montbardon	87.50	314	⇑iP	P	08 21 15.3	-1.0
	comp=Z,229nm,1.2s,mb6.3						
LPL	La Plagne	87.51	315	⇑iP	P	08 21 16.3	0.0
	comp=Z,618nm,0.8s,mb6.6						
LPL	La Plagne	87.51	315	⇑iP	P	08 21 16.3	0.0
LPL				pmax	pmax		
	comp=Z,309nm,0.8s,mb6.6						
LPL	La Plagne	87.51	315	⇑iP	P	08 21 16.3	0.0
	comp=Z,309nm,0.8s,mb6.6						
OG01	Vacheresse	87.52	316	eP	P	08 21 16.1	-0.2
BNI	Bardonecchia	87.56	315	eP	P	08 21 15.9	-0.6
BNI				pmax	pmax		
	comp=Z,133nm,0.8s,mb6.2						
BNI				MLR	MLR		
	comp=Z,114µm,21.0s,MS7.3						
BNI	Bardonecchia	87.56	315	eP	P	08 21 15.9	-0.7
	comp=Z,133nm,0.8s,mb6.2						
BNI				LR	LR		
	comp=Z,114µm,21.0s,MS7.3						
RSL	Roselend	87.58	315	eP	P	08 21 16.1	-0.5
VNDA	Vanda	87.59	169	P	P	08 21 17.0	+1.0
VNDA				S	SKSac	08 31 41.1	-0.2
VNDA	Vanda	87.59	169	P	P	08 21 16.9	+0.9
	comp=Z,6.5nm,0.8s,mb4.9,baz=33,slow=6.6,SNR=3.7						
VNDA				S	SKSac	08 31 41.0	-0.2
	comp=Z,19nm,1.3s,baz=57,slow=12,SNR=2.1						
VNDA				LR	LR	08 58 19.5	
	comp=Z,168µm,18.2s,MS7.5,baz=303,slow=34						
FRF	La Foret Royal	87.62	313	⇑iP	P	08 21 16.6	-0.3
	comp=Z,1µm,1.4s,mb6.6						
FRF	La Foret Royal	87.62	313	⇑iP	P	08 21 16.6	-0.3
FRF				pmax	pmax		
	comp=Z,564nm,1.4s,mb6.6						
FRF	La Foret Royal	87.62	313	⇑iP	P	08 21 16.6	-0.3
	comp=Z,564nm,1.4s,mb6.6						
CAEH	'Ain El Ouahch	87.65	307	P	P	08 21 21.5	+4.3
HAU	Haudompre	87.71	318	⇑iP	P	08 21 16.5	-0.7
	comp=Z,462nm,0.9s,mb6.4						
HAU				eMLR	MLR		
	comp=Z,104µm,20.2s,MS6.9						
HAU	Haudompre	87.71	318	⇑iP	P	08 21 16.5	-0.7
HAU				pmax	pmax		
	comp=Z,231nm,0.9s,mb6.4						
HAU				MLR	MLR		
	comp=Z,104µm,20.3s,MS7.2						
HAU	Haudompre	87.71	318	⇑iP	P	08 21 16.5	-0.7
	comp=Z,231nm,0.9s,mb6.4						
HAU				LR	LR		
	comp=Z,104µm,20.3s,MS7.2						
LMR	La Mourre	87.73	313	⇑iP	P	08 21 17.0	-0.4
	comp=Z,864nm,1.4s,mb6.5						
LMR	La Mourre	87.73	313	⇑iP	P	08 21 17.0	-0.4
LMR				pmax	pmax		
	comp=Z,432nm,1.4s,mb6.5						
LMR	La Mourre	87.73	313	⇑iP	P	08 21 17.0	-0.4
	comp=Z,432nm,1.4s,mb6.5						
CKFL	Kef-Lekhel	87.77	306	P	P	08 21 22.0	+4.2
WLF	Walferdange	87.79	319	P	P	08 21 18.1	+0.5
	comp=Z,354nm,2.3s,mb6.2						
WLF	Walferdange	87.79	319	eP	P	08 21 18.0	+0.5
WLF				pmax	pmax		
	comp=Z,517nm,1.4s,mb6.6						
WLF				MLR	MLR		
	comp=Z,134µm,21.0s,MS7.3						
WLF	Walferdange	87.79	319	eP	P	08 21 17.5	0.0
	comp=Z,534nm,1.5s,mb6.5						
WLF				eS	S	08 32 00.3	+2.3
WLF	Walferdange	87.79	319	eP	P	08 21 18.0	+0.4
	comp=Z,517nm,1.4s,mb6.6						
WLF				LR	LR		
	comp=Z,134µm,21.0s,MS7.3						
MEM	Membach	87.86	320	P	P	08 21 18.0	+0.2
	comp=Z,120nm,1.2s,mb6.0						
HGN	Heimansgroeve	87.90	321	eP	P	08 21 17.7	-0.3
	comp=Z,258nm,2.4s,mb6.0						
HGN	Heimansgroeve	87.90	321	ePP	PP	08 24 55.4	+11
HGN	Heimansgroeve	87.90	321	eS	S	08 32 06.0	+7.0
HGN	Heimansgroeve	87.90	321	eSS	SS	08 37 58.0	+11
CABF	La Chapelle	87.93	316	⇑iP	P	08 21 18.2	-0.1
	comp=Z,775nm,1.2s,mb6.5						
CABF	La Chapelle	87.93	316	⇑iP	P	08 21 18.2	-0.1
CABF				pmax	pmax		
	comp=Z,388nm,1.2s,mb6.5						
CABF	La Chapelle	87.93	316	⇑iP	P	08 21 18.2	-0.1
	comp=Z,388nm,1.2s,mb6.5						
BER	Bergen	87.93	330	eP	P	08 21 18.0	0.0
BER				AMS	AMS	09 06 51.2	
	comp=Z,175µm,16.4s,MS7.6						
THEF	They Montfort	87.94	318	eP	P	08 21 17.3	-1.0
GDM	Grand'Maison	87.95	315	eP	P	08 21 17.4	-1.0
CASM	Ain Smara	87.96	306	P	P	08 21 22.1	+3.4
FOO	Floro	88.03	331	eP	P	08 21 18.3	-0.1
FOO				AMb	AMB	08 21 47.6	
	comp=Z,390nm,2.1s,mb6.3						
FOO				eS	S	08 31 58.9	-0.9
FOO				eSS	SS	08 37 56.1	+8.2
FOO				AMS	AMS	09 05 44.7	
	comp=Z,133µm,19.7s,MS7.4						
CTEI	Djebel Teioual	88.03	306	P	P	08 21 22.7	+3.7
TAVF	Tavernes	88.05	313	eP	P	08 21 20.3	+1.4
BEBN	Eben Emael	88.06	321	P	P	08 21 20.4	+1.6
ORIF	Oris-en-Rattie	88.13	315	⇑iP	P	08 21 19.2	-0.1
	comp=Z,309nm,1.0s,mb6.2						
ORIF				eMLR	MLR		
	comp=Z,134µm,20.2s,MS7.0						
ORIF	Oris-en-Rattie	88.13	315	⇑iP	P	08 21 19.2	-0.1
ORIF				pmax	pmax		
	comp=Z,154nm,1.0s,mb6.2						
ORIF	Oris-en-Rattie	88.13	315	⇑iP	P	08 21 19.2	-0.1
	comp=Z,154nm,1.0s,mb6.2						
STOF	St-Etienne Org	88.14	314	eP	P	08 21 21.6	+2.3
GRN	Grenoble	88.21	315	eP	P	08 21 19.9	+0.2
RFYF	Reffroy	88.27	318	eP	P	08 21 19.4	-0.4
	comp=Z,411nm,1.3s,mb6.2						
RFYF	Reffroy	88.27	318	eP	P	08 21 19.4	-0.4
	comp=Z,411nm,1.3s,mb6.5						
VILF	Villemus	88.29	314	eP	P	08 21 21.3	+1.3
BCLA	Clavier	88.31	320	P	P	08 21 20.3	+0.3
	comp=Z,150nm,1.6s,mb6.0						
BERF	Bertagne	88.32	313	eP	P	08 21 20.6	+0.4
SMRF	Simiane la Rot	88.38	314	⇑iP	P	08 21 20.9	+0.4
	comp=Z,1µm,1.6s,mb6.5						
SMRF	Simiane la Rot	88.38	314	⇑iP	P	08 21 20.9	+0.4
	comp=Z,1µm,1.6s,mb6.8						
DFRA	Djebel Bou Aff	88.44	306	P	P	08 21 24.1	+3.1
GELF	Grande-Etoile	88.51	313	eP	P	08 21 19.9	-1.2
TREF	Trevaresse	88.53	313	eP	P	08 21 20.1	-1.1
OCF	Saint Nazaire	88.55	314	eP	P	08 21 21.4	+0.1
OG26	St.-Nazaire-De	88.55	314	eP	P	08 21 21.4	+0.1
MEZF	Maizieres J'vi	88.56	318	⇑iP	P	08 21 20.8	-0.4
GAMB	Gambell	88.58	26	eP	P	08 21 20.6	-0.3
	comp=Z,772nm,1.3s,mb6.9						
SFTF	Sexfontaines	88.58	318	⇑iP	P	08 21 20.9	-0.4
	comp=Z,690nm,1.1s,mb6.6,baz=91						
SFTF	Sexfontaines	88.58	318	⇑iP	P	08 21 20.9	-0.4
	comp=Z,690nm,1.1s,mb6.9						
GIVF	Givet	88.64	320	⇑iP	P	08 21 21.3	-0.2
	comp=Z,462nm,1.2s,mb6.4						
GIVF	Givet	88.64	320	⇑iP	P	08 21 21.3	-0.2
GIVF				pmax	pmax		
	comp=Z,231nm,1.2s,mb6.4						
GIVF	Givet	88.64	320	⇑iP	P	08 21 21.3	-0.2
	comp=Z,231nm,1.2s,mb6.4						
PRAF	Pradon	88.68	314	eP	P	08 21 21.0	-0.9
SBA	Scott Base	88.69	168	PFAKE		08 21 30.0	+8.8
SBA				LR	LR		
	comp=Z,103µm,19.0s,MS7.3						
CKHR	Kef el Ahmar	88.76	306	P	pP	08 21 30.0	-2.5
DOU	Dourbes	88.78	320	P	P	08 21 22.6	+0.4
	comp=Z,162nm,1.9s,mb6.0						
SET	Setif	88.84	306	P	P	08 21 26.0	+3.2
UCC	Uccle	88.90	321	P	P	08 21 24.5	+1.8
	comp=Z,260nm,2.5s,mb6.1						
SNF	Seneffe	88.96	320	P	P	08 21 23.6	+0.5
	comp=Z,240nm,2.1s,mb6.2						
VIVF	Saint-Julien-l	88.99	315	⇑iP	P	08 21 23.1	-0.2
	comp=Z,546nm,1.3s,mb6.4						
VIVF	Saint-Julien-l	88.99	315	⇑iP	P	08 21 23.1	-0.2
VIVF				pmax	pmax		
	comp=Z,273nm,1.3s,mb6.4						
VIVF	Saint-Julien-l	88.99	315	⇑iP	P	08 21 23.1	-0.2
	comp=Z,273nm,1.3s,mb6.4						
BAIF	Baives	89.03	320	⇑iP	P	08 21 23.5	+0.1
	comp=Z,726nm,1.1s,mb6.6						
BAIF	Baives	89.03	320	⇑iP	P	08 21 23.5	+0.1
BAIF				pmax	pmax		
	comp=Z,363nm,1.1s,mb6.6						
BAIF	Baives	89.03	320	⇑iP	P	08 21 23.5	+0.1
	comp=Z,363nm,1.1s,mb6.6						
SSB	Saint Sauveur	89.06	315	eP	P	08 21 23.8	+0.2
SSB	Saint Sauveur	89.06	315	eP	P	08 21 23.0	-0.6
SSB				pmax	pmax		
	comp=Z,270nm,1.2s,mb6.5						
SSB				MLR	MLR		
	comp=Z,56µm,20.0s,MS7.0						
SSB	Saint Sauveur	89.06	315	eP	P	08 21 23.0	-0.6
	comp=Z,270nm,1.2s,mb6.5						
SSB				LR	LR		
	comp=Z,56µm,20.0s,MS7.0						
TAM	Tamanrasset	89.35	293	eP	P	08 21 27.2	+1.7
TAM				pmax	pmax		
	comp=Z,371nm,1.3s,mb6.6						
TAM				MLR	MLR		
	comp=Z,143µm,19.0s,MS7.4						
TAM	Tamanrasset	89.35	293	eP	P	08 21 27.2	+1.7
	comp=Z,371nm,1.3s,mb6.6						
TAM				LR	LR		
	comp=Z,143µm,19.0s,MS7.4						
LOR	Lormes	89.42	317	⇑iP	P	08 21 25.0	-0.3
	comp=Z,2µm,1.7s,mb6.8,baz=86						
LOR				eMLR	MLR		
	comp=Z,103µm,19.5s,MS7.0						
LOR	Lormes	89.42	317	⇑iP	P	08 21 25.0	-0.3
LOR				pmax	pmax		
	comp=Z,942nm,1.7s,mb6.8						
LOR				MLR	MLR		
	comp=Z,103µm,19.5s,MS7.3						
LOR	Lormes	89.42	317	⇑iP	P	08 21 25.0	-0.3
	comp=Z,942nm,1.7s,mb6.8						
LOR				LR	LR		
	comp=Z,103µm,19.5s,MS7.3						
SMF	Signal de Mont	89.47	316	⇑iP	P	08 21 25.2	-0.3
	comp=Z,454nm,1.0s,mb6.5						
SMF	Signal de Mont	89.47	316	⇑iP	P	08 21 25.2	-0.3
SMF				pmax	pmax		
	comp=Z,227nm,1.0s,mb6.5						
SMF	Signal de Mont	89.47	316	⇑iP	P	08 21 25.2	-0.3
	comp=Z,227nm,1.0s,mb6.5						
AKF	Akfadou	89.49	306	P	pP	08 21 32.9	-3.1
LASF	Ste Croix	89.61	314	⇑iP	P	08 21 26.5	+0.2
	comp=Z,1µm,1.6s,mb6.6						
COLF	Collangettes	89.64	315	eP	P	08 21 26.5	+0.1
PLDF	La Plantade	89.67	316	eP	P	08 21 27.6	+1.1
SSF	Saint Saulge	89.68	317	⇑iP	P	08 21 26.4	-0.1
	comp=Z,1µm,1.7s,mb6.6						
SSF	Saint Saulge	89.68	317	⇑iP	P	08 21 26.4	-0.1
SSF				pmax	pmax		
	comp=Z,534nm,1.7s,mb6.6						
SSF	Saint Saulge	89.68	317	⇑iP	P	08 21 26.4	-0.1
	comp=Z,534nm,1.7s,mb6.6						
AVF	Avril sur Loir	89.80	317	⇑iP	P	08 21 26.6	-0.5
	comp=Z,1µm,1.6s,mb6.6						
AVF	Avril sur Loir	89.80	317	⇑iP	P	08 21 26.6	-0.5
AVF				pmax	pmax		
	comp=Z,563nm,1.6s,mb6.7						
AVF	Avril sur Loir	89.80	317	⇑iP	P	08 21 26.6	-0.5
	comp=Z,563nm,1.6s,mb6.7						
LBL	Lubilhac	89.98	315	eP	P	08 21 27.7	-0.2
AGO	Saint Agoulin	90.00	316	eP	P	08 21 28.1	+0.1
TNA	Tin City	90.04	24	eP	P	08 21 27.4	-0.4
	comp=Z,462nm,1.6s,mb6.6						
AKET	Djebel Ketaf	90.08	306	P	P	08 21 30.3	+1.7
PYM	Petit Puy Mans	90.11	316	eP	P	08 21 29.2	+0.7
BGF	Bois d'Agland	90.16	316	⇑iP	P	08 21 29.0	+0.2
	comp=Z,1µm,1.4s,mb6.8						
BGF	Bois d'Agland	90.16	316	⇑iP	P	08 21 29.0	+0.2
BGF				pmax	pmax		
	comp=Z,718nm,1.4s,mb6.8						
BGF	Bois d'Agland	90.16	316	⇑iP	P	08 21 29.0	+0.2
	comp=Z,718nm,1.4s,mb6.8						
HYF	Humbligny	90.25	317	eP	P	08 21 29.6	+0.4
MENF	Mencas	90.31	320	eP	P	08 21 29.5	+0.1
EJON	La Jonquera	90.43	312	P	P	08 21 31.1	+1.0
	comp=Z,189nm,1.4s,mb6.2						
ADJB	Djebel Djouab	90.43	306	P	P	08 21 31.3	+1.0
FRNF	Fournols	90.45	315	eP	P	08 21 30.4	+0.3
VERF	Verneugheol	90.47	316	eP	P	08 21 30.4	+0.2
TCF	Toulx Ste Croi	90.62	316	⇑iP	P	08 21 31.0	+0.1
	comp=Z,1µm,1.6s,mb6.6						
TCF	Toulx Ste Croi	90.62	316	⇑iP	P	08 21 31.0	+0.1
TCF				pmax	pmax		
	comp=Z,503nm,1.6s,mb6.6						
TCF	Toulx Ste Croi	90.62	316	⇑iP	P	08 21 31.0	+0.1
	comp=Z,503nm,1.6s,mb6.6						
LRDF	Laroque-de-Fa	90.65	313	eP	P	08 21 29.9	-1.2
NVL	N'lazarevskaya	90.65	199	P	P	08 21 39.0	+8.5
NVL				pmax	pmax		
	comp=Z,100nm,1.4s,mb6.0						
ETOS	Mallorca	90.68	310	P	P	08 21 32.2	+0.9
	comp=Z,65nm,2.3s,mb5.5						
MAIT	Maitri	90.68	199	eP	P	08 21 30.7	+0.1
MAIT				ePP	PP	08 24 21.0	-45
MAIT				eS	SKSac	08 32 01.7	+2.0
MAIT				eSS	SS	08 38 48.4	+22
ABA	Alger-Bouzarea	90.71	307	P	P	08 21 33.7	+2.1
EMHD	Djebel Mahouad	90.82	306	P	P	08 21 34.0	+1.9
CAF	Calviac	90.83	315	⇑iP	P	08 21 32.4	+0.5
	comp=Z,758nm,1.5s,mb6.5						
CAF	Calviac	90.83	315	⇑iP	P	08 21 32.4	+0.5
CAF				pmax	pmax		
	comp=Z,379nm,1.5s,mb6.5						
CAF	Calviac	90.83	315	⇑iP	P	08 21 32.4	+0.5
	comp=Z,379nm,1.5s,mb6.5						
MTLF	Montolieu	90.85	313	⇑iP	P	08 21 32.2	+0.1
	comp=Z,696nm,1.4s,mb6.5						
MTLF	Montolieu	90.85	313	⇑iP	P	08 21 32.2	+0.1
MTLF				pmax	pmax		
	comp=Z,348nm,1.4s,mb6.5						
MTLF	Montolieu	90.85	313	⇑iP	P	08 21 32.2	+0.1
	comp=Z,348nm,1.4s,mb6.5						
TFO1	Folkestone	90.90	321	eP	P	08 21 31.3	-0.8
TFO1				AMb	AMB	08 21 41.2	
	comp=Z,180nm,1.3s,mb6.2						
TFO1				e		08 24 47.0	
TFO1				AMS	AMS	09 12 46.3	
	comp=Z,123µm,19.4s,MS7.3						
NIKO	Nikolski	90.94	37	eP	P	08 21 31.4	-0.8
	comp=Z,1µm,1.3s,mb7.0						
CARF	Carcanieres	90.98	313	eP	P	08 21 31.1	-1.6
VALF	Valcebollere	91.08	312	eP	P	08 21 33.1	0.0
LRW	Lerwick	91.19	330	eP	P	08 21 33.6	+0.4
LRW				AMb	AMB	08 21 47.3	
	comp=Z,199nm,2.0s,mb6.1						
LRW				e		08 24 32.3	
LRW				AMS	AMS	09 08 55.8	
	comp=Z,149µm,19.3s,MS7.4						
RJF	Les Rejaudoux	91.19	315	⇑iP	P	08 21 34.0	+0.4
	comp=Z,2µm,1.7s,mb6.8						
RJF				eMLR	MLR		
	comp=Z,109µm,21.2s,MS7.0						
RJF	Les Rejaudoux	91.19	315	⇑iP	P	08 21 34.0	+0.4
RJF				pmax	pmax		
	comp=Z,761nm,1.7s,mb6.8						
RJF				MLR	MLR		
	comp=Z,109µm,21.3s,MS7.3						
RJF	Les Rejaudoux	91.19	315	⇑iP	P	08 21 34.0	+0.4
	comp=Z,761nm,1.7s,mb6.8						
RJF				LR	LR		
	comp=Z,109µm,21.3s,MS7.3						
WAL1	Walls	91.39	330	eP	P	08 21 35.2	+1.0
EMIR	Miracle	91.48	312	P	P	08 21 36.0	+0.9
	comp=Z,18nm,1.8s,mb5.1						
MLS	Moulis	91.70	313	eP	P	08 21 32.5	-3.5
LFF	La Frestale	91.77	315	⇑iP	P	08 21 36.8	+0.5
	comp=Z,2µm,1.6s,mb6.8						
LFF	La Frestale	91.77	315	⇑iP	P	08 21 36.8	+0.5
LFF				pmax	pmax		
	comp=Z,788nm,1.6s,mb6.8						
LFF	La Frestale	91.77	315	⇑iP	P	08 21 36.8	+0.5
	comp=Z,788nm,1.6s,mb6.8						
EPOB	Poblet	91.86	311	P	P	08 21 36.5	-0.3
	comp=Z,376nm,1.2s,mb6.6						
EIBI	Ibiza	91.87	309	P	P	08 21 36.4	-0.5

	comp=Z,559nm,1.1s,mb6.8						
EBNR	**Beni Rached**	**91.96**	**306**	P	**P**	**08 21 38.8**	**+1.4**
LDF	**La Druitiere**	**91.98**	**319**	⇑*i*P	**P**	**08 21 37.1**	**-0.1**
	comp=Z,679nm,1.0s,mb6.6						
LDF	**La Druitiere**	**91.98**	**319**	⇑*i*P	**P**	**08 21 37.1**	**-0.1**
LDF				pmax	pmax		
	comp=Z,339nm,1.0s,mb6.6						
LDF	**La Druitiere**	**91.98**	**319**	⇑*i*P	**P**	**08 21 37.1**	**-0.1**
	comp=Z,339nm,1.0s,mb6.6						
JNW	**Jan Mayen West**	**92.06**	**342**	*e*P	**P**	**08 21 40.5**	**+3.4**
JMIC	**Jan Mayen**	**92.10**	**341**	*e*P	**P**	**08 21 38.2**	**+0.9**
JMIC				*e*S	S	08 32 37.0	-0.1
ECHA	**Ech Chlef**	**92.10**	**306**	P	**P**	**08 21 42.0**	**+4.0**
FLN	**La Foliniere**	**92.19**	**319**	⇑*i*P	**P**	**08 21 38.0**	**-0.2**
	comp=Z,852nm,1.2s,mb6.6,baz=81						
FLN				*e*MLR	MLR		
	comp=Z,152µm,22.8s,MS7.1						
FLN	**La Foliniere**	**92.19**	**319**	⇑*i*P	**P**	**08 21 38.0**	**-0.2**
FLN				pmax	pmax		
	comp=Z,426nm,1.2s,mb6.7						
FLN				MLR	MLR		
	comp=Z,152µm,22.8s,MS7.4						
FLN	**La Foliniere**	**92.19**	**319**	⇑*i*P	**P**	**08 21 38.0**	**-0.2**
	comp=Z,426nm,1.2s,mb6.7						
FLN				LR	LR		
	comp=Z,152µm,22.8s,MS7.4						
MFF	**Saint Martin d**	**92.21**	**317**	⇑*i*P	**P**	**08 21 38.4**	**+0.1**
	comp=Z,1µm,1.3s,mb6.8						
MFF	**Saint Martin d**	**92.21**	**317**	⇑*i*P	**P**	**08 21 38.4**	**+0.1**
MFF				pmax	pmax		
	comp=Z,638nm,1.3s,mb6.8						
MFF	**Saint Martin d**	**92.21**	**317**	⇑*i*P	**P**	**08 21 38.4**	**+0.1**
	comp=Z,638nm,1.3s,mb6.8						
ETRT	**Tiaret**	**92.22**	**305**	P	**P**	**08 21 40.4**	**+1.8**
CWF	**Charnwood Fore**	**92.23**	**323**	*e*P	**P**	**08 21 35.2**	**-3.0**
CWF				AMb	AMB	08 21 52.1	
	comp=Z,275nm,1.5s,mb6.4						
CWF				*e*		08 24 50.2	
CWF				AMS	AMS	09 10 55.1	
	comp=Z,126µm,19.9s,MS7.4						
LDU	**Leeds Universi**	**92.23**	**324**	*e*P	**P**	**08 21 39.8**	**+1.5**
UNV	**Unalaska Valle**	**92.24**	**36**	*e*P	**P**	**08 21 37.1**	**-1.1**
	comp=Z,211nm,1.0s,mb6.4						
EPF	**Esparros**	**92.25**	**313**	*e*P	**P**	**08 21 38.1**	**-0.4**
HPK	**Haverah Park**	**92.25**	**324**	*e*P	**P**	**08 21 36.6**	**-1.7**
HPK				AMb	AMB	08 21 48.8	
	comp=Z,302nm,1.5s,mb6.4						
HPK				*e*		08 24 42.4	
HPK				AMS	AMS	09 11 22.2	
	comp=Z,90µm,20.1s,MS7.2						
RESF	**Ens**	**92.27**	**313**	*e*P	**P**	**08 21 38.9**	**+0.2**
KBI1	**Birley Grange**	**92.29**	**323**	*e*P	**P**	**08 21 38.7**	**+0.2**
EANR	**'Ain N'Sour**	**92.33**	**306**	P	**P**	**08 21 42.5**	**+3.4**
WOL	**Wolverton**	**92.36**	**321**	*e*P	**P**	**08 21 38.7**	**-0.2**
WOL				AMb	AMB	08 21 53.2	
	comp=Z,997nm,1.7s,mb6.9						
EBIE	**Bielsa**	**92.43**	**313**	P	**P**	**08 21 40.4**	**+1.1**
	comp=Z,403nm,3.1s						
LABF	**Labassere**	**92.44**	**313**	*e*P	**P**	**08 21 39.2**	**-0.2**
LHO	**Holmfirth**	**92.45**	**324**	*e*P	**P**	**08 21 35.4**	**-3.8**
ERTA	**Horta de San J**	**92.46**	**311**	P	**P**	**08 21 40.3**	**+0.8**
	comp=Z,618nm,1.7s,mb6.7						
GRR	**Gorron**	**92.49**	**319**	⇑*i*P	**P**	**08 21 39.6**	**+0.1**
	comp=Z,716nm,1.2s,mb6.6						
GRR	**Gorron**	**92.49**	**319**	⇑*i*P	**P**	**08 21 39.6**	**+0.1**
GRR				pmax	pmax		
	comp=Z,358nm,1.2s,mb6.6						
GRR	**Gorron**	**92.49**	**319**	⇑*i*P	**P**	**08 21 39.6**	**+0.1**
	comp=Z,358nm,1.2s,mb6.6						
VIEF	**Viey**	**92.49**	**313**	*e*P	**P**	**08 21 40.5**	**+0.8**
KWE	**Weaver Farm**	**92.51**	**323**	*e*P	**P**	**08 21 37.8**	**-1.8**
ESY	**Stoneypath**	**92.54**	**326**	*e*P	**P**	**08 21 40.8**	**+1.2**
MLA1	**Latheron**	**92.57**	**329**	*e*P	**P**	**08 21 39.2**	**-0.4**
AKUT	**Akutan**	**92.62**	**36**	*e*P	**P**	**08 21 37.9**	**-2.1**
	comp=Z,184nm,0.8s,mb6.6						
MCD	**Coleburn Disti**	**92.63**	**328**	*e*P	**P**	**08 21 41.7**	**+1.8**
OJGS	**Djebel Guires**	**92.66**	**306**	P	pP	08 21 50.0	-0.7
SWN1	**Swindon**	**92.69**	**322**	*e*P	**P**	**08 21 38.8**	**-1.6**
SWN1				AMb	AMB	08 21 54.6	
	comp=Z,618nm,1.6s,mb6.8						
SWN1				AMS	AMS	09 12 41.4	
	comp=Z,80µm,19.7s,MS7.2						
OKGL	**Djebel Kef Gue**	**92.70**	**306**	P	**P**	**08 21 42.5**	**+1.7**
QSPA	**South Pole Qui**	**92.70**	**180**	*e*P	**P**	**08 21 40.3**	**+0.5**
	comp=Z,994nm,1.3s,mb7.1						
QSPA				LR	LR		
	comp=Z,291µm,20.0s,MS7.7						
STNC	**Stoke**	**92.72**	**323**	*e*P	**P**	**08 21 34.7**	**-5.8**
STNC				AMb	AMB	08 21 52.9	
	comp=Z,205nm,2.3s,mb6.2						
REYF	**Montagne du Re**	**92.78**	**313**	*e*P	**P**	**08 21 40.7**	**-0.3**
EBL	**Broad Law**	**92.80**	**326**	*e*P	**P**	**08 21 42.0**	**+1.2**
DAG	**Danmarks Havn**	**92.82**	**348**	⇓*i*P	**P**	**08 21 39.3**	**-1.2**
DAG				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.9						
DAG	**Danmarks Havn**	**92.82**	**348**	⇓*i*P	**P**	**08 21 39.3**	**-1.2**
	comp=Z,43nm,0.9s,mb5.9						
AFI	**Afiamalu**	**92.85**	**104**	P	**P**	**08 21 40.4**	**-1.5**
	comp=Z,16nm,0.9s,mb5.4,baz=171,slow=18,SNR=1.5						
EDI	**Edinburgh**	**92.86**	**326**	AMb	AMB	08 21 52.2	
	comp=Z,138nm,2.1s,mb6.0						
EDI				AMS	AMS	09 10 22.4	
	comp=Z,100µm,18.7s,MS7.3						
EDI	**Edinburgh**	**92.86**	**326**	AMb	AMB	08 21 52.2	
	comp=Z,138nm,2.1s,mb6.0						
EDI				AMS	AMS	09 10 22.4	
EKA	**Eskdalemuir Ar**	**92.94**	**326**	P	**P**	**08 21 41.2**	**-0.2**
	comp=Z,29nm,0.7s,mb5.8,baz=100,slow=5.2,SNR=29						
EKA				PP	PP	08 25 23.3	-0.7
	comp=Z,17nm,1.0s,baz=78,slow=8.9,SNR=4.0						
ECK	**Cauldkaine Hil**	**92.94**	**325**	*e*P	**P**	**08 21 41.6**	**+0.1**
ESK	**Eskdalemuir**	**92.96**	**326**	*e*P	**P**	**08 21 40.9**	**-0.7**
ESK				AMb	AMB	08 21 59.6	
	comp=Z,239nm,1.8s,mb6.3						
ESK				*e*		08 24 44.2	
ESK				AMS	AMS	09 15 32.6	
	comp=Z,121µm,19.9s,MS7.3						
ESK	**Eskdalemuir**	**92.96**	**326**	*i* P	**P**	**08 21 42.6**	**+1.0**
ESK	**Eskdalemuir**	**92.96**	**326**	*e*P	**P**	**08 21 41.8**	**+0.2**
	comp=Z,123nm,0.9s,mb6.3						
ESK				LR	LR		
	comp=Z,141µm,20.0s,MS7.4						
OJBR	**Djebel Berber**	**92.98**	**306**	P	**P**	**08 21 48.0**	**+5.9**
EBH	**Black Hill**	**92.98**	**327**	*e*P	**P**	**08 21 41.6**	**0.0**
ESAC	**San Caprasio**	**92.98**	**312**	P	**P**	**08 21 42.7**	**+0.7**
	comp=Z,1µm,1.9s,mb6.9						
ATE	**Arette**	**93.00**	**313**	*e*P	**P**	**08 21 41.2**	**-0.8**
EAU	**Auchinoon**	**93.01**	**326**	*e*P	**P**	**08 21 42.1**	**+0.4**
MVH1	**Achvaich**	**93.06**	**328**	*e*P	**P**	**08 21 41.4**	**-0.6**
EBEN	**Beniarda**	**93.12**	**309**	P	**P**	**08 21 42.4**	**-0.2**
	comp=Z,180nm,1.7s,mb6.2						
EMOS	**Mosqueruela**	**93.13**	**310**	P	**P**	**08 21 44.5**	**+1.8**
	comp=Z,811nm,1.2s,mb7.0						
ORDF	**Ordiarp**	**93.16**	**313**	*e*P	**P**	**08 21 42.1**	**-0.6**
JQE	**Queens East**	**93.16**	**319**	*e*P	**P**	**08 21 38.5**	**-4.1**
JLP	**Les Platons**	**93.19**	**319**	*e*P	**P**	**08 21 41.9**	**-0.9**
MDO	**Dochfour**	**93.24**	**328**	*e*P	**P**	**08 21 37.9**	**-4.9**
HGH	**Gray Hill**	**93.29**	**322**	*e*P	**P**	**08 21 42.3**	**-0.9**
MCH1	**Michaelchurch**	**93.36**	**322**	*e*P	**P**	**08 21 42.6**	**-0.8**
MCH1				AMb	AMB	08 21 58.3	
	comp=Z,125nm,2.7s,mb5.9						
MCH1				AMS	AMS	09 11 23.8	
	comp=Z,89µm,19.1s,MS7.2						
SJPF	**Ste Jean**	**93.38**	**313**	⇑*i*P	**P**	**08 21 44.3**	**+0.5**
	comp=Z,546nm,1.3s,mb6.5						
SJPF	**Ste Jean**	**93.38**	**313**	⇑*i*P	**P**	**08 21 44.3**	**+0.5**
SJPF				pmax	pmax		
	comp=Z,273nm,1.3s,mb6.5						
SJPF	**Ste Jean**	**93.38**	**313**	⇑*i*P	**P**	**08 21 44.3**	**+0.5**
	comp=Z,273nm,1.3s,mb6.5						
OSSF	**Osses**	**93.39**	**313**	*e*P	**P**	**08 21 42.2**	**-1.6**
ODJA	**Bouhanifia**	**93.41**	**305**	P	**P**	**08 21 49.0**	**+4.9**
EAB	**Aberfoyle**	**93.45**	**327**	*e*P	**P**	**08 21 45.6**	**+1.8**
RSC	**Scourie**	**93.50**	**329**	*e*P	**P**	**08 21 44.4**	**+0.5**
TORD	**Torodi Ar. Bea**	**93.53**	**283**	P	**P**	**08 21 44.6**	**-0.4**
	comp=Z,34nm,1.1s,mb5.7,baz=78,slow=4.1,SNR=45						
TORD				PP	PP	08 25 27.2	-2.8
	comp=Z,26nm,1.3s,baz=97,slow=5.3,SNR=3.4						
TORD				S	SKSac	08 32 15.4	-2.5
	comp=Z,5.3nm,1.0s,baz=32,slow=2.5,SNR=2.3						
TORD				PKKPbc	PKKPbc	08 38 49.9	-0.8
	comp=Z,3.4nm,1.0s,baz=313,slow=3.0,SNR=4.5						
TORD				LR	LR	09 04 28.1	
	comp=Z,194µm,18.2s,MS7.6,baz=90,slow=36						
TORD	**Torodi Ar. Bea**	**93.53**	**283**	P	**P**	**08 21 44.6**	**-0.4**
TORD				PP	PP	08 25 27.2	-2.8
TORD				S	SKSac	08 32 15.4	-2.5
TORD				PKKPbc	PKKPbc	08 38 49.9	-0.8
TORD				LR	LR	09 04 28.1	
EALK	**Alkurruntz**	**93.57**	**313**	P	**P**	**08 21 44.5**	**-0.2**
	comp=Z,692nm,2.5s,mb6.6						
ELIZ	**Elizondo**	**93.59**	**313**	P	**P**	**08 21 46.6**	**+1.9**
ELIZ				pmax	pmax		
	comp=Z,151nm,1.4s,mb6.2						
ELIZ	**Elizondo**	**93.59**	**313**	P	**P**	**08 21 46.6**	**+1.8**
	comp=Z,151nm,1.4s,mb6.2						
ECHE	**Chera**	**93.60**	**310**	P	**P**	**08 21 46.6**	**+1.7**
ECHE				pmax	pmax		
	comp=Z,137nm,1.0s,mb6.3						
ECHE	**Chera**	**93.60**	**310**	P	**P**	**08 21 46.6**	**+1.8**
	comp=Z,136nm,1.0s,mb6.3						
SGMF	**Saint Gilles**	**93.63**	**319**	⇑*i*P	**P**	**08 21 44.7**	**-0.1**
	comp=Z,544nm,1.5s,mb6.5						
SGMF	**Saint Gilles**	**93.63**	**319**	⇑*i*P	**P**	**08 21 44.7**	**-0.1**
SGMF				pmax	pmax		
	comp=Z,272nm,1.5s,mb6.5						
SGMF	**Saint Gilles**	**93.63**	**319**	⇑*i*P	**P**	**08 21 44.7**	**-0.1**
	comp=Z,272nm,1.5s,mb6.5						
USTO	**Oran**	**93.69**	**306**	P	**P**	**08 21 52.5**	**+7.1**
WPM1	**Penmaenmawr**	**93.70**	**324**	*e*P	**P**	**08 21 46.6**	**+1.6**
CART	**Cartagena**	**93.85**	**308**	*e*P	**P**	**08 21 47.2**	**+1.1**
	comp=Z,548nm,1.6s,mb6.7						
FALS	**False Pass**	**93.86**	**35**	*e*P	**P**	**08 21 41.7**	**-4.0**
	comp=Z,288nm,0.8s,mb6.8						
GAL1	**Galloway**	**93.89**	**325**	*e*P	**P**	**08 21 45.0**	**-0.8**
GAL1				AMb	AMB	08 21 60.0	
	comp=Z,147nm,1.5s,mb6.2						
GAL1				AMS	AMS	09 16 07.8	
	comp=Z,74µm,19.9s,MS7.1						
WME	**Myndd Eilian**	**93.92**	**324**	*e*P	**P**	**08 21 43.5**	**-2.5**
RRR	**Rubha Reidh**	**93.93**	**328**	*e*P	**P**	**08 21 47.6**	**+1.7**
KPL	**Plockton**	**93.95**	**328**	*e*P	**P**	**08 21 45.0**	**-1.1**
KPL				AMb	AMB	08 22 05.1	
	comp=Z,198nm,1.5s,mb6.3						
KPL				AMS	AMS	09 09 21.8	
	comp=Z,136µm,19.7s,MS7.4						
EMUR	**La Murta**	**94.01**	**308**	P	**P**	**08 21 48.4**	**+1.6**
	comp=Z,186nm,1.3s,mb6.4						
YRE	**Yr Eifl**	**94.06**	**323**	*e*P	**P**	**08 21 46.8**	**+0.1**
QUIF	**Quistinic**	**94.08**	**318**	⇑*i*P	**P**	**08 21 46.4**	**-0.5**
	comp=Z,359nm,1.5s,mb6.3						
QUIF	**Quistinic**	**94.08**	**318**	⇑*i*P	**P**	**08 21 46.4**	**-0.5**
QUIF				pmax	pmax		
	comp=Z,180nm,1.5s,mb6.3						
QUIF	**Quistinic**	**94.08**	**318**	⇑*i*P	**P**	**08 21 46.4**	**-0.5**
	comp=Z,180nm,1.5s,mb6.3						
ROSF	**Rostrenen**	**94.09**	**319**	⇑*i*P	**P**	**08 21 46.6**	**-0.3**
	comp=Z,436nm,1.4s,mb6.4						
ROSF	**Rostrenen**	**94.09**	**319**	⇑*i*P	**P**	**08 21 46.6**	**-0.3**
ROSF				pmax	pmax		
	comp=Z,218nm,1.4s,mb6.4						
ROSF	**Rostrenen**	**94.09**	**319**	⇑*i*P	**P**	**08 21 46.6**	**-0.3**
	comp=Z,218nm,1.4s,mb6.4						
YRC	**Rhoscolyn**	**94.10**	**324**	*e*P	**P**	**08 21 47.5**	**+0.7**
ETOB	**Tobarra**	**94.16**	**309**	P	**P**	**08 21 49.1**	**+1.7**
	comp=Z,330nm,1.5s,mb6.5						
DYA	**Yadsworthy**	**94.18**	**321**	*e*P	**P**	**08 21 42.4**	**-4.9**
DYA				AMb	AMB	08 22 01.3	
	comp=Z,194nm,1.6s,mb6.3						
DYA				*e*		08 25 01.1	
DYA				AMS	AMS	09 14 47.9	
	comp=Z,114µm,18.2s,MS7.4						
ALE	**Alert**	**94.27**	**357**	P	**P**	**08 21 46.0**	**-1.1**
	comp=Z,596nm,1.0s,mb7.0,SNR=22						
ETOR	**Torete**	**94.28**	**311**	P	**P**	**08 21 49.7**	**+1.8**
ETOR				pmax	pmax		
	comp=Z,36nm,1.5s,mb5.6						
ETOR	**Torete**	**94.28**	**311**	P	**P**	**08 21 49.7**	**+1.8**
	comp=Z,36nm,1.5s,mb5.6						
ODZI	**Dziouia**	**94.29**	**306**	P	**P**	**08 21 52.5**	**+4.4**
ECRI	**Cripan**	**94.38**	**313**	P	**P**	**08 21 50.1**	**+1.7**
ECRI				pmax	pmax		
	comp=Z,61nm,1.1s,mb5.9						
ECRI	**Cripan**	**94.38**	**313**	P	**P**	**08 21 50.1**	**+1.7**
	comp=Z,61nm,1.1s,mb5.9						
HTL	**Hartland**	**94.44**	**321**	*e*P	**P**	**08 21 48.4**	**-0.1**
HTL				AMb	AMB	08 22 09.9	
	comp=Z,124nm,1.6s,mb6.1						
HTL				*e*		08 25 06.3	
HTL				AMS	AMS	09 14 05.1	
	comp=Z,94µm,18.1s,MS7.3						
OLHC	**Oulhaca**	**94.45**	**305**	P	**P**	**08 21 52.5**	**+3.6**
GMM	**Mts of Mourne**	**94.72**	**325**	*e*P	**P**	**08 21 49.9**	**+0.2**
ENIJ	**Nijar**	**94.88**	**307**	P	**P**	**08 21 52.2**	**+1.4**
ENIJ				pmax	pmax		
	comp=Z,106nm,1.9s,mb6.0						
ENIJ	**Nijar**	**94.88**	**307**	P	**P**	**08 21 52.2**	**+1.4**
	comp=Z,106nm,1.9s,mb6.0						
EVIA	**Vianos**	**94.90**	**309**	P	**P**	**08 21 52.5**	**+1.6**
EVIA				pmax	pmax		
	comp=Z,145nm,1.0s,mb6.4						
EVIA	**Vianos**	**94.90**	**309**	P	**P**	**08 21 52.5**	**+1.6**
	comp=Z,145nm,1.0s,mb6.4						
ELAN	**Lanestosa**	**94.96**	**314**	P	**P**	**08 21 54.1**	**+3.1**
	comp=Z,296nm,1.9s,mb6.4						
CCA1	**Carnmenellis**	**95.05**	**321**	*e*P	**P**	**08 21 50.4**	**-0.9**
EHUE	**Huescar**	**95.08**	**308**	P	**P**	**08 21 53.2**	**+1.5**
EHUE				pmax	pmax		
	comp=Z,188nm,1.2s,mb6.4						
EHUE	**Huescar**	**95.08**	**308**	P	**P**	**08 21 53.2**	**+1.5**
	comp=Z,188nm,1.2s,mb6.4						
DSB	**Dublin**	**95.17**	**324**	*e*P	**P**	**08 21 52.7**	**+1.0**
	comp=Z,44nm,0.9s,mb5.9						
DLF	**Lyons Farm**	**95.25**	**324**	*e*P	**P**	**08 21 52.8**	**+0.7**
SDPT	**Sand Point**	**95.42**	**34**	*e*P	**P**	**08 21 52.0**	**-0.8**
	comp=Z,461nm,0.7s,mb7.0						
EBER	**Berja**	**95.43**	**307**	P	**P**	**08 21 54.9**	**+1.6**
	comp=Z,346nm,1.5s,mb6.6						
EQES	**Quesada**	**95.45**	**308**	P	**P**	**08 21 54.8**	**+1.4**
	comp=Z,280nm,2.1s,mb6.3						
EALB	**Alboran**	**95.67**	**306**	P	**P**	**08 21 55.7**	**+1.2**
	comp=Z,168nm,2.8s,mb6.0						
TTA	**Tatalina**	**95.67**	**26**	*e*P	**P**	**08 21 54.4**	**+0.6**
DCN	**Croghan**	**95.67**	**324**	*e*P	**P**	**08 21 54.8**	**+0.8**
ESDC	**Sonseca Array**	**95.88**	**310**	P	**P**	**08 21 55.5**	**+0.2**
	comp=Z,10nm,0.9s,mb5.2,baz=67,slow=4.4,SNR=19						
ESDC				PP	PP	08 25 45.3	-2.2
	comp=Z,3.2nm,0.7s,baz=72,slow=9.0,SNR=3.7						
ESDC				S	SKSac	08 32 29.3	-0.4
	comp=Z,0.5nm,0.3s,baz=132,slow=2.2,SNR=3.3						
ESDC				PKKPbc	PKKPbc	08 39 06.0	+21
	comp=Z,0.3nm,0.3s,baz=276,slow=3.1,SNR=4.3						
ESDC	**Sonseca Array**	**95.88**	**310**	P	**P**	**08 21 55.7**	**+0.4**
	comp=Z,52nm,1.3s,mb5.8						
GUD	**Guadarrama**	**95.88**	**311**	P	**P**	**08 21 56.9**	**+1.6**
GUD				pmax	pmax		
	comp=Z,113nm,1.1s,mb6.2						
GUD	**Guadarrama**	**95.88**	**311**	P	**P**	**08 21 56.9**	**+1.6**
	comp=Z,113nm,1.1s,mb6.2						
ECOG	**Cogollos-Vega**	**95.92**	**308**	P	**P**	**08 21 57.2**	**+1.7**
ECOG				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.5						
ECOG	**Cogollos-Vega**	**95.92**	**308**	P	**P**	**08 21 57.2**	**+1.7**
	comp=Z,18nm,0.8s,mb5.6						
EBAN	**Banos Encina**	**95.96**	**309**	P	**P**	**08 21 57.1**	**+1.4**
EBAN				pmax	pmax		
	comp=Z,86nm,1.0s,mb6.1						
EBAN	**Banos Encina**	**95.96**	**309**	P	**P**	**08 21 57.1**	**+1.4**
	comp=Z,86nm,1.0s,mb6.1						
EGUA	**Guajares**	**95.97**	**307**	P	**P**	**08 21 57.1**	**+1.3**
EGUA				pmax	pmax		
	comp=Z,840nm,1.0s,mb7.1						
EGUA	**Guajares**	**95.97**	**307**	P	**P**	**08 21 57.1**	**+1.3**
	comp=Z,840nm,1.0s,mb7.1						
ERON	**Agron**	**96.14**	**308**	P	**P**	**08 21 58.0**	**+1.4**
	comp=Z,20nm,0.8s,mb5.6						
PAB	**San Pablo**	**96.19**	**310**	*e*P	**P**	**08 21 56.8**	**+0.1**
PAB				*e**PP	pP	08 22 05.6	-1.2
PAB				pmax	pmax		
	comp=Z,84nm,1.1s,mb6.1						
PAB				MLR	MLR		
	comp=Z,135µm,21.0s,MS7.4						
PAB	**San Pablo**	**96.19**	**310**	*e*P	**P**	**08 21 56.8**	**+0.1**
	comp=Z,84nm,1.1s,mb6.1						
PAB				*e*pP	pP	08 22 05.6	-1.2
PAB				LR	LR		
	comp=Z,135µm,21.0s,MS7.4						
EARI	**Arriondas**	**96.23**	**314**	P	**P**	**08 21 58.3**	**+1.5**
	comp=Z,170nm,1.7s,mb6.2						
CHGN	**Chignik**	**96.33**	**33**	*e*P	**P**	**08 21 56.6**	**-0.3**
ELOJ	**Sierra Loja**	**96.40**	**308**	P	**P**	**08 22 01.2**	**+3.5**
ELOJ				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.8						
ELOJ	**Sierra Loja**	**96.40**	**308**	P	**P**	**08 22 01.2**	**+3.4**
	comp=Z,46nm,1.3s,mb5.8						
SVW2	**Sparrevohn**	**96.42**	**28**	*e*P	**P**	**08 21 55.8**	**-1.4**
COLD	**Coldfoot**	**96.49**	**21**	*e*P	**P**	**08 21 57.7**	**+0.3**
	comp=Z,49nm,1.3s,mb5.8						
EADA	**Adamuz**	**96.58**	**309**	P	**P**	**08 21 59.9**	**+1.3**
	comp=Z,247nm,1.6s,mb6.4						
CHUM	**Lake Minchumin**	**96.93**	**24**	*e*P	**P**	**08 22 00.2**	**+0.7**
	comp=Z,578nm,1.3s,mb6.8						
VNA2	**Neumayer--Watz**	**96.95**	**199**	*e*Pdiff	sP	08 22 13.0	-0.2
	baz=73,slow=4.7						
VNA2				*e*		08 22 17.8	
VNA2				*e*		08 26 34.6	
VNA2				*e*		08 38 41.6	
EMIJ	**Mijas**	**96.97**	**307**	P	**P**	**08 22 01.4**	**+1.0**
	comp=Z,81nm,2.5s,mb5.7						
ECAB	**El Cabril**	**97.25**	**309**	P	**P**	**08 22 02.8**	**+1.3**
	comp=Z,230nm,2.2s,mb6.2						
PPLA	**Purkeypile**	**97.34**	**25**	*e*P	**P**	**08 22 04.5**	**+3.2**
	comp=Z,122nm,0.9s,mb6.3						
MDT	**Midelt**	**97.39**	**303**	P	**P**	**08 22 01.7**	**-0.6**
	comp=Z,4.3nm,1.0s,mb4.8,baz=69,slow=6.8,SNR=8.5						
MDT				PP	PP	08 25 59.4	0.0
	comp=Z,18nm,1.0s,baz=97,slow=7.0,SNR=4.5						
BPAW	**Bear Paw Mtn.**	**97.40**	**24**	*e*P	**P**	**08 22 01.7**	**+0.1**
	comp=Z,27nm,0.7s,mb5.8						
EPLA	**Plasencia**	**97.43**	**311**	P	**P**	**08 22 03.7**	**+1.4**
EPLA				pmax	pmax		
	comp=Z,176nm,2.2s,mb6.1						
EPLA	**Plasencia**	**97.43**	**311**	P	**P**	**08 22 03.6**	**+1.3**
	comp=Z,176nm,2.2s,mb6.1						
EJIF	**Jimena Fronter**	**97.55**	**307**	P	**P**	**08 22 04.1**	**+1.2**
EJIF				pmax	pmax		
	comp=Z,116nm,1.7s,mb6.1						
EJIF	**Jimena Fronter**	**97.55**	**307**	P	**P**	**08 22 04.1**	**+1.1**
	comp=Z,116nm,1.7s,mb6.1						
ECAL	**Calabor**	**97.58**	**313**	P	**P**	**08 22 04.4**	**+1.4**
	comp=Z,135nm,1.7s,mb6.2						
VNA3	**Neumayer Olymp**	**97.61**	**198**	*e*Pdiff	sP	08 22 16.1	0.0
VNA3				*e*		08 22 22.4	
VNA3				*e*		08 26 33.6	
VNA3				*e*		08 26 56.0	
PBRG	**Braganca**	**97.61**	**313**	*e*P	**P**	**08 22 04.8**	**+1.7**
PBRG	**Braganca**	**97.61**	**313**	*e*PP	PP	08 26 21.4	+21
EPON	**Pontenova**	**97.62**	**314**	P	**P**	**08 22 04.5**	**+1.3**
	comp=Z,113nm,2.0s,mb6.0						
KTH	**Kantishna Hill**	**97.63**	**25**	*e*P	**P**	**08 22 05.7**	**+3.0**
	comp=Z,177nm,1.3s,mb6.4						
VAL	**Valentia**	**97.76**	**323**	*e*P	**P**	**08 22 03.7**	**+0.2**
VAL				*e*PP	PP	08 26 02.8	+1.3
VAL				*e*S	S	08 33 27.5	+0.4
ESPR	**Espera**	**97.79**	**308**	P	**P**	**08 22 06.6**	**+2.6**
	comp=Z,3.8nm,2.3s						
ERUA	**La Rua**	**97.80**	**313**	P	**P**	**08 22 05.2**	**+1.3**
ERUA				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.5						
ERUA	**La Rua**	**97.80**	**313**	P	**P**	**08 22 05.2**	**+1.3**
	comp=Z,16nm,1.0s,mb5.5						
TRF	**Thorofare Moun**	**97.93**	**25**	*e*P	**P**	**08 22 05.5**	**+1.4**
	comp=Z,19nm,0.7s,mb5.7						
MVO	**Moncorvo**	**97.94**	**312**	*e*P	**P**	**08 22 07.4**	**+2.8**
MVO	**Moncorvo**	**97.94**	**312**	*e*PP	PP	08 26 22.1	+19
MVO				*e*SKS		08 32 50.3	
MVO				*e*SS	SS	08 40 30.3	+19
MVO				*e*LR	LR	08 56 11.8	
	comp=Z,104µm,22.0s						
SFS	**San Fernando**	**98.13**	**307**	PFAKE		08 22 20.0	+14
SFS				LR	LR		
	comp=Z,204µm,20.0s,MS7.6						
EMIN	**Mina Concepcio**	**98.28**	**309**	P	**P**	**08 22 08.3**	**+2.1**
	comp=Z,59nm,1.1s,mb6.0						
COLA	**College**	**98.33**	**23**	*e*P	**P**	**08 22 07.5**	**+1.7**
COLA				*e**PP	pP	08 22 17.3	+1.4
COLA				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.9						
COLA				MLR	MLR		
	comp=Z,244µm,22.0s,MS7.7						
COLA	**College**	**98.33**	**23**	*e*P	**P**	**08 22 07.5**	**+1.7**
	comp=Z,39nm,1.0s,mb5.9						
COLA				*e*pP	pP	08 22 17.3	+1.4
COLA				LR	LR		
	comp=Z,244µm,22.0s,MS7.7						
EBAD	**Badajoz**	**98.37**	**310**	P	**P**	**08 22 07.8**	**+1.2**
	comp=Z,21nm,2.7s,mb5.2						
MCK	**McKinley**	**98.38**	**24**	*e*P	**P**	**08 22 05.5**	**-0.5**
MCK				pmax	pmax		
	comp=Z,560nm,1.6s,mb6.8						
MCK	**McKinley**	**98.38**	**24**	*e*P	**P**	**08 22 05.5**	**-0.5**
	comp=Z,560nm,1.6s,mb6.8						
PVRL	**Vila Real**	**98.43**	**312**	*e*P	**P**	**08 22 07.7**	**+0.9**
MTE	**Manteigas**	**98.47**	**311**	*e*P	**P**	**08 22 08.9**	**+1.9**
MTE	**Manteigas**	**98.47**	**311**	*e*PP	PP	08 26 22.6	+15
MTE				*e*SKS		08 32 55.1	
MTE				*e*SS	SS	08 40 30.7	+12
MTE				*e*LR	LR	08 56 37.5	
	comp=Z,94µm,20.0s						
MTE	**Manteigas**	**98.47**	**311**	*e*P	**P**	**08 22 08.0**	**+1.0**
	comp=Z,33nm,0.9s,mb5.9						
MTE				LR	LR		
	comp=Z,102µm,20.0s,MS7.3						
PCBR	**Castelo Branco**	**98.52**	**311**	*e*P	**P**	**08 22 08.9**	**+1.7**
PCBR	**Castelo Branco**	**98.52**	**311**	*e*PP	PP	08 26 30.9	+23
PMRV	**Marv??o**	**98.53**	**310**	*e*P	**P**	**08 22 08.4**	**+1.1**
PMRV	**Marv??o**	**98.53**	**310**	*e*PP	PP	08 26 22.2	+14
PMRV				*e*SKS		08 32 56.2	
PMRV				*e*SS	SS	08 40 32.0	+13
PMRV				*e*LR	LR	08 58 10.8	
	comp=Z,93µm,18.0s						
ELOB	**Lobios**	**98.57**	**313**	P	**P**	**08 22 08.8**	**+1.4**
	comp=Z,81nm,2.2s,mb5.9						
PCAB	**Cabril**	**98.57**	**313**	*e*P	**P**	**08 22 09.7**	**+2.3**
PVIS	**Viseu**	**98.67**	**312**	*e*P	**P**	**08 22 10.4**	**+2.5**
OHAK	**Old Harbor**	**98.76**	**31**	*e*P	**P**	**08 22 07.7**	**-0.2**
	comp=Z,83nm,0.8s,mb6.3						
PESTR	**Estremoz**	**98.79**	**310**	*e*P	**P**	**08 22 11.1**	**+2.6**
PESTR	**Estremoz**	**98.79**	**310**	*e*PP	PP	08 26 22.4	+12
PESTR				*e*SKS		08 32 58.3	
PESTR				*e*SS	SS	08 40 34.5	+12
PESTR				*e*LR	LR	08 58 08.7	
	comp=Z,73µm,22.0s						
KDAK	**Kodiak Island**	**98.93**	**30**	P	**P**	**08 22 09.1**	**+0.5**
KDAK				S	SKSac	08 32 42.1	-2.4
KDAK	**Kodiak Island**	**98.93**	**30**	P	**P**	**08 22 09.1**	**+0.4**
	comp=Z,42nm,0.8s,mb6.0,baz=70,slow=4.8,SNR=12						
KDAK				S	SKSac	08 32 42.0	-2.5
	comp=Z,35nm,1.3s,baz=80,slow=22,SNR=1.8						
KDAK				LR	LR	09 12 57.7	
	comp=Z,103µm,19.3s,MS7.3,baz=349,slow=39						
EGRO	**El Granado**	**98.95**	**308**	P	**P**	**08 22 10.7**	**+1.4**
	comp=Z,120nm,1.5s,mb6.2						
EMAZ	**Mazaricos**	**99.01**	**314**	P	**P**	**08 22 12.4**	**+3.1**
	comp=Z,140nm,2.2s,mb6.1						
RTC	**Rabat Centre**	**99.06**	**305**	PFAKE		08 22 20.0	+10
RTC				LR	LR		
	comp=Z,136µm,21.0s,MS7.4						
RC01	**Rabbit Creek A**	**99.08**	**27**	*e*P	**P**	**08 22 09.0**	**-0.2**
	comp=Z,169nm,1.1s,mb6.5						
PMR	**Palmer**	**99.16**	**26**	*e*P	**P**	**08 22 09.3**	**-0.2**
PMR				pmax	pmax		
	comp=Z,186nm,1.3s,mb6.5						
PMR	**Palmer**	**99.16**	**26**	*e*P	**P**	**08 22 09.3**	**-0.3**
	comp=Z,186nm,1.3s,mb6.5						
PVAQ	**Vaqueiros**	**99.16**	**308**	*e*P	**P**	**08 22 11.1**	**+1.0**
PVAQ	**Vaqueiros**	**99.16**	**308**	*e*PP	PP	08 26 24.6	+12
PVAQ				*e*SKS		08 33 04.2	
PVAQ				*e*SS	SS	08 40 51.5	+23
PVAQ				*e*LR	LR	08 57 38.1	
	comp=Z,124µm,22.0s						
PBEJ	**Beja**	**99.16**	**309**	*e*P	**P**	**08 22 12.4**	**+2.3**
PBEJ	**Beja**	**99.16**	**309**	*e*PP	PP	08 26 26.6	+14
EVO	**Evora**	**99.18**	**310**	*e*P	**P**	**08 22 10.7**	**+0.5**
	comp=Z,64nm,1.3s,mb5.7						
EVO				*e*MLR	MLR		
	comp=Z,199µm,23.0s,MS7.2						
EVOP	**Sao Brissos**	**99.27**	**310**	*e*P	**P**	**08 22 10.7**	**+0.1**
EVOP				*e*SS	SS	08 40 30.2	+0.6
EVOP				AMS	AMS	09 09 47.1	
	comp=Z,116µm,19.5s,MS7.4						
EVOP	**Sao Brissos**	**99.27**	**310**	*e*P	**P**	**08 22 10.7**	**+0.1**
EVOP				*e*SS	SS	08 40 30.2	+0.6
PTOM	**Tomar**	**99.27**	**311**	*e*P	**P**	**08 22 14.1**	**+3.5**
PBDV	**Barranco-do-Ve**	**99.36**	**308**	*e*P	**P**	**08 22 12.4**	**+1.4**
PBDV	**Barranco-do-Ve**	**99.36**	**308**	*e*PP	PP	08 26 26.1	+12

PBDV				*e*SKS		08 33 05.7	
PBDV				*e*SS	SS	08 40 32.7	+1.7
PBDV				*e*LR	LR	08 57 51.5	
	comp=Z,112µm,22.0s						
SUMG	**Summit**	**99.50**	**347**	*e*P	**P**	**08 22 11.1**	**+0.3**
	comp=Z,140nm,1.1s,mb6.4						
SEW	**Seward**	**99.60**	**28**	*e*P	Pdif	08 22 11.5	-0.2
	comp=Z,339nm,1.5s						
MORF	**Marmelete**	**99.91**	**308**	*e*P	Pdif	08 22 09.5	-3.5
MORF	**Marmelete**	**99.91**	**308**	*e*PP	PP	08 26 21.6	+3.1
MORF				*e*SKS		08 33 07.5	
MORF				*e*SS	SS	08 40 45.5	+6.8
MORF				*e*LR	LR	08 59 02.7	
	comp=Z,104µm,22.0s						
MORF				*e*LR	LR	08 59 50.3	
	comp=Z,104µm,22.0s						
MORF	**Marmelete**	**99.91**	**308**	*e*P	Pdif	08 22 15.8	+2.8
MORF				*e*S	SKSac	08 32 50.0	-0.3
MORF				*e*SS	SS	08 40 38.4	-0.3
PTEO	**Sao Teotonio**	**99.92**	**309**	*e*P	Pdif	08 22 17.0	+3.9
PTEO	**Sao Teotonio**	**99.92**	**309**	*e*PP	PP	08 26 31.9	+13
LIS	**Lisbon**	**100.02**	**310**	*e*P	Pdif	08 22 15.8	+2.3
LIS				*e*S	SKSac	08 32 48.2	-2.5
LIS				*e*S	SKSac	08 32 48.4	-2.3
LIS				*e*SS	SS	08 40 41.1	+1.1
LIS				*e*SS	SS	08 40 41.1	+1.1
LIS	**Lisbon**	**100.02**	**310**	*e*P	Pdif	08 22 15.8	+2.3
LIS				*e*S	SKSac	08 32 48.2	-2.5
LIS				*e*SS	SS	08 40 41.1	+1.0
KIC	**Kosan Boka**	**100.32**	**277**	*e*P	Pdif	08 22 19.6	+4.7
	comp=Z,398nm,1.4s						
DBIC	**Dimbokro**	**100.41**	**277**	P	Pdif	08 22 17.3	+2.0
	comp=Z,5.5nm,0.9s,baz=232,slow=2.3,SNR=4.6						
DBIC				S	SKSac	08 32 48.7	-4.9
	comp=Z,4.4nm,0.9s,baz=265,slow=5.0,SNR=1.6						
DBIC	**Dimbokro**	**100.41**	**277**	P	Pdif	08 22 17.3	+2.0
DBIC				S	SKSac	08 32 48.7	-4.9
TIC	**Toumodi**	**100.58**	**277**	*e*P	Pdif	08 22 22.6	+6.6
	comp=Z,535nm,1.7s						
LIC	**Lamto**	**100.61**	**277**	*e*P	Pdif	08 22 24.0	+7.8
	comp=Z,190nm,1.6s						
LIC				*e*MLR	MLR		
	comp=Z,511µm,22.5s,MS7.7						
LIC	**Lamto**	**100.61**	**277**	*e*P	Pdif	08 22 24.0	+7.8
	comp=Z,127nm,1.5s						
MENT	**Mentasta**	**100.84**	**24**	Pdif	Pdif	08 22 18.5	+1.4
EGAK	**Eagle**	**100.90**	**21**	*e*Pdif	Pdif	08 22 19.3	+1.8
	comp=Z,34nm,1.0s						
EGAK				LR	LR		
	comp=Z,310µm,21.0s,MS7.8						
DAWY	**Dawson**	**101.93**	**22**	*e*Pdif	Pdif	08 22 21.6	-0.4
SHEL	**Horse Pasture**	**102.01**	**254**	PFAKE		08 22 30.0	+7.6
SHEL				LR	LR		
	comp=Z,215µm,19.0s,MS7.7						
RES	**Resolute Bay**	**102.39**	**3**	P	Pdif	08 22 23.9	-0.2
RES				pmax	pmax		
	comp=Z,57nm,1.0s						
RES	**Resolute Bay**	**102.39**	**3**	*e*Pdif	Pdif	08 22 23.9	-0.1
	comp=Z,130nm,0.4s						
RAR	**Rarotonga**	**104.29**	**111**	PFAKE		08 22 40.0	+7.5
RAR				LR	LR		
	comp=Z,27µm,20.0s,MS6.8						
SFJD	**Kangerlussuaq**	**106.48**	**347**	*i* P	Pdif	08 22 51.3	+9.1
SFJD				*i*		08 27 09.5	
SFJD							
	comp=Z,160µm,24.0s						
SFJD	**Kangerlussuaq**	**106.48**	**347**	PFAKE		08 27 00.0	+7.2
SFJD				LR	LR		
	comp=Z,154µm,20.0s,MS7.5						
WRAK	**Wrangell Islan**	**109.23**	**26**	PFAKE		08 27 10.0	+12
WRAK				LR	LR		
	comp=Z,591nm,19.0s,MS5.2						
YKA	**Yellowknife Ar**	**110.91**	**15**	P	Pdif	08 23 02.1	+0.2
YKA						08 27 02.4	
YKA						08 27 38.3	
YKA	**Yellowknife Ar**	**110.91**	**15**	Pdiff	Pdif	08 23 02.0	+0.1
	comp=Z,1.1nm,0.8s,baz=326,slow=4.1,SNR=24						
YKA				PKiKP	PKiKP	08 27 02.4	+1.2
	comp=Z,4.2nm,0.8s,baz=325,slow=2.8,SNR=6.9						
YKA				PP	PP	08 27 38.3	-0.4
	comp=Z,20nm,0.9s,baz=327,slow=7.0,SNR=7.7						
YKA				PKKPbc	PKKPbc	08 37 59.1	-2.3
	comp=Z,1.7nm,0.8s,baz=148,slow=3.2,SNR=6.0						
CMLA	**Cha da Macela**	**112.60**	**313**	*e*P	Pdif	08 23 21.2	+12
CMLA	**Cha da Macela**	**112.60**	**313**	*e*PP	PP	08 27 50.2	-1.6
CMLA	**Cha da Macela**	**112.60**	**313**	PFAKE		08 27 20.0	+15
CMLA				LR	LR		
	comp=Z,76µm,20.0s,MS7.3						
PSMA	**Santa Maria**	**112.60**	**312**	*e*PP	PP	08 27 49.9	-2.0
PDA	**Ponta Delgada**	**112.71**	**313**	*e*LQ		08 55 22.0	
PMAN	**Manadas**	**114.10**	**315**	*e*PP	PP	08 28 02.0	-0.4
PPT	**Papeete**	**114.14**	**108**	*e*Pdif	Pdif	08 23 17.8	+1.5
	comp=Z,5µm,28.0s						
PPT	**Papeete**	**114.14**	**108**	*e*PKiKP	PKiKP	08 27 08.5	-0.1
	comp=Z,61nm,1.3s						
PPT	**Papeete**	**114.14**	**108**	*e*PP	PP	08 28 08.3	+4.7
	comp=Z,18µm,27.0s						
PPT				*e*Sdif	Sdif	08 35 41.2	-2.6
	comp=Z,73µm,29.8s						
PPT	**Papeete**	**114.14**	**108**	*e*PS	PS	08 37 42.0	+0.2
	comp=Z,122µm,28.5s						
PPT				*e*SS	SS	08 43 53.6	+0.5
	comp=Z,110µm,32.5s						
PPT				*e*LQ		08 56 37.7	
	comp=Z,322µm,43.0s						
PPT				*e*LR	LR	09 01 06.3	
	comp=Z,138µm,26.2s						
PCED	**Cedros**	**114.53**	**315**	*e*PP	PP	08 28 05.2	-0.3
PMOR	**Pomariorio Ree**	**115.95**	**105**	*e*PKiKP	PKiKP	08 27 11.3	-0.9
	comp=Z,103nm,1.1s						
VAH	**Vaihoa**	**116.19**	**106**	*e*PKiKP	PKiKP	08 27 11.5	-1.1
	comp=Z,84nm,1.0s						
PMSA	**Palmer Station**	**116.46**	**189**	PFAKE		08 27 20.0	+8.3
PMSA				LR	LR		
	comp=Z,72µm,19.0s,MS7.3						
FCC	**Fort Churchill**	**118.14**	**6**	*e*PKIKP	PKPdf	08 27 14.0	-1.2
PGC	**Sidney**	**118.42**	**29**	*e*PKPdf	PKPdf	08 27 16.8	+0.8
OOW	**Octopus West**	**118.69**	**30**	P	PKPdf	08 27 18.7	+2.1
VDB	**Vedder Mountai**	**118.79**	**28**	P	PKPdf	08 27 15.9	-0.8
A05A	**Maple Falls**	**118.82**	**28**	⇓P	PKPdf	08 27 16.5	-0.3
	baz=119						
A06A	**Chilliwack**	**119.02**	**27**	⇓P	PKPdf	08 27 17.0	-0.2
	baz=119						
EDM	**Edmonton**	**119.04**	**20**	*e*PKIKP	PKPdf	08 27 16.2	-0.9
NLWA	**Neilton Lookou**	**119.08**	**30**	⇓P	PKPdf	08 27 17.3	0.0
	baz=119						
NLWA	**Neilton Lookou**	**119.08**	**30**	*e*PKPdf	PKPdf	08 27 17.4	+0.1
NLWA				LR	LR		
	comp=Z,95µm,19.0s,MS7.4						
B05A	**Bryant**	**119.33**	**28**	⇑P	PKPdf	08 27 17.8	0.0
	baz=119						
B06A	**Marblemount**	**119.44**	**28**	⇓P	PKPdf	08 27 17.8	-0.2
	baz=119						
JCW	**Jim Creek**	**119.46**	**28**	P	PKPdf	08 27 18.1	+0.1
GNW	**Green Mountain**	**119.47**	**29**	*e*PKPdf	PKPdf	08 27 18.0	-0.1
A07A	**Ashnola River,**	**119.56**	**27**	⇓P	PKPdf	08 27 18.0	-0.2
	baz=120						
D04A	**Dobbs Creek Ra**	**119.80**	**30**	⇑P	PKPdf	08 27 18.6	-0.1
	baz=120						
E03A	**Lebam**	**119.81**	**30**	⇓P	PKPdf	08 27 18.5	-0.3
	baz=120						
C05A	**Tolt Reservoir**	**119.93**	**28**	⇑P	PKPdf	08 27 18.3	-0.6
	baz=120						
B07A	**Winthrop**	**120.11**	**27**	⇑P	PKPdf	08 27 19.2	-0.1
	baz=120						
A08A	**Turner Farm, O**	**120.12**	**26**	⇑P	PKPdf	08 27 19.2	-0.1
	baz=120						
C06A	**Tall Timber Ra**	**120.14**	**28**	⇑P	PKPdf	08 27 19.5	+0.1
	baz=120						
D05A	**Enumclaw**	**120.14**	**29**	⇑P	PKPdf	08 27 19.5	+0.1
	baz=120						
F03A	**Seaside**	**120.23**	**31**	⇓P	PKPdf	08 27 19.5	0.0
	baz=120						
NLW	**Nelson Butte**	**120.28**	**27**	P	PKPdf	08 27 19.3	-0.3
A09A	**Danville**	**120.40**	**26**	⇓P	PKPdf	08 27 19.7	-0.1
	baz=120						
B08A	**Colville Reser**	**120.53**	**27**	⇓P	PKPdf	08 27 20.0	-0.1
	baz=120						
LON	**Longmire**	**120.54**	**29**	*e*PKIKP	PKPdf	08 27 19.7	-0.5
D06A	**Cle Elum**	**120.69**	**28**	⇑P	PKPdf	08 27 20.3	-0.1
	baz=121						
C07A	**Waterville**	**120.70**	**28**	⇓P	PKPdf	08 27 20.4	0.0
	baz=121						
WTV	**Waterville**	**120.74**	**27**	P	PKPdf	08 27 20.0	-0.5
F04A	**Amboy**	**120.81**	**30**	⇓P	PKPdf	08 27 20.6	-0.1
	baz=121						
FFC	**Flin Flon**	**120.81**	**12**	*e*PKIKP	PKPdf	08 27 19.2	-1.2
FFC				*e*		08 27 31.0	
FFC				MLR	MLR		
	comp=Z,172µm,19.0s,MS7.7						
FFC	**Flin Flon**	**120.81**	**12**	*e*PKPdf	PKPdf	08 27 19.2	-1.3
FFC				*e*pPKPdf	pPKPdf	08 27 31.0	+0.2
FFC				*e*sPKPdf		08 27 35.0	
FFC				LR	LR		
	comp=Z,172µm,19.0s,MS7.7						
TBM	**Table Mountain**	**120.82**	**28**	P	PKPdf	08 27 20.0	-0.7
A10A	**Northport**	**120.84**	**25**	⇑P	PKPdf	08 27 20.9	+0.3
	baz=121						
SCHQ	**Schefferville**	**120.86**	**349**	PKP	PKPdf	08 27 18.6	-1.9
	comp=Z,9.2nm,0.8s,baz=62,slow=2.4,SNR=8.3						
SCHQ				PP	PP	08 28 55.0	+6.7
	comp=Z,26nm,0.8s,baz=16,slow=6.8,SNR=4.7						
SCHQ				PKKPbc	PKKPbc	08 37 27.5	+1.1
	comp=Z,4.3nm,0.7s,baz=279,slow=9.9,SNR=4.9						
SCHQ	**Schefferville**	**120.86**	**349**	PKP	PKPdf	08 27 18.6	-1.9
SCHQ				PP	PP	08 28 55.0	+6.7
SCHQ				PKKPbc	PKKPbc	08 37 27.5	+1.1
B09A	**Rice**	**121.01**	**26**	⇑P	PKPdf	08 27 21.5	+0.5
	baz=121						
EBG	**Ellensburg**	**121.02**	**28**	P	PKPdf	08 27 21.3	+0.2
C08A	**Higginbotham F**	**121.09**	**27**	⇓P	PKPdf	08 27 21.3	+0.1
	baz=121						
E06A	**Yakima**	**121.09**	**29**	⇓P	PKPdf	08 27 21.3	+0.1
	baz=121						
D07A	**Quincy**	**121.10**	**28**	⇑P	PKPdf	08 27 21.2	0.0
	baz=121						
EPH	**Ephrata**	**121.16**	**28**	P	PKPdf	08 27 20.9	-0.4
COR	**Corvallis**	**121.27**	**32**	*e*PKIKP	PKPdf	08 27 22.5	+0.9
COR				*e*		08 27 30.8	
COR				MLR	MLR		
	comp=Z,81µm,21.0s,MS7.3						
G04A	**Mulino**	**121.28**	**31**	⇓P	PKPdf	08 27 22.4	+0.7
	baz=121						
A11A	**Hall Mountain,**	**121.35**	**24**	⇑P	PKPdf	08 27 22.0	+0.4
	baz=121						
C09A	**Chrisman Ranch**	**121.42**	**26**	⇑P	PKPdf	08 27 22.2	+0.4
	baz=121						
B10A	**Chitwood Farm,**	**121.50**	**25**	⇓P	PKPdf	08 27 22.3	+0.4
	baz=122						
OD2	**Odessa Site #2**	**121.53**	**27**	P	PKPdf	08 27 22.1	+0.1
NEW	**Newport**	**121.57**	**25**	*e*PKIKP	PKPdf	08 27 22.0	-0.1
NEW				MLR	MLR		
	comp=Z,243µm,19.0s						
E07A	**Sunnyside**	**121.62**	**28**	⇑P	PKPdf	08 27 22.3	+0.1
	baz=122						
HOOD	**Mount Hood Mea**	**121.62**	**30**	*e*PKPdf	PKPdf	08 27 22.9	+0.6
A12A	**Yaak River Ran**	**121.66**	**24**	⇓P	PKPdf	08 27 22.5	+0.3
	baz=122						
D08A	**Wollman Farm,**	**121.69**	**27**	⇓P	PKPdf	08 27 22.6	+0.2
	baz=122						
F06A	**Goldendale**	**121.74**	**30**	⇓P	PKPdf	08 27 23.0	+0.5
	baz=122						
B11A	**Sandpoint**	**121.76**	**25**	⇓P	PKPdf	08 27 22.8	+0.4
	baz=122						
WRD	**Warden**	**121.77**	**28**	P	PKPdf	08 27 22.8	+0.3
GBL	**Gable Mountain**	**121.77**	**28**	PKIKP	PKPdf	08 27 22.9	+0.4
H04A	**Detroit Lake**	**121.79**	**31**	⇓P	PKPdf	08 27 22.6	0.0
	baz=122						
C10A	**Spilker Farm,**	**121.83**	**26**	⇑P	PKPdf	08 27 22.7	+0.1
	baz=122						
G05A	**Wamic**	**121.84**	**30**	⇓P	PKPdf	08 27 22.5	-0.2
	baz=122						
HAWA	**Hanford**	**121.89**	**28**	*e*PKPdf	PKPdf	08 27 22.5	-0.2
HAWA				LR	LR		
	comp=Z,131µm,19.0s,MS7.6						
D09A	**Jones Farm, Ri**	**121.96**	**27**	⇓P	PKPdf	08 27 22.7	-0.2
	baz=122						
E08A	**Dider Farm, El**	**122.04**	**28**	⇑P	PKPdf	08 27 23.1	+0.1
	baz=122						
B12A	**Libby**	**122.06**	**24**	⇓P	PKPdf	08 27 23.0	0.0
	baz=122						
F07A	**Phinny Hill Vi**	**122.06**	**29**	⇑P	PKPdf	08 27 23.4	+0.3
	baz=122						
A13A	**Flathead Natio**	**122.16**	**23**	⇑P	PKPdf	08 27 23.4	+0.2
	baz=122						
G06A	**Carlson Farm,**	**122.19**	**30**	⇑P	PKPdf	08 27 23.0	-0.4
	baz=122						
WALA	**Waterton Lakes**	**122.25**	**23**	*e*PKPdf	PKPdf	08 27 24.5	+1.1
D10A	**Wagner Farm, O**	**122.43**	**26**	⇓P	PKPdf	08 27 23.7	-0.1
	baz=122						
E09A	**Wood Farm, Sta**	**122.45**	**27**	⇑P	PKPdf	08 27 23.9	0.0
	baz=122						
A14A	**Double T Ranch**	**122.51**	**23**	⇓P	PKPdf	08 27 23.7	-0.1
	baz=122						
B13A	**Whitefish**	**122.59**	**24**	⇓P	PKPdf	08 27 23.9	-0.2
	baz=123						
G07A	**Ruggs Ranch, H**	**122.64**	**29**	⇓P	PKPdf	08 27 24.3	0.0
	baz=123						
F08A	**Pendleton**	**122.69**	**28**	⇑P	PKPdf	08 27 24.3	0.0
	baz=123						
H06A	**Lindquist Farm**	**122.70**	**30**	⇑P	PKPdf	08 27 24.2	-0.1
	baz=123						
C12B	**Naegeli Ranch,**	**122.70**	**25**	⇓P	PKPdf	08 27 23.9	-0.4
	baz=123						
A15A	**Johnson Ranch,**	**122.77**	**22**	⇓P	PKPdf	08 27 24.2	-0.1
	baz=123						
HUMO	**Hull Mountain**	**122.78**	**33**	*e*PKPdf	PKPdf	08 27 25.0	+0.4
HUMO				LR	LR		
	comp=Z,82µm,20.0s,MS7.4						
D11A	**Klaveano Farm,**	**122.85**	**26**	⇓P	PKPdf	08 27 24.3	-0.3
	baz=123						
BSMT	**Bassoo Peak**	**122.87**	**24**	*e*PKPdf	PKPdf	08 27 24.5	-0.1
E10A	**Myers Farm, Un**	**122.94**	**27**	⇓P	PKPdf	08 27 24.6	-0.2
	baz=123						
G08A	**Pilot Rock**	**122.97**	**29**	⇑P	PKPdf	08 27 25.1	+0.3
	baz=123						
C13A	**Hot Springs**	**123.10**	**24**	⇑P	PKPdf	08 27 24.6	-0.4
	baz=123						
JTMT	**Jette**	**123.16**	**24**	*e*PKPdf	PKPdf	08 27 24.6	-0.6
YBMT	**Yellow Bay**	**123.18**	**24**	*e*PKPdf	PKPdf	08 27 24.5	-0.7
H07A	**Lands Inn, Kim**	**123.18**	**30**	⇓P	PKPdf	08 27 25.7	+0.4
	baz=123						
A16A	**West Butte Ran**	**123.21**	**21**	⇑P	PKPdf	08 27 25.2	0.0
	baz=123						
F10A	**Beach Ranch, E**	**123.27**	**27**	⇓P	PKPdf	08 27 25.8	+0.4
	baz=123						
I06A	**Prineville**	**123.32**	**31**	⇑P	PKPdf	08 27 26.2	+0.6
	baz=123						
C14A	**Swan Lake**	**123.36**	**24**	⇑P	PKPdf	08 27 25.1	-0.4
	baz=123						
B15A	**Bradely Ranch,**	**123.38**	**22**	⇓P	PKPdf	08 27 25.1	-0.4
	baz=123						
E11A	**Bogner Ranch,**	**123.44**	**26**	⇓P	PKPdf	08 27 25.1	-0.6
	baz=123						
SWMT	**Swartz Lake**	**123.47**	**24**	*e*PKPdf	PKPdf	08 27 25.1	-0.7
YBH	**Yreka Blue Hor**	**123.50**	**34**	*e*PKIKP	PKPdf	08 27 27.0	+1.0
YBH				MLR	MLR		
	comp=Z,78µm,22.0s						
YBH	**Yreka Blue Hor**	**123.50**	**34**	PKKPbc	PKKPbc	08 37 22.0	+6.1
	comp=Z,11nm,1.2s,baz=103,slow=3.5,SNR=6.4						
A17A	**Triple J Farms**	**123.54**	**21**	⇑P	PKPdf	08 27 26.2	+0.3
	baz=124						
G09A	**Cove**	**123.54**	**28**	⇓P	PKPdf	08 27 26.1	+0.1
	baz=124						
I07A	**Izee**	**123.58**	**30**	⇑P	PKPdf	08 27 26.5	+0.5
	baz=124						
D13A	**Huson**	**123.61**	**25**	⇑P	PKPdf	08 27 25.8	-0.2
	baz=124						
B16A	**M & M Farms, S**	**123.62**	**22**	⇑P	PKPdf	08 27 26.1	+0.1
	baz=124						
H08A	**Prairie City**	**123.67**	**29**	⇑P	PKPdf	08 27 26.2	0.0
	baz=124						
C15A	**Salmond Ranch,**	**123.80**	**23**	⇑P	PKPdf	08 27 26.3	-0.1
	baz=124						
K05A	**Summer Lake**	**123.82**	**32**	⇓P	PKPdf	08 27 26.9	+0.3
	baz=124						
F11A	**Grangeville**	**123.82**	**27**	⇑P	PKPdf	08 27 26.1	-0.4
	baz=124						
G10A	**Bishop Farm, J**	**123.84**	**28**	⇓P	PKPdf	08 27 26.5	0.0
	baz=124						
J06A	**Christmas Vall**	**123.84**	**31**	⇑P	PKPdf	08 27 26.9	+0.3
	baz=124						
LHEM	**Herd Peak**	**123.84**	**34**	P	PKPdf	08 27 26.9	+0.2
A18A	**Metzger Ranch,**	**123.86**	**20**	⇑P	PKPdf	08 27 26.3	-0.2
	baz=124						
SLMT	**Seeley Lake**	**123.89**	**24**	*e*PKPdf	PKPdf	08 27 26.0	-0.5
TAOE	**Nuku Hiva Isla**	**123.90**	**99**	*e*Pdif	Pdif	08 23 59.5	-0.2
	comp=Z,9µm,28.0s						
TAOE	**Nuku Hiva Isla**	**123.90**	**99**	*e*PP	PP	08 29 13.5	+2.3
	comp=Z,60µm,28.0s						
TAOE				*e*Sdif	Sdif	08 37 02.2	-3.0
	comp=Z,56µm,29.1s						
TAOE	**Nuku Hiva Isla**	**123.90**	**99**	*e*PS	PS	08 39 09.8	-0.1
	comp=Z,165µm,26.9s						
TAOE				*e*SS	SS	08 45 57.3	-2.2
	comp=Z,193µm,29.2s						
TAOE				*e*LR	LR	09 05 58.4	
	comp=Z,322µm,22.8s						
D14A	**Greenough**	**124.01**	**24**	⇑P	PKPdf	08 27 26.6	-0.2
	baz=124						
MSO	**Missoula**	**124.03**	**24**	*e*PKPdf	PKPdf	08 27 26.3	-0.5
MSO				LR	LR		
	comp=Z,129µm,21.0s,MS7.6						
H09A	**Durkee**	**124.05**	**28**	⇓P	PKPdf	08 27 26.3	-0.7
	baz=124						
B17A	**L&G Farms, Che**	**124.05**	**21**	⇑P	PKPdf	08 27 26.5	-0.3
	baz=124						
BMO	**Blue Mountains**	**124.08**	**28**	*e*PKIKP	PKPdf	08 27 29.5	+2.5
BMO				MLR	MLR		
	comp=Z,163µm,22.0s,MS7.7						
C16A	**Fuhringer Ranc**	**124.11**	**22**	⇓P	PKPdf	08 27 26.8	-0.2
	baz=124						
I08A	**Drewsey**	**124.17**	**30**	⇓P	PKPdf	08 27 27.4	+0.2
	baz=124						
J07A	**Hines**	**124.18**	**31**	⇑P	PKPdf	08 27 27.4	+0.2
	baz=124						
E13A	**Victor**	**124.24**	**25**	⇓P	PKPdf	08 27 26.8	-0.5
	baz=124						
CHMT	**Chamberlain Mo**	**124.25**	**24**	*e*PKPdf	PKPdf	08 27 26.8	-0.5
F12A	**Elk City**	**124.32**	**26**	⇑P	PKPdf	08 27 27.1	-0.4
	baz=124						
B18A	**Beardsley Farm**	**124.33**	**21**	⇑P	PKPdf	08 27 27.2	-0.2
	baz=124						
WDC	**Whiskeytown Da**	**124.36**	**35**	*e*PKIKP	PKPdf	08 27 27.3	-0.4
WDC				MLR	MLR		
	comp=Z,101µm,21.0s,MS7.5						
D15A	**Lincoln**	**124.44**	**23**	⇓P	PKPdf	08 27 27.4	-0.2
	baz=124						
I09A	**Lost Marbles R**	**124.53**	**29**	⇓P	PKPdf	08 27 27.6	-0.3
	baz=124						
H10A	**Noah’s Angus R**	**124.54**	**28**	⇑P	PKPdf	08 27 27.6	-0.3
	baz=124						
E14A	**Clinton**	**124.55**	**24**	⇓P	PKPdf	08 27 28.0	+0.1
	baz=124						
J08A	**Circle Bar Ran**	**124.62**	**30**	⇓P	PKPdf	08 27 28.4	+0.3
	baz=125						
C17A	**Wharram Farm,**	**124.62**	**22**	⇑P	PKPdf	08 27 27.4	-0.6
	baz=125						
EGMT	**Eagleton**	**124.65**	**21**	⇓P	PKPdf	08 27 27.9	-0.1
	baz=125						
EGMT	**Eagleton**	**124.65**	**21**	*e*PKPdf	PKPdf	08 27 27.9	-0.1
EGMT				LR	LR		
	comp=Z,208µm,20.0s,MS7.8						
F13A	**Darby**	**124.70**	**25**	⇑P	PKPdf	08 27 27.7	-0.5
	baz=125						
MOD	**Modoc**	**124.70**	**32**	*e*PKPdf	PKPdf	08 27 28.8	+0.5
MOD				LR	LR		
	comp=Z,78µm,19.0s,MS7.4						
K07A	**Rock Creek Ran**	**124.70**	**31**	⇑P	PKPdf	08 27 28.2	-0.1
	baz=125						
G12A	**Big Creek, Yel**	**124.78**	**27**	⇑P	PKPdf	08 27 28.2	-0.2
	baz=125						
H11A	**Donnelly**	**124.80**	**27**	⇓P	PKPdf	08 27 28.2	-0.2
	baz=125						
D16A	**Dana Ranch, Ca**	**124.83**	**23**	⇓P	PKPdf	08 27 28.4	0.0
	baz=125						
E15A	**Deer Lodge**	**124.89**	**24**	⇓P	PKPdf	08 27 28.4	-0.1
	baz=125						
I10A	**Payette**	**124.89**	**28**	⇑P	PKPdf	08 27 28.9	+0.3
	baz=125						
HRY	**Holter Researc**	**124.98**	**23**	*e*PKPdf	PKPdf	08 27 30.1	+1.4
J09A	**Fry Pan Ranch,**	**124.98**	**30**	⇑P	PKPdf	08 27 29.3	+0.5
	baz=125						
D17A	**Six Diamond Ra**	**125.05**	**22**	⇑P	PKPdf	08 27 28.6	-0.2
	baz=125						
K08A	**Mann Creek Ran**	**125.07**	**31**	⇑P	PKPdf	08 27 29.2	+0.3
	baz=125						
HOPS	**Hopland**	**125.07**	**37**	*e*PKPdf	PKPdf	08 27 29.4	+0.3
HOPS				LR	LR		
	comp=Z,94µm,21.0s,MS7.4						
F14A	**Wisdom**	**125.09**	**25**	⇑P	PKPdf	08 27 29.1	+0.2
	baz=125						
L07A	**Adell**	**125.13**	**32**	⇑P	PKPdf	08 27 29.0	-0.1
	baz=125						
E16A	**East Helena**	**125.19**	**23**	⇑P	PKPdf	08 27 28.7	-0.4
	baz=125						
WVOR	**Wild Horse Val**	**125.20**	**31**	*e*PKIKP	PKPdf	08 27 29.9	+0.7
WVOR				MLR	MLR		
	comp=Z,137µm,22.0s,MS7.6						
G13A	**Cobalt**	**125.29**	**26**	⇓P	PKPdf	08 27 29.4	+0.1
	baz=125						
D18A	**Linhart Farms,**	**125.34**	**21**	⇓P	PKPdf	08 27 29.5	+0.1
	baz=125						
J10A	**Berg Farm, Mel**	**125.41**	**29**	⇑P	PKPdf	08 27 29.8	+0.2
	baz=125						
I11A	**Placerville**	**125.42**	**28**	⇓P	PKPdf	08 27 29.3	-0.3
	baz=125						
F15A	**Butte**	**125.43**	**24**	⇓P	PKPdf	08 27 29.4	-0.2
	baz=125						
H12A	**Diamond D Ranc**	**125.44**	**27**	⇑P	PKPdf	08 27 29.6	-0.1
	baz=125						
LRM	**Limekiln Ridge**	**125.46**	**24**	*e*PKPdf	PKPdf	08 27 29.4	-0.2
K09A	**Rome**	**125.47**	**30**	⇓P	PKPdf	08 27 30.3	+0.5
	baz=126						
G14A	**Jackson**	**125.50**	**25**	⇑P	PKPdf	08 27 29.6	-0.2
	baz=126						
L08A	**Fields**	**125.53**	**31**	⇑P	PKPdf	08 27 30.5	+0.6
	baz=126						
E17A	**Martinsdale**	**125.56**	**23**	⇓P	PKPdf	08 27 30.5	+0.7
	baz=126						
M07A	**Soldier Meadow**	**125.67**	**32**	⇓P	PKPdf	08 27 30.5	+0.3
	baz=126						
H13A	**Challis**	**125.70**	**26**	⇑P	PKPdf	08 27 30.2	+0.1
	baz=126						
MCCM	**Marconi Confer**	**125.73**	**38**	*e*PKPdf	PKPdf	08 27 31.1	+0.7
MCCM				LR	LR		
	comp=Z,70µm,20.0s,MS7.3						
N06A	**Buffalo Meadow**	**125.76**	**33**	⇓P	PKPdf	08 27 30.3	0.0
	baz=126						
DLMT	**Dillon**	**125.77**	**25**	*e*PKPdf	PKPdf	08 27 30.1	-0.2
F16A	**Kennard Place,**	**125.82**	**24**	⇑P	PKPdf	08 27 30.5	+0.2
	baz=126						
E18A	**Harlowton**	**125.83**	**22**	⇓P	PKPdf	08 27 30.9	+0.6
	baz=126						
K10A	**MacKenzie Ranc**	**125.84**	**30**	⇓P	PKPdf	08 27 30.8	+0.4
	baz=126						
MFID	**Camas Ranch**	**125.86**	**28**	⇑P	PKPdf	08 27 30.8	+0.3
	baz=126						
I12A	**Atlanta**	**125.90**	**27**	⇑P	PKPdf	08 27 30.6	0.0
	baz=126						
BOZ	**Bozeman (W)**	**125.93**	**24**	⇓P	PKPdf	08 27 30.5	0.0
	baz=126						
BOZ	**Bozeman (W)**	**125.93**	**24**	*e*PKPdf	PKPdf	08 27 30.7	+0.2
BOZ				LR	LR		
	comp=Z,200µm,19.0s,MS7.8						
G15A	**Dillon**	**125.97**	**25**	⇓P	PKPdf	08 27 30.7	+0.1
	baz=126						
L09A	**Wilkinson Ranc**	**126.00**	**31**	⇓P	PKPdf	08 27 31.1	+0.4
	baz=126						
DGMT	**Dagmar**	**126.03**	**16**	⇑P	PKPdf	08 27 30.7	0.0
	baz=126						
DGMT	**Dagmar**	**126.03**	**16**	*e*PKPdf	PKPdf	08 27 30.3	-0.4
DGMT				LR	LR		
	comp=Z,244µm,20.0s,MS7.9						
M08A	**Happy Creek Ra**	**126.05**	**32**	⇓P	PKPdf	08 27 30.9	0.0
	baz=126						
BEKR	**Beckwourth**	**126.07**	**34**	⇑P	PKPdf	08 27 30.9	-0.1
	baz=126						
MCMT	**McKenzie Canyo**	**126.10**	**25**	*e*PKPdf	PKPdf	08 27 31.3	+0.5
F17A	**Fitzpatrick Pl**	**126.10**	**23**	⇑P	PKPdf	08 27 31.1	+0.2
	baz=126						
O06A	**Flanigan**	**126.17**	**34**	⇑P	PKPdf	08 27 31.3	+0.2
	baz=126						
N07B	**Gerlach**	**126.20**	**33**	⇑P	PKPdf	08 27 31.8	+0.6
	baz=126						
G16A	**Moss Hill, Enn**	**126.21**	**24**	⇓P	PKPdf	08 27 31.5	+0.4
	baz=126						
ULM	**Lac du Bonnet**	**126.22**	**9**	PKP	PKPdf	08 27 29.8	-1.2
	comp=Z,71nm,0.9s,baz=350,slow=3.0,SNR=38						
ULM				PP	PP	08 29 24.3	-0.1
	comp=Z,47nm,1.1s,baz=352,slow=6.3,SNR=1.7						
ULM				SKKP		08 41 20.2	
	comp=Z,15nm,1.1s,baz=159,slow=3.5,SNR=4.1						
K11A	**Parker Ranch,**	**126.25**	**29**	⇑P	PKPdf	08 27 31.4	+0.1
	baz=126						
I13A	**Wildhorse Cree**	**126.27**	**27**	⇓P	PKPdf	08 27 31.6	+0.4
	baz=126						
J12A	**Stokes Ranch,**	**126.33**	**28**	⇓P	PKPdf	08 27 31.9	+0.5
	baz=126						
H15A	**Lima**	**126.35**	**25**	⇓P	PKPdf	08 27 31.8	+0.4

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      baz=126
HLID  Hailey            126.41  27 ⇓P         PKPdf     08 27 31.8 +0.3
      baz=126
HLID  Hailey            126.41  27 ePKPdf     PKPdf     08 27 31.8 +0.2
HLID                               epPKPdf    pPKPdf    08 27 40.0  -1.9
HLID                                LR        LR
      comp=Z,168μm,21.0s,MS7.7
P06A  Stead Airport,    126.46  34 ⇓P         PKPdf     08 27 32.2 +0.4
      baz=126
F18A  Big Timber        126.46  22 ⇓P         PKPdf     08 27 31.6 +0.1
      baz=126
M09A  Marrel Ranch,     126.55  31 ⇓P         PKPdf     08 27 32.7 +0.8
      baz=126
I14A  Mackay            126.55  26 ⇓P         PKPdf     08 27 32.5 +0.8
      baz=126
G17A  Pierce Place,     126.56  23 ⇑P         PKPdf     08 27 32.3 +0.5
      baz=126
L10A  Juniper Basin     126.56  30 ⇓P         PKPdf     08 27 32.4 +0.6
      baz=126
GCMT  Greycliff         126.58  22 ePKPdf     PKPdf     08 27 32.0 +0.3
J13A  Cove Ranch, Pi    126.65  27 ⇓P         PKPdf     08 27 32.4 +0.4
      baz=127
N08A  GE Springer Mi    126.65  32 ⇑P         PKPdf     08 27 32.5 +0.4
      baz=127
O07A  Toulon            126.69  33 ⇓P         PKPdf     08 27 32.6 +0.4
      baz=127
RKT   Rikitea           126.74 117 ePdif      Pdif      08 24 13.2 +0.9
      comp=Z,2μm,32.2s
RKT   Rikitea           126.74 117 ePP        PP        08 29 38.9 +9.1
      comp=Z,14μm,29.8s
RKT                                eSdif      Sdif      08 37 28.3  -0.6
      comp=Z,23μm,29.8s
RKT   Rikitea           126.74 117 ePS        PS        08 39 34.9 +0.5
      comp=Z,31μm,28.0s
RKT                                eSS        SS        08 46 36.3 +1.8
      comp=Z,93μm,32.2s
RKT                                eLQ                  09 02 00.3
      comp=Z,123μm,39.8s
RKT                                eLR        LR        09 07 10.0
      comp=Z,121μm,23.5s
WCN   Washoe City       126.80  34 ⇓P         PKPdf     08 27 32.9 +0.5
      baz=127
L11A  Cat Creek Ranc    126.84  29 ⇑P         PKPdf     08 27 33.0 +0.6
      baz=127
H16A  Russell Place,    126.86  24 ⇓P         PKPdf     08 27 33.2 +0.9
      baz=127
K12A  Draper Farm, C    126.90  28 ⇓P         PKPdf     08 27 33.0 +0.5
      baz=127
I15A  Monteview         126.92  25 ⇑P         PKPdf     08 27 32.9 +0.4
      baz=127
N09A  Rock Creek Ran    126.92  32 ⇓P         PKPdf     08 27 33.3 +0.7
      baz=127
M10A  I.L. Ranch, Tu    126.94  30 ⇓P         PKPdf     08 27 33.4 +0.8
      baz=127
O08A  Rochester Mine    126.99  32 ⇑P         PKPdf     08 27 33.4 +0.7
      baz=127
J14A  Carey             127.00  27 ⇓P         PKPdf     08 27 32.9 +0.2
      baz=127
YMR   Madison River     127.01  24 ePKPdf     PKPdf     08 27 33.9 +1.3
YMR                                epPKPdf    pPKPdf    08 27 42.3  -0.7
LAO   LASA Array        127.01  19 ePKPdf     PKPdf     08 27 33.3 +0.7
LAO                                 LR        LR
      comp=Z,248μm,21.0s,MS7.9
G18A  Lazy EL Ranch,    127.02  22 ⇑P         PKPdf     08 27 32.9 +0.3
      baz=127
YNR   Norris Junctio    127.08  24 ePKPdf     PKPdf     08 27 34.5 +1.7
P07A  Fallon            127.12  34 ⇓P         PKPdf     08 27 32.9  -0.1
      baz=127
L12A  House Creek Ra    127.22  29 ⇑P         PKPdf     08 27 33.7 +0.6
      baz=127
YFT   Old Faithful      127.24  24 ePKPdf     PKPdf     08 27 34.9 +1.9
YFT                                epPKPdf    pPKPdf    08 27 43.3  -0.1
K13A  Stover Farm, H    127.27  28 ⇑P         PKPdf     08 27 33.7 +0.5
      baz=127
CMB   Columbia Colle    127.29  36 ePKIKP     PKPdf     08 27 33.5 +0.1
CMB                                 MLR       MLR
      comp=Z,92μm,20.0s,MS7.5
RLMT  Red Lodge         127.29  22 ⇓P         PKPdf     08 27 33.4 +0.3
      baz=127
RLMT  Red Lodge         127.29  22 ePKPdf     PKPdf     08 27 33.9 +0.7
RLMT                                LR        LR
      comp=Z,266μm,20.0s,MS7.9
LKWY  Lake              127.32  24 ePKIKP     PKPdf     08 27 34.8 +1.6
LKWY                                MLR       MLR
      comp=Z,452μm,20.0s
M11A  Holland Ranch,    127.38  30 ⇑P         PKPdf     08 27 34.5 +1.1
      baz=127
BMN   Battle Mountai    127.39  32 ePKIKP     PKPdf     08 27 35.2 +1.7
BMN                                 MLR       MLR
      comp=Z,106μm,20.0s,MS7.5
H17A  Grant Village     127.39  24 ⇑P         PKPdf     08 27 34.6 +1.3
      baz=127
J15A  Blackfoot         127.42  26 ⇑P         PKPdf     08 27 33.8 +0.4
      baz=127
I16A  Newdale           127.44  25 ⇑P         PKPdf     08 27 34.3 +0.9
      baz=127
P08A  Dixie Valley      127.45  33 ⇑P         PKPdf     08 27 34.3 +0.6
      baz=128
SAO   San Andreas Ge    127.49  38 ePKIKP     PKPdf     08 27 34.2 +0.4
SAO                                 MLR       MLR
      comp=Z,63μm,22.0s,MS7.2
R06C  Coleville         127.50  35 ⇓P         PKPdf     08 27 33.9 +0.1
      baz=128
N10A  Dunphy            127.55  31 ⇑P         PKPdf     08 27 33.8   0.0
      baz=128
Q07A  Schurz            127.58  34 ⇓P         PKPdf     08 27 34.5 +0.6
      baz=128
O09A  Fish Creek Ran    127.59  32 ⇓P         PKPdf     08 27 34.3 +0.4
      baz=128
IMW   Indian Meadow     127.65  24 ePKPdf     PKPdf     08 27 33.1  -0.8
K14A  Jones Ranch, D    127.77  27 ⇓P         PKPdf     08 27 34.6 +0.5
      baz=128
L13A  Double Diamond    127.77  28 ⇓P         PKPdf     08 27 35.1 +0.9
      baz=128
I17A  Pilgrim Ck.       127.78  24 ⇓P         PKPdf     08 27 33.7  -0.4
      baz=128
DCID1 Drake Creek       127.80  25 ePKPdf     PKPdf     08 27 35.0 +0.8
MOOW  Moose Ponds       127.85  24 ePKPdf     PKPdf     08 27 34.9 +0.6
O10A  Cortez Mining,    127.86  31 ⇓P         PKPdf     08 27 34.7 +0.3
      baz=128
N11A  Elko Archery C    127.87  30 ⇓P         PKPdf     08 27 34.9 +0.5
      baz=128
J16A  Bone              127.88  25 ⇓P         PKPdf     08 27 34.8 +0.5
      baz=128
RRI2  Red Ridge         127.94  25 ePKPdf     PKPdf     08 27 35.2 +0.8
K15A  Arbon             127.95  26 ⇑P         PKPdf     08 27 34.9 +0.5
      baz=128
TPAW  Teton Pass        127.98  25 ePKPdf     PKPdf     08 27 35.5 +1.0
LOHW  Long Hollow       128.02  24 ePKPdf     PKPdf     08 27 34.9 +0.3
P09A  Austin            128.06  32 ⇑P         PKPdf     08 27 34.9 +0.1
      baz=128
SNOW  Snow King Moun    128.08  25 ePKPdf     PKPdf     08 27 35.1 +0.4
AGMN  Agassiz Refuge    128.11  10  PFAKE               08 27 50.0  +15
AGMN                                LR        LR
      comp=Z,309μm,22.0s,MS8.0
Q08A  Gabbs             128.12  34 ⇓P         PKPdf     08 27 35.1 +0.1
      baz=128
REDW  Red Top Meadow    128.13  25 ePKPdf     PKPdf     08 27 35.0 +0.2
REDW                               epPKPdf    pPKPdf    08 27 43.6  -1.5
REDW                               esPKPdf              08 27 51.2
L14A  Malta             128.14  28 ⇑P         PKPdf     08 27 35.1 +0.2
      baz=128
ELK   Elko              128.17  30 ePKIKP     PKPdf     08 27 36.2 +1.2
ELK                                 MLR       MLR
      comp=Z,169μm,20.0s
ELK   Elko              128.17  30  PP        PP        08 29 42.5 +4.7
ELK                                 SKKP                08 41 13.4
      comp=Z,5.1nm,1.0s,baz=159,slow=4.6,SNR=4.0
J17A  Brown Place, J    128.18  25 ⇑P         PKPdf     08 27 34.9   0.0
      baz=128
N12A  Clover Valley,    128.19  30 ⇓P         PKPdf     08 27 35.3 +0.3
      baz=128
NVAR  Mina Array Bea    128.22  34  PKP       PKPdf     08 27 35.4 +0.3
      comp=Z,38nm,0.9s,baz=294,slow=1.2,SNR=33
NVAR                                PP        PP        08 29 41.1 +2.8
      comp=Z,3.3nm,0.9s,baz=310,slow=53,SNR=1.3
NVAR                                SKKPbc              08 40 52.2
      comp=Z,3.1nm,0.9s,baz=166,slow=4.3,SNR=3.6
NVAR  Mina Array Bea    128.22  34  PKP       PKPdf     08 27 35.4 +0.3
NVAR                                PP        PP        08 29 41.1 +2.8
NVAR                                SKKPbc              08 40 52.2
M13A  Montello          128.23  29 ⇑P         PKPdf     08 27 35.5 +0.4
      baz=128
K16A  Soda Springs      128.24  26 ⇓P         PKPdf     08 27 35.0   0.0
      baz=128
I18A  Diamond G Ranc    128.27  24 ⇑P         PKPdf     08 27 34.9  -0.2
      baz=128
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P10A  Eureka            128.37  32 ⇓P         PKPdf     08 27 35.8 +0.4
      baz=128
R08A  Mina              128.39  34 ⇓P         PKPdf     08 27 35.8 +0.3
      baz=128
O11A  Cowboy Ranch,     128.42  31 ⇓P         PKPdf     08 27 36.2 +0.8
      baz=128
MLAC  Mammoth Lakes     128.47  35 ⇓P         PKPdf     08 27 36.1 +0.4
      baz=128
M14A  Sheep Mountain    128.51  28 ⇑P         PKPdf     08 27 36.0 +0.4
      baz=128
AHID  Auburn Hatcher    128.51  25 ePKPdf     PKPdf     08 27 36.2 +0.7
AHID                                LR        LR
      comp=Z,179μm,19.0s,MS7.8
HVU   Hansel Valley     128.56  27 ePKIKP     PKPdf     08 27 36.4 +0.7
L15A  Malad City        128.56  27 ⇑P         PKPdf     08 27 35.8 +0.2
      baz=128
Q09A  Carvers           128.56  33 ⇓P         PKPdf     08 27 36.1 +0.3
      baz=129
J18A  Kendall Valley    128.59  24 ⇓P         PKPdf     08 27 35.7   0.0
      baz=129
K17A  Gardner Place,    128.60  25 ⇑P         PKPdf     08 27 35.8 +0.1
      baz=129
N13A  Wendover, West    128.60  29 ⇑P         PKPdf     08 27 36.1 +0.3
      baz=129
O12A  Currie            128.78  30 ⇑P         PKPdf     08 27 36.4 +0.3
      baz=129
P11A  Circle Ranch,     128.79  31 ⇑P         PKPdf     08 27 36.6 +0.4
      baz=129
M15A  Larsen Ranch,     128.96  27 ⇑P         PKPdf     08 27 36.1  -0.3
      baz=129
L16A  Fish Haven        128.97  26 ⇓P         PKPdf     08 27 36.8 +0.3
      baz=129
Q10A  Clear Creek Ra    128.99  33 ⇓P         PKPdf     08 27 36.8 +0.2
      baz=129
R09A  Tonopah           129.04  34 ⇓P         PKPdf     08 27 36.7  -0.1
      baz=129
K18A  Toltan Ranch,     129.06  25 ⇑P         PKPdf     08 27 37.0 +0.4
      baz=129
TPH   Tonopah           129.07  34 ePKIKP     PKPdf     08 27 38.1 +1.3
TPH                                 MLR       MLR
      comp=Z,80μm,20.0s,MS7.4
SPUT  South Promonto    129.08  28 ePKPdf     PKPdf     08 27 37.3 +0.6
EYMN  Ely               129.08   6 ePKPdf     PKPdf     08 27 35.9  -0.6
EYMN                                LR        LR
      comp=Z,203μm,22.0s,MS7.8
N14A  Grayback Hills    129.09  28 ⇑P         PKPdf     08 27 36.4  -0.4
      baz=129
BGU   Big Grassy Mou    129.11  28 ePKPdf     PKPdf     08 27 37.7 +0.9
RCTC  Rector, Farmer    129.12  37 ⇓P         PKPdf     08 27 36.3  -0.6
      baz=129
L17A  Cokeville         129.15  26 ⇓P         PKPdf     08 27 36.3  -0.5
      baz=129
BW06  Boulder Array     129.15  24 ⇓P         PKPdf     08 27 36.1  -0.7
      baz=129
BW06  Boulder Array     129.15  24 ePKPdf     PKPdf     08 27 36.4  -0.4
BW06                                LR        LR
      comp=Z,241μm,20.0s,MS7.9
PDAR  Pinedale Array    129.15  24  PKhKP               08 27 22.1
      comp=Z,1.4nm,0.9s,baz=340,slow=2.2,SNR=4.0
PDAR                                PKP       PKPdf     08 27 36.1  -0.7
      comp=Z,9.6nm,0.8s,baz=57,slow=1.1,SNR=20
PDAR                                PP        PP        08 29 46.4 +2.3
      comp=Z,11nm,1.0s,baz=259,slow=1.5,SNR=1.7
PDAR                                SKKPbc              08 40 46.4
      comp=Z,5.0nm,1.1s,baz=159,slow=4.6,SNR=3.4
PDAR                                SKKP                08 41 14.2
      comp=Z,1.4nm,0.8s,baz=174,slow=3.0,SNR=4.1
PDAR  Pinedale Array    129.15  24  PKP       PKPdf     08 27 36.1  -0.7
PDAR                                PP        PP        08 29 46.4 +2.3
PDAR                                SKKPbc              08 40 46.4
PDAR                                SKKP                08 41 14.2
TIN   Tinemaha          129.22  35 ⇓P         PKPdf     08 27 37.4 +0.3
      baz=129
O13A  Hicks Ranch, I    129.26  30 ⇑P         PKPdf     08 27 37.1   0.0
      baz=129
P12A  McGill            129.29  31 ⇓P         PKPdf     08 27 37.5 +0.3
      baz=129
SMMC  Simmler           129.32  38 ⇑P         PKPdf     08 27 38.1 +0.7
      baz=129
S09A  Goldfield         129.32  34 ⇓P         PKPdf     08 27 37.6 +0.3
      baz=129
Q11A  Duckwater         129.37  32 ⇑P         PKPdf     08 27 37.9 +0.6
      baz=129
N15A  Stansbury Isla    129.37  28 ⇓P         PKPdf     08 27 36.9  -0.4
      baz=129
K19A  Absolon Red Bu    129.39  24 ⇑P         PKPdf     08 27 36.7  -0.6
      baz=129
R10A  Warm Springs      129.43  33 ⇑P         PKPdf     08 27 37.6 +0.2
      baz=129
M16A  Huntsville        129.45  27 ⇑P         PKPdf     08 27 37.0  -0.4
      baz=129
S10A  Tonopah Range,    129.53  33 ⇓P         PKPdf     08 27 37.7 +0.1
      baz=130
VES   Vestal, Richgr    129.53  37 ⇓P         PKPdf     08 27 37.0  -0.7
      baz=130
L18A  Fontenelle, Gr    129.65  25 ⇑P         PKPdf     08 27 37.3  -0.5
      baz=130
Q12A  Willow Creek R    129.66  31 ⇓P         PKPdf     08 27 37.8   0.0
      baz=130
CWC   Cottonwood Cre    129.72  36 ⇑P         PKPdf     08 27 38.3 +0.3
      baz=130
K20A  Yellowstone Ra    129.73  23 ⇓P         PKPdf     08 27 37.2  -0.7
      baz=130
GRAC  Grapevine Rang    129.75  35 ⇑P         PKPdf     08 27 38.1   0.0
      baz=130
M17A  Scullys Gap (B    129.75  26 ⇑P         PKPdf     08 27 37.6  -0.4
      baz=130
NOQ   North Oquirrh     129.75  28 ePKPdf     PKPdf     08 27 40.3 +2.3
R11A  Troy Canyon, C    129.77  32 ⇑P         PKPdf     08 27 38.9 +0.8
      baz=130
DUG   Dugway            129.78  29 ⇓P         PKPdf     08 27 37.9  -0.1
      baz=130
DUG   Dugway            129.78  29 ePKPdf     PKPdf     08 27 39.2 +1.1
DUG                                 LR        LR
      comp=Z,77μm,20.0s,MS7.4
L19A  Farson            129.79  24 ⇑P         PKPdf     08 27 38.0   0.0
      baz=130
N16A  Rees Ranch, Co    129.88  27 ⇑P         PKPdf     08 27 38.3 +0.1
      baz=130
O15A  The Old Anders    129.88  28 ⇑P         PKPdf     08 27 38.1  -0.1
      baz=130
CTU   Camp Tracy        129.89  27 ePKPdf     PKPdf     08 27 38.0  -0.2
RSSD  Black Hills       130.00  19 ePKIKP     PKPdf     08 27 38.5 +0.2
RSSD                                MLR       MLR
      comp=Z,150μm,22.0s,MS7.6
ISA   Isabella          130.02  37 ⇓P         PKPdf     08 27 38.1  -0.5
      baz=130
ISA   Isabella          130.02  37 ePKPdf     PKPdf     08 27 38.8 +0.2
M18A  Lyman             130.04  26 ⇑P         PKPdf     08 27 37.7  -0.9
      baz=130
SBC   Santa Barbara     130.06  39 ⇓P         PKPdf     08 27 39.2 +0.5
      baz=130
N17A  Moffit Pass       130.10  27 ⇓P         PKPdf     08 27 38.0  -0.6
      baz=130
DAC   Darwin (Calif)    130.12  36  PFAKE               08 27 50.0  +11
DAC                                 LR        LR
      comp=Z,78μm,21.0s,MS7.4
P14A  Drum Mountains    130.12  29 ⇓P         PKPdf     08 27 38.8 +0.1
      baz=130
Q13A  Wheeler Ranch,    130.13  31 ⇓P         PKPdf     08 27 38.5  -0.3
      baz=130
ARVC  Arvin             130.16  38 ⇑P         PKPdf     08 27 38.7  -0.3
      baz=130
S11A  Rachel            130.19  33 ⇑P         PKPdf     08 27 38.7  -0.2
      baz=130
L20A  Wamsutter         130.28  24 ⇓P         PKPdf     08 27 39.0   0.0
      baz=130
R12A  Pony Springs,     130.30  32 ⇓P         PKPdf     08 27 39.0  -0.1
      baz=130
NLU   North Lily Min    130.32  28 ePKPdf     PKPdf     08 27 39.6 +0.5
MPMC  Manual Prospec    130.33  36 ⇓P         PKPdf     08 27 39.3 +0.1
      baz=130
DAU   Daniels Canyon    130.34  27 ePKIKP     PKPdf     08 27 41.1 +2.0
M19A  Rock Springs      130.37  25 ⇑P         PKPdf     08 27 38.6  -0.5
      baz=130
O16A  Springville       130.39  28 ⇓P         PKPdf     08 27 39.2   0.0
      baz=130
BSC   Santa Cruz Isl    130.40  39 ⇑P         PKPdf     08 27 39.1  -0.3
      baz=130
FURC  Furnace Creek,    130.41  35 ⇓P         PKPdf     08 27 39.7 +0.4
      baz=130
PTCN  Pitcairn Islan    130.45 121  PFAKE               08 27 50.0  +10
PTCN                                LR        LR
      comp=Z,43μm,20.0s,MS7.1
MPU   Maple Canyon      130.48  28 ePKPdf     PKPdf     08 27 42.3 +2.9
Q14A  Sevier Lake (B    130.49  30 ⇓P         PKPdf     08 27 38.7  -0.7
      baz=130
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P15A  Leamington        130.52  29 ⇑P         PKPdf     08 27 39.7 +0.2
      baz=130
OSI   Osito Adit        130.57  38 ⇓P         PKPdf     08 27 39.1  -0.7
      baz=131
OSI   Osito Adit        130.57  38 ePKPdf     PKPdf     08 27 43.0 +3.2
BLG   Laguna Peak       130.69  39 ⇑P         PKPdf     08 27 40.0 +0.1
      baz=131
L21A  Rawlins           130.70  23 ⇑P         PKPdf     08 27 39.0  -0.7
      baz=131
S12A  Delamar Landin    130.71  32 ⇑P         PKPdf     08 27 39.5  -0.4
      baz=131
R13A  O'Grain Ranch,    130.75  31 ⇑P         PKPdf     08 27 40.4 +0.4
      baz=131
O17A  Robinson Place    130.75  27 ⇑P         PKPdf     08 27 40.1 +0.2
      baz=131
U10A  Ash Meadows, A    130.75  35 ⇑P         PKPdf     08 27 40.6 +0.6
      baz=131
T11A  Corn Creek, Al    130.78  33 ⇓P         PKPdf     08 27 40.8 +0.8
      baz=131
M20A  Sweetwater, Wa    130.78  24 ⇑P         PKPdf     08 27 40.0 +0.1
      baz=131
P16A  Fountain Green    130.79  28 ⇓P         PKPdf     08 27 40.6 +0.6
      baz=131
EDW2  Edwards Air Fo    130.84  37 ⇓P         PKPdf     08 27 39.8  -0.4
      baz=131
Q15A  Fillmore          130.92  29 ⇓P         PKPdf     08 27 39.9  -0.3
      baz=131
SNCC  San Nicolas Is    130.95  40 ⇓P         PKPdf     08 27 40.4  -0.1
      baz=131
SNCC  San Nicolas Is    130.95  40 ePKPdf     PKPdf     08 27 38.6  -1.9
RWWY  Rawlins           131.00  23 ePKPdf     PKPdf     08 27 40.8 +0.5
M21A  Separation Pea    131.01  23 ⇓P         PKPdf     08 27 39.7  -0.6
      baz=131
O18A  Roosevelt         131.02  26 ⇓P         PKPdf     08 27 39.9  -0.5
      baz=131
DECC  Green Verdugo     131.05  38 ⇑P         PKPdf     08 27 39.8  -0.8
      baz=131
R14A  James Farms, M    131.14  30 ⇑P         PKPdf     08 27 41.0 +0.3
      baz=131
SHOC  Shoshone          131.14  35 ⇓P         PKPdf     08 27 40.5  -0.3
      baz=131
MWC   Mount Wilson      131.24  38 ePKIKP     PKPdf     08 27 39.1  -1.9
TMUT  Trail Mountain    131.25  28 ePKPdf     PKPdf     08 27 42.5 +1.6
S13A  Holt Ranch, En    131.25  32 ⇑P         PKPdf     08 27 39.9  -1.0
      baz=131
GSC   Goldstone         131.26  36 ⇓P         PKPdf     08 27 41.3 +0.3
      baz=131
GSC   Goldstone         131.26  36 ePKPdf     PKPdf     08 27 41.5 +0.5
GSC                                epPKPdf    pPKPdf    08 27 49.7  -1.6
U11A  Corn Creek        131.28  34 ⇓P         PKPdf     08 27 41.1 +0.1
      baz=131
N20A  Spence Gulch,     131.30  24 ⇓P         PKPdf     08 27 40.9   0.0
      baz=131
ARUT  Antelope Range    131.31  31 ePKIKP     PKPdf     08 27 43.7 +2.7
P17A  Butcher Ranch,    131.33  28 ⇑P         PKPdf     08 27 40.4  -0.6
      baz=131
O19A  Miners Draw (B    131.38  26 ⇓P         PKPdf     08 27 40.4  -0.7
      baz=131
MVU   Marysvale         131.39  30  PFAKE               08 27 50.0 +8.8
MVU                                 LR        LR
      comp=Z,87μm,20.0s,MS7.5
MSU   Marysvale         131.40  30 ePKIKP     PKPdf     08 27 42.5 +1.3
T12A  Moapa             131.43  33 ⇓P         PKPdf     08 27 41.8 +0.5
      baz=131
FMP   Fort Macarthur    131.43  39 ⇑P         PKPdf     08 27 41.3  -0.1
      baz=131
P18A  Preston Nutter    131.43  27 ⇑P         PKPdf     08 27 41.3 +0.1
      baz=131
RRX   Edison Barstow    131.43  37 ⇑P         PKPdf     08 27 41.7 +0.3
      baz=131
BFSC  Mount Baldy St    131.47  38 ⇓P         PKPdf     08 27 41.5   0.0
      baz=132
S14A  Cedar City        131.48  31 ⇓P         PKPdf     08 27 41.9 +0.5
      baz=132
M22A  Cedar Creek Ra    131.48  23 ⇑P         PKPdf     08 27 40.7  -0.5
      baz=132
CCUT  Cedar City        131.53  31 ePKPdf     PKPdf     08 27 43.2 +1.8
CIS   Catalina Islan    131.56  39 ⇓P         PKPdf     08 27 41.9 +0.3
      baz=132
Q16A  Castle Valley     131.57  28 ⇓P         PKPdf     08 27 41.6 +0.2
      baz=132
R15A  Junction          131.58  30 ⇑P         PKPdf     08 27 41.7 +0.1
      baz=132
T13A  Saint George      131.65  32 ⇑P         PKPdf     08 27 42.2 +0.5
      baz=132
N21A  Black Mountain    131.66  24 ⇓P         PKPdf     08 27 41.2  -0.4
      baz=132
V11A  Goodsprings       131.67  35 ⇓P         PKPdf     08 27 41.4  -0.4
      baz=132
TUQ   Turquoise Moun    131.68  35 ⇓P         PKPdf     08 27 41.4  -0.4
      baz=132
SRU   San Rafael        131.72  28 ⇑P         PKPdf     08 27 41.9 +0.2
      baz=132
SRU   San Rafael        131.72  28 ePKPdf     PKPdf     08 27 42.1 +0.4
U12A  Valley of Fire    131.74  33 ⇓P         PKPdf     08 27 41.6  -0.3
      baz=132
SCI   San Clemente I    131.75  40 ⇑P         PKPdf     08 27 41.5  -0.5
      baz=132
HEC   Hector,Ludlow     131.87  36 ⇑P         PKPdf     08 27 42.0  -0.2
      baz=132
O20A  White River Ci    131.89  25 ⇓P         PKPdf     08 27 41.5  -0.6
      baz=132
BBRC  Big Bear Sol-O    131.90  37 ⇑P         PKPdf     08 27 42.2  -0.1
      baz=132
Q18A  Rafter H Ranch    131.90  27 ⇑P         PKPdf     08 27 41.4  -0.7
      baz=132
R16A  Teasdale          131.92  29 ⇑P         PKPdf     08 27 42.4 +0.3
      baz=132
RCBR  Riachuelo         131.92 265  PFAKE               08 27 50.0 +7.2
RCBR                                LR        LR
      comp=Z,129μm,21.0s,MS7.6
S15A  Panguitch         131.95  30 ⇑P         PKPdf     08 27 41.5  -0.8
      baz=132
LBNH  Lisbon            131.97 348 ePKIKP     PKPdf     08 27 42.1   0.0
LBNH                                MLR       MLR
      comp=Z,175μm,20.0s,MS7.8
P19A  Cripple Cowboy    131.99  26 ⇑P         PKPdf     08 27 42.2  -0.1
      baz=132
PHWY  Pilot Hill        132.00  22 ePKPdf     PKPdf     08 27 42.9 +0.6
T14A  Hurricane         132.05  32 ⇓P         PKPdf     08 27 42.8 +0.3
      baz=132
N22A  Wattenberg Ran    132.05  23 ⇓P         PKPdf     08 27 42.5 +0.2
      baz=132
U13A  Pakoon Wash       132.06  33 ⇓P         PKPdf     08 27 42.8 +0.3
      baz=132
LONY  Lake Ozonia       132.08 351 ePKPdf     PKPdf     08 27 43.0 +0.8
LONY                                LR        LR
      comp=Z,111μm,21.0s,MS7.5
V12A  Nelson            132.08  34 ⇓P         PKPdf     08 27 42.9 +0.3
      baz=132
O21A  Pagoda            132.14  24 ⇓P         PKPdf     08 27 42.6   0.0
      baz=132
R17A  Hanksville Air    132.18  28 ⇓P         PKPdf     08 27 42.3  -0.4
      baz=132
MURC  Murrieta          132.18  38 ⇑P         PKPdf     08 27 42.8   0.0
      baz=132
GMRC  Granite Mounta    132.29  36 ⇓P         PKPdf     08 27 43.3 +0.3
      baz=132
ECSD  EROS Data Cent    132.35  12  PFAKE               08 27 50.0 +7.2
ECSD                                LR        LR
      comp=Z,254μm,20.0s,MS7.9
P20A  De Beque          132.35  26 ⇓P         PKPdf     08 27 42.9  -0.1
      baz=132
W12A  Cal Nev Ari       132.38  35 ⇓P         PKPdf     08 27 43.8 +0.7
      baz=132
LDFC  Landfair          132.40  35 ePKPdf     PKPdf     08 27 45.0 +1.9
LDFC                               epPKPdf    pPKPdf    08 27 52.8  -0.7
LDFC                               esPKPdf              08 27 59.7
Q19A  Hogan Spring (    132.42  27 ⇑P         PKPdf     08 27 43.2 +0.1
      baz=132
T15A  Red Dirt Ranch    132.45  31 ⇑P         PKPdf     08 27 43.4 +0.2
      baz=132
V13A  Grand Canyon W    132.47  33 ⇑P         PKPdf     08 27 43.3 +0.1
      baz=132
SADO  Sadowa            132.48 355  PP        PP        08 30 07.6 +2.4
U14A  Mt Trumbull       132.48  32 ⇓P         PKPdf     08 27 43.6 +0.3
      baz=132
R18A  Canyonlands Na    132.59  28 ⇓P         PKPdf     08 27 43.4   0.0
      baz=133
GLMI  Grayling          132.62   1 ePKPdf     PKPdf     08 27 43.6 +0.3
GLMI                                LR        LR
      comp=Z,161μm,19.0s,MS7.8
PFO   Pinyon Flat Ob    132.63  37 ⇑P         PKPdf     08 27 43.7   0.0
      baz=133
PFO   Pinyon Flat Ob    132.63  37 ePKPdf     PKPdf     08 27 42.4  -1.3
PFO                                 LR        LR
      comp=Z,74μm,22.0s,MS7.3
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BELC	**Belle Mtn.**	**132.64**	**37**	⇓P	PKPdf	08 27 44.7	+1.0
	baz=133						
NCB	**Newcomb**	**132.65**	**350**	*e*PKPdf	PKPdf	08 27 43.1	-0.2
NCB				*e*pPKPdf	pPKPdf	08 27 52.0	-1.8
NCB				LR	LR		
	comp=Z,156µm,20.0s,MS7.7						
109C	**Camp Elliot, M**	**132.72**	**39**	⇓P	PKPdf	08 27 44.5	+0.6
	baz=133						
P21A	**Newcastle**	**132.74**	**25**	⇓P	PKPdf	08 27 44.1	+0.4
	baz=133						
S17A	**Black Ridge (B**	**132.76**	**29**	⇓P	PKPdf	08 27 44.1	+0.3
	baz=133						
Q20A	**Ridgley Place,**	**132.85**	**26**	⇓P	PKPdf	08 27 44.0	+0.1
	baz=133						
NEE2	**Needles Airpor**	**132.90**	**35**	⇑P	PKPdf	08 27 44.9	+0.8
	baz=133						
T16A	**Glen Canyon Da**	**132.92**	**30**	⇓P	PKPdf	08 27 44.2	+0.1
	baz=133						
R19A	**Curley Farm, L**	**132.96**	**27**	⇑P	PKPdf	08 27 44.7	+0.6
	baz=133						
IRM	**Iron Mountain**	**133.03**	**36**	⇑P	PKPdf	08 27 44.3	-0.1
	baz=133						
PV04	**Paradox Valley**	**133.04**	**27**	*e*PKPdf	PKPdf	08 27 44.8	+0.5
W13A	**Hualapai Mount**	**133.08**	**34**	⇑P	PKPdf	08 27 45.5	+1.0
	baz=133						
S18A	**Hurst Farm, Bl**	**133.10**	**28**	⇓P	PKPdf	08 27 44.6	+0.2
	baz=133						
V14A	**Boquillas Ranc**	**133.11**	**33**	⇑P	PKPdf	08 27 44.8	+0.3
	baz=133						
MONP	**Monument Peak**	**133.14**	**38**	⇑P	PKPdf	08 27 45.1	+0.5
	baz=133						
BC3	**Big Chuckw Mtn**	**133.20**	**37**	⇓P	PKPdf	08 27 45.2	+0.5
	baz=133						
ISCO	**Idaho Springs**	**133.24**	**23**	*e*PKIKP	PKPdf	08 27 44.7	+0.1
ISCO				MLR	MLR		
	comp=Z,165µm,21.0s,MS7.7						
T17A	**Navajo Res., N**	**133.26**	**30**	⇑P	PKPdf	08 27 44.6	-0.2
	baz=133						
Q21A	**Lamborn Mesa,**	**133.26**	**25**	⇓P	PKPdf	08 27 44.5	-0.1
	baz=133						
PV01	**Paradox Valley**	**133.40**	**27**	*e*PKPdf	PKPdf	08 27 45.9	+0.9
PV01				*e*pPKPdf	pPKPdf	08 27 56.1	+0.8
W14A	**Seligman**	**133.44**	**33**	⇑P	PKPdf	08 27 46.1	+1.0
	baz=133						
R20A	**Redvale**	**133.44**	**27**	⇑P	PKPdf	08 27 45.3	+0.2
	baz=133						
S19A	**Harvey Farm, M**	**133.46**	**28**	⇓P	PKPdf	08 27 45.2	+0.1
	baz=133						
V15A	**Kaibab Nationa**	**133.47**	**32**	⇓P	PKPdf	08 27 46.2	+1.0
	baz=134						
X13A	**Yucca**	**133.48**	**34**	⇓P	PKPdf	08 27 45.6	+0.4
	baz=134						
SWSC	**Sam W. Stewart**	**133.49**	**38**	⇓P	PKPdf	08 27 45.5	+0.2
	baz=134						
DVTC	**Desert V Tower**	**133.50**	**38**	⇓P	PKPdf	08 27 45.9	+0.6
	baz=134						
OGNE	**Ogallala**	**133.50**	**19**	*e*PKPdf	PKPdf	08 27 45.6	+0.5
OGNE				LR	LR		
	comp=Z,305µm,22.0s,MS8.0						
PDMCI	**Parker Dam,Lak**	**133.51**	**35**	⇓P	PKPdf	08 27 45.3	0.0
	baz=134						
Q22A	**Crested Butte,**	**133.52**	**25**	⇑P	PKPdf	08 27 45.0	-0.1
	baz=134						
T18A	**Mexican Hat**	**133.60**	**29**	⇑P	PKPdf	08 27 45.7	+0.3
	baz=134						
U17A	**Shonto**	**133.64**	**30**	⇑P	PKPdf	08 27 45.6	+0.2
	baz=134						
Y12C	**Blythe**	**133.68**	**36**	⇑P	PKPdf	08 27 45.9	+0.2
	baz=134						
U16A	**Tuba City**	**133.76**	**31**	⇓P	PKPdf	08 27 45.8	0.0
	baz=134						
W15A	**Williams**	**133.90**	**33**	⇓P	PKPdf	08 27 47.1	+1.1
	baz=134						
GLA	**Glamis**	**134.00**	**37**	⇑P	PKPdf	08 27 46.7	+0.5
	baz=134						
Y13A	**Salome**	**134.04**	**35**	⇓P	PKPdf	08 27 46.2	-0.1
	baz=134						
X14A	**Yava**	**134.09**	**34**	⇑P	PKPdf	08 27 46.7	+0.4
	baz=134						
R22A	**Saguache, Gunn**	**134.12**	**25**	⇓P	PKPdf	08 27 46.4	+0.1
	baz=134						
WUAZ	**Wupatki**	**134.12**	**31**	⇑P	PKPdf	08 27 46.9	+0.5
	baz=134						
WUAZ	**Wupatki**	**134.12**	**31**	*e*PKPdf	PKPdf	08 27 47.9	+1.5
WUAZ				LR	LR		
	comp=Z,116µm,19.0s,MS7.6						
U18A	**Rough Rock, Ch**	**134.17**	**29**	⇑P	PKPdf	08 27 47.1	+0.7
	baz=134						
JFWS	**Jewell Farm**	**134.19**	**6**	*e*PKIKP	PKPdf	08 27 44.1	-2.2
JFWS				MLR	MLR		
	comp=Z,181µm,20.0s,MS7.8						
MVCO	**Mesa Verde**	**134.19**	**27**	⇓P	PKPdf	08 27 46.8	+0.3
	baz=134						
MVCO	**Mesa Verde**	**134.19**	**27**	*e*PKPdf	PKPdf	08 27 47.5	+1.0
MVCO				LR	LR		
	comp=Z,206µm,19.0s,MS7.9						
T19A	**Beclabito**	**134.25**	**28**	⇓P	PKPdf	08 27 46.8	+0.2
	baz=134						
W16A	**Flagstaff**	**134.36**	**32**	⇑P	PKPdf	08 27 47.2	+0.4
	baz=134						
Y14A	**Wickenburg**	**134.42**	**34**	⇓P	PKPdf	08 27 47.6	+0.6
	baz=134						
X15A	**Humboldt**	**134.44**	**33**	⇑P	PKPdf	08 27 47.4	+0.4
	baz=134						
112A	**Yuma**	**134.51**	**37**	⇓P	PKPdf	08 27 47.8	+0.6
	baz=134						
Z13A	**Yuma Proving G**	**134.58**	**36**	⇓P	PKPdf	08 27 47.7	+0.3
	baz=135						
BINY	**Binghamton**	**134.66**	**352**	*e*PKPdf	PKPdf	08 27 47.7	+0.5
BINY				LR	LR		
	comp=Z,109µm,20.0s,MS7.6						
V18A	**Ganado**	**134.70**	**30**	⇓P	PKPdf	08 27 47.9	+0.4
	baz=135						
SCIA	**State Center**	**134.76**	**10**	*e*PKPdf	PKPdf	08 27 48.4	+1.0
SCIA				LR	LR		
	comp=Z,255µm,22.0s,MS7.9						
Y15A	**Casa Rosa Ranc**	**134.78**	**34**	⇑P	PKPdf	08 27 48.3	+0.6
	baz=135						
W17A	**Winslow**	**134.80**	**31**	⇓P	PKPdf	08 27 48.1	+0.4
	baz=135						
113A	**Mohawk Valley,**	**134.83**	**36**	⇑P	PKPdf	08 27 48.1	+0.3
	baz=135						
Z14A	**Wintersburg**	**134.87**	**35**	⇑P	PKPdf	08 27 48.2	+0.3
	baz=135						
X16A	**Lo Mia Camp, P**	**134.92**	**33**	⇑P	PKPdf	08 27 48.5	+0.6
	baz=135						
SDCO	**Great Sand Dun**	**135.05**	**24**	*e*PKPdf	PKPdf	08 27 42.5	-5.5
SDCO				LR	LR		
	comp=Z,153µm,19.0s,MS7.7						
T22A	**Edith**	**135.07**	**26**	⇑P	PKPdf	08 27 48.3	+0.2
	baz=135						
V19A	**Window Rock**	**135.14**	**29**	⇓P	PKPdf	08 27 48.5	+0.2
	baz=135						
AAM	**Ann Arbor**	**135.15**	**360**	*e*PKIKP	PKPdf	08 27 48.6	+0.5
AAM				MLR	MLR		
	comp=Z,187µm,20.0s,MS7.8						
ERPA	**Erie**	**135.18**	**356**	*e*PKPdf	PKPdf	08 27 48.8	+0.6
ERPA				LR	LR		
	comp=Z,138µm,20.0s,MS7.7						
W18A	**Petrified Fore**	**135.27**	**30**	⇑P	PKPdf	08 27 49.0	+0.5
	baz=135						
Y16A	**Circle Bar Ran**	**135.31**	**33**	⇑P	PKPdf	08 27 49.1	+0.5
	baz=135						
X17A	**Forest Lakes**	**135.32**	**32**	⇑P	PKPdf	08 27 49.4	+0.7
	baz=135						
114A	**Black Gap (USA**	**135.35**	**35**	⇑P	PKPdf	08 27 49.2	+0.4
	baz=135						
Z15A	**Gila River Ind**	**135.37**	**34**	⇓P	PKPdf	08 27 49.6	+0.8
	baz=135						
W19A	**Sanders**	**135.45**	**30**	⇓P	PKPdf	08 27 49.2	+0.3
	baz=135						
X18A	**Snowflake**	**135.62**	**31**	⇑P	PKPdf	08 27 50.2	+1.0
	baz=136						
Z16A	**Peralta Trail,**	**135.74**	**33**	⇓P	PKPdf	08 27 50.2	+0.7
	baz=136						
115A	**Sonoran Desert**	**135.77**	**35**	⇓P	PKPdf	08 27 50.1	+0.5
	baz=136						
Y17A	**Roosevelt**	**135.79**	**33**	⇓P	PKPdf	08 27 50.5	+0.9
	baz=136						
W20A	**Ramah**	**135.88**	**29**	⇓P	PKPdf	08 27 50.7	+1.0
	baz=136						
214A	**Organ Pipe Nat**	**135.97**	**36**	⇑P	PKPdf	08 27 50.5	+0.5
	baz=136						
CBKS	**Cedar Bluff**	**136.16**	**18**	*e*PKIKP	PKPdf	08 27 52.4	+2.3
CBKS				MLR	MLR		
	comp=Z,169µm,20.0s,MS7.8						
116A	**Eloy**	**136.17**	**34**	⇑P	PKPdf	08 27 50.7	+0.4
	baz=136						
W21A	**San Fidel**	**136.29**	**28**	⇓P	PKPdf	08 27 51.0	+0.6
	baz=136						
Z17A	**San Carlos Hig**	**136.30**	**33**	⇑P	PKPdf	08 27 50.8	+0.3
	baz=136						
Y19A	**Nutrioso**	**136.43**	**31**	⇓P	PKPdf	08 27 51.8	+1.0
	baz=136						
SSPA	**Standing Stone**	**136.45**	**353**	*e*PKPdf	PKPdf	08 27 51.4	+0.8
SSPA				*e*PP	PP	08 30 30.2	-0.2
SSPA				LR	LR		
	comp=Z,154µm,19.0s,MS7.8						
HDIL	**Hopedale**	**136.62**	**6**	*e*PKPdf		08 27 42.4	
HDIL				LR	LR		
	comp=Z,136µm,20.0s,MS7.7						
Z18A	**Geronimo**	**136.69**	**32**	⇑P	PKPdf	08 27 51.9	+0.6
	baz=137						
W22A	**Albuquerque**	**136.70**	**28**	⇓P	PKPdf	08 27 52.4	+1.2
	baz=137						
117A	**Oracle**	**136.70**	**34**	⇓P	PKPdf	08 27 51.9	+0.6
	baz=137						
216A	**Three Points,**	**136.72**	**35**	⇑P	PKPdf	08 27 52.1	+0.8
	baz=137						
KSU1	**Kansas State U**	**136.76**	**14**	*e*PKPdf	PKPdf	08 27 51.1	-0.2
KSU1				LR	LR		
	comp=Z,175µm,20.0s,MS7.8						
TUC	**Tucson**	**136.87**	**34**	*e*PKIKP		08 27 45.4	
TUC				*e*		08 27 59.7	
TUC				MLR	MLR		
	comp=Z,70µm,21.0s,MS7.4						
Z19A	**T-Link Ranch,**	**136.94**	**32**	⇑P	PKPdf	08 27 52.5	+0.8
	baz=137						
ANMO	**Albuquerque**	**136.98**	**27**	PP	PP	08 30 40.6	+6.4
	comp=Z,13nm,1.0s,baz=305,slow=6.0,SNR=2.6						
ANMO	**Albuquerque**	**136.98**	**27**	PFAKE		08 28 00.0	+8.2
ANMO				LR	LR		
	comp=Z,164µm,19.0s,MS7.8						
118A	**Homack Ranch,**	**137.07**	**33**	⇑P	PKPdf	08 27 53.0	+1.0
	baz=137						
X22A	**Bernardo**	**137.09**	**28**	⇓P	PKPdf	08 27 52.6	+0.7
	baz=137						
LAZ	**Ladron**	**137.12**	**28**	*e*PKPdf	PKPdf	08 27 49.7	-2.3
ACSO	**Alum Creek Sta**	**137.20**	**359**	*e*PKPdf	PKPdf	08 27 52.8	+0.7
ACSO				LR	LR		
	comp=Z,199µm,22.0s,MS7.8						
217A	**Green Valley**	**137.25**	**34**	⇓P	PKPdf	08 27 53.1	+0.7
	baz=137						
119A	**Ashpeak Ranch,**	**137.33**	**32**	⇓P	PKPdf	08 27 52.7	+0.3
	baz=137						
Y22D	**IRIS PASSCAL I**	**137.49**	**29**	⇑P	PKPdf	08 27 53.5	+0.8
	baz=138						
218A	**Dragoon**	**137.53**	**34**	⇑P	PKPdf	08 27 53.6	+0.7
	baz=138						
BNM	**Barren Site**	**137.56**	**28**	*e*PKPdf	PKPdf	08 27 51.6	-1.2
MCWV	**Mont Chateau**	**137.61**	**355**	*e*PKPdf	PKPdf	08 27 56.0	+3.2
MCWV				LR	LR		
	comp=Z,190µm,20.0s,MS7.8						
120A	**U Bar Ranch, L**	**137.85**	**32**	⇑P	PKPdf	08 27 54.3	+0.9
	baz=138						
219A	**White Tail Can**	**137.95**	**33**	⇓P	PKPdf	08 27 54.3	+0.7
	baz=138						
318A	**Bisbee**	**137.97**	**34**	⇑P	PKPdf	08 27 54.1	+0.5
	baz=138						
BLO	**Bloomington**	**138.21**	**3**	*e*PKIKP	PKPdf	08 27 53.5	-0.4
121A	**Cookes Peak, D**	**138.30**	**31**	⇑P	PKPdf	08 27 54.9	+0.6
	baz=138						
220A	**Playas Peak, P**	**138.41**	**32**	⇓P	PKPdf	08 27 55.2	+0.7
	baz=138						
SLM	**Saint Louis**	**138.41**	**7**	*e*PKIKP	PKPdf	08 27 54.2	-0.1
319A	**Douglas**	**138.41**	**33**	⇓P	PKPdf	08 27 54.9	+0.4
	baz=138						
OLIL	**Olney**	**138.54**	**5**	*e*PKPdf	PKPdf	08 27 55.4	+0.9
122A	**Conniff Cattle**	**138.56**	**30**	⇓P	PKPdf	08 27 55.0	+0.2
	baz=139						
221A	**Mesquite Ranch**	**138.72**	**31**	⇑P	PKPdf	08 27 55.5	+0.5
	baz=139						
CBN	**Corbin**	**138.77**	**352**	*e*PKPdf	PKPdf	08 27 53.9	-1.0
CBN				LR	LR		
	comp=Z,182µm,20.0s,MS7.8						
CCM	**Cathedral Cave**	**138.84**	**9**	*e*PKIKP	PKPdf	08 27 52.2	-2.9
CCM				MLR	MLR		
	comp=Z,159µm,22.0s,MS7.7						
320A	**Kipp Ranch, An**	**138.85**	**33**	⇑P	PKPdf	08 27 55.9	+0.6
	baz=139						
222A	**Williams Famil**	**138.99**	**30**	⇓P	PKPdf	08 27 56.1	+0.6
	baz=139						
SPB	**Sao Paulo**	**139.00**	**236**	*e*PKPdf	PKPdf	08 27 57.0	+1.2
SPB				*e*pPKPdf	pPKPdf	08 28 05.5	-0.7
SPB				LR	LR		
	comp=Z,125µm,21.0s,MS7.6						
FVM	**French Village**	**139.03**	**8**	*e*PKIKP	PKPdf	08 27 55.6	+0.2
AMTX	**Amarillo**	**139.05**	**22**	*e*PKPdf	PKPdf	08 27 50.1	-5.4
AMTX				LR	LR		
	comp=Z,138µm,21.0s,MS7.7						
WCI	**Wyandotte Cave**	**139.16**	**3**	*e*PKIKP	PKPdf	08 27 52.5	-3.2
WCI				MLR	MLR		
	comp=Z,208µm,20.0s,MS7.9						
USIN	**University of**	**139.34**	**4**	*e*PKPdf	PKPdf	08 27 59.0	+3.0
SIUC	**Southern Illin**	**139.44**	**6**	*e*PKPdf	PKPdf	08 27 50.8	-5.4
BLA	**Blacksburg**	**140.09**	**356**	*e*PKIKP	PKPdf	08 27 57.3	-0.1
BLA				*e*		08 28 07.5	
BLA				MLR	MLR		
	comp=Z,126µm,21.0s,MS7.6						
ELN	**Prospectdale**	**140.10**	**356**	*e*PKPdf	PKPdf	08 27 58.1	+0.7
WMOK	**Wichita Mounta**	**140.21**	**19**	*e*PKHKP		08 27 49.2	
WMOK				MLR	MLR		
	comp=Z,142µm,20.0s,MS7.7						
PLCA	**Paso Flores**	**140.29**	**196**	PKhKP		08 27 51.3	
	comp=Z,2.6nm,0.9s,baz=207,slow=1.5,SNR=8.7						
PLCA				PP	PP	08 31 00.5	+6.1
	comp=Z,8.6nm,0.9s,baz=186,slow=10,SNR=1.5						
PLCA				PKKP		08 37 20.1	
	comp=Z,7.9nm,1.1s,baz=12,slow=3.7,SNR=3.1						
PARMO	**Parma**	**140.42**	**7**	*e*PKPdf	PKPdf	08 27 59.4	+1.4
BBSR	**BB Station**	**140.54**	**334**	PFAKE		08 28 10.0	+12
BBSR				LR	LR		
	comp=Z,109µm,22.0s,MS7.6						
UTMT	**University of**	**140.84**	**6**	*e*P	PKPdf	08 27 59.0	+0.2
UTMT				*e*pPKPdf	pPKPdf	08 28 08.9	-0.3
TZTN	**Tazewell**	**140.89**	**359**	*e*PKPdf	PKPdf	08 27 55.9	-3.0
GNAR	**Gosnell**	**141.07**	**8**	*e*PKPdf	PKPdf	08 27 56.8	-2.4
WVT	**Waverly**	**141.15**	**5**	*e*PKHKP		08 27 53.0	
WVT				MLR	MLR		
	comp=Z,244µm,22.0s,MS7.9						
HBAR	**Harrisburg**	**141.38**	**9**	*e*PKPdf	PKPdf	08 27 59.9	+0.2
CNNC	**Cliffs of the**	**141.76**	**352**	PFAKE		08 28 10.0	+10
CNNC				LR	LR		
	comp=Z,188µm,20.0s,MS7.8						
TKL	**Tuckaleechee C**	**141.78**	**360**	*e*PKIKP	PKPdf	08 27 56.4	-4.1
TKL				*e*		08 28 08.2	
TKL	**Tuckaleechee C**	**141.78**	**360**	PP	PP	08 31 09.8	+6.5
	comp=Z,28nm,0.8s,baz=134,slow=3.5,SNR=4.0						
MIAR	**Mount Ida**	**141.82**	**13**	*e*PKIKP	PKPdf	08 27 56.1	-4.5
MIAR				MLR	MLR		
	comp=Z,252µm,21.0s,MS8.0						
UALR	**University of**	**141.85**	**11**	*e*PKPdf	PKPdf	08 27 58.2	-2.4
UALR				*e*pPKPdf	pPKPdf	08 28 10.7	-0.3
CPCT	**Cooper Cave**	**141.99**	**1**	*e*PKPdf	PKPdf	08 27 57.8	-3.0
SWET	**Sewanee**	**142.18**	**3**	*e*PKPdf	PKPdf	08 28 03.6	+2.4
PLAL	**Pickwick Lake**	**142.26**	**5**	*e*PKPdf	PKPdf	08 27 57.0	-4.4
PLAL				LR	LR		
	comp=Z,159µm,20.0s,MS7.8						
OXF	**Oxford**	**142.58**	**7**	*e*PKIKP	PKPdf	08 28 00.4	-1.5
OXF				MLR	MLR		
	comp=Z,176µm,20.0s,MS7.8						
TXAR	**Lajitas Array**	**142.95**	**29**	PKP	PKPdf	08 27 59.6	-3.2
	comp=Z,33nm,0.9s,baz=274,slow=1.4						
LPIG	**La Paz**	**143.04**	**42**	PKP	PKPdf	08 27 59.6	-3.4
	comp=Z,66nm,0.8s,baz=280,slow=0.7,SNR=13						
JSC	**Jenkinsville**	**143.06**	**356**	*e*PKIKP	PKPdf	08 27 59.2	-3.6
JCT	**Junction City**	**143.68**	**23**	*e*PKIKP	PKPdf	08 28 00.8	-3.2
JCT				MLR	MLR		
	comp=Z,137µm,20.0s,MS7.7						
GOGA	**Godfrey**	**144.02**	**359**	*e*PKIKP	PKPdf	08 28 02.4	-2.1
GOGA				MLR	MLR		
	comp=Z,214µm,21.0s,MS7.9						
NHSC	**New Hope**	**144.14**	**354**	*e*PKPdf	PKPdf	08 28 03.0	-1.7
NHSC				LR	LR		
	comp=Z,224µm,22.0s,MS7.9						
NATX	**Nacogdoches**	**144.21**	**16**	*e*PKPdf	PKPdf	08 28 03.4	-1.5
NATX				LR	LR		
	comp=Z,172µm,21.0s,MS7.8						
CCHI	**Chillan**	**144.56**	**197**	*e*P	PKPdf	08 28 04.2	-1.2
VBMS	**Vicksburg**	**144.67**	**10**	*e*PKPdf	PKPdf	08 28 04.5	-1.1
VBMS				LR	LR		
	comp=Z,166µm,20.0s,MS7.8						
CPUP	**Villa Florida**	**145.28**	**225**	PKPbc	PKPbc	08 28 05.8	-0.9
	comp=Z,37nm,0.8s,baz=95,slow=2.3,SNR=68						
HKT	**Hockley**	**145.57**	**18**	*e*PKP2	PKPab	08 28 07.0	-0.6
HKT				MLR	MLR		
	comp=Z,172µm,20.0s,MS7.8						
RPN	**Rapa Nui**	**145.75**	**137**	*i* PKP2	PKPab	08 28 09.6	+1.2
RPN	**Rapa Nui**	**145.75**	**137**	PKPbc	PKPbc	08 28 08.3	+0.2
	comp=Z,59nm,0.7s,baz=253,slow=3.3,SNR=7.3						
RPN	**Rapa Nui**	**145.75**	**137**	*e*PKPdf	PKPbc	08 28 08.6	+0.5
RPN				LR	LR		
	comp=Z,31µm,21.0s,MS7.1						
BRAL	**Brewton**	**146.29**	**5**	*e*PKPbc	PKPbc	08 28 09.6	0.0
BRAL				LR	LR		
	comp=Z,123µm,20.0s,MS7.7						
FCH	**Farellones**	**146.98**	**201**	*e*P	PKPdf	08 28 11.1	+1.5
KVTX	**Kingsville**	**147.04**	**23**	*e*PKPbc	PKPbc	08 28 12.6	+0.7
KVTX				LR	LR		
	comp=Z,153µm,19.0s,MS7.8						
PEL	**Peldehue**	**147.29**	**201**	*e*P	PKPdf	08 28 11.8	+1.8
CMCH	**Combarbala**	**149.18**	**202**	*e*P	PKPdf	08 28 11.7	-1.6
CMCH	**Combarbala**	**149.18**	**202**	*e*P	PKPdf	08 28 11.7	-1.6
DWPF	**Disney**	**149.20**	**356**	*e*PKPbc	PKPbc	08 28 15.4	-2.2
DWPF				LR	LR		
	comp=Z,197µm,20.0s,MS7.9						
CJM	**Chamela**	**149.74**	**42**	*e*P	PKPdf	08 28 15.8	+1.4
CJM				*i* S		08 28 38.1	
TLL	**Tololo Astrono**	**150.00**	**203**	*e*P	PKPbc	08 28 18.5	-1.0
ANWB	**Willy Bob**	**150.11**	**314**	*e*PKPbc	PKPbc	08 28 20.3	+0.2
ANWB				LR	LR		
	comp=Z,112µm,20.0s,MS7.7						
BPA	**Boggy Peak**	**150.56**	**313**	*e*	PKPab	08 28 29.2	+1.4
LCO	**Las Campanas**	**150.98**	**205**	*e*PKPbc	PKPbc	08 28 21.9	0.0
LCO				LR	LR		
	comp=Z,119µm,19.0s,MS7.7						
BBGH	**Gun Hill**	**151.02**	**304**	PFAKE		08 28 30.0	+13
BBGH				LR	LR		
	comp=Z,132µm,20.0s,MS7.7						
MVM	**Montagne Vaucl**	**151.33**	**308**	*e*P	PKPab	08 28 31.8	+0.7
FDF	**Fort de France**	**151.43**	**308**	*e*P	PKPbc	08 28 25.6	+2.3
FDF	**Fort de France**	**151.43**	**308**	*e*PKPbc	PKPbc	08 28 23.1	-0.2
FDF				LR	LR		
	comp=Z,121µm,20.0s,MS7.7						
BIM	**Bigot**	**151.50**	**308**	*e*P	PKPbc	08 28 25.6	+2.2
SLB	**Belfond**	**151.86**	**306**	*e*	PKPbc	08 28 23.4	-0.9
MOIG	**Morelia**	**152.05**	**36**	*i* P	PKPdf	08 28 18.1	+0.1
MOIG				*i* S		08 28 55.4	
SSV	**Crater Summit**	**152.26**	**306**	*e*	PKPbc	08 28 23.2	-2.0
MTP	**Monte Pirata**	**152.41**	**319**	*e*PKPbc	PKPbc	08 28 25.0	-0.4
CBYP	**Canovanas**	**152.48**	**320**	*e*PKPbc	PKPbc	08 28 24.6	-0.9
GRTK	**Grand Turk**	**152.77**	**333**	*e*PKPbc	PKPbc	08 28 24.5	-1.6
SJG	**San Juan**	**152.78**	**320**	PFAKE		08 28 30.0	+11
SJG				LR	LR		
	comp=Z,228µm,22.0s,MS7.9						
AGPR	**Aguadilla, PR**	**153.12**	**322**	*e*PKPdf	PKPbc	08 28 24.4	-2.6
ICM	**Isla Caja Muer**	**153.18**	**321**	*e*PKPbc	PKPbc	08 28 27.0	-0.2
GRHS	**Sauteurs**	**153.22**	**304**	*e*	PKPab	08 28 34.5	-4.5
GRW	**Mount Saint Ca**	**153.28**	**304**	*e*	PKPbc	08 28 27.4	-0.1
GRGR	**Grenville**	**153.28**	**304**	*e*PKPdf	PKPdf	08 28 21.8	+1.8
GRGR				LR	LR		
	comp=Z,73µm,22.0s,MS7.5						
CRPR	**Cabo Rojo, PR**	**153.46**	**322**	*e*PKPbc	PKPbc	08 28 28.0	+0.2
UNM	**Universidad Na**	**153.47**	**34**	*e*P	PKPdf	08 28 20.3	+0.2
UNM				*i* S		08 28 50.0	
SIV	**San Ignacio**	**153.85**	**238**	PKP	PKPdf	08 28 19.2	-1.5
	comp=Z,5.2nm,1.0s,baz=152,slow=3.7,SNR=3.4						
SIV				PKPbc	PKPbc	08 28 28.0	-0.7
	comp=Z,15nm,0.8s,baz=171,slow=2.2,SNR=13						
SIV				PP	PP	08 32 23.6	+7.7
	comp=Z,11nm,1.0s,baz=215,slow=21,SNR=2.9						
YAIG	**Yautepec**	**153.91**	**34**	*i* P	PKPdf	08 28 21.9	+1.1
YAIG				*i* S		08 28 55.4	
PPM	**Popocatepetl**	**153.99**	**33**	*i* P	PKPdf	08 28 17.7	-3.1
PPM				*i* S		08 32 31.2	
PLIG	**Platanillo**	**154.04**	**35**	*i* P	PKPdf	08 28 20.7	-0.2
PLIG				*i* S		08 28 39.9	
CAIG	**El Cayaco**	**154.62**	**39**	*i* P	PKPbc	08 28 26.2	-4.0
CAIG				*i* S		08 32 28.4	
MGV	**Manicaragua**	**154.96**	**351**	*e*P	PKPdf	08 28 20.5	-1.6
SDDR	**Presa de Saban**	**155.02**	**330**	*e*PKPbc	PKPdf	08 28 30.6	+8.4
SDDR				*e*PKPab	PKPab	08 28 46.3	-0.1
SDDR				LR	LR		
	comp=Z,185µm,22.0s,MS7.9						
MOAC	**Moa**	**155.08**	**339**	*e*P	PKPdf	08 28 18.0	-4.3
HLGC	**Holguin**	**155.23**	**342**	*e*P	PKPdf	08 28 22.8	+0.3
MASC	**Masc**	**155.26**	**338**	*e*P	PKPdf	08 28 31.8	+9.2
LVC	**Limon Verde**	**155.41**	**215**	PKP	PKPdf	08 28 21.9	-0.8
	comp=Z,2.9nm,0.7s						
LVC				PKPbc	PKPdf	08 28 31.1	+8.3
	comp=Z,13nm,0.8s,baz=131,slow=4.6,SNR=1.4						
LVC	**Limon Verde**	**155.41**	**215**	PKP	PKPdf	08 28 21.9	-0.8
LVC				*e*PKPdf	PKPdf	08 28 26.2	+3.5
LVC				PKPbc	PKPdf	08 28 31.1	+8.3
LVC				LR	LR		
	comp=Z,111µm,22.0s,MS7.6						
GTBY	**Guantanamo Bay**	**155.81**	**339**	PFAKE		08 28 30.0	+6.7
GTBY				LR	LR		
	comp=Z,148µm,20.0s,MS7.8						
RCC	**Rio Carpintero**	**155.95**	**340**	*e*P	PKPdf	08 28 20.0	-3.5
LMGC	**Las Mercedes**	**156.29**	**343**	*e*P	PKPdf	08 28 24.7	+0.7
PNIG	**Pinotepa**	**156.42**	**36**	*i* P	PKPdf	08 28 24.8	+0.6
PNIG				*i* S		08 32 42.1	
VHO	**Vista Hermosa**	**156.64**	**32**	*i* P	PKPdf	08 28 25.3	+0.9
VHO				*i* S		08 32 45.3	
TEIG	**Tepich**	**156.78**	**10**	PKP	PKPdf	08 28 24.4	-0.1
	comp=Z,14nm,0.9s,baz=353,slow=14,SNR=3.5						
TEIG				PKPab	PKPab	08 28 51.8	-2.1
	comp=Z,113nm,0.9s,baz=335,slow=4.5,SNR=11						
TEIG	**Tepich**	**156.78**	**10**	PKP	PKPdf	08 28 24.4	-0.2
TEIG				PKPab	PKPab	08 28 51.8	-2.1
TEIG				LR	LR		
	comp=Z,143µm,22.0s,MS7.8						
PCRV	**Puerto La Cruz**	**156.80**	**304**	PKP	PKPdf	08 28 23.6	-1.2
	comp=Z,3.9nm,0.7s,baz=48,slow=16,SNR=2.2						
PCRV				PP	PP	08 32 35.5	+3.3
	comp=Z,16nm,0.9s,baz=63,slow=10.0,SNR=1.9						
CMIG	**Matias Romero**	**157.55**	**28**	PKP	PKPdf	08 28 25.0	-0.7
	comp=Z,9.3nm,0.9s,baz=293,slow=3.2,SNR=10						
CMIG				PKPab	PKPab	08 28 56.6	-0.7
	comp=Z,49nm,0.8s,baz=310,slow=2.7,SNR=12						
CMIG				PP	PP	08 32 39.4	+4.2
	comp=Z,16nm,1.2s,baz=44,slow=8.2,SNR=2.7						
HUIG	**Huatulco**	**158.05**	**33**	*i* P	PKPdf	08 28 25.3	-1.0
HUIG				*i* S		08 32 53.6	
MTDJ	**Mount Denham**	**158.18**	**343**	*e*PKPdf	PKPdf	08 28 27.1	+0.7
CCIG	**Comitan**	**159.45**	**23**	*i* P	PKPdf	08 28 26.4	-1.5
CCIG				*i* S		08 29 07.5	
ARE	**Arequipa**	**161.63**	**221**	*e*PKIKP	PKPdf	08 28 30.0	-0.3
SDV	**Santo Domingo**	**162.32**	**311**	PKP	PKPdf	08 28 31.1	-0.1
	comp=Z,7.5nm,0.7s,baz=85,slow=1.8,SNR=11						
SDV	**Santo Domingo**	**162.32**	**311**	*e*PKPdf	PKPdf	08 28 31.5	+0.4
SDV				LR	LR		
	comp=Z,87µm,21.0s						
TGUH	**Tegucigalpa,Un**	**162.98**	**11**	PFAKE		08 28 40.0	+8.3
TGUH				LR	LR		
	comp=Z,101µm,20.0s						
JTS	**JuntasAbangare**	**167.00**	**4**	PKP	PKPdf	08 28 34.6	-0.6
	comp=Z,1.7nm,0.7s,baz=195,slow=23,SNR=2.2						
JTS				PP	PP	08 33 28.6	+3.7
	comp=Z,8.1nm,0.9s,baz=16,slow=12,SNR=3.3						
JTS	**JuntasAbangare**	**167.00**	**4**	*e*PKPdf	PKPdf	08 28 36.8	+1.6
JTS				LR	LR		
	comp=Z,133µm,22.0s						
BCIP	**Isla Barro Col**	**167.43**	**341**	*e*PKPdf	PKPdf	08 28 39.7	+4.2
BCIP				LR	LR		
	comp=Z,126µm,21.0s						
ROSC	**El Rosal**	**167.70**	**308**	PKP	PKPdf	08 28 35.9	+0.2
	comp=Z,18nm,0.9s,baz=162,slow=5.4,SNR=14						
ROSC				PP	PP	08 33 33.9	+3.8
	comp=Z,16nm,1.0s,baz=273,slow=18,SNR=2.7						
NNA	**Nana**	**168.39**	**218**	PKP	PKPdf	08 28 35.8	-0.3
	comp=Z,12nm,0.8s,baz=294,slow=1.6,SNR=6.4						
NNA	**Nana**	**168.39**	**218**	*e*PKPdf	PKPdf	08 28 36.9	+0.7
NNA				LR	LR		
	comp=Z,117µm,19.0s						
ATAH	**Atahualpa**	**172.98**	**233**	PKP	PKPdf	08 28 38.5	-0.1
	comp=Z,9.7nm,0.9s,baz=233,slow=3.6,SNR=6.4						
ATAH				PP	PP	08 34 00.4	+3.8
	comp=Z,7.2nm,0.8s,baz=119,slow=13,SNR=2.8						
PAYG	**Puerto Ayora**	**173.42**	**72**	*e*PKPdf	PKPdf	08 28 43.1	+4.2
PAYG				LR	LR		
	comp=Z,102µm,21.0s						
OTAV	**Otavalo**	**173.67**	**298**	*e*PKPdf	PKPdf	08 28 38.4	-0.5
OTAV				*e*pPKPdf	pPKPdf	08 28 47.2	-2.1
OTAV				LR	LR		
	comp=Z,165µm,19.0s						

IDC 20 08:12:20.2±3.6,3°.08N×96°.16E,h0^{km},mb5.3/7,mb1 5.3/9, mb1mx5.0/25,mbtmp5.2/9,ML4.9/1,MS7.0/3,Ms1 7.0/3, ms1mx6.3/44,1D,Error ellipse: s-maj=82.1km s-min=32.6km az=25.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.78	96	Pn	Pn	08 13 05.9	-0.1
	baz=140,slow=21,SNR=3.4						
CMAR	Chiang Mai Arr	15.52	10	Pn	Pn	08 16 01.1	+0.5
	1.8nm,0.3s,baz=212,slow=14,SNR=3.2						
RCP	Roxas	27.66	71	⇓eP	P	08 18 04.9	-5.2
KSRS	Korea Array	44.93	36	P	P	08 20 36.5	-0.4
	16nm,0.8s,baz=233,slow=7.7,SNR=2.8						
MKAR	Makanchi Array	45.18	347	P	P	08 20 38.6	-0.2
	36nm,0.8s,baz=160,slow=9.2,SNR=4.6						
SONM	Songino Array	45.45	10	P	P	08 20 41.6	+0.7
	52nm,0.8s,baz=188,slow=8.6,SNR=3.3						
KURK	Kurchatov	49.72	345	P	P	08 21 14.6	+0.5
	26nm,0.6s,baz=162,slow=6.6,SNR=2.8						
KURK				LR	LR	08 45 17.4	
	comp=Z,237μm,20.9s,baz=175,slow=40						
ZALV	Zalesovo Beam	51.55	351	P	P	08 21 27.4	-0.4
	36nm,0.5s,baz=173,slow=6.4,SNR=4.6						
BVAR	Borovoye Array	54.14	341	P	P	08 21 45.3	-1.7
	44nm,1.1s,baz=150,slow=12,SNR=2.0						
AKTO	Aktyubinsk	57.09	332	LR	LR	08 50 21.4	
	comp=Z,164μm,19.5s,baz=321,slow=40						
ARCES	ARCESS Array B	80.42	340	P	P	08 24 34.9	+1.5
	20nm,0.9s,baz=104,slow=7.5,SNR=2.0						
AFI	Afiamalu	92.74	104	LR	LR	09 00 34.7	
	comp=Z,43μm,22.0s,baz=118,slow=31						

IDC 20 08:13:05.0±12.0,3°.34S×96°.55E,h0^{km},mb4.9/4, mb1 4.9/5,mb1mx4.6/23,mbtmp4.9/5,Error ellipse: s-maj=283.8km s-min=80.1km az=143.0,Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	6.54	21	Pn	Pn	08 14 41.4	-1.2
	baz=93,slow=22,SNR=2.2						
MKAR	Makanchi Array	51.48	348	P	P	08 22 11.8	-0.3
	12nm,0.8s,baz=156,slow=8.1,SNR=3.5						
SONM	Songino Array	51.69	8	P	P	08 22 14.2	+0.5
	7.6nm,0.7s,baz=193,slow=9.0,SNR=4.5						
KURK	Kurchatov	56.00	346	P	P	08 22 46.4	+1.2
	49nm,1.3s,baz=155,slow=9.0,SNR=2.4						
ZALV	Zalesovo Beam	57.92	352	P	P	08 22 57.0	-1.8
	20nm,0.9s,baz=178,slow=8.7,SNR=2.2						

IDC 20 08:14:17.4±0.8,2°.57N×95°.99E,h0^{km},mb5.1/16, mb1 5.2/17,mb1mx5.0/27,mbtmp5.1/17,ML4.0/1,Error ellipse: s-maj=26.9km s-min=15.4km az=44.0
NEIC 20 08:14:21.7±0.6,2°.48N×95°.93E,h35^{km},Error ellipse: s-maj=14.0km s-min=7.7km az=46.0
ISCJB 20 08:14:23.0±3.0,2°.6N±0°.1×96°.1E±0°.2,h56^{km}±24^{km}, mb5.2/16,Error ellipse: s-maj=30.4km s-min=12.7km az=146.4
ISC 20 08:14:24.1±2.9,2°.6N±0°.1×96°.1E±0°.2,h49^{km}±24^{km},n24, σ0^{s}.66/22,mb5.2/16,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.84	85	Pn	Pn	08 15 07.3	+0.3
	21nm,0.3s,baz=102,slow=18,SNR=9.8						
KULM	Kulim	5.29	59	ePn	Pn	08 15 40.5	-0.1
KAPI	Kappang	24.82	108	P	P	08 19 41.8	-0.1
	99nm,1.0s,mb5.3,baz=280,slow=11						
MBWA	Marble Bar	33.05	137	P	P	08 20 53.7	-1.4
FITZ	Fitzroy Crossi	35.63	126	P	P	08 21 17.1	-0.5
GTA	Gaotai	36.82	5	eP	P	08 21 27.5	+0.2
GTA				pP	pP	08 21 35.8	-4.5
GTA				sP	sP	08 21 40.4	-5.7
GTA				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.7						
WRA	Warramunga Arr	43.71	123	P	P	08 22 25.5	+0.8
	comp=Z,27nm,1.0s,mb4.9,baz=286,slow=7.7,SNR=3.9						
ASAR	Alice Springs	45.11	127	P	P	08 22 35.7	-0.1
	comp=Z,13nm,0.9s,mb4.8,baz=317,slow=6.5,SNR=2.8						
KSRS	Korea Array	45.37	36	P	P	08 22 37.5	-0.2
	comp=Z,9.5nm,0.7s,mb4.7,baz=225,slow=8.5,SNR=5.5						
MKAR	Makanchi Array	45.65	347	P	P	08 22 40.2	+0.5
	comp=Z,38nm,0.7s,mb5.5,baz=161,slow=7.9,SNR=25						
MKAR	Makanchi Array	45.65	347	P	P	08 22 40.2	+0.5
SONM	Songino Array	45.95	10	P	P	08 22 42.2	+0.1
	comp=Z,24nm,0.6s,mb5.3,baz=191,slow=9.1,SNR=11						
SONM				PcP	PcP	08 24 19.9	+1.7
	comp=Z,14nm,1.0s,baz=200,slow=3.9,SNR=3.4						
KURK	Kurchatov	50.19	346	P	P	08 23 14.4	-0.3
	comp=Z,34nm,0.6s,mb5.5,baz=165,slow=6.6,SNR=12						
MJAR	Matsushiro Arr	51.45	44	P	P	08 23 24.6	+0.1
	comp=Z,20nm,1.0s,mb5.0,baz=236,slow=4.9,SNR=4.1						
ZALV	Zalesovo Beam	52.03	352	P	P	08 23 28.1	-0.4
	comp=Z,44nm,0.5s,mb5.6,baz=175,slow=6.9,SNR=8.3						
BVAR	Borovoye Array	54.59	341	P	P	08 23 46.9	-0.5
	comp=Z,20nm,0.7s,mb5.3,baz=137,slow=7.8,SNR=4.8						
MMAI	Mount Meron Ar	64.20	306	P	P	08 24 55.2	+1.1
	comp=Z,2.0nm,0.4s,baz=97,slow=9.3,SNR=3.4						
AKASG	Malin Array Be	73.49	322	P	P	08 25 50.4	-1.1
	comp=Z,8.1nm,0.7s,mb4.8,baz=87,slow=6.0,SNR=3.1						
ARCES	ARCESS Array B	80.87	340	P	P	08 26 32.4	-0.1
	comp=Z,14nm,0.9s,mb4.9,baz=105,slow=5.8,SNR=5.3						
RPZ	Rata Peaks	80.96	135	P	P	08 26 35.0	+1.5
	comp=Z,18nm,1.0s,mb5.0,baz=280,slow=6.1,SNR=3.5						
GERES	GERESS Array B	83.05	319	P	P	08 26 45.0	+0.7
	comp=Z,9.7nm,0.9s,mb4.8,baz=88,slow=5.4,SNR=4.4						
TORD	Torodi Ar. Bea	93.69	283	P	P	08 27 35.8	-0.4
	comp=Z,11nm,0.8s,mb5.3,baz=64,slow=3.4,SNR=2.5						
PDAR	Pinedale Array	129.27	24	PKP	PKPdf	08 33 28.7	+1.3
	comp=Z,6.7nm,1.1s,baz=5.2,slow=1.0,SNR=3.6						
CFAA	Coronel Fontan	147.57	205	PKPbc	PKPbc	08 34 03.0	-0.6
	comp=Z,1.8nm,1.0s,baz=157,slow=1.8,SNR=5.0						

IDC 20 08:17:10.0±7.3,2°.55N×95°.64E,h0^{km},mb4.6/4,mb1 4.6/5, mb1mx4.2/23,mbtmp4.6/5,Error ellipse: s-maj=180.8km s-min=39.5km az=23.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.29	85	Pn	Pn	08 18 02.8	0.0
	baz=121,slow=18,SNR=3.7						
MKAR	Makanchi Array	45.58	347	P	P	08 25 31.9	+0.2
	5.8nm,0.8s,baz=159,slow=9.3,SNR=4.7						
KURK	Kurchatov	50.11	346	P	P	08 26 05.9	-1.0
	14nm,1.1s,baz=168,slow=12,SNR=2.6						
ZALV	Zalesovo Beam	52.00	352	P	P	08 26 21.1	+0.1
	12nm,0.9s,baz=165,slow=13,SNR=2.2						
ARCES	ARCESS Array B	80.75	340	P	P	08 29 25.1	+0.2
	14nm,1.1s,baz=102,slow=8.4,SNR=3.1						

IDC 20 08:25:12.5±2.3,2°.70N×96°.20E,h0^{km},mb4.1/5,mb1 4.1/7, mb1mx3.8/24,mbtmp4.0/7,ML3.8/2,Error ellipse: s-maj=65.1km s-min=24.1km az=45.0
ISCJB 20 08:25:14.6±0.9,2°.6N±0°.1×96°.1E±0°.1,h33^{km},mb4.2/5, Error ellipse: s-maj=20.6km s-min=11.9km az=138.2
NEIC 20 08:25:16.7±0.9,2°.62N×96°.14E,h35^{km},Error ellipse: s-maj=20.3km s-min=11.3km az=51.0
ISC 20 08:25:16.7±1.0,2°.6N±0°.1×96°.1E±0°.1,h35^{km},n14, σ0^{s}.70/14,mb4.2/5,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.81	85	Pn	Pn	08 25 58.7	-0.5
	1.9nm,0.3s,baz=160,slow=9.3,SNR=3.7						
PSI	Prapat	2.81	85	Pn	Pn	08 25 58.7	-0.5
KULM	Kulim	5.27	59	ePn	Pn	08 26 34.0	+0.9
CMAR	Chiang Mai Arr	16.04	10	Pn	Pn	08 28 56.4	-3.3
	0.5nm,0.3s,baz=198,slow=10,SNR=2.5						
XMIS	Christmas Isla	16.06	144	Pn	Pn	08 28 59.8	-0.2
WRA	Warramunga Arr	43.67	123	P	P	08 33 18.9	+0.4
	1.0nm,1.0s,mb3.5,baz=304,slow=8.8,SNR=3.8						
MK31	Makanchi Array	45.67	347	eP	P	08 33 34.3	+0.3
MKAR	Makanchi Array	45.67	347	P	P	08 33 34.5	+0.6
	4.3nm,0.8s,mb4.5,baz=158,slow=8.7,SNR=20						
SONM	Songino Array	45.97	10	P	P	08 33 36.5	+0.2
	2.1nm,0.8s,mb4.1,baz=184,slow=9.6,SNR=3.7						
KURK	Kurchatov	50.21	346	P	P	08 34 09.5	+0.5
	baz=171,slow=6.5						
KURK	Kurchatov	50.21	346	P	P	08 34 09.5	+0.5
ZALV	Zalesovo Beam	52.06	352	P	P	08 34 22.4	-0.5
	4.1nm,0.6s,mb4.5,baz=180,slow=5.9,SNR=6.4						
BVAR	Borovoye Array	54.62	341	P	P	08 34 41.5	-0.2
	1.8nm,0.8s,mb4.2,baz=137,slow=9.1,SNR=4.5						
BPAW	Bear Paw Mtn.	97.52	24	eP	P	08 38 46.3	-0.6

NEIC 20 08:26:40.9,35°.52N×0°.58E,h0^{km},MG3.7(MDD),After MDD.
ISCJB 20 08:26:41.8±0.5,35°.63N±0°.05×0°.52E±0°.04,h20^{km}±8^{km}, Error ellipse: s-maj=9.3km s-min=4.5km az=155.0
CRAAG 20 08:26:41.8,35°.65N×0°.56E,Ml3.6
CSEM 20 08:26:42.6±0.2,35°.72N×0°.45E,h2^{km},ML3.6,Error ellipse: s-maj=6.0km s-min=4.2km az=2.0
MDD 20 08:26:42.4±0.4,35°.62N×0°.51E,h0^{km},mb4.1/9,Error ellipse: s-maj=4.6km s-min=3.4km az=6.0,PRIMO
MDD EMS: II INTENSIDAD MIMA ESPA.
ISC 20 08:26:42.1±0.5,35°.63N±0°.05×0°.52E±0°.04,h11^{km}±6^{km}, n83,σ1^{s}.01/129,Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJBR	Djebel Berber	0.15	253	P	Pg	08 26 46.0	+0.5
OJBR	Djebel Berber	0.15	253	P	Pg	08 26 46.0	+0.5
OJGS	Djebel Guires	0.22	124	P	Pg	08 26 47.5	+0.8
OJGS	Djebel Guires	0.22	124	P	Pg	08 26 47.5	+0.8
OKGL	Djebel Kef Gue	0.42	13	P	Pg	08 26 50.0	-0.3
OKGL	Djebel Kef Gue	0.42	13	P	Pg	08 26 50.0	-0.3
EANR	'Ain N'Sour	0.57	56	P	Pg	08 26 53.0	-0.1
EANR	'Ain N'Sour	0.57	56	P	Pg	08 26 53.0	-0.1
ODJA	Bouhanifia	0.62	242	P	Pg	08 26 52.5	-1.7
ETRT	Tiaret	0.68	110	P	Pg	08 26 53.3	-1.9
ETRT	Tiaret	0.68	110	P	Pg	08 26 53.3	-1.9
ECHF	Ech Chlef	0.85	51	P	Pg	08 26 58.0	-0.4
ECHA	Ech Chlef	0.86	53	P	Pg	08 26 58.0	-0.7
ECHA	Ech Chlef	0.86	53	P	Pg	08 26 58.0	-0.7
USTO	Oran	0.88	277	P	Pg	08 27 02.5	+3.5
EBNR	Beni Rached	1.05	51	P	Pg	08 27 02.0	-0.3
EBNR	Beni Rached	1.05	51	P	Pg	08 27 02.0	-0.3
EMHD	Djebel Mahouad	2.05	73	P	Pn	08 27 22.7	+6.2
EMHD	Djebel Mahouad	2.05	73	P	Pn	08 27 22.7	+6.2
ABA	Alger-Bouzarea	2.34	59	P	Pn	08 27 25.0	+4.5
ABA	Alger-Bouzarea	2.34	59	P	Pn	08 27 25.0	+4.5
ADJB	Djebel Djouab	2.42	77	P	Pn	08 27 26.6	+5.0
ADJB	Djebel Djouab	2.42	77	P	Pn	08 27 26.6	+5.0
ENIJ	Nijar	2.58	302	P	Pn	08 27 22.8	-1.0
	9.9nm,0.2s,SNR=7.9						
ENIJ				S	Sn	08 27 55.4	+0.3
	4.2nm,0.2s,SNR=4.0						
ENIJ	Nijar	2.58	302	P	Pn	08 27 24.6	+0.8
ENIJ				S	Sn	08 27 55.9	+0.8
ENIJ	Nijar	2.58	302	P	Pn	08 27 22.8	-1.0
	9.9nm,0.2s,SNR=7.9						
ENIJ				S	Sn	08 27 55.4	+0.3
	4.2nm,0.2s,SNR=4.0						
EMUR	La Murta	2.62	328	P	Pn	08 27 24.3	0.0
	10.0nm,0.2s,SNR=6.0						
EMUR				S	Sn	08 27 56.9	+0.7
	0.7nm,0.4s,SNR=7.9						
EMUR	La Murta	2.62	328	P	Pn	08 27 24.4	0.0
EMUR				S	Sn	08 27 58.0	+1.8
EMUR	La Murta	2.62	328	P	Pn	08 27 24.3	-0.1
	10.0nm,0.2s,SNR=6.0						
EMUR				S	Sn	08 27 56.9	+0.7
	0.7nm,0.4s,SNR=7.9						
AKET	Djebel Ketaf	2.76	80	P	Pn	08 27 28.4	+2.1
AKET	Djebel Ketaf	2.76	80	P	Pn	08 27 28.4	+2.1
EALB	Alboran	2.91	277	S	Sn	08 28 01.9	-1.3
	4.6nm,0.2s,SNR=7.9						
EALB	Alboran	2.91	277	S	Sn	08 28 01.9	-1.3
	4.6nm,0.2s,SNR=7.9						
EBER	Berja	3.03	296	P	Pn	08 27 29.7	-0.3
	17nm,0.2s,SNR=39						
EBER				S	Sn	08 28 05.9	-0.4
	3.7nm,0.2s,SNR=7.9						
EBER	Berja	3.03	296	P	Pn	08 27 29.7	-0.3
	17nm,0.2s,SNR=39						
EBER				S	Sn	08 28 05.9	-0.4
	3.7nm,0.2s,SNR=7.9						
EBEN	Beniarda	3.13	349	P	Pn	08 27 31.9	+0.7
	1.8nm,0.2s,SNR=8.0						
EBEN				S	Sn	08 28 09.1	+0.5
	0.7nm,0.2s,SNR=7.9						
EBEN	Beniarda	3.13	349	P	Pn	08 27 31.9	+0.7
EBEN				S	Sn	08 28 10.5	+1.9
EBEN	Beniarda	3.13	349	P	Pn	08 27 31.9	+0.6
	1.8nm,0.2s,SNR=8.0						
EBEN				S	Sn	08 28 09.1	+0.5
	0.7nm,0.2s,SNR=7.9						
EHUE	Huescar	3.32	312	P	Pn	08 27 34.6	+0.7
	2.9nm,0.1s,SNR=7.9						
EHUE				S	Sn	08 28 13.3	-0.1
	0.5nm,0.1s,SNR=7.9						
EHUE	Huescar	3.32	312	P	Pn	08 27 33.9	0.0
EHUE				S	Sn	08 28 13.3	-0.1
EHUE	Huescar	3.32	312	P	Pn	08 27 34.6	+0.7
	2.9nm,0.1s,SNR=7.9						
EHUE				S	Sn	08 28 13.3	-0.1
	0.5nm,0.1s,SNR=7.9						
ETOB	Tobarra	3.43	332	P	Pn	08 27 36.5	+0.9
	11nm,0.2s,SNR=31						
ETOB				S	Sn	08 28 15.6	-0.6
	0.9nm,0.4s,SNR=7.9						
ETOB	Tobarra	3.43	332	P	Pn	08 27 36.5	+1.0
	11nm,0.2s,SNR=31						
ETOB				S	Sn	08 28 15.6	-0.6
	0.9nm,0.4s,SNR=7.9						
EIBI	Ibiza	3.45	11	P	Pn	08 27 35.7	-0.1
	6.4nm,0.2s,SNR=7.9						
EIBI				S	Sn	08 28 15.7	-1.0
	1.9nm,0.2s,SNR=7.9						
EIBI	Ibiza	3.45	11	P	Pn	08 27 35.7	-0.1
	6.4nm,0.2s,SNR=7.9						
EIBI				S	Sn	08 28 15.7	-1.0
	1.9nm,0.2s,SNR=7.9						
EGUA	Guajares	3.52	291	P	Pn	08 27 35.8	-0.9
	12nm,0.3s,SNR=7.9						
EGUA				S	Sn	08 28 17.4	-0.9
	0.6nm,0.3s,SNR=7.9						
EGUA	Guajares	3.52	291	P	Pn	08 27 35.8	-0.9
EGUA				S	Sn	08 28 17.4	-0.9
EGUA	Guajares	3.52	291	P	Pn	08 27 35.8	-0.9
	12nm,0.3s,SNR=7.9						
EGUA				S	Sn	08 28 17.4	-0.8
	0.6nm,0.3s,SNR=7.9						
EQUE	Quentar	3.56	297	P	Pn	08 27 38.4	+1.1
	16nm,0.3s,SNR=17						
EQUE				S	Sn	08 28 19.5	+0.1
	1.1nm,0.2s,SNR=7.9						
EQUE	Quentar	3.56	297	P	Pn	08 27 38.4	+1.1
	16nm,0.3s,SNR=17						
EQUE				S	Sn	08 28 19.5	+0.1
	1.1nm,0.2s,SNR=7.9						
EQES	Quesada	3.61	308	P	Pn	08 27 39.5	+1.6
	11nm,0.2s,SNR=7.9						
EQES				S	Sn	08 28 21.3	+0.7
	2.4nm,0.1s,SNR=7.9						
EQES	Quesada	3.61	308	P	Pn	08 27 39.3	+1.4
EQES				S	Sn	08 28 21.3	+0.7
EQES	Quesada	3.61	308	P	Pn	08 27 39.5	+1.5
	11nm,0.2s,SNR=7.9						
EQES				S	Sn	08 28 21.3	+0.7
	2.4nm,0.1s,SNR=7.9						
ECOG	Cogollos-Vega	3.68	298	P	Pn	08 27 39.7	+0.7
	3.3nm,0.2s,SNR=7.9						
ECOG	Cogollos-Vega	3.68	298	P	Pn	08 27 39.7	+0.8
	3.3nm,0.2s,SNR=7.9						
ERON	Agron	3.76	293	P	Pn	08 27 41.0	+1.0
	4.9nm,0.2s,SNR=7.9						
ERON	Agron	3.76	293	P	Pn	08 27 41.6	+1.6
ERON	Agron	3.76	293	P	Pn	08 27 41.0	+1.0
	4.9nm,0.2s,SNR=7.9						
EVIA	Vianos	3.85	322	P	Pn	08 27 42.0	+0.7
	11nm,0.2s,SNR=11						
EVIA				S	Sn	08 28 26.0	-0.6
	6.7nm,0.2s,SNR=6.1						
EVIA	Vianos	3.85	322	P	Pn	08 27 42.0	+0.7
EVIA				S	Sn	08 28 27.5	+0.9
EVIA	Vianos	3.85	322	P	Pn	08 27 42.0	+0.7
	11nm,0.2s,SNR=11						
EVIA				S	Sn	08 28 26.0	-0.6
	6.7nm,0.2s,SNR=6.1						
ECHE	Chera	4.13	344	P	Pn	08 27 45.5	+0.5
	6.0nm,0.4s,SNR=6.3						
ECHE				S	Sn	08 28 32.5	-0.8
	0.5nm,0.5s,SNR=7.9						
ECHE	Chera	4.13	344	P	Pn	08 27 46.1	+1.0
ECHE				S	Sn	08 28 32.5	-0.8
ECHE	Chera	4.13	344	P	Pn	08 27 45.5	+0.5
	6.0nm,0.4s,SNR=6.3						
ECHE				S	Sn	08 28 32.5	-0.8
	0.5nm,0.5s,SNR=7.9						
EBAN	Banos Encina	4.28	307	P	Pn	08 27 47.4	+0.3
	5.5nm,0.2s,SNR=7.9						
EBAN				S	Sn	08 28 36.5	-0.6
	2.0nm,0.2s,SNR=7.9						
EBAN	Banos Encina	4.28	307	P	Pn	08 27 48.0	+0.8
EBAN				S	Sn	08 28 36.5	-0.6
EBAN	Banos Encina	4.28	307	P	Pn	08 27 47.4	+0.2
	5.5nm,0.2s,SNR=7.9						
EBAN				S	Sn	08 28 36.5	-0.6
	2.0nm,0.2s,SNR=7.9						
EMIJ	Mijas	4.39	284	P	Pn	08 27 47.0	-1.7
	4.4nm,0.3s,SNR=7.9						
EMIJ				S	Sn	08 28 36.8	-3.0
	0.5nm,0.4s,SNR=7.9						
EMIJ	Mijas	4.39	284	P	Pn	08 27 47.0	-1.7
EMIJ				S	Sn	08 28 37.6	-2.1
EMIJ	Mijas	4.39	284	P	Pn	08 27 47.0	-1.6
	4.4nm,0.3s,SNR=7.9						
EMIJ				S	Sn	08 28 36.8	-2.9
	0.5nm,0.4s,SNR=7.9						
ETOS	Mallorca	4.51	23	P	Pn	08 27 49.5	-0.8
	1.4nm,0.3s,SNR=7.9						
ETOS				S	Sn	08 28 41.1	-1.7
	0.5nm,0.2s,SNR=7.9						
ETOS	Mallorca	4.51	23	P	Pn	08 27 49.5	-0.8
ETOS				S	Sn	08 28 41.8	-1.0
ETOS	Mallorca	4.51	23	P	Pn	08 27 49.5	-0.8
	1.4nm,0.3s,SNR=7.9						
ETOS				S	Sn	08 28 41.1	-1.7
	0.5nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	4.79	351	P	Pn	08 27 55.6	+1.5
	0.9nm,0.2s,SNR=6.6						
EMOS				S	Sn	08 28 49.4	-0.2
	0.4nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	4.79	351	P	Pn	08 27 55.6	+1.4
	0.9nm,0.2s,SNR=6.6						
EMOS				S	Sn	08 28 49.4	-0.3
	0.4nm,0.2s,SNR=7.9						
ERTA	Horta de San J	5.32	358	P	Pn	08 28 04.4	+2.9
	0.6nm,0.1s,SNR=7.9						
ERTA				S	Sn	08 29 01.5	-1.2
	0.1nm,0.3s,SNR=7.9						
ERTA	Horta de San J	5.32	358	P	Pn	08 28 02.8	+1.4
ERTA				S	Sn	08 29 02.5	-0.2
ERTA	Horta de San J	5.32	358	P	Pn	08 28 04.4	+3.0
	0.6nm,0.1s,SNR=7.9						
ERTA				S	Sn	08 29 01.5	-1.2
	0.1nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	6.16	292	P	Pn	08 28 13.2	+0.2
	0.1nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	6.16	292	P	Pn	08 28 13.9	+0.9
EMIN	Mina Concepcio	6.16	292	P	Pn	08 28 13.2	+0.2
	0.1nm,0.1s,SNR=7.9						
GUD	Guadarrama	6.21	325	P	Pn	08 28 14.2	+0.4
	1.5nm,0.2s,SNR=7.9						
GUD	Guadarrama	6.21	325	P	Pn	08 28 14.2	+0.5
	1.5nm,0.2s,SNR=7.9						

BJI 20 08:28:14.5,2°.09N×96°.02E,h37^{km},mB5.4/2,mb5.3/38, Ms5.6/6,Ms7 5.3/7
IDC 20 08:28:14.9±0.4,2°.59N×96°.07E,h0^{km},mb4.8/26, mb1 4.8/28,mb1mx4.8/32,mbtmp4.8/28,ML5.2/1,Error ellipse: s-maj=14.5km s-min=10.8km az=39.0
ISCJB 20 08:28:17.4±1.3,2°.61N±0°.04×96°.06E±0°.03,h25^{km}±9^{km}, mb5.2/113,MS6.0/3,Error ellipse: s-maj=6.6km s-min=4.8km az=39.7
MOS 20 08:28:18.7±1.0,2°.68N×96°.17E,h33^{km},mb5.4/56,Error ellipse: s-maj=8.0km s-min=4.7km az=116.4
DJA 20 08:28:19,2°.57N×95°.88E,h30^{km},mb5.5/10
SZGRF 20 08:28:19.6,2°.61N×96°.35E,h33^{km},mb5.3,Northern Sumatera, Indonesia
NEIC 20 08:28:20.3±0.2,2°.61N×96°.14E,h35^{km},mb5.4/54,Error ellipse: s-maj=5.7km s-min=3.6km az=37.0
ISC 20 08:28:20.8±0.7,2°.61N±0°.04×96°.08E±0°.04,h37^{km}±6^{km}, h36^{km}±1.5^{km}:pP-P,n347,σ0^{s}.97/313,mb5.2/113,MS6.0/3, 18C-8D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	1.98	131	P	Pn	08 28 49.4	-2.5
PSI	Prapat	2.85	86	P	Pn	08 29 02.8	-1.0
PSI				pmax	pmax		
	comp=Z,36nm,0.3s						
PSI	Prapat	2.85	86	Pn	Pn	08 29 02.8	-1.1
	comp=Z,36nm,0.3s,baz=279,slow=6.5,SNR=32						
BSI	Banda Aceh	2.97	345	P	Pn	08 29 03.5	-2.0
IPM	Ipoh	5.28	69	P	Pn	08 29 38.5	+1.3
IPM	Ipoh	5.28	69	P	Pn	08 29 37.7	+0.5
	comp=Z,486nm,0.9s,comp=Z,4.6nm						
KULM	Kulim	5.28	60	P	Pn	08 29 38.5	+1.2
KULM	Kulim	5.28	60	ePn	Pn	08 29 38.1	+0.8
KULM	Kulim	5.28	60	P	Pn	08 29 37.7	+0.4
	comp=Z,1μm,0.9s,comp=Z,3.6nm						
PPI	Padang Panjang	5.29	125	P	Pn	08 29 36.9	-0.5
	comp=Z,403nm,0.9s,comp=Z,4.1nm						
FRIM	Kepong	5.58	83	P	Pn	08 29 41.8	+0.5
PDSI	Padang	5.61	129	P	Pn	08 29 41.3	-0.5
	comp=Z,426nm,0.6s,comp=Z,7.0nm						
KGM	Kluang	7.26	95	P	Pn	08 30 05.5	+1.0
KTGM	Kuala Trenggan	7.54	69	P	Pn	08 30 08.9	+0.6
MYKOM	Kota Tinggi	7.81	96	P	Pn	08 30 12.7	+0.6
MYKOM	Kota Tinggi	7.81	96	P	Pn	08 30 12.2	+0.1
	comp=Z,209nm,0.8s,comp=Z,2.8nm						
KSI	Kapahiang	9.01	134	P	Pn	08 30 28.2	-0.3
	comp=Z,958nm,0.8s						
MNAI	Manna	9.76	135	P	Pn	08 30 46.7	+7.9
KASI	Kota Agung	11.66	134	P	Pn	08 31 00.4	-4.5
KSM	Kuching	14.27	94	P	Pn	08 31 41.4	+1.0
KSM	Kuching	14.27	94	ePn	Pn	08 31 40.0	-0.5
CMAR	Chiang Mai Arr	16.00	10	P	Pn	08 32 01.7	-1.5
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CMAR	Chiang Mai Arr	16.00	10	Pn	Pn	08 32 01.7	-1.5
	comp=Z,3.0nm,0.3s,baz=197,slow=11,SNR=48						
SBUM	Sibu	16.13	90	P	Pn	08 32 05.7	+0.8
SBUM	Sibu	16.13	90	P	Pn	08 32 06.9	+1.9
	comp=Z,117nm,0.8s						
CHTO	Chiang Mai	16.34	10	eP	Pn	08 32 06.3	-1.3
CHTO				pmax	pmax		
	comp=Z,168nm,1.5s						
CHTO	Chiang Mai	16.34	10	ePn	Pn	08 32 06.3	-1.3
	comp=Z,168nm,1.5s						
BTM	Bintulu	17.00	88	P	Pn	08 32 17.5	+1.6
KBKI	Kotabaru	20.92	106	P	P	08 33 03.6	+3.1
	comp=Z,169nm,0.8s						
KDM	Kudat	21.12	78	P	P	08 33 05.2	+2.7
SDKM	Sandakan	21.27	81	P	P	08 33 04.8	+0.5
SMKI	Samarinda	21.34	98	P	P	08 33 11.2	+6.2
TSM	Tawau	21.82	85	P	P	08 33 11.6	+1.4
KHKI	Kahang-Kahang	22.32	119	P	P	08 33 18.2	+2.7
	comp=Z,123nm,0.8s,mb5.4						
MYLDM	Lahad Datu	22.51	83	P	P	08 33 18.6	+1.1
HYB	Hyderabad	22.64	312	i P	P	08 33 19.5	+0.7
HYB	Hyderabad	22.64	312	eP	P	08 33 18.0	-0.8
KMI	Kunming	23.28	15	⇓P	P	08 33 26.5	+1.0
KMI				S	S	08 37 32.8	-2.4
KMI				pmax	pmax		
	comp=Z,47nm,1.3s,mb4.8						
PCI	Palu	24.01	98	P	P	08 33 32.6	+0.2
KAPI	Kappang	24.84	108	P	P	08 33 39.2	-0.8
	comp=Z,87nm,0.9s,mb5.3,baz=292,slow=9.5,SNR=10.0						
KAPI	Kappang	24.84	108	P	P	08 33 39.2	-0.8
ODAN	Odare	25.51	342	eP	P	08 33 45.5	-0.4
GYA	Guiyang	25.80	22	⇑iP	P	08 33 48.9	+0.4
GYA				pP	pP	08 34 00.1	+1.2
GYA				sP	sP	08 34 04.6	+1.2
GYA				PP		08 34 31.3	
GYA				S	S	08 38 14.6	-0.9
GYA				sS	sS	08 38 32.1	-0.7
GYA				SS		08 39 21.0	
GYA				ScP	ScP	08 40 53.4	-1.1
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb4.9						

GYA				pmax	pmax		
	comp=Z,240nm,4.4s						
GYA				LR	LR		
	comp=N,9µm,17.4s,MS5.5						
GYA				LR	LR		
	comp=E,7µm,18.3s,MS5.5						
GYA				LR	LR		
	comp=Z,8µm,17.0s,MS5.3						
RAMN	**Ramite**	25.85	340	eP	P	08 33 49.1	+0.1
	comp=Z,317nm,0.8s,mb5.9						
TAPN	**Taplejung**	25.87	343	eP	P	08 33 49.1	-0.1
JIRN	**Jiri**	26.64	340	eP	P	08 33 56.4	+0.3
	comp=Z,426nm,0.8s,mb6.0						
PKI	**Pulchoki**	26.83	339	eP	P	08 33 57.9	0.0
	comp=Z,370nm,1.3s,mb5.8						
PKI	**Pulchoki**	26.83	339	eP	P	08 33 57.9	0.0
PKI				pmax	pmax		
	comp=Z,371nm,1.3s,mb5.8						
PKIN	**Phulchoki**	26.84	339	eP	P	08 33 57.7	-0.3
GUN	**Gumba**	26.98	340	eP	P	08 33 59.3	+0.1
	comp=Z,334nm,0.8s,mb5.9						
DMN	**Daman**	26.98	338	eP	P	08 33 59.3	+0.1
	comp=Z,201nm,1.0s,mb5.6						
TGY	**Tagaytay City**	27.08	64	P	P	08 34 00.1	-0.1
TGY				pmax	pmax		
	comp=Z,176nm,0.3s						
TGY	**Tagaytay City**	27.08	64	P	P	08 34 00.1	-0.1
	comp=Z,176nm,0.3s,mb6.0,baz=301,slow=0.9,SNR=5.1						
KKN	**Kakani**	27.08	339	eP	P	08 33 59.7	-0.4
	comp=Z,327nm,1.0s,mb5.8						
KKN	**Kakani**	27.08	339	eP	P	08 33 59.7	-0.4
KKN				pmax	pmax		
	comp=Z,327nm,1.0s,mb5.8						
LSA	**Lhasa**	27.34	351	P	P	08 34 03.0	+0.6
LSA	**Lhasa**	27.34	351	eP	P	08 34 03.0	+0.6
LSA				pmax	pmax		
	comp=Z,265nm,1.4s,mb5.6						
LSA	**Lhasa**	27.34	351	eP	P	08 34 03.0	+0.6
	comp=Z,265nm,1.4s,mb5.6						
GKN	**Gorkha**	27.51	338	eP	P	08 34 03.7	-0.3
	comp=Z,431nm,1.0s,mb6.0						
KOLN	**Koldanda**	27.71	336	eP	P	08 34 05.3	-0.5
	comp=Z,204nm,0.8s,mb5.8						
DANN	**Dangsing**	28.16	337	eP	P	08 34 09.8	0.0
	comp=Z,147nm,0.6s,mb5.8						
CD2	**Chengdu**	29.07	14	P	P	08 34 20.6	+2.8
CD2				pP	pP	08 34 30.1	+1.8
CD2				sP	sP	08 34 34.3	+1.5
CD2				PP	PP	08 35 15.6	-8.3
CD2				S	S	08 39 09.5	+2.5
CD2				sS	sS	08 39 25.4	+1.0
CD2				SS	SS	08 40 40.8	-31
CD2				LR	LR		
	comp=Z,4µm,16.3s						
XAN	**Xi’an**	33.49	20	P	P	08 34 55.8	-0.9
XAN				pP	pP	08 35 06.3	-0.9
XAN				sP	sP	08 35 11.3	-0.4
XAN				pmax	pmax		
	comp=Z,96nm,0.9s,mb5.7						
LZH	**Lanzhou**	34.08	11	eP	P	08 35 01.3	-0.5
LZH				pP	pP	08 35 10.3	-2.0
LZH				sP	sP	08 35 14.0	-2.8
LZH				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
LZH				pmax	pmax		
	comp=Z,580nm,5.3s						
THN	**Thein Dam**	35.30	329	ePKP	P	08 35 10.0	-2.4
FITZ	**Fitzroy Crossi**	35.66	126	eP	P	08 35 13.7	-2.0
	comp=Z,41nm,0.8s,mb5.4						
FITZ	**Fitzroy Crossi**	35.66	126	eP	P	08 35 13.1	-2.6
	comp=Z,22nm,0.8s,mb5.1						
NJ2	**Nanjing**	36.29	34	eP	P	08 35 22.6	+1.7
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
GTA	**Gaotai**	36.78	5	eP	P	08 35 24.3	-0.7
GTA				pP	pP	08 35 34.6	-1.0
GTA				sP	sP	08 35 38.6	-1.5
GTA				pmax	pmax		
	comp=Z,140nm,0.9s,mb5.8						
JOW	**Kunigami**	39.13	49	P	P	08 35 45.1	+0.1
	comp=Z,13nm,0.6s,mb4.8,baz=251,slow=27,SNR=4.1						
KAKA	**Kakadu**	39.19	114	eP	P	08 35 43.7	-1.9
	comp=Z,68nm,0.6s,mb5.6						
KAKA	**Kakadu**	39.19	114	eP	P	08 35 42.9	-2.8
	comp=Z,221nm,0.8s,mb5.9						
HHC	**Hu-ho-hao-te**	40.55	18	eP	P	08 35 57.5	+0.9
HHC				pP	pP	08 36 07.3	0.0
HHC				sP	sP	08 36 12.1	+0.3
HHC				PP	PP	08 37 35.1	+4.6
HHC				PcP	PcP	08 38 01.3	+2.8
HHC				PcS	PcS	08 41 50.0	+1.0
HHC				eS	S	08 42 03.9	+0.5
HHC				sS	sS	08 42 19.6	-1.5
HHC				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.3						
NWAO	**Narrogin (SRO)**	40.62	152	P	P	08 35 54.9	-2.4
NWAO				pmax	pmax		
	comp=Z,10.0nm,1.1s						
NWAO	**Narrogin (SRO)**	40.62	152	P	P	08 35 54.9	-2.3
	comp=Z,10nm,1.1s,mb4.4,baz=15,slow=1.2,SNR=2.5						
NWAO	**Narrogin (SRO)**	40.62	152	P	P	08 35 54.9	-2.3
KSH	**Kashi**	41.03	336	eP	P	08 35 59.8	-0.8
KSH				epP	pP	08 36 08.8	-2.5
KSH				esP	sP	08 36 13.1	-2.6
KSH				ePP	PP	08 37 37.1	+1.4
KSH				eScP	ScP	08 41 47.9	+0.8
KSH				ePcS	PcS	08 41 51.6	+0.6
KSH				eS	S	08 42 08.5	-2.0
KSH				eScS	ScS	08 46 01.6	-0.8
KSH				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.6						
MSEY	**Mahe Island**	41.20	260	i P	P	08 36 04.4	+2.0
BJT	**Baijiatuau**	41.45	23	eP	P	08 36 04.3	+0.3
BJT				pmax	pmax		
	comp=Z,162nm,0.8s						
BJT	**Baijiatuau**	41.45	23	eP	P	08 36 04.2	+0.2
	comp=Z,162nm,0.8s,mb5.7						
BJI	**Beijing**	41.48	23	P	P	08 36 04.5	+0.3
BJI				pmax	pmax		
	comp=Z,170nm,0.9s,mb5.7						
WMQ	**Urumqi**	41.70	351	P	P	08 36 05.6	-0.4
WMQ				pP	pP	08 36 15.0	-1.7
WMQ				sP	sP	08 36 19.0	-2.2
WMQ				S	S	08 42 22.0	+1.6
WMQ				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.5						
WMQ				LR	LR		
	comp=N,7µm,15.8s,MS5.8						
WMQ				LR	LR		
	comp=E,6µm,15.8s,MS5.8						
WMQ				LR	LR		
	comp=Z,5µm,19.0s,MS5.4						
KZA	**Kyzart**	43.50	337	P	P	08 36 23.2	+2.5
	SNR=8.6						
WRA	**Warramunga Arr**	43.73	123	P	P	08 36 22.0	-0.9
WRA				pmax	pmax		
	comp=Z,12nm,0.8s						
WRA	**Warramunga Arr**	43.73	123	P	P	08 36 22.0	-0.9
	comp=Z,12nm,0.8s,mb4.7,baz=302,slow=9.0,SNR=43						
WRAB	**Tennant Creek**	43.74	123	P	P	08 36 22.0	-0.9
	comp=Z,235nm,1.0s,mb5.9,SNR=16						
WRAB	**Tennant Creek**	43.74	123	eP	P	08 36 22.4	-0.5
WRAB				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.1						
WRAB	**Tennant Creek**	43.74	123	eP	P	08 36 22.4	-0.5
	comp=Z,43nm,1.0s,mb5.1						
WB2	**Warramunga Arr**	43.74	123	eP	P	08 36 21.9	-1.1
UCH	**Uchtor**	43.92	337	P	P	08 36 24.8	+0.8
	SNR=19						
UCH	**Uchtor**	43.92	337	eP	P	08 36 24.7	+0.7
	comp=Z,38nm,0.8s,mb5.2						
TKM2	**Tokmak 2**	44.10	338	eP	P	08 36 26.9	+1.5
TKM2				pmax	pmax		
	comp=Z,161nm,1.7s,mb5.5						
TKM2	**Tokmak 2**	44.10	338	P	P	08 36 27.6	+2.2
	SNR=8.3						
TKM2	**Tokmak 2**	44.10	338	eP	P	08 36 26.9	+1.5
	comp=Z,161nm,1.7s,mb5.5						
KBK	**Karagaybulak**	44.11	338	P	P	08 36 27.0	+1.5
	SNR=16						
AML	**Almayashu**	44.16	336	P	P	08 36 26.6	+0.6
	SNR=23						
AML	**Almayashu**	44.16	336	eP	P	08 36 27.0	+1.0
	comp=Z,85nm,1.0s,mb5.4						
AAK	**Ala-Archa**	44.27	337	P	P	08 36 28.1	+1.3
AAK				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.7						
AAK	**Ala-Archa**	44.27	337	P	P	08 36 28.1	+1.3
	comp=Z,14nm,0.8s,mb4.7,baz=133,slow=5.6,SNR=13						
EKS2	**Erkin-Say**	44.57	336	P	P	08 36 30.4	+1.1
	SNR=9.2						
EKS2	**Erkin-Say**	44.57	336	eP	P	08 36 30.1	+0.9
	comp=Z,26nm,0.8s,mb5.1						
USP	**Ospenovka**	44.81	338	P	P	08 36 32.4	+1.3
	SNR=9.4						
FORT	**Forrest**	45.07	140	eP	P	08 36 34.2	+0.8
	comp=Z,38nm,0.7s,mb5.3						
FORT	**Forrest**	45.07	140	eP	P	08 36 34.1	+0.7
	comp=Z,58nm,0.9s,mb5.4						
ASAR	**Alice Springs**	45.14	128	P	P	08 36 32.9	-1.1
ASAR						08 38 13.9	
ASAR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	**Alice Springs**	45.14	128	P	P	08 36 32.9	-1.1
	comp=Z,7.0nm,0.8s,mb4.6,baz=298,slow=7.8,SNR=42						
ASAR				PcP	PcP	08 38 13.9	-0.3
	comp=Z,2.5nm,0.7s,baz=300,slow=2.6,SNR=4.8						
KSRS	**Korea Array**	45.35	36	P	P	08 36 34.3	-1.2
KSRS				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
KSRS	**Korea Array**	45.35	36	P	P	08 36 34.3	-1.2
	comp=Z,11nm,0.9s,mb4.7,baz=228,slow=9.2,SNR=23						
MK31	**Makanchi Array**	45.61	347	eP	P	08 36 37.1	-0.3
MKAR	**Makanchi Array**	45.61	347	P	P	08 36 37.2	-0.2
MKAR				pmax	pmax		
	comp=Z,32nm,0.6s						
MKAR	**Makanchi Array**	45.61	347	P	P	08 36 37.1	-0.3
	comp=Z,32nm,0.6s,mb5.4,baz=158,slow=8.6,SNR=202						
SONM	**Songino Array**	45.92	10	P	P	08 36 39.8	0.0
SONM						08 38 17.2	
SONM				pmax	pmax		
	comp=Z,23nm,0.6s						
SONM				pmax	pmax		
	comp=Z,9.0nm,0.5s						
SONM	**Songino Array**	45.92	10	P	P	08 36 39.8	0.0
	comp=Z,22nm,0.6s,mb5.3,baz=192,slow=9.3,SNR=84						
SONM				PcP	PcP	08 38 17.2	+0.8
	comp=Z,9.2nm,0.5s,baz=188,slow=3.7,SNR=11						
ULN	**Ulaanbaatar**	46.06	10	eP	P	08 36 40.8	-0.2
ULN				pmax	pmax		
	comp=Z,280nm,2.5s,mb5.8						
ULN	**Ulaanbaatar**	46.06	10	eP	P	08 36 40.8	-0.2
	comp=Z,280nm,2.5s,mb5.8						
KK31	**Karatay Array**	46.30	334	i P	P	08 36 43.9	+1.0
KK31				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
KK31	**Karatay Array**	46.30	334	⇑eP	P	08 36 43.9	+1.0
ZAK	**Zakamensk**	47.99	6	eP	P	08 36 55.7	-0.2
ZAK				e		08 38 25.1	
ZAK				pmax	pmax		
	comp=Z,27nm,2.2s,mb4.9						
CN2	**Changchun**	48.58	28	eP	P	08 36 59.9	-0.7
CN2				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.5						
TLY	**Talaya**	49.31	6	P	P	08 37 07.1	+1.0
	comp=Z,161nm,0.7s,mb6.2,SNR=5.5						
TLY	**Talaya**	49.31	6	eP	P	08 37 07.0	+0.9
TLY				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
TLY	**Talaya**	49.31	6	eP	P	08 37 07.0	+0.9
	comp=Z,443nm,2.9s,mb6.0						
COEN	**Coen**	49.51	111	eP	P	08 37 07.2	-1.0
IRK	**Irkutsk**	49.93	7	eP	P	08 37 18.0	+7.2
IRK				pmax	pmax		
	comp=Z,162nm,2.4s,mb5.6						
KURK	**Kurchatov**	50.15	346	P	P	08 37 12.1	-0.4
	comp=Z,256nm,1.1s,mb6.2,SNR=13						
KURK	**Kurchatov**	50.15	346	eP	P	08 37 12.4	-0.1
KURK				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.6						
KURK	**Kurchatov**	50.15	346	eP	P	08 37 12.4	-0.1
	comp=Z,61nm,1.0s,mb5.6						
MDJ	**Mudanjiang**	51.21	30	P	P	08 37 21.3	+0.7
MDJ				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
MAT	**Matsushiro**	51.43	44	P	P	08 37 20.8	-1.6
MJAR	**Matsushiro Arr**	51.43	44	P	P	08 37 22.0	-0.4
MJAR						08 38 37.0	
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MJAR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MJAR	**Matsushiro Arr**	51.43	44	P	P	08 37 22.0	-0.4
	comp=Z,0.9nm,0.6s,baz=240,slow=9.6,SNR=5.1						
MJAR				PcP	PcP	08 38 37.0	+0.4
	comp=Z,5.2nm,0.9s,baz=238,slow=4.8,SNR=6.5						
ZAA0	**Zalesovo Array**	52.00	352	eP	P	08 37 25.5	-0.9
ZALV	**Zalesovo Beam**	52.00	352	P	P	08 37 26.0	-0.3
ZALV				pmax	pmax		
	comp=Z,39nm,0.5s,mb5.6						
ZALV	**Zalesovo Beam**	52.00	352	P	P	08 37 25.9	-0.4
	comp=Z,39nm,0.5s,mb5.6,baz=174,slow=7.0,SNR=94						
NVS	**Novosibirsk**	53.11	351	i P	P	08 37 32.9	-1.6
NVS				pmax	pmax		
	comp=N,89nm,2.1s						
NVS				pmax	pmax		
	comp=Z,139nm,2.1s,mb5.5						
NVS				pmax	pmax		
	comp=E,130nm,2.5s						
CTA	**Charters Tower**	54.14	117	P	P	08 37 42.7	0.0
CTA				pmax	pmax		
	comp=Z,25nm,0.8s						
CTA	**Charters Tower**	54.14	117	eP	P	08 37 42.4	-0.3
	comp=Z,11nm,0.9s,mb4.8						
CTA	**Charters Tower**	54.14	117	P	P	08 37 42.7	0.0
	comp=Z,25nm,0.8s,mb5.2,baz=286,slow=8.8,SNR=23						
CTA	**Charters Tower**	54.14	117	P	P	08 37 42.7	0.0
CTAO	**Charters Tower**	54.14	117	eP	P	08 37 41.6	-1.1
CTAO				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
CTAO	**Charters Tower**	54.14	117	eP	P	08 37 41.6	-1.0
	comp=Z,32nm,0.9s,mb5.2						
BVAR	**Borovoye Array**	54.56	341	P	P	08 37 44.9	-0.3
BVAR				pmax	pmax		
	comp=Z,22nm,0.8s						
BVAR	**Borovoye Array**	54.56	341	P	P	08 37 44.9	-0.3
	comp=Z,22nm,0.8s,mb5.3,baz=143,slow=8.4,SNR=57						
BRVK	**Borovoye**	54.62	341	P	P	08 37 44.6	-1.0
	comp=Z,171nm,0.8s,mb6.1,SNR=6.2						
BRVK	**Borovoye**	54.62	341	eP	P	08 37 44.7	-0.9
BRVK				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.2						
BRVK	**Borovoye**	54.62	341	eP	P	08 37 44.7	-0.9
	comp=Z,15nm,0.6s,mb5.2						
STKA	**Stephens Creek**	55.13	132	eP	P	08 37 49.2	-0.5
	comp=Z,12nm,0.8s,mb5.0						
STKA	**Stephens Creek**	55.13	132	P	P	08 37 49.3	-0.4
	comp=Z,13nm,0.7s,mb5.0,baz=307,slow=7.4,SNR=21						
KLR	**Kul’dur**	55.52	28	eP	P	08 37 47.6	-4.5
KLR				pmax	pmax		
	comp=Z,200nm,2.0s,mb5.8						
AB31	**Akbulak array**	55.75	332	P	P	08 37 52.9	-0.9
AB31				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.6						
BOD	**Bodaibo**	56.84	11	eP	P	08 38 00.8	-0.7
BOD				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.3						
ASAJ	**Asahikawa**	58.23	38	P	P	08 38 11.9	+0.4
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	58.23	38	P	P	08 38 11.9	+0.4
	comp=Z,1.6nm,0.3s,mb4.5,baz=328,slow=32,SNR=3.0						
KMBO	**Kilima Mbogo**	58.93	267	P	P	08 38 17.4	+0.5
KMBO				pmax	pmax		
	comp=Z,11nm,0.8s						
KMBO	**Kilima Mbogo**	58.93	267	P	P	08 38 17.4	+0.5
	comp=Z,11nm,0.8s,mb5.0,baz=62,slow=10,SNR=25						
KMBO	**Kilima Mbogo**	58.93	267	P	P	08 38 17.4	+0.5
YSS	**Yuzh-Sakhalins**	59.83	35	P	P	08 38 22.1	-0.5
TOO	**Toolangi**	60.73	136	eP	P	08 38 29.4	+0.5
SVE	**Sverdlovsk**	60.97	339	⇑eP	P	08 38 29.5	-0.6
SVE				pmax	pmax		
	comp=Z,73nm,0.8s,mb5.9						
ARU	**Arti**	61.45	337	c iP	P	08 38 32.5	-0.9
ARU				e		08 40 44.7	
ARU				SS	SS	08 50 46.7	-6.6
ARU				pmax	pmax		
	comp=Z,78nm,1.7s,mb5.6						
ARU	**Arti**	61.45	337	eP	P	08 38 33.1	-0.3
	comp=Z,43nm,1.0s,mb5.5						
ARMA	**Armidale**	62.27	126	eP	P	08 38 40.7	+1.3
CNB	**Canberra Magne**	62.46	132	eP	P	08 38 35.3	-5.3
KIV	**Kislovodsk**	62.51	319	eP	P	08 38 41.8	+1.0
KIV				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.2						
MALT	**Malatya**	63.35	312	eP	P	08 38 47.7	+1.2
EIL	**Elat**	63.76	302	P	P	08 38 49.4	0.0
	comp=Z,8.9nm,0.7s,mb4.9,baz=80,slow=5.1,SNR=5.7						
MMAI	**Mount Meron Ar**	64.17	306	P	P	08 38 52.5	+0.5
	comp=Z,2.1nm,0.5s,mb4.4,baz=80,slow=9.6,SNR=4.4						
SOKR	**Solikamsk**	64.37	339	eP	P	08 38 52.4	-0.3
SOKR				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.6						
YAK	**Yakutsk**	64.39	17	eP	P	08 38 50.6	-2.2
YAK				pmax	pmax		
	comp=Z,139nm,1.1s,mb5.9						
YAK				pmax	pmax		
	comp=N,24nm,1.1s						
YAK				pmax	pmax		
	comp=E,30nm,1.4s						
YAK	**Yakutsk**	64.39	17	eP	P	08 38 51.5	-1.4
	comp=E,190nm,0.8s,mb6.2						
MBAR	**Mbarara**	65.40	268	i P	P	08 39 01.0	+0.7
VRHR	**Novokhopersk**	66.34	326	eP	P	08 39 04.9	-0.7
VRHR				pmax	pmax		
	comp=Z,20nm,0.4s,mb5.5						
VRHR				pmax	pmax		
	comp=N,20nm,0.5s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.8s						
BRTR	**Keskin Array B**	67.34	312	P	P	08 39 11.0	-1.3
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRTR	**Keskin Array B**	67.34	312	P	P	08 39 10.9	-1.3
	comp=Z,3.4nm,0.8s,mb4.4,baz=131,slow=6.2,SNR=8.5						
VSR	**Storozhevoye**	67.78	325	eP	P	08 39 14.2	-0.6
VSR				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.4						
VSR				pmax	pmax		
	comp=N,7.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,20nm,1.1s						
SKR	**Severo-Kuril’s**	69.37	36	eP	P	08 39 25.5	+0.7
LSZ	**Lusaka**	69.45	253	P	P	08 39 26.3	+0.4
LSZ				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.2						
LSZ	**Lusaka**	69.45	253	P	P	08 39 26.3	+0.4
	comp=Z,45nm,1.5s,mb5.2						
PRGR	**Permogore**	69.91	337	eP	P	08 39 26.8	-1.0
PRGR				pmax	pmax		
	comp=Z,383nm,1.7s,mb6.0						
MOS	**Moscow**	70.55	329	eP	P	08 39 29.0	-2.9
MOS				e	pP	08 39 40.6	-2.7
MOS				e		08 39 50.1	
MOS				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.4						
OBN	**Obninsk**	70.83	328	⇓iP	P	08 39 33.6	0.0
OBN				e		08 39 53.0	
OBN				e		08 42 15.1	
OBN				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.3						
PETK	**Petropavlovsk-**	71.19	34	P	P	08 39 34.0	-1.9
PETK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
PETK	**Petropavlovsk-**	71.19	34	P	P	08 39 34.0	-1.9
	comp=Z,4.2nm,0.9s,mb4.4,baz=90,slow=4.4,SNR=3.6						
PET	**Petropavlovsk**	71.70	34	⇑eP	P	08 39 38.0	-0.9
KLMR	**Klimovskoe**	72.00	335	eP	P	08 39 39.9	-0.7
KLMR				pmax	pmax		
	comp=Z,64nm,1.6s,mb5.3						
TIXI	**Tiksi**	72.00	10	⇑eP	P	08 39 39.1	-1.3
TIXI				pmax	pmax		
	comp=Z,59nm,1.7s,mb5.2						
TIXI	**Tiksi**	72.00	10	eP	P	08 39 39.0	-1.4
	comp=Z,399nm,2.6s,mb5.9						
TIRR	**Tirgusor**	72.33	316	⇑iP	P	08 39 41.9	-1.0
TIRR	**Tirgusor**	72.33	316	⇑P	P	08 39 41.9	-1.0
KIS	**Kishinev**	72.70	319	eP	P	08 39 45.0	0.0
SEY	**Seymchan**	72.92	23	⇑eP	P	08 39 46.0	0.0
SEY	**Seymchan**	72.92	23	⇑eP	P	08 39 46.1	+0.1
AKASG	**Malin Array Be**	73.46	322	P	P	08 39 47.9	-1.5
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
AKASG	**Malin Array Be**	73.46	322	P	P	08 39 47.9	-1.5
	comp=Z,4.9nm,0.7s,mb4.5,baz=94,slow=4.4,SNR=18						
KIEV	**Kiev**	73.47	322	P	P	08 39 48.9	-0.6
KIEV				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
KIEV	**Kiev**	73.47	322	P	P	08 39 48.9	-0.6
	comp=Z,20nm,1.1s,mb5.0						
VRI	**Vrincioaia**	73.83	317	⇑iP	P	08 39 51.7	0.0
MLR	**Muntele Rosu**	74.28	317	⇑iP	P	08 39 53.7	-0.6
MLR	**Muntele Rosu**	74.28	317	⇑P	P	08 39 53.7	-0.6
BOSA	**Boshof**	74.52	240	P	P	08 39 55.8	-0.3
BOSA				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
BOSA	**Boshof**	74.52	240	P	P	08 39 55.8	-0.3
	comp=Z,14nm,0.7s,mb5.0,baz=81,slow=5.3,SNR=19						
VOIR		74.88	316	⇓iP	P	08 39 57.1	-0.7
VOIR		74.88	316	⇓P	P	08 39 57.1	-0.7
BURAR	**Bucovina Array**	75.23	319	⇑iP	P	08 40 00.3	+0.5
BURAR	**Bucovina Array**	75.23	319	⇑P	P	08 40 00.3	+0.5
BUR08	**Bucovina Ar. S**	75.25	319	eP	P	08 39 59.6	-0.3
NACGM	**Naroch**	76.06	326	e	P	08 40 03.0	-1.4
JOF	**Joensuu**	76.40	335	eP	P	08 40 02.6	-3.5
JOF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
JOF	**Joensuu**	76.40	335	ep	P	08 40 02.6	-3.5
	comp=Z,13nm,0.9s,mb4.9						
KWP	**Kalwaria Pacla**	77.27	320	⇑iP	P	08 40 11.5	+0.1
KWP	**Kalwaria Pacla**	77.27	320	P	P	08 40 11.8	+0.4
	comp=Z,80nm,1.5s,mb5.4						
UZH	**Uzhgorod**	77.35	319	eP	P	08 40 13.0	+1.2
UZH				e		08 40 17.5	
UZH				e		08 40 30.3	
UZH				eS	S	08 50 00.0	+0.5
UZH				e		08 55 02.0	
APA	**Apatity**	77.42	340	⇓eP	P	08 40 11.4	-0.4
APA				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.3						
APA				MLR	MLR		
	comp=Z,54µm,19.0s,MS6.9						
KOLS	**Kolonicke sedl**	77.42	320	i P	P	08 40 13.6	+1.4
KOLS				pmax	pmax		
	comp=Z,89nm,2.2s,mb5.3						
KOLS	**Kolonicke sedl**	77.42	320	i P	P	08 40 13.6	+1.4
	comp=Z,89nm,2.2s,mb5.3						
KOLS				e		08 47 55.6	
CRVS	**Cervenica-Dubn**	77.94	319	eP	P	08 40 16.0	+0.9
CRVS				pmax	pmax		
	comp=Z,35nm,1.8s,mb5.0						
CRVS	**Cervenica-Dubn**	77.94	319	eP	P	08 40 16.0	+0.9
	comp=Z,35nm,1.8s,mb5.0						
CRVS				e		08 47 37.6	
STHS	**Stebnicka Huta**	78.17	320	i P	P	08 40 17.0	+0.6
STHS				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
STHS	**Stebnicka Huta**	78.17	320	i P	P	08 40 17.0	+0.6
	comp=Z,9.8nm,1.1s,mb4.7						
STHS				e		08 47 55.5	
KAF	**Kangasniemi**	78.32	333	eP	P	08 40 16.0	-1.0
KAF				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
KAF	**Kangasniemi**	78.32	333	ep	P	08 40 16.0	-1.0
	comp=Z,25nm,0.8s,mb5.2						
KECS	**Kecovo**	78.51	319	eP	P	08 40 18.3	0.0
KECS				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
KECS	**Kecovo**	78.51	319	eP	P	08 40 18.2	-0.1
KECS	**Kecovo**	78.51	319	eP	P	08 40 18.3	0.0
	comp=Z,5.0nm,0.9s,mb4.4						
PSZ	**Piszkesteto**	78.81	318	eP	P	08 40 21.0	+1.0
PSZ				pmax	pmax		
	comp=Z,64nm,1.7s,mb5.3						
PSZ	**Piszkesteto**	78.81	318	⇓iP	P	08 40 19.9	-0.1
PSZ	**Piszkesteto**	78.81	318	eP	P	08 40 21.0	+1.0
	comp=Z,64nm,1.7s,mb5.3						
VYHS	**Vyhne**	79.60	319	eP	P	08 40 23.9	-0.3
VYHS				e		08 47 49.0	
OKC	**Ostrava-Krasne**	80.23	320	eP	P	08 40 28.3	+0.7
BILL	**Bilibino**	80.25	21	eP	P	08 40 27.6	+0.2
BILL				e		08 40 34.3	
BILL				e		08 43 29.4	
BILL				pmax	pmax		

comp=Z,21nm,1.9s,mb4.7
BILL Bilibino 80.25 21 eP P 08 40 27.7 +0.3
MORC Moravsky Berou 80.61 320⇓iP P 08 40 28.7 -0.9
MORC Moravsky Berou 80.61 320 P P 08 40 29.5 -0.2
comp=Z,40nm,1.5s,mb5.1
MODS Modra-Piesok 80.61 318 i P P 08 40 30.7 +1.0
MODS pmax pmax
comp=Z,10.0nm,1.4s,mb4.5
MODS Modra-Piesok 80.61 318 i P P 08 40 30.7 +1.0
comp=Z,10nm,1.4s,mb4.6
MODS e 08 47 46.3
ARCES ARCESS Array B 80.84 340 P P 08 40 30.4 -0.1
ARCES pmax pmax
comp=Z,4.0nm,0.5s
ARCES ARCESS Array B 80.84 340 P P 08 40 30.4 -0.1
comp=Z,3.9nm,0.5s,mb4.6,baz=98,slow=6.8,SNR=31
SYO Syowa Base 81.00 198⇓eP P 08 40 24.2 -7.1
DPC Dobruska-Polom 81.45 320 eP P 08 40 33.7 -0.5
UPC Upice 81.67 321 eP P 08 40 32.1 -3.2
SOKA Soboth 81.96 317⇑iP P 08 40 37.8 +0.9
comp=Z,20nm,1.1s,mb5.0
PRU Pruhonice 82.56 320 eP P 08 40 40.9 +0.9
BRG Berggiesshubel 83.01 321 eP P 08 40 37.5 -4.8
BRG pmax pmax
comp=Z,93nm,1.1s,mb5.7
BRG Berggiesshubel 83.01 321 eP P 08 40 37.5 -4.8
comp=Z,6.5nm,1.1s,mb4.6
GEC2 GERESS Array S 83.02 319 eP P 08 40 42.5 +0.1
GEC2 pmax pmax
comp=Z,44nm,1.4s,mb5.3
GEC2 GERESS Array S 83.02 319 eP P 08 40 42.5 +0.1
comp=Z,44nm,1.4s,mb5.3
GERES GERESS Array B 83.02 319 P P 08 40 41.9 -0.5
GERES pmax pmax
comp=Z,6.0nm,0.9s
GERES GERESS Array B 83.02 319 P P 08 40 41.9 -0.4
comp=Z,5.5nm,0.9s,mb4.6,baz=96,slow=6.8,SNR=13
KHC Kasperske Hory 83.12 319 eP P 08 40 47.4 +4.5
WET Wettzell 83.58 319 eP P 08 40 45.6 +0.3
WET pmax pmax
comp=Z,18nm,1.3s,mb5.0
WET Wettzell 83.58 319 eP P 08 40 45.6 +0.3
comp=Z,18nm,1.3s,mb5.0
CLL Collm 83.64 321 eP P 08 40 47.0 +1.5
CLL e 08 40 55.0
CLL Collm 83.64 321 ePP pP 08 40 55.0 -2.1
CLL esPP 08 41 07.0
CLL Collm 83.64 321 eP P 08 40 47.0 +1.5
CLL e 08 40 55.0
CLL e 08 41 07.0
ROTZ Rotzenmuhle 84.05 320 eP P 08 40 48.1 +0.4
comp=Z,29nm,1.4s,mb5.2
MANZ Manzenberg 84.13 320 eP P 08 40 48.8 +0.8
comp=Z,18nm,1.1s,mb5.1
MOX Moxa 84.47 320 eP pP 08 41 03.4 +2.0
comp=Z,39nm,1.9s
MOX Moxa 84.47 320 eP pP 08 41 03.4 +2.0
MOX pmax pmax
comp=Z,489nm,1.9s,mb6.3
GRA1 Grafenberg Arr 84.69 319 eP P 08 40 51.4 +0.5
comp=Z,30nm,1.0s,mb5.4
GRF Grafenberg Arr 84.69 319 eP P 08 40 51.4 +0.5
GRF pmax pmax
comp=Z,30nm,1.0s,mb5.4
GRF Grafenberg Arr 84.69 319 eP P 08 40 51.4 +0.5
GRF pmax pmax
comp=Z,30nm,1.0s,mb5.4
GRF Grafenberg Arr 84.69 319 eP P 08 40 51.4 +0.5
comp=Z,30nm,1.0s,mb5.4
NOA NORSAR Array B 85.23 331 P P 08 40 52.6 -0.8
NOA pmax pmax
comp=Z,8.0nm,1.1s
NOA NORSAR Array B 85.23 331 P P 08 40 52.6 -0.7
comp=Z,7.5nm,1.1s,mb4.7,baz=97,slow=5.4,SNR=6.8
CLZ Clausthal 85.30 322 eP P 08 40 52.7 -1.2
CLZ pmax pmax
comp=Z,24nm,1.3s,mb5.2
CLZ Clausthal 85.30 322 eP P 08 40 52.7 -1.2
comp=Z,24nm,1.3s,mb5.2
KEST Kesra 85.83 305 P P 08 40 57.3 +0.4
comp=Z,2.3nm,0.9s,mb4.4,baz=146,slow=3.6,SNR=2.3
KONO Kongsberg 85.98 329⇑eP P 08 40 57.3 +0.2
TNS Taunus Mts 86.49 320 eP P 08 41 00.4 +0.6
TNS pmax pmax
comp=Z,10.0nm,0.8s,mb5.1
TNS Taunus Mts 86.49 320 eP P 08 41 00.4 +0.6
comp=Z,10.0nm,0.8s,mb5.1
BUG Bochum--Univer 87.23 321 eP P 08 41 03.6 +0.2
comp=Z,25nm,1.3s,mb5.3
CDF Champ du Feu 87.27 318 eP P 08 41 03.5 -0.2
HINF Hinteralfeld 87.56 318 eP P 08 41 05.6 +0.5
LPG La Plagne 87.68 315 eP P 08 41 05.9 +0.2
LPL La Plagne 87.69 315 eP P 08 41 06.1 +0.3
HAU Haudompre 87.90 318 eP P 08 41 06.5 -0.2
comp=Z,10nm,0.7s,mb4.9
HAU Haudompre 87.90 318 eP P 08 41 06.5 -0.2
HAU pmax pmax
comp=Z,5.0nm,0.7s,mb4.8
HAU Haudompre 87.90 318 eP P 08 41 06.5 -0.2
comp=Z,5.2nm,0.7s,mb4.9
CABF La Chapelle 88.11 316 eP P 08 41 08.0 +0.2
comp=Z,53nm,1.3s,mb5.3
CABF La Chapelle 88.11 316 eP P 08 41 08.0 +0.2
CABF pmax pmax
comp=Z,27nm,1.3s,mb5.3
CABF La Chapelle 88.11 316 eP P 08 41 08.0 +0.2
comp=Z,26nm,1.3s,mb5.3
SMRF Simiane la Rot 88.57 314 eP P 08 41 09.3 -0.7
GAMB Gambell 88.66 26 P P 08 41 08.3 -1.7
comp=Z,12nm,0.9s,mb5.2
VIVF Saint-Julien-l 89.17 315 eP P 08 41 13.6 +0.8
BAIF Baives 89.22 320 eP P 08 41 13.5 +0.6
comp=Z,27nm,0.9s,mb5.3
BAIF Baives 89.22 320 eP P 08 41 13.5 +0.6
BAIF pmax pmax
comp=Z,14nm,0.9s,mb5.3
BAIF Baives 89.22 320 eP P 08 41 13.5 +0.6
comp=Z,14nm,0.9s,mb5.3
LOR Lormes 89.61 317 eP P 08 41 14.9 +0.1
comp=Z,46nm,1.4s,mb5.3
LOR Lormes 89.61 317 eP P 08 41 14.9 +0.1
LOR pmax pmax
comp=Z,23nm,1.4s,mb5.3
LOR Lormes 89.61 317 eP P 08 41 14.9 +0.1
comp=Z,23nm,1.4s,mb5.3
SMF Signal de Mont 89.66 316 eP P 08 41 15.0 0.0
SSF Saint Saulge 89.86 317 eP P 08 41 16.5 +0.5
AVF Avril sur Loir 89.98 317 eP P 08 41 16.6 +0.1
comp=Z,16nm,1.0s,mb5.0
AVF Avril sur Loir 89.98 317 eP P 08 41 16.6 +0.1
AVF pmax pmax
comp=Z,8.0nm,1.0s,mb5.0
AVF Avril sur Loir 89.98 317 eP P 08 41 16.6 +0.1
comp=Z,7.8nm,1.0s,mb5.0
BGF Bois d'Agland 90.35 316 eP P 08 41 18.8 +0.5
TCF Toulx Ste Croi 90.81 316 eP P 08 41 20.1 -0.3
CAF Calviac 91.02 315 eP P 08 41 22.4 +1.0
MTLF Montolieu 91.04 313 eP P 08 41 21.9 +0.4
RJF Les Rejaudoux 91.37 315 eP P 08 41 23.7 +0.6
LDF La Druitiere 92.16 319 eP P 08 41 27.0 +0.4
FLN La Foliniere 92.38 319 eP P 08 41 27.9 +0.3
comp=Z,19nm,0.8s,mb5.2
FLN La Foliniere 92.38 319 eP P 08 41 27.9 +0.3
FLN pmax pmax
comp=Z,10.0nm,0.8s,mb5.2
FLN La Foliniere 92.38 319 eP P 08 41 27.9 +0.3
comp=Z,9.7nm,0.8s,mb5.2
MFF Saint Martin d 92.40 317 eP P 08 41 28.1 +0.3
GRR Gorron 92.67 319 eP P 08 41 29.3 +0.3
ETSF Etsaut 93.10 313 eP P 08 41 31.8 +0.7
comp=Z,30nm,1.1s,mb5.3
ETSF Etsaut 93.10 313 eP P 08 41 31.8 +0.7
ETSF pmax pmax
comp=Z,15nm,1.1s,mb5.3
ETSF Etsaut 93.10 313 eP P 08 41 31.8 +0.7
comp=Z,15nm,1.1s,mb5.3
KDAK Kodiak Island 99.00 30 i P P 08 41 58.6 +1.0
YKA Yellowknife Ar 111.03 15 i PKIKP PKiKP 08 46 49.3 -0.7
YKA 08 47 25.4
YKA pmax pmax
comp=Z,1.0nm,1.0s
YKA pmax pmax
comp=Z,1.0nm,0.6s
YKA Yellowknife Ar 111.03 15 PKiKP PKiKP 08 46 49.3 -0.7
comp=Z,0.7nm,1.0s,baz=3.4,slow=2.2,SNR=4.5
YKA PP PP 08 47 25.4 -2.7
comp=Z,0.5nm,0.6s,baz=334,slow=7.7,SNR=6.1
YKA PKKPbc PKKPbc 08 57 50.4 +0.8
comp=Z,0.4nm,0.9s,baz=145,slow=3.1,SNR=3.7
YKA Yellowknife Ar 111.03 15 PKPdf PKiKP 08 46 49.4 -0.7
YKA PP PP 08 47 25.4 -2.7
YKA PKKPbc PKKPbc 08 57 50.4 +0.8
SCHQ Schefferville 121.03 349 PKP PKPdf 08 47 08.8 -0.6
comp=Z,1.2nm,0.5s,baz=282,slow=11,SNR=6.2
MSO Missoula 124.13 25 ePKPdf PKPdf 08 47 16.2 +0.6
DLMT Dillon 125.86 25 ePKPdf PKPdf 08 47 18.8 -0.2
BOZ Bozeman (W) 126.03 24 ePKIKP PKPdf 08 47 20.3 +1.0
ULM Lac du Bonnet 126.35 10 PKP PKPdf 08 47 19.6 -0.2
comp=Z,4.7nm,0.7s,baz=9.5,slow=3.0,SNR=7.9
RRI2 Red Ridge 128.03 25 PKPdf PKPdf 08 47 24.0 +0.8
REDW Red Top Meadow 128.22 25 ePKPdf PKPdf 08 47 24.8 +1.2
ELK Elko 128.24 30 PKIKP PKPdf 08 47 24.6 +0.9
ELK pmax pmax
comp=Z,1.0nm,0.6s
ELK Elko 128.24 30 PKP PKPdf 08 47 24.6 +0.9
comp=Z,1.2nm,0.6s,baz=348,slow=2.5,SNR=5.5
NVAR Mina Array Bea 128.28 34 PKP PKPdf 08 47 25.1 +1.3
comp=Z,1.9nm,0.8s,baz=293,slow=2.1,SNR=11
BGU Big Grassy Mou 129.19 28 ePKPdf PKPdf 08 47 26.1 +0.7
PDAR Pinedale Array 129.24 24 PKhKP 08 47 20.8
comp=Z,0.4nm,0.7s,baz=150,slow=5.6,SNR=4.1
PDAR PKP PKPdf 08 47 26.1 +0.5
comp=Z,0.9nm,0.6s,baz=146,slow=5.6,SNR=4.0
SHPR Sheep Range 131.41 34 eSKPbc SKPbc 08 50 55.2 +3.0
ECSD EROS Data Cent 132.47 12 ePKPdf PKPdf 08 47 31.8 +0.1
ANMO Albuquerque 137.06 28 PKIKP PKPdf 08 47 42.0 +1.5
ANMO pmax pmax
comp=Z,3.0nm,1.0s
ANMO Albuquerque 137.06 28 PKP PKPdf 08 47 42.0 +1.5
comp=Z,3.1nm,1.0s,baz=0.0,slow=2.0,SNR=5.8
ANMO Albuquerque 137.06 28 PKP PKPdf 08 47 42.0 +1.5
WMOK Wichita Mounta 140.31 19 ePKHKP 08 47 38.4
WVT Waverly 141.29 5 PKIKP PKPdf 08 47 43.0 -5.2
TKL Tuckaleechee C 141.93 360 PKhKP 08 47 42.9
comp=Z,1.4nm,0.5s,baz=146,slow=7.1,SNR=2.8
TKL PKP PKPdf 08 47 50.0 +0.7
comp=Z,2.4nm,0.6s,baz=211,slow=13,SNR=5.0
TKL Tuckaleechee C 141.93 360 PKP PKPdf 08 47 50.0 +0.7
MIAR Mount Ida 141.94 13 ePKIKP PKPdf 08 47 44.4 -5.0
TXAR Lajitas Array 143.03 29 PKIKP PKPdf 08 47 48.8 -2.7
TXAR pmax pmax
comp=Z,2.0nm,0.6s
TXAR Lajitas Array 143.03 29 PKP PKPdf 08 47 48.8 -2.7
comp=Z,2.0nm,0.6s,baz=203,slow=1.9,SNR=48
JCT Junction City 143.77 24 ePKIKP PKPdf 08 47 50.3 -2.4
VBMS Vicksburg 144.80 10 ePKPdf PKPdf 08 47 54.4 -0.1
CPUP Villa Florida 145.25 225 PKIKP PKPdf 08 47 54.3 -1.1
CPUP pmax pmax
comp=Z,5.0nm,0.6s
CPUP Villa Florida 145.25 225 PKPbc PKPbc 08 47 54.3 -0.8
comp=Z,4.8nm,0.6s,baz=121,slow=2.3,SNR=22
HKT Hockley 145.68 19 ePKP2 PKPab 08 47 55.0 -1.6
CFAA Coronel Fontan 147.59 205 PKPbc PKPbc 08 48 01.2 -0.7
comp=Z,0.9nm,0.5s,baz=151,slow=1.8,SNR=20
SIV San Ignacio 153.87 238 PKP PKPdf 08 48 09.7 +0.4
comp=Z,0.6nm,0.8s,baz=35,slow=16,SNR=2.2
LVC Limon Verde 155.35 215 PKP PKPdf 08 48 13.3 +2.1
comp=Z,1.4nm,0.6s,baz=253,slow=17,SNR=1.9
LVC Limon Verde 155.35 215 PKP PKPdf 08 48 13.3 +2.1
CMIG Matias Romero 157.63 29 PKPab PKPab 08 48 46.2 0.0
comp=Z,6.9nm,0.8s,baz=332,slow=4.4,SNR=11

IDC 20 08:31:35.2±2.6, 2°.35N×95°.97E, h0^{km}, mb3.8/4, mb1 3.9/5, mb1mx3.7/22, mbtmp3.8/5, Error ellipse: s-maj=71.6km s-min=28.5km az=48.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.98	81	Pn	Pn	08 32 24.0	+0.3
	baz=61,slow=14,SNR=1.7						
ASAR	Alice Springs	45.06	127	P	P	08 39 53.0	-0.2
	0.7nm,0.8s,baz=311,slow=6.6,SNR=2.4						
MKAR	Makanchi Array	45.84	347	P	P	08 39 59.2	+0.2
	0.9nm,0.5s,baz=154,slow=9.3,SNR=7.7						
SONM	Songino Array	46.19	10	P	P	08 40 01.7	-0.1
	1.1nm,0.8s,baz=191,slow=9.9,SNR=2.1						
ZALV	Zalesovo Beam	52.24	352	P	P	08 40 47.7	-0.2
	1.3nm,0.5s,baz=157,slow=7.7,SNR=2.8						

IDC 20 08:33:44.6±2.0, 2°.65N×95°.70E, h0^{km}, mb3.7/6, mb1 3.7/7, mb1mx3.6/23, mbtmp3.7/7, ML3.0/1, Error ellipse: s-maj=67.8km s-min=20.7km az=53.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.22	87	Pn	Pn	08 34 36.7	+0.2
	1.5nm,0.3s,baz=89,slow=22,SNR=6.6						
WRA	Warramunga Arr	44.07	122	P	P	08 41 54.6	0.0
	0.4nm,0.8s,baz=300,slow=9.6,SNR=2.1						
ASAR	Alice Springs	45.45	127	P	P	08 42 05.6	0.0
	0.8nm,0.9s,baz=304,slow=8.4,SNR=2.8						
MKAR	Makanchi Array	45.50	347	P	P	08 42 06.0	+0.4
	1.0nm,0.7s,baz=153,slow=8.4,SNR=4.6						
SONM	Songino Array	45.95	10	P	P	08 42 09.6	+0.4
	2.1nm,1.0s,baz=180,slow=2.9,SNR=3.1						
KURK	Kurchatov	50.03	346	P	P	08 42 40.5	-0.2
	0.8nm,0.6s,baz=161,slow=6.7,SNR=2.8						
ZALV	Zalesovo Beam	51.91	352	P	P	08 42 53.7	-1.2
	0.9nm,0.5s,baz=175,slow=7.1,SNR=2.4						

IDC 20 08:36:16.5±2.8, 2°.43N×95°.84E, h0^{km}, mb3.5/4, mb1 3.6/5, mb1mx3.5/23, mbtmp3.5/5, ML2.8/1, Error ellipse: s-maj=75.9km s-min=28.3km az=45.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.10	83	Pn	Pn	08 37 07.0	+0.4
	1.3nm,0.3s,baz=307,slow=3.7,SNR=5.2						
WRA	Warramunga Arr	43.83	122	P	P	08 44 24.5	-0.2
	0.7nm,1.0s,baz=300,slow=8.9,SNR=2.4						
MKAR	Makanchi Array	45.73	347	P	P	08 44 39.6	+0.2
	0.3nm,0.5s,baz=161,slow=9.6,SNR=4.4						
SONM	Songino Array	46.14	10	P	P	08 44 42.2	-0.4
	0.6nm,0.7s,baz=190,slow=7.3,SNR=2.3						
KURK	Kurchatov	50.27	346	P	P	08 45 14.1	-0.4
	0.4nm,0.5s,baz=163,slow=4.8,SNR=2.2						

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*IDC **20** 08:36:33.4±0.8, 2°.56N×95°.99E, h0^{km}, mb4.4/17, mb1 4.5/19, mb1mx4.4/29, mbtmp4.4/19, ML3.9/2, Error ellipse: s-maj=27.7km s-min=14.3km az=46.0*
*MOS **20** 08:36:36.8±0.9, 2°.61N×96°.05E, h33^{km}, mb5.6/11, Error ellipse: s-maj=12.0km s-min=7.4km az=113.7*
*BJI **20** 08:36:36.1, 2°.50N×96°.10E, h35^{km}, mb5.1/14*
*ISCJB **20** 08:36:38.5±1.4, 2°.59N±0°.07×96°.10E±0°.07, h49^{km}±12^{km}, mb4.9/51, Error ellipse: s-maj=14.3km s-min=8.8km az=39.0*
*NEIC **20** 08:36:38.7±0.3, 2°.54N×96°.06E, h35^{km}, mb5.2/17, Error ellipse: s-maj=7.9km s-min=4.8km az=37.0*
ISC 20 08:36:40.0±1.3, 2°.57N±0°.07×96°.10E±0°.07, h45^{km}±11^{km}, h29^{km}±1.9^{km}:pP-P, n86, σ0.^{s}76/80, mb4.9/51, 4C-4D, Northern Sumatera

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
PSI Prapat 2.83 85 Pn Pn 08 37 22.8 0.0
5.4nm,0.3s,baz=284,slow=6.8,SNR=9.8
KULM Kulim 5.29 59 ePn Pn 08 37 56.6 +0.1
192nm,0.9s
COCO West Island 14.68 177 i P Pn 08 40 11.3 +6.4
PALK Pallekele 16.03 288 Pn Pn 08 40 21.7 -0.8
baz=160,slow=3.0
CMAR Chiang Mai Arr 16.04 10 Pn Pn 08 40 21.0 -1.5
0.4nm,0.3s,baz=197,slow=11,SNR=23
KAPI Kappang 24.80 108 P P 08 41 58.0 0.0
15nm,0.8s,mb4.5,baz=305,slow=15,SNR=3.6
ODAN Odare 25.56 342 eP P 08 42 04.8 +0.1
109nm,1.0s,mb5.3
RAMN Ramite 25.90 340 eP P 08 42 08.8 +1.0
82nm,0.7s,mb5.4
TAPN Taplejung 25.92 343 eP P 08 42 08.4 +0.4
118nm,1.1s,mb5.3
JIRN Jiri 26.69 340 eP P 08 42 15.6 +0.7
129nm,0.9s,mb5.5
PKI Pulchoki 26.88 339 eP P 08 42 16.9 +0.2
PKI Pulchoki 26.88 339 eP P 08 42 17.4 +0.7
PKIN Phulchoki 26.89 339 eP P 08 42 17.4 +0.6
GUN Gumba 27.03 340 eP P 08 42 18.5 +0.5
111nm,0.9s,mb5.4
DMN Daman 27.03 338 eP P 08 42 18.3 +0.3
74nm,1.0s,mb5.2
KKN Kakani 27.13 339 eP P 08 42 19.1 +0.2
125nm,1.1s,mb5.4
KKN Kakani 27.13 339 eP P 08 42 19.1 +0.2
KKN pmax pmax
comp=Z,125nm,1.1s,mb5.4
LSA Lhasa 27.39 351 eP P 08 42 22.3 +1.1
LSA pmax pmax
comp=Z,35nm,0.9s,mb4.9
LSA Lhasa 27.39 351 eP P 08 42 22.3 +1.1
comp=Z,34nm,0.9s,mb4.9
GKN Gorkha 27.56 338 eP P 08 42 23.2 +0.4
comp=Z,131nm,1.0s,mb5.5
KOLN Koldanda 27.76 336 eP P 08 42 25.1 +0.5
comp=Z,45nm,0.8s,mb5.2
DANN Dangsing 28.21 337 eP P 08 42 29.1 +0.5
XAN Xi'an 33.52 19 P P 08 43 14.5 -0.8
XAN pP pP 08 43 22.9 -4.5
XAN pmax pmax
comp=Z,24nm,1.0s,mb5.1
LZH Lanzhou 34.12 11 eP P 08 43 20.5 +0.1
LZH pP pP 08 43 29.0 -3.6
LZH sP sP 08 43 35.3 -2.7
LZH pmax pmax
comp=Z,150nm,1.1s,mb5.8
GTA Gaotai 36.83 5 ⇑P P 08 43 43.3 -0.4
GTA pP pP 08 43 50.8 -5.1
GTA sP sP 08 43 53.8 -7.5
GTA pmax pmax
comp=Z,33nm,1.1s,mb5.1
KSH Kashi 41.08 336 eP P 08 44 18.1 -1.2
KSH epP pP 08 44 27.8 -3.8
KSH esP sP 08 44 32.0 -5.0
KSH ePP PP 08 45 56.0 +1.2
KSH ePcP PcP 08 46 18.3 0.0
KSH eScP ScP 08 50 04.1 -0.6
KSH ePcS PcS 08 50 08.3 -1.0
KSH eS S 08 50 27.8 -1.1
KSH esS sS 08 50 44.1 -5.5
KSH eSS SS 08 53 26.0 -6.8
KSH eScS ScS 08 54 18.3 -1.7
KSH pmax pmax
comp=Z,8.0nm,0.6s,mb4.5
BJT Baijiatuau 41.49 23 eP P 08 44 23.3 +0.7
BJT pmax pmax
comp=Z,67nm,0.9s
BJT Baijiatuau 41.49 23 eP P 08 44 23.3 +0.7
comp=Z,67nm,0.9s,mb5.3
BJI Beijing 41.51 23 P P 08 44 23.4 +0.6
BJI pmax pmax
comp=Z,72nm,1.0s,mb5.3
WRA Warramunga Arr 43.69 123 P P 08 44 41.0 +0.2
comp=Z,5.1nm,1.1s,mb4.2,baz=299,slow=9.1,SNR=7.2
WRAB Tennant Creek 43.70 123 eP P 08 44 40.7 -0.1
WRAB pmax pmax
comp=Z,10.0nm,1.1s,mb4.5
WRAB Tennant Creek 43.70 123 eP P 08 44 40.7 -0.2
comp=Z,9.8nm,1.1s,mb4.5
UCH Uchtor 43.97 337 eP P 08 44 43.3 +0.6
comp=Z,8.3nm,0.9s,mb4.5
TKM2 Tokmak 2 44.15 338 eP P 08 44 45.0 +0.9
TKM2 e*PP pP 08 44 53.9 -2.7
TKM2 pmax pmax
comp=Z,10.0nm,1.1s,mb4.5
TKM2 Tokmak 2 44.15 338 eP P 08 44 45.0 +0.9
comp=Z,10nm,1.1s,mb4.5
TKM2 epP pP 08 44 53.9 -2.7
AML Almayashu 44.21 336 eP P 08 44 45.8 +1.1
comp=Z,24nm,1.2s,mb4.8
AAK Ala-Archa 44.32 337⇑eP P 08 44 46.8 +1.3
AAK pmax pmax
comp=Z,7.0nm,1.3s,mb4.2
AAK Ala-Archa 44.32 337 P P 08 44 45.5 0.0
comp=Z,1.8nm,0.4s,mb4.1,baz=111,slow=8.5,SNR=4.1
EKS2 Erkin-Say 44.62 336 eP P 08 44 49.1 +1.2
comp=Z,6.3nm,0.9s,mb4.5
ASAR Alice Springs 45.09 127 P P 08 44 51.9 -0.1
comp=Z,0.9nm,0.8s,mb3.7,baz=305,slow=7.9,SNR=4.7
ASAR Alice Springs 45.09 127 P P 08 44 51.9 -0.1
KSRS Korea Array 45.38 36 P P 08 44 53.4 -0.7
comp=Z,4.4nm,0.9s,mb4.3,baz=226,slow=9.5,SNR=10
MKAR Makanchi Array 45.66 347 P P 08 44 56.1 +0.1
comp=Z,7.7nm,0.6s,mb4.8,baz=163,slow=7.7,SNR=36
SONM Songino Array 45.96 10 P P 08 44 58.3 -0.1
comp=Z,8.6nm,0.8s,mb4.7,baz=190,slow=10,SNR=22
SONM PcP PcP 08 46 35.9 +1.2
comp=Z,4.2nm,0.9s,baz=189,slow=5.7,SNR=5.3
ZAK Zakamensk 48.03 6 eP P 08 45 14.1 -0.4
ZAK pmax pmax
comp=Z,7.0nm,1.6s,mb4.4
TLY Talaya 49.35 6 eP P 08 45 24.9 +0.2
TLY pmax pmax
comp=Z,11nm,0.9s,mb4.9
KURK Kurchatov 50.20 346 P P 08 45 31.0 -0.1
comp=Z,6.2nm,0.7s,mb4.8,baz=167,slow=6.9,SNR=18
ZALV Zalesovo Beam 52.05 352 P P 08 45 44.5 -0.4
comp=Z,13nm,0.7s,mb5.0,baz=167,slow=7.3,SNR=7.0
CTA Charters Tower 54.10 117 P P 08 46 01.7 +1.1
comp=Z,7.2nm,1.0s,mb4.5,baz=275,slow=12,SNR=3.9
BVAR Borovoye Array 54.61 341 P P 08 46 03.4 -0.3
comp=Z,5.3nm,0.8s,mb4.6,baz=140,slow=9.4,SNR=14
BOD Bodaibo 56.89 11 eP P 08 46 19.9 -0.1
BOD pmax pmax
comp=Z,12nm,1.8s,mb4.6
AKTK Aktyubinsk 57.52 332 P P 08 46 23.9 -0.7
AKTO Aktyubinsk 57.52 332 P P 08 46 23.9 -0.7
comp=Z,6.0nm,0.9s,mb4.6,baz=130,slow=7.1,SNR=5.7
YSS Yuzh-Sakhalins 59.86 35 i P P 08 46 41.4 +0.4
ARU Arti 61.51 337d iP P 08 46 51.7 -0.3
ARU e 08 49 03.2
ARU S S 08 55 11.5 +1.4
ARU SS SS 08 59 11.3 -0.5
ARU pmax pmax
comp=Z,31nm,1.7s,mb5.2
ARU Arti 61.51 337⇓iP P 08 46 51.5 -0.5
ARU Arti 61.51 337 S P 08 46 52.2 +0.2
KIV Kislovodsk 62.56 319 eP P 08 46 59.5 +0.2
KIV pmax pmax
comp=Z,22nm,1.2s,mb5.2
KIV Kislovodsk 62.56 319⇑eP P 08 46 59.3 0.0
SOKR Solikamsk 64.42 339 eP P 08 47 05.4 -5.9
SOKR pmax pmax
comp=Z,30nm,1.2s,mb5.2
YAK Yakutsk 64.43 17 eP P 08 47 08.6 -2.7
YAK pmax pmax
comp=Z,37nm,0.9s,mb5.4
YAK pmax pmax
comp=N,20nm,1.5s
YAK pmax pmax
comp=E,16nm,1.5s
YAK Yakutsk 64.43 17⇑eP P 08 47 11.3 0.0
MBAR Mbarara 65.42 268 i P P 08 47 19.9 +1.2
ANN Anapa 66.35 318 eP P 08 47 27.8 +3.7
ANN pmax pmax
comp=Z,101nm,1.3s,mb5.7
VRHR Novokhopersk 66.39 326 eP P 08 47 22.6 -1.6
VRHR pmax pmax
comp=Z,30nm,0.4s,mb5.7
VRHR pmax pmax
comp=N,20nm,0.6s
VRHR pmax pmax
comp=E,20nm,0.5s
VSR Storozhevoye 67.83 325 eP P 08 47 32.1 -1.2
VSR pmax pmax
comp=Z,10.0nm,0.7s,mb5.0
VSR pmax pmax
comp=N,10.0nm,1.2s
VSR pmax pmax
comp=E,10.0nm,1.3s
SKR Severo-Kuril's 69.40 36 eP P 08 47 52.0 +8.9
PRGR Permogore 69.96 337 eP P 08 47 44.0 -2.3
PRGR pmax pmax
comp=Z,45nm,1.2s,mb5.3
OBN Obninsk 70.89 328 i P P 08 47 51.9 -0.2
OBN pmax pmax
comp=Z,144nm,2.0s,mb5.6
TIXI Tiksi 72.05 10 i P P 08 47 58.2 -0.6
TIXI pmax pmax
comp=Z,36nm,1.4s,mb5.1

TIXI	Tiksi	72.05	10	*e*P	P	08 47 57.7	-1.1
	comp=Z,28nm,1.2s,mb5.1						
KIS	Kishinev	72.75	319	*e*P	P	08 48 03.0	-0.5
SEY	Seymchan	72.95	23	*i* P	P	08 48 04.2	-0.2
AKASG	Malin Array Be	73.51	322	P	P	08 48 06.8	-1.1
	comp=Z,2.4nm,0.6s,mb4.3,baz=85,slow=5.5,SNR=8.3						
VRI	Vrincioaia	73.87	317	⇓*i*P	pP	08 48 18.8	-4.6
PLOR	Plostina	73.92	317	⇓*i*P	pP	08 48 19.7	-4.0
ARCES	ARCESS Array B	80.89	340	P	P	08 48 48.8	-0.1
	comp=Z,2.1nm,1.0s,mb4.0,baz=99,slow=5.8,SNR=4.3						
GERES	GERESS Array B	83.07	319	P	P	08 49 01.2	+0.5
	comp=Z,0.5nm,0.2s,mb4.1,baz=98,slow=5.8,SNR=6.3						
NOA	NORSAR Array B	85.28	331	P	P	08 49 11.8	+0.1
	comp=Z,1.4nm,0.8s,mb4.1,baz=94,slow=5.4,SNR=3.3						
TORD	Torodi Ar. Bea	93.71	283	P	P	08 49 52.1	-0.5
	comp=Z,1.0nm,1.1s,mb4.2,baz=64,slow=3.9,SNR=3.7						
YKA	Yellowknife Ar	111.07	15	PP	PP	08 55 41.8	-4.8
	comp=Z,0.3nm,0.8s,baz=329,slow=6.7,SNR=4.0						
ULM	Lac du Bonnet	126.39	10	PKP	PKPdf	08 55 37.4	-0.5
	comp=Z,0.8nm,0.3s,baz=68,slow=5.4,SNR=4.0						
ULM	Lac du Bonnet	126.39	10	PKP	PKPdf	08 55 37.4	-0.5
NVAR	Mina Array Bea	128.31	34	PKP	PKPdf	08 55 42.1	+0.2
	comp=Z,0.8nm,0.8s,baz=0.0,slow=0.0,SNR=5.7						
TXAR	Lajitas Array	143.06	29	PKP	PKPdf	08 56 07.5	-2.1
	comp=Z,1.1nm,1.0s,baz=252,slow=0.6,SNR=4.2						
CPUP	Villa Florida	145.23	225	PKPbc	PKPbc	08 56 13.7	+0.5
	comp=Z,1.3nm,0.7s,baz=165,slow=3.2,SNR=5.0						

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*IDC **20** 08:38:17.1±0.8,2°.57N×96°.04E,h0^{km},mb4.2/14, mb1 4.3/16,mb1mx4.2/27,mbtmp4.2/16,ML4.2/2,Error ellipse: s-maj=32.3km s-min=14.2km az=52.0*

*ISCJB **20** 08:38:20.1±0.6,2°.63N±0°.09×96°.10E±0°.10,h33^{km}, mb4.3/16,Error ellipse: s-maj=17.0km s-min=9.3km az=140.2*

*NEIC **20** 08:38:22.3±0.5,2°.65N×96°.12E,h35^{km},mb4.4/2,Error ellipse: s-maj=13.8km s-min=7.3km az=53.0*

ISC 20 08:38:22.5±0.6,**2°.65N**±0°.09×**96°.14E**±0°.10,**h35^{km},n25, σ0^{s}.65**/22,**mb4.3**/16,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.79	87	Pn	Pn	08 39 06.2	+1.6
	16nm,0.3s,baz=297,slow=11,SNR=11						
KULM	Kulim	5.21	60	*e*Pn	Pn	08 39 36.5	-1.5
CMAR	Chiang Mai Arr	15.95	10	Pn	Pn	08 42 04.4	+0.1
	0.6nm,0.3s,baz=206,slow=12,SNR=3.0						
MBWA	Marble Bar	33.07	137	*e*P	P	08 44 55.1	+0.1
	1.9nm,0.5s,mb4.3						
FITZ	Fitzroy Crossi	35.63	126	P	P	08 45 16.2	-1.1
	4.0nm,0.9s,mb4.4,baz=294,slow=10.0,SNR=3.1						
FITZ	Fitzroy Crossi	35.63	126	*e*P	P	08 45 16.8	-0.5
WRA	Warramunga Arr	43.70	123	P	P	08 46 24.0	-0.5
	2.3nm,0.6s,mb4.1,baz=303,slow=9.0,SNR=10						
WRAB	Tennant Creek	43.71	123	*e*P	P	08 46 24.8	+0.3
	17nm,1.4s,mb4.6						
ASAR	Alice Springs	45.11	128	P	P	08 46 35.6	-0.1
	2.1nm,0.6s,mb4.2,baz=299,slow=8.0,SNR=19						
KSRS	Korea Array	45.29	36	P	P	08 46 36.9	+0.1
	0.9nm,0.5s,mb3.9,baz=222,slow=8.0,SNR=3.6						
MKAR	Makanchi Array	45.59	347	P	P	08 46 39.6	+0.6
	2.2nm,0.4s,mb4.4,baz=161,slow=9.3,SNR=14						
SONM	Songino Array	45.88	10	P	P	08 46 41.6	+0.3
	1.2nm,0.4s,mb4.2,baz=192,slow=8.8,SNR=5.2						
SONM				PcP	PcP	08 48 19.1	+1.0
	3.1nm,0.9s,baz=194,slow=3.1,SNR=4.4						
KURK	Kurchatov	50.13	346	P	P	08 47 14.3	+0.1
	1.7nm,0.5s,mb4.3,baz=164,slow=7.1,SNR=4.7						
ZALV	Zalesovo Beam	51.97	352	P	P	08 47 28.1	+0.1
	5.2nm,0.5s,mb4.7,baz=178,slow=7.2,SNR=5.1						
BVAR	Borovoye Array	54.54	341	P	P	08 47 46.7	-0.1
	1.2nm,0.6s,mb4.1,baz=149,slow=9.5,SNR=2.9						
STKA	Stephens Creek	55.11	132	P	P	08 47 51.7	+0.3
	3.4nm,0.8s,mb4.4,baz=336,slow=4.9,SNR=5.8						
AKTK	Aktyubinsk	57.46	332	P	P	08 48 07.5	-0.3
AKTO	Aktyubinsk	57.46	332	P	P	08 48 07.5	-0.3
	1.5nm,0.5s,mb4.3,baz=150,slow=11,SNR=5.1						
AKASG	Malin Array Be	73.47	322	P	P	08 49 50.2	-1.1
	1.8nm,0.7s,mb4.1,baz=85,slow=6.2,SNR=3.9						
AKASG	Malin Array Be	73.47	322	P	P	08 49 50.2	-1.1
ARCES	ARCESS Array B	80.82	340	P	P	08 50 32.7	+0.4
	3.7nm,0.9s,mb4.3,baz=90,slow=6.3,SNR=3.1						
GERES	GERESS Array B	83.03	319	P	P	08 50 45.2	+0.9
	0.8nm,0.7s,mb3.9,baz=102,slow=4.1,SNR=3.8						
PDAR	Pinedale Array	129.18	24	PKP	PKPdf	08 57 27.6	+0.3
	0.2nm,0.5s,baz=222,slow=2.4,SNR=2.7						
TXAR	Lajitas Array	142.97	29	PKhKP		08 57 50.1	
	0.2nm,0.8s,baz=316,slow=5.0,SNR=5.4						
TXAR				PKP	PKPdf	08 57 55.3	+2.1
	0.3nm,0.5s,baz=207,slow=1.8						
CPUP	Villa Florida	145.32	225	PKPbc	PKPbc	08 57 57.5	+0.2
	1.3nm,0.6s,baz=356,slow=0.3,SNR=4.5						

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*ISCJB **20** 08:43:04.1±1.0,2°.6N±0°.1×95°.8E±0°.1,h33^{km},mb4.0/9, Error ellipse: s-maj=21.3km s-min=11.9km az=41.7*

*IDC **20** 08:43:04.9±1.4,2°.59N×95°.86E,h22^{km}±5^{km},mb3.9/9, mb1 3.9/11,mb1mx3.7/26,mbtmp3.9/11,ML3.7/2,Error ellipse: s-maj=39.2km s-min=16.6km az=51.0*

*NEIC **20** 08:43:06.3±0.5,2°.57N×95°.84E,h35^{km},Error ellipse: s-maj=11.9km s-min=7.8km az=44.0*

ISC 20 08:43:06.3±1.0,**2°.6N**±0°.1×**95°.8E**±0°.1,**h35^{km}, (h21^{km}**±4.0^{km}**:pP-P),n16,σ0^{s}.28**/15,**mb4.0**/9,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.10	86	Pn	Pn	08 43 52.6	-0.2
	1.0nm,0.3s,baz=290,slow=7.2,SNR=6.0						
KULM	Kulim	5.52	60	*e*Pn	Pn	08 44 26.1	0.0
CMAR	Chiang Mai Arr	16.09	11	Pn	Pn	08 46 50.0	0.0
	0.4nm,0.3s,baz=199,slow=12,SNR=7.7						
KAPI	Kappang	25.05	107	P	P	08 48 28.4	+0.7
	9.8nm,0.7s,mb4.4,baz=103,slow=17,SNR=2.7						
KAPI	Kappang	25.05	107	P	P	08 48 28.4	+0.7
WRA	Warramunga Arr	43.91	122	P	P	08 51 09.6	-0.4
	0.6nm,0.4s,mb3.7,baz=302,slow=9.0,SNR=5.7						
ASAR	Alice Springs	45.30	127	P	P	08 51 20.9	-0.1
	0.5nm,0.6s,mb3.5,baz=300,slow=7.8,SNR=11						
MKAR	Makanchi Array	45.61	347	P	P	08 51 23.3	+0.2
	1.4nm,0.5s,mb4.2,baz=160,slow=8.7,SNR=7.0						
MKAR				pP	pP	08 51 29.4	-4.1
	1.5nm,0.6s,baz=151,slow=8.8,SNR=4.6						
MKAR	Makanchi Array	45.61	347	P	P	08 51 23.3	+0.2
MKAR				pP	pP	08 51 29.4	-4.1
SONM	Songino Array	46.01	10	P	P	08 51 26.1	-0.2
	1.4nm,0.6s,mb4.1,baz=191,slow=8.7,SNR=4.5						
SONM				pP	pP	08 51 33.1	-3.6
	2.4nm,0.6s,baz=189,slow=8.8,SNR=6.9						
KURK	Kurchatov	50.14	346	P	P	08 51 58.1	0.0
	0.8nm,0.6s,mb4.0,baz=165,slow=6.6,SNR=4.0						
KURK				pP	pP	08 52 05.5	-3.1
	1.6nm,0.6s,baz=165,slow=6.8,SNR=8.4						
KURK	Kurchatov	50.14	346	P	P	08 51 58.1	0.0
KURK				pP	pP	08 52 05.5	-3.1
ZALV	Zalesovo Beam	52.02	352	P	P	08 52 11.8	-0.3
	1.1nm,0.4s,mb4.2,baz=178,slow=9.8,SNR=3.1						
BVAR	Borovoye Array	54.53	341	P	P	08 52 30.8	+0.1
	1.3nm,0.6s,mb4.1,baz=249,slow=38,SNR=5.7						
ARCES	ARCESS Array B	80.80	340	P	P	08 55 16.2	+0.2
	4.0nm,0.9s,mb4.3,baz=82,slow=6.7,SNR=3.8						
CPUP	Villa Florida	145.04	225	PKPbc	PKPbc	09 02 40.5	+0.3
	0.3nm,0.5s,baz=79,slow=8.9,SNR=3.7						

IDC 20 08:45:03.6±2.8,**2°.76N**×**95°.94E,h0^{km},mb3.7**/5,**mb1 3.7**/6, **mb1mx3.6**/23,**mbtmp3.7**/6,**ML3.0**/1,**Error ellipse: s-maj=79.3km s-min=25.8km az=46.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.98	89	Pn	Pn	08 45 52.7	+0.6
	1.9nm,0.3s,baz=354,slow=22,SNR=5.2						
WRA	Warramunga Arr	43.92	123	P	P	08 53 12.3	-0.2
	0.2nm,0.3s,baz=296,slow=12,SNR=3.5						
MKAR	Makanchi Array	45.45	347	P	P	08 53 24.4	+0.2
	0.7nm,0.3s,baz=164,slow=9.7,SNR=6.4						
SONM	Songino Array	45.80	10	P	P	08 53 26.6	-0.4
	1.0nm,0.4s,baz=188,slow=9.8,SNR=3.8						
KURK	Kurchatov	49.98	346	P	P	08 53 59.3	-0.1
	0.5nm,0.5s,baz=161,slow=6.8,SNR=3.8						
ZALV	Zalesovo Beam	51.84	352	P	P	08 54 12.9	-0.4
	0.5nm,0.4s,baz=165,slow=8.5,SNR=2.5						

CSEM 20 08:48:39.0,40°.91N×48°.08E,h10^{km},ML5.0,After AZER, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PQL	Pirkuli	0.41	106	P	Pg	08 48 48.6	+1.6
	SNR=22						
PQL				S	Sg	08 48 56.4	+4.0
SIZA	Siyzn	0.65	74	P	Pg	08 48 53.4	+1.9
	SNR=4.3						
SIZA				S	Sg	08 49 03.2	+3.3
SEKA	Sheki	0.73	295	P	Pg	08 48 54.9	+1.8
	SNR=6.2						
SEKA				S	Sg	08 49 07.0	+4.4
GANJ	Ganja	1.36	260	P	Pn	08 49 05.1	+1.1
	SNR=6.7						
GANJ				S	Sb	08 49 24.0	+2.1
GLBA	Clilabad	1.68	172	P	Pn	08 49 09.7	+1.3
	SNR=3.7						
GLBA				S	Sn	08 49 33.2	+3.3

MAN 20 08:51:58,18°.35N×120°.89E,h37^{km},mb3.5,ML2.2,MS1.6, 1C-1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.26	265	⇓*i*P	Pn	08 52 07.5	+1.9
APYP	Conner	0.59	145	*e*P	Pn	08 52 11.2	+1.3
APYP				*e*S	Sn	08 52 20.9	+2.6
SIPP	Brgy, Tapao	0.59	224	⇑*i*P	Pn	08 52 12.4	+2.5
SIPP				*i* S	Sn	08 52 22.6	+4.3
ABRA	Dolores	0.71	194	*e*P	Pn	08 52 13.5	+1.8
SGCP	Mt. Cagua	1.10	95	*e*P	Pn	08 52 18.3	+1.3
SGCP				*e*S	Sn	08 52 33.8	+2.8

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*HLW **20** 08:53:19.6,33°.49N×35°.54E,h14^{km},Mb4.3*

*GII **20** 08:53:20.8±0.6,33°.24N×35°.43E,h1^{km},Md3.6/12, Mm2.8/7*

*ISCJB **20** 08:53:20.8±0.4,33°.32N±0°.02×35°.38E±0°.03,h12^{km}±3^{km}, Error ellipse: s-maj=4.5km s-min=2.6km az=32.7*

*NSSC **20** 08:53:21,33°.28N×35°.43E,h9^{km}±2^{km}*

*GRAL **20** 08:53:21.9±0.4,33°.31N×35°.42E,h0^{km}±6^{km},MD3.5*

*CSEM **20** 08:53:21.1±0.1,33°.35N×35°.39E,h5^{km},ML3.5,Error ellipse: s-maj=3.8km s-min=2.2km az=106.0*

ISC 20 08:53:21.4±0.4,**33°.33N**±0°.02×**35°.42E**±0°.03,**h9^{km}**±3^{km}, **n77,σ0^{s}.69**/104,**14D,Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.17	336	*e*P	Pg	08 53 25.3	+0.2
MATL	Matirih	0.17	336	*e*P	Pg	08 53 25.3	+0.2
KSDI	Kefar Szold	0.25	124	Pg	Pg	08 53 26.1	-0.2
KSDI				Sg	Sg	08 53 30.6	+0.9
KSDI	Kefar Szold	0.25	124	Pg	Pg	08 53 26.1	-0.2
KSDI				Sg	Sg	08 53 30.6	+0.9
MMA0	Mount Meron ar	0.31	182	Pg	Pg	08 53 27.1	-0.5
MMA0				Sg	Sg	08 53 32.3	+0.5
MMA0	Mount Meron ar	0.31	182	Pg	Pg	08 53 27.1	-0.5
MMA0				Sg	Sg	08 53 32.3	+0.5
HNTI	Hanita	0.32	219	Pg	Pg	08 53 27.5	-0.2
HNTI				Sg	Sg	08 53 32.7	+0.8
HNTI	Hanita	0.32	219	Pg	Pg	08 53 27.5	-0.2
HNTI				Sg	Sg	08 53 32.7	+0.8
RCY	Rachaya	0.37	65	*e*P	Pg	08 53 28.7	+0.1
RCY	Rachaya	0.37	65	*e*P	Pg	08 53 28.7	0.0
BRBR	Barbar	0.46	80	⇓P	Pg	08 53 30.0	-0.2
BRBR				⇓S	Sg	08 53 37.0	+0.7
BEYL	Beyrouth	0.54	7	*e*P	Pg	08 53 32.1	+0.2
BEYL	Beyrouth	0.54	7	*e*P	Pg	08 53 32.1	+0.2
BHL	Bhannes	0.61	19	*e*P	Pg	08 53 33.1	0.0
BHL	Bhannes	0.61	19	*e*P	Pg	08 53 33.1	0.0
BLGI	Bet Lehem HaGe	0.62	198	Pg	Pg	08 53 33.4	0.0
BLGI	Bet Lehem HaGe	0.62	198	Pg	Pg	08 53 33.4	0.0
QASN	Qassioun	0.75	74	⇓P	Pg	08 53 35.0	-0.8
QASN				⇓S	Sg	08 53 46.0	+0.4
OFRI	‘Ofer	0.79	207	Pg	Pg	08 53 36.4	-0.3
OFRI	‘Ofer	0.79	207	Pg	Pg	08 53 36.4	-0.3
TOTH	TOTAH	0.85	88	⇓P	Pg	08 53 37.0	-0.7
TOTH				⇓S	Sg	08 53 49.0	+0.2
MMLI	Mount Malkishu	0.89	180	Pg	Pg	08 53 37.4	-1.1
MMLI				Sg	Sg	08 53 49.9	-0.2
MMLI	Mount Malkishu	0.89	180	Pg	Pg	08 53 37.4	-1.1
MMLI				Sg	Sg	08 53 49.9	-0.2
HWQ	Hawqa	1.04	25	*e*P	Pg	08 53 41.0	-0.4
HWQ	Hawqa	1.04	25	*e*P	Pg	08 53 41.0	-0.4
HMDT	Nahal Hemdat	1.08	175	Pg	Pg	08 53 41.0	-1.1
HMDT				Sg	Sg	08 53 57.1	+1.0
HMDT	Nahal Hemdat	1.08	175	Pg	Pg	08 53 41.0	-1.1
HMDT				Sg	Sg	08 53 57.1	+1.0
MARH	Ras Al Marh	1.13	52	⇓P	Pb	08 53 43.0	0.0
MARH				⇓S	Sg	08 53 58.0	+0.3
SLTI	Sal’it	1.13	196	Pg	Pg	08 53 42.1	-1.0
SLTI				Sg	Sg	08 53 58.0	+0.2
SLTI	Sal’it	1.13	196	Pg	Pg	08 53 42.1	-1.0
SLTI				Sg	Sg	08 53 58.0	+0.2
FKH	Fakeheh	1.22	42	*e*P	Pn	08 53 44.3	-0.3
FKH	Fakeheh	1.22	42	*e*P	Pn	08 53 44.3	-0.3
SALA	Sala	1.27	119	⇓P	Pn	08 53 44.0	-1.2
SALA				⇓S	Sb	08 54 00.0	-1.8
DSI	Dead Sea	1.76	181	Pn	Pn	08 53 51.8	-0.1
DSI				Sn	Sn	08 54 15.8	+1.4
DSI	Dead Sea	1.76	181	Pn	Pn	08 53 51.8	-0.1
DSI				Sn	Sn	08 54 15.8	+1.4
ROOS	tl_alroos	1.77	61	⇓P	Pn	08 53 53.0	+0.8
ROOS				⇓S	Sn	08 54 15.0	+0.2
BIDA	Albida	1.84	24	⇑P	Pn	08 53 53.0	-0.1
BIDA				⇑S	Sn	08 54 17.0	+0.5
RABH	Abou Rabah	1.85	53	⇑P	Pn	08 53 54.0	+0.7
MZDA	Masada	2.02	181	Pn	Pn	08 53 56.2	+0.7
MZDA				Sn	Sn	08 54 22.6	+1.8
MZDA	Masada	2.02	181	Pn	Pn	08 53 56.2	+0.7
MZDA				Sn	Sn	08 54 22.6	+1.8
WRDH	Warideh	2.32	21	⇓P	Pn	08 54 00.0	+0.2
WRDH				⇓S	Sn	08 54 28.0	-0.4
RTMI	Retamim	2.35	195	Pn	Pn	08 54 01.0	+0.9
RTMI	Retamim	2.35	195	Pn	Pn	08 54 01.0	+0.9
SLNF	Slenfeh	2.36	16	⇑P	Pn	08 54 01.0	+0.8
ZFRI	Zfri	2.77	184	Pn	Pn	08 54 05.7	-0.3
ZFRI	Zfri	2.77	184	Pn	Pn	08 54 05.7	-0.3
PRNI	Paran	2.99	187	Pn	Pn	08 54 09.4	+0.5
PRNI	Paran	2.99	187	Pn	Pn	08 54 09.4	+0.5
COBT	Iskenderun	3.26	12	*i* P	Pn	08 54 11.0	-1.6
COBT	Iskenderun	3.26	12	*i* P	Pn	08 54 11.0	-1.6
KRMI	Paran Flat	3.26	191	Pn	Pn	08 54 13.1	+0.5
KRMI	Paran Flat	3.26	191	Pn	Pn	08 54 13.1	+0.5
KUZU	Kuzuini	3.69	21	*i* P	Pn	08 54 18.2	-0.5
KUZU	Kuzuini	3.69	21	*i* P	Pn	08 54 18.2	-0.4
SUZ		4.12	213	P	Pn	08 54 24.3	-0.1
SUZ				S	Sn	08 55 11.6	-1.1
SUZ		4.12	213	P	Pn	08 54 24.3	-0.1
SUZ				S	Sn	08 55 11.6	-1.1
HBST	Basata	4.14	188	P	Pn	08 54 24.4	-0.4
HBST	Basata	4.14	188	P	Pn	08 54 24.4	-0.4
GZT	Gaziantep	4.38	23	*i* P	Pb	08 54 38.8	+0.3
HHAG	Hagoal	4.40	221	P	Pn	08 54 28.2	0.0
HHAG	Hagoal	4.40	221	P	Pn	08 54 28.2	-0.1
ZNM		4.50	210	P	Pn	08 54 29.8	+0.1
ZNM		4.50	210	P	Pn	08 54 29.8	+0.1
ZAF		4.72	212	P	Pn	08 54 33.1	+0.3
ZAF		4.72	212	P	Pn	08 54 33.1	+0.3
GLL	Jalalah	4.90	221	P	Pn	08 54 35.4	+0.2
GLL	Jalalah	4.90	221	P	Pn	08 54 35.4	+0.2
HKAT	Jabal Katrina	4.95	195	P	Pn	08 54 35.9	+0.1
HKAT	Jabal Katrina	4.95	195	P	Pn	08 54 35.9	+0.1
HSAF	As Saff	4.96	223	P	Pn	08 54 35.9	-0.1
HSAF	As Saff	4.96	223	P	Pn	08 54 35.9	-0.1
TR1		5.45	194	P	Pn	08 54 42.7	-0.1
TR1				S	Sn	08 55 43.9	-1.8
TR1		5.45	194	P	Pn	08 54 42.7	-0.1
HNAT	Natroun	5.51	229	P	Pn	08 54 43.8	+0.2
HNAT	Natroun	5.51	229	P	Pn	08 54 43.8	+0.2
GOLH	Golhisar	6.17	311	*i* P	Pn	08 54 53.2	+0.5
GOLH	Golhisar	6.17	311	*i* P	Pn	08 54 53.2	+0.5

IDC 20 08:58:19.7±27.0,**18°.24S**×**173°.72W,h0^{km},mb4.2**/4, **mb1 4.3**/4,**mb1mx3.8**/18,**mbtmp4.2**/4,**Error ellipse: s-maj=500.9km s-min=159.5km az=74.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	37.79	261	P	P	09 05 38.8	+0.9
	2.3nm,0.4s,baz=74,slow=9.7,SNR=4.0						
STKA	Stephens Creek	42.41	243	P	P	09 06 16.1	0.0
	0.9nm,0.4s,baz=49,slow=9.3,SNR=3.9						
WRA	Warramunga Arr	48.95	259	P	P	09 07 08.0	-0.1
	1.2nm,0.3s,baz=97,slow=7.5,SNR=57						
ASAR	Alice Springs	48.99	254	P	P	09 07 07.8	-0.6
	1.8nm,0.5s,baz=88,slow=8.5,SNR=31						

KRSC 20 09:03:55.9±1.0,**50°.27N**×**157°.86E,h5^{km}**±5^{km}**,ML3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIPR	Malaya Ipel’ka	2.12	341	*e*P	Pn	09 04 32.3	+0.3
MIPR				*i* S	Sn	09 04 59.1	+0.3
RUS	Russkaya	2.21	10	*e*P	Pn	09 04 34.1	+1.0
RUS				*i* S	Sn	09 05 01.8	+1.1
GRL	Gorelyy	2.29	3	*e*P	Pn	09 04 35.9	+1.6
GRL				*i* S	Sn	09 05 04.6	+1.8
PET	Petropavlovsk	2.80	10	*e*P	Pn	09 04 42.9	+1.6
PET				*i* S	Sn	09 05 17.5	+2.1
AVH	Avacha	3.05	10	*e*P	Pn	09 04 47.2	+2.5
AVH				*i* S	Sn	09 05 24.8	+3.3
NLC	Nalytchevo	3.05	17	*e*P	Pn	09 04 45.2	+0.5
NLC				*i* S	Sn	09 05 20.7	-0.8
SPN	Mys Shipunski	3.14	25	*e*P	Pn	09 04 48.0	+2.1
SPN				*i* S	Sn	09 05 25.7	+2.0
GNL	Ganaly	3.43	1	*e*P	Pn	09 04 51.7	+1.8
GNL				*i* S	Sn	09 05 32.3	+1.4
TUMR	Tumrok	5.21	15	*e*P	Pn	09 05 17.4	+3.0
KMNR	Kamenistaya	5.68	14	*e*P	Pn	09 05 22.3	+1.5
SRDR	Sredinnyy	6.16	10	*e*P	Pn	09 05 30.4	+3.0
KBTR	Krutoberegovo	6.65	25	*e*P	Pn	09 05 35.4	+1.3

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*BJI **20** 09:05:03.0,2°.20N×96°.13E,h37^{km},mB4.9/4,mb5.1/49, Ms5.6/12,Ms7 5.5/14*

*IDC **20** 09:05:03.5±0.5,2°.70N×96°.25E,h0^{km},mb4.7/26, mb1 4.8/28,mb1mx4.7/33,mbtmp4.7/28,ML4.6/1,Error ellipse: s-maj=16.5km s-min=10.4km az=46.0*

*SZGRF **20** 09:05:04.4,1°.76N×96°.55E,h33^{km},mb4.8,Off west coast of northern Sumatera, Indonesia*

*MOS **20** 09:05:06.8±1.0,2°.75N×96°.28E,h33^{km},mb5.3/46,Error ellipse: s-maj=8.8km s-min=5.1km az=112.2*

*ISCJB **20** 09:05:08.0±0.7,2°.73N±0°.04×96°.25E±0°.04,h42^{km}±6^{km}, mb5.1/105,MS5.6/7,Error ellipse: s-maj=7.1km s-min=4.7km az=44.8*

*DJA **20** 09:05:08,2°.76N×96°.23E,h20^{km},mb5.2/10*

*NEIC **20** 09:05:08.9±0.2,2°.70N×96°.25E,h35^{km},mb5.1/44,Error ellipse: s-maj=5.1km s-min=3.3km az=39.0*

NEIC Felt at Medan, Sumatra. Also felt at George Town, Kampong Gelugor and Kuala Lumpur, Malaysia.

ISC 20 09:05:09.8±0.6,**2°.70N**±0°.04×**96°.23E**±0°.03,**h42^{km}**±5^{km}, **h36^{km}**±1.8^{km}**:pP-P,n285,σ0^{s}.94**/273,**mb5.1**/105,**MS5.6**/7, **15C-6D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	1.93	136	P	Pn	09 05 38.6	-1.6
PSI	Prapat	2.69	88	Pn	Pn	09 05 50.1	-0.5
	14nm,0.3s,baz=282,slow=6.9,SNR=171						
BSI	Banda Aceh	2.93	341	P	Pn	09 05 51.8	-2.1
IPM	Ipoh	5.10	70	P	Pn	09 06 24.7	+0.9
IPM	Ipoh	5.10	70	P	Pn	09 06 24.7	+0.9
IPM	Ipoh	5.10	70	P	Pn	09 06 24.7	+0.9
IPM	Ipoh	5.10	70	P	Pn	09 06 24.1	+0.3
	377nm,0.9s,2.4nm						
KULM	Kulim	5.11	60	P	Pn	09 06 24.7	+0.9
KULM	Kulim	5.11	60	P	Pn	09 06 24.7	+0.9
KULM	Kulim	5.11	60	P	Pn	09 06 24.7	+0.9
KULM	Kulim	5.11	60	*e*Pn	Pn	09 06 24.4	+0.6
	700nm,0.9s						
KULM	Kulim	5.11	60	P	Pn	09 06 24.3	+0.5
	1µm,1.1s,2.7nm						
PPI	Padang Panjang	5.21	127	P	Pn	09 06 25.7	+0.4
	207nm,0.8s,1.4nm						
FRIM	Kepong	5.42	84	P	Pn	09 06 28.5	+0.4
FRIM	Kepong	5.42	84	P	Pn	09 06 28.5	+0.4
FRIM	Kepong	5.42	84	P	Pn	09 06 28.5	+0.4
PDSI	Padang	5.55	130	P	Pn	09 06 28.8	-1.1
KGM	Kluang	7.12	95	P	Pn	09 06 52.3	+0.9
KGM	Kluang	7.12	95	P	Pn	09 06 52.3	+0.9
KGM	Kluang	7.12	95	P	Pn	09 06 52.3	+0.9
KGM	Kluang	7.12	95	P	Pn	09 06 52.3	+0.9
KTGM	Kuala Trenggan	7.37	69	P	Pn	09 06 55.3	+0.5
KTGM	Kuala Trenggan	7.37	69	P	Pn	09 06 55.3	+0.5
KTGM	Kuala Trenggan	7.37	69	P	Pn	09 06 55.3	+0.5
KTGM	Kuala Trenggan	7.37	69	P	Pn	09 06 55.3	+0.5
MYKOM	Kota Tinggi	7.67	97	P	Pn	09 07 00.2	+1.2
MYKOM	Kota Tinggi	7.67	97	P	Pn	09 07 00.2	+1.2
MYKOM	Kota Tinggi	7.67	97	P	Pn	09 07 00.2	+1.2
MYKOM	Kota Tinggi	7.67	97	P	Pn	09 07 00.2	+1.2
MYKOM	Kota Tinggi	7.67	97	P	Pn	09 06 58.9	-0.1
	140nm,1.2s,0.9nm						
KSI	Kapahiang	8.96	135	P	Pn	09 07 18.5	+1.8
	202nm,0.9s						
KASI	Kota Agung	11.62	135	P	Pn	09 07 56.4	+3.3
KSM	Kuching	14.12	95	Pn	Pn	09 08 27.1	-0.2
KSM	Kuching	14.12	95	P	Pn	09 08 35.6	+8.2
CMAR	Chiang Mai Arr	15.88	9	Pn	Pn	09 08 49.1	-1.3
	0.8nm,0.3s,baz=198,slow=11,SNR=80						
SBUM	Sibu	15.98	91	P	Pn	09 08 52.1	+0.3
SBUM	Sibu	15.98	91	P	Pn	09 08 52.5	+0.8
	41nm,1.3s						
PALK	Pallekele	16.12	287	*e*P	Pn	09 08 52.8	-0.7
PALK				pmax	pmax		
	comp=Z,86nm,1.3s						
PALK	Pallekele	16.12	287	Pn	Pn	09 08 57.9	+4.4
	comp=Z,0.7nm,0.3s,baz=102,slow=11,SNR=8.9						
PALK				Sn	Sn	09 11 33.3	-18
	comp=Z,1.1nm,0.3s,baz=194,slow=14,SNR=4.8						
PALK	Pallekele	16.12	287	*e*Pn	Pn	09 08 52.8	-0.7
	comp=Z,86nm,1.3s						
PALK				Sn	Sn	09 11 33.3	-18
PALK	Pallekele	16.12	287	P	Pn	09 08 58.4	+4.9
	SNR=6.7						
PALK				P		09 08 58.4	
	SNR=6.7						
PALK	Pallekele	16.12	287	P	Pn	09 08 53.8	+0.3
	comp=Z,29nm,1.6s						
CHTO	Chiang Mai	16.23	9	*e*P	Pn	09 08 54.1	-0.8
CHTO				pmax	pmax		
	comp=Z,18nm,0.9s						
CHTO	Chiang Mai	16.23	9	*e*Pn	Pn	09 08 54.1	-0.8
	comp=Z,18nm,0.9s						
BTM	Bintulu	16.84	88	P	Pn	09 09 03.5	+0.9
VIS	Vishakhapatnam	19.57	321	*e*PKP	Pn	09 09 34.6	-1.3
VIS				AMb	AMB	09 09 41.2	
	comp=Z,58nm,0.9s						
BBKI	Banjar Baru	19.58	108	P	Pn	09 09 35.3	-0.8
	comp=Z,131nm,0.9s						
KBKI	Kotabaru	20.80	107	P	P	09 09 48.4	+0.7
	comp=Z,80nm,1.0s						
QIZ	Qiongzhong	21.00	38	P	P	09 09 50.5	+0.8
QIZ				S	S	09 13 44.6	+3.2
QIZ				pmax	pmax		
	comp=Z,23nm,1.1s						
SDKM	Sandakan	21.11	81	P	P	09 09 51.5	+0.5
MYLDM	Lahad Datu	22.35	83	P	P	09 10 03.9	-0.5
HYB	Hyderabad	22.69	311	*i* P	P	09 10 08.5	+0.6
HYB	Hyderabad	22.69	311	*e*P	P	09 10 06.0	-1.9
KMI	Kunming	23.16	15	P	P	09 10 14.3	+1.6
KMI				pP		09 10 23.3	
KMI				S	S	09 14 21.3	+0.1
KMI				pmax	pmax		
	comp=Z,32nm,1.0s,mb4.7						
KMI				LR	LR		
	comp=N,18µm,15.8s,MS5.7						
KMI				LR	LR		
	comp=E,18µm,18.3s,MS5.7						
KMI				LR	LR		
	comp=Z,21µm,15.8s,MS5.7						
BOK	Bokaro	23.23	335	*e*PKP	P	09 10 12.2	-1.3
BOK				AMb	AMB	09 10 17.0	
	comp=Z,239nm,1.6s,mb5.4						
PCI	Palu	23.87	98	P	P	09 10 20.2	+0.6
KAPI	Kappang	24.72	108	P	P	09 10 26.0	-1.3

	comp=Z,41nm,1.0s,mb4.9,baz=296,slow=10,SNR=7.9						
ODAN	**Odare**	**25.47**	**341**	*e*P	**P**	**09 10 34.2**	**+0.2**
GYA	**Guiyang**	**25.66**	**22**	⇑*i*P	**P**	**09 10 37.5**	**+1.8**
GYA				pP	pP	09 10 46.8	-0.3
GYA				sP	sP	09 10 51.4	-0.8
GYA				PP		09 11 19.5	
GYA				S	**S**	**09 15 03.4**	**+2.0**
GYA				sS	sS	09 15 19.8	-0.7
GYA				SS		09 16 08.8	
GYA				ScP	ScP	09 17 41.3	-0.6
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.7						
GYA				pmax	pmax		
	comp=Z,140nm,4.4s						
GYA				LR	LR		
	comp=N,5µm,17.5s,MS5.2						
GYA				LR	LR		
	comp=E,5µm,18.2s,MS5.2						
GYA				LR	LR		
	comp=Z,4µm,17.8s,MS5.0						
RAMN	**Ramite**	**25.82**	**340**	*e*P	**P**	**09 10 37.9**	**+0.7**
	comp=Z,110nm,1.0s,mb5.4						
TAPN	**Taplejung**	**25.83**	**342**	*e*P	**P**	**09 10 37.4**	**+0.1**
	comp=Z,145nm,1.1s,mb5.4						
JIRN	**Jiri**	**26.61**	**340**	*e*P	**P**	**09 10 44.6**	**+0.3**
	comp=Z,200nm,1.0s,mb5.6						
PKI	**Pulchoki**	**26.81**	**338**	*e*P	**P**	**09 10 46.5**	**+0.4**
	comp=Z,106nm,1.2s,mb5.3						
PKI	**Pulchoki**	**26.81**	**338**	*e*P	**P**	**09 10 46.5**	**+0.4**
PKI				pmax	pmax		
	comp=Z,106nm,1.2s,mb5.2						
PKIN	**Phulchoki**	**26.82**	**338**	*e*P	**P**	**09 10 46.1**	**-0.1**
TGY	**Tagaytay City**	**26.90**	**64**	P	**P**	**09 10 46.7**	**-0.4**
	comp=Z,153nm,0.4s,mb5.9,baz=146,slow=9.0,SNR=5.6						
GUN	**Gumba**	**26.95**	**339**	*e*P	**P**	**09 10 47.7**	**+0.3**
DMN	**Daman**	**26.95**	**338**	*e*P	**P**	**09 10 47.6**	**+0.2**
	comp=Z,66nm,0.9s,mb5.2						
POO	**Poona**	**26.98**	**307**	*e*PKP	**P**	**09 10 48.8**	**+1.0**
KKN	**Kakani**	**27.05**	**338**	*e*P	**P**	**09 10 48.4**	**+0.1**
	comp=Z,103nm,0.9s,mb5.3						
KKN	**Kakani**	**27.05**	**338**	*e*P	**P**	**09 10 48.4**	**+0.1**
KKN				pmax	pmax		
	comp=Z,103nm,0.9s,mb5.4						
LSA	**Lhasa**	**27.28**	**350**	P	**P**	**09 10 50.0**	**-0.3**
LSA	**Lhasa**	**27.28**	**350**	*e*P	**P**	**09 10 51.0**	**+0.7**
LSA				pmax	pmax		
	comp=Z,27nm,0.8s,mb4.8						
LSA	**Lhasa**	**27.28**	**350**	*e*P	**P**	**09 10 51.0**	**+0.6**
	comp=Z,27nm,0.8s,mb4.8						
BHPL	**Bhopal**	**27.36**	**320**	*e*PKP	**P**	**09 10 51.5**	**+0.4**
BHPL				AMb	AMB	09 11 03.0	
	comp=Z,53nm,1.4s,mb4.9						
GKN	**Gorkha**	**27.49**	**337**	*e*P	**P**	**09 10 52.4**	**+0.2**
	comp=Z,170nm,1.0s,mb5.5						
KOLN	**Koldanda**	**27.70**	**335**	*e*P	**P**	**09 10 54.5**	**+0.4**
	comp=Z,226nm,1.0s,mb5.7						
DANN	**Dangsing**	**28.14**	**336**	*e*P	**P**	**09 10 58.1**	**0.0**
	comp=Z,177nm,1.2s,mb5.6						
CD2	**Chengdu**	**28.95**	**13**	P	**P**	**09 11 04.0**	**-1.2**
CD2				pP	pP	09 11 14.1	-2.5
CD2				sP	sP	09 11 18.3	-3.4
CD2				PP	PP	09 11 59.6	-12
CD2				S	**S**	**09 15 53.5**	**+0.4**
CD2				sS	sS	09 16 09.4	-2.9
CD2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
CD2				LR	LR		
	comp=N,13µm,13.1s						
CD2				LR	LR		
	comp=Z,8µm,16.0s,MS5.4						
DAV	**Davao City (W)**	**29.55**	**80**	*e*P	**P**	**09 11 09.8**	**-1.0**
	comp=Z,191nm,0.4s,mb6.2						
AJM	**Ajmer**	**31.43**	**321**	*e*PKP	**P**	**09 11 27.8**	**+0.6**
MBWA	**Marble Bar**	**33.05**	**137**	*e*P	**P**	**09 11 41.4**	**0.0**
	comp=Z,72nm,2.1s,mb5.2						
XAN	**Xi’an**	**33.35**	**19**	P	**P**	**09 11 42.5**	**-1.5**
XAN				pP	pP	09 11 51.3	-4.2
XAN				sP	sP	09 11 55.8	-4.8
XAN				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.2						
LZH	**Lanzhou**	**33.96**	**11**	*e*P	**P**	**09 11 49.1**	**-0.1**
LZH				pP	pP	09 11 57.8	-3.0
LZH				sP	sP	09 12 03.5	-2.3
LZH				PcP	PcP	09 14 28.8	+2.0
LZH				pmax	pmax		
	comp=Z,160nm,1.0s,mb5.9						
LZH				pmax	pmax		
	comp=Z,480nm,4.3s						
THN	**Thein Dam**	**35.30**	**329**	*e*PKP	**P**	**09 12 00.9**	**0.0**
FITZ	**Fitzroy Crossi**	**35.59**	**127**	*e*P	**P**	**09 12 01.9**	**-1.6**
	comp=Z,28nm,0.8s,mb5.2						
FITZ				*e*	pP	09 12 12.4	-2.7
FITZ				*e*		09 12 18.4	
FITZ				*e*		09 12 43.0	
FITZ	**Fitzroy Crossi**	**35.59**	**127**	P	**P**	**09 12 01.9**	**-1.7**
	comp=Z,17nm,0.9s,mb5.0,baz=289,slow=1.8,SNR=15						
NJ2	**Nanjing**	**36.13**	**34**	*e*P	**P**	**09 12 10.6**	**+2.6**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
GTA	**Gaotai**	**36.68**	**5**	P	**P**	**09 12 12.3**	**-0.3**
GTA				pP	pP	09 12 22.8	-1.4
GTA				sP	sP	09 12 26.5	-2.7
GTA				PcP	PcP	09 14 35.9	+1.2
GTA				S	**S**	**09 17 52.8**	**-0.3**
GTA				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.6						
KAKA	**Kakadu**	**39.08**	**114**	*e*P	**P**	**09 12 31.7**	**-1.5**
	comp=Z,43nm,0.6s,mb5.4						
KAKA	**Kakadu**	**39.08**	**114**	*e*P	**P**	**09 12 31.7**	**-1.5**
	comp=Z,142nm,0.7s,mb5.8						
HHC	**Hu-ho-hao-te**	**40.42**	**18**	*e*P	**P**	**09 12 45.1**	**+1.1**
HHC				pP	pP	09 12 54.6	-1.1
HHC				sP	sP	09 12 59.1	-1.6
HHC				PP	PP	09 14 22.3	+4.7
HHC				PcS	PcS	09 18 36.3	-0.6
HHC				*e*S	**S**	**09 18 51.8**	**+2.3**
HHC				sS	sS	09 19 08.6	-0.4
HHC				SS	SS	09 21 48.8	-1.1
HHC				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.3						
NWAO	**Narrogin (SRO)**	**40.63**	**152**	P	**P**	**09 12 45.1**	**-0.7**
	comp=Z,7.8nm,0.7s,mb4.4,baz=286,slow=1.8,SNR=3.6						
KSH	**Kashi**	**41.01**	**336**	P	**P**	**09 12 48.0**	**-0.9**
KSH				*e*pP	pP	09 12 57.8	-2.8
KSH				*e*sP	sP	09 13 01.9	-3.7
KSH				*e*PP	PP	09 14 26.1	+2.0
KSH				*e*PcP	PcP	09 14 49.4	+1.1
KSH				*e*ScP	ScP	09 18 35.1	+0.2
KSH				*e*PcS	PcS	09 18 39.1	-0.1
KSH				*e*S	**S**	**09 18 55.8**	**-2.5**
KSH				*e*ScS	ScS	09 22 48.4	-1.7
KSH				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.4						
KSH				LR	LR		
	comp=Z,9µm,13.6s,MS5.8						
BJT	**Baijiatuau**	**41.31**	**23**	*e*P	**P**	**09 12 52.1**	**+0.8**
BJT				pmax	pmax		
	comp=Z,179nm,1.0s						
BJT	**Baijiatuau**	**41.31**	**23**	*e*P	**P**	**09 12 52.1**	**+0.8**
	comp=Z,179nm,1.0s,mb5.7						
BJI	**Beijing**	**41.33**	**23**	P	**P**	**09 12 52.0**	**+0.5**
BJI				pmax	pmax		
	comp=Z,170nm,1.0s,mb5.6						
WMQ	**Urumqi**	**41.64**	**351**	⇓*i*P	**P**	**09 12 54.8**	**+0.9**
WMQ				pP	pP	09 13 04.5	-1.2
WMQ				pmax	pmax		
	comp=Z,41nm,1.4s,mb4.9						
WMQ				LR	LR		
	comp=N,1µm,20.0s,MS4.9						
WMQ				LR	LR		
	comp=E,1µm,23.2s,MS4.9						
WMQ				LR	LR		
	comp=Z,2µm,20.4s,MS4.9						
BSY	**Bisya**	**42.75**	**301**	⇑P	pP	09 13 10.4	-4.8
	SNR=6.8						
DL2	**Dalian**	**42.83**	**29**	P	**P**	**09 13 04.3**	**+0.6**
DL2				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.2						
ULHL	**Ulahol**	**43.25**	**338**	P	**P**	**09 13 08.1**	**+1.1**
	SNR=7.3						
KZA	**Kyzart**	**43.48**	**337**	P	**P**	**09 13 10.7**	**+1.8**
	SNR=9.7						
WRA	**Warramunga Arr**	**43.65**	**123**	P	**P**	**09 13 09.9**	**-0.8**
	comp=Z,26nm,0.9s,mb5.0,baz=302,slow=9.0,SNR=70						
WRAB	**Tennant Creek**	**43.66**	**123**	P	**P**	**09 13 10.0**	**-0.7**
	comp=Z,216nm,1.1s,mb5.8,SNR=11						
WRAB	**Tennant Creek**	**43.66**	**123**	*e*P	**P**	**09 13 09.9**	**-0.8**
WRAB				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.0						
WRAB	**Tennant Creek**	**43.66**	**123**	*e*P	**P**	**09 13 09.9**	**-0.8**
	comp=Z,30nm,0.9s,mb5.0						
UCH	**Uchtor**	**43.90**	**337**	P	**P**	**09 13 13.4**	**+1.2**
	SNR=24						
UCH	**Uchtor**	**43.90**	**337**	*e*P	**P**	**09 13 13.7**	**+1.5**
	comp=Z,21nm,1.0s,mb4.8						
TKM2	**Tokmak 2**	**44.07**	**338**	*e*P	**P**	**09 13 14.7**	**+1.0**
TKM2				pmax	pmax		
	comp=Z,33nm,1.3s,mb4.9						
TKM2	**Tokmak 2**	**44.07**	**338**	*e*P	**P**	**09 13 14.7**	**+1.1**
	comp=Z,33nm,1.3s,mb4.9						
AML	**Almayashu**	**44.14**	**336**	P	**P**	**09 13 15.4**	**+1.2**
	SNR=23						
AML	**Almayashu**	**44.14**	**336**	*e*P	**P**	**09 13 15.4**	**+1.2**
	comp=Z,23nm,1.0s,mb4.9						
AAK	**Ala-Archa**	**44.25**	**337**	P	**P**	**09 13 16.9**	**+1.8**
	comp=Z,121nm,1.0s,mb5.6,SNR=8.4						
AAK	**Ala-Archa**	**44.25**	**337**	*e*P	**P**	**09 13 16.5**	**+1.4**
AAK				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.0						
AAK	**Ala-Archa**	**44.25**	**337**	P	**P**	**09 13 16.6**	**+1.6**
	SNR=12						
AAK	**Ala-Archa**	**44.25**	**337**	P	**P**	**09 13 16.6**	**+1.6**
	comp=Z,8.9nm,0.9s,mb4.5,baz=142,slow=6.0,SNR=16						
AAK	**Ala-Archa**	**44.25**	**337**	*e*P	**P**	**09 13 16.5**	**+1.4**
	comp=Z,39nm,1.3s,mb5.0						
AAK	**Ala-Archa**	**44.25**	**337**	P	**P**	**09 13 17.0**	**+2.0**
	SNR=12						
AAK				P		09 13 17.0	
	SNR=12						
WHFO	**Wadi Hawf**	**44.28**	**293**	P	pP	09 13 24.9	-2.6
	SNR=6.3						
EKS2	**Erkin-Say**	**44.55**	**336**	P	**P**	**09 13 18.6**	**+1.0**
	SNR=10						
EKS2	**Erkin-Say**	**44.55**	**336**	*e*P	**P**	**09 13 18.9**	**+1.4**
	comp=Z,8.7nm,0.9s,mb4.6						
USP	**Ospenovka**	**44.78**	**337**	P	**P**	**09 13 19.7**	**+0.4**
	SNR=29						
FORT	**Forrest**	**45.04**	**140**	*e*P	**P**	**09 13 14.8**	**-6.8**
	comp=Z,18nm,0.7s,mb5.0						
ASAR	**Alice Springs**	**45.07**	**128**	P	**P**	**09 13 21.6**	**-0.4**
	comp=Z,5.1nm,0.9s,mb4.4,baz=308,slow=7.5,SNR=29						
ASAR				PcP	PcP	09 15 02.2	-0.1
	comp=Z,1.9nm,0.9s,baz=328,slow=3.8,SNR=4.2						
KSRS	**Korea Array**	**45.19**	**36**	P	**P**	**09 13 21.8**	**-0.9**
	comp=Z,18nm,0.9s,mb4.9,baz=226,slow=9.1,SNR=30						
MK31	**Makanchi Array**	**45.56**	**347**	P	**P**	**09 13 25.1**	**-0.4**
MK31				pmax	pmax		
	comp=Z,23nm,0.5s,mb5.4						
MK31	**Makanchi Array**	**45.56**	**347**	⇑*e*P	**P**	**09 13 25.1**	**-0.4**
MKAR	**Makanchi Array**	**45.56**	**347**	P	**P**	**09 13 25.1**	**-0.3**
	comp=Z,51nm,0.8s,mb5.5,baz=160,slow=7.5,SNR=296						
SONM	**Songino Array**	**45.81**	**10**	P	**P**	**09 13 27.7**	**+0.3**
	comp=Z,24nm,0.9s,mb5.1,baz=193,slow=8.3,SNR=102						
SONM				PcP	PcP	09 15 05.2	+0.9
	comp=Z,8.8nm,0.9s,baz=190,slow=3.1,SNR=6.7						
ULN	**Ulaanbaatar**	**45.95**	**10**	*e*P	**P**	**09 13 28.4**	**-0.1**
ULN				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.1						
ULN	**Ulaanbaatar**	**45.95**	**10**	*e*P	**P**	**09 13 28.4**	**-0.1**
	comp=Z,29nm,1.1s,mb5.1						
SNY	**Shenyang**	**46.03**	**28**	⇓P	**P**	**09 13 29.0**	**-0.3**
SNY				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.3						
KK31	**Karatay Array**	**46.29**	**334**	*i* P	**P**	**09 13 31.6**	**+0.3**
KK31				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
KK31	**Karatay Array**	**46.29**	**334**	⇑*e*P	**P**	**09 13 31.6**	**+0.3**
ZAK	**Zakamensk**	**47.88**	**6**	⇑*i*P	**P**	**09 13 43.5**	**0.0**
ZAK				*e*		09 15 12.4	
ZAK				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.9						
CN2	**Changchun**	**48.43**	**28**	⇓P	**P**	**09 13 47.5**	**-0.4**
CN2				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.4						
MOY	**Mondy**	**48.96**	**4**	*e*P	**P**	**09 13 51.2**	**-0.6**
TLY	**Talaya**	**49.20**	**6**	P	**P**	**09 13 54.5**	**+0.8**
	comp=Z,116nm,0.9s,mb5.9,SNR=6.5						
TLY	**Talaya**	**49.20**	**6**	*e*P	**P**	**09 13 54.2**	**+0.5**
TLY				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
TLY	**Talaya**	**49.20**	**6**	*e*P	**P**	**09 13 54.3**	**+0.6**
	comp=Z,19nm,1.0s,mb5.1						
TLY	**Talaya**	**49.20**	**6**	P	**P**	**09 13 54.5**	**+0.8**
	SNR=9.4						
TLY				P		09 13 54.5	
	SNR=9.4						
IRK	**Irkutsk**	**49.83**	**6**	*e*P	**P**	**09 13 58.5**	**+0.1**
IRK				pmax	pmax		
	comp=Z,56nm,1.7s,mb5.3						
KURK	**Kurchatov**	**50.10**	**345**	P	**P**	**09 14 00.9**	**+0.4**
	comp=Z,134nm,0.9s,mb6.0,SNR=17						
KURK	**Kurchatov**	**50.10**	**345**	*e*P	**P**	**09 14 00.3**	**-0.2**
KURK				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
KURK	**Kurchatov**	**50.10**	**345**	P	**P**	**09 13 59.8**	**-0.7**
	comp=Z,15nm,0.8s,mb5.1,baz=166,slow=7.2,SNR=87						
KURK				PcP	PcP	09 15 20.1	+0.5
	comp=Z,2.4nm,0.8s,baz=156,slow=2.9,SNR=4.9						
KURK				ScP	ScP	09 19 14.5	+2.3
	comp=Z,0.4nm,0.3s,baz=150,slow=3.8,SNR=3.7						
KURK	**Kurchatov**	**50.10**	**345**	*e*P	**P**	**09 14 00.2**	**-0.3**
	comp=Z,21nm,0.9s,mb5.2						
KURK	**Kurchatov**	**50.10**	**345**	P	**P**	**09 14 00.7**	**+0.1**
	SNR=15						
KURK				P		09 14 00.7	
	SNR=15						
HIA	**Hailar**	**50.55**	**20**	*e*P	**P**	**09 14 04.2**	**+0.2**
HIA				pmax	pmax		
	comp=Z,54nm,1.0s						
HIA	**Hailar**	**50.55**	**20**	*e*P	**P**	**09 14 04.2**	**+0.2**
	comp=Z,54nm,1.0s,mb5.4						
MDJ	**Mudanjiang**	**51.05**	**30**	P	**P**	**09 14 08.1**	**+0.3**
MDJ				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
MJAR	**Matsushiro Arr**	**51.26**	**44**	P	**P**	**09 14 09.1**	**-0.4**
	comp=Z,2.4nm,1.0s,mb4.1,baz=206,slow=7.9,SNR=4.2						
MJAR				PcP	PcP	09 15 25.0	+0.7
	comp=Z,4.8nm,0.9s,baz=244,slow=4.4,SNR=7.5						
ZALV	**Zalesovo Beam**	**51.94**	**351**	P	**P**	**09 14 13.8**	**-0.4**
	comp=Z,28nm,0.8s,mb5.2,baz=180,slow=6.8,SNR=108						
ZALV	**Zalesovo Beam**	**51.94**	**351**	P	**P**	**09 14 13.8**	**-0.4**
OPO	**Ambohidratompo**	**52.68**	**244**	P	**P**	**09 14 21.7**	**+1.3**
	comp=Z,2.2nm,0.5s,mb4.3,baz=90,slow=10,SNR=2.9						
NVS	**Novosibirsk**	**53.04**	**351**	⇑*i*P	**P**	**09 14 21.4**	**-1.0**
NVS				pmax	pmax		
	comp=N,31nm,1.0s						
NVS				pmax	pmax		
	comp=E,20nm,1.0s						
NVS				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
CTA	**Charters Tower**	**54.04**	**117**	⇓*i*P	**P**	**09 14 30.6**	**+0.2**
	comp=Z,21nm,0.9s,mb5.1						
CTA				*e*		09 14 35.7	
CTA				*e*	pP	09 14 42.6	+0.1
CTA	**Charters Tower**	**54.04**	**117**	P	**P**	**09 14 30.5**	**+0.1**
	comp=Z,26nm,0.9s,mb5.2,baz=293,slow=8.7,SNR=18						
CTAO	**Charters Tower**	**54.04**	**117**	*e*P	**P**	**09 14 30.3**	**-0.1**
CTAO				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
CTAO	**Charters Tower**	**54.04**	**117**	*e*P	**P**	**09 14 30.3**	**-0.1**
	comp=Z,36nm,1.0s,mb5.3						
BVAR	**Borovoye Array**	**54.52**	**341**	P	**P**	**09 14 33.0**	**-0.3**
	comp=Z,10nm,1.0s,mb4.8,baz=142,slow=7.5,SNR=31						
BRVK	**Borovoye**	**54.59**	**341**	P	**P**	**09 14 33.1**	**-0.7**
	comp=Z,79nm,1.1s,mb5.7,SNR=7.2						
BRVK	**Borovoye**	**54.59**	**341**	⇑*e*P	**P**	**09 14 33.0**	**-0.8**
STKA	**Stephens Creek**	**55.08**	**132**	P	**P**	**09 14 37.2**	**-0.5**
	comp=Z,4.8nm,0.6s,mb4.7,baz=291,slow=6.2,SNR=6.6						
STKA	**Stephens Creek**	**55.08**	**132**	P	**P**	**09 14 37.2**	**-0.5**
KLR	**Kul’dur**	**55.37**	**28**	*e*P	**P**	**09 14 34.4**	**-5.1**
KLR				pmax	pmax		
	comp=E,50nm,1.6s						
KLR				pmax	pmax		
	comp=Z,110nm,1.6s,mb5.6						
AB31	**Akbulak array**	**55.74**	**332**	P	**P**	**09 14 41.7**	**-0.5**
AB31				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.5						
HABR	**Khabarovsk**	**56.44**	**30**	*e*P	**P**	**09 14 45.2**	**-2.0**
HABR				*e**SP	sP	09 14 59.8	-4.4
HABR				S	**S**	**09 22 34.7**	**-0.4**
HABR				*e*		09 24 31.3	
HABR				MLR	MLR		
	comp=Z,12µm,18.0s,MS6.0						
BOD	**Bodaibo**	**56.73**	**11**	*e*P	**P**	**09 14 48.7**	**-0.3**
BOD				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
ERM	**Erimo**	**57.34**	**40**	P	**P**	**09 14 51.5**	**-2.2**
	comp=Z,190nm,0.4s,SNR=5.6						
AKTK	**Aktyubinsk**	**57.46**	**332**	P	**P**	**09 14 53.6**	**-0.8**
AKTO	**Aktyubinsk**	**57.46**	**332**	P	**P**	**09 14 53.6**	**-0.8**
AKTO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
AKTO	**Aktyubinsk**	**57.46**	**332**	P	**P**	**09 14 53.6**	**-0.8**
	comp=Z,17nm,0.9s,mb5.1,baz=128,slow=7.4,SNR=39						
CMSA	**Cobar Meteorol**	**57.99**	**130**	*e*P	**P**	**09 14 58.9**	**+0.4**
CLNS	**Chul’man**	**58.61**	**18**	*e*P	**P**	**09 15 01.9**	**-0.4**
CLNS				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
CLNS				pmax	pmax		
	comp=N,11nm,1.0s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.8s						
KMBO	**Kilima Mbogo**	**59.08**	**267**	P	**P**	**09 15 07.4**	**+1.0**
	comp=E,3.1nm,0.9s,mb4.3,baz=52,slow=10,SNR=5.7						
GNI	**Garni**	**59.55**	**316**	⇑*e*P	**P**	**09 15 09.6**	**+0.5**
GNI				pmax	pmax		
	comp=Z,12nm,1.0s						
YSS	**Yuzh-Sakhalins**	**59.67**	**35**	*e*P	**P**	**09 15 09.9**	**0.0**
YSS				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.3						
YSS	**Yuzh-Sakhalins**	**59.67**	**35**	*e*P	**P**	**09 15 09.9**	**+0.1**
	comp=Z,38nm,1.1s,mb5.3						
SVE	**Sverdlovsk**	**60.94**	**339**	⇑*e*P	**P**	**09 15 18.5**	**+0.2**
SVE				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.6						
ARU	**Arti**	**61.43**	**337**	*d* *i*P	**P**	**09 15 21.1**	**-0.6**
ARU				*e*		09 17 32.2	
ARU				S	**S**	**09 23 42.2**	**+2.6**
ARU				SS	SS	09 27 43.1	+2.1
ARU				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.4						
ARU	**Arti**	**61.43**	**337**	*e*P	**P**	**09 15 20.9**	**-0.8**
	comp=Z,26nm,1.0s,mb5.3						
ARMA	**Armidale**	**62.20**	**127**	*e*P	**P**	**09 15 28.9**	**+1.6**
KIV	**Kislovodsk**	**62.55**	**319**	*e*P	**P**	**09 15 29.5**	**+0.1**
KIV				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.3						
KIV	**Kislovodsk**	**62.55**	**319**	*e*P	**P**	**09 15 29.3**	**-0.1**
	comp=Z,27nm,1.1s,mb5.3						
YAK	**Yakutsk**	**64.27**	**17**	*e*P	**P**	**09 15 38.1**	**-2.3**
YAK				pmax	pmax		
	comp=Z,86nm,1.1s,mb5.7						
YAK				pmax	pmax		
	comp=N,27nm,1.4s						
YAK				pmax	pmax		
	comp=E,23nm,1.5s						
YAK	**Yakutsk**	**64.27**	**17**	*e*P	**P**	**09 15 39.9**	**-0.5**
	comp=E,69nm,0.9s,mb5.7						
SOKR	**Solikamsk**	**64.34**	**339**	*c* *i*P	**P**	**09 15 41.6**	**+0.7**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
VRHR	**Novokhopersk**	**66.35**	**326**	*e*P	**P**	**09 15 53.9**	**-0.2**
VRHR				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,20nm,0.6s						
BRTR	**Keskin Array B**	**67.39**	**312**	P	**P**	**09 16 00.3**	**-0.7**
	comp=E,1.6nm,0.8s,mb4.1,baz=131,slow=3.6,SNR=4.2						
VSR	**Storozhevoye**	**67.79**	**325**	*e*P	**P**	**09 16 02.1**	**-1.2**
VSR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
VSR				pmax	pmax		
	comp=N,20nm,1.4s						
VSR				pmax	pmax		
	comp=E,20nm,1.3s						
PRGR	**Permogore**	**69.89**	**337**	*e*P	**P**	**09 16 13.9**	**-2.2**
PRGR				pmax	pmax		
	comp=Z,102nm,1.3s,mb5.6						
MOS	**Moscow**	**70.56**	**329**	*e*P	**P**	**09 16 17.9**	**-2.4**
MOS				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.2						
OBN	**Obninsk**	**70.84**	**328**	*e*P	**P**	**09 16 21.9**	**-0.1**
OBN				*i*	pP	09 16 35.6	+1.1
OBN				pmax	pmax		
	comp=Z,65nm,2.2s,mb5.2						
OBN	**Obninsk**	**70.84**	**328**	*e*P	**P**	**09 16 22.0**	**-0.1**
PET	**Petropavlovsk**	**71.54**	**34**	⇓*i*P	**P**	**09 16 25.5**	**-0.8**
TIXI	**Tiksi**	**71.89**	**10**	⇑*e*P	**P**	**09 16 26.7**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.3						
TIXI	**Tiksi**	**71.89**	**10**	*e*P	**P**	**09 16 26.6**	**-1.5**
	comp=Z,33nm,1.0s,mb5.2						
KLMR	**Klimovskoe**	**71.99**	**335**	*e*P	**P**	**09 16 26.5**	**-2.4**
KLMR				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
KIS	**Kishinev**	**72.74**	**319**	*e*P	**P**	**09 16 32.0**	**-1.6**
SEY	**Seymchan**	**72.77**	**23**	⇑*e*P	**P**	**09 16 31.7**	**-1.8**
AKASG	**Malin Array Be**	**73.48**	**322**	P	**P**	**09 16 36.8**	**-1.2**
	comp=Z,4.2nm,0.7s,mb4.5,baz=90,slow=4.7,SNR=8.5						
KIEV	**Kiev**	**73.49**	**322**	*e*P	**P**	**09 16 36.8**	**-1.2**
KIEV				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
KIEV	**Kiev**	**73.49**	**322**	*e*P	**P**	**09 16 36.8**	**-1.2**
	comp=Z,17nm,1.4s,mb4.8						
BOSA	**Boshof**	**74.69**	**240**	P	**P**	**09 16 46.1**	**+0.7**
	comp=Z,3.6nm,0.9s,mb4.3,baz=89,slow=5.3,SNR=3.7						
NACGM	**Naroch**	**76.07**	**326**	*e*	**P**	**09 16 49.0**	**-3.8**
APA	**Apatity**	**77.39**	**340**	⇑*e*P	**P**	**09 17 05.4**	**+5.4**
APA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
APA				MLR	MLR		
	comp=Z,13µm,19.0s,MS6.3						
KOLS	**Kolonicke sedl**	**77.45**	**320**	*i* P	**P**	**09 17 01.4**	**+0.6**
KOLS				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
KOLS	**Kolonicke sedl**	**77.45**	**320**	*i* P	**P**	**09 17 01.4**	**+0.6**
	comp=Z,13nm,1.2s,mb4.7						
CRVS	**Cervenica-Dubn**	**77.97**	**319**	*i* P	**P**	**09 17 05.2**	**+1.5**
CRVS				pmax	pmax		
	comp=Z,103nm,3.4s						
CRVS	**Cervenica-Dubn**	**77.97**	**319**	*i* P	**P**	**09 17 05.2**	**+1.5**
	comp=Z,103nm,3.4s						
STHS	**Stebnicka Huta**	**78.20**	**320**	*i* P	**P**	**09 17 05.7**	**+0.8**
STHS				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
STHS	**Stebnicka Huta**	**78.20**	**320**	*i* P	**P**	**09 17 05.7**	**+0.8**
	comp=Z,7.2nm,1.1s,mb4.5						
KECS	**Kecovo**	**78.54**	**319**	*i* P	**P**	**09 17 07.5**	**+0.7**
VYHS	**Vyhne**	**79.63**	**319**	*i* P	**P**	**09 17 13.4**	**+0.6**
BILL	**Bilibino**	**80.12**	**21**	*e*P	**P**	**09 17 14.5**	**-0.5**
BILL				*i*		09 17 22.7	
BILL				*i*		09 20 17.2	
BILL				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.5						
BILL	**Bilibino**	**80.12**	**21**	*e*P	**P**	**09 17 13.6**	**-1.4**
ARCES	**ARCESS Array B**	**80.81**	**340**	P	**P**	**09 17 19.3**	**+0.6**
	comp=Z,6.7nm,0.9s,mb4.6,baz=98,slow=6.6,SNR=10						
ARCES	**ARCESS Array B**	**80.81**	**340**	P	**P**	**09 17 19.3**	**+0.6**
DPC	**Dobruska-Polom**	**81.48**	**320**	*e*P	**P**	**09 17 23.3**	**+0.6**
DPC				*e*pP	pP	09 17 32.1	-3.3
DPC				*e*x	x	09 17 39.5	
UPC	**Upice**	**81.70**	**321**	*e*P	**P**	**09 17 24.6**	**+0.8**
SOKA	**Soboth**	**82.00**	**317**	⇑*i*P	**P**	**09 17 26.5**	**+1.1**
	comp=Z,5.4nm,1.0s,mb4.5						
BRG	**Berggiesshubel**	**83.04**	**321**	*e*P	**P**	**09 17 31.6**	**+0.8**
BRG				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.3						
BRG	**Berggiesshubel**	**83.04**	**321**	*e*P	**P**	**09 17 31.6**	**+0.8**
	comp=Z,23nm,1.7s,mb4.9						
GERES	**GERESS Array B**	**83.05**	**319**	P	**P**	**09 17 31.1**	**+0.2**
	comp=Z,4.0nm,0.9s,mb4.4,baz=96,slow=5.5,SNR=22						
GRA1	**Grafenberg Arr**	**84.72**	**319**	*e*P	**P**	**09 17 40.1**	**+0.7**
	comp=Z,9.0nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**84.72**	**319**	*e*P	**P**	**09 17 40.1**	**+0.7**
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**84.72**	**319**	*e*P	**P**	**09 17 40.1**	**+0.7**
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**84.72**	**319**	*e*P	**P**	**09 17 40.1**	**+0.7**
	comp=Z,9.0nm,1.0s,mb4.8						
NB2	**NORSAR Subarra**	**85.23**	**331**	P	**P**	**09 17 41.2**	**-0.5**
	comp=Z,8.0nm,1.1s,mb4.8,baz=90,slow=5.3						
NOA	**NORSAR Array B**	**85.23**	**331**	P	**P**	**09 17 41.2**	**-0.6**
	comp=Z,3.6nm,0.9s,mb4.5,baz=92,slow=5.4,SNR=6.2						
NOA	**NORSAR Array B**	**85.23**	**331**	P	**P**	**09 17 41.1**	**-0.6**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SPITS	**Spitsbergen Ar**	**85.29**	**348**	P	**P**	**09 17 41.7**	**0.0**
	comp=Z,12nm,0.9s,mb5.0,baz=25,slow=9.7,SNR=7.3						
KONO	**Kongsberg**	**85.98**	**329**	⇑*e*P	**P**	**09 17 44.2**	**-1.3**
PGF	**Pioggiola**	**86.15**	**312**	*e*P	**P**	**09 17 46.5**	**-0.2**
LPG	**La Plagne**	**87.73**	**315**	*e*P	**P**	**09 17 54.3**	**0.0**
LPL	**La Plagne**	**87.74**	**315**	*e*P	**P**	**09 17 54.5**	**+0.1**
FRF	**La Foret Royal**	**87.86**	**313**	*e*P	**P**	**09 17 54.9**	**-0.1**
	comp=Z,40nm,1.1s,mb5.3						
FRF	**La Foret Royal**	**87.86**	**313**	*e*P	**P**	**09 17 54.9**	**-0.1**
FRF				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.3						
FRF	**La Foret Royal**	**87.86**	**313**	*e*P	**P**	**09 17 54.9**	**-0.1**
	comp=Z,20nm,1.1s,mb5.3						
HAU	**Haudompre**	**87.93**	**318**	*e*P	**P**	**09 17 54.7**	**-0.5**
	comp=Z,14nm,1.1s,mb4.8						
HAU	**Haudompre**	**87.93**	**318**	*e*P	**P**	**09 17 54.7**	**-0.5**
HAU				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.8						
HAU	**Haudompre**	**87.93**	**318**	*e*P	**P**	**09 17 54.7**	**-0.5**
	comp=Z,6.8nm,1.1s,mb4.8						
CABF	**La Chapelle**	**88.16**	**316**	*e*P	**P**	**09 17 56.5**	**+0.2**
	comp=Z,16nm,1.1s,mb4.9						
CABF	**La Chapelle**	**88.16**	**316**	*e*P	**P**	**09 17 56.5**	**+0.2**
CABF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.9						
CABF	**La Chapelle**	**88.16**	**316**	*e*P	**P**	**09 17 56.5**	**+0.2**
	comp=Z,8.3nm,1.1s,mb4.9						
LOR	**Lormes**	**89.65**	**317**	*e*P	**P**	**09 18 03.2**	**-0.1**
SMF	**Signal de Mont**	**89.70**	**316**	*e*P	**P**	**09 18 03.6**	**0.0**
	comp=Z,20nm,1.2s,mb5.0						
SMF	**Signal de Mont**	**89.70**	**316**	*e*P	**P**	**09 18 03.6**	**0.0**
SMF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb5.0						
SMF	**Signal de Mont**	**89.70**	**316**	*e*P	**P**	**09 18 03.6**	**0.0**
	comp=Z,9.9nm,1.2s,mb5.0						
AVF	**Avril sur Loir**	**90.03**	**317**	*e*P	**P**	**09 18 04.8**	**-0.3**
	comp=Z,12nm,0.9s,mb4.9						
AVF	**Avril sur Loir**	**90.03**	**317**	*e*P	**P**	**09 18 04.8**	**-0.3**
AVF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.9						
AVF	**Avril sur Loir**	**90.03**	**317**	*e*P	**P**	**09 18 04.8**	**-0.3**
	comp=Z,6.3nm,0.9s,mb5.0						
LDF	**La Druitiere**	**92.20**	**319**	*e*P	**P**	**09 18 15.1**	**0.0**
	comp=Z,16nm,1.1s,mb5.0						
LDF	**La Druitiere**	**92.20**	**319**	*e*P	**P**	**09 18 15.1**	**0.0**
LDF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb5.0						
LDF	**La Druitiere**	**92.20**	**319**	*e*P	**P**	**09 18 15.1**	**0.0**
	comp=Z,7.9nm,1.1s,mb5.0						
MFF	**Saint Martin d**	**92.44**	**317**	*e*P	**P**	**09 18 16.4**	**+0.1**
QSPA	**South Pole Qui**	**92.64**	**180**	*e*P	**P**	**09 18 17.9**	**+1.4**
GRR	**Gorron**	**92.71**	**319**	*e*P	**P**	**09 18 17.8**	**+0.3**
	comp=Z,13nm,1.0s,mb5.0						
GRR	**Gorron**	**92.71**	**319**	*e*P	**P**	**09 18 17.8**	**+0.3**
GRR				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
GRR	**Gorron**	**92.71**	**319**	*e*P	**P**	**09 18 17.8**	**+0.3**
	comp=Z,6.4nm,1.0s,mb5.0						
TORD	**Torodi Ar. Bea**	**93.81**	**283**	P	**P**	**09 18 23.8**	**+0.5**
	comp=Z,1.1nm,1.1s,mb4.2,baz=89,slow=4.1,SNR=3.7						
TORD	**Torodi Ar. Bea**	**93.81**	**283**	P	**P**	**09 18 23.8**	**+0.5**
IMA2	**Indian Mountai**	**95.58**	**23**	*e*P	**P**	**09 18 30.8**	**+0.6**
EVO	**Evora**	**99.42**	**310**	*e*P	**P**	**09 18 49.4**	**+1.2**
YKA	**Yellowknife Ar**	**110.90**	**15**	Pdiff	Pdif	09 19 38.7	-0.1
	comp=Z,0.2nm,0.8s,baz=332,slow=3.8,SNR=4.2						
YKA				PP	PP	09 24 01.6	-14
	comp=Z,0.7nm,1.1s,baz=324,slow=6.6,SNR=4.1						
YKA	**Yellowknife Ar**	**110.90**	**15**	Pdif	Pdif	09 19 38.7	-0.1
YKA				PP	PP	09 24 01.6	-14
BSMT	**Bassoo Peak**	**122.82**	**24**	*e*PKPdf	PKPdf	09 24 02.0	+0.6
SWMT	**Swartz Lake**	**123.42**	**24**	*e*PKPdf	PKPdf	09 24 02.4	-0.2
MSO	**Missoula**	**123.98**	**25**	*e*PKPdf	PKPdf	09 24 03.6	-0.1
DLMT	**Dillon**	**125.72**	**25**	*e*PKPdf	PKPdf	09 24 06.7	-0.3
MCMT	**McKenzie Canyo**	**126.04**	**25**	*e*PKPdf	PKPdf	09 24 09.0	+1.4
ULM	**Lac du Bonnet**	**126.24**	**10**	PKP	PKPdf	09 24 07.3	-0.6
	comp=Z,5.2nm,0.9s,baz=305,slow=3.9,SNR=5.8						
ULM	**Lac du Bonnet**	**126.24**	**10**	PKP	PKPdf	09 24 07.3	-0.6
HLID	**Hailey**	**126.34**	**27**	*e*PKPdf	PKPdf	09 24 09.1	+0.8
TPAW	**Teton Pass**	**127.92**	**25**	*e*PKPdf	PKPdf	09 24 11.9	+0.6
TPAW				*e*pPKPdf	pPKPdf	09 24 22.0	-2.6
REDW	**Red Top Meadow**	**128.07**	**25**	*e*PKPdf	PKPdf	09 24 11.9	+0.3
NVAR	**Mina Array Bea**	**128.12**	**34**	PKP	PKPdf	09 24 12.9	+1.1
	comp=Z,2.8nm,1.0s,baz=277,slow=2.0,SNR=15						
BW06	**Boulder Array**	**129.10**	**24**	*e*PKPdf	PKPdf	09 24 13.5	-0.1
PDAR	**Pinedale Array**	**129.10**	**24**	PKP	PKPdf	09 24 13.2	-0.3
	comp=Z,1.8nm,1.1s,baz=202,slow=0.8,SNR=9.1						
DUG	**Dugway**	**129.71**	**29**	*e*PKIKP	PKPdf	09 24 16.5	+1.7
MIAR	**Mount Ida**	**141.82**	**13**	*e*PKIKP	PKPdf	09 24 34.4	-3.1
JCT	**Junction City**	**143.63**	**24**	*e*PKIKP	PKPdf	09 24 37.8	-3.0
VBMS	**Vicksburg**	**144.69**	**10**	*e*PKPdf	PKPdf	09 24 42.1	-0.5
CPUP	**Villa Florida**	**145.42**	**225**	PKPbc	PKPbc	09 24 43.8	-0.2
	comp=Z,0.5nm,0.4s,baz=54,slow=2.0,SNR=4.2						
HKT	**Hockley**	**145.54**	**19**	*e*PKIKP	PKPdf	09 24 44.1	0.0

IDC ***20*** *09:10:44.1±1.6, 2°.45N×95°.69E, h0^{km}, mb3.9/8, mb1 4.0/9, mb1mx3.8/24, mbtmp3.9/9, ML3.6/1, Error ellipse: s-maj=47.7km s-min=20.9km az=46.0*

ISCJB ***20*** *09:10:47.9±1.0, 2°.5N±0°.1×95°.9E±0°.1, h33^{km}, mb4.2/13, Error ellipse: s-maj=22.6km s-min=10.2km az=32.4*

NEIC ***20*** *09:10:50.1±0.8, 2°.49N×95°.87E, h35^{km}, mb4.8/5, Error ellipse: s-maj=18.7km s-min=8.2km az=34.0*

ISC 20 09:10:50.1±1.0**, 2°.5N**±0°.1×**95°.9E**±0°.1**, h35^{km}, n23, σ0^{s}.93**/23**, mb4.2**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.06**	**84**	Pn	**Pn**	**09 11 36.6**	**+0.6**
	6.3nm,0.3s,baz=281,slow=6.3,SNR=16						
KULM	**Kulim**	**5.52**	**59**	*e*Pn	**Pn**	**09 12 09.6**	**-0.3**
ODAN	**Odare**	**25.57**	**342**	*e*P	**P**	**09 16 16.4**	**+0.5**
RAMN	**Ramite**	**25.91**	**341**	*e*P	**P**	**09 16 20.4**	**+1.4**
	24nm,0.6s,mb4.9						
TAPN	**Taplejung**	**25.94**	**343**	*e*P	**P**	**09 16 19.8**	**+0.6**
JIRN	**Jiri**	**26.70**	**341**	*e*P	**P**	**09 16 26.9**	**+0.8**
	25nm,0.8s,mb4.8						
GUN	**Gumba**	**27.03**	**340**	*e*P	**P**	**09 16 29.7**	**+0.6**
	16nm,0.7s,mb4.7						
KKN	**Kakani**	**27.13**	**339**	*e*P	**P**	**09 16 30.6**	**+0.6**
GKN	**Gorkha**	**27.56**	**338**	*e*P	**P**	**09 16 34.6**	**+0.8**
KOLN	**Koldanda**	**27.75**	**336**	*e*P	**P**	**09 16 36.5**	**+0.9**
	18nm,0.8s,mb4.8						
DANN	**Dangsing**	**28.20**	**337**	*e*P	**P**	**09 16 40.1**	**+0.5**
WRA	**Warramunga Arr**	**43.83**	**122**	P	**P**	**09 18 53.7**	**+0.6**
	0.3nm,0.4s,mb3.4,baz=302,slow=9.1,SNR=3.4						
ASAR	**Alice Springs**	**45.22**	**127**	P	**P**	**09 19 04.4**	**+0.3**
	0.4nm,0.8s,mb3.3,baz=308,slow=8.0,SNR=2.4						
KSRS	**Korea Array**	**45.58**	**36**	P	**P**	**09 19 05.8**	**-1.0**
	1.0nm,0.5s,mb4.0,baz=228,slow=8.2,SNR=4.4						
MK31	**Makanchi Array**	**45.70**	**347**	*e*P	**P**	**09 19 07.3**	**-0.3**
MKAR	**Makanchi Array**	**45.70**	**347**	P	**P**	**09 19 07.4**	**-0.2**
	1.4nm,0.5s,mb4.2,baz=158,slow=8.9,SNR=28						
SONM	**Songino Array**	**46.09**	**10**	P	**P**	**09 19 10.7**	**+0.1**
	1.6nm,0.5s,mb4.2,baz=189,slow=9.2,SNR=8.7						
ULN	**Ulaanbaatar**	**46.23**	**10**	*e*P	**P**	**09 19 10.7**	**-1.0**
	1.2nm,0.3s,mb4.3						
KURK	**Kurchatov**	**50.23**	**346**	P	**P**	**09 19 42.1**	**-0.5**
	1.4nm,0.6s,mb4.1,baz=170,slow=6.8,SNR=4.7						
ZAA0	**Zalesovo Array**	**52.10**	**352**	*e*P	**P**	**09 19 52.8**	**-3.7**
AKTK	**Aktyubinsk**	**57.49**	**332**	P	**P**	**09 20 33.5**	**-2.1**
AKTO	**Aktyubinsk**	**57.49**	**332**	P	**P**	**09 20 33.5**	**-2.1**
	0.6nm,0.4s,mb4.0,baz=158,slow=3.4,SNR=5.0						
ARCES	**ARCESS Array B**	**80.89**	**340**	P	**P**	**09 22 59.1**	**-1.1**
	4.2nm,0.9s,mb4.4,baz=87,slow=7.3,SNR=3.9						

BJI ***20*** *09:11:21.7, 2°.46N×95°.96E, h15^{km}, mb5.1/40*

IDC ***20*** *09:11:21.9±0.5, 2°.51N×95°.78E, h0^{km}, mb4.6/25, mb1 4.6/28, mb1mx4.6/32, mbtmp4.5/28, ML4.4/3, Error ellipse: s-maj=18.4km s-min=10.7km az=46.0*

ISCJB ***20*** *09:11:24.1±0.3, 2°.55N±0°.05×95°.84E±0°.04, h24^{km}, mb4.9/70, Error ellipse: s-maj=7.8km s-min=4.5km az=30.4*

NEIC ***20*** *09:11:25.8±0.2, 2°.50N×95°.84E, mb5.3/25, Error ellipse: s-maj=7.1km s-min=4.5km az=42.0*

MOS ***20*** *09:11:25.4±1.1, 2°.61N×95°.86E, h33^{km}, mb5.1/20, Error ellipse: s-maj=10.2km s-min=6.3km az=110.7*

ISC 20 09:11:26.2±0.3**, 2°.54N**±0°.05×**95°.83E**±0°.04**, h25^{km}, h25^{km}**±1.0^{km}**:pP-P, n153, σ0^{s}.96**/147**, mb4.9**/70**, 7C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.10**	**85**	Pn	**Pn**	**09 12 13.6**	**0.0**
	21nm,0.3s,baz=345,slow=19,SNR=13						
KULM	**Kulim**	**5.53**	**60**	P	**Pn**	**09 12 47.7**	**+0.7**
KULM	**Kulim**	**5.53**	**60**	*e*Pn	**Pn**	**09 12 47.4**	**+0.4**
	356nm,0.8s						
IPM	**Ipoh**	**5.53**	**69**	P	**Pn**	**09 12 48.1**	**+1.1**
FRIM	**Kepong**	**5.83**	**83**	P	**Pn**	**09 12 51.8**	**+0.7**
KGM	**Kluang**	**7.50**	**94**	P	**Pn**	**09 13 15.3**	**+1.2**
MYKOM	**Kota Tinggi**	**8.05**	**95**	P	**Pn**	**09 13 23.1**	**+1.5**
PALK	**Pallekele**	**15.79**	**288**	Pn	**Pn**	**09 15 06.4**	**-0.7**
	0.3nm,0.3s,baz=135,slow=6.7,SNR=2.4						
PALK	**Pallekele**	**15.79**	**288**	Pn	**Pn**	**09 15 06.4**	**-0.7**
CMAR	**Chiang Mai Arr**	**16.11**	**11**	Pn	**Pn**	**09 15 10.1**	**-1.0**
	1.9nm,0.3s,baz=200,slow=11,SNR=29						
SBUM	**Sibu**	**16.37**	**90**	P	**Pn**	**09 15 10.8**	**-3.7**
QIZ	**Qiongzhong**	**21.37**	**39**	*e*P	**P**	**09 16 11.2**	**-0.7**
	351nm,2.2s,mb5.3						
KDM	**Kudat**	**21.37**	**78**	P	**P**	**09 16 11.4**	**-0.7**
SDKM	**Sandakan**	**21.53**	**81**	P	**P**	**09 16 13.9**	**+0.2**
TSM	**Tawau**	**22.07**	**85**	P	**P**	**09 16 20.1**	**+0.6**
MYLDM	**Lahad Datu**	**22.77**	**83**	P	**P**	**09 16 27.0**	**+0.1**
KMI	**Kunming**	**23.42**	**16**	P	**P**	**09 16 34.3**	**+0.7**
KMI				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.6						
KAPI	**Kappang**	**25.05**	**107**	P	**P**	**09 16 47.9**	**-0.8**
	comp=Z,58nm,0.8s,mb5.2,baz=285,slow=8.1,SNR=14						
ODAN	**Odare**	**25.50**	**342**	*e*P	**P**	**09 16 53.5**	**+0.8**
	comp=Z,150nm,0.9s,mb5.5						
RAMN	**Ramite**	**25.83**	**341**	*e*P	**P**	**09 16 57.1**	**+1.4**
	comp=Z,175nm,0.6s,mb5.8						
TAPN	**Taplejung**	**25.86**	**343**	*e*P	**P**	**09 16 57.1**	**+1.1**
	comp=Z,141nm,0.8s,mb5.5						
JIRN	**Jiri**	**26.62**	**341**	*e*P	**P**	**09 17 04.0**	**+1.1**
	comp=Z,195nm,0.7s,mb5.7						
PKI	**Pulchoki**	**26.81**	**339**	*e*P	**P**	**09 17 05.2**	**+0.7**
PKI	**Pulchoki**	**26.81**	**339**	*e*P	**P**	**09 17 05.3**	**+0.8**
PKIN	**Phulchoki**	**26.82**	**339**	*e*P	**P**	**09 17 05.3**	**+0.7**
DMN	**Daman**	**26.95**	**339**	*e*P	**P**	**09 17 06.5**	**+0.7**
	comp=Z,63nm,1.0s,mb5.1						
GUN	**Gumba**	**26.96**	**340**	*e*P	**P**	**09 17 07.0**	**+1.1**
	comp=Z,127nm,0.8s,mb5.5						
KKN	**Kakani**	**27.06**	**339**	*e*P	**P**	**09 17 07.5**	**+0.8**
	comp=Z,95nm,0.9s,mb5.3						
KKN	**Kakani**	**27.06**	**339**	*e*P	**P**	**09 17 07.5**	**+0.8**
KKN				pmax	pmax		
	comp=Z,95nm,0.9s,mb5.3						
LSA	**Lhasa**	**27.37**	**351**	P	**P**	**09 17 10.6**	**+1.0**
LSA	**Lhasa**	**27.37**	**351**	*e*P	**P**	**09 17 10.7**	**+1.1**
LSA				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.0						
LSA	**Lhasa**	**27.37**	**351**	*e*P	**P**	**09 17 10.7**	**+1.1**
	comp=Z,32nm,0.7s,mb5.0						
GKN	**Gorkha**	**27.48**	**338**	*e*P	**P**	**09 17 11.3**	**+0.7**
KOLN	**Koldanda**	**27.68**	**336**	*e*P	**P**	**09 17 12.8**	**+0.5**
	comp=Z,79nm,0.7s,mb5.4						
DANN	**Dangsing**	**28.13**	**337**	*e*P	**P**	**09 17 17.1**	**+0.7**
	comp=Z,75nm,0.6s,mb5.5						
CD2	**Chengdu**	**29.19**	**14**	P	**P**	**09 17 24.4**	**-1.4**
CD2				pmax	pmax		
	comp=Z,60nm,0.7s,mb5.4						
XAN	**Xi'an**	**33.63**	**20**	P	**P**	**09 18 03.5**	**-1.4**
XAN				pP	pP	09 18 09.8	-2.6
XAN				sP	sP	09 18 12.8	-2.7
XAN				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.3						
LZH	**Lanzhou**	**34.19**	**12**	*e*P	**P**	**09 18 09.0**	**-0.7**
LZH				pP	pP	09 18 18.3	+1.1
LZH				sP	sP	09 18 24.0	+3.7
FITZ	**Fitzroy Crossi**	**35.82**	**126**	*e*P	**P**	**09 18 22.8**	**-1.1**
	comp=Z,9.3nm,0.8s,mb4.8						
FITZ	**Fitzroy Crossi**	**35.82**	**126**	P	**P**	**09 18 22.9**	**-1.1**
	comp=Z,5.1nm,0.6s,mb4.7,baz=310,slow=4.3,SNR=13						
GTA	**Gaotai**	**36.87**	**5**	⇑P	**P**	**09 18 32.1**	**-0.6**
GTA				pP	pP	09 18 38.5	-1.8
GTA				sP	sP	09 18 42.0	-1.4
GTA				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.3						
KAKA	**Kakadu**	**39.38**	**113**	*e*P	**P**	**09 18 53.1**	**-1.1**
	comp=Z,18nm,0.6s,mb5.0						
KAKA	**Kakadu**	**39.38**	**113**	*e*P	**P**	**09 18 52.7**	**-1.5**
	comp=Z,49nm,0.6s,mb5.4						
BJT	**Baijiatuau**	**41.61**	**24**	*e*P	**P**	**09 19 13.0**	**+0.7**
BJT				*e**PP	pP	09 19 19.2	-0.7
BJT				pmax	pmax		
	comp=Z,108nm,0.6s						
BJT	**Baijiatuau**	**41.61**	**24**	*e*P	**P**	**09 19 13.0**	**+0.7**
	comp=Z,108nm,0.6s,mb5.7						
BJT				*e*pP	pP	09 19 19.2	-0.7
BJI	**Beijing**	**41.64**	**24**	P	**P**	**09 19 12.9**	**+0.4**
BJI				pmax	pmax		
	comp=Z,140nm,0.7s,mb5.7						
WMQ	**Urumqi**	**41.73**	**351**	P	**P**	**09 19 13.6**	**+0.4**
WMQ				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.8						
UCH	**Uchtor**	**43.88**	**337**	P	**P**	**09 19 32.2**	**+1.6**
	SNR=9.3						
UCH	**Uchtor**	**43.88**	**337**	*e*P	**P**	**09 19 31.9**	**+1.3**
	comp=Z,10nm,0.8s,mb4.6						
UCH				*e*pP	pP	09 19 41.3	+2.9
WRA	**Warramunga Arr**	**43.90**	**122**	P	**P**	**09 19 30.7**	**-0.4**
	comp=Z,8.0nm,0.5s,mb4.7,baz=299,slow=9.3,SNR=34						
WRAB	**Tennant Creek**	**43.91**	**122**	*e*P	**P**	**09 19 30.6**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.7						
WRAB	**Tennant Creek**	**43.91**	**122**	*e*P	**P**	**09 19 30.6**	**-0.6**
	comp=Z,7.2nm,0.5s,mb4.7						
KBK	**Karagaybulak**	**44.08**	**338**	P	**P**	**09 19 33.6**	**+1.3**
	SNR=7.9						
AML	**Almayashu**	**44.13**	**336**	P	**P**	**09 19 34.2**	**+1.6**
	SNR=12						
AML	**Almayashu**	**44.13**	**336**	*e*P	**P**	**09 19 34.0**	**+1.4**
AML				*e*pP	pP	09 19 41.1	+0.7
AAK	**Ala-Archa**	**44.24**	**337**	⇑*e*P	**P**	**09 19 35.2**	**+1.7**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.1						
AAK	**Ala-Archa**	**44.24**	**337**	P	**P**	**09 19 35.0**	**+1.6**
	comp=Z,2.3nm,0.5s,mb4.1,baz=128,slow=8.7,SNR=6.2						
EKS2	**Erkin-Say**	**44.54**	**337**	P	**P**	**09 19 37.2**	**+1.3**
	SNR=8.1						
EKS2	**Erkin-Say**	**44.54**	**337**	*e*P	**P**	**09 19 36.8**	**+0.9**
	comp=Z,8.7nm,0.7s,mb4.7						
EKS2				*e*pP	pP	09 19 44.8	+1.1
USP	**Ospenovka**	**44.78**	**338**	P	**P**	**09 19 38.7**	**+0.9**
	SNR=13						
FORT	**Forrest**	**45.18**	**140**	*e*P	**P**	**09 19 42.5**	**+1.3**
	comp=Z,24nm,0.6s,mb5.2						
ASAR	**Alice Springs**	**45.29**	**127**	P	**P**	**09 19 42.0**	**-0.1**
	comp=Z,4.3nm,0.6s,mb4.5,baz=300,slow=8.0,SNR=43						
KSRS	**Korea Array**	**45.55**	**36**	P	**P**	**09 19 43.0**	**-1.1**
	comp=Z,7.7nm,0.8s,mb4.7,baz=226,slow=9.6,SNR=20						
MK31	**Makanchi Array**	**45.62**	**347**	*e*P	**P**	**09 19 44.7**	**+0.2**
MK31				*e**PP	pP	09 19 51.7	-0.5
MKAR	**Makanchi Array**	**45.62**	**347**	P	**P**	**09 19 44.5**	**0.0**
	comp=Z,19nm,0.7s,mb5.2,baz=163,slow=7.8,SNR=47						
SONM	**Songino Array**	**46.03**	**10**	P	**P**	**09 19 47.4**	**-0.2**
	comp=Z,15nm,0.7s,mb5.1,baz=190,slow=9.2,SNR=44						
SONM				PcP	PcP	09 21 24.7	+0.8
	comp=Z,3.1nm,0.6s,baz=194,slow=3.7,SNR=5.7						
ULN	**Ulaanbaatar**	**46.18**	**10**	*e*P	**P**	**09 19 48.4**	**-0.4**
ULN				*e**PP	pP	09 19 54.7	-1.8
ULN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
ULN	**Ulaanbaatar**	**46.18**	**10**	*e*P	**P**	**09 19 48.4**	**-0.4**
	comp=Z,11nm,0.8s,mb4.8						
ULN				*e*pP	pP	09 19 54.7	-1.9
KK31	**Karatay Array**	**46.26**	**334**	*i* P	**P**	**09 19 50.3**	**+0.8**
KK31				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
ZAK	**Zakamensk**	**48.08**	**6**	⇑*i*P	**P**	**09 20 03.4**	**-0.2**
ZAK				*e*		09 21 24.3	
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
CN2	**Changchun**	**48.76**	**28**	*e*P	**P**	**09 20 08.0**	**-0.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
TLY	**Talaya**	**49.40**	**6**	*e*P	**P**	**09 20 13.8**	**+0.1**
TLY				*e**PP	pP	09 20 21.0	-0.5
TLY				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
TLY	**Talaya**	**49.40**	**6**	*e*P	**P**	**09 20 13.8**	**+0.1**
	comp=Z,7.2nm,0.8s,mb4.8						
TLY				*e*pP	pP	09 20 21.0	-0.5
KURK	**Kurchatov**	**50.16**	**346**	P	**P**	**09 20 19.3**	**-0.2**
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
KURK	**Kurchatov**	**50.16**	**346**	P	**P**	**09 20 19.2**	**-0.3**
	comp=Z,8.5nm,0.6s,mb4.9,baz=157,slow=7.5,SNR=18						
HIA	**Hailar**	**50.83**	**20**	*e*P	**P**	**09 20 24.5**	**-0.1**
HIA				*e**PP	pP	09 20 31.3	-1.2
HIA				pmax	pmax		
	comp=Z,14nm,1.0s						
HIA	**Hailar**	**50.83**	**20**	*e*P	**P**	**09 20 24.5**	**-0.1**
	comp=Z,14nm,1.0s,mb4.8						
HIA				*e*pP	pP	09 20 31.3	-1.2
MJAR	**Matsushiro Arr**	**51.65**	**44**	P	**P**	**09 20 33.0**	**+2.0**
	comp=Z,2.1nm,0.9s,mb4.1,baz=244,slow=8.0,SNR=4.0						
MJAR				PcP	PcP	09 21 44.0	-0.5
	comp=Z,3.7nm,0.9s,baz=256,slow=3.1,SNR=6.2						
ZAA0	**Zalesovo Array**	**52.03**	**352**	*e*P	**P**	**09 20 33.5**	**0.0**
ZAA0				*e*pP	pP	09 20 40.8	-0.6
ZALV	**Zalesovo Beam**	**52.03**	**352**	P	**P**	**09 20 33.5**	**0.0**
	comp=Z,15nm,0.5s,mb5.2,baz=179,slow=7.3,SNR=26						
NVS	**Novosibirsk**	**53.13**	**351**	*i* P	**P**	**09 20 40.0**	**-1.7**
NVS				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
NVS				pmax	pmax		
	comp=N,7.0nm,0.9s						
NVS				pmax	pmax		
	comp=E,3.0nm,0.9s						
CTA	**Charters Tower**	**54.32**	**117**	*e*P	**P**	**09 20 51.2**	**+0.2**
	comp=E,8.6nm,0.8s,mb4.7						
CTA	**Charters Tower**	**54.32**	**117**	P	**P**	**09 20 50.8**	**-0.3**
	comp=E,15nm,1.0s,mb4.9,baz=285,slow=10.0,SNR=9.1						
CTAO	**Charters Tower**	**54.32**	**117**	*e*P	**P**	**09 20 51.4**	**+0.4**
CTAO				*e**PP	pP	09 20 58.7	-0.2
CTAO				pmax	pmax		
	comp=Z,451nm,2.9s,mb5.9						
CTAO	**Charters Tower**	**54.32**	**117**	*e*P	**P**	**09 20 51.4**	**+0.4**
	comp=Z,451nm,2.9s,mb5.9						
CTAO				*e*pP	pP	09 20 58.6	-0.2
BVAR	**Borovoye Array**	**54.55**	**341**	P	**P**	**09 20 51.5**	**-0.6**
	comp=Z,11nm,0.6s,mb5.0,baz=146,slow=9.0,SNR=32						
BRVK	**Borovoye**	**54.61**	**341**	*e*P	**P**	**09 20 52.2**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
BRVK	**Borovoye**	**54.61**	**341**	*e*P	**P**	**09 20 52.2**	**-0.3**
	comp=Z,18nm,0.9s,mb5.1						
STKA	**Stephens Creek**	**55.26**	**132**	*e*P	**P**	**09 20 58.1**	**+0.5**
	comp=Z,6.3nm,0.8s,mb4.7						
STKA	**Stephens Creek**	**55.26**	**132**	P	**P**	**09 20 57.4**	**-0.2**
	comp=Z,7.7nm,0.7s,mb4.9,baz=314,slow=9.3,SNR=9.3						
STKA	**Stephens Creek**	**55.26**	**132**	P	**P**	**09 20 57.4**	**-0.2**
KLR	**Kul'dur**	**55.69**	**28**	*e*P	**P**	**09 20 56.7**	**-3.7**
AB31	**Akbulak array**	**55.70**	**332**	P	**P**	**09 21 00.1**	**-0.3**
AB31				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
HABR	**Khabarovsk**	**56.77**	**30**	*e*P	**P**	**09 21 06.2**	**-1.9**
HABR				*e**SP	sP	09 21 20.1	+1.1
HABR				S	**S**	**09 28 56.4**	**-3.2**
HABR				*e*		09 30 52.0	
HABR				*e*SS	SS	09 32 45.3	-2.6
HABR				MLR	MLR		
	comp=Z,10µm,16.0s						
BOD	**Bodaibo**	**56.96**	**11**	*e*P	**P**	**09 21 08.9**	**-0.4**
BOD				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
AKTK	**Aktyubinsk**	**57.41**	**332**	P	**P**	**09 21 11.7**	**-0.9**
AKTO	**Aktyubinsk**	**57.41**	**332**	P	**P**	**09 21 11.7**	**-0.9**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
AKTO	**Aktyubinsk**	**57.41**	**332**	P	**P**	**09 21 11.7**	**-0.9**
	comp=Z,2.8nm,0.4s,mb4.6,baz=117,slow=8.5,SNR=12						
KMBO	**Kilima Mbogo**	**58.68**	**267**	P	**P**	**09 21 22.1**	**0.0**
	comp=Z,0.6nm,0.3s,mb4.1,baz=51,slow=12,SNR=2.8						
TOO	**Toolangi**	**60.85**	**136**	*e*P	**P**	**09 21 38.5**	**+1.8**
SVE	**Sverdlovsk**	**60.95**	**339**	⇑*e*P	**P**	**09 21 36.5**	**-0.5**
SVE				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.4						
ARU	**Arti**	**61.42**	**337**	*c i*P	**P**	**09 21 39.6**	**-0.6**
ARU				*e*		09 23 53.0	
ARU				S	**S**	**09 29 59.2**	**-0.4**
ARU				SS	SS	09 33 59.5	-1.2
ARU				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
KIV	**Kislovodsk**	**62.40**	**319**	*e*P	**P**	**09 21 47.3**	**+0.2**
KIV				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.0						
SOKR	**Solikamsk**	**64.35**	**339**	*e*P	**P**	**09 21 59.4**	**-0.2**
SOKR				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
YAK	**Yakutsk**	**64.53**	**17**	*e*P	**P**	**09 21 58.7**	**-2.0**
YAK				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.4						
YAK				pmax	pmax		
	comp=N,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.1s						
YAK	**Yakutsk**	**64.53**	**17**	*e*P	**P**	**09 21 59.8**	**-1.0**
	comp=E,37nm,0.8s,mb5.5						
ANN	**Anapa**	**66.19**	**318**	*e*P	**P**	**09 22 10.8**	**-1.1**
ANN				pmax	pmax		
	comp=Z,173nm,1.5s,mb5.9						
BRTR	**Keskin Array B**	**67.20**	**312**	P	**P**	**09 22 16.6**	**-1.8**
	comp=Z,1.4nm,0.9s,mb4.0,baz=167,slow=6.0,SNR=4.2						
PRGR	**Permogore**	**69.87**	**337**	*e*P	**P**	**09 22 33.3**	**-1.4**
PRGR				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
OBN	**Obninsk**	**70.77**	**328**	*e*P	**P**	**09 22 40.0**	**-0.2**
OBN				*i*	pP	09 22 46.8	-1.5
OBN				*e*		09 25 17.7	
OBN				pmax	pmax		
	comp=Z,38nm,1.9s,mb5.0						
PETK	**Petropavlovsk-**	**71.39**	**34**	P	**P**	**09 22 43.7**	**-0.4**
	comp=Z,1.4nm,0.8s,mb3.9,baz=275,slow=1.1,SNR=3.3						
TIXI	**Tiksi**	**72.12**	**10**	⇑*e*P	**P**	**09 22 46.9**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.8						
TIXI	**Tiksi**	**72.12**	**10**	*e*P	**P**	**09 22 46.6**	**-1.5**
	comp=Z,2.6nm,0.4s,mb4.5						
SEY	**Seymchan**	**73.08**	**24**	⇑*e*P	**P**	**09 22 52.9**	**-1.1**
AKASG	**Malin Array Be**	**73.37**	**322**	P	**P**	**09 22 53.7**	**-2.2**
	comp=Z,0.4nm,0.2s,mb4.0,baz=85,slow=5.3,SNR=5.6						
BOSA	**Boshof**	**74.27**	**239**	P	**P**	**09 23 01.9**	**+0.2**
	comp=Z,1.2nm,0.5s,mb4.0,baz=61,slow=10,SNR=2.5						
NACGM	**Naroch**	**75.98**	**326**	*e*	**P**	**09 23 09.0**	**-2.0**
JOF	**Joensuu**	**76.36**	**335**	*e*P	**P**	**09 23 11.5**	**-1.5**
JOF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
JOF	**Joensuu**	**76.36**	**335**	*e*p	**P**	**09 23 11.5**	**-1.5**
	comp=Z,6.6nm,0.8s,mb4.6						
KAF	**Kangasniemi**	**78.28**	**333**	*e*P	**P**	**09 23 23.0**	**-0.7**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
KAF	**Kangasniemi**	**78.28**	**333**	*e*p	**P**	**09 23 23.0**	**-0.7**
	comp=Z,9.5nm,0.8s,mb4.8						
ARCES	**ARCESS Array B**	**80.82**	**340**	P	**P**	**09 23 37.6**	**+0.2**
	comp=Z,3.6nm,0.5s,mb4.5,baz=92,slow=5.2,SNR=23						
RPZ	**Rata Peaks**	**81.12**	**135**	P	**P**	**09 23 39.9**	**+0.3**
	comp=Z,4.3nm,0.5s,mb4.7,baz=279,slow=4.3,SNR=6.1						
GERES	**GERESS Array B**	**82.91**	**319**	P	**P**	**09 23 49.2**	**+0.3**
	comp=Z,2.6nm,0.8s,mb4.3,baz=103,slow=5.9,SNR=14						
NB2	**NORSAR Subarra**	**85.17**	**331**	P	**P**	**09 23 58.4**	**-1.8**
	comp=Z,3.6nm,1.0s,mb4.5,baz=91,slow=5.3						
NOA	**NORSAR Array B**	**85.17**	**331**	P	**P**	**09 23 59.3**	**-0.9**
	comp=Z,3.4nm,1.0s,mb4.4,baz=91,slow=5.4,SNR=4.3						
PGF	**Pioggiola**	**85.96**	**312**	*e*P	**P**	**09 24 05.5**	**+1.0**
PGF	**Pioggiola**	**85.96**	**312**	*e*P	**P**	**09 24 05.5**	**+1.0**
PGF	**Pioggiola**	**85.96**	**312**	*e*P	**P**	**09 24 05.5**	**+1.0**
LPG	**La Plagne**	**87.56**	**315**	*e*P	**P**	**09 24 13.3**	**+1.1**
LPG	**La Plagne**	**87.56**	**315**	*e*P	**P**	**09 24 13.3**	**+1.1**
LPG	**La Plagne**	**87.56**	**315**	*e*P	**P**	**09 24 13.3**	**+1.1**
LPL	**La Plagne**	**87.57**	**315**	*e*P	**P**	**09 24 13.3**	**+1.0**
LPL	**La Plagne**	**87.57**	**315**	*e*P	**P**	**09 24 13.3**	**+1.0**
LPL	**La Plagne**	**87.57**	**315**	*e*P	**P**	**09 24 13.3**	**+1.0**
HAU	**Haudompre**	**87.78**	**318**	*e*P	**P**	**09 24 13.7**	**+0.5**
HAU	**Haudompre**	**87.78**	**318**	*e*P	**P**	**09 24 13.7**	**+0.5**
HAU	**Haudompre**	**87.78**	**318**	*e*P	**P**	**09 24 13.7**	**+0.5**
LOR	**Lormes**	**89.49**	**317**	*e*P	**P**	**09 24 22.3**	**+1.0**
	comp=Z,5.4nm,0.8s,mb4.6						
LOR	**Lormes**	**89.49**	**317**	*e*P	**P**	**09 24 22.3**	**+1.0**
LOR				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.7						
LOR	**Lormes**	**89.49**	**317**	*e*P	**P**	**09 24 22.3**	**+1.0**
	comp=Z,2.7nm,0.8s,mb4.6						
LDF	**La Druitiere**	**92.05**	**319**	*e*P	**P**	**09 24 34.2**	**+1.0**
LDF	**La Druitiere**	**92.05**	**319**	*e*P	**P**	**09 24 34.2**	**+1.0**
LDF	**La Druitiere**	**92.05**	**319**	*e*P	**P**	**09 24 34.2**	**+1.0**
TORD	**Torodi Ar. Bea**	**93.45**	**283**	P	**P**	**09 24 39.8**	**-0.6**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,1.1nm,1.0s,mb4.3,baz=79,slow=5.1,SNR=3.6						
DLMT	**Dillon**	**126.03**	**25**	*e*PKPdf	PKPdf	09 30 27.6	+1.1
ULM	**Lac du Bonnet**	**126.46**	**9**	PKP	PKPdf	09 30 26.3	-0.8
	comp=Z,3.0nm,0.8s,baz=48,slow=0.9,SNR=5.3						
NVAR	**Mina Array Bea**	**128.47**	**34**	PKP	PKPdf	09 30 31.9	+0.6
	comp=Z,1.1nm,0.7s,baz=266,slow=2.1,SNR=10						
NVAR	**Mina Array Bea**	**128.47**	**34**	PKP	PKPdf	09 30 31.9	+0.6
PDAR	**Pinedale Array**	**129.41**	**24**	PKP	PKPdf	09 30 32.9	-0.1
	comp=Z,0.6nm,0.5s,baz=94,slow=1.8,SNR=9.7						
PVMO	**Portageville**	**140.90**	**7**	*e*PKPdf	PKPdf	09 30 51.2	-3.5
JCT	**Junction City**	**143.93**	**23**	*e*PKIKP	PKPdf	09 30 58.4	-1.8
CPUP	**Villa Florida**	**145.03**	**225**	PKP	PKPdf	09 31 02.1	-0.1
	comp=Z,1.0nm,0.4s,baz=105,slow=2.3,SNR=9.6						

IDC 20 09:16:51.0±2.9, 3°.06N×96°.08E, h0^{km}, mb3.6/5, mb1 3.6/6, mb1mx3.5/23, mbtmp3.6/6, ML2.7/1, MS5.2/1, Ms1 5.2/1, ms1mx4.9/33, Error ellipse: s-maj=86.3km s-min=24.9km az=46.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.85**	**95**	Pn	Pn	09 17 37.2	-0.5
	1.0nm,0.3s,baz=284,slow=4.2,SNR=4.4						
PSI				LR	LR	09 18 43.4	
	comp=Z,43µm,20.4s,baz=305,slow=39						
WRA	**Warramunga Arr**	**43.97**	**123**	P	P	09 25 00.6	+0.3
	0.4nm,0.7s,baz=300,slow=9.3,SNR=3.0						
MKAR	**Makanchi Array**	**45.18**	**347**	P	P	09 25 09.9	+0.4
	0.9nm,0.7s,baz=161,slow=7.6,SNR=6.8						
SONM	**Songino Array**	**45.48**	**10**	P	P	09 25 12.6	+0.7
	0.9nm,0.8s,baz=184,slow=11,SNR=3.2						
KURK	**Kurchatov**	**49.72**	**346**	P	P	09 25 43.3	-1.5
	0.3nm,0.4s,baz=166,slow=6.6,SNR=2.4						
ZALV	**Zalesovo Beam**	**51.56**	**352**	P	P	09 25 58.5	-0.1
	0.5nm,0.4s,baz=177,slow=7.5,SNR=2.7						

IDC 20 09:17:12.0±2.2, 2°.58N×96°.02E, h0^{km}, mb3.7/4, mb1 3.8/5, mb1mx3.6/22, mbtmp3.7/5, ML2.9/1, Error ellipse: s-maj=72.3km s-min=23.4km az=50.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.91**	**86**	Pn	Pn	09 17 60.0	+0.3
	1.8nm,0.3s,baz=51,slow=8.2,SNR=5.5						
WRA	**Warramunga Arr**	**43.77**	**123**	P	P	09 25 19.5	-0.2
	0.2nm,0.3s,baz=300,slow=9.5,SNR=4.0						
ASAR	**Alice Springs**	**45.17**	**127**	P	P	09 25 31.0	+0.2
	0.3nm,0.5s,baz=299,slow=7.7,SNR=4.2						
MKAR	**Makanchi Array**	**45.63**	**347**	P	P	09 25 35.0	+0.9
	0.7nm,0.4s,baz=158,slow=9.1,SNR=14						
ZALV	**Zalesovo Beam**	**52.02**	**352**	P	P	09 26 21.8	-1.4
	1.2nm,0.6s,baz=176,slow=9.2,SNR=4.1						

IDC 20 09:29:13.6±2.3, 2°.61N×95°.69E, h0^{km}, mb3.2/3, mb1 3.4/4, mb1mx3.3/22, mbtmp3.3/4, ML3.4/1, Error ellipse: s-maj=71.4km s-min=29.0km az=50.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.23**	**86**	Pn	Pn	09 30 06.0	+0.3
	4.2nm,0.3s,baz=298,slow=6.4,SNR=13						
WRA	**Warramunga Arr**	**44.05**	**122**	P	P	09 37 23.2	-0.4
	0.4nm,0.7s,baz=301,slow=9.0,SNR=3.3						
ASAR	**Alice Springs**	**45.44**	**127**	P	P	09 37 34.8	+0.2
	0.2nm,0.5s,baz=303,slow=7.9,SNR=2.9						
MKAR	**Makanchi Array**	**45.53**	**347**	P	P	09 37 35.0	0.0
	0.2nm,0.4s,baz=159,slow=7.9,SNR=4.5						

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*BJI **20** 09:31:59.8, 2°.19N×95°.57E, h28^{km}, mB4.8/7, mb4.8/43, Ms5.5/14, Ms7 5.3/13*

*IDC **20** 09:32:01.2±1.0, 2°.55N×95°.68E, h0^{km}, mb4.3/12, mb1 4.4/14, mb1mx4.2/26, mbtmp4.3/14, ML4.0/2, Error ellipse: s-maj=33.4km s-min=15.5km az=47.0*

*ISCJB **20** 09:32:03.5±0.4, 2°.63N±0°.05×95°.75E±0°.06, h22^{km}, mb4.7/58, MS4.9/2, Error ellipse: s-maj=10.2km s-min=4.9km az=138.0*

*MOS **20** 09:32:04.6±0.8, 2°.65N×95°.74E, h33^{km}, mb4.7/16, Error ellipse: s-maj=14.1km s-min=7.7km az=101.9*

*DJA **20** 09:32:04, 2°.66N×95°.61E, h30^{km}, MLv4.8/5*

*NEIC **20** 09:32:05.5±0.4, 2°.64N×95°.78E, mb5.0/24, Error ellipse: s-maj=12.3km s-min=5.8km az=49.0*

ISC 20 09:32:05.8±0.4, 2°.65N±0°.05×95°.78E±0°.06, h24^{km}, h24^{km}±.8^{km}:pP-P, n100, σ1^s.02/102, mb4.7/58, MS4.9/2, 5C, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	**Gunungsitoli**	**2.24**	**127**	P	**Pn**	**09 32 41.0**	**-0.4**
BSI	**Banda Aceh**	**2.87**	**350**	P	**Pn**	**09 32 48.3**	**-1.8**
PSI	**Prapat**	**3.14**	**87**	Pn	**Pn**	**09 32 54.7**	**+0.8**
	8.2nm,0.3s,baz=290,slow=6.5,SNR=20						
PSI	**Prapat**	**3.14**	**87**	Pn	**Pn**	**09 32 54.7**	**+0.8**
KULM	**Kulim**	**5.52**	**61**	*e*Pn	**Pn**	**09 33 27.1**	**+0.5**
	154nm,0.9s						
IPM	**Ipoh**	**5.54**	**71**	P	**Pn**	**09 33 27.5**	**+0.6**
	106nm,1.1s,0.7nm						
PPI	**Padang Panjang**	**5.55**	**124**	P	**Pn**	**09 33 28.8**	**+1.8**
	91nm,1.0s,0.6nm						
PDSI	**Padang**	**5.87**	**127**	P	**Pn**	**09 33 31.8**	**+0.5**
PALK	**Pallekele**	**15.71**	**288**	Pn	**Pn**	**09 35 51.4**	**+5.6**
	0.2nm,0.3s,baz=93,slow=7.8,SNR=4.2						
PALK	**Pallekele**	**15.71**	**288**	Pn	**Pn**	**09 35 51.4**	**+5.6**
CMAR	**Chiang Mai Arr**	**16.01**	**11**	Pn	**Pn**	**09 35 48.5**	**-1.1**
	0.4nm,0.3s,baz=197,slow=11,SNR=39						
CMAR	**Chiang Mai Arr**	**16.01**	**11**	Pn	**Pn**	**09 35 48.5**	**-1.1**
CHTO	**Chiang Mai**	**16.36**	**11**	*e*P	**Pn**	**09 35 53.0**	**-1.1**
CHTO				pmax	pmax		
	comp=Z,77nm,1.9s						
CHTO	**Chiang Mai**	**16.36**	**11**	*e*Pn	**Pn**	**09 35 53.0**	**-1.1**
	comp=Z,78nm,1.9s						
KMI	**Kunming**	**23.33**	**16**	P	**P**	**09 37 13.8**	**+1.3**
KMI				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.7						
KAPI	**Kappang**	**25.13**	**108**	P	**P**	**09 37 28.2**	**-1.1**
	comp=Z,16nm,0.8s,mb4.6,baz=289,slow=8.6,SNR=4.1						
ODAN	**Odare**	**25.38**	**342**	*e*P	**P**	**09 37 32.0**	**+0.6**
	comp=Z,78nm,0.9s,mb5.2						
RAMN	**Ramite**	**25.71**	**341**	*e*P	**P**	**09 37 35.6**	**+1.2**
	comp=Z,131nm,0.6s,mb5.6						
TAPN	**Taplejung**	**25.75**	**343**	*e*P	**P**	**09 37 35.5**	**+0.8**
	comp=Z,74nm,0.9s,mb5.2						
GYA	**Guiyang**	**25.88**	**23**	⇑*i*P	**P**	**09 37 36.8**	**+0.9**
GYA				pP	pP	09 37 43.8	+0.8
GYA				PP		09 38 18.9	
GYA				S	**S**	**09 42 03.8**	**-0.7**
GYA				sS	sS	09 42 15.6	-0.7
GYA				SS		09 43 10.4	
GYA				ScP	ScP	09 44 42.0	-1.1
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
GYA				pmax	pmax		
	comp=Z,110nm,4.6s						
JIRN	**Jiri**	**26.51**	**341**	*e*P	**P**	**09 37 42.5**	**+0.9**
	comp=Z,146nm,0.7s,mb5.6						
PKI	**Pulchoki**	**26.69**	**339**	*e*P	**P**	**09 37 43.6**	**+0.3**
PKI	**Pulchoki**	**26.69**	**339**	*e*P	**P**	**09 37 43.7**	**+0.4**
PKI				pmax	pmax		
	comp=Z,19nm,0.7s,mb4.7						
PKI	**Pulchoki**	**26.69**	**339**	*e*P	**P**	**09 37 43.7**	**+0.4**
	comp=Z,19nm,0.7s,mb4.7						
PKIN	**Phulchoki**	**26.70**	**339**	*e*P	**P**	**09 37 43.7**	**+0.3**
	comp=Z,19nm,0.7s,mb4.7						
DMN	**Daman**	**26.84**	**339**	*e*P	**P**	**09 37 45.2**	**+0.6**
	comp=Z,15nm,0.7s,mb4.6						
GUN	**Gumba**	**26.84**	**340**	*e*P	**P**	**09 37 45.3**	**+0.7**
	comp=Z,94nm,0.7s,mb5.4						
KKN	**Kakani**	**26.94**	**339**	*e*P	**P**	**09 37 45.9**	**+0.4**
	comp=Z,58nm,0.9s,mb5.1						
KKN	**Kakani**	**26.94**	**339**	*e*P	**P**	**09 37 45.9**	**+0.4**
KKN				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.1						
LSA	**Lhasa**	**27.26**	**351**	P	**P**	**09 37 49.4**	**+1.1**
LSA	**Lhasa**	**27.26**	**351**	*e*P	**P**	**09 37 49.1**	**+0.8**
LSA				*e*S	**S**	**09 42 16.0**	**-10**
LSA				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.6						
LSA	**Lhasa**	**27.26**	**351**	*e*P	**P**	**09 37 49.1**	**+0.8**
	comp=Z,13nm,0.7s,mb4.6						
LSA				*e*S	**S**	**09 42 16.0**	**-10**
GKN	**Gorkha**	**27.37**	**338**	*e*P	**P**	**09 37 49.7**	**+0.4**
	comp=Z,37nm,0.7s,mb5.0						
KOLN	**Koldanda**	**27.56**	**336**	*e*P	**P**	**09 37 51.5**	**+0.4**
	comp=Z,48nm,0.7s,mb5.2						
DANN	**Dangsing**	**28.01**	**337**	*e*P	**P**	**09 37 55.5**	**+0.4**
CD2	**Chengdu**	**29.10**	**14**	P	**P**	**09 38 06.8**	**+2.0**
CD2				pP	pP	09 38 13.9	+2.0
CD2				sP	sP	09 38 17.3	+2.5
CD2				PP	PP	09 39 01.5	-9.3
CD2				S	**S**	**09 42 56.4**	**+1.1**
CD2				sS	sS	09 43 08.6	+1.5
CD2				SS	SS	09 44 27.3	-32
CD2				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
CD2				LR	LR		
	comp=N,1µm,14.3s						
CD2				LR	LR		
	comp=Z,1µm,16.1s,MS4.5						
CD2	**Chengdu**	**29.10**	**14**	P	**P**	**09 38 03.8**	**-1.0**
CD2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.2						
CD2				pmax	pmax		
	comp=Z,11µm,21.6s						
XAN	**Xi'an**	**33.55**	**20**	P	**P**	**09 38 42.5**	**-1.4**
XAN				pP	pP	09 38 48.5	-2.6
XAN				sP	sP	09 38 51.5	-2.5
XAN				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
LZH	**Lanzhou**	**34.10**	**12**	*e*P	**P**	**09 38 48.0**	**-0.6**
LZH				pP	pP	09 38 54.8	-1.0
LZH				sP	sP	09 38 57.3	-1.4
LZH				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
LZH				pmax	pmax		
	comp=Z,82nm,4.3s						
NJ2	**Nanjing**	**36.42**	**34**	*e*P	**P**	**09 39 10.3**	**+1.6**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
GTA	**Gaotai**	**36.77**	**5**	*e*P	**P**	**09 39 11.1**	**-0.5**
GTA				pP	pP	09 39 17.4	-1.4
GTA				sP	sP	09 39 21.0	-0.7
GTA				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
KAKA	**Kakadu**	**39.47**	**114**	*e*P	**P**	**09 39 33.1**	**-1.6**
	comp=Z,23nm,0.6s,mb5.1						
HHC	**Hu-ho-hao-te**	**40.61**	**18**	*e*P	**P**	**09 39 44.8**	**+1.0**
HHC				pP	pP	09 39 51.6	+0.6
HHC				sP	sP	09 39 55.6	+1.6
HHC				PP	PP	09 41 21.3	+3.7
HHC				*e*S	**S**	**09 45 49.3**	**-2.8**
HHC				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.6						
HHC				LR	LR		
	comp=N,2µm,15.5s,MS5.3						
HHC				LR	LR		
	comp=E,2µm,13.1s,MS5.3						
HHC				LR	LR		
	comp=Z,4µm,17.8s,MS5.3						
KSH	**Kashi**	**40.88**	**336**	*e*P	**P**	**09 39 43.0**	**-3.0**
KSH				*e*pP	pP	09 39 50.5	-2.8
KSH				*e*sP	sP	09 39 54.0	-2.2
KSH				*e*PP	PP	09 41 20.1	-0.5
KSH				*e*PcP	PcP	09 41 46.3	-0.2
KSH				*e*ScP	ScP	09 45 33.1	-1.8
KSH				*e*PcS	PcS	09 45 36.3	-1.0
KSH				*e*S	**S**	**09 45 49.3**	**-6.9**
KSH				*e*ScS	ScS	09 49 45.0	-4.8
KSH				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
KSH				LR	LR		
	comp=N,940nm,9.5s						
KSH				LR	LR		
	comp=E,2µm,9.7s						
KSH				LR	LR		
	comp=Z,1µm,9.6s						
BJT	**Baijiatuau**	**41.54**	**24**	*e*P	**P**	**09 39 52.3**	**+0.8**
BJT				*e**PP	pP	09 39 58.5	-0.2
BJT				pmax	pmax		
	comp=Z,43nm,0.8s						
BJT	**Baijiatuau**	**41.54**	**24**	*e*P	**P**	**09 39 52.3**	**+0.9**
	comp=Z,43nm,0.8s,mb5.1						
BJT				*e*pP	pP	09 39 58.5	-0.3
BJI	**Beijing**	**41.56**	**24**	P	**P**	**09 39 51.8**	**+0.2**
BJI				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.2						
WMQ	**Urumqi**	**41.62**	**351**	P	**P**	**09 39 54.3**	**+2.2**
WMQ				pP	pP	09 40 00.0	+0.7
WMQ				pmax	pmax		
	comp=Z,16nm,1.8s,mb4.3						
DL2	**Dalian**	**43.10**	**30**	P	**P**	**09 40 04.0**	**-0.2**
DL2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
UCH	**Uchtor**	**43.77**	**337**	P	**P**	**09 40 10.7**	**+1.2**
	SNR=12						
KBK	**Karagaybulak**	**43.97**	**338**	P	**P**	**09 40 12.6**	**+1.5**
	SNR=5.9						
WRA	**Warramunga Arr**	**44.00**	**122**	P	**P**	**09 40 10.6**	**-1.1**
	comp=Z,1.4nm,0.6s,mb3.9,baz=299,slow=9.4,SNR=13						
WRAB	**Tennant Creek**	**44.01**	**122**	*e*P	**P**	**09 40 11.3**	**-0.5**
WRAB				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
WRAB	**Tennant Creek**	**44.01**	**122**	*e*P	**P**	**09 40 11.3**	**-0.5**
	comp=Z,4.5nm,0.9s,mb4.2						
AML	**Almayashu**	**44.01**	**336**	P	**P**	**09 40 12.7**	**+1.2**
	SNR=14						
AML	**Almayashu**	**44.01**	**336**	*e*P	**P**	**09 40 12.5**	**+1.0**
	comp=Z,9.8nm,0.9s,mb4.5						
AAK	**Ala-Archa**	**44.12**	**337**	⇑*e*P	**P**	**09 40 12.9**	**+0.6**
AAK				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.0						
AAK	**Ala-Archa**	**44.12**	**337**	P	**P**	**09 40 11.9**	**-0.4**
	comp=Z,1.5nm,0.5s,mb4.0,baz=160,slow=7.4,SNR=5.5						
AAK	**Ala-Archa**	**44.12**	**337**	*e*P	**P**	**09 40 14.4**	**+2.1**
	comp=Z,360nm,3.1s						
EKS2	**Erkin-Say**	**44.42**	**337**	P	**P**	**09 40 15.9**	**+1.2**
	SNR=12						
USP	**Ospenovka**	**44.66**	**338**	P	**P**	**09 40 17.3**	**+0.6**
	SNR=13						
FORT	**Forrest**	**45.29**	**140**	*e*P	**P**	**09 40 23.5**	**+1.6**
	comp=Z,17nm,0.6s,mb5.0						
FORT				*e*pP	pP	09 40 29.9	+0.7
ASAR	**Alice Springs**	**45.39**	**127**	P	**P**	**09 40 21.9**	**-0.9**
	comp=Z,0.5nm,0.5s,mb3.6,baz=299,slow=8.0,SNR=13						
KSRS	**Korea Array**	**45.50**	**36**	P	**P**	**09 40 22.4**	**-1.0**
	comp=Z,2.5nm,0.8s,mb4.1,baz=234,slow=7.1,SNR=5.9						
MK31	**Makanchi Array**	**45.51**	**347**	P	**P**	**09 40 23.1**	**-0.3**
MK31				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
MKAR	**Makanchi Array**	**45.51**	**347**	P	**P**	**09 40 23.2**	**-0.1**
	comp=Z,6.6nm,0.5s,mb4.8,baz=162,slow=8.0,SNR=112						
SONM	**Songino Array**	**45.94**	**10**	P	**P**	**09 40 26.6**	**-0.1**
	comp=Z,4.6nm,0.6s,mb4.6,baz=190,slow=9.1,SNR=29						
SONM				PcP	PcP	09 42 03.6	+0.2
	comp=Z,1.1nm,0.7s,baz=197,slow=3.4,SNR=3.3						
ULN	**Ulaanbaatar**	**46.08**	**11**	*e*P	**P**	**09 40 26.9**	**-1.0**
ULN				*e**PP	pP	09 40 34.6	-0.6
ULN				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
ULN	**Ulaanbaatar**	**46.08**	**11**	*e*P	**P**	**09 40 26.9**	**-1.0**
	comp=Z,9.3nm,1.3s,mb4.5						
ULN				*e*pP	pP	09 40 34.6	-0.5
KK31	**Karatay Array**	**46.14**	**334**	*i* P	**P**	**09 40 28.3**	**-0.1**
KK31				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
ZAK	**Zakamensk**	**47.98**	**6**	*e*P	**P**	**09 40 42.0**	**-0.7**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
CN2	**Changchun**	**48.69**	**28**	*e*P	**P**	**09 40 47.8**	**-0.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
TLY	**Talaya**	**49.30**	**6**	*e*P	**P**	**09 40 52.6**	**-0.2**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
COEN	**Coen**	**49.79**	**111**	*e*P	**P**	**09 40 59.6**	**+2.4**
	comp=Z,23nm,0.8s,mb5.2						
KURK	**Kurchatov**	**50.04**	**346**	*e*P	**P**	**09 40 58.2**	**-0.2**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
KURK	**Kurchatov**	**50.04**	**346**	P	**P**	**09 40 57.6**	**-0.8**
	comp=Z,4.8nm,0.7s,mb4.6,baz=162,slow=7.0,SNR=3.7						
KURK	**Kurchatov**	**50.04**	**346**	*e*P	**P**	**09 40 58.2**	**-0.3**
	comp=Z,4.5nm,0.8s,mb4.5						
MDJ	**Mudanjiang**	**51.32**	**31**	P	**P**	**09 41 08.4**	**+0.2**
MDJ				pmax	pmax		
	comp=Z,9.0nm,1.5s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,6µm,12.7s						
ZALV	**Zalesovo Beam**	**51.92**	**352**	P	**P**	**09 41 12.4**	**-0.1**
	comp=Z,9.5nm,0.6s,mb4.9,baz=185,slow=7.8,SNR=9.4						
CTAO	**Charters Tower**	**54.42**	**117**	*e*P	**P**	**09 41 31.6**	**+0.1**
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
CTAO	**Charters Tower**	**54.42**	**117**	*e*P	**P**	**09 41 31.6**	**+0.1**
	comp=Z,3.9nm,0.7s,mb4.5						
BRVK	**Borovoye**	**54.49**	**341**	*e*P	**P**	**09 41 30.6**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
BRVK	**Borovoye**	**54.49**	**341**	*e*P	**P**	**09 41 30.6**	**-0.8**
	comp=Z,4.5nm,0.7s,mb4.5						
AB31	**Akbulak array**	**55.58**	**332**	P	**P**	**09 41 38.8**	**-0.6**
AB31				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
KLR	**Kul'dur**	**55.62**	**28**	*e*P	**P**	**09 41 34.2**	**-5.5**
BOD	**Bodaibo**	**56.87**	**12**	*e*P	**P**	**09 41 47.8**	**-0.6**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
EIDS	**Eidsvold**	**60.34**	**121**	*e*P	**P**	**09 42 12.1**	**-1.1**
	comp=Z,20nm,1.2s,mb5.0						
ARU	**Arti**	**61.31**	**337**	c *i*P	**P**	**09 42 18.2**	**-1.0**
ARU				*e*		09 44 31.6	
ARU				S	**S**	**09 50 37.4**	**-0.7**
ARU				SS	SS	09 54 34.3	-4.5
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
BRTR	**Keskin Array B**	**67.09**	**312**	P	**P**	**09 42 55.9**	**-1.7**
	comp=Z,1.2nm,0.9s,mb3.9,baz=117,slow=8.3,SNR=3.0						
PRGR	**Permogore**	**69.76**	**337**	*e*P	**P**	**09 43 12.2**	**-1.6**
PRGR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
OBN	**Obninsk**	**70.65**	**328**	*e*P	pP	09 43 28.2	+1.2
OBN				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
TIXI	**Tiksi**	**72.02**	**10**	⇑*e*P	**P**	**09 43 26.3**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
TIXI	**Tiksi**	**72.02**	**10**	*e*P	**P**	**09 43 25.7**	**-1.7**
	comp=Z,4.8nm,0.8s,mb4.5						
SEY	**Seymchan**	**73.00**	**24**	⇑*e*P	**P**	**09 43 31.7**	**-1.6**
ARCES	**ARCESS Array B**	**80.70**	**340**	P	**P**	**09 44 16.2**	**-0.4**
	comp=Z,3.9nm,0.9s,mb4.3,baz=81,slow=7.5,SNR=12						
GERES	**GERESS Array B**	**82.80**	**319**	P	**P**	**09 44 27.6**	**-0.5**
	comp=Z,0.6nm,0.8s,mb3.7,baz=79,slow=7.1,SNR=5.3						
GCMT	**Greycliff**	**126.75**	**22**	*e*PKPdf	PKPdf	09 51 09.2	+1.6
NVAR	**Mina Array Bea**	**128.42**	**34**	PKP	PKPdf	09 51 12.0	+1.0
	comp=Z,0.4nm,0.7s,baz=342,slow=1.5,SNR=3.8						
NVAR	**Mina Array Bea**	**128.42**	**34**	PKP	PKPdf	09 51 12.0	+1.0
CPUP	**Villa Florida**	**145.07**	**225**	PKP	PKPdf	09 51 40.6	-1.4
	comp=Z,0.4nm,0.3s,baz=58,slow=6.8,SNR=3.8						

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*IDC **20** 09:36:48.2±1.3, 2°.41N×95°.71E, h0^{km}, mb3.9/8, mb1 4.0/10, mb1mx3.8/24, mbtmp3.9/10, ML3.8/2, Error ellipse: s-maj=47.1km s-min=17.8km az=57.0*

*ISCJB **20** 09:36:51.4±0.9, 2°.5N±0°.1×95°.8E±0°.1, h33^{km}, mb4.0/9, Error ellipse: s-maj=20.1km s-min=12.2km az=143.0*

*NEIC **20** 09:36:53.9±0.5, 2°.50N×95°.83E, h35^{km}, mb4.0/1, Error ellipse: s-maj=12.5km s-min=8.5km az=55.0*

ISC 20 09:36:53.7±0.9, 2°.5N±0°.1×95°.8E±0°.1, h35^{km}, n14, σ0^s.38/13, mb4.0/9, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.14**	**84**	Pn	**Pn**	**09 37 41.1**	**+0.5**
	2.9nm,0.3s,baz=285,slow=14,SNR=6.5						
KULM	**Kulim**	**5.59**	**60**	*e*Pn	**Pn**	**09 38 13.9**	**-0.4**
CMAR	**Chiang Mai Arr**	**16.18**	**11**	Pn	**Pn**	**09 40 38.2**	**-0.2**
	0.4nm,0.3s,baz=196,slow=12,SNR=6.1						
WRA	**Warramunga Arr**	**43.89**	**122**	P	**P**	**09 44 56.5**	**-0.7**
	0.9nm,0.5s,mb3.7,baz=299,slow=9.3,SNR=7.8						
WRAB	**Tennant Creek**	**43.90**	**122**	*e*P	**P**	**09 44 57.6**	**+0.3**
	2.5nm,0.9s,mb3.9						
ASAR	**Alice Springs**	**45.27**	**127**	P	**P**	**09 45 08.7**	**+0.5**
	0.7nm,0.5s,mb3.7,baz=298,slow=8.0,SNR=11						
MKAR	**Makanchi Array**	**45.68**	**347**	P	**P**	**09 45 11.2**	**+0.2**
	0.6nm,0.5s,mb3.8,baz=161,slow=8.3,SNR=7.7						
SONM	**Songino Array**	**46.10**	**10**	P	**P**	**09 45 14.7**	**+0.4**
	2.8nm,0.7s,mb4.3,baz=187,slow=9.9,SNR=7.9						
KURK	**Kurchatov**	**50.21**	**346**	P	**P**	**09 45 46.0**	**0.0**
	0.4nm,0.5s,mb3.7,baz=169,slow=6.6,SNR=2.4						
ZALV	**Zalesovo Beam**	**52.09**	**352**	P	**P**	**09 46 00.0**	**-0.1**
	1.1nm,0.6s,mb4.0,baz=168,slow=7.6,SNR=4.3						
STKA	**Stephens Creek**	**55.24**	**132**	P	**P**	**09 46 23.0**	**-0.5**
	1.1nm,0.7s,mb4.0,baz=331,slow=10,SNR=3.1						
STKA	**Stephens Creek**	**55.24**	**132**	P	**P**	**09 46 23.0**	**-0.5**
ARCES	**ARCESS Array B**	**80.87**	**340**	P	**P**	**09 49 03.8**	**0.0**
	4.9nm,1.1s,mb4.4,baz=86,slow=5.7,SNR=2.9						
CPUP	**Villa Florida**	**144.96**	**225**	PKP	PKPdf	09 56 28.6	+0.6
	0.3nm,0.3s,baz=98,slow=9.3,SNR=3.0						

IDC 20 09:37:30.5±2.0, 2°.24N×95°.34E, h0^{km}, mb3.5/5, mb1 3.7/6, mb1mx3.5/23, mbtmp3.6/6, ML3.7/1, Error ellipse: s-maj=64.5km s-min=21.2km az=55.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.62**	**81**	Pn	Pn	09 38 27.9	+0.1
	6.1nm,0.3s,baz=336,slow=20,SNR=3.5						
WRA	**Warramunga Arr**	**44.16**	**122**	P	P	09 45 40.8	-0.5
	0.2nm,0.4s,baz=300,slow=9.1,SNR=2.7						
ASAR	**Alice Springs**	**45.50**	**127**	P	P	09 45 52.3	+0.3
	0.3nm,0.6s,baz=304,slow=8.0,SNR=2.6						
MKAR	**Makanchi Array**	**45.81**	**348**	P	P	09 45 53.9	-0.2
	0.7nm,0.8s,baz=168,slow=8.1,SNR=2.2						
SONM	**Songino Array**	**46.41**	**10**	P	P	09 45 59.1	+0.3
	0.7nm,0.7s,baz=187,slow=11,SNR=2.2						
ZALV	**Zalesovo Beam**	**52.26**	**352**	P	P	09 46 43.4	-0.1
	0.6nm,0.4s,baz=163,slow=5.6,SNR=3.4						

IDC 20 09:39:36.0±1.7, 2°.37N×95°.60E, h0^{km}, mb3.6/5, mb1 3.7/7, mb1mx3.6/23, mbtmp3.6/7, ML3.8/2, Error ellipse: s-maj=52.5km s-min=22.9km az=57.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.35**	**83**	Pn	Pn	09 40 29.2	-0.4
	1.9nm,0.3s,baz=301,slow=9.0,SNR=3.9						
CMAR	**Chiang Mai Arr**	**16.32**	**11**	Pn	Pn	09 43 28.7	+2.0
	0.4nm,0.3s,baz=201,slow=17,SNR=3.4						
WRA	**Warramunga Arr**	**44.01**	**122**	P	P	09 47 45.7	+0.1
	1.2nm,1.1s,baz=303,slow=9.4,SNR=3.7						
ASAR	**Alice Springs**	**45.38**	**127**	P	P	09 47 56.3	-0.2
	0.3nm,0.5s,baz=302,slow=8.2,SNR=4.6						
MKAR	**Makanchi Array**	**45.74**	**347**	P	P	09 47 59.5	+0.5
	0.8nm,0.7s,baz=160,slow=9.0,SNR=5.5						
SONM	**Songino Array**	**46.24**	**10**	P	P	09 48 03.5	+0.6
	0.7nm,0.7s,baz=190,slow=7.3,SNR=3.2						
ZALV	**Zalesovo Beam**	**52.17**	**352**	P	P	09 48 46.2	-2.0
	0.5nm,0.3s,baz=180,slow=7.2,SNR=2.7						
CPUP	**Villa Florida**	**144.74**	**225**	PKP	PKPdf	09 59 16.0	+0.4
	0.5nm,0.4s,baz=0.0,slow=2.0,SNR=3.0						

IDC 20 09:56:12.8±9.8, 4°.72S×146°.75E, h0^{km}, mb3.8/3, mb1 4.0/4, mb1mx3.7/16, mbtmp3.8/4, ML3.8/1, Error ellipse: s-maj=149.1km s-min=76.5km az=32.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.37**	**218**	P	Pn	10 00 39.7	-1.6
	0.3nm,0.3s,baz=37,slow=11,SNR=29						
ASAR	**Alice Springs**	**22.55**	**212**	P	P	10 01 14.1	-0.5
	0.7nm,0.3s,baz=49,slow=8.7,SNR=10						
FITZ	**Fitzroy Crossi**	**24.56**	**236**	P	P	10 01 34.8	+0.3
	3.5nm,0.7s,baz=47,slow=10,SNR=6.7						
STKA	**Stephens Creek**	**27.44**	**190**	P	P	10 02 01.3	+0.8
	1.4nm,0.7s,baz=0.0,slow=11,SNR=2.8						

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*ISCJB **20** 09:58:50.8±2.5, 8°.71N±0°.10×127°.2E±0°.2, h50^{km}±23^{km}, mb3.7/6, Error ellipse: s-maj=30.2km s-min=10.6km az=154.6*

*IDC **20** 09:58:53.0±1.1, 8°.65N×127°.06E, h52^{km}±9^{km}, mb3.5/6, mb1 3.6/6, mb1mx3.5/20, mbtmp3.5/6, Error ellipse: s-maj=91.5km s-min=16.4km az=70.0*

ISC 20 09:58:51.6±2.6**, 8°.71N**±0°.09×**127°.2E**±0°.2**, h38**^{km}±26^{km}**, h53**^{km}±1.4^{km}**:pP-P, n11,** σ**1^{s}.07**/15**, mb3.7**/6**, 1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	0.98	238	⇓iP	Pn	09 59 07.5	-1.4
BIPH				iS	Sn	09 59 20.8	-0.9
SCPH	Surigao	2.00	302	eP	Pn	09 59 21.3	-1.6
SCPH				eS	Sn	09 59 46.5	-0.2
BUKP	Musuan	2.27	249	eP	Pn	09 59 29.1	+2.4
BUKP				eS	Sn	09 59 42.3	-11
TBP	Tagbilaran	3.44	287	eP	Pn	09 59 43.7	+1.0
TBP				eS	Sn	10 00 22.0	-0.3
PAGZ	Pagadian	3.88	258	eP	Pn	09 59 51.2	+2.5
PAGZ				eS	Sn	10 00 05.5	-28
WRA	Warramunga Arr	29.33	166	P	P	10 04 50.4	-0.5
	0.6nm,0.6s,mb3.5,baz=348,slow=9.4,SNR=6.4						
ASAR	Alice Springs	32.84	169	P	P	10 05 21.7	-0.1
	0.7nm,0.8s,mb3.7,baz=348,slow=6.6,SNR=9.1						
ASAR				pP	pP	10 05 35.6	+3.0
	0.5nm,1.0s,baz=344,slow=7.3,SNR=1.6						
STKA	Stephens Creek	42.64	162	P	P	10 06 44.3	-0.1
	1.9nm,0.8s,mb3.9,baz=0.0,slow=11,SNR=3.8						
MKAR	Makanchi Array	53.82	323	P	P	10 08 10.6	0.0
	0.6nm,0.6s,mb3.7,baz=126,slow=6.2,SNR=4.4						
MKAR				pP	pP	10 08 24.6	+2.8
	1.2nm,0.8s,baz=115,slow=8.1,SNR=6.5						
ZALV	Zalesovo Beam	56.43	331	P	P	10 08 28.9	-0.3
	2.1nm,0.9s,mb4.1,baz=129,slow=5.9,SNR=3.7						
ZALV				pP	pP	10 08 42.4	+1.8
	0.6nm,0.4s,baz=100,slow=6.2,SNR=3.2						
YKA	Yellowknife Ar	94.80	24	P	P	10 12 09.6	+0.5
	0.1nm,0.6s,mb3.4,baz=296,slow=4.2,SNR=3.4						

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*DJA **20** 10:08:21, 2°.45N×95°.76E, h20^{km}, MLv4.3/4*

*ISCJB **20** 10:08:24.5±1.4, 2°.55N±0°.07×96°.1E±0°.1, h37^{km}±12^{km}, mb4.4/26, Error ellipse: s-maj=19.7km s-min=7.6km az=147.2*

*NEIC **20** 10:08:24.5±0.3, 2°.51N×96°.05E, mb4.4/3, Error ellipse: s-maj=9.9km s-min=5.2km az=48.0*

*MOS **20** 10:08:24.7±1.3, 2°.64N×96°.20E, h33^{km}, mb4.6/5, Error ellipse: s-maj=17.4km s-min=9.9km az=108.3*

*IDC **20** 10:08:24.5±1.1, 2°.58N×96°.14E, h22^{km}±5^{km}, mb4.0/11, mb1 4.1/13, mb1mx4.0/24, mbtmp4.0/13, ML4.1/1, MS4.4/1, Ms1 4.4/1, ms1mx3.7/35, Error ellipse: s-maj=30.0km s-min=14.9km az=54.0*

ISC 20 10:08:25.8±3.5**, 2°.54N**±0°.08×**96°.1E**±0°.1**, h32**^{km}±25^{km}**, h25**^{km}±.3^{km}**:pP-P, n53,** σ**0^{s}.86**/52**, mb4.4**/26**, 1C-1D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	1.93	130	P	Pn	10 08 55.9	-0.5
PSI	Prapat	2.84	85	Pn	Pn	10 09 09.4	+0.4
	4.0nm,0.3s,baz=287,slow=5.2,SNR=12						
PSI				LR	LR	10 10 08.9	
	comp=Z,7µm,20.2s,baz=50,slow=37						
BSI	Banda Aceh	3.04	345	P	Pn	10 09 09.2	-2.6
PPI	Padang Panjang	5.23	125	P	Pn	10 09 42.7	+0.8
	34nm,0.9s,0.3nm						
IPM	Ipoh	5.29	68	P	Pn	10 09 44.4	+1.7
	29nm,0.8s,0.3nm						
KULM	Kulim	5.31	59	eP	Pn	10 09 44.5	+1.5
	17nm,0.6s						
KSI	Kapahiang	8.95	133	P	Pn	10 10 32.4	-0.6
CMAR	Chiang Mai Arr	16.07	10	Pn	Pn	10 12 08.1	-1.4
	0.3nm,0.3s,baz=199,slow=11,SNR=14						
ODAN	Odare	25.58	342	eP	P	10 13 52.7	+0.5
RAMN	Ramite	25.92	340	eP	P	10 13 56.2	+0.9
	53nm,0.6s						
TAPN	Taplejung	25.94	343	eP	P	10 13 55.8	+0.3
	32nm,0.9s,mb4.8						
JIRN	Jiri	26.71	340	eP	P	10 14 02.9	+0.5
	52nm,0.6s						
PKI	Pulchoki	26.91	339	eP	P	10 14 03.9	-0.3
PKI	Pulchoki	26.91	339	eP	P	10 14 04.4	+0.2
PKIN	Phulchoki	26.92	339	eP	P	10 14 04.4	+0.1
GUN	Gumba	27.05	340	eP	P	10 14 05.7	+0.2
	47nm,0.6s						
DMN	Daman	27.05	338	eP	P	10 14 05.9	+0.4
	26nm,0.8s,mb4.8						
KKN	Kakani	27.15	339	eP	P	10 14 06.3	-0.1
	30nm,0.7s,mb4.9						
KKN	Kakani	27.15	339	eP	P	10 14 06.3	-0.1
KKN				pmax	pmax		
	comp=Z,30nm,0.7s,mb4.9						
LSA	Lhasa	27.42	351	P	P	10 14 09.4	+0.7
LSA	Lhasa	27.42	351	eP	P	10 14 08.8	+0.1
LSA				e*PP	pP	10 14 15.7	-2.2
LSA				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.5						
LSA	Lhasa	27.42	351	eP	P	10 14 08.8	+0.1
	comp=Z,11nm,0.7s,mb4.5						
LSA				epP	pP	10 14 15.7	-2.2
GKN	Gorkha	27.58	338	eP	P	10 14 10.4	+0.2
	comp=Z,46nm,0.8s						
KOLN	Koldanda	27.79	336	eP	P	10 14 12.2	+0.1
	comp=Z,30nm,0.7s,mb5.0						
DANN	Dangsing	28.23	337	eP	P	10 14 16.1	0.0
	comp=Z,22nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	35.61	126	P	P	10 15 20.1	-0.7
	comp=Z,4.2nm,0.8s,mb4.5,baz=219,slow=2.4,SNR=3.6						
GTA	Gaotai	36.86	5	eP	P	10 15 30.3	-1.0
GTA				pP	pP	10 15 37.4	-3.2
GTA				sP	sP	10 15 40.6	-3.8
GTA				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.7						
BJI	Beijing	41.54	23	P	P	10 16 09.9	-0.5
BJI				pmax	pmax		
	comp=Z,19nm,0.6s,mb4.9						
WRA	Warramunga Arr	43.68	123	P	P	10 16 27.6	-0.5
	comp=Z,2.8nm,0.8s,mb4.1,baz=302,slow=8.9,SNR=16						
WRAB	Tennant Creek	43.69	122	eP	P	10 16 27.7	-0.4
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
WRAB	Tennant Creek	43.69	122	eP	P	10 16 27.7	-0.4
	comp=Z,2.5nm,0.7s,mb4.0						
AAK	Ala-Archa	44.34	337	iP	P	10 16 36.2	+3.2
AAK				pmax	pmax		
	comp=Z,4.0nm,2.2s,mb3.8						
ASAR	Alice Springs	45.08	127	P	P	10 16 39.0	-0.3
	comp=Z,1.8nm,0.7s,mb4.0,baz=301,slow=8.0,SNR=28						
KSRS	Korea Array	45.40	36	P	P	10 16 40.9	-0.7
	comp=Z,0.9nm,0.7s,mb3.7,baz=228,slow=9.9,SNR=3.4						
MK31	Makanchi Array	45.69	347	eP	P	10 16 43.1	-0.6
MK31				e*PP	pP	10 16 50.4	-2.8
MKAR	Makanchi Array	45.69	347	P	P	10 16 43.1	-0.6
	comp=Z,5.7nm,0.6s,mb4.7,baz=164,slow=7.4,SNR=63						
MKAR				pP	pP	10 16 50.1	-3.0
	comp=Z,9.0nm,0.7s,baz=164,slow=8.5,SNR=26						
SONM	Songino Array	45.99	10	P	P	10 16 45.6	-0.5
	comp=Z,3.5nm,0.7s,mb4.4,baz=190,slow=8.8,SNR=17						
SONM				pP	pP	10 16 52.9	-2.7
	comp=Z,4.9nm,0.9s,baz=190,slow=8.4,SNR=10.0						
ZAK	Zakamensk	48.06	6	eP	P	10 17 02.0	-0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
KURK	Kurchatov	50.23	346	eP	P	10 17 18.3	-0.4
KURK				e*PP	pP	10 17 25.2	-3.1
KURK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
KURK	Kurchatov	50.23	346	eP	P	10 17 18.3	-0.4
	comp=Z,3.8nm,0.8s,mb4.5						
KURK				epP	pP	10 17 25.2	-3.2
ZALV	Zalesovo Beam	52.08	352	P	P	10 17 31.8	-0.8
	comp=Z,5.3nm,0.6s,mb4.6,baz=177,slow=7.6,SNR=27						
ZALV				pP	pP	10 17 39.1	-3.0
	comp=Z,8.6nm,0.6s,baz=180,slow=7.9,SNR=21						
ZALV	Zalesovo Beam	52.08	352	P	P	10 17 31.8	-0.8
ZALV				pP	pP	10 17 39.1	-3.0
STKA	Stephens Creek	55.07	132	P	P	10 17 54.9	0.0
	comp=Z,2.1nm,0.6s,mb4.3,baz=329,slow=9.4,SNR=5.1						
STKA	Stephens Creek	55.07	132	P	P	10 17 54.9	0.0
BOD	Bodaibo	56.91	11	eP	P	10 18 06.4	-1.2
ARU	Arti	61.53	337	d iP	P	10 18 45.3	+5.7
ARU				e		10 20 55.6	
ARU				S	S	10 27 04.7	+5.7
ARU				SS	SS	10 31 02.0	+1.5
ARU				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.8						
PRGR	Permogore	69.98	337	eP	P	10 19 36.8	+2.8
PRGR				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.2						
TIXI	Tiksi	72.07	10	⇑eP	P	10 19 52.2	+5.7
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
AKASG	Malin Array Be	73.53	322	pP	pP	10 20 01.4	-4.1
	comp=Z,1.5nm,0.6s,baz=93,slow=4.5,SNR=2.7						
ARCES	ARCESS Array B	80.91	340	P	P	10 20 37.4	+0.8
	comp=Z,8.1nm,1.1s,mb4.6,baz=71,slow=7.9,SNR=3.6						
GERES	GERESS Array B	83.08	319	P	P	10 20 49.4	+1.0
	comp=Z,0.1nm,0.3s,mb3.3,baz=86,slow=5.1,SNR=2.9						
TORD	Torodi Ar. Bea	93.71	283	P	P	10 21 40.6	+0.4
	comp=Z,0.1nm,0.3s,mb3.7,baz=76,slow=6.1,SNR=2.8						
CPUP	Villa Florida	145.21	225	PKPbc	PKPbc	10 28 00.3	-0.4
	comp=Z,1.2nm,0.6s,baz=8.1,slow=3.6,SNR=4.5						

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*ISCJB **20** 10:30:05.7±0.5, 3°.48S±0°.07×100°.72E±0°.08, h26^{km}, mb4.7/29, Error ellipse: s-maj=12.8km s-min=7.0km az=141.9*

*BJI **20** 10:30:05.9, 3°.40S×100°.80E, h30^{km}, mB5.1/1, mb4.6/15, Ms5.1/1, Ms7 4.9/1*

*NEIC **20** 10:30:07.9±0.4, 3°.37S×100°.84E, mb5.0/11, Error ellipse: s-maj=18.3km s-min=6.4km az=53.0*

*IDC **20** 10:30:07.6±0.8, 3°.41S×100°.74E, h27^{km}±4^{km}, mb4.2/13, mb1 4.3/14, mb1mx4.1/25, mbtmp4.2/14, Error ellipse: s-maj=27.6km s-min=13.3km az=54.0*

*DJA **20** 10:30:12, 3°.11S×100°.66E, h20^{km}, MLv4.6/7*

ISC 20 10:30:08.1±3.2**, 3°.46S**±0°.09×**100°.71E**±0°.08**, h28**^{km}±22^{km}**, h27**^{km}±2.1^{km}**:pP-P, n51,** σ**1^{s}.03**/42**, mb4.7**/29**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.98	315	P	Pn	10 30 26.0	0.0
KSI	Kapahiang	1.89	96	P	Pn	10 30 43.8	+5.3
MNAI	Manna	2.42	112	P	Px	10 30 56.3	
PDSI	Padang	2.54	354	P	Pn	10 30 46.9	-0.5
SDSI	Sungai Dareh	2.61	16	P	Pn	10 30 49.2	+0.8
SISI	Saibi	2.66	323	P	Px	10 30 56.8	
PPI	Padang Panjang	3.00	354	P	Pn	10 30 54.0	+0.3
RGRI	Rengat	3.49	28	P	Pn	10 31 03.7	+3.2
KASI	Kota Agung	4.30	119	P	Px	10 31 22.1	
KASI	Kota Agung	4.30	119	P	Px	10 31 19.8	
GSI	Gunungsitoli	5.67	326	P	Pn	10 31 27.7	-2.8
MYKOM	Kota Tinggi	6.08	31	P	Pn	10 31 36.0	-0.2
PSI	Prapat	6.47	344	Pn	Pn	10 31 38.9	-2.6
	1.7nm,0.3s,baz=186,slow=2.6,SNR=4.2						
CBJI	Citeko	6.79	116	P	Pn	10 31 51.0	+5.1
BBKI	Banjar Baru	14.11	90	P	Px	10 33 35.2	
	115nm,0.9s						
MJSI	Majene	18.24	91	P	Pn	10 34 21.2	+1.8
	318nm,1.0s						
CMAR	Chiang Mai Arr	21.84	355	P	P	10 34 56.2	-2.3
	5.9nm,0.7s,mb4.1,baz=188,slow=9.3,SNR=26						
FITZ	Fitzroy Crossi	28.43	123	P	P	10 36 01.1	+0.5
	2.9nm,0.8s,mb4.0,baz=280,slow=11,SNR=2.2						
ODAN	Odare	32.77	338	eP	P	10 36 39.7	+0.8
	26nm,0.8s,mb5.2						
TAPN	Taplejung	33.09	339	eP	P	10 36 42.8	+1.1
	40nm,0.9s,mb5.3						
RAMN	Ramite	33.16	337	eP	P	10 36 43.3	+1.0
	13nm,0.6s,mb5.0						
JIRN	Jiri	33.95	337	eP	P	10 36 50.1	+0.9
	28nm,0.6s,mb5.3						
PKI	Pulchoki	34.19	335	eP	P	10 36 51.7	+0.4
	6.3nm,0.6s,mb4.7						
GUN	Gumba	34.30	336	eP	P	10 36 53.0	+0.8
	24nm,0.4s,mb5.5						
KKN	Kakani	34.44	335	eP	P	10 36 53.6	+0.2
	12nm,0.5s,mb5.0						
GKN	Gorkha	34.90	335	eP	P	10 36 57.7	+0.4
	10nm,0.4s,mb5.2						
KOLN	Koldanda	35.15	333	eP	P	10 37 00.2	+0.7
	15nm,0.7s,mb5.0						
DANN	Dangsing	35.58	334	eP	P	10 37 03.5	+0.3
	24nm,0.5s,mb5.4						
WRA	Warramunga Arr	36.66	119	P	P	10 37 11.1	-1.5
	1.6nm,0.5s,mb4.1,baz=302,slow=8.8,SNR=28						
WRAB	Tennant Creek	36.66	119	eP	P	10 37 12.3	-0.3
	3.3nm,0.7s,mb4.3						
ASAR	Alice Springs	37.84	125	P	P	10 37 21.4	-1.1
	2.0nm,0.4s,mb4.2,baz=301,slow=7.7,SNR=28						
XAN	Xi'an	38.09	11	P	P	10 37 23.6	-0.9
XAN				pP	pP	10 37 33.4	+0.6
XAN				sP	sP	10 37 38.3	+2.1
XAN				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.1						
LZH	Lanzhou	39.45	4	eP	P	10 37 36.1	+0.3
LZH				pP	pP	10 37 40.0	-4.2
LZH				pmax	pmax		
	comp=Z,33nm,1.3s,mb4.9						
LZH				pmax	pmax		
	comp=Z,160nm,5.0s						
GTA	Gaotai	42.66	359	eP	P	10 38 02.8	+0.5
GTA				pP	pP	10 38 10.4	-0.2
GTA				sP	sP	10 38 13.8	-0.2
GTA				pmax	pmax		
	comp=Z,5.0nm,1.6s,mb4.0						
CTA	Charters Tower	47.35	114	P	P	10 38 39.8	-0.2
	comp=Z,2.8nm,0.7s,mb4.3,baz=270,slow=12,SNR=3.1						
STKA	Stephens Creek	47.66	131	P	P	10 38 42.2	0.0
	comp=Z,1.3nm,0.4s,mb4.3,baz=300,slow=2.7,SNR=4.0						
STKA	Stephens Creek	47.66	131	P	P	10 38 42.2	0.0
KSRS	Korea Array	47.92	29	P	P	10 38 43.5	-0.6
	comp=Z,3.0nm,0.9s,mb4.3,baz=230,slow=8.3,SNR=6.5						
SONM	Songino Array	51.32	5	P	P	10 39 10.3	+0.5
	comp=Z,7.3nm,0.7s,mb4.7,baz=186,slow=9.2,SNR=31						
SONM				pP	pP	10 39 18.1	-0.2
	comp=Z,6.7nm,0.8s,baz=182,slow=8.6,SNR=11						
ULN	Ulaanbaatar	51.41	5	eP	P	10 39 11.0	+0.6
	comp=Z,6.2nm,0.9s,mb4.5						
ULN				epP	pP	10 39 19.1	+0.1
EKS2	Erkin-Say	51.97	335	eP	P	10 39 14.4	-0.3
	comp=Z,4.5nm,0.6s,mb4.6						
CN2	Changchun	52.04	23	eP	P	10 39 14.5	-0.7
MKAR	Makanchi Array	52.61	344	P	P	10 39 18.9	-0.4
	comp=Z,5.1nm,0.7s,mb4.6,baz=148,slow=7.9,SNR=62						
MKAR				pP	pP	10 39 27.1	-0.9
	comp=Z,3.0nm,0.7s,baz=152,slow=8.5,SNR=8.0						
OPO	Ambohidratompo	54.42	250	P	P	10 39 35.2	+2.0
	comp=Z,5.2nm,1.0s,mb4.4,baz=195,slow=2.8,SNR=3.4						
ZALV	Zalesovo Beam	58.72	349	P	P	10 40 02.0	-1.1
	comp=Z,4.8nm,0.7s,mb4.6,baz=187,slow=5.3,SNR=22						
BRTR	Keskin Array B	74.82	313	P	P	10 41 44.5	-1.6
	comp=Z,0.9nm,0.7s,mb3.8,baz=133,slow=7.3,SNR=3.4						
BRTR				pP	pP	10 41 53.0	-1.9
	comp=Z,1.3nm,0.7s,baz=131,slow=5.7,SNR=3.3						
ARCES	ARCESS Array B	88.07	340	P	P	10 42 54.8	-0.7
	comp=Z,3.8nm,0.8s,mb4.7,baz=51,slow=11,SNR=3.3						
NVAR	Mina Array Bea	130.26	40	PKP	PKPdf	10 49 15.2	-0.9
	comp=Z,0.4nm,0.8s,baz=270,slow=1.5,SNR=3.8						
TXAR	Lajitas Array	145.40	39	PKPbc	PKPbc	10 49 44.3	+0.2
	comp=Z,7.2nm,0.7s,baz=296,slow=1.0,SNR=92						
TXAR				pPKPbc	pPKPbc	10 49 52.2	-1.0
	comp=Z,2.4nm,0.7s,baz=251,slow=0.5,SNR=7.4						
JCT	Junction City	146.86	34	ePKPbc	PKPbc	10 49 47.9	-0.6
OTAV	Otavalo	176.69	195	ePKPdf	PKPdf	10 50 17.7	+0.7

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*ISCJB **20** 10:30:32.0±0.6, 38°.77N±0°.03×28°.07E±0°.04, h6^{km}±7^{km}, Error ellipse: s-maj=5.3km s-min=4.2km az=43.0*

*CSEM **20** 10:30:31.6±0.2, 38°.79N×28°.09E, h10^{km}, MD2.8, Error ellipse: s-maj=5.2km s-min=4.0km az=24.0*

*DDA **20** 10:30:31.6, 38°.75N×28°.07E, h3^{km}±3^{km}, Md2.4*

*ISK **20** 10:30:31.6, 38°.88N×28°.06E, h10^{km}, MD2.8*

ISC 20 10:30:32.2±0.4**, 38°.78N**±0°.03×**28°.07E**±0°.04**, h11**^{km}±5^{km}**, n29,** σ**1^{s}.04**/47**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKHS	Akhisar	0.22	296	iP	Pg	10 30 36.1	-0.8
AKHS				eS	Sg	10 30 40.2	+0.2
AKHS	Akhisar	0.22	296	iP	Pg	10 30 36.1	-0.7
AKHS				eS	Sg	10 30 40.2	+0.2
AKS	Akhisar	0.22	296	PG	Pg	10 30 36.3	-0.5
AKS				eSG	Sg	10 30 40.0	-0.1
AKS	Akhisar	0.22	296	iPg	Pg	10 30 36.3	-0.6
AKS				eSg	Sg	10 30 40.0	0.0
MANT	Manisa	0.48	127	iP	Pg	10 30 40.4	-1.2
MANT				eS	Sg	10 30 47.9	-0.1
MANT	Manisa	0.48	127	iP	Pg	10 30 40.4	-1.2
MANT				eS	Sg	10 30 47.9	-0.1
IZM	Izmir	0.74	239	ePG	Pg	10 30 47.5	+1.0
BALB	Balikesir	0.87	350	ePG	Pg	10 30 46.5	-2.5
BALB	Balikesir	0.87	350	ePg	Pg	10 30 46.5	-2.5
DURS	Dursunbey	0.88	21	iP	Pg	10 30 50.4	+1.3
DURS				iS	Sg	10 31 04.2	+3.7
DURS	Dursunbey	0.88	21	iP	Pg	10 30 50.4	+1.3
DURS				iS	Sg	10 31 04.2	+3.7
BLCB	Balcova	0.90	244	ePG	Pg	10 30 49.8	+0.4
BLCB				eSG	Sg	10 31 02.5	+1.3
BLCB	Balcova	0.90	244	ePg	Pg	10 30 49.8	+0.4
BLCB				eSg	Sg	10 31 02.5	+1.4
BALY	Balya	1.02	340	iP	Pb	10 30 52.2	+0.4
BALY				iS	Sb	10 31 06.1	+1.0
BALY	Balya	1.02	340	iP	Pb	10 30 52.2	+0.4
BALY				iS	Sb	10 31 06.1	+0.9
AYDN	Tasoluk	1.13	188	iP	Pb	10 30 52.7	-0.9
AYDN				iS	Sb	10 31 07.6	-0.7
AYDN	Tasoluk	1.13	188	iP	Pb	10 30 52.7	-1.0
AYDN				iS	Sb	10 31 07.6	-0.7
GDZ	Gediz	1.14	74	eP	Pb	10 30 52.7	-1.2
GDZ				iS	Sb	10 31 09.2	+0.5
GDZ	Gediz	1.14	74	eP	Pb	10 30 52.7	-1.2
GDZ				iS	Sb	10 31 09.2	+0.5
KHAL	Karahalli	1.19	110	iP	Pn	10 30 54.7	0.0
KHAL				iS	Sb	10 31 11.5	+1.5
KHAL	Karahalli	1.19	110	iP	Pn	10 30 54.7	0.0
KHAL				iS	Sb	10 31 11.5	+1.5
KHL	Karahalli	1.23	111	ePN	Pn	10 30 56.6	+1.3
KHL	Karahalli	1.23	111	ePn	Pn	10 30 56.6	+1.4
KCT	Karacabey	1.50	8	ePN	Pn	10 30 57.4	-1.5
KCT	Karacabey	1.50	8	ePn	Pn	10 30 57.4	-1.5
EDC	Edincik	1.57	354	ePN	Pn	10 30 58.6	-1.3
EDC	Edincik	1.57	354	ePn	Pn	10 30 58.7	-1.2
ALT	Altintas	1.62	80	ePN	Pn	10 31 00.7	+0.1
ALT	Altintas	1.62	80	ePn	Pn	10 31 00.7	+0.1

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*IDC **20** 10:36:40.5±1.4, 1°.63N×96°.88E, h0^{km}, mb3.9/6, mb1 4.0/8, mb1mx3.8/23, mbtmp3.9/8, ML3.7/2, MS4.1/1, Ms1 4.1/1, ms1mx3.4/40, Error ellipse: s-maj=33.8km s-min=20.3km az=51.0*

*ISCJB **20** 10:36:43.3±0.9, 1°.62N±0°.10×96°.83E±0°.09, h33^{km}, mb4.1/9, Error ellipse: s-maj=13.7km s-min=12.3km az=175.0*

*NEIC **20** 10:36:46.0±1.0, 1°.71N×97°.01E, h35^{km}, mb4.2/1, Error ellipse: s-maj=23.8km s-min=12.8km az=59.0*

ISC 20 10:36:45.5±0.9**, 1°.63N**±0°.10×**96°.88E**±0°.09**, h35**^{km}**, n12,** σ**1^{s}.05**/14**, mb4.1**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.35	60	Pn	Pn	10 37 19.7	-2.0
	3.3nm,0.3s,baz=301,slow=12,SNR=12						
PSI				Sn	Sn	10 37 50.5	+1.1
	3.8nm,0.3s,baz=266,slow=11,SNR=8.5						
PSI				LR	LR	10 38 04.6	
	comp=Z,4µm,19.4s,baz=249,slow=37						
PSI	Prapat	2.35	60	Pn	Pn	10 37 19.7	-2.0
PSI				Sn	Sn	10 37 50.5	+1.1
PSI				LR	LR	10 38 04.7	
CMAR	Chiang Mai Arr	16.84	7	Pn	Pn	10 40 37.8	-0.9
	0.3nm,0.3s,baz=195,slow=11,SNR=14						
GTA	Gaotai	37.70	4	eP	P	10 43 58.0	+0.4
GTA				pP	pP	10 44 04.8	-3.0
GTA				sP	sP	10 44 08.3	-3.7
GTA				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
BJI	Beijing	42.06	22	P	P	10 44 38.3	+4.4
BJI				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.0						
WRA	Warramunga Arr	42.54	122	P	P	10 44 37.8	-0.3
	comp=Z,1.3nm,0.6s,mb3.9,baz=304,slow=9.0,SNR=12						
WRAB	Tennant Creek	42.54	122	eP	P	10 44 38.1	0.0
	comp=Z,2.7nm,0.5s,mb4.2						
ASAR	Alice Springs	43.91	127	P	P	10 44 49.2	+0.1
	comp=Z,0.2nm,0.5s,mb3.1,baz=266,slow=10,SNR=4.7						
MKAR	Makanchi Array	46.75	346	P	P	10 45 10.2	-1.0
	comp=Z,1.1nm,0.4s,mb4.1,baz=160,slow=8.8,SNR=26						
SONM	Songino Array	46.76	9	P	P	10 45 12.5	+1.2
	comp=Z,1.6nm,0.7s,mb4.1,baz=190,slow=7.5,SNR=7.2						
ZALV	Zalesovo Beam	53.08	351	P	P	10 45 58.8	-0.5
	comp=Z,2.0nm,0.6s,mb4.2,baz=184,slow=8.2,SNR=5.0						
ARCES	ARCESS Array B	82.02	340	P	P	10 49 03.5	+1.9
	comp=Z,1.6nm,0.8s,mb4.0,baz=98,slow=6.5,SNR=3.3						

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*SZGRF **20** 10:49:01.4, 36°.04N×71°.02E, h195^{km}, mb4.7, Afghanistan-Tajikistan border region*

*BJI **20** 10:49:16.8, 36°.65N×71°.00E, h186^{km}, mB5.0/3, mb4.9/39*

*ISCJB **20** 10:49:16.1±0.1, 36°.46N±0°.02×70°.97E±0°.02, h194^{km}, mb4.5/118, Error ellipse: s-maj=2.9km s-min=2.1km az=143.0*

*MOS **20** 10:49:16.2±0.9, 36°.49N×70°.93E, h194^{km}, mb4.6/38, Error ellipse: s-maj=6.9km s-min=4.1km az=116.4*

*NEIC **20** 10:49:17.7±0.2, 36°.47N×70°.99E, mb4.5/57, Error ellipse: s-maj=5.8km s-min=3.4km az=34.0*

NEIC Felt at Islamabad and Peshawar, Pakistan.

*IDC **20** 10:49:17.7±0.5, 36°.52N×70°.96E, h198^{km}±5^{km}, mb4.4/22, mb1 4.5/28, mb1mx4.5/30, mbtmp4.5/28, Error ellipse: s-maj=7.9km s-min=7.1km az=45.0*

*NNC **20** 10:49:25.1±3.7, 37°.19N×70°.93E, h232^{km}±31^{km}, mb4.4, mpv5.6, Error ellipse: s-maj=34.1km s-min=19.6km az=17.0*

ISC 20 10:49:17.6±0.1**, 36°.49N**±0°.02×**71°.02E**±0°.02**, h196**^{km}**, h196**^{km}±1.5^{km}**:pP-P, n349,** σ**1^{s}.18**/394**, mb4.5**/118**, 28C-21D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	2.75	164	⇑P	Pn	10 50 04.8	+0.6
CEP				S	Sn	10 50 41.0	+0.6
SRNI	Srinagar	3.93	126	ePKP	Pn	10 50 15.5	-2.9
SARP	Sargodha	4.75	163	P	Pn	10 50 28.5	-0.3
JMU	Jammu	4.94	139	ePKP	Pn	10 50 28.0	-3.1
JMU				eS	Sn	10 51 24.5	-4.4
KSH	Kashi	4.94	51	iP	Pn	10 50 27.1	-4.0
KSH				S	Sn	10 51 18.1	-11
KSH				pmax	pmax		
	comp=Z,3µm,0.3s						
THN	Thein Dam	5.60	135	ePKP	Pn	10 50 38.5	-1.1
THN				ex	x	10 51 39.9	
DLH	Dalhousie	5.67	133	ePKP	Pn	10 50 41.0	+0.5
AML	Almayashu	6.00	19	P	Pn	10 50 44.6	-0.1
	SNR=917						
AML	Almayashu	6.00	19	⇓iPn	Pn	10 50 44.6	-0.1
	comp=Z,2.7nm,0.3s						
AML				eSn	Sn	10 51 50.5	-3.2
UCH	Uchtor	6.34	24	P	Pn	10 50 48.9	-0.1
	SNR=858						
UCH	Uchtor	6.34	24	⇓iPn	Pn	10 50 49.0	0.0
	comp=Z,2.7nm,0.3s						
UCH				eSn	Sn	10 51 58.6	-2.8
KZA	Kyzart	6.47	29	P	Pn	10 50 50.4	-0.4
	SNR=328						
KK31	Karatay Array	6.62	357	⇓P	Pn	10 50 51.6	-1.1
	comp=Z,110nm,0.3s						
KK31				⇑S	Sn	10 52 01.6	-6.5
	comp=Z,3µm,0.6s						
KK31	Karatay Array	6.62	357	PN	Pn	10 50 51.6	-1.1
KK31				pmax	pmax		
	comp=Z,143nm,0.2s						
AAK	Ala-Archa	6.70	23	P	Pn	10 50 53.9	+0.2
	comp=Z,0.7nm,0.3s,baz=191,slow=6.5,SNR=558						
AAK				S	Sn	10 52 07.9	-2.1
	comp=Z,0.8nm,0.3s,baz=324,slow=22,SNR=25						
AAK	Ala-Archa	6.70	23	⇓iPn	Pn	10 50 53.8	+0.1
AAK				eSn	Sn	10 52 08.9	-1.0
AAK	Ala-Archa	6.70	23	P	Pn	10 50 54.1	+0.4
	SNR=80						
AAK				P		10 50 54.1	
	SNR=80						
BHK	Bhakra	6.75	137	ex	Pn	10 50 52.8	-1.8
BHK				eS	Sn	10 52 05.2	-6.3
KBK	Karagaybulak	6.87	25	P	Pn	10 50 56.4	+0.5
	SNR=37						
SDNR	Sundarnagar	7.01	134	ePKP	Pn	10 50 57.0	-0.9
SDNR				eS	Sn	10 52 12.0	-5.4
ULHL	Ulahol	7.03	33	P	Pn	10 50 57.6	-0.4
	SNR=65						
CHMS	Chumysh	7.11	23	P	Pn	10 50 58.7	-0.4
	SNR=9.1						

USP	**Ospenovka**	**7.28**	**20**	P	**Pn**	**10 51 00.3**	**-1.0**
	SNR=127						
TKM2	**Tokmak 2**	**7.33**	**27**	⇑P	**Pn**	**10 51 01.9**	**0.0**
	comp=Z,641nm,0.6s						
TKM2				⇑S	**Sn**	**10 52 20.9**	**-3.9**
	comp=Z,313nm,0.8s						
TKM2	**Tokmak 2**	**7.33**	**27**	⇓*i*PN	**Pn**	**10 51 01.9**	**0.0**
TKM2				pmax	pmax		
	comp=Z,736nm,0.6s						
TKM2	**Tokmak 2**	**7.33**	**27**	P	**Pn**	**10 51 02.0**	**+0.1**
	SNR=354						
TKM2	**Tokmak 2**	**7.33**	**27**	⇓*i*Pn	**Pn**	**10 51 01.9**	**-0.1**
	comp=Z,736nm,0.6s						
KKR	**Kurukshetra**	**8.12**	**142**	*e*PKP	**Pn**	**10 51 11.6**	**-0.8**
DDI	**Dehra Dun**	**8.50**	**134**	⇓*i*P	**Pn**	**10 51 15.2**	**-2.2**
DDI				*e*S	**Sn**	**10 52 45.2**	**-7.7**
RTK	**Rohtak**	**8.71**	**147**	*e*PKP	**Pn**	**10 51 18.1**	**-2.0**
RTK				*e*S	**Sn**	**10 52 48.7**	**-9.1**
JOSI	**Joshimath**	**9.26**	**127**	*e*PKP	**Pn**	**10 51 26.9**	**-0.4**
JOSI				*e*S	**Sn**	**10 53 02.5**	**-8.3**
KHET	**Khetri**	**9.31**	**153**	*e*PKP	**Pn**	**10 51 26.1**	**-1.9**
KHET				*e*S	**Sn**	**10 53 04.0**	**-8.2**
NDI	**New Delhi**	**9.37**	**144**	*e*PKP	**Pn**	**10 51 25.0**	**-3.7**
NDI				*e*S	**Sn**	**10 53 03.0**	**-11**
AYAN	**Aya Nagar**	**9.50**	**145**	*e*PKP	**Pn**	**10 51 28.6**	**-1.8**
AYAN				*e*S	**Sn**	**10 53 07.9**	**-8.8**
AYAN				AML	AML	10 53 12.4	
	comp=Z,335nm,0.7s						
SONA	**Sohna**	**9.68**	**146**	*e*PKP	**Pn**	**10 51 31.4**	**-1.4**
SONA				*e*S	**Sn**	**10 53 12.7**	**-8.2**
PTH	**Pithoragarh**	**10.36**	**129**	*e*PKP	**Pn**	**10 51 39.2**	**-2.3**
PTH				*e*S	**Sn**	**10 53 29.0**	**-8.1**
AJM	**Ajmer**	**10.44**	**162**	*e*PKP	**Pn**	**10 51 41.0**	**-1.7**
AJM				*e*S	**Sn**	**10 53 31.0**	**-8.2**
LGTI	**Lohaghat**	**10.45**	**130**	*e*PKP	**Pn**	**10 51 38.0**	**-4.7**
LGTI				*e*S	**Sn**	**10 53 26.0**	**-13**
AGRA	**Agra**	**10.94**	**146**	*e*PKP	**Pn**	**10 51 47.4**	**-1.7**
AGRA				*e*S	**Sn**	**10 53 40.5**	**-11**
BHJ	**Bhuj**	**13.24**	**186**	*e*PKP	**Pn**	**10 52 21.1**	**+2.9**
BHJ				*e*S	**Sn**	**10 54 36.5**	**-10**
MK31	**Makanchi Array**	**13.29**	**36**	⇑P	**Pn**	**10 52 17.6**	**-1.0**
	comp=Z,33nm,0.7s,baz=215,slow=9.8,SNR=354						
MK31	**Makanchi Array**	**13.29**	**36**	*i* P	**Pn**	**10 52 18.2**	**-0.5**
MK31				pmax	pmax		
	comp=Z,52nm,0.7s						
MKAR	**Makanchi Array**	**13.29**	**36**	P	**Pn**	**10 52 17.7**	**-0.9**
	comp=Z,3.1nm,0.3s,baz=227,slow=8.6,SNR=261						
MKAR				S	**Sn**	**10 54 46.2**	**-0.6**
	baz=238,slow=17,SNR=2.6						
MKAR	**Makanchi Array**	**13.29**	**36**	P	**Pn**	**10 52 17.7**	**-0.9**
MKAR				S	**Sn**	**10 54 46.2**	**-0.6**
DANN	**Dangsing**	**13.46**	**123**	*e*P	**Pn**	**10 52 19.8**	**-1.2**
	comp=Z,429nm,0.7s						
KOLN	**Koldanda**	**13.74**	**126**	*e*P	**Pn**	**10 52 23.4**	**-1.1**
	comp=Z,68nm,0.6s						
GKN	**Gorkha**	**14.28**	**122**	*e*P	**Pn**	**10 52 30.9**	**-0.3**
	comp=Z,196nm,0.4s						
BHPL	**Bhopal**	**14.31**	**155**	*e*PKP	**Pn**	**10 52 31.4**	**-0.2**
BHPL				*e*x	x	10 55 03.6	
ALBI	**Allahabad**	**14.47**	**137**	*e*PKP	**Pn**	**10 52 30.0**	**-3.6**
WMQ	**Urumqi**	**14.69**	**55**	⇑*i*P	**Pn**	**10 52 36.8**	**+0.8**
WMQ				sP		10 53 25.0	
WMQ				S	**Sn**	**10 55 15.0**	**-5.1**
WMQ				PcP	PcP	10 57 37.0	+3.2
WMQ				pmax	pmax		
	comp=Z,40nm,0.9s						
DMN	**Daman**	**14.85**	**123**	*e*P	**Pn**	**10 52 38.0**	**-0.2**
	comp=Z,501nm,0.6s						
KKN	**Kakani**	**14.85**	**122**	*e*P	**Pn**	**10 52 38.3**	**+0.1**
	comp=Z,554nm,0.6s						
KKN	**Kakani**	**14.85**	**122**	*e*P	**Pn**	**10 52 38.3**	**+0.1**
KKN				pmax	pmax		
	comp=Z,554nm,0.6s						
PKI	**Pulchoki**	**15.08**	**122**	*e*P	**Pn**	**10 52 41.5**	**+0.5**
	comp=Z,1µm,0.6s						
PKI	**Pulchoki**	**15.08**	**122**	*e*P	**Pn**	**10 52 41.5**	**+0.5**
PKI				pmax	pmax		
	comp=Z,1µm,0.6s						
AB01	**Akbulak array**	**15.11**	**331**	⇑P	**Pn**	**10 52 38.7**	**-2.4**
	comp=Z,161nm,0.7s						
AB01				⇑S	**S**	**10 55 16.3**	**-12**
	comp=Z,80nm,0.8s						
AB31	**Akbulak array**	**15.11**	**331**	P	**Pn**	**10 52 38.6**	**-2.4**
AB31				S	**S**	**10 55 16.3**	**-12**
AB31				pmax	pmax		
	comp=Z,207nm,0.7s						
AB31				smax			
	comp=N,80nm,0.8s						
KURBB	**Kurchatov Arra**	**15.13**	**19**	⇑P	**Pn**	**10 52 39.2**	**-2.1**
	comp=N,7.7nm,0.5s						
GUN	**Gumba**	**15.19**	**120**	*e*P	**Pn**	**10 52 42.1**	**-0.3**
	comp=N,198nm,0.5s						
KURK	**Kurchatov**	**15.24**	**19**	⇓P	**Pn**	**10 52 40.4**	**-2.2**
	comp=N,72nm,0.9s						
KURK	**Kurchatov**	**15.24**	**19**	P	**Pn**	**10 52 39.3**	**-3.3**
KURK				S	**S**	**10 55 30.6**	**-1.0**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KURK	**Kurchatov**	**15.24**	**19**	P	**Pn**	**10 52 39.3**	**-3.3**
	comp=Z,1.6nm,0.3s,baz=211,slow=10,SNR=59						
KURK				S	**S**	**10 55 30.6**	**-1.0**
	baz=208,slow=18,SNR=4.0						
KURK	**Kurchatov**	**15.24**	**19**	*e*Pn	**Pn**	**10 52 40.5**	**-2.2**
	comp=Z,84nm,0.9s						
KURK				*e*S	**S**	**10 55 46.6**	**+15**
KURK	**Kurchatov**	**15.24**	**19**	P	**Pn**	**10 52 40.8**	**-1.8**
	SNR=29						
KURK				P		10 52 40.8	
	SNR=29						
JIRN	**Jiri**	**15.56**	**120**	*e*P	**Pn**	**10 52 47.8**	**+0.9**
	comp=Z,334nm,0.4s						
VOSK	**Vostochnaya**	**16.23**	**360**	⇑P	**Pn**	**10 52 53.1**	**-1.6**
	comp=Z,91nm,0.7s						
RAMN	**Ramite**	**16.29**	**121**	*e*P	**Pn**	**10 52 55.5**	**-0.1**
	comp=Z,521nm,0.6s						
BVAR	**Borovoye Array**	**16.54**	**359**	P	**Pn**	**10 52 57.2**	**-1.1**
	comp=Z,18nm,0.3s,baz=178,slow=12,SNR=151						
BVAR				S	**S**	**10 55 57.9**	**-2.3**
	comp=Z,4.9nm,0.3s,baz=168,slow=25,SNR=7.3						
BRVK	**Borovoye**	**16.58**	**358**	⇓P	**Pn**	**10 52 57.6**	**-1.2**
	comp=Z,226nm,0.8s						
BRVK	**Borovoye**	**16.58**	**358**	*e*P	**Pn**	**10 52 57.8**	**-1.0**
BRVK				*e*S	**S**	**10 55 58.6**	**-2.3**
BRVK				pmax	pmax		
	comp=Z,171nm,0.9s						
BRVK	**Borovoye**	**16.58**	**358**	*e*P	**Pn**	**10 52 57.8**	**-1.0**
	comp=Z,171nm,0.9s						
BRVK				*e*S	**S**	**10 55 58.6**	**-2.3**
BRVK	**Borovoye**	**16.58**	**358**	P	**Pn**	**10 52 58.1**	**-0.7**
	SNR=58						
BRVK				P		10 52 58.1	
	SNR=58						
AKTK	**Aktyubinsk**	**16.80**	**330**	P	**Pn**	**10 53 00.4**	**-1.0**
AKTK				S	**S**	**10 56 00.3**	**-5.2**
AKTO	**Aktyubinsk**	**16.80**	**330**	⇓P	**Pn**	**10 53 00.5**	**-1.0**
	comp=Z,71nm,0.9s						
AKTO	**Aktyubinsk**	**16.80**	**330**	P	**Pn**	**10 53 00.4**	**-1.0**
	comp=Z,24nm,0.3s,baz=142,slow=10.0,SNR=1066						
AKTO				S	**S**	**10 56 00.3**	**-5.2**
	comp=Z,0.9nm,0.3s,baz=180,slow=21,SNR=3.6						
TAPN	**Taplejung**	**16.82**	**118**	*e*P	**Pn**	**10 53 03.0**	**+1.0**
	comp=Z,340nm,0.8s						
ODAN	**Odare**	**16.90**	**120**	*e*P	**Pn**	**10 53 03.1**	**+0.2**
	comp=Z,411nm,0.6s						
WBK	**Wadi Bani Khal**	**17.33**	**220**	⇑P	**Pn**	**10 53 08.2**	**+0.1**
	SNR=11						
JMDO	**Jabal Madar**	**17.99**	**222**	P	**Pn**	**10 53 14.4**	**-1.3**
	SNR=9.4						
BOK	**Bokaro**	**18.00**	**131**	*e*PKP	**Pn**	**10 53 13.3**	**-2.6**
POO	**Poona**	**18.06**	**171**	*e*x	x	10 53 16.1	
POO				*i* S	**S**	**10 56 32.0**	**+0.7**
LSA	**Lhasa**	**18.16**	**106**	P	**P**	**10 53 19.6**	**+4.2**
LSA				pmax	pmax		
	comp=Z,160nm,0.8s						
LSA	**Lhasa**	**18.16**	**106**	*e*P	**P**	**10 53 19.7**	**+4.3**
LSA				*e*S	**S**	**10 56 34.7**	**+1.7**
LSA				pmax	pmax		
	comp=Z,133nm,0.8s						
LSA	**Lhasa**	**18.16**	**106**	*e*Pn	**Pn**	**10 53 19.6**	**+2.0**
	comp=Z,133nm,0.8s						
LSA				*e*S	**S**	**10 56 34.7**	**+1.7**
BSY	**Bisya**	**18.19**	**225**	P	**P**	**10 53 17.5**	**+1.7**
	SNR=10						
LATR	**Latur**	**18.65**	**163**	*e*x	**P**	**10 53 23.0**	**+2.2**
KAD	**Karad**	**19.31**	**171**	*e*x	**P**	**10 53 28.0**	**+0.1**
KAD				*e*S	**S**	**10 56 54.6**	**-1.3**
ZAA0	**Zalesovo Array**	**19.92**	**24**	⇓*i*Pn	**P**	**10 53 34.4**	**+0.3**
ZAA0				*e*S	**S**	**10 57 07.3**	**+0.1**
ZALV	**Zalesovo Beam**	**19.92**	**24**	P	**P**	**10 53 34.4**	**+0.3**
	comp=Z,25nm,0.3s,baz=220,slow=12,SNR=425						
ZALV				S	**S**	**10 57 04.9**	**-2.3**
	comp=Z,1.1nm,0.3s,baz=216,slow=19,SNR=5.8						
ZALV	**Zalesovo Beam**	**19.92**	**24**	P	**P**	**10 53 34.4**	**+0.3**
ZALV				S	**S**	**10 57 04.9**	**-2.3**
HYB	**Hyderabad**	**20.13**	**159**	*e*P	**P**	**10 53 38.0**	**+1.3**
HYB				*e*S	**S**	**10 57 10.5**	**-1.5**
HYB				pmax	pmax		
	comp=Z,69nm,0.8s						
HYB	**Hyderabad**	**20.13**	**159**	*i* P	**P**	**10 53 38.0**	**+1.3**
	comp=Z,69nm,0.8s						
HYB	**Hyderabad**	**20.13**	**159**	*e*P	**P**	**10 53 38.0**	**+1.3**
	comp=Z,69nm,0.8s						
HYB				*e*S	**S**	**10 57 10.5**	**-1.5**
NVS	**Novosibirsk**	**20.19**	**21**	⇑*i*P	**P**	**10 53 37.2**	**+0.3**
NVS				*e*PPP		10 54 05.2	
NVS				*i* S	**S**	**10 57 08.7**	**-3.7**
NVS				pmax	pmax		
	comp=Z,96nm,1.2s						
NVS				pmax	pmax		
	comp=N,112nm,1.5s						
NVS				pmax	pmax		
	comp=E,49nm,1.1s						
NVS				smax			
	comp=N,90nm,1.6s						
NVS				smax			
	comp=E,72nm,1.6s						
UMR	**Umm Al-Rimmam**	**20.70**	**257**	*e*P	**P**	**10 53 42.0**	**-0.8**
UMR				AMb	AMB	10 53 45.6	
	comp=Z,53nm,0.5s						
SHL	**Shillong**	**20.89**	**116**	⇑*i*x	**P**	**10 53 45.5**	**+0.8**
SHL				*e*S	**S**	**10 57 27.5**	**+1.1**
KBD	**Kabd**	**20.89**	**256**	*e*P	**P**	**10 53 44.0**	**-0.6**
KBD				AMb	AMB	10 53 46.4	
	comp=Z,39nm,0.5s						
GNI	**Garni**	**20.92**	**288**	⇑*i*P	**P**	**10 53 46.8**	**+1.9**
GNI				pmax	pmax		
	comp=Z,60nm,1.3s						
GNI	**Garni**	**20.92**	**288**	*e*P	**P**	**10 53 46.7**	**+1.8**
	comp=Z,40nm,0.8s						
RDF	**Al-Radifah**	**21.11**	**256**	*e*P	**P**	**10 53 43.3**	**-3.8**
RDF				AMb	AMB	10 53 46.6	
	comp=Z,90nm,1.5s,mb5.1						
AGT	**Agartala**	**21.48**	**120**	*e*PKP	**P**	**10 53 48.0**	**-2.9**
SVE	**Sverdlovsk**	**21.51**	**344**	⇓*e*P	**P**	**10 53 51.4**	**+0.5**
SVE				*e*S	**S**	**10 57 48.6**	**+12**
SVE				pmax	pmax		
	comp=Z,104nm,1.1s,mb5.3						
VIS	**Vishakhapatnam**	**21.63**	**147**	*e*PKP	**P**	**10 53 50.8**	**-1.7**
ARU	**Arti**	**21.65**	**341**	*d* *i*P	**P**	**10 53 52.4**	**0.0**
ARU				*e*		10 54 21.9	
ARU				S	**S**	**10 57 39.1**	**+0.7**
ARU				pmax	pmax		
	comp=Z,148nm,1.2s,mb5.4						
ARU	**Arti**	**21.65**	**341**	*e*P	**P**	**10 53 52.2**	**-0.2**
	comp=Z,101nm,1.0s,mb5.3						
ARU				*e*S	**S**	**10 57 50.5**	**+12**
KIV	**Kislovodsk**	**22.81**	**298**	*e*P	**P**	**10 54 03.1**	**-0.3**
KIV				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.7						
KIV	**Kislovodsk**	**22.81**	**298**	*e*P	**P**	**10 54 05.7**	**+2.3**
	comp=Z,17nm,0.6s,mb4.8						
GTA	**Gaotai**	**22.85**	**74**	⇓P	**P**	**10 54 06.8**	**+3.0**
GTA				pP		10 54 45.5	
GTA				PP		10 54 47.4	
GTA				sP	sP	10 55 06.5	+3.0
GTA				PcP	PcP	10 57 49.0	+0.9
GTA				ScP	ScP	11 01 11.1	+3.8
GTA				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.8						
SHAO	**Shalim**	**22.87**	**221**	P	**P**	**10 54 05.0**	**+0.8**
	SNR=87						
WHFO	**Wadi Hawf**	**23.96**	**224**	⇑P	**P**	**10 54 13.6**	**-0.5**
	SNR=9.1						
RBK	**Rabkut**	**24.06**	**223**	P	**P**	**10 54 14.9**	**-0.1**
	SNR=5.6						
ABTO	**Aybut**	**24.68**	**224**	⇑P	**P**	**10 54 21.5**	**+0.9**
	SNR=14						
SOKR	**Solikamsk**	**24.87**	**343**	*d* *i*P	**P**	**10 54 23.1**	**+1.2**
SOKR				pmax	pmax		
	comp=Z,80nm,1.5s,mb5.1						
VRHR	**Novokhopersk**	**25.55**	**314**	*e*P	**P**	**10 54 36.2**	**+8.1**
VRHR				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
VRHR				pmax	pmax		
	comp=N,50nm,0.7s						
VRHR				pmax	pmax		
	comp=E,30nm,0.5s						
LZH	**Lanzhou**	**26.39**	**81**	*e*P	**P**	**10 54 38.6**	**+2.7**
LZH				pmax	pmax		
	comp=Z,32nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,240nm,7.4s						
VORD	**Divnogorie**	**26.86**	**313**	*e*P	**P**	**10 54 40.2**	**+0.3**
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VORD				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.4						
ZAK	**Zakamensk**	**26.98**	**49**	*e*P	**P**	**10 54 42.8**	**+1.8**
ZAK				*e*	pP	10 55 26.0	+5.5
ZAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.3						
VSR	**Storozhevoye**	**27.03**	**313**	*e*P	**P**	**10 54 41.4**	**+0.1**
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
VSR				pmax	pmax		
	comp=N,8.0nm,1.0s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.7s						
TLY	**Talaya**	**27.64**	**46**	*e*P	**P**	**10 54 49.4**	**+2.7**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
CD2	**Chengdu**	**27.71**	**92**	P	**P**	**10 54 50.5**	**+2.8**
CD2				pP	pP	10 55 29.0	+1.6
CD2				PP	PP	10 55 48.3	-5.9
CD2				sP	sP	10 55 51.3	+1.2
CD2				S	**S**	**10 59 17.1**	**+1.7**
CD2				sS	sS	11 00 25.3	-1.0
CD2				SS	SS	11 00 54.5	-26
CD2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.1						
SONM	**Songino Array**	**28.33**	**55**	P	**P**	**10 54 55.0**	**+2.1**
	comp=Z,6.9nm,0.8s,mb4.4,baz=257,slow=9.8,SNR=36						
SONM				pP	pP	10 55 33.4	+0.7
	comp=Z,2.0nm,0.8s,baz=258,slow=7.3,SNR=2.2						
ULN	**Ulaanbaatar**	**28.77**	**55**	*e*P	**P**	**10 54 59.0**	**+2.2**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
ULN	**Ulaanbaatar**	**28.77**	**55**	*e*P	**P**	**10 54 59.0**	**+2.1**
	comp=Z,5.1nm,0.6s,mb4.3						
SIM	**Simferopol’**	**29.02**	**298**	P	**P**	**10 54 54.1**	**-5.0**
SIM				pmax	pmax		
	comp=Z,19nm,0.7s,mb4.8						
MMAI	**Mount Meron Ar**	**29.37**	**274**	PcP	PcP	10 58 03.8	+0.4
	comp=Z,1.2nm,0.4s,baz=63,slow=6.6,SNR=5.5						
KMI	**Kunming**	**29.38**	**104**	P	**P**	**10 55 06.1**	**+3.6**
KMI				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.6						
BRTR	**Keskin Array B**	**29.46**	**288**	P	**P**	**10 55 04.0**	**+0.9**
	comp=Z,1.6nm,0.8s,mb3.7,baz=104,slow=8.2,SNR=5.0						
BRTR				pP	pP	10 55 44.0	+1.1
	comp=Z,3.4nm,0.7s,baz=95,slow=8.8,SNR=4.2						
PRGR	**Permogore**	**29.79**	**336**	*e*P	**P**	**10 55 05.3**	**-0.4**
PRGR				*e**PP	pP	10 55 44.4	-1.3
PRGR				*e**SP	sP	10 56 08.8	+0.5
PRGR				pmax	pmax		
	comp=Z,49nm,0.7s,mb5.2						
OBN	**Obninsk**	**29.96**	**319**	⇑*i*P	**P**	**10 55 07.7**	**+0.4**
OBN				*i* *PP	pP	10 55 47.0	-0.2
OBN				*i*		10 56 06.0	
OBN				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.0						
OBN	**Obninsk**	**29.96**	**319**	*e*P	**P**	**10 55 07.3**	**0.0**
	comp=Z,32nm,0.5s,mb5.2						
CHRT	**Chiangrai**	**30.12**	**116**	⇓P	**P**	**10 55 11.0**	**+1.9**
	comp=Z,118nm,0.8s,mb5.6						
CHG	**Chiang Mai**	**30.20**	**118**	⇓P	**P**	**10 55 11.7**	**+2.0**
	comp=Z,24nm,0.7s,mb4.9						
CHTO	**Chiang Mai**	**30.20**	**118**	*e*P	**P**	**10 55 11.7**	**+2.0**
CHTO				pmax	pmax		
	comp=Z,17nm,0.7s,mb4.8						
CHTO	**Chiang Mai**	**30.20**	**118**	*e*P	**P**	**10 55 11.7**	**+1.9**
	comp=Z,17nm,0.7s,mb4.8						
PALK	**Pallekele**	**30.39**	**161**	*i* P	**P**	**10 55 13.7**	**+2.2**
PALK	**Pallekele**	**30.39**	**161**	P	**P**	**10 55 12.9**	**+1.5**
	comp=Z,42nm,0.8s,mb5.1,baz=337,slow=9.1,SNR=24						
PALK	**Pallekele**	**30.39**	**161**	*e*P	**P**	**10 55 13.1**	**+1.6**
	comp=Z,41nm,0.8s,mb5.1						
CMAR	**Chiang Mai Arr**	**30.43**	**119**	P	**P**	**10 55 13.3**	**+1.5**
	comp=Z,23nm,0.7s,mb4.9,baz=299,slow=8.2,SNR=63						
CMAR				pP	pP	10 55 54.2	+2.3
	comp=Z,2.2nm,0.6s,baz=334,slow=12,SNR=1.2						
CMAR				PcP	PcP	10 58 06.9	+0.5
	comp=Z,2.4nm,0.5s,baz=288,slow=3.1,SNR=5.7						
XAN	**Xi’an**	**30.91**	**83**	P	**P**	**10 55 17.5**	**+1.6**
XAN				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.2						
KLMR	**Klimovskoe**	**31.50**	**331**	⇓*i*P	**P**	**10 55 20.6**	**-0.1**
KLMR				*e**PP	pP	10 56 00.3	-0.5
KLMR				*e**SP	sP	10 56 23.5	0.0
KLMR				*e*		10 56 30.0	
KLMR				pmax	pmax		
	comp=Z,35nm,1.1s,mb4.8						
HHC	**Hu-ho-hao-te**	**31.75**	**70**	*e*P	**P**	**10 55 25.5**	**+2.3**
HHC				pP	pP	10 56 04.8	+1.5
HHC				sP	sP	10 56 26.5	+0.6
HHC				PP	PP	10 56 37.9	-1.0
HHC				*e*S	**S**	**11 00 19.0**	**+0.7**
HHC				sS	sS	11 01 28.5	-1.2
HHC				PcS	PcS	11 01 56.8	+2.5
HHC				SS	SS	11 02 23.8	-19
HHC				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.5						
GYA	**Guiyang**	**31.84**	**98**	⇓*i*P	**P**	**10 55 25.4**	**+1.3**
GYA				pP	pP	10 56 06.3	+2.0
GYA				sP	sP	10 56 28.6	+1.8
GYA				PP	PP	10 56 39.4	-0.7
GYA				PcP	PcP	10 58 12.3	+2.2
GYA				S	**S**	**11 00 21.3**	**+1.2**
GYA				sS	sS	11 01 31.8	+0.4
GYA				ScP	ScP	11 01 35.8	+1.0
GYA				PcS	PcS	11 01 55.4	+0.3
GYA				ScS	ScS	11 05 32.0	-1.7
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
GYA				pmax	pmax		
	comp=Z,90nm,4.7s						
AKASG	**Malin Array Be**	**32.97**	**309**	P	**P**	**10 55 33.5**	**-0.1**
	comp=Z,14nm,0.5s,mb4.7,baz=79,slow=7.7,SNR=45						
AKASG				pP	pP	10 56 12.9	-1.0
	comp=Z,8.4nm,0.9s,baz=85,slow=7.5,SNR=2.3						
AKASG				PP	PP	10 56 47.4	-4.8
	comp=Z,10nm,0.8s,baz=90,slow=11,SNR=7.0						
AKASG	**Malin Array Be**	**32.97**	**309**	P	**P**	**10 55 33.5**	**-0.1**
AKASG				pP	pP	10 56 12.9	-1.0
AKASG				PP	PP	10 56 47.4	-4.8
KIEV	**Kiev**	**32.98**	**309**	*e*P	**P**	**10 55 33.4**	**-0.3**
KIEV				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.6						
KIEV	**Kiev**	**32.98**	**309**	*e*P	**P**	**10 55 33.4**	**-0.4**
	comp=Z,13nm,0.6s,mb4.6						
NACGM	**Naroch**	**35.24**	**316**	*e*	pP	10 56 31.0	-2.7
BUR08	**Bucovina Ar. S**	**35.32**	**303**	*e*P	**P**	**10 55 54.5**	**+0.6**
BJT	**Baijiatuau**	**35.34**	**70**	*e*P	**P**	**10 55 56.5**	**+2.3**
BJT				*e*		10 58 20.5	
BJT				pmax	pmax		
	comp=Z,14nm,0.3s						
BJT	**Baijiatuau**	**35.34**	**70**	*e*P	**P**	**10 55 56.5**	**+2.3**
	comp=Z,14nm,0.3s,mb5.0						
BJT				*e*PcP	PcP	10 58 20.5	+0.7
BJI	**Beijing**	**35.34**	**70**	P	**P**	**10 55 53.6**	**-0.6**
BJI				pP	pP	10 56 32.4	-2.5
BJI				sP	sP	10 56 55.8	-1.5
BJI				S	**S**	**11 01 14.1**	**+0.4**
BJI				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.3						
BOD	**Bodaibo**	**35.35**	**39**	*e*P	**P**	**10 55 54.7**	**+0.7**
BOD				*e*	pP	10 56 37.5	+2.9
BOD				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.0						
BOD				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.5						
JOF	**Joensuu**	**35.89**	**330**	*e*p	**P**	**10 55 58.6**	**+0.1**
	comp=Z,33nm,0.4s,mb5.2						
WHN	**Wuhan**	**36.37**	**87**	⇑P	**P**	**10 56 05.3**	**+2.2**
KWP	**Kalwaria Pacla**	**37.03**	**306**	*e*P	**P**	**10 56 09.4**	**+1.1**
KWP	**Kalwaria Pacla**	**37.03**	**306**	*e*P	**P**	**10 56 09.5**	**+1.1**
IDI	**Anoyia**	**37.12**	**282**	P	**P**	**10 56 07.9**	**-1.4**
	comp=Z,2.0nm,0.3s,mb4.1,baz=121,slow=14,SNR=6.3						
KOLS	**Kolonicke sedl**	**37.30**	**305**	*e*P	**P**	**10 56 11.1**	**+0.5**
KOLS				*e*		10 56 47.1	
KOLS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.1						
KOLS	**Kolonicke sedl**	**37.30**	**305**	*e*P	**P**	**10 56 11.1**	**+0.5**
	comp=Z,6.2nm,0.9s,mb4.1						
KOLS				*e*		10 56 47.1	
KOLS				*e*PP	PP	10 57 36.5	-3.3
LVZ	**Lovozero**	**37.48**	**338**	*i* P	**P**	**10 56 12.2**	**+0.3**
LVZ				pmax	pmax		
	comp=Z,23nm,0.6s,mb4.9						
KAF	**Kangasniemi**	**37.65**	**327**	*e*P	**P**	**10 56 12.5**	**-0.8**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
KAF	**Kangasniemi**	**37.65**	**327**	*e*p	**P**	**10 56 12.5**	**-0.8**
	comp=Z,10nm,0.7s,mb4.5,baz=111,slow=8.4						
APA	**Apatity**	**37.66**	**337**	⇑*i*P	**P**	**10 56 14.0**	**+0.7**
APA				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.5						
APA				MLR	MLR		
	comp=Z,4µm,20.0s						
CRVS	**Cervenica-Dubn**	**37.84**	**305**	*e*P	**P**	**10 56 16.0**	**+0.9**
CRVS				*e*PP	PP	10 57 44.8	-0.8
STHS	**Stebnicka Huta**	**37.98**	**306**	*e*P	**P**	**10 56 17.2**	**+0.9**
STHS				*e*		10 57 56.8	
STHS				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
STHS	**Stebnicka Huta**	**37.98**	**306**	*e*P	**P**	**10 56 17.2**	**+0.9**
	comp=Z,4.3nm,0.6s,mb4.2						
STHS				*e*PP	pP	10 56 47.2	-10
STHS				*e*SP		10 57 09.9	
STHS				*e*PP	PP	10 57 56.8	+10
KECS	**Kecovo**	**38.48**	**304**	*e*P	**P**	**10 56 21.6**	**+1.1**
KECS				*e*		10 57 52.0	
KECS				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
KECS	**Kecovo**	**38.48**	**304**	*e*P	**P**	**10 56 21.6**	**+1.1**
	comp=Z,3.1nm,0.6s,mb4.0						
KECS				*e*PP	PP	10 57 52.0	-0.7
NIE	**Niedzica**	**38.59**	**306**	*e*P	**P**	**10 56 23.5**	**+2.1**
PSZ	**Piszkesteto**	**38.90**	**303**	*e*P	**P**	**10 56 24.9**	**+0.9**
PSZ				*e**PP	pP	10 57 04.5	-0.8
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.1						
PSZ	**Piszkesteto**	**38.90**	**303**	*e*P	**P**	**10 56 24.9**	**+0.9**
	comp=Z,2.8nm,0.5s,mb4.0						
PSZ				*e*pP	pP	10 57 04.5	-0.8
OJC	**Ojcow**	**38.93**	**307**	*e*P	**P**	**10 56 23.9**	**-0.3**
NJ2	**Nanjing**	**39.46**	**82**	*e*P	**P**	**10 56 32.6**	**+3.8**
NJ2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.1						
VYHS	**Vyhne**	**39.58**	**304**	*e*P	**P**	**10 56 28.7**	**-0.9**
VYHS				*e*		10 58 09.5	
VYHS				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.5						
VYHS	**Vyhne**	**39.58**	**304**	*e*P	**P**	**10 56 28.7**	**-0.9**
	comp=Z,2.0nm,1.0s,mb3.5						
VYHS				*e*PP	pP	10 57 00.3	-11
VYHS				*e*PP	PP	10 58 09.5	+4.9
MORC	**Moravsky Berou**	**40.39**	**306**	*e*P	**P**	**10 56 36.7**	**+0.5**
MORC				*e*		10 58 13.5	
MORC				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.3						
MORC	**Moravsky Berou**	**40.39**	**306**	*e*P	**P**	**10 56 36.7**	**+0.5**
	comp=Z,7.8nm,0.7s,mb4.2						
MORC				*e*PP	PP	10 58 13.5	+0.2
ZST	**Bratislava**	**40.75**	**304**	*e*P	**P**	**10 56 39.8**	**+0.6**
KEV	**Kevo**	**40.82**	**338**	*e*P	**P**	**10 56 39.7**	**+0.2**
KEV				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.5						
KEV	**Kevo**	**40.82**	**338**	*e*P	**P**	**10 56 39.7**	**+0.2**
	comp=Z,9.6nm,0.5s,mb4.5						
ARCES	**ARCESS Array B**	**41.16**	**338**	P	**P**	**10 56 43.1**	**+0.9**
	comp=Z,23nm,0.6s,mb4.8,baz=112,slow=8.2,SNR=130						

ARCES				pP	pP	10 57 22.9	-1.1
	comp=Z,19nm,0.8s,baz=120,slow=7.3,SNR=5.5						
ARCES	ARCESS Array B	41.16	338	P	P	10 56 43.1	+0.9
ARCES				pP	pP	10 57 22.9	-1.1
KULM	Kulim	41.25	132	eP	P	10 56 45.0	+1.3
	comp=Z,20nm,0.9s,mb4.5						
KULM				ePcP	PcP	10 58 38.8	+0.1
CN2	Changchun	41.60	63	eP	P	10 56 48.0	+1.8
CONA	Conrad Observa	41.60	304	⇑iP	P	10 56 46.5	+0.4
	comp=Z,8.3nm,0.8s,mb4.2						
CSNA	Conrad Observa	41.60	304	⇓iP	P	10 56 46.7	+0.5
	comp=Z,7.6nm,0.7s,mb4.2						
KTK1	Kautokeino	41.64	336	eP	P	10 56 46.7	+0.6
KTK1				AMb	AMB	10 56 52.1	
	comp=N,74nm,2.1s						
PSI	Prapat	42.26	136	P	P	10 56 52.2	+0.4
	comp=N,46nm,0.7s,mb5.0,baz=325,slow=8.9,SNR=37						
SOKA	Soboth	42.29	302	⇑iP	P	10 56 52.2	+0.5
	comp=N,5.8nm,0.5s,mb4.2						
BRG	Berggiesshubel	42.65	308	i P	P	10 56 55.8	+1.3
BRG				e	pP	10 57 37.1	+0.6
BRG				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.2						
BRG	Berggiesshubel	42.65	308	eP	P	10 56 55.5	+1.0
	comp=Z,11nm,0.7s,mb4.4						
BRG	Berggiesshubel	42.65	308	i P	P	10 56 55.8	+1.2
	comp=Z,11nm,0.7s,mb4.4						
BRG				e	pP	10 57 37.1	+0.6
	comp=Z,8.9nm,0.5s						
MOA	Molln	42.68	304	⇓iP	P	10 56 54.7	-0.2
	comp=Z,6.6nm,0.8s,mb4.1						
CUC	Castrocucco	42.92	292	eP	P	10 56 58.1	+1.2
	comp=Z,9.1nm,0.7s,mb4.3						
GERES	GERESS Array B	42.95	305	P	P	10 56 57.7	+0.7
GERES				*PP	pP	10 57 39.3	+0.2
GERES						10 58 37.8	
GERES	GERESS Array B	42.95	305	P	P	10 56 57.7	+0.6
	comp=Z,1.1nm,0.5s,mb3.5,baz=98,slow=8.2,SNR=6.9						
GERES				pP	pP	10 57 39.3	+0.2
	comp=Z,1.1nm,0.7s,baz=81,slow=8.2,SNR=3.2						
GERES				PP	PP	10 58 37.8	-3.0
	comp=Z,1.6nm,0.8s,baz=69,slow=7.4,SNR=3.9						
GERES				ScP	ScP	11 02 14.7	-1.4
	comp=Z,0.8nm,0.5s,baz=94,slow=4.4,SNR=4.4						
KHC	Kasperske Hory	43.01	306	eP	P	10 56 58.5	+1.0
KHC				epP	pP	10 57 41.5	+2.0
CLL	Collm	43.22	309	i P	P	10 56 59.5	+0.4
CLL				e*PP	pP	10 57 39.0	-2.2
CLL				i		10 58 45.8	
CLL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
CLL	Collm	43.22	309	eP	P	10 56 59.8	+0.7
	comp=Z,8.0nm,0.8s,mb4.2						
CLL	Collm	43.22	309	i P	P	10 56 59.5	+0.4
	comp=Z,8.0nm,0.8s,mb4.2						
CLL				epP	pP	10 57 39.0	-2.2
CLL				i (PcP)	PcP	10 58 40.4	-4.2
CLL				i PP	PP	10 58 45.8	+2.3
CLL				e		10 59 04.0	
CLL	Collm	43.22	309	i P	P	10 56 59.5	+0.4
	comp=Z,8.0nm,0.8s,mb4.2						
CLL				epP	pP	10 57 39.0	-2.2
CLL				i PP	PP	10 58 45.8	+2.3
TRO	Tromso	43.29	336	eP	P	10 57 00.1	+0.7
TRO				AMb	AMB	10 57 20.2	
	comp=Z,121nm,3.1s						
MSEY	Mahe Island	43.45	203	i P	P	10 57 02.6	+1.2
TANN	Tannenbergstha	43.62	308	eP	P	10 57 02.7	+0.4
	comp=Z,5.0nm,1.1s,mb3.8						
MOR8	Moi Rana	43.84	331	eP	P	10 57 03.9	0.0
ROTZ	Rotzenmuhle	43.84	307	eP	P	10 57 06.0	+1.9
	comp=Z,6.0nm,1.2s,mb3.8						
MANZ	Manzenberg	43.88	307	eP	P	10 57 05.9	+1.5
	comp=Z,7.0nm,1.2s,mb3.9						
YAK	Yakutsk	43.97	35	eP	P	10 57 04.9	0.0
YAK				e*PP	pP	10 57 44.2	-2.9
YAK				e		10 58 50.9	
YAK				eS	S	11 03 21.3	-0.1
YAK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.3						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.4						
YAK				smax			
	comp=N,82nm,2.0s						
YAK				smax			
	comp=E,68nm,1.2s						
YAK	Yakutsk	43.97	35	eP	P	10 57 05.6	+0.7
	comp=E,21nm,0.7s,mb4.6						
YAK				epP	pP	10 57 49.0	+1.9
MOX	Moxa	44.14	308	eP	P	10 57 07.3	+0.9
	comp=E,11nm,1.1s,mb4.1						
MOX	Moxa	44.14	308	eP	P	10 57 07.3	+0.9
MOX				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.1						
MOX	Moxa	44.14	308	eP	P	10 57 07.1	+0.7
	comp=Z,5.0nm,0.6s,mb4.0						
MDJ	Mudanjiang	44.39	61	P	P	10 57 09.4	+0.8
MDJ				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb3.9						
NB2	NORSAR Subarra	44.40	323	P	P	10 57 08.2	-0.2
	comp=Z,12nm,0.5s,mb4.5,baz=97,slow=7.9						
NOA	NORSAR Array B	44.40	323	P	P	10 57 08.3	-0.1
	comp=Z,10nm,0.5s,mb4.4,baz=96,slow=7.7,SNR=52						
NOA				pP	pP	10 57 50.2	-0.4
	comp=Z,14nm,1.0s,baz=96,slow=8.0,SNR=6.5						
NOA				PP	PP	10 58 54.5	-1.3
	comp=Z,4.4nm,0.9s,baz=94,slow=7.5,SNR=4.4						
NOA	NORSAR Array B	44.40	323	P	P	10 57 08.3	-0.1
NOA				pP	pP	10 57 50.2	-0.4
NOA				PP	PP	10 58 54.5	-1.3
STOK	Stokkvaagen	44.44	331	eP	P	10 57 09.0	+0.4
STOK				AMb	AMB	10 57 14.4	
	comp=Z,128nm,3.3s						
GRA1	Grafenberg Arr	44.48	307	eP	P	10 57 10.9	+1.7
	comp=Z,7.0nm,0.7s,mb4.1						
GRA1				epP	pP	10 57 53.0	+1.5
GRF	Grafenberg Arr	44.48	307	eP	P	10 57 10.9	+1.7
GRF				e*PP	pP	10 57 53.0	+1.5
GRF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.1						
GRF	Grafenberg Arr	44.48	307	eP	P	10 57 10.9	+1.7
GRF				e*PP	pP	10 57 53.0	+1.5
GRF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.1						
GRF	Grafenberg Arr	44.48	307	eP	P	10 57 10.9	+1.7
	comp=Z,7.0nm,0.7s,mb4.1						
GRF				epP	pP	10 57 53.0	+1.5
SSLB	Suanglung	44.55	92	eP	P	10 57 12.8	+2.8
	comp=Z,34nm,1.0s,mb4.6						
BSEG	Bad Segeberg	44.72	313	eP	P	10 57 12.2	+1.2
	comp=Z,19nm,0.7s,mb4.5						
CLZ	Clausthal	44.81	310	eP	P	10 57 12.5	+0.7
CLZ				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
CLZ	Clausthal	44.81	310	eP	P	10 57 12.5	+0.7
	comp=Z,10.0nm,0.9s,mb4.2						
KSRS	Korea Array	44.87	71	P	P	10 57 13.0	+0.6
KSRS						10 58 50.5	
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.7						
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
KSRS	Korea Array	44.87	71	P	P	10 57 12.9	+0.5
	comp=Z,1.6nm,0.5s,mb3.6,baz=271,slow=7.0,SNR=10						
KSRS				PcP	PcP	10 58 50.5	-0.1
	comp=Z,4.2nm,0.8s,baz=292,slow=3.4,SNR=7.2						
NRDL	Niedersach Rie	44.93	311	eP	P	10 57 13.8	+1.1
	comp=Z,10.0nm,0.9s,mb4.2						
TWG	Pinlang	45.11	93	eP	P	10 57 18.1	+3.6
	comp=Z,58nm,0.6s,mb5.1						
KONO	Kongsberg	45.11	321	⇑eP	P	10 57 14.3	+0.3
KLR	Kul'dur	45.14	54	eP	P	10 57 10.7	-3.7
UBBA	Unterbreizbach	45.14	308	eP	P	10 57 15.1	+0.7
	comp=Z,5.0nm,0.7s,mb4.0						
DAVA	Damuels	45.70	304	⇑iP	P	10 57 18.4	-0.4
	comp=Z,9.6nm,0.4s,mb4.5						
TIXI	Tiksi	45.78	22	⇑eP	P	10 57 20.1	+1.0
TIXI				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.3						
TIXI	Tiksi	45.78	22	eP	P	10 57 20.0	+1.0
	comp=Z,15nm,0.8s,mb4.4						
TIXI				epP	pP	10 58 02.9	+1.3
IBBN	Ibbenburen	46.38	311	eP	P	10 57 25.2	+1.2
	comp=Z,19nm,0.6s,mb4.6						
CDF	Champ du Feu	47.23	306	eP	P	10 57 30.5	-0.2
PGF	Pioggiola	47.29	297	eP	P	10 57 30.2	-1.1
HABR	Khabarovsk	47.41	54	eP	P	10 57 31.6	-0.4
HABR				*SP	sP	10 58 38.4	+1.7
HABR				e		10 59 23.1	
HABR				MLR	MLR		
	comp=Z,4µm,19.0s						
HINF	Hinteralfeld	47.62	305	eP	P	10 57 32.9	-0.8
	comp=Z,7.6nm,0.6s,mb3.9						
HINF				epP	pP	10 58 17.0	+0.5
HINF	Hinteralfeld	47.62	305	eP	P	10 57 32.9	-0.8
HINF				e*PP	pP	10 58 17.0	+0.5
HINF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
HINF	Hinteralfeld	47.62	305	eP	P	10 57 32.9	-0.8
	comp=Z,3.8nm,0.6s,mb3.9						
HINF				epP	pP	10 58 17.0	+0.5
WLF	Walferdange	47.75	307	eP	P	10 57 35.8	+1.2
	comp=Z,18nm,1.1s,mb4.3						
HAU	Haudompre	47.92	305	eP	P	10 57 35.3	-0.7
	comp=Z,7.2nm,0.5s,mb3.9						
HAU	Haudompre	47.92	305	eP	P	10 57 35.3	-0.7
HAU				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.0						
HAU	Haudompre	47.92	305	eP	P	10 57 35.3	-0.7
	comp=Z,3.6nm,0.5s,mb4.0						
LPG	La Plagne	48.17	302	eP	P	10 57 37.6	-0.4
	comp=Z,3.1nm,0.3s,mb3.8						
LPL	La Plagne	48.18	302	eP	P	10 57 37.6	-0.4
	comp=Z,3.0nm,0.3s,mb3.8						
LPL				epP	pP	10 58 21.9	+0.9
MBDF	Montbardon	48.34	301	eP	P	10 57 37.9	-1.3
CABF	La Chapelle	48.38	303	eP	P	10 57 39.1	-0.4
	comp=Z,6.3nm,0.4s,mb4.0						
CABF				epP	pP	10 58 22.3	-0.2
KMBO	Kilima Mbogo	48.84	228	P	P	10 57 44.0	+0.6
	comp=Z,5.3nm,0.6s,mb4.0,baz=36,slow=12,SNR=14						
BAIF	Baives	48.92	308	eP	P	10 57 43.6	0.0
	comp=Z,29nm,1.1s,mb4.2						
BAIF				epP	pP	10 58 28.0	+1.4
BAIF	Baives	48.92	308	eP	P	10 57 43.6	0.0
BAIF				e*PP	pP	10 58 28.0	+1.4
BAIF				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.2						
BAIF	Baives	48.92	308	eP	P	10 57 43.6	0.0
	comp=Z,15nm,1.1s,mb4.2						
BAIF				epP	pP	10 58 28.0	+1.4
KEST	Kesra	49.06	289	P	P	10 57 44.7	-0.2
	comp=Z,1.0nm,0.5s,mb3.5,baz=275,slow=9.0,SNR=6.6						
LOR	Lormes	49.72	305	eP	P	10 57 48.5	-1.2
SMF	Signal de Mont	49.88	304	eP	P	10 57 50.1	-0.8
	comp=Z,11nm,0.6s,mb4.1						
SMF				epP	pP	10 58 34.5	+0.4
SMF	Signal de Mont	49.88	304	eP	P	10 57 50.1	-0.8
SMF				e*PP	pP	10 58 34.5	+0.4
SMF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.1						
SMF	Signal de Mont	49.88	304	eP	P	10 57 50.1	-0.8
	comp=Z,5.5nm,0.6s,mb4.1						
SMF				epP	pP	10 58 34.5	+0.4
AVF	Avril sur Loir	50.17	304	eP	P	10 57 52.3	-0.8
	comp=Z,12nm,0.7s,mb4.1						
AVF	Avril sur Loir	50.17	304	eP	P	10 57 52.3	-0.8
AVF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.1						
AVF	Avril sur Loir	50.17	304	eP	P	10 57 52.3	-0.8
	comp=Z,6.1nm,0.6s,mb4.1						
TCF	Toulx Ste Croi	51.06	304	eP	P	10 57 59.3	-0.4
TCF				epP	pP	10 58 43.8	+0.7
CAF	Calviac	51.52	302	eP	P	10 58 03.0	-0.2
	comp=Z,6.5nm,0.7s,mb3.9						
CAF				epP	pP	10 58 47.5	+0.8
CAF	Calviac	51.52	302	eP	P	10 58 03.0	-0.2
CAF				e*PP	pP	10 58 47.5	+0.8
CAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
CAF	Calviac	51.52	302	eP	P	10 58 03.0	-0.2
	comp=Z,3.3nm,0.6s,mb3.9						
CAF				epP	pP	10 58 47.5	+0.8
MTLF	Montolieu	51.87	300	eP	P	10 58 05.4	-0.4
LDF	La Druitiere	52.00	307	eP	P	10 58 05.5	-1.2
	comp=Z,5.6nm,0.5s,mb4.0						
LDF				epP	pP	10 58 50.5	+0.3
LDF	La Druitiere	52.00	307	eP	P	10 58 05.5	-1.2
LDF				e*PP	pP	10 58 50.5	+0.3
LDF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.0						
LDF	La Druitiere	52.00	307	eP	P	10 58 05.5	-1.2
	comp=Z,2.8nm,0.5s,mb4.0						
LDF				epP	pP	10 58 50.5	+0.3
FLN	La Foliniere	52.19	307	eP	P	10 58 07.0	-1.0
	comp=Z,4.8nm,0.4s,mb4.0						
ESK	Eskdalemuir	52.34	316	i P	P	10 58 09.7	+0.7
LFF	La Frestale	52.42	302	eP	P	10 58 09.5	-0.3
	comp=Z,11nm,0.5s,mb4.2						
LFF	La Frestale	52.42	302	eP	P	10 58 09.5	-0.3
LFF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.3						
LFF	La Frestale	52.42	302	eP	P	10 58 09.5	-0.3
	comp=Z,5.7nm,0.5s,mb4.3						
GRR	Gorron	52.53	307	eP	P	10 58 09.4	-1.1
MFF	Saint Martin d	52.54	305	eP	P	10 58 09.7	-1.0
YSS	Yuzh-Sakhalins	52.82	55	eP	P	10 58 14.2	+1.5
YSS				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.4						
YSS	Yuzh-Sakhalins	52.82	55	eP	P	10 58 14.2	+1.6
	comp=Z,4.5nm,0.3s,mb4.4						
MAT	Matsushiro	52.94	68	P	P	10 58 14.2	+0.5
EPF	Esparros	53.27	300	eP	P	10 58 15.2	-0.9
	comp=Z,4.3nm,0.6s,mb3.8						
EPF	Esparros	53.27	300	eP	P	10 58 15.2	-0.9
EPF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
EPF	Esparros	53.27	300	eP	P	10 58 15.2	-0.9
	comp=Z,2.2nm,0.6s,mb3.8						
SGMF	Saint Gilles	53.66	307	eP	P	10 58 18.0	-0.8
ETSF	Etsaut	53.94	300	eP	P	10 58 20.7	-0.2
	comp=Z,12nm,0.5s,mb4.4						
ETSF	Etsaut	53.94	300	eP	P	10 58 20.7	-0.2
ETSF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.4						
ETSF	Etsaut	53.94	300	eP	P	10 58 20.7	-0.2
	comp=Z,6.1nm,0.5s,mb4.4						
ROSF	Rostrenen	54.09	308	eP	P	10 58 21.0	-0.9
	comp=Z,9.4nm,0.6s,mb4.2						
ROSF				epP	pP	10 59 06.0	+0.2
ROSF	Rostrenen	54.09	308	eP	P	10 58 21.0	-0.9
ROSF				e*PP	pP	10 59 06.0	+0.2
ROSF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.2						
ROSF	Rostrenen	54.09	308	eP	P	10 58 21.0	-0.9
	comp=Z,4.7nm,0.6s,mb4.2						
ROSF				epP	pP	10 59 06.0	+0.2
SEY	Seymchan	54.42	34	⇑eP	P	10 58 24.8	+0.8
ESDC	Sonseca Array	57.48	298	P	P	10 58 45.6	-0.5
	comp=Z,0.5nm,0.4s,mb3.5,baz=49,slow=8.1,SNR=5.1						
ESDC				pP	pP	10 59 29.8	-0.8
	comp=Z,1.4nm,0.6s,baz=61,slow=6.8,SNR=2.3						
ESDC	Sonseca Array	57.48	298	P	P	10 58 45.6	-0.5
ESDC				pP	pP	10 59 29.8	-0.8
BILL	Bilibino	58.61	26	eP	P	10 58 55.3	+1.8
BILL				i *PP	pP	10 59 40.5	+2.4
BILL				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.5						
BILL	Bilibino	58.61	26	eP	P	10 58 54.8	+1.2
	comp=Z,15nm,1.1s,mb4.5						
BILL				e	pP	10 59 40.8	+2.7
SUMG	Summit	61.08	341	eP	P	10 59 11.5	+1.2
	comp=Z,20nm,1.0s,mb4.7						
TORD	Torodi Ar. Bea	65.74	269	P	P	10 59 39.3	-2.4
	comp=Z,13nm,0.4s,mb4.9,baz=51,slow=5.9,SNR=72						
RES	Resolute Bay	68.72	356	eP	P	11 00 00.0	+0.6
RES				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
RES	Resolute Bay	68.72	356	P	P	10 59 59.8	+0.4
	comp=Z,1.7nm,0.8s,mb3.7,baz=18,slow=5.5,SNR=7.4						
RES	Resolute Bay	68.72	356	eP	P	11 00 00.0	+0.6
	comp=Z,1.7nm,0.7s,mb3.8						
COLA	College	74.48	16	eP	P	11 00 34.6	+0.6
COLA				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.7						
COLA	College	74.48	16	eP	P	11 00 34.6	+0.6
	comp=Z,15nm,0.8s,mb4.7						
DBIC	Dimbokro	74.72	267	P	P	11 00 34.2	-1.9
	comp=Z,4.1nm,0.7s,mb4.2,baz=10.0,slow=5.0,SNR=5.1						
KIC	Kosan Boka	74.80	267	eP	P	11 00 35.4	-1.3
	comp=Z,47nm,1.1s,mb5.0						
TIC	Toumodi	74.86	267	eP	P	11 00 35.6	-1.4
	comp=Z,25nm,0.6s,mb5.0						
FITZ	Fitzroy Crossi	74.87	127	⇑iP	P	11 00 37.1	+0.3
	comp=Z,37nm,0.8s,mb5.1						
FITZ	Fitzroy Crossi	74.87	127	P	P	11 00 37.2	+0.4
	comp=Z,27nm,0.9s,mb4.9,baz=329,slow=5.1,SNR=20						
FITZ	Fitzroy Crossi	74.87	127	eP	P	11 00 37.2	+0.3
	comp=Z,23nm,0.8s,mb4.9						
LIC	Lamto	75.11	267	eP	P	11 00 35.4	-3.1
	comp=Z,5.1nm,0.4s,mb4.2						
LIC	Lamto	75.11	267	eP	P	11 00 36.9	-1.6
	comp=Z,29nm,1.3s,mb4.8						
KAKA	Kakadu	75.71	118	⇑iP	P	11 00 41.6	-0.1
	comp=Z,36nm,0.6s,mb5.2						
KAKA	Kakadu	75.71	118	eP	P	11 00 41.5	-0.2
	comp=Z,150nm,0.9s,mb5.6						
DAWY	Dawson	76.93	13	eP	P	11 00 48.6	+0.8
BOSA	Boshof	77.75	220	P	P	11 00 52.5	-0.3
	comp=Z,23nm,0.8s,mb4.8,baz=49,slow=8.1,SNR=33						
YKA	Yellowknife Ar	81.26	3	P	P	11 01 11.7	+0.4
YKA				*PP	pP	11 01 58.4	-0.4
YKA	Yellowknife Ar	81.26	3	P	P	11 01 11.7	+0.4
	comp=Z,4.1nm,0.5s,mb4.3,baz=351,slow=5.4,SNR=104						
YKA				pP	pP	11 01 58.4	-0.4
	comp=Z,5.0nm,0.7s,baz=350,slow=5.5,SNR=6.3						
YKA				PKKPbc	PKKPbc	11 19 42.7	-2.5
	comp=Z,0.3nm,0.6s,baz=170,slow=2.6,SNR=8.9						
YKA	Yellowknife Ar	81.26	3	P	P	11 01 11.7	+0.4
YKA				pP	pP	11 01 58.4	-0.4
YKA				PKKPbc	PKKPbc	11 19 42.7	-2.5
NWAO	Narrogin (SRO)	81.44	142	eP	P	11 01 11.7	-0.9
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.6s						
NWAO	Narrogin (SRO)	81.44	142	P	P	11 01 11.4	-1.3
	comp=Z,9.6nm,0.6s,mb4.6,baz=338,slow=4.9,SNR=9.1						
NWAO	Narrogin (SRO)	81.44	142	eP	P	11 01 11.7	-0.9
	comp=Z,7.6nm,0.6s,mb4.5						
WRA	Warramunga Arr	81.97	122	P	P	11 01 14.9	-0.7
	comp=Z,49nm,0.7s,mb5.2,baz=323,slow=5.0,SNR=146						
WRAB	Tennant Creek	81.97	122	eP	P	11 01 15.2	-0.5
WRAB				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.3						
WRAB	Tennant Creek	81.97	122	eP	P	11 01 15.2	-0.4
	comp=Z,60nm,0.8s,mb5.3						
SCHQ	Schefferville	82.12	337	P	P	11 01 16.0	+0.1
	comp=Z,3.0nm,0.8s,mb4.0,baz=11,slow=12,SNR=5.3						
SCHQ	Schefferville	82.12	337	P	P	11 01 16.0	+0.1
ASAR	Alice Springs	84.23	125	P	P	11 01 26.7	-0.5
	comp=Z,40nm,0.7s,mb5.3,baz=310,slow=5.0,SNR=441						
FCC	Fort Churchill	84.30	352	eP	P	11 01 26.5	-0.6
	comp=Z,0.2nm,0.9s						
FCC				epP	pP	11 02 13.1	-1.8
FORT	Forrest	85.64	134	eP	P	11 01 34.0	0.0
	comp=Z,61nm,0.7s,mb5.4						
FORT	Forrest	85.64	134	eP	P	11 01 34.0	0.0
	comp=Z,45nm,0.6s,mb5.4						
FFC	Flin Flon	88.95	356	i P	P	11 01 50.8	+1.1
FFC	Flin Flon	88.95	356	eP	P	11 01 50.4	+0.8
	comp=Z,9.1nm,1.1s,mb4.5						
CTA	Charters Tower	90.52	115	⇑iP	P	11 01 57.0	-0.4
	comp=Z,21nm,0.6s,mb5.2						
CTA	Charters Tower	90.52	115	P	P	11 01 57.2	-0.2
	comp=Z,25nm,0.6s,mb5.3,baz=316,slow=5.9						
CTA	Charters Tower	90.52	115	P	P	11 01 57.2	-0.3
CTAO	Charters Tower	90.52	115	eP	P	11 01 57.1	-0.3
CTAO				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
CTAO	Charters Tower	90.52	115	eP	P	11 01 57.1	-0.3
	comp=Z,29nm,0.8s,mb5.3						
EDM	Edmonton	90.58	3	eP	P	11 01 58.2	+0.9
ULM	Lac du Bonnet	92.86	352	P	P	11 02 06.7	-1.2
	comp=Z,3.6nm,0.8s,mb4.5,baz=2.5,slow=4.7,SNR=6.6						
STKA	Stephens Creek	94.77	126	eP	P	11 02 15.5	-1.2
	comp=Z,2.8nm,0.6s,mb4.6						
STKA	Stephens Creek	94.77	126	P	P	11 02 15.2	-1.6
	comp=Z,3.4nm,0.6s,mb4.7,baz=326,slow=5.7,SNR=9.8						
JCW	Jim Creek	94.91	9	eP	P	11 02 18.1	+0.8
JCW				epP	pP	11 03 04.1	-1.6
CMSA	Cobar Meteorol	97.25	124	eP	P	11 02 26.6	-1.4
NVAR	Mina Array Bea	104.96	8	PKKPbc	PKKPbc	11 18 44.1	+0.4
	comp=Z,0.4nm,0.8s,baz=196,slow=4.2,SNR=3.7						
TXAR	Lajitas Array	114.34	355	PKP	PKiKP	11 07 33.2	-1.0
	comp=Z,0.3nm,0.7s,baz=0.0,slow=2.5,SNR=3.6						
TXAR	Lajitas Array	114.34	355	PKP	PKiKP	11 07 33.2	-1.0
QSPA	South Pole Qui	126.28	180	ePKPdf	PKPdf	11 07 53.7	-1.7
ROSC	El Rosal	127.65	314	PKP	PKPdf	11 08 00.4	+0.3
	comp=Z,4.5nm,0.3s,baz=82,slow=19,SNR=4.4						
CPUP	Villa Florida	135.23	268	PKP	PKPdf	11 08 12.5	-1.5
	comp=Z,1.2nm,0.6s,baz=75,slow=5.6,SNR=4.6						
PLCA	Paso Flores	149.84	250	PKPbc	PKPbc	11 08 43.1	-1.0
	comp=Z,7.7nm,1.0s,baz=203,slow=4.1,SNR=8.7						

ISCJB ***20*** *10:52:11.4±0.6, 53°.02N±0°.04×160°.00E±0°.09, $h62^{km}\pm3^{km}$, mb4.2/24, Error ellipse: s-maj=10.4km s-min=3.5km az=35.3*

KRSC ***20*** *10:52:11.5±0.2, 53°.05N×160°.01E, $h44^{km}\pm23^{km}$, ML4.5*

MOS ***20*** *10:52:11.2±0.8, 53°.11N×159°.90E, $h60^{km}$, mb4.7/4, Error ellipse: s-maj=16.6km s-min=7.9km az=72.9*

NEIC ***20*** *10:52:13.2±1.0, 53°.16N×159°.82E, $h63^{km}\pm8^{km}$, mb4.5/4, Error ellipse: s-maj=12.7km s-min=9.3km az=135.0*

IDC ***20*** *10:52:15.3±1.5, 53°.17N×159°.82E, $h83^{km}\pm13^{km}$, mb3.7/15, mb1 3.9/16, mb1mx3.8/28, mbtmp3.7/16, Error ellipse: s-maj=23.3km s-min=16.1km az=170.0*

ISC 20 10:52:12.9±0.6, **53°.03N**±0°.05×**159°.9E**±0°.1, **$h61^{km}$**$\pm4^{km}$, **n75**, $\sigma 0^{s}.$**84**/90, **mb4.2**/24, **7C, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	0.09	41	i P	Pn	10 52 17.8	-4.1
NLC	Nalytchevo	0.38	292	i P	Pn	10 52 22.0	-1.6
NLC				i S	Sn	10 52 28.7	-2.8
PET	Petropavlovsk	0.77	270	⇑iPN	Pn	10 52 26.9	-1.0
PET				eS	Sn	10 52 40.0	+1.0
PET				pmax	pmax		
	comp=Z,1µm,0.6s						
PET				smax			
	comp=E,3µm,0.8s						
PET				smax			
	comp=N,2µm,0.7s						
PET				smax			
	comp=E,3µm,0.6s						
PET				smax			
	comp=N,2µm,0.7s						
PET	Petropavlovsk	0.77	270	eP	Pn	10 52 27.2	-0.7
PET				i S	Sn	10 52 38.4	-0.6
PET	Petropavlovsk	0.77	270	ePg	Pn	10 52 27.1	-0.8
PET				eSg	Sn	10 52 37.7	-1.3
RUS	Russkaya	1.05	236	eP	Pn	10 52 30.5	-1.0
RUS				i S	Sn	10 52 44.8	-0.5
PETK	Petropavlovsk-	1.35	274	P	Pn	10 52 36.0	+0.6
	comp=N,84nm,0.3s,baz=83,slow=19,SNR=3894						
PETK				S	Sn	10 52 55.2	+2.9
	comp=N,60nm,0.3s,baz=98,slow=39,SNR=9.9						
MKZ	Mys Kozlova	1.87	34	eP	Pn	10 52 41.0	-1.4
MIPR	Malaya Ipel'ka	2.07	250	eP	Pn	10 52 46.5	+1.3
TUMR	Tumrok	2.26	3	eP	Pn	10 52 47.6	-0.2
TUMR				i S	Sn	10 53 14.5	0.0
KMNR	Kamenistaya	2.74	4	eP	Pn	10 52 54.5	+0.2
KMNR				i S	Sn	10 53 26.7	+0.5
BZMR	Bezymyannaya	2.93	6	eP	Pn	10 52 57.8	+0.9
KIRR	Kirishev	2.94	5	eP	Pn	10 52 57.7	+0.7
KPT	Kopyto	2.95	3	eP	Pn	10 52 57.1	-0.1
KOZ	Kozyrevsk	3.04	359	eP	Pn	10 52 58.4	+0.1
ZLN	Zelenaya	3.04	9	eP	Pn	10 52 58.7	+0.3
ZLN				i S	Sn	10 53 33.4	-0.1
KOZR	Kozyr	3.04	360	PN	Pn	10 52 58.4	-0.1
CIRR	Tsirk	3.13	8	eP	Pn	10 53 00.0	+0.4
CIRR				i S	Sn	10 53 36.3	+0.6
KRSR	Krestovskiy	3.21	6	eP	Pn	10 53 00.6	-0.2
SRDR	Sredinnyy	3.30	358	eP	Pn	10 53 01.5	-0.4
KLY	Klyuchi	3.32	7	eP	Pn	10 53 02.4	+0.2
KLY				i S	Sn	10 53 40.1	-0.2
SKR	Severo-Kuril's	3.33	227	ePN	Pn	10 53 03.0	+0.6
SKR				eS	Sn	10 53 41.5	+0.8
SKR				smax			
	comp=N,240nm,0.6s						
SKR				smax			
	comp=E,100nm,0.6s						
SKR				smax			
	comp=Z,90nm,0.6s						

KBTR	Krutoberegovo	3.60	27	eP	Pn	10 53 05.6	-0.5
KBTR				i S	Sn	10 53 46.5	-0.8
BDR	Baidarnaya	3.62	11	eP	Pn	10 53 07.1	+0.7
BDR				i S	Sn	10 53 48.7	+0.9
SMKR	Semkarok	3.67	13	eP	Pn	10 53 07.8	+0.8
SMKR				i S	Sn	10 53 50.4	+1.4
SRKR	Sorokina	3.70	11	eP	Pn	10 53 08.0	+0.5
ASAJ	Asahikawa	14.50	239	P	Pn	10 55 35.2	+0.7
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	14.50	239	P	Pn	10 55 35.1	+0.6
	comp=Z,0.6nm,0.3s,baz=60,slow=12,SNR=7.3						
ERM	Erimo	15.76	232	i P	Pn	10 55 51.4	+0.6
ERM	Erimo	15.76	232	ePn	Pn	10 55 50.7	-0.1
HABR	Khabarovsk	16.35	264	eP	pP	10 56 13.5	+0.5
HABR				S	S	10 58 56.8	-11
HABR				MLR	MLR		
	comp=Z,5μm,15.0s						
MAJO	Matsushiro	22.43	231	eP	P	10 57 07.0	+0.7
MAJO				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.5						
MAJO	Matsushiro	22.43	231	eP	P	10 57 07.0	+0.7
	comp=Z,14nm,0.7s,mb4.5						
MAT	Matsushiro	22.43	231	P	P	10 57 06.9	+0.6
MJAR	Matsushiro Arr	22.43	231	P	P	10 57 07.4	+1.1
	comp=Z,6.1nm,0.6s,mb4.2,baz=19,slow=10,SNR=18						
YKA	Yellowknife Ar	43.28	42	P	P	11 00 07.3	-0.5
	comp=Z,0.9nm,0.9s,mb3.5,baz=297,slow=8.4,SNR=8.9						
YKA	Yellowknife Ar	43.28	42	P	P	11 00 07.3	-0.5
KURK	Kurchatov	47.68	302	P	P	11 00 41.7	-1.1
	comp=Z,2.0nm,0.5s,mb4.4,baz=60,slow=7.5,SNR=4.9						
BVAR	Borovoye Array	50.35	308	P	P	11 01 01.7	-1.4
	comp=Z,1.6nm,0.6s,mb4.3,baz=54,slow=7.3,SNR=4.2						
NVAR	Mina Array Bea	55.86	70	P	P	11 01 44.8	+0.9
	comp=Z,0.2nm,0.6s,mb3.4,baz=293,slow=7.8,SNR=2.7						
PDAR	Pinedale Array	57.64	61	P	P	11 01 56.6	+0.2
	comp=Z,0.7nm,0.8s,mb3.8,baz=296,slow=3.4,SNR=6.1						
NB2	NORSAR Subarra	63.58	344	P	P	11 02 35.1	-1.4
	comp=Z,0.5nm,0.4s,mb3.9,baz=23,slow=6.9						
NOA	NORSAR Array B	63.58	344	P	P	11 02 35.3	-1.2
	comp=Z,1.1nm,0.7s,mb4.0,baz=21,slow=6.5,SNR=4.9						
AKASG	Malin Array Be	68.62	329	P	P	11 03 07.1	-1.9
	comp=Z,0.6nm,0.3s,mb4.0,baz=28,slow=6.2,SNR=3.0						
TXAR	Lajitas Array	70.76	67	P	P	11 03 22.8	+0.3
	comp=Z,0.7nm,0.5s,mb3.8,baz=297,slow=4.7,SNR=11						
GERES	GERESS Array B	74.53	338	P	P	11 03 44.6	0.0
	comp=Z,0.8nm,0.5s,mb4.0,baz=27,slow=6.6,SNR=7.5						
BAIF	Baives	75.25	344	eP	P	11 03 48.2	-0.5
	comp=Z,5.1nm,0.6s,mb4.3						
BAIF	Baives	75.25	344	eP	P	11 03 48.2	-0.5
BAIF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
BAIF	Baives	75.25	344	eP	P	11 03 48.2	-0.5
	comp=Z,2.5nm,0.6s,mb4.3						
CDF	Champ du Feu	76.30	342	eP	P	11 03 54.4	-0.3
BRTR	Keskin Array B	76.61	320	P	P	11 03 56.6	0.0
	comp=Z,0.8nm,0.6s,mb3.9,baz=71,slow=1.9,SNR=3.9						
FLN	La Foliniere	77.23	347	eP	P	11 03 59.0	-0.9
LDF	La Druitiere	77.34	347	eP	P	11 03 59.5	-1.1
SGMF	Saint Gilles	78.00	348	eP	P	11 04 03.7	-0.5
	comp=Z,5.9nm,0.6s,mb4.4						
SGMF	Saint Gilles	78.00	348	eP	P	11 04 03.7	-0.5
SGMF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
SGMF	Saint Gilles	78.00	348	eP	P	11 04 03.7	-0.5
	comp=Z,3.0nm,0.6s,mb4.4						
ROSF	Rostrenen	78.01	349	eP	P	11 04 03.7	-0.6
LOR	Lormes	78.02	344	eP	P	11 04 03.9	-0.4
CABF	La Chapelle	78.25	342	eP	P	11 04 05.8	+0.2
SSF	Saint Saulge	78.28	344	eP	P	11 04 05.4	-0.4
AVF	Avril sur Loir	78.56	344	⇑iP	P	11 04 07.1	-0.3
	comp=Z,8.4nm,0.8s,mb4.4						
LPL	La Plagne	79.18	341	⇑iP	P	11 04 11.8	+1.0
	comp=Z,14nm,0.7s,mb4.7						
LPG	La Plagne	79.19	341	⇑iP	P	11 04 12.0	+1.2
	comp=Z,14nm,0.7s,mb4.7						
TCF	Toulx Ste Croi	79.24	344	eP	P	11 04 10.9	-0.2
	comp=Z,6.2nm,0.8s,mb4.3						
ASAR	Alice Springs	79.66	204	P	P	11 04 14.1	+0.6
	comp=Z,1.0nm,0.7s,mb3.8,baz=0.0,slow=6.0,SNR=3.6						
ORIF	Oris-en-Rattie	79.92	342	⇑iP	P	11 04 15.6	+0.8
	comp=Z,19nm,1.0s,mb4.7						
ORIF	Oris-en-Rattie	79.92	342	⇑iP	P	11 04 15.6	+0.8
ORIF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
ORIF	Oris-en-Rattie	79.92	342	⇑iP	P	11 04 15.6	+0.8
	comp=Z,9.4nm,1.0s,mb4.7						
MBDF	Montbardon	79.93	341	eP	P	11 04 14.6	-0.3
	comp=Z,6.2nm,0.6s,mb4.4						
CAF	Calviac	80.59	344	eP	P	11 04 19.0	+0.6
MMAI	Mount Meron Ar	81.69	316	P	P	11 04 24.2	-0.2
	comp=Z,1.7nm,0.5s,mb4.3,baz=39,slow=5.4,SNR=3.7						
MTLF	Montolieu	82.11	344	eP	P	11 04 26.9	+0.5
ETSF	Etsaut	82.98	346	eP	P	11 04 32.4	+1.4
EIL	Elat	84.77	314	P	P	11 04 39.1	-1.2
	comp=Z,6.0nm,0.8s,mb4.8,baz=27,slow=12,SNR=3.8						
ESDC	Sonseca Array	86.62	348	P	P	11 04 48.2	-1.1
	comp=Z,0.4nm,0.3s,mb4.1,baz=355,slow=3.4,SNR=5.6						

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*IDC **20** 10:58:07.6±1.6, 2°.52N×95°.66E, h0^{km}, mb4.0/8, mb1 4.1/10, mb1mx3.9/25, mbtmp4.0/10, ML3.8/2, Error ellipse: s-maj=53.4km s-min=18.3km az=52.0*
*DJA **20** 10:58:10, 2°.58N×95°.61E, h20^{km}, MLv4.1/4*
*ISCJB **20** 10:58:11.1±2.0, 2°.6N±0°.1×95°.7E±0°.1, h34^{km}±15^{km}, mb4.2/11, Error ellipse: s-maj=28.9km s-min=9.0km az=148.1*
*NEIC **20** 10:58:13.1±0.7, 2°.59N×95°.78E, h35^{km}, mb4.6/1, Error ellipse: s-maj=14.8km s-min=8.4km az=46.0*
ISC 20 10:58:12.4±4.4, **2°.6N**±0°.1×**95°.8E**±0°.1, **h30**^{km}±29^{km}, **n20, σ0^s.58**/21, **mb4.2**/11, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	2.23	125	P	Pn	10 58 46.9	-0.4
GSI				S	Sn	10 59 13.1	-0.7
BSI	Banda Aceh	2.93	351	P	Pn	10 58 55.5	-1.4
PSI	Prapat	3.18	86	Pn	Pn	10 59 00.6	+0.2
	4.2nm,0.3s,baz=306,slow=14,SNR=8.2						
PPI	Padang Panjang	5.54	123	P	Pn	10 59 33.9	+1.0
	28nm,1.5s,0.2nm						
KULM	Kulim	5.58	61	ePn	Pn	10 59 32.8	-0.6
	48nm,0.6s						
IPM	Ipoh	5.59	70	P	Pn	10 59 34.0	+0.4
CMAR	Chiang Mai Arr	16.08	11	Pn	Pn	11 01 57.6	+1.2
	0.3nm,0.3s,baz=193,slow=12,SNR=12						
GTA	Gaotai	36.84	5	eP	P	11 05 17.5	-0.4
GTA				pP	pP	11 05 24.0	-2.7
GTA				sP	sP	11 05 27.3	-3.0
GTA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
BJI	Beijing	41.63	24	P	P	11 05 58.5	+0.6
BJI				pmax	pmax		
	comp=Z,23nm,0.7s,mb4.9						
WRA	Warramunga Arr	44.00	122	P	P	11 06 17.3	-0.1
	comp=Z,0.8nm,0.6s,mb3.7,baz=299,slow=9.3,SNR=6.2						
WRAB	Tennant Creek	44.00	122	eP	P	11 06 17.7	+0.2
	comp=Z,18nm,1.5s,mb4.6						
ASAR	Alice Springs	45.38	127	P	P	11 06 28.5	0.0
	comp=Z,0.4nm,0.6s,mb3.4,baz=298,slow=7.9,SNR=3.2						
MKAR	Makanchi Array	45.56	347	P	P	11 06 29.7	+0.2
	comp=Z,1.8nm,0.6s,mb4.2,baz=158,slow=8.9,SNR=30						
SONM	Songino Array	46.00	10	P	P	11 06 32.7	-0.3
	comp=Z,2.3nm,0.7s,mb4.2,baz=189,slow=9.3,SNR=9.9						
KURK	Kurchatov	50.09	346	P	P	11 07 04.2	-0.3
	comp=Z,1.4nm,0.8s,mb4.1,baz=166,slow=6.8,SNR=7.4						
KURK	Kurchatov	50.09	346	P	P	11 07 04.2	-0.3
ZALV	Zalesovo Beam	51.98	352	P	P	11 07 18.7	0.0
	comp=Z,2.6nm,0.6s,mb4.3,baz=180,slow=6.5,SNR=12						
ZALV	Zalesovo Beam	51.98	352	P	P	11 07 18.7	0.0
BVAR	Borovoye Array	54.48	341	P	P	11 07 37.1	+0.1
	comp=Z,1.0nm,0.7s,mb3.9,baz=139,slow=9.6,SNR=4.5						
ARCES	ARCESS Array B	80.75	340	P	P	11 10 22.9	+0.3
	comp=Z,1.7nm,0.8s,mb4.0,baz=91,slow=6.1,SNR=5.1						

IDC 20 11:09:07.5±4.5, **4°.98S**×**148°.35E, h0**^{km}, **mb3.4**/3, **mb1 3.7**/3, **mb1mx3.4**/16, **mbtmp3.5**/3, **Error ellipse: s-maj=163.0km s-min=46.6km az=114.0, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.18	221	P	P	11 13 44.0	+0.1
	0.4nm,0.3s,baz=47,slow=12,SNR=9.4						
ASAR	Alice Springs	23.22	215	P	P	11 14 16.4	0.0
	0.5nm,0.6s,baz=46,slow=8.1,SNR=8.7						
FITZ	Fitzroy Crossi	25.75	238	P	P	11 14 39.8	-0.3
	1.7nm,0.5s,baz=59,slow=5.9,SNR=4.4						
TORD	Torodi Ar. Bea	146.12	286	PKPbc	PKPbc	11 28 50.2	-0.6
	0.1nm,0.4s,baz=68,slow=1.7,SNR=3.2						

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*CSEM **20** 11:29:39.0, 35°.69N×0°.92W, h0^{km}, mb3.6/6, After MDD*
MDD 20 11:29:39.0±3.9, **35°.69N**×**0°.92W, h0**^{km}, **mb3.6**/6, **Error ellipse: s-maj=46.3km s-min=13.8km az=151.0, PRIMO, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EALB	Alboran	1.74	279	P	Pn	11 30 09.3	-1.2
	14nm,0.1s,SNR=7.9						
EALB	Alboran	1.74	279	P	Pn	11 30 09.3	-1.2
	14nm,0.1s,SNR=7.9						
EBER	Berja	2.00	308	P	Pn	11 30 12.2	-1.8
	1.5nm,0.2s,SNR=6.9						
EBER	Berja	2.00	308	P	Pn	11 30 12.2	-1.8
	1.5nm,0.2s,SNR=6.9						
EGUA	Guajares	2.43	299	P	Pn	11 30 17.4	-2.5
	4.0nm,0.2s,SNR=7.9						
EGUA	Guajares	2.43	299	P	Pn	11 30 17.4	-2.5
	4.0nm,0.2s,SNR=7.9						
EHUE	Huescar	2.51	328	P	Pn	11 30 18.6	-2.5
	0.5nm,0.2s,SNR=7.9						
EHUE	Huescar	2.51	328	P	Pn	11 30 18.6	-2.5
	0.5nm,0.2s,SNR=7.9						
EQUE	Quentar	2.54	307	P	Pn	11 30 20.8	-0.6
	0.8nm,0.1s,SNR=7.9						
EQUE	Quentar	2.54	307	P	Pn	11 30 20.8	-0.6
	0.8nm,0.1s,SNR=7.9						
ERON	Agron	2.68	300	P	Pn	11 30 22.9	-0.6
	8.0nm,0.4s,SNR=7.9						
ERON	Agron	2.68	300	P	Pn	11 30 22.9	-0.6
	8.0nm,0.4s,SNR=7.9						
EQES	Quesada	2.73	321	P	Pn	11 30 23.8	-0.3
	3.7nm,0.1s,SNR=7.9						
EQES	Quesada	2.73	321	P	Pn	11 30 23.8	-0.3
	3.7nm,0.1s,SNR=7.9						
ETOB	Tobarra	2.99	350	P	Pn	11 30 26.6	-1.1
	2.1nm,0.2s,SNR=9.6						
ETOB	Tobarra	2.99	350	P	Pn	11 30 26.6	-1.1
	2.1nm,0.2s,SNR=9.6						
EBEN	Beniarda	3.06	10	P	Pn	11 30 27.0	-1.6
	1.2nm,0.3s,SNR=7.9						
EBEN	Beniarda	3.06	10	P	Pn	11 30 27.0	-1.6
	1.2nm,0.3s,SNR=7.9						
EVIA	Vianos	3.21	337	P	Pn	11 30 30.8	+0.1
	SNR=7.9						
EVIA	Vianos	3.21	337	P	Pn	11 30 30.8	+0.2
	SNR=7.9						
EIBI	Ibiza	3.79	28	P	Pn	11 30 37.6	-1.0
	3.7nm,0.4s,SNR=7.9						
EIBI	Ibiza	3.79	28	P	Pn	11 30 37.6	-1.0
	3.7nm,0.4s,SNR=7.9						

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*IDC **20** 11:39:27.1±1.0, 8°.44S×128°.63E, h0^{km}, mb3.8/4, mb1 4.2/7, mb1mx4.0/17, mbtmp4.0/7, ML4.2/3, Error ellipse: s-maj=53.9km s-min=20.5km az=66.0*
*ISCJB **20** 11:39:29.4±0.6, 8°.66S±0°.05×128°.38E±0°.07, h33^{km}, mb4.0/7, Error ellipse: s-maj=10.1km s-min=6.2km az=157.5*
*NEIC **20** 11:39:30.9±0.6, 8°.53S×128°.61E, h25^{km}, mb4.4/2, Error ellipse: s-maj=25.9km s-min=9.6km az=65.0*
ISC 20 11:39:31.9±0.6, **8°.59S**±0°.06×**128°.46E**±0°.10, **h35**^{km}, **n21, σ1^s.17**/25, **mb4.0**/7, **Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.66	137	eP	Pn	11 40 55.0	+1.4
	39nm,0.4s						
KAKA				eS	Sn	11 41 59.6	+2.2
KAKA	Kakadu	5.66	137	ePn	Pn	11 40 52.4	-1.1
	157nm,0.5s						
KAKA				eSn	Sn	11 41 58.8	+1.4
FITZ	Fitzroy Crossi	9.84	196	eP	Pn	11 41 54.6	+3.7
	12nm,0.4s						
FITZ				eS	Sn	11 43 40.5	+0.3
FITZ	Fitzroy Crossi	9.84	196	Pn	Pn	11 41 53.4	+2.5
	1.0nm,0.3s,baz=34,slow=12,SNR=23						
FITZ				Sn	Sn	11 43 40.9	+0.6
	3.2nm,0.3s,baz=106,slow=16,SNR=6.0						
WRAB	Tennant Creek	12.63	154	ePn	Pn	11 42 29.0	-0.1
	31nm,1.0s						
WRAB				eSn	Sn	11 44 42.2	-6.5
WRA	Warramunga Arr	12.64	154	Pn	Pn	11 42 27.7	-1.5
	1.8nm,0.3s,baz=324,slow=12,SNR=69						
WRA				Sn	Sn	11 44 42.5	-6.2
	3.8nm,0.3s,baz=331,slow=23,SNR=9.9						
ASAR	Alice Springs	15.87	161	Pn	Pn	11 43 11.1	-1.6
	0.7nm,0.3s,baz=331,slow=9.2,SNR=43						
ASAR				Sn	Sn	11 46 03.9	-3.6
	1.7nm,0.3s,baz=317,slow=16,SNR=9.0						
CTA	Charters Tower	20.66	125	eP	P	11 44 11.1	+2.4
	5.9nm,0.8s						
CTA	Charters Tower	20.66	125	P	P	11 44 08.8	+0.1
	8.7nm,0.9s,baz=329,slow=5.9,SNR=3.7						
FORT	Forrest	22.08	181	eP	P	11 44 29.4	+5.5
	37nm,1.1s,mb4.7						
STKA	Stephens Creek	26.19	154	eP	P	11 45 09.2	+5.9
	5.5nm,1.1s,mb4.0						
STKA	Stephens Creek	26.19	154	P	P	11 45 07.8	+4.6
	2.6nm,0.7s,mb3.9,baz=314,slow=8.0,SNR=4.3						
STKA	Stephens Creek	26.19	154	P	P	11 45 07.8	+4.6
SONM	Songino Array	59.48	343	P	P	11 49 31.6	+0.4
	0.3nm,0.6s,mb3.5,baz=116,slow=6.6,SNR=2.1						
MKAR	Makanchi Array	68.73	328	P	P	11 50 32.6	+0.6
	0.5nm,0.5s,mb3.7,baz=117,slow=8.4,SNR=6.2						
ZALV	Zalesovo Beam	72.34	335	P	P	11 50 53.3	-0.6
	0.9nm,0.5s,mb3.9,baz=126,slow=4.0,SNR=4.6						
KURK	Kurchatov	73.09	329	eP	P	11 50 58.1	-0.3
	5.1nm,1.1s,mb4.4						
BRVK	Borovoye	78.67	328	eP	P	11 51 30.2	-0.1
	3.1nm,1.0s,mb4.2						
TORD	Torodi Ar. Bea	127.60	280	PKP	PKPdf	11 58 35.7	+1.4
	0.3nm,0.5s,baz=78,slow=2.5,SNR=3.7						
SCHQ	Schefferville	132.30	12	PKP	PKPdf	11 58 45.4	+3.3
	3.5nm,1.0s,baz=9.5,slow=6.1,SNR=3.0						
CPUP	Villa Florida	144.83	171	PKP	PKPdf	11 59 07.5	+1.5
	1.0nm,0.5s,baz=192,slow=5.3,SNR=7.2						

ISC 20 11:47:34.5±0.6, **49°.83N**±0°.04×**17°.89E**±0°.05, **h0**^{km}, **n8, σ0^s.88**/13, **Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	1.29	72	ePg	Pg	11 47 58.6	-0.6
OJC				eSg	Sg	11 48 15.8	-0.1
KSP	Ksiaz	1.44	315	ePg	Pg	11 48 01.7	-0.4
KSP				eSg	Sg	11 48 22.2	+1.5
VYHS	Vyhne	1.48	155	ePN	Pn	11 48 01.7	-0.6
VYHS				eSN	Sn	11 48 21.0	-1.2
MODS	Modra-Piesok	1.52	196	ePN	Pn	11 48 03.0	+0.2
MODS				eSN	Sn	11 48 24.0	+0.8
ZST	Bratislava	1.72	198	eSN	Sn	11 48 28.2	0.0
KECS	Kecovo	2.17	127	eSN	Sn	11 48 41.0	+1.6
STHS	Stebnicka Huta	2.22	100	ePN	Pn	11 48 18.7	+6.2
STHS				eSN	Sn	11 48 46.6	+6.0
BRG	Berggiesshubel	2.74	294	SG	Sg	11 49 01.3	-1.0
	3.8nm,0.5s						

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*NEIC **20** 11:48:00.3, 16°.48N×99°.34W, h26^{km}, MD3.8(MEX), After MEX.*
MEX 20 11:48:00.4±0.8, **16°.48N**×**99°.33W, h21**^{km}±34^{km}, **MD3.8, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.68	304	i P	Pb	11 48 11.1	-2.4
ACX				i S	Sb	11 48 19.1	-3.4
CAIG	El Cayaco	1.05	302	i P	Pn	11 48 17.4	-2.5
CAIG				i S	Sb	11 48 30.6	-2.8
PNIG	Pinotepa	1.16	94	i P	Pn	11 48 18.5	-2.9
PNIG				i S	Sb	11 48 32.1	-4.4
MEIG	Mezcala	1.46	349	i P	Pn	11 48 23.4	-2.1
MEIG				i S	Sn	11 48 40.0	-3.9
PLIG	Platanillo	1.91	355	i P	Pn	11 48 29.1	-2.5
PLIG				i S	Sn	11 48 51.9	-3.1
UTMO	Huajuapan	1.98	47	i P	Pn	11 48 30.1	-2.6
UTMO				i S	Sn	11 48 54.0	-2.9
VHO	Vista Hermosa	2.56	76	eP	Pn	11 48 38.6	-2.0
VHO				i S	Sn	11 49 08.0	-3.2
VHO	Vista Hermosa	2.56	76	eP	Pn	11 48 38.6	-2.0
VHO				i S	Sn	11 49 05.3	-5.8
PPM	Popocatepetl	2.66	15	eP	Pn	11 48 39.6	-2.4
PPM				i S	Sn	11 49 10.2	-3.3
MZVM		2.69	2	eP	Pn	11 48 39.5	-3.0
MZVM				i S	Sn	11 49 10.9	-3.5
TPIG	Tehuac#an	2.69	44	eP	Pn	11 48 40.6	-1.9
TPIG				i S	Sn	11 49 11.7	-2.8
IIO	Organos	3.15	11	eP	Pn	11 48 46.5	-2.2
IIO				i S	Sn	11 49 22.3	-3.3
HUIG	Huatulco	3.18	102	eP	Pn	11 48 46.9	-2.3
HUIG				i S	Sn	11 49 22.8	-3.7
CMIG	Matias Romero	4.30	81	eP	Pn	11 49 08.6	+3.9
CMIG				i S	Sn	11 49 53.7	-0.6

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*BJI **20** 11:51:05.3, 10°.49S×162°.33E, h90^{km}, mB5.4/8, mb4.9/27, Ms5.2/13, Ms7 5.0/13*
*MOS **20** 11:51:09.8±0.6, 10°.09S×161°.29E, h82^{km}, mb4.8/10, Error ellipse: s-maj=15.6km s-min=11.9km az=87.9*
*ISCJB **20** 11:51:11.4±0.2, 10°.12S±0°.04×161°.24E±0°.04, h87^{km}, mb4.7/46, Error ellipse: s-maj=6.3km s-min=4.8km az=147.3*
*NEIC **20** 11:51:11.6±0.3, 10°.10S×161°.44E, mb5.0/14, Error ellipse: s-maj=9.8km s-min=6.9km az=121.0*
*IDC **20** 11:51:11.0±0.6, 10°.16S×161°.51E, h83^{km}±4^{km}, mb4.3/17, mb1 4.4/17, mb1mx4.4/19, mbtmp4.3/17, MS4.2/1, Ms1 4.2/1, ms1mx3.4/38, Error ellipse: s-maj=12.7km s-min=8.9km az=29.0*
ISC 20 11:51:13.1±0.2, **10°.12S**±0°.04×**161°.32E**±0°.03, **h89**^{km}, **h89**^{km}±2.3^{km}**:pP-P, n301, σ0^s.60**/290, **mb4.7**/46, **109C-92D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	1.51	297	P	Pn	11 51 39.7	+0.7
	286nm,0.3s,baz=155,slow=6.5,SNR=118						
HNR				S	Sn	11 52 01.2	+2.6
	2μm,0.3s,baz=163,slow=19,SNR=27						
HNR	Honiara	1.51	297	ePn	Pn	11 51 39.8	+0.7
HNR				eSn	Sn	11 52 01.9	+3.2
NOUC	Port Laguerre	12.84	159	eP	Pn	11 54 13.6	+1.4
DZM	Mont Dzumac	12.86	158	eP	Pn	11 54 18.7	+6.1
DZM				eS	Sn	11 56 24.9	-9.0
DZM	Mont Dzumac	12.86	158	ePn	Pn	11 54 12.4	-0.2
DZM				eSn	Sn	11 56 29.9	-4.1
CTA	Charters Tower	17.58	234	⇑iP	Pn	11 55 15.2	+2.7
	16nm,0.5s						
CTA	Charters Tower	17.58	234	P	Pn	11 55 15.2	+2.7
	4.1nm,0.3s,baz=62,slow=12,SNR=43						
CTAO	Charters Tower	17.58	234	eP	Pn	11 55 15.3	+2.8
CTAO				pmax	pmax		
	comp=Z,126nm,1.6s						
CTAO	Charters Tower	17.58	234	eP	Pn	11 55 15.3	+2.8
	comp=Z,126nm,1.6s						
EIDS	Eidsvold	18.01	211	ePn	Pn	11 55 18.1	+0.5
	comp=Z,37nm,0.8s						
COEN	Coen	18.14	256	ePn	Pn	11 55 20.8	+1.4
	comp=Z,409nm,1.2s						
ARMA	Armidale	22.12	203	⇑iP	P	11 56 00.8	-0.5
ARMA	Armidale	22.12	203	eP	P	11 56 01.2	-0.1
CNB	Canberra Magne	27.34	202	eP	P	11 56 50.9	+1.2
CAN	Canberra	27.48	202	eP	P	11 56 51.2	+0.2
CAN				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.2						
CAN	Canberra	27.48	202	eP	P	11 56 51.2	+0.2
	comp=Z,4.8nm,0.6s,mb4.2						
WRAB	Tennant Creek	27.77	246	P	P	11 56 53.9	+0.1
	comp=Z,166nm,0.6s,mb5.7,SNR=20						
WRAB	Tennant Creek	27.77	246	eP	P	11 56 53.3	-0.5
WRAB				e*PP	pP	11 57 15.3	+1.3
WRAB				pmax	pmax		
	comp=Z,142nm,1.9s,mb5.2						
WRAB	Tennant Creek	27.77	246	eP	P	11 56 53.3	-0.4
	comp=Z,142nm,1.9s,mb5.2						
WRAB				epP	pP	11 57 15.3	+1.2
WRA	Warramunga Arr	27.78	246	P	P	11 56 53.4	-0.4
	comp=Z,14nm,0.6s,mb4.6,baz=76,slow=8.9,SNR=90						
WRA				pP	pP	11 57 14.1	-0.1
	comp=Z,4.7nm,0.5s,baz=74,slow=9.0,SNR=5.3						
WRA				PcP	PcP	12 00 06.7	-1.7
	comp=Z,0.9nm,0.6s,baz=83,slow=2.7,SNR=4.7						
STKA	Stephens Creek	28.32	217	eP	P	11 56 58.9	+0.4
	comp=Z,6.7nm,0.6s,mb4.3						
STKA	Stephens Creek	28.32	217	P	P	11 56 58.7	+0.2
	comp=Z,7.6nm,0.6s,mb4.4,baz=51,slow=13,SNR=19						
KAKA	Kakadu	28.41	262	eP	P	11 56 58.7	-0.8
ASAR	Alice Springs	29.41	239	P	P	11 57 07.0	-1.2
	comp=Z,6.8nm,0.8s,mb4.3,baz=62,slow=9.6,SNR=62						
ASAR				PcP	PcP	12 00 10.8	-1.5
	comp=Z,1.2nm,0.9s,baz=65,slow=3.3,SNR=4.3						
TOO	Toolangi	30.83	205	eP	P	11 57 20.6	0.0
URZ	Urewera	31.40	156	P	P	11 57 23.9	-1.8
	comp=Z,5.3nm,0.7s,mb4.4,baz=300,slow=14,SNR=5.0						
URZ				LR	LR	12 06 43.2	
	comp=Z,413nm,18.3s,baz=44,slow=30						
RPZ	Rata Peaks	34.52	168	P	P	11 57 51.1	-1.6
	comp=Z,4.9nm,0.5s,mb4.6,baz=18,slow=2.8,SNR=4.4						
FITZ	Fitzroy Crossi	35.45	253	eP	P	11 57 59.9	-1.2
	comp=Z,29nm,0.9s,mb5.1						
FITZ	Fitzroy Crossi	35.45	253	eP	P	11 58 00.0	-1.1
	comp=Z,15nm,0.8s,mb4.9						
FITZ				epP	pP	11 58 23.0	+1.2
FORT	Forrest	37.10	231	eP	P	11 58 16.5	+1.4
	comp=Z,16nm,0.8s,mb5.0						
FORT	Forrest	37.10	231	eP	P	11 58 15.5	+0.4
	comp=Z,22nm,0.9s,mb5.1						
NWAO	Narrogin (SRO)	46.42	234	P	P	11 59 30.1	-1.0
	comp=Z,11nm,0.7s,mb4.7,baz=54,slow=2.2,SNR=5.6						
MUN	Mundaring	46.95	235	eP	P	11 59 35.1	-0.1
TIAR	Tiarei	48.36	104	eP	P	11 59 46.6	+0.3
	comp=Z,21nm,0.8s,mb5.0						
PMOR	Pomariorio Ree	49.73	101	eP	P	11 59 56.3	-0.4
	comp=Z,21nm,0.9s,mb5.1						
VAH	Vaihoa	49.98	101	eP	P	11 59 57.8	-0.9
	comp=Z,43nm,1.3s,mb5.2						
MJAR	Matsushiro Arr	51.25	336	P	P	12 00 06.8	-1.0
	comp=Z,2.8nm,0.6s,mb4.5,baz=166,slow=8.6,SNR=6.6						
MAT	Matsushiro	51.26	336	P	P	12 00 06.8	-1.0
KSRS	Korea Array	56.73	328	P	P	12 00 47.5	-0.3
	comp=Z,5.6nm,1.0s,mb4.5,baz=136,slow=7.3,SNR=13						
NJ2	Nanjing	58.36	318	eP	P	12 01 01.6	+2.4
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
MDJ	Mudanjiang	61.58	335	P	P	12 01 21.4	+0.4
MDJ				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
CN2	Changchun	62.78	332	eP	P	12 01 28.9	-0.2
CN2				epP	pP	12 01 52.4	+0.7
CN2				eS	S	12 09 49.3	-1.9
CN2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
PETK	Petropavlovsk-	63.05	358	P	P	12 01 30.3	-0.3
	comp=Z,2.6nm,0.7s,mb4.2,baz=165,slow=6.2,SNR=3.6						
PETK				pP	pP	12 01 50.2	-3.0
	comp=Z,5.4nm,0.9s,baz=201,slow=7.8,SNR=3.4						
GYA	Guiyang	64.32	306	P	P	12 01 41.0	+1.4
GYA				pP	pP	12 02 07.8	+5.6
GYA				sP	sP	12 02 14.4	+2.3
GYA				PP	PP	12 04 05.3	+3.1
GYA				ScP		12 06 06.8	
GYA				PcS		12 06 16.3	
GYA				S	S	12 10 10.3	-0.7
GYA				sS	sS	12 10 53.0	+3.3
GYA				SKS		12 11 21.6	
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
GYA				pmax	pmax		
	comp=Z,120nm,5.0s						
GYA				LR	LR		
	comp=N,560nm,18.2s						
GYA				LR	LR		
	comp=E,480nm,19.0s						
GYA				LR	LR		
	comp=Z,530nm,18.6s						
KLR	Kul’dur	64.56	339	eP	P	12 01 35.2	-5.4
XAN	Xi’an	66.32	314	P	P	12 01 51.5	-0.8
XAN				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						

KMI	**Kunming**	**66.94**	**303**	P	**P**	**12 01 59.6**	**+3.1**
KMI				pP	pP	12 02 23.9	+4.6
KMI				sP	sP	12 02 34.6	+5.5
KMI				PP	PP	12 04 31.0	+5.8
KMI				S	S	12 10 41.9	-1.1
KMI				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.7						
KMI				pmax	pmax		
	comp=Z,260nm,12.8s						
KMI				LR	LR		
	comp=N,440nm,14.9s						
KMI				LR	LR		
	comp=E,670nm,15.4s						
KMI				LR	LR		
	comp=Z,690nm,16.4s						
VNDA	**Vanda**	**67.38**	**180**	P	**P**	**12 01 57.5**	**-0.9**
	comp=Z,6.3nm,0.8s,mb4.5,baz=310,slow=4.0,SNR=6.7						
CMAR	**Chiang Mai Arr**	**67.76**	**295**	P	**P**	**12 02 01.1**	**-0.6**
	comp=Z,2.0nm,0.7s,mb4.1,baz=124,slow=5.0,SNR=8.6						
CMAR				pP	pP	12 02 21.8	-2.8
	comp=Z,0.9nm,0.4s,baz=124,slow=4.7,SNR=2.6						
HHC	**Hu-ho-hao-te**	**68.35**	**321**	*e*P	**P**	**12 02 06.0**	**+1.0**
HHC				pP	pP	12 02 30.5	+2.6
HHC				sP	sP	12 02 41.8	+4.1
HHC				PP	PP	12 04 40.0	+2.9
HHC				*e*S	S	12 10 58.6	-0.7
HHC				sS	sS	12 11 40.0	+1.6
HHC				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.1						
HHC				pmax	pmax		
	comp=Z,620nm,8.0s						
HHC				LR	LR		
	comp=N,300nm,15.5s						
HHC				LR	LR		
	comp=E,320nm,16.7s						
HHC				LR	LR		
	comp=Z,830nm,16.6s						
CD2	**Chengdu**	**68.61**	**309**	P	**P**	**12 02 07.9**	**+1.1**
CD2				pP	pP	12 02 32.8	+3.1
CD2				sP	sP	12 02 43.8	+4.3
CD2				PP	PP	12 04 43.3	+3.8
CD2				S	S	12 11 02.3	-0.4
CD2				sS	sS	12 11 44.8	+3.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.9						
CD2				LR	LR		
	comp=N,790nm,16.0s						
CD2				LR	LR		
	comp=Z,870nm,17.2s						
HIA	**Hailar**	**69.47**	**332**	*e*P	**P**	**12 02 11.6**	**-0.2**
HIA				pmax	pmax		
	comp=Z,25nm,1.2s						
HIA	**Hailar**	**69.47**	**332**	*e*P	**P**	**12 02 11.6**	**-0.2**
	comp=Z,25nm,1.2s,mb4.9						
LZH	**Lanzhou**	**70.94**	**314**	*e*P	**P**	**12 02 23.4**	**+2.3**
LZH				pP	pP	12 02 49.5	+5.4
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
LZH				pmax	pmax		
	comp=Z,54nm,4.3s						
SEY	**Seymchan**	**73.16**	**356**	⇑*e*P	**P**	**12 02 32.1**	**-1.6**
CLNS	**Chul'man**	**73.17**	**340**	*e*P	**P**	**12 02 32.8**	**-1.1**
CLNS				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=N,4.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
ULN	**Ulaanbaatar**	**75.04**	**326**	*e*P	**P**	**12 02 45.5**	**+0.5**
ULN				*e**PP	pP	12 03 09.2	+1.0
GTA	**Gaotai**	**75.31**	**315**	*e*P	**P**	**12 02 47.0**	**+0.3**
GTA				pP	pP	12 03 10.8	+0.8
GTA				sP	sP	12 03 21.5	+1.8
GTA				SKS		12 12 42.3	
GTA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
GTA				LR	LR		
	comp=N,420nm,18.7s						
GTA				LR	LR		
	comp=E,410nm,16.9s						
GTA				LR	LR		
	comp=Z,540nm,17.8s						
SONM	**Songino Array**	**75.39**	**325**	P	**P**	**12 02 47.0**	**+0.1**
	comp=Z,15nm,0.8s,mb4.8,baz=141,slow=5.7,SNR=59						
SONM				pP	pP	12 03 09.2	-1.0
	comp=Z,5.5nm,0.7s,baz=133,slow=5.4,SNR=5.4						
YAK	**Yakutsk**	**76.04**	**345**	*e*P	**P**	**12 02 49.1**	**-1.3**
YAK				*e*	pP	12 03 12.8	-0.8
YAK				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.3s						
YAK	**Yakutsk**	**76.04**	**345**	*e*P	**P**	**12 02 49.9**	**-0.4**
	comp=E,9.6nm,0.6s,mb4.7						
BOD	**Bodaibo**	**77.89**	**336**	*e*P	**P**	**12 02 59.6**	**-1.2**
BOD				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
BILL	**Bilibino**	**78.04**	**2**	⇑*i*P	**P**	**12 03 00.7**	**-0.8**
BILL				*e*		12 03 09.5	
BILL				*i*	pP	12 03 21.7	-3.1
BILL				pmax	pmax		
	comp=Z,22nm,1.2s,mb4.8						
BILL	**Bilibino**	**78.04**	**2**	*e*P	**P**	**12 03 01.0**	**-0.4**
	comp=Z,19nm,1.1s,mb4.8						
ZAK	**Zakamensk**	**78.48**	**326**	⇑*i*P	**P**	**12 03 03.9**	**-0.4**
ZAK				*e*	pP	12 03 24.1	-3.6
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
SVW2	**Sparrevohn**	**78.66**	**20**	*e*P	**P**	**12 03 05.7**	**+0.7**
TLY	**Talaya**	**78.97**	**328**	*e*P	**P**	**12 03 06.3**	**-0.7**
TLY				*e*	pP	12 03 26.6	-3.8
TLY				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
QSPA	**South Pole Qui**	**79.88**	**180**	*e*P	**P**	**12 03 10.4**	**-1.1**
	comp=Z,19nm,0.7s,mb5.0						
MCK	**McKinley**	**82.72**	**20**	*e*P	**P**	**12 03 25.9**	**-0.7**
COLA	**College**	**83.82**	**19**	*e*P	**P**	**12 03 31.1**	**-1.2**
COLA				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
COLA	**College**	**83.82**	**19**	*e*P	**P**	**12 03 31.1**	**-1.2**
	comp=Z,18nm,0.8s,mb4.9						
TIXI	**Tiksi**	**84.40**	**350**	⇑*e*P	**P**	**12 03 33.4**	**-1.7**
TIXI				pmax	pmax		
	comp=Z,16nm,1.8s,mb4.5						
TIXI	**Tiksi**	**84.40**	**350**	*e*P	**P**	**12 03 33.8**	**-1.2**
WMQ	**Urumqi**	**85.38**	**316**	*e*P	**P**	**12 03 40.0**	**-0.6**
EGAK	**Eagle**	**86.06**	**21**	*e*P	**P**	**12 03 43.2**	**-0.2**
DAWY	**Dawson**	**86.31**	**22**	*e*P	**P**	**12 03 45.0**	**+0.2**
ARVC	**Arvin**	**87.58**	**54**	⇓P	**P**	**12 03 52.1**	**+0.5**
	baz=88						
BEKR	**Beckwourth**	**87.60**	**49**	⇑P	**P**	**12 03 51.8**	**+0.3**
	baz=88						
F04A	**Amboy**	**87.81**	**43**	⇑P	**P**	**12 03 52.7**	**+0.3**
	baz=88						
WCN	**Washoe City**	**87.90**	**50**	⇑P	**P**	**12 03 53.0**	**0.0**
	baz=88						
R06C	**Coleville**	**87.94**	**50**	⇑P	**P**	**12 03 53.3**	**+0.1**
	baz=88						
K05A	**Summer Lake**	**87.97**	**46**	⇓P	**P**	**12 03 53.7**	**+0.5**
	baz=88						
MWC	**Mount Wilson**	**87.99**	**55**	*e*P	**P**	**12 03 52.9**	**-0.6**
EDW2	**Edwards Air Fo**	**88.19**	**54**	⇑P	**P**	**12 03 54.3**	**-0.2**
	baz=88						
N06A	**Buffalo Meadow**	**88.22**	**48**	⇑P	**P**	**12 03 54.6**	**+0.1**
	baz=88						
CWC	**Cottonwood Cre**	**88.49**	**53**	⇓P	**P**	**12 03 56.0**	**+0.1**
	baz=88						
J06A	**Christmas Vall**	**88.63**	**46**	⇑P	**P**	**12 03 56.4**	**+0.1**
	baz=89						
I06A	**Prineville**	**88.77**	**45**	⇑P	**P**	**12 03 57.4**	**+0.3**
	baz=89						
NVAR	**Mina Array Bea**	**88.79**	**51**	P	**P**	**12 03 56.9**	**-0.3**
	comp=Z,3.5nm,0.9s,mb4.4,baz=234,slow=6.4,SNR=20						
NVAR				pP	pP	12 04 18.4	-2.7
	comp=Z,0.8nm,0.7s,baz=241,slow=6.4,SNR=3.5						
N07B	**Gerlach**	**88.86**	**48**	⇑P	**P**	**12 03 57.9**	**+0.4**
	baz=89						
M07A	**Soldier Meadow**	**88.86**	**48**	⇑P	**P**	**12 03 57.9**	**+0.4**
	baz=89						
MPMC	**Manual Prospec**	**88.86**	**53**	⇓P	**P**	**12 03 58.0**	**+0.4**
	baz=89,SNR=7.9						
H06A	**Lindquist Farm**	**88.90**	**44**	⇓P	**P**	**12 03 57.4**	**-0.1**
	baz=89						
L07A	**Adell**	**88.90**	**47**	⇓P	**P**	**12 03 58.0**	**+0.4**
	baz=89						
E06A	**Yakima**	**88.94**	**42**	⇓P	**P**	**12 03 57.8**	**0.0**
	baz=89						
MONP	**Monument Peak**	**89.02**	**56**	⇓P	**P**	**12 03 58.2**	**-0.2**
	baz=89						
K07A	**Rock Creek Ran**	**89.13**	**46**	⇑P	**P**	**12 03 59.0**	**+0.3**
	baz=89						
Q08A	**Gabbs**	**89.17**	**50**	⇓P	**P**	**12 03 59.1**	**+0.1**
	baz=89						
GSC	**Goldstone**	**89.23**	**54**	⇓P	**P**	**12 03 59.6**	**+0.2**
	baz=89						
J07A	**Hines**	**89.26**	**46**	⇑P	**P**	**12 03 59.6**	**+0.3**
	baz=89						
I07A	**Izee**	**89.30**	**45**	⇑P	**P**	**12 03 59.9**	**+0.5**
	baz=89						
A06A	**Chilliwack**	**89.33**	**40**	⇑P	**P**	**12 03 60.0**	**+0.5**
	baz=89						
O08A	**Rochester Mine**	**89.34**	**49**	⇑P	**P**	**12 04 00.1**	**+0.3**
	baz=89						
H07A	**Lands Inn, Kim**	**89.39**	**45**	⇓P	**P**	**12 04 00.1**	**+0.2**
	baz=89						
S09A	**Goldfield**	**89.45**	**52**	⇓P	**P**	**12 03 59.9**	**-0.5**
	baz=89,SNR=6.5						
FURC	**Furnace Creek,**	**89.45**	**53**	⇑P	**P**	**12 04 00.4**	**0.0**
	baz=89,SNR=8.5						
M08A	**Happy Creek Ra**	**89.45**	**48**	⇑P	**P**	**12 04 00.8**	**+0.5**
	baz=89						
N08A	**GE Springer Mi**	**89.47**	**49**	⇓P	**P**	**12 04 00.6**	**+0.2**
	baz=90						
G07A	**Ruggs Ranch, H**	**89.49**	**44**	⇓P	**P**	**12 04 00.6**	**+0.2**
	baz=90						
HEC	**Hector,Ludlow**	**89.51**	**55**	⇑P	**P**	**12 04 00.7**	**0.0**
	baz=90						
SWSC	**Sam W. Stewart**	**89.54**	**57**	⇑P	**P**	**12 04 00.5**	**-0.4**
	baz=90						
BELC	**Belle Mtn.**	**89.60**	**55**	⇑P	**P**	**12 04 00.8**	**-0.3**
	baz=90,SNR=6.9						
L08A	**Fields**	**89.66**	**47**	⇑P	**P**	**12 04 01.5**	**+0.3**
	baz=90						
R09A	**Tonopah**	**89.69**	**51**	⇓P	**P**	**12 04 01.6**	**+0.2**
	baz=90,SNR=6.1						
K08A	**Mann Creek Ran**	**89.69**	**47**	⇓P	**P**	**12 04 01.2**	**-0.1**
	baz=90						
Q09A	**Carvers**	**89.74**	**51**	⇑P	**P**	**12 04 01.8**	**+0.2**
	baz=90						
D07A	**Quincy**	**89.78**	**42**	⇑P	**P**	**12 04 02.0**	**+0.3**
	baz=90						
SHOC	**Shoshone**	**89.78**	**54**	⇓P	**P**	**12 04 02.1**	**+0.1**
	baz=90,SNR=7.5						
J08A	**Circle Bar Ran**	**89.85**	**46**	⇑P	**P**	**12 04 02.1**	**+0.1**
	baz=90						
C07A	**Waterville**	**89.86**	**41**	⇑P	**P**	**12 04 01.7**	**-0.3**
	baz=90						
U10A	**Ash Meadows, A**	**89.86**	**53**	⇓P	**P**	**12 04 02.5**	**+0.2**
	baz=90						
MKAR	**Makanchi Array**	**89.89**	**318**	P	**P**	**12 04 00.7**	**-1.4**
	comp=Z,1.4nm,0.6s,mb4.3,baz=102,slow=5.3,SNR=15						
MKAR				pP	pP	12 04 22.1	-3.9
	comp=Z,0.7nm,0.4s,baz=112,slow=4.9,SNR=3.6						
I08A	**Drewsey**	**89.91**	**45**	⇓P	**P**	**12 04 02.9**	**+0.6**
	baz=90						
P09A	**Austin**	**89.93**	**50**	⇑P	**P**	**12 04 02.7**	**+0.2**
	baz=90						
N09A	**Rock Creek Ran**	**89.94**	**49**	⇓P	**P**	**12 04 02.5**	**0.0**
	baz=90						
TUQ	**Turquoise Moun**	**89.97**	**54**	⇓P	**P**	**12 04 02.8**	**-0.1**
	baz=90						
BC3	**Big Chuckw Mtn**	**89.97**	**56**	⇓P	**P**	**12 04 02.8**	**-0.1**
	baz=90						
G08A	**Pilot Rock**	**89.98**	**44**	⇓P	**P**	**12 04 03.0**	**+0.4**
	baz=90						
S10A	**Tonopah Range,**	**89.98**	**52**	⇑P	**P**	**12 04 03.0**	**+0.1**
	baz=90,SNR=8.3						
A07A	**Ashnola River,**	**90.01**	**40**	⇑P	**P**	**12 04 02.7**	**+0.1**
	baz=90						
B07A	**Winthrop**	**90.02**	**41**	⇓P	**P**	**12 04 02.8**	**+0.1**
	baz=90						
O09A	**Fish Creek Ran**	**90.03**	**49**	⇓P	**P**	**12 04 03.5**	**+0.5**
	baz=90						
GMRC	**Granite Mounta**	**90.04**	**55**	⇓P	**P**	**12 04 03.2**	**+0.1**
	baz=90						
M09A	**Marrel Ranch,**	**90.13**	**48**	⇑P	**P**	**12 04 03.9**	**+0.5**
	baz=90						
E08A	**Dider Farm, El**	**90.21**	**43**	⇑P	**P**	**12 04 03.9**	**+0.3**
	baz=90						
K09A	**Rome**	**90.22**	**47**	⇑P	**P**	**12 04 03.7**	**-0.1**
	baz=90,SNR=7.3						
ZALV	**Zalesovo Beam**	**90.28**	**325**	P	**P**	**12 04 01.2**	**-2.6**
	comp=Z,0.4nm,0.3s,mb4.0,baz=122,slow=5.4,SNR=5.3						
R10A	**Warm Springs**	**90.29**	**51**	⇓P	**P**	**12 04 04.3**	**0.0**
	baz=90						
IRM	**Iron Mountain**	**90.32**	**55**	⇓P	**P**	**12 04 04.5**	**0.0**
	baz=90,SNR=6.0						
Q10A	**Clear Creek Ra**	**90.33**	**51**	⇓P	**P**	**12 04 04.6**	**+0.2**
	baz=90,SNR=5.7						
J09A	**Fry Pan Ranch,**	**90.35**	**46**	⇓P	**P**	**12 04 04.6**	**+0.2**
	baz=90,SNR=8.4						
D08A	**Wollman Farm,**	**90.44**	**42**	⇓P	**P**	**12 04 04.8**	**0.0**
	baz=90						
V11A	**Goodsprings**	**90.45**	**54**	⇑P	**P**	**12 04 04.9**	**-0.2**
	baz=90,SNR=6.4						
P10A	**Eureka**	**90.45**	**50**	⇑P	**P**	**12 04 05.2**	**+0.2**
	baz=90						
B08A	**Colville Reser**	**90.50**	**41**	⇓P	**P**	**12 04 04.9**	**-0.1**
	baz=90						
C08A	**Higginbotham F**	**90.54**	**42**	⇓P	**P**	**12 04 04.6**	**-0.6**
	baz=90,SNR=5.3						
LDFC	**Landfair**	**90.54**	**55**	*e*P	**P**	**12 04 05.4**	**-0.1**
S11A	**Rachel**	**90.58**	**52**	⇑P	**P**	**12 04 05.5**	**-0.1**
	baz=90						
OD2	**Odessa Site #2**	**90.67**	**42**	*e*P	**P**	**12 04 05.8**	**0.0**
A08A	**Turner Farm, O**	**90.69**	**40**	⇑P	**P**	**12 04 06.0**	**+0.2**
	baz=91						
Y12C	**Blythe**	**90.75**	**56**	⇓P	**P**	**12 04 06.5**	**0.0**
	baz=91						
G09A	**Cove**	**90.79**	**44**	⇑P	**P**	**12 04 06.7**	**+0.3**
	baz=91						
SHPR	**Sheep Range**	**90.80**	**53**	*e*P	**P**	**12 04 07.0**	**+0.4**
M10A	**I.L. Ranch, Tu**	**90.82**	**48**	⇓P	**P**	**12 04 07.0**	**+0.3**
	baz=91						
E09A	**Wood Farm, Sta**	**90.83**	**43**	⇑P	**P**	**12 04 06.7**	**+0.1**
	baz=91						
R11A	**Troy Canyon, C**	**90.85**	**51**	⇑P	**P**	**12 04 06.7**	**-0.1**
	baz=91,SNR=8.1						
D09A	**Jones Farm, Ri**	**90.85**	**42**	⇑P	**P**	**12 04 06.8**	**+0.1**
	baz=91						
K10A	**MacKenzie Ranc**	**90.85**	**47**	⇓P	**P**	**12 04 06.9**	**+0.1**
	baz=91,SNR=7.7						
V12A	**Nelson**	**90.88**	**54**	⇑P	**P**	**12 04 06.9**	**-0.2**
	baz=91						
Q11A	**Duckwater**	**90.90**	**51**	⇓P	**P**	**12 04 07.1**	**0.0**
	baz=91,SNR=10						
T11A	**Corn Creek, Al**	**90.90**	**52**	⇑P	**P**	**12 04 07.1**	**0.0**
	baz=91,SNR=9.0						
P11A	**Circle Ranch,**	**90.98**	**50**	⇓P	**P**	**12 04 07.8**	**+0.4**
	baz=91						
L10A	**Juniper Basin**	**90.99**	**48**	⇑P	**P**	**12 04 07.5**	**+0.1**
	baz=91,SNR=7.1						
C09A	**Chrisman Ranch**	**91.05**	**42**	⇑P	**P**	**12 04 07.7**	**+0.1**
	baz=91						
J10A	**Berg Farm, Mel**	**91.07**	**46**	⇑P	**P**	**12 04 08.0**	**+0.3**
	baz=91						
A09A	**Danville**	**91.13**	**40**	⇑P	**P**	**12 04 07.3**	**-0.6**
	baz=91,SNR=6.1						
PDMCI	**Parker Dam,Lak**	**91.17**	**56**	⇑P	**P**	**12 04 08.2**	**-0.2**
	baz=91						
I10A	**Payette**	**91.19**	**46**	⇑P	**P**	**12 04 08.6**	**+0.3**
	baz=91						
G10A	**Bishop Farm, J**	**91.24**	**44**	⇑P	**P**	**12 04 08.3**	**-0.2**
	baz=91,SNR=14						
S12A	**Delamar Landin**	**91.27**	**52**	⇑P	**P**	**12 04 08.8**	**0.0**
	baz=91,SNR=8.5						
U12A	**Valley of Fire**	**91.27**	**53**	⇑P	**P**	**12 04 08.9**	**+0.1**
	baz=91						
B09A	**Rice**	**91.28**	**41**	⇑P	**P**	**12 04 08.1**	**-0.5**
	baz=91,SNR=5.0						
F10A	**Beach Ranch, E**	**91.32**	**44**	⇑P	**P**	**12 04 08.4**	**-0.4**
	baz=91,SNR=7.4						
Y13A	**Salome**	**91.33**	**56**	⇑P	**P**	**12 04 09.1**	**-0.1**
	baz=91						
H10A	**Noah's Angus R**	**91.34**	**45**	⇓P	**P**	**12 04 08.9**	**-0.1**
	baz=91,SNR=9.1						
M11A	**Holland Ranch,**	**91.34**	**48**	⇓P	**P**	**12 04 09.3**	**+0.2**
	baz=91,SNR=8.1						
K11A	**Parker Ranch,**	**91.45**	**47**	⇑P	**P**	**12 04 09.4**	**-0.1**
	baz=91,SNR=9.1						
X13A	**Yucca**	**91.48**	**55**	⇓P	**P**	**12 04 10.0**	**+0.1**
	baz=91						
E10A	**Myers Farm, Un**	**91.52**	**43**	⇑P	**P**	**12 04 10.2**	**+0.5**
	baz=92						
L11A	**Cat Creek Ranc**	**91.53**	**48**	⇓P	**P**	**12 04 10.0**	**+0.1**
	baz=92,SNR=7.6						
W13A	**Hualapai Mount**	**91.53**	**55**	⇑P	**P**	**12 04 10.1**	**0.0**
	baz=92						
D10A	**Wagner Farm, O**	**91.54**	**43**	⇑P	**P**	**12 04 09.7**	**-0.1**
	baz=92,SNR=8.9						
R12A	**Pony Springs,**	**91.60**	**52**	⇓P	**P**	**12 04 10.4**	**+0.1**
	baz=92,SNR=6.8						
V13A	**Grand Canyon W**	**91.60**	**54**	⇑P	**P**	**12 04 10.2**	**-0.2**
	baz=92,SNR=8.0						
P12A	**McGill**	**91.60**	**50**	⇓P	**P**	**12 04 10.8**	**+0.5**
	baz=92						
U13A	**Pakoon Wash**	**91.72**	**53**	⇓P	**P**	**12 04 10.9**	**-0.1**
	baz=92						
MFID	**Camas Ranch**	**91.74**	**46**	⇓P	**P**	**12 04 11.1**	**+0.3**
	baz=92						
I11A	**Placerville**	**91.75**	**46**	⇑P	**P**	**12 04 10.7**	**-0.2**
	baz=92,SNR=12						
N12A	**Clover Valley,**	**91.78**	**49**	⇓P	**P**	**12 04 11.3**	**+0.2**
	baz=92,SNR=8.2						
A10A	**Northport**	**91.79**	**41**	⇓P	**P**	**12 04 10.9**	**-0.1**
	baz=92,SNR=8.1						
H11A	**Donnelly**	**91.88**	**45**	⇓P	**P**	**12 04 11.5**	**0.0**
	baz=92						
O12A	**Currie**	**91.88**	**50**	⇑P	**P**	**12 04 11.6**	**0.0**
	baz=92,SNR=10						
T13A	**Saint George**	**91.89**	**53**	⇑P	**P**	**12 04 11.5**	**-0.2**
	baz=92,SNR=9.5						
S13A	**Holt Ranch, En**	**92.03**	**52**	⇓P	**P**	**12 04 12.4**	**+0.1**
	baz=92,SNR=7.3						
F11A	**Grangeville**	**92.03**	**44**	⇓P	**P**	**12 04 11.5**	**-0.7**
	baz=92						
L12A	**House Creek Ra**	**92.06**	**48**	⇓P	**P**	**12 04 12.3**	**0.0**
	baz=92						
R13A	**O'Grain Ranch,**	**92.06**	**52**	⇑P	**P**	**12 04 12.3**	**-0.2**
	baz=92						
E11A	**Bogner Ranch,**	**92.10**	**43**	⇑P	**P**	**12 04 11.6**	**-0.8**
	baz=92,SNR=6.3						
D11A	**Klaveano Farm,**	**92.16**	**43**	⇓P	**P**	**12 04 12.1**	**-0.7**
	baz=92,SNR=6.7						
Q13A	**Wheeler Ranch,**	**92.17**	**51**	⇓P	**P**	**12 04 13.0**	**0.0**
	baz=92,SNR=5.5						
W14A	**Seligman**	**92.20**	**55**	⇑P	**P**	**12 04 13.2**	**0.0**
	baz=92						
X14A	**Yava**	**92.22**	**56**	⇓P	**P**	**12 04 13.3**	**0.0**
	baz=92						
J12A	**Stokes Ranch,**	**92.22**	**47**	⇓P	**P**	**12 04 13.3**	**+0.2**
	baz=92,SNR=14						
K12A	**Draper Farm, C**	**92.24**	**47**	⇓P	**P**	**12 04 13.4**	**+0.2**
	baz=92,SNR=7.8						
V14A	**Boquillas Ranc**	**92.26**	**54**	⇓P	**P**	**12 04 13.5**	**0.0**
	baz=92						
I12A	**Atlanta**	**92.31**	**46**	⇑P	**P**	**12 04 13.6**	**+0.1**
	baz=92,SNR=7.3						
U14A	**Mt Trumbull**	**92.35**	**54**	⇑P	**P**	**12 04 13.9**	**0.0**
	baz=92,SNR=6.0						
O13A	**Hicks Ranch, I**	**92.43**	**50**	⇑P	**P**	**12 04 14.6**	**+0.5**
	baz=92						
115A	**Sonoran Desert**	**92.44**	**57**	⇑P	**P**	**12 04 14.2**	**-0.2**
	baz=92						
B11A	**Sandpoint**	**92.44**	**41**	⇓P	**P**	**12 04 14.0**	**0.0**
	baz=92						
M13A	**Montello**	**92.53**	**49**	⇓P	**P**	**12 04 14.7**	**+0.2**
	baz=92,SNR=5.2						
T14A	**Hurricane**	**92.54**	**53**	⇓P	**P**	**12 04 15.0**	**+0.3**
	baz=92						
A11A	**Hall Mountain,**	**92.55**	**41**	⇑P	**P**	**12 04 14.6**	**+0.1**
	baz=92,SNR=6.1						
Y15A	**Casa Rosa Ranc**	**92.58**	**56**	⇑P	**P**	**12 04 14.8**	**-0.2**
	baz=92						
F12A	**Elk City**	**92.62**	**44**	⇓P	**P**	**12 04 14.4**	**-0.5**
	baz=93,SNR=9.2						
H12A	**Diamond D Ranc**	**92.66**	**45**	⇓P	**P**	**12 04 14.9**	**-0.1**
	baz=93						
Q14A	**Sevier Lake (B**	**92.75**	**51**	⇓P	**P**	**12 04 15.8**	**+0.2**
	baz=93						
X15A	**Humboldt**	**92.75**	**56**	⇑P	**P**	**12 04 16.1**	**+0.3**
	baz=93						
HLID	**Hailey**	**92.78**	**46**	⇓P	**P**	**12 04 16.0**	**+0.3**
	baz=93,SNR=9.6						
L13A	**Double Diamond**	**92.83**	**48**	⇑P	**P**	**12 04 16.2**	**+0.3**
	baz=93						
K13A	**Stover Farm, H**	**92.84**	**47**	⇑P	**P**	**12 04 16.4**	**+0.4**
	baz=93						
J13A	**Cove Ranch, Pi**	**92.92**	**47**	⇑P	**P**	**12 04 16.5**	**+0.2**
	baz=93,SNR=5.9						
P14A	**Drum Mountains**	**93.02**	**50**	⇓P	**P**	**12 04 17.3**	**+0.5**
	baz=93						
V15A	**Kaibab Nationa**	**93.04**	**54**	⇓P	**P**	**12 04 17.3**	**+0.3**
	baz=93						
I13A	**Wildhorse Cree**	**93.06**	**46**	⇓P	**P**	**12 04 17.1**	**+0.2**
	baz=93,SNR=17						
H13A	**Challis**	**93.08**	**45**	⇓P	**P**	**12 04 17.0**	**0.0**
	baz=93,SNR=11						
N14A	**Grayback Hills**	**93.16**	**49**	⇓P	**P**	**12 04 17.4**	**-0.1**
	baz=93						
M14A	**Sheep Mountain**	**93.16**	**49**	⇑P	**P**	**12 04 17.4**	**-0.1**
	baz=93,SNR=5.0						
G13A	**Cobalt**	**93.20**	**45**	⇑P	**P**	**12 04 17.2**	**-0.4**
	baz=93,SNR=9.1						
S15A	**Panguitch**	**93.22**	**52**	⇑P	**P**	**12 04 18.9**	**+1.0**
	baz=93						
F13A	**Darby**	**93.26**	**44**	⇑P	**P**	**12 04 17.6**	**-0.2**
	baz=93,SNR=9.8						
DUG	**Dugway**	**93.32**	**50**	⇓P	**P**	**12 04 18.1**	**-0.1**
	baz=93						
L14A	**Malta**	**93.34**	**48**	⇑P	**P**	**12 04 18.9**	**+0.7**
	baz=93						
J14A	**Carey**	**93.37**	**47**	⇑P	**P**	**12 04 18.6**	**+0.2**
	baz=93						
R15A	**Junction**	**93.38**	**52**	⇓P	**P**	**12 04 19.4**	**+0.8**
	baz=93						
217A	**Green Valley**	**93.46**	**59**	⇓P	**P**	**12 04 19.3**	**+0.3**
	baz=93						
E13A	**Victor**	**93.49**	**44**	⇑P	**P**	**12 04 19.2**	**+0.4**
	baz=94						
I14A	**Mackay**	**93.53**	**46**	⇑P	**P**	**12 04 19.4**	**+0.3**
	baz=94,SNR=7.3						
117A	**Oracle**	**93.65**	**58**	⇓P	**P**	**12 04 20.2**	**+0.3**
	baz=94						
G14A	**Jackson**	**93.76**	**45**	⇓P	**P**	**12 04 20.0**	**-0.1**
	baz=94,SNR=6.0						
M15A	**Larsen Ranch,**	**93.82**	**49**	⇑P	**P**	**12 04 20.7**	**+0.3**
	baz=94						
X17A	**Forest Lakes**	**93.89**	**56**	⇑P	**P**	**12 04 20.7**	**-0.3**
	baz=94						
R16A	**Teasdale**	**94.01**	**52**	⇑P	**P**	**12 04 22.5**	**+1.0**
	baz=94						
D14A	**Greenough**	**94.06**	**43**	⇑P	**P**	**12 04 21.4**	**-0.1**
	baz=94						
318A	**Bisbee**	**94.10**	**59**	⇑P	**P**	**12 04 22.1**	**+0.1**
	baz=94						
J15A	**Blackfoot**	**94.16**	**47**	⇑P	**P**	**12 04 22.7**	**+0.7**
	baz=94						
H15A	**Lima**	**94.22**	**46**	⇓P	**P**	**12 04 22.2**	**-0.1**
	baz=94,SNR=13						
I15A	**Monteview**	**94.23**	**46**	⇓P	**P**	**12 04 22.7**	**+0.4**
	baz=94						
118A	**Homack Ranch,**	**94.31**	**58**	⇑P	**P**	**12 04 23.0**	**0.0**
	baz=94						
G15A	**Dillon**	**94.43**	**45**	⇑P	**P**	**12 04 23.1**	**0.0**
	baz=94						
AAK	**Ala-Archa**	**94.45**	**312**	*i* P	**P**	**12 04 22.6**	**-0.7**
E15A	**Deer Lodge**	**94.53**	**44**	⇓P	**P**	**12 04 23.8**	**+0.1**
	baz=94						
F15A	**Butte**	**94.54**	**44**	⇑P	**P**	**12 04 23.6**	**0.0**
	baz=94						
X18A	**Snowflake**	**94.62**	**56**	⇓P	**P**	**12 04 24.4**	**0.0**
	baz=95						
R17A	**Hanksville Air**	**94.63**	**52**	⇑P	**P**	**12 04 24.5**	**+0.3**
	baz=95						
C15A	**Salmond Ranch,**	**94.79**	**42**	⇑P	**P**	**12 04 24.0**	**-0.7**
	baz=95						
A15A	**Johnson Ranch,**	**94.91**	**41**	⇓P	**P**	**12 04 24.8**	**-0.5**
	baz=95						
B15A	**Bradely Ranch,**	**94.91**	**42**	⇓P	**P**	**12 04 25.1**	**-0.2**
	baz=95						
G16A	**Moss Hill, Enn**	**94.91**	**45**	⇑P	**P**	**12 04 25.5**	**+0.1**
	baz=95						
I16A	**Newdale**	**94.92**	**46**	⇓P	**P**	**12 04 25.8**	**+0.3**
	baz=95						
T18A	**Mexican Hat**	**95.08**	**53**	⇑P	**P**	**12 04 26.4**	**0.0**
	baz=95						
BOZ	**Bozeman (W)**	**95.10**	**45**	⇓P	**P**	**12 04 26.3**	**+0.1**
	baz=95						
Y19A	**Nutrioso**	**95.10**	**57**	⇑P	**P**	**12 04 26.7**	**+0.1**

	baz=95						
F16A	**Kennard Place,**	**95.13**	**45**	⇑P	**P**	**12 04 26.8**	**+0.4**
	baz=95						
HRY	**Holter Researc**	**95.13**	**44**	*e*P	**P**	**12 04 23.5**	**-2.9**
	comp=Z,1.5nm,0.2s,mb5.1						
M17A	**Scullys Gap (B**	**95.14**	**49**	⇓P	**P**	**12 04 26.6**	**+0.1**
	baz=95						
Q18A	**Rafter H Ranch**	**95.18**	**51**	⇓P	**P**	**12 04 26.6**	**-0.2**
	baz=95						
H16A	**Russell Place,**	**95.22**	**46**	⇑P	**P**	**12 04 27.5**	**+0.7**
	baz=95						
R18A	**Canyonlands Na**	**95.26**	**52**	⇓P	**P**	**12 04 28.0**	**+0.9**
	baz=95						
C16A	**Fuhringer Ranc**	**95.36**	**43**	⇓P	**P**	**12 04 27.4**	**0.0**
	baz=95						
A16A	**West Butte Ran**	**95.64**	**41**	⇓P	**P**	**12 04 28.1**	**-0.5**
	baz=96						
E17A	**Martinsdale**	**95.76**	**44**	⇓P	**P**	**12 04 29.7**	**+0.4**
	baz=96						
F17A	**Fitzpatrick Pl**	**95.81**	**45**	⇑P	**P**	**12 04 29.8**	**+0.3**
	baz=96						
D17A	**Six Diamond Ra**	**95.98**	**43**	⇓P	**P**	**12 04 30.3**	**+0.1**
	baz=96						
C17A	**Wharram Farm,**	**96.00**	**43**	⇑P	**P**	**12 04 30.1**	**-0.2**
	baz=96						
PDAR	**Pinedale Array**	**96.15**	**48**	P	**P**	**12 04 30.6**	**-0.4**
	comp=Z,0.3nm,0.6s,mb3.9,baz=132,slow=2.2,SNR=3.8						
YKA	**Yellowknife Ar**	**96.17**	**28**	P	**P**	**12 04 29.0**	**-1.7**
	comp=Z,2.8nm,0.8s,mb4.8,baz=257,slow=4.7,SNR=53						
YKA				pP	pP	12 04 51.7	-3.0
	comp=Z,0.6nm,0.8s,baz=259,slow=4.8,SNR=3.6						
YKA	**Yellowknife Ar**	**96.17**	**28**	P	**P**	**12 04 29.0**	**-1.7**
YKA				pP	pP	12 04 51.7	-3.0
A17A	**Triple J Farms**	**96.22**	**42**	⇑P	**P**	**12 04 30.9**	**-0.4**
	baz=96						
E18A	**Harlowton**	**96.42**	**44**	⇑P	**P**	**12 04 32.6**	**+0.4**
	baz=96						
EGMT	**Eagleton**	**96.72**	**43**	⇓P	**P**	**12 04 33.2**	**-0.3**
	baz=97						
EGMT	**Eagleton**	**96.72**	**43**	*e*P	**P**	**12 04 32.6**	**-1.0**
	comp=Z,16nm,1.5s,mb5.2						
B18A	**Beardsley Farm**	**96.75**	**42**	⇓P	**P**	**12 04 33.4**	**-0.3**
	baz=97						
A18A	**Metzger Ranch,**	**96.78**	**42**	⇑P	**P**	**12 04 33.5**	**-0.3**
	baz=97						
ARCES	**ARCESS Array B**	**114.31**	**344**	PKP	PKiKP	12 09 40.0	-1.8
	comp=Z,6.1nm,1.1s,baz=72,slow=1.7,SNR=15						
BOSA	**Boshof**	**122.70**	**226**	PKP	PKPdf	12 09 57.5	-1.7
	comp=Z,2.4nm,0.6s,baz=101,slow=5.2,SNR=5.1						
CLL	**Collm**	**131.44**	**334**	*e*PKPdf	PKPdf	12 10 13.0	-2.2
GERES	**GERESS Array B**	**132.87**	**331**	PKP	PKPdf	12 10 19.3	+1.3
	comp=Z,0.5nm,0.3s,baz=336,slow=2.9,SNR=3.6						
KEST	**Kesra**	**143.96**	**319**	PKP	PKPdf	12 10 35.4	-3.2
	comp=Z,2.0nm,0.7s,baz=10,slow=6.3,SNR=4.9						
MVO	**Moncorvo**	**147.41**	**344**	*e*PKP	PKPbc	12 10 46.3	-0.6
PVRL	**Vila Real**	**147.49**	**345**	*e*PKP	PKPbc	12 10 46.7	-0.4
ESDC	**Sonseca Array**	**147.78**	**338**	PKPbc	PKPbc	12 10 47.0	-1.0
	comp=Z,0.3nm,0.3s,baz=35,slow=3.0,SNR=5.5						
PVIS	**Viseu**	**148.07**	**344**	*e*PKP	PKPbc	12 10 48.0	-0.7
MTE	**Manteigas**	**148.27**	**344**	*e*PKP	PKPbc	12 10 48.8	-0.4
PCBR	**Castelo Branco**	**148.77**	**343**	*e*PKP	PKPbc	12 10 47.7	-2.8
PMRV	**Marv??o**	**149.12**	**343**	*e*PKP	PKPbc	12 10 50.7	-0.8
PBEJ	**Beja**	**150.56**	**342**	*e*PKP	PKPbc	12 10 54.3	-0.7
PTEO	**Sao Teotonio**	**151.26**	**343**	*e*PKP	PKPbc	12 10 55.9	-0.7
MORF	**Marmelete**	**151.46**	**343**	*e*PKP	PKPbc	12 10 55.8	-1.3
TORD	**Torodi Ar. Bea**	**159.82**	**281**	PKP	PKPdf	12 11 00.6	-2.1
	comp=Z,0.5nm,0.7s,baz=25,slow=1.6,SNR=3.9						
TORD				pPKP	pPKPdf	12 11 22.4	-5.3
	comp=Z,0.8nm,1.0s,baz=346,slow=1.0,SNR=3.6						
TORD	**Torodi Ar. Bea**	**159.82**	**281**	PKP	PKPdf	12 11 00.6	-2.1
TORD				pPKP	pPKPdf	12 11 22.4	-5.3

NEIC 20 11:51:47.2,37°.71S×177°.31E,h74^{km},ML3.8(WEL),After WEL.,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WIZ	**White Island**	**0.20**	**332**	P	Pn	11 51 58.0	-0.3
URZ	**Urewera**	**0.57**	**196**	P	Pn	11 52 00.9	-0.1
MARZ	**Manawahe**	**0.57**	**241**	P	Pn	11 52 01.0	-0.1
MWZ	**Matawai**	**0.65**	**165**	P	Pn	11 52 01.7	-0.1
LIRZ	**Lichensteins R**	**0.79**	**248**	P	Pn	11 52 03.4	0.0
MXZ	**Matakaoa Point**	**0.80**	**80**	P	Pn	11 52 03.9	+0.4
PUZ	**Puketiti**	**0.83**	**116**	P	Pn	11 52 04.0	+0.1
KARZ	**Kaharoa**	**0.90**	**249**	P	Pn	11 52 04.6	0.0
KARZ				S	Sn	11 52 19.2	+1.6
KNZ	**Kokohu**	**1.34**	**168**	P	Pn	11 52 09.8	-0.4
BKZ	**Black Stump Fm**	**1.59**	**204**	P	Pn	11 52 13.3	-0.2
RITZ	**Rihia Road**	**1.71**	**222**	P	Pn	11 52 15.5	+0.5
KATZ	**Kakaramea**	**1.79**	**225**	P	Pn	11 52 16.6	+0.5
MKAZ	**Moumakai**	**1.81**	**289**	P	Pn	11 52 16.2	-0.1
WTVZ	**West Tongariro**	**1.95**	**223**	P	Pn	11 52 18.5	+0.3
NGZ	**Ngauruhoe**	**1.99**	**222**	P	Pn	11 52 19.4	+0.7
TWVZ	**Taurewa**	**2.00**	**227**	P	Pn	11 52 19.5	+0.6
TUVZ	**Tukino**	**2.03**	**219**	P	Pn	11 52 19.6	+0.3
MOVZ	**Moawhango**	**2.09**	**215**	P	Pn	11 52 19.8	-0.3
HIZ	**Hauiti**	**2.10**	**247**	P	Pn	11 52 20.7	+0.5
WNVZ	**Wahianoa**	**2.10**	**219**	P	Pn	11 52 20.5	+0.2
VRZ	**Vera Road**	**2.45**	**234**	P	Pn	11 52 25.7	+0.7
BFZ	**Birch Farm**	**3.08**	**195**	P	Pn	11 52 30.4	-3.1
MRZ	**Mangatainoka R**	**3.24**	**204**	P	Pn	11 52 32.6	-3.1
KIW	**Kapiti Island**	**3.66**	**210**	P	Pn	11 52 38.2	-3.1
MTW	**Mount Morrison**	**3.72**	**202**	P	Pn	11 52 38.1	-4.1
CAW	**Cannon Point**	**3.81**	**206**	P	Pn	11 52 39.7	-3.8
MSWZ	**Moikau Station**	**4.03**	**203**	P	Pn	11 52 42.3	-4.1
TCW	**Tory Channel**	**4.21**	**213**	P	Pn	11 52 45.0	-3.9
BSWZ	**Blackbirch Sta**	**4.80**	**212**	P	Pn	11 52 52.4	-4.5
QRZ	**Quartz Range**	**4.84**	**229**	P	Pn	11 52 54.6	-2.9
THZ	**Tophouse**	**5.28**	**219**	P	Pn	11 52 59.2	-4.3
DSZ	**Denniston Nort**	**5.85**	**225**	P	Pn	11 53 06.9	-4.4
LTZ	**Lake Taylor**	**6.37**	**216**	P	Pn	11 53 12.8	-5.5

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*IDC **20** 12:11:19.0±0.6,53°.05S×46°.61W,h0^{km},mb4.9/17,*
mb1 4.9/17,mb1mx4.8/23,mbtmp4.9/17,MS4.7/8,
Ms1 4.7/8,ms1mx4.5/24,Error ellipse: s-maj=23.8km
s-min=13.6km az=37.0

*ISCJB **20** 12:11:19.5±0.4,52°.88S±0°.07×46°.6W±0°.1,h10^{km},*
mb5.0/25,MS5.2/173,Error ellipse: s-maj=12.6km
s-min=8.2km az=140.1

*NEIC **20** 12:11:20.7±0.4,52°.92S×46°.49W,h10^{km},mb5.5/5,*
MS5.2/165,Error ellipse: s-maj=13.2km s-min=9.3km
az=224.0

ISC 20 12:11:21.3±0.4,52°.93S±0°.08×46°.6W±0°.1,h10^{km},n226, σ0^{s}.89/41,mb5.0/25,MS5.2/173,1C-1D,South Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFI	**East Falkland**	**7.15**	**276**	Pn	**Pn**	**12 13 00.8**	**-5.0**
	2µm,0.6s,SNR=72						
USHA	**Ushuaia**	**13.02**	**253**	Pn	**Pn**	**12 14 16.7**	**-9.4**
	1.5nm,0.3s,baz=61,slow=10,SNR=4.2						
USHA				Sn	**Sn**	**12 16 37.2**	**-14**
	11nm,0.3s,baz=290,slow=7.9,SNR=14						
PMSA	**Palmer Station**	**14.85**	**210**	Pn	**Pn**	**12 14 52.7**	**+1.8**
	2.0nm,0.3s,baz=60,slow=8.1,SNR=3.8						
PMSA				LR	LR	12 19 39.6	
	comp=Z,4µm,18.5s,baz=228,slow=34						
PLCA	**Paso Flores**	**20.32**	**297**	P	**P**	**12 15 57.3**	**0.0**
	58nm,1.1s,baz=136,slow=12,SNR=37						
PLCA				LR	LR	12 24 17.0	
	comp=Z,5µm,20.2s,MS4.9,baz=126,slow=38						
VNA3	**Neumayer Olymp**	**24.53**	**152**	*e*	**P**	**12 16 39.8**	**-0.7**
VNA3				*e*		12 16 46.5	
VNA3				*e*		12 16 53.6	
VNA2	**Neumayer--Watz**	**25.05**	**151**	*e*	**P**	**12 16 45.4**	**+0.2**
	baz=297,slow=11						
VNA2				*e*		12 16 52.4	
VNA2				*e*		12 16 59.5	
CFAA	**Coronel Fontan**	**26.47**	**315**	P	**P**	**12 16 55.9**	**-2.5**
	1.1nm,0.4s,mb3.7,baz=156,slow=9.7,SNR=17						
CFAA				LR	LR	12 28 53.1	
	comp=Z,206nm,18.6s,MS3.7,baz=189,slow=40						
CPUP	**Villa Florida**	**27.76**	**339**	P	**P**	**12 17 10.5**	**+0.4**
	6.5nm,0.7s,mb4.4,baz=153,slow=7.7,SNR=17						
CPUP				LR	LR	12 28 35.3	
	comp=Z,2µm,18.8s,MS4.6,baz=158,slow=37						
SPB	**Sao Paulo**	**29.30**	**358**	PFAKE		12 17 40.0	+16
SPB				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
LCO	**Las Campanas**	**29.77**	**314**	*e*P	**P**	**12 17 27.1**	**-0.7**
	comp=Z,65nm,0.9s,mb5.4						
LCO				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
LVC	**Limon Verde**	**34.74**	**322**	P	**P**	**12 18 11.8**	**+0.3**
	comp=Z,10.0nm,0.6s,mb5.0,baz=153,slow=5.5,SNR=16						
LVC				LR	LR	12 32 40.4	
	comp=Z,1µm,18.8s,MS4.7,baz=213,slow=37						
QSPA	**South Pole Qui**	**37.33**	**180**	P	**P**	**12 18 32.3**	**-0.7**
	comp=Z,32nm,0.6s,mb5.4,baz=182,slow=2.3,SNR=281						
QSPA	**South Pole Qui**	**37.33**	**180**	P	**P**	**12 18 32.3**	**-0.7**
QSPA				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
SIV	**San Ignacio**	**38.59**	**337**	P	**P**	**12 18 44.3**	**0.0**
	comp=Z,12nm,0.8s,mb4.7,baz=170,slow=8.5,SNR=36						
SYO	**Syowa Base**	**40.80**	**147**	⇑*e*P	**P**	**12 19 05.2**	**+3.0**
ARE	**Arequipa**	**41.32**	**322**	*e*P	**P**	**12 19 08.0**	**+1.0**
NNA	**Nana**	**47.48**	**318**	*e*P	**P**	**12 19 56.4**	**+0.1**
	comp=Z,40nm,1.2s,mb5.2						
NNA				LR	LR		
	comp=Z,995nm,21.0s,MS4.8						
RCBR	**Riachuelo**	**47.77**	**14**	PFAKE		12 20 10.0	+11
RCBR				LR	LR		
	comp=Z,752nm,20.0s,MS4.7						
VNDA	**Vanda**	**48.62**	**188**	PFAKE		12 20 20.0	+16
VNDA				LR	LR		
	comp=Z,886nm,19.0s,MS4.8						
MAW	**Mawson**	**48.86**	**151**	LR	LR	12 37 41.6	
	comp=Z,768nm,19.9s,MS4.7,baz=289,slow=32						
SUR	**Sutherland**	**51.61**	**95**	P	**P**	**12 20 27.6**	**0.0**
	comp=Z,17nm,0.7s,mb5.1,baz=223,slow=6.4,SNR=20						
SUR	**Sutherland**	**51.61**	**95**	P	**P**	**12 20 27.6**	**0.0**
SUR				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
ATAH	**Atahualpa**	**52.62**	**319**	P	**P**	**12 20 36.5**	**+1.1**
	comp=Z,19nm,1.2s,mb4.9,baz=174,slow=6.6,SNR=12						
BOSA	**Boshof**	**56.97**	**95**	P	**P**	**12 21 05.8**	**-0.9**
	comp=Z,8.1nm,0.7s,mb4.8,baz=223,slow=6.6,SNR=17						
BOSA				LR	LR	12 41 43.9	
	comp=Z,2µm,19.5s,MS5.1,baz=189,slow=32						
OTAV	**Otavalo**	**59.28**	**322**	*e*P	**P**	**12 21 24.9**	**+1.9**
	comp=Z,107nm,1.5s,mb5.7						
OTAV				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
CASY	**Casey**	**59.85**	**170**	PFAKE		12 21 40.0	+14
CASY				LR	LR		
	comp=Z,637nm,20.0s,MS4.8						
ROSC	**El Rosal**	**62.16**	**328**	P	**P**	**12 21 43.6**	**+1.0**
	comp=Z,7.5nm,0.3s,mb5.2,baz=275,slow=19,SNR=4.5						
PAYG	**Puerto Ayora**	**63.45**	**309**	PFAKE		12 22 00.0	+8.7
PAYG				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
PCRV	**Puerto La Cruz**	**64.73**	**340**	P	**P**	**12 21 59.8**	**+0.3**
	comp=Z,14nm,0.8s,mb5.0,baz=108,slow=3.2,SNR=3.8						
SDV	**Santo Domingo**	**64.90**	**334**	P	**P**	**12 21 60.0**	**-0.7**
	comp=Z,5.8nm,0.5s,mb4.9,baz=343,slow=3.0,SNR=6.4						
SDV	**Santo Domingo**	**64.90**	**334**	P	**P**	**12 21 60.0**	**-0.7**
SDV				LR	LR		
	comp=Z,392nm,20.0s,MS4.6						
GRGR	**Grenville**	**66.08**	**344**	PFAKE		12 22 20.0	+12
GRGR				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
BBGH	**Gun Hill**	**66.75**	**346**	PFAKE		12 22 20.0	+7.5
BBGH				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
BCIP	**Isla Barro Col**	**68.04**	**324**	PFAKE		12 22 30.0	+9.2
BCIP				LR	LR		
	comp=Z,591nm,20.0s,MS4.8						
FDF	**Fort de France**	**68.55**	**345**	PFAKE		12 22 40.0	+16
FDF				LR	LR		
	comp=Z,968nm,19.0s,MS5.0						
LIC	**Lamto**	**68.62**	**45**	*e*P	**P**	**12 22 24.6**	**+0.2**
	comp=Z,36nm,0.5s,mb5.6						
LSZ	**Lusaka**	**68.79**	**87**	*e*P	**P**	**12 22 25.6**	**+0.1**
	comp=Z,75nm,0.9s,mb5.6						
LSZ				LR	LR		
	comp=Z,886nm,20.0s,MS5.0						
KIC	**Kosan Boka**	**68.86**	**45**	*e*P	**P**	**12 22 26.0**	**+0.1**
	comp=Z,132nm,1.2s,mb5.7						
TIC	**Toumodi**	**69.00**	**45**	*e*P	**P**	**12 22 26.7**	**-0.1**
	comp=Z,37nm,0.5s,mb5.6						
DBIC	**Dimbokro**	**69.09**	**45**	P	**P**	**12 22 27.8**	**+0.5**
	comp=Z,4.8nm,0.6s,mb4.6,baz=169,slow=5.4,SNR=9.1						
DBIC	**Dimbokro**	**69.09**	**45**	P	**P**	**12 22 27.8**	**+0.5**
DBIC				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
JTS	**JuntasAbangare**	**70.98**	**320**	P	**P**	**12 22 38.2**	**-0.8**
	comp=Z,17nm,0.9s,mb5.0,baz=134,slow=2.1,SNR=9.9						
JTS	**JuntasAbangare**	**70.98**	**320**	P	**P**	**12 22 38.1**	**-0.8**
JTS				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
ANWB	**Willy Bob**	**71.53**	**345**	PFAKE		12 22 50.0	+7.9
ANWB				LR	LR		
	comp=Z,849nm,21.0s,MS5.0						
SJG	**San Juan**	**72.75**	**341**	PFAKE		12 23 00.0	+11
SJG				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
SDDR	**Presa de Saban**	**74.75**	**336**	PFAKE		12 23 10.0	+8.9
SDDR				LR	LR		
	comp=Z,739nm,20.0s,MS5.0						
TGUH	**Tegucigalpa,Un**	**75.32**	**319**	PFAKE		12 23 20.0	+15
TGUH				LR	LR		
	comp=Z,663nm,20.0s,MS4.9						
GTBY	**Guantanamo Bay**	**76.66**	**332**	PFAKE		12 23 20.0	+7.9
GTBY				LR	LR		
	comp=Z,688nm,20.0s,MS5.0						
ABPO	**Ambohimpanom**	**77.31**	**105**	PFAKE		12 23 30.0	+14
ABPO				LR	LR		
	comp=Z,948nm,20.0s,MS5.1						
TORD	**Torodi Ar. Bea**	**77.73**	**48**	P	**P**	**12 23 18.6**	**+0.3**
	comp=Z,3.9nm,0.6s,mb4.5,baz=205,slow=5.9,SNR=26						
CMIG	**Matias Romero**	**81.22**	**314**	P	**P**	**12 23 36.7**	**-0.5**
	comp=Z,3.0nm,0.7s,mb4.4,baz=112,slow=6.4,SNR=6.8						
CMIG	**Matias Romero**	**81.22**	**314**	P	**P**	**12 23 36.7**	**-0.5**
TEIG	**Tepich**	**81.32**	**321**	P	**P**	**12 23 37.4**	**-0.3**
	comp=Z,28nm,0.8s,mb5.2,baz=181,slow=3.3,SNR=6.2						
TEIG	**Tepich**	**81.32**	**321**	P	**P**	**12 23 37.4**	**-0.3**
TEIG				LR	LR		
	comp=Z,993nm,22.0s,MS5.1						
MBAR	**Mbarara**	**81.89**	**80**	PFAKE		12 23 50.0	+9.1
MBAR				LR	LR		
	comp=Z,586nm,19.0s,MS5.0						
PPT	**Papeete**	**83.74**	**249**	LR	LR	12 52 26.9	
	comp=Z,543nm,19.5s,MS4.9,baz=75,slow=30						
DWPF	**Disney**	**86.23**	**330**	PFAKE		12 24 10.0	+7.4
DWPF				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
BBSR	**BB Station**	**86.40**	**345**	PFAKE		12 24 10.0	+6.7
BBSR				LR	LR		
	comp=Z,697nm,19.0s,MS5.1						
TAM	**Tamanrasset**	**87.91**	**47**	PFAKE		12 24 20.0	+9.1
TAM				LR	LR		
	comp=Z,764nm,19.0s,MS5.1						
NHSC	**New Hope**	**90.54**	**332**	PFAKE		12 24 30.0	+7.0
NHSC				LR	LR		
	comp=Z,828nm,20.0s,MS5.2						
BRAL	**Brewton**	**90.72**	**326**	PFAKE		12 24 30.0	+6.1
BRAL				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
CAN	**Canberra**	**91.07**	**193**	PFAKE		12 24 40.0	+14
CAN				LR	LR		
	comp=Z,566nm,20.0s,MS5.0						
KVTX	**Kingsville**	**91.73**	**316**	PFAKE		12 24 40.0	+11
KVTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
GOGA	**Godfrey**	**91.79**	**330**	PFAKE		12 24 40.0	+11
GOGA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
CNNC	**Cliffs of the**	**91.94**	**335**	PFAKE		12 24 40.0	+11
CNNC				LR	LR		
	comp=Z,936nm,20.0s,MS5.2						
HKT	**Hockley**	**93.00**	**319**	PFAKE		12 24 50.0	+16
HKT				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
VBMS	**Vicksburg**	**93.03**	**324**	PFAKE		12 24 50.0	+15
VBMS				LR	LR		
	comp=Z,931nm,22.0s,MS5.2						
RTC	**Rabat Centre**	**93.21**	**32**	PFAKE		12 24 50.0	+15
RTC				LR	LR		
	comp=Z,741nm,20.0s,MS5.1						
NWAO	**Narrogin (SRO)**	**93.35**	**166**	PFAKE		12 24 50.0	+14
NWAO				LR	LR		
	comp=Z,627nm,22.0s,MS5.0						
MSEY	**Mahe Island**	**93.54**	**102**	PFAKE		12 24 50.0	+13
MSEY				LR	LR		
	comp=Z,722nm,22.0s,MS5.1						
NATX	**Nacogdoches**	**94.15**	**321**	PFAKE		12 24 50.0	+10
NATX				LR	LR		
	comp=Z,948nm,20.0s,MS5.2						
BLA	**Blacksburg**	**94.46**	**334**	PFAKE		12 24 50.0	+9.0
BLA				LR	LR		
	comp=Z,898nm,21.0s,MS5.2						
CBN	**Corbin**	**94.62**	**336**	PFAKE		12 24 50.0	+8.3
CBN				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
PLAL	**Pickwick Lake**	**94.70**	**327**	PFAKE		12 24 50.0	+7.9
PLAL				LR	LR		
	comp=Z,786nm,20.0s,MS5.2						
OXF	**Oxford**	**94.72**	**326**	PFAKE		12 24 50.0	+7.8
OXF				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
JCT	**Junction City**	**95.09**	**316**	*e*P	**P**	**12 24 43.6**	**-0.5**
	comp=Z,19nm,1.3s,mb5.4						
JCT				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
WVT	**Waverly**	**95.67**	**328**	PFAKE		12 25 00.0	+13
WVT				LR	LR		
	comp=Z,999nm,19.0s,MS5.3						
SFS	**San Fernando**	**95.70**	**32**	PFAKE		12 25 00.0	+13
SFS				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
TXAR	**Lajitas Array**	**95.78**	**313**	P	**P**	**12 24 46.0**	**-1.3**
	comp=Z,0.9nm,1.1s,mb4.1,baz=155,slow=6.7,SNR=3.8						
MIAR	**Mount Ida**	**96.22**	**323**	PFAKE		12 25 00.0	+11
MIAR				LR	LR		
	comp=Z,802nm,21.0s,MS5.2						
MCWV	**Mont Chateau**	**96.61**	**335**	PFAKE		12 25 00.0	+9.2
MCWV				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SSPA	**Standing Stone**	**97.05**	**337**	PFAKE		12 25 00.0	+7.3
SSPA				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
WCI	**Wyandotte Cave**	**97.11**	**330**	PFAKE		12 25 00.0	+7.0
WCI				LR	LR		
	comp=Z,716nm,21.0s,MS5.1						
ACSO	**Alum Creek Sta**	**97.99**	**333**	PFAKE		12 25 10.0	+13
ACSO				LR	LR		
	comp=Z,913nm,22.0s,MS5.2						
BINY	**Binghamton**	**98.09**	**338**	PFAKE		12 25 10.0	+13
BINY				LR	LR		
	comp=Z,960nm,20.0s,MS5.3						
WMOK	**Wichita Mounta**	**98.39**	**319**	PFAKE		12 25 10.0	+11
WMOK				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
CCM	**Cathedral Cave**	**98.55**	**326**	PFAKE		12 25 10.0	+10
CCM				LR	LR		
	comp=Z,931nm,22.0s,MS5.2						
MTE	**Manteigas**	**98.90**	**29**	PFAKE		12 25 10.0	+8.9
MTE				LR	LR		
	comp=Z,557nm,20.0s,MS5.1						
ERPA	**Erie**	**98.96**	**336**	PFAKE		12 25 10.0	+8.7
ERPA				LR	LR		
	comp=Z,727nm,21.0s,MS5.2						
PAB	**San Pablo**	**99.10**	**32**	PFAKE		12 25 10.0	+8.0
PAB				LR	LR		
	comp=Z,552nm,22.0s,MS5.0						
LBNH	**Lisbon**	**99.21**	**342**	PFAKE		12 25 10.0	+7.7
LBNH				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
NCB	**Newcomb**	**99.41**	**340**	PFAKE		12 25 10.0	+6.8
NCB				LR	LR		
	comp=Z,861nm,20.0s,MS5.2						
AMTX	**Amarillo**	**99.69**	**317**	PFAKE		12 25 20.0	+15
AMTX				LR	LR		
	comp=Z,742nm,21.0s,MS5.2						
AAM	**Ann Arbor**	**100.10**	**333**	PFAKE		12 25 20.0	+13
AAM				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
LONY	**Lake Ozonia**	**100.10**	**340**	PFAKE		12 25 20.0	+13
LONY				LR	LR		
	comp=Z,734nm,20.0s,MS5.2						
HDIL	**Hopedale**	**100.17**	**328**	PFAKE		12 25 20.0	+13
HDIL				LR	LR		
	comp=Z,727nm,19.0s,MS5.2						
KSU1	**Kansas State U**	**101.38**	**323**	PFAKE		12 25 20.0	+7.2
KSU1				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
TUC	**Tucson**	**101.55**	**309**	PFAKE		12 25 20.0	+6.4
TUC				LR	LR		
	comp=Z,717nm,21.0s,MS5.2						
ANMO	**Albuquerque**	**101.79**	**313**	PFAKE		12 25 30.0	+15
ANMO				LR	LR		
	comp=Z,738nm,21.0s,MS5.2						
CBKS	**Cedar Bluff**	**102.31**	**320**	PFAKE		12 25 30.0	+13
CBKS				LR	LR		
	comp=Z,797nm,22.0s,MS5.2						
JFWS	**Jewell Farm**	**102.61**	**329**	PFAKE		12 25 30.0	+12
JFWS				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
SCIA	**State Center**	**102.67**	**326**	PFAKE		12 25 30.0	+11
SCIA				LR	LR		
	comp=Z,850nm,20.0s,MS5.3						
GLMI	**Grayling**	**102.70**	**333**	PFAKE		12 25 30.0	+11
GLMI				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
WDD	**Wield Dalam**	**103.10**	**47**	PFAKE		12 25 30.0	+10
WDD				LR	LR		
	comp=Z,945nm,20.0s,MS5.3						
ASAR	**Alice Springs**	**103.73**	**180**	Pdiff	Pdif	12 25 21.2	-2.0
	comp=Z,1.1nm,0.6s,baz=168,slow=4.3,SNR=6.1						
SDCO	**Great Sand Dun**	**103.73**	**316**	PFAKE		12 25 30.0	+6.7
SDCO				LR	LR		
	comp=Z,817nm,21.0s,MS5.2						
VSL	**Villasalto**	**104.01**	**41**	PFAKE		12 25 30.0	+5.5
VSL				LR	LR		
	comp=Z,683nm,19.0s,MS5.2						
WUAZ	**Wupatki**	**104.48**	**310**	PFAKE		12 25 40.0	+13
WUAZ				LR	LR		
	comp=Z,841nm,19.0s,MS5.3						
MVCO	**Mesa Verde**	**104.58**	**313**	PFAKE		12 25 40.0	+13
MVCO				LR	LR		
	comp=Z,674nm,22.0s,MS5.1						
OGNE	**Ogallala**	**105.04**	**320**	PFAKE		12 29 50.0	+7.1
OGNE				LR	LR		
	comp=Z,781nm,21.0s,MS5.2						
MBWA	**Marble Bar**	**105.27**	**167**	PFAKE		12 29 50.0	+5.9
MBWA				LR	LR		
	comp=Z,661nm,20.0s,MS5.2						
PFO	**Pinyon Flat Ob**	**105.35**	**306**	PFAKE		12 29 50.0	+6.3
PFO				LR	LR		
	comp=Z,734nm,19.0s,MS5.2						
ECSD	**EROS Data Cent**	**105.45**	**325**	PFAKE		12 29 50.0	+6.5
ECSD				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
ISCO	**Idaho Springs**	**105.51**	**317**	PFAKE		12 30 00.0	+16
ISCO				LR	LR		
	comp=Z,845nm,20.0s,MS5.3						
CEL	**Celeste**	**105.70**	**46**	PFAKE		12 30 00.0	+16
CEL				LR	LR		
	comp=Z,816nm,20.0s,MS5.3						
CTAO	**Charters Tower**	**106.44**	**193**	PFAKE		12 30 00.0	+14
CTAO				LR	LR		
	comp=Z,419nm,19.0s,MS5.0						
TIP	**Timpagrande**	**106.84**	**47**	PFAKE		12 30 00.0	+14
TIP				LR	LR		
	comp=Z,828nm,20.0s,MS5.3						
CUC	**Castrocucco**	**107.10**	**45**	PFAKE		12 30 00.0	+13
CUC				LR	LR		
	comp=Z,537nm,20.0s,MS5.1						
SSB	**Saint Sauveur**	**107.18**	**35**	PFAKE		12 30 00.0	+13
SSB				LR	LR		
	comp=Z,568nm,19.0s,MS5.2						
MVU	**Marysvale**	**107.31**	**312**	PFAKE		12 30 00.0	+13
MVU				LR	LR		
	comp=Z,635nm,20.0s,MS5.2						
WRA	**Warramunga Arr**	**107.43**	**181**	Pdiff	Pdif	12 25 37.3	-2.4
	comp=Z,0.7nm,0.5s,baz=186,slow=4.4,SNR=8.8						
WRA				PKiKP	PKiKP	12 29 46.5	-1.7
	comp=Z,0.6nm,0.9s,baz=201,slow=0.9,SNR=6.5						
WRAB	**Tennant Creek**	**107.44**	**181**	PFAKE		12 30 00.0	+12
WRAB				LR	LR		
	comp=Z,764nm,22.0s,MS5.2						
EYMN	**Ely**	**107.52**	**330**	PFAKE		12 30 00.0	+13
EYMN				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
BNI	**Bardonecchia**	**107.74**	**37**	PFAKE		12 30 00.0	+12
BNI				LR	LR		
	comp=Z,858nm,22.0s,MS5.3						
DAC	**Darwin (Calif)**	**108.04**	**307**	PFAKE		12 30 00.0	+11
DAC				LR	LR		
	comp=Z,647nm,19.0s,MS5.2						
VLC	**Villacollemand**	**108.37**	**39**	PFAKE		12 30 00.0	+11
VLC				LR	LR		
	comp=Z,449nm,20.0s,MS5.0						

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RSSD  Black Hills    108.52 320 PFAKE           12 30 00.0 +11
RSSD                            LR      LR
      comp=Z,776nm,20.0s,MS5.3
DUG   Dugway         108.95 312 PFAKE           12 30 00.0 +10
DUG                             LR      LR
      comp=Z,673nm,20.0s,MS5.2
AGMN  Agassiz Refuge 109.19 328 PFAKE           12 30 00.0 +10
AGMN                            LR      LR
      comp=Z,792nm,21.0s,MS5.3
TPH   Tonopah        109.29 308 PFAKE           12 30 00.0 +9.1
TPH                             LR      LR
      comp=Z,678nm,21.0s,MS5.2
BW06  Boulder Array  109.63 316 PFAKE           12 30 00.0 +8.7
BW06                            LR      LR
      comp=Z,612nm,21.0s,MS5.2
TUE   Stuetta        109.93  38 PFAKE           12 30 00.0 +8.2
TUE                             LR      LR
      comp=Z,686nm,21.0s,MS5.2
TIR   Tirane         109.98  47 PFAKE           12 30 00.0 +7.9
TIR                             LR      LR
      comp=Z,615nm,20.0s,MS5.2
NVAR  Mina Array Bea 110.09 307 PP      PP      12 30 23.8 -2.8
      comp=Z,0.3nm,0.8s,baz=166,slow=4.6,SNR=4.1
AHID  Auburn Hatcher 110.28 315 PFAKE           12 30 00.0 +7.4
AHID                            LR      LR
      comp=Z,813nm,22.0s,MS5.3
SAO   San Andreas Ge 110.33 304 PFAKE           12 30 00.0 +7.1
SAO                             LR      LR
      comp=Z,855nm,22.0s,MS5.3
ELK   Elko           110.49 311 PFAKE           12 30 00.0 +7.0
ELK                             LR      LR
      comp=Z,959nm,20.0s,MS5.4
ECH   Echery         110.63  35 PFAKE           12 30 00.0 +7.0
ECH                             LR      LR
      comp=Z,495nm,21.0s,MS5.1
CMB   Columbia Colle 110.79 306 PFAKE           12 30 00.0 +6.3
CMB                             LR      LR
      comp=Z,809nm,21.0s,MS5.3
TRI   Trieste        110.98  41 PFAKE           12 30 00.0 +6.2
TRI                             LR      LR
      comp=Z,703nm,22.0s,MS5.2
BFO   Black Forest   111.14  36 PFAKE           12 30 10.0 +16
BFO                             LR      LR
      comp=Z,549nm,21.0s,MS5.1
BMN   Battle Mountai 111.16 309 PFAKE           12 30 10.0 +16
BMN                             LR      LR
      comp=Z,578nm,20.0s,MS5.2
RLMT  Red Lodge      111.43 317 PFAKE           12 30 10.0 +15
RLMT                            LR      LR
      comp=Z,725nm,22.0s,MS5.2
LKWY  Lake           111.45 316 PFAKE           12 30 10.0 +15
LKWY                            LR      LR
      comp=Z,1µm,21.0s,MS5.4
LAO   LASA Array     111.51 320 PFAKE           12 30 10.0 +15
LAO                             LR      LR
      comp=Z,742nm,20.0s,MS5.3
WLF   Walferdange    111.52  34 PFAKE           12 30 10.0 +15
WLF                             LR      LR
      comp=Z,698nm,22.0s,MS5.2
CSS   Prodhromos     111.53  60 PFAKE           12 30 10.0 +15
CSS                             LR      LR
      comp=Z,325nm,20.0s,MS4.9
MCCM  Marconi Confer 112.11 304 PFAKE           12 30 10.0 +14
MCCM                            LR      LR
      comp=Z,528nm,20.0s,MS5.1
DGMT  Dagmar         112.23 323 PFAKE           12 30 10.0 +14
DGMT                            LR      LR
      comp=Z,668nm,20.0s,MS5.2
ISP   Isparta        112.29  57 PFAKE           12 30 10.0 +13
ISP                             LR      LR
      comp=Z,301nm,20.0s,MS4.9
HLID  Hailey         112.36 313 PFAKE           12 30 10.0 +13
HLID                            LR      LR
      comp=Z,713nm,20.0s,MS5.3
BOZ   Bozeman (W)    112.84 316 PFAKE           12 30 10.0 +13
BOZ                             LR      LR
      comp=Z,707nm,21.0s,MS5.2
HOPS  Hopland        112.86 305 PFAKE           12 30 10.0 +12
HOPS                            LR      LR
      comp=Z,772nm,21.0s,MS5.3
WVOR  Wild Horse Val 113.39 310 PFAKE           12 30 10.0 +12
WVOR                            LR      LR
      comp=Z,673nm,19.0s,MS5.3
ESK   Eskdalemuir    113.68  25 PFAKE           12 30 10.0 +11
ESK                             LR      LR
      comp=Z,568nm,20.0s,MS5.2
MOD   Modoc          113.76 308 PFAKE           12 30 10.0 +11
MOD                             LR      LR
      comp=Z,763nm,19.0s,MS5.3
WDC   Whiskeytown Da 113.82 306 PFAKE           12 30 10.0 +11
WDC                             LR      LR
      comp=Z,634nm,20.0s,MS5.2
HNR   Honiara        113.88 209 PFAKE           12 30 10.0 +10
HNR                             LR      LR
      comp=Z,595nm,20.0s,MS5.2
EGMT  Eagleton       113.99 319 PFAKE           12 30 10.0 +11
EGMT                            LR      LR
      comp=Z,746nm,22.0s,MS5.2
BMO   Blue Mountains 114.66 312 PFAKE           12 30 10.0 +9.1
BMO                             LR      LR
      comp=Z,853nm,21.0s,MS5.3
MSO   Missoula       114.75 316 PFAKE           12 30 10.0 +9.1
MSO                             LR      LR
      comp=Z,521nm,19.0s,MS5.2
YBH   Yreka Blue Hor 114.78 307 PFAKE           12 30 10.0 +8.8
YBH                             LR      LR
      comp=Z,757nm,21.0s,MS5.3
PSZ   Piszkesteto    115.24  43 PFAKE           12 30 10.0 +8.1
PSZ                             LR      LR
      comp=Z,420nm,21.0s,MS5.0
HUMO  Hull Mountain  115.57 307 PFAKE           12 30 10.0 +7.3
HUMO                            LR      LR
      comp=Z,843nm,21.0s,MS5.3
FFC   Flin Flon      116.67 328 PFAKE           12 30 20.0 +16
FFC                             LR      LR
      comp=Z,909nm,21.0s,MS5.4
MALT  Malatya        116.74  61 PFAKE           12 30 20.0 +15
MALT                            LR      LR
      comp=Z,475nm,22.0s,MS5.1
HAWA  Hanford        116.85 312 PFAKE           12 30 20.0 +15
HAWA                            LR      LR
      comp=Z,592nm,20.0s,MS5.2
NEW   Newport        117.22 315 PFAKE           12 30 20.0 +14
NEW                             LR      LR
      comp=Z,904nm,19.0s,MS5.4
COR   Corvallis      117.22 309 PFAKE           12 30 20.0 +14
COR                             LR      LR
      comp=Z,747nm,19.0s,MS5.3
BURAR Bucovina Array 117.27  46⇓iP      Pdif    12 25 56.3 -27
KWP   Kalwaria Pacla 117.74  43 PFAKE           12 30 20.0 +13
KWP                             LR      LR
      comp=Z,637nm,22.0s,MS5.2
NLWA  Neilton Lookou 119.57 310 PFAKE           12 30 20.0 +10
NLWA                            LR      LR
      comp=Z,855nm,20.0s,MS5.4
KONO  Kongsberg      120.97  29 PFAKE           12 30 20.0 +7.5
KONO                            LR      LR
      comp=Z,455nm,19.0s,MS5.1
KAPI  Kappang        121.12 164 PFAKE           12 30 30.0 +16
KAPI                            LR      LR
      comp=Z,451nm,20.0s,MS5.1
KIEV  Kiev           121.31  46 PFAKE           12 30 20.0 +6.6
KIEV                            LR      LR
      comp=Z,333nm,20.0s,MS5.0
GNI   Garni          121.46  64 PFAKE           12 30 30.0 +16
GNI                             LR      LR
      comp=Z,680nm,20.0s,MS5.3
KIV   Kislovodsk     123.02  59 PFAKE           12 30 30.0 +13
KIV                             LR      LR
      comp=Z,399nm,20.0s,MS5.1
KSM   Kuching        125.24 151 PFAKE           12 30 30.0 +7.7
KSM                             LR      LR
      comp=Z,582nm,20.0s,MS5.2
KULM  Kulim          125.44 139 PFAKE           12 30 30.0 +7.4
KULM                            LR      LR
      comp=Z,649nm,19.0s,MS5.3
YKA   Yellowknife Ar 126.85 327 PKP     PKPdf   12 30 22.4 -1.2
      comp=Z,0.4nm,0.6s,baz=135,slow=2.3,SNR=9.6
YKA   Yellowknife Ar 126.85 327 PKP     PKPdf   12 30 22.4 -1.2
OBN   Obninsk        127.59  46 PFAKE           12 30 40.0 +15
OBN                             LR      LR
      comp=Z,419nm,21.0s,MS5.1
ARCES ARCESS Array B 132.81  27 PKP     PKPdf   12 30 33.9 -1.0
      comp=Z,1.7nm,0.7s,baz=354,slow=1.2,SNR=5.3
KEV   Kevo           133.37  27 PFAKE           12 30 50.0 +14
KEV                             LR      LR
      comp=Z,316nm,20.0s,MS5.0
NIL   Nilore         133.65  90 PFAKE           12 30 50.0 +12
NIL                             LR      LR
      comp=Z,72nm,20.0s,MS4.4
DAV   Davao City (W) 133.83 169 PFAKE           12 30 50.0 +11
DAV                             LR      LR
      comp=Z,597nm,22.0s,MS5.3
LVZ   Lovozero       134.57  32 PFAKE           12 30 50.0 +12
LVZ                             LR      LR
      comp=Z,420nm,21.0s,MS5.1
KBS   Kingsbay       136.04  14 PFAKE           12 30 50.0 +9.3
KBS                             LR      LR
      comp=Z,349nm,19.0s,MS5.1
CMAR  Chiang Mai Arr 136.40 129 PKP     PKPdf   12 30 43.4 +0.2
      comp=Z,1.2nm,0.3s,baz=224,slow=2.5,SNR=2.4
CHTO  Chiang Mai     136.71 129 PFAKE           12 30 50.0 +6.3
CHTO                            LR      LR
      comp=Z,452nm,22.0s,MS5.2
EGAK  Eagle          137.72 321 PFAKE           12 31 00.0 +16
EGAK                            LR      LR
      comp=Z,765nm,21.0s,MS5.4
ARU   Arti           138.56  54 PFAKE           12 31 00.0 +14
ARU                             LR      LR
      comp=Z,272nm,20.0s,MS5.0
KSH   Kashi          139.15  85 PKP     PKPdf   12 30 46.3 -1.3
KSH                             LR      LR
      comp=N,630nm,17.5s,MS5.6
KSH                             LR      LR
      comp=E,560nm,15.7s,MS5.6
KSH                             LR      LR
      comp=Z,330nm,4.9s
AML   Almayashu      139.38  81 ePKPdf  PKPdf   12 30 43.9 -4.0
AML                             LR      LR
      comp=Z,326nm,21.0s,MS5.0
EKS2  Erkin-Say      139.74  80 PFAKE           12 31 00.0 +11
EKS2                            LR      LR
      comp=Z,630nm,22.0s,MS5.3
UCH   Uchtor         139.93  81 PFAKE           12 31 00.0 +11
UCH                             LR      LR
      comp=Z,448nm,22.0s,MS5.2
AAK   Ala-Archa      140.15  81 PKhKP           12 30 42.5
      comp=Z,1.7nm,0.6s,baz=184,slow=4.2,SNR=8.5
AAK   Ala-Archa      140.15  81 PKP     PKPdf   12 30 42.5 -6.8
AAK                             LR      LR
      comp=Z,366nm,20.0s,MS5.1
COLA  College        140.38 319 PFAKE           12 31 00.0 +11
COLA                            LR      LR
      comp=Z,456nm,20.0s,MS5.2
TKM2  Tokmak 2       140.98  81 PFAKE           12 31 00.0 +9.2
TKM2                            LR      LR
      comp=Z,435nm,22.0s,MS5.2
LSA   Lhasa          141.46 110 PKP     PKPdf   12 30 46.0 -6.1
LSA   Lhasa          141.46 110 PFAKE           12 31 00.0 +7.9
LSA                             LR      LR
      comp=Z,463nm,19.0s,MS5.3
BRVK  Borovoye       143.10  64 PFAKE           12 31 10.0 +16
BRVK                            LR      LR
      comp=Z,424nm,22.0s,MS5.2
BVAR  Borovoye Array 143.15  64 PKP     PKPdf   12 30 50.9 -3.4
      comp=Z,1.6nm,0.5s,baz=218,slow=3.4,SNR=11
KURK  Kurchatov      146.75  71 PKPbc   PKPbc   12 31 01.5 -0.8
      comp=Z,8.0nm,0.8s,baz=244,slow=3.9,SNR=26
KURK  Kurchatov      146.75  71 PKPbc   PKPbc   12 31 01.5 -0.8
KURK                            LR      LR
      comp=Z,256nm,20.0s,MS5.0
MKAR  Makanchi Array 147.07  80 PKPbc   PKPbc   12 31 01.9 -1.6
      comp=Z,1.8nm,0.5s,baz=234,slow=1.8,SNR=22
CD2   Chengdu        149.20 124 PKPbc   PKPbc   12 31 08.3 -1.3
ADK   Adak           150.03 288 PFAKE           12 31 20.0 +14
ADK                             LR      LR
      comp=Z,418nm,20.0s,MS5.2
YHNB  Yeheng         150.34 157 PFAKE           12 31 20.0 +13
YHNB                            LR      LR
      comp=Z,412nm,19.0s,MS5.2
ZALV  Zalesovo Beam  151.48  68 PKPbc   PKPbc   12 31 12.7 -1.6
      comp=Z,2.2nm,0.4s,baz=247,slow=4.9,SNR=12
ZALV                            PKPab   PKPab   12 31 21.5 -1.3
      comp=Z,2.2nm,0.5s,baz=240,slow=4.6,SNR=5.6
BILL  Bilibino       158.24 327 PFAKE           12 31 30.0 +13
BILL                            LR      LR
      comp=Z,452nm,21.0s,MS5.3
TIXI  Tiksi          161.10   4 PFAKE           12 31 30.0 +10
TIXI                            LR      LR
      comp=Z,265nm,20.0s
TLY   Talaya         161.81  82 PFAKE           12 31 30.0 +8.6
TLY                             LR      LR
      comp=Z,248nm,22.0s
SONM  Songino Array  162.09  96 PKP     PKPdf   12 31 20.7 -1.1
      comp=Z,0.6nm,0.7s,baz=186,slow=1.4,SNR=3.2
ULN   Ulaanbaatar    162.50  96 PFAKE           12 31 30.0 +7.7
ULN                             LR      LR
      comp=Z,314nm,22.0s
BJT   Baijiatuau     162.51 131 PFAKE           12 31 30.0 +7.4
BJT                             LR      LR
      comp=Z,415nm,21.0s
MAJO  Matsushiro     163.27 194 PFAKE           12 31 30.0 +6.6
MAJO                            LR      LR
      comp=Z,377nm,21.0s
INCN  Inchon         163.84 160 PFAKE           12 31 30.0 +6.1
INCN                            LR      LR
      comp=Z,423nm,22.0s
PET   Petropavlovsk  164.82 280 PFAKE           12 31 30.0 +5.8
PET                             LR      LR
      comp=Z,536nm,19.0s
PETK  Petropavlovsk- 165.40 280 PKPab   PKPab   12 32 22.2 -0.7
      comp=Z,3.9nm,0.8s,baz=92,slow=10,SNR=8.1
ERM   Erimo          167.26 215 PFAKE           12 31 40.0 +13
ERM                             LR      LR
      comp=Z,355nm,19.0s
HIA   Hailar         170.65 108 PFAKE           12 31 40.0 +12
HIA                             LR      LR
      comp=Z,381nm,21.0s
YAK   Yakutsk        170.66  11 PFAKE           12 31 40.0 +12
YAK                             LR      LR
      comp=Z,213nm,20.0s
MDJ   Mudanjiang     171.31 162 PFAKE           12 31 40.0 +11
MDJ                             LR      LR
      comp=Z,363nm,21.0s
YSS   Yuzh-Sakhalins 171.51 229 PFAKE           12 31 40.0 +11
YSS                             LR      LR
      comp=Z,167nm,20.0s
```

IDC 20 12:13:13.3±1.1,**12°.22N**×**144°.11E,h0**^{km}**,mb3.6**/4,**mb1 3.9**/4,**mb1mx3.6**/21,**mbtmp3.6**/4,**MS4.2**/1,**Ms1 4.2**/1,**ms1mx3.6**/32,**Error ellipse: s-maj=51.4km s-min=17.5km az=112.0,South of Mariana Islands**

```
Code  Station Name     Δ°   AZ°  Phase ID          Time      Res
                                 Op      ISC     h  m  s     ISC
GUMO  Guam             1.55  28 Pn      Pn      12 13 42.3 +0.2
      127nm,0.3s,baz=192,slow=1.2,SNR=33
GUMO                            Sn      Sn      12 14 03.4 +0.4
      135nm,0.3s,baz=4.8,slow=23,SNR=15
GUMO                            LR      LR      12 14 15.7
      comp=Z,625nm,19.5s,baz=343,slow=40
WRA   Warramunga Arr  33.38 197 P       P       12 19 53.0 -0.5
      0.6nm,0.5s,baz=21,slow=9.6,SNR=10
WRA                             LR      LR      12 32 14.8
      comp=Z,384nm,20.8s,baz=160,slow=34
ASAR  Alice Springs   37.04 196 P       P       12 20 25.4 +0.4
      0.4nm,0.6s,baz=18,slow=10,SNR=10
MKAR  Makanchi Array  61.96 317 P       P       12 23 34.9 -0.2
      0.3nm,0.6s,baz=93,slow=8.1,SNR=3.5
NVAR  Mina Array Bea  88.35  51 P       P       12 26 07.9 +0.6
      0.2nm,0.5s,baz=268,slow=5.3,SNR=3.7
```

BJI ***20*** *12:15:08.8,1°.20S×125°.43E,h8*^{km}*,mB5.1/7,mb4.6/18,Ms5.1/1,Ms7 5.0/1*

IDC ***20*** *12:15:16.6±0.4,0°.32S×125°.05E,h0*^{km}*,mb4.6/19,mb1 4.6/20,mb1mx4.6/24,mbtmp4.5/20,ML3.9/1,MS4.1/1,Ms1 4.1/1,ms1mx3.0/36,Error ellipse: s-maj=22.5km s-min=10.0km az=71.0*

MOS ***20*** *12:15:19.2±1.1,0°.22S×125°.20E,h33*^{km}*,mb4.9/17,Error ellipse: s-maj=16.4km s-min=7.1km az=116.3*

NEIC ***20*** *12:15:22.0±1.2,0°.26S×125°.13E,h38*^{km}*±11*^{km}*,mb4.9/22,Error ellipse: s-maj=9.7km s-min=5.3km az=56.0*

ISCJB ***20*** *12:15:22.6±0.5,0°.31S±0°.03×125°.17E±0°.04,h62*^{km}*±5*^{km}*,mb4.8/58,Error ellipse: s-maj=6.6km s-min=5.2km az=153.0*

DJA ***20*** *12:15:24,0°.32S×125°.31E,h30*^{km}*,MLv4.9/13*

ISC 20 12:15:23.9±0.5,**0°.30S**±0°.03×**125°.20E**±0°.04,**h56**^{km}±5^{km}**,n134,**σ1^{s}.**12**/128,**mb4.8**/58,**5C-2D,Southern Molucca Sea**

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Code  Station Name     Δ°   AZ°  Phase ID          Time      Res
                                 Op      ISC     h  m  s     ISC
KMSI  Cibinong         1.49 306 P       Pn      12 15 46.8 -1.6
MNI   Manado           1.77 348 P       Pn      12 15 52.0 -0.2
LBMI  Labuha           2.33  98 P       Pn      12 15 58.8 -1.0
TNTI  Ternate          2.42  64 P       Pn      12 16 01.7 +0.7
NLAI  Namlea           3.49 147 P       Pn      12 16 14.3 -1.4
APSI  Ampana           3.60 260 P       Pn      12 16 19.2 +2.0
SGSI  Sangihe          3.97   5 P       Pn      12 16 24.0 +1.6
KDI   Kendari          4.45 215 P       Pn      12 16 28.6 -0.4
AAI   Ambon            4.51 138 P       Pn      12 16 28.9 -0.8
PCI   Palu             5.39 264 P       Pn      12 16 45.7 +3.9
      427nm,1.5s,3.8nm
TTSI  Tana Toraja      6.03 243 P       Pn      12 16 50.9 +0.4
      193nm,0.9s
SWI   Sorong           6.09  95 P       Pn      12 16 54.5 +3.1
      71nm,0.8s,0.2nm
BNSI  Bone             6.51 231 P       Pn      12 16 57.4 +0.2
      107nm,0.7s,1µm0.5nm
KAPI  Kappang          7.18 229 ePn     Pn      12 17 06.0 -0.3
      44nm,0.7s
DAV   Davao City (W)   7.33   3 LR      LR      12 20 10.3
      comp=Z,1µm,20.3s,baz=350,slow=40
MYLDM Lahad Datu       8.62 309 P       Pn      12 17 27.8 +1.7
      117nm,1.2s
KBKI  Kotabaru         9.50 252 P       Pn      12 17 42.1 +3.9
      58nm,1.3s
KAKA  Kakadu          14.27 150⇓iP      Pn      12 18 40.8 -2.3
      31nm,0.6s
KAKA  Kakadu          14.27 150 ePn     Pn      12 18 40.7 -2.4
      181nm,1.0s
KAKA  Kakadu          14.27 150 P       Pn      12 18 42.0 -1.1
KSM   Kuching         14.99 277 eP      Pn      12 18 57.6 +5.1
      65nm,0.9s
KSM   Kuching         14.99 277 P       Pn      12 18 58.5 +6.0
      65nm,0.9s
SJI   Sawahan         15.29 241 P       Pn      12 19 02.7 +6.3
      117nm,1.2s
NGJI  Ngawi           15.39 243 P       Pn      12 19 04.6 +6.9
      191nm,1.2s
FITZ  Fitzroy Crossi  17.70 179 eP      Pn      12 19 25.9 -0.6
      19nm,0.8s
FITZ  Fitzroy Crossi  17.70 179 P       Pn      12 19 26.3 -0.2
      0.3nm,0.3s,baz=34,slow=7.8,SNR=6.3
LEM   Lembang         18.70 249 P       Pn      12 19 39.6 +0.9
      161nm,1.0s
MBWA  Marble Bar      21.41 194 eP      P       12 20 07.5 +0.4
      22nm,1.1s,mb4.4
WRAB  Tennant Creek   21.48 156 eP      P       12 20 07.1 -0.8
WRAB                            pmax    pmax
      comp=Z,21nm,0.7s,mb4.6
WRAB  Tennant Creek   21.48 156 eP      P       12 20 07.1 -0.8
      comp=Z,21nm,0.7s,mb4.6
WRAB  Tennant Creek   21.48 156 P       P       12 20 08.3 +0.4
      comp=Z,34nm,1.2s,mb4.6
WRA   Warramunga Arr  21.48 156 P       P       12 20 06.9 -1.0
      comp=Z,5.4nm,0.5s,mb4.1,baz=334,slow=8.9,SNR=48
WB2   Warramunga Arr  21.48 156 eP      P       12 20 07.2 -0.8
XMIS  Christmas Isla  21.91 242 eP      P       12 20 12.6  0.0
XMIS  Christmas Isla  21.91 242 P       P       12 20 12.0 -0.6
      comp=Z,145nm,0.8s,mb5.5
XMIS  Christmas Isla  21.91 242 P       P       12 20 12.5 -0.1
      comp=Z,392nm,0.9s,mb5.8
COEN  Coen            22.38 128 eP      P       12 20 18.7 +1.1
      comp=Z,237nm,0.8s,mb5.7
COEN  Coen            22.38 128 P       P       12 20 19.7 +2.1
TPUB  Ta-pu           23.87 350 P       P       12 20 32.0 -0.3
      comp=Z,29nm,0.8s,mb4.8
ASAR  Alice Springs   24.72 161 P       P       12 20 40.5 +0.4
      comp=Z,15nm,1.1s,mb4.5,baz=344,slow=10,SNR=45
ASAR                            PcP     PcP     12 24 17.1 +1.1
      comp=Z,1.7nm,0.6s,baz=347,slow=2.4,SNR=7.3
ASAR                            S       S       12 25 01.7 +3.5
      comp=Z,1.1nm,0.9s,baz=342,slow=19,SNR=5.0
PSI   Prapat          26.44 277 P       P       12 20 55.2 -0.6
      comp=Z,3.2nm,0.3s,mb4.3,baz=170,slow=9.5,SNR=4.4
PSI   Prapat          26.44 277 P       P       12 20 55.2 -0.6
JOW   Kunigami        27.14   6 P       P       12 21 02.6 +0.8
      comp=Z,21nm,0.7s,mb4.8,baz=164,slow=7.1,SNR=4.0
CTA   Charters Tower  28.49 135 P       P       12 21 15.4 +1.4
      comp=Z,6.1nm,0.9s,mb4.2,baz=316,slow=13,SNR=5.0
FORT  Forrest         30.43 175 eP      P       12 21 31.5 +0.4
      comp=Z,20nm,0.9s,mb4.8
CMAR  Chiang Mai Arr  31.83 307 P       P       12 21 43.5 -0.1
      comp=Z,1.3nm,0.4s,mb4.1,baz=138,slow=6.9,SNR=17
CMAR                            PcP     PcP     12 24 35.6 +2.0
      comp=Z,2.0nm,0.7s,baz=179,slow=1.6,SNR=9.9
CHTO  Chiang Mai      32.02 308 eP      P       12 21 44.6 -0.7
CHTO                            pmax    pmax
      comp=Z,14nm,1.1s,mb4.7
CHTO  Chiang Mai      32.02 308 eP      P       12 21 44.6 -0.6
      comp=Z,14nm,1.1s,mb4.7
STKA  Stephens Creek  35.03 155⇑iP      P       12 22 12.2 +0.9
      comp=Z,10nm,1.0s,mb4.7
STKA  Stephens Creek  35.03 155 P       P       12 22 12.3 +1.1
      comp=Z,12nm,0.9s,mb4.8,baz=334,slow=8.4,SNR=12
XAN   Xi’an           37.42 337 P       P       12 22 31.5 -0.1
XAN                             pP      pP      12 22 38.8 -7.2
XAN                             sP      sP      12 22 42.3  -10
XAN                             pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.5
KSRS  Korea Array     37.65   4 P       P       12 22 34.4 +0.8
      comp=Z,3.5nm,0.9s,mb4.1,baz=178,slow=10,SNR=10
MAT   Matsushiro      38.59  17 P       P       12 22 40.7 -0.8
MJAR  Matsushiro Arr  38.59  17 P       P       12 22 40.7 -0.8
      comp=Z,3.1nm,0.7s,mb4.2,baz=189,slow=8.2,SNR=12
MJAR  Matsushiro Arr  38.59  17 P       P       12 22 40.7 -0.8
ARMA  Armidale        39.09 142 eP      P       12 22 47.0 +1.2
TOO   Toolangi        41.55 155 eP      P       12 23 08.5 +2.5
LSA   Lhasa           44.08 316 P       P       12 23 27.0 +0.4
LSA   Lhasa           44.08 316 eP      P       12 23 27.1 +0.5
LSA                             pmax    pmax
      comp=Z,7.0nm,0.6s,mb4.6
LSA   Lhasa           44.08 316 eP      P       12 23 27.1 +0.5
      comp=Z,7.4nm,0.6s,mb4.6
ODAN  Odare           45.29 310 eP      P       12 23 36.0 -0.3
      comp=Z,20nm,1.0s,mb4.9
TAPN  Taplejung       45.30 310 eP      P       12 23 35.4 -1.0
      comp=Z,13nm,0.8s,mb4.8
GTA   Gaotai          45.84 332 eP      P       12 23 42.1 +1.7
GTA                             pmax    pmax
      comp=Z,11nm,0.6s,mb5.0
RAMN  Ramite          45.95 309 eP      P       12 23 40.8 -0.7
      comp=Z,22nm,0.6s,mb5.2
JIRN  Jiri            46.62 310 eP      P       12 23 46.4 -0.4
GUN   Gumba           46.98 310 eP      P       12 23 49.3 -0.3
      comp=Z,29nm,0.7s,mb5.3
PKI   Pulchoki        47.17 309 eP      P       12 23 50.5 -0.6
      comp=Z,8.2nm,0.6s,mb4.8
PKI   Pulchoki        47.17 309 eP      P       12 23 50.5 -0.6
PKI                             pmax    pmax
      comp=Z,8.0nm,0.6s,mb4.8
KKN   Kakani          47.38 309 eP      P       12 23 52.8 +0.1
      comp=Z,7.7nm,0.6s,mb4.8
KKN   Kakani          47.38 309 eP      P       12 23 52.8 +0.1
KKN                             pmax    pmax
      comp=Z,8.0nm,0.6s,mb4.8
DMN   Daman           47.43 309 eP      P       12 23 52.5 -0.6
      comp=Z,12nm,0.8s,mb4.9
GKN   Gorkha          47.98 309 eP      P       12 23 56.4 -1.0
KOLN  Koldanda        48.68 308 eP      P       12 24 01.9 -0.9
      comp=Z,32nm,0.7s,mb5.5
DANN  Dangsing        48.83 309 eP      P       12 24 03.4 -0.5
      comp=Z,47nm,0.6s,mb5.7
HYB   Hyderabad       49.16 293 i P     P       12 24 07.0 +0.4
HABR  Khabarovsk      49.32   9 eP      P       12 24 04.8 -2.5
HABR                            e               12 25 27.2
HABR                            eS      S       12 31 10.3 +0.7
HABR                            e*SS    sS      12 31 27.2 -7.5
HABR                            e               12 33 54.2
HABR                            eSSS            12 36 04.9
HABR                            pmax    pmax
      comp=E,87nm,2.6s
HABR                            pmax    pmax
      comp=N,76nm,3.0s
HABR                            pmax    pmax
      comp=Z,58nm,2.3s,mb5.2
HABR                            MLR     MLR
      comp=Z,262nm,18.0s
KLR   Kul’dur         49.66   6 eP      P       12 24 06.8 -3.0
ULN   Ulaanbaatar     50.50 344 eP      P       12 24 17.2 +1.0
ULN                             pmax    pmax
      comp=Z,4.0nm,1.0s,mb4.3
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ULN   Ulaanbaatar        50.50 344  eP       P        12 24 17.2 +1.0
      comp=Z,4.5nm,1.0s,mb4.3
SONM  Songino Array      50.66 344  P        P        12 24 17.0 -0.4
      comp=Z,2.8nm,0.8s,mb4.2,baz=156,slow=7.7,SNR=12
ZAK   Zakamensk          53.84 343  eP       P        12 24 40.3 -0.7
ZAK                                 pmax     pmax
      comp=Z,3.0nm,0.9s,mb4.2
TLY   Talaya             54.90 344  eP       P        12 24 48.8 +0.2
TLY                                 pmax     pmax
      comp=Z,7.0nm,1.0s,mb4.7
TLY   Talaya             54.90 344  eP       P        12 24 49.4 +0.7
      comp=Z,2.6nm,0.7s,mb4.4
MOY   Mondy              55.67 342  eP       P        12 24 56.6 +2.4
BOD   Bodaibo            58.63 353  eP       P        12 25 14.7 -0.3
BOD                                 pmax     pmax
      comp=Z,11nm,0.9s,mb4.9
PETK  Petropavlovsk-     59.71  22  P        P        12 25 24.3 +1.7
      comp=Z,9.2nm,0.7s,mb4.9,baz=197,slow=5.2,SNR=14
PETK  Petropavlovsk-     59.71  22  P        P        12 25 24.3 +1.7
KSH   Kashi              59.87 317  P        P        12 25 26.1 +2.1
KSH                                 ePcP     PcP      12 26 02.1 -7.8
KSH                                 ePcS     PcS      12 30 04.1 -8.1
KSH                                 eS       S        12 33 34.1 +2.4
KSH                                 eScS     ScS      12 35 11.4 +1.8
KSH                                 pmax     pmax
      comp=Z,19nm,0.8s,mb5.2
KSH                                 pmax     pmax
      comp=Z,230nm,4.3s
KSH                                 LR       LR
      comp=N,320nm,10.7s
KSH                                 LR       LR
      comp=E,270nm,5.2s
KSH                                 LR       LR
      comp=Z,400nm,7.7s
MK31  Makanchi Array     60.03 327  eP       P        12 25 24.1 -0.8
MKAR  Makanchi Array     60.03 327  P        P        12 25 25.1 +0.2
      comp=Z,5.6nm,0.6s,mb4.8,baz=123,slow=8.1,SNR=47
KZA   Kyzart             61.60 320  P        P        12 25 37.5 +1.8
      SNR=8.2
UCH   Uchtor             62.15 319  P        P        12 25 41.6 +2.2
      SNR=10
YAK   Yakutsk            62.26   2c iP       P        12 25 39.7  0.0
YAK                                 e                 12 26 18.9
YAK                                 eS       S        12 34 02.2 +1.0
YAK                                 pmax     pmax
      comp=Z,16nm,0.8s,mb5.2
YAK                                 pmax     pmax
      comp=N,5.0nm,1.0s
YAK                                 smax
      comp=N,65nm,3.7s
YAK                                 smax
      comp=E,51nm,4.4s
YAK   Yakutsk            62.26   2  eP       P        12 25 40.0 +0.4
      comp=E,16nm,0.6s,mb5.3
AAK   Ala-Archa          62.36 320⇑ eP       P        12 25 41.3 +0.6
AAK                                 pmax     pmax
      comp=Z,3.0nm,1.0s,mb4.4
AAK   Ala-Archa          62.36 320  P        P        12 25 41.6 +0.9
      SNR=6.4
AML   Almayashu          62.64 319  P        P        12 25 44.2 +1.6
      SNR=16
USP   Ospenovka          62.67 320  P        P        12 25 43.2 +0.4
      SNR=8.3
KBL   Kabul              62.81 310  eP       P        12 25 42.9 -1.0
KBL                                 pmax     pmax
      comp=Z,10.0nm,0.8s,mb5.0
KBL   Kabul              62.81 310  eP       P        12 25 42.9 -1.0
      comp=Z,9.7nm,0.8s,mb5.0
EKS2  Erkin-Say          62.84 320  P        P        12 25 43.4 -0.5
      SNR=13
ZALV  Zalesovo Beam      63.50 335  P        P        12 25 46.4 -1.7
      comp=Z,2.2nm,0.7s,mb4.3,baz=128,slow=6.4,SNR=12
ZALV  Zalesovo Beam      63.50 335  P        P        12 25 46.4 -1.7
KURK  Kurchatov          64.34 329  P        P        12 25 52.5 -1.1
      comp=Z,9.1nm,0.8s,mb4.8,baz=132,slow=6.2,SNR=12
NVS   Novosibirsk        64.79 335  eP       P        12 25 54.2 -2.3
NVS                                 e                 12 34 50.8
NVS                                 pmax     pmax
      comp=Z,7.0nm,1.0s,mb4.7
NVS                                 pmax     pmax
      comp=E,8.0nm,1.1s
SEY   Seymchan           66.28  13⇑ eP       P        12 26 06.2 +0.3
TIXI  Tiksi              71.87   1⇑ eP       P        12 26 40.2 -0.3
TIXI                                pmax     pmax
      comp=Z,5.0nm,1.0s,mb4.4
TIXI  Tiksi              71.87   1  eP       P        12 26 40.1 -0.4
      comp=Z,2.9nm,0.6s,mb4.4
BILL  Bilibino           73.81  15  eP       P        12 26 52.5 +0.5
BILL                                e        pP       12 27 06.2 -1.6
BILL                                pmax     pmax
      comp=Z,3.0nm,1.1s,mb4.1
SVE   Sverdlovsk         76.59 329  eP       P        12 27 08.4 +0.2
SVE                                 pmax     pmax
      comp=Z,13nm,1.0s,mb4.8
ARU   Arti               77.52 329d iP       P        12 27 12.8 -0.7
ARU                                 e                 12 30 04.7
ARU                                 S        S        12 37 02.2 +2.0
ARU                                 SS       SS       12 41 56.1 -4.3
ARU                                 pmax     pmax
      comp=Z,13nm,1.7s,mb4.6
ARU   Arti               77.52 329  eP       P        12 27 13.2 -0.3
      comp=Z,10nm,1.0s,mb4.7
MAW   Mawson             79.47 200  P        P        12 27 22.6 -1.4
      comp=Z,12nm,0.7s,mb5.0,baz=45,slow=10.0,SNR=2.8
PRGR  Permogore          85.30 332  eP       P        12 27 52.3 -2.2
PRGR                                pmax     pmax
      comp=Z,25nm,0.9s,mb5.3
VRHR  Novokhopersk       86.18 321  eP       P        12 27 58.8 -0.3
VRHR                                pmax     pmax
      comp=Z,50nm,0.7s,mb5.8
VRHR                                pmax     pmax
      comp=N,30nm,0.6s
VRHR                                pmax     pmax
      comp=E,5.0nm,0.4s
VORD  Divnogorie         87.64 321  eP       P        12 28 05.7 -0.5
VORD                                pmax     pmax
      comp=Z,10.0nm,0.7s,mb5.2
VORD                                pmax     pmax
      comp=N,30nm,0.6s
VORD                                pmax     pmax
      comp=E,30nm,0.6s
VSR   Storozhevoye       87.73 321  eP       P        12 28 05.2 -1.4
VSR                                 pmax     pmax
      comp=Z,5.0nm,0.5s,mb5.0
VSR                                 pmax     pmax
      comp=N,7.0nm,0.7s
VSR                                 pmax     pmax
      comp=E,10.0nm,1.0s
KMBO  Kilima Mbogo       87.94 269  P        P        12 28 10.2 +1.7
      comp=E,5.7nm,0.9s,mb4.8,baz=48,slow=9.4,SNR=7.7
KLMR  Klimovskoe         88.14 331  eP       P        12 28 07.3 -1.1
KLMR                                pmax     pmax
      comp=Z,18nm,1.3s,mb5.1
OBN   Obninsk            89.45 325  eP       P        12 28 14.3 -0.4
OBN                                 pmax     pmax
      comp=Z,18nm,0.6s,mb5.6
QSPA  South Pole Qui     89.64 180  P        P        12 28 17.1 +2.1
      comp=Z,1.9nm,0.9s,mb4.4,baz=73,slow=3.2,SNR=5.6
BRTR  Keskin Array B     91.39 310  P        P        12 28 23.6 -0.5
      comp=Z,2.1nm,0.8s,mb4.5,baz=94,slow=3.7,SNR=6.4
AKASG Malin Array Be     94.02 321  P        P        12 28 34.7 -1.3
      comp=Z,0.7nm,0.5s,mb4.4,baz=70,slow=4.5,SNR=5.2
AKASG Malin Array Be     94.02 321  P        P        12 28 34.7 -1.3
BUR08 Bucovina Ar. S     96.96 318  eP       P        12 28 49.5 +0.1
PV04  Paradox Valley    117.64  46  ePKPdf   PKPdf    12 33 59.1 -5.0
TORD  Torodi Ar. Bea    122.60 285  PKP      PKPdf    12 34 14.7 +0.4
      comp=Z,2.5nm,0.7s,baz=53,slow=1.5,SNR=18
TORD  Torodi Ar. Bea    122.60 285  PKP      PKPdf    12 34 14.7 +0.4
SCHQ  Schefferville     124.76   8  PKP      PKPdf    12 34 18.3 +1.0
      comp=Z,1.6nm,0.9s,baz=270,slow=6.1,SNR=5.9
CFAA  Coronel Fontan    145.81 159  PKPbc    PKPbc    12 34 59.0 +1.6
      comp=Z,0.2nm,0.4s,baz=163,slow=6.1,SNR=3.9
LVC   Limon Verde       153.40 150  PKPbc    PKPbc    12 35 19.0 +2.2
      comp=Z,1.6nm,0.6s,baz=157,slow=7.7,SNR=3.4
CPUP  Villa Florida     153.41 175  PKPbc    PKPbc    12 35 18.1 +1.4
      comp=Z,1.6nm,0.6s,baz=140,slow=3.0,SNR=5.6
SDV   Santo Domingo     162.08  61  PKP      PKPdf    12 35 21.4 +1.2
      comp=Z,1.7nm,0.5s,baz=270,slow=18,SNR=2.8
SIV   San Ignacio       162.67 159  PKP      PKPdf    12 35 22.3 +1.6
      comp=Z,0.9nm,0.9s,baz=0.0,slow=20
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*MEX **20** 12:16:29.4±1.2, 14.°14N×94.°05W, h16^{km}±17^{km}, MD4.3*

*IDC **20** 12:16:29.4±2.2, 14.°48N×93.°62W, h0^{km}, mb4.0/3, mb1 4.1/7, mb1mx3.9/22, mbtmp3.8/7, ML3.5/3, Error ellipse: s-maj=53.7km s-min=27.1km az=33.0*

*NEIC **20** 12:16:32.4±0.8, 14.°43N×93.°66W, mb4.1/5, Error ellipse: s-maj=23.5km s-min=10.8km az=48.0*

ISC 20 12:16:27.5±2.4**, 14.°35N**±0.°06×**93.°96W**±0.°04**, h2**^{km}±17^{km}**, n25,** σ1^{s}30/33**, mb4.0**/8**, Near coast of Chiapas**

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Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                     Op       ISC      h  m  s    ISC
PCIG                      1.53  28  eP       Pn       12 16 54.8 -0.9
PCIG                                iS       Sn       12 17 15.0 -1.2
THIG                      1.73  71  iP       Pn       12 16 57.3 -1.3
THIG                                iS       Sn       12 17 19.2 -2.1
HUIG  Huatulco            2.51 305  eP       Pn       12 17 08.5 -0.8
HUIG                                iS       Sn       12 17 36.1 -4.3
TGIG                      2.55  18  eP       Pn       12 17 11.0 +1.2
TGIG                                iS       Sn       12 17 43.3 +1.9
CCIG  Comitan             2.61  42  eP       Pn       12 17 11.9 +1.2
CCIG                                iS       Sn       12 17 44.2 +1.3
CMIG  Matias Romero       2.87 342  eP       Pn       12 17 14.7 +0.5
CMIG                                iS       Sn       12 17 47.8 -1.5
CMIG  Matias Romero       2.87 342  Pn       Pn       12 17 15.0 +0.7
      2.7nm,0.3s,baz=156,slow=11,SNR=47
CMIG                                Sn       Sn       12 17 47.8 -1.5
      6.3nm,0.3s,baz=112,slow=11,SNR=6.1
VHO   Vista Hermosa       3.80 316  iP       Pn       12 17 27.4 +0.3
VHO                                 iS       Sn       12 18 11.0 -1.4
PNIG  Pinotepa            4.50 297  iP       Pn       12 17 35.3 -1.4
PNIG                                iS       Sn       12 18 24.8 -4.9
TEIG  Tepich              7.98  42  Pn       Pn       12 18 22.7 -1.8
      2.2nm,0.3s,baz=277,slow=6.8,SNR=12
JTS   JuntasAbangare      9.68 114  Pn       Pn       12 18 47.6 -0.3
      0.5nm,0.3s,baz=332,slow=20,SNR=2.3
JCT   Junction City      16.93 342  ePn      Pn       12 20 30.4 +4.8
      4.2nm,0.3s
TXAR  Lajitas Array      17.41 331  P        Pn       12 20 36.4 +4.9
      baz=148,slow=12
AMTX  Amarillo           21.60 343  eP       P        12 21 20.3 +1.6
      7.8nm,0.8s,mb4.2
TUC   Tucson             23.57 322  eP       P        12 21 42.0 +2.4
      1.4nm,0.8s,mb3.4
TUC                                 epP               12 21 53.4
ISA   Isabella           30.57 318  eP       P        12 22 43.1 +0.5
      1.8nm,0.3s,mb4.4
ISA                                 epP      pP       12 22 52.3 +8.9
NVAR  Mina Array Bea     32.23 323  P        P        12 23 01.6 +4.5
      1.0nm,0.8s,mb3.7,baz=142,slow=8.9,SNR=8.7
LVC   Limon Verde        44.17 146  eP       P        12 24 38.4 +0.5
      2.3nm,0.6s,mb4.1
LVC                                 epP      pP       12 24 45.7 +7.0
YKA   Yellowknife Ar     50.27 348  P        P        12 25 26.0 +1.1
      1.4nm,0.8s,mb4.0,baz=153,slow=7.2,SNR=28
CPUP  Villa Florida      53.89 138  P        P        12 25 51.5 -0.8
      1.1nm,0.3s,mb4.2,baz=224,slow=13,SNR=6.9
CPUP  Villa Florida      53.89 138  P        P        12 25 51.5 -0.8
NOA   NORSAR Array B     84.75  28  P        P        12 29 04.5 +1.6
NOA   NORSAR Array B     84.75  28  P        P        12 29 04.5 +1.5
      2.0nm,0.9s,mb4.3,baz=289,slow=5.0,SNR=4.6
NOA   NORSAR Array B     84.75  28  P        P        12 29 04.5 +1.5
CMAR  Chiang Mai Arr    145.01 338  PKPbc    PKPbc    12 36 07.2 +0.6
      1.1nm,0.6s,baz=340,slow=3.9,SNR=5.4
```

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*ISCJB **20** 12:21:29.7±4.3, 40.°2S±0.°1×71.°9W±0.°4, h11^{km}±27^{km}, mb4.2/5, Error ellipse: s-maj=47.3km s-min=20.2km az=173.1*

*IDC **20** 12:21:29.4±1.2, 40.°23S×72.°06W, h0^{km}, mb4.1/6, mb1 4.3/8, mb1mx4.2/17, mbtmp4.2/8, ML4.5/2, Error ellipse: s-maj=35.6km s-min=12.9km az=36.0*

*NEIC **20** 12:21:33.4±0.6, 40.°26S×71.°77W, h25^{km}, mb4.6/1, Error ellipse: s-maj=17.7km s-min=10.7km az=72.0*

ISC 20 12:21:31.7±4.5**, 40.°3S**±0.°1×**71.°8W**±0.°4**, h17**^{km}±27^{km}**, n19,** σ**0**^{s}**65**/14**, mb4.2**/5**, Southern Chile-Argentina border region**

```
Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                     Op       ISC      h  m  s    ISC
PLCA  Paso Flores         1.04 113  Pg       Pg       12 21 51.9  0.0
      134nm,0.3s,baz=287,slow=15,SNR=441
PLCA                                Lg                12 22 12.4
      81nm,0.3s,baz=27,slow=18,SNR=8.5
CFAA  Coronel Fontan      9.18  20  Pn       Pn       12 23 44.7 +1.3
      1.1nm,0.3s,baz=200,slow=12,SNR=47
CFAA  Coronel Fontan      9.18  20  Pn       Pn       12 23 44.7 +1.3
LCO   Las Campanas       11.33   5  ePn      Pn       12 24 12.2 -0.7
LVC   Limon Verde        17.84   9  P        Pn       12 25 38.8 -0.3
      0.8nm,0.3s,baz=217,slow=5.3,SNR=6.4
LVC   Limon Verde        17.84   9  P        Pn       12 25 38.8 -0.3
SIV   San Ignacio        25.99  24  P        P        12 27 03.8 +0.1
      4.9nm,0.9s,mb4.0,baz=220,slow=10,SNR=11
SDV   Santo Domingo      48.98   2  P        P        12 30 16.2 -1.2
      2.4nm,0.6s,mb4.4,baz=221,slow=11,SNR=3.2
TXAR  Lajitas Array      75.36 332  P        P        12 33 14.1  0.0
      1.4nm,1.1s,baz=154,slow=4.6,SNR=4.9
ANMO  Albuquerque        81.43 332  P        P        12 33 47.9 +0.4
      1.8nm,0.9s,mb4.0,baz=180,slow=6.5,SNR=7.3
ANMO  Albuquerque        81.43 332  P        P        12 33 47.9 +0.4
      3.2nm,1.4s,mb4.1
TORD  Torodi Ar. Bea     86.23  69  P        P        12 34 12.3 -0.3
      2.1nm,0.8s,mb4.5,baz=224,slow=4.0,SNR=17
TORD  Torodi Ar. Bea     86.23  69  P        P        12 34 12.3 -0.3
PDAR  Pinedale Array     89.48 333  P        P        12 34 28.1 +0.7
      1.1nm,1.1s,mb4.1,baz=145,slow=5.4,SNR=6.2
TIXI  Tiksi             146.93 348  ePKPbc   PKPbc    12 41 11.9 -0.1
BVAR  Borovoye Array    151.48  51  PKPbc    PKPbc    12 41 24.2 +0.2
      0.7nm,0.6s,baz=320,slow=6.0,SNR=3.9
KURK  Kurchatov         156.98  53  PKP      PKPdf    12 41 26.6 +1.0
      1.1nm,0.9s,baz=285,slow=2.0,SNR=5.2
ZALV  Zalesovo Beam     159.20  41  PKP      PKPdf    12 41 28.8 +0.6
      0.2nm,0.3s,baz=214,slow=4.9,SNR=3.1
MKAR  Makanchi Array    160.21  62  PKP      PKPdf    12 41 30.9 +1.2
      0.2nm,0.5s,baz=297,slow=1.0,SNR=3.6
MKAR                                PKPab    PKPab    12 42 09.6 -0.5
      0.2nm,0.4s,baz=263,slow=3.8,SNR=3.0
```

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*ISCJB **20** 12:28:34.7±2.9, 12.°0N±0.°1×141.°5E±0.°2, h66^{km}±29^{km}, mb3.8/11, Error ellipse: s-maj=27.5km s-min=16.2km az=19.3*

*IDC **20** 12:28:36.9±3.3, 12.°02N×141.°52E, h71^{km}±34^{km}, mb3.6/11, mb1 3.8/12, mb1mx3.7/24, mbtmp3.7/12, ML4.1/1, Error ellipse: s-maj=27.0km s-min=15.7km az=106.0*

ISC 20 12:28:37.4±2.6**, 12.°0N**±0.°1×**141.°5E**±0.°2**, h76**^{km}±28^{km}**, n12,** σ**0**^{s}**78**/13**, mb3.8**/11**, South of Mariana Islands**

```
Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                     Op       ISC      h  m  s    ISC
GUMO  Guam                3.61  64  P        Pn       12 29 31.7 +0.6
      16nm,0.3s,baz=226,slow=4.8,SNR=7.7
GUMO                                S        Sn       12 30 12.0 -0.6
      15nm,0.3s,baz=163,slow=19,SNR=2.9
WRA   Warramunga Arr     32.52 193  P        P        12 35 01.1 -0.2
      0.3nm,0.5s,mb3.4,baz=14,slow=9.7,SNR=4.3
FITZ  Fitzroy Crossi     33.78 208  P        P        12 35 10.9 -1.3
      2.2nm,0.9s,mb4.0,baz=352,slow=14,SNR=6.3
ASAR  Alice Springs      36.22 192  P        P        12 35 34.3 +1.1
      0.2nm,0.5s,mb3.3,baz=21,slow=12,SNR=5.7
SONM  Songino Array      46.23 328  P        P        12 36 56.0 +1.1
      0.3nm,0.5s,mb3.3,baz=126,slow=7.3,SNR=2.7
MKAR  Makanchi Array     60.41 317  P        P        12 38 39.3 +0.4
      0.3nm,0.6s,mb3.5,baz=96,slow=9.7,SNR=4.2
ZALV  Zalesovo Beam      61.05 326  P        P        12 38 42.5 -0.7
      0.7nm,0.4s,mb4.0,baz=98,slow=8.7,SNR=4.6
KURK  Kurchatov          63.73 321  P        P        12 39 00.9 -0.2
      1.8nm,0.4s,mb4.2,baz=111,slow=6.2,SNR=11
BVAR  Borovoye Array     69.17 322  P        P        12 39 35.5 -0.2
      1.9nm,0.5s,mb4.2,baz=108,slow=8.0,SNR=8.9
YKA   Yellowknife Ar     85.75  27  P        P        12 41 07.7 -0.2
      0.4nm,0.5s,mb3.6,baz=289,slow=4.9,SNR=10
ARCES ARCESS Array B     87.57 342  P        P        12 41 15.7 -1.0
      4.2nm,0.9s,mb4.5,baz=64,slow=8.2,SNR=4.6
NVAR  Mina Array Bea     90.44  51  P        P        12 41 32.0 +1.1
      0.9nm,0.5s,mb4.1,baz=273,slow=5.7,SNR=9.2
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*ISK **20** 12:38:48.8, 40.°71N×27.°39E, h18^{km}, MD2.7*

*ISCJB **20** 12:38:49.0±0.5, 40.°74N±0.°03×27.°38E±0.°03, h12^{km}±4^{km}, Error ellipse: s-maj=4.7km s-min=4.2km az=152.7*

*CSEM **20** 12:38:49.1±0.1, 40.°72N×27.°37E, h12^{km}, MD2.9, Error ellipse: s-maj=3.6km s-min=3.1km az=145.0*

*DDA **20** 12:38:49.2, 40.°71N×27.°40E, h7^{km}±6^{km}, Md2.9*

ISC 20 12:38:49.4±0.4**, 40.°73N**±0.°03×**27.°39E**±0.°03**, h14**^{km}±4^{km}**, n30,** σ**0**^{s}**76**/47**, Turkey**

```
Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                     Op       ISC      h  m  s    ISC
SART  Tekirdag            0.16 255  iP       Pg       12 38 53.0 -0.3
SART                                iS       Sg       12 38 56.0 -0.1
SART  Tekirdag            0.16 255  iP       Pg       12 38 53.0 -0.3
SART                                iS       Sg       12 38 56.0  0.0
EDC   Edincik             0.53 136  ePG      Pg       12 38 59.4 -0.4
EDC                                 eSG      Sg       12 39 06.6 -0.1
EDC   Edincik             0.53 136  ePg      Pg       12 38 59.4 -0.3
EDC                                 eSg      Sg       12 39 06.6 -0.2
LPK   Lapseki             0.60 233  ePG      Pg       12 39 01.0  0.0
SLVT  Silivri             0.80  51  ePG      Pg       12 39 05.1 +0.3
SLVT                                eSG      Sg       12 39 17.3 +2.0
SLVT  Silivri             0.80  51  ePg      Pg       12 39 05.1 +0.3
SLVT                                eSg      Sg       12 39 17.3 +2.0
ELBA  Catalca             0.89  62  iP       Pb       12 39 06.8 +0.2
ELBA                                iS       Sg       12 39 17.6 -0.8
ELBA  Catalca             0.89  62  iP       Pb       12 39 06.8 +0.2
ELBA                                iS       Sg       12 39 17.6 -0.8
ENEZ  Enez                0.94 271  ePG      Pg       12 39 07.4 -0.1
ENEZ                                eSG      Sg       12 39 20.7 +0.9
ENEZ  Enez                0.94 271  ePg      Pg       12 39 07.4 -0.1
ENEZ                                eSg      Sg       12 39 20.7 +1.0
CTKS  Kestanelik-??a      0.99  59  ePG      Pg       12 39 08.3 -0.2
CTKS  Kestanelik-??a      0.99  59  ePg      Pg       12 39 08.3 -0.1
BALY  Balya               1.00 170  iP       Pb       12 39 07.7 -0.8
BALY                                iS       Sb       12 39 22.2 +0.7
BALY  Balya               1.00 170  iP       Pb       12 39 07.7 -0.8
BALY                                iS       Sb       12 39 22.2 +0.6
CTYL  Yal??k??y-??at      1.01  42  ePG      Pg       12 39 08.6 -0.3
CTYL  Yal??k??y-??at      1.01  42  ePg      Pg       12 39 08.6 -0.2
BGKT  Bogazkoy            1.14  66  ePN      Pn       12 39 10.0 -0.9
BALB  Balikesir           1.15 161  ePN      Pn       12 39 09.9 -1.2
BALB                                eSN      Sn       12 39 26.4 -0.2
BALB  Balikesir           1.15 161  ePn      Pn       12 39 09.9 -1.1
BALB                                eSn      Sn       12 39 26.4 -0.2
EZN   Ezine               1.22 222  ePN      Pn       12 39 11.8 -0.1
EZN   Ezine               1.22 222  ePn      Pn       12 39 11.8 -0.1
EDRB  Edirne              1.22 337  ePN      Pn       12 39 12.0 +0.1
EDRB                                eSN      Sn       12 39 28.2 +0.1
EDRB  Edirne              1.22 337  ePn      Pn       12 39 12.0 +0.1
GADA  Gvkgeada            1.26 245  ePN      Pn       12 39 12.0 -0.5
GADA  Gvkgeada            1.26 245  ePn      Pn       12 39 12.0 -0.5
ISK   Istanbul-Kandi      1.31  75  ePN      Pn       12 39 12.2 -1.0
DURS  Dursunbey           1.40 143  iP       Pn       12 39 15.4 +1.0
DURS                                iS       Sn       12 39 34.5 +1.8
DURS  Dursunbey           1.40 143  iP       Pn       12 39 15.4 +0.9
DURS                                iS       Sn       12 39 34.5 +1.7
ULDT  Uludag              1.46 113  iP       Pn       12 39 19.1 +3.9
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*ISCJB **20** 12:42:07.4±0.6, 23.°15S±0.°04×70.°08W±0.°07, h59^{km}±6^{km}, mb4.1/9, Error ellipse: s-maj=11.2km s-min=6.6km az=6.1*

*GUC **20** 12:42:07.0±0.8, 23.°19S×69.°99W, h29^{km}±23^{km}, ML4.3*

*IDC **20** 12:42:07.8±0.7, 23.°20S×70.°09W, h47^{km}±6^{km}, mb3.8/8, mb1 4.0/10, mb1mx3.9/17, mbtmp3.8/10, Error ellipse: s-maj=21.6km s-min=7.9km az=156.0*

*NEIC **20** 12:42:07.8±0.4, 23.°18S×70.°08W, MG4.3(GUC), Error ellipse: s-maj=12.0km s-min=9.0km az=80.0*

NEIC Felt [III] at Maria Elena and [II] at Antofagasta and Tocopilla.

ISC 20 12:42:08.2±0.6**, 23.°14S**±0.°04×**70.°10W**±0.°07**, h48**^{km}±7^{km}**, n26,** σ**1**^{s}**03**/27**, mb4.1**/9**, 1D, Near coast of northern Chile**

```
Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                     Op       ISC      h  m  s    ISC
MACH  Maria Elena         0.99  18  eP       Pn       12 42 25.2 -0.5
MACH                                iS       Sn       12 42 39.0 +0.4
TOCH  Tocopilla           1.05 355  eP       Pn       12 42 26.3 -0.2
TOCH                                iS       Sn       12 42 40.7 +0.7
TOCH                                AML      AML      12 42 43.2
      comp=N,20µm,0.1s
LVC   Limon Verde         1.21  64  P        Pn       12 42 29.0 +0.3
      comp=N,870nm,0.3s,baz=244,slow=11,SNR=1803
LVC                                 S        Sn       12 42 44.8 +0.8
      comp=N,2µm,0.3s,baz=246,slow=12,SNR=13
CPN1  Cerro Paranal       1.50 191⇓ iP       Pn       12 42 32.7  0.0
CPN1                                iS       Sn       12 42 52.8 +1.7
CPN1                                AML      AML      12 42 55.9
      comp=E,3µm,0.5s
LCO   Las Campanas        5.87 185  ePn      Pn       12 43 31.1 -1.5
      comp=E,25nm,0.5s
ARE   Arequipa            6.77 349  eP       Pn       12 43 44.0 -1.0
ARE                                 eS       Sn       12 44 57.0 -3.9
CFAA  Coronel Fontan      8.59 169  P        Pn       12 44 08.7 -1.2
      comp=E,0.0nm,0.3s,baz=348,slow=9.3,SNR=1.6
CFAA                                S        Sn       12 45 54.4 +9.0
      comp=E,0.2nm,0.3s,baz=203,slow=16,SNR=9.9
CFAA  Coronel Fontan      8.59 169  P        Pn       12 44 08.7 -1.2
CFAA                                S        Sn       12 45 54.4 +9.0
SIV   San Ignacio        11.08  52  P        Pn       12 44 42.6 -1.4
      baz=250,slow=11
CPUP  Villa Florida      12.03 108  P        Pn       12 44 58.0 +1.1
      comp=E,0.4nm,0.3s,baz=275,slow=9.4,SNR=2.8
TZTN  Tazewell           60.71 348  eP       P        12 52 17.1 +2.5
      comp=E,18nm,0.7s,mb5.3
TXAR  Lajitas Array      61.37 327  P        P        12 52 20.1 +0.9
      comp=E,0.3nm,0.6s,mb3.6,baz=150,slow=8.7,SNR=3.8
PDAR  Pinedale Array     74.99 331  P        P        12 53 45.0 +0.7
      comp=E,0.3nm,0.5s,mb3.5,baz=128,slow=8.6,SNR=2.5
NVAR  Mina Array Bea     76.12 323  P        P        12 53 52.2 +1.3
      comp=E,0.5nm,0.7s,mb3.5,baz=164,slow=5.8,SNR=3.6
ULM   Lac du Bonnet      76.55 343  P        P        12 53 52.4 -0.7
      comp=E,1.3nm,0.4s,mb4.2,baz=153,slow=6.5,SNR=2.7
SCHQ  Schefferville      77.70   2  P        P        12 53 58.8 -0.6
      comp=E,1.1nm,0.7s,mb3.9,baz=232,slow=12,SNR=1.2
TORD  Torodi Ar. Bea     78.94  71  P        P        12 54 06.0 -1.2
      comp=E,2.9nm,0.7s,mb4.3,baz=256,slow=5.2,SNR=17
TORD                                pP       pP       12 54 20.3 -0.8
      comp=E,2.3nm,0.6s,baz=255,slow=5.5,SNR=8.8
TORD  Torodi Ar. Bea     78.94  71  P        P        12 54 06.0 -1.2
TORD                                pP       pP       12 54 20.3 -0.8
BOSA  Boshof             83.64 118  P        P        12 54 31.6 -0.4
      comp=E,2.7nm,0.6s,mb4.6,baz=248,slow=2.7,SNR=2.3
YKA   Yellowknife Ar     92.37 341  P        P        12 55 12.6 -0.3
      comp=E,0.6nm,0.7s,mb4.0,baz=138,slow=4.4,SNR=11
YKA                                 pP       pP       12 55 26.3 -0.8
      comp=E,0.5nm,0.6s,baz=142,slow=4.4,SNR=8.6
ASAR  Alice Springs     127.96 208  PKP      PKPdf    13 01 08.8 -0.5
      comp=E,0.6nm,0.6s,baz=132,slow=1.8,SNR=9.6
ASAR                                pPKP     pPKPdf   13 01 23.0 -1.0
      comp=E,0.2nm,0.5s,baz=152,slow=2.2,SNR=2.7
WRA   Warramunga Arr    130.99 211  PKP      PKPdf    13 01 15.2  0.0
      comp=E,0.6nm,0.6s,baz=157,slow=1.7,SNR=17
WRA                                 pPKP     pPKPdf   13 01 29.3 -0.6
      comp=E,0.6nm,0.9s,baz=148,slow=1.5,SNR=2.5
ZALV  Zalesovo Beam     143.90  25  PKP      PKPdf    13 01 37.3 -0.5
      comp=E,1.5nm,0.6s,baz=292,slow=3.2,SNR=7.9
AAK   Ala-Archa         144.82  48  ePKPdf   PKPdf    13 01 39.9 +0.1
MKAR  Makanchi Array    147.60  36  PKPbc    PKPbc    13 01 47.0 -0.1
      comp=E,2.6nm,0.7s,baz=82,slow=2.6,SNR=26
MKAR                                pPKPbc   pPKPbc   13 02 01.4 -0.2
      comp=E,0.8nm,0.6s,baz=318,slow=3.3,SNR=4.4
MKAR  Makanchi Array    147.60  36  PKPbc    PKPbc    13 01 47.0 -0.1
MKAR                                pPKPbc   pPKPbc   13 02 01.4 -0.2
```

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*ISCJB **20** 12:49:42.7±0.3, 52.°97S±0.°05×46.°54W±0.°10, h10^{km}, mb5.5/38, MS5.1/169, Error ellipse: s-maj=8.9km s-min=6.6km az=149.5*

*IDC **20** 12:49:42.7±0.5, 52.°99S×46.°43W, h0^{km}, mb5.1/15, mb1 5.1/16, mb1mx5.1/20, mbtmp5.1/16, ML4.9/1, MS4.8/8, Ms1 4.8/8, ms1mx4.7/19, Error ellipse: s-maj=16.9km s-min=14.3km az=33.0*

*MOS **20** 12:49:43.0±1.1, 53.°02S×46.°67W, h10^{km}, mb5.9/6, MS5.0/14, Error ellipse: s-maj=25.8km s-min=16.6km az=105.0*

*NEIC **20** 12:49:44.1±0.2, 53.°02S×46.°54W, h10^{km}, mb5.6/17, MS5.1/160, Error ellipse: s-maj=9.6km s-min=7.7km az=65.0*

ISC 20 12:49:44.5±0.3**, 53.°02S**±0.°05×**46.°61W**±0.°09**, h10**^{km}**, n281,** σ**0**^{s}**97**/73**, mb5.5**/38**, MS5.1**/169**, 3C-1D, South Atlantic Ocean**

```
Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                     Op       ISC      h  m  s    ISC
EFI   East Falkland       7.15 276  Pn       Pn       12 51 26.1 -2.9
      2µm,0.5s,SNR=21
USHA  Ushuaia            12.98 253  Pn       Pn       12 52 40.3 -8.5
      1.2nm,0.3s,baz=54,slow=7.6,SNR=6.5
USHA                                Sn       Sn       12 55 00.3  -13
```

	4.6nm,0.3s,baz=67,slow=7.7,SNR=5.5						
USHA				LR	LR	12 57 07.5	
	comp=Z,4μm,21.7s,baz=68,slow=34						
PMSA	**Palmer Station**	**14.76**	**210**	Pn	**Pn**	**12 53 13.0**	**0.0**
	0.5nm,0.3s,baz=56,slow=7.3,SNR=2.6						
PMSA				LR	LR	12 57 54.9	
	comp=Z,8μm,18.1s,baz=56,slow=33						
PMSA	**Palmer Station**	**14.76**	**210**	*e*Pn	**Pn**	**12 53 13.4**	**+0.4**
	198nm,1.1s						
PLCA	**Paso Flores**	**20.35**	**298**	P	**P**	**12 54 20.6**	**-0.3**
	82nm,1.0s,baz=134,slow=11,SNR=20						
PLCA				LR	LR	13 03 26.0	
	comp=Z,8μm,18.1s,MS5.1,baz=135,slow=40						
VNA3	**Neumayer Olymp**	**24.46**	**152**	*e*P	**P**	**12 55 03.1**	**+0.1**
VNA3				*e*		12 55 11.6	
VNA1	**Neumayer--Stat**	**24.60**	**150**	*e*P	**P**	**12 55 05.1**	**+0.8**
VNA2	**Neumayer--Watz**	**24.98**	**151**	*e*P	**P**	**12 55 08.2**	**+0.5**
	baz=295,slow=11						
VNA2				*e*		12 55 16.6	
CFAA	**Coronel Fontan**	**26.52**	**315**	P	**P**	**12 55 19.6**	**-2.5**
	3.2nm,0.7s,baz=146,slow=9.2,SNR=30						
CFAA				LR	LR	13 07 14.4	
	comp=Z,293nm,18.8s,baz=148,slow=40						
CPUP	**Villa Florida**	**27.84**	**339**	P	**P**	**12 55 33.7**	**-0.3**
	21nm,0.9s,mb4.8,baz=146,slow=8.2,SNR=30						
CPUP				LR	LR	13 05 56.8	
	comp=Z,2μm,20.4s,MS4.6,baz=149,slow=35						
CPUP	**Villa Florida**	**27.84**	**339**	P	**P**	**12 55 33.7**	**-0.3**
CPUP				LR	LR	13 05 56.8	
SPB	**Sao Paulo**	**29.39**	**358**	*e*P	**P**	**12 55 48.6**	**+0.9**
	7.9nm,0.5s,mb4.7						
SPB				*e*		12 56 04.8	
SPB				LR	LR		
	comp=Z,1μm,20.0s,MS4.5						
LCO	**Las Campanas**	**29.83**	**314**	*e*P	**P**	**12 55 51.0**	**-0.5**
	comp=Z,146nm,0.8s,mb5.8						
LCO				LR	LR		
	comp=Z,2μm,19.0s,MS4.8						
MAIT	**Maitri**	**31.03**	**147**	*e*P	**P**	**12 55 59.9**	**-1.9**
LVC	**Limon Verde**	**34.80**	**322**	*e*P	**P**	**12 56 35.6**	**+0.4**
	comp=Z,34nm,0.8s,mb5.3						
LVC				*e*		12 56 46.1	
LVC				LR	LR		
	comp=Z,2μm,20.0s,MS4.8						
QSPA	**South Pole Qui**	**37.24**	**180**	*e*P	**P**	**12 56 56.0**	**+0.4**
	comp=Z,101nm,0.6s,mb5.8						
QSPA				LR	LR		
	comp=Z,2μm,21.0s,MS4.8						
SIV	**San Ignacio**	**38.66**	**337**	P	**P**	**12 57 08.1**	**-0.1**
	comp=Z,20nm,0.8s,mb4.9,baz=168,slow=7.9,SNR=86						
SYO	**Syowa Base**	**40.73**	**147**⇑	*e*P	**P**	**12 57 23.4**	**-1.4**
ARE	**Arequipa**	**41.38**	**322**	*e*P	**P**	**12 57 31.0**	**+0.3**
NNA	**Nana**	**47.53**	**318**	P	**P**	**12 58 20.6**	**+0.6**
	comp=Z,35nm,0.8s,mb5.4,baz=178,slow=7.8,SNR=12						
NNA	**Nana**	**47.53**	**318**	*e*P	**P**	**12 58 20.3**	**+0.4**
	comp=Z,60nm,1.0s,mb5.6						
NNA				LR	LR		
	comp=Z,1μm,19.0s,MS4.9						
RCBR	**Riachuelo**	**47.86**	**14**	*e*P	**P**	**12 58 23.4**	**+1.0**
	comp=Z,75nm,1.4s,mb5.5						
RCBR				LR	LR		
	comp=Z,824nm,19.0s,MS4.7						
VNDA	**Vanda**	**48.53**	**188**	P	**P**	**12 58 26.8**	**-0.1**
	comp=Z,7.0nm,0.9s,mb4.7,baz=191,slow=7.5,SNR=3.8						
VNDA	**Vanda**	**48.53**	**188**	P	**P**	**12 58 26.8**	**-0.1**
VNDA				LR	LR		
	comp=Z,2μm,20.0s,MS5.0						
MAW	**Mawson**	**48.79**	**151**	LR	LR	13 15 39.8	
	comp=Z,856nm,19.6s,MS4.7,baz=258,slow=32						
SHEL	**Horse Pasture**	**48.91**	**57**	*e*P	**P**	**12 58 31.0**	**+0.5**
SHEL				pmax	pmax		
	comp=Z,298nm,1.3s,mb6.2						
SHEL				MLR	MLR		
	comp=Z,1μm,19.0s,MS4.9						
SHEL	**Horse Pasture**	**48.91**	**57**	*e*P	**P**	**12 58 31.0**	**+0.5**
	comp=Z,298nm,1.3s,mb6.2						
SHEL				LR	LR		
	comp=Z,1μm,19.0s,MS4.9						
SUR	**Sutherland**	**51.61**	**95**	P	**P**	**12 58 51.5**	**+0.6**
	comp=Z,756nm,0.8s,SNR=13						
SUR	**Sutherland**	**51.61**	**95**	P	**P**	**12 58 52.0**	**+1.1**
	comp=Z,94nm,0.9s,mb5.7,baz=222,slow=6.9,SNR=40						
SUR	**Sutherland**	**51.61**	**95**	*e*P	**P**	**12 58 51.6**	**+0.7**
	comp=Z,123nm,0.9s,mb5.8						
SUR				LR	LR		
	comp=Z,2μm,20.0s,MS5.1						
SUR	**Sutherland**	**51.61**	**95**⇑	*i*P	**P**	**12 58 51.7**	**+0.8**
SUR				AML	AML	12 58 52.4	
	comp=Z,137nm,1.2s						
RPN	**Rapa Nui**	**52.55**	**274**	P	**P**	**12 58 59.4**	**+1.4**
	comp=Z,44nm,0.9s,mb5.4,baz=359,slow=3.2,SNR=5.1						
ATAH	**Atahualpa**	**52.68**	**319**	P	**P**	**12 59 00.3**	**+1.3**
	comp=Z,40nm,1.1s,mb5.2,baz=151,slow=5.4,SNR=31						
BOSA	**Boshof**	**56.97**	**95**	P	**P**	**12 59 29.7**	**-0.3**
	comp=Z,90nm,1.0s,mb5.7,baz=224,slow=7.7,SNR=60						
BOSA	**Boshof**	**56.97**	**95**	P	**P**	**12 59 29.7**	**-0.3**
BOSA				LR	LR		
	comp=Z,3μm,22.0s,MS5.3						
OTAV	**Otavalo**	**59.34**	**322**	*e*P	**P**	**12 59 48.4**	**+1.8**
	comp=Z,237nm,1.7s,mb5.9						
OTAV				LR	LR		
	comp=Z,1μm,22.0s,MS5.0						
CASY	**Casey**	**59.77**	**170**	PFAKE		13 00 00.0	+11
CASY				LR	LR		
	comp=Z,773nm,20.0s,MS4.8						
SLR	**Silverton**	**60.91**	**95**	*e*P	**P**	**12 59 56.5**	**-0.8**
SLR				AMb	AMB	12 59 58.5	
	comp=Z,131nm,1.3s,mb5.9						
ROSC	**El Rosal**	**62.23**	**328**	P	**P**	**13 00 06.4**	**+0.1**
	comp=Z,24nm,0.8s,mb5.4,baz=190,slow=2.3,SNR=14						
PAYG	**Puerto Ayora**	**63.50**	**309**	PFAKE		13 00 30.0	+15
PAYG				LR	LR		
	comp=Z,1μm,19.0s,MS5.1						
MOPA	**Mopani**	**64.44**	**96**	*e*P	**P**	**13 00 20.1**	**-0.8**
MOPA				AMb	AMB	13 00 22.4	
	comp=Z,81nm,1.4s,mb5.6						
SDV	**Santo Domingo**	**64.98**	**334**	*e*P	**P**	**13 00 24.6**	**+0.2**
	comp=Z,21nm,0.9s,mb5.2						
SDV				LR	LR		
	comp=Z,496nm,20.0s,MS4.7						
GRGR	**Grenville**	**66.16**	**344**	PFAKE		13 00 40.0	+8.0
GRGR				LR	LR		
	comp=Z,930nm,19.0s,MS5.0						
BCIP	**Isla Barro Col**	**68.11**	**324**	PFAKE		13 01 00.0	+16
BCIP				LR	LR		
	comp=Z,530nm,20.0s,MS4.8						
FDF	**Fort de France**	**68.63**	**345**	PFAKE		13 01 00.0	+12
FDF				LR	LR		
	comp=Z,509nm,20.0s,MS4.8						
LIC	**Lamto**	**68.69**	**45**	*e*P	**P**	**13 00 47.2**	**-0.9**
	comp=Z,186nm,1.0s,mb6.0						
LSZ	**Lusaka**	**68.80**	**87**	*e*P	**P**	**13 00 48.8**	**-0.1**
LSZ				*e*		13 00 58.0	
LSZ				pmax	pmax		
	comp=Z,136nm,0.8s,mb5.9						
LSZ				MLR	MLR		
	comp=Z,1μm,19.0s,MS5.1						
LSZ	**Lusaka**	**68.80**	**87**	*e*P	**P**	**13 00 48.8**	**-0.1**
	comp=Z,136nm,0.8s,mb5.9						
LSZ				*e*		13 00 58.0	
LSZ				LR	LR		
	comp=Z,1μm,19.0s,MS5.1						
LSZ	**Lusaka**	**68.80**	**87**⇑	*i*P	**P**	**13 00 49.1**	**+0.3**
LSZ				AMb	AMB	13 00 59.3	
	comp=Z,2μm,1.1s						
KIC	**Kosan Boka**	**68.93**	**45**	*e*P	**P**	**13 00 48.7**	**-0.9**
	comp=Z,208nm,0.9s,mb6.0						
TIC	**Toumodi**	**69.06**	**45**	*e*P	**P**	**13 00 49.6**	**-0.8**
	comp=Z,276nm,1.1s,mb6.1						
DBIC	**Dimbokro**	**69.16**	**45**	PFAKE		13 01 00.0	+9.0
DBIC				LR	LR		
	comp=Z,3μm,22.0s,MS5.4						
RKT	**Rikitea**	**70.92**	**257**	*e*P	**P**	**13 01 01.6**	**-0.2**
	comp=Z,70nm,1.2s,mb5.5						
RKT				*e*LR	LR	13 22 49.6	
	comp=Z,1μm,26.8s						
JTS	**JuntasAbangare**	**71.04**	**320**	P	**P**	**13 01 02.3**	**-0.2**
	comp=Z,389nm,0.9s,mb6.3,SNR=10						
JTS	**JuntasAbangare**	**71.04**	**320**	*e*P	**P**	**13 01 02.9**	**+0.4**
JTS				LR	LR		
	comp=Z,652nm,20.0s,MS4.9						
ANWB	**Willy Bob**	**71.61**	**345**	PFAKE		13 01 20.0	+14
ANWB				LR	LR		
	comp=Z,762nm,21.0s,MS4.9						
SJG	**San Juan**	**72.83**	**341**	PFAKE		13 01 20.0	+6.9
SJG				LR	LR		
	comp=Z,1μm,19.0s,MS5.2						
CRPR	**Cabo Rojo, PR**	**72.92**	**340**	*e*P	**P**	**13 01 12.9**	**-0.8**
	comp=Z,24nm,0.9s,mb5.1						
SDDR	**Presa de Saban**	**74.82**	**336**	*e*P	**P**	**13 01 21.8**	**-2.9**
	comp=Z,23nm,1.0s,mb5.1						
SDDR				LR	LR		
	comp=Z,576nm,20.0s,MS4.9						
TGUH	**Tegucigalpa,Un**	**75.38**	**319**	PFAKE		13 01 40.0	+12
TGUH				LR	LR		
	comp=Z,457nm,19.0s,MS4.8						
GTBY	**Guantanamo Bay**	**76.73**	**333**	PFAKE		13 01 50.0	+14
GTBY				LR	LR		
	comp=Z,522nm,21.0s,MS4.8						
ABPO	**Ambohimpanom**	**77.30**	**105**	PFAKE		13 01 50.0	+11
ABPO				LR	LR		
	comp=Z,2μm,19.0s,MS5.4						
TORD	**Torodi Ar. Bea**	**77.80**	**48**	P	**P**	**13 01 41.5**	**-0.3**
	comp=Z,26nm,1.0s,mb5.1,baz=220,slow=4.5,SNR=102						
TORD				S	S	13 11 33.8	-0.5
	comp=Z,5.7nm,1.4s,baz=201,slow=7.7,SNR=7.3						
TORD				LR	LR	13 31 34.1	
	comp=Z,922nm,18.5s,MS5.1,baz=200,slow=32						
RPZ	**Rata Peaks**	**78.35**	**207**	P	**P**	**13 01 45.5**	**+0.8**
	comp=Z,12nm,0.9s,mb4.8,baz=170,slow=8.3,SNR=3.9						
SNZO	**South Karori**	**79.50**	**210**	PFAKE		13 02 00.0	+9.0
SNZO				LR	LR		
	comp=Z,1μm,22.0s,MS5.2						
TEIG	**Tepich**	**81.38**	**321**	PFAKE		13 02 10.0	+8.9
TEIG				LR	LR		
	comp=Z,552nm,19.0s,MS4.9						
URZ	**Urewera**	**81.51**	**213**	P	**P**	**13 02 02.1**	**+0.3**
	comp=Z,11nm,0.9s,mb4.8,baz=356,slow=21,SNR=4.0						
URZ	**Urewera**	**81.51**	**213**	*e*P	**P**	**13 02 01.6**	**-0.2**
	comp=Z,19nm,1.0s,mb5.0						
MBAR	**Mbarara**	**81.91**	**80**	*i* P	**P**	**13 02 06.4**	**+2.1**
MBAR	**Mbarara**	**81.91**	**80**	*e*P	**P**	**13 02 06.1**	**+1.9**
MBAR				AMb	AMB	13 02 08.4	
	comp=Z,43nm,1.4s,mb5.2						
TVO	**Taravao**	**83.35**	**249**	*e*P	**P**	**13 02 12.3**	**+0.6**
	comp=Z,70nm,1.0s,mb5.6						
TIAR	**Tiarei**	**83.58**	**249**	*e*P	**P**	**13 02 13.5**	**+0.6**
	comp=Z,39nm,0.9s,mb5.5						
PPT	**Papeete**	**83.70**	**249**	*e*S	S	13 12 32.3	-3.9
	comp=Z,627nm,24.9s						
PPT				*e*LR	LR	13 28 40.2	
	comp=Z,2μm,27.5s						
VAH	**Vaihoa**	**84.46**	**252**	*e*P	**P**	**13 02 17.8**	**+0.4**
	comp=Z,27nm,1.0s,mb5.3						
KMBO	**Kilima Mbogo**	**85.40**	**86**	P	**P**	**13 02 25.8**	**+3.6**
	comp=Z,1.9nm,0.7s,baz=33,slow=22,SNR=6.8						
KMBO				LR	LR	13 38 59.2	
	comp=Z,807nm,19.4s,MS5.1,baz=97,slow=35						
KMBO	**Kilima Mbogo**	**85.40**	**86**	P	**P**	**13 02 25.8**	**+3.6**
KMBO				LR	LR	13 38 59.2	
DWPF	**Disney**	**86.30**	**330**	PFAKE		13 02 40.0	+14
DWPF				LR	LR		
	comp=Z,488nm,20.0s,MS4.9						
TAM	**Tamanrasset**	**87.97**	**47**	*e*P	**P**	**13 02 36.0**	**+1.6**
TAM				pmax	pmax		
	comp=Z,32nm,1.5s,mb5.3						
TAM				MLR	MLR		
	comp=Z,863nm,19.0s,MS5.2						
TAM	**Tamanrasset**	**87.97**	**47**	*e*P	**P**	**13 02 36.0**	**+1.6**
	comp=Z,32nm,1.5s,mb5.3						
TAM				LR	LR		
	comp=Z,863nm,19.0s,MS5.2						
NHSC	**New Hope**	**90.61**	**332**	PFAKE		13 03 00.0	+13
NHSC				LR	LR		
	comp=Z,661nm,20.0s,MS5.1						
BRAL	**Brewton**	**90.79**	**326**	PFAKE		13 03 00.0	+13
BRAL				LR	LR		
	comp=Z,567nm,19.0s,MS5.0						
CAN	**Canberra**	**90.99**	**193**	P	**P**	**13 02 44.0**	**-4.6**
CAN	**Canberra**	**90.99**	**193**	P	**P**	**13 02 49.0**	**+0.4**
	comp=Z,18nm,0.9s,mb5.4						
CAN				LR	LR		
	comp=Z,583nm,19.0s,MS5.0						
KVTX	**Kingsville**	**91.78**	**316**	PFAKE		13 03 00.0	+7.9
KVTX				LR	LR		
	comp=Z,759nm,19.0s,MS5.2						
GOGA	**Godfrey**	**91.86**	**330**	PFAKE		13 03 00.0	+7.7
GOGA				LR	LR		
	comp=Z,604nm,20.0s,MS5.0						
CNNC	**Cliffs of the**	**92.01**	**335**	PFAKE		13 03 00.0	+7.0
CNNC				LR	LR		
	comp=Z,584nm,21.0s,MS5.0						
HKT	**Hockley**	**93.06**	**319**	PFAKE		13 03 10.0	+12
HKT				LR	LR		
	comp=Z,425nm,19.0s,MS4.9						
VBMS	**Vicksburg**	**93.09**	**324**	PFAKE		13 03 10.0	+12
VBMS				LR	LR		
	comp=Z,521nm,22.0s,MS4.9						
NWAO	**Narrogin (SRO)**	**93.26**	**166**	PFAKE		13 03 10.0	+11
NWAO				LR	LR		
	comp=Z,627nm,20.0s,MS5.1						
RTC	**Rabat Centre**	**93.29**	**32**	PFAKE		13 03 10.0	+11
RTC				LR	LR		
	comp=Z,523nm,20.0s,MS5.0						
MSEY	**Mahe Island**	**93.53**	**102**	PFAKE		13 03 10.0	+9.4
MSEY				LR	LR		
	comp=Z,880nm,22.0s,MS5.2						
CPCT	**Cooper Cave**	**94.07**	**330**	*e*P	**P**	**13 03 01.8**	**-0.7**
NATX	**Nacogdoches**	**94.21**	**321**	PFAKE		13 03 10.0	+6.8
NATX				LR	LR		
	comp=Z,408nm,19.0s,MS4.9						
SWET	**Sewanee**	**94.29**	**329**	*e*P	**P**	**13 03 02.7**	**-0.8**
BLA	**Blacksburg**	**94.54**	**334**	PFAKE		13 03 20.0	+15
BLA				LR	LR		
	comp=Z,618nm,22.0s,MS5.0						
CBN	**Corbin**	**94.69**	**336**	PFAKE		13 03 20.0	+15
CBN				LR	LR		
	comp=Z,528nm,19.0s,MS5.0						
PLAL	**Pickwick Lake**	**94.77**	**327**	PFAKE		13 03 20.0	+14
PLAL				LR	LR		
	comp=Z,562nm,19.0s,MS5.0						
OXF	**Oxford**	**94.78**	**326**	PFAKE		13 03 20.0	+14
OXF				LR	LR		
	comp=Z,449nm,20.0s,MS4.9						
JCT	**Junction City**	**95.15**	**316**	*e*P	**P**	**13 03 07.7**	**+0.2**
JCT				MLR	MLR		
	comp=Z,269nm,19.0s,MS4.7						
STKA	**Stephens Creek**	**95.16**	**187**	P	**P**	**13 03 07.2**	**-0.7**
	comp=Z,2.9nm,0.9s,mb4.7,baz=90,slow=9.1,SNR=2.4						
WVT	**Waverly**	**95.73**	**328**	PFAKE		13 03 20.0	+10
WVT				LR	LR		
	comp=Z,508nm,21.0s,MS5.0						
TXAR	**Lajitas Array**	**95.83**	**313**	P	**P**	**13 03 10.7**	**+0.1**
	comp=Z,1.0nm,0.8s,baz=148,slow=6.8,SNR=9.3						
MIAR	**Mount Ida**	**96.29**	**323**	PFAKE		13 03 20.0	+7.4
MIAR				LR	LR		
	comp=Z,429nm,22.0s,MS4.9						
MCWV	**Mont Chateau**	**96.69**	**335**	PFAKE		13 03 30.0	+16
MCWV				LR	LR		
	comp=Z,764nm,21.0s,MS5.2						
SSPA	**Standing Stone**	**97.12**	**337**	PFAKE		13 03 30.0	+14
SSPA				LR	LR		
	comp=Z,559nm,19.0s,MS5.1						
WCI	**Wyandotte Cave**	**97.17**	**330**	PFAKE		13 03 30.0	+13
WCI				LR	LR		
	comp=Z,464nm,19.0s,MS5.0						
ACSO	**Alum Creek Sta**	**98.06**	**333**	PFAKE		13 03 30.0	+10
ACSO				LR	LR		
	comp=Z,551nm,22.0s,MS5.0						
BINY	**Binghamton**	**98.17**	**338**	PFAKE		13 03 30.0	+9.1
BINY				LR	LR		
	comp=Z,825nm,22.0s,MS5.2						
WMOK	**Wichita Mounta**	**98.45**	**319**	PFAKE		13 03 30.0	+7.6
WMOK				LR	LR		
	comp=Z,460nm,20.0s,MS5.0						
CCM	**Cathedral Cave**	**98.61**	**326**	PFAKE		13 03 30.0	+7.0
CCM				LR	LR		
	comp=Z,453nm,20.0s,MS5.0						
MTE	**Manteigas**	**98.98**	**29**	PFAKE		13 03 40.0	+15
MTE				LR	LR		
	comp=Z,562nm,19.0s,MS5.1						
ERPA	**Erie**	**99.04**	**336**	PFAKE		13 03 40.0	+15
ERPA				LR	LR		
	comp=Z,549nm,22.0s,MS5.0						
PAB	**San Pablo**	**99.18**	**32**	*e*P	**P**	**13 03 22.2**	**-3.3**
PAB				pmax	pmax		
	comp=Z,59nm,0.6s,mb6.3						
PAB				MLR	MLR		
	comp=Z,470nm,19.0s,MS5.0						
PAB	**San Pablo**	**99.18**	**32**	*e*P	**P**	**13 03 22.2**	**-3.4**
	comp=Z,59nm,0.6s,mb6.3						
PAB				LR	LR		
	comp=Z,470nm,19.0s,MS5.0						
LBNH	**Lisbon**	**99.29**	**342**	PFAKE		13 03 40.0	+14
LBNH				LR	LR		
	comp=Z,710nm,22.0s,MS5.1						
NCB	**Newcomb**	**99.49**	**340**	PFAKE		13 03 40.0	+13
NCB				LR	LR		
	comp=Z,800nm,20.0s,MS5.2						
AMTX	**Amarillo**	**99.75**	**317**	PFAKE		13 03 40.0	+11
AMTX				LR	LR		
	comp=Z,464nm,20.0s,MS5.0						
AAM	**Ann Arbor**	**100.17**	**333**	PFAKE		13 03 40.0	+9.4
AAM				LR	LR		
	comp=Z,486nm,20.0s,MS5.0						
LONY	**Lake Ozonia**	**100.18**	**340**	PFAKE		13 03 40.0	+9.3
LONY				LR	LR		
	comp=Z,688nm,20.0s,MS5.2						
HDIL	**Hopedale**	**100.24**	**328**	PFAKE		13 03 40.0	+9.1
HDIL				LR	LR		
	comp=Z,807nm,22.0s,MS5.2						
KSU1	**Kansas State U**	**101.44**	**323**	PFAKE		13 03 50.0	+14
KSU1				LR	LR		
	comp=Z,644nm,22.0s,MS5.1						
TUC	**Tucson**	**101.60**	**309**	PFAKE		13 03 50.0	+13
TUC				LR	LR		
	comp=Z,425nm,20.0s,MS5.0						
ANMO	**Albuquerque**	**101.84**	**313**	PFAKE		13 03 50.0	+12
ANMO				LR	LR		
	comp=Z,681nm,21.0s,MS5.1						
CBKS	**Cedar Bluff**	**102.37**	**320**	PFAKE		13 03 50.0	+10
CBKS				LR	LR		
	comp=Z,510nm,20.0s,MS5.0						
JFWS	**Jewell Farm**	**102.68**	**329**	PFAKE		13 03 50.0	+8.2
JFWS				LR	LR		
	comp=Z,461nm,19.0s,MS5.0						
SCIA	**State Center**	**102.73**	**326**	PFAKE		13 03 50.0	+8.0
SCIA				LR	LR		
	comp=Z,639nm,19.0s,MS5.2						
GLMI	**Grayling**	**102.77**	**333**	PFAKE		13 03 50.0	+7.8
GLMI				LR	LR		
	comp=Z,659nm,21.0s,MS5.1						
WDD	**Wield Dalam**	**103.17**	**47**	PFAKE		13 03 50.0	+6.0
WDD				LR	LR		
	comp=Z,1μm,20.0s,MS5.4						
ASAR	**Alice Springs**	**103.64**	**180**	Pdiff	Pdif	13 03 44.9	-1.2
	comp=Z,4.0nm,1.1s,baz=173,slow=4.6,SNR=13						
ASAR				PP	PP	13 07 58.0	-3.3
	comp=Z,2.1nm,1.1s,baz=173,slow=8.6,SNR=5.9						
SDCO	**Great Sand Dun**	**103.79**	**316**	PFAKE		13 04 00.0	+13
SDCO				LR	LR		
	comp=Z,535nm,20.0s,MS5.1						
VSL	**Villasalto**	**104.08**	**41**	PFAKE		13 04 00.0	+12
VSL				LR	LR		
	comp=Z,669nm,21.0s,MS5.2						
WUAZ	**Wupatki**	**104.52**	**310**	PFAKE		13 04 00.0	+10
WUAZ				LR	LR		
	comp=Z,495nm,19.0s,MS5.1						
MVCO	**Mesa Verde**	**104.63**	**313**	PFAKE		13 04 00.0	+10
MVCO				LR	LR		
	comp=Z,702nm,19.0s,MS5.2						
OGNE	**Ogallala**	**105.10**	**320**	PFAKE		13 08 20.0	+14
OGNE				LR	LR		
	comp=Z,445nm,22.0s,MS5.0						
MBWA	**Marble Bar**	**105.19**	**167**	PFAKE		13 08 20.0	+13
MBWA				LR	LR		
	comp=Z,581nm,20.0s,MS5.1						
PFO	**Pinyon Flat Ob**	**105.39**	**306**	PFAKE		13 08 20.0	+13
PFO				LR	LR		
	comp=Z,767nm,19.0s,MS5.3						
ECSD	**EROS Data Cent**	**105.52**	**325**	PFAKE		13 08 20.0	+13
ECSD				LR	LR		
	comp=Z,513nm,20.0s,MS5.1						
ISCO	**Idaho Springs**	**105.57**	**317**	PFAKE		13 08 20.0	+13
ISCO				LR	LR		
	comp=Z,450nm,20.0s,MS5.0						
CEL	**Celeste**	**105.77**	**47**	PFAKE		13 08 20.0	+12
CEL				LR	LR		
	comp=Z,884nm,19.0s,MS5.3						
CTAO	**Charters Tower**	**106.35**	**193**	PFAKE		13 08 20.0	+11
CTAO				LR	LR		
	comp=Z,568nm,19.0s,MS5.1						
TIP	**Timpagrande**	**106.91**	**47**	PFAKE		13 08 20.0	+10
TIP				LR	LR		
	comp=Z,1μm,20.0s,MS5.5						
CUC	**Castrocucco**	**107.17**	**45**	PFAKE		13 08 20.0	+10
CUC				LR	LR		
	comp=Z,593nm,21.0s,MS5.1						
SSB	**Saint Sauveur**	**107.26**	**35**	PFAKE		13 08 20.0	+10
SSB				LR	LR		
	comp=Z,486nm,19.0s,MS5.1						
WRA	**Warramunga Arr**	**107.34**	**181**	Pdiff	Pdif	13 04 01.2	-1.3
	comp=Z,0.7nm,0.8s,baz=184,slow=4.3,SNR=6.7						
WRA				PP	PP	13 08 26.3	-2.3
	comp=Z,1.2nm,0.8s,baz=182,slow=6.2,SNR=6.6						
WRAB	**Tennant Creek**	**107.35**	**181**	PFAKE		13 08 20.0	+8.8
WRAB				LR	LR		
	comp=Z,821nm,21.0s,MS5.3						
MVU	**Marysvale**	**107.36**	**312**	PFAKE		13 08 20.0	+10
MVU				LR	LR		
	comp=Z,521nm,19.0s,MS5.1						
EYMN	**Ely**	**107.58**	**330**	PFAKE		13 08 20.0	+9.4
EYMN				LR	LR		
	comp=Z,618nm,22.0s,MS5.1						
BNI	**Bardonecchia**	**107.82**	**37**	PFAKE		13 08 20.0	+8.9
BNI				LR	LR		
	comp=Z,497nm,19.0s,MS5.1						
DAC	**Darwin (Calif)**	**108.08**	**307**	PFAKE		13 08 20.0	+8.1
DAC				LR	LR		
	comp=Z,478nm,20.0s,MS5.0						
VLC	**Villacollemand**	**108.44**	**40**	PFAKE		13 08 20.0	+7.7
VLC				LR	LR		
	comp=Z,369nm,20.0s,MS4.9						
DUG	**Dugway**	**109.00**	**312**	PFAKE		13 08 30.0	+17
DUG				LR	LR		
	comp=Z,817nm,19.0s,MS5.3						
AGMN	**Agassiz Refuge**	**109.26**	**328**	PFAKE		13 08 30.0	+16
AGMN				LR	LR		
	comp=Z,634nm,19.0s,MS5.2						
TPH	**Tonopah**	**109.34**	**308**	PFAKE		13 08 30.0	+16
TPH				LR	LR		
	comp=Z,692nm,22.0s,MS5.2						
BW06	**Boulder Array**	**109.68**	**316**	PFAKE		13 08 30.0	+15
BW06				LR	LR		
	comp=Z,644nm,20.0s,MS5.2						
PDAR	**Pinedale Array**	**109.68**	**316**	PP	PP	13 08 41.9	-4.9
	comp=Z,1.1nm,1.1s,baz=133,slow=7.9,SNR=3.6						
PDAR				PKKP	PKKPbc	13 19 36.7	+19
	comp=Z,1.2nm,0.9s,baz=42,slow=2.4,SNR=7.2						
TUE	**Stuetta**	**110.01**	**38**	PFAKE		13 08 30.0	+15
TUE				LR	LR		
	comp=Z,455nm,21.0s,MS5.0						
TIR	**Tirane**	**110.05**	**47**	PFAKE		13 08 30.0	+15
TIR				LR	LR		
	comp=Z,567nm,20.0s,MS5.1						
NVAR	**Mina Array Bea**	**110.14**	**307**	PKKPbc	PKKPbc	13 19 17.8	+1.6
	comp=Z,0.2nm,0.6s,baz=344,slow=2.9,SNR=2.6						
AHID	**Auburn Hatcher**	**110.34**	**315**	PFAKE		13 08 30.0	+14
AHID				LR	LR		
	comp=Z,416nm,19.0s,MS5.0						
SAO	**San Andreas Ge**	**110.37**	**304**	PFAKE		13 08 30.0	+14
SAO				LR	LR		
	comp=Z,386nm,19.0s,MS5.0						
ELK	**Elko**	**110.54**	**311**	PFAKE		13 08 30.0	+14
ELK				LR	LR		
	comp=Z,542nm,19.0s,MS5.2						
ECH	**Echery**	**110.70**	**35**	PFAKE		13 08 30.0	+14
ECH				LR	LR		
	comp=Z,503nm,20.0s,MS5.1						
CMB	**Columbia Colle**	**110.83**	**306**	PFAKE		13 08 30.0	+13
CMB				LR	LR		
	comp=Z,697nm,20.0s,MS5.2						
TRI	**Trieste**	**111.05**	**41**	PFAKE		13 08 30.0	+13
TRI				LR	LR		
	comp=Z,366nm,20.0s,MS5.0						
BMN	**Battle Mountai**	**111.21**	**309**	PFAKE		13 08 30.0	+12
BMN				LR	LR		
	comp=Z,535nm,19.0s,MS5.2						
BFO	**Black Forest**	**111.21**	**36**	PFAKE		13 08 30.0	+13
BFO				LR	LR		
	comp=Z,477nm,19.0s,MS5.1						
RLMT	**Red Lodge**	**111.49**	**317**	PFAKE		13 08 30.0	+12
RLMT				LR	LR		
	comp=Z,766nm,22.0s,MS5.2						
LKWY	**Lake**	**111.50**	**316**	PFAKE		13 08 30.0	+12
LKWY				LR	LR		
	comp=Z,839nm,19.0s,MS5.3						
LAO	**LASA Array**	**111.57**	**320**	PFAKE		13 08 30.0	+12

LAO				LR	LR		
	comp=Z,466nm,19.0s,MS5.1						
CSS	**Prodhromos**	**111.58**	**60**	PFAKE		13 08 30.0	+11
CSS				LR	LR		
	comp=Z,336nm,21.0s,MS4.9						
WLF	**Walferdange**	**111.60**	**34**	PFAKE		13 08 30.0	+12
WLF				LR	LR		
	comp=Z,598nm,20.0s,MS5.2						
DGMT	**Dagmar**	**112.29**	**323**	PFAKE		13 08 30.0	+11
DGMT				LR	LR		
	comp=Z,610nm,19.0s,MS5.2						
ISP	**Isparta**	**112.34**	**57**	PFAKE		13 08 30.0	+10
ISP				LR	LR		
	comp=Z,304nm,20.0s,MS4.9						
HLID	**Hailey**	**112.42**	**313**	PFAKE		13 08 30.0	+10
HLID				LR	LR		
	comp=Z,648nm,21.0s,MS5.2						
BOZ	**Bozeman (W)**	**112.89**	**316**	PFAKE		13 08 30.0	+9.4
BOZ				LR	LR		
	comp=Z,511nm,20.0s,MS5.1						
WVOR	**Wild Horse Val**	**113.44**	**310**	PFAKE		13 08 30.0	+8.2
WVOR				LR	LR		
	comp=Z,612nm,20.0s,MS5.2						
GERES	**GERESS Array B**	**113.61**	**39**	PKiKP	PKiKP	13 08 19.0	-2.9
	comp=Z,0.7nm,0.7s,baz=224,slow=5.2,SNR=5.3						
GERES				PKKPbc	PKKPbc	13 19 04.3	-0.6
	comp=Z,0.3nm,0.4s,baz=38,slow=5.2,SNR=3.5						
ESK	**Eskdalemuir**	**113.76**	**25**	PFAKE		13 08 30.0	+8.0
ESK				LR	LR		
	comp=Z,476nm,19.0s,MS5.1						
HNR	**Honiara**	**113.80**	**209**	PFAKE		13 08 30.0	+6.5
HNR				LR	LR		
	comp=Z,750nm,21.0s,MS5.3						
MOD	**Modoc**	**113.80**	**308**	PFAKE		13 08 30.0	+7.5
MOD				LR	LR		
	comp=Z,515nm,22.0s,MS5.1						
WDC	**Whiskeytown Da**	**113.86**	**306**	PFAKE		13 08 30.0	+7.3
WDC				LR	LR		
	comp=Z,627nm,19.0s,MS5.2						
EGMT	**Eagleton**	**114.04**	**319**	PFAKE		13 08 30.0	+7.2
EGMT				LR	LR		
	comp=Z,279nm,19.0s,MS4.9						
BMO	**Blue Mountains**	**114.71**	**312**	PFAKE		13 08 40.0	+16
BMO				LR	LR		
	comp=Z,483nm,21.0s,MS5.1						
MSO	**Missoula**	**114.80**	**316**	PFAKE		13 08 40.0	+16
MSO				LR	LR		
	comp=Z,506nm,19.0s,MS5.1						
PSZ	**Piszkesteto**	**115.31**	**43**	PFAKE		13 08 40.0	+15
PSZ				LR	LR		
	comp=Z,324nm,19.0s,MS5.0						
BRTR	**Keskin Array B**	**115.36**	**57**	PKP	PKPdf	13 08 24.8	-0.8
	comp=Z,2.5nm,1.1s,baz=263,slow=2.3,SNR=3.0						
BRTR				PKKPab	PKKPab	13 19 01.0	-1.9
	comp=Z,2.7nm,0.8s,baz=114,slow=2.7,SNR=8.8						
HUMO	**Hull Mountain**	**115.61**	**307**	PFAKE		13 08 40.0	+14
HUMO				LR	LR		
	comp=Z,855nm,19.0s,MS5.4						
FFC	**Flin Flon**	**116.74**	**328**	PFAKE		13 08 40.0	+12
FFC				LR	LR		
	comp=Z,555nm,21.0s,MS5.2						
MALT	**Malatya**	**116.80**	**61**	PFAKE		13 08 40.0	+12
MALT				LR	LR		
	comp=Z,392nm,21.0s,MS5.0						
HAWA	**Hanford**	**116.90**	**312**	PFAKE		13 08 40.0	+12
HAWA				LR	LR		
	comp=Z,658nm,20.0s,MS5.2						
COR	**Corvallis**	**117.27**	**309**	PFAKE		13 08 40.0	+11
COR				LR	LR		
	comp=Z,445nm,19.0s,MS5.1						
NEW	**Newport**	**117.27**	**315**	PFAKE		13 08 40.0	+11
NEW				LR	LR		
	comp=Z,541nm,20.0s,MS5.2						
KWP	**Kalwaria Pacla**	**117.81**	**43**	PFAKE		13 08 40.0	+10
KWP				LR	LR		
	comp=Z,407nm,20.0s,MS5.0						
NLWA	**Neilton Lookou**	**119.62**	**310**	PFAKE		13 08 40.0	+6.5
NLWA				LR	LR		
	comp=Z,579nm,21.0s,MS5.2						
KAPI	**Kappang**	**121.05**	**164**	PFAKE		13 08 50.0	+13
KAPI				LR	LR		
	comp=Z,487nm,20.0s,MS5.1						
KONO	**Kongsberg**	**121.05**	**30**	PFAKE		13 08 50.0	+14
KONO				LR	LR		
	comp=Z,439nm,20.0s,MS5.1						
KIEV	**Kiev**	**121.38**	**46**	PFAKE		13 08 50.0	+13
KIEV				LR	LR		
	comp=Z,326nm,19.0s,MS5.0						
AKASG	**Malin Array Be**	**121.39**	**46**	PKP	PKPdf	13 08 35.7	-1.1
	comp=Z,0.9nm,0.5s,baz=250,slow=2.0,SNR=5.4						
AKASG	**Malin Array Be**	**121.39**	**46**	PKP	PKPdf	13 08 35.7	-1.1
GNI	**Garni**	**121.51**	**64**	PFAKE		13 08 50.0	+13
GNI				LR	LR		
	comp=Z,324nm,21.0s,MS5.0						
NB2	**NORSAR Subarra**	**122.65**	**29**	PKPdf	PKPdf	13 08 38.0	-0.9
	comp=Z,4.4nm,1.0s,baz=218,slow=2.0						
NB2	**NORSAR Subarra**	**122.65**	**29**	PKPdf	PKPdf	13 08 38.0	-0.9
	baz=218,slow=2.0						
NOA	**NORSAR Array B**	**122.65**	**29**	PKP	PKPdf	13 08 38.6	-0.3
	comp=Z,3.0nm,0.9s,baz=220,slow=2.3,SNR=4.2						
KIV	**Kislovodsk**	**123.08**	**60**	PFAKE		13 08 50.0	+10
KIV				LR	LR		
	comp=Z,254nm,19.0s,MS4.9						
KSM	**Kuching**	**125.17**	**151**	PFAKE		13 09 00.0	+15
KSM				LR	LR		
	comp=Z,486nm,20.0s,MS5.2						
KULM	**Kulim**	**125.38**	**139**	PFAKE		13 09 00.0	+14
KULM				LR	LR		
	comp=Z,586nm,19.0s,MS5.3						
SUMG	**Summit**	**125.43**	**3**	*e*PKPdf	PKPdf	13 08 44.1	+0.2
YKA	**Yellowknife Ar**	**126.92**	**327**	PKP	PKPdf	13 08 46.4	-0.6
	comp=Z,2.4nm,0.9s,baz=133,slow=2.4,SNR=26						
YKA				PP	PP	13 10 43.9	-2.0
	comp=Z,1.1nm,0.9s,baz=128,slow=6.6,SNR=5.1						
YKA	**Yellowknife Ar**	**126.92**	**327**	PKP	PKPdf	13 08 46.4	-0.6
YKA				PP	PP	13 10 43.9	-2.0
OBN	**Obninsk**	**127.66**	**46**	⇓*i*PKIKP	PKPdf	13 08 48.3	-0.4
OBN				pmax	pmax		
	comp=Z,13nm,1.2s						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.8						
OBN	**Obninsk**	**127.66**	**46**	PFAKE		13 09 00.0	+11
OBN				LR	LR		
	comp=Z,387nm,22.0s,MS5.0						
KAF	**Kangasniemi**	**128.30**	**35**	*e*p	PKPdf	13 08 48.0	-1.7
	comp=Z,13nm,0.7s						
WRAK	**Wrangell Islan**	**129.61**	**314**	PFAKE		13 09 00.0	+7.7
WRAK				LR	LR		
	comp=Z,53nm,19.0s,MS4.2						
JOF	**Joensuu**	**130.59**	**36**	*e*p	PKPdf	13 08 52.4	-1.6
	comp=Z,8.5nm,0.9s						
RES	**Resolute Bay**	**131.41**	**345**	*e*PKIKP	PKPdf	13 08 55.6	+0.3
KLMR	**Klimovskoe**	**132.44**	**41**	*e*PKIKP	PKPdf	13 08 56.4	-1.2
KLMR				pmax	pmax		
	comp=Z,34nm,1.5s						
ARCES	**ARCESS Array B**	**132.90**	**27**	PKP	PKPdf	13 08 58.6	+0.5
	comp=Z,9.6nm,0.9s,baz=222,slow=1.2,SNR=8.1						
NIL	**Nilore**	**133.66**	**90**	PFAKE		13 09 10.0	+9.2
NIL				LR	LR		
	comp=Z,80nm,22.0s,MS4.4						
DAV	**Davao City (W)**	**133.75**	**169**	PFAKE		13 09 10.0	+8.4
DAV				LR	LR		
	comp=Z,394nm,22.0s,MS5.1						
LVZ	**Lovozero**	**134.66**	**32**	PFAKE		13 09 10.0	+8.5
LVZ				LR	LR		
	comp=Z,585nm,19.0s,MS5.3						
PRGR	**Permogore**	**135.35**	**43**	*e*PKIKP	PKPdf	13 08 59.8	-3.2
PRGR				pmax	pmax		
	comp=Z,67nm,1.5s						
KBS	**Kingsbay**	**136.13**	**14**	PFAKE		13 09 20.0	+16
KBS				LR	LR		
	comp=Z,227nm,20.0s,MS4.9						
CMAR	**Chiang Mai Arr**	**136.36**	**129**	PKP	PKPdf	13 09 06.7	+0.4
	comp=Z,1.0nm,0.8s,baz=234,slow=3.9,SNR=5.1						
CHTO	**Chiang Mai**	**136.66**	**129**	PFAKE		13 09 20.0	+13
CHTO				LR	LR		
	comp=Z,453nm,21.0s,MS5.2						
EGAK	**Eagle**	**137.78**	**321**	*e*PKPdf	PKPdf	13 09 07.4	0.0
EGAK				LR	LR		
	comp=Z,685nm,21.0s,MS5.4						
ARU	**Arti**	**138.62**	**54**	*i* PKHKP		13 09 00.1	
ARU	**Arti**	**138.62**	**54**	*e*PKPdf		13 09 00.2	
ARU				LR	LR		
	comp=Z,516nm,21.0s,MS5.2						
KSH	**Kashi**	**139.17**	**86**	*e*PKP	PKPdf	13 09 09.1	-1.7
KSH				*e*PKS		13 12 44.1	
KSH				*e*SKS	SKSdf	13 16 14.8	-6.2
KSH				AMB	AMB		
	comp=Z,400nm,5.9s						
KSH				LR	LR		
	comp=E,280nm,5.3s						
KSH				LR	LR		
	comp=Z,400nm,5.8s						
AML	**Almayashu**	**139.40**	**81**	*e*PKPdf	PKPdf	13 09 07.6	-3.6
AML				LR	LR		
	comp=Z,284nm,21.0s,MS5.0						
EKS2	**Erkin-Say**	**139.77**	**80**	*e*PKPdf	PKPdf	13 09 11.5	-0.3
EKS2				*e*pPKPdf	pPKPdf	13 09 21.3	+6.1
EKS2				*e*PP	PP	13 12 09.2	+0.8
EKS2				LR	LR		
	comp=Z,411nm,20.0s,MS5.2						
SVE	**Sverdlovsk**	**139.83**	**54**	*e*PKHKP		13 09 04.6	
SVE				pmax	pmax		
	comp=Z,13nm,1.0s						
UCH	**Uchtor**	**139.95**	**81**	*e*PKPdf	PKPdf	13 09 06.4	-5.7
UCH				LR	LR		
	comp=Z,309nm,21.0s,MS5.0						
AAK	**Ala-Archa**	**140.18**	**81**	*e*PKHKP		13 09 05.9	
AAK				MLR	MLR		
	comp=Z,484nm,22.0s,MS5.2						
COLA	**College**	**140.43**	**319**	PFAKE		13 09 20.0	+7.7
COLA				LR	LR		
	comp=Z,730nm,21.0s,MS5.4						
TKM2	**Tokmak 2**	**141.00**	**81**	PFAKE		13 09 30.0	+16
TKM2				LR	LR		
	comp=Z,322nm,21.0s,MS5.0						
LSA	**Lhasa**	**141.44**	**110**	*e*PKPdf		13 09 09.1	
LSA				*e*SKPdf	SKPdf	13 12 49.4	-0.3
LSA				LR	LR		
	comp=Z,436nm,20.0s,MS5.2						
BRVK	**Borovoye**	**143.15**	**64**	*e*PKIKP	PKPdf	13 09 14.3	-3.2
BRVK				*e*		13 09 18.1	
BRVK				MLR	MLR		
	comp=Z,387nm,19.0s,MS5.2						
KMI	**Kunming**	**143.86**	**128**	PKP	PKPdf	13 09 18.6	-1.1
AKUT	**Akutan**	**144.84**	**297**	*e*PKPdf	PKPdf	13 09 19.0	-1.4
UNV	**Unalaska Valle**	**145.12**	**296**	*e*PKPbc	PKPbc	13 09 19.9	-0.6
KURK	**Kurchatov**	**146.79**	**71**	*e*PKIKP	PKPdf	13 09 23.1	-0.8
KURK				MLR	MLR		
	comp=Z,342nm,19.0s,MS5.2						
GYA	**Guiyang**	**146.81**	**133**	PKPbc	PKPbc	13 09 24.8	-1.7
GYA				PKPab	PKPab	13 09 31.3	+3.5
GYA				PP	PP	13 12 59.6	+9.3
GYA				SKS	SKSdf	13 16 31.8	-1.6
GYA				SKKS	SKKSac	13 19 41.4	-0.9
GYA				SS	SS	13 31 51.0	+1.5
GYA				AMB	AMB		
	comp=Z,210nm,7.8s						
GYA				LR	LR		
	comp=N,3µm,20.2s,MS6.0						
GYA				LR	LR		
	comp=E,1µm,22.0s,MS6.0						
GYA				LR	LR		
	comp=Z,3µm,21.6s,MS6.0						
MKAR	**Makanchi Array**	**147.10**	**80**	PKP	PKPdf	13 09 23.0	-1.5
	comp=Z,9.8nm,1.1s,baz=232,slow=1.4,SNR=28						
MKAR				PKPbc	PKPbc	13 09 26.2	-0.5
	comp=Z,9.8nm,1.1s,baz=246,slow=1.3,SNR=34						
MKAR				PP	PP	13 12 53.5	+1.0
	comp=Z,1.7nm,0.9s,baz=262,slow=9.8,SNR=3.3						
MKAR	**Makanchi Array**	**147.10**	**80**	PKP	PKPdf	13 09 23.0	-1.5
MKAR				PKPbc	PKPbc	13 09 26.2	-0.5
MKAR				PP	PP	13 12 53.5	+1.0
WMQ	**Urumqi**	**148.79**	**88**	PKPbc	PKPdf	13 09 27.6	+0.2
WMQ				PKPab	PKPab	13 09 37.0	+1.8
WMQ				PP	PP	13 13 06.0	+3.6
WMQ				SKS	SKSdf	13 16 31.0	-4.3
WMQ				SKKS	SKKSac	13 19 50.0	-2.8
WMQ				AMB	AMB		
	comp=Z,390nm,6.0s						
WMQ				LR	LR		
	comp=N,360nm,27.2s,MS5.3						
WMQ				LR	LR		
	comp=E,480nm,22.8s,MS5.3						
WMQ				LR	LR		
	comp=Z,500nm,28.7s						
TNA	**Tin City**	**148.79**	**317**	*e*PKPbc	PKPbc	13 09 31.2	+0.6
CD2	**Chengdu**	**149.16**	**124**	PKPbc	PKPbc	13 09 30.5	-2.2
CD2				PKPab	PKPab	13 09 41.9	+4.8
CD2				PKS		13 13 04.0	
CD2				PP	PP	13 13 10.5	+6.3
CD2				SKS	SKSdf	13 16 33.3	-3.1
CD2				SKKS	SKKSac	13 19 54.3	-1.1
CD2				SS	SS	13 32 16.1	-0.1
CD2				LR	LR		
	comp=N,300nm,10.1s						
CD2				LR	LR		
	comp=Z,350nm,17.2s						
ADK	**Adak**	**150.05**	**288**	*e*PKIKP	PKPbc	13 09 34.0	-0.1
ADK				*e*		13 09 40.1	
GAMB	**Gambell**	**150.25**	**313**	*e*PKPbc	PKPbc	13 09 34.9	+0.7
GAMB				*e*PKPab	PKPab	13 09 41.9	+1.3
YHNB	**Yeheng**	**150.27**	**158**	PFAKE		13 09 40.0	+10
YHNB				LR	LR		
	comp=Z,355nm,21.0s,MS5.1						
NVS	**Novosibirsk**	**150.91**	**66**	*e*PKIKP	PKPdf	13 09 29.1	-1.3
NVS				*e*		13 13 13.4	
NVS				pmax	pmax		
	comp=Z,104nm,1.9s						
NVS				pmax	pmax		
	comp=N,34nm,1.8s						
NVS				pmax	pmax		
	comp=E,18nm,1.3s						
ZAA0	**Zalesovo Array**	**151.53**	**68**	*e*PKPbc	PKPbc	13 09 36.0	-1.5
ZALV	**Zalesovo Beam**	**151.53**	**68**	PKP	PKPdf	13 09 29.1	-2.2
	comp=E,0.4nm,0.5s,baz=316,slow=4.1,SNR=3.6						
ZALV				PKPbc	PKPbc	13 09 35.5	-2.0
	comp=E,15nm,1.1s,baz=262,slow=3.0,SNR=22						
LZH	**Lanzhou**	**153.25**	**117**	*e*PKPbc	PKPdf	13 09 31.3	-3.2
LZH				sPKP		13 09 44.0	
LZH				PKPab	PKPab	13 09 51.6	-2.3
LZH				SS	SS	13 32 59.6	-2.0
LZH				AMB	AMB		
	comp=Z,140nm,5.8s						
LZH				LR	LR		
	comp=N,220nm,17.4s						
LZH				LR	LR		
	comp=Z,370nm,18.6s,MS5.2						
GTA	**Gaotai**	**153.35**	**107**	PKPbc	PKPdf	13 09 37.6	+3.0
GTA				pPKP	pPKPdf	13 09 43.3	+5.3
GTA				PP	PP	13 13 34.4	+5.9
GTA				SKS	SKSdf	13 16 41.6	+0.3
GTA				SKKS	SKKSac	13 20 23.0	+5.0
GTA				AMB	AMB		
	comp=Z,140nm,6.5s						
GTA				LR	LR		
	comp=N,150nm,19.9s,MS5.0						
GTA				LR	LR		
	comp=E,150nm,18.1s,MS5.0						
GTA				LR	LR		
	comp=Z,190nm,19.3s,MS4.9						
NJ2	**Nanjing**	**156.55**	**148**	*e*PKP	PKPdf	13 09 36.3	-2.9
BILL	**Bilibino**	**158.31**	**326**	*e*PKIKP	PKPdf	13 09 36.2	-4.0
BILL				MLR	MLR		
	comp=Z,881nm,21.0s,MS5.6						
BILL	**Bilibino**	**158.31**	**326**	*e*PKPdf	PKPdf	13 09 36.2	-4.0
BILL				LR	LR		
	comp=Z,881nm,21.0s,MS5.6						
HHC	**Hu-ho-hao-te**	**160.85**	**121**	*e*PKP	PKPdf	13 09 44.9	+0.9
HHC				PKPab	PKPab	13 10 29.3	+2.8
HHC				PKS		13 13 17.1	
HHC				PP	PP	13 14 13.3	+3.7
HHC				SKS	SKSdf	13 16 45.4	-3.4
HHC				SKKS	SKKSac	13 20 55.8	-1.8
HHC				SS	SS	13 34 20.1	-2.8
HHC				AMB	AMB		
	comp=Z,170nm,8.7s						
HHC				LR	LR		
	comp=N,110nm,15.9s						
HHC				LR	LR		
	comp=E,280nm,16.5s						
HHC				LR	LR		
	comp=Z,350nm,22.6s						
TIXI	**Tiksi**	**161.19**	**4**	PFAKE		13 09 50.0	+6.6
TIXI				LR	LR		
	comp=Z,302nm,22.0s						
ZAK	**Zakamensk**	**161.21**	**86**	*e*PKIKP	PKPdf	13 09 43.5	-0.6
ZAK				*e*		13 10 23.6	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s						
TLY	**Talaya**	**161.83**	**82**	*e*PKIKP	PKPdf	13 09 45.9	+1.2
TLY				*e*		13 09 51.6	
TLY				pmax	pmax		
	comp=Z,9.0nm,1.8s						
TLY	**Talaya**	**161.83**	**82**	PFAKE		13 10 00.0	+15
TLY				LR	LR		
	comp=Z,494nm,20.0s						
SONM	**Songino Array**	**162.09**	**96**	PKP	PKPdf	13 09 44.3	-0.8
	comp=Z,0.6nm,0.4s,baz=132,slow=2.2,SNR=5.6						
IRK	**Irkutsk**	**162.35**	**81**	*e*PKIKP	PKPdf	13 09 44.2	-1.0
IRK				pmax	pmax		
	comp=Z,19nm,1.5s						
BJT	**Baijiatuau**	**162.47**	**131**	PFAKE		13 10 00.0	+14
BJT				LR	LR		
	comp=Z,415nm,21.0s						
ULN	**Ulaanbaatar**	**162.50**	**97**	PFAKE		13 10 00.0	+15
ULN				LR	LR		
	comp=Z,403nm,22.0s						
MAJO	**Matsushiro**	**163.18**	**194**	PFAKE		13 10 00.0	+13
MAJO				LR	LR		
	comp=Z,313nm,19.0s						
INCN	**Inchon**	**163.76**	**160**	PFAKE		13 10 00.0	+13
INCN				LR	LR		
	comp=Z,427nm,22.0s						
KSRS	**Korea Array**	**163.97**	**164**	PKIKP	PKPdf	13 09 46.8	-0.4
KSRS				PKP	PKPab	13 10 38.9	-1.3
KSRS	**Korea Array**	**163.97**	**164**	PKP	PKPdf	13 09 46.8	-0.5
	comp=Z,1.8nm,1.0s,baz=222,slow=1.7,SNR=5.4						
KSRS				PKPab	PKPab	13 10 39.0	-1.3
	comp=Z,0.4nm,0.6s,baz=198,slow=3.8,SNR=4.6						
PET	**Petropavlovsk**	**164.82**	**280**	PFAKE		13 10 00.0	+13
PET				LR	LR		
	comp=Z,412nm,19.0s						
PETK	**Petropavlovsk-**	**165.40**	**280**	PKPab	PKPab	13 10 45.9	-0.3
	comp=Z,20nm,0.8s,baz=103,slow=8.9,SNR=17						
ERM	**Erimo**	**167.18**	**215**	PFAKE		13 10 00.0	+10
ERM				LR	LR		
	comp=Z,484nm,20.0s						
BOD	**Bodaibo**	**168.00**	**59**	*e*PKIKP	PKPdf	13 09 47.3	-2.5
BOD				*e*		13 10 57.4	
BOD				pmax	pmax		
	comp=Z,8.0nm,1.1s						
BOD				pmax	pmax		
	comp=Z,9.0nm,1.2s						
CN2	**Changchun**	**169.38**	**147**	*e*PKP	PKPdf	13 09 51.4	+0.3
HIA	**Hailar**	**170.63**	**108**	PFAKE		13 10 00.0	+8.3
HIA				LR	LR		
	comp=Z,441nm,22.0s						
YAK	**Yakutsk**	**170.75**	**11**	PFAKE		13 10 00.0	+8.7
YAK				LR	LR		
	comp=Z,474nm,21.0s						
MDJ	**Mudanjiang**	**171.23**	**162**	PFAKE		13 10 00.0	+7.9
MDJ				LR	LR		
	comp=Z,302nm,20.0s						
YSS	**Yuzh-Sakhalins**	**171.45**	**229**	PFAKE		13 10 00.0	+7.8
YSS				LR	LR		
	comp=Z,125nm,20.0s						
HABR	**Khabarovsk**	**175.33**	**194**	*e*PKP2	PKPab	13 11 29.2	-1.0
HABR				*e*		13 15 23.1	
HABR						13 16 53.4	
HABR				PPP		13 19 36.4	
HABR				*e*SSS		13 43 47.4	

IDC ***20*** *12:50:06.8±0.8, 12°.22N×144°.14E, h0^{km}, mb3.9/7, mb1 4.1/7, mb1mx3.9/22, mbtmp3.9/7, MS4.3/1, Ms1 4.3/1, ms1mx3.4/33, Error ellipse: s-maj=30.5km s-min=15.5km az=108.0*

ISCJB ***20*** *12:50:10.2±0.6, 12°.16N±0°.09×144°.1E±0°.2, h33^{km}, mb4.0/8, Error ellipse: s-maj=24.7km s-min=8.4km az=25.3*

NEIC ***20*** *12:50:10.6±4.3, 12°.23N×144°.17E, h26^{km}±32^{km}, mb4.2/1, Error ellipse: s-maj=20.7km s-min=10.6km az=105.0*

ISC 20 12:50:12.2±0.6**, 12°.20N**±0°.09×**144°.1E**±0°.2**, h35^{km}, n15, σ0^{s}.79**/13**, mb4.0**/8**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.57**	**28**	Pn	**Pn**	**12 50 35.9**	**-1.8**
	137nm,0.3s,baz=205,slow=2.6,SNR=42						
GUMO				Sn	**Sn**	**12 50 57.9**	**+1.1**
	85nm,0.3s,baz=13,slow=22,SNR=5.4						
CTA	**Charters Tower**	**32.15**	**176**	P	**P**	**12 56 36.7**	**+0.1**
	0.9nm,0.3s,mb4.1,baz=0.0,slow=5.1,SNR=2.6						
CTA	**Charters Tower**	**32.15**	**176**	P	**P**	**12 56 36.7**	**+0.1**
WRAB	**Tennant Creek**	**33.34**	**197**	*e*P	**P**	**12 56 47.0**	**0.0**
	2.1nm,0.7s,mb4.2						
WRA	**Warramunga Arr**	**33.35**	**197**	P	**P**	**12 56 47.2**	**+0.1**
	1.5nm,0.6s,mb4.1,baz=21,slow=9.7,SNR=16						
ASAR	**Alice Springs**	**37.01**	**196**	P	**P**	**12 57 18.8**	**+0.1**
	1.0nm,0.7s,mb3.8,baz=20,slow=10,SNR=16						
CMAR	**Chiang Mai Arr**	**43.91**	**284**	P	**P**	**12 58 16.4**	**+0.6**
	0.5nm,0.5s,mb3.5,baz=80,slow=7.4,SNR=2.6						
AFI	**Afiamalu**	**50.84**	**119**	LR	LR	13 18 30.0	
	comp=Z,311nm,20.6s,baz=113,slow=34						
MKAR	**Makanchi Array**	**61.98**	**317**	P	**P**	**13 00 28.4**	**-0.3**
	0.7nm,0.7s,mb3.9,baz=87,slow=9.3,SNR=5.2						
MKAR	**Makanchi Array**	**61.98**	**317**	P	**P**	**13 00 28.4**	**-0.3**
YKA	**Yellowknife Ar**	**84.43**	**27**	P	**P**	**13 02 39.9**	**-1.0**
	1.0nm,1.0s,mb3.9,baz=287,slow=5.4,SNR=7.2						
YKA	**Yellowknife Ar**	**84.43**	**27**	P	**P**	**13 02 39.9**	**-1.0**
NVAR	**Mina Array Bea**	**88.37**	**51**	P	**P**	**13 03 01.7**	**+1.0**
	0.9nm,0.7s,mb4.1,baz=259,slow=4.5,SNR=7.9						
CFAA	**Coronel Fontan**	**144.52**	**128**	PKP	PKPdf	13 09 44.5	-1.0
	0.2nm,0.4s,baz=264,slow=6.8,SNR=3.8						
CFAA	**Coronel Fontan**	**144.52**	**128**	PKP	PKPdf	13 09 44.5	-1.0

MOS ***20*** *13:16:33.3±1.0, 36°.56N×71°.17E, h204^{km}, mb4.5/46, Error ellipse: s-maj=5.9km s-min=3.6km az=116.4*

ISCJB ***20*** *13:16:33.1±0.1, 36°.54N±0°.02×71°.21E±0°.02, h202^{km}, mb4.6/130, Error ellipse: s-maj=2.5km s-min=2.1km az=139.0*

BJI ***20*** *13:16:34.6, 36°.75N×71°.24E, h202^{km}, mB4.9/23, mb4.8/48*

NEIC ***20*** *13:16:34.5±0.1, 36°.54N×71°.23E, mb4.6/65, Error ellipse: s-maj=4.5km s-min=3.0km az=213.0*

NEIC Felt at Kabul. Also felt at Islamabad, Pakistan.

IDC ***20*** *13:16:34.9±0.4, 36°.57N×71°.26E, h205^{km}±3^{km}, mb4.4/29, mb1 4.5/35, mb1mx4.5/36, mbtmp4.4/35, Error ellipse: s-maj=8.0km s-min=6.5km az=24.0*

SZGRF ***20*** *13:16:37.5, 36°.85N×71°.35E, h204^{km}, mb4.6, Afghanistan-Tajikistan border region*

NNC ***20*** *13:16:39.5±2.9, 37°.09N×71°.01E, h210^{km}±26^{km}, mb4.2, mpv5.2, Error ellipse: s-maj=25.6km s-min=14.6km az=16.0*

DJA ***20*** *13:17:15, 34°.07N×72°.59E, h477^{km}, mb5.0/17*

ISC 20 13:16:34.7±0.1**, 36°.56N**±0°.02×**71°.25E**±0°.02**, h204^{km}, h204^{km}**±.7^{km}**:pP-P, n502, σ1^{s}.09**/521**, mb4.6**/130**, 28C-24D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CEP	**Cherat**	**2.78**	**169**	⇑P	**Pn**	**13 17 22.1**	**0.0**
CEP				S	**Sn**	**13 17 58.0**	**-1.1**
NIL	**Nilore**	**3.33**	**150**	*e*PN	**Pn**	**13 17 30.4**	**+1.8**
NIL	**Nilore**	**3.33**	**150**	*e*Pn	**Pn**	**13 17 30.4**	**+1.8**
SRNI	**Srinagar**	**3.83**	**129**	*i* P	**Pn**	**13 17 34.5**	**-0.1**
SRNI				*e*x	x	13 20 00.0	
KSH	**Kashi**	**4.75**	**50**	*i* P	**Pn**	**13 17 41.4**	**-4.6**
KSH				S	**Sn**	**13 18 31.0**	**-11**
SARP	**Sargodha**	**4.78**	**165**	P	**Pn**	**13 17 45.5**	**-0.9**
JMU	**Jammu**	**4.87**	**141**	*i* x	**Pn**	**13 17 44.5**	**-3.1**
JMU				*i* S	**Sn**	**13 18 40.5**	**-4.6**
THN	**Thein Dam**	**5.53**	**137**	*e*PKP	**Pn**	**13 17 54.4**	**-1.6**
THN				*e*x	x	13 18 57.4	
DLH	**Dalhousie**	**5.59**	**134**	*e*PKP	**Pn**	**13 17 56.0**	**-0.7**
DLH				*e*x	x	13 19 03.0	
AML	**Almayashu**	**5.88**	**18**	P	**Pn**	**13 17 59.9**	**-0.4**
	SNR=1003						
AML	**Almayashu**	**5.88**	**18**	*e*P	**Pn**	**13 17 59.9**	**-0.4**
	7.4nm,0.5s						
AML				*e*S	**Sn**	**13 19 04.3**	**-3.9**
UCH	**Uchtor**	**6.20**	**23**	P	**Pn**	**13 18 04.3**	**-0.2**
	SNR=262						
UCH	**Uchtor**	**6.20**	**23**	*e*P	**Pn**	**13 18 04.2**	**-0.3**
	154nm,0.6s						
UCH				*e*S	**Sn**	**13 19 13.5**	**-2.1**
KZA	**Kyzart**	**6.32**	**28**	P	**Pn**	**13 18 05.2**	**-0.9**
	SNR=97						
EKS2	**Erkin-Say**	**6.40**	**17**	P	**Pn**	**13 18 06.6**	**-0.5**
	SNR=188						

EKS2	Erkin-Say	6.40	17	eP	Pn	13 18 06.5	-0.6
	20nm,0.5s						
EKS2				S	Sn	13 19 16.0	-4.3
KK31	Karatay Array	6.56	355	⇓P	Pn	13 18 07.5	-1.6
	78nm,0.3s,baz=183,slow=12,SNR=2209						
KK31				⇓S	Sn	13 19 17.2	-6.9
	275nm,0.4s,baz=182,slow=20,SNR=13						
AAK	Ala-Archa	6.56	21	Pn	Pn	13 18 09.7	+0.5
	2µm,0.4s						
AAK	Ala-Archa	6.56	21	ePN	Pn	13 18 09.0	-0.2
AAK				eS	Sn	13 19 22.8	-1.4
AAK				pmax	pmax		
	comp=Z,374nm,0.4s						
AAK	Ala-Archa	6.56	21	P	Pn	13 18 09.1	-0.1
	SNR=242						
AAK	Ala-Archa	6.56	21	P	Pn	13 18 09.0	-0.1
	comp=Z,0.8nm,0.3s,baz=179,slow=5.3,SNR=369						
AAK				S	Sn	13 19 22.5	-1.6
	comp=Z,0.8nm,0.3s,baz=113,slow=23,SNR=20						
AAK	Ala-Archa	6.56	21	eP	Pn	13 18 09.0	-0.2
	comp=Z,374nm,0.4s						
AAK				eS	Sn	13 19 22.8	-1.4
AAK	Ala-Archa	6.56	21	P	Pn	13 18 09.2	+0.1
	SNR=35						
AAK				P		13 18 09.2	
	SNR=35						
BHK	Bhakra	6.69	139	ePKP	Pn	13 18 08.2	-2.7
BHK				eS	Sn	13 19 21.2	-6.1
KBK	Karagaybulak	6.72	24	P	Pn	13 18 11.6	+0.3
	SNR=77						
ULHL	Ulahol	6.87	33	P	Pn	13 18 12.7	-0.4
	SNR=38						
SDNR	Sundarnagar	6.93	135	ePKP	Pn	13 18 13.0	-1.1
SDNR				ex	x	13 19 31.0	
CHMS	Chumysh	6.97	22	P	Pn	13 18 13.8	-0.7
	SNR=14						
USP	Ospenovka	7.15	19	P	Pn	13 18 15.7	-1.0
	SNR=33						
TKM2	Tokmak 2	7.18	26	⇓P	Pn	13 18 17.0	-0.2
	comp=Z,142nm,0.7s						
TKM2				⇓S	Sn	13 19 36.0	-2.7
	comp=Z,467nm,0.9s						
TKM2	Tokmak 2	7.18	26	ePN	Pn	13 18 17.0	-0.2
TKM2				pmax	pmax		
	comp=Z,161nm,0.6s						
TKM2	Tokmak 2	7.18	26	P	Pn	13 18 17.3	+0.1
	SNR=77						
TKM2	Tokmak 2	7.18	26	eP	Pn	13 18 17.0	-0.2
	comp=Z,161nm,0.6s						
QUE	Quetta	7.30	211	eP	Pn	13 18 16.0	-2.9
QUE				eS	Sn	13 19 36.0	-5.7
AAA	Alma-Ata	8.00	31	i PN	Pn	13 18 28.5	+0.6
AAA				eS	Sn	13 19 56.2	-1.9
AAA				pmax	pmax		
	comp=Z,300nm,1.3s						
AAA				smax			
	comp=N,400nm,1.3s						
AAA				MLR	MLR		
	comp=Z,1µm,6.0s						
DDI	Dehra Dun	8.43	136	⇓iP	Pn	13 18 32.4	-1.1
DDI				ex	x	13 19 43.9	
NDI	New Delhi	9.32	146	ePKP	Pn	13 18 41.5	-3.7
NDI				eS	Sn	13 20 17.0	-13
PTH	Pithoragarh	10.27	130	ex	Pn	13 18 54.6	-2.7
PTH				eS	Sn	13 20 42.6	-10
LGTI	Lohaghat	10.36	131	ex	x	13 18 54.5	
LGTI				eS	Sn	13 20 45.1	-9.1
AJM	Ajmer	10.46	163	ex	Pn	13 18 57.0	-2.8
AJM				eS	Sn	13 20 49.0	-7.7
MK31	Makanchi Array	13.12	35	⇓P	Pn	13 19 33.5	+0.1
	comp=Z,40nm,0.7s,baz=212,slow=8.3,SNR=377						
MK31	Makanchi Array	13.12	35	i P	Pn	13 19 33.4	0.0
MK31				pmax	pmax		
	comp=Z,32nm,0.5s						
MKAR	Makanchi Array	13.12	35	P	Pn	13 19 32.9	-0.5
	comp=Z,1.0nm,0.3s,baz=196,slow=7.4,SNR=66						
MKAR	Makanchi Array	13.12	35	P	Pn	13 19 32.9	-0.5
BHJ	Bhuj	13.33	186	ePKP	Pn	13 19 38.7	+2.4
BHJ				ex	x	13 21 58.1	
DANN	Dangsing	13.36	124	eP	Pn	13 19 35.2	-1.3
	comp=Z,744nm,0.4s						
DANN				eS	S	13 21 53.7	-12
DANN	Dangsing	13.36	124	eP	Pn	13 19 35.2	-1.3
	comp=Z,744nm,0.4s						
DANN				eS	S	13 21 53.7	-12
KOLN	Koldanda	13.64	126	eP	Pn	13 19 38.8	-1.2
	comp=Z,839nm,0.5s						
KOLN				eS	S	13 22 00.6	-11
KOLN	Koldanda	13.64	126	eP	Pn	13 19 38.8	-1.2
	comp=Z,839nm,0.5s						
KOLN				eS	S	13 22 00.6	-11
GKN	Gorkha	14.17	123	eP	Pn	13 19 45.2	-1.3
	comp=Z,804nm,0.4s						
GKN				eS	S	13 22 12.5	-12
GKN	Gorkha	14.17	123	eP	Pn	13 19 45.2	-1.3
	comp=Z,804nm,0.4s						
GKN				eS	S	13 22 12.5	-12
BHPL	Bhopal	14.31	156	ePKP	Pn	13 19 46.7	-1.6
BHPL				AMb	AMB	13 19 53.0	
	comp=Z,111nm,0.6s						
BHPL				ex	x	13 22 20.5	
ALBI	Allahabad	14.40	138	ex	Pn	13 19 45.5	-4.0
WMQ	Urumqi	14.50	55	P	Pn	13 19 50.9	+0.5
WMQ				sP		13 20 43.0	
WMQ				S	S	13 22 26.0	-5.5
WMQ				PcP	PcP	13 24 52.0	+2.3
WMQ				pmax	pmax		
	comp=Z,30nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,160nm,3.5s						
DMN	Daman	14.74	123	eP	Pn	13 19 53.4	-0.2
	comp=Z,842nm,0.4s						
DMN	Daman	14.74	123	eP	Pn	13 19 53.4	-0.2
	comp=Z,842nm,0.4s						
KKN	Kakani	14.74	122	eP	Pn	13 19 52.3	-1.3
	comp=Z,849nm,0.5s						
KKN	Kakani	14.74	122	eP	Pn	13 19 52.3	-1.3
KKN				pmax	pmax		
	comp=Z,849nm,0.5s						
KKN	Kakani	14.74	122	eP	Pn	13 19 52.3	-1.3
	comp=Z,849nm,0.5s						
BHV	Bhavnagar	14.78	177	ePKP	Pn	13 19 54.7	+0.6
PKIN	Phulchoki	14.96	123	eP	Pn	13 19 56.2	0.0
	comp=Z,1µm,0.5s						
PKI	Pulchoki	14.97	123	eP	Pn	13 19 55.6	-0.7
	comp=Z,1µm,0.6s						
PKI	Pulchoki	14.97	123	eP	Pn	13 19 56.2	-0.1
PKI				pmax	pmax		
	comp=Z,1µm,0.5s						
PKI	Pulchoki	14.97	123	eP	Pn	13 19 56.2	-0.1
	comp=Z,1µm,0.5s						
GUN	Gumba	15.07	121	eP	Pn	13 19 56.9	-0.8
	comp=Z,575nm,0.4s						
GUN	Gumba	15.07	121	eP	Pn	13 19 56.9	-0.8
	comp=Z,575nm,0.4s						
KURK	Kurchatov	15.11	18	Pn	Pn	13 19 56.7	-1.1
	comp=Z,92nm,1.2s,SNR=6.6						
KURK	Kurchatov	15.11	18	⇑P	Pn	13 19 56.2	-1.6
	comp=Z,21nm,0.8s						
KURK	Kurchatov	15.11	18	P	Pn	13 19 56.2	-1.6
KURK				pmax	pmax		
	comp=Z,15nm,0.9s						
KURK	Kurchatov	15.11	18	P	Pn	13 19 54.9	-2.9
	comp=Z,0.9nm,0.3s,baz=209,slow=10,SNR=8.9						
KURK	Kurchatov	15.11	18	eP	Pn	13 19 55.8	-2.1
KURK	Kurchatov	15.11	18	⇓P	Pn	13 19 58.4	+0.6
	SNR=5.4						
KURK				⇓P		13 19 58.4	
	SNR=5.4						
AB01	Akbulak array	15.13	331	⇓P	Pn	13 19 55.4	-2.6
	comp=Z,59nm,0.5s						
AB01				⇑S	S	13 22 36.9	-8.8
	comp=Z,56nm,0.5s						
AB31	Akbulak array	15.13	331	P	Pn	13 19 55.4	-2.7
AB31						13 22 36.9	
AB31				pmax	pmax		
	comp=Z,96nm,0.5s						
AB31				smax			
	comp=N,56nm,0.5s						
JBP	Jabalpur	15.34	148	i P	Pn	13 19 59.2	-1.7
JBP				ex	x	13 20 05.2	
	comp=Z,132nm,0.6s						
JBP				i x	x	13 22 39.3	
JIRN	Jiri	15.45	121	eP	Pn	13 20 01.7	-0.5
	comp=Z,765nm,0.4s						
JIRN	Jiri	15.45	121	eP	Pn	13 20 01.7	-0.5
	comp=Z,765nm,0.4s						
VOSK	Vostochnaya	16.16	359	⇓P	P	13 20 08.9	-1.0
	comp=Z,47nm,0.7s						
VOSK	Vostochnaya	16.16	359	P	P	13 20 08.8	-1.1
VOSK				pmax	pmax		
	comp=Z,47nm,0.7s						
RAMN	Ramite	16.18	122	eP	P	13 20 10.5	+0.2
	comp=Z,984nm,0.5s						
RAMN	Ramite	16.18	122	eP	P	13 20 10.5	+0.2
	comp=Z,984nm,0.5s						
BVAR	Borovoye Array	16.48	358	P	P	13 20 13.2	-0.1
	comp=Z,8.0nm,0.3s,baz=168,slow=11,SNR=115						
BVAR				S	S	13 23 13.3	-1.6
	comp=Z,1.8nm,0.3s,baz=165,slow=23,SNR=4.8						
BVAR	Borovoye Array	16.48	358	P	P	13 20 13.2	-0.1
BVAR				S	S	13 23 13.3	-1.6
BRVK	Borovoye	16.51	358	P	P	13 20 13.5	-0.2
	comp=Z,388nm,0.7s,SNR=33						
BRVK	Borovoye	16.51	358	⇓P	P	13 20 13.4	-0.2
	comp=Z,149nm,1.3s						
BRVK	Borovoye	16.51	358	eP	P	13 20 13.6	-0.1
BRVK				pmax	pmax		
	comp=Z,77nm,1.0s						
BRVK	Borovoye	16.51	358	eP	P	13 20 13.6	-0.1
	comp=Z,78nm,1.0s						
BRVK	Borovoye	16.51	358	P	P	13 20 14.2	+0.5
	SNR=24						
BRVK				P		13 20 14.2	
	SNR=24						
BANOM	Banah	16.59	234	P	P	13 20 14.7	-0.1
	SNR=5.1						
TAPN	Taplejung	16.70	119	eP	P	13 20 17.7	+1.7
	comp=Z,954nm,0.5s						
TAPN	Taplejung	16.70	119	eP	P	13 20 17.7	+1.7
	comp=Z,954nm,0.5s						
ODAN	Odare	16.78	121	eP	P	13 20 18.1	+1.2
	comp=Z,701nm,0.6s						
ODAN	Odare	16.78	121	eP	P	13 20 18.1	+1.2
	comp=Z,701nm,0.6s						
AKTK	Aktyubinsk	16.83	330	P	P	13 20 17.2	0.0
AKTK				S	S	13 23 19.9	-2.2
AKTO	Aktyubinsk	16.83	330	⇓P	P	13 20 17.1	-0.1
	comp=Z,34nm,0.8s						
AKTO	Aktyubinsk	16.83	330	P	P	13 20 17.2	0.0
	comp=Z,19nm,0.3s,baz=138,slow=11,SNR=609						
AKTO				S	S	13 23 19.9	-2.2
	comp=Z,2.8nm,0.3s,baz=162,slow=19,SNR=4.0						
HATD	Hatta, Dubai	17.46	232	P	P	13 20 24.3	-0.1
	SNR=5.0						
WBK	Wadi Bani Khal	17.51	221	⇓P	P	13 20 25.9	+1.0
	SNR=14						
SLGI	Shiliguri	17.59	119	ePKP	P	13 20 24.8	-1.0
SMDO	Samad	17.64	224	P	P	13 20 27.0	+0.6
	SNR=9.7						
BOK	Bokaro	17.91	131	ePKP	P	13 20 29.0	-0.4
BOK				AMb	AMB	13 20 33.3	
	comp=Z,88nm,0.6s						
BOK				eS	S	13 23 42.8	-1.5
LSA	Lhasa	18.00	107	P	P	13 20 34.6	+4.4
LSA				S	S	13 23 47.3	+1.3
LSA				pmax	pmax		
	comp=Z,80nm,0.9s						
LSA	Lhasa	18.00	107	eP	P	13 20 34.8	+4.6
LSA				pmax	pmax		
	comp=Z,89nm,0.6s						
LSA	Lhasa	18.00	107	eP	P	13 20 34.8	+4.5
	comp=Z,89nm,0.6s						
SHBG	Sahibganj	18.04	124	ex	P	13 20 25.2	-5.5
POO	Poona	18.11	172	ePKP	P	13 20 30.6	-0.8
POO				AMb	AMB	13 20 38.8	
	comp=Z,114nm,0.6s						
POO				i x	x	13 23 39.0	
JMDO	Jabal Madar	18.16	222	P	P	13 20 33.0	+0.9
	SNR=16						
ARQ	Araqi	18.31	228	P	P	13 20 34.2	+0.6
	SNR=7.7						
BSY	Bisya	18.37	225	P	P	13 20 35.3	+1.0
	SNR=13						
LATR	Latur	18.67	164	ex	P	13 20 41.5	+3.9
KAD	Karad	19.35	172	ePKP	P	13 20 45.4	+0.5
KAD				AMb	AMB	13 20 50.2	
	comp=Z,77nm,0.7s						
KAD				ex	x	13 24 44.0	
ZAA0	Zalesovo Array	19.78	24	eP	P	13 20 48.8	-0.3
ZALV	Zalesovo Beam	19.78	24	P	P	13 20 49.1	0.0
	comp=Z,12nm,0.3s,baz=222,slow=11,SNR=180						
ZALV	Zalesovo Beam	19.78	24	P	P	13 20 49.1	0.0
NVS	Novosibirsk	20.05	21	eP	P	13 20 51.9	-0.2
NVS				eS	S	13 24 24.7	-1.1
NVS				pmax	pmax		
	comp=N,60nm,1.2s						
NVS				pmax	pmax		
	comp=Z,61nm,1.2s						
NVS				smax			
	comp=N,118nm,2.0s						
HYB	Hyderabad	20.13	159	eP	P	13 20 55.0	+1.7
HYB				pmax	pmax		
	comp=Z,69nm,0.8s						
HYB	Hyderabad	20.13	159	i P	P	13 20 55.0	+1.7
	comp=Z,69nm,0.8s						
HYB				eS	S	13 24 26.0	-2.0
HYB	Hyderabad	20.13	159	eP	P	13 20 55.0	+1.7
	comp=Z,69nm,0.8s						
HYB				eS	S	13 24 34.0	+6.0
BWNR	Bhubaneshwar	20.61	138	ePKP	P	13 20 57.3	-1.0
BWNR				eS	S	13 24 35.8	-1.4
SHL	Shillong	20.75	116	ePKP	P	13 20 59.9	+0.1
SHL				eS	S	13 24 40.6	+0.7
UMR	Umm Al-Rimmam	20.90	257	eP	P	13 21 01.2	-0.1
UMR				AMb	AMB	13 21 08.1	
	comp=Z,171nm,0.8s						
GNI	Garni	21.07	288	d iP	P	13 21 04.5	+1.5
GNI				pmax	pmax		
	comp=Z,77nm,1.5s						
GNI	Garni	21.07	288	eP	P	13 21 04.4	+1.4
	comp=Z,106nm,1.0s,mb5.3						
KBD	Kabd	21.08	256	eP	P	13 21 02.1	-1.2
KBD				AMb	AMB	13 21 05.2	
	comp=Z,70nm,0.5s,mb5.4						
MIB	Mutribah	21.09	258	eP	P	13 21 03.0	-0.3
MIB				AMb	AMB	13 21 05.2	
	comp=Z,136nm,1.0s,mb5.4						
MTA	Mtatsminda	21.12	292	P	P	13 21 04.2	+0.7
TBLG	Delisi	21.16	292	P	P	13 21 05.3	+1.3
RDF	Al-Radifah	21.30	256	eP	P	13 21 04.0	-1.6
RDF				AMb	AMB	13 21 10.4	
	comp=Z,123nm,1.2s,mb5.3						
AGT	Agartala	21.36	121	ePKP	P	13 21 06.0	-0.2
AGT				ex	x	13 21 48.0	
SVE	Sverdlovsk	21.49	344	⇓eP	P	13 21 07.4	+0.2
SVE				eS	S	13 24 56.6	+5.1
SVE				pmax	pmax		
	comp=Z,65nm,1.4s,mb5.0						
VIS	Vishakhapatnam	21.59	147	ePKP	P	13 21 09.3	+0.7
ARU	Arti	21.64	341	eP	P	13 21 08.2	-0.6
ARU				pmax	pmax		
	comp=Z,34nm,0.8s,mb4.9						
ARU	Arti	21.64	341	eP	P	13 21 08.2	-0.6
	comp=Z,34nm,0.8s,mb4.9						
GOR	Gori	21.65	293	P	P	13 21 11.2	+2.1
ONI	Oni	22.20	294	P	P	13 21 16.3	+2.1
GTA	Gaotai	22.66	74	P	P	13 21 21.0	+2.6
GTA				pP		13 22 00.0	
GTA				sP	sP	13 22 25.1	+4.8
GTA				S	S	13 25 17.9	+7.1
GTA				pmax	pmax		
	comp=Z,33nm,1.1s,mb4.8						
GTA				pmax	pmax		
	comp=Z,200nm,4.2s						
GTA				LR	LR		
	comp=N,360nm,16.1s						
GTA				LR	LR		
	comp=E,200nm,15.2s						
GTA				LR	LR		
	comp=Z,240nm,12.5s						
KIV	Kislovodsk	22.94	298	eP	P	13 21 20.1	-0.8
KIV				e*PP		13 21 55.9	
KIV				eS	S	13 25 12.6	-2.7
KIV				pmax	pmax		
	comp=Z,32nm,1.0s,mb4.8						
KIV				MLR	MLR		
	comp=Z,145nm,14.0s						
KIV	Kislovodsk	22.94	298	eP	P	13 21 19.6	-1.3
	comp=Z,64nm,0.6s,mb5.3						
WHFO	Wadi Hawf	24.14	224	P	P	13 21 31.7	-0.4
	SNR=14						
RBK	Rabkut	24.23	223	P	P	13 21 32.8	-0.1
	SNR=14						
SOKR	Solikamsk	24.86	342	eP	P	13 21 42.9	+4.8
SOKR				i *PP		13 22 20.5	
SOKR				*SP	sP	13 22 47.8	+5.0
SOKR				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.6						
ABTO	Aybut	24.86	224	⇑P	P	13 21 39.8	+1.2
	SNR=20						
VRHR	Novokhopersk	25.62	314	eP	P	13 21 44.5	-0.7
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb4.8						
VRHR				pmax	pmax		
	comp=N,20nm,0.5s						
MOY	Mondy	25.92	45	eP	P	13 21 50.4	+2.6
MOY				e		13 22 35.8	
MALT	Malatya	26.05	284	⇓iP	pP	13 22 29.2	-0.8
LZH	Lanzhou	26.20	81	eP	P	13 21 50.8	+0.3
LZH				pP	pP	13 22 37.5	+6.0
LZH				sP	sP	13 23 01.8	+6.6
LZH				PcP	PcP	13 25 13.5	+1.8
LZH				eS	S	13 26 03.8	-3.4
LZH				sS	sS	13 27 22.3	+1.6
LZH				SS	SS	13 27 34.3	-32
LZH				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.6						
LZH				pmax	pmax		
	comp=Z,140nm,6.5s						
ZAK	Zakamensk	26.80	49	eP	P	13 21 57.4	+1.7
ZAK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.5						
VORD	Divnogorie	26.95	312	eP	P	13 21 57.4	+0.4
VORD				e*PP	pP	13 22 34.7	-3.3
VORD				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.4						
VORD				pmax	pmax		
	comp=N,10.0nm,0.4s						
VORD				pmax	pmax		
	comp=E,20nm,0.8s						
VSR	Storozhevoye	27.11	313	eP	P	13 21 57.7	-0.7
VSR				e*PP	pP	13 22 36.9	-2.6
VSR				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.5						
VSR				pmax	pmax		
	comp=N,3.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,7.0nm,0.5s						
CD2	Chengdu	27.53	92	P	P	13 22 05.3	+2.8
CD2				pP	pP	13 22 46.4	+2.8
CD2				PP	PP	13 23 03.5	-5.3
CD2				sP	sP	13 23 10.3	+3.0
CD2				S	S	13 26 30.0	+1.7
CD2				sS	sS	13 27 43.0	+0.9
CD2				pmax	pmax		
	comp=Z,30nm,1.2s,mb4.8						
CD2				pmax	pmax		
	comp=Z,280nm,9.8s						
IRK	Irkutsk	28.02	46	eP	P	13 22 07.8	+1.3
IRK				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.7						
SONM	Songino Array	28.14	55	P	P	13 22 09.7	+2.1
	comp=Z,9.2nm,0.8s,mb4.5,baz=260,slow=9.3,SNR=45						
SONM				P3KPbc		13 54 25.0	
	comp=Z,0.6nm,0.6s,baz=86,slow=3.7,SNR=3.7						
SONM	Songino Array	28.14	55	P	P	13 22 09.7	+2.1
SONM				e		13 54 25.0	
ULN	Ulaanbaatar	28.58	55	eP	P	13 22 13.0	+1.5
ULN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
ULN	Ulaanbaatar	28.58	55	eP	P	13 22 13.0	+1.5
	comp=Z,5.5nm,0.7s,mb4.3						
ASF	Jabal al Asfar	28.60	271	P	P	13 22 12.6	+0.7
	comp=Z,4.3nm,1.1s,mb4.0,baz=27,slow=4.5,SNR=3.8						
ASF	Jabal al Asfar	28.60	271	P	P	13 22 12.6	+0.7
KMI	Kunming	29.22	104	P	P	13 22 18.5	+1.1
KMI				pP	pP	13 23 00.8	+1.9
KMI				PP	PP	13 23 23.0	-4.6
KMI				sP	sP	13 23 24.5	+2.1
KMI				S	S	13 26 54.6	-0.2
KMI				sS	sS	13 28 09.8	+1.1
KMI				SS	SS	13 28 44.8	-23
KMI				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.6						
KMI				pmax	pmax		
	comp=Z,230nm,4.7s						
KMI				LR	LR		
	comp=N,250nm,10.9s						
KMI				LR	LR		
	comp=E,180nm,15.9s						
KMI				LR	LR		
	comp=Z,220nm,25.0s						
MMAI	Mount Meron Ar	29.55	274	PcP	PcP	13 25 20.4	+0.4
	comp=Z,5.5nm,0.6s,baz=79,slow=4.3,SNR=6.7						
BRTR	Keskin Array B	29.61	288	P	P	13 22 21.4	+0.7
	comp=Z,6.5nm,0.8s,mb4.3,baz=107,slow=7.4,SNR=24						
BRTR				pP	pP	13 23 02.1	-0.1
	comp=Z,3.5nm,0.6s,baz=103,slow=8.7,SNR=3.0						
BRTR				sP	sP	13 23 26.8	+1.0
	comp=Z,6.9nm,0.9s,baz=108,slow=7.6,SNR=2.8						
BRTR	Keskin Array B	29.61	288	P	P	13 22 21.4	+0.7
BRTR				pP	pP	13 23 02.1	-0.1
BRTR				sP	sP	13 23 26.8	+1.0
PRGR	Permogore	29.80	335	⇓iP	P	13 22 20.6	-1.5
PRGR				e*PP	pP	13 22 59.3	-4.3
PRGR				pmax	pmax		
	comp=Z,37nm,0.7s,mb5.1						
OBN	Obninsk	30.02	319	eP	P	13 22 24.5	+0.3
OBN				e		13 23 33.0	
OBN				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.7						
CHTO	Chiang Mai	30.07	119	eP	P	13 22 27.0	+2.0
CHTO				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.6						
CHTO	Chiang Mai	30.07	119	eP	P	13 22 27.0	+2.0
	comp=Z,14nm,0.8s,mb4.6						
CMAR	Chiang Mai Arr	30.31	119	P	P	13 22 28.5	+1.4
	comp=Z,17nm,0.9s,mb4.7,baz=302,slow=8.1,SNR=83						
CMAR				pP	pP	13 23 11.4	+2.8
	comp=Z,11nm,0.7s,baz=310,slow=11,SNR=4.7						
CMAR				PcP	PcP	13 25 22.3	+0.1
	comp=Z,6.0nm,0.9s,baz=301,slow=3.9,SNR=4.8						
CMAR	Chiang Mai Arr	30.31	119	P	P	13 22 28.5	+1.4
CMAR				pP	pP	13 23 11.4	+2.8
CMAR				PcP	PcP	13 25 22.3	+0.1
PALK	Pallekele	30.40	161	P	P	13 22 29.4	+1.5
	comp=Z,51nm,0.7s,mb5.3,baz=334,slow=9.3,SNR=44						
PALK				pP	pP	13 23 07.7	-1.8
	comp=Z,8.1nm,0.8s,baz=298,slow=0.9,SNR=1.7						
PALK	Pallekele	30.40	161	P	P	13 22 29.4	+1.5
PALK				pP	pP	13 23 07.7	-1.8
XAN	Xi’an	30.72	83	P	P	13 22 32.5	+1.9
XAN				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.9						
EIL	Elat	31.04	268	P	P	13 22 34.5	+1.1
	comp=Z,10nm,0.8s,mb4.5,baz=58,slow=6.8,SNR=5.8						
EIL	Elat	31.04	268	P	P	13 22 34.5	+1.1
KLMR	Klimovskoe	31.53	331	eP	P	13 22 37.4	+0.1
KLMR				e*PP	pP	13 23 18.0	-0.9
KLMR				e*SP	sP	13 23 39.8	-2.8
KLMR				eS	S	13 27 30.3	+0.3
KLMR				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.6						
HHC	Hu-ho-hao-te	31.55	70	eP	P	13 22 40.3	+2.5
HHC				pP	pP	13 23 22.4	+2.9
HHC				sP	sP	13 23 46.1	+3.1
HHC				PP	PP	13 23 52.5	-0.8
HHC				eS	S	13 27 30.8	-0.2
HHC				sS	sS	13 28 45.9	+0.8
HHC				PcS	PcS	13 29 11.6	+1.9
HHC				SS	SS	13 29 36.3	-19
HHC				ScS	ScS	13 32 47.6	+0.6
HHC				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.6						
HHC				pmax	pmax		
	comp=Z,150nm,4.2s						
HHC				LR	LR		
	comp=N,240nm,15.5s						
HHC				LR	LR		
	comp=E,250nm,14.3s						
HHC				LR	LR		
	comp=Z,340nm,19.0s						
GYA	Guiyang	31.67	98	⇓iP	P	13 22 40.6	+1.6
GYA				pP	pP	13 23 23.6	+2.9
GYA				sP	sP	13 23 46.9	+2.7

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GYA                            PP      PP      13 23 54.1 -0.7
GYA                            PcP     PcP     13 25 27.8 +2.1
GYA                            S       S       13 27 36.5 +3.4
GYA                            sS      sS      13 28 50.8 +3.5
GYA                            PcS     PcS     13 29 11.4 +0.8
GYA                            ScS     ScS     13 32 47.0 -1.1
GYA                            pmax    pmax
      comp=Z,20nm,0.8s,mb4.7
GYA                            pmax    pmax
      comp=Z,120nm,4.6s
AKASG Malin Array Be 33.06 309 P       P       13 22 50.4 -0.4
      comp=Z,7.1nm,0.5s,mb4.4,baz=84,slow=7.1,SNR=21
AKASG                          pP      pP      13 23 32.9 +0.3
      comp=Z,17nm,0.7s,baz=83,slow=7.2,SNR=7.6
AKASG                          sP      sP      13 23 55.9 -0.3
      comp=Z,8.6nm,0.7s,baz=86,slow=7.6,SNR=3.1
AKASG Malin Array Be 33.06 309 P       P       13 22 50.4 -0.4
AKASG                          pP      pP      13 23 32.9 +0.3
AKASG                          sP      sP      13 23 55.9 -0.3
KIEV  Kiev           33.07 309 eP      P       13 22 50.8 -0.1
KIEV                           pmax    pmax
      comp=Z,10.0nm,0.6s,mb4.5
KIEV  Kiev           33.07 309 eP      P       13 22 50.8 -0.1
      comp=Z,9.7nm,0.6s,mb4.5
VRI   Vrincioaia     34.37 300⇑iP      P       13 23 03.7 +1.6
VRI   Vrincioaia     34.37 300 ⇑P      P       13 23 03.7 +1.6
PLOR  Plostina       34.43 300⇑iP      P       13 23 04.5 +1.9
MICGM Minsk          34.60 315 e       sP      13 24 03.0 -6.6
MLR   Muntele Rosu   34.93 299 P       P       13 23 07.6 +0.7
MLR                            *PP     pP      13 23 50.0 +1.0
MLR                            *SP     sP      13 24 13.4 +0.9
MLR                            pmax    pmax
      comp=Z,29nm,0.9s
MLR                            pmax    pmax
      comp=Z,12nm,0.8s
MLR                            pmax    pmax
      comp=Z,21nm,0.8s
MLR   Muntele Rosu   34.93 299⇑iP      P       13 23 09.1 +2.2
MLR   Muntele Rosu   34.93 299 P       P       13 23 07.6 +0.7
      comp=Z,29nm,0.9s,mb4.8,baz=131,slow=2.6,SNR=33
MLR                            pP      pP      13 23 50.0 +0.9
      comp=Z,12nm,0.8s,baz=90,slow=4.2,SNR=3.2
MLR                            sP      sP      13 24 13.4 +0.9
      comp=Z,21nm,0.8s,baz=135,slow=4.1,SNR=3.8
MLR   Muntele Rosu   34.93 299 ⇑P      P       13 23 09.1 +2.2
BJI   Beijing        35.15  70 P       P       13 23 10.8 +2.0
BJI                            pmax    pmax
      comp=Z,18nm,0.8s,mb4.7
BOD   Bodaibo        35.18  39 eP      P       13 23 09.5 +0.7
BOD                            pmax    pmax
      comp=Z,15nm,1.2s,mb4.4
NACGM Naroch         35.31 316 e       P       13 23 08.0 -2.0
BURAR Bucovina Array 35.42 303⇑iP      P       13 23 11.7 +0.6
BURAR Bucovina Array 35.42 303 ⇑P      P       13 23 11.7 +0.6
BUR08 Bucovina Ar. S 35.43 303 eP      P       13 23 11.4 +0.3
VOIR                 35.56 299⇓iP      P       13 23 13.6 +1.3
VOIR                 35.56 299 ⇓P      P       13 23 13.6 +1.3
JOF   Joensuu        35.92 330 ep      P       13 23 15.6 +0.5
      comp=Z,25nm,0.4s,mb5.1
JOF   Joensuu        35.92 330 eP      P       13 23 15.6 +0.5
WHN   Wuhan          36.19  87 ⇑P      P       13 23 20.0 +2.2
VSU   Vasula         36.26 321 i P     P       13 23 18.0  0.0
LVV   L'vov          36.29 307 eP      P       13 23 18.2 -0.2
LVV                            e       pP      13 23 59.6 -1.2
DRGR                 37.14 301⇓iP      P       13 23 21.2 -4.4
DRGR                 37.14 301 ⇓P      P       13 23 21.2 -4.4
KWP   Kalwaria Pacla 37.14 306 eP      P       13 23 26.6 +1.1
KWP                            epP     pP      13 24 09.5 +1.4
KWP                            esP     sP      13 24 31.3 -0.2
KWP                            ePP     PP      13 24 54.2 -0.3
KWP   Kalwaria Pacla 37.14 306⇑iP      P       13 23 27.0 +1.5
KWP   Kalwaria Pacla 37.14 306 eP      P       13 23 26.6 +1.1
KWP                            epP     pP      13 24 09.5 +1.4
KWP                            esP     sP      13 24 31.3 -0.2
KWP                            ePP     PP      13 24 54.2 -0.4
GZR   Gura Zlata     37.16 299⇑iP      P       13 23 26.5 +0.7
GZR   Gura Zlata     37.16 299 ⇑P      P       13 23 26.5 +0.7
SUW   Suwalki        37.22 313 eP      P       13 23 25.8 -0.4
SUW                            epP     pP      13 24 10.3 +1.5
SUW                            ePP     PP      13 24 51.9 -3.5
SUW   Suwalki        37.22 313 eP      P       13 23 25.8 -0.4
SUW                            e*PP    pP      13 24 10.3 +1.5
SUW   Suwalki        37.22 313 eP      P       13 23 25.8 -0.4
SUW                            epP     pP      13 24 10.3 +1.5
SUW                            ePP     PP      13 24 51.9 -3.5
KOLS  Kolonicke sedl 37.41 305 eP      P       13 23 28.8 +1.0
KOLS                           e       pP      13 24 10.7 +0.3
KOLS                           eSP             13 24 34.8
KOLS                           e               13 25 40.6
KOLS                           pmax    pmax
      comp=Z,7.0nm,0.9s,mb4.2
KOLS  Kolonicke sedl 37.41 305 eP      P       13 23 28.8 +1.0
      comp=Z,7.1nm,0.9s,mb4.2
KOLS                           ePP     pP      13 24 10.7 +0.3
KOLS                           eSP             13 24 34.8
KOLS                           ePP     PP      13 24 54.4 -3.1
KOLS                           ePcP    PcP     13 25 40.6 -1.4
APA   Apatity        37.66 337⇑eP      P       13 23 30.0 +0.3
APA                            pmax    pmax
      comp=Z,9.0nm,0.7s,mb4.4
KAF   Kangasniemi    37.69 327 eP      P       13 23 30.3 +0.3
KAF                            pmax    pmax
      comp=Z,6.0nm,0.7s,mb4.2
KAF   Kangasniemi    37.69 327 ep      P       13 23 30.3 +0.3
      comp=Z,6.0nm,0.7s,mb4.2,baz=111,slow=8.4
KAF   Kangasniemi    37.69 327 eP      P       13 23 30.3 +0.3
      comp=Z,6.0nm,0.7s,mb4.2
CRVS  Cervenica-Dubn 37.94 305 eP      P       13 23 30.2 -2.1
CRVS                           epP     pP      13 24 15.6 +0.6
CRVS                           esP     sP      13 24 39.3 +1.0
CRVS                           ePP     PP      13 25 02.1 -1.2
CRVS  Cervenica-Dubn 37.94 305 eP      P       13 23 30.3 -2.0
CRVS                           ePP     pP      13 24 15.6 +0.6
CRVS                           eSP             13 24 39.3
CRVS                           ePP     PP      13 25 02.1 -1.2
BZS   Buzias         37.96 300⇑iP      P       13 23 33.8 +1.3
BZS   Buzias         37.96 300 ⇑P      P       13 23 33.8 +1.3
STHS  Stebnicka Huta 38.09 306 eP      P       13 23 34.1 +0.6
STHS                           e       pP      13 24 16.4 +0.2
STHS                           eSP             13 24 38.7
STHS                           pmax    pmax
      comp=Z,4.0nm,0.9s,mb4.0
STHS  Stebnicka Huta 38.09 306 eP      P       13 23 34.1 +0.6
      comp=Z,3.8nm,0.9s,mb3.9
STHS                           e               13 24 02.2
STHS                           ePP     pP      13 24 16.4 +0.2
STHS                           eSP             13 24 38.7
STHS                           ePP     PP      13 24 59.8 -5.1
KECS  Kecovo         38.59 304 eP      P       13 23 38.5 +0.8
KECS                           e       pP      13 24 20.9 +0.3
KECS                           eSP             13 24 43.1
KECS                           e               13 25 11.4
KECS                           pmax    pmax
      comp=Z,2.0nm,1.0s,mb3.6
KECS  Kecovo         38.59 304 eP      P       13 23 38.5 +0.8
      comp=Z,2.4nm,1.0s,mb3.7
KECS                           ePP     pP      13 24 20.9 +0.3
KECS                           eSP             13 24 43.1
KECS                           ePP     PP      13 25 11.4 +1.0
OJC   Ojcow          39.03 307 eP      P       13 23 41.6 +0.3
OJC                            epP     pP      13 24 24.1 -0.1
OJC                            esP     sP      13 24 47.9 +0.4
OJC   Ojcow          39.03 307 eP      P       13 23 41.6 +0.3
OJC                            epP     pP      13 24 24.1 -0.1
OJC                            esP     sP      13 24 47.9 +0.4
VYHS  Vyhne          39.69 304 eP      P       13 23 47.4 +0.6
VYHS                           e       pP      13 24 28.8 -1.0
VYHS                           eSP             13 24 53.2
VYHS                           e               13 25 25.7
VYHS                           e               13 25 46.5
VYHS                           pmax    pmax
      comp=Z,3.0nm,1.2s,mb3.6
VYHS  Vyhne          39.69 304 eP      P       13 23 47.4 +0.6
VYHS                           epP     pP      13 24 28.8 -1.0
VYHS                           esP     sP      13 24 53.2 +0.1
VYHS                           ePP     PP      13 25 25.6 +3.3
VYHS                           ePCP    PcP     13 25 46.5 -2.7
VYHS  Vyhne          39.69 304 eP      P       13 23 47.4 +0.6
      comp=Z,2.5nm,1.2s,mb3.5
VYHS                           ePP     pP      13 24 28.8 -1.0
VYHS                           eSP             13 24 53.2
VYHS                           ePP     PP      13 25 25.7 +3.4
VYHS                           ePcP    PcP     13 25 46.5 -2.7
MORC  Moravsky Berou 40.49 306⇓iP      P       13 23 54.4 +1.0
MORC  Moravsky Berou 40.49 306 ⇓P      P       13 23 54.4 +1.1
GKP   Gorka Klasztor 40.68 312 eP      P       13 23 55.2 +0.3
GKP                            epP     pP      13 24 38.5 +0.4
GKP   Gorka Klasztor 40.68 312 eP      P       13 23 55.2 +0.3
GKP                            epP     pP      13 24 38.5 +0.4
CLNS  Chul'man       40.73  43 eP      P       13 23 55.7 +0.5
CLNS                           pmax    pmax
      comp=Z,15nm,1.0s,mb4.4
CLNS                           pmax    pmax
      comp=N,5.0nm,1.2s
CLNS                           pmax    pmax
      comp=E,13nm,1.2s
MODS  Modra-Piesok   40.73 304 eP      P       13 23 54.0 -1.4
MODS                           epP     pP      13 24 37.0 -1.6
MODS  Modra-Piesok   40.73 304 eP      P       13 23 54.1 -1.3
MODS                           ePP     pP      13 24 37.0 -1.6
KEV   Kevo           40.82 338 ep      P       13 23 56.4 +0.6
KEV   Kevo           40.82 338 eP      P       13 23 56.4 +0.6
VRAC  Vranov         41.13 306⇑iP      P       13 24 00.0 +1.4
VRAC  Vranov         41.13 306 ⇑P      P       13 23 60.0 +1.4
ARCES ARCESS Array B 41.17 338 P       P       13 23 59.3 +0.7
      comp=E,15nm,0.5s,mb4.7,baz=114,slow=7.8,SNR=70
ARCES                          pP      pP      13 24 42.3 +0.4
      comp=E,19nm,0.7s,baz=108,slow=7.8,SNR=7.1
ARCES ARCESS Array B 41.17 338 P       P       13 23 59.3 +0.7
ARCES                          pP      pP      13 24 42.3 +0.4
DPC   Dobruska-Polom 41.26 307 eP      P       13 24 00.5 +0.9
DPC                            epP     pP      13 24 43.4 +0.5
DPC                            esP     sP      13 25 04.6 -1.5
DPC                            ePP     PP      13 25 46.5 +7.4
DPC   Dobruska-Polom 41.26 307 eP      P       13 24 00.5 +0.9
DPC                            epP     pP      13 24 43.4 +0.5
DPC                            e               13 25 04.6
DPC                            ePP     PP      13 25 46.5 +7.4
CN2   Changchun      41.40  63 eP      P       13 24 02.3 +1.4
CN2                            epP     pP      13 24 46.3 +2.1
CN2                            eS      S       13 30 00.9 +0.8
CN2                            pmax    pmax
      comp=Z,10.0nm,0.5s,mb4.5
CN2                            pmax    pmax
      comp=Z,200nm,4.0s
UPC   Upice          41.45 308 eP      P       13 24 01.7 +0.6
UPC                            epP     pP      13 24 44.7 +0.2
UPC                            esP     sP      13 25 07.6 -0.1
UPC   Upice          41.45 308 eP      P       13 24 01.7 +0.6
UPC                            epP     pP      13 24 44.7 +0.2
UPC                            e               13 25 07.6
SSE   Sheshan        41.47  83 P       P       13 24 03.8 +2.2
SSE                            pmax    pmax
      comp=Z,63nm,0.8s,mb5.1
SSE                            pmax    pmax
      comp=Z,46nm,2.7s,mb4.4
PSI   Prapat         42.19 136 P       P       13 24 07.8 +0.2
      comp=Z,43nm,0.8s,mb4.9,baz=308,slow=8.5,SNR=33
PSI   Prapat         42.19 136 P       P       13 24 07.8 +0.2
PVCC  Panska Ves     42.37 308 eP      P       13 24 09.4 +0.8
PVCC                           epP     pP      13 24 52.5 +0.4
PVCC  Panska Ves     42.37 308 eP      P       13 24 09.4 +0.8
PVCC                           epP     pP      13 24 52.5 +0.4
PRU   Pruhonice      42.42 307 eP      P       13 24 08.9 -0.1
PRU                            epP     pP      13 24 53.1 +0.6
PRU                            esP     sP      13 25 16.9 +1.2
PRU                            ePP     PP      13 25 52.3 +0.8
PRU   Pruhonice      42.42 307 eP      P       13 24 08.9 -0.1
PRU                            epP     pP      13 24 53.1 +0.6
PRU                            e               13 25 16.9
PRU                            ePP     PP      13 25 52.3 +0.8
BRG   Berggiesshubel 42.74 308 eP      P       13 24 12.3 +0.7
      comp=Z,11nm,0.8s,mb4.3
BRG                            esP     sP      13 25 19.9 +1.6
BRG   Berggiesshubel 42.74 308 eP      P       13 24 12.5 +0.8
      comp=Z,10nm,0.8s,mb4.3
BRG                            i       pP      13 24 56.0 +0.7
      comp=Z,25nm,1.0s
BRG                            e               13 25 19.9
      comp=Z,21nm,1.2s
BRG                            e               13 27 20.8
      comp=Z,17nm,1.3s
BRG   Berggiesshubel 42.74 308 eP      P       13 24 12.5 +0.8
      comp=Z,6.3nm,0.8s,mb4.1
BRG                            i       pP      13 24 56.0 +0.7
BRG                            e               13 25 19.9
BRG                            e               13 27 20.8
GEC2  GERESS Array S 43.06 305 epP     pP      13 24 58.2 +0.4
GERES GERESS Array B 43.06 305 P       P       13 24 14.9 +0.7
GERES                          *PP     pP      13 24 58.2 +0.4
GERES                                          13 26 00.3
GERES GERESS Array B 43.06 305 P       P       13 24 14.9 +0.7
      comp=Z,0.9nm,0.6s,mb3.4,baz=91,slow=6.7,SNR=6.0
GERES                          pP      pP      13 24 58.2 +0.4
      comp=Z,3.0nm,0.8s,baz=79,slow=8.3,SNR=6.8
GERES                          PcP     PcP     13 26 00.3  0.0
      comp=Z,1.7nm,0.7s,baz=108,slow=4.3,SNR=4.8
GERES                          ScP     ScP     13 29 30.8 -1.0
      comp=Z,0.6nm,0.2s,baz=84,slow=4.2,SNR=3.8
GERES GERESS Array B 43.06 305 P       P       13 24 14.9 +0.7
GERES                          pP      pP      13 24 58.2 +0.4
GERES                          PcP     PcP     13 26 00.3  0.0
GERES                          ScP     ScP     13 29 30.8 -1.0
CUC   Castrocucco    43.06 292 eP      P       13 24 14.9 +0.6
      comp=Z,18nm,0.7s,mb4.6
CUC                            epP     pP      13 24 59.2 +1.2
KHC   Kasperske Hory 43.11 306 eP      P       13 24 15.7 +1.1
KHC                            epP     pP      13 24 57.9 -0.4
KHC                            esP     sP      13 25 21.4 +0.1
KHC                            ePP     PP      13 25 56.3 -2.6
KHC   Kasperske Hory 43.11 306 eP      P       13 24 15.7 +1.1
KHC                            epP     pP      13 24 57.9 -0.4
KHC                            e               13 25 21.4
KHC                            ePP     PP      13 25 56.3 -2.6
TRO   Tromso         43.29 336 eP      P       13 24 16.2 +0.4
TRO                            AMb     AMB     13 24 34.6
      comp=Z,106nm,1.9s,mb4.9
TRO                            epP     pP      13 24 59.6 +0.2
CLL   Collm          43.31 309 i P     P       13 24 16.5 +0.4
CLL                            i *PP   pP      13 25 00.0 +0.1
CLL                            i *SP   sP      13 25 24.0 +1.1
CLL                            pmax    pmax
      comp=Z,7.0nm,0.8s,mb4.1
CLL   Collm          43.31 309 eP      P       13 24 16.7 +0.6
      comp=Z,6.0nm,0.8s,mb4.1
CLL                            epP     pP      13 24 59.9 +0.1
CLL                            esP     sP      13 25 23.9 +1.0
CLL   Collm          43.31 309 i P     P       13 24 16.5 +0.4
      comp=Z,7.0nm,0.8s,mb4.1
CLL                            i pP    pP      13 25 00.0 +0.1
CLL                            i sP    sP      13 25 24.0 +1.1
CLL                            esPP            13 27 01.0
CLL                            i ScP   ScP     13 29 32.4 -0.3
CLL                            LmV             13 58 00.0
      comp=Z,400nm,18.4s
CLL   Collm          43.31 309 i P     P       13 24 16.5 +0.4
      comp=Z,7.0nm,0.8s,mb4.1
CLL                            i pP    pP      13 25 00.0 +0.1
CLL                            i sP    sP      13 25 24.0 +1.1
CLL                            i ScP   ScP     13 29 32.4 -0.3
WET   Wettzell       43.57 306 esP     sP      13 25 26.2 +1.2
MSEY  Mahe Island    43.59 203 i P     P       13 24 19.3 +0.5
MSEY  Mahe Island    43.59 203 eP      P       13 24 18.6 -0.2
      comp=Z,17nm,1.1s,mb4.3
TANN  Tannenbergstha 43.72 308 epP     pP      13 25 03.4 +0.2
TANN                           esP     sP      13 25 27.9 +1.7
NKC   Novy Kostel    43.74 307 eP      P       13 24 21.9 +2.3
NKC   Novy Kostel    43.74 307 eP      P       13 24 21.9 +2.3
YAK   Yakutsk        43.80  35ceP      P       13 24 20.0 +0.1
YAK                            e*PP    pP      13 25 05.6 +1.9
YAK                            e               13 26 04.1
YAK                            ePPP            13 26 47.1
YAK                            eS      S       13 30 34.5 -0.1
YAK                            e               13 33 58.9
YAK                            pmax    pmax
      comp=Z,37nm,0.9s,mb4.7
YAK                            pmax    pmax
      comp=N,5.0nm,1.0s
YAK                            pmax    pmax
      comp=E,4.0nm,0.9s
YAK                            pmax    pmax
      comp=Z,14nm,1.0s,mb4.2
YAK                            pmax    pmax
      comp=N,5.0nm,0.9s
YAK                            pmax    pmax
      comp=E,13nm,1.5s
YAK                            smax
      comp=N,37nm,1.6s
YAK                            smax
      comp=E,54nm,1.6s
YAK   Yakutsk        43.80  35 eP      P       13 24 20.1 +0.2
      comp=E,60nm,0.8s,mb5.0
MOR8  Moi Rana       43.86 331 eP      P       13 24 19.9 -0.4
MOR8                           AMb     AMB     13 24 22.4
      comp=Z,49nm,0.6s,mb5.0
MOR8                           epP     pP      13 25 03.4 -0.8
ROTZ  Rotzenmuhle    43.94 307 epP     pP      13 25 05.7 +0.7
ROTZ                           esP     sP      13 25 30.0 +1.9
MANZ  Manzenberg     43.98 307 eP      P       13 24 20.2 -1.3
      comp=Z,7.0nm,1.3s,mb3.8
MANZ                           esP     sP      13 25 30.2 +1.8
MDJ   Mudanjiang     44.20  61 P       P       13 24 23.3  0.0
MDJ                            pmax    pmax
      comp=Z,9.0nm,0.9s,mb4.1
MDJ                            pmax    pmax
      comp=Z,93nm,3.9s
MOX   Moxa           44.23 308 eP      P       13 24 24.5 +1.0
MOX                            ePP     pP      13 25 07.6 +0.2
MOX                            eSP             13 25 31.9
MOX   Moxa           44.23 308 eP      P       13 24 23.7 +0.2
      comp=Z,6.0nm,1.0s,mb3.9
MOX                            epP     pP      13 25 07.9 +0.5
MOX                            esP     sP      13 25 32.0 +1.6
MOX   Moxa           44.23 308 eP      P       13 24 24.5 +1.0
MOX                            ePP     pP      13 25 07.6 +0.2
MOX                            eSP             13 25 31.9
SSLB  Suanglung      44.37  92 eP      P       13 24 27.6 +2.7
      comp=Z,75nm,1.0s,mb5.0
NB2   NORSAR Subarra 44.45 323 P       P       13 24 24.5 -0.6
      comp=Z,16nm,0.5s,mb4.6,baz=98,slow=7.9
NOA   NORSAR Array B 44.45 323 P       P       13 24 24.9 -0.2
      comp=Z,16nm,0.6s,mb4.6,baz=96,slow=7.7,SNR=73
NOA                            pP      pP      13 25 08.4 -0.6
      comp=Z,16nm,0.8s,baz=96,slow=8.0,SNR=5.3
NOA   NORSAR Array B 44.45 323 P       P       13 24 24.9 -0.2
NOA                            pP      pP      13 25 08.4 -0.6
STOK  Stokkvaagen    44.46 331 eP      P       13 24 25.5 +0.4
STOK                           AMb     AMB     13 24 30.1
      comp=Z,63nm,2.1s,mb4.6
GRA1  Grafenberg Arr 44.59 307 eP      P       13 24 27.2 +0.9
      comp=Z,10.0nm,0.8s,mb4.2
GRA1                           epP     pP      13 25 11.3 +1.1
GRF   Grafenberg Arr 44.59 307 eP      P       13 24 27.2 +0.9
GRF                            e*PP    pP      13 25 11.3 +1.1
GRF                            pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.2
GRF   Grafenberg Arr 44.59 307 eP      P       13 24 27.2 +0.9
GRF                            e*PP    pP      13 25 11.3 +1.1
GRF                            pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.2
GRF   Grafenberg Arr 44.59 307 eP      P       13 24 27.2 +0.9
      comp=Z,10.0nm,0.8s,mb4.2
GRF                            epP     pP      13 25 11.3 +1.1
GRF   Grafenberg Arr 44.59 307 eP      P       13 24 27.2 +0.9
      comp=Z,10.0nm,0.8s,mb4.2
GRF                            epP     pP      13 25 11.3 +1.1
KSRS  Korea Array    44.67  71 P       P       13 24 28.0 +0.8
KSRS                                           13 26 05.3
KSRS                           pmax    pmax
      comp=Z,10.0nm,0.7s,mb4.2
KSRS                           pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.0
KSRS  Korea Array    44.67  71 P       P       13 24 27.9 +0.8
      comp=Z,10.0nm,0.7s,mb4.2,baz=272,slow=7.0,SNR=47
KSRS                           PcP     PcP     13 26 05.2 -0.7
      comp=Z,5.8nm,0.8s,baz=292,slow=4.1,SNR=6.9
LOF   Lofoten        44.68 333 eP      P       13 24 28.7 +1.9
BSEG  Bad Segeberg   44.80 313 eP      P       13 24 28.7 +0.8
      comp=Z,17nm,0.9s,mb4.4
BSEG                           epP     pP      13 25 12.6 +0.7
BSEG  Bad Segeberg   44.80 313 eP      P       13 24 28.7 +0.8
BSEG                           epP     pP      13 25 12.6 +0.7
CLZ   Clausthal      44.91 310 eP      P       13 24 28.0 -0.8
CLZ                            e*PP    pP      13 25 12.6 -0.2
CLZ                            e*SP    sP      13 25 37.4 +1.6
CLZ                            pmax    pmax
      comp=Z,16nm,1.3s,mb4.2
CLZ   Clausthal      44.91 310 eP      P       13 24 28.0 -0.8
      comp=Z,16nm,1.3s,mb4.2
CLZ                            epP     pP      13 25 12.6 -0.2
CLZ                            esP     sP      13 25 37.4 +1.6
CLZ   Clausthal      44.91 310 eP      P       13 24 28.0 -0.8
      comp=Z,16nm,1.3s,mb4.2
CLZ                            epP     pP      13 25 12.6 -0.2
CLZ                            esP     sP      13 25 37.4 +1.6
TWG   Pinlang        44.93  93 eP      P       13 24 32.6 +3.3
      comp=Z,61nm,1.0s,mb4.9
KLR   Kul'dur        44.95  54 eP      P       13 24 25.7 -3.4
KLR                            pmax    pmax
      comp=E,37nm,1.6s
KLR                            pmax    pmax
      comp=Z,57nm,1.6s,mb4.7
NRDL  Niedersach Rie 45.02 311 eP      P       13 24 29.1 -0.5
      comp=Z,9.0nm,0.9s,mb4.1
NRDL                           epP     pP      13 25 14.1 +0.4
NRDL                           esP     sP      13 25 38.5 +1.8
KONO  Kongsberg      45.16 321⇑eP      P       13 24 31.0 +0.3
UBBA  Unterbreizbach 45.24 308 epP     pP      13 25 15.3 -0.2
UBBA                           esP     sP      13 25 40.1 +1.6
TIXI  Tiksi          45.64  22 eP      P       13 24 34.6 +0.3
TIXI                           e*PP    pP      13 25 19.2 +0.8
TIXI                           pmax    pmax
      comp=Z,38nm,0.8s,mb4.8
TIXI  Tiksi          45.64  22 eP      P       13 24 34.6 +0.3
      comp=Z,38nm,0.8s,mb4.8
TIXI                           epP     pP      13 25 19.2 +0.8
DAVOX Davos/Dischmat 45.90 303 P       P       13 24 37.3 +0.7
      comp=Z,2.6nm,0.5s,mb3.8,baz=136,slow=13,SNR=4.0
DAVOX                          pP      pP      13 25 20.5 -0.4
      comp=Z,16nm,0.7s,baz=104,slow=8.4,SNR=8.2
DAVOX                          PcP     PcP     13 26 09.6 -0.4
      comp=Z,9.3nm,0.6s,baz=236,slow=3.6,SNR=3.7
DAVOX Davos/Dischmat 45.90 303 P       P       13 24 37.3 +0.7
DAVOX                          pP      pP      13 25 20.5 -0.4
DAVOX                          PcP     PcP     13 26 09.6 -0.4
DAVOS Davos          45.94 303 P       P       13 24 37.3 +0.3
DAVOS                          *PP     pP      13 25 20.5 -0.7
DAVOS                                          13 26 09.6
TNS   Taunus Mts     46.30 308 esP     sP      13 25 48.2 +1.3
HABR  Khabarovsk     47.22  54 eP      P       13 24 46.8  0.0
HABR                           e*SP    sP      13 25 52.1 -2.1
HABR                           e               13 26 13.8
HABR                           e               13 26 38.8
HABR                           eS      S       13 31 24.7 +0.9
HABR                           e*SS    sS      13 32 41.3 -0.5
HABR                           e               13 34 18.4
HABR                           SS      SS      13 34 55.8 +2.3
HABR                           pmax    pmax
      comp=E,76nm,2.9s
HABR                           pmax    pmax
      comp=Z,33nm,1.1s,mb4.6
HABR                           pmax    pmax
      comp=N,7.0nm,0.8s
HABR                           MLR     MLR
      comp=Z,166nm,17.0s
HABR                           MLR     MLR
      comp=N,306nm,17.0s
HABR                           MLR     MLR
      comp=E,133nm,17.0s
PGF   Pioggiola      47.42 297 eP      P       13 24 47.5 -1.0
PGF                            epP     pP      13 25 32.2 -0.8
PGF   Pioggiola      47.42 297 eP      P       13 24 47.5 -1.0
PGF                            epP     pP      13 25 32.2 -0.8
SPITS Spitsbergen Ar 47.48 347 P       P       13 24 49.5 +1.0
      comp=E,9.4nm,0.5s,mb4.3,baz=341,slow=10,SNR=29
SPITS Spitsbergen Ar 47.48 347 P       P       13 24 49.5 +1.0
HINF  Hinteralfeld   47.73 305 eP      P       13 24 49.9 -0.9
HINF  Hinteralfeld   47.73 305 eP      P       13 24 49.9 -0.9
WLF   Walferdange    47.85 307 epP     pP      13 25 37.1 +0.9
HAU   Haudompre      48.03 305 eP      P       13 24 52.2 -0.9
      comp=E,5.9nm,0.5s,mb3.9
HAU   Haudompre      48.03 305 eP      P       13 24 52.2 -0.9
HAU                            pmax    pmax
      comp=Z,3.0nm,0.5s,mb3.9
HAU   Haudompre      48.03 305 eP      P       13 24 52.2 -0.9
      comp=Z,3.0nm,0.5s,mb3.9
SBF   Sospel         48.20 299 eP      P       13 24 53.9 -0.6
SBF   Sospel         48.20 299 eP      P       13 24 53.9 -0.6
LPG   La Plagne      48.29 302 eP      P       13 24 54.9 -0.2
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	comp=Z,13nm,0.8s,mb4.0						
LPG	La Plagne	48.29	302	eP	P	13 24 54.9	-0.2
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.0						
LPG	La Plagne	48.29	302	eP	P	13 24 54.9	-0.2
	comp=Z,6.7nm,0.8s,mb4.0						
LPL	La Plagne	48.30	302	eP	P	13 24 55.1	-0.1
LPL				epP	pP	13 25 39.7	-0.1
LPL	La Plagne	48.30	302	eP	P	13 24 55.1	-0.1
LPL				epP	pP	13 25 39.7	-0.1
MBDF	Montbardon	48.45	301	eP	P	13 24 55.5	-0.9
	comp=Z,25nm,0.9s,mb4.2						
MBDF	Montbardon	48.45	301	eP	P	13 24 55.5	-0.9
MBDF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.2						
MBDF	Montbardon	48.45	301	eP	P	13 24 55.5	-0.9
	comp=Z,12nm,0.9s,mb4.2						
CABF	La Chapelle	48.49	303	eP	P	13 24 56.1	-0.5
	comp=Z,8.7nm,0.7s,mb3.9						
CABF				epP	pP	13 25 41.1	-0.2
CABF	La Chapelle	48.49	303	eP	P	13 24 56.1	-0.5
CABF				e*PP	pP	13 25 41.1	-0.2
CABF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb3.9						
CABF	La Chapelle	48.49	303	eP	P	13 24 56.1	-0.5
	comp=Z,4.3nm,0.7s,mb3.9						
CABF				epP	pP	13 25 41.1	-0.2
KBS	Kingsbay	48.60	347⇑	eP	P	13 24 58.6	+1.6
KBS				pmax	pmax		
	comp=Z,24nm,1.7s,mb4.2						
FRF	La Foret Royal	48.83	299	eP	P	13 24 58.3	-1.0
FRF				epP	pP	13 25 43.2	-0.8
FRF	La Foret Royal	48.83	299	eP	P	13 24 58.3	-1.0
FRF				epP	pP	13 25 43.2	-0.8
BAIF	Baives	49.01	308	eP	P	13 25 00.6	0.0
	comp=Z,9.8nm,0.6s,mb4.0						
BAIF				epP	pP	13 25 45.5	+0.2
BAIF	Baives	49.01	308	eP	P	13 25 00.6	0.0
BAIF				e*PP	pP	13 25 45.5	+0.2
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
BAIF	Baives	49.01	308	eP	P	13 25 00.6	0.0
	comp=Z,4.9nm,0.6s,mb4.0						
BAIF				epP	pP	13 25 45.5	+0.2
KMBO	Kilima Mbogo	49.02	228	P	P	13 25 02.1	+1.1
	comp=Z,15nm,0.8s,mb4.4,baz=36,slow=12,SNR=28						
KMBO	Kilima Mbogo	49.02	228	P	P	13 25 02.1	+1.1
ORIF	Oris-en-Rattie	49.02	301	eP	P	13 25 00.1	-0.6
ORIF	Oris-en-Rattie	49.02	301	eP	P	13 25 00.1	-0.6
KEST	Kesra	49.21	289	P	P	13 25 02.8	+0.5
	comp=Z,2.8nm,0.5s,mb3.8,baz=327,slow=2.6,SNR=19						
KEST				pP	pP	13 25 47.5	+0.5
	comp=Z,3.6nm,0.9s,baz=164,slow=4.6,SNR=3.2						
SMRF	Simiane la Rot	49.47	300	eP	P	13 25 02.9	-1.2
SMRF	Simiane la Rot	49.47	300	eP	P	13 25 02.9	-1.2
VIVF	Saint-Julien-l	49.87	301	eP	P	13 25 06.5	-0.6
	comp=Z,9.9nm,0.6s,mb4.0						
VIVF				epP	pP	13 25 51.7	-0.3
VIVF	Saint-Julien-l	49.87	301	eP	P	13 25 06.5	-0.6
VIVF				e*PP	pP	13 25 51.7	-0.3
VIVF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
VIVF	Saint-Julien-l	49.87	301	eP	P	13 25 06.5	-0.6
	comp=Z,4.9nm,0.6s,mb4.0						
VIVF				epP	pP	13 25 51.7	-0.3
SMF	Signal de Mont	49.99	304	eP	P	13 25 07.2	-0.8
	comp=Z,8.9nm,0.5s,mb4.1						
SMF				epP	pP	13 25 52.2	-0.7
SMF	Signal de Mont	49.99	304	eP	P	13 25 07.2	-0.8
SMF				e*PP	pP	13 25 52.2	-0.7
SMF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.0						
SMF	Signal de Mont	49.99	304	eP	P	13 25 07.2	-0.8
	comp=Z,4.4nm,0.5s,mb4.0						
SMF				epP	pP	13 25 52.2	-0.7
AVF	Avril sur Loir	50.28	304	eP	P	13 25 09.3	-0.8
	comp=Z,10nm,0.6s,mb4.0						
AVF	Avril sur Loir	50.28	304	eP	P	13 25 09.3	-0.8
AVF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
AVF	Avril sur Loir	50.28	304	eP	P	13 25 09.3	-0.8
	comp=Z,5.3nm,0.6s,mb4.0						
LASF	Ste Croix	50.64	301	eP	P	13 25 12.6	-0.3
LASF				epP	pP	13 25 57.8	-0.1
LASF	Ste Croix	50.64	301	eP	P	13 25 12.6	-0.3
LASF				epP	pP	13 25 57.8	-0.1
TCF	Toulx Ste Croi	51.17	304	eP	P	13 25 16.4	-0.4
	comp=Z,22nm,1.0s,mb4.3						
TCF				epP	pP	13 26 01.6	-0.3
TCF	Toulx Ste Croi	51.17	304	eP	P	13 25 16.4	-0.4
TCF				e*PP	pP	13 26 01.6	-0.3
TCF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.2						
TCF	Toulx Ste Croi	51.17	304	eP	P	13 25 16.4	-0.4
	comp=Z,11nm,1.0s,mb4.2						
TCF				epP	pP	13 26 01.6	-0.3
CAF	Calviac	51.64	302	eP	P	13 25 20.0	-0.3
CAF				epP	pP	13 26 05.3	-0.2
CAF	Calviac	51.64	302	eP	P	13 25 20.0	-0.3
CAF				epP	pP	13 26 05.3	-0.2
RJF	Les Rejaudoux	51.90	303	eP	P	13 25 22.1	-0.1
	comp=Z,4.9nm,0.5s,mb3.9						
RJF				epP	pP	13 26 07.4	-0.1
RJF	Les Rejaudoux	51.90	303	eP	P	13 25 22.1	-0.1
RJF				e*PP	pP	13 26 07.4	-0.1
RJF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.8						
RJF	Les Rejaudoux	51.90	303	eP	P	13 25 22.1	-0.1
	comp=Z,2.5nm,0.5s,mb3.9						
RJF				epP	pP	13 26 07.4	-0.1
MTLF	Montolieu	51.99	300	eP	P	13 25 21.6	-1.3
	comp=Z,5.7nm,0.6s,mb3.9						
MTLF	Montolieu	51.99	300	eP	P	13 25 21.6	-1.3
MTLF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
MTLF	Montolieu	51.99	300	eP	P	13 25 21.6	-1.3
	comp=Z,2.8nm,0.6s,mb3.9						
LDF	La Druitiere	52.10	307	eP	P	13 25 22.8	-0.9
	comp=Z,6.1nm,0.5s,mb4.0						
LDF				epP	pP	13 26 08.0	-0.9
LDF	La Druitiere	52.10	307	eP	P	13 25 22.8	-0.9
LDF				e*PP	pP	13 26 08.0	-0.9
LDF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.0						
LDF	La Druitiere	52.10	307	eP	P	13 25 22.8	-0.9
	comp=Z,3.0nm,0.5s,mb4.0						
LDF				epP	pP	13 26 08.0	-0.9
FLN	La Foliniere	52.29	307	eP	P	13 25 24.7	-0.3
FLN	La Foliniere	52.29	307	eP	P	13 25 24.7	-0.3
YSS	Yuzh-Sakhalins	52.63	55	eP	P	13 25 28.8	+1.3
YSS				pmax	pmax		
	comp=Z,42nm,1.0s,mb4.8						
YSS	Yuzh-Sakhalins	52.63	55	eP	P	13 25 28.8	+1.3
	comp=Z,42nm,1.0s,mb4.8						
GRR	Gorron	52.63	307	eP	P	13 25 26.2	-1.3
GRR	Gorron	52.63	307	eP	P	13 25 26.2	-1.3
MFF	Saint Martin d	52.65	305	eP	P	13 25 26.6	-1.1
MFF	Saint Martin d	52.65	305	eP	P	13 25 26.6	-1.1
MBAR	Mbarara	52.70	235	i P	P	13 25 27.4	-1.1
MAT	Matsushiro	52.74	69	P	P	13 25 27.1	-1.5
MJAR	Matsushiro Arr	52.74	69	P	P	13 25 28.6	0.0
	comp=Z,8.9nm,1.0s,mb4.2,baz=292,slow=9.3,SNR=10						
MJAR				pP	pP	13 26 15.7	+1.7
	comp=Z,2.0nm,0.7s,baz=286,slow=9.1,SNR=2.4						
MJAR	Matsushiro Arr	52.74	69	P	P	13 25 28.6	0.0
MJAR				pP	pP	13 26 15.7	+1.7
EPF	Esparros	53.39	300	eP	P	13 25 32.2	-1.0
EPF	Esparros	53.39	300	eP	P	13 25 32.2	-1.0
SGMF	Saint Gilles	53.76	307	eP	P	13 25 36.3	+0.6
	comp=Z,11nm,0.7s,mb4.2						
SGMF				epP	pP	13 26 20.5	-0.8
SGMF	Saint Gilles	53.76	307	eP	P	13 25 36.3	+0.6
SGMF				e*PP	pP	13 26 20.5	-0.8
SGMF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.2						
SGMF	Saint Gilles	53.76	307	eP	P	13 25 36.3	+0.6
	comp=Z,5.7nm,0.7s,mb4.2						
SGMF				epP	pP	13 26 20.5	-0.8
ETSF	Etsaut	54.06	300	eP	P	13 25 37.6	-0.4
	comp=Z,25nm,0.7s,mb4.5						
ETSF				epP	pP	13 26 23.2	-0.4
ETSF	Etsaut	54.06	300	eP	P	13 25 37.6	-0.4
ETSF				e*PP	pP	13 26 23.2	-0.4
ETSF				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.6						
ETSF	Etsaut	54.06	300	eP	P	13 25 37.6	-0.4
	comp=Z,13nm,0.7s,mb4.6						
ETSF				epP	pP	13 26 23.2	-0.4
ROSF	Rostrenen	54.19	308	eP	P	13 25 37.9	-1.0
	comp=Z,20nm,0.9s,mb4.3						
ROSF				epP	pP	13 26 23.5	-1.0
ROSF	Rostrenen	54.19	308	eP	P	13 25 37.9	-1.0
ROSF				e*PP	pP	13 26 23.5	-1.0
ROSF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.3						
ROSF	Rostrenen	54.19	308	eP	P	13 25 37.9	-1.0
	comp=Z,10.0nm,0.9s,mb4.3						
ROSF				epP	pP	13 26 23.5	-1.0
QUIF	Quistinic	54.24	307	eP	P	13 25 38.7	-0.6
QUIF	Quistinic	54.24	307	eP	P	13 25 38.7	-0.6
SEY	Seymchan	54.26	34⇑	eP	P	13 25 40.4	+1.3
SJPF	Ste Jean	54.45	301	eP	P	13 25 41.0	+0.2
	comp=Z,9.9nm,0.8s,mb4.1						
SJPF	Ste Jean	54.45	301	eP	P	13 25 41.0	+0.2
SJPF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
SJPF	Ste Jean	54.45	301	eP	P	13 25 41.0	+0.2
	comp=Z,4.9nm,0.8s,mb4.1						
ESDC	Sonseca Array	57.61	298	P	P	13 26 02.9	-0.3
	comp=Z,2.8nm,0.6s,mb4.1,baz=58,slow=7.2,SNR=10						
ESDC				pP	pP	13 26 49.0	-0.5
	comp=Z,7.4nm,0.8s,baz=62,slow=7.1,SNR=7.9						
ESDC	Sonseca Array	57.61	298	P	P	13 26 02.9	-0.3
ESDC				pP	pP	13 26 49.0	-0.5
TAM	Tamanrasset	57.73	276	P	P	13 26 02.9	-1.5
TAM				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
TAM	Tamanrasset	57.73	276	P	P	13 26 02.9	-1.5
	comp=Z,1.7nm,0.6s,mb3.9						
MVO	Moncorvo	59.18	301	eP	P	13 26 14.2	+0.1
MVO				epP	pP	13 27 00.2	-0.3
PETK	Petropavlovsk-	59.79	44	P	P	13 26 18.0	0.0
	comp=Z,2.1nm,0.5s,mb4.0,baz=325,slow=4.0,SNR=11						
PETK	Petropavlovsk-	59.79	44	P	P	13 26 18.0	0.0
MTE	Manteigas	59.84	300	eP	P	13 26 19.1	+0.5
MTE				epP	pP	13 27 05.7	+0.5
PVIS	Viseu	59.96	300	eP	P	13 26 19.8	+0.4
PVIS				epP	pP	13 27 06.4	+0.4
PMRV	Marv??o	60.13	299	epP	pP	13 27 07.3	+0.1
PESTR	Estremoz	60.51	298	epP	pP	13 27 09.7	-0.1
EVO	Evora	60.95	298	eP	P	13 26 25.9	-0.2
EVO	Evora	60.95	298	eP	P	13 26 26.1	0.0
EVO				epP	pP	13 27 12.7	-0.2
PBEJ	Beja	61.06	298	eP	P	13 26 26.8	-0.1
PBEJ				epP	pP	13 27 13.4	-0.2
SUMG	Summit	61.07	341	eP	P	13 26 27.5	+1.1
	comp=Z,18nm,0.8s,mb4.7						
SUMG				epP	pP	13 27 14.1	+0.9
PVAQ	Vaqueiros	61.22	297	eP	P	13 26 27.4	-0.6
PVAQ				epP	pP	13 27 14.3	-0.5
PBDV	Barranco-do-Ve	61.45	297	epP	pP	13 27 16.5	+0.2
PTEO	Sao Teotonio	61.88	297	epP	pP	13 27 18.8	-0.5
LSZ	Lusaka	65.64	226	eP	P	13 26 56.6	-0.5
LSZ				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.0						
LSZ	Lusaka	65.64	226	eP	P	13 26 56.6	-0.5
	comp=Z,30nm,0.7s,mb5.0						
TORD	Torodi Ar. Bea	65.92	269	P	P	13 26 56.7	-2.3
	comp=Z,11nm,0.4s,mb4.8,baz=50,slow=5.9,SNR=243						
TORD				pP	pP	13 27 48.0	+1.5
	comp=Z,3.3nm,0.5s,baz=46,slow=6.0,SNR=2.0						
TORD	Torodi Ar. Bea	65.92	269	P	P	13 26 56.7	-2.3
TORD				pP	pP	13 27 48.0	+1.5
RES	Resolute Bay	68.65	356	eP	P	13 27 15.7	+0.5
RES				e*PP	pP	13 28 03.3	+0.2
RES				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.3						
RES	Resolute Bay	68.65	356	eP	P	13 27 15.7	+0.4
	comp=Z,9.1nm,1.0s,mb4.4						
RES				epP	pP	13 28 03.3	+0.3
COLD	Coldfoot	71.86	16	eP	P	13 27 35.5	+0.7
	comp=Z,34nm,0.9s,mb5.0						
COLD				epP	pP	13 28 24.0	+1.0
CHUM	Lake Minchumin	74.12	18	eP	P	13 27 48.7	+0.6
	comp=Z,22nm,0.6s,mb5.0						
CHUM				epP	pP	13 28 37.6	+1.0
CHUM				esP	sP	13 28 57.2	-1.2
BPAW	Bear Paw Mtn.	74.28	18	eP	P	13 27 49.0	0.0
	comp=Z,13nm,0.8s,mb4.6						
BPAW				epP	pP	13 28 38.2	+0.7
COLA	College	74.36	16	eP	P	13 27 50.0	+0.5
COLA				e*PP	pP	13 28 38.9	+0.9
COLA				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.1						
COLA	College	74.36	16	eP	P	13 27 50.0	+0.5
	comp=Z,49nm,0.9s,mb5.1						
COLA				epP	pP	13 28 38.9	+0.8
KTH	Kantishna Hill	74.75	18	eP	P	13 27 51.7	+0.1
	comp=Z,54nm,1.0s,mb5.1						
KTH				epP	pP	13 28 40.9	+0.7
FITZ	Fitzroy Crossi	74.77	127⇑	iP	P	13 27 52.6	+0.2
	comp=Z,45nm,0.9s,mb5.1						
FITZ	Fitzroy Crossi	74.77	127	P	P	13 27 53.0	+0.5
	comp=Z,30nm,0.9s,mb4.9,baz=327,slow=4.7,SNR=21						
FITZ	Fitzroy Crossi	74.77	127	eP	P	13 27 52.6	+0.2
	comp=Z,39nm,1.0s,mb5.0						
PPLA	Purkeypile	74.97	19	eP	P	13 27 53.1	+0.2
	comp=Z,20nm,0.4s,mb5.1						
KIC	Kosan Boka	74.99	267	eP	P	13 27 51.9	-2.0
	comp=Z,100nm,1.0s,mb5.4						
TIC	Toumodi	75.05	267	eP	P	13 27 52.3	-1.9
	comp=Z,48nm,0.8s,mb5.2						
MCK	McKinley	75.08	17	eP	P	13 27 53.5	-0.1
MCK				pmax	pmax		
	comp=Z,11nm,0.4s,mb4.8						
MCK	McKinley	75.08	17	eP	P	13 27 53.5	-0.1
	comp=Z,11nm,0.4s,mb4.8						
LIC	Lamto	75.30	267	eP	P	13 27 53.3	-2.4
	comp=Z,25nm,0.8s,mb4.6						
LIC	Lamto	75.30	267	eP	P	13 27 53.6	-2.1
	comp=Z,59nm,1.1s,mb5.1						
LIC	Lamto	75.30	267	eP	P	13 27 53.3	-2.4
	comp=Z,12nm,0.8s,mb4.6						
KAKA	Kakadu	75.58	118⇑	iP	P	13 27 56.8	-0.4
	comp=Z,35nm,0.6s,mb5.2						
KAKA	Kakadu	75.58	118	eP	P	13 27 56.7	-0.4
	comp=Z,159nm,0.9s,mb5.7						
EGAK	Eagle	75.84	14	eP	P	13 27 58.0	+0.1
	comp=Z,24nm,1.2s,mb4.7						
PAX	Paxson	76.55	16	eP	P	13 28 02.2	+0.3
PAX				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.5						
PAX	Paxson	76.55	16	eP	P	13 28 02.2	+0.3
	comp=Z,6.8nm,0.5s,mb4.5						
DAWY	Dawson	76.82	13	eP	P	13 28 03.9	+0.5
DAWY				epP	pP	13 28 53.0	+0.7
BOSA	Boshof	77.92	220	P	P	13 28 09.6	-0.3
	comp=Z,28nm,0.6s,mb5.1,baz=44,slow=4.8,SNR=10.0						
BOSA	Boshof	77.92	220	P	P	13 28 09.6	-0.3
KDAK	Kodiak Island	79.07	22	i P	P	13 28 16.3	+0.4
OHAK	Old Harbor	79.31	23	eP	P	13 28 17.7	+0.5
MUN	Mundaring	80.12	142	eP	P	13 28 20.6	-1.2
YKA	Yellowknife Ar	81.18	3	P	P	13 28 27.3	+0.3
	comp=Z,13nm,0.5s,mb4.8,baz=349,slow=5.4,SNR=408						
YKA				pP	pP	13 29 16.5	+0.1
	comp=Z,11nm,0.7s,baz=350,slow=5.4,SNR=7.9						
YKA				sP	sP	13 29 39.1	+1.0
	comp=Z,4.3nm,0.6s,baz=350,slow=5.4,SNR=2.7						
YKA				PKKPbc	PKKPbc	13 46 58.6	-2.8
	comp=Z,0.5nm,0.7s,baz=167,slow=2.3,SNR=14						
YKA	Yellowknife Ar	81.18	3	P	P	13 28 27.3	+0.3
YKA				pP	pP	13 29 16.6	+0.1
YKA				sP	sP	13 29 39.1	+1.0
YKA				PKKPbc	PKKPbc	13 46 58.6	-2.8
NWAO	Narrogin (SRO)	81.39	142	P	P	13 28 27.1	-1.5
	comp=Z,11nm,0.6s,mb4.7,baz=338,slow=4.0,SNR=14						
NWAO	Narrogin (SRO)	81.39	142	P	P	13 28 27.1	-1.5
WRA	Warramunga Arr	81.85	122	P	P	13 28 30.7	-0.5
	comp=Z,39nm,0.7s,mb5.1,baz=324,slow=4.9,SNR=540						
WRA				PKKPbc	PKKPbc	13 47 00.4	+0.4
	comp=Z,1.5nm,0.9s,baz=124,slow=2.4,SNR=9.6						
WRA	Warramunga Arr	81.85	122	P	P	13 28 30.7	-0.5
WRA				PKKPbc	PKKPbc	13 47 00.4	+0.4
WRAB	Tennant Creek	81.85	122	P	P	13 28 30.6	-0.6
	comp=Z,376nm,0.5s,mb6.3,SNR=52						
WRAB	Tennant Creek	81.85	122	eP	P	13 28 30.5	-0.7
WRAB				pmax	pmax		
	comp=Z,51nm,0.8s,mb5.2						
WRAB	Tennant Creek	81.85	122	eP	P	13 28 30.5	-0.7
	comp=Z,51nm,0.8s,mb5.2						
SCHQ	Schefferville	82.12	337	P	P	13 28 32.8	+0.7
	comp=Z,3.9nm,0.6s,mb4.2,baz=41,slow=3.3,SNR=15						
SCHQ				pP	pP	13 29 21.7	+0.1
	comp=Z,5.2nm,0.8s,baz=145,slow=1.2,SNR=4.0						
SCHQ	Schefferville	82.12	337	P	P	13 28 32.8	+0.7
SCHQ				pP	pP	13 29 21.7	+0.1
ASAR	Alice Springs	84.12	125	P	P	13 28 42.2	-0.6
	comp=Z,42nm,0.7s,mb5.3,baz=310,slow=5.0,SNR=612						
ASAR				PKKPbc	PKKPbc	13 46 53.7	-1.3
	comp=Z,0.6nm,0.6s,baz=136,slow=2.8,SNR=5.4						
ASAR	Alice Springs	84.12	125	P	P	13 28 42.2	-0.6
ASAR				PKKPbc	PKKPbc	13 46 53.7	-1.3
FCC	Fort Churchill	84.25	352	eP	P	13 28 43.2	+0.3
FCC				e*PP	pP	13 29 32.6	-0.1
FCC				pmax	pmax		
	comp=Z,2.0nm,1.5s,mb3.6						
FCC	Fort Churchill	84.25	352	eP	P	13 28 43.2	+0.3
	comp=Z,1.5nm,1.5s,mb3.5						
FCC				epP	pP	13 29 32.5	-0.1
FORT	Forrest	85.56	134⇑	iP	P	13 28 49.5	-0.3
	comp=Z,74nm,0.7s,mb5.5						
FORT	Forrest	85.56	134	eP	P	13 28 49.5	-0.3
	comp=Z,86nm,0.7s,mb5.6						
FFC	Flin Flon	88.89	356	P	P	13 29 06.8	+1.3
	comp=Z,120nm,0.8s,mb5.8,SNR=10						
FFC	Flin Flon	88.89	356	i P	P	13 29 06.2	+0.7
CTA	Charters Tower	90.38	115⇑	iP	P	13 29 12.4	-0.5
	comp=Z,13nm,0.6s,mb5.0						
CTA	Charters Tower	90.38	115	P	P	13 29 12.6	-0.4
	comp=Z,27nm,0.9s,mb5.1,baz=314,slow=5.7,SNR=25						
CTA	Charters Tower	90.38	115	P	P	13 29 12.6	-0.4
EDM	Edmonton	90.50	3	eP	P	13 29 13.5	+0.5
EDM				e*PP	pP	13 30 03.9	+0.6
EDM	Edmonton	90.50	3	eP	P	13 29 13.5	+0.5
EDM				epP	pP	13 30 03.9	+0.5
ULM	Lac du Bonnet	92.82	352	P	P	13 29 23.2	-0.5
	comp=Z,8.2nm,0.8s,mb4.8,baz=2.8,slow=4.5,SNR=12						
ULM	Lac du Bonnet	92.82	352	P	P	13 29 23.2	-0.5
STKA	Stephens Creek	94.66	126	eP	P	13 29 30.5	-1.9
	comp=Z,4.5nm,0.8s,mb4.7						
STKA	Stephens Creek	94.66	126	P	P	13 29 31.6	-0.8
	comp=Z,4.7nm,0.7s,mb4.8,baz=288,slow=5.4,SNR=9.5						
STKA	Stephens Creek	94.66	126	P	P	13 29 31.6	-0.8
BSMT	Bassoo Peak	95.79	4	eP	P	13 29 39.1	+1.7
	comp=Z,1.4nm,0.4s,mb4.5						
BSMT				epP	pP	13 30 29.3	+1.4
CHMT	Chamberlain Mo	96.81	3	eP	P	13 29 42.1	+0.1
	comp=Z,1.3nm,0.7s,mb4.3						
CHMT				epP	pP	13 30 32.8	+0.3
PDAR	Pinedale Array	101.05	1	P	Pdif	13 30 02.9	+1.7
	comp=Z,0.5nm,1.0s,baz=53,slow=3.5,SNR=3.2						
PDAR				PKiKP	PKiKP	13 34 24.8	-0.3
	comp=Z,0.6nm,0.7s,baz=66,slow=4.6,SNR=4.3						
PDAR	Pinedale Array	101.05	1	P	Pdif	13 30 02.9	+1.7
NVAR	Mina Array Bea	104.86	8	PKiKP	PKiKP	13 34 33.4	+1.2
	comp=Z,0.9nm,0.7s,baz=334,slow=1.8,SNR=7.2						
TXAR	Lajitas Array	114.28	355	PKP	PKiKP	13 34 49.5	-0.6
	comp=Z,0.5nm,0.6s,baz=180,slow=0.9,SNR=6.9						
TXAR	Lajitas Array	114.28	355	PKP	PKiKP	13 34 49.5	-0.6
VNA2	Neumayer--Watz	120.53	202	ePKPdf	PKPdf	13 35 00.5	-0.2
	baz=3.7,slow=2.4						
QSPA	South Pole Qui	126.36	180	PKP	PKPdf	13 35 11.0	-0.6
	comp=Z,7.1nm,0.8s,baz=285,slow=1.6,SNR=29						
QSPA	South Pole Qui	126.36	180	PKP	PKPdf	13 35 11.0	-0.6
CPUP	Villa Florida	135.42	268	PKP	PKPdf	13 35 29.1	-1.3
	comp=Z,7.4nm,0.7s,baz=41,slow=1.9,SNR=24						
CPUP	Villa Florida	135.42	268	PKP	PKPdf	13 35 29.1	-1.3
LVC	Limon Verde	142.94	281	ePKPpre		13 35 40.4	
LCO	Las Campanas	147.30	272	eP	PKPdf	13 35 52.0	+0.5
TLL	Tololo Astrono	147.82	270	eP	PKPdf	13 35 52.6	+0.3
PLCA	Paso Flores	150.03	250	PKP	PKPdf	13 35 55.5	0.0
	comp=Z,14nm,1.1s,baz=151,slow=3.4,SNR=5.6						
PLCA				PKPbc	PKPbc	13 36 00.8	+0.1
	comp=Z,25nm,0.9s,baz=106,slow=2.0,SNR=40						
PLCA	Paso Flores	150.03	250	PKP	PKPdf	13 35 55.5	0.0
PLCA				PKPbc	PKPbc	13 36 00.8	+0.1

IDC 20 13:24:57.2±8.7, 3°.10N×96°.33E, h0^{km}, mb3.8/3, mb1 3.7/4, mb1mx3.5/22, mbtmp3.7/4, ML2.9/1, MS3.0/1, Ms1 3.0/1, ms1mx2.5/30, Error ellipse: s-maj=200.1km s-min=26.8km az=29.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.61	96	Pn	Pn	13 25 41.6	+0.9
	2.1nm,0.3s,baz=305,slow=11,SNR=8.3						
PSI				Sn	Sn	13 26 13.0	-0.2
	1.4nm,0.3s,baz=253,slow=18,SNR=3.8						
PSI				LR	LR	13 26 46.7	
	comp=Z,296nm,20.9s,baz=331,slow=42						
MKAR	Makanchi Array	45.20	346	P	P	13 33 15.8	-0.2
	0.7nm,0.4s,baz=160,slow=9.0,SNR=20						
SONM	Songino Array	45.40	10	P	P	13 33 18.1	+0.6
	0.9nm,0.7s,baz=191,slow=8.9,SNR=4.7						
ZALV	Zalesovo Beam	51.56	351	P	P	13 34 04.4	-0.5
	0.7nm,0.4s,baz=149,slow=6.8,SNR=4.8						

NEIC 20 13:35:35.0±4.1, 6°.22S×148°.00E, h63^{km}±30^{km}, mb3.6/1, Error ellipse: s-maj=44.1km s-min=26.8km az=98.0

IDC 20 13:35:37.0±4.6, 6°.28S×147°.98E, h78^{km}±41^{km}, mb3.7/4, mb1 3.9/5, mb1mx3.5/16, mbtmp3.7/5, ML3.9/1, Error ellipse: s-maj=55.9km s-min=19.4km az=111.0

ISC 20 13:35:34.9±3.0, 6°.2S±0°.2×147°.9E±0°.3, h60^{km}±23^{km}, n10, σ0^{s}.97/9, mb3.8/4, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	Coen	8.99	211	eP	Pn	13 37 43.1	+1.0
WRAB	Tennant Creek	18.95	223	eP	Pn	13 39 51.4	-1.1
	2.8nm,0.7s						
WB2	Warramunga Arr	18.96	223	eP	Pn	13 39 51.5	-1.0
WRA	Warramunga Arr	18.96	223	P	Pn	13 39 51.7	-1.0
	0.4nm,0.3s,baz=49,slow=11,SNR=19						
ASAR	Alice Springs	21.96	216	P	P	13 40 24.6	+0.8
	2.3nm,0.5s,mb3.9,baz=51,slow=9.4,SNR=72						
ASAR				S	S	13 44 23.2	+0.3
	0.9nm,0.7s,baz=28,slow=24,SNR=5.1						
FITZ	Fitzroy Crossi	24.71	239	P	P	13 40 52.5	+1.8
	6.0nm,0.6s,mb4.3,baz=78,slow=6.9,SNR=18						
STKA	Stephens Creek	26.21	192	P	P	13 41 03.9	-0.3
	2.2nm,0.5s,mb3.9,baz=6.6,slow=9.8,SNR=7.4						
MKAR	Makanchi Array	78.22	320	P	P	13 47 27.9	-0.2
	0.2nm,0.6s,mb3.2,baz=125,slow=7.2,SNR=4.5						
TORD	Torodi Ar. Bea	145.99	284	PKPbc	PKPbc	13 55 08.7	-0.3
	0.5nm,0.6s,baz=66,slow=3.6,SNR=7.0						
DBIC	Dimbokro	152.91	273	PKPbc	PKPbc	13 55 27.7	+1.2
	379nm,0.4s,baz=270,slow=14,SNR=3.2						

NEIC 20 13:36:27.5, 38°.30S×175°.95E, h178^{km}, MG4.0(WEL), After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KATZ	Kakaramea	0.70	196	P	Pn	13 36 53.4	+0.4
WTVZ	West Tongariro	0.86	199	P	Pn	13 36 54.2	+0.2
TWVZ	Taurewa	0.87	207	P	Pn	13 36 54.2	+0.2
HIZ	Hauiti	0.89	256	P	Pn	13 36 54.1	0.0
URZ	Urewera	0.91	88	P	Pn	13 36 54.1	-0.2
NGZ	Ngauruhoe	0.92	197	P	Pn	13 36 54.5	+0.2
BKZ	Black Stump Fm	0.96	154	P	Pn	13 36 54.5	-0.2
BKZ				S	Sn	13 37 15.6	-0.2
TUVZ	Tukino	0.99	193	P	Pn	13 36 55.3	+0.4
WNVZ	Wahianoa	1.06	195	P	Pn	13 36 55.7	+0.3
MOVZ	Moawhango	1.12	188	P	Pn	13 36 55.7	-0.1
MWZ	Matawai	1.24	92	P	Pn	13 36 56.9	0.0
VRZ	Vera Road	1.25	228	P	Pn	13 36 56.9	0.0
KNZ	Kokohu	1.53	119	P	Pn	13 36 59.7	+0.2
TSZ	Takapari Road	1.76	180	P	Pn	13 37 00.9	-0.9
MXZ	Matakaoa Point	2.00	69	P	Pn	13 37 04.3	-0.1
MRZ	Mangatainoka R	2.38	187	P	Pn	13 37 06.8	-1.8
BFZ	Birch Farm	2.39	175	P	Pn	13 37 07.2	-1.5
KIW	Kapiti Island	2.68	197	P	Pn	13 37 09.9	-2.2
MTW	Mount Morrison	2.88	187	P	Pn	13 37 11.9	-2.6
CAW	Cannon Point	2.89	193	P	Pn	13 37 12.3	-2.3
MRW	Makara Radio	3.08	198	P	Pn	13 37 14.4	-2.5
PAWZ	Paruwai Farm	3.10	187	P	Pn	13 37 14.4	-2.8
WEL	Wellington	3.12	197	P	Pn	13 37 14.8	-2.6
SNZO	South Karori	3.16	197	P	Pn	13 37 14.9	-3.0
MSWZ	Moikau Station	3.16	190	P	Pn	13 37 15.0	-2.9
TCW	Tory Channel	3.18	203	P	Pn	13 37 15.4	-2.8
BHW	Baring Head	3.21	195	P	Pn	13 37 15.7	-2.9

NNZ	**Nelson**	**3.52**	**213**	P	Pn	13 37 18.9	-3.5
QRZ	**Quartz Range**	**3.66**	**225**	P	Pn	13 37 19.9	-4.2
BSWZ	**Blackbirch Sta**	**3.76**	**204**	P	Pn	13 37 22.3	-3.1
THZ	**Tophouse**	**4.17**	**213**	P	Pn	13 37 26.6	-4.1
KHZ	**Kahutara**	**4.51**	**203**	P	Pn	13 37 31.4	-3.5
DSZ	**Denniston Nort**	**4.69**	**221**	P	Pn	13 37 32.4	-4.9
LTZ	**Lake Taylor**	**5.28**	**211**	P	Pn	13 37 40.4	-4.6
CRLZ	**Canterbury Las**	**5.84**	**204**	P	Pn	13 37 47.1	-5.2
MQZ	**McQueen's Vall**	**5.95**	**204**	P	Pn	13 37 48.4	-5.3
WVZ	**Waitaha Valley**	**6.20**	**218**	P	Pn	13 37 52.1	-4.9
LBZ	**Lake Benmore**	**7.47**	**214**	P	Pn	13 38 08.3	-5.3
ODZ	**Otahua Downs**	**7.82**	**209**	P	Pn	13 38 13.4	-4.9
TUZ	**Tuapeka**	**8.97**	**209**	P	Pn	13 38 29.2	-4.2

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*ISCJB **20** 13:39:56.7±0.6, 40°.78N±0°.03×27°.39E±0°.03, h3^{km}±6^{km}, Error ellipse: s-maj=5.3km s-min=4.0km az=167.7*

*ISK **20** 13:39:56.2, 40°.76N×27°.37E, h6^{km}, MD2.6*

*CSEM **20** 13:39:57.2±0.1, 40°.76N×27°.36E, h8^{km}, MD2.8, Error ellipse: s-maj=2.1km s-min=1.6km az=32.0*

*DDA **20** 13:39:57.4, 40°.71N×27°.40E, h7^{km}±2^{km}, Md2.8*

ISC 20 13:39:57.3±0.5, 40°.77N±0°.03×27°.38E±0°.03, h7^{km}±5^{km}, n19, σ0^{s}.70/36, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SART	**Tekirdag**	**0.17**	**242**	*i* P	**Pg**	**13 40 00.9**	**0.0**
SART				*i* S	**Sg**	**13 40 04.0**	**+0.7**
SART	**Tekirdag**	**0.17**	**242**	*i* P	**Pg**	**13 40 00.9**	**0.0**
SART				*i* S	**Sg**	**13 40 04.0**	**+0.7**
EDC	**Edincik**	**0.56**	**139**	PG	**Pg**	**13 40 07.7**	**-0.4**
EDC	**Edincik**	**0.56**	**139**	*i* Pg	**Pg**	**13 40 07.7**	**-0.4**
ELBA	**Catalca**	**0.88**	**64**	*i* P	**Pg**	**13 40 14.6**	**+0.4**
ELBA				*i* S	**Sg**	**13 40 26.1**	**+0.5**
ELBA	**Catalca**	**0.88**	**64**	*i* P	**Pg**	**13 40 14.6**	**+0.4**
ELBA				*i* S	**Sg**	**13 40 26.1**	**+0.5**
KCT	**Karacabey**	**0.90**	**124**	*e*PG	**Pg**	**13 40 13.6**	**-0.9**
KCT				*e*SG	**Sg**	**13 40 26.6**	**+0.4**
KCT	**Karacabey**	**0.90**	**124**	*e*Pg	**Pg**	**13 40 13.6**	**-1.0**
KCT				*e*Sg	**Sg**	**13 40 26.6**	**+0.4**
ENEZ	**Enez**	**0.94**	**268**	*e*PG	**Pg**	**13 40 15.1**	**-0.2**
ENEZ				*e*SG	**Sg**	**13 40 27.0**	**-0.4**
ENEZ	**Enez**	**0.94**	**268**	*e*Pg	**Pg**	**13 40 15.1**	**-0.2**
ENEZ				*e*Sg	**Sg**	**13 40 27.0**	**-0.4**
CTKS	**Kestanelik-??a**	**0.97**	**61**	*e*PG	**Pg**	**13 40 14.6**	**-1.4**
CTKS				*e*SG	**Sg**	**13 40 30.0**	**+1.5**
CTKS	**Kestanelik-??a**	**0.97**	**61**	*e*Pg	**Pg**	**13 40 14.6**	**-1.3**
CTKS				*e*Sg	**Sg**	**13 40 30.0**	**+1.5**
BALY	**Balya**	**1.04**	**170**	*i* P	**Pg**	**13 40 17.2**	**-0.2**
BALY				*i* S	**Sg**	**13 40 30.1**	**-0.8**
BALY	**Balya**	**1.04**	**170**	*i* P	**Pg**	**13 40 17.2**	**-0.2**
BALY				*i* S	**Sg**	**13 40 30.1**	**-0.8**
EDRB	**Edirne**	**1.18**	**336**	*e*PN	**Pn**	**13 40 19.9**	**-0.3**
EDRB				*e*SN	**Sn**	**13 40 35.8**	**-0.6**
EDRB	**Edirne**	**1.18**	**336**	*e*Pn	**Pn**	**13 40 19.9**	**-0.3**
EDRB				*e*Sn	**Sn**	**13 40 35.8**	**-0.6**
BOZC	**Bozcaada**	**1.38**	**228**	*e*P	**Pn**	**13 40 23.1**	**+0.2**
BOZC				*i* S	**Sb**	**13 40 42.5**	**+1.4**
DURS	**Dursunbey**	**1.44**	**144**	*i* P	**Pn**	**13 40 23.8**	**0.0**
DURS				*i* S	**Sn**	**13 40 42.9**	**+0.1**
DURS	**Dursunbey**	**1.44**	**144**	*i* P	**Pn**	**13 40 23.8**	**+0.1**
DURS				*i* S	**Sn**	**13 40 42.9**	**+0.1**

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*IDC **20** 13:45:32.2±2.0, 0°.21N×126°.32E, h0^{km}, mb3.3/3, mb1 3.5/3, mb1mx3.3/18, mbtmp3.4/3, Error ellipse: s-maj=172.8km s-min=27.0km az=65.0*

*ISCJB **20** 13:45:39.0±0.8, 0°.31S±0°.09×125°.21E±0°.07, h62^{km}±14^{km}, mb3.3/3, Error ellipse: s-maj=15.0km s-min=11.6km az=12.6*

*DJA **20** 13:45:40, 0°.34S×125°.24E, h30^{km}, MLv3.8/6*

ISC 20 13:45:40.9±0.8, 0°.39S±0°.07×125°.30E±0°.08, h58^{km}±15^{km}, n9, σ1^{s}.20/11, mb3.3/3, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**1.63**	**306**	P	**Pn**	**13 46 03.5**	**-3.8**
MNI	**Manado**	**1.88**	**346**	P	**Pn**	**13 46 08.0**	**-2.7**
MNI				S	**Sn**	**13 46 34.6**	**+1.2**
LBMI	**Labuha**	**2.21**	**96**	P	**Pn**	**13 46 14.2**	**-1.1**
LBMI				S	**Sn**	**13 46 45.9**	**+4.4**
APSI	**Ampana**	**3.69**	**262**	P	**Pn**	**13 46 37.1**	**+1.7**
KDI	**Kendari**	**4.44**	**217**	P	**Pn**	**13 46 45.8**	**0.0**
TTSI	**Tana Toraja**	**6.08**	**244**	P	**Pn**	**13 47 07.4**	**-0.8**
WRA	**Warramunga Arr**	**21.35**	**156**	P	**P**	**13 50 23.2**	**-0.2**
	0.4nm,0.6s,mb3.0,baz=338,slow=12,SNR=5.1						
ASAR	**Alice Springs**	**24.60**	**161**	P	**P**	**13 50 56.5**	**+0.8**
	0.2nm,0.3s,mb3.1,baz=339,slow=9.9,SNR=4.5						
MKAR	**Makanchi Array**	**60.17**	**327**	P	**P**	**13 55 42.2**	**-0.4**
	0.7nm,0.5s,mb3.9,baz=127,slow=8.9,SNR=5.6						

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*ISCJB **20** 13:46:42.0±1.0, 2°.5N±0°.1×95°.7E±0°.1, h33^{km}, mb4.0/7, Error ellipse: s-maj=21.2km s-min=11.0km az=145.3*

*NEIC **20** 13:46:42.8±0.8, 2°.50N×95°.70E, Error ellipse: s-maj=16.6km s-min=8.8km az=56.0*

*IDC **20** 13:46:43.0±1.6, 2°.55N×95°.70E, h23^{km}±5^{km}, mb3.7/5, mb1 3.8/7, mb1mx3.6/22, mbtmp3.7/7, ML3.5/2, MS3.1/1, Ms1 3.1/1, ms1mx2.7/29, Error ellipse: s-maj=56.9km s-min=15.7km az=56.0*

ISC 20 13:46:44.4±1.0, 2°.5N±0°.1×95°.7E±0°.1, h35^{km}, (h23^{km}±2.4^{km}:pP-P), n16, σ0^{s}.52/15, mb4.0/7, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**3.20**	**85**	Pn	**Pn**	**13 47 32.3**	**+0.1**
	1.6nm,0.3s,baz=282,slow=6.0,SNR=14						
PSI				LR	LR	13 48 49.6	
	comp=Z,274nm,19.2s,baz=348,slow=39						
KULM	**Kulim**	**5.61**	**61**	*e*P	**Pn**	**13 48 04.7**	**-0.7**
	39nm,0.9s						
CMAR	**Chiang Mai Arr**	**16.13**	**11**	Pn	**Pn**	**13 50 29.9**	**+1.4**
	0.2nm,0.3s,baz=198,slow=11,SNR=16						
KAPI	**Kappang**	**25.14**	**107**	*e*P	**P**	**13 52 06.2**	**-0.2**
GTA	**Gaotai**	**36.89**	**5**	*e*P	**P**	**13 53 48.8**	**-0.8**
GTA				pP	pP	13 53 55.6	-4.2
GTA				sP	sP	13 53 59.6	-4.4
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
BJI	**Beijing**	**41.68**	**24**	P	**P**	**13 54 30.0**	**+0.4**
BJI				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.7						
WRA	**Warramunga Arr**	**43.98**	**122**	P	**P**	**13 54 48.6**	**0.0**
	comp=Z,0.4nm,0.6s,mb3.3,baz=299,slow=9.2,SNR=3.8						
WRA				pP	pP	13 54 56.1	-2.8
	comp=Z,0.7nm,0.5s,baz=300,slow=9.3,SNR=3.4						
WRAB	**Tennant Creek**	**43.98**	**122**	*e*P	**P**	**13 54 48.9**	**+0.3**
WB2	**Warramunga Arr**	**43.99**	**122**	P	**P**	**13 54 48.8**	**+0.1**
ASAR	**Alice Springs**	**45.36**	**127**	P	**P**	**13 54 59.8**	**+0.2**
	comp=Z,0.1nm,0.3s,mb3.1,baz=298,slow=7.7,SNR=4.2						
ASAR				pP	pP	13 55 08.2	-1.8
	comp=Z,0.2nm,0.3s,baz=301,slow=8.2,SNR=1.9						
MKAR	**Makanchi Array**	**45.61**	**347**	P	**P**	**13 55 01.2**	**+0.1**
	comp=Z,1.3nm,0.4s,mb4.2,baz=161,slow=9.0,SNR=34						
MKAR				pP	pP	13 55 08.2	-3.3
	comp=Z,1.9nm,0.7s,baz=168,slow=7.8,SNR=13						
SONM	**Songino Array**	**46.05**	**10**	P	**P**	**13 55 04.4**	**-0.2**
	comp=Z,1.2nm,0.6s,mb4.0,baz=192,slow=8.6,SNR=7.8						
SONM				PcP	PcP	13 56 41.7	+1.1
	comp=Z,0.5nm,0.6s,baz=246,slow=2.8,SNR=2.9						
ZAA0	**Zalesovo Array**	**52.03**	**352**	*e*P	**P**	**13 55 49.7**	**-0.6**
ZALV	**Zalesovo Beam**	**52.03**	**352**	P	**P**	**13 55 50.2**	**0.0**
	comp=Z,2.4nm,0.7s,mb4.2,baz=184,slow=7.5,SNR=11						
ZALV				pP	pP	13 55 57.0	-3.8
	comp=Z,1.2nm,0.5s,baz=164,slow=6.0,SNR=5.0						
ZALV	**Zalesovo Beam**	**52.03**	**352**	P	**P**	**13 55 50.2**	**0.0**
ZALV				pP	pP	13 55 57.0	-3.8
STKA	**Stephens Creek**	**55.33**	**132**	pP	pP	13 56 23.2	-2.3
	comp=Z,2.1nm,0.8s,baz=336,slow=5.8,SNR=2.2						

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*MOS **20** 13:53:00.6±0.6, 56°.10N×112°.82E, h12^{km}, mb4.3/1, Error ellipse: s-maj=19.7km s-min=14.6km az=51.8*

BYKL 20 13:53:01.7±0.3, 56°.12N×112°.76E, h19^{km}±12^{km}, 3C-4D, Lake Baykal region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SVKR	**Severomuysk**	**0.45**	**90**	*e*PG	Pg	13 53 10.2	-0.6
SVKR				*e*		13 53 16.5	
SVKR				pmax	pmax		
	comp=Z,285nm,0.4s						
SVKR				smax			
	comp=N,3μm,1.4s						
SVKR	**Severomuysk**	**0.45**	**90**	*e*Pg	Pg	13 53 10.2	-0.6
SVKR				*e*Sg	Sg	13 53 16.9	-0.1
SVKR				Pmax			
	comp=N,318nm,0.3s						
SVKR				Smax			
	comp=N,3μm,0.6s						
YOA	**Uoyan**	**0.58**	**272**	⇓*i*PG	Pg	13 53 13.0	-0.3
YOA				*e*		13 53 21.6	
YOA				pmax	pmax		
	comp=Z,584nm,0.1s						
YOA				smax			
	comp=N,6μm,0.3s						
YOA	**Uoyan**	**0.58**	**272**	⇓*i*Pg	Pg	13 53 13.0	-0.3
YOA				*e*Sg	Sg	13 53 21.6	+0.5
YOA				*e*Sb	Sb	13 53 23.7	+2.7
YOA				Pmax			
	comp=N,567nm,0.2s						
YOA				max			
	comp=N,6μm,0.3s						
UKT	**Uakit**	**0.80**	**142**	⇑*i*PG	Pg	13 53 15.2	-2.1
UKT				*e*		13 53 26.9	
UKT				pmax	pmax		
	comp=Z,130nm,0.2s						
UKT				smax			
	comp=N,677nm,0.2s						
UKT	**Uakit**	**0.80**	**142**	⇓*i*Pg	Pg	13 53 16.3	-1.0
	comp=N,499nm,0.5s						
UKT				⇑*i*Pg	Pg	13 53 16.3	-1.0
	comp=N,266nm,0.5s						
UKT				⇑*i*Pg	Pg	13 53 16.3	-1.0
	comp=N,331nm,0.5s						
UKT				*e*Sg	Sg	13 53 27.1	-0.8
UKT				Pmax			
	comp=N,137nm,0.3s						
UKT				Smax			
	comp=N,577nm,0.3s						
KMO	**Kumora**	**0.91**	**256**	*e*PG	Pg	13 53 18.4	-0.9
KMO				*e*		13 53 30.2	
KMO				pmax	pmax		
	comp=Z,40nm,0.2s						
KMO				smax			
	comp=N,527nm,1.1s						
KMO	**Kumora**	**0.91**	**256**	*e*Pg	Pg	13 53 18.4	-0.9
KMO				*i* Sg	Sg	13 53 30.7	-0.6
KMO				*e*Sb	Sb	13 53 34.6	+4.2
KMO				Pmax			
	comp=N,86nm,0.3s						
KMO				Smax			
	comp=N,627nm,1.0s						
YLYR	**Ulyunkhan**	**1.54**	**217**	*e*PN	Pn	13 53 29.2	+1.1
YLYR				*e*S	Sn	13 53 50.0	+2.4
YLYR				smax			
	comp=N,394nm,0.2s						
YLYR	**Ulyunkhan**	**1.54**	**217**	*i* Pg	Pg	13 53 29.2	-2.2
YLYR				*e*Sg	Sg	13 53 50.4	-1.1
YLYR				Pmax			
	comp=N,43nm,0.2s						
YLYR				Smax			
	comp=N,397nm,0.2s						
NLYR	**Nelyaty**	**1.68**	**76**	*e*PN	Pn	13 53 30.6	+0.6
NLYR				*e*		13 53 53.0	
NLYR				pmax	pmax		
	comp=Z,64nm,0.7s						
NLYR				smax			
	comp=E,284nm,1.0s						
NLYR	**Nelyaty**	**1.68**	**76**	⇓*i*Pg	Pg	13 53 30.8	-3.2
NLYR				*e*Sg	Sg	13 53 53.8	-2.1
NLYR				Pmax			
	comp=E,67nm,0.7s						
NLYR				Smax			
	comp=E,284nm,1.0s						
BOD	**Bodaibo**	**1.83**	**21**	*e*PN	Pn	13 53 32.7	+0.6
BOD				*e*		13 53 33.5	
BOD				*e*		13 53 56.5	
BOD				pmax	pmax		
	comp=Z,21nm,0.2s						
BOD				smax			
	comp=E,661nm,0.5s						
BOD	**Bodaibo**	**1.83**	**21**	*e*Pg	Pg	13 53 33.7	-3.2
BOD				*e*Sg	Sg	13 53 56.8	-4.0
BOD				*e*		13 53 58.3	
BOD				Pmax			
	comp=E,39nm,0.4s						
BOD				max			
	comp=E,660nm,0.5s						
NIZ	**Nizh Angarsk**	**1.84**	**261**	*e*PN	Pn	13 53 33.8	+1.6
NIZ				*e*		13 53 34.9	
NIZ				*e*		13 54 00.2	
NIZ				pmax	pmax		
	comp=Z,36nm,0.4s						
NIZ				smax			
	comp=N,265nm,0.4s						
NIZ	**Nizh Angarsk**	**1.84**	**261**	*e*Pg	Pg	13 53 33.7	-3.4
NIZ				*e*Pn	Pn	13 53 33.8	+1.6
NIZ				*e*Sg	Sg	13 53 57.8	-3.3
NIZ				*e*Sn	Sn	13 53 58.2	+3.2
NIZ				Pmax			
	comp=N,35nm,0.6s						
NIZ				Smax			
	comp=N,265nm,0.3s						
SYVR	**Suvo**	**2.94**	**214**	*e*Pn	Pn	13 53 47.9	+0.6
SYVR				*e*Pg	Pg	13 53 53.9	-4.1
SYVR				*e*Sn	Sn	13 54 22.7	+0.7
SYVR				*e*Sg	Sg	13 54 32.5	-3.5
SYVR				Pmax			
	comp=N,10.0nm,0.5s						
SYVR				Smax			
	comp=N,108nm,0.7s						
CRS	**Chara**	**3.15**	**73**	*e*PN	Pn	13 53 51.3	+1.1
CRS				*e*		13 53 58.2	
CRS				*e*		13 54 39.5	
CRS				pmax	pmax		
	comp=Z,38nm,0.8s						
CRS				smax			
	comp=E,71nm,1.1s						
CRS	**Chara**	**3.15**	**73**	*e*Pn	Pn	13 53 51.1	+0.9
CRS				*e*Pg	Pg	13 53 58.3	-3.7
CRS				*e*		13 54 03.7	
CRS				*e*Sn	Sn	13 54 31.1	+3.9
CRS				*e*Sg	Sg	13 54 39.5	-3.4
CRS				max			
	comp=E,38nm,0.9s						
CRS				Smax			
	comp=E,70nm,0.9s						
MXMB	**Maximikha**	**3.69**	**221**	*e*Pg	Pg	13 54 07.1	-5.2
MXMB				*e*Sg	Sg	13 54 55.1	-5.0
MXMB				Pmax			
	comp=E,7.0nm,0.3s						
MXMB				Smax			
	comp=E,82nm,0.7s						
OGRR	**Ongureny**	**3.88**	**232**	*e*Pn	Pn	13 54 01.3	+1.1
OGRR				*e*Pg	Pg	13 54 11.7	-4.3
OGRR				*e*Sg	Sg	13 55 01.7	-4.5
OGRR				Pmax			
	comp=E,8.0nm,0.5s						
OGRR				Smax			
	comp=E,32nm,0.3s						
CIT	**Chita**	**4.13**	**173**	*e*Sg	Sg	13 55 10.0	-4.3
CIT				Smax			
	comp=E,180nm,0.3s						
TUP	**Tupik**	**4.45**	**109**	*e*Pn	Pn	13 54 08.2	+0.1
TUP				*e*Pg	Pg	13 54 22.1	-4.8
TUP				*e*Sg	Sg	13 55 19.6	-4.9
TUP				Pmax			
	comp=E,23nm,1.4s						
TUP				Smax			
	comp=E,126nm,1.1s						
ZRHB	**Zarechye**	**4.85**	**225**	*e*Sg	Sg	13 55 32.5	-4.8
ZRHB				Smax			
	comp=E,65nm,1.2s						
TRTB	**Turuntaevo**	**4.93**	**220**	*e*Pg	Pg	13 54 29.2	-6.7
TRTB				*e*Sg	Sg	13 55 33.2	-6.5
TRTB				Pmax			
	comp=E,3.0nm,0.6s						
TRTB				Smax			
	comp=E,24nm,0.9s						
TRG	**Tyrgan**	**5.03**	**231**	*e*Pn	Pn	13 54 16.5	+0.4
TRG				*e*Pg	Pg	13 54 32.5	-5.5
TRG				*e*Sg	Sg	13 55 37.6	-5.5
TRG				Pmax			
	comp=E,3.0nm,0.8s						
TRG				Smax			
	comp=E,17nm,0.4s						
UUDB	**Ulan-Yde**	**5.21**	**217**	*e*Sg	Sg	13 55 42.5	-6.4
UUDB				Smax			
	comp=E,37nm,1.3s						
FFNB	**Fofonovo**	**5.39**	**223**	*e*Sg	Sg	13 55 47.5	-7.2
FFNB				Smax			
	comp=E,45nm,0.5s						
HRMR	**Khuramsha**	**5.66**	**220**	*e*Pg	Pn	13 54 43.3	+19
HRMR				*e*Sg	Sn	13 55 57.4	+28
HRMR				Pmax			
	comp=E,7.0nm,0.5s						
HRMR				Smax			
	comp=E,90nm,1.0s						
IENR	**Iengra**	**6.76**	**84**	*e*Sg	Sn	13 56 31.3	+35
ARS	**Arshan**	**7.40**	**240**	*e*Sg	Sn	13 56 48.0	+36
ARS				Smax			
	comp=E,60nm,1.0s						
MOY	**Mondy**	**8.26**	**242**	*e*PG	Pn	13 55 30.7	+30
MOY				*e*S	Sn	13 56 31.9	-1.0
MOY	**Mondy**	**8.26**	**242**	*e*Sg	Sn	13 57 17.6	+45
MOY				Smax			
	comp=E,22nm,2.0s						
ORL	**Orlik**	**8.37**	**250**	*e*Sg	Sn	13 57 21.2	+45
ORL				Smax			
	comp=E,21nm,1.0s						

IDC 20 13:53:17.6±2.2, 22°.88S×173°.95W, h0^{km}, mb4.3/4, mb1 4.5/5, mb1mx4.1/17, mbtmp4.4/5, ML4.9/1, Error ellipse: s-maj=157.4km s-min=36.7km az=174.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	**Rarotonga**	**13.25**	**86**	Pn	Pn	13 56 27.1	0.0
	6.1nm,0.3s,baz=18,slow=3.8,SNR=5.9						
CTA	**Charters Tower**	**37.06**	**267**	P	P	14 00 30.2	+0.6
	5.2nm,0.4s,baz=96,slow=10,SNR=12						
STKA	**Stephens Creek**	**40.25**	**247**	P	P	14 00 54.7	-1.6
	2.7nm,1.0s,baz=79,slow=10,SNR=2.6						
ASAR	**Alice Springs**	**47.68**	**258**	P	P	14 01 56.4	+0.3
	1.5nm,0.5s,baz=101,slow=7.2,SNR=21						
WRA	**Warramunga Arr**	**48.03**	**263**	P	P	14 01 58.8	0.0
	1.0nm,0.3s,baz=95,slow=8.3,SNR=103						

IDC 20 14:00:06.2±10.0, 7°.97N×103°.03W, h0^{km}, mb3.3/2, mb1 3.9/2, mb1mx3.5/16, mbtmp3.4/2, Error ellipse: s-maj=568.0km s-min=61.4km az=100.0, Northern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	**21.26**	**358**	P	P	14 04 55.4	+1.2
	0.8nm,0.8s,baz=181,slow=14,SNR=10						
PDAR	**Pinedale Array**	**35.13**	**352**	P	P	14 07 00.6	-0.9
	0.4nm,0.9s,baz=160,slow=9.2,SNR=2.5						
CMAR	**Chiang Mai Arr**	**145.95**	**321**	PKPbc	PKPbc	14 19 48.5	-0.3
	0.7nm,0.4s,baz=20,slow=2.9,SNR=3.9						

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*IDC **20** 14:08:31.1±2.8, 3°.21N×96°.52E, h0^{km}, mb3.7/4, mb1 3.7/5, mb1mx3.5/22, mbtmp3.6/5, ML2.6/1, Error ellipse: s-maj=90.0km s-min=23.2km az=50.0*

*ISCJB **20** 14:08:32.6±1.7, 3°.0N±0°.2×96°.3E±0°.2, h33^{km}, mb3.5/4, Error ellipse: s-maj=34.4km s-min=16.1km az=31.3*

*NEIC **20** 14:08:34.6±1.6, 2°.94N×96°.31E, h35^{km}, Error ellipse: s-maj=35.2km s-min=16.4km az=33.0*

ISC 20 14:08:34.8±1.7, 3°.0N±0°.2×96°.3E±0°.2, h35^{km}, n7, σ0^{s}.99/7, mb3.5/4, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.60**	**93**	Pn	**Pn**	**14 09 12.8**	**-1.7**
	1.3nm,0.3s,baz=286,slow=5.2,SNR=3.8						
KULM	**Kulim**	**4.90**	**62**	*e*P	**Pn**	**14 09 47.6**	**+1.6**
WRA	**Warramunga Arr**	**43.72**	**123**	P	**P**	**14 16 38.0**	**+1.0**
	0.4nm,0.8s,mb3.2,baz=301,slow=9.2,SNR=10						
MK31	**Makanchi Array**	**45.34**	**346**	*e*P	**P**	**14 16 49.5**	**+0.1**
MKAR	**Makanchi Array**	**45.34**	**346**	P	**P**	**14 16 49.6**	**+0.2**
	0.9nm,0.7s,mb3.7,baz=161,slow=8.2,SNR=15						
SONM	**Songino Array**	**45.54**	**10**	P	**P**	**14 16 50.3**	**-0.7**
	0.3nm,0.7s,mb3.3,baz=201,slow=7.9,SNR=3.6						
ZALV	**Zalesovo Beam**	**51.70**	**351**	P	**P**	**14 17 38.0**	**-0.3**
	0.7nm,0.5s,mb3.9,baz=166,slow=5.9,SNR=4.5						

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*NEIC **20** 14:11:06.1±1.6, 8°.29S×79°.97W, h52^{km}±14^{km}, mb4.1/4, Error ellipse: s-maj=22.1km s-min=8.3km az=71.0*

*IDC **20** 14:11:08.0±3.5, 8°.28S×79°.92W, h69^{km}±30^{km}, mb3.5/9, mb1 3.7/12, mb1mx3.6/22, mbtmp3.5/12, ML4.5/3, MS3.7/2, Ms1 3.7/2, ms1mx3.2/15, Error ellipse: s-maj=33.9km s-min=15.0km az=68.0*

ISC 20 14:11:07.8±1.9, 8°.23S±0°.08×79°.9W±0°.2, h67^{km}±16^{km}, n27, σ0^{s}.88/26, mb3.7/10, Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**1.94**	**51**	P	**Pn**	**14 11 38.5**	**-0.1**
	100nm,0.3s,baz=242,slow=3.2,SNR=296						
ATAH				S	**Sn**	**14 12 07.2**	**+5.2**
	120nm,0.3s,baz=253,slow=8.9,SNR=4.4						
ATAH				LR	LR	14 12 28.1	
	comp=Z,2μm,18.3s,baz=83,slow=42						
NNA	**Nana**	**4.81**	**141**	P	**Pn**	**14 12 14.3**	**-3.5**
	8.8nm,0.3s,baz=327,slow=11,SNR=12						
NNA				S	**Sn**	**14 13 14.6**	**+2.4**
	38nm,0.3s,baz=211,slow=16,SNR=4.1						
NNA				LR	LR	14 14 18.7	
	comp=Z,582nm,19.2s,baz=320,slow=40						
NNA	**Nana**	**4.81**	**141**	*e*Pn	**Pn**	**14 12 14.2**	**-3.6**
NNA				*e*Sn	**Sn**	**14 13 13.8**	**+1.6**
NNA				LR	LR	14 14 18.7	
OTAV	**Otavalo**	**8.53**	**10**	*e*Pn	**Pn**	**14 13 08.7**	**0.0**
	18nm,0.8s						
LVC	**Limon Verde**	**17.79**	**145**	P	**Pn**	**14 15 09.9**	**-1.1**
	0.6nm,0.3s,baz=314,slow=9.3,SNR=5.3						
LVC	**Limon Verde**	**17.79**	**145**	*e*P	**Pn**	**14 15 12.4**	**+1.4**
	6.1nm,0.9s						
JTS	**JuntasAbangare**	**19.06**	**345**	LR	LR	14 21 49.5	
	comp=Z,262nm,18.1s,baz=146,slow=34						
SDV	**Santo Domingo**	**19.35**	**29**	P	**Pn**	**14 15 29.8**	**0.0**
	0.5nm,0.3s,baz=253,slow=14,SNR=3.5						
SDV	**Santo Domingo**	**19.35**	**29**	*e*P	**Pn**	**14 15 29.8**	**0.0**
	18nm,1.2s						
SIV	**San Ignacio**	**19.97**	**115**	P	**P**	**14 15 34.1**	**-0.6**
	0.4nm,0.3s,baz=299,slow=13,SNR=12						
CFAA	**Coronel Fontan**	**25.68**	**157**	P	**P**	**14 16 30.9**	**-0.7**
	0.3nm,0.6s,mb2.9,baz=332,slow=3.8,SNR=4.8						
CFAA	**Coronel Fontan**	**25.68**	**157**	P	**P**	**14 16 30.9**	**-0.7**
CPUP	**Villa Florida**	**28.01**	**133**	P	**P**	**14 16 52.8**	**+0.1**
	0.3nm,0.4s,mb3.2,baz=307,slow=15,SNR=2.6						
PLCA	**Paso Flores**	**33.43**	**167**	P	**P**	**14 17 39.9**	**-0.3**
	1.7nm,0.9s,mb3.9,baz=4.3,slow=12,SNR=4.5						
PDAR	**Pinedale Array**	**57.49**	**334**	P	**P**	**14 20 50.5**	**+0.4**
	0.2nm,0.4s,mb3.5,baz=137,slow=9.8,SNR=3.1						
AGMN	**Agassiz Refuge**	**58.01**	**348**	*e*P	**P**	**14 20 53.7**	**+0.1**
	4.5nm,0.6s,mb4.7						
NVAR	**Mina Array Bea**	**58.57**	**325**	P	**P**	**14 20 59.4**	**+1.7**
	0.3nm,0.6s,mb3.5,baz=116,slow=10,SNR=2.7						
ULM	**Lac du Bonnet**	**59.87**	**348**	P	**P**	**14 21 06.0**	**-0.4**
	3.8nm,1.0s,mb4.4,baz=149,slow=5.9,SNR=3.5						
ULM	**Lac du Bonnet**	**59.87**	**348**	P	**P**	**14 21 06.0**	**-0.4**
YKA	**Yellowknife Ar**	**75.40**	**344**	P	**P**	**14 22 43.2**	**-0.8**
	0.3nm,0.5s,mb3.3,baz=140,slow=6.0,SNR=7.2						
YKA	**Yellowknife Ar**	**75.40**	**344**	P	**P**	**14 22 43.2**	**-0.8**
DBIC	**Dimbokro**	**76.29**	**81**	P	**P**	**14 22 49.3**	**-0.8**
	3.0nm,1.0s,mb4.0,baz=258,slow=5.4,SNR=4.0						
DBIC	**Dimbokro**	**76.29**	**81**	*e*P	**P**	**14 22 49.7**	**-0.4**
	1.1nm,0.6s,mb3.8						
TORD	**Torodi Ar. Bea**	**83.77**	**76**	P	**P**	**14 23 31.2**	**+0.8**
	1.8nm,0.9s,mb3.9,baz=254,slow=3.5,SNR=9.0						
ASAR	**Alice Springs**	**134.21**	**225**	PKP	PKPdf	14 30 18.7	0.0
	0.4nm,0.7s,baz=99,slow=2.3,SNR=6.4						
WRA	**Warramunga Arr**	**136.18**	**230**	PKP	PKPdf	14 30 22.9	+0.4
	0.4nm,0.5s,baz=121,slow=2.0,SNR=6.4						
MKAR	**Makanchi Array**	**138.66**	**19**	PKP	PKPdf	14 30 25.7	-0.5
	0.1nm,0.3s,baz=321,slow=3.7,SNR=4.3						

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*BJI **20** 14:24:44.9, 20°.30S×169°.81E, h17^{km}, mB5.2/22, mb4.9/31, Ms5.2/19, Ms7 4.6/20*

*ISCJB **20** 14:24:46.0±0.3, 20°.61S±0°.06×169°.11E±0°.06, h15^{km},* *mb4.8/40, MS4.4/9, Error ellipse: s-maj=9.9km s-min=5.5km az=43.7*

*BGS **20** 14:24:46.0±5.6, 20°.59S×169°.21E, h10^{km}, mb5.0(NEIC)*

*NEIC **20** 14:24:46.0±0.3, 20°.59S×169°.21E, h10^{km}, mb5.0/11, Error ellipse: s-maj=11.8km s-min=8.5km az=139.0*

*LDG **20** 14:24:46.4±0.2, 20°.23S×168°.88E, h10^{km}, Mb5.0/4, Error ellipse: s-maj=19.5km s-min=4.2km az=131.0*

*MOS **20** 14:24:48.6±1.3, 20°.49S×169°.10E, h33^{km}, mb5.2/14, Error ellipse: s-maj=15.2km s-min=12.3km az=36.1*

*IDC **20** 14:24:54.8±4.6, 20°.75S×169°.13E, h80^{km}±39^{km}, mb4.3/16, mb1 4.4/18, mb1mx4.4/22, mbtmp4.3/18, ML4.5/2, MS3.7/4, Ms1 3.7/4, ms1mx3.4/23, Error ellipse: s-maj=19.4km s-min=16.6km az=94.0*

ISC 20 14:24:47.7±0.3, **20°.63S**±0°.05×**169°.13E**±0°.06, **h16**^{km}, **h16**^{km}±2.5^{km}**:pP-P, n175,** σ**1^{s}.10**/75, **mb4.8**/40, **MS4.4**/9, **6C-7D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	2.88	240	eP	Pn	14 25 31.0	-2.0
DZM				eS	Sn	14 26 05.2	-2.1
DZM	Mont Dzumac	2.88	240	ePn	Pn	14 25 30.7	-2.2
NOUC	Port Laguerre	3.01	240	eP	Pn	14 25 33.0	-1.7
NOUC				eS	Sn	14 26 10.4	-0.1
HNR	Honiara	14.23	320	P	Pn	14 28 15.7	+7.1
HNR				pmax	pmax		
	comp=Z,121nm,1.1s						
HNR	Honiara	14.23	320	P	Pn	14 28 14.9	+6.3
	comp=Z,4.2nm,0.3s,baz=153,slow=16,SNR=2.3						
HNR				LR	LR	14 32 41.2	
	comp=Z,85nm,20.9s,baz=175,slow=33						
HNR	Honiara	14.23	320	Pn	Pn	14 28 15.7	+7.2
	comp=Z,121nm,1.1s						
EIDS	Eidsvold	17.27	251	eP	Pn	14 28 49.4	+1.2
	comp=Z,67nm,1.6s						
ARMA	Armidale	18.54	235	eP	Pn	14 29 04.7	+0.9
ARMA	Armidale	18.54	235	eP	Pn	14 29 05.0	+1.1
URZ	Urewera	18.88	160	P	Pn	14 29 09.4	+1.5
	comp=Z,0.7nm,0.3s,baz=317,slow=20,SNR=6.7						
URZ				LR	LR	14 35 18.8	
	comp=Z,328nm,18.4s,baz=259,slow=33						
RIV	Riverview	20.65	227	eP	P	14 29 28.5	+1.8
CTA	Charters Tower	21.45	267	eP	P	14 29 36.5	+1.1
	comp=Z,28nm,1.0s,mb4.5						
CTA	Charters Tower	21.45	267	P	P	14 29 37.2	+1.8
	comp=Z,11nm,0.8s,mb4.2,baz=102,slow=13,SNR=14						
CTAO	Charters Tower	21.45	267	eP	P	14 29 36.9	+1.5
CTAO				pmax	pmax		
	comp=Z,48nm,1.0s,mb4.8						
CTAO	Charters Tower	21.45	267	eP	P	14 29 36.9	+1.5
	comp=Z,48nm,1.0s,mb4.8						
CNB	Canberra Magne	22.71	226	eP	P	14 29 49.9	+1.1
RPZ	Rata Peaks	23.07	176	P	P	14 29 52.9	+0.4
	comp=Z,17nm,1.2s,mb4.3,baz=26,slow=17,SNR=2.5						
TOO	Toolangi	26.56	225	eP	P	14 30 25.8	+0.9
STKA	Stephens Creek	27.04	240	eP	P	14 30 29.4	+0.1
	comp=Z,5.8nm,0.6s,mb4.3						
STKA	Stephens Creek	27.04	240	P	P	14 30 29.6	+0.3
	comp=Z,8.5nm,0.8s,mb4.3,baz=80,slow=9.3,SNR=19						
STKA				LR	LR	14 40 42.6	
	comp=Z,280nm,19.7s,MS3.8,baz=34,slow=35						
WRA	Warramunga Arr	32.60	265	P	P	14 31 17.7	-1.1
	comp=Z,6.4nm,0.9s,mb4.6,baz=92,slow=8.4,SNR=20						
WRA				PcP	PcP	14 34 04.3	-0.7
	comp=Z,2.3nm,1.0s,baz=92,slow=2.9,SNR=4.8						
ASAR	Alice Springs	32.72	258	P	P	14 31 18.9	-0.8
	comp=Z,8.7nm,0.8s,mb4.8,baz=89,slow=9.0,SNR=60						
ASAR				PcP	PcP	14 34 04.3	-0.9
	comp=Z,2.0nm,0.9s,baz=108,slow=3.4,SNR=4.6						
FITZ	Fitzroy Crossi	41.02	266	⇑iP	P	14 32 30.4	0.0
	comp=Z,29nm,0.6s,mb5.1						
FITZ	Fitzroy Crossi	41.02	266	P	P	14 32 30.4	0.0
	comp=Z,18nm,0.7s,mb4.8,baz=118,slow=3.9,SNR=15						
FITZ	Fitzroy Crossi	41.02	266	eP	P	14 32 30.4	0.0
	comp=Z,16nm,0.7s,mb4.8						
NWAO	Narrogin (SRO)	47.50	244	P	P	14 33 20.9	-1.2
	comp=Z,8.3nm,0.8s,mb4.7,baz=98,slow=8.4,SNR=5.0						
NWAO	Narrogin (SRO)	47.50	244	P	P	14 33 20.9	-1.2
MJAR	Matsushiro Arr	63.93	333	P	P	14 35 19.4	-0.5
	comp=Z,3.9nm,0.5s,mb4.7,baz=154,slow=6.3,SNR=13						
MAJO	Matsushiro	63.93	333	eP	P	14 35 19.4	-0.5
MAJO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
MAJO	Matsushiro	63.93	333	eP	P	14 35 19.4	-0.5
	comp=Z,11nm,0.8s,mb4.9						
MAT	Matsushiro	63.93	333	P	P	14 35 19.3	-0.6
ASAJ	Asahikawa	68.86	340	P	P	14 35 52.1	+0.8
	comp=Z,15nm,0.8s,mb5.0,baz=220,slow=11,SNR=12						
QSPA	South Pole Qui	69.43	180	eP	P	14 35 54.0	-0.5
	comp=Z,8.9nm,0.7s,mb4.8						
KSRS	Korea Array	69.59	326	P	P	14 35 56.8	+0.7
	comp=Z,2.9nm,1.0s,mb4.2,baz=133,slow=6.1,SNR=7.1						
KSRS				LR	LR	15 04 52.1	
	comp=Z,57nm,18.4s,MS3.9,baz=195,slow=34						
YSS	Yuzh-Sakhalins	71.36	341	eP	P	14 36 07.5	+0.9
YSS				pmax	pmax		
	comp=Z,64nm,1.5s,mb5.3						
YSS	Yuzh-Sakhalins	71.36	341	eP	P	14 36 07.5	+1.0
	comp=Z,64nm,1.5s,mb5.3						
PETK	Petropavlovsk-	74.10	353	P	P	14 36 22.4	-0.3
	comp=Z,3.0nm,0.7s,mb4.3,baz=120,slow=5.0,SNR=15						
MDJ	Mudanjiang	74.29	332	eP	P	14 36 24.5	+0.4
	comp=Z,8.0nm,0.9s,mb4.7						
HABR	Khabarovsk	75.24	337	eP	P	14 36 27.3	-2.1
HABR				e*PP	pP	14 36 37.2	+2.5
HABR				e		14 36 39.3	
HABR				e*SP	sP	14 36 40.9	+4.3
HABR				e		14 39 15.8	
HABR				PPP		14 41 02.4	
HABR				S	S	14 46 05.9	-1.8
HABR				e		14 46 37.4	
HABR				eSS	SS	14 50 57.1	-1.0
HABR				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
HABR				pmax	pmax		
	comp=E,21nm,1.2s						
HABR				pmax	pmax		
	comp=N,19nm,1.9s						
HABR				MLR	MLR		
	comp=Z,104nm,18.0s,MS4.2						
CN2	Changchun	75.59	329	eP	P	14 36 31.3	-0.3
CN2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=Z,200nm,18.0s,MS4.5						
GYA	Guiyang	76.53	305	P	P	14 36 39.3	+2.0
GYA				PP	PP	14 39 33.6	+3.9
GYA				S	S	14 46 25.3	+2.4
GYA				SKS		14 46 45.8	
GYA				SS	SS	14 51 23.8	+5.3
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GYA				pmax	pmax		
	comp=Z,120nm,5.2s						
GYA				LR	LR		
	comp=N,540nm,18.7s,MS5.0						
GYA				LR	LR		
	comp=E,510nm,19.4s,MS5.0						
GYA				LR	LR		
	comp=Z,570nm,18.9s,MS4.9						
KLR	Kul'dur	77.09	336	eP	P	14 36 36.8	-3.2
KLR				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.2						
BJI	Beijing	77.95	321	P	P	14 36 46.3	+1.3
BJI				pmax	pmax		
	comp=Z,16nm,0.5s,mb5.2						
KMI	Kunming	78.92	302	P	P	14 36 53.3	+2.6
KMI				pP	pP	14 36 56.1	+0.1
KMI				sP	sP	14 36 57.3	-0.6
KMI				PP	PP	14 39 54.3	+4.5
KMI				S	S	14 46 51.0	+2.2
KMI				SKS		14 47 03.8	
KMI				SS	SS	14 52 00.9	+6.3
KMI				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
KMI				pmax	pmax		
	comp=Z,89nm,4.2s						
KMI				LR	LR		
	comp=N,260nm,12.7s,MS4.9						
KMI				LR	LR		
	comp=E,220nm,13.7s,MS4.9						
KMI				LR	LR		
	comp=Z,200nm,18.9s						
XAN	Xi'an	78.97	313	P	P	14 36 50.9	+0.1
XAN				pP	pP	14 36 59.3	+3.2
XAN				sP	sP	14 37 03.3	+5.3
XAN				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.4						
CMAR	Chiang Mai Arr	78.98	295	P	P	14 36 52.5	+1.4
	comp=Z,7.1nm,0.7s,mb4.7,baz=134,slow=4.4,SNR=36						
CHTO	Chiang Mai	79.14	295	eP	P	14 36 53.2	+1.2
CHTO				e	pP	14 36 58.1	+0.8
CHTO				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
CHTO	Chiang Mai	79.14	295	eP	P	14 36 53.2	+1.2
	comp=Z,20nm,1.2s,mb4.9						
CHTO				e	pP	14 36 58.1	+0.8
CD2	Chengdu	81.00	308	P	P	14 37 03.0	+1.2
CD2				pP	pP	14 37 07.8	+0.6
CD2				sP	sP	14 37 10.0	+0.9
CD2				PP	PP	14 40 10.8	+3.8
CD2				S	S	14 47 12.5	+1.9
CD2				sS	sS	14 47 19.8	+0.5
CD2				SS	SS	14 52 30.6	+5.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CD2				pmax	pmax		
	comp=Z,290nm,4.9s						
CD2				LR	LR		
	comp=N,240nm,7.1s						
CD2				LR	LR		
	comp=Z,200nm,11.3s,MS4.7						
CD2	Chengdu	81.00	308	P	P	14 37 02.3	+0.5
HHC	Hu-ho-hao-te	81.21	320	eP	P	14 37 03.4	+0.7
HHC				PP	PP	14 40 11.8	+3.3
HHC				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
HHC				pmax	pmax		
	comp=Z,130nm,5.6s						
HHC				LR	LR		
	comp=N,92nm,14.3s,MS4.5						
HHC				LR	LR		
	comp=E,130nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=Z,170nm,16.7s,MS4.5						
LZH	Lanzhou	83.58	312	eP	P	14 37 16.1	+0.9
LZH				pP	pP	14 37 20.0	-0.6
LZH				sP	sP	14 37 23.4	+0.9
LZH				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.2						
LZH				pmax	pmax		
	comp=Z,87nm,4.3s						
CLNS	Chul'man	85.63	337	eP	P	14 37 25.0	-0.1
CLNS				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.4						
CLNS				pmax	pmax		
	comp=N,14nm,1.0s						
CLNS				pmax	pmax		
	comp=E,4.0nm,1.1s						
ULN	Ulaanbaatar	87.92	323	eP	P	14 37 36.8	+0.4
ULN				pmax	pmax		
	comp=Z,17nm,1.3s,mb5.1						
ULN	Ulaanbaatar	87.92	323	eP	P	14 37 36.8	+0.3
	comp=Z,17nm,1.3s,mb5.1						
GTA	Gaotai	88.00	314	eP	P	14 37 37.1	0.0
GTA				pP	pP	14 37 40.6	-1.9
GTA				sP	sP	14 37 44.5	+0.1
GTA				PP	PP	14 41 08.0	+4.0
GTA				SKS		14 48 03.1	
GTA				S	S	14 48 21.0	+0.9
GTA				SS	SS	14 54 15.1	+6.4
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.6						
GTA				LR	LR		
	comp=N,95nm,16.7s,MS4.5						
GTA				LR	LR		
	comp=E,93nm,14.0s,MS4.5						
GTA				LR	LR		
	comp=Z,160nm,13.7s,MS4.6						
YAK	Yakutsk	88.16	343	eP	P	14 37 35.4	-1.9
YAK				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,2.0nm,1.1s						
YAK	Yakutsk	88.16	343	eP	P	14 37 36.2	-1.1
	comp=N,6.8nm,0.5s,mb5.1						
SONM	Songino Array	88.27	323	P	P	14 37 38.3	+0.2
	comp=N,3.9nm,0.9s,mb4.6,baz=129,slow=4.8,SNR=17						
VNA3	Neumayer Olymp	88.37	180	eP	P	14 37 36.7	-1.7
VNA3				e	pP	14 37 41.5	-2.2
ISA	Isabella	88.43	51	eP	P	14 37 38.5	-0.7
BILL	Bilibino	88.43	359	⇑eP	P	14 37 36.9	-1.5
VNA2	Neumayer--Watz	88.66	181	eP	P	14 37 38.7	-1.0
NVAR	Mina Array Bea	89.80	49	P	P	14 37 44.9	-0.7
	comp=N,2.9nm,0.7s,mb4.7,baz=227,slow=8.3,SNR=9.1						
GLA	Glamis	90.02	55	eP	P	14 37 46.5	-0.3
GLA				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb5.1						
GLA	Glamis	90.02	55	eP	P	14 37 46.5	-0.3
	comp=Z,5.4nm,0.5s,mb5.1						
BOD	Bodaibo	90.53	334	eP	P	14 37 47.2	-1.3
BOD				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.9						
ZAK	Zakamensk	91.36	324	eP	P	14 37 51.7	-0.8
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.8						
TLY	Talaya	91.84	325	eP	P	14 37 54.4	-0.3
TLY				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.7						
TLY	Talaya	91.84	325	i P	P	14 37 54.2	-0.5
TXAR	Lajitas Array	97.52	62	P	P	14 38 20.4	-0.9
	comp=Z,0.2nm,0.5s,mb3.9,baz=213,slow=3.0,SNR=4.2						
PDAR	Pinedale Array	97.63	47	P	P	14 38 22.6	+1.1
	comp=Z,0.5nm,0.8s,mb4.1,baz=226,slow=4.9,SNR=4.3						
WMQ	Urumqi	98.09	314	eP	P	14 38 24.0	+0.5
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.4						
WMQ				pmax	pmax		
	comp=Z,82nm,4.0s						
YKA	Yellowknife Ar	101.95	27	P	Pdif	14 38 38.1	-2.6
	comp=Z,0.2nm,0.7s,baz=249,slow=4.8,SNR=4.2						
YKA				PKiKP	PKiKP	14 42 59.8	-3.1
	comp=Z,0.2nm,0.4s,baz=263,slow=1.8,SNR=4.6						
MKAR	Makanchi Array	102.65	315	Pdiff	Pdif	14 38 42.9	-0.9
	comp=Z,0.2nm,0.6s,baz=97,slow=5.8,SNR=2.8						
KURK	Kurchatov	106.00	319	Pdiff	Pdif	14 38 59.5	+0.8
	comp=Z,0.1nm,0.4s,baz=111,slow=5.2,SNR=3.0						
BOSA	Boshof	119.89	217	PKP	PKPdf	14 43 36.8	-1.1
	comp=Z,1.8nm,0.7s,baz=198,slow=3.2,SNR=3.6						
SCHQ	Schefferville	126.09	36	PKP	PKPdf	14 43 45.3	-3.6
	comp=Z,2.1nm,0.6s,baz=67,slow=13,SNR=4.5						
ARCES	ARCESS Array B	126.38	345	PKP	PKPdf	14 43 47.1	-1.9
	comp=Z,2.1nm,0.7s,baz=90,slow=2.4,SNR=18						
GOF	Gofitskoye	129.66	312	ePKHKP		14 43 32.8	
BRTR	Keskin Array B	137.57	307	PKP	PKPdf	14 44 11.0	0.0
	comp=Z,0.5nm,0.7s,baz=134,slow=4.2,SNR=2.9						
KOLS	Kolonicke sedl	141.31	325	ePKP	PKPdf	14 44 16.9	-0.6
CRVS	Cervenica-Dubn	141.76	325	ePKP	PKPdf	14 44 15.1	-3.3
KECS	Kecovo	142.53	325	ePKP	PKPdf	14 44 15.5	-4.2
BSEG	Bad Segeberg	143.02	339	ePKIKP	PKPdf	14 44 16.0	-4.4
DPC	Dobruska-Polom	143.39	331	ePKP	PKPdf	14 44 17.7	-3.5
DPC				epPKP	pPKPdf	14 44 23.0	-3.7
DPC				esPKP		14 44 27.0	
VYHS	Vyhne	143.39	326	ePKP	PKPdf	14 44 20.6	-0.7
UPC	Upice	143.42	331	ePKP	PKPdf	14 44 18.0	-3.2
PVCC	Panska Ves	144.05	332	ePKP	PKPdf	14 44 19.7	-2.6
PVCC				epPKP	pPKPdf	14 44 27.3	-0.6
PVCC				esPKP		14 44 30.4	
BRG	Berggiesshubel	144.06	333	i PKIKP	PKPdf	14 44 19.7	-2.7
BRG				pmax	pmax		
	comp=Z,10.0nm,1.0s						
BRG	Berggiesshubel	144.06	333	i PKP	PKPdf	14 44 19.7	-2.7
	comp=Z,29nm,1.0s						
CLL	Collm	144.13	334	i PKPdf	PKPdf	14 44 19.2	-3.3
	comp=Z,20nm,0.8s						
CLL				i PKiKP	PKiKP	14 44 24.5	-1.5
CLL				i pPKiKP		14 44 29.0	
EAB	Aberfoyle	144.16	354	eP	PKPdf	14 44 19.2	-3.1
ESY	Stoneypath	144.23	352	eP	PKPdf	14 44 19.4	-3.0
MODS	Modra-Piesok	144.26	327	ePKP	PKPdf	14 44 21.7	-1.1
EAU	Auchinoon	144.40	353	eP	PKPdf	14 44 19.8	-3.0
EBL	Broad Law	144.42	352	eP	PKPdf	14 44 19.5	-3.3
PRU	Pruhonice	144.45	332	ePKP	PKPdf	14 44 21.1	-2.0
PRU				epPKP	pPKPdf	14 44 26.6	-2.0
PRU				esPKP		14 44 29.7	
TREC	Trest	144.51	330	ePKP	PKPdf	14 44 21.2	-2.0
TREC				epPKP	pPKPdf	14 44 26.5	-2.2
PGBU	Glenifferbraes	144.55	354	eP	PKPdf	14 44 19.2	-3.8
PGBU				AMb	AMB	14 44 23.9	
	comp=Z,82nm,1.7s						
CLZ	Clausthal	144.72	337	ePKIKP	PKPdf	14 44 21.7	-1.8
ESK	Eskdalemuir	144.89	352	eP	PKPdf	14 44 21.2	-2.5
ESK				AMb	AMB	14 44 22.0	
	comp=Z,69nm,1.7s						
ESK	Eskdalemuir	144.89	352	i PKIKP	PKPdf	14 44 21.9	-1.8
ESK	Eskdalemuir	144.89	352	ePKP	PKPdf	14 44 21.2	-2.4
ECK	Cauldkaine Hil	145.01	352	eP	PKPbc	14 44 20.8	-2.4
WIT	Witteveen	145.13	341	ePKP	PKPdf	14 44 23.7	-0.4
	comp=Z,481nm,0.5s						
NKC	Novy Kostel	145.17	334	ePKP	PKPdf	14 44 23.5	-0.8
NKC				epPKP	pPKPdf	14 44 28.8	-1.0
NKC				esPKP		14 44 33.0	
MOX	Moxa	145.20	335	ePKP	PKPdf	14 44 23.3	-1.0
	comp=Z,57nm,1.5s						
XAL	Allendale	145.20	351	⇑eP	PKPbc	14 44 21.9	-2.0
CONA	Conrad Observa	145.27	328	⇓iPKPdf	PKPdf	14 44 24.3	-0.2
	comp=Z,29nm,1.1s						
CSNA	Conrad Observa	145.27	328	⇓iPKPdf	PKPdf	14 44 24.4	-0.2
	comp=Z,28nm,1.1s						
GAL1	Galloway	145.50	354	⇑eP	PKPdf	14 44 23.2	-1.5
GAL1				AMb	AMB	14 44 24.8	
	comp=Z,115nm,1.4s						
KHC	Kasperske Hory	145.51	331	ePKP	PKPdf	14 44 24.6	-0.3
KHC				epPKP	pPKPdf	14 44 30.2	-0.2
KHC				ex	x	14 44 34.3	
GEC2	GERESS Array S	145.66	331	ePKP2	PKPab	14 44 24.8	-1.0
GERES	GERESS Array B	145.66	331	PKPbc	PKPbc	14 44 24.8	-0.7
	comp=Z,12nm,0.8s,baz=46,slow=3.9,SNR=60						
WET	Wettzell	145.81	332	ePKP2	PKPab	14 44 25.1	-1.2
WTSB	Winterswijk	145.83	340	ePKP	PKPdf	14 44 25.0	-0.4
	comp=Z,14nm,1.2s						
HPK	Haverah Park	145.99	350	⇑eP	PKPdf	14 44 25.0	-0.5
HPK				AMb	AMB	14 44 27.0	
	comp=Z,201nm,1.4s						
GRA1	Grafenberg Arr	146.10	334	ePKPbc	PKPbc	14 44 26.2	-0.6
GRF	Grafenberg Arr	146.10	334	ePKP2	PKPab	14 44 26.2	-1.2
MOA	Molln	146.10	329	⇓ePKPab	PKPab	14 44 26.3	-1.2
	comp=Z,11nm,0.8s						
LHO	Holmfirth	146.42	350	⇑eP	PKPdf	14 44 26.0	-0.3
KBI1	Birley Grange	146.65	350	eP	PKPdf	14 44 27.1	+0.4
TNS	Taunus Mts	146.75	337	ePKP2	PKPab	14 44 28.2	-1.7
STNC	Stoke	146.92	350	eP	PKPab	14 44 28.8	-1.7
STNC				AMb	AMB	14 44 29.8	
	comp=Z,108nm,1.2s						
KWE	Weaver Farm	146.93	350	eP	PKPdf	14 44 27.8	+0.6
CWF	Charnwood Fore	147.11	349	eP	PKPdf	14 44 27.8	+0.2
CWF				AMb	AMB	14 44 29.9	
	comp=Z,50nm,1.2s						
HGN	Heimansgroeve	147.14	340	ePKP	PKPdf	14 44 29.0	+1.4
	comp=Z,5.1nm,0.9s						
FUR	Furstenfeldbru	147.25	332	ePKP2	PKPab	14 44 31.6	-0.3
MEM	Membach	147.25	340	PKPbc	PKPbc	14 44 29.2	-0.9
BCLA	Clavier	147.64	341	PKP	PKPbc	14 44 32.8	+1.6
SNF	Seneffe	147.87	342	PKP	PKPbc	14 44 33.7	+1.9
MOTA	Moosalm	147.94	331	⇓iPKPbc	PKPbc	14 44 30.6	-1.6
	comp=Z,22nm,1.2s						
RETA	Reutte	147.99	332	⇓ipPKPdf	PKPbc	14 44 31.1	-1.1
	comp=Z,12nm,1.3s						
WLF	Walferdange	148.02	339	PKP	PKPbc	14 44 32.4	+0.1
WLF	Walferdange	148.02	339	ePKPbc	PKPbc	14 44 31.9	-0.3
GIVF	Givet	148.07	341	ePKP1	PKPbc	14 44 31.1	-1.2
	comp=Z,20nm,0.7s						
MCH1	Michaelchurch	148.10	351	eP	PKPdf	14 44 30.5	+1.4
MCH1				AMb	AMB	14 44 39.1	
	comp=Z,53nm,1.9s						
DOU	Dourbes	148.14	341	PKPbc	PKPbc	14 44 31.9	-0.7
BAIF	Baives	148.29	341	ePKP1	PKPbc	14 44 31.7	-1.2
BFO	Black Forest	148.34	335	ePKPbc	PKPbc	14 44 32.0	-1.1
BFO				ePKPab	PKPab	14 44 36.1	-0.2
FETA	Feichten	148.35	331	⇓ipPKPdf	PKPbc	14 44 32.5	-0.7
	comp=Z,13nm,1.0s						
DAVA	Damuels	148.53	332	⇓iPKPbc	PKPbc	14 44 32.7	-1.0
	comp=Z,25nm,1.4s						
CDF	Champ du Feu	148.67	336	ePKP1	PKPbc	14 44 32.6	-1.4
	comp=Z,19nm,0.9s						
ECH	Echery	148.88	336	ePKPbc	PKPbc	14 44 33.1	-1.4
ECH				ePKPab	PKPab	14 44 37.9	-0.5
HINF	Hinteralfeld	149.33	336	ePKP1	PKPbc	14 44 34.0	-1.7
HAU	Haudompre	149.36	337	ePKP1	PKPbc	14 44 34.2	-1.5
	comp=Z,14nm,0.7s						
TUE	Stuetta	149.39	332	ePKPbc	PKPbc	14 44 35.0	-0.9
MEZF	Maizieres J'vi	149.39	339	ePKP1	PKPbc	14 44 34.7	-1.1
CABF	La Chapelle	150.62	336	ePKP1	PKPbc	14 44 37.8	-1.0
	comp=Z,28nm,1.0s						
JSA	Saint Aubin	150.67	348	eP	PKPdf	14 44 36.1	+2.7
JSA				AMb	AMB	14 44 37.1	
	comp=Z,32nm,2.1s						
FLN	La Foliniere	150.72	346	ePKP1	PKPbc	14 44 37.2	-1.8
	comp=Z,33nm,0.7s						
LDF	La Druitiere	150.79	345	ePKP1	PKPbc	14 44 37.3	-1.9
	comp=Z,16nm,0.7s						
LOR	Lormes	150.86	339	ePKP1	PKPbc	14 44 37.9	-1.5
	comp=Z,16nm,0.9s						
SSF	Saint Saulge	151.16	339	ePKP1	PKPbc	14 44 38.6	-1.5
	comp=Z,16nm,0.7s						
GRR	Gorron	151.16	346	ePKP1	PKPbc	14 44 38.4	-1.6
	comp=Z,24nm,0.8s						
HYF	Humbligny	151.25	341	ePKP1	PKPbc	14 44 39.1	-1.2
LPL	La Plagne	151.26	334	ePKP1	PKPbc	14 44 39.4	-1.0
LPG	La Plagne	151.27	334	ePKP1	PKPbc	14 44 39.5	-0.9
SMF	Signal de Mont	151.41	339	ePKP1	PKPbc	14 44 39.0	-1.7
AVF	Avril sur Loir	151.44	339	ePKP1	PKPbc	14 44 39.8	-1.0
SGMF	Saint Gilles	151.64	348	ePKP1	PKPbc	14 44 39.2	-2.0
	comp=Z,17nm,0.6s						
ROSF	Rostrenen	151.69	349	ePKP1	PKPbc	14 44 39.0	-2.3
	comp=Z,18nm,0.7s						
BGF	Bois d'Agland	151.81	340	ePKP1	PKPbc	14 44 40.0	-1.6
MBDF	Montbardon	151.88	333	ePKP1	PKPbc	14 44 40.4	-1.4
	comp=Z,9.9nm,0.8s						
QUIF	Quistinic	152.08	349	ePKP1	PKPbc	14 44 39.9	-2.3
	comp=Z,12nm,0.8s						
ORIF	Oris-en-Rattie	152.10	334	ePKP1	PKPbc	14 44 40.9	-1.4
TCF	Toulx Ste Croi	152.26	340	ePKP1	PKPbc	14 44 41.1	-1.5
	comp=Z,8.5nm,0.7s						
PGF	Pioggiola	152.49	327	ePKP1	PKPbc	14 44 41.6	-1.7
VIVF	Saint-Julien-l	152.63	336	ePKP1	PKPbc	14 44 41.9	-1.6
MFF	Saint Martin d	152.65	344	ePKP1	PKPbc	14 44 41.7	-1.8
LASF	Ste Croix	153.60	336	ePKP1	PKPbc	14 44 43.0	-2.7
	comp=Z,6.4nm,0.7s						
ESDC	Sonseca Array	160.12	344	PKPab	PKPab	14 45 25.2	-1.0
	comp=Z,0.7nm,0.5s,baz=19,slow=3.4,SNR=6.9						
DBIC	Dimbokro	164.95	204	PKPab	PKPab	14 45 45.8	-2.3
	comp=Z,5.6nm,1.2s,baz=124,slow=3.6,SNR=2.9						
TORD	Torodi Ar. Bea	165.86	240	PKP	PKPdf	14 44 50.6	-2.0
	comp=Z,0.4nm,0.6s,baz=185,slow=1.2,SNR=3.4						
TORD				PKPab	PKPab	14 45 50.2	-2.1
	comp=Z,0.3nm,0.6s,baz=132,slow=2.1,SNR=2.5						

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*IDC **20** 14:28:57.2±1.6, 2°.52N×95°.71E, h0^{km}, mb3.8/8, mb1 3.9/10, mb1mx3.7/25, mbtmp3.8/10, ML3.7/2, Error ellipse: s-maj=55.2km s-min=18.9km az=52.0*

*ISCJB **20** 14:29:00.4±1.1, 2°.6N±0°.1×95°.8E±0°.1, h33^{km}, mb3.8/9, Error ellipse: s-maj=22.4km s-min=13.2km az=39.0*

*NEIC **20** 14:29:02.6±0.8, 2°.55N×95°.82E, h35^{km}, mb3.7/1, Error ellipse: s-maj=16.3km s-min=9.5km az=221.0*

ISC 20 14:29:02.7±1.1, **2°.6N**±0°.1×**95°.8E**±0°.1, **h35**^{km}**, n12,** σ**0^{s}.51**/12, **mb3.8**/9, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.10	85	Pn	Pn	14 29 48.5	-0.6
	1.1nm,0.3s,baz=257,slow=8.0,SNR=5.8						
KULM	Kulim	5.52	60	eP	Pn	14 30 22.3	-0.2
	17nm,0.9s						
CMAR	Chiang Mai Arr	16.09	11	Pn	Pn	14 32 47.8	+1.3
	0.4nm,0.3s,baz=194,slow=11,SNR=5.8						
WRA	Warramunga Arr	43.91	122	P	P	14 37 06.8	+0.4
	0.3nm,0.6s,mb3.2,baz=301,slow=9.1,SNR=3.0						
ASAR	Alice Springs	45.30	127	P	P	14 37 17.9	+0.5
	0.2nm,0.6s,mb3.1,baz=302,slow=7.8,SNR=4.6						
MKAR	Makanchi Array	45.61	347	P	P	14 37 19.4	-0.1
	1.0nm,0.4s,mb4.1,baz=158,slow=8.9,SNR=40						
SONM	Songino Array	46.02	10	P	P	14 37 22.7	0.0
	0.8nm,0.5s,mb3.9,baz=193,slow=9.3,SNR=5.9						
ULN	Ulaanbaatar	46.16	10	eP	P	14 37 23.7	-0.1
	0.5nm,0.5s,mb3.7						
KURK	Kurchatov	50.14	346	P	P	14 37 54.0	-0.6
	0.7nm,0.5s,mb4.0,baz=162,slow=6.9,SNR=6.9						
ZALV	Zalesovo Beam	52.02	352	P	P	14 38 08.4	-0.2
	1.2nm,0.5s,mb4.1,baz=179,slow=7.2,SNR=8.9						

BVAR	Borovoye Array	54.53	341	P	P	14 38 26.6	-0.4
	0.7nm,0.7s,mb3.8,baz=142,slow=7.5,SNR=3.6						
ARCES	ARCESS Array B	80.81	340	P	P	14 41 12.4	0.0
	5.6nm,1.0s,mb4.4,baz=94,slow=6.4,SNR=3.9						

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*NEIC **20** 14:46:22.9, 15°.45N×96°.26W, h8^{km}, MD3.6(MEX), After MEX.*

MEX 20 14:46:22.9±0.9**, 15°.45N×96°.26W, h8^{km}**±7^{km}**, MD3.6, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	Huatulco	0.35	24	i P	Pg	14 46 28.9	-0.9
HUIG				i S	Sg	14 46 34.9	+0.5
VHO	Vista Hermosa	1.68	344	i P	Pn	14 46 50.1	-2.5
VHO				i S	Sn	14 47 08.8	-5.5
PNIG	Pinotepa	2.03	298	i P	Pn	14 46 54.6	-2.9
PNIG				i S	Sn	14 47 17.7	-5.3
CMIG	Matias Romero	2.10	39	i P	Pn	14 46 54.8	-3.5
CMIG				i S	Sn	14 47 20.4	-4.3
UTMO	Huajuapan	2.79	328	i P	Pn	14 47 04.7	-3.3
UTMO				i S	Sn	14 47 40.0	-1.9
PPM	Popocatepetl	4.25	328	eP	Pn	14 47 26.5	-1.4
PPM				i S	Sn	14 48 14.7	-3.1

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*IDC **20** 15:01:37.5±0.7, 46°.75N×155°.70E, h0^{km}, mb3.7/9, mb1 4.0/12, mb1mx3.9/24, mbtmp3.8/12, ML3.7/3, MS2.7/1, Ms1 2.7/1, ms1mx2.3/35, Error ellipse: s-maj=25.8km s-min=16.1km az=146.0*

*NEIC **20** 15:01:38.9±0.5, 46°.84N×155°.65E, h10^{km}, mb4.1/2, Error ellipse: s-maj=13.2km s-min=7.6km az=142.0*

*ISCJB **20** 15:01:40.9±0.6, 47°.06N±0°.07×155°.5E±0°.1, h33^{km}, mb3.8/11, Error ellipse: s-maj=13.3km s-min=7.0km az=36.0*

*MOS **20** 15:01:41.1±1.7, 47°.02N×155°.42E, h36^{km}, mb4.4/2, Error ellipse: s-maj=17.9km s-min=10.6km az=67.3*

ISC 20 15:01:43.2±0.6**, 47°.04N**±0°.07×**155°.5E**±0°.1**, h35^{km}, n29, σ1^{s}13**/28**, mb3.8**/11**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	3.67	6	ePN	Pn	15 02 37.0	-0.3
SKR				eS	Sn	15 03 18.1	-1.1
SKR				pmax	pmax		
	comp=N,50nm,0.5s						
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=N,140nm,0.3s						
SKR				smax			
	comp=E,120nm,0.3s						
SKR				smax			
	comp=Z,80nm,0.5s						
PEA0B	Petropavlovsk-	6.23	12	ePn	Pn	15 03 12.3	-0.2
PETK	Petropavlovsk-	6.23	12	PN	Pn	15 03 12.5	0.0
PETK						15 04 30.3	
PETK	Petropavlovsk-	6.23	12	Pn	Pn	15 03 12.5	0.0
	comp=Z,1.5nm,0.3s,baz=186,slow=11,SNR=118						
PETK				Sn	Sn	15 04 30.3	+7.9
	comp=Z,0.4nm,0.3s,baz=106,slow=38,SNR=2.7						
PETK				LR	LR	15 05 56.5	
	comp=Z,68nm,19.3s,baz=273,slow=40						
PET	Petropavlovsk	6.32	17	ePN	Pn	15 03 11.9	-1.8
YSS	Yuzh-Sakhalins	8.74	274	ePN	Pn	15 03 47.1	+0.2
ASAJ	Asahikawa	9.53	257	PN	Pn	15 03 58.2	+0.4
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.53	257	Pn	Pn	15 03 58.2	+0.4
	comp=Z,0.7nm,0.3s,baz=99,slow=22,SNR=7.5						
ERM	Erimo	10.16	245	eP	Pn	15 04 03.1	-3.3
ERM				eS	Sn	15 05 46.0	-13
MJAR	Matsushiro Arr	16.61	237	Pn	Pn	15 05 32.2	-0.9
	comp=Z,0.3nm,0.3s,baz=256,slow=23,SNR=5.0						
KSRS	Korea Array	22.47	255	P	P	15 06 42.4	+3.3
	comp=Z,0.9nm,0.9s,baz=56,slow=11,SNR=2.6						
COLA	College	34.88	39	P	P	15 08 31.2	+0.5
COLA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
COLA	College	34.88	39	P	P	15 08 31.2	+0.5
	comp=Z,2.2nm,0.7s,mb4.2						
ZALV	Zalesovo Beam	43.78	306	P	P	15 09 46.9	+1.8
	comp=Z,0.4nm,0.4s,mb3.5,baz=100,slow=6.3,SNR=3.2						
MKAR	Makanchi Array	48.27	298	P	P	15 10 21.0	+0.5
	comp=Z,0.2nm,0.5s,mb3.4,baz=65,slow=8.2,SNR=5.0						
YKA	Yellowknife Ar	49.69	38	P	P	15 10 31.8	+0.7
	comp=Z,0.4nm,0.6s,mb3.6,baz=294,slow=7.1,SNR=6.7						
BRVK	Borovoye	51.99	310	eP	P	15 10 49.3	+0.8
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
BRVK	Borovoye	51.99	310	eP	P	15 10 49.3	+0.8
	comp=Z,1.2nm,0.5s,mb4.1						
CMAR	Chiang Mai Arr	54.05	258	P	P	15 11 04.9	+0.7
	comp=Z,0.5nm,0.7s,mb3.6,baz=38,slow=7.4,SNR=7.5						
NVAR	Mina Array Bea	60.82	64	P	P	15 11 52.4	+0.7
	comp=Z,1.5nm,0.9s,mb4.1,baz=296,slow=7.8,SNR=8.0						
PDAR	Pinedale Array	63.23	55	P	P	15 12 08.8	+1.0
	comp=Z,0.5nm,0.8s,mb3.7,baz=292,slow=4.7,SNR=4.7						
WRA	Warramunga Arr	69.36	201	P	P	15 12 44.2	-2.8
	comp=Z,0.9nm,0.9s,mb3.7,baz=28,slow=7.5,SNR=4.4						
ASAR	Alice Springs	73.04	201	P	P	15 13 07.8	-1.5
	comp=Z,0.7nm,0.8s,mb3.6,baz=14,slow=5.0,SNR=5.4						
TXAR	Lajitas Array	75.90	62	P	P	15 13 26.5	+0.5
	comp=Z,1.7nm,0.6s,mb4.1,baz=312,slow=4.7,SNR=24						
TXAR	Lajitas Array	75.90	62	P	P	15 13 26.5	+0.5
PLCA	Paso Flores	146.59	96	PKPbc	PKPbc	15 21 19.4	-0.9
	comp=Z,1.2nm,0.8s,baz=282,slow=4.3,SNR=2.9						
PLCA	Paso Flores	146.59	96	PKPbc	PKPbc	15 21 19.4	-0.9
CPUP	Villa Florida	146.87	63	PKPbc	PKPbc	15 21 20.2	-1.4
	comp=Z,0.6nm,0.4s,baz=301,slow=13,SNR=3.4						
CPUP	Villa Florida	146.87	63	PKPbc	PKPbc	15 21 20.2	-1.4

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*DJA **20** 15:08:01, 2°.20N×95°.54E, h20^{km}, MLv3.7/4*

*IDC **20** 15:08:02.8±5.8, 2°.07N×95°.85E, h0^{km}, mb3.5/3, mb1 3.5/5, mb1mx3.3/23, mbtmp3.4/5, ML3.3/2, MS3.0/1, Ms1 3.0/1, ms1mx2.5/26, Error ellipse: s-maj=108.5km s-min=22.1km az=6.0*

*ISCJB **20** 15:08:06.4±1.0, 2°.17N±0°.09×96°.06E±0°.08, h33^{km}, mb3.5/3, Error ellipse: s-maj=14.4km s-min=9.4km az=42.9*

ISC 20 15:08:09.2±1.0**, 2°.25N**±0°.09×**96°.09E**±0°.09**, h35^{km}, n13, σ1^{s}08**/15**, mb3.5**/3**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSI	Gunungsitoli	1.76	122	P	Pn	15 08 39.1	+1.9
PSI	Prapat	2.88	79	Pn	Pn	15 08 52.7	0.0
	1.3nm,0.3s,baz=303,slow=10,SNR=6.8						
PSI				Sn	Sn	15 09 25.5	-0.6
	1.4nm,0.3s,baz=297,slow=22,SNR=6.2						
PSI				Lg		15 09 43.4	
	1.4nm,0.3s,baz=99,slow=19,SNR=4.7						
PSI				LR	LR	15 10 07.4	
	comp=Z,238nm,18.9s,baz=126,slow=40						
BSI	Banda Aceh	3.32	346	P	Pn	15 08 52.8	-5.9
BSI				S	Sn	15 09 31.2	-5.7
SISI	Saibi	4.65	140	P	Pn	15 09 14.1	-2.9
PPI	Padang Panjang	5.08	122	P	Pn	15 09 23.8	+0.9
	36nm,0.8s,0.2nm						
PDSI	Padang	5.38	126	P	Pn	15 09 24.6	-2.5
IPM	Ipoh	5.40	66	P	Pn	15 09 27.6	+0.3
	14nm,2.7s,0.1nm						
SDSI	Sungai Dareh	6.20	121	P	Pn	15 09 38.1	-0.3
	13nm,0.9s						
MYKOM	Kota Tinggi	7.76	93	P	Pn	15 10 00.6	+0.7
CMAR	Chiang Mai Arr	16.34	10	Pn	Pn	15 11 55.5	-0.6
	0.1nm,0.3s,baz=195,slow=10,SNR=4.0						
MKAR	Makanchi Array	45.97	347	P	P	15 16 28.5	-0.3
	0.3nm,0.5s,mb3.5,baz=150,slow=8.4,SNR=6.8						
SONM	Songino Array	46.27	10	P	P	15 16 31.6	+0.4
	0.5nm,0.8s,mb3.5,baz=189,slow=7.9,SNR=3.7						
ZALV	Zalesovo Beam	52.36	352	P	P	15 17 17.9	+0.3
	0.3nm,0.4s,mb3.6,baz=147,slow=8.2,SNR=2.7						

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*THE **20** 15:14:13.3, 41°.00N×22°.57E, h11^{km}±4^{km}, ML2.0/2, Error ellipse: s-maj=4.2km s-min=0.7km az=288.0*

CSEM 20 15:14:12.2±0.1**, 41°.05N×22°.52E, h12^{km}, ML2.0**/2**, Error ellipse: s-maj=3.3km s-min=2.1km az=26.0, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRG	Griva	0.12	223	P	Pg	15 14 16.2	+0.9
GRG				S	Sg	15 14 19.0	+1.4
GRG	Griva	0.12	223	P	Pg	15 14 16.2	+0.9
GRG				S	Sg	15 14 19.0	+1.4
VAY	Valandovo	0.28	9	ePg	Pg	15 14 17.8	-0.1
VAY				eSg	Sg	15 14 21.3	-0.4
VAY	Valandovo	0.28	9	ePg	Pg	15 14 17.8	-0.1
VAY				eSg	Sg	15 14 21.2	-0.5
KNT	Kendrikon	0.31	68	P	Pg	15 14 18.8	+0.3
KNT				S	Sg	15 14 24.3	+1.5
KNT	Kendrikon	0.31	68	P	Pg	15 14 18.8	+0.3
KNT				S	Sg	15 14 24.3	+1.5
HORT	Hortiatis	0.63	135	P	Pg	15 14 24.6	+0.1
HORT				S	Sg	15 14 32.4	-0.4
HORT	Hortiatis	0.63	135	P	Pg	15 14 24.6	+0.1
HORT				S	Sg	15 14 32.4	-0.4
SOH	Sokhos	0.68	109	P	Pg	15 14 25.5	+0.2
SOH				S	Sg	15 14 34.1	0.0
SOH	Sokhos	0.68	109	P	Pg	15 14 25.5	+0.2
SOH				S	Sg	15 14 34.1	0.0
SRS	Serrai	0.82	85	P	Pg	15 14 28.1	+0.1
SRS	Serrai	0.82	85	P	Pg	15 14 28.1	+0.1
KRUS	Krusevo	1.01	289	ePg	Pg	15 14 31.4	-0.2
KRUS				eSg	Sg	15 14 46.1	+1.4
KRUS	Krusevo	1.01	289	ePg	Pg	15 14 31.4	-0.2
KRUS				eSg	Sg	15 14 46.1	+1.4

IDC 20 15:36:26.4±2.2**, 2°.48N×96°.00E, h0^{km}, mb3.8**/5**, mb1 3.7**/7**, mb1mx3.5**/24**, mbtmp3.6**/7**, ML3.0**/2**, Error ellipse: s-maj=52.3km s-min=23.3km az=38.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	2.94	84	Pn	Pn	15 37 15.3	+1.0
	1.3nm,0.3s,baz=320,slow=6.6,SNR=6.4						
PSI				Sn	Sn	15 37 50.3	-0.1
	1.6nm,0.3s,baz=251,slow=12,SNR=5.4						
CMAR	Chiang Mai Arr	16.14	10	Pn	Pn	15 40 16.9	+2.2
	0.0nm,0.3s,baz=198,slow=11,SNR=7.5						
WRA	Warramunga Arr	43.73	122	P	P	15 44 33.6	-0.2
	0.2nm,0.6s,baz=302,slow=8.8,SNR=3.3						
MKAR	Makanchi Array	45.72	347	P	P	15 44 49.3	0.0
	1.0nm,0.4s,baz=155,slow=9.1,SNR=29						
SONM	Songino Array	46.06	10	P	P	15 44 51.1	-0.8
	0.8nm,0.6s,baz=188,slow=9.3,SNR=5.8						
KURK	Kurchatov	50.26	346	P	P	15 45 24.2	-0.1
	0.3nm,0.4s,baz=165,slow=6.7,SNR=4.1						
ZALV	Zalesovo Beam	52.12	352	P	P	15 45 37.9	-0.3
	1.1nm,0.4s,baz=185,slow=7.3,SNR=7.0						

IDC 20 15:41:58.7±5.2**, 14°.18S×115°.51E, h68^{km}**±36^{km}**, mb3.8**/1**, mb1 3.3**/4**, mb1mx3.1**/18**, mbtmp3.2**/4**, ML3.2**/2**, Error ellipse: s-maj=152.1km s-min=32.5km az=11.0, Northwest of Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	10.48	113	P	Pn	15 44 24.5	-1.7
	0.2nm,0.3s,baz=259,slow=8.9,SNR=6.5						
FITZ				S	Sn	15 46 25.3	+3.2
	0.2nm,0.3s,baz=117,slow=22,SNR=4.0						
WRA	Warramunga Arr	18.89	110	P	Pn	15 46 14.8	-0.2
	0.1nm,0.3s,baz=289,slow=13,SNR=9.0						
WRA				S	S	15 49 45.5	+0.5
	0.0nm,0.3s,baz=283,slow=22,SNR=3.9						
ASAR	Alice Springs	19.78	121	P	Pn	15 46 23.6	-1.9
	0.0nm,0.3s,baz=299,slow=11,SNR=7.5						
STKA	Stephens Creek	29.65	131	P	P	15 47 57.8	-0.2
	0.7nm,0.3s,baz=260,slow=12,SNR=5.1						

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*ISK **20** 15:49:48.0, 36°.95N×29°.20E, h5^{km}, MD2.9*

*ISCJB **20** 15:49:49.3±0.5, 36°.97N±0°.03×29°.20E±0°.03, h0^{km}±8^{km}, Error ellipse: s-maj=5.3km s-min=4.2km az=158.8*

*CSEM **20** 15:49:49.4±0.2, 36°.95N×29°.21E, h8^{km}, MD2.9, Error ellipse: s-maj=3.5km s-min=3.3km az=144.0*

*DDA **20** 15:49:49.2, 37°.00N×29°.22E, h7^{km}±3^{km}, Md3.1*

ISC 20 15:49:49.9±0.5**, 36°.97N**±0°.03×**29°.20E**±0°.03**, h8^{km}**±6^{km}**, n31, σ0^{s}82**/48**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.34	196	PG	Pg	15 49 55.2	-1.4
FETY				SG	Sg	15 50 01.2	0.0
FETY	Fethiye	0.34	196	i Pg	Pg	15 49 55.3	-1.3
FETY				i Sg	Sg	15 50 01.2	0.0
GOLH	Golhisar	0.39	47	i P	Pg	15 49 56.4	-1.2
GOLH				i S	Sg	15 50 03.2	+0.4
GOLH	Golhisar	0.39	47	i P	Pg	15 49 56.4	-1.2
GOLH				i S	Sg	15 50 03.2	+0.4
TURN	Turunc	0.49	259	i P	Pg	15 50 03.9	+4.5
TURN				i S	Sg	15 50 15.6	+10
DALT	Dalyan (Mudla)	0.49	247	ePG	Pg	15 49 58.9	-0.6
DALT				eSG	Sg	15 50 06.5	+0.6
DALT	Dalyan (Mudla)	0.49	247	ePg	Pg	15 49 58.9	-0.5
DALT				eSg	Sg	15 50 06.5	+0.6
ELL	Elmali	0.61	111	ePG	Pg	15 50 01.1	-0.6
ELL				eSG	Sg	15 50 10.2	+0.6
ELL	Elmali	0.61	111	ePg	Pg	15 50 01.1	-0.5
ELL				eSg	Sg	15 50 10.2	+0.7
YER	Yerkesik	0.75	283	ePG	Pg	15 50 03.8	-0.6
YER				eSG	Sg	15 50 15.3	+1.1
YER	Yerkesik	0.75	283	ePg	Pg	15 50 03.8	-0.6
YER				eSg	Sg	15 50 15.3	+1.1
DENT	Denizli	0.80	350	ePG	Pg	15 50 04.6	-0.6
DENT	Denizli	0.80	350	ePg	Pg	15 50 04.6	-0.6
AKAS	Kas	0.80	156	i P	Pg	15 50 04.6	-0.7
AKAS				i S	Sg	15 50 17.9	+2.2
AKAS	Kas	0.80	156	i P	Pg	15 50 04.6	-0.7
AKAS				i S	Sg	15 50 17.9	+2.2
MLSB	Milas	1.19	286	ePN	Pn	15 50 11.9	-0.8
MLSB	Milas	1.19	286	ePn	Pn	15 50 12.0	-0.8
AYDN	Tasoluk	1.26	304	i P	Pn	15 50 13.3	-0.5
AYDN				i S	Sg	15 50 31.2	+0.7
AYDN	Tasoluk	1.26	304	i P	Pn	15 50 13.3	-0.5
AYDN				i S	Sg	15 50 31.2	+0.8
DAT	Datca	1.32	260	ePN	Pn	15 50 14.6	0.0
DAT	Datca	1.32	260	ePn	Pn	15 50 14.6	-0.1
KHL	Karahalli	1.38	11	ePN	Pn	15 50 16.1	+0.7
KHL	Karahalli	1.38	11	ePn	Pn	15 50 16.1	+0.7
KHAL	Karahalli	1.42	9	i P	Pn	15 50 15.7	-0.3
KHAL				i S	Sb	15 50 35.9	+1.1
KHAL	Karahalli	1.42	9	i P	Pn	15 50 15.7	-0.3
KHAL				i S	Sb	15 50 35.9	+1.0
BODT	Bodrum	1.52	274	ePN	Pn	15 50 17.6	+0.3
BODT	Bodrum	1.52	274	ePn	Pn	15 50 17.7	+0.4
KULA	Kula-Manisa	1.60	345	ePN	Pn	15 50 19.0	+0.5
KULA	Kula-Manisa	1.60	345	ePn	Pn	15 50 19.0	+0.5
MANT	Manisa	1.60	342	i P	Pn	15 50 17.6	-0.9
MANT	Manisa	1.60	342	i P	Pn	15 50 17.6	-0.9

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*ISCJB **20** 15:51:25.8±0.3, 63°.23N±0°.03×149°.36W±0°.06, h101^{km}±3^{km}, mb3.9/13, Error ellipse: s-maj=5.2km s-min=4.8km az=20.9*

*NEIC **20** 15:51:27.0, 63°.21N×149°.35W, h92^{km}, MG3.9(AEIC), After AEIC.*

*IDC **20** 15:51:27.6±0.7, 63°.36N×149°.55W, h98^{km}±8^{km}, mb3.5/11, mb1 3.7/13, mb1mx3.6/24, mbtmp3.5/13, Error ellipse: s-maj=19.5km s-min=13.3km az=24.0*

ISC 20 15:51:26.9±0.3**, 63°.22N**±0°.03×**149°.35W**±0°.06**, h95^{km}**±3^{km}**, h100^{km}**±2.5^{km}**:pP-P, n53, σ0^{s}92**/61**, mb3.9**/13**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRF	Thorofare Moun	0.48	299	P	Pn	15 51 42.1	+0.1
TRF				S	Sn	15 51 53.7	+0.5
MCK	McKinley	0.55	19	P	Pn	15 51 42.5	+0.1
MCK				S	Sn	15 51 54.2	+0.2
KTH	Kantishna Hill	0.79	296	P	Pn	15 51 44.7	+0.2
KTH				S	Sn	15 51 57.9	+0.1
BPAW	Bear Paw Mtn.	1.15	321	P	Pn	15 51 48.4	-0.1
BPAW				S	Sn	15 52 04.4	-0.5
PPLA	Purkeypile	1.33	257	P	Pn	15 51 51.1	+0.4
PPLA				S	Sn	15 52 09.0	+0.2
GHO	Glory Hole Cre	1.46	172	P	Pn	15 51 52.7	+0.3
CHUM	Lake Minchumin	1.49	298	P	Pn	15 51 52.8	+0.2
CHUM				S	Sn	15 52 11.8	-0.4
SML	Sawmill	1.49	161	P	Pn	15 51 52.7	0.0
SKT	Skwentna	1.60	220	P	Pn	15 51 53.7	-0.4
PMR	Palmer	1.63	176	P	Pn	15 51 54.3	-0.2
PAX	Paxson	1.78	96	P	Pn	15 51 56.9	+0.6
COLA	College	1.79	21	P	Pn	15 51 56.5	+0.1
KNK	Knik Glacier	1.86	167	P	Pn	15 51 57.5	+0.1
IL1	Eielson Array	1.90	34	P	Pn	15 51 57.5	-0.4
FIB	Fire Island	2.10	191	P	Pn	15 52 02.4	+1.9
DOT	Dot Lake	2.41	77	P	Pn	15 52 04.4	-0.1
SLKM	Skilak Lake	2.75	189	P	Pn	15 52 09.9	+0.8
TTA	Tatalina	3.05	268	eP	Pn	15 52 13.0	0.0
TT01	Tatalina	3.06	267	P	Pn	15 52 12.9	-0.2
SEW	Seward	3.12	181	P	Pn	15 52 14.4	+0.3
EYAK	Cordova Ski Ar	3.17	146	P	Pn	15 52 14.8	+0.1
RSO	Redoubt South	3.20	212	ePn	Pn	15 52 14.1	-1.1
IM3	Indian Mountai	3.36	328	P	Pn	15 52 17.3	+0.1
BCA3	Beaver Creek A	3.44	89	P	Pn	15 52 17.8	-0.4
SVW2	Sparrevohn	3.62	237	P	Pn	15 52 20.5	-0.2
GCSA	Galena City Sc	3.66	298	P	Pn	15 52 21.5	+0.3
EGAK	Eagle	3.93	63	ePn	Pn	15 52 24.3	-0.6
COLD	Coldfoot	4.04	355	P	Pn	15 52 27.1	+0.7
DAWY	Dawson	4.52	75	P	Pn	15 52 32.7	-0.2
BM3	Burnt Mountain	4.66	23	P	Pn	15 52 35.0	+0.2
KDAK	Kodiak Island	5.68	198	P	Pn	15 52 48.9	+0.3
	3.7nm,0.3s,baz=347,slow=10,SNR=29						
KDAK				S	Sn	15 53 48.9	-3.5
	9.7nm,0.3s,baz=258,slow=23,SNR=7.7						
KDAK	Kodiak Island	5.68	198	P	Pn	15 52 48.4	-0.3
PNL	Peninsula	5.95	122	P	Pn	15 52 51.4	-0.9
OHAK	Old Harbor	6.33	200	ePn	Pn	15 52 54.4	-3.0
WHY	Whitehorse	7.29	104	P	Pn	15 53 09.6	-0.9
CHGN	Chignik	8.30	217	eP	Pn	15 53 22.7	-1.6
GAMB	Gambell	9.99	283	eP	Pn	15 53 49.0	+1.8
	22nm,0.9s						
YKA	Yellowknife Ar	15.76	77	P	Pn	15 55 02.4	-0.5
	0.3nm,0.3s,baz=288,slow=10,SNR=21						
YKA				S	S	15 57 57.3	-8.1
	0.1nm,0.3s,baz=297,slow=22,SNR=5.4						
RES	Resolute Bay	21.65	36	P	P	15 56 07.9	-1.1
	1.5nm,0.3s,mb3.7,baz=249,slow=6.7,SNR=16						
PETK	Petropavlovsk-	28.86	274	P	P	15 57 14.0	-2.0
	0.4nm,0.3s,mb3.5,baz=268,slow=37,SNR=3.8						
PDAR	Pinedale Array	30.74	113	P	P	15 57 35.3	+2.6
	0.4nm,0.8s,mb3.2,baz=322,slow=7.2,SNR=3.2						
PDAR				pP	pP	15 57 56.4	+2.4
	0.8nm,0.9s,baz=332,slow=5.9,SNR=5.4						
NVAR	Mina Array Bea	31.05	128	P	P	15 57 38.1	+2.6
	0.4nm,0.6s,mb3.3,baz=302,slow=10,SNR=3.0						
NVAR				pP	pP	15 58 00.2	+3.4
	1.9nm,0.8s,baz=315,slow=7.5,SNR=11						
TXAR	Lajitas Array	44.69	117	P	P	15 59 31.9	+1.9
	0.3nm,0.6s,mb3.2,baz=329,slow=6.2,SNR=4.1						
TXAR				pP	pP	15 59 55.0	+2.5
	1.0nm,0.7s,baz=328,slow=5.8,SNR=7.7						
ARCES	ARCESS Array B	47.48	2	P	P	15 59 50.8	-0.7
	7.6nm,1.1s,mb4.4,baz=10.0,slow=7.2,SNR=9.1						
KSRS	Korea Array	54.16	283	P	P	16 00 42.4	+0.4
	1.5nm,0.7s,mb4.2,baz=30,slow=6.9,SNR=7.2						
SONM	Songino Array	54.30	306	P	P	16 00 43.4	+0.7
	2.2nm,0.7s,mb4.3,baz=20,slow=5.7,SNR=14						
ZALV	Zalesovo Beam	55.79	325	P	P	16 00 53.5	+0.1
	0.8nm,0.5s,mb4.0,baz=24,slow=8.1,SNR=4.0						
ZALV	Zalesovo Beam	55.79	325	P	P	16 00 53.5	+0.1
MKAR	Makanchi Array	62.96	323	P	P	16 01 41.2	-1.7
	0.8nm,0.4s,mb4.0,baz=29,slow=6.3,SNR=27						
MKAR				pP	pP	16 02 06.9	+0.4
	0.3nm,0.6s,baz=46,slow=6.2,SNR=2.4						
MKAR	Makanchi Array	62.96	323	P	P	16 01 41.2	-1.7
MKAR				pP	pP	16 02 06.9	+0.4
GTA	Gaotai	63.97	306	eP	P	16 01 51.8	+2.2
GTA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
GYA	Guiyang	72.73	294	eP	P	16 02 44.3	-0.1
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
CMAR	Chiang Mai Arr	83.02	297	P	P	16 03 40.6	-0.8
	comp=Z,0.3nm,0.6s,mb3.3,baz=9.1,slow=5.5,SNR=5.7						

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*NEIC **20** 15:52:10.8±1.2, 4°.81S×151°.11E, h300^{km}, mb4.1/1, Error ellipse: s-maj=43.3km s-min=15.3km az=105.0*

IDC 20 15:51:58.4±19.0**, 4°.78S×151°.73E, h200^{km}**±161^{km}**, mb3.3**/6**, mb1 3.4**/6**, mb1mx3.2**/17**, mbtmp3.3**/6**, MS3.9**/2**, Ms1 3.9**/2**, ms1mx2.8**/37**, Error ellipse: s-maj=113.0km s-min=27.8km az=82.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	22.66	227	eP	P	15 56 42.6	-0.2
	4.8nm,0.5s						
WB2	Warramunga Arr	22.66	227	eP	P	15 56 42.9	+0.1
WRA	Warramunga Arr	22.67	227	P	P	15 56 43.0	+0.1
	4.7nm,0.5s,baz=50,slow=10,SNR=56						
ASAR	Alice Springs	25.46	221	P	P	15 57 08.2	0.0
	0.5nm,0.4s,baz=54,slow=9.0,SNR=44						
URZ	Urewera	40.55	149	LR	LR	16 14 15.7	
	comp=Z,121nm,21.0s,baz=283,slow=33						
RPZ	Rata Peaks	42.36	159	LR	LR	16 13 41.3	
	comp=Z,179nm,18.9s,baz=322,slow=31						
SONM	Songino Array	65.74	328	P	P	16 02 22.4	+0.7
	0.5nm,0.6s,baz=135,slow=4.5,SNR=3.7						
MKAR	Makanchi Array	79.61	319	P	P	16 03 44.6	+1.2
	0.1nm,0.4s,baz=127,slow=3.8,SNR=3.0						
ZALV	Zalesovo Beam	80.55	327	P	P	16 03 46.5	-1.7
	0.3nm,0.3s,baz=72,slow=6.2,SNR=2.8						
QSPA	South Pole Qui	85.18	180	P	P	16 04 12.2	+0.6
	0.9nm,0.8s,baz=270,slow=8.1,SNR=4.2						
QSPA	South Pole Qui	85.18	180	P	P	16 04 13.6	+2.0
	140nm,1.8s						
TOA0	Torodi Ar. Sit	149.29	288	ePKPbc	PKPbc	16 11 24.2	-0.3
TORD	Torodi Ar. Bea	149.29	288	PKPbc	PKPbc	16 11 24.1	-0.3
	1.0nm,0.4s,baz=72,slow=3.1,SNR=13						

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*ISK **20** 15:59:59.8, 37°.22N×28°.18E, h5^{km}, MD2.7*

*CSEM **20** 16:00:00.8±0.2, 37°.24N×28°.20E, h2^{km}, MD2.7, Error ellipse: s-maj=5.3km s-min=3.8km az=43.0*

*DDA **20** 16:00:00.9, 37°.25N×28°.13E, h7^{km}±6^{km}, Md2.8*

*ISCJB **20** 16:00:01.1±0.5, 37°.23N±0°.03×28°.17E±0°.04, h10^{km}, Error ellipse: s-maj=5.4km s-min=3.4km az=39.2*

ISC 20 16:00:01.1±0.7**, 37°.26N**±0°.04×**28°.22E**±0°.05**, h1^{km}**±10^{km}**, n22, σ0^{s}89**/35**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.13	157	PG	Pg	16 00 02.7	-0.9
YER				eSG	Sg	16 00 05.1	-0.2
YER	Yerkesik	0.13	157	i Pg	Pg	16 00 02.7	-0.9
YER				eSg	Sg	16 00 05.1	-0.2
MLSB	Milas	0.35	277	ePG	Pg	16 00 07.4	-0.5
MLSB				eSG	Sg	16 00 13.9	+1.4
MLSB	Milas	0.35	277	ePg	Pg	16 00 07.4	-0.5
MLSB				eSg	Sg	16 00 13.9	+1.4
AYDN	Tasoluk	0.49	326	i P	Pg	16 00 10.0	-0.5
AYDN				i S	Sg	16 00 17.6	+0.8
AYDN	Tasoluk	0.49	326	i P	Pg	16 00 10.0	-0.4
AYDN				i S	Sg	16 00 17.6	+0.8
DALT	Dalyan (Mudla)	0.59	145	ePG	Pg	16 00 11.6	-0.7
DALT				eSG	Sg	16 00 21.7	+1.7
DALT	Dalyan (Mudla)	0.59	145	ePg	Pg	16 00 11.6	-0.8
DALT				eSg	Sg	16 00 21.7	+1.7
DAT	Datca	0.73	225	ePG	Pg	16 00 13.9	-1.3
DAT	Datca	0.73	225	ePg	Pg	16 00 13.9	-1.3
BODT	Bodrum	0.75	255	ePG	Pg	16 00 14.6	-0.9
BODT				eSG	Sg	16 00 25.9	+0.7
BODT	Bodrum	0.75	255	ePg	Pg	16 00 14.6	-0.9
BODT				eSg	Sg	16 00 25.9	+0.7
FETY	Fethiye	0.93	131	ePG	Pg	16 00 19.5	+0.6
FETY	Fethiye	0.93	131	ePg	Pg	16 00 19.5	+0.6
MANT	Manisa	1.26	12	i P	Pn	16 00 24.4	-1.4
MANT				i S	Sn	16 00 43.8	+0.4
MANT	Manisa	1.26	12	i P	Pn	16 00 24.4	-1.4
MANT				i S	Sn	16 00 43.8	+0.4
KULA	Kula-Manisa	1.30	15	ePN	Pn	16 00 26.3	-0.1
KULA	Kula-Manisa	1.30	15	ePn	Pn	16 00 26.3	-0.1
ELL	Elmali	1.44	110	ePN	Pn	16 00 29.1	+0.8
ELL	Elmali	1.44	110	ePn	Pn	16 00 29.1	+0.8
AKAS	Kas	1.51	132	i P	Pn	16 00 29.3	+0.1
AKAS				i S	Sg	16 00 53.8	+4.2
AKAS	Kas	1.51	132	i P	Pn	16 00 29.3	+0.1

IDC 20 16:07:48.1±3.8, 27°.76N×143°.83E, h94km±35km, mb2.9/3, mb1 3.1/3, mb1mx2.9/20, mbtmp2.9/3, Error ellipse: s-maj=46.5km s-min=30.6km az=103.0, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.61	246	P	Pn	16 08 14.1	-1.3
	8.4nm,0.3s,baz=277,slow=11,SNR=5.8						
CBIJ				S	Sn	16 08 36.4	+0.3
	30nm,0.3s,baz=274,slow=23,SNR=10.0						
WRA	Warramunga Arr	48.30	192	P	P	16 16 20.0	0.0
	0.3nm,0.4s,baz=16,slow=8.9,SNR=4.8						
MKAR	Makanchi Array	51.19	309	P	P	16 16 40.6	-1.1
	0.3nm,0.9s,baz=76,slow=6.1,SNR=2.4						
YKA	Yellowknife Ar	70.86	29	P	P	16 18 55.2	+0.7
	0.1nm,0.5s,baz=289,slow=5.8,SNR=2.7						

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*DJA **20** 16:23:40, 2°.56N×126°.81E, h20km, MLv3.7/4*
*IDC **20** 16:23:42.5±2.1, 1°.72N×126°.05E, h0km, mb3.3/3, mb1 3.6/3, mb1mx3.3/17, mbtmp3.4/3, Error ellipse: s-maj=182.5km s-min=25.5km az=65.0*
*ISCJB **20** 16:23:50.4±2.0, 1°.8N±0°.2×126°.4E±0°.1, h86km±15km, mb3.2/3, Error ellipse: s-maj=40.0km s-min=13.2km az=26.8*
ISC 20 16:23:51.8±2.0, 1°.8N±0°.2×126°.3E±0°.1, h81km±15km, n7, σ1s.11/9, mb3.2/3, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.43	134	P	Pn	16 24 10.6	-5.7
TNTI				S	Sn	16 24 35.4	+0.6
MNI	Manado	1.53	258	P	Pn	16 24 17.1	-0.5
KMSI	Cibinong	2.64	243	P	Pn	16 24 33.1	+0.8
LBMI	Labuha	2.66	154	P	Pn	16 24 31.5	-1.1
LBMI				S	Sn	16 25 10.7	+6.7
WRA	Warramunga Arr	22.96	160	P	P	16 28 47.7	-1.9
	0.6nm,0.5s,mb3.2,baz=338,slow=11,SNR=11						
ASAR	Alice Springs	26.33	164	P	P	16 29 21.9	+1.7
	0.3nm,0.7s,mb2.9,baz=341,slow=10,SNR=7.9						
MKAR	Makanchi Array	58.94	326	P	P	16 33 42.8	+0.1
	0.2nm,0.4s,mb3.5,baz=134,slow=8.1,SNR=5.7						

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*CSEM **20** 16:26:57.2, 37°.76N×26°.88E, h7km, MD2.8*
DDA 20 16:26:57.2, 37°.76N×26°.88E, h7km±2km, Md2.8, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GCAM	G?zelcaml?	0.29	101	*i* P	Pg	16 27 03.2	+0.4
GCAM				*i* S	Sg	16 27 08.9	+2.3
GCAM	G?zelcaml?	0.29	101	*i* P	Pg	16 27 03.2	+0.4
GCAM				*i* S	Sg	16 27 08.9	+2.3
BLCB	Balcova	0.64	11	*e*PG	Pg	16 27 09.5	-0.1
BLCB				*e*SG	Sg	16 27 19.6	+1.7
BODT	Bodrum	0.77	154	*e*PG	Pg	16 27 10.7	-1.4
BODT				*e*SG	Sg	16 27 22.0	0.0

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*ISCJB **20** 16:31:19.2±1.1, 19°.9N±0°.2×38°.67E±0°.07, h10km, mb3.8/4, MS3.6/8, Error ellipse: s-maj=23.8km s-min=9.3km az=175.7*
*IDC **20** 16:31:19.5±2.5, 19°.92N×38°.50E, h0km, mb3.7/7, mb1 3.8/7, mb1mx3.5/23, mbtmp3.7/7, MS3.5/12, Ms1 3.5/12, ms1mx3.3/42, Error ellipse: s-maj=75.0km s-min=26.3km az=161.0*
*CSEM **20** 16:31:20.5±0.7, 19°.87N×38°.70E, h10km, ML3.3, Error ellipse: s-maj=35.0km s-min=14.6km az=174.0*
*NEIC **20** 16:31:20.9±1.9, 19°.88N×38°.46E, h10km, mb4.2/1, Error ellipse: s-maj=58.3km s-min=19.8km az=161.0*
*SGS **20** 16:31:22.2, 19°.79N×38°.69E, h20km*
ISC 20 16:31:20.9±4.2, 19°.9N±0°.2×38°.73E±0°.08, h11km±26km, n34, σ1s.26/27, mb3.8/4, MS3.6/8, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHBS		1.42	39	P	Pn	16 31 43.5	-3.1
LTHS	Al Lith	1.62	76	P	Pn	16 31 48.8	-0.6
LTHS	Al Lith	1.62	76	P	Pn	16 31 48.8	-0.7
LTHS				S	Sn	16 32 08.9	-1.5
FRAS	Faraa	2.04	55	P	Pn	16 31 55.0	-0.1
FRAS	Faraa	2.04	55	P	Pn	16 31 55.0	-0.1
FDAS		2.46	38	P	Pn	16 32 00.9	0.0
FDAS		2.46	38	P	Pn	16 32 00.9	0.0
BLJS	Baljurashi	2.71	88	P	Pn	16 32 05.2	+0.9
BLJS	Baljurashi	2.71	88	P	Pn	16 32 05.2	+0.8
EIL	Elat	10.32	341	LR	LR	16 36 54.1	
	comp=Z,244nm,20.2s,baz=82,slow=33						
ASF	Jabal al Asfar	12.33	353	LR	LR	16 38 24.6	
	comp=Z,101nm,21.6s,baz=16,slow=35						
MMAI	Mount Meron Ar	13.40	348	LR	LR	16 39 06.8	
	comp=Z,97nm,19.4s,baz=165,slow=35						
GNI	Garni	20.83	13	LR	LR	16 44 27.8	
	comp=Z,89nm,19.1s,MS3.2,baz=224,slow=38						
GERES	GERESS Array B	35.19	331	P	P	16 38 14.4	-0.5
	0.5nm,0.7s,baz=116,slow=6.1,SNR=5.0						
GERES	GERESS Array B	35.19	331	P	P	16 38 14.4	-0.5
TORD	Torodi Ar. Bea	36.08	265	P	P	16 38 21.4	-1.5
	1.4nm,1.2s,mb3.8,baz=65,slow=6.6,SNR=3.9						
TORD				LR	LR	16 53 34.2	
	comp=Z,65nm,19.4s,MS3.4,baz=80,slow=37						
TORD	Torodi Ar. Bea	36.08	265	P	P	16 38 21.4	-1.5
TORD				LR	LR	16 53 34.2	
TORD	Torodi Ar. Bea	36.08	265	P	P	16 38 21.4	-1.6
AAK	Ala-Archa	37.65	45	LR	LR	16 57 33.7	
	comp=Z,82nm,19.4s,MS3.5,baz=212,slow=42						
BVAR	Borovoye Array	41.11	29	LR	LR	16 59 02.8	
	comp=Z,75nm,20.8s,MS3.5,baz=234,slow=40						
KURK	Kurchatov	43.93	36	P	P	16 39 28.9	+1.2
	1.2nm,0.7s,mb3.7,baz=244,slow=7.8,SNR=5.5						
KURK				LR	LR	17 00 06.3	
	comp=Z,66nm,20.5s,MS3.5,baz=170,slow=39						
KURK	Kurchatov	43.93	36	P	P	16 39 31.1	+3.4
	4.7nm,1.2s,mb4.1						
KURK				LR	LR	17 00 06.3	
DBIC	Dimbokro	44.27	259	LR	LR	16 56 27.4	
	comp=Z,94nm,20.7s,MS3.7,baz=31,slow=34						
MK31	Makanchi Array	44.41	43	*e*P	P	16 39 33.5	+1.9
MK31	Makanchi Array	44.41	43	*e*P	P	16 39 33.5	+1.9
MKAR	Makanchi Array	44.41	43	P	P	16 39 33.2	+1.6
	1.2nm,0.7s,mb3.8,baz=246,slow=6.3,SNR=14						
MKAR	Makanchi Array	44.41	43	P	P	16 39 33.2	+1.5
MKAR	Makanchi Array	44.41	43	P	P	16 39 33.2	+1.6
ZALV	Zalesovo Beam	48.80	34	P	P	16 40 05.3	-0.6
	0.2nm,0.3s,baz=242,slow=3.1,SNR=3.0						
ZALV				LR	LR	17 04 44.9	
	comp=Z,37nm,20.9s,baz=219,slow=41						
BBTS	Babate	52.84	274	LR	LR	17 05 01.0	
	comp=Z,144nm,18.0s,MS4.1,baz=174,slow=38						
SONM	Songino Array	60.60	46	P	P	16 41 33.3	+1.7
	0.5nm,0.8s,mb3.7,baz=275,slow=8.1,SNR=4.0						
SONM				LR	LR	17 11 27.7	
	comp=Z,112nm,20.0s,MS4.0,baz=207,slow=40						
SONM	Songino Array	60.60	46	P	P	16 41 33.3	+1.7
YKA	Yellowknife Ar	95.21	348	P	P	16 44 43.6	-0.7
	0.2nm,0.7s,baz=20,slow=4.3,SNR=4.5						
YKA	Yellowknife Ar	95.21	348	P	P	16 44 43.7	-0.7

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*ISCJB **20** 16:40:56.1±0.8, 36°.79N±0°.04×71°.2E±0°.1, h129km±22km, Error ellipse: s-maj=18.4km s-min=7.0km az=174.9*
*NEIC **20** 16:40:57.2±0.6, 36°.65N×71°.60E, h35km, mb4.2/4, Error ellipse: s-maj=9.8km s-min=4.9km az=74.0*
ISC 20 16:40:57.0±0.8, 36°.77N±0°.04×71°.2E±0°.1, h135km±17km, n26, σ0s.77/29, 1C-1D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.82	218	*e*P	Pn	16 41 42.0	+0.6
KSH	Kashi	4.68	53	*e*Pn	Pn	16 42 02.1	-3.7
KSH				Sn	Sn	16 42 51.3	-8.1
KSH				smax			
	comp=N,240nm,0.4s						
KSH				smax			
	comp=E,220nm,0.3s						
AML	Almayashu	5.70	19	P	Pn	16 42 19.3	0.0
	SNR=26						
AML	Almayashu	5.70	19	*e*P	Pn	16 42 19.2	-0.2
AML				*e*S	Sn	16 43 24.1	+0.4
THN	Thein Dam	5.73	138	*e*PKP	Pn	16 42 20.4	+0.4
THN				*e*S	Sn	16 43 24.1	-0.6
UCH	Uchtor	6.03	24	P	Pn	16 42 24.3	+0.5
	SNR=6.1						
UCH	Uchtor	6.03	24	*e*P	Pn	16 42 24.5	+0.6
	comp=E,3.3nm,0.5s						
EKS2	Erkin-Say	6.22	18	P	Pn	16 42 26.7	+0.4
	SNR=7.1						
EKS2	Erkin-Say	6.22	18	*e*P	Pn	16 42 26.4	+0.1
	comp=E,3.5nm,0.6s						
KK31	Karatay Array	6.34	356	P	Pn	16 42 26.4	-1.5
	comp=E,1.1nm,0.2s,baz=174,slow=13,SNR=24						
KK31				⇑S	Sx	16 43 33.0	
	comp=E,6.6nm,0.6s,baz=187,slow=26,SNR=4.7						
AAK	Ala-Archa	6.39	23	P	Pn	16 42 29.5	+0.8
	SNR=7.9						
AAK	Ala-Archa	6.39	23	*e*P	Pn	16 42 29.1	+0.5
	comp=E,4.8nm,0.6s						
USP	Ospenovka	6.97	21	P	Pn	16 42 36.0	-0.5
	SNR=5.6						
TKM2	Tokmak 2	7.02	28	*e*P	Pn	16 42 37.8	+0.6
DANN	Dangsing	13.54	125	*e*P	Pn	16 44 03.3	-0.2
	comp=E,9.9nm,0.2s						
KOLN	Koldanda	13.82	127	*e*P	Pn	16 44 05.7	-1.5
	comp=E,4.9nm,0.3s						
GKN	Gorkha	14.35	124	*e*P	Pn	16 44 13.9	+0.1
	comp=E,7.5nm,0.3s						
AB01	Akbulak array	14.91	330	⇓P	Pn	16 44 17.3	-3.4
	comp=E,0.9nm,0.9s,baz=149,slow=12						
KKN	Kakani	14.92	123	*e*P	Pn	16 44 20.2	-0.8
	comp=E,4.4nm,0.4s						
DMN	Daman	14.92	124	*e*P	Pn	16 44 20.8	-0.2
	comp=E,4.6nm,0.4s						
PKI	Pulchoki	15.15	123	*e*P	Pn	16 44 24.0	+0.2
	comp=E,3.8nm,0.2s						
GUN	Gumba	15.25	121	*e*P	Pn	16 44 25.4	+0.3
	comp=E,11nm,0.4s						
JIRN	Jiri	15.62	121	*e*P	Pn	16 44 30.1	+0.4
	comp=E,17nm,0.4s						
RAMN	Ramite	16.35	122	*e*P	Pn	16 44 38.9	+0.2
	comp=E,7.7nm,0.4s						
TAPN	Taplejung	16.87	119	*e*P	Pn	16 44 46.0	+1.0
	comp=E,5.6nm,0.3s						
ODAN	Odare	16.95	121	*e*P	Pn	16 44 46.5	+0.5
	comp=E,6.8nm,0.6s						

IDC 20 16:41:35.9±2.3, 14°.62N×93°.07E, h0km, mb3.2/2, mb1 3.1/3, mb1mx3.0/23, mbtmp3.0/3, ML2.8/1, Error ellipse: s-maj=61.2km s-min=32.7km az=62.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	6.80	55	Pn	Pn	16 43 16.9	-0.2
	0.0nm,0.3s,baz=243,slow=16,SNR=2.5						
CMAR				Sn	Sn	16 44 28.0	-7.2
	0.1nm,0.3s,baz=170,slow=15,SNR=3.2						
MKAR	Makanchi Array	33.32	346	P	P	16 48 15.6	+0.2
	0.3nm,0.7s,baz=179,slow=9.4,SNR=3.5						
ASAR	Alice Springs	55.15	133	P	P	16 51 10.4	0.0
	0.2nm,0.8s,baz=307,slow=6.5,SNR=4.1						

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*ISCJB **20** 17:06:56.3±0.7, 2°.46S±0°.05×100°.31E±0°.07, h15km, Error ellipse: s-maj=10.6km s-min=5.5km az=24.5*
*DJA **20** 17:06:56, 2°.45S×100°.24E, h15km, MLv3.4/4*
ISC 20 17:06:56.8±0.7, 2°.44S±0°.05×100°.27E±0°.07, h15km, n6, σ0s.76/10, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.41	219	P	Pg	17 07 04.4	-0.7
PPSI				S	Sg	17 07 11.7	+1.0
PDSI	Padang	1.53	7	P	Pn	17 07 21.9	-1.7
PDSI				S	Sn	17 07 43.1	-0.1
SDSI	Sungai Dareh	1.89	38	P	Pn	17 07 28.9	+0.3
SDSI				S	Sn	17 07 53.1	+0.9
PPI	Padang Panjang	1.98	4	P	Pn	17 07 29.4	-0.3
PPI				S	Sn	17 07 55.0	+0.8
KSI	Kapahiang	2.61	117	P	Pn	17 07 38.4	-0.1
MDSI	Maura Dua	4.40	118	P	Pn	17 08 02.8	-0.2

IDC 20 17:32:14.6±5.7, 9°.86S×124°.74E, h0km, mb3.9/1, mb1 4.1/4, mb1mx3.6/17, mbtmp3.9/4, ML3.9/3, Error ellipse: s-maj=77.7km s-min=59.4km az=92.0, Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	8.24	174	Pn	Pn	17 34 16.3	+0.8
	1.1nm,0.3s,baz=0.1,slow=8.1,SNR=39						
FITZ				Sn	Sn	17 35 52.3	+2.8
	5.1nm,0.3s,baz=235,slow=15,SNR=14						
WRA	Warramunga Arr	13.65	138	Pn	Pn	17 35 28.3	-1.3
	0.7nm,0.3s,baz=316,slow=15,SNR=26						
WRA				Sn	Sn	17 38 03.0	+0.9
	1.0nm,0.3s,baz=312,slow=24,SNR=8.6						
ASAR	Alice Springs	16.28	149	Pn	Pn	17 36 03.5	-1.3
	0.4nm,0.3s,baz=320,slow=11,SNR=20						
ASAR				Sn	Sn	17 39 08.5	+2.3
	0.5nm,0.3s,baz=314,slow=21,SNR=8.2						
STKA	Stephens Creek	26.91	147	P	P	17 37 57.8	+0.2
	0.5nm,0.3s,baz=122,slow=19,SNR=4.4						

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*IDC **20** 17:34:11.2±5.3, 2°.38N×95°.79E, h0km, mb3.9/5, mb1 3.8/7, mb1mx3.5/25, mbtmp3.7/7, ML3.2/2, Error ellipse: s-maj=108.2km s-min=29.3km az=16.0*
*ISCJB **20** 17:34:15.3±2.2, 2°.4N±0°.3×95°.82E±0°.09, h33km, mb4.3/13, Error ellipse: s-maj=41.3km s-min=9.0km az=13.9*
*NEIC **20** 17:34:16.5±0.9, 2°.36N×95°.94E, h35km, mb4.6/8, Error ellipse: s-maj=22.3km s-min=9.4km az=215.0*
ISC 20 17:34:18.7±1.9, 2°.6N±0°.2×96°.0E±0°.1, h35km, n20, σ0s.93/21, mb4.3/13, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.98	86	Pn	Pn	17 35 02.6	-0.9
	0.7nm,0.3s,baz=347,slow=5.8,SNR=5.1						
PSI				Sn	Sn	17 35 41.3	+3.3
	1.7nm,0.3s,baz=222,slow=16,SNR=4.0						
CMAR	Chiang Mai Arr	16.04	10	Pn	Pn	17 38 01.6	-0.1
	0.1nm,0.3s,baz=199,slow=11,SNR=9.1						
ODAN	Odare	25.49	342	*e*P	P	17 39 44.7	+0.9
	14nm,0.9s,mb4.5						
RAMN	Ramite	25.83	341	*e*P	P	17 39 48.0	+1.2
	15nm,0.6s,mb4.7						
TAPN	Taplejung	25.85	343	*e*P	P	17 39 47.0	-0.1
	9.4nm,0.8s,mb4.4						
JIRN	Jiri	26.62	340	*e*P	P	17 39 54.6	+0.6
	17nm,0.7s,mb4.7						
PKI	Pulchoki	26.81	339	*e*P	P	17 39 56.1	+0.4
GUN	Gumba	26.96	340	*e*P	P	17 39 57.5	+0.5
	20nm,0.9s,mb4.6						
KKN	Kakani	27.06	339	*e*P	P	17 39 58.2	+0.3
	15nm,0.9s,mb4.5						
LSA	Lhasa	27.34	351	*e*P	P	17 40 00.8	+0.3
	3.0nm,0.8s,mb3.9						
GKN	Gorkha	27.48	338	*e*P	P	17 40 01.8	0.0
KOLN	Koldanda	27.68	336	*e*P	P	17 40 03.8	+0.3
	6.4nm,0.6s,mb4.4						
MK31	Makanchi Array	45.61	347	*e*P	P	17 42 35.0	-0.4
MKAR	Makanchi Array	45.61	347	P	P	17 42 35.3	-0.2
	1.0nm,0.5s,mb4.0,baz=162,slow=8.0,SNR=18						
SONM	Songino Array	45.97	10	P	P	17 42 37.5	-0.8
	0.8nm,0.6s,mb3.8,baz=186,slow=9.5,SNR=8.4						
KURK	Kurchatov	50.14	346	P	P	17 43 08.2	-2.2
	0.7nm,0.6s,mb3.9,baz=163,slow=7.0,SNR=6.9						
ZAA0	Zalesovo Array	52.01	352	P	P	17 43 23.5	-0.9
ZALV	Zalesovo Beam	52.01	352	P	P	17 43 23.8	-0.7
	1.0nm,0.5s,mb4.0,baz=184,slow=7.3,SNR=6.8						
BVAR	Borovoye Array	54.54	341	P	P	17 43 41.8	-1.3
	1.2nm,0.9s,mb3.9,baz=145,slow=5.4,SNR=5.0						
CLL	Collm	83.57	321	*e*(P)	P	17 46 45.0	+1.7

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*IDC **20** 17:37:06.0±1.4, 3°.03N×127°.94E, h0km, mb3.8/6, mb1 4.0/6, mb1mx3.7/21, mbtmp3.9/6, Error ellipse: s-maj=100.9km s-min=17.3km az=69.0*
*NEIC **20** 17:37:11.2±1.0, 2°.92N×127°.92E, h35km, mb4.2/2, Error ellipse: s-maj=70.2km s-min=12.3km az=70.0*
*DJA **20** 17:37:13, 2°.72N×127°.34E, h30km, MLv3.9/5*
ISC 20 17:37:07.9±4.3, 2°.89N±0°.06×127°.6E±0°.1, h10km±27km, n15, σ1s.03/17, mb4.0/5, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	2.12	186	P	Pn	17 37 44.0	+0.5
TNTI				S	Sn	17 38 09.1	-0.8
MNI	Manado	3.11	243	P	Pn	17 37 56.7	-0.5
LBMI	Labuha	3.50	182	P	Pn	17 38 04.9	+2.3
LBMI				S	Sn	17 38 45.5	+1.4
KMSI	Cibinong	4.29	238	P	Pn	17 38 12.8	-0.6
APSI	Ampana	7.05	238	P	Pn	17 38 51.0	-0.3
FITZ	Fitzroy Crossi	20.95	185	P	P	17 41 52.1	+0.9
	2.8nm,0.8s,baz=328,slow=9.5,SNR=3.4						
WRAB	Tennant Creek	23.63	164	*e*P	P	17 42 18.4	-1.2
	1.6nm,0.4s,mb3.8						
WRA	Warramunga Arr	23.63	164	P	P	17 42 18.3	-1.4
	1.2nm,0.4s,mb3.7,baz=342,slow=9.3,SNR=8.9						
WRA	Warramunga Arr	23.63	164	P	P	17 42 18.3	-1.4
ASAR	Alice Springs	27.10	167	P	P	17 42 49.5	-1.6
	0.5nm,0.5s,baz=349,slow=7.3,SNR=4.1						
STKA	Stephens Creek	37.04	160	P	P	17 44 18.3	+0.1
	2.7nm,0.9s,mb4.1,baz=343,slow=9.4,SNR=10						
MK31	Makanchi Array	58.74	325	*e*P	P	17 47 06.3	+0.2
MKAR	Makanchi Array	58.74	325	P	P	17 47 06.7	+0.5
	0.5nm,0.4s,mb3.9,baz=119,slow=7.6,SNR=13						
KURK	Kurchatov	62.91	327	P	P	17 47 35.5	+1.0
	0.8nm,0.5s,mb4.2,baz=130,slow=6.2,SNR=8.9						
KURK	Kurchatov	62.91	327	*e*P	P	17 47 35.4	+0.9
	1.3nm,0.4s,mb4.4						

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*IDC **20** 17:50:09.5±1.2, 36°.33N×21°.83E, h0km, mb3.6/8, mb1 3.7/8, mb1mx3.6/24, mbtmp3.6/8, Error ellipse: s-maj=44.9km s-min=22.9km az=140.0*
*NEIC **20** 17:50:10.3, 36°.11N×21°.43E, h23km, ML3.5(ATH), After ATH.*
*ATH **20** 17:50:10.3, 36°.11N×21°.43E, h23km±1km, MD3.8/10, ML3.5*
*ISCJB **20** 17:50:13.0±0.4, 36°.21N±0°.03×21°.49E±0°.04, h59km±6km, mb3.7/6, Error ellipse: s-maj=5.2km s-min=4.2km az=153.3*
*CSEM **20** 17:50:14.6±0.2, 36°.23N×21°.53E, h50km±3km, ML3.8/2, Error ellipse: s-maj=5.2km s-min=4.1km az=63.0*
*THE **20** 17:50:15.7, 36°.29N×21°.76E, h27km±3km, ML3.8/2, Error ellipse: s-maj=5.7km s-min=2.2km az=251.0*
ISC 20 17:50:14.7±0.3, 36°.24N±0°.03×21°.54E±0°.04, h49km±6km, n114, σ1s.06/137, mb3.7/6, 2C-1D, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.68	14	P	Pn	17 50 26.6	-1.5
PYL				S	Sn	17 50 37.1	-0.7
PYL	PYLOS	0.68	14	*e*PN	Pn	17 50 26.6	-1.5
PYL				*e*SN	Sn	17 50 38.2	+0.4
PYL	PYLOS	0.68	14	*e*Pn	Pn	17 50 26.6	-1.5
PYL				S	Sn	17 50 37.1	-0.7
PYL				*e*Sn	Sn	17 50 38.2	+0.4
ITM	Ithomi	0.99	18	*e*PN	Pn	17 50 31.6	-0.7
ITM	Ithomi	0.99	18	*e*Pn	Pn	17 50 31.6	-0.7
VLI	Veliai	1.22	66	*e*PN	Pn	17 50 36.0	+0.6
VLI	Veliai	1.22	66	*e*Pn	Pn	17 50 36.0	+0.6
VLX	Vlachokerasia	1.32	30	*e*PN	Pn	17 50 36.8	+0.1
VLX				*e*SN	Sn	17 50 57.1	+4.0
VLX	Vlachokerasia	1.32	30	*e*Pn	Pn	17 50 36.8	+0.1
VLX				*e*Sn	Sn	17 50 57.1	+4.0
GUR	Goura	1.81	20	*e*PN	Pn	17 50 44.9	+1.5
GUR	Goura	1.81	20	*e*Pn	Pn	17 50 44.9	+1.5
RLS	Riolos of Patr	1.82	358	*e*PN	Pn	17 50 44.3	+0.8
RLS	Riolos of Patr	1.82	358	*e*Pn	Pn	17 50 44.3	+0.8
LAKA	Lakka	2.03	10	P	Pn	17 50 47.7	+1.3
LAKA	Lakka	2.03	10	P	Pn	17 50 47.7	+1.3
VLS	Valsamata	2.08	339	*e*PN	Pn	17 50 47.5	+0.4
VLS	Valsamata	2.08	339	*e*Pn	Pn	17 50 47.5	+0.4
LTK	Loutraki	2.12	32	P	Pn	17 50 47.4	-0.2
LTK				S	Sn	17 51 11.3	-1.4
LTK	Loutraki	2.12	32	P	Pn	17 50 47.4	-0.2
LTK				S	Sn	17 51 11.3	-1.4
TRIZ	Trizonia	2.17	11	P	Pn	17 50 50.1	+1.8
TRIZ	Trizonia	2.17	11	P	Pn	17 50 50.1	+1.8
NAIG	Nisos Aigina	2.18	45	*e*PN	Pn	17 50 49.6	+1.2
NAIG	Nisos Aigina	2.18	45	*e*Pn	Pn	17 50 49.6	+1.2
VAM	Vamos	2.31	110	*e*PN	Pn	17 50 50.0	-0.2
VAM	Vamos	2.31	110	*e*Pn	Pn	17 50 50.0	-0.2
ATH	Athens Observa	2.46	44	*e*PN	Pn	17 50 53.8	+1.6
ATH	Athens Observa	2.46	44	*e*Pn	Pn	17 50 53.8	+1.6
PTL	Penteli	2.59	45	*e*PN	Pn	17 50 55.2	+1.1
PTL	Penteli	2.59	45	*e*Pn	Pn	17 50 55.2	+1.1
LKR	Lokris	2.67	25	P	Pn	17 50 54.1	-1.1
LKR				S	Sn	17 51 25.1	-1.3
LKR	Lokris	2.67	25	P	Pn	17 50 55.3	+0.1
LKR	Lokris	2.67	25	P	Pn	17 50 55.3	+0.1
LKR				S	Sn	17 51 25.1	-1.3
EVR	Evrytania	2.69	4	*e*PN	Pn	17 50 56.0	+0.6
EVR	Evrytania	2.69	4	*e*Pn	Pn	17 50 56.0	+0.6
AGG	Agios Georgios	2.85	12	P	Pn	17 50 58.3	+0.6
AGG				S	Sn	17 51 31.9	+1.2
AGG	Agios Georgios	2.85	12	P	Pn	17 50 58.3	+0.6
AGG				S	Sn	17 51 31.9	+1.2
IDI	Anoyia	2.88	108	Pn	Pn	17 50 57.8	-0.2
	0.8nm,0.3s,baz=130,slow=23,SNR=5.1						
IDI				Sn	Sn	17 51 26.4	-5.1
	5.2nm,0.3s,baz=293,slow=19,SNR=6.0						
IDI				Lg		17 51 35.5	
	4.6nm,0.3s,baz=307,slow=19,SNR=4.1						
IDI	Anoyia	2.88	108	Pn	Pn	17 50 57.8	-0.3
IDI				Sn	Sn	17 51 26.4	-5.1
SIVA	Sivas	2.92	114	P	Pn	17 50 59.6	+0.9
SIVA	Sivas	2.92	114	P	Pn	17 50 59.6	+0.9
THR6	Thira Island,	3.12	87	P	Pn	17 51 00.6	-0.7
THR6	Thira Island,	3.12	87	P	Pn	17 51 00.6	-0.7
THL	Klokotos Trika	3.34	6	P	Pn	17 51 05.2	+0.8
THL	Klokotos Trika	3.34	6	P	Pn	17 51 05.2	+0.8
LAST	Lasithi	3.38	107	P	Pn	17 51 03.8	-1.1
LAST	Lasithi	3.38	107	P	Pn	17 51 03.8	-1.1
XOR	Xorichti	3.39	22	P	Pn	17 51 03.9	-1.1
XOR	Xorichti	3.39	22	P	Pn	17 51 03.9	-1.1
AOS	Alonnisos	3.47	32	P	Pn	17 51 05.1	-1.0
AOS	Alonnisos	3.47	32	P	Pn	17 51 05.1	-1.0
MEV	Metsovon	3.55	356	P	Pn	17 51 09.5	+2.2
MEV	Metsovon	3.55	356	P	Pn	17 51 09.5	+2.2
LIT	Litokhoron	3.93	11	P	Pn	17 51 12.7	+0.2
LIT	Litokhoron	3.93	11	P	Pn	17 51 12.7	+0.2
ZKR	Zakros	3.97	105	P	Pn	17 51 13.4	+0.5
ZKR	Zakros	3.97	105	P	Pn	17 51 13.4	+0.5
PAIG	Paliouri	4.05	24	P	Pn	17 51 13.1	-1.0
PAIG	Paliouri	4.05	24	P	Pn	17 51 13.1	-1.0
KZN	Kozani	4.07	2	P	Pn	17 51 16.5	+2.2
KZN	Kozani	4.07	2	P	Pn	17 51 16.5	+2.2
PLG	Polygyros	4.39	19	P	Pn	17 51 21.1	+2.3
PLG	Polygyros	4.39	19	P	Pn	17 51 21.1	+2.3
HORT	Hortiatis	4.52	15	P	Pn	17 51 20.0	-0.6
HORT	Hortiatis	4.52	15	P	Pn	17 51 20.0	-0.6
LTBQ	Tobruq	4.61	154	*i* P	Pn	17 51 22.8	+1.0
	SNR=76						
LTBQ				*e*S	Sn	17 52 13.5	-0.6
	12nm,0.7s,SNR=76						
KARP	Karpathos	4.61	97	P	Pn	17 51 22.1	+0.3
KARP	Karpathos	4.61	97	P	Pn	17 51 22.1	+0.3
BIA	Bitola	4.78	358	*e*Pn	Pn	17 51 23.8	-0.3
BIA				*e*Sg	Sn	17 52 17.6	-0.6
BIA	Bitola	4.78	358	*e*Pn	Pn	17 51 23.8	-0.3
TIP	Timpagrande	4.80	309	*e*P	Pn	17 51 24.3	-0.1
TIP				*e*S	Sn	17 52 16.8	-1.9
TIP	Timpagrande	4.80	309	*e*P	Pn	17 51 24.3	-0.1
TIP				*e*S	Sn	17 52 16.8	-1.8
CEL	Celeste	4.94	296	*e*Pn	Pn	17 51 27.2	+0.9
CEL	Celeste	4.94	296	*e*Pn	Pn	17 51 27.2	+0.9
KNT	Kendrikon	5.03	12	P	Pn	17 51 27.5	-0.1
KNT	Kendrikon	5.03	12	P	Pn	17 51 27.5	-0.1
KRUS	Krusevo	5.13	358	*e*Pn	Pn	17 51 28.3	-0.7
KRUS				*e*Sg	Sn	17 52 23.1	-3.7
KRUS	Krusevo	5.13	358	*e*Pn	Pn	17 51 28.2	-0.7
SRS	Serrai	5.13	18	P	Pn	17 51 28.6	-0.3
SRS	Serrai	5.13	18	P	Pn	17 51 28.6	-0.3
TIR	Tirane	5.27	346	*e*Pn	Pn	17 51 27.9	-2.9
TIR	Tirane	5.27	346	*e*Pn	Pn	17 51 27.9	-2.9
LJBD	Adjabya	5.42	192	*i* P	Pn	17 51 32.7	-0.3

	SNR=70						
LJBD				*e*S	Sn	17 52 32.7	-1.4
	23nm,0.4s,SNR=70						
TAR1	Taranto	5.43	323	*e*Pn	Pn	17 51 32.9	-0.2
PE1	Pezze di Greco	5.59	326	*e*Pn	Pn	17 51 34.9	-0.3
WDD	Wield Dalam	5.70	268	*e*Pn	Pn	17 51 37.1	+0.4
WDD	Wield Dalam	5.70	268	*e*Pn	Pn	17 51 37.1	+0.4
LTRZ	Laterza	5.72	321	Pn	Pn	17 51 36.7	-0.3
	31nm,0.4s						
LTRZ	Laterza	5.72	321	Pn	Pn	17 51 36.7	-0.3
	31nm,0.4s						
VAE	Valguarnera	5.85	284	Pn	Pn	17 51 43.6	+4.8
	1.0nm,0.3s,baz=72,slow=20,SNR=2.0						
VAE				Sn	Sn	17 52 45.8	+1.3
	2.5nm,0.3s,baz=230,slow=22,SNR=8.6						
VAE	Valguarnera	5.85	284	Sn	Sn	17 52 45.8	+1.3
CUC	Castrocucco	5.87	311	*e*Pn	Pn	17 51 37.6	-1.4
	14nm,0.8s						
CUC	Castrocucco	5.87	311	*e*Pn	Pn	17 51 37.6	-1.4
	14nm,0.8s						
SG1	Sgolgore (BA)	5.97	322	*e*Pn	Pn	17 51 41.0	+0.6
BARS	Barje	6.58	2	⇑*i*Pn	Pn	17 51 48.2	-0.5
STON	Ston	7.26	337	*e*Pn	Pn	17 51 52.7	-5.4
STON				Sn	Sn	17 53 12.8	-6.3
GRUS	Gruza	7.67	356	⇑*i*Pn	Pn	17 52 01.4	-2.3
BBLS	Lazići	7.80	349	⇓*i*Pn	Pn	17 52 03.9	-1.5
NVLJ	Novalja	9.75	331	*e*Pn	Pn	17 52 26.2	-6.0
NVLJ				Sn	Sn	17 54 12.8	-7.4
TORD	Torodi Ar. Bea	29.10	223	P	P	17 56 14.0	+3.2
	0.3nm,0.7s,baz=35,slow=8.8,SNR=2.8						
ARCES	ARCESS Array B	33.43	3	P	P	17 56 48.9	+0.5
	2.6nm,1.0s,mb4.1,baz=190,slow=10,SNR=7.5						
ARCES	ARCESS Array B	33.43	3	P	P	17 56 48.8	+0.5
BVAR	Borovoye Array	37.78	48	P	P	17 57 25.5	-0.3
	0.3nm,0.5s,mb3.3,baz=258,slow=7.4,SNR=3.6						
BVAR	Borovoye Array	37.78	48	P	P	17 57 25.5	-0.3
KURK	Kurchatov	42.81	52	P	P	17 58 06.4	-1.0
	0.3nm,0.4s,mb3.3,baz=277,slow=8.6,SNR=3.4						
MK31	Makanchi Array	45.65	57	*e*P	P	17 58 29.8	-0.4
MK31	Makanchi Array	45.65	57	*e*P	P	17 58 29.8	-0.4
MKAR	Makanchi Array	45.65	57	P	P	17 58 29.8	-0.4
	0.5nm,0.4s,mb3.8,baz=270,slow=7.4,SNR=16						
ZALV	Zalesovo Beam	46.40	47	P	P	17 58 35.2	-0.8
	0.7nm,0.3s,mb4.0,baz=262,slow=8.1,SNR=4.7						
ZALV	Zalesovo Beam	46.40	47	P	P	17 58 35.2	-0.9
SONM	Songino Array	61.07	50	P	P	18 00 23.4	0.0
	0.3nm,0.8s,mb3.5,baz=258,slow=7.2,SNR=3.5						
SONM	Songino Array	61.07	50	P	P	18 00 23.4	+0.1
YKA	Yellowknife Ar	75.49	341	P	P	18 01 55.0	+1.7
	0.0nm,0.3s,baz=41,slow=5.3,SNR=4.1						
YKA	Yellowknife Ar	75.49	341	P	P	18 01 55.0	+1.7
YKA	Yellowknife Ar	75.49	341	P	P	18 01 55.0	+1.7

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*NEIC **20** 17:54:41.4, 32°.45N×115°.30W, h6^{km}, ML3.1(PAS), After PAS.*

ECX 20 17:54:39.6±0.2**, 32°.44N×115°.37W, h6**^{km}**, MD3.1, ML3.3, 1C-2D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.06	114	*e*P	Pg	17 54 44.8	+3.7
CPBX				*e*S	Sg	17 54 47.0	+4.8
CPBX				⇓*e*		17 54 47.3	
	comp=N,40µm,0.4s						
SGL	Mount Signal	0.37	305	*e*P	Pg	17 54 49.0	+2.3
SNR	Schaffner Ranc	0.42	352	*e*P	Pg	17 54 49.9	+2.1
EMX	El Mayor	0.46	167	*e*P	Pg	17 55 03.4	+15
EMX				*e*S	Sg	17 55 11.6	+17
EMX				⇑*e*		17 55 13.1	
	comp=N,2µm,0.7s						
COK	Cook Ranch	0.51	323	*e*P	Pg	17 54 51.4	+2.0
YUH	Yuha Desert	0.51	294	*e*P	Pg	17 54 51.8	+2.3
CRR	Carrizo Plain	0.68	311	*e*P	Pg	17 54 54.6	+2.0
RDX	Rancho Dawling	0.71	224	*e*P	Pg	17 54 56.0	+2.8
RDX				*e*S	Sg	17 55 08.1	+5.7
RDX				⇓*e*		17 55 09.4	
	comp=N,1µm,0.5s						
GLA	Glamis	0.76	37	*e*P	Pg	17 54 51.1	-3.1
BAR	Barrett	1.13	283	*e*Pn	Pn	17 54 59.5	-2.4
BAR				*e*Pg	Pg	17 55 02.8	+1.5
BAR				*e*Sn	Sn	17 55 16.8	-0.9
PFO	Pinyon Flat Ob	1.48	322	*e*Pn	Pn	17 55 04.8	-2.0
MWC	Mount Wilson	2.87	309	*e*Pg	Pg	17 55 35.9	+1.3

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*ISCJB **20** 17:56:13.7±1.5, 23°.14S±0°.07×178°.93W±0°.08, h322^{km}±16^{km}, mb4.0/24, Error ellipse: s-maj=13.9km s-min=8.8km az=43.5*

*NEIC **20** 17:56:16.3±1.4, 23°.03S×178°.90W, h341^{km}±14^{km}, mb4.2/6, Error ellipse: s-maj=14.4km s-min=9.3km az=145.0*

*IDC **20** 17:56:17.4±1.9, 23°.08S×178°.95W, h346^{km}±17^{km}, mb3.6/15, mb1 3.9/17, mb1mx3.8/21, mbtmp3.7/17, Error ellipse: s-maj=16.2km s-min=12.4km az=132.0*

ISC 20 17:56:15.5±1.5**, 23°.06S**±0°.09×**178°.93W**±0°.08**, h324**^{km}±16^{km}**, n93, σ0^{s}97**/44**, mb4.0**/23**, 6C-5D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	11.35	38	P	Pn	17 58 50.3	+0.5
	4.9nm,0.3s,baz=219,slow=22,SNR=5.0						
AFI				S	S	18 00 49.6	-7.1
	3.7nm,0.3s,baz=72,slow=17,SNR=4.7						
AFI	Afiamalu	11.35	38	*e*Pn	Pn	17 58 50.3	+0.4
AFI				*e*S	S	18 00 46.8	-10
OUZ	Omahuta	13.76	207	*e*P	Pn	17 59 20.2	+1.8
URZ	Urewera	15.53	192	P	P	17 59 36.3	-0.6
	4.1nm,0.3s,baz=57,slow=3.2,SNR=19						
URZ				S	S	18 02 17.6	-6.4
	4.9nm,0.3s,baz=105,slow=20,SNR=16						
URZ	Urewera	15.53	192	*e*P	P	17 59 35.6	-1.3
URZ				S	S	18 02 17.6	-6.4
RAR	Rarotonga	17.84	88	P	P	17 59 59.7	-2.4
	2.6nm,0.3s,baz=170,slow=23,SNR=3.8						
RPZ	Rata Peaks	22.20	200	P	P	18 00 44.6	-0.6
	5.4nm,0.5s,mb4.0,baz=230,slow=3.4,SNR=3.9						
RPZ	Rata Peaks	22.20	200	*e*P	P	18 00 44.9	-0.3
ARMA	Armidale	27.25	248	*e*P	P	18 01 32.4	+1.7
EIDS	Eidsvold	27.43	259	*e*P	P	18 01 33.8	+1.5
CMSA	Cobar Meteorol	32.45	247	*e*P	P	18 02 16.5	+0.2
CTA	Charters Tower	32.47	269	⇑*i*P	P	18 02 17.5	+0.9
	5.3nm,0.3s,mb4.2						
CTA	Charters Tower	32.47	269	P	P	18 02 17.6	+0.9
	8.2nm,0.4s,mb4.3,baz=98,slow=11,SNR=26						
CTAO	Charters Tower	32.47	269	*e*P	P	18 02 17.3	+0.7
	7.3nm,0.4s,mb4.3						
STKA	Stephens Creek	35.95	247	⇓*i*P	P	18 02 46.6	+0.4
	2.3nm,0.4s,mb3.8						
STKA	Stephens Creek	35.95	247	P	P	18 02 45.7	-0.5
	2.7nm,0.4s,mb3.8,baz=86,slow=8.9,SNR=18						
STKA				PcP	PcP	18 05 05.0	-0.1
	1.6nm,0.7s,baz=69,slow=8.2,SNR=4.5						
BBOO	Buckleboo	40.68	246	*e*P	P	18 03 24.2	-1.1
	3.3nm,0.3s,mb4.0						
ASAR	Alice Springs	43.15	259	P	P	18 03 44.6	-0.6
	4.3nm,0.7s,mb3.7,baz=96,slow=6.4,SNR=117						
ASAR				PcP	PcP	18 05 27.9	-0.4
	1.3nm,0.8s,baz=107,slow=3.6,SNR=7.1						
ASAR				ScP	ScP	18 08 46.1	-2.0
	0.4nm,0.9s,baz=117,slow=4.1,SNR=4.9						
WB2	Warramunga Arr	43.44	265	*e*P	P	18 03 46.4	-1.2
WRAB	Tennant Creek	43.45	265	*e*P	P	18 03 46.4	-1.2
	3.4nm,0.3s,mb4.0						
WRA	Warramunga Arr	43.46	265	P	P	18 03 46.7	-1.0
	3.6nm,0.3s,mb4.0,baz=90,slow=5.9,SNR=397						
WRA				ScP	ScP	18 08 44.0	-5.3
	0.6nm,0.7s,baz=98,slow=3.8,SNR=4.8						
KAKA	Kakadu	47.23	274	⇑*i*P	P	18 04 15.8	-1.3
	7.4nm,0.6s,mb4.1						
KAKA	Kakadu	47.23	274	*e*P	P	18 04 15.7	-1.4
KNA	Kununurra	49.66	269	⇑*i*P	P	18 04 34.8	-0.7
	11nm,0.4s,mb4.4						
FITZ	Fitzroy Crossi	51.88	265	P	P	18 04 51.8	-0.1
	1.7nm,0.5s,mb3.7,baz=47,slow=19,SNR=8.2						
FITZ	Fitzroy Crossi	51.88	265	*e*P	P	18 04 51.5	-0.4
VNDA	Vanda	55.30	185	P	P	18 05 16.4	+0.8
	3.0nm,0.9s,mb3.6,baz=24,slow=10,SNR=3.9						
QSPA	South Pole Qui	67.02	180	*e*P	P	18 06 33.8	+0.2
	7.5nm,0.9s,mb4.4						
MJAR	Matsushiro Arr	71.77	325	P	P	18 07 03.0	-0.1
	1.0nm,0.5s,mb3.8,baz=160,slow=6.2,SNR=4.9						
KSRS	Korea Array	78.25	319	P	P	18 07 40.5	+0.7
	0.8nm,0.7s,mb3.6,baz=123,slow=5.1,SNR=4.5						
PETK	Petropavlovsk-	78.52	346	P	P	18 07 40.9	0.0
	8.8nm,0.9s,mb4.5,baz=213,slow=0.7,SNR=8.8						
NVAR	Mina Array Bea	83.47	44	P	P	18 08 08.0	+0.8
	1.0nm,0.6s,mb3.8,baz=222,slow=8.5,SNR=6.8						
NVAR	Mina Array Bea	83.47	44	P	P	18 08 08.0	+0.8
CN2	Changchun	83.81	323	*e*P	P	18 08 08.9	+0.1
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
HLID	Hailey	88.82	41	*e*P	P	18 08 33.6	+0.7
	comp=Z,1.3nm,0.8s,mb3.8						
TRF	Thorofare Moun	89.12	12	*e*P	P	18 08 32.5	-1.4
	comp=Z,11nm,0.7s,mb4.8						
TXAR	Lajitas Array	89.15	58	P	P	18 08 35.8	+0.9
	comp=Z,0.2nm,0.8s,mb3.0,baz=225,slow=3.4,SNR=3.6						
CMAR	Chiang Mai Arr	90.17	290	P	P	18 08 41.1	+1.3
	comp=Z,2.3nm,0.9s,mb4.1,baz=131,slow=2.6,SNR=14						
BW06	Boulder Array	91.40	44	*e*P	P	18 08 45.1	+0.1
	comp=Z,0.7nm,0.7s,mb3.7						
PDAR	Pinedale Array	91.40	44	P	P	18 08 45.2	+0.2
	comp=Z,0.8nm,0.7s,mb3.8,baz=186,slow=2.5,SNR=8.0						
YKA	Yellowknife Ar	99.19	25	P	Pdif	18 09 20.6	+0.2
	comp=Z,0.2nm,0.7s,baz=247,slow=4.4,SNR=4.0						
MKAR	Makanchi Array	112.31	313	PKiKP	PKiKP	18 14 10.0	-2.7
	comp=Z,0.3nm,0.5s,baz=198,slow=1.2,SNR=6.2						
BVAR	Borovoye Array	120.46	319	PKP	PKPdf	18 14 25.9	-2.3
	comp=Z,0.9nm,0.6s,baz=102,slow=2.2,SNR=6.7						
BOSA	Boshof	123.59	206	PKP	PKPdf	18 14 35.6	+0.5
	comp=Z,1.2nm,0.8s,baz=354,slow=9.5,SNR=4.3						
SPITS	Spitsbergen Ar	124.35	356	PKP	PKPdf	18 14 32.6	-2.5
	comp=Z,7.0nm,0.9s,baz=130,slow=3.0,SNR=5.0						
AKTK	Aktyubinsk	128.37	317	PKP	PKPdf	18 14 42.3	-1.2
AKTO	Aktyubinsk	128.37	317	PKP	PKPdf	18 14 42.3	-1.2
	comp=Z,0.5nm,0.5s,baz=158,slow=2.5,SNR=3.9						
ARCES	ARCESS Array B	131.26	349	PKP	PKPdf	18 14 46.2	-2.2
	comp=Z,8.9nm,1.1s,baz=8.7,slow=1.6,SNR=10						
ARCES	ARCESS Array B	131.26	349	PKP	PKPdf	18 14 46.2	-2.2
NOA	NORSAR Array B	141.40	352	PKhKP		18 15 01.0	
	comp=Z,1.3nm,0.8s,baz=358,slow=8.4,SNR=4.3						
AKASG	Malin Array Be	144.79	329	PKP	PKPdf	18 15 11.2	-2.4
	comp=Z,4.8nm,0.5s,baz=42,slow=4.2,SNR=39						
AKBB	Malin Array Si	144.79	329	*e*PKP	PKPdf	18 15 10.8	-2.8
KIEV	Kiev	144.80	329	*e*PKP	PKPdf	18 15 11.0	-2.7
ASF	Jabal al Asfar	147.11	294	PKPbc	PKPbc	18 15 20.5	-0.3
	comp=Z,3.4nm,0.7s,baz=331,slow=2.8,SNR=6.4						
BRTR	Keskin Array B	147.84	309	PKPbc	PKPbc	18 15 21.2	-1.4
	comp=Z,1.9nm,0.6s,baz=140,slow=4.2,SNR=10						
MMAI	Mount Meron Ar	148.24	296	PKPbc	PKPbc	18 15 23.5	-0.3
	comp=Z,4.1nm,0.5s,baz=82,slow=6.3,SNR=10						
BUR08	Bucovina Ar. S	148.80	328	*e*PKPbc	PKPbc	18 15 24.7	0.0
BURAR	Bucovina Array	148.81	328	⇓*i*P	PKPbc	18 15 24.9	+0.2
EIL	Elat	149.02	290	PKPbc	PKPbc	18 15 24.9	-0.9
	comp=Z,3.6nm,0.5s,baz=248,slow=5.1,SNR=4.3						
KOLS	Kolonicke sedl	149.21	332	*e*PKP	PKPbc	18 15 25.2	-0.5
STHS	Stebnicka Huta	149.27	334	*e*PKP	PKPbc	18 15 25.8	0.0
CRVS	Cervenica-Dubn	149.58	333	*e*PKP	PKPbc	18 15 24.1	-2.5
MLR	Muntele Rosu	149.84	324	⇓*i*P	PKPbc	18 15 26.0	-1.3
KECS	Kecovo	150.31	333	*e*PKP	PKPab	18 15 33.6	-2.3
CLL	Collm	150.32	345	⇑*i*PKPbc	PKPbc	18 15 26.8	-1.5
	comp=Z,7.0nm,0.8s						
CLL				*i* PKPab	PKPab	18 15 34.5	-1.3
	comp=Z,4.0nm,0.6s						
VOIR		150.36	325	⇑*i*P	PKPbc	18 15 28.3	-0.2
MORC	Moravsky Berou	150.36	338	⇑*i*P	PKPbc	18 15 28.3	-0.1
BRG	Berggiesshubel	150.49	343	*e*PKP	PKPbc	18 15 27.4	-1.2
	comp=Z,5.8nm,0.5s						
BRG				*e*		18 15 28.5	
	comp=Z,5.8nm,0.6s						
BRG				*e*		18 15 36.1	
	comp=Z,4.8nm,0.7s						
VYHS	Vyhne	150.96	335	*e*PKP	PKPbc	18 15 28.8	-1.0
GZR	Gura Zlata	151.56	327	⇓*i*P	PKPbc	18 15 29.5	-1.8
BZS	Buzias	151.98	328	⇓*i*P	PKPbc	18 15 30.5	-1.8
KHC	Kasperske Hory	152.17	342	*e*PKPbc	PKPbc	18 15 31.0	-1.6
KHC				*e*PKPab	PKPab	18 15 43.5	-0.1
GERES	GERESS Array B	152.39	342	PKPbc	PKPbc	18 15 31.3	-1.7
	comp=Z,0.4nm,0.4s,baz=29,slow=3.0,SNR=4.3						
GERES				PKPab	PKPab	18 15 44.0	-0.5
	comp=Z,0.6nm,0.6s,baz=35,slow=4.9,SNR=4.7						
BAIF	Baives	152.94	356	*e*PKP2	PKPab	18 15 46.2	-0.6
	comp=Z,5.2nm,0.6s						
FLN	La Foliniere	154.32	2	*e*PKP2	PKPab	18 15 51.8	-0.9
MEZF	Maizieres J'vi	154.41	354	*e*PKP2	PKPab	18 15 52.7	-0.4
	comp=Z,7.9nm,0.6s						
LDF	La Druitiere	154.50	2	*e*PKP2	PKPab	18 15 52.4	-1.1
ROSF	Rostrenen	154.54	7	*e*PKP2	PKPab	18 15 52.4	-1.3
GRR	Gorron	154.68	3	*e*PKP2	PKPab	18 15 53.5	-0.8
	comp=Z,6.7nm,0.9s						
SGMF	Saint Gilles	154.69	6	*e*PKP2	PKPab	18 15 53.8	-0.5
	comp=Z,9.0nm,0.7s						
HAU	Haudompre	154.75	352	*e*PKP2	PKPab	18 15 53.9	-0.7
	comp=Z,2.3nm,0.4s						
LOR	Lormes	155.74	355	*e*PKP2	PKPab	18 15 58.1	-0.8
	comp=Z,2.4nm,0.5s						
SSF	Saint Saulge	155.97	356	*e*PKP2	PKPab	18 15 59.3	-0.5
	comp=Z,9.5nm,0.9s						
CABF	La Chapelle	156.16	351	*e*PKP2	PKPab	18 16 00.3	-0.4
AVF	Avril sur Loir	156.25	356	*e*PKP2	PKPab	18 16 00.2	-0.9
SMF	Signal de Mont	156.36	355	*e*PKP2	PKPab	18 16 00.9	-0.6
	comp=Z,6.0nm,0.7s						
TCF	Toulx Ste Croi	156.81	358	*e*PKP2	PKPab	18 16 02.6	-0.9
LPL	La Plagne	157.13	350	*e*PKP2	PKPab	18 16 04.4	-0.5
LPG	La Plagne	157.14	350	*e*PKP2	PKPab	18 16 04.7	-0.3
ORIF	Oris-en-Rattie	157.84	351	*e*PKP2	PKPab	18 16 08.0	0.0
	comp=Z,8.0nm,0.8s						
LFF	La Frestale	158.17	1	*e*PKP2	PKPab	18 16 09.0	-0.4
	comp=Z,6.9nm,0.5s						
DBIC	Dimbokro	162.73	160	PKP	PKPdf	18 15 39.5	-0.2
	comp=Z,2.7nm,0.7s,baz=95,slow=13,SNR=4.0						
TORD	Torodi Ar. Bea	170.12	184	PKP	PKPdf	18 15 44.8	-0.5
	comp=Z,1.1nm,0.8s,baz=326,slow=0.8,SNR=5.8						
TORD				PKPab	PKPab	18 17 01.3	-1.3
	comp=Z,0.8nm,0.6s,baz=170,slow=4.0,SNR=5.1						

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*SGS **20** 17:57:22.6, 28°.79N×34°.23E, h5^{km}*

*ISCJB **20** 17:57:31.3±0.9, 28°.75N±0°.03×34°.8E±0°.1, h0^{km}, Error ellipse: s-maj=15.2km s-min=4.2km az=174.3*

*CSEM **20** 17:57:33.1±0.5, 29°.15N×35°.81E, h2^{km}, ML2.5, Error ellipse: s-maj=11.6km s-min=3.7km az=79.0, Mining explosion.*

*GII **20** 17:57:35.9±0.0, 29°.47N×35°.74E, h1^{km}, Md2.0/2, Mining explosion.*

ISC 20 17:57:32.0±0.8**, 28°.74N**±0°.03×**34°.8E**±0°.1**, h0**^{km}**, n15, σ0^{s}81**/20**, Egypt**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BDAS	Al Bad'	0.39	142	P	Pg	17 57 39.4	-0.1
RSHS		0.44	184	S	Sg	17 57 47.0	+0.8
RSHS		0.44	184	P	Pg	17 57 36.5	-3.9
JLOS		0.58	90	P	Pg	17 57 42.9	-0.3
JLOS		0.58	90	P	Pg	17 57 42.9	-0.3
EIL	Elat	0.93	7	Pg	Pg	17 57 50.4	+0.5
EIL				Sg	Sg	17 58 03.0	+1.0
EIL	Elat	0.93	7	Pg	Pg	17 57 50.4	+0.5
EIL				Sg	Sg	17 58 03.0	+1.0
MBRI	Mt Berech	1.05	4	Pg	Pg	17 57 52.6	+0.4
MBRI				Sg	Sg	17 58 06.6	+0.7
MBRI	Mt Berech	1.05	4	Pg	Pg	17 57 52.6	+0.4
MBRI				Sg	Sg	17 58 06.6	+0.7
KRMI	Paran Flat	1.37	356	Sg	Sg	17 58 15.8	-0.5
KRMI	Paran Flat	1.37	356	Sg	Sg	17 58 15.8	-0.5
PRNI	Paran	1.61	5	Pg	Pn	17 58 00.1	-1.7
PRNI				Sg	Pg	17 58 12.8	+10
PRNI	Paran	1.61	5	Pg	Pn	17 58 00.1	-1.7
KZIT	Kziot	2.19	350	Sn	Sn	17 58 36.9	-0.6
KZIT	Kziot	2.19	350	Sn	Sn	17 58 36.9	-0.6

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*BJI **20** 17:59:51.0, 47°.56N×82°.34E, h10^{km}, ML3.5/5*

*ISCJB **20** 17:59:54.2±0.7, 47°.31N±0°.02×82°.35E±0°.09, h10^{km}, Error ellipse: s-maj=9.4km s-min=2.9km az=167.6*

*NNC **20** 17:59:54.5±0.3, 47°.30N×82°.44E, h0^{km}, mb3.7, mpv3.2, Error ellipse: s-maj=5.8km s-min=1.2km az=88.0*

*NEIC **20** 17:59:57.1±0.9, 47°.24N×82°.45E, h10^{km}, Error ellipse: s-maj=15.9km s-min=9.8km az=126.0*

ISC 20 17:59:54.7±0.9**, 47°.27N**±0°.02×**82°.6E**±0°.1**, h10**^{km}**, n25, σ0^{s}72**/42**, 25C-12D, Kazakhstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MK05	Makanchi Array	0.53	205	⇓P	Pg	18 00 04.7	-0.3
MK05				⇑S	Sg	18 00 12.0	+0.1
MK31	Makanchi Array	0.53	205	⇑P	Pg	18 00 04.7	-0.3
	36nm,0.2s,baz=36,slow=17,SNR=9320						
MK31				⇓S	Sg	18 00 12.0	+0.1
	130nm,0.2s,baz=21,slow=18,SNR=49						
MK31	Makanchi Array	0.53	205	⇓*i*Pg	Pg	18 00 04.7	-0.3
MK31				*e*Sg	Sg	18 00 12.0	+0.1
MK06	Makanchi Array	0.54	203	⇑P	Pg	18 00 04.8	-0.3
MK06				⇑S	Sg	18 00 12.3	0.0
MK02	Makanchi Array	0.55	203	⇑P	Pg	18 00 04.9	-0.4
MK02				⇑S	Sg	18 00 12.5	0.0
MK01	Makanchi Array	0.55	204	⇑P	Pg	18 00 04.9	-0.4
MK01				⇑S	Sg	18 00 12.8	+0.2
MK04	Makanchi Array	0.55	204	⇑P	Pg	18 00 04.8	-0.5
MK04				⇓S	Sg	18 00 12.5	-0.1
MK09	Makanchi Array	0.55	205	⇓P	Pg	18 00 05.0	-0.4
MK09				⇑S	Sg	18 00 12.6	0.0
MK03	Makanchi Array	0.55	203	⇑P	Pg	18 00 05.0	-0.4
MK03				⇑S	Sg	18 00 12.5	-0.1
MK07	Makanchi Array	0.56	202	⇓P	Pg	18 00 05.1	-0.4
MK07				⇑S	Sg	18 00 12.5	-0.4
MK08	Makanchi Array	0.57	204	⇑P	Pg	18 00 05.2	-0.4
MK08				⇑S	Sg	18 00 13.0	-0.1
KURBB	Kurchatov Arra	4.30	323	⇑Pn	Pn	18 01 00.8	+0.7
	0.2nm,0.2s						
KURBB				⇓Pg	Pg	18 01 09.9	-7.1
	1.6nm,0.3s						
KURBB				⇓Lg		18 02 09.7	
	24nm,0.4s						
KURK	Kurchatov	4.34	324	⇑Pn	Pn	18 01 01.0	+0.4
	1.0nm,0.3s						
KURK				⇑Pg	Pg	18 01 11.3	-6.4
	14nm,0.7s						
KURK				⇑Lg		18 02 08.1	
	131nm,0.6s						
KURK	Kurchatov	4.34	324	*e*Pn	Pn	18 01 01.5	+0.9
KURK				*e*Sg	Sg	18 02 07.6	-6.3
TKM2	Tokmak 2	6.61	231	⇑Pn	Pn	18 01 32.8	+1.0
	2.5nm,0.7s						
TKM2				⇑Lg		18 03 19.6	
	13nm,0.7s						
TKM2	Tokmak 2	6.61	231	*e*Pn	Pn	18 01 32.3	+0.5
	3.8nm,0.6s						
ZAA0	Zalesovo Array	6.83	11	*e*P	Pn	18 01 34.0	-0.8
ZAA0				*e*S	Sb	18 03 20.5	+5.6
AAK	Ala-Archa	7.40	234	*e*Pn	Pn	18 01 43.5	+0.8
	3.3nm,0.4s						
UCH	Uchtor	7.66	232	*e*Pn	Pn	18 01 49.0	+2.7
EKS2	Erkin-Say	7.78	237	*e*P	Pn	18 01 48.6	+0.7
	2.3nm,0.6s						
AML	Almayashu	8.17	234	*e*P	Pn	18 01 55.5	+2.2
	2.4nm,0.5s						
VOSK	Vostochnaya	9.27	310	⇓Pn	Pn	18 02 08.3	+0.1
	0.6nm,0.3s						
VOSK				⇓Sn	Sn	18 03 52.1	-0.3
	3.7nm,0.7s						
VOSK				⇑Lg		18 04 43.9	
	28nm,1.4s						
KK31	Karatay Array	9.51	248	⇑Pn	Pn	18 02 10.5	-1.1
	0.8nm,0.3s,baz=61,slow=14,SNR=21						
KK31				⇑Lg		18 04 54.1	
	5.0nm,0.6s,baz=58,slow=32,SNR=4.7						
BRVK	Borovoye	9.80	311	⇑Pn	Pn	18 02 15.1	-0.4
	6.5nm,1.3s						
BRVK				⇓Sn	Sn	18 04 04.2	-1.3
	6.0nm,0.7s						
BRVK				⇓Lg		18 05 00.6	
	22nm,0.8s						
TLY	Talaya	14.35	64	*e*P	Pn	18 03 22.2	+4.6

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*HLW **20** 18:27:01.6, 36°.49N×22°.07E, h10^{km}, Mb5.7*

*IDC **20** 18:27:03.5±0.4, 36°.30N×21°.97E, h0^{km}, mb5.4/29, mb1 5.4/39, mb1mx5.4/39, mbtmp5.3/39, ML4.7/9, MS6.0/27, Ms1 6.0/27, ms1mx5.9/40, Error ellipse: s-maj=11.0km s-min=10.2km az=15.0*

*ATH **20** 18:27:04.9, 36°.18N×21°.72E, h24^{km}±1^{km}, ML6.0*

*PRU **20** 18:27:04.0, 36°.59N×22°.48E, h0^{km}, M5.7*

*PDG **20** 18:27:05.8±0.4, 36°.27N×21°.73E, h20^{km}±1^{km}, MD6.4/10, Error ellipse: s-maj=1.0km s-min=1.0km az=90.0*

*ISCJB **20** 18:27:05.0±0.3, 36°.33N±0°.01×21°.785E±0°.010, h15^{km}±2^{km}, mb5.7/335, MS6.0/139, Error ellipse: s-maj=1.8km s-min=1.3km az=11.2*

*NEIC **20** 18:27:06.0±0.8, 36°.29N×21°.78E, h10^{km}±5^{km}, mb5.7/251, MS6.1/71, MW5.9, MW6.1, ML6.0(ATH), ML6.3(THE), Error ellipse: s-maj=3.7km s-min=1.9km az=185.0, Moment Tensor Solution. s77 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.55; $M_{\theta\theta}$-3.46; $M_{\phi\phi}$4.01; $M_{r\theta}$1.77; $M_{\theta\phi}$8.07; $M_{\phi r}$-1.84; Best double couple: $M_0$9.30000×10^{17} NP1:ϕ_s257.00000°, δ76.00000°, λ-9.00000°. NP2:ϕ_s349.00000°, δ82.00000°, λ-166.00000°. Principal axes: T 9.2100, Plg3.0000°, Azm122.0000°; N 0.1200, Plg73.0000°, Azm19.0000°; P -9.3200, Plg15.0000°, Azm213.0000°;*

NEIC Felt [IV] at Kalamata. Also felt at Athinaion, Glifadha, Khania, Khora, Kiparissia, Koroni, Paralia, Piraeus, Pirgos and Tripolis.

*CSEM **20** 18:27:06.3±0.1, 36°.31N×21°.72E, h10^{km}, mb5.8/99, Ms6.0, Mw5.8 Error ellipse: s-maj=2.6km s-min=1.8km az=3.0*

*GCMT **20** 18:27:06.0±0.1, 36°.24N×21°.73E, h18^{km}, MW6.2/114, Moment Tensor Solution. s114,c244; s110,c340; Duration: 2^{s}9 Moment tensor: Scale 10^{18}Nm; M_{rr}0.19±.02; $M_{\theta\theta}$-1.29±.02; $M_{\phi\phi}$1.11±.02; $M_{r\theta}$0.67±.05; $M_{\theta\phi}$1.64±.02; $M_{\phi r}$-0.58±.05; Best double couple: $M_0$2.19100×10^{18} NP1:ϕ_s250.00000°, δ71.00000°, λ-8.00000°. NP2:ϕ_s343.00000°, δ83.00000°, λ-161.00000°. Principal axes: T 1.9710, Plg8.0000°, Azm115.0000°; N 0.4470, Plg70.0000°, Azm4.0000°; P -2.4110, Plg18.0000°, Azm208.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*BGS **20** 18:27:06.2±3.2, 36°.33N×21°.63E, h10^{km}, mb5.9, MS5.9*

*MOS **20** 18:27:07.9±1.2, 36°.44N×21°.69E, h33^{km}, mb5.9/80, MS5.9/53, Error ellipse: s-maj=3.3km s-min=1.9km az=101.6*

*IGIL **20** 18:27:07.2, 36°.47N×21°.71E, h26^{km}, mb5.5*

*NIC **20** 18:27:08.7±0.2, 36°.45N×22°.24E, h25^{km}, mb5.5, ML5.0, MW4.6, Southern Greece, 38 km. SW Vasilitsion*

*THE **20** 18:27:08.0, 36°.36N×21°.91E, h9^{km}±2^{km}, ML6.3/11, Error ellipse: s-maj=3.7km s-min=1.1km az=241.0*

*BJI **20** 18:27:08.3, 36°.75N×22°.12E, h33^{km}, mB5.9/50, mb5.6/61, Ms6.3/74, Ms7 6.0/60*

*GII **20** 18:27:11.9±0.7, 35°.65N×22°.46E, h32^{km}, Mb5.6/8, Md5.8/8*

*PDA **20** 18:27:11.2, 36°.58N×21°.94E, h35^{km}, Mw6.1*

*SFS **20** 18:27:11.0, 36°.50N×21°.90E, h35^{km}, ML6.1*

*DJA **20** 18:27:16, 36°.49N×22°.14E, h73^{km}, mb5.8/28*

*SZGRF **20** 18:27:21.6, 37°.47N×21°.45E, h10^{km}, mb5.7, MS6.1, Southern Greece*

*UPP **20** 18:28:17.1, 40°.09N×21°.25E, h237^{km}*

ISC 20 18:27:07.0±0.3**, 36°.30N**±0°.01×**21°.780E**±0°.010**, h17**^{km}±2^{km}**, h33**^{km}±1.0^{km}**:pP-P, n2341, σ1^{s}33**/2523**, mb5.7**/335**, MS6.0**/139**, 135C-101D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.60	357	P	Pg	18 27 18.1	-0.7
PYL				S	Sg	18 27 26.0	-0.9
PYL	PYLOS	0.60	357	*e*PN	Pg	18 27 18.5	-0.3
PYL				*e*SN	Sg	18 27 29.4	+2.5
PYL	PYLOS	0.60	357	P	Pg	18 27 18.1	-0.7
PYL	PYLOS	0.60	357	*e*Pn	Pg	18 27 18.5	-0.3
PYL				S	Sg	18 27 26.0	-0.9
ITM	Ithomi	0.89	8	*e*PN	Pg	18 27 23.8	-0.5
ITM				*e*SN	Sg	18 27 38.7	+2.7
ITM	Ithomi	0.89	8	*e*Pn	Pg	18 27 23.8	-0.5
ITM				*e*Sn	Sg	18 27 38.7	+2.7
KYTH	Kithira	1.01	91	*e*PN	Pg	18 27 25.8	-0.9
KYTH	Kithira	1.01	91	*e*Pn	Pg	18 27 25.8	-0.9
VLI	Veliai	1.02	65	P	Pg	18 27 26.0	-0.8
VLI	Veliai	1.02	65	P	Pg	18 27 26.0	-0.8
VLX	Vlachokerasia	1.17	24	*e*PN	Pn	18 27 28.6	0.0
VLX				*e*SN	Sg	18 27 47.5	+2.4
VLX	Vlachokerasia	1.17	24	*e*Pn	Pn	18 27 28.6	0.0
VLX				*e*Sn	Sg	18 27 47.5	+2.4
GUR	Goura	1.69	15	*e*PN	Pn	18 27 37.5	+1.7
GUR	Goura	1.69	15	*e*Pn	Pn	18 27 37.5	+1.7
RLS	Riolos of Patr	1.77	352	*e*PN	Pn	18 27 38.6	+1.7
RLS	Riolos of Patr	1.77	352	*e*Pn	Pn	18 27 38.6	+1.7

LAKA	**Lakka**	**1.94**	**5**	P	**Pn**	**18 27 40.7**	**+1.5**
LAKA	**Lakka**	**1.94**	**5**	P	**Pn**	**18 27 40.7**	**+1.5**
LTK	**Loutraki**	**1.96**	**28**	P	**Pn**	**18 27 40.4**	**+0.9**
LTK				S	**Sn**	**18 28 04.0**	**+0.3**
LTK	**Loutraki**	**1.96**	**28**	ePB	**Pn**	**18 27 41.0**	**+1.5**
LTK	**Loutraki**	**1.96**	**28**	P	**Pn**	**18 27 40.4**	**+0.9**
LTK	**Loutraki**	**1.96**	**28**	ePb	**Pn**	**18 27 41.0**	**+1.5**
LTK				S	**Sn**	**18 28 04.0**	**+0.3**
NAIG	**Nisos Aigina**	**2.00**	**43**	ePN	**Pn**	**18 27 40.9**	**+1.0**
NAIG	**Nisos Aigina**	**2.00**	**43**	ePn	**Pn**	**18 27 40.9**	**+1.0**
TRIZ	**Trizonia**	**2.08**	**6**	P	**Pn**	**18 27 43.2**	**+2.2**
TRIZ	**Trizonia**	**2.08**	**6**	P	**Pn**	**18 27 43.2**	**+2.2**
VLS	**Valsamata**	**2.10**	**333**	P	**Pn**	**18 27 41.8**	**+0.4**
VLS	**Valsamata**	**2.10**	**333**	ePN	**Pn**	**18 27 42.0**	**+0.6**
VLS	**Valsamata**	**2.10**	**333**	P	**Pn**	**18 27 41.8**	**+0.4**
VLS	**Valsamata**	**2.10**	**333**	ePn	**Pn**	**18 27 42.0**	**+0.6**
ATH	**Athens Observa**	**2.28**	**42**	ePN	**Pn**	**18 27 44.9**	**+1.1**
ATH	**Athens Observa**	**2.28**	**42**	ePn	**Pn**	**18 27 44.9**	**+1.1**
ATHU	**Athens Univers**	**2.31**	**43**	P	**Pn**	**18 27 44.8**	**+0.6**
ATHU				S	**Sn**	**18 28 12.5**	**+0.3**
ATHU	**Athens Univers**	**2.31**	**43**	P	**Pn**	**18 27 44.8**	**+0.6**
ATHU				S	**Sn**	**18 28 12.5**	**+0.3**
PTL	**Penteli**	**2.41**	**43**	ePN	**Pn**	**18 27 46.9**	**+1.3**
PTL	**Penteli**	**2.41**	**43**	ePn	**Pn**	**18 27 46.9**	**+1.3**
LKR	**Lokris**	**2.54**	**22**	P	**Pn**	**18 27 47.8**	**+0.4**
LKR	**Lokris**	**2.54**	**22**	ePN	**Pn**	**18 27 48.3**	**+0.9**
LKR	**Lokris**	**2.54**	**22**	P	**Pn**	**18 27 47.8**	**+0.4**
LKR	**Lokris**	**2.54**	**22**	ePn	**Pn**	**18 27 48.3**	**+0.9**
IDI	**Anoyia**	**2.72**	**111**	Pn	**Pn**	**18 27 48.9**	**-1.0**
	64nm,0.3s,baz=282,slow=16,SNR=389						
IDI				Sn	**Sn**	**18 28 22.4**	**+0.1**
	609nm,0.3s,baz=271,slow=23,SNR=6.2						
IDI	**Anoyia**	**2.72**	**111**	Pn	**Pn**	**18 27 48.9**	**-1.0**
IDI				Sn	**Sn**	**18 28 22.4**	**0.0**
AGG	**Agios Georgios**	**2.75**	**9**	P	**Pn**	**18 27 51.8**	**+1.5**
AGG				S	**Sn**	**18 28 24.3**	**+1.1**
AGG	**Agios Georgios**	**2.75**	**9**	ePB	**Pn**	**18 27 53.4**	**+3.1**
AGG	**Agios Georgios**	**2.75**	**9**	P	**Pn**	**18 27 51.8**	**+1.5**
AGG	**Agios Georgios**	**2.75**	**9**	ePb	**Pn**	**18 27 53.4**	**+3.1**
AGG				S	**Sn**	**18 28 24.3**	**+1.1**
SIVA	**Sivas**	**2.78**	**116**	P	**Pn**	**18 27 50.4**	**-0.3**
SIVA				S	**Sn**	**18 28 24.7**	**+0.9**
SIVA	**Sivas**	**2.78**	**116**	P	**Pn**	**18 27 50.4**	**-0.3**
SIVA				S	**Sn**	**18 28 24.7**	**+0.9**
THR5	**Thira Island,**	**2.88**	**87**	P	**Pn**	**18 27 53.6**	**+1.5**
THR5	**Thira Island,**	**2.88**	**87**	P	**Pn**	**18 27 53.6**	**+1.5**
THR6	**Thira Island,**	**2.92**	**88**	P	**Pn**	**18 27 52.7**	**+0.1**
THR6	**Thira Island,**	**2.92**	**88**	P	**Pn**	**18 27 52.7**	**+0.1**
THR4	**Thira Island,**	**2.92**	**86**	P	**Pn**	**18 27 53.4**	**+0.7**
THR4	**Thira Island,**	**2.92**	**86**	P	**Pn**	**18 27 53.4**	**+0.7**
THR1	**Thera Island**	**2.97**	**88**	P	**Pn**	**18 27 53.2**	**-0.1**
THR1	**Thera Island**	**2.97**	**88**	P	**Pn**	**18 27 53.2**	**-0.1**
LAST	**Lasithi**	**3.22**	**110**	P	**Pn**	**18 27 57.4**	**+0.7**
LAST	**Lasithi**	**3.22**	**110**	P	**Pn**	**18 27 57.4**	**+0.7**
XOR	**Xorichti**	**3.26**	**20**	P	**Pn**	**18 27 57.5**	**+0.2**
XOR				S	**Sn**	**18 28 36.2**	**+0.6**
XOR	**Xorichti**	**3.26**	**20**	P	**Pn**	**18 27 58.1**	**+0.8**
XOR	**Xorichti**	**3.26**	**20**	P	**Pn**	**18 27 57.5**	**+0.2**
XOR				P		18 27 58.1	
XOR	**Xorichti**	**3.26**	**20**	P	**Pn**	**18 27 57.5**	**+0.2**
XOR				S	**Sn**	**18 28 36.2**	**+0.6**
THL	**Klokotos Trika**	**3.27**	**3**	P	**Pn**	**18 27 59.1**	**+1.7**
THL				S	**Sn**	**18 28 36.3**	**+0.5**
THL	**Klokotos Trika**	**3.27**	**3**	ePN	**Pn**	**18 27 59.7**	**+2.3**
THL	**Klokotos Trika**	**3.27**	**3**	P	**Pn**	**18 27 59.1**	**+1.7**
THL	**Klokotos Trika**	**3.27**	**3**	ePn	**Pn**	**18 27 59.7**	**+2.3**
THL				S	**Sn**	**18 28 36.3**	**+0.5**
NPS	**Neapolis**	**3.28**	**107**	ePN	**Pn**	**18 27 58.0**	**+0.4**
NPS	**Neapolis**	**3.28**	**107**	ePn	**Pn**	**18 27 58.0**	**+0.4**
AOS	**Alonnisos**	**3.31**	**30**	P	**Pn**	**18 27 58.5**	**+0.5**
AOS	**Alonnisos**	**3.31**	**30**	P	**Pn**	**18 27 58.5**	**+0.5**
IGT	**Igoumenitsa**	**3.42**	**341**	P	**Pn**	**18 28 00.6**	**+1.0**
IGT	**Igoumenitsa**	**3.42**	**341**	P	**Pn**	**18 28 00.6**	**+1.0**
JAN	**Janina**	**3.43**	**348**	ePN	**Pn**	**18 28 01.7**	**+2.1**
JAN	**Janina**	**3.43**	**348**	ePn	**Pn**	**18 28 01.7**	**+2.1**
MEV	**Metsovon**	**3.51**	**353**	P	**Pn**	**18 28 03.9**	**+3.2**
KEK	**Kerkira**	**3.75**	**336**	ePN	**Pn**	**18 28 04.6**	**+0.6**
KEK	**Kerkira**	**3.75**	**336**	ePn	**Pn**	**18 28 04.6**	**+0.6**
ZKR	**Zakros**	**3.80**	**107**	P	**Pn**	**18 28 04.9**	**+0.2**
ZKR	**Zakros**	**3.80**	**107**	P	**Pn**	**18 28 04.9**	**+0.2**
LIT	**Litokhoron**	**3.84**	**8**	P	**Pn**	**18 28 06.3**	**+1.1**
LIT				S	**Sn**	**18 28 50.0**	**+0.1**
LIT	**Litokhoron**	**3.84**	**8**	ePN	**Pn**	**18 28 06.6**	**+1.4**
LIT	**Litokhoron**	**3.84**	**8**	P	**Pn**	**18 28 06.3**	**+1.1**
LIT	**Litokhoron**	**3.84**	**8**	ePn	**Pn**	**18 28 06.6**	**+1.4**
LIT				S	**Sn**	**18 28 50.0**	**+0.1**
PAIG	**Paliouri**	**3.92**	**22**	P	**Pn**	**18 28 06.5**	**+0.1**
PAIG				S	**Sn**	**18 28 51.9**	**0.0**
PAIG	**Paliouri**	**3.92**	**22**	P	**Pn**	**18 28 06.5**	**+0.1**
PAIG				S	**Sn**	**18 28 51.9**	**0.0**
CHOS	**Chios island**	**3.99**	**57**	P	**Pn**	**18 28 07.0**	**-0.4**
CHOS				S	**Sn**	**18 28 55.1**	**+1.4**
CHOS	**Chios island**	**3.99**	**57**	ePN	**Pn**	**18 28 07.9**	**+0.5**
CHOS	**Chios island**	**3.99**	**57**	P	**Pn**	**18 28 07.0**	**-0.4**
CHOS	**Chios island**	**3.99**	**57**	ePn	**Pn**	**18 28 07.9**	**+0.5**
CHOS				S	**Sn**	**18 28 55.1**	**+1.4**
KZN	**Kozani**	**4.00**	**360**	ePN	**Pn**	**18 28 09.7**	**+2.2**
KZN	**Kozani**	**4.00**	**360**	ePn	**Pn**	**18 28 09.7**	**+2.2**
PLG	**Polygyros**	**4.27**	**17**	P	**Pn**	**18 28 11.3**	**+0.1**
PLG	**Polygyros**	**4.27**	**17**	ePN	**Pn**	**18 28 12.4**	**+1.2**
PLG	**Polygyros**	**4.27**	**17**	P	**Pn**	**18 28 11.3**	**+0.1**
PLG	**Polygyros**	**4.27**	**17**	ePn	**Pn**	**18 28 12.4**	**+1.2**
SMG	**Samos**	**4.29**	**69**	ePN	**Pn**	**18 28 12.4**	**+1.0**
SMG	**Samos**	**4.29**	**69**	ePn	**Pn**	**18 28 12.4**	**+1.0**
SIGR	**SIGRI**	**4.34**	**47**	P	**Pn**	**18 28 11.7**	**-0.5**
SIGR				S	**Sn**	**18 29 02.5**	**+0.1**
SIGR	**SIGRI**	**4.34**	**47**	P	**Pn**	**18 28 11.7**	**-0.5**
SIGR				S	**Sn**	**18 29 02.5**	**+0.1**
URLA	**Izmir**	**4.36**	**60**	⇑iP	**Pn**	**18 28 13.7**	**+1.4**
URLA	**Izmir**	**4.36**	**60**	iP	**Pn**	**18 28 13.7**	**+1.4**
HORT	**Hortiatis**	**4.42**	**13**	P	**Pn**	**18 28 13.8**	**+0.6**
HORT				S	**Sn**	**18 29 04.9**	**+0.8**
HORT	**Hortiatis**	**4.42**	**13**	P	**Pn**	**18 28 13.8**	**+0.6**
HORT				S	**Sn**	**18 29 04.9**	**+0.8**
THE	**Thessaloniki**	**4.43**	**12**	P	**Pn**	**18 28 13.8**	**+0.5**
THE				S	**Sn**	**18 29 06.3**	**+1.9**
THE	**Thessaloniki**	**4.43**	**12**	P	**Pn**	**18 28 13.8**	**+0.5**
THE				S	**Sn**	**18 29 06.3**	**+1.9**
KARP	**Karpathos**	**4.43**	**98**	ePN	**Pn**	**18 28 13.1**	**-0.3**
KARP	**Karpathos**	**4.43**	**98**	ePn	**Pn**	**18 28 13.1**	**-0.3**
LIA	**Limnos Island**	**4.49**	**36**	P	**Pn**	**18 28 13.9**	**-0.2**
LIA	**Limnos Island**	**4.49**	**36**	ePN	**Pn**	**18 28 15.2**	**+1.1**
LIA	**Limnos Island**	**4.49**	**36**	ePn	**Pn**	**18 28 13.9**	**-0.2**
LIA	**Limnos Island**	**4.49**	**36**	ePn	**Pn**	**18 28 13.9**	**-0.2**
FNA	**Florina**	**4.49**	**356**	P	**Pn**	**18 28 15.2**	**+1.0**
FNA	**Florina**	**4.49**	**356**	P	**Pn**	**18 28 15.2**	**+1.0**
BODT	**Bodrum**	**4.51**	**79**	Pn	**Pn**	**18 28 15.4**	**+0.9**
BODT	**Bodrum**	**4.51**	**79**	ePN	**Pn**	**18 28 15.5**	**+1.0**
BODT	**Bodrum**	**4.51**	**79**	Pn	**Pn**	**18 28 15.4**	**+0.9**
GCAM	**G?zelcaml?**	**4.58**	**71**	⇑iP	**Pn**	**18 28 17.6**	**+2.1**
GCAM	**G?zelcaml?**	**4.58**	**71**	iP	**Pn**	**18 28 17.6**	**+2.1**
LTBQ	**Tobruq**	**4.59**	**157**	iP	**Pn**	**18 28 16.2**	**+0.6**
	SNR=23						
LTBQ				eS	**Sn**	**18 29 07.5**	**-0.9**
	653nm,0.6s,SNR=23						
BDRM	**Kayabasi**	**4.62**	**79**	⇑iP	**Pn**	**18 28 17.4**	**+1.5**
BDRM	**Kayabasi**	**4.62**	**79**	iP	**Pn**	**18 28 17.4**	**+1.5**
PRK	**Paraskevi**	**4.62**	**49**	P	**Pn**	**18 28 15.6**	**-0.3**
PRK	**Paraskevi**	**4.62**	**49**	ePN	**Pn**	**18 28 18.0**	**+2.1**
PRK	**Paraskevi**	**4.62**	**49**	ePn	**Pn**	**18 28 16.2**	**+0.3**
PRK	**Paraskevi**	**4.62**	**49**	P	**Pn**	**18 28 15.6**	**-0.3**
PRK	**Paraskevi**	**4.62**	**49**	ePn	**Pn**	**18 28 16.2**	**+0.3**
GRG	**Griva**	**4.68**	**6**	P	**Pn**	**18 28 17.1**	**+0.4**
GRG	**Griva**	**4.68**	**6**	P	**Pn**	**18 28 17.1**	**+0.4**
BLCB	**Balcova**	**4.68**	**62**	ePN	**Pn**	**18 28 21.1**	**+4.2**
BLCB	**Balcova**	**4.68**	**62**	P	**Pn**	**18 28 17.3**	**+0.5**
BLCB	**Balcova**	**4.68**	**62**	P	**Pn**	**18 28 17.3**	**+0.5**
BLCB	**Balcova**	**4.68**	**62**	P	**Pn**	**18 28 17.3**	**+0.5**
BLCB	**Balcova**	**4.68**	**62**	ePn	**Pn**	**18 28 21.1**	**+4.3**
SOH	**Sokhos**	**4.68**	**15**	P	**Pn**	**18 28 17.9**	**+1.1**
SOH				S	**Sn**	**18 29 12.8**	**+2.1**
SOH	**Sokhos**	**4.68**	**15**	ePN	**Pn**	**18 28 18.4**	**+1.6**
SOH	**Sokhos**	**4.68**	**15**	ePn	**Pn**	**18 28 18.4**	**+1.6**
SOH				S	**Sn**	**18 29 12.8**	**+2.1**
DAT	**Datca**	**4.69**	**83**	ePN	**Pn**	**18 28 18.5**	**+1.6**
DAT	**Datca**	**4.69**	**83**	ePn	**Pn**	**18 28 18.5**	**+1.6**
BIA	**Bitola**	**4.73**	**356**	P	**Pn**	**18 28 19.4**	**+2.0**
BIA	**Bitola**	**4.73**	**356**	ePn	**Pn**	**18 28 18.9**	**+1.5**
BIA	**Bitola**	**4.73**	**356**	ePn	**Pn**	**18 28 18.9**	**+1.5**
BIA	**Bitola**	**4.73**	**356**	P	**Pn**	**18 28 19.4**	**+2.0**
IZM	**Izmir**	**4.84**	**63**	ePN	**Pn**	**18 28 21.4**	**+2.3**
IZM	**Izmir**	**4.84**	**63**	P	**Pn**	**18 28 21.3**	**+2.2**
IZM	**Izmir**	**4.84**	**63**	Pn	**Pn**	**18 28 21.3**	**+2.2**
OHR	**Ohrid**	**4.87**	**351**	ePn	**Pn**	**18 28 20.6**	**+1.2**
OHR				eSg	**Sn**	**18 29 17.3**	**+2.0**
OHR	**Ohrid**	**4.87**	**351**	ePn	**Pn**	**18 28 20.5**	**+1.1**
BOZC	**Bozcaada**	**4.89**	**42**	⇑iP	**Pn**	**18 28 20.2**	**+0.6**
TIP	**Timpagrande**	**4.91**	**307**	⇑iPn	**Pn**	**18 28 19.5**	**-0.5**
TIP				eSn	**Sn**	**18 29 11.6**	**-4.7**
TIP	**Timpagrande**	**4.91**	**307**	⇑iPn	**Pn**	**18 28 19.5**	**-0.5**
TIP				eSn	**Sn**	**18 29 11.6**	**-4.7**
AYVA	**Ayvalik**	**4.91**	**51**	⇑iP	**Pn**	**18 28 20.9**	**+0.9**
AYVA	**Ayvalik**	**4.91**	**51**	iP	**Pn**	**18 28 20.9**	**+0.9**
MLSB	**Milas**	**4.91**	**77**	ePN	**Pn**	**18 28 21.5**	**+1.5**
MLSB	**Milas**	**4.91**	**77**	Pn	**Pn**	**18 28 21.6**	**+1.6**
MLSB	**Milas**	**4.91**	**77**	Pn	**Pn**	**18 28 21.6**	**+1.6**
KNT	**Kendrikon**	**4.93**	**10**	P	**Pn**	**18 28 21.4**	**+1.1**
KNT	**Kendrikon**	**4.93**	**10**	P	**Pn**	**18 28 21.4**	**+1.1**
GRI	**Girifalco**	**4.95**	**302**	P	**Pn**	**18 28 20.4**	**-0.1**
GRI	**Girifalco**	**4.95**	**302**	Pn	**Pn**	**18 28 20.4**	**-0.1**
SRS	**Serrai**	**5.02**	**16**	P	**Pn**	**18 28 21.9**	**+0.5**
SRS	**Serrai**	**5.02**	**16**	P	**Pn**	**18 28 21.9**	**+0.5**
EZN	**Ezine**	**5.03**	**44**	ePN	**Pn**	**18 28 24.9**	**+3.4**
EZN	**Ezine**	**5.03**	**44**	P	**Pn**	**18 28 25.4**	**+3.9**
EZN	**Ezine**	**5.03**	**44**	Pn	**Pn**	**18 28 25.4**	**+3.9**
EZN	**Ezine**	**5.03**	**44**	ePn	**Pn**	**18 28 24.9**	**+3.4**
EZN	**Ezine**	**5.03**	**44**	P	**Pn**	**18 28 25.4**	**+3.9**
VAY	**Valandovo**	**5.05**	**7**	P	**Pn**	**18 28 23.0**	**+1.1**
VAY	**Valandovo**	**5.05**	**7**	ePn	**Pn**	**18 28 22.7**	**+0.8**
VAY	**Valandovo**	**5.05**	**7**	ePn	**Pn**	**18 28 22.7**	**+0.8**
GADA	**Gvkgeada**	**5.06**	**39**	ePN	**Pn**	**18 28 24.9**	**+2.9**
GADA	**Gvkgeada**	**5.06**	**39**	Pn	**Pn**	**18 28 26.7**	**+4.7**
GADA	**Gvkgeada**	**5.06**	**39**	ePn	**Pn**	**18 28 24.9**	**+2.9**
AYDN	**Tasoluk**	**5.07**	**73**	⇓iP	**Pn**	**18 28 24.5**	**+2.3**
AYDN	**Tasoluk**	**5.07**	**73**	iP	**Pn**	**18 28 24.5**	**+2.4**
KRUS	**Krusevo**	**5.08**	**355**	ePn	**Pn**	**18 28 23.1**	**+0.8**
KRUS	**Krusevo**	**5.08**	**355**	ePn	**Pn**	**18 28 23.0**	**+0.7**
CEL	**Celeste**	**5.08**	**294**	⇑iPn	**Pn**	**18 28 22.2**	**-0.2**
	4µm,0.9s						
CEL	**Celeste**	**5.08**	**294**	⇑iPn	**Pn**	**18 28 22.2**	**-0.2**
	4µm,0.9s						
ARG	**Arkhangelos**	**5.13**	**89**	ePN	**Pn**	**18 28 23.2**	**+0.2**
ARG	**Arkhangelos**	**5.13**	**89**	ePn	**Pn**	**18 28 23.2**	**+0.2**
MTTG	**Motta San Giov**	**5.15**	**291**	Pn	**Pn**	**18 28 23.3**	**0.0**
	8µm,0.6s						
MTTG	**Motta San Giov**	**5.15**	**291**	Pn	**Pn**	**18 28 23.3**	**0.0**
	8µm,0.6s						
TIR	**Tirane**	**5.26**	**344**	P	**Pn**	**18 28 25.4**	**+0.7**
TIR	**Tirane**	**5.26**	**344**	P	**Pn**	**18 28 25.4**	**+0.7**
YER	**Yerkesik**	**5.29**	**79**	ePN	**Pn**	**18 28 27.3**	**+2.1**
YER	**Yerkesik**	**5.29**	**79**	P	**Pn**	**18 28 27.2**	**+2.0**
YER	**Yerkesik**	**5.29**	**79**	Pn	**Pn**	**18 28 27.2**	**+2.0**
YER	**Yerkesik**	**5.29**	**79**	Pn	**Pn**	**18 28 27.2**	**+2.0**
NVR	**Nevrokopi**	**5.30**	**17**	ePN	**Pn**	**18 28 26.2**	**+0.9**
NVR	**Nevrokopi**	**5.30**	**17**	ePn	**Pn**	**18 28 26.2**	**+0.9**
HAVL	**Avola**	**5.39**	**279**	Pn	**Pn**	**18 28 26.1**	**-0.5**
	6µm,0.5s						
HAVL	**Avola**	**5.39**	**279**	Pn	**Pn**	**18 28 26.1**	**-0.5**
	6µm,0.5s						
AKS	**Akhisar**	**5.44**	**60**	ePN	**Pn**	**18 28 31.1**	**+3.9**
AKS	**Akhisar**	**5.44**	**60**	Pn	**Pn**	**18 28 29.3**	**+2.1**
AKS	**Akhisar**	**5.44**	**60**	Pn	**Pn**	**18 28 29.3**	**+2.1**
AKHS	**Akhisar**	**5.44**	**60**	⇑iP	**Pn**	**18 28 28.6**	**+1.4**
SSY	**Sortino**	**5.46**	**281**	Pn	**Pn**	**18 28 26.6**	**-0.9**
	3µm,0.9s						
SSY	**Sortino**	**5.46**	**281**	Pn	**Pn**	**18 28 26.6**	**-0.9**
	3µm,0.9s						
MMB	**Musomiste**	**5.50**	**15**	P	**Pn**	**18 28 28.4**	**+0.4**
MMB	**Musomiste**	**5.50**	**15**	iP	**Pn**	**18 28 28.5**	**+0.5**
MMB	**Musomiste**	**5.50**	**15**	P	**Pn**	**18 28 28.4**	**+0.4**
MMB	**Musomiste**	**5.50**	**15**	P	**Pn**	**18 28 28.4**	**+0.4**
TURN	**Turunc**	**5.52**	**82**	⇓iP	**Pn**	**18 28 25.7**	**-2.6**
DALT	**Dalyan (Mudla)**	**5.54**	**83**	ePN	**Pn**	**18 28 30.2**	**+1.5**
DALT	**Dalyan (Mudla)**	**5.54**	**83**	ePn	**Pn**	**18 28 30.2**	**+1.6**
ENEZ	**Enez**	**5.60**	**36**	ePN	**Pn**	**18 28 33.9**	**+4.4**
LPK	**Lapseki**	**5.64**	**42**	ePN	**Pn**	**18 28 33.9**	**+3.8**
LPK	**Lapseki**	**5.64**	**42**	Pn	**Pn**	**18 28 33.2**	**+3.2**
LPK	**Lapseki**	**5.64**	**42**	Pn	**Pn**	**18 28 33.2**	**+3.2**
KKB	**Krupnik**	**5.65**	**10**	P	**Pn**	**18 28 30.8**	**+0.7**
KKB	**Krupnik**	**5.65**	**10**	iP	**Pn**	**18 28 31.4**	**+1.3**
KKB	**Krupnik**	**5.65**	**10**	P	**Pn**	**18 28 30.8**	**+0.7**
KKB	**Krupnik**	**5.65**	**10**	P	**Pn**	**18 28 30.8**	**+0.7**
RDO	**Rodhopi**	**5.66**	**30**	ePN	**Pn**	**18 28 33.4**	**+3.1**
RDO	**Rodhopi**	**5.66**	**30**	ePn	**Pn**	**18 28 30.4**	**+0.1**
RDO	**Rodhopi**	**5.66**	**30**	ePn	**Pn**	**18 28 30.4**	**+0.1**
HMDC	**Modica**	**5.67**	**279**	Pn	**Pn**	**18 28 29.9**	**-0.5**
	2µm,0.6s						
HMDC	**Modica**	**5.67**	**279**	Pn	**Pn**	**18 28 29.9**	**-0.5**
	2µm,0.6s						
SKO	**Skopje**	**5.67**	**357**	ePn	**Pn**	**18 28 32.0**	**+1.6**
SKO	**Skopje**	**5.67**	**357**	ePn	**Pn**	**18 28 31.9**	**+1.5**
ALN	**Alexandroupoli**	**5.68**	**35**	P	**Pn**	**18 28 29.7**	**-0.8**
ALN	**Alexandroupoli**	**5.68**	**35**	ePN	**Pn**	**18 28 32.5**	**+2.0**
ALN	**Alexandroupoli**	**5.68**	**35**	ePn	**Pn**	**18 28 30.3**	**-0.2**
ALN	**Alexandroupoli**	**5.68**	**35**	ePn	**Pn**	**18 28 30.3**	**-0.2**
HVZN	**Vizzini**	**5.74**	**281**	Pn	**Pn**	**18 28 30.3**	**-1.1**
	5µm,0.8s						
HVZN	**Vizzini**	**5.74**	**281**	Pn	**Pn**	**18 28 30.3**	**-1.1**
	5µm,0.8s						
BALY	**Balya**	**5.75**	**52**	⇑iP	**Pn**	**18 28 33.1**	**+1.7**
LTRZ	**Laterza**	**5.80**	**319**	Pn	**Pn**	**18 28 31.6**	**-0.6**
	1µm,0.8s						
LTRZ	**Laterza**	**5.80**	**319**	Pn	**Pn**	**18 28 31.6**	**-0.6**
	1µm,0.8s						
MANT	**Manisa**	**5.82**	**66**	⇑iP	**Pn**	**18 28 35.0**	**+2.5**
RZN	**Rozhen**	**5.85**	**22**	P	**Pn**	**18 28 33.7**	**+0.9**
RZN	**Rozhen**	**5.85**	**22**	iP	**Pn**	**18 28 33.4**	**+0.6**
RZN	**Rozhen**	**5.85**	**22**	P	**Pn**	**18 28 33.7**	**+0.9**
RZN	**Rozhen**	**5.85**	**22**	P	**Pn**	**18 28 33.7**	**+0.9**
BALB	**Balikesir**	**5.86**	**53**	ePN	**Pn**	**18 28 36.5**	**+3.4**
BALB	**Balikesir**	**5.86**	**53**	Pn	**Pn**	**18 28 36.5**	**+3.5**
BALB	**Balikesir**	**5.86**	**53**	Pn	**Pn**	**18 28 36.5**	**+3.5**
WDD	**Wield Dalam**	**5.89**	**268**	⇓ePn	**Pn**	**18 28 31.9**	**-1.6**
	6µm,1.0s						
WDD				eSn	**Sn**	**18 29 37.7**	**-2.9**
WDD	**Wield Dalam**	**5.89**	**268**	⇓ePn	**Pn**	**18 28 31.9**	**-1.6**
	6µm,1.0s						
WDD				eSn	**Sn**	**18 29 37.7**	**-2.9**
FETY	**Fethiye**	**5.90**	**85**	ePN	**Pn**	**18 28 34.2**	**+0.7**
FETY	**Fethiye**	**5.90**	**85**	Pn	**Pn**	**18 28 35.2**	**+1.7**
FETY	**Fethiye**	**5.90**	**85**	Pn	**Pn**	**18 28 35.2**	**+1.7**
KULA	**Kula-Manisa**	**5.91**	**66**	ePN	**Pn**	**18 28 37.0**	**+3.4**
KULA	**Kula-Manisa**	**5.91**	**66**	ePn	**Pn**	**18 28 37.0**	**+3.3**
CUC	**Castrocucco**	**5.97**	**310**	⇑ePn	**Pn**	**18 28 34.2**	**-0.4**
	5µm,0.8s						
CUC				eSn	**Sn**	**18 29 33.4**	**-9.2**
CUC	**Castrocucco**	**5.97**	**310**	⇑ePn	**Pn**	**18 28 34.2**	**-0.4**
	5µm,0.8s						
DENT	**Denizli**	**5.98**	**74**	ePN	**Pn**	**18 28 37.5**	**+2.8**
DENT	**Denizli**	**5.98**	**74**	Pn	**Pn**	**18 28 37.8**	**+3.1**
DENT	**Denizli**	**5.98**	**74**	Pn	**Pn**	**18 28 37.8**	**+3.1**
ULC	**Ulcinj**	**5.99**	**342**	⇑iPn	**Pn**	**18 28 34.2**	**-0.6**
ULC				eSn	**Sn**	**18 29 42.6**	**-0.3**
ULC	**Ulcinj**	**5.99**	**342**	⇑iPn	**Pn**	**18 28 34.2**	**-0.6**
ULC				eSn	**Sn**	**18 29 42.6**	**-0.3**
VAE	**Valguarnera**	**6.02**	**283**	Pn	**Pn**	**18 28 35.3**	**+0.1**
	19nm,0.3s,baz=280,slow=1.6,SNR=78						
VAE				Sn	**Sn**	**18 29 46.7**	**+2.9**
	144nm,0.3s,baz=269,slow=11,SNR=5.4						
VAE				LR	LR	18 30 55.7	
	comp=Z,82µm,20.4s,baz=350,slow=37						
VAE	**Valguarnera**	**6.02**	**283**	Pn	**Pn**	**18 28 35.3**	**+0.1**
RAFF	**Raffo Rosso**	**6.03**	**281**	Pn	**Pn**	**18 28 35.2**	**-0.1**
	4µm,1.1s						
RAFF	**Raffo Rosso**	**6.03**	**281**	Pn	**Pn**	**18 28 35.2**	**-0.1**
	4µm,1.1s						
KDZ	**Kurdzhali**	**6.05**	**27**	P	**Pn**	**18 28 35.2**	**-0.4**
KDZ	**Kurdzhali**	**6.05**	**27**	iP	**Pn**	**18 28 36.3**	**+0.7**
KDZ	**Kurdzhali**	**6.05**	**27**	P	**Pn**	**18 28 35.2**	**-0.4**
KDZ	**Kurdzhali**	**6.05**	**27**	P	**Pn**	**18 28 35.2**	**-0.4**
SART	**Tekirdag**	**6.09**	**42**	⇑iP	**Pn**	**18 28 36.9**	**+0.7**
MFT	**Murefte**	**6.22**	**42**	ePN	**Pn**	**18 28 42.4**	**+4.5**
MFT	**Murefte**	**6.22**	**42**	Pn	**Pn**	**18 28 41.8**	**+3.9**
PLD	**Plovdiv**	**6.23**	**20**	P	**Pn**	**18 28 38.1**	**+0.1**
PLD	**Plovdiv**	**6.23**	**20**	P	**Pn**	**18 28 38.1**	**+0.1**
PLD	**Plovdiv**	**6.23**	**20**	iP	**Pn**	**18 28 40.0**	**+2.0**
PLD	**Plovdiv**	**6.23**	**20**	P	**Pn**	**18 28 38.1**	**+0.1**
PLD	**Plovdiv**	**6.23**	**20**	P	**Pn**	**18 28 38.1**	**+0.1**
DURS	**Dursunbey**	**6.23**	**56**	⇑iP	**Pn**	**18 28 39.5**	**+1.4**
EDC	**Edincik**	**6.26**	**48**	ePN	**Pn**	**18 28 42.2**	**+3.7**
EDC	**Edincik**	**6.26**	**48**	P	**Pn**	**18 28 41.1**	**+2.6**
EDC	**Edincik**	**6.26**	**48**	Pn	**Pn**	**18 28 41.1**	**+2.6**
EDC	**Edincik**	**6.26**	**48**	Pn	**Pn**	**18 28 41.1**	**+2.6**
BNT	**Bandirma**	**6.30**	**48**	ePN	**Pn**	**18 28 42.4**	**+3.3**
BNT	**Bandirma**	**6.30**	**48**	P	**Pn**	**18 28 43.1**	**+4.0**
BNT	**Bandirma**	**6.30**	**48**	Pn	**Pn**	**18 28 43.1**	**+4.0**
GOLH	**Golhisar**	**6.32**	**79**	⇑iP	**Pn**	**18 28 42.4**	**+3.1**
AKAS	**Kas**	**6.32**	**88**	⇑iP	**Pn**	**18 28 39.6**	**+0.2**
DST	**Dursunbey**	**6.34**	**57**	ePN	**Pn**	**18 28 43.0**	**+3.5**
DST	**Dursunbey**	**6.34**	**57**	P	**Pn**	**18 28 43.1**	**+3.5**
DST	**Dursunbey**	**6.34**	**57**	Pn	**Pn**	**18 28 43.1**	**+3.5**
DST	**Dursunbey**	**6.34**	**57**	Pn	**Pn**	**18 28 43.1**	**+3.5**
VTS	**Vitosha**	**6.38**	**10**	P	**Pn**	**18 28 41.4**	**+1.3**
VTS	**Vitosha**	**6.38**	**10**	P	**Pn**	**18 28 41.4**	**+1.3**
VTS	**Vitosha**	**6.38**	**10**	iP	**Pn**	**18 28 42.8**	**+2.7**
VTS	**Vitosha**	**6.38**	**10**	P	**Pn**	**18 28 41.4**	**+1.3**
VTS	**Vitosha**	**6.38**	**10**	P	**Pn**	**18 28 41.4**	**+1.3**
BUM	**Brajici-Budva**	**6.40**	**340**	⇑iPn	**Pn**	**18 28 39.5**	**-0.9**
BUM				eSn	**Sn**	**18 29 52.4**	**-0.5**
BUM	**Brajici-Budva**	**6.40**	**340**	⇑iPn	**Pn**	**18 28 39.5**	**-0.9**
BUM				eSn	**Sn**	**18 29 52.4**	**-0.5**
ACER	**Acerenza**	**6.40**	**316**	Pn	**Pn**	**18 28 40.3**	**-0.2**
	4µm,0.8s						
ACER	**Acerenza**	**6.40**	**316**	Pn	**Pn**	**18 28 40.3**	**-0.2**
	4µm,0.8s						
GIB	**Gibilmanna**	**6.42**	**288**	P	**Pn**	**18 28 41.7**	**+1.0**
GIB				pmax	pmax		
	comp=Z,4µm,0.8s						
GIB	**Gibilmanna**	**6.42**	**288**	Pn	**Pn**	**18 28 41.7**	**+1.0**
	comp=Z,4µm,0.8s						
GIB	**Gibilmanna**	**6.42**	**288**	Pn	**Pn**	**18 28 41.7**	**+1.0**
	comp=Z,4µm,0.8s						
PDG	**Podgorica**	**6.43**	**343**	⇑iPn	**Pn**	**18 28 40.3**	**-0.5**
PDG				eSn	**Sn**	**18 29 52.6**	**-1.1**
TTG	**Podgorica**	**6.43**	**343**	⇑iPn	**Pn**	**18 28 40.3**	**-0.5**
TTG				eSn	**Sn**	**18 29 52.6**	**-1.1**
TTG	**Podgorica**	**6.43**	**343**	⇑iPn	**Pn**	**18 28 40.3**	**-0.5**
TTG				eSn	**Sn**	**18 29 52.6**	**-1.1**
DIM	**Dimitrovgrad**	**6.44**	**26**	P	**Pn**	**18 28 41.9**	**+0.9**
DIM	**Dimitrovgrad**	**6.44**	**26**	iP	**Pn**	**18 28 41.8**	**+0.8**
DIM	**Dimitrovgrad**	**6.44**	**26**	P	**Pn**	**18 28 41.9**	**+0.9**
DIM	**Dimitrovgrad**	**6.44**	**26**	P	**Pn**	**18 28 41.9**	**+0.9**
PVY	**Plav**	**6.44**	**348**	⇓iPn	**Pn**	**18 28 41.7**	**+0.7**
PVY				eSn	**Sn**	**18 29 53.4**	**-0.6**
PVY	**Plav**	**6.44**	**348**	⇓iPn	**Pn**	**18 28 41.7**	**+0.7**
PVY				eSn	**Sn**	**18 29 53.4**	**-0.6**
KHAL	**Karahalli**	**6.48**	**69**	⇑iP	**Pn**	**18 28 44.7**	**+3.1**
KHL	**Karahalli**	**6.49**	**70**	ePN	**Pn**	**18 28 45.8**	**+4.0**
KHL	**Karahalli**	**6.49**	**70**	Pn	**Pn**	**18 28 45.7**	**+4.0**
KHL	**Karahalli**	**6.49**	**70**	Pn	**Pn**	**18 28 45.7**	**+4.0**
TKR	**Tekirdag**	**6.50**	**42**	ePN	**Pn**	**18 28 45.2**	**+3.5**
TKR	**Tekirdag**	**6.50**	**42**	Pn	**Pn**	**18 28 45.1**	**+3.3**
TKR	**Tekirdag**	**6.50**	**42**	Pn	**Pn**	**18 28 45.1**	**+3.3**
BARS	**Barje**	**6.51**	**0**	P	**Pn**	**18 28 42.6**	**+0.7**
BARS	**Barje**	**6.51**	**0**	⇓iPn	**Pn**	**18 28 42.6**	**+0.7**
PGB	**Panagyurishte**	**6.51**	**16**	P	**Pn**	**18 28 42.3**	**+0.4**
ELL	**Elmali**	**6.56**	**84**	ePN	**Pn**	**18 28 44.4**	**+1.8**
ELL	**Elmali**	**6.56**	**84**	P	**Pn**	**18 28 45.1**	**+2.5**
ELL	**Elmali**	**6.56**	**84**	Pn	**Pn**	**18 28 45.1**	**+2.5**
ELL	**Elmali**	**6.56**	**84**	Pn	**Pn**	**18 28 45.1**	**+2.5**
HCY	**Herceg Novi**	**6.64**	**339**	⇑iPn	**Pn**	**18 28 42.2**	**-1.6**
HCY				eSn	**Sn**	**18 29 58.0**	**-1.0**
HCY	**Herceg Novi**	**6.64**	**339**	⇑iPn	**Pn**	**18 28 42.2**	**-1.6**
HCY				eSn	**Sn**	**18 29 58.0**	**-1.0**
CRLT	**Corlu**	**6.70**	**42**	ePN	**Pn**	**18 28 49.3**	**+4.7**
CRLT	**Corlu**	**6.70**	**42**	Pn	**Pn**	**18 28 49.0**	**+4.4**
GDZ	**Gediz**	**6.71**	**63**	⇑iP	**Pn**	**18 28 48.4**	**+3.7**
BEY	**Berane**	**6.72**	**348**	⇑iPn	**Pn**	**18 28 45.4**	**+0.6**
BEY				eSn	**Sn**	**18 30 00.8**	**-0.2**
IVA	**Berane**	**6.72**	**348**	⇑iPn	**Pn**	**18 28 45.4**	**+0.6**
IVA				eSn	**Sn**	**18 30 00.8**	**-0.2**
IVA	**Berane**	**6.72**	**348**	⇑iPn	**Pn**	**18 28 45.4**	**+0.6**
IVA				eSn	**Sn**	**18 30 00.8**	**-0.2**
EDRB	**Edirne**	**6.75**	**33**	ePN	**Pn**	**18 28 48.3**	**+3.1**
EDRB	**Edirne**	**6.75**	**33**	Pn	**Pn**	**18 28 49.0**	**+3.8**
EDRB	**Edirne**	**6.75**	**33**	ePn	**Pn**	**18 28 48.3**	**+3.1**
NKY	**Niksic**	**6.85**	**343**	⇑iPn	**Pn**	**18 28 45.9**	**-0.7**
NKY				eSn	**Sn**	**18 30 03.1**	**-1.0**
NKY	**Niksic**	**6.85**	**343**	⇑iPn	**Pn**	**18 28 45.9**	**-0.7**
NKY				eSn	**Sn**	**18 30 03.1**	**-1.0**
SLVT	**Silivri**	**7.03**	**44**	ePN	**Pn**	**18 28 53.1**	**+4.0**
SLVT	**Silivri**	**7.03**	**44**	Pn	**Pn**	**18 28 52.9**	**+3.8**
BRY	**Bratogost**	**7.05**	**340**	⇑iPn	**Pn**	**18 28 48.0**	**-1.3**
BRY				eSn	**Sn**	**18 30 08.2**	**-0.8**
BRY	**Bratogost**	**7.05**	**340**	⇑iPn	**Pn**	**18 28 48.0**	**-1.3**
BRY				eSn	**Sn**	**18 30 08.2**	**-0.8**
SJES	**Sjenica**	**7.09**	**349**	⇑iPn	**Pn**	**18 28 49.6**	**-0.3**
NISS		**7.10**	**1**	⇓iPn	**Pn**	**18 28 50.4**	**+0.4**
ELBA	**Catalca**	**7.10**	**45**	⇑iP	**Pn**	**18 28 50.8**	**+0.7**
ISP	**Isparta**	**7.15**	**75**	ePN	**Pn**	**18 28 53.2**	**+2.5**
ISP	**Isparta**	**7.15**	**75**	⇑eP	**Pn**	**18 28 52.4**	**+1.7**
ISP	**Isparta**	**7.15**	**75**	P	**Pn**	**18 28 52.8**	**+2.1**
ISP	**Isparta**	**7.15**	**75**	⇓iP	**Pn**	**18 28 54.2**	**+3.5**
ISP	**Isparta**	**7.15**	**75**	P	**Pn**	**18 28 52.8**	**+2.1**
ISP	**Isparta**	**7.15**	**75**	ePn	**Pn**	**18 28 53.2**	**+2.5**
BCK	**Bucak**	**7.16**	**78**	ePN	**Pn**	**18 28 53.0**	**+2.2**
BCK	**Bucak**	**7.16**	**78**	P	**Pn**	**18 28 54.3**	**+3.5**
BCK	**Bucak**	**7.16**	**78**	Pn	**Pn**	**18 28 54.3**	**+3.5**
BCK	**Bucak**	**7.16**	**78**	Pn	**Pn**	**18 28 54.3**	**+3.5**
ALT	**Altintas**	**7.16**	**65**	ePN	**Pn**	**18 28 53.1**	**+2.3**
ALT	**Altintas**	**7.16**	**65**	Pn	**Pn**	**18 28 54.9**	**+4.1**
ALT	**Altintas**	**7.16**	**65**	ePn	**Pn**	**18 28 53.1**	**+2.3**
ANTB	**Antalya**	**7.16**	**83**	ePN	**Pn**	**18 28 52.4**	**+1.4**
ANTB	**Antalya**	**7.16**	**83**	ePn	**Pn**	**18 28 52.4**	**+1.5**
JMB	**Yambol**	**7.19**	**30**	P	**Pn**	**18 28 52.1**	**+0.8**
JMB	**Yambol**	**7.19**	**30**	P	**Pn**	**18 28 52.1**	**+0.8**
JMB	**Yambol**	**7.19**	**30**	iP	**Pn**	**18 28 49.6**	**-1.7**
JMB	**Yambol**	**7.19**	**30**	P	**Pn**	**18 28 52.1**	**+0.8**
JMB	**Yambol**	**7.19**	**30**	P	**Pn**	**18 28 52.1**	**+0.8**
CTKS	**Kestanelik-??a**	**7.20**	**45**	ePN	**Pn**	**18 28 54.4**	**+2.9**
CTKS	**Kestanelik-??a**	**7.20**	**45**	ePn	**Pn**	**18 28 54.4**	**+2.9**
UPM	**Unac-Piva**	**7.24**	**343**	⇑iPn	**Pn**	**18 28 51.7**	**-0.2**
UPM				eSn	**Sn**	**18 30 12.7**	**-1.0**
UPM	**Unac-Piva**	**7.24**	**343**	⇑iPn	**Pn**	**18 28 51.7**	**-0.2**
UPM				eSn	**Sn**	**18 30 12.7**	**-1.0**
CTYL	**Yal??k??y-??at**	**7.24**	**43**	ePN	**Pn**	**18 28 57.0**	**+5.0**
USI	**Ustica**	**7.25**	**292**	Pn	**Pn**	**18 28 51.6**	**-0.5**
	comp=Z,2µm,0.7s						
USI	**Ustica**	**7.25**	**292**	Pn	**Pn**	**18 28 51.6**	**-0.5**
	comp=Z,2µm,0.7s						
PLE	**Pljevlja**	**7.26**	**346**	⇓iPn	**Pn**	**18 28 52.2**	**0.0**
PLE				eSn	**Sn**	**18 30 13.1**	**-1.0**
PLE	**Pljevlja**	**7.26**	**346**	⇓iPn	**Pn**	**18 28 52.2**	**0.0**
PLE				eSn	**Sn**	**18 30 13.1**	**-1.0**
STON	**Ston**	**7.28**	**336**	⇑iPn	**Pn**	**18 28 50.9**	**-1.6**
STON				Sn	**Sn**	**18 30 09.4**	**-5.3**
STON	**Ston**	**7.28**	**336**	⇑iPn	**Pn**	**18 28 50.9**	**-1.6**
STON				Sn	**Sn**	**18 30 09.4**	**-5.3**
STON	**Ston**	**7.28**	**336**	⇑iPn	**Pn**	**18 28 50.9**	**-1.6**
BGKT	**Bogazkoy**	**7.32**	**46**	ePN	**Pn**	**18 28 53.8**	**+0.8**
BGKT	**Bogazkoy**	**7.32**	**46**	Pn	**Pn**	**18 28 55.6**	**+2.5**
BGKT	**Bogazkoy**	**7.32**	**46**	Pn	**Pn**	**18 28 55.6**	**+2.5**
YLV	**Yalova**	**7.33**	**52**	ePN	**Pn**	**18 28 56.6**	**+3.4**
YLV	**Yalova**	**7.33**	**52**	P	**Pn**	**18 28 57.0**	**+3.9**
YLV	**Yalova**	**7.33**	**52**	Pn	**Pn**	**18 28 57.0**	**+3.9**
YLV	**Yalova**	**7.33**	**52**	ePn	**Pn**	**18 28 56.6**	**+3.5**
SHUT	**Suhut-Afyon**	**7.33**	**70**	ePN	**Pn**	**18 28 56.3**	**+3.0**
SHUT	**Suhut-Afyon**	**7.33**	**70**	ePn	**Pn**	**18 28 56.3**	**+3.1**
ISK	**Istanbul-Kandi**	**7.42**	**48**	ePN	**Pn**	**18 28 58.2**	**+3.8**
ISK	**Istanbul-Kandi**	**7.42**	**48**	P	**Pn**	**18 28 56.9**	**+2.5**
ISK	**Istanbul-Kandi**	**7.42**	**48**	Pn	**Pn**	**18 28 56.9**	**+2.5**
ISK	**Istanbul-Kandi**	**7.42**	**48**	Pn	**Pn**	**18 28 56.9**	**+2.5**
PVL	**Pavlikeni**	**7.43**	**21**	P	**Pn**	**18 28 53.3**	**-1.3**
CAVI	**Cavuskoy**	**7.44**	**56**	ePN	**Pn**	**18 28 58.2**	**+3.5**
CAVI	**Cavuskoy**	**7.44**	**56**	ePn	**Pn**	**18 28 58.3**	**+3.5**
ADVT	**Abdulvahap**	**7.49**	**54**	ePN	**Pn**	**18 29 00.8**	**+5.4**
ADVT	**Abdulvahap**	**7.49**	**54**	Pn	**Pn**	**18 28 58.9**	**+3.5**
ADVT	**Abdulvahap**	**7.49**	**54**	Pn	**Pn**	**18 28 58.9**	**+3.5**
BOLS	**Boljevac**	**7.52**	**1**	⇓iPn	**Pn**	**18 28 55.6**	**-0.2**
KLYT	**Kilyos**	**7.53**	**47**	ePN	**Pn**	**18 28 59.3**	**+3.4**
KLYT	**Kilyos**	**7.53**	**47**	Pn	**Pn**	**18 28 58.9**	**+3.0**
KLYT	**Kilyos**	**7.53**	**47**	Pn	**Pn**	**18 28 58.9**	**+3.0**
CIGN	**Sant'Elia a Pi**	**7.57**	**317**	Pn	**Pn**	**18 28 56.9**	**+0.5**
	comp=Z,3µm,0.9s						
CIGN	**Sant'Elia a Pi**	**7.57**	**317**	Pn	**Pn**	**18 28 56.9**	**+0.5**
	comp=Z,3µm,0.9s						
GRUS	**Gruza**	**7.62**	**354**	P	**Pn**	**18 28 56.0**	**-1.2**
GRUS	**Gruza**	**7.62**	**354**	⇑iPn	**Pn**	**18 28 56.3**	**-0.9**
HRT	**Hereke**	**7.65**	**51**	ePN	**Pn**	**18 29 00.5**	**+2.9**
HRT	**Hereke**	**7.65**	**51**	P	**Pn**	**18 29 01.1**	**+3.5**
HRT	**Hereke**	**7.65**	**51**	Pn	**Pn**	**18 29 01.1**	**+3.5**
HRT	**Hereke**	**7.65**	**51**	Pn	**Pn**	**18 29 01.1**	**+3.5**

SWA2		**7.69**	**155**	P	**Pn**	**18 28 54.9**	**-3.3**
SWA2				S	**Sn**	**18 30 17.7**	**-7.0**
BBLS	**Lazići**	**7.77**	**347**	P	**Pn**	**18 28 58.4**	**-0.9**
BBLS	**Lazići**	**7.77**	**347**	P	**Pn**	**18 28 58.4**	**-0.9**
SILT	**Sile**	**7.83**	**49**	*e*PN	**Pn**	**18 29 03.4**	**+3.4**
SILT	**Sile**	**7.83**	**49**	Pn	**Pn**	**18 29 02.8**	**+2.8**
SILT	**Sile**	**7.83**	**49**	Pn	**Pn**	**18 29 02.8**	**+2.8**
ZIMR		**7.85**	**19**	⇓P	**Pn**	**18 29 01.3**	**+1.0**
ZIMR		**7.85**	**19**	⇓*i*P	**Pn**	**18 29 01.3**	**+1.0**
ZIMR		**7.85**	**19**	⇓P	**Pn**	**18 29 01.3**	**+1.0**
ESKT	**Eskisehir**	**7.86**	**63**	*e*PN	**Pn**	**18 29 03.5**	**+3.1**
ESKT	**Eskisehir**	**7.86**	**63**	Pn	**Pn**	**18 29 02.8**	**+2.4**
ESKT	**Eskisehir**	**7.86**	**63**	Pn	**Pn**	**18 29 02.8**	**+2.4**
VENT	**Ventotene**	**7.94**	**307**	Pn	**Pn**	**18 29 00.9**	**-0.6**
	comp=Z,932nm,1.1s						
VENT	**Ventotene**	**7.94**	**307**	Pn	**Pn**	**18 29 00.9**	**-0.6**
	comp=Z,932nm,1.1s						
SVIS	**Svilajnac**	**7.97**	**357**	P	**Pn**	**18 29 01.3**	**-0.6**
TRUS	**Trudelj**	**7.99**	**353**	⇑*i*Pn	**Pn**	**18 29 00.4**	**-1.8**
RNI2	**Rionero Sannit**	**8.02**	**315**	Pn	**Pn**	**18 29 03.4**	**+0.7**
	comp=Z,3µm,0.8s						
RNI2	**Rionero Sannit**	**8.02**	**315**	Pn	**Pn**	**18 29 03.4**	**+0.7**
	comp=Z,3µm,0.8s						
CRAR	**CRAIOVA**	**8.16**	**10**	⇓P	**Pn**	**18 29 06.2**	**+1.6**
CRAR	**CRAIOVA**	**8.16**	**10**	⇓*i*P	**Pn**	**18 29 06.2**	**+1.6**
CRAR	**CRAIOVA**	**8.16**	**10**	P	**Pn**	**18 29 06.2**	**+1.6**
SVRH	**Sivrihisar-ESK**	**8.32**	**65**	*e*PN	**Pn**	**18 29 08.5**	**+1.7**
SVRH	**Sivrihisar-ESK**	**8.32**	**65**	*e*Pn	**Pn**	**18 29 08.5**	**+1.7**
INTR	**Introdacqua**	**8.36**	**315**	Pn	**Pn**	**18 29 08.1**	**+0.8**
	comp=Z,4µm,0.9s						
INTR	**Introdacqua**	**8.36**	**315**	Pn	**Pn**	**18 29 08.1**	**+0.8**
	comp=Z,4µm,0.9s						
DJES	**Djerdap**	**8.38**	**4**	P	**Pn**	**18 29 05.2**	**-2.3**
MDU	**Mudurnu**	**8.49**	**58**	*e*PN	**Pn**	**18 29 12.4**	**+3.2**
MDU	**Mudurnu**	**8.49**	**58**	Pn	**Pn**	**18 29 14.0**	**+4.8**
MDU	**Mudurnu**	**8.49**	**58**	*e*Pn	**Pn**	**18 29 12.4**	**+3.2**
KDHN	**Kadinhani**	**8.52**	**72**	⇓*i*P	**Pn**	**18 29 12.9**	**+3.4**
BEO	**Beograd**	**8.56**	**354**	P	**Pn**	**18 29 07.8**	**-2.2**
KONT	**Konya--Tatoy**	**8.61**	**76**	*e*PN	**Pn**	**18 29 13.6**	**+2.9**
KONT	**Konya--Tatoy**	**8.61**	**76**	Pn	**Pn**	**18 29 14.6**	**+3.8**
KONT	**Konya--Tatoy**	**8.61**	**76**	Pn	**Pn**	**18 29 14.6**	**+3.8**
HDMB	**Hadim**	**8.63**	**82**	*e*PN	**Pn**	**18 29 12.4**	**+1.3**
HDMB	**Hadim**	**8.63**	**82**	*e*Pn	**Pn**	**18 29 12.4**	**+1.3**
BUC1	**Bucharest**	**8.67**	**21**	⇑*i*P	**Pn**	**18 29 03.7**	**-7.8**
PPCY	**Paphos**	**8.72**	**96**	P	**Pn**	**18 29 08.7**	**-3.6**
PPCY	**Paphos**	**8.72**	**96**	P	**Pn**	**18 29 08.7**	**-3.6**
CERT	**Cerreto**	**8.86**	**312**	Pn	**Pn**	**18 29 13.7**	**-0.5**
	comp=Z,679nm,0.7s						
CERT	**Cerreto**	**8.86**	**312**	Pn	**Pn**	**18 29 13.7**	**-0.5**
	comp=Z,679nm,0.7s						
ALFC	**Alevga**	**8.87**	**94**	P	**Pn**	**18 29 10.3**	**-4.1**
	comp=Z,33nm,0.5s						
ALFC				S	**Sn**	**18 30 45.8**	**-8.1**
ALFC	**Alevga**	**8.87**	**94**	P	**Pn**	**18 29 10.3**	**-4.1**
	comp=Z,33nm,0.5s						
ALFC				S	**Sn**	**18 30 45.8**	**-8.1**
TERO	**Teramo**	**8.93**	**317**	Pn	**Pn**	**18 29 15.3**	**+0.1**
	comp=Z,1µm,0.8s						
TERO	**Teramo**	**8.93**	**317**	Pn	**Pn**	**18 29 15.3**	**+0.1**
	comp=Z,1µm,0.8s						
KDZE	**Karadeniz Ereo**	**9.05**	**53**	*e*PN	**Pn**	**18 29 20.1**	**+3.3**
KDZE	**Karadeniz Ereo**	**9.05**	**53**	*e*Pn	**Pn**	**18 29 20.1**	**+3.3**
LEF	**Lefka**	**9.11**	**94**	*e*PN	**Pn**	**18 29 17.5**	**-0.2**
LEF	**Lefka**	**9.11**	**94**	Pn	**Pn**	**18 29 17.9**	**+0.2**
LEF	**Lefka**	**9.11**	**94**	Pn	**Pn**	**18 29 17.9**	**+0.2**
GZR	**Gura Zlata**	**9.12**	**4**	⇓P	**Pn**	**18 29 17.8**	**+0.1**
GZR	**Gura Zlata**	**9.12**	**4**	⇓*i*P	**Pn**	**18 29 17.8**	**+0.1**
GZR	**Gura Zlata**	**9.12**	**4**	P	**Pn**	**18 29 17.6**	**0.0**
GZR	**Gura Zlata**	**9.12**	**4**	P	**Pn**	**18 29 17.8**	**+0.1**
BLY	**Banja Luka**	**9.13**	**339**	⇑*i*Pn	**Pn**	**18 29 16.6**	**-1.3**
SZAC	**Souni-Zanaja**	**9.18**	**96**	P	**Pn**	**18 29 14.8**	**-3.8**
	comp=Z,35nm,0.6s						
SZAC				S	**Sn**	**18 30 54.1**	**-7.4**
SZAC	**Souni-Zanaja**	**9.18**	**96**	P	**Pn**	**18 29 14.8**	**-3.8**
	comp=Z,35nm,0.6s						
SZAC				S	**Sn**	**18 30 54.1**	**-7.4**
BZS	**Buzias**	**9.31**	**359**	P	**Pn**	**18 29 20.0**	**-0.3**
BZS	**Buzias**	**9.31**	**359**	⇑*i*P	**Pn**	**18 29 18.8**	**-1.5**
BZS	**Buzias**	**9.31**	**359**	P	**Pn**	**18 29 19.9**	**-0.4**
BZS	**Buzias**	**9.31**	**359**	P	**Pn**	**18 29 20.0**	**-0.3**
CVD	**Cernavoda**	**9.32**	**29**	⇓P	**Pn**	**18 29 23.5**	**+3.1**
CVD	**Cernavoda**	**9.32**	**29**	⇓*i*P	**Pn**	**18 29 23.5**	**+3.1**
CVD	**Cernavoda**	**9.32**	**29**	⇓P	**Pn**	**18 29 23.5**	**+3.1**
CVD	**Cernavoda**	**9.32**	**29**	P	**Pn**	**18 29 23.5**	**+3.1**
MAMC	**Mammari**	**9.37**	**94**	P	**Pn**	**18 29 17.5**	**-3.7**
MAMC	**Mammari**	**9.37**	**94**	P	**Pn**	**18 29 17.5**	**-3.7**
LOD	**Lodumlu**	**9.37**	**64**	*e*PN	**Pn**	**18 29 23.9**	**+2.7**
LOD	**Lodumlu**	**9.37**	**64**	Pn	**Pn**	**18 29 24.5**	**+3.3**
LOD	**Lodumlu**	**9.37**	**64**	Pn	**Pn**	**18 29 24.5**	**+3.3**
VOIR		**9.46**	**14**	⇓P	**Pn**	**18 29 24.1**	**+1.8**
VOIR		**9.46**	**14**	⇓*i*P	**Pn**	**18 29 24.1**	**+1.8**
VOIR		**9.46**	**14**	P	**Pn**	**18 29 23.6**	**+1.3**
VOIR		**9.46**	**14**	P	**Pn**	**18 29 23.6**	**+1.3**
CSS	**Prodhromos**	**9.50**	**95**	P	**Pn**	**18 29 19.6**	**-3.3**
	comp=Z,38nm,1.1s						
CSS				S	**Sn**	**18 31 02.1**	**-7.2**
CSS	**Prodhromos**	**9.50**	**95**	Pn	**Pn**	**18 29 19.3**	**-3.6**
CSS				Sn	**Sn**	**18 31 00.6**	**-8.7**
CSS	**Prodhromos**	**9.50**	**95**	P	**Pn**	**18 29 19.6**	**-3.3**
	comp=Z,38nm,1.1s						
CSS				S	**Sn**	**18 31 02.1**	**-7.2**
ISR	**Istrita**	**9.52**	**21**	⇓P	**Pn**	**18 29 26.0**	**+2.8**
ISR	**Istrita**	**9.52**	**21**	⇓*i*P	**Pn**	**18 29 26.0**	**+2.8**
ISR	**Istrita**	**9.52**	**21**	⇓P	**Pn**	**18 29 26.0**	**+2.7**
ISR	**Istrita**	**9.52**	**21**	P	**Pn**	**18 29 26.0**	**+2.8**
SULT	**Sultanhani-AKS**	**9.55**	**75**	*e*PN	**Pn**	**18 29 26.5**	**+2.8**
SULT	**Sultanhani-AKS**	**9.55**	**75**	*e*Pn	**Pn**	**18 29 26.5**	**+2.9**
AOI	**Ancona**	**9.58**	**322**	Pn	**Pn**	**18 29 22.9**	**-1.2**
	comp=Z,1µm,1.0s						
AOI	**Ancona**	**9.58**	**322**	Pn	**Pn**	**18 29 22.9**	**-1.2**
	comp=Z,1µm,1.0s						
TIRR	**Tirgusor**	**9.59**	**30**	P	**Pn**	**18 29 25.8**	**+1.7**
TIRR	**Tirgusor**	**9.59**	**30**	⇓*i*P	**Pn**	**18 29 24.9**	**+0.8**
TIRR	**Tirgusor**	**9.59**	**30**	⇓*e*Pn	**Pn**	**18 29 23.4**	**-0.7**
	comp=Z,354nm,1.0s						
TIRR	**Tirgusor**	**9.59**	**30**	⇓*e*Pn	**Pn**	**18 29 23.4**	**-0.7**
	comp=Z,354nm,1.0s						
TIRR	**Tirgusor**	**9.59**	**30**	P	**Pn**	**18 29 25.8**	**+1.7**
HARR	**Harsova**	**9.60**	**27**	⇑P	**Pn**	**18 29 25.5**	**+1.2**
HARR	**Harsova**	**9.60**	**27**	⇑*i*P	**Pn**	**18 29 25.5**	**+1.2**
HARR	**Harsova**	**9.60**	**27**	P	**Pn**	**18 29 24.9**	**+0.6**
HARR	**Harsova**	**9.60**	**27**	P	**Pn**	**18 29 24.9**	**+0.6**
LFK	**Lefkose**	**9.60**	**93**	*e*PN	**Pn**	**18 29 23.9**	**-0.5**
LFK	**Lefkose**	**9.60**	**93**	Pn	**Pn**	**18 29 25.8**	**+1.4**
LFK	**Lefkose**	**9.60**	**93**	Pn	**Pn**	**18 29 25.8**	**+1.4**
DEV	**Deva**	**9.61**	**5**	⇓*i*P	**Pn**	**18 29 26.1**	**+1.6**
CING	**Cingoli**	**9.67**	**320**	Pn	**Pn**	**18 29 24.5**	**-0.7**
	comp=Z,1µm,1.1s						
CING	**Cingoli**	**9.67**	**320**	Pn	**Pn**	**18 29 24.5**	**-0.7**
	comp=Z,1µm,1.1s						
MLR	**Muntele Rosu**	**9.71**	**18**	P	**Pn**	**18 29 26.4**	**+0.6**
MLR						18 31 16.0	
MLR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MLR	**Muntele Rosu**	**9.71**	**18**	⇓*i*P	**Pn**	**18 29 27.6**	**+1.8**
MLR	**Muntele Rosu**	**9.71**	**18**	Pn	**Pn**	**18 29 26.4**	**+0.7**
	comp=Z,2.6nm,0.3s,baz=205,slow=5.7,SNR=49						
MLR				Sn	**Sn**	**18 31 16.0**	**+1.7**
	baz=353,slow=7.8,SNR=1.6						
MLR	**Muntele Rosu**	**9.71**	**18**	P	**Pn**	**18 29 27.8**	**+2.1**
MLR	**Muntele Rosu**	**9.71**	**18**	P	**Pn**	**18 29 26.4**	**+0.6**
	comp=Z,3.0nm,0.3s						
MLR				S	**Sn**	**18 31 16.0**	**+1.7**
MANS	**Anshas**	**9.71**	**120**	P	**Pn**	**18 29 25.5**	**-0.3**
NVLJ	**Novalja**	**9.79**	**330**	*e*Pn	**Pn**	**18 29 26.9**	**0.0**
NVLJ				Sn	**Sn**	**18 31 09.7**	**-6.6**
NVLJ	**Novalja**	**9.79**	**330**	*e*Pn	**Pn**	**18 29 26.9**	**0.0**
NVLJ				Sn	**Sn**	**18 31 09.7**	**-6.6**
NVLJ	**Novalja**	**9.79**	**330**	*e*Pn	**Pn**	**18 29 26.9**	**0.0**
KAMT	**Kaman**	**9.92**	**68**	*e*PN	**Pn**	**18 29 31.6**	**+2.8**
KAMT	**Kaman**	**9.92**	**68**	*e*Pn	**Pn**	**18 29 31.6**	**+2.8**
RHK3	**Tenkes**	**9.94**	**346**	⇑*e*P	**Pn**	**18 29 27.5**	**-1.5**
MURB	**Monte Urbino**	**9.95**	**317**	Pn	**Pn**	**18 29 29.8**	**+0.7**
	comp=Z,2µm,1.0s						
MURB	**Monte Urbino**	**9.95**	**317**	Pn	**Pn**	**18 29 29.8**	**+0.7**
	comp=Z,2µm,1.0s						
HNAT	**Natroun**	**9.96**	**129**	P	**Pn**	**18 29 25.0**	**-4.3**
HNAT	**Natroun**	**9.96**	**129**	P	**Pn**	**18 29 25.0**	**-4.3**
BRTR	**Keskin Array B**	**9.96**	**66**	Pn	**Pn**	**18 29 31.3**	**+2.0**
	comp=Z,1.6nm,0.3s,baz=249,slow=11,SNR=136						
BRTR				Sn	**Sn**	**18 31 22.7**	**+2.1**
	baz=213,slow=18,SNR=1.5						
BRTR	**Keskin Array B**	**9.96**	**66**	Pn	**Pn**	**18 29 31.3**	**+2.0**
BRTR				Sn	**Sn**	**18 31 22.7**	**+2.1**
HMYD	**Mayadein**	**9.96**	**128**	P	**Pn**	**18 29 24.7**	**-4.6**
HMYD	**Mayadein**	**9.96**	**128**	P	**Pn**	**18 29 24.7**	**-4.7**
AWBH		**9.98**	**141**	P	**Pn**	**18 29 25.7**	**-3.8**
AWBH		**9.98**	**141**	P	**Pn**	**18 29 25.7**	**-3.8**
MDB	**Medias**	**10.03**	**10**	⇑*i*P	**Pn**	**18 29 32.5**	**+2.4**
AANS		**10.03**	**124**	P	**Pn**	**18 29 25.5**	**-4.8**
PHNC	**Paralimni**	**10.05**	**94**	P	**Pn**	**18 29 27.0**	**-3.6**
	comp=Z,34nm,1.0s						
PHNC				S	**Sn**	**18 31 16.0**	**-6.9**
PHNC	**Paralimni**	**10.05**	**94**	P	**Pn**	**18 29 27.0**	**-3.6**
	comp=Z,34nm,1.0s						
PHNC				S	**Sn**	**18 31 16.0**	**-6.9**
EREN	**Erenkoy**	**10.08**	**91**	*e*PN	**Pn**	**18 29 31.6**	**+0.7**
EREN	**Erenkoy**	**10.08**	**91**	*e*Pn	**Pn**	**18 29 31.6**	**+0.7**
KEST	**Kesra**	**10.09**	**270**	Pn	**Pn**	**18 29 31.4**	**+0.4**
	comp=Z,2.5nm,0.3s,baz=70,slow=4.1,SNR=39						
KEST				Sn	**Sn**	**18 31 20.2**	**-3.5**
	comp=Z,1.6nm,0.3s,baz=215,slow=21,SNR=2.8						
KEST				LR	LR	18 33 31.4	
	comp=Z,26µm,21.0s,baz=30,slow=38						
PIEI	**Pieia**	**10.13**	**318**	Pn	**Pn**	**18 29 31.9**	**+0.4**
	comp=Z,585nm,0.9s						
PIEI	**Pieia**	**10.13**	**318**	Pn	**Pn**	**18 29 31.9**	**+0.4**
	comp=Z,585nm,0.9s						
SQR		**10.16**	**126**	P	**Pn**	**18 29 27.3**	**-4.8**
SQR		**10.16**	**126**	P	**Pn**	**18 29 27.3**	**-4.8**
PKSM	**Moragy**	**10.18**	**348**	P	**Pn**	**18 29 29.8**	**-2.4**
PKSM	**Moragy**	**10.18**	**348**	P	**Pn**	**18 29 29.8**	**-2.4**
FYM	**Al Fayyum**	**10.19**	**128**	P	**Pn**	**18 29 27.7**	**-4.7**
FYM				S	**Sn**	**18 31 14.5**	**-12**
PLOR	**Plostina**	**10.22**	**20**	⇑P	**Pn**	**18 29 34.6**	**+1.8**
PLOR	**Plostina**	**10.22**	**20**	⇑*i*P	**Pn**	**18 29 34.6**	**+1.8**
PLOR	**Plostina**	**10.22**	**20**	P	**Pn**	**18 29 34.6**	**+1.8**
CANT	**Cankiri**	**10.23**	**62**	*e*PN	**Pn**	**18 29 36.7**	**+3.8**
AYT	**Al ‘Ayyat**	**10.25**	**127**	P	**Pn**	**18 29 28.7**	**-4.6**
AYT	**Al ‘Ayyat**	**10.25**	**127**	P	**Pn**	**18 29 28.7**	**-4.6**
VRI	**Vrincioaia**	**10.26**	**20**	⇓P	**Pn**	**18 29 35.0**	**+1.7**
VRI	**Vrincioaia**	**10.26**	**20**	⇓*i*P	**Pn**	**18 29 35.0**	**+1.7**
VRI	**Vrincioaia**	**10.26**	**20**	P	**Pn**	**18 29 35.2**	**+1.9**
VRI	**Vrincioaia**	**10.26**	**20**	P	**Pn**	**18 29 35.0**	**+1.7**
MERS	**Mersin**	**10.27**	**83**	*e*PN	**Pn**	**18 29 34.0**	**+0.5**
MERS	**Mersin**	**10.27**	**83**	*e*Pn	**Pn**	**18 29 34.0**	**+0.6**
BADI	**Badiali**	**10.27**	**317**	Pn	**Pn**	**18 29 34.7**	**+1.3**
	comp=Z,1µm,1.2s						
BADI	**Badiali**	**10.27**	**317**	Pn	**Pn**	**18 29 34.7**	**+1.3**
	comp=Z,1µm,1.2s						
HLW	**Helwan**	**10.27**	**126**	P	**Pn**	**18 29 28.7**	**-4.9**
HLW	**Helwan**	**10.27**	**126**	P	**Pn**	**18 29 28.7**	**-4.9**
VSL	**Villasalto**	**10.31**	**292**	*e*Pn	**Pn**	**18 29 32.1**	**-1.9**
	comp=Z,342nm,0.9s						
VSL	**Villasalto**	**10.31**	**292**	*e*Pn	**Pn**	**18 29 32.1**	**-1.9**
	comp=Z,342nm,0.9s						
TLCR		**10.35**	**29**	⇓P	**Pn**	**18 29 36.4**	**+1.8**
TLCR		**10.35**	**29**	⇓*i*P	**Pn**	**18 29 36.4**	**+1.8**
TLCR		**10.35**	**29**	⇓P	**Pn**	**18 29 36.4**	**+1.8**
TLCR		**10.35**	**29**	P	**Pn**	**18 29 36.4**	**+1.8**
DGI	**Dorgali Grotta**	**10.37**	**296**	Pn	**Pn**	**18 29 34.8**	**-0.1**
	comp=Z,942nm,1.9s						
DGI	**Dorgali Grotta**	**10.37**	**296**	Pn	**Pn**	**18 29 34.8**	**-0.1**
	comp=Z,942nm,1.9s						
NIG	**Nigde**	**10.39**	**76**	*e*PN	**Pn**	**18 29 38.2**	**+3.0**
NIG	**Nigde**	**10.39**	**76**	*e*Pn	**Pn**	**18 29 38.2**	**+3.0**
PKS6	**Bocsa**	**10.43**	**352**	⇑*e*P	**Pn**	**18 29 34.3**	**-1.3**
BOJS	**Bojanci**	**10.43**	**334**	*i* Pn	**Pn**	**18 29 34.3**	**-1.4**
BOJS				*i* Sn	**Sn**	**18 31 26.2**	**-6.0**
BOJS	**Bojanci**	**10.43**	**334**	*i* Pn	**Pn**	**18 29 34.3**	**-1.4**
BOJS				*i* Sn	**Sn**	**18 31 26.2**	**-6.0**
BOJS	**Bojanci**	**10.43**	**334**	*i* Pn	**Pn**	**18 29 34.3**	**-1.4**
RSM	**Repubblica di**	**10.44**	**320**	P	**Pn**	**18 29 35.5**	**-0.3**
RSM				pmax	pmax		
	comp=Z,538nm,1.3s						
RSM	**Repubblica di**	**10.44**	**320**	Pn	**Pn**	**18 29 35.5**	**-0.3**
	comp=Z,538nm,1.3s						
RSM	**Repubblica di**	**10.44**	**320**	P	**Pn**	**18 29 35.5**	**-0.3**
	comp=Z,538nm,1.3s						
DRGR		**10.51**	**4**	⇓P	**Pn**	**18 29 36.8**	**+0.1**
DRGR		**10.51**	**4**	⇓*i*P	**Pn**	**18 29 36.8**	**+0.1**
DRGR		**10.51**	**4**	P	**Pn**	**18 29 36.6**	**-0.1**
DRGR		**10.51**	**4**	P	**Pn**	**18 29 36.8**	**+0.1**
KOT	**Kottamia**	**10.55**	**124**	P	**Pn**	**18 29 32.9**	**-4.5**
KOT	**Kottamia**	**10.55**	**124**	P	**Pn**	**18 29 32.8**	**-4.6**
HSAF	**As Saff**	**10.57**	**126**	P	**Pn**	**18 29 32.4**	**-5.3**
HSAF	**As Saff**	**10.57**	**126**	P	**Pn**	**18 29 32.4**	**-5.2**
PKS9	**Tamasi**	**10.61**	**347**	⇑*e*P	**Pn**	**18 29 36.3**	**-1.8**
TOS	**Tosya**	**10.68**	**60**	*e*PN	**Pn**	**18 29 41.9**	**+2.8**
TOS	**Tosya**	**10.68**	**60**	*e*Pn	**Pn**	**18 29 41.9**	**+2.9**
HFRF	**Wahat Farafira**	**10.68**	**147**	P	**Pn**	**18 29 35.6**	**-3.6**
HFRF	**Wahat Farafira**	**10.68**	**147**	P	**Pn**	**18 29 35.6**	**-3.6**
KARA	**Karaisali**	**10.69**	**81**	*e*PN	**Pn**	**18 29 41.9**	**+2.6**
KARA	**Karaisali**	**10.69**	**81**	*e*Pn	**Pn**	**18 29 41.9**	**+2.6**
HHAG	**Hagoal**	**10.71**	**123**	P	**Pn**	**18 29 34.6**	**-5.0**
HHAG	**Hagoal**	**10.71**	**123**	P	**Pn**	**18 29 34.6**	**-5.0**
CSNT	**Castellina Chi**	**10.78**	**315**	Pn	**Pn**	**18 29 41.0**	**+0.6**
	comp=Z,246nm,0.8s						
CSNT	**Castellina Chi**	**10.78**	**315**	Pn	**Pn**	**18 29 41.0**	**+0.6**
	comp=Z,246nm,0.8s						
HBNS	**Bani Suwayf**	**10.81**	**130**	P	**Pn**	**18 29 36.8**	**-4.1**
HBNS	**Bani Suwayf**	**10.81**	**130**	P	**Pn**	**18 29 36.8**	**-4.1**
BEHE	**Becsehely**	**10.83**	**341**	⇓*e*P	**Pn**	**18 29 39.9**	**-1.3**
PKS7	**Kunszentmiklos**	**10.92**	**351**	⇓*e*P	**Pn**	**18 29 41.2**	**-1.1**
KRTS	**Karatas**	**10.96**	**85**	*e*PN	**Pn**	**18 29 44.4**	**+1.5**
KRTS	**Karatas**	**10.96**	**85**	*e*Pn	**Pn**	**18 29 44.4**	**+1.5**
BZK	**Bozkurt**	**11.04**	**56**	*e*PN	**Pn**	**18 29 45.7**	**+1.6**
BZK	**Bozkurt**	**11.04**	**56**	*e*Pn	**Pn**	**18 29 45.7**	**+1.6**
LJU	**Ljubljana**	**11.16**	**333**	*i* P	**Pn**	**18 29 43.8**	**-1.8**
LJU				*e*		18 31 43.3	
LJU	**Ljubljana**	**11.16**	**333**	*i* Pn	**Pn**	**18 29 43.8**	**-1.9**
LJU				*e*Sn	**Sn**	**18 31 43.3**	**-6.6**
LJU	**Ljubljana**	**11.16**	**333**	*i* Pn	**Pn**	**18 29 43.8**	**-1.9**
LJU				*e*Sn	**Sn**	**18 31 43.3**	**-6.6**
LJU	**Ljubljana**	**11.16**	**333**	*i* P	**Pn**	**18 29 43.8**	**-1.8**
OSPF	**L’Ospedale**	**11.16**	**302**	*e*P	**Pn**	**18 29 44.2**	**-1.5**
OSPF	**L’Ospedale**	**11.16**	**302**	*e*P	**Pn**	**18 29 44.2**	**-1.5**
YOZ	**Yozgat**	**11.20**	**69**	*e*PN	**Pn**	**18 29 47.4**	**+1.2**
YOZ	**Yozgat**	**11.20**	**69**	*e*Pn	**Pn**	**18 29 47.4**	**+1.2**
JAVS	**Javornik**	**11.21**	**331**	*i* Pn	**Pn**	**18 29 44.4**	**-1.9**
JAVS				*i* Sn	**Sn**	**18 31 44.0**	**-7.1**
JAVS	**Javornik**	**11.21**	**331**	*i* Pn	**Pn**	**18 29 44.4**	**-1.9**
JAVS				*i* Sn	**Sn**	**18 31 44.0**	**-7.1**
JAVS	**Javornik**	**11.21**	**331**	*i* Pn	**Pn**	**18 29 44.4**	**-1.9**
SUZ		**11.28**	**122**	P	**Pn**	**18 29 42.4**	**-5.0**
SUZ		**11.28**	**122**	P	**Pn**	**18 29 42.4**	**-5.0**
FNVD	**Fontana Vidola**	**11.31**	**317**	Pn	**Pn**	**18 29 49.6**	**+1.9**
	comp=Z,564nm,0.8s						
FNVD	**Fontana Vidola**	**11.31**	**317**	Pn	**Pn**	**18 29 49.6**	**+1.9**
	comp=Z,564nm,0.8s						
KOZT	**Kozan**	**11.31**	**80**	*e*PN	**Pn**	**18 29 48.3**	**+0.5**
KOZT	**Kozan**	**11.31**	**80**	*e*Pn	**Pn**	**18 29 48.3**	**+0.5**
BYBT	**Boyabat**	**11.36**	**59**	*e*PN	**Pn**	**18 29 48.3**	**-0.1**
BYBT	**Boyabat**	**11.36**	**59**	*e*Pn	**Pn**	**18 29 48.3**	**-0.1**
BUD	**Budapest**	**11.36**	**350**	⇑*e*P	**Pn**	**18 29 47.5**	**-0.9**
BUD	**Budapest**	**11.36**	**350**	⇑*e*P	**Pn**	**18 29 47.5**	**-0.9**
PKSG		**11.37**	**348**	⇓*e*P	**Pn**	**18 29 46.5**	**-2.0**
VOY	**Vojsko**	**11.39**	**331**	*e*Pn	**Pn**	**18 29 46.4**	**-2.4**
VOY				*e*Sn	**Sn**	**18 31 46.1**	**-9.4**
VOY	**Vojsko**	**11.39**	**331**	*e*Pn	**Pn**	**18 29 46.4**	**-2.4**
VOY				*e*Sn	**Sn**	**18 31 46.1**	**-9.4**
VOY	**Vojsko**	**11.39**	**331**	*e*Pn	**Pn**	**18 29 46.4**	**-2.4**
ZAF		**11.44**	**125**	P	**Pn**	**18 29 45.0**	**-4.6**
ZAF				S	**Sn**	**18 31 44.5**	**-13**
ZAF		**11.44**	**125**	P	**Pn**	**18 29 45.0**	**-4.6**
ZAF				S	**Sn**	**18 31 44.5**	**-12**
BNN	**Bunyan**	**11.45**	**73**	*e*PN	**Pn**	**18 29 52.1**	**+2.5**
BNN	**Bunyan**	**11.45**	**73**	*e*Pn	**Pn**	**18 29 52.1**	**+2.4**
PERS	**Pernice**	**11.47**	**336**	*i* Pn	**Pn**	**18 29 47.7**	**-2.1**
PERS				*i* Sn	**Sn**	**18 31 49.7**	**-7.8**
PERS	**Pernice**	**11.47**	**336**	*i* Pn	**Pn**	**18 29 47.7**	**-2.1**
PERS				*i* Sn	**Sn**	**18 31 49.7**	**-7.8**
PERS	**Pernice**	**11.47**	**336**	*i* Pn	**Pn**	**18 29 47.7**	**-2.2**
HNTI	**Hanita**	**11.48**	**102**	Sn	**Sn**	**18 31 46.6**	**-11**
OFRI	**‘Ofer**	**11.50**	**105**	Pn	**Pn**	**18 29 46.6**	**-3.8**
ZCCA	**Zocca**	**11.51**	**318**	Pn	**Pn**	**18 29 52.1**	**+1.7**
	comp=Z,848nm,1.1s						
ZCCA	**Zocca**	**11.51**	**318**	Pn	**Pn**	**18 29 52.1**	**+1.7**
	comp=Z,848nm,1.1s						
SOKA	**Soboth**	**11.53**	**336**	⇑*i*Pn	**Pn**	**18 29 48.6**	**-2.1**
	comp=Z,122nm,0.5s						
SOKA				⇑*i*Sn	**Sn**	**18 31 51.4**	**-7.7**
	comp=Z,260nm,0.8s						
BDI	**Bagni Di Lucca**	**11.54**	**316**	P	**Pn**	**18 29 50.7**	**-0.1**
BDI				pmax	pmax		
	comp=Z,1µm,1.9s						
BDI	**Bagni Di Lucca**	**11.54**	**316**	Pn	**Pn**	**18 29 50.7**	**-0.1**
	comp=Z,1µm,1.9s						
BDI	**Bagni Di Lucca**	**11.54**	**316**	P	**Pn**	**18 29 50.7**	**-0.1**
	comp=Z,1µm,1.9s						
ABSA	**Djebel Ababsia**	**11.54**	**274**	P	**Pn**	**18 29 53.7**	**+2.7**
OBKA	**Obir**	**11.55**	**334**	⇓*i*Pn	**Pn**	**18 29 49.6**	**-1.4**
	comp=Z,70nm,0.5s						
OBKA				⇓*i*Sn	**Sn**	**18 31 55.4**	**-4.0**
	comp=Z,745nm,0.8s						
IESO	**Jesolo**	**11.55**	**326**	⇓*e*P	**Pn**	**18 29 52.0**	**+1.0**
IESO	**Jesolo**	**11.55**	**326**	⇓*e*P	**Pn**	**18 29 52.0**	**+1.0**
CMAH	**Djebel Manchou**	**11.57**	**276**	P	**Pn**	**18 29 51.7**	**+0.4**
CMAH	**Djebel Manchou**	**11.57**	**276**	P	**Pn**	**18 29 51.7**	**+0.4**
BURAR	**Bucovina Array**	**11.59**	**12**	⇓P	**Pn**	**18 29 52.9**	**+1.4**
BURAR	**Bucovina Array**	**11.59**	**12**	⇓*i*P	**Pn**	**18 29 52.9**	**+1.4**
BURAR	**Bucovina Array**	**11.59**	**12**	P	**Pn**	**18 29 53.0**	**+1.5**
BURAR	**Bucovina Array**	**11.59**	**12**	P	**Pn**	**18 29 53.0**	**+1.5**
BUR02	**Bucovina Ar. S**	**11.60**	**12**	P	**Pn**	**18 29 53.0**	**+1.4**
BUR02	**Bucovina Ar. S**	**11.60**	**12**	P	**Pn**	**18 29 53.0**	**+1.4**
ZNM		**11.60**	**123**	P	**Pn**	**18 29 46.8**	**-4.9**
ZNM		**11.60**	**123**	P	**Pn**	**18 29 46.8**	**-5.0**
HTY	**Hatay**	**11.60**	**87**	*e*PN	**Pn**	**18 29 51.6**	**-0.2**
HTY	**Hatay**	**11.60**	**87**	*e*Pn	**Pn**	**18 29 51.6**	**-0.2**
BHL	**Bhannes**	**11.61**	**98**	*e*Pn	**Pn**	**18 29 46.8**	**-5.1**
BUR08	**Bucovina Ar. S**	**11.62**	**12**	*e*P	**Pn**	**18 29 52.9**	**+1.0**
BUR08	**Bucovina Ar. S**	**11.62**	**12**	*e*P	**Pn**	**18 29 52.9**	**+1.0**
BLGI	**Bet Lehem HaGe**	**11.62**	**104**	Pn	**Pn**	**18 29 48.3**	**-3.7**
TLI	**Talmassons**	**11.62**	**328**	⇑*i*P	**Pn**	**18 29 51.0**	**-1.0**
TLI	**Talmassons**	**11.62**	**328**	⇑*i*P	**Pn**	**18 29 51.0**	**-1.0**
PGF	**Pioggiola**	**11.68**	**306**	*e*P	**Pn**	**18 29 52.1**	**-0.7**
	comp=Z,2µm,1.2s						
PGF	**Pioggiola**	**11.68**	**306**	*e*P	**Pn**	**18 29 52.1**	**-0.7**
PGF				pmax	pmax		
	comp=Z,844nm,1.2s						
PGF	**Pioggiola**	**11.68**	**306**	*e*P	**Pn**	**18 29 52.1**	**-0.7**
	comp=Z,844nm,1.2s						
PGF	**Pioggiola**	**11.68**	**306**	*e*P	**Pn**	**18 29 52.1**	**-0.7**
	comp=Z,844nm,1.2s						
MMAI	**Mount Meron Ar**	**11.69**	**102**	Pn	**Pn**	**18 29 48.0**	**-4.9**
	comp=Z,7.8nm,0.3s,baz=310,slow=12,SNR=36						
MMAI				Sn	**Sn**	**18 31 52.2**	**-11**
	comp=Z,20nm,0.3s,baz=307,slow=15,SNR=3.7						
MMA0	**Mount Meron ar**	**11.69**	**102**	Pn	**Pn**	**18 29 48.8**	**-4.1**
MMA0				Sn	**Sn**	**18 31 52.9**	**-10**
SLTI	**Sal’it**	**11.69**	**106**	Pn	**Pn**	**18 29 48.2**	**-4.8**
SLTI				Sn	**Sn**	**18 31 51.6**	**-11**
PSZ	**Piszkesteto**	**11.70**	**354**	⇓*e*P	**Pn**	**18 29 50.6**	**-2.4**
PSZ				*e*		18 31 57.3	
PSZ				pmax	pmax		
	comp=Z,747nm,0.9s						
PSZ	**Piszkesteto**	**11.70**	**354**	⇓*i*P	**Pn**	**18 29 51.5**	**-1.4**
PSZ	**Piszkesteto**	**11.70**	**354**	⇑*e*P	**Pn**	**18 29 52.0**	**-0.9**
PSZ	**Piszkesteto**	**11.70**	**354**	⇓*e*Pn	**Pn**	**18 29 50.6**	**-2.3**
	comp=Z,747nm,0.9s						
PSZ				*e*Sn	**Sn**	**18 31 57.3**	**-5.7**
PSZ	**Piszkesteto**	**11.70**	**354**	*e*P	**Pn**	**18 29 50.6**	**-2.4**
	comp=Z,747nm,0.9s						
VLC	**Villacollemand**	**11.72**	**316**	⇑*i*Pn	**Pn**	**18 29 55.0**	**+1.7**
	comp=Z,220nm,1.0s						
VLC	**Villacollemand**	**11.72**	**316**	⇑*i*Pn	**Pn**	**18 29 55.0**	**+1.7**
	comp=Z,220nm,1.0s						
HWQ	**Hawqa**	**11.75**	**96**	*e*Pn	**Pn**	**18 29 49.6**	**-4.2**
KZIT	**Kziot**	**11.81**	**113**	Pn	**Pn**	**18 29 49.3**	**-5.3**
KZIT				Sn	**Sn**	**18 31 54.0**	**-12**
TRPA	**Tarpa**	**11.84**	**2**	⇓*e*P	**Pn**	**18 29 54.4**	**-0.5**
BUA	**Buia**	**11.85**	**329**	⇓*i*P	**Pn**	**18 29 55.0**	**-0.1**
BUA	**Buia**	**11.85**	**329**	⇓*i*P	**Pn**	**18 29 55.0**	**-0.1**
ERBM	**Eremo**	**11.86**	**317**	Pn	**Pn**	**18 29 56.6**	**+1.3**
	comp=Z,918nm,1.2s						
ERBM	**Eremo**	**11.86**	**317**	Pn	**Pn**	**18 29 56.6**	**+1.3**
	comp=Z,918nm,1.2s						
RCY	**Rachaya**	**11.87**	**100**	*e*Pn	**Pn**	**18 29 50.0**	**-5.4**
ARSA	**Arzberg**	**11.89**	**339**	⇓*i*Pn	**Pn**	**18 29 53.5**	**-2.2**
	comp=Z,61nm,0.5s						
ARSA				⇑*i*Sn	**Sn**	**18 32 02.4**	**-5.4**
	comp=Z,61nm,0.8s						
KIS	**Kishinev**	**11.91**	**24**	κ *i*P	**Pn**	**18 29 56.0**	**+0.1**
KIS				*i* S	**Sn**	**18 32 08.0**	**-0.2**
KIS				pmax	pmax		
	comp=Z,800nm,1.0s						
KIS				pmax	pmax		
	comp=Z,3µm,2.0s						
KIS				MLR	MLR		
	comp=Z,64µm,14.0s						
KIS				MLR	MLR		
	comp=Z,7µm,12.0s						
KIS	**Kishinev**	**11.91**	**24**	⇓*i*P	**Pn**	**18 29 56.0**	**+0.1**
	comp=Z,800nm,1.0s						
KIS	**Kishinev**	**11.91**	**24**	*i* PP		18 30 12.0	
	comp=Z,5µm,4.0s						
KIS				*i* S	**Sn**	**18 32 08.0**	**-0.2**
KIS				*i* Li		18 32 36.0	
KIS				*i* LQ		18 33 12.0	
KIS				LRM		18 35 00.0	
	comp=Z,77µm,12.0s						
KIS	**Kishinev**	**11.91**	**24**	*i* P	**Pn**	**18 29 56.0**	**+0.1**
	comp=Z,64µm,14.0s						
KIS				*i* S	**Sn**	**18 32 08.0**	**-0.2**
	comp=Z,7µm,12.0s						
PTCC	**Patocco-Chiusa**	**11.91**	**331**	Pn	**Pn**	**18 29 53.9**	**-2.0**
	comp=Z,466nm,1.1s						
PTCC	**Patocco-Chiusa**	**11.91**	**331**	Pn	**Pn**	**18 29 53.9**	**-2.0**
	comp=Z,466nm,1.1s						
BOO	**Bordano**	**11.94**	**330**	⇑*i*P	**Pn**	**18 29 55.0**	**-1.3**
BOO	**Bordano**	**11.94**	**330**	⇑*i*P	**Pn**	**18 29 55.0**	**-1.3**
RTMI	**Retamim**	**11.96**	**112**	Pn	**Pn**	**18 29 51.8**	**-4.8**
RTMI				Sn	**Sn**	**18 31 57.5**	**-12**
CAE	**Caneva**	**11.98**	**327**	⇓*i*P	**Pn**	**18 29 56.0**	**-0.8**
CAE	**Caneva**	**11.98**	**327**	⇓*i*P	**Pn**	**18 29 56.0**	**-0.8**
MYKA	**Terra Mystica**	**11.98**	**332**	⇑*i*Pn	**Pn**	**18 29 55.7**	**-1.2**
	comp=Z,66nm,0.8s						
MYKA				⇑*i*Sn	**Sn**	**18 32 01.4**	**-8.6**
	comp=Z,183nm,0.8s						
MLNI	**Malnisio**	**12.01**	**328**	⇑*i*P	**Pn**	**18 29 56.0**	**-1.3**
MLNI	**Malnisio**	**12.01**	**328**	⇑*i*P	**Pn**	**18 29 56.0**	**-1.3**
SOP	**Sopron**	**12.02**	**343**	⇓*e*P	**Pn**	**18 29 55.4**	**-1.9**
SOP	**Sopron**	**12.02**	**343**	⇓*e*P	**Pn**	**18 29 55.4**	**-1.9**
KSHT	**Keshet**	**12.02**	**102**	Pn	**Pn**	**18 29 54.2**	**-3.3**
CAEH	**’Ain El Ouahch**	**12.02**	**277**	P	**Pn**	**18 30 00.0**	**+2.5**
HNKL	**Nakhl**	**12.03**	**118**	P	**Pn**	**18 29 52.6**	**-5.1**
HNKL				S	**Sn**	**18 31 57.7**	**-14**
HNKL	**Nakhl**	**12.03**	**118**	P	**Pn**	**18 29 52.6**	**-5.1**
HNKL				S	**Sn**	**18 31 57.7**	**-14**
HMDT	**Nahal Hemdat**	**12.06**	**106**	Pn	**Pn**	**18 29 53.0**	**-5.1**
SARI	**SarD1z-Kayseri**	**12.09**	**74**	*e*PN	**Pn**	**18 29 57.2**	**-1.1**
KVT	**Kavak**	**12.12**	**62**	*e*PN	**Pn**	**18 29 59.8**	**+1.0**
KVT	**Kavak**	**12.12**	**62**	*e*Pn	**Pn**	**18 29 59.8**	**+0.9**
FKH	**Fakeheh**	**12.13**	**95**	*e*Pn	**Pn**	**18 29 54.6**	**-4.3**
YTIR	**Yattir**	**12.13**	**110**	Pn	**Pn**	**18 29 53.8**	**-5.2**
YTIR				Sn	**Sn**	**18 32 01.9**	**-12**
CKFL	**Kef-Lekhel**	**12.15**	**275**	P	**Pn**	**18 30 01.4**	**+2.2**
CKFL	**Kef-Lekhel**	**12.15**	**275**	P	**Pn**	**18 30 01.4**	**+2.2**
ASUT		**12.15**	**134**	P	**Pn**	**18 29 55.5**	**-3.9**
ASUT		**12.15**	**134**	P	**Pn**	**18 29 55.5**	**-3.8**
KMRS	**Kahramanmaras**	**12.17**	**80**	*e*PN	**Pn**	**18 30 01.1**	**+1.6**
KMRS	**Kahramanmaras**	**12.17**	**80**	*e*Pn	**Pn**	**18 30 01.1**	**+1.6**
KECS	**Kecovo**	**12.21**	**356**	*e*P	**Pn**	**18 29 59.2**	**-0.8**
KECS				*e*		18 32 16.2	
KECS	**Kecovo**	**12.21**	**356**	*e*PN	**Pn**	**18 29 59.2**	**-0.8**
KECS				*e*SN	**Sn**	**18 32 16.2**	**+0.5**
KECS	**Kecovo**	**12.21**	**356**	*e*Pn	**Pn**	**18 29 59.2**	**-0.8**
KECS				*e*Sn	**Sn**	**18 32 16.2**	**+0.5**
DSI	**Dead Sea**	**12.24**	**109**	Pn	**Pn**	**18 29 55.0**	**-5.5**
DSI				Sn	**Sn**	**18 32 04.3**	**-12**
RMNI	**Mount Ramon**	**12.24**	**114**	Pn	**Pn**	**18 29 56.0**	**-4.5**
CSMI	**Casera Mimoias**	**12.28**	**329**	⇑*i*P	**Pn**	**18 30 00.0**	**-1.0**
CSMI	**Casera Mimoias**	**12.28**	**329**	⇑*i*P	**Pn**	**18 30 00.0**	**-1.0**
UZH	**Uzhgorod**	**12.33**	**2**	⇓*e*P	**Pn**	**18 30 00.0**	**-1.6**
UZH				*e*S	**Sn**	**18 32 14.0**	**-4.5**
UZH				MLR	MLR		
	comp=N,46µm,13.0s						
UZH				MLR	MLR		
	comp=E,81µm,13.0s						
UZH				MLR	MLR		
	comp=Z,50µm,13.0s						
UZH	**Uzhgorod**	**12.33**	**2**	*i* P	**Pn**	**18 30 01.3**	**-0.3**
UZH	**Uzhgorod**	**12.33**	**2**	*i* P	**Pn**	**18 30 01.3**	**-0.3**
MZDA	**Masada**	**12.34**	**110**	Pn	**Pn**	**18 29 56.4**	**-5.5**
MZDA				Sn	**Sn**	**18 32 06.6**	**-12**
CASM	**Ain Smara**	**12.34**	**274**	P	**Pn**	**18 30 03.9**	**+2.0**
CASM	**Ain Smara**	**12.34**	**274**	P	**Pn**	**18 30 03.9**	**+2.0**

Code	Station	Dist	Az	Phase	ISC	Time	Res
VYHS	Vyhne	12.38	351	eP	Pn	18 30 00.4	-1.9
VYHS				e		18 32 13.9	
VYHS	Vyhne	12.38	351	ePN	Pn	18 30 00.4	-1.9
VYHS				eSN	Sn	18 32 13.9	-5.8
VYHS	Vyhne	12.38	351	ePn	Pn	18 30 00.4	-1.9
VYHS				eSn	Sn	18 32 13.9	-5.8
VYHS	Vyhne	12.38	351	eP	Pn	18 30 00.4	-1.9
ZST	Bratislava	12.38	345	eP	Pn	18 30 00.8	-1.5
ZST				e		18 32 11.6	
ZST	Bratislava	12.38	345	ePN	Pn	18 30 00.8	-1.5
ZST				eSN	Sn	18 32 11.6	-8.2
ZST	Bratislava	12.38	345	ePn	Pn	18 30 00.8	-1.5
ZST				eSn	Sn	18 32 11.6	-8.2
ZST	Bratislava	12.38	345	eP	Pn	18 30 00.8	-1.5
GAZ	Gaziantep	12.41	81	ePN	Pn	18 30 02.4	-0.5
GAZ	Gaziantep	12.41	81	ePn	Pn	18 30 02.4	-0.4
CONA	Conrad Observa	12.42	341	⇓ePn	Pn	18 30 00.6	-2.2
	comp=Z,156nm,0.8s						
CONA				⇑iSn	Sn	18 32 19.0	-1.7
	comp=Z,62nm,0.7s						
CSNA	Conrad Observa	12.42	341	⇑iPn	Pn	18 30 01.1	-1.8
	comp=Z,24nm,0.9s						
CTEI	Djebel Teioual	12.43	273	P	Pn	18 30 05.0	+2.0
CTEI	Djebel Teioual	12.43	273	P	Pn	18 30 05.0	+2.0
KRMI	Paran Flat	12.46	116	Pn	Pn	18 29 58.4	-5.2
KRMI				Sn	Sn	18 32 08.5	-14
KBA	Koelnbreinsper	12.47	332	⇑ePn	Pn	18 30 03.0	-0.5
	comp=Z,187nm,0.8s						
KBA				⇑iSn	Sn	18 32 15.9	-6.0
	comp=Z,173nm,0.7s						
AFL	Alpe Faloria	12.49	328	⇑eP	Pn	18 30 03.0	-0.9
AFL	Alpe Faloria	12.49	328	⇑eP	Pn	18 30 03.0	-0.9
SVSK	Karacayir	12.52	69	ePN	Pn	18 30 06.2	+2.0
SVSK	Karacayir	12.52	69	ePn	Pn	18 30 06.2	+1.9
KOLL	Kolacno	12.52	350	eP	Pn	18 30 02.4	-1.8
KOLL				e		18 32 15.3	
KOLL	Kolacno	12.52	350	ePN	Pn	18 30 02.3	-1.9
KOLL				eSN	Sn	18 32 15.3	-7.9
KOLL	Kolacno	12.52	350	ePn	Pn	18 30 02.4	-1.8
KOLL				eSn	Sn	18 32 15.3	-7.9
KOLL	Kolacno	12.52	350	eP	Pn	18 30 02.4	-1.8
ABTA	Abfaltersbach	12.53	329	⇑ePn	Pn	18 30 02.7	-1.6
	comp=Z,120nm,0.6s						
ABTA				⇑iSn	Sn	18 32 14.6	-8.8
	comp=Z,669nm,1.2s						
PRNI	Paran	12.54	114	Pn	Pn	18 29 59.4	-5.3
PRNI				Sn	Sn	18 32 11.1	-13
ZFRI	Zfri	12.57	113	Pn	Pn	18 30 00.2	-4.8
ZFRI				Sn	Sn	18 32 11.2	-13
CRVS	Cervenica-Dubn	12.60	359	eP	Pn	18 30 03.6	-1.7
CRVS	Cervenica-Dubn	12.60	359	ePN	Pn	18 30 03.5	-1.8
CRVS				eSN	Sn	18 32 11.3	-14
CRVS	Cervenica-Dubn	12.60	359	ePn	Pn	18 30 03.6	-1.7
CRVS				eSn	Sn	18 32 11.3	-14
CRVS	Cervenica-Dubn	12.60	359	eP	Pn	18 30 03.6	-1.7
SMOL	Smolenice	12.62	347	eP	Pn	18 30 04.2	-1.4
SMOL				e		18 32 17.3	
SMOL	Smolenice	12.62	347	ePN	Pn	18 30 04.2	-1.4
SMOL				eSN	Sn	18 32 17.3	-8.3
SMOL	Smolenice	12.62	347	ePn	Pn	18 30 04.2	-1.4
SMOL				eSn	Sn	18 32 17.3	-8.3
SMOL	Smolenice	12.62	347	eP	Pn	18 30 04.2	-1.4
KOLS	Kolonicke sedl	12.63	1	eP	Pn	18 30 05.2	-0.6
KOLS				e		18 32 17.6	
KOLS	Kolonicke sedl	12.63	1	ePN	Pn	18 30 05.2	-0.6
KOLS				eSN	Sn	18 32 17.6	-8.3
KOLS	Kolonicke sedl	12.63	1	ePn	Pn	18 30 05.2	-0.6
KOLS				eSn	Sn	18 32 17.6	-8.3
KOLS	Kolonicke sedl	12.63	1	eP	Pn	18 30 05.2	-0.6
SIM	Simferopol’	12.73	43	deP	Pn	18 30 07.0	-0.2
SIM				S	Sn	18 32 37.0	+8.6
SIM				pmax	pmax		
	comp=Z,1µm,4.7s						
SIM				MLR	MLR		
	comp=Z,60µm,16.4s						
SIM	Simferopol’	12.73	43	eP	Pn	18 30 07.0	-0.2
	comp=Z,60µm,16.4s						
MBRI	Mt Berech	12.78	117	Pn	Pn	18 30 02.6	-5.3
MOA	Molln	12.81	337	⇑iPn	Pn	18 30 06.4	-1.8
	comp=Z,57nm,0.5s						
MOA				⇓iSn	Sn	18 32 25.2	-5.1
	comp=Z,194nm,0.6s						
DFRA	Djebel Bou Aff	12.81	276	P	Pn	18 30 11.5	+3.2
EIL	Elat	12.88	117	Pn	Pn	18 30 04.3	-4.9
	comp=Z,9.7nm,0.3s,baz=331,slow=9.5,SNR=36						
EIL				Sn	Sn	18 32 20.3	-12
	comp=Z,28nm,0.3s,baz=275,slow=23,SNR=5.3						
EIL	Elat	12.88	117	Pn	Pn	18 30 04.3	-4.9
EIL				Sn	Sn	18 32 20.3	-12
EIL	Elat	12.88	117	Pn	Pn	18 30 03.7	-5.5
EIL				Sn	Sn	18 32 19.0	-13
APPI	Appiano	12.88	325	Pn	Pn	18 30 08.2	-0.9
	comp=Z,466nm,1.1s						
APPI	Appiano	12.88	325	Pn	Pn	18 30 08.2	-0.9
	comp=Z,466nm,1.1s						
HKAT	Jabal Katrina	12.90	123	P	Pn	18 30 04.7	-4.8
HKAT	Jabal Katrina	12.90	123	P	Pn	18 30 04.7	-4.8
AQBJ	Aqaba	12.91	117	Pn	Pn	18 30 04.6	-5.1
DARE	Darende-Malaty	12.98	73	ePN	Pn	18 30 07.5	-3.0
HBST	Basata	12.98	119	P	Pn	18 30 05.7	-4.9
HBST	Basata	12.98	119	P	Pn	18 30 05.7	-4.9
STHS	Stebnicka Huta	13.12	358	eP	Pn	18 30 11.5	-0.9
STHS	Stebnicka Huta	13.12	358	ePN	Pn	18 30 11.5	-0.9
STHS				eSN	Sn	18 32 16.7	-21
STHS	Stebnicka Huta	13.12	358	ePn	Pn	18 30 11.5	-0.9
STHS				eSn	Sn	18 32 16.7	-21
STHS	Stebnicka Huta	13.12	358	eP	Pn	18 30 11.5	-0.9
CKHR	Kef el Ahmar	13.15	274	P	Pn	18 30 16.0	+3.1
NIE	Niedzica	13.16	356	eP	Pn	18 30 12.8	-0.1
NIE				ePP		18 30 20.3	
NIE				e		18 30 27.6	
NIE	Niedzica	13.16	356	eP	Pn	18 30 12.8	-0.1
NIE	Niedzica	13.16	356	eP	Pn	18 30 12.8	-0.1
NIE				ePP		18 30 20.3	
NIE				e		18 30 27.6	
NIE	Niedzica	13.16	356	eP	Pn	18 30 12.8	-0.1
ASF	Jabal al Asfar	13.17	104	Pn	Pn	18 30 07.9	-5.2
	comp=Z,0.8nm,0.3s,baz=105,slow=2.7,SNR=3.6						
ASF				Sn	Sn	18 32 28.1	-11
	comp=Z,3.4nm,0.3s,baz=280,slow=22,SNR=2.4						
ASF				LR	LR	18 36 46.4	
	comp=Z,23µm,18.8s,baz=9.5,slow=45						
HQLS		13.17	118	P	Pn	18 30 08.2	-4.9
HAQS	Haql	13.21	119	P	Pn	18 30 08.7	-5.1
SET	Setif	13.22	274	P	Pn	18 30 17.0	+3.1
RJOB	Jochberg	13.23	333	eP	Pn	18 30 12.8	-1.1
RJOB				eS	Sn	18 32 32.9	-7.5
BRMO	Bormio	13.28	323	Pn	Pn	18 30 14.8	+0.2
	comp=Z,590nm,1.4s						
BRMO	Bormio	13.28	323	Pn	Pn	18 30 14.8	+0.2
	comp=Z,590nm,1.4s						
WTTA	Wattenberg	13.30	329	⇑iPn	Pn	18 30 15.5	+0.6
	comp=Z,166nm,1.0s						
WTTA				⇓eSn	Sn	18 32 37.7	-4.6
	comp=Z,390nm,0.7s						
SAOF	Saorge	13.31	310	eP	Pn	18 30 14.9	-0.1
SAOF	Saorge	13.31	310	eP	Pn	18 30 14.9	-0.1
SBF	Sospel	13.32	309	eP	Pn	18 30 14.7	-0.5
	comp=Z,1µm,1.1s						
SBF	Sospel	13.32	309	eP	Pn	18 30 14.7	-0.5
SBF				pmax	pmax		
	comp=Z,612nm,1.1s						
SBF	Sospel	13.32	309	eP	Pn	18 30 14.7	-0.5
	comp=Z,612nm,1.1s						
SBF	Sospel	13.32	309	eP	Pn	18 30 14.7	-0.5
	comp=Z,612nm,1.1s						
KWP	Kalwaria Pacla	13.34	3	eP	Pn	18 30 16.7	+1.3
KWP				e		18 30 35.3	
KWP				eS	Sn	18 32 50.2	+7.0
KWP				LMZ		18 35 28.8	
	comp=Z,65µm,21.4s						
KWP	Kalwaria Pacla	13.34	3	eP	Pn	18 30 16.7	+1.2
KWP				eS	Sn	18 32 50.2	+6.9
KWP	Kalwaria Pacla	13.34	3	⇓iP	Pn	18 30 16.7	+1.2
KWP	Kalwaria Pacla	13.34	3	eP	Pn	18 30 16.7	+1.2
KWP				e		18 30 35.3	
KWP				eS	Sn	18 32 50.2	+6.9
KWP	Kalwaria Pacla	13.34	3	eP	Pn	18 30 16.7	+1.2
WATA	Walderalm	13.38	329	⇑iPn	Pn	18 30 17.3	+1.3
	comp=Z,143nm,0.6s						
WATA				⇑iSn	Sn	18 32 37.5	-6.8
	comp=Z,148nm,0.6s						
LUCF	Luceram	13.39	309	eP	Pn	18 30 16.2	+0.1
LUCF	Luceram	13.39	309	eP	Pn	18 30 16.2	+0.1
AUTN	L’Aution	13.39	309	eP	Pn	18 30 15.9	-0.2
AUTN	L’Aution	13.39	309	eP	Pn	18 30 15.9	-0.2
SHRM		13.40	125	P	Pn	18 30 11.4	-5.0
SHRM		13.40	125	P	Pn	18 30 11.4	-5.0
MYA	Malataya	13.41	76	ePN	Pn	18 30 19.0	+2.7
MYA	Malataya	13.41	76	ePn	Pn	18 30 19.0	+2.6
MALT	Malatya	13.41	76	ePN	Pn	18 30 17.7	+1.3
MALT	Malatya	13.41	76	⇓P	Pn	18 30 18.5	+2.1
MALT	Malatya	13.41	76	⇓iP	Pn	18 30 18.5	+2.1
MALT	Malatya	13.41	76	⇑ePn	Pn	18 30 15.9	-0.5
	comp=Z,395nm,0.9s						
MALT	Malatya	13.41	76	Pn	Pn	18 30 16.7	+0.3
MALT	Malatya	13.41	76	Pn	Pn	18 30 16.7	+0.3
MALT	Malatya	13.41	76	P	Pn	18 30 18.5	+2.1
SQTA	Sankt Quirin	13.45	327	⇓iPn	Pn	18 30 18.1	+1.2
	comp=Z,8.1nm,0.3s						
SQTA				⇓iSn	Sn	18 32 41.4	-4.5
	comp=Z,173nm,0.6s						
TOUF	Mont Tournerai	13.51	309	eP	Pn	18 30 17.7	-0.1
TOUF	Mont Tournerai	13.51	309	eP	Pn	18 30 17.7	-0.1
FETA	Feichten	13.51	326	⇑ePn	Pn	18 30 18.2	+0.4
	comp=Z,155nm,0.8s						
MVIF	Mont Vial	13.51	309	eP	Pn	18 30 17.5	-0.3
MVIF	Mont Vial	13.51	309	eP	Pn	18 30 17.5	-0.3
VRAC	Vranov	13.54	345	P	Pn	18 30 16.5	-1.7
VRAC						18 32 39.3	
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRAC				smax			
	comp=N,1.0nm,0.3s						
VRAC	Vranov	13.54	345	⇓iP	Pn	18 30 16.4	-1.8
VRAC	Vranov	13.54	345	Pn	Pn	18 30 16.5	-1.7
	comp=N,1.4nm,0.3s,baz=174,slow=12,SNR=75						
VRAC				Sn	Sn	18 32 39.3	-8.8
	comp=N,0.6nm,0.3s,baz=189,slow=9.0,SNR=1.2						
VRAC	Vranov	13.54	345	P	Pn	18 30 16.3	-1.9
VRAC	Vranov	13.54	345	P	Pn	18 30 16.5	-1.7
	comp=N,1.0nm,0.3s						
RSHS		13.59	122	P	Pn	18 30 18.4	-0.5
RSHS		13.59	122	P	Pn	18 30 18.4	-0.5
MOTA	Moosalm	13.59	328	⇓iPn	Pn	18 30 19.0	+0.1
	comp=N,6.2nm,0.4s						
MOTA				⇑iSn	Sn	18 32 46.4	-2.9
	comp=N,218nm,0.7s						
CALN	Calern	13.61	308	eP	Pn	18 30 19.0	-0.2
CALN	Calern	13.61	308	eP	Pn	18 30 19.0	-0.2
LVV	L’vov	13.61	6	eP	Pn	18 30 18.5	-0.6
LVV				eS	Sn	18 32 50.4	+0.6
LVV				MLR	MLR		
	comp=N,20µm,12.0s						
LVV				MLR	MLR		
	comp=E,16µm,12.0s						
LVV				MLR	MLR		
	comp=Z,20µm,12.0s						
LVV	L’vov	13.61	6	eP	Pn	18 30 18.7	-0.4
LVV	L’vov	13.61	6	eP	Pn	18 30 18.7	-0.4
LVV				eS	Sn	18 32 50.4	+0.6
LMR	La Mourre	13.67	306	eP	Pn	18 30 19.3	-0.6
	comp=Z,339nm,1.2s						
LMR	La Mourre	13.67	306	eP	Pn	18 30 19.3	-0.6
LMR				pmax	pmax		
	comp=Z,169nm,1.2s						
LMR	La Mourre	13.67	306	eP	Pn	18 30 19.3	-0.6
	comp=Z,169nm,1.2s						
LMR	La Mourre	13.67	306	eP	Pn	18 30 19.3	-0.6
	comp=Z,169nm,1.2s						
FRF	La Foret Royal	13.68	307	eP	Pn	18 30 19.3	-0.8
	comp=Z,354nm,1.1s						
FRF	La Foret Royal	13.68	307	eP	Pn	18 30 19.3	-0.8
FRF				pmax	pmax		
	comp=Z,177nm,1.1s						
FRF	La Foret Royal	13.68	307	eP	Pn	18 30 19.3	-0.8
	comp=Z,177nm,1.1s						
FRF	La Foret Royal	13.68	307	eP	Pn	18 30 19.3	-0.8
	comp=Z,177nm,1.1s						
BDAS	Al Bad‘	13.71	121	P	Pn	18 30 17.9	-2.7
DAVOX	Davos/Dischmat	13.73	323	Pn	Pn	18 30 21.3	+0.5
	comp=Z,1.7nm,0.3s,baz=153,slow=12,SNR=32						
DAVOX				Sn	Sn	18 32 45.4	-7.4
	comp=Z,11nm,0.3s,baz=324,slow=23,SNR=6.3						
DAVOX	Davos/Dischmat	13.73	323	Pn	Pn	18 30 21.3	+0.5
TREC	Trest	13.78	342	eP	Pn	18 30 19.8	-1.6
TREC				AMS	AMS	18 35 20.0	
	comp=Z,113µm,17.7s						
TREC	Trest	13.78	342	eP	Pn	18 30 19.8	-1.6
	comp=Z,13µm,17.7s						
TUE	Stuetta	13.78	321	ePn	Pn	18 30 19.3	-2.2
	comp=Z,572nm,1.0s						
TUE	Stuetta	13.78	321	ePn	Pn	18 30 19.3	-2.2
	comp=Z,572nm,1.0s						
OKC	Ostrava-Krasne	13.79	350	eP	Pn	18 30 20.8	-0.7
OKC				AMS	AMS	18 36 50.0	
	comp=Z,52µm,12.2s						
OKC	Ostrava-Krasne	13.79	350	P	Pn	18 30 20.8	-0.7
OKC	Ostrava-Krasne	13.79	350	eP	Pn	18 30 20.8	-0.7
JLOS		13.80	119	P	Pn	18 30 16.2	-5.7
DAVOS	Davos	13.82	323	P	Pn	18 30 21.3	-0.6
DAVOS						18 32 45.4	
DAVOS	Davos	13.82	323	P	Pn	18 30 21.3	-0.6
MORC	Moravsky Berou	13.82	348	P	Pn	18 30 20.4	-1.5
MORC	Moravsky Berou	13.82	348	⇓iP	Pn	18 30 20.3	-1.6
MORC	Moravsky Berou	13.82	348	ePn	Pn	18 30 19.2	-2.7
	comp=Z,395nm,1.1s						
MORC	Moravsky Berou	13.82	348	⇓iP	Pn	18 30 20.3	-1.6
MORC	Moravsky Berou	13.82	348	P	Pn	18 30 20.4	-1.5
RETA	Reutte	13.85	327	⇑ePn	Pn	18 30 24.0	+1.6
	comp=Z,71nm,0.8s						
RETA				⇑iSn	Sn	18 32 51.2	-4.5
	comp=Z,223nm,0.7s						
GEC2	GERESS Array S	13.87	337	eP	Pn	18 30 19.7	-2.9
GERES	GERESS Array B	13.87	337	Pn	Pn	18 30 20.2	-2.4
	comp=Z,3.6nm,0.3s,baz=156,slow=13,SNR=62						
GERES				Sn	Sn	18 32 48.6	-7.5
	comp=Z,8.0nm,0.3s,baz=156,slow=23,SNR=8.8						
GERES	GERESS Array B	13.87	337	P	Pn	18 30 20.2	-2.4
OJC	Ojcow	13.99	355	eP	Pn	18 30 24.2	-0.1
OJC				ePP		18 30 32.6	
OJC				eS	Sn	18 32 56.7	-2.3
OJC				eSS		18 33 12.2	
OJC				L		18 36 39.5	
	comp=Z,113nm,16.1s						
OJC	Ojcow	13.99	355	eP	Pn	18 30 24.2	-0.1
OJC				eS	Sn	18 32 56.7	-2.3
OJC	Ojcow	13.99	355	eP	Pn	18 30 24.2	-0.1
OJC				ePP		18 30 32.6	
OJC				eS	Sn	18 32 56.7	-2.3
OJC				eSS		18 33 12.2	
OJC	Ojcow	13.99	355	eP	Pn	18 30 24.2	-0.1
OJC				eS	Sn	18 32 56.7	-2.3
SURF	Saint Ours	14.02	310	eP	Pn	18 30 26.3	+1.6
SURF	Saint Ours	14.02	310	eP	Pn	18 30 26.3	+1.6
RAC	Raciborz	14.02	350	eP	Pn	18 30 23.7	-1.0
RAC				eS	Sn	18 33 06.2	+6.4
RAC	Raciborz	14.02	350	eP	Pn	18 30 23.7	-1.0
TAVF	Tavernes	14.09	306	eP	Pn	18 30 25.2	-0.5
TAVF	Tavernes	14.09	306	eP	Pn	18 30 25.2	-0.5
DAVA	Damuels	14.10	325	⇓ePn	Pn	18 30 26.7	+0.9
	comp=Z,74nm,0.8s						
DAVA				⇓eSn	Sn	18 32 56.2	-5.5
	comp=Z,260nm,0.6s						
OG22	Abries	14.11	312	eP	Pn	18 30 25.6	-0.4
OG22	Abries	14.11	312	eP	Pn	18 30 25.6	-0.4
KHC	Kasperske Hory	14.16	337	eP	Pn	18 30 24.0	-2.6
KHC				ex	x	18 30 29.5	
KHC				epP		18 30 36.5	
KHC				ex	x	18 30 49.5	
KHC				ex	x	18 30 58.5	
KHC				eS	Sn	18 32 53.3	-10
KHC				AMS	AMS	18 36 10.0	
	comp=Z,95µm,18.7s						
FUR	Furstenfeldbru	14.16	330	eP	Pn	18 30 24.5	-2.2
FUR				eS	Sn	18 32 53.3	-10
MBDF	Montbardon	14.17	311	eP	Pn	18 30 26.8	+0.1
	comp=Z,879nm,0.9s						
MBDF	Montbardon	14.17	311	eP	Pn	18 30 26.8	+0.1
MBDF				pmax	pmax		
	comp=Z,439nm,0.9s						
MBDF	Montbardon	14.17	311	eP	Pn	18 30 26.8	+0.1
	comp=Z,439nm,0.9s						
MBDF	Montbardon	14.17	311	eP	Pn	18 30 26.8	+0.1
	comp=Z,439nm,0.9s						
HSFG		14.19	130	P	Pn	18 30 23.4	-3.7
HSFG		14.19	130	P	Pn	18 30 23.4	-3.7
BERF	Bertagne	14.20	304	eP	Pn	18 30 27.2	0.0
BERF	Bertagne	14.20	304	eP	Pn	18 30 27.2	0.0
STOF	St-Etienne Org	14.35	307	eP	Pn	18 30 31.3	+2.0
STOF	St-Etienne Org	14.35	307	eP	Pn	18 30 31.3	+2.0
WET	Wettzell	14.39	336	eP	Pn	18 30 27.2	-2.6
BNI	Bardonecchia	14.40	312	eP	Pn	18 30 28.8	-1.0
BNI				pmax	pmax		
	comp=Z,351nm,1.3s						
BNI	Bardonecchia	14.40	312	ePn	Pn	18 30 28.8	-1.0
	comp=Z,351nm,1.3s						
BNI	Bardonecchia	14.40	312	ePn	Pn	18 30 28.8	-1.0
	comp=Z,351nm,1.3s						
GELF	Grande-Etoile	14.41	304	eP	Pn	18 30 30.0	0.0
GELF	Grande-Etoile	14.41	304	eP	Pn	18 30 30.0	0.0
VILF	Villemus	14.41	306	eP	Pn	18 30 30.7	+0.6
VILF	Villemus	14.41	306	eP	Pn	18 30 30.7	+0.6
TREF	Trevaresse	14.53	305	eP	Pn	18 30 31.7	0.0
TREF	Trevaresse	14.53	305	eP	Pn	18 30 31.7	0.0
SMRF	Simiane la Rot	14.56	307	eP	Pn	18 30 31.4	-0.7
	comp=Z,430nm,1.1s						
SMRF	Simiane la Rot	14.56	307	eP	Pn	18 30 31.4	-0.7
	comp=Z,430nm,1.1s						
DPC	Dobruska-Polom	14.59	346	eP	Pn	18 30 30.6	-1.8
DPC				AMS	AMS	18 36 10.0	
	comp=Z,84µm,16.5s						
LPG	La Plagne	14.60	314	eP	Pn	18 30 31.9	-0.7
	comp=Z,479nm,1.1s						
LPG	La Plagne	14.60	314	eP	Pn	18 30 31.9	-0.7
LPG				pmax	pmax		
	comp=Z,239nm,1.1s						
LPG	La Plagne	14.60	314	eP	Pn	18 30 31.9	-0.7
	comp=Z,239nm,1.1s						
ANN	Anapa	14.60	50	eP	Pn	18 30 34.3	+1.7
LPL	La Plagne	14.62	314	eP	Pn	18 30 32.4	-0.4
	comp=Z,486nm,1.0s						
LPL	La Plagne	14.62	314	eP	Pn	18 30 32.4	-0.4
LPL				pmax	pmax		
	comp=Z,243nm,1.0s						
LPL	La Plagne	14.62	314	eP	Pn	18 30 32.4	-0.4
	comp=Z,243nm,1.0s						
PRU	Pruhonice	14.66	341	eP	Pn	18 30 32.3	-1.1
PRU				eS	Sn	18 33 23.4	+8.1
PRU				AMS	AMS	18 36 30.0	
	comp=Z,75µm,15.4s						
PRU	Pruhonice	14.66	341	eP	Pn	18 30 32.3	-1.1
PRU				eS	Sn	18 33 23.4	+8.1
PRAF	Pradon	14.75	306	eP	Pn	18 30 36.3	+1.6
PRAF	Pradon	14.75	306	eP	Pn	18 30 36.3	+1.6
RSL	Roselend	14.78	314	eP	Pn	18 30 34.2	-0.8
RSL	Roselend	14.78	314	eP	Pn	18 30 34.2	-0.8
UPC	Upice	14.80	345	eP	Pn	18 30 33.8	-1.5
ORIF	Oris-en-Rattie	14.81	310	eP	Pn	18 30 35.6	+0.1
	comp=Z,542nm,1.1s						
ORIF				eMLR	MLR		
	comp=Z,117µm,20.8s						
ORIF	Oris-en-Rattie	14.81	310	eP	Pn	18 30 35.6	+0.1
ORIF				pmax	pmax		
	comp=Z,271nm,1.1s						
ORIF	Oris-en-Rattie	14.81	310	eP	Pn	18 30 35.6	+0.1
	comp=Z,271nm,1.1s						
GDM	Grand’Maison	14.81	312	eP	Pn	18 30 36.0	+0.5
GDM	Grand’Maison	14.81	312	eP	Pn	18 30 36.0	+0.5
OCF	Saint Nazaire	15.01	308	eP	Pn	18 30 36.6	-1.6
OG26	St.-Nazaire-De	15.01	308	eP	Pn	18 30 36.6	-1.6
OG26	St.-Nazaire-De	15.01	308	eP	Pn	18 30 36.6	-1.6
GRN	Grenoble	15.06	311	eP	Pn	18 30 37.4	-1.4
GRN	Grenoble	15.06	311	eP	Pn	18 30 37.4	-1.4
HQSR		15.06	131	P	Pn	18 30 36.0	-3.0
HQSR		15.06	131	P	Pn	18 30 36.0	-3.0
KSP	Ksiaz	15.06	347	eS	Sx	18 33 46.1	
KSP				LMZ		18 36 34.8	
	comp=Z,147µm,21.0s						
KSP	Ksiaz	15.06	347	eP	Pn	18 30 36.8	-2.1
KSP				e		18 30 38.9	
KSP				epP	pP	18 30 45.7	-3.3
KSP				eS	Sn	18 33 20.0	-5.2
OG01	Vacheresse	15.11	316	eP	Pn	18 30 41.5	+2.0
OG01	Vacheresse	15.11	316	eP	Pn	18 30 41.5	+2.0
PVCC	Panska Ves	15.15	342	eP	Pn	18 30 38.2	-1.7
PVCC				AMS	AMS	18 36 20.0	
	comp=Z,102µm,16.8s						
ROTZ	Rotzenmuhle	15.15	336	eP	Pn	18 30 37.2	-2.8
EMHD	Djebel Mahouad	15.20	275	P	Pn	18 30 42.8	+2.1
SPAK	Spaichingen-Ko	15.20	325	eP	Pn	18 30 41.0	+0.3
SPAK	Spaichingen-Ko	15.20	325	eP	Pn	18 30 41.0	+0.3
ETOS	Mallorca	15.34	289	P	Pn	18 30 45.6	+3.0
	comp=Z,90nm,0.9s						
ETOS	Mallorca	15.34	289	P	Pn	18 30 45.6	+3.0
	comp=Z,90nm,0.9s						
KIEV	Kiev	15.35	18	⇓eP	Pn	18 30 39.1	-3.6
KIEV				pmax	pmax		
	comp=Z,84nm,0.5s						
KIEV	Kiev	15.35	18	⇓ePn	Pn	18 30 39.1	-3.5
	comp=Z,84nm,0.5s						
AKASG	Malin Array Be	15.36	18	P	Pn	18 30 39.4	-3.4
AKASG						18 33 30.5	
AKASG	Malin Array Be	15.36	18	Pn	Pn	18 30 39.4	-3.4
	comp=Z,9.8nm,0.3s,baz=208,slow=12,SNR=74						
AKASG				Sn	Sn	18 33 30.5	-2.0
	baz=208,slow=12,SNR=2.2						
AKASG				LR	LR	18 37 02.9	
	comp=Z,20µm,19.1s,baz=175,slow=39						
MANZ	Manzenberg	15.37	336	eP	Pn	18 30 40.0	-2.9
MANZ				eS	Sn	18 33 25.0	-7.7
BBS	Basel-Blauen	15.38	321	eP	Pn	18 30 43.4	+0.4
BBS	Basel-Blauen	15.38	321	eP	Pn	18 30 43.4	+0.4
BBS	Basel-Blauen	15.38	321	eP	Pn	18 30 43.4	+0.4
FELD	Feldberg im Sc	15.41	323	eP	Pn	18 30 42.8	-0.7
FELD	Feldberg im Sc	15.41	323	eP	Pn	18 30 42.8	-0.7
GRA1	Grafenberg Arr	15.43	333	eP	Pn	18 30 41.0	-2.7
GRF	Grafenberg Arr	15.43	333	eP	Pn	18 30 41.0	-2.7
GRF				eL		18 38 02.9	
	comp=Z,128µm,19.1s						
NKC	Novy Kostel	15.48	337	eP	Pn	18 30 42.7	-1.6
NKC				eS	Sn	18 33 40.3	+5.0
NKC				AMS	AMS	18 37 40.0	
	comp=Z,100µm,13.2s						
NKC	Novy Kostel	15.48	337	eP	Pn	18 30 42.7	-1.6
NKC				eS	Sn	18 33 40.3	+5.0
STU	Stuttgart	15.51	327	P	Pn	18 30 43.2	-1.5
STU				pmax	pmax		
	comp=Z,480nm,1.2s						
STU	Stuttgart	15.51	327	eP	Pn	18 30 43.5	-1.2
STU	Stuttgart	15.51	327	ePn	Pn	18 30 42.9	-1.8
	comp=Z,478nm,1.2s						
STU	Stuttgart	15.51	327	ePn	Pn	18 30 42.9	-1.8
	comp=Z,478nm,1.2s						
VIVF	Saint-Julien-l	15.54	309	eP	Pn	18 30 44.0	-1.1
	comp=Z,381nm,1.0s						
VIVF	Saint-Julien-l	15.54	309	eP	Pn	18 30 44.0	-1.1
VIVF				pmax	pmax		
	comp=Z,191nm,1.0s						
VIVF	Saint-Julien-l	15.54	309	eP	Pn	18 30 44.0	-1.1
	comp=Z,191nm,1.0s						
SOC	Sochi	15.55	57	eP	Pn	18 30 48.9	+3.7
SOC				e		18 33 40.0	
SOC				pmax	pmax		
	comp=Z,75nm,1.0s						
SOC				MLR	MLR		
	comp=Z,32µm,17.0s						
SOC	Sochi	15.55	57	eP	Pn	18 30 48.9	+3.7
	comp=Z,75nm,1.0s						
ASHG	Umm Shaghir	15.55	144	P	Pn	18 30 43.4	-2.0
WERN	Wernitzgruen	15.55	337	eP	Pn	18 30 43.2	-2.0
BFO	Black Forest	15.58	325	i P	Pn	18 30 45.0	-0.6
BFO	Black Forest	15.58	325	eP	Pn	18 30 44.6	-1.0
CABF	La Chapelle	15.61	316	eP	Pn	18 30 43.1	-2.9
	comp=Z,277nm,0.8s						
CABF	La Chapelle	15.61	316	eP	Pn	18 30 43.1	-2.9
CABF				pmax	pmax		
	comp=Z,138nm,0.8s						
CABF	La Chapelle	15.61	316	eP	Pn	18 30 43.1	-2.9
	comp=Z,138nm,0.8s						
BRG	Berggiesshubel	15.62	341	i P	Pn	18 30 45.0	-1.2
BRG				S	Sn	18 33 33.0	-5.7
BRG				pmax	pmax		
	comp=Z,106nm,1.1s						
BRG	Berggiesshubel	15.62	341	eP	Pn	18 30 44.7	-1.5
BRG	Berggiesshubel	15.62	341	i P	Pn	18 30 45.0	-1.2
	comp=Z,177nm,1.1s						
BRG				i PP		18 30 53.3	
	comp=Z,281nm,2.2s						
BRG				i		18 31 22.9	

	comp=Z,235nm,1.1s						
BRG				S	Sn	18 33 33.0	-5.7
BRG							
	comp=N,109μm,13.7s						
BRG							
	comp=E,142μm,13.5s						
BRG							
	comp=Z,96μm,17.9s						
BRG	Berggiesshubel	15.62	341	*i* P	Pn	18 30 45.0	-1.2
	comp=Z,106nm,1.1s						
BRG				*i* PP		18 30 53.3	
BRG				*i*		18 31 22.9	
BRG				S	Sn	18 33 33.0	-5.7
GUNZ	Gunzen	15.63	337	*e*P	Pn	18 30 44.4	-1.9
TANN	Tannenbergstha	15.63	337	*e*P	Pn	18 30 44.4	-1.9
LOMF	Lomont	15.66	319	*e*P	Pn	18 30 45.1	-1.6
LOMF	Lomont	15.66	319	*e*P	Pn	18 30 45.1	-1.6
WERD	Werda	15.71	337	*e*P	Pn	18 30 45.3	-2.0
LASF	Ste Croix	15.73	305	*e*P	Pn	18 30 45.0	-2.6
	comp=Z,763nm,1.2s						
LIBD	Limburg	15.80	323	*e*P	Pn	18 30 48.2	-0.3
LIBD	Limburg	15.80	323	*e*P	Pn	18 30 48.2	-0.3
LIBD	Limburg	15.80	323	*e*P	Pn	18 30 48.2	-0.3
SSB	Saint Sauveur	15.81	310	*e*P	Pn	18 30 47.3	-1.4
SSB	Saint Sauveur	15.81	310	*e*P	Pn	18 30 47.3	-1.4
FBE	Freiberg	15.82	340	*e*P	Pn	18 30 46.5	-2.3
MOF	Molkenrain	15.83	321	*e*P	Pn	18 30 48.2	-0.7
MOF	Molkenrain	15.83	321	*e*P	Pn	18 30 48.2	-0.7
EJON	La Jonquera	15.84	299	P	Pn	18 30 51.8	+2.8
	comp=Z,67nm,1.0s						
EJON	La Jonquera	15.84	299	P	Pn	18 30 51.8	+2.8
	comp=Z,67nm,1.0s						
SJAF	Saint Jean de	15.85	299	*e*P	Pn	18 30 48.9	-0.3
SJAF	Saint Jean de	15.85	299	*e*P	Pn	18 30 48.9	-0.3
HINF	Hinteralfeld	15.95	321	*e*P	Pn	18 30 49.1	-1.3
	comp=Z,2μm,1.6s						
HINF	Hinteralfeld	15.95	321	*e*P	Pn	18 30 49.1	-1.3
HINF				pmax	pmax		
	comp=Z,1μm,1.6s						
HINF	Hinteralfeld	15.95	321	*e*P	Pn	18 30 49.1	-1.3
	comp=Z,1μm,1.6s						
WAR	Warsaw	15.95	358	*e*P	Pn	18 30 51.7	+1.3
WAR				*e*S	Sn	18 33 56.9	+10
WAR				LMZ		18 36 53.5	
	comp=Z,40μm,25.6s						
WAR	Warsaw	15.95	358	*e*P	Pn	18 30 51.7	+1.3
WAR	Warsaw	15.95	358	*e*P	Pn	18 30 51.7	+1.3
WAR				*e*S	Sn	18 33 56.9	+10
WAR	Warsaw	15.95	358	*e*P	Pn	18 30 51.7	+1.3
HMSM	Jabal Masmas	15.99	144	P	Pn	18 30 49.2	-1.9
HMSM	Jabal Masmas	15.99	144	P	Pn	18 30 49.2	-1.9
ECH	Echery	16.06	322	*e*P	Pn	18 30 51.4	-0.4
ECH	Echery	16.06	322	*e*P	Pn	18 30 51.4	-0.4
MOX	Moxa	16.10	336	*e*P	Pn	18 30 50.2	-2.2
	comp=Z,330nm,1.5s						
MOX	Moxa	16.10	336	*e*P	Pn	18 30 50.2	-2.2
MOX				pmax	pmax		
	comp=Z,330nm,1.5s						
MOX	Moxa	16.10	336	*e*P	Pn	18 30 49.9	-2.5
	comp=Z,353nm,1.5s						
MOX	Moxa	16.10	336	*e*P	Pn	18 30 50.2	-2.2
	comp=Z,330nm,1.5s						
CDF	Champ du Feu	16.14	323	*e*P	Pn	18 30 51.9	-0.9
	comp=Z,597nm,0.8s						
CDF	Champ du Feu	16.14	323	*e*P	Pn	18 30 51.9	-0.9
CDF				pmax	pmax		
	comp=Z,299nm,0.8s						
CDF	Champ du Feu	16.14	323	*e*P	Pn	18 30 51.9	-0.9
	comp=Z,299nm,0.8s						
LRDF	Laroque-de-Fa	16.23	300	*e*P	Pn	18 30 52.7	-1.3
LRDF	Laroque-de-Fa	16.23	300	*e*P	Pn	18 30 52.7	-1.3
SWS	Schriesheim-Wi	16.26	328	P	Pn	18 30 54.3	-0.1
CLL	Collm	16.27	340	*e*P	Pn	18 30 53.0	-1.5
CLL	Collm	16.27	340	*e*P	Pn	18 30 52.4	-2.1
	comp=Z,527nm,1.5s						
CLL	Collm	16.27	340	*e*P	Pn	18 30 53.0	-1.5
CLL				*i*		18 30 54.3	
	comp=Z,79nm,1.1s						
CLL				Pmax		18 30 56.0	
CLL				*e*sP	sP	18 30 59.0	-5.6
	comp=Z,214nm,1.3s						
CLL				*e*PP		18 31 05.0	
CLL				*e*(sPP)		18 31 09.0	
	comp=Z,429nm,1.2s						
CLL				*e*S	Sn	18 34 06.0	+12
CLL				Lmax		18 38 30.0	
CLL	Collm	16.27	340	*e*P	Pn	18 30 53.0	-1.5
CLL				*i*		18 30 54.3	
CLL				*e*		18 30 59.0	
CLL				*e*		18 31 05.0	
CLL				*e*S	Sn	18 34 06.0	+12
LANF	Langenberg	16.29	325	*e*P	Pn	18 30 55.5	+0.8
LANF	Langenberg	16.29	325	*e*P	Pn	18 30 55.5	+0.8
TOD	Tromm	16.31	329	*e*P	Pn	18 30 54.5	-0.6
TOD	Tromm	16.31	329	*e*P	Pn	18 30 54.5	-0.6
TOD	Tromm	16.31	329	*e*P	Pn	18 30 54.5	-0.6
HAU	Haudompre	16.33	321	*e*P	Pn	18 30 54.1	-1.2
	comp=Z,2μm,1.1s						
HAU				*e*MLR	MLR		
	comp=Z,58μm,18.8s						
HAU	Haudompre	16.33	321	*e*P	Pn	18 30 54.1	-1.2
HAU				pmax	pmax		
	comp=Z,1μm,1.1s						
HAU	Haudompre	16.33	321	*e*P	Pn	18 30 54.1	-1.2
	comp=Z,1μm,1.1s						
EBNR	Beni Rached	16.33	276	P	Pn	18 30 58.5	+3.1
EBNR	Beni Rached	16.33	276	P	Pn	18 30 58.5	+3.1
KTD	Kalmit	16.41	327	*e*P	Pn	18 30 59.2	+2.9
KTD	Kalmit	16.41	327	*e*P	Pn	18 30 59.2	+2.9
KTD	Kalmit	16.41	327	*e*P	Pn	18 30 59.2	+2.9
EIBI	Ibiza	16.41	286	P	Pn	18 30 57.7	+1.3
	comp=Z,95nm,1.1s						
EIBI	Ibiza	16.41	286	P	Pn	18 30 57.7	+1.3
	comp=Z,95nm,1.1s						
VALF	Valcebollere	16.44	298	*e*P	Pn	18 30 57.1	+0.3
VALF	Valcebollere	16.44	298	*e*P	Pn	18 30 57.1	+0.3
CARF	Carcanieres	16.46	299	*e*P	Pn	18 30 54.9	-2.2
ECHA	Ech Chlef	16.48	276	P	Pn	18 30 59.3	+2.0
ECHA	Ech Chlef	16.48	276	P	Pn	18 30 59.3	+2.0
MTLF	Montolieu	16.57	301	*e*P	Pn	18 30 56.4	-2.1
	comp=Z,270nm,1.3s						
MTLF	Montolieu	16.57	301	*e*P	Pn	18 30 56.4	-2.1
MTLF				pmax	pmax		
	comp=Z,135nm,1.3s						
MTLF	Montolieu	16.57	301	*e*P	Pn	18 30 56.4	-2.1
	comp=Z,135nm,1.3s						
LBL	Lubilhac	16.61	308	*e*P	Pn	18 31 00.1	+1.2
LBL	Lubilhac	16.61	308	*e*P	Pn	18 31 00.1	+1.2
ETRT	Tiaret	16.63	273	P	Pn	18 31 00.0	+0.7
ETRT	Tiaret	16.63	273	P	Pn	18 31 00.0	+0.7
THEF	They Montfort	16.66	321	*e*P	Pn	18 30 59.0	-0.5
THEF	They Montfort	16.66	321	*e*P	Pn	18 30 59.0	-0.5
EMIR	Miracle	16.68	296	P	Pn	18 31 01.1	+1.3
	comp=Z,376nm,2.7s						
EMIR	Miracle	16.68	296	P	Pn	18 31 01.1	+1.3
	comp=Z,376nm,2.7s						
EANR	’Ain N’Sour	16.71	275	P	Pn	18 31 01.0	+0.7
EANR	’Ain N’Sour	16.71	275	P	Pn	18 31 01.0	+0.7
UBBA	Unterbreizbach	16.81	333	*e*P	Pn	18 31 00.3	-1.0
	comp=Z,996nm,1.8s						
EPOB	Poblet	16.89	294	P	Pn	18 31 04.1	+1.6
	comp=Z,48nm,0.9s						
EPOB	Poblet	16.89	294	P	Pn	18 31 04.1	+1.6
	comp=Z,48nm,0.9s						
SMF	Signal de Mont	16.92	313	*e*P	Pn	18 30 59.9	-2.9
	comp=Z,443nm,0.9s						
SMF	Signal de Mont	16.92	313	*e*P	Pn	18 30 59.9	-2.9
SMF				pmax	pmax		
	comp=Z,222nm,0.9s						
SMF	Signal de Mont	16.92	313	*e*P	Pn	18 30 59.9	-2.9
	comp=Z,222nm,0.9s						
TNS	Taunus Mts	16.93	329	*e*P	Pn	18 31 02.4	-0.5
TNS				pmax	pmax		
	comp=Z,1μm,1.3s						
TNS	Taunus Mts	16.93	329	*e*P	Pn	18 31 02.4	-0.5
	comp=Z,1μm,1.3s						
PYM	Petit Puy Mans	16.99	310	*e*P	Pn	18 31 02.5	-1.2
PYM	Petit Puy Mans	16.99	310	*e*P	Pn	18 31 02.5	-1.2
AGO	Saint Agoulin	17.05	311	*e*P	Pn	18 31 02.5	-2.0
AGO	Saint Agoulin	17.05	311	*e*P	Pn	18 31 02.5	-2.0
ABH	Alteburg	17.06	327	*e*P	Pn	18 31 06.6	+2.1
ABH	Alteburg	17.06	327	*e*P	Pn	18 31 06.6	+2.1
OJGS	Djebel Guires	17.06	274	P	Pn	18 31 05.0	+0.4
OJGS	Djebel Guires	17.06	274	P	Pn	18 31 05.0	+0.4
OKGL	Djebel Kef Gue	17.07	275	P	Pn	18 31 05.5	+0.7
OKGL	Djebel Kef Gue	17.07	275	P	Pn	18 31 05.5	+0.7
FRNF	Fournols	17.11	308	*e*P	Pn	18 31 05.5	+0.3
FRNF	Fournols	17.11	308	*e*P	Pn	18 31 05.5	+0.3
SALF	Salau	17.13	298	*e*P	Pn	18 31 05.5	+0.1
SALF	Salau	17.13	298	*e*P	Pn	18 31 05.5	+0.1
SFTF	Sexfontaines	17.14	319	*e*P	Pn	18 31 04.0	-1.5
	comp=Z,1μm,1.0s,baz=136						
SFTF	Sexfontaines	17.14	319	*e*P	Pn	18 31 04.0	-1.5
	comp=Z,1μm,1.0s						
RUE	Ruedersdorf	17.14	343	*e*P	Pn	18 31 05.0	-0.5
	comp=Z,1μm,1.5s						
RUE	Ruedersdorf	17.14	343	*e*Pn	Pn	18 31 05.2	-0.3
	comp=Z,788nm,1.1s						
RUE	Ruedersdorf	17.14	343	*e*Pn	Pn	18 31 05.2	-0.3
	comp=Z,788nm,1.1s						
RUP	Ruppelstein	17.14	326	*e*P	Pn	18 31 07.4	+1.8
RUP	Ruppelstein	17.14	326	*e*P	Pn	18 31 07.4	+1.8
RUP	Ruppelstein	17.14	326	*e*P	Pn	18 31 07.4	+1.8
RFYF	Reffroy	17.18	321	*e*P	Pn	18 31 05.8	-0.2
	comp=Z,1μm,1.3s,baz=135						
RFYF	Reffroy	17.18	321	*e*P	Pn	18 31 05.8	-0.2
	comp=Z,1μm,1.3s						
RFYF	Reffroy	17.18	321	*e*P	Pn	18 31 05.8	-0.2
	comp=Z,674nm,1.3s,baz=135						
MSL	Mosul	17.19	83	*e*x	x	18 31 12.0	
MSL				*e*x	x	18 34 26.0	
CAF	Calviac	17.24	306	*e*P	Pn	18 31 06.2	-0.6
	comp=Z,1μm,1.3s						
CAF	Calviac	17.24	306	*e*P	Pn	18 31 06.2	-0.6
CAF				pmax	pmax		
	comp=Z,526nm,1.3s						
CAF	Calviac	17.24	306	*e*P	Pn	18 31 06.2	-0.6
	comp=Z,526nm,1.3s						
CAF	Calviac	17.24	306	*e*P	Pn	18 31 06.2	-0.6
	comp=Z,526nm,1.3s						
LOR	Lormes	17.24	315	*e*P	Pn	18 31 03.9	-2.9
	comp=Z,942nm,1.2s,baz=123						
LOR				*e*MLR	MLR		
	comp=Z,74μm,17.8s						
LOR	Lormes	17.24	315	*e*P	Pn	18 31 03.9	-2.9
LOR				pmax	pmax		
	comp=Z,471nm,1.2s						
LOR	Lormes	17.24	315	*e*P	Pn	18 31 03.9	-2.9
	comp=Z,471nm,1.2s						
MLS	Moulis	17.25	299	*e*P	Pn	18 31 05.2	-1.7
MLS	Moulis	17.25	299	*e*P	Pn	18 31 05.2	-1.7
GKP	Gorka Klasztor	17.27	351	*e*P	Pn	18 31 07.8	+0.8
GKP				*e*P		18 31 08.3	
GKP				*e*		18 31 17.3	
GKP				*e*S	Sn	18 34 34.0	+15
GKP				LMZ		18 37 31.5	
	comp=Z,51μm,22.7s						
GKP	Gorka Klasztor	17.27	351	*e*P	Pn	18 31 07.8	+0.7
GKP	Gorka Klasztor	17.27	351	*e*P	Pn	18 31 07.8	+0.7
GKP				*e*P		18 31 08.3	
GKP				*e*		18 31 17.3	
GKP				*e*S	Sn	18 34 34.0	+15
GKP	Gorka Klasztor	17.27	351	*e*P	Pn	18 31 08.3	+1.2
AVF	Avril sur Loir	17.28	313	*e*P	Pn	18 31 04.5	-2.8
	comp=Z,376nm,1.0s						
AVF	Avril sur Loir	17.28	313	*e*P	Pn	18 31 04.5	-2.8
AVF				pmax	pmax		
	comp=Z,188nm,1.0s						
AVF	Avril sur Loir	17.28	313	*e*P	Pn	18 31 04.5	-2.8
	comp=Z,188nm,1.0s						
MEZF	Maizieres J’vi	17.31	320	*e*P	Pn	18 31 07.9	+0.2
	comp=Z,2μm,1.4s,baz=128						
MEZF	Maizieres J’vi	17.31	320	*e*P	Pn	18 31 07.9	+0.2
	comp=Z,2μm,1.4s						
MEZF	Maizieres J’vi	17.31	320	*e*P	Pn	18 31 07.9	+0.2
	comp=Z,1μm,1.4s,baz=128						
VERF	Verneugheol	17.32	309	*e*P	Pn	18 31 07.1	-0.7
VERF	Verneugheol	17.32	309	*e*P	Pn	18 31 07.1	-0.7
SSF	Saint Saulge	17.33	314	*e*P	Pn	18 31 05.0	-3.0
	comp=Z,547nm,1.1s						
SSF	Saint Saulge	17.33	314	*e*P	Pn	18 31 05.0	-3.0
SSF				pmax	pmax		
	comp=Z,273nm,1.1s						
SSF	Saint Saulge	17.33	314	*e*P	Pn	18 31 05.0	-3.0
	comp=Z,273nm,1.1s						
OJBR	Djebel Berber	17.37	274	P	Pn	18 31 06.0	-2.6
ERTA	Horta de San J	17.38	292	P	Pn	18 31 09.8	+1.2
	comp=Z,75nm,0.9s						
ERTA	Horta de San J	17.38	292	P	Pn	18 31 09.8	+1.2
	comp=Z,75nm,0.9s						
BGF	Bois d’Agland	17.47	312	*e*P	Pn	18 31 07.7	-2.0
	comp=Z,733nm,1.0s						
BGF	Bois d’Agland	17.47	312	*e*P	Pn	18 31 07.7	-2.0
BGF				pmax	pmax		
	comp=Z,366nm,1.0s						
BGF	Bois d’Agland	17.47	312	*e*P	Pn	18 31 07.7	-2.0
	comp=Z,366nm,1.0s						
CLZ	Clausthal	17.53	336	*e*P	Pn	18 31 11.2	+0.8
CLZ				pmax	pmax		
	comp=Z,676nm,1.6s						
CLZ	Clausthal	17.53	336	*e*P	Pn	18 31 11.2	+0.8
	comp=Z,676nm,1.6s						
CLZ	Clausthal	17.53	336	*e*P	Pn	18 31 11.2	+0.8
	comp=Z,676nm,1.6s						
WLF	Walferdange	17.54	324	P	Pn	18 31 12.1	+1.7
	comp=Z,645nm,1.8s						
WLF	Walferdange	17.54	324	P	Pn	18 31 11.9	+1.5
WLF				pmax	pmax		
	comp=Z,480nm,1.0s						
WLF	Walferdange	17.54	324	*e*P	Pn	18 31 11.3	+0.9
	comp=Z,1μm,1.6s						
WLF	Walferdange	17.54	324	⇑*e*Pn	Pn	18 31 11.0	+0.5
	comp=Z,476nm,0.9s						
WLF	Walferdange	17.54	324	⇑*e*Pn	Pn	18 31 11.0	+0.6
	comp=Z,476nm,0.9s						
WLF	Walferdange	17.54	324	P	Pn	18 31 11.9	+1.5
	comp=Z,480nm,1.0s						
EBEN	Beniarda	17.62	284	P	Pn	18 31 13.2	+1.6
	comp=Z,61nm,0.8s						
EBEN	Beniarda	17.62	284	P	Pn	18 31 13.2	+1.6
	comp=Z,61nm,0.8s						
KIV	Kislovodsk	17.69	58	Pn	Pn	18 31 14.9	+2.4
	comp=Z,3μm,1.0s,SNR=31						
KIV	Kislovodsk	17.69	58	*e*P	Pn	18 31 13.8	+1.3
KIV				*e*S	Sn	18 34 28.8	-0.3
KIV				pmax	pmax		
	comp=Z,438nm,1.1s						
KIV				MLR	MLR		
	comp=Z,14μm,13.0s						
KIV	Kislovodsk	17.69	58	*e*Pn	Pn	18 31 12.9	+0.4
	comp=Z,620nm,1.1s						
KIV	Kislovodsk	17.69	58	P	Pn	18 31 13.9	+1.4
	SNR=34						
KIV				P		18 31 13.9	
	SNR=34						
KIV	Kislovodsk	17.69	58	*e*Pn	Pn	18 31 12.9	+0.4
	comp=Z,620nm,1.1s						
KIV	Kislovodsk	17.69	58	P	Pn	18 31 13.9	+1.4
	SNR=34						
TCF	Toulx Ste Croi	17.73	310	*e*P	Pn	18 31 11.9	-1.0
	comp=Z,887nm,1.4s						
TCF	Toulx Ste Croi	17.73	310	*e*P	Pn	18 31 11.9	-1.0
TCF				pmax	pmax		
	comp=Z,443nm,1.4s						
TCF	Toulx Ste Croi	17.73	310	*e*P	Pn	18 31 11.9	-1.0
	comp=Z,443nm,1.4s						
TCF	Toulx Ste Croi	17.73	310	*e*P	Pn	18 31 11.9	-1.0
	comp=Z,443nm,1.4s						
SUW	Suwalki	17.74	3	*e*P	Pn	18 31 11.0	-1.9
SUW				*e*		18 31 30.9	
SUW				*e*S	Sn	18 34 29.5	-0.6
SUW				LMZ		18 38 21.6	
	comp=Z,47μm,23.9s						
SUW	Suwalki	17.74	3	*e*P	Pn	18 31 11.0	-2.0
SUW				*e*S	Sn	18 34 29.5	-0.6
SUW	Suwalki	17.74	3	*e*P	Pn	18 31 11.0	-2.0
SUW				*e*		18 31 31.0	
SUW				*e*S	Sn	18 34 29.5	-0.6
RESF	Ens	17.74	298	*e*P	Pn	18 31 13.9	+0.8
RESF	Ens	17.74	298	*e*P	Pn	18 31 13.9	+0.8
RJF	Les Rejaudoux	17.75	307	*e*P	Pn	18 31 12.4	-0.7
	comp=Z,2μm,1.5s						
RJF				*e*MLR	MLR		
	comp=Z,41μm,20.2s						
RJF	Les Rejaudoux	17.75	307	*e*P	Pn	18 31 12.4	-0.7
RJF				pmax	pmax		
	comp=Z,794nm,1.5s						
RJF	Les Rejaudoux	17.75	307	*e*P	Pn	18 31 12.4	-0.7
	comp=Z,794nm,1.5s						
RJF	Les Rejaudoux	17.75	307	*e*P	Pn	18 31 12.4	-0.7
	comp=Z,794nm,1.5s						
EPF	Esparros	17.80	299	*e*P	Pn	18 31 12.3	-1.5
	comp=Z,257nm,1.1s						
EPF	Esparros	17.80	299	*e*P	Pn	18 31 12.3	-1.5
EPF				pmax	pmax		
	comp=Z,129nm,1.1s						
EPF	Esparros	17.80	299	*e*P	Pn	18 31 12.3	-1.5
	comp=Z,129nm,1.1s						
EPF	Esparros	17.80	299	*e*P	Pn	18 31 12.3	-1.5
	comp=Z,129nm,1.1s						
ODJA	Bouhanifia	17.81	273	P	Pn	18 31 16.0	+2.0
ONI	Oni	17.85	63	P	Pn	18 31 14.2	-0.2
EBIE	Bielsa	17.86	298	P	Pn	18 31 14.6	+0.1
	comp=Z,86nm,1.0s						
EBIE	Bielsa	17.86	298	P	Pn	18 31 14.6	+0.1
	comp=Z,86nm,1.0s						
EMOS	Mosqueruela	17.91	290	P	Pn	18 31 16.0	+0.8
	comp=Z,75nm,1.0s						
EMOS	Mosqueruela	17.91	290	P	Pn	18 31 16.0	+0.8
	comp=Z,75nm,1.0s						
HYF	Humbligny	17.95	314	*e*P	Pn	18 31 13.5	-2.1
VIEF	Viey	17.99	298	*e*P	Pn	18 31 16.1	0.0
VIEF	Viey	17.99	298	*e*P	Pn	18 31 16.1	0.0
LABF	Labassere	17.99	299	*e*P	Pn	18 31 16.4	+0.2
LABF	Labassere	17.99	299	*e*P	Pn	18 31 16.4	+0.2
USTO	Oran	18.07	275	P	Pn	18 31 22.0	+4.8
ESAC	San Caprasio	18.10	294	P	Pn	18 31 18.0	+0.5
	comp=Z,40nm,0.6s						
ESAC	San Caprasio	18.10	294	P	Pn	18 31 18.0	+0.5
	comp=Z,40nm,0.6s						
LFF	La Frestale	18.12	305	*e*P	Pn	18 31 17.2	-0.5
	comp=Z,1μm,1.4s						
LFF	La Frestale	18.12	305	*e*P	Pn	18 31 17.2	-0.5
LFF				pmax	pmax		
	comp=Z,715nm,1.4s						
LFF	La Frestale	18.12	305	*e*P	Pn	18 31 17.2	-0.5
	comp=Z,715nm,1.4s						
LFF	La Frestale	18.12	305	*e*P	Pn	18 31 17.2	-0.5
	comp=Z,715nm,1.4s						
NRDL	Niedersach Rie	18.17	337	*e*P	Pn	18 31 19.9	+1.6
	comp=Z,2μm,1.5s						
GOR	Gori	18.21	65	P	Pn	18 31 19.2	+0.4
ECHE	Chera	18.23	287	P	Pn	18 31 20.9	+1.8
ECHE				pmax	pmax		
	comp=Z,52nm,0.8s						
ECHE	Chera	18.23	287	P	Pn	18 31 20.9	+1.8
	comp=Z,52nm,0.8s						
ECHE	Chera	18.23	287	P	Pn	18 31 20.9	+1.8
	comp=Z,52nm,0.8s						
CART	Cartagena	18.25	281	*e*P	Pn	18 31 19.0	-0.4
	comp=Z,563nm,1.5s						
CART	Cartagena	18.25	281	*e*P	Pn	18 31 19.0	-0.4
	comp=Z,563nm,1.5s						
MEM	Membach	18.27	326	P	Pn	18 31 20.6	+1.2
	comp=Z,308nm,2.3s						
GOF	Gofitskoye	18.30	55	⇑*i*P	Px	18 31 04.1	
GOF				*e*S	Sn	18 34 37.8	-6.0
GOF				pmax	pmax		
	comp=Z,510nm,1.3s						
GOF				smax			
	comp=N,690nm,1.4s						
GOF				smax			
	comp=E,410nm,1.4s						
REYF	Montagne du Re	18.33	298	*e*P	Pn	18 31 20.3	0.0
REYF	Montagne du Re	18.33	298	*e*P	Pn	18 31 20.3	0.0
BUG	Bochum--Univer	18.35	330	*e*P	Pn	18 31 22.0	+1.6
	comp=Z,3μm,2.0s						
ETSF	Etsaut	18.41	298	*e*P	Pn	18 31 20.6	-0.6
	comp=Z,922nm,1.3s						
ETSF	Etsaut	18.41	298	*e*P	Pn	18 31 20.6	-0.6
ETSF				pmax	pmax		
	comp=Z,461nm,1.3s						
ETSF	Etsaut	18.41	298	*e*P	Pn	18 31 20.6	-0.6
	comp=Z,461nm,1.3s						
ETSF	Etsaut	18.41	298	*e*P	Pn	18 31 20.6	-0.6
	comp=Z,461nm,1.3s						
HGN	Heimansgroeve	18.41	327	*e*P	Pn	18 31 23.9	+2.7
	comp=Z,779nm,2.0s						
HGN	Heimansgroeve	18.41	327	*e*S	Sn	18 34 59.1	+13
EMUR	La Murta	18.43	282	P	Pn	18 31 22.5	+0.9
	comp=Z,99nm,1.2s						
EMUR	La Murta	18.43	282	P	Pn	18 31 22.5	+0.9
	comp=Z,99nm,1.2s						
GNI	Garni	18.43	71	*d* *i*P	Pn	18 31 21.7	+0.1
GNI				pmax	pmax		
	comp=Z,424nm,1.0s						
GNI				MLR	MLR		
	comp=Z,53μm,17.0s						
GNI	Garni	18.43	71	Pn	Pn	18 31 18.7	-2.9
	comp=Z,4.7nm,0.3s,baz=247,slow=1.4,SNR=60						
GNI				Sn	Sn	18 34 47.0	-0.1
	comp=Z,0.6nm,0.3s,baz=359,slow=21,SNR=1.7						
GNI				LR	LR	18 39 49.9	
	comp=Z,47μm,19.1s,baz=87,slow=42						
GNI	Garni	18.43	71	*e*Pn	Pn	18 31 19.9	-1.6
	comp=Z,771nm,1.3s						
GNI				*e*Sn	Sn	18 35 16.1	+29
GNI	Garni	18.43	71	*i* P	Pn	18 31 21.7	+0.1
	comp=Z,53μm,17.0s						
BCLA	Clavier	18.45	325	P	Pn	18 31 22.0	+0.3
	comp=Z,320nm,2.3s						
GIVF	Givet	18.46	324	*e*P	Pn	18 31 22.2	+0.4
	comp=Z,2μm,1.0s						
GIVF	Givet	18.46	324	*e*P	Pn	18 31 22.2	+0.4
GIVF				pmax	pmax		
	comp=Z,867nm,1.0s						
GIVF	Givet	18.46	324	*e*P	Pn	18 31 22.2	+0.4
	comp=Z,866nm,1.0s						
GIVF	Givet	18.46	324	*e*P	Pn	18 31 22.2	+0.4
	comp=Z,866nm,1.0s						
BEBN	Eben Emael	18.55	326	P	Pn	18 31 25.4	+2.5
	comp=Z,224nm,2.1s						
ATE	Arette	18.55	298	*e*P	Pn	18 31 22.1	-0.9
ATE	Arette	18.55	298	*e*P	Pn	18 31 22.1	-0.9
DOU	Dourbes	18.57	323	P	Pn	18 31 23.6	+0.5
	comp=Z,367nm,1.6s						
TBLG	Delisi	18.63	66	P	Pn	18 31 23.5	-0.4
TBLG	Delisi	18.63	66	P	Pn	18 31 23.5	-0.4
TBLG	Delisi	18.63	66	P	Pn	18 31 23.5	-0.4
ETOB	Tobarra	18.66	284	P	Pn	18 31 24.5	+0.2
	comp=Z,36nm,0.9s						
ETOB	Tobarra	18.66	284	P	Pn	18 31 24.5	+0.2
	comp=Z,36nm,0.9s						
MTA	Mtatsminda	18.66	66	P	Pn	18 31 24.6	+0.3
MNK	Minsk	18.68	11	*d* *i*P	Pn	18 31 19.0	-5.4
MNK				*e*S	Sn	18 34 38.0	-15
MNK				pmax	pmax		
	comp=N,2μm,1.0s						
MNK				pmax	pmax		
	comp=Z,1μm,1.0s						
MNK				smax			
	comp=E,25μm,16.0s						
MNK				MLR	MLR		
	comp=Z,148μm,17.0s						
MNK				MLR	MLR		
	comp=N,71μm,16.0s						
MNK				MLR	MLR		
	comp=E,114μm,16.0s						
MICGM	Minsk	18.69	11	⇑*i*P	Pn	18 31 19.0	-5.5
BAIF	Baives	18.73	323	*e*P	Pn	18 31 24.9	-0.2
	comp=E,2μm,1.2s						
BAIF	Baives	18.73	323	*e*P	Pn	18 31 24.9	-0.2
BAIF				pmax	pmax		
	comp=Z,871nm,1.2s						
BAIF	Baives	18.73	323	*e*P	Pn	18 31 24.9	-0.2
	comp=Z,871nm,1.2s						
BAIF	Baives	18.73	323	*e*P	Pn	18 31 24.9	-0.2
	comp=Z,871nm,1.2s						
ORDF	Ordiarp	18.75	299	*e*P	Pn	18 31 24.5	-0.9
ORDF	Ordiarp	18.75	299	*e*P	Pn	18 31 24.5	-0.9
BHD	Baghdad	18.80	93	*i* x	x	18 31 24.0	
BHD				*i* x	x	18 34 56.0	
IBBN	Ibbenburen	18.84	333	*e*P	Pn	18 31 28.1	+1.8
	comp=Z,2μm,1.6s						
NACGM	Naroch	18.92	9	*e*P	Pn	18 31 22.0	-5.3
SJPF	Ste Jean	18.93	298	*e*P	Pn	18 31 26.7	-0.9
	comp=Z,1μm,1.0s						
SJPF	Ste Jean	18.93	298	*e*P	Pn	18 31 26.7	-0.9
SJPF				pmax	pmax		
	comp=Z,535nm,1.0s						
SJPF	Ste Jean	18.93	298	*e*P	Pn	18 31 26.7	-0.9
	comp=Z,535nm,1.0s						
SJPF	Ste Jean	18.93	298	*e*P	Pn	18 31 26.7	-0.9
	comp=Z,535nm,1.0s						
WTSB	Winterswijk	18.94	330	*e*P	Pn	18 31 27.5	0.0
	comp=Z,612nm,1.7s						

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WTSB  Winterswijk      18.94 330  eP     Pn     18 31 27.5 -0.1
      comp=Z,612nm,1.7s
OSSF  Osses            18.99 299  eP     Pn     18 31 25.9 -2.4
OSSF  Osses            18.99 299  eP     Pn     18 31 25.9 -2.4
SNF   Seneffe          18.99 324   P     Pn     18 31 28.6 +0.3
      comp=Z,393nm,1.7s
UCC   Uccle            19.15 325   P     Pn     18 31 30.8 +0.6
      comp=Z,805nm,1.9s
EALK  Alkurruntz       19.16 298   P     Pn     18 31 31.9 +1.6
      comp=Z,129nm,0.8s
EALK  Alkurruntz       19.16 298   P     Pn     18 31 31.9 +1.6
      comp=Z,129nm,0.8s
ELIZ  Elizondo         19.16 298   P     Pn     18 31 30.2 -0.1
ELIZ                               pmax  pmax
      comp=Z,111nm,0.8s
ELIZ  Elizondo         19.16 298   P     Pn     18 31 30.2 -0.1
      comp=Z,111nm,0.8s
ELIZ  Elizondo         19.16 298   P     Pn     18 31 30.2 -0.1
      comp=Z,111nm,0.8s
ETOR  Torete           19.16 291   P     Pn     18 31 31.2 +0.8
ETOR                               pmax  pmax
      comp=Z,45nm,1.3s
ETOR  Torete           19.16 291   P     Pn     18 31 31.2 +0.9
      comp=Z,45nm,1.3s
ETOR  Torete           19.16 291   P     Pn     18 31 31.2 +0.8
      comp=Z,45nm,1.3s
RGN   Rugen            19.16 345  eP     Pn     18 31 28.7 -1.6
      comp=Z,2µm,1.8s
RGN   Rugen            19.16 345  eP     Pn     18 31 29.9 -0.3
      comp=Z,508nm,1.0s
RGN   Rugen            19.16 345  eP     Pn     18 31 30.0 -0.3
      comp=Z,508nm,1.0s
ENIJ  Nijar            19.26 279   P     Pn     18 31 31.7 +0.2
ENIJ                               pmax  pmax
      comp=Z,171nm,0.8s
ENIJ  Nijar            19.26 279   P     Pn     18 31 31.7 +0.2
      comp=Z,170nm,0.8s
ENIJ  Nijar            19.26 279   P     Pn     18 31 31.7 +0.2
      comp=Z,170nm,0.8s
VORD  Divnogorie       19.31  35d iP     Pn     18 31 29.6 -2.4
VORD                              eS     Sn     18 35 02.1 -5.9
VORD                               pmax  pmax
      comp=N,40nm,0.9s
VORD                               pmax  pmax
      comp=E,60nm,0.9s
VORD                               pmax  pmax
      comp=Z,30nm,0.9s
VORD                               smax
      comp=N,2µm,3.0s
VORD                               smax
      comp=Z,970nm,3.9s
VORD                               smax
      comp=E,2µm,2.9s
VORD                               MLR   MLR
      comp=Z,26µm,16.0s
VORD                               MLR   MLR
      comp=N,10µm,11.0s
VORD                               MLR   MLR
      comp=E,24µm,13.0s
VORD  Divnogorie       19.31  35  iP     Pn     18 31 29.6 -2.4
      comp=E,2µm,3.0s
MFF   Saint Martin d   19.33 309  eP     Pn     18 31 30.9 -1.5
      comp=E,904nm,1.1s
MFF   Saint Martin d   19.33 309  eP     Pn     18 31 30.9 -1.5
MFF                                pmax  pmax
      comp=Z,452nm,1.1s
MFF   Saint Martin d   19.33 309  eP     Pn     18 31 30.9 -1.5
      comp=Z,452nm,1.1s
MFF   Saint Martin d   19.33 309  eP     Pn     18 31 30.9 -1.5
      comp=Z,452nm,1.1s
BSEG  Bad Segeberg     19.36 339  eP     Pn     18 31 32.0 -0.6
      comp=Z,734nm,1.4s
BSEG  Bad Segeberg     19.36 339  eP     Pn     18 31 32.0 -0.6
BSD   Bornholm Skovb   19.40 348  iP     Pn     18 31 30.8 -2.3
BSD                               iS     Sn     18 35 07.6 -2.6
BSD                                pmax  pmax
      comp=Z,492nm,0.9s
BSD   Bornholm Skovb   19.40 348  iP     Pn     18 31 30.8 -2.3
      comp=Z,492nm,0.9s
BSD                               iS     Sn     18 35 07.6 -2.6
BSD
      comp=Z,32µm,18.0s
BSD   Bornholm Skovb   19.40 348  iP     Pn     18 31 30.8 -2.3
      comp=Z,492nm,0.9s
BSD                               iS     Sn     18 35 07.6 -2.6
BSD   Bornholm Skovb   19.40 348  iP     Pn     18 31 30.8 -2.3
      comp=Z,492nm,0.9s,SNR=52
EVIA  Vianos           19.40 284   P     Pn     18 31 33.3  0.0
EVIA                               pmax  pmax
      comp=Z,48nm,0.8s
EVIA  Vianos           19.40 284   P     Pn     18 31 33.3  0.0
      comp=Z,48nm,0.8s
EVIA  Vianos           19.40 284   P     Pn     18 31 33.3  0.0
      comp=Z,48nm,0.8s
VSR   Storozhevoye     19.42  34d iP     Pn     18 31 30.5 -2.9
VSR                               eS     Sn     18 35 04.4 -6.3
VSR                                pmax  pmax
      comp=Z,60nm,1.1s
VSR                                pmax  pmax
      comp=N,70nm,1.2s
VSR                                pmax  pmax
      comp=E,60nm,1.3s
VSR                                smax
      comp=E,2µm,3.3s
VSR                                smax
      comp=Z,470nm,2.1s
VSR                                smax
      comp=N,1µm,2.7s
VSR                                MLR   MLR
      comp=Z,31µm,15.0s
VSR                                MLR   MLR
      comp=N,19µm,16.0s
VSR                                MLR   MLR
      comp=E,17µm,12.0s
EHUE  Huescar          19.50 282   P     Pn     18 31 35.1 +0.6
EHUE                               pmax  pmax
      comp=Z,229nm,1.3s
EHUE  Huescar          19.50 282   P     Pn     18 31 35.1 +0.6
      comp=Z,229nm,1.3s
EHUE  Huescar          19.50 282   P     Pn     18 31 35.1 +0.6
      comp=Z,229nm,1.3s
WIT   Witteveen        19.64 332  eP     Pn     18 31 37.2 +1.1
      comp=Z,2µm,1.5s
WIT   Witteveen        19.64 332  eP     Pn     18 31 37.2 +1.2
      comp=Z,2µm,1.5s
ECRI  Cripan           19.75 296   P     Pn     18 31 37.1 -0.3
ECRI                               pmax  pmax
      comp=Z,108nm,0.8s
ECRI  Cripan           19.75 296   P     Pn     18 31 37.1 -0.3
      comp=Z,108nm,0.8s
ECRI  Cripan           19.75 296   P     Pn     18 31 37.1 -0.3
      comp=Z,108nm,0.8s
EBER  Berja            19.81 279   P     Pn     18 31 37.6 -0.6
      comp=Z,85nm,0.8s
EBER  Berja            19.81 279   P     Pn     18 31 37.6 -0.5
      comp=Z,85nm,0.8s
EQES  Quesada          19.88 282   P     Pn     18 31 39.4 +0.3
      comp=Z,78nm,0.7s
EQES  Quesada          19.88 282   P     Pn     18 31 39.3 +0.3
      comp=Z,78nm,0.7s
EALB  Alboran          20.04 276   P     P      18 31 42.2 +3.1
      comp=Z,96nm,0.7s
MELI  Melilla          20.06 274  iP     P      18 31 38.9 -0.5
LDF   La Druitiere     20.22 314  eP     P      18 31 40.2 -0.7
      comp=Z,283nm,0.7s
LDF   La Druitiere     20.22 314  eP     P      18 31 40.2 -0.7
LDF                                pmax  pmax
      comp=Z,142nm,0.7s
LDF   La Druitiere     20.22 314  eP     P      18 31 40.2 -0.7
      comp=Z,142nm,0.7s
LDF   La Druitiere     20.22 314  eP     P      18 31 40.2 -0.7
      comp=Z,142nm,0.7s
ECOG  Cogollos-Vega    20.31 280   P     P      18 31 44.5 +2.5
ECOG                               pmax  pmax
      comp=Z,46nm,0.7s
ECOG  Cogollos-Vega    20.31 280   P     P      18 31 44.5 +2.5
      comp=Z,46nm,0.7s
ECOG  Cogollos-Vega    20.31 280   P     P      18 31 44.5 +2.5
      comp=Z,46nm,0.7s
HLG   Helgoland        20.32 336  eP     P      18 31 42.3 +0.3
      comp=Z,1µm,1.3s
EGUA  Guajares         20.35 279   P     P      18 31 43.6 +1.1
EGUA                               pmax  pmax
      comp=Z,1µm,1.4s
EGUA  Guajares         20.35 279   P     P      18 31 43.6 +1.1
      comp=Z,1µm,1.4s
EGUA  Guajares         20.35 279   P     P      18 31 43.6 +1.1
      comp=Z,1µm,1.4s
EBAN  Banos Encina     20.43 283   P     P      18 31 43.4 +0.2
      comp=Z,24nm,0.6s
EBAN  Banos Encina     20.43 283   P     P      18 31 43.4 +0.1
      comp=Z,24nm,0.6s
FLN   La Foliniere     20.51 314  eP     P      18 31 43.3 -0.8
      comp=Z,358nm,0.7s,baz=125
FLN                               eMLR   MLR
      comp=Z,46µm,22.8s,MS5.5
FLN   La Foliniere     20.51 314  eP     P      18 31 43.3 -0.8
FLN                                pmax  pmax
      comp=Z,179nm,0.7s
FLN                                MLR   MLR
      comp=Z,46µm,22.8s,MS5.8
FLN   La Foliniere     20.51 314  eP     P      18 31 43.3 -0.8
      comp=Z,179nm,0.7s
FLN                                LR    LR
      comp=Z,46µm,22.8s,MS5.8
FLN   La Foliniere     20.51 314  eP     P      18 31 43.3 -0.8
      comp=Z,179nm,0.7s,baz=125
VRHR  Novokhopersk     20.51  38d iP     P      18 31 42.9 -1.2
VRHR                              eS     S      18 35 28.6 -4.2
VRHR                               pmax  pmax
      comp=Z,160nm,1.0s
VRHR                               pmax  pmax
      comp=N,30nm,0.9s
VRHR                               smax
      comp=N,1µm,1.8s
VRHR                               smax
      comp=Z,340nm,2.7s
VRHR                               MLR   MLR
      comp=Z,7µm,12.0s,MS5.2
VRHR                               MLR   MLR
      comp=N,7µm,13.0s
VRHR  Novokhopersk     20.51  38  iP     P      18 31 42.9 -1.2
      comp=N,30nm,0.9s
ERON  Agron            20.52 280   P     P      18 31 45.7 +1.3
      comp=N,86nm,0.9s
ERON  Agron            20.52 280   P     P      18 31 45.7 +1.3
      comp=N,86nm,0.9s
ELAN  Lanestosa        20.54 297   P     P      18 31 44.1 -0.3
      comp=N,164nm,1.1s
ELAN  Lanestosa        20.54 297   P     P      18 31 44.1 -0.3
      comp=N,164nm,1.1s
ESDC  Sonseca Array    20.55 287   P     P      18 31 43.9 -0.7
      comp=N,47nm,0.7s,baz=82,slow=10,SNR=66
ESDC                               S     S      18 35 24.4 -9.3
      comp=N,0.3nm,0.3s,baz=45,slow=38,SNR=2.2
ESDC                               ScP   ScP    18 39 32.0 +0.9
      comp=N,3.1nm,0.7s,baz=97,slow=3.3,SNR=4.7
ESDC  Sonseca Array    20.55 287   P     P      18 31 43.9 -0.7
GRR   Gorron           20.55 313  eP     P      18 31 43.2 -1.3
      comp=N,543nm,1.1s
GRR   Gorron           20.55 313  eP     P      18 31 43.2 -1.3
GRR                                pmax  pmax
      comp=Z,271nm,1.1s
GRR   Gorron           20.55 313  eP     P      18 31 43.2 -1.3
      comp=Z,271nm,1.1s
GRR   Gorron           20.55 313  eP     P      18 31 43.2 -1.3
      comp=Z,271nm,1.1s
GUD   Guadarrama       20.73 290   P     P      18 31 46.7 +0.1
      comp=Z,0.5nm,0.3s
GUD   Guadarrama       20.73 290   P     P      18 31 46.7 +0.1
      comp=Z,0.5nm,0.3s
ELOJ  Sierra Loja      20.79 280   P     P      18 31 48.0 +0.8
      comp=Z,28nm,0.7s
ELOJ  Sierra Loja      20.79 280   P     P      18 31 48.0 +0.8
      comp=Z,28nm,0.7s
PAB   San Pablo        20.84 287  eP     P      18 31 48.7 +0.9
PAB                                pmax  pmax
      comp=Z,403nm,1.2s
PAB                                MLR   MLR
      comp=Z,26µm,22.0s,MS5.6
PAB   San Pablo        20.84 287  eP     P      18 31 48.7 +1.0
      comp=Z,403nm,1.2s
PAB                                LR    LR
      comp=Z,26µm,22.0s,MS5.6
PAB   San Pablo        20.84 287  eP     P      18 31 48.7 +0.9
      comp=Z,403nm,1.2s
ELUQ  Luque            20.84 281   P     P      18 31 47.1 -0.7
ELUQ                               pmax  pmax
      comp=Z,151nm,1.0s
ELUQ  Luque            20.84 281   P     P      18 31 47.1 -0.7
      comp=Z,151nm,1.0s
ELUQ  Luque            20.84 281   P     P      18 31 47.1 -0.7
      comp=Z,151nm,1.0s
MAK   Makhachkala      20.86  64c iP     P      18 31 47.7 -0.2
MAK                               e             18 32 05.7
MAK                               iS     S      18 35 42.3 +2.6
MAK                               iSS           18 35 59.6
MAK                               eSSS          18 36 17.2
MAK                                pmax  pmax
      comp=Z,941nm,1.0s
MAK   Makhachkala      20.86  64  iP     P      18 31 47.7 -0.2
      comp=Z,941nm,1.0s
TFO1  Folkestone       20.92 322  eP     P      18 31 48.9 +0.4
TFO1                               AMb   AMB    18 31 59.0
      comp=Z,827nm,1.4s
TFO1                               AMS   AMS    18 41 45.0
      comp=Z,66µm,19.0s,MS6.0
TFO1  Folkestone       20.92 322   P     P      18 31 48.9 +0.4
TFO1                               AMb   AMB    18 31 59.0
      comp=Z,827nm,1.4s
TFO1                               AMS   AMS    18 41 45.0
      comp=Z,66µm,19.0s
EADA  Adamuz           21.05 283   P     P      18 31 50.6 +0.6
      comp=Z,33nm,0.8s,mb4.7
EADA  Adamuz           21.05 283   P     P      18 31 50.6 +0.6
      comp=Z,33nm,0.8s,mb4.7
EMIJ  Mijas            21.35 279   P     P      18 31 53.5 +0.2
      comp=Z,51nm,0.7s,mb5.0
EMIJ  Mijas            21.35 279   P     P      18 31 53.5 +0.3
      comp=Z,51nm,0.7s,mb5.0
OBN   Obninsk          21.38  24   P     P      18 31 51.2 -2.2
      comp=Z,5µm,0.6s,mb7.0,SNR=38
OBN   Obninsk          21.38  24⇓ iP     P      18 31 50.0 -3.4
OBN                               iS     S      18 35 45.4 -4.5
OBN                                smax
      comp=N,13µm,14.9s
OBN                                MLR   MLR
      comp=Z,24µm,18.0s,MS5.6
OBN   Obninsk          21.38  24⇑ eP     P      18 31 51.5 -1.9
OBN                                LR    LR
      comp=Z,24µm,18.0s,MS5.6
GOTU  Gotland          21.50 355   P     P      18 31 53.1 -1.6
SGMF  Saint Gilles     21.51 311  eP     P      18 31 53.7 -1.2
      comp=Z,447nm,0.9s,mb5.6
SGMF  Saint Gilles     21.51 311  eP     P      18 31 53.7 -1.2
SGMF                               pmax  pmax
      comp=Z,223nm,0.9s,mb5.6
SGMF  Saint Gilles     21.51 311  eP     P      18 31 53.7 -1.2
      comp=Z,223nm,0.9s,mb5.6
SGMF  Saint Gilles     21.51 311  eP     P      18 31 53.7 -1.2
      comp=Z,223nm,0.9s,mb5.6
JSA   Saint Aubin      21.69 314  eP     P      18 31 55.5 -1.3
JSA                                AMb   AMB    18 32 08.3
      comp=Z,588nm,1.7s,mb5.7
JSA   Saint Aubin      21.69 314   P     P      18 31 55.5 -1.3
JSA                                AMb   AMB    18 32 08.3
      comp=Z,588nm,1.7s,mb5.7
REAL  Reales           21.71 279  eP     P      18 31 58.2 +1.1
ECAB  El Cabril        21.72 283   P     P      18 31 57.8 +0.6
      comp=Z,168nm,0.6s,mb5.7
ECAB  El Cabril        21.72 283   P     P      18 31 57.8 +0.6
      comp=Z,168nm,0.6s,mb5.7
QUIF  Quistinic        21.75 310  eP     P      18 31 56.2 -1.2
      comp=Z,362nm,0.7s,mb5.6
QUIF  Quistinic        21.75 310  eP     P      18 31 56.2 -1.2
QUIF                               pmax  pmax
      comp=Z,181nm,0.7s,mb5.6
QUIF  Quistinic        21.75 310  eP     P      18 31 56.2 -1.2
      comp=Z,181nm,0.7s,mb5.6
QUIF  Quistinic        21.75 310  eP     P      18 31 56.2 -1.2
      comp=Z,181nm,0.7s,mb5.6
LIJA  Lijar            21.81 280  iP     P      18 31 58.5 +0.3
AEU   East Anglia Un   21.82 325  eP     P      18 31 58.5 +0.3
AEU   East Anglia Un   21.82 325   P     P      18 31 58.5 +0.3
EARI  Arriondas        21.82 297   P     P      18 31 59.2 +0.9
      comp=Z,58nm,0.8s,mb5.1
EARI  Arriondas        21.82 297   P     P      18 31 59.2 +0.9
      comp=Z,58nm,0.8s,mb5.1
MUD   Monsted U’grnd   21.89 341  iP     P      18 31 59.6 +0.7
MUD                               iS     S      18 35 55.2 -4.6
MUD                                pmax  pmax
      comp=Z,379nm,0.9s,mb5.8
MUD   Monsted U’grnd   21.89 341  iP     P      18 31 59.6 +0.7
      comp=Z,379nm,0.9s,mb5.8
MUD                               iS     S      18 35 55.2 -4.6
MUD
      comp=Z,48µm,20.0s
MUD   Monsted U’grnd   21.89 341  iP     P      18 31 59.6 +0.7
      comp=Z,379nm,0.9s,mb5.8
MUD                               iS     S      18 35 55.2 -4.6
MUD   Monsted U’grnd   21.89 341  iP     P      18 31 59.6 +0.7
      comp=Z,379nm,0.9s,mb5.8,SNR=51
EJIF  Jimena Fronter   21.92 279   P     P      18 32 00.5 +1.1
EJIF                               pmax  pmax
      comp=Z,1µm,1.6s,mb6.1
EJIF  Jimena Fronter   21.92 279   P     P      18 32 00.5 +1.1
      comp=Z,1µm,1.6s,mb6.1
EJIF  Jimena Fronter   21.92 279   P     P      18 32 00.5 +1.1
      comp=Z,1µm,1.6s,mb6.1
ROSF  Rostrenen        21.98 311  eP     P      18 31 58.6 -1.3
      comp=Z,838nm,1.1s,mb5.8
ROSF  Rostrenen        21.98 311  eP     P      18 31 58.6 -1.3
ROSF                               pmax  pmax
      comp=Z,419nm,1.1s,mb5.8
ROSF  Rostrenen        21.98 311  eP     P      18 31 58.6 -1.3
      comp=Z,419nm,1.1s,mb5.8
ROSF  Rostrenen        21.98 311  eP     P      18 31 58.6 -1.3
      comp=Z,419nm,1.1s,mb5.8
MDT   Midelt           21.99 269   P     P      18 31 59.7 -0.5
      comp=Z,90nm,1.0s,mb5.2,baz=86,slow=12,SNR=47
MDT                                S     S      18 35 59.9 -2.3
      comp=Z,14nm,1.1s,baz=284,slow=21,SNR=1.7
MDT                                LR    LR     18 42 31.5
      comp=Z,36µm,20.4s,MS5.8,baz=81,slow=42
MDT   Midelt           21.99 269   P     P      18 31 59.7 -0.5
ABA1  Baconsthorpe     22.03 325  eP     P      18 32 01.1 +0.7
ABA1  Baconsthorpe     22.03 325   P     P      18 32 01.1 +0.7
MOMI  Momias           22.14 278  eP     P      18 32 03.0 +1.3
ESPR  Espera           22.18 280   P     P      18 32 04.1 +2.0
      comp=Z,23nm,0.8s,mb4.7
ESPR  Espera           22.18 280   P     P      18 32 04.1 +2.0
      comp=Z,23nm,0.8s,mb4.7
MOS   Moscow           22.24  24  eP     P      18 31 57.5 -5.1
MOS                               e             18 32 46.4
MOS                               eS     S      18 35 58.8 -7.8
MOS                                pmax  pmax
      comp=Z,931nm,1.0s,mb6.2
MOS                                MLR   MLR
      comp=E,33µm,14.0s
MOS                                MLR   MLR
      comp=Z,26µm,15.0s,MS5.8
WOL   Wolverton        22.25 320  eP     P      18 32 03.3 +0.6
WOL                                AMb   AMB    18 32 14.0
      comp=Z,734nm,1.2s,mb6.0
WOL                               e             18 35 56.8
WOL   Wolverton        22.25 320   P     P      18 32 03.3 +0.6
WOL                                AMb   AMB    18 32 14.0
      comp=Z,734nm,1.2s,mb6.0
WOL                                             18 35 56.8
GIBL  Gibalbin         22.27 280  eP     P      18 32 05.0 +1.9
MIB   Mutribah         22.35  99  eP     P      18 32 01.8 -2.2
MIB                                AMb   AMB    18 32 05.3
      comp=Z,1µm,1.0s,mb6.4
CNIL  Conil            22.40 278  eP     P      18 32 05.2 +0.7
VSU   Vasula           22.41   7⇓ iP     P      18 32 02.8 -1.6
VSU   Vasula           22.41   7  iP     P      18 32 02.8 -1.6
SFS   San Fernando     22.50 279  iP     P      18 32 04.0 -1.6
SWN1  Swindon          22.66 320  eP     P      18 32 08.0 +0.9
SWN1                               AMb   AMB    18 32 12.6
      comp=Z,1µm,1.4s,mb6.1
SWN1                               AMS   AMS    18 43 12.7
      comp=Z,45µm,18.4s,MS5.9
SWN1  Swindon          22.66 320   P     P      18 32 08.0 +0.9
SWN1                               AMb   AMB    18 32 12.6
      comp=Z,1µm,1.4s,mb6.1
SWN1                               AMS   AMS    18 43 12.7
      comp=Z,45µm,18.4s
EMIN  Mina Concepcio   22.73 282   P     P      18 32 09.0 +1.0
      comp=Z,26nm,0.8s,mb4.7
EMIN  Mina Concepcio   22.73 282   P     P      18 32 09.0 +1.0
      comp=Z,26nm,0.8s,mb4.7
UMR   Umm Al-Rimmam    22.75 100  eP     P      18 32 06.0 -2.3
UMR                                AMb   AMB    18 32 21.9
      comp=Z,3µm,1.2s,mb6.5
PBRG  Braganca         22.77 293  eP     P      18 32 09.2 +0.9
      comp=Z,408nm,1.3s,mb5.7
PBRG  Braganca         22.77 293  eP     P      18 32 09.2 +0.9
      comp=Z,408nm,1.3s,mb5.7
ECAL  Calabor          22.77 293   P     P      18 32 09.2 +0.8
      comp=Z,28nm,0.6s,mb4.9
ECAL  Calabor          22.77 293   P     P      18 32 09.2 +0.8
      comp=Z,28nm,0.6s,mb4.9
RDF   Al-Radifah       22.88 101  eP     P      18 32 06.9 -2.7
RDF                                AMb   AMB    18 32 25.5
      comp=Z,633nm,1.4s,mb5.9
KBD   Kabd             22.88 101  eP     P      18 32 06.9 -2.8
KBD                                AMb   AMB    18 32 23.7
      comp=Z,772nm,1.2s,mb6.0
EBAD  Badajoz          22.93 285   P     P      18 32 09.6 -0.5
      comp=Z,70nm,0.8s,mb5.1
EBAD  Badajoz          22.93 285   P     P      18 32 09.6 -0.5
      comp=Z,70nm,0.8s,mb5.1
MVO   Moncorvo         22.94 291  eP     P      18 32 10.2  0.0
      comp=Z,585nm,1.3s,mb5.8
MVO                               eS     S      18 36 20.8 +1.3
MVO                                A            18 42 17.3
      comp=Z,22µm,17.0s
MVO   Moncorvo         22.94 291  eP     P      18 32 10.2  0.0
      comp=Z,585nm,1.3s,mb5.8
PBAR  Barrancos        22.98 283  eP     P      18 32 10.6 -0.1
      comp=Z,839nm,1.7s,mb5.9
PBAR                              eS     S      18 36 19.9 -0.4
PBAR                               A            18 44 56.4
      comp=Z,12µm,17.9s
PBAR  Barrancos        22.98 283  eP     P      18 32 10.6 -0.1
      comp=Z,839nm,1.7s,mb5.9
CWF   Charnwood Fore   23.11 323  eP     P      18 32 10.4 -1.4
CWF                               e             18 36 25.0
CWF                                AMS   AMS    18 42 48.7
      comp=Z,37µm,18.7s,MS5.9
CWF   Charnwood Fore   23.11 323   P     P      18 32 10.4 -1.4
CWF                                             18 36 25.0
CWF                                AMS   AMS    18 42 48.7
      comp=Z,37µm,18.7s
ERUA  La Rua           23.11 294   P     P      18 32 13.0 +1.0
ERUA                               pmax  pmax
      comp=Z,26nm,0.8s,mb4.7
ERUA  La Rua           23.11 294   P     P      18 32 13.0 +0.9
      comp=Z,26nm,0.8s,mb4.7
ERUA  La Rua           23.11 294   P     P      18 32 13.0 +1.0
      comp=Z,26nm,0.8s,mb4.7
PMRV  Marv??o          23.20 287  eP     P      18 32 12.7 -0.2
      comp=Z,356nm,1.5s,mb5.6
PMRV                              eS     S      18 36 23.9 +0.1
PMRV                               A            18 46 38.0
      comp=Z,20µm,18.1s
PMRV  Marv??o          23.20 287  eP     P      18 32 12.4 -0.5
PMRV  Marv??o          23.20 287  eP     P      18 32 12.7 -0.2
      comp=Z,356nm,1.5s,mb5.6
EPON  Pontenova        23.23 296   P     P      18 32 14.8 +1.6
      comp=Z,731nm,2.2s,mb5.7
EPON  Pontenova        23.23 296   P     P      18 32 14.8 +1.6
      comp=Z,731nm,2.2s,mb5.7
HGH   Gray Hill        23.26 319⇑ eP     P      18 32 11.8 -1.6
HGH   Gray Hill        23.26 319   P     P      18 32 11.8 -1.6
PCBR  Castelo Branco   23.26 288  eP     P      18 32 12.6 -0.9
      comp=Z,221nm,1.6s,mb5.3
PCBR  Castelo Branco   23.26 288  eP     P      18 32 12.6 -0.9
      comp=Z,221nm,1.6s,mb5.3
DYA   Yadsworthy       23.28 315  eP     P      18 32 10.8 -2.8
DYA                               e             18 36 17.4
DYA                                AMS   AMS    18 43 48.4
      comp=Z,26µm,17.7s,MS5.7
DYA   Yadsworthy       23.28 315   P     P      18 32 10.8 -2.8
DYA                                             18 36 17.4
DYA                                AMS   AMS    18 43 48.4
      comp=Z,26µm,17.7s
MTE   Manteigas        23.31 289  eP     P      18 32 14.5 +0.4
      comp=Z,292nm,1.8s,mb5.4
MTE                               eS     S      18 36 26.4 +0.9
MTE                                A            18 44 13.1
      comp=Z,21µm,19.5s
MTE   Manteigas        23.31 289⇑ eP     P      18 32 13.6 -0.5
      comp=Z,114nm,0.9s,mb5.3
MTE   Manteigas        23.31 289  eP     P      18 32 14.5 +0.4
      comp=Z,292nm,1.8s,mb5.4
PESTR Estremoz         23.37 285  eP     P      18 32 14.3 -0.5
      comp=Z,365nm,1.3s,mb5.7
PESTR                             eS     S      18 36 28.0 +1.4
PESTR                              A            18 45 54.1
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	comp=Z,20µm,19.0s						
PESTR	**Estremoz**	23.37	285	*e*P	P	18 32 14.3	-0.5
	comp=Z,365nm,1.3s,mb5.7						
EGRO	**El Granado**	23.39	282	P	P	18 32 14.5	-0.5
	comp=Z,68nm,0.7s,mb5.2						
EGRO	**El Granado**	23.39	282	P	P	18 32 14.5	-0.5
	comp=Z,68nm,0.7s,mb5.2						
PVRL	**Vila Real**	23.46	291	*e*P	P	18 32 17.9	+2.2
	comp=Z,250nm,1.6s,mb5.4						
PVRL	**Vila Real**	23.46	291	*e*P	P	18 32 17.9	+2.2
	comp=Z,250nm,1.6s,mb5.4						
RTC	**Rabat Centre**	23.50	273	PFAKE		18 32 30.0	+14
RTC				LR	LR		
	comp=Z,15µm,20.0s,MS5.5						
RTC	**Rabat Centre**	23.50	273	P		18 32 30.0	+14
HEX	**Exmoor**	23.51	317	*e*P	P	18 32 14.8	-1.3
HEX	**Exmoor**	23.51	317	P	P	18 32 14.8	-1.3
KBI1	**Birley Grange**	23.52	323	*e*P	P	18 32 14.0	-2.1
KBI1	**Birley Grange**	23.52	323	P	P	18 32 14.0	-2.1
KWE	**Weaver Farm**	23.53	323	*e*P	P	18 32 14.4	-1.8
KWE	**Weaver Farm**	23.53	323	P	P	18 32 14.4	-1.8
MCH1	**Michaelchurch**	23.55	320	*e*P	P	18 32 14.6	-1.8
MCH1				AMb	AMB	18 32 24.6	
	comp=Z,472nm,1.7s,mb5.6						
MCH1				*e*		18 36 28.5	
MCH1				AMS	AMS	18 43 40.3	
	comp=Z,45µm,18.8s,MS6.0						
MCH1	**Michaelchurch**	23.55	320	P	P	18 32 14.6	-1.8
MCH1				AMb	AMB	18 32 24.6	
	comp=Z,472nm,1.7s,mb5.6						
MCH1						18 36 28.5	
MCH1				AMS	AMS	18 43 40.3	
	comp=Z,45µm,18.8s						
PVIS	**Viseu**	23.58	290	*e*P	P	18 32 18.0	+1.2
	comp=Z,224nm,0.9s,mb5.6						
PVIS	**Viseu**	23.58	290	*e*P	P	18 32 18.0	+1.2
	comp=Z,224nm,0.9s,mb5.6						
PVAQ	**Vaqueiros**	23.59	282	*e*P	P	18 32 17.3	+0.3
	comp=Z,517nm,1.8s,mb5.7						
PVAQ				*e*S	S	18 36 31.2	+1.0
PVAQ				A		18 45 08.8	
	comp=Z,17µm,18.7s						
PVAQ	**Vaqueiros**	23.59	282	*e*P	P	18 32 17.3	+0.3
	comp=Z,517nm,1.8s,mb5.7						
PBEJ	**Beja**	23.65	283	*e*P	P	18 32 18.1	+0.6
	comp=Z,477nm,1.4s,mb5.7						
PBEJ	**Beja**	23.65	283	*e*P	P	18 32 18.1	+0.6
	comp=Z,477nm,1.4s,mb5.7						
PCAB	**Cabril**	23.72	292	*e*P	P	18 32 19.5	+1.4
	comp=Z,264nm,1.4s,mb5.5						
PCAB	**Cabril**	23.72	292	*e*P	P	18 32 19.5	+1.4
	comp=Z,264nm,1.4s,mb5.5						
EVO	**Evora**	23.72	284	*e*P	P	18 32 17.7	-0.5
	comp=Z,350nm,1.2s,mb5.4						
EVO				*e*MLR	MLR		
	comp=Z,25µm,18.5s,MS5.4						
EVO	**Evora**	23.72	284	*e*P	P	18 32 17.9	-0.3
	comp=Z,313nm,2.0s,mb5.4						
EVO	**Evora**	23.72	284	*e*P	P	18 32 18.2	0.0
EVO	**Evora**	23.72	284	*e*P	P	18 32 18.2	0.0
ELOB	**Lobios**	23.75	293	P	P	18 32 19.6	+1.2
	comp=Z,22nm,0.8s,mb4.6						
ELOB	**Lobios**	23.75	293	P	P	18 32 19.6	+1.2
	comp=Z,22nm,0.8s,mb4.6						
STNC	**Stoke**	23.75	323	*e*P	P	18 32 19.1	+0.8
STNC				AMb	AMB	18 32 30.1	
	comp=Z,1µm,1.7s,mb6.0						
STNC	**Stoke**	23.75	323	P	P	18 32 19.1	+0.8
STNC				AMb	AMB	18 32 30.1	
	comp=Z,1µm,1.7s,mb6.0						
PBDV	**Barranco-do-Ve**	23.78	281	*e*P	P	18 32 19.6	+0.9
	comp=Z,673nm,1.6s,mb5.8						
PBDV				*e*S	S	18 36 34.7	+1.5
PBDV				A		18 46 07.4	
	comp=Z,17µm,17.6s						
PBDV	**Barranco-do-Ve**	23.78	281	*e*P	P	18 32 19.6	+0.9
	comp=Z,673nm,1.6s,mb5.8						
CSA1	**St Austell**	23.79	315⇑	*e*P	P	18 32 17.1	-1.6
CSA1	**St Austell**	23.79	315	P	P	18 32 17.1	-1.6
EVOP	**Sao Brissos**	23.81	284	*e*P	P	18 32 17.4	-1.5
EVOP				AMb	AMB	18 32 29.8	
	comp=Z,287nm,1.9s,mb5.4						
EVOP				*e*S	S	18 36 30.8	-2.9
EVOP				*e*S	S	18 36 30.9	-2.8
EVOP	**Sao Brissos**	23.81	284	*e*P	P	18 32 17.4	-1.5
EVOP				*e*S	S	18 36 30.8	-2.9
EVOP	**Sao Brissos**	23.81	284	*e*P	P	18 32 17.7	-1.2
	comp=Z,175nm,1.2s,mb5.4						
HTL	**Hartland**	23.85	316	*e*P	P	18 32 19.0	-0.1
HTL				AMb	AMB	18 32 30.5	
	comp=Z,448nm,1.1s,mb5.8						
HTL				*e*		18 36 26.9	
HTL				AMS	AMS	18 43 40.8	
	comp=Z,30µm,17.5s,MS5.8						
HTL	**Hartland**	23.85	316	P	P	18 32 19.0	-0.1
HTL				AMb	AMB	18 32 30.5	
	comp=Z,448nm,1.1s,mb5.8						
HTL						18 36 26.9	
HTL				AMS	AMS	18 43 40.8	
	comp=Z,30µm,17.5s						
LHO	**Holmfirth**	23.85	324⇑	*e*P	P	18 32 19.0	-0.2
LHO	**Holmfirth**	23.85	324	P	P	18 32 19.0	-0.2
CCA1	**Carnmenellis**	23.91	314	*e*P	P	18 32 19.7	-0.1
CCA1	**Carnmenellis**	23.91	314	P	P	18 32 19.7	-0.1
PTOM	**Tomar**	23.98	287	*e*P	P	18 32 21.0	+0.5
	comp=Z,253nm,1.3s,mb5.5						
PTOM	**Tomar**	23.98	287	*e*P	P	18 32 21.0	+0.5
	comp=Z,253nm,1.3s,mb5.5						
SNART	**Snartemo**	24.06	341	*e*P	P	18 32 21.7	+0.7
SNART				AMb	AMB	18 32 33.8	
	comp=Z,383nm,1.5s,mb5.6						
PUL	**Pulkovo**	24.13	11⇑	*e*P	P	18 32 21.4	-0.2
PUL	**Pulkovo**	24.13	11	*e*P	P	18 32 21.4	-0.2
STS	**Santiago**	24.20	295	P	P	18 32 24.0	+1.6
STS				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.1						
STS	**Santiago**	24.20	295	P	P	18 32 24.0	+1.5
	comp=Z,59nm,0.8s,mb5.1						
STS	**Santiago**	24.20	295	P	P	18 32 24.0	+1.6
	comp=Z,59nm,0.8s,mb5.1						
EZAM	**Zamans**	24.24	293	P	P	18 32 22.6	-0.3
EZAM				pmax	pmax		
	comp=Z,38nm,0.8s,mb4.9						
EZAM	**Zamans**	24.24	293	P	P	18 32 22.6	-0.3
	comp=Z,38nm,0.8s,mb4.9						
EZAM	**Zamans**	24.24	293	P	P	18 32 22.6	-0.3
	comp=Z,38nm,0.8s,mb4.9						
MORF	**Marmelete**	24.34	282	*e*P	P	18 32 24.4	+0.6
	comp=Z,219nm,1.7s,mb5.3						
MORF				*e*S	S	18 36 45.1	+2.8
MORF				A		18 46 43.3	
	comp=Z,23µm,19.2s						
MORF	**Marmelete**	24.34	282	*e*P	P	18 32 22.0	-1.8
MORF				*e*S	S	18 36 40.2	-2.1
MORF	**Marmelete**	24.34	282	*e*P	P	18 32 24.3	+0.5
MORF	**Marmelete**	24.34	282	*e*P	P	18 32 24.3	+0.5
PTEO	**Sao Teotonio**	24.37	282	*e*P	P	18 32 24.9	+0.8
	comp=Z,713nm,1.7s,mb5.8						
PTEO	**Sao Teotonio**	24.37	282	*e*P	P	18 32 24.9	+0.8
	comp=Z,713nm,1.7s,mb5.8						
HFS	**Hagfors**	24.41	350	P	P	18 32 23.0	-1.3
	comp=Z,123nm,0.5s,mb5.6,baz=162,slow=10,SNR=314						
HFS				S	S	18 36 37.9	-5.1
	comp=Z,18nm,1.1s,baz=124,slow=19,SNR=1.8						
HFS	**Hagfors**	24.41	350	P	P	18 32 23.0	-1.2
HFA0	**Hagfors New Ar**	24.43	350	P	P	18 32 22.0	-2.3
HFA0	**Hagfors New Ar**	24.43	350	P	P	18 32 22.0	-2.3
PFVI	**Vila Bisbo**	24.50	281	*e*P	P	18 32 26.1	+0.8
	comp=Z,320nm,1.9s,mb5.5						
PFVI				*e*S	S	18 36 47.6	+2.7
PFVI				A		18 47 08.3	
	comp=Z,18µm,19.7s						
PFVI	**Vila Bisbo**	24.50	281	*e*P	P	18 32 25.9	+0.6
EMAZ	**Mazaricos**	24.51	295	P	P	18 32 26.3	+1.0
	comp=Z,41nm,0.8s,mb5.0						
LIS	**Lisbon**	24.60	285	*e*P	P	18 32 24.4	-1.7
LIS				AMb	AMB	18 32 37.5	
	comp=Z,362nm,1.2s,mb5.8						
LIS				*e*S	S	18 36 44.8	-1.7
LIS				*e*S	S	18 36 45.0	-1.5
LIS	**Lisbon**	24.60	285	*e*P	P	18 32 24.4	-1.7
	comp=Z,362nm,1.2s,mb5.8						
LIS				*e*S	S	18 36 44.8	-1.7
LIS	**Lisbon**	24.60	285	*e*P	P	18 32 24.4	-1.7
	comp=Z,362nm,1.2s,mb5.8						
KONO	**Kongsberg**	24.67	345⇑	*e*P	P	18 32 25.3	-1.2
KONO	**Kongsberg**	24.67	345	*e*P	P	18 32 25.9	-0.7
KONO				AMb	AMB	18 32 37.8	
	comp=Z,383nm,1.0s,mb5.9						
KONO				*e*S	S	18 36 48.2	+1.1
KONO				AMS	AMS	18 41 40.0	
	comp=Z,36µm,22.8s,MS5.8						
KONO	**Kongsberg**	24.67	345⇓	*e*P	P	18 32 25.4	-1.2
	comp=Z,490nm,0.9s,mb6.0						
KONO	**Kongsberg**	24.67	345⇓	*e*P	P	18 32 25.4	-1.1
	comp=Z,490nm,0.9s,mb6.0						
PMAFR	**Mafra**	24.69	286	*e*P	P	18 32 28.3	+1.4
	comp=Z,587nm,2.3s,mb5.7						
PMAFR				*e*S	S	18 36 51.0	+3.1
PMAFR				A		18 46 51.0	
	comp=Z,14µm,16.1s						
PMAFR	**Mafra**	24.69	286	*e*P	P	18 32 28.3	+1.4
	comp=Z,587nm,2.3s,mb5.7						
OSL	**Oslo**	24.71	347	*e*P	P	18 32 26.3	-0.6
OSL				AMb	AMB	18 32 37.7	
	comp=Z,715nm,1.4s,mb6.0						
OSL	**Oslo**	24.71	347	*e*P	P	18 32 26.3	-0.6
	comp=Z,715nm,1.4s,mb6.0,SNR=28						
XAL	**Allendale**	24.82	326	*e*P	P	18 32 27.3	-0.8
XAL	**Allendale**	24.82	326	P	P	18 32 27.3	-0.8
STAV	**Stavanger**	24.98	340	*e*P	P	18 32 29.4	0.0
STAV				AMb	AMB	18 32 41.4	
	comp=Z,248nm,2.2s,mb5.3						
STAV	**Stavanger**	24.98	340	*e*P	P	18 32 29.4	+0.1
	comp=Z,248nm,2.2s,mb5.3,SNR=28						
BLS5	**Blasjo**	25.19	341	*e*P	P	18 32 33.5	+2.1
BLS5				AMb	AMB	18 32 39.1	
	comp=Z,142nm,1.0s,mb5.5						
BLS5	**Blasjo**	25.19	341	*e*P	P	18 32 33.5	+2.2
	comp=Z,142nm,1.0s,mb5.5,SNR=28						
ECK	**Cauldkaine Hil**	25.43	326	*e*P	P	18 32 32.3	-1.2
ECK	**Cauldkaine Hil**	25.43	326	P	P	18 32 32.3	-1.2
EKA	**Eskdalemuir Ar**	25.54	326	P	P	18 32 34.1	-0.4
	comp=Z,62nm,0.6s,mb5.3,baz=130,slow=9.0,SNR=74						
EKA				PcP	PcP	18 36 07.0	+1.6
	comp=Z,11nm,0.7s,baz=112,slow=3.1,SNR=5.2						
EKA	**Eskdalemuir Ar**	25.54	326	P	P	18 32 34.2	-0.3
GIM	**North Isle of**	25.54	323	*e*P	P	18 32 34.2	-0.3
GIM	**North Isle of**	25.54	323	P	P	18 32 34.2	-0.3
ESK	**Eskdalemuir**	25.55	326	*e*P	P	18 32 34.4	-0.2
ESK				AMb	AMB	18 32 43.6	
	comp=Z,438nm,1.4s,mb5.8						
ESK				*e*		18 37 09.0	
ESK				AMS	AMS	18 45 01.9	
	comp=Z,38µm,17.3s,MS6.0						
ESK	**Eskdalemuir**	25.55	326	P	P	18 32 34.4	-0.2
ESK				AMb	AMB	18 32 43.6	
	comp=Z,438nm,1.4s,mb5.8						
ESK						18 37 09.0	
ESK				AMS	AMS	18 45 01.9	
	comp=Z,38µm,17.3s						
ESK	**Eskdalemuir**	25.55	326	*i* P	P	18 32 35.5	+0.9
ESK	**Eskdalemuir**	25.55	326	*e*P	P	18 32 34.8	+0.2
	comp=Z,666nm,1.2s,mb6.0						
ESK				LR	LR		
	comp=Z,25µm,20.0s,MS5.7						
ESK	**Eskdalemuir**	25.55	326	*e*P	P	18 32 34.8	+0.2
	comp=Z,666nm,1.2s,mb6.0						
ODD1	**Odda**	25.58	342	*e*P	P	18 32 34.6	-0.2
ODD1	**Odda**	25.58	342	*e*P	P	18 32 34.6	-0.2
	SNR=28						
GCD	**Castle Douglas**	25.62	325⇑	*e*P	P	18 32 35.5	+0.3
GCD	**Castle Douglas**	25.62	325	P	P	18 32 35.5	+0.3
NB2	**NORSAR Subarra**	25.66	348	P	P	18 32 34.5	-1.0
	comp=Z,176nm,0.9s,mb5.6,baz=160,slow=9.3						
NB2	**NORSAR Subarra**	25.66	348	P	P	18 32 34.5	-1.0
	comp=Z,176nm,0.9s,mb5.6,baz=160,slow=9.0,SNR=69						
NOA	**NORSAR Array B**	25.66	348	P	P	18 32 34.6	-0.9
NOA				S	S	18 36 54.7	-8.2
NOA	**NORSAR Array B**	25.66	348	P	P	18 32 34.6	-0.9
	comp=Z,48nm,0.6s,mb5.2,baz=152,slow=9.5,SNR=186						
NOA				S	S	18 36 54.7	-8.2
	comp=Z,4.6nm,0.7s,baz=270,slow=13,SNR=2.7						
NOA				LR	LR	18 44 34.4	
	comp=Z,27µm,19.4s,MS5.8,baz=175,slow=41						
NOA	**NORSAR Array B**	25.66	348	P	P	18 32 34.6	-0.9
ESY	**Stoneypath**	25.67	328	*e*P	P	18 32 34.3	-1.4
ESY	**Stoneypath**	25.67	328	P	P	18 32 34.3	-1.4
EBL	**Broad Law**	25.77	327	*e*P	P	18 32 35.8	-0.7
EBL	**Broad Law**	25.77	327	P	P	18 32 35.8	-0.7
EDI	**Edinburgh**	25.92	327	*e*P	P	18 32 38.3	+0.3
EDI				AMb	AMB	18 32 45.0	
	comp=Z,631nm,1.1s,mb6.1						
EDI				*e*		18 37 11.6	
EDI				AMS	AMS	18 45 07.0	
	comp=Z,39µm,18.1s,MS6.0						
EDI	**Edinburgh**	25.92	327	P	P	18 32 38.3	+0.3
EDI				AMb	AMB	18 32 45.0	
	comp=Z,631nm,1.1s,mb6.1						
EDI						18 37 11.6	
EDI				AMS	AMS	18 45 07.0	
	comp=Z,39µm,18.1s						
DSB	**Dublin**	25.96	320	*e*P	P	18 32 40.6	+2.3
	comp=Z,136nm,0.9s,mb5.5						
DSB	**Dublin**	25.96	320	*e*P	P	18 32 40.7	+2.4
	comp=Z,136nm,0.9s,mb5.5						
GAL1	**Galloway**	25.99	324	*e*P	P	18 32 38.4	-0.1
GAL1				AMb	AMB	18 32 47.1	
	comp=Z,260nm,1.3s,mb5.6						
GAL1				*e*		18 37 03.7	
GAL1				AMS	AMS	18 44 35.5	
	comp=Z,27µm,19.6s,MS5.8						
GAL1	**Galloway**	25.99	324	P	P	18 32 38.4	-0.1
GAL1				AMb	AMB	18 32 47.1	
	comp=Z,260nm,1.3s,mb5.6						
GAL1						18 37 03.7	
GAL1				AMS	AMS	18 44 35.5	
	comp=Z,27µm,19.6s						
EAU	**Auchinoon**	25.99	327	*e*P	P	18 32 38.8	+0.2
EAU	**Auchinoon**	25.99	327	P	P	18 32 38.8	+0.2
KAF	**Kangasniemi**	25.99	5	*e*P	P	18 32 37.3	-1.2
KAF				pmax	pmax		
	comp=Z,279nm,0.8s,mb5.8						
KAF	**Kangasniemi**	25.99	5	*e*p	P	18 32 37.3	-1.2
	comp=Z,279nm,0.8s,mb5.8						
KAF	**Kangasniemi**	25.99	5	*e*P	P	18 32 37.3	-1.2
	comp=Z,279nm,0.8s,mb5.8						
KAF	**Kangasniemi**	25.99	5	*e*P	P	18 32 37.3	-1.2
	comp=Z,279nm,0.8s,mb5.8						
DLF	**Lyons Farm**	26.06	320⇑	*i*P	P	18 32 39.7	+0.4
DLF	**Lyons Farm**	26.06	320⇑	*i*P	P	18 32 39.7	+0.4
GMM	**Mts of Mourne**	26.25	322	*e*P	P	18 32 41.7	+0.8
GMM	**Mts of Mourne**	26.25	322	P	P	18 32 41.7	+0.8
EBH	**Black Hill**	26.27	327	*e*P	P	18 32 41.4	+0.3
EBH	**Black Hill**	26.27	327	P	P	18 32 41.4	+0.3
BER	**Bergen**	26.31	342	*e*P	P	18 32 43.9	+2.5
BER				AMS	AMS	18 42 56.5	
	comp=Z,42µm,19.9s,MS6.0						
BER	**Bergen**	26.31	342	*e*P	P	18 32 43.9	+2.5
	SNR=28						
DCN	**Croghan**	26.48	319⇑	*i*P	P	18 32 43.6	+0.6
DCN	**Croghan**	26.48	319⇑	*i*P	P	18 32 43.6	+0.6
EAB	**Aberfoyle**	26.59	327	*e*P	P	18 32 43.1	-0.9
EAB	**Aberfoyle**	26.59	327	P	P	18 32 43.1	-0.9
MME1	**Meikle Cairn**	26.73	330	*e*P	P	18 32 44.8	-0.4
MME1	**Meikle Cairn**	26.73	330	P	P	18 32 44.8	-0.4
HYA	**Hoyanger**	26.78	343	*e*P	P	18 32 46.7	+1.0
HYA				AMb	AMB	18 32 54.0	
	comp=Z,162nm,1.1s,mb5.5						
HYA	**Hoyanger**	26.78	343	*e*P	P	18 32 46.7	+1.0
	comp=Z,162nm,1.1s,mb5.5,SNR=28						
DOMB	**Dombas**	26.97	347	*e*P	P	18 32 47.9	+0.5
DOMB				AMb	AMB	18 32 57.2	
	comp=Z,209nm,1.7s,mb5.4						
DOMB	**Dombas**	26.97	347	*e*P	P	18 32 47.9	+0.5
	comp=Z,209nm,1.7s,mb5.4,SNR=28						
MCD	**Coleburn Disti**	27.02	330	*e*P	P	18 32 46.6	-1.2
MCD	**Coleburn Disti**	27.02	330	P	P	18 32 46.6	-1.2
KLMR	**Klimovskoe**	27.05	19⇑	*i*P	P	18 32 46.8	-1.3
KLMR				*e*S	S	18 37 26.6	+1.7
KLMR				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.2						
KLMR	**Klimovskoe**	27.05	19	*i* P	P	18 32 46.8	-1.3
	comp=Z,1µm,1.6s,mb6.2						
JOF	**Joensuu**	27.29	10	*e*P	P	18 32 48.7	-1.5
JOF	**Joensuu**	27.29	10	*e*p	P	18 32 48.7	-1.5
	comp=Z,106nm,0.7s,mb5.5						
JOF	**Joensuu**	27.29	10	*e*P	P	18 32 48.7	-1.5
JOF	**Joensuu**	27.29	10	*e*P	P	18 32 48.7	-1.5
	comp=Z,106nm,0.7s,mb5.5						
MDO	**Dochfour**	27.38	329	*e*P	P	18 32 50.5	-0.7
MDO	**Dochfour**	27.38	329	P	P	18 32 50.5	-0.7
FOO	**Floro**	27.43	343	*e*P	P	18 32 53.7	+2.2
FOO				*e*S	S	18 37 35.3	+4.4
FOO				AMS	AMS	18 43 27.0	
	comp=Z,34µm,21.0s,MS5.9						
FOO	**Floro**	27.43	343	*e*P	P	18 32 53.7	+2.2
	SNR=28						
VAL	**Valentia**	27.52	315	*e*P	P	18 32 52.8	+0.4
VAL	**Valentia**	27.52	315⇓	*i*S	S	18 37 43.8	+11
VAL	**Valentia**	27.52	315	*e*P	P	18 32 52.8	+0.4
MLA1	**Latheron**	27.54	331	*e*P	P	18 32 50.9	-1.7
MLA1	**Latheron**	27.54	331	P	P	18 32 50.9	-1.7
KAR1	**Arisaig**	27.69	327	*e*P	P	18 32 54.1	+0.2
KAR1	**Arisaig**	27.69	327	P	P	18 32 54.1	+0.2
MOL	**Molde**	27.75	346	*e*P	P	18 32 58.1	+3.8
MOL				AMb	AMB	18 33 07.2	
	comp=Z,150nm,2.5s,mb5.2						
MOL				AMS	AMS	18 43 13.7	
	comp=Z,24µm,25.1s,MS5.7						
ORE	**Reay**	27.86	331	*e*P	P	18 32 53.7	-1.7
ORE	**Reay**	27.86	331	P	P	18 32 53.7	-1.7
KPL	**Plockton**	27.87	328	*e*P	P	18 32 54.9	-0.6
KPL				AMb	AMB	18 33 08.0	
	comp=Z,256nm,1.2s,mb5.7						
KPL				*e*		18 37 44.6	
KPL				AMS	AMS	18 46 25.6	
	comp=Z,47µm,17.7s,MS6.1						
KPL	**Plockton**	27.87	328	P	P	18 32 54.9	-0.6
KPL				AMb	AMB	18 33 08.0	
	comp=Z,256nm,1.2s,mb5.7						
KPL						18 37 44.6	
KPL				AMS	AMS	18 46 25.6	
	comp=Z,47µm,17.7s						
LRW	**Lerwick**	28.05	335	*e*P	P	18 32 55.8	-1.2
LRW				AMb	AMB	18 33 02.5	
	comp=Z,312nm,1.1s,mb5.9						
LRW				AMS	AMS	18 45 06.7	
	comp=Z,39µm,21.9s,MS6.0						
LRW	**Lerwick**	28.05	335	P	P	18 32 55.8	-1.2
LRW				AMb	AMB	18 33 02.5	
	comp=Z,312nm,1.1s,mb5.9						
LRW				AMS	AMS	18 45 06.7	
	comp=Z,39µm,21.9s						
HAJJ	**Hajjah**	28.26	131	*e*P	P	18 32 59.6	+0.3
HAJJ				AMb	AMB	18 33 01.6	
	comp=Z,383nm,1.3s,mb5.9						
HAJJ	**Hajjah**	28.26	131	*e*P	P	18 32 59.6	+0.3
	comp=Z,192nm,1.3s,mb5.6						
NSS	**Namsos**	28.88	351	*e*P	P	18 33 03.6	-0.8
NSS				AMb	AMB	18 33 21.8	
	comp=Z,190nm,1.4s,mb5.6						
NSS				*e*S	S	18 37 56.1	+2.6
NSS				AMS	AMS	18 45 28.3	
	comp=Z,37µm,16.2s,MS6.1						
NSS	**Namsos**	28.88	351	*e*P	P	18 33 03.6	-0.8
	comp=Z,190nm,1.4s,mb5.6,SNR=28						
ABKT	**Ailbek**	28.91	76	P	P	18 33 04.1	-0.9
	comp=Z,904nm,0.6s,mb6.7,SNR=21						
TORD	**Torodi Ar. Bea**	29.27	223	P	P	18 33 07.5	-0.9
	comp=Z,117nm,0.8s,mb5.7,baz=31,slow=8.8,SNR=188						
TORD				S	S	18 37 55.6	-5.0
	comp=Z,0.9nm,0.8s,baz=241,slow=46,SNR=2.6						
TORD				LR	LR	18 46 19.0	
	comp=Z,51µm,18.6s,MS6.2,baz=30,slow=39						
TORD	**Torodi Ar. Bea**	29.27	223	P	P	18 33 07.5	-0.9
TORD				S	S	18 37 55.6	-5.0
TORD				LR	LR	18 46 19.0	
PRGR	**Permogore**	29.46	23	*e*P	P	18 33 07.9	-1.7
PRGR				*e**PP	pP	18 33 17.2	+2.3
PRGR				*e**SP	sP	18 33 21.9	+4.8
PRGR				*e*S	S	18 37 56.8	-6.0
PRGR				*e**SS	sS	18 38 13.5	+1.9
PRGR				pmax	pmax		
	comp=Z,226nm,1.1s,mb5.8						
AKTK	**Aktyubinsk**	29.56	50	P	P	18 33 08.9	-1.7
AKTK				S	S	18 38 04.3	-0.3
AKTK				ScS	ScS	18 43 50.3	-0.4
AKTK				LR	LR	18 47 57.0	
AKTO	**Aktyubinsk**	29.56	50	P	P	18 33 08.9	-1.7
AKTO				S	S	18 38 04.3	-0.3
AKTO						18 43 50.3	
AKTO	**Aktyubinsk**	29.56	50	P	P	18 33 08.9	-1.7
	comp=Z,70nm,0.9s,mb5.4,baz=252,slow=9.6,SNR=56						
AKTO				S	S	18 38 04.3	-0.3
	comp=Z,8.1nm,0.8s,baz=57,slow=20,SNR=2.0						
AKTO				ScS	ScS	18 43 50.3	-0.4
	comp=Z,2.0nm,0.9s,baz=184,slow=18,SNR=3.0						
AKTO				LR	LR	18 47 57.0	
	comp=Z,24µm,22.0s,MS5.8,baz=257,slow=43						
DHBB	**Dhamar BB**	29.61	131⇑	*e*P	P	18 33 11.8	+0.5
DHBB				AMb	AMB	18 33 13.9	
	comp=Z,334nm,1.3s,mb5.9						
DHBB				*i* S	S	18 38 08.4	+2.5
DESE	**Dese**	29.82	143	*e*P	P	18 33 14.9	+1.7
UDYN	**Al ‘Udayn**	29.82	133⇑	*e*P	P	18 33 13.6	+0.4
MOR8	**Moi Rana**	30.22	354	*e*P	P	18 33 16.8	+0.5
MOR8				AMb	AMB	18 33 22.2	
	comp=Z,76nm,2.6s,mb5.0						
MOR8	**Moi Rana**	30.22	354	*e*P	P	18 33 16.8	+0.5
	comp=Z,184nm,1.5s,mb5.6,SNR=27						
EFAM	**Famara**	30.44	267	P	P	18 33 20.2	+1.7
	comp=Z,290nm,1.8s,mb5.7						
FLOS	**Flostrand**	30.48	353	*e*P	P	18 33 19.6	+1.1
TRBA	**At Turbah**	30.49	133	*e*P	P	18 33 19.5	+0.4
TRBA				AMb	AMB	18 33 20.9	
	comp=Z,28nm,0.8s,mb5.0						
STOK	**Stokkvaagen**	30.51	353	*e*P	P	18 33 18.8	0.0
KONS	**Konsvik**	30.66	353	*e*P	P	18 33 20.5	+0.4
BDHA	**Al Bayda’**	30.79	130⇑	*e*P	P	18 33 22.1	+0.4
BDHA				AMb	AMB	18 33 23.6	
	comp=Z,101nm,1.2s,mb5.5						
BDHA	**Al Bayda’**	30.79	130⇑	*e*P	P	18 33 22.1	+0.3
	comp=Z,51nm,1.2s,mb5.2						
NAZ	**Nazwa, Dubai**	31.11	102	P	P	18 33 23.7	-0.8
	SNR=8.9						
NAZ	**Nazwa, Dubai**	31.11	102	P	P	18 33 23.6	-0.9
	SNR=24						
BANOM	**Banah**	31.17	100	P	P	18 33 24.4	-0.6
	SNR=8.0						
BANOM	**Banah**	31.17	100	P	P	18 33 23.3	-1.8
	SNR=18						
FAQ	**Al Faqa, Dubai**	31.17	102	P	P	18 33 24.4	-0.6
	SNR=6.0						
FAQ	**Al Faqa, Dubai**	31.17	102	P	P	18 33 23.8	-1.3
	SNR=23						
FURI	**Furi**	31.31	146	*e*P	P	18 33 28.8	+2.4
FURI				S	S	18 38 39.7	+7.1
ADEN	**Aden**	31.37	132⇑	*e*P	P	18 33 26.9	+0.1
ADEN				AMb	AMB	18 33 28.4	
	comp=Z,287nm,1.3s,mb5.9						
ADEN	**Aden**	31.37	132⇑	*e*P	P	18 33 26.9	0.0
	comp=Z,144nm,1.3s,mb5.6						
PMPS	**Porto Santo**	31.38	275	*e*P	P	18 33 29.5	+2.7
	comp=Z,251nm,1.5s,mb5.8						
HATD	**Hatta, Dubai**	31.56	102	P	P	18 33 27.8	-0.7
	SNR=15						
HATD	**Hatta, Dubai**	31.56	102	P	P	18 33 26.9	-1.6
ARU	**Arti**	31.84	39	P	P	18 33 28.5	-2.1
	comp=Z,1µm,0.7s,mb6.8,SNR=70						
ARU	**Arti**	31.84	39*d*	*i*P	P	18 33 28.4	-2.2
ARU				*e*		18 34 34.8	
ARU				*e*PPP		18 34 45.3	
ARU				*e*		18 36 19.9	
ARU				*e*S	S	18 38 37.2	-3.0
ARU				SSS		18 40 53.3	
ARU						18 43 54.5	
ARU				pmax	pmax		
	comp=Z,246nm,1.0s,mb6.0						
ARU				MLR	MLR		
	comp=Z,15µm,16.0s,MS5.8						
ARU	**Arti**	31.84	39⇓	*e*P	P	18 33 28.5	-2.1
	comp=Z,294nm,1.1s,mb6.0						
ARU				LR	LR		
	comp=Z,21µm,20.0s,MS5.8						
STEI	**Steigen**	31.90	355	*e*P	P	18 33 31.0	0.0
STEI				AMb	AMB	18 33 42.7	
	comp=Z,184nm,1.5s,mb5.7						
PMAR	**Madeira**	31.94	275	*e*P	P	18 33 33.9	+2.1
	comp=Z,358nm,1.2s,mb6.1						
APA	**Apatity**	32.01	8⇓	*i*P	P	18 33 31.8	-0.2
APA				*i*		18 33 41.2	
APA				*i* S	S	18 38 34.0	-8.6
APA				pmax	pmax		
	comp=Z,200nm,1.5s,mb5.7						

APA				pmax	pmax		
	comp=Z,2µm,5.0s						
APA				MLR	MLR		
	comp=Z,38µm,17.0s,MS6.2						
LOF	Lofoten	32.22	354	eP	P	18 33 35.1	+1.3
LOF				AMb	AMB	18 33 44.7	
	comp=Z,136nm,2.9s,mb5.3						
SOKR	Solikamsk	32.42	33d	iP	P	18 33 34.3	-1.4
SOKR				S	S	18 38 43.1	-6.0
SOKR				pmax	pmax		
	comp=Z,420nm,1.0s,mb6.2						
SOKR				MLR	MLR		
	comp=Z,19µm,16.0s,MS5.9						
LVZ	Lovozero	32.48	9	i P	P	18 33 35.7	-0.4
LVZ	Lovozero	32.48	9	i P	P	18 33 35.8	-0.3
EOSO	Osorio	32.49	266	P	P	18 33 37.5	+0.8
	comp=Z,831nm,3.3s						
ARQ	Araqi	32.61	104	P	P	18 33 36.6	-1.2
	SNR=43						
MUKL	Al Mukalla	32.64	125⇑	eP	P	18 33 38.1	+0.1
MUKL				AMb	AMB	18 33 39.1	
	comp=Z,159nm,1.0s,mb5.9						
EBAJ	Bajamar	32.94	267	P	P	18 33 39.1	-1.4
	comp=Z,962nm,3.4s						
SVE	Sverdlovsk	33.05	39⇓	eP	P	18 33 40.7	-0.5
SVE				eS	S	18 38 54.9	-4.1
SVE				pmax	pmax		
	comp=Z,401nm,1.0s,mb6.3						
SVE				MLR	MLR		
	comp=Z,20µm,15.0s,MS5.9						
HOQ	Hoqain	33.11	103	P	P	18 33 40.7	-1.4
	SNR=78						
ARCES	ARCESS Array B	33.36	2	P	P	18 33 42.7	-1.1
	comp=Z,38nm,0.6s,mb5.5,baz=183,slow=6.7,SNR=93						
ARCES				S	S	18 38 59.3	-4.2
	comp=Z,18nm,0.9s,baz=156,slow=18,SNR=2.5						
TRO	Tromso	33.43	358	eP	P	18 33 47.6	+3.3
TRO				eS	S	18 39 05.7	+1.1
TRO				AMS	AMS	18 49 02.4	
	comp=Z,31µm,14.9s,MS6.2						
BSY	Bisya	33.45	104	P	P	18 33 44.4	-0.8
	SNR=32						
KEV	Kevo	33.64	3	eP	P	18 33 45.1	-1.1
KEV	Kevo	33.64	3	ep	P	18 33 45.1	-1.1
KEV	Kevo	33.64	3	eP	P	18 33 45.1	-1.1
KEV	Kevo	33.64	3	eP	P	18 33 45.1	-1.1
WHFO	Wadi Hawf	33.64	114	P	P	18 33 45.4	-1.3
	SNR=19						
ABTO	Aybut	33.65	116	P	P	18 33 46.1	-0.7
	SNR=60						
BIDO	Bidbid	33.78	102	P	P	18 33 46.3	-1.7
	SNR=17						
EGOM	La Gomera	33.79	267	P	P	18 33 47.8	-0.2
	comp=Z,607nm,3.5s						
SMDO	Samad	33.96	103	P	P	18 33 48.1	-1.4
	SNR=130						
EHIG	Higuera	34.11	268	P	P	18 33 54.6	+3.8
	comp=Z,691nm,3.6s						
RBK	Rabkut	34.22	115	P	P	18 33 50.9	-0.9
	SNR=58						
JMDO	Jabal Madar	34.36	104	P	P	18 33 51.2	-1.8
	SNR=59						
WBK	Wadi Bani Khal	34.92	103	P	P	18 33 57.3	-0.6
	SNR=88						
CMLA	Cha da Macela	37.48	287	PFAKE		18 34 30.0	+10
CMLA				LR	LR		
	comp=Z,10µm,20.0s,MS5.6						
BRVK	Borovoye	37.53	48	eP	P	18 34 18.0	-1.8
BRVK				pmax	pmax		
	comp=Z,179nm,0.9s,mb5.8						
BRVK				MLR	MLR		
	comp=Z,19µm,21.0s,MS5.9						
BRVK	Borovoye	37.53	48	eP	P	18 34 18.0	-1.8
	comp=Z,179nm,0.9s,mb5.8						
BRVK				LR	LR		
	comp=Z,19µm,21.0s,MS5.9						
BRVK	Borovoye	37.53	48	P	P	18 34 19.1	-0.8
	SNR=69						
BRVK				P		18 34 19.1	
	SNR=69						
PDA	Ponta Delgada	37.59	287	eLQ		18 44 07.0	
PDA				eLR	LR	18 44 32.0	
MBAR	Mbarara	37.65	165⇓	iP	P	18 34 21.1	-0.1
MBAR	Mbarara	37.65	165	eP	P	18 34 21.3	+0.1
MBAR				AMb	AMB	18 34 45.3	
	comp=Z,80nm,1.6s,mb5.2						
JMIC	Jan Mayen	38.24	345	AMS	AMS	18 49 02.3	
	comp=Z,10µm,23.2s,MS5.6						
BORG	Borgarnes	38.24	332	P		18 34 40.0	+14
BORG				MLR	MLR		
	comp=Z,38µm,20.0s						
BORG	Borgarnes	38.24	332	PFAKE		18 34 40.0	+14
BORG				LR	LR		
	comp=Z,38µm,20.0s,MS6.2						
DBIC	Dimbokro	38.25	226	P	P	18 34 25.5	-0.8
DBIC						18 36 42.2	
DBIC	Dimbokro	38.25	226	P	P	18 34 25.4	-0.9
	comp=Z,120nm,0.7s,mb5.7,baz=18,slow=9.6,SNR=80						
DBIC				PcP	PcP	18 36 42.1	+1.7
	comp=Z,20nm,0.8s,baz=353,slow=11,SNR=2.1						
DBIC				S	S	18 40 08.8	-11
	comp=Z,12nm,1.1s,baz=134,slow=13,SNR=2.0						
DBIC				LR	LR	18 52 04.8	
	comp=Z,31µm,18.2s,MS6.2,baz=17,slow=39						
KBL	Kabul	38.26	78	eP	P	18 34 25.1	-1.1
KBL				pmax	pmax		
	comp=Z,81nm,0.9s,mb5.5						
KBL	Kabul	38.26	78	eP	P	18 34 25.1	-1.1
	comp=Z,81nm,0.9s,mb5.5						
BJO	Bjornoya	38.31	359	eP	P	18 34 25.9	-0.2
BJO				eS	S	18 40 20.8	+1.5
BJO				AMS	AMS	18 50 22.5	
	comp=Z,24µm,20.8s,MS6.0						
TIC	Toumodi	38.37	226	eP	P	18 34 26.3	-1.0
	comp=Z,409nm,0.8s,mb6.2						
KIC	Kosan Boka	38.44	226	eP	P	18 34 26.9	-1.0
	comp=Z,670nm,0.9s,mb6.4						
LIC	Lamto	38.71	226⇓	iP	P	18 34 29.4	-0.8
	comp=Z,465nm,0.9s,mb5.9,baz=44						
LIC				eMLR	MLR		
	comp=Z,42µm,19.5s,MS6.0						
LIC	Lamto	38.71	226	eP	P	18 34 29.3	-0.9
	comp=Z,667nm,0.9s,mb6.4						
LIC	Lamto	38.71	226⇓	iP	P	18 34 29.4	-0.8
	comp=Z,233nm,0.9s,mb5.9						
LIC				LR	LR		
	comp=Z,21µm,19.5s,MS6.0						
KMBO	Kilima Mbogo	39.92	155	P	P	18 34 38.0	-2.3
KMBO				S	S	18 40 48.3	+3.6
KMBO	Kilima Mbogo	39.92	155	P	P	18 34 38.0	-2.3
	comp=Z,3.2nm,0.7s,mb4.2,baz=93,slow=23,SNR=3.8						
KMBO				S	S	18 40 48.3	+3.6
	comp=Z,3.9nm,1.1s,baz=290,slow=24,SNR=2.8						
KMBO				LR	LR	18 54 56.7	
	comp=Z,18µm,18.0s,MS6.0,baz=337,slow=42						
KMBO	Kilima Mbogo	39.92	155	P	P	18 34 38.0	-2.3
KMBO				S	S	18 40 48.3	+3.6
KMBO				LR	LR	18 54 56.7	
EKS2	Erkin-Say	40.11	64	P	P	18 34 40.8	-0.7
	SNR=368						
AML	Almayashu	40.13	65	P	P	18 34 40.6	-1.2
	SNR=51						
AML	Almayashu	40.13	65	P	P	18 34 40.7	-1.1
	SNR=70						
USP	Ospenovka	40.54	63	P	P	18 34 43.2	-1.9
	SNR=43						
AAK	Ala-Archa	40.63	64⇑	eP	P	18 34 45.0	-0.9
AAK				pmax	pmax		
	comp=Z,156nm,1.0s,mb5.6						
AAK				MLR	MLR		
	comp=Z,10µm,17.0s,MS5.7						
AAK	Ala-Archa	40.63	64	P	P	18 34 45.3	-0.7
	SNR=332						
AAK	Ala-Archa	40.63	64	S	S	18 40 46.2	-8.6
	comp=Z,3.5nm,0.8s,baz=177,slow=2.5,SNR=2.1						
AAK				LR	LR	18 54 07.2	
	comp=Z,24µm,19.0s,MS6.1,baz=279,slow=40						
AAK	Ala-Archa	40.63	64	eP	P	18 34 44.2	-1.8
	comp=Z,310nm,0.9s,mb5.9						
AAK				LR	LR		
	comp=Z,18µm,21.0s,MS5.9						
AAK	Ala-Archa	40.63	64	P	P	18 34 45.1	-0.9
	SNR=212						
AAK				P		18 34 45.1	
	SNR=212						
UCH	Uchtor	40.71	65	P	P	18 34 46.2	-0.4
	SNR=120						
HSP	Hornsund	40.90	358	eP	P	18 34 48.7	+1.0
KBK	Karagaybulak	40.96	64	P	P	18 34 48.1	-0.5
	SNR=132						
KZA	Kyzart	41.28	65	P	P	18 34 51.2	-0.1
	SNR=224						
SCO	Scoresbysund	41.30	339	i P	P	18 34 52.5	+1.5
SCO				pmax	pmax		
	comp=Z,139nm,1.1s,mb5.5						
SCO				MLR	MLR		
	comp=Z,16µm,18.0s,MS5.9						
SCO	Scoresbysund	41.30	339	i P	P	18 34 52.5	+1.5
	comp=Z,139nm,1.1s,mb5.5						
SCO							
	comp=Z,16µm,18.0s						
SCO	Scoresbysund	41.30	339	i P	P	18 34 52.5	+1.5
	comp=Z,139nm,1.1s,mb5.5						
SCO				LR	LR		
	comp=Z,16µm,18.0s,MS5.9						
SCO	Scoresbysund	41.30	339	i P	P	18 34 52.5	+1.5
	comp=Z,139nm,1.1s,mb5.5						
TKM2	Tokmak 2	41.39	64	P	P	18 34 51.3	-0.8
	SNR=117						
TKM2	Tokmak 2	41.39	64	PFAKE		18 35 00.0	+7.9
TKM2				LR	LR		
	comp=Z,6µm,22.0s,MS5.4						
ULHL	Ulahol	41.97	65	P	P	18 34 56.5	-0.5
	SNR=294						
AAA	Alma-Ata	42.30	63	eP	P	18 34 59.9	+0.3
AAA				eS	S	18 41 19.9	+0.3
AAA				pmax	pmax		
	comp=Z,2µm,4.6s						
AAA				smax			
	comp=E,5µm,6.1s						
AAA				MLR	MLR		
	comp=Z,15µm,17.0s,MS6.0						
KSH	Kashi	42.34	69	P	P	18 34 57.4	-2.6
KSH				epP	pP	18 35 06.8	+1.4
KSH				esP	sP	18 35 10.8	+3.2
KSH				ePP	PP	18 36 36.0	-2.0
KSH				ePcP	PcP	18 36 54.9	+1.6
KSH				eScP	ScP	18 40 42.4	-0.7
KSH				ePcS	PcS	18 40 45.1	0.0
KSH				S	S	18 41 10.3	-10
KSH				esS	sS	18 41 26.3	-2.9
KSH				eSS	SS	18 44 10.1	-19
KSH				eScS	ScS	18 44 56.3	-4.8
KSH				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.6						
KSH				pmax	pmax		
	comp=Z,1µm,8.1s						
KSH				LR	LR		
	comp=N,23µm,16.2s,MS6.3						
KSH				LR	LR		
	comp=E,18µm,15.4s,MS6.3						
KSH				LR	LR		
	comp=Z,16µm,13.5s,MS6.1						
KURK	Kurchatov	42.62	52	eP	P	18 34 59.6	-2.5
KURK				pmax	pmax		
	comp=Z,73nm,0.8s,mb5.5						
KURK				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.1						
KURK	Kurchatov	42.62	52	S	S	18 41 20.1	-4.0
	comp=Z,3.7nm,0.9s,baz=296,slow=3.2,SNR=2.4						
KURK				LR	LR	18 55 47.9	
	comp=Z,21µm,20.7s,MS6.0,baz=275,slow=41						
KURK	Kurchatov	42.62	52	eP	P	18 34 59.6	-2.4
	comp=Z,73nm,0.8s,mb5.5						
KURK				LR	LR		
	comp=Z,24µm,21.0s,MS6.1						
KURK	Kurchatov	42.62	52	P	P	18 35 00.7	-1.4
	SNR=38						
KURK				P		18 35 00.7	
	SNR=38						
KBS	Kingsbay	42.93	357	P	P	18 35 04.9	+0.6
KBS				pmax	pmax		
	comp=Z,420nm,1.4s,mb6.0						
KBS	Kingsbay	42.93	357	eP	P	18 35 05.5	+1.2
KBS				AMb	AMB	18 35 17.3	
	comp=Z,176nm,1.8s,mb5.5						
KBS				eS	S	18 41 31.0	+2.9
KBS				eSS	SS	18 44 42.7	+3.3
KBS	Kingsbay	42.93	357	eP	P	18 35 04.4	+0.1
	comp=Z,422nm,1.4s,mb6.0						
BHJ	Bhuj	43.13	94	ePKP	P	18 35 06.4	-0.2
BHJ				AMb	AMB	18 35 15.0	
	comp=Z,205nm,1.4s,mb5.7						
THN	Thein Dam	44.21	79	ePKP	P	18 35 13.0	-2.2
THN				ex	x	18 41 15.8	
DAG	Danmarks Havn	44.34	348⇑	iP	P	18 35 15.6	-0.1
DAG				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.9						
DAG				MLR	MLR		
	comp=Z,27µm,22.0s,MS6.1						
DAG	Danmarks Havn	44.34	348⇑	iP	P	18 35 15.6	-0.1
	comp=Z,18nm,0.7s,mb4.9						
DAG							
	comp=Z,27µm,22.0s						
DAG	Danmarks Havn	44.34	348⇑	iP	P	18 35 15.6	-0.1
	comp=Z,18nm,0.7s,mb4.9						
DAG				LR	LR		
	comp=Z,27µm,22.0s,MS6.1						
BHK	Bhakra	45.13	80	ePKP	P	18 35 20.4	-2.2
NVS	Novosibirsk	45.24	46	eP	P	18 35 21.8	-1.3
NVS				i S	S	18 41 59.0	-3.2
NVS				pmax	pmax		
	comp=E,100nm,1.2s						
NVS				pmax	pmax		
	comp=Z,252nm,1.2s,mb5.9						
NVS				pmax	pmax		
	comp=N,124nm,1.4s						
NVS				smax			
	comp=N,345nm,1.8s						
NVS				smax			
	comp=E,202nm,1.9s						
MKAR	Makanchi Array	45.45	57	P	P	18 35 22.9	-2.0
MKAR				S	S	18 41 58.6	-6.9
MKAR	Makanchi Array	45.45	57	P	P	18 35 22.9	-2.0
	comp=E,26nm,0.4s,mb5.5,baz=272,slow=7.8,SNR=170						
MKAR				S	S	18 41 58.5	-6.9
	comp=E,3.2nm,1.0s,baz=271,slow=7.6,SNR=1.7						
MKAR				LR	LR	18 58 40.1	
	comp=E,16µm,19.5s,MS6.0,baz=267,slow=42						
SDNR	Sundarnagar	45.54	79	ePKP	P	18 35 24.0	-1.8
SDNR				ex	x	18 42 42.0	
AJM	Ajmer	45.69	87	ePKP	P	18 35 26.3	-0.8
AJM				AMb	AMB	18 35 40.0	
	comp=Z,136nm,1.2s,mb5.8						
KHET	Khetri	45.95	84	ePKP	P	18 35 27.9	-1.2
KHET				AMb	AMB	18 35 34.6	
	comp=Z,113nm,0.8s,mb5.8						
KHET				ex	x	18 42 12.2	
ZAA0	Zalesovo Array	46.22	47	eP	P	18 35 28.3	-2.5
ZALV	Zalesovo Beam	46.22	47	P	P	18 35 28.6	-2.2
ZALV				S	S	18 42 18.3	+2.0
ZALV	Zalesovo Beam	46.22	47	P	P	18 35 28.6	-2.2
	comp=Z,86nm,0.5s,mb5.9,baz=266,slow=9.3,SNR=103						
ZALV				S	S	18 42 18.3	+2.0
	comp=Z,4.7nm,0.9s,baz=283,slow=35,SNR=4.1						
ZALV				LR	LR	18 58 01.2	
	comp=Z,9µm,18.6s,MS5.7,baz=267,slow=40						
ZALV	Zalesovo Beam	46.22	47	S	S	18 42 18.3	+2.0
KUDL	Kundal	46.47	84	ePKP	P	18 35 31.4	-1.7
KUDL				AMb	AMB	18 35 36.2	
	comp=Z,151nm,1.3s,mb5.8						
KUDL				ex	x	18 42 19.2	
NDI	New Delhi	46.83	83	ePKP	P	18 35 32.5	-3.5
NDI				eS	S	18 42 21.0	-4.8
AYAN	Aya Nagar	46.84	83	ePKP	P	18 35 35.0	-1.1
AYAN				eS	S	18 42 26.1	+0.2
DDI	Dehra Dun	46.85	80	ex	x	18 35 32.5	
SUMG	Summit	46.93	339	eP	P	18 35 37.4	+1.2
	comp=Z,207nm,1.1s,mb6.0						
SUMG	Summit	46.93	339	eP	P	18 35 37.4	+1.2
	comp=Z,207nm,1.1s,mb6.0						
JOSI	Joshimath	47.95	79	ePKP	P	18 35 43.7	-1.0
JOSI				AMb	AMB	18 35 47.1	
	comp=Z,3µm,0.8s						
JOSI				ex	x	18 42 37.3	
AGRA	Agra	48.03	84	ePKP	P	18 35 43.9	-1.4
AGRA				AMb	AMB	18 35 47.4	
	comp=Z,89nm,0.3s,mb6.2						
PTH	Pithoragarh	48.88	80	ePKP	P	18 35 49.0	-2.8
POO	Poona	48.90	97	ePKP	P	18 35 51.9	-0.2
POO				AMb	AMB	18 35 55.4	
	comp=Z,180nm,1.1s,mb6.0						
LGTI	Lohaghat	48.94	80	ePKP	P	18 35 47.5	-4.8
LGTI				eS	S	18 42 46.1	-10
BHPL	Bhopal	49.41	89	ePKP	P	18 35 54.3	-1.7
BHPL				AMb	AMB	18 36 08.2	
	comp=Z,137nm,1.3s,mb5.8						
WMQ	Urumqi	49.81	60	P	P	18 35 58.0	-0.8
WMQ				pP	pP	18 36 08.0	+3.7
WMQ				sP	sP	18 36 12.0	+5.6
WMQ				PcP	PcP	18 37 19.0	-0.3
WMQ				PP	PP	18 37 53.0	-0.3
WMQ				S	S	18 43 03.0	-4.5
WMQ				sS	sS	18 43 19.0	+2.5
WMQ				ScS	ScS	18 45 44.0	-5.4
WMQ				pmax	pmax		
	comp=Z,110nm,0.8s,mb5.9						
WMQ				pmax	pmax		
	comp=Z,1µm,4.8s						
WMQ				LR	LR		
	comp=N,31µm,18.3s,MS6.4						
WMQ				LR	LR		
	comp=E,16µm,16.4s,MS6.4						
WMQ				LR	LR		
	comp=Z,18µm,26.0s						
KAD	Karad	49.83	98	ePKP	P	18 35 58.4	-0.8
KAD				AMb	AMB	18 36 02.4	
	comp=Z,124nm,1.3s,mb5.8						
SFJD	Kangerlussuaq	50.36	331	i P	P	18 36 03.3	+0.7
SFJD				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.4						
SFJD				MLR	MLR		
	comp=Z,18µm,22.0s,MS6.0						
SFJD	Kangerlussuaq	50.36	331	i P	P	18 36 03.3	+0.7
	comp=Z,44nm,1.0s,mb5.4						
SFJD							
	comp=Z,18µm,22.0s						
SFJD	Kangerlussuaq	50.36	331	i P	P	18 36 03.3	+0.7
	comp=Z,44nm,1.0s,mb5.4						
SFJD				LR	LR		
	comp=Z,18µm,22.0s,MS6.0						
SFJD	Kangerlussuaq	50.36	331	i P	P	18 36 03.3	+0.7
	comp=Z,44nm,1.0s,mb5.4						
LATR	Latur	51.14	95	ePKP	P	18 36 08.1	-1.0
JBP	Jabalpur	51.52	88⇑	ePKP	P	18 36 09.2	-2.7
JBP				ex	x	18 36 33.4	
	comp=Z,152nm,1.3s						
JBP				ex	x	18 43 25.6	
MSEY	Mahe Island	51.52	135	P	P	18 36 12.2	+0.2
	comp=Z,624nm,1.4s,mb6.3,SNR=25						
MSEY	Mahe Island	51.52	135	i P	P	18 36 12.1	+0.1
MSEY	Mahe Island	51.52	135	eP	P	18 36 11.7	-0.3
	comp=Z,247nm,1.4s,mb6.0						
MSEY	Mahe Island	51.52	135	P	P	18 36 12.2	+0.3
	SNR=16						
MSEY				P		18 36 12.2	
	SNR=16						
MSEY	Mahe Island	51.52	135	eP	P	18 36 11.7	-0.3
	comp=Z,247nm,1.4s,mb6.0						
LSZ	Lusaka	51.65	172	P	P	18 36 13.3	+0.5
LSZ				pmax	pmax		
	comp=Z,68nm,1.0s,mb5.5						
LSZ	Lusaka	51.65	172	eP	P	18 36 13.1	+0.3
	comp=Z,68nm,1.0s,mb5.5						
LSZ	Lusaka	51.65	172	eP	P	18 36 13.1	+0.3
	comp=Z,68nm,1.0s,mb5.5						
ALBI	Allahabad	51.98	84	ex	x	18 36 11.0	
DANN	Dangsing	52.20	80	eP	P	18 36 15.9	-1.0
	comp=Z,2µm,0.8s,mb7.0						
DANN	Dangsing	52.20	80	eP	P	18 36 15.9	-1.0
	comp=Z,2µm,0.8s,mb7.0						
DANN	Dangsing	52.20	80	eP	P	18 36 15.9	-1.0
	comp=Z,2µm,0.8s,mb7.0						
KOLN	Koldanda	52.32	81	eP	P	18 36 16.3	-1.6
	comp=Z,429nm,0.8s,mb6.5						
KOLN	Koldanda	52.32	81	eP	P	18 36 16.3	-1.6
	comp=Z,429nm,0.8s,mb6.4						
KOLN	Koldanda	52.32	81	eP	P	18 36 16.3	-1.6
	comp=Z,429nm,0.8s,mb6.4						
MNGI	Mangalore	52.80	102	i P	P	18 36 22.0	+0.5
MNGI				i S	S	18 43 50.3	+1.0
GKN	Gorkha	53.05	80	eP	P	18 36 21.4	-1.8
	comp=Z,742nm,0.7s,mb6.7						
GKN	Gorkha	53.05	80	eP	P	18 36 21.4	-1.8
	comp=Z,742nm,0.7s,mb6.7						
GKN	Gorkha	53.05	80	eP	P	18 36 21.4	-1.8
	comp=Z,742nm,0.7s,mb6.7						
HYB	Hyderabad	53.28	95	i P	P	18 36 23.0	-2.0
HYB				eS	S	18 43 56.0	+0.2
HYB	Hyderabad	53.28	95	eP	P	18 36 23.0	-2.0
HYB				eS	S	18 43 54.0	-1.8
HYB	Hyderabad	53.28	95	eP	P	18 36 23.0	-2.0
ALE	Alert	53.48	351	P	P	18 36 25.5	-0.2
	comp=Z,415nm,1.1s,mb6.3,SNR=18						
DMN	Daman	53.59	80	eP	P	18 36 25.9	-1.3
	comp=Z,1µm,0.8s,mb6.8						
DMN	Daman	53.59	80	eP	P	18 36 25.9	-1.3
	comp=Z,1µm,0.8s,mb6.8						
DMN	Daman	53.59	80	eP	P	18 36 25.9	-1.3
	comp=Z,1µm,0.8s,mb6.8						
KKN	Kakani	53.65	80	eP	P	18 36 25.9	-1.8
	comp=Z,422nm,0.7s,mb6.5						
KKN	Kakani	53.65	80	eP	P	18 36 25.9	-1.8
KKN				pmax	pmax		
	comp=Z,422nm,0.7s,mb6.5						
KKN	Kakani	53.65	80	eP	P	18 36 25.9	-1.8
	comp=Z,422nm,0.7s,mb6.5						
KKN	Kakani	53.65	80	eP	P	18 36 25.9	-1.8
	comp=Z,422nm,0.7s,mb6.5						
PKIN	Phulchoki	53.84	80	eP	P	18 36 27.4	-1.6
	comp=Z,473nm,0.8s,mb6.5						
PKI	Pulchoki	53.85	80	eP	P	18 36 27.5	-1.6
	comp=Z,551nm,0.8s,mb6.5						
PKI	Pulchoki	53.85	80	eP	P	18 36 27.5	-1.6
PKI				pmax	pmax		
	comp=Z,551nm,0.8s,mb6.5						
PKI	Pulchoki	53.85	80	eP	P	18 36 27.5	-1.6
	comp=Z,551nm,0.8s,mb6.5						
PKI	Pulchoki	53.85	80	eP	P	18 36 27.5	-1.6
	comp=Z,551nm,0.8s,mb6.5						
GUN	Gumba	54.08	79	eP	P	18 36 29.4	-1.4
	comp=Z,1µm,0.9s,mb6.8						
GUN	Gumba	54.08	79	eP	P	18 36 29.4	-1.4
	comp=Z,1µm,0.9s,mb6.8						
GUN	Gumba	54.08	79	eP	P	18 36 29.4	-1.4
	comp=Z,1µm,0.9s,mb6.8						
JIRN	Jiri	54.43	80	eP	P	18 36 32.0	-1.4
	comp=Z,778nm,0.8s,mb6.7						
JIRN	Jiri	54.43	80	eP	P	18 36 32.0	-1.4
	comp=Z,778nm,0.8s,mb6.7						
JIRN	Jiri	54.43	80	eP	P	18 36 32.0	-1.4
	comp=Z,778nm,0.8s,mb6.7						
RAMN	Ramite	55.08	80	eP	P	18 36 36.0	-2.0
	comp=Z,612nm,0.8s,mb6.7						
RAMN	Ramite	55.08	80	eP	P	18 36 36.0	-2.0
	comp=Z,612nm,0.8s,mb6.7						
RAMN	Ramite	55.08	80	eP	P	18 36 36.0	-2.0
	comp=Z,612nm,0.8s,mb6.7						
ODAN	Odare	55.74	80	eP	P	18 36 40.8	-2.1
	comp=Z,258nm,0.8s,mb6.3						
ODAN	Odare	55.74	80	eP	P	18 36 40.8	-2.1
	comp=Z,258nm,0.8s,mb6.3						
ODAN	Odare	55.74	80	eP	P	18 36 40.8	-2.1
	comp=Z,258nm,0.8s,mb6.3						
TAPN	Taplejung	55.78	79	eP	P	18 36 41.6	-1.5
	comp=Z,371nm,0.8s,mb6.5						
TAPN	Taplejung	55.78	79	eP	P	18 36 41.6	-1.5
	comp=Z,371nm,0.8s,mb6.5						
TAPN	Taplejung	55.78	79	eP	P	18 36 41.6	-1.5
	comp=Z,371nm,0.8s,mb6.5						
BOK	Bokaro	55.97	84	ePKP	P	18 36 42.3	-2.2
BOK				AMb	AMB	18 36 57.2	
	comp=Z,154nm,1.5s,mb5.8						
BOK				ex	x	18 44 23.9	
MOY	Mondy	56.27	47	eP	P	18 36 45.5	-0.7
MOY				pmax	pmax		
	comp=Z,104nm,3.2s						
VIS	Vishakhapatnam	56.97	92	ePKP	P	18 36 49.8	-1.8
VIS				AMb	AMB	18 37 05.2	
	comp=Z,125nm,1.1s,mb5.9						
TRD	Trivandrum	57.12	105⇑	ex	x	18 37 03.0	
TRD				eS	S	18 44 48.0	+0.7
LSA	Lhasa	57.44	75	P	P	18 36 54.3	-0.6
LSA				pP	pP	18 37 05.0	+4.5
LSA				sP	sP	18 37 08.8	+6.2
LSA				PcP	PcP	18 37 45.1	-3.5
LSA				PP	PP	18 39 06.3	+4.0
LSA				S	S	18 44 45.4	-5.9

LSA				pmax	pmax		
	comp=Z,270nm,0.7s,mb6.4						
LSA				LR	LR		
	comp=N,10µm,35.0s						
LSA				LR	LR		
	comp=E,11µm,29.0s						
LSA	**Lhasa**	**57.44**	**75**	*e*P	**P**	**18 36 54.0**	**-0.9**
LSA				pmax	pmax		
	comp=Z,190nm,0.7s,mb6.2						
LSA				MLR	MLR		
	comp=Z,10µm,21.0s,MS5.9						
LSA	**Lhasa**	**57.44**	**75**	*e*P	**P**	**18 36 54.0**	**-0.9**
	comp=Z,190nm,0.7s,mb6.2						
LSA				LR	LR		
	comp=Z,10µm,21.0s,MS5.9						
LSA	**Lhasa**	**57.44**	**75**	*e*P	**P**	**18 36 54.0**	**-0.9**
	comp=Z,190nm,0.7s,mb6.2						
TLY	**Talaya**	**57.83**	**47**	P	**P**	**18 36 57.1**	**-0.2**
	comp=Z,248nm,0.9s,mb6.2,SNR=15						
TLY	**Talaya**	**57.83**	**47**	*e*P	**P**	**18 36 56.7**	**-0.6**
TLY				*e*S	**S**	**18 44 53.6**	**-2.2**
TLY				*e*PS		18 45 03.3	
TLY				*e*SSS		18 51 05.4	
TLY				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.5						
TLY				MLR	MLR		
	comp=Z,12µm,16.0s,MS6.1						
TLY	**Talaya**	**57.83**	**47**	*e*P	**P**	**18 36 56.2**	**-1.1**
	comp=Z,56nm,1.1s,mb5.5						
TLY	**Talaya**	**57.83**	**47**	P	**P**	**18 36 57.2**	**-0.1**
	SNR=38						
TLY				P		18 36 57.2	
	SNR=38						
TLY	**Talaya**	**57.83**	**47**	*e*P	**P**	**18 36 56.2**	**-1.1**
	comp=Z,56nm,1.1s,mb5.5						
IRK	**Irkutsk**	**58.01**	**46**	*e*P	**P**	**18 36 56.4**	**-2.2**
IRK				*e*S	**S**	**18 44 55.3**	**-2.8**
IRK				*e*		18 45 02.3	
IRK				pmax	pmax		
	comp=Z,117nm,1.8s,mb5.6						
ZAK	**Zakamensk**	**58.05**	**48**	*e*P	**P**	**18 36 57.7**	**-1.1**
ZAK				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.5						
CAL	**Calcutta**	**58.55**	**84**	*e*x	x	18 37 11.4	
CAL				*e*x	x	18 45 03.1	
MSNA	**Messina**	**58.84**	**171**	*e*P	**P**	**18 37 04.2**	**-0.4**
MSNA				AMb	AMB	18 37 10.9	
	comp=Z,129nm,1.4s,mb5.8						
GTA	**Gaotai**	**59.84**	**61**	⇑P	**P**	**18 37 10.3**	**-1.2**
GTA				pP	pP	18 37 20.3	+3.2
GTA				sP	sP	18 37 24.8	+5.6
GTA				PP	PP	18 39 23.3	0.0
GTA				S	**S**	**18 45 16.9**	**-5.3**
GTA				sS	sS	18 45 32.8	+1.4
GTA				SS	SS	18 49 10.4	-7.6
GTA				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.1						
GTA				pmax	pmax		
	comp=Z,890nm,6.0s						
GTA				LR	LR		
	comp=N,12µm,25.6s,MS6.1						
GTA				LR	LR		
	comp=E,10µm,22.0s,MS6.1						
GTA				LR	LR		
	comp=Z,13µm,23.2s,MS6.0						
SHL	**Shillong**	**59.91**	**79**	*i* P	**P**	**18 37 09.5**	**-2.7**
SHL				*e*S	**S**	**18 45 20.0**	**-3.6**
ABPO	**Ambohimpanom**	**60.05**	**152**	*e*P	**P**	**18 37 15.0**	**+2.0**
ABPO				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.0						
ABPO	**Ambohimpanom**	**60.05**	**152**	*e*P	**P**	**18 37 15.0**	**+2.0**
SCHQ	**Schefferville**	**60.52**	**318**	P	**P**	**18 37 15.9**	**+0.1**
	comp=Z,46nm,0.6s,mb5.8,baz=57,slow=6.7,SNR=50						
SCHQ				S	**S**	**18 45 32.5**	**+1.9**
	comp=Z,1.4nm,0.8s,baz=2.2,slow=18,SNR=1.7						
SCHQ				LR	LR	19 03 12.3	
	comp=Z,14µm,18.4s,MS6.1,baz=64,slow=36						
SCHQ	**Schefferville**	**60.52**	**318**	P	**P**	**18 37 15.9**	**+0.1**
SCHQ				S	**S**	**18 45 32.5**	**+1.9**
SCHQ				LR	LR	19 03 12.2	
SCHQ	**Schefferville**	**60.52**	**318**	P	**P**	**18 37 15.9**	**0.0**
SCHQ				S	**S**	**18 45 32.5**	**+2.0**
PALK	**Pallekele**	**60.80**	**103**	P	**P**	**18 37 17.2**	**-1.2**
	comp=Z,66nm,1.1s,mb5.7,baz=304,slow=5.7,SNR=17						
PALK				PKPPKP		19 06 35.4	
	comp=Z,4.0nm,0.9s,baz=159,slow=8.4,SNR=4.1						
PALK	**Pallekele**	**60.80**	**103**	P	**P**	**18 37 17.8**	**-0.5**
	SNR=8.8						
PALK				P		18 37 17.8	
	SNR=8.8						
PALK	**Pallekele**	**60.80**	**103**	P	**P**	**18 37 17.2**	**-1.2**
SONM	**Songino Array**	**60.88**	**50**	P	**P**	**18 37 16.8**	**-1.6**
SONM				S	**S**	**18 45 31.0**	**-4.3**
SONM	**Songino Array**	**60.88**	**50**	P	**P**	**18 37 16.8**	**-1.6**
	comp=Z,62nm,1.0s,mb5.7,baz=279,slow=6.4,SNR=68						
SONM				S	**S**	**18 45 31.0**	**-4.3**
	comp=Z,1.1nm,1.0s,baz=59,slow=26,SNR=2.6						
SONM				PKP2ab		19 06 58.5	
	comp=Z,0.2nm,0.4s,baz=173,slow=3.4,SNR=4.2						
SONM				LR	LR	19 07 08.0	
	comp=Z,25µm,19.6s,MS6.4,baz=293,slow=40						
SONM	**Songino Array**	**60.88**	**50**	P	**P**	**18 37 16.8**	**-1.6**
TIXI	**Tiksi**	**61.06**	**20**	⇑*e*P	**P**	**18 37 18.3**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.7						
TIXI				MLR	MLR		
	comp=Z,28µm,21.0s,MS6.4						
TIXI	**Tiksi**	**61.06**	**20**	*e*P	**P**	**18 37 18.0**	**-1.3**
	comp=Z,95nm,0.9s,mb5.9						
TIXI				LR	LR		
	comp=Z,30µm,19.0s,MS6.5						
TIXI	**Tiksi**	**61.06**	**20**	*e*P	**P**	**18 37 18.0**	**-1.3**
	comp=Z,95nm,0.9s,mb5.9						
BOD	**Bodaibo**	**61.24**	**38**	*e*P	**P**	**18 37 18.4**	**-2.3**
BOD				*e*		18 45 37.1	
BOD				pmax	pmax		
	comp=Z,74nm,0.8s,mb5.9						
ULN	**Ulaanbaatar**	**61.28**	**50**	P	**P**	**18 37 19.7**	**-1.4**
ULN				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.7						
ULN	**Ulaanbaatar**	**61.28**	**50**	*e*P	**P**	**18 37 19.4**	**-1.8**
	comp=Z,58nm,0.8s,mb5.8						
ULN	**Ulaanbaatar**	**61.28**	**50**	*e*P	**P**	**18 37 19.4**	**-1.7**
	comp=Z,58nm,0.8s,mb5.8						
RES	**Resolute Bay**	**61.85**	**344**	P	**P**	**18 37 25.3**	**+0.7**
RES				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.6						
RES	**Resolute Bay**	**61.85**	**344**	*e*P	**P**	**18 37 24.7**	**+0.1**
	comp=Z,51nm,0.9s,mb5.7						
RES	**Resolute Bay**	**61.85**	**344**	*e*P	**P**	**18 37 24.7**	**+0.1**
	comp=Z,51nm,0.9s,mb5.7						
KSR	**Koster**	**62.00**	**175**	*e*P	**P**	**18 37 26.4**	**+0.3**
KSR				AMb	AMB	18 37 32.2	
	comp=Z,53nm,1.7s,mb5.4						
SLR	**Silverton**	**62.00**	**173**	*e*P	**P**	**18 37 26.6**	**+0.5**
SLR				AMb	AMB	18 37 32.7	
	comp=Z,132nm,1.4s,mb5.9						
ERPM	**east rand prop**	**62.60**	**173**	*e*P	**P**	**18 37 30.5**	**+0.4**
ERPM				AMb	AMB	18 37 36.0	
	comp=Z,138nm,1.2s,mb6.0						
CIT	**Chita**	**63.39**	**44**	*e*P	**P**	**18 37 33.5**	**-1.7**
CIT				*e*		18 39 50.7	
CIT				pmax	pmax		
	comp=Z,131nm,1.5s,mb5.8						
LZH	**Lanzhou**	**64.15**	**63**	⇑*i*P	**P**	**18 37 39.8**	**-0.7**
LZH				pP	pP	18 37 48.9	+2.7
LZH				sP	sP	18 37 52.8	+4.5
LZH				PcP	PcP	18 38 15.5	0.0
LZH				PP	PP	18 40 00.0	-1.4
LZH				*e*S	**S**	**18 46 12.4**	**-4.4**
LZH				sS	sS	18 46 29.6	+3.5
LZH				SS	SS	18 50 17.0	-8.6
LZH				pmax	pmax		
	comp=Z,190nm,1.1s,mb6.0						
LZH				pmax	pmax		
	comp=Z,1µm,5.2s						
LZH				LR	LR		
	comp=N,15µm,17.3s						
LZH				LR	LR		
	comp=Z,16µm,18.3s,MS6.3						
UPI	**Upington**	**64.32**	**181**	*e*P	**P**	**18 37 41.3**	**-0.1**
UPI				AMb	AMB	18 37 47.6	
	comp=Z,129nm,1.3s,mb5.8						
SEK	**Senekal**	**64.51**	**174**	*e*P	**P**	**18 37 42.3**	**-0.4**
BOSA	**Boshof**	**64.65**	**177**	P	**P**	**18 37 43.6**	**0.0**
BOSA				S	**S**	**18 46 15.3**	**-7.4**
BOSA	**Boshof**	**64.65**	**177**	P	**P**	**18 37 43.6**	**0.0**
	comp=Z,34nm,0.7s,mb5.5,baz=6.0,slow=6.4,SNR=48						
BOSA				S	**S**	**18 46 15.3**	**-7.4**
	comp=Z,0.6nm,0.4s,baz=131,slow=5.4,SNR=2.3						
BOSA				LR	LR	19 07 45.0	
	comp=Z,21µm,18.8s,MS6.3,baz=1.6,slow=38						
BOSA	**Boshof**	**64.65**	**177**	P	**P**	**18 37 43.6**	**0.0**
PKA	**Prieska**	**65.62**	**179**	*e*P	**P**	**18 37 49.1**	**-0.8**
PKA				AMb	AMB	18 37 52.6	
	comp=Z,20nm,1.5s,mb4.9						
YAK	**Yakutsk**	**66.25**	**29**	*c i*P	**P**	**18 37 51.4**	**-2.3**
YAK				*e**PP	pP	18 38 00.2	+0.9
YAK				*e*		18 38 27.5	
YAK				*e*		18 40 16.2	
YAK				*e*S	S	18 46 37.9	-3.9
YAK				*e*		18 47 42.3	
YAK				*e*SSS		18 53 54.4	
YAK				pmax	pmax		
	comp=Z,195nm,1.0s,mb6.1						
YAK				pmax	pmax		
	comp=E,51nm,1.4s						
YAK				pmax	pmax		
	comp=N,18nm,1.0s						
YAK				pmax	pmax		
	comp=Z,149nm,1.5s,mb5.8						
YAK				pmax	pmax		
	comp=N,114nm,1.8s						
YAK				pmax	pmax		
	comp=E,86nm,1.6s						
YAK				smax			
	comp=N,1µm,5.1s						
YAK				smax			
	comp=E,1µm,4.8s						
YAK	**Yakutsk**	**66.25**	**29**	*e*P	**P**	**18 37 51.5**	**-2.1**
	comp=E,236nm,0.8s,mb6.3						
BTO	**Baotou**	**66.36**	**56**	*e*P	**P**	**18 37 52.1**	**-2.6**
BTO				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
CD2	**Chengdu**	**66.54**	**68**	P	**P**	**18 37 54.3**	**-1.7**
CD2				pP	pP	18 38 04.6	+2.9
CD2				sP	sP	18 38 08.5	+4.7
CD2				PP	PP	18 40 22.3	-0.1
CD2				S	S	18 46 41.4	-4.8
CD2				sS	sS	18 46 56.4	+0.9
CD2				SS	SS	18 51 00.3	-2.7
CD2				pmax	pmax		
	comp=Z,290nm,1.0s,mb6.3						
CD2				pmax	pmax		
	comp=Z,890nm,5.9s						
CD2				LR	LR		
	comp=N,14µm,23.8s						
CD2				LR	LR		
	comp=Z,14µm,20.2s,MS6.2						
KSD	**Kokstad**	**66.87**	**173**	*e*P	**P**	**18 37 56.7**	**-1.2**
KSD				AMb	AMB	18 38 01.9	
	comp=Z,384nm,1.5s,mb6.2						
CLNS	**Chul'man**	**66.94**	**36**	*e*P	**P**	**18 37 57.2**	**-1.0**
CLNS				*e**PP	pP	18 38 06.8	+3.0
CLNS				*e*		18 38 21.8	
CLNS				*e*S	S	18 46 46.6	-3.7
CLNS				*e*		18 47 47.1	
CLNS				pmax	pmax		
	comp=Z,69nm,1.1s,mb5.6						
CLNS				pmax	pmax		
	comp=N,40nm,1.1s						
CLNS				pmax	pmax		
	comp=E,20nm,0.9s						
CLNS				smax			
	comp=E,560nm,11.5s						
CLNS				smax			
	comp=N,712nm,11.5s						
CLNS				MLR	MLR		
	comp=E,11µm,22.0s,MS6.2						
CLNS				MLR	MLR		
	comp=Z,6µm,17.0s,MS5.9						
CLNS				MLR	MLR		
	comp=N,11µm,22.0s,MS6.2						
HHC	**Hu-ho-hao-te**	**67.27**	**55**	*e*P	**P**	**18 37 59.3**	**-1.3**
HHC				PcP	PcP	18 38 27.8	-0.5
HHC				PP	PP	18 40 28.5	0.0
HHC				PcS		18 42 30.4	
HHC				*e*S	S	18 46 46.1	-8.7
HHC				ScS	ScS	18 47 47.5	-10
HHC				SS	SS	18 51 05.3	-8.6
HHC				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.8						
HHC				pmax	pmax		
	comp=Z,1µm,4.3s						
HHC				LR	LR		
	comp=N,12µm,17.2s,MS6.3						
HHC				LR	LR		
	comp=E,6µm,14.9s,MS6.3						
HHC				LR	LR		
	comp=Z,11µm,19.2s,MS6.1						
CVNA	**Calvinia**	**67.45**	**182**	*e*P	**P**	**18 37 59.8**	**-1.8**
CVNA				AMb	AMB	18 38 04.4	
	comp=Z,84nm,1.6s,mb5.5						
LBNH	**Lisbon**	**68.15**	**309**	P	**P**	**18 38 08.9**	**+2.9**
LBNH				pmax	pmax		
	comp=Z,82nm,1.2s,mb5.6						
LBNH	**Lisbon**	**68.15**	**309**	*e*P	**P**	**18 38 08.1**	**+2.1**
	comp=Z,82nm,1.2s,mb5.6						
LBNH	**Lisbon**	**68.15**	**309**	*e*P	**P**	**18 38 08.1**	**+2.1**
	comp=Z,82nm,1.2s,mb5.6						
HIA	**Hailar**	**68.16**	**44**	*e*P	**P**	**18 38 04.7**	**-1.3**
HIA				pmax	pmax		
	comp=Z,173nm,1.0s						
HIA	**Hailar**	**68.16**	**44**	*e*P	**P**	**18 38 04.7**	**-1.3**
	comp=Z,173nm,1.0s,mb6.0						
HIA	**Hailar**	**68.16**	**44**	*e*P	**P**	**18 38 04.7**	**-1.3**
	comp=Z,173nm,1.0s,mb6.0						
RCBR	**Riachuelo**	**68.27**	**245**	PFAKE		18 38 20.0	+13
RCBR				LR	LR		
	comp=Z,26µm,19.0s,MS6.5						
SUR	**Sutherland**	**68.33**	**181**	*e*P	**P**	**18 38 07.1**	**0.0**
	comp=Z,83nm,1.3s,mb5.6						
SUR				LR	LR		
	comp=Z,26µm,20.0s,MS6.5						
SUR	**Sutherland**	**68.33**	**181**	*e*P	**P**	**18 38 07.2**	**+0.2**
SUR				AMb	AMB	18 38 08.9	
	comp=Z,66nm,1.4s,mb5.5						
SUR	**Sutherland**	**68.33**	**181**	*e*P	**P**	**18 38 07.1**	**+0.1**
	comp=Z,83nm,1.3s,mb5.6						
KMI	**Kunming**	**68.66**	**74**	⇑P	**P**	**18 38 08.0**	**-1.5**
KMI				pP	pP	18 38 19.3	+4.1
KMI				sP	sP	18 38 25.6	+8.3
KMI				PcP	PcP	18 38 35.0	+0.6
KMI				PP	PP	18 40 39.8	-1.2
KMI				ScP		18 42 32.6	
KMI				PcS		18 42 39.0	
KMI				S	S	18 47 05.6	-6.2
KMI				sS	sS	18 47 22.9	+1.7
KMI				SKS		18 48 00.3	
KMI				ScS	ScS	18 48 03.4	-5.6
KMI				SS	SS	18 51 33.0	-3.1
KMI				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
KMI				pmax	pmax		
	comp=Z,620nm,4.4s						
KMI				LR	LR		
	comp=N,8µm,21.3s,MS6.1						
KMI				LR	LR		
	comp=E,7µm,20.5s,MS6.1						
KMI				LR	LR		
	comp=Z,8µm,24.3s,MS5.9						
SOE	**Somerset East**	**68.74**	**177**	*e*P	**P**	**18 38 09.4**	**-0.2**
XAN	**Xi'an**	**68.79**	**63**	P	**P**	**18 38 09.0**	**-1.2**
XAN				pP	pP	18 38 16.5	+0.6
XAN				S	S	18 47 09.0	-4.1
XAN				pmax	pmax		
	comp=Z,120nm,1.2s,mb5.7						
XAN				pmax	pmax		
	comp=Z,590nm,8.3s						
XAN				LR	LR		
	comp=N,8µm,22.8s,MS6.2						
XAN				LR	LR		
	comp=E,13µm,19.0s,MS6.2						
XAN				LR	LR		
	comp=Z,12µm,19.9s,MS6.1						
CHG	**Chiang Mai**	**68.97**	**82**	⇓P	**P**	**18 38 09.8**	**-1.7**
	comp=Z,108nm,1.0s,mb5.7						
CHTO	**Chiang Mai**	**68.97**	**82**	*e*P	**P**	**18 38 09.4**	**-2.1**
CHTO				pmax	pmax		
	comp=Z,134nm,1.1s,mb5.8						
CHTO				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.8						
CHTO	**Chiang Mai**	**68.97**	**82**	*e*P	**P**	**18 38 09.4**	**-2.1**
	comp=Z,134nm,1.1s,mb5.8						
CHTO				LR	LR		
	comp=Z,6µm,21.0s,MS5.8						
CHTO	**Chiang Mai**	**68.97**	**82**	*e*P	**P**	**18 38 09.4**	**-2.1**
	comp=Z,134nm,1.1s,mb5.8						
CHRT	**Chiangrai**	**69.07**	**80**	⇓P	**P**	**18 38 11.0**	**-1.2**
	comp=Z,710nm,0.9s,mb6.6						
BBSR	**BB Station**	**69.14**	**295**	*e*P	**P**	**18 38 14.9**	**+2.5**
	comp=Z,164nm,1.3s,mb5.8						
BBSR				LR	LR		
	comp=Z,7µm,22.0s,MS5.9						
BBSR	**BB Station**	**69.14**	**295**	*e*P	**P**	**18 38 14.9**	**+2.5**
	comp=Z,164nm,1.3s,mb5.8						
CMAR	**Chiang Mai Arr**	**69.16**	**82**	P	**P**	**18 38 10.9**	**-1.8**
CMAR				S	S	18 47 11.2	-6.6
CMAR	**Chiang Mai Arr**	**69.16**	**82**	P	**P**	**18 38 10.9**	**-1.8**
	comp=Z,45nm,0.9s,mb5.4,baz=302,slow=7.8,SNR=124						
CMAR				S	S	18 47 11.2	-6.7
	comp=Z,0.6nm,0.9s,baz=55,slow=38,SNR=2.5						
CMAR				LR	LR	19 13 16.7	
	comp=Z,6µm,21.1s,MS5.8,baz=103,slow=40						
CMAR	**Chiang Mai Arr**	**69.16**	**82**	P	**P**	**18 38 10.9**	**-1.8**
LONY	**Lake Ozonia**	**69.60**	**311**	*e*P	**P**	**18 38 16.8**	**+1.8**
	comp=Z,105nm,1.3s,mb5.6						
LONY	**Lake Ozonia**	**69.60**	**311**	*e*P	**P**	**18 38 16.8**	**+1.8**
	comp=Z,105nm,1.3s,mb5.6						
NCB	**Newcomb**	**69.71**	**310**	*e*P	**P**	**18 38 18.9**	**+3.2**
	comp=Z,89nm,1.4s,mb5.5						
NCB				LR	LR		
	comp=Z,9µm,19.0s,MS6.0						
ELIM	**Elim**	**70.56**	**182**	*e*P	**P**	**18 38 20.1**	**-0.7**
BJI	**Beijing**	**70.72**	**54**	P	**P**	**18 38 20.6**	**-1.4**
BJI				S	S	18 47 31.8	-3.9
BJI				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.8						
BJI				pmax	pmax		
	comp=Z,950nm,4.3s						
BJI				LR	LR		
	comp=N,9µm,15.5s						
BJI				LR	LR		
	comp=E,13µm,22.2s						
BJI				LR	LR		
	comp=Z,16µm,22.9s						
BJT	**Baijiatuau**	**70.73**	**54**	*e*P	**P**	**18 38 20.4**	**-1.7**
BJT				pmax	pmax		
	comp=Z,122nm,0.8s						
BJT				MLR	MLR		
	comp=Z,16µm,20.0s						
BJT	**Baijiatuau**	**70.73**	**54**	*e*P	**P**	**18 38 20.4**	**-1.6**
	comp=Z,122nm,0.8s,mb5.9						
BJT				LR	LR		
	comp=Z,16µm,20.0s,MS6.3						
BJT	**Baijiatuau**	**70.73**	**54**	*e*P	**P**	**18 38 20.4**	**-1.7**
	comp=Z,122nm,0.8s,mb5.9						
GYA	**Guiyang**	**70.99**	**71**	⇑*i*P	**P**	**18 38 23.8**	**0.0**
GYA				pP	pP	18 38 34.0	+4.5
GYA				sP	sP	18 38 38.3	+6.7
GYA				PP	PP	18 41 03.3	+2.3
GYA				S	S	18 47 34.8	-4.3
GYA				sS	sS	18 47 52.1	+3.6
GYA				SKS		18 48 18.4	
GYA				SS	SS	18 52 08.0	-3.8
GYA				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
GYA				LR	LR		
	comp=N,16µm,18.2s,MS6.4						
GYA				LR	LR		
	comp=E,13µm,19.0s,MS6.4						
GYA				LR	LR		
	comp=Z,19µm,18.8s,MS6.4						
FCC	**Fort Churchill**	**71.38**	**330**	P	**P**	**18 38 26.6**	**+1.0**
FCC	**Fort Churchill**	**71.38**	**330**	*e*P	**P**	**18 38 26.2**	**+0.6**
	comp=Z,12nm,1.6s,mb4.6						
FCC	**Fort Churchill**	**71.38**	**330**	*e*P	**P**	**18 38 26.2**	**+0.6**
	comp=Z,12nm,1.6s,mb4.6						
NST	**Nakhon Sawan**	**71.62**	**84**	P	**P**	**18 38 25.6**	**-2.2**
BINY	**Binghamton**	**71.74**	**309**	*e*P	**P**	**18 38 29.9**	**+1.7**
	comp=Z,148nm,1.2s,mb5.8						
BINY				LR	LR		
	comp=Z,8µm,22.0s,MS5.9						
BINY	**Binghamton**	**71.74**	**309**	*e*P	**P**	**18 38 29.9**	**+1.8**
	comp=Z,148nm,1.2s,mb5.8						
BILL	**Bilibino**	**72.62**	**13**	*e*P	**P**	**18 38 32.0**	**-0.9**
BILL				pmax	pmax		
	comp=Z,59nm,1.2s,mb5.4						
BILL				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.1						
BILL	**Bilibino**	**72.62**	**13**	*e*P	**P**	**18 38 31.9**	**-1.0**
	comp=Z,233nm,1.4s,mb5.9						
BILL				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
BILL	**Bilibino**	**72.62**	**13**	*e*P	**P**	**18 38 31.9**	**-1.0**
	comp=Z,233nm,1.4s,mb5.9						
TIA	**Tai'an**	**73.39**	**57**	⇑P	**P**	**18 38 36.4**	**-1.7**
TIA				sP	sP	18 38 55.0	+9.1
TIA				*e*S	S	18 48 02.0	-4.4
TIA				sS	sS	18 48 19.5	+3.6
TIA				pmax	pmax		
	comp=Z,120nm,0.7s,mb5.9						
TIA				LR	LR		
	comp=N,2µm,14.0s						
KKTK	**Khon Kaen**	**73.41**	**82**	P	**P**	**18 38 37.0**	**-1.5**
	comp=N,864nm,0.7s,mb6.8						
SEY	**Seymchan**	**73.53**	**21**	⇑*e*P	**P**	**18 38 37.4**	**-1.0**
SEY	**Seymchan**	**73.53**	**21**	⇑*e*P	**P**	**18 38 37.5**	**-0.9**
SEY	**Seymchan**	**73.53**	**21**	⇑*e*P	**P**	**18 38 37.5**	**-0.9**
SSPA	**Standing Stone**	**73.79**	**309**	*e*P	**P**	**18 38 41.4**	**+1.0**
	comp=N,127nm,1.2s,mb5.7						
SSPA	**Standing Stone**	**73.79**	**309**	*e*P	**P**	**18 38 41.4**	**+1.0**
	comp=N,127nm,1.2s,mb5.7						
ERPA	**Erie**	**74.26**	**311**	*e*P	**P**	**18 38 44.0**	**+1.0**
	comp=N,269nm,1.1s,mb6.1						
ERPA				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
ERPA	**Erie**	**74.26**	**311**	*e*P	**P**	**18 38 44.0**	**+0.9**
	comp=Z,269nm,1.1s,mb6.1						
CN2	**Changchun**	**74.44**	**47**	⇑P	**P**	**18 38 42.6**	**-1.5**
CN2				*e*pP	pP	18 38 54.1	+4.3
CN2				*e*sP	sP	18 38 57.0	+5.1
CN2				SS	SS	18 52 59.4	-4.2
CN2				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,11µm,18.0s,MS6.3						
CN2				LR	LR		
	comp=E,8µm,18.0s,MS6.3						
CN2				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
SNY	**Shenyang**	**74.45**	**49**	⇑P	**P**	**18 38 41.3**	**-2.8**
SNY				pP	pP	18 38 52.8	+2.9
SNY				sP	sP	18 38 55.8	+3.8
SNY				PP	PP	18 41 25.0	-5.1
SNY				S	S	18 48 07.3	-11
SNY				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
SNY				pmax	pmax		
	comp=Z,820nm,5.2s						
SNY				LR	LR		
	comp=N,13µm,19.6s,MS6.3						
SNY				LR	LR		
	comp=E,9µm,20.1s,MS6.3						
SNY				LR	LR		
	comp=Z,10µm,26.9s						
WHN	**Wuhan**	**74.53**	**63**	P	**P**	**18 38 44.1**	**-0.7**
WHN				S	S	18 48 14.1	-5.3
WHN				LR	LR		
	comp=N,13µm,17.6s,MS6.4						
WHN				LR	LR		
	comp=E,7µm,14.4s,MS6.4						
WHN				LR	LR		
	comp=Z,19µm,20.5s						
KLR	**Kul'dur**	**74.68**	**40**	*e*P	**P**	**18 38 39.3**	**-6.1**
KLR				*e*S	S	18 48 11.0	-9.5
KLR				pmax	pmax		
	comp=E,76nm,1.0s						
KLR				pmax	pmax		
	comp=Z,200nm,1.0s,mb6.0						
KLR				MLR	MLR		
	comp=Z,14µm,13.5s,MS6.4						
ANWB	**Willy Bob**	**74.69**	**281**	PFAKE		18 39 00.0	+14
ANWB				LR	LR		

	comp=Z,3µm,19.0s,MS5.7						
CBN	**Corbin**	**74.83**	**306**	*e*P	**P**	**18 38 48.0**	**+1.6**
	comp=Z,176nm,1.1s,mb5.9						
CBN				LR	LR		
	comp=Z,11µm,19.0s,MS6.2						
CBN	**Corbin**	**74.83**	**306**	*e*P	**P**	**18 38 48.0**	**+1.6**
	comp=Z,176nm,1.1s,mb5.9						
DL2	**Dalian**	**74.88**	**53**	P	**P**	**18 38 46.5**	**-0.2**
DL2				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.0						
DL2				pmax	pmax		
	comp=Z,270nm,2.8s,mb5.7						
DL2				LR	LR		
	comp=N,2µm,21.4s,MS5.8						
DL2				LR	LR		
	comp=E,6µm,23.1s,MS5.8						
DL2				LR	LR		
	comp=Z,3µm,13.9s						
GLMI	**Grayling**	**75.42**	**315**	*e*P	**P**	**18 38 52.4**	**+2.7**
	comp=Z,240nm,0.9s,mb6.1						
GLMI	**Grayling**	**75.42**	**315**	*e*P	**P**	**18 38 52.4**	**+2.7**
	comp=Z,240nm,0.9s,mb6.1						
BBGH	**Gun Hill**	**75.42**	**276**	PFAKE		18 39 00.0	+10
BBGH				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**18 38 49.5**	**-0.3**
	comp=Z,17nm,0.7s,mb5.1,baz=33,slow=5.5,SNR=154						
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**18 38 49.5**	**-0.3**
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**18 38 49.5**	**-0.3**
MCWV	**Mont Chateau**	**75.58**	**309**	*e*P	**P**	**18 38 51.9**	**+1.1**
	comp=Z,282nm,1.3s,mb6.0						
MCWV	**Mont Chateau**	**75.58**	**309**	*e*P	**P**	**18 38 51.9**	**+1.1**
	comp=Z,282nm,1.3s,mb6.0						
UBT	**Ubonrachathani**	**75.77**	**81**	P	**P**	**18 38 51.5**	**-0.7**
FDF	**Fort de France**	**75.81**	**278**	PFAKE		18 39 00.0	+7.6
FDF				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
MDJ	**Mudanjiang**	**76.35**	**44**	P	**P**	**18 38 54.1**	**-0.9**
MDJ				pP	pP	18 39 03.6	+2.9
MDJ				sP	sP	18 39 07.3	+4.5
MDJ				PP	PP	18 41 43.3	-2.7
MDJ				S	S	18 48 33.1	-6.0
MDJ				sS	sS	18 48 45.5	-3.0
MDJ				ScS	ScS	18 49 05.4	-4.2
MDJ				SS	SS	18 53 27.0	-5.4
MDJ				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.3						
MDJ				pmax	pmax		
	comp=Z,350nm,4.7s						
MDJ				LR	LR		
	comp=N,8µm,17.9s,MS6.2						
MDJ				LR	LR		
	comp=E,8µm,16.9s,MS6.2						
MDJ				LR	LR		
	comp=Z,8µm,21.1s,MS6.0						
MDJ	**Mudanjiang**	**76.35**	**44**	*e*P	**P**	**18 38 54.2**	**-0.8**
	comp=Z,51nm,1.0s,mb5.4						
MDJ	**Mudanjiang**	**76.35**	**44**	*e*P	**P**	**18 38 54.2**	**-0.8**
	comp=Z,51nm,1.0s,mb5.4						
AAM	**Ann Arbor**	**76.37**	**313**	*e*P	**P**	**18 38 53.5**	**-1.7**
AAM				pmax	pmax		
	comp=Z,42nm,0.4s,mb5.7						
AAM				MLR	MLR		
	comp=Z,14µm,21.0s,MS6.2						
AAM	**Ann Arbor**	**76.37**	**313**	*e*P	**P**	**18 38 53.5**	**-1.6**
	comp=Z,42nm,0.4s,mb5.7						
AAM				LR	LR		
	comp=Z,14µm,21.0s,MS6.2						
AAM	**Ann Arbor**	**76.37**	**313**	*e*P	**P**	**18 38 53.5**	**-1.7**
	comp=Z,42nm,0.4s,mb5.7						
SNG	**Songkhla**	**76.80**	**91**	P	**P**	**18 38 57.0**	**-1.1**
	comp=Z,140nm,0.8s,mb5.9						
HABR	**Khabarovsk**	**76.85**	**39**	*e*P	**P**	**18 38 55.1**	**-2.7**
HABR				*e**PP	pP	18 39 05.1	+1.6
HABR						18 39 06.3	
HABR				*e**SP	sP	18 39 09.7	+4.1
HABR				*e*		18 41 48.0	
HABR				*e*PPP		18 43 34.5	
HABR				pmax	pmax		
	comp=E,20nm,1.2s						
HABR				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.4						
HABR				pmax	pmax		
	comp=N,17nm,1.5s						
CNNC	**Cliffs of the**	**76.85**	**304**	PFAKE		18 39 10.0	+12
CNNC				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
NJ2	**Nanjing**	**76.89**	**60**	*e*P	**P**	**18 38 57.3**	**-1.0**
NJ2				pP	pP	18 39 06.8	+2.7
NJ2				sP	sP	18 39 09.8	+3.6
NJ2				PP	PP	18 41 51.9	+0.9
NJ2				S	S	18 48 41.0	-4.5
NJ2				sS	sS	18 48 54.0	-1.0
NJ2				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
NJ2				pmax	pmax		
	comp=Z,520nm,7.0s						
NJ2				LR	LR		
	comp=N,1µm,20.6s						
NJ2				LR	LR		
	comp=E,2µm,27.5s						
NJ2				LR	LR		
	comp=Z,2µm,25.7s						
EYMN	**Ely**	**77.19**	**321**	*e*P	**P**	**18 39 00.3**	**+0.6**
	comp=Z,70nm,1.1s,mb5.5						
EYMN	**Ely**	**77.19**	**321**	*e*P	**P**	**18 39 00.3**	**+0.6**
	comp=Z,70nm,1.1s,mb5.5						
ACSO	**Alum Creek Sta**	**77.20**	**311**	*e*P	**P**	**18 39 00.2**	**+0.4**
	comp=Z,161nm,1.1s,mb5.9						
ACSO				LR	LR		
	comp=Z,10µm,20.0s,MS6.1						
ACSO	**Alum Creek Sta**	**77.20**	**311**	*e*P	**P**	**18 39 00.2**	**+0.3**
	comp=Z,161nm,1.1s,mb5.9						
FFC	**Flin Flon**	**77.31**	**330**	*i* P	**P**	**18 39 01.1**	**+0.9**
FFC	**Flin Flon**	**77.31**	**330**	*e*P	**P**	**18 38 60.0**	**-0.3**
	comp=Z,201nm,1.4s,mb5.9						
FFC				LR	LR		
	comp=Z,17µm,21.0s,MS6.3						
FFC	**Flin Flon**	**77.31**	**330**	*e*P	**P**	**18 39 00.0**	**-0.2**
	comp=Z,201nm,1.4s,mb5.9						
BLA	**Blacksburg**	**77.37**	**307**	*e*P	**P**	**18 39 02.0**	**+1.1**
BLA				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.5						
BLA				MLR	MLR		
	comp=Z,12µm,19.0s,MS6.2						
BLA	**Blacksburg**	**77.37**	**307**	*e*P	**P**	**18 39 02.0**	**+1.1**
	comp=Z,40nm,0.6s,mb5.5						
BLA				LR	LR		
	comp=Z,12µm,19.0s,MS6.2						
BLA	**Blacksburg**	**77.37**	**307**	*e*P	**P**	**18 39 02.0**	**+1.1**
	comp=Z,40nm,0.6s,mb5.5						
MTP	**Monte Pirata**	**77.42**	**283**	*e*P	**P**	**18 39 04.5**	**+3.0**
	comp=Z,77nm,1.2s,mb5.5						
QIZ	**Qiongzhong**	**77.48**	**76**	P	**P**	**18 39 00.1**	**-1.7**
QIZ				sP	sP	18 39 16.1	+6.5
QIZ				S	S	18 48 48.3	-3.9
QIZ				sS	sS	18 49 01.3	-0.4
QIZ				pmax	pmax		
	comp=Z,47nm,1.1s,mb5.3						
QIZ				pmax	pmax		
	comp=Z,480nm,5.0s						
QIZ				LR	LR		
	comp=E,6µm,20.9s						
QIZ				LR	LR		
	comp=Z,5µm,22.8s,MS5.8						
QIZ	**Qiongzhong**	**77.48**	**76**	*e*P	**P**	**18 39 03.2**	**+1.4**
	comp=Z,84nm,1.0s,mb5.6						
QIZ				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
QIZ	**Qiongzhong**	**77.48**	**76**	*e*P	**P**	**18 39 03.2**	**+1.4**
	comp=Z,84nm,1.0s,mb5.6						
CBYP	**Canovanas**	**77.57**	**284**	P	**P**	**18 39 06.9**	**+4.6**
	comp=Z,50nm,0.9s,mb5.4						
ELN	**Prospectdale**	**77.58**	**307**	*e*P	**P**	**18 39 03.2**	**+1.1**
ELN	**Prospectdale**	**77.58**	**307**	*e*P	**P**	**18 39 03.2**	**+1.1**
GRGR	**Grenville**	**77.68**	**276**	*e*P	**P**	**18 39 03.8**	**+0.8**
	comp=Z,689nm,1.2s,mb6.5						
GRGR	**Grenville**	**77.68**	**276**	*e*P	**P**	**18 39 03.8**	**+0.8**
	comp=Z,689nm,1.2s,mb6.5						
ULM	**Lac du Bonnet**	**77.81**	**324**	P	**P**	**18 39 03.2**	**+0.1**
	comp=Z,25nm,0.8s,mb5.2,baz=42,slow=5.2,SNR=18						
ULM				S	S	18 48 56.4	+1.6
	comp=Z,0.8nm,0.4s,baz=288,slow=20,SNR=1.6						
ULM				LR	LR	19 13 04.8	
	comp=Z,20µm,21.2s,MS6.4,baz=45,slow=35						
ULM	**Lac du Bonnet**	**77.81**	**324**	P	**P**	**18 39 03.2**	**+0.1**
ULM				S	S	18 48 56.4	+1.6
SJG	**San Juan**	**77.89**	**284**	P	**P**	**18 39 08.6**	**+4.5**
SJG				pmax	pmax		
	comp=Z,118nm,1.0s						
SJG				MLR	MLR		
	comp=Z,6µm,20.0s						
SJG	**San Juan**	**77.89**	**284**	P	**P**	**18 39 08.6**	**+4.5**
	comp=Z,118nm,1.0s,mb5.8						
SJG				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
GZH	**Guangzhou**	**77.91**	**70**	P	**P**	**18 39 03.3**	**-0.8**
GZH				S	S	18 48 53.4	-3.4
GZH				LR	LR		
	comp=N,8µm,28.5s,MS6.0						
GZH				LR	LR		
	comp=E,8µm,30.9s,MS6.0						
GZH				LR	LR		
	comp=Z,11µm,21.3s						
KULM	**Kulim**	**77.92**	**92**	PFAKE		18 39 20.0	+16
KULM				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
PSI	**Prapat**	**77.99**	**95**	P	**P**	**18 39 02.9**	**-1.8**
	comp=Z,27nm,0.7s,mb5.3,baz=260,slow=7.2,SNR=13						
PSI				S	S	18 48 49.0	-8.8
	comp=Z,2.0nm,0.3s,baz=104,slow=13,SNR=2.4						
PSI	**Prapat**	**77.99**	**95**	P	**P**	**18 39 02.9**	**-1.8**
PSI				S	S	18 48 49.0	-8.9
TNA	**Tin City**	**78.19**	**4**	*e*P	**P**	**18 39 06.0**	**+1.1**
	comp=Z,130nm,1.4s,mb5.7						
TNA	**Tin City**	**78.19**	**4**	*e*P	**P**	**18 39 06.0**	**+1.1**
	comp=Z,130nm,1.4s,mb5.7						
CRPR	**Cabo Rojo, PR**	**78.70**	**284**	*e*P	**P**	**18 39 08.9**	**+0.3**
	comp=Z,70nm,1.2s,mb5.5						
CRPR	**Cabo Rojo, PR**	**78.70**	**284**	*e*P	**P**	**18 39 08.9**	**+0.3**
	comp=Z,70nm,1.2s,mb5.5						
COLA	**College**	**78.83**	**356**	*e*P	**P**	**18 39 08.4**	**-0.1**
COLA				pmax	pmax		
	comp=Z,81nm,1.3s,mb5.5						
COLA				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.9						
COLA	**College**	**78.83**	**356**	*e*P	**P**	**18 39 08.4**	**-0.1**
	comp=Z,81nm,1.3s,mb5.5						
COLA				LR	LR		
	comp=Z,6µm,21.0s,MS5.9						
COLA	**College**	**78.83**	**356**	*e*P	**P**	**18 39 08.4**	**-0.1**
	comp=Z,81nm,1.3s,mb5.5						
DAWY	**Dawson**	**78.86**	**352**	*e*P	**P**	**18 39 09.0**	**+0.3**
DAWY	**Dawson**	**78.86**	**352**	*e*P	**P**	**18 39 09.0**	**+0.3**
INCN	**Inchon**	**78.91**	**52**	*e*P	**P**	**18 39 08.4**	**-1.1**
	comp=Z,162nm,1.0s,mb5.9						
INCN	**Inchon**	**78.91**	**52**	*e*P	**P**	**18 39 08.4**	**-1.0**
	comp=Z,162nm,1.0s,mb5.9						
SSE	**Sheshan**	**79.07**	**60**	P	**P**	**18 39 09.0**	**-1.4**
SSE				sP	sP	18 39 22.6	+4.3
SSE				S	S	18 49 00.4	-8.6
SSE				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.4						
SSE				pmax	pmax		
	comp=Z,380nm,6.6s						
SSE				LR	LR		
	comp=N,5µm,23.0s,MS6.0						
SSE				LR	LR		
	comp=E,6µm,24.1s,MS6.0						
SSE				LR	LR		
	comp=Z,5µm,24.8s,MS5.8						
AGMN	**Agassiz Refuge**	**79.14**	**323**	PFAKE		18 39 20.0	+10
AGMN				LR	LR		
	comp=Z,13µm,22.0s,MS6.2						
LHS	**Liberty Hill**	**79.24**	**305**	P	sP	18 39 18.6	-0.6
NHSC	**New Hope**	**79.64**	**303**	P	**P**	**18 39 15.0**	**+1.5**
	comp=Z,132nm,1.0s,mb5.8						
NHSC	**New Hope**	**79.64**	**303**	P	**P**	**18 39 15.0**	**+1.5**
	comp=Z,132nm,1.0s,mb5.8						
JSC	**Jenkinsville**	**79.66**	**305**	*e*P	**P**	**18 39 14.7**	**+1.1**
JSC	**Jenkinsville**	**79.66**	**305**	*e*P	**P**	**18 39 14.7**	**+1.1**
KSRS	**Korea Array**	**79.74**	**51**	P	**P**	**18 39 12.7**	**-1.3**
KSRS				S	S	18 49 08.6	-7.3
KSRS				pmax	pmax		
	comp=Z,130nm,0.9s,mb5.9						
KSRS				smax			
	comp=N,1.0nm,0.9s						
KSRS				MLR	MLR		
	comp=Z,10µm,19.2s,MS6.2						
KSRS	**Korea Array**	**79.74**	**51**	P	**P**	**18 39 12.7**	**-1.3**
	comp=Z,130nm,0.9s,mb5.9,baz=308,slow=4.2,SNR=77						
KSRS				S	S	18 49 08.6	-7.3
	comp=Z,1.2nm,0.9s,baz=279,slow=25,SNR=3.6						
KSRS				LR	LR	19 18 18.6	
	comp=Z,10µm,19.2s,MS6.2,baz=308,slow=39						
BPAW	**Bear Paw Mtn.**	**79.77**	**357**	*e*P	**P**	**18 39 13.3**	**-0.4**
BPAW	**Bear Paw Mtn.**	**79.77**	**357**	*e*P	**P**	**18 39 13.3**	**-0.4**
TZTN	**Tazewell**	**79.78**	**308**	*e*P	**P**	**18 39 13.1**	**-1.1**
	comp=Z,101nm,1.2s,mb5.6						
TZTN	**Tazewell**	**79.78**	**308**	*e*P	**P**	**18 39 13.1**	**-1.1**
	comp=Z,101nm,1.2s,mb5.6						
JFWS	**Jewell Farm**	**79.79**	**316**	*e*P	**P**	**18 39 14.6**	**+0.5**
JFWS				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.5						
JFWS	**Jewell Farm**	**79.79**	**316**	*e*P	**P**	**18 39 14.6**	**+0.4**
	comp=Z,66nm,1.0s,mb5.5						
JFWS	**Jewell Farm**	**79.79**	**316**	*e*P	**P**	**18 39 14.6**	**+0.5**
	comp=Z,66nm,1.0s,mb5.5						
BLO	**Bloomington**	**80.00**	**311**	*e*P	**P**	**18 39 16.6**	**+1.2**
BLO				pmax	pmax		
	comp=Z,79nm,0.8s,mb5.7						
BLO	**Bloomington**	**80.00**	**311**	*e*P	**P**	**18 39 16.6**	**+1.2**
	comp=Z,79nm,0.8s,mb5.7						
BLO	**Bloomington**	**80.00**	**311**	*e*P	**P**	**18 39 16.6**	**+1.2**
	comp=Z,79nm,0.8s,mb5.7						
MCK	**McKinley**	**80.03**	**356**	*e*P	**P**	**18 39 14.7**	**-0.4**
MCK				pmax	pmax		
	comp=Z,146nm,1.1s,mb5.8						
MCK	**McKinley**	**80.03**	**356**	*e*P	**P**	**18 39 14.7**	**-0.4**
	comp=Z,146nm,1.1s,mb5.8						
MCK	**McKinley**	**80.03**	**356**	*e*P	**P**	**18 39 14.7**	**-0.4**
	comp=Z,146nm,1.1s,mb5.8						
CHUM	**Lake Minchumin**	**80.05**	**357**	*e*P	**P**	**18 39 14.8**	**-0.3**
CHUM	**Lake Minchumin**	**80.05**	**357**	*e*P	**P**	**18 39 14.8**	**-0.3**
KTH	**Kantishna Hill**	**80.32**	**357**	*e*P	**P**	**18 39 16.1**	**-0.5**
KTH	**Kantishna Hill**	**80.32**	**357**	*e*P	**P**	**18 39 16.1**	**-0.5**
TRF	**Thorofare Moun**	**80.39**	**356**	*e*P	**P**	**18 39 16.6**	**-0.4**
TRF	**Thorofare Moun**	**80.39**	**356**	*e*P	**P**	**18 39 16.6**	**-0.4**
MENT	**Mentasta**	**80.42**	**353**	*e*P	**P**	**18 39 18.1**	**+1.0**
MENT	**Mentasta**	**80.42**	**353**	*e*P	**P**	**18 39 18.1**	**+0.9**
WCI	**Wyandotte Cave**	**80.45**	**311**	*e*P	**P**	**18 39 15.8**	**-2.0**
WCI				pmax	pmax		
	comp=Z,190nm,1.1s,mb5.9						
WCI	**Wyandotte Cave**	**80.45**	**311**	*e*P	**P**	**18 39 15.8**	**-2.0**
	comp=Z,190nm,1.1s,mb5.9						
WCI	**Wyandotte Cave**	**80.45**	**311**	*e*P	**P**	**18 39 15.8**	**-2.0**
	comp=Z,190nm,1.1s,mb5.9						
TKL	**Tuckaleechee C**	**80.47**	**307**	P	**P**	**18 39 18.7**	**+0.8**
TKL	**Tuckaleechee C**	**80.47**	**307**	P	**P**	**18 39 18.6**	**+0.7**
HDIL	**Hopedale**	**80.77**	**314**	*e*P	**P**	**18 39 20.8**	**+1.3**
	comp=Z,159nm,1.3s,mb5.8						
HDIL	**Hopedale**	**80.77**	**314**	*e*P	**P**	**18 39 20.8**	**+1.3**
	comp=Z,159nm,1.3s,mb5.8						
QZH	**Quanzhou**	**80.78**	**66**	P	**P**	**18 39 18.4**	**-1.4**
QZH				S	S	18 49 22.0	-5.2
QZH				pmax	pmax		
	comp=Z,1µm,6.0s						
QZH				LR	LR		
	comp=N,2µm,14.6s,MS6.3						
QZH				LR	LR		
	comp=E,12µm,19.5s,MS6.3						
QZH				LR	LR		
	comp=Z,12µm,18.5s,MS6.3						
CPCT	**Cooper Cave**	**81.07**	**308**	*e*P	**P**	**18 39 18.3**	**-2.9**
OLIL	**Olney**	**81.23**	**312**	*e*P	**P**	**18 39 23.0**	**+1.0**
	comp=Z,125nm,1.2s,mb5.7						
OLIL	**Olney**	**81.23**	**312**	*e*P	**P**	**18 39 23.0**	**+1.0**
	comp=Z,125nm,1.2s,mb5.7						
SDDR	**Presa de Saban**	**81.39**	**287**	*e*P	**P**	**18 39 25.4**	**+2.3**
	comp=Z,108nm,0.9s,mb5.8						
SDDR	**Presa de Saban**	**81.39**	**287**	*e*P	**P**	**18 39 25.4**	**+2.3**
	comp=Z,108nm,0.9s,mb5.8						
USIN	**University of**	**81.46**	**311**	*e*P	**P**	**18 39 26.1**	**+2.9**
	comp=Z,192nm,1.3s,mb5.9						
USIN	**University of**	**81.46**	**311**	*e*P	**P**	**18 39 26.1**	**+2.9**
	comp=Z,192nm,1.3s,mb5.9						
GOGA	**Godfrey**	**81.64**	**305**	*e*P	**P**	**18 39 24.1**	**-0.2**
GOGA				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.5						
GOGA	**Godfrey**	**81.64**	**305**	*e*P	**P**	**18 39 24.1**	**-0.1**
	comp=Z,73nm,1.1s,mb5.5						
GOGA	**Godfrey**	**81.64**	**305**	*e*P	**P**	**18 39 24.1**	**-0.2**
	comp=Z,73nm,1.1s,mb5.5						
YSS	**Yuzh-Sakhalins**	**81.69**	**36**	*e*P	**P**	**18 39 23.2**	**-1.0**
YSS				pmax	pmax		
	comp=Z,436nm,1.0s,mb6.3						
YSS	**Yuzh-Sakhalins**	**81.69**	**36**	*e*P	**P**	**18 39 23.2**	**-1.0**
	comp=Z,436nm,1.0s,mb6.3						
YSS	**Yuzh-Sakhalins**	**81.69**	**36**	*e*P	**P**	**18 39 23.2**	**-1.0**
	comp=Z,436nm,1.0s,mb6.3						
SCIA	**State Center**	**82.10**	**317**	*e*P	**P**	**18 39 27.4**	**+0.9**
	comp=Z,60nm,1.0s,mb5.5						
SCIA	**State Center**	**82.10**	**317**	*e*P	**P**	**18 39 27.4**	**+0.9**
	comp=Z,60nm,1.0s,mb5.5						
SWET	**Sewanee**	**82.12**	**308**	*e*P	**P**	**18 39 27.5**	**+0.8**
SWET	**Sewanee**	**82.12**	**308**	*e*P	**P**	**18 39 27.5**	**+0.8**
PMR	**Palmer**	**82.17**	**356**	*e*P	**P**	**18 39 26.6**	**+0.1**
PMR				pmax	pmax		
	comp=Z,139nm,1.2s,mb5.8						
PMR	**Palmer**	**82.17**	**356**	*e*P	**P**	**18 39 26.6**	**+0.1**
	comp=Z,139nm,1.2s,mb5.8						
PMR	**Palmer**	**82.17**	**356**	*e*P	**P**	**18 39 26.6**	**+0.1**
	comp=Z,139nm,1.2s,mb5.8						
SIUC	**Southern Illin**	**82.56**	**312**	*e*P	**P**	**18 39 29.4**	**+0.4**
	comp=Z,81nm,0.9s,mb5.8						
SIUC	**Southern Illin**	**82.56**	**312**	*e*P	**P**	**18 39 29.4**	**+0.4**
	comp=Z,81nm,0.9s,mb5.8						
SLM	**Saint Louis**	**82.57**	**313**	*e*P	**P**	**18 39 31.1**	**+2.1**
SLM				pmax	pmax		
	comp=Z,95nm,1.0s,mb5.8						
SLM	**Saint Louis**	**82.57**	**313**	*e*P	**P**	**18 39 31.1**	**+2.1**
	comp=Z,95nm,1.0s,mb5.8						
SLM	**Saint Louis**	**82.57**	**313**	*e*P	**P**	**18 39 31.1**	**+2.1**
	comp=Z,95nm,1.0s,mb5.8						
ECSD	**EROS Data Cent**	**82.67**	**320**	*e*P	**P**	**18 39 29.9**	**+0.5**
	comp=Z,49nm,0.8s,mb5.6						
ECSD	**EROS Data Cent**	**82.67**	**320**	*e*P	**P**	**18 39 29.9**	**+0.4**
	comp=Z,49nm,0.8s,mb5.6						
RC01	**Rabbit Creek A**	**82.71**	**356**	*e*P	**P**	**18 39 29.2**	**-0.1**
RC01	**Rabbit Creek A**	**82.71**	**356**	*e*P	**P**	**18 39 29.2**	**-0.1**
DLBC	**Dease Lake**	**82.72**	**345**	*e*P	**P**	**18 39 31.0**	**+1.6**
DLBC	**Dease Lake**	**82.72**	**345**	*e*P	**P**	**18 39 31.0**	**+1.6**
SKAG	**Skagway**	**82.72**	**348**	*e*P	**P**	**18 39 28.9**	**-0.5**
	comp=Z,93nm,0.8s,mb5.9						
SKAG	**Skagway**	**82.72**	**348**	*e*P	**P**	**18 39 28.9**	**-0.5**
	comp=Z,93nm,0.8s,mb5.9						
EDM	**Edmonton**	**82.72**	**335**	*e*P	**P**	**18 39 28.9**	**-0.6**
EDM	**Edmonton**	**82.72**	**335**	*e*P	**P**	**18 39 28.9**	**-0.6**
WVT	**Waverly**	**82.73**	**310**	*e*P	**P**	**18 39 29.9**	**0.0**
WVT				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.3						
WVT	**Waverly**	**82.73**	**310**	*e*P	**P**	**18 39 29.9**	**0.0**
	comp=Z,33nm,1.0s,mb5.3						
WVT	**Waverly**	**82.73**	**310**	*e*P	**P**	**18 39 29.9**	**0.0**
	comp=Z,33nm,1.0s,mb5.3						
DGMT	**Dagmar**	**82.87**	**327**	*e*P	**P**	**18 39 31.7**	**+1.3**
	comp=Z,43nm,0.9s,mb5.5						
DGMT				LR	LR		
	comp=Z,14µm,22.0s,MS6.3						
DGMT	**Dagmar**	**82.87**	**327**	*e*P	**P**	**18 39 31.7**	**+1.3**
	comp=Z,43nm,0.9s,mb5.5						
SVW2	**Sparrevohn**	**82.93**	**359**	*e*P	**P**	**18 39 30.8**	**+0.3**
SVW2	**Sparrevohn**	**82.93**	**359**	*e*P	**P**	**18 39 30.8**	**+0.4**
YHNB	**Yeheng**	**82.98**	**65**	PFAKE		18 39 40.0	+8.6
YHNB				LR	LR		
	comp=Z,9µm,20.0s,MS6.2						
PEA0B	**Petropavlovsk-**	**83.09**	**25**	*e*P	**P**	**18 39 24.4**	**-7.0**
PETK	**Petropavlovsk-**	**83.09**	**25**	P	**P**	**18 39 29.6**	**-1.9**
	comp=Z,6.8nm,0.7s,mb4.8,baz=0.6,slow=6.6,SNR=17						
PETK				LR	LR	19 23 45.5	
	comp=Z,9µm,19.7s,MS6.2,baz=51,slow=41						
PETK	**Petropavlovsk-**	**83.09**	**25**	P	**P**	**18 39 29.5**	**-1.9**
FVM	**French Village**	**83.11**	**313**	*e*P	**P**	**18 39 32.1**	**+0.3**
FVM				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.5						
FVM	**French Village**	**83.11**	**313**	*e*P	**P**	**18 39 32.1**	**+0.2**
	comp=Z,44nm,0.8s,mb5.5						
FVM	**French Village**	**83.11**	**313**	*e*P	**P**	**18 39 32.1**	**+0.3**
	comp=Z,44nm,0.8s,mb5.5						
PNL	**Peninsula**	**83.12**	**351**	*e*P	**P**	**18 39 33.4**	**+1.9**
	comp=Z,155nm,1.1s,mb6.0						
PNL	**Peninsula**	**83.12**	**351**	*e*P	**P**	**18 39 33.4**	**+1.9**
	comp=Z,155nm,1.1s,mb6.0						
PET	**Petropavlovsk**	**83.48**	**25**	*e*P	**P**	**18 39 32.7**	**-0.7**
PET				*e*S	S	18 49 46.3	-7.7
PET				*e*PS		18 50 50.1	
PET				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.4						
PET				pmax	pmax		
	comp=Z,800nm,9.4s						
PET				pmax	pmax		
	comp=Z,500nm,7.3s						
PET				smax			
	comp=E,800nm,19.9s						
PET				MLR	MLR		
	comp=Z,6µm,17.0s,MS6.0						
PET				MLR	MLR		
	comp=Z,8µm,19.0s						
DWPF	**Disney**	**83.50**	**300**	PFAKE		18 39 50.0	+16
DWPF				LR	LR		
	comp=Z,7µm,22.0s,MS6.0						
CCM	**Cathedral Cave**	**83.55**	**313**	*e*P	**P**	**18 39 34.2**	**+0.1**
CCM				pmax	pmax		
	comp=Z,144nm,2.3s,mb5.7						
CCM				MLR	MLR		
	comp=Z,14µm,22.0s,MS6.3						
CCM	**Cathedral Cave**	**83.55**	**313**	*e*P	**P**	**18 39 34.2**	**+0.1**
	comp=Z,144nm,2.3s,mb5.7						
CCM				LR	LR		
	comp=Z,14µm,22.0s,MS6.3						
CCM	**Cathedral Cave**	**83.55**	**313**	*e*P	**P**	**18 39 34.2**	**+0.1**
	comp=Z,144nm,2.3s,mb5.7						
PARMO	**Parma**	**83.57**	**311**	*e*P	**P**	**18 39 36.8**	**+2.6**
PARMO	**Parma**	**83.57**	**311**	*e*P	**P**	**18 39 36.8**	**+2.6**
PLAL	**Pickwick Lake**	**83.62**	**309**	*e*P	**P**	**18 39 34.7**	**+0.2**
	comp=Z,100nm,1.4s,mb5.8						
PLAL	**Pickwick Lake**	**83.62**	**309**	*e*P	**P**	**18 39 34.7**	**+0.2**
	comp=Z,100nm,1.4s,mb5.8						
SEW	**Seward**	**83.68**	**356**	*e*P	**P**	**18 39 35.7**	**+1.4**
	comp=Z,182nm,1.4s,mb6.0						
SEW	**Seward**	**83.68**	**356**	*e*P	**P**	**18 39 35.7**	**+1.4**
	comp=Z,182nm,1.4s,mb6.0						
SKR	**Severo-Kuril's**	**84.52**	**27**	*e*	PP	18 42 56.0	+2.6
SKR				*e*S	SKSac	18 49 50.0	-12
SKR				*e*		18 49 56.0	
SKR				pmax	pmax		
	comp=Z,2µm,6.0s						
SKR				MLR	MLR		
	comp=N,9µm,20.0s,MS6.2						
SKR				MLR	MLR		
	comp=E,6µm,20.0s,MS6.2						
SKR				MLR	MLR		
	comp=Z,9µm,20.0s,MS6.2						
OXF	**Oxford**	**84.76**	**309**	P	**P**	**18 39 42.1**	**+1.8**
OXF				pmax	pmax		
	comp=Z,220nm,1.2s,mb6.2						
OXF	**Oxford**	**84.76**	**309**	*e*P	**P**	**18 39 40.5**	**+0.1**
	comp=Z,218nm,1.2s,mb6.2						
OXF	**Oxford**	**84.76**	**309**	*e*P	**P**	**18 39 40.5**	**+0.2**
	comp=Z,218nm,1.2s,mb6.2						
SIT	**Sitka**	**85.01**	**348**	*e*P	**P**	**18 39 43.7**	**+2.6**
SIT				pmax	pmax		
	comp=Z,171nm,1.3s,mb6.0						
SIT	**Sitka**	**85.01**	**348**	*e*P	**P**	**18 39 43.7**	**+2.6**
	comp=Z,171nm,1.3s,mb6.0						
SIT	**Sitka**	**85.01**	**348**	*e*P	**P**	**18 39 43.7**	**+2.6**
	comp=Z,171nm,1.3s,mb6.0						
WRAK	**Wrangell Islan**	**85.06**	**346**	*e*P	**P**	**18 39 43.8**	**+2.4**
	comp=Z,44nm,0.9s,mb5.6						
WRAK	**Wrangell Islan**	**85.06**	**346**	*e*P	**P**	**18 39 43.8**	**+2.4**
	comp=Z,44nm,0.9s,mb5.6						
LAO	**LASA Array**	**85.12**	**327**	*e*P	**P**	**18 39 43.1**	**+1.2**
	comp=Z,100nm,1.0s,mb5.9						
LAO	**LASA Array**	**85.12**	**327**	*e*P	**P**	**18 39 43.1**	**+1.2**
	comp=Z,100nm,1.0s,mb5.9						
YUK	**Yuzh-Kuril'sk**	**85.31**	**37**	*e*P	**P**	**18 39 44.0**	**+1.1**
YUK				*e*	pP	18 39 51.0	+2.3
YUK				*e*SP		18 40 02.0	
YUK				*e*S	S	18 50 11.0	-1.6
YUK				smax			
	comp=N,3µm,11.0s						
YUK				smax			
	comp=E,5µm,11.0s						
YUK				MLR	MLR		
	comp=N,8µm,15.0s,MS6.3						
YUK				MLR	MLR		
	comp=E,6µm,15.0s,MS6.3						
YUK				MLR	MLR		
	comp=Z,6µm,15.0s,MS6.1						

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COCO West Island       85.41 109  PFAKE            18 40 00.0  +16
COCO                              LR       LR
     comp=Z,6µm,22.0s,MS6.0
ERM  Erimo             85.44  40  eP       P       18 39 44.1 +0.5
ERM                               pmax     pmax
     comp=Z,259nm,1.1s,mb6.3
ERM                               MLR      MLR
     comp=Z,7µm,21.0s,MS6.0
ERM  Erimo             85.44  40  eP       P       18 39 44.1 +0.5
     comp=Z,259nm,1.1s,mb6.3
ERM                               LR       LR
     comp=Z,7µm,21.0s,MS6.0
ERM  Erimo             85.44  40  eP       P       18 39 44.1 +0.5
     comp=Z,259nm,1.1s,mb6.3
BRAL Brewton           85.51 305  PFAKE            18 40 00.0  +16
BRAL                              LR       LR
     comp=Z,6µm,19.0s,MS6.0
EGMT Eagleton          85.57 330  eP       P       18 39 44.7 +0.6
     comp=Z,278nm,1.1s,mb6.4
EGMT Eagleton          85.57 330  eP       P       18 39 44.7 +0.6
     comp=Z,278nm,1.1s,mb6.4
KSU1 Kansas State U    85.91 317  eP       P       18 39 47.5 +1.5
     comp=Z,268nm,1.1s,mb6.4
KSU1 Kansas State U    85.91 317  eP       P       18 39 47.5 +1.5
     comp=Z,268nm,1.1s,mb6.4
RSSD Black Hills       86.08 324  eP       P       18 39 48.5 +1.8
RSSD                              pmax     pmax
     comp=Z,52nm,1.3s,mb5.6
RSSD Black Hills       86.08 324  eP       P       18 39 48.5 +1.8
     comp=Z,52nm,1.3s,mb5.6
RSSD Black Hills       86.08 324  eP       P       18 39 48.5 +1.8
     comp=Z,52nm,1.3s,mb5.6
KDAK Kodiak Island     86.16 357  P        P       18 39 49.0 +2.2
     comp=Z,613nm,0.8s,mb6.9,SNR=7.5
KDAK Kodiak Island     86.16 357  P        P       18 39 49.7 +2.8
     comp=Z,34nm,0.8s,mb5.6,baz=246,slow=6.1,SNR=16
KDAK                              S        S       18 50 15.7  -4.7
     comp=Z,13nm,1.1s,baz=219,slow=22,SNR=1.6
KDAK Kodiak Island     86.16 357  P        P       18 39 49.7 +2.8
KDAK                              S        S       18 50 15.7  -4.7
WALA Waterton Lakes    86.35 333  eP       P       18 39 48.0  0.0
     comp=Z,1.9nm,0.9s,mb4.3
WALA Waterton Lakes    86.35 333  eP       P       18 39 48.0  0.0
     comp=Z,1.9nm,0.9s,mb4.3
UALR University of     86.40 311  eP       P       18 39 49.8 +1.3
     comp=Z,54nm,1.0s,mb5.7
UALR University of     86.40 311  eP       P       18 39 49.8 +1.3
     comp=Z,54nm,1.0s,mb5.7
MAJO Matsushiro        86.57  46  PFAKE            18 40 00.0  +11
MAJO                              LR       LR
     comp=Z,10µm,19.0s,MS6.2
MAT  Matsushiro        86.57  46  P        P       18 39 48.2 -1.1
MAT                               S        S       18 50 16.0  -9.2
MJAR Matsushiro Arr    86.57  46  P        P       18 39 48.5 -0.8
     comp=Z,33nm,0.8s,mb5.6,baz=317,slow=4.5,SNR=39
MJAR                              LR       LR      19 23 54.2
     comp=Z,7µm,18.9s,MS6.1,baz=350,slow=39
MJAR Matsushiro Arr    86.57  46  P        P       18 39 48.5 -0.8
SDV  Santo Domingo     86.74 279  eP       P       18 39 50.7 +0.2
     comp=Z,68nm,1.0s,mb5.8
SDV  Santo Domingo     86.74 279  eP       P       18 39 50.7 +0.2
     comp=Z,68nm,1.0s,mb5.8
OHAK Old Harbor        86.75 357  eP       P       18 39 51.3 +1.6
OHAK Old Harbor        86.75 357  eP       P       18 39 51.3 +1.6
VBMS Vicksburg         86.97 308  eP       P       18 39 52.7 +1.4
     comp=Z,236nm,1.0s,mb6.4
VBMS Vicksburg         86.97 308  eP       P       18 39 52.7 +1.4
     comp=Z,236nm,1.0s,mb6.4
MIAR Mount Ida         87.30 312  P        P       18 39 54.4 +1.5
MIAR                              pmax     pmax
     comp=Z,110nm,1.1s,mb6.0
MIAR Mount Ida         87.30 312  eP       P       18 39 53.9 +1.1
     comp=Z,110nm,1.2s,mb6.0
MIAR Mount Ida         87.30 312  eP       P       18 39 53.9 +1.0
     comp=Z,110nm,1.2s,mb6.0
GCMT Greycliff         87.31 328  eP       P       18 39 53.1 +0.4
     comp=Z,72nm,1.3s,mb5.7
GCMT Greycliff         87.31 328  eP       P       18 39 53.1 +0.4
     comp=Z,72nm,1.3s,mb5.7
YBMT Yellow Bay        87.38 332  eP       P       18 39 54.3 +1.3
     comp=Z,47nm,0.9s,mb5.7
YBMT Yellow Bay        87.38 332  eP       P       18 39 54.3 +1.3
     comp=Z,47nm,0.9s,mb5.7
HRY  Holter Researc    87.47 330  eP       P       18 39 53.5  0.0
     comp=Z,67nm,1.2s,mb5.8
HRY  Holter Researc    87.47 330  eP       P       18 39 53.5 +0.1
     comp=Z,67nm,1.2s,mb5.8
OGNE Ogallala          87.47 321  eP       P       18 39 54.9 +1.3
     comp=Z,32nm,0.9s,mb5.6
OGNE Ogallala          87.47 321  eP       P       18 39 54.9 +1.3
     comp=Z,32nm,0.9s,mb5.6
JTMT Jette             87.57 332  eP       P       18 39 54.8 +0.9
     comp=Z,99nm,1.0s,mb6.0
JTMT Jette             87.57 332  eP       P       18 39 54.8 +0.9
     comp=Z,99nm,1.0s,mb6.0
SWMT Swartz Lake       87.66 332  eP       P       18 39 55.4 +1.0
     comp=Z,190nm,1.5s,mb6.1
SWMT Swartz Lake       87.66 332  eP       P       18 39 55.4 +1.0
     comp=Z,190nm,1.5s,mb6.1
RLMT Red Lodge         87.67 328  eP       P       18 39 55.6 +1.1
     comp=Z,100nm,1.4s,mb5.8
RLMT Red Lodge         87.67 328  eP       P       18 39 55.6 +1.1
     comp=Z,100nm,1.4s,mb5.8
BSMT Bassoo Peak       87.68 332  P        P       18 39 56.1 +1.6
BSMT Bassoo Peak       87.68 332  P        P       18 39 56.1 +1.7
SLMT Seeley Lake       87.69 331  eP       P       18 39 55.4 +0.8
     comp=Z,73nm,1.2s,mb5.8
SLMT Seeley Lake       87.69 331  eP       P       18 39 55.3 +0.8
     comp=Z,73nm,1.2s,mb5.8
CHGN Chignik           87.76   0  eP       P       18 39 55.3 +0.6
CHGN Chignik           87.76   0  eP       P       18 39 55.3 +0.6
CBKS Cedar Bluff       87.82 318  P        P       18 39 56.6 +1.3
CBKS                              pmax     pmax
     comp=Z,78nm,1.0s,mb5.9
CBKS Cedar Bluff       87.82 318  eP       P       18 39 54.9 -0.5
     comp=Z,78nm,1.0s,mb5.9
CBKS                              LR       LR
     comp=Z,16µm,20.0s,MS6.4
CBKS Cedar Bluff       87.82 318  eP       P       18 39 54.9 -0.4
     comp=Z,78nm,1.0s,mb5.9
CHMT Chamberlain Mo    87.86 331  eP       P       18 39 56.5 +1.2
     comp=Z,33nm,1.3s,mb5.4
CHMT Chamberlain Mo    87.86 331  eP       P       18 39 56.5 +1.2
     comp=Z,33nm,1.3s,mb5.4
NEW  Newport           88.18 334  P        P       18 39 57.8 +1.0
NEW                               pmax     pmax
     comp=Z,90nm,1.1s
NEW  Newport           88.18 334  eP       P       18 39 57.2 +0.4
     comp=Z,90nm,1.1s,mb5.9
NEW  Newport           88.18 334  eP       P       18 39 57.2 +0.4
     comp=Z,90nm,1.1s,mb5.9
MSO  Missoula          88.20 331  eP       P       18 39 57.8 +0.8
     comp=Z,33nm,1.3s,mb5.4
MSO  Missoula          88.20 331  eP       P       18 39 57.8 +0.8
     comp=Z,33nm,1.3s,mb5.4
BOZ  Bozeman (W)       88.25 329  eP       P       18 39 58.6 +1.4
BOZ                               pmax     pmax
     comp=Z,39nm,1.2s,mb5.5
BOZ                               MLR      MLR
     comp=Z,11µm,19.0s,MS6.3
BOZ  Bozeman (W)       88.25 329  eP       P       18 39 58.6 +1.4
     comp=Z,39nm,1.2s,mb5.5
BOZ                               LR       LR
     comp=Z,11µm,19.0s,MS6.3
BOZ  Bozeman (W)       88.25 329  eP       P       18 39 58.6 +1.4
     comp=Z,39nm,1.2s,mb5.5
SPB  Sao Paulo         88.37 239  PFAKE            18 40 10.0  +12
SPB                               LR       LR
     comp=Z,16µm,21.0s,MS6.4
LRM  Limekiln Ridge    88.44 330  eP       P       18 39 58.9 +0.8
     comp=Z,175nm,1.1s,mb6.2
LRM  Limekiln Ridge    88.44 330  eP       P       18 39 58.9 +0.8
     comp=Z,175nm,1.1s,mb6.2
YNR  Norris Junctio    88.60 328  eP       P       18 40 00.2 +1.3
     comp=Z,30nm,1.1s,mb5.5
YNR  Norris Junctio    88.60 328  eP       P       18 40 00.2 +1.3
     comp=Z,30nm,1.1s,mb5.5
LKWY Lake              88.60 328  eP       P       18 40 01.9 +3.0
LKWY                              pmax     pmax
     comp=Z,39nm,1.0s,mb5.7
LKWY Lake              88.60 328  eP       P       18 40 01.9 +3.0
     comp=Z,38nm,1.0s,mb5.7
LKWY Lake              88.60 328  eP       P       18 40 01.9 +3.0
     comp=Z,38nm,1.0s,mb5.7
SDPT Sand Point        88.70   1  eP       P       18 39 59.7 +0.6
     comp=Z,155nm,0.6s,mb6.5
SDPT Sand Point        88.70   1  eP       P       18 39 59.7 +0.6
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     comp=Z,155nm,0.6s,mb6.5
YMR  Madison River     88.76 328  eP       P       18 40 01.4 +1.8
     comp=Z,79nm,1.2s,mb5.9
YMR  Madison River     88.76 328  eP       P       18 40 01.4 +1.8
     comp=Z,79nm,1.2s,mb5.9
DLMT Dillon            88.87 330  eP       P       18 40 02.4 +2.2
     comp=Z,58nm,1.2s,mb5.8
DLMT Dillon            88.87 330  eP       P       18 40 02.3 +2.1
     comp=Z,58nm,1.2s,mb5.8
YFT  Old Faithful      88.88 328  eP       P       18 40 03.2 +3.1
     comp=Z,181nm,1.5s,mb6.2
YFT  Old Faithful      88.88 328  eP       P       18 40 03.2 +3.0
     comp=Z,181nm,1.5s,mb6.2
PHWY Pilot Hill        88.90 323  eP       P       18 40 01.3 +0.9
     comp=Z,68nm,1.0s,mb5.9
PHWY Pilot Hill        88.90 323  eP       P       18 40 01.3 +0.9
     comp=Z,68nm,1.0s,mb5.9
TGY  Tagaytay City     88.97  73  LR       LR      19 26 22.9
     comp=Z,17nm,19.1s,baz=106,slow=40
IMW  Indian Meadow     89.37 328  eP       P       18 40 05.4 +2.9
     comp=Z,79nm,1.3s,mb5.9
IMW  Indian Meadow     89.37 328  eP       P       18 40 05.4 +2.9
     comp=Z,79nm,1.3s,mb5.9
MOOW Moose Ponds       89.40 328  eP       P       18 40 02.2 -0.4
     comp=Z,23nm,1.0s,mb5.5
MOOW Moose Ponds       89.40 328  eP       P       18 40 02.2 -0.5
     comp=Z,23nm,1.0s,mb5.5
MCMT McKenzie Canyo    89.41 330  eP       P       18 40 05.1 +2.4
     comp=Z,28nm,1.5s,mb5.4
MCMT McKenzie Canyo    89.41 330  eP       P       18 40 05.1 +2.4
     comp=Z,28nm,1.5s,mb5.4
RWWY Rawlins           89.44 324  eP       P       18 40 04.4 +1.5
     comp=Z,73nm,1.1s,mb5.9
RWWY Rawlins           89.44 324  eP       P       18 40 04.4 +1.5
     comp=Z,73nm,1.1s,mb5.9
NLW  Nelson Butte      89.45 336  P        P       18 40 04.7 +1.9
NLW  Nelson Butte      89.45 336  P        P       18 40 04.7 +1.9
LOHW Long Hollow       89.45 328  eP       P       18 40 04.6 +1.7
     comp=Z,34nm,1.3s,mb5.5
LOHW Long Hollow       89.45 328  eP       P       18 40 04.6 +1.7
     comp=Z,34nm,1.3s,mb5.5
SNOW Snow King Moun    89.64 328  eP       P       18 40 05.1 +1.3
     comp=Z,66nm,1.4s,mb5.8
SNOW Snow King Moun    89.64 328  eP       P       18 40 05.1 +1.3
     comp=Z,66nm,1.4s,mb5.8
BW06 Boulder Array     89.67 326  PFAKE            18 40 20.0  +16
BW06                              LR       LR
     comp=Z,11µm,19.0s,MS6.3
PDAR Pinedale Array    89.67 326  P        P       18 40 03.7 -0.3
     comp=Z,7.7nm,0.9s,mb5.0,baz=55,slow=4.1,SNR=31
PDAR                              LR       LR      19 24 04.4
     comp=Z,10µm,18.1s,MS6.3,baz=303,slow=38
PDAR Pinedale Array    89.67 326  P        P       18 40 03.7 -0.2
TPAW Teton Pass        89.70 328  eP       P       18 40 05.3 +1.2
     comp=Z,37nm,1.0s,mb5.7
TPAW Teton Pass        89.70 328  eP       P       18 40 05.3 +1.2
     comp=Z,36nm,1.0s,mb5.7
DCID1 Drake Creek      89.72 328  eP       P       18 40 06.5 +2.3
     comp=Z,155nm,1.3s,mb6.2
DCID1 Drake Creek      89.72 328  eP       P       18 40 06.5 +2.4
     comp=Z,155nm,1.3s,mb6.2
REDW Red Top Meadow    89.76 328  eP       P       18 40 05.9 +1.5
     comp=Z,57nm,1.3s,mb5.7
REDW Red Top Meadow    89.76 328  eP       P       18 40 05.9 +1.5
     comp=Z,57nm,1.3s,mb5.7
EPH  Ephrata           89.83 335  P        P       18 40 06.6 +2.1
EPH  Ephrata           89.83 335  P        P       18 40 06.6 +2.0
JCW  Jim Creek         89.87 337  eP       P       18 40 05.0 +0.3
JCW  Jim Creek         89.87 337  eP       P       18 40 05.0 +0.2
NATX Nacogdoches       89.87 310  P        P       18 40 03.1 -2.0
     comp=Z,119nm,1.3s,mb6.1
PGC  Sidney            89.94 338  eP       P       18 40 05.9 +0.9
     comp=Z,1.0nm,0.7s,mb4.2
PGC  Sidney            89.94 338  eP       P       18 40 05.9 +0.8
     comp=Z,1.0nm,0.7s,mb4.2
RRI2 Red Ridge         89.97 328  eP       P       18 40 06.7 +1.4
     comp=Z,59nm,1.1s,mb5.8
ISCO Idaho Springs     90.12 322  P        P       18 40 07.7 +1.6
ISCO                              pmax     pmax
     comp=Z,33nm,1.1s,mb5.6
ISCO Idaho Springs     90.12 322  eP       P       18 40 06.8 +0.6
     comp=Z,33nm,1.1s,mb5.6
ISCO Idaho Springs     90.12 322  eP       P       18 40 06.8 +0.7
     comp=Z,33nm,1.1s,mb5.6
WMOK Wichita Mounta    90.23 315  eP       P       18 40 07.5 +0.8
WMOK                              pmax     pmax
     comp=Z,68nm,1.3s,mb5.8
WMOK Wichita Mounta    90.23 315  eP       P       18 40 07.5 +0.8
     comp=Z,68nm,1.3s,mb5.8
WMOK Wichita Mounta    90.23 315  eP       P       18 40 07.5 +0.8
     comp=Z,68nm,1.3s,mb5.8
AHID Auburn Hatcher    90.35 327  eP       P       18 40 08.4 +1.2
     comp=Z,36nm,1.0s,mb5.7
AHID                              LR       LR
     comp=Z,15µm,21.0s,MS6.4
AHID Auburn Hatcher    90.35 327  eP       P       18 40 08.4 +1.3
     comp=Z,36nm,1.0s,mb5.7
GBL  Gable Mountain    90.43 334  P        P       18 40 09.8 +2.4
GBL  Gable Mountain    90.43 334  P        P       18 40 09.8 +2.4
HAWA Hanford           90.63 334  eP       P       18 40 10.5 +2.1
     comp=Z,83nm,1.3s,mb5.9
HAWA Hanford           90.63 334  eP       P       18 40 10.5 +2.1
     comp=Z,83nm,1.3s,mb5.9
GNW  Green Mountain    90.71 337  eP       P       18 40 10.5 +1.8
     comp=Z,87nm,1.2s,mb6.0
GNW  Green Mountain    90.71 337  eP       P       18 40 10.5 +1.8
     comp=Z,87nm,1.2s,mb6.0
ADK  Adak              90.71  11  PFAKE            18 40 20.0  +11
ADK                               LR       LR
     comp=Z,4µm,19.0s,MS5.9
WPW  White Pass        91.05 336  P        P       18 40 12.1 +1.8
WPW  White Pass        91.05 336  P        P       18 40 12.1 +1.8
LON  Longmire          91.10 336  eP       P       18 40 11.3 +0.8
LON                               pmax     pmax
     comp=Z,82nm,1.7s,mb5.8
LON  Longmire          91.10 336  eP       P       18 40 11.2 +0.7
     comp=Z,82nm,1.7s,mb5.8
LON  Longmire          91.10 336  eP       P       18 40 11.2 +0.7
     comp=Z,82nm,1.7s,mb5.8
BMO  Blue Mountains    91.14 332  eP       P       18 40 10.1 -0.7
BMO                               pmax     pmax
     comp=Z,26nm,1.0s,mb5.5
BMO                               MLR      MLR
     comp=Z,13µm,22.0s,MS6.3
BMO  Blue Mountains    91.14 332  eP       P       18 40 10.1 -0.7
     comp=Z,26nm,1.0s,mb5.5
BMO                               LR       LR
     comp=Z,13µm,22.0s,MS6.3
BMO  Blue Mountains    91.14 332  eP       P       18 40 10.1 -0.7
     comp=Z,26nm,1.0s,mb5.5
SDCO Great Sand Dun    91.64 321  eP       P       18 40 13.5 +0.3
     comp=Z,24nm,1.1s,mb5.4
SDCO Great Sand Dun    91.64 321  eP       P       18 40 13.5 +0.3
     comp=Z,24nm,1.1s,mb5.4
AMTX Amarillo          91.75 317  eP       P       18 40 14.6 +0.8
     comp=Z,16nm,1.1s,mb5.3
AMTX                              LR       LR
     comp=Z,10µm,19.0s,MS6.3
AMTX Amarillo          91.75 317  eP       P       18 40 14.6 +0.8
     comp=Z,16nm,1.1s,mb5.3
HKT  Hockley           91.85 310  eP       P       18 40 15.6 +1.3
HKT                               pmax     pmax
     comp=Z,2.0nm,0.6s,mb4.6
HKT  Hockley           91.85 310  eP       P       18 40 15.6 +1.3
     comp=Z,2.1nm,0.6s,mb4.6
HKT  Hockley           91.85 310  eP       P       18 40 15.6 +1.3
     comp=Z,2.1nm,0.6s,mb4.6
HVU  Hansel Valley     91.87 328  eP       P       18 40 14.9 +0.7
HVU                               pmax     pmax
     comp=Z,32nm,1.1s,mb5.6
HVU  Hansel Valley     91.87 328  eP       P       18 40 14.9 +0.7
     comp=Z,32nm,1.1s,mb5.6
HVU  Hansel Valley     91.87 328  eP       P       18 40 14.9 +0.7
     comp=Z,32nm,1.1s,mb5.6
ROSC El Rosal          92.07 278  P        P       18 40 17.0 +1.4
     comp=Z,7.6nm,0.6s,mb5.2,baz=94,slow=24,SNR=4.3
ROSC El Rosal          92.07 278  P        P       18 40 17.0 +1.4
SPUT South Promonto    92.12 327  eP       P       18 40 25.4  +10
     comp=Z,22nm,1.3s,mb5.3
HOOD Mount Hood Mea    92.30 335  eP       P       18 40 17.7 +1.6
     comp=Z,59nm,1.3s,mb5.8
HOOD Mount Hood Mea    92.30 335  eP       P       18 40 17.7 +1.6
     comp=Z,59nm,1.3s,mb5.8
DAU  Daniels Canyon    92.31 326  eP       P       18 40 18.3 +2.0
DAU                               pmax     pmax
     comp=Z,43nm,1.5s,mb5.6
DAU  Daniels Canyon    92.31 326  eP       P       18 40 18.3 +2.0
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     comp=Z,43nm,1.5s,mb5.6
DAU  Daniels Canyon    92.31 326  eP       P       18 40 18.3 +2.0
     comp=Z,43nm,1.5s,mb5.6
BGU  Big Grassy Mou    92.68 327  eP       P       18 40 19.1 +1.1
     comp=Z,51nm,1.3s,mb5.8
BGU  Big Grassy Mou    92.68 327  eP       P       18 40 19.1 +1.1
     comp=Z,51nm,1.3s,mb5.8
MPU  Maple Canyon      92.80 326  eP       P       18 40 20.4 +1.9
     comp=Z,55nm,1.4s,mb5.8
MPU  Maple Canyon      92.80 326  eP       P       18 40 20.4 +1.9
     comp=Z,55nm,1.4s,mb5.8
PV01 Paradox Valley    92.87 323  eP       P       18 40 18.9  0.0
     comp=Z,4µm,1.0s
PV01 Paradox Valley    92.87 323  eP       P       18 40 18.9  0.0
     comp=Z,4µm,1.0s
SRU  San Rafael        93.02 325  eP       P       18 40 18.8 -0.8
SRU                               pmax     pmax
     comp=Z,53nm,1.2s,mb5.8
SRU  San Rafael        93.02 325  eP       P       18 40 18.8 -0.7
     comp=Z,53nm,1.2s,mb5.8
SRU  San Rafael        93.02 325  eP       P       18 40 18.8 -0.8
     comp=Z,53nm,1.2s,mb5.8
NLU  North Lily Min    93.05 326  eP       P       18 40 22.9 +3.2
     comp=Z,5.8nm,0.4s,mb5.4
DUG  Dugway            93.18 327  eP       P       18 40 21.4 +1.1
DUG                               pmax     pmax
     comp=Z,22nm,1.2s,mb5.5
DUG                               MLR      MLR
     comp=Z,11µm,20.0s,MS6.3
DUG  Dugway            93.18 327  eP       P       18 40 21.4 +1.1
     comp=Z,22nm,1.2s,mb5.5
DUG                               LR       LR
     comp=Z,11µm,20.0s,MS6.3
DUG  Dugway            93.18 327  eP       P       18 40 21.4 +1.1
     comp=Z,22nm,1.2s,mb5.5
TMUT Trail Mountain    93.19 325  eP       P       18 40 21.2 +0.9
     comp=Z,28nm,1.2s,mb5.6
TMUT Trail Mountain    93.19 325  eP       P       18 40 21.2 +0.9
     comp=Z,28nm,1.2s,mb5.6
COR  Corvallis         93.50 336  PFAKE            18 40 30.0 +8.4
COR                               LR       LR
     comp=Z,13µm,20.0s,MS6.4
MVCO Mesa Verde        93.56 322  eP       P       18 40 23.8 +1.7
     comp=Z,42nm,1.3s,mb5.7
MVCO Mesa Verde        93.56 322  eP       P       18 40 23.8 +1.7
     comp=Z,42nm,1.3s,mb5.7
WVOR Wild Horse Val    93.71 332  eP       P       18 40 23.3 +0.6
WVOR                              pmax     pmax
     comp=Z,23nm,1.1s,mb5.5
WVOR Wild Horse Val    93.71 332  eP       P       18 40 23.3 +0.6
     comp=Z,23nm,1.1s,mb5.5
WVOR Wild Horse Val    93.71 332  eP       P       18 40 23.3 +0.6
     comp=Z,23nm,1.1s,mb5.5
ELK  Elko              93.78 329  eP       P       18 40 24.6 +1.6
ELK                               pmax     pmax
     comp=Z,25nm,1.3s
ELK                               MLR      MLR
     comp=Z,17µm,21.0s
ELK  Elko              93.78 329  eP       P       18 40 24.6 +1.6
     comp=Z,24nm,1.3s,mb5.5
ELK                               LR       LR
     comp=Z,17µm,21.0s,MS6.5
ELK  Elko              93.78 329  eP       P       18 40 24.6 +1.6
     comp=Z,24nm,1.3s,mb5.5
BCIP Isla Barro Col    93.86 284  PFAKE            18 40 40.0  +16
BCIP                              LR       LR
     comp=Z,2µm,19.0s,MS5.7
JCT  Junction City     93.89 313  eP       P       18 40 27.3 +3.6
JCT                               pmax     pmax
     comp=Z,26nm,1.2s,mb5.5
JCT  Junction City     93.89 313  eP       P       18 40 27.3 +3.6
     comp=Z,26nm,1.2s,mb5.5
MSU  Marysvale         94.27 326  eP       P       18 40 26.7 +1.4
MSU                               pmax     pmax
     comp=Z,32nm,1.4s,mb5.6
MSU  Marysvale         94.27 326  eP       P       18 40 26.7 +1.4
     comp=Z,32nm,1.4s,mb5.5
MSU  Marysvale         94.27 326  eP       P       18 40 26.7 +1.4
     comp=Z,32nm,1.4s,mb5.5
ANMO Albuquerque       94.28 320  eP       P       18 40 26.8 +1.4
ANMO                              pmax     pmax
     comp=Z,8.0nm,0.8s
ANMO                              MLR      MLR
     comp=Z,12µm,21.0s
ANMO Albuquerque       94.28 320  eP       P       18 40 26.8 +1.4
     comp=Z,8.1nm,0.8s,mb5.2
ANMO                              LR       LR
     comp=Z,12µm,21.0s,MS6.3
ANMO Albuquerque       94.28 320  eP       P       18 40 26.8 +1.4
     comp=Z,8.1nm,0.8s,mb5.2
MOD  Modoc             94.80 333  eP       P       18 40 29.1 +1.4
MOD  Modoc             94.80 333  eP       P       18 40 29.1 +1.4
KVTX Kingsville        94.82 309  PFAKE            18 40 40.0  +12
KVTX                              LR       LR
     comp=Z,5µm,20.0s,MS6.0
BMN  Battle Mountai    94.86 330  PFAKE            18 40 40.0  +12
BMN                               LR       LR
     comp=Z,14µm,20.0s,MS6.4
BNM  Barren Site       94.98 319  eP       P       18 40 29.8 +1.1
     comp=Z,10nm,1.0s,mb5.2
BNM  Barren Site       94.98 319  eP       P       18 40 29.8 +1.1
     comp=Z,10nm,1.0s,mb5.2
LAZ  Ladron            95.06 320  eP       P       18 40 32.7 +3.7
     comp=Z,9.3nm,1.3s,mb5.0
ARUT Antelope Range    95.43 326  eP       P       18 40 33.0 +2.3
ARUT                              pmax     pmax
     comp=Z,19nm,1.2s,mb5.4
ARUT Antelope Range    95.43 326  eP       P       18 40 33.0 +2.3
     comp=Z,18nm,1.2s,mb5.4
ARUT Antelope Range    95.43 326  eP       P       18 40 33.0 +2.3
     comp=Z,18nm,1.2s,mb5.4
CCUT Cedar City        95.59 326  eP       P       18 40 33.2 +1.8
     comp=Z,7.0nm,0.9s,mb5.1
CCUT Cedar City        95.59 326  eP       P       18 40 33.2 +1.8
     comp=Z,7.0nm,0.9s,mb5.1
YBH  Yreka Blue Hor    95.82 334  P        P       18 40 32.0 -0.4
     comp=Z,1.4nm,1.1s,mb4.3,baz=315,slow=10.0,SNR=3.1
YBH  Yreka Blue Hor    95.82 334  P        P       18 40 32.0 -0.3
WUAZ Wupatki           96.31 323  eP       P       18 40 32.9 -1.8
     comp=Z,25nm,1.2s,mb5.5
WUAZ Wupatki           96.31 323  eP       P       18 40 32.9 -1.8
     comp=Z,25nm,1.2s,mb5.5
DAV  Davao City (W)    96.84  76  LR       LR      19 30 47.2
     comp=Z,7µm,21.5s,MS6.1,baz=318,slow=40
DAV  Davao City (W)    96.84  76  PFAKE            18 40 50.0  +13
DAV                               LR       LR
     comp=Z,8µm,22.0s,MS6.1
NVAR Mina Array Bea    97.00 329  P        P       18 40 37.7 -0.1
     comp=Z,3.3nm,0.9s,mb4.8,baz=31,slow=4.2,SNR=6.5
NVAR                              PP       PP      18 44 39.9 +7.4
     comp=Z,1.7nm,0.8s,baz=40,slow=6.6,SNR=3.9
NVAR                              PKKP     PKKPbc  18 57 19.9 +2.1
     comp=Z,1.1nm,0.6s,baz=200,slow=4.6,SNR=5.8
NVAR Mina Array Bea    97.00 329  P        P       18 40 37.7 -0.1
TXAR Lajitas Array     97.00 314  P        P       18 40 39.2 +1.2
     comp=Z,4.2nm,0.9s,mb4.9,baz=63,slow=4.4,SNR=24
TXAR                              LR       LR      19 27 18.6
     comp=Z,6µm,19.1s,MS6.1,baz=185,slow=37
TXAR Lajitas Array     97.00 314  P        P       18 40 39.2 +1.2
TXAR                              LR       LR      19 27 18.6
TXAR Lajitas Array     97.00 314  P        P       18 40 39.2 +1.3
CPUP Villa Florida     97.07 243  P        P       18 40 38.0 -0.1
     comp=Z,0.4nm,0.3s,mb4.3,baz=76,slow=6.3,SNR=5.2
CPUP                              LR       LR      19 26 07.4
     comp=Z,19µm,20.0s,MS6.6,baz=33,slow=36
CPUP Villa Florida     97.07 243  P        P       18 40 38.0 -0.1
CPUP                              LR       LR      19 26 07.4
CPUP Villa Florida     97.07 243  P        P       18 40 38.0 -0.1
OTAV Otavalo           98.11 276  eP       P       18 40 43.4 +0.2
     comp=Z,8.8nm,1.1s,mb5.2
OTAV Otavalo           98.11 276  eP       P       18 40 43.4 +0.2
     comp=Z,8.8nm,1.1s,mb5.2
CMB  Columbia Colle    98.17 331  PFAKE            18 40 50.0 +6.9
CMB                               LR       LR
     comp=Z,4µm,21.0s,MS5.9
HOPS Hopland           98.36 333  PFAKE            18 41 00.0  +16
HOPS                              LR       LR
     comp=Z,12µm,19.0s,MS6.4
DAC  Darwin (Calif)    98.53 328  PFAKE            18 41 00.0  +15
DAC                               LR       LR
     comp=Z,9µm,20.0s,MS6.3
TUC  Tucson            98.58 321  eP       P       18 40 45.9 +0.9
TUC                               pmax     pmax
     comp=Z,15nm,1.4s,mb5.3
TUC  Tucson            98.58 321  eP       P       18 40 45.9 +0.9
     comp=Z,15nm,1.4s,mb5.3
TUC  Tucson            98.58 321  eP       P       18 40 45.9 +0.9
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	comp=Z,15nm,1.4s,mb5.3						
ISA	Isabella	99.42	328	eP	P	18 40 50.1	+1.4
ISA				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.4						
ISA	Isabella	99.42	328	eP	P	18 40 50.1	+1.4
	comp=Z,12nm,1.0s,mb5.4						
ISA	Isabella	99.42	328	eP	P	18 40 50.1	+1.4
	comp=Z,12nm,1.0s,mb5.4						
FITZ	Fitzroy Crossi	111.47	97	ePKP	PKiKP	18 45 49.6	+9.0
	comp=Z,9.8nm,0.9s						
FITZ				eSKP		18 49 26.5	
FITZ	Fitzroy Crossi	111.47	97	PKiKP	PKiKP	18 45 41.8	+1.2
	comp=Z,5.0nm,1.0s,baz=270,slow=4.0,SNR=4.7						
FITZ	Fitzroy Crossi	111.47	97	PKPdf	PKiKP	18 45 41.8	+1.2
KAKA	Kakadu	114.02	88	ePKP	PKiKP	18 45 46.4	+0.8
	comp=Z,31nm,1.3s						
PLCA	Paso Flores	114.08	236	PKP	PKiKP	18 45 46.3	+1.4
	comp=Z,2.6nm,0.8s,baz=42,slow=4.6,SNR=5.4						
WRA	Warramunga Arr	119.43	94	PKP	PKPdf	18 45 54.5	-1.3
	comp=Z,8.6nm,0.8s,baz=310,slow=1.9,SNR=49						
WRA				PP	PP	18 47 17.1	-0.7
	comp=Z,4.5nm,1.0s,baz=311,slow=5.5,SNR=5.3						
WRA	Warramunga Arr	119.43	94	PKIKP	PKPdf	18 45 54.5	-1.3
WRA	Warramunga Arr	119.43	94	PP	PP	18 47 17.1	-0.7
WRAB	Tennant Creek	119.44	94	ePKIKP	PKPdf	18 45 53.9	-1.9
WRAB	Tennant Creek	119.44	94	ePKIKP	PKPdf	18 45 53.9	-1.9
FORT	Forrest	119.67	108	ePKP	PKPdf	18 45 56.7	+0.7
	comp=Z,20nm,0.5s						
ASAR	Alice Springs	120.94	98	PKIKP	PKPdf	18 45 57.6	-1.0
ASAR						18 47 34.5	
ASAR	Alice Springs	120.94	98	PKP	PKPdf	18 45 57.5	-1.1
	comp=Z,11nm,0.7s,baz=314,slow=1.4,SNR=63						
ASAR				PP	PP	18 47 34.5	+6.3
	comp=Z,4.0nm,0.8s,baz=309,slow=6.8,SNR=5.1						
ASAR				PKKPab	PKKPab	18 56 02.2	-0.1
	comp=Z,0.9nm,0.9s,baz=116,slow=3.9,SNR=6.9						
ASAR	Alice Springs	120.94	98	PKIKP	PKPdf	18 45 57.5	-1.1
CASY	Casey	122.14	151	PFAKE		18 46 10.0	+10
CASY				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
COEN	Coen	123.36	83	ePKPdf	PKPdf	18 46 04.0	+0.5
COEN	Coen	123.36	83	ePKIKP	PKPdf	18 46 04.0	+0.5
QSPA	South Pole Qui	126.15	180	ePKPdf	PKPdf	18 46 06.8	-0.2
QSPA	South Pole Qui	126.15	180	ePKIKP	PKPdf	18 46 06.8	-0.2
CTA	Charters Tower	129.13	87	ePKP	PKPdf	18 46 14.5	+0.1
	comp=Z,9.7nm,0.8s						
CTA	Charters Tower	129.13	87	PKP	PKPdf	18 46 14.7	+0.3
	comp=Z,11nm,0.8s,baz=298,slow=3.5,SNR=12						
CTA	Charters Tower	129.13	87	PKIKP	PKPdf	18 46 14.7	+0.3
CTAO	Charters Tower	129.13	87	ePKIKP	PKPdf	18 46 13.2	-1.2
CTAO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
CTAO	Charters Tower	129.13	87	ePKIKP	PKPdf	18 46 13.1	-1.3
STKA	Stephens Creek	130.65	103	ePKP	PKPdf	18 46 16.6	-0.4
	comp=Z,10nm,0.9s						
STKA				eSKP		18 49 39.7	
STKA	Stephens Creek	130.65	103	PKP	PKPdf	18 46 16.4	-0.6
	comp=Z,7.7nm,0.8s,baz=334,slow=4.6,SNR=9.9						
STKA				SKPbc	SKPbc	18 49 40.5	+0.6
	comp=Z,9.8nm,0.8s,baz=344,slow=7.4,SNR=5.6						
STKA	Stephens Creek	130.65	103	PKIKP	PKPdf	18 46 16.4	-0.6
DRV	Dumont d'Urvil	133.85	151	PP	PP	18 49 07.0	+15
DRV				L		19 23 00.0	
TOO	Toolangi	135.57	109	ePKP	PKPdf	18 46 22.6	-3.5
CAN	Canberra	137.63	105	PFAKE		18 46 40.0	+10
CAN				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
CNB	Canberra Magne	137.91	105	ePKP	PKPdf	18 46 32.7	+2.2
ARMA	Armidale	138.08	97	ePKP	PKPdf	18 46 24.5	-6.4
FUNA	Funafuti	145.54	42	ePKPdf	PKPdf	18 46 48.1	+3.3
NOUC	Port Laguerre	146.16	75	eP	PKPab	18 46 51.2	+4.0
DZM	Mont Dzumac	146.25	75	eP	PKPdf	18 46 47.3	+1.6
DZM	Mont Dzumac	146.25	75	ePKPdf	PKPdf	18 46 47.0	+1.3
DZM	Mont Dzumac	146.25	75	ePKIKP	PKPdf	18 46 47.0	+1.3
TAOE	Nuku Hiva Isla	148.11	325	ePKIKP	PKPab	18 46 54.1	-0.9
	comp=Z,2µm,1.2s						
TAOE				eLR	LR	19 36 22.1	
	comp=Z,13µm,22.5s						
TAOE	Nuku Hiva Isla	148.11	325	ePKPbc	PKPbc	18 46 53.1	+0.9
TAOE	Nuku Hiva Isla	148.11	325	ePKPbc	PKPbc	18 46 53.1	+0.9
RPZ	Rata Peaks	155.43	117	PKPab	PKPab	18 47 22.8	-2.0
	comp=Z,25nm,1.0s,baz=353,slow=7.7,SNR=4.5						
RKT	Rikitea	155.99	297	ePKIKP	PKPdf	18 47 04.9	+4.4
	comp=Z,50nm,1.1s						
RKT				eSS	SS	19 11 03.2	+10
	comp=Z,3µm,29.2s						
RKT				eLR	LR	19 39 57.4	
	comp=Z,4µm,25.2s						
PMOR	Pomariorio Ree	156.87	334	ePKIKP	PKPdf	18 47 06.1	+4.2
	comp=Z,42nm,1.1s						
VAH	Vaihoa	156.99	333	ePKIKP	PKPdf	18 47 06.2	+4.2
	comp=Z,57nm,1.2s						
PPT	Papeete	159.83	335	eSS	SS	19 11 43.6	+12
	comp=Z,3µm,28.0s						
PPT				eLR	LR	19 41 48.1	
	comp=Z,6µm,24.2s						
URZ	Urewera	160.28	103	PKPab	PKPab	18 47 43.8	-2.2
	comp=Z,32nm,0.8s,baz=318,slow=3.4,SNR=12						
RAR	Rarotonga	164.91	6	PFAKE		18 47 20.0	+10
RAR				LR	LR		
	comp=Z,5µm,19.0s						

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*CSEM **20** 18:32:55.0, 35°.32N×20°.63E, h20^{km}, MD3.6, After ATH*

ATH 20 18:32:55.0, 35°.32N×20°.63E, h20^{km}**, MD3.6**/5**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	1.81	29	ePB	Pb	18 33 26.7	-0.8
PYL	PYLOS	1.81	29	ePb	Pb	18 33 26.7	-0.8
ITM	Ithomi	2.13	29	ePN	Pn	18 33 32.3	+2.9
ITM	Ithomi	2.13	29	ePn	Pn	18 33 32.3	+2.9
KYTH	Kithira	2.18	63	ePB	Pb	18 33 32.0	-1.7
KYTH	Kithira	2.18	63	ePb	Pb	18 33 32.0	-1.7
VLI	Veliai	2.33	53	ePB	Pb	18 33 35.2	-1.2
VLI	Veliai	2.33	53	ePb	Pb	18 33 35.2	-1.2
VLX	Vlachokerasia	2.49	34	ePN	Pn	18 33 36.4	+2.1
VLX	Vlachokerasia	2.49	34	ePn	Pn	18 33 36.4	+2.1

MAN 20 18:46:36, 16°.76N×122°.32E, h21^{km}**, mb4.4, ML3.2, MS3.1, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALP	Palanan	0.32	18	eP	Pb	18 46 44.2	+1.1
PALP				eS	Sb	18 46 53.0	+5.2
CAUP	Cauayan	0.51	291	eP	Pb	18 46 46.9	+0.5
CAUP				eS	Sb	18 46 52.2	-1.2
BALP	Baler	1.24	215	eP	Pn	18 46 57.7	-0.4

DJA 20 18:57:49, 0°.39N×97°.96E, h28^{km}**, MLv3.2**/4**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	0.99	337	P	Pn	18 58 07.0	0.0
SISI	Saibi	2.04	146	P	Pn	18 58 22.0	+0.4
PPI	Padang Panjang	2.58	109	P	Pn	18 58 28.7	-0.2
PDSI	Padang	2.82	117	P	Pn	18 58 33.9	+1.7
BSI	Banda Aceh	5.73	332	P	Pn	18 59 12.8	+0.6

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*NEIC **20** 19:11:29.1, 36°.05N×21°.57E, h5^{km}, MD3.0(ATH), After ATH.*

*CSEM **20** 19:11:33.6±1.6, 36°.28N×21°.88E, h5^{km}±3^{km}, MD3.1, Error ellipse: s-maj=43.1km s-min=15.9km az=34.0*

ATH 20 19:11:29.1, 36°.05N×21°.57E, h5^{km}±2^{km}**, MD3.1**/6**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.85	9	ePN	Pn	19 11 45.9	-1.9
PYL	PYLOS	0.85	9	ePB	Pb	19 11 45.7	-0.7
PYL	PYLOS	0.85	9	ePb	Pb	19 11 45.7	-0.7
ITM	Ithomi	1.16	14	ePN	Pn	19 11 50.4	-1.6
ITM				eSN	Sn	19 12 05.3	-3.0
ITM	Ithomi	1.16	14	ePN	Pn	19 11 51.0	-1.0
ITM				eSB	Sb	19 12 07.6	+0.5
ITM	Ithomi	1.16	14	ePn	Pn	19 11 50.4	-1.6
ITM				eSn	Sn	19 12 05.3	-3.0
ITM				eSb	Sb	19 12 07.6	+0.5
ITM	Ithomi	1.16	14	ePn	Pn	19 11 51.0	-1.0
ITM				eSn	Sn	19 12 05.3	-3.0
KYTH	Kithira	1.21	79	ePN	Pn	19 11 52.2	-0.4
KYTH	Kithira	1.21	79	ePB	Pb	19 11 52.2	-0.2
KYTH	Kithira	1.21	79	ePn	Pn	19 11 52.2	-0.4
KYTH	Kithira	1.21	79	ePb	Pb	19 11 52.2	-0.2
VLI	Veliai	1.29	58	ePN	Pn	19 11 54.2	+0.5
VLI	Veliai	1.29	58	ePn	Pn	19 11 54.2	+0.5
VLI	Veliai	1.29	58	ePn	Pn	19 11 54.2	+0.5
VLX	Vlachokerasia	1.47	26	ePN	Pn	19 11 55.6	-0.6
VLX	Vlachokerasia	1.47	26	ePB	Pb	19 11 56.8	-0.1
VLX	Vlachokerasia	1.47	26	ePb	Pb	19 11 56.8	-0.1
RLS	Riolos of Patr	2.01	358	ePN	Pn	19 12 06.4	+2.8
RLS	Riolos of Patr	2.01	358	ePn	Pn	19 12 06.4	+2.8
VLS	Valsamata	2.26	340	ePN	Pn	19 12 10.3	+3.2
VLS	Valsamata	2.26	340	ePn	Pn	19 12 10.3	+3.2

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*ISCJB **20** 19:14:09.2±0.5, 36°.19N±0°.03×21°.72E±0°.04, h10^{km}, mb3.7/13, Error ellipse: s-maj=5.4km s-min=4.3km az=41.1*

*CSEM **20** 19:14:11.2±0.4, 36°.19N×21°.72E, h10^{km}, ML4.1/5, Error ellipse: s-maj=9.0km s-min=6.6km az=33.0*

*NEIC **20** 19:14:15.0±0.8, 36°.49N×21°.78E, h35^{km}, mb3.7/3, MD3.5(ATH), Error ellipse: s-maj=14.1km s-min=7.9km az=184.0*

*THE **20** 19:14:15.0, 36°.31N×22°.02E, h14^{km}±5^{km}, ML4.1/5, Error ellipse: s-maj=6.9km s-min=1.3km az=238.0*

*IDC **20** 19:14:16.8±1.8, 36°.60N×21°.70E, h48^{km}±19^{km}, mb3.4/11, mb1 3.5/17, mb1mx3.5/31, mbtmp3.4/17, ML3.4/6, MS4.0/2, Ms1 4.0/2, ms1mx3.7/40, Error ellipse: s-maj=21.4km s-min=16.9km az=16.0*

*ATH **20** 19:14:24.9, 37°.07N×21°.94E, h10^{km}, MD3.5/3*

ISC 20 19:14:11.0±0.5**, 36°.19N**±0°.03×**21°.76E**±0°.04**, h10**^{km}**, n82, σ1^{s}40**/97**, mb3.7**/13**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	1.00	8	ePG	Pg	19 14 27.8	-2.4
ITM	Ithomi	1.00	8	ePg	Pg	19 14 27.8	-2.4
RLS	Riolos of Patr	1.88	353	ePB	Pn	19 14 45.0	+1.9
RLS	Riolos of Patr	1.88	353	ePb	Pn	19 14 45.0	+1.9
LAKA	Lakka	2.05	5	P	Pn	19 14 47.0	+1.4
LAKA	Lakka	2.05	5	P	Pn	19 14 47.0	+1.4
TRIZ	Trizonia	2.19	7	P	Pn	19 14 48.9	+1.5
TRIZ	Trizonia	2.19	7	P	Pn	19 14 48.9	+1.5
VLS	Valsamata	2.19	335	ePB	Pg	19 14 54.2	+1.2
VLS	Valsamata	2.19	335	ePb	Pg	19 14 54.2	+1.2
ATHU	Athens Univers	2.40	42	P	Pn	19 14 51.3	+0.9
ATHU	Athens Univers	2.40	42	P	Pn	19 14 51.3	+0.9
LKR	Lokris	2.65	22	P	Pn	19 14 54.0	+0.3
LKR				S	Sn	19 15 25.1	-0.8
LKR	Lokris	2.65	22	P	Pn	19 14 54.0	+0.3
LKR				S	Sn	19 15 25.1	-0.8
IDI	Anoyia	2.71	109	P	Pg	19 15 01.2	-1.6
	7.2nm,0.3s,baz=299,slow=18,SNR=7.8						
IDI				LR	LR	19 16 25.4	
	comp=Z,881nm,18.1s,baz=52,slow=44						
SIVA	Sivas	2.75	114	P	Pn	19 14 56.7	+1.6
SIVA				S	Sn	19 15 28.6	+0.2
SIVA	Sivas	2.75	114	P	Pn	19 14 56.7	+1.6
SIVA				S	Sn	19 15 28.6	+0.2
AGG	Agios Georgios	2.86	9	P	Pn	19 14 58.9	+2.2
AGG				S	Sn	19 15 31.4	+0.2
AGG	Agios Georgios	2.86	9	P	Pn	19 14 58.9	+2.2
AGG				S	Sn	19 15 31.4	+0.2
THR1	Thera Island	3.00	85	P	Pn	19 14 58.8	+0.3
THR1	Thera Island	3.00	85	P	Pn	19 14 58.8	+0.3
LAST	Lasithi	3.20	108	P	Pn	19 15 02.3	+1.0
LAST	Lasithi	3.20	108	P	Pn	19 15 02.3	+1.0
XOR	Xorichti	3.37	19	P	Pn	19 15 05.1	+1.5
XOR				S	Sn	19 15 42.2	-1.5
XOR	Xorichti	3.37	19	P	Pn	19 15 05.1	+1.5
XOR				S	Sn	19 15 42.2	-1.5
THL	Klokotos Trika	3.38	3	P	Pn	19 15 04.6	+0.9
THL				S	Sn	19 15 44.8	+1.0
THL	Klokotos Trika	3.38	3	P	Pn	19 15 04.6	+0.9
THL				S	Sn	19 15 44.8	+1.0
ZKR	Zakros	3.79	105	P	Pn	19 15 09.8	+0.4
ZKR	Zakros	3.79	105	P	Pn	19 15 09.8	+0.4
PAIG	Paliouri	4.03	22	P	Pn	19 15 14.0	+1.3
PAIG	Paliouri	4.03	22	P	Pn	19 15 14.0	+1.3
CHOS	Chios island	4.07	56	P	Pn	19 15 12.6	-0.7
CHOS				S	Sn	19 15 59.2	-1.8
CHOS	Chios island	4.07	56	P	Pn	19 15 12.6	-0.7
CHOS				S	Sn	19 15 59.2	-1.8
OUR	Ouranopolis	4.49	22	P	Pn	19 15 20.7	+1.6
OUR	Ouranopolis	4.49	22	P	Pn	19 15 20.7	+1.6
SOH	Sokhos	4.79	15	P	Pn	19 15 24.8	+1.6
SOH	Sokhos	4.79	15	P	Pn	19 15 24.8	+1.6
TIP	Timpagrande	4.96	308	ePn	Pn	19 15 24.9	-0.6
TIP	Timpagrande	4.96	308	ePn	Pn	19 15 24.9	-0.6
KNT	Kendrikon	5.04	10	P	Pn	19 15 27.8	+1.2
KNT	Kendrikon	5.04	10	P	Pn	19 15 27.8	+1.2
CEL	Celeste	5.11	296	ePn	Pn	19 15 27.0	-0.6
	16nm,0.3s						
CEL	Celeste	5.11	296	ePn	Pn	19 15 27.0	-0.6
	16nm,0.3s						
SRS	Serrai	5.12	16	P	Pn	19 15 28.0	+0.2
SRS				S	Sn	19 16 27.9	+0.9
SRS	Serrai	5.12	16	P	Pn	19 15 28.0	+0.2
SRS				S	Sn	19 16 27.9	+0.9
KRUS	Krusevo	5.19	356	ePg	Pn	19 15 25.9	-2.7
KRUS				eSn	Sn	19 16 20.6	-7.8
VAE	Valguarnera	6.03	284	P	Pn	19 15 41.2	+1.0
	1.2nm,0.3s,baz=79,slow=10,SNR=2.3						
VAE	Valguarnera	6.03	284	P	Pn	19 15 41.2	+1.0
CUC	Castrocucco	6.03	311	ePn	Pn	19 15 40.8	+0.6
	31nm,0.6s						
CUC	Castrocucco	6.03	311	ePn	Pn	19 15 40.8	+0.6
	31nm,0.6s						
BBLS	Lazići	7.88	348	ePn	Pn	19 16 05.5	0.0
MLR	Muntele Rosu	9.82	18	P	Pn	19 16 28.5	-3.6
	0.1nm,0.3s,baz=305,slow=12,SNR=1.8						
MLR				LR	LR	19 20 24.1	
	comp=Z,2µm,18.2s,baz=204,slow=39						
BRTR	Keskin Array B	10.03	66	P	Pn	19 16 37.0	+2.0
	0.1nm,0.3s,baz=243,slow=14,SNR=3.7						
BRTR	Keskin Array B	10.03	66	P	Pn	19 16 37.0	+2.0
MMAI	Mount Meron Ar	11.68	102	P	Pn	19 17 04.5	+6.7
	0.5nm,0.3s,baz=286,slow=13,SNR=2.9						
MBDF	Montbardon	14.22	311	eP	Pn	19 17 32.7	+0.3
	19nm,1.1s						
MBDF	Montbardon	14.22	311	eP	Pn	19 17 32.7	+0.3
	9.4nm,1.1s						
AKASG	Malin Array Be	15.47	18	P	Pn	19 17 48.5	-0.6
	0.4nm,0.3s,baz=210,slow=11,SNR=3.5						
CABF	La Chapelle	15.67	316	eP	Pn	19 17 48.5	-3.3
CDF	Champ du Feu	16.21	323	eP	Pn	19 17 57.8	-0.9
	6.6nm,0.8s						
CDF	Champ du Feu	16.21	323	eP	Pn	19 17 57.8	-0.9
	3.3nm,0.8s						
HAU	Haudompre	16.40	321	eP	Pn	19 17 59.1	-2.0
	7.3nm,0.7s						
HAU	Haudompre	16.40	321	eP	Pn	19 17 59.1	-2.0
	3.7nm,0.7s						
HFS	Hagfors	24.52	350	P	P	19 19 27.9	-2.3
	1.1nm,0.5s,mb3.6,baz=160,slow=11,SNR=8.2						
EKA	Eskdalemuir Ar	25.62	326	P	P	19 19 39.5	-0.9
	1.7nm,1.0s,mb3.5,baz=123,slow=10,SNR=2.9						
EKA	Eskdalemuir Ar	25.62	326	P	P	19 19 39.5	-0.8
NOA	NORSAR Array B	25.76	348	P	P	19 19 39.5	-2.1
	0.7nm,0.8s,mb3.3,baz=154,slow=9.1,SNR=2.7						
TORD	Torodi Ar. Bea	29.18	223	P	P	19 20 15.1	+2.4
	0.5nm,0.8s,mb3.3,baz=37,slow=8.9,SNR=3.6						
ARCES	ARCESS Array B	33.47	2	P	P	19 20 48.5	-1.4
	2.2nm,0.8s,mb4.1,baz=198,slow=7.6,SNR=5.9						
ARCES	ARCESS Array B	33.47	2	P	P	19 20 48.5	-1.3
BVAR	Borovoye Array	37.68	48	P	P	19 21 24.5	-1.7
	0.1nm,0.4s,mb2.9,baz=253,slow=4.0,SNR=2.8						
SPITS	Spitsbergen Ar	42.16	358	P	P	19 21 59.2	-3.9
	31nm,1.2s,mb4.8,baz=168,slow=4.3,SNR=5.0						
MK31	Makanchi Array	45.53	57	eP	P	19 22 28.0	-2.6
MKAR	Makanchi Array	45.53	57	P	P	19 22 28.4	-2.2
	0.4nm,0.3s,mb3.8,baz=270,slow=7.9,SNR=13						
ZALV	Zalesovo Beam	46.31	47	P	P	19 22 34.1	-2.5
	0.6nm,0.3s,mb4.0,baz=278,slow=7.9,SNR=4.6						
LSA	Lhasa	57.49	75	eP	P	19 23 59.7	-0.7
	2.4nm,0.9s,mb4.2						
LSA	Lhasa	57.49	75	eP	P	19 23 59.7	-0.7
	2.4nm,0.9s,mb4.2						
SONM	Songino Array	60.97	50	P	P	19 24 24.3	+0.2
	0.3nm,0.6s,mb3.6,baz=277,slow=7.9,SNR=2.1						
SONM	Songino Array	60.97	50	P	P	19 24 24.3	+0.1
CMAR	Chiang Mai Arr	69.19	82	P	P	19 25 19.8	+1.7
	0.4nm,0.5s,mb3.6,baz=307,slow=8.9,SNR=3.8						
YKA	Yellowknife Ar	75.59	341	P	P	19 25 55.0	-0.5
	0.2nm,0.7s,mb3.2,baz=32,slow=5.9,SNR=3.9						
YKA	Yellowknife Ar	75.59	341	P	P	19 25 55.0	-0.5

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*IDC **20** 19:17:40.7±1.5, 4°.18S×101°.16E, h0^{km}, mb4.1/10, mb1 4.2/12, mb1mx4.0/24, mbtmp4.1/12, ML3.9/2, MS4.7/1, Ms1 4.7/1, ms1mx3.6/38, Error ellipse: s-maj=45.8km s-min=16.6km az=50.0*

*ISCJB **20** 19:17:42.9±1.5, 4°.3S±0°.1×101°.0E±0°.1, h37^{km}±9^{km}, mb4.2/14, Error ellipse: s-maj=26.7km s-min=8.3km az=40.6*

*NEIC **20** 19:17:44.1±6.9, 4°.09S×101°.25E, h18^{km}±41^{km}, mb4.1/3, Error ellipse: s-maj=34.9km s-min=9.7km az=49.0*

*DJA **20** 19:17:44, 4°.37S×100°.94E, h30^{km}, MLv4.2/6*

ISC 20 19:17:43.2±3.9**, 4°.3S**±0°.1×**101°.1E**±0°.1**, h19**^{km}±23^{km}**, n32, σ0^{s}94**/30**, mb4.2**/14**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSI	Kapahiang	1.63	68	P	Pn	19 18 11.7	+0.8
PPSI	Pulau Pagai	1.83	324	P	Pn	19 18 13.5	-0.1
MNAI	Manna	1.88	93	P	Pn	19 18 14.1	-0.2
MDSI	Maura Dua	3.10	94	P	Px	19 18 38.1	
SDSI	Sungai Dareh	3.33	6	P	Pn	19 18 35.9	+1.7
PDSI	Padang	3.38	350	P	Pn	19 18 35.2	+0.2
KASI	Kota Agung	3.63	110	P	Pn	19 18 38.2	-0.2
PPI	Padang Panjang	3.84	350	P	Pn	19 18 45.1	+3.8
GSI	Gunungsitoli	6.54	328	P	Pn	19 19 18.9	+0.4
	38nm,1.3s,0.2nm						
PSI	Prapat	7.34	343	Pn	Pn	19 19 28.2	-1.2
	0.9nm,0.3s,baz=174,slow=9.9,SNR=3.3						
PSI				LR	LR	19 22 27.3	
	comp=Z,6µm,21.8s,baz=313,slow=40						
PSI	Prapat	7.34	343	Pn	Pn	19 19 28.2	-1.2
PSI				LR	LR	19 22 27.3	
BSI	Banda Aceh	11.28	329	P	Pn	19 20 23.2	-0.3
KAPI	Kappang	18.63	93	P	Pn	19 21 59.0	-1.2
	0.8nm,0.3s,baz=140,slow=16,SNR=2.1						
CMAR	Chiang Mai Arr	22.67	355	P	P	19 22 42.2	-1.4
	4.3nm,0.9s,mb3.9,baz=184,slow=8.8,SNR=22						
CHTO	Chiang Mai	23.02	355	eP	P	19 22 47.1	-0.1
	3.9nm,1.2s,mb3.7						
TGY	Tagaytay City	26.85	47	P	P	19 23 21.1	-1.8
	88nm,0.3s,baz=312,slow=11,SNR=3.5						
WRA	Warramunga Arr	35.95	118	P	P	19 24 42.3	-0.6
	1.6nm,0.9s,mb4.0,baz=292,slow=9.9,SNR=8.2						
WRAB	Tennant Creek	35.96	118	P	P	19 24 45.5	+2.6
ASAR	Alice Springs	37.08	124	P	P	19 24 52.8	+0.3
	1.1nm,0.8s,mb3.7,baz=298,slow=8.3,SNR=11						
XAN	Xi'an	38.81	10	P	P	19 25 05.9	-1.0
XAN				pP	pP	19 25 13.5	+0.8
XAN				sP	sP	19 25 17.3	+2.2
XAN				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
LZH	Lanzhou	40.22	3	eP	P	19 25 20.0	+1.4
LZH				pP	pP	19 25 25.4	+0.9
LZH				sP	sP	19 25 27.6	+0.8
LZH				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.8						
LZH				pmax	pmax		
	comp=Z,110nm,5.0s						
KSRS	Korea Array	48.44	29	P	P	19 26 24.2	-0.2
	comp=Z,2.9nm,1.0s,mb4.3,baz=213,slow=7.1,SNR=6.2						
SONM	Songino Array	52.09	5	P	P	19 26 53.0	+1.2
	comp=Z,3.2nm,0.8s,mb4.3,baz=185,slow=9.0,SNR=27						
SONM				PcP	PcP	19 28 04.0	+0.2
	comp=Z,0.5nm,0.7s,baz=196,slow=3.5,SNR=2.8						
ULN	Ulaanbaatar	52.17	5	eP	P	19 26 53.2	+0.7
	comp=Z,2.4nm,1.0s,mb4.1						
MKAR	Makanchi Array	53.48	344	P	P	19 27 02.6	+0.4
	comp=Z,3.6nm,0.7s,mb4.4,baz=146,slow=8.2,SNR=43						
KURK	Kurchatov	58.06	343	P	P	19 27 34.5	-0.5
	comp=Z,2.0nm,0.7s,mb4.2,baz=160,slow=7.1,SNR=4.9						
KURK	Kurchatov	58.06	343	eP	P	19 27 34.9	-0.1
	comp=Z,6.7nm,1.1s,mb4.6						
ZALV	Zalesovo Beam	59.58	349	P	P	19 27 45.2	-0.2
	comp=Z,2.8nm,0.7s,mb4.4,baz=163,slow=5.7,SNR=15						
ZALV	Zalesovo Beam	59.58	349	P	P	19 27 45.2	-0.2
BVAR	Borovoye Array	62.66	340	P	P	19 28 05.7	-0.7
	comp=Z,1.2nm,0.6s,mb4.2,baz=146,slow=9.5,SNR=12						
PETK	Petropavlovsk-	74.22	32	P	P	19 29 18.8	+0.1
	comp=Z,2.6nm,0.9s,mb4.2,baz=190,slow=7.3,SNR=2.7						
TXAR	Lajitas Array	145.77	41	PKPbc	PKPbc	19 37 22.9	+1.1
	comp=Z,3.3nm,1.0s,baz=283,slow=2.1,SNR=19						

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*HLW **20** 19:40:26.8, 36°.77N×21°.82E, h33^{km}, Mb4.4*

*IDC **20** 19:40:29.9±0.6, 36°.38N×21°.82E, h0^{km}, mb4.0/19, mb1 4.0/30, mb1mx4.0/39, mbtmp3.9/30, ML3.7/10, MS3.3/1, Ms1 3.3/1, ms1mx2.9/48, Error ellipse: s-maj=13.1km s-min=11.3km az=178.0*

*ISCJB **20** 19:40:29.6±0.2, 36°.32N±0°.02×21°.69E±0°.02, h10^{km}, mb4.0/29, Error ellipse: s-maj=3.1km s-min=2.1km az=37.7*

*ATH **20** 19:40:30.3, 36°.21N×21°.69E, h13^{km}±5^{km}, MD4.0/8, ML4.0*

*NEIC **20** 19:40:30.3, 36°.21N×21°.69E, h13^{km}, mb3.9/12, ML4.0(ATH), ML4.5(THE), After ATH.*

*CSEM **20** 19:40:31.8±0.2, 36°.32N×21°.72E, h12^{km}, mb4.2/11, Error ellipse: s-maj=4.7km s-min=3.1km az=31.0*

*PDG **20** 19:40:32.7±0.6, 36°.32N×21°.71E, h18^{km}±2^{km}, ML4.4/9, Error ellipse: s-maj=1.3km s-min=1.0km az=90.0*

*MOS **20** 19:40:32.3±1.2, 36°.32N×21°.67E, h30^{km}, mb4.3/9, Error ellipse: s-maj=5.8km s-min=3.0km az=95.3*

*THE **20** 19:40:36.5, 36°.36N×21°.96E, h32^{km}±72^{km}, ML4.5/10, Error ellipse: s-maj=72.6km s-min=1.7km az=204.0*

ISC 20 19:40:31.3±0.2**, 36°.28N**±0°.02×**21°.72E**±0°.02**, h10**^{km}**, n381, σ1^{s}30**/434**, mb4.0**/29**, 36C-32D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.92	10	ePB	Pg	19 40 49.1	+0.1
ITM	Ithomi	0.92	10	ePb	Pg	19 40 49.1	+0.1
VLI	Veliai	1.07	65	ePN	Pg	19 40 51.5	-0.5
VLI	Veliai	1.07	65	ePn	Pg	19 40 51.5	-0.5
RLS	Riolos of Patr	1.79	354	ePG	Pn	19 41 04.6	+2.3
RLS	Riolos of Patr	1.79	354	ePg	Pn	19 41 04.6	+2.3
LAKA	Lakka	1.97	6	P	Pn	19 41 07.9	+3.1
LAKA	Lakka	1.97	6	P	Pn	19 41 07.9	+3.1
NAIG	Nisos Aigina	2.05	43	ePN	Pn	19 41 07.0	+1.2
NAIG	Nisos Aigina	2.05	43	ePn	Pn	19 41 07.0	+1.2
VLS	Valsamata	2.10	335	P	Pn	19 41 07.4	+0.9
VLS	Valsamata	2.10	335	ePB	Pn	19 41 07.5	+1.0
VLS	Valsamata	2.10	335	P	Pn	19 41 07.4	+0.9
TRIZ	Trizonia	2.10	8	P	Pn	19 41 08.9	+2.3
TRIZ				S	Sn	19 41 31.3	-1.5
TRIZ	Trizonia	2.10	8	P	Pn	19 41 08.9	+2.3
TRIZ				S	Sn	19 41 31.3	-1.5
VAM	Vamos	2.19	113	ePN	Pn	19 41 09.0	+1.2
VAM	Vamos	2.19	113	ePn	Pn	19 41 09.0	+1.2
ATH	Athens Observa	2.33	43	ePN	Pn	19 41 11.8	+2.2
ATHU	Athens Univers	2.36	44	P	Pn	19 41 10.8	+0.7
ATHU				S	Sn	19 41 36.6	-2.5
ATHU	Athens Univers	2.36	44	P	Pn	19 41 10.8	+0.7
ATHU				S	Sn	19 41 36.6	-2.5
PTL	Penteli	2.46	43	P	Pn	19 41 13.3	+1.8
PTL	Penteli	2.46	43	P	Pn	19 41 13.3	+1.8
LKR	Lokris	2.58	23	P	Pn	19 41 14.0	+0.9
LKR	Lokris	2.58	23	P	Pn	19 41 14.0	+0.9
IDI	Anoyia	2.76	110	Pn	Pn	19 41 16.1	+0.5
	5.2nm,0.3s,baz=298,slow=14,SNR=25						
IDI				LR	LR	19 42 05.1	
	comp=Z,593nm,19.5s,baz=272,slow=35						
IDI	Anoyia	2.76	110	Pn	Pn	19 41 16.1	+0.5
AGG	Agios Georgios	2.78	10	P	Pn	19 41 17.8	+1.9
AGG	Agios Georgios	2.78	10	P	Pn	19 41 17.8	+1.9
SIVA	Sivas	2.81	116	P	Pn	19 41 18.6	+2.3
SIVA				S	Sn	19 41 48.5	-1.8
SIVA	Sivas	2.81	116	P	Pn	19 41 18.6	+2.3
SIVA				S	Sn	19 41 48.5	-1.8
THR1	Thera Island	3.02	87	P	Pn	19 41 19.6	+0.4
THR1	Thera Island	3.02	87	P	Pn	19 41 19.6	+0.4
LAST	Lasithi	3.25	109	P	Pn	19 41 22.4	0.0
LAST				S	Sn	19 41 59.7	-1.5
LAST	Lasithi	3.25	109	P	Pn	19 41 22.4	0.0
LAST				S	Sn	19 41 59.7	-1.5

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THL   Klokotos Trika     3.29   4   P     Pn    19 41 25.1 +2.2
THL   Klokotos Trika     3.29   4   P     Pn    19 41 25.1 +2.2
XOR   Xorichti           3.30  20   P     Pn    19 41 23.8 +0.8
XOR   Xorichti           3.30  20   P     Pn    19 41 23.4 +0.4
XOR   Xorichti           3.30  20   P     Pn    19 41 23.4 +0.4
XOR   Xorichti           3.30  20   P     Pn    19 41 23.8 +0.8
AOS   Alonnisos          3.36  30   P     Pn    19 41 24.1 +0.3
AOS   Alonnisos          3.36  30   P     Pn    19 41 24.1 +0.3
JAN   Janina             3.44 349   P     Pn    19 41 29.0 +4.0
JAN   Janina             3.44 349   P     Pn    19 41 29.0 +4.0
KEK   Kerkira            3.75 337   P     Pn    19 41 30.6 +1.4
KEK   Kerkira            3.75 337   P     Pn    19 41 30.6 +1.4
ZKR   Zakros             3.84 106   P     Pn    19 41 32.2 +1.7
ZKR   Zakros             3.84 106   P     Pn    19 41 32.2 +1.7
LIT   Litokhoron         3.87   9   P     Pn    19 41 33.5 +2.7
LIT   Litokhoron         3.87   9   P     Pn    19 41 33.5 +2.7
PAIG  Paliouri           3.96  22   P     Pn    19 41 32.1  0.0
PAIG  Paliouri           3.96  22   P     Pn    19 41 32.1  0.0
CHOS  Chios island       4.05  57   P     Pn    19 41 33.3  0.0
CHOS  Chios island       4.05  57   P     Pn    19 41 33.3  0.0
PLG   Polygyros          4.31  18   P     Pn    19 41 38.9 +2.0
PLG   Polygyros          4.31  18   P     Pn    19 41 38.9 +2.0
SMG   Samos              4.34  69   P     Pn    19 41 39.6 +2.3
SMG   Samos              4.34  69   P     Pn    19 41 39.6 +2.3
URLA  Izmir              4.41  60⇑iP    Pn    19 41 38.0 -0.2
URLA  Izmir              4.41  60 i P    Pn    19 41 38.0 -0.3
HORT  Hortiatis          4.45  14   P     Pn    19 41 40.1 +1.3
HORT  Hortiatis          4.45  14   P     Pn    19 41 40.1 +1.3
THE   Thessaloniki       4.46  12   P     Pn    19 41 41.4 +2.5
THE   Thessaloniki       4.46  12   P     Pn    19 41 41.4 +2.5
KARP  Karpathos          4.48  98   P     Pn    19 41 40.0 +0.8
KARP  Karpathos          4.48  98   P     Pn    19 41 40.0 +0.8
FNA   Florina            4.51 357   P     Pn    19 41 41.2 +1.6
FNA                                 S     Sn    19 42 33.0 +0.9
FNA   Florina            4.51 357   P     Pn    19 41 41.2 +1.6
FNA                                 S     Sn    19 42 33.0 +0.9
LIA   Limnos Island      4.53  36   P     Pn    19 41 39.3 -0.6
LIA   Limnos Island      4.53  36   P     Pn    19 41 39.3 -0.6
LTBQ  Tobruq             4.59 156 i P     Pn    19 41 41.2 +0.4
      27nm,1.1s,SNR=76
LTBQ                              eS      Sn    19 42 32.5 -1.6
      SNR=76
BDRM  Kayabasi           4.67  79⇑iP    Pn    19 41 42.7 +0.9
BDRM  Kayabasi           4.67  79 i P    Pn    19 41 42.7 +0.9
GRG   Griva              4.70   6   P     Pn    19 41 44.5 +2.2
GRG   Griva              4.70   6   P     Pn    19 41 44.5 +2.2
SOH   Sokhos             4.71  15   P     Pn    19 41 45.2 +2.7
SOH   Sokhos             4.71  15   P     Pn    19 41 45.2 +2.7
BIA   Bitola             4.75 356 ePn     Pn    19 41 44.2 +1.3
BIA                               eSg     Sn    19 42 37.4 -0.5
BIA   Bitola             4.75 356 ePn     Pn    19 41 44.2 +1.3
SOI   Samo               4.87 293   P     Pn    19 41 46.1 +1.5
SOI   Samo               4.87 293   Pn    Pn    19 41 46.1 +1.5
OHR   Ohrid              4.88 352 ePn     Pn    19 41 46.1 +1.3
OHR                               eSg     Sn    19 42 41.7 +0.4
OHR   Ohrid              4.88 352 ePn     Pn    19 41 46.0 +1.3
TIP   Timpagrande        4.88 308 ePn     Pn    19 41 45.7 +0.9
TIP   Timpagrande        4.88 308 ePn     Pn    19 41 45.7 +0.9
GRI   Girifalco          4.92 303   P     Pn    19 41 47.3 +2.0
GRI   Girifalco          4.92 303   Pn    Pn    19 41 47.3 +2.0
AYVA  Ayvalik            4.96  51⇑iP    Pn    19 41 42.4 -3.5
AYVA  Ayvalik            4.96  51 i P    Pn    19 41 42.4 -3.5
CEL   Celeste            5.05 295 ePn     Pn    19 41 48.1 +1.0
      60nm,0.6s
CEL                               eS      Sn    19 42 35.7  -10
CEL   Celeste            5.05 295 ePn     Pn    19 41 48.1 +1.0
      60nm,0.6s
SRS   Serrai             5.05  16   P     Pn    19 41 48.1 +1.0
SRS   Serrai             5.05  16   P     Pn    19 41 48.1 +1.0
VAY   Valandovo          5.08   7 ePn     Pn    19 41 49.1 +1.6
VAY                               eSg     Sn    19 42 44.1 -2.1
VAY   Valandovo          5.08   7 ePn     Pn    19 41 49.1 +1.6
KRUS  Krusevo            5.10 356 ePn     Pn    19 41 48.3 +0.5
KRUS  Krusevo            5.10 356 ePn     Pn    19 41 48.2 +0.5
AYDN  Tasoluk            5.12  73⇑iP    Pn    19 41 50.3 +2.2
AYDN  Tasoluk            5.12  73 i P    Pn    19 41 50.3 +2.2
ARG   Arkhangelos        5.18  89 ePN     Pn    19 41 51.0 +2.2
ARG   Arkhangelos        5.18  89 ePn     Pn    19 41 51.0 +2.2
TIR   Tirane             5.27 345 eP      Pn    19 41 51.3 +1.3
TIR                                pmax   pmax
      comp=Z,59nm,0.6s
TIR   Tirane             5.27 345 eP      Pn    19 41 51.3 +1.2
      comp=Z,59nm,0.6s
TIR   Tirane             5.27 345 eP      Pn    19 41 51.3 +1.3
      comp=Z,59nm,0.6s
NVR   Nevrokopi          5.33  18   P     Pn    19 41 56.1 +5.1
HAVL  Avola              5.35 279   Pn    Pn    19 41 51.6 +0.4
      comp=Z,155nm,0.4s
HAVL  Avola              5.35 279   Pn    Pn    19 41 51.6 +0.4
      comp=Z,155nm,0.4s
TAR1  Taranto            5.49 322 ePn     Pn    19 41 53.6 +0.5
TURN  Turunc             5.57  82⇑iP    Pn    19 41 49.7 -4.6
PE1   Pezze di Greco     5.64 325 ePn     Pn    19 41 55.4 +0.3
SKO   Skopje             5.69 358 ePn     Pn    19 41 57.3 +1.4
LTRZ  Laterza            5.78 320   Pn    Pn    19 41 57.2  0.0
      comp=Z,28nm,0.4s
LTRZ  Laterza            5.78 320   Pn    Pn    19 41 57.2  0.0
      comp=Z,28nm,0.4s
MANT  Manisa             5.88  66⇑iP    Pn    19 41 53.1 -5.4
CUC   Castrocucco        5.95 310 ePn     Pn    19 42 01.3 +1.8
      comp=Z,89nm,0.7s
CUC                               eS      Sn    19 43 07.9 +0.2
CUC   Castrocucco        5.95 310 ePn     Pn    19 42 01.3 +1.8
      comp=Z,89nm,0.7s
CUC                               eS      Sn    19 43 07.9 +0.2
VAE   Valguarnera        5.98 284   Pn    Pn    19 42 02.7 +2.9
      comp=Z,1.4nm,0.3s,baz=207,slow=3.8,SNR=11
VAE                                 Sn    Sn    19 43 07.9 -0.5
      comp=Z,6.4nm,0.3s,baz=19,slow=3.5,SNR=4.0
VAE   Valguarnera        5.98 284   Sn    Sn    19 43 07.9 -0.5
ULC   Ulcinj             5.99 342⇓iPn   Pn    19 41 59.9 -0.1
ULC                               eSn     Sn    19 43 07.7 -1.0
ULC   Ulcinj             5.99 342⇓iPn   Pn    19 41 59.9 -0.1
ULC                               eSn     Sn    19 43 07.7 -1.0
SG1   Sgolgore (BA)      6.03 321 ePn     Pn    19 42 01.4 +0.9
SG1                               eSn     Sn    19 43 06.5 -3.1
BAI   Bari               6.13 323 ePn     Pn    19 42 02.1 +0.2
BAI                               eSn     Sn    19 43 09.2 -2.9
MGR   Morigerati         6.20 310   Pn    Pn    19 42 04.3 +1.4
      comp=Z,24nm,0.4s
MGR   Morigerati         6.20 310   Pn    Pn    19 42 04.3 +1.4
      comp=Z,24nm,0.4s
DURS  Dursunbey          6.29  56⇑iP    Pn    19 42 00.4 -3.6
GOLH  Golhisar           6.37  79⇑iP    Pn    19 42 09.1 +3.9
AKAS  Kas                6.37  88⇑iP    Pn    19 42 05.9 +0.7
AKAS  Kas                6.37  88 i P    Pn    19 42 05.9 +0.7
BUM   Brajici-Budva      6.40 341⇑iPn   Pn    19 42 04.9 -0.7
BUM                               eSn     Sn    19 43 17.3 -1.4
BUM   Brajici-Budva      6.40 341⇑iPn   Pn    19 42 04.9 -0.7
BUM                               eSn     Sn    19 43 17.3 -1.4
PDG   Podgorica          6.43 344⇓iPn   Pn    19 42 05.4 -0.7
PDG                               eSn     Sn    19 43 18.5 -1.0
TTG   Podgorica          6.43 344⇓iPn   Pn    19 42 05.4 -0.7
TTG                               eSn     Sn    19 43 18.5 -1.0
TTG   Podgorica          6.43 344⇓iPn   Pn    19 42 05.4 -0.7
TTG                               eSn     Sn    19 43 18.5 -1.0
PVY   Plav               6.45 348⇓iPn   Pn    19 42 07.4 +1.1
PVY                               eSn     Sn    19 43 19.3 -0.7
PVY   Plav               6.45 348⇓iPn   Pn    19 42 07.4 +1.1
PVY                               eSn     Sn    19 43 19.3 -0.7
BARS  Barje              6.53   1⇑iPn   Pn    19 42 07.9 +0.5
KHAL  Karahalli          6.54  69⇑iP    Pn    19 42 09.2 +1.7
KHAL  Karahalli          6.54  69 i P    Pn    19 42 09.2 +1.7
HCY   Herceg Novi        6.65 339⇑iPn   Pn    19 42 07.9 -1.1
HCY                               eSn     Sn    19 43 23.5 -1.3
HCY   Herceg Novi        6.65 339⇑iPn   Pn    19 42 07.9 -1.1
HCY                               eSn     Sn    19 43 23.5 -1.3
BEY   Berane             6.74 349⇓iPn   Pn    19 42 11.1 +0.9
BEY                               eSn     Sn    19 43 25.7 -1.2
IVA   Berane             6.74 349⇓iPn   Pn    19 42 11.1 +0.9
IVA                               eSn     Sn    19 43 25.7 -1.2
IVA   Berane             6.74 349⇓iPn   Pn    19 42 11.1 +0.9
IVA                               eSn     Sn    19 43 25.7 -1.2
NKY   Niksic             6.86 343⇓iPn   Pn    19 42 11.1 -0.8
NKY                               eSn     Sn    19 43 29.1 -0.9
NKY   Niksic             6.86 343⇓iPn   Pn    19 42 11.1 -0.8
NKY                               eSn     Sn    19 43 29.1 -0.9
MS1   Monte Sant'Ang     7.04 322 ePn     Pn    19 42 14.7 +0.3
MS1                               eSn     Sn    19 43 31.8 -2.7
BRY   Bratogost          7.05 341⇓iPn   Pn    19 42 13.8 -0.8
BRY                               eSn     Sn    19 43 33.2 -1.6
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BRY   Bratogost          7.05 341⇓iPn   Pn    19 42 13.8 -0.8
BRY                               eSn     Sn    19 43 33.2 -1.6
MRB1  Monte Rocchett     7.16 315   Pn    Pn    19 42 17.8 +1.8
      comp=Z,145nm,0.6s
MRB1  Monte Rocchett     7.16 315   Pn    Pn    19 42 17.8 +1.8
      comp=Z,145nm,0.6s
UPM   Unac-Piva          7.25 343⇑iPn   Pn    19 42 18.0 +0.8
UPM                               eSn     Sn    19 43 37.8 -1.8
UPM   Unac-Piva          7.25 343⇑iPn   Pn    19 42 18.0 +0.8
UPM                               eSn     Sn    19 43 37.8 -1.8
STON  Ston               7.28 336 ePn     Pn    19 42 16.3 -1.4
STON                                Sn    Sn    19 43 34.5 -5.8
STON  Ston               7.28 336 ePn     Pn    19 42 16.3 -1.4
BOLS  Boljevac           7.54   1⇑iPn   Pn    19 42 20.8 -0.5
CIGN  Sant'Elia a Pi     7.55 317   Pn    Pn    19 42 23.0 +1.6
CIGN  Sant'Elia a Pi     7.55 317   Pn    Pn    19 42 23.0 +1.6
GRUS  Gruza              7.64 355⇑iPn   Pn    19 42 21.4 -1.2
GRUS                              eSn     Sn    19 43 49.4 +0.2
SWA2                     7.69 155  ⇑P     Pn    19 42 22.9 -0.4
SWA2                                S     Sn    19 43 47.7 -2.7
BBLS  Lazi&#263;i        7.78 348⇑iPn   Pn    19 42 23.6 -1.0
BBLS                              eSn     Sn    19 43 49.0 -3.8
TRUS  Trudelj            8.00 353⇑iPn   Pn    19 42 25.7 -1.9
KDHN  Kadinhani          8.57  72⇑iP    Pn    19 42 38.6 +3.2
BLY   Banja Luka         9.14 339⇓iPn   Pn    19 42 42.3 -0.9
GZR   Gura Zlata         9.14   5⇑iP    Pn    19 42 43.6 +0.4
GZR   Gura Zlata         9.14   5  ⇑P     Pn    19 42 43.6 +0.4
GZR   Gura Zlata         9.14   5   P     Pn    19 42 43.6 +0.4
BZS   Buzias             9.33 360⇓iP    Pn    19 42 44.9 -0.9
BZS   Buzias             9.33 360  ⇓P     Pn    19 42 44.9 -0.9
BZS   Buzias             9.33 360   P     Pn    19 42 44.9 -0.9
VOIR                     9.49  14⇑iP    Pn    19 42 49.2 +1.2
VOIR                     9.49  14  ⇑P     Pn    19 42 49.2 +1.2
VOIR                     9.49  14   P     Pn    19 42 49.2 +1.2
TIRR  Tirgusor           9.63  30⇑iP    Pn    19 42 53.6 +3.7
TIRR  Tirgusor           9.63  30  ⇑P     Pn    19 42 53.6 +3.7
HARR  Harsova            9.64  27⇑iP    Pn    19 42 51.5 +1.5
HARR  Harsova            9.64  27  ⇑P     Pn    19 42 51.5 +1.4
HARR  Harsova            9.64  27   P     Pn    19 42 51.5 +1.5
MLR   Muntele Rosu       9.74  18⇓iP    Pn    19 42 51.5 +0.1
MLR   Muntele Rosu       9.74  18   Pn    Pn    19 42 51.3 -0.2
      comp=Z,0.2nm,0.3s,baz=183,slow=14,SNR=2.1
MLR   Muntele Rosu       9.74  18  ⇓P     Pn    19 42 51.5  0.0
MLR   Muntele Rosu       9.74  18   P     Pn    19 42 51.5 +0.1
NVLJ  Novalja            9.78 330 ePn     Pn    19 42 51.6 -0.4
NVLJ                                Sn    Sn    19 44 36.1 -5.8
NVLJ  Novalja            9.78 330 ePn     Pn    19 42 51.5 -0.5
HNAT  Natroun            9.98 129   P     Pn    19 42 52.5 -2.3
AWBH                     9.99 141  ⇓P     Pn    19 42 53.6 -1.4
AWBH                     9.99 141   P     Pn    19 42 53.6 -1.3
BRTR  Keskin Array B    10.02  66   Pn    Pn    19 42 52.8 -2.4
      comp=Z,0.1nm,0.3s,baz=58,slow=36,SNR=2.6
BRTR  Keskin Array B    10.02  66   Pn    Pn    19 42 52.8 -2.4
KEST  Kesra             10.04 271   Pn    Pn    19 42 56.9 +1.3
      comp=Z,0.1nm,0.3s,baz=86,slow=6.5,SNR=3.7
KEST                                Sn    Sn    19 44 44.4 -3.9
      comp=Z,0.0nm,0.3s,baz=180,slow=16,SNR=2.2
PKSM  Moragy            10.19 348⇓eP    Pn    19 42 55.7 -1.9
PLOR  Plostina          10.26  20⇑iP    Pn    19 42 59.5 +1.0
PLOR  Plostina          10.26  20   P     Pn    19 42 59.5 +1.0
VRI   Vrincioaia        10.30  20⇓iP    Pn    19 43 00.3 +1.3
VRI   Vrincioaia        10.30  20   P     Pn    19 43 00.3 +1.3
GLL   Jalalah           10.72 126   P     Pn    19 43 02.7 -2.2
SUZ                     11.31 121   P     Pn    19 43 10.1 -2.9
BUD   Budapest          11.38 351⇓eP    Pn    19 43 12.8 -1.0
BUD   Budapest          11.38 351⇓eP    Pn    19 43 12.8 -1.0
VOY   Vojsko            11.38 331 ePn     Pn    19 43 13.5 -0.4
VOY                               eSn     Sn    19 45 10.8  -10
VOY   Vojsko            11.38 331 ePn     Pn    19 43 13.5 -0.4
BURAR Bucovina Array    11.62  12⇓iP    Pn    19 43 19.2 +2.0
BURAR Bucovina Array    11.62  12  ⇓P     Pn    19 43 19.2 +2.0
BURAR Bucovina Array    11.62  12  ⇓P     Pn    19 43 19.2 +2.0
PSZ   Piszkesteto       11.71 354⇑iP    Pn    19 43 18.0 -0.4
PSZ   Piszkesteto       11.71 354⇓eP    Pn    19 43 17.8 -0.6
PSZ   Piszkesteto       11.71 354  ⇑P     Pn    19 43 18.0 -0.4
PSZ   Piszkesteto       11.71 354⇓eP    Pn    19 43 17.8 -0.6
MMAI  Mount Meron Ar    11.73 102   Pn    Pn    19 43 14.3 -4.4
      comp=Z,0.3nm,0.3s,baz=300,slow=12,SNR=3.2
MMAI                                Sn    Sn    19 45 19.4  -10
      comp=Z,0.6nm,0.3s,baz=97,slow=40,SNR=2.7
KECS  Kecovo            12.23 356 ePN     Pn    19 43 27.0 +1.5
KECS                              eSN     Sn    19 45 35.5 -6.3
KECS  Kecovo            12.23 356 eP      Pn    19 43 27.0 +1.5
VYHS  Vyhne             12.39 351 ePN     Pn    19 43 28.2 +0.5
VYHS                              eSN     Sn    19 45 36.7 -9.0
VYHS  Vyhne             12.39 351 eP      Pn    19 43 28.2 +0.5
CRVS  Cervenica-Dubn    12.62 359 ePN     Pn    19 43 31.8 +1.0
CRVS  Cervenica-Dubn    12.62 359 ePn     Pn    19 43 31.9 +1.1
CRVS  Cervenica-Dubn    12.62 359 eP      Pn    19 43 31.9 +1.1
KOLS  Kolonicke sedl    12.65   2 ePN     Px    19 43 43.4
EIL   Elat              12.91 117   Pn    Pn    19 43 33.8 -1.0
      comp=Z,0.5nm,0.3s,baz=355,slow=14,SNR=3.8
EIL                                 Sn    Sn    19 45 40.0  -19
      comp=Z,0.8nm,0.3s,baz=103,slow=16,SNR=2.4
EIL   Elat              12.91 117   Pn    Pn    19 43 33.8 -1.0
HKAT  Jabal Katrina     12.93 123   P     Pn    19 43 32.9 -2.2
STHS  Stebnicka Huta    13.14 359 ePN     Px    19 43 49.8
STHS                              eSN     Sn    19 46 07.6 +3.7
ASF   Jabal al Asfar    13.21 104   Pn    Pn    19 43 40.0 +1.1
      comp=Z,0.3nm,0.3s,baz=195,slow=11,SNR=2.5
MALT  Malatya           13.46  76⇑iP    Pn    19 43 46.6 +4.3
MALT  Malatya           13.46  76  ⇑P     Pn    19 43 46.6 +4.3
VRAC  Vranov            13.55 346   Pn    Pn    19 43 43.3 -0.2
      comp=Z,0.2nm,0.3s,baz=156,slow=11,SNR=3.9
VRAC  Vranov            13.55 346   P     Pn    19 43 43.3 -0.2
DAVOX Davos/Dischmat    13.72 324   Pn    Pn    19 43 45.7 -0.2
      comp=Z,0.1nm,0.3s,baz=148,slow=19,SNR=2.2
DAVOX                               Sn    Sn    19 46 05.8  -12
      comp=Z,0.3nm,0.3s,baz=144,slow=18,SNR=2.4
DAVOX Davos/Dischmat    13.72 324   Pn    Pn    19 43 45.7 -0.2
OKC   Ostrava-Krasne    13.80 350 eP      Pn    19 43 56.8  +10
DAVOS Davos             13.81 324   P     Pn    19 43 45.7 -1.3
DAVOS Davos             13.81 324   P     Pn    19 43 45.7 -1.3
MORC  Moravsky Berou    13.83 349⇓iP    Pn    19 43 47.1 -0.2
MORC  Moravsky Berou    13.83 349  ⇓P     Pn    19 43 47.1 -0.3
MORC  Moravsky Berou    13.83 349   P     Pn    19 43 47.1 -0.2
GERES GERESS Array B    13.87 337   Pn    Pn    19 43 46.3 -1.5
      comp=Z,0.3nm,0.3s,baz=159,slow=14,SNR=11
GERES GERESS Array B    13.87 337   P     Pn    19 43 46.3 -1.5
MBDF  Montbardon        14.15 311 eP      Pn    19 43 50.6 -1.1
      comp=Z,18nm,1.0s
MBDF  Montbardon        14.15 311 eP      Pn    19 43 50.6 -1.1
MBDF                                pmax  pmax
      comp=Z,9.0nm,1.0s
MBDF  Montbardon        14.15 311 eP      Pn    19 43 50.6 -1.1
      comp=Z,8.8nm,1.0s
KHC   Kasperske Hory    14.16 338 eP      Pn    19 43 51.7 -0.1
KHC                               ex      x     19 44 07.0
KHC   Kasperske Hory    14.16 338 eP      Pn    19 43 51.7 -0.1
LPG   La Plagne         14.57 314 eP      Pn    19 43 51.6 -5.9
LPL   La Plagne         14.60 314 eP      Pn    19 43 52.3 -5.5
DPC   Dobruska-Polom    14.60 346 eP      Pn    19 44 00.2 +2.4
ORIF  Oris-en-Rattie    14.79 311 eP      Pn    19 43 54.8 -5.6
UPC   Upice             14.81 346 eP      Pn    19 44 07.0 +6.3
UPC   Upice             14.81 346 eP      Pn    19 44 07.0 +6.3
AKASG Malin Array Be    15.40  18   Pn    Pn    19 44 06.2 -2.3
      comp=Z,0.6nm,0.3s,baz=210,slow=12,SNR=3.2
AKASG Malin Array Be    15.40  18   Pn    Pn    19 44 06.2 -2.3
CABF  La Chapelle       15.59 316 eP      Pn    19 44 16.1 +5.0
CABF  La Chapelle       15.59 316 eP      Pn    19 44 16.1 +5.0
CDF   Champ du Feu      16.12 323 eP      Pn    19 44 17.9  0.0
      comp=Z,9.2nm,0.8s
CDF   Champ du Feu      16.12 323 eP      Pn    19 44 17.9  0.0
CDF                                 pmax  pmax
      comp=Z,5.0nm,0.8s
CDF   Champ du Feu      16.12 323 eP      Pn    19 44 17.9  0.0
      comp=Z,4.6nm,0.8s
CLL   Collm             16.27 340 eP      Pn    19 44 19.0 -0.8
CLL                               i sP    sP    19 44 25.1 -1.9
CLL                               i PP          19 44 29.5
CLL                               i             19 44 47.1
CLL   Collm             16.27 340 eP      Pn    19 44 19.0 -0.8
CLL                               i             19 44 25.1
CLL                               i             19 44 29.5
HAU   Haudompre         16.31 321 eP      Pn    19 44 25.4 +5.0
      comp=Z,8.3nm,0.6s
HAU   Haudompre         16.31 321 eP      Pn    19 44 25.4 +5.0
HAU                                 pmax  pmax
      comp=Z,4.0nm,0.6s
HAU   Haudompre         16.31 321 eP      Pn    19 44 25.4 +5.0
      comp=Z,4.2nm,0.6s
HAU   Haudompre         16.31 321 eP      Pn    19 44 25.4 +5.0
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      comp=Z,4.2nm,0.6s
SMF   Signal de Mont    16.90 313 eP      Pn    19 44 25.9 -1.9
LOR   Lormes            17.22 315 eP      Pn    19 44 32.3 +0.4
LOR   Lormes            17.22 315 eP      Pn    19 44 32.3 +0.4
AVF   Avril sur Loir    17.26 313 eP      Pn    19 44 30.5 -1.9
      comp=Z,5.8nm,0.9s
AVF   Avril sur Loir    17.26 313 eP      Pn    19 44 30.5 -1.9
AVF                                 pmax  pmax
      comp=Z,3.0nm,0.9s
AVF   Avril sur Loir    17.26 313 eP      Pn    19 44 30.5 -1.9
      comp=Z,2.9nm,0.9s
TCF   Toulx Ste Croi    17.71 310 eP      Pn    19 44 38.6 +0.7
TCF   Toulx Ste Croi    17.71 310 eP      Pn    19 44 38.6 +0.7
RJF   Les Rejaudoux     17.72 307 eP      Pn    19 44 36.4 -1.7
RJF   Les Rejaudoux     17.72 307 eP      Pn    19 44 36.4 -1.7
SUW   Suwalki           17.77   3 eP      Pn    19 44 37.1 -1.4
SUW                                 pmax  pmax
      comp=Z,23nm,0.7s
SUW   Suwalki           17.77   3 eP      Pn    19 44 37.1 -1.4
      comp=Z,23nm,0.7s
SUW   Suwalki           17.77   3 eP      Pn    19 44 37.1 -1.4
      comp=Z,23nm,0.7s
LFF   La Frestale       18.09 305 eP      Pn    19 44 42.4 -0.2
LFF   La Frestale       18.09 305 eP      Pn    19 44 42.4 -0.2
GOF   Gofitskoye        18.35  55 eP      Pn    19 44 45.5 -0.4
GOF   Gofitskoye        18.35  55 eP      Pn    19 44 45.5 -0.4
ETSF  Etsaut            18.37 298 eP      Pn    19 44 46.0 -0.1
ETSF  Etsaut            18.37 298 eP      Pn    19 44 46.0 -0.1
GIVF  Givet             18.45 324 eP      Pn    19 44 46.8 -0.2
GIVF  Givet             18.45 324 eP      Pn    19 44 46.8 -0.2
GNI   Garni             18.49  71   P     Pn    19 44 47.6  0.0
      comp=Z,0.4nm,0.3s,baz=34,slow=4.0,SNR=2.7
GNI   Garni             18.49  71   P     Pn    19 44 47.6 +0.1
BAIF  Baives            18.72 323 eP      Pn    19 44 50.7 +0.4
      comp=Z,12nm,0.8s
BAIF  Baives            18.72 323 eP      Pn    19 44 50.7 +0.4
BAIF                                pmax  pmax
      comp=Z,6.0nm,0.8s
BAIF  Baives            18.72 323 eP      Pn    19 44 50.7 +0.4
      comp=Z,5.9nm,0.8s
BAIF  Baives            18.72 323 eP      Pn    19 44 50.7 +0.4
      comp=Z,5.9nm,0.8s
SJPF  Ste Jean          18.90 298 eP      Pn    19 44 52.5  0.0
      comp=Z,12nm,0.9s
SJPF  Ste Jean          18.90 298 eP      Pn    19 44 52.5  0.0
SJPF                                pmax  pmax
      comp=Z,6.0nm,0.9s
SJPF  Ste Jean          18.90 298 eP      Pn    19 44 52.5  0.0
      comp=Z,5.9nm,0.9s
SJPF  Ste Jean          18.90 298 eP      Pn    19 44 52.5  0.0
      comp=Z,5.9nm,0.9s
MFF   Saint Martin d    19.31 309 eP      Pn    19 44 56.5 -0.9
MFF   Saint Martin d    19.31 309 eP      Pn    19 44 56.5 -0.9
VORD  Divnogorie        19.35  35 eP      Pn    19 44 55.7 -2.2
VORD                                pmax  pmax
      comp=Z,3.0nm,0.6s
VORD                                pmax  pmax
      comp=N,6.0nm,0.7s
VORD                                pmax  pmax
      comp=E,7.0nm,0.6s
VORD  Divnogorie        19.35  35 eP      Pn    19 44 55.7 -2.2
      comp=E,6.0nm,0.7s
VSR   Storozhevoye      19.47  34 eP      Pn    19 44 57.8 -1.4
VSR                                 pmax  pmax
      comp=Z,4.0nm,0.5s
VSR                                 pmax  pmax
      comp=N,2.0nm,0.6s
VSR                                 pmax  pmax
      comp=E,3.0nm,0.8s
VSR   Storozhevoye      19.47  34 eP      Pn    19 44 57.8 -1.4
      comp=E,2.0nm,0.6s
LDF   La Druitiere      20.20 314 eP      P     19 45 06.1  0.0
      comp=E,6.8nm,0.7s
LDF   La Druitiere      20.20 314 eP      P     19 45 06.1  0.0
LDF                                 pmax  pmax
      comp=Z,3.0nm,0.6s
LDF   La Druitiere      20.20 314 eP      P     19 45 06.1  0.0
      comp=Z,3.4nm,0.6s
LDF   La Druitiere      20.20 314 eP      P     19 45 06.1  0.0
      comp=Z,3.4nm,0.7s
FLN   La Foliniere      20.49 314 eP      P     19 45 09.2  0.0
FLN   La Foliniere      20.49 314 eP      P     19 45 09.2  0.0
ESDC  Sonseca Array     20.51 287   P     P     19 45 10.0 +0.5
      comp=Z,0.6nm,0.5s,baz=87,slow=11,SNR=5.0
ESDC  Sonseca Array     20.51 287   P     P     19 45 10.0 +0.5
GRR   Gorron            20.53 313 eP      P     19 45 09.1 -0.6
GRR   Gorron            20.53 313 eP      P     19 45 09.1 -0.6
VRHR  Novokhopersk      20.56  38 eP      P     19 45 08.9 -1.0
VRHR                                pmax  pmax
      comp=Z,10.0nm,0.5s
VRHR                                pmax  pmax
      comp=N,10.0nm,0.8s
VRHR  Novokhopersk      20.56  38 eP      P     19 45 08.9 -1.0
      comp=N,10.0nm,0.8s
SGMF  Saint Gilles      21.49 311 eP      P     19 45 19.6 -0.4
      comp=N,8.1nm,0.9s,mb3.8
SGMF  Saint Gilles      21.49 311 eP      P     19 45 19.6 -0.4
SGMF                                pmax  pmax
      comp=Z,4.0nm,0.9s,mb3.8
SGMF  Saint Gilles      21.49 311 eP      P     19 45 19.6 -0.4
      comp=Z,4.1nm,0.9s,mb3.8
SGMF  Saint Gilles      21.49 311 eP      P     19 45 19.6 -0.4
      comp=Z,4.1nm,0.9s,mb3.8
QUIF  Quistinic         21.72 310 eP      P     19 45 22.7 +0.2
QUIF  Quistinic         21.72 310 eP      P     19 45 22.7 +0.2
MDT   Midelt            21.94 269   P     P     19 45 25.2 +0.2
      comp=Z,4.0nm,0.9s,mb3.8,baz=86,slow=11,SNR=12
MDT   Midelt            21.94 269   P     P     19 45 25.2 +0.2
ROSF  Rostrenen         21.96 311 eP      P     19 45 24.6 -0.4
      comp=Z,8.1nm,0.8s,mb3.9
ROSF  Rostrenen         21.96 311 eP      P     19 45 24.6 -0.4
ROSF                                pmax  pmax
      comp=Z,4.0nm,0.8s,mb3.9
ROSF  Rostrenen         21.96 311 eP      P     19 45 24.6 -0.4
      comp=Z,4.1nm,0.8s,mb3.9
ROSF  Rostrenen         21.96 311 eP      P     19 45 24.6 -0.4
      comp=Z,4.1nm,0.8s,mb3.9
VSU   Vasula            22.44   7 i P     P     19 45 29.2 -0.9
VSU   Vasula            22.44   7 i P     P     19 45 29.2 -0.9
HFS   Hagfors           24.43 350   P     P     19 45 48.6 -1.2
      comp=Z,3.8nm,0.5s,mb4.1,baz=156,slow=11,SNR=20
HFS   Hagfors           24.43 350   P     P     19 45 48.6 -1.2
EKA   Eskdalemuir Ar    25.53 326   P     P     19 46 00.9 +1.0
      comp=Z,1.9nm,0.7s,mb3.8,baz=126,slow=9.4,SNR=5.4
EKA   Eskdalemuir Ar    25.53 326   P     P     19 46 00.9 +1.0
NB2   NORSAR Subarra    25.67 348   P     P     19 46 00.0 -1.1
      comp=Z,3.9nm,0.8s,mb4.0,baz=155,slow=9.3
NB2   NORSAR Subarra    25.67 348   P     P     19 46 00.0 -1.1
      comp=Z,3.9nm,0.8s,mb4.0,SNR=7.6
NOA   NORSAR Array B    25.67 348   P     P     19 46 00.1 -0.9
      comp=Z,2.6nm,0.8s,mb3.8,baz=156,slow=9.8,SNR=10
NOA   NORSAR Array B    25.67 348   P     P     19 46 00.1 -1.0
KAF   Kangasniemi       26.02   5 eP      P     19 46 03.9 -0.3
KAF                                 pmax  pmax
      comp=Z,5.0nm,0.8s,mb4.1
KAF   Kangasniemi       26.02   5 ep      P     19 46 03.9 -0.3
      comp=Z,5.2nm,0.8s,mb4.1
KAF   Kangasniemi       26.02   5 eP      P     19 46 03.9 -0.3
      comp=Z,5.2nm,0.8s,mb4.1
KLMR  Klimovskoe        27.09  19   P     P     19 46 16.0 +2.2
KLMR                                pmax  pmax
      comp=Z,14nm,1.3s,mb4.3
KLMR  Klimovskoe        27.09  19   P     P     19 46 16.0 +2.2
      comp=Z,14nm,1.3s,mb4.3
JOF   Joensuu           27.32  10 ep      P     19 46 13.4 -2.5
      comp=Z,1.1nm,0.4s,mb3.7
JOF   Joensuu           27.32  10 eP      P     19 46 13.4 -2.5
TORD  Torodi Ar. Bea    29.23 223   P     P     19 46 33.4  0.0
      comp=Z,1.6nm,0.7s,mb3.8,baz=32,slow=9.4,SNR=13
AKTK  Aktyubinsk        29.61  50   P     P     19 46 34.1 -2.4
AKTK  Aktyubinsk        29.61  50   P     P     19 46 34.1 -2.4
AKTO  Aktyubinsk        29.61  50   P     P     19 46 34.1 -2.4
      comp=Z,0.6nm,0.4s,mb3.6,baz=204,slow=9.3,SNR=3.3
ARU   Arti              31.89  39d iP     P     19 46 55.0 -1.5
ARU                               e             19 47 59.7
ARU                                 S     S     19 52 03.3 -3.8
ARU                                 pmax  pmax
      comp=Z,11nm,1.7s,mb4.4
ARU   Arti              31.89  39 i P     P     19 46 55.0 -1.5
      comp=Z,11nm,1.7s,mb4.4
ARCES ARCESS Array B    33.38   2   P     P     19 47 09.0 -0.4
      comp=Z,1.4nm,0.7s,mb4.0,baz=189,slow=10,SNR=11
ARCES ARCESS Array B    33.38   2   P     P     19 47 09.0 -0.4
BVAR  Borovoye Array    37.64  48   P     P     19 47 45.4 -0.8
      comp=Z,1.9nm,0.7s,mb3.9,baz=255,slow=6.7,SNR=14
BVAR  Borovoye Array    37.64  48   P     P     19 47 45.4 -0.8
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Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	**Dimbokro**	**38.20**	**226**	P	**P**	**19 47 52.1**	**+0.8**
	comp=Z,3.4nm,0.7s,mb4.2,baz=348,slow=8.1,SNR=5.2						
DBIC	**Dimbokro**	**38.20**	**226**	P	**P**	**19 47 52.1**	**+0.7**
LIC	**Lamto**	**38.66**	**226**	eP	**P**	**19 47 56.1**	**+0.9**
	comp=Z,6.3nm,0.4s,mb4.4						
LIC	**Lamto**	**38.66**	**226**	eP	**P**	**19 47 56.1**	**+0.9**
	comp=Z,3.2nm,0.4s,mb4.4						
KMBO	**Kilima Mbogo**	**39.92**	**155**	P	**P**	**19 48 07.5**	**+1.8**
	comp=Z,0.6nm,0.4s,mb3.6,baz=244,slow=23,SNR=3.1						
KMBO	**Kilima Mbogo**	**39.92**	**155**	P	**P**	**19 48 07.6**	**+1.9**
EKS2	**Erkin-Say**	**40.16**	**64**	eP	**P**	**19 48 07.1**	**-0.3**
	comp=Z,3.1nm,0.6s,mb4.2						
EKS2	**Erkin-Say**	**40.16**	**64**	eP	**P**	**19 48 07.1**	**-0.4**
	comp=Z,3.1nm,0.6s,mb4.2						
AAK	**Ala-Archa**	**40.69**	**64**	i P	**P**	**19 48 11.6**	**-0.2**
AAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.7						
AAK	**Ala-Archa**	**40.69**	**64**	i P	**P**	**19 48 11.6**	**-0.2**
	comp=Z,2.0nm,1.1s,mb3.7						
KURK	**Kurchatov**	**42.67**	**52**	P	**P**	**19 48 26.4**	**-1.6**
	comp=Z,1.4nm,0.5s,mb4.0,baz=280,slow=8.7,SNR=8.4						
KURK	**Kurchatov**	**42.67**	**52**	P	**P**	**19 48 26.4**	**-1.6**
NVS	**Novosibirsk**	**45.29**	**46**	eP	**P**	**19 48 48.2**	**-0.8**
NVS				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
NVS	**Novosibirsk**	**45.29**	**46**	eP	**P**	**19 48 48.2**	**-0.8**
	comp=Z,9.0nm,1.0s,mb4.5						
MKAR	**Makanchi Array**	**45.51**	**57**	P	**P**	**19 48 49.7**	**-1.0**
	comp=Z,1.9nm,0.5s,mb4.2,baz=273,slow=7.3,SNR=50						
MKAR	**Makanchi Array**	**45.51**	**57**	P	**P**	**19 48 49.7**	**-1.1**
ZAA0	**Zalesovo Array**	**46.27**	**47**	eP	**P**	**19 48 55.1**	**-1.6**
ZAA0	**Zalesovo Array**	**46.27**	**47**	eP	**P**	**19 48 55.1**	**-1.6**
ZALV	**Zalesovo Beam**	**46.27**	**47**	P	**P**	**19 48 54.8**	**-1.9**
	comp=Z,1.8nm,0.3s,mb4.5,baz=271,slow=8.7,SNR=11						
ZALV	**Zalesovo Beam**	**46.27**	**47**	P	**P**	**19 48 54.8**	**-1.9**
LSA	**Lhasa**	**57.49**	**75**	eP	**P**	**19 50 21.1**	**+0.3**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
LSA	**Lhasa**	**57.49**	**75**	eP	**P**	**19 50 21.1**	**+0.3**
	comp=Z,3.9nm,0.8s,mb4.5						
LSA	**Lhasa**	**57.49**	**75**	eP	**P**	**19 50 21.1**	**+0.3**
	comp=Z,3.8nm,0.8s,mb4.5						
ZAK	**Zakamensk**	**58.10**	**48**	eP	**P**	**19 50 24.7**	**0.0**
ZAK				e		19 50 31.7	
ZAK	**Zakamensk**	**58.10**	**48**	eP	**P**	**19 50 24.7**	**0.0**
SCHQ	**Schefferville**	**60.51**	**318**	P	**P**	**19 50 42.2**	**+0.9**
	comp=Z,2.6nm,0.9s,mb4.3,baz=96,slow=9.2,SNR=2.4						
SCHQ	**Schefferville**	**60.51**	**318**	P	**P**	**19 50 42.2**	**+0.9**
SONM	**Songino Array**	**60.93**	**50**	P	**P**	**19 50 44.0**	**-0.3**
	comp=Z,0.6nm,0.6s,mb3.9,baz=286,slow=9.5,SNR=6.6						
BOD	**Bodaibo**	**61.29**	**38**	eP	**P**	**19 50 45.5**	**-1.0**
CMAR	**Chiang Mai Arr**	**69.21**	**82**	P	**P**	**19 51 38.0**	**-0.6**
	comp=Z,1.1nm,0.7s,mb3.9,baz=299,slow=7.5,SNR=11						
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**19 52 15.5**	**+0.1**
	comp=Z,0.3nm,0.6s,mb3.4,baz=35,slow=5.5,SNR=5.4						
YKA	**Yellowknife Ar**	**75.50**	**341**	P	**P**	**19 52 15.5**	**+0.1**
KSRS	**Korea Array**	**79.79**	**51**	P	**P**	**19 52 39.3**	**-0.5**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KSRS	**Korea Array**	**79.79**	**51**	P	**P**	**19 52 39.3**	**-0.5**
	comp=Z,1.1nm,0.5s,mb4.0,baz=309,slow=4.5,SNR=6.3						

IDC 20 19:57:50.2±23.0**, 5°.71S**×**150°.72E, h235**km±190km**, mb2.6**/2**, mb1 2.9**/2**, mb1mx2.6**/15**, mbtmp2.6**/2**, Error ellipse: s-maj=178.0km s-min=115.2km az=107.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**21.30**	**227**	P	P	20 02 18.8	-0.3
	0.3nm,0.6s,baz=53,slow=9.8,SNR=3.4						
ASAR	**Alice Springs**	**24.10**	**221**	P	P	20 02 45.1	+0.4
	0.5nm,0.7s,baz=53,slow=9.3,SNR=8.5						
TORD	**Torodi Ar. Bea**	**148.59**	**286**	PKPbc	PKPbc	20 17 09.9	-0.6
	0.2nm,0.3s,baz=77,slow=2.2,SNR=7.9						

IDC 20 20:10:14.6±1.2**, 49°.53S**×**125°.77E, h0**km**, mb4.0**/5**, mb1 4.2**/6**, mb1mx4.0**/15**, mbtmp4.1**/6**, MS4.7**/1**, Ms1 4.7**/1**, ms1mx3.9**/22**, Error ellipse: s-maj=46.6km s-min=24.3km az=97.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	**17.77**	**336**	P	Pn	20 14 23.3	+0.1
	0.4nm,0.3s,baz=130,slow=5.5,SNR=3.9						
STKA	**Stephens Creek**	**21.26**	**40**	P	P	20 15 02.6	+0.4
	3.6nm,0.7s,baz=204,slow=9.6,SNR=6.9						
ASAR	**Alice Springs**	**26.60**	**17**	P	P	20 15 54.1	-0.3
	3.6nm,0.7s,baz=192,slow=8.9,SNR=54						
WRA	**Warramunga Arr**	**30.31**	**16**	P	P	20 16 26.8	-0.7
	0.9nm,0.7s,baz=193,slow=8.3,SNR=6.4						
RPZ	**Rata Peaks**	**31.26**	**97**	LR	LR	20 25 43.9	
	comp=Z,1μm,18.7s,baz=24,slow=30						
QSPA	**South Pole Qui**	**40.59**	**180**	P	P	20 17 55.2	-0.1
	3.0nm,0.9s,baz=347,slow=5.7,SNR=4.5						
CMAR	**Chiang Mai Arr**	**71.75**	**333**	P	P	20 21 39.1	+0.7
	0.7nm,0.7s,baz=184,slow=5.7,SNR=7.7						
YKA	**Yellowknife Ar**	**145.23**	**45**	PKPbc	PKPbc	20 29 52.2	-0.3
	3.7nm,0.7s,baz=266,slow=3.5,SNR=61						

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*ISK **20** 20:25:56.6, 40°.80N×35°.11E, h5km, MD2.9*
*ISCJB **20** 20:25:58.3±0.4, 40°.67N±0°.03×35°.29E±0°.03, h10km, Error ellipse: s-maj=4.0km s-min=3.4km az=40.9*
*DDA **20** 20:25:58.5, 40°.72N×35°.26E, h7km±3km, Md3.3*
*CSEM **20** 20:25:59.2±0.3, 40°.73N×35°.24E, h2km, MD2.9, Error ellipse: s-maj=7.1km s-min=6.0km az=29.0*
ISC 20 20:25:58.7±0.5**, 40°.69N**±0°.03×**35°.25E**±0°.04**, h2**km±6km**, n31, σ0ˢ.93**/49**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTKT	**Corum**	**0.35**	**260**	i P	**Pg**	**20 26 06.3**	**+0.8**
CTKT				i S	**Sg**	**20 26 11.8**	**+1.6**
CTKT	**Corum**	**0.35**	**260**	i P	**Pg**	**20 26 06.3**	**+0.8**
CTKT				i S	**Sg**	**20 26 11.8**	**+1.7**
KVT	**Kavak**	**0.72**	**57**	ePG	**Pg**	**20 26 12.3**	**-0.3**
KVT				eSG	**Sg**	**20 26 22.3**	**+0.4**
KVT	**Kavak**	**0.72**	**57**	ePg	**Pg**	**20 26 12.3**	**-0.2**
KVT				eSg	**Sg**	**20 26 22.3**	**+0.4**
BOYT	**Boyabat**	**0.78**	**340**	i P	**Pg**	**20 26 13.4**	**-0.2**
BOYT				i S	**Sg**	**20 26 23.1**	**-0.7**
BOYT	**Boyabat**	**0.78**	**340**	i P	**Pg**	**20 26 13.4**	**-0.2**
BOYT				i S	**Sg**	**20 26 23.1**	**-0.6**
TOS	**Tosya**	**0.99**	**291**	ePG	**Pg**	**20 26 13.5**	**-4.2**
TOS	**Tosya**	**0.99**	**291**	ePg	**Pg**	**20 26 13.5**	**-4.3**
TOKA	**Tokat**	**1.00**	**111**	i P	**Pg**	**20 26 17.8**	**-0.1**
TOKA				i S	**Sg**	**20 26 32.6**	**+1.6**
TOKA	**Tokat**	**1.00**	**111**	i P	**Pg**	**20 26 17.8**	**-0.2**
TOKA				i S	**Sg**	**20 26 32.6**	**+1.6**
YOZ	**Yozgat**	**1.05**	**177**	ePN	**Pg**	**20 26 19.0**	**+0.2**
YOZ	**Yozgat**	**1.05**	**177**	ePn	**Pg**	**20 26 19.0**	**+0.2**
ILGA	**Ilgaz**	**1.22**	**288**	i P	**Pn**	**20 26 21.8**	**-0.9**
ILGA				i S	**Sn**	**20 26 38.9**	**-0.9**
ILGA	**Ilgaz**	**1.22**	**288**	i P	**Pn**	**20 26 21.8**	**-0.9**
ILGA				i S	**Sn**	**20 26 38.8**	**-1.0**
CANT	**Cankiri**	**1.24**	**267**	ePN	**Pn**	**20 26 19.1**	**-3.9**
CDAG	**Cicekdag**	**1.26**	**213**	i P	**Pn**	**20 26 22.4**	**-0.9**
CDAG				i S	**Sn**	**20 26 40.7**	**-0.1**
CDAG	**Cicekdag**	**1.26**	**213**	i P	**Pn**	**20 26 22.4**	**-0.9**
CDAG				i S	**Sn**	**20 26 40.7**	**0.0**
SVSK	**Karacayir**	**1.54**	**119**	ePN	**Pn**	**20 26 28.1**	**+0.9**
SVSK	**Karacayir**	**1.54**	**119**	ePn	**Pn**	**20 26 28.1**	**+0.9**
BALT	**Daday**	**1.64**	**302**	i P	**Pn**	**20 26 29.8**	**+1.2**
BALT				i S	**Sn**	**20 26 50.8**	**+0.5**
BALT	**Daday**	**1.64**	**302**	i P	**Pn**	**20 26 29.8**	**+1.2**
BALT				i S	**Sn**	**20 26 50.8**	**+0.5**
BNN	**Bunyan**	**1.89**	**166**	ePN	**Pn**	**20 26 32.6**	**+0.7**
BNN	**Bunyan**	**1.89**	**166**	ePn	**Pn**	**20 26 32.7**	**+0.7**
AVNT	**Avonos**	**1.93**	**189**	i P	**Pg**	**20 26 34.5**	**-1.2**
AVNT				i S	**Sg**	**20 27 01.4**	**+0.7**
AVNT	**Avonos**	**1.93**	**189**	i P	**Pg**	**20 26 34.5**	**-1.2**
AVNT				i S	**Sg**	**20 27 01.4**	**+0.7**
PINB	**Pinarbasi**	**2.20**	**156**	i P	**Pg**	**20 26 39.5**	**-1.2**
PINB				i S	**Sg**	**20 27 09.0**	**-0.2**
PINB	**Pinarbasi**	**2.20**	**156**	i P	**Pg**	**20 26 39.5**	**-1.3**
PINB				i S	**Sg**	**20 27 09.0**	**-0.3**
SARI	**SarD1z-Kayseri**	**2.30**	**150**	ePN	**Pg**	**20 26 40.9**	**-1.8**
SARI	**SarD1z-Kayseri**	**2.30**	**150**	ePn	**Pg**	**20 26 40.9**	**-1.8**
SULT	**Sultanhani-AKS**	**2.82**	**209**	ePN	**Pn**	**20 26 45.2**	**+0.4**
SULT	**Sultanhani-AKS**	**2.82**	**209**	ePn	**Pn**	**20 26 45.2**	**+0.4**

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*IDC **20** 20:33:12.3±1.1, 6°.35N×124°.36E, h0km, mb3.3/4, mb1 3.5/4, mb1mx3.3/21, mbtmp3.3/4, Error ellipse: s-maj=23.8km s-min=21.3km az=85.0*
*ISCJB **20** 20:33:19.1±3.3, 6°.3N±0°.2×124°.5E±0°.3, h76km±36km, mb3.3/4, Error ellipse: s-maj=47.8km s-min=19.0km az=149.2*
ISC 20 20:33:19.2±2.7**, 6°.3N**±0°.1×**124°.4E**±0°.2**, h53**km±31km**, n7, σ0ˢ.99**/10**, mb3.3**/4**, 2C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMPH	**Davao City--Mi**	**1.31**	**54**	⇑eP	**Pn**	**20 33 40.4**	**-0.8**
DMPH				eS	**Sn**	**20 33 58.6**	**+0.9**
DAV	**Davao City (W)**	**1.36**	**56**	Pn	**Pn**	**20 33 40.0**	**-1.9**
	111nm,0.3s,baz=89,slow=3.4,SNR=9.6						
DAV				Sn	**Sn**	**20 33 59.1**	**+0.1**
	159nm,0.3s,baz=264,slow=23,SNR=11						
CGP	**Cagayan de Oro**	**2.16**	**7**	⇑iP	**Pn**	**20 33 54.2**	**+1.4**
CGP				i S	**Sn**	**20 34 24.0**	**+5.7**
WRA	**Warramunga Arr**	**27.84**	**160**	P	**P**	**20 39 04.7**	**+0.9**
	0.3nm,0.7s,mb3.0,baz=345,slow=11,SNR=6.4						
ASAR	**Alice Springs**	**31.18**	**163**	P	**P**	**20 39 33.5**	**+0.1**
	0.3nm,0.4s,mb3.5,baz=332,slow=7.2,SNR=7.4						
MKAR	**Makanchi Array**	**54.16**	**325**	P	**P**	**20 42 39.3**	**+0.2**
	0.1nm,0.4s,mb3.1,baz=118,slow=6.1,SNR=7.1						
KURK	**Kurchatov**	**58.36**	**328**	P	**P**	**20 43 07.9**	**-1.1**
	0.3nm,0.5s,mb3.6,baz=121,slow=7.3,SNR=2.6						

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*CSEM **20** 20:51:54.4, 36°.35N×21°.84E, h10km, MD3.5*
ATH 20 20:51:54.4, 36°.35N×**21°.84E, h10**km**, MD3.5**/3**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.83**	**5**	ePB	Pb	20 52 10.1	-0.8
ITM	**Ithomi**	**0.83**	**5**	ePb	Pb	20 52 10.1	-0.8
VLI	**Veliai**	**0.96**	**67**	ePB	Pb	20 52 12.7	-0.4
VLI	**Veliai**	**0.96**	**67**	ePb	Pb	20 52 12.7	-0.4
KYTH	**Kithira**	**0.97**	**94**	ePB	Pb	20 52 12.7	-0.6
KYTH	**Kithira**	**0.97**	**94**	ePb	Pb	20 52 12.7	-0.6

IDC 20 21:07:35.4±5.0**, 39°.47N**×**110°.33E, h0**km**, mb3.3**/4**, mb1 3.4**/5**, mb1mx3.3**/24**, mbtmp3.4**/5**, ML2.4**/1**, Error ellipse: s-maj=107.3km s-min=23.4km az=85.0, Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**8.83**	**342**	Pn	Pn	21 09 43.7	-0.5
	0.0nm,0.3s,baz=164,slow=12,SNR=11						
SONM				Sn	Sn	21 11 21.5	-2.9
	0.0nm,0.3s,baz=166,slow=21,SNR=4.8						
SONM				Lg		21 12 13.4	
	0.1nm,0.3s,baz=159,slow=27,SNR=4.4						
MKAR	**Makanchi Array**	**21.65**	**299**	P	P	21 12 26.9	-0.3
	1.7nm,0.8s,baz=97,slow=12,SNR=12						
ZALV	**Zalesovo Beam**	**22.54**	**318**	P	P	21 12 38.2	+1.5
	0.5nm,0.7s,baz=120,slow=8.5,SNR=3.8						
CMAR	**Chiang Mai Arr**	**23.15**	**208**	P	P	21 12 42.9	-0.4
	0.9nm,0.8s,baz=12,slow=9.8,SNR=11						
KURK	**Kurchatov**	**24.86**	**307**	P	P	21 12 59.9	+0.5
	0.9nm,0.9s,baz=105,slow=9.8,SNR=4.9						

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*CSEM **20** 21:14:24.1±0.2, 37°.72N×14°.26E, h34km, ML4.5/7, Error ellipse: s-maj=5.3km s-min=4.0km az=53.0*
*NEIC **20** 21:14:24.8, 37°.69N×14°.19E, h34km, ML3.6(ROM), After ROM.*
*ROM **20** 21:14:24.8±0.1, 37°.69N×14°.19E, h34km±1km, Ml3.6/34, Error ellipse: s-maj=3.2km s-min=2.1km az=79.0*
*ISCJB **20** 21:14:25.4±0.3, 37°.71N±0°.03×14°.18E±0°.04, h34km±7km, Error ellipse: s-maj=5.7km s-min=3.4km az=138.1*
ISC 20 21:14:25.9±0.4**, 37°.70N**±0°.03×**14°.23E**±0°.04**, h30**km±3km**, n103, σ0ˢ.87**/119**, 4C-10D, Sicily**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GALF	**Gagliano Caste**	**0.27**	**86**	⇑iPg	**Pb**	**21 14 32.5**	**-0.4**
GALF				Sg	**Sb**	**21 14 38.6**	**+1.0**
	17μm,0.6s						
GALF	**Gagliano Caste**	**0.27**	**86**	⇑iPg	**Pb**	**21 14 32.5**	**-0.4**
GALF				Sg	**Sb**	**21 14 38.6**	**+1.0**
	17μm,0.6s						
CSLB	**Castelbuono**	**0.28**	**331**	Pg	**Pb**	**21 14 31.9**	**-1.1**
CSLB				Sg	**Sb**	**21 14 37.5**	**-0.4**
CSLB	**Castelbuono**	**0.28**	**331**	Pg	**Pb**	**21 14 31.9**	**-1.1**
CSLB				Sg	**Sb**	**21 14 37.5**	**-0.4**
GIB	**Gibilmanna**	**0.34**	**331**	Pg	**Pb**	**21 14 32.9**	**-0.9**
GIB				Sg	**Sb**	**21 14 39.4**	**+0.2**
	18μm,0.5s						
GIB	**Gibilmanna**	**0.34**	**331**	Pg	**Pb**	**21 14 32.9**	**-0.9**
GIB				Sg	**Sb**	**21 14 39.4**	**+0.2**
	18μm,0.5s						
ECNV	**Catenanuova**	**0.40**	**104**	Pg	**Pb**	**21 14 35.3**	**+0.7**
ECNV	**Catenanuova**	**0.40**	**104**	Pg	**Pb**	**21 14 35.3**	**+0.7**
RAFF	**Raffo Rosso**	**0.48**	**167**	Pg	**Pb**	**21 14 35.7**	**-0.3**
RAFF				Sg	**Sb**	**21 14 45.6**	**+2.7**
	7μm,0.6s						
RAFF	**Raffo Rosso**	**0.48**	**167**	Pg	**Pb**	**21 14 35.7**	**-0.3**
RAFF				Sg	**Sb**	**21 14 45.6**	**+2.7**
	7μm,0.6s						
ESLN	**Serra La Nave**	**0.59**	**90**	Pg	**Pb**	**21 14 38.1**	**+0.3**
	6μm,0.9s						
ESLN	**Serra La Nave**	**0.59**	**90**	Pg	**Pb**	**21 14 38.1**	**+0.3**
	6μm,0.9s						
HVZN	**Vizzini**	**0.64**	**143**	⇓iPg	**Pb**	**21 14 37.6**	**-1.1**
	8μm,0.7s						
HVZN	**Vizzini**	**0.64**	**143**	⇓iPg	**Pb**	**21 14 37.6**	**-1.1**
	8μm,0.7s						
CORL	**Corleone**	**0.76**	**285**	Pg	**Pn**	**21 14 40.2**	**-0.4**
CORL	**Corleone**	**0.76**	**285**	Pg	**Pn**	**21 14 40.2**	**-0.4**
HAGA	**Augusta**	**0.84**	**119**	Pg	**Pn**	**21 14 40.2**	**-1.5**
HAGA				Sg	**Sb**	**21 14 52.7**	**-0.2**
	4μm,0.8s						
HAGA	**Augusta**	**0.84**	**119**	Pg	**Pn**	**21 14 40.2**	**-1.5**
HAGA				Sg	**Sb**	**21 14 52.7**	**-0.2**
	4μm,0.8s						
ACL	**Alicudi**	**0.84**	**7**	Pg	**Pn**	**21 14 40.2**	**-1.5**
	3μm,0.5s						
IACL	**Alicudi**	**0.84**	**7**	Pg	**Pn**	**21 14 40.2**	**-1.5**
	3μm,0.5s						
MMME	**Mongiuffi-Meli**	**0.84**	**73**	⇑ePg	**Pn**	**21 14 41.4**	**-0.3**
	2μm,0.7s						
MMME	**Mongiuffi-Meli**	**0.84**	**73**	⇑ePg	**Pn**	**21 14 41.4**	**-0.3**
	2μm,0.7s						
HMDC	**Modica**	**0.86**	**149**	⇓iPg	**Pn**	**21 14 40.7**	**-1.2**
HMDC				Sg	**Sn**	**21 14 53.9**	**+0.5**
	2μm,0.5s						
HMDC	**Modica**	**0.86**	**149**	⇓iPg	**Pn**	**21 14 40.7**	**-1.2**
HMDC				Sg	**Sn**	**21 14 53.9**	**+0.5**
	2μm,0.5s						
SSY	**Sortino**	**0.86**	**129**	⇓iPg	**Pn**	**21 14 40.8**	**-1.1**
SSY				Sg	**Sn**	**21 14 54.3**	**+0.8**
	5μm,0.2s						
SSY	**Sortino**	**0.86**	**129**	⇓iPg	**Pn**	**21 14 40.8**	**-1.1**
SSY				Sg	**Sn**	**21 14 54.3**	**+0.8**
	5μm,0.2s						
AGST	**Augusta-Monte**	**0.91**	**119**	⇓ePg	**Pn**	**21 14 41.3**	**-1.3**
AGST				Sg	**Sn**	**21 14 54.6**	**0.0**
	3μm,0.4s						
AGST	**Augusta-Monte**	**0.91**	**119**	⇓ePg	**Pn**	**21 14 41.3**	**-1.3**
AGST				Sg	**Sn**	**21 14 54.6**	**0.0**
	3μm,0.4s						
VPL	**Vulcano Piano**	**0.91**	**41**	Pg	**Pn**	**21 14 41.8**	**-0.8**
	4μm,0.7s						
VPL	**Vulcano Piano**	**0.91**	**41**	Pg	**Pn**	**21 14 41.8**	**-0.8**
	4μm,0.7s						
IFIL	**Filicudi I Eol**	**0.91**	**17**	Pg	**Pn**	**21 14 41.2**	**-1.4**
	4μm,0.7s						
IFIL	**Filicudi I Eol**	**0.91**	**17**	Pg	**Pn**	**21 14 41.2**	**-1.4**
	4μm,0.7s						
LLI	**Lipari**	**0.94**	**37**	Pg	**Pn**	**21 14 42.6**	**-0.4**
	7μm,0.6s						
LLI	**Lipari**	**0.94**	**37**	Pg	**Pn**	**21 14 42.6**	**-0.4**
	7μm,0.6s						
MILZ	**Milazzo**	**0.98**	**54**	Pg	**Pn**	**21 14 43.1**	**-0.5**
	3μm,0.6s						
MILZ	**Milazzo**	**0.98**	**54**	Pg	**Pn**	**21 14 43.1**	**-0.5**
	3μm,0.6s						
HAVL	**Avola**	**1.02**	**136**	⇓ePg	**Pn**	**21 14 43.2**	**-1.0**
	4μm,0.5s						
HAVL	**Avola**	**1.02**	**136**	⇓ePg	**Pn**	**21 14 43.2**	**-1.0**
	4μm,0.5s						
MSRU	**Castanea**	**1.16**	**60**	Pg	**Pn**	**21 14 46.3**	**+0.2**
	2μm,0.9s						
MSRU	**Castanea**	**1.16**	**60**	Pg	**Pn**	**21 14 46.3**	**+0.2**
	2μm,0.9s						
MSI	**Messina ING**	**1.16**	**64**	Pg	**Pn**	**21 14 46.6**	**+0.5**
MSI	**Messina ING**	**1.16**	**64**	Pg	**Pn**	**21 14 46.6**	**+0.5**
MTTG	**Motta San Giov**	**1.20**	**75**	Pg	**Pn**	**21 14 47.2**	**+0.6**
	596nm,0.7s						
MTTG	**Motta San Giov**	**1.20**	**75**	Pg	**Pn**	**21 14 47.2**	**+0.6**
	596nm,0.7s						
SCLL	**Scilla**	**1.30**	**64**	Pg	**Pn**	**21 14 48.3**	**+0.3**
	108nm,0.5s						
SCLL	**Scilla**	**1.30**	**64**	Pg	**Pn**	**21 14 48.3**	**+0.3**
	108nm,0.5s						
USI	**Ustica**	**1.31**	**321**	Pg	**Pn**	**21 14 46.7**	**-1.4**
USI	**Ustica**	**1.31**	**321**	Pg	**Pn**	**21 14 46.7**	**-1.4**
ERC	**Erice**	**1.34**	**285**	Pg	**Pn**	**21 14 49.7**	**+1.1**
	1μm,0.7s						
ERC	**Erice**	**1.34**	**285**	Pg	**Pn**	**21 14 49.7**	**+1.1**
	1μm,0.7s						
CEL	**Celeste**	**1.43**	**66**	Pg	**Pn**	**21 14 50.0**	**+0.2**
CEL	**Celeste**	**1.43**	**66**	Pg	**Pn**	**21 14 50.0**	**+0.2**
MPAZ	**Palizzi**	**1.43**	**79**	Pg	**Pn**	**21 14 50.2**	**+0.4**
	728nm,0.9s						
MPAZ	**Palizzi**	**1.43**	**79**	Pg	**Pn**	**21 14 50.2**	**+0.4**
	728nm,0.9s						
SOI	**Samo**	**1.49**	**75**	Pg	**Pn**	**21 14 51.1**	**+0.5**
	396nm,0.7s						
SOI	**Samo**	**1.49**	**75**	Pg	**Pn**	**21 14 51.1**	**+0.5**
	396nm,0.7s						
JOPP	**Joppolo**	**1.59**	**55**	Pg	**Pn**	**21 14 51.5**	**-0.5**
	228nm,0.6s						
JOPP	**Joppolo**	**1.59**	**55**	Pg	**Pn**	**21 14 51.5**	**-0.5**
	228nm,0.6s						
WDD	**Wield Dalam**	**1.84**	**173**	Pg	**Pn**	**21 14 55.4**	**0.0**
	852nm,0.8s						
WDD	**Wield Dalam**	**1.84**	**173**	Pg	**Pn**	**21 14 55.4**	**0.0**
	852nm,0.8s						
PLAC	**Placanica**	**1.90**	**66**	Pg	**Pn**	**21 14 57.4**	**+1.2**
	135nm,0.7s						
PLAC	**Placanica**	**1.90**	**66**	Pg	**Pn**	**21 14 57.4**	**+1.2**
	135nm,0.7s						
GRI	**Girifalco**	**2.06**	**56**	Pg	**Pn**	**21 14 58.4**	**0.0**
	106nm,0.6s						
GRI	**Girifalco**	**2.06**	**56**	Pg	**Pn**	**21 14 58.4**	**0.0**
	106nm,0.6s						
CARO	**Carolei**	**2.20**	**44**	Pg	**Pn**	**21 15 00.1**	**-0.3**
	778nm,0.7s						
CARO	**Carolei**	**2.20**	**44**	Pg	**Pn**	**21 15 00.1**	**-0.3**
	778nm,0.7s						
SERS	**Sersale**	**2.35**	**55**	Pg	**Pn**	**21 15 03.4**	**+1.0**
	64nm,0.6s						
SERS	**Sersale**	**2.35**	**55**	Pg	**Pn**	**21 15 03.4**	**+1.0**
	64nm,0.6s						
TIP	**Timpagrande**	**2.48**	**52**	Pg	**Pn**	**21 15 04.8**	**+0.6**
	122nm,0.8s						
TIP	**Timpagrande**	**2.48**	**52**	Pg	**Pn**	**21 15 04.8**	**+0.6**
	122nm,0.8s						
CUC	**Castrocucco**	**2.61**	**28**	Pg	**Pn**	**21 15 05.8**	**-0.2**
	105nm,0.6s						
CUC	**Castrocucco**	**2.61**	**28**	Pg	**Pn**	**21 15 05.8**	**-0.2**
	105nm,0.6s						
CUC	**Castrocucco**	**2.61**	**28**	ePg	**Pn**	**21 15 05.5**	**-0.5**
MGR	**Morigerati**	**2.65**	**23**	Pg	**Pn**	**21 15 06.1**	**-0.4**
	73nm,0.4s						
MGR	**Morigerati**	**2.65**	**23**	Pg	**Pn**	**21 15 06.1**	**-0.4**
	73nm,0.4s						
CMPR	**Campora**	**2.75**	**17**	Pg	**Pn**	**21 15 07.6**	**-0.3**
	29nm,0.5s						
CMPR	**Campora**	**2.75**	**17**	Pg	**Pn**	**21 15 07.6**	**-0.3**
	29nm,0.5s						
SIRI	**Monte Sirino -**	**2.79**	**27**	Pg	**Pn**	**21 15 09.0**	**+0.5**
	100nm,0.4s						
SIRI	**Monte Sirino -**	**2.79**	**27**	Pg	**Pn**	**21 15 09.0**	**+0.5**
	100nm,0.4s						
MTSN	**Montesano sull**	**2.83**	**24**	Pg	**Pn**	**21 15 09.4**	**+0.4**
	82nm,0.3s						
MTSN	**Montesano sull**	**2.83**	**24**	Pg	**Pn**	**21 15 09.4**	**+0.4**
	82nm,0.3s						
SCHR	**S. Chirico Rap**	**2.88**	**29**	Pg	**Pn**	**21 15 10.6**	**+0.8**
	33nm,0.7s						
SCHR	**S. Chirico Rap**	**2.88**	**29**	Pg	**Pn**	**21 15 10.6**	**+0.8**
	33nm,0.7s						
MCEL	**Monticello**	**2.90**	**24**	Pg	**Pn**	**21 15 10.2**	**+0.2**
	146nm,1.5s						
MCEL	**Monticello**	**2.90**	**24**	Pg	**Pn**	**21 15 10.2**	**+0.2**
	146nm,1.5s						
CDRU	**Civita di Ruta**	**2.91**	**16**	Pg	**Pn**	**21 15 10.4**	**+0.2**
	17nm,0.5s						
CDRU	**Civita di Ruta**	**2.91**	**16**	Pg	**Pn**	**21 15 10.4**	**+0.2**
	17nm,0.5s						
SGO	**Sicignano**	**2.98**	**16**	Pg	**Pn**	**21 15 11.5**	**+0.4**
	18nm,0.2s						
SGO	**Sicignano**	**2.98**	**16**	Pg	**Pn**	**21 15 11.5**	**+0.4**
	18nm,0.2s						
TAR1	**Taranto**	**3.69**	**39**	eP	**Pn**	**21 15 21.4**	**+0.5**
VSL	**Villasalto**	**4.21**	**297**	Pg	**Pn**	**21 15 27.6**	**-0.3**
	85nm,0.6s						
VSL	**Villasalto**	**4.21**	**297**	Pg	**Pn**	**21 15 27.6**	**-0.3**
	85nm,0.6s						
PGF	**Pioggiola**	**6.29**	**322**	eP	**Pn**	**21 15 57.4**	**+0.8**
	11nm,0.4s						
PGF	**Pioggiola**	**6.29**	**322**	eP	**Pn**	**21 15 57.4**	**+0.8**
	5.5nm,0.4s						
LMR	**La Mourre**	**8.14**	**316**	eP	**Pn**	**21 16 21.4**	**-0.6**
	8.0nm,0.3s						
FRF	**La Foret Royal**	**8.22**	**318**	eP	**Pn**	**21 16 23.2**	**+0.2**
MBDF	**Montbardon**	**8.99**	**324**	eP	**Pn**	**21 16 36.0**	**+2.4**
	6.9nm,0.6s						
MBDF	**Montbardon**	**8.99**	**324**	eP	**Pn**	**21 16 36.0**	**+2.4**
	3.5nm,0.6s						
SMRF	**Simiane la Rot**	**9.07**	**316**	eP	**Pn**	**21 16 35.2**	**+0.5**
	3.7nm,0.3s						
ORIF	**Oris-en-Rattie**	**9.56**	**322**	eP	**Pn**	**21 16 43.2**	**+1.8**
LPG	**La Plagne**	**9.60**	**327**	eP	**Pn**	**21 16 45.8**	**+3.9**
LPL	**La Plagne**	**9.62**	**327**	eP	**Pn**	**21 16 45.5**	**+3.3**
VIVF	**Saint-Julien-l**	**10.14**	**318**	eP	**Pn**	**21 16 49.8**	**+0.5**

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*ISCJB **20** 21:14:57.3±0.3, 36°.19N±0°.02×21°.71E±0°.04, h10km, mb3.8/11, MS3.4/2, Error ellipse: s-maj=4.8km s-min=3.2km az=162.6*
*CSEM **20** 21:14:58.6±0.2, 36°.19N×21°.57E, h2km, ML3.6, Error ellipse: s-maj=7.4km s-min=5.4km az=73.0*
*NEIC **20** 21:14:58.1, 36°.19N×21°.73E, h13km, mb4.0/2, ML3.6(ATH), ML4.2(THE), After ATH.*
*ATH **20** 21:14:58.1, 36°.19N×21°.73E, h13km±4km, MD3.9/7, ML3.6*
*THE **20** 21:15:00.4, 36°.27N×21°.62E, h0km±4km, ML4.2/4, Error ellipse: s-maj=7.6km s-min=2.3km az=232.0*
*IDC **20** 21:15:05.1±2.3, 36°.39N×21°.83E, h63km±26km, mb3.4/11, mb1 3.5/16, mb1mx3.5/31, mbtmp3.4/16, ML3.3/5, MS3.4/3, Ms1 3.5/3, ms1mx3.1/32, Error ellipse: s-maj=20.8km s-min=17.7km az=29.0*
ISC 20 21:14:59.1±0.3**, 36°.21N**±0°.02×**21°.78E**±0°.04**, h10**km**, n99, σ1ˢ.51**/115**, mb3.8**/11**, MS3.4**/2**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.97**	**7**	ePB	**Pg**	**21 15 17.2**	**-0.6**
ITM				eSB	**Sg**	**21 15 31.0**	**+0.6**
ITM	**Ithomi**	**0.97**	**7**	ePb	**Pg**	**21 15 17.2**	**-0.6**
ITM				eSb	**Sg**	**21 15 31.0**	**+0.6**
KYTH	**Kithira**	**1.02**	**86**	ePN	**Pg**	**21 15 18.6**	**-0.1**
VLI	**Veliai**	**1.06**	**61**	ePG	**Pn**	**21 15 18.7**	**-1.3**
RLS	**Riolos of Patr**	**1.86**	**352**	ePG	**Pn**	**21 15 33.0**	**+2.0**
RLS	**Riolos of Patr**	**1.86**	**352**	ePg	**Pn**	**21 15 33.0**	**+2.0**
LAKA	**Lakka**	**2.03**	**4**	P	**Pn**	**21 15 36.2**	**+2.9**
LAKA	**Lakka**	**2.03**	**4**	P	**Pn**	**21 15 36.2**	**+2.9**
NAIG	**Nisos Aigina**	**2.06**	**41**	ePN	**Pn**	**21 15 36.0**	**+2.2**
NAIG	**Nisos Aigina**	**2.06**	**41**	ePn	**Pn**	**21 15 36.0**	**+2.2**
TRIZ	**Trizonia**	**2.16**	**6**	P	**Pn**	**21 15 38.3**	**+3.2**
TRIZ	**Trizonia**	**2.16**	**6**	P	**Pn**	**21 15 38.3**	**+3.2**
VLS	**Valsamata**	**2.18**	**335**	P	**Pn**	**21 15 36.5**	**+1.1**
VLS				S	**Sn**	**21 16 03.0**	**+0.6**
VLS	**Valsamata**	**2.18**	**335**	ePN	**Pn**	**21 15 36.4**	**+1.0**
VLS	**Valsamata**	**2.18**	**335**	ePB	**Pn**	**21 15 35.8**	**+0.4**
VLS	**Valsamata**	**2.18**	**335**	ePb	**Pn**	**21 15 35.8**	**+0.4**
VLS	**Valsamata**	**2.18**	**335**	ePn	**Pn**	**21 15 36.4**	**+1.0**
VLS				S	**Sn**	**21 16 03.0**	**+0.6**
VLY	**Voula,Athens**	**2.30**	**44**	ePN	**Pn**	**21 15 38.4**	**+1.4**
VLY	**Voula,Athens**	**2.30**	**44**	ePn	**Pn**	**21 15 38.4**	**+1.4**
ATH	**Athens Observa**	**2.34**	**41**	ePN	**Pn**	**21 15 39.5**	**+1.9**

ATH	Athens Observa	2.34	41	*e*Pn	Pn	21 15 39.5	+1.9
ATHU	Athens Univers	2.37	42	P	Pg	21 15 41.2	-3.4
ATHU				S	Sg	21 16 12.0	-3.3
ATHU	Athens Univers	2.37	42	P	Pg	21 15 41.2	-3.4
ATHU				S	Sg	21 16 12.0	-3.3
PTL	Penteli	2.48	42	*e*PB	Pn	21 15 40.0	+0.5
LKR	Lokris	2.62	21	P	Pb	21 15 43.4	-2.7
LKR				S	Sb	21 16 17.2	-1.1
LKR	Lokris	2.62	21	*e*PB	Pn	21 15 42.0	+0.6
LKR	Lokris	2.62	21	P	Pb	21 15 43.4	-2.7
LKR				S	Sb	21 16 17.2	-1.1
IDI	Anoyia	2.69	109	P	Pb	21 15 44.7	-2.7
	1.1nm,0.3s,baz=138,slow=23,SNR=3.8						
IDI				S	Sb	21 16 19.5	-0.9
	8.8nm,0.3s,baz=101,slow=21,SNR=4.4						
IDI				LR	LR	21 17 07.1	
	comp=Z,323nm,21.2s,baz=237,slow=45						
IDI	Anoyia	2.69	109	P	Pb	21 15 44.7	-2.7
IDI				S	Sb	21 16 19.5	-0.9
EVR	Evrytania	2.70	0	*e*PB	Pb	21 15 45.5	-1.9
SIVA	Sivas	2.74	115	P	Pb	21 15 47.4	-0.8
SIVA				S	Sb	21 16 24.4	+2.5
SIVA	Sivas	2.74	115	P	Pb	21 15 47.4	-0.8
SIVA				S	Sb	21 16 24.4	+2.5
AGG	Agios Georgios	2.84	9	P	Pb	21 15 47.3	-2.5
AGG				S	Sb	21 16 20.9	-3.7
AGG	Agios Georgios	2.84	9	P	Pb	21 15 47.3	-2.5
AGG				S	Sb	21 16 20.9	-3.7
LAST	Lasithi	3.19	108	P	Pb	21 15 52.3	-3.5
LAST	Lasithi	3.19	108	P	Pb	21 15 52.3	-3.5
XOR	Xorichti	3.34	19	P	Pn	21 15 54.2	+2.9
XOR	Xorichti	3.34	19	P	Pn	21 15 54.2	+2.9
THL	Klokotos Trika	3.35	3	*e*PN	Pn	21 15 53.1	+1.6
THL	Klokotos Trika	3.35	3	*e*Pn	Pn	21 15 53.1	+1.6
IGT	Igoumenitsa	3.51	341	P	Pn	21 15 54.2	+0.6
IGT	Igoumenitsa	3.51	341	P	Pn	21 15 54.2	+0.6
MEV	Metsovon	3.59	353	P	Pn	21 15 57.4	+2.6
MEV	Metsovon	3.59	353	P	Pn	21 15 57.4	+2.6
ZKR	Zakros	3.78	106	P	Pn	21 16 01.3	+4.0
ZKR	Zakros	3.78	106	P	Pn	21 16 01.3	+4.0
LIT	Litokhoron	3.92	8	P	Pn	21 15 59.9	+0.6
LIT	Litokhoron	3.92	8	P	Pn	21 15 59.9	+0.6
LTBQ	Tobruq	4.51	156	*i* P	Pn	21 16 08.4	+0.9
	20nm,0.5s,SNR=23						
LTBQ				*e*S	Sn	21 17 00.3	+0.3
	SNR=23						
FNA	Florina	4.57	356	P	Pn	21 16 08.8	+0.5
FNA	Florina	4.57	356	P	Pn	21 16 08.8	+0.5
GRG	Griva	4.76	6	P	Pn	21 16 10.6	-0.3
GRG	Griva	4.76	6	P	Pn	21 16 10.6	-0.3
TIP	Timpagrande	4.96	308	Pn	Pn	21 16 14.2	+0.5
TIP	Timpagrande	4.96	308	Pn	Pn	21 16 14.1	+0.5
SRS	Serrai	5.10	16	P	Pn	21 16 16.7	+1.2
SRS	Serrai	5.10	16	P	Pn	21 16 16.7	+1.2
VAY	Valandovo	5.14	7	*e*Pn	Pn	21 16 14.6	-1.4
VAY	Valandovo	5.14	7	*e*Pn	Pn	21 16 14.6	-1.4
KRUS	Krusevo	5.17	356	*e*Pn	Pn	21 16 15.3	-1.1
KRUS				*e*Sg	Sn	21 17 14.5	-1.5
KRUS	Krusevo	5.17	356	*e*Pn	Pn	21 16 15.3	-1.1
LJBD	Adjabya	5.45	194	*i* P	Pn	21 16 20.1	-0.2
	SNR=23						
LJBD	Adjabya	5.45	194	*e*S	Sn	21 17 21.8	-1.3
	44nm,0.4s,SNR=23						
TIRR	Tirgusor	9.66	30	*e*Pn	Pn	21 17 19.9	+1.7
	1.3nm,0.5s						
TIRR	Tirgusor	9.66	30	*e*Pn	Pn	21 17 19.9	+1.8
	1.2nm,0.5s						
MLR	Muntele Rosu	9.79	17	P	Pn	21 17 20.3	+0.5
	0.2nm,0.3s,baz=125,slow=19,SNR=3.5						
MLR	Muntele Rosu	9.79	17	P	Pn	21 17 20.3	+0.5
BRTR	Keskin Array B	10.00	66	P	Pn	21 17 25.8	+3.1
	0.1nm,0.3s,baz=232,slow=14,SNR=3.8						
BRTR	Keskin Array B	10.00	66	P	Pn	21 17 25.8	+3.1
MMAI	Mount Meron Ar	11.67	102	P	Pn	21 17 48.9	+3.3
	0.3nm,0.3s,baz=305,slow=10,SNR=3.0						
PSZ	Piszkesteto	11.78	354	*e*P	Pn	21 17 42.9	-4.2
	7.6nm,1.3s						
MORC	Moravsky Berou	13.90	349	*e*P	Pn	21 18 17.3	+1.2
MORC	Moravsky Berou	13.90	349	*e*P	Pn	21 18 17.3	+1.3
BNI	Bardonecchia	14.45	312	Pn	Pn	21 18 22.5	-1.0
BNI	Bardonecchia	14.45	312	Pn	Pn	21 18 22.5	-1.1
AKASG	Malin Array Be	15.44	18	P	Pn	21 18 35.4	-1.5
	0.2nm,0.3s,baz=215,slow=15,SNR=2.5						
WLF	Walferdange	17.60	325	Pn	Pn	21 19 03.9	-0.4
WLF	Walferdange	17.60	325	Pn	Pn	21 19 03.9	-0.4
ESDC	Sonseca Array	20.57	287	P	P	21 19 39.1	+1.2
	0.2nm,0.2s,baz=83,slow=10,SNR=3.7						
ESDC				LR	LR	21 27 58.7	
	comp=Z,112nm,18.4s,MS3.3,baz=310,slow=38						
ESDC	Sonseca Array	20.57	287	P	P	21 19 39.1	+1.2
HFS	Hagfors	24.50	350	P	P	21 20 16.2	-2.0
	2.0nm,0.6s,mb3.7,baz=161,slow=9.4,SNR=8.3						
EKA	Eskdalemuir Ar	25.61	326	P	P	21 20 27.4	-1.0
	1.5nm,0.8s,mb3.6,baz=131,slow=8.6,SNR=3.8						
EKA	Eskdalemuir Ar	25.61	326	P	P	21 20 27.4	-1.0
NOA	NORSAR Array B	25.74	348	P	P	21 20 29.1	-0.3
	1.7nm,0.8s,mb3.6,baz=158,slow=10.0,SNR=3.3						
NOA				LR	LR	21 29 41.4	
	comp=Z,138nm,20.4s,MS3.5,baz=350,slow=34						
NOA	NORSAR Array B	25.74	348	P	P	21 20 29.1	-0.4
TORD	Torodi Ar. Bea	29.21	223	P	P	21 21 01.2	+0.2
	0.3nm,0.7s,mb3.1,baz=28,slow=5.9,SNR=3.4						
ARCES	ARCESS Array B	33.44	2	P	P	21 21 35.0	-2.8
	1.8nm,0.7s,mb4.1,baz=188,slow=7.4,SNR=6.7						
BRVK	Borovoye	37.59	48	*e*P	P	21 22 15.1	+1.6
	2.5nm,0.7s,mb4.0						
BRVK	Borovoye	37.59	48	*e*P	P	21 22 15.1	+1.6
	2.5nm,0.7s,mb4.0						
BVAR	Borovoye Array	37.65	48	P	P	21 22 11.7	-2.4
	0.8nm,0.7s,mb3.6,baz=232,slow=35,SNR=3.6						
BVAR	Borovoye Array	37.65	48	P	P	21 22 11.7	-2.4
KURK	Kurchatov	42.67	52	P	P	21 22 53.7	-2.0
	0.3nm,0.4s,mb3.4,baz=272,slow=8.3,SNR=3.3						
KURK	Kurchatov	42.67	52	*e*P	P	21 22 59.2	+3.5
	1.5nm,0.8s,mb3.8						
KURK	Kurchatov	42.67	52	*e*P	P	21 22 59.2	+3.5
	1.5nm,0.8s,mb3.8						
ZALV	Zalesovo Beam	46.28	47	P	P	21 23 22.1	-2.4
	0.6nm,0.3s,mb4.1,baz=280,slow=8.9,SNR=3.6						
SCHQ	Schefferville	60.59	318	P	P	21 25 08.9	-0.7
	3.6nm,1.0s,mb4.5,baz=18,slow=6.4,SNR=3.1						
SCHQ	Schefferville	60.59	318	P	P	21 25 08.9	-0.7
YKA	Yellowknife Ar	75.58	341	P	P	21 26 43.1	-0.5
	0.2nm,0.6s,mb3.3,baz=34,slow=5.5,SNR=4.2						
YKA	Yellowknife Ar	75.58	341	P	P	21 26 43.1	-0.5

BJI 20 21:14:54.5,2°.68N×95°.81E,h12^{km},mB5.0/4,mb4.8/13
IDC 20 21:14:54.9±0.9,2°.66N×95°.89E,h0^{km},mb4.2/15,
mb1 4.2/17,mb1mx4.1/28,mbtmp4.2/17,ML4.0/2,MS2.9/1,
Ms1 2.9/1,ms1mx2.3/40,Error ellipse: s-maj=32.6km
s-min=14.2km az=48.0
ISCJB 20 21:14:59.5±1.0,2°.71N±0°.05×95°.96E±0°.07,h47^{km}±9^{km},
mb4.5/37,Error ellipse: s-maj=13.7km s-min=5.8km
az=149.5
DJA 20 21:14:59,2°.63N×95°.94E,h20^{km},MLv4.2/5
NEIC 20 21:15:00.4±1.4,2°.68N×95°.95E,h39^{km}±12^{km},mb4.8/20,
Error ellipse: s-maj=10.7km s-min=4.3km az=53.0
ISC 20 21:15:01.0±0.9,2°.70N±0°.05×95°.96E±0°.07,h41^{km}±9^{km},
h17^{km}±7.9^{km}:pP-P,n67,σ0^{s}.79/68,mb4.5/37,Off west
coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSI	Gunungsitoli	2.13	131	P	Pn	21 15 34.0	-0.1
GSI				S	Sn	21 15 59.9	+0.6
BSI	Banda Aceh	2.85	347	P	Pn	21 15 42.7	-1.3
BSI				S	Sn	21 16 23.1	+5.9
PSI	Prapat	2.97	88	Pn	Pn	21 15 45.7	+0.1
	4.2nm,0.3s,baz=286,slow=7.2,SNR=21						
PSI				LR	LR	21 17 08.5	
	comp=Z,205nm,21.1s,baz=250,slow=44						
PSI	Prapat	2.97	88	Pn	Pn	21 15 45.7	+0.1
PSI				LR	LR	21 17 08.5	
IPM	Ipoh	5.36	71	P	Pn	21 16 18.5	0.0
	55nm,0.8s,0.2nm						
PPI	Padang Panjang	5.43	125	P	Pn	21 16 19.3	-0.2
	29nm,0.7s,0.1nm						
PDSI	Padang	5.76	128	P	Pn	21 16 25.8	+1.8
	37nm,0.5s,0.2nm						
SDSI	Sungai Dareh	6.55	123	P	Pn	21 16 35.8	+0.9
KSI	Kapahiang	9.15	134	P	Pn	21 17 10.8	+0.2
	74nm,1.6s						
MDSI	Maura Dua	10.88	131	P	Pn	21 17 31.7	-2.6
CMAR	Chiang Mai Arr	15.93	10	Pn	Pn	21 18 40.7	-1.6
	0.5nm,0.3s,baz=200,slow=12,SNR=35						
CMAR	Chiang Mai Arr	15.93	10	Pn	Pn	21 18 40.7	-1.6
CHTO	Chiang Mai	16.28	10	*e*P	Pn	21 18 45.3	-1.4
	4.5nm,0.9s						
KAPI	Kappang	24.98	108	P	P	21 20 19.6	-1.4
	19nm,1.1s,mb4.5,baz=242,slow=19,SNR=5.2						
ODAN	Odare	25.39	342	*e*P	P	21 20 25.7	+1.2
	24nm,0.7s,mb4.9						
RAMN	Ramite	25.73	340	*e*P	P	21 20 28.5	+0.9
	42nm,0.5s						
TAPN	Taplejung	25.75	343	*e*P	P	21 20 29.0	+1.2
	19nm,0.7s,mb4.8						
JIRN	Jiri	26.52	340	*e*P	P	21 20 35.7	+1.0
	44nm,0.7s						
PKI	Pulchoki	26.71	339	*e*P	P	21 20 37.2	+0.7
	12nm,0.6s,mb4.6						
GUN	Gumba	26.85	340	*e*P	P	21 20 38.6	+0.8
	34nm,0.7s,mb5.0						
DMN	Daman	26.85	338	*e*P	P	21 20 38.1	+0.3
	14nm,0.7s,mb4.6						
KKN	Kakani	26.95	339	*e*P	P	21 20 39.1	+0.4
	32nm,0.8s,mb4.9						
LSA	Lhasa	27.24	351	P	P	21 20 42.6	+1.4
LSA	Lhasa	27.24	351	*e*P	P	21 20 41.8	+0.7
	10nm,0.9s,mb4.4						
GKN	Gorkha	27.39	338	*e*P	P	21 20 43.2	+0.7
	42nm,0.9s,mb5.0						
KOLN	Koldanda	27.58	336	*e*P	P	21 20 44.8	+0.5
	23nm,0.8s,mb4.9						
DANN	Dangsing	28.03	337	*e*P	P	21 20 49.3	+1.0
	19nm,0.5s,mb5.0						
XAN	Xi’an	33.45	20	P	P	21 21 34.8	-1.2
XAN				pP	pP	21 21 43.9	-3.5
XAN				sP	sP	21 21 48.3	-4.0
XAN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
LZH	Lanzhou	34.01	11	*e*P	P	21 21 41.1	+0.2
LZH				pP	pP	21 21 44.8	-7.5
LZH				sP	sP	21 21 46.6	-11
LZH				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,70nm,4.3s						
FITZ	Fitzroy Crossi	35.81	126	*e*P	P	21 21 56.5	-0.2
	comp=Z,4.2nm,0.8s,mb4.4						
GTA	Gaotai	36.71	5	*e*P	P	21 22 04.0	0.0
GTA				pP	pP	21 22 09.5	-6.0
GTA				sP	sP	21 22 13.0	-7.4
GTA				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
BJT	Baijiatuau	41.42	24	*e*P	P	21 22 44.3	+0.9
	comp=Z,15nm,0.6s,mb4.8						
BJI	Beijing	41.44	24	P	P	21 22 44.8	+1.2
BJI				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.1						
WRA	Warramunga Arr	43.88	123	P	P	21 23 03.7	-0.1
	comp=Z,0.9nm,0.5s,mb3.8,baz=301,slow=9.1,SNR=9.9						
WRAB	Tennant Creek	43.89	123	*e*P	P	21 23 04.6	+0.8
	comp=Z,26nm,1.7s,mb4.7						
WB2	Warramunga Arr	43.89	123	*e*P	P	21 23 04.1	+0.3
ASAR	Alice Springs	45.29	127	P	P	21 23 15.2	+0.3
	comp=Z,0.5nm,0.5s,mb3.6,baz=299,slow=7.8,SNR=11						
KSRS	Korea Array	45.35	36	P	P	21 23 14.5	-0.7
	comp=Z,1.1nm,0.6s,mb3.9,baz=235,slow=10,SNR=5.4						
MKAR	Makanchi Array	45.50	347	P	P	21 23 16.5	+0.3
	comp=Z,4.0nm,0.4s,mb4.7,baz=160,slow=8.7,SNR=173						
SONM	Songino Array	45.86	10	P	P	21 23 19.4	+0.4
	comp=Z,3.9nm,0.6s,mb4.5,baz=191,slow=9.2,SNR=52						
SONM				PcP	PcP	21 24 56.8	+1.1
	comp=Z,0.9nm,0.6s,baz=187,slow=3.1,SNR=6.6						
ULN	Ulaanbaatar	46.00	10	*e*P	P	21 23 20.5	+0.3
	comp=Z,2.1nm,0.5s,mb4.3						
TLY	Talaya	49.23	6	*e*P	P	21 23 45.4	+0.3
	comp=Z,2.5nm,0.5s,mb4.5						
KURK	Kurchatov	50.04	346	P	P	21 23 51.5	+0.2
	comp=Z,1.4nm,0.4s,mb4.4,baz=125,slow=18,SNR=22						
KURK	Kurchatov	50.04	346	*e*P	P	21 23 51.4	+0.1
MAJO	Matsushiro	51.45	44	Pn	P	21 24 01.0	-1.2
ZAA0	Zalesovo Array	51.90	352	*e*P	P	21 24 05.0	-0.2
ZALV	Zalesovo Beam	51.90	352	P	P	21 24 05.3	+0.1
	comp=Z,5.1nm,0.5s,mb4.7,baz=182,slow=7.8,SNR=28						
CTAO	Charters Tower	54.28	117	P	P	21 24 23.2	-0.2
BVAR	Borovoye Array	54.44	341	P	P	21 24 23.8	-0.1
	comp=Z,1.5nm,0.6s,mb4.1,baz=138,slow=8.0,SNR=8.7						
BRVK	Borovoye	54.50	341	*e*P	P	21 24 23.3	-1.1
	comp=Z,1.7nm,0.5s,mb4.2						
STKA	Stephens Creek	55.28	132	P	P	21 24 30.6	+0.2
	comp=Z,2.5nm,0.9s,mb4.2,baz=315,slow=10.0,SNR=3.2						
AKTK	Aktyubinsk	57.33	332	P	P	21 24 44.1	-0.6
AKTO	Aktyubinsk	57.33	332	P	P	21 24 44.1	-0.6
	comp=Z,1.8nm,0.9s,mb4.1,baz=92,slow=7.4,SNR=4.6						
GNI	Garni	59.36	316	*e*P	P	21 24 58.5	-0.5
ARU	Arti	61.33	337	*e*P	P	21 25 11.2	-1.0
	comp=Z,6.2nm,1.0s,mb4.7						
KIV	Kislovodsk	62.37	319	P	P	21 25 18.5	-0.9
HNR	Honiara	64.88	102	*e*P	P	21 25 36.0	-0.6
	comp=Z,57nm,0.9s,mb5.6						
LSZ	Lusaka	69.36	253	P	P	21 26 04.2	-0.8
OBN	Obninsk	70.70	328	P	P	21 26 12.3	-0.1
BOSA	Boshof	74.46	239	*e*P	P	21 26 34.5	-0.9
MCQ	Macquarie Isla	76.91	148	P	P	21 26 48.0	-0.8
SUR	Sutherland	78.94	236	*e*P	P	21 27 00.7	+0.1
ARCES	ARCESS Array B	80.71	340	P	P	21 27 09.8	+0.4
	comp=Z,1.5nm,0.4s,mb4.3,baz=94,slow=7.2,SNR=10						
GERES	GERESS Array B	82.87	319	P	P	21 27 21.4	+0.1
	comp=Z,0.7nm,0.8s,mb3.8,baz=20,slow=3.2,SNR=3.6						
HFS	Hagfors	83.81	330	P	P	21 27 25.6	-0.2
	comp=Z,1.1nm,0.6s,mb4.2,baz=157,slow=4.2,SNR=6.6						
TORD	Torodi Ar. Bea	93.54	283	P	P	21 28 13.4	+0.1
	comp=Z,0.6nm,1.1s,mb3.9,baz=108,slow=5.2,SNR=2.9						
TXAR	Lajitas Array	143.01	29	PKP	PKPdf	21 34 29.5	-1.5
	comp=Z,0.1nm,0.4s,baz=111,slow=0.1,SNR=3.8						

CSEM 20 21:25:06.4,35°.95N×21°.56E,h7^{km},ML3.1,After ATH
NEIC 20 21:25:06.4,35°.95N×21°.56E,h7^{km},ML3.1(ATH),After
ATH.
ATH 20 21:25:06.4,35°.95N×21°.56E,h7^{km},MD3.5/7,ML3.1,
Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	Kithira	1.24	74	*e*PB	Pb	21 25 32.2	+2.1
KYTH	Kithira	1.24	74	*e*Pb	Pb	21 25 32.2	+2.1
ITM	Ithomi	1.26	13	*e*PN	Pn	21 25 29.1	-1.4
ITM				*e*SG	Sg	21 25 43.3	-3.7
ITM	Ithomi	1.26	13	*e*Pn	Pn	21 25 29.1	-1.4
ITM				*e*Sg	Sg	21 25 43.3	-3.7
VLI	Veliai	1.35	55	*e*PB	Pb	21 25 32.0	0.0
VLI	Veliai	1.35	55	*e*Pb	Pb	21 25 32.0	0.0
RLS	Riolos of Patr	2.10	358	*e*PG	Pg	21 25 45.2	-1.6
RLS	Riolos of Patr	2.10	358	*e*Pg	Pg	21 25 45.2	-1.6
VAM	Vamos	2.22	103	*e*PN	Pn	21 25 37.0	-6.6
VAM	Vamos	2.22	103	*e*Pn	Pn	21 25 37.0	-6.6
VLS	Valsamata	2.35	341	*e*PN	Pn	21 25 48.6	+3.1
VLS	Valsamata	2.35	341	*e*Pn	Pn	21 25 48.6	+3.1
NAIG	Nisos Aigina	2.38	40	*e*PG	Pg	21 25 49.8	-2.2
NAIG	Nisos Aigina	2.38	40	*e*Pg	Pg	21 25 49.8	-2.2
VLY	Voula,Athens	2.61	43	*e*PN	Pn	21 25 52.7	+3.7
VLY	Voula,Athens	2.61	43	*e*Pn	Pn	21 25 52.7	+3.7
ATH	Athens Observa	2.66	40	*e*PN	Pn	21 25 52.5	+2.9
ATH	Athens Observa	2.66	40	*e*Pn	Pn	21 25 52.5	+2.9
PTL	Penteli	2.79	41	*e*PN	Pn	21 25 55.2	+3.7
PTL	Penteli	2.79	41	*e*Pn	Pn	21 25 55.2	+3.7
LKR	Lokris	2.93	23	*e*PN	Pn	21 25 57.6	+4.2
LKR	Lokris	2.93	23	*e*Pn	Pn	21 25 57.6	+4.2

ISCJB 20 21:29:05.7±0.5,5°.30S±0°.05×133°.51E±0°.09,h33^{km},
mb3.7/6,Error ellipse: s-maj=12.5km s-min=6.8km
az=177.2
NEIC 20 21:29:07.8±0.6,5°.28S×133°.53E,h35^{km},mb4.0/3,Error
ellipse: s-maj=17.7km s-min=8.8km az=75.0
IDC 20 21:29:08.2±1.5,5°.32S×133°.45E,h30^{km}±5^{km},mb3.4/4,
mb1 3.8/7,mb1mx3.6/17,mbtmp3.6/7,ML3.9/3,Error
ellipse: s-maj=69.8km s-min=22.8km az=75.0
ISC 20 21:29:07.8±0.5,5°.33S±0°.05×133°.52E±0°.09,h35^{km},
(h34^{km}±.8^{km}:pP-P),n27,σ0^{s}.94/26,mb3.7/6,Aru Islands
region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	7.42	188	*e*P	Pn	21 30 57.1	+3.6
	5.2nm,0.2s						
KAKA	Kakadu	7.42	188	Pn	Pn	21 30 58.5	+5.0
	34nm,0.6s						
KNA	Kununurra	11.36	204	*e*P	Pn	21 31 51.2	+3.6
	11nm,0.2s						
WRAB	Tennant Creek	14.54	177	*e*Pn	Pn	21 32 31.6	+0.5
WB2	Warramunga Arr	14.55	177	*e*Pn	Pn	21 32 30.6	-0.6
WRA	Warramunga Arr	14.55	177	Pn	Pn	21 32 30.2	-1.1
	0.3nm,0.3s,baz=356,slow=12,SNR=23						
FITZ	Fitzroy Crossi	14.85	211	*e*P	Pn	21 32 38.1	+2.8
	6.1nm,0.2s						
FITZ	Fitzroy Crossi	14.85	211	Pn	Pn	21 32 36.0	+0.8
	2.0nm,0.3s,baz=33,slow=11,SNR=43						
FITZ	Fitzroy Crossi	14.85	211	*e*Pn	Pn	21 32 35.6	+0.3
FITZ				Sn	Sn	21 35 18.3	-0.4
ASAR	Alice Springs	18.24	179	P	Pn	21 33 18.6	+0.5
	0.2nm,0.3s,baz=5.2,slow=10,SNR=24						
CTAO	Charters Tower	19.20	141	*e*Pn	Pn	21 33 29.4	-0.6
HNR	Honiara	26.52	100	P	P	21 34 43.5	+1.2
YHNB	Yeheng	32.07	339	*e*P	P	21 35 30.2	-1.3
KULM	Kulim	34.47	287	*e*P	P	21 35 52.3	-0.4
	3.4nm,0.7s,mb4.4						
COCO	West Island	36.86	257	*e*P	P	21 36 11.9	-1.3
CMAR	Chiang Mai Arr	41.48	306	P	P	21 36 52.5	+0.9
	0.5nm,0.7s,mb3.2,baz=132,slow=6.5,SNR=5.7						
LSA	Lhasa	53.51	313	P	P	21 38 25.3	+0.2
HIA	Hailar	55.68	349	P	P	21 38 40.8	+0.4
MKAR	Makanchi Array	68.81	325	P	P	21 40 09.8	+1.3
	0.7nm,0.6s,mb3.8,baz=116,slow=8.2,SNR=13						
MKAR				pP	pP	21 40 19.2	-0.1
	0.7nm,0.6s,baz=112,slow=8.4,SNR=8.5						
AAK	Ala-Archa	71.58	318	P	P	21 40 26.4	+0.9
KBL	Kabul	72.41	309	*e*P	P	21 40 30.7	0.0
	0.5nm,0.5s,mb3.7						
KURK	Kurchatov	72.97	327	P	P	21 40 33.6	0.0
	0.3nm,0.6s,mb3.4,baz=120,slow=4.6,SNR=3.5						
KURK				pP	pP	21 40 43.7	-0.9
	0.4nm,0.6s,baz=123,slow=4.6,SNR=3.8						
KURK	Kurchatov	72.97	327	*e*P	P	21 40 32.8	-0.9
	0.7nm,0.4s,mb3.9						
BVAR	Borovoye Array	78.56	327	P	P	21 41 05.5	-0.1
	0.3nm,0.5s,mb3.5,baz=90,slow=4.3,SNR=2.8						
BVAR				pP	pP	21 41 15.8	-0.7
	0.4nm,0.6s,baz=133,slow=8.5,SNR=2.8						
PMR	Palmer	88.67	28	P	P	21 41 55.6	-1.6
TORD	Torodi Ar. Bea	131.88	283	PKP	PKPdf	21 48 20.0	+1.5
	0.4nm,0.9s,baz=79,slow=3.1,SNR=2.9						
CPUP	Villa Florida	146.82	162	PKPbc	PKPbc	21 48 48.4	+1.4
	1.0nm,0.5s,baz=124,slow=3.6,SNR=5.3						

ISCJB 20 21:29:37.7±0.5,5°.20S±0°.06×133°.7E±0°.1,h33^{km},mb4.1/9,
Error ellipse: s-maj=17.6km s-min=8.5km az=165.7
NEIC 20 21:29:39.9±0.3,5°.20S×133°.63E,h35^{km},mb4.3/5,Error
ellipse: s-maj=13.0km s-min=6.2km az=76.0
IDC 20 21:29:39.4±1.3,5°.20S×133°.61E,h28^{km}±6^{km},mb3.7/5,
mb1 4.0/8,mb1mx3.7/17,mbtmp3.8/8,ML4.0/3,Error
ellipse: s-maj=67.3km s-min=19.2km az=71.0
ISC 20 21:29:39.9±0.5,5°.22S±0°.06×133°.7E±0°.1,h35^{km},
(h30^{km}±.9^{km}:pP-P),n19,σ0^{s}.66/17,mb4.1/9,Aru Islands
region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	14.64	177	Pn	Pn	21 33 04.8	+0.1
WRA	Warramunga Arr	14.65	178	Pn	Pn	21 33 03.6	-1.1
	0.4nm,0.3s,baz=359,slow=13,SNR=5.2						
FITZ	Fitzroy Crossi	15.02	211	Pn	Pn	21 33 09.4	-0.3
	1.4nm,0.3s,baz=40,slow=11,SNR=7.0						
FITZ	Fitzroy Crossi	15.02	211	*e*Pn	Pn	21 33 09.6	-0.1
	3.0nm,0.3s						
ASAR	Alice Springs	18.35	179	P	Pn	21 33 53.2	+1.6
	0.4nm,0.3s,baz=4.1,slow=12,SNR=4.9						
CTAO	Charters Tower	19.20	141	P	Pn	21 34 01.5	-0.4
HNR	Honiara	26.39	101	*e*P	P	21 35 13.5	+0.2
	36nm,0.5s,mb5.2						
STKA	Stephens Creek	27.54	165	P	P	21 35 23.4	-0.1
	3.2nm,0.8s,mb4.0,baz=0.0,slow=8.1,SNR=4.8						
CMAR	Chiang Mai Arr	41.54	305	P	P	21 37 24.1	-0.2
	1.0nm,0.9s,mb3.5,baz=133,slow=6.6,SNR=6.6						
MAJO	Matsushiro	41.76	5	*e*P	P	21 37 25.7	0.0
MDJ	Mudanjiang	49.74	356	P	P	21 38 28.4	-0.2
LSA	Lhasa	53.55	313	*e*P	P	21 38 57.2	-0.2
	7.1nm,1.7s,mb4.3						
MKAR	Makanchi Array	68.81	325	P	P	21 40 41.1	+0.5
	1.0nm,0.6s,mb3.9,baz=121,slow=7.7,SNR=10						
MKAR				pP	pP	21 40 50.3	-1.1
	0.7nm,0.5s,baz=118,slow=8.3,SNR=4.0						
UCH	Uchtor	71.41	318	*e*P	P	21 40 57.7	+1.1
	5.1nm,1.5s,mb4.2						
EKS2	Erkin-Say	72.09	318	*e*P	P	21 40 59.5	-1.2
	3.0nm,1.2s,mb4.1						
KURK	Kurchatov	72.96	327	P	P	21 41 05.7	0.0
	0.8nm,0.8s,mb3.7,baz=124,slow=4.9,SNR=3.9						
KURK				pP	pP	21 41 14.5	-2.1
	0.3nm,0.4s,baz=124,slow=4.6,SNR=2.4						
BVAR	Borovoye Array	78.55	327	P	P	21 41 37.7	+0.1
	0.7nm,0.8s,mb3.7,baz=197,slow=1.5,SNR=3.6						
BVAR				pP	pP	21 41 47.0	-1.6
	0.8nm,0.8s,baz=93,slow=8.7,SNR=3.4						
TORD	Torodi Ar. Bea	132.01	283	PKP	PKPdf	21 48 51.3	+0.6
	0.3nm,0.7s,baz=96,slow=0.4,SNR=2.4						
CPUP	Villa Florida	146.88	162	PKPbc	PKPbc	21 49 19.9	+0.6
	0.6nm,0.4s,baz=207,slow=5.4,SNR=4.1						

CSEM 20 21:50:56.0,36°.22N×21°.67E,h3^{km},ML2.8,After ATH
NEIC 20 21:50:56.0,36°.22N×21°.67E,h3^{km},ML2.8(ATH),After
ATH.
ATH 20 21:50:56.0,36°.22N×21°.67E,h3^{km},MD3.6/7,ML2.8,
Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.98	12	*e*PG	Pg	21 51 14.6	-0.2
ITM				*e*SG	Sg	21 51 27.9	+0.4
ITM	Ithomi	0.98	12	*e*Pg	Pg	21 51 14.6	-0.2
ITM				*e*Sg	Sg	21 51 27.9	+0.4
KYTH	Kithira	1.11	86	*e*PB	Pb	21 51 16.9	-0.9
KYTH	Kithira	1.11	86	*e*Pb	Pb	21 51 16.9	-0.9
VLI	Veliai	1.14	64	*e*PB	Pb	21 51 17.0	-1.3
VLI	Veliai	1.14	64	*e*Pb	Pb	21 51 17.0	-1.3
RLS	Riolos of Patr	1.84	355	*e*PB	Pb	21 51 30.7	+0.4
RLS	Riolos of Patr	1.84	355	*e*Pb	Pb	21 51 30.7	+0.4
NAIG	Nisos Aigina	2.12	43	*e*PN	Pn	21 51 34.1	+1.8
NAIG	Nisos Aigina	2.12	43	*e*Pn	Pn	21 51 34.1	+1.8
VLS	Valsamata	2.14	336	*e*PN	Pn	21 51 34.5	+2.0
VLS	Valsamata	2.14	336	*e*Pn	Pn	21 51 34.5	+2.0
VLY	Voula,Athens	2.35	46	*e*PN	Pn	21 51 38.5	+3.0
VLY	Voula,Athens	2.35	46	*e*Pn	Pn	21 51 38.5	+3.0
ATH	Athens Observa	2.40	42	*e*PB	Pb	21 51 37.5	-2.2
ATH	Athens Observa	2.40	42	*e*Pb	Pb	21 51 37.5	-2.2
PTL	Penteli	2.53	43	*e*PB	Pb	21 51 40.1	-2.0
PTL	Penteli	2.53	43	*e*Pb	Pb	21 51 40.1	-2.0
LKR	Lokris	2.65	23	*e*PN	Pn	21 51 43.1	+3.5
LKR	Lokris	2.65	23	*e*Pn	Pn	21 51 43.1	+3.5
THL	Klokotos Trika	3.35	5	*e*PN	Pn	21 51 50.6	+1.4
THL	Klokotos Trika	3.35	5	*e*Pn	Pn	21 51 50.6	+1.4

CSEM 20 22:15:57.8,36°.39N×21°.86E,h3^{km},ML3.0,After ATH
NEIC 20 22:15:57.8,36°.39N×21°.86E,h3^{km},ML3.0(ATH),After
ATH.
ATH 20 22:15:57.8,36°.39N×21°.86E,h3^{km},MD3.6/8,ML3.0,
Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.79	4	*e*PG	Pg	22 16 12.9	-0.1
ITM	Ithomi	0.79	4	*e*Pg	Pg	22 16 12.9	-0.1
VLI	Veliai	0.93	69	*e*PG	Pg	22 16 16.0	+0.4
VLI	Veliai	0.93	69	*e*Pg	Pg	22 16 16.0	+0.4
KYTH	Kithira	0.96	96	*e*PG	Pg	22 16 15.5	-0.6
KYTH	Kithira	0.96	96	*e*Pg	Pg	22 16 15.5	-0.6
RLS	Riolos of Patr	1.69	349	*e*PB	Pn	22 16 29.8	+1.5
RLS	Riolos of Patr	1.69	349	*e*Pb	Pn	22 16 29.8	+1.5
NAIG	Nisos Aigina	1.89	43	*e*PB	Pn	22 16 33.2	+2.3
NAIG	Nisos Aigina	1.89	43	*e*Pb	Pn	22 16 33.2	+2.3
VLS	Valsamata	2.05	331	*e*PN	Pn	22 16 35.7	+2.5
VLS	Valsamata	2.05	331	*e*Pn	Pn	22 16 35.7	+2.5

VLY	**Voula,Athens**	**2.13**	**46**	*e*PN	Pn	22 16 36.2	+2.0
VLY	**Voula,Athens**	**2.13**	**46**	*e*Pn	Pn	22 16 36.2	+2.0
VAM	**Vamos**	**2.14**	**117**	*e*PN	Pn	22 16 37.0	+2.6
VAM	**Vamos**	**2.14**	**117**	*e*Pn	Pn	22 16 37.0	+2.6
ATH	**Athens Observa**	**2.17**	**43**	*e*PN	Pn	22 16 37.4	+2.6
ATH	**Athens Observa**	**2.17**	**43**	*e*Pn	Pn	22 16 37.4	+2.6
PTL	**Penteli**	**2.30**	**43**	*e*PN	Pn	22 16 38.4	+1.8
PTL	**Penteli**	**2.30**	**43**	*e*Pn	Pn	22 16 38.4	+1.8
LKR	**Lokris**	**2.43**	**22**	*e*PB	Pn	22 16 40.3	+1.9
LKR	**Lokris**	**2.43**	**22**	*e*Pb	Pn	22 16 40.3	+1.9
THL	**Klokotos Trika**	**3.17**	**2**	*e*PN	Pn	22 16 51.1	+2.5
THL	**Klokotos Trika**	**3.17**	**2**	*e*Pn	Pn	22 16 51.1	+2.5
CUC	**Castrocucco** 9.3nm,0.6s	**5.97**	**309**	*e*Pn	Pn	22 17 27.6	+0.6

NEIC 20 22:21:43.7±2.9, 23°.91N×122°.03E, h35km, Error ellipse: s-maj=40.6km s-min=9.9km az=98.0

ISCJB 20 22:21:45.6±0.3, 23°.95N±0°.02×121°.87E±0°.02, h47km±4km, Error ellipse: s-maj=3.4km s-min=2.3km az=42.4

TAP 20 22:21:45.6, 23°.98N×121°.78E, h51km, ML3.9, C

JMA 20 22:21:45.4±0.4, 23°.81N×121°.92E, h32km, M2.8

ISC 20 22:21:46.1±0.3, 23°.95N±0°.02×121°.86E±0°.02, h44km±5km, n68, σ0ˢ.86/120, 13C-7D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HWA	**Hwalien** baz=266	**0.24**	**276**	P	**Pn**	**22 21 54.1**	**0.0**
HWA	baz=266			S	**Sn**	**22 22 01.0**	**+1.4**
TWD	**Chiawan** baz=301	**0.27**	**297**	⇑*i*P	**Pn**	**22 21 54.1**	**-0.2**
TWD	baz=301			S	**Sn**	**22 22 00.3**	**+0.1**
NACB	**Ninganchiao**	**0.33**	**312**	*e*P	**Pn**	**22 21 54.3**	**-0.6**
NACB				*e*S	**Sn**	**22 22 01.7**	**+0.5**
ESF	**Shoufeng Towns** baz=238	**0.34**	**256**	*e*P	**Pn**	**22 21 54.7**	**-0.3**
ESF	baz=238			*e*S	**Sn**	**22 22 01.7**	**+0.4**
TEGC	**Jichi Village** baz=214	**0.38**	**231**	*e*P	**Pn**	**22 21 55.4**	**-0.1**
ESL	**Shilin** baz=252	**0.42**	**251**	⇓*i*P	**Pn**	**22 21 55.4**	**-0.6**
ESL	baz=252			*e*S	**Sn**	**22 22 02.2**	**-0.7**
ENA	**Nanau** baz=353	**0.48**	**347**	⇑*i*P	**Pn**	**22 21 56.4**	**-0.4**
ENA	baz=353			S	**Sn**	**22 22 04.3**	**0.0**
WHF	**Hehuan Shan** baz=283	**0.58**	**289**	⇑*i*P	**Pn**	**22 21 57.5**	**-0.5**
WHF	baz=283			S	**Sn**	**22 22 05.9**	**-0.6**
TWC	**Suao** baz=7.0	**0.65**	**359**	⇑*i*P	**Pn**	**22 21 59.0**	**0.0**
TWC	baz=7.0			S	**Sn**	**22 22 08.5**	**+0.3**
NNS	**Nan Shan** baz=321	**0.66**	**317**	⇑*i*P	**Pn**	**22 21 58.5**	**-0.6**
NNS	baz=321			*e*S	**Sn**	**22 22 07.8**	**-0.6**
EHY	**Hungye** baz=228	**0.67**	**228**	⇓*i*P	**Pn**	**22 21 58.0**	**-1.1**
EHY	baz=228			*e*S	**Sn**	**22 22 07.1**	**-1.4**
TWT	**Tachien** baz=295	**0.69**	**296**	⇑*i*P	**Pn**	**22 21 59.4**	**-0.1**
TWT	baz=295			S	**Sn**	**22 22 09.0**	**-0.2**
ENTT	**Nioudou** baz=338	**0.73**	**338**	⇑*i*P	**Pn**	**22 21 59.7**	**-0.4**
ENTT	baz=338			*e*S	**Sn**	**22 22 09.7**	**-0.5**
YULB	**Yu-li**	**0.76**	**223**	*e*P	**Pn**	**22 21 58.8**	**-1.6**
YULB				*e*S	**Sn**	**22 22 11.1**	**+0.2**
TWE	**Neicheng** baz=345	**0.78**	**347**	⇑*i*P	**Pn**	**22 22 00.6**	**-0.2**
TWE	baz=345			S	**Sn**	**22 22 11.4**	**0.0**
TWF1	**Yuli** baz=225	**0.79**	**221**	⇓P	**Pn**	**22 21 59.7**	**-1.2**
ILA	**Ilan**	**0.81**	**353**	P	**Pn**	**22 22 01.3**	**+0.2**
ILA				*e*S	**Sn**	**22 22 13.7**	**+1.6**
YHNB	**Yeheng**	**0.84**	**328**	*e*P	**Pn**	**22 22 00.5**	**-1.0**
YHNB				*e*S	**Sn**	**22 22 12.2**	**-0.5**
SSLB	**Suanglung**	**0.85**	**259**	*e*P	**Pn**	**22 22 00.7**	**-0.9**
SSLB				*e*S	**Sn**	**22 22 12.4**	**-0.5**
NSK	**Sanguang** baz=333	**0.85**	**327**	⇑*i*P	**Pn**	**22 22 01.2**	**-0.5**
NSK	baz=333			S	**Sn**	**22 22 11.9**	**-1.1**
SMLT	**Sun Moon Lake** baz=261	**0.88**	**266**	⇑*i*P	**Pn**	**22 22 01.8**	**-0.2**
SMLT	baz=261			*e*S	**Sn**	**22 22 14.0**	**+0.3**
TYC	**Yuchr** baz=263	**0.92**	**267**	⇑P	**Pn**	**22 22 02.2**	**-0.4**
TYC	baz=263			*e*S	**Sn**	**22 22 14.3**	**-0.4**
YUS	**Yu-Shan** baz=229	**0.95**	**241**	⇓*i*P	**Pn**	**22 22 03.2**	**+0.1**
YUS	baz=229			S	**Sn**	**22 22 15.4**	**-0.1**
CHKT	**Chengkung** baz=194	**0.96**	**208**	*e*P	**Pn**	**22 22 02.0**	**-1.2**
CHKT	baz=194			*e*S	**Sn**	**22 22 14.2**	**-1.6**
NSTT	**Nanjuang** baz=314	**1.04**	**311**	⇑*i*P	**Pn**	**22 22 04.2**	**0.0**
NSTT	baz=314			S	**Sn**	**22 22 18.1**	**+0.6**
TWA	**Mucha** baz=342	**1.05**	**346**	*e*P	**Pn**	**22 22 04.1**	**-0.3**
TWA	baz=342			*e*S	**Sn**	**22 22 17.7**	**-0.2**
TWB1	**Santiao Chiao** baz=23	**1.06**	**6**	*e*P	**Pn**	**22 22 04.0**	**-0.4**
ALS	**Alishan** baz=234	**1.06**	**246**	⇓*i*P	**Pn**	**22 22 04.8**	**+0.2**
TWQ1	**Liyutan** baz=291	**1.07**	**292**	⇑*i*P	**Pn**	**22 22 04.6**	**0.0**
TWQ1	baz=291			*e*S	**Sn**	**22 22 18.9**	**+0.6**
TATO	**Taipei**	**1.07**	**342**	*e*P	**Pn**	**22 22 03.9**	**-0.8**
TATO				*e*S	**Sn**	**22 22 18.6**	**+0.2**
WNT	**Mingjian** baz=254	**1.08**	**266**	*e*P	**Pn**	**22 22 05.0**	**+0.2**
WNT	baz=254			*e*S	**Sn**	**22 22 19.4**	**+0.8**
ELDTW	**Lidau** baz=217	**1.09**	**226**	P	**Pn**	**22 22 03.7**	**-1.2**
TCU	**Taichung** baz=278	**1.10**	**280**	P	**Pn**	**22 22 05.1**	**0.0**
TCU	baz=278			*e*S	**Sn**	**22 22 19.8**	**+0.7**
NSY	**Sanyi** baz=296	**1.11**	**295**	P	**Pn**	**22 22 05.1**	**0.0**
NSY	baz=296			*e*S	**Sn**	**22 22 20.4**	**+1.2**
NWF	**Wu-fen Shan** baz=352	**1.11**	**356**	P	**Pn**	**22 22 05.4**	**+0.2**
NWF	baz=352			S	**Sn**	**22 22 20.2**	**+0.8**
YOJ	**Yonaguni jima**	**1.16**	**64**	P	**Pn**	**22 22 06.3**	**+0.4**
YOJ				*e*S	**Sn**	**22 22 21.6**	**+1.0**
HSN	**Hsinchu** baz=321	**1.17**	**316**	*e*P	**Pn**	**22 22 06.4**	**+0.4**
NCU	**National Centr** baz=334	**1.18**	**329**	*e*P	**Pn**	**22 22 06.2**	**0.0**
NCU	baz=334			*e*S	**Sn**	**22 22 20.9**	**-0.2**
TWS1	**Kuangyinshan** baz=346	**1.21**	**341**	*e*P	**Pn**	**22 22 06.3**	**-0.3**
TWS1	baz=346			*e*S	**Sn**	**22 22 21.4**	**-0.4**
WGK	**Gukeng** baz=243	**1.22**	**258**	*e*P	**Pn**	**22 22 07.0**	**+0.3**
STYT	**Tauyuan** baz=225	**1.28**	**232**	⇓*i*P	**Pn**	**22 22 07.6**	**+0.1**
STYT	baz=225			*e*S	**Sn**	**22 22 23.9**	**+0.3**
TPUB	**Ta-pu**	**1.30**	**240**	*e*Pn	**Pn**	**22 22 08.0**	**+0.2**
TPUB				*e*S	**Sn**	**22 22 25.4**	**+1.4**
CHN4	**Tsaushan** baz=237	**1.31**	**243**	*e*P	**Pn**	**22 22 08.2**	**+0.3**
CHN4	baz=237			*e*S	**Sn**	**22 22 25.4**	**+1.3**
CHN2	**Minshiung** baz=246	**1.34**	**252**	*e*P	**Pn**	**22 22 09.1**	**+0.8**
CHN2	baz=246			*e*S	**Sn**	**22 22 27.2**	**+2.3**
TWG	**Pinlang**	**1.34**	**213**	*e*P	**Pn**	**22 22 06.6**	**-1.7**
TWG				*e*S	**Sn**	**22 22 22.2**	**-2.8**
TWG	**Pinlang** baz=201	**1.34**	**213**	*e*P	**Pn**	**22 22 06.0**	**-2.4**
WTP	**Ta-pu** baz=232	**1.34**	**239**	*e*P	**Pn**	**22 22 08.6**	**+0.2**
WTP	baz=232			*e*S	**Sn**	**22 22 26.6**	**+1.5**
CHY	**Chiayi** baz=246	**1.39**	**251**	*e*P	**Pn**	**22 22 09.2**	**+0.2**
CHY	baz=246			*e*S	**Sn**	**22 22 26.8**	**+0.5**
TWK	**Hsinying** baz=236	**1.43**	**242**	*e*P	**Pn**	**22 22 09.9**	**+0.3**
TWK	baz=236			*e*S	**Sn**	**22 22 28.0**	**+0.8**
CHN1	**Nanshi** baz=231	**1.44**	**238**	*e*P	**Pn**	**22 22 10.0**	**+0.3**
CHN1	baz=231			*e*S	**Sn**	**22 22 30.2**	**+2.7**
WTCT	**Ta-ch'eng** baz=276	**1.45**	**267**	*e*P	**Pn**	**22 22 09.9**	**0.0**
WTCT	baz=276			*e*S	**Sn**	**22 22 28.4**	**+0.8**
SGST	**Jiashian** baz=227	**1.46**	**234**	⇓*i*P	**Pn**	**22 22 10.7**	**+0.7**
SGST	baz=227			*e*S	**Sn**	**22 22 29.4**	**+1.5**
ECL	**Taimali** baz=202	**1.59**	**212**	*e*P	**Pn**	**22 22 09.6**	**-2.1**
CHN8	**Yiju** baz=245	**1.63**	**249**	*e*P	**Pn**	**22 22 12.2**	**-0.1**
SSD	**Sandimen** baz=216	**1.65**	**223**	*e*P	**Pn**	**22 22 12.6**	**0.0**
SSD	baz=216			*e*S	**Sn**	**22 22 35.0**	**+2.4**
TWM1	**Shoushan** baz=225	**1.74**	**230**	*e*P	**Pn**	**22 22 13.5**	**-0.3**
IRIF	**Iriomote-Funau**	**1.75**	**77**	P	**Pn**	**22 22 14.1**	**+0.2**
IRIF				*e*S	**Sn**	**22 22 35.6**	**+0.6**
SGLT	**Jiouru** baz=222	**1.76**	**226**	*e*P	**Pn**	**22 22 15.6**	**+1.6**
HATJ	**Hateruma jima**	**1.78**	**86**	P	**Pn**	**22 22 14.4**	**+0.1**
HATJ				*e*S	**Sn**	**22 22 36.4**	**+0.6**
LAY	**Lan-yu** baz=194	**1.93**	**189**	*e*P	**Pn**	**22 22 14.4**	**-2.0**
SCZT	**Fangliau** baz=200	**1.95**	**216**	*e*P	**Pn**	**22 22 17.0**	**+0.4**
SCZT	baz=200			*e*S	**Sn**	**22 22 41.6**	**+1.7**
JKRS	**Kuro-shima**	**1.98**	**81**	P	**Pn**	**22 22 17.8**	**+0.7**
JKRS				*e*S	**Sn**	**22 22 41.8**	**+1.1**
JIJ	**Ishigaki jima**	**2.12**	**78**	P	**Pn**	**22 22 19.3**	**+0.2**
JIJ				*e*S	**Sn**	**22 22 43.6**	**-0.6**
WDGT	**Dungji** baz=248	**2.13**	**252**	*e*P	**Pn**	**22 22 18.3**	**-1.0**
PNG	**Penghu** baz=255	**2.15**	**260**	*e*P	**Pn**	**22 22 17.9**	**-1.5**
PNG	baz=255			*e*S	**Sn**	**22 22 42.7**	**-2.2**
JTJ	**Tarama**	**2.68**	**75**	*e*S	**Sn**	**22 22 58.8**	**+0.9**
QZH	**Quanzhou**	**3.14**	**289**	Pn	**Pn**	**22 22 32.3**	**-0.7**
QZH				Sn	**Sn**	**22 23 05.3**	**-4.0**
QZH	comp=N,90nm,0.3s			smax			
QZH	comp=E,70nm,0.8s			smax			
KNM	**Kinmen** baz=276	**3.17**	**279**	*e*P	**Pn**	**22 22 33.2**	**-0.1**

IDC 20 22:22:12.6±2.2, 29°.06N×141°.59E, h0km, mb3.6/5, mb1 3.7/7, mb1mx3.6/22, mbtmp3.6/7, ML3.7/1, Error ellipse: s-maj=72.5km s-min=17.7km az=68.0

NEIC 20 22:22:14.9±2.3, 29°.13N×142°.11E, h35km, MG3.1(JMA), Error ellipse: s-maj=65.8km s-min=19.0km az=81.0, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima** 25nm,0.3s,baz=282,slow=23,SNR=37	**2.02**	**178**	Pn	Pn	22 22 49.5	+3.0
CBIJ	62nm,0.3s,baz=274,slow=23,SNR=12			Sn	Sn	22 23 16.8	+6.2
MJAR	**Matsushiro Arr** 1.0nm,0.3s,baz=155,slow=11,SNR=8.3	**8.09**	**337**	Pn	Pn	22 24 08.8	-1.0
MJAR	0.6nm,0.3s,baz=158,slow=14,SNR=4.4			Sn	Sn	22 25 37.7	-2.2
SONM	**Songino Array** 1.1nm,0.9s,baz=123,slow=9.7,SNR=7.7	**33.23**	**314**	P	P	22 28 49.8	+1.3
CMAR	**Chiang Mai Arr** 0.3nm,0.3s,baz=53,slow=7.6,SNR=4.0	**40.70**	**265**	P	P	22 29 51.3	-0.9
ZALV	**Zalesovo Beam** 0.2nm,0.3s,baz=88,slow=10,SNR=2.3	**47.93**	**318**	P	P	22 30 49.3	-0.3
MKAR	**Makanchi Array** 0.6nm,0.5s,baz=87,slow=9.5,SNR=13	**49.15**	**308**	P	P	22 31 00.7	+1.6
WRA	**Warramunga Arr** 0.4nm,0.5s,baz=11,slow=7.8,SNR=4.8	**49.35**	**190**	P	P	22 31 00.7	-0.1

IDC 20 22:28:34.5±3.1, 2°.53N×95°.74E, h0km, mb3.4/4, mb1 3.5/5, mb1mx3.4/22, mbtmp3.4/5, ML3.7/1, Error ellipse: s-maj=111.8km s-min=27.1km az=60.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr** 0.1nm,0.3s,baz=196,slow=9.4,SNR=3.5	**16.14**	**11**	Pn	Pn	22 32 24.6	+1.8
WRA	**Warramunga Arr** 0.2nm,0.7s,baz=302,slow=8.8,SNR=3.8	**43.97**	**122**	P	P	22 36 43.8	0.0
MKAR	**Makanchi Array** 0.3nm,0.4s,baz=162,slow=8.7,SNR=22	**45.62**	**347**	P	P	22 36 56.7	+0.2
SONM	**Songino Array** 0.3nm,0.6s,baz=185,slow=9.8,SNR=4.4	**46.06**	**10**	P	P	22 36 59.6	-0.3
ZALV	**Zalesovo Beam** 0.3nm,0.3s,baz=181,slow=6.8,SNR=3.9	**52.03**	**352**	P	P	22 37 45.2	-0.5

ISCJB 20 22:29:26.7±0.4, 46°.39N±0°.02×8°.53E±0°.04, h9km±6km, Error ellipse: s-maj=4.9km s-min=4.1km az=169.7

CSEM 20 22:29:26.7±0.1, 46°.39N×8°.53E, h10km, ML2.5/6, Error ellipse: s-maj=2.2km s-min=1.9km az=126.0

ROM 20 22:29:26.6±0.4, 46°.39N×8°.53E, h10km, Md2.0/4, Ml1.5/1, Error ellipse: s-maj=5.0km s-min=2.8km az=159.0

ZUR 20 22:29:27.1, 46°.41N×8°.55E, h9km±1km, ML1.7/10

GEN 20 22:29:27.6, 46°.39N×8°.54E, h12km, ML1.4

ISC 20 22:29:27.0±0.4, 46°.39N±0°.02×8°.52E±0°.04, h10km±6km, n27, σ0ˢ.42/43, 9C-6D, Switzerland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUSIO	**Fusio** 1μm,0.3s	**0.12**	**57**	⇑*i*Pg	**Pg**	**22 29 30.1**	**+0.3**
FUSIO	1μm,0.3s			*i* Sg	**Sg**	**22 29 31.8**	**+0.1**
FUSIO	**Fusio** 1μm,0.3s	**0.12**	**57**	⇑*i*Pg	**Pg**	**22 29 30.1**	**+0.3**
FUSIO	1μm,0.3s			*i* Sg	**Sg**	**22 29 31.8**	**+0.1**
HASLI	**Hasliberg/Brie** 94nm,0.3s	**0.45**	**325**	⇓*i*Pg	**Pg**	**22 29 36.0**	**+0.3**
HASLI	94nm,0.3s			*i* Sg	**Sg**	**22 29 41.8**	**+0.2**
HASLI	**Hasliberg/Brie** 94nm,0.3s	**0.45**	**325**	⇓*i*Pg	**Pg**	**22 29 36.0**	**+0.3**
HASLI	94nm,0.3s			*i* Sg	**Sg**	**22 29 41.8**	**+0.2**
BNALP	**Bannalp** 80nm,0.2s	**0.48**	**352**	⇑*i*Pg	**Pg**	**22 29 36.5**	**+0.1**
BNALP	80nm,0.2s			*i* Sg	**Sg**	**22 29 42.7**	**-0.1**
BNALP	**Bannalp** 80nm,0.2s	**0.48**	**352**	⇑*i*Pg	**Pg**	**22 29 36.5**	**+0.1**
BNALP	80nm,0.2s			*i* Sg	**Sg**	**22 29 42.7**	**-0.1**
MMK	**Mattmark**	**0.52**	**229**	⇑*i*Pg	**Pg**	**22 29 37.3**	**+0.3**
MMK				Sg	**Sg**	**22 29 43.9**	**+0.1**
MMK	**Mattmark** 54nm,0.3s	**0.52**	**229**	⇑*i*Pg	**Pg**	**22 29 37.9**	**+0.9**
MMK	**Mattmark**	**0.52**	**229**	⇑*i*Pg	**Pg**	**22 29 37.3**	**+0.3**
MMK				Sg	**Sg**	**22 29 43.9**	**+0.1**
VAI	**Varese**	**0.55**	**162**	Pg	**Pg**	**22 29 37.8**	**+0.1**
VAI	18nm,0.2s			Sg	**Sg**	**22 29 45.3**	**+0.4**
VAI	**Varese**	**0.55**	**162**	Pg	**Pg**	**22 29 37.8**	**+0.1**
VAI	18nm,0.2s			Sg	**Sg**	**22 29 45.3**	**+0.4**
LLS	**Linth-Limmern** 18nm,0.2s	**0.56**	**36**	⇑*i*Pg	**Pg**	**22 29 37.3**	**-0.7**
TUE	**Stuetta**	**0.58**	**82**	Pg	**Pg**	**22 29 38.2**	**0.0**
TUE	21nm,0.2s			Sg	**Sg**	**22 29 45.2**	**-0.5**
TUE	**Stuetta**	**0.58**	**82**	Pg	**Pg**	**22 29 38.2**	**0.0**
TUE	21nm,0.2s			Sg	**Sg**	**22 29 45.2**	**-0.5**
MUGIO	**Muggio**	**0.59**	**142**	Pg	**Pg**	**22 29 38.8**	**+0.3**
MUGIO				Sg	**Sg**	**22 29 46.6**	**+0.4**
MUGIO	**Muggio** 134nm,2.0s	**0.59**	**142**	⇓*i*Pg	**Pg**	**22 29 38.7**	**+0.2**
MUGIO	134nm,2.0s			*e*Sg	**Sg**	**22 29 46.6**	**+0.4**
MUGIO	**Muggio** 134nm,2.0s	**0.59**	**142**	⇓*i*Pg	**Pg**	**22 29 38.7**	**+0.2**
MUGIO	134nm,2.0s			*e*Sg	**Sg**	**22 29 46.6**	**+0.4**
VDL	**Val di Lei** 45nm,0.2s	**0.65**	**82**	⇑*i*Pg	**Pg**	**22 29 39.5**	**0.0**
WIMIS	**Wimmis** 13nm,0.5s	**0.68**	**294**	⇓*e*P	**Pg**	**22 29 40.4**	**+0.3**
WIMIS	**Wimmis** 13nm,0.5s	**0.68**	**294**	⇓*e*P	**Pg**	**22 29 40.4**	**+0.3**
DIX	**Grande Dixence** 22nm,0.3s	**0.83**	**248**	*e*Pg	**Pg**	**22 29 43.1**	**0.0**
DIX	**Grande Dixence** 22nm,0.3s	**0.83**	**248**	*e*Pg	**Pg**	**22 29 43.1**	**0.0**
TRAV	**Traversella**	**1.03**	**212**	P	**Pg**	**22 29 45.5**	**-1.3**
TRAV				S	**Sg**	**22 29 59.5**	**-0.7**
LIENZ	**Kamor/St.Gall** 23nm,0.5s	**1.12**	**36**	*i* P	**Pb**	**22 29 48.5**	**0.0**
LIENZ	**Kamor/St.Gall** 23nm,0.5s	**1.12**	**36**	*i* P	**Pb**	**22 29 48.5**	**0.0**
LSD	**Lago del Serru**	**1.34**	**227**	P	**Pn**	**22 29 52.2**	**+0.3**
RSP	**Reno Superiore**	**1.52**	**216**	P	**Pn**	**22 29 54.4**	**+0.1**

ROM 20 22:46:27.4±0.2, 46°.37N×10°.83E, h4km±3km, Md2.2/8, Ml2.2/4, Error ellipse: s-maj=2.5km s-min=2.1km az=1.0

CSEM 20 22:46:27.9±0.1, 46°.37N×10°.87E, h10km, ML2.7/15, Error ellipse: s-maj=2.3km s-min=1.8km az=172.0

ISCJB 20 22:46:27.5±0.3, 46°.38N±0°.02×10°.89E±0°.02, h7km±6km, Error ellipse: s-maj=3.0km s-min=2.4km az=178.4

VIE 20 22:46:27.9±0.3, 46°.38N×10°.89E, h9km±7km, mb1.8/11, ML2.1/17, Error ellipse: s-maj=2.2km s-min=1.3km az=3.0 12 km S of St.Gertraud

ZUR 20 22:46:28.4, 46°.36N×10°.84E, h9km±4km, ML2.0/4

PRU 20 22:46:31.4, 46°.40N×11°.11E, h0km

ISC 20 22:46:28.4±0.3, 46°.38N±0°.02×10°.87E±0°.02, h4km±7km, n65, σ0ˢ.87/111, 24C-14D, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APPI	**Appiano**	**0.27**	**68**	Pg	**Pg**	**22 46 34.1**	**+0.5**
APPI	253nm,0.2s			Sg	**Sg**	**22 46 37.8**	**+0.7**
APPI	**Appiano**	**0.27**	**68**	Pg	**Pg**	**22 46 34.1**	**+0.5**
APPI	253nm,0.2s			Sg	**Sg**	**22 46 37.8**	**+0.7**
BRMO	**Bormio**	**0.35**	**286**	⇑*i*Pg	**Pg**	**22 46 35.7**	**+0.5**
BRMO	158nm,0.2s			Sg	**Sg**	**22 46 40.2**	**+0.4**
BRMO	**Bormio**	**0.35**	**286**	⇑*i*Pg	**Pg**	**22 46 35.7**	**+0.5**
BRMO	158nm,0.2s			Sg	**Sg**	**22 46 40.2**	**+0.4**
MABI	**Malga Bissina**	**0.41**	**217**	⇑*i*Pg	**Pg**	**22 46 36.1**	**-0.1**
MABI	116nm,0.1s			Sg	**Sg**	**22 46 41.3**	**-0.2**
MABI	**Malga Bissina**	**0.41**	**217**	⇑*i*Pg	**Pg**	**22 46 36.1**	**-0.1**
MABI	116nm,0.1s			Sg	**Sg**	**22 46 41.3**	**-0.2**
FUORN	**Ofenpass-Fuorn**	**0.48**	**300**	Pg	**Pg**	**22 46 37.8**	**+0.2**
FUORN				Sg	**Sg**	**22 46 44.3**	**+0.4**
FUORN	**Ofenpass-Fuorn** 294nm,0.4s	**0.48**	**300**	⇑*i*Pg	**Pg**	**22 46 38.0**	**+0.4**
FUORN	**Ofenpass-Fuorn** 294nm,0.4s	**0.48**	**300**	⇑*i*Pg	**Pg**	**22 46 38.0**	**+0.4**
FUORN				Sg	**Sg**	**22 46 44.3**	**+0.4**
BERNI	**Berninapass**	**0.58**	**274**	Pg	**Pg**	**22 46 39.6**	**0.0**
BERNI				Sg	**Sg**	**22 46 47.2**	**0.0**
BERNI	**Berninapass** 129nm,0.1s	**0.58**	**274**	⇑*i*Pg	**Pg**	**22 46 39.6**	**0.0**
BERNI	**Berninapass** 129nm,0.1s	**0.58**	**274**	⇑*i*Pg	**Pg**	**22 46 39.6**	**0.0**
BERNI				Sg	**Sg**	**22 46 47.2**	**0.0**
MAGA	**Magasa**	**0.63**	**195**	Pg	**Pg**	**22 46 40.1**	**-0.3**
MAGA	201nm,0.2s			Sg	**Sg**	**22 46 49.1**	**+0.6**
MAGA	**Magasa**	**0.63**	**195**	Pg	**Pg**	**22 46 40.1**	**-0.3**
MAGA	201nm,0.2s			Sg	**Sg**	**22 46 49.1**	**+0.6**
CTI	**Castel Tesino** 36nm,0.2s	**0.64**	**121**	Pg	**Pg**	**22 46 41.3**	**+0.7**
CTI	**Castel Tesino** 36nm,0.2s	**0.64**	**121**	Pg	**Pg**	**22 46 41.3**	**+0.7**
FETA	**Feichten** 3.0nm,0.1s,SNR=13	**0.65**	**352**	⇓*i*Pg	**Pg**	**22 46 41.0**	**+0.2**
FETA	7.1nm,0.1s			⇓*i*Sg	**Sg**	**22 46 49.4**	**+0.1**
FETA	**Feichten** 3.0nm,0.1s,SNR=13	**0.65**	**352**	Pg	**Pg**	**22 46 41.0**	**+0.2**
FETA	7.1nm,0.1s			Sg	**Sg**	**22 46 49.4**	**+0.1**
DAVOX	**Davos/Dischmat**	**0.79**	**301**	Pg	**Pg**	**22 46 43.6**	**+0.1**
DAVOX				Sg	**Sg**	**22 46 53.8**	**0.0**
DAVOX	**Davos/Dischmat** 75nm,0.3s	**0.79**	**301**	⇑*i*Pg	**Pg**	**22 46 43.6**	**+0.1**
DAVOX	**Davos/Dischmat** 75nm,0.3s	**0.79**	**301**	⇑*i*Pg	**Pg**	**22 46 43.6**	**+0.1**
DAVOX				Sg	**Sg**	**22 46 53.8**	**0.0**
SALO	**Salr**	**0.80**	**197**	Pg	**Pg**	**22 46 43.5**	**-0.2**
SALO	**Salr**	**0.80**	**197**	Pg	**Pg**	**22 46 43.5**	**-0.2**
CGRP	**Cima Grappa**	**0.82**	**127**	⇑*e*Pg	**Pg**	**22 46 44.4**	**+0.3**
CGRP				*i* Sg	**Sg**	**22 46 54.6**	**-0.2**
CGRP	**Cima Grappa**	**0.82**	**127**	*e*Pg	**Pg**	**22 46 44.4**	**+0.3**
CGRP				*i* Sg	**Sg**	**22 46 54.6**	**-0.1**
SQTA	**Sankt Quirin**	**0.87**	**16**	⇑*i*Pg	**Pg**	**22 46 45.2**	**+0.1**
SQTA				⇑*i*Sg	**Sg**	**22 46 56.6**	**+0.1**
SQTA	**Sankt Quirin**	**0.87**	**16**	Pg	**Pg**	**22 46 45.2**	**+0.1**
SQTA				Sg	**Sg**	**22 46 56.6**	**+0.1**
VARN	**Col Varnada, M**	**0.94**	**114**	*e*Pg	**Pg**	**22 46 45.9**	**-0.6**
VARN	**Col Varnada, M**	**0.94**	**114**	*e*Pg	**Pg**	**22 46 45.9**	**-0.6**
MOTA	**Moosalm** 1.3nm,0.2s	**0.98**	**10**	⇑*i*Pg	**Pg**	**22 46 47.2**	**0.0**
MOTA	5.9nm,0.2s			⇑*i*Sg	**Sg**	**22 47 00.2**	**+0.3**
MOTA	**Moosalm** 1.3nm,0.2s	**0.98**	**10**	Pg	**Pg**	**22 46 47.2**	**0.0**
MOTA	5.9nm,0.2s			Sg	**Sg**	**22 47 00.2**	**+0.3**
VDL	**Val di Lei** 49nm,0.1s	**0.98**	**277**	⇑*i*P	**Pg**	**22 46 46.3**	**-1.0**
VDL	**Val di Lei** 49nm,0.1s	**0.98**	**277**	⇑*i*P	**Pg**	**22 46 46.3**	**-1.0**
WTTA	**Wattenberg** 2.9nm,0.2s	**1.03**	**31**	⇑*i*Pg	**Pg**	**22 46 48.4**	**+0.2**
WTTA	4.5nm,0.1s			⇓*e*Sg	**Sg**	**22 47 01.8**	**+0.3**
WTTA	**Wattenberg** 2.9nm,0.2s	**1.03**	**31**	Pg	**Pg**	**22 46 48.4**	**+0.2**
WTTA	4.5nm,0.1s			Sg	**Sg**	**22 47 01.8**	**+0.3**
WATA	**Walderalm** 2.1nm,0.1s	**1.07**	**27**	⇓*e*Pg	**Pg**	**22 46 49.7**	**+0.8**
WATA	2.9nm,0.1s			⇓*i*Sg	**Sg**	**22 47 03.0**	**+0.2**
WATA	**Walderalm** 2.1nm,0.1s	**1.07**	**27**	Pg	**Pg**	**22 46 49.7**	**+0.7**
WATA	2.9nm,0.1s			Sg	**Sg**	**22 47 03.0**	**+0.1**
CIMO	**Cimolais**	**1.09**	**93**	⇑*i*Pg	**Pg**	**22 46 48.9**	**-0.5**
CIMO	**Cimolais**	**1.09**	**93**	*i* Pg	**Pg**	**22 46 48.8**	**-0.6**
RETA	**Reutte** 1.4nm,0.1s	**1.11**	**356**	⇓*e*Sg	**Sg**	**22 47 05.2**	**+1.1**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RETA	Reutte	1.11	356	Sg	Sg	22 47 05.2	+1.1
	1.4nm,0.1s						
DAVA	Damuels	1.13	324	⇑ePn	Pn	22 46 50.5	-0.5
	0.6nm,0.2s						
DAVA				⇓eSg	Sg	22 47 07.5	+2.8
	17nm,0.5s						
DAVA	Damuels	1.13	324	Pn	Pn	22 46 50.5	-0.5
	0.6nm,0.2s						
DAVA				Sg	Sg	22 47 07.5	+2.7
	17nm,0.5s						
ABTA	Abfaltersbach	1.19	72	⇑iPg	Pg	22 46 50.7	-0.6
	4.8nm,0.1s,SNR=40						
ABTA				⇓iSg	Sg	22 47 06.3	-0.5
	4.3nm,0.1s						
ABTA	Abfaltersbach	1.19	72	Pg	Pg	22 46 50.7	-0.6
	4.8nm,0.1s,SNR=40						
ABTA				Sg	Sg	22 47 06.3	-0.5
	4.3nm,0.1s						
MLNI	Malnisio	1.23	100	ePg	Pg	22 46 52.2	+0.2
MLNI				eSg	Sg	22 47 09.7	+1.7
MLNI	Malnisio	1.23	100	ePg	Pg	22 46 52.2	+0.2
MLNI				eSg	Sg	22 47 09.7	+1.7
MUGIO	Muggio	1.35	251	Pg	Pg	22 46 53.0	-1.2
MUGIO	Muggio	1.35	251	Pg	Pg	22 46 53.0	-1.2
FUSE	Fusea	1.48	88	⇓iPg	Pg	22 46 56.6	-0.2
FUSE				i Sg	Sg	22 47 17.4	+1.5
FUSE	Fusea	1.48	88	i Pg	Pg	22 46 56.6	-0.1
FUSE				i Sg	Sg	22 47 17.4	+1.5
ACOM	Acomizza, Ital	1.84	84	ePn	Pn	22 47 02.5	+1.7
ACOM	Acomizza, Ital	1.84	84	ePn	Pn	22 47 02.5	+1.8
KBA	Koelnbreinsper	1.84	67	⇑iPg	Pg	22 47 02.0	-1.7
	2.4nm,0.2s,SNR=7.9						
KBA				⇓iSg	Sg	22 47 27.1	-0.5
	1.9nm,0.1s						
KBA	Koelnbreinsper	1.84	67	Pg	Pg	22 47 02.0	-1.7
	2.4nm,0.2s,SNR=7.9						
KBA				Sg	Sg	22 47 27.1	-0.5
	1.9nm,0.1s						
MYKA	Terra Mystica	1.93	82	⇑ePg	Pg	22 47 04.2	-1.2
	3.4nm,0.3s						
MYKA				⇑iSg	Sg	22 47 31.4	+0.9
	1.1nm,0.1s						
MYKA	Terra Mystica	1.93	82	Pg	Pg	22 47 04.2	-1.3
	3.4nm,0.3s						
MYKA				Sg	Sg	22 47 31.4	+0.9
	1.1nm,0.1s						
OBKA	Obir	2.55	86	⇓ePg	Pg	22 47 15.8	-1.4
OBKA				⇓eSg	Sg	22 47 52.0	+1.7
	3.3nm,0.3s						
OBKA	Obir	2.55	86	Pg	Pg	22 47 15.8	-1.5
OBKA				Sg	Sg	22 47 52.0	+1.7
	3.3nm,0.3s						
MOA	Molln	2.75	56	⇓ePg	Pg	22 47 20.0	-1.1
	0.8nm,0.2s						
MOA				⇓eSg	Sg	22 47 56.5	-0.1
	1.2nm,0.2s						
MOA	Molln	2.75	56	Pg	Pg	22 47 20.0	-1.1
	0.8nm,0.2s						
MOA				Sg	Sg	22 47 56.5	-0.1
	1.2nm,0.2s						
KHC	Kasperske Hory	3.31	33	ePG	Pg	22 47 30.1	-1.6
KHC				eSN	Sn	22 48 00.7	+0.1
KHC				eSG	Sg	22 48 12.8	-1.7
KHC	Kasperske Hory	3.31	33	Pg	Pg	22 47 30.1	-1.6
KHC				Sn	Sn	22 48 00.7	+0.1
KHC				Sg	Sg	22 48 12.8	-1.7
PRU	Pruhonice	4.37	33	eSG	Sg	22 48 46.7	-1.9
PRU	Pruhonice	4.37	33	Sg	Sg	22 48 46.7	-1.9

IDC 20 22:50:31.9±5.6, 2°.25S×131°.04E, h0^{km}, mb3.2/2, mb1 3.5/3, mb1mx3.3/17, mbtmp3.3/3, ML3.3/1, Error ellipse: s-maj=413.8km s-min=26.9km az=72.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.88	170	P	Pn	22 54 41.9	-0.3
	0.1nm,0.3s,baz=350,slow=12,SNR=7.5						
ASAR	Alice Springs	21.47	173	P	P	22 55 22.4	+0.3
	0.7nm,0.5s,baz=348,slow=11,SNR=10						
MKAR	Makanchi Array	64.89	325	P	P	23 01 13.2	+0.1
	0.2nm,0.7s,baz=119,slow=8.1,SNR=2.8						

IDC 20 23:06:27.4±1.3, 32°.75S×73°.21W, h0^{km}, mb4.1/5, mb1 4.1/6, mb1mx4.0/14, mbtmp4.0/6, ML3.8/1, MS3.3/1, Ms1 3.3/1, ms1mx2.8/20, Error ellipse: s-maj=53.6km s-min=26.1km az=65.0

ISCJB 20 23:06:28.7±1.8, 32°.71S±0°.04×73°.21W±0°.05, h23^{km}±13^{km}, mb4.0/6, Error ellipse: s-maj=7.3km s-min=5.5km az=137.6

GUC 20 23:06:30.2±0.7, 32°.72S×73°.10W, h29^{km}±3^{km}, MD4.1, ML4.1

NEIC 20 23:06:30.2, 32°.72S×73°.10W, h29^{km}, mb4.1/2, ML4.1(GUC), After GUC.

ISC 20 23:06:28.9±1.8, 32°.73S±0°.04×73°.16W±0°.05, h13^{km}±12^{km}, n38, σ0^{s}.81/53, mb4.0/6, 6C-2D, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IHA	Instituto Hidr	1.31	104	⇑iP	Pn	23 06 52.1	-0.9
IHA				i S	Sb	23 07 08.8	-1.5
IHA	Instituto Hidr	1.31	104	⇑iP	Pn	23 06 52.1	-0.9
IHA				i S	Sb	23 07 08.8	-1.5
CHNG	Los Chungos	1.64	60	eP	Pn	23 06 57.2	-0.3
CHNG				i S	Sn	23 07 18.1	-0.4
TACH	Talagante	2.08	117	P	Pn	23 07 03.1	-0.5
TACH				S	Sn	23 07 27.2	-2.2
TACH	Talagante	2.08	117	eP	Pn	23 07 03.1	-0.5
TACH				i S	Sn	23 07 27.2	-2.2
RCDM	Rinconada Maip	2.12	112	⇑iP	Pn	23 07 04.3	+0.2
RCDM				S	Sn	23 07 29.4	-0.9
RCDM	Rinconada Maip	2.12	112	⇑iP	Pn	23 07 04.3	+0.2
RCDM				i S	Sn	23 07 29.4	-0.9
RCDM				AML	AML	23 07 32.1	
	comp=N,2μm,0.1s						
PEL	Peldehue	2.12	102	eP	Pn	23 07 04.5	+0.4
PEL				i S	Sn	23 07 30.9	+0.4
PEL				AML	AML	23 07 32.3	
	comp=E,4μm,0.4s						
FSR	Penalolen	2.34	109	eP	Pn	23 07 07.7	+0.7
FSR				i S	Sn	23 07 35.7	+0.1
FSR	Penalolen	2.34	109	eP	Pn	23 07 07.7	+0.7
FSR				i S	Sn	23 07 35.7	+0.1
PCH	Pirque	2.40	113	⇓iP	Pn	23 07 08.4	+0.5
PCH				i S	Sn	23 07 37.3	+0.2
PCH	Pirque	2.40	113	⇓iP	Pn	23 07 08.4	+0.5
PCH				i S	Sn	23 07 37.3	+0.2
CMCH	Combarbala	2.40	50	⇑iP	Pn	23 07 08.2	+0.2
CMCH				i S	Sn	23 07 37.4	+0.1
CMCH	Combarbala	2.40	50	⇑iP	Pn	23 07 08.2	+0.2
CMCH				i S	Sn	23 07 37.4	+0.1
CMCH				AML	AML	23 07 44.7	
	comp=N,2μm,0.8s						
CHCH	Chadas Angostu	2.42	120	P	Pn	23 07 07.9	-0.3
CHCH	Chadas Angostu	2.42	120	eP	Pn	23 07 07.9	-0.3
FCH	Farellones	2.49	105	eP	Pn	23 07 10.5	+1.4
FCH				i S	Sn	23 07 40.6	+1.2
FCH				AML	AML	23 07 44.2	
	comp=N,686nm,0.2s						
SJCH	San Jose de Ma	2.53	112	eP	Pn	23 07 10.7	+1.0
SJCH				i S	Sn	23 07 40.8	+0.4
SJCH	San Jose de Ma	2.53	112	eP	Pn	23 07 10.7	+1.0
SJCH				i S	Sn	23 07 40.8	+0.4
SJCH				AML	AML	23 07 42.6	
	comp=N,503nm,0.2s						
CACH	El Canelo	2.55	124	P	Pn	23 07 10.6	+0.5
CACH	El Canelo	2.55	124	eP	Pn	23 07 10.6	+0.5
LCO	Las Campanas	4.26	30	ePn	Pn	23 07 33.5	-0.1
LCO				eSn	Sn	23 08 23.3	0.0
PLCA	Paso Flores	8.26	166	Pn	Pn	23 08 27.6	-0.9
	comp=N,0.3nm,0.3s,baz=335,slow=9.6,SNR=7.5						
PLCA				Sn	Sn	23 10 05.6	+4.0
	comp=N,0.0nm,0.3s,baz=241,slow=19,SNR=1.6						
RPN	Rapa Nui	31.74	271	P	P	23 12 51.4	-1.4
OTAV	Otavalo	33.16	350	eP	P	23 13 04.8	-0.5
	comp=N,1.1nm,0.4s,mb4.1						
SDV	Santo Domingo	41.45	4	P	P	23 14 14.2	-1.3
JTS	JuntasAbangare	44.23	343	P	P	23 14 38.3	+0.2
CMIG	Matias Romero	53.72	334	LR	LR	23 33 07.0	
	comp=N,29nm,18.7s,baz=182,slow=30						
TXAR	Lajitas Array	68.17	331	P	P	23 17 30.1	+1.2
	comp=N,0.3nm,0.5s,mb3.6,baz=157,slow=9.3,SNR=5.5						
DBIC	Dimbokro	75.68	72	P	P	23 18 15.4	+1.0
	comp=N,2.4nm,0.9s,mb4.1,baz=196,slow=18,SNR=4.8						
DBIC	Dimbokro	75.68	72	eP	P	23 18 14.8	+0.4
	comp=N,0.9nm,0.5s,mb4.0						
BOSA	Boshof	81.50	118	P	P	23 18 46.8	+0.5
	comp=N,3.0nm,0.9s,mb4.2,baz=72,slow=6.4,SNR=3.5						
TORD	Torodi Ar. Bea	84.67	71	P	P	23 19 03.8	+0.9
	comp=N,0.5nm,0.5s,mb3.9,baz=253,slow=3.9,SNR=7.9						
SCHQ	Schefferville	87.37	4	P	P	23 19 14.9	-0.2
	comp=N,1.4nm,0.8s,mb4.3,baz=236,slow=15,SNR=3.3						
LSZ	Lusaka	91.10	109	P	P	23 19 33.7	-0.1
KURK	Kurchatov	152.56	41	PKPbc	PKPbc	23 26 25.5	+0.8
	comp=N,1.2nm,0.6s,baz=307,slow=2.7,SNR=4.5						
ZALV	Zalesovo Beam	153.62	30	PKPbc	PKPbc	23 26 27.6	+0.7
	comp=N,0.8nm,0.6s,baz=298,slow=3.2,SNR=5.5						
MKAR	Makanchi Array	156.60	46	PKPab	PKPab	23 26 53.5	+1.1
	comp=N,0.3nm,0.7s,baz=305,slow=4.3,SNR=4.2						

NEIC 20 23:08:06.1, 16°.04N×97°.17W, h46^{km}, MD3.6(MEX), After MEX.

MEX 20 23:08:06.5±0.6, 16°.04N×97°.17W, h28^{km}±18^{km}, MD3.6, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.99	291	i P	Pn	23 08 21.6	-2.9
PNIG				i S	Sn	23 08 34.6	-2.9
HUIG	Huatulco	1.05	105	i P	Pn	23 08 23.4	-2.0
HUIG				i S	Sn	23 08 35.3	-3.9
VHO	Vista Hermosa	1.11	22	i P	Pn	23 08 23.7	-2.5
VHO				i S	Sn	23 08 37.5	-3.0
OXX	Oaxaca	1.12	22	eP	Pn	23 08 24.1	-2.3
OXX				i S	Sn	23 08 37.4	-3.5
UTMO	Huajuapan	1.88	341	i P	Pn	23 08 35.0	-1.9
UTMO				i S	Sn	23 08 57.6	-2.1
CMIG	Matias Romero	2.43	64	eP	Pn	23 08 42.5	-1.8
CMIG				i S	Sn	23 09 10.1	-2.9
PPM	Popocatepetl	3.32	335	eP	Pn	23 08 55.7	-0.9
PPM				i S	Sn	23 09 33.3	-1.8

IDC 20 23:10:24.6±2.4, 6°.30S×130°.96E, h0^{km}, mb3.7/1, mb1 3.6/4, mb1mx3.4/16, mbtmp3.5/4, ML3.2/3, Error ellipse: s-maj=109.8km s-min=27.5km az=78.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.83	203	Pn	Pn	23 13 27.9	-0.5
	0.1nm,0.3s,baz=320,slow=17,SNR=3.8						
FITZ				Sn	Sn	23 15 37.1	-15
	0.1nm,0.3s,baz=252,slow=20,SNR=2.5						
WRA	Warramunga Arr	13.95	167	Pn	Pn	23 13 43.0	-0.8
	0.2nm,0.3s,baz=348,slow=14,SNR=14						
WRA				Sn	Sn	23 16 08.5	-11
	0.2nm,0.3s,baz=349,slow=24,SNR=7.4						
ASAR	Alice Springs	17.50	171	P	Pn	23 14 31.3	+1.1
	0.1nm,0.3s,baz=347,slow=9.4,SNR=4.0						
MKAR	Makanchi Array	68.17	326	P	P	23 21 26.9	+0.1
	0.3nm,0.4s,baz=113,slow=8.2,SNR=16						

ISK 20 23:11:29.3, 36°.90N×29°.23E, h5^{km}, MD2.8

ISCJB 20 23:11:30.7±0.5, 36°.92N±0°.03×29°.25E±0°.04, h10^{km}, Error ellipse: s-maj=5.7km s-min=4.0km az=139.0

CSEM 20 23:11:30.3±0.2, 36°.94N×29°.23E, h2^{km}, MD2.8, Error ellipse: s-maj=5.8km s-min=4.5km az=140.0

DDA 20 23:11:31.5, 36°.93N×29°.50E, h7^{km}±7^{km}, Md2.5

ISC 20 23:11:30.7±0.7, 36°.95N±0°.04×29°.22E±0°.05, h1^{km}±11^{km}, n18, σ0^{s}.83/30, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.34	199	ePG	Pg	23 11 36.1	-1.0
FETY				eSG	Sg	23 11 41.6	+0.2
FETY	Fethiye	0.34	199	ePg	Pg	23 11 36.1	-1.0
FETY				eSg	Sg	23 11 41.7	+0.2
GOLH	Golhisar	0.39	44	i P	Pg	23 11 37.0	-1.3
GOLH				i S	Sg	23 11 44.0	+0.7
GOLH	Golhisar	0.39	44	i P	Pg	23 11 37.0	-1.2
GOLH				i S	Sg	23 11 44.0	+0.7
TURN	Turunc	0.50	261	eP	Pg	23 11 44.8	+4.5
TURN				i S	Sg	23 11 56.5	+10
TURN	Turunc	0.50	261	eP	Pg	23 11 44.8	+4.5
DALT	Dalyan (Mudla)	0.50	249	ePG	Pg	23 11 39.3	-1.1
DALT				eSG	Sg	23 11 48.4	+1.5
DALT	Dalyan (Mudla)	0.50	249	ePg	Pg	23 11 39.3	-1.1
DALT				eSg	Sg	23 11 48.4	+1.5
ELL	Elmali	0.59	110	ePG	Pg	23 11 41.2	-0.7
ELL				eSG	Sg	23 11 50.7	+1.2
ELL	Elmali	0.59	110	ePg	Pg	23 11 41.2	-0.7
ELL				eSg	Sg	23 11 50.7	+1.2
AKAS	Kas	0.78	157	eP	Pg	23 11 45.7	0.0
AKAS				eS	Sg	23 12 00.1	+4.3
AKAS	Kas	0.78	157	eP	Pg	23 11 45.7	0.0
DAT	Datca	1.34	261	ePN	Pn	23 11 56.7	+0.2
DAT	Datca	1.34	261	ePn	Pn	23 11 56.7	+0.2
KHAL	Karahalli	1.43	8	i P	Pn	23 11 57.7	-0.1
KHAL				i S	Sg	23 12 17.1	+0.4
KHAL	Karahalli	1.43	8	i P	Pn	23 11 57.7	-0.1
KHAL				i S	Sg	23 12 17.1	+0.4
BODT	Bodrum	1.54	275	ePN	Pn	23 11 59.2	0.0
BODT	Bodrum	1.54	275	ePn	Pn	23 11 59.2	0.0

NEIC 20 23:23:17.9, 36°.58N×21°.13E, h20^{km}, ML3.2(ATH), After ATH.

ATH 20 23:23:17.9, 36°.58N×21°.13E, h20^{km}±6^{km}, MD3.6/6, ML3.1

ISCJB 20 23:23:18.9±1.9, 36°.59N±0°.08×21°.09E±0°.05, h18^{km}±18^{km}, Error ellipse: s-maj=14.3km s-min=6.2km az=12.8

CSEM 20 23:23:19.2±0.3, 36°.60N×21°.18E, h10^{km}, ML3.1, Error ellipse: s-maj=10.3km s-min=4.3km az=10.0

ISC 20 23:23:19.2±2.0, 36°.59N±0°.08×21°.16E±0°.05, h10^{km}±13^{km}, n50, σ0^{s}.80/54, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.85	46	ePB	Pg	23 23 34.2	-1.4
ITM				eSN	Sg	23 23 47.4	+0.8
ITM	Ithomi	0.85	46	ePb	Pg	23 23 34.2	-1.4
ITM				eSn	Sg	23 23 47.4	+0.8
VLI	Veliai	1.43	84	ePN	Pn	23 23 45.6	+0.3
VLI	Veliai	1.43	84	ePn	Pn	23 23 45.6	+0.3
RLS	Riolos of Patr	1.48	9	ePN	Pn	23 23 46.4	+0.4
RLS	Riolos of Patr	1.48	9	ePn	Pn	23 23 46.4	+0.4
KYTH	Kithira	1.54	101	ePN	Pn	23 23 47.5	+0.7
KYTH	Kithira	1.54	101	ePn	Pn	23 23 47.5	+0.7
VLS	Valsamata	1.65	344	ePN	Pn	23 23 48.3	+0.1
VLS	Valsamata	1.65	344	ePn	Pn	23 23 48.3	+0.1
NAIG	Nisos Aigina	2.19	57	ePN	Pn	23 23 56.6	+0.9
NAIG	Nisos Aigina	2.19	57	ePn	Pn	23 23 56.6	+0.9
VLY	Voula,Athens	2.45	58	ePN	Pn	23 23 58.2	-1.0
VLY	Voula,Athens	2.45	58	ePn	Pn	23 23 58.2	-1.0
ATH	Athens Observa	2.46	55	ePN	Pn	23 23 59.2	-0.2
ATH	Athens Observa	2.46	55	ePn	Pn	23 23 59.2	-0.2
LKR	Lokris	2.52	35	ePN	Pn	23 24 00.6	+0.4
LKR	Lokris	2.52	35	ePn	Pn	23 24 00.6	+0.4
PTL	Penteli	2.60	55	ePN	Pn	23 24 01.7	+0.4
PTL	Penteli	2.60	55	ePn	Pn	23 24 01.7	+0.4
VAM	Vamos	2.73	115	ePN	Pn	23 24 01.5	-1.6
VAM	Vamos	2.73	115	ePn	Pn	23 24 01.5	-1.6
THL	Klokotos Trika	3.04	13	ePN	Pn	23 24 07.4	0.0
THL	Klokotos Trika	3.04	13	ePn	Pn	23 24 07.4	0.0
KEK	Kerkira	3.30	341	P	Pn	23 24 10.9	0.0
KEK	Kerkira	3.30	341	P	Pn	23 24 10.9	0.0
SOI	Samo	4.33	291	Pn	Pn	23 24 25.4	+0.3
SOI	Samo	4.33	291	Pn	Pn	23 24 25.4	+0.3
TIP	Timpagrande	4.34	308	P	Pn	23 24 25.8	+0.6
TIP	Timpagrande	4.34	308	P	Pn	23 24 25.8	+0.6
GRI	Girifalco	4.37	302	Pn	Pn	23 24 25.9	+0.3
GRI	Girifalco	4.37	302	Pn	Pn	23 24 25.9	+0.3
CEL	Celeste	4.51	293	P	Pn	23 24 28.1	+0.5
CEL	Celeste	4.51	293	P	Pn	23 24 28.1	+0.5
MTTG	Motta San Giov	4.58	290	Pn	Pn	23 24 28.8	+0.3
MTTG	Motta San Giov	4.58	290	Pn	Pn	23 24 28.8	+0.3
TAR1	Taranto	4.97	323	ePn	Pn	23 24 33.4	-0.4
PE1	Pezze di Greco	5.12	326	ePn	Pn	23 24 35.4	-0.6
LTRZ	Laterza	5.25	321	Pn	Pn	23 24 36.6	-1.2
LTRZ	Laterza	5.25	321	Pn	Pn	23 24 36.6	-1.2
CUC	Castrocucco	5.41	311	ePn	Pn	23 24 40.7	+0.8
	12nm,0.5s						
CUC				eSn	Sn	23 25 38.9	-3.2
CUC	Castrocucco	5.41	311	ePn	Pn	23 24 40.7	+0.8
	12nm,0.5s						
CUC				eSn	Sn	23 25 38.8	-3.3
SG1	Sgolgore (BA)	5.50	322	ePn	Pn	23 24 41.0	-0.2
BAI	Bari	5.61	325	ePn	Pn	23 24 42.0	-0.7
SGO	Sicignano	6.06	313	Pn	Pn	23 24 50.2	+1.3
	12nm,0.4s						
SGO	Sicignano	6.06	313	Pn	Pn	23 24 50.2	+1.3
	12nm,0.4s						
FG5	Orsara di Pugl	6.56	317	Pn	Pn	23 24 56.5	+0.8
	11nm,0.3s						
FG5	Orsara di Pugl	6.56	317	Pn	Pn	23 24 56.5	+0.8
	11nm,0.3s						
RGNG	Rignano Grg	6.67	321	Pn	Pn	23 24 56.3	-1.0
RGNG	Rignano Grg	6.67	321	Pn	Pn	23 24 56.3	-1.0

IDC 20 23:23:25.0±1.8, 6°.96S×129°.26E, h0^{km}, mb3.9/2, mb1 4.1/5, mb1mx3.8/18, mbtmp4.0/5, ML4.0/3, MS3.4/1, Ms1 3.4/1, ms1mx2.5/33, Error ellipse: s-maj=87.2km s-min=25.0km az=76.0

ISCJB 20 23:23:41.9±1.6, 7°.80S±0°.07×129°.01E±0°.09, h189^{km}±17^{km}, mb4.2/12, Error ellipse: s-maj=16.0km s-min=10.4km az=148.5

NEIC 20 23:23:43.2±2.0, 7°.84S×128°.91E, h183^{km}±24^{km}, mb4.4/10, Error ellipse: s-maj=22.6km s-min=12.0km az=209.0

ISC 20 23:23:43.1±1.3, 7°.88S±0°.07×129°.04E±0°.09, h185^{km}±15^{km}, n28, σ1^{s}.03/35, mb4.2/12, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.85	145	eP	Pn	23 25 08.4	+0.2
	4.6nm,0.1s						
KAKA				eS	Sn	23 26 14.7	-0.5
KAKA	Kakadu	5.85	145	ePn	Pn	23 25 09.6	+1.5
KAKA				eSn	Sn	23 26 14.0	-1.2
KNA	Kununurra	7.82	182	eP	Pn	23 25 36.1	+2.1
KNA				eS	Sn	23 27 02.9	+0.9
FITZ	Fitzroy Crossi	10.68	198	eP	Pn	23 26 12.5	+1.1
	11nm,0.5s						
FITZ				eS	Sx	23 28 05.6	
FITZ	Fitzroy Crossi	10.68	198	Pn	Pn	23 26 12.3	+0.8
	1.2nm,0.3s,baz=16,slow=9.1,SNR=31						
FITZ				Sn	Sn	23 28 09.6	-0.8
	1.3nm,0.3s,baz=90,slow=23,SNR=4.2						
WRAB	Tennant Creek	13.04	157	ePn	Pn	23 26 42.7	+1.1
WRAB				eSn	Sn	23 29 05.0	-1.7
WRA	Warramunga Arr	13.04	157	Pn	Pn	23 26 42.5	+0.8
	0.8nm,0.3s,baz=342,slow=13,SNR=46						
WRA				Sn	Sn	23 29 03.5	-3.3
	1.7nm,0.3s,baz=333,slow=23,SNR=14						
WB2	Warramunga Arr	13.04	157	ePn	Pn	23 26 42.3	+0.6
WB2				eSn	Sn	23 29 04.2	-2.7
ASAR	Alice Springs	16.37	164	P	Pn	23 27 26.9	+4.3
	0.4nm,0.3s,baz=339,slow=10,SNR=16						
ASAR				S	S	23 30 25.5	+1.3
	0.4nm,0.3s,baz=347,slow=24,SNR=5.6						
CTAO	Charters Tower	20.62	128	Pn	P	23 28 10.3	+2.1
JHJ	Hachijo jima 2	42.04	14	LR	LR	23 45 53.4	
	comp=Z,54nm,20.2s,baz=80,slow=33						
LSA	Lhasa	52.19	317	eP	P	23 32 33.4	-1.7
	1.9nm,0.7s,mb3.8						
ODAN	Odare	53.13	312	eP	P	23 32 41.7	-0.3
	5.9nm,0.7s,mb4.4						
TAPN	Taplejung	53.17	313	eP	P	23 32 41.9	-0.4
	4.0nm,0.4s,mb4.5						
RAMN	Ramite	53.76	312	eP	P	23 32 46.5	-0.1
	8.3nm,0.5s,mb4.7						
JIRN	Jiri	54.46	312	eP	P	23 32 51.5	-0.2
	3.2nm,0.4s,mb4.4						
GUN	Gumba	54.83	312	eP	P	23 32 54.2	-0.1
	5.5nm,0.3s,mb4.7						
PKI	Pulchoki	54.98	312	eP	P	23 32 54.9	-0.6
	2.4nm,0.4s,mb4.3						
KKN	Kakani	55.20	312	eP	P	23 32 57.0	0.0
DMN	Daman	55.23	311	eP	P	23 32 56.7	-0.5
	2.7nm,0.5s,mb4.2						
GKN	Gorkha	55.79	312	eP	P	23 33 00.8	-0.4
	7.1nm,0.4s,mb4.9						
KOLN	Koldanda	56.44	311	eP	P	23 33 05.7	-0.1
MK31	Makanchi Array	68.45	327	eP	P	23 34 24.3	-0.7
MKAR	Makanchi Array	68.45	327	P	P	23 34 24.7	-0.3
	0.4nm,0.4s,mb3.5,baz=122,slow=7.7,SNR=20						
TKM2	Tokmak 2	70.06	321	P	P	23 34 35.9	+0.9
UCH	Uchtor	70.38	320	eP	P	23 34 37.2	+0.2
	0.7nm,0.6s,mb3.6						
AAK	Ala-Archa	70.60	320	P	P	23 34 39.1	+0.8
KURK	Kurchatov	72.78	329	P	P	23 34 51.3	+0.2
	0.6nm,0.7s,mb3.5,baz=126,slow=4.9,SNR=6.5						

NEIC 20 23:26:44.9, 40°.03N×14°.98E, h326^{km}, mb3.8/25, After ROM.

ROM 20 23:26:44.9±0.4, 40°.03N×14°.98E, h326^{km}±5^{km}, Ml3.2/32, Error ellipse: s-maj=10.0km s-min=3.1km az=68.0

LDG 20 23:26:45.2±0.5, 40°.32N×15°.20E, h280^{km}, Mb3.8/32, Error ellipse: s-maj=21.5km s-min=6.9km az=14.0

ISCJB 20 23:26:46.7±0.3, 40°.07N±0°.04×14°.84E±0°.05, h319^{km}±2^{km}, mb3.4/10, Error ellipse: s-maj=8.1km s-min=4.4km az=40.9

IDC 20 23:26:48.8±0.9, 40°.18N×14°.74E, h324^{km}±11^{km}, mb3.3/9, mb1 3.2/20, mb1mx3.1/33, mbtmp3.1/20, Error ellipse: s-maj=12.1km s-min=10.0km az=77.0

CSEM 20 23:26:51.1±0.3, 40°.03N×15°.08E, h517^{km}±11^{km}, mb3.2, Error ellipse: s-maj=8.0km s-min=5.2km az=63.0

ISC 20 23:26:47.8±0.3, 40°.10N±0°.04×14°.86E±0°.05, h312^{km}±2^{km}, n171, σ1^{s}.07/186, mb3.5/10, 30C-14D, Southern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDRU	Civita di Ruta	0.52	41	⇑iPg	Pn	23 27 27.9	+0.3
CDRU				Sg	S	23 27 58.7	-0.7
	38nm,1.3s						
CDRU	Civita di Ruta	0.52	41	⇑iPg	Pn	23 27 27.9	+0.3
CDRU				Sg	S	23 27 58.7	-0.7
	38nm,1.3s						
MGR	Morigerati	0.53	85	⇑iPg	Pn	23 27 27.8	+0.1
MGR				Sg	S	23 27 58.7	-0.8
	95nm,0.9s						
MGR	Morigerati	0.53	85	⇑iPg	Pn	23 27 27.8	+0.1
MGR				Sg	S	23 27 58.7	-0.8
	95nm,0.9s						
SGO	Sicignano	0.58	36	⇑iPg	Pn	23 27 28.3	+0.5
	51nm,0.4s						
SGO	Sicignano	0.58	36	⇑iPg	Pn	23 27 28.3	+0.5
	51nm,0.4s						
MTSN	Montesano sull	0.70	76	Pg	Pn	23 27 28.5	+0.3
	52nm,1.0s						
MTSN	Montesano sull	0.70	76	Pg	Pn	23 27 28.5	+0.3
	52nm,1.0s						
MCRV	Calabrutti - M	0.73	19	⇑iPg	Pn	23 27 28.6	+0.4
	105nm,0.6s						
MCRV	Calabrutti - M	0.73	19	⇑iPg	Pn	23 27 28.6	+0.4
	105nm,0.6s						
CUC	Castrocucco	0.74	98	Pg	Pn	23 27 28.1	-0.2
CUC				Sg	S	23 27 59.1	-1.6
	84nm,0.9s						
CUC	Castrocucco	0.74	98	Pg	Pn	23 27 28.1	-0.2
CUC				Sg	S	23 27 59.1	-1.6
	84nm,0.9s						
MCEL	Monticello	0.76	72	Pg	Pn	23 27 29.1	+0.7
MCEL				Sg	S	23 28 00.8	+0.1
	71nm,0.9s						
MCEL	Monticello	0.76	72	Pg	Pn	23 27 29.1	+0.7
MCEL				Sg	S	23 28 00.8	+0.1
	71nm,0.9s						
SIRI	Monte Sirino -	0.78	83	Pg	Pn	23 27 29.4	+1.0
	55nm,1.1s						
SIRI	Monte Sirino -	0.78	83	Pg	Pn	23 27 29.4	+1.0
	55nm,1.1s						
MRB1	Monte Rocchett	1.03	5	⇑iPg	Pn	23 27 30.0	+0.6
	55nm,0.7s						
MRB1	Monte Rocchett	1.03	5	⇑iPg	Pn	23 27 30.0	+0.6
	55nm,0.7s						
PSB1	Pescosannita	1.13	358	Pg	Pn	23 27 30.4	+0.5
	515nm,3.9s						
PSB1	Pescosannita	1.13	358	Pg	Pn	23 27 30.4	+0.5
	515nm,3.9s						
FG5	Orsara di Pugl	1.23	14	Pg	Pn	23 27 30.8	+0.4
	59nm,1.0s						

FG5	Orsara di Pugl	1.23	14	Pg	Pn	23 27 30.8	+0.4
	59nm,1.0s						
MODR	Mondragone	1.29	325	⇑*i*Pg	Pn	23 27 31.4	+0.7
	15nm,0.6s						
MODR	Mondragone	1.29	325	⇑*i*Pg	Pn	23 27 31.4	+0.7
	15nm,0.6s						
PTRJ	Pietraroja	1.29	349	⇑*i*Pg	Pn	23 27 31.2	+0.5
	137nm,0.8s						
PTRJ	Pietraroja	1.29	349	⇑*i*Pg	Pn	23 27 31.2	+0.5
	137nm,0.8s						
CARO	Carolei	1.34	128	⇓*i*Pg	Pn	23 27 30.2	-1.0
	92nm,0.5s						
CARO	Carolei	1.34	128	⇓*i*Pg	Pn	23 27 30.2	-1.0
	92nm,0.5s						
SGG	Gregorio Mates	1.34	344	⇑*i*Pg	Pn	23 27 32.0	+1.0
	71nm,0.5s						
SGG	Gregorio Mates	1.34	344	⇑*i*Pg	Pn	23 27 32.0	+1.0
	71nm,0.5s						
VAGA	Valle Agricola	1.40	340	⇑*i*Pg	Pn	23 27 32.3	+0.9
	45nm,0.6s						
VAGA	Valle Agricola	1.40	340	⇑*i*Pg	Pn	23 27 32.3	+0.9
	45nm,0.6s						
MIDA	Miranda	1.61	344	⇑*i*Pg	Pn	23 27 33.9	+1.2
	44nm,0.5s						
MIDA	Miranda	1.61	344	⇑*i*Pg	Pn	23 27 33.9	+1.2
	44nm,0.5s						
CERA	Filignano	1.63	337	⇑*i*Pg	Pn	23 27 33.5	+0.7
	39nm,0.6s						
CERA	Filignano	1.63	337	⇑*i*Pg	Pn	23 27 33.5	+0.7
	39nm,0.6s						
LLI	Lipari	1.65	178	Pg	Pn	23 27 34.7	+1.6
	303nm,1.0s						
LLI	Lipari	1.65	178	Pg	Pn	23 27 34.7	+1.6
	303nm,1.0s						
RGNG	Rignano Grg	1.67	19	Pg	Pn	23 27 32.2	-0.9
RGNG	Rignano Grg	1.67	19	Pg	Pn	23 27 32.2	-0.9
JOPP	Joppolo	1.69	152	⇓*i*Pg	Pn	23 27 32.3	-1.0
	80nm,0.4s						
JOPP	Joppolo	1.69	152	⇓*i*Pg	Pn	23 27 32.3	-1.0
	80nm,0.4s						
RNI2	Rionero Sannit	1.69	342	⇑*i*Pg	Pn	23 27 34.7	+1.5
	39nm,0.5s						
RNI2	Rionero Sannit	1.69	342	⇑*i*Pg	Pn	23 27 34.7	+1.5
	39nm,0.5s						
VPL	Vulcano Piano	1.72	177	Pg	Pn	23 27 34.1	+0.5
	67nm,0.4s						
VPL	Vulcano Piano	1.72	177	Pg	Pn	23 27 34.1	+0.5
	67nm,0.4s						
TIP	Timpagrande	1.73	121	⇓*i*Pg	Pn	23 27 33.0	-0.6
	53nm,0.6s						
TIP	Timpagrande	1.73	121	*e*Pn	Pn	23 27 33.0	-0.6
TIP				*e*S	S	23 28 06.5	-3.6
TIP	Timpagrande	1.73	121	⇓*i*Pg	Pn	23 27 33.0	-0.6
	53nm,0.6s						
GRI	Girifalco	1.75	136	Pg	Pn	23 27 32.9	-0.9
	125nm,0.4s						
GRI	Girifalco	1.75	136	Pg	Pn	23 27 32.9	-0.9
	125nm,0.4s						
SERS	Sersale	1.76	126	⇓*e*Pg	Pn	23 27 33.1	-0.7
SERS				Sg	S	23 28 08.8	-1.8
	104nm,0.3s						
SERS	Sersale	1.76	126	⇓*e*Pg	Pn	23 27 33.1	-0.7
SERS				Sg	S	23 28 08.8	-1.8
	104nm,0.3s						
SDI	San Donato	1.80	334	⇑*i*Pg	Pn	23 27 34.9	+0.9
	63nm,0.5s						
SDI	San Donato	1.80	334	⇑*i*Pg	Pn	23 27 34.9	+0.9
	63nm,0.5s						
POFI	Posta Fibreno	1.84	332	⇑*i*Pg	Pn	23 27 35.3	+1.0
	24nm,0.5s						
POFI	Posta Fibreno	1.84	332	⇑*i*Pg	Pn	23 27 35.3	+1.0
	24nm,0.5s						
MILZ	Milazzo	1.84	171	⇓*i*Pg	Pn	23 27 34.2	-0.3
	72nm,0.5s						
MILZ	Milazzo	1.84	171	⇓*i*Pg	Pn	23 27 34.2	-0.3
	72nm,0.5s						
MSRU	Castanea	1.90	164	⇓*i*Pg	Pn	23 27 34.2	-0.7
	137nm,0.5s						
MSRU	Castanea	1.90	164	⇓*i*Pg	Pn	23 27 34.2	-0.7
	137nm,0.5s						
GIUL	Giuliano Di Ro	1.90	321	Pg	Pn	23 27 35.5	+0.8
	85nm,1.9s						
GIUL	Giuliano Di Ro	1.90	321	Pg	Pn	23 27 35.5	+0.8
	85nm,1.9s						
CEL	Celeste	2.00	156	Pg	Pn	23 27 34.3	-1.3
	77nm,0.5s						
CEL	Celeste	2.00	156	Pg	Pn	23 27 34.3	-1.3
	77nm,0.5s						
VVLD	Villa Vallelon	2.01	333	⇑*i*Pg	Pn	23 27 36.5	+1.0
	34nm,0.5s						
VVLD	Villa Vallelon	2.01	333	⇑*i*Pg	Pn	23 27 36.5	+1.0
	34nm,0.5s						
PLAC	Placanica	2.05	143	⇓*i*Pg	Pn	23 27 34.9	-1.1
PLAC				Sg	S	23 28 11.7	-2.8
	44nm,0.7s						
PLAC	Placanica	2.05	143	⇓*i*Pg	Pn	23 27 34.9	-1.1
PLAC				Sg	S	23 28 11.7	-2.8
	44nm,0.7s						
MTTG	Motta San Giov	2.19	163	Pg	Pn	23 27 37.2	+0.1
	232nm,1.0s						
MTTG	Motta San Giov	2.19	163	Pg	Pn	23 27 37.2	+0.1
	232nm,1.0s						
SOI	Samo	2.22	155	Pg	Pn	23 27 36.4	-1.0
	92nm,1.0s						
SOI	Samo	2.22	155	Pg	Pn	23 27 36.4	-1.0
	92nm,1.0s						
VAE	Valguarnera	2.64	188	P	Pn	23 27 42.4	+1.4
	1.0nm,0.3s,baz=354,slow=9.2,SNR=3.9						
VAE	Valguarnera	2.64	188	P	Pn	23 27 42.4	+1.4
KEST	Kesra	6.16	227	P	Pn	23 28 22.6	+3.2
	0.1nm,0.3s,baz=63,slow=13,SNR=6.8						
SBF	Sospel	6.69	307	*e*P	Pn	23 28 25.7	+0.2
TUE	Stuetta	7.54	330	*e*Pn	Pn	23 28 35.8	+0.2
	13nm,0.8s						
TUE				*e*S	S	23 30 02.1	-1.0
MBDF	Montbardon	7.56	310	*e*P	Pn	23 28 37.4	+1.4
	19nm,0.6s						
DAVOX	Davos/Dischmat	7.60	333	P	Pn	23 28 38.0	+1.6
	0.9nm,0.3s,baz=173,slow=11,SNR=11						
BNI	Bardonecchia	7.81	312	*e*Pn	Pn	23 28 39.9	+1.0
	5.9nm,0.6s						
LPG	La Plagne	8.04	315	*e*P	Pn	23 28 43.7	+1.9
	25nm,0.7s						
LPL	La Plagne	8.06	315	*e*P	Pn	23 28 44.1	+2.0
	16nm,0.6s						
ORIF	Oris-en-Rattie	8.20	309	*e*P	Pn	23 28 43.1	-0.6
	7.3nm,0.5s						
GERES	GERESS Array B	8.79	355	P	Pn	23 28 51.6	+0.8
	0.1nm,0.3s,baz=349,slow=27,SNR=4.3						
VIVF	Saint-Julien-l	8.90	306	*e*P	Pn	23 28 52.4	+0.1
CABF	La Chapelle	9.12	318	*e*P	Pn	23 28 53.4	-1.5
	21nm,0.5s						
IDI	Anoyia	9.28	118	P	Pn	23 28 58.2	+1.1
	2.0nm,0.3s,baz=296,slow=11,SNR=14						
IDI				S	S	23 30 49.2	+6.7
	0.5nm,0.3s,baz=331,slow=19,SNR=3.4						
VRAC	Vranov	9.29	7	P	Pn	23 28 56.9	-0.1
	0.4nm,0.3s,baz=219,slow=18,SNR=2.5						
HINF	Hinteralfeld	9.63	326	*e*P	Pn	23 28 59.8	-1.4
	2.1nm,0.3s						
MLR	Muntele Rosu	9.77	53	P	Pn	23 29 05.8	+3.0
	0.3nm,0.3s,baz=131,slow=21,SNR=6.5						
CDF	Champ du Feu	9.93	329	*e*P	Pn	23 29 04.1	-0.7
	7.7nm,0.4s						
MTLF	Montolieu	9.99	293	*e*P	Pn	23 29 06.4	+0.8
	1.3nm,0.4s						
MTLF	Montolieu	9.99	293	*e*P	Pn	23 29 06.4	+0.8
	0.6nm,0.4s						
MTLF	Montolieu	9.99	293	*e*P	Pn	23 29 06.4	+0.8
	0.6nm,0.4s						
HAU	Haudompre	10.00	325	*e*P	Pn	23 29 04.5	-1.1
	6.7nm,0.4s						
SMF	Signal de Mont	10.35	313	*e*P	Pn	23 29 08.0	-1.9
	7.5nm,0.4s						
SMF	Signal de Mont	10.35	313	*e*P	Pn	23 29 08.0	-1.9
	3.8nm,0.4s						
CAF	Calviac	10.61	301	*e*P	Pn	23 29 14.2	+1.2
	8.8nm,0.9s						
CAF	Calviac	10.61	301	*e*P	Pn	23 29 14.2	+1.2
	4.4nm,0.9s						
CAF	Calviac	10.61	301	*e*P	Pn	23 29 14.2	+1.2
	4.4nm,0.9s						
AVF	Avril sur Loir	10.71	312	*e*P	Pn	23 29 13.0	-1.2
	9.2nm,0.5s						
AVF	Avril sur Loir	10.71	312	*e*P	Pn	23 29 13.0	-1.2
	4.6nm,0.5s						
LOR	Lormes	10.71	316	*e*P	Pn	23 29 12.5	-1.8
SSF	Saint Saulge	10.78	314	*e*P	Pn	23 29 13.9	-1.2
	3.5nm,0.4s						
SSF	Saint Saulge	10.78	314	*e*P	Pn	23 29 13.9	-1.2
	1.8nm,0.4s						
BRG	Berggiesshubel	10.80	357	*e*(P)	Pn	23 29 19.2	+3.9
	4.8nm,1.0s						
BRG	Berggiesshubel	10.80	357	P	Pn	23 29 19.2	+3.9
	2.9nm,1.0s						
BGF	Bois d'Agland	10.87	310	*e*P	Pn	23 29 14.9	-1.3
	17nm,0.7s						
BGF	Bois d'Agland	10.87	310	*e*P	Pn	23 29 14.9	-1.3
	8.6nm,0.7s						
MEZF	Maizieres J'vi	10.95	323	*e*P	Pn	23 29 16.1	-1.0
	13nm,0.7s						
MEZF	Maizieres J'vi	10.95	323	*e*P	Pn	23 29 16.1	-1.0
	13nm,0.7s						
RJF	Les Rejaudoux	11.11	302	*e*P	Pn	23 29 20.6	+1.4
	4.9nm,0.7s						
RJF	Les Rejaudoux	11.11	302	*e*P	Pn	23 29 20.6	+1.4
	2.5nm,0.7s						
RJF	Les Rejaudoux	11.11	302	*e*P	Pn	23 29 20.6	+1.4
	2.5nm,0.7s						
TCF	Toulx Ste Croi	11.11	308	*e*P	Pn	23 29 19.1	-0.1
	13nm,1.0s						
TCF	Toulx Ste Croi	11.11	308	*e*P	Pn	23 29 19.1	-0.1
	6.3nm,1.0s						
TCF	Toulx Ste Croi	11.11	308	*e*P	Pn	23 29 19.1	-0.1
	6.3nm,1.0s						
LFF	La Frestale	11.49	300	*e*P	Pn	23 29 24.8	+1.1
	4.9nm,0.6s						
LFF	La Frestale	11.49	300	*e*P	Pn	23 29 24.8	+1.1
	2.5nm,0.6s						
LFF	La Frestale	11.49	300	*e*P	Pn	23 29 24.8	+1.1
	2.5nm,0.6s						
ETSF	Etsaut	11.90	289	*e*P	Pn	23 29 30.5	+1.8
	4.8nm,0.6s						
ETSF	Etsaut	11.90	289	*e*P	Pn	23 29 30.5	+1.8
	2.4nm,0.6s						
SJPF	Ste Jean	12.41	289	*e*P	Pn	23 29 35.5	+0.6
	2.8nm,0.5s						
SJPF	Ste Jean	12.41	289	*e*P	Pn	23 29 35.5	+0.6
	1.4nm,0.5s						
SJPF	Ste Jean	12.41	289	*e*P	Pn	23 29 35.5	+0.6
	1.4nm,0.5s						
BAIF	Baives	12.47	327	*e*P	Pn	23 29 34.6	-1.0
	5.3nm,0.5s						
BAIF	Baives	12.47	327	*e*P	Pn	23 29 34.6	-1.0
	2.7nm,0.5s						
BAIF	Baives	12.47	327	*e*P	Pn	23 29 34.6	-1.0
	2.7nm,0.5s						
MFF	Saint Martin d	12.70	306	*e*P	Pn	23 29 39.5	+1.1
	9.0nm,0.8s						
MFF	Saint Martin d	12.70	306	*e*P	Pn	23 29 39.5	+1.1
	4.5nm,0.8s						
MFF	Saint Martin d	12.70	306	*e*P	Pn	23 29 39.5	+1.1
	4.5nm,0.8s						
LDF	La Druitiere	13.66	313	*e*P	Pn	23 29 48.8	-1.0
	12nm,0.4s						
LDF	La Druitiere	13.66	313	*e*P	Pn	23 29 48.8	-1.0
	6.1nm,0.4s						
LDF	La Druitiere	13.66	313	*e*P	Pn	23 29 48.8	-1.0
	6.1nm,0.4s						
FLN	La Foliniere	13.95	313	*e*P	Pn	23 29 51.9	-1.3
	6.2nm,0.4s						
FLN	La Foliniere	13.95	313	*e*P	Pn	23 29 51.9	-1.3
	3.1nm,0.4s						
FLN	La Foliniere	13.95	313	*e*P	Pn	23 29 51.9	-1.3
	3.1nm,0.4s						
GRR	Gorron	13.97	312	*e*P	Pn	23 29 51.9	-1.5
	4.0nm,0.4s						
GRR	Gorron	13.97	312	*e*P	Pn	23 29 51.9	-1.5
	2.0nm,0.4s						
GRR	Gorron	13.97	312	*e*P	Pn	23 29 51.9	-1.5
	2.0nm,0.4s						
BRTR	Keskin Array B	14.42	85	P	P	23 29 59.9	+2.1
	0.2nm,0.3s,baz=272,slow=10,SNR=11						
ESDC	Sonseca Array	14.46	274	P	P	23 29 57.1	-1.2
	0.3nm,0.3s,baz=79,slow=11,SNR=3.7						
ESDC	Sonseca Array	14.46	274	P	P	23 29 57.1	-1.1
SGMF	Saint Gilles	14.90	309	*e*P	P	23 30 02.7	-0.2
SGMF	Saint Gilles	14.90	309	*e*P	P	23 30 02.7	-0.2
QUIF	Quistinic	15.12	307	*e*P	P	23 30 04.5	-0.8
	3.4nm,0.5s						
QUIF	Quistinic	15.12	307	*e*P	P	23 30 04.5	-0.8
	1.7nm,0.5s						
QUIF	Quistinic	15.12	307	*e*P	P	23 30 04.5	-0.8
	1.7nm,0.5s						
ROSF	Rostrenen	15.37	308	*e*P	P	23 30 07.3	-0.7
	7.2nm,0.5s						
ROSF	Rostrenen	15.37	308	*e*P	P	23 30 07.3	-0.7
	3.6nm,0.5s						
ROSF	Rostrenen	15.37	308	*e*P	P	23 30 07.3	-0.7
	3.6nm,0.5s						
MMAI	Mount Meron Ar	17.93	107	P	P	23 30 37.4	+1.4
	1.0nm,0.3s,baz=313,slow=9.9,SNR=4.0						
EKA	Eskdalemuir Ar	19.39	328	P	P	23 30 50.1	-1.1
	baz=147,slow=11,SNR=23						
HFS	Hagfors	20.07	358	P	P	23 30 56.9	-1.4
	0.5nm,0.3s,baz=176,slow=11,SNR=16						
NB2	NORSAR Subarra	21.09	355	P	P	23 31 07.2	-0.9
	comp=Z,0.6nm,0.5s,mb3.2,baz=175,slow=11						
NB2	NORSAR Subarra	21.09	355	P	P	23 31 07.2	-0.9
	comp=Z,0.6nm,0.5s,mb3.2,baz=175,slow=11,SNR=3.9						
NOA	NORSAR Array B	21.09	355	P	P	23 31 07.0	-1.1
	comp=Z,1.6nm,0.7s,mb3.5,baz=183,slow=12,SNR=5.1						
TORD	Torodi Ar. Bea	29.24	207	P	P	23 32 21.8	+0.1
	comp=Z,0.3nm,0.3s,mb3.1,baz=16,slow=9.8,SNR=10.0						
ARCES	ARCESS Array B	30.04	7	P	P	23 32 26.6	-1.5
	comp=Z,5.5nm,1.1s,mb4.0,baz=185,slow=9.1,SNR=6.4						
EKS2	Erkin-Say	43.51	67	*e*P	P	23 34 21.3	+0.2
	comp=Z,2.0nm,0.5s,mb3.6						
KURK	Kurchatov	44.70	54	P	P	23 34 30.1	-0.2
	comp=Z,0.8nm,0.5s,mb3.2,baz=276,slow=9.5,SNR=7.3						
KURK	Kurchatov	44.70	54	*e*P	P	23 34 30.1	-0.2
	comp=Z,1.7nm,0.3s,mb3.8						
ZALV	Zalesovo Beam	47.71	49	P	P	23 34 53.7	+0.2
	comp=Z,1.5nm,0.4s,mb3.6,baz=276,slow=8.3,SNR=7.8						
ZALV	Zalesovo Beam	47.71	49	P	P	23 34 53.7	+0.1
MK31	Makanchi Array	48.05	59	*e*P	P	23 34 56.2	0.0
MKAR	Makanchi Array	48.05	59	P	P	23 34 56.3	+0.1
	comp=Z,1.7nm,0.4s,mb3.8,baz=286,slow=6.7,SNR=58						
SCHQ	Schefferville	54.03	315	P	P	23 35 39.9	-0.3
	comp=Z,2.0nm,0.5s,mb3.7,baz=63,slow=15,SNR=5.8						
SONM	Songino Array	62.60	49	P	P	23 36 40.0	+0.8
	comp=Z,0.1nm,0.5s,mb2.8,baz=291,slow=8.4,SNR=4.8						
BOSA	Boshof	69.04	170	P	P	23 37 20.8	+0.8
	comp=Z,1.5nm,0.6s,mb3.9,baz=337,slow=7.7,SNR=3.4						
BOSA	Boshof	69.04	170	*e*P	P	23 37 20.8	+0.8
	comp=Z,0.4nm,0.3s,mb3.6						

ISCJB ***20*** *23:37:57.5±0.7, 40°.08N±0°.03×38°.57E±0°.06, h2^{km}±8^{km}, Error ellipse: s-maj=9.0km s-min=4.2km az=29.1*

ISK ***20*** *23:37:57.6, 40°.06N×38°.70E, h25^{km}, MD2.9*

CSEM ***20*** *23:37:58.2±0.2, 40°.07N×38°.60E, h15^{km}, MD2.9, Error ellipse: s-maj=6.6km s-min=3.6km az=123.0*

DDA ***20*** *23:37:59.0, 40°.03N×38°.75E, h7^{km}±2^{km}, Md2.9*

ISC 20 23:37:58.5±0.6**, 40°.09N**±0°.03×**38°.59E**±0°.07**, h10**^{km}±7^{km}**, n21, σ0.^{s}97**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMT	Gumushane	0.77	61	PG	Pg	23 38 13.0	-0.4
GUMT				SG	Sg	23 38 22.6	-1.0
GUMT	Gumushane	0.77	61	*i* Pg	Pg	23 38 13.0	-0.5
GUMT				*i* Sg	Sg	23 38 22.6	-1.0
KEMA	Kemaliye	0.82	185	*i* P	Pg	23 38 13.7	-0.7
KEMA				*i* S	Sg	23 38 25.9	+0.9
KEMA	Kemaliye	0.82	185	*i* P	Pg	23 38 13.7	-0.6
KEMA				*i* S	Sg	23 38 26.0	+1.0
ESPY	Espiye-Giresun	0.84	7	*e*PG	Pg	23 38 14.7	0.0
ESPY				*e*SG	Sg	23 38 26.7	+1.1
ESPY	Espiye-Giresun	0.84	7	*e*Pg	Pg	23 38 14.7	0.0
ESPY				*e*Sg	Sg	23 38 26.7	+1.1
SVSK	Karacayir	1.24	263	*e*PN	Pn	23 38 20.9	-0.9
SVSK	Karacayir	1.24	263	*e*Pn	Pn	23 38 20.9	-0.9
MACK	Trabzon	1.24	46	*i* P	Pn	23 38 22.0	+0.2
MACK				*i* S	Sb	23 38 38.7	+0.7
MACK	Trabzon	1.24	46	*i* P	Pn	23 38 22.0	+0.2
MACK				*i* S	Sb	23 38 38.7	+0.7
TOKA	Tokat	1.64	279	*e*P	Pn	23 38 28.5	+1.2
TOKA				*i* S	Sg	23 38 57.1	+6.0
TOKA	Tokat	1.64	279	*e*P	Pn	23 38 28.5	+1.2
MALT	Malatya	1.77	184	*e*PN	Pn	23 38 28.1	-1.2
MALT	Malatya	1.77	184	*e*Pn	Pn	23 38 28.1	-1.1
AKCD	Akcadag	1.86	196	*i* P	Pn	23 38 32.1	+1.7
AKCD				*i* S	Sg	23 38 59.7	+1.3
AKCD	Akcadag	1.86	196	*i* P	Pn	23 38 32.1	+1.7
SARI	SarD1z-Kayseri	2.03	227	*e*PN	Pg	23 38 36.1	-1.4
BNN	Bunyan	2.46	241	*e*PN	Pn	23 38 37.6	-1.0
BNN	Bunyan	2.46	241	*e*Pn	Pn	23 38 37.6	-1.0
YOZ	Yozgat	2.56	261	*e*PN	Pn	23 38 39.5	-0.5
YOZ	Yozgat	2.56	261	*e*Pn	Pn	23 38 39.5	-0.5

IDC 20 23:40:10.3±4.1**, 36°.89S**×**179°.22E, h0**^{km}**, mb3.8**/2**, mb1 4.1**/3**, mb1mx3.9**/15**, mbtmp3.9**/3**, ML4.2**/1**, Error ellipse: s-maj=87.7km s-min=36.4km az=124.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	2.17	230	Pn	Pn	23 40 47.4	-0.2
	73nm,0.3s,baz=56,slow=4.7,SNR=213						
URZ				Sn	Sn	23 41 14.2	-0.9
	6.5nm,0.3s,baz=210,slow=9.5,SNR=4.8						
ASAR	Alice Springs	40.93	276	P	P	23 47 55.1	+0.6
	0.5nm,0.4s,baz=123,slow=8.2,SNR=6.8						
WRA	Warramunga Arr	42.52	281	P	P	23 48 07.6	0.0
	0.8nm,0.5s,baz=120,slow=7.8,SNR=13						
ARCES	ARCESS Array B	144.32	345	PKP	PKPdf	23 59 45.7	-1.5
	1.9nm,0.7s,baz=36,slow=2.3,SNR=6.2						

IDC ***20*** *23:40:21.2±1.0, 9°.04S×106°.81E, h0^{km}, mb4.2/10, mb1 4.3/10, mb1mx4.0/21, mbtmp4.2/10, Error ellipse: s-maj=50.4km s-min=15.6km az=57.0*

BJI ***20*** *23:40:21.8, 9°.20S×106°.70E, h25^{km}, mB4.9/3, mb4.6/10*

ISCJB ***20*** *23:40:23.9±0.7, 9°.16S±0°.04×106°.73E±0°.05, h34^{km}±6^{km}, mb4.5/30, Error ellipse: s-maj=7.5km s-min=7.1km az=169.6*

NEIC ***20*** *23:40:25.8±0.3, 9°.19S×106°.71E, h35^{km}, mb4.7/17, Error ellipse: s-maj=10.2km s-min=6.9km az=54.0*

DJA ***20*** *23:40:25, 9°.12S×106°.65E, h30^{km}, MLv4.6/7*

ISC 20 23:40:24.3±1.9**, 9°.19S**±0°.04×**106°.69E**±0°.05**, h22**^{km}±14^{km}**, h19**^{km}±5.8^{km}**:pP-P, n62, σ0.^{s}94**/63**, mb4.5**/30**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XMIS	Christmas Isla	1.64	219	*e*Pn	Pn	23 40 51.8	-0.1
XMIS				*e*Sn	Sn	23 41 11.7	-0.6
XMIS	Christmas Isla	1.64	219	P	Pn	23 40 52.2	+0.3
LEM	Lembang	2.52	21	P	Pn	23 41 03.9	-0.1
DBJI	Dramaga	2.62	1	P	Pn	23 41 04.4	-0.9
CBJI	Citeko	2.76	3	P	Pn	23 41 03.7	-3.5
TNG	Tangerang	3.00	359	P	Pn	23 41 11.2	+0.6
SBJI	Serang	3.10	350	P	Pn	23 41 12.5	+0.5
SMRI	Semarang	4.28	60	P	Pn	23 41 28.2	+0.1
PWJI	Pagerwojo	5.18	77	P	Pn	23 41 40.6	0.0
	93nm,1.5s,0.7nm						
MDSI	Maura Dua	5.30	332	P	Pn	23 41 41.0	-1.2
KSI	Kapahiang	6.85	323	P	Pn	23 42 03.0	-0.5
	183nm,1.1s,0.7nm						
ABJI	Asem Bagus	7.59	80	P	Pn	23 42 14.0	+0.4
	74nm,0.9s						
KHKI	Kahang-Kahang	8.85	85	P	Pn	23 42 31.8	+0.8
CMAR	Chiang Mai Arr	28.52	344	P	P	23 46 16.4	-2.0
	1.4nm,0.4s,mb4.1,baz=176,slow=9.2,SNR=6.6						
WRA	Warramunga Arr	28.76	115	P	P	23 46 20.2	-0.4
	1.0nm,0.9s,mb3.5,baz=287,slow=11,SNR=4.1						
WRAB	Tennant Creek	28.77	115	*e*P	P	23 46 20.3	-0.4
	6.3nm,1.1s,mb4.3						
CHTO	Chiang Mai	28.86	345	*e*P	P	23 46 19.6	-1.7
ASAR	Alice Springs	29.72	122	P	P	23 46 29.0	-0.1
	1.1nm,1.0s,mb3.5,baz=296,slow=7.9,SNR=5.2						
NACB	Ninganchiao	36.21	23	P	P	23 47 25.2	-0.5
STKA	Stephens Creek	39.44	130	P	P	23 47 53.8	+0.9
	2.9nm,0.8s,mb4.0,baz=304,slow=8.5,SNR=6.8						
CTAO	Charters Tower	39.68	110	P	P	23 47 54.0	-1.1
ODAN	Odare	40.44	333	*e*P	P	23 48 02.1	+0.9
	24nm,0.7s,mb5.0						
TAPN	Taplejung	40.72	334	*e*P	P	23 48 04.9	+1.4
	34nm,0.9s,mb5.0						
RAMN	Ramite	40.88	332	*e*P	P	23 48 06.3	+1.5
	12nm,0.7s,mb4.6						
LSA	Lhasa	41.46	339	P	P	23 48 11.3	+1.7
LSA	Lhasa	41.46	339	*e*P	P	23 48 10.5	+0.9
	8.5nm,0.7s,mb4.5						
JIRN	Jiri	41.67	332	*e*P	P	23 48 12.7	+1.4
	39nm,1.1s,mb5.0						
PKI	Pulchoki	41.96	331	*e*P	P	23 48 14.7	+1.0
GUN	Gumba	42.02	332	*e*P	P	23 48 15.2	+0.9
	21nm,0.9s,mb4.8						
DMN	Daman	42.14	331	*e*P	P	23 48 16.3	+1.1
	23nm,1.2s,mb4.7						
KKN	Kakani	42.20	331	*e*P	P	23 48 16.5	+0.8
	23nm,1.0s,mb4.8						
GKN	Gorkha	42.69	331	*e*P	P	23 48 20.5	+0.8
	17nm,0.9s,mb4.8						
KOLN	Koldanda	43.01	329	*e*P	P	23 48 23.8	+1.5
	10nm,0.7s,mb4.6						
XAN	Xi'an	43.04	3	P	P	23 48 21.5	-0.9
XAN				pP	pP	23 48 26.5	-2.8
XAN				sP	sP	23 48 29.0	-3.1
XAN				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.2						
DANN	Dangsing	43.41	330	*e*P	P	23 48 26.4	+0.9
GUMO	Guam	44.14	60	P	P	23 48 32.5	+1.0
LZH	Lanzhou	45.11	357	*e*P	P	23 48 39.9	+0.9
LZH				pP	pP	23 48 42.5	-3.5
LZH				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,76nm,4.0s						
GTA	Gaotai	48.77	353	*e*P	P	23 49 08.4	+0.8
GTA				pP	pP	23 49 17.5	+2.9
GTA				sP	sP	23 49 21.0	+3.7
GTA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
BJT	Baijiatuau	49.74	10	P	P	23 49 14.4	-0.6
BJI	Beijing	49.76	10	P	P	23 49 14.1	-1.0
BJI				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.2						
MAJO	Matsushiro	54.28	31	*e*P	P	23 49 47.1	-1.7
	comp=Z,80nm,2.1s,mb5.3						
KBL	Kabul	56.24	323	P	P	23 50 02.8	-0.2
SONM	Songino Array	56.77	360	P	P	23 50 06.8	+0.2
	comp=Z,4.4nm,1.1s,mb4.4,baz=179,slow=8.2,SNR=20						
ULN	Ulaanbaatar	56.80	0	*e*P	P	23 50 05.9	-0.9
	comp=Z,5.9nm,1.1s,mb4.5						
ULN				*e*PcP	PcP	23 51 02.5	+0.2
UCH	Uchtor	59.04	333	P	P	23 50 22.4	-0.2
TKM2	Tokmak 2	59.11	334	*e*P	P	23 50 22.6	-0.4
HIA	Hailar	59.33	10	P	P	23 50 24.6	+0.2
AAK	Ala-Archa	59.37	333	P	P	23 50 24.6	-0.3
EKS2	Erkin-Say	59.72	332	*e*P	P	23 50 26.3	-1.0
	comp=Z,1.1nm,0.6s,mb4.1						
MKAR	Makanchi Array	59.84	341	P	P	23 50 28.0	0.0
	comp=Z,2.3nm,0.6s,mb4.4,baz=142,slow=7.6,SNR=41						
KURK	Kurchatov	64.45	341	P	P	23 50 59.0	+0.1
	comp=Z,3.8nm,0.7s,mb4.5,baz=155,slow=5.6,SNR=5.9						
KURK	Kurchatov	64.45	341	*e*P	P	23 50 59.7	+0.8
	comp=Z,4.3nm,0.6s,mb4.7						
YSS	Yuzh-Sakhalins	64.46	27	*e*P	P	23 50 58.5	-0.5
ZALV	Zalesovo Beam	65.57	346	P	P	23 51 05.2	-0.8
	comp=Z,0.8nm,0.3s,mb4.2,baz=144,slow=5.9,SNR=6.6						
BVAR	Borovoye Array	69.26	338	P	P	23 51 29.7	+0.2
	comp=Z,1.8nm,0.6s,mb4.2,baz=144,slow=9.0,SNR=14						
BRVK	Borovoye	69.32	337	*e*P	P	23 51 29.6	-0.2
	comp=Z,11nm,1.5s,mb4.6						
KMBO	Kilima Mbogo	69.53	272	*e*P	P	23 51 30.9	-1.1
ARU	Arti	76.46	335	P	P	23 52 11.5	-0.6
LSZ	Lusaka	76.62	256	*e*P	P	23 52 13.7	-0.3
	comp=Z,1.8nm,0.8s,mb4.0						
KIV	Kislovodsk	78.30	318	P	P	23 52 20.3	-2.4
QSPA	South Pole Qui	80.81	180	P	P	23 52 37.5	+1.8
	comp=Z,1.3nm,1.0s,mb3.8,baz=333,slow=4.5,SNR=4.5						
QSPA	South Pole Qui	80.81	180	P	P	23 52 37.5	+1.7

NNC ***20*** *23:53:45.1±2.0, 41°.89N×79°.31E, h0^{km}, mb3.1, mpv2.7, Error ellipse: s-maj=20.5km s-min=5.9km az=153.0*

BJI 20 23:53:44.9, 41°.62N×**79°.63E, h9**^{km}**, ML2.4**/6**, 5C-2D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TKM2	Tokmak 2	3.26	295	⇑Pn	Pn	23 54 32.7	-3.5
	2.3nm,0.5s						
TKM2				⇑Sn	Sn	23 55 11.1	-4.0

	18nm,0.6s						
KSH	**Kashi**	**3.49**	**234**	*e*Pg	Pg	23 54 47.3	-4.4
KSH				smax			
	comp=N,11nm,0.9s						
KSH				smax			
	comp=E,11nm,0.6s						
MK31	**Makanchi Array**	**5.51**	**19**	⇓Pn	Pn	23 55 07.0	-0.1
	comp=E,0.6nm,0.7s,baz=207,slow=14,SNR=18						
MK31				⇑Sn	Sn	23 56 09.5	-1.1
	comp=E,0.5nm,0.4s,baz=208,slow=25,SNR=4.4						
MK31				⇑Lg		23 56 33.7	
	comp=E,3.0nm,0.8s						
KK31	**Karatay Array**	**6.92**	**285**	⇑Pg	Pg	23 55 45.9	-11
	comp=E,0.2nm,0.4s,baz=100,slow=28,SNR=7.1						
KK31				⇓Lg		23 57 13.8	
	comp=E,1.0nm,0.5s,baz=96,slow=25,SNR=5.2						

ISCJB ***21*** *00:03:29.9±1.3, 36°.01N±0°.07×29°.11E±0°.05, h24^{km}±7^{km}, Error ellipse: s-maj=12.1km s-min=6.9km az=9.1*

CSEM ***21*** *00:03:29.6±0.4, 36°.04N×29°.11E, h15^{km}, MD3.2, Error ellipse: s-maj=7.4km s-min=4.0km az=179.0*

ISK ***21*** *00:03:29.3, 36°.07N×29°.10E, h15^{km}, MD3.1*

DDA ***21*** *00:03:32.2, 36°.46N×29°.25E, h6^{km}±7^{km}, Md3.2*

ISC 21 00:03:29.7±1.3, **36°.03N**±0°.06×**29°.09E**±0°.05, **h14**^{km}±6^{km}, **n28**, σ**0^s.62**/46, **1C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKAS	**Kas**	**0.47**	**64**	⇑*i*P	**Pg**	**00 03 39.0**	**+0.1**
AKAS				*i* S	**Sg**	**00 03 46.2**	**+1.0**
AKAS	**Kas**	**0.47**	**64**	*i* P	**Pg**	**00 03 39.0**	**+0.1**
AKAS				*i* S	**Sg**	**00 03 46.2**	**+1.0**
FETY	**Fethiye**	**0.60**	**360**	PG	**Pg**	**00 03 40.8**	**-0.7**
FETY				SG	**Sg**	**00 03 49.2**	**-0.3**
FETY	**Fethiye**	**0.60**	**360**	*i* Pg	**Pg**	**00 03 40.8**	**-0.7**
FETY				*i* Sg	**Sg**	**00 03 49.2**	**-0.3**
DALT	**Dalyan (Mudla)**	**0.82**	**334**	*e*PG	**Pg**	**00 03 44.9**	**-0.8**
DALT				*e*SG	**Sg**	**00 03 56.8**	**+0.4**
DALT	**Dalyan (Mudla)**	**0.82**	**334**	*e*Pg	**Pg**	**00 03 44.9**	**-0.7**
DALT				*e*Sg	**Sg**	**00 03 56.8**	**+0.4**
TURN	**Turunc**	**0.93**	**335**	*e*P	**Pb**	**00 03 48.4**	**+0.8**
TURN				*e*S	**Sb**	**00 04 01.2**	**+1.4**
TURN	**Turunc**	**0.93**	**335**	*e*P	**Pb**	**00 03 48.4**	**+0.8**
TURN				*e*S	**Sb**	**00 04 01.2**	**+1.5**
ELL	**Elmali**	**0.97**	**43**	*e*PG	**Pg**	**00 03 47.6**	**-0.9**
ELL				*e*SG	**Sg**	**00 04 01.8**	**+0.5**
ELL	**Elmali**	**0.97**	**43**	*e*Pg	**Pg**	**00 03 47.6**	**-0.9**
ELL				*e*Sg	**Sg**	**00 04 01.8**	**+0.5**
GOLH	**Golhisar**	**1.26**	**17**	⇓*i*P	**Pn**	**00 03 52.7**	**-0.3**
GOLH				*i* S	**Sb**	**00 04 08.5**	**-0.9**
GOLH	**Golhisar**	**1.26**	**17**	*i* P	**Pn**	**00 03 52.7**	**-0.2**
GOLH				*i* S	**Sb**	**00 04 08.5**	**-0.9**
YER	**Yerkesik**	**1.28**	**330**	*e*PN	**Pn**	**00 03 52.7**	**-0.4**
YER				*e*SN	**Sn**	**00 04 09.7**	**-0.5**
YER	**Yerkesik**	**1.28**	**330**	*e*Pn	**Pn**	**00 03 52.7**	**-0.5**
YER				*e*Sn	**Sn**	**00 04 09.7**	**-0.4**
DAT	**Datca**	**1.40**	**300**	*e*PN	**Pn**	**00 03 55.4**	**+0.5**
DAT				*e*SN	**Sn**	**00 04 13.5**	**+0.3**
DAT	**Datca**	**1.40**	**300**	*e*Pn	**Pn**	**00 03 55.4**	**+0.5**
DAT				*e*Sn	**Sn**	**00 04 13.5**	**+0.3**
MLSB	**Milas**	**1.64**	**320**	*e*PN	**Pn**	**00 03 58.4**	**+0.2**
MLSB	**Milas**	**1.64**	**320**	*e*Pn	**Pn**	**00 03 58.4**	**+0.2**
DENT	**Denizli**	**1.72**	**359**	*e*PN	**Pn**	**00 03 59.5**	**+0.3**
DENT	**Denizli**	**1.72**	**359**	*e*Pn	**Pn**	**00 03 59.5**	**+0.3**
BODT	**Bodrum**	**1.76**	**306**	*e*PN	**Pn**	**00 03 59.1**	**-0.7**
BODT	**Bodrum**	**1.76**	**306**	*e*Pn	**Pn**	**00 03 59.1**	**-0.7**
AYDN	**Tasoluk**	**1.89**	**330**	*e*P	**Pn**	**00 04 02.1**	**+0.5**
AYDN				*e*S	**Sn**	**00 04 25.1**	**-0.2**
AYDN	**Tasoluk**	**1.89**	**330**	*e*P	**Pn**	**00 04 02.1**	**+0.5**
AYDN				*e*S	**Sn**	**00 04 25.1**	**-0.2**
KHL	**Karahalli**	**2.31**	**9**	*e*PN	**Pn**	**00 04 07.3**	**-0.1**
KHL	**Karahalli**	**2.31**	**9**	*e*Pn	**Pn**	**00 04 07.3**	**-0.1**
KULA	**Kula-Manisa**	**2.50**	**352**	*e*PN	**Pn**	**00 04 09.7**	**-0.3**
KULA	**Kula-Manisa**	**2.50**	**352**	*e*Pn	**Pn**	**00 04 09.7**	**-0.3**

ISCJB ***21*** *00:12:45.4±0.6, 36°.99N±0°.03×29°.23E±0°.03, h1^{km}±6^{km}, Error ellipse: s-maj=5.4km s-min=3.5km az=0.1*

CSEM ***21*** *00:12:45.5±0.1, 36°.96N×29°.24E, h5^{km}, MD3.1, Error ellipse: s-maj=2.8km s-min=2.2km az=179.0*

ISK ***21*** *00:12:45.2, 36°.95N×29°.23E, h8^{km}, MD3.1*

DDA ***21*** *00:12:45.6, 37°.01N×29°.20E, h7^{km}±3^{km}, Md3.2*

ISC 21 00:12:46.0±0.5, **36°.98N**±0°.03×**29°.22E**±0°.03, **h5**^{km}±5^{km}, **n45**, σ**0^s.76**/66, **1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	**Fethiye**	**0.36**	**198**	PG	**Pg**	**00 12 51.8**	**-1.2**
FETY				SG	**Sg**	**00 12 57.6**	**-0.1**
FETY	**Fethiye**	**0.36**	**198**	*i* Pg	**Pg**	**00 12 51.8**	**-1.2**
FETY				*i* Sg	**Sg**	**00 12 57.6**	**-0.1**
GOLH	**Golhisar**	**0.37**	**47**	⇑*i*S	**Sg**	**00 12 52.8**	**-5.2**
GOLH				*i* S	**Sg**	**00 12 59.6**	**+1.5**
GOLH	**Golhisar**	**0.37**	**47**	*i* S	**Sg**	**00 12 59.6**	**+1.6**
TURN	**Turunc**	**0.51**	**258**	*e*P	**Pg**	**00 13 00.2**	**+4.4**
TURN				*e*S	**Sg**	**00 13 11.6**	**+9.2**
DALT	**Dalyan (Mudla)**	**0.52**	**246**	*e*PG	**Pg**	**00 12 55.2**	**-0.7**
DALT				*e*SG	**Sg**	**00 13 03.6**	**+1.0**
DALT	**Dalyan (Mudla)**	**0.52**	**246**	*e*Pg	**Pg**	**00 12 55.2**	**-0.7**
DALT				*e*Sg	**Sg**	**00 13 03.6**	**+1.0**
ELL	**Elmali**	**0.60**	**113**	*e*PG	**Pg**	**00 12 56.6**	**-0.9**
ELL				*e*SG	**Sg**	**00 13 05.9**	**+0.6**
ELL	**Elmali**	**0.60**	**113**	*e*Pg	**Pg**	**00 12 56.6**	**-0.9**
ELL				*e*Sg	**Sg**	**00 13 05.9**	**+0.7**
YER	**Yerkesik**	**0.77**	**282**	*e*PG	**Pg**	**00 13 00.9**	**+0.2**
YER				*e*SG	**Sg**	**00 13 12.1**	**+1.5**
YER	**Yerkesik**	**0.77**	**282**	*e*Pg	**Pg**	**00 13 00.9**	**+0.2**
YER				*e*Sg	**Sg**	**00 13 12.1**	**+1.5**
DENT	**Denizli**	**0.79**	**349**	*e*PG	**Pg**	**00 12 59.9**	**-1.1**
DENT	**Denizli**	**0.79**	**349**	*e*Pg	**Pg**	**00 12 59.9**	**-1.2**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**00 13 00.8**	**-0.7**
AKAS				*e*S	**Sg**	**00 13 14.4**	**+2.5**
AKAS	**Kas**	**0.81**	**157**	*e*P	**Pg**	**00 13 00.8**	**-0.7**
AKAS				*e*S	**Sg**	**00 13 14.4**	**+2.5**
ANTB	**Antalya**	**1.15**	**94**	*e*PN	**Pg**	**00 13 07.4**	**-0.6**
ANTB	**Antalya**	**1.15**	**94**	*e*Pn	**Pg**	**00 13 07.4**	**-0.6**
BCK	**Bucak**	**1.19**	**66**	*e*PN	**Pn**	**00 13 08.7**	**-0.6**
BCK				*e*SN	**Sn**	**00 13 26.1**	**+0.3**
BCK	**Bucak**	**1.19**	**66**	*e*Pn	**Pn**	**00 13 08.7**	**-0.5**
BCK				*e*Sn	**Sn**	**00 13 26.1**	**+0.3**
MLSB	**Milas**	**1.20**	**286**	*e*PN	**Pn**	**00 13 08.7**	**-0.6**
MLSB	**Milas**	**1.20**	**286**	*e*Pn	**Pn**	**00 13 08.7**	**-0.6**
AYDN	**Tasoluk**	**1.27**	**303**	*e*P	**Pn**	**00 13 09.6**	**-0.7**
AYDN				*e*S	**Sg**	**00 13 26.1**	**-0.6**
AYDN	**Tasoluk**	**1.27**	**303**	*e*P	**Pn**	**00 13 09.6**	**-0.7**
AYDN				*e*S	**Sg**	**00 13 26.1**	**-0.6**
ISP	**Isparta**	**1.34**	**50**	*e*PN	**Pn**	**00 13 10.8**	**-0.5**
ISP				*e*SN	**Sn**	**00 13 30.1**	**+0.8**
ISP	**Isparta**	**1.34**	**50**	*e*Pn	**Pn**	**00 13 10.8**	**-0.5**
ISP				*e*Sn	**Sn**	**00 13 30.2**	**+0.8**
KHL	**Karahalli**	**1.36**	**10**	*e*PN	**Pn**	**00 13 11.5**	**-0.1**
KHL	**Karahalli**	**1.36**	**10**	*e*Pn	**Pn**	**00 13 11.5**	**-0.1**
KHAL	**Karahalli**	**1.40**	**9**	*e*P	**Pn**	**00 13 12.1**	**0.0**
KHAL				*e*S	**Sb**	**00 13 31.5**	**+0.7**
BDRM	**Kayabasi**	**1.43**	**274**	*e*P	**Pn**	**00 13 12.5**	**0.0**
BDRM				*e*S	**Sb**	**00 13 32.2**	**+0.8**
BDRM	**Kayabasi**	**1.43**	**274**	*e*P	**Pn**	**00 13 12.5**	**0.0**
BDRM				*e*S	**Sb**	**00 13 32.2**	**+0.8**
BODT	**Bodrum**	**1.53**	**274**	*e*PN	**Pn**	**00 13 13.3**	**-0.6**
BODT	**Bodrum**	**1.53**	**274**	*e*Pn	**Pn**	**00 13 13.3**	**-0.6**
KULA	**Kula-Manisa**	**1.59**	**344**	*e*PN	**Pn**	**00 13 14.6**	**-0.2**
KULA	**Kula-Manisa**	**1.59**	**344**	*e*Pn	**Pn**	**00 13 14.6**	**-0.2**
SHUT	**Suhut-Afyon**	**1.89**	**33**	*e*PN	**Pn**	**00 13 19.0**	**+0.2**
SHUT	**Suhut-Afyon**	**1.89**	**33**	*e*Pn	**Pn**	**00 13 19.0**	**+0.2**
IZM	**Izmir**	**2.10**	**313**	*e*PN	**Pn**	**00 13 22.1**	**+0.4**
ALT	**Altintas**	**2.19**	**18**	*e*PN	**Pn**	**00 13 22.5**	**-0.4**
ALT	**Altintas**	**2.19**	**18**	*e*Pn	**Pn**	**00 13 22.5**	**-0.4**
AKS	**Akhisar**	**2.20**	**330**	*e*PN	**Pn**	**00 13 23.2**	**+0.1**
AKS	**Akhisar**	**2.20**	**330**	*e*Pn	**Pn**	**00 13 23.2**	**+0.1**
BLCB	**Balcova**	**2.23**	**310**	*e*PN	**Pn**	**00 13 23.6**	**+0.2**
BLCB	**Balcova**	**2.23**	**310**	*e*Pn	**Pn**	**00 13 23.6**	**+0.1**
HDMB	**Hadim**	**2.61**	**89**	*e*PN	**Pn**	**00 13 28.8**	**0.0**
HDMB	**Hadim**	**2.61**	**89**	*e*Pn	**Pn**	**00 13 28.8**	**0.0**

ISCJB ***21*** *00:14:21.3±2.3, 20°.5S±0°.1×177°.8W±0°.1, h480^{km}±31^{km}, mb3.8/6, Error ellipse: s-maj=18.0km s-min=15.9km az=173.3*

NEIC ***21*** *00:14:23.4±1.5, 20°.69S×177°.72W, h497^{km}±18^{km}, mb4.1/4, Error ellipse: s-maj=16.7km s-min=10.4km az=180.0*

IDC ***21*** *00:14:23.6±2.8, 20°.68S×177°.72W, h496^{km}±30^{km}, mb3.4/5, mb1 3.5/6, mb1mx3.2/19, mbtmp3.3/6, Error ellipse: s-maj=23.9km s-min=20.4km az=51.0*

ISC 21 00:14:22.8±1.9, **20°.6S**±0°.1×**177°.7W**±0°.1, **h489**^{km}±28^{km}, **n22**, σ**0^s.65**/18, **mb3.8**/6, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAR	**Rarotonga**	**16.79**	**95**	*e*P	**P**	**00 17 52.4**	**+0.5**
	22nm,0.8s						
URZ	**Urewera**	**18.13**	**193**	P	**P**	**00 18 03.7**	**-1.0**
	1.0nm,0.3s,baz=94,slow=19,SNR=5.2						
URZ				S	**S**	**00 21 06.2**	**+0.4**
	0.4nm,0.3s,baz=286,slow=20,SNR=2.8						
SNZO	**South Karori**	**21.59**	**196**	P	**P**	**00 18 35.3**	**-0.9**
CTA	**Charters Tower**	**33.73**	**264**	P	**P**	**00 20 23.8**	**+0.9**
	4.7nm,0.4s,mb4.3,baz=92,slow=12,SNR=9.9						
CTAO	**Charters Tower**	**33.73**	**264**	*e*P	**P**	**00 20 24.1**	**+1.3**
	4.9nm,0.4s,mb4.3						
STKA	**Stephens Creek**	**37.96**	**244**	P	**P**	**00 20 57.8**	**0.0**
	1.3nm,0.5s,mb3.6,baz=86,slow=11,SNR=2.9						
ASAR	**Alice Springs**	**44.74**	**257**	P	**P**	**00 21 52.2**	**+0.4**
	2.4nm,0.5s,mb3.9,baz=89,slow=8.5,SNR=28						
ASAR				S	**S**	**00 27 52.7**	**+0.1**
	0.3nm,0.8s,baz=88,slow=14,SNR=5.3						
WB2	**Warramunga Arr**	**44.82**	**262**	*e*P	**P**	**00 21 52.9**	**+0.3**
WRAB	**Tennant Creek**	**44.83**	**262**	*e*P	**P**	**00 21 52.5**	**-0.1**
	3.1nm,0.8s,mb3.8						
WRA	**Warramunga Arr**	**44.83**	**262**	P	**P**	**00 21 52.6**	**-0.1**
	1.1nm,0.3s,mb3.8,baz=97,slow=7.0,SNR=176						
FITZ	**Fitzroy Crossi**	**53.26**	**262**	P	**P**	**00 22 56.3**	**+1.0**
	1.1nm,0.4s,mb3.6,baz=96,slow=10,SNR=5.3						
FITZ	**Fitzroy Crossi**	**53.26**	**262**	*e*P	**P**	**00 22 55.5**	**+0.2**
	4.4nm,0.9s,mb3.8						
TWG	**Pinlang**	**73.67**	**303**	P	**P**	**00 25 05.0**	**-1.2**
YSS	**Yuzh-Sakhalins**	**76.12**	**333**	P	**P**	**00 25 19.4**	**-0.1**
PMSA	**Palmer Station**	**81.07**	**157**	P	**P**	**00 25 46.4**	**+0.6**
COCO	**West Island**	**81.58**	**260**	*e*P	**P**	**00 25 48.9**	**-0.6**
LSA	**Lhasa**	**100.87**	**298**	Pdif	Pdif	00 27 18.9	+0.3
MKAR	**Makanchi Array**	**111.47**	**313**	PKiKP	PKiKP	00 32 00.6	-0.2
	0.1nm,0.6s,baz=108,slow=1.7,SNR=2.6						
AAK	**Ala-Archa**	**116.58**	**308**	PKPdf	PKPdf	00 32 12.1	+1.4
BVAR	**Borovoye Array**	**119.34**	**320**	PKP	PKPdf	00 32 15.3	-0.3
	0.4nm,0.3s,baz=93,slow=1.7,SNR=3.8						
TOA0	**Torodi Ar. Sit**	**172.54**	**176**	PKPdf	PKPdf	00 33 36.9	+1.1
TORD	**Torodi Ar. Bea**	**172.54**	**176**	PKP	PKPdf	00 33 35.3	-0.6
	0.2nm,0.7s,baz=106,slow=0.8,SNR=1.9						
TORD				PKPab	PKPab	00 35 04.5	+0.5
	0.1nm,0.4s,baz=176,slow=3.5,SNR=5.1						

NIED ***21*** *00:30:00, 34°.60N×137°.00E, h320^{km}, Mw4.0 Best double couple: M$_0$9.55000×10^{14} NP1:φ$_s$227.00000°, δ63.00000°, λ90.00000°. NP2:φ$_s$48.00000°, δ27.00000°, λ91.00000°.*

NEIC ***21*** *00:30:15.8±0.7, 34°.49N×137°.07E, h333^{km}±6^{km}, mb3.7/2, Error ellipse: s-maj=12.8km s-min=8.8km az=77.0*

ISCJB ***21*** *00:30:15.0±0.3, 34°.51N±0°.06×137°.12E±0°.07, h341^{km}±2^{km}, mb3.5/12, Error ellipse: s-maj=9.6km s-min=8.0km az=137.5*

JMA ***21*** *00:30:15.4±0.1, 34°.63N×136°.96E, h343^{km}±1^{km}, M3.7*

IDC ***21*** *00:30:15.6±0.8, 34°.52N×137°.05E, h330^{km}±8^{km}, mb3.2/9, mb1 3.5/11, mb1mx3.3/26, mbtmp3.2/11, Error ellipse: s-maj=17.5km s-min=13.1km az=73.0*

BJI ***21*** *00:30:15.6, 34°.84N×137°.02E, h333^{km}, mB4.3/5, mb4.2/5*

ISC 21 00:30:16.1±0.3, **34°.53N**±0°.06×**137°.11E**±0°.07, **h334**^{km}±2^{km}, **n46**, σ**0^s.80**/57, **mb3.5**/12, **12C, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAA	**Atsumi**	**0.10**	**14**	⇑P	**Pn**	**00 30 59.0**	**+1.1**
JIE	**Ise**	**0.36**	**248**	⇑P	**Pn**	**00 30 58.9**	**+0.6**
HMMJ	**Hamamatsu 2**	**0.60**	**57**	⇑P	**Pn**	**00 30 59.4**	**+0.7**
HMMJ				S	**S**	**00 31 33.5**	**+0.7**
JAO	**Obara**	**0.74**	**9**	⇑P	**Pn**	**00 30 59.7**	**+0.6**
JAO				S	**S**	**00 31 34.0**	**+0.5**
JKN2	**Miekihoku**	**0.75**	**248**	⇑P	**Pn**	**00 30 59.5**	**+0.3**
JNY	**Yasuok**	**1.03**	**36**	⇑P	**Pn**	**00 31 00.7**	**+0.5**
JNY				S	**S**	**00 31 36.2**	**+0.8**
JGM	**Miyama**	**1.21**	**345**	⇑P	**Pn**	**00 31 01.2**	**+0.2**
JGM				S	**S**	**00 31 37.3**	**+0.4**
JWY	**Kouya**	**1.29**	**257**	⇑P	**Pn**	**00 31 01.7**	**+0.2**
JYN	**Shimob**	**1.52**	**50**	P	**Pn**	**00 31 03.4**	**+0.7**
JWZ	**Kozaga**	**1.53**	**230**	⇑P	**Pn**	**00 31 02.9**	**+0.1**
JWT	**Wachi**	**1.59**	**299**	⇑P	**Pn**	**00 31 02.8**	**-0.3**
JWT				*e*S	**S**	**00 31 39.4**	**-1.4**
JOD2	**Odawara 2**	**1.78**	**65**	*e*S	**S**	**00 31 47.0**	**+4.1**
JKG	**Kaga**	**1.86**	**340**	P	**Pn**	**00 31 04.5**	**-0.3**
JRY	**Ryogami san**	**2.08**	**44**	⇑P	**Pn**	**00 31 07.4**	**+1.0**
JRY				S	**S**	**00 31 46.6**	**-0.2**
MAJO	**Matsushiro**	**2.20**	**24**	*e*P	**Pn**	**00 31 07.2**	**-0.1**
MAT	**Matsushiro**	**2.20**	**24**	P	**Pn**	**00 31 07.4**	**+0.1**
MAT				S	**S**	**00 31 47.0**	**-1.4**
MAT	**Matsushiro**	**2.20**	**24**	P	**Pn**	**00 31 07.6**	**+0.3**
MJAR	**Matsushiro Arr**	**2.20**	**24**	P	**Pn**	**00 31 07.4**	**+0.1**
	8.9nm,0.3s,baz=208,slow=8.5,SNR=70						
MJAR				S	**S**	**00 31 47.8**	**-0.6**
	baz=167,slow=16,SNR=3.6						
JHU	**Hanno**	**2.21**	**53**	P	**Pn**	**00 31 08.1**	**+0.7**
JHU				*e*S	**S**	**00 31 47.9**	**-0.7**
JAI	**Aioi**	**2.33**	**252**	⇑P	**Pn**	**00 31 07.8**	**-0.6**
JAG	**Ashikaga**	**2.69**	**45**	P	**Pn**	**00 31 10.7**	**-0.6**
JAG				S	**S**	**00 31 53.2**	**-2.5**
JYT	**Yasato**	**3.04**	**55**	P	**Pn**	**00 31 14.5**	**0.0**
JYT				*e*S	**S**	**00 31 57.2**	**-4.2**
KSRS	**Korea Array**	**8.00**	**294**	P	**Pn**	**00 32 09.1**	**-0.9**
	1.4nm,0.3s,baz=106,slow=12,SNR=36						
CBIJ	**Chichi jima**	**8.60**	**148**	P	**Pn**	**00 32 14.3**	**-3.0**
	6.7nm,0.3s,baz=342,slow=19,SNR=5.9						
CBIJ				S	**S**	**00 33 47.4**	**-8.6**
	7.4nm,0.3s,baz=354,slow=19,SNR=4.9						
YSS	**Yuzh-Sakhalins**	**13.12**	**17**	P	**Pn**	**00 33 11.1**	**-0.1**
XAN	**Xi'an**	**23.27**	**277**	P	**P**	**00 34 55.3**	**+0.3**
XAN				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb3.8						
XAN				pmax	pmax		
	comp=Z,57nm,7.0s						
SONM	**Songino Array**	**26.47**	**309**	P	**P**	**00 35 23.6**	**+0.1**
	comp=Z,1.0nm,0.5s,mb3.3,baz=120,slow=10,SNR=10.0						
YAK	**Yakutsk**	**27.92**	**353**	*e*P	**P**	**00 35 35.5**	**-0.6**
ZALV	**Zalesovo Beam**	**41.10**	**315**	P	**P**	**00 37 29.0**	**+1.0**
	comp=Z,0.6nm,0.4s,mb3.2,baz=104,slow=9.5,SNR=4.6						
ZALV				PcP	PcP	00 39 19.6	-0.7
	comp=Z,0.2nm,0.3s,baz=116,slow=3.4,SNR=3.9						
MKAR	**Makanchi Array**	**42.54**	**304**	P	**P**	**00 37 39.1**	**-0.7**
	comp=Z,0.4nm,0.6s,mb2.7,baz=87,slow=10,SNR=9.7						
KURK	**Kurchatov**	**44.78**	**310**	*e*P	**P**	**00 37 58.5**	**+1.1**
	comp=Z,1.8nm,0.5s,mb3.5						
AAK	**Ala-Archa**	**48.62**	**299**	*e*P	**P**	**00 38 27.0**	**0.0**
EKS2	**Erkin-Say**	**49.13**	**299**	P	**P**	**00 38 30.5**	**-0.3**
BRVK	**Borovoye**	**49.76**	**313**	*e*P	**P**	**00 38 36.2**	**+0.8**
FITZ	**Fitzroy Crossi**	**53.47**	**194**	*e*P	**P**	**00 39 02.9**	**0.0**
WRAB	**Tennant Creek**	**54.22**	**183**	*e*P	**P**	**00 39 07.9**	**-0.4**
	comp=Z,1.7nm,0.3s,mb3.9						
WRA	**Warramunga Arr**	**54.23**	**183**	P	**P**	**00 39 07.7**	**-0.6**
	comp=Z,1.6nm,0.3s,mb3.8,baz=0.6,slow=7.6,SNR=65						
WRA				PcP	PcP	00 40 08.3	+0.4
	comp=Z,0.3nm,0.3s,baz=358,slow=4.2,SNR=5.7						
CTAO	**Charters Tower**	**55.01**	**169**	P	**P**	**00 39 12.9**	**-1.0**
ARU	**Arti**	**55.93**	**319**	P	**P**	**00 39 19.2**	**-0.8**
ASAR	**Alice Springs**	**57.95**	**183**	P	**P**	**00 39 34.5**	**0.0**
	comp=Z,0.7nm,0.5s,mb3.2,baz=13,slow=13,SNR=13						
INK	**Inuvik**	**58.19**	**26**	*e*P	**P**	**00 39 36.4**	**+0.9**
YKA	**Yellowknife Ar**	**67.70**	**28**	P	**P**	**00 40 37.8**	**+0.2**
	comp=Z,0.2nm,0.4s,mb3.2,baz=295,slow=5.6,SNR=5.2						
HFS	**Hagfors**	**74.88**	**334**	P	**P**	**00 41 18.8**	**-1.5**
	comp=Z,3.7nm,1.0s,mb4.1,baz=74,slow=6.6,SNR=4.3						
NVAR	**Mina Array Bea**	**79.28**	**51**	P	**P**	**00 41 46.3**	**+1.2**
	comp=Z,0.4nm,0.4s,mb3.5,baz=303,slow=4.1,SNR=3.7						
PDAR	**Pinedale Array**	**81.90**	**43**	P	**P**	**00 41 59.8**	**+1.0**
	comp=Z,0.8nm,0.7s,mb3.6,baz=292,slow=3.9,SNR=7.7						
TORD	**Torodi Ar. Bea**	**116.44**	**310**	PKP	PKPdf	00 48 19.4	-1.5
	comp=Z,0.3nm,1.0s,baz=38,slow=2.0,SNR=3.8						

ISCJB ***21*** *00:30:28.6±5.0, 57°.3S±0°.2×26°.2W±0°.2, h78^{km}±50^{km}, mb3.9/7, Error ellipse: s-maj=26.3km s-min=17.0km az=23.3*

IDC ***21*** *00:30:30.5±10.0, 57°.39S×26°.22W, h80^{km}±100^{km}, mb3.7/5, mb1 3.8/5, mb1mx3.6/15, mbtmp3.7/5, MS3.5/2, Ms1 3.5/2, ms1mx3.0/25, Error ellipse: s-maj=30.5km s-min=25.9km az=29.0*

NEIC ***21*** *00:30:31.8±4.8, 57°.39S×26°.23W, h94^{km}±45^{km}, mb3.9/3, Error ellipse: s-maj=14.3km s-min=10.3km az=213.0*

ISC 21 00:30:29.2±4.4, **57°.3S**±0°.2×**26°.2W**±0°.2, **h65**^{km}±45^{km}, **n18**, σ**0^s.48**/15, **mb3.9**/7, **South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	**Neumayer Olymp**	**15.59**	**160**	*e*P	**Pn**	**00 34 04.3**	**-0.3**
VNA2	**Neumayer--Watz**	**15.79**	**157**	*e*P	**Pn**	**00 34 07.8**	**+0.7**
	baz=327,slow=15						
PMSA	**Palmer Station**	**19.50**	**232**	LR	LR	00 41 06.3	
	comp=Z,114nm,19.2s,baz=245,slow=33						
PLCA	**Paso Flores**	**32.77**	**281**	P	**P**	**00 36 55.6**	**-0.1**
	1.5nm,0.9s,mb3.8,baz=180,slow=6.1,SNR=2.9						
PLCA				LR	LR	00 51 06.5	
	comp=Z,87nm,18.5s,baz=292,slow=38						
QSPA	**South Pole Qui**	**32.91**	**180**	P	**P**	**00 36 56.9**	**+0.3**
	2.3nm,0.8s,mb4.1,baz=184,slow=2.8,SNR=4.7						
CPUP	**Villa Florida**	**38.07**	**311**	P	**P**	**00 37 40.8**	**-0.5**
	0.3nm,0.3s,mb3.5,baz=134,slow=9.3,SNR=4.4						
MAW	**Mawson**	**38.79**	**142**	P	**P**	**00 37 46.0**	**-0.9**
BOSA	**Boshof**	**45.79**	**74**	P	**P**	**00 38 43.6**	**-0.5**
	2.0nm,1.0s,mb3.8,baz=212,slow=9.5,SNR=2.6						
BOSA	**Boshof**	**45.79**	**74**	*e*P	**P**	**00 38 43.7**	**-0.4**
	0.5nm,0.4s,mb3.6						
LVC	**Limon Verde**	**46.41**	**300**	P	**P**	**00 38 49.1**	**0.0**
RCBR	**Riachuelo**	**51.94**	**348**	*e*P	**P**	**00 39 30.9**	**-0.3**
	5.9nm,0.8s,mb4.7						
LSZ	**Lusaka**	**58.35**	**67**	P	**P**	**00 40 17.5**	**0.0**
DBIC	**Dimbokro**	**66.12**	**23**	P	**P**	**00 41 09.2**	**-0.2**
OTAV	**Otavalo**	**70.82**	**303**	*e*P	**P**	**00 41 39.0**	**+0.2**
	0.7nm,0.6s,mb3.7						
TOA0	**Torodi Ar. Sit**	**73.92**	**28**	*e*P	**P**	**00 41 57.9**	**+0.8**
TORD	**Torodi Ar. Bea**	**73.92**	**28**	P	**P**	**00 41 57.8**	**+0.7**
	1.3nm,0.6s,mb3.8,baz=202,slow=6.6,SNR=21						
TORD				pP	pP	00 42 20.1	+5.3
	0.4nm,0.5s,baz=201,slow=6.7,SNR=2.7						
YKA	**Yellowknife Ar**	**137.49**	**317**	PKP	PKPdf	00 49 43.0	-0.8
	1.5nm,0.8s,baz=131,slow=2.4,SNR=9.2						
SONM	**Songino Array**	**150.25**	**88**	PKPbc	PKPbc	00 50 10.0	-1.7
	0.6nm,0.7s,baz=237,slow=3.6,SNR=4.8						

CSEM ***21*** *00:31:02.2, 36°.25N×21°.72E, h17^{km}, ML3.4, After ATH*

NEIC ***21*** *00:31:02.2, 36°.25N×21°.72E, h17^{km}, ML3.4(ATH), After ATH.*

ATH 21 00:31:02.2, 36°.25N×21°.72E, h17^{km}±3^{km}, **MD4.0**/5, **ML3.4, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	**Ithomi**	**0.94**	**10**	*e*PN	Pn	00 31 19.9	-0.8
ITM				*e*SN	Sn	00 31 33.2	-0.5
ITM	**Ithomi**	**0.94**	**10**	*e*Pn	Pn	00 31 19.9	-0.8
ITM				*e*Sn	Sn	00 31 33.2	-0.5
KYTH	**Kithira**	**1.06**	**88**	*e*PN	Pn	00 31 22.5	+0.2
KYTH	**Kithira**	**1.06**	**88**	*e*Pn	Pn	00 31 22.5	+0.2
RLS	**Riolos of Patr**	**1.82**	**354**	*e*PN	Pn	00 31 34.6	+1.9
RLS	**Riolos of Patr**	**1.82**	**354**	*e*Pn	Pn	00 31 34.6	+1.9
NAIG	**Nisos Aigina**	**2.07**	**43**	*e*PN	Pn	00 31 39.1	+3.0
NAIG	**Nisos Aigina**	**2.07**	**43**	*e*Pn	Pn	00 31 39.1	+3.0
VLS	**Valsamata**	**2.12**	**335**	*e*PB	Pn	00 31 38.8	+1.9
VLS	**Valsamata**	**2.12**	**335**	*e*Pb	Pn	00 31 38.8	+1.9
ATH	**Athens Observa**	**2.35**	**42**	*e*PB	Pn	00 31 41.0	+1.1
ATH	**Athens Observa**	**2.35**	**42**	*e*Pb	Pn	00 31 41.0	+1.1
PTL	**Penteli**	**2.48**	**43**	*e*PN	Pn	00 31 43.7	+1.9
PTL	**Penteli**	**2.48**	**43**	*e*Pn	Pn	00 31 43.7	+1.9
LKR	**Lokris**	**2.60**	**23**	*e*PN	Pn	00 31 45.7	+2.2
LKR	**Lokris**	**2.60**	**23**	*e*Pn	Pn	00 31 45.7	+2.2
THL	**Klokotos Trika**	**3.32**	**4**	*e*PN	Pn	00 31 56.7	+3.4
THL	**Klokotos Trika**	**3.32**	**4**	*e*Pn	Pn	00 31 56.7	+3.4
JAN	**Janina**	**3.47**	**349**	*e*PN	Pn	00 31 58.7	+3.3
JAN	**Janina**	**3.47**	**349**	*e*Pn	Pn	00 31 58.7	+3.3
LIT	**Litokhoron**	**3.89**	**9**	*e*PN	Pn	00 32 04.7	+3.5
LIT	**Litokhoron**	**3.89**	**9**	*e*Pn	Pn	00 32 04.7	+3.5
PLG	**Polygyros**	**4.33**	**18**	*e*PN	Pn	00 32 09.7	+2.4
PLG	**Polygyros**	**4.33**	**18**	*e*Pn	Pn	00 32 09.7	+2.4
SOH	**Sokhos**	**4.74**	**15**	*e*PN	Pn	00 32 16.2	+3.3
SOH	**Sokhos**	**4.74**	**15**	*e*Pn	Pn	00 32 16.2	+3.3

IDC ***21*** *00:31:33.5±0.6, 36°.24N×21°.94E, h0^{km}, mb4.0/16, mb1 4.0/23, mb1mx4.0/32, mbtmp3.9/23, ML3.9/5, MS2.9/4, Ms1 3.0/4, ms1mx2.6/45, Error ellipse: s-maj=14.9km s-min=13.7km az=137.0*

NEIC ***21*** *00:31:35.2, 36°.11N×21°.66E, h19^{km}, mb3.9/17, ML4.1(ATH), ML4.6(THE), After ATH.*

ATH ***21*** *00:31:35.2, 36°.11N×21°.66E, h19^{km}±2^{km}, MD4.1/13, ML4.1*

MOS ***21*** *00:31:37.1±1.2, 36°.23N×21°.62E, h33^{km}, mb4.3/13, Error ellipse: s-maj=5.3km s-min=2.7km az=101.7*

ISCJB ***21*** *00:31:39.1±0.3, 36°.29N±0°.02×21°.60E±0°.02, h59^{km}±3^{km}, mb4.2/30, MS3.2/2, Error ellipse: s-maj=3.4km s-min=3.0km az=32.7*

CSEM ***21*** *00:31:39.1±0.2, 36°.19N×21°.63E, h40^{km}, mb4.2/14, Ms2.8, Error ellipse: s-maj=4.2km s-min=3.8km az=58.0*

PDG ***21*** *00:31:39.0±0.6, 36°.24N×21°.70E, h33^{km}±5^{km}, ML4.5/10, Error ellipse: s-maj=2.8km s-min=2.1km az=90.0*

THE ***21*** *00:31:40.3, 36°.26N×21°.75E, h70^{km}±12^{km}, ML4.6/11, Error ellipse: s-maj=12.4km s-min=1.6km az=25.0*

HLW ***21*** *00:31:50.4, 35°.67N×23°.22E, h33^{km}, Mb4.2*

ISC 21 00:31:40.0±0.3, **36°.23N**±0°.02×**21°.63E**±0°.02, **h49**^{km}±3^{km}, **n458**, σ**1^s.21**/548, **mb4.2**/30, **MS3.2**/2, **40C-19D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	**Ithomi**	**0.97**	**14**	*e*PN	**Pn**	**00 31 56.1**	**-1.2**
ITM	**Ithomi**	**0.97**	**14**	*e*Pn	**Pn**	**00 31 56.1**	**-1.2**
KYTH	**Kithira**	**1.14**	**87**	*e*PN	**Pn**	**00 31 56.5**	**-3.0**
VLI	**Veliai**	**1.16**	**65**	*e*PN	**Pn**	**00 31 58.0**	**-1.8**
VLI	**Veliai**	**1.16**	**65**	*e*Pn	**Pn**	**00 31 58.0**	**-1.8**
RLS	**Riolos of Patr**	**1.82**	**356**	*e*PN	**Pn**	**00 32 10.9**	**+2.0**
RLS	**Riolos of Patr**	**1.82**	**356**	*e*Pn	**Pn**	**00 32 10.9**	**+2.0**
RLS	**Riolos of Patr**	**1.82**	**356**	*e*Pn	**Pn**	**00 32 10.9**	**+2.0**
LAKA	**Lakka**	**2.02**	**8**	P	**Pn**	**00 32 11.6**	**0.0**
LAKA				S	**Sn**	**00 32 36.2**	**+0.6**
LAKA	**Lakka**	**2.02**	**8**	P	**Pn**	**00 32 11.6**	**0.0**
LAKA				S	**Sn**	**00 32 36.2**	**+0.6**
VLS	**Valsamata**	**2.11**	**337**	P	**Pn**	**00 32 14.1**	**+1.3**
VLS				S	**Sn**	**00 32 40.6**	**+2.8**
VLS	**Valsamata**	**2.11**	**337**	*e*PB	**Pn**	**00 32 13.4**	**+0.6**
VLS	**Valsamata**	**2.11**	**337**	P	**Pn**	**00 32 14.1**	**+1.3**
VLS				S	**Sn**	**00 32 40.6**	**+2.8**
NAIG	**Nisos Aigina**	**2.13**	**44**	*e*PN	**Pn**	**00 32 13.7**	**+0.7**
NAIG	**Nisos Aigina**	**2.13**	**44**	*e*Pn	**Pn**	**00 32 13.7**	**+0.7**
TRIZ	**Trizonia**	**2.16**	**9**	P	**Pn**	**00 32 13.8**	**+0.4**
TRIZ				S	**Sn**	**00 32 38.8**	**-0.2**
TRIZ	**Trizonia**	**2.16**	**9**	P	**Pn**	**00 32 13.8**	**+0.4**
TRIZ				S	**Sn**	**00 32 38.8**	**-0.2**
ATH	**Athens Observa**	**2.41**	**43**	*e*PN	**Pn**	**00 32 16.3**	**-0.6**
ATH	**Athens Observa**	**2.41**	**43**	*e*Pn	**Pn**	**00 32 16.3**	**-0.6**
ATHU	**Athens Univers**	**2.44**	**44**	P	**Pn**	**00 32 16.8**	**-0.5**
ATHU	**Athens Univers**	**2.44**	**44**	P	**Pn**	**00 32 16.8**	**-0.5**
PTL	**Penteli**	**2.54**	**44**	*e*PN	**Pn**	**00 32 18.7**	**0.0**
PTL	**Penteli**	**2.54**	**44**	*e*Pn	**Pn**	**00 32 18.7**	**0.0**
LKR	**Lokris**	**2.65**	**24**	P	**Pn**	**00 32 19.8**	**-0.4**
LKR				S	**Sn**	**00 32 51.9**	**+0.9**
LKR	**Lokris**	**2.65**	**24**	*e*PN	**Pn**	**00 32 20.0**	**-0.2**
LKR	**Lokris**	**2.65**	**24**	P	**Pn**	**00 32 19.8**	**-0.4**
LKR	**Lokris**	**2.65**	**24**	*e*Pn	**Pn**	**00 32 20.0**	**-0.2**
LKR				S	**Sn**	**00 32 51.9**	**+0.9**
EVR	**Evrytania**	**2.68**	**3**	*e*PN	**Pn**	**00 32 22.0**	**+1.4**
EVR	**Evrytania**	**2.68**	**3**	*e*Pn	**Pn**	**00 32 22.0**	**+1.4**
EVR	**Evrytania**	**2.68**	**3**	*e*Pn	**Pn**	**00 32 22.0**	**+1.4**
IDI	**Anoyia**	**2.81**	**109**	*e*PB	**Pn**	**00 32 24.3**	**+1.9**
IDI	**Anoyia**	**2.81**	**109**	Pn	**Pn**	**00 32 26.2**	**+3.7**
	baz=309,slow=13,SNR=0.9						
IDI				Lg		00 33 02.2	
	20nm,0.3s,baz=111,slow=21,SNR=3.6						
IDI				LR	LR	00 33 24.0	
	comp=Z,263nm,20.0s,baz=304,slow=43						
IDI	**Anoyia**	**2.81**	**109**	*e*Pb	**Pn**	**00 32 24.3**	**+1.9**
AGG	**Agios Georgios**	**2.84**	**11**	P	**Pn**	**00 32 22.6**	**-0.2**
AGG				S	**Sn**	**00 32 56.2**	**+0.5**
AGG	**Agios Georgios**	**2.84**	**11**	P	**Pn**	**00 32 22.6**	**-0.2**
AGG				S	**Sn**	**00 32 56.2**	**+0.5**

SIVA	Sivas	2.86	114	*e*PB	Pn	00 32 26.0	+2.9
SIVA	Sivas	2.86	114	*e*Pb	Pn	00 32 26.0	+2.9
SIVA	Sivas	2.86	114	*e*Pb	Pn	00 32 26.0	+2.9
LAST	Lasithi	3.31	108	P	Pn	00 32 29.2	-0.1
LAST	Lasithi	3.31	108	*e*PN	Pn	00 32 31.6	+2.3
LAST	Lasithi	3.31	108	*e*Pn	Pn	00 32 31.6	+2.3
LAST	Lasithi	3.31	108	P	Pn	00 32 29.2	-0.1
LAST	Lasithi	3.31	108	*e*Pn	Pn	00 32 31.6	+2.3
THL	Klokotos Trika	3.34	5	P	Pn	00 32 31.1	+1.5
THL	Klokotos Trika	3.34	5	*e*PN	Pn	00 32 30.7	+1.1
THL	Klokotos Trika	3.34	5	*e*Pn	Pn	00 32 30.7	+1.1
THL	Klokotos Trika	3.34	5	P	Pn	00 32 31.1	+1.5
XOR	Xorichti	3.36	21	P	Pn	00 32 30.8	+0.8
XOR				S	Sn	00 33 09.4	+0.8
XOR	Xorichti	3.36	21	P	Pn	00 32 30.8	+0.8
XOR				S	Sn	00 33 09.4	+0.8
NPS	Neapolis	3.38	106	*e*P	Pn	00 32 32.0	+1.8
NPS	Neapolis	3.38	106	*e*PN	Pn	00 32 32.0	+1.8
NPS	Neapolis	3.38	106	*e*Pn	Pn	00 32 32.0	+1.8
NPS	Neapolis	3.38	106	*e*Pn	Pn	00 32 32.0	+1.8
AOS	Alonnisos	3.43	31	P	Pn	00 32 29.9	-1.0
AOS	Alonnisos	3.43	31	P	Pn	00 32 29.9	-1.0
IGT	Igoumenitsa	3.45	343	P	Pn	00 32 31.9	+0.7
IGT				S	Sn	00 33 12.1	+1.4
IGT	Igoumenitsa	3.45	343	P	Pn	00 32 31.9	+0.7
IGT				S	Sn	00 33 12.1	+1.4
JAN	Janina	3.47	350	*e*PN	Pn	00 32 33.3	+1.8
JAN	Janina	3.47	350	*e*Pn	Pn	00 32 33.3	+1.8
MEV	Metsovon	3.56	355	P	Pn	00 32 35.4	+2.7
MEV				S	Sn	00 33 15.6	+2.2
MEV	Metsovon	3.56	355	P	Pn	00 32 35.4	+2.7
MEV				S	Sn	00 33 15.6	+2.2
KEK	Kerkira	3.76	338	*e*PN	Pn	00 32 36.1	+0.6
KEK	Kerkira	3.76	338	*e*Pn	Pn	00 32 36.1	+0.6
ZKR	Zakros	3.90	105	*e*PN	Pn	00 32 40.7	+3.4
ZKR	Zakros	3.90	105	*e*Pn	Pn	00 32 40.7	+3.4
ZKR	Zakros	3.90	105	*e*Pn	Pn	00 32 40.7	+3.4
LIT	Litokhoron	3.92	10	P	Pn	00 32 38.9	+1.3
LIT				S	Sn	00 33 23.9	+1.6
LIT	Litokhoron	3.92	10	*e*PN	Pn	00 32 39.0	+1.4
LIT	Litokhoron	3.92	10	*e*Pn	Pn	00 32 39.0	+1.4
LIT				S	Sn	00 33 23.9	+1.6
PAIG	Paliouri	4.03	23	P	Pn	00 32 39.0	-0.1
PAIG	Paliouri	4.03	23	P	Pn	00 32 39.0	-0.1
KZN	Kozani	4.07	2	*e*PN	Pn	00 32 40.8	+1.2
KZN	Kozani	4.07	2	*e*Pn	Pn	00 32 40.8	+1.2
KZN	Kozani	4.07	2	*e*Pn	Pn	00 32 40.8	+1.2
CHOS	Chios island	4.13	57	P	Pn	00 32 40.4	-0.1
CHOS	Chios island	4.13	57	*e*PN	Pn	00 32 41.0	+0.5
CHOS	Chios island	4.13	57	*e*Pn	Pn	00 32 41.0	+0.5
PLG	Polygyros	4.37	18	P	Pn	00 32 43.9	+0.1
PLG	Polygyros	4.37	18	*e*PN	Pn	00 32 43.5	-0.3
PLG	Polygyros	4.37	18	*e*Pn	Pn	00 32 43.5	-0.3
OUR	Ouranopolis	4.49	24	P	Pn	00 32 45.5	0.0
HORT	Hortiatis	4.51	14	P	Pn	00 32 46.2	+0.5
HORT	Hortiatis	4.51	14	P	Pn	00 32 46.2	+0.5
THE	Thessaloniki	4.51	13	P	Pn	00 32 45.9	+0.1
THE	Thessaloniki	4.51	13	P	Pn	00 32 45.9	+0.1
FNA	Florina	4.55	358	P	Pn	00 32 47.1	+0.9
FNA				S	Sn	00 33 39.8	+2.1
FNA	Florina	4.55	358	P	Pn	00 32 47.1	+0.9
FNA				S	Sn	00 33 39.8	+2.1
LTBQ	Tobruq	4.58	155	*i* P	Pn	00 32 46.3	-0.4
	SNR=23						
LTBQ				*e*S	Sn	00 33 35.1	-3.5
	SNR=23						
LIA	Limnos Island	4.61	36	*e*PN	Pn	00 32 47.9	+0.9
LIA	Limnos Island	4.61	36	*e*Pn	Pn	00 32 47.9	+0.9
PRK	Paraskevi	4.75	49	P	Pn	00 32 48.3	-0.7
PRK	Paraskevi	4.75	49	*e*PN	Pn	00 32 51.2	+2.2
PRK	Paraskevi	4.75	49	P	Pn	00 32 48.3	-0.7
PRK	Paraskevi	4.75	49	*e*Pn	Pn	00 32 51.2	+2.2
GRG	Griva	4.75	7	P	Pn	00 32 49.5	+0.5
GRG				S	Sn	00 33 43.4	+0.6
GRG	Griva	4.75	7	P	Pn	00 32 49.5	+0.5
GRG				S	Sn	00 33 43.4	+0.6
SOH	Sokhos	4.78	16	P	Pn	00 32 50.6	+1.3
SOH				S	Sn	00 33 44.3	+0.9
SOH	Sokhos	4.78	16	*e*PN	Pn	00 32 50.0	+0.7
SOH	Sokhos	4.78	16	*e*Pn	Pn	00 32 50.0	+0.7
SOH	Sokhos	4.78	16	P	Pn	00 32 50.6	+1.3
SOH				S	Sn	00 33 44.3	+0.9
BIA	Bitola	4.78	357	*e*Pn	Pn	00 32 50.0	+0.5
BIA				*e*Sg	Sn	00 33 43.6	+0.1
BIA	Bitola	4.78	357	*e*Pn	Pn	00 32 49.9	+0.4
SOI	Samo	4.82	294	P	Pn	00 32 50.4	+0.5
SOI	Samo	4.82	294	Pn	Pn	00 32 50.4	+0.5
TIP	Timpagrande	4.85	309	*e*Pn	Pn	00 32 51.4	+1.0
TIP				*e*S	Sn	00 33 45.1	-0.2
TIP	Timpagrande	4.85	309	*e*Pn	Pn	00 32 51.4	+1.0
TIP				*e*S	Sn	00 33 45.1	-0.2
OHR	Ohrid	4.91	353	*e*Pn	Pn	00 32 51.9	+0.6
OHR	Ohrid	4.91	353	*e*Pn	Pn	00 32 51.8	+0.6
CEL	Celeste	5.00	296	*e*Pn	Pn	00 32 53.2	+0.8
	59nm,0.5s						
CEL				*e*S	Sn	00 33 48.4	-0.6
CEL	Celeste	5.00	296	*e*Pn	Pn	00 32 53.2	+0.7
	59nm,0.5s						
CEL				*e*S	Sn	00 33 48.4	-0.6
KNT	Kendrikon	5.02	11	P	Pn	00 32 53.8	+1.1
KNT	Kendrikon	5.02	11	P	Pn	00 32 53.8	+1.1
MTTG	Motta San Giov	5.06	292	Pn	Pn	00 32 54.0	+0.7
	202nm,0.5s						
MTTG	Motta San Giov	5.06	292	Pn	Pn	00 32 54.0	+0.7
	202nm,0.5s						
SRS	Serrai	5.11	17	P	Pn	00 32 54.5	+0.6
SRS	Serrai	5.11	17	P	Pn	00 32 54.5	+0.6
VAY	Valandovo	5.13	8	*e*Pn	Pn	00 32 54.3	+0.1
VAY	Valandovo	5.13	8	*e*Pn	Pn	00 32 54.3	+0.1
KRUS	Krusevo	5.14	357	*e*Pn	Pn	00 32 54.2	-0.1
KRUS	Krusevo	5.14	357	*e*Pn	Pn	00 32 54.2	-0.1
TIR	Tirane	5.29	345	*e*P	Pn	00 32 56.6	+0.2
TIR				*e*		00 33 56.0	
TIR				pmax	pmax		
	comp=Z,84nm,0.8s						
TIR	Tirane	5.29	345	P	Pn	00 32 57.2	+0.8
TIR				S	Sn	00 33 57.7	+1.7
TIR	Tirane	5.29	345	*e*Pn	Pn	00 32 56.6	+0.2
	comp=Z,84nm,0.8s						
TIR				*e*Sn	Sn	00 33 56.0	0.0
TIR	Tirane	5.29	345	*e*Pn	Pn	00 32 56.6	+0.2
	comp=Z,84nm,0.8s						
TIR				*e*Sn	Sn	00 33 56.0	0.0
LJBD	Adjabya	5.44	193	*i* P	Pn	00 32 58.0	-0.5
	SNR=23						
ORI	Oriolo Calabro	5.59	315	P	Pn	00 33 02.5	+1.9
ORI				pmax	pmax		
	comp=Z,450nm,0.4s						
ORI	Oriolo Calabro	5.59	315	Pn	Pn	00 33 02.5	+1.9
	comp=Z,450nm,0.4s						
ORI	Oriolo Calabro	5.59	315	Pn	Pn	00 33 02.5	+1.9
	comp=Z,450nm,0.4s						
SKO	Skopje	5.73	359	*e*Pn	Pn	00 33 02.9	+0.4
LTRZ	Laterza	5.77	321	Pn	Pn	00 33 03.0	0.0
LTRZ	Laterza	5.77	321	Pn	Pn	00 33 03.0	0.0
ALN	Alexandroupoli	5.80	35	P	Pn	00 33 04.5	+1.1
ALN	Alexandroupoli	5.80	35	P	Pn	00 33 04.5	+1.1
VAE	Valguarnera	5.92	284	Pn	Pn	00 33 08.2	+3.1
	comp=Z,2.3nm,0.3s,baz=281,slow=10,SNR=8.6						
VAE				Sn	Sn	00 34 18.9	+7.3
	comp=Z,5.1nm,0.3s,baz=174,slow=22,SNR=5.9						
VAE	Valguarnera	5.92	284	Sn	Sn	00 34 18.9	+7.3
CUC	Castrocucco	5.92	311	*e*Pn	Pn	00 33 06.9	+1.8
	comp=Z,54nm,0.6s						
CUC				*e*S	Sn	00 34 06.2	-5.4
CUC	Castrocucco	5.92	311	*e*Pn	Pn	00 33 06.9	+1.8
	comp=Z,54nm,0.6s						
CUC				*e*S	Sn	00 34 06.2	-5.4
ULC	Ulcinj	6.01	343	⇑*i*Pn	Pn	00 33 05.8	-0.5
ULC				*e*Sn	Sn	00 34 13.1	-0.7
ULC	Ulcinj	6.01	343	⇑*i*Pn	Pn	00 33 05.8	-0.5
ULC				*e*Sn	Sn	00 34 13.1	-0.7
SG1	Sgolgore (BA)	6.02	321	*e*Sn	Sn	00 34 10.1	-3.8
PTRP	Pietrapertosa	6.12	316	Pn	Pn	00 33 09.2	+1.4
PTRP				Sn	Sn	00 34 18.0	+1.6
PTRP	Pietrapertosa	6.12	316	Pn	Pn	00 33 09.2	+1.4
PTRP				Sn	Sn	00 34 18.0	+1.6
BAI	Bari	6.12	324	*e*Sn	Sn	00 34 14.0	-2.5
BUM	Brajici-Budva	6.42	342	⇑*i*Pn	Pn	00 33 11.1	-0.8
BUM				*e*Sn	Sn	00 34 22.4	-1.3
BUM	Brajici-Budva	6.42	342	⇑*i*Pn	Pn	00 33 11.1	-0.8
BUM				*e*Sn	Sn	00 34 22.4	-1.3
PDG	Podgorica	6.45	344	⇑*i*Pn	Pn	00 33 11.8	-0.6
TTG	Podgorica	6.45	344	⇑*i*Pn	Pn	00 33 11.8	-0.6
TTG				*e*Sn	Sn	00 34 23.9	-0.7
TTG	Podgorica	6.45	344	⇑*i*Pn	Pn	00 33 11.8	-0.6
TTG				*e*Sn	Sn	00 34 23.9	-0.7
VTS	Vitosha	6.46	10	P	Pn	00 33 13.7	+1.2
VTS				S	Sn	00 34 26.6	+1.7
VTS	Vitosha	6.46	10	P	Pn	00 33 13.7	+1.2
VTS				S	Sn	00 34 26.6	+1.7
PVY	Plav	6.48	349	⇑*i*Pn	Pn	00 33 13.5	+0.8
PVY				*e*Sn	Sn	00 34 24.6	-0.7
PVY	Plav	6.48	349	⇑*i*Pn	Pn	00 33 13.5	+0.8
PVY				*e*Sn	Sn	00 34 24.6	-0.7
HCY	Herceg Novi	6.66	340	⇑*i*Pn	Pn	00 33 13.8	-1.4
HCY				*e*Sn	Sn	00 34 28.6	-1.1
HCY	Herceg Novi	6.66	340	⇑*i*Pn	Pn	00 33 13.8	-1.4
HCY				*e*Sn	Sn	00 34 28.6	-1.1
BEY	Berane	6.76	349	⇑*i*Pn	Pn	00 33 17.0	+0.4
BEY				*e*Sn	Sn	00 34 32.0	-0.2
IVA	Berane	6.76	349	⇑*i*Pn	Pn	00 33 17.0	+0.4
IVA				*e*Sn	Sn	00 34 32.0	-0.2
IVA	Berane	6.76	349	⇑*i*Pn	Pn	00 33 17.0	+0.4
IVA				*e*Sn	Sn	00 34 32.0	-0.2
NKY	Niksic	6.88	344	⇑*i*Pn	Pn	00 33 17.4	-0.8
NKY				*e*Sn	Sn	00 34 34.2	-0.8
NKY	Niksic	6.88	344	⇑*i*Pn	Pn	00 33 17.4	-0.8
NKY				*e*Sn	Sn	00 34 34.2	-0.8
BRY	Bratogost	7.07	341	⇑*i*Pn	Pn	00 33 19.6	-1.2
BRY				*e*Sn	Sn	00 34 38.7	-1.1
BRY	Bratogost	7.07	341	⇑*i*Pn	Pn	00 33 19.6	-1.2
BRY				*e*Sn	Sn	00 34 38.7	-1.1
LUJL	Ujela	7.10	182	*i* P	Pn	00 33 18.7	-2.6
	SNR=22						
RGNG	Rignano Grg	7.19	321	Pn	Pn	00 33 22.8	+0.4
RGNG	Rignano Grg	7.19	321	Pn	Pn	00 33 22.8	+0.4
UPM	Unac-Piva	7.27	344	⇑*i*Pn	Pn	00 33 24.1	+0.6
UPM				*e*Sn	Sn	00 34 43.8	-0.8
UPM	Unac-Piva	7.27	344	⇑*i*Pn	Pn	00 33 24.1	+0.6
UPM				*e*Sn	Sn	00 34 43.8	-0.8
STON	Ston	7.29	337	*e*Pn	Pn	00 33 22.1	-1.7
STON				Sn	Sn	00 34 40.6	-4.6
STON	Ston	7.29	337	*e*Pn	Pn	00 33 22.1	-1.7
STON				Sn	Sn	00 34 40.5	-4.7
PLE	Pljevlja	7.29	347	⇓*i*Pn	Pn	00 33 24.3	+0.5
PLE				*e*Sn	Sn	00 34 44.2	-1.0
PLE	Pljevlja	7.29	347	⇓*i*Pn	Pn	00 33 24.3	+0.5
PLE				*e*Sn	Sn	00 34 44.2	-1.0
SWA2		7.68	154	P	Pn	00 33 26.4	-2.8
GZR	Gura Zlata	9.19	5	⇓*i*P	Pn	00 33 49.5	-0.3
GZR	Gura Zlata	9.19	5	⇓P	Pn	00 33 49.5	-0.4
GZR	Gura Zlata	9.19	5	⇓P	Pn	00 33 49.5	-0.3
BZS	Buzias	9.37	360	⇑*i*P	Pn	00 33 50.2	-2.1
BZS	Buzias	9.37	360	⇑P	Pn	00 33 50.2	-2.1
BZS	Buzias	9.37	360	⇑*i*P	Pn	00 33 50.2	-2.1
VOIR		9.55	15	⇑*i*P	Pn	00 33 56.3	+1.6
VOIR		9.55	15	⇑P	Pn	00 33 56.4	+1.6
VOIR		9.55	15	⇑P	Pn	00 33 56.3	+1.6
TIRR	Tirgusor	9.71	30	⇑*i*P	Pn	00 33 50.4	-6.5
NVLJ	Novalja	9.78	330	*e*Pn	Pn	00 33 58.1	+0.1
NVLJ				Sn	Sn	00 35 42.4	-4.0
NVLJ	Novalja	9.78	330	*e*Pn	Pn	00 33 58.1	+0.2
NVLJ				Sn	Sn	00 35 42.3	-4.0
MLR	Muntele Rosu	9.80	18	⇓*i*P	Pn	00 34 03.2	+5.0
MLR	Muntele Rosu	9.80	18	Pn	Pn	00 34 03.7	+5.4
	comp=Z,0.3nm,0.3s,baz=140,slow=6.6,SNR=4.7						
MLR				LR	LR	00 37 22.2	
	comp=Z,59nm,21.4s,baz=137,slow=36						
MLR	Muntele Rosu	9.80	18	⇓P	Pn	00 34 03.2	+4.9
MLR	Muntele Rosu	9.80	18	⇓P	Pn	00 34 03.2	+5.0
KEST	Kesra	9.97	271	Pn	Pn	00 34 02.1	+1.5
	comp=Z,0.1nm,0.3s,baz=36,slow=17,SNR=5.3						
KEST				Sn	Sn	00 35 49.9	-1.1
	comp=Z,0.1nm,0.3s,baz=74,slow=20,SNR=2.8						
KEST				LR	LR	00 38 31.2	
	comp=Z,24nm,18.0s,baz=198,slow=41						
AWBH		10.00	140	P	Pn	00 33 56.1	-4.9
AWBH		10.00	140	P	Pn	00 33 56.1	-4.9
HNAT	Natroun	10.01	129	P	Pn	00 33 54.7	-6.4
BRTR	Keskin Array B	10.10	66	Pn	Pn	00 34 03.1	+0.9
	comp=Z,0.1nm,0.3s,baz=245,slow=13,SNR=6.9						
BRTR	Keskin Array B	10.10	66	Pn	Pn	00 34 03.2	+0.9
PLOR	Plostina	10.32	20	⇑*i*P	Pn	00 34 10.3	+5.0
VRI	Vrincioaia	10.36	20	⇑*i*P	Pn	00 34 10.7	+4.9
VRI	Vrincioaia	10.36	20	⇑P	Pn	00 34 10.7	+4.9
BOJS	Bojanci	10.44	334	*i* Pn	Pn	00 34 06.2	-0.7
BOJS				*i* Sn	Sn	00 35 56.6	-5.8
BOJS	Bojanci	10.44	334	*i* Pn	Pn	00 34 06.2	-0.7
BOJS				*i* Sn	Sn	00 35 56.6	-5.8
KOT	Kottamia	10.61	123	P	Pn	00 34 02.0	-7.4
HFRF	Wahat Farafira	10.69	146	P	Pn	00 34 06.6	-3.9
HFRF	Wahat Farafira	10.69	146	P	Pn	00 34 06.6	-3.9
GLL	Jalalah	10.76	125	P	Pn	00 34 04.3	-7.1
GLL				S	Sn	00 35 42.3	-28
VISS	Visnje	10.84	334	*i* Pn	Pn	00 34 11.9	-0.5
VISS				*i* Sn	Sn	00 36 04.5	-7.7
VISS	Visnje	10.84	334	*i* Pn	Pn	00 34 11.9	-0.5
VISS				*i* Sn	Sn	00 36 04.5	-7.8
JAVS	Javornik	11.21	332	*i* Pn	Pn	00 34 16.1	-1.3
JAVS				*i* Sn	Sn	00 36 15.9	-5.2
JAVS	Javornik	11.21	332	*i* Pn	Pn	00 34 16.1	-1.3
SUZ		11.35	121	P	Pn	00 34 12.2	-7.3
VOY	Vojsko	11.39	332	*e*Pn	Pn	00 34 19.3	-0.6
VOY				*e*Sn	Sn	00 36 19.6	-5.9
VOY	Vojsko	11.39	332	*e*Pn	Pn	00 34 19.3	-0.6
VOY				*e*Sn	Sn	00 36 19.6	-5.9
BUD	Budapest	11.41	351	⇓*e*P	Pn	00 34 19.0	-1.1
BUD	Budapest	11.41	351	⇓*e*P	Pn	00 34 19.0	-1.1
SOKA	Soboth	11.54	337	⇓*i*Pn	Pn	00 34 20.1	-1.9
SOKA				⇓*i*Sn	Sn	00 36 21.2	-8.1
SOKA	Soboth	11.54	337	Pn	Pn	00 34 20.1	-1.9
OBKA	Obir	11.56	335	⇑*i*Pn	Pn	00 34 21.1	-1.0
OBKA				⇓*i*Sn	Sn	00 36 23.6	-6.1
PGF	Pioggiola	11.62	307	*e*P	Pn	00 34 22.7	-0.4
	comp=Z,25nm,1.1s						
PGF	Pioggiola	11.62	307	*e*P	Pn	00 34 22.7	-0.4
PGF				pmax	pmax		
	comp=Z,12nm,1.1s						
PGF	Pioggiola	11.62	307	*e*P	Pn	00 34 22.7	-0.4
	comp=Z,12nm,1.1s						
PGF	Pioggiola	11.62	307	*e*P	Pn	00 34 22.7	-0.4
	comp=Z,12nm,1.1s						
PSZ	Piszkesteto	11.75	354	*e*P	Pn	00 34 22.8	-1.9
PSZ				*e*S	Sn	00 36 34.1	-0.2
PSZ				pmax	pmax		
	comp=Z,13nm,0.8s						
PSZ	Piszkesteto	11.75	354	⇓*i*P	Pn	00 34 22.2	-2.5
PSZ	Piszkesteto	11.75	354	*e*P	Pn	00 34 23.6	-1.1
PSZ	Piszkesteto	11.75	354	*e*P	Pn	00 34 22.8	-1.9
	comp=Z,13nm,0.8s						
PSZ				*e*S	Sn	00 36 34.0	-0.2
PSZ	Piszkesteto	11.75	354	*e*P	Pn	00 34 22.8	-1.9
	comp=Z,13nm,0.8s						
PSZ				*e*S	Sn	00 36 34.1	-0.2
MMAI	Mount Meron Ar	11.79	102	Pn	Pn	00 34 20.8	-4.6
	comp=Z,0.7nm,0.3s,baz=267,slow=11,SNR=4.3						
MMAI				Sn	Sn	00 36 26.2	-9.3
	comp=Z,1.1nm,0.3s,baz=274,slow=22,SNR=4.6						
SOP	Sopron	12.04	343	⇓*e*P	Pn	00 34 25.5	-3.3
SOP	Sopron	12.04	343	⇓*e*P	Pn	00 34 25.5	-3.3
KECS	Kecovo	12.27	356	*e*PN	Pn	00 34 30.8	-1.1
KECS				*e*SN	Sn	00 36 44.8	-2.3
KECS	Kecovo	12.27	356	*e*P	Pn	00 34 30.8	-1.1
KECS				*e*S	Sn	00 36 44.8	-2.3
VYHS	Vyhne	12.42	351	*e*PN	Pn	00 34 32.0	-2.0
VYHS				*e*SN	Sn	00 36 44.9	-5.9
VYHS	Vyhne	12.42	351	*e*P	Pn	00 34 32.0	-2.0
VYHS				*e*S	Sn	00 36 44.9	-5.9
SMOL	Smolenice	12.66	347	*e*PN	Pn	00 34 33.8	-3.3
SMOL	Smolenice	12.66	347	*e*P	Pn	00 34 33.8	-3.3
CRVS	Cervenica-Dubn	12.66	359	*e*PN	Pn	00 34 36.4	-0.8
CRVS	Cervenica-Dubn	12.66	359	*e*P	Pn	00 34 36.4	-0.8
KOLS	Kolonicke sedl	12.70	2	*e*PN	Pn	00 34 37.4	-0.4
KOLS	Kolonicke sedl	12.70	2	*e*P	Pn	00 34 37.4	-0.4
MOA	Molln	12.82	337	⇓*i*Pn	Pn	00 34 37.7	-1.8
MOA				⇓*i*Sn	Sn	00 36 54.7	-5.9
MOA	Molln	12.82	337	Pn	Pn	00 34 37.7	-1.7
MOA				Sn	Sn	00 36 54.7	-5.9
EIL	Elat	12.95	117	Pn	Pn	00 34 38.9	-2.4
	comp=Z,0.4nm,0.3s,baz=288,slow=6.4,SNR=3.8						
EIL				Sn	Sn	00 36 49.9	-14
	comp=Z,0.7nm,0.3s,baz=142,slow=19,SNR=5.2						
EIL	Elat	12.95	117	Pn	Pn	00 34 38.9	-2.4
EIL				Sn	Sn	00 36 49.9	-14
EIL	Elat	12.95	117	Pn	Pn	00 34 38.9	-2.4
HKAT	Jabal Katrina	12.96	123	P	Pn	00 34 35.0	-6.5
STHS	Stebnicka Huta	13.18	359	*e*PN	Pn	00 34 50.0	+5.7
SBF	Sospel	13.27	309	*e*P	Pn	00 34 45.5	0.0
	comp=Z,40nm,0.9s						
SBF	Sospel	13.27	309	*e*P	Pn	00 34 45.5	0.0
SBF				pmax	pmax		
	comp=Z,20nm,0.9s						
SBF	Sospel	13.27	309	*e*P	Pn	00 34 45.5	0.0
	comp=Z,20nm,0.9s						
SBF	Sospel	13.27	309	*e*P	Pn	00 34 45.5	0.0
	comp=Z,20nm,0.9s						
MALT	Malatya	13.54	76	⇑*i*P	Pn	00 34 50.2	+0.9
MALT	Malatya	13.54	76	*e*Pn	Pn	00 34 45.9	-3.4
	comp=Z,3.2nm,0.8s						
MALT	Malatya	13.54	76	*e*Pn	Pn	00 34 45.9	-3.4
	comp=Z,3.2nm,0.8s						
MALT	Malatya	13.54	76	P	Pn	00 34 50.2	+0.9
VRAC	Vranov	13.57	346	Pn	Pn	00 34 47.8	-1.9
	comp=Z,0.2nm,0.3s,baz=186,slow=13,SNR=4.5						
VRAC	Vranov	13.57	346	P	Pn	00 34 47.8	-1.9
FRF	La Foret Royal	13.62	307	*e*P	Pn	00 34 50.6	+0.2
	comp=Z,27nm,1.1s						
FRF	La Foret Royal	13.62	307	*e*P	Pn	00 34 50.6	+0.2
FRF				pmax	pmax		
	comp=Z,14nm,1.1s						
FRF	La Foret Royal	13.62	307	*e*P	Pn	00 34 50.6	+0.2
	comp=Z,14nm,1.1s						
FRF	La Foret Royal	13.62	307	*e*P	Pn	00 34 50.6	+0.2
	comp=Z,14nm,1.1s						
DAVOX	Davos/Dischmat	13.71	324	Pn	Pn	00 34 51.4	-0.2
	baz=129,slow=14						
DAVOX				Sn	Sn	00 37 17.3	-5.0
	comp=Z,0.2nm,0.3s,baz=310,slow=19,SNR=5.5						
DAVOX	Davos/Dischmat	13.71	324	Pn	Pn	00 34 51.4	-0.2
DAVOX				Sn	Sn	00 37 17.3	-5.0
TUE	Stuetta	13.76	322	*e*Pn	Pn	00 34 53.4	+1.2
	comp=Z,6.4nm,0.8s						
TUE				*e*S	Sn	00 37 18.6	-4.8
TUE	Stuetta	13.76	322	*e*Pn	Pn	00 34 53.4	+1.2
	comp=Z,6.4nm,0.8s						
TUE				*e*S	Sn	00 37 18.6	-4.7
DAVOS	Davos	13.80	324	P	Pn	00 34 51.4	-1.3
DAVOS						00 37 17.3	
DAVOS	Davos	13.80	324	P	Pn	00 34 51.4	-1.3
TREC	Trest	13.80	343	AMS	AMS	00 41 00.0	
	comp=Z,500nm,7.6s						
OKC	Ostrava-Krasne	13.83	351	*e*P	Pn	00 34 52.7	-0.5
OKC				*e*x	x	00 35 02.2	
OKC	Ostrava-Krasne	13.83	351	P	Pn	00 34 52.7	-0.5
MORC	Moravsky Berou	13.86	349	⇑*i*P	Pn	00 35 00.0	+6.5
GERES	GERESS Array B	13.88	338	Pn	Pn	00 34 51.5	-2.3
	comp=Z,0.3nm,0.3s,baz=157,slow=14,SNR=8.9						
GERES				Sn	Sn	00 37 19.8	-6.5
	comp=Z,0.2nm,0.3s,baz=150,slow=24,SNR=5.2						
GERES	GERESS Array B	13.88	338	P	Pn	00 34 51.5	-2.3
GERES				S	Sn	00 37 19.8	-6.5
MBDF	Montbardon	14.12	311	*e*P	Pn	00 34 57.7	+0.6
	comp=Z,15nm,0.9s						
MBDF	Montbardon	14.12	311	*e*P	Pn	00 34 57.7	+0.6
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MBDF	Montbardon	14.12	311	*e*P	Pn	00 34 57.7	+0.6
	comp=Z,7.3nm,0.9s						
KHC	Kasperske Hory	14.17	338	*e*P	Pn	00 34 55.5	-2.3
KHC				*e*x	x	00 35 07.3	
KHC				*e*x	x	00 37 33.5	
KHC				AMS	AMS	00 41 20.0	
	comp=Z,400nm,17.5s						
KHC	Kasperske Hory	14.17	338	*e*P	Pn	00 34 55.5	-2.3
KHC				*e*		00 35 07.3	
KHC				*e*		00 37 33.5	
KHC	Kasperske Hory	14.17	338	*e*S	Sn	00 37 33.5	+0.1
	comp=Z,400nm,17.5s						
LPG	La Plagne	14.55	314	*e*P	Pn	00 35 02.8	-0.1
LPL	La Plagne	14.57	314	*e*P	Pn	00 35 03.5	+0.4
LPL	La Plagne	14.57	314	*e*P	Pn	00 35 03.5	+0.4
DPC	Dobruska-Polom	14.62	346	*e*P	Pn	00 35 01.5	-2.2
DPC				*e*x	x	00 35 08.8	
DPC				AMS	AMS	00 42 20.0	
	comp=Z,300nm,7.4s						
DPC	Dobruska-Polom	14.62	346	*e*P	Pn	00 35 01.5	-2.2
DPC				*e*		00 35 08.8	
PRU	Pruhonice	14.68	342	AMS	AMS	00 41 30.0	
	comp=Z,400nm,8.2s						
ANN	Anapa	14.73	50	*e*P	Pn	00 35 01.2	-4.0
ANN				*e*S	Sn	00 37 38.1	-9.0
ANN				pmax	pmax		
	comp=Z,80nm,0.9s						
ANN				MLR	MLR		
	comp=N,128nm,12.0s						
ANN				MLR	MLR		
	comp=Z,178nm,12.0s						
ANN				MLR	MLR		
	comp=E,164nm,11.0s						
ORIF	Oris-en-Rattie	14.76	311	*e*P	Pn	00 35 06.6	+1.0
	comp=E,8.4nm,0.9s						
ORIF				*e*MLR	MLR		
	comp=Z,90nm,19.0s						
ORIF	Oris-en-Rattie	14.76	311	*e*P	Pn	00 35 06.6	+1.0
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ORIF	Oris-en-Rattie	14.76	311	*e*P	Pn	00 35 06.6	+1.0
	comp=Z,4.2nm,0.9s						
ORIF	Oris-en-Rattie	14.76	311	*e*P	Pn	00 35 06.6	+1.0
	comp=Z,4.2nm,0.9s						
KIEV	Kiev	15.45	18	*e*P	Pn	00 35 11.3	-3.2
KIEV				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KIEV	Kiev	15.45	18	*e*Pn	Pn	00 35 11.3	-3.2
	comp=Z,4.4nm,0.9s						
KIEV	Kiev	15.45	18	*e*Pn	Pn	00 35 11.3	-3.2
	comp=Z,4.4nm,0.9s						
AKASG	Malin Array Be	15.46	18	Pn	Pn	00 35 10.4	-4.2
	comp=Z,0.5nm,0.3s,baz=207,slow=12,SNR=3.4						
AKASG	Malin Array Be	15.46	18	Pn	Pn	00 35 10.4	-4.3
VIVF	Saint-Julien-l	15.48	309	*e*P	Pn	00 35 12.7	-2.3
CABF	La Chapelle	15.57	317	*e*P	Pn	00 35 13.6	-2.5
HINF	Hinteralfeld	15.92	321	*e*P	Pn	00 35 20.1	-0.5
HINF	Hinteralfeld	15.92	321	*e*P	Pn	00 35 20.1	-0.5
CDF	Champ du Feu	16.11	323	*e*P	Pn	00 35 22.5	-0.5
	comp=Z,9.1nm,0.9s						
CDF	Champ du Feu	16.11	323	*e*P	Pn	00 35 22.5	-0.5
CDF				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CDF	Champ du Feu	16.11	323	*e*P	Pn	00 35 22.5	-0.5
	comp=Z,4.6nm,0.9s						
CDF	Champ du Feu	16.11	323	*e*P	Pn	00 35 22.5	-0.5
	comp=Z,4.6nm,0.9s						
CLL	Collm	16.29	340	*e*P	Pn	00 35 23.0	-2.2
CLL				*e*PP		00 35 35.0	
CLL	Collm	16.29	340	*e*P	Pn	00 35 23.0	-2.2
HAU	Haudompre	16.30	321	*e*P	Pn	00 35 24.4	-1.0
HAU				*e*MLR	MLR		
	comp=Z,79nm,19.2s						
HAU	Haudompre	16.30	321	*e*P	Pn	00 35 24.4	-1.0
MTLF	Montolieu	16.50	301	*e*P	Pn	00 35 27.4	-0.6
MTLF	Montolieu	16.50	301	*e*P	Pn	00 35 27.4	-0.6
SMF	Signal de Mont	16.88	314	*e*P	Pn	00 35 30.5	-2.1
SMF	Signal de Mont	16.88	314	*e*P	Pn	00 35 30.5	-2.1
CAF	Calviac	17.18	306	*e*P	Pn	00 35 36.9	+0.5
CAF	Calviac	17.18	306	*e*P	Pn	00 35 36.9	+0.5
LOR	Lormes	17.20	315	*e*P	Pn	00 35 35.1	-1.5
LOR				*e*MLR	MLR		
	comp=Z,65nm,18.7s						
LOR	Lormes	17.20	315	*e*P	Pn	00 35 35.1	-1.5
AVF	Avril sur Loir	17.24	313	*e*P	Pn	00 35 35.7	-1.4
AVF	Avril sur Loir	17.24	313	*e*P	Pn	00 35 35.7	-1.4
SSF	Saint Saulge	17.29	314	*e*P	Pn	00 35 36.0	-1.8
	comp=Z,6.3nm,0.9s						
SSF	Saint Saulge	17.29	314	*e*P	Pn	00 35 36.0	-1.8
SSF				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SSF	Saint Saulge	17.29	314	*e*P	Pn	00 35 36.0	-1.8
	comp=Z,3.2nm,0.9s						
SSF	Saint Saulge	17.29	314	*e*P	Pn	00 35 36.0	-1.8
	comp=Z,3.2nm,0.9s						
BGF	Bois d’Agland	17.42	312	*e*P	Pn	00 35 38.3	-1.1
	comp=Z,8.3nm,0.8s						
BGF	Bois d’Agland	17.42	312	*e*P	Pn	00 35 38.3	-1.1
BGF				pmax	pmax		
	comp=Z,4.0nm,0.8s						

BGF	Bois d'Agland	17.42	312	eP	Pn	00 35 38.3	-1.1
	comp=Z,4.2nm,0.8s						
BGF	Bois d'Agland	17.42	312	eP	Pn	00 35 38.3	-1.1
	comp=Z,4.2nm,0.8s						
WLF	Walferdange	17.52	325	P	Pn	00 35 44.1	+3.6
TCF	Toulx Ste Croi	17.68	311	eP	Pn	00 35 42.4	-0.1
TCF	Toulx Ste Croi	17.68	311	eP	Pn	00 35 42.4	-0.1
RJF	Les Rejaudoux	17.69	307	eP	Pn	00 35 43.2	+0.5
RJF				eMLR	MLR		
	comp=Z,113nm,17.0s						
RJF	Les Rejaudoux	17.69	307	eP	Pn	00 35 43.2	+0.5
SUW	Suwalki	17.81	3	eP	Pn	00 35 42.8	-1.3
SUW				pmax	pmax		
	comp=Z,48nm,0.8s						
SUW	Suwalki	17.81	3	ePn	Pn	00 35 42.8	-1.3
	comp=Z,48nm,0.8s						
SUW	Suwalki	17.81	3	eP	Pn	00 35 42.8	-1.3
	comp=Z,48nm,0.8s						
LFF	La Frestale	18.06	305	eP	Pn	00 35 48.3	+1.2
LFF	La Frestale	18.06	305	eP	Pn	00 35 48.3	+1.2
ETSF	Etsaut	18.33	298	eP	Pn	00 35 50.9	+0.4
	comp=Z,12nm,1.0s						
ETSF	Etsaut	18.33	298	eP	Pn	00 35 50.9	+0.4
ETSF				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ETSF	Etsaut	18.33	298	eP	Pn	00 35 50.9	+0.4
	comp=Z,5.9nm,1.0s						
ETSF	Etsaut	18.33	298	eP	Pn	00 35 50.9	+0.4
	comp=Z,5.9nm,1.0s						
GIVF	Givet	18.44	324	eP	Pn	00 35 52.9	+1.1
GIVF	Givet	18.44	324	eP	Pn	00 35 52.9	+1.1
DOU	Dourbes	18.55	324	P	Pn	00 35 56.2	+3.1
GNI	Garni	18.57	71	eP	Pn	00 35 53.6	+0.2
GNI	Garni	18.57	71	eP	Pn	00 35 53.6	+0.2
BAIF	Baives	18.71	323	eP	Pn	00 35 56.1	+1.1
BAIF	Baives	18.71	323	eP	Pn	00 35 56.1	+1.1
SJPF	Ste Jean	18.86	298	eP	Pn	00 35 57.4	+0.6
SJPF	Ste Jean	18.86	298	eP	Pn	00 35 57.4	+0.6
NACGM	Naroch	19.00	9	e	Pn	00 35 53.0	-5.5
MFF	Saint Martin d	19.28	309	eP	Pn	00 36 01.8	-0.1
	comp=Z,5.2nm,0.6s						
MFF	Saint Martin d	19.28	309	eP	Pn	00 36 01.8	-0.1
MFF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MFF	Saint Martin d	19.28	309	eP	Pn	00 36 01.8	-0.1
	comp=Z,2.6nm,0.6s						
MFF	Saint Martin d	19.28	309	eP	Pn	00 36 01.8	-0.1
	comp=Z,2.6nm,0.6s						
TAM	Tamanrasset	19.35	231	eP	Pn	00 36 02.5	-0.4
TAM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
TAM	Tamanrasset	19.35	231	ePn	Pn	00 36 02.5	-0.4
	comp=Z,2.5nm,0.9s						
TAM	Tamanrasset	19.35	231	eP	Pn	00 36 02.5	-0.4
	comp=Z,2.0nm,0.9s						
VORD	Divnogorie	19.43	35	eP	Pn	00 36 02.7	-0.9
VORD				pmax	pmax		
	comp=Z,3.0nm,0.8s						
VORD				pmax	pmax		
	comp=N,3.0nm,0.5s						
VORD				pmax	pmax		
	comp=E,8.0nm,1.0s						
VORD	Divnogorie	19.43	35	eP	Pn	00 36 02.7	-0.9
	comp=E,3.0nm,0.5s						
VSR	Storozhevoye	19.54	35	eP	Pn	00 36 04.5	-0.4
VSR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
VSR				pmax	pmax		
	comp=N,1.0nm,0.3s						
VSR				pmax	pmax		
	comp=E,1.0nm,0.6s						
VSR	Storozhevoye	19.54	35	eP	Pn	00 36 04.5	-0.4
	comp=E,1.0nm,0.3s						
LDF	La Druitiere	20.18	314	eP	P	00 36 10.6	+0.4
	comp=E,4.6nm,0.6s						
LDF	La Druitiere	20.18	314	eP	P	00 36 10.6	+0.4
LDF				pmax	pmax		
	comp=Z,2.0nm,0.6s						
LDF	La Druitiere	20.18	314	eP	P	00 36 10.6	+0.4
	comp=Z,2.3nm,0.6s						
LDF	La Druitiere	20.18	314	eP	P	00 36 10.6	+0.4
	comp=Z,2.3nm,0.6s						
ESDC	Sonseca Array	20.45	287	P	P	00 36 15.2	+1.9
	comp=Z,0.8nm,0.5s,baz=68,slow=10,SNR=3.1						
ESDC	Sonseca Array	20.45	287	P	P	00 36 15.2	+1.9
FLN	La Foliniere	20.47	315	eP	P	00 36 14.1	+0.7
	comp=Z,9.4nm,0.7s						
FLN				eMLR	MLR		
	comp=Z,72nm,18.8s,MS2.8						
FLN	La Foliniere	20.47	315	eP	P	00 36 14.1	+0.7
FLN				pmax	pmax		
	comp=Z,5.0nm,0.7s						
FLN				MLR	MLR		
	comp=Z,70nm,18.8s,MS3.0						
FLN	La Foliniere	20.47	315	eP	P	00 36 14.1	+0.7
	comp=Z,4.7nm,0.7s						
FLN				LR	LR		
	comp=Z,70nm,18.8s,MS3.0						
FLN	La Foliniere	20.47	315	eP	P	00 36 14.1	+0.7
	comp=Z,4.7nm,0.7s						
GRR	Gorron	20.51	313	eP	P	00 36 14.0	+0.2
GRR	Gorron	20.51	313	eP	P	00 36 14.0	+0.2
SGMF	Saint Gilles	21.46	312	eP	P	00 36 24.2	+0.1
	comp=Z,20nm,1.1s,mb4.1						
SGMF	Saint Gilles	21.46	312	eP	P	00 36 24.2	+0.1
SGMF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.1						
SGMF	Saint Gilles	21.46	312	eP	P	00 36 24.2	+0.1
	comp=Z,10nm,1.1s,mb4.1						
SGMF	Saint Gilles	21.46	312	eP	P	00 36 24.2	+0.1
	comp=Z,10nm,1.1s,mb4.1						
OBN	Obninsk	21.49	24	⇑eP	P	00 36 24.8	+0.5
OBN				e*PP		00 36 38.7	
OBN				eS	S	00 40 14.5	-5.1
OBN				e		00 40 29.1	
OBN				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.3						
OBN	Obninsk	21.49	24	eP	P	00 36 24.8	+0.5
	comp=Z,15nm,0.9s,mb4.3						
QUIF	Quistinic	21.69	310	eP	P	00 36 27.1	+0.5
	comp=Z,18nm,1.1s,mb4.1						
QUIF	Quistinic	21.69	310	eP	P	00 36 27.1	+0.5
QUIF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.1						
QUIF	Quistinic	21.69	310	eP	P	00 36 27.1	+0.5
	comp=Z,9.1nm,1.1s,mb4.1						
QUIF	Quistinic	21.69	310	eP	P	00 36 27.1	+0.5
	comp=Z,9.1nm,1.1s,mb4.1						
MDT	Midelt	21.87	269	P	P	00 36 30.1	+1.5
	comp=Z,3.1nm,0.9s,mb3.8,baz=87,slow=12,SNR=8.5						
MDT	Midelt	21.87	269	P	P	00 36 30.1	+1.5
ROSF	Rostrenen	21.93	311	eP	P	00 36 29.6	+0.5
	comp=Z,24nm,1.1s,mb4.2						
ROSF	Rostrenen	21.93	311	eP	P	00 36 29.6	+0.5
ROSF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.2						
ROSF	Rostrenen	21.93	311	eP	P	00 36 29.6	+0.5
	comp=Z,12nm,1.1s,mb4.2						
ROSF	Rostrenen	21.93	311	eP	P	00 36 29.6	+0.5
	comp=Z,12nm,1.1s,mb4.2						
VSU	Vasula	22.49	7	iP	P	00 36 35.5	+0.5
VSU	Vasula	22.49	7	iP	P	00 36 35.5	+0.5
HFS	Hagfors	24.46	350	P	P	00 36 53.6	-0.4
	comp=Z,3.0nm,0.6s,mb3.9,baz=152,slow=10,SNR=11						
HFS	Hagfors	24.46	350	P	P	00 36 53.6	-0.3
EKA	Eskdalemuir Ar	25.53	326	P	P	00 37 06.2	+2.5
	comp=Z,1.2nm,0.5s,mb3.7,baz=121,slow=8.2,SNR=8.1						
NB2	NORSAR Subarra	25.70	348	P	P	00 37 05.4	+0.2
	comp=Z,1.0nm,0.5s,mb3.6,baz=155,slow=9.3						
NB2	NORSAR Subarra	25.70	348	P	P	00 37 05.4	+0.2
	comp=Z,1.0nm,0.5s,mb3.6,SNR=5.4						
NOA	NORSAR Array B	25.70	348	P	P	00 37 05.3	+0.1
	comp=Z,1.0nm,0.6s,mb3.5,baz=152,slow=7.5,SNR=7.3						
NOA	NORSAR Array B	25.70	348	P	P	00 37 05.3	+0.1
KAF	Kangasniemi	26.07	5	eP	P	00 37 08.5	0.0
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
KAF	Kangasniemi	26.07	5	ep	P	00 37 08.5	0.0
	comp=Z,6.3nm,0.8s,mb4.2						
KAF	Kangasniemi	26.07	5	eP	P	00 37 08.5	0.0
	comp=Z,6.0nm,0.8s,mb4.2						
JOF	Joensuu	27.38	10	eP	P	00 37 19.6	-0.7
JOF				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.9						
JOF	Joensuu	27.38	10	ep	P	00 37 19.6	-0.7
	comp=Z,3.8nm,1.0s,mb3.9						
JOF	Joensuu	27.38	10	eP	P	00 37 19.6	-0.7
	comp=Z,3.8nm,1.0s,mb3.9						
TOA0	Torodi Ar. Sit	29.14	223	eP	P	00 37 37.8	+1.3
TORD	Torodi Ar. Bea	29.14	223	P	P	00 37 37.7	+1.2
	comp=Z,4.9nm,0.8s,mb4.3,baz=34,slow=7.7,SNR=40						
ARU	Arti	31.97	39	d iP	P	00 38 02.1	+1.1
ARU				S	S	00 43 08.4	-0.4
ARU				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.5						
ARU	Arti	31.97	39	iP	P	00 38 02.1	+1.1
	comp=Z,12nm,1.7s,mb4.5						
ARU				S	S	00 43 08.4	-0.4
ARCES	ARCESS Array B	33.43	2	P	P	00 38 13.6	0.0
	comp=Z,2.9nm,0.8s,mb4.3,baz=187,slow=8.6,SNR=11						
ARCES				LR	LR	00 52 25.2	
	comp=Z,75nm,19.7s,MS3.4,baz=358,slow=38						
ARCES	ARCESS Array B	33.43	2	P	P	00 38 13.6	0.0
ARCES				LR	LR	00 52 25.2	
ARCES	ARCESS Array B	33.43	2	P	P	00 38 13.6	0.0
DBIC	Dimbokro	38.12	226	P	P	00 38 55.5	+1.1
	comp=Z,7.4nm,0.9s,mb4.4,baz=13,slow=8.2,SNR=7.7						
DBIC	Dimbokro	38.12	226	P	P	00 38 55.5	+1.1
TIC	Toumodi	38.24	226	eP	P	00 38 55.7	+0.3
	comp=Z,93nm,1.4s,mb5.3						
KIC	Kosan Boka	38.30	225	eP	P	00 38 57.4	+1.4
	comp=Z,30nm,0.9s,mb5.0						
LIC	Lamto	38.58	226	⇑iP	P	00 38 59.8	+1.5
	comp=Z,8.6nm,0.5s,mb4.5						
LIC	Lamto	38.58	226	eP	P	00 38 59.7	+1.4
	comp=Z,27nm,0.8s,mb5.0						
LIC	Lamto	38.58	226	⇑iP	P	00 38 59.8	+1.5
	comp=Z,4.3nm,0.5s,mb4.4						
LIC	Lamto	38.58	226	⇑iP	P	00 38 59.8	+1.5
	comp=Z,4.3nm,0.5s,mb4.5						
EKS2	Erkin-Say	40.24	64	eP	P	00 39 11.1	-0.7
	comp=Z,3.2nm,0.7s,mb4.2						
EKS2	Erkin-Say	40.24	64	eP	P	00 39 11.1	-0.8
	comp=Z,3.2nm,0.7s,mb4.2						
AAK	Ala-Archa	40.77	64	⇑eP	P	00 39 19.1	+2.9
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.8						
AAK	Ala-Archa	40.77	64	P	P	00 39 18.7	+2.5
	comp=Z,1.2nm,0.6s,mb3.7,baz=209,slow=7.5,SNR=6.7						
AAK	Ala-Archa	40.77	64	P	P	00 39 18.7	+2.5
TKM2	Tokmak 2	41.52	64	eP	P	00 39 20.3	-2.1
NVS	Novosibirsk	45.38	46	eP	P	00 39 52.4	-0.8
NVS	Novosibirsk	45.38	46	eP	P	00 39 52.4	-0.8
MK31	Makanchi Array	45.59	57	eP	P	00 39 53.7	-1.4
MK31	Makanchi Array	45.59	57	eP	P	00 39 53.7	-1.4
MKAR	Makanchi Array	45.59	57	P	P	00 39 53.9	-1.2
	comp=Z,0.6nm,0.3s,mb4.0,baz=270,slow=7.9,SNR=13						
ZAA0	Zalesovo Array	46.35	47	eP	P	00 39 59.3	-1.7
ZAA0	Zalesovo Array	46.35	47	eP	P	00 39 59.3	-1.6
ZALV	Zalesovo Beam	46.35	47	P	P	00 39 59.6	-1.4
	comp=Z,1.8nm,0.6s,mb4.2,baz=275,slow=8.1,SNR=7.5						
ZALV	Zalesovo Beam	46.35	47	P	P	00 39 59.6	-1.3
LSA	Lhasa	57.57	75	P	P	00 41 24.6	-0.2
LSA	Lhasa	57.57	75	eP	P	00 41 24.6	-0.2
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
LSA	Lhasa	57.57	75	eP	P	00 41 24.6	-0.2
	comp=Z,5.0nm,0.8s,mb4.6						
LSA	Lhasa	57.57	75	eP	P	00 41 24.6	-0.2
	comp=Z,5.0nm,0.8s,mb4.6						
SCHQ	Schefferville	60.49	318	P	P	00 41 46.2	+1.6
	comp=Z,1.5nm,0.8s,mb4.0,baz=45,slow=11,SNR=3.5						
SCHQ	Schefferville	60.49	318	P	P	00 41 46.2	+1.6
SCHQ	Schefferville	60.49	318	P	P	00 41 46.2	+1.6
SONM	Songino Array	61.02	50	P	P	00 41 47.3	-1.0
	comp=Z,0.3nm,0.6s,mb3.6,baz=279,slow=8.7,SNR=4.6						
SONM	Songino Array	61.02	50	P	P	00 41 47.3	-1.0
TIXI	Tiksi	61.16	20	⇑eP	P	00 41 50.8	+1.9
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
TIXI	Tiksi	61.16	20	eP	P	00 41 50.8	+1.9
	comp=Z,2.0nm,0.8s,mb4.3						
BOSA	Boshof	64.59	176	P	P	00 42 13.1	+1.0
	comp=Z,3.2nm,1.0s,mb4.3,baz=360,slow=8.5,SNR=4.8						
BOSA	Boshof	64.59	176	P	P	00 42 13.1	+1.0
CMAR	Chiang Mai Arr	69.28	82	P	P	00 42 41.0	-1.3
	comp=Z,0.6nm,0.4s,mb3.9,baz=311,slow=5.5,SNR=3.0						
CMAR	Chiang Mai Arr	69.28	82	P	P	00 42 41.0	-1.3
CMAR	Chiang Mai Arr	69.28	82	P	P	00 42 41.0	-1.3
BILL	Bilibino	72.71	13	⇑eP	P	00 43 05.7	+3.4
BILL				e	pP	00 43 22.5	+6.2
BILL				e		00 45 44.2	
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
BILL	Bilibino	72.71	13	eP	P	00 43 05.7	+3.4
	comp=Z,3.0nm,1.0s,mb4.2						
BILL	Bilibino	72.71	13	ePcP	PcP	00 43 22.5	+3.1
YKA	Yellowknife Ar	75.52	341	P	P	00 43 20.4	+1.7
	comp=Z,0.5nm,0.8s,mb3.5,baz=32,slow=5.2,SNR=6.6						
YKA	Yellowknife Ar	75.52	341	P	P	00 43 20.4	+1.7
YKA	Yellowknife Ar	75.52	341	P	P	00 43 20.4	+1.7
KSRS	Korea Array	79.87	51	P	P	00 43 43.8	+0.3
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KSRS	Korea Array	79.87	51	P	P	00 43 43.8	+0.3
	comp=Z,0.8nm,0.5s,mb3.9,baz=311,slow=4.4,SNR=3.7						
KSRS	Korea Array	79.87	51	P	P	00 43 43.8	+0.3
	comp=Z,1.0nm,0.5s,mb4.0						
WRA	Warramunga Arr	119.55	94	PKP	PKPdf	00 50 23.6	-1.0
	comp=Z,0.5nm,0.8s,baz=311,slow=2.2,SNR=3.9						
WRA	Warramunga Arr	119.55	94	PKIKP	PKPdf	00 50 23.6	-1.0
ASAR	Alice Springs	121.06	98	PKP	PKPdf	00 50 27.1	-0.2
	comp=Z,0.5nm,0.8s,baz=338,slow=3.0,SNR=4.7						
ASAR	Alice Springs	121.06	98	PKIKP	PKPdf	00 50 27.1	-0.3

IDC 21 00:33:11.3±1.4,**33°.65S**×**178°.54W**,**h0^{km}**,**mb4.2**/2, **mb1 4.4**/3,**mb1mx4.0**/16,**mbtmp4.2**/3,**ML3.9**/1,**Error ellipse: s-maj=42.1km s-min=32.4km az=131.0,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.80	216	Pn	Pn	00 34 39.3	+0.7
	3.2nm,0.3s,baz=21,slow=17,SNR=27						
URZ				Sn	Sn	00 35 44.3	-1.6
	8.5nm,0.3s,baz=149,slow=20,SNR=18						
RPZ	Rata Peaks	12.92	216	Sn	Sn	00 38 26.5	-14
	0.7nm,0.3s,baz=300,slow=13,SNR=6.1						
ASAR	Alice Springs	42.59	271	P	P	00 41 09.3	+0.1
	2.6nm,0.8s,baz=111,slow=7.7,SNR=24						
WRA	Warramunga Arr	43.87	276	P	P	00 41 19.6	0.0
	2.7nm,0.7s,baz=116,slow=7.8,SNR=22						
MKAR	Makanchi Array	119.48	309	PKP	PKPdf	00 52 02.5	0.0
	0.3nm,0.8s,baz=122,slow=0.8,SNR=3.2						
JOF	Joensuu	145.23	336	ep	PKPbc	00 52 48.9	-0.9
	1.3nm,0.5s						
HFS	Hagfors	152.31	347	PKPbc	PKPbc	00 53 08.1	-0.2
	3.5nm,0.9s,baz=95,slow=3.6,SNR=4.1						
BRTR	Keskin Array B	153.58	293	PKPbc	PKPbc	00 53 12.2	+0.4
	0.6nm,0.5s,baz=146,slow=3.7,SNR=6.5						
BRTR				PKPab	PKPab	00 53 24.1	-0.4
	0.7nm,0.6s,baz=60,slow=2.0,SNR=3.6						
TORD	Torodi Ar. Bea	159.59	181	PKPab	PKPab	00 53 50.0	-0.6
	0.2nm,0.6s,baz=168,slow=3.6,SNR=4.8						

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*ISCJB **21** 00:39:41.4±0.8,36°.45N±0°.04×21°.80E±0°.05,h5^{km}±5^{km}, Error ellipse: s-maj=6.7km s-min=5.7km az=146.5*

*CSEM **21** 00:39:43.1±0.4,36°.51N×21°.81E,h2^{km},MD3.4,Error ellipse: s-maj=9.0km s-min=5.4km az=28.0*

*THE **21** 00:39:44.9,36°.50N×21°.77E,h16^{km}±12^{km},ML3.9/8,Error ellipse: s-maj=16.1km s-min=2.3km az=188.0*

*NEIC **21** 00:39:46.9,36°.76N×21°.68E,h5^{km},MD3.4(ATH), ML4.2(THE),After ATH.*

*ATH **21** 00:39:46.9,36°.76N×21°.68E,h5^{km},MD3.4/5*

ISC 21 00:39:42.8±0.9,**36°.43N**±0°.03×**21°.79E**±0°.05,**h7^{km}**±5^{km}, **n89**,σ1^{s}**06**/125,**Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.76	8	ePB	Pg	00 39 56.0	-1.3
ITM	Ithomi	0.76	8	ePb	Pg	00 39 56.0	-1.3
VLI	Veliai	0.97	72	P	Pg	00 39 59.7	-1.6
VLI	Veliai	0.97	72	P	Pg	00 39 59.7	-1.6
RLS	Riolos of Patr	1.64	351	ePB	Pn	00 40 12.1	+0.1
RLS	Riolos of Patr	1.64	351	ePb	Pn	00 40 12.1	+0.1
LAKA	Lakka	1.81	5	P	Pn	00 40 14.8	+0.5
LAKA				S	Sn	00 40 36.4	-1.1
LAKA	Lakka	1.81	5	P	Pn	00 40 14.8	+0.5
LAKA				S	Sn	00 40 36.4	-1.1
TRIZ	Trizonia	1.94	7	P	Pn	00 40 17.2	+1.1
TRIZ				S	Sn	00 40 39.4	-1.4
TRIZ	Trizonia	1.94	7	P	Pn	00 40 17.2	+1.1
TRIZ				S	Sn	00 40 39.4	-1.4
VLS	Valsamata	1.99	332	P	Pn	00 40 16.0	-0.7
VLS				S	Sn	00 40 42.5	+0.6
VLS	Valsamata	1.99	332	ePG	Pn	00 40 17.3	+0.6
VLS	Valsamata	1.99	332	P	Pn	00 40 16.0	-0.7
VLS	Valsamata	1.99	332	ePg	Pn	00 40 17.3	+0.6
VLS				S	Sn	00 40 42.5	+0.6
VAM	Vamos	2.21	117	ePN	Pg	00 40 30.7	+5.7
ATHU	Athens Univers	2.21	45	P	Pn	00 40 18.7	-1.1
ATHU				S	Sn	00 40 47.5	+0.2
ATHU	Athens Univers	2.21	45	P	Pn	00 40 18.7	-1.1
ATHU				S	Sn	00 40 47.5	+0.2
PTL	Penteli	2.31	45	P	Pn	00 40 21.0	-0.2
PTL	Penteli	2.31	45	P	Pn	00 40 21.0	-0.2
LKR	Lokris	2.42	23	P	Pn	00 40 21.4	-1.2
LKR				S	Sn	00 40 52.3	-0.1
LKR	Lokris	2.42	23	P	Pn	00 40 22.4	-0.2
LKR				S	Sg	00 41 00.7	+0.4
LKR	Lokris	2.42	23	P	Pn	00 40 22.4	-0.2
LKR				S	Sn	00 40 52.3	-0.1
EVR	Evrytania	2.48	0	ePG	Pn	00 40 27.1	+3.6
EVR	Evrytania	2.48	0	ePg	Pn	00 40 27.1	+3.6
AGG	Agios Georgios	2.62	9	P	Pn	00 40 25.2	-0.2
AGG				S	Sn	00 40 55.7	-1.8
AGG	Agios Georgios	2.62	9	P	Pn	00 40 25.7	+0.3
AGG				S	Sg	00 41 07.2	+0.2
AGG	Agios Georgios	2.62	9	P	Pn	00 40 25.7	+0.3
AGG				S	Sn	00 40 55.7	-1.8
IDI	Anoyia	2.76	113	P	Pn	00 40 25.3	-2.1
THL	Klokotos Trika	3.13	3	P	Pn	00 40 33.0	+0.5
THL				S	Sn	00 41 09.7	-0.4
THL	Klokotos Trika	3.13	3	P	Pn	00 40 33.0	+0.5
THL				S	Sn	00 41 09.7	-0.4
XOR	Xorichti	3.13	20	P	Pn	00 40 33.2	+0.7
XOR				S	Sn	00 41 10.9	+0.8
XOR	Xorichti	3.13	20	P	Pn	00 40 33.2	+0.7
XOR				S	Sb	00 41 19.4	+2.3
XOR	Xorichti	3.13	20	P	Pn	00 40 33.2	+0.7
XOR				S	Sn	00 41 10.9	+0.8
AOS	Alonnisos	3.20	31	P	Pn	00 40 33.8	+0.5
AOS	Alonnisos	3.20	31	P	Pn	00 40 32.0	-1.3
AOS				S	Sb	00 41 20.1	+1.2
AOS	Alonnisos	3.20	31	P	Pn	00 40 33.8	+0.5
IGT	Igoumenitsa	3.30	340	P	Pn	00 40 33.9	-0.9
IGT				S	Sn	00 41 12.5	-1.8
IGT	Igoumenitsa	3.30	340	P	Pn	00 40 33.9	-0.9
IGT				S	Sb	00 41 23.9	+1.9
IGT	Igoumenitsa	3.30	340	P	Pn	00 40 33.9	-0.9
IGT				S	Sn	00 41 12.5	-1.8
NPS	Neapolis	3.32	109	P	Pn	00 40 36.5	+1.5
NPS	Neapolis	3.32	109	P	Pn	00 40 36.5	+1.5
MEV	Metsovon	3.38	353	P	Pn	00 40 36.6	+0.8
MEV				S	Sb	00 41 23.9	-0.2
MEV	Metsovon	3.38	353	P	Pn	00 40 36.6	+0.8
LIT	Litokhoron	3.71	8	P	Pn	00 40 41.3	+1.0
LIT				S	Sn	00 41 22.8	-1.4
LIT	Litokhoron	3.71	8	P	Pn	00 40 41.8	+1.5
LIT				S	Sb	00 41 33.7	+0.2
LIT	Litokhoron	3.71	8	P	Pn	00 40 41.3	+1.0
LIT				S	Sn	00 41 22.8	-1.4
PAIG	Paliouri	3.79	23	P	Pn	00 40 41.6	0.0
PAIG	Paliouri	3.79	23	P	Pn	00 40 41.6	0.0
CHOS	Chios island	3.92	59	P	Pn	00 40 41.0	-2.2
CHOS				S	Sn	00 41 30.3	+0.9
CHOS	Chios island	3.92	59	P	Pn	00 40 41.0	-2.2
CHOS				S	Sn	00 41 30.3	+0.9
PLG	Polygyros	4.14	18	P	Pn	00 40 47.8	+1.4
PLG	Polygyros	4.14	18	P	Pn	00 40 47.8	+1.4
SMG	Samos	4.23	71	P	Pn	00 40 47.4	-0.2
SMG	Samos	4.23	71	P	Pn	00 40 47.4	-0.2
OUR	Ouranopolis	4.26	23	P	Pn	00 40 48.8	+0.8
OUR	Ouranopolis	4.26	23	P	Pn	00 40 48.8	+0.8
HORT	Hortiatis	4.29	13	P	Pn	00 40 49.5	+1.2
HORT	Hortiatis	4.29	13	P	Pn	00 40 49.5	+1.2
THE	Thessaloniki	4.29	12	P	Pn	00 40 49.5	+1.1
THE	Thessaloniki	4.29	12	P	Pn	00 40 49.5	+1.1
FNA	Florina	4.36	356	P	Pn	00 40 48.6	-0.7
FNA	Florina	4.36	356	P	Pn	00 40 48.6	-0.7
GRG	Griva	4.54	6	P	Pn	00 40 51.5	-0.4
GRG	Griva	4.54	6	P	Pn	00 40 51.5	-0.4
SOH	Sokhos	4.55	15	P	Pn	00 40 52.8	+0.8
SOH				S	Sn	00 41 45.4	+0.3
SOH	Sokhos	4.55	15	P	Pn	00 40 52.8	+0.8
SOH				S	Sb	00 41 55.8	-2.1
SOH	Sokhos	4.55	15	P	Pn	00 40 52.8	+0.8
SOH				S	Sn	00 41 45.4	+0.3
BIA	Bitola	4.60	356	P	Pn	00 40 53.1	+0.5
BIA	Bitola	4.60	356	ePn	Pn	00 40 53.7	+1.1
BIA	Bitola	4.60	356	P	Pn	00 40 53.1	+0.5
BIA	Bitola	4.60	356	ePn	Pn	00 40 53.6	+1.0
KNT	Kendrikon	4.80	10	P	Pn	00 40 55.7	+0.3
KNT	Kendrikon	4.80	10	P	Pn	00 40 55.7	+0.3
SRS	Serrai	4.89	16	P	Pn	00 40 56.3	-0.3
SRS	Serrai	4.89	16	P	Pn	00 40 56.3	-0.3
VAY	Valandovo	4.92	7	P	Pn	00 40 56.6	-0.4
VAY	Valandovo	4.92	7	P	Pn	00 40 56.6	-0.4
KRUS	Krusevo	4.95	355	ePn	Pn	00 40 55.1	-2.3
KRUS	Krusevo	4.95	355	ePn	Pn	00 40 55.1	-2.3
TIR	Tirane	5.13	344	P	Pn	00 41 00.5	+0.5
TIR	Tirane	5.13	344	P	Pn	00 41 00.5	+0.5
ALN	Alexandroupoli	5.56	35	P	Pn	00 41 06.0	+0.1
ALN	Alexandroupoli	5.56	35	P	Pn	00 41 06.0	+0.1
CUC	Castrocucco	5.90	309	ePn	Pn	00 41 10.5	0.0
	27nm,0.8s						
CUC				Sn	Sn	00 42 10.4	-7.8
CUC	Castrocucco	5.90	309	ePn	Pn	00 41 10.5	0.0
	27nm,0.8s						
STON	Ston	7.16	335	ePn	Pn	00 41 24.3	-3.5
STON				Sn	Sn	00 42 44.6	-4.8
STON	Ston	7.16	335	ePn	Pn	00 41 24.3	-3.5
STON				Sn	Sn	00 42 44.6	-4.8
BOJS	Bojanci	10.32	333	iPn	Pn	00 42 11.5	+0.4
BOJS				iSn	Sn	00 44 00.2	-6.7
BOJS	Bojanci	10.32	333	iPn	Pn	00 42 11.5	+0.4

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*ISCJB **21** 00:44:54.4±0.6,34°.07N±0°.04×135°.66E±0°.04,h56^{km}±5^{km}, mb3.1/2,Error ellipse: s-maj=6.5km s-min=5.3km az=150.7*

*JMA **21** 00:44:55.2,34°.05N×135°.66E,h51^{km}±1^{km},M3.1*

JMA Felt I J1.

*IDC **21** 00:44:55.8±4.0,34°.00N×135°.65E,h59^{km}±50^{km},mb3.2/2, mb1 3.3/4,mb1mx3.0/25,mbtmp3.2/4,ML2.9/2,Error ellipse: s-maj=47.9km s-min=31.1km az=37.0*

ISC 21 00:44:55.3±0.5,**34°.07N**±0°.04×**135°.67E**±0°.04,**h49^{km}**±6^{km}, **n16**,σ0^{s}**57**/29,**mb3.1**/2,**Near south coast of western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JWY	Kouya	0.16	338	P	Pn	00 45 03.6	+0.3
JWY				S	Sn	00 45 09.3	+0.3
JWM	Minabe	0.34	230	P	Pn	00 45 04.4	-0.3
JWM				S	Sn	00 45 11.0	-0.4
JKN2	Miekihoku	0.53	71	P	Pn	00 45 06.8	-0.1
JKN2				S	Sn	00 45 15.0	-0.2
JWZ	Kozaga	0.54	176	P	Pn	00 45 06.8	-0.1
JWZ				S	Sn	00 45 15.7	+0.4
JHE	Heguri	0.58	2	P	Pn	00 45 07.3	-0.2
JHE				S	Sn	00 45 16.2	-0.1
JAJ2	Tsuna	0.74	299	P	Pn	00 45 09.5	+0.1
JAJ2				S	Sn	00 45 19.9	+0.2
TSUJ	Tsu 2	0.89	44	P	Pn	00 45 11.2	-0.3
TSUJ				S	Sn	00 45 22.6	-0.9
JIE	Ise	0.92	69	P	Pn	00 45 11.8	-0.1
JIE				S	Sn	00 45 23.9	-0.2
JAI	Aioi	1.05	255	P	Pn	00 45 13.6	0.0
JAI				S	Sn	00 45 26.9	-0.2
JKS	Kasai	1.14	324	P	Pn	00 45 14.6	-0.2
JKS				S	Sn	00 45 28.7	-0.6
JWT	Wachi	1.23	350	P	Pn	00 45 15.9	-0.2
JWT				S	Sn	00 45 31.3	-0.3
MAT	Matsushiro	3.23	39	P	Pn	00 45 44.8	+1.4
MAT				eS	Sn	00 46 27.7	+7.1
MJAR	Matsushiro Arr	3.23	39	P	Pn	00 45 45.0	+1.5

	1.2nm,0.3s,baz=250,slow=14,SNR=6.1						
MJAR				S	Sn	00 46 32.8	+12
	2.8nm,0.3s,baz=218,slow=25,SNR=8.0						
KSRS	Korea Array	7.14	300	P	Pn	00 46 38.4	+1.2
	0.2nm,0.3s,baz=120,slow=15,SNR=5.0						
SONM	Songino Array	25.85	311	P	P	00 50 22.1	+0.1
	0.1nm,0.4s,mb2.7,baz=116,slow=8.6,SNR=4.6						
WRA	Warramunga Arr	53.72	182	P	P	00 54 11.3	-1.0
	0.4nm,0.6s,mb3.6,baz=0.3,slow=7.4,SNR=6.6						

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*IDC **21** 00:45:23.3±1.6, 34°.47N×24°.80E, h0^{km}, mb3.2/2, mb1 3.4/4, mb1mx3.2/23, mbtmp3.3/4, ML3.6/2, Error ellipse: s-maj=39.3km s-min=25.9km az=123.0*

*CSEM **21** 00:45:25.9±0.5, 34°.52N×24°.73E, h14^{km}, MD3.3, Error ellipse: s-maj=14.6km s-min=11.8km az=152.0*

*ISCJB **21** 00:45:26.1±1.8, 34°.6N±0°.1×24°.60E±0°.10, h22^{km}±13^{km}, mb3.0/2, Error ellipse: s-maj=17.4km s-min=13.2km az=18.6*

*NEIC **21** 00:45:27.1, 34°.68N×24°.58E, h28^{km}, MD3.3(ATH), After ATH.*

*ATH **21** 00:45:27.1, 34°.68N×24°.58E, h28^{km}±2^{km}, MD3.3/3*

ISC 21 00:45:25.5±2.0, **34°.54N**±0°.09×**24°.57E**±0°.09, **h5**^{km}±12^{km}, **n26**, σ**1^s.02**/32, **mb3.0**/2, **2D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.51	22	⇓*i*PB	Pg	00 45 36.0	+0.7
SIVA				*e*SB	Sg	00 45 42.3	+0.3
SIVA	Sivas	0.51	22	⇓*i*Pb	Pg	00 45 36.0	+0.7
SIVA				*e*Sb	Sg	00 45 42.3	+0.3
IDI	Anoyia	0.79	19	*e*PN	Pg	00 45 40.1	-0.5
IDI				*e*SN	Sg	00 45 50.0	-0.8
VAM	Vamos	0.91	341	*e*PN	Pg	00 45 42.8	-0.2
LAST	Lasithi	0.97	50	*e*PN	Pg	00 45 44.1	+0.1
LAST	Lasithi	0.97	50	*e*Pn	Pg	00 45 44.1	+0.1
NPS	Neapolis	1.11	50	*e*PN	Pg	00 45 46.8	-0.1
NPS	Neapolis	1.11	50	*e*Pn	Pg	00 45 46.8	-0.1
KYTH	Kithira	2.14	325	*e*PG	Pn	00 46 01.2	-0.7
KYTH	Kithira	2.14	325	*e*Pg	Pn	00 46 01.2	-0.7
KARP	Karpathos	2.35	64	*e*PB	Pn	00 46 06.8	+2.1
KARP	Karpathos	2.35	64	*e*Pb	Pn	00 46 06.8	+2.1
VLI	Veliai	2.55	329	*e*PG	Pn	00 46 07.8	+0.3
VLI				*e*SB	Sn	00 46 31.8	-7.0
VLI	Veliai	2.55	329	*e*Pg	Pn	00 46 07.8	+0.3
VLI				*e*Sb	Sn	00 46 31.8	-7.0
VLI	Veliai	2.55	329	*e*Pg	Pn	00 46 07.8	+0.3
VLI				*e*Sb	Sn	00 46 31.8	-7.0
ITM	Ithomi	3.40	322	*e*PN	Pn	00 46 22.8	+3.7
ITM	Ithomi	3.40	322	*e*Pn	Pn	00 46 22.8	+3.7
ITM	Ithomi	3.40	322	*e*Pn	Pn	00 46 22.8	+3.7
VRAC	Vranov	15.89	341	Pn	Pn	00 49 11.4	+1.7
	0.1nm,0.3s,baz=190,slow=12,SNR=3.7						
VRAC	Vranov	15.89	341	Pn	Pn	00 49 11.4	+1.7
GERES	GERESS Array B	16.41	334	Pn	Pn	00 49 16.7	+0.3
	0.1nm,0.3s,baz=150,slow=11,SNR=5.1						
GERES	GERESS Array B	16.41	334	Pn	Pn	00 49 16.7	+0.3
AKASG	Malin Array Be	16.50	10	Pn	Pn	00 49 16.7	-0.9
	0.8nm,0.3s,baz=199,slow=10,SNR=4.4						
AKASG	Malin Array Be	16.50	10	Pn	Pn	00 49 16.7	-0.9
TORD	Torodi Ar. Bea	29.72	230	P	P	00 51 32.3	-0.4
	0.2nm,0.6s,mb3.1,baz=37,slow=8.8,SNR=3.4						
MKAR	Makanchi Array	44.52	56	P	P	00 53 35.3	-2.6
	0.1nm,0.4s,mb3.0,baz=276,slow=6.3,SNR=2.8						

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*ISCJB **21** 00:56:02.9±0.9, 36°.23N±0°.03×21°.57E±0°.03, h1^{km}±6^{km}, mb3.7/10, Error ellipse: s-maj=5.1km s-min=4.3km az=42.2*

*THE **21** 00:56:03.3, 36°.07N×21°.46E, h0^{km}±5^{km}, ML4.2/9, Error ellipse: s-maj=8.8km s-min=1.8km az=226.0*

*IDC **21** 00:56:03.0±0.8, 36°.38N×21°.77E, h0^{km}, mb3.6/11, mb1 3.6/16, mb1mx3.6/30, mbtmp3.5/16, ML3.0/4, Error ellipse: s-maj=18.4km s-min=14.8km az=167.0*

*ATH **21** 00:56:03.2, 36°.20N×21°.65E, h11^{km}±3^{km}, MD3.6/8, ML3.5*

*CSEM **21** 00:56:04.6±0.3, 36°.20N×21°.63E, h2^{km}, ML3.5, Error ellipse: s-maj=6.8km s-min=5.0km az=22.0*

*NEIC **21** 00:56:09.0±0.5, 36°.38N×21°.75E, h46^{km}±7^{km}, MG3.5(ATH), Error ellipse: s-maj=7.9km s-min=4.5km az=197.0*

ISC 21 00:56:04.5±0.9, **36°.23N**±0°.03×**21°.65E**±0°.03, **h1**^{km}±6^{km}, **n136**, σ**1^s.36**/180, **mb3.7**/10, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.98	13	*e*PB	Pg	00 56 22.4	-0.8
ITM				*e*SB	Sg	00 56 36.2	+0.4
ITM	Ithomi	0.98	13	*e*Pb	Pg	00 56 22.4	-0.8
ITM				*e*Sb	Sg	00 56 36.2	+0.4
VLI	Veliai	1.15	64	*e*PB	Pg	00 56 25.1	-1.4
VLI				*e*SB	Sg	00 56 41.1	-0.2
VLI	Veliai	1.15	64	*e*Pb	Pg	00 56 25.1	-1.4
VLI				*e*Sb	Sg	00 56 41.1	-0.2
RLS	Riolos of Patr	1.83	355	*e*PN	Pn	00 56 36.2	-0.9
RLS	Riolos of Patr	1.83	355	*e*Pn	Pn	00 56 36.2	-0.9
LAKA	Lakka	2.03	7	P	Pn	00 56 41.2	+1.5
LAKA				S	Sg	00 57 09.9	+0.3
LAKA	Lakka	2.03	7	P	Pn	00 56 41.2	+1.5
LAKA				S	Sg	00 57 09.9	+0.3
NAIG	Nisos Aigina	2.12	43	*e*PN	Pn	00 56 41.5	+0.4
NAIG	Nisos Aigina	2.12	43	*e*Pn	Pn	00 56 41.5	+0.4
VLS	Valsamata	2.12	337	P	Pn	00 56 41.0	-0.1
VLS	Valsamata	2.12	337	*e*PN	Pn	00 56 41.3	+0.2
VLS	Valsamata	2.12	337	P	Pn	00 56 41.0	-0.1
VLS	Valsamata	2.12	337	*e*Pn	Pn	00 56 41.3	+0.2
TRIZ	Trizonia	2.16	9	P	Pn	00 56 42.9	+1.3
TRIZ				S	Sg	00 57 13.4	-0.5
TRIZ	Trizonia	2.16	9	P	Pn	00 56 42.9	+1.3
TRIZ				S	Sg	00 57 13.4	-0.5
VAM	Vamos	2.23	111	*e*PN	Pn	00 56 42.5	0.0
VAM	Vamos	2.23	111	*e*Pn	Pn	00 56 42.5	0.0
ATH	Athens Observa	2.40	43	*e*PN	Pn	00 56 45.3	+0.4
ATH	Athens Observa	2.40	43	*e*Pn	Pn	00 56 45.3	+0.4
ATHU	Athens Univers	2.43	44	P	Pn	00 56 46.8	+1.4
ATHU				S	Sg	00 57 21.0	-1.7
ATHU	Athens Univers	2.43	44	P	Pn	00 56 46.8	+1.4
ATHU				S	Sg	00 57 21.0	-1.7
PTL	Penteli	2.54	44	*e*PB	Pn	00 56 46.4	-0.4
LKR	Lokris	2.65	24	P	Pn	00 56 50.1	+1.8
LKR				S	Sg	00 57 26.2	-3.3
LKR	Lokris	2.65	24	*e*PB	Pn	00 56 47.2	-1.1
LKR	Lokris	2.65	24	P	Pn	00 56 50.1	+1.8
LKR				S	Sg	00 57 26.2	-3.3
IDI	Anoyia	2.80	109	Pn	Pn	00 56 50.3	0.0
	3.1nm,0.3s,baz=304,slow=14,SNR=18						
IDI				Lg		00 57 37.4	
	7.9nm,0.3s,baz=37,slow=20,SNR=3.0						
IDI	Anoyia	2.80	109	Pn	Pn	00 56 50.3	0.0
IDI				Lg		00 57 37.4	
AGG	Agios Georgios	2.84	11	P	Pn	00 56 52.9	+1.9
AGG				S	Sn	00 57 30.2	+4.4
AGG	Agios Georgios	2.84	11	P	Pn	00 56 52.9	+1.9
AGG				S	Sn	00 57 30.2	+4.4
SIVA	Sivas	2.84	114	P	Pn	00 56 51.2	+0.2
SIVA	Sivas	2.84	114	P	Pn	00 56 51.2	+0.2
LAST	Lasithi	3.29	108	P	Pn	00 56 57.0	-0.2
LAST	Lasithi	3.29	108	P	Pn	00 56 57.0	-0.2
THL	Klokotos Trika	3.34	5	P	Pn	00 56 58.5	+0.6
THL				S	Sn	00 57 40.5	+2.3
THL	Klokotos Trika	3.34	5	*e*PN	Pn	00 56 58.3	+0.4
THL	Klokotos Trika	3.34	5	*e*Pn	Pn	00 56 58.3	+0.4
THL	Klokotos Trika	3.34	5	P	Pn	00 56 58.5	+0.6
THL				S	Sn	00 57 40.5	+2.3
XOR	Xorichti	3.36	21	P	Pn	00 56 59.9	+1.8
XOR				S	Sn	00 57 44.2	+5.5
NPS	Neapolis	3.36	105	P	Pn	00 57 00.3	+2.2
NPS	Neapolis	3.36	105	P	Pn	00 57 00.3	+2.2
AOS	Alonnisos	3.43	30	P	Pn	00 56 59.5	+0.5
AOS	Alonnisos	3.43	30	P	Pn	00 56 59.5	+0.5
IGT	Igoumenitsa	3.46	343	P	Pn	00 56 59.2	-0.3
IGT				S	Sn	00 57 36.6	-4.5
IGT	Igoumenitsa	3.46	343	P	Pn	00 56 59.2	-0.3
JAN	Janina	3.48	350	*e*PN	Pn	00 57 00.6	+0.8
JAN	Janina	3.48	350	*e*Pn	Pn	00 57 00.6	+0.8
MEV	Metsovon	3.57	355	P	Pn	00 57 02.8	+1.9
MEV				S	Sn	00 57 46.1	+2.4
MEV	Metsovon	3.57	355	P	Pn	00 57 02.8	+1.9
MEV				S	Sn	00 57 46.1	+2.4
KEK	Kerkira	3.77	338	*e*PN	Pn	00 57 03.6	-0.2
KEK	Kerkira	3.77	338	*e*Pn	Pn	00 57 03.6	-0.2
ZKR	Zakros	3.88	105	P	Pn	00 57 05.6	+0.4
ZKR	Zakros	3.88	105	P	Pn	00 57 05.6	+0.4
LIT	Litokhoron	3.92	9	P	Pn	00 57 07.0	+1.2
KZN	Kozani	4.07	1	P	Pn	00 57 11.8	+3.9
PLG	Polygyros	4.37	18	P	Pn	00 57 14.4	+2.4
PLG	Polygyros	4.37	18	P	Pn	00 57 14.4	+2.4
OUR	Ouranopolis	4.49	23	P	Pn	00 57 16.5	+2.9
OUR	Ouranopolis	4.49	23	P	Pn	00 57 16.5	+2.9
HORT	Hortiatis	4.51	14	P	Pn	00 57 15.4	+1.5
HORT	Hortiatis	4.51	14	P	Pn	00 57 15.4	+1.5
KARP	Karpathos	4.53	97	P	Pn	00 57 13.9	-0.2
KARP	Karpathos	4.53	97	P	Pn	00 57 13.9	-0.2
FNA	Florina	4.55	357	P	Pn	00 57 14.5	0.0
FNA				S	Sn	00 58 09.0	+0.9
FNA	Florina	4.55	357	P	Pn	00 57 14.5	0.0
FNA				S	Sn	00 58 09.0	+0.9
GRG	Griva	4.76	7	P	Pn	00 57 18.1	+0.8
GRG	Griva	4.76	7	P	Pn	00 57 18.1	+0.8
SOH	Sokhos	4.78	16	P	Pn	00 57 20.0	+2.4
SOH				S	Sn	00 58 17.8	+4.2
SOH	Sokhos	4.78	16	P	Pn	00 57 20.0	+2.4
SOH				S	Sn	00 58 17.8	+4.2
BIA	Bitola	4.79	357	P	Pn	00 57 18.4	+0.6
BIA				S	Sn	00 58 14.8	+0.9
BIA	Bitola	4.79	357	*e*Pn	Pn	00 57 17.3	-0.5
BIA				*e*Sg	Sn	00 58 12.2	-1.7
BIA	Bitola	4.79	357	S	Sn	00 58 14.8	+0.9
SOI	Samo	4.83	294	Pn	Pn	00 57 19.2	+0.9
SOI	Samo	4.83	294	Pn	Pn	00 57 19.2	+0.9
TIP	Timpagrande	4.87	309	P	Pn	00 57 20.8	+2.0
TIP	Timpagrande	4.87	309	P	Pn	00 57 20.8	+2.0
GRI	Girifalco	4.90	303	Pn	Pn	00 57 20.1	+0.9
GRI				Sn	Sn	00 58 09.9	-6.6
GRI	Girifalco	4.90	303	Pn	Pn	00 57 20.1	+0.9
OHR	Ohrid	4.92	352	*e*Pn	Pn	00 57 19.2	-0.3
OHR				*e*Sg	Sn	00 58 14.2	-2.9
OHR	Ohrid	4.92	352	*e*Pn	Pn	00 57 19.2	-0.3
CEL	Celeste	5.02	296	*e*Pn	Pn	00 57 21.0	+0.1
	12nm,0.4s						
CEL				*e*Sn	Sn	00 58 18.7	-0.9
CEL	Celeste	5.02	296	*e*Pn	Pn	00 57 21.0	+0.1
	12nm,0.4s						
CEL				*e*Sn	Sn	00 58 18.7	-0.9
KNT	Kendrikon	5.02	11	P	Pn	00 57 22.5	+1.6
KNT	Kendrikon	5.02	11	P	Pn	00 57 22.5	+1.6
SRS	Serrai	5.11	17	P	Pn	00 57 23.6	+1.4
SRS	Serrai	5.11	17	P	Pn	00 57 23.6	+1.4
KRUS	Krusevo	5.14	357	*e*Pn	Pn	00 57 21.6	-1.0
KRUS				*e*Sg	Sn	00 58 19.8	-2.8
NVR	Nevrokopi	5.40	18	P	Pn	00 57 29.2	+3.1
TAR1	Taranto	5.49	323	*e*Pn	Pn	00 57 26.9	-0.5
PE1	Pezze di Greco	5.64	325	*e*Pn	Pn	00 57 28.9	-0.6
LTRZ	Laterza	5.79	320	Pn	Pn	00 57 30.8	-0.6
LTRZ				Sn	Sn	00 58 32.5	-5.9
LTRZ	Laterza	5.79	320	Pn	Pn	00 57 30.8	-0.6
VAE	Valguarnera	5.94	284	Pn	Pn	00 57 36.9	+3.4
	0.9nm,0.3s,baz=26,slow=5.6,SNR=5.9						
VAE				Sn	Sn	00 58 43.1	+1.0
	2.2nm,0.3s,baz=94,slow=19,SNR=3.5						
VAE	Valguarnera	5.94	284	Sn	Sn	00 58 43.1	+0.9
CUC	Castrocucco	5.94	311	*e*Pn	Pn	00 57 33.1	-0.4
	13nm,0.5s						
CUC				*e*Sn	Sn	00 58 37.6	-4.6
CUC	Castrocucco	5.94	311	*e*Pn	Pn	00 57 33.2	-0.3
	13nm,0.5s						
SG1	Sgolgore (BA)	6.03	321	*e*Pn	Pn	00 57 34.9	+0.1
BAI	Bari	6.14	324	*e*Pn	Pn	00 57 35.4	-0.8
MGR	Morigerati	6.19	311	Pn	Pn	00 57 38.2	+1.3
MGR	Morigerati	6.19	311	Pn	Pn	00 57 38.2	+1.3
VTS	Vitosha	6.47	10	P	Pn	00 57 42.6	+1.8
VTS	Vitosha	6.47	10	P	Pn	00 57 42.6	+1.8
RGNG	Rignano Grg	7.20	321	Pn	Pn	00 57 49.9	-1.0
RGNG	Rignano Grg	7.20	321	Pn	Pn	00 57 49.9	-1.0
STON	Ston	7.30	337	*e*Pn	Pn	00 57 49.5	-2.7
STON				Sn	Sn	00 59 06.4	-9.3
MLR	Muntele Rosu	9.81	18	Pn	Pn	00 58 16.0	-11
	0.1nm,0.3s,baz=200,slow=8.6,SNR=2.4						
KEST	Kesra	9.99	271	Pn	Pn	00 58 29.4	+0.4
	0.1nm,0.3s,baz=67,slow=15,SNR=4.3						
BRTR	Keskin Array B	10.09	66	Pn	Pn	00 58 28.3	-2.1
	0.1nm,0.3s,baz=264,slow=11,SNR=2.8						
BRTR	Keskin Array B	10.09	66	Pn	Pn	00 58 28.3	-2.1
BOJS	Bojanci	10.45	334	*i* Pn	Pn	00 58 33.8	-1.6
BOJS				*i* Sn	Sn	01 00 23.4	-10
BOJS	Bojanci	10.45	334	Pn	Pn	00 58 33.8	-1.6
BOJS				*i* Sn	Sn	01 00 23.4	-10
VISS	Visnje	10.86	334	*i* Pn	Pn	00 58 40.1	-0.9
VISS				*i* Sn	Sn	01 00 33.9	-9.1
VISS	Visnje	10.86	334	*i* Pn	Pn	00 58 40.1	-0.8
VISS				*i* Sn	Sn	01 00 33.9	-9.1
JAVS	Javornik	11.22	332	*i* Pn	Pn	00 58 45.2	-0.7
JAVS				*i* Sn	Sn	01 00 39.8	-12
JAVS	Javornik	11.22	332	*i* Pn	Pn	00 58 45.2	-0.7
JAVS				*i* Sn	Sn	01 00 39.8	-12
MMAI	Mount Meron Ar	11.77	102	Pn	Pn	00 58 49.6	-4.0
	0.5nm,0.3s,baz=257,slow=11,SNR=5.4						
MMAI				Sn	Sn	01 00 54.9	-11
	0.4nm,0.3s,baz=270,slow=20,SNR=3.6						
DAVOX	Davos/Dischmat	13.73	324	Sn	Sn	01 01 45.8	-7.5
	baz=323,slow=20						
GERES	GERESS Array B	13.89	338	Pn	Pn	00 59 20.8	-1.6
	baz=161,slow=13,SNR=2.5						
GERES				Sn	Sn	01 01 50.7	-6.5
	0.1nm,0.3s,baz=155,slow=24,SNR=4.2						
GERES	GERESS Array B	13.89	338	Pn	Pn	00 59 20.8	-1.6
GERES				Sn	Sn	01 01 50.7	-6.5
GERES	GERESS Array B	13.89	338	Pn	Pn	00 59 20.8	-1.6
ESDC	Sonseca Array	20.47	287	P	P	01 00 41.9	-1.6
	0.1nm,0.3s,baz=76,slow=10,SNR=3.0						
ESDC	Sonseca Array	20.47	287	P	P	01 00 41.9	-1.6
MDT	Midelt	21.88	269	P	P	01 00 58.8	0.0
	2.0nm,0.9s,mb3.5,baz=80,slow=11,SNR=5.1						
MDT	Midelt	21.88	269	P	P	01 00 58.8	0.0
HFS	Hagfors	24.47	350	P	P	01 01 22.0	-2.6
	1.2nm,0.5s,mb3.7,baz=157,slow=13,SNR=9.1						
NOA	NORSAR Array B	25.71	348	P	P	01 01 34.1	-1.8
	1.1nm,0.8s,mb3.5,baz=156,slow=9.2,SNR=3.8						
NOA	NORSAR Array B	25.71	348	P	P	01 01 34.1	-1.8
TORD	Torodi Ar. Bea	29.15	223	P	P	01 02 07.5	+0.3
	0.9nm,0.7s,mb3.7,baz=33,slow=9.2,SNR=9.6						
ARCES	ARCESS Array B	33.43	2	P	P	01 02 42.0	-2.4
	2.4nm,0.9s,mb4.1,baz=194,slow=10,SNR=3.6						
DBIC	Dimbokro	38.13	226	P	P	01 03 25.4	+0.2
	2.6nm,0.8s,mb4.0,baz=26,slow=11,SNR=3.1						
DBIC	Dimbokro	38.13	226	P	P	01 03 25.5	+0.2
AAK	Ala-Archa	40.76	64	P	P	01 03 44.2	-2.8
	0.5nm,0.4s,mb3.6,baz=284,slow=12,SNR=3.5						
MKAR	Makanchi Array	45.58	57	P	P	01 04 22.8	-3.2
	0.4nm,0.4s,mb3.8,baz=267,slow=8.0,SNR=14						
MKAR	Makanchi Array	45.58	57	P	P	01 04 22.8	-3.2
ZALV	Zalesovo Beam	46.34	47	P	P	01 04 28.9	-2.9
	0.6nm,0.4s,mb4.0,baz=272,slow=7.9,SNR=3.9						
SONM	Songino Array	61.01	50	P	P	01 06 17.1	-2.3
	0.2nm,0.7s,mb3.3,baz=274,slow=4.2,SNR=2.7						

IDC 21 00:57:29.7±2.4, **6°.24S**×**148°.42E**, **h0**^{km}, **mb3.9**/4, **mb1 4.2**/5, **mb1mx3.9**/16, **mbtmp4.0**/5, **ML4.0**/1, **MS3.4**/2, **Ms1 3.4**/2, **ms1mx2.8**/28, **Error ellipse: s-maj=73.8km s-min=25.1km az=109.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	13.92	188	LR	LR	01 05 21.8	
	comp=Z,117nm,18.5s,baz=51,slow=34						
WRA	Warramunga Arr	19.30	224	P	Pn	01 01 56.0	-1.3
	0.5nm,0.3s,baz=50,slow=10,SNR=34						
ASAR	Alice Springs	22.25	217	P	P	01 02 29.1	+0.8
	3.6nm,0.4s,baz=51,slow=9.3,SNR=39						
ASAR				S	S	01 06 29.4	-4.8
	1.5nm,0.8s,baz=34,slow=23,SNR=6.5						
FITZ	Fitzroy Crossi	25.15	240	P	P	01 02 56.3	-0.5
	12nm,0.6s,baz=67,slow=8.2,SNR=32						
KSRS	Korea Array	47.49	338	LR	LR	01 26 36.4	
	comp=Z,42nm,18.1s,baz=22,slow=37						
SONM	Songino Array	65.30	330	P	P	01 08 14.4	+1.0
	0.3nm,0.7s,baz=146,slow=5.7,SNR=2.5						
MKAR	Makanchi Array	78.58	320	P	P	01 09 32.6	-0.6
	0.4nm,0.7s,baz=121,slow=6.9,SNR=3.6						
SIV	San Ignacio	143.39	127	PKP	PKPdf	01 17 07.4	+0.2
	0.8nm,0.7s,baz=276,slow=4.1,SNR=5.0						
TORD	Torodi Ar. Bea	146.51	284	PKPbc	PKPbc	01 17 13.1	-1.0
	1.2nm,0.7s,baz=64,slow=3.5,SNR=18						

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*UCC **21** 01:02:56.6±0.2, 51°.01N×5°.92E, h14^{km}, ML1.0*

CSEM 21 01:02:55.7±0.4, **51°.05N**×**5°.90E**, **h10**^{km}, **ML1.0, 1D, Error ellipse: s-maj=6.4km s-min=4.4km az=33.0, The Netherlands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HGN	Heimansgroeve	0.29	176	*e*Pg	Pg	01 03 01.6	+0.1
	1.6nm,0.1s,baz=360						
HGN				*e*Sg	Sg	01 03 05.1	-0.1
HGN	Heimansgroeve	0.29	176	*e*Sg	Sg	01 03 05.1	-0.2
BEBN	Eben Emael	0.29	209	⇓P	Pg	01 03 01.7	+0.2
BEBN				S	Sg	01 03 05.9	+0.6
	comp=E,15nm,0.0s						
BEBN	Eben Emael	0.29	209	P	Pg	01 03 01.7	+0.2
BEBN				S	Sg	01 03 05.9	+0.5
MEM	Membach	0.45	171	P	Pg	01 03 04.5	+0.1
MEM				S	Sg	01 03 10.1	-0.2
	comp=E,3.8nm,0.0s						
MEM	Membach	0.45	171	P	Pg	01 03 04.5	+0.1
MEM				S	Sg	01 03 10.1	-0.2
BCLA	Clavier	0.74	211	P	Pg	01 03 10.3	+0.4
BCLA				S	Sg	01 03 19.4	0.0
BCLA	Clavier	0.74	211	P	Pg	01 03 10.3	+0.4
BCLA				S	Sg	01 03 19.4	-0.1
DOU	Dourbes	1.27	222	P	Pn	01 03 19.1	-0.3
DOU				S	Sb	01 03 36.0	0.0
DOU	Dourbes	1.27	222	P	Pn	01 03 19.1	-0.3
DOU				S	Sb	01 03 35.9	0.0

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*ISCJB **21** 01:12:31.6±3.7, 2°.8N±0°.2×95°.8E±0°.3, h46^{km}±26^{km}, mb3.6/6, Error ellipse: s-maj=59.2km s-min=11.3km az=143.1*

*NEIC **21** 01:12:32.4±0.9, 2°.77N×95°.79E, h35^{km}, Error ellipse: s-maj=26.9km s-min=9.5km az=46.0*

*IDC **21** 01:12:35.5±7.7, 2°.91N×96°.01E, h58^{km}±61^{km}, mb3.4/6, mb1 3.5/7, mb1mx3.3/23, mbtmp3.4/7, ML3.4/1, Error ellipse: s-maj=94.1km s-min=19.9km az=56.0*

ISC 21 01:12:32.9±3.8, **2°.8N**±0°.2×**95°.8E**±0°.3, **h37**^{km}±28^{km}, **n11**, σ**0^s.27**/12, **mb3.6**/6, **1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.72	349	⇑*e*P	Pn	01 13 14.0	-0.1
BSI				*e*S	Sn	01 13 45.5	-0.2
PSI	Prapat	3.10	90	P	Pn	01 13 19.6	+0.3
	5.5nm,0.3s,baz=288,slow=10,SNR=16						
WRA	Warramunga Arr	44.05	123	P	P	01 20 37.1	-0.4
	0.3nm,0.5s,mb3.3,baz=301,slow=9.2,SNR=6.7						
WB2	Warramunga Arr	44.06	123	*e*P	P	01 20 37.5	0.0
MK31	Makanchi Array	45.36	347	*e*P	P	01 20 48.0	+0.6
MKAR	Makanchi Array	45.36	347	P	P	01 20 47.8	+0.4
	0.9nm,0.5s,mb3.9,baz=156,slow=9.0,SNR=25						
ASAR	Alice Springs	45.46	127	P	P	01 20 48.4	-0.2
	0.3nm,0.6s,mb3.3,baz=303,slow=7.7,SNR=4.5						
SONM	Songino Array	45.77	10	P	P	01 20 50.3	-0.3
	0.5nm,0.7s,mb3.6,baz=200,slow=8.4,SNR=4.7						
ZALV	Zalesovo Beam	51.77	352	P	P	01 21 36.6	0.0
	0.6nm,0.4s,mb3.9,baz=159,slow=6.3,SNR=4.8						
AKTK	Aktyubinsk	57.17	332	P	P	01 22 15.9	0.0
AKTO	Aktyubinsk	57.17	332	P	P	01 22 15.9	0.0
	0.9nm,0.8s,mb3.9,baz=126,slow=14,SNR=3.2						

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*NEIC **21** 01:12:33.3±2.8, 24°.10N×122°.55E, h10^{km}, Error ellipse: s-maj=32.2km s-min=13.6km az=87.0*

*TAP **21** 01:12:37.0, 24°.15N×122°.35E, h51^{km}, ML3.6, C*

*ISCJB **21** 01:12:37.2±0.3, 24°.12N±0°.02×122°.38E±0°.02, h33^{km}, Error ellipse: s-maj=3.0km s-min=2.3km az=153.0*

*JMA **21** 01:12:37.4±0.2, 24°.31N×122°.42E, h63^{km}±3^{km}, M2.7*

ISC 21 01:12:37.5±0.5, **24°.14N**±0°.02×**122°.38E**±0°.02, **h33**^{km}±4^{km}, **n50**, σ**0^s.90**/91, **4C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENA	Nanau	0.65	296	⇑*i*P	Pb	01 12 50.1	-0.4
	baz=301						
ENA				*e*S	Sb	01 12 60.0	+0.6
	baz=301						
YOJ	Yonaguni jima	0.66	61	P	Pb	01 12 50.4	-0.3
YOJ				*e*S	Sb	01 12 59.9	+0.3
TWC	Suao	0.67	314	P	Pb	01 12 50.2	-0.7
	baz=314						
TWC				*e*S	Sb	01 12 59.0	-0.9
	baz=314						
NACB	Ninganchiao	0.72	273	*e*Pg	Pn	01 12 50.5	-0.9
TWD	Chiawan	0.72	265	⇑*i*P	Pn	01 12 50.7	-0.7
	baz=256						
TWD				*e*S	Sb	01 13 00.5	-0.7
	baz=256						
HWA	Hwalien	0.73	257	*e*P	Pn	01 12 51.0	-0.5
	baz=256						
HWA				*e*S	Sb	01 13 02.0	+0.5
	baz=256						
TWE	Neicheng	0.87	312	P	Pn	01 12 53.5	+0.1
	baz=305						
TWE				*e*S	Sn	01 13 04.7	-0.2
	baz=305						
ENTT	Nioudou	0.89	304	P	Pn	01 12 53.7	0.0
	baz=304						
ENTT				*e*S	Sn	01 13 05.9	+0.4
	baz=304						
ESL	Shilin	0.93	249	P	Pn	01 12 53.2	-1.0
	baz=240						
ESL				S	Sn	01 13 05.5	-0.8
	baz=240						
TWB1	Santiao Chiao	0.93	338	P	Pn	01 12 53.8	-0.5
	baz=347						
TWB1				*e*S	Sn	01 13 05.3	-1.2
	baz=347						
NNS	Nan Shan	0.96	288	*e*P	Pn	01 12 54.6	-0.1
	baz=288						
NNS				*e*S	Sn	01 13 07.2	-0.1
	baz=288						
WHF	Hehuan Shan	1.02	270	⇑*i*P	Pn	01 12 55.1	-0.3
	baz=259						
WHF				*e*S	Sn	01 13 08.5	-0.1
	baz=259						
YHNB	Yeheng	1.05	300	*e*Pn	Pn	01 12 55.9	0.0
YHNB				*e*Sn	Sn	01 13 09.5	-0.1
NSK	Sanguang	1.07	300	⇑*i*P	Pn	01 12 56.2	0.0
	baz=289						
NSK				*e*S	Sn	01 13 09.6	-0.4
	baz=289						
NWF	Wu-fen Shan	1.07	330	P	Pn	01 12 55.8	-0.4
	baz=330						
NWF				*e*S	Sn	01 13 06.9	-3.0
	baz=330						
TWA	Mucha	1.10	319	*e*P	Pn	01 12 57.8	+1.1
	baz=332						
TWA				S	Sn	01 13 11.5	+0.7
	baz=332						
TWT	Tachien	1.10	276	*e*P	Pn	01 12 56.9	+0.2
	baz=265						
TWT				*e*S	Sn	01 13 11.3	+0.6
	baz=265						
EHY	Hungye	1.16	237	P	Pn	01 12 56.5	-0.9
	baz=245						
EHY				*e*S	Sn	01 13 10.8	-1.2
	baz=245						
TATO	Taipei	1.16	316	*e*Pn	Pn	01 12 57.9	+0.4
YULB	Yu-li	1.24	233	*e*Pn	Pn	01 12 57.6	-0.9
IRIF	Iriomote-Funau	1.25	81	P	Pn	01 12 58.3	-0.3
IRIF				*e*S	Sn	01 13 14.3	0.0
TWF1	Yuli	1.27	232	P	Pn	01 12 58.2	-0.6
	baz=243						
TWF1				*e*S	Sn	01 13 13.5	-1.2
	baz=243						
TWS1	Kuangyinshan	1.29	318	*e*P	Pn	01 12 59.5	+0.2
	baz=328						
TWS1				*e*S	Sn	01 13 15.5	0.0
	baz=328						
HATJ	Hateruma jima	1.31	93	P	Pn	01 12 59.8	+0.4
NSTT	Nanjuang	1.35	291	P	Pn	01 13 00.5	+0.5
	baz=290						
NSTT				*e*S	Sn	01 13 17.2	+0.5
	baz=290						
SSLB	Suanglung	1.35	255	*e*Pn	Pn	01 12 59.7	-0.4
SSLB				*e*Sn	Sn	01 13 15.9	-0.9

SMLT	Sun Moon Lake	1.38	259	P	Pn	01 13 00.5	0.0
	baz=258						
SMLT				*e*S	Sn	01 13 17.2	-0.3
	baz=258						
CHKT	Chengkung	1.39	222	P	Pn	01 13 00.1	-0.5
	baz=214						
CHKT				*e*S	Sn	01 13 14.8	-3.1
	baz=214						
TYC	Yuchr	1.41	261	P	Pn	01 13 01.0	+0.1
	baz=259						
TYC				*e*S	Sn	01 13 18.1	-0.2
	baz=259						
YUS	Yu-Shan	1.46	244	P	Pn	01 13 01.9	+0.3
	baz=242						
YUS				*e*S	Sn	01 13 19.0	-0.5
	baz=242						
TWQ1	Liyutan	1.48	278	*e*P	Pn	01 13 02.5	+0.7
	baz=277						
JKRS	Kuro-shima	1.49	86	P	Pn	01 13 02.2	+0.2
ELDTW	Lidau	1.57	233	P	Pn	01 13 02.4	-0.7
	baz=223						
ELDTW				*e*S	Sn	01 13 20.0	-2.2
	baz=223						
ALS	Alishan	1.57	247	*e*P	Pn	01 13 03.8	+0.7
	baz=245						
ALS				*e*S	Sn	01 13 22.7	+0.4
	baz=245						
JIJ	Ishigaki jima	1.62	82	P	Pn	01 13 03.3	-0.5
JIJ				*e*S	Sn	01 13 22.7	-0.9
WGK	Gukeng	1.72	255	*e*P	Pn	01 13 06.2	+1.0
	baz=243						
STYT	Tauyuan	1.78	237	*e*P	Pn	01 13 06.4	+0.5
	baz=236						
STYT				*e*S	Sn	01 13 27.7	+0.3
	baz=236						
TWG	Pinlang	1.78	223	*e*Pn	Pn	01 13 05.5	-0.5
TWG				*e*Sn	Sn	01 13 26.2	-1.3
TWG	Pinlang	1.78	223	P	Pn	01 13 05.0	-1.0
	baz=230						
TWG				*e*S	Sn	01 13 25.5	-2.0
	baz=230						
TPUB	Ta-pu	1.81	243	*e*Pn	Pn	01 13 07.0	+0.6
CHN4	Tsaushan	1.82	245	*e*P	Pn	01 13 07.8	+1.4
	baz=243						
CHN4				*e*S	Sn	01 13 28.9	+0.6
	baz=243						
WTP	Ta-pu	1.85	241	P	Pn	01 13 07.5	+0.6
	baz=240						
WTP				*e*S	Sn	01 13 31.2	+2.0
	baz=240						
TWK	Hsinying	1.94	244	P	Pn	01 13 09.4	+1.3
	baz=242						
TWK				*e*S	Sn	01 13 33.2	+1.8
	baz=242						
CHN1	Nanshi	1.95	241	P	Pn	01 13 09.4	+1.2
	baz=240						
CHN1				*e*S	Sn	01 13 33.4	+1.9
	baz=240						
SGST	Jiashian	1.96	238	*e*P	Pn	01 13 09.5	+1.1
	baz=230						
SGST				*e*S	Sn	01 13 34.1	+2.3
	baz=230						
ECL	Taimali	2.02	221	*e*P	Pn	01 13 09.2	-0.1
	baz=227						
ECL				*e*S	Sn	01 13 30.9	-2.5
	baz=227						
SSD	Sandimen	2.12	229	*e*P	Pn	01 13 12.6	+1.9
	baz=225						
SSD				S	Sn	01 13 35.1	-0.8
	baz=225						
JTJ	Tarama	2.17	76	P	Pn	01 13 11.5	+0.1
JTJ				*e*S	Sn	01 13 38.1	+0.9
LAY	Lan-yu	2.23	200	*e*P	Pn	01 13 11.5	-0.6
	baz=200						
SCZT	Fangliau	2.39	223	*e*P	Pn	01 13 16.5	+2.1
	baz=221						
SCZT				*e*S	Sn	01 13 42.9	+0.3
	baz=221						

IDC 21 01:25:51.5±13.0**, 0°.20N×121°.92E, h233**km±146km**, mb3.1**/5**, mb1 3.3**/6**, mb1mx3.1**/20**, mbtmp3.1**/6**, MS3.0**/2**, Ms1 3.0**/2**, ms1mx2.7**/13**, Error ellipse: s-maj=100.0km s-min=22.1km az=61.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	5.61	203	LR	LR	01 30 10.7	
	comp=Z,56nm,18.5s,baz=92,slow=46						
FITZ	Fitzroy Crossi	18.55	169	P	P	01 29 51.3	+0.1
	0.2nm,0.3s,baz=353,slow=8.1,SNR=5.3						
WRA	Warramunga Arr	23.42	149	P	P	01 30 39.8	-0.2
	2.3nm,0.5s,baz=326,slow=11,SNR=40						
ASAR	Alice Springs	26.42	155	P	P	01 31 07.3	+0.3
	0.6nm,0.5s,baz=331,slow=8.5,SNR=15						
CBIJ	Chichi jima	33.09	34	LR	LR	01 45 06.4	
	comp=Z,68nm,18.3s,baz=13,slow=35						
STKA	Stephens Creek	36.94	152	P	P	01 32 38.2	-0.1
	1.0nm,0.3s,baz=310,slow=7.9,SNR=3.1						
SONM	Songino Array	49.33	346	P	P	01 34 17.3	+0.2
	0.3nm,0.5s,baz=166,slow=8.5,SNR=3.4						
MKAR	Makanchi Array	57.88	329	P	P	01 35 19.0	-0.1
	0.2nm,0.3s,baz=117,slow=8.8,SNR=5.2						

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*ISCJB **21** 01:29:18.1±0.5, 2°.44N±0°.06×98°.95E±0°.07, h155km±5km, mb3.6/8, Error ellipse: s-maj=11.5km s-min=9.9km az=148.2*

*IDC **21** 01:29:18.8±1.3, 2°.43N×98°.99E, h144km±4km, mb3.4/7, mb1 3.5/7, mb1mx3.3/23, mbtmp3.4/7, Error ellipse: s-maj=63.2km s-min=14.9km az=57.0*

*NEIC **21** 01:29:19.2±1.0, 2°.42N×98°.95E, h152km±6km, mb3.7/1, Error ellipse: s-maj=24.6km s-min=9.8km az=61.0*

*DJA **21** 01:29:20, 2°.40N×99°.15E, h20km, MLv4.0/4*

ISC 21 01:29:19.2±0.5**, 2°.44N**±0°.06×**98°.96E**±0°.07**, h150**km±5km**, n19, σ0ˢ.78**/22**, mb3.6**/8**, 1D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	0.36	355	P	Pn	01 29 40.3	+0.3
	129nm,0.3s,baz=196,slow=7.4,SNR=473						
PSI				S	Sn	01 29 55.2	-0.7
	30nm,0.3s,baz=341,slow=22,SNR=28						
GSI	Gunungsitoli	1.78	231	P	Pn	01 29 52.9	+1.1
GSI				S	Sn	01 30 17.1	+0.2
IPM	Ipoh	2.90	45	P	Pn	01 30 06.1	+0.8
PPI	Padang Panjang	3.21	153	P	Pn	01 30 05.8	-3.5
KULM	Kulim	3.30	31	*e*Pn	Pn	01 30 10.3	-0.1
PDSI	Padang	3.65	156	P	Pn	01 30 05.5	-9.4
BSI	Banda Aceh	4.75	310⇓	*e*P	Pn	01 30 31.0	+1.7
BSI				*e*S	Sn	01 31 22.5	-1.5
BSI	Banda Aceh	4.75	310	P	Pn	01 30 30.1	+0.8
KAPI	Kappang	22.05	110	P	P	01 34 02.7	+0.6
	5.0nm,0.3s,mb4.3,baz=287,slow=17,SNR=3.7						
KAPI	Kappang	22.05	110	P	P	01 34 02.7	+0.5
FITZ	Fitzroy Crossi	33.28	129	P	P	01 35 42.7	+0.1
	4.9nm,0.9s,mb4.3,baz=297,slow=4.5,SNR=3.3						
WRA	Warramunga Arr	41.23	124	P	P	01 36 49.0	-0.7
	1.3nm,0.5s,mb3.8,baz=303,slow=9.0,SNR=16						
WRA				PcP	PcP	01 38 45.7	-0.1
	0.1nm,0.4s,baz=313,slow=2.7,SNR=5.6						
WRAB	Tennant Creek	41.24	124	*e*P	P	01 36 49.7	0.0
	1.5nm,0.7s,mb3.7						
WB2	Warramunga Arr	41.24	124	*e*P	P	01 36 49.6	-0.1
ASAR	Alice Springs	42.77	129	P	P	01 37 01.2	-0.8
	0.3nm,0.5s,mb3.2,baz=300,slow=7.5,SNR=5.7						
SONM	Songino Array	45.68	7	P	P	01 37 25.6	+0.8
	0.2nm,0.6s,mb2.9,baz=188,slow=9.3,SNR=2.4						
MKAR	Makanchi Array	46.50	344	P	P	01 37 31.3	0.0
	0.2nm,0.6s,mb2.9,baz=167,slow=8.7,SNR=5.2						
MKAR	Makanchi Array	46.50	344	P	P	01 37 31.3	0.0
ZALV	Zalesovo Beam	52.65	350	P	P	01 38 17.3	-0.3
	0.5nm,0.4s,mb3.6,baz=174,slow=5.8,SNR=3.8						

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*CSEM **21** 01:32:47.0, 37°.62N×43°.15E, h7km, MD3.4*

DDA 21 01:32:47.0, 37°.62N×43°.15E, h7km±20km**, Md3.4, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAKT	HAKKARI	0.45	98	*e*P	Pg	01 32 57.8	+2.2
HAKT				*e*S	Sg	01 33 01.8	+0.4
HAKT	HAKKARI	0.45	98	*e*P	Pg	01 32 57.8	+2.2
HAKT				*e*S	Sg	01 33 01.8	+0.4
MSL	Mosul	1.22	182	*e*x	x	01 33 05.0	
MSL				*e*x	x	01 33 22.0	
BEST	Besiri	1.52	281	*e*P	Pn	01 33 12.7	-1.8
BEST				*e*S	Sn	01 33 41.3	+6.8
MARD	Mardin	1.91	261	*e*P	Pn	01 33 17.4	-2.6
MARD				*e*S	Sn	01 33 50.3	+6.0

IDC 21 01:35:48.7±7.9**, 1°.64S×148°.86E, h0**km**, mb3.2**/3**, mb1 3.4**/3**, mb1mx3.3**/16**, mbtmp3.2**/3**, Error ellipse: s-maj=261.8km s-min=32.3km az=99.0, Admiralty Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.08	217	P	P	01 40 54.8	-1.4
	0.2nm,0.3s,baz=41,slow=10,SNR=7.4						
ASAR	Alice Springs	26.26	212	P	P	01 41 27.2	+1.3
	0.3nm,0.5s,baz=49,slow=8.2,SNR=5.2						
MKAR	Makanchi Array	75.38	319	P	P	01 47 34.4	+0.1
	0.1nm,0.4s,baz=96,slow=5.8,SNR=3.6						

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*ISCJB **21** 01:39:47.0±0.9, 38°.90N±0°.03×26°.26E±0°.08, h10km, Error ellipse: s-maj=9.5km s-min=3.9km az=165.4*

*CSEM **21** 01:39:47.0±0.2, 38°.91N×26°.22E, h5km, MD2.8, Error ellipse: s-maj=5.1km s-min=1.8km az=83.0*

*DDA **21** 01:39:47.2, 38°.91N×26°.29E, h7km±3km, Md2.8*

*ISK **21** 01:39:49.1, 39°.06N×26°.81E, h30km, MD2.9*

ISC 21 01:39:47.6±1.0**, 38°.91N**±0°.03×**26°.27E**±0°.09**, h6**km±9km**, n16, σ0ˢ.41**/28**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AYVA	Ayvalik	0.51	39	*e*P	Pg	01 39 57.2	-0.2
AYVA				*e*S	Sg	01 40 03.9	-0.3
AYVA	Ayvalik	0.51	39	*e*P	Pg	01 39 57.2	-0.3
AYVA				*e*S	Sg	01 40 03.9	-0.3
URLA	Izmir	0.61	155	*e*P	Pg	01 39 58.9	-0.4
URLA				*e*S	Sg	01 40 07.2	+0.1
URLA	Izmir	0.61	155	*e*P	Pg	01 39 58.9	-0.3
URLA				*e*S	Sg	01 40 07.2	+0.1
BLCB	Balcova	0.80	131	*e*PG	Pg	01 40 03.0	+0.1
BLCB				*e*PG	Pg	01 40 03.2	+0.2
BLCB				*e*SG	Sg	01 40 13.2	-0.2
BLCB				*e*SG	Sg	01 40 14.1	+0.8
BLCB	Balcova	0.80	131	*e*Pg	Pg	01 40 03.0	+0.1
EZN	Ezine	0.91	3	*e*PG	Pg	01 40 04.6	-0.5
EZN	Ezine	0.91	3	*e*PG	Pg	01 40 05.2	+0.1
EZN				*e*SG	Sg	01 40 17.1	+0.1
EZN	Ezine	0.91	3	*e*Pg	Pg	01 40 04.6	-0.5
EZN				*e*Sg	Sg	01 40 17.1	+0.1
BOZC	Bozcaada	0.94	350	*e*P	Pg	01 40 05.8	+0.1
BOZC				*e*S	Sg	01 40 18.4	+0.5
BALY	Balya	1.33	51	*e*P	Pn	01 40 13.0	+0.4
BALY				*e*S	Sb	01 40 30.3	+0.1
BALY	Balya	1.33	51	*e*P	Pn	01 40 13.0	+0.3
BALY				*e*S	Sb	01 40 30.3	+0.1
LPK	Lapseki	1.51	14	*e*PN	Pn	01 40 11.8	-3.3
LPK	Lapseki	1.51	14	*e*PN	Pn	01 40 14.8	-0.2
LPK	Lapseki	1.51	14	*e*Pn	Pn	01 40 14.8	-0.2
DST	Dursunbey	1.96	69	*e*PN	Pn	01 40 14.6	-6.6

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*ISCJB **21** 01:43:58.7±0.6, 52°.1N±0°.1×174°.40W±0°.07, h86km±4km, mb3.7/15, Error ellipse: s-maj=18.5km s-min=5.6km az=164.4*

*IDC **21** 01:43:58.2±1.0, 52°.25N×174°.68W, h74km±8km, mb3.4/13, mb1 3.7/14, mb1mx3.6/26, mbtmp3.5/14, Error ellipse: s-maj=23.4km s-min=17.6km az=171.0*

*BJI **21** 01:43:58.4, 52°.10N×174°.50W, h58km, mB4.8/4, mb4.0/3, Ms4.6/4, Ms7 4.3/4*

*NEIC **21** 01:43:59.5±0.6, 52°.09N×174°.52W, h88km±5km, mb3.9/4, Error ellipse: s-maj=16.5km s-min=7.3km az=159.0*

ISC 21 01:43:59.7±0.6**, 52°.1N**±0°.1×**174°.44W**±0°.07**, h81**km±4km**, h67**km±3.2km**:pP-P, n39, σ1ˢ.28**/42**, mb3.7**/15**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	0.18	59	P	Pn	01 44 09.8	-1.7
ATKA				S	Sn	01 44 18.2	-2.0
GSTR	Great Sitkin T	1.00	270	*e*Pn	Pn	01 44 19.5	+0.8
ADK	Adak	1.41	262	*e*Pn	Pn	01 44 24.4	+0.6
ADK				*e*Sn	Sn	01 44 42.9	+1.0
NIKO	Nikolski	3.52	74	*e*Pn	Pn	01 44 51.5	-0.4
NIKO				*e*Pn	Pn	01 44 52.2	+0.2
NIKO				*e*Sn	Sn	01 45 33.1	+0.7
UNV	Unalaska Valle	5.10	67	*e*Pn	Pn	01 45 13.9	+0.4
UNV				S	Sn	01 46 14.6	+3.6
AKUT	Akutan	5.60	65	*e*Pn	Pn	01 45 20.8	+0.5
SPIA	Saint Paul Isl	5.63	24	P	Pn	01 45 22.4	+1.8
FX1	Attu Island--F	7.61	281	P	Pn	01 45 52.0	+4.3
SVW2	Sparrevohn	13.69	42	*e*P	Pn	01 47 16.8	+6.9
KDAK	Kodiak Island	13.75	57	P	Pn	01 47 09.5	-1.2
	1.1nm,0.3s,baz=263,slow=8.1,SNR=12						
KDAK	Kodiak Island	13.75	57	P	Pn	01 47 09.5	-1.2
KTH	Kantishna Hill	16.85	38	*e*P	Pn	01 47 51.6	+1.6
	4.9nm,0.9s						
BPAW	Bear Paw Mtn.	17.12	36	*e*P	Pn	01 47 55.1	+1.8
	6.0nm,0.8s						
MCK	McKinley	17.70	39	*e*P	Pn	01 48 00.0	-0.4
	5.9nm,0.6s						
EGAK	Eagle	21.22	41	*e*P	P	01 48 38.4	-0.1
	8.8nm,0.6s,mb4.3						
DAWY	Dawson	21.72	43	*e*P	P	01 48 44.2	+0.4
INK	Inuvik	25.31	35	P	P	01 49 18.0	-0.1
	0.9nm,0.4s,mb3.6,baz=253,slow=10,SNR=11						
INK				pP	pP	01 49 34.9	-1.8
	1.1nm,0.6s,baz=216,slow=6.4,SNR=2.7						
YKA	Yellowknife Ar	32.75	48	P	P	01 50 23.0	-1.2
	0.2nm,0.4s,mb3.3,baz=274,slow=8.3,SNR=7.6						
MDJ	Mudanjiang	37.11	281	P	P	01 51 02.9	+1.0
MDJ				pP	pP	01 51 17.9	-3.2
MDJ				sP	sP	01 51 25.1	-5.4
MDJ				S	S	01 56 43.1	+1.2
MDJ				ScP	ScP	01 57 03.8	+3.8
MDJ				ScS	ScS	02 01 11.9	+4.3
MDJ				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
MDJ				pmax	pmax		
	comp=Z,59nm,5.1s						
MDJ				LR	LR		
	comp=N,64nm,14.6s						
MDJ				LR	LR		
	comp=E,69nm,6.2s						
MDJ				LR	LR		
	comp=Z,72nm,9.0s						
CN2	Changchun	40.05	283	*e*P	P	01 51 33.3	+6.8
CN2				*e*sP	sP	01 51 49.5	-5.8
CN2				*e*S	S	01 57 35.4	+9.2
CN2				LR	LR		
	comp=N,200nm,13.0s						
CN2				LR	LR		
	comp=E,300nm,13.0s						
CN2				LR	LR		
	comp=Z,300nm,15.0s						
NVAR	Mina Array Bea	40.79	87	P	P	01 51 34.2	+1.5
	comp=Z,0.5nm,0.6s,mb3.5,baz=307,slow=6.6,SNR=3.4						
NVAR				pP	pP	01 51 52.3	+0.2
	comp=Z,0.5nm,0.6s,baz=283,slow=8.2,SNR=2.3						
PDAR	Pinedale Array	43.50	76	P	P	01 51 54.1	-0.6
	comp=Z,0.6nm,0.5s,mb3.6,baz=300,slow=2.7,SNR=7.2						
PDAR				pP	pP	01 52 12.4	-1.9
	comp=Z,0.7nm,0.7s,baz=320,slow=2.2,SNR=4.1						
SONM	Songino Array	48.71	298	P	P	01 52 34.0	-1.4
	comp=Z,0.4nm,0.9s,mb3.3,baz=43,slow=6.7,SNR=2.8						
TXAR	Lajitas Array	55.88	85	P	P	01 53 29.7	+1.0
	comp=Z,0.8nm,0.5s,mb4.0,baz=299,slow=4.0,SNR=16						
TXAR				pP	pP	01 53 47.1	-2.0
	comp=Z,1.1nm,0.7s,baz=310,slow=3.4,SNR=8.1						
TXAR	Lajitas Array	55.88	85	P	P	01 53 29.7	+1.0
TXAR				pP	pP	01 53 47.1	-2.0
LZH	Lanzhou	57.75	289	*e*P	P	01 53 45.4	+3.5
LZH				pP	pP	01 54 01.0	-1.4
LZH				sP	sP	01 54 08.3	-3.2
LZH				pmax	pmax		
	comp=Z,65nm,4.3s						
ARCES	ARCESS Array B	57.79	352	P	P	01 53 40.3	-1.4
	comp=Z,5.9nm,0.9s,mb4.6,baz=14,slow=7.7,SNR=3.4						
MKAR	Makanchi Array	61.66	311	P	P	01 54 06.6	-1.9
	comp=Z,0.1nm,0.4s,mb3.2,baz=50,slow=4.5,SNR=4.7						
GYA	Guiyang	62.91	279	P	P	01 54 19.6	+2.4
KMI	Kunming	66.28	281	P	P	01 54 46.1	+6.9
KMI				pP	pP	01 55 01.3	+1.2
KMI				sP	sP	01 55 05.3	-3.8
NOA	NORSAR Array B	67.11	357	P	P	01 54 42.5	-1.3
	comp=Z,1.5nm,0.9s,mb3.8,baz=7.0,slow=6.8,SNR=3.5						
AKASG	Malin Array Be	75.62	345	P	P	01 55 33.0	-2.2
	comp=Z,0.5nm,0.4s,mb3.6,baz=13,slow=5.3,SNR=3.1						
GERES	GERESS Array B	79.18	355	P	P	01 55 53.6	-1.6
	comp=Z,0.3nm,0.5s,mb3.4,baz=4.6,slow=6.7,SNR=3.9						
WRA	Warramunga Arr	84.46	227	P	P	01 56 22.1	-1.1
	comp=Z,0.5nm,0.5s,mb3.6,baz=34,slow=5.9,SNR=3.9						
ASAR	Alice Springs	87.90	226	P	P	01 56 40.0	+0.1
	comp=Z,0.8nm,0.6s,mb3.9,baz=25,slow=4.6,SNR=11						
TORD	Torodi Ar. Bea	114.93	4	PKP	PKiKP	02 02 29.3	-1.8
	comp=Z,0.1nm,0.5s,baz=346,slow=2.2,SNR=3.7						
BOSA	Boshof	152.32	320	PKPbc	PKPbc	02 03 44.6	-1.1
	comp=Z,2.2nm,0.8s,baz=333,slow=2.3,SNR=3.3						
VNA3	Neumayer Olymp	159.61	166	*e*PKPdf	PKPdf	02 03 52.1	+5.0
VNA3				*e*		02 04 34.2	
VNA2	Neumayer--Watz	160.23	167	*e*PKPdf	PKPdf	02 03 53.3	+5.5
VNA2				*e*		02 04 35.3	

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*ISCJB **21** 01:59:22.4±0.9, 36°.11N±0°.03×21°.64E±0°.03, h8km±6km, mb3.7/11, Error ellipse: s-maj=5.6km s-min=4.4km az=175.3*

*IDC **21** 01:59:22.1±1.0, 36°.29N×21°.85E, h0km, mb3.6/11, mb1 3.7/15, mb1mx3.7/28, mbtmp3.6/15, ML3.4/4, Error ellipse: s-maj=24.2km s-min=17.5km az=166.0*

*THE **21** 01:59:24.2, 35°.95N×21°.77E, h31km±57km, ML4.1/5, Error ellipse: s-maj=57.3km s-min=3.4km az=345.0*

*NEIC **21** 01:59:25.0, 36°.31N×21°.77E, h15km, mb4.0/7, ML3.6(ATH), After ATH.*

*ATH **21** 01:59:25.0, 36°.31N×21°.77E, h15km±2km, MD4.0/12, ML3.6*

*CSEM **21** 01:59:27.5±0.3, 36°.22N×21°.71E, h30km, ML3.6, Error ellipse: s-maj=7.3km s-min=4.7km az=19.0*

ISC 21 01:59:24.1±1.0**, 36°.17N**±0°.03×**21°.68E**±0°.03**, h5**km±7km**, n161, σ1ˢ.32**/187**, mb3.7**/11**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	1.03	11	*e*PN	Pg	01 59 41.8	-2.1
ITM				*e*SN	Sg	01 59 54.0	-3.3
ITM	Ithomi	1.03	11	*e*Pn	Pg	01 59 41.8	-2.1
ITM				*e*Sn	Sg	01 59 54.0	-3.3
KYTH	Kithira	1.10	84	*e*PN	Pg	01 59 44.5	-0.7
KYTH	Kithira	1.10	84	*e*Pn	Pg	01 59 44.5	-0.7
VLI	Veliai	1.15	61	*e*PN	Pn	01 59 44.5	-2.4
VLI	Veliai	1.15	61	*e*Pn	Pn	01 59 44.5	-2.4
RLS	Riolos of Patr	1.90	355	*e*PN	Pn	01 59 57.8	+0.7
RLS	Riolos of Patr	1.90	355	*e*Pn	Pn	01 59 57.8	+0.7
LAKA	Lakka	2.08	6	P	Pn	02 00 00.1	+0.4
LAKA				S	Sn	02 00 26.2	+0.2
LAKA	Lakka	2.08	6	P	Pn	02 00 00.1	+0.4
LAKA				S	Sn	02 00 26.2	+0.2
NAIG	Nisos Aigina	2.15	42	*e*PN	Pn	02 00 00.9	+0.3
NAIG	Nisos Aigina	2.15	42	*e*Pn	Pn	02 00 00.9	+0.3
VLS	Valsamata	2.19	337	P	Pn	02 00 01.2	+0.1
VLS				S	Sn	02 00 30.9	+2.3
VLS	Valsamata	2.19	337	*e*PN	Pn	02 00 01.6	+0.5
VLS	Valsamata	2.19	337	P	Pn	02 00 01.2	+0.1
VLS	Valsamata	2.19	337	*e*Pn	Pn	02 00 01.6	+0.5
VLS				S	Sn	02 00 30.9	+2.3
TRIZ	Trizonia	2.22	8	P	Pn	02 00 02.2	+0.7
TRIZ				S	Sn	02 00 30.4	+1.1
TRIZ	Trizonia	2.22	8	P	Pn	02 00 02.2	+0.7
TRIZ				S	Sn	02 00 30.4	+1.1
ATH	Athens Observa	2.43	41	*e*PN	Pn	02 00 04.8	+0.4
ATH	Athens Observa	2.43	41	*e*Pn	Pn	02 00 04.8	+0.4
ATHU	Athens Univers	2.46	42	P	Pn	02 00 03.8	-1.1
ATHU				S	Sn	02 00 34.1	-1.2
ATHU	Athens Univers	2.46	42	P	Pn	02 00 03.8	-1.1
ATHU				S	Sn	02 00 34.1	-1.2
PTL	Penteli	2.56	42	*e*PB	Pn	02 00 06.2	-0.1
LKR	Lokris	2.69	23	P	Pn	02 00 06.9	-1.1
LKR				S	Sn	02 00 41.7	+0.7
LKR	Lokris	2.69	23	*e*PN	Pn	02 00 07.2	-0.8
LKR	Lokris	2.69	23	P	Pn	02 00 06.9	-1.1
LKR	Lokris	2.69	23	*e*Pn	Pn	02 00 07.2	-0.8
LKR				S	Sn	02 00 41.7	+0.7
IDI	Anoyia	2.75	108	*e*PN	Pn	02 00 10.3	+1.4
IDI	Anoyia	2.75	108	Pn	Pn	02 00 10.1	+1.3
	2.3nm,0.3s,baz=291,slow=17,SNR=16						
IDI				Lg		02 00 50.5	
	7.1nm,0.3s,baz=26,slow=17,SNR=4.6						
IDI	Anoyia	2.75	108	*e*Pn	Pn	02 00 09.9	+1.1
IDI	Anoyia	2.75	108	*e*Pn	Pn	02 00 10.3	+1.4
SIVA	Sivas	2.79	113	*e*PB	Pn	02 00 12.5	+3.0
AGG	Agios Georgios	2.90	10	P	Pn	02 00 12.3	+1.4
AGG				S	Sn	02 00 47.3	+1.3
AGG	Agios Georgios	2.90	10	P	Pn	02 00 12.3	+1.4
AGG				S	Sn	02 00 47.3	+1.3
LAST	Lasithi	3.25	107	*e*PN	Pn	02 00 17.4	+1.7
LAST	Lasithi	3.25	107	*e*Pn	Pn	02 00 17.4	+1.7
NPS	Neapolis	3.32	105	*e*PN	Pn	02 00 19.0	+2.3
NPS	Neapolis	3.32	105	*e*Pn	Pn	02 00 19.0	+2.3
THL	Klokotos Trika	3.40	4	P	Pn	02 00 17.9	+0.1
THL	Klokotos Trika	3.40	4	*e*PN	Pn	02 00 18.0	+0.2
THL	Klokotos Trika	3.40	4	*e*Pn	Pn	02 00 18.0	+0.2
XOR	Xorichti	3.41	20	P	Pn	02 00 17.8	-0.1
XOR	Xorichti	3.41	20	P	Pn	02 00 17.8	-0.1
AOS	Alonnisos	3.47	30	P	Pn	02 00 18.4	-0.3
AOS	Alonnisos	3.47	30	P	Pn	02 00 18.4	-0.3
IGT	Igoumenitsa	3.53	343	P	Pn	02 00 18.9	-0.6
IGT	Igoumenitsa	3.53	343	P	Pn	02 00 18.9	-0.6
JAN	Janina	3.55	350	*e*PN	Pn	02 00 20.4	+0.6
JAN	Janina	3.55	350	*e*Pn	Pn	02 00 20.4	+0.6
MEV	Metsovon	3.63	354	P	Pn	02 00 21.6	+0.7
MEV	Metsovon	3.63	354	P	Pn	02 00 21.6	+0.7
ZKR	Zakros	3.84	105	*e*PN	Pn	02 00 25.0	+1.2
ZKR	Zakros	3.84	105	*e*Pn	Pn	02 00 25.0	+1.2
KEK	Kerkira	3.84	338	*e*PN	Pn	02 00 24.8	+1.0
KEK	Kerkira	3.84	338	*e*Pn	Pn	02 00 24.8	+1.0
LIT	Litokhoron	3.98	9	P	Pn	02 00 26.4	+0.7
LIT				S	Sn	02 01 15.0	+2.3
LIT	Litokhoron	3.98	9	P	Pn	02 00 26.4	+0.7
LIT				S	Sn	02 01 15.0	+2.3
KZN	Kozani	4.13	1	*e*PN	Pn	02 00 27.7	-0.2
KZN	Kozani	4.13	1	*e*Pn	Pn	02 00 27.7	-0.2
SMG	Samos	4.41	68	*e*PN	Pn	02 00 31.6	0.0
SMG	Samos	4.41	68	*e*Pn	Pn	02 00 31.6	0.0
PLG	Polygyros	4.42	18	P	Pn	02 00 33.1	+1.3
PLG	Polygyros	4.42	18	*e*PN	Pn	02 00 32.4	+0.6
PLG	Polygyros	4.42	18	*e*Pn	Pn	02 00 32.4	+0.6
PLG	Polygyros	4.42	18	P	Pn	02 00 33.1	+1.3
KARP	Karpathos	4.49	96	*e*PN	Pn	02 00 34.8	+2.0
KARP	Karpathos	4.49	96	*e*Pn	Pn	02 00 34.8	+2.0
HORT	Hortiatis	4.56	14	P	Pn	02 00 34.2	+0.5
HORT	Hortiatis	4.56	14	P	Pn	02 00 34.2	+0.5
FNA	Florina	4.62	357	P	Pn	02 00 34.2	-0.3
FNA	Florina	4.62	357	P	Pn	02 00 34.2	-0.3
GRG	Griva	4.81	6	P	Pn	02 00 36.5	-0.7
GRG	Griva	4.81	6	P	Pn	02 00 36.5	-0.7
SOH	Sokhos	4.83	15	P	Pn	02 00 37.8	+0.4
SOH				S	Sn	02 01 37.1	+3.4
SOH	Sokhos	4.83	15	P	Pn	02 00 37.8	+0.4
BIA	Bitola	4.85	357	*e*Pn	Pn	02 00 38.2	+0.4
BIA				*e*Sg	Sn	02 01 32.0	-2.3
BIA	Bitola	4.85	357	*e*Pn	Pn	02 00 38.2	+0.4
SOI	Samo	4.88	295	Pn	Pn	02 00 38.0	-0.2
SOI	Samo	4.88	295	Pn	Pn	02 00 38.0	-0.2
TIP	Timpagrande	4.93	309	*e*Pn	Pn	02 00 39.2	+0.4
TIP	Timpagrande	4.93	309	*e*Pn	Pn	02 00 39.2	+0.4
OHR	Ohrid	4.99	352	*e*Pn	Pn	02 00 38.9	-0.7
OHR				*e*Sg	Sn	02 01 34.8	-2.8
OHR	Ohrid	4.99	352	*e*Pn	Pn	02 00 38.9	-0.7
KNT	Kendrikon	5.08	10	P	Pn	02 00 41.5	+0.7
KNT	Kendrikon	5.08	10	P	Pn	02 00 41.5	+0.7
SRS	Serrai	5.16	16	P	Pn	02 00 43.5	+1.5
SRS	Serrai	5.16	16	P	Pn	02 00 43.5	+1.5
VAY	Valandovo	5.19	7	*e*Pn	Pn	02 00 41.1	-1.3
VAY	Valandovo	5.19	7	*e*Pn	Pn	02 00 41.1	-1.3
KRUS	Krusevo	5.21	356	*e*Pn	Pn	02 00 41.0	-1.6
KRUS				*e*Sg	Sn	02 01 38.6	-4.3
KRUS	Krusevo	5.21	356	*e*Pn	Pn	02 00 41.0	-1.6
ARG	Arkhangelos	5.21	88	*e*PN	Pn	02 00 44.0	+1.3
ARG	Arkhangelos	5.21	88	*e*Pn	Pn	02 00 44.0	+1.3
NVR	Nevrokopi	5.45	18	*e*PN	Pn	02 00 47.7	+1.8
NVR	Nevrokopi	5.45	18	*e*Pn	Pn	02 00 47.7	+1.8

PE1	Pezze di Greco	5.71	325	ePn	Pn	02 00 50.6	+1.1
PE1				eSn	Sn	02 01 52.0	-3.4
VAE	Valguarnera	5.98	285	Pn	Pn	02 00 55.7	+2.5
	0.2nm,0.3s,baz=93,slow=17,SNR=2.8						
VAE				Sn	Sn	02 02 03.1	+1.0
	1.2nm,0.3s,baz=238,slow=15,SNR=2.5						
VAE	Valguarnera	5.98	285	Pn	Pn	02 00 55.7	+2.5
VAE				Sn	Sn	02 02 03.1	+1.1
CUC	Castrocucco	6.00	311	Pn	Pn	02 00 55.8	+2.3
	44nm,0.8s						
CUC	Castrocucco	6.00	311	Pn	Pn	02 00 55.8	+2.3
	44nm,0.8s						
BAI	Bari	6.20	324	ePn	Pn	02 00 56.2	-0.1
MGR	Morigerati	6.25	311	Pn	Pn	02 00 59.8	+2.9
MGR	Morigerati	6.25	311	Pn	Pn	02 00 59.8	+2.9
SGO	Sicignano	6.66	313	Pn	Pn	02 00 58.7	-3.8
FG5	Orsara di Pugl	7.16	317	Pn	Pn	02 01 10.9	+1.5
FG5	Orsara di Pugl	7.16	317	Pn	Pn	02 01 10.9	+1.5
MRB1	Monte Rocchett	7.22	315	Pn	Pn	02 01 15.4	+5.2
MLR	Muntele Rosu	9.86	18	Pn	Pn	02 01 44.4	-2.0
	0.1nm,0.3s,baz=178,slow=11,SNR=2.4						
MLR	Muntele Rosu	9.86	18	Pn	Pn	02 01 44.4	-2.0
BRTR	Keskin Array B	10.09	66	Pn	Pn	02 01 52.1	+2.5
	0.1nm,0.3s,baz=248,slow=13,SNR=6.3						
BRTR	Keskin Array B	10.09	66	Pn	Pn	02 01 52.1	+2.5
PGF	Pioggiola	11.70	307	eP	Pn	02 02 11.1	-0.5
	71nm,1.4s						
PGF	Pioggiola	11.70	307	eP	Pn	02 02 11.1	-0.5
	36nm,1.4s						
PGF	Pioggiola	11.70	307	eP	Pn	02 02 11.1	-0.5
	36nm,1.4s						
MMAI	Mount Meron Ar	11.73	102	Pn	Pn	02 02 10.1	-2.1
	0.3nm,0.3s,baz=295,slow=14,SNR=2.7						
MMAI				Sn	Sn	02 04 16.9	-6.6
	0.5nm,0.3s,baz=296,slow=34,SNR=2.9						
EIL	Elat	12.89	116	Pn	Pn	02 02 27.1	-0.8
	0.3nm,0.3s,baz=297,slow=11,SNR=3.1						
EIL				Sn	Sn	02 04 42.7	-9.0
	0.2nm,0.3s,baz=356,slow=19,SNR=3.7						
EIL	Elat	12.89	116	Pn	Pn	02 02 27.1	-0.8
DAVOX	Davos/Dischmat	13.79	324	Pn	Pn	02 02 47.4	+7.2
	0.1nm,0.3s,baz=126,slow=17,SNR=2.0						
GERES	GERESS Array B	13.96	338	Pn	Pn	02 02 43.9	+1.4
	0.1nm,0.3s,baz=158,slow=16,SNR=4.0						
GERES				Sn	Sn	02 05 11.6	-6.1
	0.1nm,0.3s,baz=158,slow=20,SNR=3.3						
GERES	GERESS Array B	13.96	338	Pn	Pn	02 02 43.9	+1.4
MBDF	Montbardon	14.20	312	eP	Pn	02 02 46.1	+0.4
	8.3nm,0.8s						
MBDF	Montbardon	14.20	312	eP	Pn	02 02 46.1	+0.4
	4.2nm,0.8s						
AKASG	Malin Array Be	15.51	18	Pn	Pn	02 03 01.7	-1.7
	0.4nm,0.3s,baz=210,slow=12,SNR=3.0						
AKASG	Malin Array Be	15.51	18	Pn	Pn	02 03 01.7	-1.7
CDF	Champ du Feu	16.19	324	eP	Pn	02 03 11.6	-0.7
	12nm,0.9s						
CDF	Champ du Feu	16.19	324	eP	Pn	02 03 11.6	-0.7
	6.3nm,0.9s						
HAU	Haudompre	16.38	321	eP	Pn	02 03 13.6	-1.0
	34nm,1.3s						
HAU	Haudompre	16.38	321	eP	Pn	02 03 13.6	-1.0
	17nm,1.3s						
CAF	Calviac	17.26	306	eP	Pn	02 03 25.9	+0.2
	19nm,1.3s						
CAF	Calviac	17.26	306	eP	Pn	02 03 25.9	+0.2
	9.4nm,1.3s						
CAF	Calviac	17.26	306	eP	Pn	02 03 25.9	+0.2
	9.4nm,1.3s						
LOR	Lormes	17.28	315	eP	Pn	02 03 23.8	-2.2
	5.9nm,0.9s						
LOR	Lormes	17.28	315	eP	Pn	02 03 23.8	-2.2
	3.0nm,0.9s						
LDF	La Druitiere	20.25	315	eP	P	02 04 00.1	-0.1
LDF	La Druitiere	20.25	315	eP	P	02 04 00.1	-0.1
ESDC	Sonseca Array	20.51	288	P	P	02 04 02.5	-0.5
	0.7nm,0.8s,baz=104,slow=11,SNR=2.7						
ESDC	Sonseca Array	20.51	288	P	P	02 04 02.5	-0.5
FLN	La Foliniere	20.55	315	eP	P	02 04 03.1	-0.2
	50nm,1.5s						
FLN	La Foliniere	20.55	315	eP	P	02 04 03.1	-0.2
	25nm,1.5s						
FLN	La Foliniere	20.55	315	eP	P	02 04 03.1	-0.2
	25nm,1.5s						
SGMF	Saint Gilles	21.54	312	eP	P	02 04 13.1	-0.9
SGMF	Saint Gilles	21.54	312	eP	P	02 04 13.1	-0.9
QUIF	Quistinic	21.77	310	eP	P	02 04 15.8	-0.7
	13nm,0.8s,mb4.1						
QUIF	Quistinic	21.77	310	eP	P	02 04 15.8	-0.7
	6.7nm,0.8s,mb4.1						
QUIF	Quistinic	21.77	310	eP	P	02 04 15.8	-0.7
	6.7nm,0.8s,mb4.1						
MDT	Midelt	21.91	269	P	P	02 04 17.1	-1.1
	0.9nm,0.9s,mb3.2,baz=80,slow=11,SNR=2.5						
ROSF	Rostrenen	22.01	311	eP	P	02 04 18.1	-1.0
	28nm,1.1s,mb4.3						
ROSF	Rostrenen	22.01	311	eP	P	02 04 18.1	-1.0
	14nm,1.1s,mb4.3						
ROSF	Rostrenen	22.01	311	eP	P	02 04 18.1	-1.0
	14nm,1.1s,mb4.3						
HFS	Hagfors	24.53	350	P	P	02 04 41.9	-2.3
	0.9nm,0.6s,mb3.5,baz=159,slow=12,SNR=3.6						
NOA	NORSAR Array B	25.77	348	P	P	02 04 53.8	-1.7
	0.8nm,0.8s,mb3.3,baz=157,slow=10,SNR=3.1						
NOA	NORSAR Array B	25.77	348	P	P	02 04 53.8	-1.7
TORD	Torodi Ar. Bea	29.12	223	P	P	02 05 26.7	+0.7
	0.1nm,0.7s,baz=30,slow=7.0,SNR=4.6						
ARCES	ARCESS Array B	33.49	2	P	P	02 06 02.5	-1.5
	1.8nm,1.1s,mb3.9,baz=178,slow=9.9,SNR=3.4						
ARCES	ARCESS Array B	33.49	2	P	P	02 06 02.5	-1.4
MKAR	Makanchi Array	45.59	57	P	P	02 07 42.6	-2.4
	0.7nm,0.5s,mb3.9,baz=275,slow=7.1,SNR=18						
ZALV	Zalesovo Beam	46.37	47	P	P	02 07 47.1	-3.9
	0.7nm,0.3s,mb4.1,baz=264,slow=11,SNR=4.1						
SONM	Songino Array	61.02	50	P	P	02 09 34.8	-3.7
	0.2nm,0.6s,mb3.5,baz=298,slow=6.4,SNR=2.2						
YKA	Yellowknife Ar	75.59	341	P	P	02 11 08.1	-1.4
	0.1nm,0.7s,mb2.9,baz=28,slow=5.6,SNR=3.3						
YKA	Yellowknife Ar	75.59	341	P	P	02 11 08.1	-1.4
KSRS	Korea Array	79.88	51	P	P	02 11 31.9	-2.0
	0.7nm,0.4s,mb3.9,baz=312,slow=5.7,SNR=3.1						

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*CSEM **21** 02:05:31.7±0.2, 35°.14N×4°.00W, h10^{km}, MD2.8, Error ellipse: s-maj=4.3km s-min=3.6km az=89.0*

*CNRM **21** 02:05:32.8, 35°.16N×3°.81W, h10^{km}, MD2.8*

MDD 21 02:05:32.8±0.4**, 35°.11N×3°.97W, h9^{km}±3^{km}, mbLg1.8**/8**, Error ellipse: s-maj=5.4km s-min=3.2km az=74.0, PRIMO, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	Palemas	0.11	11	P	Pg	02 05 35.0	-0.5
MPAL				S	Sg	02 05 38.0	+0.6
MPAL	Palemas	0.11	11	iP	Pg	02 05 35.0	-0.5
MPAL				iS	Sg	02 05 38.0	+0.6
TOU	Touzarine	0.23	131	P	Pg	02 05 37.0	-0.5
TOU				S	Sg	02 05 40.5	-0.1
TOU	Touzarine	0.23	131	iP	Pg	02 05 37.0	-0.5
TOU				iS	Sg	02 05 40.5	-0.1
EMEL	Melilla	0.85	77	P	Pg	02 05 47.6	-1.5
	36nm,0.2s,SNR=7.9						
EMEL				S	Sg	02 06 01.5	+1.3
	63nm,0.2s,SNR=7.9						
EMLI	Melilla	0.85	77	P	Pg	02 05 47.6	-1.6
	36nm,0.2s,SNR=7.9						
EMLI				S	Sg	02 06 01.5	+1.2
	63nm,0.2s,SNR=7.9						
TZK	Tazeka	1.04	190	P	Pg	02 05 53.0	+0.3
TZK				S	Sg	02 06 06.0	-0.2
TZK	Tazeka	1.04	190	iP	Pg	02 05 53.0	+0.3
TZK				iS	Sg	02 06 06.0	-0.2
EALB	Alboran	1.12	42	P	Pb	02 05 52.7	-1.6
	1.1nm,0.0s,SNR=7.9						
EALB				S	Sg	02 06 06.9	-2.0
	9.3nm,0.2s,SNR=7.9						
EALB	Alboran	1.12	42	P	Pb	02 05 52.7	-1.6
	1.1nm,0.0s,SNR=7.9						
EALB				S	Sg	02 06 06.9	-2.0
	9.3nm,0.2s,SNR=7.9						
ECEU	Ceuta	1.39	305	P	Pn	02 05 56.5	-1.8
	0.6nm,0.1s,SNR=8.3						
ECEU				S	Sb	02 06 11.7	-5.0
	2.8nm,0.1s,SNR=7.9						
ECEU	Ceuta	1.39	305	P	Pn	02 05 56.5	-1.8
	0.6nm,0.1s,SNR=8.3						
ECEU				S	Sb	02 06 11.7	-5.0
	2.8nm,0.1s,SNR=7.9						
EMIJ	Mijas	1.59	336	P	Pn	02 06 00.3	-0.7
	0.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	02 06 18.5	-3.1
	1.2nm,0.1s,SNR=7.9						
EMIJ	Mijas	1.59	336	P	Pn	02 06 00.3	-0.7
	0.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	02 06 18.5	-3.1
	1.2nm,0.1s,SNR=7.9						
EGUA	Guajares	1.75	11	P	Pn	02 06 01.6	-1.6
	0.8nm,0.2s,SNR=7.9						
EGUA				S	Sn	02 06 23.1	-2.5
	7.2nm,0.4s,SNR=7.9						
EGUA	Guajares	1.75	11	P	Pn	02 06 01.6	-1.6
	0.8nm,0.2s,SNR=7.9						
EGUA				S	Sn	02 06 23.1	-2.4
	7.2nm,0.4s,SNR=7.9						
EBER	Berja	1.98	26	P	Pn	02 06 06.0	-0.5
	0.1nm,0.1s,SNR=7.9						
EBER				S	Sn	02 06 29.7	-1.7
	2.5nm,0.3s,SNR=5.5						
EBER	Berja	1.98	26	P	Pn	02 06 06.0	-0.4
	0.1nm,0.1s,SNR=7.9						
EBER				S	Sn	02 06 29.7	-1.7
	2.5nm,0.3s,SNR=5.5						
EQUE	Quentar	2.13	11	P	Pn	02 06 08.2	-0.3
	0.1nm,0.1s,SNR=7.9						
EQUE				S	Sn	02 06 33.0	-2.0
	1.1nm,0.3s,SNR=7.9						
EQUE	Quentar	2.13	11	P	Pn	02 06 08.2	-0.3
	0.1nm,0.1s,SNR=7.9						
EQUE				S	Sn	02 06 33.0	-2.0
	1.1nm,0.3s,SNR=7.9						
CZD	Col de Zad	2.26	204	P	Pn	02 06 09.0	-1.2
CZD				S	Sn	02 06 39.0	+0.9
CZD	Col de Zad	2.26	204	eP	Pn	02 06 09.0	-1.2
CZD				iS	Sn	02 06 39.0	+0.9
EQES	Quesada	2.78	15	P	Pn	02 06 17.3	0.0
	0.1nm,0.1s,SNR=7.9						
EQES				S	Sn	02 06 49.1	-1.9
	1.1nm,0.3s,SNR=7.9						
EQES	Quesada	2.78	15	P	Pn	02 06 17.3	-0.1
	0.1nm,0.1s,SNR=7.9						
EQES				S	Sn	02 06 49.2	-1.8
	1.1nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	3.43	321	P	Pn	02 06 24.7	-1.6
	0.1nm,0.1s,SNR=7.9						
EMIN				S	Sn	02 07 01.9	-5.2
	0.3nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.43	321	P	Pn	02 06 24.7	-1.6
	0.1nm,0.1s,SNR=7.9						
EMIN				S	Sn	02 07 01.9	-5.2
	0.3nm,0.2s,SNR=7.9						
EGRO	El Granado	3.73	311	P	Pn	02 06 28.7	-1.7
	0.1nm,0.1s,SNR=7.9						
EGRO				S	Sn	02 07 10.1	-4.3
	0.6nm,0.2s,SNR=7.9						
EGRO	El Granado	3.73	311	P	Pn	02 06 28.7	-1.7
	0.1nm,0.1s,SNR=7.9						
EGRO				S	Sn	02 07 10.1	-4.3
	0.6nm,0.2s,SNR=7.9						
PVAQ	Vaqueiros	3.79	308	eS	Sn	02 07 12.9	-3.1
PVAQ	Vaqueiros	3.79	308	S	Sn	02 07 12.9	-3.1
PVAQ	Vaqueiros	3.79	308	eS	Sn	02 07 12.9	-3.1
EBAD	Badajoz	4.38	327	P	Pn	02 06 38.1	-1.3
	0.1nm,0.1s,SNR=7.9						
EBAD				S	Sn	02 07 26.5	-3.9
	0.8nm,0.3s,SNR=7.9						
EBAD	Badajoz	4.38	327	P	Pn	02 06 38.1	-1.2
	0.1nm,0.1s,SNR=7.9						
EBAD				S	Sn	02 07 26.5	-3.9
	0.8nm,0.3s,SNR=7.9						

IDC 21 02:06:22.4±2.7**, 22°.91S×177°.75W, h0^{km}, mb3.7**/4**, mb1 4.0**/4**, mb1mx3.7**/16**, mbtmp3.7**/4**, Error ellipse: s-maj=171.0km s-min=28.8km az=153.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	37.01	247	P	P	02 13 33.1	-0.8
	1.7nm,0.8s,baz=90,slow=14,SNR=2.1						
ASAR	Alice Springs	44.24	259	P	P	02 14 33.6	-0.2
	0.2nm,0.3s,baz=90,slow=8.4,SNR=4.7						
WRA	Warramunga Arr	44.55	264	P	P	02 14 36.9	+0.7
	0.6nm,0.3s,baz=100,slow=6.8,SNR=37						
NVAR	Mina Array Bea	82.61	43	P	P	02 18 48.0	+0.4
	0.1nm,0.3s,baz=228,slow=5.3,SNR=2.4						

KRSC 21 02:06:42.6±1.3**, 50°.80N×158°.76E, h5^{km}±5^{km}, ML3.6, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUS	Russkaya	1.64	355	eP	Pn	02 07 13.0	+0.9
RUS				eS	Sn	02 07 35.1	+1.5
NLC	Nalytchevo	2.40	8	eS	Sn	02 07 52.6	+0.3
SPN	Mys Shipunski	2.43	18	eS	Sn	02 07 54.8	+1.8
AVH	Avacha	2.47	360	eP	Pn	02 07 25.0	+1.6
GNL	Ganaly	2.94	350	eP	Pn	02 07 32.3	+2.4
KBTR	Krutoberegovo	5.93	22	eP	Pn	02 08 13.0	+2.0

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*NEIC **21** 02:07:14.4, 36°.21N×21°.27E, h5^{km}, MD3.4(ATH), After ATH.*

*ATH **21** 02:07:14.4, 36°.21N×21°.27E, h5^{km}, MD3.4/3*

*ISCJB **21** 02:07:17.7±0.7, 36°.34N±0°.04×21°.27E±0°.04, h10^{km}, Error ellipse: s-maj=6.3km s-min=4.8km az=7.2*

*THE **21** 02:07:17.9, 36°.30N×21°.33E, h0^{km}±3^{km}, ML3.8/3, Error ellipse: s-maj=5.9km s-min=1.6km az=217.0*

*CSEM **21** 02:07:18.8±0.4, 36°.39N×21°.39E, h2^{km}, MD3.4, Error ellipse: s-maj=9.5km s-min=6.4km az=12.0*

ISC 21 02:07:19.2±0.7**, 36°.33N**±0°.04×**21°.33E**±0°.04**, h10^{km}, n83, σ1^{s}21**/108**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.98	29	ePG	Pg	02 07 34.6	-3.4
ITM				eSB	Sg	02 07 50.9	+0.2
ITM	Ithomi	0.98	29	ePg	Pg	02 07 34.6	-3.4
ITM				eSb	Sg	02 07 50.9	+0.2
VLI	Veliai	1.35	73	P	Pn	02 07 38.4	-5.8
RLS	Riolos of Patr	1.73	4	ePN	Pn	02 07 49.6	+0.2
RLS	Riolos of Patr	1.73	4	ePn	Pn	02 07 49.6	+0.2
VLS	Valsamata	1.94	342	P	Pn	02 07 52.0	-0.2
VLS				S	Sn	02 08 18.2	+1.6
VLS	Valsamata	1.94	342	ePG	Pn	02 07 51.6	-0.6
VLS	Valsamata	1.94	342	ePg	Pn	02 07 51.6	-0.6
VLS	Valsamata	1.94	342	P	Pn	02 07 52.0	-0.2
LAKA	Lakka	1.98	15	P	Pn	02 07 52.7	-0.1
LAKA	Lakka	1.98	15	P	Pn	02 07 52.7	-0.1
ATHU	Athens Univers	2.55	49	P	Pn	02 08 00.8	+0.1
ATHU				S	Sn	02 08 33.6	+1.8
ATHU	Athens Univers	2.55	49	P	Pn	02 08 00.8	+0.1
ATHU				S	Sn	02 08 33.6	+1.8
EVR	Evrytania	2.61	8	ePG	Pg	02 08 06.7	-2.6
EVR	Evrytania	2.61	8	ePg	Pg	02 08 06.7	-2.6
PTL	Penteli	2.65	49	P	Pn	02 07 58.1	-4.0
LKR	Lokris	2.67	29	P	Pn	02 08 02.0	-0.3
LKR	Lokris	2.67	29	P	Pn	02 08 02.0	-0.3
AGG	Agios Georgios	2.80	16	P	Pn	02 08 04.5	+0.4
AGG				S	Sn	02 08 39.9	+1.9
AGG	Agios Georgios	2.80	16	P	Pn	02 08 04.5	+0.4
AGG				S	Sn	02 08 39.9	+1.9
IDI	Anoyia	3.07	109	ePn	Pn	02 08 00.7	-7.2
SIVA	Sivas	3.12	114	P	Pn	02 08 08.0	-0.5
SIVA	Sivas	3.12	114	P	Pn	02 08 08.0	-0.5
THL	Klokotos Trika	3.28	9	P	Pn	02 08 09.8	-0.8
THL	Klokotos Trika	3.28	9	P	Pn	02 08 09.8	-0.8
IGT	Igoumenitsa	3.29	346	P	Pn	02 08 11.1	+0.2
IGT	Igoumenitsa	3.29	346	P	Pn	02 08 11.1	+0.2
JAN	Janina	3.34	354	P	Pn	02 08 12.7	+1.1
JAN	Janina	3.34	354	P	Pn	02 08 12.7	+1.1
XOR	Xorichti	3.37	25	P	Pn	02 08 11.6	-0.3
MEV	Metsovon	3.45	359	P	Pn	02 08 14.2	+1.2
MEV				S	Sn	02 08 57.2	+3.2
MEV	Metsovon	3.45	359	P	Pn	02 08 14.2	+1.2
MEV				S	Sn	02 08 57.2	+3.2
LAST	Lasithi	3.57	108	P	Pn	02 08 07.9	-6.7
KEK	Kerkira	3.59	341	P	Pn	02 08 15.3	+0.4
KEK	Kerkira	3.59	341	P	Pn	02 08 15.3	+0.4
KZN	Kozani	3.99	5	P	Pn	02 08 21.6	+1.2
KZN	Kozani	3.99	5	P	Pn	02 08 21.6	+1.2
ZKR	Zakros	4.16	106	P	Pn	02 08 22.6	-0.1
ZKR	Zakros	4.16	106	P	Pn	02 08 22.6	-0.1
FNA	Florina	4.45	0	P	Pn	02 08 26.8	+0.1
FNA				S	Sn	02 09 20.5	+1.9
FNA	Florina	4.45	0	P	Pn	02 08 26.8	+0.1
FNA				S	Sn	02 09 20.5	+1.9
TIP	Timpagrande	4.61	310	P	Pn	02 08 31.3	+2.4
TIP	Timpagrande	4.61	310	P	Pn	02 08 31.3	+2.4
BIA	Bitola	4.69	360	P	Pn	02 08 29.5	-0.5
BIA	Bitola	4.69	360	ePn	Pn	02 08 28.2	-1.7
BIA				eSg	Sn	02 09 22.7	-1.6
BIA	Bitola	4.69	360	ePn	Pn	02 08 28.2	-1.8
BIA	Bitola	4.69	360	P	Pn	02 08 29.5	-0.5
CEL	Celeste	4.74	296	ePn	Pn	02 08 23.1	-7.7
SOH	Sokhos	4.76	19	P	Pn	02 08 31.3	+0.3
SOH				S	Sn	02 09 28.2	+2.0
SOH	Sokhos	4.76	19	P	Pn	02 08 31.3	+0.3
SOH				S	Sn	02 09 28.2	+2.0
OHR	Ohrid	4.79	355	ePn	Pn	02 08 29.9	-1.6
OHR				eSg	Sn	02 09 26.3	-0.8
OHR	Ohrid	4.79	355	ePn	Pn	02 08 29.9	-1.6
KNT	Kendrikon	4.98	14	P	Pn	02 08 33.5	-0.5
KNT	Kendrikon	4.98	14	P	Pn	02 08 33.5	-0.5
KRUS	Krusevo	5.03	359	ePn	Pn	02 08 33.2	-1.6
KRUS				eSg	Sn	02 09 31.6	-1.4
KRUS	Krusevo	5.03	359	ePn	Pn	02 08 33.2	-1.6
VAY	Valandovo	5.08	11	ePn	Pn	02 08 33.4	-2.0
VAY	Valandovo	5.08	11	ePn	Pn	02 08 33.4	-2.0
SRS	Serrai	5.10	20	P	Pn	02 08 35.4	-0.3
SRS	Serrai	5.10	20	P	Pn	02 08 35.4	-0.3
TAR1	Taranto	5.26	324	ePn	Pn	02 08 38.2	+0.3
TAR1				eSn	Sn	02 09 39.0	+0.5
PE1	Pezze di Greco	5.42	327	ePn	Pn	02 08 40.2	+0.2
PE1				eSn	Sn	02 09 41.4	-1.0
LTRZ	Laterza	5.54	322	Pn	Pn	02 08 41.9	+0.1
LTRZ				Sn	Sn	02 09 45.1	-0.5
LTRZ	Laterza	5.54	322	Pn	Pn	02 08 41.9	+0.1
LTRZ				Sn	Sn	02 09 45.1	-0.5
SG1	Sgolgore (BA)	5.79	322	ePn	Pn	02 08 45.6	+0.4
BAI	Bari	5.91	325	ePn	Pn	02 08 46.7	0.0
MGR	Morigerati	5.93	312	Pn	Pn	02 08 48.6	+1.6
	9.6nm,0.4s						
MGR	Morigerati	5.93	312	Pn	Pn	02 08 48.6	+1.6
	9.6nm,0.4s						
SGO	Sicignano	6.34	314	Pn	Pn	02 08 54.4	+1.7
	11nm,0.2s						
SGO	Sicignano	6.34	314	Pn	Pn	02 08 54.4	+1.7
	11nm,0.2s						
FG5	Orsara di Pugl	6.85	318	Pn	Pn	02 09 01.8	+2.1
	21nm,0.3s						
FG5	Orsara di Pugl	6.85	318	Pn	Pn	02 09 01.8	+2.1
	21nm,0.3s						
RGNG	Rignano Grg	6.96	322	Pn	Pn	02 09 01.1	-0.2
RGNG	Rignano Grg	6.96	322	Pn	Pn	02 09 01.1	-0.2
STON	Ston	7.11	338	ePn	Pn	02 09 00.6	-2.6
STON				Sn	Sn	02 10 19.2	-4.9
NVLJ	Novalja	9.58	331	ePn	Pn	02 09 35.4	-1.8
NVLJ				Sn	Sn	02 11 20.3	-4.6
NVLJ	Novalja	9.58	331	ePn	Pn	02 09 35.3	-1.9
BOJS	Bojanci	10.25	335	iPn	Pn	02 09 45.0	-1.4
BOJS				iSn	Sn	02 11 39.7	-1.6
BOJS	Bojanci	10.25	335	iPn	Pn	02 09 45.0	-1.3
BOJS				iSn	Sn	02 11 39.7	-1.6
KNDS	Knezji Dol	10.58	332	iPn	Pn	02 09 51.8	+0.9
KNDS	Knezji Dol	10.58	332	iPn	Pn	02 09 51.8	+0.9
VISS	Visnje	10.65	335	iPn	Pn	02 09 51.6	-0.2
VISS				iSn	Sn	02 11 46.4	-4.8
VISS	Visnje	10.65	335	iPn	Pn	02 09 51.7	-0.1

GUC 21 02:17:12.1±0.6**, 33°.30S×69°.84W, h1^{km}±2^{km}, MD3.8, ML2.3, 2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	Farellones	0.38	266	eP	Pg	02 17 19.8	+0.5
FCH				iS	Sg	02 17 26.8	+2.6
YECH	El Yeso	0.42	209	eP	Pg	02 17 21.1	+1.0
YECH				iS	Sg	02 17 27.8	+2.3
YECH				AML	AML	02 17 33.3	
	comp=N,346nm,0.4s						
SJCH	San Jose de Ma	0.55	231	⇓iP	Pg	02 17 23.9	+1.3
SJCH				iS	Sg	02 17 32.5	+2.8
SJCH				AML	AML	02 17 33.8	
	comp=N,382nm,0.4s						
PEL	Peldehue	0.72	282	⇓eP	Pg	02 17 26.9	+0.9
PEL				iS	Sg	02 17 38.0	+2.6
PEL				AML	AML	02 17 38.9	
	comp=N,194nm,0.3s						
RCDM	Rinconada Maip	0.83	257	eP	Pg	02 17 29.0	+1.0
RCDM				iS	Sg	02 17 41.7	+3.0
RCDM				AML	AML	02 17 43.2	
	comp=N,320nm,0.1s						
CHCH	Chadas Angostu	0.93	227	eP	Pg	02 17 30.5	+0.7
CHCH				iS	Sg	02 17 43.8	+1.9
CACH	El Canelo	1.03	218	eP	Pg	02 17 32.5	+0.6
CACH				iS	Sg	02 17 47.6	+2.3

IDC 21 02:21:02.6±12.0**, 18°.00S×174°.56E, h0^{km}, mb4.1**/4**, mb1 4.2**/4**, mb1mx3.8**/17**, mbtmp4.1**/4**, Error ellipse: s-maj=253.7km s-min=40.3km az=44.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	20.30	174	P	P	02 25 40.2	+0.1
	11nm,0.5s,baz=326,slow=17,SNR=11						
STKA	Stephens Creek	32.78	239	P	P	02 27 37.8	+0.1
	0.9nm,0.4s,baz=84,slow=9.2,SNR=4.3						
WRA	Warramunga Arr	38.02	260	P	P	02 28 22.6	-0.3
	0.5nm,0.8s,baz=94,slow=7.7,SNR=8.2						
ASAR	Alice Springs	38.32	254	P	P	02 28 25.4	+0.1
	3.1nm,0.5s,baz=88,slow=8.0,SNR=43						

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*ISCJB **21** 02:46:15.4±0.3, 77°.083N±0°.008×18°.57E±0°.06, h6^{km}±2^{km}, mb5.7/493, MS6.0/229, Error ellipse: s-maj=2.2km s-min=1.2km az=163.2*

*BJI **21** 02:46:15.0, 77°.10N×18°.60E, h10^{km}, mB6.0/51, mb5.7/58, Ms6.6/65, Ms7 6.3/58*

*MOS **21** 02:46:15.9±0.9, 77°.05N×18°.53E, h9^{km}, mb5.9/156, MS5.9/76, Error ellipse: s-maj=18.8km s-min=2.1km az=89.2*

*IDC **21** 02:46:16.3±0.3, 77°.08N×18°.81E, h0^{km}, mb5.3/32, mb1 5.5/37, mb1mx5.5/37, mbtmp5.4/37, ML5.2/3, MS5.9/36, Ms1 5.9/36, ms1mx5.8/44, Error ellipse: s-maj=9.4km s-min=5.5km az=64.0*

*CSEM **21** 02:46:16.8±0.0, 77°.09N×18°.53E, h6^{km}, mb5.8/99, Ms5.7, Mw6.1, Error ellipse: s-maj=2.7km s-min=1.4km az=72.0*

*NAO **21** 02:46:16.5, 77°.08N×19°.00E, h33^{km}, mb5.5*

*GCMT **21** 02:46:17.9±0.1, 77°.02N×19°.28E, h13^{km}, MW6.1/112, Moment Tensor Solution. s97,c190; s112,c342; Duration: 2^{s}6 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.69±.01; M$_{\theta\theta}$1.62±.01; M$_{\phi\phi}$-0.93±.01; M$_{r\theta}$-0.42±.03; M$_{\theta\phi}$0.03±.01; M$_{\phi r}$-0.61±.04; Best double couple: M$_0$1.57700×10^{18} NP1:φ$_s$308.00000°, δ54.00000°, λ-24.00000°. NP2:φ$_s$53.00000°, δ71.00000°, λ-141.00000°. Principal axes: T 1.7030, Plg11.0000°, Azm177.0000°; N -0.2560, Plg48.0000°, Azm75.0000°; P -1.4510, Plg40.0000°, Azm276.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*PDA **21** 02:46:17.9, 77°.06N×18°.39E, h10^{km}, Mw6.1*

*IGIL **21** 02:46:18.3, 77°.05N×18°.35E, h10^{km}, mb5.3*

*BGS **21** 02:46:18.5±3.0, 77°.00N×18°.16E, h10^{km}, mb5.8, MS5.4*

*NEIC **21** 02:46:18.2±0.1, 77°.08N×18°.57E, h12^{km}, mb5.7/290, ME5.9, MS5.9/72, MW5.9, MW6.0, Error ellipse: s-maj=2.2km s-min=1.2km az=79.0, Moment Tensor Solution. s153 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.56; M$_{\theta\theta}$1.28; M$_{\phi\phi}$-0.73; M$_{r\theta}$-0.18; M$_{\theta\phi}$-0.10; M$_{\phi r}$-0.35; Best double couple: M$_0$1.20000×10^{18} NP1: φ$_s$312.00000°, δ60.00000°, λ-26.00000°. NP2:φ$_s$55.00000°, δ68.00000°, λ-147.00000°. Principal axes: T 1.3000, Plg5.0000°, Azm181.0000°; N -0.2800, Plg50.0000°, Azm85.0000°; P -1.0200, Plg38.0000°, Azm276.0000°;*

Broadband fault plane solution: P waves. NP1: ϕ_s332.00000°,δ51.00000°,λ-13.00000°. NP2:ϕ_s70.00000°, δ80.00000°,λ-140.00000°. Principal axes: T Plg19.0000°, Azm195.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm299.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.

NEIC Felt at Longyearbyen. Also felt at Tromso, Norway.

*BER **21** 02:46:19.5±5.3, 77°.18N×19°.85E, h15km, ML5.7, ML5.9(NAO)*

*SZGRF **21** 02:46:22.5, 76°.77N×19°.82E, h33km, mb5.7, MS5.4, Svalbard, Norway, region*

*UPP **21** 02:46:45.0, 75°.07N×22°.83E, h0km*

ISC 21 02:46:18.1±0.4, **77°.061N**±0°.008×**18°.57E**±0°.06, **h11**km±2km, **h14**km±1.1km**:pP-P, n2512, σ0s.86**/2634, **mb5.7**/493, **MS6.0**/229, **338C-269D, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.68	267	eP	Pg	02 46 32.1	+0.8
SPA0	Spitsbergen Ar	1.22	338	Pg	Pg	02 46 40.9	-0.6
	baz=152,slow=22						
SPA0	Spitsbergen Ar	1.22	338	Pg	Pg	02 46 40.9	-0.6
	baz=152,slow=20,SNR=92						
SPITS	Spitsbergen Ar	1.22	338	Pn	Pn	02 46 41.2	+0.1
	baz=293,slow=12						
SPITS				Sn	Sn	02 46 56.4	-1.2
	baz=331,slow=31,SNR=13						
SPITS	Spitsbergen Ar	1.22	338	Pn	Pn	02 46 41.2	+0.1
SPITS				Sn	Sn	02 46 56.4	-1.2
HOPEN	Hopen	1.58	107	eP	Pn	02 46 43.3	-2.8
HOPEN				eSg	Sg	02 47 03.2	-5.6
HOPEN				AML	AML	02 47 10.2	
	comp=Z,346μm,0.7s						
HOPEN	Hopen	1.58	107	eP	Pn	02 46 43.3	-2.8
	SNR=55						
HOPEN				eSg	Sg	02 47 03.2	-5.7
	comp=Z,346μm,0.7s,SNR=91						
KBS	Kingsbay	2.33	327	Pn	Pn	02 46 55.7	-0.7
KBS				Pg	Pg	02 47 02.1	-0.6
KBS				Lg		02 47 30.5	
KBS	Kingsbay	2.33	327	eP	Pn	02 46 56.0	-0.4
KBS				ePg	Pg	02 47 02.0	-0.7
KBS				eSg	Sg	02 47 30.8	-2.0
KBS				AML	AML	02 47 40.9	
	comp=Z,418μm,0.7s						
KBS	Kingsbay	2.33	327	eP	Pn	02 46 56.0	-0.3
KBS				e		02 47 31.3	
KBS	Kingsbay	2.33	327	ePn	Pn	02 46 56.0	-0.3
KBS				eSg	Sg	02 47 31.6	-1.3
KBS	Kingsbay	2.33	327	Pn	Pn	02 46 55.7	-0.6
KBS	Kingsbay	2.33	327	ePg	Pg	02 47 02.0	-0.7
	SNR=91						
KBS				Lg		02 47 30.5	
KBS				eSg	Sg	02 47 31.6	-1.3
BJO	Bjornoya	2.58	176	eP	Pn	02 46 58.8	-0.9
BJO				ePg	Pg	02 47 04.9	-2.5
BJO				eSg	Sg	02 47 37.8	-2.9
BJO				AML	AML	02 47 44.8	
	comp=Z,96μm,0.6s						
BJO	Bjornoya	2.58	176	eP	Pn	02 46 58.8	-0.9
	SNR=55						
TRO	Tromso	7.47	179	eP	Pn	02 48 04.2	-2.6
TRO				eS	Sn	02 49 24.8	-6.6
KEV	Kevo	7.72	158	P	Pn	02 48 06.8	-3.4
KEV				pmax	pmax		
	comp=Z,2μm,0.7s						
KEV	Kevo	7.72	158	ep	Pn	02 48 06.3	-3.9
	comp=Z,971nm,0.6s						
ARA0	ARCESS Array S	7.82	162	Pn	Pn	02 48 08.1	-3.5
	baz=353,slow=14						
ARCES	ARCESS Array B	7.82	162	Pn	Pn	02 48 08.6	-3.0
	comp=Z,70nm,0.3s,baz=353,slow=12,SNR=460						
ARCES				Sn	Sn	02 49 37.8	-2.1
	comp=Z,531nm,0.3s,baz=350,slow=20,SNR=6.1						
LOF	Lofoten	9.10	192	eP	Pn	02 48 30.0	+0.8
STEI	Steigen	9.23	188	eP	Pn	02 48 30.4	-0.6
STEI				AML	AML	02 50 22.4	
	comp=Z,473nm,0.4s						
JNW	Jan Mayen West	9.47	244	eP	Pn	02 48 37.1	+2.9
JMIC	Jan Mayen	9.52	244	Pn	Pn	02 48 35.4	+0.5
JMIC	Jan Mayen	9.52	244	Pn	Pn	02 48 35.5	+0.5
	comp=Z,320nm,0.3s,baz=31,slow=4.0,SNR=28						
JMIC				Sn	Sn	02 50 28.3	+6.6
	baz=111,slow=3.3,SNR=1.3						
JMIC				LR	LR	02 51 28.0	
	comp=Z,53μm,18.2s,baz=42,slow=33						
JMIC	Jan Mayen	9.52	244	Pn	Pn	02 48 35.5	+0.6
JMI	Jan Mayen	9.61	245	eP	Pn	02 48 35.0	-1.2
LVZ	Lovozero	10.34	144	Pn	Pn	02 48 41.8	-4.3
	comp=Z,10μm,0.6s						
LVZ	Lovozero	10.34	144	iP	Pn	02 48 42.4	-3.7
APA0	Apatity Array	10.41	148	Pn	Pn	02 48 42.4	-4.6
	baz=338,slow=11						
APA0				Sn	Sn	02 50 32.9	-11
	baz=3.2,slow=22						
APA	Apatity	10.49	147	⇓iP	Pn	02 48 42.0	-6.2
APA				pmax	pmax		
	comp=Z,6μm,2.0s						
APA				MLR	MLR		
	comp=Z,280μm,10.0s						
KONS	Konsvik	10.74	192	eP	Pn	02 48 50.4	-1.3
STOK	Stokkvaagen	10.92	192	eP	Pn	02 48 53.2	-0.8
STOK				eS	Sn	02 50 52.4	-3.6
MOR8	Moi Rana	11.02	189	eP	Pn	02 48 54.0	-1.5
NSS	Namsos	12.77	193	eP	Pn	02 49 18.5	-0.7
SCO	Scoresbysund	12.79	260	iP	Pn	02 49 21.2	+1.6
SCO				pmax	pmax		
	comp=Z,160nm,0.9s						
SCO				MLR	MLR		
	comp=Z,49μm,18.0s						
SCO	Scoresbysund	12.79	260	iP	Pn	02 49 21.2	+1.6
	comp=Z,158nm,0.9s						
SCO							
	comp=Z,49μm,18.0s						
SCO	Scoresbysund	12.79	260	iP	Pn	02 49 21.2	+1.6
	comp=Z,158nm,0.9s						
ALE	Alert	13.95	327	Pn	Pn	02 49 33.0	-2.3
	comp=Z,2μm,1.4s,SNR=91						
SUMG	Summit	14.99	282	ePn	Pn	02 49 49.1	-0.4
SUMG	Summit	14.99	282	ePn	Pn	02 49 49.2	-0.3
MOL	Molde	15.00	200	eP	Pn	02 49 47.4	-2.3
MOL				eS	Sn	02 52 26.7	-8.8
MOL				AML	AML	02 52 36.9	
	comp=Z,183nm,0.5s						
KAF	Kangasniemi	15.24	166	eP	Pn	02 49 46.3	-6.5
KAF				pmax	pmax		
	comp=Z,667nm,0.5s						
KAF	Kangasniemi	15.24	166	ep	Pn	02 49 46.3	-6.5
	comp=Z,667nm,0.5s						
DOMB	Dombas	15.41	197	eP	Pn	02 49 54.4	-0.8
DOMB				e		02 52 44.5	
DOMB				AML	AML	02 53 03.0	
	comp=Z,212nm,1.0s						
FIA0	FINESS Array S	15.89	167	Pn	Pn	02 49 55.1	-6.3
	slow=8.6						
FOO	Floro	16.17	204	eP	Pn	02 50 04.0	-0.9
FOO				e		02 52 55.7	
FOO				AML	AML	02 53 02.5	
	comp=Z,226nm,0.3s						
NB2	NORSAR Subarra	16.29	193	P	Pn	02 50 05.5	-0.9
	comp=Z,284nm,0.9s,baz=6.2,slow=11						
NB2	NORSAR Subarra	16.29	193	P	Pn	02 50 05.5	-1.0
	baz=16,slow=10						
NB2				P		02 50 05.5	
	baz=6.2,slow=11						
NB2	NORSAR Subarra	16.29	193	P	Pn	02 50 05.8	-0.6
NOA	NORSAR Array B	16.29	193	Pn	Pn	02 50 02.3	-4.1
	comp=Z,5.0nm,0.3s,baz=237,slow=14,SNR=87						
NOA				LR	LR	02 57 22.8	
	comp=Z,29μm,18.2s,baz=5.0,slow=41						
HYA	Hoyanger	16.50	201	ePn	Pn	02 50 10.0	+0.9
HYA				e		02 53 08.1	
HYA				AML	AML	02 53 26.7	
	comp=Z,146nm,0.5s						
HFA0	Hagfors New Ar	17.08	188	Pn	Pn	02 50 15.0	-1.5
HFA0	Hagfors New Ar	17.08	188	Pn	Pn	02 50 15.0	-1.5
HFS	Hagfors	17.09	188	P	Pn	02 50 14.2	-2.4
	baz=19,slow=11						
HFS	Hagfors	17.09	188	P	Pn	02 50 16.4	-0.2
	comp=Z,7.3nm,0.3s,baz=20,slow=13,SNR=186						
HFS				LR	LR	02 57 05.8	
	comp=Z,20μm,21.7s,baz=0.9,slow=38						
HFS	Hagfors	17.09	188	P	Pn	02 50 16.4	-0.2
ASK	Askoy	17.25	203	eP	Pn	02 50 18.6	-0.1
BORG	Borgarnes	17.40	247	P	Pn	02 50 20.2	-0.2
	comp=Z,0.4nm,0.3s,baz=284,slow=4.2,SNR=2.2						
BORG				LR	LR	02 55 13.2	
	comp=Z,38μm,21.3s,baz=32,slow=31						
BORG	Borgarnes	17.40	247	eP	Pn	02 50 21.1	+0.7
	comp=Z,43nm,1.0s						
BORG	Borgarnes	17.40	247	eP	Pn	02 50 21.1	+0.7
	comp=Z,43nm,1.0s						
EGD	Espegrend	17.46	203	eP	Pn	02 50 20.3	-0.9
ODD1	Odda	17.70	200	eP	Pn	02 50 22.8	-1.4
KLMR	Klimovskoe	17.72	145	⇓iP	Pn	02 50 17.1	-7.3
KLMR				pmax	pmax		
	comp=Z,956nm,1.0s						
KONO	Kongsberg	17.76	195	eP	Pn	02 50 23.2	-1.7
KONO				e		02 53 38.2	
KONO	Kongsberg	17.76	195	eP	Pn	02 50 24.4	-0.5
	comp=Z,75nm,1.5s						
KONO	Kongsberg	17.76	195	eP	Pn	02 50 24.5	-0.4
	comp=Z,75nm,1.5s						
SRPE	Suurupi	17.79	170	P	Pn	02 50 21.5	-3.9
PUL	Pulkovo	17.83	160	iP	Pn	02 50 25.7	-0.1
PUL	Pulkovo	17.83	160	iP	Pn	02 50 25.7	-0.1
PRGR	Permogore	17.85	135	⇑iP	Pn	02 50 19.1	-7.0
PRGR				eSS		02 53 46.4	
PRGR				pmax	pmax		
	comp=Z,1μm,0.8s						
BLS5	Blasjo	18.20	200	eP	Pn	02 50 32.1	+1.8
LRW	Lerwick	18.26	213	eP	Pn	02 50 31.6	+0.5
LRW				AMb	AMB	02 50 39.2	
	comp=Z,835nm,1.1s						
LRW				AMS	AMS	02 57 22.7	
	comp=Z,12μm,18.7s						
KMY	Karmoy	18.51	202	eP	Pn	02 50 33.7	-0.4
STAV	Stavanger	18.74	201	eP	Pn	02 50 37.5	+0.6
VSU	Vasula	18.90	167	iP	Pn	02 50 36.5	-2.4
VSU	Vasula	18.90	167	iP	Pn	02 50 36.5	-2.4
SNART	Snartemo	19.22	198	eP	Pn	02 50 41.7	-1.0
ORE	Reay	20.13	215	eP	P	02 50 50.6	-1.1
MLA1	Latheron	20.32	215	eP	P	02 50 54.1	+0.4
MVH1	Achvaich	20.79	216	eP	P	02 50 58.5	-0.3
MUD	Monsted U'grnd	20.97	195	⇑iP	P	02 51 01.3	+0.5
MUD				eS	S	02 54 50.8	-3.2
MUD				pmax	pmax		
	comp=Z,390nm,1.1s						
MUD				MLR	MLR		
	comp=Z,29μm,20.0s,MS5.7						
MUD	Monsted U'grnd	20.97	195	⇑iP	P	02 51 01.3	+0.5
	comp=Z,390nm,1.1s						
MUD				eS	S	02 54 50.8	-3.2
MUD							
	comp=Z,29μm,20.0s						
MUD	Monsted U'grnd	20.97	195	⇑iP	P	02 51 01.3	+0.5
	comp=Z,390nm,1.1s						
MUD				eS	S	02 54 50.8	-3.2
MUD	Monsted U'grnd	20.97	195	⇑iP	P	02 51 01.3	+0.5
	comp=Z,390nm,1.1s						
MCD	Coleburn Disti	21.01	214	eP	P	02 51 00.9	-0.3
MME1	Meikle Cairn	21.23	213	eP	P	02 51 02.9	-0.7
MDO	Dochfour	21.29	215	eP	P	02 51 03.5	-0.7
KAC	Achnashellach	21.35	217	eP	P	02 51 04.6	-0.4
KPL	Plockton	21.56	217	eP	P	02 51 07.6	+0.5
KPL				AMb	AMB	02 51 10.8	
	comp=Z,958nm,1.4s,mb6.0						
KPL				AMS	AMS	02 55 52.6	
	comp=Z,16μm,17.6s,MS5.5						
COP	Copenhagen	21.59	189	⇑iP	P	02 51 06.2	-1.2
COP				eS	S	02 55 07.5	+1.4
COP				pmax	pmax		
	comp=Z,200nm,0.8s,mb5.6						
COP				MLR	MLR		
	comp=Z,8μm,19.0s,MS5.1						
COP	Copenhagen	21.59	189	⇑iP	P	02 51 06.2	-1.2
	comp=Z,205nm,0.8s,mb5.6						
COP				eS	S	02 55 07.5	+1.4
COP							
	comp=Z,8μm,19.0s						
COP	Copenhagen	21.59	189	⇑iP	P	02 51 06.2	-1.2
	comp=Z,205nm,0.8s,mb5.6						
COP				eS	S	02 55 07.5	+1.4
SOKR	Solikamsk	21.76	122	c iP	P	02 51 08.8	-0.5
SOKR				S	S	02 55 09.9	+0.4
SOKR				pmax	pmax		
	comp=Z,1μm,0.8s,mb6.3						
SOKR				MLR	MLR		
	comp=Z,74μm,14.0s,MS6.2						
SFJD	Kangerlussuaq	21.98	281	iP	P	02 51 11.5	0.0
SFJD				eS	S	02 55 15.7	+2.2
SFJD				pmax	pmax		
	comp=Z,380nm,0.9s,mb5.8						
SFJD				MLR	MLR		
	comp=Z,14μm,17.0s,MS5.4						
SFJD	Kangerlussuaq	21.98	281	iP	P	02 51 11.5	0.0
	comp=Z,378nm,0.9s,mb5.8						
SFJD				eS	S	02 55 15.7	+2.2
SFJD							
	comp=Z,14μm,17.0s						
SFJD	Kangerlussuaq	21.98	281	P	P	02 51 12.0	+0.5
	comp=Z,415nm,0.9s,mb5.9,baz=22,slow=9.3,SNR=125						
SFJD				LR	LR	03 00 11.6	
	comp=Z,11μm,18.1s,MS5.3,baz=9.1,slow=38						
SFJD	Kangerlussuaq	21.98	281	iP	P	02 51 11.5	0.0
	comp=Z,378nm,0.9s,mb5.8						
SFJD				eS	S	02 55 15.7	+2.2
KAR1	Arisaig	21.99	217	eP	P	02 51 11.0	-0.8
BSD	Bornholm Skovb	22.08	186	iP	P	02 51 11.4	-1.4
BSD				iS	S	02 55 14.1	-1.7
BSD				pmax	pmax		
	comp=Z,520nm,0.9s,mb6.0						
BSD				MLR	MLR		
	comp=Z,27μm,20.0s,MS5.7						
BSD	Bornholm Skovb	22.08	186	iP	P	02 51 11.4	-1.4
	comp=Z,521nm,0.9s,mb6.0						
BSD				iS	S	02 55 14.1	-1.7
BSD							
	comp=Z,27μm,20.0s						
BSD	Bornholm Skovb	22.08	186	iP	P	02 51 11.4	-1.4
	comp=Z,521nm,0.9s,mb6.0						
BSD				iS	S	02 55 14.1	-1.7
BSD	Bornholm Skovb	22.08	186	iP	P	02 51 11.4	-1.4
	comp=Z,521nm,0.9s,mb6.0						
BSD				iS	S	02 55 14.1	-1.7
EBH	Black Hill	22.34	213	eP	P	02 51 13.0	-2.5
NACGM	Naroch	22.46	168	eP	P	02 51 13.0	-3.8
NACGM	Naroch	22.46	168	eP	P	02 51 14.8	-2.0
MOS	Moscow	22.49	151	eP	P	02 51 09.5	-7.6
MOS				e		02 51 47.4	
MOS				eS	S	02 55 12.2	-11
MOS				pmax	pmax		
	comp=Z,660nm,1.2s,mb5.9						
MOS				pmax	pmax		
	comp=Z,3μm,2.1s,mb6.3						
MOS				MLR	MLR		
	comp=Z,163μm,11.0s,MS6.7						
MOS				MLR	MLR		
	comp=N,150μm,11.0s						
EAB	Aberfoyle	22.50	215	eP	P	02 51 15.3	-1.9
ESY	Stoneypath	22.55	212	eP	P	02 51 16.6	-1.2
EDI	Edinburgh	22.62	213	eP	P	02 51 18.4	0.0
EDI				AMb	AMB	02 51 27.7	
	comp=Z,270nm,1.2s,mb5.5						
EDI				eS	S	02 55 25.2	-0.9
EDI				AMS	AMS	02 56 22.0	
	comp=Z,13μm,18.3s,MS5.4						
RGN	Rugen	22.69	188	eP	P	02 51 19.5	+0.3
	comp=Z,2μm,1.0s,mb6.4						
RGN	Rugen	22.69	188	eP	P	02 51 19.6	+0.4
	comp=Z,2μm,1.0s,mb6.4						
RGN	Rugen	22.69	188	eP	P	02 51 19.6	+0.4
	comp=Z,2μm,1.0s,mb6.4						
EAU	Auchinoon	22.73	213	eP	P	02 51 18.5	-1.1
EBL	Broad Law	22.75	213	eP	P	02 51 19.6	-0.2
PGBU	Glenifferbraes	22.89	215	eP	P	02 51 19.4	-1.9
PGBU				AMb	AMB	02 51 34.7	
	comp=Z,1μm,1.5s,mb6.0						
PGBU				eS	S	02 55 31.1	+0.3
PGBU				AMS	AMS	03 03 16.3	
	comp=Z,13μm,18.1s,MS5.4						
MNK	Minsk	22.91	166	c iP	P	02 51 19.0	-2.6
MNK				i		02 51 19.0	
MNK				eS	S	02 55 24.0	-7.1
MNK				eSS		02 56 06.0	
MNK				eSSS		02 56 30.0	
MNK				pmax	pmax		
	comp=E,1μm,1.0s						
MNK				pmax	pmax		
	comp=Z,2μm,1.0s,mb6.4						
MNK				pmax	pmax		
	comp=N,2μm,1.0s						
MNK				smax			
	comp=N,62μm,10.0s						
MNK				smax			
	comp=E,66μm,12.0s						
MNK				MLR	MLR		
	comp=N,149μm,10.0s,MS6.8						
MNK				MLR	MLR		
	comp=Z,141μm,10.0s,MS6.7						
MNK				MLR	MLR		
	comp=E,112μm,10.0s,MS6.8						
MICGM	Minsk	22.92	166	⇑iP	P	02 51 19.0	-2.6
OBN	Obninsk	22.99	153	P	P	02 51 20.8	-1.6
	comp=E,13μm,0.6s,SNR=83						
OBN	Obninsk	22.99	153	c iP	P	02 51 20.7	-1.7
OBN				e		02 51 25.7	
OBN				e		02 55 11.0	
OBN				eS	S	02 55 29.4	-3.0
OBN				eSS		02 56 06.4	
OBN				pmax	pmax		
	comp=Z,4μm,2.0s,mb6.5						
OBN				MLR	MLR		
	comp=Z,98μm,14.0s,MS6.4						
OBN	Obninsk	22.99	153	eP	P	02 51 20.3	-2.1
	comp=Z,1μm,0.7s,mb6.5						
OBN	Obninsk	22.99	153	eP	P	02 51 20.3	-2.1
	comp=Z,1μm,0.7s,mb6.5						
EKA	Eskdalemuir Ar	23.19	212	P	P	02 51 25.3	+0.8
	comp=Z,37nm,1.0s,mb4.8,baz=23,slow=12,SNR=20						
EKA	Eskdalemuir Ar	23.19	212	P	P	02 51 25.3	+0.8
SUW	Suwalki	23.21	173	eP	P	02 51 23.8	-0.9
SUW				e		02 51 29.8	
SUW				eS	S	02 55 35.6	-0.3
SUW				LMZ		03 00 34.6	
	comp=Z,66μm,15.5s						
SUW	Suwalki	23.21	173	eP	P	02 51 23.8	-0.9
SUW				e		02 51 29.8	
SUW				eS	S	02 55 35.7	-0.2
SUW	Suwalki	23.21	173	eP	P	02 51 23.8	-0.9
ESK	Eskdalemuir	23.21	213	eP	P	02 51 24.9	+0.1
ESK				AMb	AMB	02 51 38.3	
	comp=Z,250nm,1.7s,mb5.4						
ESK				AMS	AMS	03 00 23.0	
	comp=Z,10μm,16.5s,MS5.4						
ESK	Eskdalemuir	23.21	213	eP	P	02 51 24.4	-0.3
ESK				pmax	pmax		
	comp=Z,53nm,1.1s,mb4.9						
ESK	Eskdalemuir	23.21	213	eP	P	02 51 24.4	-0.3
	comp=Z,53nm,1.1s,mb4.9						
ESK	Eskdalemuir	23.21	213	eP	P	02 51 24.4	-0.3
	comp=Z,53nm,1.1s,mb4.9						
HLG	Helgoland	23.31	196	eP	P	02 51 26.4	+0.7
	comp=Z,580nm,1.1s,mb5.9						
ECK	Cauldkaine Hil	23.34	212	eP	P	02 51 25.4	-0.6
BSEG	Bad Segeberg	23.43	192	eP	P	02 51 26.1	-0.8
BSEG				eS	S	02 55 41.0	+1.6
BSEG				pmax	pmax		
	comp=Z,404nm,1.1s,mb5.8						
BSEG	Bad Segeberg	23.43	192	eP	P	02 51 26.1	-0.8
	comp=Z,404nm,1.1s,mb5.8						
BSEG				eS	S	02 55 41.0	+1.6
BSEG	Bad Segeberg	23.43	192	eP	P	02 51 26.1	-0.8
BSEG				eS	S	02 55 41.0	+1.6
XAL	Allendale	23.54	211	eP	P	02 51 28.0	-0.1
RES	Resolute Bay	23.74	323	P	P	02 51 28.8	-1.0
	comp=Z,33nm,0.8s,mb4.8,baz=29,slow=8.4,SNR=69						
RES				S	S	02 55 51.0	+6.7
	comp=Z,19nm,0.9s,baz=112,slow=16,SNR=2.4						
RES				LR	LR	03 00 11.0	
	comp=Z,22μm,21.5s,MS5.6,baz=39,slow=35						
RES	Resolute Bay	23.74	323	eP	P	02 51 28.9	-0.9
	comp=Z,413nm,1.4s,mb5.7						
RES	Resolute Bay	23.74	323	eP	P	02 51 28.9	-0.9
	comp=Z,413nm,1.4s,mb5.7						
GCD	Castle Douglas	23.75	213	eP	P	02 51 29.9	-0.2
GAL1	Galloway	23.84	214	eP	P	02 51 30.2	-0.7
GAL1				AMb	AMB	02 51 41.9	
	comp=Z,408nm,1.8s,mb5.6						
GAL1				eS	S	02 55 47.8	+1.6
GAL1				AMS	AMS	03 03 44.5	
	comp=Z,15μm,18.2s,MS5.5						
GKP	Gorka Klasztor	23.90	182	eP	P	02 51 31.2	-0.2
GKP				e		02 51 51.6	
GKP				eS	S	02 55 51.1	+4.0
GKP				LMZ		03 01 02.5	
	comp=Z,53μm,21.3s						
GKP	Gorka Klasztor	23.90	182	eP	P	02 51 31.2	-0.2
GKP				e		02 51 51.6	
GKP				eS	S	02 55 51.1	+4.0
GKP				LR	LR		
	comp=Z,53μm,21.3s,MS6.0						
GKP	Gorka Klasztor	23.90	182	eP	P	02 51 31.2	-0.2
HPK	Haverah Park	24.37	210	eP	P	02 51 36.0	+0.3
HPK				AMb	AMB	02 51 44.6	
	comp=Z,440nm,1.6s,mb5.6						
HPK				AMS	AMS	03 01 57.4	
	comp=Z,9μm,17.6s,MS5.3						
GIM	North Isle of	24.37	214	eP	P	02 51 33.8	-2.0
LDU	Leeds Universi	24.51	209	eP	P	02 51 38.0	+1.0
GMM	Mts of Mourne	24.62	216	eP	P	02 51 37.7	-0.3
RUE	Ruedersdorf	24.75	187	eP	P	02 51 38.9	-0.3
	comp=Z,517nm,1.0s,mb6.0						
RUE	Ruedersdorf	24.75	187	eP	P	02 51 39.2	0.0
	comp=Z,1μm,1.3s,mb6.3						
RUE	Ruedersdorf	24.75	187	eP	P	02 51 39.2	0.0
	comp=Z,1μm,1.3s,mb6.3						
WIT	Witteveen	24.75	197	⇑eP	P	02 51 39.5	+0.3
	comp=Z,492nm,1.7s,mb5.8						
LHO	Holmfirth	24.80	210	eP	P	02 51 39.3	-0.4
NRDL	Niedersach Rie	24.87	192	eP	P	02 51 40.3	0.0
	comp=Z,303nm,1.0s,mb5.8						
NRDL				eS	S	02 56 00.4	-2.4
WAR	Warsaw	24.94	176	eP	P	02 51 41.5	+0.6
WAR				e		02 51 51.5	
WAR				eS	S	02 56 11.9	+8.0
WAR				LMZ		03 01 35.0	
	comp=Z,45μm,20.3s						
WAR	Warsaw	24.94	176	eP	P	02 51 41.5	+0.6
WAR				e		02 51 51.5	
WAR				eS	S	02 56 11.9	+8.0
WAR				LR	LR		
	comp=Z,45μm,20.3s,MS6.0						
WAR	Warsaw	24.94	176	eP	P	02 51 41.5	+0.6
ARU	Arti	25.04	122	P	P	02 51 42.4	+0.6
	comp=Z,8μm,0.7s,SNR=56						
ARU	Arti	25.04	122	c iP	P	02 51 41.8	0.0
ARU				e		02 52 14.5	
ARU				ePPP		02 52 25.7	
ARU				eS	S	02 56 06.9	+1.5
ARU				eSSS		02 57 11.0	
ARU				pmax	pmax		
	comp=Z,421nm,2.5s,mb5.5						
ARU				MLR	MLR		
	comp=Z,53μm,14.0s,MS6.2						
ARU	Arti	25.04	122	eP	P	02 51 42.0	+0.2
	comp=Z,1μm,1.1s,mb6.3						
ARU	Arti	25.04	122	eP	P	02 51 42.0	+0.2
	comp=Z,1μm,1.1s,mb6.3						
KBI1	Birley Grange	25.05	209	eP	P	02 51 41.6	-0.3
SVE	Sverdlovsk	25.07	120	⇑eP	P	02 51 41.4	-0.6
SVE				eS	S	02 56 01.9	-4.0
SVE				pmax	pmax		
	comp=Z,1μm,2.0s,mb6.0						
SVE				MLR	MLR		
	comp=Z,97μm,13.0s,MS6.5						
IBBN	Ibbenburen	25.19	196	eP	P	02 51 44.0	+0.8
	comp=Z,204nm,1.2s,mb5.5						
IBBN				eS	S	02 56 06.0	-1.9
KWE	Weaver Farm	25.32	210	eP	P	02 51 43.8	-0.5
AEU	East Anglia Un	25.39	205	eP	P	02 51 45.1	+0.1
CLZ	Clausthal	25.51	192	eP	P	02 51 46.4	+0.3
CLZ				eS	S	02 56 12.6	-0.4
CLZ				pmax	pmax		
	comp=Z,469nm,1.4s,mb5.8						
CLZ	Clausthal	25.51	192	eP	P	02 51 46.4	+0.3
	comp=Z,469nm,1.4s,mb5.8						
CLZ				eS	S	02 56 12.6	-0.4
CLZ	Clausthal	25.51	192	eP	P	02 51 46.4	+0.3
	comp=Z,469nm,1.4s,mb5.8						
CLZ				eS	S	02 56 12.6	-0.4
CWF	Charnwood Fore	25.53	209	eP	P	02 51 45.8	-0.5

CWF				AMb	AMB	02 51 54.7	
	comp=Z,277nm,1.3s,mb5.6						
CWF				AMS	AMS	03 02 43.7	
	comp=Z,8µm,18.0s,MS5.3						
WTSB	**Winterswijk**	**25.59**	**197**	⇑*e*P	**P**	**02 51 46.7**	**-0.1**
	comp=Z,199nm,1.1s,mb5.5						
DLF	**Lyons Farm**	**25.61**	**216**	⇑*i*P	**P**	**02 51 46.2**	**-0.8**
DSB	**Dublin**	**25.64**	**216**	*e*P	**P**	**02 51 47.5**	**+0.2**
	comp=Z,146nm,1.1s,mb5.4						
DSB	**Dublin**	**25.64**	**216**	*e*P	**P**	**02 51 47.5**	**+0.2**
	comp=Z,146nm,1.1s,mb5.4						
DCN	**Croghan**	**25.67**	**217**	⇑*i*P	**P**	**02 51 46.3**	**-1.2**
TIXI	**Tiksi**	**25.93**	**43**	⇑*e*P	**P**	**02 51 49.9**	**+0.2**
TIXI				pmax	pmax		
	comp=Z,525nm,1.7s,mb5.8						
TIXI				MLR	MLR		
	comp=Z,20µm,16.0s,MS5.7						
TIXI	**Tiksi**	**25.93**	**43**	*e*P	**P**	**02 51 50.1**	**+0.4**
	comp=Z,123nm,0.7s,mb5.5						
TIXI	**Tiksi**	**25.93**	**43**	*e*P	**P**	**02 51 50.1**	**+0.4**
	comp=Z,123nm,0.7s,mb5.5						
CLL	**Collm**	**25.95**	**188**	*i* P	**P**	**02 51 50.1**	**+0.1**
CLL				*i*	pP	02 51 52.8	-0.4
CLL				*e*S	**S**	**02 56 24.0**	**+4.2**
CLL				MLR	MLR		
	comp=Z,20µm,16.9s,MS5.7						
CLL	**Collm**	**25.95**	**188**	*e*P	**P**	**02 51 49.1**	**-0.9**
	comp=Z,444nm,1.6s,mb5.7						
CLL				*e*S	**S**	**02 56 15.5**	**-4.3**
CLL	**Collm**	**25.95**	**188**	*i* P	**P**	**02 51 50.1**	**+0.1**
CLL				*i* pP	pP	02 51 52.8	-0.4
	comp=Z,158nm,1.3s						
CLL				*i*		02 52 08.1	
	comp=Z,441nm,1.6s						
CLL				*e*		02 52 17.0	
CLL				*e*PPPP		02 52 42.0	
CLL				*e*S	**S**	**02 56 24.0**	**+4.2**
	comp=N,38µm,18.0s						
CLL				*e*S	**S**	**02 56 24.0**	**+4.2**
	comp=E,12µm,15.5s						
CLL				*e*S	**S**	**02 56 24.0**	**+4.2**
	comp=Z,18µm,19.4s						
BUG	**Bochum--Univer**	**26.08**	**196**	*e*P	**P**	**02 51 51.4**	**+0.1**
	comp=Z,208nm,1.0s,mb5.6						
BUG				*e*S	**S**	**02 56 21.5**	**-0.5**
FBE	**Freiberg**	**26.32**	**187**	*e*P	**P**	**02 51 52.8**	**-0.6**
	comp=Z,491nm,1.5s,mb5.8						
KSP	**Ksiaz**	**26.34**	**183**	*e*P	**P**	**02 51 54.1**	**+0.5**
KSP				*e*		02 52 11.9	
KSP				*e*S	**S**	**02 56 24.5**	**-1.6**
KSP				LMZ		03 01 07.2	
	comp=Z,39µm,27.8s						
KSP	**Ksiaz**	**26.34**	**183**	⇑*e*P	**P**	**02 51 53.1**	**-0.5**
KSP				*e*pP	pP	02 51 55.6	-1.2
KSP				*e*S	**S**	**02 56 22.7**	**-3.3**
KSP				LR	LR		
	comp=Z,46µm,23.1s,MS6.0						
KSP	**Ksiaz**	**26.34**	**183**	⇑*e*P	**P**	**02 51 53.1**	**-0.5**
KSP				*e*pP	pP	02 51 55.6	-1.2
BRG	**Berggiesshubel**	**26.35**	**187**	⇑*i*P	**P**	**02 51 52.8**	**-0.9**
BRG				*i*		02 52 30.1	
BRG				S	**S**	**02 56 25.0**	**-1.3**
BRG				pmax	pmax		
	comp=Z,7.0nm,1.4s						
BRG				pmax	pmax		
	comp=Z,51nm,1.4s,mb4.9						
BRG				pmax	pmax		
	comp=Z,122nm,0.9s,mb5.4						
BRG				pmax	pmax		
	comp=N,94nm,1.2s						
BRG				MLR	MLR		
	comp=N,87µm,15.3s,MS6.4						
BRG				MLR	MLR		
	comp=E,11µm,18.2s,MS6.4						
BRG				MLR	MLR		
	comp=Z,7µm,14.3s,MS5.4						
BRG	**Berggiesshubel**	**26.35**	**187**	*e*P	**P**	**02 51 53.0**	**-0.7**
BRG				*e*S	**S**	**02 56 23.8**	**-2.5**
BRG	**Berggiesshubel**	**26.35**	**187**	⇑*i*P	**P**	**02 51 52.8**	**-0.9**
	comp=Z,85nm,1.4s,mb5.1						
BRG				*i*		02 52 07.5	
	comp=Z,204nm,1.4s						
BRG				*i* PP		02 52 30.1	
	comp=Z,157nm,0.9s						
BRG				S	**S**	**02 56 25.0**	**-1.3**
BRG				*i* SCP	ScP	02 58 57.8	-0.4
	comp=Z,146nm,1.2s						
BRG							
	comp=N,19µm,15.3s						
BRG							
	comp=E,12µm,18.2s						
BRG							
	comp=Z,28µm,14.3s						
BRG	**Berggiesshubel**	**26.35**	**187**	⇑*i*P	**P**	**02 51 52.8**	**-0.9**
	comp=Z,51nm,1.4s,mb4.9						
BRG				*i*		02 52 07.5	
BRG				*i* PP		02 52 30.1	
BRG				S	**S**	**02 56 25.0**	**-1.3**
BRG				*i* ScP	ScP	02 58 57.8	-0.4
BRG				LR	LR		
	comp=Z,17µm,14.3s,MS5.7						
BRG	**Berggiesshubel**	**26.35**	**187**	⇑*i*P	**P**	**02 51 52.8**	**-0.9**
MCH1	**Michaelchurch**	**26.45**	**211**	*e*P	**P**	**02 51 53.6**	**-1.0**
MCH1				AMb	AMB	02 52 00.9	
	comp=Z,200nm,1.6s,mb5.4						
MCH1				*e*S	**S**	**02 56 27.0**	**-0.8**
MCH1				AMS	AMS	03 04 54.7	
	comp=Z,11µm,19.6s,MS5.4						
SKP1	**Kophill**	**26.48**	**208**	*e*P	**P**	**02 51 53.1**	**-1.8**
UBBA	**Unterbreizbach**	**26.55**	**192**	*e*P	**P**	**02 51 55.8**	**+0.3**
	comp=Z,432nm,2.5s,mb5.5						
UBBA				*e*S	**S**	**02 56 25.4**	**-4.0**
MOX	**Moxa**	**26.66**	**190**	*ce*P	**P**	**02 51 54.5**	**-2.0**
	comp=Z,171nm,1.2s,mb5.5						
MOX				*e*S	**S**	**02 56 37.0**	**+5.9**
MOX							
	comp=Z,8µm,23.0s						
MOX	**Moxa**	**26.66**	**190**	*ce*P	**P**	**02 51 54.5**	**-2.0**
MOX				*e*S	**S**	**02 56 37.0**	**+5.9**
MOX				pmax	pmax		
	comp=Z,45nm,1.2s,mb4.9						
MOX				MLR	MLR		
	comp=Z,171µm,23.0s,MS6.5						
MOX	**Moxa**	**26.66**	**190**	*e*P	**P**	**02 51 56.3**	**-0.2**
	comp=Z,144nm,1.0s,mb5.5						
MOX				*e*S	**S**	**02 56 26.4**	**-4.7**
MOX	**Moxa**	**26.66**	**190**	⇑*e*P	**P**	**02 51 54.5**	**-2.0**
	comp=Z,171nm,1.2s,mb5.5						
UPC	**Upice**	**26.68**	**184**	*e*P	**P**	**02 51 57.1**	**+0.4**
UPC				*e*pP	pP	02 52 01.7	+1.8
UPC	**Upice**	**26.68**	**184**	*e*P	**P**	**02 51 57.1**	**+0.4**
PVCC	**Panska Ves**	**26.68**	**186**	*e*P	**P**	**02 51 56.0**	**-0.7**
PVCC				*e*pP	pP	02 51 59.8	-0.1
PVCC				*e*S	**S**	**02 56 30.0**	**-1.5**
PVCC				AMS	AMS	03 03 10.0	
	comp=Z,26µm,15.3s						
PVCC	**Panska Ves**	**26.68**	**186**	*e*P	**P**	**02 51 56.0**	**-0.7**
PVCC				S	**S**	**02 56 30.0**	**-1.5**
AKASG	**Malin Array Be**	**26.78**	**165**	P	**P**	**02 51 55.6**	**-2.0**
AKASG				S	**S**	**02 56 37.6**	**+4.6**
AKASG	**Malin Array Be**	**26.78**	**165**	P	**P**	**02 51 55.6**	**-2.0**
	comp=Z,28nm,0.4s,mb5.1,baz=351,slow=9.0,SNR=127						
AKASG				S	**S**	**02 56 37.6**	**+4.6**
	comp=Z,21nm,0.8s,baz=4.0,slow=12,SNR=2.0						
AKASG				LR	LR	03 04 08.6	
	comp=Z,29µm,19.4s,MS5.8,baz=355,slow=40						
AKASG	**Malin Array Be**	**26.78**	**165**	P	**P**	**02 51 55.6**	**-2.0**
HGH	**Gray Hill**	**26.78**	**210**	*e*P	**P**	**02 51 55.8**	**-1.8**
KIEV	**Kiev**	**26.79**	**165**	*e*P	**P**	**02 51 56.6**	**-1.0**
KIEV				pmax	pmax		
	comp=Z,708nm,1.0s,mb6.2						
KIEV				MLR	MLR		
	comp=Z,106µm,15.1s,MS6.5						
KIEV	**Kiev**	**26.79**	**165**	*e*P	**P**	**02 51 56.6**	**-1.0**
	comp=Z,708nm,1.0s,mb6.2						
KIEV				LR	LR		
	comp=Z,106µm,15.1s,MS6.5						
KIEV	**Kiev**	**26.79**	**165**	*e*P	**P**	**02 51 56.6**	**-1.0**
	comp=Z,708nm,1.0s,mb6.2						
SWN1	**Swindon**	**26.79**	**209**	*e*P	**P**	**02 51 58.2**	**+0.5**
SWN1				AMb	AMB	02 52 09.0	
	comp=Z,654nm,1.7s,mb5.9						
SWN1				AMS	AMS	03 03 14.4	
	comp=Z,11µm,17.9s,MS5.5						
WERD	**Werda**	**26.83**	**189**	*e*P	**P**	**02 51 58.6**	**+0.6**
	comp=Z,123nm,1.2s,mb5.3						
BEBN	**Eben Emael**	**26.83**	**198**	P	**P**	**02 51 58.3**	**+0.3**
	comp=Z,34nm,1.3s,mb4.7						
DPC	**Dobruska-Polom**	**26.83**	**183**	*e*P	**P**	**02 51 57.0**	**-1.0**
DPC				*e*S	**S**	**02 56 34.6**	**+0.8**
DPC				AMS	AMS	03 03 00.0	
	comp=Z,25µm,23.1s						
DPC	**Dobruska-Polom**	**26.83**	**183**	*e*P	**P**	**02 51 57.0**	**-1.0**
DPC				*e*S	**S**	**02 56 34.6**	**+0.8**
HGN	**Heimansgroeve**	**26.84**	**198**	⇑*i*P	**P**	**02 51 57.8**	**-0.4**
	comp=Z,110nm,1.9s,mb5.1						
HGN	**Heimansgroeve**	**26.84**	**198**	*e*S	**S**	**02 56 29.8**	**-4.2**
TANN	**Tannenbergstha**	**26.86**	**189**	*e*P	**P**	**02 51 58.0**	**-0.3**
	comp=Z,69nm,1.0s,mb5.1						
TANN				*e*S	**S**	**02 56 28.0**	**-6.2**
TFO1	**Folkestone**	**26.89**	**205**	*e*P	**P**	**02 51 59.3**	**+0.7**
TFO1				AMb	AMB	02 52 04.3	
	comp=Z,628nm,1.0s,mb6.1						
TFO1				AMS	AMS	03 03 23.2	
	comp=Z,9µm,20.4s,MS5.3						
GUNZ	**Gunzen**	**26.91**	**189**	*e*P	**P**	**02 51 58.8**	**0.0**
	comp=Z,125nm,1.1s,mb5.4						
UCC	**Uccle**	**26.93**	**200**	P	**P**	**02 51 58.8**	**-0.1**
WOL	**Wolverton**	**26.93**	**208**	*e*P	**P**	**02 51 59.4**	**+0.5**
WOL				AMb	AMB	02 52 09.0	
	comp=Z,496nm,1.2s,mb5.9						
OJC	**Ojcow**	**26.95**	**178**	*e*P	**P**	**02 51 58.6**	**-0.5**
OJC				*e*sP	sP	02 52 02.7	-0.9
OJC				*e*S	**S**	**02 56 33.7**	**-2.0**
OJC				e		02 56 54.8	
OJC				L		03 04 57.5	
	comp=Z,20nm,17.5s						
OJC	**Ojcow**	**26.95**	**178**	*e*P	**P**	**02 51 58.6**	**-0.5**
OJC				*e**SP	sP	02 52 02.7	-0.9
OJC				*e*S	**S**	**02 56 33.7**	**-2.0**
OJC				MLR	MLR		
	comp=Z,20µm,17.5s,MS5.7						
OJC	**Ojcow**	**26.95**	**178**	*e*P	**P**	**02 51 58.6**	**-0.5**
OJC				*e*sP	sP	02 52 02.7	-0.9
OJC				*e*S	**S**	**02 56 33.7**	**-2.0**
OJC				*e*		02 56 54.8	
OJC				LR	LR		
	comp=Z,20µm,17.5s,MS5.7						
OJC	**Ojcow**	**26.95**	**178**	*e*P	**P**	**02 51 58.6**	**-0.5**
WERN	**Wernitzgruen**	**26.99**	**189**	*e*P	**P**	**02 51 59.4**	**0.0**
	comp=Z,241nm,1.3s,mb5.6						
MEM	**Membach**	**26.99**	**198**	P	**P**	**02 51 59.3**	**-0.2**
	comp=Z,96nm,1.2s,mb5.2						
NKC	**Novy Kostel**	**27.04**	**189**	*e*P	**P**	**02 51 59.9**	**0.0**
NKC				*e*S	**S**	**02 56 31.6**	**-5.5**
NKC				AMS	AMS	03 05 00.0	
	comp=Z,17µm,13.4s						
NKC	**Novy Kostel**	**27.04**	**189**	*e*P	**P**	**02 51 59.9**	**0.0**
NKC				*e*S	**S**	**02 56 31.6**	**-5.5**
NKC	**Novy Kostel**	**27.04**	**189**	*e*P	**P**	**02 51 59.9**	**0.0**
RAC	**Raciborz**	**27.08**	**181**	*e*P	**P**	**02 52 00.2**	**-0.1**
RAC				*e*S	**S**	**02 56 37.4**	**-0.4**
RAC				MLR	MLR		
	comp=Z,45µm,20.0s,MS6.0						
RAC	**Raciborz**	**27.08**	**181**	*e*P	**P**	**02 52 00.2**	**-0.1**
RAC				*e*S	**S**	**02 56 37.4**	**-0.4**
VSR	**Storozhevoye**	**27.11**	**151**	*e*P	**P**	**02 51 59.8**	**-0.8**
VSR				*e*S	**P**	**02 51 59.8**	**-0.8**
VSR				*e**SP	sP	02 52 04.1	-1.0
VSR				*e*		02 52 40.5	
VSR				*e*S	**S**	**02 56 34.2**	**-4.0**
VSR				pmax	pmax		
	comp=Z,270nm,1.1s,mb5.7						
VSR				pmax	pmax		
	comp=N,270nm,1.3s						
VSR				pmax	pmax		
	comp=E,100nm,1.8s						
VSR				smax			
	comp=N,2µm,7.0s						
VSR				smax			
	comp=Z,1µm,8.0s						
VSR				smax			
	comp=E,1µm,8.9s						
VSR				MLR	MLR		
	comp=N,77µm,11.0s,MS6.5						
VSR				MLR	MLR		
	comp=Z,100µm,11.0s,MS6.6						
VSR				MLR	MLR		
	comp=E,11µm,13.0s,MS6.5						
PRU	**Pruhonice**	**27.22**	**186**	*e*P	**P**	**02 52 01.3**	**-0.3**
PRU				*e*	pP	02 52 06.2	+1.4
PRU				*e*S	**S**	**02 56 40.1**	**+0.1**
PRU				MLR	MLR		
	comp=N,18µm,14.2s						
PRU	**Pruhonice**	**27.22**	**186**	*e*P	**P**	**02 52 01.3**	**-0.3**
PRU				*e*	pP	02 52 06.2	+1.4
PRU				*e*S	**S**	**02 56 40.1**	**+0.1**
PRU	**Pruhonice**	**27.22**	**186**	*e*P	**P**	**02 52 01.3**	**-0.3**
PRU				S	**S**	**02 56 40.1**	**+0.1**
TNS	**Taunus Mts**	**27.23**	**194**	*e*P	**P**	**02 52 01.9**	**+0.3**
TNS				*e*S	**S**	**02 56 39.9**	**-0.2**
TNS				pmax	pmax		
	comp=Z,148nm,1.2s,mb5.4						
TNS	**Taunus Mts**	**27.23**	**194**	*e*P	**P**	**02 52 01.9**	**+0.3**
	comp=Z,148nm,1.2s,mb5.4						
TNS				*e*S	**S**	**02 56 39.9**	**-0.2**
TNS	**Taunus Mts**	**27.23**	**194**	*e*P	**P**	**02 52 01.9**	**+0.3**
	comp=Z,148nm,1.2s,mb5.4						
TNS				*e*S	**S**	**02 56 39.9**	**-0.2**
BCLA	**Clavier**	**27.23**	**199**	P	**P**	**02 52 01.6**	**0.0**
	comp=Z,44nm,1.4s,mb4.8						
BCLA				SCP	ScP	02 59 00.0	-0.8
MANZ	**Manzenberg**	**27.30**	**189**	*e*P	**P**	**02 52 02.2**	**0.0**
	comp=Z,105nm,1.1s,mb5.3						
MANZ				*e*S	**S**	**02 56 39.8**	**-1.4**
OKC	**Ostrava-Krasne**	**27.33**	**181**	*e*P	**P**	**02 52 01.9**	**-0.6**
OKC				*e*pP	pP	02 52 07.6	+1.9
OKC				*e*S	**S**	**02 56 42.6**	**+0.9**
OKC				AMS	AMS	03 04 00.0	
	comp=Z,54µm,11.6s						
OKC	**Ostrava-Krasne**	**27.33**	**181**	*e*P	**P**	**02 52 01.9**	**-0.6**
OKC				*e*S	**S**	**02 56 42.6**	**+0.9**
OKC	**Ostrava-Krasne**	**27.33**	**181**	*e*P	**P**	**02 52 01.9**	**-0.6**
OKC				*e*S	**S**	**02 56 42.6**	**+0.9**
MENF	**Mencas**	**27.35**	**203**	*e*P	**P**	**02 52 02.7**	**0.0**
MORC	**Moravsky Berou**	**27.39**	**181**	P	**P**	**02 52 02.3**	**-0.8**
MORC				pmax	pmax		
	comp=Z,290nm,0.9s,mb5.8						
MORC	**Moravsky Berou**	**27.39**	**181**	⇑*i*P	**P**	**02 52 02.3**	**-0.8**
MORC	**Moravsky Berou**	**27.39**	**181**	*e*P	**P**	**02 52 02.2**	**-0.9**
	comp=Z,291nm,0.9s,mb5.8						
MORC	**Moravsky Berou**	**27.39**	**181**	*e*P	**P**	**02 52 02.2**	**-0.9**
	comp=Z,291nm,0.9s,mb5.8						
LVV	**L'vov**	**27.43**	**172**	*e*P	**P**	**02 52 03.8**	**+0.4**
LVV				*e*S	**S**	**02 56 48.9**	**+5.6**
LVV				MLR	MLR		
	comp=Z,18µm,10.0s,MS5.9						
VAL	**Valentia**	**27.45**	**220**	*e*S	**S**	**02 56 44.4**	**+0.8**
HEX	**Exmoor**	**27.46**	**211**	*e*P	**P**	**02 52 02.8**	**-0.9**
ROTZ	**Rotzenmuhle**	**27.51**	**189**	*e*P	**P**	**02 52 04.4**	**+0.2**
	comp=Z,118nm,1.0s,mb5.5						
ROTZ				*e*S	**S**	**02 56 41.9**	**-2.7**
VRHR	**Novokhopersk**	**27.51**	**148**	*e*P	**P**	**02 52 03.6**	**-0.6**
VRHR				*e*		02 52 03.6	
VRHR				*e**PP	pP	02 52 06.6	-0.8
VRHR				*e*S	**S**	**02 56 39.7**	**-4.9**
VRHR				pmax	pmax		
	comp=Z,260nm,0.8s,mb5.9						
VRHR				pmax	pmax		
	comp=N,110nm,1.0s						
VRHR				pmax	pmax		
	comp=Z,170nm,0.5s,mb5.9						
VRHR				pmax	pmax		
	comp=N,80nm,1.0s						
VRHR				smax			
	comp=N,2µm,7.6s						
VRHR				smax			
	comp=Z,440nm,7.5s						
GIVF	**Givet**	**27.58**	**199**	*e*P	**P**	**02 52 04.2**	**-0.6**
GIVF	**Givet**	**27.58**	**199**	*e*P	**P**	**02 52 04.2**	**-0.6**
KWP	**Kalwaria Pacla**	**27.58**	**174**	*e*P	**P**	**02 52 05.0**	**+0.2**
KWP				*e*		02 52 21.6	
KWP				*e*S	**S**	**02 56 55.3**	**+10**
KWP				LMZ		03 03 13.2	
	comp=Z,37µm,21.8s						
KWP	**Kalwaria Pacla**	**27.58**	**174**	⇓*i*P	**P**	**02 52 04.3**	**-0.5**
KWP	**Kalwaria Pacla**	**27.58**	**174**	*e*P	**P**	**02 52 05.0**	**+0.2**
KWP				*e*		02 52 21.6	
KWP				*e*S	**S**	**02 56 55.3**	**+10**
KWP	**Kalwaria Pacla**	**27.58**	**174**	*e*P	**P**	**02 52 05.0**	**+0.2**
DOU	**Dourbes**	**27.61**	**200**	P	**P**	**02 52 04.8**	**-0.2**
DOU				SCP	ScP	02 59 01.6	-0.4
ABH	**Alteburg**	**27.62**	**195**	*e*P	**P**	**02 52 05.8**	**+0.7**
GRA1	**Grafenberg Arr**	**27.62**	**190**	*e*P	**P**	**02 52 05.6**	**+0.4**
	comp=Z,155nm,0.8s,mb5.7						
GRA1				*e*S	**S**	**02 56 44.0**	**-2.3**
GRA1				LR	LR		
	comp=Z,10µm,20.2s,MS5.4						
GRA1	**Grafenberg Arr**	**27.62**	**190**	*e*P	**P**	**02 52 05.6**	**+0.4**
	comp=Z,155nm,0.8s,mb5.7						
GRF	**Grafenberg Arr**	**27.62**	**190**	*e*P	**P**	**02 52 05.6**	**+0.4**
GRF				*e*S	**S**	**02 56 44.0**	**-2.3**
GRF				pmax	pmax		
	comp=Z,155nm,0.8s,mb5.7						
GRF				MLR	MLR		
	comp=Z,10µm,20.2s,MS5.4						
GRF	**Grafenberg Arr**	**27.62**	**190**	*e*P	**P**	**02 52 05.6**	**+0.4**
GRF				*e*S	**S**	**02 56 44.0**	**-2.3**
GRF				pmax	pmax		
	comp=Z,155nm,0.8s,mb5.7						
GRF				MLR	MLR		
	comp=Z,10µm,20.2s,MS5.4						
GRF	**Grafenberg Arr**	**27.62**	**190**	*e*P	**P**	**02 52 05.6**	**+0.4**
	comp=Z,155nm,0.8s,mb5.7						
GRF				*e*S	**S**	**02 56 44.0**	**-2.3**
GRF				*e*L		03 03 05.2	
	comp=Z,10µm,20.2s						
GRF	**Grafenberg Arr**	**27.62**	**190**	*e*P	**P**	**02 52 05.6**	**+0.4**
	comp=Z,155nm,0.8s,mb5.7						
BAIF	**Baives**	**27.67**	**200**	*e*P	**P**	**02 52 05.3**	**-0.3**
	comp=Z,280nm,1.3s,mb5.4						
BAIF	**Baives**	**27.67**	**200**	*e*P	**P**	**02 52 05.3**	**-0.3**
BAIF				pmax	pmax		
	comp=Z,140nm,1.3s,mb5.4						
BAIF	**Baives**	**27.67**	**200**	*e*P	**P**	**02 52 05.3**	**-0.3**
	comp=Z,140nm,1.3s,mb5.4						
BAIF	**Baives**	**27.67**	**200**	*e*P	**P**	**02 52 05.3**	**-0.3**
	comp=Z,140nm,1.3s,mb5.4						
NIE	**Niedzica**	**27.76**	**178**	*e*P	**P**	**02 52 06.4**	**0.0**
NIE				*e*sP	sP	02 52 11.0	+0.1
NIE				e		02 56 51.9	
NIE	**Niedzica**	**27.76**	**178**	⇑*e*P	**P**	**02 52 06.4**	**0.0**
NIE				*e*sP	sP	02 52 11.0	+0.1
NIE				*e*		02 56 51.9	
NIE	**Niedzica**	**27.76**	**178**	⇑*e*P	**P**	**02 52 06.4**	**0.0**
STHS	**Stebnicka Huta**	**27.77**	**176**	*e*P	**P**	**02 52 06.9**	**+0.4**
STHS				pmax	pmax		
	comp=Z,235nm,0.9s,mb5.8						
STHS	**Stebnicka Huta**	**27.77**	**176**	*e*P	**P**	**02 52 06.9**	**+0.4**
	comp=Z,235nm,0.9s,mb5.8						
STHS				*e*		02 52 33.9	
STHS	**Stebnicka Huta**	**27.77**	**176**	*e*P	**P**	**02 52 06.9**	**+0.4**
TOD	**Tromm**	**27.82**	**194**	*e*P	**P**	**02 52 07.8**	**+0.9**
RUP	**Ruppelstein**	**27.83**	**196**	*e*P	**P**	**02 52 07.1**	**+0.1**
VRAC	**Vranov**	**27.87**	**183**	P	**P**	**02 52 07.3**	**-0.1**
VRAC				S	**S**	**02 56 54.5**	**+4.3**
VRAC				pmax	pmax		
	comp=Z,56nm,0.8s						
VRAC				smax			
	comp=N,20nm,1.0s						
VRAC				MLR	MLR		
	comp=Z,31µm,18.2s						
VRAC	**Vranov**	**27.87**	**183**	⇑*i*P	**P**	**02 52 07.2**	**-0.2**
VRAC	**Vranov**	**27.87**	**183**	P	**P**	**02 52 07.3**	**-0.1**
	comp=Z,56nm,0.8s,mb5.3,baz=8.7,slow=9.0,SNR=68						
VRAC				S	**S**	**02 56 54.5**	**+4.3**
	comp=Z,20nm,1.0s,baz=20,slow=18,SNR=1.6						
VRAC				LR	LR	03 04 13.6	
	comp=Z,31µm,18.2s,MS5.9,baz=350,slow=39						
VRAC	**Vranov**	**27.87**	**183**	P	**P**	**02 52 07.4**	**0.0**
VRAC	**Vranov**	**27.87**	**183**	P	**P**	**02 52 07.4**	**0.0**
TREC	**Trest**	**27.90**	**184**	*e*P	**P**	**02 52 07.6**	**0.0**
TREC				*e*pP	pP	02 52 11.1	+0.3
TREC				*e*S	**S**	**02 56 51.9**	**+1.2**
TREC				AMS	AMS	03 03 50.0	
	comp=Z,30µm,15.3s						
TREC	**Trest**	**27.90**	**184**	P	**P**	**02 52 07.6**	**0.0**
TREC				S	**S**	**02 56 51.9**	**+1.2**
WLF	**Walferdange**	**27.93**	**197**	P	**P**	**02 52 09.5**	**+1.7**
	comp=Z,70nm,1.4s,mb5.1						
WLF				SCP	ScP	02 59 02.6	-0.4
WLF	**Walferdange**	**27.93**	**197**	P	**P**	**02 52 08.4**	**+0.5**
WLF				pmax	pmax		
	comp=Z,83nm,1.0s,mb5.3						
WLF	**Walferdange**	**27.93**	**197**	*e*P	**P**	**02 52 08.0**	**+0.1**
	comp=Z,111nm,1.1s,mb5.4						
WLF				*e*S	**S**	**02 56 48.7**	**-2.4**
WLF	**Walferdange**	**27.93**	**197**	*e*P	**P**	**02 52 08.3**	**+0.5**
	comp=Z,84nm,0.9s,mb5.4						
WLF	**Walferdange**	**27.93**	**197**	*e*P	**P**	**02 52 08.3**	**+0.4**
	comp=Z,84nm,0.9s,mb5.4						
SIND	**Sindeldorf**	**28.04**	**193**	P	**P**	**02 52 09.7**	**+0.8**
SIND	**Sindeldorf**	**28.04**	**193**	P	**P**	**02 52 09.7**	**+0.8**
DYA	**Yadsworthy**	**28.10**	**211**	*e*P	**P**	**02 52 08.3**	**-1.1**
DYA				AMb	AMB	02 52 17.7	
	comp=Z,99nm,1.3s,mb5.3						
DYA				AMS	AMS	03 03 34.1	
	comp=Z,8µm,17.5s,MS5.3						
KHC	**Kasperske Hory**	**28.11**	**187**	*e*P	**P**	**02 52 09.4**	**-0.1**
KHC				*e*		02 52 15.2	
KHC				*e*		02 53 13.0	
KHC				*e*S	**S**	**02 56 51.6**	**-2.3**
KHC				MLR	MLR		
	comp=Z,20µm,13.3s,MS5.9						
KHC	**Kasperske Hory**	**28.11**	**187**	*e*P	**P**	**02 52 09.4**	**-0.1**
KHC				*e*pP	pP	02 52 15.2	+2.5
KHC				*e*x	x	02 52 25.0	
KHC				*e*PP	PP	02 53 13.0	+0.3
KHC				*e*x	x	02 53 48.5	
KHC				*e*S	**S**	**02 56 51.6**	**-2.3**
KHC				AMS	AMS	03 04 10.0	
	comp=Z,20µm,13.3s						
KHC	**Kasperske Hory**	**28.11**	**187**	*e*P	**P**	**02 52 09.4**	**-0.1**
WET	**Wettzell**	**28.11**	**188**	*e*P	**P**	**02 52 10.0**	**+0.5**
WET				*e*S	**S**	**02 56 49.4**	**-4.6**
WET				pmax	pmax		
	comp=Z,195nm,1.4s,mb5.5						
WET	**Wettzell**	**28.11**	**188**	*e*P	**P**	**02 52 10.0**	**+0.5**
	comp=Z,195nm,1.4s,mb5.5						
WET				*e*S	**S**	**02 56 49.4**	**-4.6**
WET	**Wettzell**	**28.11**	**188**	*e*P	**P**	**02 52 10.0**	**+0.5**
	comp=Z,195nm,1.4s,mb5.5						
KTD	**Kalmit**	**28.15**	**195**	*e*P	**P**	**02 52 10.7**	**+0.9**
KOLS	**Kolonicke sedl**	**28.27**	**175**	*e*P	**P**	**02 52 10.7**	**-0.3**
KOLS				pmax	pmax		
	comp=Z,98nm,1.0s,mb5.4						
KOLS	**Kolonicke sedl**	**28.27**	**175**	*e*P	**P**	**02 52 10.7**	**-0.3**
KOLS				*e*		02 52 34.5	
KOLS	**Kolonicke sedl**	**28.27**	**175**	*e*P	**P**	**02 52 10.7**	**-0.3**
	comp=Z,98nm,1.0s,mb5.4						
KOLS				*e*		02 52 34.6	
KOLS	**Kolonicke sedl**	**28.27**	**175**	*e*P	**P**	**02 52 10.7**	**-0.3**
CRVS	**Cervenica-Dubn**	**28.29**	**176**	*e*P	**P**	**02 52 10.9**	**-0.2**
CRVS				*e*		02 52 31.1	
CRVS	**Cervenica-Dubn**	**28.29**	**176**	*e*P	**P**	**02 52 10.9**	**-0.2**
	comp=Z,190nm,1.0s,mb5.7						
CRVS				*e*		02 52 31.2	
CRVS				LR	LR		
	comp=Z,13µm,17.3s,MS5.6						
CRVS	**Cervenica-Dubn**	**28.29**	**176**	*e*P	**P**	**02 52 10.9**	**-0.2**
CSA1	**St Austell**	**28.29**	**213**	*e*P	**P**	**02 52 13.6**	**+2.5**
GEC2	**GERESS Array S**	**28.39**	**187**	*e*P	**P**	**02 52 12.4**	**+0.4**
GEC2				*e*S	**S**	**02 56 52.6**	**-5.8**
GEC2				pmax	pmax		
	comp=Z,96nm,1.1s,mb5.3						
GEC2	**GERESS Array S**	**28.39**	**187**	*e*P	**P**	**02 52 12.4**	**+0.4**
	comp=Z,96nm,1.1s,mb5.3						
GEC2				*e*S	**S**	**02 56 52.6**	**-5.8**
GEC2	**GERESS Array S**	**28.39**	**187**	*e*P	**P**	**02 52 12.4**	**+0.4**
	comp=Z,96nm,1.1s,mb5.3						
GERES	**GERESS Array B**	**28.39**	**187**	P	**P**	**02 52 12.3**	**+0.3**
	comp=Z,17nm,0.7s,mb4.8,baz=14,slow=6.9,SNR=124						
GERES				S	**S**	**02 57 08.1**	**+10**
	comp=Z,7.4nm,1.0s,baz=7.0,slow=8.9,SNR=2.0						
GERES				LR	LR	03 04 02.3	
	comp=Z,8µm,19.3s,MS5.3,baz=356,slow=38						
GERES	**GERESS Array B**	**28.39**	**187**	P	**P**	**02 52 12.3**	**+0.3**
LANF	**Langenberg**	**28.50**	**195**	*e*P	**P**	**02 52 13.3**	**+0.3**
UZH	**Uzhgorod**	**28.57**	**175**	⇓*i*P	**P**	**02 52 13.5**	**-0.2**
UZH				*i*		02 53 16.5	
UZH				*e*		02 55 29.0	
UZH				*e*S	**S**	**02 56 58.3**	**-3.0**
UZH				*e*SS	SS	02 58 28.0	-34

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UZH                                MLR     MLR
      comp=N,31µm,13.0s,MS6.2
UZH                                MLR     MLR
      comp=E,20µm,13.0s,MS6.2
UZH                                MLR     MLR
      comp=Z,27µm,13.0s,MS6.0
STU   Stuttgart         28.64 193  eP      P         02 52 14.6 +0.4
STU                                pmax    pmax
      comp=Z,145nm,2.1s,mb5.3
STU   Stuttgart         28.64 193  eP      P         02 52 14.5 +0.3
      comp=Z,50nm,0.9s,mb5.2
STU                                eS      S         02 56 55.5 -6.8
STU   Stuttgart         28.64 193  eP      P         02 52 14.6 +0.4
      comp=Z,145nm,2.1s,mb5.3
STU   Stuttgart         28.64 193  eP      P         02 52 14.6 +0.4
      comp=Z,145nm,2.1s,mb5.3
FRB   Frobisher Bay     28.64 292  P       P         02 52 13.2 -0.9
      comp=Z,42nm,0.8s,mb5.2,baz=27,slow=8.9,SNR=93
FRB                                LR      LR        03 04 16.3
      comp=Z,45µm,19.3s,MS6.1,baz=27,slow=38
FRB   Frobisher Bay     28.64 292  P       P         02 52 13.2 -0.9
SMOL  Smolenice         28.66 182  eP      P         02 52 15.2 +0.8
SMOL  Smolenice         28.66 182  eP      P         02 52 15.2 +0.8
VYHS  Vyhne             28.68 180  eP      P         02 52 14.5  0.0
VYHS                               e                 02 52 55.8
VYHS  Vyhne             28.68 180  eP      P         02 52 14.5  0.0
      comp=Z,68nm,0.9s,mb5.4
VYHS                               e                 02 52 55.8
VYHS                               LR      LR
      comp=Z,6µm,22.2s,MS5.2
VYHS  Vyhne             28.68 180  eP      P         02 52 14.5  0.0
KECS  Kecovo            28.70 177  eP      P         02 52 14.4 -0.3
KECS                               e       pP        02 52 18.6 +0.7
KECS                               pmax    pmax
      comp=Z,26nm,0.9s,mb5.0
KECS  Kecovo            28.70 177  eP      P         02 52 14.4 -0.3
      comp=Z,26nm,0.9s,mb5.0
KECS                               e       pP        02 52 18.6 +0.7
KECS                               e                 02 52 46.8
KECS  Kecovo            28.70 177  eP      P         02 52 14.4 -0.3
LBG   Lerchenberg       28.76 194  P       P         02 52 16.5 +1.2
LBG   Lerchenberg       28.76 194  P       P         02 52 16.5 +1.2
HDH   Heidenheim-Cha    28.77 192  P       P         02 52 16.9 +1.5
HDH   Heidenheim-Cha    28.77 192  P       P         02 52 16.9 +1.5
MODS  Modra-Piesok      28.80 182  eP      P         02 52 16.0 +0.4
MODS                               e                 02 52 49.8
MODS  Modra-Piesok      28.80 182  eP      P         02 52 16.0 +0.4
      comp=Z,61nm,1.3s,mb5.2
MODS                               e                 02 52 49.8
MODS                               LR      LR
      comp=Z,9µm,20.6s,MS5.3
MODS  Modra-Piesok      28.80 182  eP      P         02 52 16.0 +0.4
BUCH  Bad Urach         28.95 193  P       P         02 52 21.0 +4.0
ZST   Bratislava        28.98 182  eP      P         02 52 17.6 +0.4
ZST                                e                 02 52 47.7
ZST   Bratislava        28.98 182  eP      P         02 52 17.6 +0.4
      comp=Z,48nm,0.9s,mb5.2
ZST                                e                 02 52 47.7
ZST                                LR      LR
      comp=Z,10µm,17.9s,MS5.5
ZST   Bratislava        28.98 182  eP      P         02 52 17.6 +0.4
CDF   Champ du Feu      29.10 196  eP      P         02 52 18.1 -0.2
      comp=Z,75nm,1.1s,mb5.0
CDF   Champ du Feu      29.10 196  eP      P         02 52 18.1 -0.2
CDF                                pmax    pmax
      comp=Z,38nm,1.1s,mb5.0
CDF   Champ du Feu      29.10 196  eP      P         02 52 18.1 -0.2
      comp=Z,38nm,1.1s,mb5.0
CDF   Champ du Feu      29.10 196  eP      P         02 52 18.1 -0.2
      comp=Z,38nm,1.1s,mb5.0
BFO   Black Forest      29.12 194  eP      P         02 52 19.1 +0.6
      comp=Z,87nm,1.2s,mb5.4
BFO                                eS      S         02 57 03.8 -6.1
BFO   Black Forest      29.12 194  eP      P         02 52 19.1 +0.6
      comp=Z,87nm,1.2s,mb5.4
BFO                                eS      S         02 57 03.8 -6.1
BFO                                LR      LR
      comp=Z,22µm,19.2s,MS5.8
BFO   Black Forest      29.12 194  eP      P         02 52 19.1 +0.6
      comp=Z,87nm,1.2s,mb5.4
JSA   Saint Aubin       29.13 209  eP      P         02 52 16.8 -1.8
JSA                                AMb     AMB       02 52 30.3
      comp=Z,102nm,1.3s,mb5.4
FUR   Furstenfeldbru    29.15 190  eP      P         02 52 19.8 +1.1
FUR                                eS      S         02 57 03.4 -6.9
FUR                                pmax    pmax
      comp=Z,116nm,1.1s,mb5.5
FUR   Furstenfeldbru    29.15 190  eP      P         02 52 19.8 +1.1
      comp=Z,116nm,1.1s,mb5.5
FUR                                eS      S         02 57 03.4 -6.9
FUR   Furstenfeldbru    29.15 190  eP      P         02 52 19.8 +1.1
      comp=Z,116nm,1.1s,mb5.5
MEZF  Maizieres J'vi    29.16 199  eP      P         02 52 18.9 +0.1
      comp=Z,66nm,0.9s,mb5.1,baz=8.6
MEZF  Maizieres J'vi    29.16 199  eP      P         02 52 18.9 +0.1
      comp=Z,66nm,0.9s,mb5.4
MEZF  Maizieres J'vi    29.16 199  eP      P         02 52 18.9 +0.1
      comp=Z,33nm,0.9s,mb5.1,baz=8.6
PSZ   Piszkesteto       29.25 178  eP      P         02 52 19.8 +0.1
PSZ                                pmax    pmax
      comp=Z,321nm,1.1s,mb6.0
PSZ                                MLR     MLR
      comp=Z,38µm,20.0s,MS6.0
PSZ   Piszkesteto       29.25 178⥣iP      P         02 52 20.6 +0.9
PSZ   Piszkesteto       29.25 178⥣eP      P         02 52 20.9 +1.2
PSZ   Piszkesteto       29.25 178  eP      P         02 52 19.8 +0.1
      comp=Z,321nm,1.1s,mb6.0
PSZ                                LR      LR
      comp=Z,38µm,20.0s,MS6.0
PSZ   Piszkesteto       29.25 178  eP      P         02 52 19.8 +0.1
      comp=Z,321nm,1.1s,mb6.0
CONA  Conrad Observa    29.26 184  i P     P         02 52 19.8 +0.1
      comp=Z,52nm,0.9s,mb5.3,SNR=52
CSNA  Conrad Observa    29.26 184⥣iP      P         02 52 19.8 +0.1
      comp=Z,55nm,0.8s,mb5.3
ECH   Echery            29.30 196  eP      P         02 52 20.8 +0.7
ECH   Echery            29.30 196  eP      P         02 52 20.4 +0.2
      comp=Z,74nm,1.2s,mb5.3
ECH                                LR      LR
      comp=Z,15µm,16.6s,MS5.7
ECH   Echery            29.30 196  eP      P         02 52 20.4 +0.3
      comp=Z,74nm,1.2s,mb5.3
SPAK  Spaichingen-Ko    29.32 193  eP      P         02 52 20.6 +0.3
GUT   Gutenstein        29.34 193  P       P         02 52 21.8 +1.4
GUT   Gutenstein        29.34 193  P       P         02 52 21.8 +1.4
LIBD  Limburg           29.34 195  eP      P         02 52 21.3 +0.8
THEF  They Montfort     29.37 197  eP      P         02 52 21.1 +0.4
MOA   Molln             29.37 186⥣iP      P         02 52 20.5 -0.2
      comp=Z,39nm,1.0s,mb5.1,SNR=39
FLN   La Foliniere      29.37 206  eP      P         02 52 19.9 -0.8
      comp=Z,168nm,1.2s,mb5.4,baz=4.4
FLN                                eMLR    MLR
      comp=Z,20µm,20.5s,MS5.4
FLN   La Foliniere      29.37 206  eP      P         02 52 19.9 -0.8
FLN                                pmax    pmax
      comp=Z,84nm,1.2s,mb5.3
FLN                                MLR     MLR
      comp=Z,20µm,20.5s,MS5.7
FLN   La Foliniere      29.37 206  eP      P         02 52 19.9 -0.8
      comp=Z,84nm,1.2s,mb5.3
FLN                                LR      LR
      comp=Z,20µm,20.5s,MS5.7
FLN   La Foliniere      29.37 206  eP      P         02 52 19.9 -0.8
      comp=Z,84nm,1.2s,mb5.4,baz=4.4
SOP   Sopron            29.50 183⥣eP      P         02 52 22.3 +0.5
LDF   La Druitiere      29.51 206  eP      P         02 52 20.9 -1.0
      comp=Z,56nm,0.7s,mb5.1
LDF   La Druitiere      29.51 206  eP      P         02 52 20.9 -1.0
LDF                                pmax    pmax
      comp=Z,28nm,0.7s,mb5.1
LDF   La Druitiere      29.51 206  eP      P         02 52 20.9 -1.0
      comp=Z,28nm,0.7s,mb5.1
LDF   La Druitiere      29.51 206  eP      P         02 52 20.9 -1.0
      comp=Z,28nm,0.7s,mb5.1
KIZ   Kirchzarten       29.52 195  P       P         02 52 23.1 +1.1
RJOB  Jochberg          29.52 188  eP      P         02 52 22.4 +0.3
      comp=Z,130nm,1.0s,mb5.6
RJOB                               eS      S         02 57 11.1 -5.1
BMR   Baia Mare         29.56 173⥣iP      P         02 52 22.7 +0.3
BMR   Baia Mare         29.56 173  P       P         02 52 22.3 -0.1
BMR   Baia Mare         29.56 173  P       P         02 52 22.3 -0.1
HAU   Haudompre         29.56 197  eP      P         02 52 22.3 -0.1
      comp=Z,216nm,1.2s,mb5.5
HAU                                eMLR    MLR
      comp=Z,25µm,17.8s,MS5.6
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HAU   Haudompre         29.56 197  eP      P         02 52 22.3 -0.1
HAU                                pmax    pmax
      comp=Z,108nm,1.2s,mb5.5
HAU                                MLR     MLR
      comp=Z,25µm,17.8s,MS5.9
HAU   Haudompre         29.56 197  eP      P         02 52 22.3 -0.1
      comp=Z,108nm,1.2s,mb5.5
HAU                                LR      LR
      comp=Z,25µm,17.8s,MS5.9
HAU   Haudompre         29.56 197  eP      P         02 52 22.3 -0.1
      comp=Z,108nm,1.2s,mb5.5
FELD  Feldberg im Sc    29.59 194  eP      P         02 52 22.7  0.0
BUR08 Bucovina Ar. S    29.64 171  eP      P         02 52 22.6 -0.5
BUR08 Bucovina Ar. S    29.64 171  eP      P         02 52 22.6 -0.5
MOF   Molkenrain        29.67 196  eP      P         02 52 24.2 +0.9
BUR02 Bucovina Ar. S    29.67 171  P       P         02 52 22.8 -0.5
BUR02 Bucovina Ar. S    29.67 171  P       P         02 52 22.8 -0.6
BURAR Bucovina Array    29.67 171⥥iP      P         02 52 22.5 -0.9
BURAR Bucovina Array    29.67 171  P       P         02 52 22.6 -0.8
BURAR Bucovina Array    29.67 171  P       P         02 52 22.6 -0.8
UBR   Ueberruh          29.68 192  P       P         02 52 24.4 +0.9
UBR   Ueberruh          29.68 192  P       P         02 52 24.4 +0.9
BUD   Budapest          29.69 179⥣eP      P         02 52 24.0 +0.5
HINF  Hinteralfeld      29.72 196  eP      P         02 52 23.8  0.0
HINF  Hinteralfeld      29.72 196  eP      P         02 52 23.8  0.0
SISB  Singen-Schiene    29.73 193  P       P         02 52 25.2 +1.3
SISB  Singen-Schiene    29.73 193  P       P         02 52 25.2 +1.3
GRR   Gorron            29.78 207  eP      P         02 52 23.4 -1.0
GRR   Gorron            29.78 207  eP      P         02 52 23.4 -1.0
RETA  Reutte            29.85 191⥣ipP     pP        02 52 26.1 -2.0
      comp=Z,33nm,1.0s,SNR=9.1
ARSA  Arzberg           29.94 184⥣iP      P         02 52 26.0 +0.2
      comp=Z,35nm,0.8s,mb5.2,SNR=25
ARSA  Arzberg           29.94 184  P       P         02 52 26.2 +0.4
ARSA  Arzberg           29.94 184  P       P         02 52 26.2 +0.4
WATA  Walderalm         29.96 190⥣ipP     pP        02 52 27.1 -2.0
      comp=Z,60nm,0.9s,SNR=11
WATA  Walderalm         29.96 190  P       P         02 52 27.2 +1.2
WATA  Walderalm         29.96 190  P       P         02 52 27.2 +1.2
MOTA  Moosalm           29.97 190⥣iP      P         02 52 27.1 +1.0
      comp=Z,38nm,0.9s,mb5.1,SNR=14
MOTA  Moosalm           29.97 190  P       P         02 52 27.5 +1.4
MOTA  Moosalm           29.97 190  P       P         02 52 27.5 +1.4
BBS   Basel-Blauen      30.03 195  eP      P         02 52 27.2 +0.6
WTTA  Wattenberg        30.03 189⥣ipP     pP        02 52 28.2 -1.6
      comp=Z,88nm,1.6s,SNR=5.9
WTTA  Wattenberg        30.03 189  P       P         02 52 28.4 +1.8
WTTA  Wattenberg        30.03 189  P       P         02 52 28.4 +1.8
DAVA  Damuels           30.08 192⥣iP      P         02 52 27.7 +0.6
      comp=Z,49nm,1.0s,mb5.2,SNR=14
DAVA  Damuels           30.08 192  P       P         02 52 28.6 +1.6
DAVA  Damuels           30.08 192  P       P         02 52 28.6 +1.6
ROSF  Rostrenen         30.09 210⥥iP      P         02 52 26.2 -0.9
      comp=Z,75nm,1.1s,mb5.0
ROSF  Rostrenen         30.09 210⥥iP      P         02 52 26.2 -0.9
ROSF                               pmax    pmax
      comp=Z,37nm,1.1s,mb5.0
ROSF  Rostrenen         30.09 210⥥iP      P         02 52 26.2 -0.9
      comp=Z,38nm,1.1s,mb5.0
ROSF  Rostrenen         30.09 210⥥iP      P         02 52 26.2 -0.9
      comp=Z,38nm,1.1s,mb5.0
SGMF  Saint Gilles      30.09 209⥥iP      P         02 52 26.6 -0.5
      comp=Z,237nm,1.0s,mb5.6
SGMF  Saint Gilles      30.09 209⥥iP      P         02 52 26.6 -0.5
SGMF                               pmax    pmax
      comp=Z,119nm,1.0s,mb5.6
SGMF  Saint Gilles      30.09 209⥥iP      P         02 52 26.6 -0.5
      comp=Z,119nm,1.0s,mb5.6
SGMF  Saint Gilles      30.09 209⥥iP      P         02 52 26.6 -0.5
      comp=Z,119nm,1.0s,mb5.6
KBA   Koelnbreinsper    30.16 187  i P     P         02 52 28.5 +0.7
      comp=Z,27nm,0.8s,mb5.1,SNR=30
KBA   Koelnbreinsper    30.16 187  P       P         02 52 28.4 +0.7
KBA   Koelnbreinsper    30.16 187  P       P         02 52 28.4 +0.7
LOMF  Lomont            30.19 196  eP      P         02 52 28.3 +0.4
IAS   Iasi              30.19 168⥣iP      P         02 52 28.9 +0.9
IAS   Iasi              30.19 168  P       P         02 52 27.4 -0.6
IAS   Iasi              30.19 168  P       P         02 52 27.4 -0.6
DRGR                    30.42 174⥣iP      P         02 52 30.0  0.0
DRGR                    30.42 174  P       P         02 52 30.1 +0.1
DRGR                    30.42 174  P       P         02 52 30.1 +0.1
KIS   Kishinev          30.45 166αiP      P         02 52 30.0 -0.3
KIS                                i PPP             02 53 34.0
KIS                                i S     S         02 57 27.0 -3.8
KIS                                i SS    SS        02 59 06.0  -34
KIS                                pmax    pmax
      comp=Z,400nm,2.0s,mb5.8
KIS                                pmax    pmax
      comp=Z,2µm,12.0s
KIS                                smax
      comp=N,11µm,18.0s
KIS                                smax
      comp=E,8µm,19.0s
KIS   Kishinev          30.45 166⥣iP      P         02 52 30.0 -0.3
      comp=E,400nm,2.0s,mb5.8
KIS   Kishinev          30.45 166  i PP    PP        02 53 22.0  -17
KIS   Kishinev          30.45 166  i PPP   PP        02 53 34.0 -4.8
KIS                                i S     S         02 57 27.0 -3.8
      comp=E,8µm,19.0s
KIS                                i SS    SS        02 59 06.0  -34
KIS                                i Li              03 01 45.0
KIS                                i LQ              03 02 06.0
KIS                                LRM               03 04 50.0
      comp=E,128µm,12.0s
KIS   Kishinev          30.45 166  P       P         02 52 29.2 -1.0
KIS   Kishinev          30.45 166  P       P         02 52 29.2 -1.1
LOR   Lormes            30.47 200⥥iP      P         02 52 29.7 -0.8
      comp=E,102nm,0.7s,mb5.3,baz=7.8
LOR                                eMLR    MLR
      comp=Z,17µm,21.8s,MS5.3
LOR   Lormes            30.47 200⥥iP      P         02 52 29.7 -0.8
LOR                                pmax    pmax
      comp=Z,51nm,0.7s,mb5.4
LOR                                MLR     MLR
      comp=Z,16µm,21.8s,MS5.6
LOR   Lormes            30.47 200⥥iP      P         02 52 29.7 -0.8
      comp=Z,51nm,0.7s,mb5.4
LOR                                LR      LR
      comp=Z,16µm,21.8s,MS5.6
LOR   Lormes            30.47 200⥥iP      P         02 52 29.7 -0.8
      comp=Z,51nm,0.7s,mb5.3,baz=7.8
QUIF  Quistinic         30.49 209  eP      P         02 52 30.1 -0.5
      comp=Z,141nm,1.3s,mb5.2
QUIF  Quistinic         30.49 209  eP      P         02 52 30.1 -0.5
QUIF                               pmax    pmax
      comp=Z,71nm,1.3s,mb5.2
QUIF  Quistinic         30.49 209  eP      P         02 52 30.1 -0.5
      comp=Z,70nm,1.3s,mb5.2
QUIF  Quistinic         30.49 209  eP      P         02 52 30.1 -0.5
      comp=Z,70nm,1.3s,mb5.2
ABTA  Abfaltersbach     30.52 188⥣iP      P         02 52 31.3 +0.4
      comp=Z,15nm,0.8s,mb4.9,SNR=7.1
SOKA  Soboth            30.52 185⥥iP      P         02 52 31.2 +0.3
      comp=Z,21nm,0.8s,mb5.0
BRVK  Borovoye          30.56 111  eP      P         02 52 31.9 +0.7
      comp=Z,14nm,0.7s,mb4.9
BRVK                               LR      LR
      comp=Z,60µm,21.0s,MS6.2
BRVK  Borovoye          30.56 111  P       P         02 52 32.5 +1.3
      SNR=31
BRVK                               P                 02 52 32.5
      SNR=31
BRVK  Borovoye          30.56 111  P       P         02 52 32.5 +1.3
      SNR=31
PERS  Pernice           30.57 185  eP      P         02 52 31.7 +0.4
PERS                               eS      S         02 57 34.8 +2.2
PERS                               eScP    ScP       02 59 10.6 -0.8
PERS                               e                 03 01 09.3
PERS  Pernice           30.57 185  eP      P         02 52 31.7 +0.4
PERS                               eS      S         02 57 34.8 +2.2
HYF   Humbligny         30.57 202  eP      P         02 52 31.0 -0.3
HYF   Humbligny         30.57 202  eP      P         02 52 31.0 -0.3
MYKA  Terra Mystica     30.60 187⥥iP      P         02 52 31.8 +0.2
      comp=Z,58nm,1.0s,mb5.4
BVAR  Borovoye Array    30.62 111  P       P         02 52 32.0 +0.3
BVAR                               S       S         02 57 32.2 -1.1
BVAR  Borovoye Array    30.62 111  P       P         02 52 32.0 +0.3
      comp=Z,10nm,0.5s,mb4.9,baz=333,slow=9.5,SNR=24
BVAR                               S       S         02 57 32.2 -1.1
      comp=Z,15nm,0.9s,baz=322,slow=18,SNR=1.9
BVAR                               LR      LR        03 06 45.9
      comp=Z,71µm,18.4s,MS6.4,baz=335,slow=40
BVAR  Borovoye Array    30.62 111  P       P         02 52 32.0 +0.3
BVAR                               S       S         02 57 32.2 -1.1
AKTK  Aktyubinsk        30.65 127  P       P         02 52 31.8 -0.2
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AKTK                               LR      LR        03 06 15.2
AKTK  Aktyubinsk        30.65 127  P       P         02 52 31.8 -0.2
AKTO  Aktyubinsk        30.65 127  P       P         02 52 31.3 -0.7
AKTO                               pmax    pmax
      comp=Z,37nm,0.7s,mb5.3
AKTO  Aktyubinsk        30.65 127  P       P         02 52 31.8 -0.2
      comp=Z,11nm,0.5s,mb5.0,baz=347,slow=8.5,SNR=55
AKTO                               LR      LR        03 06 15.2
      comp=Z,53µm,19.0s,MS6.2,baz=158,slow=39
OBKA  Obir              30.70 185⥣iP      P         02 52 33.1 +0.6
      comp=Z,40nm,0.9s,mb5.2,SNR=34
OBKA  Obir              30.70 185  P       P         02 52 33.0 +0.5
OBKA  Obir              30.70 185  P       P         02 52 33.0 +0.5
SSF   Saint Saulge      30.71 200⥥iP      P         02 52 31.8 -0.7
      comp=Z,63nm,0.8s,mb5.2
SSF   Saint Saulge      30.71 200⥥iP      P         02 52 31.8 -0.7
SSF                                pmax    pmax
      comp=Z,31nm,0.8s,mb5.2
SSF   Saint Saulge      30.71 200⥥iP      P         02 52 31.8 -0.7
      comp=Z,32nm,0.8s,mb5.2
SSF   Saint Saulge      30.71 200⥥iP      P         02 52 31.8 -0.7
      comp=Z,32nm,0.8s,mb5.2
KOGS  Kog               30.74 183  i P     P         02 52 32.7 -0.1
KOGS                               eScP    ScP       02 59 11.3 -0.7
KOGS  Kog               30.74 183  i P     P         02 52 32.7 -0.1
PTCC  Patocco-Chiusa    30.84 187  P       P         02 52 34.4 +0.7
PTCC  Patocco-Chiusa    30.84 187  P       P         02 52 34.4 +0.7
BRMO  Bormio            30.87 191  P       P         02 52 35.4 +1.4
BRMO  Bormio            30.87 191  P       P         02 52 35.4 +1.4
TUE   Stuetta           30.92 192  eP      P         02 52 35.6 +1.2
      comp=Z,44nm,0.8s,mb5.3
TUE                                LR      LR
      comp=Z,13µm,18.6s,MS5.6
TUE   Stuetta           30.92 192  eP      P         02 52 35.6 +1.2
      comp=Z,44nm,0.8s,mb5.3
CABF  La Chapelle       30.97 197⥥iP      P         02 52 34.8 -0.1
      comp=Z,151nm,1.0s,mb5.5
CABF  La Chapelle       30.97 197⥥iP      P         02 52 34.8 -0.1
CABF                               pmax    pmax
      comp=Z,76nm,1.0s,mb5.5
CABF  La Chapelle       30.97 197⥥iP      P         02 52 34.8 -0.1
      comp=Z,76nm,1.0s,mb5.5
CABF  La Chapelle       30.97 197⥥iP      P         02 52 34.8 -0.1
      comp=Z,76nm,1.0s,mb5.5
GMNA  Gemona            30.97 187  P       P         02 52 34.8 -0.1
GMNA  Gemona            30.97 187  P       P         02 52 34.8 -0.1
AVF   Avril sur Loir    30.99 201⥥iP      P         02 52 34.3 -0.7
      comp=Z,125nm,1.1s,mb5.3
AVF   Avril sur Loir    30.99 201⥥iP      P         02 52 34.3 -0.7
AVF                                pmax    pmax
      comp=Z,63nm,1.1s,mb5.4
AVF   Avril sur Loir    30.99 201⥥iP      P         02 52 34.3 -0.7
      comp=Z,63nm,1.1s,mb5.4
AVF   Avril sur Loir    30.99 201⥥iP      P         02 52 34.3 -0.7
      comp=Z,63nm,1.1s,mb5.3
CADS  Cadrg             31.00 187  eP      P         02 52 35.2  0.0
CADS  Cadrg             31.00 187  eP      P         02 52 35.2  0.0
VOSK  Vostochnaya       31.02 111  P       P         02 52 35.9 +0.6
VOSK                               pmax    pmax
      comp=Z,174nm,1.3s,mb5.7
SMF   Signal de Mont    31.09 200  eP      P         02 52 35.3 -0.7
      comp=Z,61nm,0.7s,mb5.2
SMF   Signal de Mont    31.09 200  eP      P         02 52 35.3 -0.7
SMF                                pmax    pmax
      comp=Z,31nm,0.7s,mb5.2
SMF   Signal de Mont    31.09 200  eP      P         02 52 35.3 -0.7
      comp=Z,30nm,0.7s,mb5.2
SMF   Signal de Mont    31.09 200  eP      P         02 52 35.3 -0.7
      comp=Z,30nm,0.7s,mb5.2
LJU   Ljubljana         31.17 185  i P     P         02 52 36.6  0.0
LJU                                eS      S         02 57 47.5 +5.5
LJU   Ljubljana         31.17 185  i P     P         02 52 36.6  0.0
LJU                                eS      S         02 57 47.5 +5.5
LJU                                eScP    ScP       02 59 12.8 -0.7
LJU                                e                 03 00 58.4
LJU   Ljubljana         31.17 185  i P     P         02 52 36.6  0.0
VOY   Vojsko            31.20 186  eP      P         02 52 36.0 -0.9
VOY   Vojsko            31.20 186  eP      P         02 52 36.0 -0.9
CTI   Castel Tesino     31.25 189  P       P         02 52 37.7 +0.4
CTI   Castel Tesino     31.25 189  P       P         02 52 37.7 +0.4
BGF   Bois d'Agland     31.26 201  eP      P         02 52 36.9 -0.5
      comp=Z,395nm,1.3s,mb5.8
BGF   Bois d'Agland     31.26 201  eP      P         02 52 36.9 -0.5
BGF                                pmax    pmax
      comp=Z,197nm,1.3s,mb5.8
BGF   Bois d'Agland     31.26 201  eP      P         02 52 36.9 -0.5
      comp=Z,197nm,1.3s,mb5.8
BGF   Bois d'Agland     31.26 201  eP      P         02 52 36.9 -0.5
      comp=Z,197nm,1.3s,mb5.8
MABI  Malga Bissina     31.29 191  P       P         02 52 39.1 +1.5
MABI  Malga Bissina     31.29 191  P       P         02 52 39.1 +1.5
TIM   Timisoara         31.45 176  P       P         02 52 40.2 +1.1
TIM   Timisoara         31.45 176  P       P         02 52 40.2 +1.1
VRI   Vrincioaia        31.48 169⥣iP      P         02 52 39.6 +0.3
VRI   Vrincioaia        31.48 169  P       P         02 52 39.3  0.0
VRI   Vrincioaia        31.48 169  P       P         02 52 39.3  0.0
MFF   Saint Martin d    31.48 205⥥iP      P         02 52 39.0 -0.4
      comp=Z,222nm,1.0s,mb5.6
MFF   Saint Martin d    31.48 205⥥iP      P         02 52 39.0 -0.4
MFF                                pmax    pmax
      comp=Z,111nm,1.0s,mb5.7
MFF   Saint Martin d    31.48 205⥥iP      P         02 52 39.0 -0.4
      comp=Z,111nm,1.0s,mb5.7
MFF   Saint Martin d    31.48 205⥥iP      P         02 52 39.0 -0.4
      comp=Z,111nm,1.0s,mb5.6
PLOR  Plostina          31.49 169⥣iP      P         02 52 39.8 +0.4
PLOR  Plostina          31.49 169⥣iP      P         02 52 39.8 +0.4
TRI   Trieste           31.52 186  PFAKE             02 52 50.0  +10
TRI                                LR      LR
      comp=Z,7µm,16.3s,MS5.4
VAI   Varese            31.55 193  P       P         02 52 40.6 +0.6
VAI   Varese            31.55 193  P       P         02 52 40.6 +0.6
MAGA  Magasa            31.56 191  P       P         02 52 40.4 +0.3
MAGA  Magasa            31.56 191  P       P         02 52 40.4 +0.3
BZS   Buzias            31.58 176⥥iP      P         02 52 40.1 -0.1
BZS   Buzias            31.58 176  P       P         02 52 40.4 +0.2
BZS   Buzias            31.58 176  P       P         02 52 40.4 +0.2
TCF   Toulx Ste Croi    31.58 202⥥iP      P         02 52 39.7 -0.5
      comp=Z,304nm,1.1s,mb5.7
TCF   Toulx Ste Croi    31.58 202⥥iP      P         02 52 39.7 -0.5
TCF                                pmax    pmax
      comp=Z,152nm,1.1s,mb5.7
TCF   Toulx Ste Croi    31.58 202⥥iP      P         02 52 39.7 -0.5
      comp=Z,152nm,1.1s,mb5.7
TCF   Toulx Ste Croi    31.58 202⥥iP      P         02 52 39.7 -0.5
      comp=Z,152nm,1.1s,mb5.7
SKDS  Skadanscina       31.68 186  eP      P         02 52 41.1  0.0
SKDS  Skadanscina       31.68 186  eP      P         02 52 41.1  0.0
BOJS  Bojanci           31.70 184  eP      P         02 52 40.7 -0.5
BOJS                               e                 02 53 40.0
BOJS                               eScP    ScP       02 59 14.9 -0.3
BOJS  Bojanci           31.70 184  eP      P         02 52 40.7 -0.5
NVS   Novosibirsk       31.73  96  eP      P         02 52 42.4 +0.9
NVS                                pmax    pmax
      comp=Z,224nm,1.4s,mb5.8
NVS                                pmax    pmax
      comp=N,126nm,1.6s
AGO   Saint Agoulin     31.74 201  eP      P         02 52 41.5 -0.1
MLR   Muntele Rosu      31.82 170⥥iP      P         02 52 43.2 +0.8
MLR   Muntele Rosu      31.82 170  P       P         02 52 43.5 +1.1
MLR   Muntele Rosu      31.82 170  P       P         02 52 43.5 +1.1
GZR   Gura Zlata        31.82 174⥥iP      P         02 52 42.6 +0.2
GZR   Gura Zlata        31.82 174  P       P         02 52 42.8 +0.4
GZR   Gura Zlata        31.82 174  P       P         02 52 42.8 +0.4
ORO   Oropa             31.84 194  P       P         02 52 43.3 +0.8
ORO   Oropa             31.84 194  P       P         02 52 43.3 +0.8
VOIR                    31.84 171⥣iP      P         02 52 42.7 +0.2
VOIR                    31.84 171  P       P         02 52 42.8 +0.2
VOIR                    31.84 171  P       P         02 52 42.8 +0.3
RSL   Roselend          31.86 196  eP      P         02 52 43.2 +0.6
LPL   La Plagne         32.02 196  eP      P         02 52 45.0 +0.9
      comp=N,84nm,1.0s,mb5.2
LPL   La Plagne         32.02 196  eP      P         02 52 45.0 +0.9
LPL                                pmax    pmax
      comp=Z,42nm,1.0s,mb5.2
LPL   La Plagne         32.02 196  eP      P         02 52 45.0 +0.9
      comp=Z,42nm,1.0s,mb5.2
LPL   La Plagne         32.02 196  eP      P         02 52 45.0 +0.9
      comp=Z,42nm,1.0s,mb5.2
LPG   La Plagne         32.04 196  eP      P         02 52 45.1 +0.8
      comp=Z,218nm,1.4s,mb5.5
LPG   La Plagne         32.04 196  eP      P         02 52 45.1 +0.8
LPG                                pmax    pmax
      comp=Z,109nm,1.4s,mb5.5
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LPG	**La Plagne**	32.04	196	eP	P	02 52 45.1	+0.8
	comp=Z,109nm,1.4s,mb5.5						
LPG	**La Plagne**	32.04	196	eP	P	02 52 45.1	+0.8
	comp=Z,109nm,1.4s,mb5.5						
PYM	**Petit Puy Mans**	32.05	201	eP	P	02 52 44.3	-0.1
VERF	**Verneugheol**	32.09	201	eP	P	02 52 45.0	+0.3
AB31	**Akbulak array**	32.13	125	P	P	02 52 44.0	-1.1
AB31				pmax	pmax		
	comp=Z,98nm,0.7s,mb5.8						
ISR	**Istrita**	32.22	169	⇑iP	P	02 52 46.8	+1.0
ISR	**Istrita**	32.22	169	⇑P	P	02 52 46.8	+0.9
ISR	**Istrita**	32.22	169	⇑P	P	02 52 46.8	+1.0
COLF	**Collangettes**	32.23	200	eP	P	02 52 47.1	+1.2
TLCR		32.26	166	⇑iP	P	02 52 46.0	-0.2
TLCR		32.26	166	⇑P	P	02 52 46.0	-0.2
TLCR		32.26	166	⇑P	P	02 52 46.0	-0.2
RSP	**Reno Superiore**	32.35	195	P	P	02 52 48.2	+1.2
RSP	**Reno Superiore**	32.35	195	P	P	02 52 48.2	+1.2
GDM	**Grand'Maison**	32.37	197	eP	P	02 52 47.8	+0.6
SSB	**Saint Sauveur**	32.40	199	eP	P	02 52 47.3	-0.2
SSB				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.4						
SSB				MLR	MLR		
	comp=Z,20µm,15.6s,MS5.9						
SSB	**Saint Sauveur**	32.40	199	eP	P	02 52 47.3	-0.1
	comp=Z,66nm,1.1s,mb5.4						
SSB				LR	LR		
	comp=Z,20µm,15.6s,MS5.9						
FRNF	**Fournols**	32.45	201	eP	P	02 52 48.0	+0.2
BNI	**Bardonecchia**	32.48	196	eP	P	02 52 49.4	+1.2
BNI				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.2						
BNI				MLR	MLR		
	comp=Z,18µm,20.1s,MS5.8						
BNI	**Bardonecchia**	32.48	196	eP	P	02 52 49.4	+1.2
	comp=Z,45nm,1.0s,mb5.3						
BNI				LR	LR		
	comp=Z,18µm,20.1s,MS5.8						
BNI	**Bardonecchia**	32.48	196	eP	P	02 52 49.4	+1.2
	comp=Z,45nm,1.0s,mb5.3						
LBL	**Lubilhac**	32.55	200	eP	P	02 52 49.0	+0.3
RAVA	**Ravarino**	32.56	190	P	P	02 52 50.8	+2.0
RAVA	**Ravarino**	32.56	190	P	P	02 52 50.8	+2.0
RJF	**Les Rejaudoux**	32.62	203	⇓iP	P	02 52 48.9	-0.4
	comp=Z,222nm,1.2s,mb5.7						
RJF				eMLR	MLR		
	comp=Z,13µm,17.2s,MS5.4						
RJF	**Les Rejaudoux**	32.62	203	⇓iP	P	02 52 48.9	-0.4
RJF				pmax	pmax		
	comp=Z,111nm,1.2s,mb5.7						
RJF				MLR	MLR		
	comp=Z,13µm,17.3s,MS5.7						
RJF	**Les Rejaudoux**	32.62	203	⇓iP	P	02 52 48.9	-0.4
	comp=Z,111nm,1.2s,mb5.7						
RJF				LR	LR		
	comp=Z,13µm,17.3s,MS5.7						
RJF	**Les Rejaudoux**	32.62	203	⇓iP	P	02 52 48.9	-0.4
	comp=Z,111nm,1.2s,mb5.7						
FIU	**Minerbio Fiu**	32.66	189	P	P	02 52 52.1	+2.4
FIU	**Minerbio Fiu**	32.66	189	P	P	02 52 52.1	+2.4
ORIF	**Oris-en-Rattie**	32.67	197	eP	P	02 52 50.0	+0.2
	comp=Z,176nm,1.0s,mb5.6						
ORIF				eMLR	MLR		
	comp=Z,20µm,18.2s,MS5.5						
ORIF	**Oris-en-Rattie**	32.67	197	eP	P	02 52 50.0	+0.2
ORIF				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.6						
ORIF	**Oris-en-Rattie**	32.67	197	eP	P	02 52 50.0	+0.2
	comp=Z,88nm,1.0s,mb5.6						
ORIF	**Oris-en-Rattie**	32.67	197	eP	P	02 52 50.0	+0.2
	comp=Z,88nm,1.0s,mb5.6						
OG22	**Abries**	32.70	195	eP	P	02 52 51.6	+1.6
HARR	**Harsova**	32.71	168	⇑iP	P	02 52 50.0	-0.1
HARR	**Harsova**	32.71	168	P	P	02 52 50.0	-0.2
HARR	**Harsova**	32.71	168	P	P	02 52 50.0	-0.1
MBDF	**Montbardon**	32.80	196	eP	P	02 52 51.5	+0.5
	comp=Z,88nm,0.9s,mb5.4						
MBDF	**Montbardon**	32.80	196	eP	P	02 52 51.5	+0.5
MBDF				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.4						
MBDF	**Montbardon**	32.80	196	eP	P	02 52 51.5	+0.5
	comp=Z,44nm,0.9s,mb5.4						
MBDF	**Montbardon**	32.80	196	eP	P	02 52 51.5	+0.5
	comp=Z,44nm,0.9s,mb5.4						
VIVF	**Saint-Julien-l**	32.81	198	eP	P	02 52 50.8	-0.3
	comp=Z,110nm,1.0s,mb5.4						
VIVF	**Saint-Julien-l**	32.81	198	eP	P	02 52 50.8	-0.3
VIVF				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.4						
VIVF	**Saint-Julien-l**	32.81	198	eP	P	02 52 50.8	-0.3
	comp=Z,55nm,1.0s,mb5.4						
VIVF	**Saint-Julien-l**	32.81	198	eP	P	02 52 50.8	-0.3
	comp=Z,55nm,1.0s,mb5.4						
SIM	**Simferopol'**	32.84	159	ceP	P	02 52 51.0	-0.3
SIM				eS	S	02 58 07.6	-0.6
SIM				pmax	pmax		
	comp=Z,62nm,0.8s,mb5.6						
SIM				pmax	pmax		
	comp=Z,760nm,10.0s						
SIM				MLR	MLR		
	comp=Z,74µm,12.0s,MS6.6						
ZAA0	**Zalesovo Array**	32.91	95	eP	P	02 52 51.5	-0.3
ZAA0	**Zalesovo Array**	32.91	95	eP	P	02 52 51.5	-0.3
ZALV	**Zalesovo Beam**	32.91	95	P	P	02 52 52.0	+0.2
ZALV						02 55 35.2	
ZALV	**Zalesovo Beam**	32.91	95	P	P	02 52 52.0	+0.2
	comp=Z,75nm,1.0s,mb5.6,baz=340,slow=8.1,SNR=41						
ZALV				PcP	PcP	02 55 35.1	-0.6
	comp=Z,22nm,0.7s,baz=304,slow=2.7,SNR=3.8						
ZALV				LR	LR	03 11 04.2	
	comp=Z,17µm,18.5s,MS5.8,baz=203,slow=45						
CRAR	**CRAIOVA**	32.92	173	P	P	02 52 52.6	+0.6
CAF	**Calviac**	32.95	202	eP	P	02 52 52.1	-0.1
	comp=Z,59nm,0.9s,mb5.2						
CAF	**Calviac**	32.95	202	eP	P	02 52 52.1	-0.1
CAF				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
CAF	**Calviac**	32.95	202	eP	P	02 52 52.1	-0.1
	comp=Z,30nm,0.9s,mb5.2						
CAF	**Calviac**	32.95	202	eP	P	02 52 52.1	-0.1
	comp=Z,30nm,0.9s,mb5.2						
TIRR	**Tirgusor**	32.96	167	P	P	02 52 52.0	-0.4
TIRR				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.8						
TIRR	**Tirgusor**	32.96	167	⇑iP	P	02 52 52.3	-0.1
TIRR	**Tirgusor**	32.96	167	eP	P	02 52 52.2	-0.2
	comp=Z,106nm,0.8s,mb5.8						
TIRR	**Tirgusor**	32.96	167	eP	P	02 52 52.2	-0.2
	comp=Z,106nm,0.8s,mb5.8						
ZCCA	**Zocca**	32.97	190	P	P	02 52 54.4	+2.0
ZCCA	**Zocca**	32.97	190	P	P	02 52 54.4	+2.0
OCF	**Saint Nazaire**	33.05	198	eP	P	02 52 52.8	-0.3
OCF	**Saint Nazaire**	33.05	198	eP	P	02 52 52.8	-0.3
OG26	**St.-Nazaire-De**	33.05	198	eP	P	02 52 52.8	-0.3
SURF	**Saint Ours**	33.05	196	eP	P	02 52 54.1	+1.0
LFF	**La Frestale**	33.05	204	⇓iP	P	02 52 53.3	+0.2
	comp=Z,223nm,1.3s,mb5.6						
LFF	**La Frestale**	33.05	204	⇓iP	P	02 52 53.3	+0.2
LFF				pmax	pmax		
	comp=Z,112nm,1.3s,mb5.6						
LFF	**La Frestale**	33.05	204	⇓iP	P	02 52 53.3	+0.2
	comp=Z,112nm,1.3s,mb5.6						
LFF	**La Frestale**	33.05	204	⇓iP	P	02 52 53.3	+0.2
	comp=Z,112nm,1.3s,mb5.6						
QLNO	**Quiliano**	33.12	193	P	P	02 52 54.1	+0.4
QLNO	**Quiliano**	33.12	193	P	P	02 52 54.1	+0.4
FNVD	**Fontana Vidola**	33.15	190	P	P	02 52 55.1	+1.1
FNVD	**Fontana Vidola**	33.15	190	P	P	02 52 55.1	+1.1
VLC	**Villacollemand**	33.18	191	eP	P	02 52 54.6	+0.4
	comp=Z,31nm,0.9s,mb5.2						
VLC				LR	LR		
	comp=Z,13µm,18.4s,MS5.7						
VLC	**Villacollemand**	33.18	191	eP	P	02 52 54.7	+0.4
	comp=Z,31nm,0.9s,mb5.2						
SEI	**Scarperia**	33.25	190	P	P	02 52 56.7	+1.8
SEI	**Scarperia**	33.25	190	P	P	02 52 56.7	+1.8
BDI	**Bagni Di Lucca**	33.27	190	P	P	02 52 55.2	+0.1
BDI	**Bagni Di Lucca**	33.27	190	P	P	02 52 55.2	+0.1
ANN	**Anapa**	33.28	155	c iP	P	02 52 53.6	-1.5
ANN				i *PP	pP	02 52 58.9	+0.5
ANN				i S	S	02 58 14.7	-0.2
ANN				eSS	SS	03 00 13.5	-25
ANN				pmax	pmax		
	comp=Z,175nm,0.8s,mb6.0						
ANN				pmax	pmax		
	comp=N,48nm,0.9s						
ANN				pmax	pmax		
	comp=E,22nm,0.9s						
ANN				MLR	MLR		
	comp=N,38µm,15.0s,MS6.3						
ANN				MLR	MLR		
	comp=E,15µm,15.0s,MS6.3						
ANN				MLR	MLR		
	comp=Z,108µm,15.0s,MS6.7						
ANN	**Anapa**	33.28	155	eP	P	02 52 54.6	-0.5
ANN	**Anapa**	33.28	155	eP	P	02 52 54.6	-0.5
PESA	**Pesaro**	33.31	188	P	P	02 52 55.9	+0.5
PESA	**Pesaro**	33.31	188	P	P	02 52 55.9	+0.5
RSM	**Repubblica di**	33.34	188	P	P	02 52 56.9	+1.3
RSM	**Repubblica di**	33.34	188	P	P	02 52 56.9	+1.3
VMG	**Vicchio**	33.34	189	P	P	02 52 56.9	+1.3
VMG	**Vicchio**	33.34	189	P	P	02 52 56.9	+1.3
SFI	**Santa Sofia**	33.38	189	P	P	02 52 57.6	+1.6
TOUF	**Mont Tournerai**	33.49	195	eP	P	02 52 56.8	-0.1
AUTN	**L'Aution**	33.49	195	eP	P	02 52 56.5	-0.5
SAOF	**Saorge**	33.50	194	eP	P	02 52 56.7	-0.3
IMI	**Imperia**	33.55	194	P	P	02 52 58.9	+1.4
IMI	**Imperia**	33.55	194	P	P	02 52 58.9	+1.4
FSSB	**Fossombrone**	33.56	188	P	P	02 52 57.5	-0.1
FSSB	**Fossombrone**	33.56	188	P	P	02 52 57.5	-0.1
STOF	**St-Etienne Org**	33.58	197	eP	P	02 52 58.3	+0.5
LUCF	**Luceram**	33.60	195	eP	P	02 52 57.9	0.0
MVIF	**Mont Vial**	33.61	195	eP	P	02 52 56.8	-1.2
PII	**Pisa**	33.61	191	P	P	02 52 58.7	+0.6
PII	**Pisa**	33.61	191	P	P	02 52 58.7	+0.6
SBF	**Sospel**	33.62	195	eP	P	02 52 57.8	-0.3
	comp=Z,470nm,1.0s,mb6.1						
SBF	**Sospel**	33.62	195	eP	P	02 52 57.8	-0.3
SBF				pmax	pmax		
	comp=Z,235nm,1.0s,mb6.1						
SBF	**Sospel**	33.62	195	eP	P	02 52 57.8	-0.3
	comp=Z,235nm,1.0s,mb6.1						
SBF	**Sospel**	33.62	195	eP	P	02 52 57.8	-0.3
	comp=Z,235nm,1.0s,mb6.1						
SMRF	**Simiane la Rot**	33.63	197	eP	P	02 52 58.6	+0.4
	comp=Z,188nm,1.4s,mb5.5						
SMRF	**Simiane la Rot**	33.63	197	eP	P	02 52 58.6	+0.4
	comp=Z,188nm,1.4s,mb5.8						
SMRF	**Simiane la Rot**	33.63	197	eP	P	02 52 58.6	+0.4
	comp=Z,94nm,1.4s,mb5.5						
LASF	**Ste Croix**	33.65	199	eP	P	02 52 59.0	+0.7
	comp=Z,303nm,1.2s,mb5.8						
LASF	**Ste Croix**	33.65	199	eP	P	02 52 59.0	+0.7
	comp=Z,152nm,1.2s,mb5.8						
CRE	**Caprese Michel**	33.66	189	P	P	02 52 59.3	+0.8
CRE	**Caprese Michel**	33.66	189	P	P	02 52 59.3	+0.8
AOI	**Ancona**	33.68	187	P	P	02 52 58.6	-0.1
AOI	**Ancona**	33.68	187	P	P	02 52 58.6	-0.1
PIEI	**Pieia**	33.73	188	P	P	02 52 58.8	-0.2
PIEI	**Pieia**	33.73	188	P	P	02 52 58.8	-0.2
VILF	**Villemus**	33.74	197	eP	P	02 52 59.9	+0.7
REVF	**Revere**	33.75	195	eP	P	02 52 57.2	-2.1
BADI	**Badiali**	33.76	188	P	P	02 53 00.4	+1.1
BADI	**Badiali**	33.76	188	P	P	02 53 00.4	+1.1
CALN	**Calern**	33.77	195	eP	P	02 52 58.4	-1.0
BILL	**Bilibino**	33.79	21	⇑eP	P	02 53 00.4	+1.0
BILL				e		02 53 06.8	
BILL				e		02 54 11.5	
BILL				e		02 55 40.5	
BILL				eS	S	02 58 23.7	+1.3
BILL				pmax	pmax		
	comp=Z,625nm,1.7s,mb6.3						
BILL				MLR	MLR		
	comp=Z,22µm,21.0s,MS5.8						
BILL	**Bilibino**	33.79	21	eP	P	02 52 59.8	+0.5
	comp=Z,730nm,1.4s,mb6.4						
BILL				LR	LR		
	comp=Z,20µm,20.3s,MS5.8						
BILL	**Bilibino**	33.79	21	eP	P	02 52 59.8	+0.4
	comp=Z,730nm,1.4s,mb6.4						
CDCA	**Citt' di Caste**	33.81	188	P	P	02 53 01.7	+1.9
CDCA	**Citt' di Caste**	33.81	188	P	P	02 53 01.7	+1.9
PRAF	**Pradon**	33.83	198	eP	P	02 52 59.9	0.0
PLE	**Pljevlja**	33.84	179	⇑iP	P	02 53 00.4	+0.4
PLE	**Pljevlja**	33.84	179	⇑iP	P	02 53 00.5	+0.4
PLE	**Pljevlja**	33.84	179	⇑iP	P	02 53 00.5	+0.5
INK	**Inuvik**	33.86	342	eP	P	02 52 58.9	-1.1
	comp=Z,62nm,1.1s,mb5.5						
INK	**Inuvik**	33.86	342	eP	P	02 52 58.9	-1.1
	comp=Z,62nm,1.1s,mb5.5						
TAVF	**Tavernes**	33.95	196	eP	P	02 53 01.6	+0.6
UPM	**Unac-Piva**	33.97	180	⇑iP	P	02 53 00.6	-0.5
UPM	**Unac-Piva**	33.97	180	⇑iP	P	02 53 00.7	-0.4
UPM	**Unac-Piva**	33.97	180	⇑iP	P	02 53 00.7	-0.4
FRF	**La Foret Royal**	33.97	196	eP	P	02 53 00.9	-0.3
	comp=Z,187nm,1.1s,mb5.6						
FRF	**La Foret Royal**	33.97	196	eP	P	02 53 00.9	-0.3
FRF				pmax	pmax		
	comp=Z,94nm,1.1s,mb5.6						
FRF	**La Foret Royal**	33.97	196	eP	P	02 53 00.9	-0.3
	comp=Z,94nm,1.1s,mb5.6						
FRF	**La Foret Royal**	33.97	196	eP	P	02 53 00.9	-0.3
	comp=Z,94nm,1.1s,mb5.6						
SNTG	**Esanatoglia**	34.00	187	P	P	02 53 01.3	-0.1
SNTG	**Esanatoglia**	34.00	187	P	P	02 53 01.3	-0.1
MURB	**Monte Urbino**	34.00	188	P	P	02 53 02.0	+0.6
MURB	**Monte Urbino**	34.00	188	P	P	02 53 02.0	+0.6
SZH	**Strazhica**	34.04	170	i P	P	02 53 01.0	-0.8
PRD	**Provadia**	34.17	168	i P	P	02 53 03.6	+0.7
ASS	**Assisi**	34.20	188	P	P	02 53 04.0	+0.9
ASS	**Assisi**	34.20	188	P	P	02 53 04.0	+0.9
LMR	**La Mourre**	34.21	196	eP	P	02 53 02.9	-0.3
	comp=Z,158nm,1.2s,mb5.5						
LMR	**La Mourre**	34.21	196	eP	P	02 53 02.9	-0.3
LMR				pmax	pmax		
	comp=Z,79nm,1.3s,mb5.5						
LMR	**La Mourre**	34.21	196	eP	P	02 53 02.9	-0.3
	comp=Z,79nm,1.3s,mb5.5						
LMR	**La Mourre**	34.21	196	eP	P	02 53 02.9	-0.3
	comp=Z,79nm,1.2s,mb5.5						
BRY	**Bratogost**	34.27	180	⇑iP	P	02 53 03.0	-0.7
BRY	**Bratogost**	34.27	180	⇑iP	P	02 53 03.1	-0.7
BRY	**Bratogost**	34.27	180	⇑iP	P	02 53 03.1	-0.6
BERF	**Bertagne**	34.28	197	eP	P	02 53 03.1	-0.7
OFFI	**Offida**	34.30	186	P	P	02 53 05.0	+1.0
OFFI	**Offida**	34.30	186	P	P	02 53 05.0	+1.0
BEY	**Berane**	34.30	178	⇑iP	P	02 53 03.7	-0.3
IVA	**Berane**	34.30	178	⇑iP	P	02 53 03.6	-0.4
IVA	**Berane**	34.30	178	⇑iP	P	02 53 03.7	-0.3
IVA	**Berane**	34.30	178	⇑iP	P	02 53 03.7	-0.3
NKY	**Niksic**	34.36	179	⇑iP	P	02 53 03.4	-1.1
NKY	**Niksic**	34.36	179	⇑iP	P	02 53 03.5	-1.1
NKY	**Niksic**	34.36	179	⇑iP	P	02 53 03.5	-1.0
NRCA	**Norcia**	34.41	187	P	P	02 53 05.0	0.0
NRCA	**Norcia**	34.41	187	P	P	02 53 05.0	0.0
MTLF	**Montolieu**	34.51	201	eP	P	02 53 06.2	+0.4
	comp=Z,182nm,1.1s,mb5.6						
MTLF	**Montolieu**	34.51	201	eP	P	02 53 06.2	+0.4
MTLF				pmax	pmax		
	comp=Z,91nm,1.1s,mb5.6						
MTLF	**Montolieu**	34.51	201	eP	P	02 53 06.2	+0.4
	comp=Z,91nm,1.1s,mb5.6						
MTLF	**Montolieu**	34.51	201	eP	P	02 53 06.2	+0.4
	comp=Z,91nm,1.1s,mb5.6						
KURK	**Kurchatov**	34.56	104	P	P	02 53 06.6	+0.4
KURK				pmax	pmax		
	comp=Z,49nm,0.6s,mb5.6						
KURK				MLR	MLR		
	comp=Z,36µm,19.3s,MS6.1						
KURK	**Kurchatov**	34.56	104	P	P	02 53 06.6	+0.5
	comp=Z,49nm,0.6s,mb5.6,baz=342,slow=7.8,SNR=74						
KURK				LR	LR	03 09 42.9	
	comp=Z,36µm,19.3s,MS6.1,baz=320,slow=41						
KURK	**Kurchatov**	34.56	104	eP	P	02 53 06.1	-0.1
	comp=Z,33nm,0.7s,mb5.4						
KURK				LR	LR		
	comp=Z,57µm,15.5s,MS6.4						
KURK	**Kurchatov**	34.56	104	P	P	02 53 06.5	+0.3
	SNR=64						
KURK				P		02 53 06.5	
	SNR=64						
KURK	**Kurchatov**	34.56	104	P	P	02 53 06.5	+0.3
	SNR=64						
PVY	**Plav**	34.58	178	⇑iP	P	02 53 05.9	-0.5
PVY	**Plav**	34.58	178	⇑iP	P	02 53 05.9	-0.5
PVY	**Plav**	34.58	178	⇑iP	P	02 53 05.9	-0.5
TERO	**Teramo**	34.61	186	P	P	02 53 06.4	-0.3
TERO	**Teramo**	34.61	186	P	P	02 53 06.4	-0.3
VTS	**Vitosha**	34.63	174	P	P	02 53 05.2	-1.7
VTS	**Vitosha**	34.63	174	eP	P	02 53 06.7	-0.2
VTS	**Vitosha**	34.63	174	i P	P	02 53 05.8	-1.1
VTS	**Vitosha**	34.63	174	P	P	02 53 05.2	-1.7
KIV	**Kislovodsk**	34.67	149	P	P	02 53 07.7	+0.5
	comp=Z,956nm,0.8s,mb6.8,SNR=11						
KIV	**Kislovodsk**	34.67	149	eP	P	02 53 08.3	+1.1
KIV				e		02 54 24.4	
KIV				eS	S	02 58 36.1	-0.4
KIV				pmax	pmax		
	comp=Z,100nm,0.7s,mb5.8						
KIV				pmax	pmax		
	comp=Z,921nm,7.5s						
KIV				MLR	MLR		
	comp=Z,23µm,15.0s,MS6.0						
KIV	**Kislovodsk**	34.67	149	eP	P	02 53 07.8	+0.6
	comp=Z,138nm,0.8s,mb5.9						
KIV	**Kislovodsk**	34.67	149	P	P	02 53 08.3	+1.0
	SNR=13						
KIV				P		02 53 08.3	
	SNR=13						
KIV	**Kislovodsk**	34.67	149	eP	P	02 53 07.8	+0.6
	comp=Z,138nm,0.8s,mb5.9						
PGB	**Panagyurishte**	34.70	173	i P	P	02 53 06.4	-1.1
SOC	**Sochi**	34.71	153	c iP	P	02 53 07.8	+0.2
SOC				e*PP	pP	02 53 11.8	+1.0
SOC				e		02 54 23.7	
SOC				eS	S	02 58 35.1	-2.0
SOC				e*SS	sS	02 58 44.4	+2.0
SOC				pmax	pmax		
	comp=Z,259nm,0.9s,mb6.2						
SOC				MLR	MLR		
	comp=Z,46µm,13.0s,MS6.4						
SOC	**Sochi**	34.71	153	i P	P	02 53 08.3	+0.7
SOC	**Sochi**	34.71	153	i P	P	02 53 08.3	+0.7
HCY	**Herceg Novi**	34.72	180	⇑iP	P	02 53 07.1	-0.6
HCY	**Herceg Novi**	34.72	180	⇑iP	P	02 53 07.2	-0.5
HCY	**Herceg Novi**	34.72	180	⇑iP	P	02 53 07.2	-0.5
PDG	**Podgorica**	34.74	179	⇑iP	P	02 53 06.9	-0.9
TTG	**Podgorica**	34.74	179	⇑iP	P	02 53 06.9	-0.9
TTG	**Podgorica**	34.74	179	⇑iP	P	02 53 06.9	-0.9
YAK	**Yakutsk**	34.82	50	eP	P	02 53 06.8	-1.5
YAK				ePPP		02 54 29.5	
YAK				e		02 55 39.5	
YAK				eS	S	02 58 33.3	-5.1
YAK				eSSS		03 00 58.1	
YAK				pmax	pmax		
	comp=Z,117nm,1.2s,mb5.7						
YAK				pmax	pmax		
	comp=N,115nm,1.5s						
YAK				pmax	pmax		
	comp=E,52nm,1.5s						
YAK				pmax	pmax		
	comp=Z,164nm,0.8s,mb6.0						
YAK				smax			
	comp=N,878nm,3.1s						
YAK				smax			
	comp=E,960nm,3.9s						
YAK				MLR	MLR		
	comp=Z,30µm,15.0s,MS6.2						
YAK				MLR	MLR		
	comp=N,22µm,12.0s,MS6.3						
YAK				MLR	MLR		
	comp=E,25µm,13.0s,MS6.3						
YAK	**Yakutsk**	34.82	50	eP	P	02 53 07.1	-1.2
	comp=E,294nm,1.3s,mb6.0						
YAK				LR	LR		
	comp=Z,32µm,14.0s,MS6.2						
YAK	**Yakutsk**	34.82	50	eP	P	02 53 07.1	-1.2
	comp=Z,294nm,1.3s,mb6.0						
PGF	**Pioggiola**	34.85	192	⇓iP	P	02 53 08.4	-0.4
	comp=Z,194nm,1.2s,mb5.6						
PGF	**Pioggiola**	34.85	192	⇓iP	P	02 53 08.4	-0.4
PGF				pmax	pmax		
	comp=Z,97nm,1.2s,mb5.6						
PGF	**Pioggiola**	34.85	192	⇓iP	P	02 53 08.4	-0.4
	comp=Z,97nm,1.2s,mb5.6						
PGF	**Pioggiola**	34.85	192	⇓iP	P	02 53 08.4	-0.4
	comp=Z,97nm,1.2s,mb5.6						
JMB	**Yambol**	34.87	170	P	P	02 53 08.3	-0.6
JMB	**Yambol**	34.87	170	i P	P	02 53 08.4	-0.5
JMB	**Yambol**	34.87	170	P	P	02 53 08.3	-0.6
BUM	**Brajici-Budva**	34.87	180	⇑iP	P	02 53 08.0	-0.9
BUM	**Brajici-Budva**	34.87	180	⇑iP	P	02 53 08.0	-0.9
MNS	**Montasola**	34.87	188	P	P	02 53 08.6	-0.4
MNS	**Montasola**	34.87	188	P	P	02 53 08.6	-0.4
LRDF	**Laroque-de-Fa**	34.88	201	eP	P	02 53 10.3	+1.3
OSSF	**Osses**	34.90	206	eP	P	02 53 08.6	-0.6
ORDF	**Ordiarp**	34.91	205	eP	P	02 53 09.1	-0.2
EALK	**Alkurruntz**	34.96	206	P	P	02 53 10.1	+0.3
	comp=Z,136nm,1.1s,mb5.8						
EALK	**Alkurruntz**	34.96	206	P	P	02 53 10.1	+0.4
	comp=Z,136nm,1.1s,mb5.8						
EPF	**Esparros**	34.98	204	⇓iP	P	02 53 09.7	-0.2
	comp=Z,101nm,0.7s,mb5.5						
EPF	**Esparros**	34.98	204	⇓iP	P	02 53 09.7	-0.2
EPF				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.5						
EPF	**Esparros**	34.98	204	⇓iP	P	02 53 09.7	-0.2
	comp=Z,50nm,0.7s,mb5.6						
EPF	**Esparros**	34.98	204	⇓iP	P	02 53 09.7	-0.2
	comp=Z,50nm,0.7s,mb5.5						
FIAM	**Fiamignano**	34.98	187	P	P	02 53 10.0	+0.1
FIAM	**Fiamignano**	34.98	187	P	P	02 53 10.0	+0.1
MLS	**Moulis**	34.98	203	eP	P	02 53 10.1	+0.2
LABF	**Labassere**	34.98	204	eP	P	02 53 09.1	-0.8
REYF	**Montagne du Re**	35.01	205	eP	P	02 53 09.6	-0.5
ATE	**Arette**	35.02	205	eP	P	02 53 09.6	-0.6
ELIZ	**Elizondo**	35.02	206	P	P	02 53 10.9	+0.7
ELIZ				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.3						
ELIZ	**Elizondo**	35.02	206	P	P	02 53 10.9	+0.6
	comp=Z,34nm,0.8s,mb5.3						
ELIZ	**Elizondo**	35.02	206	P	P	02 53 10.9	+0.7
	comp=Z,34nm,0.8s,mb5.3						
SJPF	**Ste Jean**	35.04	206	eP	P	02 53 10.0	-0.4
	comp=Z,38nm,0.7s,mb5.1						
SJPF	**Ste Jean**	35.04	206	eP	P	02 53 10.0	-0.4
SJPF				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.1						
SJPF	**Ste Jean**	35.04	206	eP	P	02 53 10.0	-0.4
	comp=Z,19nm,0.7s,mb5.1						
SJPF	**Ste Jean**	35.04	206	eP	P	02 53 10.0	-0.4
	comp=Z,19nm,0.7s,mb5.1						
MELF	**Melles**	35.10	203	eP	P	02 53 10.3	-0.6
CARF	**Carcanieres**	35.14	201	eP	P	02 53 12.0	+0.8
ELAN	**Lanestosa**	35.15	208	P	P	02 53 11.3	-0.1
	comp=Z,91nm,1.4s,mb5.5						
ELAN	**Lanestosa**	35.15	208	P	P	02 53 11.3	-0.1
	comp=Z,91nm,1.4s,mb5.5						
VIEF	**Viey**	35.15	204	eP	P	02 53 12.5	+1.1
PLD	**Plovdiv**	35.16	172	P	P	02 53 09.4	-2.0
PLD	**Plovdiv**	35.16	172	i P	P	02 53 08.2	-3.2
PLD	**Plovdiv**	35.16	172	P	P	02 53 09.4	-2.0
SALF	**Salau**	35.17	202	eP	P	02 53 12.2	+0.7
ETSF	**Etsaut**	35.19	205	eP	P	02 53 11.0	-0.7
	comp=Z,76nm,0.9s,mb5.3						
ETSF	**Etsaut**	35.19	205	eP	P	02 53 11.0	-0.7
ETSF				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.3						
ETSF	**Etsaut**	35.19	205	eP	P	02 53 11.0	-0.7
	comp=Z,38nm,0.9s,mb5.3						
ETSF	**Etsaut**	35.19	205	eP	P	02 53 11.0	-0.7
	comp=Z,38nm,0.9s,mb5.3						
RESF	**Ens**	35.20	204	eP	P	02 53 13.0	+1.2
ULC	**Ulcinj**	35.21	179	⇑iP	P	02 53 11.1	-0.8
ULC	**Ulcinj**	35.21	179	⇑iP	P	02 53 11.1	-0.8
INTR	**Introdacqua**	35.21	186	P	P	02 53 11.6	-0.3
INTR	**Introdacqua**	35.21	186	P	P	02 53 11.6	-0.3
PTQR	**Pietraquaria**	35.22	187	P	P	02 53 13.1	+1.2
PTQR	**Pietraquaria**	35.22	187	P	P	02 53 13.1	+1.2
SKO	**Skopje**	35.22	176	P	P	02 53 10.4	-1.5
SKO	**Skopje**	35.22	176	eP	P	02 53 09.6	-2.3
SKO				epP	pP	02 53 11.8	-3.4
SKO	**Skopje**	35.22	176	P	P	02 53 10.4	-1.5
SKO				epP	pP	02 53 11.8	-3.4
DIM	**Dimitrovgrad**	35.24	171	i P	P	02 53 10.0	-2.2
EARI	**Arriondas**	35.28	211	P	P	02 53 13.0	+0.6
	comp=Z,88nm,1.1s,mb5.6						
EARI	**Arriondas**	35.28	211	P	P	02 53 13.0	+0.5
	comp=Z,88nm,1.1s,mb5.6						
CERT	**Cerreto**	35.30	187	P	P	02 53 12.1	-0.5
CERT	**Cerreto**	35.30	187	P	P	02 53 12.1	-0.5
EBIE	**Bielsa**	35.34	204	P	P	02 53 14.3	+1.3
	comp=Z,212nm,1.3s,mb5.9						

EBIE	Bielsa	35.34	204	P	P	02 53 14.3	+1.3
	comp=Z,212nm,1.3s,mb5.9						
EJON	La Jonquera	35.34	200	P	P	02 53 13.5	+0.5
	comp=Z,202nm,1.4s,mb5.9						
EJON	La Jonquera	35.34	200	P	P	02 53 13.5	+0.5
	comp=Z,202nm,1.4s,mb5.9						
KKB	Krupnik	35.35	174	iP	P	02 53 13.6	+0.5
VVLD	Villa Vallelon	35.36	186	P	P	02 53 13.3	+0.1
VVLD	Villa Vallelon	35.36	186	P	P	02 53 13.3	+0.1
FG2	Serracapriola	35.39	184	P	P	02 53 13.3	-0.2
FG2	Serracapriola	35.39	184	P	P	02 53 13.3	-0.2
ROM9	Roma	35.43	188	P	P	02 53 15.0	+1.2
ROM9	Roma	35.43	188	P	P	02 53 15.0	+1.2
SGRT	San Giovanni R	35.43	184	P	P	02 53 13.3	-0.5
SGRT	San Giovanni R	35.43	184	P	P	02 53 13.3	-0.5
VALF	Valcebollere	35.46	201	eP	P	02 53 15.4	+1.4
MSAG	Monte S. Angel	35.47	183	P	P	02 53 12.8	-1.4
MSAG	Monte S. Angel	35.47	183	P	P	02 53 12.8	-1.4
EPON	Pontenova	35.48	213	P	P	02 53 13.9	-0.3
	comp=Z,68nm,1.2s,mb5.5						
EPON	Pontenova	35.48	213	P	P	02 53 13.9	-0.3
	comp=Z,68nm,1.2s,mb5.5						
MA9	Marino	35.49	188	P	P	02 53 14.7	+0.4
MA9	Marino	35.49	188	P	P	02 53 14.7	+0.4
EDRB	Edirne	35.49	169	eP	P	02 53 11.9	-2.4
EDRB	Edirne	35.49	169	eP	P	02 53 11.9	-2.4
RDP	Rocca di Papa	35.50	188	P	P	02 53 16.5	+2.1
RDP	Rocca di Papa	35.50	188	P	P	02 53 16.5	+2.1
RNI2	Rionero Sannit	35.52	186	P	P	02 53 16.3	+1.8
RNI2	Rionero Sannit	35.52	186	P	P	02 53 16.3	+1.8
RGNG	Rignano Grg	35.52	184	P	P	02 53 14.0	-0.5
RGNG	Rignano Grg	35.52	184	P	P	02 53 14.0	-0.5
SDI	San Donato	35.52	186	P	P	02 53 13.8	-0.7
SDI	San Donato	35.52	186	P	P	02 53 13.8	-0.7
MIDA	Miranda	35.57	186	P	P	02 53 15.6	+0.6
MIDA	Miranda	35.57	186	P	P	02 53 15.6	+0.6
RZN	Rozhen	35.58	172	iP	P	02 53 15.4	+0.4
LAV9	Lanuvio	35.58	188	P	P	02 53 16.6	+1.6
LAV9	Lanuvio	35.58	188	P	P	02 53 16.6	+1.6
KDZ	Kurdzhali	35.64	171	iP	P	02 53 14.2	-1.4
MMB	Musomiste	35.65	173	iP	P	02 53 15.4	-0.2
ECRI	Cripan	35.67	207	P	P	02 53 17.0	+1.2
ECRI				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
ECRI	Cripan	35.67	207	P	P	02 53 17.0	+1.1
	comp=Z,32nm,0.9s,mb5.2						
ECRI	Cripan	35.67	207	P	P	02 53 17.0	+1.2
	comp=Z,32nm,0.9s,mb5.2						
BOD	Bodaibo	35.75	66	⇑iP	P	02 53 14.5	-1.8
BOD				pmax	pmax		
	comp=Z,187nm,1.4s,mb5.8						
COLD	Coldfoot	35.77	353	eP	P	02 53 16.4	0.0
	comp=Z,353nm,1.0s,mb6.2						
COLD	Coldfoot	35.77	353	eP	P	02 53 16.4	0.0
	comp=Z,353nm,1.0s,mb6.2						
BZK	Bozkurt	35.81	160	eP	P	02 53 16.8	-0.2
BZK	Bozkurt	35.81	160	eP	P	02 53 16.8	-0.2
KRUS	Krusevo	35.82	177	eP	P	02 53 14.4	-2.7
KRUS				epP	pP	02 53 17.2	-3.1
KRUS				ePP	PP	02 54 36.9	-1.3
KRUS	Krusevo	35.82	177	eP	P	02 53 14.4	-2.7
KRUS				epP	pP	02 53 17.2	-3.1
TIR	Tirane	35.83	178	P	P	02 53 16.3	-0.9
TIR				pmax	pmax		
	comp=Z,140nm,0.8s,mb5.9						
TIR	Tirane	35.83	178	P	P	02 53 16.4	-0.8
TIR	Tirane	35.83	178	P	P	02 53 16.4	-0.8
SGG	Gregorio Mates	35.83	185	P	P	02 53 17.2	0.0
SGG	Gregorio Mates	35.83	185	P	P	02 53 17.2	0.0
VAY	Valandovo	35.89	175	P	P	02 53 16.4	-1.3
VAY	Valandovo	35.89	175	eP	P	02 53 15.3	-2.4
VAY				epP	pP	02 53 17.2	-3.7
VAY				ePP	PP	02 54 36.7	-2.3
VAY	Valandovo	35.89	175	P	P	02 53 16.4	-1.3
VAY				epP	pP	02 53 17.2	-3.7
FG5	Orsara di Pugl	35.91	184	P	P	02 53 18.5	+0.6
FG5	Orsara di Pugl	35.91	184	P	P	02 53 18.5	+0.6
CTYL	Yal??k??y-??at	35.93	168	eP	P	02 53 16.8	-1.2
CTYL	Yal??k??y-??at	35.93	168	eP	P	02 53 16.8	-1.3
PSB1	Pescosannita	35.98	185	P	P	02 53 18.5	0.0
PSB1	Pescosannita	35.98	185	P	P	02 53 18.5	0.0
EMIR	Miracle	35.98	202	P	P	02 53 21.2	+2.7
EMIR	Miracle	35.98	202	P	P	02 53 21.2	+2.7
KNT	Kendrikon	36.05	174	P	P	02 53 18.6	-0.5
KNT	Kendrikon	36.05	174	P	P	02 53 18.6	-0.5
OHR	Ohrid	36.07	177	eP	P	02 53 18.4	-0.9
OHR	Ohrid	36.07	177	eP	P	02 53 18.3	-1.0
MRB1	Monte Rocchett	36.07	185	P	P	02 53 19.6	+0.3
MRB1	Monte Rocchett	36.07	185	P	P	02 53 19.6	+0.3
EMAZ	Mazaricos	36.09	215	P	P	02 53 19.5	+0.1
	comp=Z,171nm,1.1s,mb5.9						
EMAZ	Mazaricos	36.09	215	P	P	02 53 19.5	+0.1
	comp=Z,171nm,1.1s,mb5.9						
STS	Santiago	36.09	215	P	P	02 53 20.0	+0.5
STS				pmax	pmax		
	comp=Z,82nm,0.8s,mb5.7						
STS	Santiago	36.09	215	P	P	02 53 20.0	+0.5
	comp=Z,82nm,0.8s,mb5.7						
STS	Santiago	36.09	215	P	P	02 53 20.0	+0.5
	comp=Z,82nm,0.8s,mb5.7						
SRS	Serrai	36.11	174	P	P	02 53 18.8	-0.8
SRS	Serrai	36.11	174	P	P	02 53 18.8	-0.8
ONI	Oni	36.12	148	P	P	02 53 19.7	0.0
RDO	Rodhopi	36.14	171	eP	P	02 53 18.1	-1.8
BIA	Bitola	36.17	176	eP	P	02 53 18.3	-1.8
BIA				epP	pP	02 53 20.0	-3.3
BIA				ePP	PP	02 54 41.1	-1.0
BIA	Bitola	36.17	176	eP	P	02 53 18.3	-1.8
BIA				epP	pP	02 53 20.0	-3.3
SLVT	Silivri	36.17	168	eP	P	02 53 20.9	+0.8
SLVT	Silivri	36.17	168	eP	P	02 53 20.9	+0.8
CTKS	Kestanelik-??a	36.18	167	eP	P	02 53 18.5	-1.7
CTKS	Kestanelik-??a	36.18	167	eP	P	02 53 18.5	-1.7
KLYT	Kilyos	36.19	167	eP	P	02 53 20.1	-0.2
KLYT	Kilyos	36.19	167	eP	P	02 53 20.1	-0.2
GRG	Griva	36.25	175	P	P	02 53 20.6	-0.2
GRG	Griva	36.25	175	P	P	02 53 20.6	-0.2
BGKT	Bogazkoy	36.25	167	eP	P	02 53 21.5	+0.7
BGKT	Bogazkoy	36.25	167	eP	P	02 53 21.5	+0.7
CRLT	Corlu	36.25	168	eP	P	02 53 20.9	+0.1
CRLT	Corlu	36.25	168	eP	P	02 53 20.9	+0.1
MAK	Makhachkala	36.26	143	eP	P	02 53 20.0	-0.9
MAK				i		02 54 39.7	
MAK				i		02 55 44.1	
MAK				eS	S	02 59 00.0	-0.8
MAK				pmax	pmax		
	comp=Z,576nm,1.6s,mb6.3						
MAK				MLR	MLR		
	comp=Z,74µm,21.0s,MS6.4						
KDZE	Karadeniz Ereo	36.27	164	eP	P	02 53 19.3	-1.7
KDZE	Karadeniz Ereo	36.27	164	eP	P	02 53 19.3	-1.7
SILT	Sile	36.32	166	eP	P	02 53 20.9	-0.5
SILT	Sile	36.32	166	eP	P	02 53 20.9	-0.5
CSSN	Cassano Irpino	36.34	185	P	P	02 53 21.1	-0.5
CSSN	Cassano Irpino	36.34	185	P	P	02 53 21.1	-0.5
ESAC	San Caprasio	36.35	204	P	P	02 53 21.8	+0.2
	comp=Z,52nm,1.0s,mb5.4						
ESAC	San Caprasio	36.35	204	P	P	02 53 21.8	+0.2
	comp=Z,52nm,1.0s,mb5.4						
ISK	Istanbul-Kandi	36.38	167	eP	P	02 53 22.7	+0.8
ISK	Istanbul-Kandi	36.38	167	eP	P	02 53 22.7	+0.8
SCHQ	Schefferville	36.38	284	P	P	02 53 21.0	-0.8
	comp=Z,87nm,0.8s,mb5.8,baz=21,slow=8.2,SNR=119						
SCHQ				LR	LR	03 07 35.1	
	comp=Z,26µm,21.3s,MS6.0,baz=25,slow=35						
SCHQ	Schefferville	36.38	284	P	P	02 53 21.0	-0.8
SCHQ				LR	LR	03 07 35.1	
SCHQ	Schefferville	36.38	284	P	P	02 53 21.0	-0.8
TKR	Tekirdag	36.38	169	eP	P	02 53 20.9	-1.0
TKR	Tekirdag	36.38	169	eP	P	02 53 20.9	-1.0
ERUA	La Rua	36.40	213	P	P	02 53 22.6	+0.5
ERUA	La Rua	36.40	213	P	P	02 53 22.6	+0.5
FNA	Florina	36.40	176	P	P	02 53 21.3	-0.8
FNA	Florina	36.40	176	P	P	02 53 21.3	-0.8
SOH	Sokhos	36.40	174	P	P	02 53 21.2	-0.9
SOH	Sokhos	36.40	174	P	P	02 53 21.2	-0.9
ALN	Alexandroupoli	36.41	170	P	P	02 53 21.9	-0.3
ALN	Alexandroupoli	36.41	170	P	P	02 53 21.9	-0.3
MRLC	Muro Lucano	36.44	184	P	P	02 53 23.4	+1.0
MRLC	Muro Lucano	36.44	184	P	P	02 53 23.4	+1.0
LTRZ	Laterza	36.57	182	P	P	02 53 22.9	-0.7
LTRZ	Laterza	36.57	182	P	P	02 53 22.9	-0.7
ENEZ	Enez	36.58	170	eP	P	02 53 22.5	-1.1
ENEZ	Enez	36.58	170	eP	P	02 53 22.5	-1.1
EPOB	Poblet	36.58	202	P	P	02 53 24.5	+0.9
	comp=Z,206nm,1.1s,mb5.9						
EPOB	Poblet	36.58	202	P	P	02 53 24.5	+0.9
	comp=Z,206nm,1.1s,mb5.9						
HORT	Hortiatis	36.62	174	P	P	02 53 23.3	-0.7
HORT	Hortiatis	36.62	174	P	P	02 53 23.3	-0.7
PTRP	Pietrapertosa	36.66	183	P	P	02 53 24.4	+0.1
PTRP	Pietrapertosa	36.66	183	P	P	02 53 24.4	+0.1
ILGA	Ilgaz	36.69	161	iP	P	02 53 25.9	+1.4
HENT	Hendek	36.72	164	iP	P	02 53 25.1	+0.2
TOS	Tosya	36.73	160	eP	P	02 53 26.7	+1.8
TOS	Tosya	36.73	160	eP	P	02 53 26.7	+1.8
GOR	Gori	36.78	148	P	P	02 53 27.5	+2.1
ECAL	Calabor	36.80	212	P	P	02 53 25.4	0.0
	comp=Z,111nm,1.0s,mb5.6						
ECAL	Calabor	36.80	212	P	P	02 53 25.5	0.0
	comp=Z,111nm,1.0s,mb5.6						
EZAM	Zamans	36.84	215	P	P	02 53 26.0	+0.2
EZAM				pmax	pmax		
	comp=Z,112nm,0.8s,mb5.8						
EZAM	Zamans	36.84	215	P	P	02 53 26.0	+0.2
	comp=Z,112nm,0.8s,mb5.8						
EZAM	Zamans	36.84	215	P	P	02 53 26.0	+0.2
	comp=Z,112nm,0.8s,mb5.8						
KVT	Kavak	36.85	158	eP	P	02 53 27.7	+1.8
KVT	Kavak	36.85	158	eP	P	02 53 27.7	+1.8
PLG	Polygyros	36.85	174	P	P	02 53 25.4	-0.6
PLG	Polygyros	36.85	174	eP	P	02 53 25.6	-0.4
PLG	Polygyros	36.85	174	P	P	02 53 25.4	-0.6
KZN	Kozani	36.89	176	eP	P	02 53 25.0	-1.2
YLV	Yalova	36.89	166	eP	P	02 53 26.6	+0.4
YLV	Yalova	36.89	166	eP	P	02 53 26.6	+0.3
OUR	Ouranopolis	36.91	173	P	P	02 53 25.5	-0.9
OUR	Ouranopolis	36.91	173	P	P	02 53 25.5	-0.9
PBRG	Braganca	36.94	212	eP	P	02 53 27.6	+1.0
	comp=Z,182nm,1.4s,mb5.7						
LPK	Lapseki	36.96	170	eP	P	02 53 25.8	-1.1
LPK	Lapseki	36.96	170	eP	P	02 53 25.8	-1.1
BNT	Bandirma	37.03	168	eP	P	02 53 28.8	+1.4
BNT	Bandirma	37.03	168	eP	P	02 53 28.8	+1.3
ERTA	Horta de San J	37.03	203	P	P	02 53 28.7	+1.2
	comp=Z,425nm,1.9s,mb6.0						
ERTA	Horta de San J	37.03	203	P	P	02 53 28.7	+1.2
	comp=Z,425nm,1.9s,mb6.0						
ELOB	Lobios	37.03	214	P	P	02 53 28.1	+0.6
	comp=Z,159nm,1.4s,mb5.7						
ELOB	Lobios	37.03	214	P	P	02 53 28.1	+0.6
	comp=Z,159nm,1.4s,mb5.7						
ADVT	Abdulvahap	37.05	166	eP	P	02 53 27.4	-0.2
ADVT	Abdulvahap	37.05	166	eP	P	02 53 27.4	-0.2
MGR	Morigerati	37.05	184	P	P	02 53 26.2	-1.4
MGR	Morigerati	37.05	184	P	P	02 53 26.2	-1.4
MDU	Mudurnu	37.10	164	eP	P	02 53 26.6	-1.5
MDU	Mudurnu	37.10	164	eP	P	02 53 26.6	-1.5
LIT	Litokhoron	37.10	175	P	P	02 53 27.5	-0.6
LIT	Litokhoron	37.10	175	P	P	02 53 27.5	-0.6
GADA	Gvkgeada	37.11	171	eP	P	02 53 26.6	-1.5
GADA	Gvkgeada	37.11	171	eP	P	02 53 26.6	-1.5
TBLG	Delisi	37.11	147	P	P	02 53 28.9	+0.8
ORI	Oriolo Calabro	37.12	183	P	P	02 53 28.5	+0.3
ORI	Oriolo Calabro	37.12	183	P	P	02 53 28.5	+0.3
CANT	Cankiri	37.12	161	eP	P	02 53 30.1	+1.8
MTA	Mtatsminda	37.16	147	P	P	02 53 29.7	+1.2
PCAB	Cabril	37.19	214	eP	P	02 53 29.3	+0.5
	comp=Z,183nm,1.2s,mb5.8						
CUC	Castrocucco	37.19	184	eP	P	02 53 28.6	-0.2
	comp=Z,55nm,0.7s,mb5.5						
CUC				LR	LR		
	comp=Z,18µm,15.6s,MS6.0						
CUC	Castrocucco	37.19	184	eP	P	02 53 28.6	-0.2
	comp=Z,55nm,0.7s,mb5.5						
GRSN	GIRESUNGRSN	37.20	155	iP	P	02 53 29.3	+0.4
ESPY	Espiye-Giresun	37.25	154	eP	P	02 53 29.1	-0.3
ESPY	Espiye-Giresun	37.25	154	eP	P	02 53 29.1	-0.2
CAVI	Cavuskoy	37.28	166	eP	P	02 53 30.6	+1.0
CAVI	Cavuskoy	37.28	166	eP	P	02 53 30.6	+1.0
KTUT	Trabzon	37.29	153	eP	P	02 53 29.9	+0.2
KTUT	Trabzon	37.29	153	eP	P	02 53 29.9	+0.3
MACK	Trabzon	37.33	153	iP	P	02 53 31.0	+1.0
SEY	Seymchan	37.35	33	⇑eP	P	02 53 29.7	-0.2
SEY	Seymchan	37.35	33	⇑eP	P	02 53 29.7	-0.2
ETOR	Torete	37.40	206	P	P	02 53 30.7	+0.1
ETOR				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.1						
ETOR	Torete	37.40	206	P	P	02 53 30.7	+0.1
	comp=Z,28nm,0.9s,mb5.1						
ETOR	Torete	37.40	206	P	P	02 53 30.7	+0.1
	comp=Z,28nm,0.9s,mb5.1						
KEK	Kerkira	37.46	178	eP	P	02 53 28.1	-3.0
EZN	Ezine	37.49	170	eP	P	02 53 30.7	-0.7
EZN	Ezine	37.49	170	eP	P	02 53 30.7	-0.7
JAN	Janina	37.52	177	eP	P	02 53 30.3	-1.3
TNA	Tin City	37.55	4	eP	P	02 53 31.7	+0.1
	comp=Z,63nm,0.9s,mb5.3						
TNA	Tin City	37.55	4	eP	P	02 53 31.7	+0.1
	comp=Z,63nm,0.9s,mb5.3						
PVRL	Vila Real	37.58	213	eP	P	02 53 32.6	+0.5
	comp=Z,153nm,1.7s,mb5.5						
MVO	Moncorvo	37.60	212	eP	P	02 53 32.9	+0.6
	comp=Z,116nm,1.6s,mb5.4						
MVO				eS	S	02 59 23.0	+1.7
MVO				eLQ		03 02 01.2	
MVO				eLR	LR	03 04 07.2	
	comp=Z,8µm,18.1s						
THL	Klokotos Trika	37.63	176	P	P	02 53 31.3	-1.3
TOKA	Tokat	37.63	157	iP	P	02 53 33.4	+0.8
IGT	Igoumenitsa	37.64	178	P	P	02 53 32.4	-0.2
IGT	Igoumenitsa	37.64	178	P	P	02 53 32.4	-0.2
YKA	Yellowknife Ar	37.69	326	P	P	02 53 31.9	-0.9
YKA						02 55 48.9	
YKA	Yellowknife Ar	37.69	326	P	P	02 53 31.9	-0.9
	comp=Z,43nm,0.9s,mb5.2,baz=11,slow=8.2,SNR=317						
YKA				PcP	PcP	02 55 48.8	-0.7
	comp=Z,36nm,0.9s,baz=7.7,slow=2.9,SNR=9.4						
YKA				LR	LR	03 08 21.5	
	comp=Z,7µm,20.5s,MS5.5,baz=90,slow=35						
YKA	Yellowknife Ar	37.69	326	P	P	02 53 31.9	-0.9
YKA	Yellowknife Ar	37.69	326	PcP	PcP	02 55 48.8	-0.8
EMOS	Mosqueruela	37.70	204	P	P	02 53 33.4	+0.3
	comp=Z,273nm,2.4s,mb5.6						
EMOS	Mosqueruela	37.70	204	P	P	02 53 33.4	+0.3
	comp=Z,273nm,2.4s,mb5.6						
BALB	Balikesir	37.74	168	eP	P	02 53 34.5	+1.0
BALB	Balikesir	37.74	168	eP	P	02 53 34.5	+1.0
LOD	Lodumlu	37.78	162	eP	P	02 53 33.9	+0.1
LOD	Lodumlu	37.78	162	eP	P	02 53 33.9	+0.1
GUMT	Gumushane	37.78	154	eP	P	02 53 34.8	+1.0
GUMT	Gumushane	37.78	154	eP	P	02 53 34.8	+1.0
GUD	Guadarrama	37.79	209	P	P	02 53 33.9	0.0
GUD				pmax	pmax		
	comp=Z,39nm,0.6s,mb5.3						
GUD	Guadarrama	37.79	209	P	P	02 53 33.9	0.0
	comp=Z,38nm,0.6s,mb5.3						
GUD	Guadarrama	37.79	209	P	P	02 53 33.9	0.0
	comp=Z,38nm,0.6s,mb5.3						
DST	Dursunbey	37.81	167	eP	P	02 53 33.1	-1.0
DST	Dursunbey	37.81	167	eP	P	02 53 33.1	-1.0
PTO	Porto	37.82	214	eP	P	02 53 35.0	+0.8
EGAK	Eagle	37.84	346	eP	P	02 53 33.8	-0.3
	comp=Z,106nm,0.9s,mb5.6						
EGAK	Eagle	37.84	346	eP	P	02 53 33.8	-0.3
	comp=Z,106nm,0.9s,mb5.6						
XOR	Xorichti	37.85	174	P	P	02 53 34.1	-0.3
XOR	Xorichti	37.85	174	P	P	02 53 34.1	-0.3
VSL	Villasalto	37.88	192	eP	P	02 53 34.2	-0.4
	comp=Z,39nm,0.8s,mb5.2						
VSL				LR	LR		
	comp=Z,7µm,15.7s,MS5.6						
VSL	Villasalto	37.88	192	eP	P	02 53 34.2	-0.5
	comp=Z,39nm,0.8s,mb5.2						
TIP	Timpagrande	37.99	182	eP	P	02 53 35.4	-0.2
	comp=Z,104nm,0.9s,mb5.6						
TIP				LR	LR		
	comp=Z,19µm,20.0s,MS5.9						
TIP	Timpagrande	37.99	182	eP	P	02 53 35.4	-0.2
	comp=Z,104nm,0.9s,mb5.6						
BRTR	Keskin Array B	38.00	161	P	P	02 53 36.4	+0.7
BRTR						02 55 05.6	
BRTR	Keskin Array B	38.00	161	P	P	02 53 36.4	+0.7
	comp=Z,29nm,0.8s,mb5.1,baz=347,slow=6.4,SNR=120						
BRTR				PP	PP	02 55 05.6	+3.3
	comp=Z,49nm,1.0s,baz=349,slow=4.4,SNR=3.6						
BRTR				LR	LR	03 11 45.4	
	comp=Z,14µm,18.6s,MS5.8,baz=130,slow=40						
BRTR	Keskin Array B	38.00	161	P	P	02 53 36.3	+0.6
ETOS	Mallorca	38.01	200	P	P	02 53 36.1	+0.3
	comp=Z,89nm,1.2s,mb5.4						
ETOS	Mallorca	38.01	200	P	P	02 53 36.1	+0.3
	comp=Z,89nm,1.2s,mb5.4						
ESKT	Eskisehir	38.02	165	eP	P	02 53 36.7	+0.9
ESKT	Eskisehir	38.02	165	iP	P	02 53 35.4	-0.5
ESKT	Eskisehir	38.02	165	eP	P	02 53 36.7	+0.9
KARS	Kars	38.02	149	eP	P	02 53 35.6	-0.3
COLA	College	38.05	351	eP	P	02 53 36.4	+0.6
COLA				pmax	pmax		
	comp=Z,315nm,1.0s,mb6.0						
COLA				MLR	MLR		
	comp=Z,13µm,16.9s,MS5.8						
COLA	College	38.05	351	eP	P	02 53 36.4	+0.6
	comp=Z,315nm,1.0s,mb6.0						
COLA				LR	LR		
	comp=Z,13µm,16.9s,MS5.8						
COLA	College	38.05	351	eP	P	02 53 36.4	+0.6
	comp=Z,315nm,1.0s,mb6.0						
PRK	Paraskevi	38.07	170	eP	P	02 53 36.3	+0.1
SVSK	Karacayir	38.08	157	eP	P	02 53 36.4	0.0
SVSK	Karacayir	38.08	157	eP	P	02 53 36.4	0.0
SVRH	Sivrihisar-ESK	38.13	164	eP	P	02 53 37.7	+0.9
SVRH	Sivrihisar-ESK	38.13	164	eP	P	02 53 37.7	+0.9
PVIS	Viseu	38.15	213	eP	P	02 53 37.4	+0.5
	comp=Z,112nm,1.5s,mb5.4						
FCC	Fort Churchill	38.16	309	P	P	02 53 35.6	-1.2
FCC	Fort Churchill	38.16	309	eP	P	02 53 35.7	-1.2
	comp=Z,0.2nm,0.9s						
FCC	Fort Churchill	38.16	309	eP	P	02 53 35.7	-1.1
	comp=Z,0.2nm,0.9s						
AGG	Agios Georgios	38.18	175	P	P	02 53 36.3	-0.9
AGG	Agios Georgios	38.18	175	P	P	02 53 36.3	-0.9
YOZ	Yozgat	38.22	159	eP	P	02 53 38.9	+1.4
YOZ	Yozgat	38.22	159	eP	P	02 53 38.9	+1.4
EVR	Evrytania	38.27	176	eP	P	02 53 36.0	-2.0
KAMT	Kaman	38.36	161	eP	P	02 53 39.6	+0.9
KAMT	Kaman	38.36	161	eP	P	02 53 39.6	+0.9
GDZ	Gediz	38.37	166	iP	P	02 53 37.3	-1.5
MTE	Manteigas	38.42	213	eP	P	02 53 39.8	+0.6
	comp=Z,116nm,1.4s,mb5.4						
MTE				eS	S	02 59 34.8	+1.1
MTE				eLQ		03 02 21.7	
MTE				eLR	LR	03 05 12.3	
	comp=Z,5µm,19.4s						
MTE	Manteigas	38.42	213	eP	P	02 53 39.3	+0.1
	comp=Z,57nm,0.8s,mb5.3						
MTE				LR	LR		
	comp=Z,5µm,18.4s,MS5.4						
MTE	Manteigas	38.42	213	eP	P	02 53 39.3	+0.1
	comp=Z,57nm,0.8s,mb5.3						
ALT	Altintas	38.44	165	eP	P	02 53 40.3	+0.9
ALT	Altintas	38.44	165	eP	P	02 53 40.3	+0.9
HOMI	Horasan	38.45	151	iP	P	02 53 42.0	+2.5
DAWY	Dawson	38.45	345	eP	P	02 53 38.9	-0.3
DAWY	Dawson	38.45	345	eP	P	02 53 38.9	-0.3
AKS	Akhisar	38.50	168	eP	P	02 53 41.0	+1.2
AKS	Akhisar	38.50	168	eP	P	02 53 41.0	+1.1
ECHE	Chera	38.51	205	P	P	02 53 40.1	+0.1
ECHE				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.8						
ECHE	Chera	38.51	205	P	P	02 53 40.1	+0.1
	comp=Z,16nm,0.8s,mb4.8						
ECHE	Chera	38.51	205	P	P	02 53 40.1	+0.1
	comp=Z,16nm,0.8s,mb4.8						
EZM	Erzurum	38.52	151	eP	P	02 53 44.0	+3.9
LKR	Lokris	38.56	174	P	P	02 53 39.8	-0.6
LKR	Lokris	38.56	174	P	P	02 53 39.8	-0.6
EPLA	Plasencia	38.58	211	P	P	02 53 39.7	-0.8
EPLA				pmax	pmax		
	comp=Z,142nm,1.3s,mb5.5						
EPLA	Plasencia	38.58	211	P	P	02 53 39.7	-0.8
	comp=Z,142nm,1.3s,mb5.5						
EPLA	Plasencia	38.58	211	P	P	02 53 39.7	-0.8
	comp=Z,142nm,1.3s,mb5.5						
MOY	Mondy	38.67	81	eP	P	02 53 42.7	+1.5
MOY				pmax	pmax		
	comp=Z,707nm,2.5s,mb6.0						
GNI	Garni	38.67	147	eP	P	02 53 42.4	+1.0
GNI	Garni	38.67	147	⇑eP	P	02 53 42.9	+1.6
GNI				pmax	pmax		
	comp=Z,84nm,0.7s						
GNI				MLR	MLR		
	comp=Z,18µm,20.0s						
GNI	Garni	38.67	147	P	P	02 53 43.0	+1.7
	comp=Z,74nm,0.7s,mb5.5,baz=341,slow=1.5,SNR=102						
GNI				PP	PP	02 55 11.1	+1.5
	comp=Z,210nm,1.0s,baz=34,slow=3.3,SNR=5.9						
GNI	Garni	38.67	147	eP	P	02 53 42.8	+1.5
	comp=Z,130nm,0.9s,mb5.7						
GNI				LR	LR		
	comp=Z,12µm,18.5s,MS5.8						
GNI	Garni	38.67	147	eP	P	02 53 42.8	+1.5
	comp=Z,130nm,0.9s,mb5.7						
ESDC	Sonseca Array	38.73	208	P	P	02 53 42.0	+0.2
	comp=Z,10nm,0.6s,mb4.7,baz=8.2,slow=8.4,SNR=30						
ESDC	Sonseca Array	38.73	208	P	P	02 53 41.8	+0.1
	comp=Z,24nm,1.1s,mb4.8						
ESDC	Sonseca Array	38.73	208	P	P	02 53 41.8	0.0
	comp=Z,24nm,1.1s,mb4.8						
CLNS	Chul'man	38.82	57	eP	P	02 53 42.5	+0.1
CLNS				e*PP	pP	02 53 48.1	+2.5
CLNS				e		02 55 11.7	
CLNS				e		02 55 34.7	
CLNS				eS	S	02 59 32.1	-7.3
CLNS				e		02 59 39.3	
CLNS				pmax	pmax		
	comp=Z,330nm,1.1s,mb6.0						
CLNS				pmax	pmax		
	comp=N,208nm,1.1s						
CLNS				pmax	pmax		
	comp=E,57nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,165nm,1.1s,mb5.7						
CLNS				pmax	pmax		
	comp=N,205nm,1.1s						
CLNS				pmax	pmax		
	comp=E,71nm,0.9s						
CLNS				smax			
	comp=N,509nm,10.0s						
CLNS				smax			
	comp=E,3µm,11.7s						
CLNS				MLR	MLR		
	comp=Z,20µm,14.0s,MS6.1						
CLNS				MLR	MLR		
	comp=N,14µm,13.0s,MS6.2						
CLNS				MLR	MLR		
	comp=E,13µm,10.0s,MS6.2						
TRIZ	Trizonia	38.83	176	P	P	02 53 42.0	-0.7
IRK	Irkutsk	38.86	78	eP	P	02 53 42.0	-0.8
IRK				eS	S	02 59 38.6	-1.5
IRK				pmax	pmax		
	comp=Z,610nm,1.4s,mb6.1						
EIBI	Ibiza	38.86	202	P	P	02 53 44.6	+1.6
	comp=Z,191nm,1.6s,mb5.6						
EIBI	Ibiza	38.86	202	P	P	02 53 44.6	+1.7
	comp=Z,191nm,1.6s,mb5.6						
KEMA	Kemaliye	38.86	155	iP	P	02 53 44.2	+1.2
PAB	San Pablo	38.89	209	eP	P	02 53 43.7	+0.5
PAB				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.4						
PAB				MLR	MLR		
	comp=Z,5µm,17.0s,MS5.4						
PAB	San Pablo	38.89	209	eP	P	02 53 43.7	+0.5
	comp=Z,82nm,1.1s,mb5.4						
PAB				LR	LR		
	comp=Z,5µm,17.0s,MS5.4						
PAB	San Pablo	38.89	209	eP	P	02 53 43.7	+0.5
	comp=Z,82nm,1.1s,mb5.4						
KULA	Kula-Manisa	38.90	167	eP	P	02 53 43.6	+0.3
KULA	Kula-Manisa	38.90	167	eP	P	02 53 43.6	+0.3
CHOS	Chios island	38.92	171	P	P	02 53 43.8	+0.4
MANT	Manisa	38.92	167	iP	P	02 53 43.2	-0.2
CEL	Celeste	38.92	183	eP	P	02 53 41.6	-1.8
	comp=Z,70nm,1.0s,mb5.3						
CEL				LR	LR		
	comp=Z,6µm,19.0s,MS5.5						
CEL	Celeste	38.92	183	eP	P	02 53 41.6	-1.8
	comp=Z,70nm,1.0s,mb5.3						
BPAW	Bear Paw Mtn.	38.93	353	eP	P	02 53 43.9	+0.7
	comp=Z,210nm,0.8s,mb5.9						
BPAW	Bear Paw Mtn.	38.93	353	eP	P	02 53 43.9	+0.7

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      comp=Z,210nm,0.8s,mb5.9
IZM   Izmir              38.95 169  eP     P      02 53 42.9 -0.8
IZM   Izmir              38.95 169  eP     P      02 53 42.9 -0.8
LAKA  Lakka              38.95 176   P     P      02 53 43.7  0.0
BLCB  Balcova            38.96 169  eP     P      02 53 43.8 +0.1
BLCB  Balcova            38.96 169   P     P      02 53 42.5 -1.2
BLCB  Balcova            38.96 169   P     P      02 53 42.5 -1.2
NRGR  Nerungri           38.96  58  i P    P      02 53 43.8 +0.3
PCBR  Castelo Branco     38.96 213  eP     P      02 53 43.6 -0.1
      comp=Z,130nm,2.3s,mb5.2
URLA  Izmir              38.96 170  i P    P      02 53 44.0 +0.2
SHUT  Suhut-Afyon        38.96 165  eP     P      02 53 44.9 +1.1
SHUT  Suhut-Afyon        38.96 165  eP     P      02 53 44.9 +1.1
VLS   Valsamata          39.00 177   P     P      02 53 43.4 -0.7
VLS   Valsamata          39.00 177  eP     P      02 53 41.6 -2.5
VLS   Valsamata          39.00 177   P     P      02 53 43.4 -0.7
AGRB  Hanur-Agry         39.03 150  eP     P      02 53 46.5 +2.2
AGRB  Hanur-Agry         39.03 150  eP     P      02 53 46.5 +2.2
BNN   Bunyan             39.04 158  eP     P      02 53 46.0 +1.6
BNN   Bunyan             39.04 158  eP     P      02 53 46.0 +1.6
MK31  Makanchi Array     39.06 102  i P    P      02 53 44.4 -0.1
MK31                                 pmax  pmax
      comp=Z,200nm,1.1s,mb5.8
MK31  Makanchi Array     39.06 102⇑eP      P      02 53 44.4 -0.1
MK31  Makanchi Array     39.06 102⇑eP      P      02 53 44.4 -0.1
MKAR  Makanchi Array     39.06 102   P     P      02 53 44.3 -0.3
      comp=Z,46nm,0.7s,mb5.3,baz=343,slow=6.2,SNR=111
MKAR                                 LR    LR     03 12 46.3
      comp=Z,30µm,18.0s,MS6.2,baz=327,slow=41
KHAL  Karahalli          39.09 166  i P    P      02 53 44.6 -0.3
KDHN  Kadinhani          39.09 163  i P    P      02 53 45.1 +0.3
KHL   Karahalli          39.13 166  eP     P      02 53 42.9 -2.3
KHL   Karahalli          39.13 166  eP     P      02 53 42.9 -2.3
CHUM  Lake Minchumin     39.18 354  eP     P      02 53 46.2 +0.9
      comp=Z,1µm,1.7s,mb6.3
CHUM  Lake Minchumin     39.18 354  eP     P      02 53 46.2 +0.9
      comp=Z,1µm,1.7s,mb6.3
PTL   Penteli            39.18 173  eP     P      02 53 45.0 -0.6
MCK   McKinley           39.23 351   P     P      02 53 46.4 +0.7
MCK                                  pmax  pmax
      comp=Z,85nm,0.9s,mb5.5
MCK   McKinley           39.23 351  eP     P      02 53 46.9 +1.2
MCK   McKinley           39.23 351  eP     P      02 53 46.9 +1.2
TLY   Talaya             39.24  79   P     P      02 53 46.0  0.0
      comp=Z,516nm,1.3s,mb6.1,SNR=22
TLY   Talaya             39.24  79  eP     P      02 53 46.4 +0.4
TLY                                 ePPP          02 55 49.7
TLY                                 eS     S      02 59 45.2 -0.7
TLY                                 eSSS          03 02 30.2
TLY                                  pmax  pmax
      comp=Z,155nm,1.3s,mb5.6
TLY                                  MLR   MLR
      comp=Z,18µm,14.0s,MS6.0
TLY   Talaya             39.24  79  eP     P      02 53 46.5 +0.5
      comp=Z,152nm,1.3s,mb5.6
TLY                                  LR    LR
      comp=Z,4µm,17.9s,MS5.3
TLY   Talaya             39.24  79   P     P      02 53 46.5 +0.5
      SNR=45
TLY                                  P            02 53 46.5
      SNR=45
TLY   Talaya             39.24  79  eP     P      02 53 46.5 +0.5
      comp=Z,152nm,1.3s,mb5.6
ATH   Athens Observa     39.26 174  eP     P      02 53 45.3 -0.9
ATH   Athens Observa     39.26 174   P     P      02 53 46.7 +0.5
ATH   Athens Observa     39.26 174   P     P      02 53 46.7 +0.5
PINB  Pinarbasi          39.26 158  i P    P      02 53 47.1 +0.9
ATHU  Athens Univers     39.26 173   P     P      02 53 46.7 +0.4
SARI  SarD1z-Kayseri     39.28 157  eP     P      02 53 50.0 +3.6
PTOM  Tomar              39.30 214  eP     P      02 53 47.4 +0.9
      comp=Z,212nm,1.3s,mb5.7
EBEN  Beniarda           39.32 203   P     P      02 53 48.2 +1.5
      comp=Z,45nm,1.2s,mb5.1
EBEN  Beniarda           39.32 203   P     P      02 53 48.2 +1.4
      comp=Z,45nm,1.2s,mb5.1
PMRV  Marv??o            39.36 212  eP     P      02 53 47.5 +0.4
      comp=Z,160nm,1.3s,mb5.6
PMRV                                eS     S      02 59 47.4 -0.4
PMRV                                eLQ           03 02 42.0
PMRV                                eLR    LR     03 05 14.8
      comp=Z,7µm,18.3s
NAIG  Nisos Aigina       39.46 174  eP     P      02 53 46.3 -1.7
KTH   Kantishna Hill     39.47 353  eP     P      02 53 48.3 +0.5
      comp=Z,392nm,1.0s,mb6.1
KTH   Kantishna Hill     39.47 353  eP     P      02 53 48.3 +0.5
      comp=Z,392nm,1.0s,mb6.1
ETOB  Tobarra            39.50 205   P     P      02 53 49.2 +0.9
      comp=Z,135nm,1.4s,mb5.5
ETOB  Tobarra            39.50 205   P     P      02 53 49.2 +0.9
      comp=Z,135nm,1.4s,mb5.5
SULT  Sultanhani-AKS     39.51 161  eP     P      02 53 49.3 +1.0
SULT  Sultanhani-AKS     39.51 161  eP     P      02 53 49.3 +1.0
TRF   Thorofare Moun     39.56 352  eP     P      02 53 48.9 +0.4
      comp=Z,93nm,1.0s,mb5.5
TRF   Thorofare Moun     39.56 352  eP     P      02 53 48.8 +0.3
      comp=Z,93nm,1.0s,mb5.5
CLDR  Caldiran           39.57 148  eP     P      02 53 50.9 +2.1
CLDR  Caldiran           39.57 148  eP     P      02 53 50.9 +2.1
EVIA  Vianos             39.60 206   P     P      02 53 50.5 +1.4
EVIA                                 pmax  pmax
      comp=Z,73nm,1.0s,mb5.4
EVIA  Vianos             39.60 206   P     P      02 53 50.5 +1.4
      comp=Z,73nm,1.0s,mb5.4
EVIA  Vianos             39.60 206   P     P      02 53 50.5 +1.4
      comp=Z,73nm,1.0s,mb5.4
SMG   Samos              39.62 170  eP     P      02 53 46.9 -2.4
GCAM  G?zelcaml?         39.65 169  i P    P      02 53 48.6 -0.9
ISP   Isparta            39.67 165  eP     P      02 53 49.5 -0.2
ISP   Isparta            39.67 165c iP     P      02 53 49.5 -0.2
ISP   Isparta            39.67 165  eP     P      02 53 47.6 -2.1
ISP   Isparta            39.67 165   P     P      02 53 50.8 +1.1
DENT  Denizli            39.68 167  eP     P      02 53 51.0 +1.3
DENT  Denizli            39.68 167  eP     P      02 53 51.0 +1.3
NIG   Nigde              39.68 160  eP     P      02 53 52.2 +2.5
NIG   Nigde              39.68 160  eP     P      02 53 52.2 +2.4
KONT  Konya--Tatoy       39.68 163  eP     P      02 53 50.9 +1.1
KONT  Konya--Tatoy       39.68 163  eP     P      02 53 50.9 +1.1
VAE   Valguarnera        39.73 185   P     P      02 53 56.1 +6.0
      comp=Z,10.0nm,0.7s,mb4.6,baz=341,slow=4.7,SNR=3.6
ALMR  Almeirim           39.77 214  eP     P      02 53 50.4 -0.2
AKCD  Akcadag            39.77 156  i P    P      02 53 51.5 +0.9
MYA   Malataya           39.79 155  eP     P      02 53 52.3 +1.6
MYA   Malataya           39.79 155  eP     P      02 53 52.3 +1.6
MALT  Malatya            39.80 155  eP     P      02 53 51.5 +0.8
MALT  Malatya            39.80 155  eP     P      02 53 52.0 +1.2
MALT                                 pmax  pmax
      comp=Z,265nm,0.8s,mb6.0
MALT                                 MLR   MLR
      comp=Z,22µm,24.0s,MS5.9
MALT  Malatya            39.80 155⇑iP      P      02 53 51.7 +0.9
MALT  Malatya            39.80 155  eP     P      02 53 52.0 +1.2
      comp=Z,265nm,0.8s,mb6.0
MALT                                 LR    LR
      comp=Z,22µm,24.0s,MS5.9
MALT  Malatya            39.80 155  eP     P      02 53 52.0 +1.2
      comp=Z,265nm,0.8s,mb6.0
MENT  Mentasta           39.81 347  eP     P      02 53 51.3 +0.7
MENT  Mentasta           39.81 347  eP     P      02 53 51.3 +0.7
PAX   Paxson             39.86 349  eP     P      02 53 51.1 +0.1
PAX                                  pmax  pmax
      comp=Z,78nm,1.1s,mb5.3
PAX   Paxson             39.86 349  eP     P      02 53 51.1 +0.1
      comp=Z,78nm,1.1s,mb5.3
PAX   Paxson             39.86 349  eP     P      02 53 51.1 +0.1
      comp=Z,78nm,1.1s,mb5.3
PESTR Estremoz           39.94 212  eP     P      02 53 52.2 +0.3
      comp=Z,181nm,1.2s,mb5.7
PESTR                               eS     S      02 59 56.1 -0.4
PESTR                               eLQ           03 02 53.4
PESTR                               eLR    LR     03 05 44.7
      comp=Z,8µm,20.0s
EBAD  Badajoz            39.98 212   P     P      02 53 51.0 -1.2
      comp=Z,234nm,2.1s,mb5.5
EBAD  Badajoz            39.98 212   P     P      02 53 51.0 -1.2
      comp=Z,234nm,2.1s,mb5.5
VANB  Van                40.05 149  eP     P      02 53 55.9 +3.1
BCK   Bucak              40.05 165  eP     P      02 53 53.4 +0.5
BCK   Bucak              40.05 165  eP     P      02 53 53.4 +0.5
PMAFR Mafra              40.06 214  eP     P      02 53 53.1 +0.2
      comp=Z,158nm,1.3s,mb5.6
PMAFR                               eS     S      02 59 57.4 -0.9
PMAFR                               eLQ           03 02 56.1
PMAFR                               eLR    LR     03 05 53.3
      comp=Z,10µm,18.3s
MLSB  Milas              40.07 169  eP     P      02 53 51.0 -2.0
MLSB  Milas              40.07 169  eP     P      02 53 51.0 -2.0
KK31  Karatay Array      40.09 116  i P    P      02 53 53.7 +0.6
KK31                                 pmax  pmax
      comp=Z,144nm,1.2s,mb5.6
KK31  Karatay Array      40.09 116⇑eP      P      02 53 53.8 +0.7
KK31  Karatay Array      40.09 116⇑eP      P      02 53 53.8 +0.7
PPLA  Purkeypile         40.16 353  eP     P      02 53 54.1 +0.5
      comp=Z,432nm,1.0s,mb6.1
PPLA  Purkeypile         40.16 353  eP     P      02 53 54.1 +0.6
      comp=Z,432nm,1.0s,mb6.1
EBAN  Banos Encina       40.20 208   P     P      02 53 55.5 +1.4
EBAN                                 pmax  pmax
      comp=Z,20nm,0.9s,mb4.8
EBAN  Banos Encina       40.20 208   P     P      02 53 55.5 +1.5
      comp=Z,20nm,0.9s,mb4.8
EBAN  Banos Encina       40.20 208   P     P      02 53 55.5 +1.4
      comp=Z,20nm,0.9s,mb4.8
TTA   Tatalina           40.21 356  eP     P      02 53 54.7 +0.8
TTA   Tatalina           40.21 356  eP     P      02 53 54.7 +0.8
GOLH  Golhisar           40.22 166  i P    P      02 53 54.0 -0.3
YER   Yerkesik           40.26 168  eP     P      02 53 54.3 -0.3
YER   Yerkesik           40.26 168  eP     P      02 53 54.3 -0.3
LIS   Lisbon             40.28 214  eP     P      02 53 54.5 -0.2
LIS                                  AMb   AMB    02 54 03.0
      comp=Z,65nm,1.0s,mb5.3
LIS                                 eS     S      03 00 03.5 +1.8
LIS                                 eS     S      03 00 03.7 +2.1
LIS   Lisbon             40.28 214  eP     P      02 53 54.5 -0.2
      comp=Z,65nm,1.0s,mb5.3
LIS                                 eS     S      03 00 03.5 +1.9
EADA  Adamuz             40.28 209   P     P      02 53 56.0 +1.3
      comp=Z,130nm,1.2s,mb5.5
EADA  Adamuz             40.28 209   P     P      02 53 56.0 +1.2
      comp=Z,130nm,1.2s,mb5.5
BODT  Bodrum             40.29 169  eP     P      02 53 54.8  0.0
BODT  Bodrum             40.29 169  eP     P      02 53 54.8  0.0
EVO   Evora              40.32 213  eP     P      02 53 54.5 -0.5
      comp=Z,46nm,1.0s,mb4.8
EVO                                 eMLR   MLR
      comp=Z,10µm,20.5s,MS5.4
EVOP  Sao Brissos        40.33 213  eP     P      02 53 54.9 -0.3
EVOP                                 AMb   AMB    02 54 06.1
      comp=Z,65nm,2.6s,mb4.9
EVOP                                eS     S      03 00 02.3 -0.2
EVOP                                eS     S      03 00 02.3 -0.2
EVOP  Sao Brissos        40.33 213  eP     P      02 53 54.5 -0.7
      comp=Z,23nm,1.0s,mb4.8
ZAK   Zakamensk          40.38  80⇓iP      P      02 53 56.1 +0.6
ZAK                                 e             02 55 31.6
ZAK                                  pmax  pmax
      comp=Z,42nm,1.8s,mb4.9
DIY   Diyarbakir         40.39 153  eP     P      02 53 57.7 +2.0
DIY   Diyarbakir         40.39 153  eP     P      02 53 57.7 +2.0
KOZT  Kozan              40.40 159  eP     P      02 53 54.3 -1.5
EHUE  Huescar            40.42 206   P     P      02 53 56.5 +0.6
EHUE                                 pmax  pmax
      comp=Z,30nm,1.0s,mb5.0
EHUE  Huescar            40.42 206   P     P      02 53 56.5 +0.6
      comp=Z,30nm,1.0s,mb5.0
EHUE  Huescar            40.42 206   P     P      02 53 56.5 +0.6
      comp=Z,30nm,1.0s,mb5.0
ECAB  El Cabril          40.46 210   P     P      02 53 55.4 -0.9
      comp=Z,120nm,1.0s,mb5.6
ECAB  El Cabril          40.46 210   P     P      02 53 55.3 -1.0
      comp=Z,120nm,1.0s,mb5.6
KMRS  Kahramanmaras      40.47 157  eP     P      02 53 57.7 +1.4
KMRS  Kahramanmaras      40.47 157  eP     P      02 53 57.7 +1.4
EQES  Quesada            40.48 207   P     P      02 53 56.2 -0.2
      comp=Z,153nm,1.4s,mb5.5
EQES  Quesada            40.48 207   P     P      02 53 56.2 -0.2
      comp=Z,153nm,1.4s,mb5.5
TURN  Turunc             40.53 168  i P    P      02 53 56.6 -0.2
PBAR  Barrancos          40.55 212  eP     P      02 53 57.3 +0.3
      comp=Z,144nm,1.6s,mb5.3
PBAR                                eS     S      03 00 06.1 +0.4
PBAR                                eLQ           03 02 58.0
PBAR                                eLR    LR     03 05 44.3
      comp=Z,5µm,17.4s
KARA  Karaisali          40.56 160  eP     P      02 53 58.4 +1.3
KARA  Karaisali          40.56 160  eP     P      02 53 58.4 +1.3
ANTB  Antalya            40.62 165  eP     P      02 53 58.4 +0.8
ANTB  Antalya            40.62 165  eP     P      02 53 58.4 +0.9
DAT   Datca              40.63 169  eP     P      02 53 57.4 -0.3
DAT   Datca              40.63 169  eP     P      02 53 57.4 -0.3
DALT  Dalyan (Mudla)     40.64 168  eP     P      02 53 58.3 +0.6
DALT  Dalyan (Mudla)     40.64 168  eP     P      02 53 58.3 +0.6
HDMB  Hadim              40.67 163  eP     P      02 53 57.6 -0.4
HDMB  Hadim              40.67 163  eP     P      02 53 57.6 -0.4
GZT   Gaziantep          40.67 157  i P    P      02 53 59.4 +1.4
URFA  Urfa               40.71 155  eP     P      02 53 59.3 +1.0
URFA  Urfa               40.71 155  eP     P      02 53 59.3 +1.0
CAEH  'Ain El Ouahch     40.71 194   P     P      02 54 03.8 +5.5
ELL   Elmali             40.73 166  eP     P      02 53 55.9 -2.5
USP   Ospenovka          40.75 112   P     P      02 53 58.8 +0.2
      SNR=30
FETY  Fethiye            40.79 167  eP     P      02 53 57.5 -1.5
FETY  Fethiye            40.79 167  eP     P      02 53 57.6 -1.4
PBEJ  Beja               40.80 213  eP     P      02 53 59.5 +0.5
      comp=Z,156nm,2.3s,mb5.2
GAZ   Gaziantep          40.83 157  eP     P      02 53 59.2 -0.1
GAZ   Gaziantep          40.83 157  eP     P      02 53 59.2 -0.1
CMAH  Djebel Manchou     40.84 194   P     P      02 54 01.9 +2.5
ELUQ  Luque              40.85 208   P     P      02 54 00.0 +0.6
ELUQ                                 pmax  pmax
      comp=Z,25nm,0.7s,mb5.0
ELUQ  Luque              40.85 208   P     P      02 54 00.0 +0.6
      comp=Z,25nm,0.7s,mb5.0
ELUQ  Luque              40.85 208   P     P      02 54 00.0 +0.6
      comp=Z,25nm,0.7s,mb5.0
THR1  Thera Island       40.91 171   P     P      02 53 58.7 -1.2
MERS  Mersin             40.91 160  eP     P      02 54 00.0 +0.1
MERS  Mersin             40.91 160  eP     P      02 54 00.0 +0.1
EMIN  Mina Concepcio     40.91 211   P     P      02 54 00.5 +0.6
      comp=Z,51nm,1.1s,mb5.1
EMIN  Mina Concepcio     40.91 211   P     P      02 54 00.5 +0.5
      comp=Z,51nm,1.1s,mb5.1
DFRA  Djebel Bou Aff     41.01 196   P     P      02 54 02.5 +1.8
MARD  Mardin             41.03 153  i P    P      02 54 02.3 +1.4
ECOG  Cogollos-Vega      41.05 207   P     P      02 54 02.6 +1.4
ECOG                                 pmax  pmax
      comp=Z,24nm,0.9s,mb4.8
ECOG  Cogollos-Vega      41.05 207   P     P      02 54 02.6 +1.4
      comp=Z,24nm,0.9s,mb4.8
ECOG  Cogollos-Vega      41.05 207   P     P      02 54 02.6 +1.4
      comp=Z,24nm,0.9s,mb4.8
CHMS  Chumysh            41.06 112   P     P      02 54 03.1 +2.0
      SNR=10
CIT   Chita              41.07  70  eP     P      02 54 01.5 +0.4
CIT                                 e             02 55 32.9
CIT                                  pmax  pmax
      comp=Z,404nm,1.7s,mb5.8
CKFL  Kef-Lekhel         41.10 195   P     P      02 54 02.3 +0.8
ARG   Arkhangelos        41.16 168  eP     P      02 53 59.7 -2.4
EKS2  Erkin-Say          41.18 113   P     P      02 54 03.4 +1.3
      SNR=42
EKS2  Erkin-Say          41.18 113  eP     P      02 54 03.5 +1.4
      comp=Z,238nm,0.5s,mb6.1
EKS2                                 LR    LR
      comp=Z,43µm,15.2s,MS6.4
EKS2  Erkin-Say          41.18 113  eP     P      02 54 03.5 +1.4
      comp=Z,238nm,0.5s,mb6.1
ABSA  Djebel Ababsia     41.18 194   P     P      02 54 02.7 +0.5
FRU   Bishkek            41.19 112⇑iP      P      02 54 04.0 +1.8
FRU                                 i             02 55 40.0
FRU                                 i             03 03 12.0
FRU                                  pmax  pmax
      comp=Z,280nm,2.0s,mb5.5
FRU                                  pmax  pmax
      comp=E,8µm,14.0s
FRU                                  MLR   MLR
      comp=Z,43µm,14.0s,MS6.5
KUZU  Kuzuini            41.21 157  i P    P      02 54 03.1 +0.7
AKAS  Kas                41.22 166  i P    P      02 54 02.2 -0.3
ENIJ  Nijar              41.22 206   P     P      02 54 04.5 +2.0
ENIJ                                 pmax  pmax
      comp=Z,15nm,0.6s,mb4.8
ENIJ  Nijar              41.22 206   P     P      02 54 04.5 +2.0
      comp=Z,15nm,0.6s,mb4.8
ENIJ  Nijar              41.22 206   P     P      02 54 04.5 +2.0
      comp=Z,15nm,0.6s,mb4.8
EGRO  El Granado         41.24 212   P     P      02 54 03.4 +0.7
      comp=Z,106nm,1.6s,mb5.2
EGRO  El Granado         41.24 212   P     P      02 54 03.3 +0.7
      comp=Z,106nm,1.6s,mb5.2
ELOJ  Sierra Loja        41.24 208   P     P      02 54 04.3 +1.6
ELOJ                                 pmax  pmax
      comp=Z,11nm,0.7s,mb4.6
ELOJ  Sierra Loja        41.24 208   P     P      02 54 04.3 +1.6
      comp=Z,11nm,0.7s,mb4.6
ELOJ  Sierra Loja        41.24 208   P     P      02 54 04.3 +1.6
      comp=Z,11nm,0.7s,mb4.6
CASM  Ain Smara          41.25 195   P     P      02 54 02.3 -0.5
AAA   Alma-Ata           41.26 109  eP     P      02 54 04.7 +1.9
AAA                                 eS     S      03 00 16.3 +0.2
AAA                                  pmax  pmax
      comp=Z,2µm,7.1s
AAA                                  smax
      comp=E,4µm,9.9s
AAA                                  MLR   MLR
      comp=Z,71µm,13.0s,MS6.7
KRTS  Karatas            41.27 159  eP     P      02 54 03.3 +0.4
KRTS  Karatas            41.27 159  eP     P      02 54 03.3 +0.4
TKM2  Tokmak 2           41.31 111  eP     P      02 54 05.2 +2.0
TKM2                                 pmax  pmax
      comp=Z,715nm,1.7s,mb6.0
TKM2                                 MLR   MLR
      comp=Z,38µm,15.9s,MS6.4
TKM2  Tokmak 2           41.31 111   P     P      02 54 05.3 +2.1
      SNR=24
TKM2  Tokmak 2           41.31 111  eP     P      02 54 05.2 +2.0
      comp=Z,715nm,1.7s,mb6.0
TKM2                                 LR    LR
      comp=Z,38µm,15.9s,MS6.4
TKM2  Tokmak 2           41.31 111  eP     P      02 54 05.2 +2.0
      comp=Z,715nm,1.7s,mb6.0
WDD   Wield Dalam        41.33 185   PFAKE        02 54 10.0 +6.6
WDD                                  LR    LR
      comp=Z,7µm,18.7s,MS5.6
ERON  Agron              41.34 207   P     P      02 54 04.3 +0.9
      comp=Z,35nm,0.9s,mb5.0
ERON  Agron              41.34 207   P     P      02 54 04.3 +0.8
      comp=Z,35nm,0.9s,mb5.0
AAK   Ala-Archa          41.35 112⇑eP      P      02 54 05.3 +1.7
AAK                                  pmax  pmax
      comp=Z,51nm,2.5s,mb4.7
AAK                                  MLR   MLR
      comp=Z,20µm,17.0s,MS6.1
AAK   Ala-Archa          41.35 112   P     P      02 54 05.6 +2.0
      SNR=17
AAK   Ala-Archa          41.35 112   P     P      02 54 05.6 +2.0
      comp=Z,7.4nm,0.7s,mb4.4,baz=331,slow=2.7,SNR=29
AAK                                  PKP2ab       03 27 33.0
      comp=Z,1.1nm,0.3s,baz=191,slow=6.2,SNR=6.1
AAK   Ala-Archa          41.35 112  eP     P      02 54 05.5 +2.0
      comp=Z,31nm,1.2s,mb4.8
AAK                                  LR    LR
      comp=Z,31µm,16.4s,MS6.3
AAK   Ala-Archa          41.35 112   P     P      02 54 05.9 +2.3
      SNR=27
AAK                                  P            02 54 05.9
      SNR=27
AAK   Ala-Archa          41.35 112   P     P      02 54 05.9 +2.3
      SNR=27
EBER  Berja              41.36 206   P     P      02 54 05.2 +1.5
      comp=Z,59nm,0.9s,mb5.2
EBER  Berja              41.36 206   P     P      02 54 05.2 +1.5
      comp=Z,59nm,0.9s,mb5.2
PTEO  Sao Teotonio       41.38 213  eP     P      02 54 04.7 +0.9
      comp=Z,83nm,1.5s,mb5.1
SET   Setif              41.38 196   P     P      02 54 06.0 +2.2
PMR   Palmer             41.38 351   P     P      02 54 03.2 -0.3
PMR                                  pmax  pmax
      comp=Z,69nm,0.8s,mb5.3
PMR   Palmer             41.38 351  eP     P      02 54 03.2 -0.3
      comp=Z,141nm,1.3s,mb5.4
PMR   Palmer             41.38 351  eP     P      02 54 03.2 -0.3
      comp=Z,141nm,1.3s,mb5.4
PVAQ  Vaqueiros          41.39 212  eP     P      02 54 03.6 -0.3
      comp=Z,104nm,1.3s,mb5.3
PVAQ                                eS     S      03 00 19.6 +1.3
PVAQ                                eLQ           03 03 15.4
PVAQ                                eLR    LR     03 06 11.8
      comp=Z,7µm,16.8s
CUKT  Cukurca            41.40 149  eP     P      02 54 04.8 +0.8
CUKT  Cukurca            41.40 149  eP     P      02 54 04.8 +0.8
KBK   Karagaybulak       41.43 112   P     P      02 54 06.2 +2.1
      SNR=20
EGUA  Guajares           41.49 207   P     P      02 54 06.1 +1.3
EGUA                                 pmax  pmax
      comp=Z,89nm,0.9s,mb5.4
EGUA  Guajares           41.49 207   P     P      02 54 06.1 +1.3
      comp=Z,89nm,0.9s,mb5.4
EGUA  Guajares           41.49 207   P     P      02 54 06.1 +1.3
      comp=Z,89nm,0.9s,mb5.4
EMHD  Djebel Mahouad     41.54 199   P     P      02 54 06.0 +0.8
EBNR  Beni Rached        41.56 201   P     P      02 54 07.0 +1.6
PBDV  Barranco-do-Ve     41.58 212  eP     P      02 54 06.4 +1.0
      comp=Z,205nm,1.2s,mb5.6
PBDV                                eS     S      03 00 22.3 +1.3
PBDV                                eLQ           03 03 15.7
PBDV                                eLR    LR     03 06 00.4
      comp=Z,8µm,18.0s
MORF  Marmelete          41.60 213  eP     P      02 54 06.6 +0.9
      comp=Z,64nm,1.2s,mb5.1
MORF                                eS     S      03 00 22.2 +0.8
MORF                                eLQ           03 03 19.8
MORF                                eLR    LR     03 06 40.5
MORF                                 -MS          03 11 39.9
MORF  Marmelete          41.60 213  eP     P      02 54 05.3 -0.4
MORF                                eS     S      03 00 21.9 +0.5
KEST  Kesra              41.63 191   P     P      02 54 05.7 -0.3
      comp=Z,30nm,0.9s,mb4.9,baz=313,slow=3.6,SNR=56
KEST                                 LR    LR     03 13 14.0
      comp=Z,4µm,19.1s,MS5.3,baz=314,slow=39
AML   Almayashu          41.67 113   P     P      02 54 08.2 +2.0
      SNR=53
AML   Almayashu          41.67 113  eP     P      02 54 08.2 +2.1
      comp=Z,3.2nm,0.3s,mb4.4
AML                                  LR    LR
      comp=Z,34µm,16.4s,MS6.3
AML   Almayashu          41.67 113  eP     P      02 54 08.2 +2.1
      comp=Z,3.2nm,0.3s,mb4.4
ESPR  Espera             41.71 210   P     P      02 54 06.1 -0.4
      comp=Z,184nm,1.2s,mb5.6
ESPR  Espera             41.71 210   P     P      02 54 06.1 -0.4
      comp=Z,184nm,1.2s,mb5.6
ECHA  Ech Chlef          41.72 201   P     P      02 54 08.0 +1.4
UCH   Uchtor             41.75 112   P     P      02 54 08.7 +1.9
      SNR=42
UCH   Uchtor             41.75 112  eP     P      02 54 09.0 +2.2
      comp=Z,519nm,1.5s,mb5.9
UCH                                  LR    LR
      comp=Z,38µm,19.0s,MS6.3
UCH   Uchtor             41.75 112  eP     P      02 54 09.0 +2.2
      comp=Z,519nm,1.5s,mb5.9
HTY   Hatay              41.78 158  eP     P      02 54 06.2 -0.9
HTY   Hatay              41.78 158  eP     P      02 54 06.2 -0.9
KARP  Karpathos          41.79 169  eP     P      02 54 02.8 -4.4
PFVI  Vila Bisbo         41.80 213  eP     P      02 54 07.6 +0.4
      comp=Z,128nm,1.3s,mb5.4
PFVI                                eS     S      03 00 25.0 +0.8
PFVI                                eLQ           03 03 36.0
PFVI                                eLR    LR     03 06 44.1
      comp=Z,13µm,17.3s
VAM   Vamos              41.83 173  eP     P      02 54 06.0 -1.5
FIB   Fire Island        41.84 352  eP     P      02 54 08.3 +1.0
FIB                                  pmax  pmax
      comp=Z,545nm,0.8s,mb6.2
FIB   Fire Island        41.84 352  eP     P      02 54 08.3 +1.0
      comp=Z,545nm,0.8s,mb6.2
FIB   Fire Island        41.84 352  eP     P      02 54 08.3 +1.0
      comp=Z,545nm,0.8s,mb6.2
EMIJ  Mijas              41.89 209   P     P      02 54 07.9 -0.1
      comp=Z,186nm,1.3s,mb5.6
EMIJ  Mijas              41.89 209   P     P      02 54 07.9 -0.1
      comp=Z,186nm,1.3s,mb5.6
OKGL  Djebel Kef Gue     41.89 202   P     P      02 54 08.0  0.0
RC01  Rabbit Creek A     41.90 352  eP     P      02 54 07.8  0.0
      comp=Z,369nm,1.0s,mb6.0
RC01  Rabbit Creek A     41.90 352  eP     P      02 54 07.8  0.0
      comp=Z,369nm,1.0s,mb6.0
EANR  'Ain N'Sour        41.94 201   P     P      02 54 08.7 +0.3
IDI   Anoyia             41.97 172   P     P      02 54 05.1 -3.5
      comp=Z,28nm,0.5s,mb5.1,baz=26,slow=9.6,SNR=18
IDI                                  PP    PP     02 55 45.5  0.0
      comp=Z,145nm,1.0s,baz=2.8,slow=9.6,SNR=7.6
IDI   Anoyia             41.97 172   PP    PP     02 55 45.5  0.0
NPS   Neapolis           42.02 171  eP     P      02 54 05.0 -4.0
SVW2  Sparrevohn         42.04 356  eP     P      02 54 09.1 +0.1
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SVW2	Sparrevohn	42.04	356	eP	P	02 54 09.1	+0.1
KZA	Kyzart	42.04	112	P	P	02 54 10.7	+1.5
	SNR=28						
EJIF	Jimena Fronter	42.08	209	P	P	02 54 10.4	+0.9
EJIF				pmax	pmax		
	comp=Z,78nm,1.2s,mb5.2						
EJIF	Jimena Fronter	42.08	209	P	P	02 54 10.4	+0.8
	comp=Z,78nm,1.2s,mb5.2						
EJIF	Jimena Fronter	42.08	209	P	P	02 54 10.4	+0.9
	comp=Z,78nm,1.2s,mb5.2						
LAST	Lasithi	42.11	172	P	P	02 54 07.2	-2.6
MSL	Mosul	42.18	150	ex	x	02 54 18.0	
MSL				ex	x	03 00 38.0	
ZKR	Zakros	42.18	171	P	P	02 54 08.3	-2.1
ZKR	Zakros	42.18	171	P	P	02 54 08.3	-2.1
EREN	Erenkoy	42.21	161	eP	P	02 54 08.1	-2.5
EREN	Erenkoy	42.21	161	eP	P	02 54 08.1	-2.5
SIVA	Sivas	42.23	172	P	P	02 54 09.8	-1.0
SIVA	Sivas	42.23	172	P	P	02 54 09.8	-1.0
USTO	Oran	42.30	203	P	P	02 54 14.0	+2.7
EALB	Alboran	42.33	206	P	P	02 54 11.3	-0.2
	comp=Z,187nm,0.7s,mb5.8						
EALB	Alboran	42.33	206	P	P	02 54 11.4	-0.2
	comp=Z,187nm,0.7s,mb5.8						
OJBR	Djebel Berber	42.37	202	P	P	02 54 06.0	-5.9
OJGS	Djebel Guires	42.41	202	P	P	02 54 09.0	-3.3
LFK	Lefkose	42.41	162	eP	P	02 54 11.9	-0.4
LFK	Lefkose	42.41	162	eP	P	02 54 11.9	-0.4
ALFC	Alevga	42.47	163	P	P	02 54 11.0	-1.8
	comp=Z,2.2nm,0.5s						
ALFC	Alevga	42.47	163	P	P	02 54 11.0	-1.8
ETRT	Tiaret	42.48	201	P	P	02 54 13.6	+0.8
MAMC	Mammari	42.50	162	P	P	02 54 13.4	+0.4
MAMC	Mammari	42.50	162	P	P	02 54 13.4	+0.4
LEF	Lefka	42.53	163	eP	P	02 54 09.8	-3.4
RSO	Redoubt South	42.62	354	eP	P	02 54 13.7	0.0
RSO	Redoubt South	42.62	354	eP	P	02 54 13.7	0.0
ODJA	Bouhanifia	42.66	203	P	P	02 54 16.0	+1.7
CSS	Prodhromos	42.71	162	eP	P	02 54 14.3	-0.4
	comp=Z,58nm,0.8s,mb5.4						
CSS				ePP	PP	02 55 51.0	-2.5
CSS				LR	LR		
	comp=Z,20µm,17.4s,MS6.1						
CSS	Prodhromos	42.71	162	eP	P	02 54 14.3	-0.4
	comp=Z,58nm,0.8s,mb5.4						
PHNC	Paralimni	42.72	161	P	P	02 54 16.5	+1.7
	comp=Z,2.3nm,1.0s						
PHNC	Paralimni	42.72	161	P	P	02 54 16.5	+1.7
PPCY	Paphos	42.73	163	P	P	02 54 12.6	-2.2
PPCY	Paphos	42.73	163	P	P	02 54 12.6	-2.2
ABKT	Ailbek	42.80	132	P	P	02 54 16.5	+1.1
	comp=Z,887nm,1.0s,mb6.5,SNR=22						
ODZI	Dziouia	42.80	204	P	P	02 54 14.0	-1.4
SEW	Seward	42.88	351	eP	P	02 54 15.7	-0.1
	comp=Z,571nm,1.2s,mb6.2						
SEW	Seward	42.88	351	eP	P	02 54 15.7	-0.1
	comp=Z,571nm,1.2s,mb6.2						
SZAC	Souni-Zanaja	42.89	163	P	P	02 54 16.0	-0.1
SZAC	Souni-Zanaja	42.89	163	P	P	02 54 16.0	-0.1
WMQ	Urumqi	43.09	98	⇑iP	P	02 54 18.9	+1.3
WMQ				pP	pP	02 54 23.0	+2.1
WMQ				sP	sP	02 54 26.0	+3.8
WMQ				PP	PP	02 56 03.0	+5.6
WMQ				S	S	03 00 44.0	+0.9
WMQ				sS	sS	03 00 53.0	+4.5
WMQ				ScS	ScS	03 04 16.0	-1.4
WMQ				pmax	pmax		
	comp=Z,160nm,1.2s,mb5.6						
WMQ				pmax	pmax		
	comp=Z,3µm,4.6s						
WMQ				LR	LR		
	comp=N,47µm,13.7s,MS6.7						
WMQ				LR	LR		
	comp=E,71µm,18.0s,MS6.7						
WMQ				LR	LR		
	comp=Z,34µm,21.0s,MS6.2						
DLBC	Dease Lake	43.33	336	eP	P	02 54 19.4	-0.1
DLBC	Dease Lake	43.33	336	eP	P	02 54 19.4	0.0
FFC	Flin Flon	43.35	313	P	P	02 54 18.9	-0.8
FFC				pmax	pmax		
	comp=Z,590nm,1.6s,mb6.1						
FFC	Flin Flon	43.35	313	eP	P	02 54 18.8	-0.9
FFC				LR	LR		
	comp=Z,30µm,17.8s,MS6.2						
FFC	Flin Flon	43.35	313	eP	P	02 54 18.8	-0.9
SONM	Songino Array	43.47	78	P	P	02 54 21.3	+0.6
SONM						02 56 05.9	
SONM	Songino Array	43.47	78	P	P	02 54 21.3	+0.6
	comp=Z,49nm,1.0s,mb5.2,baz=329,slow=7.8,SNR=61						
SONM				PP	PP	02 56 05.9	+4.5
	comp=Z,68nm,1.1s,baz=344,slow=9.0,SNR=6.3						
SONM				LR	LR	03 15 39.9	
	comp=Z,19µm,18.6s,MS6.0,baz=346,slow=41						
SONM	Songino Array	43.47	78	P	P	02 54 21.3	+0.6
ULN	Ulaanbaatar	43.59	77	eP	P	02 54 22.5	+0.8
	comp=Z,261nm,1.3s,mb5.8						
ULN				LR	LR		
	comp=Z,28µm,16.1s,MS6.3						
ULN	Ulaanbaatar	43.59	77	eP	P	02 54 22.5	+0.8
	comp=Z,261nm,1.3s,mb5.8						
HWQ	Hawqa	43.59	159	eP	P	02 54 19.5	-2.3
CMLA	Cha da Macela	43.75	233	PFAKE		02 54 30.0	+7.0
CMLA				LR	LR		
	comp=Z,11µm,18.3s,MS5.8						
PDA	Ponta Delgada	43.79	233	eS	S	03 01 01.0	+7.5
PDA				eLQ		03 04 21.0	
PDA				eLR	LR	03 07 15.0	
PDA	Ponta Delgada	43.79	233	eS	S	03 01 01.0	+7.5
BHL	Bhannes	43.94	159	eP	P	02 54 23.8	-0.9
RCY	Rachaya	44.37	159	eP	P	02 54 28.6	+0.5
LTRP	Tripoli	44.38	187	iP	P	02 54 29.0	+0.9
	SNR=25						
ALAS	Alassa	44.42	188	iP	P	02 54 29.2	+0.7
	SNR=25						
KSH	Kashi	44.66	112	P	P	02 54 34.3	+4.0
KSH				pP	pP	02 54 38.6	+5.0
KSH				sP	sP	02 54 41.0	+6.1
KSH				ePcP	PcP	02 56 15.0	+2.3
KSH				PP	PP	02 56 20.1	+5.8
KSH				ScP	ScP	03 00 05.9	+1.6
KSH				ePcS	PcS	03 00 08.1	+2.0
KSH				S	S	03 01 11.3	+5.2
KSH				sS	sS	03 01 19.3	+7.8
KSH				ScS	ScS	03 04 28.0	+0.6
KSH				pmax	pmax		
	comp=Z,570nm,2.3s,mb6.0						
KSH				LR	LR		
	comp=N,19µm,11.0s,MS6.5						
KSH				LR	LR		
	comp=E,19µm,10.0s,MS6.5						
KSH				LR	LR		
	comp=Z,18µm,9.7s						
RTC	Rabat Centre	44.67	210	PFAKE		02 54 40.0	+10
RTC				LR	LR		
	comp=Z,5µm,18.9s,MS5.5						
LMSR	Misrath	44.87	184	iP	P	02 54 33.1	+1.0
	SNR=155						
HIA	Hailar	44.97	65	eP	P	02 54 32.6	-0.1
HIA				pmax	pmax		
	comp=Z,152nm,1.3s						
HIA				MLR	MLR		
	comp=Z,9µm,16.9s						
HIA	Hailar	44.97	65	eP	P	02 54 32.6	0.0
	comp=Z,152nm,1.3s,mb5.7						
HIA				LR	LR		
	comp=Z,9µm,16.9s,MS5.8						
HIA	Hailar	44.97	65	eP	P	02 54 32.6	-0.1
	comp=Z,152nm,1.3s,mb5.7						
GHAR	Gharyan	45.10	187	iP	P	02 54 34.8	+0.9
	SNR=25						
LTBQ	Tobruq	45.16	174	iP	P	02 54 34.8	+0.4
	SNR=25						
KDAK	Kodiak Island	45.30	353	P	P	02 54 35.9	+0.7
	comp=Z,2µm,1.0s,mb7.0,SNR=44						
KDAK	Kodiak Island	45.30	353	eP	P	02 54 35.0	-0.2
KDAK				pmax	pmax		
	comp=Z,686nm,1.3s,mb6.3						
KDAK				MLR	MLR		
	comp=Z,11µm,18.7s,MS5.8						
KDAK	Kodiak Island	45.30	353	LR	LR	03 14 20.2	
	comp=Z,14µm,19.1s,MS5.9,baz=30,slow=37						
KDAK	Kodiak Island	45.30	353	eP	P	02 54 35.0	-0.2
	comp=Z,686nm,1.3s,mb6.3						
KDAK				LR	LR		
	comp=Z,11µm,18.7s,MS5.8						
KDAK	Kodiak Island	45.30	353	eP	P	02 54 35.0	-0.2
	comp=Z,686nm,1.3s,mb6.3						
BHD	Baghdad	45.42	149	ix	x	02 54 37.0	
BHD				ix	x	03 01 18.0	
ASF	Jabal al Asfar	45.76	158	P	P	02 54 38.4	-0.7
	comp=Z,36nm,0.9s,mb5.3,baz=239,slow=2.1,SNR=30						
ASF				PP	PP	02 56 24.9	-1.2
	comp=Z,46nm,0.9s,baz=265,slow=1.3,SNR=6.0						
OHAK	Old Harbor	45.88	354	eP	P	02 54 40.3	+0.5
	comp=Z,2µm,2.0s,mb6.7						
OHAK	Old Harbor	45.88	354	eP	P	02 54 40.3	+0.5
	comp=Z,2µm,2.0s,mb6.7						
LSRT	Sirt	46.08	182	iP	P	02 54 42.4	+0.8
	SNR=24						
LJBD	Adjabya	46.24	178	iP	P	02 54 44.9	+2.0
	SNR=156						
EDM	Edmonton	46.53	322	P	P	02 54 44.6	-0.4
EDM	Edmonton	46.53	322	eP	P	02 54 44.8	-0.2
EDM	Edmonton	46.53	322	eP	P	02 54 44.8	-0.2
ULM	Lac du Bonnet	46.60	306	P	P	02 54 44.5	-1.0
	comp=Z,80nm,0.8s,mb5.7,baz=17,slow=8.0,SNR=116						
ULM				LR	LR	03 14 01.0	
	comp=Z,26µm,18.9s,MS6.2,baz=15,slow=36						
ULM	Lac du Bonnet	46.60	306	P	P	02 54 44.5	-1.0
CHGN	Chignik	46.89	358	eP	P	02 54 45.4	-2.3
CHGN	Chignik	46.89	358	eP	P	02 54 45.4	-2.3
LSHF	Shwairf	47.20	185	iP	P	02 54 50.9	+0.4
	SNR=24						
LGHD	Ghdames	47.32	191	iP	P	02 54 52.3	+0.9
	SNR=24						
KLR	Kul'dur	47.34	55	eP	P	02 54 45.8	-5.6
KLR				e		02 56 17.5	
KLR				eS	S	03 01 34.0	-10
KLR				pmax	pmax		
	comp=E,42nm,1.8s						
KLR				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
KLR				pmax	pmax		
	comp=Z,2µm,10.0s						
KLR				smax			
	comp=N,2µm,11.5s						
KLR				smax			
	comp=E,4µm,11.5s						
KLR				MLR	MLR		
	comp=N,30µm,14.0s,MS6.5						
KLR				MLR	MLR		
	comp=E,16µm,14.0s,MS6.5						
KLR				MLR	MLR		
	comp=Z,58µm,14.0s,MS6.7						
LBNH	Lisbon	47.47	283	eP	P	02 54 52.6	+0.2
LBNH				pmax	pmax		
	comp=Z,163nm,1.4s,mb5.8						
LBNH	Lisbon	47.47	283	eP	P	02 54 52.6	+0.1
	comp=Z,163nm,1.4s,mb5.8						
LBNH	Lisbon	47.47	283	eP	P	02 54 52.6	+0.2
	comp=Z,163nm,1.4s,mb5.8						
PEA0B	Petropavlovsk-	47.58	32	eP	P	02 54 52.8	-0.4
PEA0B	Petropavlovsk-	47.58	32	eP	P	02 54 52.8	-0.4
PETK	Petropavlovsk-	47.58	32	P	P	02 54 52.9	-0.2
	comp=Z,51nm,0.9s,mb5.6,baz=39,slow=9.6,SNR=53						
PETK				LR	LR	03 18 17.5	
	comp=Z,7µm,18.1s,MS5.7,baz=334,slow=40						
PETK	Petropavlovsk-	47.58	32	P	P	02 54 52.9	-0.2
PETK				LR	LR	03 18 17.5	
PETK	Petropavlovsk-	47.58	32	P	P	02 54 52.9	-0.3
LONY	Lake Ozonia	47.69	285	eP	P	02 54 54.0	-0.1
	comp=Z,392nm,1.6s,mb6.2						
LONY	Lake Ozonia	47.69	285	eP	P	02 54 54.0	-0.1
	comp=Z,392nm,1.6s,mb6.2						
PET	Petropavlovsk	47.78	32	⇑iP	P	02 54 53.5	-1.2
PET				e		02 56 22.0	
PET				e		02 56 45.9	
PET				eS	S	03 01 47.4	-3.1
PET				eSS	SS	03 05 14.3	-3.8
PET				pmax	pmax		
	comp=Z,96nm,0.9s,mb5.8						
PET				pmax	pmax		
	comp=Z,2µm,6.9s						
PET				pmax	pmax		
	comp=Z,2µm,16.4s						
PET				pmax	pmax		
	comp=Z,2µm,14.6s						
PET				smax			
	comp=E,3µm,15.2s						
PET				smax			
	comp=E,4µm,12.3s						
PET				MLR	MLR		
	comp=Z,12µm,17.0s,MS5.9						
PET	Petropavlovsk	47.78	32	eP	P	02 54 53.6	-1.1
	comp=Z,167nm,1.3s,mb5.9						
PET				LR	LR		
	comp=Z,6µm,16.0s,MS5.6						
PET	Petropavlovsk	47.78	32	eP	P	02 54 53.6	-1.1
	comp=Z,167nm,1.3s,mb5.9						
SDPT	Sand Point	47.85	359	eP	P	02 54 54.2	-1.0
SDPT	Sand Point	47.85	359	eP	P	02 54 54.2	-1.0
EYMN	Ely	47.99	302	eP	P	02 54 56.0	-0.4
	comp=Z,184nm,0.8s,mb6.2						
EYMN	Ely	47.99	302	eP	P	02 54 56.0	-0.4
	comp=Z,184nm,0.8s,mb6.2						
LUJL	Ujela	48.04	177	iP	P	02 54 57.3	+0.3
	SNR=24						
LJFR	Jufra	48.06	183	iP	P	02 54 57.7	+0.6
	SNR=24						
NCB	Newcomb	48.23	285	eP	P	02 54 58.0	-0.3
	comp=Z,46nm,0.9s,mb5.5						
NCB				LR	LR		
	comp=Z,19µm,18.7s,MS6.1						
NCB	Newcomb	48.23	285	eP	P	02 54 58.0	-0.3
	comp=Z,46nm,0.9s,mb5.5						
AGMN	Agassiz Refuge	48.47	306	eP	P	02 54 59.4	-0.7
	comp=Z,120nm,0.9s,mb5.9						
AGMN				LR	LR		
	comp=Z,21µm,18.1s,MS6.2						
AGMN	Agassiz Refuge	48.47	306	eP	P	02 54 59.4	-0.7
	comp=Z,120nm,0.9s,mb5.9						
LZLA	Zalla	48.59	181	iP	P	02 55 02.4	+1.2
	SNR=156						
HABR	Khabarovsk	48.67	52	eP	P	02 55 01.5	-0.2
HABR				e*PP	pP	02 55 03.5	-1.5
HABR				e*SP	sP	02 55 05.2	-1.1
HABR				e		02 56 25.3	
HABR				e		02 56 53.6	
HABR				PPP		02 57 43.0	
HABR				eS	S	03 02 05.0	+1.7
HABR				e*SS	sS	03 02 09.7	+0.9
HABR				e		03 04 53.2	
HABR				eSS	SS	03 05 35.7	+2.9
HABR				eSSS		03 06 48.4	
HABR				pmax	pmax		
	comp=E,106nm,2.2s						
HABR				pmax	pmax		
	comp=Z,209nm,1.3s,mb6.0						
HABR				pmax	pmax		
	comp=N,115nm,1.8s						
HABR				pmax	pmax		
	comp=Z,1µm,3.5s						
HABR				smax			
	comp=E,4µm,11.8s						
HABR				MLR	MLR		
	comp=E,27µm,11.0s,MS6.5						
HABR				MLR	MLR		
	comp=Z,16µm,12.0s,MS6.2						
HABR				MLR	MLR		
	comp=N,11µm,12.0s,MS6.5						
AKUT	Akutan	49.04	3	eP	P	02 55 06.0	+1.6
	comp=N,330nm,1.5s,mb6.1						
AKUT	Akutan	49.04	3	eP	P	02 55 06.0	+1.6
	comp=N,330nm,1.5s,mb6.1						
MIB	Mutribah	49.20	146	eP	P	02 55 05.6	-0.3
MIB				AMb	AMB	02 55 11.3	
	comp=Z,771nm,0.9s,mb6.7						
UNV	Unalaska Valle	49.32	4	eP	P	02 55 06.6	0.0
	comp=Z,198nm,1.1s,mb6.1						
UNV	Unalaska Valle	49.32	4	eP	P	02 55 06.6	0.0
	comp=Z,198nm,1.1s,mb6.1						
GLMI	Grayling	49.62	295	eP	P	02 55 08.8	-0.1
	comp=Z,296nm,0.8s,mb6.4						
GLMI				LR	LR		
	comp=Z,18µm,18.1s,MS6.1						
GLMI	Grayling	49.62	295	eP	P	02 55 08.8	-0.1
	comp=Z,296nm,0.8s,mb6.4						
DGMT	Dagmar	49.76	313	⇑P	P	02 55 09.7	-0.3
	baz=50,SNR=32						
DGMT	Dagmar	49.76	313	eP	P	02 55 10.1	+0.1
	comp=Z,340nm,1.5s,mb6.2						
DGMT	Dagmar	49.76	313	eP	P	02 55 10.1	+0.2
	comp=Z,340nm,1.5s,mb6.2						
SKR	Severo-Kuril's	49.77	34	eP	P	02 55 08.0	-2.0
SKR				e		02 56 26.0	
SKR				e		02 57 06.0	
SKR				ePPP		02 58 05.0	
SKR				eS	S	03 02 14.0	-4.6
SKR				pmax	pmax		
	comp=E,2µm,8.0s						
SKR				pmax	pmax		
	comp=Z,3µm,8.0s						
SKR				smax			
	comp=N,3µm,16.0s						
SKR				smax			
	comp=E,4µm,16.0s						
SKR				MLR	MLR		
	comp=N,19µm,14.0s,MS6.3						
SKR				MLR	MLR		
	comp=E,5µm,14.0s,MS6.3						
SKR				MLR	MLR		
	comp=Z,12µm,14.0s,MS6.0						
KBD	Kabd	49.86	146	eP	P	02 55 11.0	0.0
KBD				AMb	AMB	02 55 15.7	
	comp=Z,560nm,1.4s,mb6.4						
GTA	Gaotai	50.01	88	⇓P	P	02 55 12.8	+0.8
GTA				pP	pP	02 55 16.3	+1.0
GTA				sP	sP	02 55 18.8	+2.2
GTA				PP	PP	02 57 08.0	+1.4
GTA				S	S	03 02 21.8	-0.5
GTA				sS	sS	03 02 28.1	+0.3
GTA				SS	SS	03 05 49.8	-4.8
GTA				pmax	pmax		
	comp=Z,42nm,1.7s,mb5.2						
GTA				pmax	pmax		
	comp=Z,2µm,5.0s						
GTA				LR	LR		
	comp=N,28µm,19.3s,MS6.5						
GTA				LR	LR		
	comp=E,33µm,18.4s,MS6.5						
GTA				LR	LR		
	comp=Z,36µm,14.6s,MS6.5						
RDF	Al-Radifah	50.09	146	eP	P	02 55 12.4	-0.3
RDF				AMb	AMB	02 55 17.6	
	comp=Z,638nm,1.1s,mb6.6						
A18A	Metzger Ranch,	50.22	318	⇓P	P	02 55 12.5	-1.0
	baz=50,SNR=40						
A18A				⇓S	S	03 02 24.3	-0.6
	baz=50						
BINY	Binghamton	50.30	286	eP	P	02 55 14.4	+0.2
	comp=Z,143nm,1.0s,mb6.0						
BINY	Binghamton	50.30	286	eP	P	02 55 14.4	+0.2
	comp=Z,143nm,1.0s,mb6.0						
A17A	Triple J Farms	50.32	318	⇓P	P	02 55 13.4	-0.8
	baz=50,SNR=136						
A17A				⇓S	S	03 02 25.4	-0.9
	baz=50						
A16A	West Butte Ran	50.45	319	⇑P	P	02 55 13.9	-1.3
	baz=50,SNR=73						
A16A				⇑S	S	03 02 25.5	-2.6
	baz=50						
A15A	Johnson Ranch,	50.59	320	⇓P	P	02 55 15.0	-1.3
	baz=50,SNR=97						
A15A				⇓S	S	03 02 28.6	-1.4
	baz=50						
WALA	Waterton Lakes	50.68	321	eP	P	02 55 16.6	-0.3
	comp=Z,1.2nm,0.5s						
WALA	Waterton Lakes	50.68	321	eP	P	02 55 16.6	-0.3
	comp=Z,1.2nm,0.5s						
A14A	Double T Ranch	50.69	321	⇓P	P	02 55 16.6	-0.4
	baz=50,SNR=206						
B18A	Beardsley Farm	50.72	318	⇓P	P	02 55 16.3	-1.0
	baz=50,SNR=41						
B18A				⇓S	S	03 02 31.1	-0.8
	baz=50						
A13A	Flathead Natio	50.87	322	⇓P	P	02 55 18.1	-0.3
	baz=51,SNR=108						
A13A				⇑S	S	03 02 34.8	+0.9
	baz=51						
ADK	Adak	50.97	12	eP	P	02 55 18.8	-0.2
ADK				pmax	pmax		
	comp=Z,298nm,1.1s,mb6.1						
ADK				MLR	MLR		
	comp=Z,9µm,17.9s,MS5.8						
ADK	Adak	50.97	12	eP	P	02 55 18.8	-0.3
	comp=Z,298nm,1.1s,mb6.1						
ADK				LR	LR		
	comp=Z,9µm,17.9s,MS5.8						
ADK	Adak	50.97	12	eP	P	02 55 18.8	-0.2
	comp=Z,298nm,1.1s,mb6.1						
B17A	L&G Farms, Che	50.97	318	⇓P	P	02 55 18.5	-0.6
	baz=51,SNR=112						
B17A				⇓S	S	03 02 35.0	-0.4
	baz=51						
B16A	M & M Farms, S	50.99	319	⇓P	P	02 55 18.5	-0.8
	baz=51,SNR=140						
B16A				⇑S	S	03 02 33.7	-1.9
	baz=51						
LUMB	Murzuk	51.02	184	iP	P	02 55 20.1	+0.3
	SNR=23						
A12A	Yaak River Ran	51.04	323	⇑P	P	02 55 19.7	+0.1
	baz=51,SNR=103						
A12A				⇓S	S	03 02 36.1	-0.2
	baz=51						
CFTV	Fuerteventura	51.07	218	P	P	02 55 19.5	-0.7
	comp=Z,16nm,0.8s,mb5.0						
CFTV	Fuerteventura	51.07	218	P	P	02 55 19.5	-0.6
	comp=Z,16nm,0.8s,mb5.0						
EGMT	Eagleton	51.08	317	⇑P	P	02 55 19.1	-0.8
	baz=51,SNR=58						
EGMT				⇓S	S	03 02 35.5	-1.3
	baz=51						
EGMT	Eagleton	51.08	317	eP	P	02 55 19.1	-0.8
	comp=Z,34nm,0.4s,mb5.6						
EGMT	Eagleton	51.08	317	eP	P	02 55 19.1	-0.8
	comp=Z,34nm,0.4s,mb5.6						
A11A	Hall Mountain,	51.11	323	⇓P	P	02 55 20.6	+0.4
	baz=51,SNR=119						
A11A				⇓S	S	03 02 39.0	+1.7
	baz=51						
BTO	Baotou	51.15	78	eP	P	02 55 21.9	+1.3
BTO				S	S	03 02 30.8	-7.2
B15A	Bradely Ranch,	51.21	320	⇑P	P	02 55 20.0	-0.9
	baz=51,SNR=189						
B15A				⇑S	S	03 02 38.3	-0.4
	baz=51						
ERPA	Erie	51.24	289	eP	P	02 55 20.9	-0.3
	comp=Z,46nm,0.9s,mb5.4						
ERPA				LR	LR		
	comp=Z,26µm,20.6s,MS6.2						
ERPA	Erie	51.24	289	eP	P	02 55 20.9	-0.3
	comp=Z,46nm,0.9s,mb5.4						
A10A	Northport	51.25	324	⇑P	P	02 55 21.4	+0.2
	baz=51,SNR=68						
A10A				⇑S	S	03 02 40.0	+0.8
	baz=51						
HHC	Hu-ho-hao-te	51.26	76	eP	P	02 55 21.5	+0.1
HHC				pP	pP	02 55 25.9	+1.2
HHC				PcP	PcP	02 56 37.6	+1.3
HHC				PP	PP	02 57 18.4	+0.5
HHC				PcS	PcS	03 00 32.3	-1.6
HHC				eS	S	03 02 36.5	-3.0
HHC				ScS	ScS	03 05 08.8	-2.4
HHC				SS	SS	03 06 09.6	-4.7
HHC				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
HHC				pmax	pmax		
	comp=Z,990nm,5.0s						
HHC				LR	LR		
	comp=Z,21µm,16.5s,MS6.2						
EBAJ	Bajamar	51.27	220	P	P	02 55 22.8	+1.2
	comp=Z,96nm,1.3s,mb5.6						
EBAJ	Bajamar	51.27	220	P	P	02 55 22.8	+1.2
	comp=Z,96nm,1.3s,mb5.6						
CN2	Changchun	51.35	63	⇑P	P	02 55 22.0	0.0
CN2				epP	pP	02 55 26.0	+0.7
CN2				eS	S	03 02 38.5	-2.2
CN2				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,11µm,15.0s,MS6.7						
CN2				LR	LR		
	comp=E,51µm,15.0s,MS6.7						
CN2				LR	LR		
	comp=Z,17µm,16.0s,MS6.2						
MDJ	Mudanjiang	51.38	59	P	P	02 55 21.8	-0.4

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MDJ                                pP     pP     02 55 24.8  -0.7
MDJ                                sP     sP     02 55 26.1  -0.7
MDJ                                ScP    ScP    03 00 33.3 +0.7
MDJ                                PcS    PcS    03 00 34.8 +0.5
MDJ                                S      S      03 02 40.6  -0.5
MDJ                                sS     sS     03 02 46.6   0.0
MDJ                                ScS    ScS    03 05 12.3 +0.4
MDJ                                SS     SS     03 06 18.3 +2.3
MDJ                                pmax   pmax
      comp=Z,76nm,1.2s,mb5.5
MDJ                                pmax   pmax
      comp=Z,1μm,6.9s
MDJ                                LR     LR
      comp=N,11μm,21.6s,MS6.3
MDJ                                LR     LR
      comp=E,30μm,19.4s,MS6.3
MDJ                                LR     LR
      comp=Z,13μm,19.4s,MS6.0
MDJ   Mudanjiang        51.38  59  eP     P      02 55 20.3  -1.9
      comp=Z,96nm,0.9s,mb5.7
MDJ                                LR     LR
      comp=Z,6μm,23.2s,MS5.6
MDJ   Mudanjiang        51.38  59  eP     P      02 55 20.3  -1.9
      comp=Z,96nm,0.9s,mb5.7
A09A  Danville          51.39 325 ⇑P      P      02 55 22.5 +0.3
      baz=51,SNR=46
A09A                              ⇑S      S      03 02 42.0 +0.8
      baz=51
B13A  Whitefish         51.42 321 ⇓P      P      02 55 22.4  -0.1
      baz=51,SNR=209
B13A                              ⇑S      S      03 02 40.8  -0.9
      baz=51
THN   Thein Dam         51.44 115  ePKP   P      02 55 21.7  -1.1
YSS   Yuzh-Sakhalins    51.46  46αeP      P      02 55 22.2  -0.6
YSS                                e*SP   sP     02 55 26.2  -1.3
YSS                                e             02 57 21.0
YSS                                eS     S      03 02 40.0  -2.2
YSS                                e             03 05 07.0
YSS                                eSS    SS     03 06 16.0  -1.3
YSS                                pmax   pmax
      comp=Z,330nm,1.3s,mb6.1
YSS                                MLR    MLR
      comp=N,14μm,15.0s,MS6.2
YSS                                MLR    MLR
      comp=Z,12μm,15.0s,MS6.1
YSS                                MLR    MLR
      comp=E,8μm,16.0s,MS6.2
YSS   Yuzh-Sakhalins    51.46  46  eP     P      02 55 22.9   0.0
      comp=E,263nm,1.1s,mb6.1
YSS                                LR     LR
      comp=Z,4μm,16.1s,MS5.6
YSS   Yuzh-Sakhalins    51.46  46  eP     P      02 55 22.9 +0.1
      comp=Z,263nm,1.1s,mb6.1
B12A  Libby             51.49 322 ⇑P      P      02 55 22.9  -0.1
      baz=51,SNR=29
B12A                              ⇓S      S      03 02 43.0 +0.5
      baz=51
A08A  Turner Farm, O    51.50 326 ⇓P      P      02 55 23.3 +0.2
      baz=51,SNR=46
A08A                              ⇑S      S      03 02 44.5 +1.9
      baz=51
A07A  Ashnola River,    51.55 327 ⇑P      P      02 55 23.1  -0.3
      baz=51,SNR=48
A07A                              ⇓S      S      03 02 43.7 +0.4
      baz=51
C16A  Fuhringer Ranc    51.59 319 ⇓P      P      02 55 23.2  -0.6
      baz=51,SNR=232
C16A                              ⇑S      S      03 02 44.3 +0.4
      baz=51
C17A  Wharram Farm,     51.61 318 ⇓P      P      02 55 22.9  -1.0
      baz=51,SNR=77
C17A                              ⇑S      S      03 02 42.1  -2.1
      baz=51
EOSO  Osorio            51.62 219  P      P      02 55 25.0 +0.8
      comp=Z,127nm,1.4s,mb5.7
EOSO  Osorio            51.62 219  P      P      02 55 25.0 +0.8
      comp=Z,127nm,1.4s,mb5.7
CCAN  Las Canadas       51.62 220  P      P      02 55 25.7 +1.4
      comp=Z,36nm,1.0s,mb5.2
CCAN  Las Canadas       51.62 220  P      P      02 55 25.7 +1.5
      comp=Z,36nm,1.0s,mb5.2
B11A  Sandpoint         51.62 323 ⇑P      P      02 55 23.8  -0.2
      baz=51,SNR=32
B11A                              ⇓S      S      03 02 44.9 +0.5
      baz=51
A06A  Chilliwack        51.63 327 ⇓P      P      02 55 23.4  -0.7
      baz=51,SNR=34
A06A                              ⇑S      S      03 02 45.2 +0.7
      baz=51
C15A  Salmond Ranch,    51.74 320 ⇑P      P      02 55 24.3  -0.6
      baz=52,SNR=99
C15A                              ⇑S      S      03 02 45.5  -0.6
      baz=52
VDB   Vedder Mountai    51.78 328  P      P      02 55 23.9  -1.2
VDB   Vedder Mountai    51.78 328  P      P      02 55 24.0  -1.2
A05A  Maple Falls       51.80 328 ⇓P      P      02 55 24.2  -1.2
      baz=52,SNR=18
LAO   LASA Array        51.82 314  eP     P      02 55 25.9 +0.4
      comp=Z,743nm,1.7s,mb6.3
LAO                                LR     LR
      comp=Z,24μm,15.5s,MS6.3
LAO   LASA Array        51.82 314  eP     P      02 55 25.9 +0.4
      comp=Z,743nm,1.7s,mb6.3
AAM   Ann Arbor         51.84 293  eP     P      02 55 25.4  -0.3
AAM                                pmax   pmax
      comp=Z,64nm,0.8s,mb5.6
AAM   Ann Arbor         51.84 293  eP     P      02 55 25.4  -0.3
      comp=Z,64nm,0.8s,mb5.6
AAM   Ann Arbor         51.84 293  eP     P      02 55 25.4  -0.3
      comp=Z,64nm,0.8s,mb5.6
YBMT  Yellow Bay        51.86 321  eP     P      02 55 25.5  -0.2
      comp=Z,87nm,0.8s,mb5.7
YBMT  Yellow Bay        51.86 321  eP     P      02 55 25.5  -0.3
      comp=Z,87nm,0.8s,mb5.7
B10A  Chitwood Farm,    51.87 324 ⇓P      P      02 55 26.0 +0.1
      baz=52,SNR=11
B10A                              ⇑S      S      03 02 47.9 +0.1
      baz=52
B09A  Rice              51.88 325 ⇑P      P      02 55 26.2 +0.3
      baz=52,SNR=167
B09A                              ⇑S      S      03 02 48.5 +0.7
      baz=52
D18A  Linhart Farms,    51.89 317 ⇑P      P      02 55 25.6  -0.4
      baz=52,SNR=37
D18A                              ⇑S      S      03 02 46.9  -1.2
      baz=52
NEW   Newport           51.90 324  P      P      02 55 26.3 +0.3
NEW                                pmax   pmax
      comp=Z,110nm,0.9s
NEW   Newport           51.90 324  eP     P      02 55 26.3 +0.3
      comp=Z,109nm,0.9s,mb5.8
NEW   Newport           51.90 324  eP     P      02 55 26.3 +0.3
      comp=Z,109nm,0.9s,mb5.8
BSMT  Bassoo Peak       51.98 322  eP     P      02 55 26.9 +0.3
      comp=Z,13nm,1.0s,mb4.8
BSMT  Bassoo Peak       51.98 322  eP     P      02 55 27.0 +0.3
      comp=Z,13nm,1.0s,mb4.8
JTMT  Jette             52.01 321  eP     P      02 55 26.8  -0.2
      comp=Z,14nm,0.9s,mb4.9
JTMT  Jette             52.01 321  eP     P      02 55 26.8  -0.1
      comp=Z,14nm,0.9s,mb4.9
D17A  Six Diamond Ra    52.07 318 ⇑P      P      02 55 26.3  -1.1
      baz=52,SNR=36
D17A                              ⇓S      S      03 02 49.7  -0.9
      baz=52
B07A  Winthrop          52.09 326 ⇓P      P      02 55 27.2  -0.3
      baz=52,SNR=42
B07A                              ⇓S      S      03 02 50.4  -0.4
      baz=52
B08A  Colville Reser    52.09 325 ⇑P      P      02 55 27.3  -0.2
      baz=52,SNR=85
B08A                              ⇓S      S      03 02 51.6 +0.8
      baz=52
C13A  Hot Springs       52.12 321 ⇑P      P      02 55 27.7   0.0
      baz=52,SNR=168
C13A                              ⇑S      S      03 02 50.9  -0.3
      baz=52
B06A  Marblemount       52.20 327 ⇓P      P      02 55 27.1  -1.2
      baz=52
SWMT  Swartz Lake       52.20 321  eP     P      02 55 28.1  -0.2
      comp=Z,221nm,0.8s,mb6.1
SWMT  Swartz Lake       52.20 321  eP     P      02 55 28.1  -0.2
      comp=Z,221nm,0.8s,mb6.1
SSPA  Standing Stone    52.21 287  eP     P      02 55 28.6 +0.1
      comp=Z,208nm,1.7s,mb5.8
SSPA                               LR     LR
      comp=Z,19μm,19.5s,MS6.2
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SSPA  Standing Stone    52.21 287  eP     P      02 55 28.6 +0.1
      comp=Z,208nm,1.7s,mb5.8
C12B  Naegeli Ranch,    52.22 322 ⇓P      P      02 55 28.6 +0.1
      baz=52,SNR=39
PGC   Sidney            52.31 329  eP     P      02 55 28.6  -0.5
      comp=Z,3.4nm,0.7s,mb4.4
PGC   Sidney            52.31 329  eP     P      02 55 28.6  -0.5
      comp=Z,3.4nm,0.7s,mb4.4
D16A  Dana Ranch, Ca    52.31 319 ⇑P      P      02 55 28.6  -0.6
      baz=52,SNR=203
C10A  Spilker Farm,     52.36 324 ⇓P      P      02 55 29.1  -0.4
      baz=52,SNR=12
SLMT  Seeley Lake       52.39 320  eP     P      02 55 29.6  -0.2
      comp=Z,276nm,0.9s,mb6.2
SLMT  Seeley Lake       52.39 320  eP     P      02 55 29.6  -0.2
      comp=Z,276nm,0.9s,mb6.2
D15A  Lincoln           52.45 319 ⇓P      P      02 55 29.5  -0.7
      baz=52,SNR=355
C09A  Chrisman Ranch    52.50 324 ⇑P      P      02 55 30.1  -0.5
      baz=52,SNR=24
E18A  Harlowton         52.52 317 ⇑P      P      02 55 30.6  -0.1
      baz=52,SNR=70
D14A  Greenough         52.55 320 ⇑P      P      02 55 30.7  -0.2
      baz=52,SNR=150
BHK   Bhakra            52.56 114  ePKP   P      02 55 31.2   0.0
JCW   Jim Creek         52.58 328  eP     P      02 55 29.8  -1.3
      comp=Z,131nm,0.8s,mb5.9
JCW   Jim Creek         52.58 328  eP     P      02 55 29.8  -1.3
      comp=Z,131nm,0.8s,mb5.9
JFWS  Jewell Farm       52.59 299  P      P      02 55 30.5  -0.7
JFWS                               pmax   pmax
      comp=Z,180nm,0.7s,mb6.1
JFWS  Jewell Farm       52.59 299  eP     P      02 55 30.8  -0.5
      comp=Z,175nm,0.7s,mb6.1
JFWS  Jewell Farm       52.59 299  eP     P      02 55 30.8  -0.4
      comp=Z,175nm,0.7s,mb6.1
C08A  Higginbotham F    52.62 325 ⇑P      P      02 55 30.7  -0.7
      baz=52,SNR=29
HRY   Holter Researc    52.67 319  eP     P      02 55 31.4  -0.4
      comp=Z,246nm,0.7s,mb6.2
HRY   Holter Researc    52.67 319  eP     P      02 55 31.4  -0.4
      comp=Z,246nm,0.7s,mb6.2
D13A  Huson             52.67 321 ⇑P      P      02 55 31.5  -0.3
      baz=52,SNR=107
CHMT  Chamberlain Mo    52.68 320  eP     P      02 55 31.7  -0.2
      comp=Z,117nm,0.8s,mb5.9
CHMT  Chamberlain Mo    52.68 320  eP     P      02 55 31.7  -0.2
      comp=Z,117nm,0.8s,mb5.9
C06A  Tall Timber Ra    52.72 327 ⇓P      P      02 55 31.2  -0.9
      baz=52,SNR=5.4
E17A  Martinsdale       52.77 318 ⇑P      P      02 55 32.0  -0.5
      baz=52,SNR=114
E16A  East Helena       52.82 319 ⇓P      P      02 55 32.4  -0.5
      baz=53,SNR=216
KLP   Kalpa             52.83 112  ePKP   P      02 55 34.0 +0.8
KLP                                AMb    AMB    02 55 40.4
      comp=Z,389nm,1.0s,mb6.3
C07A  Waterville        52.84 326 ⇑P      P      02 55 32.0  -1.1
      baz=53,SNR=14
MSO   Missoula          52.86 321  eP     P      02 55 33.3 +0.1
      comp=Z,204nm,0.9s,mb6.1
MSO                                LR     LR
      comp=Z,7μm,17.0s,MS5.8
MSO   Missoula          52.86 321  eP     P      02 55 33.3 +0.1
      comp=Z,204nm,0.9s,mb6.1
SNY   Shenyang          52.87  65 ⇓P      P      02 55 33.0  -0.3
SNY                                S      S      03 03 05.5 +3.9
SNY                                SS     SS     03 06 34.1  -5.6
SNY                                pmax   pmax
      comp=Z,98nm,1.5s,mb5.5
SNY                                pmax   pmax
      comp=Z,1μm,7.8s
SNY                                LR     LR
      comp=E,50μm,18.0s
SNY                                LR     LR
      comp=Z,17μm,14.3s,MS6.2
OD2   Odessa Site #2    52.96 325  P      P      02 55 33.3  -0.7
OD2   Odessa Site #2    52.96 325  P      P      02 55 33.3  -0.7
D11A  Klaveano Farm,    52.98 323 ⇓P      P      02 55 33.6  -0.5
      baz=53,SNR=271
LKFR  Kufra             53.01 175  i P    P      02 55 35.5 +0.9
      SNR=23
ECSD  EROS Data Cent    53.01 305  eP     P      02 55 34.0  -0.3
      comp=Z,196nm,0.8s,mb6.1
ECSD  EROS Data Cent    53.01 305  eP     P      02 55 34.0  -0.4
      comp=Z,196nm,0.8s,mb6.1
BJI   Beijing           53.03  72  P      P      02 55 34.8 +0.2
BJI                                PP     PP     02 57 32.3  -1.6
BJI                                S      S      03 03 04.4 +0.6
BJI                                SS     SS     03 06 45.3 +3.0
BJI                                pmax   pmax
      comp=Z,100nm,1.1s,mb5.7
BJI                                pmax   pmax
      comp=Z,2μm,5.6s
BJI                                LR     LR
      comp=N,6μm,19.3s
BJI                                LR     LR
      comp=Z,27μm,16.3s,MS6.4
C05A  Tolt Reservoir    53.04 327 ⇑P      P      02 55 33.0  -1.5
      baz=53,SNR=7.7
BJT   Baijiatuau        53.05  72  eP     P      02 55 35.0 +0.3
BJT                                pmax   pmax
      comp=Z,236nm,1.1s
BJT                                MLR    MLR
      comp=Z,36μm,15.7s
BJT   Baijiatuau        53.05  72  eP     P      02 55 35.0 +0.2
      comp=Z,236nm,1.1s,mb6.0
BJT                                LR     LR
      comp=Z,36μm,15.7s,MS6.5
BJT   Baijiatuau        53.05  72  eP     P      02 55 35.0 +0.3
      comp=Z,236nm,1.1s,mb6.0
E15A  Deer Lodge        53.07 319 ⇑P      P      02 55 34.3  -0.4
      baz=53,SNR=197
D10A  Wagner Farm, O    53.10 323 ⇑P      P      02 55 34.0  -1.0
      baz=53,SNR=48
F18A  Big Timber        53.13 317 ⇑P      P      02 55 34.7  -0.5
      baz=53,SNR=69
E14A  Clinton           53.20 320 ⇑P      P      02 55 35.5  -0.2
      baz=53,SNR=117
D09A  Jones Farm, Ri    53.23 324 ⇑P      P      02 55 35.5  -0.5
      baz=53,SNR=34
GCMT  Greycliff         53.24 317  eP     P      02 55 36.0   0.0
      comp=Z,517nm,0.9s,mb6.5
GCMT  Greycliff         53.24 317  eP     P      02 55 36.0   0.0
      comp=Z,517nm,0.9s,mb6.5
E13A  Victor            53.27 321 ⇑P      P      02 55 36.1  -0.2
      baz=53,SNR=410
F17A  Fitzpatrick Pl    53.28 318 ⇑P      P      02 55 36.0  -0.3
      baz=53,SNR=50
GNW   Green Mountain    53.30 328  eP     P      02 55 36.9 +0.4
      comp=Z,468nm,1.4s,mb6.2
GNW   Green Mountain    53.30 328  eP     P      02 55 36.8 +0.3
      comp=Z,468nm,1.4s,mb6.2
D08A  Wollman Farm,     53.32 325 ⇓P      P      02 55 35.9  -0.7
      baz=53,SNR=30
D07A  Quincy            53.32 326 ⇑P      P      02 55 36.0  -0.5
      baz=53,SNR=17
D06A  Cle Elum          53.43 326 ⇑P      P      02 55 36.4  -1.0
      baz=53
F16A  Kennard Place,    53.54 318 ⇓P      P      02 55 37.5  -0.8
      baz=53,SNR=43
MCWV  Mont Chateau      53.57 288  eP     P      02 55 38.7 +0.2
      comp=Z,84nm,0.9s,mb5.7
MCWV                               LR     LR
      comp=Z,27μm,19.7s,MS6.3
MCWV  Mont Chateau      53.57 288  eP     P      02 55 38.7 +0.2
      comp=Z,84nm,0.9s,mb5.7
D05A  Enumclaw          53.57 327 ⇑P      P      02 55 38.1  -0.3
      baz=53,SNR=25
WRD   Warden            53.59 325  P      P      02 55 37.1  -1.5
WRD   Warden            53.59 325  P      P      02 55 37.1  -1.5
NLWA  Neilton Lookou    53.60 329 ⇑P      P      02 55 38.9 +0.3
      baz=53,SNR=20
NLWA  Neilton Lookou    53.60 329  eP     P      02 55 39.3 +0.7
      comp=Z,85nm,0.8s,mb5.7
NLWA  Neilton Lookou    53.60 329  eP     P      02 55 39.3 +0.7
      comp=Z,85nm,0.8s,mb5.7
F15A  Butte             53.62 319 ⇑P      P      02 55 38.8   0.0
      baz=53,SNR=160
LRM   Limekiln Ridge    53.63 319  eP     P      02 55 38.8  -0.1
      comp=Z,838nm,0.9s,mb6.7
LRM   Limekiln Ridge    53.63 319  eP     P      02 55 38.8  -0.1
      comp=Z,838nm,0.9s,mb6.7
E10A  Myers Farm, Un    53.64 323 ⇓P      P      02 55 38.2  -0.7
      baz=53,SNR=20
E11A  Bogner Ranch,     53.64 322 ⇑P      P      02 55 38.0  -1.0
      baz=53,SNR=142
EBG   Ellensburg        53.67 326  P      P      02 55 38.8  -0.4
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EBG   Ellensburg        53.67 326  P      P      02 55 38.8  -0.4
BOZ   Bozeman (W)       53.68 318  eP     P      02 55 39.3 +0.1
BOZ                                pmax   pmax
      comp=Z,221nm,1.5s,mb5.9
BOZ                                MLR    MLR
      comp=Z,12μm,16.9s,MS6.0
BOZ   Bozeman (W)       53.68 318 ⇑P      P      02 55 39.1  -0.1
      baz=53,SNR=103
BOZ   Bozeman (W)       53.68 318  eP     P      02 55 39.3 +0.1
      comp=Z,221nm,1.5s,mb5.9
BOZ                                LR     LR
      comp=Z,12μm,16.9s,MS6.0
BOZ   Bozeman (W)       53.68 318  eP     P      02 55 39.3 +0.1
      comp=Z,221nm,1.5s,mb5.9
ACSO  Alum Creek Sta    53.68 291  eP     P      02 55 38.9  -0.4
      comp=Z,147nm,0.9s,mb5.9
ACSO  Alum Creek Sta    53.68 291  eP     P      02 55 38.9  -0.5
      comp=Z,147nm,0.9s,mb5.9
G18A  Lazy EL Ranch,    53.69 316 ⇑P      P      02 55 38.8  -0.5
      baz=53,SNR=32
D04A  Dobbs Creek Ra    53.75 328 ⇓P      P      02 55 39.1  -0.7
      baz=54,SNR=7.7
E09A  Wood Farm, Sta    53.75 324 ⇑P      P      02 55 39.0  -0.7
      baz=54,SNR=26
F14A  Wisdom            53.77 320 ⇑P      P      02 55 39.8  -0.2
      baz=54,SNR=121
RLMT  Red Lodge         53.83 316 ⇑P      P      02 55 40.3  -0.1
      baz=54,SNR=93
RLMT  Red Lodge         53.83 316  eP     P      02 55 40.5 +0.1
      comp=Z,303nm,1.6s,mb6.0
RLMT  Red Lodge         53.83 316  eP     P      02 55 40.5 +0.1
      comp=Z,303nm,1.6s,mb6.0
RCS   Mount Rainier-    53.85 327  P      P      02 55 40.6 +0.1
RCS   Mount Rainier-    53.85 327  P      P      02 55 40.6 +0.1
G17A  Pierce Place,     53.86 317 ⇓P      P      02 55 40.6   0.0
      baz=54,SNR=51
E08A  Dider Farm, El    53.89 325 ⇑P      P      02 55 40.7  -0.1
      baz=54,SNR=22
E07A  Sunnyside         53.93 325 ⇓P      P      02 55 40.9  -0.2
      baz=54,SNR=70
F13A  Darby             53.93 321 ⇑P      P      02 55 40.8  -0.3
      baz=54,SNR=134
RSSD  Black Hills       53.95 311  eP     P      02 55 41.2  -0.1
RSSD                               pmax   pmax
      comp=Z,99nm,0.9s,mb5.7
RSSD                               MLR    MLR
      comp=Z,13μm,18.1s,MS6.0
RSSD  Black Hills       53.95 311  eP     P      02 55 41.2  -0.1
      comp=Z,99nm,0.9s,mb5.7
RSSD                               LR     LR
      comp=Z,13μm,18.1s,MS6.0
RSSD  Black Hills       53.95 311  eP     P      02 55 41.2  -0.1
      comp=Z,99nm,0.9s,mb5.7
DDI   Dehra Dun         53.96 113  ePKP   P      02 55 41.4  -0.1
LON   Longmire          53.98 327  eP     P      02 55 41.5   0.0
      comp=Z,275nm,1.4s,mb6.0
LON   Longmire          53.98 327  eP     P      02 55 41.5   0.0
      comp=Z,275nm,1.4s,mb6.0
WPW   White Pass        54.00 327  P      P      02 55 41.7 +0.1
WPW   White Pass        54.00 327  P      P      02 55 41.7 +0.1
HAWA  Hanford           54.05 325  eP     P      02 55 42.1 +0.1
      comp=Z,149nm,0.9s,mb5.9
HAWA  Hanford           54.05 325  eP     P      02 55 42.1 +0.2
      comp=Z,149nm,0.9s,mb5.9
JOSI  Joshimath         54.05 111  ePKP   P      02 55 43.2 +1.0
E06A  Yakima            54.08 326 ⇑P      P      02 55 41.9  -0.3
      baz=54,SNR=94
F11A  Grangeville       54.09 322 ⇓P      P      02 55 41.4  -0.9
      baz=54,SNR=62
F12A  Elk City          54.10 321 ⇑P      P      02 55 41.6  -0.7
      baz=54,SNR=71
DLMT  Dillon            54.10 319  eP     P      02 55 42.1  -0.2
      comp=Z,79nm,0.8s,mb5.7
DLMT  Dillon            54.10 319  eP     P      02 55 42.1  -0.2
      comp=Z,79nm,0.8s,mb5.7
LZH   Lanzhou           54.10  85  eP     P      02 55 43.3 +0.8
LZH                                pP     pP     02 55 48.0 +2.2
LZH                                sP     sP     02 55 50.8 +3.7
LZH                                PcP    PcP    02 56 47.8 +0.7
LZH                                PP     PP     02 57 46.5 +2.9
LZH                                eS     S      03 03 18.5   0.0
LZH                                sS     sS     03 03 24.0   0.0
LZH                                ScS    ScS    03 05 28.0  -3.2
LZH                                SS     SS     03 06 57.3  -2.1
LZH                                pmax   pmax
      comp=Z,170nm,1.2s,mb5.8
LZH                                pmax   pmax
      comp=Z,830nm,5.8s
LZH                                LR     LR
      comp=E,28μm,15.6s
LZH                                LR     LR
      comp=Z,34μm,16.7s,MS6.5
G16A  Moss Hill, Enn    54.11 318 ⇓P      P      02 55 42.3  -0.2
      baz=54,SNR=84
SCIA  State Center      54.13 301  eP     P      02 55 42.0  -0.7
      comp=Z,328nm,1.1s,mb6.2
SCIA  State Center      54.13 301  eP     P      02 55 42.0  -0.6
      comp=Z,328nm,1.1s,mb6.2
F10A  Beach Ranch, E    54.16 323 ⇑P      P      02 55 42.3  -0.4
      baz=54,SNR=71
ASAJ  Asahikawa         54.20  47  LR     LR     03 18 22.8
      comp=Z,11μm,21.7s,MS5.9,baz=180,slow=36
G15A  Dillon            54.28 319 ⇑P      P      02 55 43.7 +0.1
      baz=54,SNR=140
G14A  Jackson           54.34 320 ⇓P      P      02 55 44.1   0.0
      baz=54,SNR=241
E03A  Lebam             54.39 329 ⇓P      P      02 55 44.9 +0.4
      baz=54,SNR=24
TDL   Tradedollar La    54.43 327  P      P      02 55 44.6  -0.1
TDL   Tradedollar La    54.43 327  P      P      02 55 44.6  -0.1
CBN   Corbin            54.43 286  eP     P      02 55 45.1 +0.3
      comp=Z,391nm,1.5s,mb6.1
CBN   Corbin            54.43 286  eP     P      02 55 45.1 +0.3
      comp=Z,391nm,1.5s,mb6.1
YNR   Norris Junctio    54.44 317  eP     P      02 55 45.5 +0.6
      comp=Z,89nm,1.1s,mb5.6
YNR   Norris Junctio    54.44 317  eP     P      02 55 45.5 +0.7
      comp=Z,89nm,1.1s,mb5.6
YMR   Madison River     54.53 317  eP     P      02 55 45.7 +0.2
      comp=Z,63nm,0.8s,mb5.7
YMR   Madison River     54.53 317  eP     P      02 55 45.7 +0.2
      comp=Z,63nm,0.8s,mb5.7
F08A  Pendleton         54.54 324 ⇑P      P      02 55 46.0 +0.5
      baz=54
H16A  Russell Place,    54.54 318 ⇓P      P      02 55 45.9 +0.4
      baz=54,SNR=184
LKWY  Lake              54.55 317  eP     P      02 55 46.7 +1.1
      comp=Z,59nm,1.0s,mb5.6
LKWY                               LR     LR
      comp=Z,39μm,21.8s,MS6.4
LKWY  Lake              54.55 317  eP     P      02 55 46.7 +1.1
      comp=Z,59nm,1.0s,mb5.6
F07A  Phinny Hill Vi    54.59 325 ⇓P      P      02 55 46.4 +0.5
      baz=54,SNR=12
G13A  Cobalt            54.60 320 ⇑P      P      02 55 46.0   0.0
      baz=54,SNR=241
MCMT  McKenzie Canyo    54.66 319  eP     P      02 55 47.0 +0.6
      comp=Z,91nm,0.8s,mb5.9
MCMT  McKenzie Canyo    54.66 319  eP     P      02 55 47.0 +0.6
      comp=Z,91nm,0.8s,mb5.9
HDIL  Hopedale          54.67 297  eP     P      02 55 45.9  -0.6
      comp=Z,316nm,1.4s,mb6.2
HDIL                               LR     LR
      comp=Z,12μm,22.7s,MS5.9
HDIL  Hopedale          54.67 297  eP     P      02 55 45.9  -0.6
      comp=Z,316nm,1.4s,mb6.2
TAM   Tamanrasset       54.70 195  eP     P      02 55 47.7 +0.8
TAM                                pmax   pmax
      comp=Z,95nm,1.0s,mb5.8
TAM                                MLR    MLR
      comp=Z,3μm,24.0s,MS5.2
TAM   Tamanrasset       54.70 195  eP     P      02 55 47.7 +0.8
      comp=Z,95nm,1.0s,mb5.8
TAM                                LR     LR
      comp=Z,3μm,24.0s,MS5.2
TAM   Tamanrasset       54.70 195  eP     P      02 55 47.7 +0.8
      comp=Z,95nm,1.0s,mb5.8
G12A  Big Creek, Yel    54.72 321 ⇓P      P      02 55 46.3  -0.6
      baz=54,SNR=69
YFT   Old Faithful      54.73 317  eP     P      02 55 48.4 +1.5
      comp=Z,64nm,0.7s,mb5.8
YFT   Old Faithful      54.73 317  eP     P      02 55 48.4 +1.5
      comp=Z,64nm,0.7s,mb5.8
H17A  Grant Village     54.74 317 ⇓P      P      02 55 48.6 +1.6
      baz=54,SNR=143
G10A  Bishop Farm, J    54.81 323 ⇓P      P      02 55 47.3  -0.2
      baz=54,SNR=173
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F06A	**Goldendale**	54.82 326	⇓P	P	02 55 47.8	+0.2
	baz=55,SNR=39					
NLO	**Nicolai Mounta**	54.83 328	P	P	02 55 48.7	+1.0
NLO	**Nicolai Mounta**	54.83 328	P	P	02 55 48.7	+1.1
H15A	**Lima**	54.84 319	⇑P	P	02 55 48.1	+0.4
	baz=55,SNR=327					
F04A	**Amboy**	54.86 328	⇑P	P	02 55 48.0	+0.1
	baz=55					
G09A	**Cove**	54.91 323	⇓P	P	02 55 48.4	+0.2
	baz=55,SNR=225					
F03A	**Seaside**	55.00 328	⇑P	P	02 55 49.2	+0.4
	baz=55,SNR=14					
G08A	**Pilot Rock**	55.06 324	⇑P	P	02 55 49.8	+0.5
	baz=55,SNR=81					
H13A	**Challis**	55.12 320	⇓P	P	02 55 49.9	+0.2
	baz=55,SNR=299					
PTH	**Pithoragarh**	55.16 111	*e*PKP	P	02 55 51.0	+0.8
G07A	**Ruggs Ranch, H**	55.17 325	⇑P	P	02 55 50.6	+0.4
	baz=55,SNR=41					
I17A	**Pilgrim Ck.**	55.20 317	⇑P	P	02 55 51.4	+1.1
	baz=55,SNR=62					
H12A	**Diamond D Ranc**	55.22 321	⇓P	P	02 55 50.2	-0.3
	baz=55,SNR=291					
H11A	**Donnelly**	55.23 322	⇓P	P	02 55 49.4	-1.1
	baz=55,SNR=104					
LGTI	**Lohaghat**	55.26 111	*e*PKP	P	02 55 52.5	+1.5
BMO	**Blue Mountains**	55.27 323	*e*P	P	02 55 50.5	-0.3
	comp=Z,255nm,1.5s,mb6.0					
BMO	**Blue Mountains**	55.27 323	*e*P	P	02 55 50.5	-0.3
	comp=Z,255nm,1.5s,mb6.0					
DL2	**Dalian**	55.27 68	P	P	02 55 48.9	-2.0
DL2			S	S	03 03 32.9	-1.3
DL2			ScS	ScS	03 05 36.8	-2.7
DL2			SS	SS	03 07 19.9	+2.2
DL2			pmax	pmax		
	comp=Z,40nm,1.8s,mb5.2					
DL2			pmax	pmax		
	comp=Z,750nm,5.5s					
DL2			LR	LR		
	comp=E,27µm,19.2s					
DL2			LR	LR		
	comp=Z,12µm,15.4s,MS6.1					
IMW	**Indian Meadow**	55.28 317	*e*P	P	02 55 52.0	+1.0
	comp=Z,201nm,0.9s,mb6.2					
IMW	**Indian Meadow**	55.28 317	*e*P	P	02 55 52.0	+1.1
	comp=Z,201nm,0.9s,mb6.2					
I18A	**Diamond G Ranc**	55.30 316	⇓P	P	02 55 51.2	+0.1
	baz=55,SNR=74					
HATD	**Hatta, Dubai**	55.31 138	P	P	02 55 52.3	+1.0
	SNR=9.1					
HATD	**Hatta, Dubai**	55.31 138	P	P	02 55 52.3	+0.9
	SNR=9.1					
G06A	**Carlson Farm,**	55.33 326	⇓P	P	02 55 51.5	+0.2
	baz=55,SNR=24					
HOOD	**Mount Hood Mea**	55.37 327	*e*P	P	02 55 51.7	+0.2
	comp=Z,102nm,1.2s,mb5.7					
HOOD	**Mount Hood Mea**	55.37 327	*e*P	P	02 55 51.7	+0.2
	comp=Z,102nm,1.2s,mb5.7					
NDI	**New Delhi**	55.37 114	*e*PKP	P	02 55 51.0	-0.8
NDI			*e*S	S	03 03 35.0	-0.7
I16A	**Newdale**	55.39 318	⇑P	P	02 55 52.2	+0.6
	baz=55,SNR=136					
MOOW	**Moose Ponds**	55.40 317	*e*P	P	02 55 52.3	+0.5
	comp=Z,70nm,0.9s,mb5.7					
MOOW	**Moose Ponds**	55.40 317	*e*P	P	02 55 52.3	+0.5
	comp=Z,70nm,0.9s,mb5.7					
G05A	**Wamic**	55.41 326	⇓P	P	02 55 52.1	+0.2
	baz=55,SNR=12					
I15A	**Monteview**	55.42 319	⇓P	P	02 55 52.1	+0.2
	baz=55,SNR=38					
BLO	**Bloomington**	55.44 294	P	P	02 55 50.9	-1.2
BLO			pmax	pmax		
	comp=Z,170nm,0.8s,mb6.1					
BLO	**Bloomington**	55.44 294	*e*P	P	02 55 51.2	-0.9
	comp=Z,168nm,0.8s,mb6.1					
BLO	**Bloomington**	55.44 294	*e*P	P	02 55 51.2	-0.9
	comp=Z,168nm,0.8s,mb6.1					
H10A	**Noah’s Angus R**	55.45 322	⇑P	P	02 55 51.4	-0.7
	baz=55,SNR=87					
H09A	**Durkee**	55.50 323	⇑P	P	02 55 52.4	-0.1
	baz=55,SNR=43					
LOHW	**Long Hollow**	55.51 317	*e*P	P	02 55 52.9	+0.4
	comp=Z,143nm,1.3s,mb5.8					
LOHW	**Long Hollow**	55.51 317	*e*P	P	02 55 52.9	+0.3
	comp=Z,143nm,1.3s,mb5.8					
AYAN	**Aya Nagar**	55.55 114	*e*PKP	P	02 55 53.0	0.0
AYAN			AMb	AMB	02 55 59.2	
	comp=Z,144nm,1.0s,mb6.0					
G04A	**Mulino**	55.59 327	⇑P	P	02 55 53.0	-0.1
	baz=55,SNR=25					
DCID1	**Drake Creek**	55.62 317	*e*P	P	02 55 54.3	+0.9
	comp=Z,224nm,1.2s,mb6.1					
DCID1	**Drake Creek**	55.62 317	*e*P	P	02 55 54.3	+1.0
	comp=Z,224nm,1.2s,mb6.1					
I14A	**Mackay**	55.63 319	⇑P	P	02 55 53.5	+0.1
	baz=55,SNR=94					
KHET	**Khetri**	55.68 116	*e*PKP	P	02 55 54.3	+0.3
SNOW	**Snow King Moun**	55.68 317	*e*P	P	02 55 54.4	+0.6
	comp=Z,72nm,0.9s,mb5.7					
SNOW	**Snow King Moun**	55.68 317	*e*P	P	02 55 54.4	+0.6
	comp=Z,72nm,0.9s,mb5.7					
TPAW	**Teton Pass**	55.68 317	*e*P	P	02 55 54.4	+0.6
	comp=Z,74nm,0.9s,mb5.7					
TPAW	**Teton Pass**	55.68 317	*e*P	P	02 55 54.4	+0.6
	comp=Z,74nm,0.9s,mb5.7					
HEBO	**Mount Hebo**	55.73 328	*e*P	P	02 55 55.1	+0.9
	comp=Z,315nm,1.3s,mb6.2					
HEBO	**Mount Hebo**	55.73 328	*e*P	P	02 55 55.1	+1.0
	comp=Z,315nm,1.3s,mb6.2					
I13A	**Wildhorse Cree**	55.74 320	⇓P	P	02 55 54.3	+0.1
	baz=56,SNR=202					
KUDL	**Kundal**	55.75 115	*e*PKP	P	02 55 54.3	-0.1
KUDL			AMb	AMB	02 56 00.1	
	comp=Z,181nm,0.8s,mb6.2					
SONA	**Sohna**	55.77 114	*e*PKP	P	02 55 54.2	-0.4
SONA			AMb	AMB	02 56 00.0	
	comp=Z,70nm,1.0s,mb5.7					
J17A	**Brown Place, J**	55.77 317	⇑P	P	02 55 54.6	+0.1
	baz=56,SNR=53					
H08A	**Prairie City**	55.78 324	⇑P	P	02 55 55.0	+0.5
	baz=56,SNR=30					
H06A	**Lindquist Farm**	55.78 325	⇓P	P	02 55 54.8	+0.3
	baz=56,SNR=130					
REDW	**Red Top Meadow**	55.79 317	*e*P	P	02 55 55.0	+0.4
	comp=Z,107nm,1.1s,mb5.8					
REDW	**Red Top Meadow**	55.79 317	*e*P	P	02 55 55.0	+0.4
	comp=Z,107nm,1.1s,mb5.8					
J18A	**Kendall Valley**	55.81 316	⇓P	P	02 55 54.9	+0.1
	baz=56,SNR=181					
H07A	**Lands Inn, Kim**	55.82 325	⇑P	P	02 55 55.4	+0.6
	baz=56					
RRI2	**Red Ridge**	55.88 317	*e*P	P	02 55 55.6	+0.4
	comp=Z,262nm,1.6s,mb6.0					
I10A	**Payette**	55.95 322	⇓P	P	02 55 55.5	-0.2
	baz=56,SNR=38					
J15A	**Blackfoot**	55.99 318	⇓P	P	02 55 56.6	+0.5
	baz=56,SNR=87					
J16A	**Bone**	55.99 318	⇑P	P	02 55 56.4	+0.3
	baz=56					
I12A	**Atlanta**	56.00 321	⇓P	P	02 55 55.4	-0.7
	baz=56,SNR=61					
I11A	**Placerville**	56.00 322	⇓P	P	02 55 54.8	-1.3
	baz=56,SNR=18					
K19A	**Absolon Red Bu**	56.00 315	⇓P	P	02 55 55.1	-1.1
	baz=56,SNR=69					
VIPM	**Ingram Point**	56.04 326	P	P	02 55 57.0	+0.6
VIPM	**Ingram Point**	56.04 326	P	P	02 55 57.0	+0.6
BLA	**Blacksburg**	56.04 288	P	P	02 55 56.1	-0.4
BLA			pmax	pmax		
	comp=Z,140nm,1.1s,mb5.9					
BLA	**Blacksburg**	56.04 288	*e*P	P	02 55 56.2	-0.2
	comp=Z,144nm,1.1s,mb5.9					
BLA	**Blacksburg**	56.04 288	*e*P	P	02 55 56.2	-0.3
	comp=Z,144nm,1.1s,mb5.9					
H04A	**Detroit Lake**	56.06 327	⇑P	P	02 55 56.3	-0.2
	baz=56,SNR=31					
K20A	**Yellowstone Ra**	56.09 315	⇑P	P	02 55 55.9	-0.8
	baz=56					
ELN	**Prospectdale**	56.10 288	*e*P	P	02 55 56.2	-0.7
ELN	**Prospectdale**	56.10 288	*e*P	P	02 55 56.2	-0.7
HLID	**Hailey**	56.13 320	⇑P	P	02 55 56.7	-0.3
	baz=56,SNR=90					
HLID	**Hailey**	56.13 320	*e*P	P	02 55 56.7	-0.3
	comp=Z,236nm,1.6s,mb6.0					
HLID	**Hailey**	56.13 320	*e*P	P	02 55 56.7	-0.3
	comp=Z,236nm,1.6s,mb6.0					
BW06	**Boulder Array**	56.17 316	⇓P	P	02 55 56.8	-0.6
	baz=56,SNR=104					
BW06	**Boulder Array**	56.17 316	*e*P	P	02 55 56.8	-0.5
	comp=Z,185nm,2.0s,mb5.8					
BW06			LR	LR		
	comp=Z,21µm,18.1s,MS6.3					
BW06	**Boulder Array**	56.17 316	*e*P	P	02 55 56.8	-0.5
	comp=Z,185nm,2.0s,mb5.8					
PDAR	**Pinedale Array**	56.17 316	P	P	02 55 56.6	-0.7
	comp=Z,39nm,0.9s,mb5.4,baz=27,slow=2.7,SNR=147					
PDAR			LR	LR	03 19 23.4	
	comp=Z,15µm,21.9s,MS6.0,baz=17,slow=35					
PDAR			PKPPKP		03 25 55.0	
	comp=Z,1.1nm,1.1s,baz=224,slow=4.1,SNR=3.9					
PDAR	**Pinedale Array**	56.17 316	P	P	02 55 56.6	-0.7
OLIL	**Olney**	56.18 296	*e*P	P	02 55 56.4	-1.0
	comp=Z,146nm,0.9s,mb6.0					
OLIL	**Olney**	56.18 296	*e*P	P	02 55 56.4	-1.1
	comp=Z,146nm,0.9s,mb6.0					
I09A	**Lost Marbles R**	56.19 323	⇑P	P	02 55 56.4	-1.0
	baz=56,SNR=8.0					
J14A	**Carey**	56.23 319	⇑P	P	02 55 57.7	0.0
	baz=56,SNR=93					
J13A	**Cove Ranch, Pi**	56.25 320	⇑P	P	02 55 57.8	-0.1
	baz=56,SNR=217					
COR	**Corvallis**	56.30 328	*e*P	P	02 55 59.4	+1.2
COR			pmax	pmax		
	comp=Z,429nm,1.5s,mb6.3					
COR			MLR	MLR		
	comp=Z,12µm,21.2s,MS6.0					
COR	**Corvallis**	56.30 328	*e*P	P	02 55 59.4	+1.2
	comp=Z,429nm,1.5s,mb6.3					
COR			LR	LR		
	comp=Z,12µm,21.2s,MS6.0					
COR	**Corvallis**	56.30 328	*e*P	P	02 55 59.3	+1.1
	comp=Z,429nm,1.5s,mb6.3					
WCI	**Wyandotte Cave**	56.30 294	*e*P	P	02 55 57.1	-1.2
WCI			pmax	pmax		
	comp=Z,71nm,0.8s,mb5.8					
WCI			MLR	MLR		
	comp=Z,13µm,16.9s,MS6.1					
WCI	**Wyandotte Cave**	56.30 294	*e*P	P	02 55 57.1	-1.2
	comp=Z,71nm,0.8s,mb5.8					
WCI			LR	LR		
	comp=Z,13µm,16.9s,MS6.1					
WCI	**Wyandotte Cave**	56.30 294	*e*P	P	02 55 57.1	-1.2
	comp=Z,71nm,0.8s,mb5.8					
I07A	**Izee**	56.32 325	⇓P	P	02 55 59.3	+1.0
	baz=56,SNR=77					
ERM	**Erimo**	56.33 47	*e*P	P	02 55 57.9	-0.6
ERM			pmax	pmax		
	comp=Z,519nm,1.0s,mb6.5					
ERM			MLR	MLR		
	comp=Z,9µm,21.0s,MS5.8					
ERM	**Erimo**	56.33 47	*e*P	P	02 55 57.9	-0.6
	comp=Z,519nm,1.0s,mb6.5					
ERM			LR	LR		
	comp=Z,9µm,21.0s,MS5.8					
ERM	**Erimo**	56.33 47	*e*P	P	02 55 57.9	-0.6
	comp=Z,519nm,1.0s,mb6.5					
I08A	**Drewsey**	56.36 324	⇓P	P	02 55 58.7	+0.1
	baz=56,SNR=22					
K18A	**Toltan Ranch,**	56.38 316	⇑P	P	02 55 58.9	+0.1
	baz=56,SNR=85					
K17A	**Gardner Place,**	56.40 317	⇓P	P	02 55 58.9	0.0
	baz=56,SNR=11					
AHID	**Auburn Hatcher**	56.41 317	*e*P	P	02 55 58.8	-0.2
	comp=Z,259nm,1.7s,mb6.0					
AHID			LR	LR		
	comp=Z,37µm,17.5s,MS6.5					
AHID	**Auburn Hatcher**	56.41 317	*e*P	P	02 55 58.8	-0.2
	comp=Z,259nm,1.7s,mb6.0					
K16A	**Soda Springs**	56.42 318	⇓P	P	02 55 59.4	+0.3
	baz=56,SNR=36					
MFID	**Camas Ranch**	56.47 321	⇑P	P	02 55 58.5	-1.0
	baz=56,SNR=46					
J12A	**Stokes Ranch,**	56.53 321	⇓P	P	02 55 59.1	-0.8
	baz=56,SNR=46					
I06A	**Prineville**	56.54 325	⇑P	P	02 56 00.7	+0.7
	baz=56,SNR=40					
J10A	**Berg Farm, Mel**	56.59 322	⇓P	P	02 55 59.8	-0.5
	baz=56,SNR=21					
L21A	**Rawlins**	56.61 314	⇓P	P	02 55 59.9	-0.5
	baz=56,SNR=144					
OGNE	**Ogallala**	56.69 309	*e*P	P	02 56 00.8	-0.3
	comp=Z,859nm,1.5s,mb6.6					
OGNE	**Ogallala**	56.69 309	*e*P	P	02 56 00.8	-0.3
	comp=Z,859nm,1.5s,mb6.6					
SLM	**Saint Louis**	56.71 298	*e*P	P	02 55 59.6	-1.6
SLM			pmax	pmax		
	comp=Z,44nm,0.7s,mb5.6					
SLM	**Saint Louis**	56.71 298	*e*P	P	02 55 59.6	-1.6
	comp=Z,44nm,0.7s,mb5.6					
SLM	**Saint Louis**	56.71 298	*e*P	P	02 55 59.6	-1.6
	comp=Z,44nm,0.7s,mb5.6					
K15A	**Arbon**	56.71 318	⇓P	P	02 56 01.5	+0.3
	baz=56,SNR=45					
L20A	**Wamsutter**	56.72 315	⇑P	P	02 56 01.2	0.0
	baz=56,SNR=93					
L19A	**Farson**	56.79 315	⇑P	P	02 56 01.2	-0.5
	baz=56,SNR=49					
J09A	**Fry Pan Ranch,**	56.81 323	⇑P	P	02 56 01.1	-0.7
	baz=56,SNR=69					
ARQ	**Araqi**	56.83 138	P	P	02 56 02.0	-0.2
	SNR=30					
ARQ	**Araqi**	56.83 138	P	P	02 56 02.0	-0.2
	SNR=30					
USIN	**University of**	56.84 295	*e*P	P	02 56 01.0	-1.1
	comp=Z,187nm,0.9s,mb6.1					
USIN	**University of**	56.84 295	*e*P	P	02 56 01.0	-1.1
	comp=Z,187nm,0.9s,mb6.1					
RWWY	**Rawlins**	56.85 313	*e*P	P	02 56 01.8	-0.4
	comp=Z,210nm,0.9s,mb6.2					
RWWY	**Rawlins**	56.85 313	*e*P	P	02 56 01.8	-0.4
	comp=Z,210nm,0.9s,mb6.2					
J08A	**Circle Bar Ran**	56.89 324	⇓P	P	02 56 01.8	-0.7
	baz=57,SNR=34					
BIDO	**Bidbid**	56.90 136	P	P	02 56 03.7	+0.9
	SNR=18					
BIDO	**Bidbid**	56.90 136	P	P	02 56 03.7	+1.0
	SNR=18					
TIA	**Tai’an**	56.91 73	⇓P	P	02 56 04.0	+1.3
TIA			pmax	pmax		
	comp=Z,380nm,1.8s,mb6.1					
TIA			LR	LR		
	comp=N,10µm,12.0s					
AGRA	**Agra**	56.93 114	*e*PKP	P	02 56 02.1	-0.8
AGRA			AMb	AMB	02 56 02.9	
	comp=Z,54nm,0.3s,mb6.1					
PHWY	**Pilot Hill**	56.94 312	*e*P	P	02 56 02.4	-0.4
	comp=Z,196nm,1.4s,mb6.0					
PHWY	**Pilot Hill**	56.94 312	*e*P	P	02 56 02.4	-0.4
	comp=Z,196nm,1.4s,mb6.0					
K14A	**Jones Ranch, D**	56.94 319	⇑P	P	02 56 02.9	+0.1
	baz=57,SNR=44					
M21A	**Separation Pea**	56.95 314	⇑P	P	02 56 02.4	-0.5
	baz=57,SNR=192					
K13A	**Stover Farm, H**	56.97 320	⇓P	P	02 56 03.2	+0.2
	baz=57,SNR=54					
J07A	**Hines**	56.99 324	⇑P	P	02 56 04.0	+0.9
	baz=57,SNR=45					
AJM	**Ajmer**	56.99 118	*e*PKP	P	02 56 02.1	-1.2
AJM			*e*PKP	pP	02 56 04.0	-2.7
AJM			AMb	AMB	02 56 08.3	
	comp=Z,618nm,1.2s,mb6.5					
M22A	**Cedar Creek Ra**	57.03 313	⇓P	P	02 56 02.9	-0.5
	baz=57,SNR=114					
L17A	**Cokeville**	57.03 317	⇑P	P	02 56 02.8	-0.6
	baz=57,SNR=23					
L18A	**Fontenelle, Gr**	57.07 316	⇓P	P	02 56 03.1	-0.7
	baz=57,SNR=32					
DANN	**Dangsing**	57.07 108	*e*P	P	02 56 04.1	+0.2
	comp=Z,653nm,1.0s,mb6.6					
DANN	**Dangsing**	57.07 108	*e*P	P	02 56 04.1	+0.2
	comp=Z,653nm,1.0s,mb6.6					
K12A	**Draper Farm, C**	57.10 320	⇓P	P	02 56 04.1	+0.1
	baz=57,SNR=80					
K11A	**Parker Ranch,**	57.13 321	⇑P	P	02 56 04.5	+0.3
	baz=57,SNR=161					
L16A	**Fish Haven**	57.20 317	⇑P	P	02 56 04.4	-0.2
	baz=57,SNR=82					
M20A	**Sweetwater, Wa**	57.20 314	⇑P	P	02 56 04.4	-0.3
	baz=57,SNR=81					
XAN	**Xi’an**	57.20 81	P	P	02 56 04.3	-0.5
XAN			pP	pP	02 56 08.1	0.0
XAN			sP	sP	02 56 10.0	+0.6
XAN			PP	PP	02 58 10.0	-1.4
XAN			S	S	03 03 56.3	-3.6
XAN			sS	sS	03 04 04.3	-1.1
XAN			ScS	ScS	03 05 48.8	-4.8
XAN			SS	SS	03 07 46.0	-2.2
XAN			pmax	pmax		
	comp=Z,57nm,1.2s,mb5.5					
XAN			pmax	pmax		
	comp=Z,800nm,5.4s					
XAN			LR	LR		
	comp=N,16µm,14.6s,MS6.6					
XAN			LR	LR		
	comp=E,29µm,13.7s,MS6.6					
XAN			LR	LR		
	comp=Z,28µm,14.1s,MS6.5					
BBSR	**BB Station**	57.22 272	*e*P	P	02 56 04.5	-0.4
	comp=Z,39nm,0.9s,mb5.4					
BBSR			LR	LR		
	comp=Z,8µm,19.0s,MS5.8					
BBSR	**BB Station**	57.22 272	*e*P	P	02 56 04.5	-0.4
	comp=Z,39nm,0.9s,mb5.4					
J06A	**Christmas Vall**	57.22 325	⇑P	P	02 56 05.7	+1.0
	baz=57,SNR=80					
K10A	**MacKenzie Ranc**	57.24 322	⇓P	P	02 56 04.7	-0.2
	baz=57,SNR=51					
M19A	**Rock Springs**	57.34 315	⇓P	P	02 56 05.1	-0.6
	baz=57,SNR=27					
SMDO	**Samad**	57.34 136	P	P	02 56 05.8	-0.1
	SNR=51					
SMDO	**Samad**	57.34 136	P	P	02 56 05.8	0.0
	SNR=51					
TZTN	**Tazewell**	57.35 291	*e*P	P	02 56 05.4	-0.4
	comp=Z,144nm,0.9s,mb6.0					
TZTN	**Tazewell**	57.35 291	*e*P	P	02 56 05.4	-0.4
	comp=Z,144nm,0.9s,mb6.0					
L15A	**Malad City**	57.35 318	⇓P	P	02 56 05.3	-0.4
	baz=57,SNR=62					
FVM	**French Village**	57.38 297	*e*P	P	02 56 04.3	-1.6
FVM			pmax	pmax		
	comp=Z,77nm,0.9s,mb5.7					
FVM	**French Village**	57.38 297	*e*P	P	02 56 04.3	-1.6
	comp=Z,77nm,0.9s,mb5.7					
FVM	**French Village**	57.38 297	*e*P	P	02 56 04.3	-1.6
	comp=Z,77nm,0.9s,mb5.7					
LSA	**Lhasa**	57.39 100	P	P	02 56 07.3	+1.2
LSA			PP	PP	02 58 17.9	+4.8
LSA			S	S	03 04 03.6	+1.2
LSA			pmax	pmax		
	comp=Z,1µm,8.6s					
LSA			LR	LR		
	comp=E,41µm,20.2s					
LSA			LR	LR		
	comp=Z,14µm,17.2s,MS6.2					
LSA	**Lhasa**	57.39 100	*e*P	P	02 56 07.7	+1.6
LSA			pmax	pmax		
	comp=Z,153nm,1.0s,mb6.0					
LSA			MLR	MLR		
	comp=Z,14µm,19.2s,MS6.1					
LSA	**Lhasa**	57.39 100	*e*P	P	02 56 07.7	+1.6
	comp=Z,153nm,1.0s,mb6.0					
LSA			LR	LR		
	comp=Z,14µm,19.2s,MS6.1					
LSA	**Lhasa**	57.39 100	*e*P	P	02 56 07.7	+1.6
	comp=Z,153nm,1.0s,mb6.0					
SIUC	**Southern Illin**	57.39 296	*e*P	P	02 56 04.2	-1.8
	comp=Z,156nm,0.9s,mb6.0					
SIUC	**Southern Illin**	57.39 296	*e*P	P	02 56 04.2	-1.8
	comp=Z,156nm,0.9s,mb6.0					
CNNC	**Cliffs of the**	57.39 285	*e*P	P	02 56 05.9	-0.2
	comp=Z,47nm,0.9s,mb5.5					
CNNC	**Cliffs of the**	57.39 285	*e*P	P	02 56 05.9	-0.2
	comp=Z,47nm,0.9s,mb5.5					
K09A	**Rome**	57.44 323	⇑P	P	02 56 06.2	-0.1
	baz=57,SNR=51					
L14A	**Malta**	57.45 319	⇑P	P	02 56 06.6	+0.2
	baz=57,SNR=56					
CCM	**Cathedral Cave**	57.47 298	*e*P	P	02 56 04.4	-2.2
CCM			pmax	pmax		
	comp=Z,68nm,0.8s,mb5.7					
CCM			MLR	MLR		
	comp=Z,29µm,23.4s,MS6.3					
CCM	**Cathedral Cave**	57.47 298	*e*P	P	02 56 04.4	-2.1
	comp=Z,68nm,0.8s,mb5.7					
CCM			LR	LR		
	comp=Z,29µm,23.4s,MS6.3					
CCM	**Cathedral Cave**	57.47 298	*e*P	P	02 56 04.4	-2.2
	comp=Z,68nm,0.8s,mb5.7					
KSU1	**Kansas State U**	57.49 303	*e*P	P	02 56 05.6	-1.2
	comp=Z,573nm,1.6s,mb6.3					
KSU1	**Kansas State U**	57.49 303	*e*P	P	02 56 05.6	-1.2
	comp=Z,573nm,1.6s,mb6.3					
L13A	**Double Diamond**	57.50 319	⇑P	P	02 56 06.9	+0.2
	baz=57,SNR=106					
K08A	**Mann Creek Ran**	57.51 323	⇑P	P	02 56 06.9	+0.1
	baz=57,SNR=21					
BSY	**Bisya**	57.52 137	P	P	02 56 07.1	0.0
	SNR=17					
BSYO	**Bisya**	57.54 137	P	P	02 56 07.1	-0.1
	SNR=17					
M18A	**Lyman**	57.56 316	⇑P	P	02 56 06.8	-0.4
	baz=57,SNR=27					
N22A	**Wattenberg Ran**	57.59 313	⇑P	P	02 56 07.1	-0.3
	baz=57,SNR=184					
GKN	**Gorkha**	57.60 107	*e*P	P	02 56 07.4	-0.2
	comp=Z,157nm,0.7s,mb6.1					
GKN	**Gorkha**	57.60 107	*e*P	P	02 56 07.4	-0.2
	comp=Z,157nm,0.7s,mb6.2					
KOLN	**Koldanda**	57.60 108	*e*P	P	02 56 07.2	-0.4
	comp=Z,316nm,1.1s,mb6.3					
KOLN	**Koldanda**	57.60 108	*e*P	P	02 56 07.2	-0.4
	comp=Z,316nm,1.1s,mb6.3					
L12A	**House Creek Ra**	57.60 320	⇓P	P	02 56 07.7	+0.2
	baz=57,SNR=60					
M17A	**Scullys Gap (B**	57.61 316	⇑P	P	02 56 07.0	-0.5
	baz=57,SNR=66					
HVU	**Hansel Valley**	57.63 318	P	P	02 56 07.6	-0.1
HVU			pmax	pmax		
	comp=Z,220nm,1.5s,mb6.0					
HVU	**Hansel Valley**	57.63 318	*e*P	P	02 56 07.6	-0.1
	comp=Z,222nm,1.6s,mb5.9					
HVU	**Hansel Valley**	57.63 318	*e*P	P	02 56 07.6	-0.1
	comp=Z,222nm,1.6s,mb5.9					
K07A	**Rock Creek Ran**	57.65 324	⇑P	P	02 56 08.5	+0.7
	baz=57,SNR=129					
INCN	**Inchon**	57.67 64	*e*P	P	02 56 07.3	-0.7
	comp=Z,107nm,1.0s,mb5.8					
INCN			LR	LR		
	comp=Z,7µm,19.5s,MS5.8					
INCN	**Inchon**	57.67 64	*e*P	P	02 56 07.3	-0.7
	comp=Z,107nm,1.0s,mb5.8					
L11A	**Cat Creek Ranc**	57.69 321	⇑P	P	02 56 08.6	+0.5
	baz=57,SNR=108					
N21A	**Black Mountain**	57.80 313	⇑P	P	02 56 08.7	-0.2
	baz=58,SNR=37					
WVOR	**Wild Horse Val**	57.82 324	*e*P	P	02 56 09.4	+0.4
WVOR			pmax	pmax		
	comp=Z,157nm,1.8s,mb5.7					
WVOR	**Wild Horse Val**	57.82 324	*e*P	P	02 56 09.3	+0.3
	comp=Z,157nm,1.8s,mb5.7					
WVOR	**Wild Horse Val**	57.82 324	*e*P	P	02 56 09.4	+0.4
	comp=Z,157nm,1.8s,mb5.7					
K05A	**Summer Lake**	57.83 326	⇑P	P	02 56 10.3	+1.2
	baz=58,SNR=73					
N20A	**Spence Gulch,**	57.85 314	⇓P	P	02 56 09.4	+0.1
	baz=58,SNR=147					
L10A	**Juniper Basin**	57.88 322	⇑P	P	02 56 09.6	+0.2
	baz=58,SNR=56					
M15A	**Larsen Ranch,**	57.89 318	⇑P	P	02 56 09.1	-0.4
	baz=58,SNR=79					
M16A	**Huntsville**	57.91 317	⇓P	P	02 56 09.3	-0.3
	baz=58,SNR=58					
WBK	**Wadi Bani Khal**	57.93 135	P	P	02 56 10.3	+0.3
	SNR=19					
KKN	**Kakani**	57.94 106	*e*P	P	02 56 10.3	+0.3
	comp=Z,1µm,1.0s,mb6.8					
KKN	**Kakani**	57.94 106	*e*P	P	02 56 10.3	+0.3
KKN			pmax	pmax		
	comp=Z,1µm,1.0s,mb6.8					
KKN	**Kakani**	57.94 106	*e*P	P	02 56 10.3	+0.3
	comp=Z,1µm,1.0s,mb6.8					
GUN	**Gumba**	57.95 106	*e*P	P	02 56 10.4	+0.3
	comp=Z,503nm,1.1s,mb6.5					
GUN	**Gumba**	57.95 106	*e*P	P	02 56 10.4	+0.3
	comp=Z,503nm,1.1s,mb6.5					
KSRS	**Korea Array**	57.96 62	P	P	02 56 09.1	-0.9
KSRS			pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1					
KSRS			MLR	MLR		
	comp=Z,11µm,19.0s,MS6.0					
KSRS	**Korea Array**	57.96 62	P	P	02 56 09.1	-0.9
	comp=Z,15nm,0.7s,mb5.1,baz=348,slow=6.4,SNR=39					

KSRS				LR	LR	03 22 35.3	
	comp=Z,11µm,19.0s,MS6.0,baz=169,slow=38						
M14A	Sheep Mountain	57.99	319	⇓P	P	02 56 10.1	-0.1
	baz=58,SNR=78						
L08A	Fields	58.02	323	⇑P	P	02 56 10.5	+0.1
	baz=58,SNR=39						
JMDO	Jabal Madar	58.03	136	P	P	02 56 10.6	-0.1
	SNR=29						
JMDO	Jabal Madar	58.03	136	P	P	02 56 10.6	-0.1
	SNR=29						
SPUT	South Promonto	58.04	318	eP	P	02 56 10.3	-0.2
	comp=Z,119nm,1.1s,mb5.8						
SPUT	South Promonto	58.04	318	eP	P	02 56 10.3	-0.3
	comp=Z,119nm,1.1s,mb5.8						
DMN	Daman	58.08	106	eP	P	02 56 11.2	+0.2
	comp=Z,486nm,1.1s,mb6.4						
DMN	Daman	58.08	106	eP	P	02 56 11.2	+0.2
	comp=Z,486nm,1.1s,mb6.4						
L09A	Wilkinson Ranc	58.10	323	⇓P	P	02 56 11.1	+0.2
	baz=58,SNR=43						
N17A	Moffit Pass	58.16	316	⇑P	P	02 56 11.0	-0.3
	baz=58,SNR=86						
PKI	Pulchoki	58.18	106	eP	P	02 56 11.8	+0.1
	comp=Z,391nm,1.2s,mb6.3						
PKI	Pulchoki	58.18	106	eP	P	02 56 11.8	+0.1
PKI				pmax	pmax		
	comp=Z,391nm,1.2s,mb6.3						
PKI	Pulchoki	58.18	106	eP	P	02 56 11.8	+0.1
	comp=Z,391nm,1.2s,mb6.3						
HUMO	Hull Mountain	58.20	327	eP	P	02 56 11.8	+0.1
	comp=Z,45nm,0.9s,mb5.5						
HUMO				LR	LR		
	comp=Z,19µm,18.7s,MS6.2						
HUMO	Hull Mountain	58.20	327	eP	P	02 56 11.8	+0.1
	comp=Z,45nm,0.9s,mb5.5						
M13A	Montello	58.25	319	⇑P	P	02 56 12.0	0.0
	baz=58,SNR=65						
TKL	Tuckaleechee C	58.25	291	eP	P	02 56 11.4	-0.7
TKL	Tuckaleechee C	58.25	291	eP	P	02 56 11.4	-0.7
JIRN	Jiri	58.27	105	eP	P	02 56 12.9	+0.6
JIRN	Jiri	58.27	105	eP	P	02 56 12.9	+0.6
N16A	Rees Ranch, Co	58.30	317	⇑P	P	02 56 12.2	-0.2
	baz=58,SNR=17						
L07A	Adell	58.32	324	⇑P	P	02 56 13.7	+1.2
	baz=58,SNR=82						
O21A	Pagoda	58.33	313	⇑P	P	02 56 13.0	+0.4
	baz=58,SNR=64						
CBKS	Cedar Bluff	58.35	306	eP	P	02 56 11.6	-1.2
CBKS				pmax	pmax		
	comp=Z,258nm,1.3s,mb6.1						
CBKS				MLR	MLR		
	comp=Z,16µm,20.3s,MS6.1						
CBKS	Cedar Bluff	58.35	306	eP	P	02 56 11.6	-1.2
	comp=Z,258nm,1.3s,mb6.1						
CBKS				LR	LR		
	comp=Z,16µm,20.3s,MS6.1						
CBKS	Cedar Bluff	58.35	306	eP	P	02 56 11.6	-1.2
	comp=Z,258nm,1.3s,mb6.1						
M11A	Holland Ranch,	58.41	321	⇑P	P	02 56 14.0	+0.8
	baz=58,SNR=63						
ISCO	Idaho Springs	58.42	312	eP	P	02 56 13.5	+0.2
ISCO				pmax	pmax		
	comp=Z,131nm,1.5s,mb5.7						
ISCO	Idaho Springs	58.42	312	eP	P	02 56 13.4	+0.2
	comp=Z,131nm,1.5s,mb5.7						
ISCO	Idaho Springs	58.42	312	eP	P	02 56 13.4	+0.1
	comp=Z,131nm,1.5s,mb5.7						
M10A	I.L. Ranch, Tu	58.43	322	⇑P	P	02 56 14.2	+0.9
	baz=58,SNR=68						
N15A	Stansbury Isla	58.46	318	⇓P	P	02 56 13.2	-0.4
	baz=58,SNR=33						
BGU	Big Grassy Mou	58.51	318	eP	P	02 56 13.6	-0.2
	comp=Z,124nm,1.5s,mb5.7						
BGU	Big Grassy Mou	58.51	318	eP	P	02 56 13.6	-0.2
	comp=Z,124nm,1.5s,mb5.7						
O19A	Miners Draw (B	58.52	315	⇓P	P	02 56 14.0	+0.1
	baz=58,SNR=47						
PARMO	Parma	58.52	296	eP	P	02 56 13.2	-0.7
PARMO	Parma	58.52	296	eP	P	02 56 13.2	-0.7
O20A	White River Ci	58.53	314	⇓P	P	02 56 14.4	+0.4
	baz=58,SNR=205						
MOD	Modoc	58.56	325	eP	P	02 56 14.0	-0.2
MOD	Modoc	58.56	325	eP	P	02 56 14.0	-0.2
N14A	Grayback Hills	58.60	318	⇓P	P	02 56 14.1	-0.4
	baz=58,SNR=35						
CPCT	Cooper Cave	58.61	291	eP	P	02 56 13.7	-0.9
CPCT	Cooper Cave	58.61	291	eP	P	02 56 13.7	-0.9
NOQ	North Oquirrh	58.64	317	eP	P	02 56 14.0	-0.7
	comp=Z,101nm,1.3s,mb5.7						
NOQ	North Oquirrh	58.64	317	eP	P	02 56 14.0	-0.7
	comp=Z,101nm,1.3s,mb5.7						
WVT	Waverly	58.64	295	eP	P	02 56 13.1	-1.7
	comp=Z,87nm,1.3s,mb5.6						
WVT				LR	LR		
	comp=Z,11µm,17.0s,MS6.0						
WVT	Waverly	58.64	295	eP	P	02 56 13.1	-1.7
	comp=Z,87nm,1.3s,mb5.6						
UTMT	University of	58.65	296	eP	P	02 56 13.7	-1.2
	comp=Z,253nm,0.9s,mb6.2						
UTMT	University of	58.65	296	eP	P	02 56 13.7	-1.2
	comp=Z,253nm,0.9s,mb6.2						
M09A	Marrel Ranch,	58.65	322	⇓P	P	02 56 15.9	+1.0
	baz=58,SNR=36						
O18A	Roosevelt	58.69	316	⇓P	P	02 56 14.8	-0.3
	baz=58,SNR=23						
DAU	Daniels Canyon	58.74	317	eP	P	02 56 15.9	+0.5
DAU				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.6						
DAU	Daniels Canyon	58.74	317	eP	P	02 56 15.9	+0.5
	comp=Z,54nm,0.8s,mb5.6						
DAU	Daniels Canyon	58.74	317	eP	P	02 56 15.9	+0.5
	comp=Z,54nm,0.8s,mb5.6						
N13A	Wendover, West	58.75	319	⇑P	P	02 56 15.5	0.0
	baz=58,SNR=33						
GLAT	Glass	58.80	296	eP	P	02 56 15.1	-0.8
GLAT	Glass	58.80	296	eP	P	02 56 15.1	-0.8
O17A	Robinson Place	58.87	316	⇑P	P	02 56 16.8	+0.5
	baz=59,SNR=87						
N12A	Clover Valley,	58.87	320	⇓P	P	02 56 17.1	+0.7
	baz=59,SNR=79						
TAPN	Taplejung	58.90	104	eP	P	02 56 16.8	+0.1
	comp=Z,337nm,1.2s,mb6.3						
TAPN	Taplejung	58.90	104	eP	P	02 56 16.8	+0.1
	comp=Z,337nm,1.2s,mb6.2						
M07A	Soldier Meadow	58.92	324	⇑P	P	02 56 17.7	+1.0
	baz=59,SNR=70						
ELK	Elko	59.01	320	eP	P	02 56 17.8	+0.5
ELK				pmax	pmax		
	comp=Z,70nm,0.9s						
ELK				MLR	MLR		
	comp=Z,13µm,22.6s						
ELK	Elko	59.01	320	eP	P	02 56 17.8	+0.4
	comp=Z,70nm,0.9s,mb5.7						
ELK				LR	LR		
	comp=Z,13µm,22.6s,MS6.0						
ELK	Elko	59.01	320	eP	P	02 56 17.8	+0.5
	comp=Z,70nm,0.9s,mb5.7						
N11A	Elko Archery C	59.01	321	⇑P	P	02 56 17.8	+0.5
	baz=59,SNR=15						
LASM	Arnica Sink	59.03	326	P	P	02 56 17.9	+0.4
LASM	Arnica Sink	59.03	326	P	P	02 56 17.9	+0.5
YBH	Yreka Blue Hor	59.04	327	eP	P	02 56 17.0	-0.5
YBH				pmax	pmax		
	comp=Z,60nm,1.3s						
YBH				MLR	MLR		
	comp=Z,23µm,22.7s						
YBH	Yreka Blue Hor	59.04	327	LR	LR	03 19 52.9	
	comp=Z,23µm,21.8s,MS6.3,baz=4.8,slow=34						
YBH	Yreka Blue Hor	59.04	327	eP	P	02 56 17.0	-0.5
	comp=Z,60nm,1.3s,mb5.5						
YBH				LR	LR		
	comp=Z,23µm,22.7s,MS6.2						
YBH	Yreka Blue Hor	59.04	327	eP	P	02 56 17.0	-0.5
	comp=Z,60nm,1.3s,mb5.5						
RAMN	Ramite	59.04	105	eP	P	02 56 17.4	-0.3
	comp=Z,264nm,0.9s,mb6.2						
RAMN	Ramite	59.04	105	eP	P	02 56 17.4	-0.3
	comp=Z,264nm,0.9s,mb6.3						
JSC	Jenkinsville	59.04	288	P	P	02 56 17.2	-0.4
JSC	Jenkinsville	59.04	288	eP	P	02 56 17.0	-0.6
JSC	Jenkinsville	59.04	288	eP	P	02 56 17.0	-0.6
O15A	The Old Anders	59.05	318	⇑P	P	02 56 17.8	+0.1
	baz=59,SNR=66						
CD2	Chengdu	59.05	87	P	P	02 56 17.8	+0.1
CD2				pP	pP	02 56 22.4	+1.3
CD2				sP	sP	02 56 24.8	+2.4
CD2				PP	PP	02 58 30.0	+2.1
CD2				S	S	03 04 21.6	-2.5
CD2				sS	sS	03 04 29.3	-0.4
CD2				SS	SS	03 08 16.8	-0.6
CD2				pmax	pmax		
	comp=Z,310nm,1.3s,mb6.2						
CD2				pmax	pmax		
	comp=Z,1µm,6.7s						
CD2				LR	LR		
	comp=N,40µm,16.6s						
CD2				LR	LR		
	comp=Z,22µm,14.3s,MS6.4						
SWET	Sewanee	59.13	293	eP	P	02 56 16.1	-2.2
SWET	Sewanee	59.13	293	eP	P	02 56 16.1	-2.1
P19A	Cripple Cowboy	59.14	315	⇑P	P	02 56 18.5	+0.2
	baz=59,SNR=195						
BHJ	Bhuj	59.16	124	ePKP	P	02 56 19.4	+0.8
BHJ				AMb	AMB	02 56 29.0	
	comp=Z,259nm,1.5s,mb6.0						
HALT	Halls	59.16	296	eP	P	02 56 17.4	-1.0
HALT	Halls	59.16	296	eP	P	02 56 17.4	-1.0
P20A	De Beque	59.18	314	⇑P	P	02 56 18.5	0.0
	baz=59,SNR=140						
MPU	Maple Canyon	59.19	317	eP	P	02 56 18.7	+0.1
	comp=Z,284nm,1.5s,mb6.1						
MPU	Maple Canyon	59.19	317	eP	P	02 56 18.7	+0.2
	comp=Z,284nm,1.5s,mb6.1						
DUG	Dugway	59.19	318	eP	P	02 56 18.7	+0.1
DUG				pmax	pmax		
	comp=Z,69nm,1.1s,mb5.6						
DUG	Dugway	59.19	318	⇑P	P	02 56 18.5	0.0
	baz=59,SNR=64						
DUG	Dugway	59.19	318	eP	P	02 56 18.6	+0.1
	comp=Z,69nm,1.1s,mb5.6						
DUG	Dugway	59.19	318	eP	P	02 56 18.6	0.0
	comp=Z,69nm,1.1s,mb5.6						
N10A	Dunphy	59.22	321	⇓P	P	02 56 19.1	+0.3
	baz=59,SNR=8.1						
N09A	Rock Creek Ran	59.23	322	⇑P	P	02 56 19.6	+0.8
	baz=59,SNR=46						
GNAR	Gosnell	59.24	297	eP	P	02 56 18.3	-0.7
	comp=Z,4µm,1.2s						
GNAR	Gosnell	59.24	297	eP	P	02 56 18.3	-0.7
	comp=Z,4µm,1.2s						
ODAN	Odare	59.30	104	eP	P	02 56 20.0	+0.5
	comp=Z,839nm,1.2s,mb6.7						
ODAN	Odare	59.30	104	eP	P	02 56 20.0	+0.5
	comp=Z,839nm,1.2s,mb6.6						
NLU	North Lily Min	59.31	317	eP	P	02 56 19.8	+0.4
	comp=Z,74nm,0.9s,mb5.7						
NLU	North Lily Min	59.31	317	eP	P	02 56 19.8	+0.4
	comp=Z,74nm,0.9s,mb5.7						
P18A	Preston Nutter	59.35	316	⇓P	P	02 56 19.8	+0.1
	baz=59,SNR=18						
N08A	GE Springer Mi	59.38	323	⇓P	P	02 56 20.6	+0.7
	baz=59,SNR=77						
O12A	Currie	59.40	320	⇑P	P	02 56 20.3	+0.3
	baz=59,SNR=75						
O13A	Hicks Ranch, I	59.43	319	⇓P	P	02 56 20.5	+0.3
	baz=59,SNR=48						
N07B	Gerlach	59.49	323	⇑P	P	02 56 21.5	+0.8
	baz=59,SNR=82						
Q22A	Crested Butte,	59.55	312	⇑P	P	02 56 21.6	+0.5
	baz=59,SNR=124						
P17A	Butcher Ranch,	59.58	316	⇓P	P	02 56 21.3	0.0
	baz=59,SNR=22						
P16A	Fountain Green	59.59	317	⇑P	P	02 56 22.2	+0.9
	baz=59,SNR=75						
BMN	Battle Mountai	59.60	322	eP	P	02 56 21.9	+0.6
	comp=Z,62nm,0.9s,mb5.6						
BMN				LR	LR		
	comp=Z,12µm,19.4s,MS6.0						
BMN	Battle Mountai	59.60	322	eP	P	02 56 22.0	+0.6
	comp=Z,62nm,0.9s,mb5.6						
ALBI	Allahabad	59.60	110	ex	x	02 56 19.0	
O10A	Cortez Mining,	59.63	321	⇑P	P	02 56 22.0	+0.3
	baz=59,SNR=13						
N06A	Buffalo Meadow	59.64	324	⇑P	P	02 56 22.4	+0.7
	baz=59,SNR=131						
O11A	Cowboy Ranch,	59.67	320	⇑P	P	02 56 22.2	+0.3
	baz=59,SNR=79						
Q21A	Lamborn Mesa,	59.69	313	⇑P	P	02 56 22.3	+0.2
	baz=59,SNR=32						
Q20A	Ridgley Place,	59.69	314	⇓P	P	02 56 21.5	-0.6
	baz=59,SNR=29						
P15A	Leamington	59.72	317	⇓P	P	02 56 22.4	+0.2
	baz=60,SNR=43						
HBAR	Harrisburg	59.77	297	eP	P	02 56 21.9	-0.7
HBAR	Harrisburg	59.77	297	eP	P	02 56 21.9	-0.7
PLAL	Pickwick Lake	59.80	294	eP	P	02 56 21.1	-1.7
	comp=Z,77nm,0.9s,mb5.7						
PLAL				LR	LR		
	comp=Z,9µm,18.4s,MS5.9						
PLAL	Pickwick Lake	59.80	294	eP	P	02 56 21.1	-1.7
	comp=Z,77nm,0.9s,mb5.7						
P14A	Drum Mountains	59.82	318	⇓P	P	02 56 23.3	+0.4
	baz=60,SNR=112						
TMUT	Trail Mountain	59.82	316	eP	P	02 56 23.8	+0.8
	comp=Z,170nm,0.9s,mb6.1						
TMUT	Trail Mountain	59.82	316	eP	P	02 56 23.8	+0.8
	comp=Z,170nm,0.9s,mb6.1						
Q18A	Rafter H Ranch	59.84	315	⇓P	P	02 56 22.7	-0.4
	baz=60,SNR=108						
O09A	Fish Creek Ran	59.85	322	⇑P	P	02 56 23.7	+0.6
	baz=60,SNR=73						
Q19A	Hogan Spring (	59.85	315	⇓P	P	02 56 22.4	-0.7
	baz=60,SNR=53						
O08A	Rochester Mine	59.86	323	⇑P	P	02 56 24.1	+0.9
	baz=60,SNR=114						
SRU	San Rafael	59.90	316	eP	P	02 56 23.3	-0.2
SRU				pmax	pmax		
	comp=Z,66nm,0.9s,mb5.7						
SRU	San Rafael	59.90	316	⇑P	P	02 56 23.1	-0.3
	baz=60,SNR=51						
SRU	San Rafael	59.90	316	eP	P	02 56 23.3	-0.2
	comp=Z,66nm,0.9s,mb5.7						
SRU	San Rafael	59.90	316	eP	P	02 56 23.3	-0.2
	comp=Z,66nm,0.9s,mb5.7						
NHSC	New Hope	59.94	287	eP	P	02 56 23.0	-0.9
	comp=Z,534nm,1.5s,mb6.3						
NHSC				LR	LR		
	comp=Z,17µm,18.8s,MS6.2						
NHSC	New Hope	59.94	287	eP	P	02 56 23.0	-0.9
	comp=Z,534nm,1.5s,mb6.3						
MET	Memphis--Engin	60.04	296	eP	P	02 56 23.0	-1.5
MET	Memphis--Engin	60.04	296	eP	P	02 56 23.0	-1.5
O07A	Toulon	60.09	323	⇑P	P	02 56 25.5	+0.7
	baz=60,SNR=47						
R22A	Saguache, Gunn	60.15	312	⇓P	P	02 56 25.8	+0.6
	baz=60,SNR=85						
WDC	Whiskeytown Da	60.15	327	eP	P	02 56 24.5	-0.7
WDC				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.5						
WDC				MLR	MLR		
	comp=Z,22µm,21.2s,MS6.3						
WDC	Whiskeytown Da	60.15	327	eP	P	02 56 24.4	-0.7
	comp=Z,48nm,1.0s,mb5.5						
WDC				LR	LR		
	comp=Z,22µm,21.2s,MS6.3						
WDC	Whiskeytown Da	60.15	327	eP	P	02 56 24.5	-0.7
	comp=Z,48nm,1.0s,mb5.5						
Q16A	Castle Valley	60.19	316	⇓P	P	02 56 25.9	+0.4
	baz=60,SNR=94						
P12A	McGill	60.21	320	⇓P	P	02 56 26.1	+0.5
	baz=60,SNR=109						
O06A	Flanigan	60.21	324	⇑P	P	02 56 25.9	+0.3
	baz=60						
P11A	Circle Ranch,	60.25	320	⇑P	P	02 56 25.5	-0.4
	baz=60,SNR=15						
P10A	Eureka	60.29	321	⇑P	P	02 56 26.7	+0.5
	baz=60,SNR=23						
Q15A	Fillmore	60.29	317	⇓P	P	02 56 26.6	+0.4
	baz=60,SNR=48						
PV04	Paradox Valley	60.34	314	eP	P	02 56 26.8	+0.2
PV04	Paradox Valley	60.34	314	eP	P	02 56 26.8	+0.3
GOGA	Godfrey	60.35	290	eP	P	02 56 25.6	-1.1
GOGA				pmax	pmax		
	comp=Z,216nm,1.4s,mb6.0						
GOGA	Godfrey	60.35	290	eP	P	02 56 25.6	-1.1
	comp=Z,216nm,1.4s,mb6.0						
GOGA	Godfrey	60.35	290	eP	P	02 56 25.6	-1.1
	comp=Z,216nm,1.4s,mb6.0						
SDCO	Great Sand Dun	60.41	311	eP	P	02 56 26.8	-0.1
	comp=Z,105nm,1.2s,mb5.7						
SDCO				LR	LR		
	comp=Z,16µm,25.3s,MS6.0						
SDCO	Great Sand Dun	60.41	311	eP	P	02 56 26.8	-0.2
	comp=Z,105nm,1.2s,mb5.7						
P08A	Dixie Valley	60.44	322	⇓P	P	02 56 28.1	+0.9
	baz=60,SNR=13						
Q14A	Sevier Lake (B	60.44	318	⇑P	P	02 56 27.8	+0.6
	baz=60,SNR=148						
P09A	Austin	60.45	322	⇑P	P	02 56 27.8	+0.6
	baz=60,SNR=22						
R20A	Redvale	60.45	314	⇑P	P	02 56 27.6	+0.3
	baz=60,SNR=78						
R19A	Curley Farm, L	60.50	314	⇓P	P	02 56 28.0	+0.4
	baz=60,SNR=156						
R18A	Canyonlands Na	60.51	315	⇓P	P	02 56 27.7	+0.1
	baz=60,SNR=120						
OXF	Oxford	60.52	296	eP	P	02 56 26.4	-1.4
	comp=Z,222nm,0.9s,mb6.3						
OXF				LR	LR		
	comp=Z,10µm,20.7s,MS6.0						
OXF	Oxford	60.52	296	eP	P	02 56 26.4	-1.4
	comp=Z,222nm,0.9s,mb6.3						
PV01	Paradox Valley	60.54	314	eP	P	02 56 28.2	+0.3
	comp=Z,268nm,0.8s,mb6.4						
PV01	Paradox Valley	60.54	314	eP	P	02 56 28.2	+0.3
	comp=Z,268nm,0.8s,mb6.4						
BEKR	Beckwourth	60.58	325	⇓P	P	02 56 28.3	+0.2
	baz=60,SNR=82						
Q13A	Wheeler Ranch,	60.59	319	⇑P	P	02 56 28.6	+0.4
	baz=60,SNR=71						
R17A	Hanksville Air	60.60	316	⇓P	P	02 56 28.0	-0.3
	baz=60,SNR=168						
Q12A	Willow Creek R	60.62	320	⇑P	P	02 56 29.0	+0.6
	baz=60						
BHPL	Bhopal	60.69	115	ePKP	P	02 56 29.0	-0.1
BHPL				AMb	AMB	02 56 33.4	
	comp=Z,79nm,1.3s,mb5.7						
P06A	Stead Airport,	60.70	324	⇑P	P	02 56 29.5	+0.6
	baz=60,SNR=11						
P07A	Fallon	60.70	323	⇑P	P	02 56 30.2	+1.2
	baz=60,SNR=14						
MSU	Marysvale	60.74	317	P	P	02 56 30.3	+1.1
MSU				pmax	pmax		
	comp=Z,480nm,1.5s,mb6.4						
MSU	Marysvale	60.74	317	eP	P	02 56 30.3	+1.1
	comp=Z,477nm,1.6s,mb6.4						
MSU	Marysvale	60.74	317	eP	P	02 56 30.3	+1.1
	comp=Z,477nm,1.6s,mb6.4						
MVU	Marysvale	60.75	317	PFAKE		02 56 40.0	+11
MVU				LR	LR		
	comp=Z,36µm,15.2s,MS6.6						
MAJO	Matsushiro	60.80	53	eP	P	02 56 28.8	-0.9
MAJO				pmax	pmax		
	comp=Z,166nm,1.3s,mb6.0						
MAJO				MLR	MLR		
	comp=Z,13µm,20.3s,MS6.1						
MAJO	Matsushiro	60.80	53	eP	P	02 56 28.8	-0.9
	comp=Z,166nm,1.3s,mb6.0						
MAJO				LR	LR		
	comp=Z,13µm,20.3s,MS6.1						
MAJO	Matsushiro	60.80	53	eP	P	02 56 28.8	-0.9
	comp=Z,166nm,1.3s,mb6.0						
MAT	Matsushiro	60.80	53	P	P	02 56 28.6	-1.1
MAT				S	S	03 04 44.0	-2.5
MJAR	Matsushiro Arr	60.80	53	P	P	02 56 29.3	-0.4
	comp=Z,81nm,0.9s,mb5.8,baz=342,slow=6.7,SNR=63						
MJAR				LR	LR	03 27 46.8	
	comp=Z,6µm,18.1s,MS5.8,baz=350,slow=41						
MJAR	Matsushiro Arr	60.80	53	P	P	02 56 29.3	-0.4
R16A	Teasdale	60.86	316	⇑P	P	02 56 30.3	+0.3
	baz=61,SNR=67						
UALR	University of	60.86	298	eP	P	02 56 30.7	+0.6
	comp=Z,77nm,0.8s,mb5.9						
UALR	University of	60.86	298	eP	P	02 56 30.7	+0.6
	comp=Z,77nm,0.8s,mb5.9						
Q11A	Duckwater	60.93	320	⇓P	P	02 56 30.9	+0.4
	baz=61,SNR=97						
S19A	Harvey Farm, M	61.01	314	⇑P	P	02 56 31.5	+0.4
	baz=61						
R15A	Junction	61.05	317	⇓P	P	02 56 32.6	+1.2
	baz=61,SNR=69						
WCN	Washoe City	61.05	324	⇑P	P	02 56 32.2	+0.8
	baz=61,SNR=97						
Q10A	Clear Creek Ra	61.06	321	⇑P	P	02 56 32.2	+0.8
	baz=61,SNR=122						
R14A	James Farms, M	61.08	318	⇓P	P	02 56 32.2	+0.7
	baz=61,SNR=22						
Q09A	Carvers	61.16	322	⇓P	P	02 56 32.4	+0.3
	baz=61,SNR=11						
S18A	Hurst Farm, Bl	61.20	315	⇑P	P	02 56 32.4	0.0
	baz=61,SNR=86						
Q08A	Gabbs	61.24	322	⇓P	P	02 56 32.8	+0.2
	baz=61,SNR=72						
Q07A	Schurz	61.28	323	⇓P	P	02 56 33.7	+0.8
	baz=61,SNR=5.2						
R12A	Pony Springs,	61.29	319	⇓P	P	02 56 33.0	+0.1
	baz=61,SNR=33						
NJ2	Nanjing	61.29	72	eP	P	02 56 32.8	-0.3
NJ2				pP	pP	02 56 37.5	+1.0
NJ2				sP	sP	02 56 38.8	+1.1
NJ2				S	S	03 04 52.0	-0.8
NJ2				sS	sS	03 05 00.0	+1.6
NJ2				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.8						
NJ2				pmax	pmax		
	comp=Z,2µm,5.3s						
NJ2				LR	LR		
	comp=N,27µm,15.4s,MS6.5						
NJ2				LR	LR		
	comp=E,6µm,13.8s,MS6.5						
NJ2				LR	LR		
	comp=Z,28µm,16.0s,MS6.5						
MIAR	Mount Ida	61.33	299	P	P	02 56 32.4	-0.9
MIAR				pmax	pmax		
	comp=Z,350nm,1.3s,mb6.3						
MIAR	Mount Ida	61.33	299	eP	P	02 56 32.3	-1.0
	comp=Z,354nm,1.3s,mb6.3						
MIAR	Mount Ida	61.33	299	eP	P	02 56 32.3	-1.0
	comp=Z,354nm,1.3s,mb6.3						
R13A	O'Grain Ranch,	61.34	319	⇓P	P	02 56 34.1	+0.8
	baz=61,SNR=38						
T22A	Edith	61.36	312	⇓P	P	02 56 33.6	+0.2
	baz=61,SNR=73						
S17A	Black Ridge (B	61.38	316	⇓P	P	02 56 33.6	0.0
	baz=61,SNR=70						
R11A	Troy Canyon, C	61.41	320	⇓P	P	02 56 33.9	+0.1
	baz=61,SNR=118						
MVCO	Mesa Verde	61.43	314	⇓P	P	02 56 34.4	+0.4
	baz=61,SNR=65						
MVCO	Mesa Verde	61.43	314	eP	P	02 56 34.3	+0.4
	comp=Z,244nm,1.3s,mb6.2						
MVCO	Mesa Verde	61.43	314	eP	P	02 56 34.3	+0.4
	comp=Z,244nm,1.3s,mb6.2						
SHL	Shillong	61.54	100	ex	x	02 56 32.7	
SHL				AMb	AMB	02 56 37.6	
	comp=Z,144nm,1.3s,mb5.9						
SHL				iS	S	03 04 55.0	-1.1
R10A	Warm Springs	61.57	321	⇓P	P	02 56 35.5	+0.6
	baz=61,SNR=117						
S15A	Panguitch	61.59	317	⇑P	P	02 56 36.4	+1.4
	baz=61,SNR=148						
S14A	Cedar City	61.63	318	⇑P	P	02 56 36.0	+0.7
	baz=61,SNR=21						
ARUT	Antelope Range	61.64	318	eP	P	02 56 35.8	+0.4
ARUT				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.6						
ARUT	Antelope Range	61.64	318	eP	P	02 56 35.8	+0.4
	comp=Z,42nm,0.9s,mb5.6						
ARUT	Antelope Range	61.64	318	eP	P	02 56 35.8	+0.4
	comp=Z,42nm,0.9s,mb5.6						
NVAR	Mina Array Bea	61.71	322	P	P	02 56 36.1	+0.3
	comp=Z,45nm,1.1s,mb5.5,baz=21,slow=4.4,SNR=112						
NVAR				PKPPKP		03 25 42.6	
	comp=Z,0.7nm,0.8s,baz=192,slow=5.4,SNR=5.9						
NVAR				PKP2bc		03 25 52.0	
	comp=Z,2.3nm,0.9s,baz=186,slow=4.6,SNR=9.8						
NVAR	Mina Array Bea	61.71	322	P	P	02 56 36.1	+0.3
NVAR				P'P'		03 25 42.6	
NVAR				⇑e		03 25 52.0	
NVAR	Mina Array Bea	61.71	322	P	P	02 56 36.1	+0.3
T18A	Mexican Hat	61.73	315	⇓P	P	02 56 35.5	-0.5
	baz=62,SNR=98						
R09A	Tonopah	61.73	321	⇑P	P	02 56 35.8	-0.2
	baz=62,SNR=102						
WHFO	Wadi Hawf	61.76	141	P	P	02 56 35.1	-1.2
	SNR=35						
WHFO	Wadi Hawf	61.76	141	P	P	02 56 35.1	-1.2
	SNR=35						
R08A	Mina	61.77	322	⇓P	P	02 56 36.3	+0.1
	baz=62						
WHN	Wuhan	61.77	77	P	P	02 56 40.5	+4.2

WHN				S	S	03 04 55.0	-3.9
WHN				LR	LR		
	comp=E,47µm,14.0s						
R06C	Coleville	61.78	323	⇓P	P	02 56 36.9	+0.6
	baz=62,SNR=30						
HOPS	Hopland	61.78	327	*e*P	P	02 56 36.6	+0.3
	comp=E,84nm,1.1s,mb5.8						
HOPS				LR	LR		
	comp=Z,14µm,24.6s,MS6.0						
HOPS	Hopland	61.78	327	*e*P	P	02 56 36.6	+0.3
	comp=Z,84nm,1.1s,mb5.8						
CCUT	Cedar City	61.86	318	*e*P	P	02 56 37.8	+0.9
	comp=Z,194nm,1.5s,mb6.0						
CCUT	Cedar City	61.86	318	*e*P	P	02 56 37.8	+0.9
	comp=Z,194nm,1.5s,mb6.0						
T19A	Beclabito	61.89	314	⇓P	P	02 56 36.5	-0.5
	baz=62,SNR=32						
S13A	Holt Ranch, En	61.91	318	⇓P	P	02 56 37.6	+0.4
	baz=62,SNR=65						
BOK	Bokaro	61.94	107	*e*PKP	P	02 56 37.2	-0.2
BOK				AMb	AMB	02 56 42.0	
	comp=Z,118nm,1.8s,mb5.7						
S10A	Tonopah Range,	61.97	321	⇓P	P	02 56 37.7	+0.1
	baz=62,SNR=104						
T17A	Navajo Res., N	62.01	316	⇓P	P	02 56 37.4	-0.5
	baz=62,SNR=48						
S12A	Delamar Landin	62.03	319	⇓P	P	02 56 38.7	+0.7
	baz=62,SNR=80						
S11A	Rachel	62.12	320	⇓P	P	02 56 39.3	+0.7
	baz=62						
T16A	Glen Canyon Da	62.13	316	⇑P	P	02 56 38.2	-0.5
	baz=62,SNR=11						
WMOK	Wichita Mounta	62.14	304	*e*P	P	02 56 38.5	-0.2
WMOK				pmax	pmax		
	comp=Z,69nm,0.8s,mb5.8						
WMOK	Wichita Mounta	62.14	304	*e*P	P	02 56 38.5	-0.3
	comp=Z,69nm,0.8s,mb5.8						
WMOK	Wichita Mounta	62.14	304	*e*P	P	02 56 38.5	-0.2
	comp=Z,69nm,0.8s,mb5.8						
RBK	Rabkut	62.22	141	P	P	02 56 38.5	-1.0
	SNR=20						
RBK	Rabkut	62.22	141	P	P	02 56 38.5	-1.0
	SNR=20						
T15A	Red Dirt Ranch	62.23	317	⇓P	P	02 56 39.5	+0.2
	baz=62,SNR=147						
ABTO	Aybut	62.24	142	P	P	02 56 38.7	-0.9
	SNR=31						
ABTO	Aybut	62.24	142	P	P	02 56 38.7	-0.9
	SNR=31						
S09A	Goldfield	62.26	321	⇓P	P	02 56 39.8	+0.3
	baz=62,SNR=90						
T14A	Hurricane	62.30	318	⇑P	P	02 56 40.7	+0.9
	baz=62,SNR=22						
U17A	Shonto	62.38	315	⇓P	P	02 56 40.1	-0.2
	baz=62,SNR=67						
CMB	Columbia Colle	62.38	324	*e*P	P	02 56 40.1	-0.2
CMB				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.3						
CMB				MLR	MLR		
	comp=Z,19µm,18.8s,MS6.3						
CMB	Columbia Colle	62.38	324	*e*P	P	02 56 40.1	-0.2
	comp=Z,22nm,0.9s,mb5.3						
CMB				LR	LR		
	comp=Z,19µm,18.8s,MS6.3						
CMB	Columbia Colle	62.38	324	*e*P	P	02 56 40.1	-0.2
	comp=Z,22nm,0.9s,mb5.3						
U18A	Rough Rock, Ch	62.42	315	⇓P	P	02 56 40.5	-0.2
	baz=62,SNR=69						
T11A	Corn Creek, Al	62.44	319	⇑P	P	02 56 41.5	+0.7
	baz=62,SNR=108						
T13A	Saint George	62.47	318	⇑P	P	02 56 41.5	+0.6
	baz=62,SNR=40						
AMTX	Amarillo	62.53	307	*e*P	P	02 56 41.0	-0.4
	comp=Z,53nm,0.9s,mb5.7						
AMTX				LR	LR		
	comp=Z,23µm,14.1s,MS6.5						
AMTX	Amarillo	62.53	307	*e*P	P	02 56 41.0	-0.3
	comp=Z,53nm,0.9s,mb5.7						
MLAC	Mammoth Lakes	62.57	323	⇓P	P	02 56 42.7	+1.1
	baz=62,SNR=10						
MCCM	Marconi Confer	62.59	326	*e*P	P	02 56 41.9	+0.1
	comp=Z,360nm,1.5s,mb6.3						
MCCM				LR	LR		
	comp=Z,16µm,22.7s,MS6.1						
MCCM	Marconi Confer	62.59	326	*e*P	P	02 56 41.8	+0.1
	comp=Z,360nm,1.5s,mb6.3						
SSE	Sheshan	62.71	70	⇓P	P	02 56 41.6	-1.0
SSE				S	S	03 05 08.9	-1.9
SSE				ScS	ScS	03 06 32.3	-2.4
SSE				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.7						
SSE				pmax	pmax		
	comp=Z,680nm,8.1s						
SSE				LR	LR		
	comp=N,40µm,22.8s,MS6.7						
SSE				LR	LR		
	comp=E,48µm,22.9s,MS6.7						
SSE				LR	LR		
	comp=Z,23µm,17.6s						
T12A	Moapa	62.87	319	⇑P	P	02 56 44.2	+0.6
	baz=63,SNR=28						
U16A	Tuba City	62.90	316	⇓P	P	02 56 44.0	+0.2
	baz=63,SNR=46						
U14A	Mt Trumbull	62.95	317	⇓P	P	02 56 44.8	+0.7
	baz=63,SNR=112						
VBMS	Vicksburg	62.97	296	*e*P	P	02 56 43.8	-0.5
	comp=Z,224nm,1.0s,mb6.2						
VBMS				LR	LR		
	comp=Z,16µm,19.9s,MS6.2						
VBMS	Vicksburg	62.97	296	*e*P	P	02 56 43.8	-0.5
	comp=Z,224nm,1.0s,mb6.2						
GRAC	Grapevine Rang	62.99	321	⇑P	P	02 56 44.8	+0.5
	baz=63,SNR=14						
AGT	Agartala	63.02	101	*e*PKP	P	02 56 44.0	-0.8
AGT				*e*x	x	02 57 10.0	
TIN	Tinemaha	63.05	322	⇓P	P	02 56 45.8	+1.0
	baz=63,SNR=7.1						
U13A	Pakoon Wash	63.07	318	⇓P	P	02 56 45.7	+0.8
	baz=63,SNR=74						
V18A	Ganado	63.13	314	⇓P	P	02 56 44.6	-0.7
	baz=63,SNR=12						
U12A	Valley of Fire	63.14	319	⇓P	P	02 56 45.8	+0.5
	baz=63,SNR=37						
W22A	Albuquerque	63.25	312	⇑P	P	02 56 46.2	0.0
	baz=63						
U11A	Corn Creek	63.27	319	⇓P	P	02 56 46.6	+0.3
	baz=63,SNR=15						
ANMO	Albuquerque	63.30	311	*e*P	P	02 56 46.0	-0.5
ANMO				pmax	pmax		
	comp=Z,88nm,1.0s						
ANMO				MLR	MLR		
	comp=Z,28µm,16.3s						
ANMO	Albuquerque	63.30	311	*e*P	P	02 56 46.0	-0.4
	comp=Z,22nm,1.0s,mb5.2						
ANMO				LR	LR		
	comp=Z,28µm,16.3s,MS6.5						
ANMO	Albuquerque	63.30	311	*e*P	P	02 56 46.0	-0.5
	comp=Z,22nm,1.0s,mb5.2						
W21A	San Fidel	63.34	312	⇑P	P	02 56 46.4	-0.3
	baz=63						
V15A	Kaibab Nationa	63.38	316	⇓P	P	02 56 47.4	+0.5
	baz=63,SNR=89						
U10A	Ash Meadows, A	63.41	320	⇑P	P	02 56 47.1	0.0
	baz=63						
FURC	Furnace Creek,	63.44	321	⇑P	P	02 56 47.5	+0.2
	baz=63,SNR=15						
W20A	Ramah	63.47	313	⇓P	P	02 56 46.7	-0.9
	baz=63,SNR=28						
WUAZ	Wupatki	63.55	316	⇑P	P	02 56 48.3	+0.2
	baz=63,SNR=63						
WUAZ	Wupatki	63.55	316	*e*P	P	02 56 48.3	+0.2
	comp=Z,110nm,1.0s,mb5.8						
WUAZ	Wupatki	63.55	316	*e*P	P	02 56 48.3	+0.2
	comp=Z,110nm,1.0s,mb5.8						
V13A	Grand Canyon W	63.62	318	⇓P	P	02 56 49.3	+0.7
	baz=63,SNR=79						
W19A	Sanders	63.63	314	⇓P	P	02 56 48.0	-0.6
	baz=63,SNR=30						
CWC	Cottonwood Cre	63.64	322	⇑P	P	02 56 49.4	+0.7
	baz=63						
W18A	Petrified Fore	63.68	314	⇑P	P	02 56 48.6	-0.3
	baz=63,SNR=22						
CAL	Calcutta	63.68	105	⇓*i*x	P	02 56 55.4	+6.3
CAL				*e*S	S	03 05 24.5	+1.5
V14A	Boquillas Ranc	63.70	317	⇑P	P	02 56 50.0	+0.9
	baz=63,SNR=87						
DAC	Darwin (Calif)	63.73	321	PFAKE		02 57 00.0	+11
DAC				LR	LR		
	comp=Z,9µm,17.5s,MS6.0						
SAO	San Andreas Ge	63.77	325	*e*P	P	02 56 50.1	+0.5
	comp=Z,64nm,1.0s,mb5.6						
SAO				LR	LR		
	comp=Z,18µm,22.9s,MS6.2						
SAO	San Andreas Ge	63.77	325	*e*P	P	02 56 50.1	+0.5
	comp=Z,64nm,1.0s,mb5.6						
X22A	Bernardo	63.83	312	⇑P	P	02 56 50.1	+0.2
	baz=64,SNR=7.5						
V11A	Goodsprings	63.85	319	⇓P	P	02 56 50.4	+0.3
	baz=64,SNR=16						
W17A	Winslow	63.87	315	⇑P	P	02 56 50.1	-0.1
	baz=64						
V12A	Nelson	63.87	319	⇑P	P	02 56 50.7	+0.4
	baz=64,SNR=61						
DHBB	Dhamar BB	63.90	152	*e*P	P	02 56 50.9	+0.3
SHOC	Shoshone	63.91	320	⇓P	P	02 56 50.9	+0.3
	baz=64,SNR=15						
RCTC	Rector, Farmer	63.93	323	⇑P	P	02 56 50.5	-0.1
	baz=64,SNR=32						
MPMC	Manual Prospec	63.93	321	⇑P	P	02 56 51.4	+0.8
	baz=64,SNR=72						
LAZ	Ladron	63.95	312	*e*P	P	02 56 50.5	-0.3
	comp=Z,17nm,1.1s,mb5.0						
LAZ	Ladron	63.95	312	*e*P	P	02 56 50.5	-0.3
	comp=Z,17nm,1.1s,mb5.0						
W16A	Flagstaff	63.99	316	⇓P	P	02 56 51.2	+0.2
	baz=64,SNR=47						
GYA	Guiyang	63.99	85	⇓*i*P	P	02 56 50.0	-1.2
GYA				PP	PP	02 59 14.3	+2.8
GYA				ScP		03 01 29.3	
GYA				S	S	03 05 22.1	-4.8
GYA				SKS		03 06 42.3	
GYA				SS	SS	03 09 37.9	+3.0
GYA				pmax	pmax		
	comp=Z,90nm,0.7s,mb5.9						
GYA				pmax	pmax		
	comp=Z,870nm,6.4s						
GYA				LR	LR		
	comp=N,14µm,16.4s,MS6.7						
GYA				LR	LR		
	comp=E,34µm,15.3s,MS6.7						
GYA				LR	LR		
	comp=Z,16µm,16.7s,MS6.3						
W15A	Williams	64.02	316	⇑P	P	02 56 52.0	+0.7
	baz=64,SNR=24						
BNM	Barren Site	64.11	311	*e*P	P	02 56 51.7	-0.2
	comp=Z,21nm,1.0s,mb5.1						
BNM	Barren Site	64.11	311	*e*P	P	02 56 51.7	-0.1
	comp=Z,21nm,1.0s,mb5.1						
W14A	Seligman	64.11	317	⇑P	P	02 56 52.7	+0.9
	baz=64,SNR=67						
Y22D	IRIS PASSCAL I	64.23	311	⇓P	P	02 56 52.8	+0.1
	baz=64						
NATX	Nacogdoches	64.24	300	*e*P	P	02 56 52.3	-0.4
	comp=Z,222nm,1.3s,mb6.0						
NATX	Nacogdoches	64.24	300	*e*P	P	02 56 52.3	-0.4
	comp=Z,222nm,1.3s,mb6.0						
X18A	Snowflake	64.29	314	⇓P	P	02 56 52.2	-0.8
	baz=64,SNR=11						
W12A	Cal Nev Ari	64.30	319	⇑P	P	02 56 53.5	+0.5
	baz=64						
TUQ	Turquoise Moun	64.32	320	⇑P	P	02 56 53.5	+0.3
	baz=64,SNR=7.3						
W13A	Hualapai Mount	64.34	318	⇓P	P	02 56 53.1	-0.3
	baz=64,SNR=24						
VES	Vestal, Richgr	64.37	323	⇑P	P	02 56 52.9	-0.6
	baz=64,SNR=17						
KMI	Kunming	64.40	90	P	P	02 56 52.8	-1.0
KMI				pP	pP	02 56 59.5	+2.3
KMI				sP	sP	02 57 02.1	+3.6
KMI				PcP	PcP	02 57 28.8	+0.6
KMI				PP	PP	02 59 20.1	+5.0
KMI				S	S	03 05 29.4	-2.5
KMI				sS	sS	03 05 40.3	+2.8
KMI				SKS		03 06 39.6	
KMI				SS	SS	03 09 41.3	+0.1
KMI				pmax	pmax		
	comp=Z,29nm,1.7s,mb5.0						
KMI				pmax	pmax		
	comp=Z,1µm,5.2s						
KMI				LR	LR		
	comp=N,6µm,20.0s,MS6.5						
KMI				LR	LR		
	comp=E,33µm,17.9s,MS6.5						
KMI				LR	LR		
	comp=Z,24µm,14.7s,MS6.5						
ISA	Isabella	64.46	322	*e*P	P	02 56 54.6	+0.5
ISA				pmax	pmax		
	comp=Z,99nm,1.1s,mb5.8						
ISA	Isabella	64.46	322	⇓P	P	02 56 54.4	+0.4
	baz=64,SNR=47						
ISA	Isabella	64.46	322	*e*P	P	02 56 54.6	+0.5
	comp=Z,98nm,1.1s,mb5.8						
ISA	Isabella	64.46	322	*e*P	P	02 56 54.6	+0.5
	comp=Z,98nm,1.1s,mb5.8						
TORD	Torodi Ar. Bea	64.52	198	P	P	02 56 53.8	-0.9
	comp=Z,49nm,1.1s,mb5.5,baz=358,slow=6.2,SNR=108						
TORD				PKP2bc		03 25 49.1	
	comp=Z,2.9nm,1.1s,baz=195,slow=1.4,SNR=4.7						
TORD				LR	LR	03 27 34.0	
	comp=Z,8µm,18.9s,MS5.9,baz=355,slow=38						
TORD	Torodi Ar. Bea	64.52	198	P	P	02 56 53.8	-0.9
TORD				⇑*e*		03 25 49.1	
TORD				LR	LR	03 27 34.0	
MUKL	Al Mukalla	64.52	147	*e*P	P	02 56 53.5	-1.2
LDFC	Landfair	64.55	319	*e*P	P	02 56 54.8	+0.1
	comp=Z,130nm,1.2s,mb5.8						
LDFC	Landfair	64.55	319	*e*P	P	02 56 54.8	+0.1
	comp=Z,130nm,1.2s,mb5.8						
POO	Poona	64.56	120	*e*PKP	P	02 56 56.1	+1.2
POO				AMb	AMB	02 56 59.9	
	comp=Z,171nm,1.2s,mb6.0						
GSC	Goldstone	64.58	320	P	P	02 56 55.6	+0.7
GSC				pmax	pmax		
	comp=Z,84nm,1.0s,mb5.7						
GSC	Goldstone	64.58	320	⇓P	P	02 56 55.4	+0.6
	baz=64,SNR=44						
GSC	Goldstone	64.58	320	*e*P	P	02 56 55.6	+0.7
	comp=Z,84nm,0.9s,mb5.8						
GSC	Goldstone	64.58	320	*e*P	P	02 56 55.6	+0.7
	comp=Z,84nm,0.9s,mb5.8						
X17A	Forest Lakes	64.61	315	⇑P	P	02 56 55.3	+0.2
	baz=64,SNR=5.3						
X16A	Lo Mia Camp, P	64.64	316	⇑P	P	02 56 55.5	+0.3
	baz=64,SNR=47						
X15A	Humboldt	64.69	316	⇓P	P	02 56 56.2	+0.6
	baz=64,SNR=47						
Y19A	Nutrioso	64.73	313	⇓P	P	02 56 56.0	+0.1
	baz=64,SNR=20						
NEE2	Needles Airpor	64.78	318	⇑P	P	02 56 56.3	+0.1
	baz=64						
X14A	Yava	64.81	317	⇑P	P	02 56 57.2	+0.8
	baz=65,SNR=32						
X13A	Yucca	64.83	318	⇑P	P	02 56 57.0	+0.4
	baz=65						
GMRC	Granite Mounta	64.92	319	⇑P	P	02 56 57.7	+0.5
	baz=65,SNR=69						
HEC	Hector,Ludlow	64.97	320	⇓P	P	02 56 57.8	+0.4
	baz=65,SNR=14						
SMMC	Simmler	65.01	323	⇓P	P	02 56 57.9	+0.2
	baz=65						
RRX	Edison Barstow	65.02	321	⇑P	P	02 56 58.2	+0.5
	baz=65,SNR=6.7						
ARVC	Arvin	65.03	322	⇑P	P	02 56 58.0	+0.1
	baz=65						
DWPF	Disney	65.03	286	*e*P	P	02 56 57.8	-0.2
	comp=Z,109nm,1.0s,mb5.8						
DWPF				LR	LR		
	comp=Z,14µm,23.0s,MS6.1						
DWPF	Disney	65.03	286	*e*P	P	02 56 57.8	-0.1
	comp=Z,109nm,1.0s,mb5.8						
EDW2	Edwards Air Fo	65.16	321	⇑P	P	02 56 59.0	+0.3
	baz=65,SNR=21						
PDMCI	Parker Dam,Lak	65.17	318	⇓P	P	02 56 59.0	+0.2
	baz=65,SNR=26						
Y16A	Circle Bar Ran	65.17	315	⇓P	P	02 56 59.0	+0.3
	baz=65,SNR=41						
Y15A	Casa Rosa Ranc	65.23	316	⇓P	P	02 56 59.5	+0.3
	baz=65,SNR=31						
Y17A	Roosevelt	65.25	315	⇓P	P	02 56 59.3	0.0
	baz=65,SNR=24						
Y14A	Wickenburg	65.35	317	⇑P	P	02 57 00.4	+0.5
	baz=65,SNR=33						
Z19A	T-Link Ranch,	65.39	313	⇑P	P	02 57 00.2	0.0
	baz=65						
IRM	Iron Mountain	65.46	319	⇑P	P	02 57 01.0	+0.4
	baz=65,SNR=12						
OSI	Osito Adit	65.52	322	⇓P	P	02 57 01.6	+0.6
	baz=65						
Z17A	San Carlos Hig	65.58	314	⇑P	P	02 57 01.8	+0.4
	baz=65						
122A	Conniff Cattle	65.59	311	⇓P	P	02 57 01.8	+0.3
	baz=65						
Y13A	Salome	65.60	318	⇑P	P	02 57 02.0	+0.5
	baz=65,SNR=27						
BBRC	Big Bear Sol-O	65.61	320	⇓P	P	02 57 02.2	+0.6
	baz=65						
Z16A	Peralta Trail,	65.69	315	⇑P	P	02 57 02.1	0.0
	baz=65,SNR=22						
Z18A	Geronimo	65.72	314	⇓P	P	02 57 02.6	+0.3
	baz=66						
BELC	Belle Mtn.	65.74	320	⇓P	P	02 57 02.8	+0.4
	baz=66,SNR=15						
BFSC	Mount Baldy St	65.74	321	⇓P	P	02 57 02.9	+0.5
	baz=66,SNR=24						
Y12C	Blythe	65.76	318	⇓P	P	02 57 03.1	+0.5
	baz=66,SNR=23						
MWC	Mount Wilson	65.81	321	P	P	02 57 04.0	+1.1
MWC				pmax	pmax		
	comp=Z,290nm,1.4s,mb6.1						
MWC	Mount Wilson	65.81	321	*e*P	P	02 57 03.5	+0.5
	comp=Z,286nm,1.5s,mb6.1						
MWC	Mount Wilson	65.81	321	*e*P	P	02 57 03.5	+0.6
	comp=Z,286nm,1.5s,mb6.1						
KAD	Karad	65.82	120	*e*PKP	P	02 57 02.2	-0.9
KAD				AMb	AMB	02 57 07.9	
	comp=Z,155nm,1.1s,mb6.0						
DECC	Green Verdugo	65.83	322	⇓P	P	02 57 03.4	+0.4
	baz=66						
SBC	Santa Barbara	65.83	323	⇓P	P	02 57 03.8	+0.8
	baz=66						
Z15A	Gila River Ind	65.85	316	⇑P	P	02 57 03.2	0.0
	baz=66,SNR=14						
Z14A	Wintersburg	65.90	317	⇓P	P	02 57 03.8	+0.3
	baz=66,SNR=22						
119A	Ashpeak Ranch,	65.91	313	⇑P	P	02 57 03.5	0.0
	baz=66,SNR=24						
BC3	Big Chuckw Mtn	66.00	319	⇓P	P	02 57 04.5	+0.4
	baz=66,SNR=19						
120A	U Bar Ranch, L	66.01	313	⇓P	P	02 57 04.7	+0.5
	baz=66						
BLG	Laguna Peak	66.07	322	⇓P	P	02 57 04.8	+0.3
	baz=66						
118A	Homack Ranch,	66.14	314	⇑P	P	02 57 05.3	+0.2
	baz=66,SNR=50						
PFO	Pinyon Flat Ob	66.19	320	P	P	02 57 05.5	+0.2
	comp=Z,350nm,1.0s,mb6.3,SNR=20						
PFO	Pinyon Flat Ob	66.19	320	⇓P	P	02 57 05.4	0.0
	baz=66						
PFO	Pinyon Flat Ob	66.19	320	*e*P	P	02 57 05.8	+0.4
	comp=Z,44nm,1.0s,mb5.4						
PFO				LR	LR		
	comp=Z,10µm,16.3s,MS6.1						
PFO	Pinyon Flat Ob	66.19	320	*e*P	P	02 57 05.8	+0.5
	comp=Z,44nm,1.0s,mb5.4						
HKT	Hockley	66.22	300	*e*P	P	02 57 04.9	-0.7
HKT				pmax	pmax		
	comp=Z,148nm,1.5s,mb5.8						
HKT				MLR	MLR		
	comp=Z,23µm,20.9s,MS6.4						
HKT	Hockley	66.22	300	*e*P	P	02 57 04.9	-0.7
	comp=Z,148nm,1.5s,mb5.8						
HKT				LR	LR		
	comp=Z,23µm,20.9s,MS6.4						
HKT	Hockley	66.22	300	*e*P	P	02 57 04.9	-0.7
	comp=Z,148nm,1.5s,mb5.8						
BSC	Santa Cruz Isl	66.26	323	⇓P	P	02 57 05.7	-0.1
	baz=66						
MURC	Murrieta	66.31	321	⇑P	P	02 57 06.1	0.0
	baz=66,SNR=5.6						
117A	Oracle	66.33	314	⇑P	P	02 57 06.7	+0.4
	baz=66,SNR=52						
FMP	Fort Macarthur	66.35	322	⇑P	P	02 57 06.5	+0.1
	baz=66						
115A	Sonoran Desert	66.44	316	⇓P	P	02 57 07.6	+0.6
	baz=66,SNR=36						
JCT	Junction City	66.47	304	*e*P	P	02 57 06.7	-0.5
JCT				pmax	pmax		
	comp=Z,432nm,1.5s,mb6.3						
JCT	Junction City	66.47	304	*e*P	P	02 57 06.7	-0.5
	comp=Z,432nm,1.5s,mb6.3						
JCT	Junction City	66.47	304	*e*P	P	02 57 06.7	-0.5
	comp=Z,432nm,1.5s,mb6.3						
114A	Black Gap (USA	66.49	316	⇑P	P	02 57 07.7	+0.4
	baz=66						
116A	Eloy	66.49	315	⇑P	P	02 57 07.6	+0.3
	baz=66,SNR=28						
GLA	Glamis	66.50	318	*e*P	P	02 57 08.3	+1.0
GLA				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.5						
GLA	Glamis	66.50	318	⇓P	P	02 57 07.7	+0.4
	baz=66,SNR=8.1						
GLA	Glamis	66.50	318	*e*P	P	02 57 07.8	+0.5
	comp=Z,48nm,0.9s,mb5.5						
GLA	Glamis	66.50	318	*e*P	P	02 57 07.8	+0.5
	comp=Z,48nm,0.9s,mb5.5						
HYB	Hyderabad	66.58	116	*e*P	P	02 57 06.5	-1.5
HYB				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.5						
HYB	Hyderabad	66.58	116	*i* P	P	02 57 06.5	-1.5
	comp=Z,55nm,1.0s,mb5.5						
HYB				*e*S	S	03 05 58.0	-0.7
HYB	Hyderabad	66.58	116	*e*P	P	02 57 06.5	-1.5
	comp=Z,55nm,1.0s,mb5.5						
HYB	Hyderabad	66.58	116	*e*P	P	02 57 06.5	-1.5
	comp=Z,55nm,1.0s,mb5.5						
TUC	Tucson	66.59	314	*e*P	P	02 57 08.2	+0.3
TUC				pmax	pmax		
	comp=Z,105nm,1.2s,mb5.7						
TUC				MLR	MLR		
	comp=Z,10µm,16.5s,MS6.1						
TUC	Tucson	66.59	314	*e*P	P	02 57 08.2	+0.3
	comp=Z,120nm,1.2s,mb5.8						
TUC				LR	LR		
	comp=Z,11µm,16.5s,MS6.2						
TUC	Tucson	66.59	314	*e*P	P	02 57 08.2	+0.3
	comp=Z,120nm,1.2s,mb5.8						
113A	Mohawk Valley,	66.61	317	⇑P	P	02 57 08.2	+0.1
	baz=66,SNR=25						
219A	White Tail Can	66.65	313	⇓P	P	02 57 08.6	+0.3
	baz=66						
CIS	Catalina Islan	66.67	322	⇓P	P	02 57 08.5	+0.2
	baz=66						
SWSC	Sam W. Stewart	66.75	319	⇑P	P	02 57 09.2	+0.2
	baz=66						
218A	Dragoon	66.80	314	⇑P	P	02 57 09.7	+0.4
	baz=67,SNR=19						
MONP	Monument Peak	66.89	320	⇑P	P	02 57 10.3	+0.4
	baz=67						
112A	Yuma	66.97	318	⇓P	P	02 57 10.8	+0.4
	baz=67						
SNCC	San Nicolas Is	66.98	323	⇓P	P	02 57 10.6	+0.2
	baz=67						
SNCC	San Nicolas Is	66.98	323	*e*P	P	02 57 10.8	+0.5
	comp=Z,298nm,1.4s,mb6.1						
SNCC	San Nicolas Is	66.98	323	*e*P	P	02 57 10.8	+0.4
	comp=Z,298nm,1.4s,mb6.1						
109C	Camp Elliot, M	66.99	320	⇑P	P	02 57 10.9	+0.4
	baz=67						
216A	Three Points,	67.00	315	⇑P	P	02 57 10.7	+0.1
	baz=67,SNR=21						
DVTC	Desert V Tower	67.07	319	⇓P	P	02 57 11.4	+0.4
	baz=67,SNR=12						
SCI	San Clemente I	67.11	322	⇑P	P	02 57 12.0	+0.8
	baz=67						
217A	Green Valley	67.12	314	⇓P	P	02 57 11.9	+0.6
	baz=67,SNR=52						
BAR	Barrett	67.13	320	*e*P	P	02 57 11.9	+0.6
	comp=Z,130nm,1.4s,mb5.8						
BAR	Barrett	67.13	320	*e*P	P	02 57 11.9	+0.5
	comp=Z,130nm,1.4s,mb5.8						
214A	Organ Pipe Nat	67.26	316	⇑P	P	02 57 12.0	-0.2
	baz=67,SNR=28						
319A	Douglas	67.26	313	⇑P	P	02 57 12.4	+0.2
	baz=67,SNR=28						
VIS	Vishakhapatnam	67.27	111	*e*PKP	P	02 57 11.6	-0.8
VIS				AMb	AMB	02 57 17.1	
	comp=Z,86nm,1.8s,mb5.5						
318A	Bisbee	67.32	314	⇓P	P	02 57 12.5	0.0
	baz=67,SNR=46						
QZH	Quanzhou	68.10	74	⇓*i*P	P	02 57 18.4	+0.8
QZH				S	S	03 06 16.5	-0.4
QZH				pmax	pmax		
	comp=Z,370nm,1.5s,mb6.2						

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QZH                                  pmax     pmax
       comp=Z,2µm,5.0s
QZH                                  LR       LR
       comp=Z,44µm,14.1s,MS6.8
TXAR  Lajitas Array     68.29 307   P        P          02 57 17.9  -0.9
       comp=Z,44nm,0.8s,mb5.5,baz=42,slow=5.3,SNR=341
TXAR  Lajitas Array     68.29 307   P        P          02 57 17.9  -0.8
JOW   Kunigami          68.31  65   LR       LR         03 28 31.4
       comp=Z,13µm,18.4s,MS6.2,baz=179,slow=37
TATO  Taipei            68.69  72   PFAKE               02 57 30.0  +8.7
TATO                                LR       LR
       comp=Z,18µm,17.5s,MS6.4
GZH   Guangzhou         68.74  80   P        P          02 57 17.5  -4.1
GZH                                 S        S          03 06 17.6  -6.9
GZH                                 LR       LR
       comp=N,10µm,22.9s
GZH                                 LR       LR
       comp=E,15µm,16.6s
GZH                                 LR       LR
       comp=Z,22µm,15.4s
CHRT  Chiangrai         68.80  94 ⇓P        P          02 57 21.0  -1.0
       comp=Z,684nm,0.9s,mb6.6
YHNB  Yeheng            68.97  72   PFAKE               02 57 30.0  +7.0
YHNB                                LR       LR
       comp=Z,14µm,19.3s,MS6.2
CHG   Chiang Mai        69.64  95 ⇓P        P          02 57 26.1  -1.1
       comp=Z,104nm,1.1s,mb5.7
CHTO  Chiang Mai        69.64  95  eP       P          02 57 26.4  -0.8
CHTO                                pmax     pmax
       comp=Z,101nm,1.1s,mb5.7
CHTO                                MLR      MLR
       comp=Z,4µm,18.4s,MS5.7
CHTO  Chiang Mai        69.64  95  eP       P          02 57 26.4  -0.8
       comp=Z,101nm,1.1s,mb5.7
CHTO                                LR       LR
       comp=Z,4µm,18.4s,MS5.7
CHTO  Chiang Mai        69.64  95  eP       P          02 57 26.4  -0.8
       comp=Z,101nm,1.1s,mb5.7
CMAR  Chiang Mai Arr    69.98  95   P        P          02 57 28.6  -0.7
       comp=Z,61nm,1.1s,mb5.5,baz=340,slow=6.8,SNR=64
CMAR                                LR       LR         03 29 32.5
       comp=Z,8µm,20.4s,MS6.0,baz=160,slow=37
CMAR  Chiang Mai Arr    69.98  95   P        P          02 57 28.5  -0.8
YULB  Yu-li             70.18  72  eP       P          02 57 31.8  +1.2
       comp=Z,104nm,1.3s,mb5.6
YULB  Yu-li             70.18  72  eP       P          02 57 31.8  +1.3
       comp=Z,104nm,1.3s,mb5.6
CBYP  Canovanas         71.07 269  eP       P          02 57 36.1  +0.2
       comp=Z,86nm,1.2s,mb5.6
CBYP  Canovanas         71.07 269  eP       P          02 57 36.1  +0.2
       comp=Z,86nm,1.2s,mb5.6
MDRS  Chennai           71.15 115⇑ePKP     P          02 57 35.2  -1.3
MDRS                               ex       x          02 58 15.2
BDT   Bhumibol Dam      71.17  95   P        P          02 57 36.0  -0.5
       comp=Z,20nm,1.0s,mb5.0
MTP   Monte Pirata      71.17 268  eP       P          02 57 37.1  +0.5
       comp=Z,132nm,0.9s,mb5.9
MTP   Monte Pirata      71.17 268  eP       P          02 57 37.1  +0.5
       comp=Z,132nm,0.9s,mb5.9
SJG   San Juan          71.29 269   PFAKE               02 57 50.0   +13
SJG                                 LR       LR
       comp=Z,13µm,27.4s,MS6.0
DBIC  Dimbokro          71.47 205   P        P          02 57 37.5  -0.9
       comp=Z,77nm,1.0s,mb5.6,baz=338,slow=8.6,SNR=35
DBIC                                LR       LR         03 32 54.5
       comp=Z,5µm,18.4s,MS5.8,baz=348,slow=39
DBIC  Dimbokro          71.47 205   P        P          02 57 37.5  -0.9
TIC   Toumodi           71.51 205  eP       P          02 57 37.3  -1.3
       comp=Z,344nm,1.1s,mb6.2
SDDR  Presa de Saban    71.61 274  eP       P          02 57 39.3  +0.1
       comp=Z,247nm,1.5s,mb5.9
SDDR  Presa de Saban    71.61 274  eP       P          02 57 39.3  +0.1
       comp=Z,247nm,1.5s,mb5.9
CRPR  Cabo Rojo, PR     71.61 270  eP       P          02 57 39.1  -0.1
       comp=Z,14nm,0.7s,mb5.0
CRPR  Cabo Rojo, PR     71.61 270  eP       P          02 57 39.1  -0.1
       comp=Z,14nm,0.7s,mb5.0
KIC   Kosan Boka        71.77 204  eP       P          02 57 39.4  -0.8
       comp=Z,2µm,1.0s,mb6.9
QIZ   Qiongzhong        71.88  84   PFAKE               02 57 50.0  +9.2
QIZ                                 LR       LR
       comp=Z,14µm,17.9s,MS6.3
LIC   Lamto             71.93 205⇓iP       P          02 57 40.2  -0.9
       comp=Z,505nm,0.9s,mb6.1,baz=4.8
LIC                                eMLR     MLR
       comp=Z,8µm,22.0s,MS5.6
LIC   Lamto             71.93 205  eP       P          02 57 40.1  -1.0
       comp=Z,701nm,0.9s,mb6.6
LIC   Lamto             71.93 205⇓iP       P          02 57 40.2  -0.9
       comp=Z,253nm,0.9s,mb6.2
LIC                                 LR       LR
       comp=Z,4µm,22.0s,MS5.6
LIC   Lamto             71.93 205⇓iP       P          02 57 40.2  -0.9
       comp=Z,253nm,0.9s,mb6.1,baz=4.8
KKTK  Khon Kaen         72.90  92 ⇓P        P          02 57 46.0  -0.9
       comp=Z,2µm,0.8s,mb7.1
NST   Nakhon Sawan      72.94  95   P        P          02 57 46.0  -1.2
       comp=Z,83nm,0.8s,mb5.7
FDF   Fort de France    73.43 263  eP       P          02 57 50.4  +0.3
       comp=Z,229nm,1.1s,mb6.0
FDF                                 LR       LR
       comp=Z,3µm,22.3s,MS5.5
FDF   Fort de France    73.43 263  eP       P          02 57 50.4  +0.3
       comp=Z,229nm,1.1s,mb6.0
TEIG  Tepich            74.13 291  eP       P          02 57 53.7  -0.4
TEIG                                LR       LR
       comp=Z,24µm,21.3s,MS6.5
TEIG  Tepich            74.13 291  eP       P          02 57 53.7  -0.4
GRGR  Grenville         76.06 263  eP       P          02 58 04.5  -0.8
       comp=Z,375nm,1.1s,mb6.2
GRGR  Grenville         76.06 263  eP       P          02 58 04.5  -0.8
       comp=Z,375nm,1.1s,mb6.2
PALK  Pallekele         76.88 116  eP       P          02 58 09.6  -0.4
PALK                                pmax     pmax
       comp=Z,112nm,1.2s,mb5.7
PALK  Pallekele         76.88 116   LR       LR         03 34 33.9
       comp=Z,16µm,18.8s,MS6.3,baz=356,slow=38
PALK  Pallekele         76.88 116  eP       P          02 58 09.6  -0.3
       comp=Z,112nm,1.2s,mb5.7
PALK  Pallekele         76.88 116  eP       P          02 58 09.6  -0.4
       comp=Z,112nm,1.2s,mb5.7
MBAR  Mbarara           77.87 168d iP       P          02 58 14.3  -1.2
KMBO  Kilima Mbogo      78.79 161   P        P          02 58 22.1  +1.5
       comp=Z,42nm,1.1s,mb5.3,baz=352,slow=8.2,SNR=12
KMBO                                LR       LR         03 36 45.1
       comp=Z,6µm,18.8s,MS6.0,baz=349,slow=38
KMBO  Kilima Mbogo      78.79 161   P        P          02 58 22.1  +1.5
TGUH  Tegucigalpa,Un    79.89 289   PFAKE               02 58 40.0   +13
TGUH                                LR       LR
       comp=Z,10µm,17.7s,MS6.2
SDV   Santo Domingo     81.22 271  eP       P          02 58 33.9  +0.1
       comp=Z,39nm,0.8s,mb5.4
SDV                                 LR       LR
       comp=Z,1µm,18.9s,MS5.3
SDV   Santo Domingo     81.22 271  eP       P          02 58 33.9  +0.2
       comp=Z,39nm,0.8s,mb5.4
SNG   Songkhla          81.27  96   P        P          02 58 33.0  -1.0
       comp=Z,100nm,0.8s,mb5.8
JTS   JuntasAbangare    83.05 285   PFAKE               02 58 50.0  +6.7
JTS                                 LR       LR
       comp=Z,10µm,19.6s,MS6.2
KULM  Kulim             83.10  97  eP       P          02 58 42.3  -1.3
       comp=Z,44nm,1.0s,mb5.5
KULM                                LR       LR
       comp=Z,14µm,17.9s,MS6.4
KULM  Kulim             83.10  97  eP       P          02 58 42.3  -1.3
       comp=Z,44nm,1.0s,mb5.5
POHA  Pohakuloa         83.32 354   PFAKE               02 58 50.0  +5.3
POHA                                LR       LR
       comp=Z,2µm,20.3s,MS5.4
KHU   Kahuku            83.83 354  eP       P          02 58 48.2  +0.9
KHU   Kahuku            83.83 354  eP       P          02 58 48.2  +0.9
MSEY  Mahe Island       84.22 143  eP       P          02 58 48.7  -0.6
MSEY                                pmax     pmax
       comp=Z,299nm,2.4s,mb6.0
MSEY                                MLR      MLR
       comp=Z,4µm,20.0s,MS5.8
MSEY  Mahe Island       84.22 143  eP       P          02 58 48.7  -0.5
       comp=Z,299nm,2.4s,mb6.0
MSEY                                LR       LR
       comp=Z,4µm,20.0s,MS5.8
MSEY  Mahe Island       84.22 143  eP       P          02 58 48.7  -0.6
       comp=Z,299nm,2.4s,mb6.0
GUMO  Guam              84.39  52   LR       LR         03 35 36.8
       comp=Z,6µm,19.9s,MS6.0,baz=100,slow=35
GUMO  Guam              84.39  52   PFAKE               02 59 00.0   +10
GUMO                                LR       LR
       comp=Z,5µm,19.4s,MS5.9
KKM   Kota Kinabalu     85.87  81   PFAKE               02 59 10.0   +12
KKM                                 LR       LR
       comp=Z,4µm,17.5s,MS5.9
ROSC  El Rosal          85.95 274   P        P          02 58 59.2  +1.2
       comp=Z,36nm,1.0s,mb5.6,baz=107,slow=21,SNR=17
ROSC                                S        S          03 09 29.5  -1.9
       comp=Z,2.0nm,0.3s,baz=259,slow=23,SNR=2.8
ROSC                                LR       LR         03 40 44.4
       comp=Z,2µm,18.1s,MS5.5,baz=268,slow=38
ROSC  El Rosal          85.95 274   P        P          02 58 59.2  +1.2
ROSC  El Rosal          85.95 274   S        S          03 09 29.5  -1.9
DAV   Davao City (W)    86.92  72   PFAKE               02 59 10.0  +7.2
DAV                                 LR       LR
       comp=Z,10µm,21.0s,MS6.2
RCBR  Riachuelo         88.17 234   PFAKE               02 59 20.0   +11
RCBR                                LR       LR
       comp=Z,4µm,17.5s,MS5.9
OTAV  Otavalo           91.35 277  eP       P          02 59 24.7  +1.0
OTAV                                LR       LR
       comp=Z,2µm,19.4s,MS5.5
OTAV  Otavalo           91.35 277  eP       P          02 59 24.7  +1.1
LSZ   Lusaka            92.33 171  eP       P          02 59 30.0  +2.0
LSZ                                 pmax     pmax
       comp=Z,12nm,1.1s,mb5.1
LSZ                                 MLR      MLR
       comp=Z,2µm,16.6s,MS5.7
LSZ   Lusaka            92.33 171  eP       P          02 59 30.0  +2.0
       comp=Z,12nm,1.1s,mb5.2
LSZ                                 LR       LR
       comp=Z,2µm,16.6s,MS5.7
LSZ   Lusaka            92.33 171  eP       P          02 59 30.0  +2.0
       comp=Z,12nm,1.1s,mb5.2
SHEL  Horse Pasture     93.94 203   PFAKE               02 59 50.0   +15
SHEL                                LR       LR
       comp=Z,3µm,20.3s,MS5.8
PAYG  Puerto Ayora      94.83 288   PFAKE               02 59 50.0   +10
PAYG                                LR       LR
       comp=Z,4µm,21.0s,MS5.9
KAPI  Kappang           97.36  80   PFAKE               03 00 00.0  +8.8
KAPI                                LR       LR
       comp=Z,5µm,22.0s,MS6.0
ABPO  Ambohimpanom      97.38 153   PFAKE               03 00 00.0  +9.0
ABPO                                LR       LR
       comp=Z,5µm,20.9s,MS6.0
COCO  West Island       99.18 104   PFAKE               03 00 10.0   +11
COCO                                LR       LR
       comp=Z,4µm,19.7s,MS6.0
TARA  Tarawa           100.38  26   PFAKE               03 00 10.0  +4.9
TARA                                LR       LR
       comp=Z,2µm,23.3s,MS5.6
RER   Riviere de l'E   100.49 145   PFAKE               03 00 10.0  +4.4
RER                                 LR       LR
       comp=Z,1µm,17.5s,MS5.6
XMAS  Kiritimati       100.96 356   PFAKE               03 00 20.0   +12
XMAS                                LR       LR
       comp=Z,2µm,19.8s,MS5.6
BOSA  Boshof           105.51 174   PFAKE               03 04 50.0   +10
BOSA                                LR       LR
       comp=Z,2µm,21.8s,MS5.5
SPB   Sao Paulo        107.68 242   PFAKE               03 04 50.0  +5.5
SPB                                 LR       LR
       comp=Z,4µm,18.3s,MS6.0
SUR   Sutherland       109.19 178   PFAKE               03 05 00.0   +13
SUR                                 LR       LR
       comp=Z,3µm,24.2s,MS5.8
HNR   Honiara          109.41  41   PFAKE               03 05 00.0   +12
HNR                                 LR       LR
       comp=Z,2µm,22.3s,MS5.7
TAOE  Nuku Hiva Isla   110.89 337  eLR      LR         03 37 45.2
       comp=Z,25µm,37.0s
LVC   Limon Verde      111.30 262   PFAKE               03 05 00.0  +8.7
LVC                                 LR       LR
       comp=Z,2µm,26.9s,MS5.5
WRAB  Tennant Creek    114.99  69   PFAKE               03 05 10.0   +12
WRAB                                LR       LR
       comp=Z,3µm,22.0s,MS5.9
WRA   Warramunga Arr   114.99  69   PKIKP    PKiKP      03 04 56.4  -2.0
WRA                                                     03 05 57.4
WRA                                                     03 15 33.3
WRA   Warramunga Arr   114.99  69   PKP      PKiKP      03 04 56.4  -2.1
       comp=Z,6.9nm,1.0s,baz=327,slow=1.8,SNR=11
WRA                                 PP       PP         03 05 57.4  -0.3
       comp=Z,9.1nm,1.1s,baz=352,slow=6.4,SNR=4.5
WRA                                 PKKPbc   PKKPbc     03 15 33.3  +1.8
       comp=Z,1.3nm,0.6s,baz=168,slow=3.0,SNR=11
WRA                                 PKKP     PKKPbc     03 15 52.8   +21
       comp=Z,2.1nm,0.7s,baz=169,slow=3.1,SNR=5.0
WRA   Warramunga Arr   114.99  69   PP       PP         03 05 57.4  -0.4
CTAO  Charters Tower   117.53  57   PFAKE               03 05 10.0  +6.7
CTAO                                LR       LR
       comp=Z,2µm,24.6s,MS5.6
LCO   Las Campanas     117.88 262   PFAKE               03 05 10.0  +6.3
LCO                                 LR       LR
       comp=Z,2µm,21.5s,MS5.6
ASAR  Alice Springs    118.51  71   PKP      PKPdf      03 05 03.4  -1.7
       comp=Z,11nm,0.5s,baz=358,slow=1.8,SNR=50
ASAR                                SKP                 03 08 39.5
       comp=Z,3.2nm,0.9s,baz=3.2,slow=1.3,SNR=4.1
ASAR                                PKKPbc   PKKPbc     03 15 21.1  +1.9
       comp=Z,1.6nm,0.8s,baz=162,slow=3.7,SNR=10.0
PPT   Papeete          120.18 347  ePP      PP         03 06 22.0   -12
       comp=Z,502nm,25.0s
PPT   Papeete          120.18 347  ePS      PS         03 16 23.5  +1.0
       comp=Z,2µm,26.8s
PPT                                 eSS      SS         03 23 03.3  +3.2
       comp=Z,11µm,28.2s
PPT                                eLQ                 03 36 42.2
       comp=Z,3µm,27.0s
PPT                                eLR      LR         03 41 53.0
       comp=Z,4µm,24.5s
MUN   Mundaring        122.61  91  ePKP     PKPdf      03 05 10.4  -2.3
KMBL  Kambalda         123.30  85  ePKP     PKPdf      03 05 11.9  -2.2
       comp=Z,62nm,1.0s
QLP   Quilpie          123.45  61  ePKP     PKPdf      03 05 14.0  -0.5
NWAO  Narrogin (SRO)   123.75  90   PFAKE               03 05 20.0  +5.1
NWAO                                LR       LR
       comp=Z,2µm,22.1s,MS5.8
FORT  Forrest          124.11  79  ePKP     PKPdf      03 05 14.4  -1.2
       comp=Z,32nm,0.9s
RMQ   Roma             124.23  56  ePKP     PKPdf      03 05 15.9  -0.1
       comp=Z,63nm,1.5s
RKT   Rikitea          124.48 330  eSP      SP         03 16 59.1  -1.7
       comp=Z,1µm,30.0s
RKT                                eSS      SS         03 23 55.0   0.0
       comp=Z,1µm,26.5s
RKT                                eLR      LR         03 44 02.5
       comp=Z,5µm,30.2s
PTCN  Pitcairn Islan   125.81 324   PFAKE               03 05 30.0   +11
PTCN                                LR       LR
       comp=Z,3µm,23.0s,MS5.8
STKA  Stephens Creek   128.06  65  ePKP     PKPdf      03 05 21.9  -1.3
       comp=Z,13nm,1.0s
STKA  Stephens Creek   128.06  65   PKP      PKPdf      03 05 22.1  -1.0
       comp=Z,10nm,0.9s,baz=353,slow=4.8,SNR=5.7
STKA  Stephens Creek   128.06  65   PKIKP    PKPdf      03 05 22.1  -1.1
CMSA  Cobar Meteorol   128.55  61  ePKP     PKPdf      03 05 24.0  -0.1
ARMA  Armidale         128.59  54  ePKP     PKPdf      03 05 23.6  -0.6
PLCA  Paso Flores      129.10 258   PKP      PKPdf      03 05 25.0  +0.2
       comp=Z,8.7nm,1.0s,baz=357,slow=2.8,SNR=14
PLCA  Paso Flores      129.10 258   PKIKP    PKPdf      03 05 25.0  +0.2
PAF   Port-aux-Franc   130.21 138   PFAKE               03 05 40.0   +13
PAF                                 LR       LR
       comp=Z,2µm,18.4s,MS5.8
CAN   Canberra         132.86  58   PFAKE               03 05 40.0  +7.8
CAN                                 LR       LR
       comp=Z,2µm,19.7s,MS5.8
TOO   Toolangi         134.36  63  ePKP     PKPdf      03 05 34.6  -0.3
TAU   Tasmania Unive   139.87  63   PFAKE               03 05 50.0  +5.1
TAU                                 LR       LR
       comp=Z,2µm,24.9s,MS5.7
URZ   Urewera          139.99  27   PKP      PKPdf      03 05 45.5  +0.2
       comp=Z,14nm,0.9s,baz=296,slow=4.9,SNR=4.0
URZ   Urewera          139.99  27   PKIKP    PKPdf      03 05 45.5  +0.2
RPZ   Rata Peaks       144.67  35   PKP      PKPdf      03 05 51.1  -2.3
       comp=Z,42nm,0.7s,baz=208,slow=1.5,SNR=13
RPZ   Rata Peaks       144.67  35  ePKPdf   PKPdf      03 05 51.3  -2.1
ODZ   Otahua Downs     145.92  36  ePKPbc   PKPbc      03 05 55.9  -0.3
ODZ   Otahua Downs     145.92  36  ePKPbc   PKPbc      03 05 55.9  -0.3
SYO   Syowa Base       146.41 166⇑eP       PKPdf      03 05 56.4  +0.8
SYO   Syowa Base       146.41 166⇑eP       PKPdf      03 05 57.7  +2.1
MAW   Mawson           146.94 151   PKP2     PKPab      03 05 58.3  -1.8
MAW                                 pmax     pmax
       comp=Z,36nm,0.7s
MAW   Mawson           146.94 151  ePKP     PKPdf      03 05 57.9  +1.4
       comp=Z,43nm,0.8s
MAW   Mawson           146.94 151   PKPbc    PKPbc      03 05 58.3  -0.2
       comp=Z,36nm,0.7s,baz=314,slow=3.2,SNR=6.8
MAW   Mawson           146.94 151  ePKPbc   PKPbc      03 05 58.4  -0.1
MAW   Mawson           146.94 151  ePKPbc   PKPbc      03 05 58.4  -0.1
NVL   N'lazarevskaya   147.68 184   PKP2     PKPab      03 06 00.5  -2.4
NVL                                 pmax     pmax
       comp=Z,141nm,1.5s
VNA2  Neumayer--Watz   148.59 196  ePKPdf   PKPdf      03 06 02.9  +3.7
       baz=344,slow=4.6
VNA2                               e                   03 06 07.6
VNA2                               e                   03 06 13.1
VNA2                               e                   03 06 15.4
VNA3  Neumayer Olymp   149.06 197  ePKPdf   PKPdf      03 06 03.7  +3.8
VNA3                               e                   03 06 14.1
PMSA  Palmer Station   150.21 239   PFAKE               03 06 10.0  +8.1
PMSA                                LR       LR
       comp=Z,998nm,19.4s,MS5.6
QSPA  South Pole Qui   167.02 180   PKPab    PKPab      03 07 25.4  -0.3
       comp=Z,15nm,0.8s,baz=279,slow=2.7,SNR=12
QSPA  South Pole Qui   167.02 180   PFAKE               03 06 30.0  +8.6
QSPA                                LR       LR
       comp=Z,3µm,23.0s
SBA   Scott Base       173.09 112   PFAKE               03 06 30.0  +5.0
SBA                                 LR       LR
       comp=Z,2µm,20.3s
```

IGQ 21 02:55:09.3, 2°.39S×79°.18W, h87^{km}±4^{km}, Mb4.8, Ms4.7, 9C-11D, Error ellipse: s-maj=4.0km s-min=2.2km az=76.4, Near coast of Ecuador

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Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
IGUA  Igualata          1.05   31  ⇓P        Pn         02 55 30.6  +1.3
BMAS  Trigal station    1.13   38  ⇑S        Sn         02 55 46.0   0.0
BMAS  Trigal station    1.13   38  ⇑P        Pn         02 55 31.2  +0.9
ARRY  Arrayan           1.14   40  ⇑P        Pn         02 55 31.1  +0.6
BIL2  Estacion Bilba    1.15   36  ⇑P        Pn         02 55 32.2  +1.7
BPAT  Tungurahua Vol    1.16   40  ⇑P        Pn         02 55 31.5  +0.9
PATA  Patacocha         1.16   40   S        Sn         02 55 48.7  +2.1
PATA  Patacocha         1.16   40   P        Pn         02 55 31.5  +0.9
JUI6  Juive             1.20   37  ⇓P        Pn         02 55 32.0  +0.9
ULBA  Ulba              1.21   40   P        Pn         02 55 32.2  +0.9
RUN5  Runtun            1.23   38   S        Sn         02 55 48.9  +0.6
RUN5  Runtun            1.23   38   P        Pn         02 55 32.4  +0.9
BRUN  Tungurahua Vol    1.23   39   P        Pn         02 55 31.6  +0.1
QIL2  Quilotoa          1.53   10  ⇓P        Pn         02 55 37.3  +1.9
PISA  Pisayambo         1.54   31   S        Sn         02 55 55.9  +0.7
PISA  Pisayambo         1.54   31   P        Pn         02 55 36.8  +1.4
MOV1  Cotopaxi Vol s    1.82   24   P        Pn         02 55 40.5  +1.5
CAMI  Rancho Maria      1.83   22  ⇓P        Pn         02 55 40.8  +1.6
BNAS  Cotopaxi Volca    1.85   22  ⇓P        Pn         02 55 40.6  +1.2
BREF  Cotopaxi Volca    1.86   23  ⇓P        Pn         02 55 41.2  +1.6
TAMB  Tambo             1.87   26  ⇑P        Pn         02 55 41.1  +1.4
NAS2  Nasa              1.87   22  ⇑P        Pn         02 55 41.7  +2.0
BTAM  Cotopaxi Volca    1.88   25  ⇓P        Pn         02 55 40.9  +1.1
BVC2  Cotopaxi Volca    1.89   24  ⇓P        Pn         02 55 41.1  +1.2
VC1   Cotopaxi 1        1.90   24   P        Pn         02 55 41.6  +1.5
COV1  Cotopaxi Volc     1.91   26   P        Pn         02 55 41.7  +1.5
PITA  Cotopaxi Volc     1.97   22  ⇑P        Pn         02 55 42.6  +1.6
CHIS  Cerro-Chispas-    2.04  311  ⇓P        Pn         02 55 42.6  +0.7
ANTI  Antisana          2.18   28   P        Pn         02 55 45.0  +1.3
JUA2  San Juan 2        2.24   15  ⇑P        Pn         02 55 46.2  +1.7
TERV  Terraza Guagua    2.28   15   P        Pn         02 55 47.0  +2.0
TERV  Terraza Guagua    2.28   15   S        Sn         02 56 21.2  +8.8
GGP   Refugio Guagua    2.28   15   P        Pn         02 55 46.6  +1.5
PINO  Pino              2.29   14   P        Pn         02 55 47.0  +1.7
YANA  Yana              2.34   15   P        Pn         02 55 47.2  +1.4
JAMA  Jama              2.35  334   P        Pn         02 55 45.4  -0.6
JAMA  Jama              2.35  334   S        Sn         02 56 12.4  -1.8
CAYR  Refugio Cayamb    2.66   26   P        Pn         02 55 56.3  +6.0
OTAV  Otavalo           2.71   16  ⇓P        Pn         02 55 52.4  +1.5
CAYA  Cayambe           2.72   26   P        Pn         02 55 53.1  +2.1
CHAR  Charly            2.74   33   P        Pn         02 55 52.4  +1.2
CONE  Cono NE Rev Vo    2.77   34   P        Pn         02 55 52.7  +1.0
COTA  Cotacachi         2.84   17  ⇓P        Pn         02 55 55.0  +2.4
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ISCJB ***21*** *02:56:55.9±1.4, 10°.49S±0°.05×164°.91E±0°.03, h35^{km}±12^{km}, mb5.2/64, MS5.3/12, Error ellipse: s-maj=8.6km s-min=5.7km az=173.7*

MOS ***21*** *02:56:57.2±1.3, 10°.57S×165°.00E, h54^{km}, mb5.5/12, Error ellipse: s-maj=10.5km s-min=9.9km az=100.0*

BJI ***21*** *02:56:59.5, 9°.94S×164°.64E, h39^{km}, mB5.7/21, mb5.2/40, Ms5.9/11, Ms7 5.8/20*

NEIC ***21*** *02:57:01.6±0.9, 10°.56S×164°.97E, h79^{km}±8^{km}, mb5.3/23, Error ellipse: s-maj=6.9km s-min=5.6km az=132.0*

GCMT ***21*** *02:57:01.6±0.4, 10°.50S×164°.73E, h62^{km}±2^{km}, MW5.3/57, Moment Tensor Solution. s24,c30; s57,c80; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.91±.06; $M_{\theta\theta}$0.11±.04; $M_{\phi\phi}$-1.02±.04; $M_{r\theta}$0.07±.03; $M_{\theta\phi}$-0.06±.03; $M_{\phi r}$0.09±.03; Best double couple: $M_0$0.97500×10^{17} NP1:ϕ_s178.00000°, δ42.00000°, λ84.00000°. NP2: ϕ_s7.00000°, δ48.00000°, λ96.00000°. Principal axes: T 0.9230, Plg85.0000°, Azm329.0000°; N 0.1060, Plg4.0000°, Azm183.0000°; P -1.0280, Plg3.0000°, Azm93.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***21*** *02:57:01.1±3.2, 10°.61S×165°.02E, h76^{km}±26^{km}, mb4.5/24, mb1 4.6/24, mb1mx4.5/27, mbtmp4.5/24, MS4.2/3, Ms1 4.2/3, ms1mx3.8/29 Error ellipse: s-maj=17.9km s-min=11.7km az=81.0*

ISC 21 02:56:59.4±1.1**, 10°.55S**±0°.05×**164°.97E**±0°.03**, h53**^{km}±9^{km}**, h37**^{km}±2.2^{km}**:pP-P, n382,** σ**0^{s}56**/331**, mb5.2**/64**, MS5.3**/12**, 100C-112D, Santa Cruz Islands region**

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Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
HNR   Honiara           5.07  282  eP       Pn         02 58 15.3  +2.4
HNR                                e                   02 59 09.9
HNR                                 pmax     pmax
       comp=Z,6µm,0.8s
HNR   Honiara           5.07  282   P        Pn         02 58 15.3  +2.4
       comp=Z,290nm,0.3s,baz=180,slow=1.5,SNR=148
HNR                                 S        Sn         02 59 14.9  +4.7
       comp=Z,257nm,0.3s,baz=64,slow=19,SNR=6.9
HNR   Honiara           5.07  282  ePn      Pn         02 58 15.3  +2.4
       comp=Z,6µm,0.8s
HNR                                eSn      Sn         02 59 09.9  -0.3
DZM   Mont Dzumac      11.54  173  eP       Pn         02 59 44.0  +2.4
DZM                                eS       Sn         03 01 46.9  -2.0
DZM   Mont Dzumac      11.54  173  ePn      Pn         02 59 44.4  +2.9
       comp=Z,46nm,0.6s
DZM                                eSn      Sn         03 01 45.0  -4.0
TARA  Tarawa           14.23   34  ePn      Pn         03 00 17.2  -1.0
       comp=Z,464nm,0.9s
EIDS  Eidsvold         19.76  220  eP       Pn         03 01 26.7  -0.3
EIDS                               epP      pP         03 01 45.2  +8.1
EIDS                               eS       S          03 05 16.0   +11
EIDS  Eidsvold         19.76  220  eP       Pn         03 01 26.7  -0.3
       comp=Z,139nm,1.3s
CTA   Charters Tower   20.37  240  eP       P          03 01 32.3  +0.6
       comp=Z,22nm,1.2s
CTA                                eS       S          03 05 19.0  +1.8
CTA   Charters Tower   20.37  240   P        P          03 01 32.9  +1.2
       comp=Z,17nm,1.0s,baz=68,slow=13,SNR=8.1
CTA                                 LR       LR         03 08 55.8
       comp=Z,700nm,18.1s,MS4.1,baz=53,slow=35
CTAO  Charters Tower   20.37  240  eP       P          03 01 32.3  +0.6
CTAO                                pmax     pmax
       comp=Z,127nm,1.5s
CTAO  Charters Tower   20.37  240  eP       P          03 01 32.3  +0.6
       comp=Z,127nm,1.5s
COEN  Coen             21.56  259  eP       P          03 01 44.5  -0.1
COEN  Coen             21.56  259  eP       P          03 01 45.1  +0.5
       comp=Z,212nm,1.5s,mb5.3
RMQ   Roma             22.04  222  eP       P          03 01 50.3  +0.7
       comp=Z,63nm,1.0s,mb5.0
ARMA  Armidale         23.34  210  eP       P          03 02 04.0  +0.8
ARMA  Armidale         23.34  210  eP       P          03 02 03.8  +0.6
       comp=Z,71nm,1.1s,mb5.0
YNG   Young            28.08  210  eP       P          03 02 46.3  +0.3
       comp=Z,9.0nm,0.7s,mb4.5
URZ   Urewera          29.66  160   P        P          03 02 58.8  -1.3
       comp=Z,14nm,1.1s,mb4.6,baz=8.6,slow=10,SNR=3.9
STKA  Stephens Creek   30.28  222  eP       P          03 03 06.2  +0.6
       comp=Z,13nm,1.0s,mb4.6
STKA  Stephens Creek   30.28  222   P        P          03 03 06.0  +0.3
       comp=Z,5.5nm,1.0s,mb4.3,baz=21,slow=10,SNR=5.7
STKA                                LR       LR         03 14 40.8
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      comp=Z,881nm,18.0s,MS4.5,baz=125,slow=35
WRA   Warramunga Arr   30.94 249  P        P       03 03 09.8 -1.7
      comp=Z,2.2nm,0.7s,mb4.1,baz=78,slow=8.9,SNR=12
ASAR  Alice Springs    32.34 242  P        P       03 03 21.6 -2.2
      comp=Z,1.7nm,0.7s,baz=65,slow=10.0,SNR=19
RPZ   Rata Peaks       33.46 172  P        P       03 03 31.8 -1.5
      comp=Z,14nm,0.8s,mb5.0,baz=154,slow=3.6,SNR=6.7
RPZ                               LR       LR      03 14 33.0
      comp=Z,226nm,20.4s,MS3.9,baz=57,slow=32
BBOO  Buckleboo        34.61 226 eP        P       03 03 42.8 -0.7
      comp=Z,7.5nm,0.9s,mb4.6
FITZ  Fitzroy Crossi   38.77 254 eP        P       03 04 18.9 -0.2
      comp=Z,16nm,1.2s,mb4.6
FITZ  Fitzroy Crossi   38.77 254 ePKP      pP      03 04 34.0 +1.0
      comp=Z,14nm,0.8s
FITZ  Fitzroy Crossi   38.77 254  P        P       03 04 18.1 -1.0
      comp=Z,13nm,1.2s,mb4.5,baz=106,slow=3.2,SNR=3.9
JOW   Kunigami         51.48 317  P        P       03 05 59.8  0.0
      comp=Z,16nm,0.7s,mb5.1,baz=122,slow=11,SNR=6.2
MJAR  Matsushiro Arr   53.18 333  P        P       03 06 11.4 -0.8
      comp=Z,11nm,1.0s,mb4.8,baz=165,slow=7.6,SNR=13
MJAR                              PcP      PcP     03 07 17.4 -2.3
      comp=Z,1.8nm,0.7s,baz=160,slow=3.7,SNR=4.1
MAJO  Matsushiro       53.19 333 eP        P       03 06 11.0 -1.2
MAJO                              pmax     pmax
      comp=Z,112nm,1.9s,mb5.5
MAJO  Matsushiro       53.19 333 eP        P       03 06 11.0 -1.2
      comp=Z,112nm,1.9s,mb5.5
ASAJ  Asahikawa        58.08 341  P        P       03 06 47.5 +0.3
      comp=Z,46nm,0.8s,mb5.5,baz=221,slow=12,SNR=18
KSRS  Korea Array      59.04 326  P        P       03 06 54.0  0.0
      comp=Z,8.0nm,0.8s,mb4.8,baz=138,slow=7.6,SNR=26
KSRS                              PcP      PcP     03 07 42.6 +0.2
      comp=Z,5.1nm,1.0s,baz=140,slow=5.9,SNR=4.1
YSS   Yuzh-Sakhalins   60.59 343⇑iP        P       03 07 06.2 +1.8
YSS                              e         pP      03 07 22.3 +3.2
YSS   Yuzh-Sakhalins   60.59 343 eP        P       03 07 05.0 +0.5
      comp=Z,17nm,0.8s,mb5.2
NJ2   Nanjing          61.13 316 eP        P       03 07 08.6 +0.1
NJ2                               PP       PP      03 09 26.3 +2.5
NJ2                               pmax     pmax
      comp=Z,50nm,1.1s,mb5.6
PET   Petropavlovsk    63.55 356⇓iP        P       03 07 23.8 -0.4
PET                               pmax     pmax
      comp=Z,30nm,0.8s,mb5.4
PET   Petropavlovsk    63.55 356⇑eP        P       03 07 24.0 -0.2
MDJ   Mudanjiang       63.56 332  P        P       03 07 24.6 +0.2
MDJ                               pP       pP      03 07 33.9 -5.3
MDJ                               sP       sP      03 07 37.8 -7.4
MDJ                               S        S       03 15 54.9 +0.8
MDJ                               sS       sS      03 16 11.6 -7.3
MDJ                               pmax     pmax
      comp=Z,21nm,1.1s,mb5.1
MDJ                               pmax     pmax
      comp=Z,1µm,13.6s
PETK  Petropavlovsk-   63.71 355  P        P       03 07 25.4 +0.2
      comp=Z,14nm,0.9s,mb5.0,baz=168,slow=2.5,SNR=14
PETK                              PcP      PcP     03 08 00.3 -0.6
      comp=Z,10nm,1.0s,baz=145,slow=5.3,SNR=4.4
HABR  Khabarovsk       64.44 338 eP        P       03 07 28.7 -1.4
HABR                             e*PP      pP      03 07 38.4 -6.5
HABR                             e                 03 08 02.6
HABR                             eS        S       03 16 04.3 -0.6
HABR                             e                 03 17 19.0
HABR                              SS       SS      03 20 14.6 -1.6
HABR                              pmax     pmax
      comp=Z,101nm,1.8s,mb5.5
HABR                              pmax     pmax
      comp=N,45nm,1.6s
HABR                              pmax     pmax
      comp=E,107nm,2.4s
HABR                              MLR      MLR
      comp=Z,2µm,15.0s,MS5.5
CN2   Changchun        64.93 329 ⇑P        P       03 07 33.3 -0.1
CN2                              esP       sP      03 07 48.8 -5.4
CN2                              eS        S       03 16 12.6 +1.5
CN2                               pmax     pmax
      comp=Z,30nm,0.9s,mb5.3
CN2                               pmax     pmax
      comp=Z,1µm,7.0s
KULM  Kulim            65.94 281 eP        P       03 07 40.1 -0.5
      comp=Z,12nm,0.9s,mb4.9
VNDA  Vanda            66.97 181  P        P       03 07 46.1  0.0
      comp=Z,17nm,1.1s,mb5.0,baz=349,slow=6.0,SNR=9.6
GYA   Guiyang          67.51 304⇑iP        P       03 07 50.5 +0.2
GYA                               pP       pP      03 08 00.8 -4.4
GYA                               sP       sP      03 08 04.8 -6.4
GYA                               PP       PP      03 10 17.3 -2.6
GYA                               ScP              03 12 18.9
GYA                               PcS              03 12 24.0
GYA                               S        S       03 16 34.3 -8.8
GYA                               ScS      ScS     03 17 39.8 -4.7
GYA                               SKS              03 17 42.9
GYA                               pmax     pmax
      comp=Z,20nm,0.9s,mb5.2
GYA                               pmax     pmax
      comp=Z,190nm,8.3s
GYA                               LR       LR
      comp=Z,6µm,18.7s,MS5.8
BJI   Beijing          67.62 321  P        P       03 07 50.4 -0.3
BJI                               pmax     pmax
      comp=Z,27nm,1.5s,mb5.1
XAN   Xi’an            69.23 313  P        P       03 08 00.6 -0.3
XAN                               pP       pP      03 08 12.5 -3.3
XAN                               sP       sP      03 08 16.3 -5.5
XAN                               PP       PP      03 10 36.5 +1.9
XAN                               pmax     pmax
      comp=Z,13nm,1.0s,mb4.8
XAN                               pmax     pmax
      comp=Z,1µm,9.3s
XAN                               LR       LR
      comp=N,3µm,14.3s,MS5.7
XAN                               LR       LR
      comp=E,2µm,13.5s,MS5.7
XAN                               LR       LR
      comp=Z,4µm,13.0s,MS5.8
KMI   Kunming          70.21 302  P        P       03 08 08.3 +1.1
KMI                               pmax     pmax
      comp=Z,45nm,1.4s,mb5.2
HHC   Hu-ho-hao-te     70.96 320 eP        P       03 08 12.1 +0.7
HHC                               pP       pP      03 08 22.1 -4.3
HHC                               sP       sP      03 08 26.4 -5.9
HHC                               PP       PP      03 10 52.3 +2.9
HHC                              eS        S       03 17 25.0 +1.7
HHC                               sS       sS      03 17 42.8 -5.6
HHC                               SKS              03 18 07.4
HHC                               pmax     pmax
      comp=Z,29nm,0.8s,mb5.3
HHC                               pmax     pmax
      comp=Z,910nm,5.0s
HHC                               LR       LR
      comp=N,4µm,18.4s,MS5.8
HHC                               LR       LR
      comp=E,3µm,18.2s,MS5.8
HHC                               LR       LR
      comp=Z,3µm,16.5s,MS5.6
CMAR  Chiang Mai Arr   71.22 294  P        P       03 08 14.0 +0.6
      comp=Z,11nm,0.8s,mb4.8,baz=119,slow=5.6,SNR=44
CMAR                              PcP      PcP     03 08 30.6 -2.5
      comp=Z,3.6nm,0.5s,baz=116,slow=4.7,SNR=4.1
CHTO  Chiang Mai       71.33 294 eP        P       03 08 14.2 +0.2
CHTO                              pmax     pmax
      comp=Z,40nm,1.4s,mb5.2
CHTO  Chiang Mai       71.33 294 eP        P       03 08 14.2 +0.1
      comp=Z,40nm,1.4s,mb5.2
CD2   Chengdu          71.70 307  P        P       03 08 16.0 -0.1
CD2                               pP       pP      03 08 26.3 -4.7
CD2                               sP       sP      03 08 30.3 -6.7
CD2                               PP       PP      03 10 57.4 +1.4
CD2                               S        S       03 17 33.4 +1.2
CD2                               sS       sS      03 17 50.5 -6.9
CD2                               SKS              03 18 13.0
CD2                               pmax     pmax
      comp=Z,50nm,1.1s,mb5.4
CD2                               pmax     pmax
      comp=Z,1µm,11.1s
CD2                               LR       LR
      comp=N,5µm,16.7s
CD2                               LR       LR
      comp=Z,5µm,13.1s,MS6.0
LZH   Lanzhou          73.86 312 eP        P       03 08 29.9 +1.1
LZH                               pP       pP      03 08 39.9 -3.9
LZH                               sP       sP      03 08 44.3 -5.5
LZH                              eS        S       03 17 58.5 +1.9
LZH                               sS       sS      03 18 14.3 -7.6
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LZH                               pmax     pmax
      comp=Z,180nm,1.2s,mb5.9
LZH                               pmax     pmax
      comp=Z,990nm,6.5s
LZH                               LR       LR
      comp=Z,6µm,17.6s,MS5.9
SEY   Seymchan         73.90 354⇑eP        P       03 08 28.1 -0.3
YAK   Yakutsk          77.41 344 eP        P       03 08 46.7 -1.8
YAK                               pmax     pmax
      comp=Z,75nm,1.0s,mb5.6
YAK                               pmax     pmax
      comp=N,23nm,1.0s
YAK                               pmax     pmax
      comp=E,14nm,1.1s
YAK   Yakutsk          77.41 344 eP        P       03 08 48.1 -0.4
      comp=E,56nm,0.8s,mb5.5
ULN   Ulaanbaatar      77.45 324 eP        P       03 08 49.7 +0.7
ULN                               pmax     pmax
      comp=Z,71nm,1.1s,mb5.5
ULN   Ulaanbaatar      77.45 324 eP        P       03 08 49.7 +0.6
      comp=Z,71nm,1.1s,mb5.5
SONM  Songino Array    77.82 324  P        P       03 08 51.7 +0.6
      comp=Z,27nm,1.1s,mb5.1,baz=124,slow=3.7,SNR=31
SVW2  Sparrevohn       77.89  18 eP        P       03 08 51.0 -0.1
GTA   Gaotai           78.17 314  P        P       03 08 54.1 +0.9
GTA                               pP       pP      03 09 04.3 -4.1
GTA                               sP       sP      03 09 08.6 -5.7
GTA                               PP       PP      03 11 54.5 +3.9
GTA                               S        S       03 18 47.0 +3.1
GTA                               sS       sS      03 19 00.8 -8.6
GTA                               pmax     pmax
      comp=Z,47nm,1.1s,mb5.3
GTA                               pmax     pmax
      comp=Z,1µm,9.5s
GTA                               LR       LR
      comp=Z,5µm,12.8s,MS6.0
BILL  Bilibino         78.39   0⇑eP        P       03 08 53.8  0.0
BILL                             e         pP      03 09 09.2 +0.2
BILL                             e                 03 11 49.9
BILL                             eS        S       03 18 46.3 +1.2
BILL                              pmax     pmax
      comp=Z,138nm,1.3s,mb5.7
BILL                              MLR      MLR
      comp=Z,2µm,16.0s,MS5.4
BILL  Bilibino         78.39   0 eP        P       03 08 53.7 -0.1
      comp=Z,102nm,1.0s,mb5.7
TTA   Tatalina         79.18  17 eP        P       03 08 58.4 +0.2
QSPA  South Pole Qui   79.45 180  P        P       03 09 00.4 +0.8
      comp=Z,26nm,1.1s,mb5.1,baz=48,slow=3.5,SNR=6.2
PMR   Palmer           80.36  20 eP        P       03 09 03.9 -0.8
PMR                               pmax     pmax
      comp=Z,7.0nm,0.8s,mb4.6
PMR   Palmer           80.36  20 eP        P       03 09 03.9 -0.7
      comp=Z,7.3nm,0.8s,mb4.7
LSA   Lhasa            81.44 302  P        P       03 09 11.8 +0.6
LSA   Lhasa            81.44 302 eP        P       03 09 11.8 +0.6
LSA                               pmax     pmax
      comp=Z,19nm,1.1s,mb4.9
LSA   Lhasa            81.44 302 eP        P       03 09 11.8 +0.6
      comp=Z,19nm,1.1s,mb4.9
MCK   McKinley         81.92  19 eP        P       03 09 12.3 -0.6
COLA  College          83.06  18 eP        P       03 09 17.8 -1.0
TAPN  Taplejung        83.70 299 eP        P       03 09 23.1 +0.1
      comp=Z,101nm,1.3s,mb5.8
WDC   Whiskeytown Da   83.83  47 eP        P       03 09 23.2 -0.2
ODAN  Odare            83.85 299 eP        P       03 09 24.0 +0.3
      comp=Z,100nm,0.9s,mb6.0
YBH   Yreka Blue Hor   84.10  46  P        P       03 09 23.3 -1.4
      comp=Z,8.1nm,1.1s,mb4.8,baz=188,slow=5.9,SNR=6.7
HUMO  Hull Mountain    84.22  45 eP        P       03 09 25.6 +0.3
HYT   Haines Junctio   84.26  25 eP        P       03 09 26.0 +0.9
RAMN  Ramite           84.55 299 eP        P       03 09 27.2 -0.1
      comp=Z,28nm,0.9s,mb5.4
VES   Vestal, Richgr   84.95  52 ⇑P        P       03 09 28.7 -0.5
      baz=85
JIRN  Jiri             85.08 299 eP        P       03 09 30.2 +0.2
      comp=Z,131nm,1.3s,mb5.9
E03A  Lebam            85.18  41 ⇑P        P       03 09 30.1 +0.1
      baz=85
EGAK  Eagle            85.18  20 eP        P       03 09 29.6  0.0
      comp=Z,35nm,0.9s,mb5.5
BEKR  Beckwourth       85.19  48 ⇓P        P       03 09 30.0 -0.2
      baz=85
NLWA  Neilton Lookou   85.28  40 ⇑P        P       03 09 30.4 -0.1
      baz=85
DAWY  Dawson           85.38  21 eP        P       03 09 30.9 +0.3
ISA   Isabella         85.38  53 ⇓P        P       03 09 30.9 -0.4
      baz=85
GUN   Gumba            85.41 299 eP        P       03 09 31.8 +0.2
      comp=Z,98nm,1.0s,mb5.9
H04A  Detroit Lake     85.45  43 ⇓P        P       03 09 31.3 -0.1
      baz=86
R06C  Coleville        85.46  50 ⇓P        P       03 09 31.8 +0.2
      baz=86
WCN   Washoe City      85.46  49 ⇓P        P       03 09 31.6  0.0
      baz=86
WAKR  Walker           85.46  50 eP        P       03 09 31.9 +0.3
TIXI  Tiksi            85.46 349⇑eP        P       03 09 29.2 -1.7
TIXI                              pmax     pmax
      comp=Z,66nm,1.3s,mb5.6
TIXI  Tiksi            85.46 349 eP        P       03 09 29.6 -1.2
      comp=Z,46nm,1.2s,mb5.5
EDW2  Edwards Air Fo   85.54  53 ⇑P        P       03 09 32.1  0.0
      baz=86
BFSC  Mount Baldy St   85.63  54 ⇓P        P       03 09 32.1 -0.4
      baz=86
K05A  Summer Lake      85.70  45 ⇓P        P       03 09 32.8 +0.2
      baz=86
F04A  Amboy            85.71  42 ⇑P        P       03 09 33.3 +0.7
      baz=86
PALK  Pallekele        85.72 278 i P       P       03 09 34.7 +1.2
PKI   Pulchoki         85.73 299 eP        P       03 09 33.0 -0.2
      comp=Z,138nm,1.1s,mb6.1
PKI   Pulchoki         85.73 299 eP        P       03 09 33.0 -0.2
PKI                               pmax     pmax
      comp=Z,138nm,1.1s,mb6.1
PKIN  Phulchoki        85.74 299 eP        P       03 09 32.9 -0.4
      comp=Z,81nm,1.1s,mb5.8
N06A  Buffalo Meadow   85.84  47 ⇑P        P       03 09 32.9 -0.5
      baz=86
MOD   Modoc            85.86  46 eP        P       03 09 33.2 -0.2
PAHR  Pah Rah Range    85.86  49 eP        P       03 09 33.7 +0.2
KKN   Kakani           85.90 299 eP        P       03 09 33.8 -0.2
DMN   Daman            86.00 299 eP        P       03 09 34.5 -0.1
      comp=Z,216nm,1.2s,mb6.3
G05A  Wamic            86.21  43 ⇑P        P       03 09 35.9 +0.8
      baz=86
MPMC  Manual Prospec   86.26  52 ⇑P        P       03 09 35.4 -0.2
      baz=86
NVAR  Mina Array Bea   86.29  50  P        P       03 09 35.6 -0.2
      comp=Z,6.6nm,1.1s,mb4.8,baz=237,slow=7.3,SNR=18
O07A  Toulon           86.36  48 ⇑P        P       03 09 36.0 -0.1
      baz=86
J06A  Christmas Vall   86.38  45 ⇓P        P       03 09 35.9 -0.1
      baz=86
D05A  Enumclaw         86.41  41 ⇓P        P       03 09 37.2 +1.1
      baz=86
N07B  Gerlach          86.47  48 ⇑P        P       03 09 36.6 +0.1
      baz=86
GKN   Gorkha           86.50 299 eP        P       03 09 36.1 -0.9
      comp=Z,102nm,1.1s,mb6.0
M07A  Soldier Meadow   86.51  47 ⇓P        P       03 09 36.6 -0.2
      baz=87
I06A  Prineville       86.55  44 ⇑P        P       03 09 36.8 -0.1
      baz=87
L07A  Adell            86.57  46 ⇑P        P       03 09 37.3 +0.2
      baz=87
GSC   Goldstone        86.59  53 ⇓P        P       03 09 36.9 -0.4
      baz=87
Q08A  Gabbs            86.69  50 ⇓P        P       03 09 37.2 -0.5
      baz=87
H06A  Lindquist Farm   86.71  44 ⇓P        P       03 09 37.7 +0.1
      baz=87
F06A  Goldendale       86.74  42 ⇓P        P       03 09 37.5 -0.2
      baz=87
C05A  Tolt Reservoir   86.77  40 ⇓P        P       03 09 38.0 +0.1
      baz=87
K07A  Rock Creek Ran   86.84  46 ⇓P        P       03 09 38.2 -0.1
      baz=87
FURC  Furnace Creek,   86.86  52 ⇑P        P       03 09 38.2 -0.4
      baz=87
S09A  Goldfield        86.91  51 ⇓P        P       03 09 38.2 -0.6
      baz=87
O08A  Rochester Mine   86.93  48 ⇑P        P       03 09 38.3 -0.5
      baz=87
I07A  Izee             87.08  44 ⇓P        P       03 09 39.5 +0.1
      baz=87,SNR=5.8
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N08A  GE Springer Mi   87.08  48 ⇑P        P       03 09 39.3 -0.2
      baz=87
D06A  Cle Elum         87.15  41 ⇓P        P       03 09 39.5 -0.2
      baz=87
R09A  Tonopah          87.17  50 ⇓P        P       03 09 39.6 -0.4
      baz=87
H07A  Lands Inn, Kim   87.19  44 ⇑P        P       03 09 39.4 -0.5
      baz=87
WVOR  Wild Horse Val   87.19  46 eP        P       03 09 39.1 -0.9
WVOR                              pmax     pmax
      comp=Z,9.0nm,1.1s,mb4.9
WVOR  Wild Horse Val   87.19  46 eP        P       03 09 39.1 -1.0
      comp=Z,9.3nm,1.1s,mb4.9
BC3   Big Chuckw Mtn   87.25  55 ⇑P        P       03 09 40.3 -0.2
      baz=87
G07A  Ruggs Ranch, H   87.33  43 ⇑P        P       03 09 40.0 -0.6
      baz=87
DANN  Dangsing         87.33 299 eP        P       03 09 40.0 -1.0
L08A  Fields           87.33  46 ⇓P        P       03 09 40.7  0.0
      baz=87
KOLN  Koldanda         87.34 299 eP        P       03 09 39.9 -1.2
      comp=Z,54nm,1.2s,mb5.6
GMRC  Granite Mounta   87.36  54 ⇓P        P       03 09 40.9 -0.2
      baz=87
A06A  Chilliwack       87.37  39 ⇑P        P       03 09 41.1 +0.4
      baz=87
K08A  Mann Creek Ran   87.39  46 ⇓P        P       03 09 40.7 -0.3
      baz=87
S10A  Tonopah Range,   87.45  51 ⇓P        P       03 09 41.4 +0.1
      baz=88
N09A  Rock Creek Ran   87.55  48 ⇑P        P       03 09 41.8  0.0
      baz=88
J08A  Circle Bar Ran   87.58  45 ⇑P        P       03 09 41.6 -0.2
      baz=88,SNR=6.5
E07A  Sunnyside        87.60  42 ⇑P        P       03 09 42.8 +0.9
      baz=88
O09A  Fish Creek Ran   87.61  49 ⇑P        P       03 09 42.1  0.0
      baz=88
GLA   Glamis           87.61  56 ⇓P        P       03 09 42.1 -0.1
      baz=88
IRM   Iron Mountain    87.62  55 ⇓P        P       03 09 42.6 +0.3
      baz=88
I08A  Drewsey          87.67  45 ⇑P        P       03 09 42.6 +0.3
      baz=88
112A  Yuma             87.69  56 ⇑P        P       03 09 42.9 +0.2
      baz=88
D07A  Quincy           87.72  41 ⇑P        P       03 09 42.3 -0.1
      baz=88
M09A  Marrel Ranch,    87.76  47 ⇑P        P       03 09 42.8 +0.1
      baz=88
R10A  Warm Springs     87.77  51 ⇓P        P       03 09 43.1 +0.2
      baz=88
L09A  Wilkinson Ranc   87.77  47 ⇑P        P       03 09 42.9 +0.1
      baz=88
G08A  Pilot Rock       87.81  43 ⇑P        P       03 09 42.6 -0.3
      baz=88
C07A  Waterville       87.81  41 ⇑P        P       03 09 43.1 +0.2
      baz=88
K09A  Rome             87.92  46 ⇓P        P       03 09 43.1 -0.4
      baz=88
B07A  Winthrop         88.02  40 ⇑P        P       03 09 43.8  0.0
      baz=88
Y12C  Blythe           88.02  55 ⇓P        P       03 09 44.0 -0.2
      baz=88
A07A  Ashnola River,   88.04  39 ⇓P        P       03 09 44.0 +0.1
      baz=88
J09A  Fry Pan Ranch,   88.08  45 ⇓P        P       03 09 44.0 -0.3
      baz=88
F08A  Pendleton        88.08  43 ⇑P        P       03 09 43.9 -0.3
      baz=88
SHPR  Sheep Range      88.19  53 eP        P       03 09 45.0 +0.1
WMQ   Urumqi           88.21 315 eP        P       03 09 44.5 -0.3
WMQ                               pmax     pmax
      comp=Z,40nm,1.0s,mb5.6
V12A  Nelson           88.24  53 ⇓P        P       03 09 45.0 -0.2
      baz=88
R11A  Troy Canyon, C   88.33  51 ⇓P        P       03 09 45.6  0.0
      baz=88,SNR=6.0
T11A  Corn Creek, Al   88.33  52 ⇓P        P       03 09 45.7 +0.1
      baz=88
D08A  Wollman Farm,    88.36  42 ⇑P        P       03 09 45.6 +0.1
      baz=88
Q11A  Duckwater        88.40  50 ⇑P        P       03 09 46.1 +0.2
      baz=88,SNR=8.9
113A  Mohawk Valley,   88.41  56 ⇑P        P       03 09 45.9 -0.2
      baz=88
M10A  I.L. Ranch, Tu   88.44  47 ⇑P        P       03 09 46.4 +0.4
      baz=88
PDMCI Parker Dam,Lak   88.46  55 ⇓P        P       03 09 46.3  0.0
      baz=88
P11A  Circle Ranch,    88.51  49 ⇓P        P       03 09 46.8 +0.5
      baz=89
K10A  MacKenzie Ranc   88.54  46 ⇓P        P       03 09 46.4  0.0
      baz=89
Y13A  Salome           88.60  55 ⇓P        P       03 09 46.8 -0.1
      baz=89
G09A  Cove             88.60  44 ⇑P        P       03 09 46.6 -0.1
      baz=89
L10A  Juniper Basin    88.64  47 ⇑P        P       03 09 46.9 -0.1
      baz=89
S12A  Delamar Landin   88.70  52 ⇑P        P       03 09 47.6 +0.3
      baz=89,SNR=5.2
O11A  Cowboy Ranch,    88.73  49 ⇓P        P       03 09 47.3 -0.1
      baz=89,SNR=8.0
X13A  Yucca            88.78  55 ⇑P        P       03 09 47.4 -0.3
      baz=89
W13A  Hualapai Mount   88.86  54 ⇓P        P       03 09 48.3 +0.2
      baz=89,SNR=6.3
V13A  Grand Canyon W   88.96  53 ⇓P        P       03 09 48.6 +0.1
      baz=89,SNR=7.2
M11A  Holland Ranch,   88.96  48 ⇑P        P       03 09 48.6 +0.2
      baz=89
214A  Organ Pipe Nat   89.01  57 ⇓P        P       03 09 49.0  0.0
      baz=89,SNR=5.9
G10A  Bishop Farm, J   89.06  44 ⇑P        P       03 09 48.2 -0.6
      baz=89
R12A  Pony Springs,    89.07  51 ⇓P        P       03 09 49.4 +0.4
      baz=89
Q12A  Willow Creek R   89.07  50 ⇓P        P       03 09 48.7 -0.3
      baz=89
U13A  Pakoon Wash      89.10  53 ⇓P        P       03 09 49.5 +0.2
      baz=89,SNR=5.7
H10A  Noah’s Angus R   89.12  44 ⇓P        P       03 09 49.1  0.0
      baz=89
P12A  McGill           89.12  50 ⇓P        P       03 09 49.2 -0.1
      baz=89,SNR=5.3
114A  Black Gap (USA   89.13  57 ⇓P        P       03 09 49.8 +0.3
      baz=89
K11A  Parker Ranch,    89.14  46 ⇓P        P       03 09 49.5 +0.2
      baz=89,SNR=5.2
A09A  Danville         89.14  40 ⇓P        P       03 09 49.6 +0.4
      baz=89
F10A  Beach Ranch, E   89.17  43 ⇓P        P       03 09 49.0 -0.3
      baz=89
L11A  Cat Creek Ranc   89.18  47 ⇓P        P       03 09 49.5 +0.1
      baz=89
Z14A  Wintersburg      89.21  56 ⇓P        P       03 09 50.1 +0.2
      baz=89
B09A  Rice             89.26  40 ⇑P        P       03 09 50.2 +0.5
      baz=89
T13A  Saint George     89.29  52 ⇓P        P       03 09 50.6 +0.5
      baz=89,SNR=6.7
Y14A  Wickenburg       89.30  55 ⇓P        P       03 09 50.0 -0.3
      baz=89
N12A  Clover Valley,   89.37  48 ⇓P        P       03 09 50.7 +0.4
      baz=89,SNR=7.9
O12A  Currie           89.44  49 ⇑P        P       03 09 50.8 +0.1
      baz=90,SNR=6.8
MFID  Camas Ranch      89.45  46 ⇑P        P       03 09 51.0 +0.3
      baz=90
S13A  Holt Ranch, En   89.46  52 ⇓P        P       03 09 50.9  0.0
      baz=90,SNR=9.5
I11A  Placerville      89.49  45 ⇓P        P       03 09 50.7 -0.1
      baz=90,SNR=7.4
X14A  Yava             89.51  55 ⇓P        P       03 09 51.2  0.0
      baz=90,SNR=7.7
R13A  O’Grain Ranch,   89.52  51 ⇓P        P       03 09 51.3 +0.1
      baz=90,SNR=6.6
W14A  Seligman         89.52  54 ⇑P        P       03 09 51.2 -0.1
      baz=90,SNR=5.1
V14A  Boquillas Ranc   89.60  54 ⇑P        P       03 09 51.8 +0.2
      baz=90,SNR=6.1
115A  Sonoran Desert   89.65  57 ⇓P        P       03 09 52.1 +0.2
      baz=90
H11A  Donnelly         89.66  44 ⇑P        P       03 09 52.0 +0.4
      baz=90
Q13A  Wheeler Ranch,   89.66  50 ⇓P        P       03 09 51.9  0.0
      baz=90,SNR=7.5
```

INK	Inuvik	89.69	19	eP	P	03 09 49.9	-1.3
INK				pmax	pmax		
	comp=Z,14nm,1.5s						
INK	Inuvik	89.69	19	P	P	03 09 48.5	-2.8
	comp=Z,5.3nm,1.2s,mb4.8,baz=219,slow=6.5,SNR=5.2						
INK	Inuvik	89.69	19	eP	P	03 09 49.9	-1.3
	comp=Z,14nm,1.5s,mb5.1						
L12A	House Creek Ra	89.70	47	⇓P	P	03 09 52.1	+0.2
	baz=90,SNR=5.8						
U14A	Mt Trumbull	89.72	53	⇑P	P	03 09 52.3	+0.2
	baz=90,SNR=9.0						
A10A	Northport	89.79	40	⇓P	P	03 09 52.8	+0.7
	baz=90						
ARUT	Antelope Range	89.83	52	eP	P	03 09 52.6	0.0
ARUT				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.0						
ARUT	Antelope Range	89.83	52	eP	P	03 09 52.6	-0.1
	comp=Z,9.0nm,1.1s,mb5.0						
Y15A	Casa Rosa Ranc	89.84	56	⇑P	P	03 09 52.8	0.0
	baz=90,SNR=5.3						
K12A	Draper Farm, C	89.91	47	⇑P	P	03 09 52.9	+0.1
	baz=90,SNR=5.5						
J12A	Stokes Ranch,	89.92	46	⇑P	P	03 09 53.0	+0.1
	baz=90,SNR=9.5						
T14A	Hurricane	89.94	52	⇓P	P	03 09 53.4	+0.2
	baz=90,SNR=7.7						
O13A	Hicks Ranch, I	89.97	49	⇓P	P	03 09 53.3	+0.1
	baz=90,SNR=5.2						
N13A	Wendover, West	89.98	48	⇓P	P	03 09 53.4	+0.1
	baz=90						
I12A	Atlanta	90.03	45	⇑P	P	03 09 53.6	+0.2
	baz=90						
S14A	Cedar City	90.04	52	⇓P	P	03 09 53.8	+0.2
	baz=90						
X15A	Humboldt	90.04	55	⇓P	P	03 09 53.9	+0.2
	baz=90						
D11A	Klaveano Farm,	90.05	42	⇓P	P	03 09 52.9	-0.5
	baz=90						
116A	Eloy	90.06	57	⇓P	P	03 09 54.0	+0.2
	baz=90						
M13A	Montello	90.13	48	⇓P	P	03 09 53.8	-0.1
	baz=90,SNR=8.9						
216A	Three Points,	90.14	58	⇓P	P	03 09 54.6	+0.4
	baz=90						
W15A	Williams	90.17	54	⇑P	P	03 09 54.7	+0.4
	baz=90						
Q14A	Sevier Lake (B	90.23	50	⇓P	P	03 09 54.6	+0.2
	baz=90,SNR=12						
G12A	Big Creek, Yel	90.24	44	⇑P	P	03 09 54.3	0.0
	baz=90						
R14A	James Farms, M	90.27	51	⇓P	P	03 09 54.9	+0.3
	baz=90						
V15A	Kaibab Nationa	90.38	54	⇓P	P	03 09 55.5	+0.3
	baz=90,SNR=6.1						
B11A	Sandpoint	90.40	41	⇑P	P	03 09 55.5	+0.5
	baz=90						
H12A	Diamond D Ranc	90.42	45	⇑P	P	03 09 55.8	+0.6
	baz=90						
F12A	Elk City	90.44	44	⇑P	P	03 09 54.9	-0.3
	baz=90						
L13A	Double Diamond	90.46	47	⇑P	P	03 09 55.5	0.0
	baz=90						
T15A	Red Dirt Ranch	90.48	53	⇑P	P	03 09 55.8	+0.1
	baz=90						
HLID	Hailey	90.48	46	⇑P	P	03 09 55.7	+0.2
	baz=90						
K13A	Stover Farm, H	90.50	47	⇑P	P	03 09 55.6	0.0
	baz=90						
Y16A	Circle Bar Ran	90.52	56	⇑P	P	03 09 56.0	+0.1
	baz=91,SNR=8.3						
P14A	Drum Mountains	90.53	50	⇓P	P	03 09 55.9	0.0
	baz=91						
A11A	Hall Mountain,	90.54	40	⇓P	P	03 09 55.9	+0.3
	baz=91						
J13A	Cove Ranch, Pi	90.61	46	⇓P	P	03 09 56.3	+0.2
	baz=91						
217A	Green Valley	90.63	58	⇑P	P	03 09 57.0	+0.5
	baz=91						
S15A	Panguitch	90.64	52	⇑P	P	03 09 57.1	+0.7
	baz=91						
X16A	Lo Mia Camp, P	90.67	55	⇑P	P	03 09 56.7	+0.1
	baz=91						
N14A	Grayback Hills	90.73	49	⇓P	P	03 09 56.6	-0.2
	baz=91,SNR=5.5						
W16A	Flagstaff	90.74	55	⇓P	P	03 09 56.9	0.0
	baz=91						
M14A	Sheep Mountain	90.76	48	⇓P	P	03 09 57.1	+0.2
	baz=91,SNR=11						
TUC	Tucson	90.76	57	eP	P	03 09 57.0	-0.1
I13A	Wildhorse Cree	90.78	46	⇑P	P	03 09 57.0	+0.1
	baz=91,SNR=8.3						
R15A	Junction	90.82	51	⇑P	P	03 09 57.7	+0.5
	baz=91						
H13A	Challis	90.83	45	⇑P	P	03 09 57.1	0.0
	baz=91						
117A	Oracle	90.85	57	⇓P	P	03 09 57.7	+0.2
	baz=91						
DUG	Dugway	90.86	49	⇑P	P	03 09 57.3	-0.1
	baz=91						
WUAZ	Wupatki	90.95	54	⇓P	P	03 09 58.0	+0.1
	baz=91						
L14A	Malta	90.96	48	⇓P	P	03 09 57.9	+0.1
	baz=91,SNR=7.6						
MSU	Marysvale	90.97	51	eP	P	03 09 57.7	-0.2
G13A	Cobalt	90.98	44	⇓P	P	03 09 57.9	+0.1
	baz=91						
Y17A	Roosevelt	91.00	56	⇑P	P	03 09 58.0	-0.2
	baz=91						
J14A	Carey	91.06	46	⇓P	P	03 09 58.3	0.0
	baz=91						
F13A	Darby	91.08	44	⇓P	P	03 09 58.0	-0.2
	baz=91						
K14A	Jones Ranch, D	91.12	47	⇓P	P	03 09 58.6	0.0
	baz=91,SNR=6.4						
N15A	Stansbury Isla	91.23	49	⇓P	P	03 09 59.1	+0.1
	baz=91						
HVU	Hansel Valley	91.24	48	eP	P	03 09 59.5	+0.4
I14A	Mackay	91.25	46	⇑P	P	03 09 59.1	+0.1
	baz=91,SNR=5.3						
318A	Bisbee	91.25	58	⇓P	P	03 09 59.2	-0.1
	baz=91						
U16A	Tuba City	91.28	54	⇑P	P	03 09 59.9	+0.5
	baz=91						
M15A	Larsen Ranch,	91.41	48	⇑P	P	03 09 59.6	-0.3
	baz=91,SNR=6.0						
R16A	Teasdale	91.45	51	⇑P	P	03 10 00.1	0.0
	baz=92,SNR=5.5						
G14A	Jackson	91.54	44	⇓P	P	03 10 00.6	+0.2
	baz=92						
L15A	Malad City	91.58	48	⇑P	P	03 10 00.5	-0.1
	baz=92						
P16A	Fountain Green	91.60	50	⇑P	P	03 10 01.2	+0.4
	baz=92						
B13A	Whitefish	91.61	41	⇑P	P	03 10 01.0	+0.3
	baz=92						
K15A	Arbon	91.62	47	⇓P	P	03 10 01.1	+0.3
	baz=92						
T17A	Navajo Res., N	91.71	53	⇑P	P	03 10 01.6	+0.2
	baz=92						
Q16A	Castle Valley	91.82	51	⇑P	P	03 10 02.3	+0.5
	baz=92						
319A	Douglas	91.83	59	⇑P	P	03 10 02.6	+0.5
	baz=92						
J15A	Blackfoot	91.85	46	⇓P	P	03 10 02.3	+0.4
	baz=92						
TMUT	Trail Mountain	91.87	51	eP	P	03 10 03.2	+1.1
X18A	Snowflake	91.89	55	⇑P	P	03 10 02.4	+0.1
	baz=92						
H15A	Lima	91.97	45	⇑P	P	03 10 02.8	+0.4
	baz=92						
219A	White Tail Can	91.97	58	⇑P	P	03 10 02.8	+0.1
	baz=92						
M16A	Huntsville	91.98	48	⇑P	P	03 10 02.0	-0.5
	baz=92						
N16A	Rees Ranch, Co	92.03	49	⇓P	P	03 10 03.2	+0.4
	baz=92						
R17A	Hanksville Air	92.07	51	⇓P	P	03 10 03.0	0.0
	baz=92						
G15A	Dillon	92.19	45	⇑P	P	03 10 03.6	+0.2
	baz=92						
L16A	Fish Haven	92.27	48	⇓P	P	03 10 04.1	+0.2
	baz=92						
F15A	Butte	92.34	44	⇓P	P	03 10 03.8	-0.3
	baz=92						
Y19A	Nutrioso	92.35	56	⇓P	P	03 10 05.2	+0.8
	baz=92						
E15A	Deer Lodge	92.37	43	⇓P	P	03 10 03.9	-0.2
	baz=92						
J16A	Bone	92.41	47	⇓P	P	03 10 04.8	+0.4
	baz=92						
O17A	Robinson Place	92.41	50	⇑P	P	03 10 04.8	+0.3
	baz=92,SNR=5.6						
T18A	Mexican Hat	92.47	53	⇓P	P	03 10 04.8	-0.1
	baz=92						
I16A	Newdale	92.62	46	⇓P	P	03 10 05.9	+0.5
	baz=93						
MKAR	Makanchi Array	92.64	317	P	P	03 10 04.8	-0.7
	comp=Z,22nm,0.8s,mb5.7,baz=84,slow=6.1,SNR=47						
G16A	Moss Hill, Enn	92.68	45	⇓P	P	03 10 05.6	-0.1
	baz=93						
C15A	Salmond Ranch,	92.69	42	⇓P	P	03 10 05.2	-0.5
	baz=93						
R18A	Canyonlands Na	92.69	52	⇓P	P	03 10 06.2	+0.3
	baz=93						
ZAA0	Zalesovo Array	92.71	324	eP	P	03 10 04.0	-1.6
ZALV	Zalesovo Beam	92.71	324	P	P	03 10 04.1	-1.5
	comp=Z,29nm,1.1s,mb5.6,baz=108,slow=4.8,SNR=27						
ZALV	Zalesovo Beam	92.71	324	P	P	03 10 04.1	-1.5
BOZ	Bozeman (W)	92.89	44	⇓P	P	03 10 06.6	0.0
	baz=93						
F16A	Kennard Place,	92.92	44	⇑P	P	03 10 06.8	+0.1
	baz=93						
O18A	Roosevelt	92.97	50	⇓P	P	03 10 07.4	+0.3
	baz=93						
J17A	Brown Place, J	93.07	47	⇑P	P	03 10 07.4	-0.1
	baz=93						
C16A	Fuhringer Ranc	93.26	42	⇓P	P	03 10 08.3	0.0
	baz=93						
K18A	Toltan Ranch,	93.41	47	⇓P	P	03 10 09.5	+0.4
	baz=93						
I18A	Diamond G Ranc	93.77	46	⇑P	P	03 10 10.6	-0.1
	baz=94						
BW06	Boulder Array	93.78	47	⇓P	P	03 10 10.6	-0.2
	baz=94						
PDAR	Pinedale Array	93.78	47	P	P	03 10 10.0	-0.8
	comp=Z,1.3nm,0.9s,mb4.4,baz=223,slow=1.5,SNR=7.7						
POO	Poona	94.34	288	ex	x	03 10 10.0	
YKA	Yellowknife Ar	94.89	27	P	P	03 10 13.4	-2.0
	comp=Z,0.3nm,0.5s,baz=246,slow=4.7,SNR=5.6						
YKA	Yellowknife Ar	94.89	27	P	P	03 10 13.4	-2.0
KURK	Kurchatov	95.78	320	P	P	03 10 18.1	-1.7
	comp=Z,3.0nm,0.9s,mb4.7,baz=90,slow=4.2,SNR=2.8						
KSH	Kashi	95.85	309	eP	P	03 10 23.1	+2.7
KSH				epP	pP	03 10 34.4	-1.4
KSH				esP	sP	03 10 37.5	-4.2
KSH				ePP	PP	03 14 17.4	+4.3
KSH				eSKS		03 20 55.0	
KSH				eS	S	03 21 35.3	+0.9
KSH				esS	sS	03 21 53.1	-7.5
KSH				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb5.0						
KSH				LR	LR		
	comp=N,470nm,5.4s						
KSH				LR	LR		
	comp=E,360nm,5.4s						
KSH				LR	LR		
	comp=Z,220nm,3.8s						
BVAR	Borovoye Array	101.09	322	P	Pdif	03 10 42.2	-1.4
	comp=Z,6.6nm,0.9s,baz=94,slow=4.5,SNR=8.8						
OBN	Obninsk	119.99	329	ePKIKP	PKPdf	03 15 43.0	-0.9
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
OBN				MLR	MLR		
	comp=Z,600nm,14.0s,MS5.4						
KIV	Kislovodsk	120.34	315	ePKIKP	PKPdf	03 15 45.6	+0.7
KIV	Kislovodsk	120.34	315	ePKPdf	PKPdf	03 15 45.6	+0.7
BOSA	Boshof	124.95	224	PKP	PKPdf	03 15 52.9	-1.4
	comp=Z,3.1nm,0.9s,baz=43,slow=4.7,SNR=3.4						
SDV	Santo Domingo	125.23	87	ePKPdf	PKPdf	03 15 53.5	-1.6
AKASG	Malin Array Be	126.03	327	PKP	PKPdf	03 15 52.4	-3.2
	comp=Z,0.4nm,0.4s,baz=62,slow=1.2,SNR=6.0						
AKASG	Malin Array Be	126.03	327	PKP	PKPdf	03 15 52.4	-3.2
KMBO	Kilima Mbogo	126.72	261	PKP	PKPdf	03 15 56.3	-1.8
	comp=Z,1.6nm,0.8s,baz=43,slow=9.0,SNR=4.5						
BRTR	Keskin Array B	128.07	313	PKP	PKPdf	03 15 58.5	-1.3
	comp=Z,1.9nm,1.0s,baz=180,slow=1.1,SNR=7.6						
CLL	Collm	133.35	336	ePKP	PKPdf	03 16 10.0	+0.5
CLL				eSKP		03 19 50.0	
GERES	GERESS Array B	134.93	333	PKP	PKPdf	03 16 12.0	-0.5
	comp=Z,1.5nm,0.8s,baz=48,slow=2.0,SNR=9.9						
SBF	Sospel	141.53	334	ePKP1	PKPdf	03 16 22.8	-2.0
	comp=Z,42nm,1.0s						
PYM	Petit Puy Mans	141.68	340	PKP	PKPdf	03 16 20.9	-4.1
LBL	Lubilhac	142.05	339	PKP	PKPdf	03 16 21.8	-3.9
RJF	Les Rejaudoux	142.57	341	ePKP1	PKPdf	03 16 21.6	-5.0
	comp=Z,60nm,1.5s						
CAF	Calviac	142.72	340	⇑iPKP1	PKPdf	03 16 22.3	-4.6
	comp=Z,27nm,1.2s						
LFF	La Frestale	143.15	341	ePKP1	PKPdf	03 16 23.6	-4.1
	comp=Z,71nm,1.2s						
VSL	Villasalto	143.91	327	ePKPdf	PKPdf	03 16 26.7	-2.5
MTLF	Montolieu	144.05	338	⇑iPKP1	PKPdf	03 16 27.0	-2.3
	comp=Z,272nm,1.2s						
LRDF	Laroque-de-Fa	144.28	338	PKP	PKPdf	03 16 27.8	-1.9
CARF	Carcanieres	144.64	338	PKP	PKPdf	03 16 28.6	-1.7
MLS	Moulis	144.79	339	PKP	PKPdf	03 16 29.3	-1.3
SALF	Salau	144.93	339	PKP	PKPdf	03 16 28.9	-2.0
VALF	Valcebollere	144.94	338	PKP	PKPdf	03 16 30.3	-0.6
EPF	Esparros	144.98	340	ePKP1	PKPdf	03 16 29.6	-1.3
	comp=Z,48nm,1.2s						
RESF	Ens	145.18	340	PKP	PKPdf	03 16 31.6	+0.3
VIEF	Viey	145.22	340	PKP	PKPdf	03 16 31.4	+0.1
ATE	Arette	145.27	341	PKP	PKPdf	03 16 30.6	-0.8
OSSF	Osses	145.28	342	PKP	PKPdf	03 16 30.3	-1.1
ETSF	Etsaut	145.39	341	ePKP1	PKPbc	03 16 31.9	+0.3
	comp=Z,93nm,1.1s						
SJPF	Ste Jean	145.40	342	ePKP1	PKPbc	03 16 31.1	-0.5
	comp=Z,51nm,1.2s						
KEST	Kesra	146.56	322	PKPbc	PKPbc	03 16 35.1	-0.3
	comp=Z,22nm,1.0s,baz=288,slow=1.8,SNR=29						
CMAH	Djebel Manchou	147.05	326	P	PKPbc	03 16 35.9	-0.9
CKFL	Kef-Lekhel	147.60	326	P	PKPbc	03 16 38.4	+0.1
CASM	Ain Smara	147.83	326	P	PKPbc	03 16 38.4	-0.5
DFRA	Djebel Bou Aff	147.95	327	P	PKPbc	03 16 39.4	+0.2
PBRG	Braganca	148.03	348	ePKPab	PKPab	03 16 42.5	+0.5
PCAB	Cabril	148.36	350	ePKPab	PKPab	03 16 43.9	+0.6
SET	Setif	148.46	327	P	PKPbc	03 16 41.0	+0.4
MVO	Moncorvo	148.70	348	ePKPab	PKPab	03 16 45.3	+0.6
PVRL	Vila Real	148.73	349	ePKPab	PKPab	03 16 45.4	+0.6
PVIS	Viseu	149.30	349	ePKPab	PKPab	03 16 47.9	+0.7
ESDC	Sonseca Array	149.37	343	PKPbc	PKPdf	03 16 39.6	+1.2
	comp=Z,7.8nm,1.1s,baz=5.5,slow=3.2,SNR=22						
ESDC				PKPab	PKPab	03 16 47.9	+0.4
	comp=Z,1.9nm,0.6s,baz=10,slow=4.0,SNR=4.9						
MTE	Manteigas	149.54	349	ePKPab	PKPab	03 16 49.0	+0.9
MTE	Manteigas	149.54	349	ePKPbc	PKPbc	03 16 43.0	-0.2
PCBR	Castelo Branco	150.07	348	ePKPab	PKPab	03 16 50.3	0.0
PMRV	Marv??o	150.45	348	ePKPab	PKPab	03 16 52.7	+0.8
PTOM	Tomar	150.46	350	ePKPab	PKPab	03 16 52.5	+0.6
PESTR	Estremoz	151.03	348	ePKPab	PKPab	03 16 55.5	+1.2
EVO	Evora	151.44	348	⇑iPKP1	PKPbc	03 16 46.8	-0.9
	comp=Z,69nm,1.1s						
PBAR	Barrancos	151.57	347	ePKPab	PKPab	03 16 57.4	+0.8
PBEJ	Beja	151.90	348	ePKPab	PKPab	03 16 58.8	+0.9
PVAQ	Vaqueiros	152.46	347	ePKPab	PKPab	03 17 00.4	+0.1
PTEO	Sao Teotonio	152.53	349	ePKPab	PKPab	03 17 01.5	+0.9
MORF	Marmelete	152.75	349	ePKPab	PKPab	03 17 02.6	+1.1
TORD	Torodi Ar. Bea	163.43	281	PKP	PKPdf	03 16 56.0	-1.2
	comp=Z,4.1nm,1.1s,baz=60,slow=1.1,SNR=13						
TORD				PKPab	PKPab	03 17 47.5	-1.0
	comp=Z,8.9nm,1.1s,baz=73,slow=3.8,SNR=16						
TORD	Torodi Ar. Bea	163.43	281	PKP	PKPdf	03 16 56.0	-1.2
TORD				PKPab	PKPab	03 17 47.5	-1.0

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*CSEM **21** 03:43:39.6, 36°.30N×21°.82E, h5^{km}, MD3.5, After ATH*

*NEIC **21** 03:43:39.6, 36°.30N×21°.82E, h5^{km}, MD3.5(ATH), After ATH.*

ATH 21 03:43:39.6, 36°.30N×21°.82E, h5^{km}, MD3.5/3**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.88	6	ePG	Pg	03 43 55.7	-0.8
ITM				eSB	Sg	03 44 08.4	+0.4
ITM	Ithomi	0.88	6	ePg	Pg	03 43 55.7	-0.8
ITM				eSb	Sg	03 44 08.4	+0.4
KYTH	Kithira	0.98	91	ePB	Pg	03 43 58.3	-0.2
KYTH	Kithira	0.98	91	ePb	Pg	03 43 58.3	-0.2
VLI	Veliai	0.99	65	ePG	Pg	03 43 58.2	-0.4
VLI				eSB	Sg	03 44 12.4	+0.9
VLI	Veliai	0.99	65	ePg	Pg	03 43 58.2	-0.4
VLI				eSb	Sg	03 44 12.4	+0.9
RLS	Riolos of Patr	1.78	351	ePN	Pn	03 44 13.7	+2.7
RLS	Riolos of Patr	1.78	351	ePn	Pn	03 44 13.7	+2.7
IDI	Anoyia	2.69	111	ePn	Pn	03 44 24.3	+0.8

JMA 21 03:43:49.6±0.2**, 28°.69N×140°.25E, h370^{km}, M3.8, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	2.33	132	P	Pn	03 44 45.5	+0.3
CBIJ				S	S	03 45 28.5	-1.3
JHHJ	Haha-jima-NKT	2.67	140	eS	S	03 45 34.0	-0.6
BSO3	Boso 3	6.10	2	eS	S	03 46 36.6	-0.6
BSO4	Boso 4	6.28	1	eS	S	03 46 39.2	-1.8
JAG	Ashikaga	7.74	355	P	Pn	03 45 41.1	+0.2
JAG				eS	S	03 47 06.9	-4.9
JHO	Hitachi	7.90	2	P	Pn	03 45 44.2	+1.4
JHO				eS	S	03 47 13.3	-1.9

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*BJI **21** 03:47:37.3, 2°.11N×95°.96E, h31^{km}, mB5.2/13, mb4.8/33, Ms5.0/8, Ms7 4.8/8*

*IDC **21** 03:47:38.2±0.6, 2°.48N×95°.98E, h0^{km}, mb4.4/18, mb1 4.5/20, mb1mx4.4/27, mbtmp4.4/20, ML4.3/2, Error ellipse: s-maj=22.9km s-min=12.7km az=48.0*

*NEIC **21** 03:47:43.6±0.3, 2°.48N×96°.08E, h35^{km}, mb5.0/23, Error ellipse: s-maj=8.5km s-min=5.1km az=223.0*

NEIC Felt [III] at Sinabang.

*DJA **21** 03:47:43, 2°.58N×95°.99E, h20^{km}, mb4.9/8*

*ISCJB **21** 03:47:43.7±0.8, 2°.55N±0°.05×96°.11E±0°.05, h53^{km}±7^{km}, mb4.7/59, MS4.8/3, Error ellipse: s-maj=10.5km s-min=6.2km az=140.2*

*MOS **21** 03:47:45.6±1.0, 2°.61N×96°.15E, h70^{km}, mb4.9/15, Error ellipse: s-maj=11.7km s-min=6.5km az=104.9*

ISC 21 03:47:46.1±0.8**, 2°.54N**±0°.05×**96°.13E**±0°.05**, h57^{km}**±7^{km}**, h25^{km}**±3.9^{km}**:pP-P, n117, σ0^{s}.88**/119**, mb4.7**/59**, MS4.8**/3**, 5C-1D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSI	Gunungsitoli	1.89	130	P	Pn	03 48 14.0	-2.0
PSI	Prapat	2.80	85	Pn	Pn	03 48 28.2	-0.2
	25nm,0.3s,baz=282,slow=6.7,SNR=75						
BSI	Banda Aceh	3.06	344	⇓eP	Pn	03 48 28.5	-3.5
BSI				eS	Sn	03 48 51.0	-16
BSI	Banda Aceh	3.06	344	P	Pn	03 48 27.6	-4.4
PPI	Padang Panjang	5.20	125	P	Pn	03 49 01.7	+0.4
	85nm,1.0s,0.5nm						
IPM	Ipoh	5.25	68	P	Pn	03 49 02.1	0.0
IPM	Ipoh	5.25	68	P	Pn	03 49 01.9	-0.1
	134nm,1.1s,0.6nm						
KULM	Kulim	5.27	59	P	Pn	03 49 03.0	+0.6
KULM	Kulim	5.27	59	ePn	Pn	03 49 01.8	-0.5
	178nm,0.8s						
KULM	Kulim	5.27	59	P	Pn	03 49 01.6	-0.7
	336nm,0.9s,0.9nm						
PDSI	Padang	5.52	128	P	Pn	03 49 07.3	+1.6
	85nm,0.6s,0.7nm						
FRIM	Kepong	5.53	83	P	Pn	03 49 06.5	+0.6
KGM	Kluang	7.20	94	P	Pn	03 49 28.0	-0.7
KTGM	Kuala Trenggan	7.51	68	P	Pn	03 49 32.1	-0.9
MYKOM	Kota Tinggi	7.75	95	P	Pn	03 49 36.5	+0.3
MYKOM	Kota Tinggi	7.75	95	P	Pn	03 49 36.9	+0.6
MYKOM	Kota Tinggi	7.75	95	P	Pn	03 49 36.7	+0.4
	70nm,1.7s,0.4nm						
KSI	Kapahiang	8.91	134	P	Pn	03 49 53.4	+1.2
	183nm,0.9s						
CMAR	Chiang Mai Arr	16.06	10	Pn	Pn	03 51 28.7	+0.4
	0.6nm,0.3s,baz=197,slow=11,SNR=36						
PALK	Pallekele	16.07	288	Pn	Pn	03 51 29.4	+0.8
	0.4nm,0.3s,baz=102,slow=14,SNR=3.2						
PALK				Sn	Sn	03 54 08.3	-18
	1.0nm,0.3s,baz=219,slow=9.5,SNR=3.4						
CHTO	Chiang Mai	16.41	9	eP	Pn	03 51 30.7	-2.0
CHTO				pmax	pmax		
	comp=Z,12nm,1.1s						
CHTO	Chiang Mai	16.41	9	ePn	Pn	03 51 30.7	-2.0
	comp=Z,12nm,1.1s						
CHTO	Chiang Mai	16.41	9	P	Pn	03 51 33.1	+0.4
	comp=Z,17nm,1.5s						
KKM	Kota Kinabalu	20.32	79	eP	P	03 52 18.1	+0.4
	comp=Z,24nm,0.9s						
SDKM	Sandakan	21.23	81	P	P	03 52 31.2	+3.7
SHL	Shillong	23.26	350	ePKP	P	03 52 45.0	-3.8
SHL				eS	Sx	03 56 03.0	
KMI	Kunming	23.34	15	P	P	03 52 50.9	+1.4
KMI				pP		03 52 57.8	
KMI				sP	sP	03 53 00.4	-9.4
KMI				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.3						
KAPI	Kappang	24.76	108	P	P	03 53 02.4	-0.3
	comp=Z,36nm,1.0s,mb4.8,baz=254,slow=6.7,SNR=5.5						
KAPI	Kappang	24.76	108	eP	P	03 53 02.5	-0.2
	comp=Z,92nm,1.3s,mb5.2						
KAPI	Kappang	24.76	108	P	P	03 53 06.8	+4.2
ODAN	Odare	25.60	342	eP	P	03 53 10.4	+0.4
	comp=Z,62nm,0.9s,mb5.1						
RAMN	Ramite	25.94	340	eP	P	03 53 14.2	+1.1
	comp=Z,113nm,0.6s,mb5.6						
TAPN	Taplejung	25.96	343	eP	P	03 53 13.6	+0.3
	comp=Z,49nm,0.8s,mb5.1						
JIRN	Jiri	26.73	340	eP	P	03 53 21.2	+0.9
	comp=Z,110nm,0.7s,mb5.5						
PKI	Pulchoki	26.93	339	eP	P	03 53 22.5	+0.5
	comp=Z,22nm,0.5s,mb4.9						
PKI	Pulchoki	26.93	339	eP	P	03 53 22.5	+0.5
PKI				pmax	pmax		
	comp=Z,22nm,0.5s,mb4.9						
GUN	Gumba	27.07	340	eP	P	03 53 24.2	+0.9
	comp=Z,81nm,0.7s,mb5.4						
DMN	Daman	27.07	338	eP	P	03 53 23.6	+0.3
	comp=Z,32nm,0.8s,mb4.9						
KKN	Kakani	27.17	339	eP	P	03 53 24.5	+0.3
	comp=Z,57nm,0.9s,mb5.1						
KKN	Kakani	27.17	339	eP	P	03 53 24.5	+0.3
KKN				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.1						
LSA	Lhasa	27.43	351	P	P	03 53 26.4	-0.1
LSA	Lhasa	27.43	351	eP	P	03 53 26.8	+0.3
LSA				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.8						
LSA	Lhasa	27.43	351	eP	P	03 53 26.8	+0.3
	comp=Z,23nm,0.8s,mb4.8						
GKN	Gorkha	27.60	338	eP	P	03 53 28.5	+0.4
KOLN	Koldanda	27.81	336	eP	P	03 53 30.5	+0.6
	comp=Z,37nm,0.7s,mb5.2						
DANN	Dangsing	28.25	336	eP	P	03 53 34.5	+0.6
WHN	Wuhan	32.76	30	P	P	03 54 06.3	-7.4
XAN	Xi’an	33.54	19	P	P	03 54 19.3	-1.1
XAN				pP	pP	03 54 25.3	-10
XAN				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
LZH	Lanzhou	34.14	11	eP	P	03 54 24.9	-0.7
LZH				pP	pP	03 54 32.0	-8.0
LZH				sP	sP	03 54 35.4	-11
LZH				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.0						
LZH				pmax	pmax		
	comp=Z,89nm,4.3s						
FITZ	Fitzroy Crossi	35.57	126	P	P	03 54 37.3	-0.9
	comp=Z,4.6nm,0.8s,mb4.5,baz=257,slow=6.2,SNR=5.7						
GTA	Gaotai	36.85	5	P	P	03 54 48.6	-0.2
GTA				pP	pP	03 54 55.3	-8.1
GTA				sP	sP	03 54 57.8	-12
GTA				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.1						
KAKA	Kakadu	39.10	114	eP	P	03 55 06.3	-1.9
	comp=Z,41nm,0.6s,mb5.3						
HHC	Hu-ho-hao-te	40.61	18	eP	P	03 55 21.3	+1.0
HHC				pP	pP	03 55 30.8	-4.2
HHC				sP	sP	03 55 35.3	-6.4
HHC				PP	PP	03 56 59.4	+4.6
HHC				PcS	PcS	04 01 11.0	-1.1
HHC				S	S	04 01 29.6	+3.8
HHC				sS	sS	04 01 45.4	-5.3
HHC				SS	SS	04 04 26.6	-1.3
HHC				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.8						
HHC				pmax	pmax		
	comp=Z,570nm,4.0s						
HHC				LR	LR		

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         comp=N,700nm,15.1s,MS4.8
HHC                                  LR       LR
         comp=E,750nm,13.0s,MS4.8
HHC                                  LR       LR
         comp=Z,850nm,14.1s,MS4.8
KSH      Kashi             41.12 336 eP       P          03 55 23.3  -1.2
KSH                                  epP      pP         03 55 33.1  -6.2
KSH                                  esP      sP         03 55 37.3  -8.7
KSH                                  ePP      PP         03 57 01.1  +0.7
KSH                                  ePcP     PcP        03 57 24.3  +1.2
KSH                                  eScP     ScP        04 01 10.0  +1.7
KSH                                  ePcS     PcS        04 01 14.1  -0.1
KSH                                  eS       S          04 01 32.0  -1.5
KSH                                  esS      sS         04 01 48.3   -10
KSH                                  eScS     ScS        04 05 23.3  -0.5
KSH                                  pmax     pmax
         comp=Z,3.0nm,0.7s,mb4.0
KSH                                  pmax     pmax
         comp=Z,110nm,3.0s
KSH                                  LR       LR
         comp=N,1µm,12.6s,MS5.1
KSH                                  LR       LR
         comp=E,1µm,12.0s,MS5.1
KSH                                  LR       LR
         comp=Z,2µm,13.6s,MS5.1
BJT      Baijiatuau        41.50  23 eP       P          03 55 28.6  +1.0
BJT                                  pmax     pmax
         comp=Z,57nm,0.9s
BJT      Baijiatuau        41.50  23 eP       P          03 55 28.6  +1.0
         comp=Z,57nm,0.9s,mb5.2
BJI      Beijing           41.52  23 P        P          03 55 28.8  +1.0
BJI                                  pmax     pmax
         comp=Z,64nm,0.9s,mb5.2
WRA      Warramunga Arr    43.64 123 P        P          03 55 45.6  +0.2
         comp=Z,3.1nm,0.6s,mb4.2,baz=301,slow=9.4,SNR=15
WRAB     Tennant Creek     43.65 123 eP       P          03 55 45.9  +0.5
WRAB                                 pmax     pmax
         comp=Z,5.0nm,0.8s,mb4.3
WRAB     Tennant Creek     43.65 123 eP       P          03 55 45.9  +0.5
         comp=Z,4.8nm,0.8s,mb4.3
WB2      Warramunga Arr    43.66 123 eP       P          03 55 45.6  +0.2
UCH      Uchtor            44.01 337 eP       P          03 55 49.1  +1.2
         comp=Z,9.0nm,0.9s,mb4.5
AML      Almayashu         44.26 336 eP       P          03 55 51.0  +1.2
         comp=Z,7.3nm,0.7s,mb4.5
AAK      Ala-Archa         44.36 337⇑eP       P          03 55 52.2  +1.5
AAK                                  pmax     pmax
         comp=Z,6.0nm,1.7s,mb4.0
AAK      Ala-Archa         44.36 337 P        P          03 55 50.3  -0.4
         comp=Z,2.8nm,0.6s,mb4.1,baz=126,slow=6.7,SNR=8.2
ASAR     Alice Springs     45.05 127 P        P          03 55 56.9  +0.4
         comp=Z,1.6nm,0.6s,mb4.0,baz=299,slow=8.1,SNR=24
KSRS     Korea Array       45.38  36 P        P          03 55 58.6  -0.3
         comp=Z,3.7nm,0.8s,mb4.3,baz=230,slow=9.4,SNR=16
MK31     Makanchi Array    45.70 347 eP       P          03 56 01.1  -0.2
MK31                                 pmax     pmax
         comp=Z,6.0nm,0.4s,mb4.9
MK31     Makanchi Array    45.70 347 eP       P          03 56 01.1  -0.1
MKAR     Makanchi Array    45.70 347 P        P          03 56 01.2  -0.1
         comp=Z,15nm,0.6s,mb5.1,baz=162,slow=8.1,SNR=240
SONM     Songino Array     45.99  10 P        P          03 56 03.8  +0.3
         comp=Z,8.6nm,0.6s,mb4.8,baz=190,slow=9.0,SNR=73
SONM                                 PcP      PcP        03 57 40.7  +1.3
         comp=Z,2.6nm,0.7s,baz=193,slow=3.9,SNR=5.2
ULN      Ulaanbaatar       46.13  10 eP       P          03 56 05.2  +0.6
ULN                                  pmax     pmax
         comp=Z,4.0nm,0.7s,mb4.5
ULN      Ulaanbaatar       46.13  10 eP       P          03 56 05.2  +0.5
         comp=Z,4.5nm,0.7s,mb4.5
KK31     Karatay Array     46.40 334 i P      P          03 56 07.7  +0.9
KK31                                 pmax     pmax
         comp=Z,1.0nm,0.3s,mb4.2
ZAK      Zakamensk         48.06   6⇑iP       P          03 56 19.7  +0.1
ZAK                                  pmax     pmax
         comp=Z,5.0nm,1.0s,mb4.5
TLY      Talaya            49.38   6 eP       P          03 56 30.1  +0.4
TLY                                  e                   03 56 57.0
TLY                                  pmax     pmax
         comp=Z,8.0nm,0.8s,mb4.8
TLY      Talaya            49.38   6 eP       P          03 56 30.2  +0.5
         comp=Z,6.0nm,0.8s,mb4.7
KURK     Kurchatov         50.24 346 eP       P          03 56 36.3   0.0
KURK                                 pmax     pmax
         comp=Z,7.0nm,0.7s,mb4.8
KURK     Kurchatov         50.24 346 P        P          03 56 36.0  -0.3
         comp=Z,9.8nm,0.6s,mb5.0,baz=165,slow=6.9,SNR=43
KURK     Kurchatov         50.24 346 eP       P          03 56 36.3   0.0
         comp=Z,7.4nm,0.7s,mb4.8
ZAA0     Zalesovo Array    52.08 352 eP       P          03 56 50.0  -0.1
ZALV     Zalesovo Beam     52.08 352 P        P          03 56 50.0   0.0
         comp=Z,14nm,0.5s,mb5.2,baz=182,slow=7.0,SNR=66
NVS      Novosibirsk       53.19 351 eP       P          03 56 57.4  -0.8
NVS                                  eS       S          04 04 25.5  +0.7
NVS                                  pmax     pmax
         comp=N,10.0nm,1.6s
NVS                                  pmax     pmax
         comp=Z,17nm,1.6s,mb4.7
NVS                                  smax
         comp=N,28nm,2.5s
VOSK     Vostochnaya       54.20 341 P        P          03 57 04.9  -0.8
VOSK                                 pmax     pmax
         comp=Z,5.0nm,0.6s,mb4.6
BRVK     Borovoye          54.71 341 eP       P          03 57 09.1  -0.2
BRVK                                 pmax     pmax
         comp=Z,6.0nm,0.9s,mb4.6
BRVK     Borovoye          54.71 341 eP       P          03 57 09.1  -0.3
         comp=Z,5.6nm,0.9s,mb4.6
STKA     Stephens Creek    55.04 132 P        P          03 57 12.8  +0.7
         comp=Z,2.7nm,0.7s,mb4.4,baz=308,slow=8.0,SNR=4.8
HABR     Khabarovsk        56.63  30 eP       P          03 57 21.2  -2.0
HABR                                 e                   03 58 16.7
HABR                                 S        S          04 05 11.5  +0.4
HABR                                 e*SS     sS         04 05 28.1  -8.9
HABR                                 e                   04 07 07.4
HABR                                 MLR      MLR
         comp=Z,341nm,19.0s,MS4.5
BOD      Bodaibo           56.91  11 eP       P          03 57 24.9  -0.1
BOD                                  pmax     pmax
         comp=Z,7.0nm,1.4s,mb4.5
SVE      Sverdlovsk        61.06 339 eP       P          03 57 53.2  -0.6
SVE                                  pmax     pmax
         comp=Z,16nm,0.8s,mb5.2
ARU      Arti              61.55 337c iP      P          03 57 56.5  -0.6
ARU                                  e                   04 00 11.9
ARU                                  S        S          04 06 17.9  +3.5
ARU                                  pmax     pmax
         comp=Z,10.0nm,1.0s,mb4.9
YAK      Yakutsk           64.45  17 eP       P          03 58 14.6  -1.6
YAK                                  pmax     pmax
         comp=Z,24nm,0.8s,mb5.3
YAK                                  pmax     pmax
         comp=N,6.0nm,1.2s
YAK                                  pmax     pmax
         comp=E,6.0nm,1.1s
YAK      Yakutsk           64.45  17 eP       P          03 58 15.4  -0.8
         comp=E,33nm,0.8s,mb5.4
VRHR     Novokhopersk      66.43 326 eP       P          03 58 28.2  -1.0
VRHR                                 pmax     pmax
         comp=Z,9.0nm,0.5s,mb5.1
VRHR                                 pmax     pmax
         comp=N,2.0nm,0.3s
BRTR     Keskin Array B    67.43 312 P        P          03 58 34.9  -1.0
         comp=N,0.3nm,0.3s,mb3.8,baz=127,slow=4.9,SNR=5.6
VORD     Divnogorie        67.69 325 eP       P          03 58 36.0  -1.2
VORD                                 pmax     pmax
         comp=Z,4.0nm,0.5s,mb4.7
VORD                                 pmax     pmax
         comp=N,3.0nm,0.7s
VORD                                 pmax     pmax
         comp=E,9.0nm,0.8s
VSR      Storozhevoye      67.87 325 eP       P          03 58 37.5  -0.9
VSR                                  pmax     pmax
         comp=Z,3.0nm,0.5s,mb4.6
VSR                                  pmax     pmax
         comp=N,3.0nm,0.6s
VSR                                  pmax     pmax
         comp=E,2.0nm,0.7s
PRGR     Permogore         70.00 337 eP       P          03 58 49.2  -2.2
PRGR                                 pmax     pmax
         comp=Z,69nm,1.6s,mb5.3
OBN      Obninsk           70.93 328 eP       P          03 58 57.4  +0.2
OBN                                  pmax     pmax
         comp=Z,4.0nm,0.8s,mb4.4
TIXI     Tiksi             72.07  10⇑eP       P          03 59 03.1  -0.6
TIXI                                 pmax     pmax
         comp=Z,20nm,2.5s,mb4.6
TIXI     Tiksi             72.07  10 eP       P          03 59 03.0  -0.8
         comp=Z,5.9nm,0.8s,mb4.6
SEY      Seymchan          72.96  23⇑eP       P          03 59 09.6  +0.4
AKASG    Malin Array Be    73.56 322 P        P          03 59 12.0  -1.0
         comp=Z,0.8nm,0.4s,mb4.0,baz=82,slow=5.6,SNR=4.9
BOSA     Boshof            74.53 240 P        P          03 59 18.4  -0.6
         comp=Z,1.2nm,0.7s,mb3.9,baz=98,slow=7.1,SNR=2.9
BOSA     Boshof            74.53 240 P        P          03 59 18.4  -0.7
KAF      Kangasniemi       78.42 333 ep       P          03 59 40.0  -0.4
BILL     Bilibino          80.31  21 eP       P          03 59 51.2  +0.6
BILL                                 pmax     pmax
         comp=Z,2.0nm,1.6s,mb3.8
ARCES    ARCESS Array B    80.93 340 P        P          03 59 53.1  -0.8
         comp=Z,11nm,0.5s,mb5.0,baz=112,slow=7.7,SNR=5.2
GERES    GERESS Array B    83.11 319 P        P          04 00 06.1  +0.4
         comp=Z,0.8nm,0.8s,mb3.8,baz=104,slow=5.6,SNR=12
GERES    GERESS Array B    83.11 319 P        P          04 00 06.1  +0.4
NOA      NORSAR Array B    85.33 331 P        P          04 00 17.5  +0.8
         comp=Z,0.5nm,0.7s,mb3.8,baz=2.0,slow=12,SNR=2.6
TORD     Torodi Ar. Bea    93.75 283 P        P          04 00 58.6  +1.1
         comp=Z,0.5nm,1.1s,mb3.9,baz=111,slow=6.2,SNR=3.2
NVAR     Mina Array Bea   128.31  34 PKP      PKPdf      04 06 49.3  +2.6
         comp=Z,0.4nm,0.7s,baz=289,slow=2.8,SNR=3.4
NVAR     Mina Array Bea   128.31  34 PKP      PKPdf      04 06 49.3  +2.6
PDAR     Pinedale Array   129.29  24 PKP      PKPdf      04 06 49.1  +0.8
         comp=Z,0.4nm,0.9s,baz=196,slow=1.6,SNR=2.6
TXAR     Lajitas Array    143.07  29 PKP      PKPdf      04 07 12.5  -1.8
         comp=Z,0.3nm,0.7s,baz=235,slow=3.2,SNR=2.8
CPUP     Villa Florida    145.23 225 PKPbc    PKPbc      04 07 17.8  -0.1
         comp=Z,1.9nm,0.8s,baz=61,slow=4.2,SNR=3.3
```

ISCJB **21** *03:56:21.8±0.7, 77°.44N±0°.05×19°.7E±0°.2, h10^{km}, Error ellipse: s-maj=9.4km s-min=4.8km az=140.2*
CSEM **21** *03:56:23.4±0.3, 77°.51N×19°.98E, h15^{km}, ML3.6, Error ellipse: s-maj=12.2km s-min=4.5km az=55.0*
NAO **21** *03:56:25.5±2.6, 77°.35N×18°.46E, h14^{km}±23^{km}, ML3.6*
BER **21** *03:56:26.4±3.1, 77°.59N×19°.97E, h15^{km}±15^{km}, MD3.1, ML3.7, ML3.6(NAO)*
ISC 21 03:56:23.5±0.8**, 77°.54N**±0°.05×**20°.2E**±0°.2**, h13**^{km}±7^{km}**, n22, σ0ˢ.91**/34**, Svalbard region**

```
Code     Station Name        Δ°  AZ°    Phase ID             Time      Res
                                     Op       ISC        h  m  s     ISC
SPA0     Spitsbergen Ar     1.02 310 Pg       Pg         03 56 43.5  +0.3
         baz=138,slow=22
SPA0                                 Lg                  03 56 56.2
         baz=134,slow=37
SPA0     Spitsbergen Ar     1.02 310 Pg       Pg         03 56 43.5  +0.3
         baz=138,slow=21,SNR=9.1
SPA0                                 Lg                  03 56 56.2
         baz=134,slow=34,SNR=95
HSP      Hornsund           1.16 244 eP       Pb         03 56 46.1  +0.8
HSP                                  eS       Sb         03 57 01.4  +1.3
HOPEN    Hopen              1.51 131 ePg      Pg         03 56 52.8  +0.4
HOPEN                                eS       Sn         03 57 09.8  +0.1
HOPEN                                eSg      Sg         03 57 13.4  +1.4
HOPEN                                AML      AML        03 57 15.2
         comp=Z,3µm,0.2s
HOPEN    Hopen              1.51 131 ePg      Pg         03 56 52.8  +0.4
         SNR=94
HOPEN                                eS       Sn         03 57 09.8  +0.1
         SNR=62
HOPEN                                eSg      Sg         03 57 13.4  +1.4
         comp=Z,3µm,0.2s,SNR=94
KBS      Kingsbay           2.18 313 Pn       Pn         03 56 59.7  +0.2
KBS                                  Pg       Pg         03 57 04.5  -0.8
KBS                                  Lg                  03 57 31.0
KBS      Kingsbay           2.18 313 eP       Pn         03 56 59.4   0.0
KBS                                  e                   03 57 03.9
KBS                                  eSg      Sg         03 57 29.2  -4.3
KBS                                  AML      AML        03 57 39.0
         comp=Z,996nm,0.2s
KBS      Kingsbay           2.18 313 eP       Pn         03 56 59.4   0.0
         SNR=62
KBS      Kingsbay           2.18 313 Pn       Pn         03 56 59.7  +0.3
KBS      Kingsbay           2.18 313 Pg       Pg         03 57 04.5  -0.8
KBS                                  eSg      Sg         03 57 29.2  -4.3
         comp=Z,996nm,0.2s,SNR=92
BJO      Bjornoya           3.06 185 eP       Pn         03 57 12.6  +1.1
BJO                                  ePg      Pg         03 57 21.3  -0.8
BJO                                  eSg      Sg         03 58 00.9  -0.9
BJO                                  AML      AML        03 58 05.1
         comp=Z,312nm,0.6s
BJO      Bjornoya           3.06 185 eP       Pn         03 57 12.6  +1.1
         SNR=62
TRO      Tromso             7.96 183 eP       Pn         03 58 18.5  -0.2
TRO                                  eS       Sn         03 59 39.9  -8.6
TRO      Tromso             7.96 183 eP       Pn         03 58 18.5  -0.2
         SNR=57
KEV      Kevo               8.06 163 ep       Pn         03 58 20.2  +0.2
         comp=Z,7.1nm,0.3s
ARA0     ARCESS Array S     8.19 167 Pn       Pn         03 58 21.3  -0.5
         baz=351,slow=12
ARA0                                 Sn       Sn         03 59 47.3  -6.7
         baz=358,slow=22
ARA0     ARCESS Array S     8.19 167 Sn       Sn         03 59 47.3  -6.7
         baz=358,slow=21,SNR=8.6
APA0     Apatity Array     10.66 153 Pn       Pn         03 58 54.7  -0.9
         baz=343,slow=11
APA0     Apatity Array     10.66 153 Pn       Pn         03 58 54.7  -0.9
         baz=343,slow=11,SNR=6.2
JOF      Joensuu           15.12 160 ep       Pn         03 59 49.8  -6.6
         comp=Z,2.4nm,0.5s
FIA0     FINESS Array S    16.30 170 Pn       Pn         04 00 08.6  -3.1
         baz=357,slow=12
FIA0     FINESS Array S    16.30 170 Pn       Pn         04 00 08.6  -3.0
         baz=357,slow=12,SNR=1.4
```

ISCJB **21** *03:58:41.5±0.5, 24°.47N±0°.02×122°.02E±0°.04, h22^{km}±3^{km}, Error ellipse: s-maj=5.6km s-min=3.0km az=19.1*
TAP **21** *03:58:41.3, 24°.49N×121°.92E, h32^{km}, ML3.8, C*
NEIC **21** *03:58:43.7±2.5, 24°.46N×121°.77E, h24^{km}±11^{km}, Error ellipse: s-maj=38.8km s-min=10.9km az=84.0*
ISC 21 03:58:41.7±0.5**, 24°.48N**±0°.02×**122°.01E**±0°.03**, h19**^{km}±2^{km}**, n55, σ0ˢ.88**/96**, 4C-2D, Taiwan region**

```
Code     Station Name        Δ°  AZ°    Phase ID             Time      Res
                                     Op       ISC        h  m  s     ISC
TWC      Suao               0.20 313 i P      Pg         03 58 47.5  +0.8
         baz=332
TWC                                  S        Sg         03 58 51.6  +1.5
         baz=332
ENA      Nanau              0.25 259⇓iP       Pg         03 58 47.8  +0.4
         baz=249
ENA                                  eS       Sg         03 58 52.5  +1.1
         baz=249
ILA      Ilan               0.37 321 eP       Pg         03 58 49.6   0.0
         baz=325
ILA                                  S        Sg         03 58 55.4  +0.5
         baz=325
TWE      Neicheng           0.40 308⇓iP       Pg         03 58 49.8  -0.2
         baz=310
TWE                                  S        Sg         03 58 55.5  -0.1
         baz=310
ENTT     Nioudou            0.43 292⇑iP       Pg         03 58 50.4  -0.3
         baz=298
ENTT                                 i S      Sg         03 58 56.4  -0.3
         baz=298
NACB     Ninganchiao        0.48 232 ePg      Pg         03 58 50.9  -0.6
NACB                                 eSg      Sg         03 58 58.6  +0.5
TWB1     Santiao Chiao      0.53 358 P        Pb         03 58 52.8  +0.4
         baz=7.0
TWB1                                 S        Sb         03 59 00.5  +0.8
         baz=7.0
TWD      Chiawan            0.54 224 i P      Pb         03 58 52.1  -0.5
         baz=224
TWD                                  S        Sb         03 59 01.4  +1.4
         baz=224
NNS      Nan Shan           0.58 267 eP       Pb         03 58 52.8  -0.4
         baz=264
NNS                                  eS       Sb         03 59 00.1  -1.0
         baz=264
YHNB     Yeheng             0.61 289 ePg      Pg         03 58 52.7  -1.1
HWA      Hwalien            0.62 217 eP       Pb         03 58 52.5  -1.3
         baz=209
NSK      Sanguang           0.62 289⇑iP       Pb         03 58 53.0  -0.9
         baz=289
NSK                                  S        Sb         03 59 00.8  -1.5
         baz=289
NWF      Wu-fen Shan        0.63 341⇑iP       Pb         03 58 54.2  +0.2
         baz=347
NWF                                  S        Sb         03 59 03.1  +0.6
         baz=347
TWA      Mucha              0.63 323 P        Pb         03 58 54.2  +0.1
         baz=327
TWA                                  S        Sb         03 59 02.5  -0.1
         baz=327
TATO     Taipei             0.69 317 ePg      Pg         03 58 55.1  -0.1
TAP1     Taipei             0.71 322 P        Pb         03 58 55.5   0.0
         baz=326
TAP1                                 S        Sb         03 59 05.3  +0.4
         baz=326
WHF      Hehuan Shan        0.75 244⇑iP       Pb         03 58 55.5  -0.7
         baz=240
WHF                                  i S      Sb         03 59 06.5  +0.4
         baz=240
TWT      Tachien            0.79 254 P        Pb         03 58 56.4  -0.4
         baz=251
TWT                                  i S      Sb         03 59 07.3  +0.2
         baz=251
TWS1     Kuangyinshan       0.82 319 P        Pb         03 58 57.1  -0.2
         baz=331
TWS1                                 S        Sb         03 59 08.8  +0.7
         baz=331
ESL      Shilin             0.84 219 P        Pb         03 58 56.2  -1.5
         baz=226
ESL                                  eS       Sb         03 59 08.0  -0.6
         baz=226
TWY      Chenhua            0.88 335 P        Pb         03 58 58.0  -0.4
         baz=339
TWY                                  S        Sb         03 59 09.9  +0.2
         baz=339
NCU      National Centr     0.90 304 eP       Pb         03 58 58.0  -0.6
         baz=305
NCU                                  eS       Sb         03 59 10.8  +0.7
         baz=305
NSTT     Nanjuang           0.93 280 P        Pb         03 58 58.9  -0.3
         baz=279
NSTT                                 S        Sb         03 59 10.4  -0.7
         baz=279
HSN      Hsinchu            1.00 289 eP       Pb         03 59 00.3  -0.1
         baz=291
HSN                                  S        Sb         03 59 13.0  -0.1
         baz=291
TWQ1     Liyutan            1.13 264 eP       Pn         03 59 02.1  -0.4
         baz=262
TWQ1                                 S        Sb         03 59 17.4  +0.4
         baz=262
NSY      Sanyi              1.14 267 eP       Pn         03 59 01.7  -0.8
         baz=272
NSY                                  eS       Sb         03 59 16.4  -0.8
         baz=272
EHY      Hungye             1.15 213 P        Pn         03 59 00.4  -2.4
         baz=218
PCYT     Pengchaiyu         1.15   3 P        Pn         03 59 01.9  -0.9
         baz=7.0
PCYT                                 eS       Sb         03 59 17.9  +0.4
         baz=7.0
SMLT     Sun Moon Lake      1.17 240 P        Pn         03 59 02.3  -0.7
         baz=225
SMLT                                 S        Sb         03 59 17.6  -0.5
         baz=225
SSLB     Suanglung          1.18 235 ePg      Pg         03 59 01.4  -3.2
TYC      Yuchr              1.20 242 P        Pn         03 59 02.6  -0.8
         baz=238
TYC                                  eS       Sb         03 59 18.9  +0.1
         baz=238
TCU      Taichung           1.26 255 eP       Pn         03 59 05.2  +1.0
         baz=268
TCU                                  eS       Sn         03 59 19.7  -0.9
         baz=268
YULB     Yu-li              1.26 211 ePn      Pn         03 59 03.5  -0.8
TWF1     Yuli               1.29 210 eP       Pn         03 59 02.6  -2.1
         baz=217
TWF1                                 eS       Sn         03 59 21.1  -0.4
         baz=217
WNT      Mingjian           1.35 244 eP       Pn         03 59 05.4  -0.1
         baz=240
YUS      Yu-Shan            1.38 225 eP       Pn         03 59 05.0  -0.8
         baz=211
YUS                                  eS       Sn         03 59 23.2  -0.3
         baz=211
ALS      Alishan            1.46 229 eP       Pn         03 59 06.7  -0.3
         baz=215
ALS                                  eS       Sn         03 59 24.9  -0.7
         baz=215
CHKT     Chengkung          1.49 203 eP       Pn         03 59 07.5  +0.1
         baz=187
CHKT                                 eS       Sn         03 59 26.2  -0.2
         baz=187
WGK      Gukeng             1.54 240 eS       Sn         03 59 29.0  +1.5
         baz=236
ELDTW    Lidau              1.57 216 eP       Pn         03 59 07.6  -0.9
         baz=202
CHN4     Tsaushan           1.71 229 P        Pn         03 59 11.4  +0.9
         baz=226
CHN4                                 eS       Sn         03 59 33.5  +1.7
         baz=226
TPUB     Ta-pu              1.72 227 ePn      Pn         03 59 10.8  +0.2
STYT     Tauyuan            1.74 222 eP       Pn         03 59 12.9  +2.1
         baz=218
STYT                                 eS       Sn         03 59 33.5  +1.1
         baz=218
CHY      Chiayi             1.75 236 eP       Pn         03 59 10.9  -0.1
         baz=233
CHY                                  eS       Sn         03 59 34.6  +2.0
         baz=233
WTP      Ta-pu              1.77 226 eP       Pn         03 59 11.4  +0.2
         baz=223
WTP                                  eS       Sn         03 59 34.1  +0.9
         baz=223
TWK      Hsinying           1.84 229 eP       Pn         03 59 13.0  +0.7
         baz=226
TWK                                  eS       Sn         03 59 36.8  +1.9
         baz=226
TWG      Pinlang            1.86 208 ePn      Pn         03 59 13.1  +0.7
TWG      Pinlang            1.86 208 eP       Pn         03 59 12.7  +0.3
         baz=205
CHN1     Nanshi             1.87 227 eP       Pn         03 59 13.2  +0.5
         baz=223
CHN1                                 eS       Sn         03 59 35.9  +0.3
         baz=223
SGST     Jiashian           1.90 224 eP       Pn         03 59 13.2  +0.1
         baz=220
SGST                                 eS       Sn         03 59 39.3  +2.7
         baz=220
ECL      Taimali            2.10 208 eP       Pn         03 59 16.1  +0.2
         baz=205
ECL                                  eS       Sn         03 59 41.3  -0.2
         baz=205
SSD      Sandimen           2.13 217 eP       Pn         03 59 18.2  +1.9
         baz=201
PNG      Penghu             2.42 249 eP       Pn         03 59 20.0  -0.2
         baz=245
PNG                                  eS       Sn         03 59 47.8  -1.4
         baz=245
SCZT     Fangliau           2.45 212 eP       Pn         03 59 22.2  +1.5
         baz=197
SCZT                                 eS       Sn         03 59 49.9  -0.2
         baz=197
KNM      Kinmen             3.26 270 eP       Pn         03 59 31.5  -0.2
         baz=266
```

ISCJB **21** *04:09:21.6±0.9, 77°.20N±0°.03×19°.3E±0°.2, h8^{km}±6^{km}, mb3.7/11, Error ellipse: s-maj=8.3km s-min=4.4km az=153.9*
MOS **21** *04:09:22.8±2.0, 77°.31N×19°.78E, h10^{km}, mb4.3/2, Error ellipse: s-maj=70.3km s-min=8.8km az=94.5*
CSEM **21** *04:09:23.7±0.2, 77°.35N×19°.66E, h10^{km}, mb4.2/2, Error ellipse: s-maj=10.4km s-min=4.7km az=57.0*
IDC **21** *04:09:23.2±0.6, 77°.45N×19°.87E, h0^{km}, mb3.7/11, mb1 3.9/12, mb1mx3.7/25, mbtmp3.7/12, ML3.1/1, Error ellipse: s-maj=23.6km s-min=9.0km az=44.0*
NEIC **21** *04:09:24.5±0.5, 77°.44N×19°.67E, h10^{km}, mb4.2/2, Error ellipse: s-maj=13.1km s-min=7.4km az=62.0*
NAO **21** *04:09:25.0±2.4, 77°.24N×18°.89E, h23^{km}±31^{km}, ML3.9*
BER **21** *04:09:26.8±3.2, 77°.35N×19°.56E, h23^{km}±15^{km}, MD2.8, ML3.6, ML3.9(NAO)*
ISC 21 04:09:23.7±0.7**, 77°.29N**±0°.03×**19°.4E**±0°.2**, h9**^{km}±5^{km}**, n75, σ1ˢ.07**/91**, mb3.7**/11**, 1C, Svalbard region**

```
Code     Station Name        Δ°  AZ°    Phase ID             Time      Res
                                     Op       ISC        h  m  s     ISC
HSP      Hornsund           0.92 254 eP       Pg         04 09 42.5  +1.3
HSP                                  eS       Sg         04 09 53.9  +0.8
SPA0     Spitsbergen Ar     1.11 325 Pg       Pg         04 09 45.5  +0.5
         baz=149,slow=22
SPA0                                 Lg                  04 09 59.1
```

	baz=141,slow=22						
SPA0	Spitsbergen Ar	1.11	325	Pg	Pg	04 09 45.5	+0.5
	baz=149,slow=19,SNR=97						
SPA0				Lg		04 09 59.1	
	baz=141,slow=19,SNR=95						
SPITS	Spitsbergen Ar	1.11	325	Pn	Pn	04 09 45.0	-0.4
	baz=296,slow=6.3,SNR=5694						
SPITS				Sn	Sn	04 10 00.3	-0.5
	baz=318,slow=32,SNR=23						
SPITS	Spitsbergen Ar	1.11	325	Pn	Pn	04 09 45.0	-0.4
SPITS				Sn	Sn	04 10 00.3	-0.5
HOPEN	Hopen	1.49	119	eP	Pn	04 09 50.0	-0.5
HOPEN				eSg	Sg	04 10 12.1	+0.6
HOPEN				AML	AML	04 10 14.7	
	comp=Z,3µm,0.2s						
HOPEN	Hopen	1.49	119	eP	Pn	04 09 50.0	-0.5
	SNR=55						
HOPEN				eSg	Sg	04 10 12.1	+0.6
	comp=Z,3µm,0.2s,SNR=95						
KBS	Kingsbay	2.27	320	Pn	Pn	04 10 00.9	-0.3
KBS				Pg	Pg	04 10 06.2	-0.8
KBS				Lg		04 10 34.3	
KBS	Kingsbay	2.27	320	eP	Pn	04 10 00.8	-0.4
KBS				eSg	Sg	04 10 34.0	-2.3
KBS				AML	AML	04 10 36.8	
	comp=Z,3µm,0.2s						
KBS	Kingsbay	2.27	320	ePn	Pn	04 10 00.8	-0.4
KBS				eSg	Sg	04 10 35.5	-0.8
KBS	Kingsbay	2.27	320	Pn	Pn	04 10 00.9	-0.3
KBS	Kingsbay	2.27	320	Pg	Pg	04 10 06.2	-0.8
KBS				Lg		04 10 34.3	
KBS				eSg	Sg	04 10 35.5	-0.8
BJO	Bjornoya	2.80	181	eP	Pn	04 10 09.1	+0.6
BJO				eSg	Sg	04 10 52.1	-1.3
BJO				AML	AML	04 10 56.9	
	comp=Z,778nm,0.6s						
BJO	Bjornoya	2.80	181	eP	Pn	04 10 09.1	+0.6
	SNR=55						
BJO				eSg	Sg	04 10 52.1	-1.3
	comp=Z,778nm,0.6s,SNR=92						
TRO	Tromso	7.70	181	ePn	Pn	04 11 15.6	-0.1
TRO				eSn	Sn	04 12 37.4	-5.5
TRO				AML	AML	04 12 41.0	
	comp=Z,24nm,0.7s						
TRO	Tromso	7.70	181	ePn	Pn	04 11 15.6	-0.1
	SNR=55						
KEV	Kevo	7.86	160	ep	Pn	04 11 17.4	-0.5
	comp=Z,11nm,0.6s						
KEV	Kevo	7.86	160	ePn	Pn	04 11 18.7	+0.7
KEV				eSn	Sn	04 12 34.9	-12
KEV	Kevo	7.86	160	ePn	Pn	04 11 18.7	+0.8
ARA0	ARCESS Array S	7.98	164	Pn	Pn	04 11 17.9	-1.6
	baz=356,slow=14						
ARA0				Sn	Sn	04 12 41.1	-8.6
	baz=5.4,slow=22						
ARA0	ARCESS Array S	7.98	164	Pn	Pn	04 11 18.0	-1.5
	baz=356,slow=12,SNR=430						
ARCES	ARCESS Array B	7.98	164	Pn	Pn	04 11 17.7	-1.8
	comp=Z,4.5nm,0.3s,baz=355,slow=12,SNR=117						
ARCES				Sn	Sn	04 12 43.8	-6.0
	comp=Z,8.5nm,0.3s,baz=354,slow=21,SNR=7.8						
ARE0	ARCESS Array S	7.98	164	ePn	Pn	04 11 20.5	+0.9
ARE0	ARCESS Array S	7.98	164	ePn	Pn	04 11 20.5	+1.0
LANU	Lannavaara	9.32	174	P	Pn	04 11 37.7	-0.2
LOF	Lofoten	9.36	194	ePn	Pn	04 11 41.3	+2.8
LOF				eSn	Sn	04 13 20.6	-3.1
LOF				AML	AML	04 13 32.9	
	comp=Z,7.4nm,0.8s						
LOF	Lofoten	9.36	194	ePn	Pn	04 11 41.3	+2.8
	SNR=55						
MASU	Masugnsbyn	9.91	174	P	Pn	04 11 46.2	+0.2
SALU	Saltoluokta	9.96	182	P	Pn	04 11 47.2	+0.5
DUNU	Dundret	10.23	178	P	Pn	04 11 51.2	+0.9
PAJU	Pajala	10.38	172	P	Pn	04 11 52.1	-0.3
APA0	Apatity Array	10.50	151	Pn	Pn	04 11 52.7	-1.4
	baz=344,slow=11						
APA0	Apatity Array	10.50	151	Pn	Pn	04 11 52.7	-1.4
	baz=344,slow=11,SNR=3.4						
APA	Apatity	10.59	150	⇑iP	Pn	04 11 53.6	-1.6
APA				pmax	pmax		
	comp=Z,21nm,1.0s						
APA	Apatity	10.59	150	i P	Pn	04 11 53.6	-1.6
	comp=Z,21nm,1.0s						
ERTU	Ertsjaerv	10.82	174	P	Pn	04 11 58.2	-0.3
KALU	Kalix	11.55	172	P	Pn	04 12 08.7	+0.3
SJUU	Sjulsmark	11.86	176	P	Pn	04 12 11.9	-0.7
LILU	Lilltraesk	12.06	179	P	Pn	04 12 15.3	-0.2
BURU	Burvik	12.78	176	P	Pn	04 12 25.2	-0.1
SVAU	Svanoeiden	12.86	180	P	Pn	04 12 26.4	+0.1
JOF	Joensuu	14.93	159	eP	Pn	04 12 48.2	-6.3
JOF				pmax	pmax		
	comp=Z,4.0nm,0.4s						
JOF	Joensuu	14.93	159	ep	Pn	04 12 48.2	-6.3
	comp=Z,3.7nm,0.4s						
KAF	Kangasniemi	15.41	168	eP	Pn	04 12 56.7	-4.2
KAF				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KAF	Kangasniemi	15.41	168	ep	Pn	04 12 56.7	-4.2
	comp=Z,7.3nm,0.6s						
FIA0	FINESS Array S	16.07	168	Pn	Pn	04 13 06.0	-3.4
	baz=1.0,slow=14						
NB2	NORSAR Subarra	16.55	194	P	Pn	04 13 19.3	+3.7
	baz=3.7,slow=12						
NB2	NORSAR Subarra	16.55	194	P	Pn	04 13 19.3	+3.7
	baz=3.7,slow=12						
NOA	NORSAR Array B	16.55	194	Pn	Pn	04 13 19.5	+3.9
	comp=Z,0.2nm,0.3s,baz=6.0,slow=11,SNR=4.6						
NOA	NORSAR Array B	16.55	194	P	Pn	04 13 19.5	+3.9
HFS	Hagfors	17.34	190	P	Pn	04 13 27.8	+2.3
	comp=Z,0.3nm,0.3s,baz=359,slow=9.2,SNR=7.6						
HFS	Hagfors	17.34	190	P	Pn	04 13 27.8	+2.3
OBN	Obninsk	23.11	154	eP	P	04 14 34.8	+5.4
OBN				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.0						
SUW	Suwalki	23.41	174	eP	P	04 14 36.1	+3.5
SUW				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
SUW	Suwalki	23.41	174	eP	P	04 14 36.0	+3.4
	comp=Z,8.1nm,0.8s,mb4.2						
SUW	Suwalki	23.41	174	eP	P	04 14 36.0	+3.4
	comp=Z,8.1nm,0.8s,mb4.2						
AKASG	Malin Array Be	26.95	166	P	P	04 15 08.8	+3.8
	comp=Z,1.2nm,0.5s,mb3.7,baz=351,slow=9.3,SNR=5.0						
BVAR	Borovoye Array	30.52	113	P	P	04 15 37.5	+0.8
	comp=Z,0.7nm,0.6s,mb3.7,baz=297,slow=6.3,SNR=3.1						
BVAR	Borovoye Array	30.52	113	P	P	04 15 37.5	+0.9
KURK	Kurchatov	34.42	105	P	P	04 16 12.3	+1.5
	comp=Z,0.7nm,0.5s,mb3.9,baz=347,slow=7.6,SNR=4.1						
KURK	Kurchatov	34.42	105	P	P	04 16 12.3	+1.5
YKA	Yellowknife Ar	37.61	327	P	P	04 16 37.8	-0.1
	comp=Z,0.3nm,0.6s,baz=10,slow=8.3,SNR=9.8						
YKA	Yellowknife Ar	37.61	327	P	P	04 16 37.8	-0.2
BRTR	Keskin Array B	38.15	162	P	P	04 16 46.4	+3.6
	comp=Z,0.8nm,0.8s,mb3.5,baz=354,slow=6.9,SNR=4.2						
BRTR	Keskin Array B	38.15	162	P	P	04 16 46.3	+3.5
MKAR	Makanchi Array	38.92	103	P	P	04 16 49.9	+0.7
	comp=Z,1.2nm,0.7s,mb3.7,baz=340,slow=6.7,SNR=12						
SONM	Songino Array	43.24	79	P	P	04 17 24.4	-0.2
	comp=Z,0.4nm,0.6s,mb3.3,baz=320,slow=5.8,SNR=6.4						
SONM	Songino Array	43.24	79	P	P	04 17 24.4	-0.2
PDAR	Pinedale Array	56.15	316	P	P	04 19 03.1	+0.1
	comp=Z,0.2nm,0.9s,baz=116,slow=2.1,SNR=2.6						
PDAR	Pinedale Array	56.15	316	P	P	04 19 03.1	+0.2
TORD	Torodi Ar. Bea	64.79	199	P	P	04 20 03.6	+1.3
	comp=Z,0.4nm,0.5s,mb3.7,baz=3.8,slow=7.3,SNR=4.2						
TXAR	Lajitas Array	68.31	308	P	P	04 20 24.1	-0.5
	comp=Z,0.2nm,0.5s,mb3.4,baz=15,slow=6.1,SNR=4.9						
TXAR	Lajitas Array	68.31	308	P	P	04 20 24.2	-0.4
CMAR	Chiang Mai Arr	69.81	96	P	P	04 20 34.2	+0.2
	comp=Z,0.9nm,0.4s,mb4.1,baz=342,slow=6.7,SNR=5.6						
CMAR	Chiang Mai Arr	69.81	96	P	P	04 20 34.2	+0.2

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*NEIC **21** 04:10:46.8±1.6, 37.°03N×71.°60E, h112^{km}±16^{km}, mb4.5/7, Error ellipse: s-maj=23.9km s-min=5.9km az=66.0*

*ISCJB **21** 04:10:47.6±1.0, 37.°16N±0.°04×71.°7E±0.°1, h131^{km}±13^{km}, Error ellipse: s-maj=15.6km s-min=4.8km az=162.3*

*IDC **21** 04:10:52.4±8.2, 37.°49N×71.°53E, h128^{km}±52^{km}, mb3.2/1, mb1 3.2/6, mb1mx3.0/27, mbtmp3.1/6, MS3.5/1, Ms1 3.5/1, ms1mx3.2/22, Error ellipse: s-maj=77.0km s-min=52.2km az=159.0*

*NNC **21** 04:10:58.7±3.9, 38.°11N×71.°78E, h234^{km}±36^{km}, mb2.4, mpv3.8, Error ellipse: s-maj=39.9km s-min=22.1km az=18.0*

ISC 21 04:10:48.8±0.9**, 37.°14N**±0.°04×**71.°8E**±0.°1**, h128**^{km}±11^{km}**, n46,** σ1ˢ**18**/59**, 4C-3D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	4.07	53	Pn	Pn	04 11 47.1	-2.2
KSH				Sn	Sn	04 12 28.5	-7.8
KSH				smax			
	comp=N,570nm,0.9s						
KSH				smax			
	comp=E,320nm,0.4s						
AML	Almayashu	5.20	16	P	Pn	04 12 05.0	+0.6
	SNR=58						
AML	Almayashu	5.20	16	ePn	Pn	04 12 05.0	+0.6
	comp=E,82nm,0.5s						
AML				eSn	Sn	04 13 01.2	-2.2
UCH	Uchtor	5.50	22	P	Pn	04 12 09.2	+0.7
	SNR=18						
UCH	Uchtor	5.50	22	ePn	Pn	04 12 09.4	+0.9
	comp=E,8.8nm,0.3s						
UCH				eSn	Sn	04 13 08.6	-2.1
KZA	Kyzart	5.61	28	P	Pn	04 12 10.8	+0.8
	SNR=29						
THN	Thein Dam	5.71	144	ePKP	Pn	04 12 12.9	+1.5
THN				eS	Sn	04 13 15.7	-0.1
EKS2	Erkin-Say	5.72	15	P	Pn	04 12 12.2	+0.8
	SNR=37						
EKS2	Erkin-Say	5.72	15	ePn	Pn	04 12 12.0	+0.5
	comp=E,13nm,0.5s						
EKS2				eSn	Sn	04 13 15.4	-0.5
AAK	Ala-Archa	5.87	20	P	Pn	04 12 14.6	+1.1
	SNR=35						
AAK	Ala-Archa	5.87	20	P	Pn	04 12 14.5	+1.1
	comp=E,0.1nm,0.3s,baz=177,slow=6.8,SNR=104						
AAK				S	Sn	04 13 18.1	-1.4
	comp=E,0.0nm,0.3s,baz=296,slow=23,SNR=9.1						
AAK				LR	LR	04 14 22.1	
	comp=E,499nm,19.6s,baz=143,slow=37						
AAK	Ala-Archa	5.87	20	ePn	Pn	04 12 14.2	+0.8
AAK				eSn	Sn	04 13 21.3	+1.8
AAK				LR	LR	04 14 22.1	
KBK	Karagaybulak	6.02	23	P	Pn	04 12 16.7	+1.2
	SNR=6.8						
KK31	Karatay Array	6.03	351	P	Pn	04 12 14.9	-0.7
	comp=E,3.2nm,0.3s,baz=175,slow=11,SNR=87						
KK31				⇑S	Sn	04 13 16.5	-6.9
	comp=E,4.4nm,0.3s,baz=170,slow=21,SNR=9.0						
ULHL	Ulahol	6.15	33	P	Pn	04 12 18.0	+0.7
	SNR=12						
CHMS	Chumysh	6.28	20	P	Pn	04 12 19.7	+0.8
	SNR=7.4						
USP	Ospenovka	6.46	18	P	Pn	04 12 22.5	+1.0
	SNR=12						
TKM2	Tokmak 2	6.47	26	⇑P	Pn	04 12 22.5	+0.9
	comp=E,8.1nm,0.5s						
TKM2				⇑S	Sn	04 13 27.0	-7.1
	comp=E,7.4nm,0.9s						
TKM2	Tokmak 2	6.47	26	P	Pn	04 12 22.6	+1.0
	SNR=21						
TKM2	Tokmak 2	6.47	26	ePn	Pn	04 12 22.6	+1.0
	comp=E,13nm,0.5s						
KLP	Kalpa	7.75	134	ePKP	Pn	04 12 40.1	+1.2
KLP				AMb	AMB	04 12 42.2	
	comp=Z,17nm,0.6s						
KLP				eS	Sn	04 14 01.4	-3.6
JOSI	Joshimath	9.22	133	ePKP	Pn	04 12 59.9	+1.1
JOSI				AMb	AMB	04 13 03.5	
	comp=Z,63nm,0.8s						
JOSI				eS	Sn	04 14 36.6	-4.2
KHET	Khetri	9.66	158	eS	Sn	04 14 42.3	-9.1
KUDL	Kundal	9.81	155	eS	Sn	04 14 47.9	-7.2
SONA	Sohna	9.93	152	eS	Sn	04 14 50.7	-7.2
MK31	Makanchi Array	12.41	36	ePn	Pn	04 13 41.9	+1.0
MKAR	Makanchi Array	12.41	36	P	Pn	04 13 41.7	+0.8
	comp=Z,0.1nm,0.3s,baz=225,slow=14,SNR=11						
MKAR	Makanchi Array	12.41	36	P	Pn	04 13 41.7	+0.8
DANN	Dangsing	13.36	128	eP	Pn	04 13 52.6	-0.8
	comp=Z,11nm,0.2s						
KOLN	Koldanda	13.67	130	eP	Pn	04 13 56.1	-1.2
	comp=Z,8.9nm,0.3s						
GKN	Gorkha	14.16	126	eP	Pn	04 14 03.0	-0.6
	comp=Z,26nm,0.5s						
KURK	Kurchatov	14.43	18	P	Pn	04 14 04.0	-2.8
	comp=Z,0.0nm,0.3s,baz=207,slow=12,SNR=4.1						
KKN	Kakani	14.72	125	eP	Pn	04 14 10.1	-0.6
DMN	Daman	14.73	126	eP	Pn	04 14 10.5	-0.3
AB09	Akbulak array	14.85	328	⇓P	Pn	04 14 09.0	-3.2
	comp=Z,0.6nm,0.3s						
AB09				⇓S	Sn	04 16 43.4	-13
	comp=Z,1.7nm,0.7s						
PKI	Pulchoki	14.95	126	eP	Pn	04 14 13.8	+0.2
GUN	Gumba	15.03	124	eP	Pn	04 14 13.6	-1.0
JIRN	Jiri	15.40	124	eP	Pn	04 14 18.5	-0.7
	comp=Z,23nm,0.4s						
RAMN	Ramite	16.15	125	eP	Pn	04 14 28.0	-0.4
	comp=Z,21nm,0.5s						
AKTK	Aktyubinsk	16.55	328	P	Pn	04 14 31.9	-1.3
AKTO	Aktyubinsk	16.55	328	⇑P	Pn	04 14 25.0	-8.1
	comp=Z,0.2nm,0.7s						
AKTO				⇓S	S	04 17 23.6	-14
	comp=Z,0.3nm,0.8s						
AKTO	Aktyubinsk	16.55	328	P	Pn	04 14 31.9	-1.3
	comp=Z,0.2nm,0.3s,baz=125,slow=14,SNR=5.3						
TAPN	Taplejung	16.63	121	eP	Pn	04 14 34.3	0.0
	comp=Z,4.6nm,0.2s						
ODAN	Odare	16.73	123	eP	Pn	04 14 36.2	+0.6
	comp=Z,18nm,0.7s						
ZALV	Zalesovo Beam	19.08	24	P	P	04 15 02.8	+1.7
	comp=Z,0.4nm,0.3s,baz=218,slow=8.7,SNR=3.3						
YKA	Yellowknife Ar	80.58	3	P	P	04 22 48.4	+1.9
	comp=Z,0.3nm,0.6s,baz=352,slow=5.6,SNR=7.6						

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*ISCJB **21** 04:13:08.0±0.6, 76.°72N±0.°04×18.°8E±0.°2, h10^{km}, Error ellipse: s-maj=8.8km s-min=4.1km az=155.7*

*CSEM **21** 04:13:09.5±0.2, 76.°74N×19.°19E, h2^{km}, ML3.0, Error ellipse: s-maj=10.8km s-min=4.7km az=69.0*

*NAO **21** 04:13:10.3±3.0, 76.°71N×18.°86E, h3^{km}±36^{km}, ML3.0*

*BER **21** 04:13:13.8±3.7, 76.°76N×19.°46E, h15^{km}±24^{km}, MD2.0, ML3.0, ML3.0(NAO)*

ISC 21 04:13:09.9±0.7**, 76.°76N**±0.°04×**19.°4E**±0.°2**, h5**^{km}±12^{km}**, n13,** σ**0ˢ82**/23**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	0.92	288	eP	Pg	04 13 29.4	+1.9
HSP				eS	Sg	04 13 39.9	+0.5
HOPEN	Hopen	1.32	98	eP	Pg	04 13 35.5	+0.4
HOPEN				eS	Sg	04 13 52.9	+0.6
HOPEN				AML	AML	04 13 56.0	
	comp=Z,317nm,0.2s						
HOPEN	Hopen	1.32	98	eP	Pg	04 13 35.5	+0.3
	SNR=55						
HOPEN				eS	Sg	04 13 52.9	+0.7
	comp=Z,317nm,0.2s,SNR=55						
SPA0	Spitsbergen Ar	1.57	336	Pg	Pg	04 13 39.5	-0.5
	baz=151,slow=18						
SPA0				Sg	Sg	04 13 59.1	-1.2
	baz=162,slow=18						
SPA0	Spitsbergen Ar	1.57	336	Pg	Pg	04 13 39.5	-0.5
	SNR=2.1						
SPA0				Lg		04 13 59.1	
	SNR=6.4						
BJO	Bjornoya	2.27	182	ePg	Pg	04 13 52.9	-0.4
BJO				eSg	Sg	04 14 22.0	-0.6
BJO				AML	AML	04 14 24.7	
	comp=Z,149nm,0.3s						
BJO	Bjornoya	2.27	182	ePg	Pg	04 13 52.9	-0.4
	SNR=91						
BJO				eSg	Sg	04 14 22.0	-0.6
	comp=Z,149nm,0.3s,SNR=91						
KBS	Kingsbay	2.69	328	Pn	Pn	04 13 54.6	+0.9
KBS				Pg	Pg	04 14 00.6	-0.7
KBS				Lg		04 14 34.8	
KBS	Kingsbay	2.69	328	eP	Pn	04 13 54.4	+0.7
KBS				ePg	Pg	04 14 01.3	-0.1
KBS				eSg	Sg	04 14 35.9	-0.2
KBS				AML	AML	04 14 43.9	
	comp=Z,186nm,0.5s						
KBS	Kingsbay	2.69	328	Pn	Pn	04 13 54.6	+0.9
KBS	Kingsbay	2.69	328	Pg	Pg	04 14 00.6	-0.7
KBS				Lg		04 14 34.8	
ARA0	ARCESS Array S	7.47	163	Pn	Pn	04 14 58.5	-0.7
	baz=343,slow=10						
ARA0				Sn	Sn	04 16 16.7	-7.4
	baz=359,slow=22						
ARA0	ARCESS Array S	7.47	163	Pn	Pn	04 14 58.5	-0.7

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*DJA **21** 04:16:50, 18.°19S×178.°01W, h460^{km}, mb5.2/22*

*ISCJB **21** 04:16:51.4±1.1, 18.°36S±0.°05×177.°97W±0.°04, h480^{km}±12^{km}, mb4.7/67, Error ellipse: s-maj=8.5km s-min=5.1km az=157.6*

*IDC **21** 04:16:53.2±1.3, 18.°31S×178.°04W, h491^{km}±13^{km}, mb4.2/20, mb1 4.4/20, mb1mx4.3/22, mbtmp4.2/20, Error ellipse: s-maj=11.2km s-min=9.1km az=141.0*

*NEIC **21** 04:16:53.2±1.1, 18.°33S×177.°93W, h494^{km}±11^{km}, mb4.9/29, Error ellipse: s-maj=10.0km s-min=7.1km az=130.0*

*BJI **21** 04:16:54.1, 17.°87S×177.°83W, h497^{km}, mB4.9/24, mb4.9/42*

*SZGRF **21** 04:16:55.0, 18.°36S×176.°93W, h518^{km}, Fiji Islands region*

*MOS **21** 04:16:55.0±2.0, 17.°65S×178.°46W, h485^{km}, mb4.7/21, Error ellipse: s-maj=11.9km s-min=11.7km az=106.9*

ISC 21 04:16:53.3±1.0**, 18.°35S**±0.°05×**177.°96W**±0.°04**, h490**^{km}±11^{km}**, h490**^{km}±3.5^{km}**:pP-P, n571,** σ**0ˢ61**/374**, mb4.7**/67**, 146C-126D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUNA	Funafuti	10.15	344	eP	P	04 19 12.8	+0.6
	664nm,0.6s						
DZM	Mont Dzumac	15.10	253	eP	P	04 20 05.0	+0.3
	74nm,1.1s						
URZ	Urewera	20.30	191	P	P	04 20 53.3	-1.8
	29nm,0.3s,baz=330,slow=2.5,SNR=63						
URZ				S	S	04 24 05.6	-6.0
	14nm,0.8s,baz=240,slow=20,SNR=6.3						
URZ	Urewera	20.30	191	eP	P	04 20 53.0	-2.0
	54nm,0.7s						
URZ				eS	S	04 24 08.7	-2.8
SNZO	South Karori	23.73	194	eP	P	04 21 25.0	-0.9
	34nm,0.6s,mb5.0						
KHZ	Kahutara	25.06	195	eP	P	04 21 36.4	-1.3
	29nm,0.7s,mb4.8						
RPZ	Rata Peaks	26.93	198	P	P	04 21 52.8	-1.4
	10nm,0.6s,mb4.5,baz=150,slow=5.1,SNR=5.5						
RPZ	Rata Peaks	26.93	198	eP	P	04 21 54.1	-0.1
	11nm,0.6s,mb4.5						
PAE	Paea	26.99	93	eP	P	04 21 54.5	-0.6
	47nm,0.9s,mb4.9						
PPT	Papeete	27.00	93	eP	P	04 21 54.8	-0.4
	67nm,1.3s,mb4.9						
TIAR	Tiarei	27.22	93	eP	P	04 21 56.9	-0.3
	58nm,0.9s,mb5.0						
TVO	Taravao	27.29	93	eP	P	04 21 57.1	-0.6
	28nm,0.7s,mb4.8						
PMOR	Pomariorio Ree	28.98	88	eP	P	04 22 11.9	-0.7
	49nm,0.9s,mb4.9						
VAH	Vaihoa	29.19	89	eP	P	04 22 12.9	-1.5
	26nm,0.7s,mb4.8						
EIDS	Eidsvold	29.52	251	eP	P	04 22 17.4	+0.2
	49nm,0.8s,mb5.0						
ARMA	Armidale	30.09	241	eP	P	04 22 23.6	+1.5
ARMA	Armidale	30.09	241	eP	P	04 22 23.4	+1.4
	39nm,0.7s,mb4.9						
CNB	Canberra Magne	33.50	233	eP	P	04 22 52.6	+1.4
CAN	Canberra	33.78	233	eP	P	04 22 54.4	+0.9
CAN				pmax	pmax		
	comp=Z,43nm,1.0s,mb4.8						
CAN	Canberra	33.78	233	eP	P	04 22 54.4	+0.9
	comp=Z,43nm,1.0s,mb4.8						
CTA	Charters Tower	33.80	261	P	P	04 22 54.1	+0.2
CTA						04 25 19.5	
CTA				pmax	pmax		
	comp=Z,96nm,0.8s						
CTA				pmax	pmax		
	comp=Z,12nm,0.8s						
CTA				pmax	pmax		
	comp=N,18nm,1.0s						
CTA	Charters Tower	33.80	261	⇓iP	P	04 22 54.1	+0.2
	comp=N,79nm,0.8s,mb5.2						
CTA				i PCP	PcP	04 25 19.3	0.0
CTA				eSCP	ScP	04 28 18.5	+1.2
CTA	Charters Tower	33.80	261	P	P	04 22 54.1	+0.2
	comp=N,96nm,0.8s,mb5.3,baz=91,slow=10,SNR=111						
CTA				PcP	PcP	04 25 19.5	+0.2
	comp=N,12nm,0.8s,baz=181,slow=0.7,SNR=4.8						
CTA				ScP	ScP	04 28 19.1	+1.8
	comp=N,18nm,1.0s,baz=24,slow=1.0,SNR=11						
CTA	Charters Tower	33.80	261	P	P	04 22 54.1	+0.2
CTA				PcP	PcP	04 25 19.5	+0.2
CTA				ScP	ScP	04 28 19.1	+1.8
CTAO	Charters Tower	33.80	261	eP	P	04 22 54.0	+0.1
CTAO				pmax	pmax		
	comp=Z,108nm,0.8s,mb5.3						
CTAO	Charters Tower	33.80	261	eP	P	04 22 54.0	+0.1
	comp=Z,108nm,0.8s,mb5.3						
TOO	Toolangi	37.23	231	eP	P	04 23 23.4	+1.2
COEN	Coen	37.53	271	eP	P	04 23 25.6	+0.5
	comp=Z,561nm,0.8s						
STKA	Stephens Creek	38.79	242	⇓iP	P	04 23 36.3	+1.1
	comp=Z,73nm,0.8s,mb5.2						
STKA				ePCP	PcP	04 25 34.6	+0.2
STKA				eSCP	ScP	04 28 37.7	+2.0
STKA	Stephens Creek	38.79	242	P	P	04 23 36.4	+1.2
	comp=Z,102nm,0.8s,mb5.3,baz=88,slow=9.0,SNR=141						
STKA				PcP	PcP	04 25 34.2	-0.1
	comp=Z,11nm,0.8s,baz=109,slow=2.2,SNR=3.2						
STKA				ScP	ScP	04 28 37.3	+1.5
	comp=Z,10nm,0.9s,baz=116,slow=5.1,SNR=8.7						
STKA	Stephens Creek	38.79	242	P	P	04 23 36.4	+1.2
STKA				PcP	PcP	04 25 34.2	-0.1
STKA				ScP	ScP	04 28 37.3	+1.5
RKT	Rikitea	40.38	104	eP	P	04 23 47.9	-0.2
	comp=Z,26nm,0.9s,mb4.7						
WRAB	Tennant Creek	44.96	260	eP	P	04 24 23.4	-0.8
WRAB				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.0						
WRAB	Tennant Creek	44.96	260	eP	P	04 24 23.4	-0.8
	comp=Z,57nm,1.0s,mb5.0						
WRA	Warramunga Arr	44.97	260	P	P	04 24 23.4	-0.8
WRA					pP	04 25 55.2	-0.7
WRA				S	S	04 30 21.6	-4.9
WRA				pmax	pmax		
	comp=Z,40nm,0.9s						
WRA				pmax	pmax		
	comp=Z,16nm,0.8s						
WRA				pmax	pmax		
	comp=N,3.0nm,0.8s						
WRA				smax			
	comp=N,1.0nm,0.9s						
WRA	Warramunga Arr	44.97	260	P	P	04 24 23.4	-0.8
	comp=N,40nm,0.9s,mb4.9,baz=96,slow=7.7,SNR=315						
WRA				PcP	PcP	04 25 55.2	-0.2
	comp=N,16nm,0.8s,baz=88,slow=3.9,SNR=9.6						
WRA				ScP	ScP	04 29 01.8	+0.9
	comp=N,3.2nm,0.8s,baz=88,slow=4.3,SNR=7.1						
WRA				S	S	04 30 21.6	-4.8
	comp=N,1.3nm,0.9s,baz=94,slow=14,SNR=3.3						
ASAR	Alice Springs	45.08	255	P	P	04 24 25.3	+0.2
ASAR					pP	04 25 55.4	-1.4
ASAR				S	S	04 30 25.5	-2.4
ASAR				pmax	pmax		
	comp=Z,245nm,0.7s						
ASAR				pmax	pmax		
	comp=Z,17nm,0.7s						
ASAR				pmax	pmax		
	comp=N,6.0nm,0.7s						
ASAR				smax			
	comp=N,3.0nm,0.9s						
ASAR	Alice Springs	45.08	255	P	P	04 24 25.2	+0.2
	comp=N,245nm,0.7s,mb5.7,baz=88,slow=8.3,SNR=2055						
ASAR				PcP	PcP	04 25 55.4	-0.3
	comp=N,17nm,0.7s,baz=99,slow=3.9,SNR=9.9						
ASAR				ScP	ScP	04 29 02.2	+1.0
	comp=N,5.8nm,0.7s,baz=98,slow=4.3,SNR=11						
ASAR				S	S	04 30 25.5	-2.4
	comp=N,2.9nm,0.9s,baz=94,slow=16,SNR=11						
KAKA	Kakadu	48.00	269	eP	P	04 24 46.9	-0.4
	comp=N,84nm,0.6s,mb5.2						
KAKA	Kakadu	48.00	269	eP	P	04 24 46.9	-0.4
	comp=N,228nm,0.6s,mb5.7						
FORT	Forrest	50.20	245	eP	P	04 25 03.0	-0.5
	comp=N,68nm,0.7s,mb5.1						
FORT	Forrest	50.20	245	eP	P	04 25 02.8	-0.7
	comp=N,37nm,0.7s,mb4.8						

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FORT                                 ePcP     PcP      04 26 13.9 -0.2
FITZ  Fitzroy Crossi    53.38 261  eP       P        04 25 26.7 +0.1
      comp=N,30nm,0.7s,mb4.7
FITZ  Fitzroy Crossi    53.38 261   P       P        04 25 25.0 -1.7
      comp=N,16nm,0.6s,mb4.5,baz=107,slow=3.6,SNR=25
FITZ  Fitzroy Crossi    53.38 261  eP       P        04 25 26.8 +0.2
      comp=N,76nm,1.5s,mb4.8
KMBL  Kambalda          55.50 244  eP       P        04 25 40.7 -0.7
      comp=N,118nm,0.9s,mb5.2
MBWA  Marble Bar        58.38 256  eP       P        04 26 00.9 -0.4
      comp=N,32nm,0.8s,mb4.7
NWAO  Narrogin (SRO)    59.38 242  eP       P        04 26 07.9  0.0
NWAO                                pmax    pmax
      comp=Z,12nm,0.8s
NWAO  Narrogin (SRO)    59.38 242   P       P        04 26 07.0 -0.9
      comp=Z,18nm,0.7s,mb4.5,baz=100,slow=3.7,SNR=13
NWAO  Narrogin (SRO)    59.38 242  eP       P        04 26 07.9 -0.1
      comp=Z,12nm,0.8s,mb4.3
VNDA  Vanda             60.05 185   P       P        04 26 13.2 +1.6
VNDA                                pmax    pmax
      comp=Z,6.0nm,0.5s
VNDA  Vanda             60.05 185   P       P        04 26 13.2 +1.6
      comp=Z,5.5nm,0.5s,mb4.3,baz=347,slow=6.9,SNR=37
MUN   Mundaring         60.30 243  eP       P        04 26 14.3 +0.2
MJAR  Matsushiro Arr    68.51 323   P       P        04 27 05.4 -0.7
MJAR                                pmax    pmax
      comp=Z,15nm,0.5s
MJAR  Matsushiro Arr    68.51 323   P       P        04 27 05.4 -0.7
      comp=Z,15nm,0.5s,mb4.8,baz=161,slow=6.1,SNR=31
MAJO  Matsushiro        68.51 323  eP       P        04 27 05.6 -0.5
MAJO                                pmax    pmax
      comp=Z,15nm,0.5s,mb4.8
MAJO  Matsushiro        68.51 323  eP       P        04 27 05.6 -0.5
      comp=Z,14nm,0.5s,mb4.8
MAT   Matsushiro        68.51 323   P       P        04 27 05.5 -0.6
KKM   Kota Kinabalu     69.26 284  eP       P        04 27 11.0 -0.1
      comp=Z,16nm,0.8s,mb4.6
QSPA  South Pole Qui    71.71 180   P       P        04 27 25.7 +1.3
      comp=Z,45nm,0.6s,mb5.2,baz=22,slow=1.0,SNR=12
TPUB  Ta-pu             72.85 302  eP       P        04 27 30.9 -1.2
      comp=Z,20nm,0.6s,mb4.8
KSM   Kuching           73.16 277  eP       P        04 27 34.3 +0.2
      comp=Z,99nm,0.9s,mb5.3
YSS   Yuzh-Sakhalins    74.00 333  eP       P        04 27 38.4 +0.3
PETK  Petropavlovsk-    74.21 345   P       P        04 27 38.2 -0.9
PETK                                pmax    pmax
      comp=Z,6.0nm,0.7s,mb4.2
PETK  Petropavlovsk-    74.21 345   P       P        04 27 38.2 -0.9
      comp=Z,5.6nm,0.7s,mb4.2,baz=125,slow=8.1,SNR=7.6
PETK  Petropavlovsk-    74.21 345   P       P        04 27 38.2 -0.9
KSRS  Korea Array       75.31 318   P       P        04 27 46.4 +0.7
KSRS                                pmax    pmax
      comp=Z,8.0nm,0.7s,mb4.4
KSRS  Korea Array       75.31 318   P       P        04 27 46.4 +0.7
      comp=Z,7.8nm,0.7s,mb4.3,baz=130,slow=6.4,SNR=31
EDW2  Edwards Air Fo    77.72  47 ⇓P       P        04 27 59.1 +0.1
      baz=78
MONP  Monument Peak     77.78  49 ⇑P       P        04 27 60.0 +0.6
      baz=78
ISA   Isabella          77.81  46 ⇑P       P        04 27 59.9 +0.4
      baz=78
CMB   Columbia Colle    77.87  43  eP       P        04 27 59.6 -0.2
NJ2   Nanjing           78.54 309  eP       P        04 28 03.9 +0.3
NJ2                                 pmax    pmax
      comp=Z,60nm,1.1s,mb5.0
MPMC  Manual Prospec    78.70  46 ⇓P       P        04 28 04.8 +0.5
      baz=79
WAKR  Walker            78.75  43  eP       P        04 28 04.1 -0.4
R06C  Coleville         78.75  43 ⇑P       P        04 28 05.0 +0.5
      baz=79
MDJ   Mudanjiang        78.79 325   P       P        04 28 05.5 +1.0
MDJ                                 pP      pP       04 29 51.5 +0.6
MDJ                                 sP      sP       04 30 42.8 +1.3
MDJ                                 S       S        04 37 24.3 +2.6
MDJ                                 ScS     ScS      04 37 41.8 +1.2
MDJ                                 sS      sS       04 40 34.1 +3.0
MDJ                                 pmax    pmax
      comp=Z,44nm,1.0s,mb4.9
MDJ                                 pmax    pmax
      comp=Z,270nm,13.0s
MDJ   Mudanjiang        78.79 325  eP       P        04 28 05.5 +1.0
      comp=Z,39nm,0.9s,mb4.9
BEKR  Beckwourth        78.94  41 ⇑P       P        04 28 05.3 -0.2
      baz=79
WCN   Washoe City       79.00  42 ⇑P       P        04 28 06.2 +0.4
      baz=79
P06A  Stead Airport,    79.12  42 ⇑P       P        04 28 06.1 -0.3
      baz=79
GRAC  Grapevine Rang    79.29  45 ⇓P       P        04 28 07.5 +0.1
      baz=80
O06A  Flanigan          79.44  41 ⇑P       P        04 28 08.2 +0.1
      baz=80
NVAR  Mina Array Bea    79.45  44   P       P        04 28 08.2  0.0
      comp=Z,3.7nm,0.7s,mb4.0,baz=223,slow=8.4,SNR=30
N06A  Buffalo Meadow    79.77  41 ⇓P       P        04 28 09.9 +0.1
      baz=80
Q08A  Gabbs             79.93  43 ⇓P       P        04 28 10.7 -0.1
      baz=80
214A  Organ Pipe Nat    79.95  52 ⇓P       P        04 28 11.6 +0.6
      baz=80
O07A  Toulon            80.04  42 ⇑P       P        04 28 11.4 +0.1
      baz=80
Y13A  Salome            80.11  50 ⇓P       P        04 28 12.0 +0.2
      baz=80
K05A  Summer Lake       80.27  39 ⇑P       P        04 28 12.7 +0.3
      baz=80
S10A  Tonopah Range,    80.30  45 ⇑P       P        04 28 13.0 +0.3
      baz=80,SNR=7.3
M07A  Soldier Meadow    80.55  41 ⇑P       P        04 28 14.2 +0.3
      baz=81
O08A  Rochester Mine    80.57  42 ⇑P       P        04 28 14.3 +0.2
      baz=81
CN2   Changchun         80.63 322  eP       P        04 28 14.3  0.0
CN2                                epP      pP       04 30 03.3 +2.1
CN2                                eS       S        04 37 42.6 +2.0
CN2                                 pmax    pmax
      comp=Z,30nm,0.9s,mb4.8
CN2                                 pmax    pmax
      comp=Z,200nm,5.0s
H04A  Detroit Lake      80.69  37 ⇑P       P        04 28 14.1 -0.5
      baz=81
R10A  Warm Springs      80.69  45 ⇓P       P        04 28 15.1 +0.4
      baz=81,SNR=7.0
KLR   Kul'dur           80.70 329  eP       P        04 28 09.7 -4.8
S11A  Rachel            80.72  45 ⇑P       P        04 28 15.3 +0.3
      baz=81
115A  Sonoran Desert    80.74  51 ⇑P       P        04 28 15.3 +0.2
      baz=81
L07A  Adell             80.80  40 ⇓P       P        04 28 15.6 +0.3
      baz=81,SNR=5.4
N08A  GE Springer Mi    80.86  42 ⇑P       P        04 28 15.9 +0.4
      baz=81
T11A  Corn Creek, Al    80.87  46 ⇑P       P        04 28 15.9 +0.2
      baz=81,SNR=6.3
Q10A  Clear Creek Ra    80.91  44 ⇓P       P        04 28 16.8 +0.9
      baz=81
216A  Three Points,     80.98  52 ⇓P       P        04 28 17.1 +0.6
      baz=81
J06A  Christmas Vall    81.02  39 ⇓P       P        04 28 16.3  0.0
      baz=81
E03A  Lebam             81.07  35 ⇑P       P        04 28 16.8 +0.3
      baz=81
X14A  Yava              81.11  49 ⇓P       P        04 28 17.3 +0.3
      baz=81
O09A  Fish Creek Ran    81.12  43 ⇑P       P        04 28 17.1 +0.2
      baz=81
R11A  Troy Canyon, C    81.20  45 ⇓P       P        04 28 17.5 +0.1
      baz=81
WHN   Wuhan             81.21 306 ⇓P       P        04 28 18.0 +0.4
WHN                                 pmax    pmax
      comp=Z,94nm,1.2s,mb5.2
K07A  Rock Creek Ran    81.24  40 ⇓P       P        04 28 17.5  0.0
      baz=81,SNR=5.6
Y15A  Casa Rosa Ranc    81.27  50 ⇓P       P        04 28 18.1 +0.2
      baz=81
N09A  Rock Creek Ran    81.28  42 ⇓P       P        04 28 17.8 +0.1
      baz=82
P10A  Eureka            81.30  43 ⇑P       P        04 28 17.9  0.0
      baz=82
F04A  Amboy             81.32  36 ⇑P       P        04 28 17.3 -0.5
      baz=82
S12A  Delamar Landin    81.32  46 ⇑P       P        04 28 18.6 +0.6
      baz=82,SNR=8.6
U13A  Pakoon Wash       81.32  47 ⇓P       P        04 28 18.3 +0.2
      baz=82,SNR=5.2
W14A  Seligman          81.34  49 ⇓P       P        04 28 18.9 +0.7
      baz=82
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217A  Green Valley      81.36  53 ⇑P       P        04 28 19.1 +0.7
      baz=82
I06A  Prineville        81.39  38 ⇑P       P        04 28 18.6 +0.4
      baz=82,SNR=9.9
Q11A  Duckwater         81.42  44 ⇓P       P        04 28 18.6 +0.1
      baz=82
NLWA  Neilton Lookou    81.44  34 ⇑P       P        04 28 18.6 +0.2
      baz=82
L08A  Fields            81.51  40 ⇓P       P        04 28 18.9 +0.1
      baz=82,SNR=12
G05A  Wamic             81.52  37 ⇑P       P        04 28 18.9 +0.1
      baz=82
V14A  Boquillas Ranc    81.53  48 ⇑P       P        04 28 19.6 +0.4
      baz=82
J07A  Hines             81.59  39 ⇑P       P        04 28 19.4 +0.1
      baz=82
X15A  Humboldt          81.59  50 ⇑P       P        04 28 20.0 +0.5
      baz=82,SNR=5.1
TUC   Tucson            81.63  52  eP       P        04 28 20.4 +0.6
Z16A  Peralta Trail,    81.64  51 ⇑P       P        04 28 19.9 +0.2
      baz=82
M09A  Marrel Ranch,     81.64  41 ⇑P       P        04 28 19.9 +0.4
      baz=82
T13A  Saint George      81.66  47 ⇓P       P        04 28 19.6 -0.2
      baz=82
K08A  Mann Creek Ran    81.73  40 ⇓P       P        04 28 20.2 +0.2
      baz=82,SNR=11
H06A  Lindquist Farm    81.78  37 ⇓P       P        04 28 20.2  0.0
      baz=82,SNR=14
318A  Bisbee            81.83  53 ⇓P       P        04 28 21.1 +0.3
      baz=82
L09A  Wilkinson Ranc    81.83  41 ⇑P       P        04 28 20.9 +0.4
      baz=82
R12A  Pony Springs,     81.85  45 ⇓P       P        04 28 21.2 +0.4
      baz=82
Y16A  Circle Bar Ran    81.86  50 ⇓P       P        04 28 21.2 +0.3
      baz=82
U14A  Mt Trumbull       81.87  47 ⇑P       P        04 28 21.2 +0.3
      baz=82,SNR=8.7
I07A  Izee              81.88  38 ⇓P       P        04 28 20.9 +0.1
      baz=82,SNR=8.7
G06A  Carlson Farm,     81.90  37 ⇓P       P        04 28 20.5 -0.3
      baz=82
S13A  Holt Ranch, En    81.98  46 ⇑P       P        04 28 21.5 +0.1
      baz=82
218A  Dragoon           82.03  53 ⇑P       P        04 28 22.8 +1.0
      baz=82
Q12A  Willow Creek R    82.07  45 ⇓P       P        04 28 22.0 +0.2
      baz=82
J08A  Circle Bar Ran    82.09  39 ⇑P       P        04 28 21.6 -0.2
      baz=82,SNR=7.0
O11A  Cowboy Ranch,     82.09  43 ⇓P       P        04 28 22.2 +0.3
      baz=82,SNR=6.6
F06A  Goldendale        82.13  36 ⇑P       P        04 28 21.4 -0.5
      baz=82
X16A  Lo Mia Camp, P    82.14  50 ⇓P       P        04 28 23.0 +0.7
      baz=82
H07A  Lands Inn, Kim    82.14  38 ⇑P       P        04 28 21.9 -0.1
      baz=82
K09A  Rome              82.17  40 ⇓P       P        04 28 22.2 -0.1
      baz=82,SNR=11
R13A  O'Grain Ranch,    82.21  46 ⇑P       P        04 28 23.2 +0.7
      baz=82
Y17A  Roosevelt         82.23  51 ⇓P       P        04 28 23.5 +0.7
      baz=82
P12A  McGill            82.24  44 ⇑P       P        04 28 22.7  0.0
      baz=82
T14A  Hurricane         82.25  47 ⇑P       P        04 28 22.7 -0.1
      baz=82,SNR=5.1
M10A  I.L. Ranch, Tu    82.27  42 ⇑P       P        04 28 23.1 +0.3
      baz=82
V15A  Kaibab Nationa    82.28  48 ⇑P       P        04 28 23.7 +0.7
      baz=82
D05A  Enumclaw          82.32  35 ⇑P       P        04 28 22.9  0.0
      baz=82
I08A  Drewsey           82.34  39 ⇓P       P        04 28 23.3 +0.2
      baz=82,SNR=8.9
319A  Douglas           82.34  54 ⇑P       P        04 28 24.2 +0.8
      baz=82
W16A  Flagstaff         82.39  49 ⇓P       P        04 28 24.1 +0.5
      baz=83
118A  Homack Ranch,     82.39  52 ⇓P       P        04 28 24.5 +0.9
      baz=82
G07A  Ruggs Ranch, H    82.47  37 ⇓P       P        04 28 23.5 -0.2
      baz=83,SNR=5.1
E06A  Yakima            82.48  36 ⇑P       P        04 28 23.2 -0.5
      baz=83
J09A  Fry Pan Ranch,    82.52  40 ⇓P       P        04 28 24.0 +0.1
      baz=83,SNR=8.8
X17A  Forest Lakes      82.56  50 ⇑P       P        04 28 25.5 +1.1
      baz=83
Q13A  Wheeler Ranch,    82.56  45 ⇑P       P        04 28 24.5 +0.2
      baz=83,SNR=9.7
L10A  Juniper Basin     82.61  41 ⇓P       P        04 28 24.4 -0.1
      baz=83,SNR=8.6
H08A  Prairie City      82.62  38 ⇑P       P        04 28 24.2 -0.3
      baz=83
219A  White Tail Can    82.64  53 ⇑P       P        04 28 25.0 +0.1
      baz=83
ELK   Elko              82.69  43  eP       P        04 28 24.6 -0.3
ELK                                 pmax    pmax
      comp=Z,3.0nm,0.8s
ELK   Elko              82.69  43  eP       P        04 28 24.6 -0.3
      comp=Z,2.9nm,0.8s,mb3.9
F07A  Phinny Hill Vi    82.69  37 ⇓P       P        04 28 24.7 -0.1
      baz=83
M11A  Holland Ranch,    82.69  42 ⇓P       P        04 28 25.5 +0.6
      baz=83
WUAZ  Wupatki           82.71  49 ⇑P       P        04 28 25.8 +0.6
      baz=83
T15A  Red Dirt Ranch    82.72  47 ⇑P       P        04 28 25.5 +0.3
      baz=83
K10A  MacKenzie Ranc    82.74  41 ⇓P       P        04 28 25.3 +0.1
      baz=83,SNR=5.3
O12A  Currie            82.76  44 ⇓P       P        04 28 25.4 +0.1
      baz=83
C05A  Tolt Reservoir    82.79  34 ⇑P       P        04 28 25.1 -0.1
      baz=83
N12A  Clover Valley,    82.87  43 ⇑P       P        04 28 25.8 -0.1
      baz=83,SNR=5.8
G08A  Pilot Rock        82.90  38 ⇑P       P        04 28 25.7 -0.1
      baz=83,SNR=13
D06A  Cle Elum          82.94  35 ⇑P       P        04 28 26.0  0.0
      baz=83
S15A  Panguitch         83.06  47 ⇓P       P        04 28 28.1 +1.2
      baz=83
Q14A  Sevier Lake (B    83.08  45 ⇓P       P        04 28 27.1 +0.2
      baz=83,SNR=9.4
L11A  Cat Creek Ranc    83.11  41 ⇓P       P        04 28 27.1 +0.1
      baz=83,SNR=7.3
E07A  Sunnyside         83.12  36 ⇑P       P        04 28 27.0 +0.1
      baz=83,SNR=8.5
RSW   Rattlesnake Hi    83.17  36  eP       P        04 28 27.3 +0.1
U16A  Tuba City         83.18  49 ⇓P       P        04 28 28.4 +0.9
      baz=83
O13A  Hicks Ranch, I    83.19  44 ⇓P       P        04 28 27.9 +0.5
      baz=83
K11A  Parker Ranch,     83.26  41 ⇑P       P        04 28 27.8 +0.1
      baz=84
F08A  Pendleton         83.29  37 ⇓P       P        04 28 27.8  0.0
      baz=84
T16A  Glen Canyon Da    83.32  48 ⇓P       P        04 28 28.7 +0.5
      baz=84
C06A  Tall Timber Ra    83.35  35 ⇑P       P        04 28 27.7 -0.4
      baz=84
R15A  Junction          83.38  46 ⇓P       P        04 28 29.3 +0.9
      baz=84
N13A  Wendover, West    83.42  43 ⇑P       P        04 28 28.7 +0.1
      baz=84
D07A  Quincy            83.42  36 ⇑P       P        04 28 28.3 -0.2
      baz=84
ETW   Entiat            83.47  35  eP       P        04 28 28.2 -0.5
I10A  Payette           83.50  39 ⇑P       P        04 28 29.1 +0.2
      baz=84
P14A  Drum Mountains    83.52  45 ⇓P       P        04 28 29.4 +0.3
      baz=84
E08A  Dider Farm, El    83.53  37 ⇓P       P        04 28 29.3 +0.3
      baz=84
Y19A  Nutrioso          83.53  51 ⇑P       P        04 28 29.6 +0.3
      baz=84
L12A  House Creek Ra    83.56  42 ⇑P       P        04 28 29.8 +0.6
      baz=84
G09A  Cove              83.58  38 ⇑P       P        04 28 29.4 +0.1
      baz=84
MAW   Mawson            83.59 200   P       P        04 28 29.7 +0.7
MAW                                 pmax    pmax
      comp=Z,18nm,1.0s
MAW   Mawson            83.59 200   P       P        04 28 29.7 +0.7
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      comp=Z,18nm,1.0s,mb4.6,baz=112,slow=8.2,SNR=4.3
C07A  Waterville        83.67  35 ⇑P       P        04 28 28.7 -0.9
      baz=84,SNR=5.7
Q15A  Fillmore          83.69  46 ⇓P       P        04 28 30.4 +0.4
      baz=84
M13A  Montello          83.70  43 ⇓P       P        04 28 30.0  0.0
      baz=84,SNR=5.3
MFID  Camas Ranch       83.73  40 ⇓P       P        04 28 29.8 -0.3
      baz=84
U17A  Shonto            83.73  48 ⇑P       P        04 28 30.9 +0.6
      baz=84
A06A  Chilliwack        83.75  33 ⇓P       P        04 28 30.0  0.0
      baz=84
H10A  Noah's Angus R    83.81  39 ⇑P       P        04 28 29.7 -0.7
      baz=84,SNR=9.7
T17A  Navajo Res., N    83.82  48 ⇑P       P        04 28 30.9 +0.3
      baz=84
V18A  Ganado            83.84  49 ⇓P       P        04 28 30.9 +0.1
      baz=84
K12A  Draper Farm, C    83.89  41 ⇓P       P        04 28 30.7 -0.2
      baz=84
I11A  Placerville       83.92  40 ⇑P       P        04 28 30.7 -0.2
      baz=84,SNR=5.5
D08A  Wollman Farm,     83.93  36 ⇓P       P        04 28 30.6 -0.3
      baz=84
R16A  Teasdale          83.96  47 ⇑P       P        04 28 31.9 +0.6
      baz=84
G10A  Bishop Farm, J    83.97  38 ⇓P       P        04 28 30.4 -0.8
      baz=84,SNR=5.8
DUG   Dugway            84.00  44 ⇑P       P        04 28 32.5 +1.1
      baz=84
E09A  Wood Farm, Sta    84.06  37 ⇑P       P        04 28 31.5 -0.1
      baz=84
B07A  Winthrop          84.09  35 ⇓P       P        04 28 31.2 -0.5
      baz=84
J12A  Stokes Ranch,     84.09  41 ⇓P       P        04 28 32.1 +0.2
      baz=84
S17A  Black Ridge (B    84.12  47 ⇑P       P        04 28 32.0 -0.2
      baz=84
D09A  Jones Farm, Ri    84.28  36 ⇑P       P        04 28 32.2 -0.5
      baz=84
C08A  Higginbotham F    84.28  35 ⇑P       P        04 28 32.3 -0.4
      baz=84
F10A  Beach Ranch, E    84.28  38 ⇓P       P        04 28 32.2 -0.5
      baz=84,SNR=7.9
A07A  Ashnola River,    84.29  34 ⇑P       P        04 28 32.4 -0.4
      baz=84
SEY   Seymchan          84.30 347⇑eP       P        04 28 30.9 -1.5
M14A  Sheep Mountain    84.30  43 ⇑P       P        04 28 33.3 +0.4
      baz=84
H11A  Donnelly          84.31  39 ⇑P       P        04 28 32.8 -0.1
      baz=84,SNR=8.6
TRF   Thorofare Moun    84.35  12  eP       P        04 28 30.3 -2.4
      comp=Z,8.7nm,0.6s,mb4.5
I12A  Atlanta           84.36  40 ⇓P       P        04 28 33.3 +0.1
      baz=85,SNR=6.4
BJT   Baijiatuau        84.39 315  eP       P        04 28 31.9 -1.5
BJT                                 pmax    pmax
      comp=Z,43nm,0.9s
BJT   Baijiatuau        84.39 315  eP       P        04 28 31.9 -1.5
      comp=Z,43nm,0.9s,mb5.0
BJI   Beijing           84.39 315   P       P        04 28 33.6 +0.2
BJI                                 sP      sP       04 31 10.4 -1.4
BJI                                 S       S        04 38 20.4 +2.0
BJI                                 pmax    pmax
      comp=Z,49nm,1.0s,mb5.0
BJI                                 pmax    pmax
      comp=Z,190nm,4.4s
K13A  Stover Farm, H    84.42  42 ⇓P       P        04 28 33.9 +0.4
      baz=85
B08A  Colville Reser    84.45  35 ⇑P       P        04 28 32.2 -1.3
      baz=85,SNR=5.0
N15A  Stansbury Isla    84.53  44 ⇑P       P        04 28 33.8 -0.3
      baz=85
T18A  Mexican Hat       84.54  48 ⇓P       P        04 28 34.6 +0.4
      baz=85
W20A  Ramah             84.61  50 ⇑P       P        04 28 35.0 +0.4
      baz=85
L14A  Malta             84.64  43 ⇑P       P        04 28 34.9 +0.3
      baz=85
HLID  Hailey            84.68  41 ⇑P       P        04 28 35.3 +0.6
      baz=85
C09A  Chrisman Ranch    84.72  36 ⇑P       P        04 28 34.2 -0.6
      baz=85
J13A  Cove Ranch, Pi    84.75  41 ⇑P       P        04 28 35.3 +0.2
      baz=85,SNR=5.5
SPUT  South Promonto    84.79  44  eP       P        04 28 35.7 +0.3
A08A  Turner Farm, O    84.83  34 ⇑P       P        04 28 34.7 -0.6
      baz=85,SNR=5.4
D10A  Wagner Farm, O    84.86  37 ⇓P       P        04 28 34.9 -0.6
      baz=85
F11A  Grangeville       84.86  38 ⇓P       P        04 28 34.2 -1.4
      baz=85
M15A  Larsen Ranch,     84.87  43 ⇑P       P        04 28 35.3 -0.4
      baz=85
MCK   McKinley          84.87  13  eP       P        04 28 33.9 -1.3
H12A  Diamond D Ranc    84.93  40 ⇓P       P        04 28 35.9  0.0
      baz=85,SNR=8.7
K14A  Jones Ranch, D    84.94  42 ⇓P       P        04 28 36.1  0.0
      baz=85
SRU   San Rafael        85.01  46 ⇑P       P        04 28 36.3 -0.2
      baz=85
SRU   San Rafael        85.01  46  eP       P        04 28 36.4 -0.1
I13A  Wildhorse Cree    85.05  41 ⇑P       P        04 28 36.6 +0.1
      baz=85
E11A  Bogner Ranch,     85.09  38 ⇓P       P        04 28 36.3 -0.4
      baz=85
R18A  Canyonlands Na    85.11  47 ⇓P       P        04 28 36.5 -0.5
      baz=85
J14A  Carey             85.12  41 ⇓P       P        04 28 37.1 +0.2
      baz=85,SNR=6.2
B09A  Rice              85.14  35 ⇑P       P        04 28 36.0 -0.8
      baz=85
L15A  Malad City        85.17  43 ⇑P       P        04 28 36.7 -0.5
      baz=85
A09A  Danville          85.21  35 ⇑P       P        04 28 36.7 -0.6
      baz=85
Q18A  Rafter H Ranch    85.28  46 ⇓P       P        04 28 37.6 -0.2
      baz=85
H13A  Challis           85.30  40 ⇓P       P        04 28 37.7  0.0
      baz=86
F12A  Elk City          85.33  39 ⇓P       P        04 28 37.5 -0.3
      baz=86,SNR=13
S19A  Harvey Farm, M    85.34  48 ⇑P       P        04 28 38.0 -0.1
      baz=86
O17A  Robinson Place    85.38  45 ⇓P       P        04 28 38.3  0.0
      baz=86
D11A  Klaveano Farm,    85.39  37 ⇓P       P        04 28 37.5 -0.7
      baz=86
I14A  Mackay            85.47  41 ⇓P       P        04 28 39.1 +0.5
      baz=86,SNR=5.8
R19A  Curley Farm, L    85.50  47 ⇑P       P        04 28 38.6 -0.4
      baz=86
G13A  Cobalt            85.59  40 ⇑P       P        04 28 39.1  0.0
      baz=86
GYA   Guiyang           85.62 300⇓iP       P        04 28 40.5 +0.7
GYA                                 pP      pP       04 30 33.3 +5.1
GYA                                 sP      sP       04 31 24.0 +5.6
GYA                                 PP      PP       04 32 11.0 +3.4
GYA                                 SKS              04 38 16.3
GYA                                 S       S        04 38 24.5 -6.3
GYA                                 sS      sS       04 41 49.6 +5.5
GYA                                 SS      SS       04 44 27.4 +5.9
GYA                                 pmax    pmax
      comp=Z,20nm,0.6s,mb4.9
GYA                                 pmax    pmax
      comp=Z,270nm,9.0s
A10A  Northport         85.78  35 ⇑P       P        04 28 39.8 -0.1
      baz=86
L16A  Fish Haven        85.80  43 ⇓P       P        04 28 40.0 -0.2
      baz=86
Q19A  Hogan Spring (    85.81  47 ⇑P       P        04 28 40.3 -0.1
      baz=86
J15A  Blackfoot         85.84  42 ⇑P       P        04 28 40.8 +0.4
      baz=86,SNR=9.2
TXAR  Lajitas Array     85.87  57   P       P        04 28 41.6 +0.7
TXAR                                pmax    pmax
      comp=Z,5.0nm,0.8s
TXAR  Lajitas Array     85.87  57   P       P        04 28 41.5 +0.7
      comp=Z,5.1nm,0.8s,mb4.2,baz=218,slow=6.3,SNR=58
F13A  Darby             85.89  39 ⇑P       P        04 28 40.2 -0.4
      baz=86
I15A  Monteview         86.11  41 ⇓P       P        04 28 41.9 +0.3
      baz=86
COLA  College           86.11  12  eP       P        04 28 39.1 -2.1
COLA                                pmax    pmax
      comp=Z,1.0nm,0.4s,mb3.8
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COLA	College	86.11	12	eP	P	04 28 39.1	-2.0
	comp=Z,1.3nm,0.4s,mb3.9						
G14A	Jackson	86.13	40	⇑P	P	04 28 41.7	-0.1
	baz=86						
J16A	Bone	86.30	42	⇓P	P	04 28 42.7	+0.1
	baz=86						
H15A	Lima	86.32	41	⇓P	P	04 28 43.0	+0.4
	baz=86						
A11A	Hall Mountain,	86.42	36	⇓P	P	04 28 43.4	+0.4
	baz=87						
F14A	Wisdom	86.48	39	⇑P	P	04 28 43.5	+0.1
	baz=87						
D13A	Huson	86.50	38	⇑P	P	04 28 42.5	-1.0
	baz=87						
RRI2	Red Ridge	86.52	42	eP	P	04 28 43.6	-0.1
I16A	Newdale	86.67	42	⇓P	P	04 28 44.8	+0.5
	baz=87						
G15A	Dillon	86.69	40	⇑P	P	04 28 44.5	+0.2
	baz=87						
BSMT	Bassoo Peak	86.71	37	eP	P	04 28 43.7	-0.7
	comp=Z,1.7nm,0.8s,mb3.8						
E14A	Clinton	86.72	39	⇓P	P	04 28 43.8	-0.6
	baz=87						
C13A	Hot Springs	86.74	37	⇑P	P	04 28 43.8	-0.7
	baz=87						
A12A	Yaak River Ran	86.80	36	⇓P	P	04 28 44.6	-0.2
	baz=87						
TPAW	Teton Pass	86.82	42	eP	P	04 28 45.4	+0.3
XAN	Xi’an	86.86	307	P	P	04 28 45.9	+0.4
XAN				pP	pP	04 30 34.8	+0.4
XAN				sP	sP	04 31 25.1	+0.7
XAN				PP	PP	04 32 17.8	+0.4
XAN				sS	sS	04 41 58.3	+2.0
XAN				SS	SS	04 44 42.0	+2.8
XAN				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.4						
XAN				pmax	pmax		
	comp=Z,170nm,9.8s						
BILL	Bilibino	86.91	354	eP	P	04 28 43.9	-1.0
BILL				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
J17A	Brown Place, J	86.92	42	⇑P	P	04 28 45.4	-0.1
	baz=87						
F15A	Butte	87.02	40	⇑P	P	04 28 46.2	+0.3
	baz=87						
D14A	Greenough	87.05	38	⇓P	P	04 28 45.0	-1.0
	baz=87						
G16A	Moss Hill, Enn	87.14	40	⇓P	P	04 28 46.5	0.0
	baz=87						
B13A	Whitefish	87.17	37	⇓P	P	04 28 45.7	-0.8
	baz=87						
QLMT	Earthquake Lak	87.17	41	eP	P	04 28 47.5	+0.8
L19A	Farson	87.20	44	⇑P	P	04 28 46.7	-0.1
	baz=87						
H16A	Russell Place,	87.22	41	⇑P	P	04 28 47.7	+0.7
	baz=87						
R22A	Saguache, Gunn	87.24	48	⇑P	P	04 28 46.8	-0.3
	baz=87						
J18A	Kendall Valley	87.29	43	⇑P	P	04 28 47.4	+0.2
	baz=88						
PDAR	Pinedale Array	87.38	43	P	P	04 28 46.9	-0.8
	comp=Z,1.8nm,0.7s,mb3.9,baz=218,slow=2.6,SNR=11						
Q22A	Crested Butte,	87.41	48	⇓P	P	04 28 48.1	+0.2
	baz=88						
BOZ	Bozeman (W)	87.45	40	⇑P	P	04 28 48.0	0.0
	baz=88						
H17A	Grant Village	87.50	41	⇓P	P	04 28 49.5	+1.3
	baz=88						
F16A	Kennard Place,	87.52	40	⇑P	P	04 28 48.4	+0.2
	baz=88						
D15A	Lincoln	87.61	39	⇑P	P	04 28 48.4	-0.3
	baz=88						
WALA	Waterton Lakes	87.84	36	eP	P	04 28 49.2	-0.5
	comp=Z,0.3nm,1.6s						
G17A	Pierce Place,	87.84	41	⇑P	P	04 28 50.4	+0.6
	baz=88						
HRY	Holter Researc	87.85	39	eP	P	04 28 49.6	-0.2
E16A	East Helena	87.86	39	⇓P	P	04 28 49.4	-0.4
	baz=88						
K19A	Absolon Red Bu	87.87	43	⇑P	P	04 28 49.4	-0.6
	baz=88						
HHC	Hu-ho-hao-te	87.88	314	eP	P	04 28 50.5	+0.4
HHC				pP	pP	04 30 43.6	+4.3
HHC				sP	sP	04 31 33.3	+4.0
HHC				PP	PP	04 32 27.9	+2.6
HHC				SKS		04 38 28.6	
HHC				eS	S	04 38 43.3	-8.2
HHC				sS	sS	04 42 09.4	+3.3
HHC				SS	SS	04 44 56.8	+3.1
HHC				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.0						
HHC				pmax	pmax		
	comp=Z,360nm,9.0s						
C15A	Salmond Ranch,	87.93	38	⇑P	P	04 28 49.8	-0.4
	baz=88						
SDCO	Great Sand Dun	87.93	49	eP	P	04 28 50.3	-0.1
	comp=Z,0.8nm,0.8s						
A14A	Double T Ranch	88.07	37	⇑P	P	04 28 50.4	-0.3
	baz=88						
K20A	Yellowstone Ra	88.12	44	⇓P	P	04 28 50.7	-0.5
	baz=88						
F17A	Fitzpatrick Pl	88.17	40	⇑P	P	04 28 51.5	+0.1
	baz=88						
D16A	Dana Ranch, Ca	88.18	39	⇓P	P	04 28 51.2	-0.2
	baz=88						
B15A	Bradely Ranch,	88.22	37	⇑P	P	04 28 50.6	-0.9
	baz=88						
KMI	Kunming	88.41	297	P	P	04 28 54.4	+1.5
KMI				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.8						
KMI				pmax	pmax		
	comp=Z,160nm,8.7s						
C16A	Fuhringer Ranc	88.44	38	⇑P	P	04 28 52.0	-0.5
	baz=89						
A15A	Johnson Ranch,	88.46	37	⇑P	P	04 28 51.8	-0.8
	baz=89						
N22A	Wattenberg Ran	88.57	46	⇑P	P	04 28 53.6	+0.3
	baz=89						
G18A	Lazy EL Ranch,	88.57	41	⇓P	P	04 28 53.7	+0.5
	baz=89						
RLMT	Red Lodge	88.66	41	⇓P	P	04 28 54.1	+0.5
	baz=89						
RLMT	Red Lodge	88.66	41	eP	P	04 28 54.0	+0.4
	comp=Z,12nm,1.6s,mb4.5						
F18A	Big Timber	88.75	40	⇓P	P	04 28 54.0	0.0
	baz=89						
D17A	Six Diamond Ra	88.75	39	⇑P	P	04 28 54.2	+0.2
	baz=89						
SYO	Syowa Base	88.82	193	⇓eP	P	04 28 52.3	-1.7
SYO	Syowa Base	88.82	193	⇓ePcP	PcP	04 28 54.4	-0.8
E18A	Harlowton	88.94	40	⇑P	P	04 28 55.4	+0.5
	baz=89						
C17A	Wharram Farm,	88.94	39	⇓P	P	04 28 54.4	-0.4
	baz=89						
A16A	West Butte Ran	89.10	37	⇓P	P	04 28 55.1	-0.5
	baz=89						
B17A	L&G Farms, Che	89.24	38	⇑P	P	04 28 55.9	-0.3
	baz=89						
CMAR	Chiang Mai Arr	89.43	290	P	P	04 28 58.7	+0.9
CMAR				pmax	pmax		
	comp=Z,21nm,1.0s						
CMAR	Chiang Mai Arr	89.43	290	P	P	04 28 58.7	+0.9
	comp=Z,21nm,1.0s,mb4.9,baz=110,slow=2.8,SNR=29						
CHTO	Chiang Mai	89.55	290	eP	P	04 28 58.8	+0.4
CHTO				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
CHTO	Chiang Mai	89.55	290	eP	P	04 28 58.8	+0.5
	comp=Z,13nm,1.0s,mb4.7						
A17A	Triple J Farms	89.61	37	⇑P	P	04 28 57.6	-0.4
	baz=90						
CD2	Chengdu	89.66	303	P	P	04 28 59.8	+1.2
CD2				pP	pP	04 30 49.1	+0.8
CD2				sP	sP	04 31 39.6	+1.6
CD2				PP	PP	04 32 43.3	+3.8
CD2				S	S	04 39 08.4	+0.1
CD2				sS	sS	04 42 24.3	+0.5
CD2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
CD2				pmax	pmax		
	comp=Z,300nm,10.7s						
B18A	Beardsley Farm	89.89	38	⇑P	P	04 28 59.2	-0.1
	baz=90						
A18A	Metzger Ranch,	90.09	38	⇓P	P	04 29 00.0	-0.2
	baz=90						
VNA3	Neumayer Olymp	90.28	176	eP	P	04 29 01.0	+0.2
VNA2	Neumayer--Watz	90.72	177	eP	P	04 29 03.4	+0.6
	baz=200,slow=3.8						
PLCA	Paso Flores	90.72	134	P	P	04 29 02.8	-0.7
PLCA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
PLCA	Paso Flores	90.72	134	P	P	04 29 02.8	-0.6
	comp=Z,1.4nm,0.7s,mb4.0,baz=187,slow=2.8,SNR=5.0						
LZH	Lanzhou	91.49	308	eP	P	04 29 08.4	+1.4
LZH				pP	pP	04 30 57.8	+1.0
LZH				PP	PP	04 32 56.6	+2.9
LZH				eS	S	04 39 20.3	-4.1
LZH				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.4						
LZH				pmax	pmax		
	comp=Z,250nm,5.7s						
RSSD	Black Hills	91.58	44	eP	P	04 29 06.8	-0.4
RSSD				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
RSSD	Black Hills	91.58	44	eP	P	04 29 06.8	-0.4
	comp=Z,2.1nm,0.5s,mb4.3						
INK	Inuvik	92.20	15	eP	P	04 29 07.9	-1.5
INK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
INK	Inuvik	92.20	15	eP	P	04 29 07.8	-1.6
	comp=Z,5.2nm,1.0s,mb4.4						
DGMT	Dagmar	93.26	40	⇓P	P	04 29 14.6	-0.2
	baz=93						
ULN	Ulaanbaatar	93.76	319	eP	P	04 29 17.0	-0.1
ULN				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
ULN	Ulaanbaatar	93.76	319	eP	P	04 29 17.0	-0.1
	comp=Z,17nm,1.2s,mb5.0						
SONM	Songino Array	94.16	319	P	P	04 29 18.5	-0.4
SONM				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM	Songino Array	94.16	319	P	P	04 29 18.5	-0.4
	comp=Z,1.6nm,0.6s,mb4.3,baz=114,slow=3.5,SNR=16						
YKA	Yellowknife Ar	94.55	25	P	P	04 29 18.7	-1.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	94.55	25	P	P	04 29 18.7	-1.6
	comp=Z,1.3nm,0.7s,mb4.1,baz=244,slow=4.4,SNR=29						
YKA	Yellowknife Ar	94.55	25	P	P	04 29 18.7	-1.6
GTA	Gaotai	95.64	310	eP	P	04 29 26.3	+0.5
GTA				pP	pP	04 31 15.1	-0.8
GTA				sP	sP	04 32 08.3	+2.7
GTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
TIXI	Tiksi	96.69	345	⇑eP	P	04 29 28.5	-1.3
TIXI				pmax	pmax		
	comp=Z,5.0nm,2.0s,mb4.4						
ZAK	Zakamensk	97.00	321	eP	P	04 29 30.1	-1.6
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.4						
TLY	Talaya	97.23	322	eP	P	04 29 33.2	+0.5
TLY				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.5						
ZALV	Zalesovo Beam	108.84	322	PKiKP	PKiKP	04 34 24.2	-1.8
	comp=Z,1.4nm,0.6s,baz=183,slow=2.9,SNR=7.6						
MKAR	Makanchi Array	109.74	314	PKiKP	PKiKP	04 34 26.2	-1.8
	comp=Z,2.4nm,0.6s,baz=194,slow=0.8,SNR=38						
MKAR	Makanchi Array	109.74	314	PKPdf	PKiKP	04 34 26.2	-1.8
KURK	Kurchatov	112.43	318	ePKIKP	PKiKP	04 34 31.3	-1.7
KSH	Kashi	113.68	306	ePKP	PKiKP	04 34 36.0	+0.3
KSH				esPKP		04 37 16.0	
KSH				eSKS	SKSdf	04 41 02.8	+1.8
KSH				AMB	AMB		
	comp=Z,300nm,5.0s						
TKM2	Tokmak 2	114.19	309	ePKPdf	PKiKP	04 34 35.5	-1.1
UCH	Uchtor	114.96	309	ePKPdf	PKPdf	04 34 38.0	-0.1
AAK	Ala-Archa	114.99	309	⇑iPKIKP	PKPdf	04 34 36.9	-1.2
AAK				pmax	pmax		
	comp=Z,2.0nm,1.3s						
AAK	Ala-Archa	114.99	309	ePKPdf	PKPdf	04 34 37.3	-0.8
AML	Almayashu	115.56	308	ePKPdf	PKPdf	04 34 39.0	-0.3
BVAR	Borovoye Array	117.45	321	PKIKP	PKPdf	04 34 41.3	-1.2
BVAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BVAR	Borovoye Array	117.45	321	PKP	PKPdf	04 34 41.3	-1.2
	comp=Z,3.6nm,0.6s,baz=79,slow=2.3,SNR=13						
KBL	Kabul	118.87	300	ePKIKP	PKPdf	04 34 45.8	-0.1
ARU	Arti	123.45	326	i PKIKP	PKPdf	04 34 52.3	-1.6
ARU						04 36 40.2	
AKTK	Aktyubinsk	125.48	319	PKP	PKPdf	04 34 57.2	-0.8
AKTO	Aktyubinsk	125.48	319	PKIKP	PKPdf	04 34 57.2	-0.8
AKTO				pmax	pmax		
	comp=Z,6.0nm,0.8s						
AKTO	Aktyubinsk	125.48	319	PKP	PKPdf	04 34 57.2	-0.8
	comp=Z,5.7nm,0.8s,baz=66,slow=4.0,SNR=21						
BOSA	Boshof	128.20	206	PKIKP	PKPdf	04 35 03.7	-0.3
BOSA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BOSA	Boshof	128.20	206	PKP	PKPdf	04 35 03.7	-0.3
	comp=Z,5.5nm,0.8s,baz=37,slow=0.6,SNR=9.2						
BOSA	Boshof	128.20	206	PKP	PKPdf	04 35 03.7	-0.3
OBN	Obninsk	134.88	333	ePKIKP	PKPdf	04 35 13.8	-1.9
OBN				e		04 37 52.0	
OBN				pmax	pmax		
	comp=Z,6.0nm,1.2s						
VSR	Storozhevoye	136.01	327	ePKIKP	PKPdf	04 35 17.0	-0.9
VSR				pmax	pmax		
	comp=Z,6.0nm,0.5s						
VSR				pmax	pmax		
	comp=N,3.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,2.0nm,1.0s						
NB2	NORSAR Subarra	136.86	353	PKP		04 35 11.0	
	comp=Z,5.3nm,1.4s,baz=16,slow=3.2						
NOA	NORSAR Array B	136.86	353	PKHKP		04 35 10.8	
NOA						04 35 18.2	
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	136.86	353	PKhKP		04 35 10.8	
	comp=Z,1.5nm,0.7s,baz=22,slow=3.8,SNR=5.5						
NOA				PKP	PKPdf	04 35 18.2	-1.0
	comp=Z,0.6nm,0.6s,baz=21,slow=3.8,SNR=3.3						
NOA	NORSAR Array B	136.86	353	PKP		04 35 10.8	
NOA				PKP	PKPdf	04 35 18.2	-1.0
GNI	Garni	137.39	310	⇑iPKIKP	PKPdf	04 35 18.8	-2.0
GNI				pmax	pmax		
	comp=Z,18nm,1.3s						
KMBO	Kilima Mbogo	140.33	245	PKHKP		04 35 20.5	
KMBO						04 35 27.6	
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KMBO	Kilima Mbogo	140.33	245	PKhKP		04 35 20.5	
	comp=Z,2.7nm,0.7s,baz=53,slow=3.7,SNR=8.4						
KMBO				PKP	PKPdf	04 35 27.6	+0.6
	comp=Z,6.3nm,0.8s,baz=59,slow=2.5,SNR=10.0						
KMBO	Kilima Mbogo	140.33	245	PKP		04 35 20.5	
KMBO				PKP	PKPdf	04 35 27.6	+0.6
AKASG	Malin Array Be	141.15	332	PKHKP		04 35 20.7	
AKASG						04 35 28.5	
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	141.15	332	PKhKP		04 35 20.7	
	comp=Z,2.8nm,0.5s,baz=42,slow=4.3,SNR=23						
AKASG				PKP	PKPdf	04 35 28.4	+1.2
	comp=Z,0.5nm,0.4s,baz=43,slow=2.9,SNR=6.1						
AKASG	Malin Array Be	141.15	332	PKP		04 35 20.7	
AKASG				PKP	PKPdf	04 35 28.4	+1.2
SIM	Simferopol’	142.35	322	i PKHKP		04 35 26.4	
SIM				pmax	pmax		
	comp=Z,26nm,0.8s						
MALT	Malatya	142.62	310	⇓iP	PKPdf	04 35 27.6	-2.7
MALT	Malatya	142.62	310	ePKPdf	PKPdf	04 35 27.6	-2.8
EKA	Eskdalemuir Ar	142.87	5	PKHKP		04 35 25.7	
EKA						04 35 31.3	
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
EKA	Eskdalemuir Ar	142.87	5	PKhKP		04 35 25.6	
	comp=Z,1.0nm,0.7s,baz=312,slow=3.0,SNR=5.2						
EKA				PKP	PKPdf	04 35 31.2	+1.0
	comp=Z,1.6nm,0.8s,baz=316,slow=4.6,SNR=5.3						
AKCD	Akcadag	143.00	310	i P	PKPdf	04 35 29.1	-1.9
ATAB	Bozova	143.03	309	i P	PKPdf	04 35 28.9	-2.2
TOKA	Tokat	143.18	314	i P	PKPdf	04 35 28.8	-2.4
GZT	Gaziantep	143.61	309	i P	PKPdf	04 35 30.6	-1.5
BOYT	Boyabat	143.73	316	i P	PKPdf	04 35 31.3	-0.9
BSEG	Bad Segeberg	143.91	352	ePKPbc	PKPdf	04 35 30.0	-2.1
PINB	Pinarbasi	143.94	311	i P	PKPdf	04 35 31.8	-0.8
KIS	Kishinev	143.95	328	ePKP	PKPdf	04 35 30.0	-2.4
LVV	L’vov	143.98	336	⇓iPKIKP	PKiKP	04 35 36.1	+0.1
KUZU	Kuzuini	144.19	308	i P	PKPdf	04 35 32.7	-0.4
CTKT	Corum	144.19	315	i P	PKPdf	04 35 33.1	+0.1
KWP	Kalwaria Pacla	144.64	337	ePKP	PKPdf	04 35 33.2	-0.3
KWP	Kalwaria Pacla	144.64	337	⇓iP	PKPdf	04 35 33.0	-0.5
KWP	Kalwaria Pacla	144.64	337	ePKP	PKPdf	04 35 33.2	-0.3
BALT	Daday	144.65	318	i P	PKPdf	04 35 33.9	+0.1
ILGA	Ilgaz	144.69	317	i P	PKPdf	04 35 34.5	+0.7
COBT	Iskenderun	144.89	308	i P	PKPdf	04 35 34.9	+0.5
CDAG	Cicekdag	144.94	314	i P	PKPdf	04 35 34.0	-0.3
AVNT	Avonos	144.99	312	i P	PKPdf	04 35 34.8	+0.4
OJC	Ojcow	145.17	340	ePKP	PKPdf	04 35 34.0	-0.4
TLCR		145.17	326	⇑iP	PKPdf	04 35 35.4	+0.9
TLCR		145.17	326	⇑P	PKPdf	04 35 35.4	+0.8
BUR08	Bucovina Ar. S	145.18	332	ePKPbc	PKPbc	04 35 35.6	+0.3
BUR02	Bucovina Ar. S	145.19	332	P	PKPdf	04 35 35.9	+1.4
BURAR	Bucovina Array	145.20	332	⇑iP	PKPdf	04 35 35.5	+1.0
BURAR	Bucovina Array	145.20	332	⇑P	PKPdf	04 35 35.5	+1.0
NRDL	Niedersach Rie	145.34	351	ePKPbc	PKPdf	04 35 33.0	-1.6
STHS	Stebnicka Huta	145.36	338	ePKP	PKPdf	04 35 35.1	+0.4
STHS				e		04 35 36.1	
KOLS	Kolonicke sedl	145.38	336	ePKP	PKPdf	04 35 34.7	-0.1
BRTR	Keskin Array B	145.39	315	PKHKP	PKPdf	04 35 34.0	-1.1
BRTR				pmax	pmax		
	comp=Z,26nm,0.8s						
BRTR	Keskin Array B	145.39	315	PKPbc	PKPdf	04 35 34.0	-1.1
	comp=Z,26nm,0.8s,baz=137,slow=3.4,SNR=126						
FKH	Fakeheh	145.56	304	eP	PKPbc	04 35 37.0	+0.1
UZH	Uzhgorod	145.61	336	⇓iPKIKP	PKPdf	04 35 36.1	+0.9
KSP	Ksiaz	145.65	344	ePKP	PKPbc	04 35 36.5	0.0
KSP	Ksiaz	145.65	344	ePKP	PKPdf	04 35 35.3	+0.1
NIE	Niedzica	145.68	339	ePKP	PKPbc	04 35 36.5	-0.2
CRVS	Cervenica-Dubn	145.71	337	ePKP	PKPdf	04 35 35.2	-0.1
CRVS				e		04 35 36.9	
VRI	Vrincioaia	145.77	329	⇓iP	PKPbc	04 35 36.5	-0.6
VRI	Vrincioaia	145.77	329	P	PKPbc	04 35 36.9	-0.2
IBBN	Ibbenburen	145.82	354	ePKPbc	PKPbc	04 35 36.5	-0.5
PLOR	Plostina	145.82	329	PKIKP	PKPbc	04 35 37.3	+0.1
PLOR	Plostina	145.82	329	⇑iP	PKPbc	04 35 36.9	-0.3
TIRR	Tirgusor	145.87	325	PKIKP	PKPbc	04 35 37.2	-0.2
TIRR	Tirgusor	145.87	325	⇑iP	PKPbc	04 35 36.7	-0.7
TIRR	Tirgusor	145.87	325	ePKPbc	PKPbc	04 35 37.1	-0.3
CLZ	Clausthal	145.94	351	ePKPbc	PKPdf	04 35 35.6	0.0
HARR	Harsova	145.97	326	⇑iP	PKPbc	04 35 37.8	+0.1
CLL	Collm	145.98	348	⇓iPKIKP	PKPdf	04 35 36.6	+0.9
CLL				i		04 35 41.9	
CLL	Collm	145.98	348	ePKPbc	PKPbc	04 35 36.7	-0.8
CLL	Collm	145.98	348	⇓iPKPbc	PKPbc	04 35 36.6	-0.9
	comp=Z,32nm,1.1s						
CLL				i PKiKP	PKiKP	04 35 41.9	+1.8
CLL				epPKiKP		04 37 36.0	
OKC	Ostrava-Krasne	146.02	341	ePKP	PKPbc	04 35 37.0	-0.6
OKC				epPKP	pPKPdf	04 37 35.3	+2.6
UPC	Upice	146.03	344	ePKP	PKPdf	04 35 35.9	+0.1
UPC				epPKP	pPKPdf	04 37 36.7	+4.1
DPC	Dobruska-Polom	146.09	344	ePKP	PKPdf	04 35 36.1	+0.2
DPC				epPKP	pPKPdf	04 37 36.0	+3.3
BRG	Berggiesshubel	146.19	346	ePKPbc	PKPbc	04 35 36.9	-1.2
BRG	Berggiesshubel	146.19	346	ePKP	PKPdf	04 35 35.7	-0.4
	comp=Z,1.8nm,0.7s						
BRG				i		04 35 37.7	
	comp=Z,19nm,1.1s						
BHL	Bhannes	146.26	304	eP	PKPbc	04 35 38.5	-0.3
MORC	Moravsky Berou	146.26	342	⇑iP	PKPdf	04 35 35.9	-0.3
MORC	Moravsky Berou	146.26	342	ePKPbc	PKPbc	04 35 38.5	+0.2
RCY	Rachaya	146.26	303	eP	PKPbc	04 35 38.5	-0.3
PVCC	Panska Ves	146.37	346	ePKP	PKPbc	04 35 38.1	-0.5
KECS	Kecovo	146.41	338	ePKP	PKPbc	04 35 38.5	-0.3
KECS				e		04 35 39.9	
KECS				e		04 37 38.0	
MLR	Muntele Rosu	146.43	329	⇑iP	PKPbc	04 35 38.5	-0.4
HENT	Hendek	146.62	318	i P	PKPbc	04 35 39.0	-0.6
PRU	Pruhonice	146.88	345	ePKP	PKPbc	04 35 38.9	-1.1
PRU				epPKP	pPKPdf	04 37 38.8	+4.7
MOX	Moxa	146.88	349	ePKP	PKPdf	04 35 36.6	-0.6
	comp=Z,16nm,1.5s						
VOIR		146.90	330	⇓iP	PKPbc	04 35 40.3	+0.1
DRGR		146.92	334	⇓iP	PKPbc	04 35 39.6	-0.6
TANN	Tannenbergstha	146.94	348	ePKPbc	PKPbc	04 35 39.1	-1.0
TANN				epPKPbc	pPKPbc	04 37 39.2	+4.2
VRAC	Vranov	146.96	342	PKIKP	PKPdf	04 35 38.6	+1.2
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.5s						
VRAC	Vranov	146.96	342	PKPbc	PKPdf	04 35 38.6	+1.2
	comp=Z,2.1nm,0.5s,baz=69,slow=2.0,SNR=6.9						
VYHS	Vyhne	146.98	339	ePKP	PKPbc	04 35 39.9	-0.4
VYHS				e		04 37 40.0	
UBBA	Unterbreizbach	146.99	351	ePKPbc	PKPdf	04 35 37.7	+0.3
KDHN	Kadinhani	147.01	314	i P	PKPbc	04 35 39.7	-1.0
KOLL	Kolacno	147.05	340	ePKP	PKPbc	04 35 40.8	+0.3
KOLL				e		04 37 40.1	
PSZ	Piszkesteto	147.10	338	⇓iP	PKPbc	04 35 40.5	-0.2
PSZ	Piszkesteto	147.10	338	⇑ePKP	PKPbc	04 35 40.6	-0.1
PSZ	Piszkesteto	147.10	338	ePKPbc	PKPbc	04 35 40.6	-0.1
NKC	Novy Kostel	147.12	348	ePKP	PKPdf	04 35 37.7	+0.1
TREC	Trest	147.28	344	ePKP	PKPbc	04 35 40.3	-0.8
ESKT	Eskisehir	147.35	316	i P	PKPbc	04 35 41.1	-0.5
SMOL	Smolenice	147.41	341	ePKP	PKPbc	04 35 41.7	+0.2
SMOL				e		04 37 41.8	
MODS	Modra-Piesok	147.59	341	ePKP	PKPbc	04 35 42.0	+0.1
MODS				e		04 37 42.4	
ROTZ	Rotzenmuhle	147.61	348	ePKPbc	PKPbc	04 35 40.9	-1.0
ROTZ				epPKPbc	pPKPbc	04 37 41.2	+4.1
MEM	Membach	147.66	355	PKPbc	PKPbc	04 35 41.4	-0.7
CSS	Prodhromos	147.68	307	ePKPbc	PKPbc	04 35 42.1	-0.5
BUD	Budapest	147.78	338	⇑ePKP	PKPbc	04 35 42.6	+0.2
TNS	Taunus Mts	147.79	352	ePKPbc	PKPdf	04 35 40.9	+2.2
ZST	Bratislava	147.80	341	ePKP	PKPdf	04 35 39.8	+1.0
ZST				e		04 37 44.2	
GRA1	Grafenberg Arr	147.87	349	ePKPbc	PKPbc	04 35 41.9	-0.7
GRF	Grafenberg Arr	147.87	349	ePKPbc	PKPbc	04 35 41.9	-0.7
KHC	Kasperske Hory	147.91	346	ePKP	PKPbc	04 35 41.9	-0.8
GZR	Gura Zlata	147.98	332	⇓iP	PKPbc	04 35 42.0	-1.0
WET	Wettzell	148.05	347	ePKPbc	PKPbc	04 35 42.5	-0.6
ULDT	Uludag	148.11	319	i P	PKPbc	04 35 43.0	-0.6
GEC2	GERESS Array S	148.14	345	ePKPbc	PKPbc	04 35 42.5	-0.8
GERES	GERESS Array B	148.14	345	PKIKP	PKPbc	04 35 42.6	-0.7
GERES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
GERES	GERESS Array B	148.14	345	PKPbc	PKPbc	04 35 42.6	-0.7
	comp=Z,4.6nm,0.7s,baz=25,slow=3.1,SNR=38						
GIVF	Givet	148.24	357	ePKP1	PKPbc	04 35 42.4	-1.1
DOU	Dourbes	148.26	357	PKPbc	PKPbc	04 35 42.9	-0.7
BZS	Buzias	148.31	333	PKIKP	PKPbc	04 35 43.6	-0.3
BZS	Buzias	148.31	333	⇑iP	PKPbc	04 35 43.4	-0.5
BAIF	Baives	148.32	357	ePKP1	PKPbc	04 35 42.7	-1.0
CONA	Conrad Observa	148.41	342	⇓iPKPbc	PKPbc	04 35 43.7	-0.3
	comp=Z,37nm,1.3s						
CSNA	Conrad Observa	148.41	342	⇓iPKPbc	PKPbc	04 35 43.7	-0.4
	comp=Z,32nm,1.3s						
SOP	Sopron	148.42	341	⇓ePKP	PKPbc	04 35 43.7	-0.3
GDZ	Gediz	148.48	317	i P	PKPbc	04 35 43.0	-1.4
DURS	Dursunbey	148.84	318	i P	PKPbc	04 35 44.5	-0.9
KHAL	Karahalli	148.86	316	i P	PKPbc	04 35 44.3	-1.2
STU	Stuttgart	149.10	351	ePKPbc	PKPbc	04 35 45.5	-0.2
BALY	Balya	149.29	319	i P	PKPbc	04 35 45.4	-1.1
FUR	Furstenfeldbru	149.32	348	ePKPbc	PKPbc	04 35 44.4	-1.8
RJOB	Jochberg	149.40	346	ePKPbc	PKPbc	04 35 45.6	-0.8
MANT	Manisa	149.41	316	i P	PKPbc	04 35 46.1	-0.7
FLN	La Foliniere	149.59	3	ePKP1	PKPbc	04 35 45.3	-1.6
	comp=Z,12nm,0.7s						
KOGS	Kog	149.62	340	ePKPbc	PKPbc	04 35 45.9	-1.1
BFO	Black Forest	149.66	352	ePKPbc	PKPbc	04 35 46.5	-0.5
BFO				epPKPbc	pPKPbc	04 37 47.0	+4.3
AKHS	Akhisar	149.67	318	i P	PKPbc	04 35 46.4	-1.0
CDF	Champ du Feu	149.71	353	ePKP1	PKPbc	04 35 46.1	-1.1
ROSF	Rostrenen	149.78	7	ePKP1	PKPbc	04 35 45.5	-1.8
LDF	La Druitiere	149.78	3	ePKP1	PKPbc	04 35 45.7	-1.6
	comp=Z,5.3nm,0.6s						
SOKA	Soboth	149.78	342	⇓iPKPbc	PKPbc	04 35 46.1	-1.2
	comp=Z,22nm,1.5s						
PERS	Pernice	149.80	342	i PKPbc	PKPbc	04 35 46.6	-0.8
MEZF	Maizieres J’vi	149.82	356	ePKP1	PKPbc	04 35 46.5	-0.9
AKAS	Kas	149.87	312	i P	PKPbc	04 35 46.7	-1.2
KBA	Koelnbreinsper	149.88	345	⇑iPKPbc	PKPbc	04 35 46.5	-1.1
	comp=Z,14nm,1.1s						
SGMF	Saint Gilles	149.94	6	ePKP1	PKPbc	04 35 46.0	-1.7
	comp=Z,17nm,0.9s						

GRR	**Gorron**	**149.94**	**4**	*e*PKP1	PKPbc	04 35 46.3	-1.4
	comp=Z,8.7nm,0.6s						
WTTA	**Wattenberg**	**150.10**	**347**	⇓*i*PKPbc	PKPbc	04 35 47.4	-0.7
	comp=Z,20nm,0.9s						
AYVA	**Ayvalik**	**150.13**	**319**	*i* P	PKPbc	04 35 47.6	-0.9
HAU	**Haudompre**	**150.21**	**354**	*e*PKP1	PKPbc	04 35 47.1	-1.2
TURN	**Turunc**	**150.25**	**314**	*i* P	PKPbc	04 35 48.6	-0.2
AYDN	**Tasoluk**	**150.31**	**316**	*i* P	PKPbc	04 35 48.8	-0.2
HINF	**Hinteralfeld**	**150.35**	**353**	*e*PKP1	PKPbc	04 35 47.3	-1.4
	comp=Z,8.8nm,0.8s						
LJU	**Ljubljana**	**150.50**	**342**	*i* PKPbc	PKPbc	04 35 48.6	-0.5
FETA	**Feichten**	**150.52**	**348**	⇑*i*PKPdf	PKPdf	04 35 42.6	-0.6
	comp=Z,13nm,0.9s						
CADS	**Cadrg**	**150.56**	**343**	*i* PKPbc	PKPbc	04 35 47.9	-1.3
GCAM	**G?zelcaml?**	**150.72**	**316**	*i* P	PKPbc	04 35 49.1	-0.8
BOJS	**Bojanci**	**150.77**	**341**	*e*PKPdf	PKPdf	04 35 43.2	-0.4
BOJS				*i* PKPbc	PKPbc	04 35 49.5	-0.3
BOJS				*e*		04 36 03.8	
BOJS	**Bojanci**	**150.77**	**341**	*e*PKPdf	PKPdf	04 35 43.2	-0.4
BOJS				*i* PKPbc	PKPbc	04 35 49.5	-0.3
BDRM	**Kayabasi**	**150.93**	**315**	*i* P	PKPbc	04 35 49.3	-1.1
LOR	**Lormes**	**151.12**	**357**	*e*PKP1	PKPbc	04 35 49.3	-1.2
	comp=Z,4.9nm,0.5s						
SSF	**Saint Saulge**	**151.34**	**358**	*e*PKP1	PKPbc	04 35 49.8	-1.2
	comp=Z,6.7nm,0.7s						
AVF	**Avril sur Loir**	**151.61**	**358**	*e*PKP1	PKPbc	04 35 50.1	-1.5
CABF	**La Chapelle**	**151.62**	**354**	*e*PKP1	PKPbc	04 35 50.4	-1.2
SMF	**Signal de Mont**	**151.74**	**357**	*e*PKP1	PKPbc	04 35 50.4	-1.5
MFF	**Saint Martin d**	**151.77**	**3**	*e*PKP1	PKPbc	04 35 50.5	-1.4
	comp=Z,4.9nm,0.5s						
BGF	**Bois d'Agland**	**151.86**	**359**	*e*PKP1	PKPbc	04 35 50.9	-1.2
	comp=Z,6.0nm,0.6s						
TCF	**Toulx Ste Croi**	**152.14**	**360**	*e*PKP1	PKPbc	04 35 51.3	-1.5
	comp=Z,6.4nm,0.8s						
LPL	**La Plagne**	**152.63**	**353**	*e*PKP1	PKPbc	04 35 53.1	-0.8
LPG	**La Plagne**	**152.65**	**353**	*e*PKP1	PKPbc	04 35 53.5	-0.4
RJF	**Les Rejaudoux**	**153.12**	**1**	*e*PKP1	PKPbc	04 35 53.5	-1.4
	comp=Z,5.1nm,0.7s						
ORIF	**Oris-en-Rattie**	**153.31**	**354**	*e*PKP1	PKPbc	04 35 53.5	-1.9
MBDF	**Montbardon**	**153.40**	**352**	*e*PKP1	PKPbc	04 35 53.9	-1.7
	comp=Z,7.4nm,0.7s						
LFF	**La Frestale**	**153.46**	**2**	*e*PKP1	PKPbc	04 35 53.5	-2.2
CAF	**Calviac**	**153.50**	**360**	*e*PKP1	PKPbc	04 35 53.1	-2.7
LIC	**Lamto**	**166.12**	**149**	*e*PKIKP	PKPdf	04 36 00.9	-1.7
	comp=Z,39nm,1.2s						
LIC	**Lamto**	**166.12**	**149**	*e*PKIKP	PKPdf	04 36 01.0	-1.6
	comp=Z,44nm,1.2s						
KIC	**Kosan Boka**	**166.38**	**150**	*e*PKIKP	PKPdf	04 36 01.2	-1.6
	comp=Z,161nm,1.6s						
TIC	**Toumodi**	**166.49**	**149**	*e*PKIKP	PKPdf	04 36 01.1	-1.8
	comp=Z,38nm,1.0s						
DBIC	**Dimbokro**	**166.59**	**149**	PKIKP	PKPdf	04 36 00.5	-2.5
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
DBIC	**Dimbokro**	**166.59**	**149**	PKP	PKPdf	04 36 00.5	-2.5
	comp=Z,3.5nm,0.8s,baz=123,slow=3.6,SNR=6.3						
DBIC				PKPab	PKPab	04 37 07.2	-1.1
	comp=Z,4.0nm,1.0s,baz=23,slow=6.4,SNR=3.1						
DBIC	**Dimbokro**	**166.59**	**149**	PKP	PKPdf	04 36 00.5	-2.5
DBIC				PKPab	PKPab	04 37 07.2	-1.1
TORD	**Torodi Ar. Bea**	**174.82**	**176**	PKP	PKPdf	04 36 05.0	-2.2
	comp=Z,4.5nm,1.0s,baz=340,slow=1.0,SNR=21						
TORD				PKPab	PKPab	04 37 43.6	-1.1
	comp=Z,2.3nm,0.7s,baz=184,slow=3.6,SNR=13						
TORD	**Torodi Ar. Bea**	**174.82**	**176**	PKP	PKPdf	04 36 05.0	-2.2
TORD				PKPab	PKPab	04 37 43.6	-1.1

CSEM **21** *04:24:53.9, 36°.30N×21°.75E, h41^{km}, MD2.9*

NEIC **21** *04:24:53.9, 36°.30N×21°.75E, h41^{km}, MD2.9(ATH), After ATH.*

ATH 21 04:24:53.9, 36°.30N×21°.75E, h41^{km}, MD2.9/3**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.89**	**9**	*e*P	Pn	04 25 11.1	+1.2
ITM	**Ithomi**	**0.89**	**9**	*e*P	Pn	04 25 11.1	+1.2
KYTH	**Kithira**	**1.04**	**91**	*e*P	Pn	04 25 13.1	+1.1
KYTH	**Kithira**	**1.04**	**91**	*e*P	Pn	04 25 13.1	+1.1
VLI	**Veliai**	**1.04**	**66**	*e*P	Pn	04 25 14.3	+2.3
VLI				*e*S	Sn	04 25 27.7	+2.3
VLI	**Veliai**	**1.04**	**66**	*e*P	Pn	04 25 14.3	+2.3
VLI				*e*S	Sn	04 25 27.7	+2.3

ISCJB **21** *04:27:12.8±1.1, 77°.34N±0°.05×19°.9E±0°.3, h9^{km}±10^{km}, Error ellipse: s-maj=12.6km s-min=7.0km az=154.7*

CSEM **21** *04:27:13.9±0.6, 77°.04N×17°.56E, h18^{km}±4^{km}, ML3.1, Error ellipse: s-maj=17.2km s-min=6.5km az=43.0*

NAO **21** *04:27:16.9±2.8, 77°.38N×18°.99E, h15^{km}±24^{km}, ML3.1*

BER **21** *04:27:19.2±2.6, 77°.43N×19°.35E, h23^{km}±15^{km}, MD2.0, ML3.2, ML3.1(NAO)*

ISC 21 04:27:15.8±0.8**, 77°.37N**±0°.04×**19°.2E**±0°.2**, h14**^{km}±8^{km}**, n14,** σ1^{s}**10**/20**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	**Hornsund**	**0.89**	**248**	*e*P	**Pb**	**04 27 34.2**	**+1.4**
HSP				*e*S	**Sb**	**04 27 45.4**	**+0.9**
SPA0	**Spitsbergen Ar**	**1.01**	**325**	Pg	**Pg**	**04 27 36.4**	**+1.1**
	baz=144,slow=18						
SPA0				Lg		04 27 48.5	
	baz=130,slow=28						
SPA0	**Spitsbergen Ar**	**1.01**	**325**	Pg	**Pg**	**04 27 36.4**	**+1.1**
	baz=144,slow=18,SNR=6.0						
SPA0				Lg		04 27 48.5	
	baz=130,slow=24						
HOPEN	**Hopen**	**1.58**	**120**	*e*P	**Pn**	**04 27 44.1**	**+0.9**
HOPEN				*e*Sg	**Sg**	**04 28 07.2**	**+0.7**
HOPEN				AML	AML	04 28 09.0	
	comp=Z,610nm,0.4s						
HOPEN	**Hopen**	**1.58**	**120**	*e*P	**Pn**	**04 27 44.1**	**+0.9**
	SNR=55						
KBS	**Kingsbay**	**2.17**	**320**	Pn	**Pn**	**04 27 50.1**	**-1.2**
KBS				Pg	**Pg**	**04 27 57.3**	**+0.1**
KBS				Lg		04 28 23.3	
KBS	**Kingsbay**	**2.17**	**320**	*e*Sg	**Sg**	**04 28 24.0**	**-1.3**
KBS				AML	AML	04 28 36.0	
	comp=Z,235nm,0.4s						
KBS	**Kingsbay**	**2.17**	**320**	Pn	**Pn**	**04 27 50.1**	**-1.2**
KBS	**Kingsbay**	**2.17**	**320**	Pg	**Pg**	**04 27 57.3**	**+0.1**
KBS				*e*Sg	**Sg**	**04 28 24.0**	**-1.3**
	comp=Z,235nm,0.4s,SNR=93						
BJO	**Bjornoya**	**2.88**	**180**	*e*	**Pg**	**04 28 11.2**	**+0.3**
BJO				*e*Sg	**Sg**	**04 28 46.4**	**-1.7**
BJO				AML	AML	04 28 54.7	
	comp=Z,162nm,0.4s						
KEV	**Kevo**	**7.96**	**160**	*e*p	**Pn**	**04 29 11.2**	**+0.5**
	comp=Z,12nm,0.9s						
ARA0	**ARCESS Array S**	**8.07**	**164**	Pn	**Pn**	**04 29 12.2**	**0.0**
	baz=353,slow=12						
ARA0				Sn	**Sn**	**04 30 35.5**	**-7.5**
	baz=358,slow=22						
ARA0	**ARCESS Array S**	**8.07**	**164**	Sn	**Sn**	**04 30 35.5**	**-7.6**
	baz=358,slow=20,SNR=8.3						
JOF	**Joensuu**	**15.03**	**158**	*e*p	**Pn**	**04 30 44.9**	**-2.4**

IDC 21 04:53:02.0±3.0**, 33°.62S×179°.84E, h0**^{km}**, mb4.0**/4**, mb1 4.2**/5**, mb1mx4.0**/18**, mbtmp4.1**/5**, ML4.3**/1**, Error ellipse: s-maj=58.6km s-min=35.6km az=92.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**5.13**	**205**	Pn	Pn	04 54 19.2	-0.8
	12nm,0.3s,baz=323,slow=5.1,SNR=52						
URZ				Sn	Sn	04 55 23.5	+3.5
	4.5nm,0.3s,baz=152,slow=20,SNR=11						
CTA	**Charters Tower**	**32.70**	**286**	P	P	04 59 36.4	+0.2
	1.7nm,0.5s,baz=96,slow=9.2,SNR=2.4						
ASAR	**Alice Springs**	**41.23**	**272**	P	P	05 00 49.2	+0.4
	0.6nm,0.6s,baz=113,slow=7.3,SNR=11						
WRA	**Warramunga Arr**	**42.52**	**277**	P	P	05 00 59.6	+0.3
	1.0nm,0.5s,baz=118,slow=7.2,SNR=26						
FITZ	**Fitzroy Crossi**	**50.62**	**274**	P	P	05 02 01.5	-1.5
	3.6nm,1.0s,baz=162,slow=3.2,SNR=3.3						
MKAR	**Makanchi Array**	**118.41**	**309**	PKP	PKPdf	05 11 51.4	+0.3
	0.1nm,0.5s,baz=108,slow=1.9,SNR=2.6						

SKO **21** *04:55:03.9, 43°.93N×20°.40E, h0^{km}*

CSEM **21** *04:55:04.6±0.1, 43°.91N×20°.37E, h2^{km}, ML3.4, Error ellipse: s-maj=2.2km s-min=1.8km az=103.0*

PDG **21** *04:55:04.8±0.4, 43°.91N×20°.38E, h13^{km}, MD3.2/4, ML3.3/10, Error ellipse: s-maj=0.5km s-min=0.8km az=0.0*

ISCJB **21** *04:55:04.0±0.3, 43°.95N±0°.01×20°.37E±0°.02, h8^{km}±2^{km}, Error ellipse: s-maj=2.4km s-min=2.0km az=32.2*

NEIC **21** *04:55:04.8, 43°.91N×20°.38E, h13^{km}, ML3.2(BUC), ML3.3(PDG), After PDG.*

PRU **21** *04:55:04.6, 43°.90N×20°.39E, h0^{km}*

BEO **21** *04:55:05.1±0.2, 43°.88N×20°.36E, h9^{km}±2^{km}, ML3.4/17*

ISC 21 04:55:05.0±0.3**, 43°.92N**±0°.01×**20°.38E**±0°.02**, h6**^{km}±2^{km}**, n160,** σ1^{s}**12**/263**, 39C-45D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRUS	**Gruza**	**0.24**	**98**	⇑*i*Pg	**Pg**	**04 55 09.7**	**-0.1**
GRUS				*e*Sg	**Sg**	**04 55 14.4**	**+1.3**
GRUS	**Gruza**	**0.24**	**98**	⇑*i*Pg	**Pg**	**04 55 09.7**	**-0.1**
GRUS				*e*Sg	**Sg**	**04 55 14.4**	**+1.3**
TRUS	**Trudelj**	**0.30**	**4**	⇑*i*Pg	**Pg**	**04 55 11.2**	**+0.3**
TRUS				*e*Sg	**Sg**	**04 55 16.8**	**+2.0**
TRUS	**Trudelj**	**0.30**	**4**	⇑*i*Pg	**Pg**	**04 55 11.2**	**+0.3**
SVIS	**Svilajnac**	**0.69**	**60**	⇑*i*Pg	**Pg**	**04 55 19.3**	**+1.0**
SVIS				*e*Sg	**Sg**	**04 55 30.2**	**+2.9**
BBLS	**Lazići**	**0.71**	**266**	⇓*i*Pg	**Pg**	**04 55 18.2**	**-0.4**
BBLS				*e*Sg	**Sg**	**04 55 28.0**	**+0.2**
BBLS	**Lazići**	**0.71**	**266**	⇓*i*Pg	**Pg**	**04 55 18.2**	**-0.4**
BBLS				*e*Sg	**Sg**	**04 55 28.0**	**+0.2**
SJES	**Sjenica**	**0.73**	**204**	⇑*i*Pg	**Pg**	**04 55 17.4**	**-1.6**
SJES				*e*Sg	**Sg**	**04 55 26.5**	**-1.9**
SJES	**Sjenica**	**0.73**	**204**	⇑*i*Pg	**Pg**	**04 55 17.4**	**-1.6**
BEO	**Beograd**	**0.89**	**4**	*e*Pg	**Pg**	**04 55 22.2**	**+0.1**
BEO				*e*Sg	**Sg**	**04 55 36.6**	**+3.0**
BEO	**Beograd**	**0.89**	**4**	*e*Pg	**Pg**	**04 55 22.2**	**+0.1**
PLE	**Pljevlja**	**0.93**	**231**	⇑*i*Pg	**Pg**	**04 55 21.9**	**-1.0**
PLE				*e*Sg	**Sg**	**04 55 36.3**	**+1.4**
PLE	**Pljevlja**	**0.93**	**231**	⇑*i*Pg	**Pg**	**04 55 21.9**	**-1.0**
PLE				*e*Sg	**Sg**	**04 55 36.3**	**+1.4**
BEY	**Berane**	**1.11**	**199**	⇓*i*Pg	**Pg**	**04 55 24.9**	**-1.4**
BEY				*e*Sg	**Sg**	**04 55 41.9**	**+1.2**
IVA	**Berane**	**1.11**	**199**	⇓*i*Pg	**Pg**	**04 55 24.9**	**-1.4**
IVA				*e*Sg	**Sg**	**04 55 41.9**	**+1.2**
IVA	**Berane**	**1.11**	**199**	⇓*i*Pg	**Pg**	**04 55 24.9**	**-1.4**
IVA				*e*Sg	**Sg**	**04 55 41.9**	**+1.2**
BOLS	**Boljevac**	**1.14**	**94**	⇓*i*Pg	**Pg**	**04 55 26.2**	**-0.7**
BOLS				*e*Sg	**Sg**	**04 55 42.8**	**+1.1**
BOLS	**Boljevac**	**1.14**	**94**	⇓*i*Pg	**Pg**	**04 55 26.2**	**-0.7**
BOLS				*e*Sg	**Sg**	**04 55 42.8**	**+1.1**
NISS		**1.25**	**114**	*e*Pg	**Pg**	**04 55 28.1**	**-0.9**
NISS				*e*Sg	**Sg**	**04 55 44.3**	**-0.9**
UPM	**Unac-Piva**	**1.29**	**236**	⇓*i*Pg	**Pg**	**04 55 28.6**	**-1.2**
UPM				*e*Sg	**Sg**	**04 55 48.4**	**+1.9**
UPM	**Unac-Piva**	**1.29**	**236**	⇓*i*Pg	**Pg**	**04 55 28.6**	**-1.2**
UPM				*e*Sg	**Sg**	**04 55 48.4**	**+1.9**
FGSL	**Fruska Gora**	**1.30**	**342**	*e*Pg	**Pg**	**04 55 30.0**	**+0.1**
FGSL				*e*Sg	**Sg**	**04 55 46.8**	**0.0**
FRGS	**Fruska Gora**	**1.30**	**342**	*e*Pg	**Pg**	**04 55 30.0**	**+0.1**
FRGS				*e*Sg	**Sg**	**04 55 46.8**	**0.0**
PVY	**Plav**	**1.36**	**193**	⇓*i*Pg	**Pg**	**04 55 29.5**	**-1.6**
PVY				*e*Sg	**Sg**	**04 55 50.4**	**+1.6**
PVY	**Plav**	**1.36**	**193**	⇓*i*Pg	**Pg**	**04 55 29.5**	**-1.6**
PVY				*e*Sg	**Sg**	**04 55 50.4**	**+1.6**
NKY	**Niksic**	**1.50**	**223**	⇑*i*Pg	**Pg**	**04 55 31.8**	**-2.0**
NKY				*e*Sg	**Sg**	**04 55 54.0**	**+0.8**
NKY	**Niksic**	**1.50**	**223**	⇑*i*Pg	**Pg**	**04 55 31.8**	**-2.0**
NKY				*e*Sg	**Sg**	**04 55 54.0**	**+0.8**
BARS	**Barje**	**1.52**	**136**	*e*Pg	**Pg**	**04 55 32.6**	**-1.6**
BARS				*e*Sg	**Sg**	**04 55 52.4**	**-1.6**
BARS	**Barje**	**1.52**	**136**	*e*Pg	**Pg**	**04 55 32.6**	**-1.6**
BARS				*e*Sg	**Sg**	**04 55 52.4**	**-1.6**
BRY	**Bratogost**	**1.69**	**233**	⇑*i*Pn	**Pn**	**04 55 35.1**	**+0.1**
BRY				*e*Sn	**Sn**	**04 55 58.5**	**+1.5**
BRY	**Bratogost**	**1.69**	**233**	⇑*i*Pn	**Pn**	**04 55 35.1**	**+0.1**
BRY				*e*Sn	**Sn**	**04 55 58.5**	**+1.5**
PDG	**Podgorica**	**1.70**	**209**	⇓*i*Pn	**Pn**	**04 55 34.4**	**-0.9**
PDG				*e*Sn	**Sn**	**04 55 58.8**	**+1.4**
TTG	**Podgorica**	**1.70**	**209**	⇓*i*Pn	**Pn**	**04 55 34.4**	**-0.9**
TTG				*e*Sn	**Sn**	**04 55 58.8**	**+1.4**
TTG	**Podgorica**	**1.70**	**209**	⇓*i*Pn	**Pn**	**04 55 34.4**	**-0.9**
TTG				*e*Sn	**Sn**	**04 55 58.8**	**+1.4**
DJES	**Djerdap**	**1.71**	**63**	*e*Pg	**Pg**	**04 55 36.7**	**-1.0**
DJES				*e*Sg	**Sg**	**04 56 00.2**	**+0.4**
DJES	**Djerdap**	**1.71**	**63**	*e*Pg	**Pg**	**04 55 36.7**	**-1.0**
DJES				*e*Sg	**Sg**	**04 56 00.2**	**+0.4**
ZAPS	**Zavoj**	**1.76**	**111**	⇓*i*Pg	**Pg**	**04 55 35.7**	**-3.1**
ZAPS				*e*Sn	**Sn**	**04 55 58.2**	**-0.6**
BZS	**Buzias**	**1.91**	**27**	⇓*i*Pn	**Pn**	**04 55 37.5**	**-0.6**
BZS				*e*Sn	**Sn**	**04 56 01.3**	**-1.2**
BZS	**Buzias**	**1.91**	**27**	⇓*i*P	**Pn**	**04 55 37.6**	**-0.5**
BZS	**Buzias**	**1.91**	**27**	S	**Sn**	**04 56 01.6**	**-0.9**
BZS	**Buzias**	**1.91**	**27**	⇓P	**Pn**	**04 55 37.6**	**-0.5**
BZS				S	**Sn**	**04 56 01.6**	**-0.8**
BZS	**Buzias**	**1.91**	**27**	⇓*i*Pn	**Pn**	**04 55 37.5**	**-0.6**
BZS				*e*Sn	**Sn**	**04 56 01.3**	**-1.2**
BUM	**Brajici-Budva**	**1.95**	**214**	⇓*i*Pn	**Pn**	**04 55 38.6**	**-0.1**
BUM				*e*Sn	**Sn**	**04 56 05.2**	**+1.6**
BUM	**Brajici-Budva**	**1.95**	**214**	⇓*i*Pn	**Pn**	**04 55 38.6**	**-0.1**
BUM				*e*Sn	**Sn**	**04 56 05.2**	**+1.6**
HCY	**Herceg Novi**	**2.02**	**224**	*e*Pn	**Pn**	**04 55 39.8**	**+0.2**
HCY				*e*Sn	**Sn**	**04 56 06.6**	**+1.4**
HCY	**Herceg Novi**	**2.02**	**224**	*e*Pn	**Pn**	**04 55 39.8**	**+0.2**
HCY				*e*Sn	**Sn**	**04 56 06.6**	**+1.4**
SKO	**Skopje**	**2.10**	**158**	*e*Pn	**Pn**	**04 55 41.2**	**+0.4**
SKO	**Skopje**	**2.10**	**158**	*e*Pn	**Pn**	**04 55 40.7**	**-0.1**
SKO	**Skopje**	**2.10**	**158**	*e*Pn	**Pn**	**04 55 41.2**	**+0.4**
ULC	**Ulcinj**	**2.13**	**203**	⇑*i*Pn	**Pn**	**04 55 41.1**	**-0.1**
ULC				*e*Sn	**Sn**	**04 56 09.1**	**+1.2**
ULC	**Ulcinj**	**2.13**	**203**	⇑*i*Pn	**Pn**	**04 55 41.1**	**-0.1**
ULC				*e*Sn	**Sn**	**04 56 09.1**	**+1.2**
STON	**Ston**	**2.22**	**243**	*e*Pn	**Pn**	**04 55 43.1**	**+0.7**
STON				Sn	**Sn**	**04 56 12.4**	**+2.2**
STON	**Ston**	**2.22**	**243**	*e*Pn	**Pn**	**04 55 43.0**	**+0.6**
STON				Sn	**Sn**	**04 56 12.3**	**+2.2**
GZR	**Gura Zlata**	**2.25**	**49**	⇓*i*P	**Pn**	**04 55 42.7**	**-0.2**
GZR	**Gura Zlata**	**2.25**	**49**	⇓P	**Pn**	**04 55 42.7**	**-0.2**
GZR				S	**Sn**	**04 56 10.8**	**-0.2**
GZR	**Gura Zlata**	**2.25**	**49**	⇓P	**Pn**	**04 55 42.7**	**-0.2**
GZR				S	**Sn**	**04 56 10.8**	**-0.2**
BLY	**Banja Luka**	**2.44**	**291**	*e*Pn	**Pn**	**04 55 46.2**	**+0.8**
BLY	**Banja Luka**	**2.44**	**291**	*e*Pn	**Pn**	**04 55 46.2**	**+0.8**
RHK3	**Tenkes**	**2.48**	**323**	*e*Pn	**Pn**	**04 55 45.6**	**-0.4**
PKSM	**Moragy**	**2.60**	**332**	⇑*i*Pn	**Pn**	**04 55 47.0**	**-0.6**
PKSM	**Moragy**	**2.60**	**332**	⇑*i*Pn	**Pn**	**04 55 47.0**	**-0.6**
TIR	**Tirane**	**2.60**	**189**	*e*Pn	**Pn**	**04 55 47.7**	**0.0**
TIR	**Tirane**	**2.60**	**189**	*e*Pn	**Pn**	**04 55 47.7**	**0.0**
KRUS	**Krusevo**	**2.63**	**166**	*e*Pn	**Pn**	**04 55 47.1**	**-1.0**
KRUS	**Krusevo**	**2.63**	**166**	*e*Pn	**Pn**	**04 55 47.1**	**-1.0**
DEV	**Deva**	**2.66**	**42**	⇑*i*P	**Pn**	**04 55 49.3**	**+0.9**
DEV	**Deva**	**2.66**	**42**	⇑P	**Pn**	**04 55 49.3**	**+0.9**
DEV	**Deva**	**2.66**	**42**	⇑P	**Pn**	**04 55 49.3**	**+0.9**
OHR	**Ohrid**	**2.83**	**174**	*e*Pn	**Pn**	**04 55 50.3**	**-0.5**
OHR				*e*Sg	**Sg**	**04 56 33.9**	**-2.0**
OHR	**Ohrid**	**2.83**	**174**	*e*Pn	**Pn**	**04 55 50.3**	**-0.5**
OHR				*e*Sg	**Sg**	**04 56 33.8**	**-2.1**
BIA	**Bitola**	**2.99**	**166**	*e*Pn	**Pn**	**04 55 52.7**	**-0.2**
BIA	**Bitola**	**2.99**	**166**	*e*Pn	**Pn**	**04 55 52.7**	**-0.2**
PKS9	**Tamasi**	**3.05**	**332**	⇑Pn	**Pn**	**04 55 53.7**	**-0.1**
VAY	**Valandovo**	**3.06**	**147**	*e*Pn	**Pn**	**04 55 53.1**	**-0.9**
VAY	**Valandovo**	**3.06**	**147**	*e*Pn	**Pn**	**04 55 53.1**	**-0.9**
DRGR		**3.30**	**29**	⇓*i*P	**Pn**	**04 55 57.5**	**+0.2**
DRGR		**3.30**	**29**	⇓P	**Pn**	**04 55 57.5**	**+0.1**
DRGR				S	**Sn**	**04 56 34.3**	**-2.6**
DRGR		**3.30**	**29**	⇓P	**Pn**	**04 55 57.5**	**+0.2**
DRGR				S	**Sn**	**04 56 34.3**	**-2.6**
BEHE	**Becsehely**	**3.60**	**316**	*e*Sn	**Sn**	**04 56 46.5**	**+2.3**
VOIR		**3.66**	**64**	⇓*i*P	**Pn**	**04 56 03.7**	**+1.5**
VOIR		**3.66**	**64**	⇓P	**Pn**	**04 56 03.7**	**+1.5**
VOIR				S	**Sn**	**04 56 46.9**	**+1.3**
VOIR		**3.66**	**64**	⇓P	**Pn**	**04 56 03.7**	**+1.5**
VOIR				S	**Sn**	**04 56 46.9**	**+1.3**
BUD	**Budapest**	**3.68**	**346**	⇓*e*Pn	**Pn**	**04 56 02.7**	**+0.2**
BUD				*e*Sn	**Sn**	**04 56 47.0**	**+0.7**
BUD	**Budapest**	**3.68**	**346**	⇓*e*Pn	**Pn**	**04 56 02.7**	**+0.2**
BUD				*e*Sn	**Sn**	**04 56 47.0**	**+0.7**
PKSG		**3.74**	**339**	⇓*e*Pn	**Pn**	**04 56 03.4**	**+0.1**
PKSG				*e*Sn	**Sn**	**04 56 48.1**	**+0.5**
KOGS	**Kog**	**3.86**	**312**	*i* Pn	**Pn**	**04 56 04.8**	**-0.1**
KOGS	**Kog**	**3.86**	**312**	*i* Pn	**Pn**	**04 56 04.8**	**-0.1**
GOLS	**Golise**	**3.97**	**303**	*i* Pn	**Pn**	**04 56 06.7**	**+0.3**
GOLS				*i* Sn	**Sn**	**04 56 51.9**	**-1.4**
GOLS	**Golise**	**3.97**	**303**	*i* Pn	**Pn**	**04 56 06.7**	**+0.3**
GOLS				*i* Sn	**Sn**	**04 56 51.9**	**-1.4**
PSZ	**Piszkesteto**	**4.01**	**355**	⇑*i*P	**Pn**	**04 56 06.6**	**-0.4**
PSZ	**Piszkesteto**	**4.01**	**355**	S	**Sn**	**04 56 50.2**	**-4.1**
PSZ	**Piszkesteto**	**4.01**	**355**	⇑*e*Pn	**Pn**	**04 56 06.7**	**-0.3**
PSZ				*e*Sn	**Sn**	**04 56 52.7**	**-1.6**
PSZ	**Piszkesteto**	**4.01**	**355**	*e*Pn	**Pn**	**04 56 06.6**	**-0.4**
PSZ				S	**Sn**	**04 56 50.2**	**-4.0**
PSZ	**Piszkesteto**	**4.01**	**355**	*e*Pn	**Pn**	**04 56 06.6**	**-0.4**
PSZ				*e*Sn	**Sn**	**04 56 52.7**	**-1.6**
NVLJ	**Novalja**	**4.01**	**281**	*e*Pn	**Pn**	**04 56 07.8**	**+0.8**
NVLJ				Sn	**Sn**	**04 56 56.2**	**+1.9**
NVLJ	**Novalja**	**4.01**	**281**	*e*Pn	**Pn**	**04 56 07.7**	**+0.7**
NVLJ				Sn	**Sn**	**04 56 56.1**	**+1.8**
CESS	**Cesta pri Krsk**	**4.05**	**302**	*i* Pn	**Pn**	**04 56 08.3**	**+0.8**
CESS				*i* Sn	**Sn**	**04 56 54.0**	**-1.3**
CESS	**Cesta pri Krsk**	**4.05**	**302**	*i* Pn	**Pn**	**04 56 08.3**	**+0.8**
CESS				*i* Sn	**Sn**	**04 56 54.0**	**-1.2**
MLR	**Muntele Rosu**	**4.26**	**67**	⇓*i*P	**Pn**	**04 56 12.5**	**+2.0**
MLR	**Muntele Rosu**	**4.26**	**67**	⇓P	**Pn**	**04 56 12.5**	**+2.0**
MLR	**Muntele Rosu**	**4.26**	**67**	⇓P	**Pn**	**04 56 12.5**	**+2.0**
GROS	**Grobnik**	**4.28**	**308**	*i* Pn	**Pn**	**04 56 10.5**	**-0.2**
GROS				*i* Sn	**Sn**	**04 56 58.2**	**-2.8**
GROS	**Grobnik**	**4.28**	**308**	*i* Pn	**Pn**	**04 56 10.5**	**-0.2**
GROS				*i* Sn	**Sn**	**04 56 58.2**	**-2.8**
VISS	**Visnje**	**4.36**	**297**	*i* Pn	**Pn**	**04 56 12.8**	**+1.0**
VISS				*i* Sn	**Sn**	**04 57 02.4**	**-0.7**
VISS	**Visnje**	**4.36**	**297**	*i* Pn	**Pn**	**04 56 12.9**	**+1.0**
VISS				*i* Sn	**Sn**	**04 57 02.3**	**-0.7**
TRPA	**Tarpa**	**4.47**	**19**	⇓*e*Pn	**Pn**	**04 56 13.2**	**-0.1**
KECS	**Kecovo**	**4.56**	**1**	*e*PN	**Pn**	**04 56 15.4**	**+0.8**
KECS				*e*SN	**Sn**	**04 57 05.6**	**-2.3**
KECS	**Kecovo**	**4.56**	**1**	*e*Pn	**Pn**	**04 56 15.4**	**+0.8**
KECS				*e*Sn	**Sn**	**04 57 05.6**	**-2.3**
SOP	**Sopron**	**4.61**	**326**	⇓*e*Pn	**Pn**	**04 56 15.3**	**0.0**
SOP	**Sopron**	**4.61**	**326**	⇓*e*Pn	**Pn**	**04 56 15.3**	**0.0**
SOKA	**Soboth**	**4.67**	**308**	⇑*i*Pn	**Pn**	**04 56 15.9**	**-0.2**
SOKA				⇑*i*Sn	**Sn**	**04 57 07.6**	**-2.9**
VYHS	**Vyhne**	**4.70**	**347**	*e*PN	**Pn**	**04 56 16.8**	**+0.4**
VYHS				*e*SN	**Sn**	**04 57 10.0**	**-1.2**
VYHS	**Vyhne**	**4.70**	**347**	*e*Pn	**Pn**	**04 56 16.8**	**+0.4**
VYHS				*e*Sn	**Sn**	**04 57 10.0**	**-1.2**
ARSA	**Arzberg**	**4.76**	**316**	⇑*i*Pn	**Pn**	**04 56 17.2**	**-0.2**
ARSA				⇑*i*Sn	**Sn**	**04 57 10.9**	**-1.9**
ARSA	**Arzberg**	**4.76**	**316**	⇑*i*Pn	**Pn**	**04 56 17.3**	**0.0**
ARSA	**Arzberg**	**4.76**	**316**	⇑*i*Pn	**Pn**	**04 56 17.3**	**0.0**
ARSA				Sn	**Sn**	**04 57 10.9**	**-2.0**
ZST	**Bratislava**	**4.84**	**333**	*e*PN	**Pn**	**04 56 18.8**	**+0.4**
ZST				*e*SN	**Sn**	**04 57 14.0**	**-0.8**
ZST	**Bratislava**	**4.84**	**333**	*e*Pn	**Pn**	**04 56 18.8**	**+0.4**
ZST				*e*Sn	**Sn**	**04 57 14.0**	**-0.8**
KOLL	**Kolacno**	**4.85**	**344**	*e*PN	**Pn**	**04 56 18.3**	**-0.3**
KOLL				*e*SN	**Sn**	**04 57 10.6**	**-4.5**
KOLL	**Kolacno**	**4.85**	**344**	*e*Pn	**Pn**	**04 56 18.3**	**-0.3**
KOLL				*e*Sn	**Sn**	**04 57 10.6**	**-4.5**
OBKA	**Obir**	**4.86**	**304**	⇑*i*Pn	**Pn**	**04 56 18.9**	**+0.2**
OBKA				⇓*i*Sn	**Sn**	**04 57 14.0**	**-1.3**
VRI	**Vrincioaia**	**4.91**	**64**	⇑*i*P	**Pn**	**04 56 20.4**	**+1.0**
VRI	**Vrincioaia**	**4.91**	**64**	⇑P	**Pn**	**04 56 20.4**	**+1.0**
VRI	**Vrincioaia**	**4.91**	**64**	⇑P	**Pn**	**04 56 20.4**	**+1.0**
MODS	**Modra-Piesok**	**4.95**	**335**	*e*PN	**Pn**	**04 56 20.6**	**+0.8**
MODS				*e*SN	**Sn**	**04 57 13.6**	**-3.7**
MODS	**Modra-Piesok**	**4.95**	**335**	*e*Pn	**Pn**	**04 56 20.6**	**+0.8**
MODS				*e*Sn	**Sn**	**04 57 13.6**	**-3.7**
BURAR	**Bucovina Array**	**5.01**	**41**	⇓*i*P	**Pn**	**04 56 22.2**	**+1.5**
BURAR	**Bucovina Array**	**5.01**	**41**	⇓P	**Pn**	**04 56 22.2**	**+1.5**
BURAR	**Bucovina Array**	**5.01**	**41**	⇓P	**Pn**	**04 56 22.2**	**+1.5**
BUR08	**Bucovina Ar. S**	**5.02**	**40**	*e*Pn	**Pn**	**04 56 21.7**	**+0.8**
BUR08	**Bucovina Ar. S**	**5.02**	**40**	*e*Pn	**Pn**	**04 56 21.7**	**+0.8**
SMOL	**Smolenice**	**5.03**	**337**	*e*PN	**Pn**	**04 56 21.7**	**+0.7**
SMOL				*e*SN	**Sn**	**04 57 17.9**	**-1.4**
SMOL	**Smolenice**	**5.03**	**337**	*e*Pn	**Pn**	**04 56 21.7**	**+0.7**
SMOL				*e*Sn	**Sn**	**04 57 17.9**	**-1.4**
CRVS	**Cervenica-Dubn**	**5.04**	**8**	*e*PN	**Pn**	**04 56 21.6**	**+0.5**
CRVS				*e*SN	**Sn**	**04 57 19.1**	**-0.5**
CRVS	**Cervenica-Dubn**	**5.04**	**8**	*e*Pn	**Pn**	**04 56 21.6**	**+0.5**
CRVS				*e*Sn	**Sn**	**04 57 19.1**	**-0.5**
CONA	**Conrad Observa**	**5.10**	**323**	⇑*i*Pn	**Pn**	**04 56 21.7**	**-0.2**
CONA				⇑*i*Sn	**Sn**	**04 57 20.0**	**-1.1**
CONA	**Conrad Observa**	**5.10**	**323**	Pn	**Pn**	**04 56 21.7**	**-0.2**
CONA				Sn	**Sn**	**04 57 20.0**	**-1.1**
CSNA	**Conrad Observa**	**5.10**	**323**	⇓*i*Pn	**Pn**	**04 56 21.7**	**-0.2**
CSNA				⇑*i*Sn	**Sn**	**04 57 20.0**	**-1.1**
CSNA	**Conrad Observa**	**5.10**	**323**	Pn	**Pn**	**04 56 21.7**	**-0.2**
CSNA				Sn	**Sn**	**04 57 20.0**	**-1.1**
KOLS	**Kolonicke sedl**	**5.18**	**14**	*e*PN	**Pn**	**04 56 24.4**	**+1.4**
KOLS				*e*PG	**Pg**	**04 56 51.8**	**+7.6**
KOLS				*e*SN	**Sn**	**04 57 20.9**	**-2.2**
KOLS				*e*		04 57 50.9	
KOLS	**Kolonicke sedl**	**5.18**	**14**	*e*Pn	**Pn**	**04 56 24.5**	**+1.4**
KOLS				*e*Pg	**Pg**	**04 56 51.8**	**+7.6**
KOLS				*e*Sn	Sn	04 57 50.9	+28
KOLS	**Kolonicke sedl**	**5.18**	**14**	*e*Pn	**Pn**	**04 56 24.5**	**+1.4**
TIP	**Timpagrande**	**5.46**	**211**	*e*Pn	**Pn**	**04 56 26.4**	**-0.6**
TIP	**Timpagrande**	**5.46**	**211**	*e*Pn	**Pn**	**04 56 26.4**	**-0.6**
STHS	**Stebnicka Huta**	**5.53**	**6**	*e*PN	**Pn**	**04 56 29.1**	**+1.3**
STHS				*e*		04 57 03.9	
STHS	**Stebnicka Huta**	**5.53**	**6**	*e*Pn	**Pn**	**04 56 29.1**	**+1.3**
STHS				*e*Sn	**Sn**	**04 57 33.2**	**+1.5**
STHS	**Stebnicka Huta**	**5.53**	**6**	*e*Pn	**Pn**	**04 56 29.1**	**+1.3**
STHS				*e*Sn	**Sn**	**04 57 33.2**	**+1.5**
MOA	**Molln**	**5.80**	**315**	⇓*i*Pn	**Pn**	**04 56 31.4**	**-0.1**
MOA				⇑*i*Sn	**Sn**	**04 57 37.1**	**-1.2**
MOA	**Molln**	**5.80**	**315**	Pn	**Pn**	**04 56 31.4**	**-0.2**
MOA				Sn	**Sn**	**04 57 37.2**	**-1.2**
TIRR	**Tirgusor**	**5.80**	**82**	⇑*i*P	**Pn**	**04 56 31.0**	**-0.6**
TIRR	**Tirgusor**	**5.80**	**82**	*e*Pn	**Pn**	**04 56 31.0**	**-0.6**
TIRR				*e*Sg	**Sg**	**04 58 06.4**	**-4.8**
VRAC	**Vranov**	**5.98**	**335**	*e*Pn	**Pn**	**04 56 34.7**	**+0.6**
MORC	**Moravsky Berou**	**6.17**	**343**	*e*Pn	**Pn**	**04 56 37.2**	**+0.5**
ABTA	**Abfaltersbach**	**6.22**	**300**	⇑*i*Pn	**Pn**	**04 56 38.5**	**+1.1**
ABTA	**Abfaltersbach**	**6.22**	**300**	Pn	**Pn**	**04 56 38.5**	**+1.1**
DPC	**Dobruska-Polom**	**7.00**	**338**	*e*PN	**Pn**	**04 56 48.9**	**+0.9**
DPC	**Dobruska-Polom**	**7.00**	**338**	Pn	**Pn**	**04 56 48.9**	**+0.9**
KHC	**Kasperske Hory**	**7.01**	**320**	*e*PN	**Pn**	**04 56 48.5**	**+0.3**
KHC				*e*PG	**Pg**	**04 57 16.0**	**-3.2**
KHC				*e*SN	**Sn**	**04 58 08.4**	**+0.3**
KHC	**Kasperske Hory**	**7.01**	**320**	*e*Pn	**Pn**	**04 56 48.2**	**0.0**
KHC				*e*Sn	**Sn**	**04 58 08.4**	**+0.3**
KHC	**Kasperske Hory**	**7.01**	**320**	Pn	**Pn**	**04 56 48.5**	**+0.3**
KHC				Sn	**Sn**	**04 58 08.4**	**+0.3**

IDC **21** *05:00:01.9±0.7, 37°.59N×17°.98E, h0^{km}, mb4.1/15, mb1 4.2/25, mb1mx4.1/35, mbtmp4.1/25, ML4.0/9, MS3.1/3, Ms1 3.1/3, ms1mx2.8/40, Error ellipse: s-maj=14.9km s-min=12.1km az=160.0*

LDG **21** *05:00:04.6±0.9, 38°.25N×18°.37E, h10^{km}, Mb4.5/25, Error ellipse: s-maj=48.5km s-min=7.7km az=19.0*

ROM **21** *05:00:05.4±0.1, 37°.52N×17°.99E, h44^{km}±1^{km}, Ml4.2/61, Error ellipse: s-maj=1.9km s-min=1.5km az=66.0*

INMG **21** *05:00:05.4, 37°.52N×17°.99E, h44^{km}, Mb4.0*

NEIC **21** *05:00:05.4, 37°.52N×17°.99E, h44^{km}, mb4.0/12, After ROM.*

ISCJB **21** *05:00:06.7±0.2, 37°.77N±0°.02×18°.00E±0°.01, h54^{km}±3^{km}, mb4.2/23, Error ellipse: s-maj=2.6km s-min=1.5km az=7.2*

PDG **21** *05:00:07.7±0.3, 38°.14N×17°.30E, h11^{km}±11^{km}, MD4.8/9, ML4.8/9, Error ellipse: s-maj=159.3km s-min=64.8km az=90.0*

SZGRF **21** *05:00:07.8, 38°.07N×18°.93E, h10^{km}, Ionian Sea*

MOS **21** *05:00:07.3±1.0, 37°.82N×17°.93E, h50^{km}, mb4.3/7, Error ellipse: s-maj=5.1km s-min=3.1km az=82.1*

PRU **21** *05:00:07.2, 38°.07N×17°.89E, h0^{km}, M4.0*

CSEM **21** *05:00:08.3±0.1, 37°.76N×17°.92E, h40^{km}, mb4.2/4, ML4.2/5, Error ellipse: s-maj=3.9km s-min=2.2km az=20.0*

THE **21** *05:00:11.8, 37°.76N×18°.37E, h31^{km}±62^{km}, ML5.1/13, Error ellipse: s-maj=62.8km s-min=1.6km az=0.0*

SKO **21** *05:00:22.3, 38°.56N×19°.01E, h10^{km}*

HLW **21** *05:00:26.2, 36°.50N×19°.87E, h33^{km}, Mb4.9*

SOF **22** *05:00:09.6, 37°.83N×18°.35E, h20^{km}, MD3.6*

ISC 21 05:00:08.3±0.2**, 37°.74N**±0°.02×**17°.96E**±0°.01**, h41**^{km}±3^{km}**, n708,** σ1^{s}**20**/907**, mb4.2**/23**, 63C-80D, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLAC	Placanica	1.40	301	⇓iPg	Pn	05 00 31.2	0.0
PLAC				Sg	Sn	05 00 49.4	+1.0
	971nm,0.7s						
PLAC	Placanica	1.40	301	⇓iPg	Pn	05 00 31.2	0.0
PLAC				Sg	Sn	05 00 49.4	+1.0
	971nm,0.7s						
SOI	Samo	1.54	283	Pg	Pn	05 00 32.7	-0.6
SOI				Sg	Sn	05 00 50.9	-1.2
	2µm,0.4s						
SOI	Samo	1.54	283	Pg	Pn	05 00 32.7	-0.6
SOI				Sg	Sn	05 00 50.9	-1.2
	2µm,0.4s						
MPAZ	Palizzi	1.56	278	⇑iPg	Pn	05 00 32.7	-0.8
MPAZ				Sg	Sn	05 00 50.8	-1.7
	5µm,0.5s						
MPAZ	Palizzi	1.56	278	⇑iPg	Pn	05 00 32.7	-0.8
MPAZ				Sg	Sn	05 00 50.8	-1.7
	5µm,0.5s						
GRI	Girifalco	1.62	312	⇓ePg	Pn	05 00 34.6	+0.2
GRI				Sg	Sn	05 00 56.0	+1.9
	3µm,1.0s						
GRI	Girifalco	1.62	312	⇓ePg	Pn	05 00 34.6	+0.2
GRI				Sg	Sn	05 00 56.0	+1.9
	3µm,1.0s						
SERS	Sersale	1.64	323	⇓iPg	Pn	05 00 34.8	+0.3
SERS				Sg	Sn	05 00 55.6	+1.3
	706nm,0.5s						
SERS	Sersale	1.64	323	⇓iPg	Pn	05 00 34.8	+0.3
SERS				Sg	Sn	05 00 55.6	+1.3
	706nm,0.5s						
CEL	Celeste	1.71	288	⇓iPg	Pn	05 00 35.4	-0.2
CEL				Sg	Sn	05 00 55.8	-0.5
	6µm,0.9s						
CEL	Celeste	1.71	288	⇓iPg	Pn	05 00 35.4	-0.2
CEL				Sg	Sn	05 00 55.8	-0.5
	6µm,0.9s						
TIP	Timpagrande	1.72	327	⇓iPg	Pn	05 00 36.1	+0.4
TIP				Sg	Sn	05 00 58.3	+1.9
	833nm,0.9s						
TIP	Timpagrande	1.72	327	⇓iPg	Pn	05 00 36.1	+0.4
TIP				Sg	Sn	05 00 58.3	+1.9
	833nm,0.9s						
MTTG	Motta San Giov	1.81	279	⇑iPg	Pn	05 00 36.1	-0.9
MTTG				Sg	Sn	05 00 56.3	-2.4
	5µm,0.8s						
MTTG	Motta San Giov	1.81	279	⇑iPg	Pn	05 00 36.1	-0.9
MTTG				Sg	Sn	05 00 56.3	-2.4
	5µm,0.8s						
SCLL	Scilla	1.85	287	Pg	Pn	05 00 37.0	-0.4
	372nm,0.4s						
SCLL	Scilla	1.85	287	Pg	Pn	05 00 37.0	-0.4
	372nm,0.4s						
JOPP	Joppolo	1.85	299	⇓iPg	Pn	05 00 37.5	0.0
	4µm,0.9s						
JOPP	Joppolo	1.85	299	⇓iPg	Pn	05 00 37.5	0.0
	4µm,0.9s						
MSI	Messina ING	1.96	284	Pg	Pn	05 00 38.6	-0.4
MSI	Messina ING	1.96	284	Pg	Pn	05 00 38.6	-0.4
MSRU	Castanea	2.01	286	⇓ePg	Pn	05 00 39.2	-0.4
MSRU				Sg	Sn	05 01 02.3	-1.2
	6µm,0.4s						
MSRU	Castanea	2.01	286	⇓ePg	Pn	05 00 39.2	-0.4
MSRU				Sg	Sn	05 01 02.3	-1.2
	6µm,0.4s						
CARO	Carolei	2.04	318	⇓iPg	Pn	05 00 40.9	+0.9
CARO				Sg	Sn	05 01 06.5	+2.2
	5µm,1.1s						
CARO	Carolei	2.04	318	⇓iPg	Pn	05 00 40.9	+0.9
CARO				Sg	Sn	05 01 06.5	+2.2
	5µm,1.1s						
VLS	Valsamata	2.12	77	P	Pn	05 00 40.5	-0.7
VLS				S	Sn	05 01 03.4	-2.9
VLS	Valsamata	2.12	77	eP	Pn	05 00 40.4	-0.8
VLS	Valsamata	2.12	77	eP	Pn	05 00 40.5	-0.7
VLS	Valsamata	2.12	77	P	Pn	05 00 40.5	-0.7
VLS				S	Sn	05 01 03.4	-2.9
MMME	Mongiuffi-Meli	2.15	276	⇑iPg	Pn	05 00 40.3	-1.3
MMME				Sg	Sn	05 01 05.6	-1.5
	2µm,0.5s						
MMME	Mongiuffi-Meli	2.15	276	⇑iPg	Pn	05 00 40.3	-1.3
MMME				Sg	Sn	05 01 05.6	-1.5
	2µm,0.5s						
MILZ	Milazzo	2.22	285	Pg	Pn	05 00 41.7	-0.9
	2µm,0.4s						
MILZ	Milazzo	2.22	285	Pg	Pn	05 00 41.7	-0.9
	2µm,0.4s						
AGST	Augusta-Monte	2.23	258	⇑iPg	Pn	05 00 38.5	-4.2
AGST	Augusta-Monte	2.23	258	⇑iPg	Pn	05 00 38.5	-4.2
HAGA	Augusta	2.28	259	⇑ePg	Pn	05 00 39.2	-4.1
	1µm,0.7s						
HAGA	Augusta	2.28	259	⇑ePg	Pn	05 00 39.2	-4.1
	1µm,0.7s						
SCTE	Santa Cesarea	2.36	9	⇓iPg	Pn	05 00 45.3	+0.8
SCTE				Sg	Sn	05 01 13.4	+1.2
	4µm,0.5s						
SCTE	Santa Cesarea	2.36	9	eP	Pn	05 00 45.3	+0.8
SCTE	Santa Cesarea	2.36	9	⇓iPg	Pn	05 00 45.3	+0.8
SCTE				Sg	Sn	05 01 13.4	+1.2
	4µm,0.5s						
ESLN	Serra La Nave	2.37	270	Pg	Pn	05 00 42.1	-2.5
ESLN	Serra La Nave	2.37	270	Pg	Pn	05 00 42.1	-2.5
SSY	Sortino	2.37	257	⇑ePg	Pn	05 00 40.4	-4.3
	2µm,0.4s						
SSY	Sortino	2.37	257	⇑ePg	Pn	05 00 40.4	-4.3
	2µm,0.4s						
HAVL	Avola	2.39	252	⇑ePg	Pn	05 00 40.9	-4.0
	2µm,0.4s						
HAVL	Avola	2.39	252	⇑ePg	Pn	05 00 40.9	-4.0
	2µm,0.4s						
VPL	Vulcano Piano	2.44	286	Pg	Pn	05 00 44.7	-0.8
	3µm,0.4s						
VPL	Vulcano Piano	2.44	286	Pg	Pn	05 00 44.7	-0.8
	3µm,0.4s						
KEK	Kerkira	2.44	36	eP	Pn	05 00 46.0	+0.5
KEK	Kerkira	2.44	36	eP	Pn	05 00 46.0	+0.5
LLI	Lipari	2.48	287	Pg	Pn	05 00 45.6	-0.5
	5µm,0.5s						
LLI	Lipari	2.48	287	Pg	Pn	05 00 45.6	-0.5
	5µm,0.5s						
IGT	Igoumenitsa	2.58	45	P	Pn	05 00 48.2	+0.7
IGT				S	Sn	05 01 16.9	-0.7
IGT	Igoumenitsa	2.58	45	P	Pn	05 00 48.2	+0.7
IGT				S	Sn	05 01 16.9	-0.7
ECNV	Catenanuova	2.58	268	⇑iPg	Pn	05 00 45.7	-1.8
ECNV	Catenanuova	2.58	268	⇑iPg	Pn	05 00 45.7	-1.8
ORI	Oriolo Calabro	2.60	334	⇓ePg	Pn	05 00 48.6	+0.8
	2µm,0.4s						
ORI	Oriolo Calabro	2.60	334	⇓ePg	Pn	05 00 48.6	+0.8
	2µm,0.4s						
HVZN	Vizzini	2.64	259	⇑iPg	Pn	05 00 44.9	-3.5
HVZN				Sg	Sn	05 01 13.4	-5.8
	7µm,0.7s						
HVZN	Vizzini	2.64	259	⇑iPg	Pn	05 00 44.9	-3.5
HVZN				Sg	Sn	05 01 13.4	-5.8
	7µm,0.7s						
HMDC	Modica	2.65	254	⇑iPg	Pn	05 00 44.6	-3.9
HMDC				Sg	Sn	05 01 12.9	-6.5
	2µm,0.6s						
HMDC	Modica	2.65	254	⇑iPg	Pn	05 00 44.6	-3.9
HMDC				Sg	Sn	05 01 12.9	-6.5
	2µm,0.6s						
GALF	Gagliano Caste	2.69	270	Pg	Pn	05 00 47.5	-1.5
	3µm,0.6s						
GALF	Gagliano Caste	2.69	270	Pg	Pn	05 00 47.5	-1.5
	3µm,0.6s						
RLS	Riolos of Patr	2.79	82	eP	Pn	05 00 50.1	-0.3
IFIL	Filicudi I Eol	2.80	288	Pg	Pn	05 00 49.7	-0.8
	3µm,0.5s						
IFIL	Filicudi I Eol	2.80	288	Pg	Pn	05 00 49.7	-0.8
	3µm,0.5s						
CUC	Castrocucco	2.81	324	⇓ePg	Pn	05 00 50.6	0.0
	453nm,0.5s						
CUC	Castrocucco	2.81	324	⇓ePg	Pn	05 00 50.6	0.0
	453nm,0.5s						
TAR1	Taranto	2.83	349	i Pn	Pn	05 00 50.8	-0.1
TAR1				eSn	Sn	05 01 24.4	+0.6
VAE	Valguarnera	2.83	266	Pn	Pn	05 00 49.7	-1.3
	13nm,0.3s,baz=33,slow=1.7,SNR=16						
VAE				Sn	Sn	05 01 24.4	+0.6
	46nm,0.3s,baz=228,slow=9.0,SNR=6.0						
VAE				LR	LR	05 01 33.9	
	comp=Z,248nm,18.5s,baz=298,slow=32						
VAE	Valguarnera	2.83	266	Pn	Pn	05 00 49.7	-1.2
VAE				Sn	Sn	05 01 24.4	+0.6
SCHR	S. Chirico Rap	2.86	330	Pg	Pn	05 00 52.4	+1.0
	249nm,0.9s						
SCHR	S. Chirico Rap	2.86	330	Pg	Pn	05 00 52.4	+1.0
	249nm,0.9s						
CRAC	Craco	2.88	336	⇓ePg	Pn	05 00 52.8	+1.2
	752nm,0.5s						
CRAC	Craco	2.88	336	⇓ePg	Pn	05 00 52.8	+1.2
	752nm,0.5s						
RAFF	Raffo Rosso	2.91	261	⇑iPg	Pn	05 00 49.3	-2.7
RAFF				Sg	Sn	05 01 21.4	-4.3
	1µm,0.6s						
RAFF	Raffo Rosso	2.91	261	⇑iPg	Pn	05 00 49.3	-2.7
RAFF				Sg	Sn	05 01 21.4	-4.3
	1µm,0.6s						
SIRI	Monte Sirino -	2.94	327	Pg	Pn	05 00 53.3	+0.9
	386nm,0.5s						
SIRI	Monte Sirino -	2.94	327	Pg	Pn	05 00 53.3	+0.9
	386nm,0.5s						
IACL	Alicudi	2.95	287	Pg	Pn	05 00 52.0	-0.6
	833nm,0.3s						
ACL	Alicudi	2.95	287	Pg	Pn	05 00 52.0	-0.6
	833nm,0.3s						
JAN	Janina	2.96	49	eP	Pn	05 00 53.9	+1.2
JAN	Janina	2.96	49	eP	Pn	05 00 53.7	+1.0
LTRZ	Laterza	2.99	343	⇓ePg	Pn	05 00 53.0	-0.2
LTRZ				Sg	Sn	05 01 27.5	-0.3
	836nm,0.3s						
LTRZ	Laterza	2.99	343	⇓ePg	Pn	05 00 53.0	-0.2
LTRZ				Sg	Sn	05 01 27.5	-0.3
	836nm,0.3s						
MGR	Morigerati	3.04	323	Pg	Pn	05 00 53.6	-0.2
MGR				Sg	Sn	05 01 29.1	+0.1
	479nm,0.4s						
MGR	Morigerati	3.04	323	Pg	Pn	05 00 53.6	-0.2
MGR				Sg	Sn	05 01 29.1	+0.1
	479nm,0.4s						
MTSN	Montesano sull	3.05	326	Pg	Pn	05 00 54.6	+0.6
	376nm,0.5s						
MTSN	Montesano sull	3.05	326	Pg	Pn	05 00 54.6	+0.6
	376nm,0.5s						
MCEL	Monticello	3.08	328	Pg	Pn	05 00 55.6	+1.2
	356nm,0.6s						
MCEL	Monticello	3.08	328	Pg	Pn	05 00 55.6	+1.2
	356nm,0.6s						
PE1	Pezze di Greco	3.09	352	i Pn	Pn	05 00 54.4	-0.1
PE1				eSn	Sn	05 01 30.1	0.0
MIGL	Miglionico	3.10	338	⇓ePg	Pn	05 00 54.8	+0.2
	1µm,0.5s						
MIGL	Miglionico	3.10	338	⇓ePg	Pn	05 00 54.8	+0.2
	1µm,0.5s						
CSLB	Castelbuono	3.10	275	Pg	Pn	05 00 53.7	-0.9
	347nm,0.7s						
NOCI	Noci	3.12	347	⇓ePg	Pn	05 00 54.8	-0.2
NOCI				Sg	Sn	05 01 30.6	-0.4
	930nm,0.4s						
NOCI	Noci	3.12	347	⇓ePg	Pn	05 00 54.8	-0.2
NOCI				Sg	Sn	05 01 30.6	-0.4
	930nm,0.4s						
GIB	Gibilmanna	3.12	276	Pg	Pn	05 00 54.2	-0.8
GIB	Gibilmanna	3.12	276	Pg	Pn	05 00 54.2	-0.8
PTRP	Pietrapertosa	3.15	333	⇓ePg	Pn	05 00 56.7	+1.4
PTRP	Pietrapertosa	3.15	333	⇓ePg	Pn	05 00 56.7	+1.4
ITM	Ithomi	3.20	99	eP	Pn	05 00 54.7	-1.4
ITM	Ithomi	3.20	99	eP	Px	05 01 23.6	
LAKA	Lakka	3.21	80	P	Pn	05 00 56.1	-0.1
LAKA				S	Sn	05 01 29.5	-3.7
LAKA	Lakka	3.21	80	P	Pn	05 00 56.1	-0.1
LAKA				S	Sn	05 01 29.5	-3.7
SG1	Sgolgore (BA)	3.25	343	i Pn	Pn	05 00 56.3	-0.4
SG1				eSn	Sn	05 01 34.1	-0.1
MEV	Metsovon	3.27	50	P	Pn	05 00 59.4	+2.4
MEV				S	Sn	05 01 33.4	-1.2
MEV	Metsovon	3.27	50	P	Pn	05 00 59.4	+2.4
MEV				S	Sn	05 01 33.4	-1.2
CMPR	Campora	3.30	322	⇓ePg	Pn	05 00 57.6	+0.2
CMPR				Sg	Sn	05 01 35.4	0.0
	213nm,0.4s						
CMPR	Campora	3.30	322	⇓ePg	Pn	05 00 57.6	+0.2
CMPR				Sg	Sn	05 01 35.4	0.0
	213nm,0.4s						
TRIZ	Trizonia	3.30	78	P	Pn	05 00 57.5	+0.1
TRIZ				S	Sn	05 01 32.1	-3.4
TRIZ	Trizonia	3.30	78	P	Pn	05 00 57.5	+0.1
TRIZ				S	Sn	05 01 32.1	-3.4
AMUR	Altamura	3.33	342	⇓ePg	Pn	05 00 57.6	-0.2
AMUR				Sg	Sn	05 01 35.3	-0.9
	764nm,0.3s						
AMUR	Altamura	3.33	342	⇓ePg	Pn	05 00 57.6	-0.2
AMUR				Sg	Sn	05 01 35.3	-0.9
	764nm,0.3s						
WDD	Wield Dalam	3.33	237	⇑iPg	Pn	05 00 54.7	-3.1
WDD				Sg	Sn	05 01 30.6	-5.6
	4µm,0.5s						
WDD	Wield Dalam	3.33	237	ePn	Pn	05 00 54.5	-3.4
WDD				eSn	Sn	05 01 30.4	-5.8
WDD	Wield Dalam	3.33	237	ePn	Pn	05 00 54.5	-3.4
WDD	Wield Dalam	3.33	237	⇑iPg	Pn	05 00 54.7	-3.1
WDD				Sg	Sn	05 01 30.6	-5.6
	4µm,0.5s						
ACER	Acerenza	3.42	333	Pg	Pn	05 00 59.4	+0.3
	424nm,0.4s						
ACER	Acerenza	3.42	333	Pg	Pn	05 00 59.4	+0.3
	424nm,0.4s						
CDRU	Civita di Ruta	3.44	324	⇓ePg	Pn	05 00 59.2	-0.1
CDRU				Sg	Sn	05 01 38.2	-0.5
	190nm,0.3s						
CDRU	Civita di Ruta	3.44	324	⇓ePg	Pn	05 00 59.2	-0.1
CDRU				Sg	Sn	05 01 38.2	-0.5
	190nm,0.3s						
BAI	Bari	3.46	346	i Pn	Pn	05 00 59.0	-0.7
BAI				eSn	Sn	05 01 37.6	-1.8
SGO	Sicignano	3.49	325	⇑iPg	Pn	05 01 00.5	+0.5
SGO	Sicignano	3.49	325	⇑iPg	Pn	05 01 00.5	+0.5
PALZ	Palazzo San Ge	3.56	335	⇓ePg	Pn	05 01 00.7	-0.2
	308nm,0.6s						
PALZ	Palazzo San Ge	3.56	335	⇓ePg	Pn	05 01 00.7	-0.2
	308nm,0.6s						
MRVN	Minervino Murg	3.59	338	⇓ePg	Pn	05 01 00.9	-0.4
MRVN				Sg	Sn	05 01 40.4	-2.0
	586nm,0.2s						
MRVN	Minervino Murg	3.59	338	⇓ePg	Pn	05 01 00.9	-0.4
MRVN				Sg	Sn	05 01 40.4	-2.0
	586nm,0.2s						
THL	Klokotos Trika	3.66	59	P	Pn	05 01 03.9	+1.6
THL				S	Sn	05 01 41.1	-3.1
THL	Klokotos Trika	3.66	59	eP	Pn	05 01 04.1	+1.8
THL	Klokotos Trika	3.66	59	P	Pn	05 01 03.9	+1.6
THL				S	Sn	05 01 41.1	-3.1
AGG	Agios Georgios	3.66	68	P	Pn	05 01 03.6	+1.2
AGG				S	Sn	05 01 41.9	-2.4
AGG	Agios Georgios	3.66	68	P	Pn	05 01 03.6	+1.2
AGG				S	Sn	05 01 41.9	-2.4
VULT	Monte Vulture	3.69	331	Pg	Pn	05 01 04.6	+1.9
	233nm,0.5s						
VULT	Monte Vulture	3.69	331	Pg	Pn	05 01 04.6	+1.9
	233nm,0.5s						
CORL	Corleone	3.69	274	Pg	Pn	05 01 02.9	+0.1
	376nm,0.6s						
CORL	Corleone	3.69	274	Pg	Pn	05 01 02.9	+0.1
	376nm,0.6s						
MCRV	Calabrutti - M	3.73	325	⇓iPg	Pn	05 01 03.9	+0.6
MCRV	Calabrutti - M	3.73	325	⇓iPg	Pn	05 01 03.9	+0.6
SNAL	S. Angelo Dei	3.83	327	Pg	Pn	05 01 05.9	+1.2
	330nm,0.8s						
SNAL	S. Angelo Dei	3.83	327	Pg	Pn	05 01 05.9	+1.2
	330nm,0.8s						
CSSN	Cassano Irpino	3.86	325	⇑iPg	Pn	05 01 06.1	+1.0
	88nm,0.4s						
CSSN	Cassano Irpino	3.86	325	⇑iPg	Pn	05 01 06.1	+1.0
	88nm,0.4s						
USI	Ustica	3.89	286	Pg	Pn	05 01 04.4	-1.1
	116nm,0.3s						
USI	Ustica	3.89	286	Pg	Pn	05 01 04.4	-1.1
	116nm,0.3s						
TIR	Tirane	3.89	22	Pg	Pn	05 01 06.7	+1.2
	769nm,0.6s						
TIR	Tirane	3.89	22	P	Pn	05 01 06.7	+1.2
TIR				S	Sn	05 01 52.7	+2.8
TIR	Tirane	3.89	22	eP	Pn	05 01 06.6	+1.1
TIR	Tirane	3.89	22	Pg	Pn	05 01 06.7	+1.2
	769nm,0.6s						
TIR				S	Sn	05 01 52.7	+2.8
CAFE	Carife	3.90	328	Pg	Pn	05 01 06.7	+1.0
	201nm,0.5s						
CAFE	Carife	3.90	328	Pg	Pn	05 01 06.7	+1.0
	201nm,0.5s						
KZN	Kozani	3.92	48	eP	Pn	05 01 07.6	+1.7
SGTA	Sant Agata di	3.94	330	Pg	Pn	05 01 07.2	+1.0
	127nm,0.7s						
SGTA	Sant Agata di	3.94	330	Pg	Pn	05 01 07.2	+1.0
	127nm,0.7s						
OHR	Ohrid	4.02	32	ePn	Pn	05 01 08.4	+1.2
OHR				eSg	Sn	05 01 54.9	+1.8
OHR	Ohrid	4.02	32	ePn	Pn	05 01 08.4	+1.1
FNA	Florina	4.03	40	P	Pn	05 01 09.3	+1.9
FNA				S	Sn	05 01 53.0	-0.4
FNA	Florina	4.03	40	P	Pn	05 01 09.3	+1.9
FNA				S	Sn	05 01 53.0	-0.4
LKR	Lokris	4.07	76	P	Pn	05 01 07.4	-0.6
LKR				S	Sn	05 01 52.3	-2.1
LKR	Lokris	4.07	76	P	Pn	05 01 07.4	-0.6
LKR				S	Sn	05 01 52.3	-2.1
MRB1	Monte Rocchett	4.10	327	Pg	Pn	05 01 10.0	+1.7
	259nm,0.4s						
MRB1	Monte Rocchett	4.10	327	Pg	Pn	05 01 10.0	+1.7
	259nm,0.4s						
VLI	Veliai	4.10	103	eP	Pn	05 01 07.9	-0.5
VLI	Veliai	4.10	103	eP	Px	05 01 41.3	
FG5	Orsara di Pugl	4.11	330	Pg	Pn	05 01 09.5	+1.1
	95nm,0.4s						
FG5	Orsara di Pugl	4.11	330	Pg	Pn	05 01 09.5	+1.1
	95nm,0.4s						
BIA	Bitola	4.18	37	P	Pn	05 01 10.4	+0.9
BIA	Bitola	4.18	37	ePn	Pn	05 01 10.5	+1.0
BIA				eSg	Sn	05 01 58.2	+1.1
BIA	Bitola	4.18	37	ePn	Pn	05 01 10.5	+1.0
MOCO	Biccari - m.te	4.22	330	Pg	Pn	05 01 10.9	+0.8
	66nm,0.4s						
LIT	Litokhoron	4.25	55	P	Pn	05 01 11.6	+1.2
LIT				S	Sn	05 01 58.1	-0.5
LIT	Litokhoron	4.25	55	P	Pn	05 01 11.6	+1.2
LIT				S	Sn	05 01 58.1	-0.5
PSB1	Pescosannita	4.25	326	Pg	Pn	05 01 11.3	+0.9
	86nm,0.9s						
PSB1	Pescosannita	4.25	326	Pg	Pn	05 01 11.3	+0.9
	86nm,0.9s						
MS1	Monte Sant’Ang	4.25	339	i Pn	Pn	05 01 09.9	-0.6
MS1				eSn	Sn	05 01 56.9	-2.0
MSAG	Monte S. Angel	4.27	339	Pg	Pn	05 01 10.2	-0.5
MSAG	Monte S. Angel	4.27	339	Pg	Pn	05 01 10.2	-0.5
KYTH	Kithira	4.31	108	eP	Pn	05 01 10.5	-0.8
ULC	Ulcinj	4.33	13	⇓iPn	Pn	05 01 10.9	-0.7
ULC				eSn	Sn	05 02 00.0	-0.8
ULC	Ulcinj	4.33	13	⇓iPn	Pn	05 01 10.9	-0.7
ULC				eSn	Sn	05 02 00.0	-0.8
RGNG	Rignano Grg	4.33	336	Pg	Pn	05 01 11.2	-0.4
RGNG	Rignano Grg	4.33	336	Pg	Pn	05 01 11.2	-0.4
SGRT	San Giovanni R	4.36	338	⇑ePg	Pn	05 01 11.4	-0.5
	298nm,0.3s						
SGRT	San Giovanni R	4.36	338	⇑ePg	Pn	05 01 11.4	-0.5
	298nm,0.3s						
NAIG	Nisos Aigina	4.38	88	eP	Pn	05 01 11.2	-1.0
XOR	Xorichti	4.41	67	P	Pn	05 01 13.5	+0.9
XOR				S	Sn	05 02 00.8	-1.9
XOR	Xorichti	4.41	67	P	Pn	05 01 13.5	+0.9
XOR				S	Sn	05 02 00.8	-1.9
KRUS	Krusevo	4.42	34	ePn	Pn	05 01 13.4	+0.6
KRUS	Krusevo	4.42	34	ePn	Pn	05 01 13.3	+0.5
PTRJ	Pietraroja	4.49	325	Pg	Pn	05 01 14.1	+0.4
	126nm,0.4s						
PTRJ	Pietraroja	4.49	325	Pg	Pn	05 01 14.1	+0.4
	126nm,0.4s						
ATH	Athens Observa	4.56	85	P	Pn	05 01 15.3	+0.6
ATH				S	Sn	05 02 04.1	-2.3
CIGN	Sant’Elia a Pi	4.56	330	Pg	Pn	05 01 15.7	+1.0
	64nm,0.5s						
CIGN	Sant’Elia a Pi	4.56	330	Pg	Pn	05 01 15.7	+1.0
	64nm,0.5s						
SGG	Gregorio Mates	4.58	324	Pg	Pn	05 01 16.0	+1.1
	61nm,0.5s						
SGG	Gregorio Mates	4.58	324	Pg	Pn	05 01 16.0	+1.1
	61nm,0.5s						
FG2	Serracapriola	4.60	333	Pg	Pn	05 01 15.5	+0.3
	268nm,0.4s						
FG2	Serracapriola	4.60	333	Pg	Pn	05 01 15.5	+0.3
	268nm,0.4s						
BSSO	Busso	4.61	327	Pg	Pn	05 01 16.3	+1.0
	153nm,1.3s						
BSSO	Busso	4.61	327	Pg	Pn	05 01 16.3	+1.0
	153nm,1.3s						
BUM	Brajici-Budva	4.61	9	⇓iPn	Pn	05 01 14.9	-0.5
BUM				eSn	Sn	05 02 05.5	-2.1
BUM	Brajici-Budva	4.61	9	⇓iPn	Pn	05 01 14.9	-0.5
BUM				eSn	Sn	05 02 05.5	-2.1
ATHU	Athens Univers	4.61	85	P	Pn	05 01 15.3	-0.1
ATHU				S	Sn	05 02 04.1	-3.6
ATHU	Athens Univers	4.61	85	P	Pn	05 01 15.3	-0.1
ATHU				S	Sn	05 02 04.1	-3.6
VLY	Voula,Athens	4.62	87	eP	Pn	05 01 13.9	-1.6
MODR	Mondragone	4.64	318	Pg	Pn	05 01 16.2	+0.4
	19nm,0.6s						
MODR	Mondragone	4.64	318	Pg	Pn	05 01 16.2	+0.4
	19nm,0.6s						
VAGA	Valle Agricola	4.67	323	Pg	Pn	05 01 17.0	+0.9
	63nm,0.7s						
VAGA	Valle Agricola	4.67	323	Pg	Pn	05 01 17.0	+0.9
	63nm,0.7s						
PTL	Penteli	4.68	84	eP	Pn	05 01 15.1	-1.2
GRG	Griva	4.71	46	P	Pn	05 01 17.3	+0.6
GRG				S	Sn	05 02 08.5	-1.5
GRG	Griva	4.71	46	P	Pn	05 01 17.3	+0.6
GRG				S	Sn	05 02 08.5	-1.5
HCY	Herceg Novi	4.72	5	⇓iPn	Pn	05 01 15.9	-1.0
HCY				eSn	Sn	05 02 07.8	-2.5
HCY	Herceg Novi	4.72	5	⇓iPn	Pn	05 01 15.9	-1.0
HCY				eSn	Sn	05 02 07.8	-2.5
PDG	Podgorica	4.79	12	⇓iPn	Pn	05 01 17.4	-0.4
PDG				eSn	Sn	05 02 11.1	-0.9
TTG	Podgorica	4.79	12	⇓iPn	Pn	05 01 17.4	-0.4
TTG				eSn	Sn	05 02 11.1	-0.9
TTG	Podgorica	4.79	12	⇓iPn	Pn	05 01 17.4	-0.4
TTG				eSn	Sn	05 02 11.1	-0.9
THE	Thessaloniki	4.84	52	P	Pn	05 01 19.0	+0.4
THE				S	Sn	05 02 11.2	-2.1
THE	Thessaloniki	4.84	52	P	Pn	05 01 19.0	+0.4
THE				S	Sn	05 02 11.2	-2.1
HORT	Hortiatis	4.91	53	P	Pn	05 01 20.2	+0.8
HORT				S	Sn	05 02 13.5	-1.4
HORT	Hortiatis	4.91	53	P	Pn	05 01 20.2	+0.8
HORT				S	Sn	05 02 18.6	+3.7
HORT	Hortiatis	4.91	53	P	Pn	05 01 20.2	+0.8
HORT				S	Sn	05 02 13.5	-1.4
CERA	Filignano	4.91	323	⇑iPg	Pn	05 01 20.6	+1.1
	69nm,0.5s						
CERA	Filignano	4.91	323	⇑iPg	Pn	05 01 20.6	+1.1
	69nm,0.5s						
PAIG	Paliouri	4.97	62	P	Pn	05 01 20.4	+0.1
PAIG				S	Sn	05 02 13.9	-2.6
PAIG	Paliouri	4.97	62	P	Pn	05 01 20.4	+0.1
PAIG				S	Sn	05 02 13.9	-2.6
SKO	Skopje	5.00	31	ePn	Pn	05 01 22.0	+1.2
SKO	Skopje	5.00	31	P	Pn	05 01 21.5	+0.8
SKO				S	Sn	05 02 17.1	-0.2
SKO	Skopje	5.00	31	P	Pn	05 01 21.5	+0.8
SKO				S	Sn	05 02 17.1	-0.2
SKO	Skopje	5.00	31	ePn	Pn	05 01 21.9	+1.2
PLG	Polygyros	5.01	57	P	Pn	05 01 21.4	+0.5
PLG				S	Sn	05 02 15.8	-1.7
PLG	Polygyros	5.01	57	eP	Pn	05 01 21.3	+0.4
PLG	Polygyros	5.01	57	P	Pn	05 01 21.4	+0.5
PLG				S	Sn	05 02 15.8	-1.7
VAY	Valandovo	5.05	43	P	Pn	05 01 21.4	0.0
VAY				S	Sn	05 02 18.6	+0.2
VAY	Valandovo	5.05	43	ePn	Pn	05 01 21.5	+0.1
VAY	Valandovo	5.05	43	P	Pn	05 01 21.2	-0.2
VAY				S	Sn	05 02 16.6	-1.8
VAY	Valandovo	5.05	43	P	Pn	05 01 21.2	-0.2
VAY				S	Sn	05 02 16.6	-1.8
VAY	Valandovo	5.05	43	ePn	Pn	05 01 21.4	0.0
VAY				S	Sn	05 02 18.6	+0.2
PVY	Plav	5.09	17	⇓iPn	Pn	05 01 23.0	+1.1
PVY				eSn	Sn	05 02 19.8	+0.4
PVY	Plav	5.09	17	⇓iPn	Pn	05 01 23.0	+1.1
PVY				eSn	Sn	05 02 19.8	+0.4
KNT	Kendrikon	5.12	47	P	Pn	05 01 23.2	+0.8
KNT				S	Sn	05 02 20.4	+0.1

KNT	Kendrikon	5.12	47	P	Pn	05 01 23.2	+0.8
KNT				S	Sn	05 02 20.4	+0.1
NKY	Niksic	5.13	9	⇓*i*Pn	Pn	05 01 22.2	-0.3
NKY				*e*Sn	Sn	05 02 18.7	-1.7
NKY	Niksic	5.13	9	⇓*i*Pn	Pn	05 01 22.2	-0.3
NKY				*e*Sn	Sn	05 02 18.7	-1.7
STON	Ston	5.13	358	*e*Pn	Pn	05 01 22.1	-0.4
STON				Sn	Sn	05 02 15.7	-4.7
STON	Ston	5.13	358	*e*Pn	Pn	05 01 22.0	-0.5
STON				Sn	Sn	05 02 15.7	-4.7
POFI	Posta Fibreno	5.15	322	Pg	Pn	05 01 23.9	+1.1
	77nm,1.8s						
POFI	Posta Fibreno	5.15	322	Pg	Pn	05 01 23.9	+1.1
	77nm,1.8s						
BRY	Bratogost	5.17	5	⇓*i*Pn	Pn	05 01 22.1	-1.0
BRY				*e*Sn	Sn	05 02 18.8	-2.7
BRY	Bratogost	5.17	5	⇓*i*Pn	Pn	05 01 22.1	-1.0
BRY				*e*Sn	Sn	05 02 18.8	-2.7
SOH	Sokhos	5.19	52	P	Pn	05 01 24.3	+0.9
SOH				S	Sn	05 02 20.2	-1.8
SOH	Sokhos	5.19	52	P	Pn	05 01 24.3	+0.9
SOH				S	Sn	05 02 20.2	-1.8
GIUL	Giuliano Di Ro	5.27	318	Pg	Pn	05 01 24.6	+0.2
	33nm,0.6s						
GIUL	Giuliano Di Ro	5.27	318	Pg	Pn	05 01 24.6	+0.2
	33nm,0.6s						
VVLD	Villa Vallelon	5.31	322	Pg	Pn	05 01 25.8	+0.8
	55nm,0.7s						
VVLD	Villa Vallelon	5.31	322	Pg	Pn	05 01 25.8	+0.8
	55nm,0.7s						
BEY	Berane	5.33	15	⇓*i*Pn	Pn	05 01 26.4	+1.1
BEY				*e*Sn	Sn	05 02 24.4	-1.1
IVA	Berane	5.33	15	⇓*i*Pn	Pn	05 01 26.4	+1.1
IVA				*e*Sn	Sn	05 02 24.4	-1.1
IVA	Berane	5.33	15	⇓*i*Pn	Pn	05 01 26.4	+1.1
IVA				*e*Sn	Sn	05 02 24.4	-1.1
OUR	Ouranopolis	5.36	59	P	Pn	05 01 26.6	+1.0
OUR				S	Sn	05 02 24.3	-1.7
OUR	Ouranopolis	5.36	59	P	Pn	05 01 26.6	+1.0
OUR				S	Sn	05 02 24.3	-1.7
UPM	Unac-Piva	5.50	7	⇑*i*Pn	Pn	05 01 27.7	+0.1
UPM				*e*Sn	Sn	05 02 27.7	-1.9
UPM	Unac-Piva	5.50	7	⇑*i*Pn	Pn	05 01 27.7	+0.1
UPM				*e*Sn	Sn	05 02 27.7	-1.9
SRS	Serrai	5.51	51	P	Pn	05 01 28.0	+0.3
SRS				S	Sn	05 02 28.2	-1.6
SRS	Serrai	5.51	51	P	Pn	05 01 28.0	+0.3
SRS				S	Sn	05 02 28.2	-1.6
VCEL	Villa Celiera	5.62	327	Pg	Pn	05 01 30.9	+1.7
	63nm,0.7s						
VCEL	Villa Celiera	5.62	327	Pg	Pn	05 01 30.9	+1.7
	63nm,0.7s						
CERT	Cerreto	5.69	319	Pg	Pn	05 01 30.8	+0.6
	33nm,1.2s						
CERT	Cerreto	5.69	319	Pg	Pn	05 01 30.8	+0.6
	33nm,1.2s						
PLE	Pljevlja	5.69	11	⇓*i*Pn	Pn	05 01 30.7	+0.5
PLE				*e*Sn	Sn	05 02 32.6	-1.6
PLE	Pljevlja	5.69	11	⇓*i*Pn	Pn	05 01 30.7	+0.5
PLE				*e*Sn	Sn	05 02 32.6	-1.6
KKB	Krupnik	5.70	42	P	Pn	05 01 31.1	+0.7
KKB				S	Sn	05 02 33.0	-1.5
KKB	Krupnik	5.70	42	P	Pn	05 01 31.1	+0.7
KKB				S	Sn	05 02 33.0	-1.5
MMB	Musomiste	5.88	47	P	Pn	05 01 33.0	+0.2
MMB				S	Sn	05 02 36.4	-2.4
MMB	Musomiste	5.88	47	P	Pn	05 01 33.0	+0.2
MMB				S	Sn	05 02 36.4	-2.4
LMSR	Misrath	5.93	205	*i* P	Pn	05 01 27.9	-5.7
	SNR=23						
LIA	Limnos Island	6.04	67	P	Pn	05 01 35.2	+0.2
LIA	Limnos Island	6.04	67	P	Pn	05 01 35.2	+0.2
IDI	Anoyia	6.09	112	Pn	Pn	05 01 32.1	-3.7
	3.3nm,0.3s,baz=303,slow=17,SNR=17						
IDI				Sn	Sn	05 02 36.7	-7.4
	73nm,0.3s,baz=308,slow=19,SNR=22						
IDI	Anoyia	6.09	112	Pn	Pn	05 01 32.1	-3.7
IDI				*e*Sn	Sn	05 02 27.5	-17
IDI				Sn	Sn	05 02 36.7	-7.4
LNSS	Leonessa	6.15	324	Pg	Pn	05 01 39.5	+3.0
	98nm,1.3s						
LNSS	Leonessa	6.15	324	Pg	Pn	05 01 39.5	+3.0
	98nm,1.3s						
SIVA	Sivas	6.16	114	P	Pn	05 01 37.8	+1.2
SIVA				S	Sn	05 02 44.1	-1.6
SIVA	Sivas	6.16	114	P	Pn	05 01 37.8	+1.2
VTS	Vitosha	6.29	38	P	Pn	05 01 40.0	+1.5
VTS				S	Sn	05 02 48.9	-0.1
VTS	Vitosha	6.29	38	P	Pn	05 01 39.9	+1.4
VTS				S	Sn	05 02 48.3	-0.8
VTS	Vitosha	6.29	38	P	Pn	05 01 39.9	+1.4
VTS				S	Sn	05 02 48.3	-0.8
VTS	Vitosha	6.29	38	P	Pn	05 01 40.0	+1.5
VTS				S	Sn	05 02 48.9	-0.1
SIGR	SIGRI	6.37	74	P	Pn	05 01 40.2	+0.7
SIGR	SIGRI	6.37	74	P	Pn	05 01 40.2	+0.7
CHOS	Chios island	6.42	82	P	Pn	05 01 41.1	+0.9
CHOS	Chios island	6.42	82	P	Pn	05 01 41.1	+0.9
RZN	Rozhen	6.53	51	P	Pn	05 01 42.6	+0.9
RZN				S	Sn	05 02 53.2	-1.7
RZN	Rozhen	6.53	51	P	Pn	05 01 42.6	+0.9
RZN				S	Sn	05 02 53.2	-1.7
LAST	Lasithi	6.58	111	P	Pn	05 01 43.5	+1.0
LAST	Lasithi	6.58	111	P	Pn	05 01 43.5	+1.0
GADA	Gvkgeada	6.65	66	*e*PN	Pn	05 01 43.9	+0.5
GADA	Gvkgeada	6.65	66	*e*Pn	Pn	05 01 43.9	+0.5
BOZC	Bozcaada	6.66	69	*i* P	Pn	05 01 44.3	+0.8
PRK	Paraskevi	6.69	74	P	Pn	05 01 44.9	+1.0
PRK	Paraskevi	6.69	74	P	Pn	05 01 44.9	+1.0
CING	Cingoli	6.70	329	Pg	Pn	05 01 45.6	+1.6
	38nm,1.3s						
CING	Cingoli	6.70	329	Pg	Pn	05 01 45.6	+1.6
	38nm,1.3s						
PGB	Panagyurishte	6.76	43	P	Pn	05 01 45.5	+0.7
PGB	Panagyurishte	6.76	43	P	Pn	05 01 45.5	+0.7
PLD	Plovdiv	6.77	48	P	Pn	05 01 46.8	+1.8
PLD				S	Sn	05 03 00.0	-0.8
PLD	Plovdiv	6.77	48	P	Pn	05 01 46.8	+1.8
PLD				S	Sn	05 03 00.0	-0.8
URLA	Izmir	6.84	82	*i* P	Pn	05 01 47.6	+1.6
URLA	Izmir	6.84	82	*i* P	Pn	05 01 47.7	+1.7
EZN	Ezine	6.86	70	*e*PN	Pn	05 01 46.7	+0.5
EZN	Ezine	6.86	70	*e*Pn	Pn	05 01 46.7	+0.5
GHAR	Gharyan	6.89	217	*i* P	Pn	05 01 41.3	-5.4
	SNR=22						
VSL	Villasalto	6.95	287	*e*Pn	Pn	05 01 45.9	-1.5
VSL				*e*Sn	Sn	05 02 58.1	-7.1
VSL	Villasalto	6.95	287	*e*Pn	Pn	05 01 45.9	-1.5
KDZ	Kurdzhali	6.95	53	P	Pn	05 01 46.8	-0.7
KDZ				S	Sn	05 03 00.5	-4.7
KDZ	Kurdzhali	6.95	53	P	Pn	05 01 46.8	-0.7
KDZ				S	Sn	05 03 00.5	-4.7
ALN	Alexandroupoli	7.01	61	P	Pn	05 01 48.8	+0.4
ALN	Alexandroupoli	7.01	61	P	Pn	05 01 48.8	+0.4
AYVA	Ayvalik	7.02	74	*i* P	Pn	05 01 49.8	+1.3
AYVA	Ayvalik	7.02	74	*i* P	Pn	05 01 49.8	+1.3
LJBD	Adjabya	7.06	164	*i* P	Pn	05 01 43.2	-5.8
	SNR=22						
PIEI	Pieia	7.11	326	Pg	Pn	05 01 50.9	+1.3
	15nm,0.4s						
PIEI	Pieia	7.11	326	Pg	Pn	05 01 50.9	+1.3
	15nm,0.4s						
ALAS	Alassa	7.13	229	*i* P	Pn	05 01 45.9	-4.1
	SNR=22						
ZKR	Zakros	7.15	109	P	Pn	05 01 50.1	-0.2
ZKR	Zakros	7.15	109	P	Pn	05 01 50.1	-0.2
BLCB	Balcova	7.19	82	*e*PN	Pn	05 01 49.0	-1.9
BLCB	Balcova	7.19	82	*e*Pn	Pn	05 01 49.0	-1.8
KEST	Kesra	7.20	256	Pn	Pn	05 01 48.2	-2.8
	0.9nm,0.3s,baz=73,slow=14,SNR=32						
KEST				Sn	Sn	05 03 07.1	-4.3
	0.7nm,0.3s,baz=89,slow=21,SNR=7.2						
NVLJ	Novalja	7.20	342	⇓*i*Pn	Pn	05 01 50.9	-0.1
NVLJ				Sn	Sn	05 03 07.7	-3.7
LPK	Lapseki	7.33	66	*e*PN	Pn	05 01 54.5	+1.7
LPK	Lapseki	7.33	66	*e*Pn	Pn	05 01 54.5	+1.8
GCAM	G?zelcaml?	7.35	87	*i* P	Pn	05 01 54.5	+1.5
GCAM	G?zelcaml?	7.35	87	*i* P	Pn	05 01 54.5	+1.5
IZM	Izmir	7.37	82	*e*PN	Pn	05 01 51.7	-1.5
BODT	Bodrum	7.47	92	*e*PN	Pn	05 01 53.1	-1.6
BODT	Bodrum	7.47	92	*e*Pn	Pn	05 01 53.1	-1.6
LTBQ	Tobruq	7.49	137	*i* P	Pn	05 01 50.6	-4.3
	SNR=22						
BDRM	Kayabasi	7.58	92	*i* P	Pn	05 01 56.5	+0.4
BDRM	Kayabasi	7.58	92	*i* P	Pn	05 01 56.5	+0.4
DAT	Datca	7.74	95	*e*PN	Pn	05 01 57.2	-1.1
DAT	Datca	7.74	95	*e*Pn	Pn	05 01 57.2	-1.1
SART	Tekirdag	7.74	65	*i* P	Pn	05 01 58.8	+0.6
SART	Tekirdag	7.74	65	*i* P	Pn	05 01 58.8	+0.5
BALY	Balya	7.81	72	*i* P	Pn	05 02 00.7	+1.4
BALY	Balya	7.81	72	*i* P	Pn	05 02 00.7	+1.4
MLSB	Milas	7.81	90	*e*PN	Pn	05 01 57.7	-1.6
MLSB	Milas	7.81	90	*e*Pn	Pn	05 01 57.7	-1.6
AKHS	Akhisar	7.83	79	*i* P	Pn	05 02 01.2	+1.7
AKHS	Akhisar	7.83	79	*i* P	Pn	05 02 01.2	+1.6
AKS	Akhisar	7.83	79	*e*PN	Pn	05 01 59.4	-0.1
AKS	Akhisar	7.83	79	*e*Pn	Pn	05 01 59.4	-0.1
AYDN	Tasoluk	7.86	88	*e*P	Pn	05 02 00.5	+0.5
AYDN	Tasoluk	7.86	88	*e*P	Pn	05 02 00.5	+0.5
BALB	Balikesir	7.99	73	*e*PN	Pn	05 02 02.0	+0.3
BALB	Balikesir	7.99	73	*e*Pn	Pn	05 02 02.0	+0.3
EDC	Edincik	8.13	68	*e*PN	Pn	05 02 05.2	+1.5
EDC	Edincik	8.13	68	*e*Pn	Pn	05 02 05.2	+1.5
RHK3	Tenkes	8.14	1	⇑*e*P	Pn	05 02 03.0	-0.8
SZH	Strazhica	8.20	45	P	Pn	05 02 06.0	+1.3
SZH	Strazhica	8.20	45	P	Pn	05 02 06.0	+1.3
YER	Yerkesik	8.23	91	*e*PN	Pn	05 02 05.0	-0.1
YER	Yerkesik	8.23	91	*e*Pn	Pn	05 02 05.1	0.0
LSHF	Shwairf	8.33	203	*i* P	Pn	05 02 00.7	-5.7
	SNR=22						
BZS	Buzias	8.33	18	⇑*i*P	Pn	05 02 05.8	-0.6
BZS	Buzias	8.33	18	S	Sn	05 03 34.5	-4.6
BZS	Buzias	8.33	18	⇑P	Pn	05 02 05.8	-0.6
BZS				S	Sn	05 03 34.5	-4.6
BZS	Buzias	8.33	18	P	Pn	05 02 05.8	-0.6
PGF	Pioggiola	8.38	308	*e*P	Pn	05 02 08.1	+1.1
	67nm,1.0s						
PGF	Pioggiola	8.38	308	*e*P	Pn	05 02 08.1	+1.1
	34nm,1.0s						
MANT	Manisa	8.39	82	*i* P	Pn	05 02 09.2	+2.0
MANT	Manisa	8.39	82	*i* P	Pn	05 02 09.2	+2.0
DURS	Dursunbey	8.43	74	*i* P	Pn	05 02 09.5	+1.7
DURS	Dursunbey	8.43	74	*i* P	Pn	05 02 09.5	+1.7
GZR	Gura Zlata	8.45	24	⇓*i*P	Pn	05 02 08.6	+0.5
GZR	Gura Zlata	8.45	24	P	Pn	05 02 08.6	+0.6
GZR				S	Sn	05 03 39.2	-2.9
GZR	Gura Zlata	8.45	24	P	Pn	05 02 08.6	+0.5
GZR				S	Sn	05 03 39.2	-2.9
PKSM	Moragy	8.48	3	⇑*e*Pn	Pn	05 02 07.6	-0.8
TURN	Turunc	8.52	93	*i* P	Pn	05 02 06.2	-2.8
DALT	Dalyan (Mudla)	8.57	93	*e*PN	Pn	05 02 08.9	-0.8
DALT	Dalyan (Mudla)	8.57	93	*e*Pn	Pn	05 02 08.9	-0.8
LJU	Ljubljana	8.68	344	⇓*e*Pn	Pn	05 02 11.3	+0.1
LJU				*e*Sn	Sn	05 03 43.5	-4.2
LJFR	Jufra	8.80	192	*i* P	Pn	05 02 06.6	-6.3
	SNR=22						
VOY	Vojsko	8.82	341	*e*Pn	Pn	05 02 12.3	-0.8
VOY				*e*Sn	Sn	05 03 46.2	-4.9
VOY	Vojsko	8.82	341	*e*Pn	Pn	05 02 12.3	-0.8
PKS9	Tamasi	8.84	1	⇑*e*Pn	Pn	05 02 12.8	-0.6
FETY	Fethiye	8.95	94	*e*PN	Pn	05 02 14.5	-0.4
FETY	Fethiye	8.95	94	*e*Pn	Pn	05 02 14.5	-0.4
NEF	NEVSHA	8.98	49	P	Pn	05 02 15.6	+0.2
NEF	NEVSHA	8.98	49	P	Pn	05 02 15.6	+0.2
ULDT	Uludag	9.03	71	*i* P	Pn	05 02 17.4	+1.4
ULDT	Uludag	9.03	71	*i* P	Pn	05 02 17.4	+1.4
KHAL	Karahalli	9.12	83	*i* P	Pn	05 02 18.8	+1.5
KHAL	Karahalli	9.12	83	*i* P	Pn	05 02 18.8	+1.6
OBKA	Obir	9.12	345	⇓*i*Pn	Pn	05 02 17.6	+0.4
	23nm,0.4s,SNR=50						
OBKA				⇓*i*Sn	Sn	05 03 54.6	-3.9
	38nm,0.5s						
OBKA	Obir	9.12	345	Pn	Pn	05 02 17.6	+0.4
	23nm,0.4s,SNR=50						
GDZ	Gediz	9.14	78	*i* P	Pn	05 02 19.1	+1.6
GDZ	Gediz	9.14	78	*i* P	Pn	05 02 19.1	+1.6
KHL	Karahalli	9.14	83	*e*PN	Pn	05 02 17.1	-0.5
KHL	Karahalli	9.14	83	*e*Pn	Pn	05 02 17.1	-0.4
SOKA	Soboth	9.19	347	⇑*i*Pn	Pn	05 02 18.0	-0.2
	25nm,0.8s						
SOKA				⇓*i*Sn	Sn	05 03 55.3	-4.9
	18nm,1.1s						
SOKA	Soboth	9.19	347	Pn	Pn	05 02 18.0	-0.2
	25nm,0.8s						
GOLH	Golhisar	9.23	90	*i* P	Pn	05 02 20.8	+2.0
GOLH	Golhisar	9.23	90	*i* P	Pn	05 02 20.8	+2.0
VOIR		9.34	32	⇓*i*P	Pn	05 02 22.1	+1.9
VOIR		9.34	32	⇓P	Pn	05 02 22.1	+1.9
VOIR				S	Sn	05 04 01.7	-2.2
VOIR		9.34	32	P	Pn	05 02 22.1	+1.9
VOIR				S	Sn	05 04 01.7	-2.2
AKAS	Kas	9.44	96	*i* P	Pn	05 02 20.8	-0.8
AKAS	Kas	9.44	96	*i* P	Pn	05 02 20.8	-0.8
MYKA	Terra Mystica	9.44	342	⇑*e*Pn	Pn	05 02 21.4	-0.2
	13nm,0.5s						
MYKA				⇓*e*Sn	Sn	05 04 02.4	-4.0
	7.2nm,0.4s						
MYKA	Terra Mystica	9.44	342	Pn	Pn	05 02 21.4	-0.2
	13nm,0.5s						
ELL	Elmali	9.58	92	*e*PN	Pn	05 02 22.5	-1.0
ELL	Elmali	9.58	92	*e*Pn	Pn	05 02 22.5	-1.0
ARSA	Arzberg	9.67	350	*e*Pn	Pn	05 02 24.3	-0.5
ARSA	Arzberg	9.67	350	⇑*i*Pn	Pn	05 02 24.2	-0.6
	30nm,0.5s,SNR=28						
ARSA				⇑*i*Sn	Sn	05 04 05.7	-6.3
	6.2nm,0.4s						
ARSA	Arzberg	9.67	350	Pn	Pn	05 02 24.2	-0.6
	30nm,0.5s,SNR=28						
DRGR		9.70	20	⇑*i*P	Pn	05 02 24.6	-0.6
DRGR		9.70	20	S	Sn	05 04 07.7	-5.1
DRGR		9.70	20	⇑P	Pn	05 02 24.6	-0.6
DRGR				S	Sn	05 04 07.7	-5.0
DRGR		9.70	20	P	Pn	05 02 24.6	-0.6
MLR	Muntele Rosu	9.78	35	P	Pn	05 02 27.6	+1.4
MLR						05 04 12.9	
MLR				smax			
	comp=N,2.0nm,0.3s						
MLR	Muntele Rosu	9.78	35	⇑*i*P	Pn	05 02 28.0	+1.8
MLR	Muntele Rosu	9.78	35	Pn	Pn	05 02 27.6	+1.4
	comp=N,0.4nm,0.3s,baz=228,slow=12,SNR=13						
MLR				Sn	Sn	05 04 12.9	-1.7
	comp=N,1.5nm,0.3s,baz=240,slow=17,SNR=4.4						
MLR	Muntele Rosu	9.78	35	⇑P	Pn	05 02 28.0	+1.8
MLR	Muntele Rosu	9.78	35	P	Pn	05 02 27.6	+1.4
	comp=N,2.0nm,0.3s						
MLR				S	Sn	05 04 12.9	-1.7
ABTA	Abfaltersbach	9.86	338	⇑*e*Pn	Pn	05 02 27.1	-0.3
	comp=N,29nm,0.6s,SNR=50						
ABTA				⇓*i*Sn	Sn	05 04 12.1	-4.6
	comp=N,10nm,0.5s						
ABTA	Abfaltersbach	9.86	338	Pn	Pn	05 02 27.1	-0.3
	comp=N,29nm,0.6s,SNR=50						
ISP	Isparta	9.93	86	*e*P	Pn	05 02 26.5	-1.9
ISP				pmax	pmax		
	comp=Z,25nm,0.6s						
ISP	Isparta	9.93	86	*e*Pn	Pn	05 02 26.5	-1.9
	comp=Z,25nm,0.6s						
KBA	Koelnbreinsper	9.93	341	*e*Pn	Pn	05 02 28.2	-0.1
KBA				*e*Sn	Sn	05 04 16.0	-2.4
KBA	Koelnbreinsper	9.93	341	⇑*i*Pn	Pn	05 02 28.4	0.0
	comp=Z,16nm,0.4s,SNR=35						
KBA				⇑*i*Sn	Sn	05 04 15.2	-3.2
	comp=Z,5.3nm,0.5s						
KBA	Koelnbreinsper	9.93	341	Pn	Pn	05 02 28.4	+0.1
	comp=Z,16nm,0.4s,SNR=35						
KBA				Sn	Sn	05 04 15.2	-3.2
	comp=Z,5.3nm,0.5s						
SOP	Sopron	9.99	355	⇑*e*P	Pn	05 02 28.9	-0.2
SOP	Sopron	9.99	355	⇑*e*Pn	Pn	05 02 28.9	-0.2
PSZ	Piszkesteto	10.27	7	*e*P	Pn	05 02 25.4	-7.5
PSZ	Piszkesteto	10.27	7	*e*Pn	Pn	05 02 31.5	-1.4
PSZ				*e*Sn	Sn	05 04 20.3	-6.4
PSZ	Piszkesteto	10.27	7	*e*P	Pn	05 02 31.5	-1.4
CONA	Conrad Observa	10.30	352	⇑*i*Pn	Pn	05 02 33.5	+0.2
	comp=Z,5.8nm,0.4s,SNR=27						
CONA				⇑*i*Sn	Sn	05 04 23.3	-4.0
	comp=Z,12nm,0.8s						
CONA	Conrad Observa	10.30	352	Pn	Pn	05 02 33.5	+0.2
	comp=Z,5.8nm,0.4s,SNR=27						
CSNA	Conrad Observa	10.30	352	⇑*i*Pn	Pn	05 02 33.5	+0.2
	comp=Z,4.5nm,0.4s						
CSNA				⇑*e*Sn	Sn	05 04 21.3	-6.1
	comp=Z,8.7nm,0.5s						
CSNA	Conrad Observa	10.30	352	Pn	Pn	05 02 33.5	+0.2
	comp=Z,4.5nm,0.4s						
TIRR	Tirgusor	10.35	46	⇓*i*P	Pn	05 02 34.1	+0.1
TIRR	Tirgusor	10.35	46	⇓P	Pn	05 02 34.1	0.0
TIRR	Tirgusor	10.35	46	P	Pn	05 02 34.1	+0.1
LGHD	Ghdames	10.46	225	*i* P	Pn	05 02 27.8	-7.8
	SNR=22						
MOA	Molln	10.46	346	*e*Pn	Pn	05 02 36.1	+0.6
MOA				*e*Sn	Sn	05 04 26.7	-4.6
MOA	Molln	10.46	346	⇓*i*Pn	Pn	05 02 36.4	+0.8
	comp=Z,57nm,1.5s,SNR=27						
MOA				⇑*e*Sn	Sn	05 04 27.4	-3.9
	comp=Z,8.1nm,0.4s						
MOA	Molln	10.46	346	Pn	Pn	05 02 36.4	+0.9
	comp=Z,57nm,1.5s,SNR=27						
ZST	Bratislava	10.47	357	*e*PN	Pn	05 02 35.9	+0.2
ZST				*e*SN	Sn	05 04 23.5	-8.0
ZST	Bratislava	10.47	357	*e*P	Pn	05 02 35.9	+0.2
HENT	Hendek	10.49	69	*i* P	Pn	05 02 37.3	+1.3
HENT	Hendek	10.49	69	*i* P	Pn	05 02 37.3	+1.3
SWA2		10.53	141	P	Pn	05 02 29.4	-7.2
SWA2				S	Sn	05 03 59.6	-34
WTTA	Wattenberg	10.60	336	*e*Pn	Pn	05 02 38.4	+1.0
WTTA				*e*Sn	Sn	05 04 34.3	-0.3
WTTA	Wattenberg	10.60	336	⇑*i*Pn	Pn	05 02 38.7	+1.3
	comp=Z,10nm,0.4s						
WTTA				⇑*i*Sn	Sn	05 04 33.4	-1.3
	comp=Z,12nm,0.5s						
WTTA	Wattenberg	10.60	336	Pn	Pn	05 02 38.7	+1.3
	comp=Z,10nm,0.4s						
WTTA				Sn	Sn	05 04 33.4	-1.2
	comp=Z,12nm,0.5s						
SWA1		10.64	140	P	Pn	05 02 29.4	-8.7
SWA1				S	Sn	05 03 59.6	-36
MODS	Modra-Piesok	10.64	358	*e*PN	Pn	05 02 37.7	-0.3
MODS				*e*SN	Sn	05 04 27.9	-7.8
MODS	Modra-Piesok	10.64	358	*e*P	Pn	05 02 37.7	-0.3
WATA	Walderalm	10.68	336	⇓*e*Pn	Pn	05 02 40.0	+1.5
	comp=Z,24nm,0.5s,SNR=9.0						
WATA	Walderalm	10.68	336	Pn	Pn	05 02 40.0	+1.5
	comp=Z,24nm,0.5s,SNR=9.0						
FETA	Feichten	10.70	332	*i* Pn	Pn	05 02 41.0	+2.2
	comp=Z,12nm,0.8s,SNR=6.8						
SQTA	Sankt Quirin	10.70	334	⇑*i*Pn	Pn	05 02 40.7	+1.8
SQTA	Sankt Quirin	10.70	334	Pn	Pn	05 02 40.7	+1.9
VYHS	Vyhne	10.77	3	*e*PN	Pn	05 02 40.0	+0.3
VYHS				*e*SN	Sn	05 04 32.6	-6.2
VYHS	Vyhne	10.77	3	*e*P	Pn	05 02 40.0	+0.3
TUE	Stuetta	10.81	327	*e*Pn	Pn	05 02 39.8	-0.6
	comp=Z,5.4nm,0.6s						
TUE				*e*Sn	Sn	05 04 42.0	+2.0
TUE	Stuetta	10.81	327	*e*Pn	Pn	05 02 39.8	-0.6
	comp=Z,5.4nm,0.6s						
DAVOX	Davos/Dischmat	10.83	329	Pn	Pn	05 02 41.3	+0.7
	baz=155,slow=19						
DAVOX				Sn	Sn	05 04 39.5	-1.0
	comp=Z,0.4nm,0.3s,baz=155,slow=17,SNR=2.0						
DAVOX	Davos/Dischmat	10.83	329	Pn	Pn	05 02 41.3	+0.7
DAVOX				Sn	Sn	05 04 39.5	-0.9
KOLL	Kolacno	10.84	2	*e*PN	Pn	05 02 40.7	0.0
KOLL				*e*SN	Sn	05 04 34.0	-6.6
KOLL	Kolacno	10.84	2	*e*P	Pn	05 02 40.7	0.0
MOTA	Moosalm	10.85	334	⇓*i*Sn	Sn	05 04 41.0	+0.3
	comp=Z,5.4nm,0.5s						
MOTA	Moosalm	10.85	334	Sn	Sn	05 04 41.0	+0.3
	comp=Z,5.4nm,0.5s						
KECS	Kecovo	10.89	9	*e*PN	Pn	05 02 42.0	+0.5
KECS				*e*SN	Sn	05 04 35.0	-6.9
RSP	Reno Superiore	10.91	316	P	Pn	05 02 41.3	-0.4
DAVOS	Davos	10.91	329	P	Pn	05 02 41.3	-0.5
DAVOS						05 04 39.5	
DAVOS	Davos	10.91	329	P	Pn	05 02 41.3	-0.5
DAVOS				S	Sn	05 04 39.5	-2.9
MBDF	Montbardon	10.94	313	*e*P	Pn	05 02 46.1	+4.1
	comp=Z,36nm,0.8s						
RETA	Reutte	11.09	334	⇓*i*Pn	Pn	05 02 46.3	+2.2
	comp=Z,19nm,1.0s,SNR=6.7						
RETA				⇑*i*Sn	Sn	05 04 46.0	-0.6
	comp=Z,4.2nm,0.4s						
RETA	Reutte	11.09	334	Sn	Sn	05 04 46.0	-0.6
	comp=Z,4.2nm,0.4s						
KDHN	Kadinhani	11.18	82	*i* P	Pn	05 02 47.6	+2.1
KDHN	Kadinhani	11.18	82	*i* P	Pn	05 02 47.6	+2.2
BNI	Bardonecchia	11.18	314	*e*P	Pn	05 02 49.3	+3.9
BUR08	Bucovina Ar. S	11.23	26	*e*Pn	Pn	05 02 48.2	+2.1
BUR08	Bucovina Ar. S	11.23	26	*e*Pn	Pn	05 02 48.2	+2.1
DAVA	Damuels	11.24	331	*e*Pn	Pn	05 02 47.5	+1.3
DAVA	Damuels	11.24	331	⇑*i*Pn	Pn	05 02 47.8	+1.5
	comp=Z,10nm,0.7s						
DAVA				⇑*i*Sn	Sn	05 04 49.8	-0.7
	comp=Z,4.6nm,0.4s						
DAVA	Damuels	11.24	331	Pn	Pn	05 02 47.8	+1.6
	comp=Z,10nm,0.7s						
DAVA				Sn	Sn	05 04 49.8	-0.7
	comp=Z,4.6nm,0.4s						
LPG	La Plagne	11.41	316	*e*P	Pn	05 02 50.3	+1.7
LPG	La Plagne	11.41	316	*e*P	Pn	05 02 50.3	+1.7
LPL	La Plagne	11.44	316	*e*P	Pn	05 02 50.4	+1.5
LPL	La Plagne	11.44	316	*e*P	Pn	05 02 50.4	+1.5
GEC2	GERESS Array S	11.52	346	*e*Pn	Pn	05 02 49.1	-1.0
GEC2				*e*Sn	Sn	05 04 50.5	-6.8
GEC2	GERESS Array S	11.52	346	*e*P	Pn	05 02 49.1	-1.0
GERES	GERESS Array B	11.52	346	P	Pn	05 02 49.7	-0.4
GERES						05 04 50.6	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES				smax			
	comp=N,2.0nm,0.3s						
GERES	GERESS Array B	11.52	346	Pn	Pn	05 02 49.7	-0.4
	comp=N,1.0nm,0.3s,baz=162,slow=14,SNR=33						
GERES				Sn	Sn	05 04 50.6	-6.7
	comp=N,2.0nm,0.3s,baz=154,slow=24,SNR=10						
GERES	GERESS Array B	11.52	346	P	Pn	05 02 49.7	-0.4
	comp=N,1.0nm,0.3s						
ORIF	Oris-en-Rattie	11.56	312	*e*P	Pn	05 02 53.4	+2.7
	comp=N,16nm,0.7s						
ORIF	Oris-en-Rattie	11.56	312	*e*P	Pn	05 02 53.4	+2.7
ORIF				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ORIF	Oris-en-Rattie	11.56	312	*e*P	Pn	05 02 53.4	+2.7
	comp=Z,8.1nm,0.7s						
VRAC	Vranov	11.61	356	LR	LR	05 06 51.2	
	comp=Z,95nm,19.4s,baz=38,slow=35						
KOLS	Kolonicke sedl	11.62	14	*e*P	Pn	05 02 53.4	+2.1
KOLS				*e*		05 04 54.6	
KOLS	Kolonicke sedl	11.62	14	*e*PN	Pn	05 02 53.4	+2.1
KOLS				*e*SN	Sn	05 04 54.5	-5.1
KOLS	Kolonicke sedl	11.62	14	*e*P	Pn	05 02 53.4	+2.1
KHC	Kasperske Hory	11.82	346	*e*P	Pn	05 02 53.8	-0.3
KHC				*e*x	x	05 03 02.0	
KHC				*e*S	Sn	05 04 57.4	-7.2
KHC	Kasperske Hory	11.82	346	Pn	Pn	05 02 53.8	-0.3
STHS	Stebnicka Huta	11.91	10	*e*PN	Pn	05 02 56.6	+1.3
STHS	Stebnicka Huta	11.91	10	*e*P	Pn	05 02 56.6	+1.3
WET	Wettzell	11.98	344	*e*Pn	Pn	05 02 55.4	-0.9
WET				*e*Sn	Sn	05 05 00.3	-8.1
WET	Wettzell	11.98	344	*e*P	Pn	05 02 55.4	-0.9
MORC	Moravsky Berou	12.04	359	*e*Pn	Pn	05 02 57.3	+0.2
BRTR	Keskin Array B	12.40	76	Pn	Pn	05 03 03.0	+0.8
	comp=Z,1.3nm,0.3s,baz=264,slow=13,SNR=52						
BRTR	Keskin Array B	12.40	76	P	Pn	05 03 03.0	+0.8
BALT	Daday	12.48	68	*e*P	Pn	05 03 04.3	+1.1
BALT	Daday	12.48	68	*e*P	Pn	05 03 04.3	+1.1
CABF	La Chapelle	12.48	319	*e*P	Pn	05 03 03.0	-0.2
	comp=Z,17nm,0.7s						
CABF	La Chapelle	12.48	319	*e*P	Pn	05 03 03.0	-0.2
	comp=Z,8.5nm,0.7s						
DPC	Dobruska-Polom	12.66	355	*e*P	Pn	05 03 06.0	+0.4
DPC	Dobruska-Polom	12.66	355	Pn	Pn	05 03 06.0	+0.4
CSS	Prodhromos	12.70	98	*e*Pn	Pn	05 03 00.9	-5.3
	comp=Z,16nm,0.6s						
BFO	Black Forest	12.70	329	*e*Pn	Pn	05 03 07.7	+1.5
BFO	Black Forest	12.70	329	*e*Pn	Pn	05 03 06.8	+0.7
BFO	Black Forest	12.70	329	*e*P	Pn	05 03 06.8	+0.6
ROTZ	Rotzenmuhle	12.72	343	*e*Pn	Pn	05 03 05.5	-0.8
ROTZ				*e*Sn	Sn	05 05 20.1	-6.3
STU	Stuttgart	12.73	333	P	Pn	05 03 08.8	+2.2
GRFO	Grafenberg	12.89	340	*e*P	Pn	05 03 08.7	-0.1
GRFO	Grafenberg	12.89	340	*e*P	Pn	05 03 08.7	-0.1
MANZ	Manzenberg	12.94	343	*e*Pn	Pn	05 03 08.1	-1.3
HINF	Hinteralfeld	12.95	325	*e*P	Pn	05 03 08.7	-0.8
	comp=Z,5.0nm,0.5s						
HINF	Hinteralfeld	12.95	325	*e*P	Pn	05 03 08.7	-0.8
HINF				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HINF	Hinteralfeld	12.95	325	*e*P	Pn	05 03 08.7	-0.8

	comp=Z,2.5nm,0.5s						
HINF	Hinteralfeld	12.95	325	*e*P	Pn	05 03 08.7	-0.8
	comp=Z,2.5nm,0.5s						
CDAG	Cicekdag	12.96	77	*i* P	Pn	05 03 11.2	+1.4
CDAG	Cicekdag	12.96	77	*i* P	Pn	05 03 11.2	+1.4
ECH	Echery	13.11	326	*e*P	Pn	05 03 10.0	-1.7
ECH				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ECH	Echery	13.11	326	*e*Pn	Pn	05 03 10.0	-1.6
	comp=Z,3.4nm,0.8s						
ECH	Echery	13.11	326	*e*P	Pn	05 03 10.0	-1.7
	comp=Z,3.0nm,0.8s						
AWBH		13.12	133	P	Pn	05 03 05.1	-7.0
AWBH		13.12	133	P	Pn	05 03 05.1	-6.9
WERN	Wernitzgruen	13.17	344	*e*Pn	Pn	05 03 11.5	-1.0
CDF	Champ du Feu	13.21	327	*e*P	Pn	05 03 11.5	-1.5
	comp=Z,11nm,0.6s						
CDF	Champ du Feu	13.21	327	*e*P	Pn	05 03 11.5	-1.5
CDF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CDF	Champ du Feu	13.21	327	*e*P	Pn	05 03 11.5	-1.5
	comp=Z,5.4nm,0.6s						
CDF	Champ du Feu	13.21	327	*e*P	Pn	05 03 11.5	-1.5
	comp=Z,5.4nm,0.6s						
GUNZ	Gunzen	13.25	344	*e*Pn	Pn	05 03 11.8	-1.8
TANN	Tannenbergstha	13.27	345	*e*Pn	Pn	05 03 12.8	-1.1
HAU	Haudompre	13.32	324	*e*P	Pn	05 03 12.8	-1.8
	comp=Z,6.1nm,0.5s						
HAU	Haudompre	13.32	324	*e*P	Pn	05 03 12.8	-1.8
HAU				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HAU	Haudompre	13.32	324	*e*P	Pn	05 03 12.8	-1.8
	comp=Z,3.0nm,0.5s						
HAU	Haudompre	13.32	324	*e*P	Pn	05 03 12.8	-1.8
	comp=Z,3.0nm,0.5s						
WERD	Werda	13.33	344	*e*Pn	Pn	05 03 14.1	-0.6
WERD				*e*Pn	Pn	05 03 14.7	0.0
WERD				*e*Sn	Sn	05 05 35.2	-6.3
BRG	Berggiesshubel	13.44	349	*e*P	Pn	05 03 17.3	+1.1
BRG				pmax	pmax		
	comp=Z,2.0nm,1.0s						
BRG				pmax	pmax		
	comp=Z,2.0nm,1.3s						
BRG	Berggiesshubel	13.44	349	*e*P	Pn	05 03 17.3	+1.1
	comp=Z,3.7nm,1.0s						
BRG				*i*		05 03 31.2	
	comp=Z,7.2nm,1.2s						
BRG	Berggiesshubel	13.44	349	*e*P	Pn	05 03 17.3	+1.1
	comp=Z,2.0nm,1.3s						
FYM	Al Fayyum	13.52	123	P	Pn	05 03 10.1	-7.3
BOYT	Boyabat	13.57	69	*e*P	Pn	05 03 25.2	+7.1
AYT	Al ‘Ayyat	13.58	122	P	Pn	05 03 11.3	-7.0
AYT	Al ‘Ayyat	13.58	122	P	Pn	05 03 11.3	-7.0
MOX	Moxa	13.67	343	*e*P	Pn	05 03 18.5	-0.9
MOX	Moxa	13.67	343	*e*Pn	Pn	05 03 18.1	-1.3
MOX				*e*Sn	Sn	05 05 40.9	-8.9
MOX	Moxa	13.67	343	*e*P	Pn	05 03 18.5	-0.9
HFRF	Wahat Farafira	13.70	137	P	Pn	05 03 12.9	-7.0
HFRF	Wahat Farafira	13.70	137	P	Pn	05 03 12.9	-7.0
SMF	Signal de Mont	13.72	315	*e*P	Pn	05 03 20.3	+0.2
	comp=Z,19nm,1.1s						
SMF	Signal de Mont	13.72	315	*e*P	Pn	05 03 20.3	+0.2
SMF				pmax	pmax		
	comp=Z,10.0nm,1.1s						
SMF	Signal de Mont	13.72	315	*e*P	Pn	05 03 20.3	+0.2
	comp=Z,9.6nm,1.1s						
SMF	Signal de Mont	13.72	315	*e*P	Pn	05 03 20.3	+0.2
	comp=Z,9.6nm,1.1s						
KOT	Kottamia	13.90	120	P	Pn	05 03 16.2	-6.4
KOT	Kottamia	13.90	120	P	Pn	05 03 16.2	-6.5
CAF	Calviac	13.92	306	*e*P	Pn	05 03 26.9	+4.1
	comp=Z,5.7nm,0.8s						
CAF	Calviac	13.92	306	*e*P	Pn	05 03 26.9	+4.1
	comp=Z,2.8nm,0.8s						
CLL	Collm	14.01	347	*e*(P)	Pn	05 03 23.0	-1.0
CLL				*e*PP		05 03 34.0	
GLL	Jalalah	14.04	121	P	Pn	05 03 17.9	-6.6
GLL	Jalalah	14.04	121	P	Pn	05 03 17.9	-6.6
AVF	Avril sur Loir	14.08	315	*e*P	Pn	05 03 24.7	-0.3
	comp=Z,13nm,1.0s						
LOR	Lormes	14.08	317	*e*P	Pn	05 03 24.2	-0.8
	comp=Z,22nm,1.1s						
LOR	Lormes	14.08	317	*e*P	Pn	05 03 24.2	-0.8
LOR				pmax	pmax		
	comp=Z,11nm,1.1s						
LOR	Lormes	14.08	317	*e*P	Pn	05 03 24.2	-0.8
	comp=Z,11nm,1.1s						
SSF	Saint Saulge	14.15	316	*e*P	Pn	05 03 25.4	-0.5
	comp=Z,37nm,1.3s						
SSF	Saint Saulge	14.15	316	*e*P	Pn	05 03 25.4	-0.5
SSF				pmax	pmax		
	comp=Z,19nm,1.3s						
SSF	Saint Saulge	14.15	316	*e*P	Pn	05 03 25.4	-0.5
	comp=Z,19nm,1.3s						
BGF	Bois d’Agland	14.24	313	*e*P	Pn	05 03 27.7	+0.5
	comp=Z,10nm,0.6s						
RJF	Les Rejaudoux	14.44	307	*e*P	Pn	05 03 32.8	+3.0
	comp=Z,18nm,1.2s						
RJF	Les Rejaudoux	14.44	307	*e*P	Pn	05 03 32.8	+3.0
RJF				pmax	pmax		
	comp=Z,9.0nm,1.2s						
RJF	Les Rejaudoux	14.44	307	*e*P	Pn	05 03 32.8	+3.0
	comp=Z,9.1nm,1.2s						
TCF	Toulx Ste Croi	14.47	311	*e*P	Pn	05 03 32.4	+2.1
	comp=Z,6.6nm,0.8s						
EBIE	Bielsa	14.48	296	P	Pn	05 03 36.5	+6.1
	comp=Z,5.0nm,1.0s						
EBIE	Bielsa	14.48	296	P	Pn	05 03 36.5	+6.1
	comp=Z,5.0nm,1.0s						
SUZ		14.65	118	P	Pn	05 03 26.3	-6.4
SUZ		14.65	118	P	Pn	05 03 26.3	-6.5
LFF	La Frestale	14.79	305	*e*P	Pn	05 03 37.4	+2.9
	comp=Z,6.4nm,0.5s						
LFF	La Frestale	14.79	305	*e*P	Pn	05 03 37.4	+2.9
	comp=Z,3.2nm,0.5s						
ZAF		14.79	120	P	Pn	05 03 28.4	-6.3
ZAF		14.79	120	P	Pn	05 03 28.4	-6.3
ZNM		14.96	120	P	Pn	05 03 30.6	-6.3
ZNM		14.96	120	P	Pn	05 03 30.6	-6.3
MMAI	Mount Meron Ar	14.98	103	Pn	Pn	05 03 30.6	-6.6
	comp=Z,3.9nm,0.3s,baz=299,slow=12,SNR=11						
MMAI				Sn	Sn	05 06 05.1	-17
	comp=Z,11nm,0.3s,baz=316,slow=21,SNR=12						
AKASG	Malin Array Be	15.24	28	P	Pn	05 03 39.9	-0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	15.24	28	Pn	Pn	05 03 39.9	-0.5
	comp=Z,1.1nm,0.3s,baz=220,slow=10,SNR=6.0						
ASUT		15.40	128	P	Pn	05 03 36.5	-6.2
ASUT		15.40	128	P	Pn	05 03 36.5	-6.2
HNKL	Nakhl	15.41	116	P	Pn	05 03 37.1	-5.6
HNKL	Nakhl	15.41	116	P	Pn	05 03 37.1	-5.6
GZT	Gaziantep	15.56	85	*e*P	Pn	05 03 46.7	+2.1
AKCD	Akcadag	15.74	82	*e*P	Pn	05 03 47.9	+0.8
ETOR	Torete	15.80	287	P	Pn	05 03 53.7	+6.0
ETOR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
ETOR	Torete	15.80	287	P	Pn	05 03 53.7	+6.0
	comp=Z,4.4nm,0.4s						
MFF	Saint Martin d	16.05	309	*e*P	Pn	05 03 52.7	+1.8
MFF	Saint Martin d	16.05	309	*e*P	Pn	05 03 52.7	+1.8
MALT	Malatya	16.14	82	*e*P	Pn	05 03 52.5	+0.4
MALT				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MALT	Malatya	16.14	82	*e*P	Pn	05 03 52.5	+0.4
	comp=Z,5.7nm,0.7s						
KEMA	Kemaliye	16.15	78	*e*P	Pn	05 03 52.9	+0.8
EIL	Elat	16.25	115	Pn	Pn	05 03 49.6	-4.0
	comp=Z,1.4nm,0.3s,baz=253,slow=4.8,SNR=12						
EIL				Sn	Sn	05 06 33.0	-20
	comp=Z,4.3nm,0.3s,baz=296,slow=11,SNR=11						
ASF	Jabal al Asfar	16.48	104	Pn	Pn	05 03 52.0	-4.4
	comp=Z,0.5nm,0.3s,baz=139,slow=7.4,SNR=7.4						
ASF				Sn	Sn	05 06 45.7	-13
	comp=Z,0.9nm,0.3s,baz=20,slow=20,SNR=4.6						
ASF				LR	LR	05 10 16.4	
	comp=Z,111nm,21.2s,baz=176,slow=37						
EQES	Quesada	16.63	277	P	Pn	05 04 04.0	+5.7
	comp=Z,4.9nm,0.6s						
LDF	La Druitiere	17.04	315	*e*P	Pn	05 04 03.1	-0.1
	comp=Z,7.4nm,0.7s						
LDF	La Druitiere	17.04	315	*e*P	Pn	05 04 03.1	-0.1
	comp=Z,3.7nm,0.7s						
ELAN	Lanestosa	17.16	295	P	Pn	05 04 05.7	+0.8
	comp=Z,11nm,0.9s						
ELAN	Lanestosa	17.16	295	P	Pn	05 04 05.7	+0.9
	comp=Z,11nm,0.9s						
ESDC	Sonseca Array	17.22	283	P	Pn	05 04 09.3	+3.7
	comp=Z,0.2nm,0.2s						
FLN	La Foliniere	17.33	315	*e*P	Pn	05 04 05.5	-1.4
	comp=Z,24nm,1.0s						
FLN	La Foliniere	17.33	315	*e*P	Pn	05 04 05.5	-1.4
	comp=Z,12nm,1.0s						
GRR	Gorron	17.34	314	*e*P	Pn	05 04 04.8	-2.3
	comp=Z,13nm,0.9s						
SGMF	Saint Gilles	18.27	312	*e*P	Pn	05 04 18.5	+0.1
SGMF	Saint Gilles	18.27	312	*e*P	Pn	05 04 18.5	+0.1
EARI	Arriondas	18.45	295	P	Pn	05 04 19.9	-0.8
	comp=Z,6.0nm,1.0s						
EARI	Arriondas	18.45	295	P	Pn	05 04 19.9	-0.8
	comp=Z,6.0nm,1.0s						
QUIF	Quistinic	18.48	310	*e*P	Pn	05 04 20.8	-0.2
QUIF	Quistinic	18.48	310	*e*P	Pn	05 04 20.8	-0.2
ROSF	Rostrenen	18.73	311	*e*P	Pn	05 04 23.3	-0.7
	comp=Z,12nm,0.8s						
ROSF	Rostrenen	18.73	311	*e*P	Pn	05 04 23.3	-0.7
	comp=Z,6.1nm,0.8s						
MDT	Midelt	19.06	262	P	Pn	05 04 25.7	-2.5
	comp=Z,0.1nm,0.3s,baz=83,slow=13,SNR=9.4						
MDT	Midelt	19.06	262	P	Pn	05 04 25.7	-2.4
EMIN	Mina Concepcio	19.47	278	P	Pn	05 04 35.6	+2.6
	comp=Z,6.5nm,0.8s						
MVO	Moncorvo	19.58	288	*e*P	Pn	05 04 38.1	+3.8
EBAD	Badajoz	19.63	281	P	Pn	05 04 36.2	+1.3
	comp=Z,4.2nm,0.6s						
KIV	Kislovodsk	19.67	64	*e*P	Pn	05 04 29.8	-5.5
KIV				pmax	pmax		
	comp=Z,26nm,1.1s						
KIV	Kislovodsk	19.67	64	*e*P	Pn	05 04 35.8	+0.5
	comp=Z,28nm,1.1s						
KIV	Kislovodsk	19.67	64	*e*P	Pn	05 04 35.8	+0.5
	comp=Z,28nm,1.1s						
EPON	Pontenova	19.85	294	P	Pn	05 04 34.4	-3.1
	comp=Z,3.1nm,0.7s						
EPON	Pontenova	19.85	294	P	Pn	05 04 34.4	-3.1
	comp=Z,3.1nm,0.7s						
PMRV	Marv??o	19.88	283	*e*P	Pn	05 04 39.6	+1.8
PESTR	Estremoz	20.07	281	*e*P	P	05 04 39.6	+1.6
PESTR	Estremoz	20.07	281	*e*P	P	05 04 39.6	+1.6
VSR	Storozhevoye	20.16	41	*e*P	P	05 04 39.0	+0.1
VSR				pmax	pmax		
	comp=Z,8.0nm,0.5s						
VSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VSR				pmax	pmax		
	comp=E,5.0nm,0.7s						
VSR	Storozhevoye	20.16	41	*e*P	P	05 04 39.0	+0.1
	comp=E,10.0nm,0.9s						
GNI	Garni	20.94	75	*i* P	P	05 04 47.8	+0.3
GNI				pmax	pmax		
	comp=Z,35nm,1.5s						
GNI	Garni	20.94	75	P	P	05 04 46.6	-0.9
	comp=Z,3.5nm,0.5s,baz=179,slow=6.0,SNR=6.2						
GNI	Garni	20.94	75	*e*P	P	05 04 47.8	+0.4
GNI	Garni	20.94	75	*i* P	P	05 04 47.8	+0.3
	comp=Z,35nm,1.5s						
VRHR	Novokhopersk	21.42	44	*e*P	P	05 04 53.0	+0.5
VRHR				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.7						
VRHR				pmax	pmax		
	comp=N,3.0nm,0.3s						
VRHR	Novokhopersk	21.42	44	*e*P	P	05 04 53.0	+0.5
	comp=N,3.0nm,0.3s,mb4.1						
OBN	Obninsk	21.48	30	*e*P	P	05 04 57.4	+4.3
OBN				*e*		05 05 19.5	
OBN				*e*		05 08 56.2	
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.0						
OBN	Obninsk	21.48	30	*e*PcP	PcP	05 08 56.2	+1.6
HFS	Hagfors	22.58	354	P	P	05 05 04.4	-0.4
	comp=Z,2.7nm,0.4s,mb4.1,baz=185,slow=8.9,SNR=16						
HFS	Hagfors	22.58	354	P	P	05 05 04.4	-0.3
EKA	Eskdalemuir Ar	22.67	328	P	P	05 05 04.8	-0.9
	comp=Z,2.4nm,0.6s,mb3.8,baz=135,slow=11,SNR=8.0						
EKA	Eskdalemuir Ar	22.67	328	P	P	05 05 04.9	-0.8
NB2	NORSAR Subarra	23.71	352	P	P	05 05 17.0	+0.9
	comp=Z,2.7nm,0.7s,mb3.8,baz=167,slow=9.3						
NB2	NORSAR Subarra	23.71	352	P	P	05 05 17.0	+0.9
	comp=Z,2.7nm,0.7s,mb3.8,baz=167,slow=9.1,SNR=7.9						
NOA	NORSAR Array B	23.71	352	P	P	05 05 16.1	0.0
	comp=Z,2.0nm,0.7s,mb3.7,baz=166,slow=9.1,SNR=5.6						
NOA	NORSAR Array B	23.71	352	P	P	05 05 16.1	0.0
KAF	Kangasniemi	24.94	9	*e*P	P	05 05 24.8	-2.5
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.2						
KAF	Kangasniemi	24.94	9	*e*p	P	05 05 24.8	-2.5
	comp=Z,3.5nm,0.5s,mb4.2						
JOF	Joensuu	26.50	14	*e*P	P	05 05 37.7	-3.7
JOF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
JOF	Joensuu	26.50	14	*e*p	P	05 05 37.7	-3.7
	comp=Z,2.0nm,0.6s,mb3.8						
TORD	Torodi Ar. Bea	28.46	215	P	P	05 05 57.6	-1.9
	comp=Z,2.1nm,0.8s,mb3.8,baz=32,slow=3.6,SNR=21						
ARCES	ARCESS Array B	32.12	5	P	P	05 06 31.2	0.0
	comp=Z,2.0nm,0.5s,mb4.2,baz=190,slow=9.2,SNR=12						
ARCES	ARCESS Array B	32.12	5	P	P	05 06 31.2	0.0
DBIC	Dimbokro	37.23	220	P	P	05 07 14.1	-1.8
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.9s						
DBIC	Dimbokro	37.23	220	P	P	05 07 14.1	-1.8
	comp=Z,1.9nm,0.8s,mb4.0,baz=358,slow=9.7,SNR=3.6						
DBIC	Dimbokro	37.23	220	*e*P	P	05 07 14.5	-1.4
	comp=Z,10nm,1.2s,mb4.5						
DBIC	Dimbokro	37.23	220	*e*P	P	05 07 14.5	-1.4
	comp=Z,10nm,1.2s,mb4.5						
KURK	Kurchatov	44.16	53	*e*P	P	05 08 12.8	+0.1
KURK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
KURK	Kurchatov	44.16	53	*e*P	P	05 08 12.8	+0.1
	comp=Z,10nm,0.9s,mb4.6						
KURK	Kurchatov	44.16	53	*e*P	P	05 08 12.8	+0.1
	comp=Z,10nm,0.9s,mb4.6						
NVS	Novosibirsk	46.45	46	*e*P	P	05 08 31.7	+0.9
NVS				pmax	pmax		
	comp=E,11nm,1.0s						
NVS				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
NVS	Novosibirsk	46.45	46	*e*P	P	05 08 31.7	+0.9
MK31	Makanchi Array	47.25	57	*e*P	P	05 08 37.4	+0.3
MK31	Makanchi Array	47.25	57	*e*P	P	05 08 37.4	+0.3
MKAR	Makanchi Array	47.25	57	P	P	05 08 37.4	+0.2
	comp=Z,6.7nm,0.5s,mb4.8,baz=277,slow=7.3,SNR=189						
ZAA0	Zalesovo Array	47.48	48	*e*P	P	05 08 39.2	+0.3
ZAA0	Zalesovo Array	47.48	48	*e*P	P	05 08 39.2	+0.3
ZALV	Zalesovo Beam	47.48	48	P	P	05 08 39.2	+0.3
	comp=Z,10.0nm,0.5s,mb5.0,baz=280,slow=8.7,SNR=68						
ZALV	Zalesovo Beam	47.48	48	P	P	05 08 39.2	+0.3
ZALV	Zalesovo Beam	47.48	48	P	P	05 08 39.2	+0.3
FRB	Frobisher Bay	55.43	327	P	P	05 09 40.1	+2.0
	comp=Z,1.6nm,0.7s,mb4.2,baz=55,slow=9.3,SNR=5.3						
FRB	Frobisher Bay	55.43	327	P	P	05 09 40.1	+1.9
SCHQ	Schefferville	57.40	317	P	P	05 09 52.6	+0.3
	comp=Z,1.8nm,0.8s,mb4.2,baz=63,slow=6.8,SNR=4.2						
SCHQ	Schefferville	57.40	317	P	P	05 09 52.6	+0.3
ZAK	Zakamensk	59.36	48	*e*P	P	05 10 03.1	-2.9
ZAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
TIXI	Tiksi	60.76	20	*i* P	P	05 10 23.6	+8.3
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
BOD	Bodaibo	61.95	37	*e*P	P	05 10 22.7	-0.9
BOD	Bodaibo	61.95	37	*e*P	P	05 10 22.7	-0.9
SONM	Songino Array	62.29	50	P	P	05 10 26.4	+0.4
	comp=Z,1.5nm,0.7s,mb4.2,baz=282,slow=8.1,SNR=13						
SONM	Songino Array	62.29	50	P	P	05 10 26.4	+0.4
BILL	Bilibino	71.88	12	*e*P	P	05 11 33.0	+6.5
BILL				*e*		05 11 50.7	
BILL				*e*		05 14 10.9	
BILL				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
CMAR	Chiang Mai Arr	71.95	80	P	P	05 11 27.1	-0.7
	comp=Z,0.8nm,0.5s,mb3.9,baz=305,slow=7.6,SNR=5.2						
CMAR	Chiang Mai Arr	71.95	80	P	P	05 11 27.1	-0.7
YKA	Yellowknife Ar	73.09	339	P	P	05 11 35.0	+1.2
	comp=Z,0.2nm,0.5s,mb3.3,baz=40,slow=5.8,SNR=4.3						
YKA	Yellowknife Ar	73.09	339	P	P	05 11 35.0	+1.2
YKA	Yellowknife Ar	73.09	339	P	P	05 11 35.0	+1.2
ULM	Lac du Bonnet	74.83	323	P	P	05 11 46.0	+1.9
	comp=Z,1.9nm,0.5s,mb4.2,baz=28,slow=4.6,SNR=4.3						
ULM	Lac du Bonnet	74.83	323	P	P	05 11 46.0	+1.8

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*NEIC **21** 05:10:31.7, 36°.13N×21°.61E, h4^{km}, MD3.5(ATH), After ATH.*

*CSEM **21** 05:10:31.7, 36°.13N×21°.61E, h4^{km}, MD3.5, After ATH*

ATH 21 05:10:31.7, 36°.13N×21°.61E, h4^{km}, MD3.5/3**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	1.08	14	*e*PG	Pg	05 10 52.0	-0.4
ITM				*e*SG	Sg	05 11 07.1	+0.7
ITM	Ithomi	1.08	14	*e*Pg	Pg	05 10 52.0	-0.4
ITM				*e*Sg	Sg	05 11 07.1	+0.7
KYTH	Kithira	1.16	82	*e*PB	Pb	05 10 54.1	-0.3
KYTH	Kithira	1.16	82	*e*Pb	Pb	05 10 54.1	-0.3
VLI	Veliai	1.22	61	*e*PB	Pb	05 10 54.3	-1.0
VLI				*e*SB	Sb	05 11 11.6	+0.2
VLI	Veliai	1.22	61	*e*Pb	Pb	05 10 54.3	-1.0
VLI				*e*Sb	Sb	05 11 11.6	+0.2
RLS	Riolos of Patr	1.93	357	*e*PG	Pg	05 11 08.0	-0.7
RLS	Riolos of Patr	1.93	357	*e*Pg	Pg	05 11 08.0	-0.7
VLS	Valsamata	2.20	339	*e*PB	Pb	05 11 10.8	-1.2
VLS	Valsamata	2.20	339	*e*Pb	Pb	05 11 10.8	-1.2

IDC 21 05:14:59.3±4.0**, 30°.63S×138°.12E, h0^{km}, mb1 3.0**/3**, mb1mx3.0**/15**, mbtmp2.8**/3**, ML2.6**/2**, Error ellipse: s-maj=79.7km s-min=14.9km az=41.0, South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	3.22	114	Pn	Pn	05 15 51.3	+0.2
	0.2nm,0.3s,baz=301,slow=12,SNR=5.1						
STKA				Pg	Pg	05 15 59.4	-1.7
	0.7nm,0.3s,baz=298,slow=16,SNR=7.9						
STKA				Sn	Sn	05 16 29.5	-0.8
	1.3nm,0.3s,baz=309,slow=21,SNR=3.8						
STKA				Lg		05 16 40.5	
	1.8nm,0.3s,baz=18,slow=19,SNR=6.3						
ASAR	Alice Springs	7.88	331	Pn	Pn	05 16 56.0	+0.8
	0.1nm,0.3s,baz=151,slow=12,SNR=3.4						
ASAR				Sn	Sn	05 18 26.9	+1.7
	0.1nm,0.3s,baz=155,slow=23,SNR=4.7						
ASAR				Lg		05 19 07.9	
	0.0nm,0.3s,baz=154,slow=32,SNR=3.4						
WRA	Warramunga Arr	11.17	341	Pn	Pn	05 17 40.2	-0.1
	0.1nm,0.3s,baz=164,slow=12,SNR=3.0						

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*ISCJB **21** 05:15:08.0±0.7, 76°.91N±0°.03×18°.9E±0°.1, h4^{km}±6^{km}, mb3.7/5, Error ellipse: s-maj=6.6km s-min=4.5km az=137.4*

*MOS **21** 05:15:08.6±3.0, 76°.88N×19°.09E, h10^{km}, mb4.8/1, Error ellipse: s-maj=99.9km s-min=8.6km az=93.8*

*NEIC **21** 05:15:10.7±0.7, 76°.99N×18°.66E, h10^{km}, mb4.4/2, Error ellipse: s-maj=24.7km s-min=9.2km az=71.0*

*IDC **21** 05:15:10.7±0.8, 77°.03N×18°.62E, h0^{km}, mb3.5/4, mb1 3.8/7, mb1mx3.6/25, mbtmp3.7/7, ML3.8/3, Error ellipse: s-maj=33.1km s-min=8.9km az=72.0*

*NAO **21** 05:15:10.4±2.3, 77°.02N×19°.23E, h24^{km}±33^{km}, ML3.8*

*CSEM **21** 05:15:12.7±0.4, 76°.82N×19°.26E, h20^{km}, ML3.7, Error ellipse: s-maj=10.7km s-min=9.9km az=40.0*

*BER **21** 05:15:13.1±3.0, 77°.04N×19°.11E, h19^{km}±13^{km}, MD2.6, ML3.7, ML3.8(NAO)*

ISC 21 05:15:08.9±0.7**, 76°.97N**±0°.03×**18°.9E**±0°.2**, h2**^{km}±6^{km}**, n46,** σ**1^s.41**/62**, mb3.7**/5**, 1C, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.77	274	*e*P	Pg	05 15 24.7	+1.1
HSP				*e*S	Sg	05 15 33.8	+0.2
SPA0	Spitsbergen Ar	1.33	337	Pg	Pg	05 15 34.4	0.0
	baz=151,slow=22						
SPA0				Lg		05 15 52.3	
	baz=148,slow=28						
SPA0	Spitsbergen Ar	1.33	337	Pg	Pg	05 15 34.4	0.0
	baz=151,slow=21,SNR=933						
SPITS	Spitsbergen Ar	1.33	337	Pn	Pn	05 15 34.7	+0.2
	baz=291,slow=16,SNR=650						
SPITS				Sn	Sn	05 15 52.9	+0.2
	baz=300,slow=29,SNR=16						
SPITS	Spitsbergen Ar	1.33	337	Pn	Pn	05 15 34.7	+0.2
SPITS				Sn	Sn	05 15 52.9	+0.2
HOPEN	Hopen	1.48	105	*e*P	Pn	05 15 36.2	-0.3
HOPEN				*e*S	Sb	05 15 55.3	-0.8
HOPEN				*e*Sg	Sg	05 15 58.3	+2.1
HOPEN				AML	AML	05 16 00.7	
	comp=Z,3µm,0.5s						
HOPEN	Hopen	1.48	105	*e*P	Pn	05 15 36.2	-0.2
	SNR=55						
HOPEN				*e*S	Sb	05 15 55.3	-0.8
	SNR=55						
HOPEN				*e*Sg	Sg	05 15 58.3	+2.1
	comp=Z,3µm,0.5s,SNR=93						
KBS	Kingsbay	2.45	327	Pn	Pn	05 15 48.8	-1.0
KBS				Pg	Pg	05 15 55.0	-0.8
KBS				Lg		05 16 25.0	
KBS	Kingsbay	2.45	327	*e*P	Pn	05 15 48.8	-1.0
KBS				*e*Pg	Pg	05 15 54.8	-1.0
KBS				*e*Sg	Sg	05 16 26.4	-1.0
KBS				AML	AML	05 16 37.7	
	comp=Z,2µm,0.3s						
KBS	Kingsbay	2.45	327	*e*Pn	Pn	05 15 48.8	-1.0
KBS				*e*Sg	Sg	05 16 25.6	-1.9
KBS	Kingsbay	2.45	327	Pn	Pn	05 15 48.8	-1.0
KBS				*e*S	Sn	05 16 25.6	+5.4
BJO	Bjornoya	2.48	178	*e*Pg	Pg	05 15 56.1	-0.3
BJO				*e*Sg	Sg	05 16 28.4	-0.1
BJO				AML	AML	05 16 31.6	
	comp=Z,953nm,0.3s						
TRO	Tromso	7.38	180	*e*P	Pn	05 16 57.4	-0.1
TRO	Tromso	7.38	180	*e*P	Pn	05 16 57.4	-0.1
	SNR=51						
KEV	Kevo	7.61	158	*e*P	Pn	05 16 59.7	-0.8
KEV				pmax	pmax		
	comp=Z,7.0nm,0.3s						
KEV	Kevo	7.61	158	*e*p	Pn	05 16 59.7	-0.8
	comp=Z,7.4nm,0.3s						
KEV	Kevo	7.61	158	*e*P	Pn	05 16 59.7	-0.8
	comp=Z,7.4nm,0.3s						
ARA0	ARCESS Array S	7.71	163	Pn	Pn	05 17 00.5	-1.5
	baz=352,slow=12						
ARA0				Sn	Sn	05 18 20.9	-8.8
	baz=358,slow=28						
ARA0	ARCESS Array S	7.71	163	Pn	Pn	05 17 00.4	-1.5
	baz=352,slow=12,SNR=467						
ARCES	ARCESS Array B	7.71	163	Pn	Pn	05 17 03.8	+1.9
	comp=Z,4.0nm,0.3s,baz=355,slow=12,SNR=57						
ARCES				Sn	Sn	05 18 22.7	-6.9
	comp=Z,11nm,0.3s,baz=3.9,slow=20,SNR=7.0						
ARCES	ARCESS Array B	7.71	163	P	Pn	05 17 03.8	+1.9
LOF	Lofoten	9.03	193	*e*Pn	Pn	05 17 22.8	+2.7
LOF				AML	AML	05 19 09.6	
	comp=Z,14nm,0.5s						
APA0	Apatity Array	10.29	149	Pn	Pn	05 17 35.1	-2.2
	baz=338,slow=14						
APA0	Apatity Array	10.29	149	P	Pn	05 17 35.1	-2.2
	baz=338,slow=13,SNR=51						
APA	Apatity	10.38	148	⇑*i*P	Pn	05 17 36.0	-2.4
APA				pmax	pmax		
	comp=Z,29nm,1.2s						
APA	Apatity	10.38	148	*i* P	Pn	05 17 36.0	-2.4
	comp=Z,29nm,1.2s						
STOK	Stokkvaagen	10.85	193	*e*Pn	Pn	05 17 46.9	+2.0
STOK				*e*Sn	Sn	05 19 44.3	-2.4
MOR8	Moi Rana	10.95	190	*e*	Pn	05 17 50.4	+4.1
JOF	Joensuu	14.68	157	*e*P	Pn	05 18 31.3	-5.9
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s						
JOF	Joensuu	14.68	157	*e*p	Pn	05 18 31.3	-5.9
	comp=Z,2.7nm,0.4s						
KAF	Kangasniemi	15.13	167	*e*P	Pn	05 18 40.4	-2.9
KAF				pmax	pmax		
	comp=Z,4.0nm,0.4s						
KAF	Kangasniemi	15.13	167	*e*p	Pn	05 18 40.4	-2.9
	comp=Z,4.4nm,0.4s						
FIA0	FINESS Array S	15.79	167	Pn	Pn	05 18 48.0	-3.9
	baz=357,slow=12						
NOA	NORSAR Array B	16.22	194	Pn	Pn	05 18 58.1	+0.6
	comp=Z,0.2nm,0.3s,baz=2.5,slow=13,SNR=3.0						
NOA	NORSAR Array B	16.22	194	Pn	Pn	05 18 58.1	+0.6
HFS	Hagfors	17.02	189	P	Pn	05 19 09.7	+2.1
	comp=Z,0.6nm,0.3s,baz=19,slow=9.6,SNR=15						

HFS	**Hagfors**	**17.02**	**189**	P	**Pn**	**05 19 09.7**	**+2.1**
NACGM	**Naroch**	**22.36**	**168**	*e*	**P**	**05 20 07.0**	**-0.7**
SUW	**Suwalki**	**23.11**	**174**	*e*P	**P**	**05 20 16.8**	**+1.1**
SUW				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb4.5						
SUW	**Suwalki**	**23.11**	**174**	*e*P	**P**	**05 20 16.8**	**+1.0**
	comp=Z,9.3nm,0.4s,mb4.6						
SUW	**Suwalki**	**23.11**	**174**	*e*P	**P**	**05 20 16.8**	**+1.1**
	comp=Z,9.3nm,0.4s,mb4.6						
AKASG	**Malin Array Be**	**26.68**	**165**	P	**P**	**05 20 52.5**	**+3.8**
	comp=Z,1.4nm,0.7s,mb3.6,baz=354,slow=9.5,SNR=5.0						
MKAR	**Makanchi Array**	**38.96**	**102**	P	**P**	**05 22 37.9**	**+2.1**
	comp=Z,0.5nm,0.7s,mb3.4,baz=348,slow=7.0,SNR=5.2						
TORD	**Torodi Ar. Bea**	**64.46**	**199**	P	**P**	**05 25 46.8**	**+0.4**
	comp=Z,0.4nm,0.6s,mb3.6,baz=356,slow=7.2,SNR=6.0						
TXAR	**Lajitas Array**	**68.41**	**308**	P	**P**	**05 26 13.5**	**+1.8**
	comp=Z,0.6nm,1.1s,mb3.5,baz=16,slow=4.7,SNR=3.7						
TXAR	**Lajitas Array**	**68.41**	**308**	P	**P**	**05 26 13.5**	**+1.8**

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*CSEM **21** 05:18:16.1, 36°.34N×21°.80E, h5^{km}, MD3.8, After ATH*

*NEIC **21** 05:18:16.1, 36°.34N×21°.80E, h5^{km}, MD3.8(ATH), After ATH.*

ATH 21 05:18:16.1, 36°.34N×21°.80E, h5^{km}, MD3.8/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	**Ithomi**	**0.84**	**7**	*e*PB	Pb	05 18 32.2	-1.0
ITM				*e*SB	Sb	05 18 44.7	-0.2
ITM	**Ithomi**	**0.84**	**7**	*e*Pb	Pb	05 18 32.2	-1.0
ITM				*e*Sb	Sb	05 18 44.7	-0.2
VLI	**Veliai**	**0.99**	**67**	*e*PN	Pn	05 18 35.6	-1.0
VLI				*e*SB	Sb	05 18 49.0	-0.1
VLI	**Veliai**	**0.99**	**67**	*e*Pn	Pn	05 18 35.6	-1.0
VLI				*e*Sb	Sb	05 18 49.0	-0.1
KYTH	**Kithira**	**1.00**	**93**	*e*PG	Pg	05 18 34.9	-0.4
KYTH	**Kithira**	**1.00**	**93**	*e*Pg	Pg	05 18 34.9	-0.4
RLS	**Riolos of Patr**	**1.73**	**351**	*e*PG	Pg	05 18 48.6	-0.8
RLS	**Riolos of Patr**	**1.73**	**351**	*e*Pg	Pg	05 18 48.6	-0.8
VLS	**Valsamata**	**2.07**	**333**	*e*PG	Pg	05 18 54.4	-1.4
VLS	**Valsamata**	**2.07**	**333**	*e*Pg	Pg	05 18 54.4	-1.4
VAM	**Vamos**	**2.16**	**115**	*e*PG	Pg	05 18 56.5	-1.0
VAM	**Vamos**	**2.16**	**115**	*e*Pg	Pg	05 18 56.5	-1.0

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*NIED **21** 05:18:00, 44°.50N×148°.80E, h35^{km}, Mw5.0 Best double couple: M$_0$3.79000×10^{16} NP1:ϕ_s356.00000°, δ71.00000°, λ62.00000°. NP2:ϕ_s234.00000°, δ34.00000°, λ144.00000°.*

*BGS **21** 05:18:34.1±1.7, 43°.86N×150°.38E, h40^{km}, mb5.4*

*JMA **21** 05:18:36.3±0.7, 44°.47N×148°.79E, h30^{km}, M5.3*

JMA Felt I J1.

*BJI **21** 05:18:36.4, 44°.26N×148°.70E, h40^{km}, mB5.2/29, mb5.5/62, Ms4.7/55, Ms7 4.5/53*

*MOS **21** 05:18:36.7±0.8, 44°.36N×148°.68E, h38^{km}, mb5.5/114, MS4.7/28, Error ellipse: s-maj=6.4km s-min=3.6km az=105.8*

MOS Felt (II) at Yuzhno-Kuril'sk.

*ISCJB **21** 05:18:36.8±0.1, 44°.26N±0°.02×148°.73E±0°.02, h42^{km}, mb5.2/324, MS4.6/52, Error ellipse: s-maj=3.4km s-min=1.5km az=165.8*

*SKHL **21** 05:18:38.4±1.7, 44°.40N×148°.70E, h54^{km}±22^{km}, mb5.6/8, mbh5.5/1, mbv5.9/4, ms4.7/3, msh5.3/1*

*IDC **21** 05:18:38.2±0.5, 44°.34N×148°.68E, h38^{km}±3^{km}, mb4.8/36, mb1 4.9/41, mb1mx4.9/42, mbtmp4.8/41, ML4.7/5, MS4.4/24, Ms1 4.4/24, ms1mx4.2/42, Error ellipse: s-maj=12.0km s-min=8.3km az=129.0*

*NEIC **21** 05:18:38.5±0.1, 44°.32N×148°.66E, mb5.2/204, Error ellipse: s-maj=3.8km s-min=2.2km az=163.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

*DJA **21** 05:18:38, 44°.37N×148°.76E, h26^{km}, mb5.4/19*

*GCMT **21** 05:18:38.5±0.4, 44°.34N×148°.86E, h35^{km}±1^{km}, MW5.1/62, Moment Tensor Solution. s24,c30; s62,c88; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.39±.40; M$_{\theta\theta}$-1.13±.24; M$_{\phi\phi}$-3.26±.23; M$_{r\theta}$0.50±.25; M$_{\theta\phi}$-3.15±.13; M$_{\phi r}$2.34±.20; Best double couple: M$_0$5.53300×10^{16} NP1:ϕ_s230.00000°, δ35.00000°, λ113.00000°. NP2: ϕ_s23.00000°, δ58.00000°, λ75.00000°. Principal axes: T 5.0760, Plg72.0000°, Azm256.0000°; N 0.9130, Plg13.0000°, Azm31.0000°; P -5.9890, Plg12.0000°, Azm124.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SZGRF **21** 05:18:44.0, 45°.40N×148°.76E, h53^{km}, mb5.6, Kuril Islands, Russia*

ISC 21 05:18:38.9±0.1**, 44°.30N**±0°.02×**148°.67E**±0°.02**, h44^{km}, h44^{km}**±.8^{km}**:pP-P, n1177,** σ**0^{s}.74**/1189**, mb5.2**/323**, MS4.6**/52**, 319C-169D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**1.09**	**329**	⇓*i*PN	**Pn**	**05 18 56.8**	**-0.9**
KUR				*e*S	**Sn**	**05 19 09.0**	**-2.6**
KUR				pmax	pmax		
	comp=N,20μm,1.0s						
KUR				pmax	pmax		
	comp=E,30μm,1.0s						
KUR				pmax	pmax		
	comp=Z,70μm,1.0s						
KUR				smax			
	comp=N,255μm,1.4s						
KUR				smax			
	comp=E,53μm,1.4s						
KUR	**Kuril'sk**	**1.09**	**329**	⇑*i*P	**Pn**	**05 18 56.8**	**-0.9**
KUR				⇓*i*P		05 18 56.8	
KUR				AMB	AMB	05 18 57.0	
	comp=E,55μm,1.0s						
KUR				AMB	AMB	05 18 58.0	
	comp=E,70μm,1.0s						
KUR				AMB	AMB	05 18 58.0	
	comp=E,20μm,1.0s						
KUR				AMB	AMB	05 18 58.0	
	comp=E,30μm,1.0s						
KUR				*e*S	**Sn**	**05 19 09.0**	**-2.6**
KUR				A		05 19 12.0	
	comp=E,95μm,1.4s						
KUR				A		05 19 12.0	
	comp=E,32μm,1.4s						
KUR				A		05 19 12.0	
	comp=E,255μm,1.4s						
KUR				A		05 19 12.0	
	comp=E,53μm,1.4s						
YUK	**Yuzh-Kuril'sk**	**2.04**	**263**	⇓*i*PN	**Pn**	**05 19 09.6**	**-1.1**
YUK				*i* S	**Sn**	**05 19 33.6**	**-1.3**
YUK				pmax	pmax		
	comp=Z,8μm,1.0s						
YUK				pmax	pmax		
	comp=E,2μm,0.6s						
YUK				pmax	pmax		
	comp=Z,4μm,0.3s						
YUK				pmax	pmax		
	comp=N,2μm,0.4s						
YUK				pmax	pmax		
	comp=E,4μm,0.5s						
YUK				smax			
	comp=N,28μm,0.5s						
YUK				smax			
	comp=N,65μm,1.2s						
YUK				smax			
	comp=E,5μm,1.2s						
YUK				MLR	MLR		
	comp=Z,14μm,14.0s						
YUK	**Yuzh-Kuril'sk**	**2.04**	**263**	⇓*i*P	**Pn**	**05 19 09.6**	**-1.1**
YUK				AMB	AMB	05 19 11.0	
	comp=Z,8μm,1.0s						
YUK				AMB	AMB	05 19 11.0	
	comp=Z,2μm,0.6s						
YUK				AMB	AMB	05 19 14.5	
	comp=Z,2μm,0.5s						
YUK				AMB	AMB	05 19 14.5	
	comp=Z,4μm,0.5s						
YUK				AMB	AMB	05 19 14.5	
	comp=Z,4μm,0.3s						
YUK				*i* S	**Sn**	**05 19 33.6**	**-1.3**
YUK				A		05 19 50.5	
	comp=Z,28μm,0.5s						
YUK				A		05 19 55.0	
	comp=Z,65μm,1.2s						
YUK				A		05 19 55.0	
	comp=Z,53μm,1.2s						
YUK				AMS	AMS	05 20 09.0	
	comp=Z,14μm,14.0s						
NEM2	**Nemuro 2**	**2.32**	**247**	P	**Pn**	**05 19 13.0**	**-1.5**
NEM2				*e*S	**Sn**	**05 19 40.8**	**-1.0**
JRA	**Rausu**	**2.58**	**263**	P	**Pn**	**05 19 18.1**	**0.0**
JNK	**Nakash**	**2.94**	**257**	P	**Pn**	**05 19 22.9**	**-0.2**
JAK	**Akkeshi**	**3.17**	**247**	P	**Pn**	**05 19 25.4**	**-0.8**
JAK				*e*S	**Sn**	**05 20 01.7**	**-1.0**
JTKR	**Abashiri--Toko**	**3.45**	**266**	P	**Pn**	**05 19 30.6**	**+0.6**
JAR	**Ashorobuto**	**3.69**	**256**	P	**Pn**	**05 19 33.7**	**+0.4**
JOB	**Onbets**	**3.78**	**250**	P	**Pn**	**05 19 34.5**	**-0.1**
JMP	**Maruseppu**	**3.84**	**267**	P	**Pn**	**05 19 36.3**	**+1.0**
JCH	**Churui**	**4.22**	**248**	P	**Pn**	**05 19 40.3**	**-0.3**
JKK2	**Kamakawa 2**	**4.29**	**266**	P	**Pn**	**05 19 43.6**	**+2.0**
ASAJ	**Asahikawa**	**4.37**	**270**	P	**Pn**	**05 19 45.2**	**+2.5**
ASAJ	**Asahikawa**	**4.37**	**270**	PN	**Pn**	**05 19 44.0**	**+1.3**
ASAJ						05 20 41.3	
ASAJ				pmax	pmax		
	comp=Z,28nm,0.3s						
ASAJ				smax			
	comp=N,32nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,9μm,20.6s						
ASAJ	**Asahikawa**	**4.37**	**270**	Pn	**Pn**	**05 19 44.0**	**+1.3**
	comp=Z,28nm,0.3s,baz=94,slow=12,SNR=45						
ASAJ				Sn	**Sn**	**05 20 41.2**	**+8.9**
	comp=Z,32nm,0.3s,baz=90,slow=20,SNR=2.3						
ASAJ				LR	LR	05 21 30.8	
	comp=Z,9μm,20.6s,baz=157,slow=39						
JSE	**Soyaes**	**4.40**	**281**	P	**Pn**	**05 19 44.2**	**+1.2**
JFR	**Furan**	**4.55**	**258**	P	**Pn**	**05 19 46.7**	**+1.6**
JEM	**Erimo**	**4.64**	**242**	P	**Pn**	**05 19 47.7**	**+1.4**
ERM	**Erimo**	**4.64**	**242**	Pn	**Pn**	**05 19 47.0**	**+0.7**
	comp=Z,18μm,0.4s						
ERM	**Erimo**	**4.64**	**242**	*e*Pn	**Pn**	**05 19 47.5**	**+1.2**
ERM				*e*Sn	**Sn**	**05 20 39.2**	**+0.3**
JAB	**Ashibetsu**	**4.73**	**263**	P	**Pn**	**05 19 50.2**	**+2.6**
JNBK	**Urakawa-nobuka**	**4.77**	**247**	P	**Pn**	**05 19 47.9**	**-0.3**
JBT2	**Biratori 2**	**4.83**	**254**	P	**Pn**	**05 19 49.3**	**+0.3**
JSS	**Shosan**	**4.89**	**273**	P	**Pn**	**05 19 52.7**	**+2.9**
YSS	**Yuzh-Sakhalins**	**4.92**	**305**	⇓*i*PN	**Pn**	**05 19 51.0**	**+0.8**
YSS				pmax	pmax		
	comp=Z,200nm,0.7s						
YSS				MLR	MLR		
	comp=E,4μm,15.0s						
YSS				MLR	MLR		
	comp=Z,4μm,15.0s						
YSS				MLR	MLR		
	comp=N,3μm,16.0s						
YSS	**Yuzh-Sakhalins**	**4.92**	**305**	*e*Pn	**Pn**	**05 19 51.4**	**+1.2**
YSS				Sn	**Sn**	**05 20 45.3**	**-0.6**
JWK2	**Keihoku**	**4.93**	**284**	P	**Pn**	**05 19 53.2**	**+2.9**
JHR	**Hokuryu**	**5.04**	**266**	P	**Pn**	**05 19 55.2**	**+3.3**
JEW	**Eniwo**	**5.45**	**257**	P	**Pn**	**05 19 59.9**	**+2.4**
JNB	**Noboribetsu**	**5.86**	**254**	P	**Pn**	**05 20 03.9**	**+0.8**
JKB	**Kayabe**	**6.09**	**249**	P	**Pn**	**05 20 06.4**	**+0.1**
JKB				*e*S	**Sn**	**05 21 12.6**	**-2.1**
JOT	**Ohata**	**6.32**	**245**	P	**Pn**	**05 20 08.8**	**-0.6**
JYM2	**Yakumo 2**	**6.45**	**253**	P	**Pn**	**05 20 11.8**	**+0.6**
JSH	**Shimam**	**6.49**	**258**	P	**Pn**	**05 20 13.5**	**+1.7**
UGL	**Uglegorsk**	**6.59**	**319**	*e*P	**Pn**	**05 20 14.5**	**+1.4**
UGL				AMB	AMB	05 20 20.0	
	comp=N,84nm,0.7s						
UGL				AMB	AMB	05 20 20.0	
	comp=N,130nm,0.7s						
UGL				AMB	AMB	05 20 20.0	
	comp=N,230nm,0.7s						
UGL				AMS	AMS	05 23 03.0	
	comp=N,4μm,17.0s						
UGL				AMS	AMS	05 23 03.0	
	comp=N,1μm,17.0s						
UGL				AMS	AMS	05 23 03.0	
	comp=N,4μm,15.0s						
JANG	**Nango**	**6.60**	**236**	P	**Pn**	**05 20 11.0**	**-2.2**
JANG				*e*S	**Sn**	**05 21 20.9**	**-6.2**
JTM	**Tenmabayashi**	**6.62**	**241**	P	**Pn**	**05 20 12.7**	**-0.9**
JTM				*e*S	**Sn**	**05 21 24.0**	**-3.8**
JSR	**Shiriuchi**	**6.67**	**248**	P	**Pn**	**05 20 13.7**	**-0.4**
JTH	**Tanohata**	**6.68**	**232**	P	**Pn**	**05 20 11.8**	**-2.6**
JTH				*e*S	**Sn**	**05 21 21.7**	**-7.5**
JOSM	**Okushiri--Mats**	**7.08**	**255**	P	**Pn**	**05 20 20.8**	**+1.0**
OFUJ	**Ofunato**	**7.39**	**228**	P	**Pn**	**05 20 21.3**	**-2.9**
OFUJ				*e*S	**Sn**	**05 21 38.6**	**-8.1**
TYV	**Tymovskoe**	**7.72**	**330**	*e*P	**Pn**	**05 20 28.0**	**-0.5**
TYV				AMB	AMB	05 20 37.0	
	comp=N,198nm,1.0s						
TYV				AMB	AMB	05 20 37.0	
	comp=N,308nm,1.0s						
TYV				AMB	AMB	05 20 37.0	
	comp=N,33nm,0.8s						
TYV				AMS	AMS	05 23 40.0	
	comp=N,2μm,13.0s						
TYV				AMS	AMS	05 23 40.0	
	comp=N,4μm,17.0s						
TYV				AMS	AMS	05 23 40.0	
	comp=N,4μm,16.0s						
JRG	**Rokugo**	**7.75**	**234**	P	**Pn**	**05 20 27.3**	**-1.7**
JRG				*e*S	**Sn**	**05 21 49.9**	**-5.5**
JIO	**Ouri**	**8.03**	**226**	P	**Pn**	**05 20 29.7**	**-3.1**
JIO				*e*S	**Sn**	**05 21 52.1**	**-10**
SKR	**Severo-Kuril's**	**8.13**	**36**	*e*P	**Pn**	**05 20 33.5**	**-0.7**
SKR				AMB	AMB	05 20 37.0	
	comp=N,90nm,0.5s						
SKR				AMB	AMB	05 20 37.0	
	comp=N,150nm,0.5s						
SKR				AMB	AMB	05 20 37.0	
	comp=N,320nm,0.5s						
SKR				AMB	AMB	05 20 40.0	
	comp=N,2μm,2.0s						
SKR				*e*S	**Sn**	**05 22 02.5**	**-2.1**
SKR				A		05 22 07.0	
	comp=N,90nm,0.7s						
SKR				A		05 22 07.0	
	comp=N,80nm,0.6s						
SKR				A		05 22 07.0	
	comp=N,100nm,0.6s						
SKR				A		05 22 20.0	
	comp=N,3μm,8.0s						
SKR				AMS	AMS	05 23 32.0	
	comp=N,6μm,18.0s						
SKR				AMS	AMS	05 23 32.0	
	comp=N,3μm,18.0s						
SKR				AMS	AMS	05 23 32.0	
	comp=N,4μm,18.0s						
SKR				AMS	AMS	05 23 32.0	
	comp=N,2μm,18.0s						
SKR				AMS	AMS	05 23 32.0	
	comp=N,3μm,18.0s						
SKR				AMS	AMS	05 23 32.0	
	comp=N,5μm,18.0s						
TEY	**Ternei**	**8.64**	**279**	*i* P	**Pn**	**05 20 43.2**	**+2.1**
TEY				AMB	AMB	05 20 43.2	
	comp=N,400nm,1.0s						
TEY				AMB	AMB	05 20 45.6	
	comp=N,400nm,1.2s						
TEY				AMB	AMB	05 20 47.5	
	comp=N,236nm,0.8s						
TEY				*e*LR	LR	05 23 18.4	
TEY				AMS	AMS	05 23 40.0	
	comp=N,5μm,23.0s						
TEY				AMS	AMS	05 23 40.0	
	comp=N,2μm,20.0s						
TEY				AMS	AMS	05 23 40.0	
	comp=N,3μm,20.0s						
JMM	**Marumori**	**8.76**	**225**	P	**Pn**	**05 20 39.2**	**-3.7**
JYA	**Atsumi**	**8.82**	**233**	P	**Pn**	**05 20 42.5**	**-1.2**
JFK	**Kawauchi**	**9.11**	**223**	P	**Pn**	**05 20 44.2**	**-3.4**
JFK				*e*S	**Sn**	**05 22 19.1**	**-10**
JFY	**Yanaizu**	**9.67**	**228**	P	**Pn**	**05 20 53.0**	**-2.4**
OKH	**Okha**	**9.99**	**340**	*e*P	**Pn**	**05 21 01.2**	**+1.6**
OKH				AMB	AMB	05 21 03.2	
	comp=N,900nm,3.0s						
OKH				*e*LQ		05 24 10.0	
OKH				AMS	AMS	05 26 06.6	
	comp=N,2μm,8.0s						
OKH				AMS	AMS	05 26 06.6	
	comp=N,1μm,8.0s						
OKH				AMS	AMS	05 26 06.6	
	comp=N,2μm,14.0s						
HABR	**Khabarovsk**	**10.29**	**299**	*i* PN	**Pn**	**05 21 08.5**	**+4.7**
HABR				S	**Sn**	**05 23 03.1**	**+5.4**
HABR				pmax	pmax		
	comp=N,81nm,2.2s						
HABR				pmax	pmax		
	comp=Z,252nm,1.6s						
HABR				pmax	pmax		
	comp=E,214nm,1.6s						
HABR				MLR	MLR		
	comp=Z,2μm,15.0s						
NKL	**Nikolayevsk**	**10.30**	**332**	*e*P	**Pn**	**05 21 00.5**	**-3.4**
NKL				AMB	AMB	05 21 02.0	
	comp=Z,500nm,3.0s						
NKL				AMB	AMB	05 21 04.0	
	comp=Z,170nm,1.1s						
NKL				AMB	AMB	05 21 04.0	
	comp=Z,110nm,1.1s						
NKL				AMB	AMB	05 21 04.0	
	comp=Z,300nm,1.1s						
NKL				*e*L		05 23 52.0	
NKL				AMS	AMS	05 25 10.0	
	comp=Z,2μm,16.0s						
NKL				AMS	AMS	05 25 10.0	
	comp=Z,500nm,16.0s						
NKL				AMS	AMS	05 25 10.0	
	comp=Z,2μm,16.0s						
PEA0B	**Petropavlovsk-**	**10.63**	**31**	*e*Pn	**Pn**	**05 21 08.6**	**+0.2**
PETK	**Petropavlovsk-**	**10.63**	**31**	Pn	**Pn**	**05 21 07.7**	**-0.6**
	comp=Z,5.9nm,0.3s,baz=214,slow=10,SNR=40						
PETK	**Petropavlovsk-**	**10.63**	**31**	Pn	**Pn**	**05 21 07.7**	**-0.7**
PET	**Petropavlovsk**	**10.93**	**34**	*e*PN	**Pn**	**05 21 11.1**	**-1.4**
PET				pmax	pmax		
	comp=Z,27nm,0.7s						
PET				MLR	MLR		
	comp=Z,3μm,20.0s						
PET				MLR	MLR		
	comp=Z,3μm,18.0s						
PET	**Petropavlovsk**	**10.93**	**34**	*e*Pn	**Pn**	**05 21 12.1**	**-0.4**
PET				*e*Sn	**Sn**	**05 23 12.9**	**-0.3**
MAJO	**Matsushiro**	**11.12**	**229**	*e*Pn	**Pn**	**05 21 13.3**	**-1.8**
MAJO				*e*Sn	**Sn**	**05 23 05.5**	**-12**
MAT	**Matsushiro**	**11.12**	**229**	P	**Pn**	**05 21 12.9**	**-2.2**
MAT				S	**Sn**	**05 23 16.2**	**-1.8**
MJAR	**Matsushiro Arr**	**11.12**	**229**	Pn	**Pn**	**05 21 13.4**	**-1.7**
	comp=Z,3.8nm,0.3s,baz=31,slow=13,SNR=72						
MJAR				LR	LR	05 26 14.8	
	comp=Z,716nm,19.9s,baz=55,slow=41						
JNG	**Nsakai**	**11.28**	**229**	P	**Pn**	**05 21 15.8**	**-1.5**
KLR	**Kul'dur**	**12.60**	**299**	*e*PN	**Pn**	**05 21 34.0**	**-1.3**
KLR				*e*		05 24 04.0	
KLR				MLR	MLR		
	comp=E,1μm,12.0s						
KLR				MLR	MLR		
	comp=Z,5μm,12.0s						
JHJ	**Hachijo jima 2**	**13.14**	**215**	Pn	**Pn**	**05 21 43.0**	**+0.2**
	comp=Z,24nm,0.3s,baz=50,slow=18,SNR=5.2						
JHJ				Sn	**Sn**	**05 23 55.5**	**-12**
	comp=Z,31nm,0.3s,baz=54,slow=19,SNR=6.9						
JHJ				LR	LR	05 27 03.8	
	comp=Z,299nm,18.4s,baz=96,slow=38						
MDJ	**Mudanjiang**	**13.64**	**278**	P	**Pn**	**05 21 48.5**	**-1.0**
MDJ				S	**Sn**	**05 24 18.4**	**-1.0**
MDJ				ScP	ScP	05 30 42.8	+0.9
MDJ				PcS	PcS	05 30 47.5	+0.8
MDJ				pmax	pmax		
	comp=Z,12nm,1.2s						
MDJ				pmax	pmax		
	comp=Z,91nm,4.4s						
MDJ				LR	LR		
	comp=N,630nm,16.5s						
MDJ				LR	LR		
	comp=E,1μm,22.6s						
MDJ				LR	LR		
	comp=Z,2μm,19.3s						
MDJ	**Mudanjiang**	**13.64**	**278**	*e*Pn	**Pn**	**05 21 49.7**	**+0.2**
	comp=Z,78nm,0.8s						
CN2	**Changchun**	**16.70**	**276**	*e*P	**Pn**	**05 22 30.3**	**+0.8**
CN2				*e*pP	pP	05 22 38.1	-3.6
CN2				*e*S	**S**	**05 25 32.3**	**-11**
CN2				pmax	pmax		
	comp=Z,40nm,0.6s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,1μm,17.0s						
CN2				LR	LR		
	comp=E,2μm,17.0s						
CN2				LR	LR		
	comp=Z,2μm,18.0s						
ZEA	**Zeya**	**16.87**	**312**	*e*P	**Pn**	**05 22 29.8**	**-1.7**
ZEA				AMB	AMB	05 22 31.8	
	comp=Z,120nm,1.2s						
ZEA				AMB	AMB	05 22 31.8	
	comp=Z,83nm,1.0s						
ZEA				AMB	AMB	05 22 31.8	
	comp=Z,65nm,1.0s						
ZEA				AMB	AMB	05 22 41.0	
	comp=Z,300nm,5.0s						
ZEA				AMB	AMB	05 22 41.0	
	comp=Z,500nm,5.0s						
ZEA				AMB	AMB	05 22 41.0	
	comp=Z,500nm,5.0s						
KSRS	**Korea Array**	**17.10**	**254**	P	**Pn**	**05 22 33.0**	**-1.5**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,2μm,18.7s						
KSRS	**Korea Array**	**17.10**	**254**	P	**Pn**	**05 22 33.0**	**-1.5**
	comp=Z,2.1nm,0.3s,baz=61,slow=12,SNR=33						
KSRS				LR	LR	05 29 29.3	
	comp=Z,2μm,18.7s,baz=45,slow=38						
CBIJ	**Chichi jima**	**17.95**	**199**	LR	LR	05 29 17.8	
	comp=Z,327nm,19.1s,baz=6.3,slow=36						
INCN	**Inchon**	**17.98**	**255**	*e*Pn	**Pn**	**05 22 46.3**	**+1.0**
	comp=Z,100nm,0.7s						
SNY	**Shenyang**	**18.48**	**271**	⇓P	**Pn**	**05 22 52.3**	**+0.8**
SNY				pmax	pmax		
	comp=Z,61nm,0.9s						
SNY				pmax	pmax		
	comp=Z,430nm,9.2s						
SNY				LR	LR		
	comp=N,750nm,18.0s						
SNY				LR	LR		
	comp=E,1μm,18.6s						
SNY				LR	LR		
	comp=Z,1μm,18.4s						
SEY	**Seymchan**	**18.79**	**5**	⇑*e*P	**Pn**	**05 22 52.9**	**-2.1**
NRGR	**Nerungri**	**19.50**	**318**	*e*P	**Pn**	**05 23 06.1**	**+2.6**
NRGR				S	**S**	**05 26 35.4**	**-4.3**
NRGR				smax			
	comp=N,35nm,0.8s						
CLNS	**Chul'man**	**19.51**	**318**	*e*P	**Pn**	**05 23 05.7**	**+2.1**
CLNS				pmax	pmax		
	comp=N,33nm,1.1s						
CLNS				pmax	pmax		
	comp=E,20nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,45nm,0.8s						
CLNS				MLR	MLR		
	comp=N,965nm,14.0s						
CLNS				MLR	MLR		
	comp=Z,2μm,15.0s						
CLNS				MLR	MLR		
	comp=E,1μm,13.0s						
HIA	**Hailar**	**20.36**	**294**	*e*P	**P**	**05 23 09.9**	**-1.5**
HIA				pmax	pmax		
	comp=Z,41nm,0.9s						
HIA	**Hailar**	**20.36**	**294**	*e*P	**P**	**05 23 09.9**	**-1.5**
	comp=Z,42nm,0.9s						
YAK	**Yakutsk**	**20.95**	**335**	*e*P	**P**	**05 23 14.6**	**-3.0**
YAK				*e*		05 23 30.2	
YAK				*e*S	**S**	**05 27 00.0**	**-8.4**
YAK				*e*SS		05 27 20.1	
YAK				*e*		05 27 32.2	
YAK				*e*		05 34 37.2	
YAK				pmax	pmax		
	comp=Z,46nm,0.7s						
YAK				pmax	pmax		
	comp=N,41nm,1.2s						
YAK				pmax	pmax		
	comp=E,38nm,1.2s						
YAK				smax			
	comp=N,239nm,2.3s						
YAK				smax			
	comp=E,85nm,1.4s						
YAK				MLR	MLR		
	comp=N,1μm,19.0s,MS4.4						
YAK				MLR	MLR		
	comp=Z,1μm,20.0s,MS4.3						
YAK				MLR	MLR		
	comp=E,655nm,17.0s,MS4.4						
YAK	**Yakutsk**	**20.95**	**335**	*e*P	**P**	**05 23 15.6**	**-2.0**
	comp=E,223nm,0.7s						

JOW	**Kunigami**	**23.96**	**230**	P	**P**	**05 23 49.2**	**+0.2**
	comp=E,48nm,0.8s,mb5.0,baz=51,slow=10,SNR=10						
JOW				LR	LR	05 32 46.4	
	comp=E,407nm,21.6s,MS3.9,baz=8.9,slow=35						
BJI	**Beijing**	**24.37**	**271**	P	**P**	**05 23 53.3**	**+0.7**
BJI				pP		05 24 03.3	
BJI				sP	sP	05 24 07.6	-1.9
BJI				PcP	PcP	05 27 31.6	+0.6
BJI				S	**S**	**05 28 10.3**	**+1.2**
BJI				sS	sS	05 28 27.1	-1.3
BJI				pmax	pmax		
	comp=Z,360nm,0.8s,mb5.8						
BJI				LR	LR		
	comp=N,720nm,15.7s,MS4.5						
BJI				LR	LR		
	comp=E,1µm,19.3s,MS4.5						
BJI				LR	LR		
	comp=Z,1µm,19.7s,MS4.4						
BJT	**Baijiatuau**	**24.38**	**271**	*e*P	**P**	**05 23 52.9**	**+0.1**
BJT				pmax	pmax		
	comp=Z,254nm,0.7s						
BJT	**Baijiatuau**	**24.38**	**271**	*e*P	**P**	**05 23 52.9**	**+0.2**
	comp=Z,254nm,0.7s,mb5.8						
TIA	**Tai'an**	**25.28**	**262**	*e*P	**P**	**05 24 01.3**	**+0.3**
TIA				pmax	pmax		
	comp=Z,230nm,1.0s,mb5.7						
SSE	**Sheshan**	**25.30**	**248**	⇑P	**P**	**05 24 02.4**	**+1.2**
SSE				pP	pP	05 24 13.0	+0.2
SSE				sP	sP	05 24 17.8	-0.2
SSE				S	**S**	**05 28 24.8**	**+0.7**
SSE				sS	sS	05 28 43.4	-0.1
SSE				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.0						
SSE				pmax	pmax		
	comp=Z,290nm,8.5s						
SSE				LR	LR		
	comp=N,160nm,18.6s,MS4.2						
SSE				LR	LR		
	comp=E,680nm,18.7s,MS4.2						
SSE				LR	LR		
	comp=Z,890nm,21.1s,MS4.2						
BOD	**Bodaibo**	**25.31**	**315**	*e*P	**P**	**05 23 58.4**	**-2.6**
BOD				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.5						
BILL	**Bilibino**	**25.53**	**15**	⇑*e*P	**P**	**05 24 00.9**	**-2.0**
BILL				*e**PP	pP	05 24 14.3	-0.2
BILL				*e*		05 24 36.4	
BILL				*e*		05 27 34.8	
BILL				*e*S	**S**	**05 28 25.5**	**-1.6**
BILL				MLR	MLR		
	comp=Z,900nm,15.0s,MS4.4						
BILL	**Bilibino**	**25.53**	**15**	*e*P	**P**	**05 24 02.5**	**-0.5**
	comp=Z,6.7nm,0.6s,mb4.3						
NJ2	**Nanjing**	**26.29**	**252**	*e*P	**P**	**05 24 11.1**	**+1.0**
NJ2				pP	pP	05 24 23.1	+1.3
NJ2				sP	sP	05 24 28.3	+1.3
NJ2				PP		05 24 52.1	
NJ2				S	**S**	**05 28 36.9**	**-2.8**
NJ2				pmax	pmax		
	comp=Z,150nm,0.9s,mb5.5						
NJ2				pmax	pmax		
	comp=Z,1µm,3.9s						
HHC	**Hu-ho-hao-te**	**27.39**	**276**	*e*P	**P**	**05 24 20.8**	**+0.8**
HHC				pP	pP	05 24 32.3	+0.7
HHC				sP	sP	05 24 38.0	+1.1
HHC				PP		05 25 08.0	
HHC				PcP	PcP	05 27 40.4	+2.5
HHC				*e*S	**S**	**05 28 55.1**	**-1.9**
HHC				sS	sS	05 29 14.3	-2.3
HHC				SS		05 30 12.4	
HHC				PcS	PcS	05 31 20.5	+0.9
HHC				pmax	pmax		
	comp=Z,88nm,0.9s,mb5.3						
HHC				pmax	pmax		
	comp=Z,480nm,4.0s						
HHC				LR	LR		
	comp=N,600nm,13.6s,MS4.6						
HHC				LR	LR		
	comp=E,1µm,17.2s,MS4.6						
HHC				LR	LR		
	comp=Z,1µm,16.8s,MS4.6						
BTO	**Baotou**	**28.58**	**276**	*e*P	**P**	**05 24 31.3**	**+0.7**
ULN	**Ulaanbaatar**	**28.83**	**292**	*e*P	**P**	**05 24 32.8**	**0.0**
ULN				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.0						
ULN	**Ulaanbaatar**	**28.83**	**292**	*e*P	**P**	**05 24 32.8**	**0.0**
	comp=Z,39nm,1.1s,mb5.0						
TIXI	**Tiksi**	**29.05**	**347**	⇑*e*P	**P**	**05 24 34.4**	**0.0**
TIXI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
TIXI	**Tiksi**	**29.05**	**347**	*e*P	**P**	**05 24 30.6**	**-3.9**
	comp=Z,9.9nm,0.6s,mb4.7						
SONM	**Songino Array**	**29.28**	**292**	P	**P**	**05 24 37.2**	**+0.5**
	comp=Z,75nm,1.3s,mb5.2,baz=83,slow=8.8,SNR=100						
SONM				PcP	PcP	05 27 42.3	-0.1
	comp=Z,3.0nm,0.8s,baz=93,slow=2.6,SNR=3.7						
SONM				ScP	ScP	05 31 21.0	+0.6
	comp=Z,2.3nm,1.1s,baz=106,slow=3.2,SNR=6.1						
WHN	**Wuhan**	**30.28**	**255**	⇑P	**P**	**05 24 46.0**	**+0.2**
WHN				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.5						
WHN				LR	LR		
	comp=Z,3µm,16.9s,MS4.9						
TLY	**Talaya**	**30.61**	**300**	*e*P	**P**	**05 24 48.3**	**-0.2**
TLY				*e*		05 25 45.1	
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
TLY	**Talaya**	**30.61**	**300**	*e*P	**P**	**05 24 48.4**	**0.0**
TLY	**Talaya**	**30.61**	**300**	P	**P**	**05 24 48.9**	**+0.4**
	SNR=5.5						
TLY				P		05 24 48.9	
	SNR=5.5						
ZAK	**Zakamensk**	**30.96**	**298**	⇓*e*P	**P**	**05 24 51.7**	**+0.1**
ZAK				*e*		05 27 47.4	
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
TPUB	**Ta-pu**	**31.09**	**237**	*e*P	**P**	**05 24 53.4**	**+0.4**
	comp=Z,75nm,0.8s,mb5.6						
TPUB				*e*pP	pP	05 25 04.6	0.0
TNA	**Tin City**	**31.79**	**33**	*e*P	**P**	**05 24 58.7**	**0.0**
	comp=Z,30nm,1.1s,mb5.0						
XAN	**Xi'an**	**32.20**	**265**	P	**P**	**05 25 02.6**	**0.0**
XAN				pP	pP	05 25 13.5	-0.8
XAN				sP	sP	05 25 19.5	-0.1
XAN				PP	PP	05 26 09.4	-6.4
XAN				S	**S**	**05 30 09.0**	**-3.5**
XAN				sS	sS	05 30 29.5	-2.6
XAN				SS	SS	05 32 02.5	-29
XAN				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.1						
XAN				pmax	pmax		
	comp=Z,65nm,4.3s						
XAN				LR	LR		
	comp=N,410nm,17.8s,MS4.4						
XAN				LR	LR		
	comp=E,480nm,16.8s,MS4.4						
XAN				LR	LR		
	comp=Z,630nm,18.7s,MS4.3						
MOY	**Mondy**	**32.26**	**300**	*e*P	**P**	**05 25 04.2**	**+1.3**
LZH	**Lanzhou**	**34.85**	**272**	⇑*i*P	**P**	**05 25 27.1**	**+1.4**
LZH				pP	pP	05 25 36.1	-1.4
LZH				sP	sP	05 25 40.1	-2.6
LZH				PP	PP	05 26 42.1	-3.0
LZH				PcP	PcP	05 28 00.1	+2.2
LZH				*e*S	**S**	**05 30 55.0**	**+1.5**
LZH				sS	sS	05 31 12.4	-0.9
LZH				SS	SS	05 33 07.1	-19
LZH				pmax	pmax		
	comp=Z,410nm,1.0s,mb6.3						
LZH				pmax	pmax		
	comp=Z,2µm,4.1s						
LZH				LR	LR		
	comp=N,2µm,15.9s						
LZH				LR	LR		
	comp=Z,2µm,16.8s,MS4.9						
GTA	**Gaotai**	**36.29**	**280**	⇑*i*P	**P**	**05 25 39.3**	**+1.4**
GTA				pP	pP	05 25 50.4	+0.6
GTA				sP	sP	05 25 56.0	+1.0
GTA				PcP	PcP	05 28 03.3	+1.2
GTA				S	**S**	**05 31 15.9**	**+0.4**
GTA				sS	sS	05 31 35.8	+0.5
GTA				ScP	ScP	05 31 45.8	+1.0
GTA				PcS	PcS	05 31 51.1	+1.4
GTA				SS	SS	05 33 41.0	-14
GTA				ScS	ScS	05 35 52.0	+1.2
GTA				pmax	pmax		
	comp=Z,93nm,0.8s,mb5.8						
GTA				pmax	pmax		
	comp=Z,280nm,4.5s						
GTA				LR	LR		
	comp=N,570nm,15.8s,MS4.6						
GTA				LR	LR		
	comp=E,610nm,15.8s,MS4.6						
GTA				LR	LR		
	comp=Z,830nm,15.5s,MS4.6						
TTA	**Tatalina**	**36.31**	**39**	*e*P	**P**	**05 25 38.4**	**+0.6**
SVW2	**Sparrevohn**	**36.42**	**43**	*e*P	**P**	**05 25 39.0**	**+0.2**
CD2	**Chengdu**	**37.55**	**265**	P	**P**	**05 25 49.0**	**+0.2**
CD2				pP	pP	05 26 01.3	+0.6
CD2				sP	sP	05 26 06.6	+0.8
CD2				PP	PP	05 27 18.0	+3.0
CD2				S	**S**	**05 31 34.3**	**-0.6**
CD2				sS	sS	05 31 54.8	0.0
CD2				SS	SS	05 34 09.0	-12
CD2				pmax	pmax		
	comp=Z,430nm,0.7s,mb6.3						
CD2				pmax	pmax		
	comp=Z,220nm,5.4s						
CD2				LR	LR		
	comp=N,500nm,19.0s						
CD2				LR	LR		
	comp=Z,490nm,16.6s,MS4.4						
CHUM	**Lake Minchumin**	**38.02**	**38**	*e*P	**P**	**05 25 53.1**	**+0.7**
	comp=Z,24nm,0.9s,mb4.9						
PPLA	**Purkeypile**	**38.05**	**40**	*e*P	**P**	**05 25 53.9**	**+1.2**
	comp=Z,85nm,1.4s,mb5.3						
PPLA				*e*pP	pP	05 26 03.5	-1.0
KDAK	**Kodiak Island**	**38.06**	**48**	P	**P**	**05 25 52.6**	**-0.2**
	comp=Z,23nm,0.6s,mb5.1,baz=242,slow=11,SNR=15						
GYA	**Guiyang**	**38.12**	**256**	⇑*i*P	**P**	**05 25 53.6**	**0.0**
GYA				pP	pP	05 26 05.8	+0.3
GYA				sP	sP	05 26 11.3	+0.6
GYA				PP	PP	05 27 24.5	+3.2
GYA				PcP	PcP	05 28 09.0	+1.1
GYA				S	**S**	**05 31 43.3**	**-0.3**
GYA				ScP	ScP	05 31 52.8	+1.0
GYA				PcS	PcS	05 31 59.3	+2.3
GYA				sS	sS	05 32 02.8	-0.7
GYA				SS	SS	05 34 20.9	-11
GYA				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.4						
GYA				pmax	pmax		
	comp=Z,190nm,3.5s						
GYA				LR	LR		
	comp=N,900nm,17.1s,MS4.8						
GYA				LR	LR		
	comp=E,790nm,16.8s,MS4.8						
GYA				LR	LR		
	comp=Z,1µm,17.1s,MS4.7						
BPAW	**Bear Paw Mtn.**	**38.61**	**38**	*e*P	**P**	**05 25 57.1**	**-0.2**
	comp=Z,17nm,0.9s,mb4.8						
KTH	**Kantishna Hill**	**38.63**	**39**	*e*P	**P**	**05 25 58.1**	**+0.6**
	comp=Z,60nm,1.0s,mb5.3						
TRF	**Thorofare Moun**	**38.92**	**39**	*e*P	**P**	**05 26 00.1**	**+0.3**
	comp=Z,50nm,1.4s,mb5.0						
COLD	**Coldfoot**	**39.09**	**33**	*e*P	**P**	**05 26 01.5**	**+0.2**
	comp=Z,18nm,0.6s,mb5.0						
RC01	**Rabbit Creek A**	**39.25**	**42**	*e*P	**P**	**05 26 01.9**	**-0.8**
	comp=Z,24nm,0.7s,mb5.0						
PMR	**Palmer**	**39.52**	**42**	*e*P	**P**	**05 26 05.0**	**+0.1**
MCK	**McKinley**	**39.52**	**38**	*e*P	**P**	**05 26 04.7**	**-0.2**
MCK				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.9						
MCK	**McKinley**	**39.52**	**38**	*e*P	**P**	**05 26 04.7**	**-0.2**
	comp=Z,26nm,1.0s,mb4.9						
COLA	**College**	**39.98**	**36**	*e*P	**P**	**05 26 08.3**	**-0.3**
COLA				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.0						
COLA	**College**	**39.98**	**36**	*e*P	**P**	**05 26 08.3**	**-0.4**
	comp=Z,25nm,0.7s,mb5.0						
QIZ	**Qiongzhong**	**41.00**	**245**	P	**P**	**05 26 18.8**	**+1.2**
QIZ				pP	pP	05 26 29.5	-0.1
QIZ				S	**S**	**05 32 30.3**	**+3.5**
QIZ				pmax	pmax		
	comp=Z,30nm,1.5s,mb4.7						
QIZ				LR	LR		
	comp=N,750nm,18.8s						
QIZ				LR	LR		
	comp=Z,620nm,21.5s,MS4.4						
ZAA0	**Zalesovo Array**	**41.54**	**307**	*e*P	**P**	**05 26 20.8**	**-1.0**
ZAA0				*e*pP	pP	05 26 32.2	-1.5
ZAA0				*e*ScP	ScP	05 32 04.8	+0.2
ZALV	**Zalesovo Beam**	**41.54**	**307**	P	**P**	**05 26 21.2**	**-0.5**
ZALV						05 28 18.3	
ZALV						05 28 29.1	
ZALV	**Zalesovo Beam**	**41.54**	**307**	P	**P**	**05 26 21.2**	**-0.5**
	comp=Z,5.5nm,0.5s,mb4.4,baz=66,slow=8.3,SNR=17						
ZALV				PcP	PcP	05 28 18.3	0.0
	comp=Z,13nm,0.7s,baz=82,slow=3.3,SNR=14						
ZALV				pPcP		05 28 29.1	
	comp=Z,7.7nm,0.6s,baz=75,slow=3.4,SNR=5.1						
ZALV				ScP	ScP	05 32 02.2	-2.5
	comp=Z,1.7nm,0.8s,baz=90,slow=3.5,SNR=4.3						
ZALV				LR	LR	05 44 52.0	
	comp=Z,384nm,18.2s,MS4.3,baz=88,slow=38						
KMI	**Kunming**	**41.71**	**258**	P	**P**	**05 26 24.3**	**+0.9**
KMI				pP	pP	05 26 35.6	+0.2
KMI				sP	sP	05 26 39.9	-0.7
KMI				PP	PP	05 28 02.1	+1.8
KMI				S	**S**	**05 32 38.9**	**+1.6**
KMI				sS	sS	05 32 56.3	-1.0
KMI				SS	SS	05 35 34.3	-10
KMI				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.4						
KMI				pmax	pmax		
	comp=Z,180nm,3.1s						
KMI				LR	LR		
	comp=N,410nm,18.2s,MS4.5						
KMI				LR	LR		
	comp=E,360nm,18.2s,MS4.5						
KMI				LR	LR		
	comp=Z,550nm,19.0s,MS4.5						
MENT	**Mentasta**	**41.92**	**39**	*e*P	**P**	**05 26 25.2**	**+0.6**
NVS	**Novosibirsk**	**42.23**	**308**	*e*P	**P**	**05 26 26.3**	**-1.0**
NVS				*e*		05 28 19.5	
NVS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
NVS				pmax	pmax		
	comp=E,9.0nm,1.0s						
EGAK	**Eagle**	**42.84**	**36**	*e*P	**P**	**05 26 31.6**	**-0.5**
	comp=E,56nm,1.2s,mb5.2						
WMQ	**Urumqi**	**42.91**	**292**	⇑*i*P	**P**	**05 26 33.9**	**+0.9**
WMQ				pP	pP	05 26 46.0	+1.0
WMQ				sP	sP	05 26 51.0	+0.8
WMQ				PcP	PcP	05 28 25.0	+2.0
WMQ				S	**S**	**05 32 55.0**	**+0.4**
WMQ				sS	sS	05 33 16.0	+1.3
WMQ				pmax	pmax		
	comp=Z,66nm,0.9s,mb5.4						
WMQ				pmax	pmax		
	comp=Z,180nm,4.6s						
WMQ				LR	LR		
	comp=N,980nm,15.4s,MS5.0						
WMQ				LR	LR		
	comp=E,1µm,16.6s,MS5.0						
WMQ				LR	LR		
	comp=Z,860nm,19.0s,MS4.7						
DAWY	**Dawson**	**43.69**	**37**	*e*P	**P**	**05 26 39.1**	**+0.1**
MK31	**Makanchi Array**	**45.30**	**298**	*i* P	**P**	**05 26 52.3**	**+0.2**
MK31				pmax	pmax		
	comp=Z,53nm,0.7s,mb5.5						
MK31	**Makanchi Array**	**45.30**	**298**	*e*P	**P**	**05 26 52.3**	**+0.2**
MK31				*e*pP	pP	05 27 02.8	-1.4
MK31				*e*PcP	PcP	05 28 31.7	+0.6
MKAR	**Makanchi Array**	**45.30**	**298**	P	**P**	**05 26 52.2**	**+0.1**
MKAR						05 28 31.2	
MKAR	**Makanchi Array**	**45.30**	**298**	P	**P**	**05 26 52.2**	**+0.1**
	comp=Z,46nm,0.8s,mb5.4,baz=74,slow=8.3,SNR=316						
MKAR				PcP	PcP	05 28 31.2	+0.1
	comp=Z,9.5nm,0.9s,baz=72,slow=3.7,SNR=3.0						
MKAR				LR	LR	05 47 08.6	
	comp=Z,1µm,18.7s,MS4.9,baz=85,slow=38						
MKAR	**Makanchi Array**	**45.30**	**298**	P	**P**	**05 26 52.2**	**+0.1**
MKAR				PcP	PcP	05 28 31.2	+0.1
MKAR				LR	LR	05 47 08.6	
INK	**Inuvik**	**45.37**	**31**	P	**P**	**05 26 52.6**	**+0.3**
	comp=Z,16nm,0.9s,mb4.8,baz=298,slow=7.4,SNR=47						
INK	**Inuvik**	**45.37**	**31**	*e*P	**P**	**05 26 52.6**	**+0.3**
	comp=Z,21nm,0.9s,mb5.0						
INK				*e*pP	pP	05 27 03.2	-1.2
INK				*e*sP	sP	05 27 07.5	-2.1
KURK	**Kurchatov**	**46.13**	**304**	P	**P**	**05 26 58.1**	**-0.5**
	comp=Z,205nm,0.6s,mb6.2,SNR=23						
KURK	**Kurchatov**	**46.13**	**304**	*e*P	**P**	**05 26 58.1**	**-0.5**
KURK				*e*		05 28 34.2	
KURK				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.2						
KURK	**Kurchatov**	**46.13**	**304**	*e*P	**P**	**05 26 58.1**	**-0.5**
	comp=Z,21nm,0.6s,mb5.2						
KURK				*e*PcP	PcP	05 28 34.2	+0.3
KURK	**Kurchatov**	**46.13**	**304**	P	**P**	**05 26 58.8**	**+0.3**
	SNR=7.5						
KURK				P		05 26 58.8	
	SNR=7.5						
CHRT	**Chiangrai**	**47.20**	**255**	⇑P	**P**	**05 27 08.5**	**+1.2**
	comp=Z,290nm,0.8s,mb6.3						
LSA	**Lhasa**	**47.27**	**272**	P	**P**	**05 27 09.3**	**+1.5**
LSA				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
LSA	**Lhasa**	**47.27**	**272**	*e*P	**P**	**05 27 09.6**	**+1.8**
LSA				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.3						
LSA	**Lhasa**	**47.27**	**272**	*e*P	**P**	**05 27 09.6**	**+1.8**
	comp=Z,31nm,0.8s,mb5.3						
KKTK	**Khon Kaen**	**47.57**	**249**	P	**P**	**05 27 11.5**	**+1.3**
CHG	**Chiang Mai**	**48.49**	**255**	⇑P	**P**	**05 27 18.1**	**+0.8**
	comp=Z,86nm,0.7s,mb5.9						
CHTO	**Chiang Mai**	**48.49**	**255**	*e*P	**P**	**05 27 18.1**	**+0.8**
CHTO				*e**PP	pP	05 27 28.5	-1.0
CHTO				*e**SP	sP	05 27 34.4	-0.2
CHTO				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.7						
CHTO	**Chiang Mai**	**48.49**	**255**	*e*P	**P**	**05 27 18.1**	**+0.8**
	comp=Z,56nm,0.8s,mb5.7						
CHTO				*e*pP	pP	05 27 28.5	-1.0
CHTO				*e*sP	sP	05 27 34.4	-0.2
CMAR	**Chiang Mai Arr**	**48.73**	**254**	P	**P**	**05 27 20.1**	**+1.0**
	comp=Z,12nm,0.7s,mb5.0,baz=41,slow=7.5,SNR=60						
CMAR				pP	pP	05 27 30.5	-0.9
	comp=Z,29nm,0.7s,baz=42,slow=7.4,SNR=21						
SHL	**Shillong**	**49.16**	**267**	*i* P	**P**	**05 27 23.0**	**+0.6**
VOSK	**Vostochnaya**	**49.79**	**309**	P	**P**	**05 27 26.6**	**-0.2**
VOSK				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
NST	**Nakhon Sawan**	**49.85**	**251**	P	**P**	**05 27 28.0**	**+0.3**
	comp=Z,75nm,0.8s,mb5.8						
BVAR	**Borovoye Array**	**50.00**	**309**	P	**P**	**05 27 28.4**	**0.0**
	comp=Z,12nm,0.8s,mb5.0,baz=65,slow=8.4,SNR=35						
BVAR				PcP	PcP	05 28 48.1	+0.3
	comp=Z,8.3nm,0.8s,baz=66,slow=3.7,SNR=6.8						
BRVK	**Borovoye**	**50.05**	**310**	P	**P**	**05 27 29.1**	**+0.3**
	comp=Z,128nm,1.1s,mb5.9,SNR=7.9						
BRVK	**Borovoye**	**50.05**	**310**	*e*P	**P**	**05 27 28.8**	**0.0**
BRVK				*e**PP	pP	05 27 41.5	+0.5
BRVK				*e*		05 28 46.1	
BRVK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
BRVK	**Borovoye**	**50.05**	**310**	*e*P	**P**	**05 27 28.8**	**+0.1**
	comp=Z,23nm,1.0s,mb5.2						
BRVK				*e*pP	pP	05 27 41.5	+0.5
BRVK				*e*PcP	PcP	05 28 46.1	-1.9
BRVK	**Borovoye**	**50.05**	**310**	P	**P**	**05 27 29.2**	**+0.5**
	SNR=9.6						
BRVK				P		05 27 29.2	
	SNR=9.6						
AGT	**Agartala**	**50.65**	**266**	*e*x	x	05 27 29.0	
AGT				*e*x	x	05 27 43.0	
ULHL	**Ulahol**	**51.16**	**295**	P	**P**	**05 27 38.4**	**+1.1**
	SNR=19						
TKM2	**Tokmak 2**	**51.26**	**296**	P	**P**	**05 27 39.1**	**+1.1**
	SNR=72						
CHMS	**Chumysh**	**51.77**	**296**	P	**P**	**05 27 42.5**	**+0.7**
	SNR=7.5						
USP	**Ospenovka**	**51.80**	**297**	P	**P**	**05 27 42.9**	**+0.8**
	SNR=77						
KBK	**Karagaybulak**	**51.80**	**296**	P	**P**	**05 27 43.1**	**+1.0**
	SNR=66						
KZA	**Kyzart**	**51.89**	**295**	P	**P**	**05 27 44.8**	**+2.0**
	SNR=17						
FRU	**Bishkek**	**51.93**	**296**	*e*P	**P**	**05 27 43.0**	**-0.1**
FRU				*e*		05 27 58.0	
FRU				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.5						
AAK	**Ala-Archa**	**52.11**	**296**	P	**P**	**05 27 45.3**	**+0.9**
	comp=Z,276nm,1.3s,mb6.0,SNR=26						
AAK	**Ala-Archa**	**52.11**	**296**	*e*P	**P**	**05 27 45.1**	**+0.7**
AAK				*e*		05 28 56.4	
AAK				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.4						
AAK	**Ala-Archa**	**52.11**	**296**	P	**P**	**05 27 45.2**	**+0.8**
	SNR=38						
AAK	**Ala-Archa**	**52.11**	**296**	*e*P	**P**	**05 27 45.1**	**+0.7**
	comp=Z,41nm,0.9s,mb5.4						
AAK				*e*PcP	PcP	05 28 56.4	+0.5
AAK	**Ala-Archa**	**52.11**	**296**	P	**P**	**05 27 45.4**	**+1.0**
	SNR=18						
AAK				P		05 27 45.4	
	SNR=18						
UCH	**Uchtor**	**52.29**	**295**	P	**P**	**05 27 47.0**	**+1.2**
	SNR=18						
EKS2	**Erkin-Say**	**52.56**	**296**	P	**P**	**05 27 48.6**	**+0.8**
	SNR=10						
KSH	**Kashi**	**52.68**	**292**	P	**P**	**05 27 53.0**	**+4.3**
KSH				pP	pP	05 28 05.8	+4.8
KSH				sP	sP	05 28 11.0	+4.9
KSH				PcP	PcP	05 29 01.0	+3.0
KSH				*e*PP	PP	05 29 54.8	+6.9
KSH				ScP	ScP	05 32 53.1	+1.5
KSH				*e*PcS	PcS	05 32 58.4	+1.8
KSH				S	**S**	**05 35 17.8**	**+4.7**
KSH				pmax	pmax		
	comp=Z,32nm,0.4s,mb5.6						
KSH				LR	LR		
	comp=N,2µm,17.8s,MS5.2						
KSH				LR	LR		
	comp=E,860nm,13.0s,MS5.2						
KSH				LR	LR		
	comp=Z,1µm,12.8s,MS5.1						
AML	**Almayashu**	**52.87**	**296**	P	**P**	**05 27 51.6**	**+1.6**
	SNR=44						
SVE	**Sverdlovsk**	**53.49**	**317**	*e*P	**P**	**05 27 53.8**	**-0.6**
SVE				*e*SS	SS	05 39 01.5	-2.1
SVE				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
SVE				MLR	MLR		
	comp=Z,960nm,16.0s,MS5.0						
RES	**Resolute Bay**	**54.12**	**17**	P	**P**	**05 27 58.1**	**-0.6**
RES				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
RES	**Resolute Bay**	**54.12**	**17**	P	**P**	**05 27 58.0**	**-0.7**
	comp=Z,20nm,0.6s,mb5.2,baz=331,slow=7.4,SNR=104						
RES	**Resolute Bay**	**54.12**	**17**	*e*P	**P**	**05 27 57.8**	**-0.9**
	comp=Z,42nm,1.0s,mb5.3						
KK31	**Karatay Array**	**54.42**	**298**	*i* P	**P**	**05 28 01.3**	**-0.1**
KK31				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.3						
BOK	**Bokaro**	**54.55**	**270**	*e*PKP	**P**	**05 28 01.9**	**-0.7**
BOK				AMb	AMB	05 28 04.7	
	comp=Z,33nm,0.8s,mb5.4						
ARU	**Arti**	**54.69**	**317**	*d i*P	**P**	**05 28 02.7**	**-0.4**
ARU				*e*		05 30 06.6	
ARU				S	**S**	**05 35 39.5**	**-0.3**
ARU				SS	SS	05 39 20.9	-1.6
ARU				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.2						
ARU				MLR	MLR		
	comp=Z,850nm,18.0s,MS4.9						
ARU	**Arti**	**54.69**	**317**	*e*P	**P**	**05 28 02.1**	**-1.0**
	comp=Z,24nm,0.8s,mb5.3						
ARU				*e*pP	pP	05 28 13.6	-1.9
YKA	**Yellowknife Ar**	**54.73**	**34**	P	**P**	**05 28 03.2**	**0.0**
	comp=Z,12nm,0.9s,mb4.9,baz=299,slow=7.0,SNR=81						
YKA	**Yellowknife Ar**	**54.73**	**34**	P	**P**	**05 28 03.2**	**0.0**
PTH	**Pithoragarh**	**55.16**	**279**	*e*PKP	**P**	**05 28 06.4**	**-0.5**
PTH				*e*x	x	05 29 24.0	
LGTI	**Lohaghat**	**55.20**	**279**	*e*PKP	**P**	**05 28 05.9**	**-1.3**
DDI	**Dehra Dun**	**56.24**	**281**	*e*PKP	**P**	**05 28 12.6**	**-2.1**
SDNR	**Sundarnagar**	**56.33**	**283**	*e*PKP	**P**	**05 28 16.0**	**+0.7**
ALBI	**Allahabad**	**56.55**	**274**	*e*x	x	05 28 14.0	
THN	**Thein Dam**	**56.67**	**285**	*e*PKP	**P**	**05 28 16.2**	**-1.5**
BHK	**Bhakra**	**56.76**	**283**	*e*PKP	**P**	**05 28 17.0**	**-1.3**
KULM	**Kulim**	**57.18**	**242**	*e*P	**P**	**05 28 22.6**	**+1.1**
	comp=Z,52nm,0.8s,mb5.6						
KULM				*e*pP	pP	05 28 33.8	-0.2

AB31	**Akbulak array**	**57.57**	**309**	P	**P**	**05 28 23.5**	**-0.3**
AB31				pmax	pmax		
	comp=Z,13nm,0.5s,mb5.2						
PRGR	**Permogore**	**57.71**	**327**	*e*P	**P**	**05 28 23.2**	**-1.4**
PRGR				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.5						
NDI	**New Delhi**	**57.79**	**280**	*e*PKP	**P**	**05 28 25.0**	**-0.7**
COEN	**Coen**	**58.20**	**186**	*e*P	**P**	**05 28 28.8**	**+0.4**
COEN	**Coen**	**58.20**	**186**	*e*P	**P**	**05 28 28.9**	**+0.5**
	comp=Z,177nm,1.3s,mb5.9						
APA	**Apatity**	**58.32**	**336**	⇑*e*P	**P**	**05 28 29.0**	**+0.2**
APA				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
APA				MLR	MLR		
	comp=Z,800nm,18.0s,MS4.9						
JCW	**Jim Creek**	**58.51**	**52**	*e*P	**P**	**05 28 30.7**	**+0.3**
KAKA	**Kakadu**	**58.63**	**199**	*e*P	**P**	**05 28 29.7**	**-1.8**
	comp=Z,38nm,0.7s,mb5.5						
A07A	**Ashnola River,**	**58.91**	**50**	⇑P	**P**	**05 28 32.6**	**-0.6**
	baz=59						
C05A	**Tolt Reservoir**	**58.92**	**52**	⇑P	**P**	**05 28 32.6**	**-0.6**
	baz=59						
DAG	**Danmarks Havn**	**58.94**	**357**	⇓*e*P	**P**	**05 28 31.2**	**-1.7**
DAG				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
DAG	**Danmarks Havn**	**58.94**	**357**	⇓*i*P	**P**	**05 28 31.2**	**-1.7**
	comp=Z,4.0nm,0.6s,mb4.6						
DAG	**Danmarks Havn**	**58.94**	**357**	⇓*e*P	**P**	**05 28 31.2**	**-1.7**
	comp=Z,4.0nm,0.6s,mb4.6						
D05A	**Enumclaw**	**59.02**	**53**	⇑P	**P**	**05 28 34.3**	**+0.3**
	baz=59						
ARCES	**ARCESS Array B**	**59.11**	**340**	P	**P**	**05 28 33.6**	**-0.6**
ARCES				*PP	pP	05 28 43.9	-2.8
ARCES	**ARCESS Array B**	**59.11**	**340**	P	**P**	**05 28 33.6**	**-0.6**
	comp=Z,3.7nm,0.6s,mb4.6,baz=53,slow=8.0,SNR=15						
ARCES				pP	pP	05 28 43.9	-2.8
	comp=Z,2.5nm,0.6s,baz=39,slow=8.4,SNR=2.1						
ARCES				LR	LR	05 57 44.4	
	comp=Z,340nm,20.4s,MS4.5,baz=56,slow=40						
ARCES	**ARCESS Array B**	**59.11**	**340**	P	**P**	**05 28 33.6**	**-0.6**
ARCES				pP	pP	05 28 43.9	-2.8
ARCES				LR	LR	05 57 44.4	
C06A	**Tall Timber Ra**	**59.24**	**52**	⇑P	**P**	**05 28 35.2**	**-0.2**
	baz=59						
B07A	**Winthrop**	**59.38**	**51**	⇑P	**P**	**05 28 35.6**	**-0.8**
	baz=59						
F04A	**Amboy**	**59.47**	**54**	⇑P	**P**	**05 28 37.4**	**+0.3**
	baz=59,SNR=6.2						
A08A	**Turner Farm, O**	**59.57**	**50**	⇓P	**P**	**05 28 37.6**	**-0.1**
	baz=59,SNR=8.3						
D06A	**Cle Elum**	**59.67**	**52**	⇓P	**P**	**05 28 38.5**	**+0.1**
	baz=59						
G04A	**Mulino**	**59.84**	**55**	⇓P	**P**	**05 28 39.0**	**-0.5**
	baz=60						
C07A	**Waterville**	**59.84**	**51**	⇑P	**P**	**05 28 39.2**	**-0.3**
	baz=60						
B08A	**Colville Reser**	**59.87**	**50**	⇑P	**P**	**05 28 39.5**	**-0.2**
	baz=60						
A09A	**Danville**	**59.94**	**50**	⇓P	**P**	**05 28 40.4**	**+0.2**
	baz=60,SNR=7.0						
KBL	**Kabul**	**60.03**	**290**	*e*P	**P**	**05 28 40.6**	**-0.5**
KBL				pmax	pmax		
	comp=Z,102nm,1.0s,mb5.8						
KBL	**Kabul**	**60.03**	**290**	*e*P	**P**	**05 28 40.6**	**-0.5**
	comp=Z,102nm,1.0s,mb5.8						
PSI	**Prapat**	**60.19**	**241**	P	**P**	**05 28 43.2**	**+0.8**
	comp=Z,27nm,0.9s,mb5.3,baz=17,slow=2.4,SNR=14						
PSI				pP	pP	05 28 54.3	-0.6
	comp=Z,37nm,1.0s,baz=5.3,slow=7.1,SNR=8.1						
PSI	**Prapat**	**60.19**	**241**	P	**P**	**05 28 43.2**	**+0.8**
PSI				pP	pP	05 28 54.3	-0.6
EDM	**Edmonton**	**60.25**	**43**	*e*P	**P**	**05 28 42.3**	**0.0**
HOOD	**Mount Hood Mea**	**60.25**	**54**	*e*P	**P**	**05 28 43.2**	**+0.8**
	comp=Z,91nm,1.3s,mb5.7						
VIS	**Vishakhapatnam**	**60.26**	**266**	*e*PKP	**P**	**05 28 41.3**	**-1.5**
VIS				AMb	AMB	05 28 44.8	
	comp=Z,59nm,0.8s,mb5.7						
H04A	**Detroit Lake**	**60.30**	**55**	⇑P	**P**	**05 28 43.2**	**+0.5**
	baz=60,SNR=5.8						
C08A	**Higginbotham F**	**60.35**	**51**	⇑P	**P**	**05 28 42.7**	**-0.3**
	baz=60,SNR=5.9						
B09A	**Rice**	**60.49**	**50**	⇓P	**P**	**05 28 44.0**	**0.0**
	baz=60						
A10A	**Northport**	**60.49**	**49**	⇓P	**P**	**05 28 43.3**	**-0.7**
	baz=60						
G05A	**Wamic**	**60.49**	**54**	⇑P	**P**	**05 28 44.0**	**-0.1**
	baz=60						
F06A	**Goldendale**	**60.51**	**54**	⇑P	**P**	**05 28 44.3**	**+0.1**
	baz=60						
KLMR	**Klimovskoe**	**60.55**	**328**	⇑*i*P	**P**	**05 28 43.3**	**-0.9**
KLMR				*e*		05 30 54.0	
KLMR				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.3						
E07A	**Sunnyside**	**60.59**	**52**	⇑P	**P**	**05 28 44.4**	**-0.3**
	baz=60						
C09A	**Chrisman Ranch**	**60.77**	**50**	⇑P	**P**	**05 28 45.8**	**-0.1**
	baz=60,SNR=5.3						
D08A	**Wollman Farm,**	**60.84**	**51**	⇑P	**P**	**05 28 45.9**	**-0.5**
	baz=61						
G06A	**Carlson Farm,**	**60.89**	**54**	⇓P	**P**	**05 28 46.7**	**-0.1**
	baz=61						
F07A	**Phinny Hill Vi**	**60.93**	**53**	⇓P	**P**	**05 28 47.2**	**+0.2**
	baz=61,SNR=7.8						
AJM	**Ajmer**	**60.94**	**280**	*e*PKP	**P**	**05 28 47.6**	**+0.2**
BHPL	**Bhopal**	**60.96**	**275**	*e*PKP	**P**	**05 28 46.8**	**-0.8**
E08A	**Dider Farm, El**	**61.08**	**52**	⇑P	**P**	**05 28 47.7**	**-0.3**
	baz=61,SNR=5.0						
NEW	**Newport**	**61.14**	**50**	*e*P	**P**	**05 28 48.3**	**-0.1**
NEW				*e**PP	pP	05 29 01.7	+0.7
NEW				pmax	pmax		
	comp=Z,59nm,1.8s						
NEW	**Newport**	**61.14**	**50**	*e*P	**P**	**05 28 48.3**	**-0.1**
	comp=Z,59nm,1.8s,mb5.4						
NEW				*e*pP	pP	05 29 01.7	+0.8
NEW				*e*sP	sP	05 29 06.4	+0.4
A11A	**Hall Mountain,**	**61.15**	**49**	⇑P	**P**	**05 28 48.9**	**+0.4**
	baz=61,SNR=6.8						
D09A	**Jones Farm, Ri**	**61.17**	**51**	⇓P	**P**	**05 28 48.0**	**-0.7**
	baz=61						
C10A	**Spilker Farm,**	**61.29**	**50**	⇑P	**P**	**05 28 49.4**	**-0.1**
	baz=61						
H06A	**Lindquist Farm**	**61.36**	**54**	⇓P	**P**	**05 28 49.7**	**-0.2**
	baz=61						
G07A	**Ruggs Ranch, H**	**61.44**	**53**	⇓P	**P**	**05 28 49.9**	**-0.5**
	baz=61						
B11A	**Sandpoint**	**61.45**	**49**	⇓P	**P**	**05 28 50.7**	**+0.2**
	baz=61						
A12A	**Yaak River Ran**	**61.55**	**48**	⇑P	**P**	**05 28 50.8**	**-0.4**
	baz=61						
E09A	**Wood Farm, Sta**	**61.58**	**52**	⇓P	**P**	**05 28 51.4**	**0.0**
	baz=61,SNR=6.3						
F08A	**Pendleton**	**61.64**	**53**	⇑P	**P**	**05 28 51.3**	**-0.6**
	baz=61						
D10A	**Wagner Farm, O**	**61.76**	**51**	⇑P	**P**	**05 28 52.5**	**-0.1**
	baz=62,SNR=6.7						
G08A	**Pilot Rock**	**61.83**	**53**	⇓P	**P**	**05 28 52.9**	**-0.2**
	baz=62						
I06A	**Prineville**	**61.88**	**55**	⇓P	**P**	**05 28 53.8**	**+0.2**
	baz=62,SNR=6.2						
H07A	**Lands Inn, Kim**	**61.89**	**54**	⇑P	**P**	**05 28 53.2**	**-0.3**
	baz=62						
JOF	**Joensuu**	**62.11**	**333**	*e*P	**P**	**05 28 52.4**	**-2.3**
JOF				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.4						
JOF	**Joensuu**	**62.11**	**333**	*e*p	**P**	**05 28 52.4**	**-2.3**
	comp=Z,17nm,0.5s,mb5.4						
E10A	**Myers Farm, Un**	**62.18**	**51**	⇓P	**P**	**05 28 55.3**	**-0.1**
	baz=62,SNR=9.0						
K05A	**Summer Lake**	**62.19**	**56**	⇓P	**P**	**05 28 56.5**	**+0.9**
	baz=62,SNR=6.5						
A13A	**Flathead Natio**	**62.21**	**48**	⇓P	**P**	**05 28 55.6**	**0.0**
	baz=62						
I07A	**Izee**	**62.22**	**55**	⇑P	**P**	**05 28 55.5**	**-0.3**
	baz=62						
D11A	**Klaveano Farm,**	**62.28**	**50**	⇑P	**P**	**05 28 55.7**	**-0.5**
	baz=62,SNR=5.6						
J06A	**Christmas Vall**	**62.32**	**56**	⇑P	**P**	**05 28 56.8**	**+0.4**
	baz=62,SNR=6.0						
C12B	**Naegeli Ranch,**	**62.36**	**49**	⇑P	**P**	**05 28 56.9**	**+0.2**
	baz=62						
WALA	**Waterton Lakes**	**62.40**	**47**	*e*P	**P**	**05 28 57.0**	**+0.1**
	comp=Z,0.3nm,0.7s						
F10A	**Beach Ranch, E**	**62.42**	**52**	⇓P	**P**	**05 28 56.9**	**-0.1**
	baz=62						
H08A	**Prairie City**	**62.45**	**54**	⇑P	**P**	**05 28 57.6**	**+0.3**
	baz=62,SNR=8.2						
B13A	**Whitefish**	**62.51**	**48**	⇑P	**P**	**05 28 57.9**	**+0.3**
	baz=62,SNR=17						
G09A	**Cove**	**62.51**	**53**	⇑P	**P**	**05 28 57.9**	**+0.2**
	baz=62,SNR=5.1						
BSMT	**Bassoo Peak**	**62.65**	**49**	*e*P	**P**	**05 28 58.9**	**+0.4**
	comp=Z,18nm,1.2s,mb5.1						
BSMT				*e*pP	pP	05 29 12.8	+1.6
A14A	**Double T Ranch**	**62.71**	**47**	⇑P	**P**	**05 28 59.0**	**+0.1**
	baz=62						
J07A	**Hines**	**62.75**	**55**	⇓P	**P**	**05 28 59.3**	**0.0**
	baz=62						
E11A	**Bogner Ranch,**	**62.76**	**51**	⇑P	**P**	**05 28 59.0**	**-0.3**
	baz=62						
I08A	**Drewsey**	**62.87**	**54**	⇓P	**P**	**05 29 00.8**	**+0.7**
	baz=63,SNR=10						
C13A	**Hot Springs**	**62.87**	**49**	⇑P	**P**	**05 29 00.3**	**+0.3**
	baz=63,SNR=5.6						
G10A	**Bishop Farm, J**	**62.88**	**52**	⇓P	**P**	**05 29 00.1**	**0.0**
	baz=63,SNR=5.5						
JTMT	**Jette**	**62.99**	**49**	*e*P	**P**	**05 29 01.2**	**+0.4**
	comp=Z,9.3nm,0.9s,mb4.9						
MOD	**Modoc**	**63.03**	**57**	*e*P	**P**	**05 29 01.8**	**+0.6**
YBMT	**Yellow Bay**	**63.06**	**49**	*e*P	**P**	**05 29 01.1**	**-0.2**
	comp=Z,9.5nm,0.9s,mb4.9						
A15A	**Johnson Ranch,**	**63.07**	**47**	⇓P	**P**	**05 29 01.0**	**-0.4**
	baz=63						
F11A	**Grangeville**	**63.07**	**51**	⇑P	**P**	**05 29 01.4**	**0.0**
	baz=63,SNR=8.1						
K07A	**Rock Creek Ran**	**63.19**	**56**	⇑P	**P**	**05 29 02.4**	**+0.1**
	baz=63,SNR=8.4						
J08A	**Circle Bar Ran**	**63.25**	**55**	⇓P	**P**	**05 29 03.0**	**+0.4**
	baz=63,SNR=8.5						
SWMT	**Swartz Lake**	**63.28**	**49**	*e*P	**P**	**05 29 03.3**	**+0.5**
	comp=Z,14nm,1.0s,mb5.0						
SWMT				*e*pP	pP	05 29 14.5	-0.9
D13A	**Huson**	**63.28**	**49**	⇓P	**P**	**05 29 02.7**	**-0.1**
	baz=63,SNR=7.5						
I09A	**Lost Marbles R**	**63.31**	**54**	⇑P	**P**	**05 29 03.0**	**0.0**
	baz=63						
SUMG	**Summit**	**63.32**	**2**	*e*P	**P**	**05 29 02.0**	**-0.6**
	comp=Z,22nm,1.0s,mb5.2						
H10A	**Noah’s Angus R**	**63.51**	**53**	⇑P	**P**	**05 29 04.5**	**+0.1**
	baz=63,SNR=7.7						
L07A	**Adell**	**63.54**	**56**	⇑P	**P**	**05 29 04.7**	**+0.2**
	baz=63,SNR=5.3						
B15A	**Bradely Ranch,**	**63.56**	**47**	⇑P	**P**	**05 29 04.5**	**-0.1**
	baz=63						
K08A	**Mann Creek Ran**	**63.62**	**55**	⇑P	**P**	**05 29 05.0**	**-0.1**
	baz=63,SNR=7.5						
F12A	**Elk City**	**63.65**	**51**	⇓P	**P**	**05 29 05.7**	**+0.4**
	baz=63,SNR=7.8						
J09A	**Fry Pan Ranch,**	**63.68**	**54**	⇑P	**P**	**05 29 05.6**	**+0.1**
	baz=63						
A16A	**West Butte Ran**	**63.68**	**46**	⇓P	**P**	**05 29 04.9**	**-0.5**
	baz=63,SNR=7.2						
SLMT	**Seeley Lake**	**63.72**	**49**	*e*P	**P**	**05 29 05.7**	**0.0**
	comp=Z,29nm,1.0s,mb5.3						
MSO	**Missoula**	**63.73**	**49**	*e*P	**P**	**05 29 06.0**	**+0.3**
	comp=Z,19nm,1.1s,mb5.0						
D14A	**Greenough**	**63.81**	**49**	⇓P	**P**	**05 29 05.8**	**-0.5**
	baz=64,SNR=11						
E13A	**Victor**	**63.83**	**50**	⇑P	**P**	**05 29 06.4**	**0.0**
	baz=64						
H11A	**Donnelly**	**63.86**	**52**	⇓P	**P**	**05 29 06.7**	**0.0**
	baz=64						
C15A	**Salmond Ranch,**	**63.87**	**48**	⇓P	**P**	**05 29 07.3**	**+0.6**
	baz=64,SNR=11						
HYB	**Hyderabad**	**63.89**	**269**	*i* P	**P**	**05 29 08.0**	**+0.8**
	comp=Z,77nm,0.8s,mb5.8						
HYB	**Hyderabad**	**63.89**	**269**	*e*P	**P**	**05 29 07.0**	**-0.2**
B16A	**M & M Farms, S**	**63.95**	**47**	⇑P	**P**	**05 29 06.9**	**-0.3**
	baz=64,SNR=8.3						
N06A	**Buffalo Meadow**	**64.00**	**58**	⇑P	**P**	**05 29 07.9**	**+0.3**
	baz=64,SNR=7.8						
M07A	**Soldier Meadow**	**64.02**	**57**	⇑P	**P**	**05 29 08.1**	**+0.4**
	baz=64,SNR=20						
L08A	**Fields**	**64.03**	**56**	⇓P	**P**	**05 29 07.8**	**0.0**
	baz=64,SNR=5.9						
CHMT	**Chamberlain Mo**	**64.05**	**49**	*e*P	**P**	**05 29 07.9**	**0.0**
	comp=Z,5.3nm,1.0s,mb4.5						
CHMT				*e*PcP	PcP	05 29 43.1	+0.3
K09A	**Rome**	**64.08**	**55**	⇑P	**P**	**05 29 07.8**	**-0.3**
	baz=64						
CTA	**Charters Tower**	**64.11**	**183**	P	**P**	**05 29 07.3**	**-1.1**
	comp=Z,4.7nm,0.9s,mb4.5,baz=8.5,slow=7.2,SNR=3.6						
F13A	**Darby**	**64.14**	**51**	⇓P	**P**	**05 29 08.2**	**-0.3**
	baz=64						
A17A	**Triple J Farms**	**64.15**	**46**	⇓P	**P**	**05 29 08.2**	**-0.3**
	baz=64,SNR=9.5						
BEKR	**Beckwourth**	**64.21**	**59**	⇑P	**P**	**05 29 08.8**	**-0.3**
	baz=64,SNR=5.4						
E14A	**Clinton**	**64.22**	**50**	⇑P	**P**	**05 29 08.6**	**-0.3**
	baz=64						
KAF	**Kangasniemi**	**64.31**	**334**	*e*P	**P**	**05 29 07.4**	**-1.9**
KAF				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
KAF	**Kangasniemi**	**64.31**	**334**	*e*p	**P**	**05 29 07.4**	**-1.9**
	comp=Z,23nm,0.6s,mb5.4,baz=41,slow=6.3						
C16A	**Fuhringer Ranc**	**64.31**	**48**	⇑P	**P**	**05 29 09.8**	**+0.3**
	baz=64,SNR=23						
O06A	**Flanigan**	**64.36**	**58**	⇓P	**P**	**05 29 10.4**	**+0.4**
	baz=64,SNR=9.0						
D15A	**Lincoln**	**64.36**	**49**	⇑P	**P**	**05 29 09.8**	**-0.1**
	baz=64						
I11A	**Placerville**	**64.37**	**53**	⇑P	**P**	**05 29 09.6**	**-0.4**
	baz=64						
M08A	**Happy Creek Ra**	**64.45**	**56**	⇓P	**P**	**05 29 10.4**	**-0.2**
	baz=64						
B17A	**L&G Farms, Che**	**64.50**	**47**	⇑P	**P**	**05 29 10.9**	**+0.1**
	baz=64,SNR=6.8						
N07B	**Gerlach**	**64.50**	**57**	⇓P	**P**	**05 29 10.4**	**-0.5**
	baz=64						
L09A	**Wilkinson Ranc**	**64.53**	**55**	⇑P	**P**	**05 29 11.1**	**0.0**
	baz=64,SNR=6.1						
K10A	**MacKenzie Ranc**	**64.54**	**54**	⇓P	**P**	**05 29 11.0**	**-0.1**
	baz=64						
FFC	**Flin Flon**	**64.60**	**37**	P	**P**	**05 29 11.6**	**+0.3**
	comp=Z,170nm,1.1s,mb6.0,SNR=22						
FFC	**Flin Flon**	**64.60**	**37**	*i* P	**P**	**05 29 11.4**	**+0.1**
FFC	**Flin Flon**	**64.60**	**37**	*e*P	**P**	**05 29 11.4**	**+0.1**
	comp=Z,22nm,0.8s,mb5.2						
FFC				*e*pP	pP	05 29 22.9	-1.1
A18A	**Metzger Ranch,**	**64.60**	**46**	⇑P	**P**	**05 29 11.2**	**-0.3**
	baz=64,SNR=10						
H12A	**Diamond D Ranc**	**64.61**	**52**	⇑P	**P**	**05 29 11.7**	**+0.1**
	baz=64,SNR=6.4						
G13A	**Cobalt**	**64.63**	**51**	⇑P	**P**	**05 29 11.4**	**-0.2**
	baz=64,SNR=10						
F14A	**Wisdom**	**64.66**	**50**	⇑P	**P**	**05 29 11.6**	**-0.2**
	baz=64						
E15A	**Deer Lodge**	**64.68**	**49**	⇓P	**P**	**05 29 11.9**	**-0.1**
	baz=64						
MFID	**Camas Ranch**	**64.75**	**53**	⇑P	**P**	**05 29 12.4**	**-0.1**
	baz=64						
D16A	**Dana Ranch, Ca**	**64.89**	**48**	⇑P	**P**	**05 29 13.7**	**+0.3**
	baz=65,SNR=5.7						
I12A	**Atlanta**	**64.92**	**53**	⇓P	**P**	**05 29 13.6**	**0.0**
	baz=65,SNR=9.5						
WCN	**Washoe City**	**64.92**	**59**	⇓P	**P**	**05 29 14.0**	**+0.3**
	baz=65,SNR=5.1						
C17A	**Wharram Farm,**	**64.93**	**47**	⇓P	**P**	**05 29 13.5**	**-0.1**
	baz=65,SNR=10						
O07A	**Toulon**	**64.94**	**58**	⇑P	**P**	**05 29 13.9**	**+0.2**
	baz=65,SNR=8.8						
H13A	**Challis**	**64.94**	**52**	⇓P	**P**	**05 29 13.8**	**+0.1**
	baz=65,SNR=11						
HRY	**Holter Researc**	**64.94**	**49**	*e*P	**P**	**05 29 13.7**	**+0.1**
	comp=Z,10nm,0.6s,mb5.0						
G14A	**Jackson**	**64.96**	**51**	⇑P	**P**	**05 29 13.4**	**-0.4**
	baz=65						
B18A	**Beardsley Farm**	**64.97**	**46**	⇑P	**P**	**05 29 13.7**	**-0.1**
	baz=65						
FCC	**Fort Churchill**	**64.99**	**31**	*e*P	**P**	**05 29 13.3**	**-0.5**
	comp=Z,0.8nm,0.8s,mb3.8						
N08A	**GE Springer Mi**	**65.01**	**57**	⇑P	**P**	**05 29 13.8**	**-0.4**
	baz=65						
M09A	**Marrel Ranch,**	**65.02**	**56**	⇑P	**P**	**05 29 13.8**	**-0.5**
	baz=65						
K11A	**Parker Ranch,**	**65.03**	**54**	⇑P	**P**	**05 29 13.8**	**-0.5**
	baz=65						
F15A	**Butte**	**65.12**	**50**	⇑P	**P**	**05 29 14.6**	**-0.2**
	baz=65						
ABKT	**Ailbek**	**65.13**	**299**	P	**P**	**05 29 15.0**	**0.0**
	comp=Z,464nm,1.0s,mb6.5,SNR=18						
E16A	**East Helena**	**65.14**	**49**	⇓P	**P**	**05 29 14.5**	**-0.5**
	baz=65						
LRM	**Limekiln Ridge**	**65.16**	**50**	*e*P	**P**	**05 29 15.7**	**+0.6**
	comp=Z,122nm,1.0s,mb5.9						
L10A	**Juniper Basin**	**65.20**	**55**	⇓P	**P**	**05 29 15.0**	**-0.4**
	baz=65						
EGMT	**Eagleton**	**65.22**	**46**	⇓P	**P**	**05 29 15.2**	**-0.3**
	baz=65,SNR=14						
EGMT	**Eagleton**	**65.22**	**46**	*e*P	**P**	**05 29 15.6**	**+0.2**
	comp=Z,36nm,1.1s,mb5.3						
EGMT				*e*pP	pP	05 29 27.8	-0.2
WRAB	**Tennant Creek**	**65.25**	**195**	*e*P	**P**	**05 29 15.5**	**-0.3**
WRAB				*e**PP	pP	05 29 30.7	+2.2
WRAB				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
WRAB	**Tennant Creek**	**65.25**	**195**	*e*P	**P**	**05 29 15.5**	**-0.4**
	comp=Z,15nm,0.9s,mb5.0						
WRAB				*e*pP	pP	05 29 30.7	+2.2
WRA	**Warramunga Arr**	**65.26**	**195**	P	**P**	**05 29 15.0**	**-0.9**
	comp=Z,14nm,0.9s,mb5.0,baz=14,slow=6.8,SNR=43						
WRA				LR	LR	05 56 18.5	
	comp=Z,117nm,18.9s,MS4.1,baz=290,slow=35						
WRA				PKP2bc		05 58 00.9	
	comp=Z,0.8nm,0.9s,baz=201,slow=2.7,SNR=4.0						
WRA	**Warramunga Arr**	**65.26**	**195**	P	**P**	**05 29 15.0**	**-0.9**
WRA				LR	LR	05 56 18.5	
WRA				⇑*e*		05 58 00.9	
J12A	**Stokes Ranch,**	**65.27**	**53**	⇓P	**P**	**05 29 15.6**	**-0.3**
	baz=65						
D17A	**Six Diamond Ra**	**65.28**	**48**	⇓P	**P**	**05 29 15.7**	**-0.1**
	baz=65,SNR=6.0						
O08A	**Rochester Mine**	**65.29**	**57**	⇓P	**P**	**05 29 16.5**	**+0.4**
	baz=65,SNR=6.8						
SCO	**Scoresbysund**	**65.33**	**357**	*i* P	**P**	**05 29 14.6**	**-1.2**
SCO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
SCO	**Scoresbysund**	**65.33**	**357**	*i* P	**P**	**05 29 14.6**	**-1.2**
	comp=Z,7.9nm,0.9s,mb4.7						
N09A	**Rock Creek Ran**	**65.33**	**56**	⇓P	**P**	**05 29 16.7**	**+0.4**
	baz=65,SNR=6.6						
DLMT	**Dillon**	**65.37**	**50**	*e*P	**P**	**05 29 17.6**	**+1.1**
	comp=Z,16nm,1.2s,mb4.9						
DLMT				*e*pP	pP	05 29 29.6	+0.4
I13A	**Wildhorse Cree**	**65.42**	**52**	⇓P	**P**	**05 29 16.7**	**-0.1**
	baz=65						
HLID	**Hailey**	**65.47**	**52**	⇑P	**P**	**05 29 17.4**	**+0.2**
	baz=65,SNR=5.9						
M10A	**I.L. Ranch, Tu**	**65.50**	**55**	⇓P	**P**	**05 29 17.8**	**+0.4**
	baz=65,SNR=5.6						
OBN	**Obninsk**	**65.51**	**324**	⇓*i*P	**P**	**05 29 16.8**	**-0.4**
OBN				*e**PP	pP	05 29 28.7	-1.2
OBN				*e*		05 29 46.9	
OBN				*e*S	S	05 37 58.1	-0.6
OBN				*e*SS	SS	05 42 08.9	-3.0
OBN				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
OBN				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.8						
G15A	**Dillon**	**65.55**	**50**	⇑P	**P**	**05 29 17.6**	**0.0**
	baz=65						
MCMT	**McKenzie Canyo**	**65.56**	**51**	*e*P	**P**	**05 29 18.0**	**+0.3**
	comp=Z,1.9nm,0.8s,mb4.2						
MCMT				*e*pP	pP	05 29 29.8	-0.5
L11A	**Cat Creek Ranc**	**65.56**	**54**	⇑P	**P**	**05 29 18.3**	**+0.5**
	baz=65,SNR=6.0						
FITZ	**Fitzroy Crossi**	**65.58**	**204**	*e*P	**P**	**05 29 18.4**	**+0.4**
	comp=Z,12nm,0.8s,mb5.0						
FITZ	**Fitzroy Crossi**	**65.58**	**204**	P	**P**	**05 29 18.2**	**+0.2**
	comp=Z,14nm,1.1s,mb4.9,baz=29,slow=5.9,SNR=5.5						
R06C	**Coleville**	**65.59**	**59**	⇓P	**P**	**05 29 18.5**	**+0.5**
	baz=65,SNR=6.0						
E17A	**Martinsdale**	**65.62**	**48**	⇑P	**P**	**05 29 18.5**	**+0.4**
	baz=65,SNR=6.9						
F16A	**Kennard Place,**	**65.63**	**49**	⇓P	**P**	**05 29 18.0**	**-0.1**
	baz=65						
J13A	**Cove Ranch, Pi**	**65.71**	**53**	⇑P	**P**	**05 29 18.9**	**+0.2**
	baz=66						
D18A	**Linhart Farms,**	**65.72**	**47**	⇓P	**P**	**05 29 18.9**	**+0.2**
	baz=66						
BOZ	**Bozeman (W)**	**65.72**	**49**	*e*P	**P**	**05 29 19.2**	**+0.5**
BOZ				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
BOZ	**Bozeman (W)**	**65.72**	**49**	⇓P	**P**	**05 29 19.0**	**+0.3**
	baz=66,SNR=24						
BOZ	**Bozeman (W)**	**65.72**	**49**	*e*P	**P**	**05 29 19.2**	**+0.5**
	comp=Z,9.1nm,0.7s,mb4.9						
K12A	**Draper Farm, C**	**65.77**	**54**	⇓P	**P**	**05 29 18.9**	**-0.2**
	baz=66						
I14A	**Mackay**	**65.79**	**52**	⇓P	**P**	**05 29 19.8**	**+0.6**
	baz=66						
H15A	**Lima**	**65.81**	**51**	⇑P	**P**	**05 29 19.1**	**-0.2**
	baz=66						
G16A	**Moss Hill, Enn**	**65.89**	**50**	⇓P	**P**	**05 29 20.0**	**+0.2**
	baz=66						
O09A	**Fish Creek Ran**	**65.95**	**57**	⇑P	**P**	**05 29 20.9**	**+0.6**
	baz=66,SNR=5.7						
VRHR	**Novokhopersk**	**65.95**	**319**	*e*P	**P**	**05 29 19.6**	**-0.5**
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
VRHR				pmax	pmax		
	comp=N,30nm,0.7s						
M11A	**Holland Ranch,**	**66.00**	**55**	⇓P	**P**	**05 29 21.3**	**+0.7**
	baz=66,SNR=6.1						
L12A	**House Creek Ra**	**66.01**	**54**	⇓P	**P**	**05 29 21.1**	**+0.5**
	baz=66,SNR=5.9						
N10A	**Dunphy**	**66.02**	**56**	⇑P	**P**	**05 29 20.4**	**-0.3**
	baz=66						
E18A	**Harlowton**	**66.06**	**48**	⇓P	**P**	**05 29 20.9**	**0.0**
	baz=66						
F17A	**Fitzpatrick Pl**	**66.08**	**49**	⇓P	**P**	**05 29 21.2**	**+0.2**
	baz=66						
J14A	**Carey**	**66.13**	**52**	⇑P	**P**	**05 29 21.9**	**+0.5**
	baz=66						
Q08A	**Gabbs**	**66.31**	**58**	⇑P	**P**	**05 29 22.8**	**+0.2**
	baz=66,SNR=8.4						
NVAR	**Mina Array Bea**	**66.35**	**59**	P	**P**	**05 29 23.3**	**+0.4**
	comp=N,6.6nm,0.6s,mb4.9,baz=301,slow=7.1,SNR=45						
P09A	**Austin**	**66.36**	**57**	⇓P	**P**	**05 29 22.9**	**0.0**
	baz=66						
G17A	**Pierce Place,**	**66.41**	**49**	⇓P	**P**	**05 29 23.7**	**+0.5**
	baz=66,SNR=6.6						
H16A	**Russell Place,**	**66.52**	**50**	⇓P	**P**	**05 29 24.1**	**+0.2**
	baz=66						
POO	**Poona**	**66.53**	**273**	*e*PKP	**P**	**05 29 24.4**	**0.0**
F18A	**Big Timber**	**66.59**	**48**	⇑P	**P**	**05 29 24.5**	**+0.2**
	baz=66						
L13A	**Double Diamond**	**66.66**	**54**	⇑P	**P**	**05 29 25.0**	**+0.1**
	baz=66						
GCMT	**Greycliff**	**66.69**	**48**	*e*P	**P**	**05 29 25.5**	**+0.5**
	comp=N,7.9nm,0.8s,mb4.8						
J15A	**Blackfoot**	**66.69**	**52**	⇑P	**P**	**05 29 25.6**	**+0.6**
	baz=66,SNR=8.3						
YMR	**Madison River**	**66.70**	**50**	*e*P	**P**	**05 29 26.1**	**+1.0**
	comp=N,17nm,1.0s,mb5.0						
P10A	**Eureka**	**66.73**	**57**	⇑P	**P**	**05 29 25.1**	**-0.2**
	baz=66						
N12A	**Clover Valley,**	**66.80**	**55**	⇓P	**P**	**05 29 25.5**	**-0.3**
	baz=67						
K14A	**Jones Ranch, D**	**66.81**	**53**	⇓P	**P**	**05 29 26.1**	**+0.3**
	baz=67						
O11A	**Cowboy Ranch,**	**66.89**	**56**	⇑P	**P**	**05 29 26.8**	**+0.5**
	baz=67						
I16A	**Newdale**	**66.92**	**51**	⇓P	**P**	**05 29 26.6**	**+0.1**
	baz=67						
M13A	**Montello**	**67.00**	**54**	⇓P	**P**	**05 29 27.4**	**+0.5**
	baz=67,SNR=6.7						
VSR	**Storozhevoye**	**67.02**	**320**	*e*P	**P**	**05 29 26.6**	**-0.4**
VSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
VSR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
VSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VSR				MLR	MLR		
	comp=Z,620nm,15.0s,MS5.0						
VSR				MLR	MLR		
	comp=N,450nm,17.0s,MS4.8						
VSR				MLR	MLR		
	comp=E,390nm,19.0s,MS4.8						
G18A	**Lazy EL Ranch,**	**67.05**	**49**	⇑P	**P**	**05 29 27.2**	**0.0**
	baz=67						
LKWY	**Lake**	**67.08**	**50**	*e*P	**P**	**05 29 29.6**	**+2.2**
LKWY				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
LKWY	**Lake**	**67.08**	**50**	*e*P	**P**	**05 29 29.6**	**+2.2**
	comp=Z,21nm,1.3s,mb5.0						
H17A	**Grant Village**	**67.09**	**50**	⇑P	**P**	**05 29 28.6**	**+1.1**
	baz=67,SNR=10						
K15A	**Arbon**	**67.09**	**52**	⇑P	**P**	**05 29 28.4**	**+0.8**
	baz=67,SNR=6.2						
KAD	**Karad**	**67.09**	**272**	*e*PKP	**P**	**05 29 27.5**	**-0.4**
KAD				AMb	AMB	05 29 29.8	

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              comp=Z,68nm,1.0s,mb5.6
L14A   Malta             67.10  53 ⇑P     P      05 29 27.7  0.0
              baz=67
VORD   Divnogorie        67.14 320 eP     P      05 29 27.2 -0.5
VORD                                pmax  pmax
              comp=Z,20nm,0.9s,mb5.2
VORD                                pmax  pmax
              comp=N,10.0nm,0.6s
VORD                                pmax  pmax
              comp=E,5.0nm,0.5s
VORD                                MLR   MLR
              comp=Z,620nm,15.0s,MS5.0
VORD                                MLR   MLR
              comp=E,360nm,16.0s
IMW    Indian Meadow     67.21  50 eP     P      05 29 29.4 +1.2
              comp=E,13nm,1.0s,mb4.9
R09A   Tonopah           67.23  58 ⇓P     P      05 29 28.6 +0.1
              baz=67,SNR=14
J16A   Bone              67.24  51 ⇑P     P      05 29 28.9 +0.4
              baz=67
Q10A   Clear Creek Ra    67.27  58 ⇓P     P      05 29 29.1 +0.4
              baz=67
DCID1  Drake Creek       67.27  51 eP     P      05 29 29.5 +0.9
              comp=E,16nm,0.8s,mb5.1
RLMT   Red Lodge         67.33  49 ⇓P     P      05 29 29.2 +0.2
              baz=67,SNR=5.6
RLMT   Red Lodge         67.33  49 eP     P      05 29 29.6 +0.6
              comp=E,22nm,1.2s,mb5.1
O12A   Currie            67.35  55 ⇓P     P      05 29 29.6 +0.4
              baz=67
RRI2   Red Ridge         67.35  51 eP     P      05 29 30.2 +1.0
              comp=E,56nm,1.4s,mb5.4
M14A   Sheep Mountain    67.38  54 ⇓P     P      05 29 29.2 -0.2
              baz=67
I17A   Pilgrim Ck.       67.40  50 ⇓P     P      05 29 30.0 +0.5
              baz=67
MOOW   Moose Ponds       67.41  50 eP     P      05 29 30.4 +0.8
              comp=E,12nm,1.1s,mb4.8
MOOW                               epP    pP     05 29 43.8 +1.5
S09A   Goldfield         67.46  59 ⇓P     P      05 29 30.3 +0.3
              baz=67,SNR=7.1
TPAW   Teton Pass        67.47  51 eP     P      05 29 31.1 +1.2
              comp=E,26nm,1.0s,mb5.2
VES    Vestal, Richgr    67.48  62 ⇑P     P      05 29 30.3 +0.1
              baz=67
HVU    Hansel Valley     67.53  53 eP     P      05 29 31.1 +0.7
HVU                                 pmax  pmax
              comp=Z,6.0nm,0.9s,mb4.6
HVU    Hansel Valley     67.53  53 eP     P      05 29 31.1 +0.7
              comp=Z,6.3nm,0.9s,mb4.7
K16A   Soda Springs      67.53  52 ⇑P     P      05 29 30.6 +0.2
              baz=67
LOHW   Long Hollow       67.58  51 eP     P      05 29 31.5 +0.9
              comp=Z,19nm,1.2s,mb5.0
LOHW                               epP    pP     05 29 43.9 +0.6
SNOW   Snow King Moun    67.59  51 eP     P      05 29 31.9 +1.2
              comp=Z,11nm,1.1s,mb4.8
SNOW                               epP    pP     05 29 42.8 -0.6
REDW   Red Top Meadow    67.60  51 eP     P      05 29 31.4 +0.6
              comp=Z,34nm,1.3s,mb5.2
L15A   Malad City        67.61  53 ⇓P     P      05 29 31.2 +0.3
              baz=67
R10A   Warm Springs      67.67  58 ⇓P     P      05 29 31.7 +0.4
              baz=67
J17A   Brown Place, J    67.68  51 ⇓P     P      05 29 31.7 +0.4
              baz=67,SNR=7.6
Q11A   Duckwater         67.70  57 ⇑P     P      05 29 31.5  0.0
              baz=68
S10A   Tonopah Range,    67.72  58 ⇑P     P      05 29 32.0 +0.4
              baz=68,SNR=8.9
DGMT   Dagmar            67.74  43 ⇑P     P      05 29 31.5 -0.1
              baz=68,SNR=8.3
DGMT   Dagmar            67.74  43 eP     P      05 29 31.5  0.0
              comp=Z,20nm,0.6s,mb5.3
DGMT                               epP    pP     05 29 43.6 -0.6
P12A   McGill            67.75  56 ⇓P     P      05 29 31.4 -0.4
              baz=68
GRAC   Grapevine Rang    67.83  60 ⇑P     P      05 29 32.8 +0.5
              baz=68,SNR=8.4
O13A   Hicks Ranch, I    67.88  55 ⇑P     P      05 29 32.3 -0.3
              baz=68
LAO    LASA Array        67.91  46 eP     P      05 29 33.2 +0.5
              comp=Z,38nm,1.3s,mb5.3
M15A   Larsen Ranch,     67.92  53 ⇓P     P      05 29 33.2 +0.4
              baz=68
I18A   Diamond G Ranc    67.96  50 ⇑P     P      05 29 33.1 +0.1
              baz=68
SPUT   South Promonto    68.02  53 eP     P      05 29 34.1 +0.7
              comp=Z,37nm,1.6s,mb5.2
SFJD   Kangerlussuaq     68.06   8  P     P      05 29 32.8 -0.4
SFJD                                pmax  pmax
              comp=Z,9.0nm,0.6s,mb5.0
SFJD   Kangerlussuaq     68.06   8 i P    P      05 29 32.7 -0.5
              comp=Z,13nm,0.9s,mb5.0
SFJD   Kangerlussuaq     68.06   8  P     P      05 29 32.8 -0.5
              comp=Z,9.1nm,0.6s,mb5.0,baz=337,slow=7.7,SNR=5.4
R11A   Troy Canyon, C    68.06  58 ⇓P     P      05 29 33.8 +0.1
              baz=68,SNR=14
Q12A   Willow Creek R    68.08  57 ⇓P     P      05 29 33.9 +0.1
              baz=68
L16A   Fish Haven        68.15  52 ⇑P     P      05 29 34.4 +0.1
              baz=68,SNR=5.9
J18A   Kendall Valley    68.16  51 ⇓P     P      05 29 34.2 -0.1
              baz=68
N15A   Stansbury Isla    68.25  54 ⇑P     P      05 29 34.8 -0.1
              baz=68
FRB    Frobisher Bay     68.34  17  P     P      05 29 34.1 -0.9
              comp=Z,25nm,0.6s,mb5.4,baz=334,slow=6.9,SNR=56
MPMC   Manual Prospec    68.35  60 ⇑P     P      05 29 35.7 +0.1
              baz=68,SNR=8.4
L17A   Cokeville         68.41  52 ⇑P     P      05 29 35.8 -0.1
              baz=68
S11A   Rachel            68.41  58 ⇑P     P      05 29 36.3 +0.3
              baz=68,SNR=7.4
FURC   Furnace Creek,    68.48  60 ⇓P     P      05 29 36.3 -0.1
              baz=68,SNR=7.3
M16A   Huntsville        68.49  53 ⇓P     P      05 29 36.4  0.0
              baz=68
K18A   Toltan Ranch,     68.53  51 ⇑P     P      05 29 36.3 -0.3
              baz=68,SNR=12
DUG    Dugway            68.53  54 eP     P      05 29 37.1 +0.5
DUG                                e*PP   pP     05 29 49.3 -0.1
DUG                                 pmax  pmax
              comp=Z,28nm,1.4s,mb5.0
DUG    Dugway            68.53  54 ⇓P     P      05 29 36.7  0.0
              baz=68,SNR=10
DUG    Dugway            68.53  54 eP     P      05 29 37.1 +0.5
              comp=Z,28nm,1.4s,mb5.0
DUG                                epP    pP     05 29 49.3  0.0
Q13A   Wheeler Ranch,    68.61  56 ⇓P     P      05 29 37.3 +0.1
              baz=68,SNR=8.7
R12A   Pony Springs,     68.67  57 ⇑P     P      05 29 37.3 -0.3
              baz=68
O15A   The Old Anders    68.67  54 ⇓P     P      05 29 37.4 -0.2
              baz=68
BW06   Boulder Array     68.71  51 ⇓P     P      05 29 37.6 -0.1
              baz=68,SNR=9.7
PDAR   Pinedale Array    68.71  51  P     P      05 29 37.8 +0.1
              comp=Z,5.0nm,0.7s,mb4.6,baz=285,slow=1.7,SNR=35
PDAR                                pP    pP     05 29 50.0 -0.4
              comp=Z,6.4nm,0.6s,baz=261,slow=1.7,SNR=13
PDAR                                PKP2bc       05 57 49.5
              comp=Z,1.3nm,1.2s,baz=162,slow=1.4,SNR=4.4
PDAR                                LR    LR     06 01 34.8
              comp=Z,156nm,19.0s,MS4.3,baz=339,slow=38
PDAR   Pinedale Array    68.71  51  P     P      05 29 37.8 +0.1
PDAR                                pP    pP     05 29 50.0 -0.4
PDAR                              ⇑e             05 57 49.5
PDAR                                LR    LR     06 01 34.8
P14A   Drum Mountains    68.77  55 ⇑P     P      05 29 38.3 +0.2
              baz=68,SNR=7.1
EDW2   Edwards Air Fo    68.78  62 ⇑P     P      05 29 38.2 -0.1
              baz=69
U10A   Ash Meadows, A    68.84  60 ⇓P     P      05 29 38.6  0.0
              baz=69
M17A   Scullys Gap (B    68.94  52 ⇑P     P      05 29 38.8 -0.3
              baz=69
ASAR   Alice Springs     68.98 195  P     P      05 29 39.7 +0.3
              comp=Z,8.5nm,0.8s,mb4.7,baz=10,slow=5.7,SNR=68
ASAR                                PKP2bc       05 57 51.6
              comp=Z,1.9nm,1.0s,baz=174,slow=2.8,SNR=6.8
ASAR   Alice Springs     68.98 195  P     P      05 29 39.7 +0.3
ASAR                              ⇑e             05 57 51.6
S12A   Delamar Landin    68.98  58 ⇑P     P      05 29 39.8 +0.3
              baz=69
T11A   Corn Creek, Al    68.99  58 ⇑P     P      05 29 39.5 -0.1
              baz=69,SNR=11
L18A   Fontenelle, Gr    69.00  52 ⇑P     P      05 29 39.9 +0.3
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              baz=69
Q14A   Sevier Lake (B    69.04  56 ⇓P     P      05 29 39.9 +0.1
              baz=69,SNR=8.0
K19A   Absolon Red Bu    69.07  50 ⇑P     P      05 29 39.2 -0.8
              baz=69,SNR=6.5
NLU    North Lily Min    69.11  54 eP     P      05 29 38.8 -1.5
              comp=Z,8.1nm,1.1s,mb4.6
NLU                                epP    pP     05 29 52.4 -0.7
R13A   O'Grain Ranch,    69.14  57 ⇓P     P      05 29 40.5  0.0
              baz=69
N17A   Moffit Pass       69.19  53 ⇑P     P      05 29 40.7  0.0
              baz=69,SNR=11
PALK   Pallekele         69.23 260  P     P      05 29 41.7 +0.4
              comp=Z,113nm,0.8s,mb5.8,SNR=5.4
PALK   Pallekele         69.23 260 i P    P      05 29 42.1 +0.8
PALK   Pallekele         69.23 260 LR     LR     06 02 49.1
              comp=Z,240nm,18.8s,MS4.5,baz=99,slow=38
P15A   Leamington        69.25  55 ⇑P     P      05 29 40.8 -0.3
              baz=69
GSC    Goldstone         69.26  61 ⇓P     P      05 29 41.0 -0.3
              baz=69
L19A   Farson            69.26  51 ⇓P     P      05 29 41.2  0.0
              baz=69,SNR=6.0
GOF    Gofitskoye        69.28 313 eP     P      05 29 34.4 -6.8
GOF                                 pmax  pmax
              comp=Z,150nm,1.3s,mb5.8
DAU    Daniels Canyon    69.29  53 eP     P      05 29 42.1 +0.7
DAU                                e*PP   pP     05 29 54.7 +0.6
DAU                                 pmax  pmax
              comp=Z,31nm,1.4s,mb5.0
DAU    Daniels Canyon    69.29  53 eP     P      05 29 42.1 +0.7
              comp=Z,31nm,1.4s,mb5.0
DAU                                epP    pP     05 29 54.7 +0.5
MPU    Maple Canyon      69.33  54 eP     P      05 29 41.6  0.0
              comp=Z,18nm,1.1s,mb4.9
U11A   Corn Creek        69.42  59 ⇓P     P      05 29 42.2  0.0
              baz=69
MICGM  Minsk             69.45 328⇓eP     P      05 29 40.0 -2.1
K20A   Yellowstone Ra    69.46  50 ⇑P     P      05 29 41.7 -0.7
              baz=69
MNK    Minsk             69.47 328⇓eP     P      05 29 40.0 -2.2
MNK                                 pmax  pmax
              comp=Z,190nm,1.0s,mb6.0
NB2    NORSAR Subarra    69.48 339  P     P      05 29 40.5 -1.7
              comp=Z,76nm,1.2s,mb5.5,baz=30,slow=6.2
NOA    NORSAR Array B    69.48 339  P     P      05 29 40.9 -1.3
              comp=Z,33nm,0.9s,mb5.2,baz=32,slow=6.1,SNR=51
NOA                                 LR    LR     06 03 11.3
              comp=Z,243nm,20.0s,MS4.4,baz=330,slow=38
Q15A   Fillmore          69.56  55 ⇑P     P      05 29 42.8 -0.3
              baz=69
NACGM  Naroch            69.57 328 e      P      05 29 39.0 -3.8
S13A   Holt Ranch, En    69.60  57 ⇑P     P      05 29 43.4 +0.1
              baz=69
HFS    Hagfors           69.60 338  P     P      05 29 41.4 -1.5
              comp=Z,20nm,0.6s,mb5.2,baz=46,slow=4.3,SNR=53
HFS                                 LR    LR     06 01 27.6
              comp=Z,380nm,21.9s,MS4.6,baz=27,slow=37
HFS    Hagfors           69.60 338  P     P      05 29 41.4 -1.5
HFS                                 LR    LR     06 01 27.6
R14A   James Farms, M    69.64  56 ⇑P     P      05 29 43.5  0.0
              baz=69
T12A   Moapa             69.64  58 ⇓P     P      05 29 43.4 -0.1
              baz=69
ARUT   Antelope Range    69.72  57 eP     P      05 29 44.6 +0.6
ARUT                                pmax  pmax
              comp=Z,9.0nm,1.0s,mb4.7
ARUT   Antelope Range    69.72  57 eP     P      05 29 44.5 +0.5
              comp=Z,8.5nm,1.0s,mb4.6
TUQ    Turquoise Moun    69.72  60 ⇓P     P      05 29 44.0 -0.1
              baz=70,SNR=6.1
O17A   Robinson Place    69.73  53 ⇑P     P      05 29 43.9 -0.2
              baz=70
M19A   Rock Springs      69.77  51 ⇓P     P      05 29 43.8 -0.5
              baz=70
V11A   Goodsprings       69.77  59 ⇑P     P      05 29 44.1 -0.3
              baz=70
HEC    Hector,Ludlow     69.86  61 ⇓P     P      05 29 44.7 -0.3
              baz=70
L20A   Wamsutter         69.89  51 ⇑P     P      05 29 44.7 -0.3
              baz=70
S14A   Cedar City        69.90  57 ⇓P     P      05 29 45.0 -0.1
              baz=70
CCUT   Cedar City        69.92  57 eP     P      05 29 45.8 +0.5
              comp=Z,15nm,1.3s,mb4.8
CCUT                               epP    pP     05 29 58.5 +0.5
U12A   Valley of Fire    69.93  58 ⇓P     P      05 29 45.4  0.0
              baz=70
T13A   Saint George      69.94  58 ⇑P     P      05 29 45.8 +0.4
              baz=70,SNR=7.4
MSU    Marysvale         70.00  56 eP     P      05 29 46.2 +0.4
MSU                                e*PP   pP     05 29 57.9 -0.6
MSU                                 pmax  pmax
              comp=Z,24nm,1.4s,mb4.9
MSU    Marysvale         70.00  56 eP     P      05 29 46.1 +0.4
              comp=Z,24nm,1.4s,mb4.9
MSU                                epP    pP     05 29 57.9 -0.7
O18A   Roosevelt         70.11  53 ⇑P     P      05 29 46.6 +0.3
              baz=70
R15A   Junction          70.14  56 ⇓P     P      05 29 46.7 +0.1
              baz=70
V12A   Nelson            70.20  59 ⇑P     P      05 29 46.9 -0.1
              baz=70
KIV    Kislovodsk        70.21 312  P     P      05 29 48.0 +1.1
              comp=Z,607nm,1.2s,mb6.4,SNR=10
KIV    Kislovodsk        70.21 312 eP     P      05 29 47.8 +0.9
KIV                                eS     S      05 38 55.7 +0.6
KIV                                 pmax  pmax
              comp=Z,120nm,1.1s,mb5.7
KIV                                 pmax  pmax
              comp=Z,59nm,4.8s
KIV                                 MLR   MLR
              comp=Z,801nm,20.0s,MS5.0
KIV    Kislovodsk        70.21 312 eP     P      05 29 47.9 +1.0
              comp=Z,129nm,1.1s,mb5.8
KIV    Kislovodsk        70.21 312  P     P      05 29 48.7 +1.8
              SNR=9.3
KIV                                 P            05 29 48.7
              SNR=9.3
P17A   Butcher Ranch,    70.21  54 ⇑P     P      05 29 47.3 +0.3
              baz=70
U13A   Pakoon Wash       70.29  58 ⇑P     P      05 29 47.9 +0.3
              baz=70,SNR=14
GMRC   Granite Mounta    70.31  60 ⇑P     P      05 29 48.0 +0.2
              baz=70
M20A   Sweetwater, Wa    70.32  51 ⇓P     P      05 29 47.8 +0.1
              baz=70
Q16A   Castle Valley     70.32  55 ⇓P     P      05 29 47.8 +0.1
              baz=70
P18A   Preston Nutter    70.39  54 ⇓P     P      05 29 48.4 +0.3
              baz=70
ULM    Lac du Bonnet     70.39  38  P     P      05 29 47.4 -0.5
              comp=Z,4.7nm,0.6s,mb4.6,baz=313,slow=7.1,SNR=11
ULM                                 pP    pP     05 29 59.4 -1.4
              comp=Z,6.5nm,0.5s,baz=306,slow=6.8,SNR=6.4
ULM    Lac du Bonnet     70.39  38  P     P      05 29 47.4 -0.5
ULM                                 pP    pP     05 29 59.4 -1.3
T14A   Hurricane         70.41  57 ⇓P     P      05 29 48.4 +0.1
              baz=70
S15A   Panguitch         70.44  56 ⇓P     P      05 29 48.5 +0.1
              baz=70
L21A   Rawlins           70.46  50 ⇑P     P      05 29 48.1 -0.4
              baz=70
LDFC   Landfair          70.46  60 eP     P      05 29 48.8 +0.2
              comp=Z,47nm,1.3s,mb5.3
LDFC                               epP    pP     05 30 01.5 +0.1
R16A   Teasdale          70.56  55 ⇑P     P      05 29 49.5 +0.3
              baz=70,SNR=9.5
SRU    San Rafael        70.57  54 eP     P      05 29 49.4 +0.1
SRU                                 pmax  pmax
              comp=Z,17nm,0.9s,mb5.0
SRU    San Rafael        70.57  54 ⇓P     P      05 29 49.4 +0.2
              baz=70,SNR=13
SRU    San Rafael        70.57  54 eP     P      05 29 49.4 +0.1
              comp=Z,17nm,0.9s,mb5.0
PFO    Pinyon Flat Ob    70.57  62 i P    P      05 29 51.1 +1.7
PFO    Pinyon Flat Ob    70.57  62 ⇓P     P      05 29 49.2 -0.2
              baz=70
O19A   Miners Draw (B    70.59  52 ⇑P     P      05 29 49.0 -0.3
              baz=70
V13A   Grand Canyon W    70.65  59 ⇑P     P      05 29 49.8  0.0
              baz=70,SNR=12
M21A   Separation Pea    70.70  50 ⇓P     P      05 29 49.8 -0.2
              baz=70
N20A   Spence Gulch,     70.72  52 ⇑P     P      05 29 50.1  0.0
              baz=70,SNR=7.3
RWWY   Rawlins           70.73  50 eP     P      05 29 50.6 +0.4
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              comp=Z,12nm,1.0s,mb4.8
U14A   Mt Trumbull       70.77  58 ⇓P     P      05 29 50.7 +0.2
              baz=70,SNR=11
RSSD   Black Hills       70.78  47 eP     P      05 29 50.2 -0.2
RSSD                               e*PP   pP     05 30 02.6 -0.6
RSSD                                pmax  pmax
              comp=Z,9.0nm,0.7s,mb4.8
RSSD   Black Hills       70.78  47 eP     P      05 29 50.2 -0.3
              comp=Z,8.7nm,0.7s,mb4.8
RSSD                               epP    pP     05 30 02.6 -0.6
Q18A   Rafter H Ranch    70.81  54 ⇑P     P      05 29 50.4 -0.3
              baz=71
T15A   Red Dirt Ranch    70.86  57 ⇑P     P      05 29 51.1 +0.1
              baz=71
R17A   Hanksville Air    70.92  55 ⇑P     P      05 29 51.2 -0.2
              baz=71,SNR=8.0
BORG   Borgarnes         71.01 355  P     P      05 29 53.0 +1.5
              comp=Z,32nm,0.8s,mb5.3,baz=308,slow=3.2,SNR=4.4
IRM    Iron Mountain     71.04  61 ⇓P     P      05 29 52.2 +0.1
              baz=71,SNR=7.2
P19A   Cripple Cowboy    71.11  53 ⇑P     P      05 29 52.5 -0.1
              baz=71,SNR=7.3
BC3    Big Chuckw Mtn    71.18  61 ⇑P     P      05 29 52.5 -0.5
              baz=71
N21A   Black Mountain    71.18  51 ⇑P     P      05 29 52.7 -0.2
              baz=71
O20A   White River Ci    71.20  52 ⇑P     P      05 29 52.9 -0.2
              baz=71
W13A   Hualapai Mount    71.21  59 ⇓P     P      05 29 53.0 -0.2
              baz=71
M22A   Cedar Creek Ra    71.26  50 ⇓P     P      05 29 53.3 -0.1
              baz=71,SNR=6.1
V14A   Boquillas Ranc    71.33  58 ⇑P     P      05 29 54.3 +0.3
              baz=71,SNR=15
S17A   Black Ridge (B    71.39  55 ⇓P     P      05 29 54.3 +0.1
              baz=71,SNR=16
Q19A   Hogan Spring (    71.41  54 ⇓P     P      05 29 54.0 -0.3
              baz=71,SNR=7.8
R18A   Canyonlands Na    71.42  54 ⇑P     P      05 29 54.1 -0.3
              baz=71,SNR=7.4
P20A   De Beque          71.54  53 ⇑P     P      05 29 54.7 -0.4
              baz=71
X13A   Yucca             71.57  60 ⇑P     P      05 29 55.2 -0.2
              baz=71
PDMCI  Parker Dam,Lak    71.57  60 ⇑P     P      05 29 55.1 -0.3
              baz=71
O21A   Pagoda            71.58  52 ⇓P     P      05 29 55.1 -0.2
              baz=71
SUW    Suwalki           71.59 330 eP     P      05 29 54.0 -1.1
SUW    Suwalki           71.59 330 eP     P      05 29 54.0 -1.1
W14A   Seligman          71.62  59 ⇑P     P      05 29 55.9 +0.2
              baz=71
GNI    Garni             71.67 308⇑eP     P      05 29 57.3 +1.4
GNI                                 pmax  pmax
              comp=Z,75nm,1.2s
GNI    Garni             71.67 308 eP     P      05 29 57.9 +2.0
              comp=Z,63nm,1.0s,mb5.5
Y12C   Blythe            71.70  61 ⇑P     P      05 29 55.8 -0.4
              baz=72,SNR=5.6
N22A   Wattenberg Ran    71.75  51 ⇑P     P      05 29 56.0 -0.3
              baz=72
V15A   Kaibab Nationa    71.78  58 ⇑P     P      05 29 56.4 -0.2
              baz=72,SNR=8.9
AKASG  Malin Array Be    71.78 324  P     P      05 29 55.7 -0.6
              comp=Z,28nm,0.7s,mb5.3,baz=36,slow=5.8,SNR=92
AKASG                               LR    LR     06 04 15.4
              comp=Z,486nm,18.4s,MS4.8,baz=30,slow=38
KIEV   Kiev              71.79 324 eP     P      05 29 55.6 -0.8
              comp=Z,66nm,1.0s,mb5.5
T17A   Navajo Res., N    71.81  56 ⇓P     P      05 29 56.6 -0.3
              baz=72
AGMN   Agassiz Refuge    71.82  39 eP     P      05 29 55.9 -0.8
              comp=Z,7.2nm,0.6s,mb4.8
AGMN                               epP    pP     05 30 07.6 -1.8
S18A   Hurst Farm, Bl    71.83  55 ⇓P     P      05 29 56.7 -0.2
              baz=72,SNR=9.7
R19A   Curley Farm, L    71.86  54 ⇓P     P      05 29 56.8 -0.3
              baz=72
PHWY   Pilot Hill        71.96  50 eP     P      05 29 57.5  0.0
              comp=Z,35nm,1.8s,mb5.0
Q20A   Ridgley Place,    71.97  53 ⇑P     P      05 29 57.9 +0.3
              baz=72,SNR=6.1
GLA    Glamis            71.97  61 ⇑P     P      05 29 57.7 -0.1
              baz=72
PV04   Paradox Valley    71.99  54 eP     P      05 29 57.9  0.0
SOC    Sochi             72.02 314 eP     P      05 29 56.8 -1.1
SOC                                e*PP   pP     05 30 07.8 -2.9
SOC                                e             05 32 33.3
SOC                                ePPP          05 34 22.9
SOC                                eS     S      05 39 13.8 -2.3
SOC                                e             05 40 03.5
SOC                                 pmax  pmax
              comp=Z,106nm,1.0s,mb5.7
SOC                                 MLR   MLR
              comp=Z,341nm,19.0s,MS4.6
Y13A   Salome            72.09  60 ⇓P     P      05 29 58.4 -0.1
              baz=72
W15A   Williams          72.15  58 ⇑P     P      05 29 59.2 +0.3
              baz=72
U17A   Shonto            72.17  56 ⇑P     P      05 29 58.8 -0.1
              baz=72
U16A   Tuba City         72.19  57 ⇓P     P      05 29 59.4 +0.3
              baz=72,SNR=22
X14A   Yava              72.23  59 ⇓P     P      05 29 59.4  0.0
              baz=72
T18A   Mexican Hat       72.27  55 ⇑P     P      05 29 59.3 -0.3
              baz=72
S19A   Harvey Farm, M    72.30  54 ⇓P     P      05 29 59.5 -0.2
              baz=72
ANN    Anapa             72.33 316 eP     P      05 29 51.1 -8.6
ANN                                 MLR   MLR
              comp=Z,581nm,23.0s,MS4.8
PV01   Paradox Valley    72.36  54 eP     P      05 30 00.3 +0.3
              comp=Z,573nm,0.8s,mb6.6
PV01                               epP    pP     05 30 12.3 -0.5
R20A   Redvale           72.44  54 ⇓P     P      05 30 00.1 -0.4
              baz=72
Q21A   Lamborn Mesa,     72.46  53 ⇑P     P      05 30 00.7  0.0
              baz=72
WUAZ   Wupatki           72.46  57 ⇓P     P      05 30 00.8 +0.1
              baz=72
WUAZ   Wupatki           72.46  57 eP     P      05 30 01.4 +0.7
              comp=Z,14nm,1.2s,mb4.8
Y14A   Wickenburg        72.52  60 ⇓P     P      05 30 01.3 +0.2
              baz=72,SNR=7.8
X15A   Humboldt          72.63  59 ⇓P     P      05 30 01.7  0.0
              baz=72
W16A   Flagstaff         72.65  58 ⇑P     P      05 30 02.2 +0.3
              baz=72
U18A   Rough Rock, Ch    72.76  56 ⇓P     P      05 30 03.0 +0.5
              baz=72,SNR=5.1
Q22A   Crested Butte,    72.82  52 ⇓P     P      05 30 03.4 +0.6
              baz=73,SNR=8.5
113A   Mohawk Valley,    72.82  61 ⇓P     P      05 30 02.5 -0.4
              baz=73
ISCO   Idaho Springs     72.90  51 eP     P      05 30 03.9 +0.6
ISCO                               e*PP   pP     05 30 16.2 +0.1
ISCO                                pmax  pmax
              comp=Z,25nm,1.3s,mb5.0
ISCO   Idaho Springs     72.90  51 eP     P      05 30 03.9 +0.6
              comp=Z,25nm,1.3s,mb5.0
ISCO                               epP    pP     05 30 16.2 +0.1
Y15A   Casa Rosa Ranc    72.92  59 ⇑P     P      05 30 03.7 +0.2
              baz=73
T19A   Beclabito         72.98  55 ⇓P     P      05 30 03.4 -0.4
              baz=73
MVCO   Mesa Verde        73.03  54 ⇑P     P      05 30 03.7 -0.4
              baz=73
MVCO   Mesa Verde        73.03  54 eP     P      05 30 04.5 +0.5
              comp=Z,29nm,1.2s,mb5.1
MVCO                               epP    pP     05 30 16.7 -0.2
X16A   Lo Mia Camp, P    73.16  58 ⇓P     P      05 30 05.1 +0.2
              baz=73
V18A   Ganado            73.20  56 ⇑P     P      05 30 05.6 +0.5
              baz=73,SNR=5.8
R22A   Saguache, Gunn    73.34  53 ⇑P     P      05 30 06.7 +0.8
              baz=73,SNR=9.3
114A   Black Gap (USA    73.39  60 ⇑P     P      05 30 06.4 +0.2
              baz=73
BSD    Bornholm Skovb    73.48 334⇑iP     P      05 30 05.7 -0.7
BSD                                 pmax  pmax
              comp=Z,65nm,0.9s,mb5.6
BSD    Bornholm Skovb    73.48 334⇑iP     P      05 30 05.7 -0.7
              comp=Z,65nm,0.9s,mb5.6
Y16A   Circle Bar Ran    73.50  59 ⇓P     P      05 30 07.1 +0.2
              baz=73,SNR=8.1
ERZM   Erzurum           73.71 310 i P    P      05 30 10.1 +2.1
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COP	Copenhagen	73.74	336	iP	P	05 30 08.1	+0.2
COP				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.6						
COP	Copenhagen	73.74	336	iP	P	05 30 08.1	+0.2
	comp=Z,59nm,0.8s,mb5.6						
115A	Sonoran Desert	73.83	60	⇓P	P	05 30 08.9	0.0
	baz=74						
SIM	Simferopol’	73.85	318	dP	P	05 30 07.9	-0.8
SIM				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.5						
Z16A	Peralta Trail,	73.89	59	⇑P	P	05 30 09.7	+0.5
	baz=74						
W19A	Sanders	73.93	57	⇑P	P	05 30 09.6	+0.2
	baz=74						
214A	Organ Pipe Nat	73.96	61	⇓P	P	05 30 09.5	-0.2
	baz=74						
MUD	Monsted U’grnd	73.99	338	iP	P	05 30 09.6	+0.3
MUD				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
MUD	Monsted U’grnd	73.99	338	iP	P	05 30 09.6	+0.3
	comp=Z,22nm,1.0s,mb5.0						
X18A	Snowflake	73.99	57	⇑P	P	05 30 09.4	-0.3
	baz=74						
Y17A	Roosevelt	74.01	59	⇑P	P	05 30 09.9	0.0
	baz=74						
EYMN	Ely	74.03	37	eP	P	05 30 08.9	-0.8
	comp=Z,20nm,1.0s,mb5.0						
EYMN				epP	pP	05 30 21.0	-1.6
HAKT	HAKKARI	74.03	307	iP	sP	05 30 31.1	+3.4
OGNE	Ogallala	74.06	48	eP	P	05 30 10.1	+0.1
	comp=Z,35nm,1.1s,mb5.2						
OGNE				epP	pP	05 30 22.3	-0.6
T22A	Edith	74.09	54	⇑P	P	05 30 10.4	+0.1
	baz=74						
116A	Eloy	74.25	60	⇓P	P	05 30 11.2	-0.1
	baz=74						
GKP	Gorka Klasztor	74.27	332	eP	P	05 30 11.2	+0.2
GKP	Gorka Klasztor	74.27	332	eP	P	05 30 11.2	+0.2
BIDO	Bidbid	74.34	288	P	P	05 30 13.8	+1.8
	SNR=7.1						
WBK	Wadi Bani Khal	74.37	286	P	P	05 30 13.4	+1.3
	SNR=8.5						
SDCO	Great Sand Dun	74.39	52	eP	P	05 30 12.2	+0.2
	comp=Z,13nm,1.3s,mb4.7						
SDCO				epP	pP	05 30 25.0	+0.1
W20A	Ramah	74.45	56	⇑P	P	05 30 12.3	-0.1
	baz=74						
Z17A	San Carlos Hig	74.51	59	⇓P	P	05 30 12.9	+0.1
	baz=74						
LVV	L’vov	74.58	326	⇓iP	pP	05 30 22.0	-3.7
LVV				e		05 30 40.3	
SMDO	Samad	74.70	287	P	P	05 30 15.4	+1.4
	SNR=7.1						
KIS	Kishinev	74.76	322	eP	P	05 30 14.0	0.0
KIS				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.2						
KIS				MLR	MLR		
	comp=Z,800nm,18.0s						
216A	Three Points,	74.78	60	⇓P	P	05 30 14.3	-0.1
	baz=75						
Y19A	Nutrioso	74.80	57	⇓P	P	05 30 14.6	+0.1
	baz=75						
ECSD	EROS Data Cent	74.82	43	eP	P	05 30 13.5	-0.8
	comp=Z,39nm,1.4s,mb5.1						
117A	Oracle	74.84	59	⇑P	P	05 30 14.7	0.0
	baz=75						
HOQ	Hoqain	74.86	288	P	P	05 30 16.0	+1.1
	SNR=6.2						
TUC	Tucson	74.99	60	eP	P	05 30 15.3	-0.3
TUC				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
TUC	Tucson	74.99	60	eP	P	05 30 15.3	-0.2
	comp=Z,7.7nm,1.1s,mb4.5						
JMDO	Jabal Madar	75.12	287	P	P	05 30 17.4	+0.9
	SNR=13						
MLA1	Latheron	75.15	345	eP	P	05 30 15.9	-0.1
BEST	Besiri	75.18	309	iP	P	05 30 18.0	+1.4
KWP	Kalwaria Pacla	75.25	327	eP	P	05 30 17.5	+0.8
KWP	Kalwaria Pacla	75.25	327	⇑iP	P	05 30 17.3	+0.5
KWP	Kalwaria Pacla	75.25	327	eP	P	05 30 17.5	+0.7
118A	Homack Ranch,	75.27	59	⇓P	P	05 30 17.5	+0.4
	baz=75,SNR=12						
217A	Green Valley	75.33	60	⇓P	P	05 30 16.7	-0.8
	baz=75						
BSY	Bisya	75.49	288	P	P	05 30 19.4	+0.8
	SNR=14						
MVH1	Achvaich	75.66	345	eP	P	05 30 18.5	-0.4
218A	Dragoon	75.67	59	⇑P	P	05 30 19.8	+0.3
	baz=75,SNR=6.6						
KEMA	Kemaliye	75.73	311	iP	P	05 30 20.7	+1.0
LAZ	Ladron	75.76	56	eP	P	05 30 20.7	+0.7
	comp=Z,11nm,1.3s,mb4.6						
DIYA	Diyarbakir	75.80	309	iP	P	05 30 21.5	+1.4
BUR08	Bucovina Ar. S	75.82	324	eP	P	05 30 20.2	+0.2
BUR02	Bucovina Ar. S	75.83	324	P	P	05 30 20.6	+0.5
BURAR	Bucovina Array	75.83	324	⇑iP	P	05 30 20.4	+0.3
BURAR	Bucovina Array	75.83	324	⇑P	P	05 30 20.4	+0.3
MARD	Mardin	75.86	309	iP	P	05 30 22.0	+1.5
BSEG	Bad Segeberg	75.87	336	eP	P	05 30 20.3	+0.1
BSEG				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.5						
BSEG	Bad Segeberg	75.87	336	eP	P	05 30 20.3	+0.1
	comp=Z,71nm,1.1s,mb5.5						
OJC	Ojcow	75.88	329	iP	P	05 30 20.6	+0.2
KOLS	Kolonicke sedl	75.98	327	eP	P	05 30 21.2	+0.3
KOLS				e		05 30 29.3	
KOLS				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.3						
KOLS	Kolonicke sedl	75.98	327	eP	P	05 30 21.2	+0.3
	comp=Z,42nm,1.1s,mb5.3						
KOLS				e		05 30 29.3	
STHS	Stebnicka Huta	75.99	328	eP	P	05 30 21.7	+0.7
STHS				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
STHS	Stebnicka Huta	75.99	328	eP	P	05 30 21.6	+0.6
STHS	Stebnicka Huta	75.99	328	eP	P	05 30 21.7	+0.7
	comp=Z,52nm,1.0s,mb5.4						
BOYT	Boyabat	76.05	315	iP	P	05 30 23.0	+1.5
RUE	Ruedersdorf	76.07	333	eP	P	05 30 21.3	-0.1
	comp=Z,130nm,1.2s,mb5.7						
318A	Bisbee	76.08	60	⇑P	P	05 30 22.1	+0.3
	baz=76,SNR=8.8						
STKA	Stephens Creek	76.09	186	eP	P	05 30 22.5	+1.0
	comp=Z,5.4nm,0.9s,mb4.5						
STKA	Stephens Creek	76.09	186	P	P	05 30 22.7	+1.2
	comp=Z,4.0nm,0.7s,mb4.4,baz=348,slow=6.2,SNR=8.9						
STKA				LR	LR	06 05 36.8	
	comp=Z,163nm,19.1s,MS4.3,baz=24,slow=37						
219A	White Tail Can	76.14	59	⇑P	P	05 30 22.4	+0.3
	baz=76						
MDO	Dochfour	76.14	345	eP	P	05 30 20.5	-1.2
120A	U Bar Ranch, L	76.15	58	⇓P	P	05 30 22.7	+0.5
	baz=76						
TLCR		76.15	321	⇑iP	P	05 30 22.4	+0.4
TLCR		76.15	321	⇑P	P	05 30 22.4	+0.4
UZH	Uzhgorod	76.21	327	⇓iP	P	05 30 22.0	-0.3
UZH				e		05 30 40.3	
KAC	Achnashellach	76.26	346	eP	P	05 30 22.3	0.0
CRVS	Cervenica-Dubn	76.32	327	eP	P	05 30 23.2	+0.3
CRVS				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
CRVS	Cervenica-Dubn	76.32	327	eP	P	05 30 23.2	+0.3
	comp=Z,28nm,1.0s,mb5.1						
NIE	Niedzica	76.34	328	eP	P	05 30 23.8	+0.8
MALT	Malatya	76.45	311	eP	P	05 30 25.4	+1.6
MALT				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.2						
MALT	Malatya	76.45	311	⇓iP	P	05 30 25.3	+1.5
MALT	Malatya	76.45	311	eP	P	05 30 25.4	+1.6
	comp=Z,33nm,1.0s,mb5.2						
KPL	Plockton	76.47	346	eP	P	05 30 23.4	-0.2
KPL				AMb	AMB	05 30 24.7	
	comp=Z,197nm,1.3s,mb5.9						
BMR	Baia Mare	76.50	325	P	P	05 30 25.1	+1.2
VRI	Vrincioaia	76.56	322	⇑iP	P	05 30 25.2	+0.9
VRI	Vrincioaia	76.56	322	P	P	05 30 26.0	+1.7
319A	Douglas	76.56	59	⇓P	P	05 30 24.9	+0.4
	baz=76						
RAC	Raciborz	76.58	330	eP	P	05 30 25.1	+0.8
KSP	Ksiaz	76.62	331	eP	P	05 30 25.0	+0.5
KSP	Ksiaz	76.62	331	⇑iP	P	05 30 24.7	+0.2
CTKT	Corum	76.69	314	iP	P	05 30 26.8	+1.7
SCHQ	Schefferville	76.73	20	P	P	05 30 25.1	0.0
	comp=Z,13nm,0.7s,mb5.0,baz=340,slow=6.9,SNR=31						
SCHQ				LR	LR	06 08 56.7	
	comp=Z,315nm,18.9s,MS4.7,baz=116,slow=39						
SCHQ	Schefferville	76.73	20	eP	P	05 30 25.0	-0.1
	comp=Z,13nm,0.7s,mb5.0						
BALT	Daday	76.73	316	iP	P	05 30 26.8	+1.5
AKCD	Akcadag	76.74	311	iP	P	05 30 27.0	+1.6
OKC	Ostrava-Krasne	76.80	330	⇑iP	P	05 30 26.0	+0.4
OKC				AMS	AMS	06 07 00.0	
	comp=Z,300nm,17.0s						
TIRR	Tirgusor	76.90	321	eP	P	05 30 26.1	-0.1
TIRR				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.2						
TIRR	Tirgusor	76.90	321	⇑iP	P	05 30 26.3	+0.1
TIRR	Tirgusor	76.90	321	eP	P	05 30 26.1	-0.1
	comp=Z,33nm,1.0s,mb5.2						
KAR1	Arisaig	76.90	346	eP	P	05 30 25.6	-0.4
ILGA	Ilgaz	76.92	315	iP	P	05 30 28.2	+1.8
HARR	Harsova	76.94	321	⇑iP	P	05 30 26.8	+0.4
HARR	Harsova	76.94	321	P	P	05 30 27.1	+0.6
UPC	Upice	77.00	331	⇑iP	P	05 30 26.9	+0.2
DPC	Dobruska-Polom	77.02	331	⇑iP	P	05 30 27.4	+0.6
KECS	Kecovo	77.04	328	eP	P	05 30 27.1	+0.2
KECS				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KECS	Kecovo	77.04	328	eP	P	05 30 27.1	+0.2
	comp=Z,20nm,1.0s,mb5.0						
MORC	Moravsky Berou	77.07	330	eP	P	05 30 27.1	0.0
MORC				pmax	pmax		
	comp=Z,96nm,1.0s,mb5.7						
MORC	Moravsky Berou	77.07	330	⇑iP	P	05 30 27.5	+0.4
MORC	Moravsky Berou	77.07	330	eP	P	05 30 27.1	0.0
	comp=Z,96nm,1.0s,mb5.7						
EBH	Black Hill	77.11	345	eP	P	05 30 27.2	0.0
MLR	Muntele Rosu	77.19	323	⇑iP	P	05 30 28.3	+0.4
MLR	Muntele Rosu	77.19	323	LR	LR	06 07 39.7	
	comp=Z,439nm,18.8s,MS4.8,baz=206,slow=38						
MLR	Muntele Rosu	77.19	323	P	P	05 30 28.7	+0.8
ESY	Stoneypath	77.25	344	eP	P	05 30 27.0	-1.0
PINB	Pinarbasi	77.28	312	iP	P	05 30 29.9	+1.4
CLL	Collm	77.32	333	⇑iP	P	05 30 28.2	-0.3
CLL				i *SP	sP	05 30 43.5	-2.9
CLL				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
CLL				MLR	MLR		
	comp=Z,400nm,18.5s,MS4.8						
CLL	Collm	77.32	333	eP	P	05 30 27.9	-0.6
	comp=Z,128nm,1.1s,mb5.8						
CLL				epP	pP	05 30 43.8	+2.4
CLL	Collm	77.32	333	⇑iP	P	05 30 28.2	-0.3
	comp=Z,127nm,1.0s,mb5.8						
CLL				epP	pP	05 30 38.0	-3.4
CLL				i sP	sP	05 30 43.5	-2.9
CLL				i		05 31 04.5	
CLL	Collm	77.32	333	⇑iP	P	05 30 28.2	-0.3
	comp=Z,127nm,1.0s,mb5.8						
CLL				i sP	sP	05 30 43.5	-2.9
CLL				LR	LR		
	comp=Z,400nm,18.5s,MS4.8						
EAB	Aberfoyle	77.33	345	eP	P	05 30 28.1	-0.3
BRG	Berggiesshubel	77.39	333	⇑iP	P	05 30 28.4	-0.5
BRG				i	pP	05 30 43.3	+1.5
BRG				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
BRG				MLR	MLR		
	comp=N,11µm,17.1s,MS6.2						
BRG				MLR	MLR		
	comp=E,311nm,17.3s,MS6.2						
BRG				MLR	MLR		
	comp=Z,249nm,19.2s,MS4.5						
BRG	Berggiesshubel	77.39	333	eP	P	05 30 28.6	-0.3
	comp=Z,49nm,1.1s,mb5.3						
BRG				epP	pP	05 30 44.1	+2.3
BRG	Berggiesshubel	77.39	333	⇑iP	P	05 30 28.4	-0.4
	comp=Z,49nm,1.1s,mb5.3						
BRG				i	pP	05 30 43.4	+1.6
	comp=Z,18nm,0.9s						
BRG							
	comp=N,519nm,17.1s						
BRG							
	comp=E,416nm,17.3s						
BRG							
	comp=Z,593nm,19.2s						
BRG	Berggiesshubel	77.39	333	⇑iP	P	05 30 28.4	-0.4
	comp=Z,29nm,1.1s,mb5.1						
BRG				i	pP	05 30 43.4	+1.6
BRG				LR	LR		
	comp=Z,360nm,19.2s,MS4.7						
PVCC	Panska Ves	77.47	332	⇑iP	P	05 30 29.7	+0.4
PVCC				AMS	AMS	06 08 20.0	
	comp=Z,500nm,17.3s						
ELDT	Eldivan	77.49	315	iP	P	05 30 30.8	+1.2
DRGR		77.53	325	⇓iP	P	05 30 30.1	+0.4
DRGR		77.53	325	P	P	05 30 30.2	+0.5
FBE	Freiberg	77.54	333	eP	P	05 30 29.6	-0.1
	comp=Z,90nm,1.1s,mb5.6						
BBOO	Buckleboo	77.60	191	eP	P	05 30 30.8	+0.8
	comp=Z,4.6nm,1.1s,mb4.3						
GZT	Gaziantep	77.61	310	iP	P	05 30 32.1	+1.7
VOIR		77.62	323	⇓iP	P	05 30 31.1	+0.8
VOIR		77.62	323	P	P	05 30 30.9	+0.6
CDAG	Cicekdag	77.65	314	iP	P	05 30 31.1	+0.6
VYHS	Vyhne	77.66	328	eP	P	05 30 31.0	+0.6
VYHS				e	pP	05 30 45.8	+2.5
VYHS				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.1						
VYHS	Vyhne	77.66	328	eP	P	05 30 31.0	+0.6
	comp=Z,33nm,1.2s,mb5.1						
VYHS				e	pP	05 30 45.8	+2.5
RDF	Al-Radifah	77.67	298	eP	P	05 30 30.7	-0.2
RDF				AMb	AMB	05 30 32.9	
	comp=Z,268nm,0.8s,mb6.2						
CLZ	Clausthal	77.68	335	eP	P	05 30 30.8	+0.3
CLZ				e*PP	pP	05 30 45.8	+2.4
CLZ				pmax	pmax		
	comp=Z,130nm,1.2s,mb5.7						
CLZ	Clausthal	77.68	335	eP	P	05 30 30.8	+0.3
	comp=Z,130nm,1.2s,mb5.7						
CLZ				epP	pP	05 30 45.8	+2.4
PGBU	Glenifferbraes	77.71	345	eP	P	05 30 31.0	+0.5
PGBU				AMb	AMB	05 30 32.5	
	comp=Z,203nm,1.3s,mb5.9						
PSZ	Piszkesteto	77.73	328	eP	P	05 30 31.2	+0.4
PSZ				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
PSZ	Piszkesteto	77.73	328	⇑iP	P	05 30 31.3	+0.5
PSZ	Piszkesteto	77.73	328	⇑eP	P	05 30 31.4	+0.6
PSZ	Piszkesteto	77.73	328	eP	P	05 30 31.2	+0.4
	comp=Z,50nm,1.0s,mb5.4						
KOLL	Kolacno	77.75	329	eP	P	05 30 31.8	+0.9
KOLL				e		05 30 35.1	
VRAC	Vranov	77.80	330	P	P	05 30 31.7	+0.5
VRAC				pmax	pmax		
	comp=Z,63nm,1.0s						
VRAC				MLR	MLR		
	comp=Z,373nm,19.0s						
VRAC	Vranov	77.80	330	⇓iP	P	05 30 32.0	+0.8
VRAC	Vranov	77.80	330	P	P	05 30 31.7	+0.5
	comp=Z,63nm,0.9s,mb5.5,baz=40,slow=5.0,SNR=52						
VRAC				LR	LR	06 08 56.7	
	comp=Z,373nm,19.0s,MS4.7,baz=18,slow=39						
VRAC	Vranov	77.80	330	P	P	05 30 31.9	+0.8
SCIA	State Center	77.84	42	eP	P	05 30 31.4	-0.2
	comp=Z,22nm,0.6s,mb5.3						
WIT	Witteveen	77.90	338	eP	P	05 30 33.3	+1.7
	comp=Z,255nm,1.2s,mb6.0						
EKA	Eskdalemuir Ar	77.90	344	P	P	05 30 31.8	+0.1
	comp=Z,11nm,0.7s,mb4.9,baz=24,slow=4.9,SNR=27						
ESK	Eskdalemuir	77.93	344	eP	P	05 30 31.0	-0.8
ESK				AMb	AMB	05 30 33.4	
	comp=Z,63nm,1.9s,mb5.2						
PRU	Pruhonice	77.94	332	⇑iP	P	05 30 32.3	+0.3
PRU				epP	pP	05 30 41.4	-3.5
PRU				AMS	AMS	06 08 10.0	
	comp=Z,500nm,19.5s						
BRTR	Keskin Array B	77.95	314	P	P	05 30 32.8	+0.5
	comp=Z,17nm,1.0s,mb5.0,baz=68,slow=3.6,SNR=58						
BRTR				LR	LR	06 08 08.2	
	comp=Z,173nm,20.2s,MS4.4,baz=205,slow=38						
AVNT	Avonos	78.02	313	iP	P	05 30 33.5	+0.8
ECK	Cauldkaine Hil	78.04	344	eP	P	05 30 31.9	-0.5
IBBN	Ibbenburen	78.04	337	eP	P	05 30 32.3	-0.2
	comp=Z,78nm,1.0s,mb5.6						
SMOL	Smolenice	78.16	329	eP	P	05 30 34.3	+1.1
TREC	Trest	78.20	331	⇑iP	P	05 30 33.7	+0.3
TREC				AMS	AMS	06 07 50.0	
	comp=Z,400nm,14.7s						
KSU1	Kansas State U	78.25	46	eP	P	05 30 32.8	-1.1
	comp=Z,12nm,0.6s,mb5.0						
TANN	Tannenbergstha	78.27	333	eP	P	05 30 33.6	-0.2
	comp=Z,24nm,1.1s,mb5.0						
WERD	Werda	78.29	333	eP	P	05 30 33.8	-0.1
	comp=Z,43nm,1.1s,mb5.3						
MODS	Modra-Piesok	78.34	329	eP	P	05 30 35.1	+0.9
MODS				e		05 30 37.8	
MODS				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
MODS	Modra-Piesok	78.34	329	eP	P	05 30 35.1	+0.9
MODS				e		05 30 37.8	
MODS	Modra-Piesok	78.34	329	eP	P	05 30 35.1	+0.9
	comp=Z,22nm,1.1s,mb5.0						
MOX	Moxa	78.34	334	eP	P	05 30 33.9	-0.3
	comp=Z,66nm,1.2s,mb5.4						
MOX	Moxa	78.34	334	eP	P	05 30 33.9	-0.3
MOX				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
MOX	Moxa	78.34	334	eP	P	05 30 34.0	-0.2
	comp=Z,59nm,1.1s,mb5.4						
GUNZ	Gunzen	78.35	333	eP	P	05 30 34.2	0.0
	comp=Z,52nm,1.0s,mb5.4						
WERN	Wernitzgruen	78.41	333	eP	P	05 30 34.5	0.0
	comp=Z,59nm,1.0s,mb5.5						
BUD	Budapest	78.42	328	⇑eP	P	05 30 35.3	+0.6
NKC	Novy Kostel	78.43	333	⇑iP	P	05 30 34.6	0.0
NKC				AMS	AMS	06 09 00.0	
	comp=Z,600nm,17.0s						
HENT	Hendek	78.50	317	eP	P	05 30 35.5	+0.3
ZST	Bratislava	78.55	329	eP	P	05 30 36.5	+1.2
ZST				e		05 30 41.4	
ZST				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
ZST	Bratislava	78.55	329	eP	P	05 30 36.5	+1.2
	comp=Z,36nm,1.0s,mb5.2						
ZST				e		05 30 41.4	
AMTX	Amarillo	78.59	52	eP	P	05 30 35.9	+0.1
	comp=Z,27nm,1.0s,mb5.1						
WTSB	Winterswijk	78.62	337	⇑eP	P	05 30 35.3	-0.3
	comp=Z,64nm,0.9s,mb5.5						
GZR	Gura Zlata	78.62	324	⇓iP	P	05 30 35.8	0.0
GZR	Gura Zlata	78.62	324	⇓P	P	05 30 35.8	-0.1
GAL1	Galloway	78.64	345	eP	P	05 30 35.1	-0.6
GAL1				AMb	AMB	05 30 37.9	
	comp=Z,102nm,1.8s,mb5.5						
UBBA	Unterbreizbach	78.69	335	eP	P	05 30 35.8	-0.3
	comp=Z,35nm,1.3s,mb5.1						
MANZ	Manzenberg	78.75	333	eP	P	05 30 36.4	0.0
	comp=Z,43nm,1.1s,mb5.3						
HPK	Haverah Park	78.88	343	eP	P	05 30 36.7	-0.3
HPK				AMb	AMB	05 30 39.0	
	comp=Z,102nm,2.1s,mb5.4						
HPK	Haverah Park	78.88	343	P	P	05 30 36.7	-0.3
HPK				AMb	AMB	05 30 39.0	
	comp=Z,102nm,2.1s,mb5.4						
ROTZ	Rotzenmuhle	78.91	333	eP	P	05 30 37.7	+0.4
	comp=Z,58nm,1.1s,mb5.4						
BZS	Buzias	78.92	325	⇑iP	P	05 30 37.1	-0.4
BZS	Buzias	78.92	325	P	P	05 30 37.6	+0.1
COBT	Iskenderun	78.94	311	iP	P	05 30 39.0	+1.3
BUG	Bochum--Univer	78.95	337	eP	P	05 30 37.2	-0.3
	comp=Z,67nm,1.1s,mb5.5						
KHC	Kasperske Hory	79.00	332	⇑iP	P	05 30 38.2	+0.4
KHC				epP	pP	05 30 47.5	-3.3
KHC				AMS	AMS	06 08 50.0	
	comp=Z,700nm,13.6s						
SOP	Sopron	79.18	329	⇑eP	P	05 30 39.6	+0.8
GEC2	GERESS Array S	79.20	332	eP	P	05 30 38.8	-0.1
GEC2				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
GEC2	GERESS Array S	79.20	332	eP	P	05 30 38.8	-0.1
	comp=Z,34nm,1.0s,mb5.2						
GERES	GERESS Array B	79.20	332	P	P	05 30 38.9	0.0
	comp=Z,19nm,0.8s,mb5.1,baz=35,slow=4.9,SNR=95						
GERES				LR	LR	06 09 39.4	
	comp=Z,560nm,18.1s,MS4.9,baz=152,slow=39						
CONA	Conrad Observa	79.22	330	⇑iP	P	05 30 40.0	+0.9
	comp=Z,65nm,1.1s,mb5.5,SNR=27						
WET	Wettzell	79.22	332	eP	P	05 30 39.4	+0.4
WET				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
WET	Wettzell	79.22	332	eP	P	05 30 39.4	+0.4
	comp=Z,90nm,1.1s,mb5.6						
GRA1	Grafenberg Arr	79.29	333	eP	P	05 30 39.7	+0.3
	comp=Z,153nm,1.0s,mb5.9						
GRF	Grafenberg Arr	79.29	333	eP	P	05 30 39.7	+0.3
GRF				pmax	pmax		
	comp=Z,153nm,1.0s,mb5.9						
GRF	Grafenberg Arr	79.29	333	eP	P	05 30 39.7	+0.3
GRF				pmax	pmax		
	comp=Z,153nm,1.0s,mb5.9						
GRF	Grafenberg Arr	79.29	333	eP	P	05 30 39.7	+0.3
	comp=Z,153nm,1.0s,mb5.9						
KBI1	Birley Grange	79.51	342	eP	P	05 30 39.9	-0.6
ESKT	Eskisehir	79.52	316	iP	P	05 30 40.9	+0.1
KDHN	Kadinhani	79.64	314	iP	P	05 30 41.7	+0.2
TNS	Taunus Mts	79.69	335	eP	P	05 30 41.5	0.0
TNS				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.5						
TNS	Taunus Mts	79.69	335	eP	P	05 30 41.5	0.0
	comp=Z,71nm,1.1s,mb5.5						
KWE	Weaver Farm	79.80	342	eP	P	05 30 41.2	-0.9
MPEP	Malo Peshtene	79.85	323	P	P	05 30 42.8	+0.3
MOA	Molln	79.86	331	⇑iP	P	05 30 42.8	+0.3
	comp=Z,17nm,0.8s,mb5.0,SNR=13						
ULDT	Uludag	79.89	317	iP	P	05 30 43.5	+0.7
ARSA	Arzberg	79.92	330	iP	P	05 30 43.2	+0.3
	comp=Z,27nm,1.3s,mb5.0,SNR=9.9						
HGN	Heimansgroeve	79.94	337	⇑eP	P	05 30 42.6	-0.3
	comp=Z,50nm,1.1s,mb5.4						
CWF	Charnwood Fore	79.94	342	eP	P	05 30 43.0	+0.1
CWF				AMb	AMB	05 30 45.6	
	comp=Z,63nm,1.4s,mb5.4						
BEBN	Eben Emael	79.98	337	P	P	05 30 42.7	-0.4
	comp=Z,22nm,1.0s,mb5.0						
MEM	Membach	80.05	337	P	P	05 30 43.7	+0.2
	comp=Z,32nm,1.2s,mb5.1						
BLDU	Ballidu	80.07	208	eP	P	05 30 42.4	-1.3
	comp=Z,7.1nm,1.2s,mb4.5						
TOD	Tromm	80.13	335	eP	P	05 30 43.4	-0.5
ABH	Alteburg	80.26	336	eP	P	05 30 44.3	-0.3
WMOK	Wichita Mounta	80.32	50	eP	P	05 30 44.8	-0.5
WMOK				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
WMOK	Wichita Mounta	80.32	50	eP	P	05 30 44.8	-0.5
	comp=Z,14nm,0.9s,mb4.9						
KOGS	Kog	80.33	329	iP	P	05 30 44.5	-0.5
UCC	Uccle	80.34	338	P	P	05 30 44.5	-0.5
PLD	Plovdiv	80.42	321	P	P	05 30 46.4	+0.7
BCLA	Clavier	80.42	337	P	P	05 30 45.3	-0.2
	comp=Z,28nm,1.3s,mb5.0						
BCLA				AP	pP	05 30 58.5	0.0
RJOB	Jochberg	80.47	332	eP	P	05 30 46.2	+0.4
	comp=Z,43nm,1.0s,mb5.3						
RJOB				epP	pP	05 31 00.9	+2.1
DLF	Lyons Farm	80.48	345	⇑iP	P	05 30 45.4	-0.3
GDZ	Gediz	80.53	316	iP	P	05 30 46.6	+0.3
RUP	Ruppelstein	80.56	336	eP	P	05 30 46.0	-0.3
DCN	Croghan	80.57	346	eP	P	05 30 45.7	-0.5
SOKA	Soboth	80.58	330	⇑iP	P	05 30 46.7	+0.3
	comp=Z,67nm,1.1s,mb5.5						
PERS	Pernice	80.59	330	iP	P	05 30 46.5	+0.1
FUR	Furstenfeldbru	80.61	333	eP	P	05 30 46.7	+0.2
FUR				pmax	pmax		
	comp=Z,114nm,1.1s,mb5.7						
FUR	Furstenfeldbru	80.61	333	eP	P	05 30 46.7	+0.2
	comp=Z,114nm,1.1s,mb5.7						
DURS	Dursunbey	80.63	317	iP	P	05 30 47.1	+0.4
VTS	Vitosha	80.69	322	P	P	05 30 46.3	-0.8
VTS	Vitosha	80.69	322	P	P	05 30 47.5	+0.4
STU	Stuttgart	80.74	334	eP	P	05 30 47.1	-0.1
STU				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.5						
STU	Stuttgart	80.74	334	eP	P	05 30 47.1	-0.1
	comp=Z,63nm,1.0s,mb5.5						
HDIL	Hopedale	80.76	41	eP	P	05 30 46.9	-0.6
	comp=Z,83nm,1.2s,mb5.5						
HDIL				epP	pP	05 30 59.4	-1.1
GIVF	Givet	80.84	337	⇑iP	P	05 30 47.4	-0.3
	comp=Z,54nm,1.0s,mb5.1						
GIVF	Givet	80.84	337	⇑iP	P	05 30 47.4	-0.3
GIVF				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
GIVF	Givet	80.84	337	⇑iP	P	05 30 47.4	-0.3

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      comp=Z,27nm,1.0s,mb5.1
KBA   Koelnbreinsper   80.84 331  i P     P       05 30 48.7 +0.9
      comp=Z,52nm,0.9s,mb5.4,SNR=39
WLF   Walferdange      80.86 336   P      P       05 30 48.3 +0.4
      comp=Z,12nm,1.0s,mb4.8
WLF   Walferdange      80.86 336  eP      P       05 30 47.3 -0.6
WLF                                pmax   pmax
      comp=Z,20nm,0.9s,mb5.0
WLF   Walferdange      80.86 336  eP      P       05 30 47.9  0.0
      comp=Z,34nm,1.4s,mb5.1
WLF                               epP     pP      05 31 01.8 +1.0
WLF   Walferdange      80.86 336  eP      P       05 30 47.3 -0.5
      comp=Z,20nm,0.9s,mb5.0
TFO1  Folkestone       80.88 340  eP      P       05 30 48.4 +0.5
OBKA  Obir             80.90 330⇑iP      P       05 30 47.3 -0.8
      comp=Z,13nm,0.8s,mb4.9,SNR=7.9
DOU   Dourbes          80.91 338   P      P       05 30 48.2 +0.1
LANF  Langenberg       80.98 335  eP      P       05 30 48.0 -0.5
MCH1  Michaelchurch    81.01 343  eP      P       05 30 48.1 -0.4
MCH1                               AMb    AMB     05 30 50.0
      comp=Z,72nm,1.0s,mb5.5
BAIF  Baives           81.05 338⇑iP      P       05 30 48.5 -0.4
      comp=Z,28nm,0.8s,mb5.0
BAIF  Baives           81.05 338⇑iP      P       05 30 48.5 -0.4
BAIF                               pmax   pmax
      comp=Z,14nm,0.8s,mb4.9
BAIF  Baives           81.05 338⇑iP      P       05 30 48.5 -0.4
      comp=Z,14nm,0.8s,mb5.0
KHAL  Karahalli        81.08 316  i P     P       05 30 49.3  0.0
WHFO  Wadi Hawf        81.12 286   P      P       05 30 49.5 -0.3
      SNR=7.1
MENF  Mencas           81.14 339  eP      P       05 30 47.9 -1.4
SWN1  Swindon          81.20 342  eP      P       05 30 49.6  0.0
SWN1                               AMb    AMB     05 30 51.7
      comp=Z,140nm,1.1s,mb5.8
WATA  Walderalm        81.23 332⇑iP      P       05 30 50.3 +0.4
      comp=Z,30nm,0.6s,mb5.4,SNR=17
WOL   Wolverton        81.26 341  eP      P       05 30 49.6 -0.3
WOL                                AMb    AMB     05 30 52.3
      comp=Z,95nm,1.3s,mb5.6
MMB   Musomiste        81.27 322   P      P       05 30 50.6 +0.4
WTTA  Wattenberg       81.27 332⇑iP      P       05 30 50.8 +0.7
      comp=Z,35nm,0.6s,mb5.5,SNR=18
HGH   Gray Hill        81.30 342  eP      P       05 30 49.9 -0.3
LJU   Ljubljana        81.31 330  i P     P       05 30 49.8 -0.5
RETA  Reutte           81.37 333  i P     P       05 30 50.8 +0.2
      comp=Z,56nm,1.2s,mb5.4,SNR=22
MOTA  Moosalm          81.38 332⇓iP      P       05 30 51.0 +0.4
      comp=Z,52nm,0.9s,mb5.5,SNR=25
VISS  Visnje           81.40 329  i P     P       05 30 50.3 -0.5
BFO   Black Forest     81.40 334  eP      P       05 30 50.6 -0.2
BFO                               e*PP    pP      05 31 06.2 +2.4
BFO                                pmax   pmax
      comp=Z,39nm,1.1s,mb5.2
BFO   Black Forest     81.40 334  eP      P       05 30 50.6 -0.2
      comp=Z,39nm,1.1s,mb5.2
BFO                               epP     pP      05 31 06.2 +2.4
PTCC  Patocco-Chiusa   81.42 331   P      P       05 30 50.1 -0.8
      comp=Z,11nm,0.5s,mb5.0
TXAR  Lajitas Array    81.43  57   P      P       05 30 51.2  0.0
      comp=Z,8.2nm,0.7s,mb4.8,baz=300,slow=3.8,SNR=152
MANT  Manisa           81.45 317  i P     P       05 30 51.5 +0.3
SPAK  Spaichingen-Ko   81.46 334  eP      P       05 30 50.9 -0.2
AKHS  Akhisar          81.51 317  i P     P       05 30 51.5 -0.1
CEY   Cerknica         81.61 330  i P     P       05 30 51.2 -0.7
CDF   Champ du Feu     81.65 335⇑iP      P       05 30 51.9 -0.2
      comp=Z,95nm,1.2s,mb5.3
CDF   Champ du Feu     81.65 335⇑iP      P       05 30 51.9 -0.2
CDF                                pmax   pmax
      comp=Z,48nm,1.2s,mb5.3
CDF   Champ du Feu     81.65 335⇑iP      P       05 30 51.9 -0.2
      comp=Z,48nm,1.2s,mb5.3
CSS   Prodhromos       81.68 311  eP      P       05 30 52.9 +0.4
      comp=Z,23nm,0.8s,mb5.2
SRS   Serrai           81.71 321   P      P       05 30 52.3 -0.2
CCM   Cathedral Cave   81.77  44  eP      P       05 30 52.1 -0.8
CCM                               e*PP    pP      05 31 04.6 -1.3
CCM                                pmax   pmax
      comp=Z,30nm,1.1s,mb5.1
CCM   Cathedral Cave   81.77  44  eP      P       05 30 52.0 -0.8
      comp=Z,30nm,1.1s,mb5.1
CCM                               epP     pP      05 31 04.6 -1.3
ASF   Jabal al Asfar   81.78 307   LR     LR      06 12 20.2
      comp=Z,143nm,19.7s,MS4.3,baz=12,slow=39
FETA  Feichten         81.78 332⇑iP      P       05 30 53.1 +0.3
      comp=Z,29nm,0.9s,mb5.2,SNR=29
LIBD  Limburg          81.78 335  eP      P       05 30 52.5 -0.3
DAVA  Damuels          81.83 333⇑iP      P       05 30 52.7 -0.4
      comp=Z,49nm,0.9s,mb5.4,SNR=20
ECH   Echery           81.86 335  eP      P       05 30 52.6 -0.6
ECH   Echery           81.86 335  eP      P       05 30 52.9 -0.3
ECH                                pmax   pmax
      comp=Z,34nm,1.0s,mb5.2
ECH   Echery           81.86 335  eP      P       05 30 52.9 -0.3
      comp=Z,34nm,1.0s,mb5.2
FELD  Feldberg im Sc   81.91 334  eP      P       05 30 53.2 -0.2
GOLH  Golhisar         81.92 315  i P     P       05 30 53.9 +0.2
SKO   Skopje           81.96 323  eP      P       05 30 54.6 +0.8
KNT   Kendrikon        81.98 322   P      P       05 30 51.5 -2.5
VAY   Valandovo        82.00 322   P      P       05 30 53.5 -0.6
VAY   Valandovo        82.00 322  eP      P       05 30 53.7 -0.3
MMAI  Mount Meron Ar   82.00 309   LR     LR      06 11 11.7
      comp=Z,192nm,20.9s,MS4.4,baz=95,slow=38
NWAO  Narrogin (SRO)   82.03 206  eP      P       05 30 54.4 +0.4
      comp=Z,155nm,0.8s,mb6.0
NWAO  Narrogin (SRO)   82.03 206   P      P       05 30 54.5 +0.5
      comp=Z,32nm,0.9s,mb5.3,baz=15,slow=4.7,SNR=8.7
NWAO                               pP     pP      05 31 06.7 -0.4
      comp=Z,16nm,0.8s,baz=46,slow=7.5,SNR=3.9
HEX   Exmoor           82.05 343  eP      P       05 30 53.7 -0.5
MOF   Molkenrain       82.19 335  eP      P       05 30 54.2 -0.7
THEF  They Montfort    82.20 336  eP      P       05 30 54.6 -0.4
MEZF  Maizieres J'vi   82.22 337⇑iP      P       05 30 55.1  0.0
      comp=Z,47nm,0.8s,mb5.2
MEZF  Maizieres J'vi   82.22 337⇑iP      P       05 30 55.1  0.0
      comp=Z,47nm,0.8s,mb5.5
FVM   French Village   82.23  43  eP      P       05 30 54.3 -1.0
FVM                               e*PP    pP      05 31 08.0 -0.3
FVM                                pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.6
FVM   French Village   82.23  43  eP      P       05 30 54.2 -1.1
      comp=Z,5.3nm,0.6s,mb4.7
FVM                               epP     pP      05 31 08.0 -0.4
HAU   Haudompre        82.29 336⇑iP      P       05 30 54.9 -0.5
      comp=Z,46nm,1.1s,mb5.0
HAU                               eMLR    MLR
      comp=Z,306nm,20.5s,MS4.3
HAU   Haudompre        82.29 336⇑iP      P       05 30 54.9 -0.5
HAU                                pmax   pmax
      comp=Z,23nm,1.1s,mb5.0
HAU                                MLR    MLR
      comp=Z,310nm,20.5s,MS4.7
HAU   Haudompre        82.29 336⇑iP      P       05 30 54.9 -0.5
      comp=Z,23nm,1.1s,mb5.0
HAU                                LR     LR
      comp=Z,310nm,20.5s,MS4.7
HINF  Hinteralfeld     82.31 335⇑iP      P       05 30 54.9 -0.6
      comp=Z,12nm,0.7s,mb4.7
HINF  Hinteralfeld     82.31 335⇑iP      P       05 30 54.9 -0.6
HINF                               pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.6
HINF  Hinteralfeld     82.31 335⇑iP      P       05 30 54.9 -0.6
      comp=Z,6.2nm,0.7s,mb4.7
CTI   Castel Tesino    82.32 331   P      P       05 30 55.0 -0.6
CTI                                pmax   pmax
      comp=Z,62nm,1.4s,mb5.3
CTI   Castel Tesino    82.32 331   P      P       05 30 55.0 -0.6
      comp=Z,62nm,1.4s,mb5.3
GRG   Griva            82.37 322   P      P       05 30 55.0 -1.0
PLG   Polygyros        82.37 321   P      P       05 30 55.9 -0.1
BRMO  Bormio           82.38 332   P      P       05 30 56.5 +0.6
BBS   Basel-Blauen     82.42 335  eP      P       05 30 55.8 -0.4
AYDN  Tasoluk          82.43 317  i P     P       05 30 57.4 +1.0
KRUS  Krusevo          82.54 323  eP      P       05 30 56.3 -0.5
AKAS  Kas              82.67 315  i P     P       05 30 57.2 -0.5
DYA   Yadsworthy       82.68 343  eP      P       05 30 56.6 -0.8
DYA                                AMb    AMB     05 30 57.0
      comp=Z,64nm,1.4s,mb5.5
TURN  Turunc           82.68 316  i P     P       05 30 59.6 +1.9
GCAM  G?zelcaml?       82.72 317  i P     P       05 30 56.5 -1.4
TUE   Stuetta          82.72 333  eP      P       05 30 57.9 +0.2
      comp=Z,50nm,1.0s,mb5.5
LOMF  Lomont           82.73 335  eP      P       05 30 57.5 -0.3
OLIL  Olney            82.76  41  eP      P       05 30 57.4 -0.6
      comp=Z,24nm,0.9s,mb5.2
JCT   Junction City    82.88  54  eP      P       05 30 58.7 -0.2
JCT                               e*PP    pP      05 31 11.8 -0.1
JCT                                pmax   pmax
      comp=Z,15nm,0.9s,mb5.0
JCT   Junction City    82.88  54  eP      P       05 30 58.7 -0.2
      comp=Z,15nm,0.9s,mb5.0
JCT                               epP     pP      05 31 11.8  0.0
OHR   Ohrid            82.94 323  eP      P       05 30 57.8 -1.2
FNA   Florina          82.96 323   P      P       05 30 58.5 -0.6
SIUC  Southern Illin   83.03  43  eP      P       05 30 59.0 -0.5
      comp=Z,44nm,1.0s,mb5.4
SIUC                              epP     pP      05 31 11.4 -1.1
BDRM  Kayabasi         83.11 316  i P     P       05 30 59.5 -0.4
BLO   Bloomington      83.15  40  eP      P       05 30 59.9 -0.2
BLO                                pmax   pmax
      comp=Z,11nm,0.8s,mb4.9
BLO   Bloomington      83.15  40  eP      P       05 30 59.9 -0.1
      comp=Z,11nm,0.8s,mb5.0
MIAR  Mount Ida        83.29  47  eP      P       05 31 00.5 -0.4
MIAR                              e*PP    pP      05 31 12.9 -1.0
MIAR                               pmax   pmax
      comp=Z,24nm,0.9s,mb5.2
MIAR  Mount Ida        83.29  47  eP      P       05 31 00.5 -0.4
      comp=Z,24nm,0.9s,mb5.2
MIAR                              epP     pP      05 31 12.9 -1.0
XOR   Xorichti         83.30 321   P      P       05 30 59.2 -1.7
XOR   Xorichti         83.30 321   P      P       05 30 59.2 -1.7
PPT   Papeete          83.38 122  eLR     LR      05 57 03.0
      comp=Z,439nm,25.2s
PPT   Papeete          83.38 122   LR     LR      05 59 56.4
      comp=Z,229nm,20.5s,MS4.5,baz=294,slow=30
VAI   Varese           83.44 333   P      P       05 31 01.1 -0.4
VAI                                pmax   pmax
      comp=Z,76nm,1.1s,mb5.6
VAI   Varese           83.44 333   P      P       05 31 01.1 -0.4
      comp=Z,76nm,1.1s,mb5.6
FLN   La Foliniere     83.45 340⇑iP      P       05 31 01.1 -0.4
      comp=Z,61nm,0.8s,mb5.4
FLN                               eMLR    MLR
      comp=Z,427nm,21.0s,MS4.5
FLN   La Foliniere     83.45 340⇑iP      P       05 31 01.1 -0.4
FLN                                pmax   pmax
      comp=Z,31nm,0.8s,mb5.4
FLN                                MLR    MLR
      comp=Z,430nm,21.0s,MS4.8
FLN   La Foliniere     83.45 340⇑iP      P       05 31 01.1 -0.4
      comp=Z,31nm,0.8s,mb5.4
FLN                                LR     LR
      comp=Z,430nm,21.0s,MS4.8
JSA   Saint Aubin      83.46 341  eP      P       05 31 00.9 -0.6
JSA                                AMb    AMB     05 31 03.5
      comp=Z,68nm,1.5s,mb5.5
LDF   La Druitiere     83.52 340⇑iP      P       05 31 01.4 -0.4
      comp=Z,64nm,1.2s,mb5.3
LDF   La Druitiere     83.52 340⇑iP      P       05 31 01.4 -0.4
LDF                                pmax   pmax
      comp=Z,32nm,1.2s,mb5.3
LDF   La Druitiere     83.52 340⇑iP      P       05 31 01.4 -0.4
      comp=Z,32nm,1.2s,mb5.3
ERPA  Erie             83.56  34  eP      P       05 31 01.7 -0.4
      comp=Z,17nm,0.8s,mb5.2
USIN  University of    83.58  41  eP      P       05 31 02.3  0.0
      comp=Z,23nm,1.1s,mb5.2
USIN                              epP     pP      05 31 15.7 +0.4
PARMO Parma            83.60  44  eP      P       05 31 02.6 +0.1
CABF  La Chapelle      83.62 335⇑iP      P       05 31 02.3 -0.1
      comp=Z,17nm,0.7s,mb5.0
CABF  La Chapelle      83.62 335⇑iP      P       05 31 02.3 -0.1
CABF                               pmax   pmax
      comp=Z,9.0nm,0.7s,mb5.0
CABF  La Chapelle      83.62 335⇑iP      P       05 31 02.3 -0.1
      comp=Z,8.6nm,0.7s,mb5.0
LOR   Lormes           83.68 337⇑iP      P       05 31 02.3 -0.3
      comp=Z,29nm,0.6s,mb5.2
LOR                               eMLR    MLR
      comp=Z,424nm,23.0s,MS4.5
LOR   Lormes           83.68 337⇑iP      P       05 31 02.3 -0.3
LOR                                pmax   pmax
      comp=Z,14nm,0.6s,mb5.3
LOR                                MLR    MLR
      comp=Z,420nm,23.0s,MS4.8
LOR   Lormes           83.68 337⇑iP      P       05 31 02.3 -0.3
      comp=Z,14nm,0.6s,mb5.3
LOR                                LR     LR
      comp=Z,420nm,23.0s,MS4.8
GRR   Gorron           83.89 340⇑iP      P       05 31 03.7  0.0
ORO   Oropa            83.91 333   P      P       05 31 03.9  0.0
ORO                                pmax   pmax
      comp=Z,20nm,0.9s,mb5.2
ORO   Oropa            83.91 333   P      P       05 31 03.9  0.0
      comp=Z,20nm,0.9s,mb5.2
LKR   Lokris           83.97 320   P      P       05 31 03.5 -0.8
SSF   Saint Saulge     83.97 337⇑iP      P       05 31 03.9 -0.2
      comp=Z,35nm,0.8s,mb5.3
SSF   Saint Saulge     83.97 337⇑iP      P       05 31 03.9 -0.2
SSF                                pmax   pmax
      comp=Z,18nm,0.8s,mb5.2
SSF   Saint Saulge     83.97 337⇑iP      P       05 31 03.9 -0.2
      comp=Z,18nm,0.8s,mb5.2
AGG   Agios Georgios   83.97 321   P      P       05 30 59.5 -4.8
WCI   Wyandotte Cave   84.01  40  eP      P       05 31 04.4 -0.1
WCI                               e*PP    pP      05 31 16.3 -1.3
WCI                                pmax   pmax
      comp=Z,29nm,1.0s,mb5.4
WCI   Wyandotte Cave   84.01  40  eP      P       05 31 04.4 -0.1
      comp=Z,29nm,1.0s,mb5.4
WCI                               epP     pP      05 31 16.3 -1.3
PIEI  Pieia            84.19 330   P      P       05 31 05.5 +0.2
SMF   Signal de Mont   84.25 336⇑iP      P       05 31 05.5 -0.1
      comp=Z,118nm,1.0s,mb5.7
SMF   Signal de Mont   84.25 336⇑iP      P       05 31 05.5 -0.1
SMF                                pmax   pmax
      comp=Z,59nm,1.0s,mb5.7
SMF   Signal de Mont   84.25 336⇑iP      P       05 31 05.5 -0.1
      comp=Z,59nm,1.0s,mb5.7
AVF   Avril sur Loir   84.26 337⇑iP      P       05 31 05.5 -0.1
      comp=Z,82nm,1.1s,mb5.5
AVF   Avril sur Loir   84.26 337⇑iP      P       05 31 05.5 -0.1
AVF                                pmax   pmax
      comp=Z,41nm,1.1s,mb5.5
AVF   Avril sur Loir   84.26 337⇑iP      P       05 31 05.5 -0.1
      comp=Z,41nm,1.1s,mb5.5
RSL   Roselend         84.29 334  eP      P       05 31 05.9 +0.1
LPL   La Plagne        84.41 334⇑iP      P       05 31 06.9 +0.5
      comp=Z,58nm,1.1s,mb5.3
LPL   La Plagne        84.41 334⇑iP      P       05 31 06.9 +0.5
LPL                                pmax   pmax
      comp=Z,29nm,1.1s,mb5.3
LPL   La Plagne        84.41 334⇑iP      P       05 31 06.9 +0.5
      comp=Z,29nm,1.1s,mb5.3
LPG   La Plagne        84.42 334⇑iP      P       05 31 07.1 +0.7
      comp=Z,42nm,0.8s,mb5.3
LPG   La Plagne        84.42 334⇑iP      P       05 31 07.1 +0.7
LPG                                pmax   pmax
      comp=Z,21nm,0.8s,mb5.3
LPG   La Plagne        84.42 334⇑iP      P       05 31 07.1 +0.7
      comp=Z,21nm,0.8s,mb5.3
SGMF  Saint Gilles     84.42 341  eP      P       05 31 06.0 -0.4
      comp=Z,34nm,0.6s,mb5.4
SGMF  Saint Gilles     84.42 341  eP      P       05 31 06.0 -0.4
SGMF                               pmax   pmax
      comp=Z,17nm,0.6s,mb5.3
SGMF  Saint Gilles     84.42 341  eP      P       05 31 06.0 -0.4
      comp=Z,17nm,0.6s,mb5.4
ROSF  Rostrenen        84.51 342⇑iP      P       05 31 06.4 -0.5
      comp=Z,62nm,1.0s,mb5.4
ROSF  Rostrenen        84.51 342⇑iP      P       05 31 06.4 -0.5
ROSF                               pmax   pmax
      comp=Z,31nm,1.0s,mb5.4
ROSF  Rostrenen        84.51 342⇑iP      P       05 31 06.4 -0.5
      comp=Z,31nm,1.0s,mb5.4
TERO  Teramo           84.58 328   P      P       05 31 07.4 +0.1
BGF   Bois d'Agland    84.61 337⇑iP      P       05 31 07.5 +0.1
      comp=Z,25nm,0.8s,mb5.1
BGF   Bois d'Agland    84.61 337⇑iP      P       05 31 07.5 +0.1
BGF                                pmax   pmax
      comp=Z,13nm,0.8s,mb5.1
BGF   Bois d'Agland    84.61 337⇑iP      P       05 31 07.5 +0.1
      comp=Z,13nm,0.8s,mb5.1
LAKA  Lakka            84.77 321   P      P       05 31 07.0 -1.3
NATX  Nacogdoches      84.83  50  eP      P       05 31 09.1 +0.3
      comp=Z,44nm,1.0s,mb5.5
NATX                              epP     pP      05 31 21.5 -0.4
BNI   Bardonecchia     84.84 334  eP      P       05 31 09.1 +0.5
BNI                                pmax   pmax
      comp=Z,10.0nm,0.7s,mb5.0
BNI   Bardonecchia     84.84 334  eP      P       05 31 09.1 +0.5
      comp=Z,9.9nm,0.7s,mb5.0
QUIF  Quistinic        84.88 341⇑iP      P       05 31 07.9 -0.8
      comp=Z,19nm,0.5s,mb5.2
QUIF  Quistinic        84.88 341⇑iP      P       05 31 07.9 -0.8
QUIF                               pmax   pmax
      comp=Z,9.0nm,0.5s,mb5.2
QUIF  Quistinic        84.88 341⇑iP      P       05 31 07.9 -0.8
      comp=Z,9.3nm,0.5s,mb5.2
WVT   Waverly          84.96  43  eP      P       05 31 08.9 -0.5
WVT                                pmax   pmax
      comp=Z,17nm,1.0s,mb5.1
WVT   Waverly          84.96  43  eP      P       05 31 08.9 -0.5
      comp=Z,17nm,1.0s,mb5.1
AGO   Saint Agoulin    85.00 337  eP      P       05 31 08.8 -0.5
TCF   Toulx Ste Croi   85.04 337⇑iP      P       05 31 09.7 +0.2
      comp=Z,60nm,1.2s,mb5.3
TCF   Toulx Ste Croi   85.04 337⇑iP      P       05 31 09.7 +0.2
TCF                                pmax   pmax
      comp=Z,30nm,1.2s,mb5.3
TCF   Toulx Ste Croi   85.04 337⇑iP      P       05 31 09.7 +0.2
      comp=Z,30nm,1.2s,mb5.3
MBDF  Montbardon       85.10 334⇑iP      P       05 31 09.6 -0.3
      comp=Z,25nm,0.5s,mb5.3
MBDF  Montbardon       85.10 334⇑iP      P       05 31 09.6 -0.3
MBDF                               pmax   pmax
      comp=Z,12nm,0.5s,mb5.3
MBDF  Montbardon       85.10 334⇑iP      P       05 31 09.6 -0.3
      comp=Z,12nm,0.5s,mb5.3
ORIF  Oris-en-Rattie   85.21 334⇑iP      P       05 31 10.3 -0.1
      comp=Z,28nm,0.7s,mb5.2
ORIF                              eMLR    MLR
      comp=Z,264nm,21.5s,MS4.3
ORIF  Oris-en-Rattie   85.21 334⇑iP      P       05 31 10.3 -0.1
ORIF                               pmax   pmax
      comp=Z,14nm,0.7s,mb5.2
ORIF  Oris-en-Rattie   85.21 334⇑iP      P       05 31 10.3 -0.1
      comp=Z,14nm,0.7s,mb5.2
ZKR   Zakros           85.26 316   P      P       05 31 10.8 -0.1
ZKR   Zakros           85.26 316   P      P       05 31 10.8 -0.1
SSB   Saint Sauveur    85.29 335  eP      P       05 31 11.1 +0.3
SSB   Saint Sauveur    85.29 335  eP      P       05 31 11.2 +0.4
SSB                                pmax   pmax
      comp=Z,37nm,1.1s,mb5.4
SSB   Saint Sauveur    85.29 335  eP      P       05 31 11.2 +0.3
      comp=Z,37nm,1.1s,mb5.4
PYM   Petit Puy Mans   85.31 337  eP      P       05 31 10.9  0.0
COLF  Collangettes     85.32 336  eP      P       05 31 11.9 +0.9
MFF   Saint Martin d   85.38 339⇑iP      P       05 31 10.6 -0.6
      comp=Z,44nm,0.7s,mb5.4
MFF   Saint Martin d   85.38 339⇑iP      P       05 31 10.6 -0.6
MFF                                pmax   pmax
      comp=Z,22nm,0.7s,mb5.4
MFF   Saint Martin d   85.38 339⇑iP      P       05 31 10.6 -0.6
      comp=Z,22nm,0.7s,mb5.4
PTRP  Pietrapertosa    85.42 326   P      P       05 31 11.7 +0.2
VLS   Valsamata        85.45 322   P      P       05 31 10.3 -1.4
OXF   Oxford           85.46  45  eP      P       05 31 11.4 -0.5
OXF                               e*PP    pP      05 31 24.0 -1.0
OXF                                pmax   pmax
      comp=Z,31nm,1.2s,mb5.3
OXF   Oxford           85.46  45  eP      P       05 31 11.3 -0.5
      comp=Z,31nm,1.2s,mb5.3
OXF                               epP     pP      05 31 24.0 -1.0
SAOF  Saorge           85.51 333  eP      P       05 31 11.0 -0.9
LAST  Lasithi          85.59 317   P      P       05 31 12.8 +0.3
TOUF  Mont Tournerai   85.59 333  eP      P       05 31 10.3 -2.0
VIVF  Saint-Julien-l   85.63 335⇑iP      P       05 31 12.9 +0.4
      comp=Z,75nm,1.1s,mb5.5
VIVF  Saint-Julien-l   85.63 335⇑iP      P       05 31 12.9 +0.4
VIVF                               pmax   pmax
      comp=Z,37nm,1.1s,mb5.5
VIVF  Saint-Julien-l   85.63 335⇑iP      P       05 31 12.9 +0.4
      comp=Z,37nm,1.1s,mb5.5
SSPA  Standing Stone   85.65  34  eP      P       05 31 11.8 -1.0
      comp=Z,78nm,1.7s,mb5.7
SBF   Sospel           85.66 333  eP      P       05 31 12.1 -0.6
      comp=Z,29nm,0.6s,mb5.4
SBF   Sospel           85.66 333  eP      P       05 31 12.1 -0.6
SBF                                pmax   pmax
      comp=Z,14nm,0.6s,mb5.4
SBF   Sospel           85.66 333  eP      P       05 31 12.1 -0.6
      comp=Z,14nm,0.6s,mb5.4
LUCF  Luceram          85.66 333  eP      P       05 31 13.0 +0.3
OCF   Saint Nazaire    85.69 335  eP      P       05 31 13.4 +0.6
OG26  St.-Nazaire-De   85.69 335  eP      P       05 31 13.4 +0.6
LBL   Lubilhac         85.71 336  eP      P       05 31 13.0 +0.1
MVIF  Mont Vial        85.72 333  eP      P       05 31 12.3 -0.7
PLAL  Pickwick Lake    85.76  44  eP      P       05 31 12.7 -0.7
      comp=Z,6.0nm,0.8s,mb4.9
CALN  Calern           85.94 333  eP      P       05 31 13.4 -0.7
STOF  St-Etienne Org   86.03 334  eP      P       05 31 14.2 -0.3
SIVA  Sivas            86.03 317   P      P       05 31 14.5 -0.2
RJF   Les Rejaudoux    86.13 337  eP      P       05 31 15.3 +0.3
      comp=Z,48nm,1.1s,mb5.3
RJF                               eMLR    MLR
      comp=Z,241nm,19.5s,MS4.3
RJF   Les Rejaudoux    86.13 337  eP      P       05 31 15.3 +0.3
RJF                                pmax   pmax
      comp=Z,24nm,1.1s,mb5.3
RJF                                MLR    MLR
      comp=Z,240nm,19.5s,MS4.6
RJF   Les Rejaudoux    86.13 337  eP      P       05 31 15.3 +0.3
      comp=Z,24nm,1.1s,mb5.3
RJF                                LR     LR
      comp=Z,240nm,19.5s,MS4.6
SMRF  Simiane la Rot   86.15 334⇑iP      P       05 31 15.4 +0.3
      comp=Z,65nm,1.4s,mb5.3
SMRF  Simiane la Rot   86.15 334⇑iP      P       05 31 15.4 +0.3
      comp=Z,65nm,1.4s,mb5.7
KARN  Karanos          86.16 318   P      P       05 31 09.1 -6.2
FRF   La Foret Royal   86.19 333⇑iP      P       05 31 14.9 -0.4
      comp=Z,62nm,1.2s,mb5.4
FRF   La Foret Royal   86.19 333⇑iP      P       05 31 14.9 -0.4
FRF                                pmax   pmax
      comp=Z,31nm,1.2s,mb5.4
FRF   La Foret Royal   86.19 333⇑iP      P       05 31 14.9 -0.4
      comp=Z,31nm,1.2s,mb5.4
VILF  Villemus         86.22 334  eP      P       05 31 15.8 +0.3
TIP   Timpagrande      86.27 325  eP      P       05 31 15.0 -0.8
      comp=Z,45nm,1.3s,mb5.5
PGF   Pioggiola        86.31 331⇑iP      P       05 31 15.3 -0.6
      comp=Z,53nm,1.0s,mb5.4
PGF   Pioggiola        86.31 331⇑iP      P       05 31 15.3 -0.6
PGF                                pmax   pmax
      comp=Z,27nm,1.0s,mb5.4
PGF   Pioggiola        86.31 331⇑iP      P       05 31 15.3 -0.6
      comp=Z,27nm,1.0s,mb5.4
TAVF  Tavernes         86.32 334  eP      P       05 31 15.4 -0.6
CAF   Calviac          86.33 337⇑iP      P       05 31 15.9 -0.1
      comp=Z,37nm,0.8s,mb5.3
CAF   Calviac          86.33 337⇑iP      P       05 31 15.9 -0.1
CAF                                pmax   pmax
      comp=Z,18nm,0.8s,mb5.3
CAF   Calviac          86.33 337⇑iP      P       05 31 15.9 -0.1
      comp=Z,18nm,0.8s,mb5.4
LMR   La Mourre        86.43 333⇑iP      P       05 31 16.4 -0.1
      comp=Z,130nm,1.0s,mb5.8
LMR   La Mourre        86.43 333⇑iP      P       05 31 16.4 -0.1
LMR                                pmax   pmax
      comp=Z,65nm,1.0s,mb5.8
LMR   La Mourre        86.43 333⇑iP      P       05 31 16.4 -0.1
      comp=Z,65nm,1.0s,mb5.8
PRAF  Pradon           86.43 334  eP      P       05 31 16.6 +0.1
TREF  Trevaresse       86.53 334  eP      P       05 31 14.7 -2.3
LASF  Ste Croix        86.59 335⇑iP      P       05 31 17.0 -0.3
      comp=Z,50nm,1.2s,mb5.3
SWET  Sewanee          86.61  42  eP      P       05 31 16.7 -0.8
SWET                              epP     pP      05 31 29.3 -1.4
TZTN  Tazewell         86.65  40  eP      P       05 31 18.3 +0.6
      comp=Z,45nm,1.4s,mb5.5
TZTN                              epP     pP      05 31 29.9 -0.9
LFF   La Frestale      86.68 338⇑iP      P       05 31 17.6 -0.1
      comp=Z,36nm,0.7s,mb5.4
LFF   La Frestale      86.68 338⇑iP      P       05 31 17.6 -0.1
LFF                                pmax   pmax
      comp=Z,18nm,0.7s,mb5.4
LFF   La Frestale      86.68 338⇑iP      P       05 31 17.6 -0.1
      comp=Z,18nm,0.7s,mb5.4
BERF  Bertagne         86.71 334  eP      P       05 31 16.6 -1.3
CPCT  Cooper Cave      87.09  41  eP      P       05 31 19.4 -0.4
CPCT                              epP     pP      05 31 31.9 -1.1
TKL   Tuckaleechee C   87.27  40   P      P       05 31 20.4 -0.4
      comp=Z,3.9nm,0.6s,mb4.8,baz=306,slow=3.8,SNR=8.2
TKL   Tuckaleechee C   87.27  40  eP      P       05 31 20.5 -0.2
TKL                               epP     pP      05 31 32.8 -1.1
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BLA	**Blacksburg**	**87.49**	**37**	*e*P	**P**	**05 31 21.6**	**-0.2**
BLA				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.1						
BLA	**Blacksburg**	**87.49**	**37**	*e*P	**P**	**05 31 21.6**	**-0.2**
	comp=Z,11nm,0.9s,mb5.1						
MTLF	**Montolieu**	**87.74**	**336**	*e*P	**P**	**05 31 22.7**	**-0.2**
	comp=Z,9.8nm,0.7s,mb4.9						
MTLF	**Montolieu**	**87.74**	**336**	*e*P	**P**	**05 31 22.7**	**-0.2**
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
MTLF	**Montolieu**	**87.74**	**336**	*e*P	**P**	**05 31 22.7**	**-0.2**
	comp=Z,4.9nm,0.7s,mb4.8						
MLS	**Moulis**	**88.42**	**337**	*e*P	**P**	**05 31 25.9**	**-0.2**
EPF	**Esparros**	**88.56**	**337**	⇑*i*P	**P**	**05 31 25.9**	**-0.8**
	comp=Z,17nm,1.0s,mb5.0						
EPF	**Esparros**	**88.56**	**337**	⇑*i*P	**P**	**05 31 25.9**	**-0.8**
EPF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
EPF	**Esparros**	**88.56**	**337**	⇑*i*P	**P**	**05 31 25.9**	**-0.8**
	comp=Z,8.5nm,1.0s,mb5.0						
VALF	**Valcebollere**	**88.66**	**336**	*e*P	**P**	**05 31 27.7**	**+0.5**
SJPF	**Ste Jean**	**88.90**	**338**	*e*P	**P**	**05 31 27.7**	**-0.7**
	comp=Z,6.6nm,0.7s,mb4.8						
SJPF	**Ste Jean**	**88.90**	**338**	*e*P	**P**	**05 31 27.7**	**-0.7**
SJPF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.7						
SJPF	**Ste Jean**	**88.90**	**338**	*e*P	**P**	**05 31 27.7**	**-0.7**
	comp=Z,3.3nm,0.7s,mb4.8						
ETSF	**Etsaut**	**88.93**	**338**	⇑*i*P	**P**	**05 31 28.4**	**-0.1**
	comp=Z,19nm,0.7s,mb5.2						
ETSF	**Etsaut**	**88.93**	**338**	⇑*i*P	**P**	**05 31 28.4**	**-0.1**
ETSF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.2						
ETSF	**Etsaut**	**88.93**	**338**	⇑*i*P	**P**	**05 31 28.4**	**-0.1**
	comp=Z,9.7nm,0.7s,mb5.2						
EBIE	**Bielsa**	**88.93**	**337**	P	**P**	**05 31 29.0**	**+0.5**
	comp=Z,35nm,1.2s,mb5.6						
ELAN	**Lanestosa**	**89.36**	**340**	P	**P**	**05 31 29.1**	**-1.3**
	comp=Z,37nm,1.5s,mb5.5						
EPOB	**Poblet**	**89.90**	**336**	P	**P**	**05 31 32.6**	**-0.4**
	comp=Z,80nm,1.4s,mb5.9						
ESAC	**San Caprasio**	**90.00**	**337**	P	**P**	**05 31 33.6**	**+0.1**
	comp=Z,50nm,0.8s,mb5.9						
EPON	**Pontenova**	**90.12**	**343**	P	**P**	**05 31 32.4**	**-1.7**
	comp=Z,18nm,1.3s,mb5.2						
ETOS	**Mallorca**	**90.83**	**334**	P	**P**	**05 31 37.3**	**-0.1**
	comp=Z,36nm,1.3s,mb5.5						
EMOS	**Mosqueruela**	**91.26**	**337**	P	**P**	**05 31 39.1**	**-0.3**
	comp=Z,50nm,1.3s,mb5.7						
ETOR	**Torete**	**91.27**	**338**	P	**P**	**05 31 38.7**	**-0.7**
ETOR				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.7						
ETOR	**Torete**	**91.27**	**338**	P	**P**	**05 31 38.7**	**-0.7**
	comp=Z,5.1nm,1.4s,mb4.7						
KEST	**Kesra**	**92.20**	**328**	P	**P**	**05 31 43.2**	**-0.6**
	comp=Z,3.0nm,0.9s,mb4.6,baz=7.6,slow=3.6,SNR=9.1						
ESDC	**Sonseca Array**	**92.84**	**339**	P	**P**	**05 31 45.7**	**-1.0**
	comp=Z,1.9nm,0.6s,mb4.7,baz=15,slow=4.2,SNR=11						
ESDC	**Sonseca Array**	**92.84**	**339**	P	**P**	**05 31 45.3**	**-1.4**
	comp=Z,3.6nm,0.8s,mb4.8						
EVIA	**Vianos**	**93.43**	**338**	P	**P**	**05 31 49.4**	**-0.1**
EVIA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.2						
EVIA	**Vianos**	**93.43**	**338**	P	**P**	**05 31 49.4**	**-0.1**
	comp=Z,7.5nm,0.8s,mb5.2						
EBAN	**Banos Encina**	**94.22**	**339**	P	**P**	**05 31 52.6**	**-0.5**
EBAN				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.3						
EBAN	**Banos Encina**	**94.22**	**339**	P	**P**	**05 31 52.6**	**-0.4**
	comp=Z,13nm,1.0s,mb5.3						
EHUE	**Huescar**	**94.22**	**338**	P	**P**	**05 31 53.3**	**+0.2**
EHUE				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb5.0						
EHUE	**Huescar**	**94.22**	**338**	P	**P**	**05 31 53.3**	**+0.2**
	comp=Z,8.3nm,1.2s,mb5.0						
EQES	**Quesada**	**94.37**	**338**	P	**P**	**05 31 53.7**	**0.0**
	comp=Z,21nm,1.5s,mb5.3						
EADA	**Adamuz**	**94.42**	**339**	P	**P**	**05 31 56.2**	**+2.2**
ELOJ	**Sierra Loja**	**95.27**	**339**	P	**P**	**05 31 57.7**	**-0.2**
ELOJ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
ELOJ	**Sierra Loja**	**95.27**	**339**	P	**P**	**05 31 57.7**	**-0.3**
	comp=Z,5.9nm,1.0s,mb5.0						
ERON	**Agron**	**95.30**	**338**	P	**P**	**05 31 56.5**	**-1.6**
EGUA	**Guajares**	**95.41**	**338**	P	**P**	**05 31 57.7**	**-0.9**
EJIF	**Jimena Fronter**	**96.27**	**339**	P	**P**	**05 32 01.5**	**-1.0**
TORD	**Torodi Ar. Bea**	**115.41**	**324**	PKP	PKPdf	05 37 15.0	-1.1
	comp=Z,1.4nm,0.7s,baz=26,slow=1.9,SNR=16						
TORD				pPKP	pPKPdf	05 37 27.2	-2.5
	comp=Z,1.3nm,0.5s,baz=12,slow=1.5,SNR=8.7						
TORD				PKKPbc	PKKPbc	05 47 49.0	+0.7
	comp=Z,0.9nm,1.1s,baz=218,slow=2.5,SNR=4.6						
TORD				PKKP	PKKPdf	05 48 09.0	-2.6
	comp=Z,0.7nm,0.7s,baz=197,slow=2.8,SNR=4.2						
TORD	**Torodi Ar. Bea**	**115.41**	**324**	PKP	PKPdf	05 37 15.0	-1.1
TORD				pPKP	pPKPdf	05 37 27.2	-2.5
TORD				PKKPbc	PKKPbc	05 47 49.0	+0.7
TORD				PKKP	PKKPdf	05 48 09.0	-2.6
VNDA	**Vanda**	**121.82**	**177**	PKP	PKPdf	05 37 26.9	+0.3
	comp=Z,3.1nm,0.9s,baz=342,slow=1.7,SNR=4.6						
DBIC	**Dimbokro**	**123.93**	**328**	PKP	PKPdf	05 37 31.9	-0.7
	comp=Z,6.5nm,0.7s,baz=11,slow=1.5,SNR=10						
DBIC				pPKP	pPKPdf	05 37 44.2	-1.9
	comp=Z,2.9nm,0.5s,baz=89,slow=1.1,SNR=2.8						
DBIC	**Dimbokro**	**123.93**	**328**	PKP	PKPdf	05 37 31.9	-0.7
DBIC				pPKP	pPKPdf	05 37 44.2	-1.9
TIC	**Toumodi**	**124.01**	**328**	*e*PKIKP	PKPdf	05 37 31.8	-0.9
	comp=Z,69nm,1.1s						
KIC	**Kosan Boka**	**124.17**	**327**	*e*PKIKP	PKPdf	05 37 32.0	-1.0
	comp=Z,87nm,1.3s						
LIC	**Lamto**	**124.40**	**328**	*e*PKIKP	PKPdf	05 37 30.9	-2.5
	comp=Z,63nm,1.4s						
LIC				*e*MLR	MLR		
	comp=Z,282nm,22.0s,MS4.6						
LIC	**Lamto**	**124.40**	**328**	*e*PKIKP	PKPdf	05 37 32.2	-1.2
	comp=Z,56nm,1.4s						
LIC	**Lamto**	**124.40**	**328**	*e*PKPdf	PKPdf	05 37 30.9	-2.5
LIC				LR	LR		
	comp=Z,140nm,22.0s,MS4.6						
LCO	**Las Campanas**	**145.28**	**77**	*e*PKPbc	PKPbc	05 38 11.8	+0.3
LCO				*e*pPKPdf	pPKPdf	05 38 24.9	-0.3
NVL	**N'lazarevskaya**	**146.13**	**204**	PKP2	PKPab	05 38 11.7	-1.8
NVL				pmax	pmax		
	comp=Z,36nm,1.3s						
MAIT	**Maitri**	**146.15**	**204**	*e*PKPdif	PKPdf	05 38 10.5	-1.3
VNA2	**Neumayer--Watz**	**150.82**	**196**	*e*PKPdf	PKPbc	05 38 26.0	+1.0
VNA2				*e*		05 38 38.6	
VNA2				*e*		05 38 49.1	
VNA3	**Neumayer Olymp**	**150.99**	**194**	*e*PKPdf	PKPbc	05 38 25.9	+0.5
VNA3				*e*		05 38 38.6	
VNA3				*e*		05 38 49.1	
PLCA	**Paso Flores**	**151.06**	**97**	PKIKP	PKPbc	05 38 26.6	+0.1
PLCA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
PLCA	**Paso Flores**	**151.06**	**97**	PKPbc	PKPbc	05 38 26.6	+0.1
	comp=Z,9.8nm,1.1s,baz=275,slow=2.9,SNR=12						
CPUP	**Villa Florida**	**152.40**	**58**	PKIKP	PKPbc	05 38 29.4	-0.6
CPUP				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CPUP	**Villa Florida**	**152.40**	**58**	PKPbc	PKPbc	05 38 29.4	-0.7
	comp=Z,2.2nm,0.7s,baz=327,slow=2.0,SNR=6.3						

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*CSEM **21** 05:30:09.5±1.8, 36°.33N×21°.71E, h10^{km}, MD3.6, Error ellipse: s-maj=51.0km s-min=18.5km az=63.0*

*NEIC **21** 05:30:10.0, 36°.22N×21°.75E, h36^{km}, MD3.6(ATH), After ATH.*

ATH 21 05:30:10.0, 36°.22N×21°.75E, h36^{km}±1^{km}, MD3.6/3, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.97**	**8**	*e*PN	Pn	05 30 28.7	+1.6
ITM				*e*SN	Sn	05 30 42.1	+2.5
ITM	**Ithomi**	**0.97**	**8**	*e*Pn	Pn	05 30 28.7	+1.6
ITM				*e*Sn	Sn	05 30 42.1	+2.5
KYTH	**Kithira**	**1.04**	**86**	*e*PN	Pn	05 30 29.7	+1.6
KYTH	**Kithira**	**1.04**	**86**	*e*Pn	Pn	05 30 29.7	+1.6
VLI	**Veliai**	**1.08**	**62**	*e*PN	Pn	05 30 30.4	+1.8
VLI				*e*SN	Sn	05 30 45.5	+3.2
VLI	**Veliai**	**1.08**	**62**	*e*Pn	Pn	05 30 30.4	+1.8
VLI				*e*Sn	Sn	05 30 45.5	+3.2

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*ISCJB **21** 05:36:50.7±0.4, 60°.14N±0°.03×152°.18W±0°.08, h100^{km}±4^{km}, mb4.1/4, Error ellipse: s-maj=6.9km s-min=4.6km az=33.0*

*NEIC **21** 05:36:53.1, 60°.16N×152°.22W, h82^{km}, MG3.3(AEIC), After AEIC.*

NEIC Felt at Homer and Ninilchik.

*IDC **21** 05:36:55.7±15.0, 59°.69N×152°.23W, h131^{km}±187^{km}, mb3.7/3, mb1 3.4/4, mb1mx3.1/23, mbtmp3.4/4, ML3.3/1, Error ellipse: s-maj=140.0km s-min=40.7km az=161.0*

ISC 21 05:36:52.1±0.4, 60°.13N±0°.03×152°.19W±0°.08, h90^{km}±5^{km}, n39, σ0^{s}72/46, mb4.1/4, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSO	**Redoubt South**	**0.44**	**320**	*e*Pg	**Pn**	**05 37 05.9**	**-0.4**
RSO				*e*Sg	**Sn**	**05 37 18.0**	**+1.1**
AUL	**Augustine Lava**	**0.98**	**221**	P	**Pn**	**05 37 11.8**	**+0.3**
AUL				S	**Sn**	**05 37 26.6**	**+0.6**
SLKM	**Skilak Lake**	**1.05**	**68**	P	**Pn**	**05 37 12.0**	**-0.2**
SEW	**Seward**	**1.37**	**90**	P	**Pn**	**05 37 15.9**	**-0.2**
FIB	**Fire Island**	**1.44**	**43**	P	**Pn**	**05 37 18.2**	**+1.3**
FIB				S	**Sn**	**05 37 37.8**	**+2.0**
RC01	**Rabbit Creek A**	**1.54**	**50**	P	**Pn**	**05 37 18.3**	**0.0**
RC01				S	**Sn**	**05 37 38.3**	**+0.1**
SKT	**Skwentna**	**1.88**	**10**	P	**Pn**	**05 37 22.4**	**-0.3**
SKT				S	**Sn**	**05 37 45.8**	**-0.2**
SVW2	**Sparrevohn**	**1.93**	**302**	*e*P	**Pn**	**05 37 22.0**	**-1.3**
PMR	**Palmer**	**2.10**	**44**	*e*P	**Pn**	**05 37 25.7**	**+0.3**
KDAK	**Kodiak Island**	**2.36**	**185**	P	**Pn**	**05 37 28.9**	**-0.2**
KDAK				S	**Sn**	**05 37 57.0**	**-0.3**
SML	**Sawmill**	**2.52**	**46**	P	**Pn**	**05 37 30.9**	**-0.2**
SML				S	**Sn**	**05 37 59.5**	**-1.5**
PPLA	**Purkeypile**	**2.78**	**0**	P	**Pn**	**05 37 35.0**	**+0.6**
OHAK	**Old Harbor**	**2.97**	**192**	P	**Pn**	**05 37 36.4**	**-0.7**
EYAK	**Cordova Ski Ar**	**3.23**	**80**	P	**Pn**	**05 37 39.7**	**-0.9**
TT01	**Tatalina**	**3.34**	**328**	P	**Pn**	**05 37 41.3**	**-0.7**
TTA	**Tatalina**	**3.35**	**329**	*e*P	**Pn**	**05 37 41.3**	**-0.9**
TRF	**Thorofare Moun**	**3.45**	**14**	P	**Pn**	**05 37 43.6**	**0.0**
KTH	**Kantishna Hill**	**3.49**	**9**	P	**Pn**	**05 37 44.4**	**+0.4**
SII	**Sitkinak Islan**	**3.73**	**197**	P	**Pn**	**05 37 47.2**	**-0.2**
CHUM	**Lake Minchumin**	**3.77**	**359**	*e*Pn	**Pn**	**05 37 47.5**	**-0.3**
MCK	**McKinley**	**3.93**	**22**	P	**Pn**	**05 37 49.8**	**-0.2**
BPAW	**Bear Paw Mtn.**	**4.03**	**8**	P	**Pn**	**05 37 50.6**	**-0.7**
PAX	**Paxson**	**4.29**	**46**	P	**Pn**	**05 37 55.5**	**+0.5**
MENT	**Mentasta**	**4.93**	**52**	*e*Pn	**Pn**	**05 38 03.4**	**-0.3**
COLA	**College**	**5.17**	**21**	P	**Pn**	**05 38 06.7**	**-0.1**
IL1	**Eielson Array**	**5.27**	**26**	P	**Pn**	**05 38 07.8**	**-0.4**
BCA3	**Beaver Creek A**	**5.77**	**55**	P	**Pn**	**05 38 15.0**	**0.0**
IM3	**Indian Mountai**	**5.92**	**354**	P	**Pn**	**05 38 16.4**	**-0.5**
PNL	**Peninsula**	**6.45**	**89**	P	**Pn**	**05 38 24.3**	**0.0**
EGAK	**Eagle**	**6.92**	**43**	P	**Pn**	**05 38 30.3**	**-0.3**
COLD	**Coldfoot**	**7.18**	**6**	*e*Pn	**Pn**	**05 38 34.5**	**+0.4**
	14nm,1.4s						
DAWY	**Dawson**	**7.18**	**51**	*e*Pn	**Pn**	**05 38 34.3**	**+0.1**
BM3	**Burnt Mountain**	**8.04**	**21**	P	**Pn**	**05 38 45.0**	**-0.9**
TNA	**Tin City**	**9.01**	**314**	*e*Pn	**Pn**	**05 39 00.2**	**+1.2**
	2.1nm,0.5s						
YKA	**Yellowknife Ar**	**18.03**	**66**	P	**Pn**	**05 40 58.6**	**+2.3**
	0.1nm,0.3s,baz=276,slow=10,SNR=4.1						
PETK	**Petropavlovsk-**	**27.85**	**278**	P	**P**	**05 42 32.7**	**0.0**
	2.1nm,0.9s,mb3.7,baz=63,slow=12,SNR=3.3						
MDJ	**Mudanjiang**	**47.24**	**288**	P	**P**	**05 45 15.6**	**0.0**
MDJ				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.0						
MDJ				pmax	pmax		
	comp=Z,49nm,3.3s						
KSRS	**Korea Array**	**53.55**	**283**	P	**P**	**05 46 03.9**	**+0.6**
	comp=Z,1.6nm,0.7s,mb4.1,baz=34,slow=7.4,SNR=3.9						
SONM	**Songino Array**	**55.04**	**306**	P	**P**	**05 46 14.8**	**+0.8**
	comp=Z,3.0nm,0.7s,mb4.5,baz=40,slow=6.7,SNR=21						

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*NEIC **21** 05:37:52.4, 36°.27N×21°.81E, h8^{km}, MD3.9(ATH), After ATH.*

*CSEM **21** 05:37:52.4, 36°.27N×21°.81E, h8^{km}, MD3.9, After ATH*

ATH 21 05:37:52.4, 36°.27N×21°.81E, h8^{km}±4^{km}, MD3.9/4, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.91**	**6**	*e*PG	Pg	05 38 09.6	-0.4
ITM				*e*SB	Sb	05 38 23.0	+0.2
ITM	**Ithomi**	**0.91**	**6**	*e*Pg	Pg	05 38 09.6	-0.4
ITM				*e*Sb	Sb	05 38 23.0	+0.2
KYTH	**Kithira**	**0.99**	**89**	*e*PB	Pb	05 38 11.3	-0.5
KYTH	**Kithira**	**0.99**	**89**	*e*Pb	Pb	05 38 11.3	-0.5
VLI	**Veliai**	**1.01**	**63**	*e*PB	Pb	05 38 11.7	-0.5
VLI				*e*SB	Sb	05 38 25.6	0.0
VLI	**Veliai**	**1.01**	**63**	*e*Pb	Pb	05 38 11.7	-0.5
VLI				*e*Sb	Sb	05 38 25.6	0.0
RLS	**Riolos of Patr**	**1.81**	**351**	*e*PN	Pn	05 38 25.9	+2.1
RLS	**Riolos of Patr**	**1.81**	**351**	*e*Pn	Pn	05 38 25.9	+2.1
VAM	**Vamos**	**2.12**	**113**	*e*PN	Pn	05 38 31.0	+2.8
VAM	**Vamos**	**2.12**	**113**	*e*Pn	Pn	05 38 31.0	+2.8
VLS	**Valsamata**	**2.14**	**333**	*e*PN	Pn	05 38 30.4	+2.0
VLS	**Valsamata**	**2.14**	**333**	*e*Pn	Pn	05 38 30.4	+2.0

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*IDC **21** 05:42:08.1±2.0, 2°.30S×99°.90E, h0^{km}, mb4.1/8, mb1 4.2/9, mb1mx4.0/22, mbtmp4.1/9, ML3.1/1, MS3.4/1, Ms1 3.4/1, ms1mx2.6/30, Error ellipse: s-maj=65.8km s-min=18.1km az=59.0*

*NEIC **21** 05:42:10.5±7.1, 2°.29S×99°.91E, h16^{km}±41^{km}, mb4.2/2, Error ellipse: s-maj=47.7km s-min=10.4km az=58.0*

*ISCJB **21** 05:42:11.6±0.9, 2°.41S±0°.06×99°.7E±0°.1, h48^{km}±6^{km}, mb4.2/9, Error ellipse: s-maj=18.6km s-min=8.8km az=167.3*

*DJA **21** 05:42:12, 2°.34S×99°.80E, h16^{km}, MLv4.2/4*

ISC 21 05:42:11.9±1.2, 2°.40S±0°.06×99°.7E±0°.1, h32^{km}±9^{km}, n20, σ0^{s}77/20, mb4.2/9, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	**0.48**	**139**	P	**Pb**	**05 42 21.7**	**-0.4**
PPSI				S	**Sb**	**05 42 29.6**	**+0.5**
SISI	**Saibi**	**1.22**	**330**	P	**Pn**	**05 42 33.7**	**+0.9**
PDSI	**Padang**	**1.66**	**27**	P	**Pn**	**05 42 38.5**	**-0.4**
PDSI				S	**Sn**	**05 42 59.5**	**+0.4**
PPI	**Padang Panjang**	**2.05**	**20**	P	**Pn**	**05 42 44.4**	**+0.2**
SDSI	**Sungai Dareh**	**2.26**	**50**	P	**Pn**	**05 42 47.8**	**+0.7**
PSI	**Prapat**	**5.22**	**352**	Pn	**Pn**	**05 43 25.5**	**-2.3**
	0.6nm,0.3s,baz=160,slow=15,SNR=3.1						
PSI				LR	LR	05 45 47.5	
	comp=Z,350nm,18.2s,baz=207,slow=43						
PSI	**Prapat**	**5.22**	**352**	Pn	**Pn**	**05 43 25.5**	**-2.3**
CMAR	**Chiang Mai Arr**	**20.74**	**358**	P	**P**	**05 46 49.6**	**-0.3**
	1.5nm,0.4s,baz=187,slow=9.3,SNR=10						
WRA	**Warramunga Arr**	**38.06**	**120**	P	**P**	**05 49 27.4**	**-0.4**
	2.0nm,0.5s,mb4.1,baz=304,slow=9.1,SNR=24						
WRAB	**Tennant Creek**	**38.06**	**120**	*e*P	**P**	**05 49 27.9**	**0.0**
	1.8nm,0.5s,mb4.1						
ASAR	**Alice Springs**	**39.27**	**125**	P	**P**	**05 49 38.0**	**0.0**
	0.9nm,0.5s,mb3.8,baz=302,slow=7.8,SNR=12						
KSRS	**Korea Array**	**47.51**	**31**	P	**P**	**05 50 43.8**	**-0.4**
	2.4nm,0.8s,mb4.3,baz=228,slow=8.9,SNR=9.8						
SONM	**Songino Array**	**50.37**	**6**	P	**P**	**05 51 06.7**	**+0.8**
	4.4nm,0.7s,mb4.6,baz=187,slow=9.2,SNR=38						
ULN	**Ulaanbaatar**	**50.47**	**6**	*e*P	**P**	**05 51 07.6**	**+1.0**
	3.1nm,0.9s,mb4.3						
MKAR	**Makanchi Array**	**51.33**	**345**	P	**P**	**05 51 13.9**	**+0.8**
	2.5nm,0.7s,mb4.3,baz=149,slow=7.7,SNR=25						
MJAR	**Matsushiro Arr**	**52.77**	**39**	P	**P**	**05 51 22.7**	**-1.4**
	0.7nm,0.3s,mb4.0,baz=223,slow=8.6,SNR=4.2						
ZALV	**Zalesovo Beam**	**57.50**	**350**	P	**P**	**05 51 57.9**	**0.0**
	1.2nm,0.6s,mb4.1,baz=164,slow=5.9,SNR=7.8						
ZALV	**Zalesovo Beam**	**57.50**	**350**	P	**P**	**05 51 57.9**	**0.0**
TXAR	**Lajitas Array**	**145.20**	**37**	PKPbc	PKPbc	06 01 47.6	+0.9
	3.3nm,0.6s,baz=299,slow=0.9,SNR=54						
TXAR	**Lajitas Array**	**145.20**	**37**	PKPbc	PKPbc	06 01 47.6	+0.9

KRSC 21 05:49:41.4±0.6, 52°.98N×157°.02E, h333^{km}±52^{km}, ML4.0, Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIPR	**Malaya Ipel'ka**	**0.72**	**193**	*e*P	Pn	05 50 25.4	+1.1
GNL	**Ganaly**	**0.91**	**37**	*e*P	Pn	05 50 25.2	+0.4
PET	**Petropavlovsk**	**0.99**	**87**	S	S	05 50 59.6	-0.6
RUS	**Russkaya**	**1.06**	**120**	P	Pn	05 50 26.7	+1.2
RUS				S	S	05 51 00.6	-0.3
RUS	**Russkaya**	**1.06**	**120**	*e*P	Pn	05 50 26.7	+1.2
RUS				*e*S	S	05 51 00.6	-0.3
AVH	**Avacha**	**1.07**	**74**	*e*P	Pn	05 50 25.8	+0.3
NLC	**Nalytchevo**	**1.42**	**81**	P	Pn	05 50 28.7	+1.5
NLC				S	S	05 51 03.2	-0.8
NLC	**Nalytchevo**	**1.42**	**81**	*e*P	Pn	05 50 28.7	+1.5
NLC				*e*S	S	05 51 03.2	-0.8
SPN	**Mys Shipunski**	**1.82**	**85**	P	Pn	05 50 30.7	+1.0
SPN				S	S	05 51 05.8	-2.7
SPN	**Mys Shipunski**	**1.82**	**85**	*e*P	Pn	05 50 30.7	+1.0
SPN				*e*S	S	05 51 05.8	-2.7
ZLN	**Zelenaya**	**3.76**	**34**	*e*P	Pn	05 50 48.5	+1.8
CIRR	**Tsirk**	**3.82**	**33**	*e*P	Pn	05 50 48.7	+1.4
KRSR	**Krestovskiy**	**3.84**	**31**	*e*P	Pn	05 50 48.7	+1.1
KLY	**Klyuchi**	**3.95**	**31**	P	Pn	05 50 50.4	+1.7
KLY	**Klyuchi**	**3.95**	**31**	P	Pn	05 50 50.4	+1.7
SMKR	**Semkarok**	**4.43**	**34**	*e*P	Pn	05 50 55.3	+1.5

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*ISCJB **21** 05:55:37.2±0.7, 36°.07N±0°.03×21°.73E±0°.03, h12^{km}±4^{km}, mb4.0/17, Error ellipse: s-maj=4.5km s-min=4.2km az=4.9*

*ATH **21** 05:55:38.7, 36°.25N×21°.67E, h8^{km}±7^{km}, MD4.0/4*

*CSEM **21** 05:55:38.4±0.4, 36°.00N×21°.54E, h20^{km}, mb4.1/7, Error ellipse: s-maj=10.8km s-min=6.7km az=24.0*

*NEIC **21** 05:55:38.7, 36°.25N×21°.67E, h8^{km}, MD4.0(ATH), ML4.7(THE), After ATH.*

*THE **21** 05:55:40.6, 36°.03N×21°.75E, h31^{km}±63^{km}, ML4.3/6, Error ellipse: s-maj=63.0km s-min=3.4km az=223.0*

*MOS **21** 05:55:40.3±1.3, 36°.13N×21°.74E, h33^{km}, mb4.1/8, Error ellipse: s-maj=15.0km s-min=6.1km az=81.1*

*IDC **21** 05:55:45.6±1.7, 36°.25N×21°.94E, h68^{km}±17^{km}, mb3.5/13, mb1 3.6/19, mb1mx3.5/30, mbtmp3.5/19, Error ellipse: s-maj=19.2km s-min=13.0km az=177.0*

ISC 21 05:55:39.4±0.8, 36°.13N±0°.03×21°.72E±0°.03, h11^{km}±5^{km}, n156, σ1^{s}33/185, mb4.0/17, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**1.06**	**9**	*e*PB	**Pg**	**05 55 56.7**	**-3.1**
ITM				*e*SB	**Sg**	**05 56 09.2**	**-4.3**
ITM	**Ithomi**	**1.06**	**9**	*e*Pb	**Pg**	**05 55 56.7**	**-3.1**
ITM				*e*Sb	**Sg**	**05 56 09.2**	**-4.3**
KYTH	**Kithira**	**1.07**	**82**	*e*PN	**Pg**	**05 55 59.8**	**-0.3**
KYTH	**Kithira**	**1.07**	**82**	*e*Pn	**Pg**	**05 55 59.8**	**-0.3**
VLI	**Veliai**	**1.14**	**59**	*e*PG	**Pg**	**05 55 59.5**	**-1.9**
VLI				*e*SB	**Sg**	**05 56 16.2**	**0.0**
VLI	**Veliai**	**1.14**	**59**	*e*Pg	**Pg**	**05 55 59.5**	**-1.9**
VLI				*e*Sb	**Sg**	**05 56 16.2**	**0.0**
RLS	**Riolos of Patr**	**1.93**	**354**	*e*PG	**Pn**	**05 56 12.7**	**+0.5**
RLS	**Riolos of Patr**	**1.93**	**354**	*e*Pg	**Pn**	**05 56 12.7**	**+0.5**
LAKA	**Lakka**	**2.11**	**6**	P	**Pn**	**05 56 15.3**	**+0.6**
LAKA				S	**Sn**	**05 56 41.1**	**+0.2**
LAKA	**Lakka**	**2.11**	**6**	P	**Pn**	**05 56 15.3**	**+0.6**
LAKA				S	**Sn**	**05 56 41.1**	**+0.2**
VAM	**Vamos**	**2.14**	**109**	*e*PB	**Pn**	**05 56 17.3**	**+2.2**
VAM	**Vamos**	**2.14**	**109**	*e*Pb	**Pn**	**05 56 17.3**	**+2.2**
VLS	**Valsamata**	**2.23**	**336**	P	**Pn**	**05 56 17.1**	**+0.8**
VLS				S	**Sn**	**05 56 44.6**	**+0.7**
VLS	**Valsamata**	**2.23**	**336**	*e*PN	**Pn**	**05 56 17.0**	**+0.7**
VLS	**Valsamata**	**2.23**	**336**	*e*Pn	**Pn**	**05 56 17.0**	**+0.7**
VLS				S	**Sn**	**05 56 44.6**	**+0.7**
TRIZ	**Trizonia**	**2.25**	**7**	P	**Pn**	**05 56 17.2**	**+0.7**
TRIZ				S	**Sn**	**05 56 45.1**	**+0.9**
TRIZ	**Trizonia**	**2.25**	**7**	P	**Pn**	**05 56 17.2**	**+0.7**
TRIZ				S	**Sn**	**05 56 45.1**	**+0.9**
ATH	**Athens Observa**	**2.43**	**40**	P	**Pn**	**05 56 15.2**	**-3.9**
ATH				S	**Sg**	**05 56 56.8**	**-0.8**
ATH	**Athens Observa**	**2.43**	**40**	P	**Pn**	**05 56 15.2**	**-3.9**
ATHU	**Athens Univers**	**2.46**	**41**	P	**Pn**	**05 56 20.0**	**+0.5**
ATHU				S	**Sn**	**05 56 48.8**	**-0.8**
ATHU	**Athens Univers**	**2.46**	**41**	P	**Pn**	**05 56 20.0**	**+0.5**
ATHU				S	**Sn**	**05 56 48.8**	**-0.8**
LKR	**Lokris**	**2.71**	**22**	P	**Pn**	**05 56 22.6**	**-0.3**
LKR				S	**Sn**	**05 56 56.7**	**+1.0**
LKR	**Lokris**	**2.71**	**22**	P	**Pn**	**05 56 22.5**	**-0.4**
LKR				S	**Sg**	**05 57 09.3**	**+2.8**
LKR	**Lokris**	**2.71**	**22**	P	**Pn**	**05 56 22.6**	**-0.3**
LKR				S	**Sn**	**05 56 56.7**	**+1.0**
IDI	**Anoyia**	**2.71**	**107**	P	**Pn**	**05 56 24.8**	**+1.8**
	2.3nm,0.3s,baz=278,slow=17,SNR=12						
IDI	**Anoyia**	**2.71**	**107**	P	**Pn**	**05 56 24.8**	**+1.9**
AGG	**Agios Georgios**	**2.92**	**9**	P	**Pn**	**05 56 27.4**	**+1.6**
AGG				S	**Sn**	**05 57 02.0**	**+1.1**
AGG	**Agios Georgios**	**2.92**	**9**	P	**Pn**	**05 56 27.4**	**+1.6**
AGG				S	**Sg**	**05 57 18.3**	**+5.0**
AGG	**Agios Georgios**	**2.92**	**9**	P	**Pn**	**05 56 27.4**	**+1.6**
AGG				S	**Sn**	**05 57 02.0**	**+1.1**
XOR	**Xorichti**	**3.43**	**19**	P	**Pn**	**05 56 32.6**	**-0.2**
XOR				S	**Sn**	**05 57 13.4**	**-0.1**
XOR	**Xorichti**	**3.43**	**19**	P	**Pn**	**05 56 32.6**	**-0.2**
XOR				S	**Sg**	**05 57 28.9**	**-0.7**
XOR	**Xorichti**	**3.43**	**19**	P	**Pn**	**05 56 32.6**	**-0.2**
XOR				S	**Sn**	**05 57 13.4**	**-0.1**
THL	**Klokotos Trika**	**3.43**	**4**	P	**Pn**	**05 56 33.3**	**+0.5**
THL				S	**Sn**	**05 57 14.1**	**+0.6**
THL	**Klokotos Trika**	**3.43**	**4**	P	**Pn**	**05 56 33.3**	**+0.5**
THL				S	**Sn**	**05 57 14.1**	**+0.6**
AOS	**Alonnisos**	**3.48**	**29**	P	**Pn**	**05 56 31.3**	**-2.2**
AOS	**Alonnisos**	**3.48**	**29**	P	**Pn**	**05 56 31.3**	**-2.2**
IGT	**Igoumenitsa**	**3.57**	**342**	P	**Pn**	**05 56 35.7**	**+1.0**
IGT	**Igoumenitsa**	**3.57**	**342**	P	**Pn**	**05 56 35.7**	**+1.0**
MEV	**Metsovon**	**3.67**	**354**	P	**Pn**	**05 56 37.4**	**+1.4**
MEV	**Metsovon**	**3.67**	**354**	P	**Pn**	**05 56 37.4**	**+1.4**
LIT	**Litokhoron**	**4.01**	**8**	P	**Pn**	**05 56 41.4**	**+0.7**
LIT	**Litokhoron**	**4.01**	**8**	P	**Pn**	**05 56 42.4**	**+1.7**
LIT	**Litokhoron**	**4.01**	**8**	P	**Pn**	**05 56 41.4**	**+0.7**
PLG	**Polygyros**	**4.45**	**17**	P	**Pn**	**05 56 47.3**	**+0.6**
PLG	**Polygyros**	**4.45**	**17**	P	**Pn**	**05 56 47.3**	**+0.6**
URLA	**Izmir**	**4.48**	**59**	*e*P	**Pn**	**05 56 47.1**	**-0.1**
URLA	**Izmir**	**4.48**	**59**	*e*P	**Pn**	**05 56 47.1**	**-0.1**
HORT	**Hortiatis**	**4.59**	**13**	P	**Pn**	**05 56 50.0**	**+1.3**
HORT				S	**Sn**	**05 57 45.0**	**+3.1**
HORT	**Hortiatis**	**4.59**	**13**	P	**Pn**	**05 56 49.6**	**+0.9**
HORT				S	**Sg**	**05 57 59.7**	**-7.0**
HORT	**Hortiatis**	**4.59**	**13**	P	**Pn**	**05 56 49.6**	**+0.9**
HORT				S	**Sn**	**05 57 45.0**	**+3.1**
FNA	**Florina**	**4.65**	**357**	P	**Pn**	**05 56 49.6**	**0.0**
FNA	**Florina**	**4.65**	**357**	P	**Pn**	**05 56 50.6**	**+1.0**
FNA	**Florina**	**4.65**	**357**	P	**Pn**	**05 56 50.6**	**+1.0**
BDRM	**Kayabasi**	**4.70**	**77**	*i* P	**Pn**	**05 56 51.0**	**+0.8**
BDRM	**Kayabasi**	**4.70**	**77**	*i* P	**Pn**	**05 56 51.0**	**+0.8**
GRG	**Griva**	**4.84**	**6**	P	**Pn**	**05 56 52.0**	**-0.2**
GRG	**Griva**	**4.84**	**6**	P	**Pn**	**05 56 51.8**	**-0.4**
GRG	**Griva**	**4.84**	**6**	P	**Pn**	**05 56 52.0**	**-0.2**
SOH	**Sokhos**	**4.85**	**15**	P	**Pn**	**05 56 53.2**	**+0.9**
SOH	**Sokhos**	**4.85**	**15**	P	**Pn**	**05 56 53.2**	**+0.9**
TIP	**Timpagrande**	**4.97**	**309**	*e*P	**Pn**	**05 56 54.5**	**+0.5**
TIP	**Timpagrande**	**4.97**	**309**	*e*P	**Pn**	**05 56 54.5**	**+0.5**
OHR	**Ohrid**	**5.02**	**352**	*e*Pn	**Pn**	**05 56 53.7**	**-1.0**
OHR				*e*Sg	**Sn**	**05 57 50.5**	**-2.1**
OHR	**Ohrid**	**5.02**	**352**	*e*Pn	**Pn**	**05 56 53.7**	**-1.0**
KNT	**Kendrikon**	**5.10**	**10**	P	**Pn**	**05 56 56.1**	**+0.3**
KNT	**Kendrikon**	**5.10**	**10**	P	**Pn**	**05 56 55.7**	**-0.1**
KNT	**Kendrikon**	**5.10**	**10**	P	**Pn**	**05 56 56.1**	**+0.3**
CEL	**Celeste**	**5.11**	**296**	*e*P	**Pn**	**05 56 56.3**	**+0.4**
	35nm,0.8s						
CEL	**Celeste**	**5.11**	**296**	*e*P	**Pn**	**05 56 56.3**	**+0.4**
	35nm,0.8s						
AYDN	**Tasoluk**	**5.17**	**71**	*i* P	**Pn**	**05 56 58.9**	**+2.3**
AYDN	**Tasoluk**	**5.17**	**71**	*i* P	**Pn**	**05 56 58.9**	**+2.3**
SRS	**Serrai**	**5.19**	**16**	P	**Pn**	**05 56 57.1**	**+0.2**
SRS	**Serrai**	**5.19**	**16**	P	**Pn**	**05 56 57.1**	**+0.2**
VAY	**Valandovo**	**5.22**	**7**	*e*Pn	**Pn**	**05 56 56.9**	**-0.6**
VAY				*e*Sg	**Sn**	**05 57 54.7**	**-2.9**
VAY	**Valandovo**	**5.22**	**7**	*e*Pn	**Pn**	**05 56 56.8**	**-0.6**
KRUS	**Krusevo**	**5.24**	**356**	*e*Pn	**Pn**	**05 56 56.0**	**-1.7**
KRUS	**Krusevo**	**5.24**	**356**	*e*Pn	**Pn**	**05 56 55.9**	**-1.8**
TURN	**Turunc**	**5.59**	**80**	*e*P	**Pn**	**05 57 01.2**	**-1.4**
TURN	**Turunc**	**5.59**	**80**	*e*P	**Pn**	**05 57 01.2**	**-1.3**
VAE	**Valguarnera**	**6.02**	**285**	P	**Pn**	**05 57 13.8**	**+5.5**
	1.4nm,0.3s,baz=25,slow=15,SNR=3.2						
VAE				S	**Sn**	**05 58 19.0**	**+1.8**
	2.8nm,0.3s,baz=53,slow=10,SNR=2.7						
CUC	**Castrocucco**	**6.04**	**311**	*e*P	**Pn**	**05 57 10.7**	**+2.0**
	50nm,0.8s						
CUC	**Castrocucco**	**6.04**	**311**	*e*P	**Pn**	**05 57 10.7**	**+2.0**
	50nm,0.8s						
DURS	**Dursunbey**	**6.37**	**55**	*e*P	**Pn**	**05 57 19.1**	**+6.0**
AKAS	**Kas**	**6.38**	**87**	*i* P	**Pn**	**05 57 14.1**	**+0.8**
AKAS	**Kas**	**6.38**	**87**	*i* P	**Pn**	**05 57 14.1**	**+0.8**
GOLH	**Golhisar**	**6.40**	**78**	*e*P	**Pn**	**05 57 17.0**	**+3.4**

KHAL	Karahalli	6.59	68	i P	Pn	05 57 18.5	+2.3
KHAL	Karahalli	6.59	68	i P	Pn	05 57 18.5	+2.3
KDHN	Kadinhani	8.62	71	i P	Pn	05 57 47.0	+3.0
KDHN	Kadinhani	8.62	71	i P	Pn	05 57 47.0	+3.0
MLR	Muntele Rosu	9.88	18	P	Pn	05 58 04.3	+3.0
	0.1nm,0.3s,baz=198,slow=15,SNR=1.8						
MLR	Muntele Rosu	9.88	18	P	Pn	05 58 04.3	+3.0
BRTR	Keskin Array B	10.07	66	P	Pn	05 58 06.3	+2.3
	0.1nm,0.3s,baz=265,slow=14,SNR=7.7						
BRTR	Keskin Array B	10.07	66	P	Pn	05 58 06.2	+2.2
MMAI	Mount Meron Ar	11.70	101	P	Pn	05 58 28.1	+1.9
	2.0nm,0.3s,baz=286,slow=10,SNR=4.6						
MBDF	Montbardon	14.24	312	eP	Pn	05 59 01.8	+0.9
	14nm,0.9s						
AKASG	Malin Array Be	15.53	18	P	Pn	05 59 18.2	0.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	15.53	18	P	Pn	05 59 18.2	0.0
	comp=Z,0.5nm,0.3s,baz=206,slow=8.9,SNR=3.8						
HINF	Hinteralfeld	16.05	321	eP	Pn	05 59 24.2	-0.7
CDF	Champ du Feu	16.24	324	eP	Pn	05 59 26.8	-0.6
	comp=Z,15nm,0.9s						
CDF	Champ du Feu	16.24	324	eP	Pn	05 59 26.8	-0.6
	comp=Z,7.4nm,0.9s						
HAU	Haudompre	16.43	321	eP	Pn	05 59 28.9	-0.9
	comp=Z,28nm,1.1s						
HAU	Haudompre	16.43	321	eP	Pn	05 59 28.9	-0.9
	comp=Z,14nm,1.1s						
SMF	Signal de Mont	17.00	314	eP	Pn	05 59 35.0	-2.0
	comp=Z,8.6nm,0.8s						
SMF	Signal de Mont	17.00	314	eP	Pn	05 59 35.0	-2.0
	comp=Z,4.3nm,0.8s						
LOR	Lormes	17.32	315	eP	Pn	05 59 38.9	-2.2
	comp=Z,13nm,1.0s						
LOR	Lormes	17.32	315	eP	Pn	05 59 38.9	-2.2
	comp=Z,6.4nm,1.0s						
AVF	Avril sur Loir	17.36	313	eP	Pn	05 59 39.4	-2.2
	comp=Z,9.6nm,0.9s						
AVF	Avril sur Loir	17.36	313	eP	Pn	05 59 39.4	-2.2
	comp=Z,4.8nm,0.9s						
SSF	Saint Saulge	17.41	314	eP	Pn	05 59 39.9	-2.3
	comp=Z,4.3nm,0.8s						
SSF	Saint Saulge	17.41	314	eP	Pn	05 59 39.9	-2.3
	comp=Z,2.2nm,0.8s						
BGF	Bois d'Agland	17.54	312	eP	Pn	05 59 42.7	-1.1
	comp=Z,10nm,0.9s						
BGF	Bois d'Agland	17.54	312	eP	Pn	05 59 42.7	-1.1
	comp=Z,5.2nm,0.9s						
TCF	Toulx Ste Croi	17.80	311	eP	Pn	05 59 46.8	-0.2
	comp=Z,15nm,1.2s						
TCF	Toulx Ste Croi	17.80	311	eP	Pn	05 59 46.8	-0.2
	comp=Z,7.7nm,1.2s						
SJPF	Ste Jean	18.97	299	eP	Pn	06 00 02.6	+1.3
	comp=Z,16nm,1.2s						
ESDC	Sonseca Array	20.55	288	P	P	06 00 20.6	+2.7
	comp=Z,0.6nm,0.5s,baz=74,slow=10,SNR=3.7						
OBN	Obninsk	21.55	24	eP	Px	06 00 42.5	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.0						
MDT	Midelt	21.94	269	P	P	06 00 34.0	+1.0
	comp=Z,1.5nm,0.9s,mb3.4,baz=81,slow=12,SNR=3.2						
ROSF	Rostrenen	22.05	311	eP	P	06 00 33.8	-0.2
	comp=Z,37nm,1.5s,mb4.3						
ROSF	Rostrenen	22.05	311	eP	P	06 00 33.8	-0.2
	comp=Z,19nm,1.5s,mb4.3						
HFS	Hagfors	24.57	350	P	P	06 00 57.9	-1.1
HFS				pmax	pmax		
	comp=Z,4.0nm,0.8s						
HFS	Hagfors	24.57	350	P	P	06 00 57.9	-1.1
	comp=Z,3.8nm,0.8s,mb4.0,baz=167,slow=9.1,SNR=4.9						
HFS	Hagfors	24.57	350	P	P	06 00 57.9	-1.1
	comp=Z,4.0nm,0.8s,mb4.0						
NOA	NORSAR Array B	25.81	348	P	P	06 01 09.5	-0.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	25.81	348	P	P	06 01 09.5	-0.8
	comp=Z,1.0nm,0.6s,mb3.5,baz=159,slow=9.7,SNR=15						
NOA	NORSAR Array B	25.81	348	P	P	06 01 09.5	-0.8
	comp=Z,1.0nm,0.6s,mb3.5						
TORD	Torodi Ar. Bea	29.12	223	P	P	06 01 42.3	+1.9
	comp=Z,0.4nm,0.9s,mb3.2,baz=31,slow=8.5,SNR=2.9						
ARCES	ARCESS Array B	33.52	2	P	P	06 02 15.4	-3.2
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	33.52	2	P	P	06 02 15.4	-3.2
	comp=Z,2.0nm,0.8s,mb4.1,baz=184,slow=11,SNR=3.2						
ARCES	ARCESS Array B	33.52	2	P	P	06 02 15.4	-3.2
	comp=Z,2.0nm,0.8s,mb4.1						
NVS	Novosibirsk	45.39	46	eP	P	06 03 58.8	+1.1
MKAR	Makanchi Array	45.58	57	P	P	06 03 56.7	-2.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	45.58	57	P	P	06 03 56.7	-2.6
	comp=Z,1.0nm,0.5s,mb4.0,baz=270,slow=7.3,SNR=9.3						
ZALV	Zalesovo Beam	46.37	47	P	P	06 04 02.0	-3.4
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
ZALV	Zalesovo Beam	46.37	47	P	P	06 04 02.0	-3.4
	comp=Z,0.5nm,0.3s,mb3.9,baz=274,slow=8.5,SNR=2.7						
DANN	Dangsing	52.27	80	eP	P	06 04 50.8	-0.1
	comp=Z,27nm,0.6s						
KOLN	Koldanda	52.40	81	eP	P	06 04 51.0	-0.8
GKN	Gorkha	53.12	80	eP	P	06 04 56.1	-1.1
	comp=Z,7.2nm,0.4s,mb4.9						
DMN	Daman	53.67	80	eP	P	06 05 00.5	-0.7
KKN	Kakani	53.73	80	eP	P	06 05 00.7	-1.0
PKI	Pulchoki	53.93	80	eP	P	06 05 02.3	-0.8
GUN	Gumba	54.15	79	eP	P	06 05 04.3	-0.5
JIRN	Jiri	54.51	79	eP	P	06 05 06.8	-0.6
	comp=Z,8.0nm,0.7s,mb4.9						
RAMN	Ramite	55.15	80	eP	P	06 05 10.9	-1.1
	comp=Z,9.1nm,0.7s,mb4.9						
TAPN	Taplejung	55.85	79	eP	P	06 05 16.1	-1.0
SCHQ	Schefferville	60.62	318	P	P	06 05 50.0	+0.1
	comp=Z,3.0nm,1.0s,mb4.4,baz=49,slow=11,SNR=2.6						
SONM	Songino Array	61.02	50	P	P	06 05 50.7	-2.1
	comp=Z,0.3nm,0.7s,mb3.5,baz=270,slow=7.2,SNR=2.8						
SONM	Songino Array	61.02	50	P	P	06 05 50.7	-2.2
CMAR	Chiang Mai Arr	69.22	82	P	P	06 06 43.9	-2.7
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	69.22	82	P	P	06 06 43.9	-2.7
	comp=Z,0.5nm,0.3s,mb3.9,baz=302,slow=8.4,SNR=4.9						
CMAR	Chiang Mai Arr	69.22	82	P	P	06 06 43.9	-2.7
	comp=Z,1.0nm,0.3s,mb4.2						
YKA	Yellowknife Ar	75.64	341	P	P	06 07 23.6	-0.5
	comp=Z,0.1nm,0.6s,mb3.0,baz=36,slow=5.4,SNR=5.1						
KSRS	Korea Array	79.88	51	P	P	06 07 46.2	-2.0
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KSRS	Korea Array	79.88	51	P	P	06 07 46.2	-2.0
	comp=Z,0.7nm,0.4s,mb3.9,baz=316,slow=3.4,SNR=3.4						
KSRS	Korea Array	79.88	51	P	P	06 07 46.2	-2.0
	comp=Z,1.0nm,0.4s,mb4.1						

IDC ***21*** *06:07:13.3±3.8,20°.96S×178°.13W,h477^{km}±42^{km},mb3.3/7, mb1 3.6/8,mb1mx3.4/17,mbtmp3.3/8,Error ellipse: s-maj=22.3km s-min=17.8km az=117.0*

ISCJB ***21*** *06:07:15.4±4.3,20°.9S±0°.2×178°.3W±0°.2,h507^{km}±50^{km}, mb3.8/12,Error ellipse: s-maj=27.8km s-min=23.1km az=5.8*

NEIC ***21*** *06:07:17.0±2.2,21°.15S×178°.16W,h523^{km}±27^{km},mb4.1/5, Error ellipse: s-maj=19.3km s-min=14.6km az=168.0*

ISC 21 06:07:14.8±3.1,**20°.9S**±0°.1×**178°.2W**±0°.2,**h490**^{km}±34^{km}, **n21**,σ**0^{s}.78**/16,**mb3.8**/12,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	14.37	263	eP	P	06 10 20.2	+1.6
URZ	Urewera	17.74	192	P	P	06 10 51.3	-1.9
	0.4nm,0.3s,baz=331,slow=10,SNR=3.1						
URZ				S	S	06 13 52.7	+1.2
	0.2nm,0.3s,baz=284,slow=22,SNR=2.2						
EIDS	Eidsvold	28.58	255	P	P	06 12 30.4	-0.2
	1.8nm,0.6s,mb3.7						
ARMA	Armidale	28.74	245	eP	P	06 12 32.7	+0.9
	3.4nm,0.6s,mb4.0						
CTAO	Charters Tower	33.29	265	eP	P	06 13 11.1	0.0
	4.2nm,0.8s,mb3.9						
STKA	Stephens Creek	37.46	245	P	P	06 13 45.5	-0.3
	0.9nm,0.4s,mb3.6,baz=127,slow=10,SNR=8.9						
ASAR	Alice Springs	44.27	257	P	P	06 14 40.0	-0.3
	4.8nm,0.5s,mb4.2,baz=96,slow=8.0,SNR=65						
ASAR				PcP	PcP	06 16 14.9	+0.6
	0.6nm,0.8s,baz=100,slow=5.5,SNR=4.2						
WB2	Warramunga Arr	44.38	263	eP	P	06 14 40.7	-0.5
WRAB	Tennant Creek	44.38	263	eP	P	06 14 40.5	-0.6
	3.6nm,0.8s,mb3.9						
WRA	Warramunga Arr	44.39	263	P	P	06 14 40.5	-0.8
	1.6nm,0.3s,mb3.9,baz=96,slow=7.6,SNR=25						
KAKA	Kakadu	47.83	272	eP	P	06 15 07.4	-0.2
	15nm,0.4s,mb4.7						
PETK	Petropavlovsk-	76.65	345	P	P	06 18 14.9	+0.7
	2.6nm,0.6s,mb3.9,baz=143,slow=4.7,SNR=6.6						
NVAR	Mina Array Bea	81.45	43	P	P	06 18 40.2	+0.1
	0.6nm,0.6s,mb3.3,baz=228,slow=11,SNR=5.1						
TXAR	Lajitas Array	87.42	57	P	P	06 19 10.1	+0.4
	0.5nm,0.8s,mb3.3,baz=210,slow=6.5,SNR=6.4						
PDAR	Pinedale Array	89.38	43	P	P	06 19 18.4	-0.1
	0.6nm,0.7s,mb3.5,baz=225,slow=3.5,SNR=5.7						
ARCES	ARCESS Array B	129.32	349	PKP	PKPdf	06 25 25.2	-1.1
	3.1nm,0.9s,baz=333,slow=1.4,SNR=7.5						
AKASG	Malin Array Be	143.31	331	PKP	PKPdf	06 25 49.9	-2.7
	2.1nm,0.4s,baz=42,slow=3.9,SNR=13						
BRTR	Keskin Array B	147.01	312	PKPbc	PKPbc	06 26 01.6	-0.6
	0.8nm,0.6s,baz=136,slow=4.8,SNR=4.9						
CLL	Collm	148.45	347	ePKPbc	PKPbc	06 26 05.0	-0.5
GERES	GERESS Array B	150.57	344	PKPbc	PKPbc	06 26 10.1	-0.5
	0.6nm,0.4s,baz=8.7,slow=1.8,SNR=6.8						
TORD	Torodi Ar. Bea	172.26	179	PKPab	PKPab	06 27 53.8	-1.0
	0.4nm,0.7s,baz=178,slow=4.5,SNR=2.8						

IDC ***21*** *06:37:26.0±2.8,6°.04S×133°.70E,h0^{km},mb3.5/1, mb1 3.8/4,mb1mx3.6/15,mbtmp3.6/4,ML3.4/3,Error ellipse: s-maj=106.4km s-min=27.1km az=83.0*

ISCJB ***21*** *06:37:32.2±2.6,6°.2S±0°.1×133°.5E±0°.1,h65^{km}±28^{km}, mb3.9/2,Error ellipse: s-maj=22.2km s-min=15.6km az=25.2*

NEIC ***21*** *06:37:36.7±2.9,6°.32S×133°.52E,h91^{km}±29^{km},mb4.5/1, Error ellipse: s-maj=26.6km s-min=20.6km az=164.0*

ISC 21 06:37:34.9±2.6,**6°.2S**±0°.1×**133°.5E**±0°.1,**h75**^{km}±29^{km},**n8**, σ**1^{s}.02**/11,**mb3.9**/2,**Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.56	189	ePn	Pn	06 39 09.9	+1.2
KAKA				eSn	Sn	06 40 30.2	+8.1
COEN	Coen	12.24	130	ePn	Pn	06 40 26.5	+0.1
WRAB	Tennant Creek	13.68	177	ePn	Pn	06 40 44.7	-0.9
WRA	Warramunga Arr	13.69	177	Pn	Pn	06 40 43.0	-2.6
	0.1nm,0.3s,baz=4.7,slow=12,SNR=4.9						
WRA				Sn	Sn	06 43 17.3	+1.2
	0.0nm,0.3s,baz=358,slow=25,SNR=3.5						
FITZ	Fitzroy Crossi	14.11	212	Pn	Pn	06 40 50.3	-0.9
	0.2nm,0.3s,baz=63,slow=13,SNR=5.1						
FITZ				Sn	Sn	06 43 26.5	+0.2
	0.2nm,0.3s,baz=312,slow=15,SNR=3.6						
ASAR	Alice Springs	17.37	179	P	Pn	06 41 32.9	+0.4
	0.2nm,0.3s,baz=360,slow=11,SNR=14						
FORT	Forrest	24.98	191	eP	P	06 42 51.0	-0.6
	17nm,0.9s,mb4.5						
MKAR	Makanchi Array	69.52	325	P	P	06 48 36.5	+1.0
	0.4nm,0.9s,mb3.2,baz=121,slow=6.9,SNR=3.5						

ATH ***21*** *06:47:56.4,37°.76N×21°.98E,h4^{km},MD3.0/3*

CSEM ***21*** *06:47:57.9±0.2,37°.68N×22°.03E,h5^{km},ML2.8/2,Error ellipse: s-maj=5.1km s-min=3.5km az=93.0*

ISCJB ***21*** *06:47:58.3±0.5,37°.68N±0°.02×22°.00E±0°.05,h10^{km},Error ellipse: s-maj=5.4km s-min=3.3km az=8.9*

THE ***21*** *06:47:58.0,37°.69N×22°.02E,h0^{km}±2^{km},ML2.8/2,Error ellipse: s-maj=2.9km s-min=0.9km az=193.0*

ISC 21 06:47:58.4±0.5,**37°.68N**±0°.02×**22°.02E**±0°.04,**h7**^{km}±7^{km}, **n24**,σ**1^{s}.07**/42,**Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.51	188	ePG	Pg	06 48 07.5	-0.7
ITM				eSG	Sg	06 48 15.6	+0.8
ITM	Ithomi	0.51	188	ePg	Pg	06 48 07.5	-0.7
ITM				eSg	Sg	06 48 15.6	+0.8
LAKA	Lakka	0.56	357	P	Pg	06 48 07.7	-1.5
LAKA				S	Sg	06 48 16.2	-0.3
LAKA	Lakka	0.56	357	P	Pg	06 48 07.7	-1.5
LAKA				S	Sg	06 48 16.2	-0.3
TRIZ	Trizonia	0.68	4	P	Pg	06 48 10.0	-1.6
TRIZ				S	Sg	06 48 21.0	+0.5
TRIZ	Trizonia	0.68	4	P	Pg	06 48 10.0	-1.6
TRIZ				S	Sg	06 48 21.0	+0.5
PYL	PYLOS	0.82	196	P	Pg	06 48 13.4	-0.7
PYL				S	Sg	06 48 25.4	+0.7
PYL	PYLOS	0.82	196	P	Pg	06 48 13.4	-0.7
PYL				S	Sg	06 48 25.4	+0.7
LTK	Loutraki	0.82	65	P	Pg	06 48 13.7	-0.6
LTK				S	Sg	06 48 25.4	+0.4
LTK	Loutraki	0.82	65	P	Pg	06 48 13.7	-0.6
LTK				S	Sg	06 48 25.4	+0.4
DID	Didima	0.98	100	P	Pg	06 48 16.0	-1.3
DID				S	Sg	06 48 31.8	+1.7
DID	Didima	0.98	100	P	Pg	06 48 16.0	-1.3
DID				S	Sg	06 48 31.8	+1.7
VLI	Veliai	1.21	142	ePG	Pn	06 48 20.6	-1.1
VLI	Veliai	1.21	142	ePg	Pn	06 48 20.6	-1.1
VLS	Valsamata	1.23	294	P	Pg	06 48 22.0	-0.1
VLS				S	Sg	06 48 39.9	+1.8
VLS	Valsamata	1.23	294	P	Pg	06 48 22.0	-0.1
VLS				S	Sg	06 48 39.9	+1.8
LKR	Lokris	1.24	38	P	Pb	06 48 21.5	-0.6
LKR				S	Sg	06 48 39.7	+1.4
LKR	Lokris	1.24	38	P	Pb	06 48 21.5	-0.6
LKR				S	Sg	06 48 39.7	+1.4
AGG	Agios Georgios	1.36	10	P	Pn	06 48 23.2	-0.6
AGG				S	Sb	06 48 43.5	+1.7
AGG	Agios Georgios	1.36	10	P	Pn	06 48 23.2	-0.6
AGG				S	Sb	06 48 43.5	+1.7
KYTH	Kithira	1.62	149	ePB	Pn	06 48 28.6	+1.3
KYTH	Kithira	1.62	149	ePb	Pn	06 48 28.6	+1.3
XOR	Xorichti	1.92	28	P	Pn	06 48 30.7	-0.7
XOR	Xorichti	1.92	28	P	Pn	06 48 30.7	-0.7

NIED ***21*** *06:53:00,43°.00N×145°.90E,h113^{km},Mw3.8 Best double couple: M$_0$5.80000×10^{14} NP1:φ$_s$231.00000°, δ78.00000°,λ-118.00000°. NP2:φ$_s$119.00000°, δ30.00000°,λ-25.00000°.*

ISCJB ***21*** *06:53:02.2±0.9,43°.07N±0°.06×145°.93E±0°.09,h81^{km}±5^{km}, mb4.0/11,Error ellipse: s-maj=12.2km s-min=7.6km az=41.0*

JMA ***21*** *06:53:03.0±0.1,43°.02N×145°.91E,h72^{km}±1^{km},M4.2*

JMA Felt I J1.

NEIC ***21*** *06:53:03.1,43°.02N×145°.91E,h72^{km},MG4.2(JMA),After JMA.*

NEIC Recorded [1 JMA] in eastern Hokkaido.

MOS ***21*** *06:53:03.4±1.1,43°.11N×145°.85E,h92^{km},mb4.1/1,Error ellipse: s-maj=21.0km s-min=13.7km az=119.7*

IDC ***21*** *06:53:10.1±2.6,43°.75N×145°.57E,h97^{km}±26^{km},mb3.7/9, mb1 3.8/11,mb1mx3.5/27,mbtmp3.7/11,Error ellipse: s-maj=46.4km s-min=21.6km az=167.0*

ISC 21 06:53:03.2±0.9,**43°.04N**±0°.06×**145°.92E**±0°.09,**h74**^{km}±5^{km}, **n28**,σ**0^{s}.73**/38,**mb4.0**/11,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.35	338	P	Pn	06 53 15.0	-0.2
NEM2				eS	Sn	06 53 23.6	-0.3
JAK	Akkeshi	0.90	268	P	Pn	06 53 20.4	-0.3
JAK				eS	Sn	06 53 33.4	-0.2
JNK	Nakash	1.03	302	P	Pn	06 53 21.9	-0.4
JNK				eS	Sn	06 53 35.5	-1.0
JRA	Rausu	1.07	327	P	Pn	06 53 22.8	+0.1
JRA				eS	Sn	06 53 37.6	+0.3
JOB	Onbets	1.54	266	P	Pn	06 53 28.7	-0.1
JOB				eS	Sn	06 53 48.0	-0.1
JAR	Ashorobuto	1.59	280	P	Pn	06 53 29.7	+0.2
JAR				eS	Sn	06 53 49.6	+0.2
JTKR	Abashiri--Toko	1.73	303	P	Pn	06 53 31.9	+0.5
JTKR				eS	Sn	06 53 54.0	+1.3
JCH	Churui	1.93	258	P	Pn	06 53 33.5	-0.5
JCH				eS	Sn	06 53 56.4	-1.0
ERM	Erimo	2.29	244	ePn	Pn	06 53 39.4	+0.7
ERM				eSn	Sn	06 54 06.6	+0.7
ASAJ	Asahikawa	2.64	295	PN	Pn	06 53 45.1	+1.5
ASAJ				pmax	pmax		
	comp=Z,16nm,0.3s						
ASAJ	Asahikawa	2.64	295	P	Pn	06 53 45.1	+1.5
	comp=Z,16nm,0.3s,baz=108,slow=11,SNR=60						
YSS	Yuzh-Sakhalins	4.51	331	ePN	Pn	06 54 09.0	0.0
YSS				eS	Sn	06 54 59.8	-0.3
MJAR	Matsushiro Arr	8.79	225	P	Pn	06 55 18.9	+11
	comp=Z,0.5nm,0.3s,baz=31,slow=13,SNR=3.9						
SONM	Songino Array	27.93	294	P	P	06 58 46.4	+0.2
	comp=Z,3.2nm,0.6s,mb4.1,baz=84,slow=8.4,SNR=27						
ZAK	Zakamensk	29.81	299	eP	P	06 59 02.8	0.0
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.8						
ZALV	Zalesovo Beam	40.72	307	P	P	07 00 36.1	-0.1
	comp=Z,0.6nm,0.3s,mb3.9,baz=90,slow=10,SNR=7.1						
KURK	Kurchatov	45.19	304	P	P	07 01 11.9	-0.5
	comp=Z,3.9nm,0.5s,mb4.4,baz=72,slow=8.1,SNR=5.2						
INK	Inuvik	47.47	30	P	P	07 01 29.9	-0.2
	comp=Z,0.6nm,0.6s,mb3.5,baz=52,slow=2.3,SNR=5.9						
BVAR	Borovoye Array	49.26	309	P	P	07 01 43.7	-0.3
	comp=Z,1.3nm,0.5s,mb4.2,baz=71,slow=9.0,SNR=5.5						
RES	Resolute Bay	55.90	16	P	P	07 02 32.3	-0.4
	comp=Z,3.6nm,0.7s,mb4.5,baz=321,slow=6.4,SNR=22						
YKA	Yellowknife Ar	56.89	33	P	P	07 02 42.0	+2.2
	comp=Z,0.2nm,0.5s,mb3.4,baz=302,slow=6.6,SNR=7.3						
YKA	Yellowknife Ar	56.89	33	P	P	07 02 42.0	+2.2
JOF	Joensuu	62.30	332	eP	P	07 03 14.6	-2.4
JOF	Joensuu	62.30	332	ep	P	07 03 14.6	-2.4
	comp=Z,2.7nm,0.4s,mb4.6						
NB2	NORSAR Subarra	69.94	338	P	P	07 04 06.0	0.0
	comp=Z,1.5nm,0.5s,mb4.1,baz=32,slow=6.5						
NOA	NORSAR Array B	69.94	338	P	P	07 04 06.3	+0.4
	comp=Z,1.9nm,0.6s,mb4.1,baz=33,slow=6.3,SNR=6.2						
NOA	NORSAR Array B	69.94	338	P	P	07 04 06.3	+0.3
AKASG	Malin Array Be	71.62	323	P	P	07 04 16.4	0.0
	comp=Z,0.6nm,0.4s,mb3.8,baz=39,slow=6.2,SNR=3.9						

IDC ***21*** *06:57:16.5±0.8,39°.41N×77°.44E,h0^{km},mb4.0/11, mb1 4.1/16,mb1mx4.0/29,mbtmp3.9/16,ML3.4/5,MS3.1/1, Ms1 3.1/1,ms1mx2.4/28,Error ellipse: s-maj=16.3km s-min=14.3km az=71.0*

MOS ***21*** *06:57:20.5±1.3,39°.48N×77°.50E,h33^{km},mb4.2/4,Error ellipse: s-maj=12.3km s-min=6.7km az=96.1*

NNC ***21*** *06:57:20.9±2.0,39°.54N×77°.24E,h0^{km},mb4.3,mpv4.1, Error ellipse: s-maj=17.9km s-min=16.1km az=155.0*

ISCJB ***21*** *06:57:20.1±0.6,39°.31N±0°.03×77°.61E±0°.07,h39^{km}±6^{km}, mb4.0/17,Error ellipse: s-maj=9.1km s-min=4.9km az=177.2*

BJI ***21*** *06:57:21.5,39°.53N×77°.75E,h22^{km},mB4.5/3,mb4.1/6, ML4.0/9,Ms3.6/2,Ms7 3.5/2*

NEIC ***21*** *06:57:23.4±1.2,39°.50N×77°.48E,h49^{km}±10^{km},mb3.9/2, Error ellipse: s-maj=13.6km s-min=9.4km az=155.0*

ISC 21 06:57:22.5±0.4,**39°.36N**±0°.03×**77°.60E**±0°.06,**h42**^{km}±6^{km}, **n69**,σ**1^{s}.10**/78,**mb4.0**/17,**8C-7D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	1.27	278	Pg	Pn	06 57 46.3	+2.6
KSH				Sg	Sn	06 58 05.3	+5.8
KSH				smax			
	comp=N,10µm,0.4s						
KSH				smax			
	comp=E,4µm,0.3s						
ULHL	Ulahol	3.06	341	P	Pn	06 58 08.7	+0.4
	SNR=14						
KZA	Kyzart	3.25	327	P	Pn	06 58 11.2	+0.3
	SNR=26						
UCH	Uchtor	3.70	322	P	Pn	06 58 17.1	0.0
	SNR=93						
UCH	Uchtor	3.70	322	ePg	Pn	06 58 17.1	0.0
UCH				eSg		06 58 23.5	
KBK	Karagaybulak	3.86	330	P	Pn	06 58 20.1	+0.9
	SNR=17						
TKM2	Tokmak 2	3.87	338	⇑Pn	Pn	06 58 19.2	-0.2
	comp=E,29nm,0.3s						
TKM2				⇓Lg		06 59 14.7	
	comp=E,124nm,0.7s						
TKM2	Tokmak 2	3.87	338	P	Pn	06 58 19.7	+0.3
	SNR=42						
TKM2	Tokmak 2	3.87	338	ePg	Pn	06 58 19.9	+0.5
KNDC	Almaty	3.89	353	⇑Pn	Pn	06 58 20.4	+0.8
	comp=E,244nm,0.7s						
KNDC				⇓Lg		06 59 18.0	
	comp=E,751nm,0.8s						
AAK	Ala-Archa	4.03	325	Pn	Pn	06 58 21.8	+0.3
	comp=E,0.1nm,0.3s,baz=126,slow=6.9,SNR=42						
AAK				Lg		06 59 20.3	
	comp=E,0.5nm,0.3s,baz=351,slow=20,SNR=10						
AML	Almayashu	4.06	314	P	Pn	06 58 21.7	-0.3
	SNR=57						
AML	Almayashu	4.06	314	ePn	Pn	06 58 21.4	-0.6
FRU	Bishkek	4.14	328	ePN	Pn	06 58 24.0	+0.9
FRU				i		06 58 32.0	
FRU				i S	Sn	06 59 24.0	+14
FRU				pmax	pmax		
	comp=Z,200nm,1.6s						
FRU				smax			
	comp=N,800nm,1.6s						
CHMS	Chumysh	4.23	330	P	Pn	06 58 24.5	+0.2
	SNR=7.1						
EKS2	Erkin-Say	4.39	320	P	Pn	06 58 27.0	+0.5
	SNR=32						
EKS2	Erkin-Say	4.39	320	ePn	Pn	06 58 27.0	+0.5
USP	Ospenovka	4.55	330	P	Pn	06 58 40.6	+12
	SNR=7.4						
KK31	Karatay Array	6.52	307	Pn	Pn	06 58 53.0	-2.8
	comp=N,4.0nm,0.5s,baz=123,slow=12,SNR=19						
KK31				Pg	Pn	06 59 12.2	+16
	comp=N,6.8nm,0.5s,baz=121,slow=15,SNR=32						
KK31				⇓Lg		07 00 34.4	
	comp=N,16nm,0.5s,baz=123,slow=28,SNR=4.3						
THN	Thein Dam	7.07	193	ePKP	Pn	06 59 04.2	+0.8
THN				ex	x	07 00 26.0	
CEP	Cherat	7.17	221	P	Pn	06 59 06.2	+1.5
KLP	Kalpa	7.82	176	ePKP	Pn	06 59 15.1	+1.4
KLP				eS	Sn	07 00 39.1	-1.8
KLP				AML	AML	07 00 50.3	
	comp=N,128nm,0.5s						
KLP				AML	AML	07 00 51.9	
	comp=E,132nm,0.6s						
MK31	Makanchi Array	8.19	23	Pn	Pn	06 59 17.8	-0.8
	comp=E,4.1nm,0.8s,baz=208,slow=13,SNR=42						
MK31				Pg	Pn	06 59 47.3	+29
	comp=E,5.4nm,0.7s,baz=205,slow=14,SNR=3.7						
MK31				⇓Lg		07 01 40.8	
	comp=E,18nm,0.9s						
MK31	Makanchi Array	8.19	23	eP	Pn	06 59 17.7	-0.9
MK31				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MK31				pmax	pmax		
	comp=N,12nm,0.7s						
MK31	Makanchi Array	8.19	23	ePn	Pn	06 59 17.9	-0.7
MKAR	Makanchi Array	8.19	23	Pn	Pn	06 59 17.9	-0.7
	comp=N,0.6nm,0.3s,baz=203,slow=13,SNR=41						
MKAR				Lg		07 01 38.1	
	comp=N,1.5nm,0.3s,baz=192,slow=23,SNR=3.7						
KBL	Kabul	8.36	238	eP	Pn	06 59 21.4	+0.3
KBL				e		07 00 50.3	
KBL				pmax	pmax		
	comp=Z,10.0nm,0.4s						
KBL	Kabul	8.36	238	ePn	Pn	06 59 21.4	+0.3
	comp=Z,9.7nm,0.4s						
KBL				eSn	Sn	07 00 50.3	-3.9
WMQ	Urumqi	8.78	56	eP	Pn	06 59 26.0	-0.8
WMQ				S	Sn	07 01 00.0	-4.4
WMQ				smax			
	comp=N,74nm,1.2s						
WMQ				smax			
	comp=E,110nm,1.3s						
DDI	Dehra Dun	9.02	177	ePKP	Pn	06 59 30.1	0.0
DDI				ex	x	07 01 12.1	
NDI	New Delhi	10.65	182	ePKP	Pn	06 59 52.0	-0.4
NDI				ex	x	07 01 38.0	
SONA	Sohna	11.09	182	ePKP	Pn	06 59 57.5	-0.9
SONA				eS	Sn	07 01 51.1	-10
SONA				AML	AML	07 02 03.0	
	comp=E,28nm,0.3s						
SONA				AML	AML	07 02 05.2	
	comp=N,20nm,0.3s						
KURBB	Kurchatov Arra	11.29	3	⇑Pn	Pn	06 59 58.7	-2.3
	comp=N,0.5nm,0.8s						
KURBB				⇓Lg		07 03 14.4	
	comp=N,9.5nm,0.8s						
KHET	Khetri	11.35	188	ePKP	Pn	07 00 00.6	-1.4

KHET				eS	Sn	07 01 58.5	-9.0
KHET				AML	AML	07 02 13.3	
	comp=E,19nm,0.3s						
KURK	Kurchatov	11.38	3	Pn	Pn	06 59 55.5	-6.8
	comp=E,0.2nm,0.3s,baz=190,slow=12,SNR=6.0						
KURK				Lg		07 03 11.0	
	comp=E,0.3nm,0.3s,baz=213,slow=30,SNR=8.0						
VOSK	Vostochnaya	14.13	343	⇑Pn	Pn	07 00 39.6	-0.1
	comp=E,3.9nm,1.0s						
VOSK				⇑Lg		07 04 39.0	
	comp=E,20nm,1.3s						
BVAR	Borovoye Array	14.54	342	Pn	Pn	07 00 41.6	-3.8
	comp=E,0.3nm,0.3s,baz=172,slow=12,SNR=6.7						
BVAR				Lg		07 04 50.9	
	comp=E,0.2nm,0.3s,baz=149,slow=24,SNR=6.0						
BRVK	Borovoye	14.60	342	⇑Pn	Pn	07 00 47.3	+1.2
	comp=E,12nm,0.9s						
BRVK				⇓Lg		07 04 55.6	
	comp=E,24nm,1.0s						
BRVK	Borovoye	14.60	342	eP	Pn	07 00 42.1	-4.0
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.0s						
BRVK	Borovoye	14.60	342	ePn	Pn	07 00 42.1	-4.0
	comp=Z,10nm,1.0s						
ZALV	Zalesovo Beam	15.40	16	Pn	Pn	07 00 54.2	-2.4
	comp=Z,0.1nm,0.3s,baz=225,slow=14,SNR=2.9						
ZALV				Lg		07 05 24.2	
	comp=Z,0.1nm,0.3s,baz=186,slow=22,SNR=2.4						
ZALV				LR	LR	07 07 08.3	
	comp=Z,73nm,18.5s,baz=278,slow=38						
ZALV	Zalesovo Beam	15.40	16	Pn	Pn	07 00 54.2	-2.4
ZALV				Lg		07 05 24.2	
ZALV				LR	LR	07 07 08.3	
NVS	Novosibirsk	15.95	12	eP	Pn	07 01 02.1	-1.6
NVS				pmax	pmax		
	comp=Z,11nm,0.9s						
NVS				pmax	pmax		
	comp=N,8.0nm,0.9s						
GTA	Gaotai	17.18	83	eP	Pn	07 01 23.8	+4.6
GTA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ZAK	Zakamensk	21.17	50	eP	P	07 02 05.6	+1.7
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.6						
SONM	Songino Array	22.41	58	P	P	07 02 18.6	+1.4
	comp=Z,2.7nm,0.7s,mb3.8,baz=254,slow=10,SNR=23						
ULN	Ulaanbaatar	22.85	59	eP	P	07 02 23.1	+1.2
ULN				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.7						
ULN	Ulaanbaatar	22.85	59	eP	P	07 02 23.1	+1.3
	comp=Z,2.5nm,0.9s,mb3.6						
OBN	Obninsk	31.46	314	eP	P	07 03 40.9	+1.2
OBN				e		07 04 41.8	
OBN				eSS	SS	07 10 32.6	-28
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
BRTR	Keskin Array B	33.65	285	P	P	07 03 58.5	-0.5
	comp=Z,0.8nm,0.6s,mb3.8,baz=98,slow=8.9,SNR=4.8						
FINES	FINESS Array B	38.22	323	eP	P	07 04 36.0	-1.8
ARCES	ARCESS Array B	40.65	335	P	P	07 04 57.4	-0.6
	comp=Z,5.0nm,0.7s,mb4.3,baz=105,slow=9.3,SNR=15						
TIXI	Tiksi	41.17	22	⇑eP	P	07 05 02.3	0.0
TIXI				pmax	pmax		
	comp=Z,12nm,1.9s,mb4.2						
TIXI	Tiksi	41.17	22	eP	P	07 05 02.7	+0.4
	comp=Z,2.3nm,0.5s,mb4.1						
NB2	NORSAR Subarra	45.34	321	P	P	07 05 35.1	-0.9
	comp=Z,1.4nm,0.5s,mb4.0,baz=88,slow=7.9						
NOA	NORSAR Array B	45.34	321	P	P	07 05 34.6	-1.4
	comp=Z,1.0nm,0.5s,mb3.9,baz=89,slow=7.6,SNR=4.3						
GERES	GERESS Array B	45.61	304	P	P	07 05 37.9	-0.5
	comp=Z,1.5nm,0.6s,mb4.1,baz=66,slow=7.5,SNR=11						
KONO	Kongsberg	46.25	319	⇑eP	P	07 05 43.6	+0.4
BILL	Bilibino	53.70	28	⇓iP	P	07 06 41.2	+1.6
BILL				eS	S	07 14 10.1	-0.2
BILL				pmax	pmax		
	comp=Z,7.0nm,1.6s,mb4.3						
ESDC	Sonseca Array	60.70	299	P	P	07 07 28.5	-0.9
	comp=Z,0.8nm,0.4s,mb4.2,baz=50,slow=8.3,SNR=4.8						
INK	Inuvik	70.15	12	P	P	07 08 29.8	-0.3
	comp=Z,0.8nm,0.6s,mb3.8,baz=343,slow=11,SNR=7.8						
TORD	Torodi Ar. Bea	70.93	272	P	P	07 08 34.4	-1.2
	comp=Z,1.3nm,0.7s,mb4.0,baz=57,slow=5.5,SNR=7.0						
TORD	Torodi Ar. Bea	70.93	272	P	P	07 08 34.4	-1.2
KDAK	Kodiak Island	74.50	25	P	P	07 08 57.2	+1.1
	comp=Z,18nm,1.0s,mb5.0,baz=284,slow=4.2,SNR=2.6						
KDAK	Kodiak Island	74.50	25	P	P	07 08 57.2	+1.0
YKA	Yellowknife Ar	78.02	6	P	P	07 09 15.7	-0.4
	comp=Z,1.0nm,0.7s,mb3.9,baz=345,slow=5.5,SNR=29						
YKA	Yellowknife Ar	78.02	6	P	P	07 09 15.7	-0.4
WRA	Warramunga Arr	79.29	127	P	P	07 09 24.7	+1.1
	comp=Z,0.6nm,0.7s,mb3.6,baz=328,slow=6.7,SNR=3.0						
ASAR	Alice Springs	81.82	130	P	P	07 09 37.9	+0.8
	comp=Z,0.6nm,0.5s,mb3.8,baz=316,slow=5.6,SNR=4.2						

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*IDC **21** 06:57:14.6±3.4, 28.°31N×83.°68E, h0^{km}, mb3.5/3, mb1 3.9/4, mb1mx3.6/23, mbtmp3.6/4, ML4.3/1, Error ellipse: s-maj=172.8km s-min=40.5km az=60.0*

*ISCJB **21** 06:57:38.4±0.8, 25.°57N±0.°06×87.°64E±0.°06, h10^{km}, mb3.6/2, Error ellipse: s-maj=10.3km s-min=5.3km az=33.6*

*DMN **21** 06:57:38.2±0.5, 25.°48N×87.°87E, h10^{km}, Ml4.8/5, Error ellipse: s-maj=10.0km s-min=8.9km az=132.0*

ISC 21 06:57:40.0±0.8, **25.°61N**±0.°06×**87.°64E**±0.°05, **h10**^{km}**, n17,** σ**0.^{s}70**/27, **mb3.6**/2, **Northern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ODAN	Odare	1.27	350	ePn	Pn	06 58 03.4	-0.4
ODAN				eSn	Sn	06 58 20.4	-0.4
	834nm,0.4s						
RAMN	Ramite	1.63	325	ePn	Pn	06 58 09.4	+0.6
RAMN				eSn	Sn	06 58 29.3	-0.5
	2µm,0.2s						
TAPN	Taplejung	1.74	2	ePg	Pg	06 58 12.2	-1.1
TAPN				eSn	Sn	06 58 32.2	-0.2
JIRN	Jiri	2.42	328	ePn	Pn	06 58 20.2	+0.6
JIRN				eSn	Sn	06 58 50.0	+0.6
GUN	Gumba	2.78	326	ePn	Pn	06 58 25.1	+0.5
GUN				eSn	Sn	06 58 58.5	+0.2
PKI	Pulchoki	2.80	315	ePn	Pn	06 58 24.8	0.0
PKI				eSn	Sn	06 58 59.0	+0.4
	868nm,0.4s						
PKIN	Phulchoki	2.81	315	ePn	Pn	06 58 24.9	-0.1
PKIN				eSn	Sn	06 58 59.8	+0.9
DMN	Daman	3.02	312	ePn	Pn	06 58 28.0	+0.1
DMN				eSn	Sn	06 59 05.2	+1.1
	953nm,0.6s						
KKN	Kakani	3.03	316	ePn	Pn	06 58 28.0	0.0
KKN				eSn	Sn	06 59 04.4	0.0
GKN	Gorkha	3.59	312	ePn	Pn	06 58 35.2	-0.5
GKN				eSn	Sn	06 59 18.2	0.0
	650nm,0.4s						
AGT	Agartala	3.70	117	ex	Pg	06 58 50.0	-0.9
AGT				ex	x	06 59 27.0	
SHL	Shillong	3.83	90	ex	Pg	06 58 55.0	+1.6
SHL				ex	x	06 59 43.0	
KOLN	Koldanda	4.21	302	ePn	Pn	06 58 43.0	-1.2
DANN	Dangsing	4.41	309	ePn	Pn	06 58 46.4	-0.6
DANN				eSn	Sn	06 59 37.6	-0.8
CMAR	Chiang Mai Arr	12.66	122	P	Px	07 01 15.4	
	0.4nm,0.3s,baz=300,slow=14,SNR=5.1						
WRA	Warramunga Arr	64.10	130	P	P	07 08 18.7	+4.1
	0.4nm,0.7s,mb3.6,baz=325,slow=6.3,SNR=3.9						
ASAR	Alice Springs	66.37	134	P	P	07 08 33.6	+4.4
	0.3nm,0.5s,mb3.6,baz=303,slow=5.4,SNR=4.7						

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*ISCJB **21** 07:01:52.0±0.7, 33.°32N±0.°03×35.°40E±0.°04, h3^{km}±8^{km}, Error ellipse: s-maj=6.4km s-min=4.4km az=29.2*

*GII **21** 07:01:51.9±0.6, 33.°24N×35.°44E, h1^{km}, Md2.1/4*

*CSEM **21** 07:01:52.1±0.2, 33.°33N×35.°40E, h5^{km}, ML2.8, Error ellipse: s-maj=3.7km s-min=2.3km az=116.0*

*GRAL **21** 07:01:52.6±0.3, 33.°31N×35.°41E, h4^{km}±15^{km}, MD2.8*

ISC 21 07:01:52.4±0.7, **33.°34N**±0.°03×**35.°40E**±0.°04, **h4**^{km}±8^{km}, **n24,** σ**0.^{s}57**/42, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	339	eP	Pg	07 01 56.1	+0.5
MATL	Matirih	0.16	339	eP	Pg	07 01 56.1	+0.5
KSDI	Kefar Szold	0.26	123	Pg	Pg	07 01 56.8	-0.6
KSDI				Sg	Sg	07 02 01.2	+0.4
KSDI	Kefar Szold	0.26	123	Pg	Pg	07 01 56.8	-0.6
KSDI				Sg	Sg	07 02 01.2	+0.4
HNTI	Hanita	0.32	217	Pg	Pg	07 01 58.6	+0.1
HNTI				Sg	Sg	07 02 03.9	+1.3
HNTI	Hanita	0.32	217	Pg	Pg	07 01 58.6	+0.1
HNTI				Sg	Sg	07 02 03.9	+1.3
MMA0	Mount Meron ar	0.32	180	Pg	Pg	07 01 57.9	-0.6
MMA0				Sg	Sg	07 02 03.1	+0.4
MMA0	Mount Meron ar	0.32	180	Pg	Pg	07 01 57.9	-0.6
MMA0				Sg	Sg	07 02 03.1	+0.4
RCY	Rachaya	0.38	67	eP	Pg	07 01 59.9	+0.1
RCY				eS	Sg	07 02 05.1	+0.4
RCY	Rachaya	0.38	67	eP	Pg	07 01 59.9	+0.2
RCY				eS	Sg	07 02 05.1	+0.4
KSHT	Keshet	0.49	136	Pg	Pg	07 02 02.1	+0.2
KSHT				Sg	Sg	07 02 08.8	+0.5
KSHT	Keshet	0.49	136	Pg	Pg	07 02 02.1	+0.2
KSHT				Sg	Sg	07 02 08.8	+0.5
BHL	Bhannes	0.60	20	eP	Pg	07 02 03.8	-0.2
BHL	Bhannes	0.60	20	eP	Pg	07 02 03.8	-0.2
OFRI	‘Ofer	0.79	206	Pg	Pg	07 02 07.4	-0.2
OFRI	‘Ofer	0.79	206	Pg	Pg	07 02 07.4	-0.2
MMLI	Mount Malkishu	0.90	179	Pg	Pg	07 02 08.7	-0.9
MMLI				Sg	Sg	07 02 21.0	-0.2
MMLI	Mount Malkishu	0.90	179	Pg	Pg	07 02 08.7	-0.9
MMLI				Sg	Sg	07 02 21.0	-0.2
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	07 02 12.2	-1.0
HMDT				Sg	Sg	07 02 27.1	-0.1
HMDT	Nahal Hemdat	1.08	174	Pg	Pg	07 02 12.2	-1.0
HMDT				Sg	Sg	07 02 27.1	-0.1
SLTI	Sal’it	1.13	196	Pg	Pg	07 02 13.4	-0.7
SLTI				Sg	Sg	07 02 29.1	+0.3
SLTI	Sal’it	1.13	196	Pg	Pg	07 02 13.4	-0.7
SLTI				Sg	Sg	07 02 29.1	+0.3
DSI	Dead Sea	1.76	181	Pn	Pn	07 02 23.1	-0.5
DSI				Sn	Sn	07 02 47.2	+0.8
DSI	Dead Sea	1.76	181	Pn	Pn	07 02 23.1	-0.5
DSI				Sn	Sn	07 02 47.2	+0.8

IDC 21 07:08:46.1±2.7, **17.°43S**×**177.°99W, h0**^{km}**, mb3.6**/4, **mb1 4.0**/4, **mb1mx3.7**/17, **mbtmp3.6**/4, **Error ellipse: s-maj=236.8km s-min=25.3km az=155.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	45.11	259	P	P	07 17 04.6	0.0
	0.2nm,0.5s,baz=93,slow=7.2,SNR=7.0						
ASAR	Alice Springs	45.31	254	P	P	07 17 05.9	-0.2
	1.7nm,0.5s,baz=89,slow=8.2,SNR=35						
NVAR	Mina Array Bea	78.80	44	P	P	07 20 51.2	+0.3
	0.2nm,0.4s,baz=224,slow=7.6,SNR=2.4						
TXAR	Lajitas Array	85.40	58	P	P	07 21 26.1	+0.3
	0.3nm,0.9s,baz=201,slow=6.3,SNR=3.8						

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*NEIC **21** 07:42:03.2±3.1, 23.°74N×122.°11E, h10^{km}, Error ellipse: s-maj=30.2km s-min=10.1km az=96.0*

*ISCJB **21** 07:42:06.2±0.3, 23.°80N±0.°02×121.°99E±0.°02, h27^{km}±2^{km}, Error ellipse: s-maj=3.3km s-min=2.2km az=138.4*

*TAP **21** 07:42:06.8, 23.°82N×121.°92E, h28^{km}, ML3.5, D*

*JMA **21** 07:42:07.2±0.3, 23.°90N×122.°01E, h74^{km}, M2.9*

ISC 21 07:42:06.4±0.4, **23.°80N**±0.°02×**121.°98E**±0.°02, **h24**^{km}±3^{km}, **n54,** σ**0.^{s}80**/108, **2D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HWA	Hwalien	0.38	297	i P	Pb	07 42 15.2	+0.6
	baz=298						
HWA				S	Sb	07 42 20.9	+0.7
	baz=298						
TWD	Chiawan	0.45	308	i P	Pb	07 42 16.0	+0.3
	baz=311						
TWD				i S	Sb	07 42 22.6	+0.7
	baz=311						
ESL	Shilin	0.50	271	i P	Pb	07 42 16.6	+0.1
	baz=268						
ESL				i S	Sb	07 42 23.8	+0.3
	baz=268						
NACB	Ninganchiao	0.51	316	ePg	Pb	07 42 16.5	-0.2
NACB				eSg	Sb	07 42 23.7	0.0
ENA	Nanau	0.66	341	P	Pb	07 42 19.4	+0.2
	baz=345						
ENA				S	Sb	07 42 28.7	+0.7
	baz=345						
EHY	Hungye	0.67	244	P	Pb	07 42 19.4	0.0
	baz=239						
EHY				S	Sb	07 42 29.3	+1.0
	baz=239						
WHF	Hehuan Shan	0.74	298	P	Pb	07 42 20.4	-0.1
	baz=298						
WHF				S	Sb	07 42 30.4	+0.2
	baz=298						
YULB	Yu-li	0.75	237	ePg	Pb	07 42 19.7	-1.0
YULB				eSg	Sb	07 42 30.4	-0.2
TWF1	Yuli	0.77	234	P	Pb	07 42 21.1	-0.1
	baz=230						
TWF1				S	Sb	07 42 31.6	+0.4
	baz=230						
TWC	Suao	0.81	352	P	Pb	07 42 22.0	+0.2
	baz=355						
TWC				S	Sb	07 42 33.0	+0.7
	baz=355						
NNS	Nan Shan	0.84	319	eP	Pb	07 42 22.0	-0.3
	baz=321						
NNS				eS	Sb	07 42 33.1	-0.1
	baz=321						
TWT	Tachien	0.86	301	eP	Pb	07 42 22.9	+0.3
	baz=301						
TWT				eS	Sb	07 42 33.9	+0.2
	baz=301						
CHKT	Chengkung	0.90	219	eP	Pb	07 42 22.3	-1.0
	baz=215						
CHKT				eS	Sb	07 42 33.0	-1.9
	baz=215						
ENTT	Nioudou	0.91	336	eP	Pb	07 42 23.4	-0.1
	baz=338						
ENTT				eS	Sb	07 42 34.9	-0.4
	baz=338						
SSLB	Suanglung	0.94	269	⇓iPg	Pb	07 42 23.2	-0.8
SSLB				eSg	Sb	07 42 35.6	-0.4
TWE	Neicheng	0.96	343	eP	Pn	07 42 24.2	-0.2
	baz=346						
TWE				eS	Sb	07 42 36.6	+0.1
	baz=346						
SMLT	Sun Moon Lake	0.99	275	eP	Pn	07 42 24.7	-0.1
	baz=273						
SMLT				eS	Sb	07 42 37.5	-0.1
	baz=273						
YUS	Yu-Shan	0.99	252	P	Pn	07 42 25.1	+0.2
	baz=249						
YUS				S	Sb	07 42 37.8	+0.2
	baz=249						
YHNB	Yeheng	1.02	328	ePg	Pn	07 42 24.8	-0.5
YHNB				eSg	Sb	07 42 36.2	-2.3
TYC	Yuchr	1.03	276	eP	Pn	07 42 25.1	-0.3
	baz=274						
TYC				eS	Sb	07 42 37.7	-1.0
	baz=274						
NSK	Sanguang	1.04	327	eP	Pn	07 42 25.4	0.0
	baz=329						
NSK				eS	Sb	07 42 38.0	-0.8
	baz=329						
ELDTW	Lidau	1.07	235	eP	Pn	07 42 25.1	-0.9
	baz=232						
ELDTW				eS	Sb	07 42 39.2	-0.7
	baz=232						
ALS	Alishan	1.12	255	eP	Pn	07 42 27.1	+0.6
	baz=252						
ALS				eS	Sn	07 42 41.0	-0.1
	baz=252						
YOJ	Yonaguni jima	1.15	55	P	Pn	07 42 27.0	0.0
YOJ				S	Sn	07 42 41.7	-0.2
WNT	Mingjian	1.19	274	eP	Pn	07 42 28.6	+1.1
	baz=272						
WNT				eS	Sn	07 42 44.4	+1.4
	baz=272						
NSTT	Nanjuang	1.22	313	eP	Pn	07 42 28.1	+0.2
	baz=313						
NSTT				eS	Sn	07 42 43.0	-0.6
	baz=313						
TWA	Mucha	1.23	343	eP	Pn	07 42 28.1	+0.1
	baz=345						
TWA				eS	Sn	07 42 43.7	-0.2
	baz=345						
TWQ1	Liyutan	1.23	296	eP	Pn	07 42 29.2	+1.1
	baz=296						
TWQ1				eS	Sn	07 42 44.3	+0.3
	baz=296						
TCU	Taichung	1.24	286	eP	Pn	07 42 27.6	-0.6
	baz=285						
TCU				eS	Sn	07 42 42.8	-1.4
	baz=285						
NSY	Sanyi	1.27	299	eP	Pn	07 42 28.1	-0.6
	baz=299						
NSY				eS	Sn	07 42 44.0	-1.0
	baz=299						
NWF	Wu-fen Shan	1.27	352	eP	Pn	07 42 29.0	+0.2
	baz=354						
NWF				eS	Sn	07 42 45.8	+0.7
	baz=354						
TWG	Pinlang	1.29	221	ePn	Pn	07 42 27.6	-1.2
TWG				eSn	Sn	07 42 43.6	-1.8
TWG	Pinlang	1.29	221	eP	Pn	07 42 27.6	-1.2
	baz=217						
TWG				eS	Sn	07 42 43.8	-1.6
	baz=217						
STYT	Tauyuan	1.29	241	eP	Pn	07 42 29.4	+0.5
	baz=238						
STYT				eS	Sn	07 42 45.7	+0.2
	baz=238						
WGK	Gukeng	1.30	265	eP	Pn	07 42 29.2	+0.1
	baz=263						
WGK				eS	Sn	07 42 45.6	-0.2
	baz=263						
TPUB	Ta-pu	1.34	248	⇓iPg	Pn	07 42 30.2	+0.7
TPUB				eSn	Sn	07 42 45.2	-1.4
TPUB				eSg	Sn	07 42 47.9	+1.3
CHN4	Tsaushan	1.35	251	eP	Pn	07 42 31.1	+1.4
	baz=249						
CHN4				eS	Sn	07 42 47.4	+0.5
	baz=249						
WTP	Ta-pu	1.37	246	eP	Pn	07 42 31.2	+1.1
	baz=244						
WTP				eS	Sn	07 42 47.1	-0.3
	baz=244						
TWS1	Kuangyinshan	1.39	338	eP	Pn	07 42 30.4	+0.1
	baz=340						
TWS1				eS	Sn	07 42 47.2	-0.7
	baz=340						
CHN1	Nanshi	1.47	245	eP	Pn	07 42 32.9	+1.5
	baz=243						
CHN1				eS	Sn	07 42 52.4	+2.5
	baz=243						
SGST	Jiashian	1.47	241	eP	Pn	07 42 31.4	0.0
	baz=238						
SGST				eS	Sn	07 42 49.9	-0.1
	baz=238						
TWK	Hsinying	1.47	249	eP	Pn	07 42 33.0	+1.6
	baz=246						
TWK				eS	Sn	07 42 49.5	-0.4
	baz=246						
ECL	Taimali	1.53	218	eP	Pn	07 42 32.5	+0.3
	baz=215						
ECL				eS	Sn	07 42 48.5	-2.8
	baz=215						
WTCT	Ta-ch’eng	1.56	273	eP	Pn	07 42 32.5	-0.1
	baz=271						
WTCT				eS	Sn	07 42 51.2	-0.9
	baz=271						
SSD	Sandimen	1.63	230	eP	Pn	07 42 36.0	+2.4
	baz=227						
SSD				eS	Sn	07 42 56.4	+2.6
	baz=227						
IRIF	Iriomote-Funau	1.69	71	P	Pn	07 42 34.5	+0.1
IRIF				S	Sn	07 42 54.6	-0.6
HATJ	Hateruma jima	1.69	81	P	Pn	07 42 34.4	0.0
HATJ				S	Sn	07 42 55.4	+0.1
TWM1	Shoushan	1.73	236	eP	Pn	07 42 35.4	+0.4
	baz=234						
TWM1				eS	Sn	07 42 55.8	-0.6
	baz=234						
LAY	Lan-yu	1.80	193	eP	Pn	07 42 35.1	-0.9
	baz=190						
SCZT	Fangliau	1.90	222	eP	Pn	07 42 38.1	+0.8
	baz=219						
SCZT				eS	Sn	07 43 00.8	+0.3
	baz=219						
JKRS	Kuro-shima	1.91	76	P	Pn	07 42 38.1	+0.7
JKRS				S	Sn	07 43 01.8	+1.1
JIJ	Ishigaki jima	2.05	74	P	Pn	07 42 39.2	-0.2
JIJ				S	Sn	07 43 03.0	-1.3
PNG	Penghu	2.23	264	eP	Pn	07 42 42.0	+0.1
	baz=263						
PNG				eS	Sn	07 43 08.2	-0.6
	baz=263						
JTJ	Tarama	2.62	71	P	Pn	07 42 47.3	0.0
JTJ				S	Sn	07 43 18.0	-0.3

MAN 21 07:47:10, 13.°75N×122.°45E, h10^{km}**, mb3.9, ML2.6, MS2.2, 1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GQP	Guinayangan	0.15	358	⇓eP	Pg	07 47 15.1	+1.6
GQP				i S	Sg	07 47 20.2	+4.4
AUQP	San Andres	0.48	153	eP	Pg	07 47 20.3	+0.9
AUQP				eS	Sg	07 47 28.1	+2.4
POLP	Polilio Island	1.09	333	eP	Pb	07 47 31.9	+0.9
POLP				eS	Sg	07 47 46.3	+1.1

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*NEIC **21** 07:54:29.3±4.9, 5.°64S×147.°41E, h63^{km}±32^{km}, mb4.3/2, Error ellipse: s-maj=42.5km s-min=24.8km az=217.0*

*ISCJB **21** 07:54:33.5±2.9, 6.°1S±0.°1×147.°3E±0.°2, h88^{km}±25^{km}, mb3.8/5, Error ellipse: s-maj=31.8km s-min=17.6km az=25.4*

*IDC **21** 07:54:40.4±3.4, 6.°02S×146.°98E, h136^{km}±33^{km}, mb3.7/5, mb1 3.9/6, mb1mx3.6/16, mbtmp3.7/6, Error ellipse: s-maj=33.9km s-min=14.9km az=111.0*

ISC 21 07:54:35.0±2.7, **6.°1S**±0.°1×**147.°2E**±0.°2, **h85**^{km}±21^{km}, **n10,** σ**0.^{s}77**/12, **mb3.8**/5, **Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	Coen	8.78	207	ePn	Pn	07 56 40.2	+1.0
COEN				eSn	Sn	07 58 15.4	-1.2
KAKA	Kakadu	15.98	245	ePn	Pn	07 58 15.4	+0.5
	35nm,0.7s						
WRAB	Tennant Creek	18.60	221	eP	Pn	07 58 46.8	-0.1
	7.6nm,0.8s						
WRA	Warramunga Arr	18.61	221	P	Pn	07 58 46.1	-0.9
	1.0nm,0.3s,baz=40,slow=12,SNR=36						
WRA				S	S	08 02 08.1	-5.5
	baz=42,slow=20,SNR=3.7						
ASAR	Alice Springs	21.68	215	P	P	07 59 19.8	+0.9
	2.0nm,0.5s,mb3.8,baz=52,slow=9.1,SNR=36						
ASAR				S	S	08 03 14.4	+0.3
	1.9nm,1.0s,baz=33,slow=23,SNR=7.0						
FITZ	Fitzroy Crossi	24.20	239	P	P	07 59 44.6	+0.7
	11nm,0.6s,mb4.4,baz=80,slow=7.8,SNR=24						
STKA	Stephens Creek	26.20	191	P	P	08 00 01.8	0.0
	2.0nm,0.7s,mb3.7,baz=13,slow=11,SNR=5.3						
SONM	Songino Array	64.56	331	P	P	08 05 01.9	-1.1
	0.2nm,0.6s,mb3.1,baz=123,slow=5.3,SNR=3.0						
VNDA	Vanda	71.83	177	P	P	08 05 48.1	0.0
	2.4nm,0.9s,mb4.0,baz=323,slow=6.8,SNR=6.1						
TORD	Torodi Ar. Bea	145.30	284	PKPbc	PKPbc	08 14 01.0	-2.9
	0.2nm,0.3s,baz=64,slow=3.5,SNR=5.9						

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*NEIC **21** 08:08:29.6, 36.°15N×21.°46E, h23^{km}, ML3.6(ATH), After ATH.*

*ATH **21** 08:08:29.6, 36.°15N×21.°46E, h23^{km}±2^{km}, MD3.9/13, ML3.6*

*CSEM **21** 08:08:32.0±0.2, 36.°17N×21.°50E, h20^{km}, ML4.2/4, Error ellipse: s-maj=5.1km s-min=3.2km az=30.0*

*THE **21** 08:08:32.9, 36.°36N×21.°17E, h8^{km}±1^{km}, ML4.2/4, Error ellipse: s-maj=1.9km s-min=1.2km az=56.0*

ISC 21 08:08:31.9±0.8, **36.°20N**±0.°03×**21.°47E**±0.°04, **h16**^{km}±4^{km}, **n110,** σ**0.^{s}94**/133, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.73	17	P	Pg	08 08 46.3	+0.2
PYL				S	Sg	08 08 56.3	+0.5
PYL	PYLOS	0.73	17	P	Pg	08 08 46.3	+0.2
PYL				S	Sg	08 08 56.3	+0.5

ITM	Ithomi	1.04	20	*e*PN	Pg	08 08 51.0	-1.1
ITM				*e*SN	Sg	08 09 05.2	-0.6
ITM	Ithomi	1.04	20	*e*Pn	Pg	08 08 51.0	-1.1
ITM				*e*Sn	Sg	08 09 05.2	-0.6
KYTH	Kithira	1.27	86	*e*PN	Pn	08 08 54.7	-0.3
KYTH	Kithira	1.27	86	*e*Pn	Pn	08 08 54.7	-0.3
VLI	Veliai	1.29	66	*e*PN	Pn	08 08 54.9	-0.4
VLI				*e*SN	Sn	08 09 13.4	+1.2
VLI	Veliai	1.29	66	*e*Pn	Pn	08 08 54.9	-0.4
VLI				*e*Sn	Sn	08 09 13.4	+1.2
RLS	Riolos of Patr	1.85	360	*e*PN	Pn	08 09 03.6	+0.6
RLS	Riolos of Patr	1.85	360	*e*Pn	Pn	08 09 03.6	+0.6
DID	Didima	1.92	47	P	Pg	08 09 07.4	-1.5
DID				S	Sg	08 09 33.4	-0.5
LAKA	Lakka	2.08	11	P	Pn	08 09 06.0	-0.1
LAKA				S	Sn	08 09 32.1	+0.5
LAKA	Lakka	2.08	11	P	Pn	08 09 06.0	-0.1
LAKA				S	Sn	08 09 32.1	+0.5
VLS	Valsamata	2.09	341	P	Pn	08 09 05.9	-0.4
VLS				S	Sn	08 09 29.4	-2.6
VLS	Valsamata	2.09	341	*e*PN	Pn	08 09 06.8	+0.5
VLS	Valsamata	2.09	341	P	Pn	08 09 05.9	-0.4
VLS	Valsamata	2.09	341	*e*Pn	Pn	08 09 06.8	+0.5
KARN	Karanos	2.14	111	P	Pn	08 09 05.6	-1.4
KARN				S	Sg	08 09 42.9	+2.1
KARN	Karanos	2.14	111	*e*PB	Pn	08 09 06.2	-0.8
KARN	Karanos	2.14	111	P	Pn	08 09 05.6	-1.4
KARN	Karanos	2.14	111	*e*Pb	Pn	08 09 06.2	-0.8
LTK	Loutraki	2.18	33	P	Pn	08 09 08.8	+1.3
LTK				S	Sn	08 09 38.1	+4.0
LTK	Loutraki	2.18	33	P	Pn	08 09 08.8	+1.3
TRIZ	Trizonia	2.21	12	P	Pn	08 09 08.0	0.0
TRIZ	Trizonia	2.21	12	P	Pn	08 09 08.0	0.0
VAM	Vamos	2.35	109	*e*PN	Pn	08 09 09.0	-0.9
VAM	Vamos	2.35	109	*e*Pn	Pn	08 09 09.0	-0.9
VLY	Voula,Athens	2.48	48	*e*PB	Pn	08 09 12.7	+1.0
VLY	Voula,Athens	2.48	48	*e*Pb	Pn	08 09 12.7	+1.0
ATH	Athens Observa	2.52	45	*e*PN	Pn	08 09 11.4	-0.8
ATH	Athens Observa	2.52	45	*e*Pn	Pn	08 09 11.4	-0.8
ATHU	Athens Univers	2.55	46	P	Pn	08 09 15.9	+3.2
PTL	Penteli	2.66	45	*e*PN	Pn	08 09 14.3	+0.2
PTL	Penteli	2.66	45	*e*Pn	Pn	08 09 14.3	+0.2
EVR	Evrytania	2.72	6	*e*PN	Pn	08 09 14.5	-0.5
EVR	Evrytania	2.72	6	*e*Pn	Pn	08 09 14.5	-0.5
LKR	Lokris	2.73	26	P	Pn	08 09 15.7	+0.6
LKR	Lokris	2.73	26	*e*PN	Pn	08 09 13.9	-1.2
LKR	Lokris	2.73	26	*e*Pn	Pn	08 09 13.9	-1.2
LKR	Lokris	2.73	26	P	Pn	08 09 15.7	+0.6
AGG	Agios Georgios	2.90	13	P	Pn	08 09 18.2	+0.8
AGG				S	Sn	08 09 52.1	+0.3
AGG	Agios Georgios	2.90	13	P	Pn	08 09 18.2	+0.8
AGG				S	Sn	08 09 52.1	+0.3
IDI	Anoyia	2.93	107	*e*PN	Pn	08 09 16.4	-1.4
IDI	Anoyia	2.93	107	*e*Pn	Pn	08 09 16.4	-1.4
SIVA	Sivas	2.97	113	*e*PN	Pn	08 09 18.4	+0.1
SIVA	Sivas	2.97	113	*e*Pn	Pn	08 09 18.4	+0.1
THL	Klokotos Trika	3.38	7	*e*PN	Pn	08 09 24.2	+0.1
THL	Klokotos Trika	3.38	7	*e*Pn	Pn	08 09 24.2	+0.1
LAST	Lasithi	3.42	106	P	Pn	08 09 29.6	+5.0
LAST	Lasithi	3.42	106	*e*PN	Pn	08 09 23.9	-0.7
LAST	Lasithi	3.42	106	*e*Pn	Pn	08 09 23.9	-0.7
XOR	Xorichti	3.44	23	P	Pn	08 09 26.8	+2.0
XOR	Xorichti	3.44	23	P	Pn	08 09 26.8	+2.0
JAN	Janina	3.48	352	*e*PN	Pn	08 09 26.1	+0.7
JAN	Janina	3.48	352	*e*Pn	Pn	08 09 26.1	+0.7
NPS	Neapolis	3.50	104	*e*PN	Pn	08 09 24.4	-1.2
NPS	Neapolis	3.50	104	*e*Pn	Pn	08 09 24.4	-1.2
AOS	Alonnisos	3.53	32	P	Pn	08 09 27.3	+1.3
AOS	Alonnisos	3.53	32	P	Pn	08 09 27.3	+1.3
MEV	Metsovon	3.58	357	P	Pn	08 09 25.9	-0.9
MEV				S	Sn	08 10 07.7	-1.1
MEV	Metsovon	3.58	357	P	Pn	08 09 25.9	-0.9
MEV				S	Sn	08 10 07.7	-1.1
KEK	Kerkira	3.75	340	*e*PN	Pn	08 09 29.4	+0.4
KEK	Kerkira	3.75	340	*e*Pn	Pn	08 09 29.4	+0.4
LIT	Litokhoron	3.98	11	P	Pn	08 09 32.6	+0.4
LIT				S	Sn	08 10 19.2	+0.8
LIT	Litokhoron	3.98	11	P	Pn	08 09 32.6	+0.4
LIT				S	Sn	08 10 19.2	+0.8
ZKR	Zakros	4.01	104	*e*PN	Pn	08 09 31.9	-0.8
ZKR	Zakros	4.01	104	*e*Pn	Pn	08 09 31.9	-0.8
KZN	Kozani	4.11	3	*e*PN	Pn	08 09 34.7	+0.7
KZN	Kozani	4.11	3	*e*Pn	Pn	08 09 34.7	+0.7
PLG	Polygyros	4.45	20	*e*PN	Pn	08 09 39.2	+0.6
PLG	Polygyros	4.45	20	*e*Pn	Pn	08 09 39.2	+0.6
HORT	Hortiatis	4.57	16	P	Pn	08 09 40.7	+0.3
HORT	Hortiatis	4.57	16	P	Pn	08 09 40.7	+0.3
FNA	Florina	4.58	359	P	Pn	08 09 40.0	-0.4
FNA				S	Sn	08 10 31.9	-1.3
FNA	Florina	4.58	359	P	Pn	08 09 40.0	-0.4
FNA				S	Sn	08 10 31.9	-1.3
KARP	Karpathos	4.67	96	*e*PN	Pn	08 09 40.9	-0.8
KARP	Karpathos	4.67	96	*e*Pn	Pn	08 09 40.9	-0.8
SOI	Samo	4.71	295	Pn	Pn	08 09 42.6	+0.3
SOI	Samo	4.71	295	Pn	Pn	08 09 42.6	+0.3
TIP	Timpagrande	4.78	310	*e*Pn	Pn	08 09 43.7	+0.5
TIP				*e*Sn	Sn	08 10 28.8	-9.4
TIP	Timpagrande	4.78	310	*e*Pn	Pn	08 09 43.7	+0.5
GRG	Griva	4.80	8	P	Pn	08 09 43.3	-0.3
GRG	Griva	4.80	8	P	Pn	08 09 43.3	-0.3
CEL	Celeste	4.90	296	*e*Pn	Pn	08 09 45.3	+0.4
CEL				*e*Sn	Sn	08 10 36.9	-4.3
CEL	Celeste	4.90	296	*e*Pn	Pn	08 09 45.3	+0.4
MTTG	Motta San Giov	4.96	293	Pn	Pn	08 09 46.5	+0.8
MTTG	Motta San Giov	4.96	293	Pn	Pn	08 09 46.5	+0.8
KNT	Kendrikon	5.08	12	P	Pn	08 09 47.7	+0.4
KNT	Kendrikon	5.08	12	P	Pn	08 09 47.7	+0.4
KRUS	Krusevo	5.16	358	*e*Pn	Pn	08 09 47.7	-0.8
KRUS	Krusevo	5.16	358	*e*Pn	Pn	08 09 47.7	-0.8
SRS	Serrai	5.18	18	P	Pn	08 09 49.0	+0.3
SRS	Serrai	5.18	18	P	Pn	08 09 49.0	+0.3
TAR1	Taranto	5.43	324	*e*Pn	Pn	08 09 52.1	0.0
PE1	Pezze di Greco	5.59	327	*e*Pn	Pn	08 09 53.0	-1.3
LTRZ	Laterza	5.71	322	Pn	Pn	08 09 55.7	-0.4
LTRZ	Laterza	5.71	322	Pn	Pn	08 09 55.7	-0.4
CUC	Castrocucco	5.85	312	Pn	Pn	08 09 56.9	-1.0
	19nm,0.6s						
CUC				*e*Sn	Sn	08 11 01.7	-2.9
CUC	Castrocucco	5.85	312	Pn	Pn	08 09 56.9	-1.0
	19nm,0.6s						
SG1	Sgolgore (BA)	5.96	322	*e*Pn	Pn	08 10 00.2	+0.7
PTRP	Pietrapertosa	6.05	317	Pn	Pn	08 10 02.4	+1.6
	53nm,0.7s						
PTRP	Pietrapertosa	6.05	317	Pn	Pn	08 10 02.4	+1.6
	53nm,0.7s						
MGR	Morigerati	6.10	312	Pn	Pn	08 10 02.2	+0.9
	30nm,0.3s						
MGR	Morigerati	6.10	312	Pn	Pn	08 10 02.2	+0.9
	30nm,0.3s						
SGO	Sicignano	6.51	314	Pn	Pn	08 10 07.6	+0.6
	21nm,0.4s						
SGO	Sicignano	6.51	314	Pn	Pn	08 10 07.6	+0.6
	21nm,0.4s						
BARS	Barje	6.61	2	*i* Pn	Pn	08 10 07.5	-0.9
FG5	Orsara di Pugl	7.02	318	Pn	Pn	08 10 15.1	+1.2
	39nm,0.5s						
FG5	Orsara di Pugl	7.02	318	Pn	Pn	08 10 15.1	+1.2
	39nm,0.5s						
BBLS	Lazići	7.82	349	*e*Pn	Pn	08 10 24.3	-0.6

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*ISCJB **21** 08:25:17.7±0.7, 36°.24N±0°.04×21°.66E±0°.06, h10^{km}, Error ellipse: s-maj=7.3km s-min=4.2km az=152.0*

*NEIC **21** 08:25:17.1, 36°.24N×21°.63E, h19^{km}, ML3.4(ATH), After ATH.*

*ATH **21** 08:25:17.1, 36°.24N×21°.63E, h19^{km}±2^{km}, MD3.8/15, ML3.4*

*CSEM **21** 08:25:18.2±0.3, 36°.26N×21°.73E, h2^{km}, ML4.0/2, Error ellipse: s-maj=8.8km s-min=3.4km az=53.0*

*THE **21** 08:25:19.4, 36°.31N×21°.77E, h0^{km}±5^{km}, ML4.0/2, Error ellipse: s-maj=8.4km s-min=2.3km az=237.0*

ISC 21 08:25:19.1±0.7**, 36°.26N**±0°.03×**21°.69E**±0°.06**, h10**^{km}**, n68, σ0^{s}.87**/83**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.64	4	P	Pg	08 25 29.8	-1.6
PYL				S	Sg	08 25 38.9	-0.8
PYL	PYLOS	0.64	4	P	Pg	08 25 29.8	-1.6
PYL				S	Sg	08 25 38.9	-0.8
ITM	Ithomi	0.94	12	*e*PN	Pg	08 25 35.8	-1.3
ITM				*e*SN	Sg	08 25 48.8	-0.6
ITM	Ithomi	0.94	12	*e*Pn	Pg	08 25 35.8	-1.3
ITM				*e*Sn	Sg	08 25 48.8	-0.6
KYTH	Kithira	1.09	89	*e*PN	Pg	08 25 38.8	-1.2
KYTH	Kithira	1.09	89	*e*Pn	Pg	08 25 38.8	-1.2
VLI	Veliai	1.10	65	*e*PB	Pg	08 25 38.4	-1.9
VLI				*e*SN	Sg	08 25 55.8	+1.1
VLI	Veliai	1.10	65	*e*Pb	Pg	08 25 38.4	-1.9
VLI				*e*Sn	Sg	08 25 55.8	+1.1
RLS	Riolos of Patr	1.80	354	*e*PN	Pn	08 25 50.4	+0.2
RLS	Riolos of Patr	1.80	354	*e*Pn	Pn	08 25 50.4	+0.2
LAKA	Lakka	1.99	7	P	Pn	08 25 54.5	+1.7
LAKA				S	Sn	08 26 19.8	+2.1
LAKA	Lakka	1.99	7	P	Pn	08 25 54.5	+1.7
LAKA				S	Sn	08 26 19.8	+2.1
LTK	Loutraki	2.03	30	P	Pn	08 25 53.1	-0.3
LTK				S	Sn	08 26 20.3	+1.5
LTK	Loutraki	2.03	30	P	Pn	08 25 53.1	-0.3
LTK				S	Sn	08 26 20.3	+1.5
NAIG	Nisos Aigina	2.08	43	*e*PB	Pn	08 25 53.4	-0.6
NAIG	Nisos Aigina	2.08	43	*e*Pb	Pn	08 25 53.4	-0.6
VLS	Valsamata	2.11	336	P	Pn	08 25 55.0	+0.6
VLS	Valsamata	2.11	336	*e*PN	Pn	08 25 53.9	-0.5
VLS	Valsamata	2.11	336	*e*Pn	Pn	08 25 53.9	-0.5
VLS	Valsamata	2.11	336	P	Pn	08 25 55.0	+0.6
TRIZ	Trizonia	2.12	8	P	Pn	08 25 55.6	+1.0
TRIZ				S	Sn	08 26 21.7	+0.6
TRIZ	Trizonia	2.12	8	P	Pn	08 25 55.6	+1.0
TRIZ				S	Sn	08 26 21.7	+0.6
VAM	Vamos	2.21	112	*e*PN	Pn	08 25 56.2	+0.4
VAM	Vamos	2.21	112	*e*Pn	Pn	08 25 56.2	+0.4
VLY	Voula,Athens	2.31	46	*e*PB	Pn	08 25 57.8	+0.6
VLY	Voula,Athens	2.31	46	*e*Pb	Pn	08 25 57.8	+0.6
ATH	Athens Observa	2.35	43	*e*PB	Pn	08 25 58.2	+0.4
ATH	Athens Observa	2.35	43	*e*Pb	Pn	08 25 58.2	+0.4
PTL	Penteli	2.49	44	*e*PN	Pn	08 25 58.9	-0.8
PTL	Penteli	2.49	44	*e*Pn	Pn	08 25 58.9	-0.8
LKR	Lokris	2.60	23	P	Pn	08 26 01.2	0.0
LKR				S	Sn	08 26 33.5	+0.6
LKR	Lokris	2.60	23	*e*PN	Pn	08 26 00.5	-0.7
LKR	Lokris	2.60	23	*e*Pn	Pn	08 26 00.5	-0.7
LKR	Lokris	2.60	23	P	Pn	08 26 01.2	0.0
LKR				S	Sn	08 26 33.5	+0.6
IDI	Anoyia	2.78	110	*e*PN	Pn	08 26 03.5	-0.1
IDI	Anoyia	2.78	110	*e*Pn	Pn	08 26 03.5	-0.1
AGG	Agios Georgios	2.80	10	P	Pn	08 26 04.7	+0.7
AGG				S	Sg	08 26 47.9	-1.3
AGG	Agios Georgios	2.80	10	*e*PN	Pn	08 26 03.5	-0.5
AGG	Agios Georgios	2.80	10	*e*Pn	Pn	08 26 03.5	-0.5
AGG	Agios Georgios	2.80	10	P	Pn	08 26 04.7	+0.7
SIVA	Sivas	2.83	115	*e*PN	Pn	08 26 04.2	-0.1
SIVA	Sivas	2.83	115	*e*Pn	Pn	08 26 04.2	-0.1
LAST	Lasithi	3.27	108	P	Pn	08 26 10.4	0.0
LAST	Lasithi	3.27	108	*e*PN	Pn	08 26 10.1	-0.3
LAST	Lasithi	3.27	108	*e*Pn	Pn	08 26 10.1	-0.3
LAST	Lasithi	3.27	108	P	Pn	08 26 10.4	0.0
THL	Klokotos Trika	3.31	4	*e*PN	Pn	08 26 10.4	-0.5
THL	Klokotos Trika	3.31	4	*e*Pn	Pn	08 26 10.4	-0.5
NPS	Neapolis	3.34	106	*e*PN	Pn	08 26 11.7	+0.3
NPS	Neapolis	3.34	106	*e*Pn	Pn	08 26 11.7	+0.3
JAN	Janina	3.46	349	*e*PN	Pn	08 26 12.8	-0.1
JAN	Janina	3.46	349	*e*Pn	Pn	08 26 12.8	-0.1
KEK	Kerkira	3.76	337	*e*PN	Pn	08 26 17.0	-0.1
KEK	Kerkira	3.76	337	*e*Pn	Pn	08 26 17.0	-0.1
ZKR	Zakros	3.86	106	*e*PN	Pn	08 26 18.3	-0.2
ZKR	Zakros	3.86	106	*e*Pn	Pn	08 26 18.3	-0.2
PLG	Polygyros	4.33	18	*e*PN	Pn	08 26 24.5	-0.5
PLG	Polygyros	4.33	18	*e*Pn	Pn	08 26 24.5	-0.5
KARP	Karpathos	4.50	97	*e*PN	Pn	08 26 27.5	+0.2
KARP	Karpathos	4.50	97	*e*Pn	Pn	08 26 27.5	+0.2
FNA	Florina	4.52	357	P	Pn	08 26 27.9	+0.3
FNA	Florina	4.52	357	P	Pn	08 26 27.9	+0.3
SOH	Sokhos	4.74	15	*e*PN	Pn	08 26 31.8	+1.3
SOH	Sokhos	4.74	15	*e*Pn	Pn	08 26 31.8	+1.3
KNT	Kendrikon	4.98	11	P	Pn	08 26 35.0	+1.1
KNT	Kendrikon	4.98	11	P	Pn	08 26 35.0	+1.1
BARS	Barje	6.55	1	⇑*i*Pn	Pn	08 26 54.8	-0.6
BBLS	Lazići	7.80	348	*e*Pn	Pn	08 27 12.3	-0.2

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*ISCJB **21** 08:44:24.2±0.5, 6°.76N±0°.04×72°.87W±0°.04, h178^{km}±4^{km}, mb4.3/30, Error ellipse: s-maj=7.2km s-min=6.4km az=4.7*

*FUNV **21** 08:44:24.9, 6°.81N×73°.11W, h171^{km}, MW4.1*

*IDC **21** 08:44:24.9±1.0, 6°.76N×72°.89W, h169^{km}±9^{km}, mb3.7/12, mb1 3.9/17, mb1mx3.7/25, mbtmp3.7/17, Error ellipse: s-maj=11.9km s-min=10.2km az=114.0*

*NEIC **21** 08:44:25.2±0.4, 6°.72N×72°.93W, h175^{km}±5^{km}, mb4.5/17, Error ellipse: s-maj=6.4km s-min=5.2km az=92.0*

*BJI **21** 08:44:26.1, 6°.70N×72°.90W, h174^{km}, mB5.0/6*

ISC 21 08:44:25.2±0.5**, 6°.76N**±0°.04×**72°.88W**±0°.04**, h168**^{km}±4^{km}**, n306, σ0^{s}.54**/301**, mb4.3**/30**, 118C-116D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	1.23	27	⇓*i*P	Pn	08 44 53.9	+0.1
CAPV				*e*S	Sn	08 45 15.0	-0.6
ROSC	El Rosal	2.38	217	P	Pn	08 45 05.9	+0.1
	76nm,0.3s,baz=23,slow=1.4,SNR=295						
ROSC				S	Sn	08 45 32.3	-4.9
	107nm,0.3s,baz=104,slow=15,SNR=7.8						
SOCV	Socops	2.52	53	⇓*e*P	Pn	08 45 08.4	+1.0
SOCV				*e*S	Sn	08 45 40.5	+0.3
VIGV	El Vigia	2.56	36	⇑*e*P	Pn	08 45 08.3	+0.3
VIGV				*e*S	Sn	08 45 39.7	-1.3
SDV	Santo Domingo	3.07	46	P	Pn	08 45 15.3	+1.1
	22nm,0.3s,baz=251,slow=4.4,SNR=219						
SDV				S	Sn	08 45 52.4	+0.1
	65nm,0.3s,baz=239,slow=14,SNR=28						
SDV	Santo Domingo	3.07	46	*e*Pn	Pn	08 45 15.0	+0.8
SDV				*e*Sn	Sn	08 45 52.4	+0.1
ELOV	Elorza	3.38	86	⇓*e*P	Pn	08 45 19.8	+1.7
VIRV	Villa del Rosa	3.75	7	⇑*i*P	Pn	08 45 20.5	-2.2
VIRV				*e*S	Sn	08 46 02.5	-5.2
QARV	Quebrada Arrib	4.14	34	⇑*i*P	Pn	08 45 28.1	+0.3
SANV	Sanarito	4.29	50	⇑*e*P	Pn	08 45 30.0	+0.3
CURV	Curarigua	4.34	42	*e*P	Pn	08 45 30.4	+0.1
DABV	Dabajuro	4.70	28	*e*P	Pn	08 45 34.6	-0.3
TEPV	Terepaima	4.84	49	*e*P	Pn	08 45 37.1	+0.2
SIQV	Siquisique	4.92	38	⇑*i*P	Pn	08 45 37.4	-0.4
BAUV	El Baul	5.26	65	*e*P	Pn	08 45 41.9	-0.6
MAPV	Macapo	5.34	55	*e*P	Pn	08 45 43.7	+0.3
JACV	Jacura	5.88	43	*e*P	Pn	08 45 49.6	-0.9
MONV	Montecano	5.91	29	⇓*e*P	Pn	08 45 49.7	-1.2
TURV	Turiamo	6.19	53	*e*P	Pn	08 45 54.4	-0.2
CAOV	Caicara del Or	6.54	85	*e*P	Pn	08 45 59.4	+0.2
MERV	Las Mercedes	6.98	69	*e*P	Pn	08 46 04.5	-0.4
BCIP	Isla Barro Col	7.29	290	*e*Pn	Pn	08 46 04.0	-5.2
CUPV	Cœpira	7.75	64	*e*P	Pn	08 46 15.3	+0.2
OTAV	Otavalo	8.53	221	*e*Pn	Pn	08 46 24.6	-1.1
PCRV	Puerto La Cruz	8.84	67	*e*P	Pn	08 46 29.1	-0.5
PCRV	Puerto La Cruz	8.84	67	P	Pn	08 46 31.7	+2.1
	1.0nm,0.3s,baz=52,slow=5.5,SNR=9.4						
PCRV				S	Sn	08 48 10.1	+2.0
	1.6nm,0.3s,baz=345,slow=16,SNR=2.5						
SDDR	Presa de Saban	12.25	7	*e*Pn	Pn	08 47 13.7	-0.5
SDDR				*e*Sn	Sn	08 49 21.9	-8.1
MTDJ	Mount Denham	12.27	339	*e*Pn	Pn	08 47 14.6	+0.1
	47nm,0.5s						
GRGR	Grenville	12.29	63	*e*P	Pn	08 47 21.5	+6.7
JTS	JuntasAbangare	12.44	287	*e*Pn	Pn	08 47 09.4	-7.3
ATAH	Atahualpa	14.73	202	P	Pn	08 47 49.0	+3.3
	0.7nm,0.3s,baz=27,slow=8.5,SNR=4.2						
NNA	Nana	19.03	192	P	P	08 48 34.5	0.0
	0.9nm,0.3s,baz=208,slow=21,SNR=3.7						
TEIG	Tepich	20.05	313	P	P	08 48 45.6	0.0
	11nm,0.5s,baz=171,slow=20,SNR=12						
SIV	San Ignacio	25.45	153	P	P	08 49 36.8	-0.9
	1.4nm,0.7s,mb3.6,baz=338,slow=8.5,SNR=5.6						
FVM	French Village	34.92	335	*e*P	P	08 51 00.9	+0.1
	7.9nm,0.6s,mb4.5						
CCM	Cathedral Cave	35.33	335	*e*P	P	08 51 03.8	-0.5
	13nm,0.7s,mb4.7						
WMOK	Wichita Mounta	36.67	323	*e*P	P	08 51 14.3	-1.5
	2.5nm,0.6s,mb4.0						
TXAR	Lajitas Array	36.68	312	P	P	08 51 15.1	-0.9
	1.8nm,0.6s,mb3.9,baz=129,slow=9.4,SNR=28						
TXAR	Lajitas Array	36.68	312	P	P	08 51 15.1	-0.9
AMTX	Amarillo	38.55	321	*e*P	P	08 51 31.4	-0.2
	7.9nm,1.0s,mb4.3						
JFWS	Jewell Farm	39.13	340	*e*P	P	08 51 35.3	-1.0
	10nm,0.6s,mb4.6						
LAZ	Ladron	41.88	316	*e*P	P	08 51 59.0	0.0
	3.6nm,1.1s,mb3.9						
319A	Douglas	41.90	311	⇑P	P	08 51 59.4	+0.2
	baz=42						
219A	White Tail Can	42.18	311	⇓P	P	08 52 01.6	+0.2
	baz=42						
ECSD	EROS Data Cent	42.30	334	*e*P	P	08 52 00.6	-1.7
	50nm,2.5s,mb4.7						
318A	Bisbee	42.47	310	⇑P	P	08 52 03.5	-0.3
	baz=42						
119A	Ashpeak Ranch,	42.58	312	⇑P	P	08 52 05.3	+0.6
	baz=42						
W21A	San Fidel	42.63	316	⇑P	P	08 52 05.2	+0.2
	baz=42						
218A	Dragoon	42.76	311	⇑P	P	08 52 06.4	+0.3
	baz=42,SNR=5.8						
118A	Homack Ranch,	43.01	312	⇑P	P	08 52 08.5	+0.3
	baz=43,SNR=5.4						
Y19A	Nutrioso	43.14	314	⇓P	P	08 52 09.5	+0.3
	baz=43						
T22A	Edith	43.20	319	⇓P	P	08 52 10.4	+0.8
	baz=43						
W20A	Ramah	43.22	316	⇓P	P	08 52 10.3	+0.6
	baz=43						
R22A	Saguache, Gunn	43.83	321	⇑P	P	08 52 15.6	+1.0
	baz=44						
W19A	Sanders	43.83	315	⇑P	P	08 52 15.5	+0.8
	baz=44						
V19A	Window Rock	43.91	316	⇓P	P	08 52 16.3	+1.0
	baz=44						
X18A	Snowflake	43.93	314	⇑P	P	08 52 16.2	+0.7
	baz=44						
W18A	Petrified Fore	44.08	315	⇓P	P	08 52 17.7	+1.0
	baz=44						
Y17A	Roosevelt	44.16	313	⇓P	P	08 52 17.1	-0.2
	baz=44						
116A	Eloy	44.27	311	⇓P	P	08 52 18.2	-0.1
	baz=44						
Q22A	Crested Butte,	44.30	321	⇑P	P	08 52 19.1	+0.7
	baz=44,SNR=5.1						
MVCO	Mesa Verde	44.36	318	⇑P	P	08 52 19.1	+0.3
	baz=44						
T19A	Beclabito	44.50	318	⇑P	P	08 52 20.3	+0.3
	baz=44						
V18A	Ganado	44.52	316	⇑P	P	08 52 20.4	+0.2
	baz=44						
Y16A	Circle Bar Ran	44.71	312	⇓P	P	08 52 22.2	+0.5
	baz=44						
115A	Sonoran Desert	44.73	311	⇑P	P	08 52 22.2	+0.3
	baz=44						
R20A	Redvale	44.84	320	⇓P	P	08 52 23.3	+0.7
	baz=44						
U18A	Rough Rock, Ch	44.85	317	⇓P	P	08 52 22.6	-0.1
	baz=44						
214A	Organ Pipe Nat	44.85	309	⇓P	P	08 52 22.7	-0.1
	baz=44						
X16A	Lo Mia Camp, P	44.94	313	⇓P	P	08 52 24.0	+0.5
	baz=45						
S19A	Harvey Farm, M	45.08	319	⇓P	P	08 52 24.7	+0.2
	baz=45						
Q20A	Ridgley Place,	45.23	320	⇑P	P	08 52 26.6	+0.9
	baz=45						
N22A	Wattenberg Ran	45.23	324	⇑P	P	08 52 27.1	+1.4
	baz=45						
T18A	Mexican Hat	45.23	317	⇑P	P	08 52 26.0	+0.2
	baz=45						
114A	Black Gap (USA	45.25	310	⇑P	P	08 52 26.1	+0.2
	baz=45						
Y15A	Casa Rosa Ranc	45.38	312	⇑P	P	08 52 27.1	+0.2
	baz=45,SNR=6.4						
WUAZ	Wupatki	45.43	315	⇑P	P	08 52 27.5	+0.2
	baz=45,SNR=6.9						
WUAZ	Wupatki	45.43	315	*e*P	P	08 52 27.5	+0.2
	7.1nm,0.9s,mb4.3						
O21A	Pagoda	45.47	322	⇑P	P	08 52 28.3	+0.7
	baz=45						
X15A	Humboldt	45.55	313	⇑P	P	08 52 28.4	+0.1
	baz=45						
Z14A	Wintersburg	45.56	311	⇓P	P	08 52 28.6	+0.2
	baz=45						
U16A	Tuba City	45.58	315	⇓P	P	08 52 28.7	+0.2
	baz=45,SNR=5.7						
P20A	De Beque	45.61	321	⇓P	P	08 52 29.4	+0.7
	baz=45						
AGMN	Agassiz Refuge	45.77	339	*e*P	P	08 52 28.8	-0.9
	4.5nm,0.6s,mb4.3						
N21A	Black Mountain	45.83	323	⇑P	P	08 52 31.1	+0.7
	baz=46						
Q19A	Hogan Spring (	45.84	320	⇑P	P	08 52 30.4	-0.1
	baz=46,SNR=7.7						
Y14A	Wickenburg	45.87	312	⇓P	P	08 52 30.3	-0.5
	baz=46,SNR=6.7						
R18A	Canyonlands Na	45.93	319	⇓P	P	08 52 31.9	+0.7
	baz=46						
X14A	Yava	46.02	312	⇑P	P	08 52 32.4	+0.4
	baz=46						
S17A	Black Ridge (B	46.13	317	⇑P	P	08 52 33.6	+0.9
	baz=46						
V15A	Kaibab Nationa	46.15	314	⇑P	P	08 52 33.5	+0.6
	baz=46,SNR=7.2						
M21A	Separation Pea	46.27	324	⇑P	P	08 52 34.5	+0.7
	baz=46						
N20A	Spence Gulch,	46.33	323	⇓P	P	08 52 35.1	+0.9
	baz=46						
R17A	Hanksville Air	46.49	318	⇓P	P	08 52 36.1	+0.6
	baz=46						
W14A	Seligman	46.51	313	⇑P	P	08 52 35.9	+0.1
	baz=46						
O19A	Miners Draw (B	46.53	321	⇓P	P	08 52 36.0	+0.2
	baz=46						
V14A	Boquillas Ranc	46.72	314	⇑P	P	08 52 37.5	0.0
	baz=46						
T15A	Red Dirt Ranch	46.89	316	⇑P	P	08 52 39.5	+0.8
	baz=47						
R16A	Teasdale	46.93	318	⇓P	P	08 52 40.0	+1.0
	baz=47						
O18A	Roosevelt	47.06	321	⇓P	P	08 52 40.9	+0.9
	baz=47						
U14A	Mt Trumbull	47.15	315	⇓P	P	08 52 41.5	+0.7
	baz=47						
PLCA	Paso Flores	47.30	178	P	P	08 52 40.4	-1.4
	0.4nm,0.4s,mb3.4,baz=335,slow=9.3,SNR=3.4						
T14A	Hurricane	47.40	315	⇑P	P	08 52 42.9	+0.3
	baz=47,SNR=6.2						
R15A	Junction	47.42	317	⇑P	P	08 52 43.3	+0.5
	baz=47						
ULM	Lac du Bonnet	47.42	340	P	P	08 52 41.0	-1.6
	4.6nm,0.4s,mb4.5,baz=150,slow=6.4,SNR=9.9						
V13A	Grand Canyon W	47.46	314	⇑P	P	08 52 43.3	+0.2
	baz=47						
O17A	Robinson Place	47.48	320	⇑P	P	08 52 44.0	+0.7
	baz=47						
K20A	Yellowstone Ra	47.49	325	⇓P	P	08 52 43.4	+0.1
	baz=47,SNR=5.5						
MSU	Marysvale	47.51	318	*e*P	P	08 52 43.8	+0.3
IRM	Iron Mountain	47.56	311	⇓P	P	08 52 44.0	0.0
	baz=47						
U13A	Pakoon Wash	47.71	314	⇓P	P	08 52 45.1	+0.1
	baz=47						
L19A	Farson	47.75	323	⇑P	P	08 52 45.0	-0.2
	baz=48						
P16A	Fountain Green	47.75	319	⇓P	P	08 52 45.7	+0.4
	baz=48						
M18A	Lyman	47.77	322	⇑P	P	08 52 45.3	-0.1
	baz=48						
S14A	Cedar City	47.80	316	⇓P	P	08 52 45.4	-0.3
	baz=48						
K19A	Absolon Red Bu	47.89	324	⇑P	P	08 52 46.3	0.0
	baz=48						
Q15A	Fillmore	47.90	318	⇓P	P	08 52 46.9	+0.5
	baz=48						
N17A	Moffit Pass	47.97	321	⇑P	P	08 52 47.2	+0.3
	baz=48,SNR=5.5						
V12A	Nelson	48.03	313	⇓P	P	08 52 47.5	0.0
	baz=48						
L18A	Fontenelle, Gr	48.05	323	⇑P	P	08 52 47.6	0.0
	baz=48,SNR=5.8						
U12A	Valley of Fire	48.12	314	⇓P	P	08 52 48.6	+0.3
	baz=48						
M17A	Scullys Gap (B	48.17	322	⇑P	P	08 52 47.9	-0.5
	baz=48						
SCHQ	Schefferville	48.18	5	P	P	08 52 48.8	+0.5
	5.5nm,0.5s,mb4.4,baz=187,slow=6.9,SNR=23						
S13A	Holt Ranch, En	48.19	316	⇓P	P	08 52 49.3	+0.6
	baz=48,SNR=7.1						

PDAR	**Pinedale Array**	**48.27**	**324**	P	**P**	**08 52 48.9**	**-0.4**
	1.6nm,0.6s,mb3.8,baz=128,slow=9.1,SNR=14						
BW06	**Boulder Array**	**48.27**	**324**	⇓P	**P**	**08 52 49.0**	**-0.2**
	baz=48						
N16A	**Rees Ranch, Co**	**48.31**	**321**	⇓P	**P**	**08 52 49.6**	**0.0**
	baz=48						
K18A	**Toltan Ranch,**	**48.47**	**323**	⇑P	**P**	**08 52 51.4**	**+0.6**
	baz=48						
Q14A	**Sevier Lake (B**	**48.49**	**318**	⇑P	**P**	**08 52 51.8**	**+0.8**
	baz=48,SNR=5.9						
V11A	**Goodsprings**	**48.50**	**313**	⇓P	**P**	**08 52 50.8**	**-0.3**
	baz=48						
R13A	**O'Grain Ranch,**	**48.56**	**316**	⇑P	**P**	**08 52 51.9**	**+0.4**
	baz=48						
O15A	**The Old Anders**	**48.64**	**319**	⇓P	**P**	**08 52 52.4**	**+0.3**
	baz=48						
P14A	**Drum Mountains**	**48.66**	**318**	⇓P	**P**	**08 52 52.7**	**+0.4**
	baz=48						
M16A	**Huntsville**	**48.67**	**321**	⇓P	**P**	**08 52 52.2**	**-0.2**
	baz=48						
TUQ	**Turquoise Moun**	**48.68**	**312**	⇓P	**P**	**08 52 52.5**	**0.0**
	baz=48						
DUG	**Dugway**	**48.81**	**319**	⇑P	**P**	**08 52 53.8**	**+0.3**
	baz=48						
T11A	**Corn Creek, Al**	**48.98**	**315**	⇑P	**P**	**08 52 54.7**	**-0.1**
	baz=49						
I18A	**Diamond G Ranc**	**48.99**	**325**	⇓P	**P**	**08 52 54.3**	**-0.4**
	baz=49						
N15A	**Stansbury Isla**	**49.00**	**320**	⇓P	**P**	**08 52 54.8**	**0.0**
	baz=49						
K17A	**Gardner Place,**	**49.06**	**323**	⇓P	**P**	**08 52 55.2**	**0.0**
	baz=49						
M15A	**Larsen Ranch,**	**49.27**	**321**	⇓P	**P**	**08 52 56.4**	**-0.4**
	baz=49						
GSC	**Goldstone**	**49.28**	**312**	⇑P	**P**	**08 52 56.3**	**-0.8**
	baz=49						
REDW	**Red Top Meadow**	**49.38**	**324**	*e*P	**P**	**08 52 57.3**	**-0.4**
	6.8nm,0.9s,mb4.3						
SNOW	**Snow King Moun**	**49.39**	**324**	*e*P	**P**	**08 52 57.7**	**-0.1**
	50nm,2.5s,mb4.7						
LOHW	**Long Hollow**	**49.39**	**324**	*e*P	**P**	**08 52 57.1**	**-0.6**
	56nm,2.6s,mb4.7						
N14A	**Grayback Hills**	**49.40**	**320**	⇓P	**P**	**08 52 57.9**	**0.0**
	baz=49						
K16A	**Soda Springs**	**49.51**	**323**	⇓P	**P**	**08 52 58.5**	**-0.2**
	baz=49						
TPAW	**Teton Pass**	**49.52**	**324**	*e*P	**P**	**08 52 58.9**	**+0.2**
	4.5nm,1.0s,mb4.0						
L15A	**Malad City**	**49.53**	**321**	⇑P	**P**	**08 52 58.3**	**-0.5**
	baz=49,SNR=5.7						
O13A	**Hicks Ranch, I**	**49.54**	**319**	⇓P	**P**	**08 52 59.2**	**+0.2**
	baz=49						
MOOW	**Moose Ponds**	**49.55**	**324**	*e*P	**P**	**08 52 58.4**	**-0.6**
	41nm,2.8s,mb4.6						
I17A	**Pilgrim Ck.**	**49.56**	**325**	⇑P	**P**	**08 52 58.9**	**-0.1**
	baz=49						
RLMT	**Red Lodge**	**49.56**	**327**	⇓P	**P**	**08 52 59.4**	**+0.3**
	baz=49						
Q12A	**Willow Creek R**	**49.56**	**317**	⇑P	**P**	**08 52 59.7**	**+0.6**
	baz=49						
RRI2	**Red Ridge**	**49.65**	**323**	*e*P	**P**	**08 52 59.6**	**-0.1**
	5.8nm,0.7s,mb4.3						
IMW	**Indian Meadow**	**49.75**	**324**	*e*P	**P**	**08 53 00.3**	**-0.2**
	63nm,2.8s,mb4.8						
R11A	**Troy Canyon, C**	**49.75**	**316**	⇓P	**P**	**08 53 00.6**	**0.0**
	baz=49						
J16A	**Bone**	**49.78**	**323**	⇓P	**P**	**08 53 00.9**	**+0.2**
	baz=50						
FURC	**Furnace Creek,**	**49.81**	**313**	⇓P	**P**	**08 53 00.9**	**-0.2**
	baz=50						
G18A	**Lazy EL Ranch,**	**49.85**	**327**	⇑P	**P**	**08 53 01.3**	**+0.1**
	baz=50						
M14A	**Sheep Mountain**	**49.85**	**320**	⇑P	**P**	**08 53 01.0**	**-0.3**
	baz=50						
EDW2	**Edwards Air Fo**	**50.00**	**311**	⇓P	**P**	**08 53 01.7**	**-0.8**
	baz=50						
K15A	**Arbon**	**50.00**	**322**	⇓P	**P**	**08 53 02.1**	**-0.2**
	baz=50						
LRMC	**Laurel Mountai**	**50.01**	**311**	⇑P	**P**	**08 53 02.2**	**-0.4**
	baz=50						
Q11A	**Duckwater**	**50.03**	**316**	⇑P	**P**	**08 53 02.5**	**-0.2**
	baz=50						
I16A	**Newdale**	**50.06**	**324**	⇓P	**P**	**08 53 03.3**	**+0.5**
	baz=50						
L14A	**Malta**	**50.08**	**321**	⇑P	**P**	**08 53 02.8**	**-0.1**
	baz=50						
MPMC	**Manual Prospec**	**50.10**	**312**	⇓P	**P**	**08 53 02.8**	**-0.5**
	baz=50						
O12A	**Currie**	**50.12**	**318**	⇓P	**P**	**08 53 03.7**	**+0.4**
	baz=50						
R10A	**Warm Springs**	**50.22**	**315**	⇑P	**P**	**08 53 04.5**	**+0.4**
	baz=50						
S10A	**Tonopah Range,**	**50.26**	**315**	⇓P	**P**	**08 53 04.0**	**-0.4**
	baz=50						
M13A	**Montello**	**50.30**	**320**	⇑P	**P**	**08 53 04.7**	**0.0**
	baz=50						
F18A	**Big Timber**	**50.30**	**327**	⇓P	**P**	**08 53 04.8**	**+0.3**
	baz=50						
K14A	**Jones Ranch, D**	**50.31**	**322**	⇓P	**P**	**08 53 04.5**	**-0.2**
	baz=50						
J15A	**Blackfoot**	**50.34**	**323**	⇓P	**P**	**08 53 05.0**	**+0.1**
	baz=50						
H16A	**Russell Place,**	**50.41**	**325**	⇑P	**P**	**08 53 06.1**	**+0.6**
	baz=50						
G17A	**Pierce Place,**	**50.50**	**326**	⇓P	**P**	**08 53 06.8**	**+0.7**
	baz=50						
Q10A	**Clear Creek Ra**	**50.54**	**316**	⇓P	**P**	**08 53 06.7**	**+0.2**
	baz=50						
L13A	**Double Diamond**	**50.55**	**321**	⇓P	**P**	**08 53 06.1**	**-0.4**
	baz=50						
S09A	**Goldfield**	**50.62**	**314**	⇑P	**P**	**08 53 07.1**	**-0.1**
	baz=50						
O11A	**Cowboy Ranch,**	**50.66**	**318**	⇓P	**P**	**08 53 07.5**	**+0.1**
	baz=50						
R09A	**Tonopah**	**50.74**	**315**	⇓P	**P**	**08 53 08.1**	**+0.1**
	baz=50						
F17A	**Fitzpatrick Pl**	**50.82**	**327**	⇑P	**P**	**08 53 09.3**	**+0.9**
	baz=51						
E18A	**Harlowton**	**50.83**	**328**	⇓P	**P**	**08 53 08.6**	**+0.1**
	baz=51,SNR=5.1						
K13A	**Stover Farm, H**	**50.93**	**321**	⇑P	**P**	**08 53 09.4**	**0.0**
	baz=51						
J14A	**Carey**	**50.95**	**322**	⇑P	**P**	**08 53 10.0**	**+0.5**
	baz=51,SNR=6.8						
G16A	**Moss Hill, Enn**	**51.04**	**325**	⇑P	**P**	**08 53 10.2**	**0.0**
	baz=51,SNR=5.4						
H15A	**Lima**	**51.17**	**324**	⇑P	**P**	**08 53 11.9**	**+0.8**
	baz=51,SNR=6.0						
BOZ	**Bozeman (W)**	**51.20**	**326**	⇑P	**P**	**08 53 11.1**	**-0.2**
	baz=51						
I14A	**Mackay**	**51.25**	**323**	⇑P	**P**	**08 53 11.8**	**+0.1**
	baz=51						
L12A	**House Creek Ra**	**51.25**	**320**	⇑P	**P**	**08 53 11.2**	**-0.5**
	baz=51						
E17A	**Martinsdale**	**51.27**	**327**	⇑P	**P**	**08 53 11.7**	**-0.1**
	baz=51						
F16A	**Kennard Place,**	**51.28**	**326**	⇑P	**P**	**08 53 11.9**	**+0.1**
	baz=51						
M11A	**Holland Ranch,**	**51.39**	**319**	⇓P	**P**	**08 53 12.4**	**-0.4**
	baz=51						
J13A	**Cove Ranch, Pi**	**51.40**	**322**	⇑P	**P**	**08 53 13.1**	**+0.3**
	baz=51						
G15A	**Dillon**	**51.40**	**325**	⇓P	**P**	**08 53 12.7**	**-0.1**
	baz=51						
K12A	**Draper Farm, C**	**51.44**	**321**	⇓P	**P**	**08 53 13.3**	**+0.1**
	baz=51						
D17A	**Six Diamond Ra**	**51.61**	**328**	⇑P	**P**	**08 53 14.2**	**-0.2**
	baz=51						
Q08A	**Gabbs**	**51.62**	**315**	⇓P	**P**	**08 53 14.2**	**-0.4**
	baz=51						
HLID	**Hailey**	**51.63**	**322**	⇑P	**P**	**08 53 14.9**	**+0.3**
	baz=51						
I13A	**Wildhorse Cree**	**51.64**	**323**	⇑P	**P**	**08 53 14.7**	**+0.1**
	baz=51,SNR=7.1						
EGMT	**Eagleton**	**51.68**	**329**	⇑P	**P**	**08 53 15.0**	**+0.2**
	baz=52						
NVAR	**Mina Array Bea**	**51.70**	**315**	P	**P**	**08 53 15.3**	**+0.2**
	1.1nm,0.7s,mb3.6,baz=119,slow=7.3,SNR=11						
O09A	**Fish Creek Ran**	**51.71**	**317**	⇑P	**P**	**08 53 15.2**	**0.0**
	baz=51						
L11A	**Cat Creek Ranc**	**51.73**	**320**	⇓P	**P**	**08 53 15.3**	**-0.1**
	baz=51						
E16A	**East Helena**	**51.76**	**327**	⇓P	**P**	**08 53 15.7**	**+0.3**
	baz=52						
F15A	**Butte**	**51.80**	**325**	⇑P	**P**	**08 53 15.5**	**-0.2**
	baz=52						
J12A	**Stokes Ranch,**	**51.88**	**321**	⇑P	**P**	**08 53 16.2**	**-0.2**
	baz=52						
B18A	**Beardsley Farm**	**51.94**	**329**	⇓P	**P**	**08 53 17.1**	**+0.3**
	baz=52,SNR=5.7						
C17A	**Wharram Farm,**	**51.95**	**328**	⇓P	**P**	**08 53 16.6**	**-0.2**
	baz=52						
D16A	**Dana Ranch, Ca**	**52.00**	**327**	⇓P	**P**	**08 53 17.2**	**+0.1**
	baz=52						
H13A	**Challis**	**52.08**	**323**	⇑P	**P**	**08 53 17.9**	**0.0**
	baz=52						
L10A	**Juniper Basin**	**52.15**	**319**	⇓P	**P**	**08 53 18.2**	**-0.2**
	baz=52,SNR=6.1						
I12A	**Atlanta**	**52.20**	**322**	⇑P	**P**	**08 53 18.4**	**-0.3**
	baz=52,SNR=6.1						
K11A	**Parker Ranch,**	**52.22**	**320**	⇓P	**P**	**08 53 18.8**	**-0.1**
	baz=52						
E15A	**Deer Lodge**	**52.23**	**326**	⇓P	**P**	**08 53 18.2**	**-0.6**
	baz=52						
N09A	**Rock Creek Ran**	**52.25**	**318**	⇓P	**P**	**08 53 18.5**	**-0.7**
	baz=52						
F14A	**Wisdom**	**52.28**	**325**	⇑P	**P**	**08 53 19.1**	**-0.2**
	baz=52						
A18A	**Metzger Ranch,**	**52.32**	**330**	⇓P	**P**	**08 53 19.8**	**+0.3**
	baz=52						
G13A	**Cobalt**	**52.37**	**324**	⇑P	**P**	**08 53 19.7**	**-0.3**
	baz=52						
B17A	**L&G Farms, Che**	**52.39**	**329**	⇓P	**P**	**08 53 19.9**	**-0.2**
	baz=52						
O08A	**Rochester Mine**	**52.42**	**317**	⇑P	**P**	**08 53 19.6**	**-0.9**
	baz=52						
MFID	**Camas Ranch**	**52.42**	**321**	⇓P	**P**	**08 53 20.1**	**-0.3**
	baz=52,SNR=5.2						
H12A	**Diamond D Ranc**	**52.44**	**323**	⇓P	**P**	**08 53 20.5**	**0.0**
	baz=52						
D15A	**Lincoln**	**52.53**	**327**	⇑P	**P**	**08 53 20.9**	**-0.2**
	baz=52						
C16A	**Fuhringer Ranc**	**52.58**	**328**	⇑P	**P**	**08 53 21.7**	**+0.2**
	baz=52						
N08A	**GE Springer Mi**	**52.63**	**317**	⇓P	**P**	**08 53 21.5**	**-0.4**
	baz=52						
E14A	**Clinton**	**52.70**	**326**	⇑P	**P**	**08 53 22.4**	**+0.1**
	baz=52						
K10A	**MacKenzie Ranc**	**52.76**	**320**	⇑P	**P**	**08 53 22.5**	**-0.4**
	baz=52						
A17A	**Triple J Farms**	**52.76**	**329**	⇓P	**P**	**08 53 22.7**	**0.0**
	baz=52						
I11A	**Placerville**	**52.76**	**322**	⇓P	**P**	**08 53 22.5**	**-0.4**
	baz=52						
F13A	**Darby**	**52.82**	**324**	⇑P	**P**	**08 53 23.1**	**-0.1**
	baz=52						
O07A	**Toulon**	**52.85**	**316**	⇑P	**P**	**08 53 23.1**	**-0.5**
	baz=52						
L09A	**Wilkinson Ranc**	**52.90**	**319**	⇓P	**P**	**08 53 24.0**	**0.0**
	baz=53,SNR=5.3						
C15A	**Salmond Ranch,**	**53.02**	**327**	⇑P	**P**	**08 53 25.0**	**+0.3**
	baz=53						
WCN	**Washoe City**	**53.09**	**315**	⇑P	**P**	**08 53 25.2**	**-0.2**
	baz=53						
E13A	**Victor**	**53.10**	**325**	⇓P	**P**	**08 53 24.9**	**-0.4**
	baz=53						
A16A	**West Butte Ran**	**53.22**	**329**	⇑P	**P**	**08 53 26.4**	**+0.3**
	baz=53						
K09A	**Rome**	**53.27**	**320**	⇑P	**P**	**08 53 26.4**	**-0.2**
	baz=53,SNR=6.4						
B15A	**Bradely Ranch,**	**53.32**	**328**	⇓P	**P**	**08 53 26.7**	**-0.2**
	baz=53						
F12A	**Elk City**	**53.33**	**324**	⇑P	**P**	**08 53 26.9**	**-0.1**
	baz=53						
L08A	**Fields**	**53.42**	**319**	⇑P	**P**	**08 53 27.5**	**-0.2**
	baz=53,SNR=13						
O06A	**Flanigan**	**53.51**	**316**	⇑P	**P**	**08 53 27.8**	**-0.6**
	baz=53						
H10A	**Noah's Angus R**	**53.60**	**322**	⇓P	**P**	**08 53 28.5**	**-0.5**
	baz=53						
J09A	**Fry Pan Ranch,**	**53.60**	**320**	⇓P	**P**	**08 53 28.7**	**-0.4**
	baz=53						
M07A	**Soldier Meadow**	**53.60**	**317**	⇑P	**P**	**08 53 28.5**	**-0.5**
	baz=53						
D13A	**Huson**	**53.63**	**326**	⇓P	**P**	**08 53 28.9**	**-0.2**
	baz=53						
BEKR	**Beckwourth**	**53.75**	**315**	⇑P	**P**	**08 53 29.8**	**-0.4**
	baz=53						
N06A	**Buffalo Meadow**	**53.77**	**317**	⇑P	**P**	**08 53 29.7**	**-0.6**
	baz=53						
K08A	**Mann Creek Ran**	**53.77**	**319**	⇓P	**P**	**08 53 30.2**	**0.0**
	baz=54						
A15A	**Johnson Ranch,**	**53.82**	**328**	⇑P	**P**	**08 53 30.1**	**-0.4**
	baz=54						
L07A	**Adell**	**54.00**	**318**	⇓P	**P**	**08 53 31.8**	**-0.1**
	baz=54						
C13A	**Hot Springs**	**54.03**	**326**	⇓P	**P**	**08 53 32.2**	**+0.2**
	baz=54						
J08A	**Circle Bar Ran**	**54.06**	**320**	⇑P	**P**	**08 53 32.3**	**-0.1**
	baz=54						
G10A	**Bishop Farm, J**	**54.19**	**323**	⇑P	**P**	**08 53 32.5**	**-0.8**
	baz=54,SNR=6.6						
E11A	**Bogner Ranch,**	**54.22**	**324**	⇑P	**P**	**08 53 32.8**	**-0.6**
	baz=54						
K07A	**Rock Creek Ran**	**54.25**	**319**	⇑P	**P**	**08 53 33.2**	**-0.6**
	baz=54						
B13A	**Whitefish**	**54.38**	**327**	⇑P	**P**	**08 53 34.3**	**-0.3**
	baz=54						
FCC	**Fort Churchill**	**54.39**	**347**	*e*P	**P**	**08 53 33.1**	**-1.3**
	0.1nm,0.8s						
C12B	**Naegeli Ranch,**	**54.55**	**326**	⇑P	**P**	**08 53 36.2**	**+0.4**
	baz=54						
F10A	**Beach Ranch, E**	**54.61**	**323**	⇑P	**P**	**08 53 35.8**	**-0.5**
	baz=54						
D11A	**Klaveano Farm,**	**54.67**	**325**	⇓P	**P**	**08 53 36.0**	**-0.7**
	baz=54,SNR=6.3						
H08A	**Prairie City**	**54.75**	**321**	⇓P	**P**	**08 53 36.9**	**-0.4**
	baz=54						
E10A	**Myers Farm, Un**	**54.81**	**324**	⇓P	**P**	**08 53 37.4**	**-0.3**
	baz=54						
I07A	**Izee**	**55.07**	**320**	⇓P	**P**	**08 53 39.5**	**-0.1**
	baz=55						
J06A	**Christmas Vall**	**55.10**	**319**	⇑P	**P**	**08 53 39.3**	**-0.5**
	baz=55						
D10A	**Wagner Farm, O**	**55.21**	**324**	⇑P	**P**	**08 53 39.9**	**-0.7**
	baz=55						
G08A	**Pilot Rock**	**55.31**	**322**	⇓P	**P**	**08 53 41.2**	**-0.1**
	baz=55,SNR=6.8						
A12A	**Yaak River Ran**	**55.34**	**327**	⇓P	**P**	**08 53 41.8**	**+0.4**
	baz=55,SNR=7.9						
H07A	**Lands Inn, Kim**	**55.35**	**321**	⇓P	**P**	**08 53 40.6**	**-1.0**
	baz=55						
E09A	**Wood Farm, Sta**	**55.44**	**323**	⇓P	**P**	**08 53 41.8**	**-0.4**
	baz=55						
F08A	**Pendleton**	**55.45**	**322**	⇓P	**P**	**08 53 41.6**	**-0.7**
	baz=55						
I06A	**Prineville**	**55.45**	**320**	⇓P	**P**	**08 53 42.5**	**+0.2**
	baz=55						
B11A	**Sandpoint**	**55.45**	**326**	⇑P	**P**	**08 53 42.2**	**-0.1**
	baz=55						
G07A	**Ruggs Ranch, H**	**55.74**	**321**	⇓P	**P**	**08 53 44.6**	**+0.3**
	baz=55						
A11A	**Hall Mountain,**	**55.74**	**327**	⇓P	**P**	**08 53 44.6**	**+0.2**
	baz=56						
C09A	**Chrisman Ranch**	**56.18**	**325**	⇓P	**P**	**08 53 47.5**	**0.0**
	baz=56						
F07A	**Phinny Hill Vi**	**56.20**	**322**	⇑P	**P**	**08 53 48.2**	**+0.6**
	baz=56						
G06A	**Carlson Farm,**	**56.32**	**321**	⇑P	**P**	**08 53 49.1**	**+0.6**
	baz=56						
A10A	**Northport**	**56.41**	**326**	⇓P	**P**	**08 53 48.9**	**-0.2**
	baz=56						
B09A	**Rice**	**56.44**	**325**	⇓P	**P**	**08 53 49.1**	**-0.2**
	baz=56						
E07A	**Sunnyside**	**56.48**	**323**	⇑P	**P**	**08 53 49.6**	**0.0**
	baz=56						
C08A	**Higginbotham F**	**56.62**	**324**	⇓P	**P**	**08 53 50.5**	**0.0**
	baz=56						
H04A	**Detroit Lake**	**57.05**	**320**	⇑P	**P**	**08 53 53.4**	**-0.3**
	baz=57						
YKA	**Yellowknife Ar**	**63.40**	**340**	P	**P**	**08 54 35.9**	**-0.6**
	4.7nm,0.6s,mb4.5,baz=133,slow=6.6,SNR=163						
TIC	**Toumodi**	**67.34**	**86**	*e*P	**P**	**08 55 02.2**	**-0.5**
	26nm,0.8s,mb5.1						
LIC	**Lamto**	**67.37**	**86**	*e*P	**P**	**08 55 02.8**	**-0.1**
	32nm,1.1s,mb5.0						
DBIC	**Dimbokro**	**67.50**	**86**	P	**P**	**08 55 03.7**	**-0.1**
	2.1nm,0.6s,mb4.0,baz=282,slow=6.8,SNR=7.3						
DBIC	**Dimbokro**	**67.50**	**86**	P	**P**	**08 55 03.7**	**-0.1**
KIC	**Kosan Boka**	**67.64**	**86**	*e*P	**P**	**08 55 04.7**	**+0.1**
	64nm,1.2s,mb5.2						
TORD	**Torodi Ar. Bea**	**73.52**	**78**	P	**P**	**08 55 39.3**	**-0.9**
	0.3nm,0.3s,mb3.4,baz=285,slow=6.4,SNR=8.8						
ARCES	**ARCESS Array B**	**86.65**	**20**	P	**P**	**08 56 48.8**	**-0.6**
	2.1nm,0.9s,mb3.9,baz=276,slow=3.6,SNR=6.1						
ZALV	**Zalesovo Beam**	**116.67**	**15**	PKP	PKPdf	09 02 48.7	-0.6
	0.9nm,0.5s,baz=270,slow=3.0,SNR=3.6						
MKAR	**Makanchi Array**	**122.30**	**20**	PKP	PKPdf	09 03 00.1	-0.3
	0.4nm,0.4s,baz=290,slow=2.6,SNR=9.7						
SONM	**Songino Array**	**125.64**	**1**	PKP	PKPdf	09 03 07.3	+0.6
	0.3nm,0.4s,baz=339,slow=1.6,SNR=3.3						
CN2	**Changchun**	**127.01**	**343**	*e*PKP	PKPdf	09 03 09.3	-0.2
CN2				*e*PP	PP	09 05 11.5	+2.9
CN2				*e*SS	SS	09 22 00.9	-1.1
CN2				AMB	AMB		
	comp=Z,300nm,8.0s						
HHC	**Hu-ho-hao-te**	**132.45**	**355**	*e*PKP	PKPdf	09 03 19.3	-0.6
HHC				sPKP		09 04 18.5	
HHC				PP	PP	09 05 46.8	+3.1
HHC				PKS		09 06 53.3	
HHC				SKS	SKSdf	09 10 12.3	-3.3
HHC				SKKS	SKKSac	09 12 19.8	-4.6
HHC				SS	SS	09 23 07.1	-1.3
HHC				AMB	AMB		
	comp=Z,110nm,5.5s						
HHC				LR	LR		
	comp=N,150nm,13.5s						
HHC				LR	LR		
	comp=E,200nm,16.9s						
HHC				LR	LR		
	comp=Z,86nm,13.3s						
GTA	**Gaotai**	**133.57**	**8**	PKP	PKPdf	09 03 22.9	+0.8
LZH	**Lanzhou**	**137.27**	**4**	*e*PKP	PKPdf	09 03 29.0	-0.1
LZH				AMB	AMB		
	comp=Z,57nm,4.3s						
NJ2	**Nanjing**	**139.82**	**344**	*e*PKP	PKPdf	09 03 34.1	+0.2
CD2	**Chengdu**	**142.41**	**5**	PKP	PKPdf	09 03 38.0	-0.5
GYA	**Guiyang**	**146.98**	**1**	*e*PKPbc	PKPbc	09 03 46.8	-1.9
GYA				PKPab	PKPab	09 03 52.4	+2.0
GYA				pPKP	pPKPdf	09 04 27.9	-2.9
GYA				PP	PP	09 07 16.8	+4.1
GYA				AMB	AMB		
	comp=Z,70nm,7.8s						
KMI	**Kunming**	**148.03**	**8**	PKPbc	PKPbc	09 03 48.9	-2.7
ASAR	**Alice Springs**	**149.27**	**234**	PKP	PKPdf	09 03 50.1	-0.2
	comp=Z,1.7nm,0.6s,baz=116,slow=1.3,SNR=6.3						
ASAR				PKPbc	PKPbc	09 03 53.7	-1.1
	comp=Z,1.9nm,0.5s,baz=117,slow=3.6,SNR=38						
WRA	**Warramunga Arr**	**150.51**	**241**	PKP	PKPdf	09 03 52.2	-0.2
	comp=Z,2.1nm,0.4s,baz=108,slow=2.4,SNR=4.7						
WRA				PKPbc	PKPbc	09 03 56.9	-1.0
	comp=Z,2.1nm,0.4s,baz=108,slow=2.5,SNR=62						
CMAR	**Chiang Mai Arr**	**153.68**	**18**	PKPbc	PKPbc	09 04 05.4	+0.3
	comp=Z,0.7nm,0.3s,baz=332,slow=3.0,SNR=4.6						

SOF ***21*** *08:45:27.7, 40.°81N×27.°70E, h2^{km}, MD3.3*
DDA ***21*** *08:45:29.8, 40.°82N×27.°72E, h22^{km}±2^{km}, Md3.3, Ml3.5*
ATH ***21*** *08:45:29.6, 40.°88N×27.°85E, h34^{km}±15^{km}, MD3.8/7*
ISK ***21*** *08:45:29.9, 40.°80N×27.°75E, h9^{km}, MD3.4*
ISCJB ***21*** *08:45:29.3±0.3, 40.°83N±0.°01×27.°71E±0.°02, h4^{km}±3^{km}, Error ellipse: s-maj=2.4km s-min=2.2km az=43.7*
NEIC ***21*** *08:45:29.0, 40.°80N×27.°75E, h9^{km}, MD3.3(ISK), MD3.8(ATH), ML4.5(THE), After ISK.*
CSEM ***21*** *08:45:30.7±0.1, 40.°81N×27.°74E, h10^{km}, MD3.4, Error ellipse: s-maj=2.2km s-min=2.0km az=20.0*
THE ***21*** *08:45:32.2, 40.°69N×27.°67E, h11^{km}±3^{km}, ML4.3/4, Error ellipse: s-maj=4.1km s-min=1.3km az=79.0*
ISC 21 08:45:30.3±0.3**, 40.°81N**±0.°01×**27.°71E**±0.°02**, h5**^{km}±2^{km}**, n203, σ1**^{s}**14**/275**, 12C-9D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TKR	**Tekirdag**	**0.22**	**324**	PG	**Pg**	**08 45 35.8**	**+1.1**
TKR				SG	**Sg**	**08 45 39.8**	**+2.1**
TKR	**Tekirdag**	**0.22**	**324**	*i* Pg	**Pg**	**08 45 35.8**	**+1.1**
TKR				*i* Sg	**Sg**	**08 45 39.8**	**+2.1**
CRLT	**Corlu**	**0.32**	**4**	PG	**Pg**	**08 45 37.5**	**+0.9**
CRLT				SG	**Sg**	**08 45 42.5**	**+1.7**
CRLT	**Corlu**	**0.32**	**4**	*i* Pg	**Pg**	**08 45 37.5**	**+1.0**
CRLT				*i* Sg	**Sg**	**08 45 42.5**	**+1.7**
SART	**Tekirdag**	**0.42**	**254**	*i* P	**Pg**	**08 45 39.1**	**+0.7**
SART				*i* S	**Sg**	**08 45 45.5**	**+1.6**
SART	**Tekirdag**	**0.42**	**254**	*i* P	**Pg**	**08 45 39.1**	**+0.7**
SART				*i* S	**Sg**	**08 45 45.5**	**+1.7**
EDC	**Edincik**	**0.48**	**166**	PG	**Pg**	**08 45 39.9**	**+0.5**
EDC	**Edincik**	**0.48**	**166**	*i* Pg	**Pg**	**08 45 39.9**	**+0.5**
BNT	**Bandirma**	**0.48**	**160**	PG	**Pg**	**08 45 39.6**	**+0.1**
BNT				SG	**Sg**	**08 45 46.2**	**+0.5**
BNT	**Bandirma**	**0.48**	**160**	*i* Pg	**Pg**	**08 45 39.6**	**+0.1**
BNT				*i* Sg	**Sg**	**08 45 46.2**	**+0.5**
SLVT	**Silivri**	**0.57**	**42**	PG	**Pg**	**08 45 41.1**	**-0.1**
SLVT	**Silivri**	**0.57**	**42**	*i* Pg	**Pg**	**08 45 41.1**	**-0.1**
ELBA	**Catalca**	**0.64**	**58**	*i* P	**Pg**	**08 45 42.3**	**-0.3**
ELBA				*i* S	**Sg**	**08 45 50.7**	**-0.3**
ELBA	**Catalca**	**0.64**	**58**	*i* P	**Pg**	**08 45 42.3**	**-0.3**
ELBA				*i* S	**Sg**	**08 45 50.7**	**-0.3**
CTKS	**Kestanelik-??a**	**0.74**	**54**	*e*PG	**Pg**	**08 45 43.4**	**-1.1**
CTKS	**Kestanelik-??a**	**0.74**	**54**	*e*Pg	**Pg**	**08 45 43.4**	**-1.1**
CTYL	**Yal??k??y-??at**	**0.80**	**33**	*e*PG	**Pg**	**08 45 44.7**	**-0.9**
CTYL	**Yal??k??y-??at**	**0.80**	**33**	*e*Pg	**Pg**	**08 45 44.7**	**-0.9**
LPK	**Lapseki**	**0.84**	**239**	*e*PG	**Pg**	**08 45 46.2**	**-0.3**
LPK	**Lapseki**	**0.84**	**239**	*e*Pg	**Pg**	**08 45 46.2**	**-0.3**
BGKT	**Bogazkoy**	**0.89**	**65**	*e*PG	**Pg**	**08 45 46.9**	**-0.4**
BGKT	**Bogazkoy**	**0.89**	**65**	*e*Pg	**Pg**	**08 45 46.9**	**-0.4**
ISK	**Istanbul-Kandi**	**1.05**	**75**	*e*PG	**Pg**	**08 45 49.4**	**-1.1**
ISK	**Istanbul-Kandi**	**1.05**	**75**	*e*Pg	**Pg**	**08 45 49.4**	**-1.1**
BALY	**Balya**	**1.07**	**184**	*i* P	**Pg**	**08 45 51.7**	**+0.9**
BALY				*i* S	**Sg**	**08 46 07.0**	**+2.4**
BALY	**Balya**	**1.07**	**184**	*i* P	**Pg**	**08 45 51.7**	**+0.9**
BALY				*i* S	**Sg**	**08 46 07.0**	**+2.4**
KLYT	**Kilyos**	**1.10**	**66**	*e*PN	**Pn**	**08 45 50.6**	**-1.6**
KLYT	**Kilyos**	**1.10**	**66**	*e*Pn	**Pn**	**08 45 50.7**	**-1.6**
BALB	**Balikesir**	**1.17**	**174**	*e*PN	**Pn**	**08 45 52.6**	**-0.6**
BALB	**Balikesir**	**1.17**	**174**	*e*Pn	**Pn**	**08 45 52.6**	**-0.7**
ENEZ	**Enez**	**1.18**	**267**	*e*PN	**Pn**	**08 45 52.8**	**-0.6**
ENEZ	**Enez**	**1.18**	**267**	*e*Pn	**Pn**	**08 45 52.8**	**-0.6**
ALN	**Alexandroupoli**	**1.27**	**275**	P	**Pg**	**08 45 53.7**	**-0.8**
ALN				S	**Sg**	**08 46 12.2**	**+1.3**
ALN	**Alexandroupoli**	**1.27**	**275**	*e*PN	**Pn**	**08 45 54.1**	**-0.4**
ALN				*e*SN	**Sn**	**08 46 12.1**	**+0.2**
ALN	**Alexandroupoli**	**1.27**	**275**	*e*Pn	**Pn**	**08 45 54.1**	**-0.4**
ALN				*e*Sn	**Sn**	**08 46 12.1**	**+0.2**
EDRB	**Edirne**	**1.27**	**325**	*e*PN	**Pn**	**08 45 54.5**	**-0.1**
EDRB	**Edirne**	**1.27**	**325**	*e*Pn	**Pn**	**08 45 54.5**	**-0.1**
YLV	**Yalova**	**1.29**	**100**	*e*PN	**Pn**	**08 45 53.7**	**-1.2**
YLV	**Yalova**	**1.29**	**100**	*e*Pn	**Pn**	**08 45 53.7**	**-1.1**
DURS	**Dursunbey**	**1.34**	**154**	*i* P	**Pn**	**08 45 55.7**	**+0.2**
DURS				*i* S	**Sb**	**08 46 14.0**	**+0.8**
DURS	**Dursunbey**	**1.34**	**154**	*i* P	**Pn**	**08 45 55.7**	**+0.1**
DURS				*i* S	**Sb**	**08 46 14.0**	**+0.7**
EZN	**Ezine**	**1.44**	**228**	*e*PN	**Pn**	**08 45 56.1**	**-0.8**
EZN	**Ezine**	**1.44**	**228**	*e*Pn	**Pn**	**08 45 56.1**	**-0.9**
HRT	**Hereke**	**1.49**	**89**	*e*PN	**Pn**	**08 45 57.1**	**-0.5**
HRT	**Hereke**	**1.49**	**89**	*e*Pn	**Pn**	**08 45 57.1**	**-0.5**
SILT	**Sile**	**1.50**	**76**	*e*PN	**Pn**	**08 45 57.2**	**-0.7**
SILT	**Sile**	**1.50**	**76**	*e*Pn	**Pn**	**08 45 57.2**	**-0.6**
GADA	**Gvkgeada**	**1.51**	**247**	*e*PN	**Pn**	**08 45 57.6**	**-0.4**
GADA	**Gvkgeada**	**1.51**	**247**	*e*Pn	**Pn**	**08 45 57.6**	**-0.3**
ADVT	**Abdulvahap**	**1.59**	**103**	*e*PN	**Pn**	**08 45 58.6**	**-0.4**
ADVT	**Abdulvahap**	**1.59**	**103**	*e*Pn	**Pn**	**08 45 58.6**	**-0.4**
BOZC	**Bozcaada**	**1.59**	**233**	*i* P	**Pn**	**08 45 58.9**	**-0.1**
BOZC				*i* S	**Sn**	**08 46 21.3**	**+1.4**
RDO	**Rodhopi**	**1.68**	**282**	*e*PN	**Pn**	**08 46 00.0**	**-0.2**
RDO				*e*SN	**Sn**	**08 46 21.9**	**-0.2**
RDO	**Rodhopi**	**1.68**	**282**	*e*Pn	**Pn**	**08 46 00.0**	**-0.2**
RDO				*e*Sn	**Sn**	**08 46 21.9**	**-0.2**
AYVA	**Ayvalik**	**1.69**	**208**	*i* P	**Pn**	**08 46 02.0**	**+1.6**
AYVA				*i* S	**Sn**	**08 46 23.9**	**+1.6**
AYVA	**Ayvalik**	**1.69**	**208**	*i* P	**Pn**	**08 46 02.0**	**+1.6**
AYVA				*i* S	**Sn**	**08 46 23.9**	**+1.6**
CAVI	**Cavuskoy**	**1.74**	**110**	*e*PN	**Pn**	**08 46 00.9**	**-0.1**
CAVI	**Cavuskoy**	**1.74**	**110**	*e*Pn	**Pn**	**08 46 00.9**	**-0.1**
JMB	**Yambol**	**1.86**	**333**	P	**Pn**	**08 46 04.4**	**+1.7**
JMB				S	**Sn**	**08 46 29.3**	**+2.8**
JMB	**Yambol**	**1.86**	**333**	P	**Pn**	**08 46 05.6**	**+2.9**
JMB				S	**Sn**	**08 46 30.8**	**+4.3**
JMB	**Yambol**	**1.86**	**333**	P	**Pn**	**08 46 04.4**	**+1.7**
JMB				S	**Sg**	**08 46 33.3**	**+3.3**
JMB	**Yambol**	**1.86**	**333**	P	**Pn**	**08 46 04.4**	**+1.7**
JMB				S	**Sn**	**08 46 29.3**	**+2.8**
PRK	**Paraskevi**	**1.91**	**216**	P	**Pn**	**08 46 02.6**	**-0.8**
PRK				S	**Sn**	**08 46 25.7**	**-2.1**
PRK	**Paraskevi**	**1.91**	**216**	*e*PN	**Pn**	**08 46 03.9**	**+0.5**
PRK	**Paraskevi**	**1.91**	**216**	P	**Pn**	**08 46 02.6**	**-0.8**
PRK	**Paraskevi**	**1.91**	**216**	*e*Pn	**Pn**	**08 46 03.9**	**+0.5**

PRK				S	Sn	08 46 25.7	-2.1
KDZ	Kurdzhali	1.92	297	P	Pn	08 46 03.1	-0.5
KDZ				Pg	Pg	08 46 07.1	0.0
KDZ				S	Sn	08 46 32.9	+4.8
AKHS	Akhisar	1.93	178	*i* P	Pn	08 46 03.2	-0.5
AKHS				*i* S	Sn	08 46 27.6	-0.7
AKHS	Akhisar	1.93	178	*i* P	Pn	08 46 03.2	-0.5
AKHS				*i* S	Sn	08 46 27.6	-0.6
AKS	Akhisar	1.93	178	*e*PN	Pn	08 46 03.7	0.0
AKS	Akhisar	1.93	178	*e*Pn	Pn	08 46 03.7	0.0
DIM	Dimitrovgrad	2.05	308	P	Pn	08 46 05.1	-0.3
LIA	Limnos Island	2.13	246	P	Pn	08 46 05.6	-0.9
LIA				S	Sn	08 46 31.1	-2.2
LIA	Limnos Island	2.13	246	*e*PN	Pn	08 46 05.8	-0.7
LIA	Limnos Island	2.13	246	*e*Pn	Pn	08 46 05.8	-0.7
LIA				S	Sn	08 46 31.1	-2.2
SIGR	SIGRI	2.14	222	P	Pn	08 46 06.2	-0.3
SIGR				S	Sn	08 46 30.4	-3.0
SIGR	SIGRI	2.14	222	P	Pn	08 46 00.0	-6.5
SIGR				S	Sg	08 46 42.1	+3.1
SIGR	SIGRI	2.14	222	P	Pn	08 46 06.2	-0.3
SIGR				S	Sn	08 46 30.4	-3.0
GDZ	Gediz	2.19	141	*i* P	Pn	08 46 08.2	+1.0
GDZ				*i* S	Sn	08 46 36.5	+1.8
GDZ	Gediz	2.19	141	*i* P	Pn	08 46 08.2	+0.9
GDZ				*i* S	Sn	08 46 36.5	+1.8
AVR	AVREN	2.31	359	P	Pn	08 46 08.5	-0.4
AVR				S	Sn	08 46 35.7	-1.9
PRD	Provadia	2.40	355	P	Pg	08 46 14.5	-1.8
PRD				S	Sg	08 46 46.3	-1.1
KULA	Kula-Manisa	2.41	162	*e*PN	Pn	08 46 10.6	+0.3
KULA	Kula-Manisa	2.41	162	*e*Pn	Pn	08 46 10.6	+0.4
MANT	Manisa	2.41	164	*i* P	Pn	08 46 10.1	-0.2
MANT				*i* S	Sg	08 46 45.3	-2.2
MANT	Manisa	2.41	164	*i* P	Pn	08 46 10.1	-0.1
RZN	Rozhen	2.42	292	P	Pn	08 46 09.9	-0.5
RZN				Pg	Pg	08 46 15.5	-1.2
RZN				S	Sg	08 46 46.1	-2.0
IZM	Izmir	2.43	188	*e*PN	Pn	08 46 10.6	0.0
IZM	Izmir	2.43	188	*e*Pn	Pn	08 46 10.6	0.0
BLCB	Balcova	2.47	192	*e*PN	Pn	08 46 11.9	+0.8
BLCB	Balcova	2.47	192	P	Pn	08 46 10.0	-1.2
BLCB				S	Sn	08 46 38.9	-2.8
BLCB	Balcova	2.47	192	P	Pn	08 46 12.4	+1.2
BLCB				S	Sn	08 46 44.8	+3.1
BLCB	Balcova	2.47	192	P	Pn	08 46 10.0	-1.2
BLCB	Balcova	2.47	192	*e*Pn	Pn	08 46 12.0	+0.8
BLCB				S	Sn	08 46 38.9	-2.8
NEF	NEVSHA	2.48	353	P	Pn	08 46 10.7	-0.5
ALT	Altintas	2.54	133	*e*PN	Pn	08 46 11.9	-0.2
ALT	Altintas	2.54	133	*e*Pn	Pn	08 46 12.0	-0.1
URLA	Izmir	2.59	200	*i* P	Pg	08 46 17.0	-3.0
URLA				*i* S	Sg	08 46 53.4	-0.2
URLA	Izmir	2.59	200	*i* P	Pg	08 46 17.0	-2.9
PLD	Plovdiv	2.60	301	P	Pn	08 46 13.4	+0.4
PLD	Plovdiv	2.60	301	P	Pn	08 46 18.2	+5.2
PLD				S	Sn	08 46 53.4	+8.5
PLD	Plovdiv	2.60	301	P	Pn	08 46 18.5	+5.5
PLD				S	Sg	08 46 57.3	+3.4
PLD	Plovdiv	2.60	301	P	Pn	08 46 13.4	+0.4
MDU	Mudurnu	2.69	96	*e*PN	Pn	08 46 14.2	+0.1
MDU	Mudurnu	2.69	96	*e*Pn	Pn	08 46 14.3	+0.2
ESKT	Eskisehir	2.73	117	*e*PN	Pn	08 46 15.2	+0.5
ESKT	Eskisehir	2.73	117	*e*Pn	Pn	08 46 15.2	+0.5
SZH	Strazhica	2.79	332	P	Pn	08 46 15.5	0.0
KHAL	Karahalli	2.80	150	*i* P	Pn	08 46 15.6	-0.1
KHAL	Karahalli	2.80	150	*i* P	Pn	08 46 15.6	0.0
KHL	Karahalli	2.85	150	*e*PN	Pn	08 46 17.5	+1.1
KHL	Karahalli	2.85	150	*e*Pn	Pn	08 46 17.5	+1.2
KDZE	Karadeniz Ereo	2.87	79	*e*PN	Pn	08 46 16.5	0.0
KDZE	Karadeniz Ereo	2.87	79	*e*Pn	Pn	08 46 16.5	-0.1
OUR	Ouranopolis	2.88	262	P	Pn	08 46 16.3	-0.4
OUR	Ouranopolis	2.88	262	P	Pb	08 46 22.6	+0.5
OUR				S	Sg	08 47 05.0	+2.3
OUR	Ouranopolis	2.88	262	P	Pn	08 46 16.3	-0.4
NVR	Nevrokopi	2.96	282	*e*PN	Pn	08 46 18.2	+0.4
NVR	Nevrokopi	2.96	282	*e*Pn	Pn	08 46 18.2	+0.4
MMB	Musomiste	3.10	286	P	Pn	08 46 20.0	+0.2
MMB				Pg	Pg	08 46 27.0	-2.7
MMB				S	Sg	08 47 08.4	-1.6
GCAM	G?zelcaml?	3.13	187	*i* P	Pg	08 46 28.9	-1.3
GCAM				*i* S	Sg	08 47 13.5	+2.8
SRS	Serrai	3.13	277	P	Pn	08 46 20.5	+0.3
SRS				S	Sn	08 46 59.6	+1.7
SRS	Serrai	3.13	277	P	Pb	08 46 26.2	-0.2
SRS				S	Sg	08 47 12.0	+1.1
SRS	Serrai	3.13	277	P	Pn	08 46 20.5	+0.3
SRS				S	Sn	08 46 59.6	+1.7
SHUT	Suhut-Afyon	3.14	135	*e*PN	Pn	08 46 21.1	+0.8
SHUT	Suhut-Afyon	3.14	135	*e*Pn	Pn	08 46 21.1	+0.7
AYDN	Tasoluk	3.15	178	*i* P	Pn	08 46 19.3	-1.1
AYDN	Tasoluk	3.15	178	*i* P	Pn	08 46 19.3	-1.1
SMG	Samos	3.17	193	*e*PN	Pn	08 46 20.6	-0.1
SMG	Samos	3.17	193	*e*Pn	Pn	08 46 20.6	-0.1
PGB	Panagyurishte	3.17	304	P	Pb	08 46 29.0	+1.9
SVRH	Sivrihisar-ESK	3.23	114	*e*PN	Pn	08 46 22.1	+0.6
SVRH	Sivrihisar-ESK	3.23	114	*e*Pn	Pn	08 46 22.1	+0.6
PLG	Polygyros	3.27	264	P	Pn	08 46 22.2	0.0
PLG	Polygyros	3.27	264	*e*PN	Pn	08 46 21.3	-0.9
PLG	Polygyros	3.27	264	P	Pg	08 46 27.9	-5.1
PLG				S	Sg	08 47 14.5	-1.0
PLG	Polygyros	3.27	264	*e*Pn	Pn	08 46 21.3	-0.9
PLG	Polygyros	3.27	264	P	Pn	08 46 22.2	0.0
SOH	Sokhos	3.31	272	P	Pn	08 46 22.3	-0.3
SOH				S	Sn	08 47 02.4	+0.2
SOH	Sokhos	3.31	272	*e*PN	Pn	08 46 23.3	+0.7
SOH	Sokhos	3.31	272	P	Pg	08 46 29.6	-4.0
SOH				S	Sg	08 47 15.7	-0.7
SOH	Sokhos	3.31	272	P	Pn	08 46 22.3	-0.3
SOH	Sokhos	3.31	272	*e*Pn	Pn	08 46 23.3	+0.7
SOH				S	Sn	08 47 02.4	+0.2
AOS	Alonnisos	3.37	242	P	Pn	08 46 23.8	+0.4
AOS	Alonnisos	3.37	242	P	Pg	08 46 29.8	-5.0
AOS	Alonnisos	3.37	242	P	Pn	08 46 23.8	+0.4
HORT	Hortiatis	3.51	268	P	Pn	08 46 25.2	-0.2
HORT				S	Sg	08 47 20.9	-2.1
HORT	Hortiatis	3.51	268	P	Pg	08 46 32.5	-5.0
HORT				S	Sg	08 47 21.6	-1.4
HORT	Hortiatis	3.51	268	P	Pn	08 46 25.2	-0.2
THE	Thessaloniki	3.61	269	P	Pn	08 46 27.8	+1.0
THE	Thessaloniki	3.61	269	P	Pn	08 46 32.7	+5.9
THE				S	Sn	08 47 23.2	+13
THE	Thessaloniki	3.61	269	P	Pn	08 46 27.8	+1.0
KKB	Krupnik	3.64	288	*e*P	Pn	08 46 37.0	+10
KKB				S	Sg	08 47 25.3	-1.9
KNT	Kendrikon	3.66	277	P	Pn	08 46 27.9	+0.5
KNT	Kendrikon	3.66	277	P	Pn	08 46 34.1	+6.7
KNT	Kendrikon	3.66	277	P	Pn	08 46 27.9	+0.5
TIRR	Tirgusor	3.68	8	⇑*i*P	Pn	08 46 27.2	-0.6
TIRR	Tirgusor	3.68	8	⇑P	Pn	08 46 27.2	-0.6
TIRR				S	Sn	08 47 08.1	-3.5
TIRR	Tirgusor	3.68	8	⇑P	Pn	08 46 27.2	-0.6
TIRR				S	Sn	08 47 08.1	-3.4
VTS	Vitosha	3.81	299	P	Pn	08 46 29.9	+0.4
VTS				*e*S	Sg	08 47 29.1	-3.6
GOLH	Golhisar	3.85	157	*i* P	Pn	08 46 31.1	+1.1
GOLH	Golhisar	3.85	157	*i* P	Pn	08 46 31.1	+1.1
VAY	Valandovo	3.92	279	P	Pn	08 46 30.9	-0.1
VAY	Valandovo	3.92	279	*e*Pg	Pg	08 46 41.9	-3.4
VAY				*e*Sg	Sg	08 47 33.1	-3.0
VAY	Valandovo	3.92	279	P	Pb	08 46 39.2	-0.6
VAY	Valandovo	3.92	279	P	Pn	08 46 30.9	-0.1
VAY	Valandovo	3.92	279	*e*Pg	Pg	08 46 41.9	-3.5
VAY				*e*Sg	Sg	08 47 33.0	-3.1
GRG	Griva	4.03	274	P	Pn	08 46 33.4	+0.9
GRG	Griva	4.03	274	P	Pb	08 46 40.5	-1.1
GRG	Griva	4.03	274	P	Pn	08 46 33.4	+0.9
LIT	Litokhoron	4.04	262	P	Pn	08 46 32.8	+0.1
LIT	Litokhoron	4.04	262	P	Pn	08 46 39.2	+6.5
LIT	Litokhoron	4.04	262	P	Pn	08 46 32.8	+0.1
KDHN	Kadinhani	4.10	122	*i* P	Pn	08 46 32.5	-0.9
KDHN	Kadinhani	4.10	122	*i* P	Pn	08 46 32.5	-1.0
LKR	Lokris	4.22	241	*e*PN	Pn	08 46 35.6	+0.4
LKR	Lokris	4.22	241	*e*Pn	Pn	08 46 35.6	+0.4
THL	Klokotos Trika	4.54	256	*e*PN	Pn	08 46 40.1	+0.6
THL	Klokotos Trika	4.54	256	*e*Pn	Pn	08 46 40.1	+0.6
BARS	Barje	4.84	296	*i* Pn	Pn	08 46 44.1	+0.4
MLR	Muntele Rosu	4.86	345	⇓*i*P	Pn	08 46 45.6	+1.7
MLR	Muntele Rosu	4.86	345	S	Sg	08 48 08.7	+2.6
MLR	Muntele Rosu	4.86	345	⇓P	Pn	08 46 45.6	+1.8
MLR	Muntele Rosu	4.86	345	⇓P	Pn	08 46 45.6	+1.7
VOIR		5.02	338	⇑*i*P	Pn	08 46 46.9	+0.8
VOIR		5.02	338	⇑P	Pn	08 46 46.9	+0.8
VOIR		5.02	338	⇑P	Pn	08 46 46.9	+0.8
VRI	Vrincioaia	5.11	352	⇓*i*P	Pn	08 46 48.9	+1.6
VRI	Vrincioaia	5.11	352	S	Sg	08 48 15.1	+0.9
VRI	Vrincioaia	5.11	352	⇓P	Pn	08 46 48.9	+1.6
VRI	Vrincioaia	5.11	352	⇓P	Pn	08 46 48.9	+1.6
GZR	Gura Zlata	5.83	323	⇑*i*P	Pn	08 46 57.6	+0.3
GZR	Gura Zlata	5.83	323	⇑P	Pn	08 46 57.6	+0.3
GZR				S	Sn	08 48 02.6	-1.9
GZR	Gura Zlata	5.83	323	⇑P	Pn	08 46 57.6	+0.3
GZR				S	Sn	08 48 02.6	-1.9
BZS	Buzias	6.55	319	⇓*i*P	Pn	08 47 07.2	+0.1
BZS	Buzias	6.55	319	⇓P	Pn	08 47 07.2	+0.1
BZS	Buzias	6.55	319	⇓P	Pn	08 47 07.2	+0.1
BURAR	Bucovina Array	7.04	346	⇑*i*P	Pn	08 47 15.5	+1.7
BURAR	Bucovina Array	7.04	346	⇑P	Pn	08 47 15.5	+1.7
BURAR	Bucovina Array	7.04	346	⇑P	Pn	08 47 15.5	+1.7
BUR08	Bucovina Ar. S	7.07	346	*e*Pn	Pn	08 47 15.2	+1.0
BUR08	Bucovina Ar. S	7.07	346	*e*Pn	Pn	08 47 15.2	+1.0
CUC	Castrocucco 22nm,0.9s	9.11	269	*e*Pn	Pn	08 47 48.2	+5.9

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*CSEM **21** 08:48:03.8, 36°.27N×21°.84E, h5^{km}, MD3.5, After ATH*
*NEIC **21** 08:48:03.8, 36°.27N×21°.84E, h5^{km}, MD3.5(ATH), After ATH.*
ATH 21 08:48:03.8, 36°.27N×21°.84E, h5^{km}±3^{km}, MD3.5/6, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.63	353	*e*PB	Pg	08 48 15.4	-0.5
PYL	PYLOS	0.63	353	*e*Pb	Pg	08 48 15.4	-0.5
ITM	Ithomi	0.91	4	*e*PG	Pg	08 48 20.8	-0.5
ITM				*e*SB	Sg	08 48 34.9	+1.8
ITM	Ithomi	0.91	4	*e*Pg	Pg	08 48 20.8	-0.5
ITM				*e*Sb	Sg	08 48 34.9	+1.8
KYTH	Kithira	0.97	89	*e*PB	Pg	08 48 22.3	0.0
KYTH	Kithira	0.97	89	*e*Pb	Pg	08 48 22.3	0.0
VLI	Veliai	0.99	63	*e*PG	Pg	08 48 22.5	-0.3
VLI				*e*SB	Sg	08 48 37.2	+1.5
VLI	Veliai	0.99	63	*e*Pg	Pg	08 48 22.5	-0.3
VLI				*e*Sb	Sg	08 48 37.2	+1.5
VLX	Vlachokerasia	1.18	21	*e*PB	Pg	08 48 26.1	-0.3
VLX	Vlachokerasia	1.18	21	*e*Pb	Pg	08 48 26.1	-0.3
GUR	Goura	1.71	13	*e*PN	Pn	08 48 36.0	+1.7
GUR	Goura	1.71	13	*e*Pn	Pn	08 48 36.0	+1.7
RLS	Riolos of Patr	1.81	351	*e*PN	Pn	08 48 38.5	+2.9
RLS	Riolos of Patr	1.81	351	*e*Pn	Pn	08 48 38.5	+2.9
VLS	Valsamata	2.15	333	*e*PG	Pn	08 48 43.7	+3.4
VLS	Valsamata	2.15	333	*e*Pg	Pn	08 48 43.7	+3.4
LKR	Lokris	2.55	21	*e*PN	Pn	08 48 48.9	+3.1
LKR	Lokris	2.55	21	*e*Pn	Pn	08 48 48.9	+3.1
IDI	Anoyia	2.67	111	*e*PN	Pn	08 48 50.8	+3.4
IDI	Anoyia	2.67	111	*e*Pn	Pn	08 48 50.8	+3.4
AGG	Agios Georgios	2.77	8	*e*PN	Pn	08 48 52.3	+3.4
AGG	Agios Georgios	2.77	8	*e*Pn	Pn	08 48 52.3	+3.4

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*NEIC **21** 08:57:34.6, 36°.10N×21°.61E, h5^{km}, MD3.7(ATH), After ATH.*
*ATH **21** 08:57:34.6, 36°.10N×21°.61E, h5^{km}, MD3.7/8*
*IDC **21** 08:57:34.3±1.4, 36°.30N×21°.74E, h0^{km}, mb3.7/4, mb1 3.7/5, mb1mx3.4/24, mbtmp3.6/5, ML3.0/1, Error ellipse: s-maj=27.5km s-min=25.3km az=43.0*
*ISCJB **21** 08:57:35.5±0.6, 36°.08N±0°.03×21°.59E±0°.06, h10^{km}, mb3.7/3, Error ellipse: s-maj=7.2km s-min=4.6km az=159.4*
*CSEM **21** 08:57:36.6±0.5, 36°.13N×21°.72E, h2^{km}, ML4.1/3, Error ellipse: s-maj=10.3km s-min=6.1km az=43.0*
*THE **21** 08:57:37.3, 36°.17N×21°.64E, h0^{km}±2^{km}, ML4.1/3, Error ellipse: s-maj=4.7km s-min=1.2km az=239.0*
ISC 21 08:57:37.2±0.6, **36°.10N**±0°.03×**21°.65E**±0°.06, **h10^{km}, n79,** σ**1^{s}.27**/99, **mb3.7**/3, **1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.80	5	P	Pg	08 57 50.5	-2.1
PYL				S	Sg	08 58 01.4	-1.7
PYL	PYLOS	0.80	5	P	Pg	08 57 50.5	-2.1
PYL				S	Sg	08 58 01.4	-1.7
ITM	Ithomi	1.10	12	*e*PB	Pg	08 57 55.9	-2.5
ITM				*e*SB	Sg	08 58 11.2	-1.6
ITM	Ithomi	1.10	12	*e*Pb	Pg	08 57 55.9	-2.5
ITM				*e*Sb	Sg	08 58 11.2	-1.6
KYTH	Kithira	1.14	80	*e*PB	Pg	08 57 56.8	-2.3
KYTH	Kithira	1.14	80	*e*Pb	Pg	08 57 56.8	-2.3
VLI	Veliai	1.21	59	*e*PG	Pn	08 57 57.9	-2.3
VLI	Veliai	1.21	59	*e*Pg	Pn	08 57 57.9	-2.3
RLS	Riolos of Patr	1.96	356	*e*PG	Pn	08 58 10.9	+0.4
RLS	Riolos of Patr	1.96	356	*e*Pg	Pn	08 58 10.9	+0.4
KARN	Karanos	1.97	110	P	Pn	08 58 11.5	+0.9
KARN	Karanos	1.97	110	P	Pn	08 58 11.5	+0.9
LAKA	Lakka	2.16	7	P	Pn	08 58 13.2	0.0
LAKA				S	Sn	08 58 40.4	+0.5
LAKA	Lakka	2.16	7	P	Pn	08 58 13.2	0.0
LAKA				S	Sn	08 58 40.4	+0.5
LTK	Loutraki	2.19	28	P	Pn	08 58 13.0	-0.7
LTK				S	Sn	08 58 42.7	+1.8
LTK	Loutraki	2.19	28	P	Pn	08 58 13.0	-0.7
LTK				S	Sn	08 58 42.7	+1.8
NAIG	Nisos Aigina	2.22	41	*e*PG	Pn	08 58 16.8	+2.8
NAIG	Nisos Aigina	2.22	41	*e*Pg	Pn	08 58 16.8	+2.8
VLS	Valsamata	2.24	338	P	Pn	08 58 15.1	+0.8
VLS	Valsamata	2.24	338	*e*PN	Pn	08 58 14.8	+0.5
VLS	Valsamata	2.24	338	*e*Pn	Pn	08 58 14.8	+0.5
VLS	Valsamata	2.24	338	P	Pn	08 58 15.1	+0.8
TRIZ	Trizonia	2.29	8	P	Pn	08 58 15.6	+0.6
TRIZ				S	Sn	08 58 44.4	+1.1
TRIZ	Trizonia	2.29	8	P	Pn	08 58 15.6	+0.6
TRIZ				S	Sn	08 58 44.4	+1.1
VLY	Voula,Athens	2.46	44	*e*PN	Pn	08 58 18.3	+1.0
VLY	Voula,Athens	2.46	44	*e*Pn	Pn	08 58 18.3	+1.0
IDI	Anoyia 2.3nm,0.3s,baz=294,slow=18,SNR=12	2.76	106	Pn	Pn	08 58 21.0	-0.5
IDI	10nm,0.3s,baz=92,slow=23,SNR=7.7			Sn	Sn	08 58 54.9	0.0
IDI	Anoyia	2.76	106	Pn	Pn	08 58 21.0	-0.4
IDI				Sn	Sn	08 58 54.8	0.0
LKR	Lokris	2.77	22	P	Pn	08 58 21.4	-0.2
LKR				S	Sn	08 58 55.7	+0.7
LKR	Lokris	2.77	22	*e*PN	Pn	08 58 23.6	+2.0
LKR	Lokris	2.77	22	P	Pn	08 58 21.4	-0.2
LKR	Lokris	2.77	22	*e*Pn	Pn	08 58 23.6	+2.0
LKR				S	Sn	08 58 55.7	+0.7
SIVA	Sivas	2.79	112	P	Pn	08 58 24.2	+2.3
EVR	Evrytania	2.82	3	*e*PN	Pn	08 58 24.3	+2.0
EVR	Evrytania	2.82	3	*e*Pn	Pn	08 58 24.3	+2.0
AGG	Agios Georgios	2.97	10	P	Pn	08 58 24.2	-0.2
AGG				S	Sn	08 59 01.7	+1.7
AGG	Agios Georgios	2.97	10	P	Pn	08 58 24.2	-0.2
AGG				S	Sn	08 59 01.7	+1.7
THL	Klokotos Trika	3.48	5	P	Pn	08 58 31.8	+0.5
THL				S	Sn	08 59 13.9	+1.4
THL	Klokotos Trika	3.48	5	*e*PN	Pn	08 58 31.4	+0.1
THL	Klokotos Trika	3.48	5	*e*Pn	Pn	08 58 31.4	+0.1
THL	Klokotos Trika	3.48	5	P	Pn	08 58 31.8	+0.5
THL				S	Sn	08 59 13.9	+1.4
XOR	Xorichti	3.49	20	P	Pn	08 58 31.3	-0.1
XOR	Xorichti	3.49	20	P	Pn	08 58 31.3	-0.1
AOS	Alonnisos	3.54	29	P	Pn	08 58 32.9	+0.7
AOS	Alonnisos	3.54	29	P	Pn	08 58 32.9	+0.7
MEV	Metsovon	3.70	355	P	Pn	08 58 35.6	+1.3
MEV	Metsovon	3.70	355	P	Pn	08 58 35.6	+1.3
LIT	Litokhoron	4.05	9	P	Pn	08 58 40.2	+1.0
LIT	Litokhoron	4.05	9	P	Pn	08 58 40.2	+1.0
PLG	Polygyros	4.50	18	P	Pn	08 58 45.4	0.0
PLG	Polygyros	4.50	18	P	Pn	08 58 45.4	0.0
HORT	Hortiatis	4.64	14	P	Pn	08 58 46.9	-0.3
HORT	Hortiatis	4.64	14	P	Pn	08 58 46.9	-0.3
FNA	Florina	4.69	357	P	Pn	08 58 47.7	-0.2
FNA				S	Sn	08 59 44.0	+1.7
FNA	Florina	4.69	357	P	Pn	08 58 47.7	-0.2
FNA				S	Sn	08 59 44.0	+1.7
GRG	Griva	4.89	7	P	Pn	08 58 50.5	-0.2
GRG	Griva	4.89	7	P	Pn	08 58 50.5	-0.2
SOH	Sokhos	4.91	15	P	Pn	08 58 50.9	0.0
SOH	Sokhos	4.91	15	P	Pn	08 58 50.9	0.0
BIA	Bitola	4.92	357	P	Pn	08 58 50.8	-0.4
BIA	Bitola	4.92	357	P	Pn	08 58 50.8	-0.4
OHR	Ohrid	5.05	353	*e*Pn	Pn	08 58 52.3	-0.7
OHR	Ohrid	5.05	353	*e*Pn	Pn	08 58 52.2	-0.7
KNT	Kendrikon	5.15	11	P	Pn	08 58 54.1	-0.2
KNT	Kendrikon	5.15	11	P	Pn	08 58 54.1	-0.2
SRS	Serrai	5.24	16	P	Pn	08 58 56.1	+0.6
SRS	Serrai	5.24	16	P	Pn	08 58 56.1	+0.6
VAY	Valandovo	5.27	8	*e*Pn	Pn	08 58 54.5	-1.4
VAY	Valandovo	5.27	8	*e*Pn	Pn	08 58 54.4	-1.5
KRUS	Krusevo	5.28	357	*e*Pn	Pn	08 58 54.4	-1.6
KRUS	Krusevo	5.28	357	*e*Pn	Pn	08 58 54.4	-1.6
CUC	Castrocucco 11nm,0.6s	6.03	312	*e*Pn	Pn	08 59 07.4	+1.1
CUC	Castrocucco 11nm,0.6s	6.03	312	*e*Pn	Pn	08 59 07.4	+1.1
BARS	Barje	6.71	1	⇑*i*Pn	Pn	08 59 14.3	-1.4
NISS		7.30	2	*e*Pn	Pn	08 59 22.4	-1.4
HFS	Hagfors 0.8nm,0.3s,mb3.7,baz=146,slow=16,SNR=5.4	24.60	350	P	P	09 02 54.4	-2.8
TORD	Torodi Ar. Bea 0.4nm,0.7s,baz=24,slow=9.8,SNR=4.3	29.05	223	P	P	09 03 38.0	+0.3
ARCES	ARCESS Array B 2.0nm,0.8s,mb4.1,baz=193,slow=10.0,SNR=5.5	33.56	2	P	P	09 04 14.3	-2.6
MKAR	Makanchi Array 0.2nm,0.4s,mb3.4,baz=268,slow=8.0,SNR=6.8	45.66	57	P	P	09 05 54.2	-3.6

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*DDA **21** 09:04:33.8, 38°.36N×25°.84E, h6^{km}±5^{km}, Md2.7*
*ISCJB **21** 09:04:35.2±1.4, 38°.35N±0°.05×25°.89E±0°.07, h6^{km}±6^{km}, Error ellipse: s-maj=11.0km s-min=5.2km az=145.2*
*CSEM **21** 09:04:35.6±0.4, 38°.34N×25°.90E, h5^{km}, ML2.7/1, Error ellipse: s-maj=7.3km s-min=3.3km az=52.0*
*THE **21** 09:04:37.4, 38°.41N×26°.03E, h7^{km}±2^{km}, ML2.7/1, Error ellipse: s-maj=4.6km s-min=0.9km az=221.0*
ISC 21 09:04:35.2±1.4, **38°.33N**±0°.05×**25°.88E**±0°.08, **h1**^{km}±6^{km}, **n19,** σ**0^{s}.95**/38, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOS	Chios island	0.15	68	P	Pg	09 04 38.7	+0.7
CHOS				S	Sg	09 04 39.8	-0.1
CHOS	Chios island	0.15	68	P	Pg	09 04 38.7	+0.7
CHOS				S	Sg	09 04 39.8	-0.1
URLA	Izmir	0.56	87	*i* P	Pg	09 04 46.2	+0.3
URLA				*i* S	Sg	09 04 53.4	+0.2
URLA	Izmir	0.56	87	*i* P	Pg	09 04 46.2	+0.3
URLA				*i* S	Sg	09 04 53.4	+0.2
SIGR	SIGRI	0.88	359	P	Pg	09 04 52.3	+0.3
SIGR				S	Sg	09 05 04.8	+1.4
SIGR	SIGRI	0.88	359	P	Pg	09 04 52.3	+0.3
SIGR				S	Sg	09 05 04.8	+1.4
BLCB	Balcova	0.91	86	P	Pg	09 04 53.3	+0.6
BLCB				S	Sg	09 05 03.7	-0.8
BLCB	Balcova	0.91	86	P	Pg	09 04 53.3	+0.6
BLCB				S	Sg	09 05 03.7	-0.8
PRK	Paraskevi	0.96	18	P	Pg	09 04 53.5	-0.1
PRK				S	Sg	09 05 06.7	+0.6
PRK	Paraskevi	0.96	18	P	Pg	09 04 53.5	-0.1
PRK				S	Sg	09 05 06.7	+0.6
AYVA	Ayvalik	1.16	33	*i* P	Pg	09 04 55.9	-1.5
AYVA				*i* S	Sg	09 05 11.4	-1.1
AYVA	Ayvalik	1.16	33	*i* P	Pg	09 04 55.9	-1.5
AYVA				*i* S	Sg	09 05 11.4	-1.1
GCAM	G?zelcaml?	1.24	120	*i* P	Pg	09 04 57.0	-1.9
GCAM				*i* S	Sg	09 05 15.5	+0.5
GCAM	G?zelcaml?	1.24	120	*i* P	Pg	09 04 57.0	-1.9
GCAM				*i* S	Sg	09 05 15.5	+0.5
BOZC	Bozcaada	1.51	5	*i* P	Pn	09 05 01.2	-2.2
BOZC				*i* S	Sn	09 05 18.0	-5.8
AKHS	Akhisar	1.61	70	*i* P	Pn	09 05 05.5	+0.7
AKHS				*i* S	Sn	09 05 26.4	+0.2
AKHS	Akhisar	1.61	70	*i* P	Pn	09 05 05.5	+0.8
AKHS				*i* S	Sn	09 05 26.4	+0.2
AYDN	Tasoluk	1.71	112	*i* P	Pn	09 05 07.4	+1.2
AYDN				*i* S	Sn	09 05 28.8	0.0
AYDN	Tasoluk	1.71	112	*i* P	Pn	09 05 07.4	+1.2
AYDN				*i* S	Sn	09 05 28.8	+0.1

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*DDA **21** 09:09:23.6, 37°.62N×38°.51E, h15^{km}±2^{km}, Md3.6, Ml3.8*
*ISK **21** 09:09:23.3, 37°.59N×38°.50E, h6^{km}, ML3.6*
*ISCJB **21** 09:09:24.2±0.5, 37°.59N±0°.02×38°.49E±0°.02, h8^{km}±3^{km}, Error ellipse: s-maj=3.7km s-min=3.1km az=170.1*
*CSEM **21** 09:09:24.2±0.1, 37°.60N×38°.49E, h2^{km}, ML3.8, Error ellipse: s-maj=3.6km s-min=2.8km az=154.0*
*NSSC **21** 09:09:30, 37°.30N×38°.40E, h21^{km}±6^{km}*
ISC 21 09:09:24.3±0.5, **37°.60N**±0°.02×**38°.51E**±0°.02, **h3**^{km}±4^{km}, **n75,** σ**0^{s}.91**/103, **7C-9D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATAB	Bozova	0.21	233	⇑*i*P	Pg	09 09 28.4	0.0
ATAB				*i* S	Sg	09 09 31.9	+0.7
ATAB	Bozova	0.21	233	*i* P	Pg	09 09 28.5	+0.1
ATAB				*i* S	Sg	09 09 31.9	+0.8
URFA	Urfa	0.29	122	*e*PG	Pg	09 09 29.9	-0.1
URFA				*e*SG	Sg	09 09 33.9	0.0
URFA	Urfa	0.29	122	*e*Pg	Pg	09 09 29.9	-0.1
URFA				*e*Sg	Sg	09 09 33.9	0.0
MYA	Malataya	0.73	355	*e*PG	Pg	09 09 37.9	-0.5
MYA	Malataya	0.73	355	*e*Pg	Pg	09 09 37.9	-0.5
AKCD	Akcadag	0.84	327	⇓*i*P	Pg	09 09 39.9	-0.5
AKCD				*i* S	Sg	09 09 51.6	+0.4
AKCD	Akcadag	0.84	327	*i* P	Pg	09 09 39.9	-0.5
AKCD				*i* S	Sg	09 09 51.6	+0.4
ELZG	Elazig	0.97	23	⇑*i*P	Pg	09 09 42.6	-0.4
ELZG				*i* S	Sg	09 09 54.1	-1.6
ELZG	Elazig	0.97	23	*i* P	Pg	09 09 42.6	-0.5
ELZG				*i* S	Sg	09 09 54.1	-1.6
GAZ	Gaziantep	1.11	248	*e*PN	Pg	09 09 45.3	-0.5
GAZ				*e*SN	Sg	09 10 00.6	+0.4
GAZ	Gaziantep	1.11	248	*e*Pn	Pg	09 09 45.3	-0.4
GAZ				*e*Sn	Sg	09 10 00.6	+0.4
KMRS	Kahramanmaras	1.28	266	*e*PN	Pn	09 09 47.3	-1.7
KMRS	Kahramanmaras	1.28	266	*e*Pn	Pn	09 09 47.3	-1.8
DIYA	Diyarbakir	1.32	75	⇑*i*P	Pn	09 09 48.8	-0.8
DIYA				*i* S	Sg	09 10 07.5	+0.7
DIYA	Diyarbakir	1.32	75	*i* P	Pn	09 09 48.8	-0.8
DIYA				*i* S	Sg	09 10 07.5	+0.7
KUZU	Kuzuini	1.41	235	*i* P	Pn	09 09 49.8	-1.1
KUZU				*i* S	Sb	09 10 09.9	+0.4
KUZU	Kuzuini	1.41	235	*i* P	Pn	09 09 49.8	-1.0
KUZU				*i* S	Sb	09 10 09.9	+0.3
SLMH	Al Salmeh	1.46	199	⇑P	Pn	09 09 50.0	-1.5
SLMH				⇑S	Sb	09 10 05.0	-5.9
DARE	Darende-Malaty	1.46	338	*e*PN	Pn	09 09 48.0	-3.6
DARE	Darende-Malaty	1.46	338	*e*Pn	Pn	09 09 48.0	-3.6
KEMA	Kemaliye	1.67	360	⇑*i*P	Pn	09 09 54.2	-0.2
KEMA	Kemaliye	1.67	360	*i* P	Pn	09 09 54.2	-0.2
SFNV	Sufian	1.74	132	⇓P	Pn	09 09 57.0	+1.6
SFNV				⇓S	Sn	09 10 17.0	-1.1
MNKR	ALMNKUR	1.76	159	⇑P	Pn	09 09 57.0	+1.3
MNKR				⇑S	Sn	09 10 15.0	-3.6
DRWC	Darouich	1.76	237	⇓P	Pn	09 09 57.0	+1.3
DRWC				⇓S	Sn	09 10 15.0	-3.7
SARI	SarD1z-Kayseri	1.79	308	*e*PN	Pn	09 09 56.4	+0.3
SARI	SarD1z-Kayseri	1.79	308	*e*Pn	Pn	09 09 56.4	+0.3
MARD	Mardin	1.83	98	⇑*i*P	Pn	09 09 55.6	-1.1
JHLN	Al Jahlan	1.92	182	⇑P	Pn	09 09 58.0	+0.1
JHLN				⇑S	Sn	09 10 18.0	-4.6
PINB	Pinarbasi	1.98	304	⇑*i*P	Pn	09 09 59.4	+0.8
PINB				*i* S	Sn	09 10 24.9	+0.9
PINB	Pinarbasi	1.98	304	*i* P	Pn	09 09 59.4	+0.7
PINB				*i* S	Sn	09 10 24.9	+0.9
KOZT	Kozan	2.13	268	*e*PN	Pn	09 10 00.1	-0.7
KOZT	Kozan	2.13	268	*e*Pn	Pn	09 10 00.1	-0.7
BSHR	Al Beshri	2.19	151	⇓P	Pn	09 10 05.0	+3.3
BSHR				⇓S	Sn	09 10 29.0	-0.3
BEST	Besiri	2.21	82	⇑*i*P	Pn	09 10 01.2	-0.7
BEST				*i* S	Sn	09 10 31.9	+2.2
BTCH	Batrach	2.26	227	⇑P	Pn	09 10 03.0	+0.4
BTCH				⇑S	Sn	09 10 27.0	-4.0
HTY	Hatay	2.40	233	*e*PN	Pn	09 10 04.3	-0.2
HTY	Hatay	2.40	233	*e*Pn	Pn	09 10 04.3	-0.2
BNN	Bunyan	2.44	302	*e*PN	Pn	09 10 05.2	+0.2
BNN	Bunyan	2.44	302	*e*Pn	Pn	09 10 05.2	+0.2

SVSK	Karacayir	2.60	333	*e*PN	Pn	09 10 07.0	-0.2
SVSK	Karacayir	2.60	333	*e*Pn	Pn	09 10 07.0	-0.2
WRDH	Warideh	2.68	220	⇑P	Pn	09 10 08.0	-0.4
WRDH				⇑S	Sn	09 10 36.0	-5.3
KRTS	Karatas	2.70	249	*e*PN	Pn	09 10 08.4	-0.3
KRTS	Karatas	2.70	249	*e*Pn	Pn	09 10 08.4	-0.3
SLNF	Slenfeh	2.71	223	⇑P	Pn	09 10 09.0	+0.2
SLNF				⇑S	Sn	09 10 38.0	-4.1
KARA	Karaisali	2.77	264	*e*PN	Pn	09 10 09.4	-0.1
KARA	Karaisali	2.77	264	*e*Pn	Pn	09 10 09.4	-0.1
GUMT	Gumushane	2.96	15	*e*PN	Pn	09 10 12.2	+0.1
GUMT	Gumushane	2.96	15	*e*Pn	Pn	09 10 12.2	0.0
AVNT	Avonos	3.11	293	*i* P	Pn	09 10 15.2	+1.0
AVNT	Avonos	3.11	293	*i* P	Pn	09 10 15.2	+1.0
BIDA	Albida	3.12	215	⇓P	Pn	09 10 14.0	-0.4
BIDA				⇓S	Sn	09 10 46.0	-6.2
NIG	Nigde	3.13	281	*e*PN	Pn	09 10 14.1	-0.4
NIG	Nigde	3.13	281	*e*Pn	Pn	09 10 14.1	-0.4
EZM	Erzurum	3.21	43	*e*PN	Pn	09 10 15.9	+0.3
YOZ	Yozgat	3.22	310	*e*PN	Pn	09 10 15.8	0.0
YOZ	Yozgat	3.22	310	*e*Pn	Pn	09 10 15.8	0.0
MERS	Mersin	3.26	258	*e*PN	Pn	09 10 16.9	+0.5
MERS	Mersin	3.26	258	*e*Pn	Pn	09 10 16.9	+0.6
ESPY	Espiye-Giresun	3.32	3	*e*PN	Pn	09 10 17.4	+0.2
ESPY	Espiye-Giresun	3.32	3	*e*Pn	Pn	09 10 17.4	+0.3
CDAG	Cicekdag	3.82	303	*i* P	Pn	09 10 20.5	-3.5
HWQ	Hawqa	3.91	213	*e*Pn	Pn	09 10 26.4	+1.1
HWQ	Hawqa	3.91	213	*e*Pn	Pn	09 10 26.4	+1.2
SULT	Sultanhani-AKS	3.99	280	*e*PN	Pn	09 10 27.1	+0.7
SULT	Sultanhani-AKS	3.99	280	*e*Pn	Pn	09 10 27.1	+0.7
AGRB	Hanur-Agry	4.03	59	*e*PN	Pn	09 10 27.7	+0.8
AGRB	Hanur-Agry	4.03	59	*e*Pn	Pn	09 10 27.7	+0.8
CUKT	Cukurca	4.08	93	*e*PN	Pn	09 10 28.3	+0.8
CUKT	Cukurca	4.08	93	*e*Pn	Pn	09 10 28.3	+0.8
HAKT	HAKKARI	4.13	89	*i* P	Pg	09 10 48.1	+4.6
HAKT				*i* S	Sg	09 11 53.3	+16
HDMB	Hadim	4.84	264	*e*PN	Pn	09 10 38.8	+0.8
HDMB	Hadim	4.84	264	*e*Pn	Pn	09 10 38.8	+0.7

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*ISCJB **21** 09:11:52.0±0.6, 77°.00N±0°.04×18°.9E±0°.2, h10^{km}, Error ellipse: s-maj=7.0km s-min=4.6km az=31.3*
*NAO **21** 09:11:53.4±1.6, 77°.01N×18°.83E, h14^{km}±16^{km}, ML2.3*
*CSEM **21** 09:11:55.9±0.2, 76°.76N×18°.96E, h20^{km}, ML2.5, Error ellipse: s-maj=8.3km s-min=4.7km az=43.0*
*BER **21** 09:11:57.1±3.1, 77°.10N×19°.04E, h23^{km}±16^{km}, MD1.9, ML2.5, ML2.3(NAO)*
ISC 21 09:11:53.3±0.7**, 77°.05N**±0°.04×**18°.9E**±0°.2**, h16**^{km}±9^{km}**, n11, σ0.^{s}74**/22**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.75	269	*e*P	Pg	09 12 08.8	+1.0
HSP				*e*S	Sg	09 12 18.3	+0.7
SPA0	Spitsbergen Ar	1.26	336	Pg	Pg	09 12 17.5	+0.1
	baz=150,slow=18						
SPA0				Lg		09 12 34.3	
	baz=154,slow=28						
HOPEN	Hopen	1.52	108	*e*P	Pn	09 12 20.3	+0.7
HOPEN				*e*S	Sn	09 12 39.0	0.0
HOPEN				*e*Sg	Sg	09 12 42.7	+0.6
HOPEN				AML	AML	09 12 45.6	
	comp=Z,121nm,0.4s						
HOPEN	Hopen	1.52	108	*e*P	Pn	09 12 20.3	+0.6
	SNR=55						
HOPEN				*e*S	Sn	09 12 39.0	0.0
	SNR=55						
HOPEN				*e*Sg	Sg	09 12 42.7	+0.6
	comp=Z,121nm,0.4s,SNR=93						
KBS	Kingsbay	2.38	326	Pn	Pn	09 12 32.6	+1.1
KBS				Pg	Pg	09 12 37.8	-1.0
KBS				Lg		09 13 07.6	
KBS	Kingsbay	2.38	326	*e*Pg	Pg	09 12 37.9	-0.8
KBS				*e*Sg	Sg	09 13 08.7	-0.9
KBS				AML	AML	09 13 14.8	
	comp=Z,52nm,0.5s						
KBS	Kingsbay	2.38	326	Pn	Pn	09 12 32.6	+1.1
KBS	Kingsbay	2.38	326	*i* P	Pn	09 12 37.1	+5.6
	SNR=46						
KBS				*i* S	Sn	09 13 08.9	+8.7
	SNR=49						
BJO	Bjornoya	2.56	178	*e*Pg	Pg	09 12 41.4	-0.9
BJO				*e*Sg	Sg	09 13 15.1	-0.3
BJO				AML	AML	09 13 20.7	
	comp=Z,30nm,0.3s						
ARA0	ARCESS Array S	7.79	162	Pn	Pn	09 13 44.8	-0.9
ARA0				Sn	Sn	09 15 07.3	-6.0
	baz=3.5,slow=22						
ARA0	ARCESS Array S	7.79	162	Pn	Pn	09 13 44.8	-0.9
ARA0				Sn	Sn	09 15 07.3	-6.0
	baz=3.5,slow=20,SNR=8.3						

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*IDC **21** 09:18:45.0±1.3, 2°.45N×95°.82E, h0^{km}, mb4.2/8, mb1 4.2/10, mb1mx3.9/25, mbtmp4.1/10, ML4.0/2, MS3.6/6, Ms1 3.6/6, ms1mx3.2/35, Error ellipse: s-maj=44.8km s-min=18.6km az=52.0*
*BJI **21** 09:18:48.4, 2°.69N×95°.75E, h30^{km}, mB4.9/3, mb4.6/9, Ms4.8/1, Ms7 4.7/1*
*NEIC **21** 09:18:50.7±0.6, 2°.53N×95°.93E, h35^{km}, mb4.3/6, Error ellipse: s-maj=13.7km s-min=8.7km az=218.0*
ISC 21 09:18:49.6±5.4**, 2°.5N**±0°.1×**95°.9E**±0°.2**, h26**^{km}±37^{km}**, h23**^{km}±4.0^{km}**:pP-P, n30, σ0.^{s}89**/27**, mb4.3**/18**, MS3.7**/4**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	3.00	348	⇑*e*P	Pn	09 19 35.0	-0.5
BSI				*e*S	Sn	09 20 11.0	+0.4
PSI	Prapat	3.01	85	Pn	Pn	09 19 37.0	+1.3
	5.8nm,0.3s,baz=284,slow=5.5,SNR=19						
PSI				LR	LR	09 21 02.2	
	comp=Z,327nm,18.6s,baz=270,slow=44						
PSI	Prapat	3.01	85	Pn	Pn	09 19 37.0	+1.3
KULM	Kulim	5.45	60	*e*Pn	Pn	09 20 09.9	+0.7
	70nm,0.8s						
PALK	Pallekele	15.87	288	LR	LR	09 27 48.4	
	comp=Z,166nm,18.9s,baz=106,slow=34						
CMAR	Chiang Mai Arr	16.09	10	Pn	Pn	09 22 32.7	-1.4
	0.4nm,0.3s,baz=196,slow=11,SNR=11						
SHL	Shillong	23.22	351	*e*PKP	P	09 23 53.0	-1.8
LSA	Lhasa	27.38	351	*e*P	P	09 24 34.2	+1.2
	11nm,0.8s,mb4.4						
XAN	Xi'an	33.60	20	P	P	09 25 26.8	-1.1
XAN				pP	pP	09 25 33.3	-2.3
XAN				sP	sP	09 25 35.8	-2.9
XAN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
XAN				pmax	pmax		
	comp=Z,6.0nm,3.0s						
LZH	Lanzhou	34.17	11	*e*P	P	09 25 32.5	-0.3
LZH				pP	pP	09 25 38.0	-2.5
LZH				sP	sP	09 25 42.3	-1.4
LZH				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
LZH				pmax	pmax		
	comp=Z,93nm,5.0s						
GTA	Gaotai	36.87	5	*e*P	P	09 25 55.9	0.0
GTA				pP	pP	09 26 01.3	-2.3
GTA				sP	sP	09 26 04.3	-2.5
GTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.5						
KSH	Kashi	41.03	336	P	P	09 26 29.6	-1.2
KSH				*e*pP	pP	09 26 41.0	+2.4
KSH				*e*sP	sP	09 26 46.8	+5.1
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
KSH				pmax	pmax		
	comp=Z,190nm,3.4s						
KSH				LR	LR		
	comp=N,220nm,5.6s						
KSH				LR	LR		
	comp=E,180nm,6.4s						
KSH				LR	LR		
	comp=Z,290nm,5.2s						
WRA	Warramunga Arr	43.83	122	P	P	09 26 52.9	-1.0
	comp=Z,1.7nm,0.9s,mb3.8,baz=302,slow=8.9,SNR=5.4						
WRA				LR	LR	09 49 22.4	
	comp=Z,83nm,19.3s,MS3.7,baz=320,slow=42						
UCH	Uchtor	43.92	337	*e*P	P	09 26 55.6	+1.4
	comp=Z,4.4nm,0.9s,mb4.2						
AML	Almayashu	44.16	336	*e*P	P	09 26 57.4	+1.3
	comp=Z,6.6nm,1.0s,mb4.3						
AAK	Ala-Archa	44.27	337	P	P	09 26 58.3	+1.3
	comp=Z,1.3nm,0.6s,mb3.8,baz=198,slow=5.7,SNR=5.0						
EKS2	Erkin-Say	44.57	337	*e*P	P	09 27 00.7	+1.2
	comp=Z,3.1nm,0.7s,mb4.2						
ASAR	Alice Springs	45.22	127	P	P	09 27 04.6	-0.3
	comp=Z,0.7nm,0.9s,mb3.5,baz=305,slow=8.7,SNR=5.0						
KSRS	Korea Array	45.50	36	LR	LR	09 48 30.2	
	comp=Z,64nm,18.0s,MS3.6,baz=12,slow=39						
MK31	Makanchi Array	45.64	347	*e*P	P	09 27 08.1	+0.2
MKAR	Makanchi Array	45.64	347	P	P	09 27 08.0	+0.1
	comp=Z,5.2nm,0.7s,mb4.6,baz=163,slow=7.9,SNR=54						
MKAR				LR	LR	09 47 32.6	
	comp=Z,35nm,19.6s,MS3.3,baz=221,slow=38						
SONM	Songino Array	46.02	10	P	P	09 27 10.5	-0.3
	comp=Z,3.9nm,0.8s,mb4.4,baz=189,slow=7.9,SNR=27						
SONM				PcP	PcP	09 28 47.5	+0.3
	comp=Z,0.9nm,0.7s,baz=190,slow=6.0,SNR=4.1						
ULN	Ulaanbaatar	46.16	10	*e*P	P	09 27 11.9	-0.1
	comp=Z,2.3nm,0.8s,mb4.2						
ZALV	Zalesovo Beam	52.04	352	P	P	09 27 56.9	0.0
	comp=Z,5.3nm,0.7s,mb4.6,baz=175,slow=7.0,SNR=21						
ZALV	Zalesovo Beam	52.04	352	P	P	09 27 56.9	0.0
BVAR	Borovoye Array	54.57	341	P	P	09 28 15.0	-0.5
	comp=Z,4.6nm,0.8s,mb4.6,baz=141,slow=7.6,SNR=18						
BRVK	Borovoye	54.63	341	*e*P	P	09 28 15.6	-0.4
	comp=Z,6.2nm,1.0s,mb4.6						
ARCES	ARCESS Array B	80.85	340	P	P	09 31 00.8	-0.1
	comp=Z,1.9nm,0.8s,mb4.0,baz=87,slow=7.4,SNR=5.6						
RPZ	Rata Peaks	81.06	135	LR	LR	10 05 46.6	
	comp=Z,147nm,20.8s,MS4.3,baz=194,slow=35						
CPUP	Villa Florida	145.09	225	PKP	PKPdf	09 38 24.4	-1.2
	comp=Z,0.4nm,0.4s,baz=100,slow=8.6,SNR=3.6						

IDC 21 09:22:49.1±2.1**, 8°.00S**×**129°.97E, h0**^{km}**, mb3.2**/1**, mb1 3.6**/4**, mb1mx3.5**/17**, mbtmp3.4**/4**, ML3.4**/3**, Error ellipse: s-maj=80.0km s-min=28.1km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.89	202	Pn	Pn	09 25 25.7	-0.6
	0.1nm,0.3s,baz=29,slow=13,SNR=9.1						
FITZ				Sn	Sn	09 27 19.8	-9.2
	0.2nm,0.3s,baz=120,slow=20,SNR=4.1						
WRA	Warramunga Arr	12.61	161	Pn	Pn	09 25 49.7	-0.1
	0.3nm,0.3s,baz=344,slow=13,SNR=14						
WRA				Sn	Sn	09 28 05.5	-5.6
	0.2nm,0.3s,baz=327,slow=24,SNR=4.9						
ASAR	Alice Springs	16.03	167	Pn	Pn	09 26 37.0	+0.9
	0.1nm,0.3s,baz=340,slow=10,SNR=5.0						
MKAR	Makanchi Array	69.04	327	P	P	09 33 56.8	+0.1
	0.2nm,0.6s,baz=111,slow=7.9,SNR=2.7						

IDC 21 09:27:31.8±32.0**, 30°.53S**×**175°.80W, h0**^{km}**, mb3.9**/3**, mb1 4.0**/4**, mb1mx3.8**/16**, mbtmp3.9**/4**, ML2.7**/1**, Error ellipse: s-maj=592.3km s-min=62.7km az=90.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	9.68	215	Pn	Pn	09 29 51.9	-0.5
	0.1nm,0.3s,baz=41,slow=20,SNR=3.1						
URZ				Sn	Sn	09 31 31.1	-11
	0.4nm,0.3s,baz=138,slow=14,SNR=3.6						
STKA	Stephens Creek	36.30	257	P	P	09 34 37.9	+0.7
	1.3nm,0.5s,baz=87,slow=14,SNR=5.7						
ASAR	Alice Springs	45.00	266	P	P	09 35 48.9	-0.3
	0.3nm,0.3s,baz=107,slow=7.5,SNR=12						
WRA	Warramunga Arr	46.00	271	P	P	09 35 56.9	-0.2
	1.0nm,0.3s,baz=110,slow=8.1,SNR=46						

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*ISCJB **21** 09:29:54.3±0.6, 50°.28N±0°.04×18°.84E±0°.04, h0^{km}, Error ellipse: s-maj=6.1km s-min=3.0km az=14.8*
*CSEM **21** 09:29:54.1±0.5, 50°.33N×18°.84E, h2^{km}, ML2.6/4, Error ellipse: s-maj=11.3km s-min=4.8km az=4.0*
*WAR **21** 09:29:55.1, 50°.27N×18°.91E, ML2.5, Mining Induced*
*PRU **21** 09:29:55.0, 50°.31N×18°.81E, h0^{km}*
ISC 21 09:29:55.2±0.6**, 50°.29N**±0°.04×**18°.86E**±0°.03**, h0**^{km}**, n26, σ0.^{s}96**/36**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.61	96	*e*Pg	Pg	09 30 06.4	-0.4
OJC				*e*Sg	Sg	09 30 14.8	+0.2
OJC	Ojcow	0.61	96	*e*Pg	Pg	09 30 06.4	-0.4
OKC	Ostrava-Krasne	0.65	226	*e*SG	Sg	09 30 15.5	-0.4
	comp=Z,15nm,0.4s						
OKC	Ostrava-Krasne	0.65	226	Sg	Sg	09 30 15.5	-0.4
	comp=Z,15nm,0.4s						
MORC	Moravsky Berou	0.99	239	*e*Pg	Pg	09 30 14.0	-0.2
NIE	Niedzica	1.28	132	*e*Pg	Pg	09 30 19.1	-0.7
NIE				*e*Sg	Sg	09 30 36.6	+0.2
NIE	Niedzica	1.28	132	*e*Pg	Pg	09 30 19.1	-0.7
DPC	Dobruska-Polom	1.63	273	*e*PG	Pn	09 30 24.8	-0.3
DPC				*e*SG	Sn	09 30 45.5	-1.2
	comp=Z,20nm,0.7s						
DPC	Dobruska-Polom	1.63	273	Pg	Pn	09 30 24.8	-0.3
DPC				Sg	Sn	09 30 45.5	-1.2
	comp=Z,20nm,0.7s						
KSP	Ksiaz	1.73	290	*e*Pg	Pg	09 30 28.1	-0.2
KSP				*e*Sg	Sg	09 30 51.4	+0.7
KOLL	Kolacno	1.74	190	*e*PG	Pg	09 30 29.9	+1.4
KOLL				*e*SG	Sg	09 30 51.5	+0.5
KOLL	Kolacno	1.74	190	*e*Pg	Pg	09 30 29.9	+1.4
KOLL				*e*Sg	Sg	09 30 51.5	+0.5
VRAC	Vranov	1.77	237	*e*Sg	Sg	09 30 49.7	-2.2
STHS	Stebnicka Huta	1.77	119	*e*PN	Pn	09 30 27.7	+0.6
STHS				*e*SN	Sn	09 30 50.1	-0.2
STHS	Stebnicka Huta	1.77	119	*e*Pn	Pn	09 30 27.7	+0.6
STHS				*e*Sn	Sn	09 30 50.1	-0.2
VYHS	Vyhne	1.80	181	*e*PN	Pn	09 30 26.5	-0.9
VYHS	Vyhne	1.80	181	*e*Pn	Pn	09 30 26.5	-0.9
UPC	Upice	1.84	278	*e*SG	Sg	09 30 54.6	+0.4
UPC	Upice	1.84	278	Sg	Sg	09 30 54.6	+0.4
KECS	Kecovo	2.10	149	*e*PN	Pn	09 30 33.1	+1.6
KECS				*e*SN	Sn	09 30 59.0	+0.7
KOLS	Kolonicke sedl	2.60	120	*e*PG	Pg	09 30 43.3	-1.7
KOLS	Kolonicke sedl	2.60	120	*e*Pg	Pg	09 30 43.3	-1.7
PRU	Pruhonice	2.79	265	*e*SG	Sb	09 31 22.4	+1.7
	comp=Z,8.7nm,1.0s						
PRU	Pruhonice	2.79	265	Sg	Sb	09 31 22.4	+1.7
	comp=Z,8.7nm,1.0s						
KHC	Kasperske Hory	3.62	253	*e*SG	Sb	09 31 49.1	+4.7
	comp=Z,4.2nm,0.5s						
KHC	Kasperske Hory	3.62	253	Sg	Sb	09 31 49.1	+4.7
	comp=Z,4.2nm,0.5s						

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*ISCJB **21** 09:50:23.7±0.8, 77°.21N±0°.06×19°.0E±0°.2, h10^{km}, Error ellipse: s-maj=9.8km s-min=5.1km az=29.1*
*CSEM **21** 09:50:23.5±0.3, 77°.03N×18°.44E, h2^{km}, ML2.7, Error ellipse: s-maj=16.5km s-min=5.5km az=50.0*
*NAO **21** 09:50:24.1±1.0, 77°.00N×18°.67E, ML2.5*
*BER **21** 09:50:27.3±3.1, 77°.04N×18°.67E, h22^{km}±32^{km}, MD2.1, ML2.7, ML2.5(NAO)*
ISC 21 09:50:24.9±0.7**, 77°.15N**±0°.06×**18°.9E**±0°.2**, h10**^{km}**, n10, σ0.^{s}79**/16**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.77	261	*e*P	Pg	09 50 40.9	+1.3
HSP				*e*S	Sg	09 50 49.4	-0.2
SPA0	Spitsbergen Ar	1.17	333	Pg	Pg	09 50 48.1	+0.8
	baz=152,slow=22						
SPA0				Lg		09 51 05.0	
	baz=153,slow=37						
SPA0	Spitsbergen Ar	1.17	333	Pg	Pg	09 50 48.1	+0.9
	SNR=96						
SPA0				Lg		09 51 05.0	
	SNR=95						
HOPEN	Hopen	1.54	112	*e*P	Pn	09 50 52.7	+0.4
HOPEN				*e*Sg	Sg	09 51 14.4	+0.2
HOPEN				AML	AML	09 51 16.3	
	comp=Z,176nm,0.4s						
HOPEN	Hopen	1.54	112	*e*P	Pn	09 50 52.7	+0.4
	SNR=55						
HOPEN				*e*Sg	Sg	09 51 14.4	+0.2
	comp=Z,176nm,0.4s,SNR=94						
KBS	Kingsbay	2.30	324	Pg	Pg	09 51 08.3	-0.6
KBS				Lg		09 51 37.7	
KBS	Kingsbay	2.30	324	*e*Pg	Pg	09 51 07.6	-1.2
KBS				*e*Sg	Sg	09 51 38.3	-0.3
KBS				AML	AML	09 51 46.9	
	comp=Z,62nm,0.4s						
KBS	Kingsbay	2.30	324	*e*Pg	Pg	09 51 07.6	-1.2
	SNR=93						
KBS				*e*Sg	Sg	09 51 38.3	-0.3
	comp=Z,62nm,0.4s,SNR=93						
ARA0	ARCESS Array S	7.88	163	Pn	Pn	09 52 18.1	-1.2
	baz=0.3,slow=11						
ARA0				Sn	Sn	09 53 39.6	-8.7
	baz=360,slow=22						
ARA0	ARCESS Array S	7.88	163	Pn	Pn	09 52 18.1	-1.1
	SNR=55						

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*IDC **21** 09:53:16.9±1.2, 6°.27S×155°.01E, h0^{km}, mb4.1/9, mb1 4.3/9, mb1mx4.1/16, mbtmp4.1/9, MS3.1/4, Ms1 3.1/4, ms1mx3.0/17, Error ellipse: s-maj=39.8km s-min=21.8km az=117.0*
*NEIC **21** 09:53:18.6±0.9, 6°.27S×154°.98E, h10^{km}, Error ellipse: s-maj=31.7km s-min=16.7km az=116.0*
*ISCJB **21** 09:53:21.0±0.9, 6°.3S±0°.1×154°.9E±0°.2, h33^{km}, mb4.0/9, MS3.2/2, Error ellipse: s-maj=32.8km s-min=17.0km az=27.2*
ISC 21 09:53:22.8±0.9**, 6°.3S**±0°.1×**154°.9E**±0°.2**, h35**^{km}**, n15, σ0.^{s}71**/11**, mb4.0**/9**, MS3.2**/2**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	5.87	122	LR	LR	09 56 45.3	
	comp=Z,107nm,19.0s,baz=191,slow=36						
CTA	Charters Tower	16.09	211	LR	LR	10 02 14.7	
	comp=Z,57nm,20.7s,baz=232,slow=33						
WRA	Warramunga Arr	24.16	234	P	P	09 58 36.6	+0.7
	2.9nm,0.6s,mb3.9,baz=59,slow=9.1,SNR=27						
WRA				LR	LR	10 07 34.1	
	comp=Z,47nm,18.5s,MS3.0,baz=315,slow=35						
ASAR	Alice Springs	26.59	227	P	P	09 58 57.7	-0.2
	1.0nm,0.6s,mb3.5,baz=59,slow=8.7,SNR=17						
STKA	Stephens Creek	28.34	204	P	P	09 59 13.0	-0.5
	1.8nm,0.8s,mb3.8,baz=38,slow=11,SNR=3.1						
PETK	Petropavlovsk-	59.22	2	LR	LR	10 28 31.4	
	comp=Z,28nm,18.6s,MS3.4,baz=206,slow=36						
CMAR	Chiang Mai Arr	60.42	295	P	P	10 03 30.4	+1.1
	5.5nm,0.7s,mb4.7,baz=114,slow=5.1,SNR=20						
SONM	Songino Array	68.71	327	P	P	10 04 22.9	0.0
	1.1nm,0.9s,mb3.8,baz=128,slow=5.1,SNR=7.2						
MK31	Makanchi Array	82.84	319	*e*P	P	10 05 43.6	0.0
MKAR	Makanchi Array	82.84	319	P	P	10 05 43.3	-0.3
	2.1nm,0.8s,mb4.2,baz=104,slow=5.1,SNR=19						
ZALV	Zalesovo Beam	83.56	326	P	P	10 05 45.6	-1.6
	1.2nm,0.6s,mb4.2,baz=139,slow=7.7,SNR=3.5						
NVAR	Mina Array Bea	91.34	52	P	P	10 06 26.0	+0.7
	0.5nm,0.6s,mb4.0,baz=253,slow=5.2,SNR=4.6						
YKA	Yellowknife Ar	95.75	28	P	P	10 06 45.0	+0.1
	0.4nm,0.7s,mb4.0,baz=266,slow=4.6,SNR=7.1						
YKA	Yellowknife Ar	95.75	28	P	P	10 06 45.0	+0.1
TORD	Torodi Ar. Bea	152.77	286	PKPbc	PKPbc	10 13 15.1	-2.0
	0.4nm,0.8s,baz=17,slow=2.1,SNR=2.9						

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*ISCJB **21** 10:31:42.4±0.4, 24°.85N±0°.02×122°.14E±0°.02, h118^{km}±3^{km}, mb3.3/4, Error ellipse: s-maj=4.4km s-min=2.8km az=150.3*
*TAP **21** 10:31:42.6, 24°.88N×122°.10E, h117^{km}, ML4.3, C*
*NEIC **21** 10:31:42.7±0.6, 24°.88N×122°.13E, h115^{km}±7^{km}, MG3.2(JMA), Error ellipse: s-maj=16.3km s-min=11.1km az=132.0*
*JMA **21** 10:31:43.3±0.2, 24°.91N×122°.18E, h114^{km}±3^{km}, M3.2*
*IDC **21** 10:31:45.5±4.9, 24°.97N×122°.42E, h143^{km}±46^{km}, mb3.1/4, mb1 3.2/5, mb1mx3.0/22, mbtmp3.1/5, Error ellipse: s-maj=43.0km s-min=20.4km az=82.0*
ISC 21 10:31:43.1±0.4**, 24°.86N**±0°.02×**122°.14E**±0°.02**, h114**^{km}±3^{km}**, n72, σ0.^{s}80**/133**, mb3.3**/4**, 14D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.20	318	⇓*i*P	Pn	10 31 59.1	0.0
	baz=313						
TWB1				*i* S	Sn	10 32 10.5	-0.5
	baz=313						
TWC	Suao	0.36	227	*i* P	Pn	10 31 59.6	-0.1
	baz=227						
TWC				*i* S	Sn	10 32 11.6	-0.5
	baz=227						
ILA	Ilan	0.37	255	*i* P	Pn	10 31 59.8	+0.1
	baz=260						
ILA				S	Sn	10 32 12.2	0.0
	baz=260						
NWF	Wu-fen Shan	0.39	303	⇓*i*P	Pn	10 31 59.8	0.0
	baz=296						
NWF				S	Sn	10 32 11.9	-0.5
	baz=296						
TWE	Neicheng	0.45	252	⇓*i*P	Pn	10 32 00.1	-0.1
	baz=251						
TWE				S	Sn	10 32 12.7	-0.2
	baz=251						
TWA	Mucha	0.52	284	⇓*i*P	Pn	10 32 00.2	-0.3
	baz=279						
TWA				*e*S	Sn	10 32 14.8	+1.1
	baz=279						
ENA	Nanau	0.56	220	⇓*i*P	Pn	10 32 01.2	+0.3
	baz=216						
ENA				S	Sn	10 32 14.7	+0.5
	baz=216						
ENTT	Nioudou	0.56	247	⇓*i*P	Pn	10 32 01.1	+0.3
	baz=248						
ENTT				S	Sn	10 32 14.9	+0.7
	baz=248						
TAP1	Taipei	0.59	288	*e*P	Pn	10 32 00.3	-0.7
	baz=284						
TAP1				*e*S	Sn	10 32 14.3	-0.2
	baz=284						
TWY	Chenhua	0.64	311	⇓*i*P	Pn	10 32 01.2	-0.2
	baz=305						
TWY				S	Sn	10 32 14.7	-0.6
	baz=305						
TWS1	Kuangyinshan	0.70	290	⇓*i*P	Pn	10 32 01.7	-0.2
	baz=289						
TWS1				*e*S	Sn	10 32 16.2	+0.2
	baz=289						
YHNB	Yeheng	0.72	255	*e*Pg	Pn	10 32 01.2	-0.8
YHNB				*e*Sn	Sn	10 32 16.4	0.0
NSK	Sanguang	0.73	256	⇓*i*P	Pn	10 32 02.2	0.0
	baz=255						
NSK				S	Sn	10 32 15.8	-0.7
	baz=255						
PCYT	Pengchaiyu	0.77	356	P	Pn	10 32 02.6	+0.1
	baz=359						
PCYT				*e*S	Sn	10 32 17.4	+0.3
	baz=359						
NNS	Nan Shan	0.81	239	⇓*i*P	Pn	10 32 03.2	+0.3
	baz=240						
NNS				*e*S	Sn	10 32 18.1	+0.4
	baz=240						
NACB	Ninganchiao	0.84	216	*e*Pg	Pn	10 32 02.6	-0.6
NACB				*e*Sn	Sn	10 32 17.6	-0.7
NCU	National Centr	0.87	278	P	Pn	10 32 03.6	+0.2
	baz=267						
NCU				*e*S	Sn	10 32 18.9	+0.2
	baz=267						
YOJ	Yonaguni jima	0.89	116	P	Pn	10 32 03.8	+0.2
YOJ				S	Sn	10 32 19.2	+0.2
TWD	Chiawan	0.92	213	P	Pn	10 32 03.5	-0.4
	baz=221						
TWD				S	Sn	10 32 18.7	-0.8
	baz=221						
HWA	Hwalien	1.00	209	*e*P	Pn	10 32 04.8	0.0
	baz=221						
HWA				*e*S	Sn	10 32 21.4	+0.4
	baz=221						
NSTT	Nanjuang	1.06	258	⇓*i*P	Pn	10 32 05.1	-0.2
	baz=251						
NSTT				S	Sn	10 32 20.9	-1.2
	baz=251						
HSN	Hsinchu	1.06	267	P	Pn	10 32 04.9	-0.4
	baz=260						
HSN				*e*S	Sn	10 32 21.2	-0.9
	baz=260						
TWT	Tachien	1.06	236	P	Pn	10 32 06.3	+1.0
	baz=237						
TWT				S	Sn	10 32 22.6	+0.5
	baz=237						

WHF	**Hehuan Shan**	**1.07**	**228**	⇓*i*P	**Pn**	**10 32 06.0**	**+0.6**
	baz=229						
WHF				S	**Sn**	**10 32 22.8**	**+0.6**
	baz=229						
ESL	**Shilin**	**1.22**	**212**	P	**Pn**	**10 32 06.1**	**-0.9**
	baz=219						
ESL				*e*S	**Sn**	**10 32 23.6**	**-1.6**
	baz=219						
NSY	**Sanyi**	**1.33**	**251**	P	**Pn**	**10 32 08.4**	**+0.2**
	baz=250						
NSY				S	**Sn**	**10 32 27.0**	**-0.2**
	baz=250						
TWQ1	**Liyutan**	**1.34**	**248**	P	**Pn**	**10 32 08.3**	**0.0**
	baz=247						
TWQ1				S	**Sn**	**10 32 26.9**	**-0.7**
	baz=247						
SMLT	**Sun Moon Lake**	**1.49**	**230**	⇓*i*P	**Pn**	**10 32 10.7**	**+0.6**
	baz=236						
SMLT				*e*S	**Sn**	**10 32 31.6**	**+1.0**
	baz=236						
TYC	**Yuchr**	**1.51**	**231**	⇓*i*P	**Pn**	**10 32 10.7**	**+0.4**
	baz=239						
TYC				S	**Sn**	**10 32 31.4**	**+0.4**
	baz=239						
TCU	**Taichung**	**1.51**	**242**	*e*P	**Pn**	**10 32 10.8**	**+0.5**
	baz=247						
TCU				*e*S	**Sn**	**10 32 30.4**	**-0.6**
	baz=247						
SSLB	**Suanglung**	**1.52**	**226**	*e*Pn	**Pn**	**10 32 10.8**	**+0.3**
SSLB				*e*Sn	**Sn**	**10 32 31.9**	**+0.7**
EHY	**Hungye**	**1.54**	**209**	*e*P	**Pn**	**10 32 09.7**	**-1.0**
	baz=213						
EHY				*e*S	**Sn**	**10 32 29.9**	**-1.7**
	baz=213						
IRIF	**Iriomote-Funau**	**1.54**	**109**	P	**Pn**	**10 32 10.7**	**0.0**
IRIF				S	**Sn**	**10 32 32.0**	**+0.4**
WNT	**Mingjian**	**1.65**	**234**	*e*P	**Pn**	**10 32 12.5**	**+0.6**
	baz=242						
WNT				*e*S	**Sn**	**10 32 34.2**	**+0.3**
	baz=242						
YULB	**Yu-li**	**1.65**	**208**	*e*Pn	**Pn**	**10 32 11.1**	**-0.9**
YULB				*e*Sn	**Sn**	**10 32 32.8**	**-1.2**
TWF1	**Yuli**	**1.69**	**207**	*e*P	**Pn**	**10 32 11.3**	**-1.2**
	baz=211						
TWF1				*e*S	**Sn**	**10 32 34.4**	**-0.4**
	baz=211						
HATJ	**Hateruma jima**	**1.72**	**117**	P	**Pn**	**10 32 13.4**	**+0.6**
HATJ				S	**Sn**	**10 32 35.7**	**+0.3**
YUS	**Yu-Shan**	**1.74**	**219**	P	**Pn**	**10 32 14.5**	**+1.3**
	baz=215						
YUS				*e*S	**Sn**	**10 32 37.2**	**+1.2**
	baz=215						
ALS	**Alishan**	**1.81**	**222**	*i* P	**Pn**	**10 32 14.9**	**+0.9**
	baz=233						
ALS				*e*S	**Sn**	**10 32 39.8**	**+2.3**
	baz=233						
JKRS	**Kuro-shima**	**1.81**	**110**	P	**Pn**	**10 32 14.1**	**+0.1**
JKRS				S	**Sn**	**10 32 37.8**	**+0.3**
WGK	**Gukeng**	**1.85**	**231**	*e*P	**Pn**	**10 32 15.4**	**+0.9**
	baz=232						
WGK				*e*S	**Sn**	**10 32 38.9**	**+0.5**
	baz=232						
CHKT	**Chengkung**	**1.89**	**202**	*e*P	**Pn**	**10 32 14.5**	**-0.5**
	baz=214						
CHKT				*e*S	**Sn**	**10 32 37.5**	**-1.7**
	baz=214						
JIJ	**Ishigaki jima**	**1.89**	**105**	P	**Pn**	**10 32 15.0**	**0.0**
JIJ				S	**Sn**	**10 32 39.3**	**+0.1**
ELDTW	**Lidau**	**1.95**	**212**	*e*P	**Pn**	**10 32 15.6**	**-0.1**
	baz=210						
ELDTW				*e*S	**Sn**	**10 32 40.7**	**+0.1**
	baz=210						
WTCT	**Ta-ch'eng**	**1.96**	**240**	*e*S	**Sn**	**10 32 39.8**	**-1.1**
	baz=241						
CHN2	**Minshiung**	**2.01**	**229**	*e*S	**Sn**	**10 32 43.3**	**+1.3**
	baz=231						
CHN4	**Tsaushan**	**2.06**	**224**	*e*P	**Pn**	**10 32 17.9**	**+0.8**
	baz=227						
CHN4				*e*S	**Sn**	**10 32 44.0**	**+0.9**
	baz=227						
CHY	**Chiayi**	**2.07**	**229**	*e*P	**Pn**	**10 32 17.9**	**+0.6**
	baz=231						
CHY				*e*S	**Sn**	**10 32 43.1**	**-0.1**
	baz=231						
TPUB	**Ta-pu**	**2.08**	**222**	*e*Pn	**Pn**	**10 32 17.8**	**+0.5**
TPUB				*e*Sn	**Sn**	**10 32 43.9**	**+0.5**
STYT	**Tauyuan**	**2.11**	**217**	*e*P	**Pn**	**10 32 18.4**	**+0.7**
	baz=216						
STYT				*e*S	**Sn**	**10 32 45.0**	**+0.9**
	baz=216						
WTP	**Ta-pu**	**2.12**	**221**	P	**Pn**	**10 32 18.2**	**+0.2**
	baz=225						
WTP				*e*S	**Sn**	**10 32 44.6**	**+0.1**
	baz=225						
WSF	**Szhu**	**2.13**	**236**	*e*S	**Sn**	**10 32 44.2**	**-0.4**
	baz=240						
TWK	**Hsinying**	**2.19**	**224**	*e*P	**Pn**	**10 32 20.6**	**+1.9**
	baz=227						
TWK				*e*S	**Sn**	**10 32 46.1**	**+0.2**
	baz=227						
CHN1	**Nanshi**	**2.22**	**222**	*e*P	**Pn**	**10 32 20.4**	**+1.3**
	baz=225						
CHN1				*e*S	**Sn**	**10 32 46.8**	**+0.1**
	baz=225						
TWG	**Pinlang**	**2.25**	**206**	*e*P	**Pn**	**10 32 19.0**	**-0.5**
	baz=206						
TWG				*e*S	**Sn**	**10 32 45.9**	**-1.5**
	baz=206						
SGST	**Jiashian**	**2.27**	**219**	*e*P	**Pn**	**10 32 20.7**	**+0.9**
	baz=229						
SGST				*e*S	**Sn**	**10 32 46.5**	**-1.3**
	baz=229						
CHN8	**Yiju**	**2.32**	**230**	*e*S	**Sn**	**10 32 48.9**	**0.0**
	baz=232						
JTJ	**Tarama**	**2.34**	**95**	P	**Pn**	**10 32 20.7**	**0.0**
JTJ				S	**Sn**	**10 32 50.1**	**+0.6**
SCLT	**Jiali**	**2.44**	**227**	*e*S	**Sn**	**10 32 51.7**	**-0.1**
	baz=229						
ECL	**Taimali**	**2.50**	**206**	*e*P	**Pn**	**10 32 23.6**	**+0.9**
	baz=209						
ECL				*e*S	**Sn**	**10 32 50.8**	**-2.3**
	baz=209						
SSD	**Sandimen**	**2.52**	**214**	*e*P	**Pn**	**10 32 24.7**	**+1.8**
	baz=219						
SSD				*e*S	**Sn**	**10 32 53.5**	**0.0**
	baz=219						
TWM1	**Shoushan**	**2.56**	**218**	*e*P	**Pn**	**10 32 25.1**	**+1.5**
	baz=223						
TWM1				*e*S	**Sn**	**10 32 55.7**	**+1.1**
	baz=223						
PNG	**Penghu**	**2.69**	**242**	*e*P	**Pn**	**10 32 23.9**	**-1.2**
	baz=234						
PNG				*e*S	**Sn**	**10 32 54.5**	**-3.0**
	baz=234						
SCZT	**Fangliau**	**2.84**	**210**	*e*P	**Pn**	**10 32 27.9**	**+0.7**
	baz=216						
SCZT				*e*S	**Sn**	**10 33 01.0**	**-0.1**
	baz=216						
LAY	**Lan-yu**	**2.86**	**191**	P	**Pn**	**10 32 26.6**	**-0.8**
	baz=201						
LAY				*e*S	**Sn**	**10 32 59.4**	**-2.1**
	baz=201						
JOGS	**Gusukube**	**2.97**	**91**	*e*S	**Sn**	**10 33 04.0**	**-0.2**
JOW	**Kunigami**	**5.87**	**69**	P	**Pn**	**10 33 07.6**	**-0.1**
	2.1nm,0.3s,baz=103,slow=25,SNR=13						
JOW				S	**Sn**	**10 34 10.2**	**-3.5**
	2.0nm,0.3s,baz=112,slow=19,SNR=5.3						
KSRS	**Korea Array**	**13.49**	**20**	P	**Pn**	**10 34 55.6**	**+5.7**
	0.4nm,0.3s,baz=201,slow=12,SNR=14						
SONM	**Songino Array**	**26.10**	**335**	P	**P**	**10 37 05.6**	**-0.5**
	0.7nm,0.8s,mb3.1,baz=134,slow=10,SNR=3.6						
WRA	**Warramunga Arr**	**46.09**	**164**	P	**P**	**10 39 55.1**	**-0.7**
	0.8nm,0.8s,mb3.5,baz=347,slow=8.8,SNR=7.2						
ASAR	**Alice Springs**	**49.57**	**166**	P	**P**	**10 40 22.4**	**-0.1**
	0.5nm,0.8s,mb3.5,baz=345,slow=7.6,SNR=6.0						
YKA	**Yellowknife Ar**	**82.01**	**23**	P	**P**	**10 43 48.3**	**-1.8**
	0.2nm,0.6s,mb3.1,baz=312,slow=5.1,SNR=8.5						

IDC 21 10:32:44.3±1.0**,25°.52N**×**141°.41E,h0^{km},mb3.5**/5**, mb1 3.7**/5**,mb1mx3.6**/20**,mbtmp3.5**/5**,Error ellipse: s-maj=36.4km s-min=17.5km az=101.0,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.72**	**24**	Pn	Pn	10 33 15.8	+0.3
	24nm,0.3s,baz=271,slow=21,SNR=23						
CBIJ				Sn	Sn	10 33 38.1	0.0
	12nm,0.3s,baz=280,slow=23,SNR=11						
KSRS	**Korea Array**	**16.53**	**319**	Pn	Pn	10 36 43.3	+5.8
	0.1nm,0.3s,baz=132,slow=12,SNR=4.5						
SONM	**Songino Array**	**35.40**	**318**	P	P	10 39 42.2	+0.5
	0.2nm,0.5s,baz=113,slow=7.0,SNR=2.2						
WRA	**Warramunga Arr**	**45.70**	**189**	P	P	10 41 07.0	-0.1
	2.2nm,0.7s,baz=8.9,slow=8.6,SNR=19						
ASAR	**Alice Springs**	**49.43**	**189**	P	P	10 41 36.1	0.0
	0.3nm,0.7s,baz=20,slow=11,SNR=3.3						
MKAR	**Makanchi Array**	**50.96**	**311**	P	P	10 41 47.0	-0.5
	0.3nm,0.6s,baz=101,slow=8.6,SNR=4.4						
YKA	**Yellowknife Ar**	**73.86**	**28**	P	P	10 44 20.7	+0.2
	0.3nm,0.7s,baz=292,slow=6.0,SNR=6.9						

IDC 21 10:34:32.4±1.4**,25°.54N**×**141°.30E,h0^{km},mb3.4**/3**, mb1 3.7**/3**,mb1mx3.4**/20**,mbtmp3.4**/3**,MS3.0**/1**,Ms1 3.0**/1**, ms1mx2.5**/18**,Error ellipse: s-maj=46.8km s-min=22.6km az=113.0,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.74**	**27**	Pn	Pn	10 35 04.1	+0.3
	14nm,0.3s,baz=4.2,slow=16,SNR=7.4						
CBIJ				Sn	Sn	10 35 27.0	+0.3
	9.0nm,0.3s,baz=281,slow=22,SNR=6.7						
PETK	**Petropavlovsk-**	**30.16**	**20**	LR	LR	10 53 04.3	
	comp=Z,29nm,19.0s,baz=205,slow=37						
WRA	**Warramunga Arr**	**45.71**	**189**	P	P	10 42 55.2	-0.1
	1.1nm,0.8s,baz=9.8,slow=8.6,SNR=4.8						
MKAR	**Makanchi Array**	**50.87**	**311**	P	P	10 43 34.9	0.0
	0.2nm,0.7s,baz=90,slow=8.6,SNR=2.5						
YKA	**Yellowknife Ar**	**73.88**	**28**	P	P	10 46 08.9	+0.1
	0.2nm,0.8s,baz=295,slow=6.0,SNR=4.5						

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*NEIC **21** 10:37:26.0, 36°.30N×21°.74E, h5^{km}, MD3.7(ATH), After ATH.*
*ATH **21** 10:37:26.0, 36°.30N×21°.74E, h5^{km}, MD3.7/7*
*THE **21** 10:37:27.6, 36°.37N×21°.56E, h0^{km}±2^{km}, ML3.9/2, Error ellipse: s-maj=4.2km s-min=1.2km az=237.0*
*ISCJB **21** 10:37:28.5±0.8, 36°.36N±0°.04×21°.70E±0°.07, h10^{km}, Error ellipse: s-maj=8.3km s-min=4.6km az=156.9*
*CSEM **21** 10:37:28.5±0.5, 36°.38N×21°.71E, h2^{km}, ML3.9/2, Error ellipse: s-maj=13.0km s-min=5.7km az=63.0*
ISC 21 10:37:29.4±0.8**,36°.36N**±0°.04×**21°.72E**±0°.07**,h10^{km},n54, σ1^{s}24**/75**,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.54**	**2**	P	**Pg**	**10 37 36.8**	**-3.1**
PYL				S	**Sg**	**10 37 45.4**	**-1.6**
PYL	**PYLOS**	**0.54**	**2**	P	**Pg**	**10 37 36.8**	**-3.1**
PYL				S	**Sg**	**10 37 45.4**	**-1.6**
ITM	**Ithomi**	**0.84**	**11**	*e*PG	**Pg**	**10 37 42.4**	**-3.2**
ITM				*e*SB	**Sg**	**10 37 55.3**	**-1.3**
ITM	**Ithomi**	**0.84**	**11**	*e*Pg	**Pg**	**10 37 42.4**	**-3.2**
ITM				*e*Sb	**Sg**	**10 37 55.3**	**-1.3**
VLI	**Veliai**	**1.05**	**69**	*e*PN	**Pg**	**10 37 46.0**	**-3.6**
VLI				*e*SB	**Sg**	**10 38 01.5**	**-1.7**
VLI	**Veliai**	**1.05**	**69**	*e*Pn	**Pg**	**10 37 46.0**	**-3.6**
KYTH	**Kithira**	**1.07**	**94**	*e*PB	**Pg**	**10 37 46.0**	**-4.0**
DID	**Didima**	**1.67**	**46**	P	**Pn**	**10 37 57.7**	**-1.1**
DID				S	**Sn**	**10 38 23.2**	**+2.9**
DID	**Didima**	**1.67**	**46**	P	**Pn**	**10 37 57.7**	**-1.1**
DID				S	**Sn**	**10 38 23.2**	**+2.9**
RLS	**Riolos of Patr**	**1.71**	**353**	*e*PN	**Pn**	**10 38 00.2**	**+0.9**
RLS	**Riolos of Patr**	**1.71**	**353**	*e*Pn	**Pn**	**10 38 00.2**	**+0.9**
LAKA	**Lakka**	**1.89**	**6**	P	**Pn**	**10 38 01.3**	**-0.5**
LAKA				S	**Sn**	**10 38 26.6**	**+0.9**
LAKA	**Lakka**	**1.89**	**6**	P	**Pn**	**10 38 01.3**	**-0.5**
LAKA				S	**Sn**	**10 38 26.6**	**+0.9**
LTK	**Loutraki**	**1.94**	**31**	P	**Pn**	**10 38 01.8**	**-0.6**
LTK				S	**Sn**	**10 38 29.0**	**+2.1**
LTK	**Loutraki**	**1.94**	**31**	P	**Pn**	**10 38 01.8**	**-0.6**
LTK				S	**Sn**	**10 38 29.0**	**+2.1**
KARN	**Karanos**	**2.02**	**117**	P	**Pn**	**10 38 03.7**	**+0.1**
KARN	**Karanos**	**2.02**	**117**	*e*PG	**Pn**	**10 38 02.5**	**-1.1**
KARN	**Karanos**	**2.02**	**117**	P	**Pn**	**10 38 03.7**	**+0.1**
TRIZ	**Trizonia**	**2.03**	**8**	P	**Pn**	**10 38 02.8**	**-0.8**
TRIZ				S	**Sn**	**10 38 30.5**	**+1.5**
TRIZ	**Trizonia**	**2.03**	**8**	P	**Pn**	**10 38 02.8**	**-0.8**
TRIZ				S	**Sn**	**10 38 30.5**	**+1.5**
VLS	**Valsamata**	**2.03**	**334**	*e*PN	**Pn**	**10 38 05.5**	**+1.8**
VLS	**Valsamata**	**2.03**	**334**	*e*Pn	**Pn**	**10 38 05.5**	**+1.8**
KALE	**Kalithea**	**2.06**	**9**	P	**Pn**	**10 38 03.4**	**-0.7**
KALE				S	**Sn**	**10 38 30.2**	**+0.4**
KALE	**Kalithea**	**2.06**	**9**	P	**Pn**	**10 38 03.4**	**-0.7**
KALE				S	**Sn**	**10 38 30.2**	**+0.4**
VAM	**Vamos**	**2.23**	**114**	*e*PN	**Pn**	**10 38 06.2**	**-0.2**
VAM	**Vamos**	**2.23**	**114**	*e*Pn	**Pn**	**10 38 06.2**	**-0.2**
ATHU	**Athens Univers**	**2.30**	**45**	P	**Pn**	**10 38 07.7**	**+0.3**
ATHU				S	**Sn**	**10 38 38.4**	**+2.6**
ATHU	**Athens Univers**	**2.30**	**45**	P	**Pn**	**10 38 07.7**	**+0.3**
ATHU				S	**Sn**	**10 38 38.4**	**+2.6**
LKR	**Lokris**	**2.51**	**24**	P	**Pn**	**10 38 09.9**	**-0.3**
LKR	**Lokris**	**2.51**	**24**	*e*PN	**Pn**	**10 38 10.8**	**+0.6**
LKR	**Lokris**	**2.51**	**24**	P	**Pn**	**10 38 09.9**	**-0.3**
LKR	**Lokris**	**2.51**	**24**	*e*Pn	**Pn**	**10 38 10.8**	**+0.6**
EVR	**Evrytania**	**2.56**	**2**	*e*PN	**Pn**	**10 38 11.7**	**+0.8**
EVR	**Evrytania**	**2.56**	**2**	*e*Pn	**Pn**	**10 38 11.7**	**+0.8**
AGG	**Agios Georgios**	**2.71**	**10**	P	**Pn**	**10 38 11.9**	**-1.1**
AGG				S	**Sn**	**10 38 46.2**	**+0.5**
AGG	**Agios Georgios**	**2.71**	**10**	*e*PN	**Pn**	**10 38 13.7**	**+0.7**
AGG	**Agios Georgios**	**2.71**	**10**	P	**Pn**	**10 38 11.9**	**-1.1**
AGG	**Agios Georgios**	**2.71**	**10**	*e*Pn	**Pn**	**10 38 13.7**	**+0.7**
AGG				S	**Sn**	**10 38 46.2**	**+0.5**
SIVA	**Sivas**	**2.85**	**117**	P	**Pn**	**10 38 15.6**	**+0.7**
SIVA	**Sivas**	**2.85**	**117**	P	**Pn**	**10 38 15.6**	**+0.7**
XOR	**Xorichti**	**3.22**	**21**	P	**Pn**	**10 38 20.4**	**+0.3**
XOR	**Xorichti**	**3.22**	**21**	P	**Pn**	**10 38 20.4**	**+0.3**
LAST	**Lasithi**	**3.28**	**110**	P	**Pn**	**10 38 21.9**	**+1.0**
LAST	**Lasithi**	**3.28**	**110**	P	**Pn**	**10 38 21.9**	**+1.0**
MEV	**Metsovon**	**3.44**	**354**	P	**Pn**	**10 38 22.7**	**-0.4**
MEV	**Metsovon**	**3.44**	**354**	P	**Pn**	**10 38 22.7**	**-0.4**
CHOS	**Chios island**	**4.00**	**58**	P	**Pn**	**10 38 31.5**	**+0.7**
CHOS	**Chios island**	**4.00**	**58**	P	**Pn**	**10 38 31.5**	**+0.7**
HORT	**Hortiatis**	**4.37**	**14**	P	**Pn**	**10 38 34.8**	**-1.1**
HORT	**Hortiatis**	**4.37**	**14**	P	**Pn**	**10 38 34.8**	**-1.1**
FNA	**Florina**	**4.43**	**357**	P	**Pn**	**10 38 35.0**	**-1.6**
FNA				S	**Sn**	**10 39 29.6**	**+1.4**
FNA	**Florina**	**4.43**	**357**	P	**Pn**	**10 38 35.0**	**-1.6**
FNA				S	**Sn**	**10 39 29.6**	**+1.4**
GRG	**Griva**	**4.62**	**6**	P	**Pn**	**10 38 38.4**	**-0.9**
GRG	**Griva**	**4.62**	**6**	P	**Pn**	**10 38 38.4**	**-0.9**

IDC 21 10:40:09.1±1.8**,25°.71N**×**140°.83E,h0^{km},mb3.6**/3**, mb1 3.9**/3**,mb1mx3.4**/20**,mbtmp3.6**/3**,Error ellipse: s-maj=115.8km s-min=23.5km az=112.0,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.84**	**41**	Pn	Pn	10 40 41.8	-0.2
	13nm,0.3s,baz=153,slow=9.7,SNR=12						
CBIJ				Sn	Sn	10 41 02.6	-3.3
	4.6nm,0.3s,baz=270,slow=20,SNR=4.7						
PETK	**Petropavlovsk-**	**30.15**	**20**	P	P	10 46 20.0	-0.6
	0.6nm,0.4s,baz=231,slow=9.1,SNR=4.6						
WRA	**Warramunga Arr**	**45.81**	**189**	P	P	10 48 32.6	-0.2
	1.0nm,0.7s,baz=8.7,slow=8.5,SNR=10						
YKA	**Yellowknife Ar**	**73.93**	**28**	P	P	10 51 46.6	+0.8
	0.2nm,0.7s,baz=293,slow=6.2,SNR=4.2						

IDC 21 10:55:57.5±4.3**,2°.86S**×**140°.18E,h0^{km},mb3.5**/3**, mb1 3.8**/4**,mb1mx3.5**/14**,mbtmp3.5**/4**,ML3.6**/1**,Error ellipse: s-maj=128.3km s-min=28.6km az=83.0,Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**17.91**	**198**	P	Pn	11 00 08.4	+0.3
	0.2nm,0.3s,baz=26,slow=12,SNR=20						
ASAR	**Alice Springs**	**21.55**	**196**	P	P	11 00 48.7	+0.1
	0.5nm,0.6s,baz=25,slow=10.0,SNR=9.4						
CMAR	**Chiang Mai Arr**	**45.79**	**299**	P	P	11 04 20.6	-0.7
	0.5nm,0.3s,baz=143,slow=7.3,SNR=4.7						
MKAR	**Makanchi Array**	**70.81**	**322**	P	P	11 07 16.4	+0.5
	0.5nm,0.8s,baz=112,slow=7.4,SNR=4.1						

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*ISCJB **21** 11:19:03.9±0.4, 43°.79N±0°.05×140°.09E±0°.09, h251^{km}±5^{km}, mb3.6/9, Error ellipse: s-maj=10.5km s-min=8.0km az=27.2*
*NEIC **21** 11:19:04.7, 43°.88N×139°.97E, h242^{km}, MG3.6(JMA), After JMA.*
*JMA **21** 11:19:04.6±0.3, 43°.88N×139°.97E, h242^{km}±3^{km}, M3.6*
*IDC **21** 11:19:04.4±0.8, 43°.91N×139°.97E, h236^{km}±9^{km}, mb3.4/9, mb1 3.4/10, mb1mx3.3/23, mbtmp3.3/10, Error ellipse: s-maj=16.0km s-min=13.3km az=86.0*
ISC 21 11:19:04.8±0.4**,43°.78N**±0°.05×**140°.09E**±0°.08**,h245^{km}**±5^{km}**, n31,σ0^{s}85**/41**,mb3.6**/9**,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSK	**Shakotan**	**0.51**	**147**	P	**Pn**	**11 19 37.0**	**-0.2**
JSK				*e*S	**S**	**11 20 01.9**	**-0.6**
JSH	**Shimam**	**1.14**	**182**	P	**Pn**	**11 19 40.3**	**+0.2**
JHR	**Hokuryu**	**1.18**	**91**	P	**Pn**	**11 19 41.0**	**+0.7**
JEW	**Eniwo**	**1.37**	**133**	P	**Pn**	**11 19 42.6**	**+1.0**
JOSM	**Okushiri--Mats**	**1.76**	**195**	P	**Pn**	**11 19 45.1**	**+0.4**
ASAJ	**Asahikawa**	**1.84**	**79**	P	**Pn**	**11 19 45.8**	**+0.5**
	7.9nm,0.3s,baz=264,slow=8.6,SNR=85						
ASAJ				S	**S**	**11 20 16.6**	**-0.6**
	1.9nm,0.3s,baz=48,slow=28,SNR=9.3						
JFR	**Furan**	**1.92**	**108**	P	**Pn**	**11 19 46.7**	**+0.6**
JFR				*e*S	**S**	**11 20 19.7**	**+1.1**
JKK2	**Kamakawa 2**	**1.92**	**86**	P	**Pn**	**11 19 46.7**	**+0.6**
JKK2				*e*S	**S**	**11 20 19.1**	**+0.5**
JWK2	**Keihoku**	**2.00**	**39**	P	**Pn**	**11 19 46.9**	**+0.1**
JKB	**Kayabe**	**2.02**	**160**	P	**Pn**	**11 19 47.4**	**+0.4**
JSE	**Soyaes**	**2.14**	**56**	P	**Pn**	**11 19 48.0**	**0.0**
JSE				*e*S	**S**	**11 20 21.5**	**-0.6**
JNBK	**Urakawa-nobuka**	**2.46**	**127**	P	**Pn**	**11 19 51.9**	**+0.6**
JOT	**Ohata**	**2.50**	**163**	P	**Pn**	**11 19 51.7**	**0.0**
JCH	**Churui**	**2.66**	**115**	P	**Pn**	**11 19 52.7**	**-0.6**
JCH				*e*S	**S**	**11 20 29.2**	**-2.4**
JAR	**Ashorobuto**	**2.72**	**99**	P	**Pn**	**11 19 54.7**	**+0.8**
JTKR	**Abashiri--Toko**	**2.77**	**85**	P	**Pn**	**11 19 55.0**	**+0.6**
JTKR				*e*S	**S**	**11 20 33.9**	**+0.4**
ERM	**Erimo**	**2.86**	**127**	*e*Pn	**Pn**	**11 19 56.6**	**+1.2**
ERM				*e*Sn	**S**	**11 20 34.4**	**-1.0**
JAK	**Akkeshi**	**3.45**	**102**	P	**Pn**	**11 20 01.4**	**-0.5**
JAK				*e*S	**S**	**11 20 45.5**	**-1.6**
JANG	**Nango**	**3.57**	**162**	P	**Pn**	**11 20 02.8**	**-0.6**
JANG				*e*S	**S**	**11 20 47.8**	**-1.9**
JRA	**Rausu**	**3.64**	**86**	P	**Pn**	**11 20 05.0**	**+0.9**
MJAR	**Matsushiro Arr**	**7.37**	**192**	P	**Pn**	**11 20 50.7**	**+0.5**
	0.4nm,0.3s,baz=0.8,slow=12,SNR=4.2						
SONM	**Songino Array**	**23.72**	**292**	P	**P**	**11 23 53.6**	**-1.0**
	1.0nm,0.3s,mb3.9,baz=88,slow=8.6,SNR=14						
ZALV	**Zalesovo Beam**	**36.87**	**306**	P	**P**	**11 25 49.0**	**-0.6**
	2.7nm,0.5s,mb4.0,baz=86,slow=8.5,SNR=14						
MKAR	**Makanchi Array**	**39.99**	**295**	P	**P**	**11 26 15.3**	**-0.4**
	1.5nm,0.7s,mb3.5,baz=83,slow=13,SNR=10						
MKAR	**Makanchi Array**	**39.99**	**295**	P	**P**	**11 26 15.3**	**-0.4**
ARCES	**ARCESS Array B**	**57.35**	**338**	P	**P**	**11 28 25.4**	**-1.5**
	4.3nm,1.0s,mb4.0,baz=45,slow=9.0,SNR=3.4						
YKA	**Yellowknife Ar**	**58.54**	**32**	P	**P**	**11 28 35.6**	**+0.3**
	0.3nm,0.4s,mb3.3,baz=304,slow=6.6,SNR=14						
WRA	**Warramunga Arr**	**63.63**	**186**	P	**P**	**11 29 10.7**	**+0.9**
	0.3nm,0.4s,mb3.3,baz=0.7,slow=6.8,SNR=11						
ASAR	**Alice Springs**	**67.35**	**186**	P	**P**	**11 29 35.2**	**+1.7**
	0.5nm,0.6s,mb3.4,baz=5.7,slow=5.8,SNR=9.4						
NOA	**NORSAR Array B**	**67.60**	**336**	P	**P**	**11 29 33.8**	**-0.8**
	1.0nm,0.8s,mb3.5,baz=39,slow=6.3,SNR=2.7						
SCHQ	**Schefferville**	**79.12**	**15**	P	**P**	**11 30 41.7**	**-0.1**
	1.2nm,0.8s,mb3.6,baz=350,slow=11,SNR=3.1						

IDC 21 11:26:33.0±3.9**,2°.98N**×**96°.14E,h0^{km},mb3.8**/4**,mb1 3.8**/4**, mb1mx3.5**/21**,mbtmp3.8**/4**,MS3.7**/2**,Ms1 3.7**/2**, ms1mx3.1**/33**,1C,Error ellipse: s-maj=150.2km s-min=27.2km az=58.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	**Banda Aceh**	**2.63**	**341**	⇑*e*P	Pn	11 27 18.0	+1.2
BSI				*e*S	Sn	11 27 48.0	-1.5
WRA	**Warramunga Arr**	**43.88**	**123**	P	P	11 34 41.5	-0.1
	0.2nm,0.6s,baz=302,slow=9.1,SNR=2.8						
KSRS	**Korea Array**	**45.02**	**36**	LR	LR	11 54 22.8	
	comp=Z,52nm,18.4s,baz=36,slow=37						
MKAR	**Makanchi Array**	**45.27**	**347**	P	P	11 34 52.0	-0.2
	1.3nm,0.5s,baz=160,slow=8.6,SNR=26						
SONM	**Songino Array**	**45.55**	**10**	P	P	11 34 54.9	+0.4
	1.0nm,0.8s,baz=191,slow=8.2,SNR=7.2						
ZALV	**Zalesovo Beam**	**51.65**	**351**	P	P	11 35 41.3	-0.1
	1.5nm,0.6s,baz=185,slow=8.1,SNR=8.3						
MMAI	**Mount Meron Ar**	**64.01**	**305**	LR	LR	12 06 09.2	
	comp=Z,80nm,20.1s,baz=285,slow=37						

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*TAP **21** 11:39:55.9, 24°.27N×122°.18E, h45^{km}±1^{km}, ML3.2, D*
*ISCJB **21** 11:39:56.2±0.3, 24°.26N±0°.03×122°.19E±0°.02, h48^{km}±8^{km}, Error ellipse: s-maj=4.4km s-min=2.7km az=157.6*
*JMA **21** 11:39:56.4±0.1, 24°.54N×122°.22E, h67^{km}, M2.3*
ISC 21 11:39:56.8±0.3**,24°.26N**±0°.02×**122°.19E**±0°.02**,h43^{km}**±12^{km}**, n45,σ0^{s}75**/85**,3C-1D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENA	**Nanau**	**0.44**	**292**	*i* P	**Pn**	**11 40 06.9**	**0.0**
	baz=291						
ENA				S	**Sn**	**11 40 14.8**	**+0.7**
	baz=291						
TWC	**Suao**	**0.46**	**318**	P	**Pn**	**11 40 07.2**	**0.0**
	baz=318						
TWC				S	**Sn**	**11 40 14.4**	**-0.2**
	baz=318						
TWD	**Chiawan**	**0.57**	**251**	*i* P	**Pn**	**11 40 08.1**	**-0.5**
	baz=250						
TWD				*i* S	**Sn**	**11 40 17.2**	**+0.3**
	baz=250						
HWA	**Hwalien**	**0.60**	**242**	*e*P	**Pn**	**11 40 08.3**	**-0.7**
	baz=240						
HWA				S	**Sn**	**11 40 18.0**	**+0.3**
	baz=240						
ILA	**Ilan**	**0.64**	**321**	*e*P	**Pn**	**11 40 09.3**	**-0.2**
	baz=321						
ILA				*e*S	**Sn**	**11 40 18.7**	**+0.1**
	baz=321						
TWE	**Neicheng**	**0.66**	**314**	⇑*i*P	**Pn**	**11 40 09.7**	**-0.1**
	baz=314						
TWE				S	**Sn**	**11 40 19.3**	**+0.2**
	baz=314						
ENTT	**Nioudou**	**0.68**	**304**	⇑*i*P	**Pn**	**11 40 09.8**	**-0.2**
	baz=303						
ENTT				S	**Sn**	**11 40 19.9**	**+0.4**
	baz=303						
NNS	**Nan Shan**	**0.76**	**283**	P	**Pn**	**11 40 10.7**	**-0.4**
	baz=283						
NNS				S	**Sn**	**11 40 21.4**	**-0.2**
	baz=283						
TWB1	**Santiao Chiao**	**0.76**	**346**	*i* P	**Pn**	**11 40 10.5**	**-0.7**
	baz=347						
TWB1				S	**Sn**	**11 40 20.3**	**-1.3**
	baz=347						
YOJ	**Yonaguni jima**	**0.78**	**75**	P	**Pn**	**11 40 11.4**	**+0.1**
YOJ				*e*S	**Sn**	**11 40 22.5**	**+0.7**
ESL	**Shilin**	**0.82**	**237**	P	**Pn**	**11 40 11.1**	**-0.9**
	baz=236						
ESL				*e*S	**Sn**	**11 40 23.1**	**+0.1**
	baz=236						
WHF	**Hehuan Shan**	**0.85**	**262**	⇓*i*P	**Pn**	**11 40 12.1**	**-0.3**
	baz=261						
WHF				S	**Sn**	**11 40 23.6**	**-0.1**
	baz=261						
NSK	**Sanguang**	**0.86**	**299**	⇑*i*P	**Pn**	**11 40 12.0**	**-0.5**
	baz=298						
NSK				*e*S	**Sn**	**11 40 23.1**	**-0.8**
	baz=298						
NWF	**Wu-fen Shan**	**0.89**	**335**	P	**Pn**	**11 40 12.3**	**-0.5**
	baz=335						
NWF				S	**Sn**	**11 40 23.5**	**-1.0**
	baz=335						
TWA	**Mucha**	**0.90**	**322**	P	**Pn**	**11 40 12.9**	**-0.1**
	baz=322						
TWA				S	**Sn**	**11 40 24.9**	**0.0**
	baz=322						
TWT	**Tachien**	**0.92**	**270**	*e*P	**Pn**	**11 40 13.4**	**+0.1**
	baz=268						

TWT				S	Sn	11 40 25.9	+0.4
	baz=268						
TWS1	Kuangyinshan	1.09	320	P	Pn	11 40 15.4	-0.2
	baz=320						
TWS1				*e*S	Sn	11 40 29.9	+0.4
	baz=320						
EHY	Hungye	1.09	227	*e*P	Pn	11 40 14.5	-1.1
	baz=225						
NSTT	Nanjuang	1.14	289	P	Pn	11 40 16.3	0.0
	baz=288						
NSTT				*e*S	Sn	11 40 31.0	+0.2
	baz=288						
TWF1	Yuli	1.22	222	P	Pn	11 40 16.4	-1.0
	baz=221						
TWF1				*e*S	Sn	11 40 32.5	-0.2
	baz=221						
SMLT	Sun Moon Lake	1.24	252	*i* P	Pn	11 40 17.6	0.0
	baz=251						
SMLT				*e*S	Sn	11 40 33.8	+0.7
	baz=251						
TYC	Yuchr	1.27	254	P	Pn	11 40 18.0	0.0
	baz=253						
TYC				*e*S	Sn	11 40 33.9	0.0
	baz=253						
TWQ1	Liyutan	1.29	274	*e*P	Pn	11 40 19.5	+1.1
	baz=273						
TWQ1				*e*S	Sn	11 40 34.5	0.0
	baz=273						
NSY	Sanyi	1.31	277	*e*P	Pn	11 40 19.4	+0.8
	baz=276						
NSY				*e*S	Sn	11 40 34.7	-0.2
	baz=276						
YUS	Yu-Shan	1.37	236	*e*P	Pn	11 40 19.9	+0.4
	baz=235						
YUS				*e*S	Sn	11 40 36.4	0.0
	baz=235						
CHKT	Chengkung	1.38	213	*e*P	Pn	11 40 19.6	0.0
	baz=212						
CHKT				*e*S	Sn	11 40 34.2	-2.5
	baz=212						
TCU	Taichung	1.39	266	*e*P	Pn	11 40 20.2	+0.6
	baz=264						
TCU				*e*S	Sn	11 40 37.4	+0.6
	baz=264						
IRIF	Iriomote-Funau	1.41	87	P	Pn	11 40 20.0	0.0
IRIF				*e*S	Sn	11 40 37.3	0.0
ALS	Alishan	1.47	240	P	Pn	11 40 21.8	+0.9
	baz=238						
ALS				*e*S	Sn	11 40 40.8	+1.9
	baz=238						
HATJ	Hateruma jima	1.49	98	*e*S	Sn	11 40 41.1	+1.7
ELDTW	Lidau	1.52	225	P	Pn	11 40 20.6	-0.8
	baz=224						
ELDTW				*e*S	Sn	11 40 40.1	+0.1
	baz=224						
JKRS	Kuro-shima	1.66	91	P	Pn	11 40 23.9	+0.5
JKRS				*e*S	Sn	11 40 44.4	+0.8
STYT	Tauyuan	1.71	230	*e*P	Pn	11 40 24.4	+0.3
	baz=229						
STYT				*e*S	Sn	11 40 44.6	-0.1
	baz=229						
CHN4	Tsaushan	1.72	238	*e*P	Pn	11 40 24.8	+0.5
	baz=237						
CHN4				*e*S	Sn	11 40 44.5	-0.5
	baz=237						
WTP	Ta-pu	1.76	235	*e*P	Pn	11 40 25.6	+0.8
	baz=234						
TWG	Pinlang	1.76	216	P	Pn	11 40 23.7	-1.2
	baz=215						
TWG				*e*S	Sn	11 40 44.6	-1.5
	baz=215						
JIJ	Ishigaki jima	1.79	86	P	Pn	11 40 25.0	-0.1
JIJ				*e*S	Sn	11 40 46.0	-0.6
TWK	Hsinying	1.85	238	*e*P	Pn	11 40 26.9	+0.9
	baz=237						
TWK				*e*S	Sn	11 40 47.7	-0.5
	baz=237						
CHN1	Nanshi	1.86	235	*e*P	Pn	11 40 27.1	+0.9
	baz=234						
CHN1				*e*S	Sn	11 40 50.9	+2.3
	baz=234						
SGST	Jiashian	1.88	232	*e*P	Pn	11 40 26.9	+0.3
	baz=231						
SGST				*e*S	Sn	11 40 49.0	0.0
	baz=231						
WSF	Szhu	1.90	251	*e*S	Sn	11 40 50.4	+0.8
	baz=250						
ECL	Taimali	2.01	215	*e*P	Pn	11 40 26.7	-1.5
	baz=213						
ECL				*e*S	Sn	11 40 48.7	-3.4
	baz=213						
SSD	Sandimen	2.08	224	*e*P	Pn	11 40 30.6	+1.4
	baz=223						
LAY	Lan-yu	2.29	195	*e*P	Pn	11 40 31.1	-0.9
	baz=194						
LAY				*e*S	Sn	11 40 54.8	-4.3
	baz=194						
JTJ	Tarama	2.32	80	P	Pn	11 40 32.8	+0.3
JTJ				*e*S	Sn	11 40 59.5	-0.3

ISCJB ***21*** *11:40:51.5±0.9, 38°.35N±0°.04×25°.94E±0°.06, h13^{km}±3^{km}, Error ellipse: s-maj=8.4km s-min=4.7km az=142.9*
CSEM ***21*** *11:40:51.6±0.3, 38°.35N×25°.93E, h12^{km}, ML3.4/1, Error ellipse: s-maj=5.7km s-min=3.0km az=55.0*
ISK ***21*** *11:40:51.8, 38°.41N×25°.98E, h17^{km}, MD3.2*
DDA ***21*** *11:40:51.0, 38°.40N×25°.95E, h7^{km}±5^{km}, Md3.3*
THE ***21*** *11:40:52.8, 38°.38N×25°.99E, h9^{km}±1^{km}, ML3.4/1, Error ellipse: s-maj=1.9km s-min=0.5km az=61.0*
ISC 21 11:40:51.8±0.9**, 38°.36N**±0°.04×**25°.93E**±0°.06**, h14**^{km}±3^{km}**, n43, σ0^{s}.66**/67**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOS	Chios island	0.10	76	P	Pg	11 40 54.7	-0.2
CHOS				S	Sg	11 40 56.1	-1.0
CHOS	Chios island	0.10	76	P	Pg	11 40 54.7	-0.2
CHOS				S	Sg	11 40 56.1	-1.0
URLA	Izmir	0.52	90	*i* P	Pg	11 41 02.0	-0.1
URLA				*i* S	Sg	11 41 09.0	0.0
URLA	Izmir	0.52	90	*i* P	Pg	11 41 02.0	-0.1
URLA				*i* S	Sg	11 41 09.0	0.0
SIGR	SIGRI	0.85	356	P	Pg	11 41 08.4	+0.1
SIGR				S	Sg	11 41 20.7	+1.3
SIGR	SIGRI	0.85	356	P	Pg	11 41 08.4	+0.1
SIGR				S	Sg	11 41 20.7	+1.3
BLCB	Balcova	0.87	88	*e*PG	Pg	11 41 08.1	-0.6
BLCB				*e*SG	Sg	11 41 20.2	+0.1
BLCB	Balcova	0.87	88	P	Pb	11 41 08.3	-0.4
BLCB	Balcova	0.87	88	*e*Pg	Pg	11 41 08.1	-0.6
BLCB				*e*Sg	Sg	11 41 20.2	+0.1
PRK	Paraskevi	0.92	17	P	Pb	11 41 09.8	+0.2
PRK				S	Sb	11 41 22.5	+0.9
PRK	Paraskevi	0.92	17	P	Pb	11 41 09.8	+0.2
PRK				S	Sb	11 41 22.5	+0.9
IZM	Izmir	1.04	88	*e*PG	Pg	11 41 12.2	+0.2
IZM				*e*SG	Sg	11 41 26.4	+0.8
AYVA	Ayvalik	1.11	32	*i* P	Pb	11 41 12.2	-0.7
AYVA				*i* S	Sb	11 41 26.7	-0.5
AYVA	Ayvalik	1.11	32	*i* P	Pb	11 41 12.1	-0.7
AYVA				*i* S	Sb	11 41 26.7	-0.5
BOZC	Bozcaada	1.48	4	*i* P	Pn	11 41 17.3	-0.7
BOZC				*i* S	Sn	11 41 35.6	-1.5
EZN	Ezine	1.49	12	*e*PN	Pn	11 41 17.7	-0.4
EZN				*e*SN	Sn	11 41 36.5	-1.0
EZN	Ezine	1.49	12	*e*Pn	Pn	11 41 17.7	-0.5
EZN				*e*Sn	Sn	11 41 36.5	-0.9
AKS	Akhisar	1.56	70	*e*PN	Pn	11 41 19.5	+0.4
AKS	Akhisar	1.56	70	*e*Pn	Pn	11 41 19.5	+0.4
AKHS	Akhisar	1.56	70	*e*P	Pn	11 41 20.8	+1.7
AKHS				*i* S	Sn	11 41 39.4	+0.2
AKHS	Akhisar	1.56	70	*e*P	Pn	11 41 20.8	+1.7
AKHS				*i* S	Sn	11 41 39.3	+0.2
AYDN	Tasoluk	1.69	114	*i* P	Pn	11 41 20.9	0.0
AYDN				*i* S	Sn	11 41 41.3	-1.0
AYDN	Tasoluk	1.69	114	*i* P	Pn	11 41 20.9	0.0
AYDN				*i* S	Sn	11 41 41.3	-1.0
BODT	Bodrum	1.70	140	*e*PN	Pn	11 41 21.1	+0.1
BODT	Bodrum	1.70	140	*e*Pn	Pn	11 41 21.1	+0.1
GADA	Gvkgeada	1.83	359	*e*PN	Pn	11 41 23.1	+0.3
GADA	Gvkgeada	1.83	359	*e*Pn	Pn	11 41 23.1	+0.3
BALY	Balya	1.90	43	*i* P	Pn	11 41 23.6	-0.2
BALY				*i* S	Sn	11 41 47.9	+0.3
BALY	Balya	1.90	43	*i* P	Pn	11 41 23.6	-0.2
BALY				*i* S	Sn	11 41 47.9	+0.4
BALB	Balikesir	1.98	49	*e*PN	Pn	11 41 24.6	-0.3
BALB	Balikesir	1.98	49	*e*Pn	Pn	11 41 24.6	-0.3
MANT	Manisa	2.06	86	*i* P	Pn	11 41 31.0	+4.9
MANT				*i* S	Sn	11 41 56.3	+4.8
MANT	Manisa	2.06	86	*i* P	Pn	11 41 31.0	+5.0
MANT				*i* S	Sn	11 41 56.3	+4.7
LPK	Lapseki	2.11	17	*e*PN	Pn	11 41 26.9	+0.3
LPK	Lapseki	2.11	17	*e*Pn	Pn	11 41 26.9	+0.3
KULA	Kula-Manisa	2.15	85	*e*PN	Pn	11 41 27.4	+0.2
KULA	Kula-Manisa	2.15	85	*e*Pn	Pn	11 41 27.4	+0.2
ENEZ	Enez	2.38	4	*e*PN	Pn	11 41 30.6	+0.3
ENEZ	Enez	2.38	4	*e*Pn	Pn	11 41 30.6	+0.3
EDC	Edincik	2.48	36	*e*PN	Pn	11 41 32.3	+0.6
EDC	Edincik	2.48	36	*e*Pn	Pn	11 41 32.3	+0.5
DALT	Dalyan (Mudla)	2.67	126	*e*PN	Pn	11 41 35.2	+0.8
DALT	Dalyan (Mudla)	2.67	126	*e*Pn	Pn	11 41 35.2	+0.8

ISK ***21*** *11:41:50.5, 37°.48N×36°.85E, h6^{km}, MD2.8*
ISCJB ***21*** *11:41:51.1±0.6, 37°.50N±0°.03×36°.84E±0°.04, h2^{km}±5^{km}, Error ellipse: s-maj=5.9km s-min=4.6km az=160.2*
CSEM ***21*** *11:41:51.0±0.1, 37°.49N×36°.87E, h2^{km}, MD2.8, Error ellipse: s-maj=2.6km s-min=2.0km az=145.0*
DDA ***21*** *11:41:51.4, 37°.48N×36°.87E, h7^{km}±7^{km}, Md3.0*
ISC 21 11:41:51.5±0.5**, 37°.49N**±0°.03×**36°.86E**±0°.04**, h5**^{km}±4^{km}**, n24, σ0^{s}.86**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMRS	Kahramanmaras	0.04	69	*e*PG	Pg	11 41 52.0	-0.6
KMRS				*e*SG	Sg	11 41 53.1	-0.3
KMRS	Kahramanmaras	0.04	69	*e*Pg	Pg	11 41 52.0	-0.6
KMRS				*e*Sg	Sg	11 41 53.1	-0.3
GAZ	Gaziantep	0.43	138	*e*PG	Pg	11 41 59.0	-0.7
GAZ				*e*SG	Sg	11 42 05.9	+0.6
GAZ	Gaziantep	0.43	138	*e*Pg	Pg	11 41 59.0	-0.7
GAZ				*e*Sg	Sg	11 42 05.9	+0.6
GZT	Gaziantep	0.58	103	*i* P	Pg	11 42 02.8	+0.1
GZT				*i* S	Sg	11 42 16.0	+5.8
KUZU	Kuzuini	0.74	166	*i* P	Pg	11 42 06.2	+0.6
KUZU				*i* S	Sg	11 42 19.1	+3.9
KUZU	Kuzuini	0.74	166	*i* P	Pg	11 42 06.2	+0.5
KUZU				*i* S	Sg	11 42 19.1	+3.9
KOZT	Kozan	0.82	270	*e*PG	Pg	11 42 06.6	-0.7
KOZT				*e*SG	Sg	11 42 17.7	-0.2
COBT	Iskenderun	1.08	207	*i* P	Pg	11 42 12.3	0.0
COBT				*i* S	Sg	11 42 26.6	+0.3
COBT	Iskenderun	1.08	207	*i* P	Pg	11 42 12.3	0.0
COBT				*i* S	Sg	11 42 26.6	+0.3
AKCD	Akcadag	1.16	46	*i* P	Pg	11 42 13.4	-0.5
AKCD				*i* S	Sg	11 42 31.9	+3.0
AKCD	Akcadag	1.16	46	*i* P	Pg	11 42 13.4	-0.5
AKCD				*i* S	Sg	11 42 31.9	+2.9
SARI	SarD1z-Kayseri	1.19	354	*e*PG	Pg	11 42 10.8	-3.6
PINB	Pinarbasi	1.24	343	*i* P	Pg	11 42 15.2	0.0
PINB				*i* S	Sg	11 42 33.9	+2.6
PINB	Pinarbasi	1.24	343	*i* P	Pg	11 42 15.2	0.0
PINB				*i* S	Sg	11 42 33.9	+2.6
MALT	Malatya	1.49	56	*e*PN	Pn	11 42 19.1	+0.2
MALT				*e*SN	Sn	11 42 39.0	+0.2
MALT	Malatya	1.49	56	*e*Pn	Pn	11 42 19.1	+0.1
MALT				*e*Sn	Sn	11 42 39.0	+0.2
MYA	Malataya	1.50	56	*e*PN	Pn	11 42 18.5	-0.5
MYA				*e*SN	Sn	11 42 38.5	-0.5
MYA	Malataya	1.50	56	*e*Pn	Pn	11 42 18.5	-0.5
MYA				*e*Sn	Sn	11 42 38.5	-0.5
URFA	Urfa	1.56	91	*e*PN	Pn	11 42 19.5	-0.5
URFA	Urfa	1.56	91	*e*Pn	Pn	11 42 19.5	-0.5
BNN	Bunyan	1.57	330	*e*PN	Pn	11 42 20.6	+0.4
BNN	Bunyan	1.57	330	*e*Pn	Pn	11 42 20.6	+0.5
DARE	Darende-Malaty	1.64	27	*e*PN	Pn	11 42 14.2	-6.8

ISCJB ***21*** *11:57:59.9±0.2, 34°.57N±0°.03×26°.75E±0°.03, h10^{km}, mb3.9/21, MS3.7/2, Error ellipse: s-maj=4.8km s-min=3.0km az=33.5*
HLW ***21*** *11:58:01.8, 34°.74N×26°.55E, h33^{km}, Mb3.9*
MOS ***21*** *11:58:03.7±1.9, 34°.56N×26°.57E, h33^{km}, mb4.1/9, Error ellipse: s-maj=10.7km s-min=7.9km az=109.5*
CSEM ***21*** *11:58:03.4±0.2, 34°.65N×26°.73E, h20^{km}, mb4.0/14, Error ellipse: s-maj=7.8km s-min=4.2km az=37.0*
NEIC ***21*** *11:58:04.4±1.9, 34°.60N×26°.70E, h25^{km}±16^{km}, mb3.8/4, ML3.2(ATH), Error ellipse: s-maj=12.9km s-min=8.7km az=195.0*
IDC ***21*** *11:58:05.7±3.1, 34°.63N×26°.66E, h33^{km}±26^{km}, mb3.8/12, mb1 3.9/19, mb1mx3.8/29, mbtmp3.8/19, ML3.7/7, MS3.6/3, Ms1 3.6/3, ms1mx2.8/40, Error ellipse: s-maj=17.5km s-min=12.7km az=179.0*
GII ***21*** *11:58:07.3±0.0, 34°.43N×27°.27E, h1^{km}±1^{km}, Mb4.0/1, Md3.7/7*
ISC 21 11:58:02.0±0.2**, 34°.56N**±0°.03×**26°.71E**±0°.03**, h10**^{km}**, n144, σ1^{s}.31**/153**, mb4.0**/21**, MS3.7**/2**, 1C-5D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKR	Zakros	0.69	324	P	Pg	11 58 15.9	+0.6
ZKR	Zakros	0.69	324	P	Pg	11 58 15.9	+0.6
KARP	Karpathos	1.05	21	P	Pg	11 58 23.8	+1.5
NPS	Neapolis	1.14	308	P	Pb	11 58 24.7	+0.9
NPS	Neapolis	1.14	308	P	Pb	11 58 24.7	+0.9
LAST	Lasithi	1.18	301	P	Pb	11 58 24.5	+0.1
LAST	Lasithi	1.18	301	P	Pb	11 58 24.5	+0.1
SIVA	Sivas	1.63	287	P	Pg	11 58 33.8	+0.6
IDI	Anoyia	1.66	297	Pn	Pn	11 58 33.3	+2.2
	23nm,0.3s,baz=119,slow=14,SNR=98						
IDI	Anoyia	1.66	297	Pn	Pn	11 58 33.3	+2.1
ARG	Arkhangelos	2.02	35	P	Pg	11 58 40.1	-0.6
THR6	Thira Island,	2.09	330	P	Pn	11 58 36.0	-1.0
THR6	Thira Island,	2.09	330	P	Pn	11 58 36.0	-1.0
THR4	Thira Island,	2.18	331	P	Pn	11 58 38.0	-0.3
THR4	Thira Island,	2.18	331	P	Pn	11 58 38.0	-0.3
KARN	Karanos	2.44	291	P	Pg	11 58 45.3	-3.5
LTBQ	Tobruq	3.42	224	*i* P	Pn	11 58 58.8	+3.5
	SNR=110						
VLI	Veliai	3.75	306	P	Pn	11 59 03.3	+3.4
SWA1		5.35	189	P	Pn	11 59 22.5	+0.6
SWA1				S	Sn	12 00 21.5	-2.0
SWA2		5.41	192	P	Pn	11 59 22.5	-0.2
SWA2				S	Sn	12 00 21.5	-3.4
XOR	Xorichti	5.56	331	P	Pn	11 59 22.0	-2.8
XOR	Xorichti	5.56	331	P	Pn	11 59 22.0	-2.8
VLS	Valsamata	6.12	308	P	Pn	11 59 34.0	+1.6
VLS	Valsamata	6.12	308	P	Pn	11 59 34.0	+1.6
KOT	Kottamia	6.34	135	⇓P	Pn	11 59 36.7	+1.3
KOT	Kottamia	6.34	135	P	Pn	11 59 36.7	+1.3
HHAG	Hagoal	6.48	134	⇑P	Pn	11 59 38.3	+0.9
HHAG	Hagoal	6.48	134	P	Pn	11 59 38.3	+0.9
GLL	Jalalah	6.53	138	⇓P	Pn	11 59 39.0	+0.9
GLL	Jalalah	6.53	138	P	Pn	11 59 39.0	+0.9
LJBD	Adjabya	6.58	238	*i* P	Pn	11 59 39.9	+1.1
	114nm,0.3s,SNR=99						
SUZ		7.00	131	⇓P	Pn	11 59 45.6	+1.0
SUZ		7.00	131	P	Pn	11 59 45.6	+1.0
ZAF		7.23	135	⇓P	Pn	11 59 48.8	+1.0
ZAF		7.23	135	P	Pn	11 59 48.8	+1.0
ZNM		7.36	133	⇓P	Pn	11 59 50.7	+1.3
ZNM		7.36	133	P	Pn	11 59 50.7	+1.2
MMAI	Mount Meron Ar	7.40	100	Pn	Pn	11 59 50.7	+0.7
	1.8nm,0.3s,baz=303,slow=14,SNR=5.2						
MMAI				Sn	Sn	12 01 14.3	+0.2
	2.1nm,0.3s,baz=330,slow=17,SNR=3.0						
KZIT	Kziot	7.43	117	Pn	Pn	11 59 49.7	-0.8
KZIT				Sn	Sn	12 01 11.2	-3.6
KZIT	Kziot	7.43	117	Pn	Pn	11 59 49.7	-0.8
BRTR	Keskin Array B	7.56	45	Pn	Pn	11 59 54.5	+2.2
	0.2nm,0.3s,baz=212,slow=13,SNR=6.0						
BRTR				Sn	Sn	12 01 17.5	-0.5
	baz=214,slow=20,SNR=4.1						
HMDT	Nahal Hemdat	7.72	105	Pn	Pn	11 59 54.1	-0.4
HMDT				Sn	Sn	12 01 18.7	-3.3
HMDT	Nahal Hemdat	7.72	105	Pn	Pn	11 59 54.1	-0.4
DSI	Dead Sea	7.87	110	Pn	Pn	11 59 56.7	+0.3
DSI				Sn	Sn	12 01 21.9	-3.6
DSI	Dead Sea	7.87	110	Pn	Pn	11 59 56.7	+0.3
MZDA	Masada	7.96	112	Pn	Pn	11 59 57.4	-0.4
MZDA	Masada	7.96	112	Pn	Pn	11 59 57.4	-0.4
KRMI	Paran Flat	8.10	121	Pn	Pn	11 59 59.7	0.0
KRMI				Sn	Sn	12 01 27.8	-3.5
KRMI	Paran Flat	8.10	121	Pn	Pn	11 59 59.7	0.0
PRNI	Paran	8.17	119	Pn	Pn	12 00 00.9	+0.3
PRNI				Sn	Sn	12 01 30.4	-2.6
PRNI	Paran	8.17	119	Pn	Pn	12 00 00.9	+0.3
MBRI	Mt Berech	8.42	122	Pn	Pn	12 00 04.3	+0.2
MBRI				Sn	Sn	12 01 36.8	-2.4
MBRI	Mt Berech	8.42	122	Pn	Pn	12 00 04.3	+0.2
EIL	Elat	8.52	123	Pn	Pn	12 00 05.6	+0.2
	1.7nm,0.3s,baz=303,slow=5.7,SNR=15						
EIL				Sn	Sn	12 01 37.1	-4.6
	1.1nm,0.3s,baz=60,slow=20,SNR=3.2						
EIL	Elat	8.52	123	Pn	Pn	12 00 06.3	+0.9
EIL	Elat	8.52	123	Pn	Pn	12 00 05.6	+0.2
ASF	Jabal al Asfar	8.85	103	Pn	Pn	12 00 10.8	+0.8
	0.4nm,0.3s,baz=288,slow=4.7,SNR=2.6						
CUC	Castrocucco	10.23	305	*e*Pn	Pn	12 00 28.2	-0.6
	14nm,0.6s						
CUC	Castrocucco	10.23	305	*e*Pn	Pn	12 00 28.2	-0.6
	14nm,0.6s						
VAE	Valguarnera	10.38	290	Pn	Pn	12 00 32.7	+1.8
	1.7nm,0.3s,baz=113,slow=15,SNR=3.6						
VAE				Sn	Sn	12 02 22.5	-4.7
	2.1nm,0.3s,baz=106,slow=18,SNR=2.5						
VAE	Valguarnera	10.38	290	Pn	Pn	12 00 32.7	+1.9
MLR	Muntele Rosu	10.94	357	LR	LR	12 05 49.3	
	comp=Z,130nm,18.1s,baz=129,slow=43						
KEST	Kesra	14.26	280	Pn	Pn	12 01 27.7	+3.8
	0.1nm,0.3s,baz=105,slow=20,SNR=2.5						
AKASG	Malin Array Be	16.24	6	Pn	Pn	12 01 52.6	+2.6
	1.2nm,0.3s,baz=197,slow=12,SNR=4.9						
AKASG	Malin Array Be	16.24	6	P	Pn	12 01 52.6	+2.6
GERES	GERESS Array B	17.23	330	P	Pn	12 02 03.0	+0.4
	0.1nm,0.3s,baz=145,slow=14,SNR=10						
GERES	GERESS Array B	17.23	330	P	Pn	12 02 03.0	+0.4
SBF	Sospel	17.55	308	*e*P	Pn	12 02 03.1	-3.6
SBF	Sospel	17.55	308	*e*P	Pn	12 02 03.1	-3.6
DAVOX	Davos/Dischmat	17.62	319	P	Pn	12 02 08.1	+0.7
	0.2nm,0.3s,baz=173,slow=16,SNR=2.4						
LMR	La Mourre	17.95	305	*e*P	Pn	12 02 08.6	-3.1
LMR	La Mourre	17.95	305	*e*P	Pn	12 02 08.6	-3.1
MBDF	Montbardon	18.36	310	*e*P	Pn	12 02 13.8	-2.8
	11nm,0.7s						
MBDF	Montbardon	18.36	310	*e*P	Pn	12 02 13.8	-2.8
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MBDF	Montbardon	18.36	310	*e*P	Pn	12 02 13.8	-2.8
	comp=Z,5.4nm,0.7s						
MBDF	Montbardon	18.36	310	*e*P	Pn	12 02 13.8	-2.8
	comp=Z,5.4nm,0.7s						
LPL	La Plagne	18.75	312	*e*P	Pn	12 02 20.5	-0.9
LPL	La Plagne	18.75	312	*e*P	Pn	12 02 20.5	-0.9
SMRF	Simiane la Rot	18.83	306	*e*P	Pn	12 02 20.1	-2.2
SMRF	Simiane la Rot	18.83	306	*e*P	Pn	12 02 20.1	-2.2
CABF	La Chapelle	19.69	314	*e*P	Pn	12 02 30.4	-2.2
CABF	La Chapelle	19.69	314	*e*P	Pn	12 02 30.4	-2.2
HINF	Hinteralfeld	19.89	318	*e*P	Pn	12 02 31.7	-3.3
	comp=Z,7.1nm,0.6s						
HINF	Hinteralfeld	19.89	318	*e*P	Pn	12 02 31.7	-3.3
	comp=Z,3.5nm,0.6s						
CDF	Champ du Feu	20.01	320	*e*P	P	12 02 35.3	+0.6
	comp=Z,13nm,0.9s						
CDF	Champ du Feu	20.01	320	*e*P	P	12 02 35.3	+0.6
	comp=Z,6.5nm,0.9s						
LASF	Ste Croix	20.02	305	*e*P	P	12 02 33.6	-1.2
LASF	Ste Croix	20.02	305	*e*P	P	12 02 33.6	-1.2
HAU	Haudompre	20.28	318	*e*P	P	12 02 37.6	0.0
	comp=Z,8.5nm,0.5s						
HAU	Haudompre	20.28	318	*e*P	P	12 02 37.6	0.0
	comp=Z,4.2nm,0.5s						
SMF	Signal de Mont	21.06	312	*e*P	P	12 02 44.9	-1.2
	comp=Z,3.2nm,0.4s,mb3.7						
SMF	Signal de Mont	21.06	312	*e*P	P	12 02 44.9	-1.2
	comp=Z,1.6nm,0.4s,mb3.7						
LOR	Lormes	21.34	313	*e*P	P	12 02 48.2	-0.9
	comp=Z,8.6nm,0.8s,mb3.9						
LOR	Lormes	21.34	313	*e*P	P	12 02 48.2	-0.9
	comp=Z,4.3nm,0.8s,mb3.9						
SSF	Saint Saulge	21.46	313	*e*P	P	12 02 49.6	-0.7
	comp=Z,4.5nm,0.5s,mb3.8						
SSF	Saint Saulge	21.46	313	*e*P	P	12 02 49.6	-0.7
	comp=Z,2.2nm,0.5s,mb3.7						
OBN	Obninsk	21.67	15	*e*P	P	12 02 52.7	+0.2
OBN				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.2						
OBN	Obninsk	21.67	15	*e*P	P	12 02 52.7	+0.2
	comp=Z,10.0nm,1.1s,mb4.2						
TAM	Tamanrasset	21.93	243	*e*P	P	12 02 56.8	+1.2
TAM				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
TAM	Tamanrasset	21.93	243	*e*P	P	12 02 56.8	+1.2
	comp=Z,1.8nm,0.6s,mb3.7						
TAM	Tamanrasset	21.93	243	*e*P	P	12 02 56.8	+1.2
	comp=Z,2.0nm,0.6s,mb3.7						
BAIF	Baives	22.60	320	*e*P	P	12 03 00.9	-1.7
	comp=Z,15nm,0.8s,mb4.2						
BAIF	Baives	22.60	320	*e*P	P	12 03 00.9	-1.7
BAIF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.1						
BAIF	Baives	22.60	320	*e*P	P	12 03 00.9	-1.7
	comp=Z,7.4nm,0.8s,mb4.2						
BAIF	Baives	22.60	320	*e*P	P	12 03 00.9	-1.7
	comp=Z,7.4nm,0.8s,mb4.2						
SJPF	Ste Jean	23.29	300	*e*P	P	12 03 11.0	+1.1
	comp=Z,5.8nm,0.8s,mb3.8						
SJPF	Ste Jean	23.29	300	*e*P	P	12 03 11.0	+1.1
SJPF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
SJPF	Ste Jean	23.29	300	*e*P	P	12 03 11.0	+1.1
	comp=Z,2.9nm,0.8s,mb3.8						
SJPF	Ste Jean	23.29	300	*e*P	P	12 03 11.0	+1.1
	comp=Z,2.9nm,0.8s,mb3.8						
MDT	Midelt	26.07	275	LR	LR	12 15 24.1	
	comp=Z,77nm,19.1s,MS3.3,baz=279,slow=40						
HFS	Hagfors	26.96	346	P	P	12 03 42.1	-1.3
	comp=Z,3.0nm,0.8s,mb3.9,baz=171,slow=10,SNR=5.0						
HFS	Hagfors	26.96	346	P	P	12 03 42.1	-1.3
NOA	NORSAR Array B	28.31	344	P	P	12 03 53.5	-2.0
	comp=Z,1.3nm,0.7s,mb3.7,baz=148,slow=9.5,SNR=2.9						
NOA	NORSAR Array B	28.31	344	P	P	12 03 53.5	-2.0
EKA	Eskdalemuir Ar	29.27	324	P	P	12 04 05.3	+1.3
	comp=Z,1.2nm,0.5s,mb3.9,baz=125,slow=9.9,SNR=3.6						
EKA	Eskdalemuir Ar	29.27	324	P	P	12 04 05.3	+1.3
TORD	Torodi Ar. Bea	31.11	233	P	P	12 04 21.4	+0.6
	comp=Z,3.4nm,0.5s,mb4.4,baz=36,slow=8.6,SNR=33						
ARCES	ARCESS Array B	35.04	359	P	P	12 04 53.1	-1.3
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ARCES	ARCESS Array B	35.04	359	P	P	12 04 53.0	-1.4
	comp=Z,0.6nm,0.4s,mb3.9,baz=176,slow=9.3,SNR=7.8						
ARCES	ARCESS Array B	35.04	359	P	P	12 04 53.1	-1.3
	comp=Z,1.0nm,0.4s,mb4.1						
DBIC	Dimbokro	40.21	234	P	P	12 05 39.1	+0.3
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.4s						
DBIC	Dimbokro	40.21	234	P	P	12 05 39.1	+0.3
	comp=Z,3.6nm,0.4s,mb4.4,baz=22,slow=10,SNR=9.3						
DBIC	Dimbokro	40.21	234	P	P	12 05 39.1	+0.3
	comp=Z,4.0nm,0.4s,mb4.5						
TIC	Toumodi	40.34	234	*e*P	P	12 05 39.4	-0.5
	comp=Z,17nm,0.2s						
KIC	Kosan Boka	40.36	233	*e*P	P	12 05 40.4	+0.3
	comp=Z,31nm,0.5s						
LIC	Lamto	40.65	233	*e*P	P	12 05 42.4	-0.1
	comp=Z,9.2nm,0.6s,mb4.3						
LIC	Lamto	40.65	233	*e*P	P	12 05 42.7	+0.2
	comp=Z,25nm,1.0s,mb4.8						
LIC	Lamto	40.65	233	*e*P	P	12 05 42.4	-0.1
	comp=Z,4.6nm,0.6s,mb4.3						
MKAR	Makanchi Array	43.05	56	P	P	12 06 03.1	+1.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	43.05	56	P	P	12 06 03.0	+1.3
	comp=Z,1.2nm,0.6s,mb3.8,baz=272,slow=7.1,SNR=16						
MKAR	Makanchi Array	43.05	56	P	P	12 06 03.1	+1.3
	comp=Z,1.0nm,0.6s,mb3.7						
ZALV	Zalesovo Beam	44.51	46	P	P	12 06 13.9	+0.5
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
ZALV	Zalesovo Beam	44.51	46	P	P	12 06 13.9	+0.5
	comp=Z,1.3nm,0.5s,mb4.0,baz=269,slow=9.6,SNR=6.8						
ZAK	Zakamensk	56.19	49	*e*P	P	12 07 44.1	+2.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
SONM	Songino Array	58.88	51	P	P	12 08 02.5	+1.6
SONM				pmax	pmax		

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	58.88	51	P	P	12 08 02.5	+1.6
	comp=Z,0.5nm,0.5s,mb3.8,baz=290,slow=7.9,SNR=5.8						
SONM	Songino Array	58.88	51	P	P	12 08 02.5	+1.6
	comp=Z,1.0nm,0.5s,mb4.1						
SCHQ	Schefferville	64.47	320	P	P	12 08 37.5	-0.9
	comp=Z,1.5nm,0.5s,mb4.3,baz=31,slow=4.2,SNR=12						
PSI	Prapat	73.79	98	LR	LR	12 47 41.8	
	comp=Z,126nm,18.5s,MS4.2,baz=344,slow=40						
KSRS	Korea Array	77.63	53	P	P	12 09 59.3	+0.7
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
KSRS	Korea Array	77.63	53	P	P	12 09 59.3	+0.7
	comp=Z,0.9nm,0.8s,mb3.7,baz=318,slow=5.3,SNR=3.0						
KSRS	Korea Array	77.63	53	P	P	12 09 59.3	+0.7
	comp=Z,1.0nm,0.8s,mb3.8						
YKA	Yellowknife Ar	78.41	343	P	P	12 10 01.3	-1.1
	comp=Z,0.2nm,0.6s,mb3.2,baz=32,slow=5.3,SNR=7.3						
YKA	Yellowknife Ar	78.41	343	P	P	12 10 01.3	-1.1

ISCJB **21** *12:04:42.4±0.1, 12.°27S±0.°03×167.°05E±0.°03, h251^{km}, mb5.2/155, Error ellipse: s-maj=4.0km s-min=3.2km az=148.3*

MOS **21** *12:04:42.9±1.1, 12.°07S×167.°03E, h249^{km}, mb5.6/43, Error ellipse: s-maj=8.1km s-min=6.9km az=76.5*

IDC **21** *12:04:43.7±0.6, 12.°25S×167.°05E, h253^{km}±5^{km}, mb4.8/22, mb1 4.9/23, mb1mx4.9/23, mbtmp4.8/23, Error ellipse: s-maj=8.9km s-min=7.6km az=132.0*

BJI **21** *12:04:43.4, 11.°88S×167.°21E, h256^{km}, mB5.1/35, mb5.3/59*

NEIC **21** *12:04:44.7±0.5, 12.°23S×167.°07E, h262^{km}±4^{km}, mb5.4/107, Error ellipse: s-maj=4.4km s-min=3.5km az=124.0*

GCMT **21** *12:04:44.7±0.2, 12.°18S×166.°99E, h255^{km}, MW5.4/99, Moment Tensor Solution. s82,c141; s99,c171; Duration: 1.^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.44±.02; $M_{\theta\theta}$-0.24±.03; $M_{\phi\phi}$-1.21±.03; $M_{r\theta}$0.43±.03; $M_{\theta\phi}$-0.48±.02; $M_{\phi r}$-0.82±.03; Best double couple: $M_0$1.68300×10^{17} NP1:ϕ_s40.00000°, δ36.00000°, λ123.00000°. NP2:ϕ_s181.00000°, δ60.00000°, λ68.00000°. Principal axes: T 1.8220, Plg67.0000°, Azm48.0000°; N -0.2840, Plg19.0000°, Azm192.0000°; P -1.5440, Plg13.0000°, Azm286.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

DJA **21** *12:04:45, 12.°39S×167.°11E, h254^{km}, mb5.2/21*

ISC 21 12:04:44.0±0.1**, 12.°23S**±0.°03×**167.°09E**±0.°02**, h253**^{km}**, h253**^{km}±1.2^{km}**:pP-P, n1048,** σ**0.^{s}57**/719**, mb5.2**/155**, 248C-196D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	7.55	291	eP	Pn	12 06 30.6	-1.1
HNR				pmax	pmax		
	comp=Z,2µm,1.0s						
HNR	Honiara	7.55	291	P	Pn	12 06 30.9	-0.8
	comp=Z,52nm,0.3s,baz=201,slow=1.6,SNR=52						
HNR	Honiara	7.55	291	ePn	Pn	12 06 30.6	-1.1
	comp=Z,2µm,1.0s						
TARA	Tarawa	14.69	24	ePn	Pn	12 08 01.0	+0.5
	comp=Z,2µm,1.7s						
EIDS	Eidsvold	19.98	227	eP	P	12 08 58.8	+1.1
	comp=Z,198nm,0.8s						
EIDS				eS	S	12 12 29.9	+1.7
CTA	Charters Tower	21.46	246	⇓iP	P	12 09 13.3	+0.3
	comp=Z,103nm,0.9s,mb5.4						
CTA				epP		12 09 52.6	
CTA				e		12 10 09.0	
CTA				eS	S	12 12 59.3	+5.8
CTA	Charters Tower	21.46	246	P	P	12 09 13.5	+0.5
	comp=Z,113nm,0.8s,mb5.4,baz=75,slow=12,SNR=110						
CTA				S	S	12 12 57.4	+3.8
	comp=Z,11nm,1.1s,baz=49,slow=19,SNR=6.0						
CTAO	Charters Tower	21.46	246	eP	P	12 09 12.0	-1.0
CTAO				pmax	pmax		
	comp=Z,152nm,0.9s,mb5.5						
CTAO	Charters Tower	21.46	246	eP	P	12 09 12.0	-1.0
	comp=Z,152nm,0.9s,mb5.5						
ARMA	Armidale	23.08	216	eP	P	12 09 28.8	+1.2
ARMA				epP		12 10 06.7	
ARMA				eS	S	12 13 22.7	+3.3
ARMA	Armidale	23.08	216	eP	P	12 09 28.6	+1.1
ARMA				epP		12 10 12.0	
COEN	Coen	23.35	263	eP	P	12 09 30.8	+0.5
	comp=Z,399nm,0.7s,mb6.1						
OUZ	Omahuta	23.64	167	eP	P	12 09 33.4	+0.8
	comp=Z,24nm,0.8s,mb4.9						
URZ	Urewera	27.42	163	P	P	12 10 05.1	-1.4
	comp=Z,19nm,0.6s,mb4.9,baz=356,slow=3.5,SNR=13						
URZ				S	S	12 14 26.7	-1.0
	comp=Z,3.6nm,0.5s,baz=169,slow=18,SNR=6.1						
URZ	Urewera	27.42	163	P	P	12 10 05.4	-1.1
MWZ	Matawai	27.61	162	P	P	12 10 07.6	-0.6
CNB	Canberra Magne	28.03	212	eP	P	12 10 11.9	-0.1
CNB				epP	pP	12 11 02.4	+0.8
BKZ	Black Stump Fm	28.09	164	P	P	12 10 11.7	-0.8
MRZ	Mangatainoka R	29.29	167	P	P	12 10 21.6	-1.4
KIW	Kapiti Island	29.34	168	P	P	12 10 23.0	-0.4
NNZ	Nelson	29.40	170	P	P	12 10 24.7	+0.7
CAW	Cannon Point	29.61	168	P	P	12 10 24.9	-0.9
SNZO	South Karori	29.73	168	P	P	12 10 26.0	-0.8
THZ	Tophouse	29.86	171	eP	P	12 10 28.0	0.0
STKA	Stephens Creek	30.53	226	⇓iP	P	12 10 34.5	+0.4
	comp=Z,7.4nm,0.4s,mb4.7						
STKA				epP	pP	12 11 26.4	+2.3
STKA				e		12 13 25.7	
STKA				eS	S	12 15 17.2	+0.5
STKA	Stephens Creek	30.53	226	P	P	12 10 35.0	+0.9
	comp=Z,8.5nm,0.4s,mb4.7,baz=44,slow=7.5,SNR=35						
STKA				PcP	PcP	12 13 25.9	-0.6
	comp=Z,10.0nm,0.7s,baz=78,slow=6.2,SNR=3.1						
STKA				ScP	ScP	12 16 45.6	+0.9
	comp=Z,8.5nm,1.1s,baz=323,slow=1.9,SNR=3.6						
KHZ	Kahutara	30.59	171	P	P	12 10 33.3	-1.2
LTZ	Lake Taylor	30.77	173	P	P	12 10 35.9	-0.1
WVZ	Waitaha Valley	30.89	175	P	P	12 10 37.1	0.0
RPZ	Rata Peaks	31.56	175	P	P	12 10 43.0	+0.2
	comp=Z,43nm,0.5s,mb5.2,baz=317,slow=1.6,SNR=69						
RPZ	Rata Peaks	31.56	175	eP	P	12 10 42.7	-0.2
	comp=Z,51nm,0.6s,mb5.2						
RPZ				epP	pP	12 11 34.2	+1.2
JCZ	Jackson Bay	31.76	178	P	P	12 10 45.6	+1.0
TOO	Toolangi	31.78	214	eP	P	12 10 45.3	+0.4
TOO				epP	pP	12 11 34.8	-0.4
WRAB	Tennant Creek	32.33	252	P	P	12 10 49.2	-0.7
	comp=Z,46nm,0.3s,mb5.5,SNR=16						
WRAB	Tennant Creek	32.33	252	eP	P	12 10 48.8	-1.1
WRAB				e*PP	pP	12 11 40.0	-0.3
WRAB				pmax	pmax		
	comp=Z,42nm,1.1s,mb4.9						
WRAB	Tennant Creek	32.33	252	eP	P	12 10 48.8	-1.1
	comp=Z,42nm,1.1s,mb4.9						
WRAB				epP	pP	12 11 40.0	-0.2
WRA	Warramunga Arr	32.34	252	P	P	12 10 49.1	-0.9
WRA				*PP	pP	12 11 40.0	-0.4
WRA						12 12 08.7	
WRA				S	S	12 15 40.6	-4.5
WRA	Warramunga Arr	32.34	252	P	P	12 10 49.1	-0.9
	comp=Z,13nm,0.4s,mb4.8,baz=86,slow=8.9,SNR=48						
WRA				pP	pP	12 11 40.0	-0.4
	comp=Z,9.4nm,0.8s,baz=83,slow=8.7,SNR=3.6						
WRA				PP	PP	12 12 08.7	-0.1
	comp=Z,10.0nm,0.9s,baz=78,slow=10,SNR=10						
WRA				S	S	12 15 40.6	-4.5
	comp=Z,3.2nm,1.0s,baz=85,slow=13,SNR=4.5						
WRA				ScP	ScP	12 16 52.1	+1.0
	comp=Z,7.3nm,1.0s,baz=79,slow=3.8,SNR=7.4						
WRA				PKiKP	PKiKP	12 20 56.6	-2.3
	comp=Z,1.4nm,0.9s,baz=14,slow=0.3,SNR=6.2						
WRA	Warramunga Arr	32.34	252	P	P	12 10 49.1	-0.9
WRA				pP	pP	12 11 40.0	-0.4
WRA				PP	PP	12 12 08.7	-0.1
WRA				S	S	12 15 40.6	-4.5
WRA				ScP	ScP	12 16 52.1	+1.0
WKZ	Wanaka	32.52	177	P	P	12 10 51.7	+0.4
ODZ	Otahua Downs	32.84	175	eP	P	12 10 53.7	-0.3
	comp=Z,32nm,1.1s,mb4.8						
ODZ				ePcP	PcP	12 13 31.9	-0.5
ASAR	Alice Springs	33.47	246	P	P	12 10 58.7	-1.1
ASAR				*PP	pP	12 11 49.3	-1.0
ASAR						12 12 16.6	
ASAR				S	S	12 15 59.5	-2.9
ASAR	Alice Springs	33.47	246	P	P	12 10 58.6	-1.1
	comp=Z,17nm,0.6s,mb4.7,baz=71,slow=9.2,SNR=224						
ASAR				pP	pP	12 11 49.3	-1.0
	comp=Z,20nm,0.8s,baz=72,slow=9.1,SNR=6.4						
ASAR				PP	PP	12 12 16.6	-4.7
	comp=Z,17nm,0.6s,baz=76,slow=9.1,SNR=6.9						
ASAR				S	S	12 15 59.5	-3.0
	comp=Z,5.7nm,1.1s,baz=76,slow=15,SNR=7.0						
ASAR				ScP	ScP	12 16 52.5	-2.5
	comp=Z,11nm,0.8s,baz=344,slow=11,SNR=20						
WHZ	Wether Hill Ro	33.56	179	P	P	12 10 59.5	-0.7
KAKA	Kakadu	33.82	265	eP	P	12 11 02.3	-0.6
	comp=Z,17nm,0.4s,mb4.9						
KAKA	Kakadu	33.82	265	eP	P	12 11 02.2	-0.6
	comp=Z,82nm,0.7s,mb5.4						
MOO	Moorlands	34.72	206	eP	P	12 11 09.7	-0.5
MOO				epP	pP	12 11 53.0	-8.0
FITZ	Fitzroy Crossi	40.36	256	eP	P	12 11 57.9	+0.2
	comp=Z,42nm,1.0s,mb4.8						
FITZ				epP	pP	12 12 50.9	+1.1
FITZ				ePP	PP	12 13 34.5	-2.0
FITZ				eS	S	12 17 45.7	-0.9
FITZ				eSS	SS	12 21 03.4	+6.6
FITZ	Fitzroy Crossi	40.36	256	P	P	12 11 58.0	+0.3
	comp=Z,15nm,0.5s,mb4.6,baz=85,slow=6.5,SNR=40						
FITZ				S	S	12 17 45.8	-0.9
	comp=Z,5.8nm,1.0s,baz=244,slow=19,SNR=3.5						
FITZ	Fitzroy Crossi	40.36	256	eP	P	12 11 57.6	-0.1
	comp=Z,42nm,1.0s,mb4.8						
FITZ				epP	pP	12 12 46.8	-3.0
FORT	Forrest	40.47	237	eP	P	12 11 58.4	0.0
	comp=Z,73nm,0.5s,mb5.4						
FORT				epP	pP	12 12 47.6	-2.9
FORT				eS	S	12 17 46.1	-1.8
FORT	Forrest	40.47	237	eP	P	12 11 58.5	+0.1
	comp=Z,77nm,0.6s,mb5.3						
FORT				epP	pP	12 12 49.0	-1.6
PAE	Paea	42.14	103	⇑iP	P	12 12 10.9	-1.3
	comp=Z,95nm,1.2s,mb5.1						
PPT	Papeete	42.15	103	⇑iP	P	12 12 11.2	-1.0
	comp=Z,53nm,1.3s,mb4.8						
PPT	Papeete	42.15	103	P	P	12 12 11.1	-1.1
	comp=Z,21nm,0.5s,mb4.8,baz=267,slow=4.5,SNR=4.3						
TIAR	Tiarei	42.37	103	⇑iP	P	12 12 13.1	-0.9
	comp=Z,80nm,1.0s,mb5.1						
TVO	Taravao	42.46	103	⇑iP	P	12 12 13.9	-0.8
	comp=Z,117nm,1.0s,mb5.3						
MEH	Mehetia	43.59	103	⇑iP	P	12 12 22.8	-0.9
	comp=Z,185nm,1.0s,mb5.3						
PMOR	Pomariorio Ree	43.78	99	⇑iP	P	12 12 24.9	-0.4
	comp=Z,306nm,1.1s,mb5.5						
PMOR				epP	pP	12 13 25.5	+7.2
	comp=Z,166nm,1.2s						
VAH	Vaihoa	44.03	99	⇑iP	P	12 12 26.6	-0.7
	comp=Z,270nm,1.1s,mb5.5						
VAH				epP	pP	12 13 27.1	+6.8
	comp=Z,101nm,1.1s						
MNI	Manado	44.10	285	P	P	12 12 29.0	+1.1
KMSI	Cibinong	44.64	283	P	P	12 12 32.8	+0.7
APSI	Ampana	46.44	281	P	P	12 12 46.8	+0.6
BNSI	Bone	47.07	275	P	P	12 12 51.7	+0.6
PCI	Palu	48.18	280	P	P	12 13 01.9	+2.3
NWAO	Narrogin (SRO)	49.91	237	P	P	12 13 12.0	-0.4
	comp=Z,34nm,0.6s,mb4.9,baz=82,slow=6.0,SNR=44						
MUN	Mundaring	50.57	239	eP	P	12 13 17.2	-0.1
MUN				epP	pP	12 14 12.4	+0.6
TAOE	Nuku Hiva Isla	51.92	92	⇑iP	P	12 13 26.8	-0.8
	comp=Z,858nm,1.1s,mb6.1						
TAOE	Nuku Hiva Isla	51.92	92	eP	P	12 13 26.4	-1.2
	comp=Z,227nm,1.3s,mb5.4						
KKM	Kota Kinabalu	53.74	287	eP	P	12 13 40.9	+0.1
	comp=Z,41nm,1.0s,mb4.9						
MJAR	Matsushiro Arr	55.63	332	P	P	12 13 52.7	-1.2
	comp=Z,45nm,0.8s,mb5.0,baz=168,slow=7.8,SNR=110						
MJAR				PcP	PcP	12 14 49.8	-0.5
	comp=Z,10nm,0.9s,baz=154,slow=3.8,SNR=5.3						
MAJO	Matsushiro	55.63	332	eP	P	12 13 53.0	-0.9
MAJO				pmax	pmax		
	comp=Z,72nm,0.9s,mb5.2						
MAJO	Matsushiro	55.63	332	eP	P	12 13 53.0	-0.9
	comp=Z,72nm,0.9s,mb5.2						
MAT	Matsushiro	55.63	332	P	P	12 13 52.8	-1.1
MAT				S	S	12 21 19.0	-0.8
TPUB	Ta-pu	57.56	308	eP	P	12 14 06.5	-1.3
	comp=Z,225nm,1.5s,mb5.6						
SSLB	Suanglung	57.58	309	eP	P	12 14 06.7	-1.2
	comp=Z,19nm,0.8s,mb4.8						
YHNB	Yeheng	57.75	310	eP	P	12 14 08.7	-0.4
	comp=Z,97nm,1.1s,mb5.3						
QZH	Quanzhou	60.01	308	⇓iP	P	12 14 24.8	+0.2
QZH				pmax	pmax		
	comp=Z,130nm,1.3s,mb5.4						
KSRS	Korea Array	61.59	325	P	P	12 14 35.0	+0.1
	comp=Z,26nm,1.0s,mb4.8,baz=144,slow=6.7,SNR=59						
KSRS				PcP	PcP	12 15 14.3	+0.3
	comp=Z,7.2nm,1.0s,baz=134,slow=5.0,SNR=4.8						
SSE	Sheshan	61.62	316	⇑P	P	12 14 34.9	-0.3
SSE				pmax	pmax		
	comp=Z,86nm,0.9s,mb5.4						
SSE				pmax	pmax		
	comp=Z,74nm,4.5s						
INCN	Inchon	62.34	324	eP	P	12 14 40.1	+0.2
YSS	Yuzh-Sakhalins	62.82	342	eP	P	12 14 43.0	+0.2
YSS				pmax	pmax		
	comp=Z,116nm,0.8s,mb5.6						
YSS	Yuzh-Sakhalins	62.82	342	eP	P	12 14 43.0	+0.2
	comp=Z,116nm,0.8s,mb5.6						
SKR	Severo-Kuril’s	63.38	352	eP	P	12 14 45.5	-0.9
NJ2	Nanjing	63.78	315	eP	P	12 14 49.3	-0.2
NJ2				pP	pP	12 15 48.0	+1.3
NJ2				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.5						
QIZ	Qiongzhong	64.40	298	P	P	12 14 56.5	+2.8
QIZ				S	S	12 23 11.1	-0.8
QIZ				sS	sS	12 24 56.4	+3.7
QIZ				pmax	pmax		
	comp=Z,520nm,3.2s						
SMY	Shemya	64.98	5	eP	P	12 14 55.8	-0.9
SMY				pmax	pmax		
	comp=Z,165nm,1.2s,mb5.5						
SMY	Shemya	64.98	5	eP	P	12 14 55.8	-0.9
	comp=Z,165nm,1.2s,mb5.5						
VNDA	Vanda	65.34	181	P	P	12 14 59.2	+0.4
	comp=Z,13nm,0.7s,mb4.7,baz=347,slow=6.0,SNR=49						
ADK	Adak	65.38	11	eP	P	12 14 58.6	-0.7
ADK				pmax	pmax		
	comp=Z,192nm,1.4s,mb5.5						
ADK	Adak	65.38	11	eP	P	12 14 58.6	-0.7
	comp=Z,192nm,1.4s,mb5.5						
PET	Petropavlovsk	65.39	354	c iP	P	12 14 58.9	-0.5
PET				e		12 15 28.6	
PET				e*SP	sP	12 16 23.2	-1.0
PET				eS	S	12 23 23.3	+0.6
PET				eSSS		12 30 40.1	
PET				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.7						
PET				pmax	pmax		
	comp=Z,100nm,13.7s						
PET	Petropavlovsk	65.39	354	eP	P	12 14 59.0	-0.4
	comp=Z,119nm,1.3s,mb5.4						
PEA0B	Petropavlovsk-	65.57	354	eP	P	12 14 59.9	-0.6
PETK	Petropavlovsk-	65.57	354	P	P	12 15 00.2	-0.3
	comp=Z,36nm,0.9s,mb5.0,baz=140,slow=7.4,SNR=33						
PETK				pP	pP	12 15 57.2	-0.8
	comp=Z,6.7nm,0.9s,baz=134,slow=6.2,SNR=1.9						
PETK				PKiKP	PKiKP	12 21 30.8	-1.5
	comp=Z,1.5nm,0.8s,baz=110,slow=6.1,SNR=4.4						
PETK	Petropavlovsk-	65.57	354	P	P	12 15 00.2	-0.4
PETK				pP	pP	12 15 57.2	-0.8
SBA	Scott Base	65.62	180	eP	P	12 15 01.5	+0.9
SBA				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.2						
SBA	Scott Base	65.62	180	eP	P	12 15 01.5	+0.9
	comp=Z,50nm,0.9s,mb5.2						
MDJ	Mudanjiang	66.01	332	P	P	12 15 03.8	+0.3
MDJ				pP	pP	12 16 00.6	-0.5
MDJ				sP	sP	12 16 27.9	-0.5
MDJ				PP	PP	12 17 32.0	-0.6
MDJ				S	S	12 23 32.0	+1.5
MDJ				sS	sS	12 25 12.0	+0.2
MDJ				pmax	pmax		
	comp=Z,80nm,1.5s,mb5.1						
MDJ				pmax	pmax		
	comp=Z,170nm,3.8s						
MDJ	Mudanjiang	66.01	332	eP	P	12 15 03.0	-0.5
	comp=Z,96nm,1.1s,mb5.3						
WHN	Wuhan	66.16	311	⇑P	P	12 15 04.6	-0.2
WHN				S	S	12 23 32.8	-0.1
WHN				pmax	pmax		
	comp=Z,360nm,1.8s,mb5.7						
WHN				pmax	pmax		
	comp=Z,320nm,4.6s						
HABR	Khabarovsk	66.78	337	c iP	P	12 15 09.0	+0.8
HABR				e		12 15 33.2	
HABR				e*SP	sP	12 16 29.9	-3.4
HABR				e		12 17 35.4	
HABR				ePPP		12 19 14.9	
HABR				eS	S	12 23 40.8	+1.2
HABR				e		12 24 37.3	
HABR				SS	SS	12 27 58.1	-5.1
HABR				pmax	pmax		
	comp=Z,243nm,1.1s,mb5.7						
HABR				pmax	pmax		
	comp=E,92nm,1.1s						
HABR				pmax	pmax		
	comp=N,59nm,1.0s						
HABR				MLR	MLR		
	comp=Z,57nm,17.0s						
SNY	Shenyang	67.04	326	⇑P	P	12 15 09.9	-0.2
SNY				S	S	12 23 44.8	+1.7
SNY				SS	SS	12 28 03.3	-4.3
SNY				pmax	pmax		
	comp=Z,32nm,1.5s,mb4.7						
SNY				pmax	pmax		
	comp=Z,120nm,12.0s						
CN2	Changchun	67.43	329	⇑P	P	12 15 12.4	-0.1
CN2				esP	sP	12 16 38.4	+0.8
CN2				eS	S	12 23 37.4	-10
CN2				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.3						
CN2				pmax	pmax		
	comp=Z,400nm,8.0s						
KLR	Kul’dur	68.67	336	⇓iP	P	12 15 16.0	-4.0
KLR				eS	S	12 23 52.0	-10
KLR				pmax	pmax		
	comp=E,170nm,1.8s						
KLR				pmax	pmax		
	comp=Z,420nm,1.8s,mb5.8						
PSI	Prapat	69.33	278	⇑eP	P	12 15 24.1	-0.8
GYA	Guiyang	70.17	304	⇑iP	P	12 15 30.1	+0.4
GYA				pP	pP	12 16 29.4	+1.4
GYA				sP	sP	12 16 56.3	+1.1
GYA				PP	PP	12 18 10.6	+1.8
GYA				S	S	12 24 21.5	+1.1
GYA				SKS		12 25 02.8	
GYA				sS	sS	12 26 01.3	-1.6
GYA				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
GYA				pmax	pmax		
	comp=Z,100nm,5.5s						
BJT	Baijiatuau	70.22	321	eP	P	12 15 29.5	-0.2
BJT				pmax	pmax		
	comp=Z,114nm,1.3s						
BJT	Baijiatuau	70.22	321	eP	P	12 15 29.5	-0.2
	comp=Z,114nm,1.3s,mb5.3						
BJI	Beijing	70.23	321	P	P	12 15 29.9	+0.1
BJI				sP	sP	12 16 54.9	-0.3
BJI				PP	PP	12 18 09.3	+0.2
BJI				S	S	12 24 21.9	+1.4
BJI				ScS	ScS	12 25 08.5	+0.5
BJI				sS	sS	12 26 04.0	+1.0
BJI				SS	SS	12 28 57.0	+0.3
BJI				pmax	pmax		
	comp=Z,72nm,1.2s,mb5.2						
BJI				pmax	pmax		
	comp=Z,350nm,4.3s						
BJI				LR	LR		
	comp=N,160nm,20.3s						
BJI				LR	LR		
	comp=E,210nm,17.1s						
BJI				LR	LR		
	comp=Z,180nm,33.3s						
XAN	Xi’an	71.89	312	P	P	12 15 40.3	+0.4
XAN				pP	pP	12 16 38.3	-0.2
XAN				sP	sP	12 17 05.3	-0.2
XAN				PP	PP	12 18 23.4	0.0
XAN				S	S	12 24 41.3	+1.5
XAN				ScS	ScS	12 25 21.8	+0.4
XAN				sS	sS	12 26 23.5	+0.7
XAN				SS	SS	12 29 24.3	+2.0
XAN				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.2						
XAN				pmax	pmax		
	comp=Z,180nm,6.6s						
KMI	Kunming	72.86	301	P	P	12 15 47.1	+1.3
KMI				pmax	pmax		
	comp=Z,95nm,1.2s,mb5.3						
CHRT	Chiangrai	73.51	295	⇑P	P	12 15 50.5	+0.8
	comp=Z,526nm,0.8s,mb6.2						
HHC	Hu-ho-hao-te	73.58	319	⇑P	P	12 15 50.5	+0.9
HHC				pP	pP	12 16 49.8	+1.3
HHC				sP	sP	12 17 17.0	+1.5
HHC				S	S	12 24 59.8	+1.1
HHC				SKS		12 25 27.4	
HHC				sS	sS	12 26 41.5	-0.6
HHC				SS	SS	12 29 49.8	+2.0
HHC				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.2						
HHC				pmax	pmax		
	comp=Z,110nm,4.4s						
CMAR	Chiang Mai Arr	73.79	293	P	P	12 15 52.2	+0.9
	comp=Z,38nm,0.9s,mb5.0,baz=117,slow=4.3,SNR=155						
CMAR				pP	pP	12 16 48.1	-2.1
	comp=Z,5.1nm,0.9s,baz=127,slow=4.2,SNR=2.0						
CHG	Chiang Mai	73.90	294	⇑P	P	12 15 52.5	+0.5
	comp=Z,58nm,1.1s,mb5.1						
CHTO	Chiang Mai	73.90	294	eP	P	12 15 52.3	+0.3
CHTO				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.8						
CHTO	Chiang Mai	73.90	294	eP	P	12 15 52.3	+0.3
	comp=Z,16nm,0.6s,mb4.8						
HIA	Hailar	74.05	330	eP	P	12 15 51.9	-0.2
HIA				pmax	pmax		
	comp=Z,71nm,1.1s						
HIA	Hailar	74.05	330	eP	P	12 15 51.9	-0.3
	comp=Z,71nm,1.1s,mb5.2						
CD2	Chengdu	74.36	307	P	P	12 15 54.8	+0.4
CD2				pP	pP	12 16 51.1	-2.3
CD2				sP	sP	12 17 16.4	-4.0
CD2				PP	PP	12 18 47.0	+2.5
CD2				S	S	12 25 06.9	-0.9
CD2				sS	sS	12 26 46.0	-5.5
CD2				SS	SS	12 30 01.5	+1.4
CD2				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.5						
CD2				pmax	pmax		
	comp=Z,260nm,4.7s						
CD2				LR	LR		
	comp=N,230nm,1.0s						
CD2				LR	LR		
	comp=Z,270nm,8.3s						
BTO	Baotou	74.44	318	eP	P	12 15 55.3	+0.7
SEY	Seymchan	75.80	353	⇑eP	P	12 16 01.5	-0.3
LZH	Lanzhou	76.52	312	⇑iP	P	12 16 08.1	+1.6
LZH				PcP	PcP	12 16 18.8	+1.8
LZH				pP	pP	12 17 07.3	+1.4
LZH				sP	sP	12 17 30.9	-1.9
LZH				PP	PP	12 19 06.5	+4.0
LZH				S	S	12 25 35.0	+3.8
LZH				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.5						
LZH				pmax	pmax		
	comp=Z,650nm,5.3s						
OHAK	Old Harbor	76.53	21	eP	P	12 16 05.5	-0.6
NRGR	Nerungri	77.09	338	i P	P	12 16 10.7	+1.5
NRGR				S	S	12 25 40.2	+3.7
NRGR				smax			
	comp=N,17nm,0.6s						
CLNS	Chul’man	77.16	338	eP	P	12 16 10.2	+0.6
CLNS				e		12 16 18.1	
CLNS				e*PP	pP	12 17 07.4	-1.7
CLNS				e		12 19 03.4	
CLNS				eS	S	12 25 34.8	-2.4
CLNS				e		12 26 18.9	
CLNS				pmax	pmax		
	comp=Z,85nm,1.1s,mb5.3						
CLNS				pmax	pmax		
	comp=N,43nm,1.3s						
CLNS				pmax	pmax		

	comp=E,15nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,4.0nm,1.0s						
CLNS				smax			
	comp=N,208nm,11.2s						
CLNS				smax			
	comp=E,71nm,11.2s						
KDAK	**Kodiak Island**	**77.20**	**21**	*i* P	**P**	**12 16 09.8**	**0.0**
GAMB	**Gambell**	**77.51**	**9**	*e*P	**P**	**12 16 11.2**	**-0.1**
	comp=E,114nm,1.0s,mb5.5						
GAMB				*e*pP	pP	12 17 09.4	-1.4
QSPA	**South Pole Qui**	**77.78**	**180**	*e*P	**P**	**12 16 13.3**	**+0.5**
	comp=E,131nm,0.7s,mb5.7						
QSPA				*e*pP	pP	12 17 10.5	-1.8
RSO	**Redoubt South**	**79.20**	**19**	*e*P	**P**	**12 16 22.2**	**+1.5**
YAK	**Yakutsk**	**79.60**	**343**	*e*P	**P**	**12 16 19.6**	**-3.2**
YAK				*e*		12 16 27.2	
YAK				*e**PP	pP	12 17 17.4	-5.2
YAK				*e*S	S	12 25 57.3	-5.6
YAK				*e*		12 26 11.0	
YAK				pmax	pmax		
	comp=Z,117nm,1.0s,mb5.5						
YAK				pmax	pmax		
	comp=N,40nm,1.3s						
YAK				pmax	pmax		
	comp=E,22nm,1.2s						
YAK				smax			
	comp=N,160nm,2.8s						
YAK				smax			
	comp=E,18nm,1.9s						
YAK	**Yakutsk**	**79.60**	**343**	*e*P	**P**	**12 16 22.7**	**-0.1**
	comp=E,101nm,0.8s,mb5.5						
TNA	**Tin City**	**79.79**	**10**	*e*P	**P**	**12 16 23.2**	**-0.6**
	comp=E,150nm,1.7s,mb5.3						
ULN	**Ulaanbaatar**	**80.03**	**324**	⇑*e*P	**P**	**12 16 25.8**	**+0.4**
BILL	**Bilibino**	**80.06**	**360**	*e*P	**P**	**12 16 24.8**	**-0.3**
BILL				pmax	pmax		
	comp=Z,180nm,1.0s,mb5.7						
BILL	**Bilibino**	**80.06**	**360**	*e*P	**P**	**12 16 24.8**	**-0.3**
	comp=Z,180nm,1.0s,mb5.7						
TTA	**Tatalina**	**80.19**	**16**	*e*P	**P**	**12 16 26.0**	**+0.1**
SONM	**Songino Array**	**80.40**	**323**	P	**P**	**12 16 27.5**	**+0.2**
	comp=Z,17nm,0.8s,mb4.7,baz=135,slow=4.4,SNR=103						
SONM				PKKPbc	PKKPbc	12 35 06.6	-3.3
	comp=Z,1.2nm,0.8s,baz=268,slow=3.8,SNR=7.3						
SONM				PKPPKP		12 43 15.7	
	comp=Z,0.7nm,0.8s,baz=230,slow=3.7,SNR=3.5						
RC01	**Rabbit Creek A**	**80.65**	**20**	*e*P	**P**	**12 16 27.5**	**-0.8**
	comp=Z,101nm,1.0s,mb5.4						
GTA	**Gaotai**	**80.82**	**314**	⇑*i*P	**P**	**12 16 30.9**	**+1.1**
GTA				pP	pP	12 17 27.8	-2.0
GTA				sP	sP	12 17 54.8	-1.8
GTA				PP	PP	12 19 43.6	+5.5
GTA				S	S	12 26 19.3	+2.7
GTA				SKS		12 26 21.5	
GTA				sS	sS	12 28 05.6	+3.6
GTA				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.1						
GTA				pmax	pmax		
	comp=Z,380nm,8.9s						
GTA				LR	LR		
	comp=N,170nm,18.1s						
GTA				LR	LR		
	comp=E,140nm,15.5s						
GTA				LR	LR		
	comp=Z,130nm,15.5s						
PMR	**Palmer**	**81.22**	**20**	*e*P	**P**	**12 16 30.7**	**-0.7**
PMR				pmax	pmax		
	comp=Z,138nm,1.1s,mb5.5						
PMR	**Palmer**	**81.22**	**20**	*e*P	**P**	**12 16 30.7**	**-0.7**
	comp=Z,138nm,1.1s,mb5.5						
PPLA	**Purkeypile**	**81.25**	**18**	*e*P	**P**	**12 16 30.5**	**-1.0**
	comp=Z,15nm,0.7s,mb4.7						
CHUM	**Lake Minchumin**	**81.97**	**17**	*e*P	**P**	**12 16 34.7**	**-0.5**
	comp=Z,22nm,0.5s,mb5.0						
KTH	**Kantishna Hill**	**82.12**	**18**	*e*P	**P**	**12 16 34.4**	**-1.6**
	comp=Z,58nm,0.8s,mb5.3						
KTH				*e*pP	pP	12 17 35.5	-0.8
BOD	**Bodaibo**	**82.16**	**334**	*e*P	**P**	**12 16 35.3**	**-1.1**
BOD				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.8						
TRF	**Thorofare Moun**	**82.23**	**18**	*e*P	**P**	**12 16 35.8**	**-0.8**
	comp=Z,87nm,0.8s,mb5.4						
SHL	**Shillong**	**82.23**	**298**	⇑*i*P	**P**	**12 16 39.0**	**+1.5**
SHL				*e*S	S	12 26 33.0	+1.4
HOPS	**Hopland**	**82.49**	**48**	*e*P	**P**	**12 16 37.8**	**-0.7**
	comp=Z,150nm,1.1s,mb5.5						
BPAW	**Bear Paw Mtn.**	**82.51**	**17**	*e*P	**P**	**12 16 36.4**	**-1.6**
	comp=Z,27nm,1.0s,mb4.9						
KHMM	**Horse Mountain**	**82.75**	**46**	*e*P	**P**	**12 16 41.2**	**+1.4**
MCK	**McKinley**	**82.85**	**18**	*e*P	**P**	**12 16 38.8**	**-1.0**
MCK				pmax	pmax		
	comp=Z,91nm,1.0s,mb5.5						
MCK	**McKinley**	**82.85**	**18**	*e*P	**P**	**12 16 38.8**	**-1.0**
	comp=Z,91nm,1.0s,mb5.5						
SAO	**San Andreas Ge**	**82.87**	**50**	*e*P	**P**	**12 16 40.5**	**0.0**
SAO				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.1						
SAO	**San Andreas Ge**	**82.87**	**50**	*e*P	**P**	**12 16 40.5**	**-0.1**
	comp=Z,34nm,0.8s,mb5.1						
KEBM	**Edson Butte**	**83.12**	**44**	*e*P	**P**	**12 16 42.4**	**+0.7**
SNCC	**San Nicolas Is**	**83.15**	**54**	⇑P	**P**	**12 16 42.3**	**+0.2**
	baz=83						
BSC	**Santa Cruz Isl**	**83.31**	**53**	⇑P	**P**	**12 16 42.5**	**-0.4**
	baz=83						
SBC	**Santa Barbara**	**83.39**	**53**	⇑P	**P**	**12 16 43.0**	**-0.2**
	baz=84						
PAX	**Paxson**	**83.41**	**20**	*e*P	**P**	**12 16 42.0**	**-0.6**
PAX				pmax	pmax		
	comp=Z,93nm,1.4s,mb5.3						
PAX	**Paxson**	**83.41**	**20**	*e*P	**P**	**12 16 42.0**	**-0.6**
	comp=Z,93nm,1.4s,mb5.3						
ZAK	**Zakamensk**	**83.42**	**325**	⇓*i*P	**P**	**12 16 42.3**	**-0.7**
ZAK				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.2						
SMMC	**Simmler**	**83.47**	**52**	⇓P	**P**	**12 16 43.8**	**+0.2**
	baz=84,SNR=5.9						
WDC	**Whiskeytown Da**	**83.47**	**46**	*e*P	**P**	**12 16 43.4**	**-0.1**
WDC				*e**PP	pP	12 17 44.3	+0.4
WDC				pmax	pmax		
	comp=Z,167nm,1.4s,mb5.6						
WDC	**Whiskeytown Da**	**83.47**	**46**	*e*P	**P**	**12 16 43.4**	**-0.1**
	comp=Z,168nm,1.4s,mb5.6						
WDC				*e*pP	pP	12 17 44.3	+0.4
IRK	**Irkutsk**	**83.77**	**327**	⇑*i*P	**P**	**12 16 43.8**	**-0.9**
IRK				pmax	pmax		
	comp=Z,99nm,1.4s,mb5.3						
OHCM	**Honcut**	**83.77**	**48**	*e*P	**P**	**12 16 44.6**	**-0.4**
YBH	**Yreka Blue Hor**	**83.79**	**45**	*e*P	**P**	**12 16 45.6**	**+0.5**
YBH				*e**PP	pP	12 17 45.7	+0.2
YBH				pmax	pmax		
	comp=Z,88nm,0.8s						
YBH	**Yreka Blue Hor**	**83.79**	**45**	*e*P	**P**	**12 16 45.6**	**+0.5**
	comp=Z,88nm,0.8s,mb5.5						
YBH				*e*pP	pP	12 17 45.7	+0.2
TLY	**Talaya**	**83.84**	**326**	P	**P**	**12 16 44.0**	**-1.1**
	comp=Z,369nm,0.8s,mb6.2,SNR=38						
TLY	**Talaya**	**83.84**	**326**	*e*P	**P**	**12 16 44.4**	**-0.7**
TLY				*e*SSS		12 35 50.0	
TLY				pmax	pmax		
	comp=Z,120nm,1.6s,mb5.4						
TLY	**Talaya**	**83.84**	**326**	*e*P	**P**	**12 16 44.7**	**-0.4**
	comp=Z,87nm,1.1s,mb5.4						
HUMO	**Hull Mountain**	**83.95**	**44**	*e*P	**P**	**12 16 46.2**	**+0.4**
MENT	**Mentasta**	**83.97**	**20**	*e*P	**P**	**12 16 45.4**	**-0.1**
COLA	**College**	**84.00**	**18**	*e*P	**P**	**12 16 44.4**	**-1.2**
COLA				pmax	pmax		
	comp=Z,213nm,0.9s,mb5.9						
COLA	**College**	**84.00**	**18**	*e*P	**P**	**12 16 44.4**	**-1.2**
	comp=Z,213nm,0.9s,mb5.9						
CIS	**Catalina Islan**	**84.09**	**54**	⇓P	**P**	**12 16 46.2**	**-0.6**
	baz=84						
LSA	**Lhasa**	**84.09**	**302**	P	**P**	**12 16 48.0**	**+1.1**
CMB	**Columbia Colle**	**84.11**	**49**	*e*P	**P**	**12 16 46.6**	**-0.2**
CMB				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.0						
CMB	**Columbia Colle**	**84.11**	**49**	*e*P	**P**	**12 16 46.6**	**-0.2**
	comp=Z,25nm,0.7s,mb5.0						
MAW	**Mawson**	**84.12**	**202**	*e*P	**P**	**12 16 46.3**	**0.0**
	comp=Z,54nm,1.0s,mb5.2						
MAW	**Mawson**	**84.12**	**202**	P	**P**	**12 16 46.4**	**+0.1**
	comp=Z,65nm,1.0s,mb5.3,baz=91,slow=6.5,SNR=16						
OSI	**Osito Adit**	**84.22**	**53**	⇓P	**P**	**12 16 47.3**	**-0.1**
	baz=84						
OSI	**Osito Adit**	**84.22**	**53**	*e*P	**P**	**12 16 48.1**	**+0.7**
	comp=Z,83nm,1.4s,mb5.3						
FMP	**Fort Macarthur**	**84.27**	**54**	⇑P	**P**	**12 16 47.3**	**-0.4**
	baz=84						
ARVC	**Arvin**	**84.31**	**52**	⇓P	**P**	**12 16 47.7**	**-0.1**
	baz=84,SNR=8.2						
VES	**Vestal, Richgr**	**84.35**	**52**	⇑P	**P**	**12 16 47.4**	**-0.6**
	baz=84,SNR=12						
RCTC	**Rector, Farmer**	**84.38**	**51**	⇓P	**P**	**12 16 47.4**	**-0.9**
	baz=84,SNR=7.2						
DECC	**Green Verdugo**	**84.41**	**53**	⇓P	**P**	**12 16 47.6**	**-0.8**
	baz=84						
HEBO	**Mount Hebo**	**84.44**	**42**	*e*P	**P**	**12 16 48.7**	**+0.5**
	comp=Z,73nm,0.8s,mb5.5						
COR	**Corvallis**	**84.48**	**42**	*e*P	**P**	**12 16 49.1**	**+0.6**
COR				pmax	pmax		
	comp=Z,323nm,1.8s,mb5.8						
COR	**Corvallis**	**84.48**	**42**	*e*P	**P**	**12 16 49.1**	**+0.6**
	comp=Z,323nm,1.8s,mb5.8						
PASC	**Pasadena Art C**	**84.50**	**53**	*e*P	**P**	**12 16 48.9**	**0.0**
MWC	**Mount Wilson**	**84.62**	**53**	*e*P	**P**	**12 16 49.4**	**0.0**
MWC				*e**PP	pP	12 17 51.4	+1.4
MWC				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.2						
MWC	**Mount Wilson**	**84.62**	**53**	*e*P	**P**	**12 16 49.4**	**0.0**
	comp=Z,50nm,0.9s,mb5.2						
MWC				*e*pP	pP	12 17 51.4	+1.4
WRAK	**Wrangell Islan**	**84.72**	**29**	*e*P	**P**	**12 16 49.0**	**-0.4**
	comp=Z,63nm,1.0s,mb5.3						
ISA	**Isabella**	**84.76**	**52**	*e*P	**P**	**12 16 49.5**	**-0.6**
ISA				*e**PP	pP	12 17 50.7	0.0
ISA				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.9						
ISA	**Isabella**	**84.76**	**52**	⇓P	**P**	**12 16 49.8**	**-0.2**
	baz=85,SNR=39						
ISA	**Isabella**	**84.76**	**52**	*e*P	**P**	**12 16 49.5**	**-0.6**
	comp=Z,24nm,0.9s,mb4.9						
ISA				*e*pP	pP	12 17 50.7	+0.1
BEKR	**Beckwourth**	**84.77**	**48**	⇑P	**P**	**12 16 50.1**	**0.0**
	baz=85,SNR=67						
F03A	**Seaside**	**84.85**	**41**	⇓P	**P**	**12 16 50.4**	**+0.1**
	baz=85,SNR=6.4						
EDW2	**Edwards Air Fo**	**84.88**	**53**	⇑P	**P**	**12 16 50.6**	**-0.2**
	baz=85,SNR=38						
HYT	**Haines Junctio**	**84.93**	**24**	*e*P	**P**	**12 16 49.7**	**-0.6**
BFSC	**Mount Baldy St**	**84.94**	**54**	⇑P	**P**	**12 16 50.6**	**-0.4**
	baz=85,SNR=20						
109C	**Camp Elliot, M**	**84.96**	**55**	⇑P	**P**	**12 16 50.7**	**-0.5**
	baz=85,SNR=6.2						
IRO	**Indian Ridge**	**84.96**	**43**	P	**P**	**12 16 50.8**	**-0.1**
R06C	**Coleville**	**84.97**	**49**	⇑P	**P**	**12 16 51.2**	**+0.1**
	baz=85,SNR=61						
WAKR	**Walker**	**84.97**	**49**	*e*P	**P**	**12 16 51.5**	**+0.4**
WCN	**Washoe City**	**85.01**	**48**	⇓P	**P**	**12 16 51.6**	**+0.4**
	baz=85,SNR=26						
SKAG	**Skagway**	**85.03**	**26**	*e*P	**P**	**12 16 51.0**	**+0.1**
	comp=Z,146nm,2.0s,mb5.4						
P06A	**Stead Airport,**	**85.04**	**48**	⇓P	**P**	**12 16 51.7**	**+0.4**
	baz=85,SNR=16						
COLD	**Coldfoot**	**85.08**	**15**	*e*P	**P**	**12 16 51.4**	**+0.4**
	comp=Z,112nm,1.0s,mb5.5						
E03A	**Lebam**	**85.09**	**40**	⇑P	**P**	**12 16 51.9**	**+0.5**
	baz=85,SNR=32						
MURC	**Murrieta**	**85.10**	**54**	⇓P	**P**	**12 16 51.5**	**-0.3**
	baz=85,SNR=8.9						
MLAC	**Mammoth Lakes**	**85.13**	**50**	⇓P	**P**	**12 16 52.4**	**+0.6**
	baz=85,SNR=22						
NLWA	**Neilton Lookou**	**85.23**	**40**	⇑P	**P**	**12 16 52.1**	**0.0**
	baz=85,SNR=9.2						
NLWA	**Neilton Lookou**	**85.23**	**40**	*e*P	**P**	**12 16 52.6**	**+0.4**
	comp=Z,30nm,0.9s,mb5.0						
MTUM	**Tungsten Hills**	**85.24**	**50**	*e*P	**P**	**12 16 52.8**	**+0.4**
BAR	**Barrett**	**85.24**	**55**	*e*P	**P**	**12 16 52.5**	**0.0**
	comp=Z,53nm,1.4s,mb5.1						
O06A	**Flanigan**	**85.25**	**47**	⇓P	**P**	**12 16 52.6**	**+0.1**
	baz=85,SNR=65						
H04A	**Detroit Lake**	**85.26**	**43**	⇑P	**P**	**12 16 52.0**	**-0.3**
	baz=85,SNR=32						
G04A	**Mulino**	**85.27**	**42**	⇑P	**P**	**12 16 52.0**	**-0.3**
	baz=85,SNR=30						
MOY	**Mondy**	**85.30**	**325**	*e*P	**P**	**12 16 51.9**	**-0.5**
MOY				pmax	pmax		
	comp=Z,78nm,2.9s,mb4.9						
LRMC	**Laurel Mountai**	**85.30**	**52**	⇓P	**P**	**12 16 52.7**	**-0.1**
	baz=85,SNR=36						
CWC	**Cottonwood Cre**	**85.31**	**51**	⇑P	**P**	**12 16 52.8**	**0.0**
	baz=85,SNR=28						
TIN	**Tinemaha**	**85.40**	**51**	⇓P	**P**	**12 16 53.4**	**+0.1**
	baz=86,SNR=7.7						
K05A	**Summer Lake**	**85.41**	**45**	⇑P	**P**	**12 16 53.6**	**+0.5**
	baz=86,SNR=61						
PAHR	**Pah Rah Range**	**85.42**	**48**	*e*P	**P**	**12 16 53.5**	**+0.3**
N06A	**Buffalo Meadow**	**85.45**	**47**	⇓P	**P**	**12 16 53.3**	**-0.1**
	baz=86,SNR=59						
MONP	**Monument Peak**	**85.51**	**55**	⇓P	**P**	**12 16 53.9**	**0.0**
	baz=86,SNR=12						
MOD	**Modoc**	**85.52**	**46**	*e*P	**P**	**12 16 53.5**	**-0.3**
	comp=Z,108nm,1.1s,mb5.5						
BBRC	**Big Bear Sol-O**	**85.53**	**54**	⇓P	**P**	**12 16 54.0**	**+0.1**
	baz=86						
F04A	**Amboy**	**85.58**	**41**	⇓P	**P**	**12 16 53.6**	**-0.3**
	baz=86,SNR=29						
Q07A	**Schurz**	**85.58**	**49**	⇑P	**P**	**12 16 54.2**	**+0.1**
	baz=86,SNR=8.8						
MPMC	**Manual Prospec**	**85.64**	**52**	⇓P	**P**	**12 16 54.7**	**+0.2**
	baz=86,SNR=42						
RRX	**Edison Barstow**	**85.65**	**53**	⇑P	**P**	**12 16 54.6**	**+0.1**
	baz=86						
DVTC	**Desert V Tower**	**85.69**	**55**	⇑P	**P**	**12 16 54.9**	**+0.1**
	baz=86						
PFO	**Pinyon Flat Ob**	**85.69**	**54**	P	**P**	**12 16 54.5**	**-0.3**
	comp=Z,154nm,1.2s,mb5.6,SNR=8.3						
PFO	**Pinyon Flat Ob**	**85.69**	**54**	⇑P	**P**	**12 16 54.4**	**-0.3**
	baz=86,SNR=12						
PFO	**Pinyon Flat Ob**	**85.69**	**54**	*e*P	**P**	**12 16 54.6**	**-0.2**
P07A	**Fallon**	**85.72**	**48**	⇑P	**P**	**12 16 54.7**	**0.0**
	baz=86						
NVAR	**Mina Array Bea**	**85.79**	**49**	P	**P**	**12 16 55.2**	**+0.1**
	comp=Z,37nm,0.8s,mb5.1,baz=232,slow=8.7,SNR=218						
NVAR				pP	pP	12 17 54.9	-0.9
	comp=Z,23nm,1.2s,baz=231,slow=6.1,SNR=3.0						
D04A	**Dobbs Creek Ra**	**85.79**	**40**	⇑P	**P**	**12 16 55.5**	**+0.6**
	baz=86,SNR=6.6						
HOOD	**Mount Hood Mea**	**85.85**	**42**	*e*P	**P**	**12 16 55.3**	**+0.1**
	comp=Z,89nm,0.9s,mb5.5						
TDL	**Tradedollar La**	**85.87**	**41**	P	**P**	**12 16 55.7**	**+0.4**
R08A	**Mina**	**85.91**	**50**	⇑P	**P**	**12 16 56.0**	**+0.3**
	baz=86,SNR=28						
GSC	**Goldstone**	**85.94**	**53**	⇓P	**P**	**12 16 55.5**	**-0.4**
	baz=86,SNR=19						
GSC	**Goldstone**	**85.94**	**53**	*e*P	**P**	**12 16 56.0**	**+0.1**
O07A	**Toulon**	**85.94**	**48**	⇑P	**P**	**12 16 55.9**	**+0.1**
	baz=86,SNR=54						
GNW	**Green Mountain**	**85.95**	**40**	P	**P**	**12 16 55.8**	**+0.1**
PGC	**Sidney**	**85.99**	**39**	*e*P	**P**	**12 16 56.1**	**+0.2**
	comp=Z,7.6nm,1.1s,mb4.3						
SWSC	**Sam W. Stewart**	**86.02**	**55**	⇓P	**P**	**12 16 56.0**	**-0.4**
	baz=86,SNR=10						
GRAC	**Grapevine Rang**	**86.03**	**51**	⇑P	**P**	**12 16 56.6**	**+0.3**
	baz=86,SNR=48						
EGAK	**Eagle**	**86.04**	**20**	*e*P	**P**	**12 16 55.0**	**-0.7**
	comp=Z,91nm,0.9s,mb5.5						
G05A	**Wamic**	**86.04**	**42**	⇑P	**P**	**12 16 55.9**	**-0.2**
	baz=86,SNR=25						
N07B	**Gerlach**	**86.08**	**47**	⇓P	**P**	**12 16 56.5**	**0.0**
	baz=86,SNR=16						
J06A	**Christmas Vall**	**86.10**	**44**	⇓P	**P**	**12 16 56.4**	**-0.2**
	baz=86,SNR=75						
M07A	**Soldier Meadow**	**86.14**	**46**	⇓P	**P**	**12 16 57.0**	**+0.3**
	baz=86,SNR=46						
HEC	**Hector,Ludlow**	**86.16**	**53**	⇑P	**P**	**12 16 56.9**	**-0.1**
	baz=86,SNR=20						
BELC	**Belle Mtn.**	**86.17**	**54**	⇑P	**P**	**12 16 57.5**	**+0.4**
	baz=86,SNR=52						
DAWY	**Dawson**	**86.19**	**21**	*e*P	**P**	**12 16 55.5**	**-0.9**
DAWY				*e*pP	pP	12 17 56.5	-0.8
Q08A	**Gabbs**	**86.20**	**49**	⇑P	**P**	**12 16 56.9**	**-0.2**
	baz=86,SNR=52						
L07A	**Adell**	**86.24**	**46**	⇓P	**P**	**12 16 57.5**	**+0.3**
	baz=86,SNR=77						
FURC	**Furnace Creek,**	**86.25**	**52**	⇓P	**P**	**12 16 57.3**	**-0.2**
	baz=86,SNR=50						
LON	**Longmire**	**86.28**	**41**	*e*P	**P**	**12 16 56.4**	**-0.9**
LON				*e**PP	pP	12 17 59.3	+1.2
LON				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.1						
LON	**Longmire**	**86.28**	**41**	*e*P	**P**	**12 16 56.4**	**-0.9**
	comp=Z,44nm,1.2s,mb5.1						
LON				*e*pP	pP	12 17 59.3	+1.2
I06A	**Prineville**	**86.31**	**44**	⇓P	**P**	**12 16 57.6**	**+0.1**
	baz=86,SNR=84						
D05A	**Enumclaw**	**86.33**	**40**	⇑P	**P**	**12 16 58.2**	**+0.7**
	baz=86,SNR=42						
P08A	**Dixie Valley**	**86.36**	**48**	⇓P	**P**	**12 16 58.1**	**+0.2**
	baz=86,SNR=11						
S09A	**Goldfield**	**86.37**	**50**	⇓P	**P**	**12 16 58.0**	**0.0**
	baz=86,SNR=34						
G06A	**Carlson Farm,**	**86.49**	**42**	⇑P	**P**	**12 16 58.0**	**-0.4**
	baz=87,SNR=20						
O08A	**Rochester Mine**	**86.50**	**48**	⇑P	**P**	**12 16 58.8**	**+0.2**
	baz=87,SNR=36						
H06A	**Lindquist Farm**	**86.50**	**43**	⇓P	**P**	**12 16 58.3**	**-0.1**
	baz=87,SNR=50						
BC3	**Big Chuckw Mtn**	**86.51**	**55**	⇓P	**P**	**12 16 58.9**	**+0.1**
	baz=87,SNR=30						
SHOC	**Shoshone**	**86.53**	**52**	⇑P	**P**	**12 16 58.5**	**-0.3**
	baz=87,SNR=27						
K07A	**Rock Creek Ran**	**86.53**	**45**	⇓P	**P**	**12 16 58.9**	**+0.3**
	baz=87,SNR=70						
F06A	**Goldendale**	**86.58**	**42**	⇑P	**P**	**12 16 58.9**	**+0.1**
	baz=87,SNR=44						
R09A	**Tonopah**	**86.64**	**50**	⇓P	**P**	**12 16 59.4**	**+0.1**
	baz=87,SNR=28						
U10A	**Ash Meadows, A**	**86.64**	**52**	⇓P	**P**	**12 16 59.8**	**+0.5**
	baz=87,SNR=21						
TUQ	**Turquoise Moun**	**86.66**	**53**	⇑P	**P**	**12 16 59.4**	**-0.1**
	baz=87,SNR=46						
GMRC	**Granite Mounta**	**86.67**	**54**	⇓P	**P**	**12 16 59.4**	**-0.1**
	baz=87,SNR=35						
N08A	**GE Springer Mi**	**86.68**	**47**	⇑P	**P**	**12 16 59.5**	**+0.1**
	baz=87,SNR=36						
C05A	**Tolt Reservoir**	**86.71**	**40**	⇓P	**P**	**12 16 59.0**	**-0.3**
	baz=87,SNR=39						
J07A	**Hines**	**86.72**	**44**	⇓P	**P**	**12 16 59.4**	**-0.1**
	baz=87,SNR=44						
E06A	**Yakima**	**86.74**	**41**	⇓P	**P**	**12 16 59.4**	**-0.1**
	baz=87,SNR=56						
Q09A	**Carvers**	**86.75**	**49**	⇑P	**P**	**12 16 59.9**	**+0.2**
	baz=87,SNR=8.1						
JCW	**Jim Creek**	**86.75**	**39**	*e*P	**P**	**12 16 59.6**	**0.0**
DLBC	**Dease Lake**	**86.83**	**28**	*e*P	**P**	**12 16 59.0**	**-0.6**
GLA	**Glamis**	**86.83**	**55**	*e*P	**P**	**12 17 00.9**	**+0.6**
GLA				*e**PP	pP	12 18 00.6	-0.6
GLA				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.2						
GLA	**Glamis**	**86.83**	**55**	⇑P	**P**	**12 17 00.7**	**+0.3**
	baz=87,SNR=29						
GLA	**Glamis**	**86.83**	**55**	*e*P	**P**	**12 17 00.9**	**+0.5**
	comp=Z,32nm,0.7s,mb5.2						
GLA				*e*pP	pP	12 18 00.6	-0.6
I07A	**Izee**	**86.83**	**44**	⇓P	**P**	**12 17 00.2**	**+0.2**
	baz=87,SNR=75						
WVOR	**Wild Horse Val**	**86.87**	**46**	*e*P	**P**	**12 17 00.2**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,92nm,1.2s,mb5.4						
WVOR	**Wild Horse Val**	**86.87**	**46**	*e*P	**P**	**12 17 00.2**	**-0.1**
	comp=Z,92nm,1.2s,mb5.4						
112A	**Yuma**	**86.89**	**56**	⇓P	**P**	**12 17 01.0**	**+0.5**
	baz=87,SNR=14						
IRM	**Iron Mountain**	**86.89**	**54**	⇑P	**P**	**12 17 00.7**	**+0.1**
	baz=87,SNR=47						
S10A	**Tonopah Range,**	**86.90**	**50**	⇓P	**P**	**12 17 00.9**	**+0.4**
	baz=87,SNR=50						
A05A	**Maple Falls**	**86.96**	**39**	⇓P	**P**	**12 16 59.9**	**-0.7**
	baz=87,SNR=9.9						
H07A	**Lands Inn, Kim**	**86.97**	**43**	⇑P	**P**	**12 17 00.7**	**+0.1**
	baz=87,SNR=76						
L08A	**Fields**	**86.99**	**46**	⇑P	**P**	**12 17 00.8**	**0.0**
	baz=87,SNR=67						
P09A	**Austin**	**87.01**	**49**	⇑P	**P**	**12 17 00.8**	**-0.2**
	baz=87,SNR=6.1						
D06A	**Cle Elum**	**87.06**	**41**	⇑P	**P**	**12 17 01.1**	**0.0**
	baz=87,SNR=22						
K08A	**Mann Creek Ran**	**87.07**	**45**	⇓P	**P**	**12 17 01.4**	**+0.1**
	baz=87,SNR=56						
RPW	**Rockport**	**87.10**	**39**	*e*P	**P**	**12 17 01.4**	**+0.2**
G07A	**Ruggs Ranch, H**	**87.14**	**43**	⇓P	**P**	**12 17 01.0**	**-0.4**
	baz=87,SNR=53						
N09A	**Rock Creek Ran**	**87.14**	**47**	⇓P	**P**	**12 17 01.8**	**+0.2**
	baz=87,SNR=15						
B06A	**Marblemount**	**87.15**	**39**	⇑P	**P**	**12 17 00.7**	**-0.7**
	baz=87,SNR=10						
O09A	**Fish Creek Ran**	**87.16**	**48**	⇑P	**P**	**12 17 01.9**	**+0.2**
	baz=87,SNR=32						
V11A	**Goodsprings**	**87.17**	**53**	⇑P	**P**	**12 17 02.0**	**+0.2**
	baz=87,SNR=40						
F07A	**Phinny Hill Vi**	**87.19**	**42**	⇑P	**P**	**12 17 01.8**	**+0.1**
	baz=87,SNR=35						
LDFC	**Landfair**	**87.19**	**53**	*e*P	**P**	**12 17 03.0**	**+1.0**
BMN	**Battle Mountai**	**87.22**	**48**	*e*P	**P**	**12 17 02.3**	**+0.3**
BMN				*e**PP	pP	12 18 03.6	+0.7
BMN				pmax	pmax		
	comp=Z,112nm,1.4s,mb5.4						
BMN	**Battle Mountai**	**87.22**	**48**	*e*P	**P**	**12 17 02.3**	**+0.3**
	comp=Z,112nm,1.4s,mb5.4						
BMN				*e*pP	pP	12 18 03.6	+0.6
R10A	**Warm Springs**	**87.23**	**50**	⇓P	**P**	**12 17 02.5**	**+0.4**
	baz=87,SNR=34						
Y12C	**Blythe**	**87.28**	**55**	⇓P	**P**	**12 17 02.6**	**+0.2**
	baz=87,SNR=26						
J08A	**Circle Bar Ran**	**87.29**	**45**	⇑P	**P**	**12 17 02.4**	**+0.1**
	baz=87,SNR=96						
C06A	**Tall Timber Ra**	**87.29**	**40**	⇓P	**P**	**12 17 01.9**	**-0.2**
	baz=87,SNR=10						
Q10A	**Clear Creek Ra**	**87.33**	**50**	⇑P	**P**	**12 17 02.5**	**0.0**
	baz=87,SNR=24						
A06A	**Chilliwack**	**87.37**	**39**	⇓P	**P**	**12 17 02.1**	**-0.3**
	baz=88,SNR=22						
U11A	**Corn Creek**	**87.37**	**52**	⇑P	**P**	**12 17 03.1**	**+0.3**
	baz=88,SNR=10						
M09A	**Marrel Ranch,**	**87.38**	**47**	⇓P	**P**	**12 17 02.8**	**+0.1**
	baz=88,SNR=18						
I08A	**Drewsey**	**87.41**	**44**	⇓P	**P**	**12 17 02.8**	**0.0**
	baz=88,SNR=52						
L09A	**Wilkinson Ranc**	**87.41**	**46**	⇑P	**P**	**12 17 03.0**	**+0.1**
	baz=88,SNR=21						
W12A	**Cal Nev Ari**	**87.45**	**53**	⇓P	**P**	**12 17 03.6**	**+0.4**
	baz=88,SNR=24						
S11A	**Rachel**	**87.46**	**51**	⇓P	**P**	**12 17 03.0**	**-0.2**
	baz=88,SNR=21						
E07A	**Sunnyside**	**87.47**	**41**	⇓P	**P**	**12 17 03.0**	**0.0**
	baz=88,SNR=72						
NEE2	**Needles Airpor**	**87.49**	**54**	⇓P	**P**	**12 17 03.5**	**+0.1**
	baz=88						
TIXI	**Tiksi**	**87.50**	**349**	*e*P	**P**	**12 17 01.6**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,116nm,1.3s,mb5.5						
TIXI	**Tiksi**	**87.50**	**349**	*e*P	**P**	**12 17 01.6**	**-1.0**
	comp=Z,116nm,1.3s,mb5.5						
P10A	**Eureka**	**87.52**	**49**	⇓P	**P**	**12 17 03.5**	**0.0**
	baz=88,SNR=13						
ETW	**Entiat**	**87.53**	**40**	*e*P	**P**	**12 17 03.1**	**-0.1**
H08A	**Prairie City**	**87.55**	**44**	⇑P	**P**	**12 17 03.3**	**-0.1**
	baz=88,SNR=30						
MDW	**Midway**	**87.55**	**41**	P	**P**	**12 17 03.5**	**+0.1**
SHPR	**Sheep Range**	**87.57**	**52**	*e*P	**P**	**12 17 04.0**	**+0.2**
RSW	**Rattlesnake Hi**	**87.58**	**42**	*e*P	**P**	**12 17 03.8**	**+0.3**
V12A	**Nelson**	**87.58**	**53**	⇑P	**P**	**12 17 03.8**	**0.0**
	baz=88,SNR=29						
K09A	**Rome**	**87.59**	**46**	⇓P	**P**	**12 17 03.6**	**-0.1**
	baz=88,SNR=60						
113A	**Mohawk Valley,**	**87.61**	**56**	⇑P	**P**	**12 17 04.3**	**+0.3**
	baz=88,SNR=14						
G08A	**Pilot Rock**	**87.61**	**43**	⇓P	**P**	**12 17 03.7**	**-0.1**
	baz=88,SNR=115						
D07A	**Quincy**	**87.61**	**41**	⇑P	**P**	**12 17 03.8**	**+0.1**
	baz=88,SNR=40						
HAWA	**Hanford**	**87.62**	**42**	*e*P	**P**	**12 17 03.8**	**+0.1**
	comp=Z,46nm,0.8s,mb5.3						
O10A	**Cortez Mining,**	**87.70**	**48**	⇓P	**P**	**12 17 04.2**	**-0.1**
	baz=88,SNR=6.1						
C07A	**Waterville**	**87.73**	**40**	⇓P	**P**	**12 17 03.6**	**-0.6**
	baz=88,SNR=40						
PDMCI	**Parker Dam,Lak**	**87.74**	**54**	⇓P	**P**	**12 17 04.3**	**-0.3**
	baz=88,SNR=29						
T11A	**Corn Creek, Al**	**87.74**	**51**	⇑P	**P**	**12 17 05.0**	**+0.4**
	baz=88,SNR=44						
J09A	**Fry Pan Ranch,**	**87.78**	**45**	⇑P	**P**	**12 17 04.8**	**+0.3**
	baz=88,SNR=118						
R11A	**Troy Canyon, C**	**87.79**	**50**	⇓P	**P**	**12 17 04.5**	**-0.3**
	baz=88,SNR=76						
N10A	**Dunphy**	**87.83**	**48**	⇓P	**P**	**12 17 05.0**	**+0.2**
	baz=88,SNR=8.4						

Y13A	**Salome**	**87.85**	**55**	⇑P	**P**	**12 17 05.3**	**+0.2**
	baz=88,SNR=46						
Q11A	**Duckwater**	**87.89**	**50**	⇓P	**P**	**12 17 05.2**	**0.0**
	baz=88,SNR=114						
F08A	**Pendleton**	**87.91**	**42**	⇓P	**P**	**12 17 05.2**	**+0.1**
	baz=88,SNR=29						
E08A	**Dider Farm, El**	**87.96**	**42**	⇓P	**P**	**12 17 05.5**	**+0.2**
	baz=88,SNR=16						
B07A	**Winthrop**	**87.97**	**40**	⇑P	**P**	**12 17 05.0**	**-0.3**
	baz=88,SNR=46						
T12A	**Moapa**	**87.98**	**52**	⇑P	**P**	**12 17 05.6**	**-0.1**
	baz=88,SNR=17						
I09A	**Lost Marbles R**	**88.00**	**44**	⇓P	**P**	**12 17 05.4**	**-0.1**
	baz=88,SNR=46						
PALK	**Pallekele**	**88.01**	**278**	P	**P**	**12 17 07.7**	**+1.4**
	comp=Z,131nm,1.2s,mb5.6,SNR=6.6						
PALK	**Pallekele**	**88.01**	**278**	*i* P	**P**	**12 17 07.5**	**+1.2**
A07A	**Ashnola River,**	**88.02**	**39**	⇑P	**P**	**12 17 05.6**	**0.0**
	baz=88,SNR=36						
P11A	**Circle Ranch,**	**88.03**	**49**	⇑P	**P**	**12 17 06.1**	**+0.3**
	baz=88,SNR=24						
U12A	**Valley of Fire**	**88.03**	**52**	⇑P	**P**	**12 17 06.2**	**+0.3**
	baz=88,SNR=22						
M10A	**I.L. Ranch, Tu**	**88.06**	**47**	⇓P	**P**	**12 17 06.3**	**+0.4**
	baz=88,SNR=46						
X13A	**Yucca**	**88.06**	**54**	⇑P	**P**	**12 17 06.2**	**+0.1**
	baz=88						
S12A	**Delamar Landin**	**88.13**	**51**	⇓P	**P**	**12 17 06.9**	**+0.6**
	baz=88,SNR=63						
W13A	**Hualapai Mount**	**88.16**	**54**	⇑P	**P**	**12 17 06.7**	**+0.1**
	baz=88,SNR=33						
214A	**Organ Pipe Nat**	**88.17**	**57**	⇓P	**P**	**12 17 07.2**	**+0.5**
	baz=88,SNR=16						
K10A	**MacKenzie Ranc**	**88.21**	**46**	⇑P	**P**	**12 17 06.6**	**0.0**
	baz=88,SNR=58						
D08A	**Wollman Farm,**	**88.24**	**41**	⇓P	**P**	**12 17 06.5**	**-0.1**
	baz=88,SNR=42						
LNOR	**Lincton Mounta**	**88.25**	**42**	*e*P	**P**	**12 17 06.4**	**-0.3**
O11A	**Cowboy Ranch,**	**88.27**	**48**	⇑P	**P**	**12 17 07.1**	**+0.1**
	baz=88,SNR=113						
H09A	**Durkee**	**88.27**	**44**	⇓P	**P**	**12 17 06.6**	**-0.2**
	baz=88,SNR=41						
L10A	**Juniper Basin**	**88.28**	**46**	⇑P	**P**	**12 17 06.9**	**0.0**
	baz=88,SNR=70						
V13A	**Grand Canyon W**	**88.30**	**53**	⇑P	**P**	**12 17 07.3**	**+0.1**
	baz=88,SNR=64						
114A	**Black Gap (USA**	**88.32**	**56**	⇑P	**P**	**12 17 07.8**	**+0.4**
	baz=88						
G09A	**Cove**	**88.39**	**43**	⇓P	**P**	**12 17 07.3**	**-0.1**
	baz=88,SNR=45						
C08A	**Higginbotham F**	**88.41**	**40**	⇑P	**P**	**12 17 07.0**	**-0.4**
	baz=88,SNR=35						
N11A	**Elko Archery C**	**88.42**	**48**	⇓P	**P**	**12 17 07.8**	**+0.2**
	baz=88,SNR=15						
B08A	**Colville Reser**	**88.43**	**40**	⇓P	**P**	**12 17 06.9**	**-0.6**
	baz=88,SNR=40						
Z14A	**Wintersburg**	**88.44**	**56**	⇑P	**P**	**12 17 08.2**	**+0.3**
	baz=88,SNR=16						
U13A	**Pakoon Wash**	**88.47**	**52**	⇑P	**P**	**12 17 08.6**	**+0.6**
	baz=89,SNR=60						
OD2	**Odessa Site #2**	**88.49**	**41**	*e*P	**P**	**12 17 07.7**	**-0.1**
J10A	**Berg Farm, Mel**	**88.49**	**45**	⇑P	**P**	**12 17 07.9**	**0.0**
	baz=89,SNR=44						
R12A	**Pony Springs,**	**88.52**	**50**	⇑P	**P**	**12 17 08.7**	**+0.6**
	baz=89,SNR=88						
Y14A	**Wickenburg**	**88.54**	**55**	⇑P	**P**	**12 17 08.0**	**-0.4**
	baz=89,SNR=16						
Q12A	**Willow Creek R**	**88.56**	**50**	⇓P	**P**	**12 17 08.8**	**+0.5**
	baz=89,SNR=54						
E09A	**Wood Farm, Sta**	**88.56**	**42**	⇓P	**P**	**12 17 08.0**	**-0.2**
	baz=89,SNR=37						
M11A	**Holland Ranch,**	**88.56**	**47**	⇓P	**P**	**12 17 08.8**	**+0.5**
	baz=89,SNR=109						
BMO	**Blue Mountains**	**88.57**	**44**	*e*P	**P**	**12 17 07.9**	**-0.4**
BMO				*e**PP	pP	12 18 09.0	-0.4
BMO				pmax	pmax		
	comp=Z,98nm,1.3s,mb5.5						
BMO	**Blue Mountains**	**88.57**	**44**	*e*P	**P**	**12 17 07.9**	**-0.4**
	comp=Z,98nm,1.3s,mb5.5						
BMO				*e*pP	pP	12 18 09.0	-0.4
P12A	**McGill**	**88.63**	**49**	⇓P	**P**	**12 17 09.2**	**+0.6**
	baz=89,SNR=54						
D09A	**Jones Farm, Ri**	**88.64**	**41**	⇓P	**P**	**12 17 08.3**	**-0.2**
	baz=89,SNR=53						
A08A	**Turner Farm, O**	**88.67**	**39**	⇓P	**P**	**12 17 08.7**	**+0.1**
	baz=89,SNR=45						
I10A	**Payette**	**88.67**	**44**	⇑P	**P**	**12 17 09.1**	**+0.4**
	baz=89,SNR=15						
T13A	**Saint George**	**88.68**	**52**	⇑P	**P**	**12 17 09.4**	**+0.4**
	baz=89,SNR=109						
ELK	**Elko**	**88.76**	**48**	*e*P	**P**	**12 17 09.5**	**+0.3**
ELK				pmax	pmax		
	comp=Z,95nm,1.1s						
ELK	**Elko**	**88.76**	**48**	*e*P	**P**	**12 17 09.5**	**+0.3**
	comp=Z,95nm,1.1s,mb5.5						
X14A	**Yava**	**88.78**	**54**	⇓P	**P**	**12 17 10.0**	**+0.6**
	baz=89,SNR=54						
K11A	**Parker Ranch,**	**88.80**	**46**	⇓P	**P**	**12 17 09.4**	**+0.1**
	baz=89,SNR=81						
L11A	**Cat Creek Ranc**	**88.81**	**46**	⇑P	**P**	**12 17 10.0**	**+0.6**
	baz=89,SNR=112						
W14A	**Seligman**	**88.83**	**54**	⇓P	**P**	**12 17 10.3**	**+0.6**
	baz=89,SNR=62						
G10A	**Bishop Farm, J**	**88.84**	**43**	⇑P	**P**	**12 17 09.4**	**-0.1**
	baz=89,SNR=237						
H10A	**Noah's Angus R**	**88.87**	**44**	⇑P	**P**	**12 17 09.3**	**-0.4**
	baz=89,SNR=137						
S13A	**Holt Ranch, En**	**88.87**	**51**	⇑P	**P**	**12 17 10.4**	**+0.5**
	baz=89,SNR=70						
C09A	**Chrisman Ranch**	**88.91**	**41**	⇑P	**P**	**12 17 09.2**	**-0.5**
	baz=89,SNR=19						
V14A	**Boquillas Ranc**	**88.92**	**53**	⇑P	**P**	**12 17 10.7**	**+0.6**
	baz=89,SNR=55						
N12A	**Clover Valley,**	**88.93**	**48**	⇑P	**P**	**12 17 10.6**	**+0.5**
	baz=89,SNR=176						
R13A	**O'Grain Ranch,**	**88.96**	**51**	⇓P	**P**	**12 17 11.0**	**+0.8**
	baz=89,SNR=49						
O12A	**Currie**	**88.98**	**49**	⇓P	**P**	**12 17 10.6**	**+0.4**
	baz=89,SNR=111						
F10A	**Beach Ranch, E**	**88.99**	**43**	⇓P	**P**	**12 17 09.5**	**-0.7**
	baz=89,SNR=84						
Z15A	**Gila River Ind**	**89.05**	**56**	⇓P	**P**	**12 17 10.9**	**+0.2**
	baz=89						
U14A	**Mt Trumbull**	**89.08**	**53**	⇓P	**P**	**12 17 11.4**	**+0.6**
	baz=89,SNR=151						
Y15A	**Casa Rosa Ranc**	**89.08**	**55**	⇑P	**P**	**12 17 11.4**	**+0.4**
	baz=89,SNR=53						
A09A	**Danville**	**89.10**	**39**	⇓P	**P**	**12 17 10.6**	**0.0**
	baz=89,SNR=46						
MFID	**Camas Ranch**	**89.14**	**45**	⇑P	**P**	**12 17 10.8**	**-0.2**
	baz=89,SNR=70						
Q13A	**Wheeler Ranch,**	**89.14**	**50**	⇑P	**P**	**12 17 11.4**	**+0.3**
	baz=89,SNR=93						
B09A	**Rice**	**89.19**	**40**	⇑P	**P**	**12 17 10.7**	**-0.4**
	baz=89,SNR=38						
I11A	**Placerville**	**89.20**	**45**	⇑P	**P**	**12 17 10.9**	**-0.3**
	baz=89,SNR=121						
E10A	**Myers Farm, Un**	**89.23**	**42**	⇑P	**P**	**12 17 10.6**	**-0.7**
	baz=89,SNR=9.1						
116A	**Eloy**	**89.23**	**57**	⇑P	**P**	**12 17 11.9**	**+0.3**
	baz=89,SNR=22						
CCUT	**Cedar City**	**89.25**	**51**	*e*P	**P**	**12 17 12.2**	**+0.6**
	comp=Z,82nm,1.2s,mb5.4						
ARUT	**Antelope Range**	**89.25**	**51**	*e*P	**P**	**12 17 12.0**	**+0.4**
ARUT				*e**PP	pP	12 18 13.1	+0.3
ARUT				pmax	pmax		
	comp=Z,200nm,1.7s,mb5.7						
ARUT	**Antelope Range**	**89.25**	**51**	*e*P	**P**	**12 17 12.0**	**+0.4**
	comp=Z,200nm,1.7s,mb5.7						
ARUT				*e*pP	pP	12 18 13.1	+0.3
216A	**Three Points,**	**89.29**	**57**	⇑P	**P**	**12 17 12.5**	**+0.6**
	baz=89,SNR=21						
D10A	**Wagner Farm, O**	**89.30**	**41**	⇑P	**P**	**12 17 11.0**	**-0.6**
	baz=89,SNR=69						
X15A	**Humboldt**	**89.30**	**55**	⇑P	**P**	**12 17 12.7**	**+0.8**
	baz=89,SNR=72						
T14A	**Hurricane**	**89.33**	**52**	⇑P	**P**	**12 17 12.5**	**+0.5**
	baz=89,SNR=64						
L12A	**House Creek Ra**	**89.33**	**47**	⇓P	**P**	**12 17 12.5**	**+0.7**
	baz=89,SNR=165						
H11A	**Donnelly**	**89.40**	**44**	⇓P	**P**	**12 17 11.9**	**-0.2**
	baz=90,SNR=62						
S14A	**Cedar City**	**89.45**	**51**	⇑P	**P**	**12 17 12.9**	**+0.4**
	baz=90,SNR=26						
W15A	**Williams**	**89.46**	**54**	⇓P	**P**	**12 17 13.5**	**+0.8**
	baz=90,SNR=10						
O13A	**Hicks Ranch, I**	**89.50**	**49**	⇓P	**P**	**12 17 13.3**	**+0.6**
	baz=90,SNR=115						
C10A	**Spilker Farm,**	**89.53**	**41**	⇑P	**P**	**12 17 12.3**	**-0.3**
	baz=90,SNR=22						
N13A	**Wendover, West**	**89.54**	**48**	⇑P	**P**	**12 17 13.2**	**+0.4**
	baz=90,SNR=52						
K12A	**Draper Farm, C**	**89.55**	**46**	⇓P	**P**	**12 17 13.1**	**+0.2**
	baz=90,SNR=72						
J12A	**Stokes Ranch,**	**89.60**	**46**	⇑P	**P**	**12 17 13.5**	**+0.4**
	baz=90,SNR=202						
Z16A	**Peralta Trail,**	**89.66**	**56**	⇑P	**P**	**12 17 14.0**	**+0.4**
	baz=90,SNR=7.9						
V15A	**Kaibab Nationa**	**89.70**	**53**	⇑P	**P**	**12 17 14.5**	**+0.7**
	baz=90,SNR=66						
Q14A	**Sevier Lake (B**	**89.70**	**50**	⇑P	**P**	**12 17 14.0**	**+0.3**
	baz=90,SNR=131						
R14A	**James Farms, M**	**89.71**	**51**	⇓P	**P**	**12 17 14.3**	**+0.5**
	baz=90						
M13A	**Montello**	**89.71**	**48**	⇓P	**P**	**12 17 14.3**	**+0.6**
	baz=90,SNR=221						
B10A	**Chitwood Farm,**	**89.73**	**40**	⇓P	**P**	**12 17 13.4**	**-0.2**
	baz=90,SNR=8.7						
I12A	**Atlanta**	**89.73**	**45**	⇓P	**P**	**12 17 14.2**	**+0.5**
	baz=90						
A10A	**Northport**	**89.74**	**40**	⇑P	**P**	**12 17 13.7**	**+0.1**
	baz=90,SNR=75						
Y16A	**Circle Bar Ran**	**89.75**	**55**	⇓P	**P**	**12 17 14.9**	**+0.9**
	baz=90,SNR=56						
217A	**Green Valley**	**89.76**	**58**	⇑P	**P**	**12 17 14.5**	**+0.4**
	baz=90,SNR=40						
E11A	**Bogner Ranch,**	**89.78**	**42**	⇑P	**P**	**12 17 12.9**	**-1.0**
	baz=90,SNR=62						
NEW	**Newport**	**89.79**	**40**	*e*P	**P**	**12 17 13.5**	**-0.3**
NEW				pmax	pmax		
	comp=Z,76nm,1.0s						
NEW	**Newport**	**89.79**	**40**	*e*P	**P**	**12 17 13.5**	**-0.3**
	comp=Z,76nm,1.0s,mb5.5						
T15A	**Red Dirt Ranch**	**89.86**	**52**	⇑P	**P**	**12 17 15.1**	**+0.6**
	baz=90,SNR=32						
D11A	**Klaveano Farm,**	**89.91**	**42**	⇑P	**P**	**12 17 14.1**	**-0.3**
	baz=90,SNR=117						
X16A	**Lo Mia Camp, P**	**89.92**	**55**	⇑P	**P**	**12 17 15.6**	**+0.8**
	baz=90,SNR=48						
TUC	**Tucson**	**89.92**	**57**	*e*P	**P**	**12 17 15.3**	**+0.5**
TUC				*e**PP	pP	12 18 16.4	+0.3
TUC				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.2						
TUC	**Tucson**	**89.92**	**57**	*e*P	**P**	**12 17 15.3**	**+0.4**
	comp=Z,55nm,1.3s,mb5.2						
TUC				*e*pP	pP	12 18 16.4	+0.3
W16A	**Flagstaff**	**90.02**	**54**	⇓P	**P**	**12 17 16.1**	**+0.8**
	baz=90,SNR=27						
117A	**Oracle**	**90.02**	**57**	⇑P	**P**	**12 17 15.9**	**+0.6**
	baz=90,SNR=25						
P14A	**Drum Mountains**	**90.02**	**50**	⇑P	**P**	**12 17 15.1**	**0.0**
	baz=90,SNR=52						
S15A	**Panguitch**	**90.04**	**52**	⇓P	**P**	**12 17 16.2**	**+0.9**
	baz=90,SNR=25						
L13A	**Double Diamond**	**90.08**	**47**	⇓P	**P**	**12 17 15.7**	**+0.4**
	baz=90,SNR=85						
K13A	**Stover Farm, H**	**90.14**	**46**	⇓P	**P**	**12 17 16.0**	**+0.4**
	baz=90,SNR=52						
H12A	**Diamond D Ranc**	**90.14**	**44**	⇑P	**P**	**12 17 15.6**	**0.0**
	baz=90						
HLID	**Hailey**	**90.16**	**45**	⇓P	**P**	**12 17 16.3**	**+0.6**
	baz=90,SNR=97						
HLID	**Hailey**	**90.16**	**45**	*e*P	**P**	**12 17 16.1**	**+0.4**
	comp=Z,63nm,0.9s,mb5.4						
HLID				*e*pP	pP	12 18 16.5	-0.5
Y17A	**Roosevelt**	**90.22**	**56**	⇓P	**P**	**12 17 16.8**	**+0.6**
	baz=90,SNR=28						
F12A	**Elk City**	**90.23**	**43**	⇑P	**P**	**12 17 15.5**	**-0.5**
	baz=90,SNR=132						
R15A	**Junction**	**90.25**	**51**	⇑P	**P**	**12 17 17.1**	**+0.9**
	baz=90,SNR=26						
WUAZ	**Wupatki**	**90.25**	**54**	⇓P	**P**	**12 17 16.8**	**+0.5**
	baz=90,SNR=32						
WUAZ	**Wupatki**	**90.25**	**54**	*e*P	**P**	**12 17 16.9**	**+0.6**
	comp=Z,40nm,0.8s,mb5.3						
N14A	**Grayback Hills**	**90.28**	**48**	⇑P	**P**	**12 17 16.2**	**-0.1**
	baz=90,SNR=66						
J13A	**Cove Ranch, Pi**	**90.28**	**46**	⇑P	**P**	**12 17 16.7**	**+0.4**
	baz=90,SNR=120						
B11A	**Sandpoint**	**90.32**	**40**	⇑P	**P**	**12 17 16.5**	**+0.2**
	baz=90,SNR=59						
M14A	**Sheep Mountain**	**90.34**	**48**	⇑P	**P**	**12 17 16.7**	**+0.1**
	baz=90,SNR=206						
318A	**Bisbee**	**90.36**	**58**	⇑P	**P**	**12 17 17.5**	**+0.6**
	baz=90,SNR=39						
DUG	**Dugway**	**90.38**	**49**	*e*P	**P**	**12 17 16.7**	**-0.1**
DUG				*e**PP	pP	12 18 20.1	+2.1
DUG				pmax	pmax		
	comp=Z,81nm,1.4s,mb5.4						
DUG	**Dugway**	**90.38**	**49**	⇓P	**P**	**12 17 16.7**	**0.0**
	baz=90,SNR=46						
DUG	**Dugway**	**90.38**	**49**	*e*P	**P**	**12 17 16.7**	**-0.1**
	comp=Z,81nm,1.4s,mb5.4						
DUG				*e*pP	pP	12 18 20.1	+2.0
Q15A	**Fillmore**	**90.38**	**50**	⇓P	**P**	**12 17 17.1**	**+0.3**
	baz=90,SNR=13						
MSU	**Marysvale**	**90.41**	**51**	*e*P	**P**	**12 17 17.9**	**+0.9**
X17A	**Forest Lakes**	**90.41**	**55**	⇑P	**P**	**12 17 18.0**	**+0.9**
	baz=90,SNR=33						
BGU	**Big Grassy Mou**	**90.42**	**48**	*e*P	**P**	**12 17 17.1**	**+0.1**
	comp=Z,54nm,1.1s,mb5.3						
Z17A	**San Carlos Hig**	**90.42**	**56**	⇓P	**P**	**12 17 17.7**	**+0.5**
	baz=90,SNR=10						
218A	**Dragoon**	**90.44**	**57**	⇑P	**P**	**12 17 17.9**	**+0.6**
	baz=90,SNR=63						
I13A	**Wildhorse Cree**	**90.47**	**45**	⇑P	**P**	**12 17 17.6**	**+0.4**
	baz=91,SNR=173						
A11A	**Hall Mountain,**	**90.48**	**40**	⇓P	**P**	**12 17 17.8**	**+0.7**
	baz=91,SNR=140						
T16A	**Glen Canyon Da**	**90.52**	**52**	⇓P	**P**	**12 17 17.8**	**+0.2**
	baz=91,SNR=9.4						
H13A	**Challis**	**90.56**	**44**	⇓P	**P**	**12 17 17.4**	**-0.2**
	baz=91,SNR=135						
L14A	**Malta**	**90.57**	**47**	⇑P	**P**	**12 17 18.1**	**+0.5**
	baz=91,SNR=95						
INK	**Inuvik**	**90.59**	**19**	*e*P	**P**	**12 17 15.4**	**-1.7**
U16A	**Tuba City**	**90.60**	**53**	⇓P	**P**	**12 17 18.4**	**+0.5**
	baz=91,SNR=50						
P15A	**Leamington**	**90.61**	**50**	⇑P	**P**	**12 17 18.1**	**+0.2**
	baz=91,SNR=10						
O15A	**The Old Anders**	**90.65**	**49**	⇓P	**P**	**12 17 18.3**	**+0.2**
	baz=91,SNR=24						
W17A	**Winslow**	**90.67**	**54**	⇓P	**P**	**12 17 18.6**	**+0.3**
	baz=91,SNR=18						
118A	**Homack Ranch,**	**90.67**	**57**	⇑P	**P**	**12 17 18.7**	**+0.4**
	baz=91,SNR=24						
C12B	**Naegeli Ranch,**	**90.67**	**41**	⇓P	**P**	**12 17 17.9**	**-0.1**
	baz=91,SNR=17						
Z18A	**Geronimo**	**90.72**	**56**	⇓P	**P**	**12 17 18.9**	**+0.4**
	baz=91						
J14A	**Carey**	**90.72**	**46**	⇑P	**P**	**12 17 19.1**	**+0.8**
	baz=91,SNR=41						
G13A	**Cobalt**	**90.73**	**44**	⇑P	**P**	**12 17 18.2**	**0.0**
	baz=91,SNR=97						
K14A	**Jones Ranch, D**	**90.75**	**47**	⇑P	**P**	**12 17 18.8**	**+0.4**
	baz=91,SNR=87						
N15A	**Stansbury Isla**	**90.78**	**48**	⇑P	**P**	**12 17 18.6**	**0.0**
	baz=91,SNR=76						
B12A	**Libby**	**90.82**	**40**	⇑P	**P**	**12 17 18.8**	**+0.2**
	baz=91,SNR=17						
HVU	**Hansel Valley**	**90.83**	**47**	*e*P	**P**	**12 17 19.4**	**+0.6**
F13A	**Darby**	**90.86**	**43**	⇓P	**P**	**12 17 18.4**	**-0.5**
	baz=91,SNR=95						
NLU	**North Lily Min**	**90.86**	**49**	*e*P	**P**	**12 17 18.9**	**-0.1**
	comp=Z,36nm,1.0s,mb5.2						
NLU				*e*pP	pP	12 18 20.0	-0.3
WMQ	**Urumqi**	**90.86**	**315**	⇑*i*P	**P**	**12 17 18.8**	**-0.1**
WMQ				pP	pP	12 18 20.0	-0.2
WMQ				pmax	pmax		
	comp=Z,55nm,1.6s,mb5.2						
WMQ				pmax	pmax		
	comp=Z,290nm,4.3s						
R16A	**Teasdale**	**90.87**	**51**	⇑P	**P**	**12 17 20.1**	**+1.0**
	baz=91,SNR=57						
A12A	**Yaak River Ran**	**90.92**	**40**	⇓P	**P**	**12 17 19.4**	**+0.3**
	baz=91,SNR=48						
I14A	**Mackay**	**90.94**	**45**	⇑P	**P**	**12 17 20.0**	**+0.7**
	baz=91,SNR=103						
SPUT	**South Promonto**	**90.94**	**48**	*e*P	**P**	**12 17 19.7**	**+0.3**
	comp=Z,22nm,0.9s,mb5.1						
M15A	**Larsen Ranch,**	**90.98**	**48**	⇑P	**P**	**12 17 19.3**	**-0.3**
	baz=91,SNR=76						
NOQ	**North Oquirrh**	**91.01**	**49**	*e*P	**P**	**12 17 19.8**	**+0.1**
T17A	**Navajo Res., N**	**91.07**	**52**	⇑P	**P**	**12 17 20.4**	**+0.3**
	baz=91,SNR=73						
P16A	**Fountain Green**	**91.08**	**50**	⇓P	**P**	**12 17 20.7**	**+0.7**
	baz=91,SNR=13						
U17A	**Shonto**	**91.08**	**53**	⇑P	**P**	**12 17 21.0**	**+0.8**
	baz=91,SNR=7.9						
E13A	**Victor**	**91.14**	**43**	⇑P	**P**	**12 17 19.3**	**-0.9**
	baz=91,SNR=41						
X18A	**Snowflake**	**91.14**	**55**	⇑P	**P**	**12 17 21.0**	**+0.5**
	baz=91,SNR=36						
D13A	**Huson**	**91.15**	**42**	⇑P	**P**	**12 17 19.3**	**-0.9**
	baz=91,SNR=7.0						
BSMT	**Bassoo Peak**	**91.15**	**41**	*e*P	**P**	**12 17 19.7**	**-0.5**
	comp=Z,55nm,0.9s,mb5.5						
BSMT				*e*pP	pP	12 18 20.4	-1.1
L15A	**Malad City**	**91.17**	**47**	⇓P	**P**	**12 17 20.2**	**-0.3**
	baz=91,SNR=46						
MPU	**Maple Canyon**	**91.20**	**49**	*e*P	**P**	**12 17 21.4**	**+0.8**
	comp=Z,68nm,1.3s,mb5.4						
S17A	**Black Ridge (B**	**91.23**	**52**	⇓P	**P**	**12 17 20.4**	**-0.4**
	baz=91,SNR=24						
C13A	**Hot Springs**	**91.24**	**41**	⇓P	**P**	**12 17 20.2**	**-0.3**
	baz=91,SNR=34						
119A	**Ashpeak Ranch,**	**91.24**	**57**	⇑P	**P**	**12 17 21.6**	**+0.6**
	baz=91,SNR=18						
K15A	**Arbon**	**91.25**	**47**	⇓P	**P**	**12 17 21.0**	**+0.3**
	baz=91,SNR=32						
Q16A	**Castle Valley**	**91.27**	**51**	⇓P	**P**	**12 17 21.5**	**+0.5**
	baz=91,SNR=11						
G14A	**Jackson**	**91.29**	**44**	⇑P	**P**	**12 17 21.0**	**+0.1**
	baz=91,SNR=10						
TMUT	**Trail Mountain**	**91.34**	**50**	*e*P	**P**	**12 17 21.9**	**+0.6**
Z19A	**T-Link Ranch,**	**91.40**	**56**	⇓P	**P**	**12 17 22.0**	**+0.4**
	baz=92						
MSO	**Missoula**	**91.41**	**42**	*e*P	**P**	**12 17 20.9**	**-0.5**
	comp=Z,5.4nm,0.6s,mb4.7						
V18A	**Ganado**	**91.44**	**54**	⇑P	**P**	**12 17 22.2**	**+0.4**
	baz=92,SNR=26						
JTMT	**Jette**	**91.45**	**41**	*e*P	**P**	**12 17 21.0**	**-0.6**
W18A	**Petrified Fore**	**91.45**	**55**	⇑P	**P**	**12 17 22.2**	**+0.3**
	baz=92,SNR=15						
R17A	**Hanksville Air**	**91.49**	**51**	⇑P	**P**	**12 17 22.3**	**+0.3**
	baz=92,SNR=49						
J15A	**Blackfoot**	**91.50**	**46**	⇑P	**P**	**12 17 22.4**	**+0.5**
	baz=92,SNR=45						
B13A	**Whitefish**	**91.51**	**41**	⇑P	**P**	**12 17 21.5**	**-0.3**
	baz=92,SNR=46						
F14A	**Wisdom**	**91.51**	**43**	⇓P	**P**	**12 17 21.5**	**-0.4**
	baz=92,SNR=32						
M16A	**Huntsville**	**91.54**	**48**	⇓P	**P**	**12 17 22.1**	**0.0**
	baz=92,SNR=16						
Y19A	**Nutrioso**	**91.56**	**56**	⇓P	**P**	**12 17 22.9**	**+0.5**
	baz=92,SNR=22						
SWMT	**Swartz Lake**	**91.56**	**42**	*e*P	**P**	**12 17 21.3**	**-0.8**
N16A	**Rees Ranch, Co**	**91.57**	**49**	⇑P	**P**	**12 17 22.7**	**+0.4**
	baz=92,SNR=19						
DAU	**Daniels Canyon**	**91.58**	**49**	*e*P	**P**	**12 17 22.8**	**+0.4**
E14A	**Clinton**	**91.59**	**43**	⇑P	**P**	**12 17 21.9**	**-0.4**
	baz=92,SNR=50						
MCMT	**McKenzie Canyo**	**91.60**	**45**	*e*P	**P**	**12 17 22.3**	**-0.1**
	comp=Z,22nm,1.2s,mb5.0						
I15A	**Monteview**	**91.63**	**45**	⇑P	**P**	**12 17 22.9**	**+0.4**
	baz=92,SNR=24						
YBMT	**Yellow Bay**	**91.66**	**41**	*e*P	**P**	**12 17 21.8**	**-0.7**
U18A	**Rough Rock, Ch**	**91.66**	**53**	⇑P	**P**	**12 17 22.9**	**+0.1**
	baz=92,SNR=22						
H15A	**Lima**	**91.68**	**45**	⇑P	**P**	**12 17 22.9**	**+0.2**
	baz=92,SNR=83						
A13A	**Flathead Natio**	**91.70**	**40**	⇑P	**P**	**12 17 22.9**	**+0.2**
	baz=92						
W19A	**Sanders**	**91.73**	**55**	⇑P	**P**	**12 17 23.4**	**+0.3**
	baz=92,SNR=8.2						
P17A	**Butcher Ranch,**	**91.73**	**50**	⇓P	**P**	**12 17 23.2**	**+0.2**
	baz=92,SNR=7.6						
120A	**U Bar Ranch, L**	**91.74**	**57**	⇑P	**P**	**12 17 23.8**	**+0.5**
	baz=92						
D14A	**Greenough**	**91.77**	**42**	⇓P	**P**	**12 17 22.4**	**-0.6**
	baz=92,SNR=24						
SRU	**San Rafael**	**91.81**	**50**	⇓P	**P**	**12 17 23.2**	**-0.2**
	baz=92,SNR=10						
SRU	**San Rafael**	**91.81**	**50**	*e*P	**P**	**12 17 23.8**	**+0.4**
SLMT	**Seeley Lake**	**91.82**	**42**	*e*P	**P**	**12 17 22.7**	**-0.6**
T18A	**Mexican Hat**	**91.83**	**53**	⇓P	**P**	**12 17 24.0**	**+0.5**
	baz=92,SNR=53						
L16A	**Fish Haven**	**91.86**	**48**	⇑P	**P**	**12 17 23.3**	**-0.3**
	baz=92,SNR=35						
S18A	**Hurst Farm, Bl**	**91.86**	**52**	⇑P	**P**	**12 17 23.6**	**-0.2**
	baz=92,SNR=28						
CHMT	**Chamberlain Mo**	**91.89**	**42**	*e*P	**P**	**12 17 23.1**	**-0.5**
DLMT	**Dillon**	**91.91**	**44**	*e*P	**P**	**12 17 24.0**	**+0.2**
O17A	**Robinson Place**	**91.91**	**49**	⇑P	**P**	**12 17 24.3**	**+0.4**
	baz=92,SNR=22						
G15A	**Dillon**	**91.93**	**44**	⇓P	**P**	**12 17 24.0**	**+0.2**
	baz=92,SNR=46						
K16A	**Soda Springs**	**91.96**	**47**	⇓P	**P**	**12 17 24.5**	**+0.5**
	baz=92,SNR=31						
N17A	**Moffit Pass**	**92.03**	**49**	⇑P	**P**	**12 17 24.3**	**-0.1**
	baz=92,SNR=6.0						
J16A	**Bone**	**92.05**	**46**	⇑P	**P**	**12 17 25.0**	**+0.5**
	baz=92						
WALA	**Waterton Lakes**	**92.06**	**40**	*e*P	**P**	**12 17 24.5**	**+0.2**
F15A	**Butte**	**92.11**	**44**	⇑P	**P**	**12 17 24.3**	**-0.3**
	baz=92,SNR=26						
R18A	**Canyonlands Na**	**92.11**	**51**	⇑P	**P**	**12 17 24.7**	**-0.1**
	baz=92,SNR=33						
LRM	**Limekiln Ridge**	**92.13**	**44**	*e*P	**P**	**12 17 24.8**	**0.0**
V19A	**Window Rock**	**92.14**	**54**	⇑P	**P**	**12 17 25.3**	**+0.3**
	baz=92,SNR=5.9						
P18A	**Preston Nutter**	**92.14**	**50**	⇑P	**P**	**12 17 24.9**	**-0.1**
	baz=92,SNR=12						
E15A	**Deer Lodge**	**92.16**	**43**	⇓P	**P**	**12 17 24.7**	**-0.2**
	baz=92,SNR=24						
HYB	**Hyderabad**	**92.22**	**287**	*i* P	**P**	**12 17 26.0**	**+0.2**
HYB	**Hyderabad**	**92.22**	**287**	*e*P	**P**	**12 17 25.0**	**-0.8**
RRI2	**Red Ridge**	**92.28**	**46**	*e*P	**P**	**12 17 25.8**	**+0.4**
M17A	**Scullys Gap (B**	**92.28**	**48**	⇑P	**P**	**12 17 25.0**	**-0.6**
	baz=92,SNR=10.0						
L17A	**Cokeville**	**92.28**	**48**	⇓P	**P**	**12 17 25.0**	**-0.5**
	baz=92,SNR=5.6						
AHID	**Auburn Hatcher**	**92.29**	**47**	*e*P	**P**	**12 17 25.6**	**0.0**
	comp=Z,10nm,1.0s,mb4.7						
I16A	**Newdale**	**92.29**	**46**	⇓P	**P**	**12 17 25.9**	**+0.4**
	baz=92,SNR=29						
A14A	**Double T Ranch**	**92.34**	**40**	⇓P	**P**	**12 17 25.4**	**-0.2**
	baz=92,SNR=24						
D15A	**Lincoln**	**92.41**	**42**	⇑P	**P**	**12 17 26.0**	**0.0**
	baz=92,SNR=21						
K17A	**Gardner Place,**	**92.41**	**47**	⇑P	**P**	**12 17 26.2**	**+0.1**
	baz=92,SNR=10						
T19A	**Beclabito**	**92.42**	**53**	⇑P	**P**	**12 17 26.5**	**+0.2**
	baz=92,SNR=16						
G16A	**Moss Hill, Enn**	**92.42**	**44**	⇓P	**P**	**12 17 26.1**	**0.0**
	baz=92,SNR=34						
DCID1	**Drake Creek**	**92.43**	**46**	*e*P	**P**	**12 17 26.4**	**+0.1**
	comp=Z,31nm,1.1s,mb5.1						
W20A	**Ramah**	**92.44**	**55**	⇓P	**P**	**12 17 26.8**	**+0.4**
	baz=92,SNR=14						
O18A	**Roosevelt**	**92.47**	**49**	⇑P	**P**	**12 17 26.6**	**+0.1**
	baz=93,SNR=10						
S19A	**Harvey Farm, M**	**92.54**	**52**	⇑P	**P**	**12 17 26.8**	**0.0**
	baz=93,SNR=15						
C15A	**Salmond Ranch,**	**92.54**	**42**	⇓P	**P**	**12 17 26.2**	**-0.4**
	baz=93,SNR=77						
R19A	**Curley Farm, L**	**92.57**	**52**	⇑P	**P**	**12 17 26.7**	**-0.3**
	baz=93,SNR=18						
TPAW	**Teton Pass**	**92.57**	**46**	*e*P	**P**	**12 17 27.1**	**+0.2**
	comp=Z,6.8nm,0.7s,mb4.8						
TPAW				*e*pP	pP	12 18 28.9	+0.7
QLMT	**Earthquake Lak**	**92.57**	**45**	*e*P	**P**	**12 17 27.6**	**+0.8**
REDW	**Red Top Meadow**	**92.61**	**46**	*e*P	**P**	**12 17 27.1**	**+0.1**
BOZ	**Bozeman (W)**	**92.64**	**44**	*e*P	**P**	**12 17 27.1**	**0.0**
BOZ				pmax	pmax		
	comp=Z,57nm,1.4s,mb5.4						
BOZ	**Bozeman (W)**	**92.64**	**44**	⇓P	**P**	**12 17 27.2**	**0.0**
	baz=93,SNR=49						
BOZ	**Bozeman (W)**	**92.64**	**44**	*e*P	**P**	**12 17 27.1**	**0.0**
	comp=Z,57nm,1.4s,mb5.4						
H16A	**Russell Place,**	**92.67**	**45**	⇑P	**P**	**12 17 27.6**	**+0.4**
	baz=93,SNR=35						
F16A	**Kennard Place,**	**92.68**	**44**	⇑P	**P**	**12 17 27.5**	**+0.2**
	baz=93,SNR=60						
IMW	**Indian Meadow**	**92.68**	**46**	*e*P	**P**	**12 17 27.5**	**+0.1**
	comp=Z,20nm,0.9s,mb5.2						
IMW				*e*pP	pP	12 18 31.9	+3.2
SNOW	**Snow King Moun**	**92.70**	**46**	*e*P	**P**	**12 17 27.3**	**-0.1**
	comp=Z,10nm,0.8s,mb4.9						
M18A	**Lyman**	**92.70**	**48**	⇓P	**P**	**12 17 26.9**	**-0.6**
	baz=93,SNR=6.1						
J17A	**Brown Place, J**	**92.71**	**46**	⇑P	**P**	**12 17 27.3**	**-0.1**
	baz=93,SNR=17						

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B15A  Bradely Ranch,     92.71  41 ⇓P      P        12 17 26.4 -1.0
      baz=93,SNR=45
Q19A  Hogan Spring (     92.72  51 ⇓P      P        12 17 27.3 -0.4
      baz=93,SNR=13
HRY   Holter Researc     92.78  43 eP      P        12 17 27.7  0.0
A15A  Johnson Ranch,     92.78  41 ⇑P      P        12 17 27.2 -0.5
      baz=93,SNR=36
MOOW  Moose Ponds        92.78  46 epP     pP       12 18 33.2 +4.1
E16A  East Helena        92.84  43 ⇓P      P        12 17 28.0 +0.1
      baz=93,SNR=17
L18A  Fontenelle, Gr     92.85  48 ⇓P      P        12 17 28.2 +0.1
      baz=93,SNR=9.3
LOHW  Long Hollow        92.85  46 eP      P        12 17 27.9 -0.2
YMR   Madison River      92.85  45 eP      P        12 17 28.9 +0.7
      comp=Z,32nm,1.0s,mb5.3
PV04  Paradox Valley     92.87  51 eP      P        12 17 28.7 +0.4
YFT   Old Faithful       92.89  45 eP      P        12 17 29.4 +1.1
      comp=Z,30nm,0.9s,mb5.3
MVCO  Mesa Verde         92.91  53 ⇑P      P        12 17 28.6  0.0
      baz=93,SNR=9.3
MVCO  Mesa Verde         92.91  53 eP      P        12 17 28.5 -0.1
      comp=Z,6.9nm,0.8s,mb4.7
I17A  Pilgrim Ck.        92.94  46 ⇓P      P        12 17 28.8 +0.2
      baz=93,SNR=23
K18A  Toltan Ranch,      93.01  47 ⇓P      P        12 17 28.6 -0.3
      baz=93,SNR=10
D16A  Dana Ranch, Ca     93.05  43 ⇓P      P        12 17 29.0 +0.1
      baz=93,SNR=22
H17A  Grant Village      93.06  45 ⇓P      P        12 17 30.0 +1.0
      baz=93,SNR=19
YNR   Norris Junctio     93.06  45 eP      P        12 17 30.4 +1.3
PV01  Paradox Valley     93.06  52 eP      P        12 17 29.1 -0.2
      comp=Z,2µm,1.0s
P19A  Cripple Cowboy     93.09  50 ⇓P      P        12 17 28.8 -0.5
      baz=93,SNR=21
C16A  Fuhringer Ranc     93.11  42 ⇓P      P        12 17 28.7 -0.5
      baz=93,SNR=36
W21A  San Fidel          93.12  55 ⇑P      P        12 17 29.3 -0.3
      baz=93
122A  Conniff Cattle     93.12  57 ⇓P      P        12 17 29.7  0.0
      baz=93
O19A  Miners Draw (B     93.14  50 ⇑P      P        12 17 29.3 -0.2
      baz=93
J18A  Kendall Valley     93.16  47 ⇑P      P        12 17 29.3 -0.3
      baz=93,SNR=20
G17A  Pierce Place,      93.17  44 ⇑P      P        12 17 29.8 +0.3
      baz=93,SNR=19
LKWY  Lake               93.22  45 eP      P        12 17 31.2 +1.4
LKWY                                pmax    pmax
      comp=Z,16nm,1.0s,mb5.0
LKWY  Lake               93.22  45 eP      P        12 17 31.2 +1.4
      comp=Z,16nm,1.0s,mb5.0
R20A  Redvale            93.22  52 ⇑P      P        12 17 29.7 -0.3
      baz=93,SNR=14
B16A  M & M Farms, S     93.29  41 ⇑P      P        12 17 29.5 -0.5
      baz=93
F17A  Fitzpatrick Pl     93.36  44 ⇓P      P        12 17 31.1 +0.6
      baz=94,SNR=24
E17A  Martinsdale        93.37  43 ⇑P      P        12 17 30.7 +0.3
      baz=94,SNR=9.1
LAZ   Ladron             93.37  56 eP      P        12 17 30.8  0.0
      comp=Z,5.6nm,1.1s,mb4.5
L19A  Farson             93.38  48 ⇑P      P        12 17 30.4 -0.2
      baz=94,SNR=20
BW06  Boulder Array      93.39  47 ⇓P      P        12 17 29.9 -0.7
      baz=94,SNR=18
M19A  Rock Springs       93.39  48 ⇑P      P        12 17 30.1 -0.6
      baz=94
PDAR  Pinedale Array     93.39  47  P      P        12 17 30.0 -0.6
      comp=Z,8.9nm,1.0s,mb4.8,baz=219,slow=1.9,SNR=32
PDAR                                pP      pP       12 18 31.6 -0.4
      comp=Z,6.8nm,1.3s,baz=235,slow=4.7,SNR=2.7
PDAR                                PKiKP   PKiKP    12 22 16.2 +0.8
      comp=Z,1.3nm,0.9s,baz=192,slow=1.0,SNR=5.5
PDAR                                PKKP    PKKPbc   12 34 35.5 -2.5
      comp=Z,0.5nm,0.7s,baz=91,slow=4.3,SNR=4.8
PDAR  Pinedale Array     93.39  47  P      P        12 17 30.0 -0.6
PDAR                                pP      pP       12 18 31.6 -0.4
I18A  Diamond G Ranc     93.42  46 ⇑P      P        12 17 30.3 -0.4
      baz=94,SNR=30
LENM  Lemitar            93.45  56 eP      P        12 17 31.7 +0.5
Q20A  Ridgley Place,     93.46  51 ⇓P      P        12 17 30.6 -0.4
      baz=94,SNR=13
Y22D  IRIS PASSCAL I     93.48  56 ⇓P      P        12 17 31.0 -0.3
      baz=94
A16A  West Butte Ran     93.50  41 ⇓P      P        12 17 30.4 -0.5
      baz=94,SNR=49
X22A  Bernardo           93.50  56 ⇑P      P        12 17 31.4 +0.1
      baz=94
P20A  De Beque           93.51  51 ⇓P      P        12 17 30.8 -0.4
      baz=94,SNR=27
EDM   Edmonton           93.54  36 eP      P        12 17 30.3 -0.7
D17A  Six Diamond Ra     93.65  43 ⇑P      P        12 17 31.6 -0.1
      baz=94,SNR=21
C17A  Wharram Farm,      93.71  42 ⇓P      P        12 17 31.4 -0.6
      baz=94,SNR=28
BNM   Barren Site        93.73  56 eP      P        12 17 32.1 -0.3
      comp=Z,24nm,1.3s,mb5.1
O20A  White River Ci     93.76  50 ⇑P      P        12 17 32.0 -0.4
      baz=94,SNR=7.2
LPM   Los Pinos Moun     93.76  56 eP      P        12 17 32.9 +0.3
B17A  L&G Farms, Che     93.85  42 ⇓P      P        12 17 32.0 -0.6
      baz=94,SNR=18
N20A  Spence Gulch,      93.90  49 ⇓P      P        12 17 32.6 -0.4
      baz=94,SNR=6.9
K19A  Absolon Red Bu     93.91  47 ⇑P      P        12 17 32.2 -0.8
      baz=94,SNR=13
G18A  Lazy EL Ranch,     93.97  45 ⇓P      P        12 17 33.5 +0.2
      baz=94,SNR=12
Q21A  Lamborn Mesa,      93.98  51 ⇓P      P        12 17 33.4 -0.1
      baz=94,SNR=10
F18A  Big Timber         94.00  44 ⇑P      P        12 17 34.0 +0.6
      baz=94,SNR=13
GCMT  Greycliff          94.01  44 eP      P        12 17 32.6 -0.8
      comp=Z,14nm,1.3s,mb4.8
E18A  Harlowton          94.02  43 ⇑P      P        12 17 34.1 +0.6
      baz=94,SNR=23
A17A  Triple J Farms     94.07  41 ⇓P      P        12 17 33.3 -0.3
      baz=94,SNR=62
M20A  Sweetwater, Wa     94.10  49 ⇑P      P        12 17 33.4 -0.5
      baz=94
L20A  Wamsutter          94.10  48 ⇓P      P        12 17 33.5 -0.4
      baz=94,SNR=9.7
T22A  Edith              94.11  53 ⇑P      P        12 17 33.6 -0.5
      baz=94,SNR=7.6
RLMT  Red Lodge          94.13  45 ⇓P      P        12 17 34.3 +0.3
      baz=94,SNR=15
RLMT  Red Lodge          94.13  45 eP      P        12 17 33.9 -0.1
      comp=Z,23nm,1.3s,mb5.0
K20A  Yellowstone Ra     94.24  47 ⇓P      P        12 17 34.0 -0.5
      baz=94,SNR=7.8
D18A  Linhart Farms,     94.24  43 ⇓P      P        12 17 34.5  0.0
      baz=94,SNR=6.6
O21A  Pagoda             94.35  50 ⇑P      P        12 17 34.3 -0.8
      baz=94
N21A  Black Mountain     94.43  49 ⇑P      P        12 17 35.4  0.0
      baz=94,SNR=16
EGMT  Eagleton           94.47  42 ⇓P      P        12 17 35.2 -0.2
      baz=95,SNR=19
EGMT  Eagleton           94.47  42 eP      P        12 17 35.2 -0.2
      comp=Z,84nm,1.4s,mb5.6
R22A  Saguache, Gunn     94.48  52 ⇓P      P        12 17 35.9 +0.1
      baz=95,SNR=15
Q22A  Crested Butte,     94.49  51 ⇑P      P        12 17 35.8  0.0
      baz=95,SNR=41
B18A  Beardsley Farm     94.53  42 ⇓P      P        12 17 35.4 -0.3
      baz=95,SNR=35
A18A  Metzger Ranch,     94.61  41 ⇓P      P        12 17 35.2 -0.8
      baz=95,SNR=22
M21A  Separation Pea     94.72  49 ⇓P      P        12 17 36.2 -0.5
      baz=95,SNR=6.0
L21A  Rawlins            94.80  48 ⇓P      P        12 17 36.4 -0.6
      baz=95,SNR=6.5
GDL2  Guadalupe Moun     95.20  58 eP      P        12 17 39.3 +0.2
N22A  Wattenberg Ran     95.23  50 ⇑P      P        12 17 38.9 -0.2
      baz=95,SNR=11
TXAR  Lajitas Array      95.24  61  P      P        12 17 39.3 -0.1
TXAR                                *PP     pP       12 18 41.6 +0.8
TXAR  Lajitas Array      95.24  61  P      P        12 17 39.3 -0.2
      comp=Z,6.4nm,0.7s,mb4.8,baz=220,slow=5.5,SNR=84
TXAR                                pP      pP       12 18 41.6 +0.7
      comp=Z,1.4nm,0.8s,baz=222,slow=5.0,SNR=2.9
TXAR                                PKKP    PKKPbc   12 34 31.1 -1.5
      comp=Z,0.1nm,0.6s,baz=108,slow=5.3,SNR=3.5
M22A  Cedar Creek Ra     95.25  49 ⇑P      P        12 17 38.5 -0.7
      baz=95,SNR=7.7
MKAR  Makanchi Array     95.28 317  P      P        12 17 38.9 -0.3
      comp=Z,52nm,0.8s,mb5.7,baz=95,slow=6.2,SNR=432
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MKAR                                PKiKP   PKiKP    12 22 17.8 -0.8
      comp=Z,1.2nm,0.6s,baz=181,slow=0.9,SNR=13
MKAR                                PKKP    PKKPbc   12 34 29.6 -3.7
      comp=Z,3.0nm,0.8s,baz=275,slow=3.1,SNR=21
ZALV  Zalesovo Beam      95.28 324  P      P        12 17 37.4 -1.6
      comp=Z,15nm,1.0s,mb5.1,baz=108,slow=4.8,SNR=42
ZALV                                PKiKP   PKiKP    12 22 18.6 +0.2
      comp=Z,1.4nm,0.6s,baz=104,slow=1.8,SNR=4.6
ZALV                                PKKP    PKKPbc   12 34 29.7 -3.9
      comp=Z,1.6nm,0.4s,baz=283,slow=3.7,SNR=8.2
ZALV  Zalesovo Beam      95.28 324  P      P        12 17 37.4 -1.6
SDCO  Great Sand Dun     95.36  53 eP      P        12 17 39.3 -0.5
      comp=Z,7.3nm,1.3s,mb4.7
SDCO                               epP     pP       12 18 42.5 +1.3
YKA   Yellowknife Ar     95.42  27  P      P        12 17 37.6 -1.8
      comp=Z,17nm,0.7s,mb5.3,baz=258,slow=4.7,SNR=153
YKA                                 PP      PP       12 21 23.2  -11
      comp=Z,1.6nm,1.0s,baz=252,slow=7.8,SNR=6.7
YKA                                 PKiKP   PKiKP    12 22 17.2 -1.1
      comp=Z,0.8nm,0.5s,baz=249,slow=1.4,SNR=28
YKA                                 PKKPbc  PKKPbc   12 34 29.6 -3.9
      comp=Z,0.2nm,0.6s,baz=59,slow=2.7,SNR=5.7
YKA   Yellowknife Ar     95.42  27  P      P        12 17 37.6 -1.8
YKA                                 PP      PP       12 21 23.2  -11
ISCO  Idaho Springs      95.67  51 eP      P        12 17 41.3 +0.2
ISCO                                pmax    pmax
      comp=Z,5.0nm,0.8s,mb4.8
ISCO  Idaho Springs      95.67  51 eP      P        12 17 41.3 +0.1
      comp=Z,5.5nm,0.8s,mb4.8
PHWY  Pilot Hill         96.07  49 eP      P        12 17 42.6 -0.3
      comp=Z,5.4nm,0.8s,mb4.8
NVS   Novosibirsk        96.38 325 i P     P        12 17 42.1 -1.9
VNA3  Neumayer Olymp     96.69 181 eP      P        12 17 44.0 -1.2
VNA2  Neumayer--Watz     96.95 182 eP      P        12 17 45.2 -1.2
      baz=193,slow=5.5
RSSD  Black Hills        97.60  47 eP      P        12 17 49.6 -0.1
RSSD                                pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.8
RSSD  Black Hills        97.60  47 eP      P        12 17 49.6 -0.2
      comp=Z,5.4nm,0.9s,mb4.9
AMTX  Amarillo           97.88  56 eP      P        12 17 50.2 -1.0
      comp=Z,12nm,1.0s,mb5.2
DGMT  Dagmar             98.20  42 ⇑P      P        12 17 51.6 -0.7
      baz=98
DGMT  Dagmar             98.20  42 eP      P        12 17 51.6 -0.7
      comp=Z,13nm,0.7s,mb5.4
KURK  Kurchatov          98.39 320 eP      P        12 17 51.7 -1.4
KURK                                pmax    pmax
      comp=Z,37nm,1.7s,mb5.4
KURK  Kurchatov          98.39 320 eP      P        12 17 51.7 -1.4
      comp=Z,37nm,1.7s,mb5.4
KSH   Kashi              98.52 309 eP      P        12 17 55.3 +1.3
KSH                                epP     pP       12 18 57.1 +1.6
KSH                                esP     sP       12 19 23.1 +1.2
KSH                                ePP     PP       12 21 58.5 +0.3
KSH                                eSKS             12 28 06.0
KSH                                eS      S        12 28 54.1 -6.2
KSH                                esS     sS       12 30 42.8 -6.8
KSH                                eSS     SS       12 35 46.0 -5.9
KSH                                 pmax    pmax
      comp=Z,65nm,2.4s,mb5.5
KSH                                 LR      LR
      comp=N,300nm,7.3s
KSH                                 LR      LR
      comp=E,240nm,12.4s
KSH                                 LR      LR
      comp=Z,300nm,5.5s
JCT   Junction City      98.75  61 eP      P        12 17 54.1 -1.1
JCT                                 pmax    pmax
      comp=Z,14nm,1.0s,mb5.2
JCT   Junction City      98.75  61 eP      P        12 17 54.0 -1.1
      comp=Z,14nm,1.0s,mb5.2
AAK   Ala-Archa         100.06 312 eP      Pdif     12 18 00.3 -0.3
FFC   Flin Flon         100.41  36 i P     Pdif     12 18 01.3 -0.8
ULM   Lac du Bonnet     103.79  41  Pdiff  Pdif     12 18 16.8 -0.3
      comp=Z,4.6nm,1.0s,baz=285,slow=7.0,SNR=4.9
ULM                                 PKiKP   PKiKP    12 22 32.3 -1.4
      comp=Z,6.5nm,0.7s,baz=260,slow=2.3,SNR=11
PRGR  Permogore         115.38 333 ePKIKP  PKPdf    12 22 53.2 -2.0
PRGR                                pmax    pmax
      comp=Z,38nm,1.0s
APA   Apatity           116.97 342⇑iPKIKP  PKPdf    12 22 57.4 -0.7
APA                                 pmax    pmax
      comp=Z,43nm,1.3s
APA                                 MLR     MLR
      comp=Z,900nm,21.0s
ARCES ARCESS Array B    117.81 346  PKP    PKPdf    12 22 59.2 -0.5
      comp=Z,23nm,0.5s,baz=72,slow=1.6,SNR=70
ARCES                               PKKPbc  PKKPbc   12 33 19.7 -4.5
      comp=Z,6.1nm,0.8s,baz=187,slow=2.5,SNR=10
ARCES ARCESS Array B    117.81 346  PKP    PKPdf    12 22 59.2 -0.5
ARCES                               PKKPbc  PKKPbc   12 33 19.7 -4.5
KLMR  Klimovskoe        118.38 334⇑iPKIKP  PKPdf    12 23 00.2 -0.8
KLMR                                pmax    pmax
      comp=Z,49nm,1.6s
SFJD  Kangerlussuaq     119.84  16 i P     PKPdf    12 23 02.7 -0.9
      comp=Z,13nm,1.0s
SCHQ  Schefferville     120.32  33  PKP    PKPdf    12 23 03.9 -1.0
      comp=Z,14nm,0.6s,baz=312,slow=2.4,SNR=49
SCHQ                                PKKPab  PKKPab   12 33 12.3 -1.7
      comp=Z,1.2nm,0.5s,baz=43,slow=14,SNR=4.2
VRHR  Novokhopersk      121.40 323 ePKIKP  PKPdf    12 23 06.3 -0.8
VRHR                                pmax    pmax
      comp=N,10.0nm,0.6s
VRHR                                pmax    pmax
      comp=Z,20nm,0.6s
SCO   Scoresbysund      121.52   4 i P     PKPdf    12 23 06.6 -0.2
      comp=Z,13nm,1.0s
CPUP  Villa Florida     122.26 132  PKP    PKPdf    12 23 07.9 -1.6
      comp=Z,5.0nm,0.8s,baz=263,slow=1.5,SNR=14
CPUP                                PKKPbc  PKKPbc   12 33 04.4 -2.3
      comp=Z,0.3nm,0.3s,baz=68,slow=4.9,SNR=6.1
GNI   Garni             122.42 310⇑iPKIKP  PKPdf    12 23 08.3 -1.1
GNI                                 pmax    pmax
      comp=Z,84nm,1.7s
GNI   Garni             122.42 310⇑ePKP    PKPdf    12 23 08.4 -1.0
VSR   Storozhevoye      122.79 324 ePKIKP  PKPdf    12 23 09.7 -0.1
VSR                                 pmax    pmax
      comp=Z,70nm,1.3s
VSR                                 pmax    pmax
      comp=N,5.0nm,0.7s
VSR                                 pmax    pmax
      comp=E,10.0nm,0.6s
KAF   Kangasniemi       122.81 339 ep      PKPdf    12 23 07.6 -1.9
      comp=E,20nm,0.5s
VORD  Divnogorie        122.81 324 ePKIKP  PKPdf    12 23 09.9 +0.1
VORD                                pmax    pmax
      comp=Z,40nm,0.4s
VORD                                pmax    pmax
      comp=N,30nm,0.6s
VORD                                pmax    pmax
      comp=E,70nm,0.4s
KIV   Kislovodsk        122.99 315 i PKIKP PKPdf    12 23 09.0 -1.4
KIV                                e                12 24 50.5
KIV                                e                12 29 45.3
KIV                                eSS     SS       12 41 16.1 -0.6
KIV                                 pmax    pmax
      comp=Z,24nm,1.0s
KIV   Kislovodsk        122.99 315⇑ePKP    PKPdf    12 23 09.1 -1.3
VSU   Vasula            125.08 336 ePKIKP  PKPdf    12 23 13.4 -0.5
BOSA  Boshof            125.13 222  PKP    PKPdf    12 23 14.8 -0.2
      comp=Z,11nm,1.0s,baz=84,slow=3.3,SNR=9.4
BOSA                                PKKPab           12 32 53.5
      comp=Z,1.7nm,0.5s,baz=223,slow=15,SNR=5.6
BOSA  Boshof            125.13 222  PKP    PKPdf    12 23 14.8 -0.2
BOSA                                PKKPab           12 32 53.5
ANN   Anapa             126.30 317 ePKHKP           12 22 58.3
ANN                                 pmax    pmax
      comp=Z,88nm,1.1s
NACGM Naroch            127.33 332 e       PKPdf    12 23 16.0 -2.3
MALT  Malatya           127.62 309⇓iP      PKPdf    12 23 19.7 +0.3
MALT  Malatya           127.62 309 ⇓P      PKPdf    12 23 19.7 +0.3
NOA   NORSAR Array B    128.18 345  PKP    PKPdf    12 23 18.9 -0.9
      comp=Z,13nm,0.8s,baz=31,slow=2.0,SNR=23
HFS   Hagfors           128.30 343  PKP    PKPdf    12 23 19.7 -0.3
      comp=Z,12nm,0.6s,baz=86,slow=6.1,SNR=31
AKASG Malin Array Be    128.57 327  PKP    PKPdf    12 23 19.9 -1.0
      comp=Z,4.0nm,0.5s,baz=47,slow=1.6,SNR=40
SUW   Suwalki           129.51 333 ePKP    PKPdf    12 23 23.2 +0.7
SUW   Suwalki           129.51 333 ePKP    PKPdf    12 23 23.2 +0.7
KONO  Kongsberg         129.79 345⇑ePKIKP  PKPdf    12 23 22.6 -0.3
BRTR  Keskin Array B    130.73 312  PKP    PKPdf    12 23 24.5 -0.8
      comp=Z,3.5nm,0.8s,baz=144,slow=5.0,SNR=16
BRTR                                SKPab            12 26 28.8
      comp=Z,10nm,1.1s,baz=73,slow=2.4,SNR=20
KIS   Kishinev          130.76 323 ePKIKP  PKPdf    12 23 22.0 -3.1
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KIS                                e                12 24 26.0
LVV   L'vov             131.80 329 ePKIKP  PKPdf    12 23 30.0 +3.0
TIRR  Tirgusor          132.27 320⇑iP      PKPdf    12 23 26.8 -1.3
TIRR  Tirgusor          132.27 320 ⇑P      PKPdf    12 23 26.8 -1.3
BURAR Bucovina Array    132.48 325⇓iP      PKPdf    12 23 29.8 +1.5
BURAR Bucovina Array    132.48 325 ⇓P      PKPdf    12 23 29.8 +1.5
MLR   Muntele Rosu      133.25 323⇑iP      PKPdf    12 23 28.5 -1.4
MLR   Muntele Rosu      133.25 323 ⇑P      PKPdf    12 23 28.5 -1.3
KOLS  Kolonicke sedl    133.25 329 ePKP    PKPdf    12 23 30.0 +0.3
KOLS                               eSKPDF           12 26 38.1
UZH   Uzhgorod          133.43 328 ePKIKP  PKPdf    12 23 30.0 -0.1
STHS  Stebnicka Huta    133.45 330 ePKP    PKPdf    12 23 30.1  0.0
STHS                               eSKPDF           12 26 39.3
OJC   Ojcow             133.61 331 ePKP    PKPdf    12 23 30.5 +0.1
CRVS  Cervenica-Dubn    133.68 329 ePKP    PKPdf    12 23 30.5 -0.1
CRVS                               eSKPDF           12 26 39.5
VOIR                    133.80 323⇓iP      PKPdf    12 23 32.4 +1.5
VOIR                    133.80 323 ⇓P      PKPdf    12 23 32.4 +1.5
NIE   Niedzica          133.91 330 ePKP    PKPdf    12 23 32.5 +1.5
DRGR                    134.34 326⇑iP      PKPdf    12 23 32.5 +0.6
DRGR                    134.34 326 ⇑P      PKPdf    12 23 32.5 +0.7
RUE   Ruedersdorf       134.49 337 ePKPdf  PKPdf    12 23 32.2 +0.2
BSEG  Bad Segeberg      134.50 341 ePKPdf  PKPdf    12 23 32.6 +0.7
OKC   Ostrava-Krasne    134.64 332 ePKPDF  PKPdf    12 23 33.3 +1.0
OKC                                eSKP             12 26 43.7
KSP   Ksiaz             134.73 334 ePKP    PKPdf    12 23 32.9 +0.4
KSP   Ksiaz             134.73 334 ePKP    PKPdf    12 23 32.8 +0.3
DPC   Dobruska-Polom    135.09 334 ePKIKP  PKPdf    12 23 33.8 +0.7
DPC                                e                12 26 11.5
DPC   Dobruska-Polom    135.09 334 ePKPDF  PKPdf    12 23 33.8 +0.7
DPC                                ex      x        12 23 45.0
DPC                                ePP     PP       12 26 11.5 +0.6
DPC                                eSKP             12 26 44.3
UPC   Upice             135.10 334 ePKIKP  PKPdf    12 23 33.8 +0.6
UPC                                e                12 26 09.3
UPC   Upice             135.10 334 ePKPDF  PKPdf    12 23 33.8 +0.6
UPC                                ePP     PP       12 26 09.3 -1.7
UPC                                eSKP             12 26 44.0
PSZ   Piszkesteto       135.11 329⇓iP      PKPdf    12 23 34.6 +1.3
PSZ   Piszkesteto       135.11 329 ⇓P      PKPdf    12 23 34.6 +1.4
GZR   Gura Zlata        135.14 324⇑iP      PKPdf    12 23 33.4  0.0
GZR   Gura Zlata        135.14 324 ⇑P      PKPdf    12 23 33.4  0.0
VYHS  Vyhne             135.25 330 ePKP    PKPdf    12 23 33.1 -0.4
VYHS                               eSKPDF           12 26 44.0
VYHS  Vyhne             135.25 330 ePKP    PKPdf    12 23 33.1 -0.4
VYHS                               e                12 26 44.0
KOLL  Kolacno           135.40 331 ePKP    PKPdf    12 23 34.0 +0.2
BZS   Buzias            135.66 325⇑iP      PKPdf    12 23 34.2 -0.2
BRG   Berggiesshubel    135.68 336 ePKPdf  PKPdf    12 23 34.0 -0.2
BRG   Berggiesshubel    135.68 336 eP      PKPdf    12 23 34.1 -0.1
      comp=Z,24nm,1.2s
BRG                                e                12 26 44.8
      comp=Z,17nm,1.4s
PVCC  Panska Ves        135.69 335 ePKPDF  PKPdf    12 23 35.0 +0.7
PVCC                               ex      x        12 23 44.3
PVCC                               eSKP             12 26 45.9
CLL   Collm             135.71 337 ePKPdf  PKPdf    12 23 34.0 -0.3
CLL   Collm             135.71 337⇑iPKPdf  PKPdf    12 23 33.7 -0.6
      comp=Z,19nm,0.7s
CLL                                epPKPdf pPKPdf   12 24 42.0 +3.3
CLL                                ePP     PP       12 26 14.0 -0.7
CLL                                eSKPdf  SKPdf    12 26 45.0 -0.1
CLL   Collm             135.71 337⇑iPKP    PKPdf    12 23 33.7 -0.6
CLL                                epPKP   pPKPdf   12 24 42.0 +3.3
CLL                                eSKP             12 26 45.0
NRDL  Niedersach Rie    135.78 340 ePKPdf  PKPdf    12 23 34.1 -0.3
FBE   Freiberg          135.88 336 ePKPdf  PKPdf    12 23 34.8 +0.2
MODS  Modra-Piesok      136.08 331 ePKP    PKPdf    12 23 35.2 +0.1
MODS                               eSKPDF           12 26 47.3
PRU   Pruhonice         136.12 335 ePKIKP  PKPdf    12 23 35.6 +0.5
PRU                                e                12 26 19.3
PRU   Pruhonice         136.12 335 ePKPDF  PKPdf    12 23 35.6 +0.5
PRU                                ex      x        12 23 37.3
PRU                                ex      x        12 23 46.4
PRU                                ePP     PP       12 26 19.3 +2.0
PRU                                eSKP             12 26 48.6
TREC  Trest             136.23 333 ePKPDF  PKPdf    12 23 36.3 +1.0
TREC                               ex      x        12 23 47.1
CLZ   Clausthal         136.24 339 ePKPdf  PKPdf    12 23 35.5 +0.3
ZST   Bratislava        136.29 331 ePKP    PKPdf    12 23 35.9 +0.4
EKA   Eskdalemuir Ar    136.33 352  PKP    PKPdf    12 23 35.1 -0.2
      comp=Z,4.7nm,0.8s,baz=1.6,slow=1.9,SNR=10
TANN  Tannenbergstha    136.63 336 ePKPdf  PKPdf    12 23 35.9 -0.1
WERD  Werda             136.66 337 ePKPdf  PKPdf    12 23 36.1  0.0
IBBN  Ibbenburen        136.70 342 ePKPdf  PKPdf    12 23 36.3 +0.2
GUNZ  Gunzen            136.72 337 ePKPdf  PKPdf    12 23 36.2  0.0
WERN  Wernitzgruen      136.76 336 ePKPdf  PKPdf    12 23 36.3  0.0
MOX   Moxa              136.77 337 ePKP    PKPdf    12 23 36.3  0.0
      comp=Z,31nm,1.6s
NKC   Novy Kostel       136.78 336 ePKIKP  PKPdf    12 23 37.0 +0.7
NKC                                e                12 26 25.4
NKC   Novy Kostel       136.78 336 ePKPDF  PKPdf    12 23 37.0 +0.7
NKC                                ex      x        12 23 38.5
NKC                                ex      x        12 23 45.9
NKC                                ePP     PP       12 26 25.4 +4.1
NKC                                eSKP             12 26 47.8
CONA  Conrad Observa    137.06 332⇑iPKiKP  PKiKP    12 23 37.1 -1.7
      comp=Z,37nm,1.3s
CSNA  Conrad Observa    137.06 332⇓iPKiKP  PKiKP    12 23 37.1 -1.7
      comp=Z,37nm,1.3s
MANZ  Manzenberg        137.11 336 ePKPdf  PKPdf    12 23 36.9  0.0
KHC   Kasperske Hory    137.18 334 ePKIKP  PKPdf    12 23 37.5 +0.4
KHC                                e                12 26 26.2
KHC   Kasperske Hory    137.18 334 ePKPDF  PKPdf    12 23 37.5 +0.4
KHC                                ex      x        12 23 39.5
KHC                                ex      x        12 23 46.8
KHC                                ePP     PP       12 26 26.2 +2.3
KHC                                eSKP             12 26 50.3
UBBA  Unterbreizbach    137.22 339 ePKPdf  PKPdf    12 23 36.9 -0.2
ROTZ  Rotzenmuhle       137.24 336 ePKPdf  PKPdf    12 23 37.0 -0.2
WTSB  Winterswijk       137.29 342 ePKP    PKPdf    12 23 35.7 -1.5
      comp=Z,60nm,0.7s
GEC2  GERESS Array S    137.34 334 ePKPdf  PKPdf    12 23 36.8 -0.6
GERES GERESS Array B    137.34 334  PKhKP           12 23 28.8
      comp=Z,1.0nm,0.7s,baz=48,slow=2.0,SNR=4.5
GERES                               PKP    PKPdf    12 23 37.9 +0.5
      comp=Z,4.3nm,0.6s,baz=48,slow=2.0,SNR=20
GERES                               SKPab            12 26 50.8
      comp=Z,2.4nm,0.7s,baz=35,slow=3.3,SNR=6.3
GERES GERESS Array B    137.34 334  PKP    PKPdf    12 23 37.9 +0.5
GERES                               SKPab            12 26 50.8
WET   Wettzell          137.46 335 ePKPdf  PKPdf    12 23 37.7 +0.1
BUG   Bochum--Univer    137.60 341 ePKPdf  PKPdf    12 23 37.9 +0.1
GRA1  Grafenberg Arr    137.69 337 ePKPdf  PKPdf    12 23 37.8 -0.2
GRF   Grafenberg Arr    137.69 337 ePKPdf  PKPdf    12 23 37.8 -0.2
MOA   Molln             137.85 333⇑iPKPdf  PKPdf    12 23 37.8 -0.5
      comp=Z,7.2nm,0.6s
TNS   Taunus Mts        138.26 339 ePKPdf  PKPdf    12 23 39.2 +0.2
PERS  Pernice           138.35 331 ePKPdf  PKPdf    12 23 38.5 -0.8
PERS                               eSKPbc  SKPbc    12 26 52.8 +3.2
RJOB  Jochberg          138.58 334 ePKPdf  PKPdf    12 23 39.5 -0.2
HGN   Heimansgroeve     138.61 342 ePKP    PKPdf    12 23 39.8 +0.1
      comp=Z,37nm,1.3s
OBKA  Obir              138.71 331⇑iPKPdf  PKPdf    12 23 36.9 -3.0
      comp=Z,8.2nm,1.0s
MEM   Membach           138.72 342  PKP    PKPdf    12 23 40.5 +0.6
KBA   Koelnbreinsper    138.84 333⇑iPKPdf  PKPdf    12 23 40.3 +0.1
      comp=Z,21nm,1.1s
FUR   Furstenfeldbru    138.89 335 ePKPdf  PKPdf    12 23 41.4 +1.2
UCC   Uccle             139.04 343  PKP    PKPdf    12 23 40.1 -0.3
LJU   Ljubljana         139.06 331 ePKPdf  PKPdf    12 23 40.5 -0.1
LJU                                eSKPbc  SKPbc    12 26 55.3 +3.7
BOJS  Bojanci           139.09 330 ePKPdf  PKPdf    12 23 40.6 -0.1
BOJS                               i SKPbc SKPbc    12 26 55.4 +3.7
BCLA  Clavier           139.10 342  PKP    PKPdf    12 23 41.5 +0.9
STU   Stuttgart         139.21 338 ePKPdf  PKPdf    12 23 40.4 -0.4
CEY   Cerknica          139.33 330 ePKPdf  PKPdf    12 23 40.7 -0.4
CEY                                ePP     PP       12 26 31.6 -5.6
WTTA  Wattenberg        139.45 334⇓iPKPdf  PKPdf    12 23 41.3  0.0
      comp=Z,39nm,0.8s,SNR=8.5
ABTA  Abfaltersbach     139.46 333⇓iPKPdf  PKPdf    12 23 39.5 -1.9
      comp=Z,23nm,1.0s
WLF   Walferdange       139.50 341  PKP    PKPdf    12 23 42.0 +0.7
WLF   Walferdange       139.50 341 ePKPdf  PKPdf    12 23 42.1 +0.8
GIVF  Givet             139.52 342 ePKP1   PKPdf    12 23 40.3 -1.0
      comp=Z,79nm,1.0s
DOU   Dourbes           139.60 343  PKP    PKPdf    12 23 41.9 +0.5
MOTA  Moosalm           139.61 335⇓iPKPdf  PKPdf    12 23 41.2 -0.3
      comp=Z,14nm,0.8s
BAIF  Baives            139.74 343 ePKP1   PKPdf    12 23 40.4 -1.3
FETA  Feichten          140.02 335⇑iPKPdf  PKPdf    12 23 42.3 -0.1
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	comp=Z,44nm,1.1s						
DAVA	Damuels	140.16	336	⇑iPKPdf	PKPdf	12 23 42.4	-0.1
	comp=Z,12nm,1.0s						
CDF	Champ du Feu	140.20	339	ePKP1	PKPdf	12 23 41.1	-1.5
HINF	Hinteralfeld	140.86	339	ePKP1	PKPdf	12 23 42.5	-1.3
MEZF	Maizieres J'vi	140.87	341	ePKP1	PKPdf	12 23 43.0	-0.8
	comp=Z,107nm,1.0s						
HAU	Haudompre	140.87	339	ePKP1	PKPdf	12 23 42.6	-1.2
LOMF	Lomont	141.26	338	PKP	PKPdf	12 23 40.5	-4.1
PIEI	Pieia	141.86	330	PKP	PKPdf	12 23 41.9	-3.9
SFI	Santa Sofia	141.92	331	PKIKP	PKPdf	12 23 42.0	-3.9
VMG	Vicchio	142.02	331	PKP	PKPdf	12 23 42.7	-3.3
FNVD	Fontana Vidola	142.06	332	PKP	PKPdf	12 23 42.5	-3.6
NRCA	Norcia	142.07	328	PKP	PKPdf	12 23 41.8	-4.4
FLN	La Foliniere	142.14	347	ePKP1	PKPdf	12 23 40.5	-5.6
	comp=Z,55nm,0.7s						
CABF	La Chapelle	142.16	339	ePKP1	PKPdf	12 23 41.4	-4.8
	comp=Z,166nm,1.2s						
ERBM	Eremo	142.20	332	PKP	PKPdf	12 23 43.0	-3.3
LDF	La Druitiere	142.22	346	ePKP1	PKPdf	12 23 40.7	-5.5
ORO	Oropa	142.27	336	PKHKP		12 23 42.1	
LOR	Lormes	142.34	341	ePKP1	PKPdf	12 23 41.2	-5.3
	comp=Z,66nm,1.2s						
BOB	Bobbio (Coli)	142.35	334	PKIKP	PKPdf	12 23 43.1	-3.5
TIP	Timpagrande	142.44	321	PKP	PKPdf	12 23 43.9	-3.0
GRR	Gorron	142.58	347	ePKP1	PKPdf	12 23 40.9	-6.0
	comp=Z,42nm,0.8s						
SSF	Saint Saulge	142.63	341	ePKP1	PKPdf	12 23 42.6	-4.4
	comp=Z,55nm,0.9s						
HYF	Humbligny	142.71	342	ePKP1	PKPdf	12 23 44.1	-3.0
LPL	La Plagne	142.85	337	ePKP1	PKPdf	12 23 44.7	-2.8
LPG	La Plagne	142.86	337	ePKP1	PKPdf	12 23 44.9	-2.6
	comp=Z,60nm,0.9s						
GRI	Girifalco	142.86	321	PKIKP	PKPdf	12 23 44.9	-2.8
SMF	Signal de Mont	142.89	341	ePKP1	PKPdf	12 23 42.3	-5.2
	comp=Z,40nm,0.8s						
AVF	Avril sur Loir	142.92	341	ePKP1	PKPdf	12 23 42.4	-5.1
SGMF	Saint Gilles	143.06	348	ePKP1	PKPdf	12 23 43.4	-4.3
	comp=Z,31nm,0.6s						
ROSF	Rostrenen	143.12	349	ePKP1	PKPdf	12 23 43.7	-4.1
	comp=Z,106nm,1.3s						
BNI	Bardonecchia	143.26	337	PKIKP	PKPdf	12 23 46.2	-2.0
BGF	Bois d'Agland	143.28	342	ePKP1	PKPdf	12 23 44.5	-3.7
	comp=Z,92nm,0.9s						
OG22	Abries	143.34	336	PKP	PKPdf	12 23 45.5	-2.8
GDM	Grand'Maison	143.35	337	PKP	PKPdf	12 23 46.2	-2.1
GRN	Grenoble	143.45	338	PKP	PKPdf	12 23 46.8	-1.7
MBDF	Montbardon	143.49	336	ePKP1	PKPdf	12 23 46.2	-2.4
	comp=Z,65nm,0.8s						
QUIF	Quistinic	143.50	349	ePKP1	PKPdf	12 23 44.6	-3.9
	comp=Z,14nm,0.6s						
CEL	Celeste	143.53	320	PKP	PKPdf	12 23 47.2	-1.7
SOI	Samo	143.54	320	PKIKP	PKPdf	12 23 46.8	-2.1
SCLL	Scilla	143.65	320	PKP	PKPdf	12 23 46.2	-2.9
AGO	Saint Agoulin	143.65	341	PKP	PKPdf	12 23 46.4	-2.4
ORIF	Oris-en-Rattie	143.68	337	ePKP1	PKPdf	12 23 47.4	-1.5
	comp=Z,207nm,0.8s						
SURF	Saint Ours	143.68	336	PKP	PKPdf	12 23 47.5	-1.4
IMI	Imperia	143.71	334	PKP	PKPdf	12 23 46.8	-2.2
TCF	Toulx Ste Croi	143.72	342	ePKP1	PKPdf	12 23 47.1	-1.9
	comp=Z,358nm,1.5s						
MTTG	Motta San Giov	143.81	320	PKP	PKPdf	12 23 47.3	-2.1
SSB	Saint Sauveur	143.86	339	PKP	PKPdf	12 23 47.8	-1.4
COLF	Collangettes	143.94	340	PKP	PKPdf	12 23 48.4	-1.0
SBF	Sospel	143.94	335	ePKP1	PKPdf	12 23 47.5	-1.9
	comp=Z,518nm,0.8s						
PYM	Petit Puy Mans	143.96	341	PKP	PKPdf	12 23 47.8	-1.6
MFF	Saint Martin d	144.08	345	ePKP1	PKPdf	12 23 48.2	-1.4
	comp=Z,468nm,1.2s						
VERF	Verneugheol	144.12	342	PKP	PKPdf	12 23 48.2	-1.5
VIVF	Saint-Julien-l	144.18	338	ePKP1	PKPdf	12 23 48.9	-0.9
	comp=Z,406nm,1.2s						
OCF	Saint Nazaire	144.18	338	PKP	PKPdf	12 23 49.2	-0.6
OG26	St.-Nazaire-De	144.18	338	PKP	PKPdf	12 23 49.2	-0.6
PGF	Pioggiola	144.30	332	ePKP1	PKPdf	12 23 49.0	-1.1
	comp=Z,590nm,1.0s						
LBL	Lubilhac	144.34	340	PKP	PKPdf	12 23 49.5	-0.6
FRNF	Fournols	144.42	341	PKP	PKPdf	12 23 49.7	-0.5
STOF	St-Etienne Org	144.44	336	PKP	PKPdf	12 23 49.6	-0.7
FRF	La Foret Royal	144.51	335	ePKP1	PKPdf	12 23 49.5	-0.9
	comp=Z,458nm,1.0s						
SMRF	Simiane la Rot	144.59	337	ePKP1	PKPdf	12 23 50.5	0.0
	comp=Z,222nm,1.0s						
VILF	Villemus	144.64	336	PKP	PKPdf	12 23 50.5	-0.1
TAVF	Tavernes	144.70	336	PKP	PKPdf	12 23 50.5	-0.3
SSY	Sortino	144.72	320	PKP	PKPdf	12 23 51.2	+0.2
LMR	La Mourre	144.75	335	ePKP1	PKPdf	12 23 50.4	-0.5
	comp=Z,738nm,1.2s						
RJF	Les Rejaudoux	144.82	342	ePKP1	PKPdf	12 23 51.0	+0.1
	comp=Z,832nm,1.3s						
PRAF	Pradon	144.89	337	PKP	PKPdf	12 23 51.3	+0.2
OSPF	L'Ospedale	144.89	331	PKP	PKPdf	12 23 50.9	-0.2
HVZN	Vizzini	144.93	320	PKP	PKPdf	12 23 51.5	+0.1
TREF	Trevaresse	144.96	337	PKP	PKPdf	12 23 51.8	+0.6
CAF	Calviac	144.99	341	ePKP1	PKPdf	12 23 51.6	+0.4
	comp=Z,490nm,1.5s						
BERF	Bertagne	145.10	336	PKP	PKPdf	12 23 52.0	+0.5
RAFF	Raffo Rosso	145.13	320	PKP	PKPdf	12 23 52.7	+1.0
LASF	Ste Croix	145.14	339	ePKP1	PKPbc	12 23 52.0	+0.4
GELF	Grande-Etoile	145.15	336	PKP	PKPdf	12 23 51.8	+0.3
LFF	La Frestale	145.38	343	ePKP1	PKPbc	12 23 52.5	+0.2
	comp=Z,270nm,1.0s						
ERC	Erice	145.68	323	PKP	PKPdf	12 23 53.6	+1.0
MTLF	Montolieu	146.35	340	ePKP1	PKPbc	12 23 53.7	-1.5
	comp=Z,302nm,1.2s						
LRDF	Laroque-de-Fa	146.60	339	PKP	PKPdf	12 23 53.9	-0.1
EJON	La Jonquera	146.91	338	PKP	PKPdf	12 23 55.4	+0.8
CARF	Carcanieres	146.95	340	PKP	PKPbc	12 23 56.6	-0.3
MLS	Moulis	147.07	341	PKP	PKPdf	12 23 54.6	-0.2
SALF	Salau	147.21	341	PKP	PKPbc	12 23 56.6	-1.1
EPF	Esparros	147.24	342	ePKP1	PKPdf	12 23 55.5	+0.4
	comp=Z,34nm,0.7s						
VALF	Valcebollere	147.26	339	PKP	PKPdf	12 23 55.3	+0.2
LABF	Labassere	147.30	342	PKP	PKPdf	12 23 56.3	+1.1
REYF	Montagne du Re	147.42	343	PKP	PKPbc	12 23 58.0	-0.2
RESF	Ens	147.44	342	PKP	PKPdf	12 23 56.1	+0.7
VIEF	Viey	147.47	342	PKP	PKPdf	12 23 55.8	+0.3
OSSF	Osses	147.49	344	PKP	PKPdf	12 23 54.8	-0.7
ATE	Arette	147.49	343	PKP	PKPbc	12 23 58.3	-0.1
EALK	Alkurruntz	147.59	344	PKP	PKPbc	12 23 57.5	-1.2
EBIE	Bielsa	147.61	342	PKP	PKPbc	12 23 57.9	-0.8
SJPF	Ste Jean	147.61	344	ePKP1	PKPdf	12 23 56.1	+0.4
ETSF	Etsaut	147.62	343	ePKP1	PKPdf	12 23 56.4	+0.7
	comp=Z,46nm,0.7s						
ELIZ	Elizondo	147.64	344	PKP2	PKPbc	12 23 57.7	-1.1
ELAN	Lanestosa	148.04	347	PKP	PKPbc	12 23 59.4	-0.5
EARI	Arriondas	148.34	349	PKP	PKPbc	12 24 00.6	0.0
ECRI	Cripan	148.41	345	PKP2	PKPbc	12 24 01.1	+0.3
EPOB	Poblet	148.51	340	PKP	PKPdf	12 23 57.4	+0.2
EPON	Pontenova	148.62	352	PKP	PKPbc	12 24 01.7	+0.4
ERTA	Horta de San J	149.11	340	PKP	PKPdf	12 23 58.6	+0.4
KEST	Kesra	149.15	323	PKP	PKPdf	12 23 58.5	0.0
	comp=Z,22nm,1.0s,baz=256,slow=0.5,SNR=9.5						
KEST				PKPbc	PKPbc	12 24 03.5	+0.5
	comp=Z,26nm,0.7s,baz=307,slow=0.7,SNR=73						
EMAZ	Mazaricos	149.21	354	PKP	PKPdf	12 23 59.1	+0.9
STS	Santiago	149.23	354	PKHKP	PKPdf	12 23 58.8	+0.5
ETOS	Mallorca	149.25	336	PKP	PKPdf	12 23 58.8	+0.3
ERUA	La Rua	149.54	352	PKHKP	PKPdf	12 23 59.3	+0.5
CMAH	Djebel Manchou	149.60	326	P	PKPbc	12 24 04.4	+0.4
CAEH	'Ain El Ouahch	149.79	327	P	PKPdf	12 23 59.0	-0.4
ABSA	Djebel Ababsia	149.83	326	P	PKPbc	12 24 04.9	+0.4
EMOS	Mosqueruela	149.91	341	PKP	PKPdf	12 24 00.4	+0.9
ECAL	Calabor	149.92	351	PKP	PKPdf	12 24 01.1	+1.7
ETOR	Torete	149.97	343	PKHKP	PKPdf	12 23 59.9	+0.3
EZAM	Zamans	149.97	354	PKHKP	PKPdf	12 24 01.2	+1.7
PBRG	Braganca	150.05	351	ePKPdf	PKPdf	12 23 59.7	0.0
PBRG	Braganca	150.05	351	ePKPbc	PKPbc	12 24 04.8	-0.1
PBRG	Braganca	150.05	351	ePKPab	PKPab	12 24 12.4	+0.9
CKFL	Kef-Lekhel	150.14	327	P	PKPbc	12 24 06.1	+0.8
ELOB	Lobios	150.18	353	PKP	PKPdf	12 24 01.1	+1.2
PCAB	Cabril	150.33	353	ePKPdf	PKPdf	12 24 00.8	+0.7
PCAB	Cabril	150.33	353	ePKPbc	PKPbc	12 24 05.5	0.0
PCAB	Cabril	150.33	353	ePKPab	PKPab	12 24 11.4	-1.2
CASM	Ain Smara	150.37	327	P	PKPbc	12 24 06.7	+0.9
EIBI	Ibiza	150.46	337	PKP	PKPdf	12 24 00.3	-0.1
DFRA	Djebel Bou Aff	150.47	328	P	PKPbc	12 24 07.4	+1.3
CTEI	Djebel Teioual	150.56	327	P	PKPbc	12 24 07.0	+0.7
GUD	Guadarrama	150.67	346	PKIKP	PKPdf	12 24 00.9	+0.2
PVRL	Vila Real	150.71	352	ePKPdf	PKPdf	12 24 01.2	+0.5
PVRL	Vila Real	150.71	352	ePKPbc	PKPbc	12 24 06.9	+0.4
MVO	Moncorvo	150.72	351	ePKPdf	PKPdf	12 24 00.6	-0.1
MVO	Moncorvo	150.72	351	ePKPbc	PKPbc	12 24 06.7	+0.2
ECHE	Chera	150.77	341	PKIKP	PKPdf	12 24 02.2	+1.4
SET	Setif	150.98	328	P	PKPbc	12 24 08.0	+0.7
CKHR	Kef el Ahmar	151.07	328	P	PKPbc	12 24 07.9	+0.4
SHEL	Horse Pasture	151.11	194	i PKIKP	PKPbc	12 24 09.2	+1.1
PVIS	Viseu	151.29	352	ePKPdf	PKPdf	12 24 01.8	+0.2
PVIS	Viseu	151.29	352	ePKPbc	PKPbc	12 24 07.3	-0.5
PVIS	Viseu	151.29	352	ePKPab	PKPab	12 24 17.5	+0.8
EBEN	Beniarda	151.32	339	PKP	PKPdf	12 24 01.4	-0.3
ESDC	Sonseca Array	151.54	345	PKP	PKPdf	12 24 02.1	+0.1
	comp=Z,0.5nm,0.2s,baz=358,slow=2.9,SNR=13						
ESDC				PKPbc	PKPbc	12 24 08.8	+0.3
	comp=Z,13nm,0.6s,baz=12,slow=2.7,SNR=46						
ESDC				PP	PP	12 27 49.3	+0.3
	comp=Z,0.4nm,0.3s,baz=17,slow=5.9,SNR=5.8						
ESDC	Sonseca Array	151.54	345	PKP	PKPdf	12 24 02.1	+0.1
MTE	Manteigas	151.55	351	ePKPdf	PKPdf	12 24 02.2	+0.2
MTE	Manteigas	151.55	351	ePKPbc	PKPbc	12 24 08.5	+0.1
ABA	Alger-Bouzarea	151.65	332	P	PKPbc	12 24 06.7	-2.1
ATAF	Djebel Tarf	151.80	329	P	PKPbc	12 24 10.4	+1.3
ETOB	Tobarra	151.82	341	PKP	PKPdf	12 24 02.1	-0.4
AKET	Djebel Ketaf	151.86	330	P	PKPbc	12 24 10.2	+0.9
PCBR	Castelo Branco	152.09	351	ePKPdf	PKPdf	12 24 02.4	-0.4
PCBR	Castelo Branco	152.09	351	ePKPbc	PKPbc	12 24 09.1	-0.5
PCBR	Castelo Branco	152.09	351	ePKPab	PKPab	12 24 20.1	+0.1
EVIA	Vianos	152.12	342	PKIKP	PKPdf	12 24 03.4	+0.5
EMHD	Djebel Mahouad	152.18	332	P	PKPdf	12 24 04.4	+1.3
CMLA	Cha da Macela	152.19	22	i PKIKP	PKPbc	12 24 11.6	+1.7
EMUR	La Murta	152.44	340	PKP	PKPdf	12 24 04.3	+0.9
PMRV	Marv??o	152.48	351	ePKPdf	PKPdf	12 24 04.0	+0.6
PMRV	Marv??o	152.48	351	ePKPbc	PKPbc	12 24 10.4	-0.1
PMRV	Marv??o	152.48	351	ePKPab	PKPab	12 24 21.5	-0.2
EBNR	Beni Rached	152.74	334	P	PKPbc	12 24 07.3	-3.9
EHUE	Huescar	152.91	342	PKIKP	PKPdf	12 24 04.0	-0.1
EBAN	Banos Encina	152.92	344	PKIKP	PKPdf	12 24 04.1	0.0
ECHA	Ech Chlef	152.93	334	P	PKPbc	12 24 09.1	-2.5
PESTR	Estremoz	153.06	351	ePKPdf	PKPdf	12 24 03.5	-0.8
PESTR	Estremoz	153.06	351	ePKPbc	PKPbc	12 24 11.0	-0.8
PESTR	Estremoz	153.06	351	ePKPab	PKPab	12 24 23.6	-0.6
EQES	Quesada	153.06	343	PKP	PKPdf	12 24 04.6	+0.3
EBAD	Badajoz	153.07	350	PKP	PKPdf	12 24 04.5	+0.2
EADA	Adamuz	153.12	345	PKP	PKPdf	12 24 05.0	+0.6
PMAFR	Mafra	153.19	354	ePKPdf	PKPdf	12 24 03.9	-0.6
PMAFR	Mafra	153.19	354	ePKPbc	PKPbc	12 24 11.8	-0.3
PMAFR	Mafra	153.19	354	ePKPab	PKPab	12 24 24.9	+0.2
EANR	'Ain N'Sour	153.21	334	P	PKPbc	12 24 12.3	0.0
ECAB	El Cabril	153.41	347	PKP	PKPdf	12 24 04.7	-0.1
EVO	Evora	153.45	351	⇑iPKIKP	PKPdf	12 24 04.8	-0.1
	comp=Z,113nm,1.4s						
EVO	Evora	153.45	351	ePKPdf	PKPdf	12 24 04.9	0.0
EVO	Evora	153.45	351	ePKPbc	PKPbc	12 24 12.6	-0.1
EVO	Evora	153.45	351	ePKPab	PKPab	12 24 26.1	+0.3
ENIJ	Nijar	153.56	340	PKIKP	PKPdf	12 24 05.7	+0.6
ETRT	Tiaret	153.60	333	P	PKPbc	12 24 13.6	+0.5
ELUQ	Luque	153.62	344	PKIKP	PKPdf	12 24 05.8	+0.7
PBAR	Barrancos	153.64	350	ePKPdf	PKPdf	12 24 05.1	0.0
PBAR	Barrancos	153.64	350	ePKPbc	PKPbc	12 24 12.4	-0.7
PBAR	Barrancos	153.64	350	ePKPab	PKPab	12 24 27.1	+0.4
ECOG	Cogollos-Vega	153.69	343	PKIKP	PKPdf	12 24 06.3	+1.1
PBEJ	Beja	153.92	351	ePKPdf	PKPdf	12 24 05.8	+0.3
PBEJ	Beja	153.92	351	ePKPbc	PKPbc	12 24 13.4	-0.3
PBEJ	Beja	153.92	351	ePKPab	PKPab	12 24 28.8	+0.9
EMIN	Mina Concepcio	153.97	349	PKP	PKPdf	12 24 06.2	+0.6
ELOJ	Sierra Loja	153.97	344	PKIKP	PKPdf	12 24 06.0	+0.4
ERON	Agron	154.00	343	PKP	PKPdf	12 24 06.2	+0.5
EGUA	Guajares	154.10	343	PKIKP	PKPdf	12 24 06.5	+0.7
EGRO	El Granado	154.34	350	PKP	PKPdf	12 24 06.8	+0.6
PVAQ	Vaqueiros	154.51	350	ePKPdf	PKPdf	12 24 06.2	-0.2
PVAQ	Vaqueiros	154.51	350	ePKPbc	PKPbc	12 24 14.6	-0.4
PVAQ	Vaqueiros	154.51	350	ePKPab	PKPab	12 24 31.3	+0.9
PTEO	Sao Teotonio	154.52	352	ePKPdf	PKPdf	12 24 06.7	+0.3
PTEO	Sao Teotonio	154.52	352	ePKPbc	PKPbc	12 24 14.0	-1.0
PTEO	Sao Teotonio	154.52	352	ePKPab	PKPab	12 24 31.1	+0.7
ESPR	Espera	154.66	347	PKP	PKPdf	12 24 07.7	+1.0
PBDV	Barranco-do-Ve	154.70	351	ePKPdf	PKPdf	12 24 06.7	+0.1
PBDV	Barranco-do-Ve	154.70	351	ePKPbc	PKPbc	12 24 14.6	-0.8
PBDV	Barranco-do-Ve	154.70	351	ePKPab	PKPab	12 24 32.5	+1.3
MORF	Marmelete	154.74	352	ePKPdf	PKPdf	12 24 06.4	-0.3
MORF	Marmelete	154.74	352	ePKPbc	PKPbc	12 24 15.5	0.0
MORF	Marmelete	154.74	352	ePKPab	PKPab	12 24 32.2	+0.8
PFVI	Vila Bisbo	154.94	352	ePKPdf	PKPdf	12 24 05.8	-1.2
PFVI	Vila Bisbo	154.94	352	ePKPbc	PKPbc	12 24 16.4	+0.5
PFVI	Vila Bisbo	154.94	352	ePKPab	PKPab	12 24 33.0	+0.8
MDT	Midelt	158.15	341	PKP	PKPdf	12 24 11.5	+0.2
	comp=Z,8.6nm,1.1s,baz=96,slow=1.3,SNR=12						
TORD	Torodi Ar. Bea	165.72	275	PKP	PKPdf	12 24 18.4	-1.0
	comp=Z,22nm,1.1s,baz=9.8,slow=0.8,SNR=69						
TORD				pPKP	pPKPdf	12 25 20.1	-4.1
	comp=Z,26nm,1.0s,baz=69,slow=3.6,SNR=21						
KIC	Kosan Boka	170.05	235	ePKIKP	PKPdf	12 24 20.9	-1.5
	comp=Z,122nm,1.3s						
LIC	Lamto	170.19	233	ePKIKP	PKPdf	12 24 20.7	-1.8
	comp=Z,97nm,1.4s						
LIC	Lamto	170.19	233	ePKIKP	PKPdf	12 24 20.9	-1.6
	comp=Z,86nm,1.4s						
DBIC	Dimbokro	170.32	236	PKP	PKPdf	12 24 21.1	-1.4
	comp=Z,17nm,1.2s,baz=282,slow=2.4,SNR=6.2						
TIC	Toumodi	170.44	235	ePKIKP	PKPdf	12 24 21.3	-1.4
	comp=Z,9.5nm,0.2s						

DJA 21 12:11:37, 2°.13S×125°.89E, h170km, MLv4.2/5, 1C, Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	Namlea	1.64	132	P	Pn	12 12 15.0	+5.5
NLAI				S	Sn	12 12 34.5	0.0
LBMI	Labuha	2.19	47	P	Pn	12 12 21.6	+6.1
LBMI				S	Sn	12 12 45.4	+0.1
AAI	Ambon	2.77	124	⇑eP	Pn	12 12 20.9	-1.5
AAI				eS	Sn	12 12 56.1	-1.6
AAI	Ambon	2.77	124	P	Pn	12 12 21.2	-1.2

IDC 21 12:41:23.6±28.0**, 23°.27S×179°.13W, h535**km±312km**, mb3.0**/5**, mb1 3.1**/5**, mb1mx2.9**/18**, mbtmp3.0**/5**, Error ellipse: s-maj=187.6km s-min=65.9km az=50.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	32.28	269	P	P	12 47 09.4	+1.0
	2.0nm,0.4s,baz=95,slow=9.2,SNR=5.4						
STKA	Stephens Creek	35.70	247	P	P	12 47 35.5	-1.6
	0.6nm,0.4s,baz=110,slow=12,SNR=3.3						
ASAR	Alice Springs	42.93	260	P	P	12 48 35.2	-0.2
	0.4nm,0.5s,baz=96,slow=6.9,SNR=12						
WRA	Warramunga Arr	43.25	265	P	P	12 48 38.0	0.0
	1.0nm,0.3s,baz=98,slow=8.3,SNR=43						
QSPA	South Pole Qui	66.81	180	P	P	12 51 22.0	+0.5
	1.8nm,1.0s,baz=34,slow=15,SNR=3.1						

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*HLW **21** 12:47:21.7, 29°.77N×37°.20E, h15km, Mb3.2*

*CSEM **21** 12:47:29.3±0.5, 29°.83N×36°.28E, h2km, ML3.2, Error ellipse: s-maj=8.9km s-min=6.3km az=115.0, Mining explosion.*

*GII **21** 12:47:29.9±0.0, 29°.90N×36°.14E, h1km, Md2.2/5, Mining explosion.*

ISC 21 12:47:28.8±1.0**, 29°.83N**±0°.05×**36°.32E**±0°.06**, h0**km**, n31, σ0ˢ.71**/48**, 3D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	Aqaba	1.11	265	Pg	Pg	12 47 49.6	-0.4
EIL	Elat	1.20	263	Pg	Pg	12 47 51.5	-0.3
EIL				Sg	Sg	12 48 08.6	+1.3
EIL	Elat	1.20	263	Pg	Pg	12 47 51.5	-0.3
EIL				Sg	Sg	12 48 08.6	+1.3
MBRI	Mt Berech	1.22	269	Pg	Pg	12 47 51.9	-0.3
MBRI				Sg	Sg	12 48 08.9	+0.9
MBRI	Mt Berech	1.22	269	Pg	Pg	12 47 51.9	-0.3
MBRI				Sg	Sg	12 48 08.9	+0.9
ZFRI	Zfri	1.22	306	Pg	Pg	12 47 51.1	-1.1
ZFRI				Sg	Sg	12 48 07.7	-0.3
ZFRI	Zfri	1.22	306	Pg	Pg	12 47 51.1	-1.1
ZFRI				Sg	Sg	12 48 07.7	-0.3
PRNI	Paran	1.25	295	Pg	Pg	12 47 51.8	-0.9
PRNI				Sg	Sg	12 48 08.9	-0.1
PRNI	Paran	1.25	295	Pg	Pg	12 47 51.8	-0.9
PRNI				Sg	Sg	12 48 08.9	-0.1
KRMI	Paran Flat	1.41	282	Pg	Pg	12 47 54.7	-1.1
KRMI				Sg	Sg	12 48 13.6	-0.5
KRMI	Paran Flat	1.41	282	Pg	Pg	12 47 54.7	-1.1
KRMI				Sg	Sg	12 48 13.6	-0.5
HBST	Basata	1.51	246	⇓P	Pn	12 47 57.2	+0.1
HBST	Basata	1.51	246	P	Pn	12 47 57.2	+0.1
RMNI	Mount Ramon	1.55	300	Pn	Pn	12 47 57.1	-0.5
RMNI	Mount Ramon	1.55	300	Pn	Pn	12 47 57.1	-0.5
MZDA	Masada	1.69	331	Pn	Pn	12 47 59.7	+0.2
MZDA				Sn	Sn	12 48 22.0	+0.2
MZDA	Masada	1.69	331	Pn	Pn	12 47 59.7	+0.2
MZDA				Sn	Sn	12 48 22.0	+0.2
YTIR	Yattir	1.84	326	Pn	Pn	12 48 01.9	+0.2
YTIR	Yattir	1.84	326	Pn	Pn	12 48 01.9	+0.2
RTMI	Retamim	1.86	311	Pn	Pn	12 48 02.4	+0.5
RTMI	Retamim	1.86	311	Pn	Pn	12 48 02.4	+0.5
DSI	Dead Sea	1.91	335	Pn	Pn	12 48 03.3	+0.7
DSI				Sn	Sn	12 48 27.8	+0.5
DSI	Dead Sea	1.91	335	Pn	Pn	12 48 03.3	+0.7
DSI				Sn	Sn	12 48 27.8	+0.5
KZIT	Kziot	1.98	303	Pn	Pn	12 48 03.4	-0.1
KZIT				Sn	Sn	12 48 28.7	-0.2
KZIT	Kziot	1.98	303	Pn	Pn	12 48 03.4	-0.1
KZIT				Sn	Sn	12 48 28.7	-0.2
HNKL	Nakhl	2.03	273	⇓P	Pn	12 48 05.5	+1.3
HNKL				S	Sn	12 48 37.4	+7.0
HNKL	Nakhl	2.03	273	P	Pn	12 48 05.5	+1.3
TR1		2.76	229	P	Pn	12 48 12.9	-1.3
TR1		2.76	229	P	Pn	12 48 12.9	-1.3
SUZ		3.03	271	⇓P	Pn	12 48 19.1	+1.1
SUZ		3.03	271	P	Pn	12 48 19.0	+1.1

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*ISCJB **21** 13:05:10.5±0.4, 44°.29N±0°.04×141°.34E±0°.08, h242km±3km, mb3.0/7, Error ellipse: s-maj=9.5km s-min=6.1km az=6.5*

*NEIC **21** 13:05:10.2, 44°.34N×141°.27E, h247km, mb3.7/1, After JMA.*

*JMA **21** 13:05:10.1±0.2, 44°.34N×141°.27E, h247km±2km, M3.3*

*IDC **21** 13:05:11.5±0.6, 44°.30N×141°.27E, h234km±5km, mb2.8/7, mb1 3.1/8, mb1mx3.0/22, mbtmp2.8/8, Error ellipse: s-maj=18.9km s-min=16.0km az=133.0*

ISC 21 13:05:11.4±0.4**, 44°.28N**±0°.04×**141°.34E**±0°.08**, h237**km±3km**, n33, σ0ˢ.90**/49**, mb3.0**/7**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYG	Yagishiri	0.16	24	P	Pn	13 05 41.8	-0.2
JSS	Shosan	0.39	72	P	Pn	13 05 42.8	+0.4
JSS				eS	S	13 06 07.6	+0.9
JHR	Hokuryu	0.61	152	P	Pn	13 05 43.8	+0.6
JHR				eS	S	13 06 09.8	+1.8
JRR	Rishiri	0.86	359	P	Pn	13 05 44.1	-0.1
ASAJ	Asahikawa	0.92	100	P	Pn	13 05 44.6	0.0
ASAJ				eS	S	13 06 10.7	+0.2
ASAJ	Asahikawa	0.92	100	P	Pn	13 05 44.6	+0.1
	6.2nm,0.3s,baz=268,slow=9.7,SNR=101						
ASAJ				S	S	13 06 10.9	+0.4
	2.8nm,0.3s,baz=276,slow=25,SNR=9.3						
JAB	Ashibetsu	1.01	140	P	Pn	13 05 45.7	+0.6
JAB				eS	S	13 06 13.4	+2.0
JKK2	Kamakawa 2	1.10	111	P	Pn	13 05 46.0	+0.4
JKK2				eS	S	13 06 13.3	+1.0
JWK2	Keihoku	1.11	21	P	Pn	13 05 45.3	-0.3
JWK2				eS	S	13 06 11.9	-0.6
JSE	Soyaes	1.12	52	P	Pn	13 05 45.2	-0.5
JSE				eS	S	13 06 11.9	-0.7
JSK	Shakotan	1.12	214	P	Pn	13 05 45.8	0.0
JSK				eS	S	13 06 12.3	-0.4
JFR	Furan	1.44	140	P	Pn	13 05 48.1	+0.1
JEW	Eniwo	1.44	177	P	Pn	13 05 48.7	+0.6
JEW				eS	S	13 06 18.2	+1.4
JTKR	Abashiri--Toko	1.88	99	P	Pn	13 05 52.6	+1.0
JAR	Ashorobuto	2.02	118	P	Pn	13 05 54.0	+1.1
JCH	Churui	2.23	138	P	Pn	13 05 54.1	-0.9
JCH				eS	S	13 06 27.1	-2.1
JNBK	Urakawa-nobuka	2.25	152	P	Pn	13 05 55.5	+0.3
JNBK				eS	S	13 06 30.6	+0.9
JKB	Kayabe	2.40	185	P	Pn	13 05 56.3	-0.5
JOSM	Okushiri--Mats	2.59	212	P	Pn	13 05 58.1	-0.5
ERM	Erimo	2.63	149	ePn	Pn	13 05 58.2	-0.9
ERM				eS	S	13 06 35.2	-1.4
JAK	Akkeshi	2.76	117	P	Pn	13 06 00.2	-0.2
JAK				eS	S	13 06 37.9	-1.1
YSS	Yuzh-Sakhalins	2.85	20	ePn	Pn	13 06 00.3	-1.1
YSS				eS	S	13 06 39.0	-1.9
JOT	Ohata	2.91	184	P	Pn	13 06 01.5	-0.6
JOT				eS	S	13 06 40.9	-1.1
MAJO	Matsushiro	8.09	198	ePn	Pn	13 07 04.4	-1.4
	4.3nm,0.6s						
MJAR	Matsushiro Arr	8.09	198	P	Pn	13 07 05.1	-0.8
	0.9nm,0.3s,baz=9.9,slow=5.8,SNR=8.7						
MJAR	Matsushiro Arr	8.09	198	P	Pn	13 07 05.1	-0.8
SONM	Songino Array	24.38	291	P	P	13 10 08.0	+0.2
	0.3nm,0.6s,mb3.1,baz=79,slow=7.6,SNR=2.9						
MKAR	Makanchi Array	40.59	295	P	P	13 12 27.8	0.0
	0.3nm,0.8s,mb2.8,baz=90,slow=7.4,SNR=3.8						
YKA	Yellowknife Ar	57.64	32	P	P	13 14 36.3	-0.1
	0.1nm,0.4s,mb2.8,baz=304,slow=6.7,SNR=4.4						
WRA	Warramunga Arr	64.23	187	P	P	13 15 21.1	+0.1
	0.3nm,0.4s,mb3.2,baz=5.5,slow=6.8,SNR=7.0						
ASAR	Alice Springs	67.96	187	P	P	13 15 45.9	+1.2
	0.4nm,0.7s,mb3.1,baz=5.6,slow=7.2,SNR=7.2						
NVAR	Mina Array Bea	70.78	55	P	P	13 16 03.1	+1.2
	0.2nm,0.6s,mb2.9,baz=319,slow=9.5,SNR=3.1						
PDAR	Pinedale Array	72.69	47	P	P	13 16 14.2	+1.0
	0.4nm,0.6s,mb3.2,baz=340,slow=1.1,SNR=4.9						

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*NEIC **21** 13:07:41.8, 36°.21N×21°.54E, h5km, MD3.7(ATH), After ATH.*

*ATH **21** 13:07:41.8, 36°.21N×21°.54E, h5km, MD3.7/7*

*ISCJB **21** 13:07:45.9±0.8, 36°.27N±0°.04×21°.71E±0°.06, h10km, Error ellipse: s-maj=8.1km s-min=3.9km az=146.5*

*CSEM **21** 13:07:45.9±0.4, 36°.31N×21°.78E, h2km, ML3.7/1, Error ellipse: s-maj=10.2km s-min=4.6km az=50.0*

*THE **21** 13:07:46.2, 36°.30N×21°.79E, h0km±2km, ML3.7/1, Error ellipse: s-maj=4.6km s-min=1.2km az=237.0*

ISC 21 13:07:46.6±0.8**, 36°.27N**±0°.04×**21°.70E**±0°.06**, h10**km**, n45, σ1ˢ.11**/67**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.63	3	P	Pg	13 07 55.7	-3.1
PYL				S	Sg	13 08 05.6	-1.4
PYL	PYLOS	0.63	3	P	Pg	13 07 55.7	-3.1
PYL				S	Sg	13 08 05.6	-1.4
ITM	Ithomi	0.93	11	ePN	Pg	13 08 01.5	-3.0
ITM				eSB	Sg	13 08 14.8	-1.8
ITM	Ithomi	0.93	11	ePn	Pg	13 08 01.5	-3.0
ITM				eSb	Sg	13 08 14.8	-1.8
KYTH	Kithira	1.08	89	ePG	Pg	13 08 04.5	-2.8
KYTH	Kithira	1.08	89	ePg	Pg	13 08 04.5	-2.8
VLI	Veliai	1.09	65	ePG	Pg	13 08 05.3	-2.3
VLI				eSB	Sg	13 08 23.5	+1.7
VLI	Veliai	1.09	65	ePg	Pg	13 08 05.3	-2.3
VLI				eSb	Sg	13 08 23.5	+1.7
RLS	Riolos of Patr	1.80	354	ePN	Pn	13 08 17.4	-0.2
RLS	Riolos of Patr	1.80	354	ePn	Pn	13 08 17.4	-0.2
LAKA	Lakka	1.98	6	P	Pn	13 08 20.6	+0.4
LAKA				S	Sn	13 08 45.0	-0.1
LAKA	Lakka	1.98	6	P	Pn	13 08 20.6	+0.4
LAKA				S	Sn	13 08 45.0	-0.1
KARN	Karanos	2.00	115	P	Pn	13 08 19.9	-0.5
KARN				S	Sn	13 08 45.7	+0.3
KARN	Karanos	2.00	115	ePN	Pn	13 08 20.0	-0.4
KARN	Karanos	2.00	115	ePn	Pn	13 08 20.0	-0.4
KARN				S	Sn	13 08 45.7	+0.3
LTK	Loutraki	2.02	30	P	Pn	13 08 20.0	-0.8
LTK				S	Sn	13 08 46.9	+0.8
LTK	Loutraki	2.02	30	P	Pn	13 08 20.0	-0.8
LTK				S	Sn	13 08 46.9	+0.8
NAIG	Nisos Aigina	2.07	43	ePG	Pn	13 08 22.2	+0.9
NAIG	Nisos Aigina	2.07	43	ePg	Pn	13 08 22.2	+0.9
VLS	Valsamata	2.10	335	P	Pn	13 08 21.6	-0.2
VLS				S	Sn	13 08 50.0	+1.9
VLS	Valsamata	2.10	335	ePN	Pn	13 08 20.5	-1.3
VLS	Valsamata	2.10	335	ePn	Pn	13 08 20.5	-1.3
VLS	Valsamata	2.10	335	P	Pn	13 08 21.6	-0.2
VLS				S	Sn	13 08 50.0	+1.9

TRIZ	**Trizonia**	**2.12**	**8**	P	**Pn**	**13 08 22.0**	**0.0**
TRIZ				S	**Sn**	**13 08 49.7**	**+1.3**
TRIZ	**Trizonia**	**2.12**	**8**	P	**Pn**	**13 08 22.0**	**0.0**
TRIZ				S	**Sn**	**13 08 49.7**	**+1.3**
KALE	**Kalithea**	**2.15**	**9**	P	**Pn**	**13 08 22.9**	**+0.4**
KALE				S	**Sn**	**13 08 50.5**	**+1.3**
KALE	**Kalithea**	**2.15**	**9**	P	**Pn**	**13 08 22.9**	**+0.4**
KALE				S	**Sn**	**13 08 50.5**	**+1.3**
VAM	**Vamos**	**2.20**	**112**	*e*PN	**Pn**	**13 08 24.0**	**+0.8**
VAM	**Vamos**	**2.20**	**112**	*e*Pn	**Pn**	**13 08 24.0**	**+0.8**
VLY	**Voula,Athens**	**2.31**	**46**	*e*PN	**Pn**	**13 08 25.0**	**+0.4**
VLY	**Voula,Athens**	**2.31**	**46**	*e*Pn	**Pn**	**13 08 25.0**	**+0.4**
LKR	**Lokris**	**2.59**	**23**	P	**Pn**	**13 08 28.8**	**+0.2**
LKR	**Lokris**	**2.59**	**23**	P	**Pn**	**13 08 28.8**	**+0.2**
EVR	**Evrytania**	**2.65**	**2**	*e*PN	**Pn**	**13 08 29.2**	**-0.1**
EVR	**Evrytania**	**2.65**	**2**	*e*Pn	**Pn**	**13 08 29.2**	**-0.1**
AGG	**Agios Georgios**	**2.80**	**10**	P	**Pn**	**13 08 31.2**	**-0.2**
AGG				S	**Sn**	**13 09 05.9**	**+0.8**
AGG	**Agios Georgios**	**2.80**	**10**	P	**Pn**	**13 08 31.2**	**-0.2**
AGG				S	**Sn**	**13 09 05.9**	**+0.8**
LAST	**Lasithi**	**3.27**	**109**	P	**Pn**	**13 08 37.3**	**-0.5**
LAST				S	**Sn**	**13 09 17.4**	**+0.7**
LAST	**Lasithi**	**3.27**	**109**	P	**Pn**	**13 08 37.3**	**-0.5**
LAST				S	**Sn**	**13 09 17.4**	**+0.7**
XOR	**Xorichti**	**3.31**	**20**	P	**Pn**	**13 08 38.6**	**+0.1**
XOR	**Xorichti**	**3.31**	**20**	P	**Pn**	**13 08 38.6**	**+0.1**
MEV	**Metsovon**	**3.53**	**354**	P	**Pn**	**13 08 42.3**	**+0.8**
MEV	**Metsovon**	**3.53**	**354**	P	**Pn**	**13 08 42.3**	**+0.8**
CHOS	**Chios island**	**4.07**	**57**	P	**Pn**	**13 08 48.1**	**-0.7**
CHOS	**Chios island**	**4.07**	**57**	P	**Pn**	**13 08 48.1**	**-0.7**

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*CSEM **21** 13:10:53.8, 36°.28N×21°.78E, h10^{km}, MD3.5, After ATH*

*NEIC **21** 13:10:53.8, 36°.28N×21°.78E, h10^{km}, MD3.5(ATH), After ATH.*

ATH 21 13:10:53.8, 36°.28N×21°.78E, h10^{km}±10^{km}**, MD3.5**/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.91**	**7**	*e*PB	Pb	13 11 10.2	-1.4
ITM				*e*SB	Sb	13 11 24.2	+0.5
ITM	**Ithomi**	**0.91**	**7**	*e*Pb	Pb	13 11 10.2	-1.4
ITM				*e*Sb	Sb	13 11 24.2	+0.5
KYTH	**Kithira**	**1.01**	**90**	*e*PN	Pn	13 11 13.3	-0.8
KYTH	**Kithira**	**1.01**	**90**	*e*Pn	Pn	13 11 13.3	-0.8
VLI	**Veliai**	**1.03**	**65**	*e*PN	Pn	13 11 13.7	-0.6
VLI				*e*SB	Sb	13 11 27.4	+0.1
VLI	**Veliai**	**1.03**	**65**	*e*Pn	Pn	13 11 13.7	-0.6
VLI				*e*Sb	Sb	13 11 27.4	+0.1
RLS	**Riolos of Patr**	**1.79**	**352**	*e*PN	Pn	13 11 27.0	+2.2
RLS	**Riolos of Patr**	**1.79**	**352**	*e*Pn	Pn	13 11 27.0	+2.2

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*ISCJB **21** 13:45:58.3±3.3, 2°.7N±0°.2×95°.9E±0°.2, h47^{km}±20^{km}, mb3.8/5, Error ellipse: s-maj=46.1km s-min=11.9km az=138.7*

*NEIC **21** 13:45:58.7±1.2, 2°.67N×95°.85E, h35^{km}, Error ellipse: s-maj=23.1km s-min=11.4km az=216.0*

*IDC **21** 13:46:02.1±7.0, 2°.76N×96°.10E, h60^{km}±52^{km}, mb3.5/5, mb1 3.6/7, mb1mx3.3/23, mbtmp3.5/7, ML3.0/1, Error ellipse: s-maj=81.4km s-min=23.5km az=58.0*

ISC 21 13:45:59.2±3.5**, 2°.7N**±0°.2×**95°.9E**±0°.2**, h39^{km}**±22^{km}**, n12,** σ**0^{s}.53**/13**, mb3.8**/5**, 2D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	**Banda Aceh**	**2.84**	**348**	⇓*e*P	**Pn**	**13 46 41.5**	**-0.5**
BSI				*e*S	**Sn**	**13 47 15.0**	**0.0**
PSI	**Prapat**	**3.05**	**88**	⇓*e*P	**Pn**	**13 46 45.3**	**+0.4**
PSI	**Prapat**	**3.05**	**88**	P	**Pn**	**13 46 45.4**	**+0.5**
	2.4nm,0.3s,baz=295,slow=8.4,SNR=6.3						
IPM	**Ipoh**	**5.44**	**71**	*e*Pn	**Pn**	**13 47 18.1**	**+0.3**
	29nm,0.9s						
CMAR	**Chiang Mai Arr**	**15.95**	**11**	P	**Pn**	**13 49 40.4**	**-0.5**
	baz=198,slow=11,SNR=9.1						
GTA	**Gaotai**	**36.72**	**5**	*e*P	**P**	**13 53 02.8**	**+0.2**
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WRA	**Warramunga Arr**	**43.95**	**123**	P	**P**	**13 54 02.2**	**-0.6**
	comp=Z,0.6nm,0.9s,mb3.3,baz=302,slow=9.6,SNR=3.8						
KSRS	**Korea Array**	**45.40**	**36**	P	**P**	**13 54 13.0**	**-1.1**
	comp=Z,1.0nm,0.7s,mb3.8,baz=228,slow=11,SNR=4.3						
MK31	**Makanchi Array**	**45.48**	**347**	*e*P	**P**	**13 54 14.6**	**+0.1**
MKAR	**Makanchi Array**	**45.48**	**347**	P	**P**	**13 54 15.2**	**+0.6**
	comp=Z,0.6nm,0.4s,mb3.8,baz=161,slow=8.8,SNR=39						
SONM	**Songino Array**	**45.87**	**10**	P	**P**	**13 54 18.0**	**+0.4**
	comp=Z,1.2nm,0.7s,mb3.9,baz=190,slow=9.5,SNR=11						
ZALV	**Zalesovo Beam**	**51.88**	**352**	P	**P**	**13 55 04.3**	**+0.7**
	comp=Z,1.3nm,0.6s,mb4.1,baz=185,slow=7.0,SNR=9.1						

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*IDC **21** 13:56:10.2±2.5, 14°.92S×168°.20E, h0^{km}, mb3.9/8, mb1 4.1/8, mb1mx3.9/18, mbtmp3.9/8, Error ellipse: s-maj=80.1km s-min=27.7km az=132.0*

*ISCJB **21** 13:56:11.6±0.9, 15°.2S±0°.2×168°.4E±0°.2, h33^{km}, mb4.1/11, Error ellipse: s-maj=30.0km s-min=18.0km az=143.7*

*NEIC **21** 13:56:13.6±1.0, 15°.09S×168°.46E, h35^{km}, mb4.8/3, Error ellipse: s-maj=33.2km s-min=18.2km az=144.0*

ISC 21 13:56:13.6±0.9**, 15°.1S**±0°.2×**168°.4E**±0°.2**, h35^{km}, n13,** σ**1^{s}.20**/13**, mb4.1**/11**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**21.72**	**254**	P	**P**	**14 01 01.6**	**-0.4**
	2.4nm,0.8s,mb3.7,baz=74,slow=9.2,SNR=4.2						
CTAO	**Charters Tower**	**21.72**	**254**	P	**P**	**14 01 03.2**	**+1.2**
	0.9nm,0.4s,mb3.5						
STKA	**Stephens Creek**	**29.64**	**231**	P	**P**	**14 02 18.4**	**+2.5**
	3.7nm,0.9s,mb4.1,baz=60,slow=9.1,SNR=8.2						
WRAB	**Tennant Creek**	**32.83**	**257**	*e*P	**P**	**14 02 43.0**	**-1.2**
	21nm,1.5s,mb4.8						
WRA	**Warramunga Arr**	**32.84**	**257**	P	**P**	**14 02 42.5**	**-1.8**
	0.9nm,0.8s,mb3.8,baz=84,slow=7.7,SNR=5.1						
ASAR	**Alice Springs**	**33.61**	**250**	P	**P**	**14 02 50.5**	**-0.5**
	1.5nm,0.5s,mb4.2,baz=78,slow=9.0,SNR=31						
VNDA	**Vanda**	**62.53**	**182**	*e*P	**P**	**14 06 33.5**	**+0.2**
	10nm,1.6s,mb4.7						
CMAR	**Chiang Mai Arr**	**76.13**	**294**	P	**P**	**14 07 58.8**	**+0.4**
	0.4nm,0.6s,mb3.5,baz=132,slow=6.2,SNR=3.8						
SONM	**Songino Array**	**83.46**	**323**	P	**P**	**14 08 40.3**	**+2.7**
	0.2nm,0.5s,mb3.5,baz=119,slow=8.4,SNR=2.6						
MVU	**Marysvale**	**91.16**	**50**	*e*P	**P**	**14 09 13.7**	**-1.4**
	8.4nm,1.0s,mb5.0						
YKA	**Yellowknife Ar**	**97.35**	**27**	P	**P**	**14 09 43.1**	**+0.2**
	0.2nm,0.7s,mb3.7,baz=263,slow=10.0,SNR=3.7						
MK31	**Makanchi Array**	**98.25**	**316**	*e*P	**P**	**14 09 47.1**	**-0.2**
MKAR	**Makanchi Array**	**98.25**	**316**	P	**P**	**14 09 47.6**	**+0.3**
	0.6nm,0.7s,mb4.2,baz=90,slow=7.3,SNR=6.2						

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*ISCJB **21** 14:06:03.0±2.7, 55°.93S±0°.07×27°.6W±0°.1, h81^{km}±25^{km}, mb4.9/28, Error ellipse: s-maj=12.7km s-min=10.4km az=38.5*

*IDC **21** 14:06:03.4±0.8, 55°.97S×27°.69W, h70^{km}±7^{km}, mb4.6/17, mb1 4.7/17, mb1mx4.6/22, mbtmp4.6/17, MS4.2/5, Ms1 4.2/5, ms1mx4.0/18, Error ellipse: s-maj=16.1km s-min=12.3km az=51.0*

*NEIC **21** 14:06:09.1±3.8, 55°.93S×27°.60W, h126^{km}±34^{km}, mb4.9/11, Error ellipse: s-maj=13.5km s-min=11.6km az=216.0*

ISC 21 14:06:05.5±2.4**, 55°.99S**±0°.07×**27°.6W**±0°.1**, h89^{km}**±23^{km}**, h69^{km}**±1.7^{km}**:pP-P, n58,** σ**0^{s}.86**/44**, mb4.9**/28**, 1D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**16.95**	**158**	*e*P	**Pn**	**14 09 57.0**	**+0.4**
VNA3	**Neumayer Olymp**	**17.13**	**160**	*e*P	**Pn**	**14 09 58.0**	**-0.8**
VNA2	**Neumayer--Watz**	**17.34**	**158**	*e*P	**Pn**	**14 10 02.0**	**+0.6**
	baz=316,slow=13						
VNA2				*e*		14 10 12.2	
PMSA	**Palmer Station**	**19.75**	**229**	P	**Pn**	**14 10 31.2**	**+1.1**
	2.1nm,0.3s,baz=195,slow=17,SNR=4.0						
MAIT	**Maitri**	**22.43**	**147**	*e*P	**P**	**14 10 52.5**	**-3.9**
USHA	**Ushuaia**	**22.95**	**256**	P	**P**	**14 11 01.0**	**-1.0**
	17nm,1.0s,mb4.3,baz=10,slow=4.6,SNR=4.8						
USHA				LR	LR	14 17 54.3	
	comp=Z,619nm,18.0s,baz=36,slow=31						
USHA	**Ushuaia**	**22.95**	**256**	P	**P**	**14 11 01.0**	**-1.0**
USHA				LR	LR	14 17 54.3	
PLCA	**Paso Flores**	**31.74**	**280**	P	**P**	**14 12 19.1**	**-1.6**
	2.0nm,0.7s,mb3.9,baz=111,slow=9.2,SNR=6.1						
PLCA				LR	LR	14 23 55.3	
	comp=Z,262nm,18.1s,baz=116,slow=34						
SYO	**Syowa Base**	**31.79**	**141**	⇓*i*P	**P**	**14 12 19.4**	**-1.5**
QSPA	**South Pole Qui**	**34.26**	**180**	P	**P**	**14 12 42.3**	**0.0**
	32nm,0.6s,mb5.3,baz=202,slow=4.1,SNR=258						
QSPA				ScP	ScP	14 18 52.5	-0.6
	2.6nm,0.7s,baz=148,slow=2.2,SNR=5.7						
CPUP	**Villa Florida**	**36.58**	**312**	P	**P**	**14 13 02.0**	**-0.7**
	37nm,0.9s,mb5.3,baz=135,slow=7.6,SNR=63						
CPUP				pP	pP	14 13 18.6	-4.7
	7.0nm,0.6s,baz=135,slow=8.2,SNR=6.1						
CPUP				ScP	ScP	14 19 01.5	-0.9
	4.3nm,0.8s,baz=117,slow=3.2,SNR=7.8						
CPUP				LR	LR	14 26 54.5	
	comp=Z,308nm,20.8s,baz=314,slow=34						
MAW	**Mawson**	**40.35**	**144**	*e*P	**P**	**14 13 34.4**	**+0.6**
	31nm,0.6s,mb5.3						
MAW	**Mawson**	**40.35**	**144**	P	**P**	**14 13 34.4**	**+0.7**
	36nm,0.6s,mb5.4,baz=238,slow=7.9,SNR=26						
MAW				LR	LR	14 28 08.4	
	comp=Z,227nm,18.8s,baz=263,slow=33						
MAW	**Mawson**	**40.35**	**144**	*e*P	**P**	**14 13 33.8**	**0.0**
	7.8nm,0.6s,mb4.7						
MAW				LR	LR	14 28 08.4	
LCO	**Las Campanas**	**40.65**	**293**	*e*P	**P**	**14 13 35.9**	**-0.9**
	30nm,1.0s,mb5.1						
LCO				*e*		14 13 51.6	
SUR	**Sutherland**	**40.87**	**75**	*e*P	**P**	**14 13 38.7**	**+0.2**
	27nm,1.2s,mb5.0						
LVC	**Limon Verde**	**45.05**	**301**	*e*P	**P**	**14 14 12.9**	**+0.6**
	33nm,0.6s,mb5.2						
LVC				*e*	pP	14 14 29.5	-4.0
SBA	**Scott Base**	**46.12**	**184**	*e*P	**P**	**14 14 20.9**	**+0.8**
	92nm,1.8s,mb5.2						
BOSA	**Boshof**	**46.20**	**76**	P	**P**	**14 14 20.2**	**-1.1**
	8.1nm,1.0s,mb4.4,baz=208,slow=8.2,SNR=6.0						
BOSA				pP	pP	14 14 37.8	-4.8
	3.6nm,0.6s,baz=218,slow=6.3,SNR=3.5						
BOSA	**Boshof**	**46.20**	**76**	*e*P	**P**	**14 14 20.0**	**-1.3**
	126nm,2.3s,mb5.2						
BOSA				pP	pP	14 14 37.8	-4.8
VNDA	**Vanda**	**46.62**	**183**	P	**P**	**14 14 25.4**	**+1.4**
	21nm,0.7s,mb5.0,baz=178,slow=6.9,SNR=75						
ARE	**Arequipa**	**51.55**	**302**	*e*P	**P**	**14 15 03.0**	**+0.7**
LSZ	**Lusaka**	**58.59**	**69**	*e*P	**P**	**14 15 52.3**	**-0.6**
	22nm,1.4s,mb5.0						
LSZ				*e*		14 16 06.8	
ATAH	**Atahualpa**	**63.06**	**300**	P	**P**	**14 16 23.8**	**+0.5**
	15nm,0.8s,mb5.0,baz=179,slow=10.0,SNR=10						
RPN	**Rapa Nui**	**63.42**	**260**	LR	LR	14 37 07.5	
	comp=Z,607nm,19.8s,baz=147,slow=29						
LIC	**Lamto**	**64.75**	**25**	*e*P	**P**	**14 16 34.6**	**+0.3**
	30nm,1.1s,mb5.0						
KIC	**Kosan Boka**	**64.95**	**25**	*e*P	**P**	**14 16 36.6**	**+1.0**
	66nm,1.1s,mb5.4						
TIC	**Toumodi**	**65.16**	**25**	*e*P	**P**	**14 16 37.3**	**+0.4**
	9.0nm,0.2s,mb5.2						
DBIC	**Dimbokro**	**65.22**	**25**	P	**P**	**14 16 38.0**	**+0.7**
	6.7nm,1.1s,mb4.4,baz=171,slow=11,SNR=3.6						
DBIC	**Dimbokro**	**65.22**	**25**	*e*P	**P**	**14 16 37.2**	**-0.1**
	14nm,1.3s,mb4.7						
OTAV	**Otavalo**	**69.41**	**304**	*e*P	**P**	**14 17 04.5**	**+0.6**
	32nm,1.4s,mb5.0						
OTAV				*e*		14 17 21.1	
TOA0	**Torodi Ar. Sit**	**73.13**	**30**	*e*P	**P**	**14 17 26.4**	**+0.3**
TORD	**Torodi Ar. Bea**	**73.13**	**30**	P	**P**	**14 17 26.5**	**+0.4**
	4.3nm,0.6s,mb4.5,baz=199,slow=6.7,SNR=26						
SDV	**Santo Domingo**	**73.79**	**315**	P	**P**	**14 17 29.2**	**-0.8**
	17nm,0.8s,mb4.8,baz=185,slow=4.1,SNR=16						
SDV	**Santo Domingo**	**73.79**	**315**	*e*P	**P**	**14 17 29.0**	**-1.1**
	10nm,0.8s,mb4.6						
SDV				*e*		14 17 46.8	
RPZ	**Rata Peaks**	**79.41**	**194**	P	**P**	**14 18 00.5**	**-1.0**
	12nm,1.0s,mb4.7,baz=183,slow=3.0,SNR=5.5						
TAM	**Tamanrasset**	**83.37**	**31**	*e*P	**P**	**14 18 19.4**	**-3.0**
	5.9nm,1.9s,mb4.1						
MUN	**Mundaring**	**87.11**	**150**	*e*P	**P**	**14 18 41.3**	**+0.1**
MDT	**Midelt**	**90.61**	**19**	P	**P**	**14 18 58.6**	**+1.3**
	1.5nm,0.7s,mb4.2,baz=300,slow=3.3,SNR=4.2						
FORT	**Forrest**	**91.12**	**159**	*e*P	**P**	**14 19 00.5**	**+0.4**
	11nm,0.5s,mb5.2						
TEIG	**Tepich**	**91.46**	**305**	P	**P**	**14 19 02.1**	**+0.5**
	13nm,0.6s,mb5.3,baz=346,slow=5.2,SNR=10						
CMIG	**Matias Romero**	**91.93**	**298**	P	**P**	**14 19 03.6**	**-0.2**
	6.4nm,0.8s,mb4.9,baz=86,slow=1.8,SNR=13						
STKA	**Stephens Creek**	**92.00**	**171**	*e*P	**P**	**14 19 04.1**	**0.0**
	3.6nm,0.7s,mb4.7						
STKA	**Stephens Creek**	**92.00**	**171**	P	**P**	**14 19 03.9**	**-0.3**
	4.7nm,0.7s,mb4.8,baz=116,slow=4.5,SNR=9.7						
ASAR	**Alice Springs**	**99.12**	**163**	P	**P**	**14 19 36.1**	**-0.6**
	3.6nm,0.6s,mb5.0,baz=187,slow=4.2,SNR=57						
WRA	**Warramunga Arr**	**102.84**	**163**	P	Pdif	14 19 52.3	-0.9
	1.0nm,0.5s,baz=197,slow=4.6,SNR=15						
MALT	**Malatya**	**109.35**	**50**	*e*PKPdf	PKiKP	14 24 22.0	-2.5
CMAR	**Chiang Mai Arr**	**125.32**	**111**	PKP	PKPdf	14 24 55.8	+0.1
	1.8nm,0.9s,baz=239,slow=3.4,SNR=10						
CMAR				pPKP	pPKPdf	14 25 16.3	-4.0
	1.4nm,0.8s,baz=239,slow=3.7,SNR=4.5						
ARCES	**ARCESS Array B**	**130.98**	**22**	PKP	PKPdf	14 25 04.8	-0.1
	4.8nm,1.0s,baz=221,slow=2.7,SNR=9.2						
YKA	**Yellowknife Ar**	**135.96**	**318**	PKP	PKPdf	14 25 12.2	-2.2
	10nm,1.1s,baz=14,slow=24,SNR=3.8						
SPITS	**Spitsbergen Ar**	**136.56**	**12**	PKP	PKPdf	14 25 13.1	-2.1
	5.8nm,0.3s,baz=296,slow=37,SNR=14						
MKAR	**Makanchi Array**	**137.11**	**72**	PKhKP		14 25 07.6	
	0.2nm,0.6s,baz=248,slow=2.7,SNR=3.4						
MKAR				PKP	PKPdf	14 25 16.2	-0.8
	0.3nm,0.6s,baz=229,slow=1.3,SNR=3.8						
KURK	**Kurchatov**	**137.61**	**65**	PKhKP		14 25 14.5	
	0.1nm,0.3s,baz=236,slow=2.9,SNR=2.6						
KURK				PKP	PKPdf	14 25 18.1	+0.2
	0.3nm,0.7s,baz=2.5,slow=2.1,SNR=2.7						
ZALV	**Zalesovo Beam**	**142.57**	**64**	PKhKP		14 25 22.1	
	0.7nm,0.4s,baz=213,slow=5.0,SNR=4.9						
INK	**Inuvik**	**145.59**	**321**	PKPbc	PKPbc	14 25 30.8	-1.3
	12nm,0.7s,baz=13,slow=4.1,SNR=17						
KDAK	**Kodiak Island**	**150.56**	**297**	PKPbc	PKPbc	14 25 47.1	+1.6
	32nm,0.6s,baz=109,slow=2.5,SNR=13						
SONM	**Songino Array**	**150.98**	**87**	PKPbc	PKPbc	14 25 46.8	-0.1
	4.8nm,0.5s,baz=219,slow=3.8,SNR=76						
MJAR	**Matsushiro Arr**	**158.31**	**148**	PKPab	PKPab	14 26 26.4	+0.2
	2.3nm,0.8s,baz=176,slow=5.0,SNR=5.5						

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*BJI **21** 14:06:55.6, 24°.10N×109°.10W, h10^{km}, mb4.7/1, Ms4.8/1, Ms7 4.8/2*

*IDC **21** 14:06:56.4±0.8, 24°.33N×109°.24W, h0^{km}, mb4.3/9, mb1 4.4/15, mb1mx4.3/25, mbtmp4.2/15, ML3.7/6, MS4.4/2, Ms1 4.4/2, ms1mx4.2/37, Error ellipse: s-maj=16.7km s-min=9.3km az=157.0*

*NEIC **21** 14:06:57.7±0.6, 24°.09N×109°.14W, h10^{km}, mb4.3/48, Error ellipse: s-maj=9.3km s-min=6.9km az=207.0*

*MOS **21** 14:06:58.2±1.7, 24°.26N×109°.05W, h12^{km}, mb4.5/15, Error ellipse: s-maj=12.0km s-min=5.1km az=91.0*

ISC 21 14:06:56.1±0.6**, 23°.91N**±0°.05×**109°.08W**±0°.04**, h10^{km}, n411,** σ**0^{s}.83**/396**, mb4.4**/34**, 140C-132D, Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	**1.14**	**280**	Pg	**Pg**	**14 07 15.7**	**-2.3**
	1µm,0.3s,baz=76,slow=3.6,SNR=615						
LPIG				Lg		14 07 29.5	
	2µm,0.3s,baz=38,slow=19,SNR=17						
TXAR	**Lajitas Array**	**7.25**	**41**	Pn	**Pn**	**14 08 40.4**	**-1.7**
	1.0nm,0.3s,baz=226,slow=13,SNR=26						
TXAR				Lg		14 10 38.9	
	1.0nm,0.3s,baz=223,slow=28,SNR=3.4						
TXAR	**Lajitas Array**	**7.25**	**41**	Pn	**Pn**	**14 08 40.4**	**-1.7**
TXAR				Lg		14 10 38.9	
318A	**Bisbee**	**7.54**	**354**	⇑P	**Pn**	**14 08 43.3**	**-2.8**
	baz=7.2,SNR=12						
217A	**Green Valley**	**7.98**	**349**	⇓P	**Pn**	**14 08 48.9**	**-3.2**
	baz=7.6						
218A	**Dragoon**	**8.08**	**354**	⇓P	**Pn**	**14 08 51.1**	**-2.3**
	baz=7.7,SNR=7.5						
216A	**Three Points,**	**8.33**	**346**	⇑P	**Pn**	**14 08 54.5**	**-2.4**
	baz=8.0						
TUC	**Tucson**	**8.50**	**350**	*e*P	**Pn**	**14 08 56.4**	**-2.9**
120A	**U Bar Ranch, L**	**8.61**	**3**	⇑P	**Pn**	**14 08 57.7**	**-3.1**
	baz=8.3						
214A	**Organ Pipe Nat**	**8.66**	**338**	⇑P	**Pn**	**14 08 58.9**	**-2.6**
	baz=8.3						
118A	**Homack Ranch,**	**8.73**	**355**	⇓P	**Pn**	**14 08 60.0**	**-2.4**
	baz=8.4						
117A	**Oracle**	**8.75**	**351**	⇓P	**Pn**	**14 09 00.2**	**-2.5**
	baz=8.4,SNR=6.9						
119A	**Ashpeak Ranch,**	**8.82**	**359**	⇑P	**Pn**	**14 09 01.6**	**-2.1**
	baz=8.5,SNR=6.3						
116A	**Eloy**	**8.92**	**346**	⇑P	**Pn**	**14 09 02.5**	**-2.5**
	baz=8.6						
GDL2	**Guadalupe Moun**	**9.24**	**26**	*e*Pn	**Pn**	**14 09 05.6**	**-3.8**
Z17A	**San Carlos Hig**	**9.43**	**353**	⇓P	**Pn**	**14 09 10.5**	**-1.5**
	baz=9.1						
Y17A	**Roosevelt**	**9.87**	**351**	⇑P	**Pn**	**14 09 16.2**	**-1.8**
	baz=9.5,SNR=6.3						
Y19A	**Nutrioso**	**10.01**	**359**	⇓P	**Pn**	**14 09 19.6**	**-0.3**
	baz=9.7,SNR=14						
Y16A	**Circle Bar Ran**	**10.15**	**349**	⇓P	**Pn**	**14 09 20.8**	**-1.0**
	baz=9.8						
LENM	**Lemitar**	**10.38**	**10**	*e*Pn	**Pn**	**14 09 25.4**	**+0.4**
Y15A	**Casa Rosa Ranc**	**10.40**	**345**	⇑P	**Pn**	**14 09 24.5**	**-0.8**
	baz=10						
GLA	**Glamis**	**10.41**	**332**	⇓P	**Pn**	**14 09 25.1**	**-0.3**
	baz=10						
GLA	**Glamis**	**10.41**	**332**	*e*Pn	**Pn**	**14 09 26.5**	**+1.0**
BNM	**Barren Site**	**10.42**	**11**	*e*P	**Pn**	**14 09 26.2**	**+0.6**
	30nm,1.5s						
X17A	**Forest Lakes**	**10.50**	**352**	⇓P	**Pn**	**14 09 26.3**	**-0.3**
	baz=10						
Y14A	**Wickenburg**	**10.56**	**342**	⇓P	**Pn**	**14 09 27.4**	**-0.1**
	baz=10						
X18A	**Snowflake**	**10.61**	**356**	⇓P	**Pn**	**14 09 28.0**	**-0.1**
	baz=10,SNR=7.6						
X16A	**Lo Mia Camp, P**	**10.67**	**349**	⇑P	**Pn**	**14 09 28.4**	**-0.5**
	baz=10,SNR=8.3						
DVTC	**Desert V Tower**	**10.68**	**326**	⇓P	**Pn**	**14 09 29.9**	**+0.7**
	baz=10						
X22A	**Bernardo**	**10.71**	**9**	⇓P	**Pn**	**14 09 29.8**	**+0.2**
	baz=10,SNR=14						
SWSC	**Sam W. Stewart**	**10.76**	**328**	⇑P	**Pn**	**14 09 30.2**	**0.0**
	baz=10						
X15A	**Humboldt**	**10.89**	**346**	⇑P	**Pn**	**14 09 31.5**	**-0.5**
	baz=11						
Y12C	**Blythe**	**10.90**	**335**	⇓P	**Pn**	**14 09 32.2**	**+0.1**
	baz=11						
MONP	**Monument Peak**	**11.03**	**326**	⇑P	**Pn**	**14 09 34.5**	**+0.6**
	baz=11,SNR=5.2						
X14A	**Yava**	**11.03**	**343**	⇓P	**Pn**	**14 09 33.7**	**-0.3**
	baz=11						
W18A	**Petrified Fore**	**11.18**	**357**	⇓P	**Pn**	**14 09 36.0**	**0.0**
	baz=11						
W20A	**Ramah**	**11.19**	**2**	⇑P	**Pn**	**14 09 36.0**	**0.0**
	baz=11,SNR=7.8						
BC3	**Big Chuckw Mtn**	**11.20**	**332**	⇓P	**Pn**	**14 09 36.1**	**-0.2**
	baz=11,SNR=5.5						
ANMO	**Albuquerque**	**11.23**	**11**	Pn	**Pn**	**14 09 35.1**	**-1.5**
	0.1nm,0.3s,baz=190,slow=12,SNR=14						
PDMCI	**Parker Dam,Lak**	**11.25**	**338**	⇑P	**Pn**	**14 09 37.2**	**+0.2**
	baz=11						
W16A	**Flagstaff**	**11.35**	**350**	⇑P	**Pn**	**14 09 38.1**	**-0.1**
	baz=11						
X13A	**Yucca**	**11.42**	**340**	⇓P	**Pn**	**14 09 39.5**	**+0.2**
	baz=11						
IRM	**Iron Mountain**	**11.51**	**334**	⇓P	**Pn**	**14 09 40.5**	**+0.1**
	baz=11,SNR=5.4						
W15A	**Williams**	**11.56**	**347**	⇑P	**Pn**	**14 09 41.0**	**-0.2**
	baz=11,SNR=5.3						
PFO	**Pinyon Flat Ob**	**11.62**	**328**	*e*P	**Pn**	**14 09 43.3**	**+1.3**
BELC	**Belle Mtn.**	**11.73**	**331**	⇓P	**Pn**	**14 09 43.8**	**+0.3**
	baz=11						
WUAZ	**Wupatki**	**11.73**	**351**	⇑P	**Pn**	**14 09 43.8**	**+0.2**
	baz=11						
WUAZ	**Wupatki**	**11.73**	**351**	*e*Pn	**Pn**	**14 09 44.5**	**+1.0**
V18A	**Ganado**	**11.78**	**357**	⇓P	**Pn**	**14 09 44.2**	**0.0**
	baz=11,SNR=6.1						
W14A	**Seligman**	**11.79**	**344**	⇑P	**Pn**	**14 09 44.6**	**+0.4**
	baz=12,SNR=15						
W13A	**Hualapai Mount**	**11.90**	**341**	⇓P	**Pn**	**14 09 46.1**	**+0.2**
	baz=12						
V15A	**Kaibab Nationa**	**12.16**	**348**	⇓P	**Pn**	**14 09 49.7**	**+0.3**
	baz=12,SNR=7.7						
V14A	**Boquillas Ranc**	**12.19**	**344**	⇑P	**Pn**	**14 09 49.9**	**+0.1**
	baz=12,SNR=7.2						
GMRC	**Granite Mounta**	**12.25**	**334**	⇑P	**Pn**	**14 09 51.1**	**+0.5**
	baz=12						
LDFC	**Landfair**	**12.30**	**336**	*e*Pn	**Pn**	**14 09 53.3**	**+2.0**
U16A	**Tuba City**	**12.32**	**352**	⇑P	**Pn**	**14 09 51.6**	**+0.1**
	baz=12,SNR=6.2						
V13A	**Grand Canyon W**	**12.63**	**341**	⇑P	**Pn**	**14 09 55.9**	**+0.1**
	baz=12						
AMTX	**Amarillo**	**12.69**	**29**	*e*Pn	**Pn**	**14 09 57.9**	**+1.3**
V12A	**Nelson**	**12.79**	**338**	⇓P	**Pn**	**14 09 57.9**	**-0.1**
	baz=12						
T19A	**Beclabito**	**12.88**	**0**	⇓P	**Pn**	**14 09 58.7**	**-0.4**
	baz=12						
TUQ	**Turquoise Moun**	**12.93**	**334**	⇑P	**Pn**	**14 09 59.9**	**0.0**
	baz=13						
U14A	**Mt Trumbull**	**12.96**	**345**	⇑P	**Pn**	**14 10 00.6**	**+0.4**
	baz=13,SNR=9.2						
V11A	**Goodsprings**	**13.10**	**337**	⇓P	**Pn**	**14 10 02.6**	**+0.5**
	baz=13						
T17A	**Navajo Res., N**	**13.12**	**354**	⇑P	**Pn**	**14 10 02.9**	**+0.4**
	baz=13						
U13A	**Pakoon Wash**	**13.15**	**342**	⇑P	**Pn**	**14 10 03.6**	**+0.7**
	baz=13						
GSC	**Goldstone**	**13.18**	**331**	⇑P	**Pn**	**14 10 04.1**	**+0.8**
	baz=13						
GSC	**Goldstone**	**13.18**	**331**	*e*Pn	**Pn**	**14 10 05.1**	**+1.8**
T22A	**Edith**	**13.19**	**8**	⇑P	**Pn**	**14 10 03.6**	**+0.2**
	baz=13,SNR=12						
MVCO	**Mesa Verde**	**13.26**	**2**	⇑P	**Pn**	**14 10 04.8**	**+0.3**
	baz=13						
MVCO	**Mesa Verde**	**13.26**	**2**	*e*Pn	**Pn**	**14 10 04.3**	**-0.1**
T15A	**Red Dirt Ranch**	**13.37**	**348**	⇓P	**Pn**	**14 10 06.3**	**+0.4**
	baz=13						
SHOC	**Shoshone**	**13.47**	**334**	⇓P	**Pn**	**14 10 07.8**	**+0.5**
	baz=13						
T14A	**Hurricane**	**13.55**	**346**	⇑P	**Pn**	**14 10 09.0**	**+0.6**
	baz=13,SNR=5.6						
SHPR	**Sheep Range**	**13.60**	**339**	*e*Pn	**Pn**	**14 10 10.3**	**+1.2**
T13A	**Saint George**	**13.71**	**343**	⇑P	**Pn**	**14 10 11.2**	**+0.7**
	baz=13						
LRMC	**Laurel Mountai**	**13.73**	**329**	⇑P	**Pn**	**14 10 11.6**	**+0.7**
	baz=13						
S18A	**Hurst Farm, Bl**	**13.76**	**357**	⇑P	**Pn**	**14 10 11.6**	**+0.5**
	baz=13						
S17A	**Black Ridge (B**	**13.76**	**354**	⇑P	**Pn**	**14 10 11.9**	**+0.7**
	baz=13,SNR=13						
S19A	**Harvey Farm, M**	**13.79**	**360**	⇓P	**Pn**	**14 10 12.3**	**+0.7**
	baz=13						
U10A	**Ash Meadows, A**	**13.95**	**335**	⇓P	**Pn**	**14 10 14.8**	**+1.0**
	baz=14						
S15A	**Panguitch**	**14.01**	**349**	⇓P	**Pn**	**14 10 15.0**	**+0.4**
	baz=14						
WMOK	**Wichita Mounta**	**14.03**	**37**	*e*P	**Pn**	**14 10 13.9**	**-1.0**
MPMC	**Manual Prospec**	**14.12**	**331**	⇓P	**Pn**	**14 10 17.2**	**+1.0**
	baz=14						
SDCO	**Great Sand Dun**	**14.12**	**12**	*e*Pn	**Pn**	**14 10 15.7**	**-0.5**
PV01	**Paradox Valley**	**14.18**	**2**	*e*Pn	**Pn**	**14 10 15.4**	**-1.6**
	235nm,1.0s						
S13A	**Holt Ranch, En**	**14.23**	**344**	⇑P	**Pn**	**14 10 18.0**	**+0.4**
	baz=14,SNR=5.6						
S14A	**Cedar City**	**14.24**	**347**	⇓P	**Pn**	**14 10 18.4**	**+0.6**
	baz=14						
R20A	**Redvale**	**14.24**	**2**	⇓P	**Pn**	**14 10 17.9**	**+0.1**
	baz=14						
ISA	**Isabella**	**14.26**	**327**	⇑P	**Pn**	**14 10 19.2**	**+1.2**
	baz=14						
T11A	**Corn Creek, Al**	**14.29**	**340**	⇑P	**Pn**	**14 10 19.3**	**+0.8**
	baz=14,SNR=15						
ARUT	**Antelope Range**	**14.33**	**346**	*e*P	**Pn**	**14 10 20.2**	**+1.3**
ARUT				pmax	pmax		
	comp=Z,14nm,1.0s						
ARUT	**Antelope Range**	**14.33**	**346**	*e*P	**Pn**	**14 10 20.2**	**+1.3**
	comp=Z,14nm,1.0s						
R19A	**Curley Farm, L**	**14.34**	**359**	⇑P	**Pn**	**14 10 19.2**	**+0.1**
	baz=14						
R22A	**Saguache, Gunn**	**14.41**	**7**	⇑P	**Pn**	**14 10 20.3**	**+0.2**
	baz=14,SNR=5.4						
PV04	**Paradox Valley**	**14.44**	**1**	*e*Pn	**Pn**	**14 10 21.0**	**+0.6**
R18A	**Canyonlands Na**	**14.45**	**357**	⇑P	**Pn**	**14 10 21.1**	**+0.5**
	baz=14,SNR=12						
R16A	**Teasdale**	**14.47**	**352**	⇓P	**Pn**	**14 10 21.2**	**+0.3**
	baz=14						
S12A	**Delamar Landin**	**14.52**	**341**	⇑P	**Pn**	**14 10 22.6**	**+1.0**
	baz=14,SNR=17						
R17A	**Hanksville Air**	**14.53**	**355**	⇑P	**Pn**	**14 10 22.2**	**+0.5**
	baz=14,SNR=29						
MSU	**Marysvale**	**14.79**	**350**	*e*P	**Pn**	**14 10 26.6**	**+1.3**
R13A	**O'Grain Ranch,**	**14.82**	**345**	⇓P	**Pn**	**14 10 26.6**	**+0.9**
	baz=14,SNR=11						
S11A	**Rachel**	**14.83**	**339**	⇑P	**Pn**	**14 10 26.6**	**+0.8**

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      baz=14,SNR=8.8
CMIG  Matias Romero    14.92 114   Pn     Pn      14 10 33.1 +5.9
      comp=Z,0.1nm,0.3s,baz=271,slow=9.2,SNR=3.8
CMIG                               LR     LR      14 16 18.2
      comp=Z,902nm,20.7s,baz=285,slow=37
Q19A  Hogan Spring (   15.00 359 ⇓P     Pn      14 10 28.6 +0.5
      baz=15,SNR=7.1
Q20A  Ridgley Place,   15.01   2 ⇓P     Pn      14 10 28.8 +0.5
      baz=15,SNR=5.0
Q22A  Crested Butte,   15.02   7 ⇑P     Pn      14 10 28.5 +0.1
      baz=15,SNR=8.0
Q16A  Castle Valley    15.06 354 ⇑P     Pn      14 10 29.2 +0.2
      baz=15,SNR=7.6
R12A  Pony Springs,    15.12 343 ⇑P     Pn      14 10 30.5 +0.7
      baz=15,SNR=12
SRU   San Rafael       15.20 356 ⇓P     Pn      14 10 30.8  0.0
      baz=15,SNR=7.1
Q15A  Fillmore         15.30 350 ⇑P     Pn      14 10 33.3 +1.2
      baz=15,SNR=8.8
S10A  Tonopah Range,   15.37 337 ⇓P     Pn      14 10 33.7 +0.6
      baz=15,SNR=16
R11A  Troy Canyon, C   15.42 340 ⇑P     Pn      14 10 34.4 +0.7
      baz=15,SNR=6.4
S09A  Goldfield        15.43 335 ⇑P     Pn      14 10 34.7 +0.8
      baz=15,SNR=14
TMUT  Trail Mountain   15.44 354 eP     Pn      14 10 30.9 -3.1
      comp=Z,13nm,1.1s
Q14A  Sevier Lake (B   15.45 348 ⇓P     Pn      14 10 34.8 +0.8
      baz=15,SNR=8.8
P20A  De Beque         15.55   2 ⇑P     Pn      14 10 35.8 +0.4
      baz=15
Q13A  Wheeler Ranch,   15.57 346 ⇑P     Pn      14 10 36.4 +0.7
      baz=15,SNR=35
P17A  Butcher Ranch,   15.58 355 ⇑P     Pn      14 10 36.2 +0.5
      baz=15
R10A  Warm Springs     15.60 338 ⇑P     Pn      14 10 36.8 +0.8
      baz=15,SNR=15
P19A  Cripple Cowboy   15.67   0 ⇑P     Pn      14 10 37.1 +0.1
      baz=15
P18A  Preston Nutter   15.70 357 ⇓P     Pn      14 10 37.8 +0.5
      baz=15,SNR=12
P16A  Fountain Green   15.80 353 ⇓P     Pn      14 10 39.2 +0.5
      baz=16
R09A  Tonopah          15.83 336 ⇑P     Pn      14 10 39.5 +0.5
      baz=16,SNR=7.3
Q12A  Willow Creek R   15.85 343 ⇓P     Pn      14 10 40.1 +0.8
      baz=16,SNR=23
Q11A  Duckwater        15.90 341 ⇓P     Pn      14 10 40.6 +0.6
      baz=16,SNR=7.7
P14A  Drum Mountains   15.99 349 ⇓P     Pn      14 10 41.3 +0.2
      baz=16,SNR=50
ISCO  Idaho Springs    16.11  10 eP     Pn      14 10 43.8 +1.2
ISCO                              pmax   pmax
      comp=Z,42nm,1.4s
ISCO  Idaho Springs    16.11  10 ePn    Pn      14 10 43.8 +1.2
      comp=Z,42nm,1.4s
Q10A  Clear Creek Ra   16.12 339 ⇓P     Pn      14 10 43.3 +0.6
      baz=16,SNR=13
O20A  White River Ci   16.19   2 ⇓P     Pn      14 10 43.7  0.0
      baz=16,SNR=6.4
NLU   North Lily Min   16.19 352 ePn    Pn      14 10 43.8 +0.1
      comp=Z,24nm,1.2s
MPU   Maple Canyon     16.20 353 ePn    Pn      14 10 44.9 +1.1
      comp=Z,32nm,1.1s
P12A  McGill           16.28 344 ⇓P     Pn      14 10 45.0 +0.2
      baz=16,SNR=7.2
O17A  Robinson Place   16.30 355 ⇓P     Pn      14 10 44.8 -0.2
      baz=16
O21A  Pagoda           16.31   4 ⇑P     Pn      14 10 45.5 +0.3
      baz=16
O18A  Roosevelt        16.32 357 ⇑P     Pn      14 10 45.7 +0.3
      baz=16,SNR=5.6
O19A  Miners Draw (B   16.34 360 ⇑P     Pn      14 10 46.1 +0.5
      baz=16,SNR=11
NVAR  Mina Array Bea   16.47 334  Pn    Pn      14 10 47.4 +0.2
      comp=Z,0.2nm,0.3s,baz=161,slow=13,SNR=37
NVAR  Mina Array Bea   16.47 334  Pn    Pn      14 10 47.4 +0.2
DUG   Dugway           16.54 350 eP     Pn      14 10 48.0 -0.1
DUG                               pmax   pmax
      comp=Z,30nm,1.1s
DUG   Dugway           16.54 350 ⇑P     Pn      14 10 48.7 +0.7
      baz=16,SNR=24
DUG   Dugway           16.54 350 ePn    Pn      14 10 48.0 -0.1
      comp=Z,30nm,1.1s
DAU   Daniels Canyon   16.55 354 eP     Pn      14 10 48.5 +0.2
O15A  The Old Anders   16.57 351 ⇓P     Pn      14 10 49.1 +0.7
      baz=16,SNR=9.1
O13A  Hicks Ranch, I   16.69 347 ⇑P     Pn      14 10 50.6 +0.6
      baz=16,SNR=15
Q08A  Gabbs            16.69 335 ⇑P     Pn      14 10 50.8 +0.7
      baz=16
JLU   Jordanelle       16.76 354 ePn    Pn      14 10 50.8 -0.1
      comp=Z,24nm,1.3s
CBKS  Cedar Bluff      16.84  26 eP     Pn      14 10 51.7 -0.3
N21A  Black Mountain   16.85   4 ⇑P     Pn      14 10 52.0  0.0
      baz=16
P10A  Eureka           16.86 340 ⇓P     Pn      14 10 52.6 +0.4
      baz=16
N20A  Spence Gulch,    16.89   2 ⇓P     Pn      14 10 53.0 +0.5
      baz=16,SNR=7.1
N22A  Wattenberg Ran   16.98   7 ⇑P     Pn      14 10 54.2 +0.5
      baz=17,SNR=18
O12A  Currie           16.99 345 ⇑P     Pn      14 10 53.8 -0.1
      baz=17,SNR=7.3
WAKR  Walker           17.01 331 ePn    Pn      14 10 53.7 -0.4
R06C  Coleville        17.03 331 ⇓P     Pn      14 10 55.1 +0.7
      baz=17
N16A  Rees Ranch, Co   17.04 354 ⇑P     Pn      14 10 54.4 -0.1
      baz=17
N17A  Moffit Pass      17.05 355 ⇓P     Pn      14 10 54.8 +0.3
      baz=17,SNR=8.9
O11A  Cowboy Ranch,    17.10 343 ⇑P     Pn      14 10 55.4 +0.2
      baz=17
MIAR  Mount Ida        17.16  48 eP     Pn      14 10 58.8 +2.7
MIAR                              pmax   pmax
      comp=Z,15nm,1.0s
MIAR  Mount Ida        17.16  48 ePn    Pn      14 10 58.8 +2.7
      comp=Z,15nm,1.0s
N15A  Stansbury Isla   17.17 351 ⇑P     Pn      14 10 56.2 +0.1
      baz=17,SNR=7.8
N14A  Grayback Hills   17.24 349 ⇓P     Pn      14 10 57.5 +0.6
      baz=17,SNR=18
BGU   Big Grassy Mou   17.29 350 eP     Pn      14 10 57.6 +0.1
      comp=Z,21nm,1.3s
N13A  Wendover, West   17.43 347 ⇓P     Pn      14 10 59.7 +0.3
      baz=17
M16A  Huntsville       17.48 354 ⇑P     Pn      14 11 00.2 +0.2
      baz=17,SNR=22
M18A  Lyman            17.48 358 ⇓P     Pn      14 11 00.4 +0.5
      baz=17
M20A  Sweetwater, Wa   17.55   2 ⇓P     Pn      14 11 01.7 +0.9
      baz=17
M17A  Scullys Gap (B   17.56 356 ⇓P     Pn      14 11 01.3 +0.3
      baz=17
ELK   Elko             17.56 344  Pn    Pn      14 10 59.7 -1.3
      comp=Z,0.1nm,0.3s,baz=164,slow=8.3,SNR=14
ELK   Elko             17.56 344  Pn    Pn      14 10 59.7 -1.3
M22A  Cedar Creek Ra   17.57   6 ⇑P     Pn      14 11 01.8 +0.8
      baz=17,SNR=12
SPUT  South Promonto   17.57 352 ePn    Pn      14 11 01.8 +0.7
      comp=Z,42nm,1.5s
PHWY  Pilot Hill       17.60   9 ePn    Pn      14 11 01.8 +0.3
      comp=Z,31nm,1.7s
N12A  Clover Valley,   17.62 345 ⇑P     Pn      14 11 02.3 +0.7
      baz=17,SNR=8.8
M21A  Separation Pea   17.70   4 ⇑P     Pn      14 11 03.0 +0.3
      baz=17
M15A  Larsen Ranch,    17.73 352 ⇓P     Pn      14 11 03.4 +0.4
      baz=17,SNR=24
RWWY  Rawlins          17.80   5 eP     Pn      14 11 05.2 +1.3
      comp=Z,45nm,1.4s
M14A  Sheep Mountain   17.90 350 ⇓P     Pn      14 11 05.6 +0.4
      baz=18,SNR=21
M13A  Montello         17.91 347 ⇓P     Pn      14 11 05.4 +0.1
      baz=18,SNR=7.4
L18A  Fontenelle, Gr   17.98 358 ⇑P     Pn      14 11 06.0 -0.1
      baz=18,SNR=6.7
O08A  Rochester Mine   18.03 337 ⇓P     Pn      14 11 07.4 +0.7
      baz=18
L20A  Wamsutter        18.06   2 ⇑P     Pn      14 11 07.4 +0.4
      baz=18
L21A  Rawlins          18.06   4 ⇑P     Pn      14 11 07.1  0.0
      baz=18,SNR=5.9
HVU   Hansel Valley    18.08 351 eP     Pn      14 11 07.4  0.0
HVU                               pmax   pmax
      comp=Z,12nm,0.9s
HVU   Hansel Valley    18.08 351 eP     Pn      14 11 07.4  0.0
      comp=Z,12nm,0.9s
L19A  Farson           18.14 359 ⇑P     Pn      14 11 07.8 -0.2
      baz=18,SNR=7.3
L16A  Fish Haven       18.16 354 ⇑P     Pn      14 11 08.1 -0.2
      baz=18,SNR=11
L15A  Malad City       18.25 352 ⇓P     Pn      14 11 09.5 +0.1
      baz=18,SNR=10
N09A  Rock Creek Ran   18.32 339 ⇑P     Pn      14 11 10.5 +0.3
      baz=18
M11A  Holland Ranch,   18.35 344 ⇓P     Pn      14 11 10.8 +0.2
      baz=18,SNR=17
L14A  Malta            18.40 350 ⇑P     Pn      14 11 11.3  0.0
      baz=18,SNR=47
N08A  GE Springer Mi   18.46 338 ⇓P     Pn      14 11 11.8 -0.2
      baz=18
KSU1  Kansas State U   18.47  32 eP     Pn      14 11 12.4 +0.3
      comp=Z,52nm,1.3s
BEKR  Beckwourth       18.54 332 ⇓P     Pn      14 11 13.7 +0.7
      baz=18
O06A  Flanigan         18.57 333 ⇑P     Pn      14 11 12.7 -0.6
      baz=18
L13A  Double Diamond   18.57 349 ⇑P     Pn      14 11 13.3 -0.1
      baz=18,SNR=11
M10A  I.L. Ranch, Tu   18.63 342 ⇓P     Pn      14 11 14.4 +0.3
      baz=18
K18A  Toltan Ranch,    18.69 358 ⇓P     Pn      14 11 14.3 -0.5
      baz=18,SNR=14
K20A  Yellowstone Ra   18.70   2 ⇓P     Pn      14 11 14.2 -0.8
      baz=18,SNR=6.5
BW06  Boulder Array    18.81 359 ⇓P     Pn      14 11 15.3 -0.9
      baz=18,SNR=25
PDAR  Pinedale Array   18.81 359  P     Pn      14 11 14.8 -1.4
      comp=Z,0.1nm,0.3s,baz=161,slow=9.4,SNR=68
PDAR                              LR     LR      14 17 54.1
      comp=Z,39µm,19.0s,baz=72,slow=36
L12A  House Creek Ra   18.84 346 ⇑P     Pn      14 11 16.1 -0.6
      baz=18,SNR=9.3
K19A  Absolon Red Bu   18.86   1 ⇓P     Pn      14 11 15.7 -1.2
      baz=18,SNR=15
K14A  Jones Ranch, D   18.89 351 ⇑P     Pn      14 11 16.5 -0.7
      baz=19,SNR=18
K15A  Arbon            18.94 352 ⇓P     Pn      14 11 17.2 -0.6
      baz=19,SNR=14
K16A  Soda Springs     18.98 354 ⇑P     Pn      14 11 17.7 -0.7
      baz=19,SNR=8.2
L11A  Cat Creek Ranc   19.03 345 ⇓P     Pn      14 11 18.4 -0.5
      baz=19,SNR=12
N06A  Buffalo Meadow   19.06 334 ⇓P     Pn      14 11 19.1 -0.2
      baz=19
L10A  Juniper Basin    19.13 343 ⇑P     Pn      14 11 19.9 -0.2
      baz=19,SNR=15
K13A  Stover Farm, H   19.14 349 ⇓P     Pn      14 11 19.8 -0.4
      baz=19,SNR=11
J18A  Kendall Valley   19.26 358 ⇓P     Pn      14 11 20.6 -1.1
      baz=19,SNR=14
K12A  Draper Farm, C   19.29 347 ⇓P     Pn      14 11 21.6 -0.4
      baz=19,SNR=14
L09A  Wilkinson Ranc   19.42 340 ⇓P     Pn      14 11 22.9 -0.7
      baz=19
J16A  Bone             19.42 354 ⇑P     Pn      14 11 22.9 -0.8
      baz=19,SNR=20
J17A  Brown Place, J   19.45 356 ⇑P     Pn      14 11 22.9 -1.0
      baz=19
REDW  Red Top Meadow   19.45 356 ePn    Pn      14 11 23.6 -0.3
      comp=Z,16nm,1.3s
RRI2  Red Ridge        19.47 355 ePn    Pn      14 11 23.4 -0.9
      comp=Z,61nm,1.6s
TPAW  Teton Pass       19.59 356 ePn    Pn      14 11 24.9 -0.7
      comp=Z,20nm,1.3s
J15A  Blackfoot        19.63 353 ⇓P     Pn      14 11 25.3 -0.8
      baz=19,SNR=8.7
K11A  Parker Ranch,    19.67 345 ⇑P     Pn      14 11 25.8 -0.8
      baz=19,SNR=11
LOHW  Long Hollow      19.69 357 eP     Pn      14 11 25.4 -1.4
      comp=Z,9.8nm,0.9s
J14A  Carey            19.70 350 ⇓P     Pn      14 11 25.8 -1.1
      baz=19,SNR=10
DCID1 Drake Creek      19.71 355 ePn    Pn      14 11 27.1  0.0
      comp=Z,75nm,1.5s
I18A  Diamond G Ranc   19.75 358 ⇑P     Pn      14 11 26.3 -1.2
      baz=19,SNR=27
L08A  Fields           19.79 339 ⇑P     Pn      14 11 26.9 -1.1
      baz=20,SNR=6.0
J13A  Cove Ranch, Pi   19.88 349 ⇓P     Pn      14 11 27.7 -1.4
      baz=20,SNR=12
K10A  MacKenzie Ranc   19.89 343 ⇓P     Pn      14 11 27.6 -1.6
      baz=20
J12A  Stokes Ranch,    19.92 347 ⇓P     Pn      14 11 28.0 -1.5
      baz=20,SNR=9.9
L07A  Adell            19.98 337 ⇑P     Pn      14 11 29.0 -1.2
      baz=20
I17A  Pilgrim Ck.      20.00 357 ⇓P     Pn      14 11 29.0 -1.4
      baz=20,SNR=13
I16A  Newdale          20.01 355 ⇑P     Pn      14 11 29.2 -1.4
      baz=20,SNR=13
K09A  Rome             20.06 341 ⇑P     P       14 11 29.9 +0.4
      baz=20,SNR=16
HLID  Hailey           20.09 349 ⇓P     P       14 11 30.2 +0.5
      baz=20,SNR=16
HLID  Hailey           20.09 349 ePn    P       14 11 30.6 +0.9
      comp=Z,8.3nm,1.0s
WVOR  Wild Horse Val   20.10 339 eP     P       14 11 30.6 +0.7
WVOR                              pmax   pmax
      comp=Z,11nm,1.0s
WVOR  Wild Horse Val   20.10 339 eP     P       14 11 30.6 +0.7
      comp=Z,11nm,1.0s
I15A  Monteview        20.23 353 ⇓P     P       14 11 31.5 +0.2
      baz=20,SNR=5.6
MOD   Modoc            20.23 335 ePn    P       14 11 34.1 +2.8
      comp=Z,11nm,1.0s
MFID  Camas Ranch      20.23 346 ⇓P     P       14 11 31.3  0.0
      baz=20
I14A  Mackay           20.29 351 ⇓P     P       14 11 32.2 +0.3
      baz=20,SNR=13
K08A  Mann Creek Ran   20.32 340 ⇑P     P       14 11 32.7 +0.5
      baz=20,SNR=8.2
I13A  Wildhorse Cree   20.38 349 ⇓P     P       14 11 33.6 +0.7
      baz=20,SNR=16
I12A  Atlanta          20.45 347 ⇑P     P       14 11 34.0 +0.4
      baz=20,SNR=11
H17A  Grant Village    20.47 357 ⇑P     P       14 11 34.3 +0.4
      baz=20
K07A  Rock Creek Ran   20.54 338 ⇓P     P       14 11 35.4 +0.8
      baz=20,SNR=8.3
YFT   Old Faithful     20.54 356 ePn    P       14 11 35.5 +0.9
      comp=Z,22nm,1.2s
RSSD  Black Hills      20.58  10 eP     P       14 11 35.8 +0.8
RSSD                              pmax   pmax
      comp=Z,28nm,1.5s
RSSD  Black Hills      20.58  10 ePn    P       14 11 35.8 +0.8
      comp=Z,28nm,1.5s
LKWY  Lake             20.63 357 eP     P       14 11 37.1 +1.5
LKWY                              pmax   pmax
      comp=Z,42nm,0.6s
LKWY  Lake             20.63 357 ePn    P       14 11 37.1 +1.5
      comp=Z,42nm,0.6s
J09A  Fry Pan Ranch,   20.66 342 ⇑P     P       14 11 36.5 +0.6
      baz=20,SNR=6.9
I11A  Placerville      20.73 346 ⇑P     P       14 11 37.1 +0.4
      baz=20,SNR=7.6
CCM   Cathedral Cave   20.75  43 eP     P       14 11 39.0 +2.1
CCM                               pmax   pmax
      comp=Z,9.0nm,0.9s
CCM   Cathedral Cave   20.75  43 eP     P       14 11 39.0 +2.1
      comp=Z,8.8nm,0.9s
H16A  Russell Place,   20.82 356 ⇓P     P       14 11 38.3 +0.7
      baz=20,SNR=15
H15A  Lima             20.86 353 ⇓P     P       14 11 39.4 +1.3
      baz=20,SNR=20
J08A  Circle Bar Ran   20.89 340 ⇑P     P       14 11 39.1 +0.7
      baz=21,SNR=6.6
QLMT  Earthquake Lak   20.95 355 ePn    P       14 11 40.2 +1.1
H13A  Challis          21.03 350 ⇓P     P       14 11 40.7 +0.8
      baz=21,SNR=17
MCMT  McKenzie Canyo   21.09 353 eP     P       14 11 42.0 +1.4
      comp=Z,14nm,1.0s,mb4.3
YBH   Yreka Blue Hor   21.09 331  P     P       14 11 38.0 -2.6
YBH                               pmax   pmax
      comp=Z,3.0nm,0.9s
YBH   Yreka Blue Hor   21.09 331  P     P       14 11 38.0 -2.7
      comp=Z,2.6nm,0.9s,mb3.6,baz=119,slow=10,SNR=2.6
H12A  Diamond D Ranc   21.12 348 ⇑P     P       14 11 41.7 +0.8
      baz=21,SNR=22
RLMT  Red Lodge        21.16 360 ⇑P     P       14 11 41.6 +0.3
      baz=21,SNR=8.6
RLMT  Red Lodge        21.16 360 eP     P       14 11 40.3 -1.0
      comp=Z,17nm,1.2s,mb4.2
K05A  Summer Lake      21.16 335 ⇓P     P       14 11 42.3 +1.0
      baz=21
I09A  Lost Marbles R   21.24 343 ⇑P     P       14 11 42.6 +0.5
      baz=21
J06A  Christmas Vall   21.34 337 ⇑P     P       14 11 43.9 +0.6
      baz=21,SNR=8.4
G18A  Lazy EL Ranch,   21.36 359 ⇓P     P       14 11 43.6 +0.2
      baz=21,SNR=12
G16A  Moss Hill, Enn   21.38 355 ⇑P     P       14 11 45.0 +1.3
      baz=21,SNR=27
G15A  Dillon           21.38 353 ⇑P     P       14 11 45.3 +1.6
      baz=21,SNR=9.4
G17A  Pierce Place,    21.40 357 ⇑P     P       14 11 45.2 +1.3
      baz=21,SNR=6.2
I08A  Drewsey          21.42 341 ⇑P     P       14 11 44.8 +0.7
      baz=21
H11A  Donnelly         21.50 346 ⇓P     P       14 11 45.0 +0.1
      baz=21,SNR=13
G13A  Cobalt           21.54 350 ⇓P     P       14 11 45.8 +0.4
      baz=21,SNR=16
H10A  Noah's Angus R   21.56 345 ⇓P     P       14 11 45.8 +0.2
      baz=21,SNR=16
G14A  Jackson          21.58 352 ⇓P     P       14 11 45.9 +0.1
      baz=21,SNR=9.5
DLMT  Dillon           21.59 353 eP     P       14 11 45.2 -0.7
      comp=Z,12nm,1.0s,mb4.3
BOZ   Bozeman (W)      21.78 355 eP     P       14 11 47.7 -0.3
BOZ                               pmax   pmax
      comp=Z,13nm,1.3s,mb4.2
BOZ   Bozeman (W)      21.78 355 ⇑P     P       14 11 48.2 +0.2
      baz=21,SNR=9.5
BOZ   Bozeman (W)      21.78 355 eP     P       14 11 47.7 -0.3
      comp=Z,13nm,1.3s,mb4.2
GCMT  Greycliff        21.83 359 eP     P       14 11 48.0 -0.6
      comp=Z,19nm,1.0s,mb4.5
H09A  Durkee           21.86 343 ⇓P     P       14 11 49.1 +0.2
      baz=22
I07A  Izee             21.86 339 ⇓P     P       14 11 49.3 +0.4
      baz=22
F16A  Kennard Place,   21.92 355 ⇑P     P       14 11 49.7 +0.2
      baz=22,SNR=7.5
BMO   Blue Mountains   21.94 344 eP     P       14 11 48.8 -0.9
      comp=Z,8.4nm,1.0s,mb4.1
F18A  Big Timber       21.95 359 ⇓P     P       14 11 49.9 +0.1
      baz=22,SNR=21
I06A  Prineville       21.97 338 ⇓P     P       14 11 50.4 +0.3
      baz=22,SNR=6.9
F17A  Fitzpatrick Pl   21.98 357 ⇑P     P       14 11 50.6 +0.5
      baz=22,SNR=14
H08A  Prairie City     22.00 341 ⇓P     P       14 11 50.4  0.0
      baz=22
WVT   Waverly          22.01  52 eP     P       14 11 53.5 +3.0
WVT                               pmax   pmax
      comp=Z,26nm,1.2s,mb4.5
WVT   Waverly          22.01  52 eP     P       14 11 53.5 +3.0
      comp=Z,26nm,1.2s,mb4.5
LRM   Limekiln Ridge   22.03 354 eP     P       14 11 49.9 -0.8
F15A  Butte            22.05 354 ⇓P     P       14 11 51.1 +0.3
      baz=22,SNR=11
F14A  Wisdom           22.12 352 ⇑P     P       14 11 51.3 -0.3
      baz=22
F13A  Darby            22.24 350 ⇓P     P       14 11 52.7 -0.2
      baz=22,SNR=19
ECSD  EROS Data Cent   22.27  24 eP     P       14 11 53.0 -0.2
      comp=Z,22nm,1.1s,mb4.5
G10A  Bishop Farm, J   22.31 345 ⇑P     P       14 11 53.5 -0.1
      baz=22,SNR=7.3
F12A  Elk City         22.36 349 ⇓P     P       14 11 53.6 -0.5
      baz=22
G09A  Cove             22.46 344 ⇑P     P       14 11 55.0 -0.2
      baz=22,SNR=7.6
E17A  Martinsdale      22.55 357 ⇑P     P       14 11 55.8 -0.3
      baz=22
E18A  Harlowton        22.61 358 ⇑P     P       14 11 56.4 -0.5
      baz=22,SNR=12
E15A  Deer Lodge       22.64 354 ⇓P     P       14 11 56.5 -0.7
      baz=22
E16A  East Helena      22.67 355 ⇑P     P       14 11 57.1 -0.3
      baz=22,SNR=10
H06A  Lindquist Farm   22.71 339 ⇑P     P       14 11 57.8 -0.2
      baz=22
E14A  Clinton          22.73 352 ⇑P     P       14 11 57.9 -0.2
      baz=22
G08A  Pilot Rock       22.79 342 ⇑P     P       14 11 58.4 -0.3
      baz=22
LAO   LASA Array       22.84   5 eP     P       14 11 58.1 -1.2
      comp=Z,43nm,1.2s,mb4.8
E13A  Victor           22.85 351 ⇑P     P       14 11 59.0 -0.4
      baz=22
HRY   Holter Researc   22.86 355 eP     P       14 11 59.5 +0.1
F10A  Beach Ranch, E   22.98 345 ⇓P     P       14 12 00.1 -0.6
      baz=23
G07A  Ruggs Ranch, H   22.98 341 ⇑P     P       14 11 59.9 -0.8
      baz=23
SWET  Sewanee          23.01  55 eP     P       14 12 03.3 +2.1
E11A  Bogner Ranch,    23.12 347 ⇓P     P       14 12 01.5 -0.7
      baz=23
LNOR  Lincton Mounta   23.14 343 eP     P       14 12 01.5 -0.9
D16A  Dana Ranch, Ca   23.15 356 ⇓P     P       14 12 02.7 +0.2
      baz=23,SNR=9.7
CHMT  Chamberlain Mo   23.20 353 eP     P       14 12 02.5 -0.5
MSO   Missoula         23.20 352 eP     P       14 12 02.4 -0.6
      comp=Z,8.2nm,1.1s,mb4.1
F08A  Pendleton        23.20 343 ⇓P     P       14 12 02.9 -0.2
      baz=23
D17A  Six Diamond Ra   23.23 357 ⇑P     P       14 12 03.1 -0.2
      baz=23,SNR=14
D18A  Linhart Farms,   23.24 359 ⇑P     P       14 12 03.0 -0.4
      baz=23
D15A  Lincoln          23.24 354 ⇓P     P       14 12 03.2 -0.3
      baz=23,SNR=5.4
H04A  Detroit Lake     23.32 336 ⇓P     P       14 12 04.5 +0.2
      baz=23
D14A  Greenough        23.39 352 ⇑P     P       14 12 05.0  0.0
      baz=23,SNR=12
D13A  Huson            23.53 351 ⇑P     P       14 12 05.8 -0.8
      baz=23
SLMT  Seeley Lake      23.55 352 eP     P       14 12 06.0 -0.6
C17A  Wharram Farm,    23.71 357 ⇓P     P       14 12 07.6 -0.6
      baz=23,SNR=21
F06A  Goldendale       23.77 339 ⇑P     P       14 12 08.6 -0.2
      baz=24
D11A  Klaveano Farm,   23.81 348 ⇓P     P       14 12 08.6 -0.5
      baz=24,SNR=5.6
SWMT  Swartz Lake      23.87 352 eP     P       14 12 08.5 -1.2
C16A  Fuhringer Ranc   23.93 356 ⇑P     P       14 12 09.4 -0.8
      baz=24,SNR=7.7
HAWA  Hanford          23.96 342 eP     P       14 12 17.4 +7.0
      comp=Z,8.9nm,1.3s,mb4.0
C15A  Salmond Ranch,   23.98 354 ⇑P     P       14 12 10.3 -0.3
      baz=24
D10A  Wagner Farm, O   24.01 346 ⇓P     P       14 12 10.5 -0.4
      baz=24
EGMT  Eagleton         24.07 359 ⇓P     P       14 12 10.7 -0.7
      baz=24,SNR=8.2
EGMT  Eagleton         24.07 359 eP     P       14 12 11.2 -0.2
      comp=Z,66nm,1.7s,mb4.8
C13A  Hot Springs      24.12 351 ⇓P     P       14 12 10.7 -1.2
      baz=24
JTMT  Jette            24.14 351 eP     P       14 12 10.5 -1.6
CPCT  Cooper Cave      24.17  56 eP     P       14 12 13.7 +1.2
C12B  Naegeli Ranch,   24.29 349 ⇓P     P       14 12 13.3 -0.2
      baz=24
B17A  L&G Farms, Che   24.37 357 ⇑P     P       14 12 13.7 -0.5
      baz=24,SNR=7.6
D08A  Wollman Farm,    24.41 344 ⇓P     P       14 12 14.3 -0.2
      baz=24
B18A  Beardsley Farm   24.44 359 ⇑P     P       14 12 14.1 -0.7
      baz=24,SNR=6.2
B15A  Bradely Ranch,   24.51 354 ⇓P     P       14 12 14.9 -0.6
      baz=24,SNR=7.8
E06A  Yakima           24.53 340 ⇓P     P       14 12 15.2 -0.4
      baz=24
B16A  M & M Farms, S   24.54 356 ⇑P     P       14 12 15.5 -0.2
      baz=24
OD2   Odessa Site #2   24.66 344 eP     P       14 12 16.3 -0.6
B13A  Whitefish        24.78 351 ⇓P     P       14 12 17.8 -0.2
      baz=24
TKL   Tuckaleechee C   24.81  56  P     P       14 12 18.7 +0.3
TKL                               pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.3
TKL   Tuckaleechee C   24.81  56  P     P       14 12 18.7 +0.3
      comp=Z,10nm,1.1s,mb4.3,baz=211,slow=2.4,SNR=5.2
DGMT  Dagmar           24.81   8 ⇓P     P       14 12 18.2  0.0
      baz=24
DGMT  Dagmar           24.81   8 eP     P       14 12 17.4 -0.8
      comp=Z,18nm,1.1s,mb4.5
D07A  Quincy           24.81 342 ⇓P     P       14 12 18.2 -0.1
      baz=24
A18A  Metzger Ranch,   24.97 359 ⇑P     P       14 12 19.8 +0.2
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	baz=25						
LON	Longmire	24.98	339	eP	P	14 12 18.9	-0.8
LON				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
LON	Longmire	24.98	339	eP	P	14 12 18.9	-0.9
	comp=Z,10nm,1.0s,mb4.3						
A17A	Triple J Farms	25.02	357	⇓P	P	14 12 19.8	-0.3
	baz=25,SNR=9.8						
B12A	Libby	25.05	350	⇑P	P	14 12 20.3	0.0
	baz=25						
A16A	West Butte Ran	25.07	356	⇓P	P	14 12 20.3	-0.2
	baz=25,SNR=8.8						
C08A	Higginbotham F	25.11	344	⇑P	P	14 12 20.7	-0.2
	baz=25						
NEW	Newport	25.13	347	eP	P	14 12 21.3	+0.2
NEW				pmax	pmax		
	comp=Z,15nm,1.0s						
NEW	Newport	25.13	347	eP	P	14 12 21.3	+0.2
	comp=Z,15nm,1.0s,mb4.5						
B11A	Sandpoint	25.15	349	⇑P	P	14 12 21.0	-0.3
	baz=25						
A15A	Johnson Ranch,	25.18	354	⇑P	P	14 12 21.3	-0.3
	baz=25,SNR=6.1						
A14A	Double T Ranch	25.25	353	⇑P	P	14 12 22.1	0.0
	baz=25						
C07A	Waterville	25.29	342	⇑P	P	14 12 22.6	0.0
	baz=25						
A13A	Flathead Natio	25.32	352	⇓P	P	14 12 23.6	+0.7
	baz=25						
WALA	Waterton Lakes	25.39	353	eP	P	14 12 23.8	+0.3
	comp=Z,0.6nm,1.3s						
A12A	Yaak River Ran	25.51	350	⇓P	P	14 12 25.0	+0.5
	baz=25						
B08A	Colville Reser	25.72	344	⇑P	P	14 12 26.1	-0.3
	baz=25						
AGMN	Agassiz Refuge	26.50	20	eP	P	14 12 32.5	-1.0
	comp=Z,4.1nm,0.8s,mb4.0						
LHS	Liberty Hill	26.75	60	eP	P	14 12 45.8	+10
EYMN	Ely	27.76	26	eP	P	14 12 44.4	-0.4
	comp=Z,13nm,0.9s,mb4.6						
ULM	Lac du Bonnet	28.23	18	P	P	14 12 48.1	-0.9
	comp=Z,7.9nm,1.1s,mb4.3,baz=210,slow=9.9,SNR=7.0						
SSPA	Standing Stone	30.99	50	eP	P	14 13 14.4	+0.8
	comp=Z,27nm,1.2s,mb5.0						
FFC	Flin Flon	31.23	8	iP	P	14 13 15.0	-0.5
FCC	Fort Churchill	36.42	13	eP	P	14 13 59.6	-1.0
FCC				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
FCC	Fort Churchill	36.42	13	eP	P	14 13 59.6	-1.0
	comp=Z,0.5nm,0.9s,mb3.4						
DLBC	Dease Lake	37.59	342	eP	P	14 14 12.4	+1.8
OTAV	Otavalo	37.89	124	eP	P	14 14 22.0	+8.3
	comp=Z,12nm,1.3s,mb4.5						
YKA	Yellowknife Ar	38.75	356	P	P	14 14 19.0	-1.2
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	38.75	356	P	P	14 14 19.0	-1.2
	comp=Z,3.3nm,0.9s,mb4.0,baz=173,slow=7.8,SNR=47						
SDV	Santo Domingo	39.63	106	P	P	14 14 32.9	+4.6
	comp=Z,5.6nm,1.0s,mb4.2,baz=231,slow=8.7,SNR=3.9						
SDV	Santo Domingo	39.63	106	eP	P	14 14 31.3	+3.0
	comp=Z,39nm,1.5s,mb4.9						
SCHQ	Schefferville	43.88	34	P	P	14 15 01.1	-1.4
	comp=Z,7.9nm,1.0s,mb4.4,baz=247,slow=7.2,SNR=5.5						
DAWY	Dawson	44.81	342	eP	pP	14 15 17.7	+4.7
INK	Inuvik	46.85	348	eP	pP	14 15 32.2	+3.2
INK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
INK	Inuvik	46.85	348	eP	pP	14 15 32.2	+3.2
	comp=Z,5.0nm,0.8s						
NNA	Nana	47.60	135	eP	sP	14 15 48.7	+12
MCK	McKinley	47.66	337	eP	pP	14 15 39.9	+4.5
MCK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
MCK	McKinley	47.66	337	eP	pP	14 15 39.9	+4.5
	comp=Z,12nm,1.0s						
TRF	Thorofare Moun	47.97	337	eP	P	14 15 34.1	-0.6
	comp=Z,26nm,0.8s,mb5.3						
SVW2	Sparrevohn	48.83	332	eP	P	14 15 47.3	+6.0
BILL	Bilibino	66.07	336	⇑eP	P	14 17 47.8	+5.0
BILL				e		14 20 08.5	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.5						
RAR	Rarotonga	66.68	232	LR	LR	14 41 13.4	
	comp=Z,429nm,19.9s,baz=288,slow=31						
SEY	Seymchan	72.77	332	eP	pP	14 18 31.4	+3.8
PETK	Petropavlovsk-	73.11	321	P	P	14 18 25.7	-0.8
PETK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
PETK	Petropavlovsk-	73.11	321	P	P	14 18 25.7	-0.8
	comp=Z,1.2nm,0.8s,mb3.9,baz=76,slow=40,SNR=2.3						
PLCA	Paso Flores	73.62	150	P	P	14 18 35.4	+5.9
PLCA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
PLCA	Paso Flores	73.62	150	P	P	14 18 35.4	+5.8
	comp=Z,2.0nm,0.9s,mb4.0,baz=21,slow=8.6,SNR=2.5						
TIXI	Tiksi	76.79	344	⇑eP	P	14 18 52.5	+5.0
TIXI				pmax	pmax		
	comp=Z,9.0nm,2.5s,mb4.3						
ARCES	ARCESS Array B	81.29	15	P	P	14 19 12.3	+0.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	ARCESS Array B	81.29	15	P	P	14 19 12.3	+0.1
	comp=Z,2.7nm,0.8s,mb4.2,baz=311,slow=4.6,SNR=3.8						
OBN	Obninsk	95.98	19	eP	P	14 20 27.2	+3.9
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
GTA	Gaotai	111.46	336	PKP	PKiKP	14 25 29.4	-1.4
GTA				PP	PP	14 26 08.8	-1.6
LZH	Lanzhou	112.70	331	ePKP	PKiKP	14 25 30.4	-2.9
LZH				sPKP		14 25 41.6	
CD2	Chengdu	117.06	328	PKP	PKPdf	14 25 36.0	-5.8
WRA	Warramunga Arr	121.46	261	PKP	PKPdf	14 25 52.7	+2.2
	comp=Z,0.3nm,0.7s,baz=61,slow=0.8,SNR=4.1						
WRA	Warramunga Arr	121.46	261	PKP	PKPdf	14 25 52.6	+2.2
KMI	Kunming	122.33	326	PKP	PKPdf	14 25 52.9	+0.8
ASAR	Alice Springs	122.83	256	PKP	PKPdf	14 25 52.9	-0.1
	comp=Z,0.4nm,0.8s,baz=77,slow=2.0,SNR=3.3						

IDC **21** *14:08:07.3±3.6, 3°.40N×96°.70E, $h0^{km}$, mb3.5/5, mb1 3.6/5, mb1mx3.5/21, mbtmp3.5/5, Error ellipse: s-maj=152.1km s-min=22.0km az=60.0*

NEIC 21 14:08:11.1±2.8**, 3°.23N×96°.39E, $h35^{km}$, Error ellipse: s-maj=123.0km s-min=17.4km az=59.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	43.80	123	P	P	14 16 12.4	-1.5
	0.4nm,0.8s,baz=304,slow=8.9,SNR=3.3						
MK31	Makanchi Array	45.09	346	eP	P	14 16 23.5	-0.3
MKAR	Makanchi Array	45.09	346	P	P	14 16 24.0	+0.2
	0.4nm,0.4s,baz=156,slow=8.5,SNR=8.1						
ASAR	Alice Springs	45.26	128	P	P	14 16 27.1	+1.6
	0.7nm,1.0s,baz=306,slow=8.7,SNR=3.0						
SONM	Songino Array	45.27	9	P	P	14 16 25.8	+0.6
	0.5nm,0.6s,baz=185,slow=8.6,SNR=5.4						
ZALV	Zalesovo Beam	51.45	351	P	P	14 17 12.7	+0.1
	0.4nm,0.3s,baz=174,slow=5.8,SNR=3.4						

NEIC **21** *14:16:02.7, 41°.15N×114°.87W, $h7^{km}$, mb5.7/163, ME5.7, MS5.8/141, MW5.8, MW6.0, MW5.9(SLM), MW5.9(BRK), Moment Tensor Solution. s91 Moment tensor: Scale 10^{17}Nm; M_{rr}-6.82; $M_{\theta\theta}$2.12; $M_{\phi\phi}$4.70; $M_{r\theta}$1.59; $M_{\theta\phi}$1.19; $M_{\phi r}$2.38; Best double couple: $M_0$6.80000×10^{17} NP1: ϕ_s19.00000°, δ33.00000°, λ-96.00000°. NP2: ϕ_s206.00000°, δ58.00000°, λ-86.00000°. Principal axes: T 5.7900, Plg12.0000°, Azm293.0000°; N 1.6900, Plg3.0000°, Azm23.0000°; P -7.4800, Plg76.0000°, Azm128.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism. After REN.*

NEIC Montana; Corvallis and Portland, Oregon; and Albuquerque, New Mexico. Three people injured, more than 20 buildings heavily damaged, almost 700 buildings slightly damaged and a water main broken at Wells. Felt [VI] at Wells, with maximum intensity VIII in the Historic District. Felt [V] at Jackpot; [IV] at Battle Mountain, Carlin, Elko, Mountain City and Spring Creek; [III] at Ely, Eureka, Golconda, Lovelock and Winnemucca. Also felt at Las Vegas and Reno. Felt [V] at Grand View and Rogerson; [IV] at Castleford, Filer, Hansen, Heyburn, Malad City, Malta, Paul, Rupert, Twin Falls and Wendell; [III] at American Falls, Bellevue, Boise, Buhl, Burley, Caldwell, Declo, Dietrich, Emmett, Fairfield, Garden Valley, Glenns Ferry, Gooding, Hagerman, Hailey, Hazelton, Idaho City, Inkom, Jerome, Ketchum, Kimberly, Middleton, Murtaugh, Nampa, Oakley, Pocatello and Shoshone, Idaho. Also felt [V] at Wendover; [IV] at Farmington, Garland and Snowville; [III] at American Fork, Brigham City, Clearfield, Corinne, Draper, Dugway, Grantsville, Hill AFB, Honeyville, Hooper, Hyde Park, Hyrum, Layton, Lehi, Logan, Ogden, Plymouth, Provo, Richmond, Roy, Sandy, Salt Lake City, Stockton, Syracuse, Tooele, Tremonton, Vernon and West Jordan, Utah. The earthquake was felt in most of Idaho and Nevada, in southeastern Oregon and northwestern Utah, in parts of California and Wyoming, and at Spokane, Washington. Isolated felt reports were received from as far away as Phoenix and Tucson, Arizona; Oakland and Pasadena, California; Brighton, Colorado; Absarokee and Livingston.

MOS **21** *14:16:02.3±0.9, 41°.06N×114°.86W, $h6^{km}$, mb5.9/110, MS5.9/77 Error ellipse: s-maj=4.5km s-min=3.0km az=77.3*

GCMT **21** *14:16:02.7±0.1, 41°.16N×114°.85W, $h14^{km}$, MW6.0/115, Moment Tensor Solution. s105,c241; s115,c411; Duration: 2^s5 Moment tensor: Scale 10^{18}Nm; M_{rr}-1.27±.01; $M_{\theta\theta}$0.20±.01; $M_{\phi\phi}$1.07±.01; $M_{r\theta}$0.07±.02; $M_{\theta\phi}$0.61±.01; $M_{\phi r}$0.26±.02; Best double couple: $M_0$1.35300×10^{18} NP1: ϕ_s30.00000°, δ40.00000°, λ-86.00000°. NP2: ϕ_s205.00000°, δ51.00000°, λ-93.00000°. Principal axes: T 1.4090, Plg6.0000°, Azm297.0000°; N -0.1130, Plg3.0000°, Azm207.0000°; P -1.2980, Plg84.0000°, Azm91.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

IDC **21** *14:16:02.9±0.3, 41°.13N×114°.83W, $h0^{km}$, mb5.2/37, mb1 5.3/43, mb1mx5.3/44, mbtmp5.2/43, ML4.7/3, MS5.7/40, Ms1 5.7/40, ms1mx5.7/47 Error ellipse: s-maj=8.2km s-min=4.1km az=130.0*

ISCJB **21** *14:16:02.9±0.1, 41°.099N±0°.007×114°.87W±0°.01, $h10^{km}$, mb5.5/293, MS5.8/229, Error ellipse: s-maj=1.2km s-min=0.9km az=167.5*

BJI **21** *14:16:03.5, 41°.20N×114°.90W, $h6^{km}$, mB6.4/46, mb5.4/33, Ms6.3/54, Ms7 5.9/51*

IGIL **21** *14:16:04.7, 41°.08N×114°.75W, $h9^{km}$, MS5.9*

DJA **21** *14:16:06, 40°.96N×114°.14W, $h10^{km}$, mb5.4/5*

SZGRF **21** *14:16:09.3, 41°.73N×115°.48W, $h33^{km}$, mb5.8, MS5.9, Nevada, United States*

ISC 21 14:16:04.5±0.1**, 41°.100N**±0°.007×**114°.88W**±0°.01**, $h10^{km}$, ($h14^{km}$**±.8^{km}**:pP-P), n1424,** $\sigma 1^s$**16**/1359**, mb5.5**/293**,** **MS5.8**/229**, 246C-275D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.28	207	⇑P	Pg	14 16 09.4	-0.6
	baz=0.3						
N12A				⇓S	Sg	14 16 13.7	-0.1
	baz=0.3						
ELK	Elko	0.45	218	Pg	Pg	14 16 13.1	-0.1
	baz=25,slow=16						
ELK				Lg		14 16 18.9	
	baz=167,slow=19						
ELK	Elko	0.45	218	ePg	Pg	14 16 12.1	-1.1
N13A	Wendover, West	0.56	115	⇓P	Pg	14 16 14.1	-1.3
	baz=0.6,SNR=1000						
M13A	Montello	0.59	64	⇓P	Pg	14 16 13.5	-2.5
	baz=0.6,SNR=1000						
N11A	Elko Archery C	0.71	247	⇓P	Pg	14 16 16.7	-1.4
	baz=0.7						
M11A	Holland Ranch,	0.77	296	⇑P	Pg	14 16 16.8	-2.4
	baz=0.7,SNR=1000						
O12A	Currie	0.84	173	⇓P	Pg	14 16 19.4	-1.2
	baz=0.9						
L12A	House Creek Ra	1.05	354	⇑P	Pg	14 16 21.6	-3.0
	baz=1.0						
L12A				⇑S	Sg	14 16 35.7	-2.6
	baz=1.0						
O11A	Cowboy Ranch,	1.14	212	⇓P	Pb	14 16 25.0	-1.2
	baz=1.2						
O11A				⇑S	Sb	14 16 41.0	+0.1
	baz=1.2						
O13A	Hicks Ranch, I	1.18	145	⇓P	Pb	14 16 25.3	-1.7
	baz=1.2						
L13A	Double Diamond	1.21	35	⇓P	Pn	14 16 24.0	-3.4
	baz=1.2						
M14A	Sheep Mountain	1.22	70	⇑P	Pn	14 16 24.7	-2.9
	baz=1.2						
L11A	Cat Creek Ranc	1.25	329	⇓P	Pn	14 16 24.9	-3.1
	baz=1.2						
L11A				⇓S	Sb	14 16 41.9	-2.4
	baz=1.2						
N10A	Dunphy	1.29	253	⇓P	Pn	14 16 26.4	-2.1
	baz=1.3						
N10A				⇓S	Sb	14 16 44.9	-0.7
	baz=1.3						
N14A	Grayback Hills	1.30	100	⇓P	Pn	14 16 26.2	-2.5
	baz=1.3,SNR=1000						
N14A				⇓Sb	Sb	14 16 45.3	-0.5
	baz=1.3						
M10A	I.L. Ranch, Tu	1.32	289	⇓P	Pn	14 16 26.9	-2.1
	baz=1.3						
BGU	Big Grassy Mou	1.41	97	⇓iP	Pn	14 16 27.7	-2.4
BGU				eS	Sn	14 16 47.3	-1.4
O10A	Cortez Mining,	1.48	237	⇑P	Pn	14 16 29.7	-1.3
	baz=1.5						
K12A	Draper Farm, C	1.54	359	⇑P	Pn	14 16 28.9	-3.0
	baz=1.5,SNR=1000						
L14A	Malta	1.54	52	⇑P	Pn	14 16 29.6	-2.4
	baz=1.5,SNR=1000						
L10A	Juniper Basin	1.54	310	⇓P	Pn	14 16 29.8	-2.2
	baz=1.5,SNR=1000						
P12A	McGill	1.63	181	⇓P	Pn	14 16 31.9	-1.3
	baz=1.7						
K13A	Stover Farm, H	1.66	21	⇑P	Pn	14 16 31.0	-2.6
	baz=1.6						
P11A	Circle Ranch,	1.69	204	⇑P	Pn	14 16 32.8	-1.1
	baz=1.7						
HVU	Hansel Valley	1.72	66	ePn	Pn	14 16 32.2	-2.2
HVU				eSn	Sn	14 16 56.2	-0.2
N15A	Stansbury Isla	1.79	96	⇑P	Pn	14 16 33.4	-2.0
	baz=1.8						
DUG	Dugway	1.81	119	⇓P	Pn	14 16 33.3	-2.4
	baz=1.8						
DUG	Dugway	1.81	119	⇓ePn	Pn	14 16 33.0	-2.6
SPUT	South Promonto	1.84	83	⇓iPn	Pn	14 16 34.0	-2.1
SPUT				eSn	Sn	14 17 00.7	+1.3
M15A	Larsen Ranch,	1.86	78	⇓P	Pn	14 16 34.2	-2.2
	baz=1.9,SNR=1000						
K11A	Parker Ranch,	1.88	333	⇑P	Pn	14 16 34.9	-1.7
	baz=1.8,SNR=1000						
K11A				⇑Sb	Sb	14 17 00.2	-2.2
	baz=1.8						
BMN	Battle Mountai	1.90	250	⇑iPn	Pn	14 16 34.7	-2.2
BMN				eSg	Sg	14 17 04.6	-1.0
P10A	Eureka	1.91	220	⇓P	Pn	14 16 36.1	-1.0
	baz=2.0						
K14A	Jones Ranch, D	1.92	41	⇓P	Pn	14 16 35.3	-2.0
	baz=1.9,SNR=1000						
K14A				⇓Sb	Sb	14 17 01.6	-2.0
	baz=1.9						
M09A	Marrel Ranch,	1.97	280	⇑P	Pn	14 16 35.9	-1.9
	baz=2.0,SNR=1000						
O09A	Fish Creek Ran	1.99	243	⇑P	Pn	14 16 36.4	-1.7
	baz=2.0						
O09A				⇓Sb	Sb	14 17 06.3	+0.7
	baz=2.0						
O15A	The Old Anders	2.00	113	⇓P	Pn	14 16 36.2	-2.1
	baz=2.0						
N09A	Rock Creek Ran	2.02	264	⇓P	Pn	14 16 36.4	-2.1
	baz=2.0						
P14A	Drum Mountains	2.04	137	⇓P	Pn	14 16 37.1	-1.8
	baz=2.1						
Q12A	Willow Creek R	2.06	179	⇓P	Pn	14 16 37.7	-1.3
	baz=2.1						
L15A	Malad City	2.08	63	⇓P	Pn	14 16 37.5	-1.8
	baz=2.0,SNR=1000						
NOQ	North Oquirrh	2.14	101	⇓ePn	Pn	14 16 38.0	-2.1
J12A	Stokes Ranch,	2.15	356	P	Pn	14 16 39.0	-1.4
	baz=2.1,SNR=1000						
J12A				⇓Sb	Sb	14 17 07.7	-2.6
	baz=2.1						
Q13A	Wheeler Ranch,	2.24	163	⇑P	Pn	14 16 40.0	-1.6
	baz=2.3						
K10A	MacKenzie Ranc	2.24	319	⇑P	Pn	14 16 40.1	-1.5
	baz=2.2,SNR=1000						
L09A	Wilkinson Ranc	2.29	295	⇓P	Pn	14 16 40.6	-1.6
	baz=2.3,SNR=1000						
P09A	Austin	2.32	229	⇑P	Pn	14 16 41.6	-1.0
	baz=2.4						
Q11A	Duckwater	2.33	195	⇑P	Pn	14 16 41.7	-1.1
	baz=2.4						
J13A	Cove Ranch, Pi	2.35	13	P	Pn	14 16 42.0	-1.1
	baz=2.3,SNR=1000						
J13A				⇓Sb	Sb	14 17 13.8	-2.3
	baz=2.3						
K15A	Arbon	2.36	47	⇓P	Pn	14 16 41.6	-1.6
	baz=2.3,SNR=1000						
CTU	Camp Tracy	2.40	99	ePn	Pn	14 16 42.2	-1.6
MFID	Camas Ranch	2.42	343	⇑P	Pn	14 16 42.6	-1.5
	baz=2.4,SNR=824						
NLU	North Lily Min	2.42	117	⇓ePn	Pn	14 16 41.4	-2.7
J14A	Carey	2.44	24	P	Pn	14 16 43.3	-1.0
	baz=2.4,SNR=1000						
Q14A	Sevier Lake (B	2.44	149	⇓P	Pn	14 16 42.4	-1.9
	baz=2.5						
M16A	Huntsville	2.46	84	⇓P	Pn	14 16 42.5	-2.0
	baz=2.4,SNR=404						
HLID	Hailey	2.48	8	⇑P	Pn	14 16 44.0	-0.9
	baz=2.4,SNR=1000						
HLID				⇓Sb	Sb	14 17 17.2	-2.6
	baz=2.4						
HLID	Hailey	2.48	8	ePn	Pn	14 16 44.1	-0.9
N08A	GE Springer Mi	2.49	264	⇓P	Pn	14 16 42.8	-2.2
	baz=2.5						
P15A	Leamington	2.50	127	⇑P	Pn	14 16 43.1	-2.1
	baz=2.5						
Q10A	Clear Creek Ra	2.56	208	⇑P	Pn	14 16 45.0	-1.0
	baz=2.6						
N16A	Rees Ranch, Co	2.61	94	⇓P	Pn	14 16 44.5	-2.2
	baz=2.6						
O08A	Rochester Mine	2.62	253	⇑P	Pn	14 16 44.9	-1.9
	baz=2.6						
JLU	Jordanelle	2.65	100	ePn	Pn	14 16 45.3	-1.9
K09A	Rome	2.66	308	⇓P	Pn	14 16 45.7	-1.7
	baz=2.6,SNR=1000						
K09A				⇓Sb	Sb	14 17 23.9	-0.9
	baz=2.6						
M08A	Happy Creek Ra	2.66	279	⇑P	Pn	14 16 45.5	-1.8
	baz=2.6						
MPU	Maple Canyon	2.70	113	ePn	Pn	14 16 45.5	-2.4
I12A	Atlanta	2.70	356	⇑P	Pn	14 16 46.9	-0.9
	baz=2.6,SNR=1000						
J10A	Berg Farm, Mel	2.72	330	⇓P	Pn	14 16 46.5	-1.6
	baz=2.7						
J10A				⇓Sb	Sb	14 17 24.9	-1.5
	baz=2.7						
O16A	Springville	2.72	108	⇑P	Pn	14 16 46.1	-2.1
	baz=2.7						
L16A	Fish Haven	2.74	69	⇑P	Pn	14 16 47.0	-1.5
	baz=2.7						
R12A	Pony Springs,	2.78	176	⇑P	Pn	14 16 48.0	-1.0
	baz=2.8						
R11A	Troy Canyon, C	2.80	191	⇑P	Pn	14 16 48.1	-1.2
	baz=2.9						
L08A	Fields	2.82	294	⇑P	Pn	14 16 47.7	-1.8
	baz=2.8						
P08A	Dixie Valley	2.82	241	⇑P	Pn	14 16 48.0	-1.5
	baz=2.8						
DAU	Daniels Canyon	2.83	103	eP	Pn	14 16 48.2	-1.5
Q15A	Fillmore	2.84	137	⇑P	Pn	14 16 48.0	-1.8
	baz=2.9						
I13A	Wildhorse Cree	2.87	11	⇓P	Pn	14 16 49.4	-0.8
	baz=2.8,SNR=1000						
I13A				⇑Sb	Sb	14 17 28.8	-2.0
	baz=2.8						
P16A	Fountain Green	2.87	120	⇓P	Pn	14 16 48.1	-2.2
	baz=2.9						
Q09A	Carvers	2.87	219	⇓P	Pn	14 16 49.3	-1.0
	baz=2.9						
I11A	Placerville	2.92	344	⇓P	Pn	14 16 49.4	-1.5
	baz=2.9						
I11A				⇑Sb	Sb	14 17 30.7	-1.6
	baz=2.9						
J15A	Blackfoot	2.93	37	⇓P	Pn	14 16 50.0	-1.0
	baz=2.9,SNR=1000						
J15A				⇓Sb	Sb	14 17 31.2	-1.3
	baz=2.9						
R13A	O'Grain Ranch,	3.00	166	⇑P	Pn	14 16 51.3	-0.7
	baz=3.1						
K16A	Soda Springs	3.00	54	P	Pn	14 16 51.3	-0.8
	baz=3.0,SNR=1000						
I14A	Mackay	3.02	20	P	Pn	14 16 51.6	-0.7
	baz=3.0,SNR=947						
I14A				⇓Sb	Sb	14 17 33.6	-1.5
	baz=3.0						
R10A	Warm Springs	3.02	202	⇑P	Pn	14 16 51.3	-1.0
	baz=3.1						
N17A	Moffit Pass	3.06	92	⇓P	Pn	14 16 51.6	-1.3
	baz=3.1						
J09A	Fry Pan Ranch,	3.10	317	⇓P	Pn	14 16 52.1	-1.2
	baz=3.1,SNR=157						
WVOR	Wild Horse Val	3.11	297	⇑iP	Pn	14 16 51.9	-1.7
N07B	Gerlach	3.12	265	⇓P	Pn	14 16 51.6	-2.0
	baz=3.1						
R14A	James Farms, M	3.14	152	⇑P	Pn	14 16 52.4	-1.5
	baz=3.2						
K08A	Mann Creek Ran	3.15	302	⇓P	Pn	14 16 52.7	-1.4
	baz=3.1,SNR=243						
L17A	Cokeville	3.16	70	⇓P	Pn	14 16 53.2	-1.1
	baz=3.1,SNR=184						
O07A	Toulon	3.19	254	⇑P	Pn	14 16 52.4	-2.2
	baz=3.2						
M17A	Scullys Gap (B	3.19	82	⇑P	Pn	14 16 54.5	-0.1
	baz=3.2						
Q08A	Gabbs	3.24	227	⇓P	Pn	14 16 54.1	-1.3
	baz=3.3						
M07A	Soldier Meadow	3.25	276	⇓P	Pn	14 16 53.0	-2.5
	baz=3.2,SNR=330						
J16A	Bone	3.26	47	⇑P	Pn	14 16 54.5	-1.0
	baz=3.2,SNR=1000						
AHID	Auburn Hatcher	3.27	58	ePn	Pn	14 16 54.6	-1.2
O17A	Robinson Place	3.28	105	⇑P	Pn	14 16 54.6	-1.2
	baz=3.3						
I10A	Payette	3.31	335	⇑P	Pn	14 16 55.9	-0.3
	baz=3.3						
MSU	Marysvale	3.32	140	eP	Pn	14 16 55.0	-1.4
R09A	Tonopah	3.32	211	⇓P	Pn	14 16 55.1	-1.4
	baz=3.4						
TMUT	Trail Mountain	3.34	121	ePn	Pn	14 16 55.4	-1.3
K17A	Gardner Place,	3.38	60	⇓P	Pn	14 16 56.2	-1.0
	baz=3.3						
I15A	Monteview	3.39	31	⇑P	Pn	14 16 56.2	-1.2
	baz=3.3,SNR=67						
S10A	Tonopah Range,	3.44	203	⇑P	Pn	14 16 57.0	-1.1
	baz=3.5						
P07A	Fallon	3.44	244	⇑P	Pn	14 16 56.7	-1.4
	baz=3.5						
H12A	Diamond D Ranc	3.45	0	⇓P	Pn	14 16 57.7	-0.5
	baz=3.4						
RRI2	Red Ridge	3.47	48	⇓ePn	Pn	14 16 57.5	-0.9
L07A	Adell	3.47	287	⇑P	Pn	14 16 57.0	-1.5
	baz=3.4,SNR=120						
S12A	Delamar Landin	3.49	180	⇓P	Pn	14 16 58.0	-0.8
	baz=3.6						
ARUT	Antelope Range	3.49	161	iP	Pn	14 16 58.0	-0.8
H13A	Challis	3.49	7	⇓P	Pn	14 16 57.2	-1.6
	baz=3.4,SNR=132						
J08A	Circle Bar Ran	3.50	311	⇑P	Pn	14 16 57.2	-1.6
	baz=3.5						
R15A	Junction	3.51	144	⇑P	Pn	14 16 58.0	-1.0
	baz=3.6						
S11A	Rachel	3.52	191	⇑P	Pn	14 16 58.4	-0.7
	baz=3.6						
P17A	Butcher Ranch,	3.56	116	⇑P	Pn	14 16 58.4	-1.3
	baz=3.6,SNR=31						
I09A	Lost Marbles R	3.57	325	⇓P	Pn	14 16 59.1	-0.7
	baz=3.5						
Q16A	Castle Valley	3.58	126	⇓P	Pn	14 16 58.6	-1.5
	baz=3.6,SNR=91						
S14A	Cedar City	3.59	158	⇓P	Pn	14 16 59.2	-0.9
	baz=3.6						
S13A	Holt Ranch, En	3.60	167	⇓P	Pn	14 16 59.3	-1.0
	baz=3.7						
K07A	Rock Creek Ran	3.63	297	⇓P	Pn	14 16 58.9	-1.8
	baz=3.6,SNR=474						
M18A	Lyman	3.64	83	⇓P	Pn	14 17 00.3	-0.5
	baz=3.6						

H11A	**Donnelly**	3.70	347	⇑P	Pn	14 17 00.9	-0.7
	baz=3.6						
DCID1	**Drake Creek**	3.70	46	⇓*e*Pn	Pn	14 17 00.8	-0.8
DCID1				*e*S	Sb	14 17 55.5	+0.8
R08A	**Mina**	3.71	223	⇓P	Pn	14 17 00.4	-1.4
	baz=3.8,SNR=97						
Q07A	**Schurz**	3.71	236	⇓P	Pn	14 17 00.5	-1.3
	baz=3.7						
PAHR	**Pah Rah Range**	3.71	249	*e*Pn	Pn	14 16 59.8	-2.0
L18A	**Fontenelle, Gr**	3.73	76	⇓P	Pn	14 17 01.6	-0.4
	baz=3.7,SNR=35						
CCUT	**Cedar City**	3.73	161	⇓*e*Pn	Pn	14 17 01.2	-0.9
CCUT				*e*Sg	Sg	14 18 04.1	-0.3
I16A	**Newdale**	3.74	41	⇑P	Pn	14 17 01.4	-0.7
	baz=3.7						
REDW	**Red Top Meadow**	3.75	52	*e*Pn	Pn	14 17 01.5	-0.8
REDW				*e*Sg	Sg	14 17 59.5	-5.3
H10A	**Noah's Angus R**	3.75	339	⇓P	Pn	14 17 02.2	-0.1
	baz=3.7,SNR=645						
NVAR	**Mina Array Bea**	3.75	226	Pn	Pn	14 17 02.2	-0.1
	206nm,0.3s,baz=39,slow=13,SNR=1157						
NVAR				Pg	Pg	14 17 14.8	-1.5
	1µm,0.3s,baz=43,slow=17,SNR=42						
NVAR				Lg		14 18 03.9	
	4µm,0.3s,baz=46,slow=31,SNR=9.5						
TPAW	**Teton Pass**	3.77	49	*e*Pn	Pn	14 17 01.8	-0.7
N06A	**Buffalo Meadow**	3.77	266	⇓P	Pn	14 17 00.5	-2.1
	baz=3.8						
O18A	**Roosevelt**	3.79	101	⇓P	Pn	14 17 02.8	-0.2
	baz=3.8						
J17A	**Brown Place, J**	3.83	52	⇑P	Pn	14 17 02.6	-0.9
	baz=3.8						
P18A	**Preston Nutter**	3.83	111	⇓P	Pn	14 17 02.6	-0.8
	baz=3.8,SNR=42						
S09A	**Goldfield**	3.83	209	⇓P	Pn	14 17 02.2	-1.3
	baz=3.9,SNR=418						
R16A	**Teasdale**	3.84	136	⇓P	Pn	14 17 02.5	-1.1
	baz=3.9,SNR=18						
SNOW	**Snow King Moun**	3.86	51	*e*Pn	Pn	14 17 03.4	-0.5
T11A	**Corn Creek, Al**	3.86	184	⇓P	Pn	14 17 03.1	-0.8
	baz=3.9						
H15A	**Lima**	3.88	24	⇓P	Pn	14 17 03.3	-0.8
	baz=3.8,SNR=122						
O06A	**Flanigan**	3.88	258	⇓P	Pn	14 17 02.3	-1.8
	baz=3.9						
SRU	**San Rafael**	3.88	119	P	Pn	14 17 02.9	-1.3
	baz=3.9,SNR=241						
SRU	**San Rafael**	3.88	119	*e*Pn	Pn	14 17 02.8	-1.4
I08A	**Drewsey**	3.92	317	⇓P	Pn	14 17 03.8	-0.8
	baz=3.9,SNR=26						
K18A	**Toltan Ranch,**	3.92	65	⇓P	Pn	14 17 04.8	+0.1
	baz=3.9						
S15A	**Panguitch**	3.94	150	P	Pn	14 17 04.1	-0.8
	baz=4.0,SNR=417						
J07A	**Hines**	4.00	306	⇓P	Pn	14 17 04.7	-1.1
	baz=4.0						
BURN	**Burns**	4.01	309	P	Pn	14 17 06.8	+1.0
MCMT	**McKenzie Canyo**	4.01	21	*e*Pn	Pn	14 17 05.7	-0.3
G13A	**Cobalt**	4.02	7	⇑P	Pn	14 17 06.3	+0.3
	baz=4.0						
IMW	**Indian Meadow**	4.04	45	*e*Pn	Pn	14 17 05.4	-0.8
G12A	**Big Creek, Yel**	4.04	355	⇑P	Pn	14 17 06.7	+0.4
	baz=4.0						
LOHW	**Long Hollow**	4.04	50	*e*Pn	Pn	14 17 05.6	-0.7
LOHW				*e*Sg	Sg	14 18 08.0	-6.1
MOOW	**Moose Ponds**	4.04	48	*e*Pn	Pn	14 17 05.7	-0.7
P06A	**Stead Airport,**	4.09	251	⇑P	Pn	14 17 05.1	-1.9
	baz=4.1,SNR=93						
H09A	**Durkee**	4.11	331	⇑P	Pn	14 17 07.0	-0.2
	baz=4.1						
T13A	**Saint George**	4.14	169	⇓P	Pn	14 17 06.8	-1.0
	baz=4.2						
WCN	**Washoe City**	4.15	246	⇓P	Pn	14 17 06.1	-1.7
	baz=4.2						
Q18A	**Rafter H Ranch**	4.15	117	⇑P	Pn	14 17 08.1	+0.3
	baz=4.2						
BMO	**Blue Mountains**	4.15	335	*e*Pn	Pn	14 17 07.4	-0.5
MOD	**Modoc**	4.15	283	⇓*i*Pn	Pn	14 17 06.1	-1.8
R17A	**Hanksville Air**	4.18	128	⇑P	Pn	14 17 08.2	0.0
	baz=4.2						
J18A	**Kendall Valley**	4.18	58	⇑P	Pn	14 17 07.8	-0.4
	baz=4.1						
I17A	**Pilgrim Ck.**	4.25	47	⇑P	Pn	14 17 09.1	-0.1
	baz=4.2						
L19A	**Farson**	4.26	75	⇓P	Pn	14 17 09.6	+0.3
	baz=4.2,SNR=118						
T14A	**Hurricane**	4.27	160	P	Pn	14 17 08.8	-0.6
	baz=4.3,SNR=195						
G14A	**Jackson**	4.27	14	⇓P	Pn	14 17 09.3	-0.1
	baz=4.2,SNR=30						
TPNV	**Topopah Spring**	4.28	195	P	Pn	14 17 09.3	-0.3
	baz=4.3,SNR=14						
TPNV	**Topopah Spring**	4.28	195	*e*Pn	Pn	14 17 09.0	-0.6
BW06	**Boulder Array**	4.30	65	⇓P	Pn	14 17 10.3	+0.4
	baz=4.3						
BW06	**Boulder Array**	4.30	65	⇓*e*Pn	Pn	14 17 10.2	+0.3
BW06				*e*Sg	Sg	14 18 20.9	-1.7
PDAR	**Pinedale Array**	4.30	65	Pn	Pn	14 17 10.7	+0.8
	52nm,0.3s,baz=246,slow=10,SNR=690						
PDAR				Pg	Pg	14 17 24.8	-2.0
	532nm,0.3s,baz=251,slow=16,SNR=55						
PDAR				Lg		14 18 19.1	
	413nm,0.3s,baz=249,slow=27,SNR=9.2						
M19A	**Rock Springs**	4.33	83	⇓P	Pn	14 17 10.2	-0.1
	baz=4.3,SNR=62						
BEKR	**Beckwourth**	4.36	255	⇑P	Pn	14 17 08.9	-1.8
	baz=4.4						
R06C	**Coleville**	4.36	235	⇑P	Pn	14 17 09.4	-1.4
	baz=4.4						
WAKR	**Walker**	4.37	235	*e*Pn	Pn	14 17 09.2	-1.6
T12A	**Moapa**	4.37	178	⇑P	Pn	14 17 09.9	-1.0
	baz=4.4						
H08A	**Prairie City**	4.41	322	⇑P	Pn	14 17 11.0	-0.4
	baz=4.4						
G15A	**Dillon**	4.42	22	P	Pn	14 17 11.3	-0.3
	baz=4.4,SNR=63						
O19A	**Miners Draw (B**	4.45	99	⇓P	Pn	14 17 13.5	+1.6
	baz=4.4						
J06A	**Christmas Vall**	4.47	300	⇓P	Pn	14 17 11.0	-1.3
	baz=4.4,SNR=158						
YFT	**Old Faithful**	4.48	40	*e*Pn	Pn	14 17 13.1	+0.8
H16A	**Russell Place,**	4.48	35	⇑P	Pn	14 17 11.8	-0.6
	baz=4.4						
G10A	**Bishop Farm, J**	4.50	339	⇓P	Pn	14 17 12.4	-0.2
	baz=4.4						
QLMT	**Earthquake Lak**	4.50	33	*e*Pn	Pn	14 17 12.6	0.0
T15A	**Red Dirt Ranch**	4.51	154	⇓P	Pn	14 17 12.2	-0.6
	baz=4.6,SNR=56						
GRAC	**Grapevine Rang**	4.53	206	⇓P	Pn	14 17 13.1	0.0
	baz=4.6						
I07A	**Izee**	4.53	313	⇑P	Pn	14 17 12.0	-1.1
	baz=4.5,SNR=46						
I18A	**Diamond G Ranc**	4.56	54	⇓P	Pn	14 17 12.5	-0.9
	baz=4.5						
H17A	**Grant Village**	4.57	42	⇓P	Pn	14 17 13.5	0.0
	baz=4.5						
DLMT	**Dillon**	4.57	21	*e*Pn	Pn	14 17 13.3	-0.3
YMR	**Madison River**	4.58	38	*e*Pn	Pn	14 17 13.6	-0.2
SHPR	**Sheep Range**	4.59	183	*e*Pn	Pn	14 17 13.0	-0.9
MLAC	**Mammoth Lakes**	4.63	223	⇑P	Pn	14 17 14.1	-0.3
	baz=4.7						
F12A	**Elk City**	4.66	357	⇓P	Pn	14 17 12.0	-2.8
	baz=4.6						
U12A	**Valley of Fire**	4.67	177	⇓P	Pn	14 17 14.4	-0.5
	baz=4.7						
G09A	**Cove**	4.68	334	⇑P	Pn	14 17 14.1	-1.1
	baz=4.6						
S17A	**Black Ridge (B**	4.68	136	⇑P	Pn	14 17 14.6	-0.6
	baz=4.7,SNR=101						
U11A	**Corn Creek**	4.69	185	P	Pn	14 17 14.7	-0.5
	baz=4.8,SNR=66						
G16A	**Moss Hill, Enn**	4.70	28	⇑P	Pn	14 17 13.8	-1.6
	baz=4.6,SNR=38						
R18A	**Canyonlands Na**	4.70	124	⇓P	Pn	14 17 14.3	-1.1
	baz=4.7						
F13A	**Darby**	4.70	5	⇓P	Pn	14 17 14.1	-1.3
	baz=4.6,SNR=315						
MTUM	**Tungsten Hills**	4.71	219	*e*Pn	Pn	14 17 15.6	0.0
U13A	**Pakoon Wash**	4.73	171	P	Pn	14 17 15.1	-0.8
	baz=4.8,SNR=614						
P19A	**Cripple Cowboy**	4.74	106	⇑P	Pn	14 17 15.9	0.0
	baz=4.7						
YNR	**Norris Junctio**	4.75	39	*e*Pn	Pn	14 17 16.2	+0.2
K05A	**Summer Lake**	4.78	292	⇑P	Pn	14 17 15.9	-0.5
	baz=4.7,SNR=59						
LKWY	**Lake**	4.78	42	*e*P	Pn	14 17 16.7	+0.3
TIN	**Tinemaha**	4.81	214	⇑P	Pn	14 17 16.9	0.0
	baz=4.9						
U10A	**Ash Meadows, A**	4.81	194	⇑P	Pn	14 17 16.4	-0.5
	baz=4.9						
Q19A	**Hogan Spring (**	4.81	115	⇓P	Pn	14 17 17.1	+0.1
	baz=4.8						
K19A	**Absolon Red Bu**	4.81	67	⇑P	Pn	14 17 17.0	0.0
	baz=4.8						
F14A	**Wisdom**	4.84	13	⇓P	Pn	14 17 17.0	-0.2
	baz=4.8,SNR=127						
I06A	**Prineville**	4.86	308	⇑P	Pn	14 17 17.3	-0.2
	baz=4.8						
U14A	**Mt Trumbull**	4.86	164	⇑P	Pn	14 17 17.7	+0.1
	baz=4.9						
F11A	**Grangeville**	4.88	349	⇑P	Pn	14 17 18.3	+0.5
	baz=4.8						
FURC	**Furnace Creek,**	4.88	199	⇑P	Pn	14 17 17.7	-0.1
	baz=4.9						
T16A	**Glen Canyon Da**	4.88	146	⇓P	Pn	14 17 18.0	+0.2
	baz=4.9						
H07A	**Lands Inn, Kim**	4.90	317	⇓P	Pn	14 17 18.1	-0.1
	baz=4.9						
L20A	**Wamsutter**	4.99	77	⇑P	Pn	14 17 19.3	0.0
	baz=5.0,SNR=121						
N20A	**Spence Gulch,**	5.01	91	⇓P	Pn	14 17 19.4	-0.3
	baz=5.0						
LRM	**Limekiln Ridge**	5.04	20	*e*Pn	Pn	14 17 19.3	-0.7
F15A	**Butte**	5.05	19	⇓P	Pn	14 17 19.5	-0.6
	baz=5.0,SNR=60						
M20A	**Sweetwater, Wa**	5.05	83	⇑P	Pn	14 17 20.9	+0.7
	baz=5.0,SNR=215						
S18A	**Hurst Farm, Bl**	5.09	130	⇑P	Pn	14 17 21.2	+0.5
	baz=5.1						
K20A	**Yellowstone Ra**	5.12	70	⇓P	Pn	14 17 21.1	-0.1
	baz=5.1,SNR=71						
BOZ	**Bozeman (W)**	5.12	26	⇑P	Pn	14 17 20.6	-0.6
	baz=5.1,SNR=50						
BOZ	**Bozeman (W)**	5.12	26	*e*Pn	Pn	14 17 20.2	-0.9
O20A	**White River Ci**	5.14	99	⇓P	Pn	14 17 22.4	+1.0
	baz=5.1						
G08A	**Pilot Rock**	5.14	326	⇑P	Pn	14 17 21.4	-0.1
	baz=5.1						
R19A	**Curley Farm, L**	5.16	121	⇑P	Pn	14 17 22.5	+0.8
	baz=5.2						
F10A	**Beach Ranch, E**	5.16	341	⇑P	Pn	14 17 22.1	+0.3
	baz=5.1						
T17A	**Navajo Res., N**	5.18	141	⇑P	Pn	14 17 22.8	+0.8
	baz=5.2						
G17A	**Pierce Place,**	5.19	34	⇑P	Pn	14 17 21.9	-0.2
	baz=5.1						
P20A	**De Beque**	5.21	106	⇓P	Pn	14 17 23.3	+0.9
	baz=5.2						
CMB	**Columbia Colle**	5.24	236	*e*P	Pn	14 17 21.6	-1.3
F16A	**Kennard Place,**	5.25	26	⇑P	Pn	14 17 22.5	-0.4
	baz=5.2,SNR=12						
V11A	**Goodsprings**	5.27	185	⇑P	Pn	14 17 23.4	+0.1
	baz=5.3						
CWC	**Cottonwood Cre**	5.28	209	⇑P	Pn	14 17 23.8	+0.4
	baz=5.3						
V13A	**Grand Canyon W**	5.29	172	P	Pn	14 17 23.0	-0.5
	baz=5.4,SNR=482						
SHOC	**Shoshone**	5.31	192	⇓P	Pn	14 17 22.9	-0.8
	baz=5.4,SNR=25						
PV04	**Paradox Valley**	5.34	118	*e*Pn	Pn	14 17 25.3	+1.1
E11A	**Bogner Ranch,**	5.34	350	⇓P	Pn	14 17 24.1	-0.1
	baz=5.3						
E13A	**Victor**	5.36	5	⇓P	Pn	14 17 24.6	+0.2
	baz=5.3						
V12A	**Nelson**	5.37	180	⇑P	Pn	14 17 24.1	-0.4
	baz=5.4						
LNOR	**Lincton Mounta**	5.38	334	*e*P	Pn	14 17 25.7	+1.1
E14A	**Clinton**	5.41	10	⇓P	Pn	14 17 25.4	+0.4
	baz=5.3						
H06A	**Lindquist Farm**	5.41	314	⇑P	Pn	14 17 24.8	-0.3
	baz=5.4						
VIPM	**Ingram Point**	5.43	311	P	Pn	14 17 25.8	+0.5
MPMC	**Manual Prospec**	5.43	203	⇑P	Pn	14 17 25.8	+0.3
	baz=5.5,SNR=202						
G07A	**Ruggs Ranch, H**	5.44	322	⇑P	Pn	14 17 23.4	-2.2
	baz=5.4						
F08A	**Pendleton**	5.49	330	⇓P	Pn	14 17 26.1	0.0
	baz=5.4						
Q20A	**Ridgley Place,**	5.49	111	⇑P	Pn	14 17 26.3	+0.1
	baz=5.5						
T18A	**Mexican Hat**	5.55	134	⇑P	Pn	14 17 28.6	+1.5
	baz=5.6						
E15A	**Deer Lodge**	5.56	16	⇑P	Pn	14 17 27.2	0.0
	baz=5.5,SNR=44						
S19A	**Harvey Farm, M**	5.56	125	⇑P	Pn	14 17 28.0	+0.7
	baz=5.6						
U17A	**Shonto**	5.57	142	⇓P	Pn	14 17 28.8	+1.4
	baz=5.6						
N21A	**Black Mountain**	5.58	91	⇓P	Pn	14 17 28.7	+1.2
	baz=5.6						
E10A	**Myers Farm, Un**	5.62	344	⇓P	Pn	14 17 28.2	+0.2
	baz=5.6,SNR=25						
V14A	**Boquillas Ranc**	5.63	165	⇓P	Pn	14 17 28.5	+0.3
	baz=5.7						
M21A	**Separation Pea**	5.68	82	⇓P	Pn	14 17 29.3	+0.5
	baz=5.7,SNR=82						
V15A	**Kaibab Nationa**	5.68	157	⇑P	Pn	14 17 28.9	0.0
	baz=5.7						
F17A	**Fitzpatrick Pl**	5.70	31	⇓P	Pn	14 17 29.2	+0.1
	baz=5.6						
PV01	**Paradox Valley**	5.70	119	*e*Pn	Pn	14 17 29.6	+0.5
L21A	**Rawlins**	5.70	79	⇑P	Pn	14 17 29.5	+0.4
	baz=5.7,SNR=57						
O21A	**Pagoda**	5.70	97	⇓P	Pn	14 17 30.3	+1.1
	baz=5.7						
TUQ	**Turquoise Moun**	5.71	189	⇑P	Pn	14 17 28.6	-0.7
	baz=5.8,SNR=33						
G18A	**Lazy EL Ranch,**	5.73	41	⇓P	Pn	14 17 30.3	+0.8
	baz=5.7						
RLMT	**Red Lodge**	5.74	44	⇑P	Pn	14 17 30.5	+0.8
	baz=5.7						
RLMT	**Red Lodge**	5.74	44	*e*Pn	Pn	14 17 31.1	+1.4
U16A	**Tuba City**	5.75	148	⇓P	Pn	14 17 30.6	+0.8
	baz=5.8						
MSO	**Missoula**	5.77	6	*e*Pn	Pn	14 17 29.7	-0.3
W12A	**Cal Nev Ari**	5.79	180	P	Pn	14 17 29.9	-0.4
	baz=5.9,SNR=24						
RWWY	**Rawlins**	5.79	82	*e*Pn	Pn	14 17 30.9	+0.4
R20A	**Redvale**	5.80	118	⇓P	Pn	14 17 30.6	+0.2
	baz=5.8						
WDC	**Whiskeytown Da**	5.84	267	*e*P	Pn	14 17 29.4	-1.6
WDC	**Whiskeytown Da**	5.84	267	*e*Pn	Pn	14 17 28.9	-2.1
RCTC	**Rector, Farmer**	5.88	217	⇓P	Pn	14 17 32.3	+0.8
	baz=5.9						
G06A	**Carlson Farm,**	5.90	316	⇑P	Pn	14 17 31.4	-0.4
	baz=5.8						
E16A	**East Helena**	5.90	22	⇑P	Pn	14 17 31.6	-0.3
	baz=5.8						
E09A	**Wood Farm, Sta**	5.91	337	⇑P	Pn	14 17 32.2	+0.2
	baz=5.8						
YBH	**Yreka Blue Hor**	5.92	279	Pn	Pn	14 17 31.6	-0.6
	2.6nm,0.3s,baz=92,slow=8.6,SNR=28						
YBH				Lg		14 19 11.1	
	43nm,0.3s,baz=11,slow=20,SNR=3.7						
YBH				LR	LR	14 19 59.2	
	comp=Z,60µm,20.1s,baz=88,slow=40						
YBH	**Yreka Blue Hor**	5.92	279	*e*Pn	Pn	14 17 31.3	-0.9
CHMT	**Chamberlain Mo**	5.93	11	*e*Pn	Pn	14 17 31.8	-0.4
GSC	**Goldstone**	5.99	195	*e*P	Pn	14 17 32.9	-0.2
GSC	**Goldstone**	5.99	195	⇑P	Pn	14 17 32.5	-0.5
	baz=6.1						
GSC	**Goldstone**	5.99	195	*e*Pn	Pn	14 17 32.4	-0.6
D13A	**Huson**	6.00	3	⇓P	Pn	14 17 33.6	+0.4
	baz=5.9						
LDFC	**Landfair**	6.01	182	⇓*i*Pn	Pn	14 17 32.2	-1.3
HRY	**Holter Researc**	6.03	20	*e*Pn	Pn	14 17 33.0	-0.6
GCMT	**Greycliff**	6.03	37	*e*Pn	Pn	14 17 35.1	+1.5
LRMC	**Laurel Mountai**	6.03	202	⇑P	Pn	14 17 33.1	-0.7
	baz=6.1						
D11A	**Klaveano Farm,**	6.04	350	⇓P	Pn	14 17 34.0	+0.3
	baz=6.0						
F07A	**Phinny Hill Vi**	6.04	324	⇑P	Pn	14 17 34.3	+0.5
	baz=6.0						
W13A	**Hualapai Mount**	6.04	172	⇓P	Pn	14 17 33.2	-0.6
	baz=6.1						
W14A	**Seligman**	6.04	166	⇓P	Pn	14 17 33.8	-0.1
	baz=6.1						
Q21A	**Lamborn Mesa,**	6.05	110	⇑P	Pn	14 17 33.4	-0.5
	baz=6.1						
D14A	**Greenough**	6.06	9	P	Pn	14 17 34.0	0.0
	baz=6.0,SNR=97						
F18A	**Big Timber**	6.09	36	⇑P	Pn	14 17 32.8	-1.7
	baz=6.0						
U18A	**Rough Rock, Ch**	6.09	138	⇓P	Pn	14 17 35.5	+1.0
	baz=6.1						
E17A	**Martinsdale**	6.10	27	⇑P	Pn	14 17 33.4	-1.2
	baz=6.0						
ISA	**Isabella**	6.12	209	⇑P	Pn	14 17 35.2	+0.3
	baz=6.2						
ISA	**Isabella**	6.12	209	*e*Pn	Pn	14 17 35.1	+0.2
ISA				*e*Pg	Pg	14 18 00.4	-1.2
ISA				*e*Sg	Sg	14 19 19.1	-1.7
D15A	**Lincoln**	6.18	15	⇓P	Pn	14 17 34.2	-1.5
	baz=6.1,SNR=57						
E08A	**Dider Farm, El**	6.18	332	⇓P	Pn	14 17 35.7	0.0
	baz=6.1						
D10A	**Wagner Farm, O**	6.20	345	⇑P	Pn	14 17 33.6	-2.3
	baz=6.1						
VES	**Vestal, Richgr**	6.20	214	⇑P	Pn	14 17 36.6	+0.5
	baz=6.3						
WUAZ	**Wupatki**	6.22	153	⇑P	Pn	14 17 36.7	+0.4
	baz=6.3						
WUAZ	**Wupatki**	6.22	153	*e*Pn	Pn	14 17 35.5	-0.8
WUAZ				*e*Pg	Pg	14 18 02.7	-0.8
HUMO	**Hull Mountain**	6.22	287	*e*Pn	Pn	14 17 39.4	+3.1
SLMT	**Seeley Lake**	6.22	9	*e*Pn	Pn	14 17 36.3	0.0
T19A	**Beclabito**	6.24	131	⇑P	Pn	14 17 37.3	+0.7
	baz=6.3						
M22A	**Cedar Creek Ra**	6.25	85	⇑P	Pn	14 17 36.9	+0.3
	baz=6.2,SNR=112						
W15A	**Williams**	6.26	160	⇓P	Pn	14 17 35.7	-1.1
	baz=6.3						
G05A	**Wamic**	6.27	313	⇑P	Pn	14 17 36.8	-0.2
	baz=6.2						
HAWA	**Hanford**	6.27	329	*e*Pn	Pn	14 17 38.9	+2.0
MVCO	**Mesa Verde**	6.30	126	⇑P	Pn	14 17 38.4	+1.1
	baz=6.3						
MVCO	**Mesa Verde**	6.30	126	*e*Pn	Pn	14 17 38.5	+1.2
RSW	**Rattlesnake Hi**	6.30	329	*e*Pn	Pn	14 17 40.5	+3.2
NEE2	**Needles Airpor**	6.33	178	⇑P	Pn	14 17 36.6	-1.1
	baz=6.4						
GMRC	**Granite Mounta**	6.34	186	⇑P	Pn	14 17 37.0	-0.9
	baz=6.4						
V17A	**Tonalea, Kykot**	6.34	148	⇑P	Pn	14 17 38.5	+0.5
	baz=6.4						
F06A	**Goldendale**	6.34	319	⇓P	Pn	14 17 37.9	0.0
	baz=6.3						
HEC	**Hector,Ludlow**	6.36	191	⇓P	Pn	14 17 38.7	+0.5
	baz=6.4						
N22A	**Wattenberg Ran**	6.38	90	⇓P	Pn	14 17 38.0	-0.5
	baz=6.4,SNR=34						
D16A	**Dana Ranch, Ca**	6.39	21	⇑P	Pn	14 17 38.3	-0.3
	baz=6.3,SNR=46						
RRX	**Edison Barstow**	6.43	196	⇓P	Pn	14 17 39.8	+0.6
	baz=6.5						
SWMT	**Swartz Lake**	6.44	5	*e*Pn	Pn	14 17 38.9	-0.3
D09A	**Jones Farm, Ri**	6.45	339	⇓P	Pn	14 17 39.5	+0.1
	baz=6.4						
H04A	**Detroit Lake**	6.45	306	⇑P	Pn	14 17 38.4	-1.0
	baz=6.4						
HOOD	**Mount Hood Mea**	6.50	313	*e*Pn	Pn	14 17 43.6	+3.5
Q22A	**Crested Butte,**	6.51	107	⇓P	Pn	14 17 41.0	+0.7
	baz=6.5						
E07A	**Sunnyside**	6.54	328	⇓P	Pn	14 17 40.5	0.0
	baz=6.5						
E18A	**Harlowton**	6.54	32	⇓P	Pn	14 17 39.6	-0.9
	baz=6.5						
X13A	**Yucca**	6.55	172	⇓P	Pn	14 17 39.9	-0.9
	baz=6.6						
W16A	**Flagstaff**	6.55	155	⇓P	Pn	14 17 41.8	+1.0
	baz=6.6						
C13A	**Hot Springs**	6.58	2	⇑P	Pn	14 17 41.2	0.0
	baz=6.5						
C12B	**Naegeli Ranch,**	6.62	356	⇑P	Pn	14 17 43.6	+1.8
	baz=6.6						
D08A	**Wollman Farm,**	6.63	335	⇑P	Pn	14 17 42.1	+0.3
	baz=6.6						
HOPS	**Hopland**	6.63	254	*e*Pn	Pn	14 17 43.6	+1.7
V18A	**Ganado**	6.63	143	⇓P	Pn	14 17 42.6	+0.6
	baz=6.7						
JTMT	**Jette**	6.66	3	*e*Pn	Pn	14 17 42.2	0.0
EDW2	**Edwards Air Fo**	6.68	203	⇑P	Pn	14 17 42.5	-0.1
	baz=6.7						
SAO	**San Andreas Ge**	6.71	232	*e*P	Pn	14 17 43.3	+0.4
SAO	**San Andreas Ge**	6.71	232	*e*Pn	Pn	14 17 42.8	-0.1
C14A	**Swan Lake**	6.72	7	⇓P	Pn	14 17 40.8	-2.2
	baz=6.7						
ARVC	**Arvin**	6.73	209	⇓P	Pn	14 17 45.1	+1.8
	baz=6.8						
MXC	**Moxie City**	6.73	326	P	Pn	14 17 46.3	+3.0
BSMT	**Bassoo Peak**	6.75	1	*e*Pn	Pn	14 17 44.5	+1.0
D17A	**Six Diamond Ra**	6.76	25	⇑P	Pn	14 17 42.0	-1.6
	baz=6.7,SNR=36						
YBMT	**Yellow Bay**	6.79	5	*e*Pn	Pn	14 17 44.1	0.0
X14A	**Yava**	6.80	166	⇑P	Pn	14 17 44.4	+0.1
	baz=6.9						
PDMCI	**Parker Dam,Lak**	6.81	175	⇓P	Pn	14 17 43.2	-1.2
	baz=6.9						
SAC	**San Andreas**	6.82	241	*e*P	Pn	14 17 44.9	+0.4
MCCM	**Marconi Confer**	6.85	247	*e*Pn	Pn	14 17 45.6	+0.7
W17A	**Winslow**	6.85	150	⇓P	Pn	14 17 45.5	+0.6
	baz=6.9						
U20A	**Newcomb**	6.85	131	⇑P	Pn	14 17 48.0	+3.1
	baz=6.9						
OD2	**Odessa Site #2**	6.87	338	P	Pn	14 17 46.5	+1.4
C15A	**Salmond Ranch,**	6.87	13	⇓P	Pn	14 17 44.6	-0.5
	baz=6.8						
R22A	**Saguache, Gunn**	6.89	112	⇓P	Pn	14 17 46.1	+0.7
	baz=6.9						
G04A	**Mulino**	6.91	309	⇑P	Pn	14 17 47.8	+2.1
	baz=6.9						
X15A	**Humboldt**	6.92	162	⇓P	Pn	14 17 46.1	+0.2
	baz=7.0						
IRM	**Iron Mountain**	6.93	182	⇑P	Pn	14 17 45.1	-0.9
	baz=7.0						
C10A	**Spilker Farm,**	6.94	346	⇓P	Pn	14 17 46.4	+0.3
	baz=6.9						
E06A	**Yakima**	7.00	323	⇓P	Pn	14 17 48.3	+1.3
	baz=6.9						
BBRC	**Big Bear Sol-O**	7.02	194	⇑P	Pn	14 17 48.7	+1.5
	baz=7.1						
SMMC	**Simmler**	7.05	217	⇓P	Pn	14 17 49.5	+1.8
	baz=7.1						
V19A	**Window Rock**	7.06	138	⇑P	Pn	14 17 49.6	+1.8
	baz=7.1						
C16A	**Fuhringer Ranc**	7.06	17	⇑P	Pn	14 17 46.9	-0.9
	baz=7.0,SNR=39						
D18A	**Linhart Farms,**	7.10	29	⇑P	Pn	14 17 49.5	+1.2
	baz=7.0						
COR	**Corvallis**	7.11	302	*e*P	Pn	14 17 52.2	+3.8
PHWY	**Pilot Hill**	7.11	85	⇓*e*Pn	Pn	14 17 48.9	+0.4
D07A	**Quincy**	7.11	331	⇑P	Pn	14 17 49.9	+1.5
	baz=7.1						
C09A	**Chrisman Ranch**	7.13	341	⇓P	Pn	14 17 49.5	+0.9
	baz=7.1						
BELC	**Belle Mtn.**	7.14	188	⇓P	Pn	14 17 48.7	-0.3
	baz=7.2,SNR=223						
OSI	**Osito Adit**	7.15	206	⇓P	Pn	14 17 51.1	+2.0
	baz=7.2						
OSI	**Osito Adit**	7.15	206	*e*Pn	Pn	14 17 55.1	+6.0
C17A	**Wharram Farm,**	7.16	23	⇑P	Pn	14 17 49.4	+0.2
	baz=7.1,SNR=26						
ISCO	**Idaho Springs**	7.18	97	*e*P	Pn	14 17 50.9	+1.4
BFSC	**Mount Baldy St**	7.20	199	⇓P	Pn	14 17 50.4	+0.7
	baz=7.3						
X16A	**Lo Mia Camp, P**	7.20	157	⇓P	Pn	14 17 49.5	-0.3
	baz=7.3						
W18A	**Petrified Fore**	7.22	144	⇓P	Pn	14 17 48.6	-1.4
	baz=7.3						
KEBM	**Edson Butte**	7.27	287	*e*Pn	Pn	14 17 54.2	+3.6
B13A	**Whitefish**	7.28	2	⇑P	Pn	14 17 51.1	+0.4
	baz=7.2						
V20A	**Brimhall**	7.30	134	⇑P	Pn	14 17 53.1	+2.0
	baz=7.3						
Y14A	**Wickenburg**	7.30	168	⇓P	Pn	14 17 50.6	-0.6
	baz=7.4,SNR=22						
F04A	**Amboy**	7.30	314	⇑P	Pn	14 17 51.9	+0.8
	baz=7.3						
MWC	**Mount Wilson**	7.31	201	*e*P	Pn	14 17 53.0	+1.7
MWC	**Mount Wilson**	7.31	201	*e*Pn	Pn	14 17 52.7	+1.5
C08A	**Higginbotham F**	7.32	337	⇓P	Pn	14 17 52.3	+1.0
	baz=7.3						
Y13A	**Salome**	7.32	173	P	Pn	14 17 51.0	-0.3
	baz=7.4,SNR=31						
NEW	**Newport**	7.34	348	*e*Pn	Pn	14 17 52.2	+0.6
NEW				*e*Sg	Sg	14 19 50.8	-9.0
Y12C	**Blythe**	7.34	178	⇑P	Pn	14 17 50.6	-1.1
	baz=7.4						
DECC	**Green Verdugo**	7.37	203	⇓P	Pn	14 17 52.4	+0.4
	baz=7.4						
W19A	**Sanders**	7.38	142	⇑P	Pn	14 17 52.6	+0.4

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      baz=7.4
B12A  Libby             7.39 356 ⇓P    Pn    14 17 53.8 +1.6
      baz=7.3
B10A  Chitwood Farm,    7.39 348 ⇑P    Pn    14 17 53.6 +1.3
      baz=7.3
B15A  Bradely Ranch,    7.40  12 ⇑P    Pn    14 17 52.3  -0.1
      baz=7.3,SNR=21
PASC  Pasadena Art C    7.40 202 ePn   Pn    14 17 53.8 +1.3
B11A  Sandpoint         7.41 352 ⇓P    Pn    14 17 53.7 +1.1
      baz=7.4
Y15A  Casa Rosa Ranc    7.41 163 ⇓P    Pn    14 17 52.5  -0.1
      baz=7.5
T22A  Edith             7.42 121 ⇓P    Pn    14 17 54.3 +1.5
      baz=7.4
BC3   Big Chuckw Mtn    7.45 184  P    Pn    14 17 52.7  -0.4
      baz=7.5,SNR=178
D06A  Cle Elum          7.45 327 ⇓P    Pn    14 17 54.9 +1.8
      baz=7.4
X17A  Forest Lakes      7.48 153 ⇑P    Pn    14 17 54.7 +1.1
      baz=7.5
LON   Longmire          7.54 321 ePn   Pn    14 17 56.1 +1.7
LON                              eSg   Sg    14 20 02.2  -4.2
C07A  Waterville        7.56 332 ⇑P    Pn    14 17 55.5 +0.9
      baz=7.5
PFO   Pinyon Flat Ob    7.58 190 i P   Pn    14 17 55.8 +0.8
PFO   Pinyon Flat Ob    7.58 190 ⇑P    Pn    14 17 54.9  -0.1
      baz=7.7
PFO   Pinyon Flat Ob    7.58 190 ePn   Pn    14 17 55.0 +0.1
ETW   Entiat            7.58 331 ePn   Pn    14 17 56.2 +1.2
X18A  Snowflake         7.63 148 ⇓P    Pn    14 17 55.9 +0.2
      baz=7.7
B16A  M & M Farms, S    7.65  16 ⇑P    Pn    14 17 55.5  -0.4
      baz=7.6,SNR=38
SBC   Santa Barbara     7.67 211 ⇑P    Pn    14 18 00.4 +4.2
      baz=7.7
B09A  Rice              7.68 343 ⇑P    Pn    14 17 57.0 +0.7
      baz=7.6
HEBO  Mount Hebo        7.68 305 ePn   Pn    14 17 59.2 +2.9
Y16A  Circle Bar Ran    7.70 158 ⇑P    Pn    14 17 59.8 +3.3
      baz=7.8
MURC  Murrieta          7.71 195 ⇓P    Pn    14 17 57.6 +0.9
      baz=7.8
BLG   Laguna Peak       7.73 207 ⇓P    Pn    14 17 59.6 +2.6
      baz=7.8
B17A  L&G Farms, Che    7.75  21 ⇑P    Pn    14 17 58.1 +0.8
      baz=7.7
V21A  Milan             7.76 131 ⇑P    Pn    14 18 00.1 +2.7
      baz=7.8
W20A  Ramah             7.80 138 ⇑P    Pn    14 17 59.2 +1.3
      baz=7.8
EGMT  Eagleton          7.83  26 ⇓P    Pn    14 17 58.5 +0.2
      baz=7.8
EGMT  Eagleton          7.83  26 ePn   Pn    14 17 58.6 +0.4
A13A  Flathead Natio    7.84   2 ⇓P    Pn    14 17 59.4 +0.9
      baz=7.8
A12A  Yaak River Ran    7.85 356 ⇓P    Pn    14 18 00.7 +2.1
      baz=7.8
FMP   Fort Macarthur    7.86 201 ⇓P    Pn    14 17 59.4 +0.6
      baz=7.9
Z14A  Wintersburg       7.88 168 ⇑P    Pn    14 18 01.1 +2.1
      baz=7.9
B08A  Colville Reser    7.92 338 ⇑P    Pn    14 18 00.6 +1.1
      baz=7.9
A11A  Hall Mountain,    7.93 353 ⇓P    Pn    14 18 00.6 +0.9
      baz=7.9
A14A  Double T Ranch    7.94   7 ⇓P    Pn    14 18 00.8 +1.0
      baz=7.9
F03A  Seaside           7.94 310 ⇓P    Pn    14 18 03.1 +3.3
      baz=7.9
Z13A  Yuma Proving G    7.95 173 ⇓P    Pn    14 17 59.9  -0.1
      baz=8.0
D05A  Enumclaw          7.95 322 ⇑P    Pn    14 18 02.8 +2.9
      baz=7.9
WALA  Waterton Lakes    7.99   5 ePn   Pn    14 18 01.6 +1.1
SDCO  Great Sand Dun    7.99 112 ePn   Pn    14 18 01.4 +0.8
A15A  Johnson Ranch,    8.02  10 ⇑P    Pn    14 18 01.4 +0.5
      baz=8.0
GLA   Glamis            8.03 180 eP    Pn    14 18 00.9  -0.3
GLA   Glamis            8.03 180 ⇓P    Pn    14 18 00.8  -0.4
      baz=8.1,SNR=32
GLA   Glamis            8.03 180 ePn   Pn    14 18 00.8  -0.4
BSC   Santa Cruz Isl    8.04 210 ⇓P    Pn    14 18 03.2 +2.0
      baz=8.1
Y17A  Roosevelt         8.06 155 ⇑P    Pn    14 18 03.4 +1.9
      baz=8.1
C06A  Tall Timber Ra    8.06 330 ⇑P    Pn    14 18 02.4 +0.9
      baz=8.0
Z15A  Gila River Ind    8.09 164 ⇑P    Pn    14 18 05.2 +3.2
      baz=8.2
A10A  Northport         8.11 347 ⇓P    Pn    14 18 03.4 +1.3
      baz=8.0
B18A  Beardsley Farm    8.14  25 ⇓P    Pn    14 18 04.3 +1.6
      baz=8.1
CIS   Catalina Islan    8.18 201 ⇓P    Pn    14 18 07.7 +4.6
      baz=8.3
SWSC  Sam W. Stewart    8.18 185 ⇓P    Pn    14 18 03.5 +0.3
      baz=8.3
A16A  West Butte Ran    8.18  15 ⇓P    Pn    14 18 03.8 +0.6
      baz=8.1
C05A  Tolt Reservoir    8.20 326 ⇓P    Pn    14 18 05.5 +2.1
      baz=8.1
Z16A  Peralta Trail,    8.22 159 ⇓P    Pn    14 18 07.9 +4.2
      baz=8.3
B07A  Winthrop          8.25 335 ⇓P    Pn    14 18 05.1 +1.1
      baz=8.2
W21A  San Fidel         8.25 134 ⇑P    Pn    14 18 06.9 +2.7
      baz=8.3
X20A  Quemado           8.26 140 ⇑P    Pn    14 18 06.2 +1.9
      baz=8.3
D04A  Dobbs Creek Ra    8.28 319 ⇑P    Pn    14 18 07.9 +3.3
      baz=8.2
MONP  Monument Peak     8.29 189 ⇑P    Pn    14 18 05.1 +0.4
      baz=8.4
A09A  Danville          8.30 343 ⇑P    Pn    14 18 05.8 +1.0
      baz=8.2
E03A  Lebam             8.31 314 ⇓P    Pn    14 18 07.9 +3.0
      baz=8.3
113A  Mohawk Valley,    8.36 174 ⇓P    Pn    14 18 05.2  -0.5
      baz=8.4,SNR=19
LAO   LASA Array        8.38  45 ePn   Pn    14 18 05.3  -0.5
A17A  Triple J Farms    8.38  19 ⇓P    Pn    14 18 06.7 +0.9
      baz=8.3
109C  Camp Elliot, M    8.39 193 ⇑P    Pn    14 18 06.9 +0.8
      baz=8.5
Y19A  Nutrioso          8.41 146 ⇑P    Pn    14 18 06.8 +0.5
      baz=8.5
A08A  Turner Farm, O    8.45 340 ⇑P    Pn    14 18 08.5 +1.8
      baz=8.4
DVTC  Desert V Tower    8.48 187 ⇓P    Pn    14 18 10.6 +3.2
      baz=8.6
114A  Black Gap (USA    8.48 169 ⇓P    Pn    14 18 10.1 +2.8
      baz=8.6
BAR   Barrett           8.53 190 ePn   Pn    14 18 08.2 +0.3
Z17A  San Carlos Hig    8.54 154 ⇓P    Pn    14 18 12.9 +4.8
      baz=8.6
RSSD  Black Hills       8.54  66 eP    Pn    14 18 06.9  -1.2
112A  Yuma              8.55 178 ⇑P    Pn    14 18 07.9  -0.4
      baz=8.6
A18A  Metzger Ranch,    8.59  23 ⇑P    Pn    14 18 09.4 +0.7
      baz=8.5
GNW   Green Mountain    8.61 321 ePn   Pn    14 18 12.2 +3.1
SCI   San Clemente I    8.62 201 ⇓P    Pn    14 18 12.8 +3.6
      baz=8.7
115A  Sonoran Desert    8.65 165 ⇑P    Pn    14 18 11.8 +2.2
      baz=8.7
SNCC  San Nicolas Is    8.67 207 ⇑P    Pn    14 18 11.8 +1.9
      baz=8.7
JCW   Jim Creek         8.69 327 ePn   Pn    14 18 12.6 +2.5
X21A  Alamocita Cree    8.69 138 ⇑P    Pn    14 18 12.0 +1.7
      baz=8.7
W22A  Albuquerque       8.72 131 ⇑P    Pn    14 18 12.2 +1.6
      baz=8.8
RPW   Rockport          8.73 330 ePn   Pn    14 18 12.7 +2.0
B06A  Marblemount       8.78 330 ⇓P    Pn    14 18 13.3 +2.0
      baz=8.7
Y20A  Horse Springs,    8.84 142 ⇓P    Pn    14 18 13.9 +1.7
      baz=8.9
A07A  Ashnola River,    8.85 336 ⇑P    Pn    14 18 14.6 +2.3
      baz=8.8
Z18A  Geronimo          8.88 153 ⇓P    Pn    14 18 17.0 +4.2
      baz=8.9
116A  Eloy              8.89 162 ⇓P    Pn    14 18 15.5 +2.5
      baz=9.0
Z19A  T-Link Ranch,     8.98 148 ⇑P    Pn    14 18 18.4 +4.2
      baz=9.0
NLWA  Neilton Lookou    9.01 317 ⇑P    Pn    14 18 17.3 +2.9
      baz=8.9
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NLWA  Neilton Lookou    9.01 317 ePn   Pn    14 18 18.4 +3.9
ANMO  Albuquerque       9.04 130  Pn   Pn    14 18 16.7 +1.8
      1.8nm,0.3s,baz=329,slow=13,SNR=34
ANMO                              Pg   Pn    14 18 51.0  +36
      5.0nm,0.3s,baz=330,slow=14,SNR=5.8
ANMO                              Lg         14 20 51.9
      12nm,0.3s,baz=266,slow=13,SNR=3.9
ANMO  Albuquerque       9.04 130 ePn   Pn    14 18 15.2 +0.2
X22A  Bernardo          9.06 134 ⇓P    Pn    14 18 17.8 +2.6
      baz=9.1
LAZ   Ladron            9.06 135 ePn   Pn    14 18 15.1  -0.3
Y21A  Point of Rocks    9.10 139 ⇓P    Pn    14 18 17.7 +1.9
      baz=9.1
117A  Oracle            9.13 157 ⇓P    Pn    14 18 20.4 +4.1
      baz=9.2
A06A  Chilliwack        9.26 332 ⇑P    Pn    14 18 20.7 +2.8
      baz=9.2
214A  Organ Pipe Nat    9.28 169 ⇓P    Pn    14 18 21.7 +3.5
      baz=9.4
118A  Homack Ranch,     9.31 154 ⇑P    Pn    14 18 22.4 +3.7
      baz=9.4
TUC   Tucson            9.37 158 eP    Pn    14 18 22.2 +2.7
TUC   Tucson            9.37 158 ePn   Pn    14 18 21.8 +2.4
A05A  Maple Falls       9.40 330 ⇓P    Pn    14 18 22.6 +2.8
      baz=9.3
Z20A  Nine Sixteen R    9.42 146 ⇓P    Pn    14 18 24.4 +4.3
      baz=9.5
Y22D  IRIS PASSCAL I    9.43 135 ⇑P    Pn    14 18 23.0 +2.6
      baz=9.5
119A  Ashpeak Ranch,    9.44 150 ⇑P    Pn    14 18 25.1 +4.7
      baz=9.5
216A  Three Points,     9.49 162 ⇓P    Pn    14 18 23.7 +2.6
      baz=9.6
BNM   Barren Site       9.53 134 ePn   Pn    14 18 23.7 +2.0
PGC   Sidney            9.69 324 ePn   Pn    14 18 25.4 +1.6
OGNE  Ogallala          9.71  87 ePn   Pn    14 18 23.0  -1.1
217A  Green Valley      9.86 159 ⇑P    Pn    14 18 30.0 +3.7
      baz=9.9
120A  U Bar Ranch, L    9.89 148 ⇓P    Pn    14 18 31.3 +4.7
      baz=10.0
218A  Dragoon           9.90 155 ⇓P    Pn    14 18 30.9 +4.1
      baz=10.0
219A  White Tail Can   10.14 152 ⇓P    Pn    14 18 34.5 +4.5
      baz=10
121A  Cookes Peak, D   10.26 144 ⇓P    Pn    14 18 36.0 +4.2
      baz=10
318A  Bisbee           10.41 156 ⇓P    Pn    14 18 37.9 +4.1
      baz=10
122A  Conniff Cattle   10.48 141 ⇑P    Pn    14 18 39.0 +4.2
      baz=10
220A  Playas Peak, P   10.50 149 ⇓P    Pn    14 18 39.7 +4.7
      baz=11
DGMT  Dagmar           10.57  42 ⇑P    Pn    14 18 37.0 +1.1
      baz=10
DGMT  Dagmar           10.57  42 ePn   Pn    14 18 36.0 +0.1
319A  Douglas          10.70 153 ⇑P    Pn    14 18 42.3 +4.6
      baz=11
221A  Mesquite Ranch   10.71 146 ⇑P    Pn    14 18 42.6 +4.7
      baz=11
222A  Williams Famil   10.93 143 ⇑P    Pn    14 18 45.5 +4.6
      baz=11
320A  Kipp Ranch, An   11.01 150 ⇓P    Pn    14 18 46.6 +4.7
      baz=11
CBKS  Cedar Bluff      11.84  96 eP    Pn    14 18 53.2  -0.1
AMTX  Amarillo         12.11 117 ePn   Pn    14 19 01.1 +4.0
EDM   Edmonton         12.17   4 ePn   Pn    14 18 57.3  -0.4
EDM                              eLg         14 22 28.8
ECSD  EROS Data Cent   13.75  73 ePn   Pn    14 19 16.2  -3.1
KSU1  Kansas State U   14.13  92 ePn   Pn    14 19 24.1  -0.4
WMOK  Wichita Mounta   14.20 111 eP    Pn    14 19 25.3  -0.2
BBB   Bella Bella      14.31 325  Pn   Pn    14 19 33.8 +6.9
      0.9nm,0.3s,baz=138,slow=6.3,SNR=5.8
TXAR  Lajitas Array    14.87 139  Pn   Pn    14 19 37.8 +3.0
      0.7nm,0.3s,baz=329,slow=8.8,SNR=318
TXAR                              Sn   Sn    14 22 33.7  +14
      0.1nm,0.3s,baz=50,slow=20,SNR=2.4
TXAR                              LR   LR    14 25 39.6
      comp=Z,35µm,20.5s,baz=170,slow=39
TXAR  Lajitas Array    14.87 139  Pn   Pn    14 19 37.8 +3.0
TXAR                              Sn   Sn    14 22 33.7  +14
TXAR                              LR   LR    14 25 39.6
AGMN  Agassiz Refuge   15.29  56 ePn   Pn    14 19 35.5  -4.8
      57nm,0.7s
ULM   Lac du Bonnet    16.09  49  Pn   Pn    14 19 47.4  -3.2
      1.3nm,0.3s,baz=244,slow=12,SNR=25
ULM                               Lg         14 24 25.0
      0.3nm,0.3s,baz=297,slow=22,SNR=4.9
ULM                               LR   LR    14 25 50.5
      comp=Z,13µm,21.5s,baz=242,slow=37
ULM   Lac du Bonnet    16.09  49  Pn   Pn    14 19 47.4  -3.2
ULM                               Lg         14 24 25.0
ULM                               LR   LR    14 25 50.5
FFC   Flin Flon        16.10  28 eP    Pn    14 19 46.9  -3.8
FFC                               pmax pmax
      comp=Z,363nm,1.2s
FFC   Flin Flon        16.10  28 ePn   Pn    14 19 46.9  -3.8
      comp=Z,363nm,1.2s
JCT   Junction City    16.16 126 eP    Pn    14 19 53.0 +1.4
JCT                              eS    Sn    14 22 59.0 +8.2
JCT                               pmax pmax
      comp=Z,301nm,1.0s
JCT   Junction City    16.16 126 ePn   Pn    14 19 53.0 +1.4
      comp=Z,302nm,1.0s
JCT                              eS    Sn    14 22 59.0 +8.2
SCIA  State Center     16.25  80 ePn   Pn    14 19 50.7  -1.9
      comp=Z,4µm,1.9s
LPIG  La Paz           17.38 166  P    Pn    14 20 08.3 +1.3
      baz=358,slow=1.7,SNR=10
LPIG                              S    Sn    14 23 33.1  +13
      comp=Z,9.6nm,0.3s,baz=123,slow=2.7,SNR=3.1
LPIG                              LR   LR    14 25 55.9
      comp=Z,21µm,19.9s,baz=349,slow=34
LPIG  La Paz           17.38 166  P    Pn    14 20 08.3 +1.3
LPIG                              S    Sn    14 23 33.1  +13
LPIG                              LR   LR    14 25 55.9
EYMN  Ely              17.98  60 eP    Pn    14 20 09.4  -5.0
      comp=Z,178nm,0.9s
MIAR  Mount Ida        18.04 104 eP    Pn    14 20 14.4  -0.7
MIAR                             eS    Sn    14 23 42.2 +5.9
MIAR                              pmax pmax
      comp=Z,741nm,1.3s
MIAR  Mount Ida        18.04 104 ePn   Pn    14 20 14.4  -0.7
      comp=Z,741nm,1.3s
MIAR                             eS    Sn    14 23 42.2 +5.9
JFWS  Jewell Farm      18.38  76⇓eP    Pn    14 20 15.9  -3.4
JFWS                             eS    Sn    14 23 43.3  -1.2
JFWS                              pmax pmax
      comp=Z,269nm,0.9s
JFWS  Jewell Farm      18.38  76⇓eP    Pn    14 20 15.9  -3.4
      comp=Z,269nm,0.9s
JFWS                             eS    Sn    14 23 43.3  -1.2
CCM   Cathedral Cave   18.46  92 eP    Pn    14 20 18.6  -1.7
CCM                              eS    Sn    14 23 51.8 +5.4
CCM                               pmax pmax
      comp=Z,1µm,2.2s
CCM   Cathedral Cave   18.46  92 ePn   Pn    14 20 18.6  -1.7
      comp=Z,1µm,2.2s
CCM                              eS    Sn    14 23 51.8 +5.3
NATX  Nacogdoches      18.71 113 eP    Pn    14 20 23.9 +0.5
      comp=Z,685nm,1.2s
CRAG  Craig            18.73 326 eP    Pn    14 20 26.6 +3.2
      comp=Z,1µm,2.0s
UALR  University of    18.84 102⇓eP    Pn    14 20 24.2  -0.7
      comp=Z,2µm,2.1s
UALR                             eS    Sn    14 24 01.0 +5.3
HKT   Hockley          19.04 120 eP    Pn    14 20 26.9  -0.4
HKT                               pmax pmax
      comp=Z,542nm,1.5s
HKT   Hockley          19.04 120 eP    Pn    14 20 26.9  -0.4
      comp=Z,542nm,1.5s
SLM   Saint Louis      19.06  89 eP    Pn    14 20 26.1  -1.5
SLM                               pmax pmax
      comp=Z,844nm,1.2s
SLM   Saint Louis      19.06  89 eP    Pn    14 20 26.1  -1.5
      comp=Z,844nm,1.2s
WRAK  Wrangell Islan   19.09 329 eP    Pn    14 20 29.5 +1.8
      comp=Z,770nm,1.4s
FVM   French Village   19.10  91 eP    Pn    14 20 27.3  -0.7
FVM                               pmax pmax
      comp=Z,655nm,1.0s
FVM   French Village   19.10  91 eP    Pn    14 20 27.3  -0.7
      comp=Z,655nm,1.0s
MAIG  Mazatlaan        19.22 156 i S   Pn    14 20 30.8 +1.2
HDIL  Hopedale         19.35  83 eP    Pn    14 20 28.9  -2.2
      comp=Z,2µm,1.9s
KVTX  Kingsville       19.43 129 eP    Pn    14 20 32.7 +0.5
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      comp=Z,1µm,1.3s
HBAR  Harrisburg       19.76  98 eP    Pn    14 20 34.5  -1.5
DLBC  Dease Lake       19.84 336  P    Pn    14 20 37.5 +0.8
      comp=Z,0.7nm,0.3s,baz=163,slow=12,SNR=24
DLBC                              S    Sn    14 24 25.6 +6.1
      comp=Z,0.0nm,0.3s,baz=69,slow=24,SNR=1.8
DLBC                              Lg         14 26 23.2
      comp=Z,0.2nm,0.3s,baz=166,slow=19,SNR=6.7
DLBC                              LR   LR    14 28 06.7
      comp=Z,56µm,18.9s,baz=141,slow=36
DLBC  Dease Lake       19.84 336 eP    Pn    14 20 37.8 +1.1
DLBC                             eS    Sn    14 24 20.7 +1.2
PARMO Parma            20.03  95 eP    P     14 20 38.8 +1.4
GNAR  Gosnell          20.08  97 eP    P     14 20 36.8  -1.2
      comp=Z,5µm,1.2s
SIUC  Southern Illin   20.09  91 eP    P     14 20 38.4 +0.4
      comp=Z,417nm,0.9s
GLAT  Glass            20.52  95 eP    P     14 20 44.1 +1.4
HALT  Halls            20.61  96 eP    P     14 20 46.0 +2.3
OLIL  Olney            20.65  88 eP    P     14 20 45.0 +0.8
      comp=Z,504nm,1.3s
SIT   Sitka            20.71 327  P    P     14 20 44.8 +0.2
SIT                               pmax pmax
      comp=Z,172nm,1.2s
SIT   Sitka            20.71 327  P    P     14 20 44.8 +0.2
      comp=Z,172nm,1.2s
UTMT  University of    20.81  95 eP    P     14 20 48.2 +2.3
      comp=Z,798nm,1.0s
UTMT                             eS    S     14 24 41.4 +3.4
ZAIG  Zacatecas        21.01 147 i P   P     14 20 53.7 +5.6
ZAIG                             i S   S     14 24 51.5 +9.4
OXF   Oxford           21.13 100 eP    P     14 20 50.8 +1.5
OXF                              eS    S     14 24 46.1 +1.8
OXF                               pmax pmax
      comp=Z,28nm,0.6s,mb4.8
OXF                               MLR  MLR
      comp=Z,45µm,19.0s,MS5.9
OXF   Oxford           21.13 100 eP    P     14 20 50.8 +1.4
      comp=Z,28nm,0.6s,mb4.8
OXF                              eS    S     14 24 46.1 +1.8
OXF                               LR   LR
      comp=Z,45µm,19.0s,MS5.9
USIN  University of    21.19  90 eP    P     14 20 49.9   0.0
      comp=Z,537nm,0.9s,mb5.9
VBMS  Vicksburg        21.40 107 eP    P     14 20 53.6 +1.3
      comp=Z,4µm,2.4s,mb6.3
VBMS                              LR   LR
      comp=Z,25µm,19.0s,MS5.6
YKA   Yellowknife Ar   21.43   0  P    P     14 20 50.7  -1.6
YKA                               S    S     14 24 55.1 +5.4
YKA   Yellowknife Ar   21.43   0  P    P     14 20 50.6  -1.7
      comp=Z,150nm,0.9s,mb5.3,baz=180,slow=9.7,SNR=361
YKA                               S    S     14 24 55.1 +5.4
      comp=Z,3.9nm,0.6s,baz=95,slow=15,SNR=8.6
YKA                               Lg         14 27 10.8
      comp=Z,7.8nm,0.7s,baz=177,slow=27,SNR=3.7
WVT   Waverly          21.67  94 eP    P     14 20 55.7 +0.6
WVT                               MLR  MLR
      comp=Z,11µm,20.0s,MS5.3
BLO   Bloomington      21.73  86 eP    P     14 20 55.3  -0.5
BLO                               pmax pmax
      comp=Z,5µm,2.5s,mb6.5
BLO   Bloomington      21.73  86 eP    P     14 20 55.3  -0.5
      comp=Z,5µm,2.5s,mb6.5
PLAL  Pickwick Lake    21.93  97 eP    P     14 20 58.2 +0.3
      comp=Z,495nm,1.2s,mb5.8
PLAL                             eS    S     14 24 59.5  -0.5
PLAL                              LR   LR
      comp=Z,25µm,21.0s,MS5.6
FCC   Fort Churchill   22.01  30 eP    P     14 20 57.2  -1.4
      comp=Z,24nm,1.5s,mb4.4
FCC                              eS    S     14 25 01.8 +0.6
WCI   Wyandotte Cave   22.15  88 eP    P     14 21 00.5 +0.2
WCI                               pmax pmax
      comp=Z,376nm,0.9s,mb5.8
WCI   Wyandotte Cave   22.15  88 eP    P     14 21 00.5 +0.2
      comp=Z,376nm,0.9s,mb5.8
SKAG  Skagway          22.39 332 eP    P     14 21 03.5 +0.9
      comp=Z,226nm,1.3s,mb5.4
GLMI  Grayling         22.39  70⇓eP    P     14 21 02.4  -0.4
      comp=Z,552nm,0.9s,mb6.0
GLMI                              LR   LR
      comp=Z,37µm,22.0s,MS5.8
AAM   Ann Arbor        23.28  77 eP    P     14 21 11.5  -0.7
AAM                               pmax pmax
      comp=Z,483nm,1.3s,mb5.8
AAM                               MLR  MLR
      comp=Z,38µm,21.0s,MS5.8
AAM   Ann Arbor        23.28  77 eP    P     14 21 11.4  -0.8
      comp=Z,483nm,1.3s,mb5.8
AAM                               LR   LR
      comp=Z,38µm,21.0s,MS5.8
SWET  Sewanee          23.44  95 eP    P     14 21 13.9  -0.1
PNL   Peninsula        24.05 329 eP    P     14 21 21.2 +1.8
      comp=Z,2µm,1.8s,mb6.2
HYT   Haines Junctio   24.12 333 eP    P     14 21 23.5 +3.4
ACSO  Alum Creek Sta   24.14  81 eP    P     14 21 19.3  -1.2
      comp=Z,459nm,0.8s,mb6.0
ACSO                              LR   LR
      comp=Z,27µm,20.0s,MS5.7
MOIG  Morelia          24.34 147 i S   P     14 21 25.5 +3.1
CPCT  Cooper Cave      24.42  93 eP    P     14 21 23.3 +0.3
BRAL  Brewton          24.55 105 eP    P     14 21 25.9 +1.7
      comp=Z,1µm,1.6s,mb6.1
BRAL                              LR   LR
      comp=Z,47µm,19.0s,MS6.0
TZTN  Tazewell         24.75  90 eP    P     14 21 24.8  -1.3
      comp=Z,430nm,1.3s,mb5.8
TKL   Tuckaleechee C   24.90  92  P    P     14 21 27.5   0.0
      comp=Z,171nm,1.0s,mb5.5,baz=261,slow=4.2,SNR=39
TKL                               S    S     14 25 55.1 +4.5
      comp=Z,13nm,0.9s,baz=231,slow=18,SNR=1.9
TKL                               Lg         14 29 13.1
      comp=Z,28nm,0.9s,baz=219,slow=20,SNR=5.2
TKL                               LR   LR    14 31 39.8
      comp=Z,21µm,21.4s,MS5.6,baz=289,slow=38
TKL   Tuckaleechee C   24.90  92 eP    P     14 21 27.0  -0.4
PTVM  Pico Tres Padr   25.31 143 eP    P     14 21 30.4  -0.8
IIO   Organos          25.49 142 eP    P     14 21 35.6 +2.7
ALLY  Alegheny Colle   25.97  77 eP    P     14 21 36.7  -0.4
      comp=Z,415nm,1.1s,mb5.9
PPM   Popocatepetl     25.99 143 i P   P     14 21 42.6 +5.3
PPM                              i S   S     14 26 18.9  +11
ERPA  Erie             26.00  76  PFAKE      14 21 50.0  +13
ERPA                              LR   LR
      comp=Z,21µm,20.0s,MS5.7
GOGA  Godfrey          26.05  97 eP    P     14 21 37.1  -0.8
GOGA                              MLR  MLR
      comp=Z,24µm,19.0s,MS5.8
PLIG  Platanillo       26.19 145 i S   P     14 21 37.4  -1.8
SADO  Sadowa           26.29  70  P    P     14 21 39.5  -0.4
      comp=Z,23nm,0.7s,mb4.8,baz=286,slow=11,SNR=10
SADO                              LR   LR    14 31 51.1
      comp=Z,22µm,18.5s,MS5.7,baz=296,slow=36
LVIG  Laguna Verde     26.49 138 i P   P     14 21 40.6  -1.3
LVIG                             i S   S     14 26 16.7 +0.7
MCWV  Mont Chateau     26.62  81  PFAKE      14 21 50.0 +7.0
MCWV                              LR   LR
      comp=Z,36µm,21.0s,MS5.9
ELN   Prospectdale     26.64  87 eP    P     14 21 42.0  -1.1
BLA   Blacksburg       26.89  87 eP    P     14 21 44.9  -0.6
BLA                               pmax pmax
      comp=Z,347nm,1.2s,mb5.8
BLA   Blacksburg       26.89  87 eP    P     14 21 44.9  -0.6
      comp=Z,347nm,1.2s,mb5.8
DAWY  Dawson           27.06 336 eP    P     14 21 48.9 +2.2
CAIG  El Cayaco        27.08 148 i P   P     14 21 48.4 +1.2
CAIG                             i S   S     14 26 45.1  +20
VWCC  Virginia Weste   27.22  87 eP    P     14 21 48.6 +0.2
JSC   Jenkinsville     27.34  93 eP    P     14 21 48.3  -1.2
MENT  Mentasta         27.73 332 eP    P     14 21 53.7 +1.0
SSPA  Standing Stone   27.84  79 eP    P     14 21 52.3  -1.7
      comp=Z,115nm,1.2s,mb5.4
SSPA                              LR   LR
      comp=Z,25µm,19.0s,MS5.8
EGAK  Eagle            28.11 336 eP    P     14 21 58.1 +2.0
EGAK                              LR   LR
      comp=Z,21µm,20.0s,MS5.7
PAX   Paxson           28.39 331 eP    P     14 21 59.6 +1.0
PAX                               pmax pmax
      comp=Z,361nm,2.1s,mb5.6
PAX   Paxson           28.39 331 eP    P     14 21 59.6 +1.0
      comp=Z,361nm,2.1s,mb5.6
SEW   Seward           28.54 323 eP    P     14 22 00.1 +0.1
      comp=Z,117nm,1.1s,mb5.5
PNIG  Pinotepa         28.56 145 i P   P     14 21 59.7  -0.8
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PNIG				*i* S	S	14 26 59.9	+11
VHO	**Vista Hermosa**	28.60	142	*i* P	P	14 22 02.4	+1.5
VHO				*i* S	S	14 27 06.2	+17
JSRW	**J. Sargeant Re**	28.65	85	*e*P	P	14 22 00.9	-0.3
NHSC	**New Hope**	28.66	95	PFAKE		14 22 10.0	+8.7
NHSC				LR	LR		
	comp=Z,24µm,22.0s,MS5.8						
CBN	**Corbin**	28.88	83	*e*P	P	14 22 02.1	-1.1
CBN				LR	LR		
	comp=Z,17µm,21.0s,MS5.6						
BINY	**Binghamton**	28.91	75	*e*P	P	14 22 02.1	-1.4
	comp=Z,131nm,1.0s,mb5.6						
BINY				LR	LR		
	comp=Z,16µm,22.0s,MS5.6						
SDMD	**Soldier's Deli**	28.93	81	*e*P	P	14 22 03.2	-0.5
INK	**Inuvik**	29.05	346	P	P	14 22 04.7	+0.3
	comp=Z,19nm,0.9s,mb4.8,baz=148,slow=9.9,SNR=31						
INK				Lg		14 31 29.6	
	comp=Z,12nm,1.1s,baz=32,slow=32,SNR=4.6						
INK				LR	LR	14 35 07.0	
	comp=Z,29µm,19.2s,MS5.9,baz=145,slow=39						
INK	**Inuvik**	29.05	346	*e*P	P	14 22 05.4	+0.9
PMR	**Palmer**	29.09	326	*e*P	P	14 22 07.8	+3.0
PMR				pmax	pmax		
	comp=Z,667nm,2.2s,mb6.0						
PMR	**Palmer**	29.09	326	*e*P	P	14 22 07.8	+3.0
	comp=Z,667nm,2.2s,mb6.0						
RC01	**Rabbit Creek A**	29.11	325	*e*P	P	14 22 05.9	+0.9
	comp=Z,72nm,1.0s,mb5.4						
MVL	**Millersville**	29.14	79	*e*P	P	14 22 05.1	-0.4
KDAK	**Kodiak Island**	29.16	318	P	P	14 22 11.0	+5.5
	comp=Z,52nm,1.1s,mb5.2,baz=171,slow=4.5,SNR=5.4						
KDAK				LR	LR	14 32 18.6	
	comp=Z,14µm,19.1s,MS5.6,baz=96,slow=34						
KDAK	**Kodiak Island**	29.16	318	P	P	14 22 11.0	+5.5
KDAK				LR	LR	14 32 18.6	
OHAK	**Old Harbor**	29.35	316	*e*P	P	14 22 09.9	+2.7
CMIG	**Matias Romero**	29.48	138	P	P	14 22 08.5	-0.2
	comp=Z,30nm,1.0s,mb5.0,baz=320,slow=7.6,SNR=28						
CMIG				LR	LR	14 35 12.9	
	comp=Z,18µm,18.3s,MS5.7,baz=265,slow=39						
CNNC	**Cliffs of the**	29.50	89	*e*P	P	14 22 09.6	+0.8
CNNC				LR	LR		
	comp=Z,72µm,22.0s,MS6.2						
LONY	**Lake Ozonia**	29.53	70	*e*P	P	14 22 05.1	-3.8
	comp=Z,59nm,1.1s,mb5.2						
LONY				LR	LR		
	comp=Z,25µm,20.0s,MS5.8						
NCB	**Newcomb**	29.88	71	*e*P	P	14 22 13.9	+1.9
NCB				LR	LR		
	comp=Z,15µm,21.0s,MS5.6						
HUIG	**Huatulco**	30.02	142	*i* P	P	14 22 12.4	-1.0
HUIG				*i* S	S	14 27 18.6	+7.0
MCK	**McKinley**	30.11	330	*e*P	P	14 22 15.1	+1.3
MCK				pmax	pmax		
	comp=Z,785nm,1.9s,mb6.1						
MCK	**McKinley**	30.11	330	*e*P	P	14 22 15.1	+1.3
	comp=Z,785nm,1.9s,mb6.1						
RSO	**Redoubt South**	30.19	323	*e*P	P	14 22 21.2	+6.6
FRNY	**Flat Rock**	30.21	69	*e*P	P	14 22 14.5	-0.4
DWPF	**Disney**	30.23	105	PFAKE		14 22 30.0	+15
DWPF				LR	LR		
	comp=Z,28µm,20.0s,MS5.9						
COLA	**College**	30.36	333	*e*P	P	14 22 17.7	+1.7
COLA				pmax	pmax		
	comp=Z,207nm,1.1s,mb5.8						
COLA				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.2						
COLA	**College**	30.36	333	*e*P	P	14 22 17.7	+1.7
	comp=Z,207nm,1.1s,mb5.8						
COLA				LR	LR		
	comp=Z,6µm,20.0s,MS5.2						
ACCN	**Adirondack Com**	30.38	72	*e*P	P	14 22 15.3	-1.1
TRF	**Thorofare Moun**	30.48	329	*e*P	P	14 22 16.7	-0.4
	comp=Z,608nm,1.8s,mb6.0						
TRY	**Troy**	30.50	73	*e*P	P	14 22 16.5	-0.9
PAL	**Palisades**	30.69	76	*e*P	P	14 22 19.1	-0.1
TEIG	**Tepich**	30.72	125	P	P	14 22 21.7	+2.1
	comp=Z,42nm,0.9s,mb5.2,baz=338,slow=12,SNR=8.4						
TEIG				S	S	14 27 21.8	-0.8
	comp=Z,6.1nm,0.8s,baz=17,slow=19,SNR=1.9						
TEIG	**Tepich**	30.72	125	*e*P	P	14 22 18.2	-1.5
	comp=Z,53nm,1.0s,mb5.3						
TEIG				LR	LR		
	comp=Z,9µm,20.0s,MS5.4						
KTH	**Kantishna Hill**	30.78	329	*e*P	P	14 22 21.1	+1.4
	comp=Z,86nm,1.2s,mb5.5						
PPLA	**Purkeypile**	30.97	327	*e*P	P	14 22 23.4	+1.9
	comp=Z,90nm,0.8s,mb5.7						
BPAW	**Bear Paw Mtn.**	31.08	330	*e*P	P	14 22 22.1	-0.3
	comp=Z,468nm,1.8s,mb6.0						
HNH	**Hanover**	31.31	71	*e*P	P	14 22 24.9	+0.3
YLE	**Yale**	31.33	76	*e*P	P	14 22 24.7	-0.2
LBNH	**Lisbon**	31.47	70	*e*P	P	14 22 26.3	+0.2
LBNH				pmax	pmax		
	comp=Z,138nm,1.4s,mb5.6						
LBNH				MLR	MLR		
	comp=Z,22µm,19.0s,MS5.8						
LBNH	**Lisbon**	31.47	70	*e*P	P	14 22 26.3	+0.3
	comp=Z,138nm,1.4s,mb5.6						
LBNH				LR	LR		
	comp=Z,22µm,19.0s,MS5.8						
CHUM	**Lake Minchumin**	31.48	329	*e*P	P	14 22 26.7	+0.8
	comp=Z,286nm,1.6s,mb5.8						
CCIG	**Comitan**	31.58	135	*i* P	P	14 22 28.8	+1.6
SVW2	**Sparrevohn**	31.71	323	*e*P	P	14 22 30.0	+2.0
CHGN	**Chignik**	31.89	313	*e*P	P	14 22 31.8	+2.2
COLD	**Coldfoot**	32.52	335	*e*P	P	14 22 36.9	+2.0
	comp=Z,139nm,1.7s,mb5.6						
TTA	**Tatalina**	32.57	326	*e*P	P	14 22 38.2	+2.7
SDPT	**Sand Point**	32.91	311	P	P	14 22 42.5	+4.0
	comp=Z,147nm,0.9s,mb5.9						
SCHQ	**Schefferville**	34.26	50	P	P	14 22 48.7	-1.6
	comp=Z,73nm,1.0s,mb5.5,baz=274,slow=8.5,SNR=38						
SCHQ				LR	LR	14 37 37.3	
	comp=Z,18µm,18.4s,MS5.8,baz=266,slow=38						
SCHQ	**Schefferville**	34.26	50	P	P	14 22 48.7	-1.6
SCHQ				LR	LR	14 37 37.3	
MTO2	**Montecristo 2**	34.64	133	*e*P	P	14 22 55.0	+1.0
RBDL	**Robledal**	34.70	133	*e*P	P	14 22 54.9	+0.4
RES	**Resolute Bay**	34.91	9	P	P	14 22 55.7	0.0
	comp=Z,36nm,1.1s,mb5.2,baz=189,slow=11,SNR=32						
RES				LR	LR	14 37 34.6	
	comp=Z,27µm,18.6s,MS6.0,baz=206,slow=37						
SNJE	**San Jose**	34.94	134	*e*P	P	14 22 58.0	+1.5
SBLS	**San Blas**	34.96	134	*e*P	P	14 22 58.0	+1.3
FRB	**Frobisher Bay**	35.05	34	P	P	14 22 57.9	+0.8
	comp=Z,53nm,0.8s,mb5.5,baz=245,slow=10.0,SNR=39						
FRB				LR	LR	14 37 33.7	
	comp=Z,29µm,21.1s,MS6.0,baz=254,slow=37						
LFRS	**El Faro**	35.44	133	*e*P	P	14 23 02.2	+1.3
SNVI	**San Vicente**	35.57	133	*e*P	P	14 23 03.3	+1.2
BLLM	**Bellamira**	36.05	132	*e*P	P	14 23 06.0	-0.1
TGUH	**Tegucigalpa,Un**	36.10	130	*e*P	P	14 23 07.9	+1.3
	comp=Z,456nm,1.2s,mb6.3						
TGUH				LR	LR		
	comp=Z,18µm,19.0s,MS5.9						
UNV	**Unalaska Valle**	36.34	308	*e*P	P	14 23 04.1	-4.1
	comp=Z,167nm,1.1s,mb5.9						
CNGN	**Cerro Negro**	37.68	131	*e*P	P	14 23 19.9	-0.1
HUEN		38.11	130	*e*P	P	14 23 24.6	+0.9
TNA	**Tin City**	38.33	328	*e*P	P	14 23 26.2	+1.3
	comp=Z,98nm,1.3s,mb5.4						
MTDJ	**Mount Denham**	39.23	114	*e*P	P	14 23 33.5	+0.5
	comp=Z,284nm,1.6s,mb5.8						
MTDJ				LR	LR		
	comp=Z,8µm,20.0s,MS5.6						
GAMB	**Gambell**	39.61	324	*e*P	P	14 23 36.9	+1.2
	comp=Z,230nm,1.7s,mb5.6						
GTBY	**Guantanamo Bay**	39.79	110	PFAKE		14 23 50.0	+12
GTBY				LR	LR		
	comp=Z,13µm,21.0s,MS5.8						
JTS	**JuntasAbangare**	40.46	131	P	P	14 23 42.8	-0.5
	comp=Z,5.0nm,0.5s,mb4.5,baz=310,slow=19,SNR=6.5						
JTS				LR	LR	14 41 15.3	
	comp=Z,8µm,20.3s,MS5.6,baz=320,slow=37						
JTS	**JuntasAbangare**	40.46	131	P	P	14 23 42.8	-0.5
JTS				LR	LR	14 41 15.3	
POHA	**Pohakuloa**	40.53	251	PFAKE		14 23 50.0	+6.2
POHA				LR	LR		
	comp=Z,4µm,20.0s,MS5.3						
BBSR	**BB Station**	40.67	86	*e*P	P	14 23 42.4	-2.5
	comp=Z,147nm,1.1s,mb5.5						
BBSR				LR	LR		
	comp=Z,11µm,19.0s,MS5.7						
KHU	**Kahuku**	40.92	250	*e*P	P	14 23 49.1	+2.0
HON	**Honolulu**	41.32	255	*e*P	P	14 23 54.2	+3.9
GRTK	**Grand Turk**	41.66	104	PFAKE		14 24 00.0	+6.9
GRTK				LR	LR		
	comp=Z,4µm,22.0s,MS5.2						
ADK	**Adak**	42.68	306	*e*P	P	14 23 59.7	-1.4
ADK				pmax	pmax		
	comp=Z,461nm,1.3s,mb6.0						
ADK				MLR	MLR		
	comp=Z,7µm,22.0s,MS5.5						
ADK	**Adak**	42.68	306	*e*P	P	14 23 59.7	-1.4
	comp=Z,461nm,1.3s,mb6.0						
ADK				LR	LR		
	comp=Z,7µm,22.0s,MS5.5						
SFJD	**Kangerlussuaq**	43.01	31⇓	*i*P	P	14 24 04.6	+1.0
SFJD				*i*		14 25 48.7	
SFJD							
	comp=Z,6µm,17.0s						
SFJD	**Kangerlussuaq**	43.01	31	P	P	14 24 03.9	+0.3
	comp=Z,112nm,1.0s,mb5.6,baz=254,slow=6.4,SNR=24						
SFJD				LR	LR	14 42 02.7	
	comp=Z,15µm,19.2s,MS5.9,baz=240,slow=36						
SDDR	**Presa de Saban**	43.14	107	*e*P	P	14 24 02.8	-2.4
	comp=Z,67nm,1.3s,mb5.2						
ALE	**Alert**	44.80	9	P	P	14 24 17.0	-0.8
	comp=Z,451nm,0.9s,mb6.3,SNR=15						
PAYG	**Puerto Ayora**	47.19	145	*e*P	P	14 24 38.3	+0.9
	comp=Z,154nm,1.5s,mb5.7						
PAYG				LR	LR		
	comp=Z,11µm,21.0s,MS5.8						
SUMG	**Summit**	47.32	23	*e*P	P	14 24 36.9	-0.9
	comp=Z,90nm,0.9s,mb5.7						
SJG	**San Juan**	47.43	104	PFAKE		14 24 50.0	+11
SJG				LR	LR		
	comp=Z,13µm,21.0s,MS5.9						
CBYP	**Canovanas**	47.55	104	*e*P	P	14 24 39.6	-0.5
	comp=Z,39nm,1.0s,mb5.4						
MTP	**Monte Pirata**	47.88	103	*e*P	P	14 24 37.1	-5.7
	comp=Z,62nm,0.9s,mb5.6						
BILL	**Bilibino**	48.57	331⇑	*e*P	P	14 24 47.6	+0.2
BILL				*e**PP	pP	14 24 52.8	+2.2
BILL				*e*		14 26 37.3	
BILL				*e*SS	SS	14 35 19.5	+1.5
BILL				pmax	pmax		
	comp=Z,108nm,1.7s,mb5.6						
BILL				MLR	MLR		
	comp=Z,10µm,14.0s,MS6.0						
SDV	**Santo Domingo**	50.54	117	P	P	14 25 03.6	+0.4
	comp=Z,23nm,0.8s,mb5.1,baz=332,slow=6.4,SNR=3.2						
SDV	**Santo Domingo**	50.54	117	P	P	14 25 03.6	+0.4
SDV				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
ANWB	**Willy Bob**	50.93	101	PFAKE		14 25 20.0	+14
ANWB				LR	LR		
	comp=Z,6µm,19.0s,MS5.6						
ROSC	**El Rosal**	51.15	124	P	P	14 25 09.2	+1.5
	comp=Z,11nm,0.5s,mb5.0,baz=91,slow=22,SNR=8.4						
DAG	**Danmarks Havn**	51.80	17⇑	*e*P	P	14 25 10.0	-1.8
DAG				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
DAG				MLR	MLR		
	comp=Z,42µm,17.0s,MS6.5						
DAG				MLR	MLR		
	comp=E,29µm,18.0s						
DAG	**Danmarks Havn**	51.80	17⇑	*i*P	P	14 25 10.0	-1.8
	comp=E,10nm,0.8s,mb4.8						
DAG							
	comp=Z,42µm,17.0s						
OTAV	**Otavalo**	52.35	131	*e*P	P	14 25 17.4	+0.7
	comp=Z,26nm,0.9s,mb5.2						
OTAV				LR	LR		
	comp=Z,4µm,21.0s,MS5.5						
SCO	**Scoresbysund**	52.86	25	*i* P	P	14 25 19.6	-0.1
SCO				*e*S	S	14 33 01.9	+14
SCO				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
SCO				MLR	MLR		
	comp=Z,10µm,17.0s,MS5.9						
SCO	**Scoresbysund**	52.86	25	*i* P	P	14 25 19.6	-0.1
	comp=Z,20nm,1.0s,mb5.0						
SCO				*e*S	S	14 33 01.9	+14
SCO							
	comp=Z,10µm,17.0s						
FDF	**Fort de France**	53.26	103	PFAKE		14 25 30.0	+6.5
FDF				LR	LR		
	comp=Z,5µm,22.0s,MS5.5						
XMAS	**Kiritimati**	54.59	236	PFAKE		14 25 40.0	+6.8
XMAS				LR	LR		
	comp=Z,4µm,19.0s,MS5.5						
GRGR	**Grenville**	54.60	106	PFAKE		14 25 40.0	+6.7
GRGR				LR	LR		
	comp=Z,5µm,19.0s,MS5.6						
TAOE	**Nuku Hiva Isla**	54.88	211	*e*P	P	14 25 39.2	+4.0
	comp=Z,778nm,1.5s,mb6.5						
TAOE				*e*LQ		14 39 22.8	
	comp=Z,11µm,24.0s						
TAOE				*e*LR	LR	14 41 45.9	
	comp=Z,24µm,22.2s,baz=30						
BORG	**Borgarnes**	55.15	31	LR	LR	14 48 58.5	
	comp=Z,11µm,19.5s,MS6.0,baz=110,slow=36						
BORG	**Borgarnes**	55.15	31	PFAKE		14 25 50.0	+13
BORG				LR	LR		
	comp=Z,15µm,19.0s,MS6.1						
BBGH	**Gun Hill**	55.47	103	PFAKE		14 25 50.0	+10
BBGH				LR	LR		
	comp=Z,14µm,21.0s,MS6.0						
SEY	**Seymchan**	55.54	326⇑	*e*P	P	14 25 40.5	+1.1
SEY	**Seymchan**	55.54	326⇑	*e*P	P	14 25 40.6	+1.2
KBS	**Kingsbay**	56.29	11	*e*P	P	14 25 46.4	+1.8
KBS				AMS	AMS	14 50 15.7	
	comp=Z,10µm,18.7s,MS6.0						
KBS	**Kingsbay**	56.29	11	*e*P	P	14 25 46.1	+1.5
KBS				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.2						
KBS				MLR	MLR		
	comp=Z,11µm,17.0s,MS6.0						
KBS	**Kingsbay**	56.29	11	PFAKE		14 26 00.0	+15
KBS				LR	LR		
	comp=Z,10µm,19.0s,MS5.9						
PET	**Petropavlovsk**	56.63	314κ	*i*P	P	14 25 48.6	+1.2
PET				*e*		14 26 44.8	
PET				*e*		14 27 57.1	
PET				*e*S	S	14 33 37.2	-2.0
PET				*e*SS	SS	14 37 29.9	+3.7
PET				pmax	pmax		
	comp=Z,2µm,12.3s						
PET				pmax	pmax		
	comp=Z,500nm,12.3s						
PET				MLR	MLR		
	comp=Z,7µm,15.0s,MS5.9						
PET				MLR	MLR		
	comp=Z,7µm,15.0s						
PET	**Petropavlovsk**	56.63	314⇑	*e*P	P	14 25 48.6	+1.2
PET				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
JMIC	**Jan Mayen**	56.71	22	LR	LR	14 50 19.1	
	comp=Z,6µm,18.2s,MS5.8,baz=70,slow=36						
PEA0B	**Petropavlovsk-**	57.12	314	*e*P	P	14 25 51.7	+0.9
PETK	**Petropavlovsk-**	57.12	314	P	P	14 25 51.0	+0.3
	comp=Z,62nm,0.8s,mb5.7,baz=74,slow=11,SNR=54						
PETK				LR	LR	14 50 26.1	
	comp=Z,3µm,19.2s,MS5.4,baz=261,slow=36						
SPITS	**Spitsbergen Ar**	57.45	11	LR	LR	14 50 39.3	
	comp=Z,10µm,19.6s,MS6.0,baz=130,slow=36						
ATAH	**Atahualpa**	58.41	136	P	P	14 26 01.9	+1.6
	comp=Z,20nm,0.9s,mb5.1,baz=15,slow=3.4,SNR=9.0						
TIXI	**Tiksi**	58.99	341	*e*P	P	14 26 03.5	-0.1
TIXI				pmax	pmax		
	comp=Z,57nm,1.7s,mb5.3						
TIXI				MLR	MLR		
	comp=Z,12µm,19.9s,MS6.0						
SKR	**Severo-Kuril's**	59.10	312	*e*P	P	14 26 06.0	+1.3
SKR				*e*		14 26 52.0	
SKR				*e*PPP		14 29 38.0	
SKR				*e*S	S	14 34 16.0	+4.4
SKR				*e*PS		14 34 34.0	
SKR				*e*		14 35 46.0	
SKR				*e*SS	SS	14 38 08.0	+3.0
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
SKR				pmax	pmax		
	comp=Z,5µm,6.0s						
SKR				pmax	pmax		
	comp=N,2µm,4.0s						
SKR				pmax	pmax		
	comp=E,2µm,4.0s						
SKR				smax			
	comp=N,3µm,10.0s						
SKR				smax			
	comp=E,3µm,10.0s						
BJO	**Bjornoya**	60.70	13	*e*P	P	14 26 19.6	+4.3
BJO				AMS	AMS	14 55 45.5	
	comp=Z,8µm,13.5s,MS6.0						
NNA	**Nana**	63.43	138	PFAKE		14 26 50.0	+16
NNA				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
PMOR	**Pomariorio Ree**	63.65	216	*e*P	P	14 26 39.7	+3.9
	comp=Z,132nm,1.2s,mb5.8						
VAH	**Vaihoa**	63.73	216	*e*P	P	14 26 40.4	+4.0
	comp=Z,300nm,1.3s,mb6.2						
TRO	**Tromso**	64.52	16	*e*P	P	14 26 40.7	-0.2
TRO				AMS	AMS	14 55 17.2	
	comp=Z,7µm,18.0s,MS5.9						
YAK	**Yakutsk**	64.89	332*d*	*i*P	P	14 26 43.9	+0.5
YAK				*e*		14 27 13.5	
YAK				*e*		14 29 06.1	
YAK				*e*S	S	14 35 19.5	-4.8
YAK				*e*		14 36 38.8	
YAK				*e*SS	SS	14 39 32.6	-2.3
YAK				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=N,29nm,1.4s						
YAK				pmax	pmax		
	comp=E,43nm,1.2s						
YAK				pmax	pmax		
	comp=Z,817nm,5.4s						
YAK				pmax	pmax		
	comp=N,249nm,4.2s						
YAK				pmax	pmax		
	comp=E,467nm,5.2s						
YAK				smax			
	comp=N,497nm,5.5s						
YAK				smax			
	comp=E,1µm,8.4s						
YAK				MLR	MLR		
	comp=Z,6µm,15.0s,MS5.9						
YAK				MLR	MLR		
	comp=N,6µm,16.0s,MS6.0						
YAK				MLR	MLR		
	comp=E,4µm,12.0s,MS6.0						
YAK	**Yakutsk**	64.89	332⇑	*e*P	P	14 26 43.9	+0.5
YAK				LR	LR		
	comp=Z,6µm,21.0s,MS5.7						
ARCES	**ARCESS Array B**	65.90	14	P	P	14 26 49.0	-0.9
	comp=Z,32nm,1.1s,mb5.3,baz=335,slow=6.1,SNR=14						
ARCES				PKP2bc		14 55 34.0	
	comp=Z,5.9nm,1.0s,baz=170,slow=3.7,SNR=7.2						
ARCES				LR	LR	14 57 00.8	
	comp=Z,8µm,18.7s,MS6.0,baz=341,slow=37						
ARCES	**ARCESS Array B**	65.90	14	P	P	14 26 49.0	-0.9
ARCES			⇑	*e*		14 55 34.0	
ARCES				LR	LR	14 57 00.8	
PDA	**Ponta Delgada**	65.96	60	*e*P	P	14 26 54.0	+3.2
KEV	**Kevo**	65.99	14	*e*P	P	14 26 48.8	-1.6
KEV				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
KEV				MLR	MLR		
	comp=Z,7µm,19.0s,MS5.9						
KEV	**Kevo**	65.99	14	*e*P	P	14 26 48.8	-1.6
	comp=Z,26nm,1.0s,mb5.2						
KEV				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
CMLA	**Cha da Macela**	66.04	60	*e*LR	LR	14 46 36.5	
CMLA	**Cha da Macela**	66.04	60	PFAKE		14 27 00.0	+8.7
CMLA				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
MEH	**Mehetia**	66.26	215	*e*P	P	14 26 56.7	+3.9
	comp=Z,157nm,1.2s,mb5.9						
TIAR	**Tiarei**	66.54	216	*e*P	P	14 26 58.5	+3.9
	comp=Z,139nm,1.2s,mb5.9						
RKT	**Rikitea**	66.56	200	*e*P	P	14 26 58.3	+3.7
	comp=Z,60nm,1.1s,mb5.5						
RKT				*e*S	S	14 35 46.2	+0.7
	comp=Z,1µm,27.2s						
RKT				*e*LQ		14 44 14.9	
	comp=Z,1µm,30.5s						
RKT				*e*LR	LR	14 47 05.1	
	comp=Z,4µm,24.0s,baz=12						
PPT	**Papeete**	66.66	216	*e*P	P	14 26 59.3	+4.0
	comp=Z,120nm,1.4s,mb5.7						
PPT				*e*S	S	14 35 46.2	-0.7
	comp=Z,1µm,24.5s						
PPT				*e*LR	LR	14 47 12.5	
	comp=Z,5µm,22.0s,baz=23						
TVO	**Taravao**	66.70	216	*e*P	P	14 26 59.6	+4.0
	comp=Z,102nm,1.2s,mb5.7						
PAE	**Paea**	66.74	216	*e*P	P	14 26 59.7	+3.9
	comp=Z,171nm,1.4s,mb5.9						
FOO	**Floro**	66.74	27	*e*P	P	14 26 59.1	+3.7
FOO				AMS	AMS	14 55 03.3	
	comp=Z,6µm,23.2s,MS5.8						
NSS	**Namsos**	66.76	22	*e*P	P	14 26 58.9	+3.5
NSS				AMS	AMS	14 56 38.2	
	comp=Z,8µm,14.1s,MS6.1						
MOL	**Molde**	66.88	25	AMS	AMS	14 57 28.0	
	comp=Z,4µm,14.3s,MS5.8						
DCN	**Croghan**	67.23	38⇑	*i*P	P	14 26 57.6	-1.0
PTCN	**Pitcairn Islan**	67.33	195	PFAKE		14 27 10.0	+11
PTCN				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
DLF	**Lyons Farm**	67.61	38⇑	*i*P	P	14 26 59.8	-1.2
BER	**Bergen**	67.70	28	*e*P	P	14 27 06.5	+5.1
BER				AMS	AMS	14 55 37.0	
	comp=Z,5µm,22.5s,MS5.6						
DSB	**Dublin**	67.71	38	*e*P	P	14 27 01.1	-0.6
	comp=Z,90nm,1.1s,mb5.7						
ESK	**Eskdalemuir**	67.80	35	*e*P	P	14 27 00.5	-1.7
ESK				pmax	pmax		
	comp=Z,77nm,1.2s,mb5.6						
ESK				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.0						
ESK	**Eskdalemuir**	67.80	35	*e*P	P	14 27 00.5	-1.7
	comp=Z,77nm,1.2s,mb5.6						
ESK				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
EKA	**Eskdalemuir Ar**	67.81	35	P	P	14 27 02.0	-0.3
	comp=Z,37nm,1.1s,mb5.3,baz=309,slow=5.3,SNR=9.3						
RPN	**Rapa Nui**	68.07	175	*e*P	P	14 27 08.3	+4.2
RPN				pmax	pmax		
	comp=Z,333nm,1.4s,mb6.2						
RPN	**Rapa Nui**	68.07	175	*e*P	P	14 27 08.3	+4.2
	comp=Z,333nm,1.4s,mb6.2						
YSS	**Yuzh-Sakhalins**	68.52	314*b*	*i*P	P	14 27 07.0	+0.1
YSS				*e**SP	sP	14 27 12.0	+0.7
YSS				*e*		14 29 36.0	
YSS				*e*S	S	14 36 08.0	-0.8
YSS				*e*PPS		14 36 47.0	
YSS				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.7						
YSS				pmax	pmax		
	comp=Z,3µm,5.0s						
YSS				smax			
	comp=E,2µm,8.0s						
YSS				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.7						
YSS				MLR	MLR		
	comp=N,4µm,16.0s,MS5.8						
YSS				MLR	MLR		
	comp=E,2µm,15.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	68.52	314⇑	*e*P	P	14 27 07.5	+0.6
YSS				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
YUK	**Yuzh-Kuril'sk**	68.54	310	*e*P	P	14 27 03.0	-4.0
YUK				*e*		14 29 44.0	
YUK				*e*PPP		14 31 12.0	
YUK				*e*S	S	14 36 09.0	-0.1
YUK				*e*		14 37 02.0	
YUK				*e*SS	SS	14 40 28.0	-4.3
YUK				pmax	pmax		
	comp=Z,3µm,5.0s						
YUK				pmax	pmax		
	comp=E,3µm,4.0s						
YUK				pmax	pmax		
	comp=N,150nm,0.5s						
YUK				pmax	pmax		
	comp=Z,170nm,0.5s,mb6.2						
YUK				pmax	pmax		
	comp=E,140nm,0.6s						
YUK				smax			
	comp=E,3µm,7.0s						
YUK				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.4						

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YUK                                   MLR     MLR
        comp=N,2µm,16.0s,MS5.5
YUK                                   MLR     MLR
        comp=E,1µm,14.0s,MS5.5
LVZ    Lovozero          68.92  12    P       P       14 27 09.3 +0.3
        comp=E,902nm,1.0s,mb6.7,SNR=8.8
LVZ    Lovozero          68.92  12⇑ eP       P       14 27 09.1 +0.1
LVZ                                   pmax    pmax
        comp=Z,155nm,1.0s,mb5.9
LVZ    Lovozero          68.92  12⇑ eP       P       14 27 09.2 +0.2
LVZ                                   LR      LR
        comp=Z,8µm,19.0s,MS6.0
APA    Apatity           69.02  12⇑ iP       P       14 27 10.0 +0.4
APA                                 ePPP              14 31 20.0
APA                                 i S       S       14 36 15.0 +0.9
APA                                   pmax    pmax
        comp=Z,3µm,7.0s
APA                                   pmax    pmax
        comp=Z,42nm,1.1s,mb5.3
APA                                   MLR     MLR
        comp=Z,9µm,16.0s,MS6.1
NB2    NORSAR Subarra    69.18  25    P       P       14 27 09.6 -1.1
        comp=Z,32nm,1.0s,mb5.2,baz=316,slow=6.5
NOA    NORSAR Array B    69.18  25    P       P       14 27 10.6 -0.2
        comp=Z,20nm,0.8s,mb5.1,baz=316,slow=6.4,SNR=37
NOA    NORSAR Array B    69.18  25    P       P       14 27 10.6 -0.2
KONO   Kongsberg         69.70  27  eP        P       14 27 16.9 +2.9
KONO                                  AMS     AMS     14 58 44.6
        comp=Z,7µm,15.5s,MS6.0
KONO   Kongsberg         69.70  27  eP        P       14 27 14.0  0.0
KONO   Kongsberg         69.70  27    PFAKE           14 27 20.0 +6.0
KONO                                  LR      LR
        comp=Z,6µm,21.0s,MS5.8
ARE    Arequipa          69.97 135  eP        P       14 27 17.0 +0.9
CLNS   Chul'man          70.25 330  eP        P       14 27 18.0 +0.6
CLNS                                e                 14 27 38.8
CLNS                                e                 14 29 56.7
CLNS                                eS        S       14 36 23.5 -5.3
CLNS                                e                 14 36 57.2
CLNS                                  pmax    pmax
        comp=Z,18nm,0.9s,mb5.0
CLNS                                  pmax    pmax
        comp=N,7.0nm,0.8s
CLNS                                  pmax    pmax
        comp=E,9.0nm,1.0s
CLNS                                  pmax    pmax
        comp=Z,19nm,1.1s,mb4.9
CLNS                                  pmax    pmax
        comp=N,10.0nm,1.1s
CLNS                                  pmax    pmax
        comp=E,16nm,1.0s
CLNS                                  smax
        comp=N,284nm,11.5s
CLNS                                  smax
        comp=E,681nm,12.3s
CLNS                                  MLR     MLR
        comp=Z,5µm,14.0s,MS5.9
CLNS                                  MLR     MLR
        comp=N,3µm,13.0s,MS5.9
CLNS                                  MLR     MLR
        comp=E,3µm,13.0s,MS5.9
ASAJ   Asahikawa         70.35 312    P       P       14 27 19.1 +0.9
        comp=E,48nm,0.7s,mb5.5,baz=312,slow=2.2,SNR=33
NRGR   Nerungri          70.44 330  eP        P       14 27 20.1 +1.5
NRGR                                  S       S       14 36 35.8 +4.7
NRGR                                  smax
        comp=N,24nm,0.7s
HFS    Hagfors           70.67  25    P       P       14 27 19.0 -0.9
        comp=N,44nm,0.7s,mb5.5,baz=321,slow=3.8,SNR=43
HFS                                   LR      LR      14 57 48.8
        comp=N,4µm,20.3s,MS5.7,baz=56,slow=36
ERM    Erimo             71.34 310  eP        P       14 27 21.2 -3.1
ERM                                   pmax    pmax
        comp=Z,217nm,1.4s,mb5.9
ERM                                   MLR     MLR
        comp=Z,2µm,20.0s,MS5.4
ERM    Erimo             71.34 310  eP        P       14 27 21.2 -3.1
        comp=Z,217nm,1.4s,mb5.9
ERM                                   LR      LR
        comp=Z,2µm,20.0s,MS5.4
HABR   Khabarovsk        71.57 319d iP        P       14 27 25.9 +0.4
HABR                                e*PP      pP      14 27 29.8 +1.0
HABR                                e*SP      sP      14 27 31.7 +1.7
HABR                                                  14 27 44.0
HABR                                e                 14 30 03.7
HABR                                ePPP              14 31 46.7
HABR                                eS        S       14 36 45.4 +1.0
HABR                                e                 14 37 29.6
HABR                                  SS      SS      14 41 21.1 +2.5
HABR                                  pmax    pmax
        comp=Z,160nm,1.4s,mb5.8
HABR                                  pmax    pmax
        comp=N,52nm,1.5s
HABR                                  pmax    pmax
        comp=E,58nm,1.4s
HABR                                  pmax    pmax
        comp=Z,2µm,6.2s
HABR                                  MLR     MLR
        comp=Z,5µm,19.0s,MS5.8
HABR                                  MLR     MLR
        comp=E,4µm,18.0s,MS5.8
HABR                                  MLR     MLR
        comp=N,2µm,15.0s,MS5.8
MUD    Monsted U'grnd    71.96  29  i P       P       14 27 28.4 +0.7
        comp=N,67nm,1.0s,mb5.5
MUD                                 i                 14 30 07.8
MUD                                 eS        S       14 36 53.2 +4.5
MUD
        comp=Z,9µm,19.0s
MUD    Monsted U'grnd    71.96  29  i P       P       14 27 28.4 +0.7
        comp=Z,67nm,1.0s,mb5.5
MUD                                 i                 14 30 07.8
MUD                                 eS        S       14 36 53.2 +4.5
ROSF   Rostrenen         72.42  41  eP        P       14 27 30.7 +0.1
        comp=Z,130nm,1.3s,mb5.4
ROSF   Rostrenen         72.42  41  eP        P       14 27 30.7 +0.1
ROSF                                  pmax    pmax
        comp=Z,65nm,1.3s,mb5.4
ROSF   Rostrenen         72.42  41  eP        P       14 27 30.7 +0.1
        comp=Z,65nm,1.3s,mb5.4
KAF    Kangasniemi       72.48  18  eP        P       14 27 29.5 -1.2
KAF                                   pmax    pmax
        comp=Z,36nm,0.8s,mb5.3
KAF    Kangasniemi       72.48  18  ep        P       14 27 29.5 -1.2
        comp=Z,36nm,0.8s,mb5.3
KLR    Kul'dur           72.67 321  eP        P       14 27 27.2 -4.9
KLR                                 eS        S       14 36 49.5 -7.5
KLR                                 eSS       SS      14 41 42.5 +7.2
KLR                                   pmax    pmax
        comp=E,56nm,1.8s
KLR                                   pmax    pmax
        comp=Z,200nm,1.8s,mb5.8
KLR                                   pmax    pmax
        comp=Z,3µm,9.5s
KLR                                   smax
        comp=N,1µm,8.0s
KLR                                   smax
        comp=E,2µm,8.0s
QUIF   Quistinic         72.75  41  eP        P       14 27 32.7 +0.1
        comp=E,107nm,1.1s,mb5.4
QUIF   Quistinic         72.75  41  eP        P       14 27 32.7 +0.1
QUIF                                  pmax    pmax
        comp=Z,53nm,1.1s,mb5.4
QUIF   Quistinic         72.75  41  eP        P       14 27 32.7 +0.1
        comp=Z,53nm,1.1s,mb5.4
SGMF   Saint Gilles      72.82  40  eP        P       14 27 33.0 -0.1
        comp=Z,126nm,1.1s,mb5.5
SGMF   Saint Gilles      72.82  40  eP        P       14 27 33.0 -0.1
SGMF                                  pmax    pmax
        comp=Z,63nm,1.1s,mb5.5
SGMF   Saint Gilles      72.82  40  eP        P       14 27 33.0 -0.1
        comp=Z,63nm,1.1s,mb5.5
JOF    Joensuu           72.85  15  ep        P       14 27 31.2 -1.8
        comp=Z,57nm,0.8s,mb5.5
BOD    Bodaibo           73.31 335  eP        P       14 27 34.7 -1.1
BOD                                   pmax    pmax
        comp=Z,84nm,1.6s,mb5.4
FLN    La Foliniere      73.47  39  eP        P       14 27 37.4 +0.5
        comp=Z,138nm,1.0s,mb5.6
FLN                                 eMLR      MLR
        comp=Z,7µm,17.2s,MS5.7
FLN    La Foliniere      73.47  39  eP        P       14 27 37.4 +0.5
FLN                                   pmax    pmax
        comp=Z,69nm,1.0s,mb5.5
FLN                                   MLR     MLR
        comp=Z,7µm,17.3s,MS6.0
FLN    La Foliniere      73.47  39  eP        P       14 27 37.4 +0.5
        comp=Z,69nm,1.0s,mb5.5
FLN                                   LR      LR
        comp=Z,7µm,17.3s,MS6.0
GRR    Gorron            73.55  39  eP        P       14 27 37.9 +0.5
        comp=Z,219nm,1.2s,mb5.7
GRR    Gorron            73.55  39  eP        P       14 27 37.9 +0.5
GRR                                   pmax    pmax
        comp=Z,110nm,1.2s,mb5.7
GRR    Gorron            73.55  39  eP        P       14 27 37.9 +0.5
        comp=Z,110nm,1.2s,mb5.7
WIT    Witteveen         73.72  33  eP        P       14 27 39.6 +1.4
        comp=Z,367nm,1.8s,mb6.0
COP    Copenhagen        73.72  28  i P       P       14 27 40.3 +2.1
COP                                 i                 14 30 25.0
COP                                 e                 14 32 14.2
COP                                 eS        S       14 37 13.1 +4.3
COP
        comp=Z,3µm,19.0s
LDF    La Druitiere      73.76  39  eP        P       14 27 39.0 +0.4
        comp=Z,130nm,0.9s,mb5.5
LDF    La Druitiere      73.76  39  eP        P       14 27 39.0 +0.4
LDF                                   pmax    pmax
        comp=Z,65nm,0.9s,mb5.6
LDF    La Druitiere      73.76  39  eP        P       14 27 39.0 +0.4
        comp=Z,65nm,0.9s,mb5.6
UCC    Uccle             74.22  35    P       P       14 27 42.8 +1.5
BSEG   Bad Segeberg      74.30  30  eP        P       14 27 42.0 +0.4
        comp=Z,130nm,1.3s,mb5.7
PCAB   Cabril            74.33  48  eP        P       14 27 42.2 +0.1
        comp=Z,99nm,1.9s,mb5.4
WTSB   Winterswijk       74.40  33  eP        P       14 27 43.2 +0.9
        comp=Z,156nm,4.2s
IBBN   Ibbenburen        74.53  32  eP        P       14 27 43.3 +0.3
        comp=Z,128nm,1.0s,mb5.8
PMAR   Madeira           74.69  60  eP        P       14 27 45.9 +1.6
        comp=Z,120nm,1.3s,mb5.7
BAIF   Baives            74.70  36  eP        P       14 27 44.7 +0.7
        comp=Z,262nm,1.3s,mb5.7
BAIF   Baives            74.70  36  eP        P       14 27 44.7 +0.7
BAIF                                  pmax    pmax
        comp=Z,131nm,1.3s,mb5.7
BAIF   Baives            74.70  36  eP        P       14 27 44.7 +0.7
        comp=Z,131nm,1.3s,mb5.7
PVRL   Vila Real         74.79  48  eP        P       14 27 46.2 +1.5
        comp=Z,109nm,1.4s,mb5.6
BEBN   Eben Emael        74.80  34    P       P       14 27 45.4 +0.9
        comp=Z,18nm,1.4s,mb4.8
DOU    Dourbes           74.84  36    P       P       14 27 45.8 +1.0
        comp=Z,48nm,1.5s,mb5.2
PMPS   Porto Santo       74.86  59  eP        P       14 27 46.1 +0.8
        comp=Z,107nm,2.1s,mb5.4
BCLA   Clavier           74.91  35    P       P       14 27 46.0 +0.7
        comp=Z,60nm,1.3s,mb5.4
HGN    Heimansgroeve     74.93  34  eP        P       14 27 45.2 -0.1
        comp=Z,143nm,2.5s,mb5.5
HGN    Heimansgroeve     74.93  34  ePP       PP      14 30 33.7 +1.4
HGN    Heimansgroeve     74.93  34  eS        S       14 37 30.1 +7.6
HGN    Heimansgroeve     74.93  34  eSS       SS      14 42 35.5  +26
GIVF   Givet             74.94  35  eP        P       14 27 46.2 +0.8
        comp=Z,258nm,1.1s,mb5.8
GIVF   Givet             74.94  35  eP        P       14 27 46.2 +0.8
GIVF                                  pmax    pmax
        comp=Z,129nm,1.1s,mb5.8
GIVF   Givet             74.94  35  eP        P       14 27 46.2 +0.8
        comp=Z,129nm,1.1s,mb5.8
BUG    Bochum--Univer    74.99  33  eP        P       14 27 45.7  0.0
        comp=Z,111nm,1.1s,mb5.7
PBRG   Braganca          74.99  47  eP        P       14 27 46.2 +0.3
        comp=Z,82nm,1.5s,mb5.4
BSD    Bornholm Skovb    75.04  27  i P       P       14 27 44.3 -1.6
BSD                                 i                 14 30 35.7
BSD    Bornholm Skovb    75.04  27  i P       P       14 27 44.3 -1.6
BSD                                 i                 14 30 35.7
BSD                                 e                 14 32 14.2
BSD
        comp=Z,6µm,20.0s
BSD    Bornholm Skovb    75.04  27  i P       P       14 27 44.3 -1.6
BSD                                 i                 14 30 35.7
BSD                                 e                 14 32 14.2
PVIS   Viseu             75.06  49  eP        P       14 27 46.7 +0.4
        comp=Z,102nm,1.7s,mb5.5
MEM    Membach           75.08  34    P       P       14 27 47.2 +1.1
        comp=Z,79nm,1.4s,mb5.5
MFF    Saint Martin d    75.15  40  eP        P       14 27 47.1 +0.4
        comp=Z,139nm,1.0s,mb5.5
MFF    Saint Martin d    75.15  40  eP        P       14 27 47.1 +0.4
MFF                                   pmax    pmax
        comp=Z,70nm,1.0s,mb5.5
MFF    Saint Martin d    75.15  40  eP        P       14 27 47.1 +0.4
        comp=Z,70nm,1.0s,mb5.5
MVO    Moncorvo          75.25  48  eP        P       14 27 48.0 +0.6
        comp=Z,146nm,1.6s,mb5.7
MVO    Moncorvo          75.25  48  ePP       PP      14 30 33.8 -1.6
MVO                                 eS        S       14 37 34.9 +8.4
MVO                                 eLQ               14 46 54.5
MVO                                 eLR       LR      14 51 24.8
        comp=Z,4µm,18.0s
NRDL   Niedersach Rie    75.33  31  eP        P       14 27 47.9 +0.3
        comp=Z,58nm,1.1s,mb5.4
PMAFR  Mafra             75.42  51  eP        P       14 27 48.1 -0.3
        comp=Z,118nm,1.4s,mb5.6
PMAFR  Mafra             75.42  51  ePP       PP      14 30 43.0 +6.1
PMAFR                               eS        S       14 37 33.2 +4.8
PMAFR                               eLR       LR      14 52 39.3
        comp=Z,5µm,20.0s
MTE    Manteigas         75.47  49  eP        P       14 27 49.0 +0.3
        comp=Z,115nm,1.9s,mb5.5
MTE    Manteigas         75.47  49  ePP       PP      14 30 46.1 +8.9
MTE                                 eS        S       14 37 25.9 -3.0
MTE                                 eLQ               14 46 59.5
MTE                                 eLR       LR      14 51 48.6
        comp=Z,4µm,18.0s
MTE    Manteigas         75.47  49  eP        P       14 27 48.0 -0.6
        comp=Z,53nm,1.1s,mb5.4
MTE                                   LR      LR
        comp=Z,4µm,19.0s,MS5.7
PTOM   Tomar             75.50  50  eP        P       14 27 49.3 +0.5
        comp=Z,105nm,1.8s,mb5.5
LIS    Lisbon            75.66  51  eP        P       14 27 50.0 +0.2
TARA   Tarawa            75.74 259    PFAKE           14 28 00.0 +9.4
TARA                                  LR      LR
        comp=Z,3µm,20.0s,MS5.5
VSU    Vasula            75.78  20d iP        P       14 27 50.1  0.0
VSU                                   pmax    pmax
        comp=Z,56nm,1.0s,mb5.5
VSU                                   MLR     MLR
        comp=Z,8µm,18.0s,MS6.1
WLF    Walferdange       75.84  35    P       P       14 27 52.0 +1.4
        comp=Z,96nm,1.8s,mb5.4
WLF    Walferdange       75.84  35  eP        P       14 27 51.5 +0.9
WLF                                   pmax    pmax
        comp=Z,159nm,1.4s,mb5.8
WLF                                   MLR     MLR
        comp=Z,5µm,19.0s,MS5.8
WLF    Walferdange       75.84  35  eP        P       14 27 51.3 +0.7
        comp=Z,184nm,1.5s,mb5.8
WLF    Walferdange       75.84  35  eP        P       14 27 51.5 +0.9
        comp=Z,159nm,1.4s,mb5.8
WLF                                   LR      LR
        comp=Z,5µm,19.0s,MS5.8
PCBR   Castelo Branco    75.89  49  eP        P       14 27 50.3 -0.7
        comp=Z,78nm,1.7s,mb5.4
CLZ    Clausthal         75.94  31  eP        P       14 27 51.8 +0.7
CLZ                                   pmax    pmax
        comp=Z,88nm,1.1s,mb5.6
CLZ    Clausthal         75.94  31  eP        P       14 27 51.8 +0.7
        comp=Z,88nm,1.1s,mb5.6
HYF    Humbligny         76.01  38  eP        P       14 27 52.0 +0.4
RUP    Ruppelstein       76.20  35  eP        P       14 27 53.7 +1.0
PMRV   Marv??o           76.21  50  eP        P       14 27 52.7 -0.2
        comp=Z,126nm,1.6s,mb5.6
PMRV   Marv??o           76.21  50  ePP       PP      14 30 41.7 -1.8
PMRV                                eS        S       14 37 44.9 +7.8
PMRV                                eLR       LR      14 52 10.8
        comp=Z,5µm,20.0s
MEZF   Maizieres J'vi    76.22  36  eP        P       14 27 53.5 +0.7
        comp=Z,232nm,1.2s,mb5.7
MEZF   Maizieres J'vi    76.22  36  eP        P       14 27 53.5 +0.7
        comp=Z,232nm,1.3s,mb6.0
KLMR   Klimovskoe        76.27  13⇑ iP        P       14 27 52.4 -0.4
KLMR                                  pmax    pmax
        comp=Z,218nm,1.7s,mb5.8
EVOP   Sao Brissos       76.39  51  eP        P       14 27 54.4 +0.5
EVOP                                eS        S       14 37 39.7 +0.7
EVOP                                eS        S       14 37 39.8 +0.8
EVOP                                  AMS     AMS     14 56 29.9
        comp=N,8µm,20.3s
EVOP   Sao Brissos       76.39  51  eP        P       14 27 54.4 +0.5
EVOP                                eS        S       14 37 39.7 +0.7
TNS    Taunus Mts        76.40  34  eP        P       14 27 54.1 +0.3
TNS                                   pmax    pmax
        comp=Z,122nm,1.4s,mb5.6
TNS    Taunus Mts        76.40  34  eP        P       14 27 54.1 +0.3
        comp=Z,122nm,1.4s,mb5.6
PRGR   Permogore         76.40   9c iP        P       14 27 53.2 -0.4
PRGR                                  pmax    pmax
        comp=Z,276nm,1.6s,mb5.9
LVC    Limon Verde       76.40 137  eP        P       14 27 53.8 -0.2
        comp=Z,56nm,1.6s,mb5.2
LVC                                   LR      LR
        comp=Z,2µm,21.0s,MS5.5
EVO    Evora             76.45  51  eP        P       14 27 51.4 -2.9
        comp=Z,126nm,1.2s,mb5.4
EVO                                 eMLR      MLR
        comp=Z,5µm,19.0s,MS5.6
EVO    Evora             76.45  51  eP        P       14 27 54.1 -0.2
        comp=Z,75nm,1.9s,mb5.3
PESTR  Estremoz          76.47  50  eP        P       14 27 53.7 -0.7
        comp=Z,90nm,1.5s,mb5.5
PESTR  Estremoz          76.47  50  ePP       PP      14 30 46.0 +0.3
PESTR                               eS        S       14 37 47.8 +7.9
PESTR                               eLR       LR      14 52 31.2
        comp=Z,6µm,20.0s
TCF    Toulx Ste Croi    76.52  39  eP        P       14 27 54.7 +0.2
        comp=Z,224nm,1.5s,mb5.6
TCF    Toulx Ste Croi    76.52  39  eP        P       14 27 54.7 +0.2
TCF                                   pmax    pmax
        comp=Z,112nm,1.5s,mb5.6
TCF    Toulx Ste Croi    76.52  39  eP        P       14 27 54.7 +0.2
        comp=Z,112nm,1.5s,mb5.6
SSF    Saint Saulge      76.57  38  eP        P       14 27 55.1 +0.3
        comp=Z,101nm,1.1s,mb5.4
SSF    Saint Saulge      76.57  38  eP        P       14 27 55.1 +0.3
SSF                                   pmax    pmax
        comp=Z,51nm,1.1s,mb5.4
SSF    Saint Saulge      76.57  38  eP        P       14 27 55.1 +0.3
        comp=Z,50nm,1.1s,mb5.4
UBBA   Unterbreizbach    76.58  32  eP        P       14 27 55.1 +0.3
        comp=Z,200nm,2.0s,mb5.7
LOR    Lormes            76.58  38  eP        P       14 27 55.4 +0.5
        comp=Z,207nm,1.0s,mb5.7
LOR                                 eMLR      MLR
        comp=Z,6µm,17.8s,MS5.6
LOR    Lormes            76.58  38  eP        P       14 27 55.4 +0.5
LOR                                   pmax    pmax
        comp=Z,104nm,1.0s,mb5.7
LOR                                   MLR     MLR
        comp=Z,6µm,17.8s,MS5.9
LOR    Lormes            76.58  38  eP        P       14 27 55.4 +0.5
        comp=Z,104nm,1.0s,mb5.7
LOR                                   LR      LR
        comp=Z,6µm,17.8s,MS5.9
BGF    Bois d'Agland     76.62  39  eP        P       14 27 55.2 +0.1
        comp=Z,92nm,0.8s,mb5.4
BGF    Bois d'Agland     76.62  39  eP        P       14 27 55.2 +0.1
BGF                                   pmax    pmax
        comp=Z,46nm,0.8s,mb5.5
BGF    Bois d'Agland     76.62  39  eP        P       14 27 55.2 +0.1
        comp=Z,46nm,0.8s,mb5.5
PTEO   Sao Teotonio      76.69  52  eP        P       14 27 57.1 +1.5
        comp=Z,101nm,1.8s,mb5.5
AVF    Avril sur Loir    76.69  38  eP        P       14 27 55.5  0.0
        comp=Z,124nm,1.2s,mb5.4
AVF    Avril sur Loir    76.69  38  eP        P       14 27 55.5  0.0
AVF                                   pmax    pmax
        comp=Z,62nm,1.2s,mb5.4
AVF    Avril sur Loir    76.69  38  eP        P       14 27 55.5  0.0
        comp=Z,62nm,1.2s,mb5.4
RUE    Ruedersdorf       76.74  29  eP        P       14 27 55.7  0.0
        comp=Z,57nm,0.9s,mb5.5
LFF    La Frestale       76.77  41  eP        P       14 27 56.3 +0.4
        comp=Z,361nm,1.4s,mb5.8
LFF    La Frestale       76.77  41  eP        P       14 27 56.3 +0.4
LFF                                   pmax    pmax
        comp=Z,181nm,1.4s,mb5.8
LFF    La Frestale       76.77  41  eP        P       14 27 56.3 +0.4
        comp=Z,181nm,1.4s,mb5.8
THEF   They Montfort     76.84  36  eP        P       14 27 56.4 +0.1
PBEJ   Beja              76.87  51  eP        P       14 27 57.5 +0.8
        comp=Z,56nm,1.8s,mb5.2
RJF    Les Rejaudoux     76.89  40  eP        P       14 27 56.7 +0.1
        comp=Z,277nm,1.4s,mb5.7
RJF                                 eMLR      MLR
        comp=Z,13µm,18.8s,MS6.0
RJF    Les Rejaudoux     76.89  40  eP        P       14 27 56.7 +0.1
RJF                                   pmax    pmax
        comp=Z,138nm,1.4s,mb5.7
RJF                                   MLR     MLR
        comp=Z,13µm,18.8s,MS6.2
RJF    Les Rejaudoux     76.89  40  eP        P       14 27 56.7 +0.1
        comp=Z,138nm,1.4s,mb5.7
RJF                                   LR      LR
        comp=Z,13µm,18.8s,MS6.2
MORF   Marmelete         76.89  52  eP        P       14 27 56.9 +0.1
        comp=Z,159nm,1.6s,mb5.7
MORF   Marmelete         76.89  52  ePP       PP      14 30 46.5 -2.8
MORF                                eS        S       14 37 51.9 +7.3
MORF                                eLR       LR      14 53 42.8
        comp=Z,4µm,20.0s
MORF   Marmelete         76.89  52  eP        P       14 27 56.9 +0.1
MORF                                eS        S       14 37 45.6 +1.0
PFVI   Vila Bisbo        76.90  52  eP        P       14 27 57.1 +0.2
        comp=Z,120nm,1.9s,mb5.5
PFVI   Vila Bisbo        76.90  52  ePP       PP      14 30 50.9 +1.5
PFVI                                eS        S       14 37 46.1 +1.4
PFVI                                eLR       LR      14 54 13.5
        comp=Z,5µm,20.0s
KTD    Kalmit            76.93  34  eP        P       14 27 57.7 +0.9
OSSF   Osses             76.94  43  eP        P       14 27 56.5 -0.5
MDJ    Mudanjiang        76.95 319    P       P       14 27 55.8 -1.2
MDJ                                   PP      PP      14 30 47.8 -1.8
MDJ                                   S       S       14 37 43.3 -1.7
MDJ                                   ScS     ScS     14 38 13.3 -0.6
MDJ                                   pmax    pmax
        comp=Z,2µm,6.6s
MDJ                                   LR      LR
        comp=N,3µm,35.3s
MDJ    Mudanjiang        76.95 319    PFAKE           14 28 10.0  +13
MDJ                                   LR      LR
        comp=Z,3µm,19.0s,MS5.7
TOD    Tromm             77.02  34  eP        P       14 27 57.8 +0.5
SMF    Signal de Mont    77.03  38  eP        P       14 27 57.3 -0.1
        comp=Z,99nm,1.1s,mb5.3
SMF    Signal de Mont    77.03  38  eP        P       14 27 57.3 -0.1
SMF                                   pmax    pmax
        comp=Z,49nm,1.1s,mb5.3
SMF    Signal de Mont    77.03  38  eP        P       14 27 57.3 -0.1
        comp=Z,49nm,1.1s,mb5.3
SJPF   Ste Jean          77.06  43  eP        P       14 27 58.2 +0.6
        comp=Z,53nm,1.1s,mb5.1
SJPF   Ste Jean          77.06  43  eP        P       14 27 58.2 +0.6
SJPF                                  pmax    pmax
        comp=Z,27nm,1.1s,mb5.1
SJPF   Ste Jean          77.06  43  eP        P       14 27 58.2 +0.6
        comp=Z,26nm,1.1s,mb5.1
LANF   Langenberg        77.07  35  eP        P       14 27 58.3 +0.7
HAU    Haudompre         77.17  36  eP        P       14 27 58.8 +0.7
        comp=Z,224nm,1.3s,mb5.6
HAU                                 eMLR      MLR
        comp=Z,12µm,20.5s,MS5.9
HAU    Haudompre         77.17  36  eP        P       14 27 58.8 +0.7
HAU                                   pmax    pmax
        comp=Z,112nm,1.3s,mb5.6
HAU                                   MLR     MLR
        comp=Z,12µm,20.5s,MS6.2
HAU    Haudompre         77.17  36  eP        P       14 27 58.8 +0.7
        comp=Z,112nm,1.3s,mb5.6
HAU                                   LR      LR
        comp=Z,12µm,20.5s,MS6.2
PBAR   Barrancos         77.25  50  eP        P       14 27 58.7 -0.1
        comp=Z,76nm,1.9s,mb5.3
PBAR   Barrancos         77.25  50  ePP       PP      14 30 57.4 +5.1
PBAR                                eS        S       14 37 49.3 +0.8
PBAR                                eLQ               14 50 11.4
PBAR                                eLR       LR      14 53 45.0
        comp=Z,4µm,18.0s
CDF    Champ du Feu      77.27  35  eP        P       14 27 59.5 +0.8
        comp=Z,163nm,1.2s,mb5.5
CDF    Champ du Feu      77.27  35  eP        P       14 27 59.5 +0.8
CDF                                   pmax    pmax
        comp=Z,82nm,1.2s,mb5.5
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CDF   Champ du Feu     77.27  35 eP          P         14 27 59.5 +0.8
      comp=Z,82nm,1.2s,mb5.5
PYM   Petit Puy Mans   77.29  39 eP          P         14 27 59.4 +0.5
GKP   Gorka Klasztor   77.34  27 eP          P         14 27 59.9 +0.9
GKP                               LMZ                  15 01 35.7
      comp=Z,8µm,21.2s
GKP   Gorka Klasztor   77.34  27 eP          P         14 27 59.9 +0.9
GKP                               LR         LR
      comp=Z,8µm,21.2s,MS6.0
ATE   Arette           77.35  43 eP          P         14 27 59.6 +0.3
PBDV  Barranco-do-Ve   77.36  51 eP          P         14 27 59.9 +0.5
      comp=Z,84nm,1.4s,mb5.5
PBDV  Barranco-do-Ve   77.36  51 ePP         PP        14 30 55.9 +2.7
PBDV                             eS          S         14 37 56.8 +7.1
PBDV                             eLR         LR        14 53 18.9
      comp=Z,5µm,18.0s
MOX   Moxa             77.36 32d eP          P         14 27 59.9 +0.7
      comp=Z,229nm,2.0s,mb5.8
MOX                              eS          S         14 37 51.0 +1.8
MOX
      comp=Z,8µm,17.0s
MOX   Moxa             77.36  32 eP          P         14 27 59.9 +0.7
MOX                              eS          S         14 37 51.0 +1.8
MOX                               pmax       pmax
      comp=Z,229nm,2.0s,mb5.8
MOX                               MLR        MLR
      comp=Z,8µm,17.0s,MS6.1
MOX   Moxa             77.36  32 eP          P         14 27 59.5 +0.3
      comp=Z,114nm,1.5s,mb5.6
MOX   Moxa             77.36  32 eP          P         14 27 59.9 +0.7
      comp=Z,229nm,2.0s,mb5.8
MOX                              eS          S         14 37 51.0 +1.8
MOX                               LR         LR
      comp=Z,8µm,17.0s,MS6.1
ECH   Echery           77.37  36 eP          P         14 27 59.6 +0.3
ECH                               MLR        MLR
      comp=Z,4µm,19.0s,MS5.8
PVAQ  Vaqueiros        77.38  51 eP          P         14 28 00.1 +0.6
      comp=Z,80nm,1.8s,mb5.3
PVAQ  Vaqueiros        77.38  51 ePP         PP        14 30 58.3 +4.9
PVAQ                             eS          S         14 37 59.4  +10
PVAQ                             eLR         LR        14 51 42.1
      comp=Z,4µm,20.0s
CLL   Collm            77.38 31⇓ iP          P         14 28 00.2 +0.9
CLL                              i *PP       pP        14 28 04.1 +1.5
CLL                              i                     14 28 11.1
CLL                              eS          S         14 37 53.0 +3.6
CLL                               pmax       pmax
      comp=Z,62nm,1.1s,mb5.5
CLL                               MLR        MLR
      comp=Z,7µm,18.3s,MS6.0
CLL   Collm            77.38  31 eP          P         14 27 59.2 -0.1
      comp=Z,76nm,1.2s,mb5.5
CLL   Collm            77.38 31⇓ iP          P         14 28 00.2 +0.9
      comp=Z,62nm,1.1s,mb5.5
CLL                              i (pP)      pP        14 28 04.1 +1.5
CLL                              i                     14 28 11.1
CLL                              ePP         PP        14 30 55.0 +2.1
CLL                              ePPP                  14 32 42.0
CLL                              eS          S         14 37 53.0 +3.6
CLL                              ePPS                  14 38 46.0
CLL                              e(SS)                 14 43 30.0
CLL                              eSSS                  14 46 42.0
CLL                              ePKPPKPdf             14 55 06.0
CLL                               Lm                   15 03 00.0
      comp=N,6µm,18.9s
CLL                               Lm                   15 03 00.0
      comp=E,3µm,19.1s
CLL                               Lm                   15 03 00.0
      comp=Z,7µm,18.3s
CLL   Collm            77.38 31⇓ iP          P         14 28 00.2 +0.9
      comp=Z,62nm,1.1s,mb5.5
CLL                              i pP        pP        14 28 04.1 +1.5
CLL                              i                     14 28 11.1
CLL                              eS          S         14 37 53.0 +3.6
CLL                              eP'P'                 14 55 06.0
CLL                               LR         LR
      comp=Z,7µm,18.3s,MS6.0
CAF   Calviac          77.43  40 eP          P         14 27 59.8 +0.1
      comp=Z,117nm,1.1s,mb5.4
CAF   Calviac          77.43  40 eP          P         14 27 59.8 +0.1
CAF                               pmax       pmax
      comp=Z,58nm,1.1s,mb5.4
CAF   Calviac          77.43  40 eP          P         14 27 59.8 +0.1
      comp=Z,58nm,1.1s,mb5.4
REYF  Montagne du Re   77.52  43 eP          P         14 28 01.3 +1.1
HINF  Hinteralfeld     77.53  36 eP          P         14 28 00.8 +0.6
      comp=Z,252nm,1.3s,mb5.7
HINF  Hinteralfeld     77.53  36 eP          P         14 28 00.8 +0.6
HINF                              pmax       pmax
      comp=Z,126nm,1.3s,mb5.7
HINF  Hinteralfeld     77.53  36 eP          P         14 28 00.8 +0.6
      comp=Z,126nm,1.3s,mb5.7
ETSF  Etsaut           77.56  43 eP          P         14 28 01.2 +0.8
      comp=Z,169nm,1.3s,mb5.5
ETSF  Etsaut           77.56  43 eP          P         14 28 01.2 +0.8
ETSF                              pmax       pmax
      comp=Z,85nm,1.3s,mb5.5
ETSF  Etsaut           77.56  43 eP          P         14 28 01.2 +0.8
      comp=Z,85nm,1.3s,mb5.5
LIBD  Limburg          77.61  35 eP          P         14 28 01.4 +0.8
MOF   Molkenrain       77.63  36 eP          P         14 28 00.8 +0.1
LABF  Labassere        77.78  43 eP          P         14 28 01.0 -0.7
LBL   Lubilhac         77.78  40 eP          P         14 28 03.0 +1.4
WERD  Werda            77.79  31 eP          P         14 28 01.6  0.0
      comp=Z,34nm,1.1s,mb5.2
BFO   Black Forest     77.79  35 eP          P         14 28 01.7 +0.1
BFO                               pmax       pmax
      comp=Z,144nm,1.6s,mb5.7
BFO                               MLR        MLR
      comp=Z,5µm,19.0s,MS5.9
BFO   Black Forest     77.79  35 eP          P         14 28 01.7 +0.1
      comp=Z,144nm,1.6s,mb5.7
BFO                               LR         LR
      comp=Z,5µm,19.0s,MS5.9
MAJO  Matsushiro       77.81 308 eP          P         14 28 02.3 +0.3
MAJO                              pmax       pmax
      comp=Z,98nm,1.1s,mb5.7
MAJO                              MLR        MLR
      comp=Z,1µm,19.0s,MS5.3
MAJO  Matsushiro       77.81 308 eP          P         14 28 02.3 +0.4
      comp=Z,98nm,1.1s,mb5.7
MAJO                              LR         LR
      comp=Z,1µm,19.0s,MS5.3
MAT   Matsushiro       77.81 308  P          P         14 28 02.1 +0.1
MAT                               S          S         14 37 57.0 +2.4
MJAR  Matsushiro Arr   77.81 308  P          P         14 28 01.9  0.0
      comp=Z,27nm,1.0s,mb5.1,baz=37,slow=4.2,SNR=23
MJAR                              LR         LR        14 57 05.8
      comp=Z,1µm,20.7s,MS5.2,baz=55,slow=32
MJAR  Matsushiro Arr   77.81 308  P          P         14 28 01.9 -0.1
MJAR                              LR         LR        14 57 05.8
FBE   Freiberg         77.82  31 eP          P         14 28 02.0 +0.3
      comp=Z,108nm,1.2s,mb5.7
STU   Stuttgart        77.82  34 eP          P         14 28 02.8 +1.0
STU                               pmax       pmax
      comp=Z,126nm,0.2s,mb6.5
STU   Stuttgart        77.82  34 eP          P         14 28 02.2 +0.4
STU   Stuttgart        77.82  34 eP          P         14 28 02.8 +1.1
      comp=Z,126nm,0.2s,mb6.5
PAB   San Pablo        77.86  48 eP          P         14 28 01.7 -0.5
PAB                               pmax       pmax
      comp=Z,38nm,1.4s,mb5.1
PAB                               MLR        MLR
      comp=Z,5µm,19.0s,MS5.8
PAB   San Pablo        77.86  48 eP          P         14 28 01.6 -0.5
      comp=Z,38nm,1.4s,mb5.1
PAB                               LR         LR
      comp=Z,5µm,19.0s,MS5.8
GUNZ  Gunzen           77.86  31 eP          P         14 28 02.2 +0.2
      comp=Z,56nm,1.1s,mb5.4
VIEF  Viey             77.87  43 eP          P         14 28 03.2 +1.0
LOMF  Lomont           77.87  36 eP          P         14 28 02.0 -0.1
TANN  Tannenbergstha   77.88  31 eP          P         14 28 02.3 +0.2
      comp=Z,131nm,1.7s,mb5.6
EPF   Esparros         77.93  43 eP          P         14 28 02.6 +0.1
      comp=Z,201nm,1.8s,mb5.5
EPF   Esparros         77.93  43 eP          P         14 28 02.6 +0.1
EPF                               pmax       pmax
      comp=Z,101nm,1.8s,mb5.5
EPF   Esparros         77.93  43 eP          P         14 28 02.6 +0.1
      comp=Z,101nm,1.8s,mb5.5
WERN  Wernitzgruen     77.94  31 eP          P         14 28 02.8 +0.4
      comp=Z,256nm,2.0s,mb5.8
GRA1  Grafenberg Arr   77.95  32 eP          P         14 28 03.3 +0.8
      comp=Z,297nm,1.6s,mb6.0
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GRA1                             eS          S         14 38 00.5 +4.9
GRA1                              LR         LR
      comp=Z,5µm,18.1s,MS5.9
GRF   Grafenberg Arr   77.95  32 eP          P         14 28 03.3 +0.8
GRF                              eS          S         14 38 00.5 +4.9
GRF                               pmax       pmax
      comp=Z,297nm,1.6s,mb6.0
GRF                               MLR        MLR
      comp=Z,5µm,18.1s,MS5.9
GRF   Grafenberg Arr   77.95  32 eP          P         14 28 03.3 +0.8
GRF                              eS          S         14 38 00.5 +4.9
GRF                               pmax       pmax
      comp=Z,297nm,1.6s,mb6.0
GRF                               MLR        MLR
      comp=Z,5µm,18.1s,MS5.9
GRF   Grafenberg Arr   77.95  32 eP          P         14 28 03.3 +0.8
      comp=Z,297nm,1.6s,mb6.0
GRF                              eS          S         14 38 00.5 +4.9
GRF                              eL                    15 02 04.9
      comp=Z,5µm,18.1s
FUNA  Funafuti         77.97 247  PFAKE                14 28 10.0 +6.9
FUNA                              LR         LR
      comp=Z,9µm,19.0s,MS6.1
ESDC  Sonseca Array    77.98  47  P          P         14 28 02.2 -0.7
      comp=Z,5.6nm,0.7s,mb4.6,baz=306,slow=5.5,SNR=29
HIA   Hailar           77.99 327 eP          P         14 28 01.7 -1.0
HIA                               pmax       pmax
      comp=Z,124nm,1.6s
HIA                               MLR        MLR
      comp=Z,7µm,19.0s
HIA   Hailar           77.99 327 eP          P         14 28 01.7 -1.0
      comp=Z,124nm,1.6s,mb5.6
HIA                               LR         LR
      comp=Z,7µm,19.0s,MS6.0
FELD  Feldberg im Sc   77.99  35 eP          P         14 28 03.1 +0.3
NKC   Novy Kostel      78.01  31 eP          P         14 28 04.0 +1.2
NKC                              e                     14 31 01.6
NKC                              eS          S         14 38 06.8  +10
NKC   Novy Kostel      78.01  31 eP          P         14 28 04.0 +1.2
NKC                              ePP         PP        14 31 01.6 +3.4
NKC                              ex          x         14 38 06.8
NKC                              ex          x         14 47 18.9
NKC                               AMS        AMS       15 04 10.0
      comp=Z,7µm,16.3s
NKC   Novy Kostel      78.01  31 eP          P         14 28 04.0 +1.2
NKC                              ePP         PP        14 31 01.6 +3.4
NKC                              eS          S         14 38 06.8  +10
NKC                              ePKKP       PKKPbc    14 47 18.9  +17
MANZ  Manzenberg       78.07  32 eP          P         14 28 03.4 +0.2
      comp=Z,77nm,1.0s,mb5.6
BRG   Berggiesshubel   78.08  30 i P         P         14 28 03.8 +0.6
BRG                              i           pP        14 28 07.7 +1.2
BRG                                                    14 30 58.0
BRG                               S          S         14 37 59.0 +1.9
BRG                               SS         SS        14 43 04.0 +6.7
BRG                               pmax       pmax
      comp=Z,21nm,0.8s,mb5.1
BRG                               MLR        MLR
      comp=Z,5µm,15.9s,MS6.0
BRG   Berggiesshubel   78.08  30 eP          P         14 28 03.5 +0.3
      comp=Z,175nm,1.8s,mb5.7
BRG   Berggiesshubel   78.08  30 i P         P         14 28 03.8 +0.6
      comp=Z,35nm,0.8s,mb5.3
BRG                              i           pP        14 28 07.7 +1.2
      comp=Z,51nm,1.0s
BRG                               PP         PP        14 30 58.0 -0.8
BRG                               S          S         14 37 59.0 +1.9
BRG                               SS         SS        14 43 04.0 +6.7
BRG                              ePKKP       PKKPbc    14 46 55.9 -5.7
      comp=Z,5.3nm,0.8s
BRG
      comp=N,7µm,16.6s
BRG
      comp=E,2µm,15.3s
BRG
      comp=Z,9µm,15.9s
BRG   Berggiesshubel   78.08  30 i P         P         14 28 03.8 +0.6
      comp=Z,21nm,0.8s,mb5.1
BRG                              i           pP        14 28 07.7 +1.2
BRG                               PP         PP        14 30 58.0 -0.8
BRG                               S          S         14 37 59.0 +1.9
BRG                               SS         SS        14 43 04.0 +6.7
BRG                              ePKKP       PKKPbc    14 46 55.9 -5.7
BRG                               LR         LR
      comp=Z,5µm,15.9s,MS6.0
RESF  Ens              78.08  43 eP          P         14 28 04.6 +1.2
BBS   Basel-Blauen     78.09  36 eP          P         14 28 02.1 -1.2
CABF  La Chapelle      78.09  37 eP          P         14 28 04.3 +1.0
      comp=Z,522nm,1.5s,mb5.9
CABF  La Chapelle      78.09  37 eP          P         14 28 04.3 +1.0
CABF                              pmax       pmax
      comp=Z,261nm,1.5s,mb5.9
CABF  La Chapelle      78.09  37 eP          P         14 28 04.3 +1.0
      comp=Z,261nm,1.5s,mb5.9
SPAK  Spaichingen-Ko   78.16  35 eP          P         14 28 04.0 +0.3
ROTZ  Rotzenmuhle      78.29  32 eP          P         14 28 04.9 +0.6
      comp=Z,73nm,1.1s,mb5.5
SSB   Saint Sauveur    78.37  39 eP          P         14 28 05.4 +0.5
SSB                               MLR        MLR
      comp=Z,3µm,22.0s,MS5.6
SALF  Salau            78.56  42 eP          P         14 28 06.3 +0.3
OG01  Vacheresse       78.58  37 eP          P         14 28 07.1 +1.1
PVCC  Panska Ves       78.60  30 eP          P         14 28 07.4 +1.3
PVCC                             e                     14 31 05.4
PVCC                             eS          S         14 38 07.7 +5.1
PVCC                              MLR        MLR
      comp=Z,10µm,16.3s,MS6.2
PVCC  Panska Ves       78.60  30 eP          P         14 28 07.4 +1.3
PVCC                             ePP         PP        14 31 05.4 +2.3
PVCC                             eS          S         14 38 07.7 +5.1
PVCC                             ePKKP       PKKPbc    14 47 06.1 +5.6
PVCC                              AMS        AMS       15 04 10.0
      comp=Z,10µm,16.3s
SUW   Suwalki          78.65  24 eP          P         14 28 06.1 -0.1
SUW                               LMZ                  15 03 58.3
      comp=Z,10µm,16.4s
SUW   Suwalki          78.65  24 eP          P         14 28 06.1 -0.2
MTLF  Montolieu        78.65  41 eP          P         14 28 06.8 +0.3
      comp=Z,227nm,1.6s,mb5.6
MTLF  Montolieu        78.65  41 eP          P         14 28 06.8 +0.3
MTLF                              pmax       pmax
      comp=Z,114nm,1.6s,mb5.5
MTLF  Montolieu        78.65  41 eP          P         14 28 06.8 +0.3
      comp=Z,114nm,1.6s,mb5.5
VIVF  Saint-Julien-l   78.74  39 eP          P         14 28 07.4 +0.4
      comp=Z,176nm,1.6s,mb5.4
VIVF  Saint-Julien-l   78.74  39 eP          P         14 28 07.4 +0.4
VIVF                              pmax       pmax
      comp=Z,88nm,1.6s,mb5.4
VIVF  Saint-Julien-l   78.74  39 eP          P         14 28 07.4 +0.4
      comp=Z,88nm,1.6s,mb5.4
NACGM Naroch           78.92  21 eP          P         14 28 05.0 -2.7
LASF  Ste Croix        78.93  40 eP          P         14 28 08.6 +0.6
      comp=Z,209nm,1.4s,mb5.6
GRN   Grenoble         78.96  38 eP          P         14 28 08.7 +0.5
KSP   Ksiaz            78.99  29 eP          P         14 28 09.2 +1.0
KSP                               LMZ                  15 04 20.1
      comp=Z,16µm,18.1s
KSP   Ksiaz            78.99  29 eP          P         14 28 08.7 +0.5
KSP                              e                     14 31 04.5
KSP                              eS          S         14 38 07.0 +0.3
KSP                              eSS         SS        14 43 09.0 -1.8
KSP                               MLR        MLR
      comp=Z,18µm,18.1s,MS6.5
KSP   Ksiaz            78.99  29 eP          P         14 28 08.7 +0.5
KSP                              ePP         PP        14 31 04.5 -1.8
KSP                              eS          S         14 38 07.0 +0.3
KSP                              eSS         SS        14 43 09.0 -1.8
KSP                              eSSS                  14 47 04.0
KSP                               LR         LR
      comp=Z,18µm,18.1s,MS6.5
PRU   Pruhonice        79.02  31 eP          P         14 28 09.6 +1.2
PRU                              e                     14 31 08.7
PRU                              eS          S         14 38 12.5 +5.4
PRU                              eSS         SS        14 43 13.2 +1.8
PRU                               MLR        MLR
      comp=Z,7µm,15.9s,MS6.1
PRU   Pruhonice        79.02  31 eP          P         14 28 09.6 +1.2
PRU                              ePP         PP        14 31 08.7 +2.0
PRU                              eS          S         14 38 12.5 +5.4
PRU                              eSS         SS        14 43 13.2 +1.8
PRU                              ePKKP       PKKPbc    14 47 14.1  +15
PRU                               AMS        AMS       15 06 40.0
      comp=Z,7µm,15.9s
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RSL   Roselend         79.03  38 eP          P         14 28 09.7 +1.2
WET   Wettzell         79.05  32 eP          P         14 28 08.9 +0.3
WET                               pmax       pmax
      comp=Z,46nm,1.1s,mb5.3
WET   Wettzell         79.05  32 eP          P         14 28 08.9 +0.3
      comp=Z,46nm,1.1s,mb5.3
CARF  Carcanieres      79.05  42 eP          P         14 28 09.2 +0.5
LRDF  Laroque-de-Fa    79.11  42 eP          P         14 28 05.6 -3.4
UPC   Upice            79.16  29 eP          P         14 28 10.0 +0.9
GDM   Grand'Maison     79.16  38 eP          P         14 28 10.3 +1.0
FUR   Furstenfeldbru   79.17  33 eP          P         14 28 10.0 +0.8
FUR                               pmax       pmax
      comp=Z,159nm,1.3s,mb5.8
FUR   Furstenfeldbru   79.17  33 eP          P         14 28 10.0 +0.8
      comp=Z,159nm,1.3s,mb5.8
LPL   La Plagne        79.21  38 eP          P         14 28 10.8 +1.3
      comp=Z,66nm,0.9s,mb5.2
LPL   La Plagne        79.21  38 eP          P         14 28 10.8 +1.3
LPL                               pmax       pmax
      comp=Z,33nm,0.9s,mb5.3
LPL   La Plagne        79.21  38 eP          P         14 28 10.8 +1.3
      comp=Z,33nm,0.9s,mb5.3
LPG   La Plagne        79.24  38 eP          P         14 28 11.1 +1.4
      comp=Z,184nm,1.3s,mb5.5
LPG   La Plagne        79.24  38 eP          P         14 28 11.1 +1.4
LPG                               pmax       pmax
      comp=Z,92nm,1.3s,mb5.5
LPG   La Plagne        79.24  38 eP          P         14 28 11.1 +1.4
      comp=Z,92nm,1.3s,mb5.5
VALF  Valcebollere     79.24  42 eP          P         14 28 10.6 +0.9
OCF   Saint Nazaire    79.25  39 eP          P         14 28 10.9 +1.2
OG26  St.-Nazaire-De   79.25  39 eP          P         14 28 10.9 +1.2
DAVA  Damuels          79.26  35 i P         P         14 28 11.1 +1.4
      comp=Z,55nm,1.0s,mb5.5,SNR=15
ORIF  Oris-en-Rattie   79.27  38 eP          P         14 28 10.4 +0.6
      comp=Z,81nm,1.1s,mb5.3
ORIF                             eMLR        MLR
      comp=Z,7µm,18.2s,MS5.7
ORIF  Oris-en-Rattie   79.27  38 eP          P         14 28 10.4 +0.6
ORIF                              pmax       pmax
      comp=Z,41nm,1.1s,mb5.3
ORIF  Oris-en-Rattie   79.27  38 eP          P         14 28 10.4 +0.6
      comp=Z,41nm,1.1s,mb5.3
KHC   Kasperske Hory   79.33  32 eP          P         14 28 11.7 +1.6
KHC                              ex          x         14 28 29.0
KHC                              ePP         PP        14 31 16.0 +6.7
KHC                              eS          S         14 38 10.7 +0.2
KHC                              eSS         SS        14 43 14.5 -1.6
KHC                               AMS        AMS       15 03 10.0
      comp=Z,9µm,19.5s
DPC   Dobruska-Polom   79.40  29 eP          P         14 28 11.5 +1.0
DPC                              e                     14 31 11.5
DPC                              eS          S         14 38 14.6 +3.4
DPC                              eSS         SS        14 43 17.9 +0.9
DPC                               MLR        MLR
      comp=Z,6µm,15.9s,MS6.1
DPC   Dobruska-Polom   79.40  29 eP          P         14 28 11.5 +1.0
DPC                              ePP         PP        14 31 11.5 +1.7
DPC                              eS          S         14 38 14.6 +3.4
DPC                              eSS         SS        14 43 17.9 +0.9
DPC                              ePKKP       PKKPbc    14 47 22.4  +24
DPC                               AMS        AMS       15 04 40.0
      comp=Z,6µm,15.9s
SOKR  Solikamsk        79.45  4c iP          P         14 28 12.1 +1.5
SOKR                                                   14 31 10.1
SOKR                              S          S         14 38 17.1 +5.7
SOKR                              SS         SS        14 43 29.2  +12
SOKR                              pmax       pmax
      comp=Z,60nm,1.6s,mb5.3
SOKR                              MLR        MLR
      comp=Z,9µm,21.0s,MS6.1
RETA  Reutte           79.48 34⇑ iP          P         14 28 11.7 +0.8
      comp=Z,94nm,1.1s,mb5.6,SNR=24
BNI   Bardonecchia     79.54  38 eP          P         14 28 12.3 +1.0
BNI                               pmax       pmax
      comp=Z,36nm,1.0s,mb5.3
BNI                               MLR        MLR
      comp=Z,5µm,20.0s,MS5.8
BNI   Bardonecchia     79.54  38 eP          P         14 28 12.3 +1.0
      comp=Z,36nm,1.0s,mb5.3
BNI                               LR         LR
      comp=Z,5µm,20.0s,MS5.8
MNK   Minsk            79.56 21d eP          P         14 28 11.0 -0.2
MNK                              e                     14 28 11.0
MNK                              eS          S         14 38 10.0 -2.7
MNK                              ePS                   14 39 14.0
MNK                              eSS         SS        14 43 18.0 -1.1
MNK                               pmax       pmax
      comp=Z,5µm,7.0s
MNK                               MLR        MLR
      comp=Z,19µm,16.0s,MS6.5
MNK                               MLR        MLR
      comp=E,8µm,14.0s,MS6.4
MNK                               MLR        MLR
      comp=N,9µm,16.0s,MS6.4
MICGM Minsk            79.57 21⇓ eP          P         14 28 11.0 -0.3
CN2   Changchun        79.59 320 eP          P         14 28 12.3 +0.7
CN2                              esP         sP        14 28 19.0 +2.9
CN2                              ePP         PP        14 31 13.0 +1.4
CN2                              eS          S         14 38 11.8 -1.6
CN2                               pmax       pmax
      comp=Z,10.0nm,0.9s,mb4.8
CN2                               pmax       pmax
      comp=Z,200nm,4.0s
CN2                               LR         LR
      comp=N,1µm,19.0s,MS5.5
CN2                               LR         LR
      comp=E,2µm,19.0s,MS5.5
CN2                               LR         LR
      comp=Z,2µm,21.0s,MS5.5
GEC2  GERESS Array S   79.61  32 eP          P         14 28 11.8 +0.2
GEC2                              pmax       pmax
      comp=Z,76nm,1.4s,mb5.4
GEC2  GERESS Array S   79.61  32 eP          P         14 28 11.8 +0.2
      comp=Z,76nm,1.4s,mb5.4
GERES GERESS Array B   79.61  32  P          P         14 28 11.8 +0.1
      comp=Z,12nm,0.7s,mb4.9,baz=333,slow=5.1,SNR=48
GERES                             PKKPbc     PKKPbc    14 46 59.9 +1.6
      comp=Z,0.8nm,0.6s,baz=184,slow=2.1,SNR=5.2
GERES                             PKPPKP               14 55 06.5
      comp=Z,0.9nm,0.8s,baz=169,slow=2.7,SNR=5.6
GERES                             LR         LR        15 03 44.9
      comp=Z,8µm,19.5s,MS6.1,baz=325,slow=36
DAVOX Davos/Dischmat   79.65  35  LR         LR        15 05 51.0
      comp=Z,7µm,18.9s,MS6.0,baz=312,slow=38
TUE   Stuetta          79.66  36 eP          P         14 28 13.5 +1.5
      comp=Z,63nm,0.9s,mb5.5
TUE                               LR         LR
      comp=Z,8µm,20.0s,MS6.1
ORO   Oropa            79.70  37  P          P         14 28 12.8 +0.6
ORO                               pmax       pmax
      comp=Z,77nm,0.9s,mb5.6
ORO   Oropa            79.70  37  P          P         14 28 12.8 +0.6
      comp=Z,77nm,0.9s,mb5.6
MOTA  Moosalm          79.74 34⇑ iP          P         14 28 13.8 +1.5
      comp=Z,60nm,0.9s,mb5.5,SNR=17
RSP   Reno Superiore   79.74  38  P          P         14 28 14.0 +1.6
PRAF  Pradon           79.76  40 eP          P         14 28 13.3 +0.7
MBDF  Montbardon       79.83  38 eP          P         14 28 14.0 +1.1
      comp=Z,112nm,1.0s,mb5.5
MBDF  Montbardon       79.83  38 eP          P         14 28 14.0 +1.1
MBDF                              pmax       pmax
      comp=Z,56nm,1.0s,mb5.5
MBDF  Montbardon       79.83  38 eP          P         14 28 14.0 +1.1
      comp=Z,56nm,1.0s,mb5.5
SMRF  Simiane la Rot   79.83  39 eP          P         14 28 13.8 +0.9
      comp=Z,120nm,1.3s,mb5.3
SMRF  Simiane la Rot   79.83  39 eP          P         14 28 13.8 +0.9
      comp=Z,120nm,1.3s,mb5.7
FETA  Feichten         79.83  34 i P         P         14 28 14.4 +1.5
      comp=Z,64nm,1.0s,mb5.5,SNR=29
VAI   Varese           79.87  36  P          P         14 28 14.2 +1.1
VAI                               pmax       pmax
      comp=Z,76nm,0.9s,mb5.6
VAI   Varese           79.87  36  P          P         14 28 14.2 +1.1
      comp=Z,76nm,0.9s,mb5.6
SQTA  Sankt Quirin     79.88 34⇑ iP          P         14 28 14.6 +1.5
      comp=Z,62nm,1.0s,mb5.5
WATA  Walderalm        79.94 34⇑ iP          P         14 28 14.7 +1.2
      comp=Z,37nm,0.7s,mb5.4,SNR=8.6
TREC  Trest            79.95  30 eP          P         14 28 14.2 +0.8
TREC                             ePP         PP        14 31 17.1 +2.8
TREC                             eS          S         14 38 22.5 +5.5
TREC                              AMS        AMS       15 05 10.0
      comp=Z,6µm,15.9s
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STOF	**St-Etienne Org**	**79.97**	**39**	*e*P	**P**	**14 28 14.4**	**+0.7**
WTTA	**Wattenberg**	**80.03**	**34**	⇑*i*P	**P**	**14 28 15.5**	**+1.6**
	comp=Z,55nm,0.8s,mb5.5,SNR=17						
SURF	**Saint Ours**	**80.03**	**38**	*e*P	**P**	**14 28 15.7**	**+1.7**
RJOB	**Jochberg**	**80.13**	**33**	*e*P	**P**	**14 28 14.8**	**+0.3**
	comp=Z,50nm,0.9s,mb5.4						
RTC	**Rabat Centre**	**80.20**	**53**	PFAKE		14 28 30.0	+15
RTC				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
RAC	**Raciborz**	**80.31**	**29**	*e*P	**P**	**14 28 16.0**	**+0.6**
RAC				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.9						
MORC	**Moravsky Berou**	**80.32**	**29**	⇓*i*P	**P**	**14 28 15.4**	**-0.1**
MORC	**Moravsky Berou**	**80.32**	**29**	⇓P	**P**	**14 28 15.4**	**-0.1**
TAVF	**Tavernes**	**80.33**	**39**	*e*P	**P**	**14 28 15.5**	**-0.1**
VRAC	**Vranov**	**80.36**	**30**	⇑*i*P	**P**	**14 28 16.7**	**+1.0**
VRAC	**Vranov**	**80.36**	**30**	LR	LR	15 05 18.4	
	comp=Z,8µm,18.5s,MS6.1,baz=322,slow=37						
VRAC	**Vranov**	**80.36**	**30**	⇑P	**P**	**14 28 16.7**	**+1.0**
BERF	**Bertagne**	**80.38**	**40**	*e*P	**P**	**14 28 17.0**	**+1.1**
MABI	**Malga Bissina**	**80.49**	**35**	P	**P**	**14 28 19.5**	**+3.0**
OKC	**Ostrava-Krasne**	**80.49**	**29**	*e*P	**P**	**14 28 17.2**	**+0.8**
OKC				*e*		14 31 21.1	
OKC				*e*S	S	14 38 31.1	+8.4
OKC	**Ostrava-Krasne**	**80.49**	**29**	*e*P	**P**	**14 28 17.2**	**+0.8**
OKC				*e*PP	PP	14 31 21.1	+2.3
OKC				*e*S	S	14 38 31.1	+8.4
OKC				*e*SS	SS	14 43 24.8	-8.5
OKC				*e*PKKP	PKKPbc	14 47 38.1	+42
OKC				AMS	AMS	15 07 20.0	
	comp=Z,6µm,14.3s						
OKC	**Ostrava-Krasne**	**80.49**	**29**	*e*P	**P**	**14 28 17.2**	**+0.8**
OKC				*e*PP	PP	14 31 21.1	+2.3
OKC				*e*S	S	14 38 31.1	+8.4
OKC				*e*SS	SS	14 43 24.8	-8.5
OKC				*e*PKKP	PKKPbc	14 47 38.1	+42
MOA	**Molln**	**80.64**	**32**	⇑*i*P	**P**	**14 28 17.8**	**+0.6**
	comp=Z,23nm,0.9s,mb5.1,SNR=7.6						
FRF	**La Foret Royal**	**80.65**	**39**	*e*P	**P**	**14 28 17.5**	**+0.1**
	comp=Z,101nm,1.2s,mb5.3						
FRF	**La Foret Royal**	**80.65**	**39**	*e*P	**P**	**14 28 17.5**	**+0.1**
FRF				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.3						
FRF	**La Foret Royal**	**80.65**	**39**	*e*P	**P**	**14 28 17.5**	**+0.1**
	comp=Z,51nm,1.2s,mb5.3						
MOS	**Moscow**	**80.74**	**15**	*e*P	**P**	**14 28 16.1**	**-1.5**
MOS				*e*		14 28 22.6	
MOS				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.5						
MOS				pmax	pmax		
	comp=Z,3µm,5.6s						
MOS				MLR	MLR		
	comp=Z,10µm,15.0s,MS6.3						
MOS				MLR	MLR		
	comp=N,9µm,15.0s,MS6.3						
MOS				MLR	MLR		
	comp=E,5µm,15.0s,MS6.3						
LMR	**La Mourre**	**80.76**	**39**	*e*P	**P**	**14 28 18.1**	**+0.2**
	comp=E,96nm,1.2s,mb5.3						
LMR	**La Mourre**	**80.76**	**39**	*e*P	**P**	**14 28 18.1**	**+0.2**
LMR				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.3						
LMR	**La Mourre**	**80.76**	**39**	*e*P	**P**	**14 28 18.1**	**+0.2**
	comp=Z,48nm,1.2s,mb5.3						
OJC	**Ojcow**	**80.76**	**28**	*e*P	**P**	**14 28 18.4**	**+0.6**
SBF	**Sospel**	**80.79**	**38**	*e*P	**P**	**14 28 18.1**	**0.0**
	comp=Z,58nm,0.8s,mb5.2						
SBF	**Sospel**	**80.79**	**38**	*e*P	**P**	**14 28 18.1**	**0.0**
SBF				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
SBF	**Sospel**	**80.79**	**38**	*e*P	**P**	**14 28 18.1**	**0.0**
	comp=Z,29nm,0.8s,mb5.3						
ABTA	**Abfaltersbach**	**80.80**	**34**	⇑*i*P	**P**	**14 28 18.8**	**+0.7**
	comp=Z,57nm,1.1s,mb5.4,SNR=20						
LCO	**Las Campanas**	**80.86**	**142**	*e*P	**P**	**14 28 17.9**	**-0.6**
	comp=Z,56nm,1.0s,mb5.5						
LCO				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
KBA	**Koelnbreinsper**	**80.88**	**33**	⇑*i*P	**P**	**14 28 19.5**	**+1.0**
	comp=Z,87nm,1.5s,mb5.5,SNR=24						
BOB	**Bobbio (Coli)**	**81.02**	**37**	P	**P**	**14 28 22.0**	**+2.7**
IRK	**Irkutsk**	**81.02**	**337**	*e*P	**P**	**14 28 18.7**	**-0.5**
IRK				*e*S	S	14 38 31.1	+3.0
IRK				*e*		14 39 09.3	
IRK				pmax	pmax		
	comp=Z,156nm,1.7s,mb5.7						
OBN	**Obninsk**	**81.11**	**16**	⇑*e*P	**P**	**14 28 19.1**	**-0.5**
OBN				*e*		14 31 22.3	
OBN				*e*S	S	14 38 28.0	-0.9
OBN				pmax	pmax		
	comp=Z,128nm,1.0s,mb5.8						
OBN				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.1						
OBN	**Obninsk**	**81.11**	**16**	⇑*e*P	**P**	**14 28 19.2**	**-0.4**
OBN				LR	LR		
	comp=Z,9µm,19.0s,MS6.1						
CSNA	**Conrad Observa**	**81.20**	**31**	⇑*i*P	**P**	**14 28 21.2**	**+1.0**
	comp=Z,51nm,0.9s,mb5.5						
CONA	**Conrad Observa**	**81.20**	**31**	⇑*i*P	**P**	**14 28 21.2**	**+1.0**
	comp=Z,52nm,0.9s,mb5.5,SNR=32						
MODS	**Modra-Piesok**	**81.38**	**30**	*i* P	**P**	**14 28 22.2**	**+1.0**
MODS				*e*S	S	14 38 33.5	+1.5
MODS				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.2						
MODS	**Modra-Piesok**	**81.38**	**30**	*i* P	**P**	**14 28 22.2**	**+1.0**
	comp=Z,33nm,1.1s,mb5.2						
MODS				*e*S	S	14 38 33.5	+1.5
ZST	**Bratislava**	**81.46**	**30**	*i* P	**P**	**14 28 22.4**	**+0.8**
ZST				*e*S	S	14 38 34.1	+1.3
ZST				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
ZST	**Bratislava**	**81.46**	**30**	*i* P	**P**	**14 28 22.4**	**+0.8**
	comp=Z,37nm,0.9s,mb5.3						
ZST				*e*S	S	14 38 34.1	+1.3
NIE	**Niedzica**	**81.62**	**28**	*e*P	**P**	**14 28 23.2**	**+0.8**
ARSA	**Arzberg**	**81.62**	**32**	⇑*i*P	**P**	**14 28 23.1**	**+0.7**
	comp=Z,34nm,1.1s,mb5.2,SNR=10						
KOLL	**Kolacno**	**81.63**	**29**	*i* P	**P**	**14 28 23.3**	**+0.8**
SOP	**Sopron**	**81.67**	**31**	⇓*e*PcP	PcP	14 28 23.7	-4.8
TLY	**Talaya**	**81.70**	**337**	P	**P**	**14 28 23.5**	**+0.7**
	comp=Z,440nm,1.1s,mb6.3,SNR=23						
TLY	**Talaya**	**81.70**	**337**	*e*P	**P**	**14 28 23.2**	**+0.4**
TLY				*e*		14 31 34.7	
TLY				*e*S	S	14 38 30.3	-4.9
TLY				pmax	pmax		
	comp=Z,145nm,1.3s,mb5.8						
TLY				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.3						
TLY	**Talaya**	**81.70**	**337**	*i* P	**P**	**14 28 23.4**	**+0.6**
TLY				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
OBKA	**Obir**	**81.83**	**33**	⇑*i*P	**P**	**14 28 23.3**	**-0.2**
	comp=Z,66nm,0.8s,mb5.6,SNR=19						
VYHS	**Vyhne**	**81.86**	**29**	*i* P	**P**	**14 28 24.0**	**+0.3**
VYHS				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
VYHS	**Vyhne**	**81.86**	**29**	*i* P	**P**	**14 28 24.0**	**+0.3**
	comp=Z,20nm,1.4s,mb4.8						
VYHS				*e*S	S	14 38 47.8	+11
SOKA	**Soboth**	**81.89**	**32**	⇑*i*P	**P**	**14 28 23.7**	**-0.2**
	comp=Z,54nm,1.2s,mb5.3						
VLC	**Villacollemand**	**81.92**	**36**	PFAKE		14 28 30.0	+5.9
VLC				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
STHS	**Stebnicka Huta**	**81.94**	**27**	*i* P	**P**	**14 28 24.2**	**+0.1**
STHS				pmax	pmax		
	comp=Z,72nm,0.9s,mb5.6						
STHS	**Stebnicka Huta**	**81.94**	**27**	*i* P	**P**	**14 28 24.2**	**+0.1**
STHS	**Stebnicka Huta**	**81.94**	**27**	*i* P	**P**	**14 28 24.2**	**+0.1**
	comp=Z,72nm,0.9s,mb5.6						
VOY	**Vojsko**	**81.95**	**33**	*e*P	**P**	**14 28 24.6**	**+0.4**
VOY				*e*		14 28 30.2	
PERS	**Pernice**	**81.96**	**32**	*e*P	**P**	**14 28 24.8**	**+0.5**
PERS				*e*PP	PP	14 31 31.9	+0.9
PERS				*e*S	S	14 38 41.3	+3.3
SNY	**Shenyang**	**81.98**	**320**	⇓P	**P**	**14 28 25.8**	**+1.4**
SNY				S	S	14 38 41.9	+3.5
SNY				SS	SS	14 43 58.4	+2.5
SNY				pmax	pmax		
	comp=Z,41nm,2.3s,mb5.0						
SNY				pmax	pmax		
	comp=Z,3µm,7.3s						
SNY				LR	LR		
	comp=N,4µm,13.3s,MS6.4						
SNY				LR	LR		
	comp=E,12µm,14.4s,MS6.4						
SNY				LR	LR		
	comp=Z,5µm,17.5s,MS5.9						
TRI	**Trieste**	**82.15**	**34**	PFAKE		14 28 40.0	+15
TRI				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
LJU	**Ljubljana**	**82.20**	**33**	*e*P	**P**	**14 28 25.8**	**+0.3**
LJU				*e*S	S	14 38 43.1	+2.6
FNVD	**Fontana Vidola**	**82.24**	**36**	P	**P**	**14 28 27.5**	**+1.7**
KWP	**Kalwaria Pacla**	**82.26**	**26**	*e*P	**P**	**14 28 27.4**	**+1.7**
KWP				LMZ		15 05 18.3	
	comp=Z,7µm,20.6s						
KWP	**Kalwaria Pacla**	**82.26**	**26**	⇑*i*P	**P**	**14 28 27.5**	**+1.8**
MDT	**Midelt**	**82.37**	**53**	P	**P**	**14 28 26.8**	**+0.1**
	comp=Z,31nm,1.1s,mb5.1,baz=324,slow=6.7,SNR=15						
MDT				LR	LR	15 06 16.8	
	comp=Z,3µm,18.0s,MS5.7,baz=318,slow=37						
SVE	**Sverdlovsk**	**82.37**	**2**	⇑*e*P	**P**	**14 28 26.0**	**-0.2**
SVE				*e*		14 31 40.4	
SVE				*e*PPP		14 33 25.0	
SVE				*e*S	S	14 38 41.4	-0.5
SVE				pmax	pmax		
	comp=Z,81nm,1.2s,mb5.5						
SVE				MLR	MLR		
	comp=Z,6µm,18.0s,MS6.0						
CEY	**Cerknica**	**82.40**	**33**	*e*P	**P**	**14 28 27.1**	**+0.5**
SEI	**Scarperia**	**82.43**	**36**	P	**P**	**14 28 28.8**	**+2.0**
	comp=Z,246nm,1.0s,mb6.1						
CRVS	**Cervenica-Dubn**	**82.46**	**27**	*i* P	**P**	**14 28 27.6**	**+0.8**
CRVS				*e*S	S	14 38 34.1	-8.9
KECS	**Kecovo**	**82.47**	**28**	*i* P	**P**	**14 28 27.2**	**+0.3**
KECS				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
KECS	**Kecovo**	**82.47**	**28**	*i* P	**P**	**14 28 27.2**	**+0.3**
	comp=Z,23nm,1.0s,mb5.1						
DOBS	**Dobrina**	**82.50**	**32**	*e*P	**P**	**14 28 26.9**	**-0.1**
DOBS				*e*		14 29 17.0	
VISS	**Visnje**	**82.52**	**33**	*e*P	**P**	**14 28 27.6**	**+0.4**
VISS				*e*PP	PP	14 31 36.0	+0.3
LVV	**L’vov**	**82.53**	**25**	⇑*i*P	**P**	**14 28 30.0**	**+2.8**
LVV				*e*		14 31 45.0	
LVV				*e*S	S	14 38 49.0	+5.2
LVV				*e*PS		14 39 41.0	
LVV				MLR	MLR		
	comp=N,6µm,15.0s,MS6.2						
LVV				MLR	MLR		
	comp=E,6µm,15.0s,MS6.2						
LVV				MLR	MLR		
	comp=Z,6µm,15.0s,MS6.1						
PGF	**Pioggiola**	**82.54**	**38**	*e*P	**P**	**14 28 27.5**	**+0.2**
	comp=Z,46nm,0.9s,mb5.2						
PGF	**Pioggiola**	**82.54**	**38**	*e*P	**P**	**14 28 27.5**	**+0.2**
PGF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
PGF	**Pioggiola**	**82.54**	**38**	*e*P	**P**	**14 28 27.5**	**+0.2**
	comp=Z,23nm,0.9s,mb5.2						
VMG	**Vicchio**	**82.59**	**36**	P	**P**	**14 28 28.9**	**+1.3**
	comp=Z,155nm,1.2s,mb5.9						
ARU	**Arti**	**82.68**	**4**	P	**P**	**14 28 27.6**	**-0.2**
	comp=Z,378nm,0.8s,mb6.5,SNR=15						
ARU	**Arti**	**82.68**	**4**	*d i*P	**P**	**14 28 27.8**	**0.0**
ARU				*e*PPP		14 33 27.2	
ARU				*e*S	S	14 38 46.0	+0.9
ARU				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.5						
ARU				MLR	MLR		
	comp=Z,6µm,18.0s,MS6.0						
ARU	**Arti**	**82.68**	**4**	⇑*e*P	**P**	**14 28 27.7**	**-0.1**
ARU				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
KOLS	**Kolonicke sedl**	**82.71**	**27**	*i* P	**P**	**14 28 28.8**	**+0.7**
KOLS				pmax	pmax		
	comp=Z,376nm,3.3s						
KOLS	**Kolonicke sedl**	**82.71**	**27**	*i* P	**P**	**14 28 28.8**	**+0.7**
	comp=Z,376nm,3.3s						
PSZ	**Piszkesteto**	**82.73**	**29**	⇑*i*P	**P**	**14 28 29.3**	**+1.0**
PSZ	**Piszkesteto**	**82.73**	**29**	⇓*e*PcP	PcP	14 28 29.8	-3.4
PSZ	**Piszkesteto**	**82.73**	**29**	P	**P**	**14 28 29.8**	**+1.5**
PSZ				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
BUD	**Budapest**	**82.78**	**30**	⇓*e*PcP	PcP	14 28 29.2	-4.2
GCIS	**Gornji Cirnik**	**82.79**	**32**	*e*P	**P**	**14 28 28.8**	**+0.2**
GCIS				*e*		14 29 29.4	
ZAK	**Zakamensk**	**82.96**	**337**	*e*P	**P**	**14 28 29.5**	**+0.1**
ZAK				*e*		14 38 48.8	
ZAK				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
UZH	**Uzhgorod**	**82.97**	**27**	⇑*i*P	**P**	**14 28 30.0**	**+0.5**
UZH				*e*		14 31 45.0	
UZH				*e*PPP		14 33 34.0	
UZH				*e*S	S	14 38 49.0	+0.6
UZH				*e*PS		14 39 41.0	
UZH				*e*SSS		14 47 46.0	
UZH				MLR	MLR		
	comp=N,6µm,15.0s,MS6.2						
UZH				MLR	MLR		
	comp=E,6µm,15.0s,MS6.2						
UZH				MLR	MLR		
	comp=Z,6µm,15.0s,MS6.1						
KSRS	**Korea Array**	**83.02**	**315**	P	**P**	**14 28 31.1**	**+1.2**
	comp=Z,17nm,0.8s,mb5.1,baz=51,slow=4.9,SNR=24						
KSRS				LR	LR	15 09 10.0	
	comp=Z,2µm,18.2s,MS5.5,baz=29,slow=38						
NVS	**Novosibirsk**	**83.19**	**350**	*i* P	**P**	**14 28 29.1**	**-1.4**
NVS				*i*		14 31 43.1	
NVS				*e*S	S	14 38 47.2	-3.1
NVS				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.5						
NVS				pmax	pmax		
	comp=N,26nm,1.1s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.2s						
NVS				pmax	pmax		
	comp=Z,33nm,1.6s,mb5.1						
NVS				pmax	pmax		
	comp=N,57nm,1.9s						
NVS				smax			
	comp=N,39nm,1.5s						
NVS				smax			
	comp=E,17nm,1.5s						
AKASG	**Malin Array Be**	**83.33**	**22**	P	**P**	**14 28 30.8**	**-0.6**
	comp=E,48nm,1.0s,mb5.5,baz=324,slow=4.4,SNR=57						
AKASG				LR	LR	15 06 21.2	
	comp=E,8µm,18.0s,MS6.2,baz=335,slow=36						
AKBB	**Malin Array Si**	**83.33**	**22**	*e*P	**P**	**14 28 30.1**	**-1.2**
KIEV	**Kiev**	**83.33**	**22**	*e*P	**P**	**14 28 29.5**	**-1.8**
KIEV				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.5						
KIEV				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.1						
KIEV	**Kiev**	**83.33**	**22**	*e*P	**P**	**14 28 29.5**	**-1.9**
	comp=Z,53nm,1.0s,mb5.5						
KIEV				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
FSSB	**Fossombrone**	**83.35**	**35**	P	**P**	**14 28 31.8**	**+0.3**
	comp=Z,130nm,1.2s,mb5.8						
INCN	**Inchon**	**83.68**	**315**	⇓*e*P	**P**	**14 28 34.0**	**+0.7**
	comp=Z,105nm,1.4s,mb5.8						
INCN				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
PKSM	**Moragy**	**83.69**	**30**	P	**P**	**14 28 33.8**	**+0.5**
SNTG	**Esanatoglia**	**83.77**	**35**	P	**P**	**14 28 34.5**	**+0.8**
	comp=Z,39nm,0.7s,mb5.6						
CING	**Cingoli**	**83.78**	**35**	P	**P**	**14 28 34.1**	**+0.3**
ASS	**Assisi**	**83.79**	**36**	P	**P**	**14 28 33.9**	**+0.1**
ASS				pmax	pmax		
	comp=Z,93nm,1.1s,mb5.8						
ASS	**Assisi**	**83.79**	**36**	P	**P**	**14 28 33.9**	**+0.1**
	comp=Z,93nm,1.1s,mb5.8						
ZALV	**Zalesovo Beam**	**83.82**	**348**	P	**P**	**14 28 33.3**	**-0.5**
	comp=Z,9.6nm,0.7s,mb5.1,baz=17,slow=4.7,SNR=28						
ZALV				LR	LR	15 10 08.7	
	comp=Z,3µm,19.3s,MS5.7,baz=19,slow=39						
ULN	**Ulaanbaatar**	**83.94**	**333**	⇑*e*P	**P**	**14 28 35.3**	**+0.8**
ULN				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
ULN	**Ulaanbaatar**	**83.94**	**333**	P	**P**	**14 28 35.3**	**+0.8**
	comp=Z,40nm,1.7s,comp=Z,2µm,mb5.3						
NRCA	**Norcia**	**84.18**	**36**	P	**P**	**14 28 36.3**	**+0.5**
	comp=Z,56nm,1.4s,mb5.5						
SONM	**Songino Array**	**84.19**	**333**	P	**P**	**14 28 35.7**	**-0.1**
	comp=Z,14nm,1.0s,mb5.1,baz=23,slow=4.2,SNR=21						
SONM				PKPPKP		14 54 52.7	
	comp=Z,0.6nm,1.1s,baz=212,slow=1.5,SNR=5.1						
SONM				LR	LR	15 08 01.9	
	comp=Z,8µm,20.3s,MS6.1,baz=22,slow=37						
BMR	**Baia Mare**	**84.21**	**27**	⇑*i*P	**P**	**14 28 37.4**	**+1.5**
BMR	**Baia Mare**	**84.21**	**27**	P	**P**	**14 28 37.0**	**+1.2**
TERO	**Teramo**	**84.56**	**35**	P	**P**	**14 28 38.8**	**+1.0**
FCH	**Farellones**	**84.69**	**144**	*e*P	**P**	**14 28 34.6**	**-3.6**
AQU	**L’Aquila**	**84.69**	**36**	P	**P**	**14 28 39.7**	**+1.3**
AQU				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.8						
AQU	**L’Aquila**	**84.69**	**36**	P	**P**	**14 28 39.7**	**+1.3**
	comp=Z,63nm,0.9s,mb5.8						
DRGR		**84.70**	**28**	⇑*i*P	**P**	**14 28 38.8**	**+0.4**
DRGR		**84.70**	**28**	P	**P**	**14 28 39.0**	**+0.6**
BUR08	**Bucovina Ar. S**	**84.81**	**26**	*e*P	**P**	**14 28 38.8**	**-0.1**
BUR02	**Bucovina Ar. S**	**84.84**	**26**	P	**P**	**14 28 40.7**	**+1.7**
BURAR	**Bucovina Array**	**84.84**	**26**	⇓*i*P	**P**	**14 28 40.1**	**+1.1**
BURAR	**Bucovina Array**	**84.84**	**26**	P	**P**	**14 28 40.2**	**+1.1**
VSL	**Villasalto**	**85.08**	**40**	*e*P	**P**	**14 28 40.6**	**+0.2**
	comp=Z,127nm,1.1s,mb6.0						
VSL				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
DL2	**Dalian**	**85.17**	**319**	⇓P	**P**	**14 28 41.3**	**+0.4**
DL2				PP	PP	14 31 58.5	+1.0
DL2				SKS		14 39 02.8	
DL2				S	S	14 39 12.4	+1.6
DL2				SS	SS	14 44 44.6	+1.3
DL2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
DL2				pmax	pmax		
	comp=Z,1µm,6.1s						
DL2				LR	LR		
	comp=N,3µm,14.6s,MS6.1						
DL2				LR	LR		
	comp=E,5µm,14.9s,MS6.1						
DL2				LR	LR		
	comp=Z,3µm,31.2s						
BZS	**Buzias**	**85.31**	**29**	⇑*i*P	**P**	**14 28 41.7**	**+0.2**
VSR	**Storozhevoye**	**85.31**	**16**	*e*P	**P**	**14 28 40.6**	**-0.7**
VSR				*e*S	S	14 39 06.3	-5.4
VSR				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.2						
VSR				pmax	pmax		
	comp=N,10.0nm,1.3s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.6s						
VSR				smax			
	comp=E,890nm,5.5s						
VSR				smax			
	comp=Z,620nm,4.9s						
VSR				smax			
	comp=N,540nm,5.8s						
VSR				MLR	MLR		
	comp=N,7µm,16.0s,MS6.2						
VSR				MLR	MLR		
	comp=Z,9µm,16.0s,MS6.3						
VSR				MLR	MLR		
	comp=E,1µm,12.0s,MS6.2						
SDI	**San Donato**	**85.39**	**36**	P	**P**	**14 28 42.6**	**+0.7**
SDI				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.3						
SDI	**San Donato**	**85.39**	**36**	P	**P**	**14 28 42.6**	**+0.7**
	comp=Z,26nm,1.0s,mb5.3						
RCBR	**Riachuelo**	**85.54**	**102**	PFAKE		14 28 50.0	+7.0
RCBR				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
VORD	**Divnogorie**	**85.57**	**16**	*e*P	**P**	**14 28 41.8**	**-0.9**
VORD				*e*S	S	14 39 09.8	-4.5
VORD				pmax	pmax		
	comp=N,70nm,0.3s						
VORD				pmax	pmax		
	comp=Z,60nm,0.3s,mb6.3						
VORD				pmax	pmax		
	comp=E,140nm,0.5s						
VORD				smax			
	comp=N,450nm,6.6s						
VORD				smax			
	comp=Z,430nm,6.1s						
VORD				smax			
	comp=E,330nm,7.2s						
VORD				MLR	MLR		
	comp=N,6µm,16.0s,MS6.1						
VORD				MLR	MLR		
	comp=Z,9µm,16.0s,MS6.2						
VORD				MLR	MLR		
	comp=E,2µm,15.0s,MS6.1						
CPUP	**Villa Florida**	**85.69**	**131**	P	**P**	**14 28 43.0**	**-0.5**
	comp=E,14nm,0.9s,mb5.2,baz=313,slow=5.2,SNR=21						
CPUP				LR	LR	15 08 42.9	
	comp=E,2µm,20.1s,MS5.5,baz=330,slow=37						
VRHR	**Novokhopersk**	**85.92**	**15**	*e*P	**P**	**14 28 43.7**	**-0.7**
VRHR				*e*S	S	14 39 20.6	+3.0
VRHR				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.6						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRHR				smax			
	comp=Z,1µm,6.8s						
VRHR				smax			
	comp=N,990nm,7.7s						
VRHR				MLR	MLR		
	comp=N,4µm,15.0s						
VRHR				MLR	MLR		
	comp=Z,6µm,15.0s,MS6.1						
GZR	**Gura Zlata**	**85.92**	**28**	⇑*i*P	**P**	**14 28 45.0**	**+0.5**
GZR	**Gura Zlata**	**85.92**	**28**	P	**P**	**14 28 44.8**	**+0.3**
DIVS	**Divibare**	**85.99**	**31**	P	**P**	**14 28 41.2**	**-3.6**
BRVK	**Borovoye**	**86.11**	**357**	⇓*e*P	**P**	**14 28 45.1**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.6						
BRVK				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.0						
BRVK	**Borovoye**	**86.11**	**357**	⇓*e*P	**P**	**14 28 45.1**	**-0.2**
	comp=Z,39nm,0.9s,mb5.6						
BRVK				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
BVAR	**Borovoye Array**	**86.14**	**357**	P	**P**	**14 28 45.6**	**+0.2**
	comp=Z,19nm,0.8s,mb5.4,baz=353,slow=3.7,SNR=30						
BVAR				PKPPKP		14 54 59.0	
	comp=Z,0.8nm,0.5s,baz=142,slow=5.3,SNR=3.9						
BVAR				LR	LR	15 11 57.8	
	comp=Z,7µm,19.6s,MS6.1,baz=10,slow=39						
VOSK	**Vostochnaya**	**86.42**	**356**	P	**P**	**14 28 46.3**	**-0.5**
VOSK				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.5						
KIS	**Kishinev**	**86.53**	**24**	κ *i*P	**P**	**14 28 47.0**	**-0.5**
KIS				*e*		14 32 08.0	
KIS				*e*S	S	14 39 23.0	-0.8
KIS				*e*PS		14 40 25.0	
KIS				pmax	pmax		
	comp=Z,500nm,4.0s						
KIS				pmax	pmax		
	comp=Z,2µm,8.0s						
KIS				pmax	pmax		
	comp=Z,3µm,8.0s						
KIS				MLR	MLR		
	comp=Z,7µm,18.0s,MS6.1						
KIS				MLR	MLR		
	comp=N,6µm,17.0s,MS6.1						
KIS				MLR	MLR		
	comp=E,2µm,16.0s,MS6.1						
KIS				MLR	MLR		
	comp=Z,8µm,18.0s						
KIS	**Kishinev**	**86.53**	**24**	⇓*i*P	**P**	**14 28 47.0**	**-0.5**
	comp=Z,500nm,4.0s						
KIS	**Kishinev**	**86.53**	**24**	*e*PP	PP	14 32 08.0	-0.2
KIS				*e*S	S	14 39 23.0	-0.8
BBTS	**Babate**	**86.64**	**74**	P	**P**	**14 28 47.3**	**-1.2**
	comp=Z,23nm,0.8s,mb5.4,baz=310,slow=1.0,SNR=6.8						
VOIR		**86.68**	**27**	⇑*i*P	**P**	**14 28 48.8**	**+0.5**
VOIR		**86.68**	**27**	P	**P**	**14 28 48.6**	**+0.4**
BJI	**Beijing**	**86.85**	**323**	P	**P**	**14 28 50.3**	**+1.1**
BJI				PP	PP	14 32 13.5	+2.4
BJI				SS	SS	14 45 13.0	+5.2
BJI				LR	LR		
	comp=N,6µm,18.2s,MS6.2						
BJI				LR	LR		
	comp=E,6µm,18.2s,MS6.2						
BJI				LR	LR		
	comp=Z,4µm,21.3s,MS5.8						
PLOR	**Plostina**	**86.86**	**26**	⇓*i*P	**P**	**14 28 50.0**	**+0.9**
VRI	**Vrincioaia**	**86.87**	**26**	⇓*i*P	**P**	**14 28 49.2**	**0.0**
VRI	**Vrincioaia**	**86.87**	**26**	P	**P**	**14 28 49.8**	**+0.6**
BJT	**Baijiatuau**	**86.88**	**323**	PFAKE		14 29 00.0	+11
BJT				LR	LR		
	comp=Z,6µm,20.0s,MS6.0						
MLR	**Muntele Rosu**	**86.94**	**26**	⇓*i*P	**P**	**14 28 50.1**	**+0.6**
MLR	**Muntele Rosu**	**86.94**	**26**	P	**P**	**14 28 50.1**	**+0.6**
	comp=Z,16nm,1.0s,mb5.2,baz=337,slow=7.8,SNR=8.0						

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MLR                                 LR       LR        15 09 31.7
     comp=Z,6µm,19.3s,MS6.0,baz=163,slow=37
MLR  Muntele Rosu      86.94  26   P        P         14 28 50.3 +0.8
CUC  Castrocucco       87.67  36  eP        P         14 28 50.8 -2.3
CUC                                 LR       LR
     comp=Z,8µm,20.0s,MS6.2
KURK Kurchatov         87.81 351⇓eP        P         14 28 53.0 -0.6
KURK                                pmax     pmax
     comp=Z,31nm,1.1s,mb5.5
KURK                                MLR      MLR
     comp=Z,5µm,19.0s,MS6.0
KURK Kurchatov         87.81 351   P        P         14 28 53.5  0.0
     comp=Z,11nm,0.7s,mb5.2,baz=1.0,slow=4.9,SNR=24
KURK                                LR       LR        15 10 40.5
     comp=Z,4µm,18.8s,MS5.9,baz=5.0,slow=37
KURK Kurchatov         87.81 351⇓eP        P         14 28 53.0 -0.5
     comp=Z,31nm,1.1s,mb5.4
KURK                                LR       LR
     comp=Z,5µm,19.0s,MS6.0
KEST Kesra             88.00  42   P        P         14 28 54.6 -0.1
     comp=Z,22nm,0.9s,mb5.4,baz=309,slow=2.6,SNR=9.8
KEST                                LR       LR        15 05 53.0
     comp=Z,1µm,20.4s,MS5.4,baz=108,slow=34
HHC  Hu-ho-hao-te      88.19 327  eP        P         14 28 57.1 +1.5
HHC                                 sP       sP        14 29 04.3 +4.2
HHC                                 PP       PP        14 32 23.8 +2.0
HHC                                 SKS                14 39 22.8
HHC                                 S        S         14 39 38.0 -2.0
HHC                                 SS       SS        14 45 27.6 +0.4
HHC                                 pmax     pmax
     comp=Z,44nm,1.3s,mb5.5
HHC                                 pmax     pmax
     comp=Z,2µm,5.8s
HHC                                 LR       LR
     comp=N,7µm,19.6s,MS6.3
HHC                                 LR       LR
     comp=E,10µm,20.0s,MS6.3
HHC                                 LR       LR
     comp=Z,2µm,20.2s,MS5.6
TIR  Tirane            88.26  32   P        P         14 28 56.4 +0.5
TIR                                 MLR      MLR
     comp=Z,7µm,19.0s,MS6.1
HARR Harsova           88.31  26⇓iP        P         14 28 58.6 +2.5
HARR Harsova           88.31  26   P        P         14 28 56.1  0.0
VTS  Vitosha           88.50  30   P        P         14 28 57.1 +0.1
TIRR Tirgusor          88.67  25⇓iP        P         14 28 58.1 +0.3
TIRR Tirgusor          88.67  25   P        P         14 28 58.3 +0.5
GUMO Guam              88.74 287   LR       LR        15 03 30.0
     comp=Z,1µm,20.3s,MS5.3,baz=46,slow=32
GUMO Guam              88.74 287   PFAKE              14 29 10.0  +11
GUMO                                LR       LR
     comp=Z,2µm,20.0s,MS5.5
TIP  Timpagrande       88.75  36  eP        P         14 28 57.1 -1.2
     comp=Z,56nm,1.1s,mb5.8
TIP                                 LR       LR
     comp=Z,7µm,20.0s,MS6.1
KRUS Krusevo           88.79  31  eP        P         14 28 56.6 -1.9
OHR  Ohrid             88.83  32  eP        P         14 28 57.9 -0.7
BTO  Baotou            89.03 327  eP        P         14 28 59.9 +0.3
VAE  Valguarnera       89.08  38   LR       LR        15 12 18.1
     comp=Z,4µm,18.2s,MS5.9,baz=103,slow=38
CEL  Celeste           89.12  37   PFAKE              14 29 10.0  +10
CEL                                 LR       LR
     comp=Z,2µm,20.0s,MS5.6
FNA  Florina           89.34  32   P        P         14 28 59.9 -1.1
VAY  Valandovo         89.35  31  eP        P         14 29 00.3 -0.7
PLD  Plovdiv           89.47  29   P        P         14 29 00.5 -1.1
TIA  Tai'an            89.49 320  eP        P         14 29 02.3 +0.5
GRG  Griva             89.59  31   P        P         14 29 01.8 -0.4
KNT  Kendrikon         89.61  30   P        P         14 29 02.3  0.0
SPB  Sao Paulo         89.69 122  eP        P         14 29 03.2 +0.5
     comp=Z,82nm,0.9s,mb6.1
SPB                                 LR       LR
     comp=Z,2µm,19.0s,MS5.6
JMB  Yambol            89.82  27   P        P         14 29 04.0 +0.8
AB31 Akbulak array     89.91   3   P        P         14 29 04.2 +0.7
AB31                                pmax     pmax
     comp=Z,49nm,1.0s,mb5.8
SRS  Serrai            89.91  30   P        P         14 29 01.8 -1.9
IGT  Igoumenitsa       89.98  33   P        P         14 29 03.0 -1.0
THE  Thessaloniki      90.09  31   P        P         14 29 03.0 -1.5
HORT Hortiatis         90.17  31   P        P         14 29 03.0 -1.9
LIT  Litokhoron        90.36  31   P        P         14 29 03.2 -2.6
WDD  Wield Dalam       90.44  39   PFAKE              14 29 20.0  +14
WDD                                 LR       LR
     comp=Z,3µm,20.0s,MS5.7
PLG  Polygyros         90.50  31   P        P         14 29 06.1 -0.3
JOW  Kunigami          90.63 307   P        P         14 29 07.7 +0.4
     comp=Z,39nm,1.0s,mb5.7,baz=100,slow=3.0,SNR=5.6
THL  Klokotos Trika    90.63  32   P        P         14 29 05.7 -1.4
PLCA Paso Flores       90.85 148   P        P         14 29 08.1 +0.4
     comp=Z,18nm,1.0s,mb5.3,baz=335,slow=5.7,SNR=16
PLCA                                LR       LR        15 02 55.9
     comp=Z,3µm,21.3s,MS5.6,baz=8.6,slow=31
ANN  Anapa             90.95  19d iP        P         14 29 08.8 +0.4
ANN                                e*PP     pP        14 29 13.9 +2.1
ANN                                e                   14 32 46.6
ANN                                ePPP                14 34 41.8
ANN                                eS       SKSac     14 39 40.2 -0.2
ANN                                e                   14 41 15.3
ANN                                eSS      SS        14 46 13.2 +6.4
ANN                                 pmax     pmax
     comp=Z,54nm,1.1s,mb5.8
ANN                                 MLR      MLR
     comp=N,6µm,20.0s,MS6.1
ANN                                 MLR      MLR
     comp=E,3µm,20.0s,MS6.1
ANN                                 MLR      MLR
     comp=Z,9µm,20.0s,MS6.2
PAIG Paliouri          90.97  31   P        P         14 29 06.7 -2.0
ALN  Alexandroupoli    91.01  29   P        P         14 29 09.9 +1.1
MK31 Makanchi Array    91.16 348  eP        P         14 29 08.5 -0.9
MKAR Makanchi Array    91.16 348   P        P         14 29 09.2 -0.2
     comp=Z,32nm,1.1s,mb5.5,baz=359,slow=6.1,SNR=24
MKAR                                PKKP     PKKPbc    14 46 31.8 +0.5
     comp=Z,2.2nm,1.0s,baz=202,slow=1.3,SNR=4.2
MKAR                                PKPPKP             14 54 43.5
     comp=Z,1.5nm,1.1s,baz=176,slow=3.2,SNR=5.6
MKAR                                LR       LR        15 14 11.0
     comp=Z,3µm,18.7s,MS5.8,baz=10,slow=38
MKAR Makanchi Array    91.16 348   P        P         14 29 09.2 -0.2
MKAR                                PKKP     PKKPbc    14 46 31.8 +0.5
MKAR                                P'P'               14 54 43.5
MKAR                                LR       LR        15 14 11.0
AGG  Agios Georgios    91.22  32   P        P         14 29 10.4 +0.6
VLS  Valsamata         91.23  34   P        P         14 29 09.8 -0.1
XOR  Xorichti          91.27  31   P        P         14 29 07.4 -2.6
SSE  Sheshan           91.46 315 ⇓P        P         14 29 11.9 +0.8
SSE                                 pP       pP        14 29 16.8 +2.4
SSE                                 PP       PP        14 32 47.3 -0.8
SSE                                 SKS                14 39 42.3
SSE                                 S        S         14 40 06.8 -3.9
SSE                                 pmax     pmax
     comp=Z,60nm,1.4s,mb5.7
SSE                                 pmax     pmax
     comp=Z,1µm,8.1s
SSE                                 LR       LR
     comp=N,1µm,19.8s,MS6.0
SSE                                 LR       LR
     comp=E,5µm,19.9s,MS6.0
SSE                                 LR       LR
     comp=Z,3µm,16.7s,MS5.8
LIA  Limnos Island     91.57  30   P        P         14 29 09.4 -2.0
TRIZ Trizonia          91.68  32   P        P         14 29 11.9 -0.1
KALE Kalithea          91.69  32   P        P         14 29 11.1 -0.9
LAKA Lakka             91.75  33   P        P         14 29 12.8 +0.5
LKR  Lokris            91.81  32   P        P         14 29 10.5 -2.1
NJ2  Nanjing           91.94 317  eP        P         14 29 13.3  0.0
NJ2                                 pP       pP        14 29 18.3 +1.7
NJ2                                 sP       sP        14 29 21.1 +3.3
NJ2                                 PP       PP        14 32 54.6 +2.7
NJ2                                 S        S         14 40 11.0 -4.0
NJ2                                 sS       sS        14 40 21.0 +0.5
NJ2                                 pmax     pmax
     comp=Z,20nm,1.0s,mb5.4
NJ2                                 pmax     pmax
     comp=Z,2µm,6.5s
LPA  La Plata          91.96 136ceP        P         14 29 10.0 -3.0
LPA                                ePP      PP        14 32 51.0 -2.0
LPA
     comp=Z,1µm,18.0s
LTK  Loutraki          92.34  32   P        P         14 29 12.8 -2.2
SIGR SIGRI             92.42  29   P        P         14 29 13.5 -1.9
HNR  Honiara           92.52 260   PFAKE              14 29 30.0  +14
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HNR                                 LR       LR
     comp=Z,2µm,20.0s,MS5.5
PRK  Paraskevi         92.55  29   P        P         14 29 14.1 -1.8
SOC  Sochi             92.65  18  eP        P         14 29 16.5 +0.2
SOC                                e*PP     pP        14 29 20.3 +0.6
SOC                                e                   14 32 57.4
SOC                                eS       SKSac     14 39 49.4 -0.6
SOC                                ePS      PS        14 41 33.0 +0.6
SOC                                 pmax     pmax
     comp=Z,92nm,1.4s,mb6.0
SOC                                 MLR      MLR
     comp=Z,3µm,16.0s,MS5.8
ATH  Athens Observa    92.68  32   P        P         14 29 16.4 -0.2
ATHU Athens Univers    92.71  32   P        P         14 29 16.4 -0.3
PYL  PYLOS             92.80  33   P        P         14 29 15.7 -1.5
KIV  Kislovodsk        92.95  16  eP        P         14 29 18.4 +0.7
KIV                                e                   14 33 00.4
KIV                                e                   14 39 51.9
KIV                                eSS      SS        14 46 38.6 +3.0
KIV                                eSSS                14 50 21.2
KIV                                 pmax     pmax
     comp=Z,34nm,1.1s,mb5.7
KIV                                 pmax     pmax
     comp=Z,586nm,4.9s
KIV                                 MLR      MLR
     comp=Z,5µm,20.0s,MS6.0
KIV  Kislovodsk        92.95  16  eP        P         14 29 17.3 -0.4
     comp=Z,30nm,1.0s,mb5.7
KIV                                 LR       LR
     comp=Z,4µm,21.0s,MS5.8
WMQ  Urumqi            93.06 344   P        P         14 29 18.9 +0.7
WMQ                                 pP       pP        14 29 23.5 +1.9
WMQ                                 sP       sP        14 29 26.0 +3.3
WMQ                                 PP       PP        14 33 05.0 +4.9
WMQ                                 SKS                14 39 51.0
WMQ                                 S        S         14 40 22.0 -2.5
WMQ                                 SS       SS        14 46 41.0 +4.0
WMQ                                 pmax     pmax
     comp=Z,23nm,1.5s,mb5.4
WMQ                                 pmax     pmax
     comp=Z,2µm,4.3s
WMQ                                 LR       LR
     comp=N,10µm,16.9s
WMQ                                 LR       LR
     comp=E,11µm,25.8s
WMQ                                 LR       LR
     comp=Z,6µm,20.4s,MS6.0
BLCB Balcova           93.59  29   P        P         14 29 19.2 -1.6
GTA  Gaotai            93.86 334  eP        P         14 29 22.4 +0.4
GTA                                 pP       pP        14 29 26.6 +1.2
GTA                                 sP       sP        14 29 28.5 +2.0
GTA                                 PP       PP        14 33 09.0 +2.4
GTA                                 SKS                14 39 53.6
GTA                                 S        S         14 40 27.5 -4.3
GTA                                 LR       LR
     comp=N,4µm,20.2s,MS6.2
GTA                                 LR       LR
     comp=E,7µm,18.4s,MS6.2
GTA                                 LR       LR
     comp=Z,5µm,22.0s,MS5.9
ONI  Oni               94.43  16   P        P         14 29 25.7 +1.2
BRTR Keskin Array B    94.60  24   P        P         14 29 25.6 +0.2
     comp=Z,6.5nm,1.1s,mb5.0,baz=336,slow=2.7,SNR=12
BRTR                                PKKPbc   PKKPbc    14 46 21.3 -1.0
     comp=Z,1.9nm,0.8s,baz=134,slow=4.9,SNR=7.2
MAK  Makhachkala       94.83  13  eP        P         14 29 24.9 -1.5
MAK                                i                   14 33 14.3
MAK                                eS       SKSac     14 39 59.0 -2.9
MAK                                 pmax     pmax
     comp=Z,176nm,1.5s,mb6.3
MAK                                 MLR      MLR
     comp=Z,5µm,15.0s,MS6.1
XAN  Xi'an             95.06 325   P        P         14 29 27.6  0.0
XAN                                 pP       pP        14 29 29.5 -1.4
XAN                                 PP       PP        14 33 17.3 +1.2
XAN                                 SKS                14 40 03.4
XAN                                 S        S         14 40 40.0 -2.4
XAN                                 SS       SS        14 47 04.4 -1.8
XAN                                 pmax     pmax
     comp=Z,8.0nm,1.5s,mb4.9
XAN                                 pmax     pmax
     comp=Z,870nm,7.3s
XAN                                 LR       LR
     comp=N,5µm,15.0s,MS6.5
XAN                                 LR       LR
     comp=E,10µm,15.3s,MS6.5
XAN                                 LR       LR
     comp=Z,6µm,20.7s
ISP  Isparta           95.30  27   P        P         14 29 27.1 -1.5
ISP                                 MLR      MLR
     comp=Z,3µm,21.0s,MS5.7
LZH  Lanzhou           95.37 329  eP        P         14 29 30.3 +1.3
LZH                                 pP       pP        14 29 34.6 +2.3
LZH                                 sP       sP        14 29 37.4 +3.9
LZH                                 PP       PP        14 33 19.0 +0.6
LZH                                 SKS                14 40 07.0
LZH                                eS       S         14 40 46.4 +1.3
LZH                                 sS       sS        14 40 53.3 +2.7
LZH                                 pmax     pmax
     comp=Z,1µm,7.6s
LZH                                 LR       LR
     comp=E,12µm,17.7s
LZH                                 LR       LR
     comp=Z,14µm,18.2s,MS6.5
WHN  Wuhan             95.43 319   P        P         14 29 29.0 -0.4
WHN                                 pP       pP        14 29 34.3 +1.6
WHN                                 SKS                14 40 04.6
WHN                                 S        S         14 40 43.5 -2.3
WHN                                 pmax     pmax
     comp=Z,2µm,5.3s
WHN                                 LR       LR
     comp=N,6µm,14.1s
WHN                                 LR       LR
     comp=E,8µm,22.3s
WHN                                 LR       LR
     comp=Z,7µm,15.5s,MS6.2
TBLG Delisi            95.51  15   P        P         14 29 30.4 +0.9
MTA  Mtatsminda        95.56  15   P        P         14 29 29.6 -0.1
SIVA Sivas             95.68  32   P        P         14 29 28.7 -1.7
TAM  Tamanrasset       95.78  53  eP        P         14 29 31.5 +0.4
TAM                                 pmax     pmax
     comp=Z,11nm,1.3s,mb5.1
TAM                                 MLR      MLR
     comp=Z,4µm,19.0s,MS5.9
TAM  Tamanrasset       95.78  53  eP        P         14 29 31.5 +0.4
     comp=Z,11nm,1.3s,mb5.1
TAM                                 LR       LR
     comp=Z,4µm,19.0s,MS5.9
LAST Lasithi           95.82  32   P        P         14 29 28.7 -2.4
TKM2 Tokmak 2          95.83 352  eP        P         14 29 30.5 -0.4
TKM2                                pmax     pmax
     comp=Z,27nm,1.2s,mb5.5
TKM2                                MLR      MLR
     comp=Z,5µm,20.0s,MS6.0
TKM2 Tokmak 2          95.83 352  eP        P         14 29 30.5 -0.5
     comp=Z,27nm,1.2s,mb5.5
TKM2                                LR       LR
     comp=Z,5µm,20.0s,MS6.0
FRU  Bishkek           96.01 353  eP        P         14 29 29.0 -2.8
FRU                                 pmax     pmax
     comp=Z,60nm,1.4s,mb5.8
TATO Taipei            96.03 311   PFAKE              14 29 40.0 +7.8
TATO                                LR       LR
     comp=Z,2µm,19.0s,MS5.7
KK31 Karatay Array     96.04 356   P        P         14 29 32.2 +0.3
KK31                                pmax     pmax
     comp=Z,9.0nm,0.8s,mb5.2
ZKR  Zakros            96.15  31   P        P         14 29 31.2 -1.4
AAK  Ala-Archa         96.22 353   LR       LR        15 16 49.1
     comp=Z,6µm,18.3s,MS6.1,baz=355,slow=38
AAK  Ala-Archa         96.22 353⇓iP        P         14 29 33.6 +0.9
AAK                                 LR       LR
     comp=Z,6µm,21.0s,MS6.0
AAK  Ala-Archa         96.22 353   P        P         14 29 33.9 +1.2
     comp=Z,3.3nm,1.3s,comp=Z,225nm,mb4.6
EKS2 Erkin-Say         96.26 354  eP        P         14 29 32.3 -0.6
     comp=Z,25nm,1.1s,mb5.5
EKS2                                LR       LR
     comp=Z,4µm,19.0s,MS5.9
YHNB Yeheng            96.33 310   PFAKE              14 29 40.0 +6.5
YHNB                                LR       LR
     comp=Z,2µm,20.0s,MS5.6
UCH  Uchtor            96.62 353  eP        P         14 29 35.2 +0.7
     comp=Z,11nm,1.2s,mb5.2
UCH                                 LR       LR
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     comp=Z,5µm,20.0s,MS6.0
AML  Almayashu         96.79 354  eP        P         14 29 33.2 -2.2
     comp=Z,34nm,1.3s,mb5.6
AML                                 LR       LR
     comp=Z,5µm,21.0s,MS5.9
GNI  Garni             97.03  16  eP        P         14 29 37.0 +0.5
GNI                                 MLR      MLR
     comp=Z,3µm,19.0s
MALT Malatya           97.29  21⇓eP        P         14 29 38.7 +1.1
MALT                               e                   14 33 34.1
MALT                                pmax     pmax
     comp=Z,26nm,1.5s,mb5.4
MALT                                MLR      MLR
     comp=Z,2µm,19.0s,MS5.7
MALT Malatya           97.29  21⇑iP        P         14 29 40.2 +2.6
MALT Malatya           97.29  21⇓eP        P         14 29 38.7 +1.1
     comp=Z,26nm,1.5s,mb5.4
MALT                               ePP      PP        14 33 34.0 +1.0
MALT                                LR       LR
     comp=Z,2µm,19.0s,MS5.7
MALT Malatya           97.29  21   P        P         14 29 39.0 +1.4
QZH  Quanzhou          97.69 313⇓iP        P         14 29 42.8 +3.1
QZH                                 SKS                14 40 20.5
QZH                                 S        S         14 41 06.4 +1.0
QZH                                 LR       LR
     comp=N,3µm,15.5s,MS6.2
QZH                                 LR       LR
     comp=E,5µm,16.0s,MS6.2
QZH                                 LR       LR
     comp=Z,5µm,17.4s,MS6.1
CSS  Prodhromos        98.86  26⇓eP        P         14 29 44.5 -0.3
     comp=Z,22nm,1.1s,mb5.6
CSS                                 LR       LR
     comp=Z,2µm,20.0s,MS5.5
KSH  Kashi             99.16 352  eP        P         14 29 52.3 +6.3
KSH                                epP      pP        14 29 56.8 +7.4
KSH                                esP      sP        14 29 59.4 +8.8
KSH                                eSKS                14 40 29.0
KSH                                eS       S         14 41 22.8 +5.5
KSH                                esS      sS        14 41 31.0 +8.1
KSH                                 pmax     pmax
     comp=Z,4.0nm,0.8s,mb5.0
KSH                                 pmax     pmax
     comp=Z,920nm,4.2s
KSH                                 LR       LR
     comp=N,3µm,15.0s,MS6.1
KSH                                 LR       LR
     comp=E,3µm,16.1s,MS6.1
KSH                                 LR       LR
     comp=Z,4µm,16.6s,MS6.0
CD2  Chengdu           99.94 327   P        Pdif      14 29 50.5 +0.9
CD2                                 pP                 14 29 54.5
CD2                                 sP                 14 29 56.8
CD2                                 PP       PP        14 33 56.6 +2.9
CD2                                 SKS                14 40 27.4
CD2                                 S        S         14 41 21.0 -3.3
CD2                                 sS       sS        14 41 28.3 -1.5
CD2                                 SS       SS        14 48 15.1  0.0
CD2                                 pmax     pmax
     comp=Z,10.0nm,0.5s,mb5.5
CD2                                 pmax     pmax
     comp=Z,640nm,10.7s
CD2                                 LR       LR
     comp=N,7µm,19.0s
CD2                                 LR       LR
     comp=Z,4µm,17.8s,MS5.9
TOA0 Torodi Ar. Sit   100.44  62  ePdif     Pdif      14 29 50.6 -1.2
TORD Torodi Ar. Bea   100.44  62   P        Pdif      14 29 50.3 -1.5
     comp=Z,4.1nm,1.1s,baz=333,slow=2.2,SNR=11
TORD                                PKKPbc   PKKPbc    14 46 10.4 +4.4
     comp=Z,2.8nm,1.0s,baz=118,slow=2.3,SNR=7.0
DBIC Dimbokro         100.45  72   P        Pdif      14 29 51.1 -0.7
     comp=Z,12nm,0.9s,baz=291,slow=4.2,SNR=12
GYA  Guiyang          102.53 322⇑iP        Pdif      14 30 02.9 +1.8
GYA                                 PP       PP        14 34 16.3 +3.0
GYA                                 SKS                14 40 41.0
GYA                                 S        Sdif      14 41 43.9 -1.7
GYA                                 SS       SS        14 48 53.3 +2.1
GYA                                 pmax     pmax
     comp=Z,20nm,0.5s
GYA                                 pmax     pmax
     comp=Z,290nm,5.5s
GYA                                 LR       LR
     comp=N,2µm,21.9s,MS5.7
GYA                                 LR       LR
     comp=E,2µm,22.2s,MS5.7
GYA                                 LR       LR
     comp=Z,3µm,23.1s,MS5.7
SNZO South Karori     103.88 227   PFAKE              14 30 20.0  +13
SNZO                                LR       LR
     comp=Z,1µm,20.0s,MS5.5
KMI  Kunming          105.44 325   Pdif     Pdif      14 30 12.8 -1.2
KMI                                 PP       PP        14 34 34.3 -0.6
KMI                                 SKS      SKSac     14 40 55.8 +1.1
KMI                                 SS       SS        14 49 31.4 +0.3
KMI                                 AMB      AMB
     comp=Z,1µm,6.7s
KMI                                 LR       LR
     comp=N,4µm,16.5s,MS6.4
KMI                                 LR       LR
     comp=E,7µm,15.0s,MS6.4
KMI                                 LR       LR
     comp=Z,3µm,16.5s,MS6.0
LSA  Lhasa            105.55 337   PFAKE              14 34 40.0  +12
LSA                                 LR       LR
     comp=Z,4µm,19.0s,MS6.0
DAV  Davao City (W)   106.85 296   PFAKE              14 34 40.0 +9.3
DAV                                 LR       LR
     comp=Z,2µm,20.0s,MS5.6
QIZ  Qiongzhong       107.20 316   Pdif     Pdif      14 30 18.1 -3.8
QIZ                                 PP       PP        14 34 48.9 +0.7
QIZ                                 S        Sdif      14 42 15.5 -9.1
QIZ                                 SS       SS        14 49 53.5 -2.2
QIZ                                 LR       LR
     comp=N,3µm,18.0s,MS6.1
QIZ                                 LR       LR
     comp=E,5µm,18.0s,MS6.1
QIZ                                 LR       LR
     comp=Z,3µm,17.6s,MS6.0
QIZ  Qiongzhong       107.20 316   PFAKE              14 34 40.0 +8.8
QIZ                                 LR       LR
     comp=Z,3µm,20.0s,MS5.8
CTAO Charters Tower   109.46 260   PFAKE              14 34 50.0  +15
CTAO                                LR       LR
     comp=Z,2µm,20.0s,MS5.6
CHTO Chiang Mai       112.63 325  ePKIKP    PKiKP     14 34 40.0 -1.5
CHTO                                MLR      MLR
     comp=Z,2µm,20.0s,MS5.8
PMSA Palmer Station   112.77 159   PFAKE              14 34 50.0  +10
PMSA                                LR       LR
     comp=Z,1µm,20.0s,MS5.6
SHEL Horse Pasture    114.66  90   PFAKE              14 35 00.0  +15
SHEL                                LR       LR
     comp=Z,3µm,19.0s,MS5.9
CNB  Canberra Magne   116.03 245  ePKP      PKPdf     14 34 47.8 +0.4
CAN  Canberra         116.29 245   PFAKE              14 35 00.0  +12
CAN                                 LR       LR
     comp=Z,1µm,19.0s,MS5.5
WRAB Tennant Creek    118.30 268  ePKPdf    PKPdf     14 34 50.2 -2.0
WRAB                                LR       LR
     comp=Z,1µm,20.0s,MS5.5
WRAB Tennant Creek    118.30 268   P        PKPdf     14 34 51.9 -0.3
WB2  Warramunga Arr   118.31 268  ePKPdf    PKPdf     14 34 50.8 -1.4
WRA  Warramunga Arr   118.32 268   PKP      PKPdf     14 34 50.7 -1.5
     comp=Z,14nm,0.7s,baz=55,slow=2.0,SNR=67
WRA                                 PKKPbc   PKKPbc    14 45 12.2 +3.3
     comp=Z,6.2nm,1.1s,baz=228,slow=2.6,SNR=8.6
STKA Stephens Creek   119.64 252  ePKP      PKPdf     14 34 52.8 -1.6
     comp=Z,13nm,0.7s
STKA                               ePKKP    PKKPbc    14 45 06.1 +1.9
STKA Stephens Creek   119.64 252   PKP      PKPdf     14 34 53.4 -1.0
     comp=Z,7.4nm,0.6s,baz=19,slow=2.4,SNR=30
STKA                                PKKPbc   PKKPbc    14 45 07.4 +3.2
     comp=Z,3.6nm,0.8s,baz=269,slow=4.9,SNR=7.7
TOO  Toolangi         119.87 245  ePKP      PKPdf     14 34 55.5 +0.8
HYB  Hyderabad        120.46 345  i PKP     PKPdf     14 34 55.0 -1.6
HYB  Hyderabad        120.46 345  eP        PKPdf     14 34 55.0 -1.6
ASAR Alice Springs    120.81 264   PKP      PKPdf     14 34 55.0 -1.9
     comp=Z,15nm,0.7s,baz=69,slow=2.2,SNR=80
ASAR                                PKKPbc   PKKPbc    14 45 00.4 +0.6
     comp=Z,3.8nm,1.0s,baz=220,slow=3.9,SNR=14
KSM  Kuching          121.05 304   PFAKE              14 35 10.0  +12
KSM                                 LR       LR
     comp=Z,916nm,20.0s,MS5.4
MOO  Moorlands        121.17 239  ePKP      PKPdf     14 34 58.3 +1.3
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TAU	Tasmania Unive	121.31	238	PFAKE		14 35 10.0	+13
TAU				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
KULM	Kulim	123.54	316	*e*PKPdf	PKPdf	14 35 00.7	-1.9
KULM				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
KULM	Kulim	123.54	316	P	PKPdf	14 35 07.0	+4.4
FITZ	Fitzroy Crossi	123.78	275	*e*PKP	PKPdf	14 35 02.3	-0.5
	comp=Z,24nm,0.8s						
FITZ	Fitzroy Crossi	123.78	275	PKP	PKPdf	14 35 02.5	-0.3
	comp=Z,18nm,0.8s,baz=134,slow=3.1,SNR=11						
FITZ	Fitzroy Crossi	123.78	275	P	PKPdf	14 35 02.4	-0.4
IPM	Ipoh	124.02	315	P	PKPdf	14 35 07.3	+3.8
BSI	Banda Aceh	126.02	322	P	PKPdf	14 35 10.1	+2.8
PSI	Prapat	126.55	316	⇓*e*P	PKPdf	14 35 07.9	-0.4
PSI	Prapat	126.55	316	PKP	PKPdf	14 35 07.9	-0.4
	comp=Z,40nm,0.9s,baz=232,slow=4.7,SNR=16						
SBA	Scott Base	127.42	195	PFAKE		14 35 20.0	+12
SBA				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
VNDA	Vanda	128.31	196	PKP	PKPdf	14 35 09.9	+0.2
	comp=Z,18nm,1.1s,baz=340,slow=2.9,SNR=13						
VNDA	Vanda	128.31	196	PKP	PKPdf	14 35 09.9	+0.2
VNDA				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
PPI	Padang Panjang	128.47	312	P	PKPdf	14 35 16.4	+4.4
FORT	Forrest	129.01	260	*e*PKP	PKPdf	14 35 12.8	+0.4
	comp=Z,18nm,0.8s						
MBAR	Mbarara	129.09	47	PFAKE		14 35 20.0	+6.8
MBAR				LR	LR		
	comp=Z,368nm,22.0s,MS5.0						
MBWA	Marble Bar	130.06	276	PFAKE		14 35 30.0	+15
MBWA				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
QSPA	South Pole Qui	130.92	180	*e*PKPdf	PKPdf	14 35 15.5	+0.9
QSPA				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
NWAO	Narrogin (SRO)	138.13	264	PFAKE		14 35 40.0	+11
NWAO				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
MUN	Mundaring	138.47	266	*e*PKP	PKPdf	14 35 30.3	+0.2
LSZ	Lusaka	138.98	62	*e*PKHKP		14 35 22.4	
LSZ				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.1						
COCO	West Island	140.00	307	PFAKE		14 35 40.0	+6.6
COCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
UPI	Upington	142.15	84	*e*P	PKPdf	14 35 35.5	-1.4
UPI				AMS	AMS	15 40 17.6	
	comp=Z,2µm,18.5s,MS6.0						
CVNA	Calvinia	142.56	90	*e*P	PKPdf	14 35 32.7	-4.9
CVNA				AMS	AMS	15 38 40.0	
	comp=Z,2µm,18.1s,MS6.0						
MSEY	Mahe Island	142.72	16	PFAKE		14 35 50.0	+12
MSEY				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
SUR	Sutherland	143.76	91	*e*PKPdf	PKPdf	14 35 36.0	-3.7
SUR				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
SUR	Sutherland	143.76	91	*e*P	PKPdf	14 35 37.5	-2.2
SUR				AMS	AMS	15 40 51.4	
	comp=Z,1µm,18.0s,MS5.8						
PKA	Prieska	143.95	85	*e*P	PKPdf	14 35 37.3	-2.7
PKA				AMS	AMS	15 46 33.6	
	comp=Z,673nm,18.0s,MS5.5						
CASY	Casey	144.44	210	PFAKE		14 35 50.0	+10
CASY				LR	LR		
	comp=Z,925nm,22.0s,MS5.5						
KSR	Koster	144.98	76	*e*P	PKPdf	14 35 41.7	-0.2
MSNA	Messina	145.08	68	*e*P	PKPbc	14 35 42.0	+0.3
MSNA				AMS	AMS	15 41 12.6	
	comp=Z,3µm,18.5s,MS6.1						
BOSA	Boshof	145.28	82	PKPbc	PKPbc	14 35 41.2	-1.0
	comp=Z,72nm,0.8s,baz=318,slow=2.9,SNR=74						
BOSA	Boshof	145.28	82	PKPbc	PKPbc	14 35 41.2	-1.0
BOSA				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
SLR	Silverton	145.93	75	⇓*i*P	PKPdf	14 35 44.0	+0.4
SLR				⇓*e*P		14 35 44.6	
SLR				AMS	AMS	15 41 31.7	
	comp=Z,4µm,17.4s,MS6.2						
PRYS	Parys	145.93	77	⇓*i*P	PKPdf	14 35 43.9	+0.3
PRYS				AMS	AMS	15 38 56.2	
	comp=Z,2µm,18.7s,MS6.0						
ERPM	east rand prop	146.25	76	*e*P	PKPdf	14 35 44.2	+0.1
ERPM				AMS	AMS	15 38 04.1	
	comp=Z,3µm,20.0s,MS6.1						
MOPA	Mopani	146.80	69	*e*P	PKPdf	14 35 46.0	+0.8
SEK	Senekal	146.90	79	*e*P	PKPdf	14 35 46.1	+1.0
GRM	Grahamstown	148.48	88	*e*P	PKPdf	14 35 48.1	+0.5
GRM				AMS	AMS	15 46 33.2	
	comp=Z,2µm,17.6s,MS6.0						
SYO	Syowa Base	148.94	162	⇓*i*P	PKPbc	14 35 53.4	+2.1
POGA	Pongola	149.30	74	*e*P	PKPdf	14 35 48.2	-0.9
POGA				AMS	AMS	15 42 08.5	
	comp=Z,4µm,20.4s,MS6.2						
KSD	Kokstad	149.38	81	*e*P	PKPdf	14 35 50.4	+1.2
KSD				AMS	AMS	15 43 21.5	
	comp=Z,7µm,18.4s,MS6.5						
ABPO	Ambohimpanom	153.19	40	*e*PKIKP	PKPdf	14 35 56.5	+1.2
ABPO				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.1						
MAW	Mawson	153.41	178	*e*PKP	PKPbc	14 36 02.5	+0.8
	comp=Z,57nm,1.0s						
MAW	Mawson	153.41	178	PKP	PKPdf	14 35 53.7	-0.4
	comp=Z,7.7nm,1.0s,baz=191,slow=5.2,SNR=2.1						
MAW				PKPbc	PKPbc	14 36 02.7	+1.0
	comp=Z,68nm,1.0s,baz=175,slow=2.0,SNR=14						
PAF	Port-aux-Franc	171.00	202	PFAKE		14 36 20.0	+7.8
PAF				LR	LR		
	comp=Z,5µm,19.0s						

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*IDC **21** 14:19:13.0±1.9, 2°.49N×95°.69E, h0^{km}, mb3.6/5, mb1 3.7/7, mb1mx3.6/24, mbtmp3.6/7, ML3.6/2, MS3.2/1, Ms1 3.2/1, ms1mx2.8/35, Error ellipse: s-maj=63.7km s-min=21.0km az=53.0*

*ISCJB **21** 14:19:16.2±1.1, 2°.6N±0°.1×95°.7E±0°.1, h33^{km}, mb3.6/5, Error ellipse: s-maj=22.0km s-min=9.1km az=145.8*

*NEIC **21** 14:19:18.0±1.0, 2°.51N×95°.74E, h35^{km}, mb4.1/1, Error ellipse: s-maj=25.7km s-min=11.6km az=50.0*

ISC 21 14:19:18.6±1.2**, 2°.6N**±0°.1×**95°.8E**±0°.2**, h35^{km}, n13, σ0^s.84**/13**, mb3.6**/5**, 2D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	2.88	350	⇓*e*P	Pn	14 20 02.0	0.0
BSI				*e*S	Sn	14 20 34.0	-1.4
PSI	Prapat	3.15	87	⇓*e*P	Pn	14 20 06.0	+0.3
PSI	Prapat	3.15	87	Pn	Pn	14 20 05.0	-0.7
	1.5nm,0.3s,baz=265,slow=9.6,SNR=3.6						
PALK	Pallekele	15.70	288	LR	LR	14 28 19.4	
	comp=Z,79nm,19.3s,baz=105,slow=35						
CMAR	Chiang Mai Arr	16.02	11	Pn	Pn	14 23 03.4	+2.0
	0.3nm,0.3s,baz=193,slow=10,SNR=5.5						
WRA	Warramunga Arr	44.00	122	P	P	14 27 22.6	-0.4
	0.2nm,0.4s,mb3.2,baz=302,slow=9.2,SNR=4.9						
ASAR	Alice Springs	45.39	127	P	P	14 27 33.5	-0.6
	0.2nm,0.5s,mb3.2,baz=299,slow=8.0,SNR=4.2						
MK31	Makanchi Array	45.52	347	*e*P	P	14 27 34.5	-0.1
MKAR	Makanchi Array	45.52	347	P	P	14 27 35.3	+0.6
	0.5nm,0.4s,mb3.8,baz=161,slow=8.8,SNR=19						
KURK	Kurchatov	50.05	346	P	P	14 28 09.6	-0.1
	0.6nm,0.7s,mb3.7,baz=164,slow=6.7,SNR=4.6						
KURK	Kurchatov	50.05	346	P	P	14 28 09.1	-0.6
	2.2nm,1.1s,mb4.1						
ZALV	Zalesovo Beam	51.93	352	P	P	14 28 24.2	+0.5
	1.3nm,0.7s,mb4.0,baz=183,slow=8.6,SNR=5.1						
ZALV	Zalesovo Beam	51.93	352	P	P	14 28 24.2	+0.5

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*BJI **21** 14:20:47.6, 41°.10N×114°.90W, h6^{km}, mB5.6/7, mb5.0/9, Ms5.3/1, Ms7 4.9/1*

*SZGRF **21** 14:20:48.0, 40°.17N×117°.70W, h33^{km}, mb4.7, Nevada, United States*

*IDC **21** 14:20:50.3±0.4, 41°.16N×114°.87W, h0^{km}, mb4.3/13, mb1 4.4/15, mb1mx4.3/25, mbtmp4.3/15, ML4.6/1, Error ellipse: s-maj=15.6km s-min=4.3km az=130.0*

*ISCJB **21** 14:20:51.0±0.3, 41°.16N±0°.04×114°.99W±0°.05, h10^{km}, mb4.5/19, Error ellipse: s-maj=6.4km s-min=4.6km az=136.5*

*NEIC **21** 14:20:51.6, 41°.11N×114°.90W, h6^{km}, mb4.8/1, ML4.4, After REN.*

ISC 21 14:20:52.1±0.3**, 41°.11N**±0°.04×**114°.93W**±0°.04**, h10^{km}, n45, σ1^s.08**/50**, mb4.5**/19**, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELK	Elko	0.44	213	Pg	Pg	14 21 01.3	+0.7
	baz=21,slow=15						
ELK				Lg		14 21 06.1	
	baz=125,slow=19						
ELK	Elko	0.44	213	*e*Pg	Pg	14 21 00.0	-0.6
ELK				*e*Sg	Sg	14 21 06.2	-0.2
BGU	Big Grassy Mou	1.45	97	*e*P	Pn	14 21 16.9	-1.4
HVU	Hansel Valley	1.75	67	*e*Pn	Pn	14 21 21.9	-0.6
DUG	Dugway	1.85	119	*e*Pn	Pn	14 21 22.4	-1.5
BMN	Battle Mountai	1.87	249	*e*Pn	Pn	14 21 23.2	-1.0
SPUT	South Promonto	1.88	83	*e*Pn	Pn	14 21 24.1	-0.1
NOQ	North Oquirrh	2.18	101	*e*Pn	Pn	14 21 28.7	+0.4
CTU	Camp Tracy	2.44	99	*e*Pn	Pn	14 21 33.0	+1.0
NLU	North Lily Min	2.46	117	*e*Pn	Pn	14 21 34.1	+1.9
HLID	Hailey	2.48	9	*e*Pn	Pn	14 21 33.0	+0.5
MPU	Maple Canyon	2.74	113	*e*Pn	Pn	14 21 37.8	+1.8
MPU				*e*Sg	Sg	14 22 18.3	-1.7
AHID	Auburn Hatcher	3.30	59	Pn	Pn	14 21 45.1	+1.3
TMUT	Trail Mountain	3.38	121	Pn	Pn	14 21 47.0	+2.2
NVAR	Mina Array Bea	3.74	225	Pn	Pn	14 21 49.8	0.0
	40nm,0.3s,baz=40,slow=12,SNR=5.0						
NVAR				Pg	Pg	14 21 57.0	-6.7
	102nm,0.3s,baz=43,slow=17,SNR=4.4						
NVAR				Sn	Sn	14 22 35.7	+1.9
	115nm,0.3s,baz=266,slow=25,SNR=5.3						
NVAR				Lg		14 22 50.1	
	200nm,0.3s,baz=58,slow=19,SNR=6.6						
NVAR	Mina Array Bea	3.74	225	Pn	Pn	14 21 49.8	0.0
NVAR				Pg	Pg	14 21 57.0	-6.6
NVAR				Sn	Sn	14 22 35.7	+1.9
NVAR				Lg		14 22 50.1	
SRU	San Rafael	3.92	119	Pn	Pn	14 21 59.0	+6.7
TPNV	Topopah Spring	4.28	194	*e*Pg	Pg	14 22 13.7	-0.5
TPNV				*e*Sg	Sg	14 23 05.7	-3.9
PDAR	Pinedale Array	4.33	66	Pn	Pn	14 21 57.9	-0.1
	baz=240,slow=12,SNR=3.9						
PDAR				Pg	Pg	14 22 08.1	-6.9
	10nm,0.3s,baz=267,slow=15,SNR=7.1						
PDAR				Lg		14 23 03.2	
	19nm,0.3s,baz=248,slow=32,SNR=4.8						
PDAR	Pinedale Array	4.33	66	Pn	Pn	14 21 57.9	-0.1
PDAR				Pg	Pg	14 22 08.1	-6.9
PDAR				Lg		14 23 03.2	
YKA	Yellowknife Ar	21.41	0	P	P	14 25 39.9	+0.1
	15nm,0.7s,mb4.4,baz=181,slow=10,SNR=6.0						
YKA	Yellowknife Ar	21.41	0	P	P	14 25 39.9	+0.1
PETK	Petropavlovsk-	57.08	314	P	P	14 30 39.4	+1.2
	9.3nm,0.8s,mb4.8,baz=78,slow=11,SNR=5.6						
SPITS	Spitsbergen Ar	57.44	11	P	P	14 30 43.8	+3.4
	11nm,0.9s,mb4.9,baz=282,slow=9.7,SNR=2.4						
EKA	Eskdalemuir Ar	67.82	35	P	P	14 31 49.4	-0.6
	3.6nm,0.9s,mb4.4,baz=352,slow=9.5						
NOA	NORSAR Array B	69.19	25	P	P	14 31 57.3	-1.1
	1.6nm,0.9s,mb4.0,baz=315,slow=6.7,SNR=3.4						
HFS	Hagfors	70.67	24	P	P	14 32 07.6	+0.1
	4.3nm,0.6s,mb4.5,baz=285,slow=5.7,SNR=8.5						
MDJ	Mudanjiang	76.92	319	P	P	14 32 43.9	-0.6
MDJ				pmax	pmax		
	comp=Z,6.0nm,2.2s,mb4.1						
MDJ				pmax	pmax		
	comp=Z,180nm,7.2s						
GRF	Grafenberg Arr	77.96	32	*e*P	P	14 32 52.0	+1.8
	comp=Z,10.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	77.96	32	*e*P	P	14 32 52.0	+1.8
	comp=Z,10.0nm,1.1s,mb4.7						
GERES	GERESS Array B	79.62	32	P	P	14 32 59.7	+0.4
	comp=Z,1.8nm,0.9s,mb4.0,baz=298,slow=8.5,SNR=4.0						
KSRS	Korea Array	82.98	314	P	P	14 33 17.7	+0.3
	comp=Z,1.1nm,0.7s,mb4.0,baz=41,slow=4.6,SNR=4.4						
AKASG	Malin Array Be	83.34	22	P	P	14 33 18.4	-0.6
	comp=Z,1.3nm,0.6s,mb4.1,baz=334,slow=4.6,SNR=2.9						
ZALV	Zalesovo Beam	83.80	348	P	P	14 33 20.4	-0.9
	comp=Z,0.9nm,0.6s,mb4.1,baz=356,slow=4.3,SNR=2.4						
SONM	Songino Array	84.16	333	P	P	14 33 23.5	+0.2
	comp=Z,1.0nm,0.7s,mb4.0,baz=26,slow=4.6,SNR=3.8						
BVAR	Borovoye Array	86.13	357	P	P	14 33 32.0	-1.0
	comp=Z,1.8nm,0.7s,mb4.4,baz=316,slow=4.0,SNR=3.5						
KURK	Kurchatov	87.79	351	P	P	14 33 41.3	+0.2
	comp=Z,2.2nm,1.0s,mb4.4,baz=2.1,slow=4.6,SNR=3.1						
MKAR	Makanchi Array	91.14	348	P	P	14 33 57.0	+0.1
	comp=Z,1.8nm,1.0s,mb4.4,baz=35,slow=4.0,SNR=3.2						
NJ2	Nanjing	91.90	317	*e*P	P	14 33 59.8	-1.0
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.4						
XAN	Xi'an	95.02	325	P	P	14 34 14.8	-0.3
XAN				pP	pP	14 34 22.5	+4.1
XAN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
XAN				pmax	pmax		
	comp=Z,130nm,7.9s						
LZH	Lanzhou	95.34	329	*e*P	P	14 34 13.6	-2.9
LZH				pP	pP	14 34 16.8	-3.1
LZH				sP	sP	14 34 18.6	-2.4
LZH				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.5						
LZH				pmax	pmax		
	comp=Z,120nm,4.3s						
GYA	Guiyang	102.50	322	*e*P	Pdif	14 34 47.9	-0.7
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WRA	Warramunga Arr	118.28	268	PKP	PKPdf	14 39 37.7	-2.1
	comp=Z,1.5nm,0.7s,baz=46,slow=1.8,SNR=12						
ASAR	Alice Springs	120.78	264	PKP	PKPdf	14 39 43.9	-0.7
	comp=Z,1.5nm,0.6s,baz=71,slow=2.4,SNR=12						
BOSA	Boshof	145.32	82	PKPbc	PKPbc	14 40 29.1	-0.8
	comp=Z,5.5nm,0.9s,baz=33,slow=2.6,SNR=3.7						

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*CSEM **21** 14:22:56.3±0.6, 38°.34N×26°.76E, h8^{km}, MD2.7, Error ellipse: s-maj=29.0km s-min=10.7km az=162.0*

*ISK **21** 14:22:59.8, 38°.40N×27°.02E, h5^{km}, MD2.7*

*DDA **21** 14:23:00.5, 38°.40N×27°.05E, h7^{km}±4^{km}, Md2.7*

ISC 21 14:22:59.5±2.6**, 38°.4N**±0°.1×**27°.0E**±0°.2**, h4^{km}**±10^{km}**, n9, σ0^s.35**/16**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLCB	Balcova	0.07	73	PG	Pg	14 23 00.8	-0.3
BLCB				*e*SG	Sg	14 23 01.9	-0.2
BLCB	Balcova	0.07	73	*i* Pg	Pg	14 23 00.8	-0.3
BLCB				*e*Sg	Sg	14 23 01.9	-0.3
IZM	Izmir	0.24	82	PG	Pg	14 23 04.8	+0.5
IZM				*e*SG	Sg	14 23 07.5	+0.1
AKS	Akhisar	0.85	52	*e*PG	Pg	14 23 15.5	-0.3
AKS				*e*SG	Sg	14 23 26.9	+0.1
AKS	Akhisar	0.85	52	*e*Pg	Pg	14 23 15.5	-0.2
AKS				*e*Sg	Sg	14 23 26.9	+0.2
AKHS	Akhisar	0.85	52	*e*P	Pg	14 23 16.4	+0.6
AKHS				*e*S	Sg	14 23 26.4	-0.3
AKHS	Akhisar	0.85	52	*e*P	Pg	14 23 16.4	+0.6
AKHS				*e*S	Sg	14 23 26.5	-0.2
KULA	Kula-Manisa	1.35	83	*e*PN	Pn	14 23 24.7	-0.4
KULA	Kula-Manisa	1.35	83	*e*Pn	Pn	14 23 24.7	-0.3

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*BJI **21** 14:34:39.3, 41°.69N×114°.44W, h5^{km}, mB4.8/1, mb4.3/6*

*NEIC **21** 14:34:41.9±0.4, 41°.00N×114°.79W, h5^{km}, ML4.1, Error ellipse: s-maj=5.1km s-min=4.4km az=137.0*

NEIC Felt at Elko. Also felt at Twin Falls, Idaho and Grouse Creek, Utah.

*IDC **21** 14:34:41.1±0.9, 41°.15N×114°.78W, h0^{km}, mb3.4/1, mb1 4.0/3, mb1mx3.6/21, mbtmp3.5/3, ML4.0/2, Error ellipse: s-maj=30.3km s-min=4.9km az=138.0*

*ISCJB **21** 14:34:42.1±0.5, 41°.09N±0°.01×114°.86W±0°.02, h15^{km}±4^{km}, mb4.2/4, Error ellipse: s-maj=2.7km s-min=2.3km az=32.1*

*MOS **21** 14:34:54.8±1.3, 41°.02N×114°.64W, h12^{km}, mb4.6/22, Error ellipse: s-maj=10.9km s-min=6.9km az=100.6*

*SZGRF **21** 14:35:02.1, 41°.65N×115°.89W, h33^{km}, mb4.7, Nevada, United States*

ISC 21 14:34:41.8±0.4**, 41°.10N**±0°.01×**114°.86W**±0°.02**, h6^{km}**±3^{km}**, n183, σ1^s.07**/195**, mb4.2**/4**, 35C-39D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.29	208	⇑P	Pg	14 34 48.7	+1.4
	baz=0.2,SNR=19						
N12A				⇓S	Sg	14 34 53.0	+1.9
	baz=0.2						
ELK	Elko	0.46	219	Pg	Pg	14 34 51.5	+0.9
	264nm,0.3s,baz=20,slow=16,SNR=21						
ELK				Lg		14 34 58.1	
	802nm,0.3s,baz=135,slow=11,SNR=88						
ELK	Elko	0.46	219	*e*P	Pg	14 34 51.4	+0.7
ELK				*e*S	Sg	14 34 57.8	+1.2
ELK				Lg		14 35 10.5	
ELK	Elko	0.46	219	Lg		14 35 10.5	
	3µm,0.3s,baz=139,slow=16,SNR=28						
N13A	Wendover, West	0.55	116	⇑P	Pg	14 34 53.0	+0.6
	baz=0.6,SNR=24						
N11A	Elko Archery C	0.72	247	⇑P	Pg	14 34 56.4	+0.7
	baz=0.7,SNR=36						
M11A	Holland Ranch,	0.78	295	⇓P	Pg	14 34 56.9	+0.2
	baz=0.7,SNR=51						
O12A	Currie	0.84	174	⇑P	Pg	14 34 58.7	+0.8
	baz=0.8,SNR=44						
L12A	House Creek Ra	1.05	354	⇑P	Pg	14 35 00.9	-1.0
	baz=1.1,SNR=11						
O11A	Cowboy Ranch,	1.15	212	⇓P	Pg	14 35 04.2	+0.5
	baz=1.1						
O13A	Hicks Ranch, I	1.18	145	⇓P	Pg	14 35 04.2	-0.1
	baz=1.2,SNR=28						
L13A	Double Diamond	1.20	35	⇓P	Pg	14 35 03.3	-1.4
	baz=1.3						
M14A	Sheep Mountain	1.21	70	⇓P	Pg	14 35 03.7	-1.2
	baz=1.3						
L11A	Cat Creek Ranc	1.26	328	⇓P	Pn	14 35 04.6	-1.3
	baz=1.2,SNR=24						
N14A	Grayback Hills	1.29	101	⇑P	Pn	14 35 05.4	-0.9
	baz=1.3,SNR=9.8						
N10A	Dunphy	1.31	253	⇓P	Pn	14 35 06.2	-0.4
	baz=1.2,SNR=15						
M10A	I.L. Ranch, Tu	1.33	289	⇓P	Pn	14 35 06.2	-0.8
	baz=1.3,SNR=19						
BGU	Big Grassy Mou	1.40	97	*e*Pn	Pn	14 35 07.0	-0.8
O10A	Cortez Mining,	1.49	237	⇓P	Pn	14 35 08.8	-0.3
	baz=1.4,SNR=18						
L14A	Malta	1.53	52	⇓P	Pn	14 35 08.9	-0.7
	baz=1.6						
K12A	Draper Farm, C	1.53	359	⇑P	Pn	14 35 09.3	-0.3
	baz=1.5,SNR=8.2						
L10A	Juniper Basin	1.55	309	⇓P	Pn	14 35 10.0	+0.1
	baz=1.5,SNR=21						
P12A	McGill	1.63	181	⇑P	Pn	14 35 10.8	-0.2
	baz=1.6,SNR=27						
K13A	Stover Farm, H	1.65	20	⇓P	Pn	14 35 10.9	-0.4
	baz=1.7,SNR=7.2						
P11A	Circle Ranch,	1.69	204	⇓P	Pn	14 35 11.8	-0.1
	baz=1.7,SNR=23						
HVU	Hansel Valley	1.71	66	*e*Pn	Pn	14 35 10.5	-1.6
HVU				*e*Sn	Sn	14 35 25.8	-8.4
N15A	Stansbury Isla	1.78	96	⇓P	Pn	14 35 13.6	+0.5
	baz=1.8,SNR=19						
DUG	Dugway	1.80	120	⇓P	Pn	14 35 12.5	-0.9
	baz=1.8,SNR=46						
DUG	Dugway	1.80	120	*e*Pn	Pn	14 35 12.8	-0.6
DUG				*e*Pb	Pb	14 35 14.3	-0.8
SPUT	South Promonto	1.83	83	*e*Pn	Pn	14 35 13.7	0.0
SPUT				*e*Sn	Sn	14 35 28.5	-8.7
M15A	Larsen Ranch,	1.85	78	⇑P	Pn	14 35 14.0	0.0
	baz=1.9,SNR=22						
K11A	Parker Ranch,	1.88	333	⇑P	Pn	14 35 13.3	-1.2
	baz=1.9,SNR=46						
K14A	Jones Ranch, D	1.91	41	⇓P	Pn	14 35 14.1	-0.8
	baz=2.0,SNR=20						
BMN	Battle Mountai	1.92	250	*e*Pn	Pn	14 35 14.0	-1.0
BMN				*e*Sn	Sn	14 35 31.1	-8.3
P10A	Eureka	1.92	220	⇓P	Pn	14 35 14.8	-0.2
	baz=1.9,SNR=22						
M09A	Marrel Ranch,	1.98	280	⇓P	Pn	14 35 15.1	-0.7
	baz=1.9,SNR=29						
O09A	Fish Creek Ran	2.00	243	⇓P	Pn	14 35 15.8	-0.4
	baz=1.9						
N09A	Rock Creek Ran	2.03	264	⇑P	Pn	14 35 15.9	-0.6
	baz=2.0						
P14A	Drum Mountains	2.04	137	⇓P	Pn	14 35 16.0	-0.6
	baz=2.1						
Q12A	Willow Creek R	2.06	179	⇓P	Pn	14 35 16.7	-0.3
	baz=2.0,SNR=9.4						
L15A	Malad City	2.06	63	⇓P	Pn	14 35 15.6	-1.3
	baz=2.1,SNR=12						
NOQ	North Oquirrh	2.12	101	*e*Pn	Pn	14 35 18.4	+0.6
NOQ				*e*Sn	Sn	14 35 33.9	-11
J12A	Stokes Ranch,	2.15	355	⇑P	Pn	14 35 18.5	+0.3
	baz=2.2,SNR=27						
Q13A	Wheeler Ranch,	2.24	163	⇓P	Pn	14 35 19.0	-0.4
	baz=2.2,SNR=12						
K10A	MacKenzie Ranc	2.25	319	⇑P	Pn	14 35 20.7	+1.2
	baz=2.2,SNR=56						
L09A	Wilkinson Ranc	2.30	294	⇑P	Pn	14 35 21.9	+1.7
	baz=2.2						
P09A	Austin	2.33	229	⇑P	Pn	14 35 20.8	+0.1
	baz=2.3,SNR=16						
Q11A	Duckwater	2.34	195	P	Pn	14 35 20.9	+0.2
	baz=2.3,SNR=28						
J13A	Cove Ranch, Pi	2.35	12	⇑P	Pn	14 35 21.2	+0.3
	baz=2.4,SNR=36						
K15A	Arbon	2.35	47	P	Pn	14 35 21.0	+0.1
	baz=2.4,SNR=24						
CTU	Camp Tracy	2.39	99	*e*Pb	Pb	14 35 25.5	+0.3
NLU	North Lily Min	2.41	118	*e*Pb	Pb	14 35 24.6	-0.9
MFID	Camas Ranch	2.42	343	⇑P	Pn	14 35 22.8	+1.0
	baz=2.4,SNR=29						
J14A	Carey	2.43	24	⇑P	Pn	14 35 22.3	+0.3
	baz=2.5,SNR=28						
Q14A	Sevier Lake (B	2.44	150	⇑P	Pn	14 35 21.6	-0.5
	baz=2.5						
HLID	Hailey	2.48	8	⇑P	Pn	14 35 23.3	+0.6
	baz=2.5,SNR=47						
HLID	Hailey	2.48	8	*e*Pn	Pn	14 35 23.1	+0.4
P15A	Leamington	2.50	127	⇑P	Pn	14 35 22.1	-0.8
	baz=2.5						
N08A	GE Springer Mi	2.50	264	⇑P	Pn	14 35 22.4	-0.6
	baz=2.4						
Q10A	Clear Creek Ra	2.57	208	⇓P	Pn	14 35 23.9	+0.1
	baz=2.5,SNR=26						
JLU	Jordanelle	2.63	100	*e*Pb	Pb	14 35 28.0	-1.3
O08A	Rochester Mine	2.63	253	P	Pn	14 35 24.2	-0.6
	baz=2.6,SNR=18						
MPU	Maple Canyon	2.69	113	*e*Pg	Pg	14 35 32.7	-0.5
I12A	Atlanta	2.70	356	P	Pn	14 35 27.1	+1.4
	baz=2.7,SNR=30						
R12A	Pony Springs,	2.78	176	⇓P	Pn	14 35 26.7	-0.1
	baz=2.8,SNR=8.0						
R11A	Troy Canyon, C	2.81	192	P	Pn	14 35 27.2	0.0
	baz=2.8,SNR=12						
DAU	Daniels Canyon	2.82	103	*e*Pn	Pn	14 35 25.5	-1.9
DAU				*e*Pg	Pg	14 35 36.0	+0.1
P08A	Dixie Valley	2.83	241	⇓P	Pn	14 35 27.3	-0.2
	baz=2.8,SNR=11						
Q15A	Fillmore	2.83	137	⇓P	Pn	14 35 27.0	-0.6
	baz=2.9						
I13A	Wildhorse Cree	2.86	11	⇑P	Pn	14 35 28.6	+0.7
	baz=2.9,SNR=23						
P16A	Fountain Green	2.87	120	⇑P	Pn	14 35 27.2	-0.8
	baz=2.9						
Q09A	Carvers	2.88	219	⇑P	Pn	14 35 28.4	+0.2
	baz=2.8,SNR=14						
J15A	Blackfoot	2.92	37	⇓P	Pn	14 35 28.9	+0.2
	baz=3.0,SNR=18						
K16A	Soda Springs	2.99	54	⇓P	Pn	14 35 30.2	+0.6
	baz=3.0,SNR=11						
R13A	O'Grain Ranch,	3.00	166	⇓P	Pn	14 35 29.6	-0.2
	baz=3.0,SNR=28						
WVOR	Wild Horse Val	3.12	296	*e*Pn	Pn	14 35 35.1	+3.6
WVOR				*e*Pg	Pg	14 35 49.2	+7.6
WVOR				*e*S	Sg	14 36 30.9	+8.9
N07B	Gerlach	3.13	265	⇑P	Pn	14 35 31.2	-0.5
	baz=3.1						
O07A	Toulon	3.20	254	P	Pn	14 35 31.9	-0.6
	baz=3.1,SNR=18						
J16A	Bone	3.24	47	P	Pn	14 35 33.9	+0.7
	baz=3.3,SNR=7.9						
Q08A	Gabbs	3.25	227	⇓P	Pn	14 35 32.9	-0.4
	baz=3.2,SNR=9.3						
AHID	Auburn Hatcher	3.26	58	*e*Pb	Pb	14 35 39.3	-0.7
M07A	Soldier Meadow	3.26	276	P	Pn	14 35 33.1	-0.4
	baz=3.2,SNR=9.7						
MSU	Marysvale	3.31	141	*e*Pn	Pn	14 35 34.7	+0.6
TMUT	Trail Mountain	3.33	122	*e*Pg	Pg	14 35 44.2	-1.3
H12A	Diamond D Ranc	3.44	0	⇑P	Pn	14 35 37.6	+1.6
	baz=3.5,SNR=8.0						
P07A	Fallon	3.45	244	⇓P	Pn	14 35 35.5	-0.6
	baz=3.4,SNR=7.7						

RRI2	Red Ridge	3.45	48	ePn	Pn	14 35 36.9	+0.8
H13A	Challis	3.49	7	⇓P	Pn	14 35 38.0	+1.5
	baz=3.5,SNR=8.2						
ARUT	Antelope Range	3.49	161	ePn	Pn	14 35 36.5	0.0
R15A	Junction	3.51	145	⇑P	Pn	14 35 36.8	0.0
	baz=3.5						
S11A	Rachel	3.52	192	⇑P	Pn	14 35 37.8	+0.7
	baz=3.5,SNR=7.9						
S14A	Cedar City	3.59	158	⇑P	Pn	14 35 38.3	+0.4
	baz=3.6,SNR=6.1						
S13A	Holt Ranch, En	3.60	167	⇓P	Pn	14 35 38.5	+0.4
	baz=3.6,SNR=19						
K07A	Rock Creek Ran	3.64	297	⇑P	Pn	14 35 38.5	-0.1
	baz=3.6,SNR=9.9						
DCID1	Drake Creek	3.69	46	ePn	Pn	14 35 39.8	+0.5
PAHR	Pah Rah Range	3.73	249	ePb	Pn	14 35 42.5	+2.7
CCUT	Cedar City	3.73	161	ePn	Pn	14 35 37.5	-2.4
CCUT				ePg	Pg	14 35 53.2	-0.1
REDW	Red Top Meadow	3.73	51	ePn	Pn	14 35 41.2	+1.3
TPAW	Teton Pass	3.75	49	ePn	Pn	14 35 41.2	+1.0
NVAR	Mina Array Bea	3.77	226	Pn	Pn	14 35 40.4	+0.1
	4.1nm,0.3s,baz=45,slow=14,SNR=7.0						
NVAR				Pg	Pg	14 35 50.5	-3.4
	25nm,0.3s,baz=56,slow=15,SNR=37						
NVAR				Lg		14 36 40.1	
	105nm,0.3s,baz=52,slow=23,SNR=5.4						
NVAR	Mina Array Bea	3.77	226	Pn	Pn	14 35 40.4	+0.1
NVAR				Pg	Pg	14 35 50.5	-3.4
NVAR				Lg		14 36 40.1	
N06A	Buffalo Meadow	3.79	266	P	Pn	14 35 40.1	-0.6
	baz=3.7,SNR=8.3						
SNOW	Snow King Moun	3.85	51	ePn	Pn	14 35 43.0	+1.5
T11A	Corn Creek, Al	3.87	184	P	Pn	14 35 42.2	+0.4
	baz=3.9,SNR=9.1						
SRU	San Rafael	3.88	120	eP	Pg	14 35 54.1	-1.9
O06A	Flanigan	3.90	258	⇑P	Pn	14 35 42.0	-0.1
	baz=3.8,SNR=16						
MCMT	McKenzie Canyo	4.00	21	ePn	Pn	14 35 44.9	+1.2
BURN	Burns	4.01	309	P	Pn	14 35 49.0	+5.2
G13A	Cobalt	4.01	6	⇓P	Pn	14 35 45.5	+1.7
	baz=4.0,SNR=12						
IMW	Indian Meadow	4.02	45	ePn	Pn	14 35 44.8	+0.9
LOHW	Long Hollow	4.03	50	ePn	Pn	14 35 44.7	+0.8
MOOW	Moose Ponds	4.03	48	ePn	Pn	14 35 44.6	+0.6
BMO	Blue Mountains	4.15	335	ePn	Pn	14 35 47.0	+1.3
WCN	Washoe City	4.16	246	⇑P	Pn	14 35 45.2	-0.6
	baz=4.1,SNR=54						
MOD	Modoc	4.17	283	ePb	Pn	14 35 50.9	+5.1
R17A	Hanksville Air	4.17	129	⇓P	Pn	14 35 47.1	+1.1
	baz=4.2,SNR=5.2						
BW06	Boulder Array	4.29	65	ePn	Pn	14 35 49.9	+2.4
PDAR	Pinedale Array	4.29	65	Pn	Pn	14 35 49.5	+2.0
	1.4nm,0.3s,baz=239,slow=12,SNR=14						
PDAR				Pg	Pg	14 35 55.3	-8.6
	1.1nm,0.3s,baz=249,slow=18,SNR=9.2						
PDAR	Pinedale Array	4.29	65	Pn	Pn	14 35 49.5	+2.0
PDAR				Pg	Pg	14 35 55.3	-8.6
BEKR	Beckwourth	4.37	255	⇓P	Pn	14 35 48.3	-0.4
	baz=4.3,SNR=24						
R06C	Coleville	4.38	235	⇓P	Pn	14 35 48.8	0.0
	baz=4.3,SNR=17						
WAKR	Walker	4.38	235	ePn	Pn	14 35 49.0	+0.2
YFT	Old Faithful	4.47	40	ePn	Pn	14 35 50.8	+0.8
DLMT	Dillon	4.57	20	ePn	Pn	14 35 52.1	+0.8
YMR	Madison River	4.57	37	ePn	Pn	14 35 52.4	+1.0
SHPR	Sheep Range	4.60	183	ePg	Pb	14 36 05.8	+3.0
MTUM	Tungsten Hills	4.72	219	ePb	Pb	14 36 03.2	-1.7
YNR	Norris Junctio	4.74	39	ePn	Pn	14 35 53.0	-0.7
LKWY	Lake	4.77	42	ePn	Pn	14 35 56.2	+2.1
U14A	Mt Trumbull	4.86	164	⇑P	Pn	14 35 56.1	+0.7
	baz=4.9,SNR=7.5						
LRM	Limekiln Ridge	5.03	20	ePb	Pb	14 36 13.3	+3.1
BOZ	Bozeman (W)	5.11	26	ePn	Pn	14 36 01.0	+2.2
CMB	Columbia Colle	5.26	236	ePn	Pn	14 36 01.1	+0.2
V13A	Grand Canyon W	5.29	172	P	Pn	14 36 02.4	+1.1
	baz=5.3,SNR=22						
PV04	Paradox Valley	5.33	119	ePg	Pb	14 36 19.8	+4.5
V12A	Nelson	5.37	180	⇑P	Pn	14 36 03.3	+0.9
	baz=5.4,SNR=17						
OHCM	Honcut	5.37	253	ePg	Pb	14 36 19.0	+3.0
LNOR	Lincton Mounta	5.38	334	eP	Pb	14 36 14.3	-1.8
PV01	Paradox Valley	5.69	119	ePn	Pn	14 36 09.6	+2.8
	412nm,0.6s						
RLMT	Red Lodge	5.73	44	ePg	Pg	14 36 32.0	+0.4
MSO	Missoula	5.76	6	ePb	Pb	14 36 23.3	+0.7
RWWY	Rawlins	5.78	82	ePb	Pb	14 36 17.1	-5.8
WDC	Whiskeytown Da	5.85	267	eP	Pb	14 36 28.0	+3.9
CHMT	Chamberlain Mo	5.92	11	ePb	Pb	14 36 25.5	+0.2
GSC	Goldstone	5.99	195	eP	Pb	14 36 25.5	-1.1
HRY	Holter Researc	6.02	20	ePb	Pb	14 36 30.6	+3.7
GCMT	Greycliff	6.02	37	ePn	Pb	14 36 23.3	-3.7
LDFC	Landfair	6.02	182	ePn	Pn	14 36 10.1	-1.3
ISA	Isabella	6.13	209	eP	Pn	14 36 18.5	+5.7
WUAZ	Wupatki	6.21	153	ePg	Pg	14 36 36.7	-4.1
SLMT	Seeley Lake	6.21	9	ePb	Pb	14 36 30.2	-0.1
HUMO	Hull Mountain	6.23	287	ePb	Pb	14 36 33.5	+2.8
HAWA	Hanford	6.28	329	ePg	Pg	14 36 37.9	-4.0
MVCO	Mesa Verde	6.29	126	ePb	Pb	14 36 35.3	+3.7
RSW	Rattlesnake Hi	6.30	329	ePg	Pg	14 36 38.4	-4.0
SWMT	Swartz Lake	6.43	5	ePb	Pb	14 36 33.0	-1.1
HOOD	Mount Hood Mea	6.51	313	ePg	Pg	14 36 41.8	-4.7
JTMT	Jette	6.66	3	ePb	Pb	14 36 35.7	-2.1
BSMT	Bassoo Peak	6.75	0	ePb	Pb	14 36 38.1	-1.3
YBMT	Yellow Bay	6.79	5	ePb	Pb	14 36 37.5	-2.6
OD2	Odessa Site #2	6.87	338	ePb	Pb	14 36 40.5	-1.0
OD2				ePg	Pg	14 37 01.4	+8.2
PHWY	Pilot Hill	7.09	85	ePn	Pn	14 36 32.4	+6.4
COR	Corvallis	7.11	302	eP	Pb	14 36 45.2	-0.4
ISCO	Idaho Springs	7.17	97	ePb	Pb	14 36 48.2	+1.5
NEW	Newport	7.34	348	eP	Pb	14 36 46.3	-3.2
LON	Longmire	7.55	321	eP	Pb	14 36 51.6	-1.5
ETW	Entiat	7.59	331	ePb	Pb	14 36 53.9	+0.1
PFO	Pinyon Flat Ob	7.59	190	eP	Pb	14 36 48.2	-5.6
EGMT	Eagleton	7.82	26	ePb	Pb	14 36 54.8	-2.8
SDCO	Great Sand Dun	7.98	112	ePn	Pb	14 36 55.3	-5.2
GLA	Glamis	8.04	180	ePb	Pb	14 36 57.8	-3.6
RSSD	Black Hills	8.53	66	ePn	Pn	14 36 46.2	+0.4
JCW	Jim Creek	8.69	327	ePn	Pn	14 36 57.6	+10
YKA	Yellowknife Ar	21.42	0	P	P	14 39 29.9	-0.3
	1.3nm,0.7s,mb3.4,baz=180,slow=9.9,SNR=8.2						
YKA	Yellowknife Ar	21.42	0	P	P	14 39 29.9	-0.3
MDJ	Mudanjiang	76.96	319	P	P	14 46 33.5	-1.6
MDJ				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
CN2	Changchun	79.59	320	eP	P	14 46 50.0	+0.4
HHC	Hu-ho-hao-te	88.19	327	eP	P	14 47 32.3	-1.3
HHC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
XAN	Xi’an	95.06	325	P	P	14 48 05.1	-0.5
XAN				pP	pP	14 48 12.4	+4.8
XAN				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb4.3						
LZH	Lanzhou	95.37	329	eP	P	14 48 05.3	-1.7
LZH				pP	pP	14 48 09.0	0.0
LZH				sP	sP	14 48 12.0	+2.4
CD2	Chengdu	99.95	327	P	Pdif	14 48 27.1	-0.5
GYA	Guiyang	102.53	322	eP	Pdif	14 48 37.8	-1.3
ASAR	Alice Springs	120.82	264	PKP	PKPdf	14 53 34.3	-0.7
	comp=Z,0.3nm,0.8s,baz=58,slow=2.4,SNR=4.3						

NEIC **21** *14:34:50.6, 36.°14N×21.°46E, h5^{km}, ML3.7(ATH), After ATH.*

ISCJB **21** *14:34:51.0±0.8, 36.°21N±0.°03×21.°54E±0.°05, h0^{km}±4^{km}, mb3.8/10, Error ellipse: s-maj=6.6km s-min=5.0km az=159.0*

ATH **21** *14:34:50.6, 36.°14N×21.°46E, h5^{km}, MD3.9/13, ML3.7*

IDC **21** *14:34:51.6±1.1, 36.°39N×21.°57E, h0^{km}, mb3.7/10, mb1 3.7/11, mb1mx3.7/25, mbtmp3.7/11, ML2.6/1, MS3.9/1, Ms1 3.9/1, ms1mx3.0/56, Error ellipse: s-maj=23.9km s-min=19.6km az=35.0*

CSEM **21** *14:34:53.3±0.5, 36.°24N×21.°60E, h2^{km}, ML4.2/3, Error ellipse: s-maj=10.6km s-min=6.4km az=42.0*

THE **21** *14:34:55.5, 36.°33N×21.°71E, h5^{km}±2^{km}, ML4.2/3, Error ellipse: s-maj=3.7km s-min=1.7km az=242.0*

ISC 21 14:34:52.5±0.8**, 36.°22N**±0.°03×**21.°58E**±0.°05**, h0**^{km}±4^{km}**, n102,** σ**1.^{s}26**/130**, mb3.8**/10**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.69	11	P	Pg	14 35 05.7	0.0
PYL				S	Sg	14 35 14.2	-0.5
PYL	PYLOS	0.69	11	ePB	Pg	14 35 06.1	+0.4
PYL				eSB	Sg	14 35 17.4	+2.7
PYL	PYLOS	0.69	11	ePb	Pg	14 35 06.1	+0.4
PYL				S	Sg	14 35 14.2	-0.5
PYL				eSb	Sg	14 35 17.4	+2.7
ITM	Ithomi	1.00	16	ePB	Pb	14 35 12.0	-0.7
ITM	Ithomi	1.00	16	P	Pg	14 35 12.1	+0.4
ITM	Ithomi	1.00	16	ePb	Pb	14 35 12.0	-0.7
KYTH	Kithira	1.18	87	ePB	Pb	14 35 15.2	-0.6
KYTH	Kithira	1.18	87	ePb	Pb	14 35 15.2	-0.6
VLI	Veliai	1.21	65	ePG	Pg	14 35 15.4	-0.2
VLI	Veliai	1.21	65	P	Pg	14 35 15.7	+0.1
VLI	Veliai	1.21	65	ePg	Pg	14 35 15.4	-0.2
VLX	Vlachokerasia	1.32	29	ePG	Pg	14 35 17.2	-0.6
VLX				eSB	Sb	14 35 37.5	+2.0
VLX	Vlachokerasia	1.32	29	ePg	Pg	14 35 17.2	-0.6
VLX				eSb	Sb	14 35 37.5	+2.0
GUR	Goura	1.82	19	ePG	Pg	14 35 26.2	-1.2
GUR	Goura	1.82	19	ePg	Pg	14 35 26.2	-1.2
RLS	Riolos of Patr	1.84	357	ePG	Pg	14 35 26.4	-1.3
RLS	Riolos of Patr	1.84	357	P	Pn	14 35 27.6	+2.3
RLS	Riolos of Patr	1.84	357	ePg	Pg	14 35 26.4	-1.3
RLS	Riolos of Patr	1.84	357	P	Pn	14 35 27.6	+2.3
LAKA	Lakka	2.04	9	P	Pn	14 35 28.4	+0.3
LAKA				S	Sn	14 35 53.6	-0.7
LAKA	Lakka	2.04	9	P	Pn	14 35 28.4	+0.3
LAKA				S	Sn	14 35 53.6	-0.7
VLS	Valsamata	2.11	338	P	Pn	14 35 29.2	+0.2
VLS				S	Sn	14 35 56.0	+0.1
VLS	Valsamata	2.11	338	ePN	Pn	14 35 29.4	+0.4
VLS	Valsamata	2.11	338	P	Pn	14 35 30.1	+1.1
VLS	Valsamata	2.11	338	P	Pn	14 35 29.2	+0.2
VLS				S	Sn	14 35 56.0	+0.1
LTK	Loutraki	2.12	31	P	Pn	14 35 30.1	+1.0
LTK				S	Sn	14 35 54.0	-2.1
LTK	Loutraki	2.12	31	ePN	Pn	14 35 31.5	+2.4
LTK	Loutraki	2.12	31	P	Pn	14 35 30.1	+1.0
LTK				S	Sn	14 35 54.0	-2.1
NAIG	Nisos Aigina	2.17	44	ePG	Pg	14 35 33.0	-1.1
TRIZ	Trizonia	2.18	10	P	Pn	14 35 31.0	+1.0
TRIZ				S	Sn	14 35 56.9	-0.7
TRIZ	Trizonia	2.18	10	P	Pn	14 35 31.0	+1.0
TRIZ				S	Sn	14 35 56.9	-0.7
KALE	Kalithea	2.21	12	P	Pn	14 35 31.6	+1.1
KALE				S	Sn	14 35 58.2	-0.3
KALE	Kalithea	2.21	12	P	Pn	14 35 31.6	+1.1
KALE				S	Sn	14 35 58.2	-0.3
VLY	Voula,Athens	2.41	47	ePN	Pn	14 35 35.7	+2.5
VLY	Voula,Athens	2.41	47	ePn	Pn	14 35 35.7	+2.5
ATH	Athens Observa	2.45	44	ePN	Pn	14 35 36.0	+2.3
ATH	Athens Observa	2.45	44	ePn	Pn	14 35 36.0	+2.3
PTL	Penteli	2.58	44	ePN	Pn	14 35 37.4	+1.8
PTL	Penteli	2.58	44	ePn	Pn	14 35 37.4	+1.8
LKR	Lokris	2.68	25	P	Pn	14 35 36.0	-0.8
LKR				S	Sn	14 36 09.0	-1.0
LKR	Lokris	2.68	25	P	Pn	14 35 36.0	-0.8
LKR				S	Sn	14 36 09.0	-1.0
EVR	Evrytania	2.70	4	ePN	Pn	14 35 39.8	+2.7
EVR	Evrytania	2.70	4	ePn	Pn	14 35 39.8	+2.7
IDI	Anoyia	2.85	108	Pn	Pn	14 35 39.4	+0.1
	0.9nm,0.3s,baz=292,slow=17,SNR=8.8						
IDI				Pg	Pg	14 35 45.5	-1.7
	2.9nm,0.3s,baz=288,slow=16,SNR=14						
IDI				Lg		14 36 29.6	
	5.2nm,0.3s,baz=13,slow=18,SNR=3.6						
IDI	Anoyia	2.85	108	Pn	Pn	14 35 39.4	+0.2
IDI	Anoyia	2.85	108	Pg	Pg	14 35 45.5	-1.7
AGG	Agios Georgios	2.86	12	P	Pn	14 35 40.4	+1.0
AGG				S	Sn	14 36 15.7	+1.2
AGG	Agios Georgios	2.86	12	ePN	Pn	14 35 41.3	+1.9
AGG	Agios Georgios	2.86	12	P	Pn	14 35 40.4	+1.0
AGG	Agios Georgios	2.86	12	ePn	Pn	14 35 41.3	+1.9
AGG				S	Sn	14 36 15.7	+1.2
LAST	Lasithi	3.35	107	P	Pn	14 35 47.2	+1.1
LAST				S	Sn	14 36 27.2	+0.7
LAST	Lasithi	3.35	107	P	Pn	14 35 49.1	+3.0
LAST	Lasithi	3.35	107	P	Pn	14 35 47.2	+1.1
LAST				S	Sn	14 36 27.2	+0.7
THL	Klokotos Trika	3.36	6	P	Pn	14 35 46.6	+0.4
THL	Klokotos Trika	3.36	6	P	Pn	14 35 46.6	+0.4
XOR	Xorichti	3.39	22	P	Pn	14 35 46.4	-0.3
XOR				S	Sn	14 36 25.6	-2.0
XOR	Xorichti	3.39	22	P	Pn	14 35 46.4	-0.3
XOR				S	Sn	14 36 25.6	-2.0
AOS	Alonnisos	3.47	31	P	Pn	14 35 46.7	-1.0
AOS	Alonnisos	3.47	31	P	Pn	14 35 46.7	-1.0
MEV	Metsovon	3.57	356	P	Pn	14 35 51.2	+2.1
MEV	Metsovon	3.57	356	P	Pn	14 35 51.2	+2.1
LIT	Litokhoron	3.94	10	P	Pn	14 35 55.5	+1.3
LIT	Litokhoron	3.94	10	P	Pn	14 35 55.5	+1.3
PAIG	Paliouri	4.06	24	P	Pn	14 35 55.9	+0.1
PAIG	Paliouri	4.06	24	P	Pn	14 35 55.9	+0.1
CHOS	Chios island	4.18	57	P	Pn	14 35 59.2	+1.8
CHOS	Chios island	4.18	57	P	Pn	14 35 59.2	+1.8
PLG	Polygyros	4.40	19	P	Pn	14 36 00.6	+0.1
PLG	Polygyros	4.40	19	P	Pn	14 36 00.6	+0.1
HORT	Hortiatis	4.53	15	P	Pn	14 36 02.7	+0.4
HORT	Hortiatis	4.53	15	P	Pn	14 36 02.7	+0.4
FNA	Florina	4.56	358	P	Pn	14 36 02.7	0.0
FNA	Florina	4.56	358	P	Pn	14 36 02.7	0.0
GRG	Griva	4.77	8	P	Pn	14 36 06.0	+0.4
GRG	Griva	4.77	8	P	Pn	14 36 06.0	+0.4
SOH	Sokhos	4.80	16	P	Pn	14 36 06.5	+0.5
SOH	Sokhos	4.80	16	P	Pn	14 36 06.5	+0.5
CEL	Celeste	4.97	296	ePn	Pn	14 36 08.0	-0.3
CEL				eSn	Sn	14 36 58.9	-7.6
CEL	Celeste	4.97	296	ePn	Pn	14 36 08.0	-0.3
KNT	Kendrikon	5.04	11	P	Pn	14 36 09.8	+0.5
KNT	Kendrikon	5.04	11	P	Pn	14 36 09.8	+0.5
SRS	Serrai	5.14	17	P	Pn	14 36 11.2	+0.6
SRS	Serrai	5.14	17	P	Pn	14 36 11.2	+0.6
KRUS	Krusevo	5.15	357	ePn	Pn	14 36 09.2	-1.6
KRUS				eSg	Sn	14 37 06.7	-4.2
KRUS	Krusevo	5.15	357	ePn	Pn	14 36 09.1	-1.7
VAE	Valguarnera	5.88	284	Pn	Pn	14 36 24.5	+3.6
	6.2nm,0.3s,baz=225,slow=14,SNR=2.9						
VAE				Sn	Sn	14 37 34.6	+5.7
	2.9nm,0.3s,baz=5.5,slow=14,SNR=3.9						
CUC	Castrocucco	5.90	311	ePn	Pn	14 36 21.8	+0.7
	38nm,0.9s						
CUC				eSn	Sn	14 37 22.3	-7.1
CUC	Castrocucco	5.90	311	ePn	Pn	14 36 21.8	+0.7
	38nm,0.9s						
BARS	Barje	6.59	2	ePn	Pn	14 36 29.7	-0.9
BBLS	Lazići	7.82	348	ePn	Pn	14 36 45.7	-1.7
MLR	Muntele Rosu	9.83	18	LR	LR	14 40 56.1	
	comp=Z,727nm,19.4s,baz=106,slow=38						
HFS	Hagfors	24.46	350	P	P	14 40 10.6	-2.2
	2.0nm,0.7s,mb3.8,baz=148,slow=11,SNR=6.3						
NOA	NORSAR Array B	25.70	348	P	P	14 40 22.5	-1.5
	1.0nm,0.8s,mb3.5,baz=158,slow=9.1,SNR=3.0						
TORD	Torodi Ar. Bea	29.10	223	P	P	14 40 55.0	0.0
	0.3nm,0.5s,baz=29,slow=8.5,SNR=2.9						
ARCES	ARCESS Array B	33.44	3	P	P	14 41 30.5	-2.1
	1.2nm,0.7s,mb3.9,baz=187,slow=9.4,SNR=5.9						
AAK	Ala-Archa	40.82	64	P	P	14 42 35.6	0.0
	0.5nm,0.5s,mb3.5,baz=225,slow=5.7,SNR=2.6						
KURK	Kurchatov	42.80	52	P	P	14 42 53.0	+1.3
	1.0nm,0.2s,mb4.1,baz=279,slow=8.7,SNR=5.8						
MKAR	Makanchi Array	45.64	57	P	P	14 43 12.5	-2.0
	0.3nm,0.4s,mb3.7,baz=269,slow=7.4,SNR=12						
ZALV	Zalesovo Beam	46.39	47	P	P	14 43 17.1	-3.2
	0.8nm,0.3s,mb4.2,baz=272,slow=8.5,SNR=3.2						
SONM	Songino Array	61.06	50	P	P	14 45 05.3	-2.6
	0.2nm,0.5s,mb3.5,baz=288,slow=7.5,SNR=2.4						
CMAR	Chiang Mai Arr	69.33	82	P	P	14 46 01.2	-0.9
	0.4nm,0.8s,mb3.7,baz=231,slow=4.3,SNR=3.1						
KSRS	Korea Array	79.92	51	P	P	14 47 02.9	-0.4
	0.7nm,0.6s,mb3.8,baz=299,slow=5.4,SNR=3.8						

IDC **21** *14:34:53.3±0.5, 40.°90N×114.°52W, h0^{km}, mb4.3/16, mb1 4.4/20, mb1mx4.3/29, mbtmp4.3/20, ML4.4/4, Error ellipse: s-maj=12.2km s-min=4.4km az=155.0*

ISCJB **21** *14:34:54.7±0.4, 41.°03N±0.°07×114.°71W±0.°07, h10^{km}, mb4.5/24, Error ellipse: s-maj=10.3km s-min=6.8km az=160.3*

ISC 21 14:34:55.9±0.4**, 40.°95N**±0.°07×**114.°72W**±0.°07**, h10**^{km}**, (h13**^{km}±.7^{km}**:pP-P), n77,** σ**1.^{s}08**/73**, mb4.5**/24**, 4C-1D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELK	Elko	0.45	243	Pg	Pg	14 35 05.2	+0.6
	1µm,0.3s,baz=8.7,slow=15,SNR=18						
NVAR	Mina Array Bea	3.74	229	Pn	Pn	14 35 53.9	+0.2
	31nm,0.3s,baz=42,slow=13,SNR=46						
NVAR				Pg	Pg	14 36 01.9	-5.6
	60nm,0.3s,baz=45,slow=12,SNR=18						
NVAR				Lg		14 36 56.1	
	282nm,0.3s,baz=103,slow=20,SNR=8.4						
NVAR				Lg		14 36 56.1	
NVAR	Mina Array Bea	3.74	229	Pg	Pg	14 36 01.9	-5.6
PDAR	Pinedale Array	4.26	63	Pn	Pn	14 36 00.3	-0.4
	4.9nm,0.3s,baz=255,slow=14,SNR=23						
PDAR				Pg	Pn	14 36 07.1	+6.4
	7.0nm,0.3s,baz=242,slow=11,SNR=24						
PDAR				Lg		14 37 07.1	
	24nm,0.3s,baz=237,slow=26,SNR=9.2						
PDAR				Lg		14 37 07.1	
PDAR	Pinedale Array	4.26	63	Pg	Pn	14 36 07.1	+6.4
YBH	Yreka Blue Hor	6.07	280	P	Pn	14 36 28.8	+3.2
YBH				pmax	pmax		
	comp=Z,2.0nm,0.3s						
YBH				pmax	pmax		
	comp=Z,4.0nm,0.3s						
YBH	Yreka Blue Hor	6.07	280	Pn	Pn	14 36 28.8	+3.2
	comp=Z,1.6nm,0.3s,baz=90,slow=12,SNR=14						
YBH				Pg	Pb	14 36 42.0	+0.4
	comp=Z,4.4nm,0.3s,baz=90,slow=13,SNR=17						
YBH	Yreka Blue Hor	6.07	280	ePb	Pn	14 36 28.8	+3.2
LAO	LASA Array	8.40	44	ePn	Pn	14 36 60.0	+2.4
GNW	Green Mountain	8.80	321	ePn	Pn	14 37 04.9	+1.8
ANMO	Albuquerque	8.85	130	Pn	Pn	14 36 59.6	-4.2
	comp=Z,0.1nm,0.3s,baz=90,slow=5.1,SNR=3.2						
TUC	Tucson	9.18	159	ePn	Pn	14 37 14.7	+6.3
TXAR	Lajitas Array	14.68	139	Pn	Pn	14 38 22.2	-1.4
	comp=Z,0.1nm,0.3s,baz=323,slow=14,SNR=3.3						
ULM	Lac du Bonnet	16.09	48	Pn	Pn	14 38 41.8	-0.3
	comp=Z,0.5nm,0.3s,baz=224,slow=7.2,SNR=5.1						
DLBC	Dease Lake	20.02	336	P	P	14 39 28.3	-0.3
	comp=Z,2.1nm,1.0s,baz=40,slow=7.9,SNR=2.9						
YKA	Yellowknife Ar	21.57	0	P	P	14 39 43.9	-1.4
YKA						14 43 47.1	
YKA				pmax	pmax		
	comp=Z,21nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	21.57	0	P	P	14 39 43.9	-1.4
	comp=Z,21nm,0.8s,mb4.6,baz=180,slow=9.8,SNR=35						
YKA				PcP	PcP	14 43 47.1	+0.2
	comp=Z,1.0nm,0.6s,baz=169,slow=1.8,SNR=11						
TKL	Tuckaleechee C	24.77	92	P	P	14 40 19.0	+1.3
TKL				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
TKL	Tuckaleechee C	24.77	92	P	P	14 40 19.0	+1.3
	comp=Z,4.4nm,0.7s,mb4.1,baz=180,slow=4.0,SNR=2.8						
INK	Inuvik	29.23	346	P	P	14 40 56.9	-0.5
INK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
INK	Inuvik	29.23	346	P	P	14 40 56.9	-0.5
	comp=Z,2.2nm,0.9s,mb3.9,baz=146,slow=10,SNR=3.2						
RES	Resolute Bay	35.04	9	P	P	14 41 46.9	-1.3
RES				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
RES	Resolute Bay	35.04	9	P	P	14 41 46.9	-1.3
	comp=Z,6.1nm,1.1s,mb4.4,baz=227,slow=18,SNR=2.8						
BILL	Bilibino	48.76	331	⇑eP	P	14 43 39.6	-0.7
BILL				e		14 45 01.6	
BILL				pmax	pmax		
	comp=Z,25nm,2.5s,mb4.8						
SEY	Seymchan	55.73	326	⇑eP	P	14 44 32.1	-0.1
PETK	Petropavlovsk-	57.31	314	P	P	14 44 43.6	0.0
PETK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
PETK	Petropavlovsk-	57.31	314	P	P	14 44 43.6	+0.1
	comp=Z,10nm,0.8s,mb4.9,baz=79,slow=13,SNR=20						
TIXI	Tiksi	59.17	341	⇑eP	P	14 44 54.9	-1.4
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.5						
YAK	Yakutsk	65.07	332	eP	P	14 45 35.4	-0.6
YAK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
YSS	Yuzh-Sakhalins	68.71	314	eP	P	14 45 58.8	-0.7
NB2	NORSAR Subarra	69.27	25	P	P	14 46 02.2	-0.5
	comp=Z,5.1nm,1.0s,mb4.4,baz=312,slow=6.2						
NOA	NORSAR Array B	69.27	25	P	P	14 46 02.6	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	69.27	25	P	P	14 46 02.5	-0.1
	comp=Z,2.2nm,0.8s,mb4.1,baz=315,slow=6.5,SNR=5.4						
HFS	Hagfors	70.75	25	P	P	14 46 11.9	+0.1
HFS				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HFS	Hagfors	70.75	25	P	P	14 46 11.9	+0.1
	comp=Z,4.8nm,0.6s,mb4.6,baz=5.7,slow=3.0,SNR=11						
BOD	Bodaibo	73.50	335	eP	P	14 46 26.5	-1.8
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.3						
CLL	Collm	77.44	31	⇓iP	P	14 46 51.8	+0.7
CLL				e*PP	pP	14 46 55.0	+0.6
CLL				pmax	pmax		
	comp=Z,62nm,1.0s,mb5.5						
MJAR	Matsushiro Arr	78.00	308	P	P	14 46 53.0	-1.4
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MJAR	Matsushiro Arr	78.00	308	P	P	14 46 53.0	-1.4
	comp=Z,1.6nm,0.9s,mb4.0,baz=172,slow=10,SNR=4.1						
GRF	Grafenberg Arr	78.01	33	eP	P	14 46 55.3	+1.1
	comp=Z,11nm,1.2s,mb4.7						
GRF				epP	pP	14 46 59.9	+2.4
NKC	Novy Kostel	78.08	32	eP	P	14 46 56.0	+1.4
NKC				e*PP	pP	14 46 59.8	+1.9
NKC	Novy Kostel	78.08	32	eP	P	14 46 56.0	+1.4
NKC				epP	pP	14 46 59.8	+1.9
PVCC	Panska Ves	78.67	30	eP	P	14 46 59.3	+1.4
PVCC				e*PP	pP	14 47 03.2	+2.0
PVCC	Panska Ves	78.67	30	eP	P	14 46 59.3	+1.4
PVCC				epP	pP	14 47 03.2	+2.0
PRU	Pruhonice	79.09	31	eP	P	14 47 00.9	+0.7
PRU	Pruhonice	79.09	31	eP	P	14 47 00.9	+0.7
UPC	Upice	79.23	30	eP	P	14 47 01.8	+0.9
UPC	Upice	79.23	30	eP	P	14 47 01.8	+0.9
KHC	Kasperske Hory	79.40	32	eP	P	14 47 02.8	+0.9
KHC	Kasperske Hory	79.40	32	eP	P	14 47 02.8	+0.9
DPC	Dobruska-Polom	79.47	29	eP	P	14 47 03.8	+1.5
DPC				e*PP	pP	14 47 07.6	+2.0
DPC	Dobruska-Polom	79.47	29	eP	P	14 47 03.8	+1.5
DPC				epP	pP	14 47 07.6	+2.0
OBN	Obninsk	81.22	16	eP	P	14 47 12.2	+0.6
TLY	Talaya	81.89	337	eP	P	14 47 16.2	+1.0
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
ARU	Arti	82.82	4	c iP	P	14 47 19.7	-0.3
ARU				e		14 50 28.5	
ARU				S	S	14 57 35.9	-2.0
ARU				pmax	pmax		
	comp=Z,21nm,2.5s,mb4.7						
KSRS	Korea Array	83.21	315	P	P	14 47 23.1	+0.8
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
KSRS	Korea Array	83.21	315	P	P	14 47 23.1	+0.7
	comp=Z,1.8nm,0.7s,mb4.2,baz=45,slow=5.4,SNR=6.4						
AKASG	Malin Array Be	83.43	22	P	P	14 47 21.1	-2.1
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	83.43	22	P	P	14 47 21.1	-2.1
	comp=Z,1.7nm,0.7s,mb4.2,baz=322,slow=4.3,SNR=5.9						
ZALV	Zalesovo Beam	83.99	349	P	P	14 47 24.5	-1.6
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.1						
ZALV	Zalesovo Beam	83.99	349	P	P	14 47 24.5	-1.5
	comp=Z,1.2nm,0.6s,mb4.2,baz=20,slow=4.9,SNR=5.9						
SONM	Songino Array	84.38	334	P	P	14 47 28.5	+0.4
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM	Songino Array	84.38	334	P	P	14 47 28.5	+0.3
	comp=Z,1.5nm,0.7s,mb4.2,baz=19,slow=4.3,SNR=11						
BVAR	Borovoye Array	86.30	357	P	P	14 47 37.0	-0.6
BVAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BVAR	Borovoye Array	86.30	357	P	P	14 47 37.0	-0.7
	comp=Z,2.5nm,0.7s,mb4.5,baz=0.0,slow=4.4,SNR=6.4						
KURK	Kurchatov	87.97	352	P	P	14 47 45.3	-0.5
KURK				pmax	pmax		

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,1.0nm,0.5s,mb4.3						
KURK	Kurchatov	87.97	352	P	P	14 47 45.3	-0.4
	comp=Z,0.8nm,0.5s,mb4.2,baz=1.7,slow=4.9,SNR=3.1						
KEST	Kesra	88.03	42	P	P	14 47 45.3	-1.0
	comp=Z,2.7nm,0.9s,mb4.5,baz=172,slow=3.3,SNR=5.5						
MKAR	Makanchi Array	91.33	348	P	P	14 48 01.0	-0.6
MKAR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
MKAR	Makanchi Array	91.33	348	P	P	14 48 00.9	-0.7
	comp=Z,2.2nm,1.0s,mb4.4,baz=17,slow=4.5,SNR=7.6						
WRA	Warramunga Arr	118.43	268	PKIKP	PKPdf	14 53 42.1	-1.8
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	118.43	268	PKP	PKPdf	14 53 42.1	-1.8
	comp=Z,1.8nm,0.7s,baz=55,slow=2.0,SNR=14						
STKA	Stephens Creek	119.71	252	PKP	PKPdf	14 53 44.1	-1.9
	comp=Z,3.7nm,1.1s,baz=85,slow=8.1,SNR=3.8						
ASAR	Alice Springs	120.92	264	PKIKP	PKPdf	14 53 46.6	-2.0
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ASAR	Alice Springs	120.92	264	PKP	PKPdf	14 53 46.5	-2.0
	comp=Z,1.7nm,0.6s,baz=76,slow=2.4,SNR=24						
BOSA	Boshof	145.18	82	PKIKP	PKPdf	14 54 32.0	-1.7
BOSA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
BOSA	Boshof	145.18	82	PKPbc	PKPbc	14 54 32.0	-1.3
	comp=Z,7.3nm,0.9s,baz=5.5,slow=3.6,SNR=8.0						

CSEM ***21*** *14:45:40.5, 36°.16N×21°.62E, h5^{km}, MD3.5, After ATH*
NEIC ***21*** *14:45:40.5, 36°.16N×21°.62E, h5^{km}, MD3.5(ATH), After ATH.*

ATH 21 14:45:40.5, 36°.16N×21°.62E, h5^{km}, MD3.5/9, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.74	8	*e*PB	Pg	14 45 54.9	+0.2
PYL				*e*SB	Sg	14 46 05.0	+0.6
PYL	PYLOS	0.74	8	*e*Pb	Pg	14 45 54.9	+0.2
PYL				*e*Sb	Sg	14 46 05.0	+0.6
ITM	Ithomi	1.05	14	*e*PN	Pg	14 46 01.5	+0.9
ITM				*e*SB	Sg	14 46 15.8	+1.6
ITM	Ithomi	1.05	14	*e*Pn	Pg	14 46 01.5	+0.9
ITM				*e*Sb	Sg	14 46 15.8	+1.6
KYTH	Kithira	1.15	84	*e*PB	Pg	14 46 02.6	0.0
KYTH	Kithira	1.15	84	*e*Pb	Pg	14 46 02.6	0.0
VLI	Veliai	1.20	62	*e*PG	Pg	14 46 03.1	-0.4
VLI				*e*SB	Sg	14 46 20.8	+1.7
VLI	Veliai	1.20	62	*e*Pg	Pg	14 46 03.1	-0.4
VLI				*e*Sb	Sg	14 46 20.8	+1.7
VLX	Vlachokerasia	1.35	27	*e*PG	Pg	14 46 05.7	-0.8
VLX				*e*SB	Sb	14 46 24.3	+0.4
VLX	Vlachokerasia	1.35	27	*e*Pg	Pg	14 46 05.7	-0.8
VLX				*e*Sb	Sb	14 46 24.3	+0.4
GUR	Goura	1.86	18	*e*PG	Pn	14 46 15.4	+2.3
GUR	Goura	1.86	18	*e*Pg	Pn	14 46 15.4	+2.3
RLS	Riolos of Patr	1.90	356	*e*PN	Pn	14 46 16.7	+3.2
RLS	Riolos of Patr	1.90	356	*e*Pn	Pn	14 46 16.7	+3.2
LTK	Loutraki	2.15	30	*e*PN	Pn	14 46 19.0	+2.0
LTK	Loutraki	2.15	30	*e*Pn	Pn	14 46 19.0	+2.0
VLY	Voula,Athens	2.42	45	*e*PN	Pn	14 46 24.3	+3.5
VLY	Voula,Athens	2.42	45	*e*Pn	Pn	14 46 24.3	+3.5

IDC ***21*** *14:46:30.3±0.9, 41°.22N×114°.98W, h0^{km}, mb3.1/1, mb1 3.6/4, mb1mx3.4/22, mbtmp3.1/4, ML3.5/2, MS3.5/1, Ms1 3.5/1, ms1mx3.3/18, Error ellipse: s-maj=13.8km s-min=5.0km az=131.0*
ISCJB ***21*** *14:46:31.2±0.2, 41°.15N±0°.02×114°.91W±0°.02, h10^{km}, Error ellipse: s-maj=2.4km s-min=2.1km az=135.5*
NEIC ***21*** *14:46:31.0, 41°.16N×114°.93W, h4^{km}, ML3.1, After REN.*

ISC 21 14:46:31.5±0.2, 41°.15N±0°.02×114°.92W±0°.02, h10^{km}, n67, σ1^{s}.05/90, 21C-19D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.31	198	P	Pg	14 46 37.5	-0.1
	baz=0.3,SNR=23						
N12A				⇑S	Sg	14 46 42.2	+0.4
	baz=0.3						
ELK	Elko	0.47	211	Pg	Pg	14 46 40.6	-0.1
	169nm,0.3s,baz=15,slow=18,SNR=28						
ELK				Lg		14 46 46.5	
	169nm,0.3s,baz=124,slow=18,SNR=47						
ELK	Elko	0.47	211	*e*P	Pg	14 46 40.2	-0.5
ELK				*e*S	Sg	14 46 46.7	-0.2
N13A	Wendover, West	0.61	118	⇑P	Pg	14 46 42.7	-0.7
	baz=0.6,SNR=27						
N13A				⇓S	Sg	14 46 51.1	-0.3
	baz=0.6						
N11A	Elko Archery C	0.70	242	⇑P	Pg	14 46 45.2	+0.1
	baz=0.7,SNR=10						
N11A				⇓S	Sg	14 46 54.0	-0.3
	baz=0.7						
M11A	Holland Ranch,	0.72	294	⇑S	Sg	14 46 54.4	-0.4
	baz=0.7						
O12A	Currie	0.89	172	⇑P	Pg	14 46 48.1	-0.5
	baz=0.9,SNR=14						
O12A				⇓S	Sg	14 47 00.2	+0.1
	baz=0.9						
L12A	House Creek Ra	1.00	356	⇓S	Sg	14 47 02.9	-0.9
	baz=1.0						
O11A	Cowboy Ranch,	1.16	209	⇑P	Pb	14 46 53.8	+0.2
	baz=1.2,SNR=10						
O11A				⇓S	Sb	14 47 08.4	-0.3
	baz=1.2						
L13A	Double Diamond	1.19	37	⇑S	Sb	14 47 08.2	-1.3
	baz=1.2						
L11A	Cat Creek Ranc	1.20	329	⇓P	Pb	14 46 53.0	-1.3
	baz=1.2,SNR=13						
L11A				⇓S	Sb	14 47 08.7	-1.1
	baz=1.2						
M14A	Sheep Mountain	1.23	73	P	Pn	14 46 53.5	-1.3
	baz=1.2,SNR=9.5						
M14A				⇑S	Sb	14 47 09.7	-1.1
	baz=1.2						
O13A	Hicks Ranch, I	1.24	145	⇓P	Pn	14 46 54.3	-0.5
	baz=1.3,SNR=14						
M10A	I.L. Ranch, Tu	1.28	288	⇑S	Sb	14 47 12.5	+0.3
	baz=1.3						
N10A	Dunphy	1.28	251	⇓S	Sb	14 47 12.2	0.0
	baz=1.3						
N14A	Grayback Hills	1.34	102	⇑P	Pn	14 46 55.2	-1.0
	baz=1.4,SNR=7.5						
N14A				⇑S	Sb	14 47 13.6	-0.3
	baz=1.4						
BGU	Big Grassy Mou	1.44	98	*e*Pn	Pn	14 46 57.0	-0.7
BGU				*e*Sn	Sn	14 47 15.9	-0.8
O10A	Cortez Mining,	1.48	235	⇓P	Pn	14 46 57.8	-0.3
	baz=1.5,SNR=11						
O10A				⇓S	Sn	14 47 18.1	+0.6
	baz=1.5						
K12A	Draper Farm, C	1.49	0	⇓P	Pn	14 46 57.5	-0.8
	baz=1.5,SNR=16						
K12A				⇑S	Sn	14 47 16.3	-1.4
	baz=1.5						
L10A	Juniper Basin	1.49	309	⇓P	Pn	14 46 57.7	-0.7
	baz=1.5,SNR=14						
L10A				⇓S	Sn	14 47 17.7	-0.2
	baz=1.5						
L14A	Malta	1.54	54	⇓P	Pn	14 46 58.4	-0.6
	baz=1.5,SNR=10.0						
L14A				⇑S	Sn	14 47 18.8	-0.2
	baz=1.5						
K13A	Stover Farm, H	1.62	22	⇑P	Pn	14 46 59.5	-0.7
	baz=1.6						
K13A				⇓S	Sn	14 47 20.8	-0.4
	baz=1.6						
P12A	McGill	1.67	180	⇑P	Pn	14 47 00.7	-0.1
	baz=1.7						
P11A	Circle Ranch,	1.72	202	⇑S	Sn	14 47 25.0	+1.6
	baz=1.7						
HVU	Hansel Valley	1.73	68	*e*Pn	Pn	14 47 02.7	+1.1
HVU				*e*Sn	Sn	14 47 24.7	+1.0
K11A	Parker Ranch,	1.82	333	⇓P	Pn	14 47 02.1	-0.8
	baz=1.8,SNR=15						
K11A				⇑S	Sn	14 47 27.0	+1.0
	baz=1.8						
N15A	Stansbury Isla	1.83	97	⇑P	Pn	14 47 02.6	-0.4
	baz=1.8,SNR=16						
DUG	Dugway	1.86	120	⇑P	Pn	14 47 04.9	+1.5
	baz=1.9,SNR=21						
DUG	Dugway	1.86	120	*e*Pn	Pn	14 47 02.8	-0.6
SPUT	South Promonto	1.87	84	*e*Pn	Pn	14 47 03.7	+0.2
M15A	Larsen Ranch,	1.89	80	⇓P	Pn	14 47 03.5	-0.3
	baz=1.9,SNR=18						
P10A	Eureka	1.93	218	⇓P	Pn	14 47 04.5	+0.2
	baz=1.9						
J12A	Stokes Ranch,	2.11	356	⇑P	Pn	14 47 07.0	+0.2
	baz=2.1,SNR=19						
NOQ	North Oquirrh	2.18	102	*e*Pn	Pn	14 47 08.9	+1.2
J13A	Cove Ranch, Pi	2.32	14	⇑P	Pn	14 47 10.1	+0.5
	baz=2.3,SNR=19						
CTU	Camp Tracy	2.44	100	*e*Pn	Pn	14 47 11.6	+0.2
HLID	Hailey	2.44	9	*e*Pn	Pn	14 47 11.8	+0.4
HLID				*e*Sg	Sg	14 47 44.6	-5.3
NLU	North Lily Min	2.47	118	*e*Pn	Pn	14 47 13.3	+1.5
JLU	Jordanelle	2.68	101	*e*Pg	Pg	14 47 19.1	-3.9
MPU	Maple Canyon	2.74	113	*e*Pg	Pg	14 47 22.7	-1.4
DAU	Daniels Canyon	2.87	104	*e*Pn	Pn	14 47 17.8	+0.5
AHID	Auburn Hatcher	3.27	59	*e*Pn	Pn	14 47 24.9	+2.1
MSU	Marysvale	3.37	140	*e*Pn	Pn	14 47 23.0	-1.2
TMUT	Trail Mountain	3.39	122	*e*Pn	Pn	14 47 23.1	-1.3
RRI2	Red Ridge	3.46	49	*e*Pn	Pn	14 47 24.0	-1.4
DCID1	Drake Creek	3.69	47	*e*Pn	Pn	14 47 31.3	+2.7
DCID1				*e*Sg	Sg	14 48 25.8	-4.2
REDW	Red Top Meadow	3.74	52	*e*Pn	Pn	14 47 31.9	+2.6
TPAW	Teton Pass	3.76	50	*e*Pn	Pn	14 47 31.2	+1.8
NVAR	Mina Array Bea	3.77	225	Pn	Pn	14 47 29.7	+0.1
	3.0nm,0.3s,baz=37,slow=14,SNR=9.5						
NVAR				Pg	Pg	14 47 37.4	-6.3
	4.9nm,0.3s,baz=45,slow=12,SNR=7.3						
NVAR				Lg		14 48 31.3	
	20nm,0.3s,baz=55,slow=29,SNR=8.8						
NVAR	Mina Array Bea	3.77	225	Pn	Pn	14 47 29.7	+0.1
NVAR				Pg	Pg	14 47 37.4	-6.3
NVAR				Lg		14 48 31.3	
SNOW	Snow King Moun	3.86	52	*e*Pn	Pn	14 47 32.8	+2.0
SRU	San Rafael	3.93	120	*e*Pn	Pn	14 47 32.9	+1.0
SRU				*e*Pg	Pg	14 47 44.0	-2.9
MCMT	McKenzie Canyo	3.98	22	*e*Pn	Pn	14 47 34.5	+2.0
IMW	Indian Meadow	4.02	46	*e*Pn	Pn	14 47 34.7	+1.5
LOHW	Long Hollow	4.03	51	*e*Pn	Pn	14 47 36.4	+3.1
MOOW	Moose Ponds	4.04	49	*e*Pn	Pn	14 47 34.1	+0.8
BW06	Boulder Array	4.31	66	*e*Pb	Pb	14 47 47.1	-0.2
PDAR	Pinedale Array	4.31	66	Pn	Pn	14 47 39.4	+2.3
	0.3nm,0.3s,baz=222,slow=13,SNR=5.4						
PDAR				Pg	Pg	14 47 46.9	-7.2
	0.6nm,0.3s,baz=237,slow=12,SNR=6.8						
PDAR				Lg		14 48 47.0	
	1.3nm,0.3s,baz=212,slow=17,SNR=7.7						
PDAR				LR	LR	14 49 34.6	
	comp=Z,597nm,19.8s,baz=118,slow=43						
YFT	Old Faithful	4.46	41	*e*Pg	Pg	14 47 53.0	-4.0
QLMT	Earthquake Lak	4.48	34	*e*Pn	Pg	14 47 50.4	-7.0
LRM	Limekiln Ridge	5.00	20	Pn	Pn	14 47 48.3	+1.7
LRM				*e*Sg	Sg	14 49 06.2	-6.0
BOZ	Bozeman (W)	5.09	27	*e*Pn	Pg	14 48 01.1	-8.0
YBH	Yreka Blue Hor	5.89	278	Lg		14 49 35.2	
	0.2nm,0.3s,baz=355,slow=15,SNR=5.5						
LDFC	Landfair	6.06	182	*e*Pn	Pn	14 48 00.7	-0.4
WUAZ	Wupatki	6.27	153	*e*Pg	Pg	14 48 27.8	-3.8
TXAR	Lajitas Array	14.93	139	Pn	Pn	14 50 07.1	+4.6
	0.0nm,0.3s,baz=305,slow=11,SNR=3.5						
YKA	Yellowknife Ar	21.38	0	P	P	14 51 18.6	-0.2
	0.8nm,0.8s,baz=180,slow=10.0,SNR=14						

DJA 21 14:47:47, 1°.26N×122°.05E, h30^{km}, MLv3.8/4, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMSI	Cibinong	2.05	109	P	Pn	14 48 19.4	0.0
APSI	Ampana	2.19	191	P	Pn	14 48 23.0	+1.6
MNI	Manado	2.79	86	P	Pn	14 48 31.4	+1.7
PCI	Palu	3.09	226	P	Pn	14 48 34.1	+0.4

DJA 21 14:58:54, 2°.83S×129°.37E, h10^{km}, MLv3.7/6, 1D, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSAI	Masohi	0.68	221	P	Pg	14 59 06.6	-0.5
MSAI				S	Sg	14 59 13.2	-2.8
AAI	Ambon	1.45	234	⇓*e*P	Pn	14 59 19.9	-0.4
AAI				*e*S	Sn	14 59 34.8	-4.6
AAI	Ambon	1.45	234	P	Pn	14 59 19.8	-0.5
NLAI	Namlea	2.30	260	P	Pn	14 59 33.2	+1.2
LBMI	Labuha	2.87	319	P	Pn	14 59 43.1	+3.3
LBMI				S	Sn	15 00 16.0	+1.6
TLE	Tual	4.37	130	P	Pn	15 00 01.1	+0.7
APSI	Ampana	7.95	284	P	Pn	15 00 50.9	+1.2

ISCJB ***21*** *14:59:05.5±0.5, 41°.12N±0°.01×114°.92W±0°.02, h5^{km}±3^{km}, Error ellipse: s-maj=2.3km s-min=2.2km az=157.8*
IDC ***21*** *14:59:05.7±1.0, 41°.17N×115°.00W, h0^{km}, mb2.6/1, mb1 3.3/3, mb1mx3.2/21, mbtmp2.9/3, ML3.2/2, Error ellipse: s-maj=18.4km s-min=5.2km az=131.0*
NEIC ***21*** *14:59:06.3, 41°.12N×114°.92W, h4^{km}, ML2.8, After REN.*

ISC 21 14:59:05.8±0.3, 41°.13N±0°.01×114°.93W±0°.02, h3^{km}±3^{km}, n90, σ0^{s}.91/120, 38C-43D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.29	197	⇑P	Pg	14 59 12.1	+0.7
	baz=0.3,SNR=17						
N12A				⇓S	Sg	14 59 16.3	+1.2
	baz=0.3						
ELK	Elko	0.45	212	Pg	Pg	14 59 14.8	+0.3
	28nm,0.3s,baz=22,slow=14,SNR=13						
ELK				Lg		14 59 20.6	
	116nm,0.3s,baz=88,slow=14,SNR=73						
ELK	Elko	0.45	212	*e*Pg	Pg	14 59 14.5	+0.1
ELK				*e*Sg	Sg	14 59 19.9	-0.4
N13A	Wendover, West	0.61	116	⇓P	Pg	14 59 17.8	+0.3
	baz=0.6,SNR=47						
N13A				⇓S	Sg	14 59 25.8	+0.4
	baz=0.6						
M13A	Montello	0.62	68	⇑S	Sg	14 59 26.3	+0.5
	baz=0.6						
N11A	Elko Archery C	0.69	243	⇑P	Pg	14 59 19.4	+0.4
	baz=0.7,SNR=21						
N11A				⇓S	Sg	14 59 28.4	+0.5
	baz=0.7						
M11A	Holland Ranch,	0.72	295	⇓P	Pg	14 59 19.9	+0.3
	baz=0.7,SNR=23						
M11A				⇑S	Sg	14 59 29.6	+0.7
	baz=0.7						
O12A	Currie	0.87	171	⇓P	Pg	14 59 22.4	-0.1
	baz=0.9,SNR=32						
O12A				⇑S	Sg	14 59 34.4	+0.7
	baz=0.9						
L12A	House Creek Ra	1.02	356	⇑P	Pg	14 59 25.2	-0.1
	baz=1.0						
L12A				⇓S	Sg	14 59 38.9	+0.3
	baz=1.0						
O11A	Cowboy Ranch,	1.14	209	⇓P	Pg	14 59 27.7	0.0
	baz=1.1,SNR=51						
O11A				⇓S	Sg	14 59 42.5	+0.1
	baz=1.1						
L11A	Cat Creek Ranc	1.21	329	⇑P	Pg	14 59 28.4	-0.6
	baz=1.2						
L11A				⇓S	Sg	14 59 44.3	-0.4
	baz=1.2						
L13A	Double Diamond	1.21	37	⇓P	Pg	14 59 28.2	-0.8
	baz=1.2,SNR=10.0						
L13A				⇓S	Sg	14 59 44.1	-0.6
	baz=1.2						
O13A	Hicks Ranch, I	1.23	144	⇓P	Pg	14 59 29.0	-0.4
	baz=1.2,SNR=26						
O13A				⇓S	Sg	14 59 45.7	+0.4
	baz=1.2						
M14A	Sheep Mountain	1.25	72	⇑P	Pg	14 59 28.6	-1.1
	baz=1.2,SNR=36						
M14A				⇓S	Sg	14 59 45.4	-0.5
	baz=1.2						
N10A	Dunphy	1.27	252	⇓P	Pg	14 59 29.3	-0.8
	baz=1.3,SNR=9.9						
N10A				⇓Sb	Sb	14 59 47.3	+0.3
	baz=1.3						
M10A	I.L. Ranch, Tu	1.28	288	⇑P	Pg	14 59 29.8	-0.5
	baz=1.3,SNR=22						
M10A				⇑Sb	Sb	14 59 47.9	+0.5
	baz=1.3						
N14A	Grayback Hills	1.35	101	⇓P	Pn	14 59 30.1	-1.4
	baz=1.3,SNR=23						
N14A				⇓S	Sg	14 59 48.4	-0.6
	baz=1.3						
BGU	Big Grassy Mou	1.45	97	*e*Pn	Pn	14 59 31.4	-1.6
BGU				*e*Sn	Sn	14 59 49.6	-2.8
O10A	Cortez Mining,	1.46	236	⇓P	Pn	14 59 32.5	-0.6
	baz=1.5,SNR=28						
O10A				⇑Sb	Sb	14 59 52.7	+0.1
	baz=1.5						
L10A	Juniper Basin	1.50	310	⇓P	Pn	14 59 33.0	-0.6
	baz=1.5,SNR=32						
L10A				⇑Sb	Sb	14 59 53.4	-0.3
	baz=1.5						
K12A	Draper Farm, C	1.51	1	⇓P	Pn	14 59 32.9	-0.8
	baz=1.5,SNR=17						
K12A				⇓S	Sn	14 59 52.2	-1.7
	baz=1.5						
L14A	Malta	1.56	54	⇓P	Pn	14 59 33.8	-0.7
	baz=1.6,SNR=13						
L14A				⇑Sb	Sb	14 59 54.9	-0.5
	baz=1.6						
K13A	Stover Farm, H	1.65	22	⇑P	Pn	14 59 35.3	-0.4
	baz=1.7,SNR=15						
P12A	McGill	1.65	179	⇓P	Pn	14 59 35.1	-0.6
	baz=1.6,SNR=44						
P11A	Circle Ranch,	1.70	202	⇓P	Pn	14 59 36.1	-0.2
	baz=1.7,SNR=18						
P11A				⇓Sb	Sb	14 59 59.4	0.0
	baz=1.7						
HVU	Hansel Valley	1.74	67	*e*Pn	Pn	14 59 36.4	-0.6
HVU				*e*Sn	Sn	14 59 59.5	-0.2
K11A	Parker Ranch,	1.84	334	⇑P	Pn	14 59 37.9	-0.4
	baz=1.8,SNR=33						
K11A				⇑Sb	Sb	15 00 03.0	-0.5
	baz=1.8						
N15A	Stansbury Isla	1.84	97	⇑P	Pn	14 59 37.4	-0.9
	baz=1.8,SNR=40						
DUG	Dugway	1.86	119	⇑P	Pn	14 59 37.3	-1.2
	baz=1.8,SNR=31						
DUG	Dugway	1.86	119	*e*Pn	Pn	14 59 37.6	-1.0
DUG				*e*Sn	Sn	15 00 02.5	-0.1
BMN	Battle Mountai	1.88	249	*e*Pn	Pn	14 59 37.8	-1.0
BMN				*e*Sg	Sg	15 00 05.1	-1.0
SPUT	South Promonto	1.88	84	*e*Pn	Pn	14 59 39.0	+0.1
SPUT				*e*Sn	Sn	15 00 03.1	+0.1
M15A	Larsen Ranch,	1.90	79	⇑P	Pn	14 59 38.8	-0.3
	baz=1.9,SNR=39						
P10A	Eureka	1.91	218	⇑P	Pn	14 59 39.0	-0.3
	baz=1.9,SNR=17						
K14A	Jones Ranch, D	1.93	42	⇑P	Pn	14 59 39.4	-0.2
	baz=1.9,SNR=14						
N09A	Rock Creek Ran	1.99	263	⇑P	Pn	14 59 39.2	-1.1
	baz=2.0,SNR=15						
O15A	The Old Anders	2.05	114	⇓Pb	Pb	14 59 42.7	-1.0
	baz=2.0						
Q12A	Willow Creek R	2.09	178	⇑P	Pn	14 59 41.1	-0.7
	baz=2.1						
P14A	Drum Mountains	2.09	137	⇑P	Pn	14 59 40.7	-1.1
	baz=2.1,SNR=14						
L15A	Malad City	2.10	65	⇓P	Pn	14 59 41.5	-0.4
	baz=2.1,SNR=18						
J12A	Stokes Ranch,	2.12	357	⇓P	Pn	14 59 42.4	+0.1
	baz=2.1,SNR=25						
NOQ	North Oquirrh	2.18	102	*e*Pn	Pn	14 59 44.4	+1.4
NOQ				*e*Sn	Sn	15 00 14.1	+3.6
K10A	MacKenzie Ranc	2.19	319	⇓Pb	Pb	14 59 44.5	-1.7
	baz=2.2,SNR=24						
Q13A	Wheeler Ranch,	2.28	162	⇓P	Pn	14 59 43.6	-0.7
	baz=2.3,SNR=24						
J13A	Cove Ranch, Pi	2.34	14	⇑P	Pn	14 59 45.6	+0.5
	baz=2.3,SNR=30						
Q11A	Duckwater	2.35	194	⇓P	Pn	14 59 44.9	-0.4
	baz=2.3,SNR=15						
K15A	Arbon	2.37	48	⇓P	Pn	14 59 45.7	+0.1
	baz=2.4,SNR=19						
MFID	Camas Ranch	2.38	344	⇓P	Pn	14 59 46.7	+1.0
	baz=2.4,SNR=18						
J14A	Carey	2.43	25	⇓P	Pn	14 59 47.0	+0.6
	baz=2.4,SNR=23						
N08A	GE Springer Mi	2.45	263	⇓P	Pn	14 59 45.5	-1.3
	baz=2.5						
HLID	Hailey	2.46	9	⇑P	Pn	14 59 47.6	+0.7
	baz=2.5,SNR=36						
HLID	Hailey	2.46	9	*e*Pn	Pn	14 59 46.8	-0.1
HLID				*e*Sn	Sn	15 00 21.1	+3.7
NLU	North Lily Min	2.47	117	*e*Pn	Pn	14 59 48.5	+1.5
NLU				*e*Sn	Sn	15 00 16.5	-1.1
P15A	Leamington	2.55	127	⇓P	Pn	14 59 46.9	-1.3
	baz=2.5,SNR=12						
Q10A	Clear Creek Ra	2.56	207	⇑P	Pn	14 59 48.0	-0.3
	baz=2.6,SNR=19						
K09A	Rome	2.61	308	⇓P	Pn	14 59 50.6	+1.7
	baz=2.6,SNR=44						
I12A	Atlanta	2.67	357	⇑P	Pn	14 59 51.0	+1.3
	baz=2.7,SNR=29						
MPU	Maple Canyon	2.74	113	*e*Pn	Pn	14 59 52.3	+1.6
L08A	Fields	2.77	294	⇑P	Pn	14 59 53.8	+2.7
	baz=2.8						
P08A	Dixie Valley	2.80	240	⇓P	Pn	14 59 51.1	-0.4
	baz=2.8,SNR=8.0						
R11A	Troy Canyon, C	2.82	191	⇑P	Pn	14 59 51.3	-0.5
	baz=2.8,SNR=13						
I13A	Wildhorse Cree	2.85	12	⇑P	Pn	14 59 53.2	+1.0
	baz=2.9,SNR=15						
Q09A	Carvers	2.87	218	⇑P	Pn	14 59 52.8	+0.3
	baz=2.9,SNR=8.0						
DAU	Daniels Canyon	2.88	103	*e*Pn	Pn	14 59 53.5	+0.9
R10A	Warm Springs	3.03	201	⇑P	Pn	14 59 55.5	+0.8
	baz=3.0,SNR=5.6						
R13A	O’Grain Ranch,	3.04	166	⇑P	Pn	14 59 54.9	+0.2
	baz=3.0,SNR=12						
WVOR	Wild Horse Val	3.07	296	*e*Pn	Pn	14 59 57.8	+2.6
O07A	Toulon	3.16	253	⇑P	Pn	14 59 55.3	-1.1
	baz=3.2,SNR=8.6						
MSU	Marysvale	3.36	140	*e*Pn	Pn	15 00 01.3	+2.0
TMUT	Trail Mountain	3.38	122	*e*Pn	Pn	15 00 01.8	+2.3
S10A	Tonopah Range,	3.45	202	⇓P	Pn	15 00 00.6	+0.1
	baz=3.4,SNR=8.6						
RRI2	Red Ridge	3.48	49	*e*Pn	Pn	15 00 01.6	+0.7
ARUT	Antelope Range	3.53	160	P	Pn	15 00 02.1	+0.6
S11A	Rachel	3.54	191	⇑P	Pn	15 00 01.8	+0.2
	baz=3.5,SNR=6.2						
S13A	Holt Ranch, En	3.64	167	⇓P	Pn	15 00 02.9	-0.1
	baz=3.6,SNR=16						
N06A	Buffalo Meadow	3.74	266	⇓P	Pn	15 00 03.6	-0.8
	baz=3.7,SNR=6.1						
NVAR	Mina Array Bea	3.75	225	Pn	Pn	15 00 04.4	-0.1
	1.5nm,0.3s,baz=45,slow=14,SNR=9.9						
NVAR				Lg		15 01 03.5	
	11nm,0.3s,baz=42,slow=31,SNR=13						
REDW	Red Top Meadow	3.76	52	*e*Pn	Pn	15 00 05.3	+0.6
CCUT	Cedar City	3.77	161	*e*Pn	Pn	15 00 04.6	-0.3
TPAW	Teton Pass	3.78	50	*e*Pn	Pn	15 00 05.5	+0.5
T11A	Corn Creek, Al	3.89	183	⇑P	Pn	15 00 06.4	-0.1
	baz=3.9,SNR=16						
SRU	San Rafael	3.93	119	*e*Pn	Pn	15 00 08.4	+1.4
MCMT	McKenzie Canyo	4.00	22	*e*Pn	Pn	15 00 08.8	+0.8
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	15 00 08.8	+0.2
LOHW	Long Hollow	4.05	51	*e*Pn	Pn	15 00 10.2	+1.5
BMO	Blue Mountains	4.11	336	*e*Pn	Pn	15 00 12.0	+2.5
PDAR	Pinedale Array	4.33	66	Pn	Pn	15 00 14.9	+2.4
	0.2nm,0.3s,baz=238,slow=11,SNR=11						
PDAR				Pg	Pg	15 00 23.6	-5.1
	0.3nm,0.3s,baz=243,slow=14,SNR=6.1						
PDAR				Lg		15 01 22.2	
	1.1nm,0.3s,baz=249,slow=31,SNR=10						
BEKR	Beckwourth	4.33	255	P	Pn	15 00 11.9	-0.6
	baz=4.3,SNR=20						
V12A	Nelson	5.39	179	⇑P	Pn	15 00 27.4	+0.2
	baz=5.4,SNR=8.7						
YKA	Yellowknife Ar	21.40	0	P	P	15 03 54.9	+0.4
	0.2nm,0.7s,baz=179,slow=9.9,SNR=4.9						

ISCJB ***21*** *15:06:08.1±0.4, 41°.12N±0°.01×114°.89W±0°.02, h6^{km}±3^{km}, Error ellipse: s-maj=2.4km s-min=2.0km az=150.8*
NEIC ***21*** *15:06:08.0, 41°.13N×114°.92W, h9^{km}, ML3.0, After REN.*
IDC ***21*** *15:06:08.4±0.9, 41°.18N×114°.99W, h0^{km}, mb2.6/1, mb1 3.4/4, mb1mx3.3/22, mbtmp2.9/4, ML3.4/3, Error ellipse: s-maj=15.5km s-min=4.7km az=131.0*

ISC 21 15:06:08.4±0.3, 41°.13N±0°.01×114°.90W±0°.02, h6^{km}±3^{km}, n85, σ1^{s}.07/114, 34C-31D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.30	200	P	Pg	15 06 15.0	+0.8
	baz=0.3,SNR=70						
N12A				⇓S	Sg	15 06 19.4	+1.2

	baz=0.3						
ELK	Elko 51nm,0.3s,baz=23,slow=14,SNR=27	0.47	214	Pg	Pg	15 06 17.8	+0.4
ELK	264nm,0.3s,baz=122,slow=13,SNR=93			Lg		15 06 23.3	
ELK	Elko	0.47	214	*e*Pg	Pg	15 06 17.3	0.0
ELK				*e*Sg	Sg	15 06 23.4	0.0
N13A	Wendover, West baz=0.6,SNR=30	0.60	118	⇑P	Pg	15 06 20.3	+0.5
N13A	baz=0.6			⇓S	Sg	15 06 28.2	+0.6
M13A	Montello baz=0.6	0.60	68	⇑S	Sg	15 06 28.4	+0.7
N11A	Elko Archery C baz=0.7,SNR=23	0.71	244	⇓P	Pg	15 06 22.3	+0.3
N11A	baz=0.7			⇑S	Sg	15 06 31.5	+0.4
M11A	Holland Ranch, baz=0.7	0.73	294	⇑P	Pg	15 06 22.6	+0.1
M11A	baz=0.7			⇓S	Sg	15 06 32.7	+0.7
O12A	Currie baz=0.9,SNR=18	0.87	172	⇑P	Pg	15 06 25.3	+0.1
O12A	baz=0.9			⇑S	Sg	15 06 37.2	+0.7
L12A	House Creek Ra baz=1.0	1.01	355	⇑P	Pg	15 06 27.5	-0.3
L12A	baz=1.0			⇓S	Sg	15 06 41.5	+0.5
O11A	Cowboy Ranch, baz=1.1,SNR=19	1.16	210	⇑Pb	Pb	15 06 30.8	+0.2
O11A	baz=1.1			⇓S	Sg	15 06 45.4	-0.1
L13A	Double Diamond baz=1.2	1.19	37	⇑Pb	Pb	15 06 30.9	-0.4
L13A	baz=1.2			⇓S	Sg	15 06 46.5	-0.3
L11A	Cat Creek Ranc baz=1.2	1.21	328	⇑P	Pg	15 06 30.5	-1.1
L11A	baz=1.2			⇑S	Sg	15 06 47.0	-0.4
O13A	Hicks Ranch, I baz=1.2,SNR=16	1.22	145	⇑Pb	Pb	15 06 31.6	-0.2
M14A	Sheep Mountain baz=1.2	1.23	72	⇓P	Pg	15 06 30.8	-1.1
M14A	baz=1.2			⇓S	Sg	15 06 47.5	-0.3
N10A	Dunphy baz=1.3	1.29	252	⇓Pb	Pb	15 06 32.7	-0.3
N10A	baz=1.3			⇑Sb	Sb	15 06 49.8	+0.1
M10A	I.L. Ranch, Tu baz=1.3	1.29	288	⇓Sb	Sb	15 06 50.2	+0.3
N14A	Grayback Hills baz=1.3	1.33	102	⇓Pb	Pb	15 06 32.9	-0.8
N14A	baz=1.3			⇓Sb	Sb	15 06 51.0	+0.1
BGU	Big Grassy Mou	1.43	98	*e*Pn	Pn	15 06 34.6	-0.1
BGU				*e*Sn	Sn	15 06 51.3	-2.6
O10A	Cortez Mining, baz=1.5,SNR=11	1.48	236	⇓Pb	Pb	15 06 35.4	-0.8
O10A	baz=1.5			⇑Sb	Sb	15 06 55.4	+0.2
K12A	Draper Farm, C baz=1.5,SNR=12	1.50	360	⇓Pb	Pb	15 06 36.0	-0.6
K12A	baz=1.5			⇓S	Sn	15 06 54.5	-1.1
L10A	Juniper Basin baz=1.5,SNR=7.8	1.51	309	⇑Pb	Pb	15 06 36.1	-0.6
L10A	baz=1.5			⇑Sb	Sb	15 06 56.2	+0.2
L14A	Malta baz=1.5,SNR=7.0	1.54	54	⇓Pb	Pb	15 06 36.3	-0.9
L14A	baz=1.5			⇑Sb	Sb	15 06 56.7	-0.1
K13A	Stover Farm, H baz=1.6	1.63	22	⇑Sb	Sb	15 06 59.3	-0.3
P12A	McGill baz=1.7,SNR=19	1.66	180	⇑Pb	Pb	15 06 37.8	-1.5
P11A	Circle Ranch, baz=1.7,SNR=7.6	1.71	203	⇓Pb	Pb	15 06 39.0	-1.2
P11A	baz=1.7			⇑Sb	Sb	15 07 02.2	+0.4
HVU	Hansel Valley	1.72	67	*e*Pn	Pn	15 06 35.6	-3.2
HVU				*e*Sn	Sn	15 07 00.9	-0.1
N15A	Stansbury Isla baz=1.8,SNR=18	1.82	97	⇑Pb	Pb	15 06 40.9	-1.0
K11A	Parker Ranch, baz=1.8,SNR=22	1.84	333	⇓P	Pn	15 06 39.1	-1.3
K11A	baz=1.8			⇑Sb	Sb	15 07 05.7	+0.1
DUG	Dugway baz=1.8	1.84	120	⇓Sb	Sb	15 07 05.7	0.0
DUG	Dugway	1.84	120	*e*Pg	Pg	15 06 39.8	-3.9
SPUT	South Promonto	1.86	84	*e*Pn	Pn	15 06 40.0	-0.6
M15A	Larsen Ranch, baz=1.9,SNR=12	1.88	79	⇓P	Pn	15 06 39.7	-1.2
M15A	baz=1.9			⇓Sb	Sb	15 07 06.6	0.0
BMN	Battle Mountai	1.90	249	*e*Pn	Pn	15 06 40.6	-0.6
K14A	Jones Ranch, D baz=1.9,SNR=10	1.91	42	⇓Pb	Pb	15 06 42.7	-0.8
K14A	baz=1.9			⇑Sb	Sb	15 07 07.7	+0.1
P10A	Eureka baz=1.9,SNR=12	1.93	219	⇓Pb	Pb	15 06 42.0	-1.8
P10A	baz=1.9			⇑Sb	Sb	15 07 08.0	-0.1
M09A	Marrel Ranch, baz=1.9,SNR=28	1.94	279	⇑Pb	Pb	15 06 43.1	-1.0
M09A	baz=1.9			⇑Sb	Sb	15 07 09.0	+0.4
O09A	Fish Creek Ran baz=2.0	1.99	242	⇑Sb	Sb	15 07 10.2	+0.3
N09A	Rock Creek Ran baz=2.0,SNR=17	2.01	263	⇑Pb	Pb	15 06 44.3	-0.9
N09A	baz=2.0			⇓S	Sn	15 07 07.1	-0.9
L15A	Malad City baz=2.1	2.08	64	⇑Sb	Sb	15 07 12.9	+0.5
J12A	Stokes Ranch, baz=2.1,SNR=32	2.12	356	⇓Pb	Pb	15 06 45.4	-1.7
J12A	baz=2.1			⇑Sb	Sb	15 07 13.5	-0.1
NOQ	North Oquirrh	2.16	102	*e*Pn	Pn	15 06 44.8	0.0
K10A	MacKenzie Ranc baz=2.2,SNR=22	2.20	319	⇓Pb	Pb	15 06 47.1	-1.5
L09A	Wilkinson Ranc baz=2.2,SNR=18	2.26	294	⇓Pb	Pb	15 06 48.0	-1.5
Q13A	Wheeler Ranch, baz=2.3,SNR=9.5	2.28	162	P	Pn	15 06 46.4	0.0
J13A	Cove Ranch, Pi baz=2.3,SNR=21	2.33	13	P	Pn	15 06 48.5	+1.4
Q11A	Duckwater baz=2.4,SNR=16	2.36	194	P	Pn	15 06 47.8	+0.3
MFID	Camas Ranch baz=2.4,SNR=14	2.38	344	⇑P	Pn	15 06 48.4	+0.6
J14A	Carey baz=2.4,SNR=19	2.42	25	⇓P	Pn	15 06 49.6	+1.2
HLID	Hailey baz=2.5,SNR=18	2.45	8	⇓P	Pn	15 06 50.5	+1.6
HLID	Hailey	2.45	8	*e*Pn	Pn	15 06 50.0	+1.1
NLU	North Lily Min	2.45	118	Pn	Pn	15 06 45.5	-3.3
Q10A	Clear Creek Ra baz=2.6,SNR=20	2.58	207	P	Pn	15 06 51.9	+1.3
K09A	Rome baz=2.6,SNR=55	2.62	308	⇓P	Pn	15 06 53.8	+2.6
MPU	Maple Canyon	2.73	113	*e*Pn	Pn	15 06 51.3	-1.3
L08A	Fields baz=2.8,SNR=51	2.79	293	P	Pn	15 06 56.6	+3.1
R11A	Troy Canyon, C baz=2.8,SNR=14	2.83	191	P	Pn	15 06 54.1	+0.1
I13A	Wildhorse Cree baz=2.8,SNR=14	2.84	12	P	Pn	15 06 55.9	+1.7
DAU	Daniels Canyon	2.86	103	Pn	Pn	15 06 54.2	-0.3
DAU				*e*Sn	Pg	15 07 03.1	-0.1
WVOR	Wild Horse Val	3.08	296	*e*Pn	Pn	15 07 01.1	+3.7
MSU	Marysvale	3.35	140	*e*Pn	Pn	15 06 57.8	-3.4
TMUT	Trail Mountain	3.37	122	*e*Pn	Pn	15 07 04.3	+2.9
RRI2	Red Ridge	3.46	49	*e*Pn	Pn	15 07 04.7	+2.1
S10A	Tonopah Range, baz=3.5,SNR=6.1	3.46	203	⇑P	Pn	15 07 03.1	+0.4
ARUT	Antelope Range	3.53	161	*e*Pn	Pn	15 07 02.5	-1.1
S11A	Rachel baz=3.5,SNR=12	3.55	191	⇑P	Pn	15 07 04.3	+0.4
S13A	Holt Ranch, En baz=3.6,SNR=14	3.64	167	⇑P	Pn	15 07 05.6	+0.4
REDW	Red Top Meadow	3.74	52	*e*Pn	Pn	15 07 10.5	+4.0
TPAW	Teton Pass	3.76	50	*e*Pn	Pn	15 07 09.4	+2.7
NVAR	Mina Array Bea 2.4nm,0.3s,baz=44,slow=14,SNR=28	3.76	225	Pn	Pn	15 07 07.2	+0.3
NVAR	4.1nm,0.3s,baz=50,slow=14,SNR=15			Pg	Pg	15 07 14.9	-5.5
NVAR	23nm,0.3s,baz=52,slow=32,SNR=15			Lg		15 08 08.0	
CCUT	Cedar City	3.77	161	*e*Pn	Pn	15 07 05.7	-1.2
T11A	Corn Creek, Al baz=3.9,SNR=13	3.90	184	P	Pn	15 07 09.2	+0.5
SRU	San Rafael	3.92	120	*e*Pn	Pn	15 07 09.4	+0.4
MCMT	McKenzie Canyo	3.99	21	*e*Pn	Pn	15 07 12.1	+2.2
IMW	Indian Meadow	4.02	45	*e*Pn	Pn	15 07 12.5	+2.1
LOHW	Long Hollow	4.03	51	*e*Pn	Pn	15 07 12.3	+1.8
MOOW	Moose Ponds	4.04	48	*e*Pn	Pn	15 07 13.1	+2.5
BMO	Blue Mountains	4.11	335	*e*Pn	Pn	15 07 17.5	+5.8
PDAR	Pinedale Array 0.2nm,0.3s,baz=236,slow=12,SNR=12	4.30	66	Pn	Pn	15 07 17.1	+2.8
PDAR	0.7nm,0.3s,baz=242,slow=14,SNR=14			Pg	Pg	15 07 27.0	-3.8
PDAR	1.1nm,0.3s,baz=239,slow=26,SNR=6.9			Lg		15 08 23.0	
BEKR	Beckwourth baz=4.3,SNR=14	4.35	255	P	Pn	15 07 14.9	0.0
DLMT	Dillon	4.55	21	*e*Pn	Pn	15 07 15.5	-2.1
LRM	Limekiln Ridge 13nm,0.6s	5.01	20	*e*Pn	Pn	15 07 29.5	+5.5
YBH	Yreka Blue Hor 0.3nm,0.3s,baz=338,slow=19,SNR=4.8	5.90	278	Lg		15 09 15.1	
TXAR	Lajitas Array 0.1nm,0.3s,baz=305,slow=11,SNR=3.4	14.91	139	Pn	Pn	15 09 47.2	+7.6
YKA	Yellowknife Ar 0.2nm,0.7s,baz=181,slow=10,SNR=7.2	21.39	0	P	P	15 10 57.2	+0.8
YKA	Yellowknife Ar	21.39	0	P	P	15 10 57.2	+0.8

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*NEIC **21** 15:11:46.0±0.8, 41.°28N×115.°06W, h5^{km}, ML3.2, Error ellipse: s-maj=13.1km s-min=8.4km az=147.0*

*IDC **21** 15:11:45.3±0.8, 40.°93N×114.°48W, h0^{km}, mb3.2/1, mb1 3.7/3, mb1mx3.4/21, mbtmp3.3/3, ML3.8/2, Error ellipse: s-maj=22.4km s-min=4.9km az=155.0*

*ISCJB **21** 15:11:47.7±0.2, 41.°17N±0.°01×114.°90W±0.°02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.7km az=164.0*

ISC 21 15:11:47.6±0.2**, 41.°17N**±0.°01×**114.°89W**±0.°02**, h10**^{km}**, n67,** σ**1.s11**/105**, 31C-22D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley, baz=0.3,SNR=18	0.33	199	⇑P	Pg	15 11 54.4	+0.2
N12A	baz=0.3			⇑S	Sg	15 11 59.4	+0.7
ELK	Elko 165nm,0.3s,baz=16,slow=15,SNR=16	0.50	212	Pg	Pg	15 11 57.7	+0.4
ELK	196nm,0.3s,baz=105,slow=15,SNR=24			Lg		15 12 04.0	
ELK	Elko	0.50	212	*e*Pn	Pg	15 11 55.5	-1.8
ELK				*e*Sg	Sg	15 12 03.9	+0.1
N13A	Wendover, West baz=0.6,SNR=33	0.61	121	⇑P	Pg	15 11 59.4	0.0
N13A	baz=0.6			⇑S	Sg	15 12 07.6	+0.2
M11A	Holland Ranch, baz=0.8	0.73	292	⇑S	Sg	15 12 11.0	-0.2
N11A	Elko Archery C baz=0.7,SNR=9.0	0.73	242	⇑P	Pg	15 12 01.9	+0.3
N11A	baz=0.7			⇑S	Sg	15 12 11.3	+0.1
O12A	Currie baz=0.9,SNR=8.9	0.91	173	⇑P	Pg	15 12 05.0	0.0
O12A	baz=0.9			⇑S	Sg	15 12 17.1	+0.3
L12A	House Creek Ra baz=1.0	0.98	355	⇑S	Sg	15 12 19.1	-0.2
L13A	Double Diamond baz=1.2	1.16	37	⇑S	Sb	15 12 24.2	-0.8
O11A	Cowboy Ranch, baz=1.2,SNR=13	1.19	210	⇓P	Pb	15 12 10.6	+0.4
O11A	baz=1.2			⇑S	Sb	15 12 25.8	+0.2
L11A	Cat Creek Ranc baz=1.2	1.19	327	⇓S	Sb	15 12 25.2	-0.5
M14A	Sheep Mountain baz=1.2,SNR=8.9	1.21	73	⇑P	Pn	15 12 09.6	-1.0
M14A	baz=1.2			⇑S	Sb	15 12 25.7	-0.6
O13A	Hicks Ranch, I baz=1.2,SNR=19	1.25	146	⇑P	Pn	15 12 10.9	-0.1
O13A	baz=1.2			⇓S	Sb	15 12 27.7	+0.4
M10A	I.L. Ranch, Tu baz=1.3	1.29	286	⇓S	Sb	15 12 29.0	+0.4
N10A	Dunphy baz=1.3	1.30	250	⇓S	Sb	15 12 29.0	0.0
N14A	Grayback Hills baz=1.3,SNR=6.6	1.33	103	⇓P	Pn	15 12 11.5	-0.7
N14A	baz=1.3			⇑S	Sb	15 12 30.0	+0.3
BGU	Big Grassy Mou	1.43	99	*e*Pn	Pn	15 12 13.0	-0.6
BGU				*e*Sn	Sn	15 12 32.2	-0.2
K12A	Draper Farm, C baz=1.5,SNR=12	1.47	360	⇓P	Pn	15 12 13.5	-0.6
K12A	baz=1.5			⇑S	Sn	15 12 32.3	-1.1
L10A	Juniper Basin baz=1.5,SNR=6.6	1.49	308	⇓P	Pn	15 12 13.5	-1.0
L10A	baz=1.5			⇑Sb	Sb	15 12 34.3	-0.1
O10A	Cortez Mining, baz=1.5,SNR=7.7	1.50	235	⇑Pb	Pb	15 12 14.7	-0.8
O10A	baz=1.5			⇑Sb	Sb	15 12 35.6	+0.9
L14A	Malta baz=1.5,SNR=8.4	1.51	55	⇓Pb	Pb	15 12 14.6	-1.1
L14A	baz=1.5			⇓Sb	Sb	15 12 34.8	-0.2
K13A	Stover Farm, H baz=1.6	1.60	22	⇓Sb	Sb	15 12 37.2	-0.3
P12A	McGill baz=1.7,SNR=14	1.69	180	⇑Pb	Pb	15 12 17.8	-1.0
P12A	baz=1.7			⇓S	Sn	15 12 38.8	-0.1
HVU	Hansel Valley	1.71	68	*e*Pn	Pn	15 12 17.0	-0.4
HVU				*e*Sn	Sn	15 12 40.7	+1.5
P11A	Circle Ranch, baz=1.7	1.74	202	⇑Pb	Pb	15 12 18.7	-1.0
P11A	baz=1.7			⇑Sb	Sb	15 12 42.6	+1.1
K11A	Parker Ranch, baz=1.9	1.81	332	⇓Pb	Pb	15 12 19.5	-1.4
K11A	baz=1.9			⇓Sb	Sb	15 12 43.7	0.0
N15A	Stansbury Isla baz=1.8,SNR=14	1.82	98	⇑Pb	Pb	15 12 19.8	-1.2
N15A	baz=1.8			⇑Sb	Sb	15 12 44.1	+0.4
SPUT	South Promonto	1.85	85	*e*Pn	Pn	15 12 20.1	+0.7
SPUT				*e*Sn	Sn	15 12 45.8	+3.0
DUG	Dugway baz=1.8,SNR=16	1.86	121	⇑Pb	Pb	15 12 20.7	-0.9
DUG	baz=1.8			⇓Sb	Sb	15 12 45.9	+1.1
DUG	Dugway	1.86	121	*e*Pn	Pn	15 12 20.4	+1.0
DUG				*e*Sn	Sn	15 12 44.7	+1.8
M15A	Larsen Ranch, baz=1.8,SNR=9.9	1.87	80	⇓Pb	Pb	15 12 20.0	-1.8
M15A	baz=1.8			⇑Sb	Sb	15 12 45.1	-0.1
BMN	Battle Mountai	1.91	248	*e*Pn	Pn	15 12 19.6	-0.7
BMN				*e*Sg	Sg	15 12 45.7	-3.4
M09A	Marrel Ranch, baz=2.0	1.94	278	⇑Sb	Sb	15 12 48.1	+0.8
O09A	Fish Creek Ran baz=2.0	2.01	241	⇓Sb	Sb	15 12 50.6	+1.3
N09A	Rock Creek Ran baz=2.0	2.02	262	⇓S	Sn	15 12 46.8	-0.2
L15A	Malad City baz=2.1	2.06	65	⇓Sb	Sb	15 12 51.0	+0.3
J12A	Stokes Ranch, baz=2.1	2.09	356	⇓Sb	Sb	15 12 51.4	-0.1
NOQ	North Oquirrh	2.16	103	*e*Pn	Pn	15 12 25.0	+1.3
K10A	MacKenzie Ranc baz=2.2	2.18	318	⇑Sb	Sb	15 12 54.1	-0.1
L09A	Wilkinson Ranc baz=2.3	2.25	293	⇑Sb	Sb	15 12 57.0	+0.9
J13A	Cove Ranch, Pi baz=2.3	2.29	13	⇑Sb	Sb	15 12 57.4	0.0
HLID	Hailey baz=2.5	2.42	8	⇓Sb	Sb	15 13 01.4	+0.3
HLID	Hailey	2.42	8	*e*Pn	Pn	15 12 23.6	-3.7
HLID				*e*Sn	Sn	15 12 59.4	+2.5
NLU	North Lily Min	2.46	119	*e*Pn	Pn	15 12 29.0	+1.2
N08A	GE Springer Mi baz=2.5	2.48	262	⇓S	Sn	15 12 58.5	+0.1
MPU	Maple Canyon	2.74	114	*e*Pn	Pb	15 12 34.4	-2.2
MPU				*e*Sn	Sg	15 13 14.0	-1.5
DAU	Daniels Canyon	2.86	104	*e*Pn	Pb	15 12 37.7	-1.0
DAU				*e*Sn	Sb	15 13 16.3	+2.5
WVOR	Wild Horse Val	3.07	296	*e*Pg	Pg	15 12 41.2	-5.3
WVOR				*e*Sn	Sn	15 13 12.2	-0.7
AHID	Auburn Hatcher	3.25	59	*e*Pn	Pn	15 12 40.8	+2.2
AHID				*e*Sg	Sg	15 13 27.0	-4.9
MSU	Marysvale	3.38	141	Pn	Pn	15 12 46.9	+6.5
RRI2	Red Ridge	3.43	49	*e*Pn	Pb	15 12 46.5	-2.0
RRI2				*e*Sn	Sb	15 13 33.7	+3.5
REDW	Red Top Meadow	3.72	52	*e*Pn	Pn	15 12 47.9	+2.8
REDW				*e*Sn	Sn	15 13 34.0	+5.2
TPAW	Teton Pass	3.73	50	*e*Pn	Pn	15 12 48.0	+2.7
NVAR	Mina Array Bea 4.2nm,0.3s,baz=49,slow=14,SNR=6.6	3.79	225	Pn	Pn	15 12 45.3	-0.8
NVAR	7.6nm,0.3s,baz=50,slow=18,SNR=5.4			Pg	Pg	15 12 54.6	-5.7
NVAR	25nm,0.3s,baz=50,slow=30,SNR=9.4			Lg		15 13 47.7	
CCUT	Cedar City	3.80	161	Pn	Pn	15 12 46.1	-0.2
CCUT				*e*Sg	Sg	15 13 48.6	-1.1
SRU	San Rafael	3.93	120	*e*Pg	Pg	15 13 00.5	-2.4
MCMT	McKenzie Canyo	3.95	22	*e*Pg	Pg	15 12 58.2	-5.2
MCMT				*e*Sg	Sg	15 13 46.6	-7.9
IMW	Indian Meadow	4.00	46	*e*Pn	Pn	15 12 51.7	+2.8
IMW				*e*Sn	Sb	15 13 48.5	+2.0
MOOW	Moose Ponds	4.01	49	*e*Pg	Pb	15 12 56.6	-1.7
MOOW				*e*Sg	Sb	15 13 51.9	+5.1
BMO	Blue Mountains	4.09	335	Pg	Pb	15 13 00.1	+0.5
BMO				*e*Sg	Sb	15 13 49.6	+0.6
MOD	Modoc	4.13	282	*e*Pn	Pn	15 12 44.0	-6.7
PDAR	Pinedale Array 0.8nm,0.3s,baz=236,slow=28,SNR=8.2	4.29	66	Pn	Pn	15 12 49.5	-3.4
PDAR	0.8nm,0.3s,baz=237,slow=32,SNR=5.5			Pg	Pb	15 13 00.2	-2.8
PDAR	baz=242,slow=32,SNR=1.8			Lg		15 13 55.1	
YMR	Madison River	4.54	38	*e*Pn	Pn	15 12 49.4	-6.9
LRM	Limekiln Ridge	4.98	20	*e*Pn	Pn	15 13 04.0	+1.6
PV04	Paradox Valley	5.38	119	Pn	Pn	15 13 08.4	+0.5
YKA	Yellowknife Ar 1.0nm,0.7s,baz=179,slow=10,SNR=22	21.36	0	P	P	15 16 35.7	+1.0
YKA	Yellowknife Ar	21.36	0	P	P	15 16 35.7	+1.0

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*ISCJB **21** 15:17:02.2±0.5, 41.°17N±0.°02×114.°89W±0.°02, h2^{km}±5^{km}, Error ellipse: s-maj=3.0km s-min=2.7km az=166.5*

*IDC **21** 15:17:03.8±1.1, 41.°21N×115.°06W, h0^{km}, mb2.5/1, mb1 2.9/3, mb1mx2.9/21, mbtmp2.5/3, ML2.8/2, Error ellipse: s-maj=14.1km s-min=5.7km az=123.0*

ISC 21 15:17:02.7±0.4**, 41.°17N**±0.°02×**114.°88W**±0.°02**, h9**^{km}±4^{km}**, n30,** σ**0.s62**/52**, 24C-23D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley, baz=0.3,SNR=39	0.34	200	⇑P	Pg	15 17 09.5	0.0
N12A	baz=0.3			⇓S	Sg	15 17 14.3	+0.3
ELK	Elko 11nm,0.3s,baz=15,slow=14,SNR=13	0.50	213	Pg	Pg	15 17 12.4	-0.1
ELK	33nm,0.3s,baz=289,slow=22,SNR=26			Lg		15 17 19.4	
M13A	Montello baz=0.6	0.57	70	⇓P	Pg	15 17 14.5	+0.7
N13A	Wendover, West baz=0.6,SNR=66	0.60	121	⇓P	Pg	15 17 14.6	+0.2
N13A	baz=0.6			⇑S	Sg	15 17 22.9	+0.7
M11A	Holland Ranch, baz=0.8,SNR=18	0.73	291	⇓P	Pg	15 17 16.9	0.0
M11A	baz=0.8			⇑S	Sg	15 17 26.7	+0.2
N11A	Elko Archery C baz=0.7,SNR=27	0.74	242	⇓P	Pg	15 17 17.0	+0.1
N11A	baz=0.7			⇓S	Sg	15 17 26.4	-0.1
O12A	Currie baz=0.9,SNR=34	0.91	173	⇑P	Pg	15 17 20.1	-0.1
O12A	baz=0.9			⇓S	Sg	15 17 32.4	+0.4
L12A	House Creek Ra baz=1.0,SNR=11	0.98	354	⇑P	Pg	15 17 21.7	+0.1
L12A	baz=1.0			⇓S	Sg	15 17 35.1	+0.7
L13A	Double Diamond baz=1.2,SNR=5.7	1.16	37	⇓P	Pb	15 17 24.5	-0.4
L13A	baz=1.2			⇓S	Sb	15 17 40.2	+0.3
L11A	Cat Creek Ranc baz=1.2,SNR=16	1.19	327	⇑P	Pb	15 17 25.0	-0.4
L11A	baz=1.2			⇑S	Sb	15 17 40.6	-0.3
O11A	Cowboy Ranch, baz=1.2,SNR=41	1.19	210	⇓P	Pb	15 17 25.2	-0.3
O11A	baz=1.2			⇑S	Sb	15 17 41.0	0.0
M14A	Sheep Mountain baz=1.2,SNR=31	1.20	73	⇑P	Pb	15 17 25.2	-0.5
M14A	baz=1.2			⇑S	Sb	15 17 41.8	+0.5
O13A	Hicks Ranch, I baz=1.2,SNR=33	1.24	146	⇓P	Pn	15 17 26.1	-0.1
O13A	baz=1.2			⇑S	Sb	15 17 43.2	+0.7
M10A	I.L. Ranch, Tu baz=1.3	1.30	286	⇑P	Pn	15 17 26.8	-0.2
M10A	baz=1.3			⇓S	Sb	15 17 44.4	+0.4
N10A	Dunphy baz=1.3	1.31	250	⇓P	Pn	15 17 26.8	-0.4
N10A	baz=1.3			⇑S	Sb	15 17 44.6	+0.2
N14A	Grayback Hills baz=1.3,SNR=17	1.32	103	⇑P	Pn	15 17 27.0	-0.3
N14A	baz=1.3			⇓S	Sb	15 17 45.5	+0.8
K12A	Draper Farm, C baz=1.5,SNR=14	1.46	359	⇓P	Pn	15 17 28.9	-0.4
K12A	baz=1.5			⇑S	Sn	15 17 48.2	-0.3
L10A	Juniper Basin baz=1.5,SNR=15	1.50	308	⇓Pb	Pb	15 17 30.0	-0.6
L10A	baz=1.5			⇑Sb	Sb	15 17 50.1	+0.4
L14A	Malta baz=1.5,SNR=12	1.50	54	⇑Pb	Pb	15 17 30.4	-0.3
L14A	baz=1.5			⇑Sb	Sb	15 17 50.7	+0.8
O10A	Cortez Mining, baz=1.5	1.51	235	⇓Pb	Pb	15 17 30.1	-0.8
O10A	baz=1.5			⇓Sb	Sb	15 17 50.5	+0.3
K13A	Stover Farm, H baz=1.6,SNR=8.6	1.59	22	⇓Pb	Pb	15 17 31.8	-0.5
K13A	baz=1.6			⇓Sb	Sb	15 17 53.0	+0.5
P12A	McGill baz=1.7	1.70	181	⇑Pb	Pb	15 17 32.9	-1.1
P11A	Circle Ranch, baz=1.7	1.75	203	⇓Pb	Pb	15 17 33.8	-1.1
P11A	baz=1.7			⇑Sb	Sb	15 17 57.7	+0.7
N15A	Stansbury Isla baz=1.8,SNR=14	1.81	98	⇓Pb	Pb	15 17 35.0	-0.9
K11A	Parker Ranch, baz=1.8,SNR=10	1.81	332	Pb	Pb	15 17 35.2	-0.9
K11A	baz=1.8			⇑Sb	Sb	15 17 59.4	+0.5
M15A	Larsen Ranch, baz=1.8,SNR=14	1.86	80	⇑Pb	Pb	15 17 35.9	-0.9
M15A	baz=1.8			⇑Sb	Sb	15 18 00.4	+0.3
M09A	Marrel Ranch, baz=2.0	1.95	278	⇑Sb	Sb	15 18 03.7	+0.9
NVAR	Mina Array Bea	3.80	225	Pn	Pn	15 18 02.0	+0.6

	0.6nm,0.3s,baz=43,slow=14,SNR=8.4						
NVAR				Lg		15 19 02.7	
	3.7nm,0.3s,baz=47,slow=19,SNR=8.8						
PDAR	**Pinedale Array**	**4.28**	**66**	Pn	**Pb**	**15 18 15.6**	**-2.5**
	0.1nm,0.3s,baz=243,slow=12,SNR=3.0						
PDAR				Lg		15 19 19.4	
	0.3nm,0.3s,baz=246,slow=24,SNR=6.1						
YKA	**Yellowknife Ar**	**21.36**	**0**	P	**P**	**15 21 51.2**	**+1.2**
	0.1nm,0.7s,baz=177,slow=11,SNR=3.7						

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*IDC **21** 15:31:11.1±0.9, 9°.04N×122°.06E, h0^{km}, mb4.0/7, mb1 4.1/7, mb1mx3.8/21, mbtmp4.0/7, MS3.4/1, Ms1 3.4/1, ms1mx2.6/39, Error ellipse: s-maj=71.9km s-min=19.5km az=69.0*

*NEIC **21** 15:31:12.3±0.5, 9°.00N×121°.98E, h10^{km}, mb4.2/3, Error ellipse: s-maj=16.8km s-min=11.0km az=75.0*

*ISCJB **21** 15:31:14.2±0.4, 8°.98N±0°.03×121°.88E±0°.03, h33^{km}, mb4.1/10, Error ellipse: s-maj=5.0km s-min=4.7km az=138.2*

*MAN **21** 15:31:14, 8°.96N×121°.92E, h51^{km}, mb5.0, ML3.9, MS4.0*

ISC 21 15:31:15.8±0.4**, 8°.98N**±0°.03×**121°.91E**±0°.03**, h35^{km}, n29, σ0ˢ.94**/34**, mb4.1**/10**, 3C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPIL	**Ipil**	**1.35**	**151**	*e*P	**Pn**	**15 31 38.0**	**-0.2**
SNPH	**Sibulan**	**1.36**	**75**	⇑*i*P	**Pn**	**15 31 37.5**	**-0.8**
SNPH				*i* S	**Sn**	**15 31 53.5**	**-1.6**
GUIM	**Jordan**	**1.77**	**22**	*e*P	**Pn**	**15 31 43.3**	**-0.5**
PAGZ	**Pagadian**	**1.84**	**128**	*e*P	**Pn**	**15 31 45.6**	**+0.7**
ZMPH	**Zamboanga City**	**2.02**	**176**	⇑*i*P	**Pn**	**15 31 47.6**	**+0.3**
ZMPH				*i* S	**Sn**	**15 32 09.6**	**-1.8**
CUYO	**Cuyo Island**	**2.05**	**335**	*e*P	**Pn**	**15 31 47.6**	**-0.3**
TBP	**Tagbilaran**	**2.05**	**70**	⇓*e*P	**Pn**	**15 31 47.6**	**-0.2**
TBP				*e*S	**Sn**	**15 32 11.4**	**-0.9**
LLP	**Lapu-Lapu**	**2.42**	**57**	⇓*i*P	**Pn**	**15 31 52.8**	**-0.2**
LLP				*e*S	**Sn**	**15 32 20.8**	**-0.6**
RCP	**Roxas**	**2.69**	**18**	⇓*e*P	**Pn**	**15 31 57.7**	**+1.0**
RCP				*e*S	**Sn**	**15 32 28.2**	**+0.2**
CGP	**Cagayan de Oro**	**2.80**	**101**	⇑*i*P	**Pn**	**15 31 60.0**	**+1.8**
CGP				*i* S	**Sn**	**15 32 31.7**	**+0.9**
MSLP	**Maasin**	**3.13**	**68**	*e*P	**Pn**	**15 32 03.9**	**+1.3**
ENPP	**El Nido**	**3.30**	**312**	*e*P	**Pn**	**15 32 05.0**	**+0.1**
BUKP	**Musuan**	**3.31**	**109**	*e*P	**Pn**	**15 32 08.0**	**+3.0**
OCLP	**Ormoc**	**3.36**	**52**	*e*P	**Pn**	**15 32 05.7**	**-0.2**
BUSP	**Coron**	**3.44**	**331**	*e*P	**Pn**	**15 32 06.4**	**-0.5**
SCPH	**Surigao**	**3.62**	**77**	*e*P	**Pn**	**15 32 08.1**	**-1.3**
BATP	**Bataraza**	**4.06**	**268**	*e*P	**Pn**	**15 32 14.2**	**-1.2**
DAV	**Davao City (W)**	**4.10**	**117**	LR	LR	15 34 21.5	
	comp=Z,534nm,20.5s,baz=316,slow=48						
KSM	**Kuching**	**13.74**	**238**	Pn	**Pn**	**15 34 28.3**	**+0.1**
WRAB	**Tennant Creek**	**31.23**	**157**	P	**P**	**15 37 30.9**	**-1.2**
	2.5nm,0.8s,mb4.1						
WRA	**Warramunga Arr**	**31.24**	**157**	P	**P**	**15 37 32.1**	**-0.1**
	0.7nm,0.5s,mb3.7,baz=337,slow=9.7,SNR=11						
ASAR	**Alice Springs**	**34.50**	**160**	P	**P**	**15 38 01.6**	**+0.9**
	0.8nm,0.6s,mb3.8,baz=340,slow=6.9,SNR=15						
CTAO	**Charters Tower**	**37.53**	**141**	P	**P**	**15 38 27.5**	**+0.8**
	2.9nm,0.9s,mb4.0						
MKAR	**Makanchi Array**	**50.54**	**325**	P	**P**	**15 40 12.6**	**+1.9**
	0.5nm,0.5s,mb3.7,baz=118,slow=7.7,SNR=6.3						
ZALV	**Zalesovo Beam**	**53.78**	**334**	P	**P**	**15 40 34.8**	**+0.1**
	0.7nm,0.4s,mb3.9,baz=113,slow=6.7,SNR=3.5						
TIXI	**Tiksi**	**62.76**	**2**	*e*P	**P**	**15 41 36.2**	**-0.9**
	1.4nm,0.2s,mb4.8						
ARCES	**ARCESS Array B**	**83.89**	**339**	P	**P**	**15 43 41.6**	**0.0**
	3.4nm,1.0s,mb4.5,baz=79,slow=6.5,SNR=4.5						
INK	**Inuvik**	**87.05**	**21**	P	**P**	**15 43 57.9**	**+0.5**
	1.1nm,0.5s,mb4.3,baz=302,slow=4.2,SNR=8.1						
YKA	**Yellowknife Ar**	**96.65**	**23**	P	**P**	**15 44 42.6**	**+0.6**
	0.4nm,0.6s,mb4.0,baz=302,slow=4.4,SNR=10						

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*IDC **21** 15:31:24.8±1.2, 12°.91N×93°.20E, h0^{km}, mb3.7/7, mb1 3.8/8, mb1mx3.6/23, mbtmp3.7/8, ML4.1/1, Error ellipse: s-maj=31.9km s-min=20.5km az=71.0*

*NEIC **21** 15:31:26.0±0.7, 12°.88N×93°.07E, h10^{km}, mb3.6/2, Error ellipse: s-maj=14.5km s-min=11.5km az=75.0*

*ISCJB **21** 15:31:29.6±3.4, 13°.0N±0°.1×93°.3E±0°.1, h47^{km}±30^{km}, mb3.8/8, Error ellipse: s-maj=21.7km s-min=18.9km az=146.0*

ISC 21 15:31:31.6±3.1**, 13°.0N**±0°.1×**93°.2E**±0°.1**, h49^{km}**±27^{km}**, n11, σ0ˢ.88**/13**, mb3.8**/8**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.72**	**45**	Pn	**Pn**	**15 33 21.9**	**+0.5**
	0.7nm,0.3s,baz=237,slow=15,SNR=38						
CMAR				Sn	**Sn**	**15 34 49.4**	**+1.9**
	0.2nm,0.3s,baz=236,slow=26,SNR=3.5						
CHTO	**Chiang Mai**	**7.97**	**43**	*e*Pn	**Pn**	**15 33 24.6**	**-0.2**
	3.9nm,0.6s						
CHTO				*e*Sn	**Sn**	**15 34 51.9**	**-1.7**
LSA	**Lhasa**	**16.73**	**354**	Pn	**Pn**	**15 35 22.0**	**-0.6**
	3.8nm,1.2s						
MKAR	**Makanchi Array**	**34.93**	**347**	P	**P**	**15 38 19.1**	**+0.5**
	1.2nm,0.7s,mb3.9,baz=152,slow=7.9,SNR=6.5						
SONM	**Songino Array**	**36.42**	**15**	P	**P**	**15 38 32.5**	**+1.1**
	1.2nm,1.0s,mb3.8,baz=209,slow=8.8,SNR=7.0						
KSRS	**Korea Array**	**39.36**	**46**	P	**P**	**15 38 55.5**	**-0.8**
	1.7nm,0.7s,mb3.9,baz=248,slow=8.4,SNR=6.4						
KURK	**Kurchatov**	**39.46**	**345**	*e*P	**P**	**15 38 55.9**	**-1.0**
	1.8nm,0.8s,mb3.9						
ZALV	**Zalesovo Beam**	**41.39**	**352**	P	**P**	**15 39 13.0**	**+0.1**
	1.6nm,0.6s,mb3.8,baz=177,slow=8.8,SNR=8.1						
WRA	**Warramunga Arr**	**52.03**	**128**	P	**P**	**15 40 36.3**	**-0.2**
	0.5nm,0.6s,mb3.6,baz=307,slow=7.7,SNR=7.7						
ASAR	**Alice Springs**	**53.93**	**132**	P	**P**	**15 40 50.4**	**-0.2**
	0.4nm,0.5s,mb3.6,baz=306,slow=7.4,SNR=13						
TORD	**Torodi Ar. Bea**	**88.58**	**283**	P	**P**	**15 44 20.5**	**+0.6**
	0.2nm,0.7s,mb3.6,baz=62,slow=3.4,SNR=1.9						

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*IDC **21** 15:34:24.6±0.7, 41°.21N×115°.00W, h0^{km}, mb3.7/4, mb1 3.9/7, mb1mx3.7/22, mbtmp3.7/7, ML3.9/3, MS3.7/2, Ms1 3.7/2, ms1mx3.3/37, Error ellipse: s-maj=13.5km s-min=4.7km az=121.0*

*ISCJB **21** 15:34:25.1±0.1, 41°.10N±0°.01×114°.90W±0°.01, h10^{km}, mb3.7/4, Error ellipse: s-maj=1.5km s-min=1.4km az=137.6*

*NEIC **21** 15:34:25.5, 41°.13N×114°.91W, h5^{km}, ML3.7, After REN.*

NEIC Felt [IV] at Wells, Nevada and Twin Falls, Idaho. Also felt at Hansen, Idaho and Wendover, Utah.

ISC 21 15:34:25.7±0.1**, 41°.100N**±0°.010×**114°.92W**±0°.01**, h10^{km}, n174, σ1ˢ.17**/248**, mb3.7**/4**, 55C-51D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.26**	**199**	P	**Pg**	**15 34 31.6**	**+0.5**
	baz=0.3,SNR=103						
N12A				⇓S	**Sg**	**15 34 35.7**	**+1.1**
	baz=0.3						
ELK	**Elko**	**0.43**	**214**	Pg	**Pg**	**15 34 34.4**	**+0.3**
	127nm,0.3s,baz=28,slow=13,SNR=84						
ELK				Lg		15 34 40.4	
	519nm,0.3s,baz=205,slow=14,SNR=104						
ELK	**Elko**	**0.43**	**214**	*e*Pg	**Pg**	**15 34 34.1**	**0.0**
ELK				*e*Sg	**Sg**	**15 34 40.2**	**+0.5**
N13A	**Wendover, West**	**0.60**	**114**	P	**Pg**	**15 34 37.2**	**-0.1**
	baz=0.6,SNR=140						
N13A				⇑S	**Sg**	**15 34 45.2**	**+0.1**
	baz=0.6						
M13A	**Montello**	**0.63**	**65**	⇑P	**Pg**	**15 34 36.9**	**-1.0**
	baz=0.6,SNR=33						
M13A				⇑S	**Sg**	**15 34 45.2**	**-0.9**
	baz=0.6						
N11A	**Elko Archery C**	**0.68**	**246**	⇑P	**Pg**	**15 34 38.4**	**-0.4**
	baz=0.7,SNR=48						
N11A				⇑S	**Sg**	**15 34 47.9**	**+0.2**
	baz=0.7						
M11A	**Holland Ranch,**	**0.73**	**297**	⇑P	**Pg**	**15 34 39.2**	**-0.7**
	baz=0.7,SNR=20						
O12A	**Currie**	**0.84**	**171**	⇑P	**Pg**	**15 34 41.9**	**0.0**
	baz=0.9,SNR=36						
O12A				⇑S	**Sg**	**15 34 53.6**	**+0.7**
	baz=0.9						
L12A	**House Creek Ra**	**1.05**	**356**	⇑P	**Pg**	**15 34 44.4**	**-1.5**
	baz=1.0,SNR=32						
L12A				⇓S	**Sg**	**15 34 58.3**	**-1.2**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.12**	**210**	⇑P	**Pb**	**15 34 47.1**	**0.0**
	baz=1.2,SNR=103						
O11A				⇓S	**Sb**	**15 35 01.8**	**+0.1**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.20**	**143**	P	**Pb**	**15 34 48.2**	**-0.3**
	baz=1.2,SNR=114						
L13A	**Double Diamond**	**1.23**	**36**	P	**Pn**	**15 34 47.5**	**-1.4**
	baz=1.2,SNR=38						
L13A				⇑S	**Sb**	**15 35 03.6**	**-1.4**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.23**	**330**	⇑P	**Pn**	**15 34 47.9**	**-1.2**
	baz=1.2						
L11A				⇓S	**Sb**	**15 35 03.8**	**-1.3**
	baz=1.2						
M14A	**Sheep Mountain**	**1.25**	**71**	P	**Pn**	**15 34 48.2**	**-1.1**
	baz=1.2,SNR=97						
M14A				⇑S	**Sb**	**15 35 04.8**	**-0.8**
	baz=1.2						
N10A	**Dunphy**	**1.26**	**253**	⇑P	**Pn**	**15 34 48.5**	**-0.8**
	baz=1.3,SNR=22						
N10A				⇓S	**Sb**	**15 35 06.4**	**+0.6**
	baz=1.3						
M10A	**I.L. Ranch, Tu**	**1.29**	**290**	⇓P	**Pn**	**15 34 49.2**	**-0.6**
	baz=1.3,SNR=49						
N14A	**Grayback Hills**	**1.34**	**100**	P	**Pn**	**15 34 49.5**	**-0.9**
	baz=1.3,SNR=122						
N14A				⇑S	**Sb**	**15 35 07.8**	**-0.2**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.44**	**96**	*e*Pn	**Pn**	**15 34 50.9**	**-0.9**
BGU				*e*Sn	**Sn**	**15 35 09.5**	**-1.4**
O10A	**Cortez Mining,**	**1.45**	**237**	⇑P	**Pn**	**15 34 51.9**	**0.0**
	baz=1.5						
O10A				⇓S	**Sn**	**15 35 11.2**	**+0.3**
	baz=1.5						
L10A	**Juniper Basin**	**1.52**	**311**	P	**Pn**	**15 34 52.8**	**-0.1**
	baz=1.5,SNR=116						
L10A				⇑Sb	**Sb**	**15 35 12.9**	**-0.4**
	baz=1.5						
K12A	**Draper Farm, C**	**1.54**	**1**	⇓P	**Pn**	**15 34 51.8**	**-1.4**
	baz=1.5,SNR=62						
K12A				⇓S	**Sn**	**15 35 11.7**	**-1.5**
	baz=1.5						
L14A	**Malta**	**1.57**	**53**	⇑P	**Pn**	**15 34 53.0**	**-0.7**
	baz=1.5,SNR=66						
L14A				⇓Sb	**Sb**	**15 35 14.0**	**-0.8**
	baz=1.5						
P12A	**McGill**	**1.62**	**180**	⇑P	**Pn**	**15 34 54.5**	**+0.1**
	baz=1.7,SNR=70						
P12A				⇓S	**Sn**	**15 35 16.1**	**+0.8**
	baz=1.7						
K13A	**Stover Farm, H**	**1.67**	**22**	⇑P	**Pn**	**15 34 54.5**	**-0.6**
	baz=1.6,SNR=54						
K13A				⇑Sb	**Sb**	**15 35 16.7**	**-0.9**
	baz=1.6						
P11A	**Circle Ranch,**	**1.67**	**203**	⇑P	**Pn**	**15 34 55.1**	**0.0**
	baz=1.7,SNR=36						
P11A				⇓Sb	**Sb**	**15 35 18.9**	**+1.3**
	baz=1.7						
HVU	**Hansel Valley**	**1.75**	**66**	*e*Pn	**Pn**	**15 34 55.5**	**-0.6**
HVU				*e*Sn	**Sn**	**15 35 16.6**	**-1.9**
N15A	**Stansbury Isla**	**1.83**	**96**	⇑Pb	**Pb**	**15 34 58.0**	**-1.3**
	baz=1.8,SNR=125						
DUG	**Dugway**	**1.84**	**119**	P	**Pn**	**15 34 56.8**	**-0.6**
	baz=1.8,SNR=121						
DUG	**Dugway**	**1.84**	**119**	*e*Pn	**Pn**	**15 34 56.6**	**-0.8**
DUG				*e*Sn	**Sn**	**15 35 23.2**	**+2.5**
K11A	**Parker Ranch,**	**1.86**	**334**	⇑Pb	**Pb**	**15 34 58.2**	**-1.7**
	baz=1.8,SNR=66						
K11A				⇓Sb	**Sb**	**15 35 22.6**	**-0.6**
	baz=1.8						
BMN	**Battle Mountai**	**1.87**	**250**	*e*Pn	**Pn**	**15 34 56.8**	**-1.0**
BMN				*e*Sn	**Sn**	**15 35 22.8**	**+1.4**
SPUT	**South Promonto**	**1.88**	**83**	*e*Pn	**Pn**	**15 34 58.0**	**+0.1**
SPUT				*e*Sn	**Sn**	**15 35 21.5**	**-0.1**
P10A	**Eureka**	**1.89**	**219**	⇑P	**Pn**	**15 34 58.5**	**+0.4**
	baz=1.9,SNR=31						
M15A	**Larsen Ranch,**	**1.90**	**78**	P	**Pn**	**15 34 58.0**	**-0.2**
	baz=1.9,SNR=128						
M15A				⇓Sb	**Sb**	**15 35 24.0**	**-0.3**
	baz=1.9						
M09A	**Marrel Ranch,**	**1.93**	**280**	⇓Pb	**Pb**	**15 34 59.7**	**-1.3**
	baz=1.9,SNR=32						
K14A	**Jones Ranch, D**	**1.95**	**42**	⇓P	**Pn**	**15 34 58.6**	**-0.2**
	baz=1.9,SNR=36						
N09A	**Rock Creek Ran**	**1.98**	**264**	⇓P	**Pn**	**15 34 58.7**	**-0.6**
	baz=2.0,SNR=18						
N09A				⇓Sb	**Sb**	**15 35 27.4**	**+0.7**
	baz=2.0						
O15A	**The Old Anders**	**2.04**	**113**	⇓P	**Pn**	**15 34 59.4**	**-0.7**
	baz=2.0,SNR=73						
Q12A	**Willow Creek R**	**2.06**	**178**	⇑P	**Pn**	**15 35 00.3**	**0.0**
	baz=2.1,SNR=16						
Q12A				⇑Sb	**Sb**	**15 35 31.1**	**+2.3**
	baz=2.1						
P14A	**Drum Mountains**	**2.07**	**136**	⇓P	**Pn**	**15 34 60.0**	**-0.5**
	baz=2.1,SNR=21						
L15A	**Malad City**	**2.11**	**64**	⇓P	**Pn**	**15 35 00.8**	**-0.2**
	baz=2.1,SNR=54						
J12A	**Stokes Ranch,**	**2.15**	**357**	⇓Pb	**Pb**	**15 35 02.9**	**-1.9**
	baz=2.1,SNR=67						
NOQ	**North Oquirrh**	**2.17**	**101**	*e*Pn	**Pn**	**15 35 02.2**	**+0.3**
NOQ				*e*Sg	**Sg**	**15 35 33.9**	**-1.6**
K10A	**MacKenzie Ranc**	**2.22**	**320**	⇓Pb	**Pb**	**15 35 04.1**	**-1.8**
	baz=2.2,SNR=31						
Q13A	**Wheeler Ranch,**	**2.25**	**162**	⇑P	**Pn**	**15 35 03.0**	**0.0**
	baz=2.3,SNR=35						
L09A	**Wilkinson Ranc**	**2.25**	**295**	⇓Pb	**Pb**	**15 35 04.9**	**-1.6**
	baz=2.2,SNR=18						
L09A				⇓Sb	**Sb**	**15 35 34.8**	**+0.4**
	baz=2.2						
P09A	**Austin**	**2.29**	**228**	⇓P	**Pn**	**15 35 03.7**	**+0.1**
	baz=2.3						
P09A				⇑Sb	**Sb**	**15 35 37.3**	**+1.7**
	baz=2.3						
Q11A	**Duckwater**	**2.32**	**194**	P	**Pn**	**15 35 04.5**	**+0.5**
	baz=2.4,SNR=36						
J13A	**Cove Ranch, Pi**	**2.36**	**13**	⇓P	**Pn**	**15 35 05.1**	**+0.5**
	baz=2.3,SNR=108						
K15A	**Arbon**	**2.39**	**48**	⇑P	**Pn**	**15 35 05.1**	**+0.3**
	baz=2.4,SNR=52						
MFID	**Camas Ranch**	**2.41**	**344**	⇓P	**Pn**	**15 35 06.8**	**+1.6**
	baz=2.4,SNR=24						
CTU	**Camp Tracy**	**2.44**	**99**	*e*Pn	**Pn**	**15 35 06.8**	**+1.2**
N08A	**GE Springer Mi**	**2.45**	**264**	⇓P	**Pn**	**15 35 05.0**	**-0.8**
	baz=2.5,SNR=5.4						
NLU	**North Lily Min**	**2.45**	**117**	*e*Pn	**Pn**	**15 35 08.6**	**+2.8**
J14A	**Carey**	**2.46**	**25**	P	**Pn**	**15 35 06.6**	**+0.8**
	baz=2.4,SNR=70						
Q14A	**Sevier Lake (B**	**2.46**	**149**	⇓P	**Pn**	**15 35 05.2**	**-0.7**
	baz=2.5,SNR=9.3						
HLID	**Hailey**	**2.49**	**9**	P	**Pn**	**15 35 07.2**	**+0.9**
	baz=2.5,SNR=48						
HLID	**Hailey**	**2.49**	**9**	*e*Pn	**Pn**	**15 35 07.0**	**+0.8**
HLID				*e*Sn	**Sn**	**15 35 39.6**	**+2.9**
M16A	**Huntsville**	**2.49**	**84**	⇑Pb	**Pb**	**15 35 08.9**	**-1.7**
	baz=2.5						
P15A	**Leamington**	**2.53**	**126**	⇓P	**Pn**	**15 35 06.1**	**-0.8**
	baz=2.5,SNR=32						
P15A				⇑S	**Sn**	**15 35 37.7**	**-0.1**
	baz=2.5						
Q10A	**Clear Creek Ra**	**2.54**	**207**	⇑P	**Pn**	**15 35 07.2**	**+0.2**
	baz=2.6,SNR=36						
M08A	**Happy Creek Ra**	**2.63**	**279**	⇑Pb	**Pb**	**15 35 11.4**	**-1.5**
	baz=2.6						
K09A	**Rome**	**2.63**	**308**	⇓P	**Pn**	**15 35 10.2**	**+2.0**
	baz=2.6,SNR=70						
I12A	**Atlanta**	**2.70**	**357**	⇑P	**Pn**	**15 35 10.4**	**+1.3**
	baz=2.7						
I12A				⇓Sb	**Sb**	**15 35 47.2**	**0.0**
	baz=2.7						
J10A	**Berg Farm, Mel**	**2.70**	**330**	⇓P	**Pn**	**15 35 11.6**	**+2.5**
	baz=2.7						
MPU	**Maple Canyon**	**2.73**	**112**	*e*Pn	**Pn**	**15 35 08.1**	**-1.4**
MPU				*e*Pg	**Pg**	**15 35 16.0**	**-2.0**
L16A	**Fish Haven**	**2.77**	**70**	⇑P	**Pn**	**15 35 10.6**	**+0.4**
	baz=2.7						
R12A	**Pony Springs,**	**2.78**	**175**	⇑P	**Pn**	**15 35 10.7**	**+0.4**
	baz=2.8,SNR=9.0						
L08A	**Fields**	**2.79**	**294**	⇑Pb	**Pb**	**15 35 13.4**	**-2.1**
	baz=2.8						
P08A	**Dixie Valley**	**2.79**	**241**	P	**Pn**	**15 35 10.7**	**+0.2**
	baz=2.8,SNR=19						
R11A	**Troy Canyon, C**	**2.79**	**191**	⇓P	**Pn**	**15 35 10.6**	**+0.2**
	baz=2.8,SNR=11						
Q09A	**Carvers**	**2.85**	**218**	⇓P	**Pn**	**15 35 12.1**	**+0.9**
	baz=2.9,SNR=12						
Q15A	**Fillmore**	**2.87**	**136**	⇑P	**Pn**	**15 35 10.9**	**-0.6**
	baz=2.9,SNR=24						
DAU	**Daniels Canyon**	**2.87**	**103**	*e*Pn	**Pn**	**15 35 12.1**	**+0.6**
DAU				*e*Pg	**Pg**	**15 35 19.6**	**-1.1**
I13A	**Wildhorse Cree**	**2.88**	**12**	P	**Pn**	**15 35 12.8**	**+1.2**
	baz=2.8,SNR=57						
I13A				⇑Sb	**Sb**	**15 35 52.3**	**0.0**
	baz=2.8						
P16A	**Fountain Green**	**2.91**	**120**	⇑P	**Pn**	**15 35 11.5**	**-0.4**
	baz=2.9						
P16A				⇑S	**Sn**	**15 35 46.9**	**0.0**
	baz=2.9						
I11A	**Placerville**	**2.91**	**345**	⇑P	**Pn**	**15 35 14.9**	**+2.8**
	baz=2.9						
J15A	**Blackfoot**	**2.95**	**38**	P	**Pn**	**15 35 13.2**	**+0.6**
	baz=2.9,SNR=20						
J15A				⇓Sb	**Sb**	**15 35 54.7**	**+0.3**
	baz=2.9						
R10A	**Warm Springs**	**3.00**	**201**	⇑P	**Pn**	**15 35 13.9**	**+0.6**
	baz=3.0						
R13A	**O’Grain Ranch,**	**3.01**	**166**	⇓P	**Pn**	**15 35 14.1**	**+0.7**
	baz=3.0,SNR=27						
I14A	**Mackay**	**3.03**	**21**	P	**Pn**	**15 35 14.8**	**+1.1**
	baz=3.0,SNR=13						
K16A	**Soda Springs**	**3.03**	**54**	⇓P	**Pn**	**15 35 14.6**	**+0.9**
	baz=3.0,SNR=16						
WVOR	**Wild Horse Val**	**3.08**	**297**	*e*Pn	**Pn**	**15 35 17.7**	**+3.3**
WVOR				*e*Sn	**Sb**	**15 35 59.2**	**+1.0**
N07B	**Gerlach**	**3.08**	**265**	⇓P	**Pn**	**15 35 14.3**	**-0.2**
	baz=3.1						
K08A	**Mann Creek Ran**	**3.12**	**303**	⇑Pb	**Pb**	**15 35 19.2**	**-2.0**
	baz=3.1						
O07A	**Toulon**	**3.15**	**254**	P	**Pn**	**15 35 14.9**	**-0.5**
	baz=3.2,SNR=8.5						
M07A	**Soldier Meadow**	**3.22**	**277**	⇓Pb	**Pb**	**15 35 21.0**	**-1.9**
	baz=3.2						
Q08A	**Gabbs**	**3.22**	**227**	⇑P	**Pn**	**15 35 16.4**	**+0.1**
	baz=3.2						
I10A	**Payette**	**3.29**	**336**	⇑Pb	**Pb**	**15 35 21.6**	**-2.6**
	baz=3.3						
AHID	**Auburn Hatcher**	**3.30**	**58**	*e*Pn	**Pn**	**15 35 17.7**	**+0.2**
AHID				*e*Sg	**Sg**	**15 36 06.3**	**-5.5**
R09A	**Tonopah**	**3.30**	**211**	⇑P	**Pn**	**15 35 17.9**	**+0.4**
	baz=3.3						
MSU	**Marysvale**	**3.34**	**140**	*e*Pn	**Pn**	**15 35 18.0**	**0.0**
MSU				*e*Pg	**Pg**	**15 35 29.3**	**-0.4**
MSU				*e*Sg	**Sg**	**15 36 09.1**	**-3.8**
TMUT	**Trail Mountain**	**3.37**	**121**	*e*Pn	**Pn**	**15 35 13.9**	**-4.5**
TMUT				*e*Pg	**Pg**	**15 35 25.9**	**-4.4**
TMUT				*e*Sg	**Sg**	**15 36 14.5**	**+0.7**
S10A	**Tonopah Range,**	**3.43**	**203**	⇓P	**Pn**	**15 35 19.2**	**+0.1**
	baz=3.5,SNR=6.7						
L07A	**Adell**	**3.44**	**287**	⇓Pb	**Pb**	**15 35 24.7**	**-2.0**
	baz=3.4						
J08A	**Circle Bar Ran**	**3.47**	**312**	⇑Pb	**Pb**	**15 35 25.0**	**-2.3**
	baz=3.5						
S12A	**Delamar Landin**	**3.49**	**179**	⇓P	**Pn**	**15 35 19.9**	**-0.1**
	baz=3.5,SNR=8.7						
RRI2	**Red Ridge**	**3.49**	**49**	*e*Pn	**Pn**	**15 35 20.4**	**+0.3**
RRI2				*e*Sg	**Sg**	**15 36 13.0**	**-4.9**
H13A	**Challis**	**3.50**	**8**	⇓P	**Pn**	**15 35 19.3**	**-0.8**
	baz=3.5						
ARUT	**Antelope Range**	**3.50**	**160**	*e*Pn	**Pn**	**15 35 20.6**	**+0.4**
ARUT				*e*Pg	**Pg**	**15 35 30.8**	**-2.0**
ARUT				*e*Sg	**Sg**	**15 36 14.8**	**-3.4**
R15A	**Junction**	**3.54**	**144**	⇓P	**Pn**	**15 35 20.6**	**0.0**
	baz=3.6						
I09A	**Lost Marbles R**	**3.55**	**325**	⇓Pb	**Pb**	**15 35 26.3**	**-2.3**
	baz=3.5						
K07A	**Rock Creek Ran**	**3.60**	**298**	⇑P	**Pn**	**15 35 22.3**	**+0.8**
	baz=3.6,SNR=15						
S14A	**Cedar City**	**3.60**	**157**	⇓P	**Pn**	**15 35 22.1**	**+0.5**
	baz=3.6						
S13A	**Holt Ranch, En**	**3.61**	**166**	⇑P	**Pn**	**15 35 22.2**	**+0.5**
	baz=3.6,SNR=42						
Q16A	**Castle Valley**	**3.61**	**126**	⇑P	**Pn**	**15 35 21.8**	**+0.1**
	baz=3.6						
H11A	**Donnelly**	**3.69**	**348**	⇑P	**Pn**	**15 35 25.2**	**+2.4**
	baz=3.7						
DCID1	**Drake Creek**	**3.73**	**47**	*e*Pn	**Pn**	**15 35 23.8**	**+0.5**
DCID1				*e*Sn	**Sb**	**15 36 20.2**	**+3.4**
NVAR	**Mina Array Bea**	**3.73**	**225**	Pn	**Pn**	**15 35 23.7**	**+0.4**
	4.7nm,0.3s,baz=39,slow=13,SNR=71						
NVAR				Pg	**Pg**	**15 35 34.8**	**-2.4**
	8.9nm,0.3s,baz=41,slow=17,SNR=23						
NVAR				Lg		15 36 24.2	
	52nm,0.3s,baz=100,slow=22,SNR=14						
NVAR	**Mina Array Bea**	**3.73**	**225**	Pn	**Pn**	**15 35 23.7**	**+0.4**
NVAR				Pg	**Pg**	**15 35 34.8**	**-2.4**
NVAR				Lg		15 36 24.2	
H10A	**Noah’s Angus R**	**3.74**	**340**	P	**Pn**	**15 35 25.0**	**+1.6**
	baz=3.7,SNR=8.6						
N06A	**Buffalo Meadow**	**3.74**	**266**	P	**Pn**	**15 35 23.2**	**-0.3**
	baz=3.7,SNR=8.7						
CCUT	**Cedar City**	**3.75**	**161**	*e*Pn	**Pn**	**15 35 24.3**	**+0.7**
CCUT				*e*Pg	**Pg**	**15 35 36.5**	**-0.9**
CCUT				*e*Sg	**Sg**	**15 36 22.6**	**-3.4**
REDW	**Red Top Meadow**	**3.77**	**52**	*e*Pn	**Pn**	**15 35 25.2**	**+1.3**
TPAW	**Teton Pass**	**3.79**	**50**	*e*Pn	**Pn**	**15 35 25.1**	**+0.9**
S09A	**Goldfield**	**3.81**	**209**	⇑P	**Pn**	**15 35 25.1**	**+0.6**
	baz=3.8						
T11A	**Corn Creek, Al**	**3.86**	**184**	⇓P	**Pn**	**15 35 25.4**	**+0.2**
	baz=3.9						
SNOW	**Snow King Moun**	**3.89**	**51**	*e*Pn	**Pn**	**15 35 27.5**	**+2.0**
SRU	**San Rafael**	**3.92**	**119**	*e*Pn	**Pn**	**15 35 25.7**	**-0.2**
SRU				*e*Pg	**Pg**	**15 35 38.8**	**-2.0**
SRU				*e*Sg	**Sg**	**15 36 28.3**	**-3.1**
S15A	**Panguitch**	**3.95**	**149**	⇑P	**Pn**	**15 35 26.7**	**+0.3**
	baz=4.0,SNR=13						
G13A	**Cobalt**	**4.02**	**7**	⇓P	**Pn**	**15 35 29.3**	**+1.9**
	baz=4.0						
MCMT	**McKenzie Canyo**	**4.03**	**22**	*e*Pn	**Pn**	**15 35 28.2**	**+0.9**
MCMT				*e*Sb	**Sb**	**15 36 28.9**	**+3.5**
MCMT				*e*Sg	**Sg**	**15 36 35.9**	**+0.9**
IMW	**Indian Meadow**	**4.06**	**45**	*e*Pn	**Pn**	**15 35 29.0**	**+1.1**
IMW				*e*Sn	**Sb**	**15 36 26.8**	**+0.4**
LOHW	**Long Hollow**	**4.07**	**50**	*e*Pn	**Pn**	**15 35 28.9**	**+0.9**
MOOW	**Moose Ponds**	**4.07**	**48**	*e*Pn	**Pn**	**15 35 28.9**	**+0.8**
MOOW				*e*Sn	**Sb**	**15 36 27.0**	**+0.3**
MOD	**Modoc**	**4.12**	**283**	*e*Pn	**Pn**	**15 35 28.0**	**-0.7**
BMO	**Blue Mountains**	**4.14**	**336**	*e*Pn	**Pn**	**15 35 33.2**	**+4.3**
BMO				*e*Sn	**Sb**	**15 36 27.1**	**-1.5**
T14A	**Hurricane**	**4.28**	**160**	⇓P	**Pn**	**15 35 31.6**	**+0.7**
	baz=4.3,SNR=19						
BEKR	**Beckwourth**	**4.32**	**255**	P	**Pn**	**15 35 31.4**	**-0.1**
	baz=4.3,SNR=20						
PDAR	**Pinedale Array**	**4.33**	**66**	Pn	**Pn**	**15 35 34.0**	**+2.4**
	1.5nm,0.3s,baz=237,slow=12,SNR=39						
PDAR				Pg	**Pg**	**15 35 45.2**	**-3.5**
	4.3nm,0.3s,baz=252,slow=18,SNR=29						
PDAR				Lg		15 36 41.1	
	6.0nm,0.3s,baz=52,slow=9.6,SNR=8.4						
YFT	**Old Faithful**	**4.50**	**41**	*e*Pn	**Pn**	**15 35 36.3**	**+2.4**
DLMT	**Dillon**	**4.59**	**21**	*e*Pn	**Pn**	**15 35 35.5**	**+0.4**
YMR	**Madison River**	**4.60**	**38**	*e*Pn	**Pn**	**15 35 36.3**	**+1.0**
YNR	**Norris Junctio**	**4.77**	**39**	*e*Pn	**Pn**	**15 35 41.9**	**+4.3**
LKWY	**Lake**	**4.80**	**42**	*e*Pn	**Pn**	**15 35 38.8**	**+0.7**
LRM	**Limekiln Ridge**	**5.05**	**20**	*e*Pn	**Pn**	**15 35 44.1**	**+2.6**
	50nm,0.6s						
BOZ	**Bozeman (W)**	**5.14**	**27**	*e*Pn	**Pn**	**15 35 46.9**	**+4.2**
	10nm,0.7s						
CMB	**Columbia Colle**	**5.21**	**236**	*e*Pn	**Pn**	**15 35 44.2**	**+0.4**
	19nm,0.6s						
CMB				*e*Pg	**Pg**	**15 36 01.9**	**-3.7**
CMB				*e*Sn	**Sn**	**15 36 46.5**	**+2.6**
CMB				*e*Sg	**Sg**	**15 37 10.9**	**-2.2**
PV04	**Paradox Valley**	**5.37**	**118**	Pn	**Pn**	**15 35 45.0**	**-0.9**
PV01	**Paradox Valley**	**5.73**	**119**	*e*Pn	**Pn**	**15 35 49.0**	**-1.8**
	2µm,0.7s						
RLMT	**Red Lodge**	**5.77**	**44**	*e*Pn	**Pn**	**15 35 52.7**	**+1.4**
	3.1nm,1.2s						
MSO	**Missoula**	**5.77**	**7**	*e*Pn	**Pn**	**15 35 51.2**	**-0.1**
	6.2nm,0.6s						
WDC	**Whiskeytown Da**	**5.80**	**267**	Pn	**Pn**	**15 35 58.4**	**+6.6**
	14nm,1.0s						
RWWY	**Rawlins**	**5.83**	**82**	*e*Pn	**Pn**	**15 35 54.3**	**+2.1**
	16nm,0.7s						
RWWY				*e*Sg	**Sg**	**15 37 24.5**	**-8.4**
YBH	**Yreka Blue Hor**	**5.89**	**279**	Lg		15 37 30.4	
	0.5nm,0.3s,baz=260,slow=7.8,SNR=4.0						
YBH	**Yreka Blue Hor**	**5.89**	**279**	*e*Pn	**Pn**	**15 35 56.7**	**+3.7**
	14nm,0.8s						
YBH				*e*Sg	**Sg**	**15 37 31.2**	**-3.5**
CHMT	**Chamberlain Mo**	**5.94**	**11**	*e*Pn	**Pn**	**15 35 55.2**	**+1.6**
	5.4nm,0.7s						
CHMT				*e*S	**Sb**	**15 37 25.2**	**+4.8**
GSC	**Goldstone**	**5.97**	**195**	*e*Pn	**Pn**	**15 35 54.6**	**+0.4**
	8.8nm,0.5s						

GSC				*e*Pg	Pg	15 36 20.0	-0.1
LDFC	**Landfair** 26nm,0.5s	6.01	181	*e*Pn	Pn	15 35 54.7	-0.1
HRY	**Holter Researc** 9.2nm,0.5s	6.04	21	*e*Pn	Pn	15 35 56.0	+1.0
HRY				*e*Pb	Pb	15 36 12.5	+1.5
HRY				*e*Sg	Sg	15 37 29.8	-10
GCMT	**Greycliff** 6.6nm,0.8s	6.05	37	Pn	Pn	15 36 02.8	+7.6
ISA	**Isabella** 7.1nm,0.8s	6.10	208	*e*Pn	Pn	15 35 57.0	+1.1
ISA				*e*Pg	Pg	15 36 19.9	-2.6
ISA				*e*Sg	Sg	15 37 39.5	-2.1
SLMT	**Seeley Lake** 2.5nm,0.5s	6.23	9	*e*Pn	Pn	15 35 59.5	+1.9
WUAZ	**Wupatki** 61nm,0.8s	6.23	152	*e*Pg	Pg	15 36 21.1	-4.0
WUAZ				*e*Sg	Sg	15 37 42.3	-3.5
MVCO	**Mesa Verde** 56nm,0.8s	6.33	126	*e*Pn	Pn	15 36 01.9	+2.9
MVCO				*e*Sg	Sg	15 37 43.4	-5.4
SWMT	**Swartz Lake** 7.9nm,0.9s	6.44	6	*e*Pg	Pg	15 36 28.6	-0.4
SWMT				*e*Sg	Sg	15 37 43.1	-9.3
HOOD	**Mount Hood Mea** 24nm,0.8s	6.48	313	*e*Pg	Pg	15 36 23.4	-6.4
JTMT	**Jette** 19nm,0.7s	6.66	4	*e*Pn	Pn	15 36 05.3	+1.7
YBMT	**Yellow Bay**	6.79	5	Pn	Pn	15 36 06.9	+1.5
PHWY	**Pilot Hill**	7.14	85	*e*Pn	Pn	15 36 13.2	+3.0
PHWY				*e*Sg	Sg	15 38 05.8	-9.1
ISCO	**Idaho Springs** 2.3nm,0.8s	7.22	97	*e*Pn	Pn	15 36 15.3	+4.0
ISCO				*e*Sg	Sg	15 38 07.6	-10
NEW	**Newport**	7.33	348	*e*Pg	Pg	15 36 41.9	-4.2
NEW				*e*Sg	Sg	15 38 14.0	-6.9
RSSD	**Black Hills** 6.3nm,0.7s	8.58	66	*e*Pn	Pn	15 36 29.5	-0.4
RSSD				*e*Sg	Sn	15 38 42.5	+36
ANMO	**Albuquerque** 0.4nm,0.3s,baz=323,slow=12,SNR=7.1	9.07	130	Pg	Px	15 37 14.4	
ANMO	0.2nm,0.3s,baz=196,slow=11,SNR=3.1			Lg		15 39 16.9	
ANMO	comp=Z,647nm,18.8s,baz=127,slow=38			LR	LR	15 40 08.9	
ECSD	**EROS Data Cent**	13.78	73	*e*Pn	Pn	15 37 41.5	+0.4
TXAR	**Lajitas Array** 0.1nm,0.3s,baz=325,slow=11,SNR=4.7	14.90	138	Pn	Pn	15 38 03.0	+6.7
LPIG	**La Paz** comp=Z,183nm,21.5s,baz=164,slow=38	17.39	166	LR	LR	15 45 26.8	
YKA	**Yellowknife Ar** 1.4nm,0.7s,mb3.4,baz=180,slow=10,SNR=38	21.43	0	P	P	15 39 13.9	+0.4
YKA	0.2nm,0.5s,baz=179,slow=1.8,SNR=3.9			PcP	PcP	15 43 15.9	-0.6
YKA	**Yellowknife Ar**	21.43	0	P	P	15 39 13.9	+0.4
YKA				PcP	PcP	15 43 15.9	-0.6
PETK	**Petropavlovsk-** 1.5nm,0.8s,mb4.1,baz=151,slow=16,SNR=3.8	57.09	314	P	P	15 44 11.3	-0.6
SONM	**Songino Array** 0.4nm,0.7s,mb3.7,baz=18,slow=5.3,SNR=3.9	84.18	333	P	P	15 46 58.1	+1.2
MKAR	**Makanchi Array** 0.3nm,0.9s,mb3.6,baz=336,slow=3.2,SNR=2.7	91.16	348	P	P	15 47 30.7	0.0
WRA	**Warramunga Arr** 0.3nm,0.8s,baz=40,slow=1.9,SNR=2.5	118.28	268	PKP	PKPdf	15 53 13.4	-0.1
ASAR	**Alice Springs** 0.4nm,0.9s,baz=74,slow=2.6,SNR=5.7	120.77	264	PKP	PKPdf	15 53 16.6	-1.6

ISCJB ***21*** *15:43:14.1±0.5, 41.°15N±0.°01×114.°87W±0.°02, h5^{km}±3^{km}, Error ellipse: s-maj=2.5km s-min=2.1km az=169.9*

IDC ***21*** *15:43:14.3±1.0, 41.°24N×115.°05W, h0^{km}, mb2.6/1, mb1 3.2/3, mb1mx3.1/21, mbtmp2.8/3, ML3.0/2, Error ellipse: s-maj=15.5km s-min=5.6km az=128.0*

NEIC ***21*** *15:43:15.4±0.4, 41.°02N×114.°84W, h5^{km}, ML2.7, Error ellipse: s-maj=6.6km s-min=5.4km az=156.0*

ISC 21 15:43:14.4±0.3**, 41.°16N**±0.°01×**114.°87W**±0.°02**, h5**^{km}±2^{km}**, n72,** σ1.^{s}**04**/107**, 27C-25D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,** baz=0.3,SNR=23	0.33	203	⇓P	Pg	15 43 21.5	+0.7
N12A	baz=0.3			⇑S	Sg	15 43 26.2	+1.2
ELK	**Elko** 28nm,0.3s,baz=26,slow=16,SNR=16	0.50	214	Pg	Pg	15 43 24.3	+0.4
ELK	121nm,0.3s,baz=225,slow=8.6,SNR=42			Lg		15 43 30.6	
ELK	**Elko**	0.50	214	*e*Pg	Pg	15 43 24.4	+0.5
ELK				*e*Sg	Sg	15 43 30.2	-0.2
M13A	**Montello** baz=0.6	0.57	69	⇓S	Sg	15 43 33.1	+0.4
N13A	**Wendover, West** baz=0.6,SNR=28	0.59	121	⇓P	Pg	15 43 25.9	+0.3
N13A	baz=0.6			⇑S	Sg	15 43 33.8	+0.6
N11A	**Elko Archery C** baz=0.7,SNR=23	0.74	243	P	Pg	15 43 28.9	+0.4
N11A	baz=0.7			⇑S	Sg	15 43 38.5	+0.3
M11A	**Holland Ranch,** baz=0.8,SNR=11	0.75	292	⇓P	Pg	15 43 28.7	-0.1
M11A	baz=0.8			⇓S	Sg	15 43 38.6	+0.2
O12A	**Currie** baz=0.9,SNR=14	0.89	174	⇑P	Pg	15 43 31.8	+0.3
O12A	baz=0.9			⇑S	Sg	15 43 43.7	+0.6
L12A	**House Creek Ra** baz=1.0	0.99	354	⇑S	Sg	15 43 46.3	-0.1
L13A	**Double Diamond** baz=1.2	1.16	36	⇓S	Sg	15 43 51.0	-0.7
O11A	**Cowboy Ranch,** baz=1.2	1.19	211	⇑S	Sg	15 43 52.4	-0.1
M14A	**Sheep Mountain** baz=1.2,SNR=16	1.20	73	⇑P	Pg	15 43 36.2	-1.1
M14A	baz=1.2			⇓S	Sg	15 43 52.2	-0.7
L11A	**Cat Creek Ranc** baz=1.2	1.21	327	⇑S	Sg	15 43 52.3	-0.9
O13A	**Hicks Ranch, I** baz=1.2,SNR=23	1.23	146	⇑P	Pg	15 43 37.2	-0.7
O13A	baz=1.2			⇑S	Sg	15 43 54.2	+0.4
N14A	**Grayback Hills** baz=1.3,SNR=14	1.31	103	⇑P	Pn	15 43 37.9	-1.4
N14A	baz=1.3			⇓S	Sg	15 43 56.3	-0.1
M10A	**I.L. Ranch, Tu** baz=1.3,SNR=8.1	1.31	287	⇑P	Pn	15 43 38.8	-0.5
M10A	baz=1.3			⇓S	Sg	15 43 56.7	+0.2
N10A	**Dunphy** baz=1.3	1.32	251	⇑P	Pn	15 43 38.3	-1.1
N10A	baz=1.3			⇓S	Sg	15 43 56.8	+0.1
BGU	**Big Grassy Mou**	1.41	99	*e*Pn	Pn	15 43 39.8	-0.9
BGU				*e*Sn	Sn	15 43 58.5	-1.2
K12A	**Draper Farm, C** baz=1.5,SNR=9.6	1.48	359	⇑P	Pn	15 43 40.8	-0.9
K12A	baz=1.5			⇓S	Sn	15 43 59.7	-1.6
L14A	**Malta** baz=1.5,SNR=10	1.50	54	⇓P	Pn	15 43 41.3	-0.7
L14A	baz=1.5			⇓S	Sn	15 44 01.3	-0.6
O10A	**Cortez Mining,** baz=1.5,SNR=16	1.51	236	⇑P	Pn	15 43 41.1	-1.0
O10A	baz=1.5			⇑S	Sn	15 44 02.0	-0.1
L10A	**Juniper Basin** baz=1.5,SNR=21	1.51	308	⇑P	Pn	15 43 41.8	-0.3
L10A	baz=1.5			⇑S	Sn	15 44 02.1	-0.1
K13A	**Stover Farm, H** baz=1.6,SNR=8.4	1.60	21	⇓P	Pn	15 43 42.9	-0.4
K13A	baz=1.6			⇓S	Sn	15 44 03.8	-0.6
P12A	**McGill** baz=1.7	1.68	181	⇓P	Pn	15 43 43.9	-0.5
P12A	baz=1.7			⇑S	Sn	15 44 06.2	-0.1
HVU	**Hansel Valley**	1.69	68	*e*Pn	Pn	15 43 43.9	-0.6
HVU				*e*Sn	Sn	15 44 07.0	+0.4
P11A	**Circle Ranch,** baz=1.7,SNR=7.7	1.74	203	⇑P	Pn	15 43 44.9	-0.3
N15A	**Stansbury Isla** baz=1.8,SNR=13	1.80	98	⇑P	Pn	15 43 45.9	-0.1
K11A	**Parker Ranch,** baz=1.8,SNR=11	1.83	332	⇓P	Pn	15 43 46.4	-0.1
SPUT	**South Promonto**	1.83	84	*e*Pn	Pn	15 43 46.6	+0.1
SPUT				*e*Sn	Sn	15 44 13.3	+3.2
DUG	**Dugway** baz=1.8	1.83	121	⇑Sb	Sb	15 44 12.3	+0.7
DUG	**Dugway**	1.83	121	*e*Pn	Pn	15 43 47.4	+0.9
M15A	**Larsen Ranch,** baz=1.8	1.85	80	⇓P	Pn	15 43 46.3	-0.4
BMN	**Battle Mountai**	1.93	249	*e*Pn	Pn	15 43 46.8	-1.0
BMN				*e*Sn	Sn	15 44 13.4	+1.0
P10A	**Eureka** baz=2.0	1.96	219	⇓P	Pn	15 43 47.9	-0.3
M09A	**Marrel Ranch,** baz=2.0	1.96	279	⇑Sb	Sb	15 44 15.9	+0.6
N09A	**Rock Creek Ran** baz=2.0,SNR=8.4	2.03	262	⇓P	Pn	15 43 48.2	-1.0
N09A	baz=2.0			⇓S	Sn	15 44 14.8	-0.2
L15A	**Malad City** baz=2.0	2.05	65	⇓Sb	Sb	15 44 18.6	+0.9
J12A	**Stokes Ranch,** baz=2.1,SNR=12	2.10	355	⇑P	Pn	15 43 50.2	0.0
NOQ	**North Oquirrh**	2.14	103	*e*Pn	Pn	15 43 52.3	+1.5
NOQ				*e*Sb	Sb	15 44 17.5	-3.0
L09A	**Wilkinson Ranc** baz=2.3	2.27	293	⇑Sb	Sb	15 44 24.8	+0.6
Q13A	**Wheeler Ranch,** baz=2.3	2.29	163	⇓S	Sn	15 44 21.1	-0.3
J13A	**Cove Ranch, Pi** baz=2.3,SNR=10	2.30	13	⇓P	Pn	15 43 53.1	+0.2
J14A	**Carey** baz=2.4,SNR=6.4	2.39	24	⇑P	Pn	15 43 54.5	+0.4
CTU	**Camp Tracy**	2.41	100	*e*Pn	Pn	15 43 56.7	+2.3
HLID	**Hailey**	2.43	8	*e*Pn	Pn	15 43 55.5	+0.8
HLID				*e*Sn	Sn	15 44 26.2	+1.5
NLU	**North Lily Min**	2.44	118	*e*Pb	Pb	15 43 57.9	-0.9
Q10A	**Clear Creek Ra** baz=2.6,SNR=13	2.61	207	⇓P	Pn	15 43 57.5	+0.4
JLU	**Jordanelle**	2.65	101	*e*Pn	Pn	15 43 58.5	+0.8
MPU	**Maple Canyon**	2.71	114	*e*Pn	Pb	15 44 05.3	+1.9
MPU				*e*Sg	Sb	15 44 35.5	-1.5
DAU	**Daniels Canyon**	2.84	104	*e*Pn	Pn	15 44 02.5	+2.2
DAU				*e*Pg	Pg	15 44 08.9	0.0
DAU				*e*Sg	Sg	15 44 39.6	-6.1
WVOR	**Wild Horse Val**	3.09	296	*e*Pn	Pn	15 44 07.5	+3.7
AHID	**Auburn Hatcher**	3.24	59	Pn	Pn	15 44 08.9	+3.1
MSU	**Marysvale**	3.36	141	*e*Pn	Pn	15 44 06.3	-1.2
TMUT	**Trail Mountain**	3.36	122	*e*Pn	Pn	15 44 06.1	-1.4
RRI2	**Red Ridge**	3.43	49	*e*Pn	Pn	15 44 07.1	-1.3
ARUT	**Antelope Range**	3.54	161	*e*Pn	Pn	15 44 09.9	-0.1
ARUT				*e*Pg	Pg	15 44 21.1	-1.2
DCID1	**Drake Creek**	3.66	47	*e*Pn	Pn	15 44 14.1	+2.5
REDW	**Red Top Meadow**	3.71	52	*e*Pn	Pn	15 44 15.3	+3.0
TPAW	**Teton Pass**	3.73	50	*e*Pn	Pn	15 44 15.0	+2.5
CCUT	**Cedar City**	3.79	162	*e*Pn	Pn	15 44 17.1	+3.8
NVAR	**Mina Array Bea** 1.0nm,0.3s,baz=40,slow=14,SNR=9.1	3.80	225	Pn	Pn	15 44 13.4	-0.1
NVAR	1.7nm,0.3s,baz=33,slow=15,SNR=8.4			Pg	Pb	15 44 20.5	-1.3
NVAR	3.6nm,0.3s,baz=39,slow=14,SNR=4.2			Sn	Sn	15 44 55.0	-3.5
NVAR	9.7nm,0.3s,baz=46,slow=38,SNR=8.1			Lg		15 45 14.0	
MCMT	**McKenzie Canyo**	3.96	21	*e*Pn	Pn	15 44 19.6	+3.9
IMW	**Indian Meadow**	3.99	45	*e*Pn	Pn	15 44 17.7	+1.5
LOHW	**Long Hollow**	4.00	51	*e*Pn	Pn	15 44 22.7	+6.4
MOOW	**Moose Ponds**	4.00	48	*e*Pn	Pn	15 44 19.4	+3.1
BMO	**Blue Mountains**	4.10	335	*e*Pn	Pn	15 44 22.6	+4.9
MOD	**Modoc**	4.15	282	*e*Pn	Pn	15 44 19.8	+1.5
PDAR	**Pinedale Array** 0.1nm,0.3s,baz=240,slow=12,SNR=3.8	4.28	66	Pn	Pn	15 44 24.5	+4.4
PDAR	0.3nm,0.3s,baz=236,slow=14,SNR=5.8			Pg	Pg	15 44 33.0	-3.3
PDAR	0.4nm,0.3s,baz=226,slow=14,SNR=4.5			Sn	Sn	15 45 10.5	+0.2
PDAR	0.6nm,0.3s,baz=237,slow=30,SNR=6.0			Lg		15 45 29.4	
WAKR	**Walker**	4.40	234	*e*Pn	Pn	15 44 21.4	-0.5
SHPR	**Sheep Range**	4.65	183	*e*Pn	Pn	15 44 25.2	0.0
SHPR				*e*Sg	Sg	15 45 44.5	+0.8
WUAZ	**Wupatki** 9.7nm,0.8s	6.26	153	*e*Pn	Pn	15 44 47.8	+0.4
WUAZ				*e*Pg	Pg	15 45 11.8	-2.6
WUAZ				*e*Sg	Sb	15 46 23.9	+4.8
YKA	**Yellowknife Ar** 0.3nm,0.7s,baz=179,slow=9.8,SNR=6.7	21.37	0	P	P	15 48 01.3	-1.0

IDC ***21*** *15:48:21.0±1.0, 41.°22N×114.°96W, h0^{km}, mb2.6/1, mb1 3.1/3, mb1mx3.0/21, mbtmp2.7/3, ML3.0/2, Error ellipse: s-maj=17.8km s-min=5.3km az=130.0*

ISCJB ***21*** *15:48:22.3±0.2, 41.°16N±0.°02×114.°91W±0.°02, h10^{km}, Error ellipse: s-maj=2.4km s-min=2.2km az=161.9*

NEIC ***21*** *15:48:22.3±0.6, 41.°19N×114.°96W, h5^{km}, ML2.7, Error ellipse: s-maj=8.6km s-min=5.8km az=129.0*

ISC 21 15:48:21.9±0.3**, 41.°18N**±0.°02×**114.°91W**±0.°02**, h3**^{km}±3^{km}**, n52,** σ0.^{s}**98**/78**, 9C-31D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,** baz=0.3,SNR=44	0.34	197	P	Pg	15 48 28.8	+0.4
N12A	baz=0.3			⇓S	Sg	15 48 33.4	+0.6
ELK	**Elko** 19nm,0.3s,baz=20,slow=16,SNR=6.3	0.50	210	Pg	Pg	15 48 31.9	+0.3
ELK	67nm,0.3s,baz=132,slow=18,SNR=14			Lg		15 48 37.9	
ELK	**Elko**	0.50	210	*e*Pg	Pg	15 48 31.6	+0.1
ELK				*e*Sg	Sg	15 48 37.8	-0.2
N13A	**Wendover, West** baz=0.6,SNR=37	0.62	121	⇓P	Pg	15 48 34.0	+0.1
N13A	baz=0.6			⇓S	Sg	15 48 42.2	+0.2
M11A	**Holland Ranch,** baz=0.8,SNR=11	0.71	291	⇓P	Pg	15 48 36.1	+0.5
M11A	baz=0.8			⇓S	Sg	15 48 45.6	+0.9
N11A	**Elko Archery C** baz=0.7,SNR=14	0.72	240	⇓P	Pg	15 48 36.2	+0.4
N11A	baz=0.7			⇓S	Sg	15 48 45.9	+0.8
O12A	**Currie** baz=0.9,SNR=32	0.92	172	⇓P	Pg	15 48 39.6	0.0
O12A	baz=0.9			⇓S	Sg	15 48 51.5	0.0
L12A	**House Creek Ra** baz=1.0,SNR=12	0.97	355	⇓P	Pg	15 48 40.6	+0.1
L12A	baz=1.0			⇓S	Sg	15 48 54.1	+1.0
L13A	**Double Diamond** baz=1.2	1.16	38	⇓S	Sg	15 48 59.7	+0.5
L11A	**Cat Creek Ranc** baz=1.2,SNR=17	1.17	328	⇓P	Pg	15 48 44.2	-0.1
L11A	baz=1.2			⇓S	Sg	15 48 59.8	+0.3
O11A	**Cowboy Ranch,** baz=1.2,SNR=30	1.19	209	⇓P	Pg	15 48 44.8	0.0
O11A	baz=1.2			⇓S	Sg	15 48 60.0	-0.2
M14A	**Sheep Mountain** baz=1.2,SNR=22	1.22	74	⇑P	Pg	15 48 44.5	-0.8
M14A	baz=1.2			⇓S	Sg	15 49 01.1	0.0
O13A	**Hicks Ranch, I** baz=1.2,SNR=37	1.26	146	⇑P	Pg	15 48 45.4	-0.7
O13A	baz=1.2			⇓S	Sg	15 49 02.8	+0.3
M10A	**I.L. Ranch, Tu** baz=1.3	1.27	286	⇑P	Pg	15 48 45.8	-0.5
M10A	baz=1.3			⇓S	Sg	15 49 03.7	+0.9
N10A	**Dunphy** baz=1.3	1.30	250	⇓P	Pg	15 48 45.8	-0.9
N10A	baz=1.3			⇓S	Sg	15 49 03.8	+0.2
N14A	**Grayback Hills** baz=1.3,SNR=16	1.34	104	⇓P	Pn	15 48 46.3	-1.3
N14A	baz=1.3			⇓S	Sg	15 49 04.7	-0.3
BGU	**Big Grassy Mou**	1.44	100	*e*Pn	Pn	15 48 48.3	-0.7
BGU				*e*Sn	Sn	15 49 06.8	-1.6
K12A	**Draper Farm, C** baz=1.5,SNR=11	1.46	0	⇓P	Pn	15 48 48.4	-0.7
K12A	baz=1.5			⇓S	Sb	15 49 07.4	-1.1
L10A	**Juniper Basin** baz=1.5,SNR=14	1.48	308	⇓P	Pn	15 48 49.3	0.0
L10A	baz=1.5			⇓S	Sb	15 49 09.0	-0.1
O10A	**Cortez Mining,** baz=1.5,SNR=16	1.50	234	⇑P	Pn	15 48 49.1	-0.6
O10A	baz=1.5			⇓S	Sn	15 49 09.4	-0.4
L14A	**Malta** baz=1.5,SNR=9.7	1.52	55	⇓P	Pn	15 48 49.5	-0.4
K13A	**Stover Farm, H** baz=1.6,SNR=6.6	1.59	22	⇑P	Pn	15 48 50.3	-0.7
P12A	**McGill** baz=1.7	1.71	180	⇑P	Pn	15 48 51.8	-0.7
HVU	**Hansel Valley**	1.71	69	*e*Pn	Pn	15 48 52.6	-0.1
HVU				*e*Sn	Sn	15 49 15.8	+0.7
P11A	**Circle Ranch,** baz=1.7	1.75	202	⇓P	Pn	15 48 52.6	-0.5
K11A	**Parker Ranch,** baz=1.9,SNR=11	1.80	333	⇑Pb	Pb	15 48 54.3	-1.2
N15A	**Stansbury Isla** baz=1.8,SNR=26	1.83	98	⇓Pb	Pb	15 48 54.5	-1.5
SPUT	**South Promonto**	1.86	85	*e*Pn	Pn	15 48 54.8	+0.2
SPUT				*e*Sn	Sn	15 49 18.5	-0.1
DUG	**Dugway** baz=1.8,SNR=23	1.87	121	⇑Pb	Pb	15 48 55.7	-1.1
DUG	**Dugway**	1.87	121	*e*Pn	Pn	15 48 55.5	+0.6
M15A	**Larsen Ranch,** baz=1.8,SNR=18	1.88	81	⇑Pb	Pb	15 48 55.1	-1.7
BMN	**Battle Mountai**	1.91	248	*e*Pn	Pn	15 48 55.5	+0.1
NOQ	**North Oquirrh**	2.18	103	*e*Pn	Pn	15 48 59.2	+0.2
NOQ				*e*Sn	Sn	15 49 30.5	+4.0
HLID	**Hailey**	2.41	9	*e*Pn	Pn	15 49 02.3	+0.1
HLID				*e*Sg	Sg	15 49 34.9	-4.4
NLU	**North Lily Min**	2.48	119	*e*Pn	Pn	15 49 04.9	+1.7
MPU	**Maple Canyon**	2.75	114	*e*Pn	Pn	15 49 08.4	+1.5
DAU	**Daniels Canyon**	2.88	104	Pn	Pn	15 49 10.3	+1.6
WVOR	**Wild Horse Val**	3.06	295	*e*Pn	Px	15 49 01.1	
WVOR				*e*Sg	Sg	15 49 57.4	-2.6
MSU	**Marysvale**	3.39	141	*e*Pn	Pn	15 49 15.0	-0.8
TMUT	**Trail Mountain**	3.40	122	*e*Pn	Pn	15 49 18.3	+2.5
RRI2	**Red Ridge**	3.43	50	*e*Pn	Pn	15 49 12.4	-3.9
RRI2				*e*Sg	Sg	15 50 08.8	-3.4
ARUT	**Antelope Range**	3.57	161	*e*Pn	Pn	15 49 20.2	+1.9
TPAW	**Teton Pass**	3.73	50	*e*Pn	Pn	15 49 21.0	+0.6
NVAR	**Mina Array Bea** 1.9nm,0.3s,baz=40,slow=13,SNR=6.0	3.79	225	Pn	Pn	15 49 20.9	-0.3
NVAR	2.5nm,0.3s,baz=56,slow=33,SNR=6.9			Pg	Pb	15 49 26.7	-2.7
NVAR	9.1nm,0.3s,baz=52,slow=27,SNR=6.3			Lg		15 50 23.0	
NVAR	**Mina Array Bea**	3.79	225	Pn	Pn	15 49 20.9	-0.3
NVAR				Pg	Pb	15 49 26.7	-2.7
NVAR				Lg		15 50 23.0	
CCUT	**Cedar City**	3.82	161	Pn	Pn	15 49 21.2	-0.4
MCMT	**McKenzie Canyo**	3.95	22	*e*Pn	Pn	15 49 26.2	+2.8
IMW	**Indian Meadow**	4.00	46	*e*Pn	Pn	15 49 25.5	+1.4
LOHW	**Long Hollow**	4.01	51	*e*Pn	Pn	15 49 23.6	-0.6
MOOW	**Moose Ponds**	4.01	49	*e*Pn	Pn	15 49 25.5	+1.3
PDAR	**Pinedale Array** 0.1nm,0.3s,baz=243,slow=10.0,SNR=2.9	4.29	67	Pn	Pn	15 49 30.8	+2.7
PDAR	0.5nm,0.3s,baz=234,slow=12,SNR=6.9			Pg	Pg	15 49 36.3	-7.9
PDAR	0.8nm,0.3s,baz=243,slow=30,SNR=6.3			Lg		15 50 37.6	
YKA	**Yellowknife Ar** 0.2nm,0.7s,baz=178,slow=10.0,SNR=6.5	21.35	0	P	P	15 53 10.4	+0.5

ISCJB ***21*** *15:50:27.8±0.2, 41.°15N±0.°01×114.°82W±0.°02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.8km az=153.4*

NEIC ***21*** *15:50:28.2±0.5, 41.°15N×114.°83W, h5^{km}, ML3.0, Error ellipse: s-maj=6.2km s-min=5.7km az=134.0*

ISC 21 15:50:27.5±0.3**, 41.°17N**±0.°01×**114.°83W**±0.°02**, h2**^{km}±3^{km}**, n73,** σ1.^{s}**05**/113**, 37C-33D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,** baz=0.3	0.35	207	⇓P	Pg	15 50 34.9	+0.8
N12A	baz=0.3			⇓S	Sg	15 50 39.6	+0.9
ELK	**Elko**	0.52	216	*e*Pg	Pg	15 50 37.7	+0.2
ELK				*e*Sg	Sg	15 50 44.8	+0.6
M13A	**Montello** baz=0.5,SNR=49	0.54	69	⇓P	Pg	15 50 38.2	+0.4
M13A	baz=0.5			⇓S	Sg	15 50 45.9	+1.1
N13A	**Wendover, West** baz=0.6,SNR=95	0.57	123	⇑P	Pg	15 50 39.2	+0.8
N13A	baz=0.6			⇑S	Sg	15 50 47.0	+1.3
N11A	**Elko Archery C** baz=0.8	0.77	243	⇓P	Pg	15 50 42.3	+0.1
N11A	baz=0.8			⇑S	Sg	15 50 52.3	+0.2
M11A	**Holland Ranch,** baz=0.8	0.77	290	⇓P	Pg	15 50 42.1	-0.1
M11A	baz=0.8			⇑S	Sg	15 50 52.6	+0.4
O12A	**Currie** baz=0.9,SNR=32	0.90	176	⇓P	Pg	15 50 45.2	+0.5
O12A	baz=0.9			⇑S	Sg	15 50 57.3	+0.9
L12A	**House Creek Ra** baz=1.0	0.99	352	⇑P	Pg	15 50 46.5	+0.1
L12A	baz=1.0			⇑S	Sg	15 50 59.5	+0.3
L13A	**Double Diamond** baz=1.1	1.14	36	⇓P	Pg	15 50 48.8	-0.5
L13A	baz=1.1			⇓S	Sg	15 51 04.5	+0.4
M14A	**Sheep Mountain** baz=1.2,SNR=40	1.17	73	⇑P	Pg	15 50 49.5	-0.4
M14A	baz=1.2			⇓S	Sg	15 51 05.3	+0.3
O11A	**Cowboy Ranch,** baz=1.2,SNR=17	1.21	212	⇓P	Pg	15 50 50.0	-0.6
O11A	baz=1.2			⇑S	Sg	15 51 06.2	-0.1
L11A	**Cat Creek Ranc** baz=1.2	1.22	326	⇑P	Pg	15 50 49.9	-0.8
L11A	baz=1.2			⇑S	Sg	15 51 06.2	-0.3
O13A	**Hicks Ranch, I** baz=1.2,SNR=57	1.22	148	P	Pg	15 50 50.5	-0.4
O13A	baz=1.2			⇑S	Sg	15 51 07.2	+0.6
N14A	**Grayback Hills** baz=1.3,SNR=73	1.28	104	⇑P	Pg	15 50 51.1	-1.0
N14A	baz=1.3			⇑S	Sg	15 51 08.9	+0.2
M10A	**I.L. Ranch, Tu** baz=1.3,SNR=26	1.33	286	⇓P	Pg	15 50 51.5	-1.5
M10A	baz=1.3			⇑S	Sg	15 51 09.6	-0.7
N10A	**Dunphy** baz=1.3	1.35	251	⇑S	Sg	15 51 10.2	-0.5
BGU	**Big Grassy Mou**	1.39	99	*e*Pn	Pn	15 50 52.9	-1.0
BGU				*e*Sn	Sn	15 51 10.9	-1.8
K12A	**Draper Farm, C** baz=1.5,SNR=25	1.47	358	⇓Pb	Pb	15 50 54.2	-1.4
K12A	baz=1.5			⇓S	Sb	15 51 12.7	-1.9
L14A	**Malta** baz=1.5,SNR=24	1.48	53	⇑Pb	Pb	15 50 54.3	-1.4
L14A	baz=1.5			⇑Sb	Sb	15 51 14.7	-0.1
L10A	**Juniper Basin** baz=1.5	1.53	307	⇑Sb	Sb	15 51 15.7	-0.7
O10A	**Cortez Mining,** baz=1.5,SNR=18	1.54	236	⇓Pb	Pb	15 50 55.3	-1.4
O10A	baz=1.5			⇑Sb	Sb	15 51 16.3	-0.3
K13A	**Stover Farm, H** baz=1.6,SNR=13	1.58	20	⇓Pb	Pb	15 50 56.1	-1.4
K13A	baz=1.6			⇑Sb	Sb	15 51 17.6	-0.3
HVU	**Hansel Valley**	1.66	68	*e*Pn	Pn	15 50 56.9	-0.8
HVU				*e*Sn	Sn	15 51 17.9	-1.7
P12A	**McGill** baz=1.7,SNR=22	1.69	182	⇓P	Pn	15 50 56.9	-1.2

P12A				⇓S	Sn	15 51 18.9	-1.4
	baz=1.7						
P11A	Circle Ranch,	1.76	204	⇓Sb	Sb	15 51 22.2	-0.8
	baz=1.8						
N15A	Stansbury Isla	1.77	98	⇑Pb	Pb	15 50 59.4	-1.3
	baz=1.8						
N15A				⇓S	Sn	15 51 20.8	-1.4
	baz=1.8						
SPUT	South Promonto	1.80	85	ePn	Pn	15 50 59.7	+0.1
DUG	Dugway	1.82	122	⇑P	Pn	15 50 58.6	-1.2
	baz=1.8,SNR=39						
DUG	Dugway	1.82	122	ePn	Pn	15 50 59.4	-0.3
DUG				eSn	Sn	15 51 25.6	+2.3
M15A	Larsen Ranch,	1.82	80	⇓Pb	Pb	15 50 59.8	-1.7
	baz=1.8,SNR=39						
M15A				⇑Sb	Sb	15 51 24.6	-0.2
	baz=1.8						
K11A	Parker Ranch,	1.84	331	⇑Pb	Pb	15 50 59.9	-1.9
	baz=1.8,SNR=35						
K14A	Jones Ranch, D	1.85	41	⇑Pb	Pb	15 51 00.1	-2.0
	baz=1.9,SNR=13						
BMN	Battle Mountai	1.96	249	ePn	Pn	15 51 01.9	+0.3
BMN				eSn	Sn	15 51 26.3	-0.5
L15A	Malad City	2.02	65	⇓P	Pn	15 51 01.3	-1.2
	baz=2.0,SNR=28						
P14A	Drum Mountains	2.07	139	⇑P	Pn	15 51 02.1	-1.2
	baz=2.1,SNR=14						
J12A	Stokes Ranch,	2.09	355	P	Pn	15 51 04.0	+0.5
	baz=2.1,SNR=36						
NOQ	North Oquirrh	2.12	103	ePn	Pn	15 51 04.4	+0.4
K10A	MacKenzie Ranc	2.21	317	⇑P	Pn	15 51 06.2	+1.0
	baz=2.2,SNR=20						
J13A	Cove Ranch, Pi	2.28	12	⇓P	Pn	15 51 06.7	+0.5
	baz=2.3,SNR=73						
L09A	Wilkinson Ranc	2.29	293	⇓P	Pn	15 51 07.6	+1.3
	baz=2.3,SNR=10						
K15A	Arbon	2.29	48	⇓P	Pn	15 51 06.5	+0.1
	baz=2.3,SNR=26						
Q13A	Wheeler Ranch,	2.29	164	⇓P	Pn	15 51 05.1	-1.3
	baz=2.3,SNR=7.8						
MFID	Camas Ranch	2.37	342	⇑P	Pn	15 51 08.6	+1.3
	baz=2.4,SNR=5.6						
J14A	Carey	2.37	24	⇓P	Pn	15 51 08.0	+0.6
	baz=2.4,SNR=36						
HLID	Hailey	2.42	7	⇓P	Pn	15 51 08.7	+0.7
	baz=2.4,SNR=42						
HLID	Hailey	2.42	7	ePn	Pn	15 51 08.4	+0.4
HLID				eSn	Sn	15 51 39.7	+1.6
NLU	North Lily Min	2.42	119	ePn	Pn	15 51 08.1	0.0
I12A	Atlanta	2.64	355	⇓P	Pn	15 51 12.2	+1.2
	baz=2.6,SNR=19						
K09A	Rome	2.65	306	⇑P	Pn	15 51 12.8	+1.6
	baz=2.6,SNR=22						
MPU	Maple Canyon	2.69	114	ePn	Pn	15 51 12.3	+0.5
MPU				eSg	Sg	15 51 55.0	+1.0
I13A	Wildhorse Cree	2.80	11	⇓P	Pn	15 51 14.2	+1.0
	baz=2.8,SNR=18						
DAU	Daniels Canyon	2.82	104	ePn	Pn	15 51 15.1	+1.6
DAU				ePg	Pg	15 51 22.0	+0.5
DAU				eSg	Sg	15 51 57.1	-0.9
L08A	Fields	2.82	292	⇑P	Pn	15 51 16.0	+2.4
	baz=2.8,SNR=17						
R12A	Pony Springs,	2.84	176	⇓P	Pn	15 51 13.2	-0.6
	baz=2.8,SNR=5.5						
J15A	Blackfoot	2.85	38	⇓P	Pn	15 51 14.5	+0.4
	baz=2.9,SNR=10						
Q15A	Fillmore	2.87	138	⇑P	Pn	15 51 13.1	-1.2
	baz=2.9,SNR=15						
K16A	Soda Springs	2.94	54	⇑P	Pn	15 51 15.7	+0.5
	baz=2.9,SNR=9.6						
R13A	O'Grain Ranch,	3.06	167	⇑P	Pn	15 51 16.6	-0.2
	baz=3.1,SNR=15						
WVOR	Wild Horse Val	3.11	295	ePn	Pn	15 51 18.4	+0.8
WVOR				eSb	Sb	15 52 01.8	-0.2
J16A	Bone	3.19	48	⇑P	Pn	15 51 19.4	+0.8
	baz=3.2,SNR=9.1						
TMUT	Trail Mountain	3.34	123	ePn	Pn	15 51 23.0	+2.2
TMUT				eSg	Sg	15 52 14.5	-0.4
MSU	Marysvale	3.35	141	ePn	Pn	15 51 20.0	-0.8
MSU				eSg	Sg	15 52 16.1	+1.1
RRI2	Red Ridge	3.40	49	ePn	Pn	15 51 22.5	+1.0
RRI2				eSg	Sg	15 52 13.7	-3.0
ARUT	Antelope Range	3.54	162	ePn	Pn	15 51 25.4	+1.9
ARUT				ePg	Pg	15 51 35.0	-0.3
ARUT				eSg	Sg	15 52 18.1	-3.1
S13A	Holt Ranch, En	3.66	168	⇑P	Pn	15 51 24.7	-0.4
	baz=3.7,SNR=14						
REDW	Red Top Meadow	3.68	52	ePn	Pn	15 51 26.7	+1.3
REDW				eSg	Sg	15 52 22.4	-3.3
T11A	Corn Creek, Al	3.93	185	⇓P	Pn	15 51 28.5	-0.4
	baz=3.9,SNR=6.8						
MCMT	McKenzie Canyo	3.94	21	ePn	Pn	15 51 30.3	+1.3
MCMT				eSg	Sg	15 52 28.9	-5.1
G13A	Cobalt	3.95	6	⇑P	Pn	15 51 30.7	+1.6
	baz=4.0,SNR=5.5						
IMW	Indian Meadow	3.97	45	ePn	Pn	15 51 30.7	+1.4
LOHW	Long Hollow	3.97	51	Pn	Pn	15 51 32.8	+3.3
MOOW	Moose Ponds	3.98	48	ePn	Pn	15 51 30.2	+0.8
MOOW				eSg	Sg	15 52 28.7	-6.5
PV04	Paradox Valley	5.34	119	Pn	Pn	15 51 49.4	+1.2
PV04				ePg	Pg	15 52 10.1	+0.3

ISCJB ***21*** *16:05:37.9±0.6, 33.°33N±0.°03×35.°41E±0.°04, h4^{km}±5^{km}, Error ellipse: s-maj=6.3km s-min=3.8km az=33.1*

CSEM ***21*** *16:05:38.0±0.1, 33.°34N×35.°42E, h5^{km}, ML3.0, Error ellipse: s-maj=3.5km s-min=1.9km az=118.0*

GRAL ***21*** *16:05:38.9±0.3, 33.°33N×35.°44E, h1^{km}±4^{km}, MD3.0*

GII ***21*** *16:05:38.1±0.6, 33.°27N×35.°44E, h2^{km}±1^{km}, Md2.3/6*

ISC 21 16:05:38.2±0.6, **33.°34N**±0.°03×**35.°41E**±0.°04, **h4**^{km}±6^{km}, **n32, σ0.^{s}52**/52, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	335	eP	Pg	16 05 42.2	+0.8
MATL	Matirih	0.16	335	eP	Pg	16 05 42.2	+0.8
KSDI	Kefar Szold	0.26	126	Pg	Pg	16 05 42.9	-0.3
KSDI				Sg	Sg	16 05 46.9	+0.3
KSDI	Kefar Szold	0.26	126	Pg	Pg	16 05 42.9	-0.3
KSDI				Sg	Sg	16 05 46.9	+0.3
HRI	Mount Hermon	0.28	106	Sg	Sg	16 05 48.0	+0.7
HRI	Mount Hermon	0.28	106	Sg	Sg	16 05 48.0	+0.7
HNTI	Hanita	0.33	218	Pg	Pg	16 05 44.7	+0.2
HNTI				Sg	Sg	16 05 49.7	+0.9
HNTI	Hanita	0.33	218	Pg	Pg	16 05 44.7	+0.2
HNTI				Sg	Sg	16 05 49.7	+0.9
MMA0	Mount Meron ar	0.33	181	Pg	Pg	16 05 44.1	-0.4
MMA0				Sg	Sg	16 05 49.0	+0.2
MMA0	Mount Meron ar	0.33	181	Pg	Pg	16 05 44.1	-0.4
MMA0				Sg	Sg	16 05 49.0	+0.2
RCY	Rachaya	0.37	67	eP	Pg	16 05 45.7	+0.3
RCY				eS	Sg	16 05 50.5	+0.3
RCY	Rachaya	0.37	67	eP	Pg	16 05 45.7	+0.4
RCY				eS	Sg	16 05 50.5	+0.3
KSHT	Keshet	0.49	137	Pg	Pg	16 05 47.4	-0.3
KSHT	Keshet	0.49	137	Pg	Pg	16 05 47.4	-0.3
BHL	Bhannes	0.59	20	eP	Pg	16 05 49.6	-0.1
BHL	Bhannes	0.59	20	eP	Pg	16 05 49.6	-0.1
BLGI	Bet Lehem HaGe	0.64	197	Pg	Pg	16 05 50.3	-0.1
BLGI				Sg	Sg	16 05 59.3	+0.6
BLGI	Bet Lehem HaGe	0.64	197	Pg	Pg	16 05 50.3	-0.1
BLGI				Sg	Sg	16 05 59.3	+0.6
OFRI	‘Ofer	0.80	207	Pg	Pg	16 05 53.3	-0.4
OFRI	‘Ofer	0.80	207	Pg	Pg	16 05 53.3	-0.4
MMLI	Mount Malkishu	0.90	179	Pg	Pg	16 05 54.8	-0.7
MMLI				Sg	Sg	16 06 07.1	-0.1
MMLI	Mount Malkishu	0.90	179	Pg	Pg	16 05 54.8	-0.7
MMLI				Sg	Sg	16 06 07.1	-0.1
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	16 05 58.2	-1.0
HMDT				Sg	Sg	16 06 13.3	0.0
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	16 05 58.2	-1.0
HMDT				Sg	Sg	16 06 13.3	0.0
SLTI	Sal’it	1.14	196	Pg	Pg	16 05 59.3	-0.8
SLTI				Sg	Sg	16 06 15.2	+0.2
SLTI	Sal’it	1.14	196	Pg	Pg	16 05 59.3	-0.8
SLTI				Sg	Sg	16 06 15.2	+0.2
FKH	Fakeheh	1.21	43	eP	Pg	16 06 00.7	-0.8
FKH	Fakeheh	1.21	43	eP	Pg	16 06 00.7	-0.8
DSI	Dead Sea	1.77	181	Pn	Pn	16 06 09.0	-0.5
DSI				Sn	Sn	16 06 32.5	+0.1
DSI	Dead Sea	1.77	181	Pn	Pn	16 06 09.0	-0.5
DSI				Sn	Sn	16 06 32.5	+0.1
MZDA	Masada	2.03	181	Pn	Pn	16 06 13.3	+0.2
MZDA				Sn	Sn	16 06 39.6	+0.7
MZDA	Masada	2.03	181	Pn	Pn	16 06 13.3	+0.2
MZDA				Sn	Sn	16 06 39.6	+0.7

ISCJB ***21*** *16:05:54.1±0.2, 41.°17N±0.°02×114.°87W±0.°02, h10^{km}, Error ellipse: s-maj=2.9km s-min=2.3km az=137.1*

NEIC ***21*** *16:05:54.2, 41.°14N×114.°89W, h15^{km}, ML3.1, After REN.*

IDC ***21*** *16:05:54.1±1.1, 41.°22N×114.°89W, h0^{km}, mb3.1/1, mb1 3.6/4, mb1mx3.4/22, mbtmp3.2/4, ML3.4/3, Error ellipse: s-maj=20.7km s-min=5.6km az=132.0*

ISC 21 16:05:54.7±0.2, **41.°17N**±0.°02×**114.°91W**±0.°02, **h10**^{km}, **n61, σ1.^{s}17**/91, **12C-10D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.33	198	P	Pg	16 06 00.8	-0.3
	baz=0.3,SNR=45						
N12A				⇑S	Sg	16 06 05.7	+0.1
	baz=0.3						
ELK	Elko	0.49	211	Pg	Pg	16 06 03.9	-0.4
	16nm,0.3s,baz=19,slow=16,SNR=7.2						
ELK				Lg		16 06 11.6	
	200nm,0.3s,baz=28,slow=22,SNR=31						
ELK	Elko	0.49	211	ePg	Pg	16 06 03.3	-0.9
ELK				eSg	Sg	16 06 10.1	-0.5
N13A	Wendover, West	0.61	120	⇑P	Pg	16 06 05.6	-0.9
	baz=0.6,SNR=54						
N11A	Elko Archery C	0.72	241	P	Pg	16 06 08.4	-0.1
	baz=0.7,SNR=28						
N11A				⇓S	Sg	16 06 19.3	+1.4
	baz=0.7						
O12A	Currie	0.91	172	⇑P	Pg	16 06 11.3	-0.7
	baz=0.9,SNR=22						
O12A				⇑S	Sg	16 06 23.9	+0.1
	baz=0.9						
L12A	House Creek Ra	0.98	355	⇑P	Pg	16 06 12.5	-1.1
	baz=1.0,SNR=21						
L12A				⇑S	Sg	16 06 26.3	-0.1
	baz=1.0						
L13A	Double Diamond	1.17	38	⇓P	Pb	16 06 15.3	-1.7
	baz=1.2,SNR=16						
O11A	Cowboy Ranch,	1.18	209	⇑P	Pb	16 06 16.9	-0.3
	baz=1.2,SNR=30						
O11A				⇓S	Sb	16 06 32.3	-0.2
	baz=1.2						
L11A	Cat Creek Ranc	1.19	328	⇑S	Sb	16 06 32.0	-0.6
	baz=1.2						
M14A	Sheep Mountain	1.22	73	⇓P	Pn	16 06 16.2	-1.6
	baz=1.2,SNR=21						
M10A	I.L. Ranch, Tu	1.28	287	⇑P	Pn	16 06 18.4	-0.2
	baz=1.3,SNR=6.0						
N10A	Dunphy	1.29	250	⇓S	Sb	16 06 36.0	+0.3
	baz=1.3						
N14A	Grayback Hills	1.34	103	⇓P	Pn	16 06 18.0	-1.3
	baz=1.3,SNR=16						
BGU	Big Grassy Mou	1.44	99	ePn	Pn	16 06 19.6	-1.2
BGU				eSn	Sn	16 06 39.3	-0.4
K12A	Draper Farm, C	1.47	0	⇓P	Pn	16 06 20.7	-0.5
	baz=1.5,SNR=25						
L10A	Juniper Basin	1.49	308	⇑P	Pn	16 06 21.5	+0.1
	baz=1.5,SNR=27						
L10A				⇑S	Sn	16 06 40.9	+0.1
	baz=1.5						
O10A	Cortez Mining,	1.49	235	⇓P	Pn	16 06 21.2	-0.3
	baz=1.5,SNR=14						
O10A				⇑S	Sn	16 06 42.2	+1.1
	baz=1.5						
L14A	Malta	1.52	55	⇓P	Pn	16 06 21.0	-0.9
	baz=1.5,SNR=7.7						
HVU	Hansel Valley	1.71	68	ePn	Pn	16 06 25.5	+0.9
HVU				eSn	Sn	16 06 47.6	+1.1
P11A	Circle Ranch,	1.74	202	⇓P	Pn	16 06 24.8	-0.1
	baz=1.7,SNR=8.9						
SPUT	South Promonto	1.86	85	ePn	Pn	16 06 27.1	+0.5
SPUT				eSn	Sn	16 06 51.6	+1.6
DUG	Dugway	1.86	121	ePn	Pn	16 06 27.2	+0.6
BMN	Battle Mountai	1.91	248	ePn	Pn	16 06 25.6	-1.5
BMN				eSn	Sn	16 06 55.5	+4.2
NOQ	North Oquirrh	2.17	103	ePn	Pn	16 06 32.3	+1.4
NLU	North Lily Min	2.47	118	ePn	Pn	16 06 38.5	+3.5
MPU	Maple Canyon	2.74	114	ePn	Pn	16 06 43.0	+4.3
DAU	Daniels Canyon	2.87	104	ePn	Pn	16 06 37.3	-3.1
DAU				eSg	Sg	16 07 26.3	-0.5
WVOR	Wild Horse Val	3.06	296	ePn	Pn	16 06 48.9	+5.7
AHID	Auburn Hatcher	3.26	59	ePn	Pn	16 06 49.8	+4.0
MSU	Marysvale	3.38	141	ePn	Pn	16 06 44.1	-3.3
TMUT	Trail Mountain	3.39	122	Pn	Pb	16 06 56.1	+1.3
RRI2	Red Ridge	3.44	49	ePn	Pn	16 06 50.7	+2.4
RRI2				eSn	Sb	16 07 42.3	+4.8
ARUT	Antelope Range	3.56	161	ePn	Pn	16 06 51.8	+1.9
ARUT				ePg	Pg	16 07 03.0	+0.2
ARUT				eSg	Sg	16 07 48.6	-0.3
DCID1	Drake Creek	3.67	47	ePn	Pn	16 06 52.1	+0.6
REDW	Red Top Meadow	3.72	53	ePn	Pn	16 06 52.8	+0.6
REDW				eSg	Sg	16 07 54.0	-0.2
TPAW	Teton Pass	3.74	50	ePn	Pn	16 06 52.8	+0.4
TPAW				eS	Sb	16 07 50.0	+3.9
NVAR	Mina Array Bea	3.78	225	Pn	Pn	16 06 55.1	+2.1
	2.1nm,0.3s,baz=42,slow=11,SNR=6.8						
NVAR				Pg	Pg	16 07 05.9	-1.2
	4.8nm,0.3s,baz=38,slow=18,SNR=11						
NVAR				Lg		16 07 56.5	
	22nm,0.3s,baz=35,slow=29,SNR=15						
CCUT	Cedar City	3.80	161	ePn	Pn	16 06 54.7	+1.5
SNOW	Snow King Moun	3.84	52	ePn	Pn	16 07 00.0	+6.3
SRU	San Rafael	3.94	120	ePn	Pn	16 06 53.1	-2.0
SRU				ePg	Pg	16 07 07.0	-3.1
IMW	Indian Meadow	4.00	46	ePn	Pn	16 06 56.9	+0.8
LOHW	Long Hollow	4.02	51	ePn	Pn	16 06 56.2	0.0
MOOW	Moose Ponds	4.02	49	ePn	Pn	16 06 57.0	+0.8
BMO	Blue Mountains	4.08	335	ePn	Pn	16 06 57.3	+0.2
MOD	Modoc	4.12	282	ePn	Pn	16 06 57.2	-0.3
PDAR	Pinedale Array	4.30	66	Pn	Pn	16 07 01.9	+1.9
	0.3nm,0.3s,baz=248,slow=12,SNR=5.8						
PDAR				Pg	Pg	16 07 17.1	+0.2
	1.1nm,0.3s,baz=266,slow=13,SNR=11						
PDAR				Lg		16 08 09.6	
	1.5nm,0.3s,baz=243,slow=26,SNR=6.2						
PDAR	Pinedale Array	4.30	66	Pn	Pn	16 07 01.9	+1.9
PDAR				Pg	Pg	16 07 17.1	+0.2
PDAR				Lg		16 08 09.6	
YFT	Old Faithful	4.44	41	Pn	Pn	16 07 09.5	+7.4
DLMT	Dillon	4.52	21	ePn	Pn	16 07 02.3	-0.8
DLMT				eSg	Sg	16 08 14.7	-5.1
LKWY	Lake	4.74	43	ePn	Pn	16 07 09.7	+3.5
BOZ	Bozeman (W)	5.08	27	ePn	Pn	16 07 09.6	-1.1
BOZ				eSn	Sb	16 08 20.9	-3.6
PV04	Paradox Valley	5.39	119	Pn	Pn	16 07 22.8	+7.8
PV04				ePg	Pg	16 07 37.5	-0.3
PV01	Paradox Valley	5.75	120	ePn	Pn	16 07 22.6	+2.6
PV01				ePg	Pg	16 07 42.0	-2.8
RWWY	Rawlins	5.81	82	Pn	Pn	16 07 28.0	+7.1
RWWY				eSg	Sb	16 08 50.8	+5.2
YBH	Yreka Blue Hor	5.89	278	Pg	Pg	16 07 42.7	-4.8
	0.2nm,0.3s,baz=80,slow=6.1,SNR=3.3						
YBH				Lg		16 09 01.9	
	0.1nm,0.3s,baz=162,slow=20,SNR=3.5						
LDFC	Landfair	6.08	182	ePn	Pn	16 07 26.4	+1.9
LDFC				ePg	Pg	16 07 51.3	+0.2
WUAZ	Wupatki	6.29	153	ePb	Pb	16 07 42.3	-1.9
WUAZ				ePg	Pg	16 07 51.5	-3.5
MVCO	Mesa Verde	6.35	126	ePb	Pb	16 07 43.4	-1.9
MVCO				ePg	Pg	16 07 57.1	+0.8
TXAR	Lajitas Array	14.94	139	Pn	Pn	16 09 31.4	+5.6
	0.1nm,0.3s,baz=348,slow=13,SNR=3.8						
YKA	Yellowknife Ar	21.36	0	P	P	16 10 41.8	0.0
	0.8nm,0.8s,baz=180,slow=10,SNR=20						

IDC ***21*** *16:14:15.9±0.9, 41.°27N×114.°93W, h0^{km}, mb3.2/1, mb1 3.5/4, mb1mx3.3/21, mbtmp3.1/4, ML3.6/3, MS3.5/2, Ms1 3.5/2, ms1mx3.1/16, Error ellipse: s-maj=11.6km s-min=5.3km az=129.0*

ISCJB ***21*** *16:14:17.0±0.2, 41.°17N±0.°01×114.°82W±0.°02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.7km az=37.9*

NEIC ***21*** *16:14:17.5, 41.°17N×114.°83W, h14^{km}, ML3.3, After REN.*

ISC 21 16:14:16.7±0.3, **41.°19N**±0.°01×**114.°84W**±0.°02, **h1**^{km}±2^{km}, **n114, σ1.^{s}01**/157, **39C-32D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.37	204	⇓P	Pg	16 14 25.0	+1.1
	baz=0.4,SNR=61						
N12A				⇑S	Sg	16 14 29.9	+1.3
	baz=0.4						
M13A	Montello	0.54	71	⇑P	Pg	16 14 27.4	+0.4
	baz=0.5,SNR=29						
M13A				⇑S	Sg	16 14 34.6	+0.7
	baz=0.5						
ELK	Elko	0.54	214	Pg	Pg	16 14 27.9	+0.8
	53nm,0.3s,baz=18,slow=12,SNR=28						
ELK				Lg		16 14 34.4	
	176nm,0.3s,baz=168,slow=19,SNR=43						
ELK	Elko	0.54	214	ePg	Pg	16 14 27.7	+0.6
ELK				eSg	Sg	16 14 35.2	+1.1
N13A	Wendover, West	0.59	125	⇑P	Pg	16 14 28.4	+0.5
	baz=0.6,SNR=142						
N13A				⇑S	Sg	16 14 36.4	+0.9
	baz=0.6						
M11A	Holland Ranch,	0.76	289	⇓P	Pg	16 14 31.6	+0.4
	baz=0.8,SNR=45						
N11A	Elko Archery C	0.78	241	⇓P	Pg	16 14 32.2	+0.6
	baz=0.8,SNR=52						
N11A				⇑S	Sg	16 14 42.4	+0.7
	baz=0.8						
O12A	Currie	0.93	176	⇓P	Pg	16 14 35.0	+0.6
	baz=0.9,SNR=24						
O12A				⇓S	Sg	16 14 47.5	+1.0
	baz=0.9						
L12A	House Creek Ra	0.96	352	⇑P	Pg	16 14 35.5	+0.2
	baz=1.0,SNR=13						
L12A				⇑S	Sg	16 14 47.9	+0.1
	baz=1.0						
L13A	Double Diamond	1.12	37	⇑P	Pg	16 14 37.7	-0.5
	baz=1.1,SNR=9.6						
L13A				⇑S	Sg	16 14 52.5	-0.2
	baz=1.1						
M14A	Sheep Mountain	1.17	74	⇑P	Pg	16 14 38.5	-0.6
	baz=1.2,SNR=20						
M14A				⇓S	Sg	16 14 53.9	-0.3
	baz=1.2						
L11A	Cat Creek Ranc	1.19	325	⇓P	Pg	16 14 39.1	-0.5
	baz=1.2,SNR=35						
L11A				⇓S	Sg	16 14 54.9	-0.1
	baz=1.2						
O11A	Cowboy Ranch,	1.23	211	⇑P	Pg	16 14 40.2	-0.1
	baz=1.2,SNR=19						
O11A				⇑S	Sg	16 14 56.7	+0.6
	baz=1.2						
O13A	Hicks Ranch, I	1.24	148	⇓P	Pg	16 14 40.1	-0.5
	baz=1.2,SNR=25						
O13A				⇓S	Sg	16 14 57.3	+0.6
	baz=1.2						
N14A	Grayback Hills	1.30	105	⇑P	Pg	16 14 40.7	-0.9
	baz=1.3						
N14A				⇑S	Sg	16 14 58.5	+0.2
	baz=1.3						
M10A	I.L. Ranch, Tu	1.32	285	⇓Pb	Pb	16 14 41.8	-0.6
	baz=1.3,SNR=18						
N10A	Dunphy	1.35	250	⇑P	Pg	16 14 41.7	-0.9
	baz=1.4,SNR=18						
N10A				⇑S	Sg	16 15 00.7	+0.6
	baz=1.4						
BGU	Big Grassy Mou	1.39	100	ePn	Pn	16 14 42.0	-1.3
BGU				eSn	Sn	16 15 00.3	-2.1
K12A	Draper Farm, C	1.45	358	⇑Pb	Pb	16 14 43.8	-0.6
	baz=1.5,SNR=11						
K12A				⇓S	Sg	16 15 01.6	-1.5
	baz=1.5						
L14A	Malta	1.47	54	⇓P	Pn	16 14 43.3	-1.0
	baz=1.5,SNR=8.2						
L14A				⇓S	Sg	16 15 02.8	-1.1
	baz=1.5						
L10A	Juniper Basin	1.51	306	⇑Pg	Pg	16 14 45.8	+0.1
	baz=1.5,SNR=17						
L10A				⇑S	Sb	16 15 04.7	-0.5
	baz=1.5						
O10A	Cortez Mining,	1.55	235	⇓P	Pn	16 14 44.7	-0.7
	baz=1.5,SNR=17						
O10A				⇑S	Sn	16 15 06.1	0.0
	baz=1.5						
K13A	Stover Farm, H	1.56	21	⇓S	Sn	16 15 05.9	-0.6
	baz=1.6						
HVU	Hansel Valley	1.66	69	ePn	Pn	16 14 46.3	-0.7
HVU				eSg	Sg	16 15 08.6	-1.5
P12A	McGill	1.72	182	⇑P	Pn	16 14 46.9	-0.8
	baz=1.7						
P12A				⇑S	Sn	16 15 09.5	-0.8
	baz=1.7						
P11A	Circle Ranch,	1.78	203	⇓P	Pn	16 14 48.1	-0.5
	baz=1.8,SNR=7.9						
P11A				⇓S	Sn	16 15 12.6	+0.7
	baz=1.8						
N15A	Stansbury Isla	1.78	99	⇑Pb	Pb	16 14 48.7	-1.4
	baz=1.8,SNR=20						
SPUT	South Promonto	1.81	85	ePn	Pn	16 14 48.8	-0.2
K11A	Parker Ranch,	1.81	331	⇓S	Sn	16 15 13.2	+0.5
	baz=1.8						
DUG	Dugway	1.83	122	Pn	Pn	16 14 49.8	+0.4
DUG				eSg	Sg	16 15 17.1	+1.4
BMN	Battle Mountai	1.96	248	ePn	Pn	16 14 47.1	-4.0
BMN				eSn	Sn	16 15 17.5	+1.2
N09A	Rock Creek Ran	2.06	261	⇑S	Sn	16 15 17.7	-1.0
	baz=2.1						
J12A	Stokes Ranch,	2.07	355	⇑S	Sn	16 15 19.4	+0.5
	baz=2.1						
NOQ	North Oquirrh	2.13	104	ePn	Pn	16 14 53.4	0.0
K10A	MacKenzie Ranc	2.19	317	⇓P	Pn	16 14 55.5	+1.2
	baz=2.2						
J13A	Cove Ranch, Pi	2.26	12	⇓P	Pn	16 14 55.6	+0.4
	baz=2.3,SNR=26						
L09A	Wilkinson Ranc	2.28	292	⇓P	Pn	16 14 55.2	-0.2
	baz=2.3,SNR=30						
K15A	Arbon	2.28	48	⇑P	Pn	16 14 55.4	-0.1
	baz=2.3,SNR=38						
Q13A	Wheeler Ranch,	2.32	164	⇑P	Pn	16 14 55.1	-0.9
	baz=2.3						
MFID	Camas Ranch	2.34	342	⇓P	Pn	16 14 57.4	+1.1
	baz=2.4,SNR=27						
J14A	Carey	2.35	24	⇓P	Pn	16 14 56.9	+0.5
	baz=2.4,SNR=29						
HLID	Hailey	2.39	7	P	Pn	16 14 57.7	+0.7
	baz=2.4,SNR=35						
HLID	Hailey	2.39	7	ePn	Pn	16 14 57.4	+0.4
HLID				eSn	Sn	16 15 29.3	+2.3
CTU	Camp Tracy	2.39	101	ePn	Pn	16 14 56.9	-0.1
M16A	Huntsville	2.42	86	⇑P	Pn	16 14 58.2	+0.8
	baz=2.4,SNR=12						
Q11A	Duckwater	2.42	195	⇓P	Pn	16 14 56.6	-0.9
	baz=2.4,SNR=19						
NLU	North Lily Min	2.44	119	ePn	Pn	16 14 57.5	-0.2
Q14A	Sevier Lake (B	2.51	151	⇓P	Pn	16 14 57.6	-1.0
	baz=2.5						
Q10A	Clear Creek Ra	2.65	207	⇑P	Pn	16 15 00.1	-0.5
	baz=2.6,SNR=29						
MPU	Maple Canyon	2.71	115	ePn	Pn	16 15 02.6	+1.2
I13A	Wildhorse Cree	2.77	11	⇓P	Pn	16 15 03.0	+0.7
	baz=2.8,SNR=32						
DAU	Daniels Canyon	2.83	105	ePn	Pn	16 15 04.5	+1.5
DAU				ePg	Pg	16 15 11.2	+0.2
DAU				eSg	Sg	16 15 47.9	+0.2
J15A	Blackfoot	2.84	38	⇓P	Pn	16 15 03.2	0.0
	baz=2.8,SNR=16						
R12A	Pony Springs,	2.87	176	P	Pn	16 15 03.2	-0.3
	baz=2.9,SNR=16						
P08A	Dixie Valley	2.89	240	⇓P	Pn	16 15 03.3	-0.6
	baz=2.9						
Q15A	Fillmore	2.89	138	⇑P	Pn	16 15 02.7	-1.2
	baz=2.9						
R11A	Troy Canyon, C	2.90	192	⇓P	Pn	16 15 03.2	-0.7
	baz=2.9						
K16A	Soda Springs	2.92	55	⇑P	Pn	16 15 04.6	+0.2
	baz=2.9,SNR=12						
Q09A	Carvers	2.96	218	⇑P	Pn	16 15 04.7	-0.2
	baz=3.0,SNR=10						
R13A	O’Grain Ranch,	3.08	167	⇑P	Pn	16 15 06.4	-0.1
	baz=3.1,SNR=8.1						
WVOR	Wild Horse Val	3.10	295	ePn	Pn	16 15 09.9	+3.1
WVOR				eSg	Sg	16 15 50.9	-5.4
N07B	Gerlach	3.15	264	⇑P	Pn	16 15 06.9	-0.6
	baz=3.2,SNR=6.3						
J16A	Bone	3.17	48	⇑P	Pn	16 15 08.3	+0.5
	baz=3.2,SNR=8.1						
AHID	Auburn Hatcher	3.20	59	ePn	Pn	16 15 09.6	+1.4
AHID				eSg	Sg	16 15 54.5	-5.1
O07A	Toulon	3.24	253	⇓P	Pn	16 15 07.6	-1.1
	baz=3.2						
M07A	Soldier Meadow	3.27	275	⇑P	Pn	16 15 08.5	-0.6
	baz=3.3,SNR=8.1						

TMUT	Trail Mountain	3.36	123	*e*Pn	Pn	16 15 15.4	+5.0
TMUT				*e*Sg	Sg	16 16 06.0	+1.2
MSU	Marysvale	3.37	142	*e*Pn	Pn	16 15 09.8	-0.6
RRI2	Red Ridge	3.39	49	*e*Pn	Pn	16 15 10.9	+0.2
RRI2				*e*Sg	Sg	16 16 01.0	-4.5
ARUT	Antelope Range	3.57	162	*e*Pn	Pn	16 15 13.1	-0.1
ARUT				*e*Pg	Pg	16 15 25.3	+0.2
DCID1	Drake Creek	3.62	47	*e*Pn	Pn	16 15 12.8	-1.1
REDW	Red Top Meadow	3.67	52	*e*Pn	Pn	16 15 15.2	+0.6
S13A	Holt Ranch, En	3.69	168	P	Pn	16 15 14.6	-0.2
	baz=3.7,SNR=16						
TPAW	Teton Pass	3.69	50	*e*Pn	Pn	16 15 14.5	-0.3
TPAW				*e*Sn	Sb	16 16 09.5	+1.7
SNOW	Snow King Moun	3.79	52	*e*Pn	Pn	16 15 17.4	+1.2
CCUT	Cedar City	3.81	162	*e*Pn	Pn	16 15 16.3	-0.3
NVAR	Mina Array Bea	3.84	225	Pn	Pn	16 15 16.4	-0.5
	2.1nm,0.3s,baz=43,slow=14,SNR=18						
NVAR				Pg	Pg	16 15 26.9	-3.4
	13nm,0.3s,baz=43,slow=15,SNR=28						
NVAR				Sn	Sn	16 16 01.4	-1.2
	9.2nm,0.3s,baz=57,slow=19,SNR=3.7						
NVAR				Lg		16 16 14.2	
	6.1nm,0.3s,baz=45,slow=34,SNR=2.8						
NVAR	Mina Array Bea	3.84	225	Pn	Pn	16 15 16.4	-0.5
NVAR				Pg	Pg	16 15 26.9	-3.4
NVAR				Sn	Sn	16 16 01.4	-1.2
NVAR				Lg		16 16 14.2	
SRU	San Rafael	3.91	121	*e*Pn	Pn	16 15 19.1	+1.2
MCMT	McKenzie Canyo	3.92	21	*e*Pn	Pn	16 15 19.0	+1.0
IMW	Indian Meadow	3.95	46	*e*Pn	Pn	16 15 16.9	-1.6
T11A	Corn Creek, Al	3.96	184	P	Pn	16 15 18.3	-0.3
	baz=3.9,SNR=21						
LOHW	Long Hollow	3.96	51	*e*Pn	Pn	16 15 19.3	+0.7
MOOW	Moose Ponds	3.96	48	*e*Pn	Pn	16 15 17.7	-0.9
MOOW				*e*Sg	Sg	16 16 15.6	-8.4
BMO	Blue Mountains	4.08	335	*e*Pn	Pn	16 15 21.6	+1.4
MOD	Modoc	4.16	282	*e*Pn	Pn	16 15 22.2	+0.9
PDAR	Pinedale Array	4.24	66	Pn	Pn	16 15 24.2	+1.8
	0.6nm,0.3s,baz=241,slow=12,SNR=20						
PDAR				Pg	Pg	16 15 35.8	-2.2
	2.3nm,0.3s,baz=225,slow=14,SNR=26						
PDAR				Lg		16 16 30.2	
	2.0nm,0.3s,baz=242,slow=27,SNR=6.0						
T14A	Hurricane	4.34	161	⇑P	Pn	16 15 23.9	+0.1
	baz=4.3,SNR=6.4						
YFT	Old Faithful	4.39	41	Pn	Pn	16 15 21.7	-2.9
DLMT	Dillon	4.48	21	*e*Pn	Pn	16 15 28.5	+2.8
LKWY	Lake	4.69	43	Pn	Pn	16 15 28.4	-0.2
U13A	Pakoon Wash	4.82	172	⇑P	Pn	16 15 30.2	-0.2
	baz=4.8,SNR=6.6						
LRM	Limekiln Ridge	4.94	20	Pn	Pn	16 15 37.0	+4.9
BOZ	Bozeman (W)	5.03	27	*e*Pn	Pn	16 15 37.0	+3.7
	607nm,0.1s						
CMB	Columbia Colle	5.32	235	*e*Pn	Pn	16 15 32.2	-5.0
	7.8nm,0.6s						
CMB				*e*Pg	Pg	16 15 55.5	-3.1
PV04	Paradox Valley	5.36	120	Pn	Pn	16 15 38.5	+0.8
V13A	Grand Canyon W	5.37	173	P	Pn	16 15 38.3	+0.3
	baz=5.4,SNR=14						
V12A	Nelson	5.46	180	⇓P	Pn	16 15 39.2	0.0
	baz=5.4,SNR=20						
MSO	Missoula	5.67	6	Pn	Pn	16 15 46.8	+4.6
	3.5nm,0.6s						
MSO				*e*Pg	Pg	16 16 01.6	-3.8
MSO				*e*Sg	Sg	16 17 10.1	-8.8
PV01	Paradox Valley	5.72	120	*e*Pn	Pn	16 15 46.2	+3.5
	704nm,0.5s						
CHMT	Chamberlain Mo	5.83	11	*e*Pn	Pn	16 15 45.2	+0.9
	4.7nm,0.9s						
HRY	Holter Researc	5.93	20	Pn	Pn	16 15 48.4	+2.7
	5.4nm,0.5s						
YBH	Yreka Blue Hor	5.94	278	Pg	Pb	16 15 56.6	-4.4
	0.2nm,0.3s,baz=94,slow=15,SNR=3.3						
YBH				Lg		16 17 22.2	
	0.2nm,0.3s,baz=3.6,slow=19,SNR=2.0						
YBH				LR	LR	16 18 03.9	
	comp=Z,210nm,19.3s,baz=7.7,slow=39						
GSC	Goldstone	6.08	195	*e*Pg	Pg	16 16 13.5	+0.3
	5.7nm,0.4s						
SLMT	Seeley Lake	6.13	9	*e*Pn	Pn	16 15 44.0	-4.3
	5.7nm,0.6s						
SLMT				*e*Sg	Sg	16 17 26.3	-7.1
ISA	Isabella	6.21	208	*e*Pn	Pn	16 15 49.7	+0.2
	3.8nm,0.7s						
ISA				*e*Pg	Pg	16 16 14.9	-0.9
ISA				*e*Sg	Sg	16 17 33.0	-3.2
WUAZ	Wupatki	6.29	153	*e*Pg	Pg	16 16 14.6	-2.5
	29nm,1.0s						
MVCO	Mesa Verde	6.33	127	*e*Pb	Pb	16 16 08.8	+1.1
	15nm,0.6s						
PHWY	Pilot Hill	7.07	86	Pn	Pn	16 15 59.7	-1.7
	3.3nm,0.6s						
ISCO	Idaho Springs	7.17	98	*e*Pg	Pg	16 16 30.7	-3.4
ANMO	Albuquerque	9.08	131	Pg	Px	16 17 05.2	
	0.2nm,0.3s,baz=336,slow=13,SNR=4.2						
TXAR	Lajitas Array	14.92	139	Pn	Pn	16 17 51.9	+3.0
	0.1nm,0.3s,baz=330,slow=10,SNR=3.2						
YKA	Yellowknife Ar	21.34	0	P	P	16 19 04.2	-0.7
	0.9nm,0.8s,baz=179,slow=10,SNR=21						
SADO	Sadowa	26.23	70	LR	LR	16 31 02.4	
	comp=Z,193nm,21.2s,baz=124,slow=38						

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*ISCJB **21** 16:20:00.8±0.2, 41°.14N±0°.01×114°.90W±0°.02, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.9km az=31.5*

*IDC **21** 16:20:01.2±0.8, 41°.23N×114°.88W, h0^{km}, mb3.8/1, mb1 4.2/4, mb1mx3.7/21, mbtmp3.8/4, ML4.2/2, Error ellipse: s-maj=17.2km s-min=5.0km az=132.0*

*NEIC **21** 16:20:02.2, 41°.21N×114°.86W, h5^{km}, ML3.9, MW3.9(SLM), After REN.*

NEIC Felt at Boise, Filer and Nampa, Idaho and at Payson and Salt Lake City, Utah.

ISC 21 16:20:01.5±0.2**, 41°.21N**±0°.01×**114°.87W**±0°.02**, h10^{km}, n108, σ1^{s}63**/214**, 17C-23D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.38	199	⇓P	Pg	16 20 05.2	-3.7
	baz=0.4,SNR=76						
N12A				⇑P		16 20 09.2	
	baz=0.3						
N12A				⇓S	Sg	16 20 15.0	+1.1
	baz=0.3						
ELK	Elko	0.54	211	Pg	Pg	16 20 12.7	+0.7
	472nm,0.3s,baz=18,slow=13,SNR=190						
ELK				Lg		16 20 19.4	
	2µm,0.3s,baz=306,slow=19,SNR=158						
ELK	Elko	0.54	211	*i* Pg	Pg	16 20 12.7	+0.7
ELK				*e*Sg	Sg	16 20 19.3	+0.3
M13A	Montello	0.56	74	⇓S	Sg	16 20 20.6	+1.0
	baz=0.6						
N13A	Wendover, West	0.62	125	P	Pg	16 20 10.6	-2.8
	baz=0.6,SNR=35						
N13A				⇑P		16 20 14.1	
	baz=0.5						
N13A				⇓S	Sg	16 20 22.0	+0.5
	baz=0.5						
M11A	Holland Ranch,	0.73	288	⇓P	Pg	16 20 13.3	-2.2
	baz=0.7,SNR=35						
N11A	Elko Archery C	0.76	239	⇓P	Pg	16 20 13.0	-3.2
	baz=0.8,SNR=30						
N11A				⇓S	Sg	16 20 26.9	+0.9
	baz=0.7						
L12A	House Creek Ra	0.94	354	⇑P	Pg	16 20 18.0	-1.6
	baz=0.9,SNR=39						
L12A				⇑S	Sg	16 20 32.9	+1.0
	baz=1.0						
O12A	Currie	0.94	174	P	Pg	16 20 15.7	-4.0
	baz=0.9,SNR=67						
O12A				⇓S	Sg	16 20 32.7	+0.8
	baz=0.9						
L13A	Double Diamond	1.12	38	⇓P	Pb	16 20 21.0	-2.0
	baz=1.1,SNR=100						
L13A				⇑S	Sb	16 20 38.0	+0.4
	baz=1.2						
L11A	Cat Creek Ranc	1.16	326	⇓P	Pb	16 20 21.5	-2.2
	baz=1.2,SNR=162						
L11A				⇑S	Sb	16 20 36.8	-2.0
	baz=1.2						
L11A				⇓S	Sb	16 20 39.6	+0.8
	baz=1.2						
M14A	Sheep Mountain	1.19	75	⇑P	Pb	16 20 21.3	-2.8
	baz=1.2,SNR=526						
M14A				⇓P		16 20 23.9	
	baz=1.2						
M14A				⇑S	Sb	16 20 39.8	+0.4
	baz=1.2						
O11A	Cowboy Ranch,	1.23	209	⇑P	Pn	16 20 21.4	-3.3
	baz=1.2,SNR=45						
O11A				⇓S	Sb	16 20 41.2	+0.5
	baz=1.2						
O13A	Hicks Ranch, I	1.27	147	⇑P	Pn	16 20 21.6	-3.7
	baz=1.3,SNR=55						
O13A				⇓S	Sb	16 20 42.4	+0.5
	baz=1.2						
N14A	Grayback Hills	1.32	105	⇓S	Sb	16 20 43.7	+0.2
	baz=1.3						
BGU	Big Grassy Mou	1.42	101	*e*Pn	Pn	16 20 27.5	+0.2
BGU				*e*Sn	Sn	16 20 45.8	-0.3
K12A	Draper Farm, C	1.43	359	⇑P	Pn	16 20 25.4	-2.0
	baz=1.4						
K12A				⇓Sb	Sb	16 20 47.1	+0.7
	baz=1.5						
L14A	Malta	1.48	55	⇓Sb	Sb	16 20 48.7	+0.9
	baz=1.5						
O10A	Cortez Mining,	1.54	234	⇓P	Pn	16 20 25.5	-3.5
	baz=1.5,SNR=23						
HVU	Hansel Valley	1.68	69	*e*Pn	Pn	16 20 31.5	+0.6
HVU				*e*Sn	Sn	16 20 54.0	+1.6
P12A	McGill	1.73	181	P	Pn	16 20 28.0	-3.6
	baz=1.7,SNR=49						
K11A	Parker Ranch,	1.79	331	⇑P	Pn	16 20 31.5	-0.8
	baz=1.8,SNR=259						
K11A				⇓Sb	Sb	16 20 58.1	+1.4
	baz=1.9						
P11A	Circle Ranch,	1.79	202	⇓P	Pn	16 20 29.0	-3.4
	baz=1.8						
SPUT	South Promonto	1.83	86	*e*Pn	Pn	16 20 34.3	+1.3
SPUT				*e*Pg	Pg	16 20 38.0	+1.5
SPUT				*e*Sn	Sn	16 20 58.1	+2.0
DUG	Dugway	1.86	122	*e*Pn	Pn	16 20 34.3	+0.9
DUG				*e*Sn	Sn	16 20 57.6	+0.6
BMN	Battle Mountai	1.94	247	*e*Pn	Pn	16 20 35.0	+0.5
BMN				*e*Pg	Pg	16 20 39.5	+0.8
BMN				*e*Sn	Sn	16 21 02.2	+3.2
NOQ	North Oquirrh	2.16	104	*e*Pn	Pn	16 20 38.0	+0.5
NOQ				*e*Sn	Sn	16 21 03.7	-0.5
Q13A	Wheeler Ranch,	2.34	164	⇑P	Pn	16 20 36.3	-3.7
	baz=2.3,SNR=13						
HLID	Hailey	2.38	8	*e*Pn	Pn	16 20 40.4	-0.1
CTU	Camp Tracy	2.42	101	*e*Pn	Pn	16 20 42.5	+1.4
CTU				*e*Sg	Sg	16 21 18.3	-1.0
Q11A	Duckwater	2.44	195	⇓P	Pn	16 20 37.7	-3.6
	baz=2.4,SNR=9.8						
NLU	North Lily Min	2.47	120	*e*Pn	Pn	16 20 41.4	-0.4
NLU				*e*Pb	Pb	16 20 45.8	-0.2
NLU				*e*Pg	Pg	16 20 49.0	+0.2
Q14A	Sevier Lake (B	2.53	151	⇓P	Pn	16 20 39.0	-3.6
	baz=2.5,SNR=60						
P15A	Leamington	2.57	129	⇑P	Pn	16 20 39.7	-3.4
	baz=2.6,SNR=21						
Q10A	Clear Creek Ra	2.65	207	⇑P	Pn	16 20 41.7	-2.6
	baz=2.7,SNR=15						
MPU	Maple Canyon	2.74	115	*e*Pn	Pn	16 20 45.5	+0.1
MPU				*e*Pg	Pg	16 20 54.1	+0.2
MPU				*e*Sg	Sg	16 21 27.2	-2.3
DAU	Daniels Canyon	2.86	105	*e*Pn	Pn	16 20 48.1	+1.0
DAU				*e*Pb	Pb	16 20 52.4	-0.1
DAU				*e*Pg	Pg	16 20 56.5	+0.2
R12A	Pony Springs,	2.88	176	⇑P	Pn	16 20 44.3	-3.1
	baz=2.9,SNR=55						
R11A	Troy Canyon, C	2.91	191	P	Pn	16 20 44.3	-3.5
	baz=2.9,SNR=10						
WVOR	Wild Horse Val	3.07	295	*e*Pn	Pn	16 20 51.9	+2.0
R13A	O'Grain Ranch,	3.10	167	⇑P	Pn	16 20 47.7	-2.8
	baz=3.1,SNR=11						
AHID	Auburn Hatcher	3.21	60	*e*Pn	Pn	16 20 54.4	+2.4
AHID				*e*Sn	Sn	16 21 28.4	-1.9
AHID				*e*Sg	Sg	16 21 42.1	-2.5
TMUT	Trail Mountain	3.39	123	*e*Pn	Pn	16 20 56.5	+2.1
TMUT				*e*Pb	Pb	16 21 04.5	+2.8
TMUT				*e*Pg	Pg	16 21 08.3	+1.8
TMUT				*e*Sg	Sg	16 21 49.9	-0.6
RRI2	Red Ridge	3.39	50	*e*Pn	Pn	16 20 56.0	+1.6
RRI2				*e*Sg	Sg	16 21 48.3	-2.1
MSU	Marysvale	3.40	142	*e*Pn	Pn	16 20 55.2	+0.6
ARUT	Antelope Range	3.59	162	*e*Pn	Pn	16 20 58.1	+0.9
ARUT				*e*Sg	Sg	16 21 53.8	-3.0
DCID1	Drake Creek	3.63	48	Pn	Pn	16 20 59.5	+1.8
DCID1				*e*Sg	Sg	16 21 55.6	-2.3
REDW	Red Top Meadow	3.68	53	*e*Pn	Pn	16 21 01.5	+3.1
REDW				*e*Sg	Sg	16 21 54.9	-4.7
TPAW	Teton Pass	3.69	51	*e*Pn	Pn	16 21 01.0	+2.4
TPAW				*e*Sg	Sg	16 21 57.8	-2.3
S13A	Holt Ranch, En	3.71	167	⇓P	Pn	16 20 55.8	-2.9
	baz=3.7,SNR=5.7						
SNOW	Snow King Moun	3.79	52	*e*Pn	Pn	16 21 04.7	+4.8
SNOW				*e*Sg	Sg	16 22 01.8	-1.5
NVAR	Mina Array Bea	3.83	225	Pn	Pn	16 21 01.5	+1.0
	14nm,0.3s,baz=39,slow=13,SNR=128						
NVAR				Pg	Pg	16 21 09.6	-5.2
	29nm,0.3s,baz=35,slow=14,SNR=31						
NVAR				Sn	Sn	16 21 45.8	+0.2
	32nm,0.3s,baz=52,slow=23,SNR=5.2						
NVAR				Lg		16 22 02.0	
	119nm,0.3s,baz=46,slow=29,SNR=8.9						
CCUT	Cedar City	3.84	162	*e*Pn	Pn	16 21 01.1	+0.5
CCUT				*e*Sg	Sg	16 22 02.9	-1.7
MCMT	McKenzie Canyo	3.91	22	*e*Pn	Pn	16 21 05.1	+3.5
MCMT				*e*Sg	Sg	16 22 05.6	-1.4
SRU	San Rafael	3.94	121	*e*Pn	Pn	16 21 04.0	+2.1
SRU				*e*Pg	Pg	16 21 15.4	-1.5
SRU				*e*Sn	Sn	16 21 49.7	+1.6
SRU				*e*Sg	Sg	16 22 07.5	-0.4
IMW	Indian Meadow	3.96	46	*e*Pn	Pn	16 21 04.8	+2.6
IMW				*e*Pb	Pb	16 21 09.5	-1.8
IMW				*e*Pg	Pg	16 21 14.0	-3.3
IMW				*e*Sg	Sg	16 22 02.1	-6.5
LOHW	Long Hollow	3.97	51	*e*Pn	Pn	16 21 05.0	+2.6
MOOW	Moose Ponds	3.97	49	*e*Pn	Pn	16 21 04.6	+2.2
MOOW				*e*Pb	Pb	16 21 11.2	-0.3
MOOW				*e*Sb	Sb	16 22 00.9	+1.3
MOOW				*e*Sg	Sg	16 22 07.0	-1.9
T11A	Corn Creek, Al	3.97	184	P	Pn	16 20 59.5	-2.9
	baz=4.0,SNR=13						
BMO	Blue Mountains	4.05	335	*e*Pn	Pn	16 21 06.6	+3.1
BMO				*e*Sn	Sn	16 21 51.7	+0.7
MOD	Modoc	4.13	281	*e*Pn	Pn	16 21 05.7	+1.1
MOD				*e*Sg	Sg	16 22 12.4	-1.7
BW06	Boulder Array	4.26	67	*e*Pn	Pn	16 21 09.6	+3.3
BW06				*e*Pg	Pg	16 21 21.5	-1.5
BW06				*e*Sg	Sg	16 22 14.4	-3.7
PDAR	Pinedale Array	4.26	67	Pn	Pn	16 21 09.9	+3.6
	1.7nm,0.3s,baz=238,slow=12,SNR=37						
PDAR				Pg	Pg	16 21 21.4	-1.7
	9.9nm,0.3s,baz=232,slow=15,SNR=42						
PDAR				Lg		16 22 14.9	
	9.8nm,0.3s,baz=262,slow=34,SNR=6.8						
YFT	Old Faithful	4.39	41	Pn	Pn	16 21 14.1	+5.9
YFT				*e*Pb	Pb	16 21 20.9	+2.2
YFT				*e*Pg	Pg	16 21 21.2	-4.4
YFT				*e*Pg	Pg	16 21 26.4	+0.7
YFT				*e*Sg	Sg	16 22 26.5	+4.0
DLMT	Dillon	4.47	21	*e*Pn	Pn	16 21 13.2	+4.0
DLMT				*e*Pb	Pb	16 21 21.7	+1.7
DLMT				*e*Pg	Pg	16 21 26.9	-0.3
DLMT				*e*Sg	Sg	16 22 24.0	-1.0
YMR	Madison River	4.49	38	*e*Pn	Pn	16 21 12.9	+3.3
YMR				*e*Sg	Sg	16 22 21.9	-3.8
YNR	Norris Junctio	4.66	40	*e*Pn	Pn	16 21 17.1	+5.2
LKWY	Lake	4.70	43	*e*Pn	Pn	16 21 18.3	+5.9
LRM	Limekiln Ridge	4.94	20	*e*Pn	Pn	16 21 19.3	+3.7
BOZ	Bozeman (W)	5.03	27	*e*Pn	Pn	16 21 20.2	+3.3
	16nm,0.5s						
CMB	Columbia Colle	5.31	235	*e*Pn	Pn	16 21 21.0	+0.2
	38nm,0.5s						
CMB				*e*Pb	Pb	16 21 32.6	-1.6
CMB				*e*Pg	Pg	16 21 40.5	-2.6
CMB				*e*Sn	Sn	16 22 25.1	+3.2
CMB				*e*Sg	Sg	16 22 47.4	-4.4
PV04	Paradox Valley	5.39	120	*e*Pn	Pn	16 21 22.4	+0.5
PV04				*e*Pb	Pb	16 21 38.6	+2.9
PV04				*e*Pg	Pg	16 21 44.9	+0.3
MSO	Missoula	5.66	7	*e*Pn	Pn	16 21 27.1	+1.5
MSO				*e*Pg	Pg	16 21 48.4	-1.4
RLMT	Red Lodge	5.67	44	*e*Pn	Pn	16 21 29.4	+3.8
RLMT				*e*Pb	Pb	16 21 40.0	-0.4
RLMT				*e*Sg	Sg	16 22 59.2	-4.1
PV01	Paradox Valley	5.75	120	*e*Pn	Pn	16 21 27.3	+0.5
	232nm,0.3s						
PV01				*e*Pg	Pg	16 21 49.1	-2.5
RWWY	Rawlins	5.78	83	*e*Pn	Pn	16 21 28.8	+1.6
	56nm,0.5s						
RWWY				*e*Pg	Pg	16 21 51.5	-0.6
RWWY				*e*Sg	Sg	16 23 05.6	-1.4
CHMT	Chamberlain Mo	5.82	11	*e*Pn	Pn	16 21 31.6	+3.8
	165nm,0.5s						
CHMT				*e*Sg	Sg	16 23 03.5	-4.9
WDC	Whiskeytown Da	5.84	266	*e*Pn	Pn	16 21 32.8	+4.7
	15nm,0.6s						
WDC				*e*Pg	Pg	16 21 50.7	-2.7
WDC				*e*Sg	Sg	16 23 04.1	-4.9
YBH	Yreka Blue Hor	5.91	278	Pg	Pb	16 21 41.6	-3.0
	0.5nm,0.3s,baz=86,slow=11,SNR=9.9						
YBH				Lg		16 23 08.6	
	0.7nm,0.3s,baz=111,slow=18,SNR=3.0						
YBH	Yreka Blue Hor	5.91	278	Pn	Pn	16 21 37.2	+8.2
YBH				Pg	Pb	16 21 41.5	-3.0
YBH				Lg		16 23 08.6	
HRY	Holter Researc	5.92	21	*e*Pn	Pn	16 21 32.9	+3.7
	103nm,0.6s						
HRY				*e*Pb	Pb	16 21 46.2	+1.5
HRY				*e*Pg	Pg	16 21 54.0	-0.9
GCMT	Greycliff	5.94	38	*e*Pn	Pn	16 21 34.7	+5.3
	24nm,0.8s						
GCMT				*e*Sg	Sg	16 23 09.3	-2.8
GSC	Goldstone	6.09	195	*e*Pn	Pn	16 21 32.6	+1.1
	44nm,0.8s						
GSC				*e*Pg	Pg	16 21 57.2	-0.9
GSC				*e*Sg	Sg	16 23 15.4	-1.5
SLMT	Seeley Lake	6.11	9	*e*Pn	Pn	16 21 35.7	+3.9
	25nm,0.7s						
SLMT				*e*Pg	Pg	16 21 57.0	-1.5
SLMT				*e*Sg	Sg	16 23 12.1	-5.5
LDFC	Landfair	6.12	182	*e*Pn	Pn	16 21 32.5	+0.5
LDFC				*e*Pg	Pg	16 21 57.6	-1.2
LDFC				*e*Sg	Sg	16 23 13.8	-4.2
HUMO	Hull Mountain	6.19	286	Pn	Pn	16 21 38.4	+5.5
ISA	Isabella	6.22	208	*e*Pn	Pn	16 21 34.0	+0.7
	16nm,1.1s						
ISA				*e*Pg	Pg	16 21 58.8	-1.7
ISA				*e*Sg	Sg	16 23 19.3	-1.6
WUAZ	Wupatki	6.31	153	*e*Pn	Pn	16 21 36.9	+2.3
WUAZ				*e*Pb	Pb	16 21 52.0	+0.6
WUAZ				*e*Pg	Pg	16 22 01.8	-0.6
WUAZ				*e*Sg	Sg	16 23 17.3	-6.7
SWMT	Swartz Lake	6.33	5	*e*Pn	Pn	16 21 37.5	+2.7
	14nm,0.8s						
SWMT				*e*Pg	Pg	16 22 01.7	-1.0
SWMT				*e*Sg	Sg	16 23 20.7	-3.9
MVCO	Mesa Verde	6.36	127	*e*Pn	Pn	16 21 38.9	+3.7
MVCO				*e*Pg	Pg	16 21 60.0	-3.2
HOOD	Mount Hood Mea	6.43	312	Pn	Pn	16 21 39.8	+3.6
HOOD				*e*Pg	Pg	16 22 01.6	-3.0
HOOD				*e*Sg	Sg	16 23 29.3	+1.5
JTMT	Jette	6.55	3	*e*Pn	Pn	16 21 40.8	+3.0
BSMT	Bassoo Peak	6.64	1	*e*Pn	Pn	16 21 44.0	+5.0
BSMT				*e*Pg	Pg	16 22 08.0	-0.6
BSMT				*e*Sg	Sg	16 23 32.8	-1.8
YBMT	Yellow Bay	6.68	5	*e*Pn	Pn	16 21 45.1	+5.5
YBMT				*e*Pg	Pg	16 22 09.7	+0.4
YBMT				*e*Sg	Sg	16 23 33.5	-2.4
PHWY	Pilot Hill	7.10	86	*e*Pn	Pn	16 21 48.7	+3.4
	21nm,0.7s						
ISCO	Idaho Springs	7.20	98	*e*Pn	Pn	16 21 47.6	+0.9
	9.2nm,1.3s						
ISCO				*e*Pb	Pb	16 22 07.4	+1.0
ISCO				*e*Pg	Pg	16 22 16.8	-2.4
LON	Longmire	7.46	320	*e*Pn	Pn	16 21 57.3	+7.0
EGMT	Eagleton	7.73	26	*e*Pn	Pn	16 21 56.1	+2.2
EGMT				*e*Pg	Pg	16 22 30.2	+0.9
EGMT				*e*Sg	Sg	16 24 06.8	-2.5
SDCO	Great Sand Dun	8.03	112	*e*Pn	Pn	16 22 02.5	+4.4
SDCO				*e*Pg	Pn	16 22 31.9	+34
LAO	LASA Array	8.30	46	*e*Pn	Pn	16 22 00.4	-1.4
RSSD	Black Hills	8.50	66	*e*Pn	Pn	16 22 06.1	+1.6
RSSD				*e*Sg	Sn	16 24 26.5	+46
ANMO	Albuquerque	9.11	131	Pg	Px	16 22 51.8	
	0.5nm,0.3s,baz=321,slow=13,SNR=7.8						
ANMO				Lg		16 24 46.0	
	0.3nm,0.3s,baz=265,slow=11,SNR=4.8						
ANMO	Albuquerque	9.11	131	Pn	Pn	16 22 17.2	+4.2
LAZ	Ladron	9.14	136	Pn	Pn	16 22 13.4	0.0
TXAR	Lajitas Array	14.95	139	Pn	Pn	16 23 35.9	+3.0
	0.0nm,0.3s,baz=328,slow=10.0,SNR=6.2						
YKA	Yellowknife Ar	21.32	0	P	P	16 24 50.1	+1.9
	4.2nm,0.8s,baz=180,slow=10.0,SNR=38						
WRA	Warramunga Arr	118.32	268	PKP	PKPdf	16 38 49.4	+0.1
	0.4nm,0.7s,baz=71,slow=2.4,SNR=3.3						
ASAR	Alice Springs	120.82	264	PKP	PKPdf	16 38 54.5	+0.6
	0.4nm,0.7s,baz=67,slow=2.4,SNR=5.9						

IDC 21 16:21:03.3±30.0**, 21°.88S**×**179°.57E, h650^{km}**±262^{km}**, mb3.2**/4**, mb1 3.4**/4**, mb1mx2.9**/18**, mbtmp3.2**/4**, Error ellipse: s-maj=301.2km s-min=99.5km az=113.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	31.13	267	P	P	16 26 32.9	+0.6
	6.5nm,0.5s,baz=94,slow=12,SNR=21						
ASAR	Alice Springs	42.01	259	P	P	16 28 00.1	-0.7
	1.2nm,0.4s,baz=95,slow=7.2,SNR=83						
ASAR				PcP	PcP	16 29 39.6	-0.2
	0.2nm,0.4s,baz=109,slow=4.0,SNR=4.0						
WRA	Warramunga Arr	42.19	264	P	P	16 28 01.9	-0.2
	1.8nm,0.3s,baz=94,slow=8.0,SNR=196						
FITZ	Fitzroy Crossi	50.62	264	P	P	16 29 06.3	+1.1
	2.7nm,0.5s,baz=105,slow=9.5,SNR=6.8						
BRTR	Keskin Array B	146.02	309	PKPbc	PKPbc	16 39 32.0	-0.4
	0.5nm,0.6s,baz=148,slow=5.7,SNR=4.5						

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*ISCJB **21** 16:23:17.1±0.5, 41°.19N±0°.02×114°.91W±0°.02, h3^{km}±4^{km}, Error ellipse: s-maj=2.7km s-min=2.4km az=167.7*

*NEIC **21** 16:23:17.0±0.8, 41°.19N×114°.90W, h5^{km}, ML3.0, Error ellipse: s-maj=14.6km s-min=8.6km az=150.0*

*IDC **21** 16:23:17.7±1.1, 41°.22N×114°.96W, h0^{km}, mb3.1/1, mb1 3.7/4, mb1mx3.4/21, mbtmp3.3/4, ML3.3/2, Error ellipse: s-maj=18.0km s-min=5.3km az=132.0*

ISC 21 16:23:17.7±0.3**, 41°.20N**±0°.02×**114°.90W**±0°.02**, h5^{km}**±3^{km}**, n67, σ0^{s}59**/91**, 32C-32D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.36	197	⇓P	Pg	16 23 24.7	+0.1
	baz=0.1,SNR=49						
N12A				⇓S	Sg	16 23 29.8	+0.5
	baz=0.1						
ELK	Elko	0.52	210	Pg	Pg	16 23 27.7	0.0
	32nm,0.3s,baz=19,slow=17,SNR=16						
ELK				Lg		16 23 34.4	
	138nm,0.3s,baz=127,slow=20,SNR=42						
ELK	Elko	0.52	210	*e*Pg	Pg	16 23 27.2	-0.4
ELK				*e*Sg	Sg	16 23 34.2	-0.2
M13A	Montello	0.58	73	⇑P	Pg	16 23 28.8	0.0
	baz=0.8,SNR=19						
N13A	Wendover, West	0.63	122	⇓P	Pg	16 23 29.6	-0.2
	baz=0.6,SNR=105						
N13A				⇓S	Sg	16 23 38.2	+0.2
	baz=0.6						
M11A	Holland Ranch,	0.71	290	⇓P	Pg	16 23 31.6	+0.2
	baz=0.8,SNR=16						
M11A				⇓S	Sg	16 23 40.9	+0.3
	baz=0.8						
N11A	Elko Archery C	0.73	239	⇓P	Pg	16 23 32.0	+0.2
	baz=0.6,SNR=40						
N11A				⇑S	Sg	16 23 41.6	+0.2
	baz=0.6						
O12A	Currie	0.93	173	⇓P	Pg	16 23 35.4	-0.2
	baz=0.7,SNR=64						
O12A				⇑S	Sg	16 23 47.9	+0.1
	baz=0.7						
L12A	House Creek Ra	0.95	355	⇓P	Pg	16 23 36.2	+0.1
	baz=1.2,SNR=12						
L12A				⇑S	Sg	16 23 49.3	+0.9
	baz=1.2						
L13A	Double Diamond	1.15	39	⇓P	Pg	16 23 39.5	-0.2
	baz=1.4,SNR=10						
L13A				⇑S	Sg	16 23 54.9	+0.3
	baz=1.4						

L11A	Cat Creek Ranc baz=1.4	1.16	327	⇑P	Pg	16 23 39.6	-0.4
L11A	baz=1.4			⇓S	Sg	16 23 55.2	+0.1
O11A	Cowboy Ranch, baz=0.9,SNR=15	1.21	209	⇓P	Pg	16 23 40.9	+0.1
O11A	baz=0.9			⇓S	Sg	16 23 55.8	-0.7
M14A	Sheep Mountain baz=1.4,SNR=16	1.21	75	⇑P	Pg	16 23 40.3	-0.7
M14A	baz=1.4			⇓S	Sg	16 23 56.8	+0.1
O13A	Hicks Ranch, I baz=1.1,SNR=28	1.27	146	⇑P	Pn	16 23 41.5	-0.5
O13A	baz=1.1			⇑S	Sg	16 23 59.3	+0.7
M10A	I.L. Ranch, Tu baz=1.3,SNR=9.0	1.27	285	⇑P	Pn	16 23 42.0	-0.1
M10A	baz=1.3			⇓S	Sg	16 23 59.4	+0.7
N10A	Dunphy baz=1.2,SNR=9.1	1.30	249	⇓P	Pn	16 23 42.1	-0.5
N10A	baz=1.2			⇑S	Sg	16 23 59.8	+0.1
N14A	Grayback Hills baz=1.4,SNR=12	1.34	104	⇓P	Pn	16 23 42.2	-0.8
N14A	baz=1.4			⇑S	Sb	16 24 01.0	+0.2
K12A	Draper Farm, C baz=1.7,SNR=9.2	1.44	0	⇑P	Pn	16 23 44.0	-0.4
K12A	baz=1.7			⇓S	Sb	16 24 03.2	-0.4
L10A	Juniper Basin baz=1.6,SNR=5.7	1.47	307	⇓P	Pn	16 23 45.0	+0.2
L10A	baz=1.6			⇓S	Sn	16 24 04.5	+0.2
L14A	Malta baz=1.7,SNR=7.5	1.50	56	⇓P	Pn	16 23 45.3	0.0
L14A	baz=1.7			⇑S	Sn	16 24 05.5	+0.2
O10A	Cortez Mining, baz=1.3,SNR=14	1.51	234	⇓P	Pn	16 23 45.3	-0.1
O10A	baz=1.3			⇑S	Sn	16 24 05.6	+0.2
K13A	Stover Farm, H baz=1.9	1.58	23	⇑S	Sn	16 24 07.2	+0.2
HVU	Hansel Valley	1.70	69	*e*Pn	Pn	16 23 46.3	-1.7
HVU				*e*Sn	Sn	16 24 10.8	+0.7
P12A	McGill baz=1.5,SNR=56	1.72	180	⇑P	Pn	16 23 48.1	-0.2
P11A	Circle Ranch, baz=1.5,SNR=12	1.76	202	P	Pn	16 23 49.2	+0.4
P11A	baz=1.5			⇑S	Sn	16 24 11.5	-0.2
K11A	Parker Ranch, baz=2.0,SNR=16	1.79	332	⇑P	Pn	16 23 48.4	-0.8
N15A	Stansbury Isla baz=1.9,SNR=38	1.83	99	⇓P	Pn	16 23 49.2	-0.5
M15A	Larsen Ranch, baz=2.0,SNR=36	1.87	81	⇑P	Pn	16 23 49.5	-0.8
DUG	Dugway baz=1.8,SNR=52	1.88	121	P	Pn	16 23 49.8	-0.7
DUG	Dugway	1.88	121	*e*Pn	Pn	16 23 49.8	-0.6
DUG				*e*Sn	Sn	16 24 16.3	+1.9
BMN	Battle Mountai	1.92	247	*e*Pn	Pn	16 23 49.4	-1.6
BMN				*e*Sn	Sn	16 24 16.3	+0.9
M09A	Marrel Ranch, baz=1.9,SNR=11	1.93	278	⇑P	Pn	16 23 51.1	-0.1
P10A	Eureka baz=1.7,SNR=22	1.97	218	⇓P	Pn	16 23 51.6	-0.1
N09A	Rock Creek Ran baz=1.9,SNR=64	2.01	261	⇑P	Pn	16 23 51.6	-0.7
J12A	Stokes Ranch, baz=2.3,SNR=31	2.06	356	⇑P	Pn	16 23 53.8	+0.9
P14A	Drum Mountains baz=2.0,SNR=21	2.13	138	P	Pn	16 23 53.4	-0.4
Q12A	Willow Creek R baz=1.9,SNR=12	2.15	178	P	Pn	16 23 54.1	-0.1
NOQ	North Oquirrh	2.18	103	*e*Pn	Pn	16 23 54.6	0.0
Q13A	Wheeler Ranch, baz=2.1,SNR=49	2.34	163	P	Pn	16 23 56.4	-0.3
Q11A	Duckwater baz=2.1,SNR=29	2.42	194	⇑P	Pn	16 23 57.9	+0.1
Q14A	Sevier Lake (B baz=2.3,SNR=11	2.53	150	⇑P	Pn	16 23 58.8	-0.6
P15A	Leamington baz=2.5,SNR=36	2.58	128	⇓P	Pn	16 23 59.4	-0.7
O08A	Rochester Mine baz=2.5	2.63	251	⇓P	Pn	16 24 00.4	-0.4
Q10A	Clear Creek Ra baz=2.4,SNR=22	2.63	206	⇑P	Pn	16 24 01.1	+0.3
MPU	Maple Canyon	2.75	114	Pn	Pn	16 24 05.6	+3.2
MPU				*e*Sg	Sg	16 24 45.7	-0.5
P08A	Dixie Valley baz=2.6,SNR=17	2.85	239	P	Pn	16 24 03.9	+0.1
R12A	Pony Springs, baz=2.6,SNR=8.9	2.87	175	⇑P	Pn	16 24 04.3	+0.2
R11A	Troy Canyon, C baz=2.6,SNR=21	2.89	191	P	Pn	16 24 04.3	0.0
Q15A	Fillmore baz=2.8,SNR=17	2.92	138	P	Pn	16 24 04.4	-0.4
Q09A	Carvers baz=2.7,SNR=10	2.94	217	⇓P	Pn	16 24 05.7	+0.8
R13A	O'Grain Ranch, baz=2.9,SNR=46	3.10	166	⇓P	Pn	16 24 07.7	+0.5
N07B	Gerlach baz=3.0,SNR=13	3.11	264	⇑P	Pn	16 24 07.2	-0.1
O07A	Toulon baz=3.0,SNR=35	3.19	252	P	Pn	16 24 07.9	-0.6
M07A	Soldier Meadow baz=3.2,SNR=11	3.22	275	⇑P	Pn	16 24 09.0	+0.1
S14A	Cedar City baz=3.5,SNR=8.2	3.68	158	⇓P	Pn	16 24 15.5	+0.3
S13A	Holt Ranch, En baz=3.5,SNR=30	3.70	167	⇓P	Pn	16 24 15.6	+0.2
NVAR	Mina Array Bea 1.8nm,0.3s,baz=40,slow=14,SNR=6.2	3.81	225	Pn	Pn	16 24 16.9	0.0
NVAR	16nm,0.3s,baz=43,slow=32,SNR=7.7			Lg		16 25 18.0	
O06A	Flanigan baz=3.7,SNR=8.9	3.88	256	⇑P	Pn	16 24 17.7	-0.3
T11A	Corn Creek, Al baz=3.7,SNR=13	3.96	184	⇑P	Pn	16 24 19.2	+0.2
WCN	Washoe City baz=4.0,SNR=5.8	4.17	245	⇓P	Pn	16 24 21.8	-0.1
PDAR	Pinedale Array baz=247,slow=12,SNR=2.0	4.28	67	Pn	Pn	16 24 26.6	+3.1
PDAR	0.7nm,0.3s,baz=248,slow=14,SNR=4.0			Pg	Pg	16 24 35.2	-4.6
PDAR	1.3nm,0.3s,baz=262,slow=34,SNR=5.7			Lg		16 25 33.3	
T14A	Hurricane baz=4.1,SNR=6.3	4.36	160	⇓P	Pn	16 24 25.0	+0.4
BEKR	Beckwourth baz=4.2,SNR=28	4.36	254	P	Pn	16 24 24.4	-0.1
V12A	Nelson baz=5.2,SNR=14	5.46	180	⇑P	Pn	16 24 40.3	+0.6
YBH	Yreka Blue Hor 0.3nm,0.3s,baz=333,slow=16,SNR=3.2	5.89	278	Lg		16 26 23.9	
TXAR	Lajitas Array 0.0nm,0.3s,baz=306,slow=7.7,SNR=4.2	14.96	139	Pn	Pn	16 26 53.8	+4.0
YKA	Yellowknife Ar 0.8nm,0.7s,baz=180,slow=10,SNR=9.8	21.33	0	P	P	16 28 05.7	+0.5

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*IDC **21** 16:25:48.0±1.1, 41°.19N×114°.88W, h0km, mb3.4/1, mb1 3.8/4, mb1mx3.5/21, mbtmp3.4/4, ML3.3/3, MS2.8/1, Ms1 2.8/1, ms1mx2.7/22, Error ellipse: s-maj=20.9km s-min=5.7km az=135.0*

*ISCJB **21** 16:25:49.2±0.2, 41°.09N±0°.01×114°.89W±0°.02, h10km, Error ellipse: s-maj=1.8km s-min=1.6km az=145.1*

*NEIC **21** 16:25:49.8, 41°.11N×114°.90W, h9km, ML3.4, After REN.*

ISC 21 16:25:49.5±0.2**, 41°.11N**±0°.01×**114°.90W**±0°.01**, h10**km**, n105,** σ**1s.07**/169**, 46C-35D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley, baz=0.3,SNR=28	0.28	203	⇑P	Pg	16 25 55.6	+0.4
N12A	baz=0.3			⇑S	Sg	16 25 59.6	+0.7
ELK	Elko 133nm,0.3s,baz=28,slow=18,SNR=26	0.45	216	Pg	Pg	16 25 58.4	+0.1
ELK	302nm,0.3s,baz=122,slow=19,SNR=38			Lg		16 26 04.2	
N13A	Wendover, West baz=0.6,SNR=77	0.58	116	⇑P	Pg	16 26 01.1	+0.3
N13A	baz=0.6			⇑S	Sg	16 26 09.0	+0.6
M13A	Montello baz=0.6,SNR=10	0.60	65	⇓P	Pg	16 26 01.3	0.0
M13A	baz=0.6			⇓S	Sg	16 26 09.9	+0.7
N11A	Elko Archery C baz=0.7,SNR=39	0.70	246	⇓P	Pg	16 26 03.1	+0.1
N11A	baz=0.7			⇑S	Sg	16 26 12.2	0.0
M11A	Holland Ranch, baz=0.7,SNR=31	0.75	296	⇓P	Pg	16 26 03.8	-0.1
M11A	baz=0.7			⇓S	Sg	16 26 13.9	+0.2
O12A	Currie baz=0.8,SNR=61	0.85	172	P	Pg	16 26 06.1	+0.2
O12A	baz=0.8			⇑S	Sg	16 26 17.4	+0.5
L12A	House Creek Ra baz=1.0,SNR=11	1.04	355	P	Pg	16 26 09.5	0.0
L12A	baz=1.0			⇑S	Sg	16 26 22.7	-0.3
O11A	Cowboy Ranch, baz=1.1,SNR=64	1.14	211	⇑P	Pb	16 26 11.2	-0.1
O11A	baz=1.1			⇓S	Sb	16 26 26.4	+0.4
O13A	Hicks Ranch, I baz=1.2,SNR=54	1.20	144	⇑P	Pb	16 26 12.0	-0.3
O13A	baz=1.2			⇓S	Sb	16 26 29.0	+1.2
L13A	Double Diamond baz=1.2,SNR=16	1.21	36	⇑P	Pn	16 26 11.7	-0.8
L13A	baz=1.2			⇑S	Sb	16 26 28.1	-0.1
M14A	Sheep Mountain baz=1.2,SNR=45	1.23	71	⇑P	Pn	16 26 12.0	-0.8
M14A	baz=1.2			⇓S	Sb	16 26 28.7	0.0
L11A	Cat Creek Ranc baz=1.2,SNR=39	1.24	329	⇑P	Pn	16 26 12.1	-0.7
L11A	baz=1.2			⇑S	Sb	16 26 28.6	-0.3
N10A	Dunphy baz=1.3,SNR=34	1.28	253	⇓P	Pn	16 26 12.8	-0.7
N10A	baz=1.3			⇓S	Sb	16 26 30.8	+0.6
M10A	I.L. Ranch, Tu baz=1.3,SNR=65	1.30	289	⇓P	Pn	16 26 13.0	-0.8
M10A	baz=1.3			⇑S	Sb	16 26 31.4	+0.6
N14A	Grayback Hills baz=1.3,SNR=51	1.32	101	⇓P	Pn	16 26 13.3	-0.7
N14A	baz=1.3			⇓S	Sb	16 26 31.9	+0.5
BGU	Big Grassy Mou	1.42	97	*e*Pn	Pn	16 26 14.6	-0.8
BGU				*e*Sn	Sn	16 26 31.6	-2.5
O10A	Cortez Mining, baz=1.5,SNR=36	1.47	237	⇑P	Pn	16 26 15.7	-0.3
O10A	baz=1.5			⇓Sb	Sb	16 26 36.3	+0.8
K12A	Draper Farm, C baz=1.5,SNR=43	1.52	360	⇓P	Pn	16 26 16.5	-0.3
K12A	baz=1.5			⇓S	Sn	16 26 36.9	+0.2
L10A	Juniper Basin baz=1.5,SNR=130	1.53	310	⇑P	Pn	16 26 16.7	-0.1
L10A	baz=1.5			⇓Sb	Sb	16 26 37.7	+0.5
L14A	Malta baz=1.5,SNR=20	1.55	53	⇑P	Pn	16 26 17.1	0.0
L14A	baz=1.5			⇓S	Sn	16 26 37.7	+0.4
P12A	McGill baz=1.6,SNR=38	1.64	180	⇑P	Pn	16 26 18.2	-0.1
P12A	baz=1.6			⇓S	Sn	16 26 39.9	+0.5
K13A	Stover Farm, H baz=1.7,SNR=26	1.65	21	⇓P	Pn	16 26 19.0	+0.4
K13A	baz=1.7			⇑Sb	Sb	16 26 41.5	+0.5
P11A	Circle Ranch, baz=1.7	1.69	203	⇑P	Pn	16 26 19.5	+0.4
P11A	baz=1.7			⇑S	Sn	16 26 40.8	+0.1
HVU	Hansel Valley	1.73	67	*e*Pn	Pn	16 26 19.5	-0.1
HVU				*e*Sn	Sn	16 26 42.7	+1.0
N15A	Stansbury Isla baz=1.8,SNR=44	1.81	96	⇑P	Pn	16 26 20.7	0.0
DUG	Dugway baz=1.8,SNR=24	1.83	119	P	Pn	16 26 20.6	-0.4
DUG	baz=1.8			⇑Sb	Sb	16 26 47.5	+1.6
DUG	Dugway	1.83	119	*e*Pn	Pn	16 26 20.7	-0.3
K11A	Parker Ranch, baz=1.9,SNR=61	1.86	333	⇑P	Pn	16 26 21.8	+0.4
K11A	baz=1.9			⇑Sb	Sb	16 26 47.5	+0.5
M15A	Larsen Ranch, baz=1.9,SNR=35	1.88	78	⇓P	Pn	16 26 21.8	+0.2
BMN	Battle Mountai	1.89	250	*e*Pn	Pn	16 26 20.6	-1.3
BMN				*e*Sg	Sg	16 26 48.3	-2.0
P10A	Eureka baz=1.9,SNR=27	1.91	219	⇓P	Pn	16 26 22.5	+0.4
K14A	Jones Ranch, D baz=1.9,SNR=8.6	1.93	41	⇑P	Pn	16 26 22.7	+0.4
N09A	Rock Creek Ran baz=2.0,SNR=21	2.01	263	⇓P	Pn	16 26 22.9	-0.5
O15A	The Old Anders baz=2.0	2.02	113	⇓P	Pn	16 26 23.4	-0.2
P14A	Drum Mountains baz=2.1,SNR=17	2.06	137	⇓P	Pn	16 26 23.8	-0.3
Q12A	Willow Creek R baz=2.1,SNR=7.1	2.07	179	⇓P	Pn	16 26 24.1	-0.2
L15A	Malad City baz=2.1	2.08	64	⇓P	Pn	16 26 24.4	-0.1
J12A	Stokes Ranch, baz=2.1,SNR=49	2.14	356	⇑P	Pn	16 26 26.3	+1.0
NOQ	North Oquirrh	2.15	101	*e*Pn	Pn	16 26 26.7	+1.2
NOQ				*e*Sg	Sg	16 26 58.4	-0.3
K10A	MacKenzie Ranc baz=2.2,SNR=26	2.22	319	⇑Pb	Pb	16 26 28.5	-1.2
Q13A	Wheeler Ranch, baz=2.3,SNR=14	2.25	162	⇑P	Pn	16 26 26.8	0.0
L09A	Wilkinson Ranc baz=2.3,SNR=18	2.27	295	⇑Pb	Pb	16 26 29.3	-1.2
Q11A	Duckwater baz=2.3,SNR=16	2.34	195	⇑P	Pn	16 26 28.3	+0.3
J13A	Cove Ranch, Pi baz=2.4,SNR=105	2.35	13	P	Pn	16 26 29.5	+1.4
K15A	Arbon baz=2.4,SNR=21	2.37	48	⇑P	Pn	16 26 29.3	+1.0
CTU	Camp Tracy	2.42	99	*e*Pn	Pn	16 26 28.1	-1.0
CTU				*e*Sn	Sn	16 26 59.0	+0.2
CTU				*e*Sg	Sg	16 27 07.5	+0.3
J14A	Carey baz=2.4,SNR=33	2.44	24	⇓P	Pn	16 26 30.8	+1.4
NLU	North Lily Min	2.44	117	*e*Pn	Pn	16 26 27.8	-1.6
NLU				*e*Sg	Sg	16 27 06.9	-1.0
Q14A	Sevier Lake (B baz=2.5,SNR=6.7	2.46	149	⇑P	Pn	16 26 29.2	-0.4
HLID	Hailey baz=2.5,SNR=26	2.48	8	P	Pn	16 26 31.4	+1.6
HLID	Hailey	2.48	8	*e*Pn	Pn	16 26 31.0	+1.1
HLID				*e*Sn	Sn	16 27 03.5	+3.4
P15A	Leamington baz=2.5,SNR=17	2.52	127	⇓P	Pn	16 26 30.0	-0.5
Q10A	Clear Creek Ra baz=2.6,SNR=30	2.56	207	⇑P	Pn	16 26 32.2	+1.2
I12A	Atlanta baz=2.7,SNR=39	2.69	356	⇓P	Pn	16 26 34.5	+1.7
MPU	Maple Canyon	2.71	113	*e*Pn	Pn	16 26 34.4	+1.3
MPU				*e*Sg	Sg	16 27 15.7	-1.0
R11A	Troy Canyon, C baz=2.8	2.81	191	⇑P	Pn	16 26 34.7	+0.3
P08A	Dixie Valley baz=2.8,SNR=11	2.81	241	P	Pn	16 26 34.7	+0.2
Q15A	Fillmore baz=2.9,SNR=7.2	2.86	137	⇑P	Pn	16 26 34.8	-0.4
I13A	Wildhorse Cree baz=2.9,SNR=46	2.86	11	P	Pn	16 26 37.0	+1.9
Q09A	Carvers baz=2.9,SNR=11	2.87	218	⇑P	Pn	16 26 36.1	+0.8
I14A	Mackay baz=3.0,SNR=5.1	3.01	20	⇓P	Pn	16 26 38.1	+0.9
R13A	O'Grain Ranch, baz=3.0,SNR=16	3.01	166	⇑P	Pn	16 26 37.8	+0.6
WVOR	Wild Horse Val	3.10	297	*e*Pn	Pn	16 26 37.7	-0.7
WVOR				*e*Pb	Pb	16 26 42.9	-1.8
WVOR				*e*Sg	Sg	16 27 24.5	-4.4
R14A	James Farms, M baz=3.2	3.16	152	⇑P	Pn	16 26 39.3	+0.1
O07A	Toulon baz=3.2	3.17	254	⇓P	Pn	16 26 39.2	-0.3
TMUT	Trail Mountain	3.35	121	*e*Pn	Pn	16 26 42.4	+0.4
TMUT				*e*Pg	Pg	16 26 51.2	-2.6
TMUT				*e*Sg	Sg	16 27 34.9	-2.4
RRI2	Red Ridge	3.47	49	*e*Pn	Pn	16 26 44.7	+1.2
RRI2				*e*Sg	Sg	16 27 40.0	-0.9
S14A	Cedar City baz=3.6,SNR=8.0	3.60	158	⇑P	Pn	16 26 45.7	+0.3
S13A	Holt Ranch, En baz=3.6,SNR=19	3.62	167	⇑P	Pn	16 26 45.9	+0.4
H10A	Noah's Angus R baz=3.7,SNR=6.7	3.73	339	⇑P	Pn	16 26 48.5	+1.4
NVAR	Mina Array Bea 3.6nm,0.3s,baz=42,slow=12,SNR=10	3.75	226	Pn	Pn	16 26 47.6	+0.2
NVAR	8.4nm,0.3s,baz=44,slow=18,SNR=4.2			Pg	Pg	16 26 58.8	-2.5
NVAR	10nm,0.3s,baz=43,slow=20,SNR=4.4			Sn	Sn	16 27 33.2	+1.6
NVAR	29nm,0.3s,baz=48,slow=33,SNR=6.9			Lg		16 27 48.8	
NVAR	Mina Array Bea	3.75	226	Pn	Pn	16 26 47.6	+0.2
NVAR				Pg	Pg	16 26 58.8	-2.5
NVAR				Sn	Sn	16 27 33.2	+1.6
NVAR				Lg		16 27 48.8	
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	16 26 48.1	+0.7
REDW				*e*Pb	Pb	16 26 54.6	-1.2
REDW				*e*Sg	Sg	16 27 46.7	-3.3
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	16 26 48.7	+1.0
TPAW				*e*Sn	Sn	16 27 35.5	+3.4
TPAW				*e*Sb	Sb	16 27 43.7	+1.8
TPAW				*e*Sg	Sg	16 27 51.6	+1.0
SNOW	Snow King Moun	3.87	51	*e*Pn	Pn	16 26 48.6	-0.4
SNOW				*e*Pb	Pb	16 26 56.6	-1.2
SNOW				*e*Pg	Pg	16 27 00.6	-3.0
T11A	Corn Creek, Al baz=3.9,SNR=11	3.87	184	⇑P	Pn	16 26 49.5	+0.5
SRU	San Rafael	3.90	119	*e*Pn	Pn	16 26 52.7	+3.2
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	16 26 52.9	+1.5
IMW				*e*Pb	Pb	16 26 59.2	-1.5
IMW				*e*Pg	Pg	16 27 05.3	-1.5
LOHW	Long Hollow	4.04	50	*e*Pn	Pn	16 26 50.1	-1.4
LOHW				*e*Pb	Pb	16 26 58.8	-2.0
LOHW				*e*Pg	Pg	16 27 03.2	-3.8
BMO	Blue Mountains	4.14	336	*e*Pn	Pn	16 26 54.5	+1.8
BMO				*e*Sg	Sg	16 27 55.3	-7.0
MOD	Modoc	4.14	283	*e*Pn	Pn	16 26 52.5	-0.2
MOD				*e*Pb	Pb	16 26 59.1	-3.3
MOD				*e*Pg	Pg	16 27 05.6	-3.1
MOD				*e*Sg	Sg	16 28 00.5	-1.9
T14A	Hurricane baz=4.3,SNR=11	4.28	160	⇑P	Pn	16 26 55.4	+0.7
PDAR	Pinedale Array 0.2nm,0.3s,baz=241,slow=11,SNR=2.5	4.31	66	Pn	Pn	16 26 55.1	0.0
PDAR	2.3nm,0.3s,baz=244,slow=13,SNR=10.0			Pg	Pg	16 27 07.2	-4.8
PDAR	3.1nm,0.3s,baz=249,slow=32,SNR=6.7			Lg		16 28 03.2	
PDAR	comp=Z,127nm,20.9s,baz=222,slow=41			LR	LR	16 28 44.1	
BEKR	Beckwourth baz=4.3,SNR=15	4.35	255	P	Pn	16 26 55.6	+0.1
R06C	Coleville baz=4.3,SNR=11	4.36	235	⇓P	Pn	16 26 55.7	0.0
T15A	Red Dirt Ranch baz=4.5,SNR=5.1	4.53	154	⇓P	Pn	16 26 58.4	+0.3
DLMT	Dillon	4.57	21	*e*Pn	Pn	16 27 00.7	+2.0
DLMT				*e*Pb	Pb	16 27 09.1	-0.7
DLMT				*e*Pg	Pg	16 27 14.3	-2.7
DLMT				*e*Sg	Sg	16 28 13.6	-2.6
U13A	Pakoon Wash baz=4.8,SNR=5.7	4.74	171	⇓P	Pn	16 27 01.7	+0.7
LRM	Limekiln Ridge	5.04	20	Pn	Pn	16 27 10.4	+5.4
BOZ	Bozeman (W)	5.12	27	*e*Pn	Pn	16 27 09.3	+3.1
CMB	Columbia Colle 13nm,0.7s	5.24	236	*e*Pn	Pn	16 27 07.7	-0.2
CMB				*e*Sn	Sn	16 28 11.1	+2.9
CMB				*e*Sg	Sg	16 28 33.4	-4.2
PV04	Paradox Valley	5.36	118	Pn	Pn	16 27 14.5	+5.0
PV04				*e*Pg	Pg	16 27 28.9	-3.1
V12A	Nelson baz=5.4,SNR=15	5.38	180	⇑P	Pn	16 27 10.5	+0.7
YBH	Yreka Blue Hor 0.3nm,0.3s,baz=82,slow=7.1,SNR=4.2	5.91	279	Pg	Pg	16 27 36.6	-6.0
YBH	0.3nm,0.3s,baz=192,slow=16,SNR=3.6			Lg		16 28 55.7	
YBH	Yreka Blue Hor	5.91	279	*e*Pg	Pg	16 27 37.1	-5.5
GSC	Goldstone	5.99	195	*e*Pg	Pg	16 27 42.5	-1.8
WUAZ	Wupatki	6.23	153	*e*Pg	Pg	16 27 46.9	-1.9
WUAZ				*e*Sg	Sg	16 29 05.8	-3.8
MVCO	Mesa Verde	6.31	126	*e*Pg	Pg	16 27 46.7	-3.7
PHWY	Pilot Hill	7.12	85	Pn	Pn	16 27 34.9	+1.3
ANMO	Albuquerque 0.2nm,0.3s,baz=312,slow=14,SNR=1.9	9.06	130	Pg	Px	16 28 37.0	
ANMO	0.2nm,0.3s,baz=308,slow=16,SNR=2.8			Lg		16 30 33.5	
TXAR	Lajitas Array 0.0nm,0.3s,baz=327,slow=8.1,SNR=3.2	14.89	139	Pn	Pn	16 29 24.9	+4.9
TXAR	Lajitas Array	14.89	139	Pn	Pn	16 29 24.9	+4.9
YKA	Yellowknife Ar 1.6nm,0.8s,baz=180,slow=10.0,SNR=18	21.42	0	P	P	16 30 37.4	+0.2
YKA	Yellowknife Ar	21.42	0	P	P	16 30 37.4	+0.2

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*ISCJB **21** 16:28:29.2±0.8, 6°.49N±0°.06×126°.9E±0°.1, h184km±7km, mb3.9/10, Error ellipse: s-maj=20.4km s-min=9.9km az=175.6*

*NEIC **21** 16:28:29.0±2.3, 6°.56N×127°.05E, h166km±18km, mb4.3/4, Error ellipse: s-maj=59.9km s-min=9.7km az=74.0*

*IDC **21** 16:28:30.8±2.7, 6°.57N×127°.08E, h183km±23km, mb3.6/7, mb1 3.7/7, mb1mx3.4/21, mbtmp3.6/7, MS3.8/1, Ms1 3.8/1, ms1mx2.7/26, Error ellipse: s-maj=68.8km s-min=13.9km az=77.0*

*MAN **21** 16:28:31, 6°.71N×126°.99E, h159km, mb4.6, ML3.4, MS3.3*

ISC 21 16:28:30.3±0.8**, 6°.50N**±0°.06×**126°.9E**±0°.1**, h177**km±7km**, n21,** σ**1s.68**/27**, mb3.9**/10**, 1C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.76	306	*e*P	Pn	16 28 56.8	+0.8
MATI				*e*S	Sn	16 29 05.9	-10
DAV	Davao City (W) 109nm,0.3s,baz=94,slow=19,SNR=39	1.41	294	S	Sn	16 29 27.0	+12
DAV	Davao City (W)	1.41	294	Pn	Pn	16 29 00.2	-0.9
DAV				*e*Sn	Sn	16 29 23.8	+8.7
DMPH	Davao City--Mi	1.48	293	⇓*e*P	Pn	16 29 03.1	+1.3
DMPH				*e*S	Sn	16 29 27.8	+11
BIPH	Bislig	1.75	343	⇓*i*P	Pn	16 29 05.4	+0.9
BIPH				*i* S	Sn	16 29 29.2	+5.6
GSPH	General Santos	1.96	258	⇑*e*P	Pn	16 29 06.4	-0.3
GSPH				*e*S	Sn	16 29 32.4	+4.1
BUKP	Musuan	2.26	307	*e*P	Pn	16 29 19.1	+9.0
BUKP				*e*S	Sn	16 29 40.9	+5.2
BUTP	Butuan	2.75	333	*e*P	Pn	16 29 13.0	-2.9
BUTP				*e*S	Sn	16 29 52.3	+4.7
FITZ	Fitzroy Crossi 2.5nm,0.6s,mb3.9,baz=1.5,slow=5.9,SNR=8.5	24.47	183	P	P	16 33 33.6	+0.5
WRAB	Tennant Creek 11nm,1.4s,mb4.3	27.27	165	P	P	16 33 57.3	-1.0
WRA	Warramunga Arr 0.2nm,0.3s,mb3.2,baz=346,slow=11,SNR=13	27.28	165	P	P	16 33 58.2	-0.2
WRA	0.7nm,0.8s,baz=346,slow=10,SNR=2.6			pP	pP	16 34 42.4	+7.7
WRA	0.6nm,0.9s,baz=346,slow=3.1,SNR=4.6			ScP	ScP	16 40 36.3	-1.3
WRA	Warramunga Arr	27.28	165	P	P	16 33 58.2	-0.2
WRA				pP	pP	16 34 42.4	+7.7
WRA				ScP	ScP	16 40 36.3	-1.3
ASAR	Alice Springs 0.5nm,0.3s,mb3.6,baz=336,slow=7.5,SNR=40	30.75	167	P	P	16 34 29.4	+0.3
ASAR	0.2nm,0.5s,baz=356,slow=3.5,SNR=4.1			ScP	ScP	16 40 47.5	-1.0
NWAO	Narrogin (SRO) 16nm,0.9s,mb4.6,baz=34,slow=7.3,SNR=5.0	40.26	193	P	P	16 35 51.1	+1.1
NWAO	Narrogin (SRO) 34nm,1.2s,mb4.8	40.26	193	P	P	16 35 51.1	+1.1
ULN	Ulaanbaatar 1.7nm,0.7s,mb3.8	44.56	341	*e*P	P	16 36 25.2	+0.7
SONM	Songino Array	44.75	340	P	P	16 36 27.2	+1.2

	0.3nm,0.5s,mb3.2,baz=162,slow=8.3,SNR=4.8						
ZALV	Zalesovo Beam	58.21	332	P	P	16 38 04.9	-0.9
	0.4nm,0.3s,mb3.7,baz=116,slow=6.8,SNR=5.2						
AAK	Ala-Archa	58.44	317	LR	LR	17 04 31.8	
	comp=Z,77nm,18.2s,baz=28,slow=37						
KURK	Kurchatov	59.51	327	eP	P	16 38 14.2	-0.6
	3.0nm,1.0s,mb4.1						
ARCES	ARCESS Array B	87.92	340	P	P	16 40 59.0	-0.7
	6.0nm,1.2s,mb4.3,baz=88,slow=5.6,SNR=6.4						

IDC 21 16:29:09.3±2.0, 2°.43N×95°.61E, h0^{km}, mb3.7/5, mb1 3.8/7, mb1mx3.6/23, mbtmp3.7/7, ML3.1/2, MS3.2/1, Ms1 3.2/1, ms1mx3.0/33, Error ellipse: s-maj=59.9km s-min=20.8km az=56.0

ISCJB 21 16:29:13.9±0.8, 2°.58N±0°.09×95°.83E±0°.10, h33^{km}, mb4.0/10, Error ellipse: s-maj=16.6km s-min=8.7km az=140.9

NEIC 21 16:29:15.0±0.9, 2°.52N×95°.75E, h35^{km}, mb3.8/3, Error ellipse: s-maj=17.8km s-min=10.2km az=48.0

ISC 21 16:29:16.3±0.8, 2°.62N±0°.09×95°.86E±0°.10, h35^{km}, n22, σ0^{s}.77/23, mb4.0/10, 1D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	2.92	349	⇓eP	Pn	16 29 59.0	-1.2
BSI				eS	Sn	16 30 33.0	-1.0
PSI	Prapat	3.06	87	Pn	Pn	16 30 03.1	+0.9
	2.8nm,0.3s,baz=291,slow=3.0,SNR=8.6						
PSI				LR	LR	16 31 37.8	
	comp=Z,323nm,18.4s,baz=110,slow=45						
KULM	Kulim	5.46	61	ePn	Pn	16 30 35.5	+0.2
	38nm,1.0s						
CMAR	Chiang Mai Arr	16.03	11	Pn	Pn	16 33 00.7	+1.5
	0.0nm,0.3s,baz=199,slow=11,SNR=10						
CHTO	Chiang Mai	16.38	10	Pn	Pn	16 33 03.1	-0.4
	1.7nm,0.8s						
ODAN	Odare	25.44	342	ePn	P	16 34 42.0	+1.1
RAMN	Ramite	25.77	341	ePn	P	16 34 44.8	+0.9
	18nm,0.6s						
TAPN	Taplejung	25.80	343	ePn	P	16 34 44.9	+0.7
	13nm,0.9s,mb4.5						
JIRN	Jiri	26.56	341	ePn	P	16 34 51.7	+0.6
	19nm,0.7s						
DMN	Daman	26.90	339	ePn	P	16 34 54.4	+0.3
GUN	Gumba	26.90	340	ePn	P	16 34 54.7	+0.6
	15nm,0.7s,mb4.6						
KKN	Kakani	27.00	339	ePn	P	16 34 55.1	+0.1
LSA	Lhasa	27.30	351	eP	P	16 34 56.6	-1.1
	2.9nm,0.7s,mb3.9						
GKN	Gorkha	27.43	338	ePn	P	16 34 58.9	+0.1
KOLN	Koldanda	27.62	336	ePn	P	16 35 00.9	+0.3
GTA	Gaotai	36.80	5	eP	P	16 36 20.3	-0.4
GTA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
UCH	Uchtor	43.83	337	eP	P	16 37 19.2	+0.3
	comp=Z,1.6nm,0.8s,mb3.8						
WRA	Warramunga Arr	43.92	122	P	P	16 37 18.7	-1.2
	comp=Z,0.6nm,0.6s,mb3.5,baz=298,slow=9.5,SNR=5.9						
ASAR	Alice Springs	45.31	127	P	P	16 37 30.4	-0.6
	comp=Z,0.2nm,0.5s,mb3.2,baz=301,slow=7.8,SNR=6.3						
MKAR	Makanchi Array	45.56	347	P	P	16 37 32.3	-0.3
	comp=Z,1.5nm,0.7s,mb4.0,baz=157,slow=8.7,SNR=18						
SONM	Songino Array	45.95	10	P	P	16 37 35.0	-0.7
	comp=Z,1.0nm,0.6s,mb3.9,baz=190,slow=8.9,SNR=9.8						
ZALV	Zalesovo Beam	51.96	352	P	P	16 38 21.1	-0.7
	comp=Z,0.9nm,0.5s,mb4.0,baz=183,slow=7.4,SNR=5.8						

IDC 21 16:34:17.6±1.0, 41°.22N×114°.94W, h0^{km}, mb2.4/1, mb1 3.0/3, mb1mx2.9/20, mbtmp2.5/3, ML2.9/1, Error ellipse: s-maj=17.8km s-min=5.1km az=131.0

NEIC 21 16:34:18.1±0.6, 41°.18N×114°.98W, h5^{km}, ML2.5, Error ellipse: s-maj=9.3km s-min=6.7km az=148.0

ISCJB 21 16:34:19.1±0.3, 41°.14N±0°.02×114°.89W±0°.02, h10^{km}, Error ellipse: s-maj=2.5km s-min=2.2km az=163.5

ISC 21 16:34:18.7±0.4, 41°.18N±0°.02×114°.90W±0°.02, h3^{km}±3^{km}, n46, σ0^{s}.94/73, 13C-20D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.34	198	⇓P	Pg	16 34 25.6	+0.4
	baz=0.3,SNR=7.3						
N12A				⇓S	Sg	16 34 30.2	+0.7
	baz=0.3						
ELK	Elko	0.50	211	Pg	Pg	16 34 28.3	+0.1
	16nm,0.3s,baz=20,slow=18,SNR=6.9						
ELK				Lg		16 34 34.1	
	47nm,0.3s,baz=122,slow=18,SNR=15						
ELK	Elko	0.50	211	ePg	Pg	16 34 27.9	-0.3
ELK				eSg	Sg	16 34 34.4	-0.3
N13A	Wendover, West	0.61	121	⇓P	Pg	16 34 30.8	+0.4
	baz=0.6,SNR=12						
N13A				⇓S	Sg	16 34 39.1	+0.7
	baz=0.6						
M11A	Holland Ranch,	0.72	291	⇓S	Sg	16 34 42.4	+0.6
	baz=0.7						
N11A	Elko Archery C	0.73	241	⇑S	Sg	16 34 42.6	+0.5
	baz=0.7						
O12A	Currie	0.91	173	⇓S	Sg	16 34 48.5	+0.5
	baz=0.9						
L12A	House Creek Ra	0.97	355	⇓S	Sg	16 34 51.2	+1.2
	baz=1.0						
L11A	Cat Creek Ranc	1.18	327	⇑P	Pg	16 34 40.7	-0.6
	baz=1.2,SNR=8.4						
L11A				⇑S	Sg	16 34 56.7	+0.1
	baz=1.2						
O11A	Cowboy Ranch,	1.19	209	⇑P	Pg	16 34 40.8	-0.7
	baz=1.2,SNR=14						
O11A				⇓S	Sg	16 34 56.6	-0.3
	baz=1.2						
M14A	Sheep Mountain	1.21	74	⇓P	Pg	16 34 41.4	-0.4
	baz=1.2,SNR=11						
M14A				⇓S	Sg	16 34 58.1	+0.5
	baz=1.2						
O13A	Hicks Ranch, I	1.25	146	⇓P	Pg	16 34 42.4	-0.3
	baz=1.3,SNR=18						
M10A	I.L. Ranch, Tu	1.28	286	⇑S	Sg	16 35 00.5	+0.6
	baz=1.3						
N10A	Dunphy	1.30	250	⇑S	Sg	16 35 00.8	+0.3
	baz=1.3						
N14A	Grayback Hills	1.33	103	⇑P	Pn	16 34 43.2	-1.0
	baz=1.3,SNR=14						
N14A				⇑S	Sg	16 35 02.1	+0.6
	baz=1.3						
BGU	Big Grassy Mou	1.43	99	ePn	Pn	16 34 44.9	-0.7
BGU				eSn	Sn	16 35 04.2	-0.7
K12A	Draper Farm, C	1.46	360	⇓P	Pn	16 34 45.3	-0.6
	baz=1.5,SNR=10						
K12A				⇑S	Sb	16 35 04.4	-1.1
	baz=1.5						
L10A	Juniper Basin	1.48	308	⇓P	Pn	16 34 46.3	0.0
	baz=1.5,SNR=11						
L10A				⇑S	Sb	16 35 05.8	-0.4
	baz=1.5						
O10A	Cortez Mining,	1.50	235	⇑P	Pn	16 34 45.8	-0.7
	baz=1.5,SNR=9.6						
O10A				⇓S	Sn	16 35 06.7	+0.1
	baz=1.5						
L14A	Malta	1.51	55	⇑S	Sn	16 35 06.9	+0.1
	baz=1.5						
K13A	Stover Farm, H	1.59	22	⇑S	Sn	16 35 09.0	+0.1
	baz=1.6						
P12A	McGill	1.70	180	⇓P	Pn	16 34 48.4	-0.8
	baz=1.7,SNR=14						
HVU	Hansel Valley	1.71	69	ePn	Pn	16 34 48.8	-0.5
HVU				eSn	Sn	16 35 11.1	-0.5
N15A	Stansbury Isla	1.82	98	⇓P	Pn	16 34 50.6	-0.3
	baz=1.8,SNR=10.0						
SPUT	South Promonto	1.85	85	ePn	Pn	16 34 51.4	+0.1
SPUT				eSn	Sn	16 35 16.1	+0.8
DUG	Dugway	1.86	121	⇓P	Pn	16 34 51.6	+0.1
	baz=1.9,SNR=17						
DUG	Dugway	1.86	121	ePn	Pn	16 34 51.7	+0.3
DUG				eSn	Sn	16 35 17.8	+2.2
BMN	Battle Mountai	1.91	248	ePn	Pn	16 34 50.7	-1.5
BMN				eSn	Sn	16 35 18.9	+2.1
P10A	Eureka	1.96	218	⇓P	Pn	16 34 52.7	-0.1
	baz=2.0						
NOQ	North Oquirrh	2.17	103	ePn	Pn	16 34 56.4	+0.7
J13A	Cove Ranch, Pi	2.29	13	⇓P	Pn	16 34 58.3	+1.0
	baz=2.3,SNR=8.4						
Q13A	Wheeler Ranch,	2.32	163	⇓P	Pn	16 34 57.1	-0.7
	baz=2.3,SNR=6.7						
NLU	North Lily Min	2.47	119	Pn	Pn	16 35 02.2	+2.4
MPU	Maple Canyon	2.74	114	Pn	Pn	16 35 03.0	-0.6
MPU				eSg	Sg	16 35 45.7	-1.0
DAU	Daniels Canyon	2.87	104	ePn	Pn	16 35 08.4	+3.1
DAU				ePg	Pg	16 35 14.0	+0.4
DAU				eSg	Sg	16 35 50.3	-0.4
WVOR	Wild Horse Val	3.07	295	ePn	Pn	16 35 12.2	+4.2
MSU	Marysvale	3.38	141	ePn	Pn	16 35 11.6	-0.8
MSU				ePg	Pg	16 35 23.5	0.0
ARUT	Antelope Range	3.56	161	ePn	Pn	16 35 14.8	-0.1
ARUT				ePg	Pg	16 35 26.8	-0.1
ARUT				eSg	Sg	16 36 13.6	+0.5
NVAR	Mina Array Bea	3.79	225	Pn	Pn	16 35 17.2	-0.8
	0.9nm,0.3s,baz=39,slow=13,SNR=3.5						
NVAR				Pg	Pg	16 35 25.7	-5.7
	1.5nm,0.3s,baz=43,slow=15,SNR=4.5						
NVAR				Lg		16 36 18.7	
	4.7nm,0.3s,baz=54,slow=26,SNR=5.5						
NVAR	Mina Array Bea	3.79	225	Pn	Pn	16 35 17.2	-0.8
NVAR				Pg	Pg	16 35 25.7	-5.7
NVAR				Lg		16 36 18.7	
SRU	San Rafael	3.94	120	ePn	Pn	16 35 25.1	+5.2
SRU				ePg	Pg	16 35 31.6	-2.4
MCMT	McKenzie Canyo	3.95	22	ePn	Pn	16 35 23.8	+3.7
IMW	Indian Meadow	3.99	46	Pn	Pn	16 35 23.3	+2.6
BMO	Blue Mountains	4.08	335	ePn	Pn	16 35 19.4	-2.5
BMO				eSb	Sb	16 36 22.2	+1.5
BMO				eSg	Sg	16 36 28.9	-0.7
PDAR	Pinedale Array	4.29	66	Pn	Pn	16 35 25.5	+0.7
	baz=239,slow=10,SNR=2.3						
PDAR				Pg	Pg	16 35 35.2	-5.5
	0.2nm,0.3s,baz=247,slow=14,SNR=4.1						
PDAR				Lg		16 36 33.2	
	0.4nm,0.3s,baz=251,slow=25,SNR=5.6						
YKA	Yellowknife Ar	21.35	0	P	P	16 39 05.1	-1.6
	0.1nm,0.4s,baz=179,slow=10,SNR=4.0						

ISCJB 21 16:39:28.7±0.1, 41°.10N±0°.01×114°.87W±0°.01, h10^{km}, Error ellipse: s-maj=1.7km s-min=1.5km az=42.5

IDC 21 16:39:28.2±0.9, 41°.19N×114°.96W, h0^{km}, mb3.3/1, mb1 3.8/4, mb1mx3.5/22, mbtmp3.4/4, ML3.7/3, Error ellipse: s-maj=17.6km s-min=5.4km az=131.0

NEIC 21 16:39:29.3, 41°.13N×114°.91W, h5^{km}, ML3.4, After REN.

ISC 21 16:39:29.3±0.1, 41°.121N±0°.010×114°.88W±0°.01, h10^{km}, n148, σ1^{s}.09/244, 60C-40D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.29	205	P	Pg	16 39 35.2	+0.1
	baz=0.3,SNR=158						
N12A				⇓S	Sg	16 39 39.4	+0.2
	baz=0.3						
ELK	Elko	0.47	216	Pg	Pg	16 39 38.0	-0.4
	123nm,0.3s,baz=21,slow=16,SNR=120						
ELK				Lg		16 39 43.9	
	362nm,0.3s,baz=308,slow=19,SNR=93						
ELK	Elko	0.47	216	ePg	Pg	16 39 37.9	-0.5
ELK				eSg	Sg	16 39 43.3	-1.2
N13A	Wendover, West	0.57	117	P	Pg	16 39 40.9	+0.5
	baz=0.6,SNR=385						
N13A				⇑S	Sg	16 39 48.7	+0.7
	baz=0.6						
M13A	Montello	0.59	66	⇓P	Pg	16 39 40.6	-0.1
	baz=0.6,SNR=57						
M13A				⇑S	Sg	16 39 49.1	+0.7
	baz=0.6						
N11A	Elko Archery C	0.72	245	⇑P	Pg	16 39 42.5	-0.7
	baz=0.7,SNR=122						
N11A				⇑S	Sg	16 39 51.6	-0.9
	baz=0.7						
M11A	Holland Ranch,	0.76	295	⇓P	Pg	16 39 42.7	-1.2
	baz=0.7,SNR=110						
O12A	Currie	0.86	173	⇑P	Pg	16 39 45.6	-0.3
	baz=0.9,SNR=106						
O12A				⇑S	Sg	16 39 57.4	+0.4
	baz=0.9						
L12A	House Creek Ra	1.03	354	⇓P	Pg	16 39 48.3	-0.8
	baz=1.0,SNR=70						
L12A				⇓S	Sg	16 40 01.9	-0.6
	baz=1.0						
O11A	Cowboy Ranch,	1.15	211	⇓P	Pb	16 39 51.0	-0.3
	baz=1.1,SNR=138						
O11A				⇑S	Sb	16 40 05.8	-0.5
	baz=1.1						
L13A	Double Diamond	1.19	36	⇓P	Pb	16 39 51.2	-0.8
	baz=1.2,SNR=47						
L13A				⇑S	Sb	16 40 07.3	-0.2
	baz=1.2						
O13A	Hicks Ranch, I	1.20	145	⇓P	Pn	16 39 51.8	-0.3
	baz=1.2,SNR=131						
O13A				⇓S	Sb	16 40 08.9	+1.3
	baz=1.2						
M14A	Sheep Mountain	1.21	71	⇑P	Pn	16 39 51.8	-0.5
	baz=1.2,SNR=62						
M14A				⇑S	Sb	16 40 08.5	+0.4
	baz=1.2						
L11A	Cat Creek Ranc	1.23	328	⇑P	Pn	16 39 51.4	-1.2
	baz=1.2						
L11A				⇑S	Sb	16 40 07.8	-0.9
	baz=1.2						
N10A	Dunphy	1.30	253	⇑P	Pn	16 39 52.8	-0.6
	baz=1.3						
N10A				⇑S	Sb	16 40 10.2	-0.3
	baz=1.3						
N14A	Grayback Hills	1.31	101	⇑P	Pn	16 39 53.2	-0.4
	baz=1.3,SNR=77						
N14A				⇓S	Sb	16 40 12.1	+1.4
	baz=1.3						
M10A	I.L. Ranch, Tu	1.31	288	⇑P	Pn	16 39 53.3	-0.4
	baz=1.3,SNR=50						
M10A				⇑S	Sb	16 40 11.0	0.0
	baz=1.3						
BGU	Big Grassy Mou	1.41	97	ePn	Pn	16 39 54.5	-0.5
BGU				eS	Sn	16 40 13.2	-0.5
O10A	Cortez Mining,	1.49	237	⇑P	Pn	16 39 55.5	-0.5
	baz=1.5,SNR=78						
O10A				⇑S	Sn	16 40 15.6	+0.1
	baz=1.5						
K12A	Draper Farm, C	1.51	359	⇑P	Pn	16 39 55.7	-0.8
	baz=1.5						
K12A				⇑S	Sn	16 40 15.3	-0.9
	baz=1.5						
L10A	Juniper Basin	1.53	309	⇓P	Pn	16 39 56.4	-0.2
	baz=1.5,SNR=111						
L10A				⇑S	Sn	16 40 16.8	+0.2
	baz=1.5						
L14A	Malta	1.53	53	⇑P	Pn	16 39 56.6	-0.1
	baz=1.5,SNR=60						
L14A				⇑S	Sn	16 40 17.9	+1.3
	baz=1.5						
K13A	Stover Farm, H	1.64	21	⇓P	Pn	16 39 58.3	+0.1
	baz=1.6,SNR=48						
K13A				⇑S	Sn	16 40 20.2	+1.0
	baz=1.6						
P12A	McGill	1.65	181	⇓P	Pn	16 39 58.1	-0.2
	baz=1.7,SNR=75						
P11A	Circle Ranch,	1.70	203	⇑P	Pn	16 39 58.9	-0.1
	baz=1.7,SNR=21						
P11A				⇑S	Sn	16 40 22.4	+1.5
	baz=1.7						
HVU	Hansel Valley	1.71	67	ePn	Pn	16 39 57.4	-1.8
HVU				ePb	Pb	16 39 59.4	-1.4
HVU				ePg	Pg	16 40 01.6	-0.5
N15A	Stansbury Isla	1.80	97	⇑P	Pn	16 40 00.5	+0.1
	baz=1.8,SNR=80						
DUG	Dugway	1.82	120	⇓P	Pn	16 40 00.4	-0.3
	baz=1.8,SNR=96						
DUG	Dugway	1.82	120	ePn	Pn	16 40 00.6	0.0
DUG				ePg	Pg	16 40 05.1	+0.8
DUG				eSg	Sg	16 40 27.2	-0.7
SPUT	South Promonto	1.84	83	ePn	Pn	16 40 01.8	+0.9
K11A	Parker Ranch,	1.86	333	⇑P	Pn	16 40 01.4	+0.2
	baz=1.8,SNR=87						
K11A				⇑S	Sn	16 40 26.0	+1.3
	baz=1.8						
M15A	Larsen Ranch,	1.86	79	⇑P	Pn	16 40 01.4	+0.2
	baz=1.9,SNR=78						
BMN	Battle Mountai	1.91	250	ePn	Pn	16 40 00.9	-1.0
BMN				eSg	Sg	16 40 28.3	-2.3
K14A	Jones Ranch, D	1.91	41	⇓P	Pn	16 40 02.1	+0.3
	baz=1.9,SNR=10						
P10A	Eureka	1.93	219	⇓P	Pn	16 40 02.2	+0.1
	baz=1.9,SNR=45						
M09A	Marrel Ranch,	1.96	280	⇑P	Pn	16 40 02.4	-0.2
	baz=1.9,SNR=27						
O15A	The Old Anders	2.01	114	⇓P	Pn	16 40 03.1	-0.2
	baz=2.0						
N09A	Rock Creek Ran	2.02	263	⇑P	Pn	16 40 02.5	-0.9
	baz=2.0						
P14A	Drum Mountains	2.06	137	⇑P	Pn	16 40 03.7	-0.2
	baz=2.1,SNR=25						
L15A	Malad City	2.07	64	⇓P	Pn	16 40 04.2	+0.2
	baz=2.1,SNR=31						
Q12A	Willow Creek R	2.08	179	⇑P	Pn	16 40 03.9	-0.3
	baz=2.1,SNR=22						
J12A	Stokes Ranch,	2.13	356	⇓P	Pn	16 40 05.5	+0.6
	baz=2.1,SNR=79						
NOQ	North Oquirrh	2.14	102	ePn	Pn	16 40 06.4	+1.4
NOQ				eSg	Sg	16 40 37.1	-1.0
K10A	MacKenzie Ranc	2.23	319	⇑P	Pn	16 40 06.7	+0.5
	baz=2.2,SNR=49						
Q13A	Wheeler Ranch,	2.26	163	⇓P	Pn	16 40 06.6	-0.1
	baz=2.3,SNR=35						
L09A	Wilkinson Ranc	2.28	294	⇑P	Pn	16 40 08.4	+1.5
	baz=2.2,SNR=19						
J13A	Cove Ranch, Pi	2.33	13	⇓P	Pn	16 40 08.8	+1.1
	baz=2.3,SNR=87						
K15A	Arbon	2.35	47	⇑P	Pn	16 40 08.8	+0.9
	baz=2.4,SNR=58						
Q11A	Duckwater	2.35	195	P	Pn	16 40 08.1	+0.1
	baz=2.4,SNR=77						
MFID	Camas Ranch	2.40	343	⇓P	Pn	16 40 09.6	+1.0
	baz=2.4,SNR=46						
CTU	Camp Tracy	2.41	99	ePn	Pn	16 40 11.1	+2.4
CTU				ePg	Pg	16 40 15.7	+0.3
J14A	Carey	2.42	24	P	Pn	16 40 10.3	+1.4
	baz=2.4,SNR=74						
NLU	North Lily Min	2.43	118	ePn	Pn	16 40 08.6	-0.5
NLU				ePb	Pb	16 40 12.4	-0.7
NLU				ePg	Pg	16 40 15.1	-0.8
Q14A	Sevier Lake (B	2.46	150	⇑P	Pn	16 40 08.9	-0.5
	baz=2.5,SNR=13						
HLID	Hailey	2.46	8	⇑P	Pn	16 40 10.8	+1.3
	baz=2.5,SNR=78						
HLID	Hailey	2.46	8	ePn	Pn	16 40 10.9	+1.4
HLID				eSn	Sn	16 40 39.0	-0.6
HLID				eSg	Sg	16 40 44.6	-3.9
P15A	Leamington	2.52	127	P	Pn	16 40 09.9	-0.3
	baz=2.5,SNR=48						
Q10A	Clear Creek Ra	2.57	208	⇓P	Pn	16 40 10.9	-0.1
	baz=2.6,SNR=98						
K09A	Rome	2.65	308	⇓P	Pn	16 40 13.8	+1.8
	baz=2.6,SNR=82						
I12A	Atlanta	2.68	356	⇑P	Pn	16 40 14.1	+1.7
	baz=2.7,SNR=94						
MPU	Maple Canyon	2.71	113	ePn	Pn	16 40 12.8	0.0
MPU				ePb	Pb	16 40 17.4	-0.4
MPU				ePg	Pg	16 40 20.7	-0.4
MPU				eSg	Sg	16 40 54.7	-1.5
L16A	Fish Haven	2.73	70	⇓P	Pn	16 40 14.3	+1.0
	baz=2.7,SNR=18						
R12A	Pony Springs,	2.80	176	⇓P	Pn	16 40 14.3	+0.2
	baz=2.8,SNR=24						
R11A	Troy Canyon, C	2.82	191	P	Pn	16 40 14.4	0.0
	baz=2.8,SNR=63						
P08A	Dixie Valley	2.83	241	⇓P	Pn	16 40 14.3	-0.2
	baz=2.8,SNR=25						
DAU	Daniels Canyon	2.84	103	ePn	Pn	16 40 16.4	+1.7
DAU				ePg	Pg	16 40 23.9	+0.2
DAU				eSg	Sg	16 41 00.8	+0.3
I13A	Wildhorse Cree	2.85	11	P	Pn	16 40 16.5	+1.7
	baz=2.8,SNR=65						
Q15A	Fillmore	2.86	137	⇑P	Pn	16 40 14.8	-0.1
	baz=2.9,SNR=14						
Q09A	Carvers	2.89	219	⇓P	Pn	16 40 15.9	+0.6
	baz=2.9,SNR=16						
J15A	Blackfoot	2.91	38	⇑P	Pn	16 40 16.7	+1.0
	baz=2.9,SNR=25						
K16A	Soda Springs	2.99	54	⇑P	Pn	16 40 18.0	+1.2
	baz=3.0,SNR=24						
I14A	Mackay	3.00	20	⇑P	Pn	16 40 17.9	+1.0
	baz=3.0						
R13A	O’Grain Ranch,	3.02	166	⇓P	Pn	16 40 17.7	+0.6
	baz=3.0,SNR=84						
R10A	Warm Springs	3.03	202	⇑P	Pn	16 40 17.9	+0.5
	baz=3.0,SNR=16						
WVOR	Wild Horse Val	3.10	296	Pn	Pn	16 40 20.7	+2.5
WVOR				eSg	Sg	16 41 04.0	-4.9
N07B	Gerlach	3.12	265	⇓P	Pn	16 40 17.7	-0.8
	baz=3.1,SNR=14						
O07A	Toulon	3.19	254	⇑P	Pn	16 40 18.5	-0.9
	baz=3.2,SNR=23						
J16A	Bone	3.24	47	⇓P	Pn	16 40 21.5	+1.3
	baz=3.3,SNR=23						
M07A	Soldier Meadow	3.25	276	⇑P	Pn	16 40 20.1	-0.2
	baz=3.2,SNR=9.9						
AHID	Auburn Hatcher	3.26	58	ePn	Pn	16 40 19.1	-1.4
AHID				ePb	Pb	16 40 27.9	+0.7
AHID				eSg	Sg	16 41 10.4	-3.6
MSU	Marysvale	3.33	141	ePn	Pn	16 40 21.5	0.0
MSU				ePb	Pb	16 40 29.9	+1.4
MSU				ePg	Pg	16 40 33.2	+0.1
R09A	Tonopah	3.34	211	⇑P	Pn	16 40 22.1	+0.6
	baz=3.3,SNR=12						
TMUT	Trail Mountain	3.35	122	ePn	Pn	16 40 22.4	+0.8
TMUT				ePb	Pb	16 40 29.2	+0.5
TMUT				ePg	Pg	16 40 33.2	-0.3
TMUT				eSg	Sg	16 41 17.4	+0.6
H12A	Diamond D Ranc	3.43	0	⇑P	Pn	16 40 24.4	+1.7
	baz=3.4,SNR=20						
RRI2	Red Ridge	3.45	49	ePn	Pn	16 40 24.6	+1.6
RRI2				eS	Sn	16 41 09.6	+5.5
RRI2				eSg	Sg	16 41 18.4	-1.8
S10A	Tonopah Range,	3.46	203	⇓P	Pn	16 40 23.5	+0.4
	baz=3.5,SNR=22						
S12A	Delamar Landin	3.51	180	⇑P	Pn	16 40 24.2	+0.4
	baz=3.5,SNR=16						
ARUT	Antelope Range	3.51	161	ePn	Pn	16 40 24.1	+0.2
ARUT				ePg	Pg	16 40 35.9	-0.6
ARUT				eSg	Sg	16 41 20.8	-1.2
S11A	Rachel	3.54	191	⇑P	Pn	16 40 24.8	+0.6
	baz=3.5,SNR=8.5						
S14A	Cedar City	3.61	158	⇓P	Pn	16 40 25.6	+0.4
	baz=3.6,SNR=11						
K07A	Rock Creek Ran	3.62	297	⇓P	Pn	16 40 25.9	+0.6
	baz=3.6,SNR=17						
S13A	Holt Ranch, En	3.62	167	⇑P	Pn	16 40 25.8	+0.4
	baz=3.6,SNR=53						
DCID1	Drake Creek	3.69	47	ePn	Pn	16 40 24.9	-1.4
DCID1				eSg	Sg	16 41 25.7	-2.0
H10A	Noah’s Angus R	3.73	339	⇓P	Pn	16 40 28.4	+1.5
	baz=3.7,SNR=31						
REDW	Red Top Meadow	3.73	52	ePn	Pn	16 40 28.6	+1.6
REDW				eSg	Sg	16 41 24.3	-4.9
TPAW	Teton Pass	3.75	50	ePn	Pn	16 40 28.2	+1.0
TPAW				eSg	Sg	16 41 25.8	-4.0
CCUT	Cedar City	3.75	161	ePn	Pn	16 40 27.8	+0.5
CCUT				ePg	Pg	16 40 40.1	-1.1
CCUT				eSg	Sg	16 41 27.0	-2.8
NVAR	Mina Array Bea	3.77	226	Pn	Pn	16 40 27.6	+0.2
	4.9nm,0.3s,baz=41,slow=11,SNR=32						
NVAR				Sn	Sn	16 41 12.3	+0.5
	9.5nm,0.3s,baz=45,slow=18,SNR=28						
NVAR				Lg		16 41 26.8	
	38nm,0.3s,baz=50,slow=32,SNR=13						
NVAR	Mina Array Bea	3.77	226	Pn	Pn	16 40 27.6	+0.2
NVAR				Sn	Sn	16 41 12.3	+0.5
NVAR				Lg		16 41 26.8	
S09A	Goldfield	3.85	209	⇓P	Pn	16 40 29.3	+0.7
	baz=3.8,SNR=6.8						
SNOW	Snow King Moun	3.85	51	ePn	Pn	16 40 28.4	-0.2
SNOW				ePb	Pb	16 40 35.9	-1.4
SNOW				eSg	Sg	16 41 29.1	-3.8
T11A	Corn Creek, Al	3.88	184	⇓P	Pn	16 40 29.4	+0.4
	baz=3.9,SNR=41						
SRU	San Rafael	3.90	120	ePn	Pn	16 40 28.3	-0.8
SRU				ePb	Pb	16 40 36.6	-1.4
SRU				ePg	Pg	16 40 42.5	-1.4
S15A	Panguitch	3.95	150	⇑P	Pn	16 40 30.8	+0.8
	baz=4.0,SNR=8.7						
MCMT	McKenzie Canyo	3.99	21	ePn	Pn	16 40 32.2	+1.7
MCMT				ePb	Pb	16 40 39.2	-0.5
MCMT				eSg	Sg	16 41 33.8	-3.7
G13A	Cobalt	4.00	7	⇑P	Pn	16 40 32.8	+2.2
	baz=4.0,SNR=16						
IMW	Indian Meadow	4.02	45	ePn	Pn	16 40 31.6	+0.7
IMW				eSg	Sg	16 41 31.4	-7.0
LOHW	Long Hollow	4.03	50	ePn	Pn	16 40 32.5	+1.5
LOHW				ePg	Pg	16 40 44.3	-2.2
MOOW	Moose Ponds	4.03	48	ePn	Pn	16 40 32.2	+1.1

MOOW				eSg	Sg	16 41 32.3	-6.4
BMO	Blue Mountains	4.13	335	ePn	Pn	16 40 29.8	-2.6
BMO				ePb	Pb	16 40 38.6	-3.5
BMO				ePg	Pg	16 40 47.2	-1.2
BMO				eSg	Sg	16 41 33.7	-8.3
MOD	Modoc	4.15	283	ePn	Pn	16 40 32.2	-0.5
MOD				eSg	Sg	16 41 38.6	-3.8
T14A	Hurricane	4.29	160	⇑P	Pn	16 40 35.3	+0.8
	baz=4.3,SNR=11						
PDAR	Pinedale Array	4.29	66	Pn	Pn	16 40 37.8	+3.1
	0.8nm,0.3s,baz=241,slow=12,SNR=30						
PDAR				Pg	Pg	16 40 49.4	-2.2
	1.9nm,0.3s,baz=252,slow=15,SNR=20						
PDAR				Lg		16 41 42.5	
	4.0nm,0.3s,baz=253,slow=25,SNR=9.2						
BEKR	Beckwourth	4.36	255	P	Pn	16 40 35.1	-0.5
	baz=4.3,SNR=44						
R06C	Coleville	4.37	235	⇓P	Pn	16 40 35.5	-0.3
	baz=4.4,SNR=19						
YFT	Old Faithful	4.46	40	ePb	Pb	16 40 45.1	-2.6
YFT				ePg	Pg	16 40 53.1	-1.7
YFT				eSg	Sg	16 41 50.4	-2.1
DLMT	Dillon	4.55	21	ePn	Pn	16 40 39.4	+1.2
DLMT				ePg	Pg	16 40 55.2	-1.3
DLMT				eSg	Sg	16 41 49.6	-5.9
YMR	Madison River	4.56	38	ePn	Pn	16 40 35.1	-3.2
U13A	Pakoon Wash	4.75	171	⇓P	Pn	16 40 41.4	+0.5
	baz=4.8,SNR=8.0						
LKWY	Lake	4.76	42	Pn	Pn	16 40 41.1	0.0
U14A	Mt Trumbull	4.88	164	⇓P	Pn	16 40 43.7	+1.0
	baz=4.9,SNR=11						
LRM	Limekiln Ridge	5.02	20	ePn	Pn	16 40 46.1	+1.5
LRM				ePb	Pb	16 40 57.7	+0.5
LRM				ePg	Pg	16 41 05.5	+0.1
LRM				eSg	Sg	16 42 04.3	-6.1
BOZ	Bozeman (W)	5.11	27	ePn	Pn	16 40 45.9	+0.1
BOZ				ePb	Pb	16 40 56.4	-2.3
BOZ				eSg	Sg	16 42 04.3	-8.9
CMB	Columbia Colle	5.25	236	ePn	Pn	16 40 47.9	0.0
CMB				ePg	Pg	16 41 05.8	-4.2
CMB				eSn	Sn	16 41 48.5	0.0
CMB				eSg	Sg	16 42 12.4	-5.6
V11A	Goodsprings	5.29	185	⇑P	Pn	16 40 49.2	+0.9
	baz=5.3						
V13A	Grand Canyon W	5.31	172	⇑P	Pn	16 40 49.6	+1.0
	baz=5.3,SNR=14						
PV04	Paradox Valley	5.35	119	ePn	Pn	16 40 52.3	+3.1
PV04				ePg	Pg	16 41 08.5	-3.2
V12A	Nelson	5.39	180	⇑P	Pn	16 40 50.6	+0.9
	baz=5.4,SNR=8.5						
PV01	Paradox Valley	5.71	119	ePn	Pn	16 40 55.9	+1.8
PV01				ePg	Pg	16 41 16.7	-1.9
RLMT	Red Lodge	5.73	44	Pn	Pn	16 40 56.0	+1.6
RLMT				ePg	Pg	16 41 16.9	-2.1
MSO	Missoula	5.75	6	Pn	Pn	16 40 55.9	+1.3
MSO				ePg	Pg	16 41 15.5	-3.8
MSO				eSg	Sg	16 42 26.5	-7.2
RWWY	Rawlins	5.79	82	ePn	Pn	16 40 55.7	+0.4
CHMT	Chamberlain Mo	5.91	11	ePg	Pg	16 41 23.6	+1.2
CHMT				eSg	Sg	16 42 29.4	-9.5
YBH	Yreka Blue Hor	5.92	278	Pg	Pg	16 41 16.3	-6.4
	0.3nm,0.3s,baz=84,slow=9.2,SNR=5.8						
YBH				Lg		16 42 33.6	
	0.4nm,0.3s,baz=345,slow=12,SNR=4.8						
GSC	Goldstone	6.00	195	ePg	Pg	16 41 24.0	-0.2
HRY	Holter Researc	6.01	20	ePg	Pg	16 41 20.9	-3.4
HRY				eSg	Sg	16 42 34.1	-7.9
LDFC	Landfair	6.04	182	ePn	Pn	16 40 58.0	-0.6
LDFC				ePg	Pg	16 41 23.4	-1.5
LDFC				eSg	Sg	16 42 40.8	-2.3
SLMT	Seeley Lake	6.20	9	Pn	Pn	16 40 58.2	-2.6
SLMT				ePg	Pg	16 41 22.5	-5.5
SLMT				eSg	Sg	16 42 42.6	-5.6
WUAZ	Wupatki	6.24	153	ePg	Pg	16 41 25.9	-2.7
WUAZ				eSg	Sg	16 42 44.2	-5.2
MVCO	Mesa Verde	6.31	126	ePn	Pn	16 41 03.0	+0.7
MVCO				ePb	Pb	16 41 19.9	+0.7
MVCO				ePg	Pg	16 41 28.5	-1.6
PHWY	Pilot Hill	7.11	85	ePn	Pn	16 41 16.5	+3.2
BELC	Belle Mtn.	7.16	187	⇑P	Pn	16 41 15.3	+1.2
	baz=7.2,SNR=6.8						
RSSD	Black Hills	8.54	66	ePn	Pn	16 41 33.9	+1.0
RSSD				eSg	Sn	16 43 52.3	+43
ANMO	Albuquerque	9.05	130	Pg	Px	16 42 13.7	
	0.3nm,0.3s,baz=319,slow=9.3,SNR=3.1						
ANMO				Lg		16 44 19.8	
	0.1nm,0.3s,baz=17,slow=19,SNR=3.2						
TXAR	Lajitas Array	14.89	139	Pn	Pn	16 43 05.2	+5.4
	0.0nm,0.3s,baz=319,slow=13,SNR=3.7						
YKA	Yellowknife Ar	21.41	0	P	P	16 44 17.3	+0.4
	0.9nm,0.7s,baz=180,slow=11,SNR=22						
YKA	Yellowknife Ar	21.41	0	P	P	16 44 17.3	+0.4
ASAR	Alice Springs	120.81	264	PKP	PKPdf	16 58 21.6	-0.2
	0.7nm,1.0s,baz=45,slow=2.8,SNR=3.7						

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*CSEM **21** 16:39:31.7, 38°.38N×27°.08E, h7^{km}, MD2.6*

DDA 21 16:39:31.7, 38°.38N×27°.08E, h7^{km}±4^{km}, Md2.6, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLCB	Balcova	0.03	288	ePG	Pg	16 39 31.2	-1.8
IZM	Izmir	0.15	82	ePG	Pg	16 39 36.4	+1.6
IZM				eSG	Sg	16 39 40.2	+3.4
GCAM	G?zelcaml?	0.69	169	i P	Pg	16 39 45.1	+0.2
GCAM				i S	Sg	16 39 54.9	+1.1
GCAM	G?zelcaml?	0.69	169	i P	Pg	16 39 45.1	+0.2
GCAM				i S	Sg	16 39 54.9	+1.1
MANT	Manisa	1.17	84	i P	Pg	16 39 53.2	-0.9
MANT				i S	Sg	16 40 09.4	+0.1
MANT	Manisa	1.17	84	i P	Pg	16 39 53.2	-0.9
MANT				i S	Sg	16 40 09.4	+0.1

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*IDC **21** 16:53:15.7±1.2, 3°.39S×100°.97E, h0^{km}, mb3.8/9, mb1 3.9/9, mb1mx3.8/21, mbtmp3.8/9, MS3.2/1, Ms1 3.2/1, ms1mx2.5/41, Error ellipse: s-maj=49.1km s-min=16.4km az=56.0*

*ISCJB **21** 16:53:18.0±1.3, 3°.6S±0°.1×100°.6E±0°.1, h47^{km}±9^{km}, mb3.9/13, Error ellipse: s-maj=24.4km s-min=8.2km az=138.2*

*DJA **21** 16:53:17, 3°.74S×100°.50E, h69^{km}, MLv4.0/8*

*NEIC **21** 16:53:21.2±1.1, 3°.31S×101°.13E, h35^{km}, mb4.1/3, Error ellipse: s-maj=45.0km s-min=11.1km az=58.0*

ISC 21 16:53:18.8±1.4**, 3°.7S**±0°.1×**100°.6E**±0°.1**, h36**^{km}±10^{km}**, n25, σ0^{s}.89**/23**, mb3.9**/13**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	1.06	327	P	Pn	16 53 37.5	+0.3
PPSI				S	Sx	16 54 08.1	
KSI	Kapahiang	2.00	90	P	Pn	16 53 50.6	+0.6
MNAI	Manna	2.46	107	P	Pn	16 53 56.9	+0.5
SISI	Saibi	2.76	327	P	Pn	16 53 59.5	-1.0
SDSI	Sungai Dareh	2.83	17	P	Pn	16 54 02.1	+0.6
PPI	Padang Panjang	3.19	356	P	Pn	16 54 07.6	+1.2
MDSI	Maura Dua	3.67	103	P	Pn	16 54 12.7	-0.4
RGRI	Rengat	3.72	28	P	Pn	16 54 13.2	-0.5
KASI	Kota Agung	4.31	116	P	Pn	16 54 21.2	-0.7
PSI	Prapat	6.63	345	LR	LR	16 58 12.0	
	comp=Z,176nm,19.2s,baz=32,slow=46						
CMAR	Chiang Mai Arr	22.04	356	P	P	16 58 08.4	-2.0
	1.4nm,0.7s,mb3.5,baz=185,slow=7.9,SNR=8.3						
CHTO	Chiang Mai	22.39	356	P	P	16 58 14.2	+0.1
	0.9nm,0.7s,mb3.3						
WRA	Warramunga Arr	36.66	119	P	P	17 00 22.0	-0.3
	0.5nm,0.4s,mb3.7,baz=308,slow=9.5,SNR=7.5						
WRAB	Tennant Creek	36.67	119	P	P	17 00 21.6	-0.8
	3.6nm,1.0s,mb4.2						
ASAR	Alice Springs	37.81	125	P	P	17 00 31.6	-0.5
	0.7nm,0.7s,mb3.5,baz=300,slow=7.7,SNR=23						
XAN	Xi'an	38.31	11	P	P	17 00 35.5	-0.5
XAN				pP	pP	17 00 42.0	-4.4
XAN				sP	sP	17 00 45.3	-5.4
XAN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
XAN				pmax	pmax		
	comp=Z,130nm,6.4s						
STKA	Stephens Creek	47.62	131	P	P	17 01 54.1	+2.6
	comp=Z,1.2nm,0.7s,mb4.0,baz=307,slow=9.9,SNR=1.7						
KSRS	Korea Array	48.15	29	P	P	17 01 55.0	-0.5
	comp=Z,1.8nm,0.8s,mb4.1,baz=234,slow=7.2,SNR=5.4						
SONM	Songino Array	51.53	5	P	P	17 02 22.2	+1.3
	comp=Z,1.7nm,0.6s,mb4.1,baz=186,slow=9.5,SNR=15						
ULN	Ulaanbaatar	51.62	6	P	P	17 02 21.9	+0.3
	comp=Z,3.1nm,1.0s,mb4.2						
ULN				e	pP	17 02 31.2	-1.1
MKAR	Makanchi Array	52.77	344	P	P	17 02 30.5	+0.3
	comp=Z,1.6nm,0.7s,mb4.0,baz=146,slow=8.2,SNR=19						
ZALV	Zalesovo Beam	58.90	349	P	P	17 03 14.0	+0.1
	comp=Z,2.5nm,0.8s,mb4.3,baz=175,slow=6.6,SNR=12						
ZALV	Zalesovo Beam	58.90	349	P	P	17 03 14.0	0.0
BRTR	Keskin Array B	74.87	313	P	P	17 04 59.9	+3.9
	comp=Z,0.2nm,0.5s,mb3.3,baz=126,slow=7.3,SNR=2.4						
TXAR	Lajitas Array	145.62	39	PKPbc	PKPbc	17 12 55.5	+1.2
	comp=Z,1.2nm,0.4s,baz=253,slow=0.7,SNR=16						

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*ISCJB **21** 16:56:00.1±0.8, 2°.2S±0°.1×67°.7E±0°.2, h10^{km}, mb4.1/13, Error ellipse: s-maj=21.9km s-min=18.1km az=177.9*

*IDC **21** 16:56:01.1±2.2, 2°.16S×67°.84E, h0^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.5/23, mbtmp3.6/6, MS3.4/1, Ms1 3.4/1, ms1mx2.7/42, Error ellipse: s-maj=63.1km s-min=29.4km az=67.0*

*NEIC **21** 16:56:02.7±0.8, 2°.21S×67°.72E, h10^{km}, mb4.6/6, Error ellipse: s-maj=21.7km s-min=17.4km az=89.0*

ISC 21 16:56:02.2±0.8**, 2°.2S**±0°.1×**67°.7E**±0°.2**, h10**^{km}**, n16, σ0^{s}.82**/13**, mb4.1**/13**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	16.03	54	LR	LR	17 04 42.9	
	comp=Z,127nm,18.5s,baz=279,slow=33						
CMAR	Chiang Mai Arr	36.97	55	P	P	17 03 12.1	+0.1
	0.8nm,1.0s,mb3.5,baz=240,slow=10,SNR=5.5						
UCH	Uchtor	44.67	7	eP	P	17 04 16.6	+1.4
	3.0nm,1.0s,mb4.1						
EKS2	Erkin-Say	45.02	6	eP	P	17 04 19.4	+1.5
	5.9nm,1.2s,mb4.3						
TKM2	Tokmak 2	45.50	8	eP	P	17 04 21.5	-0.2
	6.8nm,1.2s,mb4.5						
BOSA	Boshof	48.20	233	eP	P	17 04 43.5	+0.4
	32nm,1.7s,mb5.1						
MKAR	Makanchi Array	50.48	13	P	P	17 04 59.5	-0.7
	0.5nm,0.9s,mb3.6,baz=181,slow=8.4,SNR=4.0						
KIV	Kislovodsk	51.16	337	P	P	17 05 04.0	-1.4
	51nm,1.6s,mb5.2						
XAN	Xi'an	52.93	43	P	P	17 05 18.3	-0.5
XAN				pP	pP	17 05 26.1	+4.1
XAN				sP	sP	17 05 30.0	+6.8
XAN				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
XAN				pmax	pmax		
	comp=Z,88nm,9.4s						
ZALV	Zalesovo Beam	57.76	12	P	P	17 05 52.1	-1.2
	comp=Z,0.5nm,0.6s,mb3.7,baz=216,slow=7.3,SNR=3.9						
ARU	Arti	58.94	354	P	P	17 06 01.6	+0.2
	comp=Z,3.3nm,0.8s,mb4.4						
SONM	Songino Array	60.20	29	P	P	17 06 10.9	+0.6
	comp=Z,1.2nm,1.0s,mb3.9,baz=224,slow=6.7,SNR=6.3						
WRA	Warramunga Arr	67.29	111	P	P	17 06 57.6	0.0
	comp=Z,0.4nm,0.6s,mb3.6,baz=288,slow=6.1,SNR=4.3						
ASAR	Alice Springs	67.33	115	P	P	17 06 57.7	-0.2
	comp=Z,0.2nm,0.7s,mb3.3,baz=298,slow=6.0,SNR=4.5						
TXAR	Lajitas Array	151.83	344	PKPbc	PKPbc	17 15 59.7	+1.7
	comp=Z,0.6nm,1.0s,baz=338,slow=2.1,SNR=3.5						
TXAR	Lajitas Array	151.83	344	PKPbc	PKPbc	17 15 59.7	+1.7

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*NEIC **21** 17:00:59.5, 30°.70S×71°.77W, h38^{km}, MD4.2(GUC), After GUC.*

GUC 21 17:00:59.5±0.6**, 30°.70S**×**71°.77W, h38**^{km}±2^{km}**, MD4.2, ML3.4, 4C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	Ovalle	0.50	79	⇓iP	Pn	17 01 10.3	+0.2
OVCH				i S	Sn	17 01 18.0	+0.4
OVCH	Ovalle	0.50	79	⇓iP	Pn	17 01 10.3	+0.2
OVCH				i S	Sn	17 01 18.0	+0.4
CMCH	Combarbala	0.81	126	⇑iP	Pn	17 01 15.1	+0.7
CMCH				i S	Sn	17 01 26.5	+1.2
CMCH	Combarbala	0.81	126	⇑iP	Pn	17 01 15.1	+0.7
CMCH				i S	Sn	17 01 26.5	+1.2
CMCH				AML	AML	17 01 31.2	
	comp=N,3μm,0.7s						
TLL	Tololo Astrono	0.99	58	P	Pn	17 01 18.6	+1.7
TLL				i S	Sn	17 01 32.0	+2.4
TLL	Tololo Astrono	0.99	58	⇓iP	Pn	17 01 18.6	+1.7
TLL				i S	Sn	17 01 32.0	+2.4
TLL				AML	AML	17 01 35.5	
	comp=E,1μm,0.3s						
CHNG	Los Chungos	1.20	169	eP	Pn	17 01 20.8	+1.0
CHNG				i S	Sn	17 01 36.4	+1.6
LCO	Las Campanas	1.92	29	⇑eP	Pn	17 01 31.4	+1.6
LCO				i S	Sn	17 01 56.2	+3.5
LCO	Las Campanas	1.92	29	⇑eP	Pn	17 01 31.4	+1.6
LCO				i S	Sn	17 01 56.2	+3.5
LCO				AML	AML	17 02 01.1	
	comp=E,257nm,0.4s						
PEL	Peldehue	2.60	160	eP	Pn	17 01 40.3	+1.2
PEL				eS	Sn	17 02 11.8	+2.3
PEL				AML	AML	17 02 24.6	
	comp=N,524nm,0.6s						
FCH	Farellones	2.90	155	eP	Pn	17 01 47.0	+3.7
FCH				i S	Sn	17 02 21.7	+4.8
FCH				AML	AML	17 02 35.8	
	comp=N,102nm,0.1s						

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*ISCJB **21** 17:01:45.7±0.4, 41°.13N±0°.01×114°.97W±0°.02, h6^{km}±3^{km}, Error ellipse: s-maj=2.3km s-min=2.1km az=36.5*

*NEIC **21** 17:01:46.7, 41°.12N×114°.93W, h13^{km}, ML3.2, After REN.*

*IDC **21** 17:01:46.4±1.1, 41°.11N×114°.91W, h0^{km}, mb3.1/1, mb1 3.6/4, mb1mx3.4/21, mbtmp3.2/4, ML3.5/3, MS3.1/1, Ms1 3.1/1, ms1mx2.8/12, Error ellipse: s-maj=24.5km s-min=7.4km az=144.0*

ISC 21 17:01:45.9±0.3**, 41°.14N**±0°.01×**114°.96W**±0°.02**, h2**^{km}±3^{km}**, n112, σ0^{s}.98**/143**, 47C-35D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.29	191	⇑P	Pg	17 01 52.2	+0.7
	baz=0.3,SNR=107						
N12A				⇓S	Sg	17 01 57.0	+1.7
	baz=0.3						
ELK	Elko	0.45	208	ePg	Pg	17 01 55.3	+0.8
ELK				eSg	Sg	17 02 01.5	+1.2
M13A	Montello	0.64	70	⇓P	Pg	17 01 58.3	+0.1
	baz=0.6,SNR=23						
M13A				⇓S	Sg	17 02 07.1	+0.6
	baz=0.6						
N13A	Wendover, West	0.64	116	⇑P	Pg	17 01 58.4	+0.3
	baz=0.6,SNR=84						
N13A				⇑S	Sg	17 02 06.7	+0.2
	baz=0.6						
N11A	Elko Archery C	0.67	241	⇓P	Pg	17 01 59.5	+0.8
	baz=0.7,SNR=43						
N11A				⇓S	Sg	17 02 07.8	+0.4
	baz=0.7						
M11A	Holland Ranch,	0.69	295	⇓P	Pg	17 01 59.6	+0.4
	baz=0.7						
M11A				⇑S	Sg	17 02 09.3	+1.3
	baz=0.7						
O12A	Currie	0.89	169	⇑P	Pg	17 02 03.3	+0.4
	baz=0.9,SNR=78						
O12A				⇑S	Sg	17 02 15.2	+0.9
	baz=0.9						
L12A	House Creek Ra	1.01	358	⇓P	Pg	17 02 05.5	+0.3
	baz=1.0						
L12A				⇓S	Sg	17 02 19.0	+0.7
	baz=1.0						
O11A	Cowboy Ranch,	1.14	208	⇑Pb	Pb	17 02 08.3	0.0
	baz=1.1,SNR=49						
O11A				⇓S	Sg	17 02 23.0	+0.6
	baz=1.1						
L11A	Cat Creek Ranc	1.19	330	⇑Pb	Pb	17 02 08.8	-0.3
	baz=1.2						
L11A				⇓S	Sg	17 02 24.4	+0.4
	baz=1.2						
L13A	Double Diamond	1.22	39	⇑P	Pg	17 02 08.4	-0.8
	baz=1.2,SNR=14						
L13A				⇑S	Sg	17 02 24.7	-0.3
	baz=1.2						
N10A	Dunphy	1.25	251	⇑Pb	Pb	17 02 09.9	-0.3
	baz=1.3						
O13A	Hicks Ranch, I	1.25	143	Pb	Pb	17 02 09.8	-0.5
	baz=1.2,SNR=61						
M14A	Sheep Mountain	1.27	73	⇑P	Pg	17 02 09.3	-0.9
	baz=1.3,SNR=59						
M14A				⇑S	Sg	17 02 26.1	-0.6
	baz=1.3						
N14A	Grayback Hills	1.38	102	⇑P	Pn	17 02 10.7	-1.5
	baz=1.3,SNR=38						
N14A				⇓S	Sg	17 02 29.3	-0.7
	baz=1.3						
O10A	Cortez Mining,	1.44	235	⇓Pb	Pb	17 02 12.8	-0.7
	baz=1.4,SNR=69						
L10A	Juniper Basin	1.47	310	⇓Pb	Pb	17 02 12.7	-1.3
	baz=1.5,SNR=39						
L10A				⇑Sb	Sb	17 02 33.1	0.0
	baz=1.5						
BGU	Big Grassy Mou	1.48	98	ePn	Pn	17 02 12.3	-1.3
K12A	Draper Farm, C	1.50	2	⇓Pb	Pb	17 02 13.4	-1.0
	baz=1.5,SNR=39						
K12A				⇓S	Sb	17 02 32.1	-1.7
	baz=1.5						
L14A	Malta	1.57	55	⇓Pb	Pb	17 02 14.3	-1.4
	baz=1.6,SNR=17						
L14A				⇑Sb	Sb	17 02 35.2	-0.9
	baz=1.6						
K13A	Stover Farm, H	1.64	23	⇑Pb	Pb	17 02 15.6	-1.4
	baz=1.7,SNR=16						
K13A				⇑Sb	Sb	17 02 37.1	-1.1
	baz=1.7						
P12A	McGill	1.67	179	⇑Pb	Pb	17 02 16.0	-1.3
	baz=1.6,SNR=63						
P11A	Circle Ranch,	1.70	201	⇑Pb	Pb	17 02 16.8	-1.0
	baz=1.7,SNR=22						
HVU	Hansel Valley	1.76	68	ePn	Pn	17 02 16.8	-0.7
HVU				eSn	Sn	17 02 40.9	+0.3
K11A	Parker Ranch,	1.81	334	⇑Pb	Pb	17 02 18.7	-1.2
	baz=1.8,SNR=22						
K11A				⇓Sb	Sb	17 02 42.9	-0.1
	baz=1.8						
BMN	Battle Mountai	1.86	248	ePb	Pb	17 02 18.0	-2.6
N15A	Stansbury Isla	1.86	97	⇓P	Pn	17 02 18.0	-0.9
	baz=1.8,SNR=40						
N15A				⇑Sb	Sb	17 02 43.9	-0.6
	baz=1.8						
DUG	Dugway	1.89	119	⇑P	Pn	17 02 18.1	-1.1
	baz=1.9,SNR=46						
DUG				⇑Sb	Sb	17 02 44.7	-0.4
	baz=1.9						
DUG	Dugway	1.89	119	ePn	Pn	17 02 18.0	-1.2
P10A	Eureka	1.90	218	⇓P	Pn	17 02 19.4	0.0
	baz=1.9,SNR=54						
P10A				⇑Sb	Sb	17 02 45.2	-0.4
	baz=1.9						
SPUT	South Promonto	1.90	84	ePn	Pn	17 02 20.0	+0.6
SPUT				eSn	Sn	17 02 44.8	+0.8
M15A	Larsen Ranch,	1.92	80	⇓P	Pn	17 02 19.5	-0.1
	baz=1.9,SNR=47						
M15A				⇑Sb	Sb	17 02 45.2	-0.9
	baz=1.9						
K14A	Jones Ranch, D	1.94	43	⇓P	Pn	17 02 19.6	-0.3
	baz=1.9,SNR=19						
K14A				⇑Sb	Sb	17 02 46.3	-0.3
	baz=1.9						
O09A	Fish Creek Ran	1.95	241	⇓P	Pn	17 02 19.6	-0.5
	baz=2.0,SNR=14						
N09A	Rock Creek Ran	1.96	262	⇑P	Pn	17 02 19.7	-0.5
	baz=2.0						
O15A	The Old Anders	2.08	114	⇑P	Pn	17 02 20.8	-1.1
	baz=2.0,SNR=56						
Q12A	Willow Creek R	2.10	177	⇑P	Pn	17 02 21.7	-0.4
	baz=2.1,SNR=24						
J12A	Stokes Ranch,	2.11	357	⇑P	Pn	17 02 21.8	-0.4
	baz=2.1,SNR=42						
L15A	Malad City	2.12	65	⇓P	Pn	17 02 22.1	-0.3
	baz=2.1,SNR=26						
P14A	Drum Mountains	2.12	136	⇑P	Pn	17 02 21.5	-0.8
	baz=2.1,SNR=32						
NOQ	North Oquirrh	2.21	102	ePn	Pn	17 02 24.8	+1.1
P09A	Austin	2.30	227	⇑P	Pn	17 02 24.5	-0.4
	baz=2.3,SNR=11						
Q13A	Wheeler Ranch,	2.30	161	⇓P	Pn	17 02 24.6	-0.3
	baz=2.3,SNR=18						
J13A	Cove Ranch, Pi	2.33	14	⇑P	Pn	17 02 26.1	+0.8
	baz=2.3,SNR=45						
Q11A	Duckwater	2.35	193	⇑P	Pn	17 02 25.8	+0.2
	baz=2.3,SNR=30						
J14A	Carey	2.43	26	⇑P	Pn	17 02 27.6	+1.0
	baz=2.4,SNR=31						
HLID	Hailey	2.46	9	P	Pn	17 02 28.1	+1.1
	baz=2.5,SNR=37						
HLID	Hailey	2.46	9	ePn	Pn	17 02 28.1	+1.1
CTU	Camp Tracy	2.48	99	ePn	Pn	17 02 28.1	+0.8
NLU	North Lily Min	2.50	117	ePn	Pn	17 02 26.4	-1.2
Q14A	Sevier Lake (B	2.51	148	⇑P	Pn	17 02 26.9	-0.9
	baz=2.5,SNR=11						
Q10A	Clear Creek Ra	2.56	206	⇑P	Pn	17 02 28.6	+0.1
	baz=2.6,SNR=34						
P15A	Leamington	2.58	127	⇑P	Pn	17 02 27.7	-1.0
	baz=2.5,SNR=15						
JLU	Jordanelle	2.72	100	ePn	Pn	17 02 31.9	+1.3
MPU	Maple Canyon	2.77	113	ePn	Pn	17 02 30.6	-0.8
P08A	Dixie Valley	2.78	240	⇓P	Pn	17 02 31.7	+0.1
	baz=2.8,SNR=9.6						
R12A	Pony Springs,	2.82	174	⇓P	Pn	17 02 32.3	+0.2
	baz=2.8,SNR=12						
R11A	Troy Canyon, C	2.83	190	⇓P	Pn	17 02 32.2	+0.1
	baz=2.8,SNR=18						
I13A	Wildhorse Cree	2.84	12	⇓P	Pn	17 02 33.6	+1.3
	baz=2.9,SNR=31						
DAU	Daniels Canyon	2.91	103	ePn	Pn	17 02 33.2	0.0
Q15A	Fillmore	2.92	136	⇓P	Pn	17 02 32.5	-0.8
	baz=2.9,SNR=7.9						
J15A	Blackfoot	2.94	39	⇓P	Pn	17 02 34.3	+0.7
	baz=2.9,SNR=16						
K16A	Soda Springs	3.03	55	⇓P	Pn	17 02 35.6	+0.7
	baz=3.0,SNR=9.4						
WVOR	Wild Horse Val	3.04	296	ePn	Pn	17 02 36.8	+1.8
WVOR				eSg	Sg	17 03 21.1	-2.3
R13A	O'Grain Ranch,	3.05	165	⇑P	Pn	17 02 35.7	+0.4
	baz=3.0,SNR=18						
O07A	Toulon	3.13	253	⇑P	Pn	17 02 35.8	-0.5
	baz=3.1						
M07A	Soldier Meadow	3.18	276	⇓P	Pn	17 02 37.3	+0.3
	baz=3.2,SNR=7.3						
AHID	Auburn Hatcher	3.31	59	ePn	Pn	17 02 37.7	-1.0
MSU	Marysvale	3.39	140	ePn	Pn	17 02 39.9	+0.1
TMUT	Trail Mountain	3.41	121	ePn	Pn	17 02 40.9	+0.7
S10A	Tonopah Range,	3.45	202	⇓P	Pn	17 02 41.5	+0.8
	baz=3.4,SNR=8.6						
RRI2	Red Ridge	3.49	50	ePn	Pn	17 02 40.0	-1.2
ARUT	Antelope Range	3.55	160	ePn	Pn	17 02 42.3	+0.2
K07A	Rock Creek Ran	3.55	297	⇑P	Pn	17 02 42.6	+0.5
	baz=3.6,SNR=6.4						
S13A	Holt Ranch, En	3.66	166	⇓P	Pn	17 02 43.7	+0.1
	baz=3.6,SNR=28						
PAHR	Pah Rah Range	3.67	248	ePn	Pn	17 02 42.6	-1.1
N06A	Buffalo Meadow	3.71	266	⇑P	Pn	17 02 44.2	-0.1
	baz=3.7,SNR=5.9						
DCID1	Drake Creek	3.72	48	Pn	Pn	17 02 45.5	+1.1
NVAR	Mina Array Bea	3.73	225	Pn	Pn	17 02 45.0	+0.4
	3.7nm,0.3s,baz=41,slow=12,SNR=15						
NVAR				Pg	Pg	17 02 57.4	-0.1
	9.4nm,0.3s,baz=46,slow=17,SNR=13						
NVAR				Lg		17 03 45.5	
	26nm,0.3s,baz=187,slow=12,SNR=10						
NVAR	Mina Array Bea	3.73	225	Pn	Pn	17 02 45.0	+0.4
NVAR				Pg	Pg	17 02 57.4	-0.1
NVAR				Lg		17 03 45.5	
REDW	Red Top Meadow	3.77	53	ePn	Pn	17 02 46.0	+0.8
TPAW	Teton Pass	3.79	50	ePn	Pn	17 02 46.5	+1.1
CCUT	Cedar City	3.79	160	ePn	Pn	17 02 45.0	-0.4
SNOW	Snow King Moun	3.89	52	ePn	Pn	17 02 49.1	+2.4
T11A	Corn Creek, Al	3.90	183	⇑P	Pn	17 02 47.2	+0.4
	baz=3.9,SNR=15						
SRU	San Rafael	3.96	119	ePn	Pn	17 02 48.3	+0.6
MCMT	McKenzie Canyo	4.00	22	ePn	Pn	17 02 49.6	+1.4
S15A	Panguitch	4.00	149	⇑P	Pn	17 02 48.6	+0.3
	baz=4.0,SNR=7.5						
IMW	Indian Meadow	4.05	46	ePn	Pn	17 02 50.1	+1.2
LOHW	Long Hollow	4.07	51	ePn	Pn	17 02 47.2	-1.9
MOOW	Moose Ponds	4.07	49	ePn	Pn	17 02 50.4	+1.2
MOD	Modoc	4.08	283	ePn	Pn	17 02 48.3	-1.0
BMO	Blue Mountains	4.09	336	ePn	Pn	17 02 50.4	+0.9
BEKR	Beckwourth	4.31	255	⇑P	Pn	17 02 52.5	+0.1
	baz=4.3,SNR=6.4						
WAKR	Walker	4.34	234	ePn	Pn	17 02 53.4	+0.5

BW06	Boulder Array	4.34	66	*e*Pn	Pn	17 02 55.2	+2.2
PDAR	Pinedale Array	4.35	66	Pn	Pn	17 02 55.6	+2.6
	0.4nm,0.3s,baz=239,slow=12,SNR=8.3						
PDAR				Pg	Pg	17 03 04.6	-4.6
	0.8nm,0.3s,baz=233,slow=14,SNR=10						
PDAR				Lg		17 04 00.8	
	2.3nm,0.3s,baz=239,slow=29,SNR=9.7						
DLMT	Dillon	4.56	21	*e*Pn	Pn	17 02 57.2	+1.3
LKWY	Lake	4.79	43	Pn	Pn	17 03 00.8	+1.7
LRM	Limekiln Ridge	5.02	20	Pn	Pn	17 03 03.8	+1.5
LRM				*e*Sg	Sg	17 04 22.5	-4.7
BOZ	Bozeman (W)	5.12	27	Pn	Pn	17 03 04.8	+1.2
CMB	Columbia Colle	5.21	235	*e*Pn	Pn	17 03 04.2	-0.7
CMB				*e*Sg	Sg	17 04 31.0	-2.3
LNOR	Lincton Mounta	5.31	334	*e*Pn	Pn	17 03 11.3	+5.1
LNOR				*e*Sg	Sg	17 04 42.4	+5.9
V13A	Grand Canyon W	5.33	171	⇓P	Pn	17 03 07.4	+0.8
	baz=5.3,SNR=8.2						
V12A	Nelson	5.41	179	⇑P	Pn	17 03 08.3	+0.7
	baz=5.4,SNR=13						
PV04	Paradox Valley	5.41	118	Pn	Pn	17 03 08.8	+1.2
PV01	Paradox Valley	5.78	119	*e*Pn	Pn	17 03 09.1	-3.5
YBH	Yreka Blue Hor	5.85	278	LR	LR	17 05 46.6	
	comp=Z,179nm,19.5s,baz=351,slow=41						
ISA	Isabella	6.12	208	*e*Pg	Pg	17 03 40.4	-2.9
PHWY	Pilot Hill	7.17	86	*e*Pn	Pn	17 03 29.8	-2.0
TXAR	Lajitas Array	14.95	138	Pn	Pn	17 05 21.6	+3.4
	0.0nm,0.3s,baz=312,slow=11,SNR=3.0						
YKA	Yellowknife Ar	21.39	0	P	P	17 06 34.6	+0.1
	0.7nm,0.7s,baz=180,slow=10,SNR=22						

IDC ***21*** *17:05:45.2±1.2, 4°.47S×102°.24E, h0^{km}, mb4.0/11, mb1 4.1/11, mb1mx4.0/22, mbtmp4.0/11, Error ellipse: s-maj=44.9km s-min=14.7km az=55.0*

ISCJB ***21*** *17:05:52.1±1.2, 4°.5S±0°.1×102°.3E±0°.1, h67^{km}±8^{km}, mb4.3/19, Error ellipse: s-maj=28.1km s-min=6.5km az=44.1*

DJA ***21*** *17:05:52, 4°.55S×102°.33E, h64^{km}, MLv4.2/6*

NEIC ***21*** *17:05:55.9±3.7, 4°.36S×102°.50E, h79^{km}±34^{km}, mb4.8/8, Error ellipse: s-maj=37.4km s-min=6.7km az=50.0*

ISC 21 17:05:53.3±1.1**, 4°.5S**±0°.1×**102°.4E**±0°.1**, h58**^{km}±8^{km}**, n37, σ0^{s}.87**/36**, mb4.3**/19**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNAI	Manna	0.61	78	P	Pn	17 06 07.4	+0.9
KSI	Kapahiang	0.87	16	P	Pn	17 06 10.2	+0.5
LHSI	Lahat	1.34	60	P	Pn	17 06 21.2	+5.3
KASI	Kota Agung	2.37	116	P	Pn	17 06 30.7	+0.9
KASI				S	Sn	17 06 57.2	-0.5
SDSI	Sungai Dareh	3.66	345	P	Pn	17 06 48.5	+1.0
PDSI	Padang	4.03	332	P	Pn	17 06 51.2	-1.4
SBJI	Serang	4.09	113	P	Pn	17 06 52.3	-1.1
PPI	Padang Panjang	4.46	334	P	Pn	17 06 57.9	-0.6
SISI	Saibi	4.53	314	P	Pn	17 06 58.5	-1.0
CMAR	Chiang Mai Arr	23.05	352	P	P	17 10 52.8	-1.2
	2.9nm,0.8s,mb3.8,baz=184,slow=8.7,SNR=27						
FITZ	Fitzroy Crossi	26.49	123	P	P	17 11 24.0	-1.4
	3.1nm,1.0s,mb3.8,baz=333,slow=11,SNR=2.3						
ODAN	Odare	34.37	336	*e*P	P	17 12 35.4	+0.5
	9.1nm,0.6s,mb4.9						
TAPN	Taplejung	34.67	337	*e*P	P	17 12 38.4	+0.9
WRA	Warramunga Arr	34.72	119	P	P	17 12 38.3	+0.2
	0.4nm,0.3s,mb3.8,baz=309,slow=9.1,SNR=17						
WRAB	Tennant Creek	34.73	119	*e*P	P	17 12 38.4	+0.2
	1.5nm,0.6s,mb4.1						
RAMN	Ramite	34.77	335	*e*P	P	17 12 39.8	+1.4
	4.4nm,0.3s,mb4.8						
JIRN	Jiri	35.57	335	*e*P	P	17 12 46.0	+0.8
	6.0nm,0.3s,mb5.0						
ASAR	Alice Springs	35.90	125	P	P	17 12 48.6	+0.5
	0.3nm,0.5s,mb3.5,baz=300,slow=7.4,SNR=12						
GUN	Gumba	35.92	335	*e*P	P	17 12 49.0	+0.8
	7.5nm,0.3s,mb5.1						
DMN	Daman	36.00	333	*e*P	P	17 12 49.5	+0.6
KKN	Kakani	36.08	334	*e*P	P	17 12 49.9	+0.3
GKN	Gorkha	36.55	333	*e*P	P	17 12 54.1	+0.5
	5.0nm,0.3s,mb4.8						
KOLN	Koldanda	36.83	332	*e*P	P	17 12 56.7	+0.7
DANN	Dangsing	37.24	332	*e*P	P	17 12 59.9	+0.4
STKA	Stephens Creek	45.75	131	P	P	17 14 10.3	+1.2
	0.6nm,0.4s,mb3.8,baz=284,slow=8.3,SNR=2.3						
STKA	Stephens Creek	45.75	131	P	P	17 14 10.3	+1.2
KSRS	Korea Array	48.04	28	P	P	17 14 26.0	-0.9
	1.2nm,0.6s,mb4.1,baz=218,slow=7.6,SNR=6.7						
SONM	Songino Array	52.23	3	P	P	17 14 58.9	+0.6
	2.8nm,0.6s,mb4.3,baz=182,slow=8.7,SNR=31						
SONM				PcP	PcP	17 16 09.2	0.0
	0.6nm,0.4s,baz=185,slow=4.3,SNR=5.0						
TKM2	Tokmak 2	53.05	336	*e*P	P	17 15 04.6	+0.1
	2.3nm,0.4s,mb4.5						
MKAR	Makanchi Array	54.06	343	P	P	17 15 11.2	-0.7
	3.8nm,0.7s,mb4.5,baz=153,slow=8.6,SNR=60						
KURK	Kurchatov	58.66	343	*e*P	P	17 15 43.9	-0.6
	2.5nm,0.8s,mb4.3						
ZAA0	Zalesovo Array	60.06	348	*e*P	P	17 15 52.0	-2.1
ZALV	Zalesovo Beam	60.06	348	P	P	17 15 53.1	-1.0
	3.5nm,0.5s,mb4.7,baz=174,slow=5.4,SNR=26						
ASAJ	Asahikawa	60.39	32	P	P	17 15 56.0	-0.6
	4.9nm,0.9s,mb4.5,baz=259,slow=10,SNR=2.5						
BRTR	Keskin Array B	76.73	312	P	P	17 17 37.9	-0.7
	0.8nm,0.6s,mb3.8,baz=126,slow=6.0,SNR=6.0						
TXAR	Lajitas Array	145.11	42	PKPbc	PKPbc	17 25 24.9	+0.3
	1.7nm,0.4s,baz=328,slow=0.9,SNR=32						
JCT	Junction City	146.76	36	*e*PKPbc	PKPbc	17 25 29.1	-0.4

DDA ***21*** *17:11:34.3, 36°.44N×40°.91E, h9^{km}±1^{km}, Md3.5*

ISK ***21*** *17:11:34.1, 36°.37N×40°.84E, h5^{km}, ML3.3*

ISCJB ***21*** *17:11:37.4±0.6, 36°.49N±0°.03×40°.80E±0°.04, h10^{km}, Error ellipse: s-maj=5.2km s-min=3.7km az=144.7*

NSSC ***21*** *17:11:37, 36°.52N×40°.73E, h27^{km}±8^{km}*

CSEM ***21*** *17:11:38.2±0.3, 36°.22N×40°.84E, h30^{km}, ML3.3, Error ellipse: s-maj=9.1km s-min=4.1km az=171.0*

ISC 21 17:11:38.1±0.6**, 36°.49N**±0°.03×**40°.83E**±0°.04**, h10**^{km}**, n41, σ1^{s}.46**/54**, 1D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBSD	Kabsdagh	0.56	336	⇑P	Pg	17 11 47.0	-1.9
KBSD				⇓S	Sg	17 11 55.0	-1.2
SFNV	Sufian	0.58	263	⇑P	Pg	17 11 47.0	-2.3
SFNV				⇑S	Sg	17 11 56.0	-0.9
MARD	Mardin	0.82	357	*i* P	Pg	17 11 51.4	-2.5
MARD				*i* S	Sg	17 12 06.0	+1.4
BSHR	Al Beshri	1.16	225	⇑P	Pg	17 12 02.0	+1.7
BSHR				⇑S	Sg	17 12 21.0	+5.6
BEST	Besiri	1.44	14	*i* P	Pn	17 12 02.3	-1.9
BEST				*i* S	Sn	17 12 23.1	-0.1
DIY	Diyarbakir	1.48	341	*e*PN	Pn	17 12 03.7	-1.0
DIY				*e*SN	Sg	17 12 26.4	+0.7
DIYA	Diyarbakir	1.53	339	*i* P	Pn	17 12 04.4	-1.1
DIYA				*i* S	Sg	17 12 27.6	+0.1
DIYA	Diyarbakir	1.53	339	*i* P	Pn	17 12 04.4	-1.1
DIYA				*i* S	Sg	17 12 27.6	+0.2
URFA	Urfa	1.86	301	*e*PN	Pn	17 12 09.4	-0.6
URFA				*e*SN	Sn	17 12 35.9	+2.3
URFA	Urfa	1.86	301	*e*Pn	Pn	17 12 09.4	-0.6
URFA				*e*Sn	Sn	17 12 35.9	+2.3
TATV	Tatvan	2.31	29	*i* P	Pn	17 12 18.2	+1.9
TATV				*i* S	Sn	17 12 47.8	+3.1
TATV	Tatvan	2.31	29	*i* P	Pb	17 12 18.2	-1.7
TATV				*i* S	Sb	17 12 47.8	-0.8
CUKT	Cukurca	2.35	71	*e*PN	Pn	17 12 15.6	-1.2
CUKT				*e*SN	Sn	17 12 46.6	+0.8
CUKT	Cukurca	2.35	71	*e*Pn	Pn	17 12 15.6	-1.2
CUKT				*e*Sn	Sn	17 12 46.6	+0.9
HAKT	HAKKARI	2.54	64	*i* P	Px	17 12 37.1	
HKR	Hakkari	2.57	64	*e*PN	Pn	17 12 19.5	-0.3
HKR	Hakkari	2.57	64	*e*Pn	Pn	17 12 19.5	-0.3
MALT	Malatya	2.63	314	*e*PN	Pn	17 12 21.7	+1.0
MALT	Malatya	2.63	314	*e*Pn	Pn	17 12 21.7	+1.1
MYA	Malataya	2.65	314	*e*PN	Pn	17 12 21.4	+0.6
MYA	Malataya	2.65	314	*e*Pn	Pn	17 12 21.4	+0.6
GAZ	Gaziantep	2.98	284	*e*PN	Pn	17 12 24.3	-1.0
GAZ	Gaziantep	2.98	284	*e*Pn	Pn	17 12 24.3	-1.0
KUZU	Kuzuini	3.03	276	*i* P	Pn	17 12 28.7	+2.6
KUZU	Kuzuini	3.03	276	*i* P	Pn	17 12 28.7	+2.6
KMRS	Kahramanmaras	3.30	289	*e*PN	Pn	17 12 29.1	-0.6
KMRS	Kahramanmaras	3.30	289	*e*Pn	Pn	17 12 29.2	-0.6
KEMA	Kemaliye	3.33	327	*i* P	Pn	17 12 34.9	+4.7
KEMA	Kemaliye	3.33	327	*i* P	Pn	17 12 34.9	+4.7
AGRB	Hanur-Agry	3.52	28	*e*PN	Pn	17 12 35.0	+2.2
AGRB	Hanur-Agry	3.52	28	*e*Pn	Pn	17 12 35.0	+2.2
HTY	Hatay	3.80	266	*e*PN	Pn	17 12 34.5	-2.2
HTY	Hatay	3.80	266	*e*Pn	Pn	17 12 34.5	-2.2
SARI	SarD1z-Kayseri	3.94	305	*e*PN	Pn	17 12 39.8	+1.3
SARI	SarD1z-Kayseri	3.94	305	*e*Pn	Pn	17 12 39.8	+1.3
KOZT	Kozan	4.12	285	*e*PN	Pn	17 12 40.8	-0.3
KOZT	Kozan	4.12	285	*e*Pn	Pn	17 12 40.8	-0.3
PINB	Pinarbasi	4.13	303	*i* P	Pn	17 12 43.5	+2.3
PINB	Pinarbasi	4.13	303	*i* P	Pn	17 12 43.5	+2.3
SVSK	Karacayir	4.56	320	*e*PN	Pn	17 12 48.5	+1.5
SVSK	Karacayir	4.56	320	*e*Pn	Pn	17 12 48.5	+1.5

ISCJB ***21*** *17:16:11.5±0.4, 41°.16N±0°.01×114°.89W±0°.02, h5^{km}±3^{km}, Error ellipse: s-maj=2.4km s-min=2.1km az=136.3*

IDC ***21*** *17:16:11.9±1.0, 41°.22N×114°.98W, h0^{km}, mb3.0/1, mb1 3.4/4, mb1mx3.3/21, mbtmp3.0/4, ML3.2/3, Error ellipse: s-maj=15.5km s-min=5.9km az=131.0*

NEIC ***21*** *17:16:12.6, 41°.14N×114°.89W, h13^{km}, ML2.9, After REN.*

ISC 21 17:16:12.1±0.3**, 41°.16N**±0°.01×**114°.88W**±0°.02**, h5**^{km}±2^{km}**, n98, σ0^{s}.84**/123**, 31C-35D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.33	201	P	Pg	17 16 19.1	+0.6
	baz=0.3,SNR=53						
N12A				⇑S	Sg	17 16 23.7	+0.9
	baz=0.3						
ELK	Elko	0.50	213	Pg	Pg	17 16 21.9	+0.2
	36nm,0.3s,baz=17,slow=13,SNR=17						
ELK				Lg		17 16 28.1	
	94nm,0.3s,baz=299,slow=19,SNR=49						
ELK	Elko	0.50	213	*e*Pg	Pg	17 16 21.4	-0.3
ELK				*e*S	Sg	17 16 28.0	-0.1
M13A	Montello	0.58	70	⇑P	Pg	17 16 23.8	+0.6
	baz=0.6,SNR=12						
M13A				⇓S	Sg	17 16 31.4	+0.7
	baz=0.6						
N13A	Wendover, West	0.60	121	⇑P	Pg	17 16 24.1	+0.5
	baz=0.6,SNR=80						
N13A				⇑S	Sg	17 16 32.4	+1.0
	baz=0.6						
N11A	Elko Archery C	0.73	242	⇓P	Pg	17 16 26.6	+0.4
	baz=0.7,SNR=14						
N11A				⇓S	Sg	17 16 36.2	+0.5
	baz=0.7						
M11A	Holland Ranch,	0.73	292	⇓P	Pg	17 16 26.3	+0.1
	baz=0.7,SNR=7.6						
M11A				⇑S	Sg	17 16 35.8	+0.1
	baz=0.7						
O12A	Currie	0.90	173	⇑P	Pg	17 16 29.8	+0.4
	baz=0.9,SNR=21						
O12A				⇑S	Sg	17 16 41.9	+0.8
	baz=0.9						
L12A	House Creek Ra	0.99	354	⇓P	Pg	17 16 30.8	-0.3
	baz=1.0,SNR=5.7						
L12A				⇓S	Sg	17 16 44.2	+0.3
	baz=1.0						
L13A	Double Diamond	1.16	37	⇑P	Pg	17 16 33.6	-0.8
	baz=1.2,SNR=7.2						
L13A				⇓S	Sg	17 16 49.4	-0.1
	baz=1.2						
O11A	Cowboy Ranch,	1.19	210	⇑P	Pg	17 16 35.3	+0.5
	baz=1.2,SNR=12						
O11A				⇑S	Sg	17 16 50.2	-0.1
	baz=1.2						
L11A	Cat Creek Ranc	1.20	327	⇓P	Pg	17 16 34.5	-0.6
	baz=1.2,SNR=6.1						
L11A				⇓S	Sg	17 16 49.9	-0.7
	baz=1.2						
M14A	Sheep Mountain	1.21	73	⇑P	Pg	17 16 34.7	-0.6
	baz=1.2,SNR=10						
M14A				⇓S	Sg	17 16 51.0	+0.1
	baz=1.2						
O13A	Hicks Ranch, I	1.24	146	⇑P	Pg	17 16 36.0	+0.1
	baz=1.2,SNR=11						
O13A				⇓S	Sg	17 16 53.0	+1.1
	baz=1.2						
M10A	I.L. Ranch, Tu	1.30	287	⇓S	Sg	17 16 54.0	+0.2
	baz=1.3						
N10A	Dunphy	1.31	251	⇓S	Sg	17 16 54.4	+0.3
	baz=1.3						
N14A	Grayback Hills	1.32	103	⇓P	Pn	17 16 36.5	-0.8
	baz=1.3						
N14A				⇓S	Sg	17 16 55.1	+0.5
	baz=1.3						
BGU	Big Grassy Mou	1.42	99	*e*Pn	Pn	17 16 37.9	-0.7
BGU				*e*Sn	Sn	17 16 56.4	-1.4
K12A	Draper Farm, C	1.47	359	⇑P	Pn	17 16 38.5	-0.8
	baz=1.5,SNR=8.1						
K12A				⇑S	Sn	17 16 57.2	-1.7
	baz=1.5						
L10A	Juniper Basin	1.50	308	⇑S	Sn	17 16 59.2	-0.4
	baz=1.5						
O10A	Cortez Mining,	1.51	235	⇑S	Sn	17 16 59.7	0.0
	baz=1.5						
L14A	Malta	1.51	54	⇑S	Sn	17 17 00.0	+0.2
	baz=1.5						
K13A	Stover Farm, H	1.60	22	⇓S	Sn	17 17 02.3	+0.2
	baz=1.6						
P12A	McGill	1.69	181	⇑S	Sn	17 17 04.7	+0.4
	baz=1.7						
HVU	Hansel Valley	1.70	68	*e*Pn	Pn	17 16 42.9	+0.5
P11A	Circle Ranch,	1.74	203	⇓S	Sn	17 17 05.4	-0.2
	baz=1.7						
N15A	Stansbury Isla	1.81	98	⇑S	Sn	17 17 08.3	+1.0
	baz=1.8						
K11A	Parker Ranch,	1.82	332	⇑S	Sn	17 17 08.6	+1.0
	baz=1.8						
SPUT	South Promonto	1.84	85	*e*Pn	Pn	17 16 42.6	-1.8
DUG	Dugway	1.85	121	*e*Pn	Pn	17 16 42.9	-1.6
BMN	Battle Mountai	1.92	248	*e*Pn	Pn	17 16 42.3	-3.2
BMN				*e*Sn	Sn	17 17 11.2	+1.2
M09A	Marrel Ranch,	1.95	278	⇓P	Pn	17 16 44.8	-1.1
	baz=1.9						
P10A	Eureka	1.96	219	⇑P	Pn	17 16 45.3	-0.7
	baz=1.9,SNR=18						
N09A	Rock Creek Ran	2.02	262	⇓P	Pn	17 16 45.9	-1.0
	baz=2.0						
O15A	The Old Anders	2.04	115	⇑P	Pn	17 16 46.5	-0.6
	baz=2.0,SNR=27						
L15A	Malad City	2.05	65	⇓P	Pn	17 16 47.0	-0.3
	baz=2.1						
J12A	Stokes Ranch,	2.09	356	⇓P	Pn	17 16 47.8	-0.1
	baz=2.1,SNR=23						
P14A	Drum Mountains	2.10	138	⇓P	Pn	17 16 47.3	-0.6
	baz=2.1						
Q12A	Willow Creek R	2.12	179	⇑P	Pn	17 16 47.6	-0.6
	baz=2.1,SNR=7.7						
NOQ	North Oquirrh	2.16	103	*e*Pn	Pn	17 16 49.4	+0.7
J13A	Cove Ranch, Pi	2.29	13	⇓P	Pn	17 16 51.2	+0.5
	baz=2.3,SNR=31						
Q13A	Wheeler Ranch,	2.30	163	⇑P	Pn	17 16 50.5	-0.2
	baz=2.3						
K15A	Arbon	2.32	48	⇑P	Pn	17 16 51.6	+0.6
	baz=2.3,SNR=18						
J14A	Carey	2.38	25	P	Pn	17 16 53.0	+1.1
	baz=2.4,SNR=21						
Q11A	Duckwater	2.39	195	⇓P	Pn	17 16 51.9	0.0
	baz=2.4						
CTU	Camp Tracy	2.42	100	*e*Pn	Pn	17 16 52.9	+0.5
HLID	Hailey	2.42	8	P	Pn	17 16 53.5	+1.1
	baz=2.4,SNR=30						
HLID	Hailey	2.42	8	⇓*i*Pn	Pn	17 16 53.4	+1.0
NLU	North Lily Min	2.46	119	*e*Pn	Pn	17 16 52.0	-0.9
Q14A	Sevier Lake (B	2.50	150	⇓P	Pn	17 16 53.1	-0.3
	baz=2.5,SNR=7.1						
P15A	Leamington	2.55	128	⇓P	Pn	17 16 53.5	-0.6
	baz=2.5						
Q10A	Clear Creek Ra	2.61	207	⇑P	Pn	17 16 55.2	+0.2
	baz=2.6,SNR=16						
JLU	Jordanelle	2.66	101	*e*Pb	Pb	17 17 00.4	+0.1
MPU	Maple Canyon	2.73	114	*e*Pn	Pn	17 16 56.9	+0.4
I13A	Wildhorse Cree	2.81	11	P	Pn	17 16 59.0	+1.4
	baz=2.8,SNR=33						
R12A	Pony Springs,	2.84	176	⇑P	Pn	17 16 58.3	+0.2
	baz=2.8,SNR=6.8						
DAU	Daniels Canyon	2.85	104	*e*Pn	Pn	17 16 57.9	-0.4
R11A	Troy Canyon, C	2.86	191	⇑P	Pn	17 16 58.2	-0.2
	baz=2.8						
J15A	Blackfoot	2.88	38	⇑P	Pn	17 16 59.5	+0.8
	baz=2.9,SNR=13						
Q15A	Fillmore	2.89	138	⇓P	Pn	17 16 58.3	-0.5
	baz=2.9						
R13A	O'Grain Ranch,	3.06	166	⇓P	Pn	17 17 01.6	+0.4
	baz=3.0,SNR=29						
WVOR	Wild Horse Val	3.08	296	*e*Pn	Pn	17 17 02.3	+0.9
N07B	Gerlach	3.12	264	⇑P	Pn	17 17 01.3	-0.7
	baz=3.1,SNR=7.9						
M07A	Soldier Meadow	3.24	275	⇓P	Pn	17 17 03.4	-0.2
	baz=3.2,SNR=7.8						
MSU	Marysvale	3.37	141	*e*Pn	Pn	17 17 05.0	-0.4
TMUT	Trail Mountain	3.38	122	*e*Pn	Pn	17 17 04.3	-1.2
RRI2	Red Ridge	3.43	49	*e*Pn	Pn	17 17 05.8	-0.4
ARUT	Antelope Range	3.55	161	*e*Pn	Pn	17 17 07.0	-0.9
ARUT				*e*Pg	Pg	17 17 19.1	-1.1
S14A	Cedar City	3.65	158	⇓P	Pn	17 17 09.4	+0.2
	baz=3.6,SNR=7.3						
S13A	Holt Ranch, En	3.67	167	⇑P	Pn	17 17 09.8	+0.3
	baz=3.6,SNR=21						
REDW	Red Top Meadow	3.71	52	*e*Pn	Pn	17 17 11.0	+0.9
TPAW	Teton Pass	3.73	50	*e*Pn	Pn	17 17 11.1	+0.8
NVAR	Mina Array Bea	3.79	225	Pn	Pn	17 17 11.2	-0.1
	1.6nm,0.3s,baz=37,slow=14,SNR=16						
NVAR				Pg	Pg	17 17 23.8	-1.0
	4.7nm,0.3s,baz=55,slow=13,SNR=14						
NVAR				Sn	Sn	17 17 57.0	+0.8
	5.1nm,0.3s,baz=43,slow=30,SNR=6.0						
NVAR				Lg		17 18 12.0	
	9.7nm,0.3s,baz=49,slow=29,SNR=5.6						
NVAR	Mina Array Bea	3.79	225	Pn	Pn	17 17 11.2	-0.1
NVAR				Pg	Pg	17 17 23.8	-1.0
NVAR				Sn	Sn	17 17 57.0	+0.8
NVAR				Lg		17 18 12.0	
CCUT	Cedar City	3.80	161	*e*Pn	Pn	17 17 11.4	+0.1
T11A	Corn Creek, Al	3.93	184	⇓P	Pn	17 17 13.2	+0.2
	baz=3.9,SNR=16						
MCMT	McKenzie Canyo	3.96	21	*e*Pn	Pn	17 17 14.9	+1.4
IMW	Indian Meadow	4.00	46	*e*Pn	Pn	17 17 15.3	+1.3
LOHW	Long Hollow	4.00	51	*e*Pn	Pn	17 17 15.0	+0.9
MOOW	Moose Ponds	4.01	48	*e*Pn	Pn	17 17 15.2	+1.0
BMO	Blue Mountains	4.09	335	*e*P	Pn	17 17 21.2	+5.9
MOD	Modoc	4.13	282	*e*Pn	Pn	17 17 15.2	-0.7
BW06	Boulder Array	4.28	66	*e*Pb	Pb	17 17 26.5	-1.4
PDAR	Pinedale Array	4.28	66	Pn	Pn	17 17 20.8	+2.9
	0.2nm,0.3s,baz=240,slow=11,SNR=7.0						
PDAR				Pg	Pg	17 17 35.2	+1.1
	0.8nm,0.3s,baz=259,slow=14,SNR=12						
PDAR				Lg		17 18 26.8	
	1.1nm,0.3s,baz=242,slow=34,SNR=7.6						
T14A	Hurricane	4.33	161	⇓P	Pn	17 17 18.9	+0.4
	baz=4.3,SNR=11						
BEKR	Beckwourth	4.37	255	⇓P	Pn	17 17 18.6	-0.5
	baz=4.3						
QLMT	Earthquake Lak	4.46	33	*e*Pb	Pb	17 17 28.7	-2.1
DLMT	Dillon	4.52	21	P	Pn	17 17 21.1	-0.1
SHPR	Sheep Range	4.66	183	*e*Pg	Pn	17 17 23.6	+0.5
U14A	Mt Trumbull	4.92	164	⇓P	Pn	17 17 27.6	+0.9
	baz=4.9,SNR=13						
BOZ	Bozeman (W)	5.07	27	Pn	Pn	17 17 29.9	+1.2
BOZ				*e*Sb	Sb	17 18 47.2	+4.7
PV04	Paradox Valley	5.37	119	*e*Pg	Pg	17 17 52.5	-2.6
PV04				*e*Sg	Sg	17 19 02.9	-1.7
MSO	Missoula	5.71	7	*e*Pg	Pg	17 17 59.9	-1.5
MSO				*e*S	Sg	17 19 09.3	-6.0
YBH	Yreka Blue Hor	5.91	278	Lg		17 19 17.3	
	0.1nm,0.3s,baz=152,slow=19,SNR=3.0						
MVCO	Mesa Verde	6.34	126	*e*Pg	Pg	17 18 09.1	-4.5
ISCO	Idaho Springs	7.20	98	*e*Pn	Pn	17 17 51.1	-6.9
TXAR	Lajitas Array	14.93	139	Pn	Pn	17 19 51.4	+7.6
	0.0nm,0.3s,baz=326,slow=17,SNR=2.7						
YKA	Yellowknife Ar	21.36	0	P	P	17 21 00.4	+0.4
	0.6nm,0.8s,baz=180,slow=10.0,SNR=15						

IDC ***21*** *17:21:28.5±1.1, 41°.20N×114°.89W, h0^{km}, mb2.5/1, mb1 3.2/4, mb1mx3.1/22, mbtmp2.7/4, ML3.1/3, Error ellipse: s-maj=20.3km s-min=6.0km az=135.0*

ISCJB ***21*** *17:21:29.3±0.5, 41°.13N±0°.01×114°.90W±0°.02, h5^{km}±4^{km}, Error ellipse: s-maj=2.4km s-min=2.3km az=149.5*

NEIC ***21*** *17:21:30.1, 41°.12N×114°.92W, h14^{km}, ML2.8, After REN.*

ISC 21 17:21:29.7±0.3**, 41°.14N**±0°.01×**114°.90W**±0°.02**, h4**^{km}±2^{km}**, n87, σ0^{s}.89**/114**, 34C-32D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.31	200	P	Pg	17 21 36.2	+0.6
	baz=0.3,SNR=169						
N12A				⇓S	Sg	17 21 40.6	+1.1
	baz=0.3						
ELK	Elko	0.47	213	Pg	Pg	17 21 38.9	+0.2
	15nm,0.3s,baz=16,slow=13,SNR=34						
ELK				Lg		17 21 44.8	
	61nm,0.3s,baz=136,slow=18,SNR=117						
M13A	Montello	0.60	68	⇓P	Pg	17 21 42.0	+0.9
	baz=0.6,SNR=14						
N13A	Wendover, West	0.60	118	P	Pg	17 21 41.7	+0.6
	baz=0.6,SNR=65						
N13A				⇑S	Sg	17 21 49.6	+0.7
	baz=0.6						
N11A	Elko Archery C	0.71	243	P	Pg	17 21 43.5	+0.2
	baz=0.7,SNR=24						
M11A	Holland Ranch,	0.73	294	⇓P	Pg	17 21 43.8	+0.1
	baz=0.7						
M11A				⇓S	Sg	17 21 53.8	+0.6
	baz=0.7						
O12A	Currie	0.88	172	⇓P	Pg	17 21 46.6	+0.1
	baz=0.9,SNR=66						
O12A				⇑S	Sg	17 21 58.6	+0.7
	baz=0.9						
L12A	House Creek Ra	1.01	355	⇑P	Pg	17 21 48.9	-0.2
	baz=1.0						
L12A				⇑S	Sg	17 22 02.3	+0.2
	baz=1.0						
O11A	Cowboy Ranch,	1.16	210	⇓P	Pg	17 21 52.2	+0.3
	baz=1.1,SNR=40						
O11A				⇓S	Sg	17 22 07.0	+0.1
	baz=1.1						
L13A	Double Diamond	1.19	37	P	Pg	17 21 52.1	-0.3
	baz=1.2,SNR=25						
L13A				⇑S	Sg	17 22 07.5	-0.3
	baz=1.2						
L11A	Cat Creek Ranc	1.21	328	⇑P	Pg	17 21 51.9	-0.9
	baz=1.2						
L11A				⇓S	Sg	17 22 08.2	-0.4
	baz=1.2						
M14A	Sheep Mountain	1.23	72	P	Pg	17 21 52.5	-0.6
	baz=1.2,SNR=44						
M14A				⇓S	Sg	17 22 09.0	0.0
	baz=1.2						
O13A	Hicks Ranch, I	1.23	145	P	Pg	17 21 53.1	-0.1
	baz=1.2,SNR=73						
O13A				⇓S	Sg	17 22 10.3	+1.2
	baz=1.2						
N10A	Dunphy	1.29	251	⇓P	Pg	17 21 53.7	-0.7
	baz=1.3						
N10A				⇑S	Sg	17 22 11.1	+0.1
	baz=1.3						
M10A	I.L. Ranch, Tu	1.29	288	⇑P	Pn	17 21 53.8	-0.7
	baz=1.3,SNR=47						
M10A				⇓S	Sg	17 22 11.2	0.0
	baz=1.3						
N14A	Grayback Hills	1.33	102	⇑P	Pn	17 21 54.1	-0.9
	baz=1.3,SNR=26						
N14A				⇑S	Sg	17 22 12.5	+0.1
	baz=1.3						
BGU	Big Grassy Mou	1.43	98	*e*Pn	Pn	17 21 55.5	-0.8
BGU				*e*Sn	Sn	17 22 13.1	-2.5
O10A	Cortez Mining,	1.48	236	⇑P	Pn	17 21 56.4	-0.6
	baz=1.5,SNR=55						
O10A				⇑Sb	Sb	17 22 17.1	+0.2
	baz=1.5						
K12A	Draper Farm, C	1.50	360	⇓P	Pn	17 21 56.1	-1.2
	baz=1.5						
K12A				⇓S	Sn	17 22 15.8	-1.4
	baz=1.5						
L10A	Juniper Basin	1.50	309	⇑P	Pn	17 21 56.8	-0.6
	baz=1.5						
L10A				⇓Sb	Sb	17 22 17.4	-0.1
	baz=1.5						
L14A	Malta	1.53	54	⇑P	Pn	17 21 57.2	-0.6
	baz=1.6,SNR=34						
L14A				⇑Sb	Sb	17 22 18.3	-0.1
	baz=1.6						
K13A	Stover Farm, H	1.63	22	⇓P	Pn	17 21 58.5	-0.5
	baz=1.6,SNR=24						
K13A				⇑S	Sn	17 22 19.5	-0.9
	baz=1.6						
P12A	McGill	1.67	180	P	Pn	17 21 59.2	-0.3
	baz=1.6,SNR=106						

P12A				⇓S	Sn	17 22 21.2	-0.1
	baz=1.6						
P11A	**Circle Ranch,**	1.71	203	⇑P	Pn	17 22 00.2	-0.1
	baz=1.7,SNR=11						
HVU	**Hansel Valley**	1.72	68	*e*Pn	Pn	17 21 60.0	-0.4
HVU				*e*Sn	Sn	17 22 22.7	0.0
N15A	**Stansbury Isla**	1.82	97	⇓P	Pn	17 22 01.2	-0.5
	baz=1.8,SNR=15						
K11A	**Parker Ranch,**	1.84	333	⇑Pb	Pb	17 22 02.4	-1.4
	baz=1.8,SNR=45						
DUG	**Dugway**	1.85	120	⇓P	Pn	17 22 01.2	-0.9
	baz=1.8,SNR=51						
DUG	**Dugway**	1.85	120	*e*Pn	Pn	17 22 00.5	-1.6
SPUT	**South Promonto**	1.86	84	*e*Pn	Pn	17 22 02.3	+0.1
SPUT				*e*Sn	Sn	17 22 27.2	+1.2
M15A	**Larsen Ranch,**	1.88	79	⇑P	Pn	17 22 01.7	-0.7
	baz=1.9,SNR=27						
BMN	**Battle Mountai**	1.90	249	*e*Pn	Pn	17 22 01.8	-1.0
BMN				*e*Sn	Sn	17 22 27.4	+0.3
P10A	**Eureka**	1.93	219	⇓P	Pn	17 22 02.6	-0.6
	baz=1.9,SNR=19						
M09A	**Marrel Ranch,**	1.94	279	⇑P	Pn	17 22 02.6	-0.8
	baz=1.9,SNR=15						
O09A	**Fish Creek Ran**	1.99	242	⇓Pb	Pb	17 22 05.6	-0.9
	baz=2.0						
N09A	**Rock Creek Ran**	2.01	263	⇑P	Pn	17 22 03.3	-1.0
	baz=2.0,SNR=19						
O15A	**The Old Anders**	2.04	114	⇑P	Pn	17 22 04.0	-0.7
	baz=2.0,SNR=38						
L15A	**Malad City**	2.07	65	⇓P	Pn	17 22 05.0	-0.2
	baz=2.1,SNR=25						
P14A	**Drum Mountains**	2.09	137	P	Pn	17 22 04.9	-0.5
	baz=2.1,SNR=15						
Q12A	**Willow Creek R**	2.10	179	P	Pn	17 22 05.3	-0.2
	baz=2.1,SNR=10						
J12A	**Stokes Ranch,**	2.11	356	P	Pn	17 22 06.3	+0.6
	baz=2.1,SNR=63						
NOQ	**North Oquirrh**	2.16	102	*e*Pn	Pn	17 22 07.0	+0.6
NOQ				*e*Sn	Sn	17 22 37.5	+3.9
K10A	**MacKenzie Ranc**	2.20	319	⇓P	Pn	17 22 07.9	+1.0
	baz=2.2,SNR=58						
Q13A	**Wheeler Ranch,**	2.29	163	⇓P	Pn	17 22 07.7	-0.4
	baz=2.3,SNR=20						
J13A	**Cove Ranch, Pi**	2.32	13	⇑P	Pn	17 22 09.3	+0.8
	baz=2.3,SNR=72						
K15A	**Arbon**	2.35	48	⇓P	Pn	17 22 09.5	+0.5
	baz=2.4,SNR=17						
Q11A	**Duckwater**	2.36	194	⇑P	Pn	17 22 09.0	-0.2
	baz=2.3,SNR=12						
MFID	**Camas Ranch**	2.38	343	⇑P	Pn	17 22 10.5	+1.2
	baz=2.4,SNR=22						
J14A	**Carey**	2.41	25	⇑P	Pn	17 22 10.7	+0.9
	baz=2.4,SNR=48						
HLID	**Hailey**	2.45	8	⇑P	Pn	17 22 11.2	+0.9
	baz=2.5,SNR=54						
HLID	**Hailey**	2.45	8	*e*Pn	Pn	17 22 11.2	+0.8
HLID				*e*Sn	Sn	17 22 44.5	+3.9
NLU	**North Lily Min**	2.46	118	*e*Pg	Pg	17 22 15.4	-1.4
Q14A	**Sevier Lake (B**	2.48	149	⇓P	Pn	17 22 10.0	-0.9
	baz=2.5,SNR=10						
P15A	**Leamington**	2.54	127	⇑P	Pn	17 22 10.8	-0.8
	baz=2.5,SNR=12						
Q10A	**Clear Creek Ra**	2.58	207	⇑P	Pn	17 22 12.0	-0.2
	baz=2.6,SNR=17						
K09A	**Rome**	2.62	307	P	Pn	17 22 14.6	+1.8
	baz=2.6,SNR=107						
M08A	**Happy Creek Ra**	2.64	278	⇑P	Pn	17 22 15.8	+2.8
	baz=2.6						
I12A	**Atlanta**	2.66	356	⇓P	Pn	17 22 14.4	+1.2
	baz=2.7,SNR=44						
MPU	**Maple Canyon**	2.73	113	*e*Pg	Pg	17 22 20.8	-1.2
L08A	**Fields**	2.79	293	⇑P	Pn	17 22 17.6	+2.6
	baz=2.8						
P08A	**Dixie Valley**	2.82	240	⇓P	Pn	17 22 15.3	-0.2
	baz=2.8						
I13A	**Wildhorse Cree**	2.83	12	⇑P	Pn	17 22 16.9	+1.3
	baz=2.9,SNR=38						
R11A	**Troy Canyon, C**	2.84	191	⇓P	Pn	17 22 15.4	-0.3
	baz=2.8,SNR=36						
DAU	**Daniels Canyon**	2.86	104	*e*Pn	Pn	17 22 17.8	+1.8
Q09A	**Carvers**	2.89	218	⇓P	Pn	17 22 16.9	+0.4
	baz=2.9,SNR=5.8						
R13A	**O'Grain Ranch,**	3.04	166	P	Pn	17 22 19.0	+0.5
	baz=3.0,SNR=29						
WVOR	**Wild Horse Val**	3.08	296	*e*Pn	Pn	17 22 19.9	+0.9
O07A	**Toulon**	3.18	253	P	Pn	17 22 19.5	-0.9
	baz=3.2,SNR=9.7						
M07A	**Soldier Meadow**	3.23	276	⇓P	Pn	17 22 21.0	-0.1
	baz=3.2,SNR=6.8						
MSU	**Marysvale**	3.36	140	*e*Pn	Pn	17 22 22.7	-0.2
TMUT	**Trail Mountain**	3.37	122	*e*Pn	Pn	17 22 24.2	+1.2
RRI2	**Red Ridge**	3.45	49	*e*Pn	Pn	17 22 25.5	+1.3
ARUT	**Antelope Range**	3.53	161	*e*Pn	Pn	17 22 25.0	-0.2
S13A	**Holt Ranch, En**	3.65	167	⇑P	Pn	17 22 27.0	+0.2
	baz=3.6,SNR=27						
REDW	**Red Top Meadow**	3.74	52	*e*Pn	Pn	17 22 29.7	+1.6
TPAW	**Teton Pass**	3.75	50	*e*Pn	Pn	17 22 29.7	+1.4
NVAR	**Mina Array Bea**	3.77	225	Pn	Pn	17 22 28.4	-0.1
	1.5nm,0.3s,baz=45,slow=15,SNR=18						
NVAR				Pg	Pg	17 22 40.1	-1.8
	4.7nm,0.3s,baz=45,slow=17,SNR=17						
NVAR				Sn	Sn	17 23 14.4	+1.1
	2.5nm,0.3s,baz=45,slow=17,SNR=3.5						
NVAR				Lg		17 23 28.1	
	7.6nm,0.3s,baz=48,slow=35,SNR=7.2						
CCUT	**Cedar City**	3.78	161	*e*Pn	Pn	17 22 28.8	+0.1
T11A	**Corn Creek, Al**	3.90	184	⇓P	Pn	17 22 30.3	0.0
	baz=3.9,SNR=19						
MCMT	**McKenzie Canyo**	3.98	22	*e*Pn	Pn	17 22 32.7	+1.3
IMW	**Indian Meadow**	4.02	45	*e*Pn	Pn	17 22 31.7	-0.2
LOHW	**Long Hollow**	4.03	51	Pn	Pn	17 22 32.1	+0.1
PDAR	**Pinedale Array**	4.30	66	Pn	Pn	17 22 37.5	+1.6
	0.1nm,0.3s,baz=238,slow=12,SNR=4.0						
PDAR				Pg	Pg	17 22 49.2	-2.9
	0.2nm,0.3s,baz=226,slow=12,SNR=5.7						
PDAR				Lg		17 23 41.4	
	0.7nm,0.3s,baz=242,slow=32,SNR=5.6						
BEKR	**Beckwourth**	4.35	255	⇑P	Pn	17 22 35.9	-0.6
	baz=4.3,SNR=12						
YBH	**Yreka Blue Hor**	5.90	278	Lg		17 24 32.0	
	0.1nm,0.3s,baz=270,slow=20,SNR=1.7						
TXAR	**Lajitas Array**	14.92	139	Pn	Pn	17 25 05.7	+4.4
	0.0nm,0.3s,baz=339,slow=12,SNR=2.3						
YKA	**Yellowknife Ar**	21.39	0	P	P	17 26 16.0	-1.9
	0.1nm,0.6s,baz=181,slow=10,SNR=5.2						

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*IDC **21** 17:29:47.0±1.1, 36°.37N×21°.62E, h0^{km}, mb3.7/7, mb1 3.6/10, mb1mx3.5/27, mbtmp3.5/10, ML3.4/3, Error ellipse: s-maj=23.7km s-min=22.4km az=141.0*

*NEIC **21** 17:29:48.6, 36°.21N×21°.63E, h18^{km}, MD3.7(ATH), After ATH.*

*ISCJB **21** 17:29:48.1±0.9, 36°.20N±0°.03×21°.58E±0°.04, h7^{km}±6^{km}, mb3.6/6, Error ellipse: s-maj=6.3km s-min=5.0km az=151.4*

*ATH **21** 17:29:48.6, 36°.21N×21°.63E, h18^{km}±3^{km}, MD3.7/12*

*CSEM **21** 17:29:49.5±0.3, 36°.20N×21°.57E, h10^{km}, ML3.9/3, Error ellipse: s-maj=7.9km s-min=5.5km az=54.0*

*THE **21** 17:29:52.8, 36°.41N×21°.60E, h3^{km}±2^{km}, ML3.9/3, Error ellipse: s-maj=3.6km s-min=2.7km az=154.0*

ISC 21 17:29:49.0±1.0**, 36°.21N**±0°.03×**21°.59E**±0°.05**, h7**^{km}±6^{km}**, n92, σ1^{s}.25**/115**, mb3.6**/6**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.70	10	P	Pg	17 30 01.4	-1.1
PYL				S	Sg	17 30 10.1	-1.4
PYL	**PYLOS**	0.70	10	*e*PB	Pb	17 30 01.5	-2.0
PYL	**PYLOS**	0.70	10	*e*Pb	Pb	17 30 01.5	-2.0
PYL				S	Sg	17 30 10.1	-1.4
ITM	**Ithomi**	1.01	16	*e*PN	Pn	17 30 07.3	-2.3
ITM				*e*SN	Sn	17 30 22.4	-1.6
ITM	**Ithomi**	1.01	16	*e*Pn	Pn	17 30 07.3	-2.3
ITM				*e*Sn	Sn	17 30 22.4	-1.6
KYTH	**Kithira**	1.17	86	*e*PN	Pn	17 30 11.1	-0.7
KYTH	**Kithira**	1.17	86	*e*Pn	Pn	17 30 11.1	-0.7
VLI	**Veliai**	1.20	64	*e*PN	Pn	17 30 10.8	-1.4
VLI				*e*SN	Sn	17 30 26.4	-2.4
VLI	**Veliai**	1.20	64	*e*Pn	Pn	17 30 10.8	-1.4
VLI				*e*Sn	Sn	17 30 26.4	-2.4
VLX	**Vlachokerasia**	1.32	28	*e*PN	Pn	17 30 12.6	-1.3
VLX				*e*SN	Sn	17 30 32.3	+0.5
VLX	**Vlachokerasia**	1.32	28	*e*Pn	Pn	17 30 12.6	-1.3
VLX				*e*Sn	Sn	17 30 32.3	+0.5
GUR	**Goura**	1.83	19	*e*PN	Pn	17 30 21.5	+0.6
GUR	**Goura**	1.83	19	*e*Pn	Pn	17 30 21.5	+0.6
RLS	**Riolos of Patr**	1.85	357	*e*PN	Pn	17 30 22.2	+1.0
RLS	**Riolos of Patr**	1.85	357	*e*Pn	Pn	17 30 22.2	+1.0
LAKA	**Lakka**	2.05	9	P	Pn	17 30 25.8	+1.8
LAKA				S	Sn	17 30 48.9	-0.9
LAKA	**Lakka**	2.05	9	P	Pn	17 30 25.8	+1.8
LAKA				S	Sn	17 30 48.9	-0.9
KARN	**Karanos**	2.06	112	*e*PN	Pn	17 30 24.6	+0.6
KARN	**Karanos**	2.06	112	*e*Pn	Pn	17 30 24.6	+0.6
LTK	**Loutraki**	2.12	31	*e*PN	Pn	17 30 26.3	+1.4
LTK	**Loutraki**	2.12	31	*e*Pn	Pn	17 30 26.3	+1.4
VLS	**Valsamata**	2.12	338	P	Pn	17 30 25.4	+0.5
VLS				S	Sn	17 30 51.6	+0.1
VLS	**Valsamata**	2.12	338	P	Pn	17 30 25.4	+0.5
VLS				S	Sn	17 30 51.6	+0.1
TRIZ	**Trizonia**	2.19	10	P	Pn	17 30 27.7	+1.9
TRIZ	**Trizonia**	2.19	10	P	Pn	17 30 27.7	+1.9
KALE	**Kalithea**	2.22	11	P	Pn	17 30 28.0	+1.7
KALE				S	Sn	17 30 54.8	+0.8
KALE	**Kalithea**	2.22	11	P	Pn	17 30 28.0	+1.7
KALE				S	Sn	17 30 54.8	+0.8
VAM	**Vamos**	2.27	110	*e*PN	Pn	17 30 27.5	+0.6
VAM	**Vamos**	2.27	110	*e*Pn	Pn	17 30 27.5	+0.6
ATHU	**Athens Univers**	2.48	44	P	Pn	17 30 32.4	+2.5
ATHU				S	Sn	17 31 01.6	+1.2
ATHU	**Athens Univers**	2.48	44	P	Pn	17 30 32.4	+2.5
ATHU				S	Sn	17 31 01.6	+1.2
LKR	**Lokris**	2.68	24	P	Pn	17 30 32.2	-0.4
LKR				S	Sn	17 31 05.6	+0.2
LKR	**Lokris**	2.68	24	*e*PN	Pn	17 30 32.4	-0.2
LKR	**Lokris**	2.68	24	P	Pn	17 30 32.2	-0.4
LKR	**Lokris**	2.68	24	*e*Pn	Pn	17 30 32.4	-0.2
LKR				S	Sn	17 31 05.6	+0.2
IDI	**Anoyia**	2.84	108	*e*PN	Pn	17 30 35.1	+0.3
IDI	**Anoyia**	2.84	108	Pn	Pn	17 30 35.3	+0.6
	1.6nm,0.3s,baz=299,slow=15,SNR=9.8						
IDI	**Anoyia**	2.84	108	*e*Pn	Pn	17 30 35.1	+0.3
AGG	**Agios Georgios**	2.87	12	P	Pn	17 30 36.2	+1.0
AGG				S	Sn	17 31 10.9	+0.9
AGG	**Agios Georgios**	2.87	12	P	Pn	17 30 36.2	+1.0
AGG				S	Sn	17 31 10.9	+0.9
LAST	**Lasithi**	3.33	107	*e*PN	Pn	17 30 41.7	+0.1
LAST	**Lasithi**	3.33	107	*e*Pn	Pn	17 30 41.7	+0.1
THL	**Klokotos Trika**	3.37	6	P	Pn	17 30 42.7	+0.7
THL	**Klokotos Trika**	3.37	6	*e*PN	Pn	17 30 42.6	+0.6
THL	**Klokotos Trika**	3.37	6	*e*Pn	Pn	17 30 42.6	+0.6
XOR	**Xorichti**	3.40	21	P	Pn	17 30 44.1	+1.6
XOR				S	Sn	17 31 22.2	-0.8
XOR	**Xorichti**	3.40	21	P	Pn	17 30 44.1	+1.6
XOR				S	Sn	17 31 22.2	-0.8
JAN	**Janina**	3.49	351	*e*PN	Pn	17 30 44.2	+0.4
JAN	**Janina**	3.49	351	*e*Pn	Pn	17 30 44.2	+0.4
MEV	**Metsovon**	3.58	356	P	Pn	17 30 46.7	+1.7
MEV	**Metsovon**	3.58	356	P	Pn	17 30 46.7	+1.7
KEK	**Kerkira**	3.77	339	*e*PN	Pn	17 30 47.7	+0.1
KEK	**Kerkira**	3.77	339	*e*Pn	Pn	17 30 47.7	+0.1
ZKR	**Zakros**	3.92	105	*e*PN	Pn	17 30 50.1	+0.4
ZKR	**Zakros**	3.92	105	*e*Pn	Pn	17 30 50.1	+0.4
KZN	**Kozani**	4.09	2	*e*PN	Pn	17 30 52.8	+0.8
KZN	**Kozani**	4.09	2	*e*Pn	Pn	17 30 52.8	+0.8
PLG	**Polygyros**	4.41	19	*e*PN	Pn	17 30 56.4	+0.1
PLG	**Polygyros**	4.41	19	*e*Pn	Pn	17 30 56.4	+0.1
SMG	**Samos**	4.46	69	P	Pn	17 30 58.2	+1.1
SMG	**Samos**	4.46	69	P	Pn	17 30 58.2	+1.1
FNA	**Florina**	4.57	358	P	Pn	17 30 59.2	+0.6
FNA	**Florina**	4.57	358	P	Pn	17 30 59.2	+0.6
GRG	**Griva**	4.78	7	P	Pn	17 31 01.9	+0.4
GRG	**Griva**	4.78	7	P	Pn	17 31 01.9	+0.4
SOH	**Sokhos**	4.81	16	P	Pn	17 31 02.9	+1.0
SOH	**Sokhos**	4.81	16	P	Pn	17 31 02.9	+1.0
TIP	**Timpagrande**	4.84	309	*e*P	Pn	17 31 02.5	+0.2
TIP	**Timpagrande**	4.84	309	*e*P	Pn	17 31 02.5	+0.2
CEL	**Celeste**	4.99	296	*e*Pn	Pn	17 31 03.5	-0.8
	15nm,0.6s						
CEL	**Celeste**	4.99	296	*e*Pn	Pn	17 31 03.5	-0.8
	15nm,0.6s						
KNT	**Kendrikon**	5.05	11	P	Pn	17 31 05.6	+0.4
KNT	**Kendrikon**	5.05	11	P	Pn	17 31 05.6	+0.4
KRUS	**Krusevo**	5.16	357	*e*Pn	Pn	17 31 06.4	-0.3
KRUS	**Krusevo**	5.16	357	*e*Pn	Pn	17 31 06.3	-0.4
NVR	**Nevrokopi**	5.43	18	*e*PN	Pn	17 31 11.1	+0.7
NVR	**Nevrokopi**	5.43	18	*e*Pn	Pn	17 31 11.1	+0.7
VAE	**Valguarnera**	5.89	285	Pn	Pn	17 31 22.8	+6.1
	0.9nm,0.3s,baz=70,slow=12,SNR=1.8						
VAE				Sn	Sn	17 32 29.4	+4.9
	2.2nm,0.3s,baz=129,slow=4.5,SNR=4.5						
CUC	**Castrocucco**	5.92	311	*e*Pn	Pn	17 31 14.2	-2.8
	11nm,0.6s						
MLR	**Muntele Rosu**	9.84	18	Pn	Pn	17 32 18.4	+7.6
	0.2nm,0.3s,baz=206,slow=4.2,SNR=2.9						
BRTR	**Keskin Array B**	10.14	66	Pn	Pn	17 32 20.4	+5.3
	0.1nm,0.3s,baz=265,slow=13,SNR=2.5						
MMAI	**Mount Meron Ar**	11.82	102	Pn	Pn	17 32 37.8	-0.2
	0.5nm,0.3s,baz=284,slow=12,SNR=3.2						
AKASG	**Malin Array Be**	15.50	18	Pn	Pn	17 33 24.3	-3.6
	0.3nm,0.3s,baz=213,slow=9.9,SNR=2.7						
HFS	**Hagfors**	24.48	350	P	P	17 35 06.9	-1.5
	3.8nm,1.0s,mb3.8,baz=144,slow=10.0,SNR=4.0						
HFS	**Hagfors**	24.48	350	P	P	17 35 06.9	-1.5
TORD	**Torodi Ar. Bea**	29.10	223	P	P	17 35 50.9	+0.5
	0.3nm,0.6s,mb3.2,baz=28,slow=7.8,SNR=2.3						
ARCES	**ARCESS Array B**	33.45	2	P	P	17 36 26.8	-1.5
	1.4nm,0.9s,mb3.9,baz=194,slow=9.9,SNR=4.4						
ARCES	**ARCESS Array B**	33.45	2	P	P	17 36 26.8	-1.4
KURK	**Kurchatov**	42.80	52	P	P	17 37 44.7	-2.5
	0.3nm,0.3s,mb3.5,baz=281,slow=8.9,SNR=2.5						
MKAR	**Makanchi Array**	45.63	57	P	P	17 38 07.2	-2.7
	0.3nm,0.4s,mb3.6,baz=271,slow=8.4,SNR=9.6						
ZALV	**Zalesovo Beam**	46.39	47	P	P	17 38 13.2	-2.7
	0.6nm,0.3s,mb4.0,baz=275,slow=7.6,SNR=3.5						
YKA	**Yellowknife Ar**	75.53	341	P	P	17 41 31.3	-2.5
	0.1nm,0.5s,baz=36,slow=5.4,SNR=2.6						

IDC 21 17:31:29.4±2.1**, 6°.93S**×**128°.98E, h0**^{km}**, mb3.5**/1**, mb1 3.6**/4**, mb1mx3.4**/17**, mbtmp3.4**/4**, ML3.4**/3**, Error ellipse: s-maj=88.8km s-min=27.8km az=75.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	11.57	196	Pn	Pn	17 34 16.3	+0.3
	0.2nm,0.3s,baz=9.3,slow=9.8,SNR=6.6						
FITZ				Sn	Sn	17 36 11.5	-14
	0.5nm,0.3s,baz=134,slow=22,SNR=6.3						
WRA	**Warramunga Arr**	13.94	159	Pn	Pn	17 34 47.5	-0.9
	0.2nm,0.3s,baz=337,slow=13,SNR=17						
WRA				Sn	Sn	17 37 07.8	-16
	0.4nm,0.3s,baz=331,slow=22,SNR=8.5						
ASAR	**Alice Springs**	17.30	165	P	Pn	17 35 33.0	+0.5
	0.1nm,0.3s,baz=329,slow=9.5,SNR=4.6						
MKAR	**Makanchi Array**	67.61	327	P	P	17 42 28.1	+0.1
	0.2nm,0.4s,baz=130,slow=6.9,SNR=7.5						

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*ISCJB **21** 17:34:36.6±1.6, 11°.1S±0°.1×114°.42E±0°.08, h60^{km}±14^{km}, mb3.6/4, Error ellipse: s-maj=16.9km s-min=12.6km az=6.4*

*DJA **21** 17:34:37, 10°.96S×114°.50E, h17^{km}, MLv4.2/7*

*IDC **21** 17:34:41.2±9.3, 10°.77S×114°.65E, h71^{km}±84^{km}, mb3.4/4, mb1 3.6/5, mb1mx3.3/20, mbtmp3.5/5, ML3.4/1, Error ellipse: s-maj=69.5km s-min=28.9km az=66.0*

ISC 21 17:34:38.1±1.6**, 11°.1S**±0°.1×**114°.44E**±0°.08**, h52**^{km}±15^{km}**, n16, σ0^{s}.88**/19**, mb3.6**/4**, 1D, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGBI	**Denpasar**	2.34	17	P	Pn	17 35 13.4	-0.8
IGBI				S	Sn	17 35 41.4	-0.3
DNP	**Denpasar**	2.49	18	P	Pn	17 35 13.3	-2.9
DNP				S	Sn	17 35 46.1	+0.6
NBBI	**Negara**	2.68	4	P	Pn	17 35 19.1	+0.2
KHKI	**Kahang-Kahang**	2.92	23	P	Pn	17 35 22.7	+0.6
GMJI	**Gumukmas**	2.94	340	P	Pn	17 35 21.5	-0.9
SRBI	**Singaraja**	3.06	15	P	Pn	17 35 25.0	+1.0
ABJI	**Asem Bagus**	3.25	356	P	Pn	17 35 27.9	+1.2
KRKI	**Karangkates**	3.49	326	P	Pn	17 35 30.4	+0.5
TRT	**Tretes**	3.78	332	⇓*e*P	Pn	17 35 34.0	0.0
TRT				*e*S	Sn	17 36 18.0	+0.8
PWJI	**Pagerwojo**	3.99	319	P	Pn	17 35 35.9	-0.8
KAPI	**Kappang**	7.99	42	P	Pn	17 36 30.5	-1.2
	0.6nm,0.3s,baz=220,slow=16,SNR=5.9						
KAPI				S	Sn	17 37 54.8	-5.9
	1.2nm,0.3s,baz=89,slow=18,SNR=7.7						
FITZ	**Fitzroy Crossi**	12.90	124	S	Sx	17 39 44.4	
	0.2nm,0.3s,baz=195,slow=19,SNR=5.3						
WRA	**Warramunga Arr**	21.09	117	P	P	17 39 19.6	+1.2
	0.7nm,0.5s,mb3.3,baz=290,slow=12,SNR=3.3						
WRA				S	Sx	17 43 00.7	
	0.4nm,0.8s,baz=291,slow=26,SNR=4.7						
MKAR	**Makanchi Array**	64.37	336	P	P	17 45 08.6	+0.1
	0.3nm,0.4s,mb3.7,baz=150,slow=6.7,SNR=7.9						
KURK	**Kurchatov**	68.97	337	P	P	17 45 37.6	-0.1
	0.6nm,0.5s,mb3.8,baz=152,slow=5.8,SNR=2.4						
ZALV	**Zalesovo Beam**	69.47	342	P	P	17 45 40.1	-0.7
	0.2nm,0.3s,mb3.5,baz=152,slow=6.4,SNR=4.5						

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*NEIC **21** 17:35:19.9, 41°.12N×114°.92W, h24^{km}, ML2.6, After REN.*

*IDC **21** 17:35:19.9±1.0, 41°.18N×114°.95W, h0^{km}, mb2.3/1, mb1 2.9/3, mb1mx2.9/21, mbtmp2.5/3, ML3.0/2, Error ellipse: s-maj=19.6km s-min=5.3km az=132.0*

*ISCJB **21** 17:35:20.6±0.3, 41°.15N±0°.02×114°.91W±0°.03, h18^{km}±4^{km}, Error ellipse: s-maj=3.4km s-min=2.8km az=16.8*

ISC 21 17:35:20.0±0.4**, 41°.17N**±0°.02×**114°.91W**±0°.03**, h7**^{km}±3^{km}**, n62, σ0^{s}.79**/74**, 24C-29D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.33	198	⇓P	Pg	17 35 26.7	+0.4
	baz=0.3,SNR=123						
N12A				⇓S	Sg	17 35 31.3	+0.6
	baz=0.3						
ELK	**Elko**	0.49	211	Pg	Pg	17 35 29.5	+0.1
	20nm,0.3s,baz=23,slow=16,SNR=14						
ELK				Lg		17 35 35.8	
	76nm,0.3s,baz=305,slow=17,SNR=60						
ELK	**Elko**	0.49	211	Pg	Pg	17 35 29.5	+0.1
ELK				Lg		17 35 35.8	
M13A	**Montello**	0.59	71	⇑P	Pg	17 35 31.5	+0.1
	baz=0.6						
N13A	**Wendover, West**	0.62	120	⇓P	Pg	17 35 32.0	+0.1
	baz=0.6,SNR=114						
N13A				⇓S	Sg	17 35 40.2	+0.4
	baz=0.6						
M11A	**Holland Ranch,**	0.72	292	⇑S	Sg	17 35 43.1	0.0
	baz=0.7						
N11A	**Elko Archery C**	0.72	241	⇓S	Sg	17 35 43.7	+0.6
	baz=0.7						
O12A	**Currie**	0.90	172	⇓P	Pg	17 35 37.3	0.0
	baz=0.9,SNR=21						
O12A				⇑S	Sg	17 35 49.4	+0.3
	baz=0.9						
L12A	**House Creek Ra**	0.98	355	⇑P	Pg	17 35 38.5	-0.3
	baz=1.0,SNR=9.6						
L12A				⇓S	Sg	17 35 51.9	+0.2
	baz=1.0						
L13A	**Double Diamond**	1.17	38	⇑P	Pg	17 35 41.7	-0.8
	baz=1.2,SNR=25						
L13A				⇓S	Sg	17 35 57.6	-0.1
	baz=1.2						
O11A	**Cowboy Ranch,**	1.18	209	⇑P	Pg	17 35 42.8	+0.2
	baz=1.1,SNR=72						
O11A				⇑S	Sg	17 35 57.8	-0.1
	baz=1.1						
L11A	**Cat Creek Ranc**	1.19	328	⇓P	Pg	17 35 42.1	-0.7
	baz=1.2,SNR=23						
L11A				⇓S	Sg	17 35 57.8	-0.3
	baz=1.2						
M14A	**Sheep Mountain**	1.22	73	⇓P	Pb	17 35 42.5	-0.9
	baz=1.2,SNR=35						
M14A				⇑S	Sg	17 35 59.3	0.0
	baz=1.2						
O13A	**Hicks Ranch, I**	1.25	145	⇑P	Pn	17 35 43.4	-0.4
	baz=1.2,SNR=68						
N10A	**Dunphy**	1.29	250	⇓S	Sb	17 36 01.6	+0.3
	baz=1.3						
N14A	**Grayback Hills**	1.34	103	⇑P	Pn	17 35 44.4	-0.7
	baz=1.3,SNR=42						
N14A				⇑S	Sb	17 36 02.8	+0.1
	baz=1.3						
BGU	**Big Grassy Mou**	1.44	99	*e*Pn	Pn	17 35 45.4	-1.0
K12A	**Draper Farm, C**	1.47	0	⇑P	Pn	17 35 45.7	-1.1
	baz=1.5,SNR=30						
K12A				⇑S	Sn	17 36 05.2	-1.1
	baz=1.5						
L10A	**Juniper Basin**	1.48	308	⇓Pb	Pb	17 35 47.0	-0.9
	baz=1.5,SNR=22						
O10A	**Cortez Mining,**	1.49	235	⇓Pb	Pb	17 35 47.2	-0.8
	baz=1.5,SNR=23						
L14A	**Malta**	1.52	55	⇑P	Pn	17 35 47.6	+0.1
	baz=1.6,SNR=29						
K13A	**Stover Farm, H**	1.61	22	⇓Pb	Pb	17 35 49.0	-1.0
	baz=1.7,SNR=19						
P12A	**McGill**	1.69	180	⇓P	Pn	17 35 49.2	-0.7
	baz=1.6,SNR=54						
P12A				⇓S	Sn	17 36 11.7	+0.1
	baz=1.6						
HVU	**Hansel Valley**	1.72	68	*e*Pn	Pn	17 35 49.8	-0.4
P11A	**Circle Ranch,**	1.73	202	⇓Pb	Pb	17 35 51.0	-1.1
	baz=1.7,SNR=11						
K11A	**Parker Ranch,**	1.81	333	Pb	Pb	17 35 52.4	-1.1
	baz=1.9,SNR=17						
N15A	**Stansbury Isla**	1.83	98	⇓P	Pn	17 35 51.1	-0.6
	baz=1.8,SNR=29						
DUG	**Dugway**	1.86	121	⇓P	Pn	17 35 51.5	-0.8
	baz=1.8,SNR=24						
DUG	**Dugway**	1.86	121	*e*Pn	Pn	17 35 51.0	-1.3
M15A	**Larsen Ranch,**	1.88	80	⇓P	Pn	17 35 53.0	+0.5
	baz=1.9,SNR=33						
K14A	**Jones Ranch, D**	1.89	43	⇑P	Pn	17 35 53.2	+0.5
	baz=1.9,SNR=12						
BMN	**Battle Mountai**	1.90	248	*e*Pn	Pn	17 35 51.7	-1.0
P10A	**Eureka**	1.95	218	⇓P	Pn	17 35 53.8	+0.4
	baz=1.9,SNR=12						
N09A	**Rock Creek Ran**	2.00	262	⇑P	Pn	17 35 53.6	-0.5
	baz=2.0,SNR=10						
J12A	**Stokes Ranch,**	2.09	356	⇑P	Pn	17 35 56.2	+0.8
	baz=2.1,SNR=20						
P14A	**Drum Mountains**	2.11	138	⇑P	Pn	17 35 55.3	-0.3
	baz=2.1,SNR=16						
Q12A	**Willow Creek R**	2.12	178	⇓P	Pn	17 35 55.8	0.0
	baz=2.1,SNR=6.2						
NOQ	**North Oquirrh**	2.17	103	*e*Pn	Pn	17 35 55.5	-1.0
J13A	**Cove Ranch, Pi**	2.30	13	⇓P	Pn	17 35 59.3	+1.1
	baz=2.3,SNR=27						
Q13A	**Wheeler Ranch,**	2.31	163	⇑P	Pn	17 35 58.3	-0.1
	baz=2.3,SNR=15						
K15A	**Arbon**	2.34	49	⇓P	Pn	17 35 59.6	+0.9
	baz=2.4,SNR=15						
Q11A	**Duckwater**	2.39	194	⇑P	Pn	17 35 59.6	+0.2
	baz=2.3,SNR=9.4						
J14A	**Carey**	2.39	25	⇑P	Pn	17 36 00.9	+1.4
	baz=2.4,SNR=13						
HLID	**Hailey**	2.42	9	⇑P	Pn	17 36 00.5	+0.6
	baz=2.5,SNR=19						
HLID	**Hailey**	2.42	9	*e*Pn	Pn	17 36 00.3	+0.4
Q10A	**Clear Creek Ra**	2.60	207	⇓P	Pn	17 36 03.5	+1.1
	baz=2.6,SNR=7.4						
I13A	**Wildhorse Cree**	2.81	12	⇑P	Pn	17 36 06.9	+1.6
	baz=2.9,SNR=13						
DAU	**Daniels Canyon**	2.87	104	*e*Pn	Pn	17 36 07.1	+1.0
WVOR	**Wild Horse Val**	3.06	296	*e*P	Pn	17 36 13.6	+4.8
R13A	**O'Grain Ranch,**	3.07	166	⇑P	Pn	17 36 09.5	+0.7
	baz=3.0,SNR=7.7						
MSU	**Marysvale**	3.38	141	*e*Pn	Pn	17 36 12.3	-0.8
ARUT	**Antelope Range**	3.56	161	*e*Pn	Pn	17 36 13.5	-2.1
S13A	**Holt Ranch, En**	3.67	167	⇓P	Pn	17 36 17.4	+0.3
	baz=3.6,SNR=15						
TPAW	**Teton Pass**	3.74	50	*e*Pn	Pn	17 36 19.7	+1.6
NVAR	**Mina Array Bea**	3.78	225	Pn	Pn	17 36 19.2	+0.6
	1.1nm,0.3s,baz=41,slow=11,SNR=6.9						
NVAR				Lg		17 37 18.6	
	4.8nm,0.3s,baz=50,slow=35,SNR=6.2						
T11A	**Corn Creek, Al**	3.93	184	⇓P	Pn	17 36 21.0	+0.4
	baz=3.9,SNR=8.4						
MCMT	**McKenzie Canyo**	3.96	22	*e*Pn	Pn	17 36 22.2	+1.1
IMW	**Indian Meadow**	4.01	46	*e*Pn	Pn	17 36 17.9	-3.8
BMO	**Blue Mountains**	4.08	335	*e*Pn	Pn	17 36 24.3	+1.6
PDAR	**Pinedale Array**	4.30	66	Pn	Pn	17 36 28.9	+3.2
	0.1nm,0.3s,baz=240,slow=12,SNR=3.5						
PDAR				Pg	Pg	17 36 37.2	-5.1
	0.2nm,0.3s,baz=235,slow=13,SNR=6.5						
PDAR				Lg		17 37 35.1	
	0.4nm,0.3s,baz=261,slow=21,SNR=6.0						
BEKR	**Beckwourth**	4.35	254	⇓P	Pn	17 36 26.2	-0.3
	baz=4.3,SNR=10						
YKA	**Yellowknife Ar**	21.36	0	P	P	17 40 07.8	+0.3

0.1nm,0.5s,baz=183,slow=10,SNR=3.7

NIED **21** *17:39:00,33°.70N×140°.70E,h50^{km},Mw4.9 Best double couple: M$_0$2.34000×10^{16} NP1:φ$_s$33.00000°,δ73.00000°, λ112.00000°. NP2:φ$_s$159.00000°,δ27.00000°,λ39.00000°.*
BJI **21** *17:39:32.2,33°.61N×141°.18E,h35^{km},mB4.8/34,mb4.8/46, Ms4.4/44,Ms7 4.3/45*
SZGRF **21** *17:39:34.0,33°.26N×141°.73E,h33^{km},mb5.1,Off east coast of Honshu, Japan*
MOS **21** *17:39:36.5±0.9,33°.61N×140°.46E,h29^{km},mb5.3/75,Error ellipse: s-maj=8.4km s-min=4.3km az=111.2*
NEIC **21** *17:39:39.1±0.1,33°.62N×140°.38E,h35^{km},mb5.0/103, MW4.8(NIED),Error ellipse: s-maj=4.4km s-min=3.6km az=159.0*
NEIC Felt at Tokyo. Recorded [2 JMA] on Hachijo-jima and [1 JMA] on Kozu-shima, Mikura-jima, Miyake-jima, Nii-jima and O-shima.
ISCJB **21** *17:39:39.6±0.1,33°.52N±0°.02×140°.45E±0°.02,h53^{km}, mb5.0/182,MS4.2/35,Error ellipse: s-maj=3.5km s-min=2.1km az=15.0*
GCMT **21** *17:39:39.1±0.4,33°.53N×140°.80E,h56^{km}±1^{km},MW5.0/68, Moment Tensor Solution. s32,c37; s68,c104; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.09±.21; M$_{\theta\theta}$0.17±.14; M$_{\phi\phi}$-3.26±.12; M$_{r\theta}$0.01±.09; M$_{\theta\phi}$-0.19±.11; M$_{\phi r}$1.67±.10; Best double couple: M$_0$3.59200×10^{16} NP1:φ$_s$185.00000°,δ31.00000°,λ92.00000°. NP2: φ$_s$2.00000°,δ59.00000°,λ89.00000°. Principal axes: T 3.5030, Plg76.0000°, Azm267.0000°; N 0.1800, Plg1.0000°, Azm3.0000°; P -3.6810, Plg14.0000°, Azm93.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
JMA **21** *17:39:39.7±0.1,33°.69N×140°.71E,h55^{km}±4^{km},M5.0*
JMA Felt II J1.
IDC **21** *17:39:41.4±0.5,33°.61N×140°.55E,h59^{km}±3^{km},mb4.5/30, mb1 4.7/31,mb1mx4.7/32,mbtmp4.6/31,MS4.1/21, Ms1 4.1/21,ms1mx4.0/35,Error ellipse: s-maj=9.6km s-min=6.6km az=106.0*
DJA **21** *17:39:54,33°.22N×139°.66E,h145^{km},mb5.0/9*
ISC 21 17:39:41.5±0.1**,33°.57N**±0°.02×**140°.45E**±0°.02**,h55**^{km}**, h55**^{km}±1.9^{km}**:pP-P,n745,**$\sigma 0^{s}.$**86**/758**,mb5.0**/182**,MS4.2**/35**, 172C-154D,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**0.70**	**229**	⇓P	**Pn**	**17 39 57.0**	**+1.6**
JHJ2				S	**Sn**	**17 40 09.1**	**+3.6**
JHJ	**Hachijo jima 2**	**0.71**	**231**	P	**Pn**	**17 39 57.1**	**+1.5**
	7μm,0.3s,baz=60,slow=20,SNR=2291						
JHJ				S	**Sn**	**17 40 09.2**	**+3.2**
	17μm,0.3s,baz=73,slow=19,SNR=70						
JMY	**Miyakejima3**	**0.92**	**303**	P	**Pn**	**17 39 58.6**	**+0.3**
BSO1	**Boso 1**	**1.17**	**22**	P	**Pn**	**17 39 57.6**	**-4.0**
BSO3	**Boso 3**	**1.23**	**2**	P	**Pn**	**17 39 59.8**	**-2.6**
JKO	**Kozu shima**	**1.25**	**300**	⇓P	**Pn**	**17 40 03.5**	**+0.8**
JKO				*e*S	**Sn**	**17 40 21.0**	**+2.5**
NJJJ	**Nii jima 2**	**1.27**	**311**	⇓P	**Pn**	**17 40 03.4**	**+0.4**
NJJJ				*e*S	**Sn**	**17 40 20.7**	**+1.7**
BSO4	**Boso 4**	**1.42**	**356**	P	**Pn**	**17 40 03.0**	**-2.0**
JIM2	**Oshima 3**	**1.42**	**324**	⇓P	**Pn**	**17 40 04.4**	**-0.6**
JIZS	**Izushimoda**	**1.73**	**312**	⇓P	**Pn**	**17 40 09.9**	**+0.7**
JIZS				*e*S	**Sn**	**17 40 31.4**	**+1.2**
KTJJ	**Kamata 2**	**1.77**	**320**	⇓P	**Pn**	**17 40 09.4**	**-0.3**
AJI	**Ajiro2**	**1.85**	**323**	P	**Pn**	**17 40 10.1**	**-0.7**
JOD2	**Odawara 2**	**2.03**	**327**	⇓P	**Pn**	**17 40 12.7**	**-0.5**
JOD2				*e*S	**Sn**	**17 40 36.5**	**-0.9**
JSG	**Sagara**	**2.17**	**301**	⇓P	**Pn**	**17 40 17.4**	**+2.2**
JSG				S	**Sn**	**17 40 48.8**	**+7.8**
TK02	**Tokai 2**	**2.27**	**280**	⇓P	**Pn**	**17 40 18.7**	**+2.1**
TK02				S	**Sn**	**17 40 46.9**	**+3.5**
TK04	**Tokai 4**	**2.29**	**292**	P	**Pn**	**17 40 18.9**	**+2.1**
TK04				*e*S	**Sn**	**17 40 48.2**	**+4.5**
SHZ3	**Shizuoka 3**	**2.38**	**309**	⇓P	**Pn**	**17 40 19.8**	**+1.8**
JYN	**Shimob**	**2.48**	**321**	⇓P	**Pn**	**17 40 20.1**	**+0.7**
HMMJ	**Hamamatsu 2**	**2.59**	**300**	⇓P	**Pn**	**17 40 22.4**	**+1.4**
JRY	**Ryogami san**	**2.75**	**333**	⇓P	**Pn**	**17 40 22.8**	**-0.3**
JNY	**Yasuok**	**2.78**	**311**	⇓P	**Pn**	**17 40 25.4**	**+1.9**
JNY				S	**Sn**	**17 41 02.9**	**+7.0**
JAG	**Ashikaga**	**2.96**	**344**	⇓P	**Pn**	**17 40 24.3**	**-1.7**
JNT	**Takato**	**2.98**	**321**	⇓P	**Pn**	**17 40 28.1**	**+1.8**
JAO	**Obara**	**3.13**	**304**	⇓P	**Pn**	**17 40 30.3**	**+2.0**
JGF	**Kuroka**	**3.25**	**309**	⇓P	**Pn**	**17 40 32.4**	**+2.4**
JGF				S	**Sn**	**17 41 16.1**	**+8.6**
JNG	**Nsakai**	**3.42**	**326**	⇓P	**Pn**	**17 40 33.7**	**+1.4**
MJAR	**Matsushiro Arr**	**3.48**	**329**	P	**Pn**	**17 40 34.0**	**+0.8**
	144nm,0.3s,baz=143,slow=11,SNR=636						
MJAR				S	**Sn**	**17 41 14.1**	**+0.9**
	146nm,0.3s,baz=140,slow=22,SNR=12						
MAJO	**Matsushiro**	**3.49**	**329**	*e*P	**Pn**	**17 40 34.5**	**+1.3**
MAT	**Matsushiro**	**3.49**	**329**	P	**Pn**	**17 40 34.4**	**+1.2**
MAT				S	**Sn**	**17 41 14.9**	**+1.7**
MAT	**Matsushiro**	**3.49**	**329**	P	**Pn**	**17 40 34.3**	**+1.1**
JKN2	**Miekihoku**	**3.53**	**282**	⇓P	**Pn**	**17 40 36.0**	**+2.2**
JGN	**Niukaw**	**3.69**	**317**	⇓P	**Pn**	**17 40 38.7**	**+2.7**
JGM	**Miyama**	**3.73**	**306**	⇓P	**Pn**	**17 40 38.9**	**+2.3**
JFK	**Kawauchi**	**3.80**	**5**	P	**Pn**	**17 40 34.1**	**-3.4**
JTT	**Ttatey**	**3.96**	**321**	P	**Pn**	**17 40 42.4**	**+2.7**
JJN	**Nakama**	**3.99**	**333**	P	**Pn**	**17 40 41.0**	**+0.9**
JFM	**Mihama**	**4.17**	**299**	P	**Pn**	**17 40 45.0**	**+2.5**
JIZZ	**Izumozaki**	**4.20**	**341**	P	**Pn**	**17 40 43.5**	**+0.6**
JWM	**Minabe**	**4.25**	**275**	⇓P	**Pn**	**17 40 46.3**	**+2.6**
JKG	**Kaga**	**4.33**	**310**	P	**Pn**	**17 40 47.9**	**+3.2**
JNS	**Sasagawa**	**4.34**	**348**	P	**Pn**	**17 40 44.1**	**-0.7**
JSZ	**Suzu**	**4.61**	**328**	P	**Pn**	**17 40 49.5**	**+0.9**
JYS	**Shirataka**	**4.65**	**356**	P	**Pn**	**17 40 47.6**	**-1.5**
JSD	**Sado**	**4.80**	**339**	P	**Pn**	**17 40 50.1**	**-1.1**
JIO	**Ouri**	**4.93**	**8**	P	**Pn**	**17 40 49.2**	**-3.7**
JHG	**Hegura jima**	**5.14**	**327**	P	**Pn**	**17 40 56.7**	**+0.8**
JOM	**Ohasama**	**5.93**	**6**	P	**Pn**	**17 41 03.2**	**-3.5**
CBIJ	**Chichi jima**	**6.63**	**166**	P	**Pn**	**17 41 13.5**	**-2.8**
	105nm,0.3s,baz=321,slow=6.6,SNR=44						
CBIJ				S	**Sn**	**17 42 24.0**	**-6.5**
	21nm,0.3s,baz=287,slow=19,SNR=2.8						
ERM	**Erimo**	**8.70**	**13**	Pn	**Pn**	**17 41 40.0**	**-4.6**
	614nm,0.6s,SNR=13						
ERM	**Erimo**	**8.70**	**13**	*e*Pn	**Pn**	**17 41 42.2**	**-2.4**
ASAJ	**Asahikawa**	**10.66**	**8**	P	**Pn**	**17 42 06.1**	**-5.3**
ASAJ				S	**Sn**	**17 43 59.4**	**-10**
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.3s						
ASAJ				smax			
	comp=N,5.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,471nm,22.0s						
ASAJ	**Asahikawa**	**10.66**	**8**	P	**Pn**	**17 42 06.0**	**-5.4**
	comp=Z,9.2nm,0.3s,baz=227,slow=9.3,SNR=79						
ASAJ				S	**Sn**	**17 43 59.4**	**-10**
	comp=Z,4.7nm,0.3s,baz=72,slow=28,SNR=4.4						
ASAJ				LR	LR	17 46 50.1	
	comp=Z,471nm,22.0s,baz=187,slow=40						
KSRS	**Korea Array**	**10.91**	**294**	P	**Pn**	**17 42 19.6**	**+4.7**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,2μm,18.0s						
KSRS	**Korea Array**	**10.91**	**294**	P	**Pn**	**17 42 19.6**	**+4.6**
	comp=Z,0.8nm,0.3s,baz=111,slow=14,SNR=66						
KSRS				LR	LR	17 46 38.9	
	comp=Z,2μm,18.0s,baz=107,slow=38						
YUK	**Yuzh-Kuril'sk**	**11.27**	**20**	*e*P	**Pn**	**17 42 15.0**	**-4.7**
YUK				pmax	pmax		
	comp=Z,110nm,0.5s						
INCN	**Inchon**	**11.91**	**293**	*e*Pn	**Pn**	**17 42 30.8**	**+2.3**
JOW	**Kunigami**	**12.48**	**241**	P	**Pn**	**17 42 41.6**	**+5.2**
	comp=Z,1.2nm,0.3s,baz=77,slow=5.2,SNR=4.6						
JOW				LR	LR	17 47 07.4	
	comp=Z,1μm,21.2s,baz=28,slow=36						
KUR	**Kuril'sk**	**12.97**	**24**	P	**Pn**	**17 42 46.7**	**+3.7**
KUR				pmax	pmax		
	comp=Z,140nm,0.9s						
YSS	**Yuzh-Sakhalins**	**13.48**	**7**	*e*P	**Pn**	**17 42 44.3**	**-5.6**
YSS	**Yuzh-Sakhalins**	**13.48**	**7**	*e*Pn	**Pn**	**17 42 44.9**	**-5.0**
MDJ	**Mudanjiang**	**13.87**	**326**	P	**Pn**	**17 42 53.3**	**-1.8**
MDJ				S	**Sn**	**17 45 26.3**	**-1.0**
MDJ				pmax	pmax		
	comp=Z,8.0nm,1.5s						
MDJ				LR	LR		
	comp=N,490nm,22.4s						
MDJ				LR	LR		
	comp=E,410nm,23.7s						
MDJ				LR	LR		
	comp=Z,680nm,27.0s						
MDJ	**Mudanjiang**	**13.87**	**326**	*e*Pn	**Pn**	**17 42 54.4**	**-0.7**
HABR	**Khabarovsk**	**15.43**	**346**	P	**Pn**	**17 43 11.3**	**-4.2**
HABR						17 46 01.0	
HABR				MLR	MLR		
	comp=Z,290nm,15.0s						
CN2	**Changchun**	**15.52**	**316**	*e*P	**Pn**	**17 43 15.6**	**-1.1**
CN2				*e*sP	sP	17 43 29.6	-9.4
CN2				*e*S	**S**	**17 46 05.5**	**-15**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,300nm,15.0s						
CN2				LR	LR		
	comp=E,500nm,15.0s						
CN2				LR	LR		
	comp=Z,500nm,17.0s						
SNY	**Shenyang**	**15.67**	**307**	⇑P	**Pn**	**17 43 18.3**	**-0.4**
SNY				pmax	pmax		
	comp=Z,4.0nm,0.5s						
SNY				pmax	pmax		
	comp=Z,150nm,7.1s						
SNY				LR	LR		
	comp=E,490nm,18.2s						
SNY				LR	LR		
	comp=Z,490nm,21.8s						
NJ2	**Nanjing**	**18.21**	**271**	*e*P	**Pn**	**17 43 52.0**	**+1.6**
NJ2				pP	pP	17 43 59.3	-2.8
NJ2				sP	sP	17 44 04.0	-5.0
NJ2				PP		17 44 07.4	
NJ2				S	**S**	**17 47 09.0**	**-6.6**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
NJ2				pmax	pmax		
	comp=Z,310nm,5.6s						
NJ2				LR	LR		
	comp=N,250nm,14.6s						
NJ2				LR	LR		
	comp=E,770nm,17.2s						
NJ2				LR	LR		
	comp=Z,14μm,19.1s						
YULB	**Yu-li**	**19.62**	**244**	*e*P	**Pn**	**17 44 04.4**	**-2.9**
	comp=Z,18nm,0.8s						
SSLB	**Suanglung**	**19.66**	**245**	*e*P	**Pn**	**17 44 06.3**	**-1.4**
	comp=Z,47nm,1.1s						
GUMO	**Guam**	**20.30**	**168**	P	**P**	**17 44 13.3**	**+0.5**
GUMO				S	**S**	**17 48 02.5**	**+5.0**
GUMO	**Guam**	**20.30**	**168**	P	**P**	**17 44 13.3**	**+0.4**
	comp=Z,89nm,0.8s,baz=342,slow=20,SNR=3.0						
GUMO				S	**S**	**17 48 02.5**	**+5.0**
	comp=Z,16nm,0.3s,baz=220,slow=23,SNR=7.6						
GUMO				LR	LR	17 51 06.7	
	comp=Z,360nm,21.8s,MS3.7,baz=332,slow=34						
GUMO	**Guam**	**20.30**	**168**	P	**P**	**17 44 13.3**	**+0.4**
GUMO				*e*P		17 44 16.3	
GUMO				S	**S**	**17 48 02.5**	**+5.0**
GUMO				LR	LR	17 51 06.7	
BJI	**Beijing**	**20.45**	**295**	P	**P**	**17 44 14.3**	**0.0**
BJI				pP		17 44 21.6	
BJI				sP	sP	17 44 26.1	-7.3
BJI				S	**S**	**17 48 00.4**	**+0.2**
BJI				sS	sS	17 48 13.8	-6.2
BJI				pmax	pmax		
	comp=Z,8.0nm,0.7s						
BJI				pmax	pmax		
	comp=Z,82nm,5.1s						
BJI				LR	LR		
	comp=N,390nm,15.3s						
BJI				LR	LR		
	comp=E,580nm,20.5s						
BJI				LR	LR		
	comp=Z,710nm,22.9s						
BJT	**Baijiatuau**	**20.45**	**295**	P	**P**	**17 44 11.9**	**-2.4**
SKR	**Severo-Kuril's**	**20.60**	**29**	*e*P	**P**	**17 44 13.3**	**-2.6**
QZH	**Quanzhou**	**20.89**	**251**	⇓*i*P	pP	17 44 30.1	-1.3
QZH				S	**S**	**17 48 07.1**	**-2.0**
QZH				pmax	pmax		
	comp=Z,640nm,12.1s						
QZH				LR	LR		
	comp=Z,810nm,21.5s,MS4.1						
HIA	**Hailar**	**21.96**	**322**	*e*P	**P**	**17 44 27.4**	**-3.1**
HIA				pmax	pmax		
	comp=Z,18nm,0.6s						
HIA	**Hailar**	**21.96**	**322**	*e*P	**P**	**17 44 27.4**	**-3.1**
	comp=Z,18nm,0.6s,mb4.7						
WHN	**Wuhan**	**22.30**	**269**	⇑P	**P**	**17 44 35.1**	**+0.8**
WHN				sP	sP	17 44 52.0	-1.5
WHN				S	**S**	**17 48 42.8**	**+6.1**
WHN				pmax	pmax		
	comp=Z,73nm,0.6s,mb5.3						
WHN				LR	LR		
	comp=N,510nm,11.5s,MS4.5						
WHN				LR	LR		
	comp=E,1μm,15.1s,MS4.5						
WHN				LR	LR		
	comp=Z,1μm,16.2s,MS4.4						
PEA0B	**Petropavlovsk-**	**23.10**	**27**	P	**P**	**17 44 41.9**	**-0.6**
PETK	**Petropavlovsk-**	**23.10**	**27**	P	**P**	**17 44 39.5**	**-3.0**
	comp=Z,1.8nm,0.3s,mb3.9,baz=191,slow=13,SNR=5.4						
PETK				LR	LR	17 53 46.9	
	comp=Z,77nm,20.7s,MS3.1,baz=222,slow=37						
PET	**Petropavlovsk**	**23.41**	**28**	*e*P	**P**	**17 44 45.9**	**+0.5**
PET				*e*S	**S**	**17 48 53.3**	**-0.9**
PET				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.4						
PET				MLR	MLR		
	comp=Z,300nm,17.0s,MS3.8						
HHC	**Hu-ho-hao-te**	**24.05**	**296**	*e*P	**P**	**17 44 50.9**	**-0.6**
HHC				pP		17 44 57.8	
HHC				sP	sP	17 45 02.1	-9.4
HHC				PP		17 45 24.5	
HHC				*e*S	**S**	**17 49 02.5**	**-2.4**
HHC				PcS	PcS	17 52 12.3	+0.9
HHC				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.4						
HHC				pmax	pmax		
	comp=Z,170nm,4.6s						
HHC				LR	LR		
	comp=N,140nm,10.4s,MS4.4						
HHC				LR	LR		
	comp=E,650nm,10.6s,MS4.4						
HHC				LR	LR		
	comp=Z,430nm,12.1s,MS4.1						
BTO	**Baotou**	**25.18**	**295**	*e*P	**P**	**17 44 59.9**	**-1.9**
NRGR	**Nerungri**	**25.49**	**340**	*e*P	**P**	**17 45 04.9**	**+0.5**
CLNS	**Chul'man**	**25.59**	**340**	*e*P	**P**	**17 45 04.5**	**-0.8**
CLNS				*e**PP	pP	17 45 10.1	-8.8
CLNS				*e*	pP	17 45 19.1	+0.2
CLNS				pmax	pmax		
	comp=Z,49nm,0.7s,mb5.2						
CLNS				pmax	pmax		
	comp=N,29nm,0.8s						
CLNS				pmax	pmax		
	comp=E,16nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,33nm,1.3s,mb4.7						
CLNS				pmax	pmax		
	comp=N,20nm,0.9s						
CLNS				pmax	pmax		
	comp=E,17nm,0.9s						
CLNS				MLR	MLR		
	comp=Z,212nm,18.0s,MS3.7						
CLNS				MLR	MLR		
	comp=N,135nm,15.0s,MS3.8						
CLNS				MLR	MLR		
	comp=E,172nm,17.0s,MS3.8						
XAN	**Xi'an**	**26.15**	**280**	P	**P**	**17 45 09.9**	**-0.7**
XAN				pP	pP	17 45 20.4	-3.8
XAN				sP	sP	17 45 24.3	-6.4
XAN				PP		17 46 01.1	
XAN				S	**S**	**17 49 50.3**	**+12**
XAN				PcS	PcS	17 52 11.0	-6.6
XAN				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.9						
XAN				pmax	pmax		
	comp=Z,79nm,6.8s						
XAN				LR	LR		
	comp=N,340nm,14.9s,MS4.3						
XAN				LR	LR		
	comp=E,570nm,16.7s,MS4.3						
XAN				LR	LR		
	comp=Z,760nm,16.0s,MS4.3						
CIT	**Chita**	**26.77**	**322**	*e*P	**P**	**17 45 13.5**	**-2.4**
CIT				*e*	pP	17 45 28.6	-1.0
CIT				pmax	pmax		
	comp=Z,95nm,1.8s,mb5.0						
ULN	**Ulaanbaatar**	**28.80**	**310**	*e*P	**P**	**17 45 34.6**	**+0.4**
ULN				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.8						
ULN	**Ulaanbaatar**	**28.80**	**310**	*e*P	**P**	**17 45 34.6**	**+0.5**
	comp=Z,15nm,0.7s,mb4.8						
SONM	**Songino Array**	**29.22**	**309**	P	**P**	**17 45 38.5**	**+0.7**
SONM				*PP	pP	17 45 51.4	-0.2
SONM						17 48 42.7	
SONM						17 52 19.3	
SONM	**Songino Array**	**29.22**	**309**	P	**P**	**17 45 38.5**	**+0.6**
	comp=Z,10.0nm,0.9s,mb4.6,baz=115,slow=7.8,SNR=54						
SONM				pP	pP	17 45 51.4	-0.2
	comp=Z,6.1nm,0.6s,baz=102,slow=9.4,SNR=7.6						
SONM				PcP	PcP	17 48 42.7	-1.1
	comp=Z,1.8nm,0.9s,baz=102,slow=2.6,SNR=3.8						
SONM				ScP	ScP	17 52 19.3	-1.5
	comp=Z,1.0nm,0.9s,baz=113,slow=1.9,SNR=3.5						
SONM				LR	LR	17 57 53.6	
	comp=Z,550nm,19.0s,MS4.2,baz=94,slow=37						
YAK	**Yakutsk**	**29.30**	**350**	*c i*P	**P**	**17 45 37.0**	**-1.4**
YAK				*e**PP	pP	17 45 42.9	-9.3
YAK				*e*		17 46 33.4	
YAK				*e*		17 48 39.9	
YAK				*e*S	**S**	**17 50 33.8**	**+6.3**
YAK				*e*SSS		17 52 26.8	
YAK				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.1						
YAK				pmax	pmax		
	comp=N,7.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,5.0nm,0.8s						
YAK				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.9						
YAK				smax			
	comp=N,89nm,2.3s						
YAK				smax			
	comp=E,76nm,2.0s						
YAK				MLR	MLR		
	comp=Z,255nm,17.0s,MS3.9						
YAK				MLR	MLR		
	comp=N,259nm,20.0s,MS3.9						
YAK				MLR	MLR		
	comp=E,76nm,17.0s,MS3.9						
YAK	**Yakutsk**	**29.30**	**350**	*e*P	**P**	**17 45 37.1**	**-1.3**
	comp=E,48nm,0.7s,mb5.3						
DAV	**Davao City (W)**	**29.75**	**211**	LR	LR	17 55 17.8	
	comp=E,349nm,21.0s,MS4.0,baz=4.1,slow=31						
GYA	**Guiyang**	**30.00**	**265**	⇑*i*P	**P**	**17 45 43.9**	**-1.2**
GYA				pP	pP	17 45 53.5	-5.3
GYA				sP	sP	17 45 57.5	-7.8
GYA				PP	PP	17 46 40.6	-13
GYA				PcP	PcP	17 48 48.4	+2.2
GYA				S	**S**	**17 50 37.1**	**-2.2**
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
GYA				pmax	pmax		
	comp=Z,90nm,5.2s						
GYA				LR	LR		
	comp=N,980nm,16.8s,MS4.7						
GYA				LR	LR		
	comp=E,920nm,15.7s,MS4.7						
GYA				LR	LR		
	comp=Z,1μm,20.9s						
LZH	**Lanzhou**	**30.04**	**285**	*e*P	**P**	**17 45 48.9**	**+3.6**
LZH				pP	pP	17 45 59.5	+0.4
LZH				sP	sP	17 46 03.6	-1.9
LZH				PP	PP	17 46 45.6	-8.2
LZH				PcP	PcP	17 48 46.8	+0.6
LZH				*e*S	**S**	**17 50 46.0**	**+6.3**
LZH				sS	sS	17 51 05.1	+2.1
LZH				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.6						
LZH				pmax	pmax		
	comp=Z,91nm,5.5s						
LZH				LR	LR		
	comp=E,770nm,14.5s						
LZH				LR	LR		
	comp=Z,970nm,15.4s,MS4.5						
BOD	**Bodaibo**	**30.12**	**332**	*e*P	**P**	**17 45 44.8**	**-0.9**
BOD				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.0						
SEY	**Seymchan**	**30.33**	**11**	⇑*e*P	**P**	**17 45 46.2**	**-1.3**
QIZ	**Qiongzhong**	**30.88**	**250**	P	**P**	**17 45 58.0**	**+5.1**
QIZ				*e*S	**S**	**17 51 02.1**	**+8.9**
QIZ				LR	LR		
	comp=Z,460nm,26.6s,MS4.0						
CD2	**Chengdu**	**31.04**	**275**	P	**P**	**17 45 53.4**	**-0.8**
CD2				pP	pP	17 46 02.9	-5.1
CD2				sP	sP	17 46 07.0	-7.4
CD2				PP	PP	17 46 55.8	-9.2
CD2				S	**S**	**17 50 54.0**	**-1.5**
CD2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
CD2				pmax	pmax		
	comp=Z,260nm,6.5s						
CD2				LR	LR		
	comp=N,440nm,14.9s						
CD2				LR	LR		
	comp=Z,490nm,17.2s,MS4.2						
ZAK	**Zakamensk**	**31.92**	**313**	⇑*i*P	**P**	**17 46 02.1**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.8						
IRK	**Irkutsk**	**31.96**	**317**	⇑*i*P	**P**	**17 46 02.0**	**0.0**
IRK				*e*S	**S**	**17 51 00.3**	**-9.0**
IRK				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.2						
TLY	**Talaya**	**32.12**	**315**	P	**P**	**17 46 04.4**	**+1.0**
	comp=Z,234nm,0.8s,mb6.1,SNR=12						
TLY	**Talaya**	**32.12**	**315**	⇑*i*P	**P**	**17 46 04.3**	**+0.9**
TLY				*e*S	**S**	**17 51 07.9**	**-4.0**
TLY				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.2						
TLY				MLR	MLR		
	comp=Z,246nm,17.0s,MS4.0						
TLY	**Talaya**	**32.12**	**315**	*e*P	**P**	**17 46 04.4**	**+1.0**
	comp=Z,34nm,0.9s,mb5.2						
GTA	**Gaotai**	**32.98**	**292**	*e*P	**P**	**17 46 11.5**	**+0.4**
GTA				pP	pP	17 46 21.3	-3.6
GTA				sP	sP	17 46 25.6	-5.7
GTA				PP	PP	17 47 21.8	-4.5
GTA				PcP	PcP	17 48 54.8	+0.8
GTA				S	**S**	**17 51 26.5**	**+1.0**
GTA				sS	sS	17 51 44.0	-4.9
GTA				ScP	ScP	17 52 32.9	-0.6
GTA				ScS	ScS	17 56 32.9	-0.8
GTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GTA				pmax	pmax		
	comp=Z,75nm,5.7s						
GTA				LR	LR		
	comp=N,230nm,14.6s,MS4.2						
GTA				LR	LR		
	comp=E,250nm,15.5s,MS4.2						
GTA				LR	LR		
	comp=Z,360nm,16.6s,MS4.2						
MOY	**Mondy**	**33.68**	**314**	*e*P	**P**	**17 46 17.6**	**+0.5**
KMI	**Kunming**	**33.78**	**266**	P	**P**	**17 46 18.9**	**+0.7**
KMI				pP	pP	17 46 28.4	-3.7
KMI				sP	sP	17 46 32.5	-6.0
KMI				PP	PP	17 47 33.3	-2.1
KMI				S	**S**	**17 51 38.4**	**+0.2**
KMI				sS	sS	17 51 56.4	-5.3
KMI				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
KMI				pmax	pmax		
	comp=Z,89nm,4.9s						
KMI				LR	LR		
	comp=N,230nm,16.3s,MS4.3						
KMI				LR	LR		
	comp=E,450nm,16.3s,MS4.3						
KMI				LR	LR		
	comp=Z,450nm,15.8s,MS4.3						
BILL	**Bilibino**	**37.57**	**16**	⇑*e*P	**P**	**17 46 48.7**	**-1.4**
BILL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.4						
BILL	**Bilibino**	**37.57**	**16**	*e*P	**P**	**17 46 48.4**	**-1.7**
	comp=Z,8.2nm,0.9s,mb4.5						
CHTO	**Chiang Mai**	**39.76**	**259**	*e*P	**P**	**17 47 08.3**	**-0.8**
CHTO				pmax	pmax		

	comp=Z,7.0nm,1.0s,mb4.3						
CHTO	Chiang Mai	39.76	259	*e*P	P	17 47 08.3	-0.8
	comp=Z,6.7nm,1.0s,mb4.3						
CMAR	Chiang Mai Arr	39.94	258	P	P	17 47 10.1	-0.5
CMAR						17 49 15.5	
CMAR	Chiang Mai Arr	39.94	258	P	P	17 47 10.1	-0.5
	comp=Z,3.7nm,0.8s,mb4.2,baz=46,slow=7.2,SNR=32						
CMAR				PcP	PcP	17 49 15.5	+0.3
	comp=Z,3.1nm,0.9s,baz=20,slow=0.6,SNR=9.3						
CMAR				ScP	ScP	17 52 59.9	+0.3
	comp=Z,0.8nm,0.4s,baz=28,slow=3.9,SNR=5.8						
CMAR				LR	LR	18 04 18.1	
	comp=Z,174nm,20.5s,MS3.9,baz=67,slow=37						
WMQ	Urumqi	41.79	300	*e*P	P	17 47 25.8	+0.2
WMQ				pP	pP	17 47 36.0	-3.8
WMQ				PP	PP	17 49 06.0	+3.1
WMQ				S	S	17 53 39.0	-0.1
WMQ				sS	sS	17 53 57.0	-6.0
WMQ				pmax	pmax		
	comp=Z,200nm,6.0s						
WMQ				LR	LR		
	comp=Z,3µm,19.9s,MS5.2						
LSA	Lhasa	41.84	279	P	P	17 47 28.6	+2.5
LSA	Lhasa	41.84	279	*e*P	P	17 47 28.1	+2.0
LSA				pmax	pmax		
	comp=Z,26nm,2.1s,mb4.5						
LSA	Lhasa	41.84	279	*e*P	P	17 47 28.1	+2.0
	comp=Z,26nm,2.1s,mb4.5						
ZAA0	Zalesovo Array	43.73	315	*e*P	P	17 47 40.3	-0.9
ZAA0				*e*		17 49 26.2	
ZALV	Zalesovo Beam	43.73	315	P	P	17 47 40.5	-0.6
ZALV						17 49 26.3	
ZALV	Zalesovo Beam	43.73	315	P	P	17 47 40.5	-0.6
	comp=Z,8.4nm,0.3s,mb4.9,baz=107,slow=7.6,SNR=88						
ZALV				PcP	PcP	17 49 26.2	-0.9
	comp=Z,15nm,0.8s,baz=96,slow=3.2,SNR=11						
ZALV				ScP	ScP	17 53 12.4	-1.7
	comp=Z,4.5nm,0.9s,baz=73,slow=5.0,SNR=9.5						
ZALV				LR	LR	18 06 39.9	
	comp=Z,136nm,20.6s,MS3.8,baz=80,slow=37						
TNA	Tin City	44.27	28	*e*P	P	17 47 45.2	-0.1
	comp=Z,8.2nm,0.9s,mb4.5						
NVS	Novosibirsk	44.72	316	*i* P	P	17 47 48.5	-0.5
NVS				*i*		17 49 27.6	
NVS				*e*S	S	17 54 22.3	+0.6
NVS				pmax	pmax		
	comp=N,8.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,34nm,0.8s						
NVS				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.3						
NVS				pmax	pmax		
	comp=N,2.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
NVS				smax			
	comp=N,18nm,1.9s						
MKAR	Makanchi Array	45.37	305	P	P	17 47 54.4	+0.1
MKAR						17 49 32.9	
MKAR	Makanchi Array	45.37	305	P	P	17 47 54.4	+0.1
	comp=N,43nm,0.8s,mb5.3,baz=90,slow=9.4,SNR=278						
MKAR				PcP	PcP	17 49 32.9	0.0
	comp=N,3.2nm,0.8s,baz=96,slow=2.9,SNR=2.8						
MKAR				ScP	ScP	17 53 19.7	-1.3
	comp=N,3.5nm,0.8s,baz=84,slow=5.0,SNR=12						
MKAR				LR	LR	18 07 37.4	
	comp=N,241nm,20.1s,MS4.1,baz=79,slow=37						
TAPN	Taplejung	45.48	277	*e*P	P	17 47 55.5	+0.1
	comp=N,8.5nm,0.4s,mb4.9						
ODAN	Odare	45.92	276	*e*P	P	17 47 59.0	+0.1
	comp=N,13nm,0.4s,mb5.2						
RAMN	Ramite	46.55	277	*e*P	P	17 48 03.0	-0.8
	comp=N,15nm,0.3s,mb5.4						
HNR	Honiara	46.61	153	LR	LR	18 03 48.8	
	comp=N,186nm,19.9s,MS4.0,baz=250,slow=31						
JIRN	Jiri	46.62	278	*e*P	P	17 48 04.3	-0.1
	comp=N,27nm,0.3s,mb5.6						
KAKA	Kakadu	46.65	191	*e*P	P	17 48 04.0	-0.6
	comp=N,15nm,0.8s,mb5.0						
KAKA	Kakadu	46.65	191	*e*P	P	17 48 03.5	-1.1
GUN	Gumba	46.79	278	*e*P	P	17 48 05.6	-0.1
PKI	Pulchoki	47.30	278	*e*P	P	17 48 09.2	-0.5
KKN	Kakani	47.33	278	*e*P	P	17 48 09.5	-0.4
	comp=N,16nm,0.6s,mb5.2						
KKN	Kakani	47.33	278	*e*P	P	17 48 09.5	-0.4
KKN				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
COEN	Coen	47.33	176	*e*P	P	17 48 09.8	-0.1
	comp=Z,58nm,0.7s,mb5.6						
KURK	Kurchatov	47.51	311	P	P	17 48 10.0	-1.0
	comp=Z,440nm,0.8s,SNR=10						
KURK	Kurchatov	47.51	311	P	P	17 48 10.8	-0.2
KURK				*PP	pP	17 48 27.3	+1.9
KURK				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
KURK				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
KURK				pmax	pmax		
	comp=N,1.0nm,0.9s						
KURK	Kurchatov	47.51	311	P	P	17 48 10.8	-0.2
	comp=N,32nm,0.8s,mb5.4,baz=87,slow=7.7,SNR=115						
KURK				pP	pP	17 48 27.3	+1.9
	comp=N,8.4nm,0.6s,baz=88,slow=7.3,SNR=3.4						
KURK				ScP	ScP	17 53 28.9	-1.0
	comp=N,1.4nm,0.9s,baz=81,slow=4.1,SNR=3.9						
KURK	Kurchatov	47.51	311	*e*P	P	17 48 10.1	-0.9
	comp=N,55nm,0.8s,mb5.6						
DMN	Daman	47.54	278	*e*P	P	17 48 10.7	-0.9
	comp=N,3.9nm,0.3s,mb4.9						
GKN	Gorkha	47.78	279	*e*P	P	17 48 12.5	-1.0
	comp=N,19nm,0.6s,mb5.3						
DANN	Dangsing	48.38	280	*e*P	P	17 48 18.1	0.0
KOLN	Koldanda	48.72	279	*e*P	P	17 48 20.3	-0.4
	comp=N,10nm,0.3s,mb5.4						
KDAK	Kodiak Island	50.23	40	P	P	17 48 30.2	-1.5
	comp=N,38nm,0.8s,mb5.5,baz=226,slow=8.2,SNR=17						
KDAK				LR	LR	18 07 23.7	
	comp=N,223nm,19.3s,MS4.2,baz=251,slow=33						
TKM2	Tokmak 2	50.65	301	*e*P	P	17 48 35.7	+0.6
TKM2				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
TKM2	Tokmak 2	50.65	301	P	P	17 48 36.0	+0.9
	SNR=36						
TKM2	Tokmak 2	50.65	301	*e*P	P	17 48 35.7	+0.6
	comp=Z,24nm,0.8s,mb5.2						
KZA	Kyzart	51.08	300	P	P	17 48 40.1	+1.7
	SNR=26						
KSH	Kashi	51.16	296	P	P	17 48 43.0	+4.0
KSH				*e*pP	pP	17 48 53.0	-0.6
KSH				*e*sP	sP	17 48 57.1	-2.7
KSH				*e*PP	PP	17 50 40.1	+4.1
KSH				*e*S	S	17 55 58.6	+5.4
KSH				*e*sS	sS	17 56 14.9	-2.8
KSH				*e*ScS	ScS	17 58 27.0	+2.3
KSH				*e*SS	SS	17 59 32.3	+3.6
KSH				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
KSH				pmax	pmax		
	comp=Z,120nm,3.5s						
KSH				LR	LR		
	comp=N,530nm,6.5s						
KSH				LR	LR		
	comp=E,440nm,11.8s						
KSH				LR	LR		
	comp=Z,320nm,8.7s						
KBK	Karagaybulak	51.17	300	P	P	17 48 39.7	+0.7
	SNR=63						
USP	Ospenovka	51.36	301	P	P	17 48 40.7	+0.2
	SNR=16						
AAK	Ala-Archa	51.50	301	P	P	17 48 41.4	-0.1
	comp=Z,186nm,0.9s,mb6.0,SNR=16						
AAK	Ala-Archa	51.50	301	⇑*e*P	P	17 48 41.6	+0.1
AAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
AAK	Ala-Archa	51.50	301	P	P	17 48 41.8	+0.3
	SNR=28						
AAK	Ala-Archa	51.50	301	*e*P	P	17 48 41.8	+0.2
	comp=Z,22nm,0.8s,mb5.2						
UCH	Uchtor	51.58	300	P	P	17 48 43.4	+1.3
	SNR=17						
UCH	Uchtor	51.58	300	*e*P	P	17 48 43.0	+0.9
	comp=Z,12nm,0.8s,mb4.9						
PMR	Palmer	51.89	35	*e*P	P	17 48 42.9	-1.2
PMR				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
PMR	Palmer	51.89	35	*e*P	P	17 48 42.9	-1.2
	comp=Z,31nm,1.1s,mb5.2						
MCK	McKinley	51.96	32	*e*P	P	17 48 44.4	-0.2
MCK				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
MCK	McKinley	51.96	32	*e*P	P	17 48 44.4	-0.2
	comp=Z,13nm,0.8s,mb4.9						
EKS2	Erkin-Say	52.01	301	P	P	17 48 45.5	+0.2
	SNR=15						
EKS2	Erkin-Say	52.01	301	*e*P	P	17 48 44.5	-0.9
	comp=Z,14nm,0.8s,mb5.0						
AML	Almayashu	52.19	300	P	P	17 48 47.9	+1.2
	SNR=76						
AML	Almayashu	52.19	300	*e*P	P	17 48 47.6	+0.9
	comp=Z,84nm,0.8s,mb5.7						
BRVK	Borovoye	52.42	314	P	P	17 48 48.1	-0.1
	comp=Z,129nm,0.6s,mb6.0,SNR=14						
BRVK	Borovoye	52.42	314	*e*P	P	17 48 47.7	-0.5
BRVK				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
BRVK	Borovoye	52.42	314	*e*P	P	17 48 47.7	-0.5
	comp=Z,17nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	53.29	198	*e*P	P	17 48 54.5	-0.4
	comp=Z,9.4nm,0.8s,mb4.8						
FITZ	Fitzroy Crossi	53.29	198	P	P	17 48 54.2	-0.7
	comp=Z,3.1nm,0.4s,mb4.6,baz=0.8,slow=11,SNR=16						
WRAB	Tennant Creek	53.52	187	P	P	17 48 56.0	-0.6
	comp=Z,502nm,0.4s						
WRAB	Tennant Creek	53.52	187	*e*P	P	17 48 56.1	-0.5
WRAB				pmax	pmax		
	comp=Z,73nm,0.7s,mb5.7						
WRAB	Tennant Creek	53.52	187	*e*P	P	17 48 56.1	-0.5
	comp=Z,73nm,0.7s,mb5.7						
WRA	Warramunga Arr	53.53	187	P	P	17 48 56.1	-0.6
	comp=Z,38nm,0.3s,mb5.8,baz=22,slow=7.2,SNR=570						
WRA				ScP	ScP	17 53 54.5	-1.5
	comp=Z,5.7nm,0.9s,baz=360,slow=4.3,SNR=9.7						
WRA				S	S	17 56 21.9	-3.8
	comp=Z,1.2nm,0.8s,baz=7.3,slow=13,SNR=5.8						
CTA	Charters Tower	53.65	173	*e*P	P	17 48 57.7	+0.2
	comp=Z,3.2nm,0.8s,mb4.3						
CTA	Charters Tower	53.65	173	P	P	17 48 56.5	-1.0
	comp=Z,3.7nm,0.7s,mb4.4,baz=352,slow=6.1,SNR=6.8						
CTA				LR	LR	18 10 38.2	
	comp=Z,120nm,18.8s,MS4.0,baz=149,slow=35						
CTAO	Charters Tower	53.65	173	*e*P	P	17 48 57.4	-0.1
CTAO				pmax	pmax		
	comp=Z,45nm,1.8s,mb5.1						
CTAO				MLR	MLR		
	comp=Z,334nm,19.0s,MS4.4						
CTAO	Charters Tower	53.65	173	*e*P	P	17 48 57.4	0.0
	comp=Z,45nm,1.8s,mb5.1						
CTAO				LR	LR		
	comp=Z,334nm,19.0s,MS4.4						
MENT	Mentasta	54.35	33	*e*P	P	17 49 01.6	-0.6
DAWY	Dawson	56.15	31	*e*P	P	17 49 15.3	+0.2
SVE	Sverdlovsk	57.25	320	⇓*e*P	P	17 49 23.0	0.0
SVE				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.5						
ASAR	Alice Springs	57.26	187	P	P	17 49 23.0	-0.4
	comp=Z,18nm,0.4s,mb5.5,baz=0.5,slow=6.1,SNR=476						
ASAR				S	S	17 57 13.6	-1.7
	comp=Z,1.6nm,1.0s,baz=19,slow=22,SNR=8.6						
HYB	Hyderabad	57.37	270	*i* P	P	17 49 25.0	+0.6
HYB	Hyderabad	57.37	270	*e*P	P	17 49 23.0	-1.4
HYT	Haines Junctio	57.56	35	*e*P	P	17 49 26.1	+0.9
INK	Inuvik	57.83	26	P	P	17 49 25.9	-1.1
INK				pmax	pmax		
	comp=Z,12nm,0.8s						
INK	Inuvik	57.83	26	P	P	17 49 25.9	-1.0
	comp=Z,12nm,0.8s,mb5.0,baz=286,slow=6.3,SNR=53						
KBL	Kabul	57.96	293	*e*P	P	17 49 27.8	-0.6
KBL				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
KBL	Kabul	57.96	293	*e*P	P	17 49 27.8	-0.6
	comp=Z,16nm,0.8s,mb5.1						
ARU	Arti	58.46	320	P	P	17 49 30.4	-1.1
	comp=Z,342nm,0.6s,SNR=25						
ARU	Arti	58.46	320	*d* *i*P	P	17 49 30.7	-0.8
ARU				*e*		17 50 20.4	
ARU				*e*		17 51 39.5	
ARU				S	S	17 57 31.8	+1.3
ARU				SS	SS	18 01 29.0	+6.1
ARU				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.6						
ARU	Arti	58.46	320	*e*P	P	17 49 30.5	-1.0
	comp=Z,53nm,0.9s,mb5.6						
SKAG	Skagway	58.93	36	*e*P	P	17 49 34.8	0.0
	comp=Z,27nm,1.1s,mb5.2						
POO	Poona	60.76	274	*e*PKP	P	17 49 45.0	-2.9
DLBC	Dease Lake	61.85	37	P	P	17 49 54.5	-0.1
	comp=Z,5.8nm,0.8s,mb4.8,baz=302,slow=11,SNR=8.7						
PRGR	Permogore	63.25	328	*e*P	P	17 50 02.5	-1.5
PRGR				pmax	pmax		
	comp=Z,37nm,0.6s,mb5.7						
ARMA	Armidale	64.52	169	*e*P	P	17 50 18.7	+6.2
FORT	Forrest	65.06	192	*e*P	P	17 50 16.4	+0.3
	comp=Z,40nm,0.5s,mb5.7						
FORT	Forrest	65.06	192	*e*P	P	17 50 16.6	+0.5
	comp=Z,67nm,0.9s,mb5.7						
STKA	Stephens Creek	65.11	179	*e*P	P	17 50 16.3	-0.1
	comp=Z,8.0nm,1.1s,mb4.7						
STKA	Stephens Creek	65.11	179	P	P	17 50 15.9	-0.5
	comp=Z,3.4nm,0.4s,mb4.7,baz=347,slow=7.3,SNR=16						
STKA				LR	LR	18 17 29.0	
	comp=Z,115nm,20.3s,MS4.1,baz=24,slow=35						
APA	Apatity	65.52	336	⇑*i*P	P	17 50 19.0	+0.3
APA				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
APA				MLR	MLR		
	comp=Z,900nm,21.0s,MS5.0						
RES	Resolute Bay	66.14	14	*e*P	P	17 50 21.5	-1.1
RES				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
RES	Resolute Bay	66.14	14	*e*P	P	17 50 21.5	-1.1
	comp=Z,12nm,1.1s,mb4.9						
KLMR	Klimovskoe	66.27	328	⇑*i*P	P	17 50 22.4	-1.2
KLMR				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.5						
KEV	Kevo	66.40	340	*e*P	P	17 50 21.2	-3.1
KEV				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
KEV	Kevo	66.40	340	*e*p	P	17 50 21.2	-3.1
	comp=Z,11nm,0.9s,mb4.9						
ARCES	ARCESS Array B	66.96	340	P	P	17 50 27.1	-0.8
	comp=Z,6.8nm,0.7s,mb4.8,baz=64,slow=7.0,SNR=51						
ARCES				LR	LR	18 22 36.8	
	comp=Z,172nm,19.3s,MS4.3,baz=157,slow=38						
YKA	Yellowknife Ar	67.20	29	P	P	17 50 28.2	-1.3
YKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
YKA	Yellowknife Ar	67.20	29	P	P	17 50 28.2	-1.3
	comp=Z,4.4nm,0.8s,mb4.5,baz=296,slow=6.3,SNR=53						
JOF	Joensuu	68.65	332	*e*p	P	17 50 36.9	-1.7
	comp=Z,10.0nm,0.4s,mb5.1						
MUN	Mundaring	69.09	202	*e*P	P	17 50 42.4	+0.8
NWAO	Narrogin (SRO)	69.66	201	P	P	17 50 45.2	+0.1
	comp=Z,29nm,0.6s,mb5.4,baz=27,slow=5.8,SNR=40						
NWAO	Narrogin (SRO)	69.66	201	P	P	17 50 45.2	+0.1
VRHR	Novokhopersk	69.73	318	*e*P	P	17 50 44.5	-1.0
VRHR				pmax	pmax		
	comp=N,50nm,0.6s						
VRHR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
OBN	Obninsk	70.40	324	⇑*e*P	P	17 50 48.7	-0.8
OBN				pmax	pmax		
	comp=Z,59nm,1.7s,mb5.2						
OBN	Obninsk	70.40	324	*e*P	P	17 50 48.1	-1.4
	comp=Z,27nm,0.8s,mb5.2						
B06A	Marblemount	70.54	44	⇓P	P	17 50 50.4	-0.1
	baz=70						
A07A	Ashnola River,	70.92	43	⇑P	P	17 50 53.1	+0.3
	baz=71						
KAF	Kangasniemi	71.02	333	*e*P	P	17 50 51.4	-1.8
KAF				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
KAF	Kangasniemi	71.02	333	*e*p	P	17 50 51.4	-1.8
	comp=Z,18nm,0.7s,mb5.1						
VSR	Storozhevoye	71.02	319	*e*P	P	17 50 52.3	-1.1
VSR				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
VSR				pmax	pmax		
	comp=N,20nm,1.0s						
VSR				pmax	pmax		
	comp=E,30nm,1.0s						
VORD	Divnogorie	71.08	319	*e*P	P	17 50 52.1	-1.6
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
F04A	Amboy	71.23	47	⇓P	P	17 50 55.0	+0.3
	baz=71						
B07A	Winthrop	71.36	44	⇑P	P	17 50 55.0	-0.5
	baz=71						
G04A	Mulino	71.55	48	⇑P	P	17 50 57.3	+0.7
	baz=71						
D06A	Cle Elum	71.56	45	⇓P	P	17 50 56.9	+0.2
	baz=71						
A08A	Turner Farm, O	71.60	43	⇑P	P	17 50 56.8	-0.1
	baz=71						
ETW	Entiat	71.66	45	*e*P	P	17 50 57.9	+0.6
C07A	Waterville	71.78	45	⇑P	P	17 50 58.3	+0.3
	baz=72						
E06A	Yakima	71.80	46	⇓P	P	17 50 58.7	+0.5
	baz=72						
B08A	Colville Reser	71.86	44	⇓P	P	17 50 58.5	0.0
	baz=72						
A09A	Danville	71.98	43	⇓P	P	17 50 59.2	0.0
	baz=72						
H04A	Detroit Lake	71.98	48	⇓P	P	17 50 59.4	+0.1
	baz=72,SNR=7.0						
HOOD	Mount Hood Mea	72.00	47	*e*P	P	17 51 00.9	+1.6
	comp=E,33nm,1.2s,mb5.1						
D07A	Quincy	72.08	45	⇓P	P	17 51 00.1	+0.3
	baz=72						
G05A	Wamic	72.24	47	⇑P	P	17 51 01.4	+0.6
	baz=72						
F06A	Goldendale	72.31	47	⇑P	P	17 51 01.5	+0.3
	baz=72						
C08A	Higginbotham F	72.32	44	⇓P	P	17 51 01.0	-0.2
	baz=72						
E07A	Sunnyside	72.47	46	⇑P	P	17 51 02.2	0.0
	baz=72						
B09A	Rice	72.51	43	⇓P	P	17 51 02.5	+0.1
	baz=72						
A10A	Northport	72.56	42	⇓P	P	17 51 02.7	0.0
	baz=72						
EDM	Edmonton	72.56	37	*e*P	P	17 51 02.8	+0.2
CROR	Criterion Ridg	72.57	47	P	P	17 51 03.6	+0.8
KIV	Kislovodsk	72.59	311	P	P	17 51 03.0	+0.1
	comp=E,244nm,0.6s,SNR=6.3						
KIV	Kislovodsk	72.59	311	*e*P	P	17 51 03.3	+0.4
KIV				*e*		18 01 06.1	
KIV				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
KIV				MLR	MLR		
	comp=Z,133nm,20.0s,MS4.2						
KIV	Kislovodsk	72.59	311	*e*P	P	17 51 03.1	+0.2
	comp=Z,27nm,0.7s,mb5.3						
G06A	Carlson Farm,	72.66	47	⇑P	P	17 51 03.4	+0.1
	baz=72,SNR=5.7						
OD2	Odessa Site #2	72.72	44	*e*P	P	17 51 03.9	+0.3
VTHM	Trough	72.73	47	P	P	17 51 04.2	+0.4
F07A	Phinny Hill Vi	72.76	46	⇑P	P	17 51 04.2	+0.3
	baz=72						
C09A	Chrisman Ranch	72.76	44	⇑P	P	17 51 04.0	+0.1
	baz=72						
D08A	Wollman Farm,	72.76	45	⇑P	P	17 51 03.8	-0.1
	baz=72						
E08A	Dider Farm, El	72.97	45	⇓P	P	17 51 05.4	+0.3
	baz=73						
VIPM	Ingram Point	73.04	48	P	P	17 51 06.1	+0.5
H06A	Lindquist Farm	73.10	47	⇓P	P	17 51 05.9	-0.1
	baz=73,SNR=6.5						
D09A	Jones Farm, Ri	73.12	44	⇑P	P	17 51 06.0	0.0
	baz=73						
GNI	Garni	73.15	307	P	P	17 51 07.4	+1.1
GNI				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GNI	Garni	73.15	307	P	P	17 51 07.4	+1.1
	comp=Z,2.7nm,0.5s,mb4.5,baz=24,slow=12,SNR=3.6						
GNI	Garni	73.15	307	*e*P	P	17 51 07.2	+0.9
	comp=Z,20nm,0.9s,mb5.0						
G07A	Ruggs Ranch, H	73.23	47	⇓P	P	17 51 06.8	+0.1
	baz=73,SNR=5.2						
A11A	Hall Mountain,	73.24	42	⇑P	P	17 51 06.8	+0.1
	baz=73						
F08A	Pendleton	73.50	46	⇑P	P	17 51 08.6	+0.3
	baz=73,SNR=7.2						
E09A	Wood Farm, Sta	73.50	45	⇓P	P	17 51 08.6	+0.3
	baz=73,SNR=7.3						
B11A	Sandpoint	73.52	43	⇑P	P	17 51 08.2	-0.1
	baz=73						
I06A	Prineville	73.58	48	⇓P	P	17 51 09.1	+0.3
	baz=73,SNR=6.4						
H07A	Lands Inn, Kim	73.64	47	⇓P	P	17 51 09.5	+0.3
	baz=73						
A12A	Yaak River Ran	73.65	42	⇑P	P	17 51 09.7	+0.6
	baz=73						
G08A	Pilot Rock	73.65	46	⇑P	P	17 51 09.1	-0.1
	baz=73,SNR=5.8						
D10A	Wagner Farm, O	73.73	44	⇓P	P	17 51 09.6	0.0
	baz=74						
LNOR	Lincton Mounta	73.75	46	*e*P	P	17 51 11.8	+2.0
K05A	Summer Lake	73.77	49	⇓P	P	17 51 10.5	+0.6
	baz=74,SNR=12						
I07A	Izee	73.94	48	⇑P	P	17 51 11.2	+0.3
	baz=74,SNR=7.3						
J06A	Christmas Vall	73.97	49	⇑P	P	17 51 11.4	+0.3
	baz=74,SNR=9.1						
E10A	Myers Farm, Un	74.12	45	⇑P	P	17 51 12.2	+0.3
	baz=74						
SUMG	Summit	74.14	360	*e*P	P	17 51 12.2	+0.6
	comp=Z,16nm,0.7s,mb5.0						
H08A	Prairie City	74.23	47	⇓P	P	17 51 12.9	+0.3
	baz=74,SNR=7.8						
D11A	Klaveano Farm,	74.28	44	⇓P	P	17 51 12.7	-0.1
	baz=74,SNR=5.2						
F10A	Beach Ranch, E	74.33	45	⇑P	P	17 51 13.1	0.0
	baz=74						
A13A	Flathead Natio	74.34	41	⇑P	P	17 51 13.4	+0.3
	baz=74						
G09A	Cove	74.37	46	⇓P	P	17 51 13.5	+0.2
	baz=74,SNR=12						
J07A	Hines	74.43	48	⇑P	P	17 51 14.3	+0.6
	baz=74,SNR=12						
WALA	Waterton Lakes	74.55	41	*e*P	P	17 51 14.9	+0.6
	comp=Z,3.4nm,2.5s,mb3.8						
MOD	Modoc	74.57	50	*e*P	P	17 51 15.1	+0.4
I08A	Drewsey	74.61	47	⇑P	P	17 51 15.2	+0.4
	baz=74						
B13A	Whitefish	74.62	42	⇓P	P	17 51 15.1	+0.4
	baz=74,SNR=7.0						
E11A	Bogner Ranch,	74.72	44	⇑P	P	17 51 15.4	0.0
	baz=74,SNR=5.7						
G10A	Bishop Farm, J	74.75	46	⇓P	P	17 51 15.8	+0.2
	baz=74,SNR=13						
H09A	Durkee	74.76	46	⇑P	P	17 51 15.8	+0.2
	baz=74						
K07A	Rock Creek Ran	74.83	49	⇑P	P	17 51 16.4	+0.3
	baz=75,SNR=11						
A14A	Double T Ranch	74.86	41	⇓P	P	17 51 16.4	+0.3
	baz=75,SNR=6.5						
BMO	Blue Mountains	74.88	46	*e*P	P	17 51 16.5	+0.2
	comp=Z,16nm,0.9s,mb5.0						
MICGM	Minsk	74.92	326	*e*	P	17 51 15.0	-1.4
C13A	Hot Springs	74.94	43	⇓P	P	17 51 16.8	+0.1
	baz=75,SNR=9.5						
MNK	Minsk	74.94	326	*e*P	P	17 51 15.0	-1.5
J08A	Circle Bar Ran	74.96	48	⇑P	P	17 51 17.0	+0.2
	baz=75,SNR=6.6						
F11A	Grangeville	75.00	45	⇑P	P	17 51 17.4	+0.4
	baz=75						
JTMT	Jette	75.06	42	*e*P	P	17 51 17.9	+0.6
I09A	Lost Marbles R	75.08	47	⇑P	P	17 51 17.6	+0.1
	baz=75						
L07A	Adell	75.12	49	⇑P	P	17 51 18.5	+0.7
	baz=75,SNR=11						
YBMT	Yellow Bay	75.15	42	*e*P	P	17 51 18.7	+0.8
NACGM	Naroch	75.18	327	*e*	P	17 51 15.0	-2.9
A15A	Johnson Ranch,	75.24	41	⇓P	P	17 51 18.4	+0.1
	baz=75						
K08A	Mann Creek Ran	75.28	48	⇓P	P	17 51 19.3	+0.6
	baz=75,SNR=6.3						
D13A	Huson	75.33	43	⇑P	P	17 51 18.8	-0.1
	baz=75,SNR=5.8						
WVOR	Wild Horse Val	75.35	49	*e*P	P	17 51 19.5	+0.4
WVOR				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
WVOR	Wild Horse Val	75.35	49	*e*P	P	17 51 19.5	+0.4
	comp=Z,15nm,0.9s,mb4.9						

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H10A  Noah's Angus R   75.36  46 ⇓P      P       17 51 18.9 -0.2
      baz=75,SNR=20
SWMT  Swartz Lake      75.36  42 eP      P       17 51 19.7 +0.7
ANN   Anapa            75.36 314 eP      P       17 51 21.3 +2.2
J09A  Fry Pan Ranch,   75.41  48 ⇑P      P       17 51 20.0 +0.6
      baz=75
SCO   Scoresbysund     75.47 354 i P     P       17 51 19.5 +0.2
SCO                                pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.8
SCO   Scoresbysund     75.47 354 i P     P       17 51 19.5 +0.2
      comp=Z,9.5nm,0.8s,mb4.8
N06A  Buffalo Meadow   75.48  51 ⇑P      P       17 51 20.2 +0.4
      baz=75
M07A  Soldier Meadow   75.56  50 ⇑P      P       17 51 20.9 +0.6
      baz=75
I10A  Payette          75.59  47 ⇑P      P       17 51 20.8 +0.3
      baz=75
BEKR  Beckwourth       75.60  52 ⇓P      P       17 51 20.4 -0.1
      baz=75
F12A  Elk City         75.61  44 ⇑P      P       17 51 20.5  0.0
      baz=75,SNR=20
L08A  Fields           75.66  49 ⇑P      P       17 51 21.1 +0.2
      baz=76
B15A  Bradely Ranch,   75.70  41 ⇓P      P       17 51 21.1 +0.1
      baz=76,SNR=17
H11A  Donnelly         75.73  46 ⇓P      P       17 51 21.0 -0.2
      baz=76,SNR=11
K09A  Rome             75.78  48 ⇑P      P       17 51 21.3 -0.2
      baz=76
O06A  Flanigan         75.79  51 ⇑P      P       17 51 21.9 +0.2
      baz=76
SLMT  Seeley Lake      75.79  42 eP      P       17 51 21.9 +0.4
E13A  Victor           75.84  43 ⇑P      P       17 51 21.7 -0.1
      baz=76
A16A  West Butte Ran   75.87  40 ⇑P      P       17 51 21.5 -0.4
      baz=76,SNR=9.8
D14A  Greenough        75.87  43 ⇓P      P       17 51 21.9 -0.1
      baz=76,SNR=6.1
G12A  Big Creek, Yel   75.91  45 ⇓P      P       17 51 22.3  0.0
      baz=76
J10A  Berg Farm, Mel   75.97  47 ⇑P      P       17 51 22.8 +0.2
      baz=76
C15A  Salmond Ranch,   75.99  42 ⇓P      P       17 51 22.6  0.0
      baz=76,SNR=13
B16A  M & M Farms, S   76.12  41 ⇓P      P       17 51 23.3  0.0
      baz=76,SNR=5.2
F13A  Darby            76.12  44 ⇓P      P       17 51 23.5  0.0
      baz=76,SNR=9.2
K10A  MacKenzie Ranc   76.26  48 ⇑P      P       17 51 24.5 +0.2
      baz=76
PAHR  Pah Rah Range    76.32  51 eP      P       17 51 25.4 +0.7
      comp=Z,19nm,1.4s,mb4.8
A17A  Triple J Farms   76.35  40 ⇓P      P       17 51 24.2 -0.5
      baz=76
O07A  Toulon           76.41  51 ⇓P      P       17 51 25.4 +0.2
      baz=76
C16A  Fuhringer Ranc   76.45  41 ⇑P      P       17 51 25.2  0.0
      baz=76,SNR=7.2
D15A  Lincoln          76.45  42 ⇓P      P       17 51 25.3  0.0
      baz=76
H12A  Diamond D Ranc   76.51  45 ⇓P      P       17 51 25.6 -0.1
      baz=76,SNR=11
CMB   Columbia Colle   76.55  53 eP      P       17 51 26.1 +0.1
CMB                              e*PP    pP      17 51 42.2 +0.9
CMB                                pmax  pmax
      comp=Z,16nm,1.1s,mb4.9
CMB   Columbia Colle   76.55  53 eP      P       17 51 26.1 +0.2
      comp=Z,16nm,1.1s,mb4.8
CMB                              epP     pP      17 51 42.2 +0.8
AKASG Malin Array Be   76.55 322  P      P       17 51 24.8 -1.0
AKASG                             *PP    pP      17 51 40.9 -0.2
AKASG Malin Array Be   76.55 322  P      P       17 51 24.8 -0.9
      comp=Z,8.7nm,0.4s,mb5.1,baz=48,slow=6.0,SNR=87
AKASG                             pP     pP      17 51 40.9 -0.2
      comp=Z,3.1nm,0.6s,baz=47,slow=5.2,SNR=2.8
AKASG                             LR     LR      18 27 56.5
      comp=Z,235nm,19.8s,MS4.5,baz=35,slow=38
AKBB  Malin Array Si   76.55 322 eP      P       17 51 24.0 -1.8
MFID  Camas Ranch      76.55  47 ⇓P      P       17 51 26.5 +0.6
      baz=76
KIEV  Kiev             76.56 322 eP      P       17 51 24.6 -1.2
KIEV                               pmax  pmax
      comp=Z,31nm,0.8s,mb5.3
KIEV  Kiev             76.56 322 eP      P       17 51 24.6 -1.2
      comp=Z,31nm,0.8s,mb5.3
G13A  Cobalt           76.57  45 ⇑P      P       17 51 26.2 +0.2
      baz=76,SNR=9.2
F14A  Wisdom           76.67  44 ⇓P      P       17 51 26.4 -0.1
      baz=76,SNR=5.5
B17A  L&G Farms, Che   76.68  41 ⇑P      P       17 51 26.4 -0.1
      baz=76,SNR=14
E15A  Deer Lodge       76.74  43 ⇓P      P       17 51 26.4 -0.5
      baz=76
I12A  Atlanta          76.76  46 ⇓P      P       17 51 27.4 +0.3
      baz=76
K11A  Parker Ranch,    76.78  47 ⇑P      P       17 51 27.4 +0.2
      baz=77,SNR=5.8
A18A  Metzger Ranch,   76.82  40 ⇓P      P       17 51 27.2 -0.1
      baz=77,SNR=12
H13A  Challis          76.86  45 ⇑P      P       17 51 27.6  0.0
      baz=77,SNR=15
R06C  Coleville        76.91  52 ⇑P      P       17 51 28.3 +0.3
      baz=77
HFS   Hagfors          76.91 336  P      P       17 51 26.5 -1.1
      comp=Z,13nm,0.7s,mb5.0,baz=50,slow=8.7,SNR=15
D16A  Dana Ranch, Ca   77.00  42 ⇑P      P       17 51 28.3 -0.1
      baz=77,SNR=7.1
HRY   Holter Researc   77.03  42 eP      P       17 51 29.4 +0.9
FFC   Flin Flon        77.05  32  P      P       17 51 27.7 -0.8
      comp=Z,91nm,0.8s,mb5.8,SNR=6.9
FFC   Flin Flon        77.05  32 eP      P       17 51 27.0 -1.5
FFC                                pmax  pmax
      comp=Z,12nm,0.8s,mb4.9
FFC   Flin Flon        77.05  32 eP      P       17 51 27.0 -1.5
      comp=Z,12nm,0.8s,mb4.9
NB2   NORSAR Subarra   77.07 337  P      P       17 51 27.7 -0.8
      comp=Z,27nm,0.8s,mb5.2,baz=42,slow=5.9
NOA   NORSAR Array B   77.07 337  P      P       17 51 27.6 -0.8
      comp=Z,21nm,0.8s,mb5.2,baz=40,slow=5.7,SNR=62
NOA                               LR     LR      18 28 47.2
      comp=Z,83nm,18.1s,MS4.1,baz=260,slow=38
C17A  Wharram Farm,    77.09  41 ⇓P      P       17 51 28.8  0.0
      baz=77,SNR=5.8
J12A  Stokes Ranch,    77.09  47 ⇓P      P       17 51 29.7 +0.8
      baz=77
F15A  Butte            77.16  43 ⇓P      P       17 51 29.3  0.0
      baz=77,SNR=27
B18A  Beardsley Farm   77.17  40 ⇑P      P       17 51 29.4 +0.1
      baz=77,SNR=19
LRM   Limekiln Ridge   77.19  43 eP      P       17 51 29.7 +0.3
E16A  East Helena      77.22  42 ⇓P      P       17 51 29.7 +0.1
      baz=77,SNR=6.4
SIM   Simferopol'      77.24 316deP      P       17 51 29.8  0.0
SIM                                pmax  pmax
      comp=Z,30nm,0.8s,mb5.3
I13A  Wildhorse Cree   77.30  46 ⇓P      P       17 51 30.3 +0.2
      baz=77
BMN   Battle Mountai   77.33  50 epP     pP      17 51 47.2 +1.5
HLID  Hailey           77.33  46 ⇑P      P       17 51 30.7 +0.4
      baz=77,SNR=6.9
HLID  Hailey           77.33  46 eP      P       17 51 31.4 +1.1
      comp=Z,9.3nm,0.9s,mb4.7
DLMT  Dillon           77.37  44 eP      P       17 51 31.0 +0.5
      comp=Z,11nm,0.7s,mb4.9
SUW   Suwalki          77.38 327 eP      P       17 51 29.9 -0.4
SUW   Suwalki          77.38 327 eP      P       17 51 29.9 -0.4
EGMT  Eagleton         77.40  40 ⇓P      P       17 51 30.7 +0.1
      baz=77,SNR=7.9
EGMT  Eagleton         77.40  40 eP      P       17 51 30.7 +0.1
      comp=Z,24nm,1.1s,mb5.0
D17A  Six Diamond Ra   77.41  41 ⇑P      P       17 51 30.9 +0.3
      baz=77,SNR=7.0
FCC   Fort Churchill   77.45  26 eP      P       17 51 29.5 -1.1
      comp=Z,0.3nm,0.8s
O09A  Fish Creek Ran   77.49  50 ⇓P      P       17 51 31.8 +0.6
      baz=77
MCMT  McKenzie Canyo   77.53  44 eP      P       17 51 31.4 +0.1
      comp=Z,1.1nm,0.7s,mb3.9
G15A  Dillon           77.55  44 ⇓P      P       17 51 31.4 -0.1
      baz=77,SNR=5.9
J13A  Cove Ranch, Pi   77.56  46 ⇓P      P       17 51 32.0 +0.4
      baz=77,SNR=5.4
F16A  Kennard Place,   77.68  43 ⇑P      P       17 51 32.2  0.0
      baz=77,SNR=9.3
I14A  Mackay           77.69  45 ⇑P      P       17 51 32.6 +0.3
      baz=78,SNR=15
NVAR  Mina Array Bea   77.72  52  P      P       17 51 32.8 +0.2
      comp=Z,3.9nm,0.8s,mb4.4,baz=286,slow=5.6,SNR=14
NVAR                              pP     pP      17 51 48.6 +0.7
      comp=Z,10nm,0.9s,baz=284,slow=5.8,SNR=8.6
E17A  Martinsdale      77.72  42 ⇓P      P       17 51 32.8 +0.4
      baz=78,SNR=5.2
L12A  House Creek Ra   77.75  47 ⇓P      P       17 51 33.8 +1.1
      baz=78
BOZ   Bozeman (W)      77.76  43 eP      P       17 51 32.8 +0.2
BOZ                                pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.6
BOZ   Bozeman (W)      77.76  43 ⇑P      P       17 51 32.9 +0.3
      baz=78,SNR=8.0
BOZ   Bozeman (W)      77.76  43 eP      P       17 51 32.8 +0.1
      comp=Z,6.9nm,0.9s,mb4.6
H15A  Lima             77.77  44 ⇑P      P       17 51 33.3 +0.5
      baz=78
D18A  Linhart Farms,   77.87  41 ⇑P      P       17 51 33.3 +0.1
      baz=78
G16A  Moss Hill, Enn   77.90  43 ⇓P      P       17 51 33.7 +0.3
      baz=78,SNR=5.3
J14A  Carey            78.00  46 ⇑P      P       17 51 34.8 +0.8
      baz=78,SNR=8.2
K13A  Stover Farm, H   78.04  47 ⇓P      P       17 51 34.9 +0.7
      baz=78
F17A  Fitzpatrick Pl   78.16  42 ⇑P      P       17 51 35.1 +0.3
      baz=78,SNR=6.4
E18A  Harlowton        78.18  42 ⇓P      P       17 51 35.4 +0.4
      baz=78,SNR=8.4
MALT  Malatya          78.28 308 eP      P       17 51 36.5 +0.8
MALT                               pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.8
MALT  Malatya          78.28 308⇑iP      P       17 51 36.7 +1.0
MALT  Malatya          78.28 308 eP      P       17 51 36.5 +0.8
      comp=Z,10nm,0.9s,mb4.8
QLMT  Earthquake Lak   78.35  44 epP     pP      17 51 53.0 +1.6
ELK   Elko             78.41  49 epP     pP      17 51 53.3 +1.6
H16A  Russell Place,   78.53  44 ⇓P      P       17 51 37.5 +0.5
      baz=78,SNR=9.6
J15A  Blackfoot        78.60  45 ⇑P      P       17 51 38.0 +0.7
      baz=78
R09A  Tonopah          78.63  52 ⇑P      P       17 51 37.7 +0.1
      baz=78
K14A  Jones Ranch, D   78.65  46 ⇓P      P       17 51 38.2 +0.6
      baz=78
F18A  Big Timber       78.69  42 ⇓P      P       17 51 38.0 +0.3
      baz=78,SNR=9.0
YNR   Norris Junctio   78.85  43 epP     pP      17 51 56.1 +2.0
I16A  Newdale          78.88  44 ⇓P      P       17 51 39.9 +1.0
      baz=79,SNR=11
YFT   Old Faithful     78.92  44 eP      P       17 51 42.3 +3.2
      comp=Z,9.0nm,0.7s,mb4.8
LKWY  Lake             79.10  43 eP      P       17 51 42.9 +2.8
LKWY                               pmax  pmax
      comp=Z,8.0nm,0.9s,mb4.7
LKWY  Lake             79.10  43 eP      P       17 51 42.9 +2.8
      comp=Z,8.3nm,0.9s,mb4.7
ISA   Isabella         79.12  54 eP      P       17 51 39.5 -0.8
ISA                                pmax  pmax
      comp=Z,9.0nm,1.3s,mb4.5
ISA   Isabella         79.12  54 ⇓P      P       17 51 39.8 -0.6
      baz=79
ISA   Isabella         79.12  54 eP      P       17 51 39.5 -0.8
      comp=Z,8.6nm,1.3s,mb4.5
S10A  Tonopah Range,   79.12  52 ⇓P      P       17 51 40.7 +0.4
      baz=79
M14A  Sheep Mountain   79.15  47 ⇑P      P       17 51 40.9 +0.6
      baz=79
J16A  Bone             79.16  45 ⇑P      P       17 51 41.2 +0.8
      baz=79
IMW   Indian Meadow    79.19  44 eP      P       17 51 42.0 +1.5
      comp=Z,8.8nm,0.9s,mb4.7
RRI2  Red Ridge        79.29  45 eP      P       17 51 42.7 +1.6
      comp=Z,9.0nm,1.0s,mb4.7
HVU   Hansel Valley    79.34  47 epP     pP      17 51 58.4 +1.6
I17A  Pilgrim Ck.      79.38  44 ⇓P      P       17 51 42.6 +1.0
      baz=79,SNR=8.3
MOOW  Moose Ponds      79.39  44 eP      P       17 51 43.1 +1.4
      comp=Z,5.9nm,1.1s,mb4.4
SFJD  Kangerlussuaq    79.39   4 i P     P       17 51 40.7 -0.5
SFJD                               pmax  pmax
      comp=Z,9.0nm,0.8s,mb4.8
SFJD  Kangerlussuaq    79.39   4 i P     P       17 51 40.7 -0.5
      comp=Z,8.7nm,0.8s,mb4.7
RLMT  Red Lodge        79.41  42 ⇑P      P       17 51 42.3 +0.5
      baz=79,SNR=5.6
RLMT  Red Lodge        79.41  42 eP      P       17 51 42.7 +0.9
      comp=Z,8.5nm,1.1s,mb4.6
TPAW  Teton Pass       79.42  45 epP     pP      17 51 59.0 +1.7
K16A  Soda Springs     79.43  45 ⇑P      P       17 51 42.6 +0.7
      baz=79,SNR=5.7
R11A  Troy Canyon, C   79.54  51 ⇑P      P       17 51 42.7 +0.1
      baz=79
LOHW  Long Hollow      79.55  44 epP     pP      17 51 57.9 -0.1
REDW  Red Top Meadow   79.56  45 eP      P       17 51 47.5 +5.0
      comp=Z,22nm,1.6s,mb4.8
MPMC  Manual Prospec   79.56  54 ⇓P      P       17 51 42.5 -0.2
      baz=79,SNR=6.9
LVV   L'vov            79.70 324⇑iP      PcP     17 51 52.2 +1.3
LVV                              e               17 52 09.0
EDW2  Edwards Air Fo   79.88  55 ⇓P      P       17 51 44.4 -0.1
      baz=80,SNR=8.4
DGMT  Dagmar           80.05  38 ⇓P      P       17 51 45.0 -0.2
      baz=80
DGMT  Dagmar           80.05  38 eP      P       17 51 45.4 +0.3
      comp=Z,19nm,1.0s,mb5.0
LAO   LASA Array       80.12  40 eP      P       17 51 45.2 -0.3
      comp=Z,27nm,1.0s,mb5.1
LAO                              e       pP      17 52 01.6 +0.6
TLCR                   80.13 318⇑iP      P       17 51 45.5 -0.1
TLCR                   80.13 318 ⇑P      P       17 51 45.5 -0.1
J18A  Kendall Valley   80.13  44 ⇓P      P       17 51 46.0 +0.3
      baz=80
R12A  Pony Springs,    80.18  50 ⇑P      P       17 51 46.4 +0.4
      baz=80
Q13A  Wheeler Ranch,   80.20  50 ⇑P      P       17 51 46.3 +0.2
      baz=80
DUG   Dugway           80.24  48 ⇓P      P       17 51 47.0 +0.7
      baz=80
DUG   Dugway           80.24  48 epP     pP      17 52 03.1 +1.4
T11A  Corn Creek, Al   80.41  52 ⇑P      P       17 51 47.4 +0.1
      baz=80
P14A  Drum Mountains   80.43  49 ⇓P      P       17 51 47.4 +0.1
      baz=80
S12A  Delamar Landin   80.44  51 ⇓P      P       17 51 47.6 +0.1
      baz=80
GSC   Goldstone        80.45  54 eP      P       17 51 48.0 +0.5
GSC                                pmax  pmax
      comp=Z,11nm,1.1s,mb4.7
GSC   Goldstone        80.45  54 ⇓P      P       17 51 47.5 -0.1
      baz=80
GSC   Goldstone        80.45  54 eP      P       17 51 48.0 +0.4
      comp=Z,11nm,1.1s,mb4.7
BFSC  Mount Baldy St   80.46  55 ⇑P      P       17 51 47.6 -0.1
      baz=80
KWP   Kalwaria Pacla   80.47 324 eP      P       17 51 47.4  0.0
KWP   Kalwaria Pacla   80.47 324 ⇑P      P       17 51 47.9 +0.5
KWP   Kalwaria Pacla   80.47 324⇑iP      P       17 51 47.8 +0.4
KWP   Kalwaria Pacla   80.47 324 eP      P       17 51 47.4  0.0
BUR08 Bucovina Ar. S   80.52 322 eP      P       17 51 47.2 -0.5
BURAR Bucovina Array   80.53 322⇓iP      P       17 51 48.0 +0.3
BURAR Bucovina Array   80.53 322 ⇓P      P       17 51 48.0 +0.3
BRTR  Keskin Array B   80.55 312  P      P       17 51 47.8 -0.2
BRTR                              *PP    pP      17 52 03.5  0.0
BRTR  Keskin Array B   80.55 312  P      P       17 51 47.8 -0.3
      comp=Z,9.6nm,0.8s,mb4.8,baz=98,slow=4.4,SNR=51
BRTR                              pP     pP      17 52 03.5  0.0
      comp=Z,4.9nm,0.8s,baz=101,slow=2.6,SNR=6.7
BRTR                              LR     LR      18 29 23.0
      comp=Z,56nm,20.6s,MS3.9,baz=192,slow=37
BRTR  Keskin Array B   80.55 312  P      P       17 51 47.8 -0.3
BRTR                              pP     pP      17 52 03.5  0.0
BRTR                              LR     LR      18 29 23.0
Q14A  Sevier Lake (B   80.65  49 ⇓P      P       17 51 49.0 +0.5
      baz=80
BW06  Boulder Array    80.67  45 ⇓P      P       17 51 48.5 -0.1
      baz=80
BW06  Boulder Array    80.67  45 eP      P       17 51 48.8 +0.2
      comp=Z,10nm,1.5s,mb4.5
BW06                             epP     pP      17 52 05.2 +1.1
PDAR  Pinedale Array   80.67  45  P      P       17 51 47.8 -0.8
      comp=Z,1.2nm,0.6s,mb4.0,baz=298,slow=3.2,SNR=11
R13A  O'Grain Ranch,   80.68  50 ⇓P      P       17 51 49.3 +0.6
      baz=80
TIRR  Tirgusor         80.80 318⇑iP      P       17 51 48.3 -0.9
TIRR  Tirgusor         80.80 318  P      P       17 51 49.2 -0.1
NLU   North Lily Min   80.83  48 epP     pP      17 52 06.8 +1.8
JLU   Jordanelle       80.84  47 epP     pP      17 52 06.8 +1.8
VRI   Vrincioaia       80.85 320⇑iP      P       17 51 50.0 +0.5
VRI   Vrincioaia       80.85 320  P      P       17 51 50.5 +1.1
SHPR  Sheep Range      80.86  52 eP      P       17 51 50.7 +1.0
SHPR                             epP     pP      17 52 06.0 +0.8
PLOR  Plostina         80.90 320  P      P       17 51 50.4 +0.7
PLOR  Plostina         80.90 320⇑iP      P       17 51 50.2 +0.5
HARR  Harsova          80.93 318⇓iP      P       17 51 49.8 -0.1
HARR  Harsova          80.93 318  P      P       17 51 50.0 +0.1
TUQ   Turquoise Moun   80.97  53 ⇓P      P       17 51 51.0 +0.7
      baz=81,SNR=5.5
N17A  Moffit Pass      81.01  47 ⇑P      P       17 51 50.6 +0.2
      baz=81
HEC   Hector,Ludlow    81.04  54 ⇓P      P       17 51 50.8 +0.2
      baz=81
O16A  Springville      81.04  47 ⇓P      P       17 51 51.0 +0.4
      baz=81
V11A  Goodsprings      81.07  53 ⇑P      P       17 51 51.0 +0.1
      baz=81
DAU   Daniels Canyon   81.07  47 epP     pP      17 52 07.4 +1.2
MPU   Maple Canyon     81.07  48 epP     pP      17 52 08.0 +1.8
S13A  Holt Ranch, En   81.09  51 ⇓P      P       17 51 51.2 +0.2
      baz=81,SNR=6.6
KOLS  Kolonicke sedl   81.15 324 eP      P       17 51 50.3 -0.7
KOLS                               pmax  pmax
      comp=Z,5.0nm,1.0s,mb4.4
KOLS  Kolonicke sedl   81.15 324 eP      P       17 51 50.3 -0.7
      comp=Z,4.8nm,1.0s,mb4.4
Q15A  Fillmore         81.21  49 ⇑P      P       17 51 51.7 +0.2
      baz=81
ARUT  Antelope Range   81.24  50 eP      P       17 51 51.9 +0.2
ARUT                               pmax  pmax
      comp=Z,9.0nm,1.0s,mb4.7
ARUT  Antelope Range   81.24  50 eP      P       17 51 51.9 +0.2
      comp=Z,8.8nm,1.0s,mb4.6
U12A  Valley of Fire   81.32  52 ⇓P      P       17 51 52.2  0.0
      baz=81
UZH   Uzhgorod         81.34 324⇑iP      P       17 51 52.2 +0.2
UZH                              e       pP      17 52 09.0 +1.5
T13A  Saint George     81.39  51 ⇓P      P       17 51 53.1 +0.6
      baz=81
OJC   Ojcow            81.47 326 eP      P       17 51 52.7  0.0
MLR   Muntele Rosu     81.51 320⇓iP      P       17 51 53.1 +0.1
MLR   Muntele Rosu     81.51 320 ⇓P      P       17 51 53.1 +0.1
O17A  Robinson Place   81.52  47 ⇓P      P       17 51 53.2 +0.1
      baz=81
V12A  Nelson           81.52  53 ⇑P      P       17 51 53.6 +0.4
      baz=81
GMRC  Granite Mounta   81.52  54 ⇓P      P       17 51 53.3  0.0
      baz=81,SNR=6.2
CRVS  Cervenica-Dubn   81.57 324 eP      P       17 51 53.1 -0.1
MSU   Marysvale        81.62  49 eP      P       17 51 55.1 +1.4
MSU                              e*PP    pP      17 52 11.4 +2.2
PFO   Pinyon Flat Ob   81.64  55 eP      P       17 51 53.3 -0.6
PFO                              e*PP    pP      17 52 09.5 +0.1
PFO                                pmax  pmax
      comp=Z,17nm,1.0s,mb4.9
PFO   Pinyon Flat Ob   81.64  55 eP      P       17 51 53.3 -0.6
      comp=Z,17nm,1.0s,mb4.9
PFO                              epP     pP      17 52 09.5 +0.1
U13A  Pakoon Wash      81.70  52 ⇑P      P       17 51 54.4 +0.3
      baz=82,SNR=9.0
BELC  Belle Mtn.       81.73  55 ⇓P      P       17 51 53.8 -0.6
      baz=82,SNR=5.9
R15A  Junction         81.74  49 ⇑P      P       17 51 54.8 +0.5
      baz=82,SNR=5.1
NIE   Niedzica         81.77 325 eP      P       17 51 55.0 +0.7
T14A  Hurricane        81.90  51 ⇓P      P       17 51 55.8 +0.6
      baz=82
P17A  Butcher Ranch,   81.95  48 ⇑P      P       17 51 55.2 -0.2
      baz=82
V13A  Grand Canyon W   82.02  52 ⇓P      P       17 51 55.9  0.0
      baz=82,SNR=6.9
VOIR                   82.03 320⇑iP      P       17 51 56.0 +0.3
VOIR                   82.03 320  P      P       17 51 55.9 +0.2
MONP  Monument Peak    82.08  56 ⇑P      P       17 51 56.2 -0.1
      baz=82
P18A  Preston Nutter   82.16  47 ⇑P      P       17 51 57.2 +0.7
      baz=82
R16A  Teasdale         82.20  49 ⇓P      P       17 51 57.7 +1.0
      baz=82
U14A  Mt Trumbull      82.21  51 ⇑P      P       17 51 57.1 +0.2
      baz=82,SNR=6.6
IRM   Iron Mountain    82.22  54 ⇑P      P       17 51 56.9 -0.1
      baz=82
M20A  Sweetwater, Wa   82.26  45 ⇑P      P       17 51 57.3 +0.3
      baz=82
SRU   San Rafael       82.30  48 eP      P       17 51 58.0 +0.7
SRU                                pmax  pmax
      comp=Z,17nm,1.1s,mb4.9
SRU   San Rafael       82.30  48 ⇓P      P       17 51 57.6 +0.3
      baz=82,SNR=10
SRU   San Rafael       82.30  48 eP      P       17 51 58.0 +0.7
      comp=Z,17nm,1.1s,mb4.9
BC3   Big Chuckw Mtn   82.30  55 ⇓P      P       17 51 57.6 +0.2
      baz=82,SNR=5.5
KECS  Kecovo           82.33 324 eP      P       17 51 51.6 -5.6
KECS                               pmax  pmax
      comp=Z,4.0nm,0.9s,mb4.3
KECS  Kecovo           82.33 324 eP      P       17 51 51.5 -5.7
KECS  Kecovo           82.33 324 eP      P       17 51 51.6 -5.6
      comp=Z,3.5nm,0.9s,mb4.3
DRGR                   82.36 322⇓iP      P       17 51 57.5 +0.1
DRGR                   82.36 322 ⇓P      P       17 51 57.5 +0.1
T15A  Red Dirt Ranch   82.38  50 ⇑P      P       17 51 57.4 -0.3
      baz=82
L21A  Rawlins          82.44  44 ⇓P      P       17 51 58.5 +0.5
      baz=82,SNR=5.9
OKC   Ostrava-Krasne   82.50 326 eP      P       17 51 57.2 -0.9
Q18A  Rafter H Ranch   82.55  48 ⇑P      P       17 51 58.3 -0.3
      baz=82
R17A  Hanksville Air   82.60  49 ⇓P      P       17 51 59.1 +0.2
      baz=82,SNR=8.1
N20A  Spence Gulch,    82.62  45 ⇓P      P       17 51 59.4 +0.5
      baz=82,SNR=5.2
M21A  Separation Pea   82.67  44 ⇑P      P       17 51 59.2  0.0
      baz=82
RWWY  Rawlins          82.71  44 eP      P       17 52 00.0 +0.7
      comp=Z,13nm,1.0s,mb4.9
V14A  Boquillas Ranc   82.72  52 ⇑P      P       17 52 00.0 +0.5
      baz=82,SNR=11
BSEG  Bad Segeberg     82.78 333 eP      P       17 51 59.2 -0.3
      comp=Z,10.0nm,0.9s,mb4.8
MORC  Moravsky Berou   82.82 327 eP      P       17 51 59.2 -0.5
MORC                               pmax  pmax
      comp=Z,114nm,2.7s,mb5.4
MORC  Moravsky Berou   82.82 327 eP      P       17 51 59.2 -0.5
      comp=Z,114nm,2.7s,mb5.4
PDMCI Parker Dam,Lak   82.82  54 ⇓P      P       17 52 00.3 +0.3
      baz=83
ULM   Lac du Bonnet    82.83  33  P      P       17 51 58.0 -1.8
      comp=Z,2.9nm,0.7s,mb4.4,baz=304,slow=8.1,SNR=6.6
X13A  Yucca            82.86  53 ⇓P      P       17 52 00.6 +0.4
      baz=83,SNR=7.3
P19A  Cripple Cowboy   82.93  47 ⇓P      P       17 52 01.0 +0.4
      baz=83,SNR=7.8
DPC   Dobruska-Polom   82.96 328 eP      P       17 52 00.6 +0.1
DPC                              e       pP      17 52 16.1 +0.1
DPC   Dobruska-Polom   82.96 328 eP      P       17 52 00.6 +0.1
DPC                              epP     pP      17 52 16.1 +0.1
DPC                              ex      x       17 52 29.9
UPC   Upice            82.98 328 eP      P       17 52 00.6  0.0
UPC                              epP     pP      17 52 15.3 -0.8
W14A  Seligman         82.99  52 ⇓P      P       17 52 01.1 +0.1
      baz=83,SNR=6.3
PSZ   Piszkesteto      83.00 324 eP      P       17 52 00.3 -0.5
PSZ                                pmax  pmax
      comp=Z,21nm,0.9s,mb5.2
PSZ   Piszkesteto      83.00 324⇓iP      P       17 52 01.1 +0.3
PSZ   Piszkesteto      83.00 324⇑eP      P       17 52 00.9 +0.1
PSZ   Piszkesteto      83.00 324 eP      P       17 52 00.3 -0.4
      comp=Z,21nm,0.9s,mb5.2
S17A  Black Ridge (B   83.02  49 ⇑P      P       17 52 01.1 +0.1
      baz=83,SNR=7.1
GLA   Glamis           83.08  55 ⇓P      P       17 52 01.5 +0.1
      baz=83
GLA   Glamis           83.08  55 epP     pP      17 52 17.5 +0.5
N21A  Black Mountain   83.11  45 ⇓P      P       17 52 01.6 +0.2
      baz=83
VYHS  Vyhne            83.12 325 eP      P       17 52 00.6 -0.7
R18A  Canyonlands Na   83.13  48 ⇓P      P       17 52 01.7 +0.1
      baz=83,SNR=5.9
Q19A  Hogan Spring (   83.17  47 ⇓P      P       17 52 02.1 +0.3
      baz=83
V15A  Kaibab Nationa   83.22  51 ⇓P      P       17 52 02.1  0.0
      baz=83
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M22A	Cedar Creek Ra	83.25	44	⇑P	P	17 52 02.3	+0.1
	baz=83						
GZR	Gura Zlata	83.26	321	⇓iP	P	17 52 02.0	-0.1
GZR	Gura Zlata	83.26	321	P	P	17 52 02.1	0.0
KOLL	Kolacno	83.26	325	eP	P	17 52 02.2	+0.1
Y13A	Salome	83.31	54	⇓P	P	17 52 02.9	+0.3
	baz=83						
T17A	Navajo Res., N	83.40	50	⇓P	P	17 52 03.2	+0.2
	baz=83						
W15A	Williams	83.55	52	⇓P	P	17 52 04.0	+0.3
	baz=83						
X14A	Yava	83.55	53	⇓P	P	17 52 04.2	+0.4
	baz=83						
CSS	Prodhromos	83.56	308	eP	P	17 52 03.3	-0.6
	comp=Z,14nm,0.8s,mb5.2						
R19A	Curley Farm, L	83.58	48	⇓P	P	17 52 04.1	+0.2
	baz=83						
VRAC	Vranov	83.59	327	⇓iP	P	17 52 04.3	+0.6
VRAC	Vranov	83.59	327	P	P	17 52 04.2	+0.5
PVCC	Panska Ves	83.60	329	eP	P	17 52 03.9	+0.1
PVCC				ePCP	PcP	17 52 09.2	+1.3
PVCC				esP	sP	17 52 21.0	-4.4
PVCC	Panska Ves	83.60	329	eP	P	17 52 03.9	+0.1
PVCC				ePcP	PcP	17 52 09.2	+1.3
PVCC				e	pP	17 52 21.0	+1.7
BRG	Berggiesshubel	83.62	329	eP	P	17 52 03.0	-0.8
	comp=Z,14nm,1.1s,mb5.0						
BRG	Berggiesshubel	83.62	329	i P	P	17 52 03.1	-0.7
	comp=Z,14nm,1.1s,mb5.0						
BRG				e	pP	17 52 20.8	+1.4
	comp=Z,15nm,1.4s						
CLL	Collm	83.69	330	⇑iP	P	17 52 03.4	-0.8
CLL				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
CLL	Collm	83.69	330	eP	P	17 52 03.5	-0.7
	comp=Z,16nm,0.9s,mb5.2						
CLL	Collm	83.69	330	⇑iP	P	17 52 03.4	-0.8
	comp=Z,16nm,0.9s,mb5.2						
CLL				esP	sP	17 52 18.0	-7.8
N22A	Wattenberg Ran	83.71	45	⇑P	P	17 52 05.2	+0.6
	baz=84						
U16A	Tuba City	83.71	51	⇑P	P	17 52 05.5	+0.9
	baz=84						
BZS	Buzias	83.71	322	⇓iP	P	17 52 04.0	-0.4
PV04	Paradox Valley	83.74	48	eP	P	17 52 05.7	+1.0
Y14A	Wickenburg	83.79	53	⇑P	P	17 52 05.1	0.0
	baz=84						
PPT	Papeete	83.83	116	eLR	LR	18 18 21.7	
	comp=Z,700nm,30.2s						
FBE	Freiberg	83.83	329	eP	P	17 52 04.5	-0.4
	comp=Z,21nm,1.0s,mb5.2						
WUAZ	Wupatki	83.93	51	⇑P	P	17 52 06.2	+0.5
	baz=84						
WUAZ	Wupatki	83.93	51	eP	P	17 52 06.8	+1.0
	comp=Z,13nm,0.9s,mb5.0						
WUAZ				epP	pP	17 52 14.7	-6.6
MODS	Modra-Piesok	83.94	326	eP	P	17 52 05.9	+0.4
MODS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
MODS	Modra-Piesok	83.94	326	eP	P	17 52 05.9	+0.4
	comp=Z,7.4nm,0.9s,mb4.8						
113A	Mohawk Valley,	83.97	55	⇓P	P	17 52 05.9	-0.1
	baz=84						
PHWY	Pilot Hill	83.97	44	epP	pP	17 52 22.6	+1.2
PRU	Pruhonice	84.01	328	eP	P	17 52 06.0	+0.1
PRU				e		17 52 11.6	
PRU				e	pP	17 52 21.5	+0.1
PRU	Pruhonice	84.01	328	eP	P	17 52 06.0	+0.1
PRU				ePCP	PcP	17 52 11.6	+1.9
PRU				epP	pP	17 52 21.5	+0.1
PRU				ex	x	17 52 39.1	
PRU	Pruhonice	84.01	328	eP	P	17 52 06.0	+0.1
PRU				ePcP	PcP	17 52 11.6	+1.9
PRU				e	pP	17 52 21.5	+0.1
PRU				e		17 52 39.1	
TREC	Trest	84.10	327	eP	P	17 52 06.4	+0.1
TREC				ePCP	PcP	17 52 11.9	+1.8
TREC				epP	pP	17 52 21.9	0.0
PV01	Paradox Valley	84.11	48	eP	P	17 52 06.8	+0.2
	comp=Z,795nm,0.9s						
ZST	Bratislava	84.15	326	eP	P	17 52 06.4	-0.2
ZST				pmax	pmax		
	comp=Z,45nm,2.0s,mb5.2						
ZST	Bratislava	84.15	326	eP	P	17 52 06.4	-0.2
	comp=Z,45nm,2.0s,mb5.2						
Y15A	Casa Rosa Ranc	84.23	53	⇓P	P	17 52 07.5	+0.1
	baz=84						
Q21A	Lamborn Mesa,	84.28	47	⇓P	P	17 52 07.8	+0.3
	baz=84						
CLZ	Clausthal	84.36	332	eP	P	17 52 07.3	-0.3
	comp=Z,15nm,0.9s,mb5.1						
X16A	Lo Mia Camp, P	84.54	52	⇓P	P	17 52 09.1	+0.3
	baz=84						
114A	Black Gap (USA	84.58	54	⇓P	P	17 52 09.1	0.0
	baz=84						
TANN	Tannenbergstha	84.59	330	eP	P	17 52 07.8	-1.0
	comp=Z,5.0nm,0.8s,mb4.7						
WERD	Werda	84.63	330	eP	P	17 52 08.3	-0.7
	comp=Z,6.0nm,0.8s,mb4.8						
GUNZ	Gunzen	84.68	330	eP	P	17 52 08.9	-0.4
	comp=Z,11nm,0.8s,mb5.0						
WERN	Wernitzgruen	84.72	330	eP	P	17 52 09.1	-0.4
	comp=Z,14nm,0.8s,mb5.1						
MVCO	Mesa Verde	84.72	48	epP	pP	17 52 26.5	+1.1
NKC	Novy Kostel	84.73	329	eP	P	17 52 09.5	0.0
NKC				ePCP	PcP	17 52 12.8	-0.1
SOP	Sopron	84.77	326	⇑eP	P	17 52 09.7	0.0
MOX	Moxa	84.77	330	eP	P	17 52 08.8	-0.9
	comp=Z,32nm,1.9s,mb5.1						
MOX	Moxa	84.77	330	eP	P	17 52 08.8	-0.9
MOX				pmax	pmax		
	comp=Z,32nm,1.9s,mb5.1						
MOX	Moxa	84.77	330	eP	P	17 52 09.0	-0.7
	comp=Z,8.0nm,0.8s,mb4.9						
PKSM	Moragy	84.81	324	P	P	17 52 09.1	-0.9
ISCO	Idaho Springs	84.84	45	epP	pP	17 52 27.3	+1.5
CONA	Conrad Observa	84.92	326	⇓iP	P	17 52 10.7	+0.2
	comp=Z,24nm,0.8s,mb5.4,SNR=31						
CSNA	Conrad Observa	84.92	326	⇑iP	P	17 52 10.7	+0.2
	comp=Z,23nm,0.8s,mb5.4						
MANZ	Manzenberg	85.06	329	eP	P	17 52 10.6	-0.6
	comp=Z,13nm,0.9s,mb5.1						
KHC	Kasperske Hory	85.07	328	eP	P	17 52 11.1	-0.1
KHC				e		17 52 16.6	
KHC				e	pP	17 52 26.5	-0.3
KHC	Kasperske Hory	85.07	328	eP	P	17 52 11.1	-0.1
KHC				ePCP	PcP	17 52 16.6	+2.2
KHC				epP	pP	17 52 26.5	-0.3
KHC				ex	x	17 52 44.4	
ROTZ	Rotzenmuhle	85.19	329	eP	P	17 52 11.5	-0.3
	comp=Z,11nm,1.0s,mb4.9						
GEC2	GERESS Array S	85.23	328	eP	P	17 52 10.8	-1.2
GEC2				pmax	pmax		
	comp=Z,2µm,0.8s						
GEC2	GERESS Array S	85.23	328	eP	P	17 52 11.3	-0.7
	comp=Z,10.0nm,0.8s,mb5.0						
GEC2	GERESS Array S	85.23	328	eP	P	17 52 10.8	-1.2
	comp=Z,2µm,0.8s						
GERES	GERESS Array B	85.23	328	P	P	17 52 10.9	-1.1
GERES						17 55 29.8	
GERES	GERESS Array B	85.23	328	P	P	17 52 10.9	-1.1
	comp=Z,7.7nm,0.7s,mb5.0,baz=36,slow=4.9,SNR=72						
GERES				PP	PP	17 55 29.8	+0.4
	comp=Z,1.4nm,0.8s,baz=38,slow=8.8,SNR=4.6						
GERES				LR	LR	18 33 14.3	
	comp=Z,204nm,18.3s,MS4.5,baz=19,slow=38						
WET	Wettzell	85.36	329	eP	P	17 52 12.7	0.0
	comp=Z,8.0nm,1.2s,mb4.7						
116A	Eloy	85.49	54	⇓P	P	17 52 13.8	+0.2
	baz=85						
ARSA	Arzberg	85.57	326	⇑iP	P	17 52 13.1	-0.7
	comp=Z,9.4nm,0.8s,mb5.1						
GRF	Grafenberg Arr	85.66	330	eP	P	17 52 13.9	-0.3
GRF				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.5						
GRF	Grafenberg Arr	85.66	330	eP	P	17 52 13.9	-0.3
	comp=Z,31nm,1.1s,mb5.5						
MOA	Molln	85.71	327	⇑iP	P	17 52 14.0	-0.4
	comp=Z,8.9nm,0.9s,mb5.0						
T22A	Edith	85.84	48	⇑P	P	17 52 15.7	+0.4
	baz=86						
BUG	Bochum--Univer	85.89	333	eP	P	17 52 14.4	-0.9
	comp=Z,16nm,0.8s,mb5.3						
EKA	Eskdalemuir Ar	86.12	340	P	P	17 52 15.6	-0.7
	comp=Z,5.3nm,0.9s,mb4.8,baz=11,slow=6.0,SNR=5.4						
TAOE	Nuku Hiva Isla	86.13	103	eLR	LR	18 19 29.0	
	comp=Z,1µm,23.8s						
PERS	Pernice	86.21	326	i P	P	17 52 16.2	-0.8
SOKA	Soboth	86.21	326	⇑iP	P	17 52 16.3	-0.6
	comp=Z,10nm,0.7s,mb5.2						
SDCO	Great Sand Dun	86.23	47	eP	P	17 52 17.8	+0.6
	comp=Z,6.5nm,1.3s,mb4.7						
SDCO				epP	pP	17 52 30.9	-1.9
TNS	Taunus Mts	86.39	331	eP	P	17 52 16.8	-0.9
	comp=Z,10.0nm,0.8s,mb5.1						
DOBS	Dobrina	86.39	325	i P	P	17 52 16.6	-1.2
GOLS	Golise	86.42	325	i P	P	17 52 17.1	-0.9
RJOB	Jochberg	86.45	328	eP	P	17 52 17.8	-0.3
	comp=Z,11nm,1.1s,mb5.0						
217A	Green Valley	86.56	54	⇑P	P	17 52 19.6	+0.7
	baz=86						
LEGS	Legarje	86.61	325	i P	P	17 52 17.9	-1.1
VISS	Visnje	86.95	325	i P	P	17 52 19.2	-1.3
MEM	Membach	87.03	333	P	P	17 52 19.1	-1.8
ECSD	EROS Data Cent	87.13	38	eP	P	17 52 20.8	-0.7
	comp=Z,7.6nm,0.9s,mb4.9						
BCLA	Clavier	87.45	333	P	P	17 52 21.6	-1.3
FETA	Feichten	87.91	328	⇑iP	P	17 52 24.4	-0.8
	comp=Z,4.5nm,0.8s,mb4.7						
BFO	Black Forest	87.92	330	eP	P	17 52 23.9	-1.3
BFO				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.0						
BFO	Black Forest	87.92	330	eP	P	17 52 24.0	-1.2
	comp=Z,13nm,0.9s,mb5.2						
BFO	Black Forest	87.92	330	eP	P	17 52 23.9	-1.3
	comp=Z,9.0nm,0.8s,mb5.0						
CDF	Champ du Feu	88.29	331	⇑iP	P	17 52 26.0	-0.9
	comp=Z,20nm,0.9s,mb5.0						
CDF	Champ du Feu	88.29	331	⇑iP	P	17 52 26.0	-0.9
CDF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
CDF	Champ du Feu	88.29	331	⇑iP	P	17 52 26.0	-0.9
	comp=Z,9.8nm,0.9s,mb5.0						
MSEY	Mahe Island	88.37	263	P	P	17 52 28.6	+0.7
	comp=Z,128nm,0.9s,mb6.2,SNR=6.2						
MSEY	Mahe Island	88.37	263	eP	P	17 52 27.9	0.0
MSEY				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
MSEY	Mahe Island	88.37	263	eP	P	17 52 27.9	+0.1
	comp=Z,22nm,1.0s,mb5.3						
ECH	Echery	88.49	331	eP	P	17 52 27.3	-0.6
ECH				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
ECH	Echery	88.49	331	eP	P	17 52 27.3	-0.6
	comp=Z,4.7nm,0.8s,mb4.8						
SCHQ	Schefferville	88.88	15	P	P	17 52 28.8	-0.8
	comp=Z,7.5nm,0.7s,mb5.1,baz=340,slow=4.4,SNR=15						
SCHQ				LR	LR	18 34 24.2	
	comp=Z,109nm,19.2s,MS4.3,baz=336,slow=37						
HINF	Hinteralfeld	88.94	331	eP	P	17 52 29.3	-0.7
HAU	Haudompre	88.99	331	⇑iP	P	17 52 29.6	-0.6
CABF	La Chapelle	90.21	330	eP	P	17 52 35.6	-0.4
LPL	La Plagne	90.82	329	⇑iP	P	17 52 38.2	-0.6
	comp=Z,24nm,1.0s,mb5.2						
LPL	La Plagne	90.82	329	⇑iP	P	17 52 38.2	-0.6
LPL				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.2						
LPL	La Plagne	90.82	329	⇑iP	P	17 52 38.2	-0.6
	comp=Z,12nm,1.0s,mb5.2						
LPG	La Plagne	90.83	329	⇑iP	P	17 52 38.4	-0.5
	comp=Z,12nm,0.8s,mb5.0						
LPG	La Plagne	90.83	329	⇑iP	P	17 52 38.4	-0.5
LPG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
LPG	La Plagne	90.83	329	⇑iP	P	17 52 38.4	-0.5
	comp=Z,6.2nm,0.8s,mb5.0						
SSF	Saint Saulge	90.88	332	⇑iP	P	17 52 38.0	-1.1
	comp=Z,12nm,1.1s,mb4.8						
SSF	Saint Saulge	90.88	332	⇑iP	P	17 52 38.0	-1.1
SSF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.8						
SSF	Saint Saulge	90.88	332	⇑iP	P	17 52 38.0	-1.1
	comp=Z,5.8nm,1.1s,mb4.8						
LDF	La Druitiere	90.95	335	eP	P	17 52 38.2	-1.2
SMF	Signal de Mont	91.09	332	eP	P	17 52 39.1	-1.0
	comp=Z,16nm,1.0s,mb5.0						
SMF	Signal de Mont	91.09	332	eP	P	17 52 39.1	-1.0
SMF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.0						
SMF	Signal de Mont	91.09	332	eP	P	17 52 39.1	-1.0
	comp=Z,8.3nm,1.0s,mb5.0						
AVF	Avril sur Loir	91.16	332	⇑iP	P	17 52 39.5	-0.9
	comp=Z,13nm,0.8s,mb5.0						
AVF	Avril sur Loir	91.16	332	⇑iP	P	17 52 39.5	-0.9
AVF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb5.0						
AVF	Avril sur Loir	91.16	332	⇑iP	P	17 52 39.5	-0.9
	comp=Z,6.6nm,0.8s,mb5.0						
BNI	Bardonecchia	91.21	329	eP	P	17 52 40.1	-0.6
BNI				pmax	pmax		
	comp=Z,85nm,2.3s,mb5.7						
BNI	Bardonecchia	91.21	329	eP	P	17 52 40.1	-0.6
	comp=Z,85nm,2.3s,mb5.7						
GRR	Gorron	91.38	335	eP	P	17 52 40.6	-0.8
	comp=Z,17nm,0.7s,mb5.2						
GRR	Gorron	91.38	335	eP	P	17 52 40.6	-0.8
GRR				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.2						
GRR	Gorron	91.38	335	eP	P	17 52 40.6	-0.8
	comp=Z,8.5nm,0.7s,mb5.2						
MBDF	Montbardon	91.43	329	⇑iP	P	17 52 40.4	-1.3
	comp=Z,15nm,0.7s,mb5.1						
MBDF	Montbardon	91.43	329	⇑iP	P	17 52 40.4	-1.3
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.1						
MBDF	Montbardon	91.43	329	⇑iP	P	17 52 40.4	-1.3
	comp=Z,7.3nm,0.7s,mb5.1						
BGF	Bois d'Agland	91.55	332	eP	P	17 52 41.5	-0.7
ORIF	Oris-en-Rattie	91.66	330	⇑iP	P	17 52 41.9	-0.8
	comp=Z,12nm,0.8s,mb5.0						
ORIF	Oris-en-Rattie	91.66	330	⇑iP	P	17 52 41.9	-0.8
ORIF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
ORIF	Oris-en-Rattie	91.66	330	⇑iP	P	17 52 41.9	-0.8
	comp=Z,5.8nm,0.8s,mb5.0						
SBF	Sospel	91.83	328	eP	P	17 52 41.9	-1.6
	comp=Z,45nm,0.8s,mb5.5						
SBF	Sospel	91.83	328	eP	P	17 52 41.9	-1.6
SBF				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.6						
SBF	Sospel	91.83	328	eP	P	17 52 41.9	-1.6
	comp=Z,22nm,0.8s,mb5.5						
TCF	Toulx Ste Croi	92.02	332	⇑iP	P	17 52 43.6	-0.8
VIVF	Saint-Julien-l	92.22	330	⇑iP	P	17 52 44.4	-0.9
	comp=Z,22nm,0.8s,mb5.2						
VIVF	Saint-Julien-l	92.22	330	⇑iP	P	17 52 44.4	-0.9
VIVF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.2						
VIVF	Saint-Julien-l	92.22	330	⇑iP	P	17 52 44.4	-0.9
	comp=Z,11nm,0.8s,mb5.2						
FRF	La Foret Royal	92.42	328	⇑iP	P	17 52 44.7	-1.6
	comp=Z,13nm,0.7s,mb5.1						
FRF	La Foret Royal	92.42	328	⇑iP	P	17 52 44.7	-1.6
FRF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.1						
FRF	La Foret Royal	92.42	328	⇑iP	P	17 52 44.7	-1.6
	comp=Z,6.6nm,0.7s,mb5.1						
SMRF	Simiane la Rot	92.55	329	eP	P	17 52 46.1	-0.8
	comp=Z,9.1nm,0.7s,mb5.0						
SMRF	Simiane la Rot	92.55	329	eP	P	17 52 46.1	-0.8
	comp=Z,9.1nm,0.7s,mb5.3						
MFF	Saint Martin d	92.64	334	eP	P	17 52 46.6	-0.7
	comp=Z,30nm,1.1s,mb5.3						
MFF	Saint Martin d	92.64	334	eP	P	17 52 46.6	-0.7
MFF				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.3						
MFF	Saint Martin d	92.64	334	eP	P	17 52 46.6	-0.7
	comp=Z,15nm,1.1s,mb5.3						
LMR	La Mourre	92.66	328	⇑iP	P	17 52 46.0	-1.4
	comp=Z,18nm,0.8s,mb5.2						
LMR	La Mourre	92.66	328	⇑iP	P	17 52 46.0	-1.4
LMR				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.2						
LMR	La Mourre	92.66	328	⇑iP	P	17 52 46.0	-1.4
	comp=Z,8.9nm,0.8s,mb5.2						
TXAR	Lajitas Array	92.87	52	P	P	17 52 48.6	0.0
TXAR				*PP	pP	17 53 04.9	+0.5
TXAR	Lajitas Array	92.87	52	P	P	17 52 48.6	0.0
	comp=Z,3.0nm,0.8s,mb4.8,baz=305,slow=3.2,SNR=27						
TXAR				pP	pP	17 53 04.9	+0.6
	comp=Z,5.4nm,0.9s,baz=251,slow=2.8,SNR=13						
TXAR				LR	LR	18 27 30.4	
	comp=Z,120nm,20.8s,MS4.3,baz=175,slow=31						
RJF	Les Rejaudoux	93.11	332	⇑iP	P	17 52 48.9	-0.5
	comp=Z,11nm,0.8s,mb5.1						
RJF	Les Rejaudoux	93.11	332	⇑iP	P	17 52 48.9	-0.5
RJF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.1						
RJF	Les Rejaudoux	93.11	332	⇑iP	P	17 52 48.9	-0.5
	comp=Z,5.7nm,0.8s,mb5.0						
LASF	Ste Croix	93.19	330	⇑iP	P	17 52 49.2	-0.6
	comp=Z,17nm,0.9s,mb5.2						
CAF	Calviac	93.21	332	⇑iP	P	17 52 49.6	-0.3
	comp=Z,19nm,1.0s,mb5.2						
CAF	Calviac	93.21	332	⇑iP	P	17 52 49.6	-0.3
CAF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.2						
CAF	Calviac	93.21	332	⇑iP	P	17 52 49.6	-0.3
	comp=Z,9.3nm,1.0s,mb5.2						
LFF	La Frestale	93.72	333	eP	P	17 52 51.8	-0.4
	comp=Z,23nm,0.8s,mb5.3						
LFF	La Frestale	93.72	333	eP	P	17 52 51.8	-0.4
LFF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.3						
LFF	La Frestale	93.72	333	eP	P	17 52 51.8	-0.4
	comp=Z,11nm,0.8s,mb5.3						
MTLF	Montolieu	94.47	331	⇑iP	P	17 52 55.1	-0.6
	comp=Z,6.5nm,0.9s,mb4.8						
MTLF	Montolieu	94.47	331	⇑iP	P	17 52 55.1	-0.6
MTLF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
MTLF	Montolieu	94.47	331	⇑iP	P	17 52 55.1	-0.6
	comp=Z,3.3nm,0.9s,mb4.8						
ETSF	Etsaut	95.94	332	eP	P	17 53 01.5	-1.0
	comp=Z,5.3nm,0.8s,mb4.7						
ETSF	Etsaut	95.94	332	eP	P	17 53 01.5	-1.0
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
ETSF	Etsaut	95.94	332	eP	P	17 53 01.5	-1.0
	comp=Z,2.7nm,0.8s,mb4.7						
KEST	Kesra	97.27	322	P	P	17 53 07.2	-1.4
	comp=Z,1.3nm,0.8s,mb4.4,baz=18,slow=3.2,SNR=4.5						
RKT	Rikitea	98.18	112	eLR	LR	18 24 47.8	
	comp=Z,357nm,33.8s						
TKL	Tuckaleechee C	99.66	35	PKiKP	PKiKP	17 57 46.6	-1.3
	comp=Z,8.9nm,0.9s,baz=304,slow=3.6,SNR=4.6						
GOGA	Godfrey	101.62	36	eP	Pdif	17 53 27.6	-0.3
TORD	Torodi Ar. Bea	119.15	313	PKP	PKPdf	17 58 23.3	-1.7
	comp=Z,1.1nm,0.7s,baz=18,slow=2.8,SNR=7.9						
TORD				PP	PP	17 59 36.9	-7.9
	comp=Z,0.9nm,0.8s,baz=29,slow=7.2,SNR=4.1						
TORD	Torodi Ar. Bea	119.15	313	PKP	PKPdf	17 58 23.3	-1.7
TORD				PP	PP	17 59 36.9	-7.9
QSPA	South Pole Qui	123.32	180	eP	PKPdf	17 58 30.6	-0.3
BOSA	Boshof	125.08	256	PKP	PKPdf	17 58 35.4	-0.5
	comp=Z,3.5nm,0.8s,baz=57,slow=1.5,SNR=5.2						
LCO	Las Campanas	153.05	89	ePKPdf	PKPdf	17 59 26.7	+1.0
LCO				ePKPbc	PKPbc	17 59 34.1	+1.0

ISCJB **21** *18:00:21.3±0.6, 41.°16N±0.°02×114.°90W±0.°02, h1^{km}±4^{km},*
Error ellipse: s-maj=3.3km s-min=2.8km az=168.4
IDC **21** *18:00:21.6±1.1, 41.°18N×114.°92W, h0^{km}, mb2.9/1,*
mb1 3.3/3, mb1mx3.2/20, mbtmp2.9/3, ML3.2/2, Error
ellipse: s-maj=22.7km s-min=5.6km az=131.0
NEIC **21** *18:00:22.9±0.6, 41.°01N×114.°86W, h5^{km}, ML2.8, Error*
ellipse: s-maj=8.9km s-min=5.9km az=145.0
ISC 21 18:00:22.0±0.4, **41.°16N**±0.°02×**114.°90W**±0.°02, **h3**^{km}±4^{km},
n48, σ**0ˢ.97**/58, **8C-18D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.32	199	⇓P	Pg	18 00 28.7	+0.5
	baz=0.2,SNR=13						
N12A				⇑S	Sg	18 00 33.3	+1.0
	baz=0.2						
ELK	Elko	0.48	212	Pg	Pg	18 00 31.8	+0.5
	30nm,0.3s,baz=18,slow=17,SNR=7.2						
ELK				Lg		18 00 37.2	
	116nm,0.3s,baz=22,slow=19,SNR=30						
ELK	Elko	0.48	212	eP	Pg	18 00 31.2	-0.1
ELK				Lg		18 00 37.2	
ELK				eS	Sg	18 00 37.6	0.0
N13A	Wendover, West	0.61	120	⇓P	Pg	18 00 33.9	+0.2
	baz=0.5,SNR=6.4						
N13A				⇓S	Sg	18 00 42.1	+0.6
	baz=0.5						
N11A	Elko Archery C	0.72	242	⇓S	Sg	18 00 44.8	-0.2
	baz=0.7						
M11A	Holland Ranch,	0.72	292	⇓S	Sg	18 00 45.3	+0.1
	baz=0.8						
O12A	Currie	0.90	172	⇑S	Sg	18 00 51.2	+0.4
	baz=0.7						
L12A	House Creek Ra	0.99	355	⇑S	Sg	18 00 54.1	+0.3
	baz=1.1						
L13A	Double Diamond	1.18	37	⇑S	Sg	18 00 59.4	-0.4
	baz=1.3						
O11A	Cowboy Ranch,	1.18	209	⇓S	Sg	18 00 59.4	-0.3
	baz=1.1						
L11A	Cat Creek Ranc	1.19	328	⇓S	Sg	18 00 59.7	-0.6
	baz=1.3						
M14A	Sheep Mountain	1.22	73	⇑S	Sg	18 01 01.0	-0.2
	baz=1.2						
O13A	Hicks Ranch, I	1.24	145	⇓S	Sg	18 01 02.8	+0.9
	baz=1.1						
M10A	I.L. Ranch, Tu	1.28	287	⇓S	Sg	18 01 03.6	+0.3
	baz=1.4						
N10A	Dunphy	1.29	251	⇓S	Sg	18 01 03.4	-0.1
	baz=1.3						
N14A	Grayback Hills	1.33	103	⇓S	Sg	18 01 04.8	-0.1
	baz=1.3						
BGU	Big Grassy Mou	1.44	99	ePn	Pn	18 00 47.4	-1.5
BGU				eS	Sb	18 01 07.3	-0.7
O10A	Cortez Mining,	1.49	235	⇑P	Pn	18 00 49.0	-0.6
	baz=1.4,SNR=9.8						
L10A	Juniper Basin	1.49	309	⇑S	Sn	18 01 08.9	-0.8
	baz=1.6						
L14A	Malta	1.52	54	⇓P	Pn	18 00 49.4	-0.7
	baz=1.6,SNR=8.3						
L14A				⇓S	Sn	18 01 09.9	-0.6
	baz=1.6						
K13A	Stover Farm, H	1.61	22	⇓P	Pn	18 00 50.6	-0.7
	baz=1.7,SNR=7.9						
K13A				⇑S	Sn	18 01 11.9	-0.7
	baz=1.7						
P12A	McGill	1.68	180	⇓P	Pn	18 00 51.8	-0.5
	baz=1.5,SNR=12						
HVU	Hansel Valley	1.71	68	ePn	Pn	18 00 52.2	-0.5
HVU				eS	Sn	18 01 14.7	-0.5
N15A	Stansbury Isla	1.82	98	⇓P	Pn	18 00 53.9	-0.3
	baz=1.8,SNR=10						
SPUT	South Promonto	1.86	85	eP	Pn	18 00 54.5	-0.1
DUG	Dugway	1.86	120	⇓P	Pn	18 00 55.4	+0.7
	baz=1.8,SNR=17						
DUG	Dugway	1.86	120	eP	Pn	18 00 53.6	-1.1
DUG				eS	Sn	18 01 18.9	+0.2
M15A	Larsen Ranch,	1.87	80	⇓P	Pn	18 00 54.6	-0.3
	baz=1.9,SNR=10						
BMN	Battle Mountai	1.90	248	ePn	Pn	18 00 55.6	+0.3
BMN				eS	Sn	18 01 20.7	+0.9
NOQ	North Oquirrh	2.17	103	eP	Pn	18 01 00.0	+1.0
Q13A	Wheeler Ranch,	2.30	163	P	Pn	18 01 00.3	-0.5
	baz=2.2,SNR=5.6						
CTU	Camp Tracy	2.43	100	ePn	Pn	18 01 02.6	0.0
NLU	North Lily Min	2.47	118	ePn	Pn	18 01 04.2	+1.1
MPU	Maple Canyon	2.74	114	ePg	Pg	18 01 13.1	-1.4
DAU	Daniels Canyon	2.87	104	Pn	Pn	18 01 10.2	+1.6
DAU				ePg	Pg	18 01 16.2	-0.7
MSU	Marysvale	3.37	141	ePn	Pn	18 01 14.8	-0.7
RRI2	Red Ridge	3.44	49	ePn	Pn	18 01 18.9	+2.4
ARUT	Antelope Range	3.55	161	ePn	Pn	18 01 16.2	-1.8
ARUT				ePg	Pg	18 01 27.5	-2.5
REDW	Red Top Meadow	3.73	52	ePn	Pn	18 01 23.1	+2.7
TPAW	Teton Pass	3.74	50	ePn	Pn	18 01 23.9	+3.3
NVAR	Mina Array Bea	3.78	225	Pn	Pn	18 01 20.8	-0.4
	1.6nm,0.3s,baz=37,slow=13,SNR=11						
NVAR				Lg		18 02 21.4	
	9.3nm,0.3s,baz=45,slow=21,SNR=6.5						
MCMT	McKenzie Canyo	3.96	22	ePn	Pn	18 01 25.0	+1.3
IMW	Indian Meadow	4.01	46	ePn	Pn	18 01 30.6	+6.3
LOHW	Long Hollow	4.02	51	ePn	Pn	18 01 30.8	+6.4
MOOW	Moose Ponds	4.02	49	ePn	Pn	18 01 26.9	+2.4
PDAR	Pinedale Array	4.30	66	Pn	Pn	18 01 30.6	+2.4
	0.2nm,0.3s,baz=246,slow=12,SNR=5.1						
PDAR				Lg		18 02 36.2	
	0.8nm,0.3s,baz=243,slow=28,SNR=7.5						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YBH	Yreka Blue Hor	5.90	278	Lg		18 03 25.7	
	0.1nm,0.3s,baz=175,slow=19,SNR=2.6						
YKA	Yellowknife Ar	21.37	0	P	P	18 05 09.8	-0.4
	0.5nm,0.7s,baz=180,slow=10,SNR=10.0						

IDC 21 18:01:05.1±2.3, 32°.56S×177°.97W, h0km, mb4.3/3, mb1 4.4/4, mb1mx4.0/17, mbtmp4.3/4, ML3.8/1, Error ellipse: s-maj=55.3km s-min=46.2km az=143.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	6.96	214	Pn	Pn	18 02 47.1	-1.2
	1.8nm,0.3s,baz=85,slow=6.0,SNR=7.8						
URZ				Sn	Sn	18 04 03.1	-5.0
	7.6nm,0.3s,baz=174,slow=16,SNR=13						
CTA	Charters Tower	34.22	282	P	P	18 07 54.1	+1.5
	3.2nm,0.6s,baz=117,slow=12						
ASAR	Alice Springs	43.06	269	P	P	18 09 06.5	-0.4
	1.7nm,0.7s,baz=106,slow=7.5,SNR=36						
WRA	Warramunga Arr	44.24	274	P	P	18 09 15.8	-0.6
	2.3nm,0.3s,baz=113,slow=8.1,SNR=117						
QSPA	South Pole Qui	57.55	180	P	P	18 11 07.6	+12
	2.3nm,0.6s,baz=144,slow=0.4,SNR=5.1						
MKAR	Makanchi Array	119.16	309	PKP	PKPdf	18 19 55.7	0.0
	0.4nm,0.9s,baz=114,slow=0.9,SNR=2.6						
BRTR	Keskin Array B	153.59	295	PKPbc	PKPbc	18 21 06.0	+0.3
	0.5nm,0.7s,baz=164,slow=5.0,SNR=4.3						

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*ISCJB **21** 18:09:59.2±5.7, 5°.6S±0°.2×146°.9E±0°.3, h111km±42km, mb4.2/3, Error ellipse: s-maj=53.2km s-min=33.7km az=158.7*

*IDC **21** 18:10:08.9±9.9, 5°.74S×146°.73E, h180km±90km, mb3.9/3, mb1 3.9/5, mb1mx3.4/16, mbtmp3.8/5, Error ellipse: s-maj=51.5km s-min=39.3km az=70.0*

*NEIC **21** 18:10:12.4±5.3, 5°.84S×146°.52E, h203km±51km, mb4.5/1, Error ellipse: s-maj=36.1km s-min=28.8km az=169.0*

ISC 21 18:10:00.1±4.5, 5°.6S±0°.2×146°.9E±0°.3, h104km±32km, n15, σ0ˢ.23/15, mb4.2/3, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	Coen	9.10	204	*e*P	Pn	18 12 08.7	+0.1
COEN				*e*S	Sn	18 13 43.6	-5.6
CTA	Charters Tower	14.43	183	*e*P	Pn	18 13 26.1	+6.6
	2.8nm,0.9s						
CTA	Charters Tower	14.43	183	P	Pn	18 13 24.6	+5.2
	0.4nm,0.3s,baz=360,slow=13,SNR=4.3						
CTAO	Charters Tower	14.43	183	*e*P	Pn	18 13 24.7	+5.2
KAKA	Kakadu	15.95	243	*e*P	Pn	18 13 38.3	-0.4
	7.4nm,0.4s						
WRAB	Tennant Creek	18.78	219	*e*P	P	18 14 11.3	-0.1
	13nm,0.7s						
WB2	Warramunga Arr	18.79	219	*e*P	P	18 14 11.4	-0.1
WRA	Warramunga Arr	18.80	219	P	P	18 14 11.8	+0.2
	2.5nm,0.3s,baz=37,slow=11,SNR=105						
ASAR	Alice Springs	21.91	214	P	P	18 14 45.4	+0.3
	5.5nm,0.5s,mb4.2,baz=48,slow=8.7,SNR=215						
FITZ	Fitzroy Crossi	24.22	237	*e*P	P	18 15 07.6	+0.2
	15nm,0.4s,mb4.7						
FITZ	Fitzroy Crossi	24.22	237	P	P	18 15 07.6	+0.2
	10nm,0.5s,mb4.4,baz=65,slow=7.8,SNR=30						
STKA	Stephens Creek	26.62	190	*e*P	P	18 15 28.6	-0.4
	2.9nm,0.8s,mb3.9						
STKA	Stephens Creek	26.62	190	P	P	18 15 28.6	-0.3
	1.2nm,0.5s,mb3.7,baz=30,slow=7.9,SNR=6.1						
MKAR	Makanchi Array	77.13	320	P	P	18 21 42.4	+0.1
	0.2nm,0.7s,baz=108,slow=5.6,SNR=4.0						
TORD	Torodi Ar. Bea	144.91	285	PKP	PKPdf	18 29 26.2	+0.1
	0.2nm,0.5s,baz=71,slow=3.6,SNR=2.7						

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*NEIC **21** 18:13:36.8, 36°.23N×21°.80E, h13km, MD3.5(ATH), After ATH.*

*CSEM **21** 18:13:36.8, 36°.23N×21°.80E, h13km, MD3.5, After ATH*

ATH 21 18:13:36.8, 36°.23N×21°.80E, h13km±3km, MD3.5/8, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.67	356	*e*PB	Pb	18 13 49.0	-1.3
PYL				*e*SB	Sb	18 13 59.9	+0.5
PYL	PYLOS	0.67	356	*e*Pb	Pb	18 13 49.0	-1.3
PYL				*e*Sb	Sb	18 13 59.9	+0.5
ITM	Ithomi	0.95	6	*e*PG	Pg	18 13 54.7	-0.5
ITM				*e*SB	Sb	18 14 07.9	+0.2
ITM	Ithomi	0.95	6	*e*Pg	Pg	18 13 54.7	-0.5
ITM				*e*Sb	Sb	18 14 07.9	+0.2
KYTH	Kithira	1.00	87	*e*PN	Pn	18 13 56.3	-0.2
KYTH	Kithira	1.00	87	*e*Pn	Pn	18 13 56.3	-0.2
VLI	Veliai	1.04	62	*e*PN	Pn	18 13 57.0	0.0
VLI				*e*SB	Sb	18 14 10.9	+0.8
VLI	Veliai	1.04	62	*e*Pn	Pn	18 13 57.0	0.0
VLI				*e*Sb	Sb	18 14 10.9	+0.8
VLX	Vlachokerasia	1.23	22	*e*PN	Pn	18 13 59.4	-0.3
VLX				*e*SB	Sb	18 14 16.5	+0.8
VLX	Vlachokerasia	1.23	22	*e*Pn	Pn	18 13 59.4	-0.3
VLX				*e*Sb	Sb	18 14 16.5	+0.8
GUR	Goura	1.76	14	*e*PN	Pn	18 14 09.2	+2.3
GUR	Goura	1.76	14	*e*Pn	Pn	18 14 09.2	+2.3
RLS	Riolos of Patr	1.84	352	*e*PN	Pn	18 14 10.7	+2.6
RLS	Riolos of Patr	1.84	352	*e*Pn	Pn	18 14 10.7	+2.6
KARN	Karanos	1.91	115	*e*PN	Pn	18 14 11.1	+2.1
KARN	Karanos	1.91	115	*e*Pn	Pn	18 14 11.1	+2.1
LTK	Loutraki	2.02	27	*e*PG	Pg	18 14 13.5	-2.0
LTK	Loutraki	2.02	27	*e*Pg	Pg	18 14 13.5	-2.0
LKR	Lokris	2.60	21	*e*PN	Pn	18 14 20.8	+2.3
LKR	Lokris	2.60	21	*e*Pn	Pn	18 14 20.8	+2.3
LAST	Lasithi	3.18	109	*e*PN	Pn	18 14 28.6	+2.1
LAST	Lasithi	3.18	109	*e*Pn	Pn	18 14 28.6	+2.1

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*IDC **21** 18:23:04.9±4.2, 2°.72N×96°.03E, h0km, mb3.5/4, mb1 3.6/4, mb1mx3.3/21, mbtmp3.5/4, Error ellipse: s-maj=165.5km s-min=27.9km az=57.0*

*ISCJB **21** 18:23:09.3±4.8, 2°.7N±0°.3×95°.9E±0°.7, h50km±30km, mb3.5/3, Error ellipse: s-maj=123.3km s-min=25.7km az=154.4*

ISC 21 18:23:10.3±5.0, 2°.7N±0°.4×95°.9E±0°.7, h41km±32km, n5, σ0ˢ.97/6, mb3.5/3, 1D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.88	348	⇓*e*P	Pn	18 23 54.0	+0.2
BSI				*e*S	Sn	18 24 27.0	-0.2
WRA	Warramunga Arr	43.89	123	P	P	18 31 13.0	-0.2
	0.4nm,0.9s,baz=302,slow=9.0,SNR=2.7						
MKAR	Makanchi Array	45.53	347	P	P	18 31 26.5	+0.7
	0.3nm,0.4s,mb3.5,baz=155,slow=9.0,SNR=9.5						
SONM	Songino Array	45.90	10	P	P	18 31 29.3	+0.6
	0.5nm,0.7s,mb3.5,baz=189,slow=11,SNR=4.1						
ZALV	Zalesovo Beam	51.93	352	P	P	18 32 13.8	-1.0
	0.3nm,0.4s,mb3.6,baz=183,slow=7.2,SNR=4.2						

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*IDC **21** 18:29:21.8±12.0, 37°.29N×72°.00E, h177km±110km, mb3.3/2, mb1 3.4/4, mb1mx3.0/24, mbtmp3.4/4, Error ellipse: s-maj=112.9km s-min=32.5km az=163.0*

*BJI **21** 18:29:22.3, 37°.48N×72°.04E, h189km, mb4.1/2*

*ISCJB **21** 18:29:24.8±0.9, 37°.47N±0°.06×72°.0E±0°.1, h219km±12km, mb3.3/2, Error ellipse: s-maj=15.9km s-min=6.7km az=152.0*

*NEIC **21** 18:29:26.1±1.5, 37°.47N×72°.02E, h214km±17km, mb4.1/4, Error ellipse: s-maj=20.7km s-min=8.1km az=71.0*

*NNC **21** 18:29:31.0±5.0, 37°.97N×72°.03E, h251km±57km, mb2.5, mpv3.8, Error ellipse: s-maj=51.5km s-min=29.0km az=10.0*

ISC 21 18:29:25.3±1.0, 37°.45N±0°.06×72°.0E±0°.1, h206km±11km, n25, σ1ˢ.13/30, mb3.3/2, 4C-1D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.76	56	P	Pn	18 30 19.3	-5.0
KSH				S	Sn	18 30 57.8	-13
KSH				smax			
	comp=N,300nm,0.2s						
KSH				smax			
	comp=E,230nm,0.2s						
AML	Almayashu	4.86	15	P	Pn	18 30 39.0	+1.1
	SNR=44						
AML	Almayashu	4.86	15	*e*P	Pn	18 30 38.8	+0.8
UCH	Uchtor	5.16	22	P	Pn	18 30 42.7	+0.9
	SNR=26						
EKS2	Erkin-Say	5.38	14	P	Pn	18 30 46.5	+1.9
	SNR=7.8						
AAK	Ala-Archa	5.53	20	P	Pn	18 30 47.6	+1.1
	SNR=16						
KK31	Karatay Array	5.75	349	P	Pn	18 30 50.5	+1.1
	comp=E,7.6nm,0.6s,baz=162,slow=12,SNR=64						
KK31				⇑S	Sn	18 31 53.2	-2.8
	comp=E,5.2nm,0.3s,baz=169,slow=20,SNR=17						
ULHL	Ulahol	5.81	33	P	Pn	18 30 50.0	-0.1
	SNR=9.9						
THN	Thein Dam	5.88	147	*e*PKP	Pn	18 30 48.8	-2.4
THN				*e*S	Sn	18 31 53.1	-6.0
TKM2	Tokmak 2	6.13	26	⇑P	Pn	18 30 54.5	+0.3
	comp=E,6.1nm,0.6s						
TKM2				⇓S	Sn	18 32 02.5	-2.2
	comp=E,7.4nm,0.7s						
TKM2	Tokmak 2	6.13	26	P	Pn	18 30 54.5	+0.3
	SNR=8.5						
MKAR	Makanchi Array	12.07	36	P	Pn	18 32 09.7	-1.1
	comp=E,0.2nm,0.3s,baz=215,slow=12,SNR=9.0						
KOLN	Koldanda	13.75	131	*e*P	Pn	18 32 33.6	+1.6
	comp=E,3.3nm,0.3s						
KURK	Kurchatov	14.09	18	*e*P	Pn	18 32 36.4	+0.6
	comp=E,5.3nm,1.0s						
GKN	Gorkha	14.22	128	*e*P	Pn	18 32 38.7	+0.9
	comp=E,16nm,0.4s						
AB09	Akbulak array	14.67	327	⇑P	Pn	18 32 41.8	-1.3
	comp=E,0.6nm,0.6s						
AB09				⇑S	S	18 35 20.9	-5.0
	comp=E,0.9nm,0.7s						
DMN	Daman	14.79	128	*e*P	Pn	18 32 44.8	0.0
GUN	Gumba	15.08	125	*e*P	Pn	18 32 47.9	-0.4
JIRN	Jiri	15.45	125	*e*P	Pn	18 32 52.6	-0.2
	comp=E,4.6nm,0.4s						
BRVK	Borovoye	15.65	356	P	Pn	18 32 56.0	+1.2
	comp=E,2.0nm,0.7s						
RAMN	Ramite	16.20	126	*e*P	P	18 32 59.9	-1.2
	comp=E,3.3nm,0.4s						
ZAA0	Zalesovo Array	18.73	24	*e*P	P	18 33 28.1	-0.3
ZALV	Zalesovo Beam	18.73	24	P	P	18 33 28.2	-0.1
	comp=E,4.4nm,0.3s,baz=210,slow=9.7,SNR=80						
SONM	Songino Array	27.16	57	P	P	18 34 49.3	-0.1
	comp=E,0.2nm,0.5s,mb3.0,baz=254,slow=9.7,SNR=4.6						
TORD	Torodi Ar. Bea	66.51	269	P	P	18 39 53.0	-0.2
	comp=E,0.6nm,0.4s,mb3.6,baz=48,slow=6.0,SNR=19						

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*BJI **21** 18:33:19.5, 7°.15N×137°.24E, h41km, mB4.8/9, mb4.7/19, Ms4.3/2, Ms7 4.1/2*

*ISCJB **21** 18:33:22.6±0.4, 7°.69N±0°.05×137°.07E±0°.07, h33km, mb4.5/28, MS3.7/7, Error ellipse: s-maj=10.1km s-min=7.6km az=17.0*

*IDC **21** 18:33:24.8±5.5, 7°.72N×137°.00E, h33km±42km, mb4.2/14, mb1 4.3/15, mb1mx4.2/23, mbtmp4.3/15, ML4.6/1, MS3.7/7, Ms1 3.7/7, ms1mx3.3/39, Error ellipse: s-maj=22.7km s-min=12.5km az=86.0*

*NEIC **21** 18:33:26.7±1.4, 7°.68N×137°.00E, h54km±13km, mb4.6/11, Error ellipse: s-maj=11.0km s-min=6.3km az=94.0*

ISC 21 18:33:26.0±1.8, 7°.69N±0°.05×137°.07E±0°.08, h46km±18km, n43, σ0ˢ.81/39, mb4.5/28, MS3.7/7, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	9.65	52	Pn	Pn	18 35 43.5	+1.2
	5.2nm,0.3s,baz=239,slow=22,SNR=5.9						
GUMO				Sn	Sn	18 37 28.3	-1.2
	4.5nm,0.3s,baz=120,slow=23,SNR=2.2						
KAKA	Kakadu	20.78	193	*e*P	P	18 38 03.1	-0.3
JOW	Kunigami	20.79	337	P	P	18 38 04.2	+0.8
	64nm,1.0s,baz=158,slow=13,SNR=7.5						
JOW				LR	LR	18 44 17.3	
	comp=Z,180nm,21.2s,MS3.4,baz=41,slow=32						
JOW	Kunigami	20.79	337	P	P	18 38 04.2	+0.8
JOW				LR	LR	18 44 17.3	
KAPI	Kappang	21.39	234	P	P	18 38 10.1	0.0
	8.7nm,0.7s,mb4.2,baz=82,slow=17,SNR=5.4						
JHJ	Hachijo jima 2	25.43	5	LR	LR	18 46 25.0	
	comp=Z,219nm,18.9s,MS3.7,baz=44,slow=31						
WRAB	Tennant Creek	27.58	186	*e*P	P	18 39 08.2	-0.8
WRA	Warramunga Arr	27.59	186	P	P	18 39 08.6	-0.5
	2.6nm,0.5s,mb4.1,baz=4.9,slow=10,SNR=37						
HNR	Honiara	28.43	126	LR	LR	18 49 38.3	
	comp=Z,139nm,18.7s,MS3.6,baz=154,slow=34						
MJAR	Matsushiro Arr	28.74	2	P	P	18 39 17.1	-2.1
	1.2nm,0.7s,mb3.7,baz=175,slow=10,SNR=4.8						
MJAR	Matsushiro Arr	28.74	2	P	P	18 39 17.1	-2.1
KSRS	Korea Array	30.77	346	LR	LR	18 51 32.4	
	comp=Z,92nm,18.3s,MS3.5,baz=282,slow=35						
ASAR	Alice Springs	31.31	186	P	P	18 39 41.9	-0.2
	1.0nm,0.5s,mb3.9,baz=14,slow=12,SNR=26						
ASAR				PcP	PcP	18 42 36.1	+0.7
	1.5nm,0.6s,baz=5.5,slow=2.0,SNR=14						
XAN	Xi’an	36.90	319	P	P	18 40 29.9	-0.5
XAN				pP	pP	18 40 37.8	-5.0
XAN				sP	sP	18 40 41.6	-6.7
XAN				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
XAN				pmax	pmax		
	comp=Z,29nm,3.9s						
CMAR	Chiang Mai Arr	38.57	290	P	P	18 40 43.7	-1.0
	comp=Z,1.6nm,0.6s,mb3.9,baz=110,slow=6.6,SNR=16						
CMAR				PcP	PcP	18 42 57.5	+0.8
	comp=Z,0.7nm,0.7s,baz=73,slow=1.5,SNR=4.8						
CD2	Chengdu	38.76	311	P	P	18 40 46.1	0.0
CD2				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.4						
YSS	Yuzh-Sakhalins	39.43	6	*e*P	P	18 40 52.2	+0.7
	comp=Z,8.0nm,0.9s,mb4.5						
STKA	Stephens Creek	39.58	174	P	P	18 40 53.5	+0.6
	comp=Z,2.5nm,0.4s,mb4.3,baz=343,slow=8.7,SNR=22						
STKA				PcP	PcP	18 43 00.7	+1.1
	comp=Z,1.3nm,0.7s,baz=14,slow=7.7,SNR=2.8						
STKA				LR	LR	18 57 51.8	
	comp=Z,139nm,18.3s,MS3.8,baz=23,slow=37						
LZH	Lanzhou	41.45	318	*e*P	P	18 41 09.1	+0.7
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,110nm,5.0s						
GTA	Gaotai	45.96	319	*e*P	P	18 41 44.6	0.0
GTA				pP	pP	18 42 01.3	+4.0
GTA				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
SHL	Shillong	46.53	298	*e*PKP	P	18 41 50.5	+1.2
ULN	Ulaanbaatar	47.46	333	*e*P	P	18 41 56.9	+0.7
	comp=Z,6.3nm,1.2s,mb4.4						
SONM	Songino Array	47.74	332	P	P	18 41 58.7	+0.4
	comp=Z,3.5nm,0.8s,mb4.4,baz=147,slow=8.1,SNR=18						
SONM				PcP	PcP	18 43 27.2	+0.2
	comp=Z,1.8nm,0.7s,baz=149,slow=3.7,SNR=5.8						
SONM				LR	LR	19 00 57.3	
	comp=Z,151nm,18.2s,MS4.0,baz=2.3,slow=35						
LSA	Lhasa	48.29	303	P	P	18 42 03.6	+0.7
LSA	Lhasa	48.29	303	*e*P	P	18 42 03.5	+0.6
	comp=Z,3.5nm,0.8s,mb4.4						
PETK	Petropavlovsk-	48.30	17	P	P	18 42 02.5	-0.1
	comp=Z,2.9nm,0.9s,mb4.3,baz=251,slow=0.9,SNR=3.8						
YAK	Yakutsk	54.51	356	*e*P	P	18 42 48.9	+0.1
	comp=Z,17nm,0.8s,mb5.1						
MKAR	Makanchi Array	60.71	320	P	P	18 43 32.8	0.0
	comp=Z,14nm,0.6s,mb5.2,baz=105,slow=8.6,SNR=220						
ZAA0	Zalesovo Array	62.23	328	*e*P	P	18 43 41.9	-1.1
ZALV	Zalesovo Beam	62.23	328	P	P	18 43 42.0	-0.9
	comp=Z,6.6nm,0.8s,mb4.8,baz=104,slow=6.3,SNR=29						
ZALV				LR	LR	19 10 40.4	
	comp=Z,52nm,19.1s,MS3.7,baz=88,slow=36						
TKM2	Tokmak 2	64.03	314	*e*P	P	18 43 55.0	-0.1
	comp=Z,3.4nm,0.7s,mb4.5						
KURK	Kurchatov	64.39	323	*e*P	P	18 43 56.5	-0.8
	comp=Z,20nm,0.8s,mb5.2						
UCH	Uchtor	64.64	313	*e*P	P	18 43 59.7	+0.6
	comp=Z,9.4nm,0.9s,mb4.8						
AML	Almayashu	65.22	313	*e*P	P	18 44 03.3	+0.5
	comp=Z,9.0nm,0.8s,mb4.8						
KBL	Kabul	67.60	304	*e*P	P	18 44 16.8	-1.4
	comp=Z,2.9nm,0.7s,mb4.4						
BRVK	Borovoye	70.02	324	*e*P	P	18 44 32.4	-0.4
	comp=Z,12nm,0.8s,mb4.9						
COLD	Coldfoot	76.29	22	*e*P	P	18 45 11.6	+1.9
	comp=Z,3.2nm,1.0s,mb4.2						
INK	Inuvik	82.69	22	*e*P	P	18 45 44.5	+0.1
VNDA	Vanda	86.21	175	P	P	18 46 03.0	+1.0
	comp=Z,1.6nm,0.8s,mb4.3,baz=323,slow=8.0,SNR=6.5						
ARCES	ARCESS Array B	90.21	341	P	P	18 46 20.3	-0.9
	comp=Z,5.9nm,0.9s,mb4.9,baz=74,slow=4.4,SNR=5.0						
YKA	Yellowknife Ar	91.55	26	P	P	18 46 28.3	+0.7
	comp=Z,0.7nm,0.6s,mb4.2,baz=294,slow=4.8,SNR=13						
TORD	Torodi Ar. Bea	131.08	295	PKP	PKPdf	18 52 33.1	-0.7
	comp=Z,0.5nm,0.8s,baz=39,slow=0.9,SNR=4.2						
OTAV	Otavalo	143.72	79	*e*PKPdf	PKPdf	18 52 56.6	-0.5

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*CSEM **21** 18:46:19.5±0.7, 36°.26N×21°.36E, h20km, MD3.5, Error ellipse: s-maj=16.6km s-min=8.4km az=26.0*

*NEIC **21** 18:46:19.3, 36°.26N×21°.41E, h33km, MD3.5(ATH), After ATH.*

*ATH **21** 18:46:19.3, 36°.26N×21°.41E, h33km±2km, MD3.5/8*

ISC 21 18:46:18.7±2.1, 36°.24N±0°.09×21°.32E±0°.10, h16km±8km, n21, σ0ˢ.66/29, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.74	28	*e*PN	Pg	18 46 33.3	+0.2
PYL				*e*SN	Sg	18 46 43.5	+0.7
PYL	PYLOS	0.74	28	*e*Pn	Pg	18 46 33.3	+0.2
PYL				*e*Sn	Sg	18 46 43.5	+0.7
ITM	Ithomi	1.06	27	*e*PN	Pg	18 46 38.5	-0.6
ITM				*e*SN	Sg	18 46 52.6	-0.3
ITM	Ithomi	1.06	27	*e*Pn	Pg	18 46 38.5	-0.6
ITM				*e*Sn	Sg	18 46 52.6	-0.3
VLI	Veliai	1.39	70	*e*PN	Pn	18 46 43.3	-0.1
VLI				*e*SN	Sn	18 47 00.6	-0.8
VLI	Veliai	1.39	70	*e*Pn	Pn	18 46 43.3	-0.1
VLI				*e*Sn	Sn	18 47 00.6	-0.8
KYTH	Kithira	1.39	88	*e*PN	Pn	18 46 43.5	+0.1
KYTH	Kithira	1.39	88	*e*Pn	Pn	18 46 43.5	+0.1
VLX	Vlachokerasia	1.41	37	*e*PN	Pn	18 46 43.5	-0.2
VLX				*e*SN	Sn	18 47 01.9	0.0
VLX	Vlachokerasia	1.41	37	*e*Pn	Pn	18 46 43.5	-0.2
VLX				*e*Sn	Sn	18 47 01.9	0.0
RLS	Riolos of Patr	1.82	4	*e*PN	Pn	18 46 50.0	+0.8
RLS	Riolos of Patr	1.82	4	*e*Pn	Pn	18 46 50.0	+0.8
GUR	Goura	1.88	26	*e*PB	Pn	18 46 51.0	+0.9
VLS	Valsamata	2.02	343	*e*PN	Pb	18 46 53.3	-1.6
VLS	Valsamata	2.02	343	*e*Pn	Pb	18 46 53.3	-1.6
LTK	Loutraki	2.21	36	*e*PN	Pn	18 46 54.2	-0.5
LTK	Loutraki	2.21	36	*e*Pn	Pn	18 46 54.2	-0.5
NAIG	Nisos Aigina	2.31	48	*e*PN	Pn	18 46 56.5	+0.6
NAIG	Nisos Aigina	2.31	48	*e*Pn	Pn	18 46 56.5	+0.6
THL	Klokotos Trika	3.36	9	*e*PN	Pn	18 47 11.2	+0.7
THL	Klokotos Trika	3.36	9	*e*Pn	Pn	18 47 11.2	+0.7

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*ISCJB **21** 18:46:28.6±0.4, 10°.80N±0°.03×62°.39W±0°.02, h86km±6km, Error ellipse: s-maj=4.5km s-min=3.3km az=149.6*

*NEIC **21** 18:46:31.6, 10°.88N×62°.28W, h70km, MD3.6(TRN), After TRN.*

*FUNV **21** 18:46:31.3, 10°.79N×62°.36W, h70km, MW3.7*

*TRN **21** 18:46:32.1, 10°.91N×62°.23W, h73km, MD3.6*

ISC 21 18:46:29.6±0.4, 10°.81N±0°.03×62°.39W±0°.02, h79km±6km, n36, σ1ˢ.20/68, 6C-6D, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.22	135	⇑*e*P	Pn	18 46 41.7	+0.4
GUIV				*e*S	Sn	18 46 50.0	0.0
TCE	Chacachacare	0.63	100	⇓*e*P	Pn	18 46 45.1	+0.6
TCE				*e*S	Sn	18 46 55.5	+0.1
CRUV	Carupano	0.85	261	⇓*e*P	Pn	18 46 48.0	+1.2
CRUV				*e*S	Sn	18 46 59.2	-0.3
ITEV	Isla Los Testi	0.91	307	⇓*i*P	Pn	18 46 48.1	+0.5
ITEV				*e*S	Sn	18 47 01.4	+0.4
BUAY	Buenos Aires	0.98	135	⇓*e*P	Pn	18 46 50.5	+2.2
BUAY				*e*S	Sn	18 47 04.0	+1.7
BUAY	Buenos Aires	0.98	135	⇓*i*P	Pn	18 46 51.1	+2.8
BUAY				*e*S	Sn	18 47 02.3	0.0
TRN	Trinidad (W)	0.98	99	⇑*i*P	Pn	18 46 48.9	+0.5
TRN				*e*S	Sn	18 47 01.1	-1.2
TPP	Pointe-a-Pierr	1.04	118	*e*P	Pn	18 46 50.4	+1.3
TPP				*e*S	Sn	18 47 05.9	+2.3
TPP	Pointe-a-Pierr	1.04	118	*e*P	Pn	18 46 50.4	+1.3
TPP				*e*S	Sn	18 47 06.8	+3.2
TBH	Brigand Hill	1.33	104	⇑*e*P	Pn	18 46 53.5	+0.7
TBH				*e*S	Sn	18 47 10.3	+0.1
GRGR	Grenville	1.50	28	*e*P	Pn	18 46 53.7	-1.2
GRW	Mount Saint Ca	1.52	28	⇑*e*P	Pn	18 46 55.3	+0.1
GRW				*e*S	Sn	18 47 12.3	-2.2
TPR	Prospect	1.62	76	*e*P	Pn	18 46 57.2	+0.7
TPR				*e*S	Sn	18 47 15.3	-1.5
BOT	Bacolet	1.68	77	*e*P	Pn	18 46 57.5	+0.3
BOT				*e*S	Sn	18 47 15.3	-2.8
BOT	Bacolet	1.68	77	*e*P	Pn	18 46 57.5	+0.3
BOT				*e*S	Sn	18 47 17.6	-0.5
TOSP	Speyside	1.88	75	*e*P	Pn	18 46 59.2	-0.6
TOSP				*e*S	Sn	18 47 20.5	-2.5
ORIV	Oritupano	2.00	210	*e*P	Pn	18 47 02.2	+0.8
ORIV				*e*S	Sn	18 47 24.8	-0.9
PCRV	Puerto La Cruz	2.30	254	*e*P	Pn	18 47 07.0	+1.6
PCRV				*e*S	Sn	18 47 31.2	-1.8
IBAV	Isla La Blanqu	2.38	295	⇑*e*P	Pn	18 47 07.4	+0.9
IBAV				*e*S	Sn	18 47 34.2	-0.5
FCV	Fort Charlotte	2.59	25	*e*P	Pn	18 47 09.5	+0.1
FCV				*e*S	Sn	18 47 37.2	-2.7
FCV	Fort Charlotte	2.59	25	*e*P	Pn	18 47 09.5	+0.1
FCV				*e*S	Sn	18 47 41.9	+1.9
SVB	Belmont	2.69	24	*e*P	Pn	18 47 12.5	+1.7
SVB				*e*S	Sn	18 47 41.0	-1.4
SVB	Belmont	2.69	24	*e*P	Pn	18 47 14.6	+3.8
SVB				*e*S	Sn	18 47 43.5	+1.1
SVV	Soufriere Volc	2.75	24	*e*P	Pn	18 47 12.1	+0.6
SVV				*e*S	Sn	18 47 41.5	-2.2
SVV	Soufriere Volc	2.75	24	*e*P	Pn	18 47 12.1	+0.6
SVV				*e*S	Sn	18 47 45.1	+1.4
RIOV	Rio Grande	2.78	168	*e*P	Pn	18 47 12.8	+0.8
RIOV				*e*S	Sn	18 47 42.5	-2.0
PRGV	PARIAGUAN	3.02	228	*e*P	Pn	18 47 16.2	+1.0
PRGV				*e*S	Sn	18 47 49.5	-0.7
GURV	El Guri	3.10	193	⇑*e*P	Pn	18 47 16.5	+0.1
GURV				*e*S	Sn	18 47 50.3	-2.1
MCLT	Moule a Chique	3.21	26	*e*P	Pn	18 47 18.4	+0.5
MCLT				*e*S	Sn	18 47 52.1	-3.0
MCLT	Moule a Chique	3.21	26	*e*P	Pn	18 47 18.4	+0.5
MCLT				*e*S	Sn	18 47 54.8	-0.3
CUPV	Cœpira	3.43	258	*e*P	Pn	18 47 22.3	+1.5
CUPV				*e*S	Sn	18 47 58.7	-1.7
BIRV	Birongo	3.83	265	*e*P	Pn	18 47 27.1	+0.8
BIRV				*e*S	Sn	18 48 08.5	-1.7
LUEV	Luepa	5.01	169	*e*P	Pn	18 47 41.9	-0.5
CAOV	Caicara del Or	5.20	229	*e*P	Pn	18 47 45.1	+0.2
CAOV				*e*S	Sn	18 48 40.3	-3.4
TURV	Turiamo	5.37	267	*e*P	Pn	18 47 48.3	+1.0
BAUV	El Baul	5.87	252	⇓*e*P	Pn	18 47 54.6	+0.5

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*GII **21** 18:48:45.4±0.7, 36°.18N×21°.89E, h6km±154km, Mb4.2/2, Md4.0/2*

*ISCJB **21** 18:48:59.3±0.2, 36°.20N±0°.02×21°.62E±0°.02, h10km, mb4.4/27, MS3.4/6, Error ellipse: s-maj=2.7km s-min=2.5km az=33.2*

*BJI **21** 18:49:01.2, 35°.99N×21°.41E, h50km, mb4.6/4, Ms7 4.6/1*

*ATH **21** 18:49:03.4, 36°.28N×21°.64E, h35km±3km, MD4.2/20, ML4.2*

*NEIC **21** 18:49:03.4, 36°.34N×21°.64E, h35km, mb3.7/3, ML4.2(ATH), After ATH.*

*SOF **21** 18:49:03.9, 36°.52N×21°.65E, h5km, MD3.4*

*PDG **21** 18:49:04.4±0.1, 36°.45N×20°.72E, h9km±11km, ML4.1/9, Error ellipse: s-maj=124.6km s-min=27.8km az=90.0*

*THE **21** 18:49:04.7, 36°.32N×21°.84E, h14km±2km, ML4.4/1, Error ellipse: s-maj=3.5km s-min=1.7km az=236.0*

*MOS **21** 18:49:05.7±1.1, 36°.49N×21°.72E, h58km, mb4.8/10, Error ellipse: s-maj=6.7km s-min=3.8km az=95.1*

*CSEM **21** 18:49:05.4±0.2, 36°.34N×21°.67E, h48km±2km, mb4.5/7, Error ellipse: s-maj=4.0km s-min=3.3km az=47.0*

*IDC **21** 18:49:06.0±1.5, 36°.39N×21°.83E, h46km±16km, mb3.9/11, mb1 3.9/19, mb1mx3.8/30, mbtmp3.8/19, ML3.6/7, MS3.3/10,* *Ms1 3.3/10,ms1mx3.0/54,Error ellipse: s-maj=16.4km s-min=13.1km az=174.0*

HLW ***21*** *18:49:06.8,36°.43N×22°.63E,h33^{km},Mb4.2*

ISC 21 18:49:01.4±0.2,**36°.21N**±0°.02×**21°.67E**±0°.02,**h10^{km},n377,** σ**1^{s}.41**/419,**mb4.4**/27,**MS3.4**/6,**17C-10D,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.68**	**5**	P	**Pg**	**18 49 16.2**	**+1.5**
PYL				S	**Sg**	**18 49 25.0**	**+1.4**
PYL	**PYLOS**	**0.68**	**5**	*e*PN	**Pg**	**18 49 16.3**	**+1.6**
PYL				*e*SN	**Sg**	**18 49 25.6**	**+2.0**
PYL	**PYLOS**	**0.68**	**5**	*e*Pn	**Pg**	**18 49 16.3**	**+1.6**
PYL				*e*Sn	**Sg**	**18 49 25.6**	**+2.0**
ITM	**Ithomi**	**0.99**	**12**	*e*PN	**Pg**	**18 49 21.4**	**+1.0**
ITM				*e*SN	**Sg**	**18 49 34.3**	**+1.0**
ITM	**Ithomi**	**0.99**	**12**	*e*Pn	**Pg**	**18 49 21.4**	**+1.0**
ITM				*e*Sn	**Sg**	**18 49 34.3**	**+1.0**
KYTH	**Kithira**	**1.10**	**86**	*e*PN	**Pn**	**18 49 25.3**	**+2.4**
KYTH	**Kithira**	**1.10**	**86**	*e*Pn	**Pn**	**18 49 25.3**	**+2.4**
VLI	**Veliai**	**1.14**	**63**	*e*PN	**Pg**	**18 49 24.9**	**+1.6**
VLI				*e*SN	**Sg**	**18 49 40.3**	**+2.2**
VLI	**Veliai**	**1.14**	**63**	*e*Pn	**Pg**	**18 49 24.9**	**+1.6**
VLI				*e*Sn	**Sg**	**18 49 40.3**	**+2.2**
VLX	**Vlachokerasia**	**1.29**	**26**	*e*PN	**Pn**	**18 49 26.2**	**+0.7**
VLX				*e*SN	**Sg**	**18 49 43.8**	**+0.9**
VLX	**Vlachokerasia**	**1.29**	**26**	*e*Pn	**Pn**	**18 49 26.2**	**+0.7**
VLX				*e*Sn	**Sg**	**18 49 43.8**	**+0.9**
GUR	**Goura**	**1.80**	**17**	*e*PB	**Pn**	**18 49 34.5**	**+2.0**
GUR	**Goura**	**1.80**	**17**	*e*Pb	**Pn**	**18 49 34.5**	**+2.0**
RLS	**Riolos of Patr**	**1.85**	**355**	*e*PB	**Pn**	**18 49 34.8**	**+1.6**
RLS	**Riolos of Patr**	**1.85**	**355**	*e*Pb	**Pn**	**18 49 34.8**	**+1.6**
KARN	**Karanos**	**2.00**	**113**	P	**Pn**	**18 49 37.5**	**+2.3**
KARN	**Karanos**	**2.00**	**113**	*e*PB	**Pn**	**18 49 38.1**	**+2.9**
KARN	**Karanos**	**2.00**	**113**	P	**Pn**	**18 49 37.5**	**+2.3**
KARN	**Karanos**	**2.00**	**113**	*e*Pb	**Pn**	**18 49 38.1**	**+2.9**
LAKA	**Lakka**	**2.04**	**7**	P	**Pn**	**18 49 37.6**	**+1.8**
LAKA				S	**Sn**	**18 50 01.6**	**+0.3**
LTK	**Loutraki**	**2.08**	**29**	P	**Pn**	**18 49 37.0**	**+0.6**
LTK				S	**Sn**	**18 50 00.8**	**-1.6**
LTK	**Loutraki**	**2.08**	**29**	*e*PN	**Pn**	**18 49 36.8**	**+0.4**
LTK	**Loutraki**	**2.08**	**29**	*e*Pn	**Pn**	**18 49 36.8**	**+0.4**
LTK	**Loutraki**	**2.08**	**29**	P	**Pn**	**18 49 37.0**	**+0.6**
LTK				S	**Sn**	**18 50 00.8**	**-1.6**
NAIG	**Nisos Aigina**	**2.12**	**43**	*e*PN	**Pn**	**18 49 38.0**	**+1.1**
NAIG	**Nisos Aigina**	**2.12**	**43**	*e*Pn	**Pn**	**18 49 38.0**	**+1.1**
VLS	**Valsamata**	**2.14**	**337**	P	**Pn**	**18 49 38.0**	**+0.8**
VLS				S	**Sn**	**18 50 04.8**	**+0.9**
VLS	**Valsamata**	**2.14**	**337**	*e*PN	**Pn**	**18 49 37.7**	**+0.5**
VLS	**Valsamata**	**2.14**	**337**	*e*Pn	**Pn**	**18 49 37.7**	**+0.5**
VLS	**Valsamata**	**2.14**	**337**	P	**Pn**	**18 49 38.0**	**+0.8**
TRIZ	**Trizonia**	**2.17**	**8**	P	**Pn**	**18 49 39.4**	**+1.8**
TRIZ				S	**Sn**	**18 50 04.9**	**+0.3**
KALE	**Kalithea**	**2.21**	**10**	P	**Pn**	**18 49 39.4**	**+1.3**
KALE				S	**Sn**	**18 50 05.5**	**+0.1**
KALE	**Kalithea**	**2.21**	**10**	P	**Pn**	**18 49 39.4**	**+1.3**
VAM	**Vamos**	**2.21**	**111**	*e*PN	**Pn**	**18 49 40.7**	**+2.6**
VAM	**Vamos**	**2.21**	**111**	*e*Pn	**Pn**	**18 49 40.7**	**+2.6**
VLY	**Voula,Athens**	**2.36**	**45**	*e*PN	**Pn**	**18 49 40.6**	**+0.4**
VLY	**Voula,Athens**	**2.36**	**45**	*e*Pn	**Pn**	**18 49 40.6**	**+0.4**
ATH	**Athens Observa**	**2.40**	**42**	*e*PN	**Pn**	**18 49 41.1**	**+0.4**
ATH	**Athens Observa**	**2.40**	**42**	*e*Pn	**Pn**	**18 49 41.1**	**+0.4**
ATHU	**Athens Univers**	**2.43**	**43**	P	**Pn**	**18 49 41.2**	**0.0**
ATHU				S	**Sn**	**18 50 09.4**	**-1.6**
ATHU	**Athens Univers**	**2.43**	**43**	P	**Pn**	**18 49 41.2**	**0.0**
ATHU				S	**Sn**	**18 50 09.4**	**-1.6**
PTL	**Penteli**	**2.54**	**43**	*e*PN	**Pn**	**18 49 42.6**	**0.0**
PTL	**Penteli**	**2.54**	**43**	*e*Pn	**Pn**	**18 49 42.6**	**0.0**
LKR	**Lokris**	**2.65**	**23**	P	**Pn**	**18 49 44.0**	**-0.2**
LKR	**Lokris**	**2.65**	**23**	*e*PN	**Pn**	**18 49 44.1**	**-0.1**
LKR	**Lokris**	**2.65**	**23**	P	**Pn**	**18 49 44.7**	**+0.5**
LKR	**Lokris**	**2.65**	**23**	*e*Pn	**Pn**	**18 49 44.1**	**-0.1**
EVR	**Evrytania**	**2.70**	**2**	*e*PB	**Pn**	**18 49 47.0**	**+2.1**
EVR	**Evrytania**	**2.70**	**2**	*e*Pb	**Pn**	**18 49 47.0**	**+2.1**
IDI	**Anoyia**	**2.77**	**108**	*e*PN	**Pn**	**18 49 48.2**	**+2.3**
IDI	**Anoyia**	**2.77**	**108**	P	**Pn**	**18 49 48.2**	**+2.3**
	4.1nm,0.3s,baz=299,slow=15,SNR=15						
IDI				S	**Sn**	**18 50 22.5**	**+3.1**
	52nm,0.3s,baz=325,slow=17,SNR=11						
IDI				LR	LR	18 51 15.7	
	comp=Z,430nm,18.2s,baz=302,slow=48						
IDI	**Anoyia**	**2.77**	**108**	*e*Pn	**Pn**	**18 49 48.2**	**+2.3**
AGG	**Agios Georgios**	**2.85**	**10**	P	**Pn**	**18 49 48.6**	**+1.6**
AGG				S	**Sn**	**18 50 21.4**	**0.0**
AGG	**Agios Georgios**	**2.85**	**10**	*e*PB	**Pn**	**18 49 49.6**	**+2.6**
AGG	**Agios Georgios**	**2.85**	**10**	*e*Pb	**Pn**	**18 49 49.6**	**+2.6**
THR4	**Thira Island,**	**3.02**	**84**	P	**Pn**	**18 49 49.8**	**+0.5**
THR4	**Thira Island,**	**3.02**	**84**	P	**Pn**	**18 49 49.8**	**+0.5**
THR1	**Thera Island**	**3.06**	**86**	P	**Pn**	**18 49 51.5**	**+1.6**
THR1	**Thera Island**	**3.06**	**86**	P	**Pn**	**18 49 51.5**	**+1.6**
LAST	**Lasithi**	**3.27**	**108**	*e*PN	**Pn**	**18 49 55.0**	**+2.3**
LAST	**Lasithi**	**3.27**	**108**	*e*Pn	**Pn**	**18 49 55.0**	**+2.3**
NPS	**Neapolis**	**3.34**	**105**	*e*PN	**Pn**	**18 49 55.4**	**+1.7**
NPS	**Neapolis**	**3.34**	**105**	*e*Pn	**Pn**	**18 49 55.4**	**+1.7**
THL	**Klokotos Trika**	**3.36**	**5**	*e*PN	**Pn**	**18 49 55.2**	**+1.3**
THL	**Klokotos Trika**	**3.36**	**5**	*e*Pn	**Pn**	**18 49 55.2**	**+1.3**
XOR	**Xorichti**	**3.37**	**20**	P	**Pn**	**18 49 53.7**	**-0.4**
XOR	**Xorichti**	**3.37**	**20**	P	**Pn**	**18 49 53.7**	**-0.4**
AOS	**Alonnisos**	**3.43**	**30**	P	**Pn**	**18 49 54.1**	**-0.9**
AOS	**Alonnisos**	**3.43**	**30**	P	**Pn**	**18 49 54.1**	**-0.9**
JAN	**Janina**	**3.50**	**350**	*e*PN	**Pn**	**18 49 57.4**	**+1.5**
JAN	**Janina**	**3.50**	**350**	*e*Pn	**Pn**	**18 49 57.4**	**+1.5**
MEV	**Metsovon**	**3.58**	**355**	P	**Pn**	**18 49 59.4**	**+2.4**
KEK	**Kerkira**	**3.79**	**338**	*e*PN	**Pn**	**18 50 00.2**	**+0.3**
KEK	**Kerkira**	**3.79**	**338**	*e*Pn	**Pn**	**18 50 00.2**	**+0.3**
ZKR	**Zakros**	**3.86**	**105**	*e*PN	**Pn**	**18 50 03.3**	**+2.5**
ZKR	**Zakros**	**3.86**	**105**	*e*Pn	**Pn**	**18 50 03.3**	**+2.5**
LIT	**Litokhoron**	**3.94**	**9**	P	**Pn**	**18 50 02.8**	**+0.9**
LIT	**Litokhoron**	**3.94**	**9**	P	**Pn**	**18 50 02.8**	**+0.9**
PAIG	**Paliouri**	**4.03**	**23**	P	**Pn**	**18 50 02.4**	**-0.8**
PAIG	**Paliouri**	**4.03**	**23**	P	**Pn**	**18 50 02.4**	**-0.8**
KZN	**Kozani**	**4.09**	**1**	*e*PN	**Pn**	**18 50 05.3**	**+1.3**
KZN	**Kozani**	**4.09**	**1**	*e*Pn	**Pn**	**18 50 05.3**	**+1.3**
CHOS	**Chios island**	**4.11**	**57**	P	**Pn**	**18 50 04.0**	**-0.3**
CHOS	**Chios island**	**4.11**	**57**	P	**Pn**	**18 50 04.0**	**-0.3**
PLG	**Polygyros**	**4.38**	**18**	P	**Pn**	**18 50 08.4**	**+0.4**
PLG	**Polygyros**	**4.38**	**18**	*e*PN	**Pn**	**18 50 07.8**	**-0.2**
PLG	**Polygyros**	**4.38**	**18**	*e*Pn	**Pn**	**18 50 07.8**	**-0.2**
PLG	**Polygyros**	**4.38**	**18**	P	**Pn**	**18 50 08.4**	**+0.4**
SMG	**Samos**	**4.40**	**69**	*e*PN	**Pn**	**18 50 09.1**	**+0.9**
SMG	**Samos**	**4.40**	**69**	*e*Pn	**Pn**	**18 50 09.1**	**+0.9**
SIGR	**SIGRI**	**4.47**	**47**	P	**Pn**	**18 50 08.0**	**-1.2**
SIGR	**SIGRI**	**4.47**	**47**	P	**Pn**	**18 50 08.0**	**-1.2**
URLA	**Izmir**	**4.47**	**60**	*i* P	**Pn**	**18 50 08.4**	**-0.9**
URLA	**Izmir**	**4.47**	**60**	*i* P	**Pn**	**18 50 08.4**	**-0.8**
OUR	**Ouranopolis**	**4.50**	**23**	P	**Pn**	**18 50 09.7**	**+0.1**
OUR	**Ouranopolis**	**4.50**	**23**	P	**Pn**	**18 50 09.7**	**+0.1**
KARP	**Karpathos**	**4.51**	**97**	*e*PN	**Pn**	**18 50 10.8**	**+1.1**
KARP	**Karpathos**	**4.51**	**97**	*e*Pn	**Pn**	**18 50 10.8**	**+1.1**
HORT	**Hortiatis**	**4.52**	**14**	P	**Pn**	**18 50 10.1**	**+0.2**
HORT	**Hortiatis**	**4.52**	**14**	P	**Pn**	**18 50 10.1**	**+0.2**
THE	**Thessaloniki**	**4.53**	**13**	P	**Pn**	**18 50 10.2**	**+0.2**
THE	**Thessaloniki**	**4.53**	**13**	P	**Pn**	**18 50 10.2**	**+0.2**
LTBQ	**Tobruq**	**4.55**	**155**	*i* P	**Pn**	**18 50 14.5**	**+4.2**
	86nm,0.5s,SNR=45						
FNA	**Florina**	**4.57**	**357**	P	**Pn**	**18 50 11.2**	**+0.6**
FNA	**Florina**	**4.57**	**357**	P	**Pn**	**18 50 11.2**	**+0.6**
LOS	**Limnos**	**4.59**	**35**	P	**Pn**	**18 50 10.1**	**-0.7**
LOS	**Limnos**	**4.59**	**35**	P	**Pn**	**18 50 10.1**	**-0.7**
LIA	**Limnos Island**	**4.61**	**36**	P	**Pn**	**18 50 10.0**	**-1.1**
LIA	**Limnos Island**	**4.61**	**36**	*e*PN	**Pn**	**18 50 13.2**	**+2.1**
LIA	**Limnos Island**	**4.61**	**36**	P	**Pn**	**18 50 10.0**	**-1.1**
LIA	**Limnos Island**	**4.61**	**36**	*e*Pn	**Pn**	**18 50 13.2**	**+2.1**
GCAM	**G?zelcaml?**	**4.69**	**70**	*e*P	**Pn**	**18 50 16.7**	**+4.4**
GCAM	**G?zelcaml?**	**4.69**	**70**	*e*P	**Pn**	**18 50 16.7**	**+4.4**
BDRM	**Kayabasi**	**4.72**	**78**	*i* P	**Pn**	**18 50 14.3**	**+1.7**
BDRM	**Kayabasi**	**4.72**	**78**	*i* P	**Pn**	**18 50 14.3**	**+1.7**
PRK	**Paraskevi**	**4.74**	**49**	*e*PN	**Pn**	**18 50 15.2**	**+2.3**
PRK	**Paraskevi**	**4.74**	**49**	*e*Pn	**Pn**	**18 50 15.2**	**+2.3**
GRG	**Griva**	**4.77**	**7**	P	**Pn**	**18 50 13.7**	**+0.4**
GRG	**Griva**	**4.77**	**7**	P	**Pn**	**18 50 13.7**	**+0.4**
SOH	**Sokhos**	**4.79**	**15**	P	**Pn**	**18 50 14.6**	**+1.0**
SOH	**Sokhos**	**4.79**	**15**	*e*PN	**Pn**	**18 50 14.7**	**+1.1**
SOH	**Sokhos**	**4.79**	**15**	*e*Pn	**Pn**	**18 50 14.7**	**+1.1**
BIA	**Bitola**	**4.81**	**357**	*e*Pn	**Pn**	**18 50 14.5**	**+0.7**
BIA				*e*Sg	**Sn**	**18 51 03.5**	**-6.0**
BIA	**Bitola**	**4.81**	**357**	*e*Pn	**Pn**	**18 50 14.5**	**+0.7**
SOI	**Samo**	**4.86**	**294**	P	**Pn**	**18 50 16.2**	**+1.7**
SOI	**Samo**	**4.86**	**294**	Pn	**Pn**	**18 50 16.2**	**+1.7**
TIP	**Timpagrande**	**4.89**	**309**	*e*Pn	**Pn**	**18 50 16.1**	**+1.1**
TIP	**Timpagrande**	**4.89**	**309**	*e*Pn	**Pn**	**18 50 16.1**	**+1.1**
OHR	**Ohrid**	**4.94**	**352**	*e*Pn	**Pn**	**18 50 16.1**	**+0.4**
OHR	**Ohrid**	**4.94**	**352**	*e*Pn	**Pn**	**18 50 16.0**	**+0.3**
KNT	**Kendrikon**	**5.03**	**11**	P	**Pn**	**18 50 17.7**	**+0.7**
KNT	**Kendrikon**	**5.03**	**11**	P	**Pn**	**18 50 17.7**	**+0.7**
AYVA	**Ayvalik**	**5.04**	**51**	*i* P	**Pn**	**18 50 20.6**	**+3.6**
AYVA	**Ayvalik**	**5.04**	**51**	*i* P	**Pn**	**18 50 20.6**	**+3.6**
CEL	**Celeste**	**5.04**	**296**	*e*Pn	**Pn**	**18 50 18.2**	**+1.1**
CEL	**Celeste**	**5.04**	**296**	*e*Pn	**Pn**	**18 50 18.2**	**+1.1**
MTTG	**Motta San Giov**	**5.10**	**292**	Pn	**Pn**	**18 50 19.6**	**+1.7**
	115nm,0.6s						
MTTG	**Motta San Giov**	**5.10**	**292**	Pn	**Pn**	**18 50 19.6**	**+1.7**
	115nm,0.6s						
SRS	**Serrai**	**5.12**	**16**	P	**Pn**	**18 50 18.5**	**+0.3**
SRS	**Serrai**	**5.12**	**16**	P	**Pn**	**18 50 18.5**	**+0.3**
VAY	**Valandovo**	**5.15**	**8**	P	**Pn**	**18 50 18.4**	**-0.1**
VAY	**Valandovo**	**5.15**	**8**	*e*Pn	**Pn**	**18 50 18.6**	**+0.1**
VAY	**Valandovo**	**5.15**	**8**	*e*Pn	**Pn**	**18 50 18.6**	**+0.1**
KRUS	**Krusevo**	**5.16**	**356**	*e*Pn	**Pn**	**18 50 18.8**	**+0.1**
KRUS				*e*Sg	**Sn**	**18 51 13.7**	**-4.6**
KRUS	**Krusevo**	**5.16**	**356**	*e*Pn	**Pn**	**18 50 18.7**	**0.0**
AYDN	**Tasoluk**	**5.18**	**72**	*e*P	**Pn**	**18 50 20.5**	**+1.6**
AYDN	**Tasoluk**	**5.18**	**72**	*e*P	**Pn**	**18 50 20.5**	**+1.6**
HAVL	**Avola**	**5.32**	**280**	Pn	**Pn**	**18 50 22.3**	**+1.4**
	186nm,0.4s						
HAVL	**Avola**	**5.32**	**280**	Pn	**Pn**	**18 50 22.3**	**+1.4**
	186nm,0.4s						
NVR	**Nevrokopi**	**5.41**	**18**	P	**Pn**	**18 50 25.5**	**+3.4**
NVR	**Nevrokopi**	**5.41**	**18**	P	**Pn**	**18 50 25.5**	**+3.4**
TAR1	**Taranto**	**5.52**	**323**	*e*Pn	**Pn**	**18 50 23.6**	**0.0**
TAR1				*e*Sn	**Sn**	**18 51 20.1**	**-6.9**
MMB	**Musomiste**	**5.60**	**16**	P	**Pn**	**18 50 25.3**	**+0.5**
TURN	**Turunc**	**5.62**	**81**	*e*P	**Pn**	**18 50 22.6**	**-2.4**
KKB	**Krupnik**	**5.75**	**11**	P	**Pn**	**18 50 27.1**	**+0.3**
SKO	**Skopje**	**5.75**	**358**	P	**Pn**	**18 50 27.8**	**+1.0**
SKO	**Skopje**	**5.75**	**358**	*e*Pn	**Pn**	**18 50 27.6**	**+0.8**
SKO	**Skopje**	**5.75**	**358**	P	**Pn**	**18 50 27.5**	**+0.7**
SKO	**Skopje**	**5.75**	**358**	P	**Pn**	**18 50 27.8**	**+1.0**
RDO	**Rodhopi**	**5.78**	**30**	*e*PN	**Pn**	**18 50 28.8**	**+1.6**
ALN	**Alexandroupoli**	**5.80**	**35**	P	**Pn**	**18 50 26.8**	**-0.6**
ALN	**Alexandroupoli**	**5.80**	**35**	P	**Pn**	**18 50 26.8**	**-0.6**
WDD	**Wield Dalam**	**5.80**	**269**	P	**Pn**	**18 50 30.9**	**+3.3**
LTRZ	**Laterza**	**5.81**	**320**	Pn	**Pn**	**18 50 27.4**	**-0.2**
	84nm,0.7s						
MANT	**Manisa**	**5.94**	**65**	*i* P	**Pn**	**18 50 31.5**	**+2.1**
VAE	**Valguarnera**	**5.96**	**284**	P	**Pn**	**18 50 33.6**	**+3.9**
	1.3nm,0.3s,baz=205,slow=3.9,SNR=3.7						
VAE				S	**Sn**	**18 51 37.8**	**-0.1**
	3.6nm,0.3s,baz=117,slow=17,SNR=2.3						
VAE	**Valguarnera**	**5.96**	**284**	S	**Sn**	**18 51 37.8**	**-0.2**
CUC	**Castrocucco**	**5.96**	**311**	*e*Pn	**Pn**	**18 50 31.3**	**+1.6**
	42nm,0.7s						
ULC	**Ulcinj**	**6.04**	**343**	⇓*i*Pn	**Pn**	**18 50 29.7**	**-1.1**
ULC				*e*Sn	**Sn**	**18 51 34.1**	**-5.9**
KDZ	**Kurdzhali**	**6.16**	**27**	P	**Pn**	**18 50 33.1**	**+0.6**
DURS	**Dursunbey**	**6.35**	**56**	*e*P	**Pn**	**18 50 38.1**	**+3.1**
AKAS	**Kas**	**6.41**	**87**	*e*P	**Pn**	**18 50 37.7**	**+1.8**
GOLH	**Golhisar**	**6.42**	**79**	*i* P	**Pn**	**18 50 40.0**	**+4.0**
BUM	**Brajici-Budva**	**6.45**	**341**	⇑*i*Pn	**Pn**	**18 50 35.2**	**-1.2**
BUM				*e*Sn	**Sn**	**18 51 43.5**	**-6.5**
VTS	**Vitosha**	**6.48**	**10**	P	**Pn**	**18 50 38.2**	**+1.4**
VTS	**Vitosha**	**6.48**	**10**	P	**Pn**	**18 50 38.3**	**+1.5**
TTG	**Podgorica**	**6.48**	**344**	⇓*i*Pn	**Pn**	**18 50 35.9**	**-1.0**
TTG				*e*Sn	**Sn**	**18 51 45.1**	**-5.8**
PVY	**Plav**	**6.51**	**349**	⇑*i*Pn	**Pn**	**18 50 37.3**	**+0.1**
PVY				*e*Sn	**Sn**	**18 51 46.8**	**-4.7**
KHAL	**Karahalli**	**6.59**	**69**	*i* P	**Pn**	**18 50 40.2**	**+1.8**
BARS	**Barje**	**6.60**	**1**	⇑*i*Pn	**Pn**	**18 50 38.0**	**-0.4**
HCY	**Herceg Novi**	**6.69**	**339**	⇑*i*Pn	**Pn**	**18 50 37.5**	**-2.3**
HCY				*e*Sn	**Sn**	**18 51 48.6**	**-7.4**
BEY	**Berane**	**6.79**	**349**	*e*Sn	**Sn**	**18 51 53.8**	**-4.6**
IVA	**Berane**	**6.79**	**349**	⇑*i*Pn	**Pn**	**18 50 41.3**	**+0.2**
IVA				*e*Sn	**Sn**	**18 51 53.8**	**-4.6**
NKY	**Niksic**	**6.91**	**343**	⇓*i*Pn	**Pn**	**18 50 41.9**	**-0.8**
NKY				*e*Sn	**Sn**	**18 51 54.9**	**-6.4**
BRY	**Bratogost**	**7.10**	**341**	⇓*i*Pn	**Pn**	**18 50 44.0**	**-1.4**
BRY				*e*Sn	**Sn**	**18 51 59.1**	**-7.0**
NISS		**7.18**	**2**	*i* Pn	**Pn**	**18 50 46.4**	**-0.1**
UPM	**Unac-Piva**	**7.30**	**344**	⇓*i*Pn	**Pn**	**18 50 47.8**	**-0.2**
UPM				*e*Sn	**Sn**	**18 52 04.4**	**-6.5**
PLE	**Pljevlja**	**7.32**	**347**	⇓*i*Pn	**Pn**	**18 50 47.9**	**-0.5**
PLE				*e*Sn	**Sn**	**18 52 05.8**	**-5.7**
STON	**Ston**	**7.32**	**336**	*e*Pn	**Pn**	**18 50 45.9**	**-2.5**
STON				Sn	**Sn**	**18 52 01.4**	**-10**
BOLS	**Boljevac**	**7.61**	**2**	⇑*i*Pn	**Pn**	**18 50 50.9**	**-1.4**
SWA2		**7.64**	**154**	⇓P	**Pn**	**18 50 55.2**	**+2.4**
GRUS	**Gruza**	**7.70**	**355**	⇑*i*Pn	**Pn**	**18 50 51.6**	**-2.0**
SZH	**Strazhica**	**7.77**	**24**	P	**Pn**	**18 50 56.0**	**+1.5**
DIVS	**Divibare**	**7.98**	**351**	⇑*i*Pn	**Pn**	**18 50 55.7**	**-1.7**
TRUS	**Trudelj**	**8.06**	**353**	⇑*i*Pn	**Pn**	**18 50 55.8**	**-2.7**
LZLA	**Zalla**	**8.39**	**206**	*i* P	**Pn**	**18 51 05.5**	**+2.4**
	SNR=43						
KDHN	**Kadinhani**	**8.63**	**71**	*i* P	**Pn**	**18 51 09.1**	**+2.8**
LJFR	**Jufra**	**8.64**	**216**	*i* P	**Pn**	**18 51 08.5**	**+2.0**
	49nm,0.8s,SNR=43						
MLR	**Muntele Rosu**	**9.81**	**18**	P	**Pn**	**18 51 23.3**	**+0.8**
	0.2nm,0.3s,baz=332,slow=23,SNR=2.4						
MLR				LR	LR	18 54 35.9	
	comp=Z,82nm,18.2s,baz=301,slow=34						
MLR	**Muntele Rosu**	**9.81**	**18**	P	**Pn**	**18 51 23.3**	**+0.8**
NVLJ	**Novalja**	**9.82**	**330**	*e*Pn	**Pn**	**18 51 21.8**	**-0.8**
NVLJ				Sn	**Sn**	**18 53 03.3**	**-10**
NVLJ	**Novalja**	**9.82**	**330**	*e*Pn	**Pn**	**18 51 21.8**	**-0.8**
AWBH		**9.96**	**140**	P	**Pn**	**18 51 25.1**	**+0.4**
AWBH		**9.96**	**140**	P	**Pn**	**18 51 25.1**	**+0.4**
KEST	**Kesra**	**10.00**	**271**	P	**Pn**	**18 51 29.2**	**+4.1**
	0.1nm,0.3s,baz=76,slow=20,SNR=4.9						
KEST				LR	LR	18 56 14.4	
	comp=Z,59nm,18.9s,baz=271,slow=42						
BRTR	**Keskin Array B**	**10.08**	**66**	P	**Pn**	**18 51 28.7**	**+2.5**
	0.1nm,0.3s,baz=241,slow=9.7,SNR=10						
BRTR	**Keskin Array B**	**10.08**	**66**	P	**Pn**	**18 51 28.7**	**+2.5**
BOJS	**Bojanci**	**10.47**	**334**	*i* Pn	**Pn**	**18 51 30.2**	**-1.3**
BOJS				*i* Sn	**Sn**	**18 53 17.5**	**-11**
BOJS	**Bojanci**	**10.47**	**334**	*i* Pn	**Pn**	**18 51 30.2**	**-1.4**
KOT	**Kottamia**	**10.57**	**123**	⇓P	**Pn**	**18 51 30.5**	**-2.5**
HSAF	**As Saff**	**10.59**	**126**	P	**Pn**	**18 51 30.3**	**-2.9**
CDAG	**Cicekdag**	**10.59**	**67**	*e*P	**Pn**	**18 51 38.8**	**+5.6**
HFRF	**Wahat Farafira**	**10.66**	**146**	P	**Pn**	**18 51 35.1**	**+1.0**
HFRF	**Wahat Farafira**	**10.66**	**146**	P	**Pn**	**18 51 35.1**	**+1.0**
GLL	**Jalalah**	**10.72**	**125**	P	**Pn**	**18 51 32.7**	**-2.3**
GLL				S	**Sn**	**18 53 19.1**	**-16**
AVNT	**Avonos**	**10.78**	**72**	*i* P	**Pn**	**18 51 43.0**	**+7.2**
VISS	**Visnje**	**10.88**	**334**	*i* Pn	**Pn**	**18 51 36.6**	**-0.5**
VISS				*i* Sn	**Sn**	**18 53 27.4**	**-11**
VISS	**Visnje**	**10.88**	**334**	*i* Pn	**Pn**	**18 51 36.6**	**-0.5**
JAVS	**Javornik**	**11.24**	**332**	*i* Pn	**Pn**	**18 51 41.4**	**-0.7**
JAVS				*i* Sn	**Sn**	**18 53 35.7**	**-12**
JAVS	**Javornik**	**11.24**	**332**	*i* Pn	**Pn**	**18 51 41.4**	**-0.7**
SUZ		**11.31**	**121**	P	**Pn**	**18 51 40.3**	**-2.8**
VOY	**Vojsko**	**11.42**	**332**	*e*Pn	**Pn**	**18 51 43.8**	**-0.7**
VOY				*e*Sn	**Sn**	**18 53 41.5**	**-11**
VOY	**Vojsko**	**11.42**	**332**	*e*Pn	**Pn**	**18 51 43.8**	**-0.7**
ZAF		**11.47**	**124**	P	**Pn**	**18 51 42.6**	**-2.7**
PERS	**Pernice**	**11.51**	**337**	*i* Pn	**Pn**	**18 51 44.2**	**-1.5**
PERS				*e*Sn	**Sn**	**18 53 42.3**	**-12**
PERS	**Pernice**	**11.51**	**337**	*i* Pn	**Pn**	**18 51 44.2**	**-1.6**
OFRI	**‘Ofer**	**11.56**	**104**	Sn	**Sn**	**18 53 42.4**	**-13**
OFRI	**‘Ofer**	**11.56**	**104**	Sn	**Sn**	**18 53 42.4**	**-13**
SLTI	**Sal’it**	**11.75**	**106**	Sn	**Sn**	**18 53 47.0**	**-13**
SLTI	**Sal’it**	**11.75**	**106**	Sn	**Sn**	**18 53 47.0**	**-13**
MMA0B	**Mount Meron ar**	**11.75**	**102**	Sn	**Sn**	**18 53 48.3**	**-12**
MMA0B	**Mount Meron ar**	**11.75**	**102**	Sn	**Sn**	**18 53 48.3**	**-12**
MMAI	**Mount Meron Ar**	**11.75**	**102**	P	**Pn**	**18 51 49.4**	**+0.3**
	0.7nm,0.3s,baz=277,slow=14,SNR=4.7						
MMAI				S	**Sn**	**18 53 49.8**	**-11**
	3.7nm,0.3s,baz=332,slow=31,SNR=8.1						
KZIT	**Kziot**	**11.86**	**113**	Sn	**Sn**	**18 53 49.9**	**-13**
KZIT	**Kziot**	**11.86**	**113**	Sn	**Sn**	**18 53 49.9**	**-13**
KSDI	**Kefar Szold**	**11.90**	**101**	Sn	**Sn**	**18 53 51.0**	**-13**
KSDI	**Kefar Szold**	**11.90**	**101**	Sn	**Sn**	**18 53 51.0**	**-13**
PINB	**Pinarbasi**	**11.96**	**74**	*e*P	**Pn**	**18 51 51.2**	**-0.8**
HNKL	**Nakhl**	**12.07**	**118**	P	**Pn**	**18 51 50.2**	**-3.3**
HMDT	**Nahal Hemdat**	**12.12**	**105**	Sn	**Sn**	**18 53 56.8**	**-13**
HMDT	**Nahal Hemdat**	**12.12**	**105**	Sn	**Sn**	**18 53 56.8**	**-13**
DSI	**Dead Sea**	**12.29**	**108**	Sn	**Sn**	**18 54 01.0**	**-13**
DSI	**Dead Sea**	**12.29**	**108**	Sn	**Sn**	**18 54 01.0**	**-13**
KECS	**Kecovo**	**12.29**	**356**	*e*PN	**Pn**	**18 51 55.0**	**-1.4**
KECS	**Kecovo**	**12.29**	**356**	*e*P	**Pn**	**18 51 55.0**	**-1.4**
MZDA	**Masada**	**12.39**	**109**	Sn	**Sn**	**18 54 03.1**	**-13**
MZDA	**Masada**	**12.39**	**109**	Sn	**Sn**	**18 54 03.1**	**-13**
VYHS	**Vyhne**	**12.45**	**351**	*e*PN	**Pn**	**18 51 54.9**	**-3.7**
KRMI	**Paran Flat**	**12.51**	**115**	Sn	**Sn**	**18 54 06.0**	**-13**
KRMI	**Paran Flat**	**12.51**	**115**	Sn	**Sn**	**18 54 06.0**	**-13**
PRNI	**Paran**	**12.59**	**114**	Sn	**Sn**	**18 54 08.2**	**-13**
PRNI	**Paran**	**12.59**	**114**	Sn	**Sn**	**18 54 08.2**	**-13**
ZFRI	**Zfri**	**12.61**	**113**	Sn	**Sn**	**18 54 08.8**	**-13**
ZFRI	**Zfri**	**12.61**	**113**	Sn	**Sn**	**18 54 08.8**	**-13**
CRVS	**Cervenica-Dubn**	**12.68**	**359**	*e*PN	**Pn**	**18 52 00.3**	**-1.5**
CRVS	**Cervenica-Dubn**	**12.68**	**359**	*e*P	**Pn**	**18 52 00.3**	**-1.5**
KOLS	**Kolonicke sedl**	**12.72**	**2**	*e*PN	**Pn**	**18 52 02.7**	**+0.4**
KOLS	**Kolonicke sedl**	**12.72**	**2**	*e*P	**Pn**	**18 52 02.7**	**+0.4**
MBRI	**Mt Berech**	**12.82**	**116**	Sn	**Sn**	**18 54 14.1**	**-12**
MBRI	**Mt Berech**	**12.82**	**116**	Sn	**Sn**	**18 54 14.1**	**-12**
EIL	**Elat**	**12.91**	**117**	P	**Pn**	**18 52 04.7**	**-0.3**
	0.3nm,0.3s,baz=30,slow=23,SNR=5.6						
EIL				S	**Sn**	**18 54 16.6**	**-12**
	2.7nm,0.3s,baz=106,slow=7.1,SNR=8.2						
EIL	**Elat**	**12.91**	**117**	Sn	**Sn**	**18 54 15.8**	**-13**
EIL	**Elat**	**12.91**	**117**	Sn	**Sn**	**18 54 15.8**	**-13**
AKRG	**Al Kharijah**	**13.08**	**142**	⇓P	**Pn**	**18 52 08.1**	**+0.7**
STHS	**Stebnicka Huta**	**13.20**	**359**	*e*	**Pn**	**18 52 21.1**	**+12**
TR1		**13.23**	**125**	⇓P	**Pn**	**18 52 07.5**	**-1.8**
ASF	**Jabal al Asfar**	**13.23**	**103**	S	**Sn**	**18 54 26.3**	**-10**
	0.2nm,0.3s,baz=344,slow=16,SNR=2.2						
HHRG	**Al Ghardaqah**	**13.51**	**128**	P	**Pn**	**18 52 11.5**	**-1.7**
KEMA	**Kemaliye**	**13.66**	**72**	*i* P	**Pn**	**18 52 17.9**	**+2.8**
DAVOX	**Davos/Dischmat**	**13.75**	**324**	S	**Sn**	**18 54 37.8**	**-11**
	0.2nm,0.3s,baz=145,slow=20,SNR=2.6						
GERES	**GERESS Array B**	**13.91**	**338**	P	**Pn**	**18 52 17.6**	**-1.0**
	0.3nm,0.3s,baz=159,slow=14,SNR=6.8						
MBDF	**Montbardon**	**14.16**	**311**	*e*P	**Pn**	**18 52 23.8**	**+1.9**
	7.8nm,0.8s						
MBDF	**Montbardon**	**14.16**	**311**	*e*P	**Pn**	**18 52 23.8**	**+1.9**
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MBDF	**Montbardon**	**14.16**	**311**	*e*P	**Pn**	**18 52 23.8**	**+1.9**
	comp=Z,3.9nm,0.8s						
HSFG		**14.20**	**129**	P	**Pn**	**18 52 21.5**	**-1.1**
KHC	**Kasperske Hory**	**14.20**	**338**	*e*P	**Pn**	**18 52 20.5**	**-2.0**
LPG	**La Plagne**	**14.59**	**314**	*e*P	**Pn**	**18 52 28.7**	**+0.9**
LPL	**La Plagne**	**14.61**	**314**	*e*P	**Pn**	**18 52 29.3**	**+1.2**
ANN	**Anapa**	**14.72**	**50**	*e*P	**Pn**	**18 52 37.6**	**+8.0**
ANN				pmax	pmax		
	comp=Z,125nm,1.5s						
ORIF	**Oris-en-Rattie**	**14.80**	**311**	*e*P	**Pn**	**18 52 31.4**	**+0.7**
AKASG	**Malin Array Be**	**15.47**	**18**	P	**Pn**	**18 52 35.9**	**-3.6**
	comp=Z,0.4nm,0.3s,baz=209,slow=12,SNR=6.7						
HINF	**Hinteralfeld**	**15.96**	**321**	*e*P	**Pn**	**18 52 46.0**	**+0.1**
	comp=Z,6.4nm,0.6s						
HINF	**Hinteralfeld**	**15.96**	**321**	*e*P	**Pn**	**18 52 46.0**	**+0.1**
HINF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HINF	**Hinteralfeld**	**15.96**	**321**	*e*P	**Pn**	**18 52 46.0**	**+0.1**
	comp=Z,3.2nm,0.6s						
HINF	**Hinteralfeld**	**15.96**	**321**	*e*P	**Pn**	**18 52 46.0**	**+0.1**
	comp=Z,3.2nm,0.6s						
CDF	**Champ du Feu**	**16.15**	**323**	*e*P	**Pn**	**18 52 48.8**	**+0.4**
	comp=Z,8.8nm,0.8s						
CDF	**Champ du Feu**	**16.15**	**323**	*e*P	**Pn**	**18 52 48.8**	**+0.4**
CDF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
CDF	**Champ du Feu**	**16.15**	**323**	*e*P	**Pn**	**18 52 48.8**	**+0.4**
	comp=Z,4.4nm,0.8s						
CDF	**Champ du Feu**	**16.15**	**323**	*e*P	**Pn**	**18 52 48.8**	**+0.4**
	comp=Z,4.4nm,0.8s						
CLL	**Collm**	**16.32**	**340**	*e*PP		18 52 58.0	
AVF	**Avril sur Loir**	**17.28**	**313**	*e*P	**Pn**	**18 53 01.4**	**-1.3**
AVF	**Avril sur Loir**	**17.28**	**313**	*e*P	**Pn**	**18 53 01.4**	**-1.3**
BGF	**Bois d’Agland**	**17.46**	**312**	*e*P	**Pn**	**18 53 03.5**	**-1.5**
BGF	**Bois d’Agland**	**17.46**	**312**	*e*P	**Pn**	**18 53 03.5**	**-1.5**
KIV	**Kislovodsk**	**17.81**	**58**	*e*P	**Pn**	**18 53 10.1**	**+0.8**
KIV				pmax	pmax		
	comp=Z,15nm,1.1s						
KIV				MLR	MLR		
	comp=Z,53nm,13.0s						
KIV	**Kislovodsk**	**17.81**	**58**	*e*P	**Pn**	**18 53 10.1**	**+0.8**
	comp=Z,53nm,13.0s						
SUW	**Suwalki**	**17.83**	**3**	*e*P	**Pn**	**18 53 07.7**	**-1.8**
SUW	**Suwalki**	**17.83**	**3**	*e*P	**Pn**	**18 53 07.7**	**-1.8**
SUW	**Suwalki**	**17.83**	**3**	*e*P	**Pn**	**18 53 07.7**	**-1.8**
GNI	**Garni**	**18.54**	**71**	⇑*e*P	**Pn**	**18 53 18.7**	**+0.4**
GNI				pmax	pmax		
	comp=Z,26nm,2.5s						
GNI	**Garni**	**18.54**	**71**	P	**Pn**	**18 53 18.0**	**-0.4**
	comp=Z,0.4nm,0.3s,baz=60,slow=2.9,SNR=5.9						
GNI				LR	LR	19 01 36.9	
	comp=Z,78nm,18.1s,baz=105,slow=41						
GNI	**Garni**	**18.54**	**71**	P	**Pn**	**18 53 18.0**	**-0.3**
SJPF	**Ste Jean**	**18.90**	**298**	*e*P	**Pn**	**18 53 23.5**	**+0.9**
	comp=Z,23nm,1.3s						
SJPF	**Ste Jean**	**18.90**	**298**	*e*P	**Pn**	**18 53 23.5**	**+0.9**
SJPF				pmax	pmax		
	comp=Z,12nm,1.3s						
SJPF	**Ste Jean**	**18.90**	**298**	*e*P	**Pn**	**18 53 23.5**	**+0.9**
	comp=Z,12nm,1.3s						
NACGM	**Naroch**	**19.02**	**9**	*e*	**Pn**	**18 53 19.0**	**-4.9**
MFF	**Saint Martin d**	**19.32**	**309**	*e*P	**Pn**	**18 53 27.9**	**+0.3**
VORD	**Divnogorie**	**19.43**	**35**	*e*P	**Pn**	**18 53 26.0**	**-2.9**
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,30nm,0.8s						
VORD	**Divnogorie**	**19.43**	**35**	*e*P	**Pn**	**18 53 26.0**	**-2.9**
	comp=E,10.0nm,0.9s						
VSR	**Storozhevoye**	**19.54**	**34**	*e*P	**Pn**	**18 53 27.9**	**-2.3**
VSR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
VSR				pmax	pmax		
	comp=N,20nm,1.1s						
VSR				pmax	pmax		
	comp=E,20nm,1.2s						
VSR	**Storozhevoye**	**19.54**	**34**	*e*P	**Pn**	**18 53 27.9**	**-2.3**
	comp=E,20nm,1.1s						
ESDC	**Sonseca Array**	**20.49**	**287**	P	**P**	**18 53 38.9**	**-0.5**
	comp=E,0.5nm,0.5s,baz=296,slow=37,SNR=3.6						
ESDC	**Sonseca Array**	**20.49**	**287**	P	**P**	**18 53 38.9**	**-0.5**
ESDC	**Sonseca Array**	**20.49**	**287**	P	**P**	**18 53 38.9**	**-0.5**
VRHR	**Novokhopersk**	**20.63**	**38**	*e*P	**P**	**18 53 38.3**	**-2.5**
VRHR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VRHR				pmax	pmax		
	comp=N,30nm,1.4s						
VRHR	**Novokhopersk**	**20.63**	**38**	*e*P	**P**	**18 53 38.3**	**-2.5**
	comp=N,30nm,1.4s						
OBN	**Obninsk**	**21.50**	**24**	⇑*e*P	**P**	**18 53 47.4**	**-2.7**
OBN				*e*		18 54 08.1	
OBN				*e*S	**S**	**18 57 43.7**	**-4.5**
OBN				*e*SS		18 58 09.9	
OBN				pmax	pmax		
	comp=Z,22nm,1.2s,mb4.4						
OBN	**Obninsk**	**21.50**	**24**	*e*P	**P**	**18 53 47.4**	**-2.7**
	comp=Z,22nm,1.2s,mb4.4						
OBN				*e*S	**S**	**18 57 43.7**	**-4.5**
SGMF	**Saint Gilles**	**21.50**	**312**	*e*P	**P**	**18 53 50.1**	**-0.2**
SGMF	**Saint Gilles**	**21.50**	**312**	*e*P	**P**	**18 53 50.1**	**-0.2**
QUIF	**Quistinic**	**21.73**	**310**	*e*P	**P**	**18 53 52.9**	**+0.1**
QUIF	**Quistinic**	**21.73**	**310**	*e*P	**P**	**18 53 52.9**	**+0.1**
MDT	**Midelt**	**21.90**	**269**	LR	LR	19 04 16.0	
	comp=Z,60nm,18.9s,MS3.0,baz=210,slow=41						
ROSF	**Rostrenen**	**21.97**	**311**	*e*P	**P**	**18 53 55.1**	**-0.2**
ROSF	**Rostrenen**	**21.97**	**311**	*e*P	**P**	**18 53 55.1**	**-0.2**
VSU	**Vasula**	**22.51**	**7**	*e*P	**P**	**18 53 58.4**	**-2.5**
VSU				pmax	pmax		
	comp=Z,31nm,1.0s,mb4.7						
VSU	**Vasula**	**22.51**	**7**	*e*P	**P**	**18 53 58.4**	**-2.5**
	comp=Z,31nm,1.0s,mb4.7						
HFS	**Hagfors**	**24.48**	**350**	P	**P**	**18 54 19.3**	**-1.1**
	comp=Z,3.5nm,0.6s,mb4.0,baz=153,slow=9.9,SNR=12						
HFS	**Hagfors**	**24.48**	**350**	P	**P**	**18 54 19.3**	**-1.1**
NB2	**NORSAR Subarra**	**25.72**	**348**	P	**P**	**18 54 30.5**	**-1.2**
	comp=Z,2.4nm,0.7s,mb3.8,baz=159,slow=11						
NB2	**NORSAR Subarra**	**25.72**	**348**	P	**P**	**18 54 30.5**	**-1.2**
	comp=Z,2.4nm,0.7s,mb3.8,SNR=5.0						
NOA	**NORSAR Array B**	**25.72**	**348**	P	**P**	**18 54 30.7**	**-0.9**
	comp=Z,5.4nm,1.0s,mb4.0,baz=158,slow=9.4,SNR=5.7						
NOA				LR	LR	19 04 21.7	
	comp=Z,48nm,18.1s,MS3.1,baz=165,slow=36						
NOA	**NORSAR Array B**	**25.72**	**348**	P	**P**	**18 54 30.7**	**-1.0**
KLMR	**Klimovskoe**	**27.16**	**19**	*e*P	**P**	**18 54 44.5**	**-0.1**
KLMR				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.6						
KLMR	**Klimovskoe**	**27.16**	**19**	*e*P	**P**	**18 54 44.5**	**-0.1**
	comp=Z,25nm,1.3s,mb4.6						

JOF	Joensuu	27.39	10	ep	P	18 54 44.1	-2.6
	comp=Z,1.5nm,0.5s,mb3.8						
JOF	Joensuu	27.39	10	eP	P	18 54 44.1	-2.6
TORD	Torodi Ar. Bea	29.15	223	P	P	18 55 05.1	+2.3
	comp=Z,1.9nm,0.8s,mb3.9,baz=34,slow=8.4,SNR=12						
TORD				LR	LR	19 07 24.2	
	comp=Z,46nm,19.0s,MS3.1,baz=15,slow=37						
ARU	Arti	31.96	39c	iP	P	18 55 25.6	-1.7
ARU				e		18 56 28.3	
ARU				S	S	19 00 34.1	-4.2
ARU				SS	SS	19 02 21.5	-34
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
ARU	Arti	31.96	39	i P	P	18 55 25.6	-1.7
	comp=Z,8.0nm,1.0s,mb4.5						
SVE	Sverdlovsk	33.17	39	⇑eP	P	18 55 36.2	-1.7
SVE				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.1						
SVE	Sverdlovsk	33.17	39	eP	P	18 55 36.2	-1.7
	comp=Z,14nm,0.6s,mb5.1						
ARCES	ARCESS Array B	33.45	2	P	P	18 55 38.8	-1.3
	comp=Z,2.9nm,0.9s,mb4.2,baz=186,slow=10,SNR=14						
ARCES				LR	LR	19 11 09.3	
	comp=Z,72nm,18.5s,MS3.4,baz=34,slow=40						
ARCES	ARCESS Array B	33.45	2	P	P	18 55 38.8	-1.3
DBIC	Dimbokro	38.13	226	P	P	18 56 22.7	+1.8
	comp=Z,3.6nm,0.8s,mb4.1,baz=38,slow=6.5,SNR=4.9						
DBIC	Dimbokro	38.13	226	P	P	18 56 22.7	+1.8
DBIC	Dimbokro	38.13	226	P	P	18 56 22.7	+1.8
TIC	Toumodi	38.25	226	eP	P	18 56 22.2	+0.4
	comp=Z,6.0nm,0.2s,mb5.0						
KIC	Kosan Boka	38.31	225	eP	P	18 56 21.1	-1.3
	comp=Z,148nm,1.9s,mb5.4						
LIC	Lamto	38.59	226	eP	P	18 56 25.9	+1.2
LIC	Lamto	38.59	226	eP	P	18 56 23.8	-0.9
	comp=Z,33nm,1.4s,mb4.9						
LIC	Lamto	38.59	226	eP	P	18 56 25.9	+1.2
BBTS	Babate	40.27	248	LR	LR	19 15 17.7	
	comp=Z,118nm,18.2s,MS3.8,baz=199,slow=39						
AAK	Ala-Archa	40.75	64	⇑eP	P	18 56 42.0	-0.4
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
AAK	Ala-Archa	40.75	64	eP	P	18 56 42.0	-0.4
	comp=Z,4.0nm,1.0s,mb4.0						
KSH	Kashi	42.45	69	eP	P	18 56 55.0	-1.5
KSH				epP	pP	18 57 10.1	+11
KSH				esP	sP	18 57 17.6	+17
KSH				ePP	PP	18 58 37.1	+2.4
KSH				ePcP	PcP	18 58 48.1	-1.2
KSH				eScP	ScP	19 02 32.3	-7.8
KSH				ePcS	PcS	19 02 38.1	-3.1
KSH				eS	S	19 03 10.8	-7.4
KSH				esS	sS	19 03 38.1	+15
KSH				eSS	SS	19 06 16.1	-11
KSH				eScS	ScS	19 06 48.3	-10
KSH				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.3						
KSH				LR	LR		
	comp=N,100nm,3.2s						
KSH				LR	LR		
	comp=E,220nm,6.5s						
KSH				LR	LR		
	comp=Z,200nm,5.2s						
NVS	Novosibirsk	45.37	46	eP	P	18 57 16.9	-2.7
MKAR	Makanchi Array	45.57	57	P	P	18 57 19.1	-2.3
	comp=Z,1.5nm,0.5s,mb4.2,baz=273,slow=6.9,SNR=44						
MKAR	Makanchi Array	45.57	57	P	P	18 57 19.2	-2.2
ZALV	Zalesovo Beam	46.34	47	P	P	18 57 24.6	-2.7
	comp=Z,2.0nm,0.3s,mb4.5,baz=269,slow=8.7,SNR=16						
LSA	Lhasa	57.55	75	P	P	18 58 51.0	-0.2
FRB	Frobisher Bay	58.30	328	LR	LR	19 23 21.7	
	comp=Z,77nm,20.6s,MS3.8,baz=243,slow=35						
GTA	Gaotai	59.96	61	eP	P	18 59 06.9	-1.0
GTA				pP	pP	18 59 17.3	+6.2
GTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
SONM	Songino Array	61.00	50	P	P	18 59 13.0	-1.8
	comp=Z,1.9nm,0.9s,mb4.2,baz=282,slow=8.0,SNR=11						
BOD	Bodaibo	61.36	38	eP	P	18 59 13.7	-3.4
YAK	Yakutsk	66.37	29	eP	P	18 59 47.1	-2.9
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
CMAR	Chiang Mai Arr	69.25	82	P	P	19 00 07.8	-1.2
	comp=Z,0.8nm,0.6s,mb3.8,baz=298,slow=8.4,SNR=7.2						
BILL	Bilibino	72.72	13	⇑eP	P	19 00 27.7	-1.5
BILL				e		19 00 44.4	
BILL				pmax	pmax		
	comp=Z,6.0nm,2.5s,mb4.1						
SEY	Seymchan	73.64	21	⇑eP	P	19 00 33.0	-1.6
CN2	Changchun	74.56	47	⇑P	P	19 00 39.3	-1.1
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
WHN	Wuhan	74.64	63	eP	P	19 00 39.9	-1.2
YKA	Yellowknife Ar	75.55	341	P	P	19 00 45.2	-0.5
	comp=Z,0.6nm,0.6s,mb3.7,baz=33,slow=5.3,SNR=10						
YKA	Yellowknife Ar	75.55	341	P	P	19 00 45.2	-0.5
KSRS	Korea Array	79.86	51	P	P	19 01 08.9	-1.4
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KSRS	Korea Array	79.86	51	P	P	19 01 08.9	-1.4
	comp=Z,3.9nm,0.8s,mb4.4,baz=306,slow=4.7,SNR=11						
YSS	Yuzh-Sakhalins	81.81	36	eP	P	19 01 19.7	-0.8
YSS				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
ASAR	Alice Springs	121.02	98	PKP	PKPdf	19 07 53.6	-0.9
	comp=Z,0.4nm,0.7s,baz=314,slow=1.6,SNR=5.4						

IDC 21 18:51:57.4±3.4, 3°.09S×150°.61E, h0^{km}, mb4.0/3, mb1 4.3/3, mb1mx3.6/17, mbtmp4.1/3, Error ellipse: s-maj=111.6km s-min=46.0km az=114.0, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.08	222	P	P	18 57 05.7	+0.8
	2.7nm,0.3s,baz=46,slow=9.5,SNR=72						
ASAR	Alice Springs	26.07	217	P	P	18 57 31.8	-1.0
	0.8nm,0.3s,baz=48,slow=8.4,SNR=40						
FITZ	Fitzroy Crossi	28.66	237	P	P	18 57 56.5	+0.5
	1.9nm,0.7s,baz=64,slow=7.2,SNR=5.7						
TORD	Torodi Ar. Bea	147.69	290	PKPbc	PKPbc	19 11 44.4	-0.6
	0.5nm,0.7s,baz=78,slow=2.3,SNR=6.3						

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*DJA **21** 19:06:08, 3°.61N×99°.17E, h0^{km}, MLv4.5/4*

*IDC **21** 19:06:26.2±0.5, 7°.79N×93°.67E, h0^{km}, mb4.1/18, mb1 4.2/20, mb1mx4.1/28, mbtmp4.1/20, ML3.7/2, MS3.1/1, Ms1 3.1/1, ms1mx2.4/38, Error ellipse: s-maj=24.5km s-min=12.5km az=56.0*

*NEIC **21** 19:06:32.0±1.1, 7°.68N×93°.59E, h44^{km}±10^{km}, mb4.6/15, Error ellipse: s-maj=11.9km s-min=6.4km az=61.0*

*ISCJB **21** 19:06:32.2±1.4, 7°.74N±0°.07×93°.7E±0°.1, h60^{km}±13^{km}, mb4.2/28, Error ellipse: s-maj=19.9km s-min=7.7km az=154.5*

ISC 21 19:06:32.9±1.0, 7°.69N±0°.06×93°.57E±0°.09, h50^{km}±10^{km}, n48, σ1ˢ.00/50, mb4.2/28, 1C-1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.77	142	⇓eP	Pn	19 07 15.0	+0.1
BSI				eS	Sn	19 07 38.5	-8.6
BSI	Banda Aceh	2.77	142	P	Pn	19 07 14.4	-0.5
BSI				S	Sn	19 07 48.1	+1.0
PSI	Prapat	7.21	132	⇑eP	Pn	19 08 18.7	+2.9
PSI	Prapat	7.21	132	Pn	Pn	19 08 15.8	0.0
	1.6nm,0.3s,baz=300,slow=10.0,SNR=5.9						
PSI				LR	LR	19 11 00.2	
	comp=Z,132nm,20.1s,baz=131,slow=38						
CMAR	Chiang Mai Arr	11.91	26	Pn	Pn	19 09 20.9	+0.8
	0.2nm,0.3s,baz=214,slow=15,SNR=9.5						
CMAR	Chiang Mai Arr	11.91	26	Pn	Pn	19 09 20.9	+0.8
PALK	Pallekele	12.77	269	Pn	Pn	19 09 29.5	-2.3
	0.3nm,0.3s,baz=339,slow=17,SNR=2.6						
PALK				Sn	Sn	19 11 39.6	-13
	1.7nm,0.3s,baz=158,slow=20,SNR=8.8						
ODAN	Odare	19.95	344	eP	Pn	19 11 01.4	-1.5
	10nm,0.6s						
RAMN	Ramite	20.27	342	eP	P	19 11 05.1	+0.8
	30nm,0.6s						
TAPN	Taplejung	20.33	345	eP	P	19 11 05.0	0.0
	45nm,1.0s						
JIRN	Jiri	21.06	342	eP	P	19 11 14.0	+1.2
	24nm,0.7s,mb4.7						
PKI	Pulchoki	21.23	340	eP	P	19 11 15.8	+1.1
	12nm,0.6s,mb4.4						
DMN	Daman	21.37	339	eP	P	19 11 16.9	+0.7
	24nm,0.9s,mb4.5						
GUN	Gumba	21.39	341	eP	P	19 11 16.3	-0.1
	23nm,0.6s,mb4.7						
KKN	Kakani	21.48	340	eP	P	19 11 18.3	+1.0
GKN	Gorkha	21.90	338	eP	P	19 11 21.7	-0.2
	30nm,0.8s,mb4.8						
LSA	Lhasa	22.01	354	P	P	19 11 23.0	0.0
LSA	Lhasa	22.01	354	eP	P	19 11 21.0	-2.0
	4.0nm,0.7s,mb4.0						
KOLN	Koldanda	22.09	336	eP	P	19 11 24.1	+0.2
	14nm,0.8s,mb4.5						
DANN	Dangsing	22.54	337	eP	P	19 11 28.8	+0.1
AML	Almayashu	38.54	336	eP	P	19 13 51.5	+0.9
	3.8nm,0.6s,mb4.3						
AAK	Ala-Archa	38.65	337	P	P	19 13 52.3	+0.8
	0.8nm,0.5s,mb3.7,baz=168,slow=14,SNR=2.8						
MKAR	Makanchi Array	40.15	348	P	P	19 14 03.1	-0.8
	0.8nm,0.6s,mb3.6,baz=169,slow=8.3,SNR=14						
MKAR				PcP	PcP	19 16 08.7	+1.1
	0.2nm,0.4s,baz=203,slow=4.3,SNR=4.3						
SONM	Songino Array	41.47	13	P	P	19 14 14.1	-0.6
	1.0nm,0.8s,mb3.5,baz=195,slow=8.7,SNR=7.7						
SONM				PcP	PcP	19 16 13.2	+1.4
	0.5nm,0.7s,baz=211,slow=1.7,SNR=3.6						
KURK	Kurchatov	44.65	347	P	P	19 14 39.6	-0.9
	1.1nm,0.6s,mb3.9,baz=173,slow=7.4,SNR=8.1						
KURK				PcP	PcP	19 16 23.5	+1.0
	0.7nm,0.6s,baz=162,slow=2.8,SNR=3.0						
KURK	Kurchatov	44.65	347	eP	P	19 14 39.2	-1.3
	1.0nm,0.6s,mb3.8						
KURK				PcP	PcP	19 16 23.5	+1.1
NWAO	Narrogin (SRO)	46.25	152	P	P	19 14 54.6	+1.3
	9.6nm,0.8s,mb4.8,baz=22,slow=2.9,SNR=3.6						
ZAA0	Zalesovo Array	46.66	353	eP	P	19 14 55.5	-0.8
ZALV	Zalesovo Beam	46.66	353	P	P	19 14 55.8	-0.6
	2.9nm,0.5s,mb4.4,baz=181,slow=7.3,SNR=17						
ZALV				PcP	PcP	19 16 29.4	+0.1
	0.4nm,0.4s,baz=163,slow=4.4,SNR=2.7						
WRA	Warramunga Arr	48.62	125	P	P	19 15 10.7	-1.3
	1.8nm,0.4s,mb4.4,baz=305,slow=8.4,SNR=55						
WRA				PcP	PcP	19 16 37.4	+0.4
	0.4nm,0.5s,baz=312,slow=2.6,SNR=6.5						
WRAB	Tennant Creek	48.62	125	eP	P	19 15 10.1	-1.9
	3.2nm,0.6s,mb4.5						
BVAR	Borovoye Array	48.98	342	P	P	19 15 13.6	-0.7
	0.4nm,0.5s,mb3.8,baz=147,slow=8.6,SNR=2.4						
BVAR				PcP	PcP	19 16 38.6	+1.0
	0.5nm,0.5s,baz=174,slow=4.3,SNR=3.4						
ASAR	Alice Springs	50.23	129	P	P	19 15 23.0	-1.3
	1.1nm,0.5s,mb4.1,baz=301,slow=7.7,SNR=34						
ASAR				PcP	PcP	19 16 43.6	+0.8
	0.5nm,0.5s,baz=311,slow=3.3,SNR=6.2						
STKA	Stephens Creek	60.39	133	P	P	19 16 37.7	+0.4
	0.8nm,0.4s,mb4.1,baz=246,slow=17,SNR=7.2						
BRTR	Keskin Array B	62.12	311	P	P	19 16 48.0	-0.9
	0.8nm,0.7s,mb4.0,baz=96,slow=7.6,SNR=4.3						
BOSA	Boshof	75.01	238	P	P	19 18 11.4	+2.0
	3.0nm,0.7s,mb4.3,baz=48,slow=7.2,SNR=6.0						
ARCES	ARCESS Array B	75.25	340	P	P	19 18 10.5	+0.4
	8.3nm,1.1s,mb4.6,baz=27,slow=11,SNR=7.5						
GERES	GERESS Array B	77.59	318	P	P	19 18 23.4	-0.3
	0.2nm,0.5s,baz=102,slow=3.3,SNR=5.2						
NB2	NORSAR Subarra	79.61	331	P	P	19 18 33.7	-0.9
	comp=Z,2.1nm,0.8s,mb4.1,baz=93,slow=5.6						
NOA	NORSAR Array B	79.61	331	P	P	19 18 33.9	-0.8
	comp=Z,2.1nm,0.8s,mb4.1,baz=96,slow=5.1,SNR=4.3						
KEST	Kesra	80.88	305	P	P	19 18 43.1	+1.1
	comp=Z,0.7nm,0.6s,mb3.8,baz=286,slow=23,SNR=4.9						
LPG	La Plagne	82.35	315	eP	P	19 18 49.5	0.0
	comp=Z,7.4nm,0.8s,mb4.4						
LPG	La Plagne	82.35	315	eP	P	19 18 49.5	0.0
	comp=Z,3.7nm,0.8s,mb4.4						
LPL	La Plagne	82.36	315	eP	P	19 18 49.5	-0.1
	comp=Z,12nm,0.8s,mb4.6						
LPL	La Plagne	82.36	315	eP	P	19 18 49.5	-0.1
	comp=Z,5.8nm,0.8s,mb4.6						
TORD	Torodi Ar. Bea	90.09	283	P	P	19 19 29.9	+1.7
	comp=Z,1.1nm,0.6s,mb4.3,baz=80,slow=4.6,SNR=9.8						
ESDC	Sonseca Array	90.90	310	P	P	19 19 32.0	+0.5
	comp=Z,0.6nm,0.5s,mb4.2,baz=59,slow=3.4,SNR=5.5						
CPUP	Villa Florida	146.70	233	PKPbc	PKPbc	19 26 11.1	+1.2
	comp=Z,2.0nm,0.6s,baz=117,slow=3.6,SNR=7.0						

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*DDA **21** 19:12:57.9, 38°.40N×25°.50E, h21^{km}±1^{km}, Md3.3*

*CSEM **21** 19:12:59.7±0.1, 38°.43N×25°.58E, h10^{km}, ML4.0/6, Error ellipse: s-maj=2.5km s-min=1.9km az=17.0*

*ISK **21** 19:12:59.4, 38°.41N×25°.57E, h20^{km}, MD3.4*

*ISCJB **21** 19:12:59.0±0.6, 38°.44N±0°.02×25°.59E±0°.02, h8^{km}±4^{km}, Error ellipse: s-maj=3.5km s-min=2.8km az=36.9*

*THE **21** 19:13:00.4, 38°.46N×25°.62E, h11^{km}±1^{km}, ML4.0/6, Error ellipse: s-maj=1.5km s-min=0.6km az=100.0*

*NEIC **21** 19:13:00.6, 38°.49N×25°.61E, h36^{km}, MD3.6(ATH), After ATH.*

*ATH **21** 19:13:00.6, 38°.49N×25°.61E, h36^{km}±5^{km}, MD3.6/6, ML3.4*

ISC 21 19:12:59.7±0.6, 38°.44N±0°.02×25°.58E±0°.02, h9^{km}±4^{km}, n137, σ0ˢ.71/176, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOS	Chios island	0.38	98	P	Pg	19 13 07.7	+0.5
CHOS				S	Sg	19 13 12.9	+0.7
CHOS	Chios island	0.38	98	P	Pg	19 13 07.7	+0.5
CHOS				S	Sg	19 13 12.9	+0.7
SIGR	SIGRI	0.80	16	P	Pg	19 13 15.1	-0.1
SIGR				S	Sg	19 13 26.6	+0.9
SIGR	SIGRI	0.80	16	P	Pg	19 13 15.1	-0.1
SIGR				S	Sg	19 13 26.6	+0.9
URLA	Izmir	0.81	95	i P	Pg	19 13 15.5	+0.3
URLA				i S	Sg	19 13 26.6	+0.9
URLA	Izmir	0.81	95	i P	Pg	19 13 15.5	+0.3
URLA				i S	Sg	19 13 26.6	+0.9
PRK	Paraskevi	0.97	34	P	Pg	19 13 17.9	-0.5
PRK				S	Sg	19 13 31.3	+0.2
PRK	Paraskevi	0.97	34	ePN	Pg	19 13 17.9	-0.5
PRK				eSN	Sg	19 13 31.5	+0.4
PRK	Paraskevi	0.97	34	ePn	Pg	19 13 17.9	-0.5
PRK				eSn	Sg	19 13 31.5	+0.4
BLCB	Balcova	1.15	92	PN	Pg	19 13 21.6	-0.2
BLCB				eSN	Sg	19 13 36.6	-0.2
BLCB	Balcova	1.15	92	P	Pg	19 13 21.7	-0.2
BLCB				S	Sg	19 13 37.3	+0.5
BLCB	Balcova	1.15	92	i Pn	Pg	19 13 21.6	-0.3
BLCB				eSn	Sg	19 13 36.6	-0.2
BLCB				S	Sg	19 13 37.3	+0.5
AYVA	Ayvalik	1.23	45	i P	Px	19 13 38.3	
SMG	Samos	1.23	126	ePN	Pn	19 13 23.3	+0.1
SMG				eSN	Sn	19 13 40.2	+0.3
SMG	Samos	1.23	126	ePn	Pn	19 13 23.3	+0.1
SMG				eSn	Sn	19 13 40.2	+0.3
IZM	Izmir	1.33	91	ePN	Pn	19 13 24.6	+0.2
PTL	Penteli	1.40	254	ePB	Pb	19 13 26.2	+0.1
PTL	Penteli	1.40	254	ePb	Pb	19 13 26.2	+0.1
BOZC	Bozcaada	1.45	15	i P	Pn	19 13 24.9	-1.3
BOZC				i S	Sn	19 13 47.5	+2.1
ATHU	Athens Univers	1.49	252	P	Pn	19 13 26.4	-0.2
ATHU	Athens Univers	1.49	252	P	Pn	19 13 26.4	-0.2
LIA	Limnos Island	1.49	348	P	Pn	19 13 26.1	-0.6
LIA				S	Sn	19 13 45.3	-1.0
LIA	Limnos Island	1.49	348	ePN	Pn	19 13 26.3	-0.4
LIA	Limnos Island	1.49	348	ePn	Pn	19 13 26.3	-0.4
LIA				S	Sn	19 13 45.3	-1.0
GCAM	G?zelcaml?	1.50	119	eP	Pn	19 13 26.0	-0.9
GCAM				eS	Sn	19 13 47.4	+0.9
GCAM	G?zelcaml?	1.50	119	eP	Pn	19 13 26.0	-0.8
GCAM				eS	Sn	19 13 47.4	+0.8
EZN	Ezine	1.50	23	ePN	Pn	19 13 26.1	-0.7
EZN				eSN	Sn	19 13 46.4	-0.2
EZN	Ezine	1.50	23	ePn	Pn	19 13 26.1	-0.8
EZN				eSn	Sn	19 13 46.4	-0.2
AOS	Alonnisos	1.51	299	P	Pn	19 13 26.7	-0.3
AOS				S	Sn	19 13 47.5	+0.7
AOS	Alonnisos	1.51	299	P	Pn	19 13 26.7	-0.3
AOS				S	Sn	19 13 47.5	+0.7
ATH	Athens Observa	1.54	253	ePN	Pn	19 13 28.0	+0.7
ATH	Athens Observa	1.54	253	ePn	Pn	19 13 28.0	+0.7
LOS	Limnos	1.54	346	P	Pn	19 13 26.9	-0.5
LOS				S	Sn	19 13 48.1	+0.5
LOS	Limnos	1.54	346	P	Pn	19 13 26.9	-0.5
LOS				S	Sn	19 13 48.1	+0.5
GADA	Gvkgeada	1.77	8	ePN	Pn	19 13 30.5	0.0
GADA	Gvkgeada	1.77	8	ePn	Pn	19 13 30.5	0.0
NAIG	Nisos Aigina	1.78	248	ePB	Pb	19 13 32.5	0.0
NAIG	Nisos Aigina	1.78	248	ePb	Pb	19 13 32.5	0.0
AKHS	Akhisar	1.81	75	i P	Pn	19 13 30.6	-0.4
AKHS				i S	Sg	19 13 58.0	+0.2
AKHS	Akhisar	1.81	75	i P	Pn	19 13 30.6	-0.5
AKHS				i S	Sg	19 13 58.0	+0.2
AKS	Akhisar	1.81	75	ePN	Pn	19 13 29.9	-1.2
AKS	Akhisar	1.81	75	ePn	Pn	19 13 29.9	-1.1
BODT	Bodrum	1.94	134	ePN	Pn	19 13 32.2	-0.7
BODT	Bodrum	1.94	134	ePn	Pn	19 13 32.2	-0.7
AYDN	Tasoluk	1.98	112	i P	Pn	19 13 34.0	+0.6
AYDN				i S	Sg	19 14 03.0	-0.3
AYDN	Tasoluk	1.98	112	i P	Pn	19 13 34.0	+0.6
AYDN				i S	Sg	19 14 03.0	-0.3
LKR	Lokris	2.03	277	P	Pn	19 13 33.9	-0.2
LKR	Lokris	2.03	277	ePN	Pn	19 13 34.0	-0.1
LKR	Lokris	2.03	277	ePn	Pn	19 13 34.0	-0.1
THR1	Thera Island	2.07	183	P	Pn	19 13 33.6	-1.0
THR1	Thera Island	2.07	183	P	Pn	19 13 33.6	-1.0
XOR	Xorichti	2.08	297	P	Pn	19 13 34.2	-0.6
XOR				S	Sn	19 14 01.8	+1.0
XOR	Xorichti	2.08	297	P	Pn	19 13 34.2	-0.6
XOR				S	Sn	19 14 01.8	+1.0
MLSB	Milas	2.08	123	ePN	Pn	19 13 34.0	-0.8
MLSB	Milas	2.08	123	ePn	Pn	19 13 34.0	-0.8
PAIG	Paliouri	2.09	316	P	Pn	19 13 34.5	-0.5
PAIG				S	Sn	19 14 01.6	+0.4
PAIG	Paliouri	2.09	316	P	Pn	19 13 34.5	-0.5
PAIG				S	Sn	19 14 01.6	+0.4
LTK	Loutraki	2.10	259	P	Pn	19 13 35.2	+0.2
LTK				S	Sn	19 14 01.9	+0.7
LTK	Loutraki	2.10	259	P	Pn	19 13 35.2	+0.2
LTK				S	Sn	19 14 01.9	+0.7
LPK	Lapseki	2.14	25	ePN	Pn	19 13 34.8	-0.8
LPK	Lapseki	2.14	25	ePn	Pn	19 13 34.8	-0.8
BALB	Balikesir	2.16	56	ePN	Pn	19 13 35.9	0.0
BALB	Balikesir	2.16	56	ePn	Pn	19 13 35.9	0.0
OUR	Ouranopolis	2.26	327	P	Pn	19 13 37.1	-0.2
OUR	Ouranopolis	2.26	327	P	Pn	19 13 37.1	-0.2
DAT	Datca	2.33	136	ePN	Pn	19 13 37.8	-0.4
DAT	Datca	2.33	136	ePn	Pn	19 13 37.8	-0.5
ENEZ	Enez	2.34	11	ePN	Pn	19 13 38.1	-0.2
ENEZ	Enez	2.34	11	ePn	Pn	19 13 38.2	-0.2
KULA	Kula-Manisa	2.42	87	ePN	Pn	19 13 39.1	-0.4
KULA	Kula-Manisa	2.42	87	ePn	Pn	19 13 39.1	-0.4
ALN	Alexandroupoli	2.48	8	P	Pn	19 13 39.6	-0.7
ALN				S	Sn	19 14 09.1	-1.7
ALN	Alexandroupoli	2.48	8	ePN	Pn	19 13 39.5	-0.8
ALN	Alexandroupoli	2.48	8	ePn	Pn	19 13 39.5	-0.8
ALN				S	Sn	19 14 09.1	-1.7
YER	Yerkesik	2.51	120	ePN	Pn	19 13 39.9	-0.8
YER	Yerkesik	2.51	120	ePn	Pn	19 13 39.9	-0.8
SART	Tekirdag	2.57	28	eP	Pn	19 13 40.1	-1.4
SART				eS	Sg	19 14 20.6	-1.6
SART	Tekirdag	2.57	28	eP	Pn	19 13 40.1	-1.4
AGG	Agios Georgios	2.60	284	P	Pn	19 13 42.6	+0.6
AGG	Agios Georgios	2.60	284	P	Pn	19 13 42.6	+0.6
EDC	Edincik	2.60	42	ePN	Pn	19 13 41.8	-0.2
EDC	Edincik	2.60	42	ePn	Pn	19 13 41.8	-0.2
BNT	Bandirma	2.64	43	ePN	Pn	19 13 41.8	-0.7
RDO	Rodhopi	2.71	359	ePN	Pn	19 13 42.8	-0.6
RDO	Rodhopi	2.71	359	ePn	Pn	19 13 42.8	-0.6
DENT	Denizli	2.81	103	ePN	Pn	19 13 44.6	-0.3
DENT	Denizli	2.81	103	ePn	Pn	19 13 44.6	-0.3
LIT	Litokhoron	2.91	306	P	Pn	19 13 46.5	+0.2
LIT	Litokhoron	2.91	306	P	Pn	19 13 46.5	+0.2
SOH	Sokhos	2.93	325	P	Pn	19 13 46.4	-0.1
SOH	Sokhos	2.93	325	P	Pn	19 13 46.4	-0.1
DALT	Dalyan (Mudla)	2.95	123	ePN	Pn	19 13 46.0	-0.8
DALT	Dalyan (Mudla)	2.95	123	ePn	Pn	19 13 46.0	-0.7
THL	Klokotos Trika	2.99	293	P	Pn	19 13 48.0	+0.6
THL	Klokotos Trika	2.99	293	P	Pn	19 13 48.0	+0.6
ARG	Arkhangelos	3.01	137	ePN	Pn	19 13 47.9	+0.3
ARG	Arkhangelos	3.01	137	ePn	Pn	19 13 47.9	+0.3
KHAL	Karahalli	3.08	90	eP	Pn	19 13 48.4	-0.1
KHAL				eS	Sg	19 14 34.9	-3.6
KHAL	Karahalli	3.08	90	eP	Pn	19 13 48.4	-0.1
SRS	Serrai	3.08	331	P	Pn	19 13 48.1	-0.5
SRS	Serrai	3.08	331	P	Pn	19 13 48.1	-0.5
KHL	Karahalli	3.10	91	ePN	Pn	19 13 49.6	+0.8
KHL	Karahalli	3.10	91	ePn	Pn	19 13 49.7	+0.8
CRLT	Corlu	3.16	31	ePN	Pn	19 13 51.0	+1.3
CRLT	Corlu	3.16	31	ePn	Pn	19 13 51.0	+1.3
KARN	Karanos	3.31	204	P	Pn	19 13 51.3	-0.4
KARN	Karanos	3.31	204	P	Pn	19 13 51.3	-0.4
KNT	Kendrikon	3.41	324	P	Pn	19 13 53.3	+0.2
KNT	Kendrikon	3.41	324	P	Pn	19 13 53.3	+0.2
SLVT	Silivri	3.45	35	ePN	Pn	19 13 53.8	+0.2
SLVT	Silivri	3.45	35	ePn	Pn	19 13 53.8	+0.2
EDRB	Edirne	3.52	14	ePN	Pn	19 13 55.2	+0.5
EDRB	Edirne	3.52	14	ePn	Pn	19 13 55.2	+0.6
CTKS	Kestanelik-??a	3.59	38	ePN	Pn	19 13 56.1	+0.5
CTKS	Kestanelik-??a	3.59	38	ePn	Pn	19 13 56.1	+0.5
ALT	Altintas	3.60	79	ePN	Pn	19 13 55.7	0.0
ALT	Altintas	3.60	79	ePn	Pn	19 13 55.7	0.0
YLV	Yalova	3.63	53	ePN	Pn	19 13 57.3	+1.2
YLV	Yalova	3.63	53	ePn	Pn	19 13 57.3	+1.2
CTYL	Yal??k??y-??at	3.68	34	ePN	Pn	19 13 57.5	+0.6
CTYL	Yal??k??y-??at	3.68	34	ePn	Pn	19 13 57.5	+0.7
BGKT	Bogazkoy	3.68	41	ePN	Pn	19 13 57.9	+1.1
BGKT	Bogazkoy	3.68	41	ePn	Pn	19 13 57.9	+1.1
CAVI	Cavuskoy	3.75	61	ePN	Pn	19 13 58.8	+1.1
CAVI	Cavuskoy	3.75	61	ePn	Pn	19 13 58.8	+1.0
ISK	Istanbul-Kandi	3.75	45	ePN	Pn	19 13 58.4	+0.6
ISK	Istanbul-Kandi	3.75	45	ePn	Pn	19 13 58.4	+0.6
ELL	Elmali	3.83	115	ePN	Pn	19 13 58.8	-0.1
ELL	Elmali	3.83	115	ePn	Pn	19 13 58.8	-0.1
KLYT	Kilyos	3.88	42	ePN	Pn	19 14 00.7	+1.2
KLYT	Kilyos	3.88	42	ePn	Pn	19 14 00.7	+1.2
SHUT	Suhut-Afyon	3.91	87	ePN	Pn	19 14 00.2	+0.3
SHUT	Suhut-Afyon	3.91	87	ePn	Pn	19 14 00.2	+0.3
HRT	Hereke	3.96	52	ePN	Pn	19 14 01.3	+0.7
HRT	Hereke	3.96	52	ePn	Pn	19 14 01.3	+0.7
ESKT	Eskisehir	4.25	74	ePN	Pn	19 14 04.8	+0.2
ESKT	Eskisehir	4.25	74	ePn	Pn	19 14 04.8	+0.2

IDC 21 19:13:08.6±49.0, 14°.78S×171°.21W, h0^{km}, mb4.1/3, mb1 4.2/3, mb1mx3.8/18, mbtmp4.1/3, Error ellipse: s-maj=974.2km s-min=194.3km az=78.0, Samoa Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	46.18	240	P	P	19 21 35.3	0.0
	1.5nm,0.7s,baz=73,slow=11,SNR=3.1						
WRA	Warramunga Arr	52.05	256	P	P	19 22 20.7	+0.2
	0.5nm,0.4s,baz=92,slow=6.8,SNR=17						
ASAR	Alice Springs	52.31	251	P	P	19 22 22.2	-0.3
	3.1nm,0.5s,baz=89,slow=7.8,SNR=78						

NEIC 21 19:13:14.5, 39°.04S×174°.96E, h219^{km}, MG3.8(WEL), After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKZ	Black Stump Fm	1.20	97	P	Pn	19 13 47.0	-0.5
BKZ				S	S	19 14 11.6	-1.6
TSZ	Takapari Road	1.28	143	P	Pn	19 13 48.5	+0.4
MRZ	Mangatainoka R	1.69	164	P	Pn	19 13 51.3	-0.1
KIW	Kapiti Island	1.82	181	P	Pn	19 13 52.4	-0.2
URZ	Urewera	1.85	66	P	Pn	19 13 50.8	-2.2
BFZ	Birch Farm	1.92	149	P	Pn	19 13 53.3	-0.2
CAW	Cannon Point	2.07	178	P	Pn	19 13 54.7	-0.3
KNZ	Kokohu	2.11	90	P	Pn	19 13 54.7	-0.8
MWZ	Matawai	2.13	72	P	Pn	19 13 53.8	-1.9
MTW	Mount Morrison	2.16	169	P	Pn	19 13 55.4	-0.5
MRW	Makara Radio	2.20	185	P	Pn	19 13 55.8	-0.5
TCW	Tory Channel	2.23	193	P	Pn	19 13 56.3	-0.4
SNZO	South Karori	2.28	185	P	Pn	19 13 56.5	-0.6
BHW	Baring Head	2.37	182	P	Pn	19 13 57.2	-0.9
PAWZ	Paruwai Farm	2.37	171	P	Pn	19 13 57.5	-0.6
MSWZ	Moikau Station	2.38	175	P	Pn	19 13 57.6	-0.7
NNZ	Nelson	2.49	209	P	Pn	19 13 58.2	-1.2
PUZ	Puketiti	2.76	71	P	Pn	19 13 59.0	-3.4
BSWZ	Blackbirch Sta	2.80	197	P	Pn	19 14 02.3	-0.5
THZ	Tophouse	3.14	209	P	Pn	19 14 04.9	-1.8
KHZ	Kahutara	3.54	197	P	Pn	19 14 10.0	-1.4

LTZ	Lake Taylor	4.26	208	P	Pn	19 14 17.8	-2.2
MQZ	McQueen's Vall	4.98	200	P	Pn	19 14 25.5	-3.4
WVZ	Waitaha Valley	5.14	217	P	Pn	19 14 28.0	-3.0

ISCJB ***21*** *19:37:07.8±0.4, 41°.12N±0°.01×114°.91W±0°.02, h6^{km}±3^{km}, Error ellipse: s-maj=2.5km s-min=2.1km az=146.1*

IDC ***21*** *19:37:07.3±1.0, 41°.20N×114°.98W, h0^{km}, mb2.6/1, mb1 3.4/3, mb1mx3.2/21, mbtmp3.0/3, ML3.6/2, Error ellipse: s-maj=18.4km s-min=5.7km az=131.0*

NEIC ***21*** *19:37:08.4, 41°.14N×114°.91W, h4^{km}, ML3.2, After REN.*

ISC 21 19:37:08.0±0.3**, 41°.12N**±0°.01×**114°.91W**±0°.02**, h2**^{km}±2^{km}**, n103,** σ1^{s}01/135**, 30C-31D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.28	201	⇑P	Pg	19 37 14.6	+1.3
	baz=0.3,SNR=21						
N12A				⇑S	Sg	19 37 19.0	+2.0
	baz=0.3						
ELK	Elko	0.45	214	Pg	Pg	19 37 17.2	+0.6
	67nm,0.3s,baz=8.2,slow=13,SNR=110						
ELK				Lg		19 37 23.6	
	279nm,0.3s,baz=125,slow=20,SNR=88						
ELK	Elko	0.45	214	*e*Pg	Pg	19 37 16.9	+0.4
ELK				*e*Sg	Sg	19 37 23.4	+1.0
N13A	Wendover, West	0.59	116	⇑P	Pg	19 37 20.0	+0.7
	baz=0.6,SNR=40						
N13A				⇑S	Sg	19 37 28.0	+1.0
	baz=0.6						
M13A	Montello	0.61	66	⇑P	Pg	19 37 20.4	+0.8
	baz=0.6,SNR=18						
N11A	Elko Archery C	0.70	245	⇓P	Pg	19 37 21.9	+0.6
	baz=0.7,SNR=19						
N11A				⇑S	Sg	19 37 31.3	+1.0
	baz=0.7						
M11A	Holland Ranch,	0.74	296	⇓P	Pg	19 37 22.1	0.0
	baz=0.7,SNR=10						
M11A				⇑S	Sg	19 37 31.8	+0.2
	baz=0.7						
O12A	Currie	0.86	172	P	Pg	19 37 25.2	+0.8
	baz=0.9,SNR=37						
O12A				⇑S	Sg	19 37 37.0	+1.5
	baz=0.9						
L12A	House Creek Ra	1.03	355	⇑P	Pg	19 37 27.3	-0.4
	baz=1.0						
L12A				⇑S	Sg	19 37 40.7	-0.4
	baz=1.0						
O11A	Cowboy Ranch,	1.14	210	⇓S	Sg	19 37 45.1	+0.6
	baz=1.2						
L13A	Double Diamond	1.21	36	⇑P	Pg	19 37 30.4	-0.8
	baz=1.2,SNR=32						
L13A				⇑S	Sg	19 37 46.3	-0.6
	baz=1.2						
O13A	Hicks Ranch, I	1.21	144	⇓P	Pg	19 37 31.4	+0.2
	baz=1.2,SNR=41						
L11A	Cat Creek Ranc	1.23	329	⇑P	Pg	19 37 30.4	-1.0
	baz=1.2						
L11A				⇓S	Sg	19 37 46.5	-0.9
	baz=1.2						
M14A	Sheep Mountain	1.24	71	⇓P	Pg	19 37 30.9	-0.8
	baz=1.2,SNR=38						
M14A				⇑S	Sg	19 37 47.4	-0.3
	baz=1.2						
N10A	Dunphy	1.28	252	⇑P	Pg	19 37 32.1	-0.3
	baz=1.3,SNR=30						
N10A				⇓S	Sg	19 37 49.6	+0.6
	baz=1.3						
M10A	I.L. Ranch, Tu	1.29	289	⇓P	Pg	19 37 32.1	-0.6
	baz=1.3,SNR=11						
M10A				⇓S	Sg	19 37 49.9	+0.4
	baz=1.3						
N14A	Grayback Hills	1.33	101	⇑P	Pg	19 37 32.4	-1.1
	baz=1.3,SNR=40						
N14A				⇑S	Sg	19 37 51.1	+0.5
	baz=1.3						
BGU	Big Grassy Mou	1.43	97	*e*Pn	Pn	19 37 33.9	-1.1
BGU				*e*Sn	Sn	19 37 51.5	-2.9
O10A	Cortez Mining,	1.47	236	⇑P	Pn	19 37 34.6	-0.8
	baz=1.5,SNR=26						
O10A				⇑S	Sb	19 37 55.5	+0.5
	baz=1.5						
L10A	Juniper Basin	1.52	310	⇓P	Pn	19 37 35.9	-0.3
	baz=1.5,SNR=29						
L10A				⇓S	Sn	19 37 55.8	-0.6
	baz=1.5						
K12A	Draper Farm, C	1.52	0	⇓P	Pn	19 37 34.5	-1.7
	baz=1.5						
K12A				⇓S	Sn	19 37 55.4	-1.1
	baz=1.5						
L14A	Malta	1.55	53	P	Pn	19 37 36.1	-0.5
	baz=1.5,SNR=50						
L14A				⇑S	Sn	19 37 56.4	-0.9
	baz=1.5						
P12A	McGill	1.64	180	P	Pn	19 37 37.8	0.0
	baz=1.7,SNR=25						
K13A	Stover Farm, H	1.65	22	⇑P	Pn	19 37 37.2	-0.8
	baz=1.6,SNR=28						
K13A				⇓S	Sn	19 37 58.6	-1.1
	baz=1.6						
P11A	Circle Ranch,	1.69	203	⇑P	Pn	19 37 38.7	+0.1
	baz=1.7,SNR=17						
P11A				⇑S	Sn	19 38 02.5	+1.7
	baz=1.7						
HVU	Hansel Valley	1.73	67	*e*Pn	Pn	19 37 38.1	-1.0
HVU				*e*Sn	Sn	19 38 00.9	-0.9
N15A	Stansbury Isla	1.82	96	P	Pn	19 37 39.8	-0.5
	baz=1.8,SNR=32						
DUG	Dugway	1.84	119	⇑P	Pn	19 37 39.6	-1.0
	baz=1.9,SNR=20						
DUG	Dugway	1.84	119	*e*Pn	Pn	19 37 39.1	-1.5
DUG				*e*Sn	Sn	19 38 02.8	-1.7
K11A	Parker Ranch,	1.85	333	⇑S	Sn	19 38 04.9	+0.1
	baz=1.8						
SPUT	South Promonto	1.86	83	*e*Pn	Pn	19 37 39.8	-1.2
SPUT				*e*Sn	Sn	19 38 05.6	+0.6
M15A	Larsen Ranch,	1.89	79	⇓P	Pn	19 37 40.5	-0.7
	baz=1.9,SNR=28						
BMN	Battle Mountai	1.89	249	*e*Pn	Pn	19 37 39.6	-1.6
BMN				*e*Sn	Sn	19 38 06.5	+0.9
P10A	Eureka	1.91	219	⇓P	Pn	19 37 41.6	+0.1
	baz=1.9,SNR=32						
O09A	Fish Creek Ran	1.98	242	⇓P	Pn	19 37 42.0	-0.5
	baz=2.0,SNR=15						
N09A	Rock Creek Ran	2.00	263	⇓P	Pn	19 37 41.6	-1.1
	baz=2.0						
P14A	Drum Mountains	2.07	137	⇓P	Pn	19 37 43.1	-0.7
	baz=2.1,SNR=13						
Q12A	Willow Creek R	2.08	178	P	Pn	19 37 43.8	0.0
	baz=2.1,SNR=11						
NOQ	North Oquirrh	2.16	101	*e*Pn	Pn	19 37 44.7	-0.3
Q13A	Wheeler Ranch,	2.26	162	P	Pn	19 37 46.3	-0.1
	baz=2.3,SNR=15						
P09A	Austin	2.31	228	⇑P	Pn	19 37 46.9	-0.2
	baz=2.3						
Q11A	Duckwater	2.34	194	⇓P	Pn	19 37 47.4	0.0
	baz=2.4,SNR=21						
J13A	Cove Ranch, Pi	2.34	13	P	Pn	19 37 48.0	+0.5
	baz=2.3,SNR=34						
K15A	Arbon	2.37	48	⇓P	Pn	19 37 48.0	+0.1
	baz=2.3,SNR=20						
CTU	Camp Tracy	2.43	99	Pn	Pn	19 37 49.5	+0.8
NLU	North Lily Min	2.45	117	*e*Pn	Pn	19 37 50.2	+1.2
HLID	Hailey	2.47	8	P	Pn	19 37 49.8	+0.5
Q10A	Clear Creek Ra	2.56	207	⇓P	Pn	19 37 50.7	+0.2
	baz=2.6,SNR=18						
I12A	Atlanta	2.68	357	⇓P	Pn	19 37 53.3	+1.1
	baz=2.7,SNR=25						
MPU	Maple Canyon	2.73	113	*e*Pn	Pn	19 37 53.8	+1.0
R12A	Pony Springs,	2.79	175	⇓P	Pn	19 37 53.9	+0.2
	baz=2.8,SNR=11						
P08A	Dixie Valley	2.81	241	P	Pn	19 37 53.6	-0.2
	baz=2.8,SNR=9.2						
R11A	Troy Canyon, C	2.81	191	P	Pn	19 37 54.0	+0.1
	baz=2.8,SNR=19						
I13A	Wildhorse Cree	2.86	12	⇓P	Pn	19 37 55.4	+0.8
	baz=2.8,SNR=14						
DAU	Daniels Canyon	2.86	103	*e*Pn	Pn	19 37 54.2	-0.4
Q15A	Fillmore	2.87	137	⇓P	Pn	19 37 54.2	-0.6
	baz=2.9,SNR=6.6						
Q09A	Carvers	2.87	218	⇓P	Pn	19 37 55.3	+0.5
	baz=2.9,SNR=6.6						
J15A	Blackfoot	2.93	38	⇓P	Pn	19 37 56.0	+0.4
	baz=2.9,SNR=18						
WVOR	Wild Horse Val	3.08	296	*e*Pn	Pn	19 37 59.0	+1.3
O07A	Toulon	3.17	254	⇓P	Pn	19 37 57.7	-1.2
	baz=3.2,SNR=16						
AHID	Auburn Hatcher	3.28	59	*e*Pg	Pg	19 38 10.2	-0.7
MSU	Marysvale	3.34	140	*e*Pn	Pn	19 38 00.6	-0.7
TMUT	Trail Mountain	3.37	121	*e*Pn	Pn	19 38 01.2	-0.4
RRI2	Red Ridge	3.47	49	*e*Pn	Pn	19 38 04.4	+1.4
RRI2				*e*Sn	Sb	19 38 54.7	+1.9
ARUT	Antelope Range	3.51	161	*e*Pg	Pg	19 38 15.3	0.0
S14A	Cedar City	3.61	158	⇑P	Pn	19 38 05.3	+0.4
	baz=3.6,SNR=7.1						
S13A	Holt Ranch, En	3.62	167	P	Pn	19 38 05.5	+0.4
	baz=3.7,SNR=16						
DCID1	Drake Creek	3.71	47	*e*Pn	Pn	19 38 06.3	+0.1
NVAR	Mina Array Bea	3.75	225	Pn	Pn	19 38 06.7	-0.1
	5.3nm,0.3s,baz=40,slow=13,SNR=98						
NVAR				Pg	Pg	19 38 15.0	-4.8
	11nm,0.3s,baz=37,slow=14,SNR=26						
NVAR				Sn	Sn	19 38 50.4	-1.2
	3.6nm,0.3s,baz=45,slow=17,SNR=3.8						
NVAR				Lg		19 39 03.6	
	5.9nm,0.3s,baz=58,slow=32,SNR=2.3						
N06A	Buffalo Meadow	3.75	266	⇑P	Pn	19 38 06.0	-0.9
	baz=3.7,SNR=5.5						
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	19 38 09.1	+2.2
CCUT	Cedar City	3.76	161	*e*Pn	Pn	19 38 07.3	+0.3
CCUT				*e*Sg	Sg	19 39 08.5	-0.2
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	19 38 08.2	+1.1
SNOW	Snow King Moun	3.87	51	*e*Pn	Pn	19 38 10.3	+1.8
T11A	Corn Creek, Al	3.88	184	P	Pn	19 38 09.1	+0.5
	baz=3.9,SNR=10						
SRU	San Rafael	3.91	119	*e*Pn	Pn	19 38 08.5	-0.6
S15A	Panguitch	3.96	149	⇑P	Pn	19 38 10.2	+0.5
	baz=4.0,SNR=7.6						
MCMT	McKenzie Canyo	4.00	21	*e*Pn	Pn	19 38 11.1	+0.7
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	19 38 11.5	+0.7
LOHW	Long Hollow	4.05	51	*e*Pn	Pn	19 38 13.4	+2.5
MOOW	Moose Ponds	4.05	48	*e*Pn	Pn	19 38 12.0	+1.1
BMO	Blue Mountains	4.13	336	*e*Pn	Pn	19 38 13.8	+1.8
MOD	Modoc	4.13	283	*e*Pn	Pn	19 38 10.9	-1.1
PDAR	Pinedale Array	4.32	66	Pn	Pn	19 38 16.8	+2.2
	0.3nm,0.3s,baz=234,slow=12,SNR=18						
PDAR				Lg		19 39 21.8	
	2.7nm,0.3s,baz=247,slow=22,SNR=11						
BEKR	Beckwourth	4.34	255	⇓P	Pn	19 38 14.4	-0.6
	baz=4.3,SNR=16						
R06C	Coleville	4.35	235	⇑P	Pn	19 38 15.2	+0.1
	baz=4.4,SNR=6.7						
YFT	Old Faithful	4.48	41	Pn	Pn	19 38 18.1	+1.3
DLMT	Dillon	4.57	21	*e*Pn	Pn	19 38 19.5	+1.5
YMR	Madison River	4.58	38	*e*Pn	Pn	19 38 18.7	+0.4
YNR	Norris Junctio	4.75	39	Pn	Pn	19 38 22.0	+1.4
YNR				*e*Pg	Pg	19 38 35.5	-3.5
LKWY	Lake	4.78	42	*e*Pn	Pn	19 38 19.9	-1.1
BOZ	Bozeman (W)	5.12	27	Pn	Pn	19 38 27.0	+1.3
CMB	Columbia Colle	5.23	236	*e*Pn	Pn	19 38 26.1	-1.1
CMB				*e*Sg	Sg	19 39 52.8	-3.3
PV04	Paradox Valley	5.37	119	Pn	Pn	19 38 27.4	-1.7
PV04				*e*Pg	Pg	19 38 49.0	-1.7
V12A	Nelson	5.38	180	⇓P	Pn	19 38 30.0	+0.7
	baz=5.4,SNR=12						
YBH	Yreka Blue Hor	5.90	279	Lg		19 40 13.5	
	0.4nm,0.3s,baz=327,slow=15,SNR=5.8						
GSC	Goldstone	6.00	195	*e*Pg	Pg	19 39 01.8	-1.0
ISA	Isabella	6.12	208	*e*Pg	Pg	19 39 03.6	-1.7
ISA				*e*Sg	Sg	19 40 23.2	-1.4
WUAZ	Wupatki	6.24	152	*e*Pg	Pg	19 39 06.4	-1.1
WUAZ				*e*Sg	Sg	19 40 26.1	-2.3
MVCO	Mesa Verde	6.33	126	*e*Pg	Pg	19 39 03.9	-5.2
PHWY	Pilot Hill	7.13	85	*e*Pn	Pn	19 38 56.0	+2.8
YKA	Yellowknife Ar	21.41	0	P	P	19 41 56.8	0.0
	0.2nm,0.6s,baz=181,slow=10.0,SNR=4.9						
YKA	Yellowknife Ar	21.41	0	P	P	19 41 56.8	0.0

NEIC ***21*** *19:42:15.2, 36°.22N×21°.64E, h7^{km}, MD3.5(ATH), After ATH.*

CSEM ***21*** *19:42:15.2, 36°.22N×21°.64E, h7^{km}, MD3.5, After ATH*

ATH 21 19:42:15.2, 36°.22N×21°.64E, h7^{km}±2^{km}**, MD3.5**/8**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.68	7	*e*PB	Pb	19 42 28.4	-1.0
PYL				*e*SB	Sb	19 42 36.9	-2.1
PYL	PYLOS	0.68	7	*e*Pb	Pb	19 42 28.4	-1.0
PYL				*e*Sb	Sb	19 42 36.9	-2.1
ITM	Ithomi	0.98	13	*e*PB	Pb	19 42 34.0	-0.6
ITM				*e*SB	Sb	19 42 47.5	-0.3
ITM	Ithomi	0.98	13	*e*Pb	Pb	19 42 34.0	-0.6
ITM				*e*Sb	Sb	19 42 47.5	-0.3
KYTH	Kithira	1.13	87	*e*PB	Pb	19 42 36.5	-0.6
KYTH	Kithira	1.13	87	*e*Pb	Pb	19 42 36.5	-0.6
VLI	Veliai	1.16	64	*e*PN	Pn	19 42 37.0	-0.8
VLI	Veliai	1.16	64	*e*Pn	Pn	19 42 37.0	-0.8
VLX	Vlachokerasia	1.29	27	*e*PG	Pg	19 42 39.1	-0.9
VLX				*e*SB	Sb	19 42 57.7	+1.1
VLX	Vlachokerasia	1.29	27	*e*Pg	Pg	19 42 39.1	-0.9
VLX				*e*Sb	Sb	19 42 57.7	+1.1
GUR	Goura	1.80	18	*e*PG	Pg	19 42 48.3	-1.5
GUR	Goura	1.80	18	*e*Pg	Pg	19 42 48.3	-1.5
RLS	Riolos of Patr	1.84	356	*e*PG	Pg	19 42 49.8	-0.7
RLS	Riolos of Patr	1.84	356	*e*Pg	Pg	19 42 49.8	-0.7
LTK	Loutraki	2.09	30	*e*PN	Pn	19 42 52.8	+2.2
LTK	Loutraki	2.09	30	*e*Pn	Pn	19 42 52.8	+2.2
NAIG	Nisos Aigina	2.13	43	*e*PN	Pn	19 42 53.7	+2.5
NAIG	Nisos Aigina	2.13	43	*e*Pn	Pn	19 42 53.7	+2.5
PTL	Penteli	2.55	44	*e*PB	Pb	19 42 58.3	-2.9
PTL	Penteli	2.55	44	*e*Pb	Pb	19 42 58.3	-2.9

ISCJB ***21*** *19:53:48.3±0.5, 41°.16N±0°.02×114°.94W±0°.02, h4^{km}±4^{km}, Error ellipse: s-maj=2.7km s-min=2.4km az=135.9*

NEIC ***21*** *19:53:49.4, 41°.13N×114°.92W, h13^{km}, ML3.3, After REN.*

IDC ***21*** *19:53:49.1±0.7, 41°.16N×114°.97W, h0^{km}, mb3.2/1, mb1 3.6/4, mb1mx3.4/22, mbtmp3.3/4, ML3.5/3, Error ellipse: s-maj=12.1km s-min=4.6km az=132.0*

ISC 21 19:53:48.8±0.3**, 41°.15N**±0°.01×**114°.94W**±0°.02**, h2**^{km}±3^{km}**, n106,** σ0^{s}98/126**, 24C-36D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.30	195	P	Pg	19 53 55.5	+0.9
	baz=0.3,SNR=75						
N12A				⇑S	Sg	19 54 00.1	+1.6
	baz=0.3						
ELK	Elko	0.46	210	Pg	Pg	19 53 58.1	+0.5
	50nm,0.3s,baz=15,slow=15,SNR=23						
ELK				Lg		19 54 04.2	
	248nm,0.3s,baz=22,slow=19,SNR=60						
ELK	Elko	0.46	210	*e*Pg	Pg	19 53 57.9	+0.3
ELK				Lg		19 54 04.2	
M13A	Montello	0.62	69	⇓P	Pg	19 54 00.9	+0.3
	baz=0.6,SNR=24						
N13A	Wendover, West	0.62	117	P	Pg	19 54 01.2	+0.5
	baz=0.6,SNR=96						
N13A				⇓S	Sg	19 54 09.5	+0.7
	baz=0.6						
N11A	Elko Archery C	0.69	242	⇑P	Pg	19 54 02.4	+0.4
	baz=0.7,SNR=22						
N11A				⇓S	Sg	19 54 12.1	+1.2
	baz=0.7						
M11A	Holland Ranch,	0.70	294	⇓P	Pg	19 54 02.6	+0.3
	baz=0.7						
O12A	Currie	0.89	171	⇓P	Pg	19 54 06.2	+0.4
	baz=0.9,SNR=54						
L12A	House Creek Ra	1.00	357	⇓P	Pg	19 54 07.8	-0.2
	baz=1.0,SNR=7.5						
L12A				⇓S	Sg	19 54 21.5	+0.6
	baz=1.0						
O11A	Cowboy Ranch,	1.15	209	⇓P	Pg	19 54 11.4	+0.6
	baz=1.1,SNR=28						
O11A				⇑S	Sg	19 54 26.5	+0.7
	baz=1.1						
L11A	Cat Creek Ranc	1.19	329	⇑P	Pg	19 54 11.0	-0.6
	baz=1.2						
L11A				⇓S	Sg	19 54 27.0	-0.1
	baz=1.2						
O13A	Hicks Ranch, I	1.25	144	⇓P	Pg	19 54 12.5	-0.1
	baz=1.2,SNR=21						
M14A	Sheep Mountain	1.25	73	⇑P	Pg	19 54 11.7	-1.0
	baz=1.2,SNR=39						
M14A				⇓S	Sg	19 54 28.6	-0.2
	baz=1.2						
N10A	Dunphy	1.27	251	⇓S	Sg	19 54 30.2	+0.8
	baz=1.3						
N14A	Grayback Hills	1.36	102	⇑P	Pn	19 54 13.6	-1.1
	baz=1.3,SNR=22						
N14A				⇑S	Sg	19 54 32.4	+0.1
	baz=1.3						
BGU	Big Grassy Mou	1.46	98	*e*Pn	Pn	19 54 15.0	-1.0
BGU				*e*Sn	Sn	19 54 34.5	-1.2
O10A	Cortez Mining,	1.46	235	⇑P	Pn	19 54 15.6	-0.6
	baz=1.5,SNR=20						
L10A	Juniper Basin	1.48	309	⇓P	Pn	19 54 16.0	-0.4
	baz=1.5,SNR=12						
K12A	Draper Farm, C	1.49	1	⇑P	Pn	19 54 15.1	-1.4
	baz=1.5,SNR=16						
L14A	Malta	1.55	55	⇑P	Pn	19 54 16.4	-1.0
	baz=1.5,SNR=16						
L14A				⇑S	Sn	19 54 37.3	-0.8
	baz=1.5						
P12A	McGill	1.67	179	⇓P	Pn	19 54 18.6	-0.4
	baz=1.7,SNR=43						
P12A				⇓Sb	Sb	19 54 43.1	+1.4
	baz=1.7						
P11A	Circle Ranch,	1.71	202	⇑P	Pn	19 54 19.1	-0.5
	baz=1.7,SNR=22						
HVU	Hansel Valley	1.74	68	*e*Pn	Pn	19 54 19.2	-0.8
HVU				*e*Sn	Sn	19 54 43.0	+0.2
K11A	Parker Ranch,	1.82	334	⇓Pb	Pb	19 54 21.2	-1.5
	baz=1.8						
N15A	Stansbury Isla	1.84	97	⇑P	Pn	19 54 20.8	-0.6
	baz=1.8,SNR=31						
DUG	Dugway	1.87	120	⇓Pb	Pb	19 54 23.1	-0.6
	baz=1.9						
DUG	Dugway	1.87	120	*e*Pn	Pn	19 54 20.9	-0.9
DUG				*e*Sn	Sn	19 54 46.5	+0.5
BMN	Battle Mountai	1.88	248	*e*Pn	Pn	19 54 20.3	-1.5
BMN				*e*Sn	Sn	19 54 50.7	+4.6
SPUT	South Promonto	1.88	84	*e*Pn	Pn	19 54 21.2	-0.7
SPUT				*e*Sn	Sn	19 54 48.5	+2.2
M15A	Larsen Ranch,	1.90	80	⇑P	Pn	19 54 21.3	-0.9
	baz=1.9,SNR=16						
M09A	Marrel Ranch,	1.92	279	⇓Pb	Pb	19 54 23.3	-1.1
	baz=1.9						
P10A	Eureka	1.92	218	⇑P	Pn	19 54 21.9	-0.5
	baz=1.9,SNR=34						
N09A	Rock Creek Ran	1.98	262	⇓P	Pn	19 54 22.1	-1.2
	baz=2.0						
Q12A	Willow Creek R	2.10	178	⇓P	Pn	19 54 24.5	-0.5
	baz=2.1						
J12A	Stokes Ranch,	2.11	357	⇓Pb	Pb	19 54 25.8	-1.8
	baz=2.1,SNR=28						
P14A	Drum Mountains	2.11	137	⇓P	Pn	19 54 24.3	-0.7
	baz=2.1						
K10A	MacKenzie Ranc	2.18	319	⇓Pb	Pb	19 54 27.3	-1.5
	baz=2.2,SNR=15						
NOQ	North Oquirrh	2.19	102	*e*Pn	Pn	19 54 27.0	+0.8
Q13A	Wheeler Ranch,	2.30	162	⇓P	Pn	19 54 27.1	-0.5
	baz=2.3,SNR=29						
P09A	Austin	2.32	227	⇓P	Pn	19 54 28.0	+0.1
	baz=2.3						
J13A	Cove Ranch, Pi	2.32	14	⇑P	Pn	19 54 26.7	-1.3
	baz=2.3,SNR=25						
MFID	Camas Ranch	2.36	344	⇑P	Pn	19 54 29.5	+0.9
	baz=2.4,SNR=20						
Q11A	Duckwater	2.36	194	⇓P	Pn	19 54 28.4	-0.1
	baz=2.4,SNR=13						
K15A	Arbon	2.36	49	⇑P	Pn	19 54 28.7	+0.1
	baz=2.4,SNR=22						
J14A	Carey	2.42	25	⇑Pb	Pb	19 54 31.5	-1.4
	baz=2.4,SNR=48						
HLID	Hailey	2.45	9	⇑Pb	Pb	19 54 32.0	-1.5
	baz=2.5,SNR=59						
HLID	Hailey	2.45	9	*e*Pn	Pn	19 54 29.0	-0.7
CTU	Camp Tracy	2.46	100	*e*Pn	Pn	19 54 27.1	-2.8
NLU	North Lily Min	2.48	118	*e*Pn	Pn	19 54 29.9	-0.3
Q14A	Sevier Lake (B	2.50	149	⇓P	Pn	19 54 29.6	-0.8
	baz=2.5,SNR=6.4						
P15A	Leamington	2.57	127	⇑P	Pn	19 54 30.5	-0.9
	baz=2.5,SNR=19						
MPU	Maple Canyon	2.76	113	*e*Pn	Pn	19 54 35.0	+1.1
P08A	Dixie Valley	2.80	240	⇓P	Pn	19 54 34.6	0.0
	baz=2.8,SNR=22						
I13A	Wildhorse Cree	2.83	12	⇑P	Pn	19 54 35.8	+0.8
	baz=2.8,SNR=46						
R11A	Troy Canyon, C	2.84	190	⇑P	Pn	19 54 34.9	-0.1
	baz=2.8,SNR=15						
DAU	Daniels Canyon	2.89	103	*e*P	Pn	19 54 35.9	+0.2
Q15A	Fillmore	2.91	137	⇓P	Pn	19 54 35.4	-0.6
	baz=2.9,SNR=16						
J15A	Blackfoot	2.92	39	⇓P	Pn	19 54 36.6	+0.4
	baz=2.9,SNR=12						
K16A	Soda Springs	3.01	55	⇓P	Pn	19 54 38.1	+0.6
	baz=3.0,SNR=15						
WVOR	Wild Horse Val	3.05	296	*e*Pn	Pn	19 54 39.0	+1.0
R13A	O'Grain Ranch,	3.05	166	⇓P	Pn	19 54 38.3	+0.3
	baz=3.0,SNR=35						
N07B	Gerlach	3.08	264	⇓P	Pn	19 54 38.2	-0.1
	baz=3.1,SNR=23						
M07A	Soldier Meadow	3.20	276	P	Pn	19 54 40.1	0.0
	baz=3.2,SNR=21						
AHID	Auburn Hatcher	3.29	59	*e*Pn	Pn	19 54 41.5	+0.3
MSU	Marysvale	3.38	140	*e*Pn	Pn	19 54 42.3	-0.3
TMUT	Trail Mountain	3.40	122	*e*Pn	Pn	19 54 44.1	+1.3
RRI2	Red Ridge	3.47	49	*e*Pn	Pn	19 54 44.1	+0.3
ARUT	Antelope Range	3.55	160	*e*Pn	Pn	19 54 44.6	-0.2
S13A	Holt Ranch, En	3.66	166	⇑P	Pn	19 54 46.4	+0.1
	baz=3.6,SNR=26						
H10A	Noah's Angus R	3.69	339	⇓P	Pn	19 54 48.1	+1.3
	baz=3.7,SNR=16						
DCID1	Drake Creek	3.70	47	*e*Pn	Pn	19 54 47.9	+1.0
NVAR	Mina Array Bea	3.75	225	Pn	Pn	19 54 47.7	+0.1
	5.9nm,0.3s,baz=40,slow=14,SNR=28						
NVAR				Pg	Pg	19 54 56.5	-4.2
	10nm,0.3s,baz=48,slow=12,SNR=18						
NVAR				Sn	Sn	19 55 32.6	+0.2
	6.9nm,0.3s,baz=34,slow=16,SNR=2.5						
NVAR				Lg		19 55 45.2	
	12nm,0.3s,baz=44,slow=35,SNR=4.1						
NVAR	Mina Array Bea	3.75	225	Pn	Pn	19 54 47.7	+0.1
NVAR				Pg	Pg	19 54 56.5	-4.2
NVAR				Sn	Sn	19 55 32.6	+0.2
NVAR				Lg		19 55 45.2	
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	19 54 48.2	+0.5
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	19 54 50.5	+2.7
CCUT	Cedar City	3.79	161	*e*Pn	Pn	19 54 48.3	+0.2
SNOW	Snow King Moun	3.87	52	*e*Pn	Pn	19 54 48.9	-0.3
T11A	Corn Creek, Al	3.91	183	⇓P	Pn	19 54 50.0	+0.3
	baz=3.9,SNR=19						
SRU	San Rafael	3.94	120	*e*Pn	Pn	19 54 51.8	+1.5
MCMT	McKenzie Canyo	3.98	22	*e*Pn	Pn	19 54 52.5	+1.7
IMW	Indian Meadow	4.04	46	*e*Pn	Pn	19 54 52.8	+1.3
LOHW	Long Hollow	4.05	51	*e*Pn	Pn	19 54 53.0	+1.4
MOOW	Moose Ponds	4.05	49	*e*Pn	Pn	19 54 51.9	+0.2
BMO	Blue Mountains	4.09	336	*e*Pn	Pn	19 54 52.8	+0.5
MOD	Modoc	4.10	282	*e*Pn	Pn	19 54 52.1	-0.3
PDAR	Pinedale Array	4.32	66	Pn	Pn	19 54 57.8	+2.3
	0.4nm,0.3s,baz=239,slow=11,SNR=16						
PDAR				Pg	Pg	19 55 07.2	-4.4
	1.1nm,0.3s,baz=235,slow=13,SNR=17						
PDAR				Lg		19 56 04.0	
	2.1nm,0.3s,baz=240,slow=25,SNR=5.3						
BEKR	Beckwourth	4.33	255	P	Pn	19 54 55.0	-0.5
	baz=4.3,SNR=38						
YFT	Old Faithful	4.47	41	*e*Pn	Pn	19 54 57.7	+0.2
DLMT	Dillon	4.55	21	*e*Pn	Pn	19 54 58.2	-0.4
YMR	Madison River	4.57	38	*e*Pn	Pn	19 54 59.8	+0.9
LKWY	Lake	4.77	43	*e*Pn	Pn	19 55 02.1	+0.4
LRM	Limekiln Ridge	5.01	20	*e*Pn	Pn	19 55 09.2	+4.3
BOZ	Bozeman (W)	5.10	27	*e*Pn	Pn	19 55 07.7	+1.5
	3.4nm,0.4s						
CMB	Columbia Colle	5.23	235	*e*Pn	Pn	19 55 07.2	-0.8
	7.6nm,0.6s						
PV04	Paradox Valley	5.40	119	Pn	Pn	19 55 13.6	+3.4
V12A	Nelson	5.41	179	⇓P	Pn	19 55 10.9	+0.5
	baz=5.4,SNR=17						
MSO	Missoula	5.73	7	*e*Pg	Pg	19 55 40.0	+1.5
PV01	Paradox Valley	5.76	119	*e*Pg	Pg	19 55 37.0	-2.1
YBH	Yreka Blue Hor	5.87	278	Pn	Pn	19 55 19.9	+3.1
	0.1nm,0.3s,baz=163,slow=14,SNR=2.1						
YBH				Lg		19 56 52.1	
	0.3nm,0.3s,baz=345,slow=17,SNR=3.6						
GSC	Goldstone	6.02	195	*e*Pg	Pg	19 55 43.4	-0.6
ISA	Isabella	6.14	208	*e*Pg	Pg	19 55 43.7	-2.7
SLMT	Seeley Lake	6.18	9	*e*Pg	Pg	19 55 48.1	+0.9
WUAZ	Wupatki	6.28	152	*e*Pg	Pg	19 55 48.3	-0.7
MVCO	Mesa Verde	6.36	126	*e*Pg	Pg	19 55 48.2	-2.3
PHWY	Pilot Hill	7.15	86	*e*Pn	Pn	19 55 35.3	+1.1

YKA	Yellowknife Ar	21.38	0	P	P	19 58 37.6	+0.3
	1.0nm,0.7s,baz=179,slow=10,SNR=25						

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*ISCJB **21** 19:57:19.5±0.4, 41°.11N±0°.01×114°.90W±0°.02, h7^{km}±3^{km}, Error ellipse: s-maj=2.6km s-min=2.1km az=149.2*

*NEIC **21** 19:57:19.9, 41°.12N×114°.92W, h10^{km}, ML3.3, After REN.*

*IDC **21** 19:57:19.1±1.0, 41°.21N×115°.07W, h0^{km}, mb3.3/1, mb1 3.9/4, mb1mx3.5/22, mbtmp3.4/4, ML3.7/3, Error ellipse: s-maj=12.3km s-min=5.8km az=129.0*

ISC 21 19:57:19.9±0.3**, 41°.12N**±0°.01×**114°.91W**±0°.02**, h4**^{km}±2^{km}**, n94, σ0^{s}86**/123**, 28C-37D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.28	199	P	Pg	19 57 25.9	+0.5
	baz=0.3,SNR=161						
N12A				⇓S	Sg	19 57 30.0	+1.0
	baz=0.3						
ELK	Elko	0.45	213	Pg	Pg	19 57 28.6	+0.2
	93nm,0.3s,baz=12,slow=16,SNR=14						
ELK				Lg		19 57 34.7	
	495nm,0.3s,baz=196,slow=20,SNR=74						
ELK	Elko	0.45	213	*e*Pg	Pg	19 57 28.6	+0.1
ELK				*e*Sg	Sg	19 57 34.5	+0.2
ELK				Lg		19 57 34.7	
N13A	Wendover, West	0.60	116	P	Pg	19 57 31.6	+0.3
	baz=0.6,SNR=76						
N13A				⇑S	Sg	19 57 39.3	+0.2
	baz=0.6						
M13A	Montello	0.61	67	⇓P	Pg	19 57 31.7	+0.1
	baz=0.6,SNR=11						
M13A				⇑S	Sg	19 57 40.5	+0.9
	baz=0.6						
N11A	Elko Archery C	0.69	244	⇓P	Pg	19 57 33.2	0.0
	baz=0.7,SNR=33						
N11A				⇑S	Sg	19 57 42.3	+0.2
	baz=0.7						
M11A	Holland Ranch,	0.73	295	⇑P	Pg	19 57 33.7	-0.2
	baz=0.7,SNR=24						
M11A				⇑S	Sg	19 57 43.5	+0.2
	baz=0.7						
O12A	Currie	0.86	171	P	Pg	19 57 36.6	+0.2
	baz=0.9,SNR=42						
O12A				⇓S	Sg	19 57 48.2	+0.6
	baz=0.9						
L12A	House Creek Ra	1.03	356	⇓P	Pg	19 57 39.1	-0.5
	baz=1.0,SNR=7.2						
L12A				⇑S	Sg	19 57 52.7	-0.2
	baz=1.0						
O11A	Cowboy Ranch,	1.14	210	⇓P	Pg	19 57 41.8	+0.1
	baz=1.1,SNR=58						
O11A				⇑S	Sg	19 57 56.4	0.0
	baz=1.1						
L13A	Double Diamond	1.21	37	⇓P	Pg	19 57 42.3	-0.8
	baz=1.2,SNR=7.8						
L13A				⇑S	Sg	19 57 58.0	-0.8
	baz=1.2						
O13A	Hicks Ranch, I	1.22	144	⇑P	Pg	19 57 42.7	-0.5
	baz=1.2,SNR=22						
L11A	Cat Creek Ranc	1.22	329	⇓P	Pg	19 57 42.2	-1.0
	baz=1.2						
L11A				⇓S	Sg	19 57 58.3	-0.8
	baz=1.2						
M14A	Sheep Mountain	1.24	72	⇓P	Pg	19 57 42.5	-1.1
	baz=1.2,SNR=9.8						
M14A				⇑S	Sg	19 57 59.1	-0.7
	baz=1.2						
N10A	Dunphy	1.27	252	⇑P	Pg	19 57 43.8	-0.5
	baz=1.3,SNR=5.9						
N10A				⇓S	Sg	19 58 00.8	+0.1
	baz=1.3						
M10A	I.L. Ranch, Tu	1.29	289	⇑P	Pg	19 57 43.9	-0.6
	baz=1.3,SNR=13						
M10A				⇓S	Sg	19 58 01.4	+0.2
	baz=1.3						
N14A	Grayback Hills	1.33	101	⇑P	Pn	19 57 44.2	-1.0
	baz=1.3,SNR=8.1						
N14A				⇓S	Sg	19 58 02.5	-0.2
	baz=1.3						
BGU	Big Grassy Mou	1.44	97	*e*Pn	Pn	19 57 45.5	-1.2
BGU				*e*Sn	Sn	19 58 03.4	-2.5
O10A	Cortez Mining,	1.46	236	⇑P	Pn	19 57 46.0	-1.0
	baz=1.5						
O10A				⇓S	Sb	19 58 06.3	-0.2
	baz=1.5						
L10A	Juniper Basin	1.51	310	⇓S	Sn	19 58 07.1	-0.6
	baz=1.5						
K12A	Draper Farm, C	1.52	0	⇑P	Pn	19 57 46.7	-1.0
	baz=1.5,SNR=12						
L14A	Malta	1.55	53	⇑S	Sn	19 58 07.8	-0.9
	baz=1.6						
P12A	McGill	1.65	180	⇓P	Pn	19 57 48.8	-0.7
	baz=1.7,SNR=19						
K13A	Stover Farm, H	1.65	22	⇑P	Pn	19 57 49.1	-0.5
	baz=1.6,SNR=6.6						
P11A	Circle Ranch,	1.69	203	⇑P	Pn	19 57 49.6	-0.5
	baz=1.7,SNR=13						
DUG	Dugway	1.85	119	*e*Pn	Pn	19 57 52.0	-0.2
SPUT	South Promonto	1.87	83	*e*Pn	Pn	19 57 50.2	-2.3
SPUT				*e*Sn	Sn	19 58 14.3	-2.2
BMN	Battle Mountai	1.88	249	*e*Pn	Pn	19 57 50.2	-2.6
BMN				*e*Sn	Sn	19 58 16.9	0.0
P10A	Eureka	1.91	219	⇓P	Pn	19 57 52.9	-0.2
	baz=1.9,SNR=21						
N09A	Rock Creek Ran	1.99	263	⇓P	Pn	19 57 53.5	-0.7
	baz=2.0,SNR=27						
N09A				⇓Sb	Sb	19 58 22.2	+0.4
	baz=2.0						
Q12A	Willow Creek R	2.08	178	⇓P	Pn	19 57 54.8	-0.6
	baz=2.1						
Q12A				⇓Sb	Sb	19 58 26.0	+1.8
	baz=2.1						
L15A	Malad City	2.09	64	⇑P	Pn	19 57 55.2	-0.5
	baz=2.1						
J12A	Stokes Ranch,	2.13	356	⇓P	Pn	19 57 56.4	+0.2
	baz=2.1,SNR=35						
NOQ	North Oquirrh	2.17	102	*e*Pn	Pn	19 57 57.5	+0.9
K10A	MacKenzie Ranc	2.21	319	⇓P	Pn	19 57 58.1	+0.9
	baz=2.2,SNR=19						
L09A	Wilkinson Ranc	2.25	294	⇑P	Pn	19 57 58.4	+0.6
	baz=2.2,SNR=18						
L09A				⇑Sb	Sb	19 58 29.8	+0.6
	baz=2.2						
Q13A	Wheeler Ranch,	2.27	162	⇓P	Pn	19 57 57.4	-0.6
	baz=2.3,SNR=12						
P09A	Austin	2.31	228	⇑P	Pn	19 57 58.1	-0.5
	baz=2.3,SNR=9.6						
J13A	Cove Ranch, Pi	2.34	13	⇑P	Pn	19 57 59.6	+0.5
	baz=2.3,SNR=47						
Q11A	Duckwater	2.34	194	⇑P	Pn	19 57 58.7	-0.4
	baz=2.3,SNR=22						
Q11A				⇓S	Sn	19 58 28.6	+0.4
	baz=2.3						
K15A	Arbon	2.37	48	⇓P	Pn	19 57 59.6	+0.2
	baz=2.4,SNR=21						
MFID	Camas Ranch	2.39	344	⇓P	Pn	19 58 00.3	+0.6
	baz=2.4,SNR=16						
J14A	Carey	2.43	25	⇓P	Pn	19 58 00.6	+0.3
	baz=2.4,SNR=14						
CTU	Camp Tracy	2.44	99	*e*Pn	Pn	19 58 00.6	+0.3
NLU	North Lily Min	2.46	117	*e*Pn	Pn	19 58 02.1	+1.5
HLID	Hailey	2.47	8	⇑P	Pn	19 58 01.3	+0.4
	baz=2.5,SNR=23						
HLID	Hailey	2.47	8	*e*Pn	Pn	19 58 01.1	+0.3
HLID				*e*Sn	Sn	19 58 32.9	+1.6
Q10A	Clear Creek Ra	2.56	207	P	Pn	19 58 02.0	-0.1
	baz=2.6,SNR=27						
K09A	Rome	2.62	308	⇓P	Pn	19 58 04.6	+1.7
	baz=2.6,SNR=58						
MPU	Maple Canyon	2.73	113	*e*Pn	Pn	19 58 05.2	+0.8
P08A	Dixie Valley	2.81	241	P	Pn	19 58 05.0	-0.4
	baz=2.8,SNR=18						
R11A	Troy Canyon, C	2.82	191	P	Pn	19 58 05.2	-0.4
	baz=2.8,SNR=9.0						
I13A	Wildhorse Cree	2.85	12	⇑P	Pn	19 58 06.8	+0.7
	baz=2.9,SNR=8.2						
DAU	Daniels Canyon	2.87	103	*e*Pn	Pn	19 58 06.8	+0.5
Q09A	Carvers	2.87	218	⇓P	Pn	19 58 06.7	+0.4
	baz=2.9						
R13A	O'Grain Ranch,	3.03	166	⇑P	Pn	19 58 08.5	+0.1
	baz=3.0,SNR=11						
WVOR	Wild Horse Val	3.08	296	P	Pn	19 58 13.2	+4.0
Q08A	Gabbs	3.23	227	⇓P	Pn	19 58 10.8	-0.5
	baz=3.2						
AHID	Auburn Hatcher	3.29	59	*e*Pn	Pn	19 58 12.2	+0.2
MSU	Marysvale	3.35	140	*e*Pn	Pn	19 58 12.1	-0.8
TMUT	Trail Mountain	3.37	121	*e*Pn	Pn	19 58 14.3	+1.1
TMUT				*e*Pg	Pg	19 58 24.2	-0.2
RRI2	Red Ridge	3.48	49	*e*Pn	Pn	19 58 14.8	+0.2
S14A	Cedar City	3.62	157	⇓P	Pn	19 58 16.5	0.0
	baz=3.6						
S13A	Holt Ranch, En	3.63	167	⇓P	Pn	19 58 16.7	0.0
	baz=3.6,SNR=7.8						
DCID1	Drake Creek	3.71	47	Pn	Pn	19 58 16.8	-1.0
NVAR	Mina Array Bea	3.75	225	Pn	Pn	19 58 18.2	-0.1
	5.6nm,0.3s,baz=43,slow=12,SNR=6.7						
NVAR				Pg	Pg	19 58 26.4	-5.2
	9.0nm,0.3s,baz=224,slow=40,SNR=11						
NVAR				Sn	Sn	19 59 00.8	-2.1
	7.9nm,0.3s,baz=49,slow=13,SNR=2.8						
NVAR				Lg		19 59 14.7	
	13nm,0.3s,baz=25,slow=30,SNR=3.7						
NVAR	Mina Array Bea	3.75	225	Pn	Pn	19 58 18.2	-0.1
NVAR				Pg	Pg	19 58 26.4	-5.2
NVAR				Sn	Sn	19 59 00.8	-2.1
NVAR				Lg		19 59 14.7	
REDW	Red Top Meadow	3.76	52	*e*Pn	Pn	19 58 19.8	+1.3
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	19 58 19.5	+0.7
SNOW	Snow King Moun	3.87	51	Pn	Pn	19 58 20.8	+0.7
T11A	Corn Creek, Al	3.88	184	⇓P	Pn	19 58 20.0	-0.2
	baz=3.9,SNR=6.6						
SRU	San Rafael	3.92	119	*e*Pn	Pn	19 58 23.1	+2.4
MCMT	McKenzie Canyo	4.00	22	*e*Pn	Pn	19 58 21.8	-0.1
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	19 58 23.2	+0.8
LOHW	Long Hollow	4.05	51	*e*Pn	Pn	19 58 22.4	-0.1
MOOW	Moose Ponds	4.05	48	*e*Pn	Pn	19 58 22.3	-0.2
MOD	Modoc	4.12	283	*e*Pn	Pn	19 58 24.5	+1.0
BMO	Blue Mountains	4.12	336	*e*Pn	Pn	19 58 23.9	+0.4
PDAR	Pinedale Array	4.32	66	Pn	Pn	19 58 28.9	+2.7
	0.7nm,0.3s,baz=242,slow=12,SNR=11						
PDAR				Lg		19 59 34.8	
	1.9nm,0.3s,baz=218,slow=23,SNR=6.3						
BEKR	Beckwourth	4.34	255	P	Pn	19 58 25.9	-0.5
	baz=4.3,SNR=11						
R06C	Coleville	4.35	235	⇑P	Pn	19 58 26.4	-0.3
	baz=4.3,SNR=6.7						
DLMT	Dillon	4.57	21	*e*Pn	Pn	19 58 30.1	+0.5
YMR	Madison River	4.58	38	*e*Pn	Pn	19 58 30.7	+0.9
LRM	Limekiln Ridge	5.03	20	Pn	Pn	19 58 38.2	+2.2
BOZ	Bozeman (W)	5.12	27	*e*Pn	Pn	19 58 38.6	+1.4
CMB	Columbia Colle	5.23	236	*e*Pn	Pn	19 58 37.5	-1.3
V11A	Goodsprings	5.29	185	⇓P	Pn	19 58 40.0	+0.4
	baz=5.3,SNR=6.7						
V12A	Nelson	5.38	179	⇓P	Pn	19 58 41.2	+0.3
	baz=5.4,SNR=16						
YBH	Yreka Blue Hor	5.89	279	Lg		20 00 22.0	
	0.5nm,0.3s,baz=336,slow=12,SNR=4.8						
GCMT	Greycliff	6.03	38	*e*Pn	Pn	19 58 47.1	-2.6
GCMT				*e*Pg	Pg	19 59 05.7	-10
PHWY	Pilot Hill	7.13	85	*e*Pn	Pn	19 59 05.0	+0.1
BELC	Belle Mtn.	7.16	187	⇓P	Pn	19 59 05.8	+0.6
	baz=7.2,SNR=7.2						
TXAR	Lajitas Array	14.91	139	Pn	Pn	20 00 57.5	+6.2
	0.1nm,0.3s,baz=334,slow=14,SNR=4.4						
YKA	Yellowknife Ar	21.41	0	P	P	20 02 08.4	+0.1
	1.1nm,0.7s,baz=180,slow=10,SNR=14						

IDC 21 20:01:44.0±2.6**, 8°.43S**×**112°.86E, h0**^{km}**, mb3.3**/4**, mb1 3.4**/4**, mb1mx3.4**/18**, mbtmp3.3**/4**, Error ellipse: s-maj=126.4km s-min=22.1km az=52.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.73	121	P	P	20 06 58.8	+0.7
	0.5nm,0.7s,baz=296,slow=11,SNR=3.4						
ASAR	Alice Springs	25.21	129	P	P	20 07 10.8	-0.8
	0.3nm,0.6s,baz=304,slow=9.4,SNR=3.3						
SONM	Songino Array	56.31	355	P	P	20 11 26.0	-0.4
	0.5nm,0.8s,baz=176,slow=7.1,SNR=3.3						
MKAR	Makanchi Array	61.35	337	P	P	20 12 02.1	+0.6
	0.4nm,0.5s,baz=148,slow=7.1,SNR=10						

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*ISCJB **21** 20:04:57.6±0.5, 41°.18N±0°.01×114°.85W±0°.02, h9^{km}±3^{km}, Error ellipse: s-maj=2.4km s-min=2.0km az=149.5*

*IDC **21** 20:04:57.1±0.9, 41°.28N×115°.00W, h0^{km}, mb2.9/1, mb1 3.6/3, mb1mx3.3/21, mbtmp3.2/3, ML3.5/2, Error ellipse: s-maj=15.7km s-min=5.2km az=130.0*

*NEIC **21** 20:04:58.0, 41°.21N×114°.86W, h10^{km}, ML3.2, After REN.*

ISC 21 20:04:57.9±0.3**, 41°.20N**±0°.01×**114°.85W**±0°.02**, h6**^{km}±2^{km}**, n104, σ0^{s}83**/137**, 42C-37D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.37	202	⇓P	Pg	20 05 05.8	+0.7
	baz=0.4,SNR=255						
N12A				⇑S	Sg	20 05 10.9	+1.0
	baz=0.4						
ELK	Elko	0.54	213	Pg	Pg	20 05 08.5	+0.3
	173nm,0.3s,baz=15,slow=12,SNR=100						
ELK				Lg		20 05 15.3	
	574nm,0.3s,baz=124,slow=18,SNR=80						
ELK	Elko	0.54	213	Pg	Pg	20 05 08.5	+0.3
ELK				*e*Sg	Sg	20 05 15.2	0.0
ELK				Lg		20 05 15.3	
M13A	Montello	0.54	72	⇓P	Pg	20 05 08.5	+0.1
	baz=0.5,SNR=60						
M13A				⇑S	Sg	20 05 16.3	+0.8
	baz=0.5						
N13A	Wendover, West	0.60	125	⇑P	Pg	20 05 09.8	+0.4
	baz=0.6,SNR=468						
N13A				⇑S	Sg	20 05 17.8	+0.7
	baz=0.6						
M11A	Holland Ranch,	0.75	289	⇑P	Pg	20 05 12.0	-0.2
	baz=0.7,SNR=79						
M11A				⇓S	Sg	20 05 22.4	+0.4
	baz=0.7						
N11A	Elko Archery C	0.77	241	⇑P	Pg	20 05 13.3	+0.6
	baz=0.8,SNR=90						
N11A				⇑S	Sg	20 05 23.2	+0.6
	baz=0.8						
O12A	Currie	0.93	175	⇓P	Pg	20 05 16.1	+0.3
	baz=0.9,SNR=57						
O12A				⇑S	Sg	20 05 28.6	+0.8
	baz=0.9						
L12A	House Creek Ra	0.96	353	⇓P	Pg	20 05 16.0	-0.3
	baz=0.9,SNR=40						
L12A				⇓S	Sg	20 05 28.5	-0.2
	baz=0.9						
L13A	Double Diamond	1.12	37	⇓P	Pg	20 05 19.0	-0.4
	baz=1.1,SNR=34						
L13A				⇑S	Sg	20 05 33.6	-0.4
	baz=1.1						
M14A	Sheep Mountain	1.17	74	⇑P	Pg	20 05 19.5	-0.9
	baz=1.2,SNR=76						
M14A				⇓S	Sg	20 05 35.3	-0.3
	baz=1.2						
L11A	Cat Creek Ranc	1.18	325	⇓P	Pg	20 05 19.6	-1.0
	baz=1.2,SNR=156						
L11A				⇑S	Sg	20 05 35.4	-0.6
	baz=1.2						
O11A	Cowboy Ranch,	1.23	210	⇓P	Pg	20 05 21.1	-0.3
	baz=1.2,SNR=111						
O11A				⇓S	Sg	20 05 37.7	+0.3
	baz=1.2						
O13A	Hicks Ranch, I	1.25	148	P	Pb	20 05 21.3	-0.6
	baz=1.3,SNR=153						
O13A				⇑S	Sg	20 05 38.8	+0.7
	baz=1.3						
N14A	Grayback Hills	1.31	105	⇓P	Pn	20 05 21.6	-1.0
	baz=1.3,SNR=110						
N14A				⇓S	Sb	20 05 39.9	+0.1
	baz=1.3						
M10A	I.L. Ranch, Tu	1.31	285	⇓P	Pn	20 05 22.0	-0.7
	baz=1.3,SNR=105						
M10A				⇓S	Sb	20 05 40.2	+0.2
	baz=1.3						
N10A	Dunphy	1.34	250	⇑P	Pn	20 05 22.2	-0.9
	baz=1.3,SNR=13						
N10A				⇑S	Sb	20 05 41.2	+0.3
	baz=1.3						
BGU	Big Grassy Mou	1.40	100	*e*Pn	Pn	20 05 23.0	-1.0
BGU				*e*Sn	Sn	20 05 41.2	-1.6
K12A	Draper Farm, C	1.44	358	⇑P	Pn	20 05 22.9	-1.6
	baz=1.4,SNR=100						
K12A				⇑S	Sb	20 05 42.6	-1.1
	baz=1.4						
L14A	Malta	1.47	55	⇑P	Pn	20 05 24.4	-0.5
	baz=1.5,SNR=47						
L14A				⇓S	Sn	20 05 44.2	-0.2
	baz=1.5						
L10A	Juniper Basin	1.50	307	⇑P	Pn	20 05 24.6	-0.7
	baz=1.5,SNR=163						
L10A				⇑S	Sn	20 05 45.4	+0.3
	baz=1.5						
O10A	Cortez Mining,	1.54	235	P	Pn	20 05 25.5	-0.4
	baz=1.5,SNR=104						
K13A	Stover Farm, H	1.56	21	⇑P	Pn	20 05 25.9	-0.3
	baz=1.6,SNR=37						
K13A				⇓S	Sn	20 05 46.7	0.0
	baz=1.6						
HVU	Hansel Valley	1.67	69	*e*Pn	Pn	20 05 26.7	-0.9
HVU				*e*Sn	Sn	20 05 48.1	-1.1
P12A	McGill	1.72	181	P	Pn	20 05 28.0	-0.4
	baz=1.7,SNR=395						
P12A				⇓S	Sn	20 05 50.8	+0.2
	baz=1.7						
P11A	Circle Ranch,	1.78	203	⇑P	Pn	20 05 29.0	-0.2
	baz=1.8,SNR=58						
N15A	Stansbury Isla	1.79	99	P	Pn	20 05 29.5	+0.2
	baz=1.8,SNR=192						
N15A				⇓Sb	Sb	20 05 55.1	+1.4
	baz=1.8						
K11A	Parker Ranch,	1.80	331	⇑P	Pn	20 05 29.5	0.0
	baz=1.8,SNR=163						
SPUT	South Promonto	1.81	86	*e*Pn	Pn	20 05 29.6	-0.1
SPUT				*e*Sn	Sn	20 05 53.4	+0.5
M15A	Larsen Ranch,	1.83	81	P	Pn	20 05 29.3	-0.6
	baz=1.8,SNR=133						
K14A	Jones Ranch, D	1.84	42	⇑P	Pn	20 05 30.0	0.0
	baz=1.8,SNR=38						
DUG	Dugway	1.84	122	⇑P	Pn	20 05 28.9	-1.1
	baz=1.9,SNR=119						
BMN	Battle Mountai	1.95	248	*e*Pn	Pn	20 05 30.1	-1.5
BMN				*e*Sn	Sn	20 05 57.2	+0.8
M09A	Marrel Ranch,	1.97	277	⇑Sb	Sb	20 05 59.5	+0.6
	baz=2.0						
P10A	Eureka	2.00	219	⇓P	Pn	20 05 32.0	-0.1
	baz=2.0,SNR=55						
L15A	Malad City	2.02	66	⇑P	Pn	20 05 32.3	-0.1
	baz=2.0,SNR=68						
L15A				⇓Sb	Sb	20 06 01.2	+0.9
	baz=2.0						
O15A	The Old Anders	2.03	116	⇑P	Pn	20 05 31.9	-0.7
	baz=2.0,SNR=137						
N09A	Rock Creek Ran	2.05	261	⇓P	Pn	20 05 32.0	-0.9
	baz=2.0,SNR=14						
N09A				⇑Sb	Sb	20 06 02.2	+0.9
	baz=2.0						
J12A	Stokes Ranch,	2.06	355	⇓P	Pn	20 05 33.5	+0.5
	baz=2.0,SNR=200						
P14A	Drum Mountains	2.10	139	⇑P	Pn	20 05 32.9	-0.7
	baz=2.1,SNR=43						
NOQ	North Oquirrh	2.14	104	*e*Pn	Pn	20 05 33.1	-1.0
Q12A	Willow Creek R	2.15	180	⇑P	Pn	20 05 33.9	-0.4
	baz=2.2,SNR=59						
J13A	Cove Ranch, Pi	2.26	13	P	Pn	20 05 36.7	+0.9
	baz=2.2,SNR=96						
K15A	Arbon	2.28	49	⇓P	Pn	20 05 36.6	+0.5
	baz=2.3,SNR=34						
Q13A	Wheeler Ranch,	2.33	164	P	Pn	20 05 36.2	-0.5
	baz=2.3,SNR=49						
HLID	Hailey	2.39	8	P	Pn	20 05 38.5	+1.0
P09A	Austin	2.40	228	⇑P	Pn	20 05 37.3	-0.4
	baz=2.4,SNR=7.4						
CTU	Camp Tracy	2.40	101	*e*Pn	Pn	20 05 37.5	-0.2
Q11A	Duckwater	2.43	195	⇓P	Pn	20 05 37.8	-0.2
	baz=2.4,SNR=38						
NLU	North Lily Min	2.45	119	*e*Pn	Pn	20 05 37.4	-1.0
Q14A	Sevier Lake (B	2.51	151	⇑P	Pn	20 05 38.4	-0.9
	baz=2.5,SNR=16						
P15A	Leamington	2.55	129	⇑P	Pn	20 05 38.7	-1.0
	baz=2.6,SNR=20						
Q10A	Clear Creek Ra	2.65	207	⇓P	Pn	20 05 40.9	-0.2
	baz=2.7,SNR=81						
MPU	Maple Canyon	2.72	115	*e*Pn	Pn	20 05 43.5	+1.4
O16A	Springville	2.73	110	⇓P	Pn	20 05 41.8	-0.4
	baz=2.7						
DAU	Daniels Canyon	2.84	105	*e*Pn	Pn	20 05 43.8	0.0
R12A	Pony Springs,	2.87	176	⇑P	Pn	20 05 44.0	-0.1
	baz=2.9,SNR=28						
P08A	Dixie Valley	2.88	240	⇓P	Pn	20 05 44.0	-0.4
	baz=2.9,SNR=16						
Q15A	Fillmore	2.90	138	⇓P	Pn	20 05 43.7	-0.8
	baz=2.9,SNR=19						
R11A	Troy Canyon, C	2.90	191	P	Pn	20 05 44.2	-0.3
	baz=2.9,SNR=34						
R13A	O'Grain Ranch,	3.09	167	⇑P	Pn	20 05 47.5	+0.3
	baz=3.1,SNR=26						
WVOR	Wild Horse Val	3.09	295	*e*P	Pn	20 05 50.7	+3.6
WVOR				*e*Sg	Sg	20 06 33.1	-3.9
AHID	Auburn Hatcher	3.21	59	*e*Pn	Pn	20 05 48.3	-0.4
O07A	Toulon	3.23	253	⇓P	Pn	20 05 48.2	-0.9
	baz=3.2,SNR=19						
TMUT	Trail Mountain	3.37	123	*e*Pn	Pn	20 05 51.9	+0.8
MSU	Marysvale	3.38	142	*e*Pn	Pn	20 05 50.7	-0.5
RRI2	Red Ridge	3.39	49	*e*Pn	Pn	20 05 52.4	+1.1
S10A	Tonopah Range,	3.54	203	⇑P	Pn	20 05 53.3	0.0
	baz=3.5,SNR=8.3						
ARUT	Antelope Range	3.57	162	*e*Pn	Pn	20 05 54.3	+0.4
S12A	Delamar Landin	3.58	180	⇑P	Pn	20 05 54.2	+0.3
	baz=3.6,SNR=7.5						
S11A	Rachel	3.61	191	⇑P	Pn	20 05 54.6	+0.3
	baz=3.6,SNR=7.7						
DCID1	Drake Creek	3.62	47	*e*Pn	Pn	20 05 57.1	+2.6
S14A	Cedar City	3.67	159	⇓P	Pn	20 05 55.4	+0.3
	baz=3.7,SNR=6.0						
REDW	Red Top Meadow	3.67	53	*e*Pn	Pn	20 05 56.5	+1.3
TPAW	Teton Pass	3.69	50	*e*P	Pn	20 06 02.4	+7.0
SNOW	Snow King Moun	3.79	52	*e*Pn	Pn	20 05 57.5	+0.7
CCUT	Cedar City	3.82	162	*e*Pn	Pn	20 05 58.5	+1.3
NVAR	Mina Array Bea	3.83	225	Pn	Pn	20 05 57.3	-0.1
	3.0nm,0.3s,baz=40,slow=13,SNR=19						
NVAR				Pg	Pg	20 06 04.0	-7.4
	6.2nm,0.3s,baz=33,slow=16,SNR=13						
NVAR				Sn	Sn	20 06 42.4	-0.4
	6.1nm,0.3s,baz=327,slow=27,SNR=3.7						
NVAR				Lg		20 06 55.8	
	8.7nm,0.3s,baz=45,slow=17,SNR=3.1						
MCMT	McKenzie Canyo	3.92	21	*e*Pn	Pn	20 06 00.7	+2.2
SRU	San Rafael	3.92	121	*e*Pn	Pn	20 05 57.0	-1.6
O06A	Flanigan	3.92	256	⇓P	Pn	20 05 58.2	-0.4
	baz=3.9,SNR=5.7						
IMW	Indian Meadow	3.96	46	*e*Pn	Pn	20 06 00.2	+1.2
T11A	Corn Creek, Al	3.96	184	⇓P	Pn	20 05 59.1	0.0
	baz=4.0,SNR=28						
LOHW	Long Hollow	3.96	51	*e*Pn	Pn	20 06 00.8	+1.6
MOOW	Moose Ponds	3.97	49	*e*Pn	Pn	20 06 00.5	+1.3
BMO	Blue Mountains	4.07	335	*e*Pn	Pn	20 06 02.4	+1.7
MOD	Modoc	4.15	282	*e*Pn	Pn	20 06 02.8	+1.1
PDAR	Pinedale Array	4.25	67	Pn	Pn	20 06 05.7	+2.6
	0.3nm,0.3s,baz=237,slow=13,SNR=8.8						
PDAR				Pg	Pg	20 06 14.9	-4.4
	0.8nm,0.3s,baz=240,slow=12,SNR=11						
PDAR				Lg		20 07 09.9	
	2.2nm,0.3s,baz=241,slow=27,SNR=10.0						
T14A	Hurricane	4.35	161	⇑P	Pn	20 06 04.9	+0.4
	baz=4.4,SNR=10						
BEKR	Beckwourth	4.40	254	⇑P	Pn	20 06 04.8	-0.4
	baz=4.4,SNR=14						
R06C	Coleville	4.43	234	⇑P	Pn	20 06 05.5	-0.2
	baz=4.4,SNR=5.4						
DLMT	Dillon	4.48	21	*e*Pn	Pn	20 06 07.2	+1.0
YMR	Madison River	4.49	38	*e*Pn	Pn	20 06 05.8	-0.7
U13A	Pakoon Wash	4.82	171	⇑P	Pn	20 06 11.4	+0.4
	baz=4.8,SNR=9.1						
LRM	Limekiln Ridge	4.94	20	Pg	Pg	20 06 29.6	-3.0
CMB	Columbia Colle	5.31	235	*e*Pn	Pn	20 06 17.2	-0.5
CMB				*e*Pg	Pg	20 06 36.2	-3.5
V11A	Goodsprings	5.37	185	⇓P	Pn	20 06 19.2	+0.7
	baz=5.4,SNR=11						
V13A	Grand Canyon W	5.38	172	⇓P	Pn	20 06 19.3	+0.7
	baz=5.4,SNR=16						
V12A	Nelson	5.46	180	⇓P	Pn	20 06 20.2	+0.4
	baz=5.5,SNR=49						
GSC	Goldstone	6.08	195	*e*Pg	Pg	20 06 53.4	-1.0
WUAZ	Wupatki	6.29	153	*e*Pg	Pg	20 06 57.2	-1.2
MVCO	Mesa Verde	6.34	127	*e*Pg	Pg	20 06 55.1	-4.2
IRM	Iron Mountain	7.03	182	⇓P	Pn	20 06 41.5	+0.2
	baz=7.1,SNR=6.5						
YKA	Yellowknife Ar	21.33	0	P	P	20 09 46.1	+0.8
	0.3nm,0.7s,baz=182,slow=9.9,SNR=7.1						

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*ISCJB **21** 20:15:58.6±0.7, 76°.86N±0°.05×18°.2E±0°.2, h10^{km}±11^{km}, Error ellipse: s-maj=9.1km s-min=5.6km az=43.6*

*CSEM **21** 20:15:59.5±0.2, 76°.90N×17°.99E, h8^{km}, ML2.8, Error ellipse: s-maj=6.7km s-min=2.8km az=64.0*
*NAO **21** 20:16:00.6±1.8, 76°.92N×18°.22E, h18^{km}±18^{km}, ML2.7*
*BER **21** 20:16:03.3±3.3, 76°.95N×18°.23E, h15^{km}±19^{km}, MD2.4, ML2.8, ML2.7(NAO)*
ISC 21 20:15:60.0±0.7, **76°.92N**±0°.04×**18°.2E**±0°.2, **h11**^{km}±10^{km}, **n12,** σ**0^{s}.87**/21, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.60	280	eP	Pg	20 16 12.9	+1.3
HSP				eS	Sg	20 16 20.3	+0.9
SPA0	Spitsbergen Ar	1.32	344	Pg	Pg	20 16 25.1	-0.3
	baz=162,slow=18						
SPA0				Lg		20 16 42.2	
	baz=160,slow=37						
SPA0	Spitsbergen Ar	1.32	344	Pg	Pg	20 16 25.0	-0.3
	SNR=101						
SPA0				Lg		20 16 42.2	
HOPEN	Hopen	1.64	101	eP	Pn	20 16 29.0	+0.4
HOPEN				eSg	Sg	20 16 53.3	+0.9
HOPEN				AML	AML	20 16 56.2	
	comp=Z,237nm,0.4s						
HOPEN	Hopen	1.64	101	eP	Pn	20 16 29.0	+0.4
	SNR=62						
HOPEN				eSg	Sg	20 16 53.3	+0.8
	comp=Z,237nm,0.4s,SNR=98						
KBS	Kingsbay	2.40	330	Pn	Pn	20 16 39.5	+0.4
KBS				Pg	Pg	20 16 45.7	-0.2
KBS				Lg		20 17 14.9	
KBS	Kingsbay	2.40	330	eP	Pn	20 16 39.6	+0.5
KBS				ePg	Pg	20 16 45.9	0.0
KBS				eSg	Sg	20 17 15.1	-1.9
KBS				AML	AML	20 17 21.4	
	comp=Z,147nm,0.4s						
KBS	Kingsbay	2.40	330	eP	Pn	20 16 39.6	+0.5
	SNR=62						
BJO	Bjornoya	2.44	174	ePg	Pg	20 16 46.0	-0.7
BJO				eSg	Sg	20 17 17.4	-0.9
BJO				AML	AML	20 17 25.6	
	comp=Z,70nm,0.5s						
BJO	Bjornoya	2.44	174	ePg	Pg	20 16 46.0	-0.7
	SNR=95						
BJO				eSg	Sg	20 17 17.4	-0.9
	comp=Z,70nm,0.5s,SNR=95						
ARA0	ARCESS Array S	7.71	160	Pn	Pn	20 17 51.7	-0.3
	baz=352,slow=11						
ARA0				Sn	Sn	20 19 10.5	-8.7
	baz=359,slow=22						
ARA0	ARCESS Array S	7.71	160	P	Pn	20 17 51.7	-0.3
	SNR=57						

*IDC **21** 20:15:58.8±2.3, 9°.27S×123°.42E, h0^{km}, mb3.2/1, mb1 4.0/3, mb1mx3.6/17, mbtmp3.8/3, ML4.2/2, Error ellipse: s-maj=220.3km s-min=33.0km az=55.0*
*ISCJB **21** 20:16:07.0±5.4, 9°.1S±0°.2×124°.0E±0°.3, h88^{km}±61^{km}, Error ellipse: s-maj=45.7km s-min=37.5km az=40.1*
ISC 21 20:16:09.8±3.5, **9°.2S**±0°.2×**124°.1E**±0°.2, **h99**^{km}±40^{km}, **n6,** σ**1^{s}.29**/6, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNA	Kununurra	7.96	145	eP	Pn	20 18 03.0	+0.2
	29nm,0.3s						
KNA				eS	Sx	20 19 26.9	
KAKA	Kakadu	8.93	114	eP	Pn	20 18 16.2	+0.2
	11nm,0.7s						
KAKA				eS	Sx	20 19 48.9	
FITZ	Fitzroy Crossi	8.97	170	eP	Pn	20 18 16.4	-0.2
	19nm,0.2s						
FITZ				eS	Sx	20 19 51.3	
WRA	Warramunga Arr	14.58	138	Pn	Pn	20 19 29.9	-1.4
	0.9nm,0.3s,baz=318,slow=14,SNR=36						
WRA				Sn	Sx	20 22 05.8	
	1.2nm,0.3s,baz=322,slow=26,SNR=9.3						
ASAR	Alice Springs	17.18	148	P	Pn	20 20 04.9	+1.1
	0.9nm,0.3s,baz=317,slow=11,SNR=49						
ASAR				S	Sx	20 23 07.3	
	0.2nm,0.3s,baz=320,slow=23,SNR=4.2						
MKAR	Makanchi Array	67.02	330	P	P	20 26 52.2	0.0
	0.1nm,0.5s,baz=140,slow=8.1,SNR=2.8						

*IDC **21** 20:29:13.0±2.0, 1°.04N×126°.55E, h0^{km}, mb3.4/3, mb1 3.6/3, mb1mx3.3/17, mbtmp3.4/3, Error ellipse: s-maj=175.6km s-min=25.0km az=66.0*
*ISCJB **21** 20:29:16.5±1.1, 1°.0N±0°.2×126°.51E±0°.10, h33^{km}, mb3.3/3, Error ellipse: s-maj=29.0km s-min=10.8km az=19.4*
ISC 21 20:29:18.0±1.1, **1°.0N**±0°.2×**126°.5E**±0°.1, **h35**^{km}, **n5,** σ**0^{s}.42**/5, **mb3.3**/3, **2D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNE	Ternate	0.87	105	⇓eP	Sn	20 29 45.0	-0.2
MNI	Manado	1.75	284	⇓eP	Pn	20 29 45.5	-0.3
WRA	Warramunga Arr	22.19	160	P	P	20 34 11.1	-0.2
	1.1nm,0.5s,mb3.5,baz=339,slow=11,SNR=17						
ASAR	Alice Springs	25.56	164	P	P	20 34 44.2	+0.4
	0.3nm,0.3s,mb3.2,baz=344,slow=12,SNR=6.3						
MKAR	Makanchi Array	59.67	326	P	P	20 39 19.2	+0.3
	0.1nm,0.3s,mb3.3,baz=118,slow=7.8,SNR=7.0						

*NEIC **21** 20:32:59.3, 30°.92S×71°.39W, h56^{km}, MD3.9(GUC), After GUC.*
GUC 21 20:32:59.3±0.5, **30°.92S**×**71°.39W**, **h56**^{km}±4^{km}, **MD3.9, ML4.0, 1C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.35	27	⇓iP	Pn	20 33 09.6	+0.1
OVCH				i S	Sn	20 33 17.4	+0.7
OVCH	Ovalle	0.35	27	⇓iP	Pn	20 33 09.6	+0.1
OVCH				i S	Sn	20 33 17.4	+0.7
OVCH				AML	AML	20 33 17.8	
	comp=N,26µm,0.2s						
CMCH	Combarbala	0.41	127	⇓iP	Pn	20 33 10.4	+0.4
CMCH				i S	Sn	20 33 19.1	+1.2
CMCH	Combarbala	0.41	127	⇓iP	Pn	20 33 10.4	+0.4
CMCH				i S	Sn	20 33 19.1	+1.2
CMCH				AML	AML	20 33 19.9	
	comp=E,20µm,0.5s						
CHNG	Los Chungos	0.96	186	⇑eP	Pn	20 33 16.9	+0.1
CHNG				i S	Sn	20 33 30.4	+0.8
LCO	Las Campanas	1.99	18	eP	Pn	20 33 30.3	-0.3
PEL	Peldehue	2.29	165	eP	Pn	20 33 35.3	+0.6
PEL				i S	Sn	20 34 01.1	-0.6
PEL				AML	AML	20 34 07.1	
	comp=N,528nm,0.4s						
FCH	Farellones	2.57	159	eP	Pn	20 33 40.0	+1.5
FCH				i S	Sn	20 34 10.2	+1.6
RCDM	Rinconada Maip	2.61	169	eP	Pn	20 33 39.8	+0.8
RCDM				i S	Sn	20 34 10.2	+0.8
RCDM	Rinconada Maip	2.61	169	eP	Pn	20 33 39.8	+0.8
RCDM				i S	Sn	20 34 10.2	+0.8
RCDM				AML	AML	20 34 14.7	
	comp=N,578nm,0.1s						
ANTU	Antumapu	2.72	167	i S	Sn	20 34 12.9	+0.8
TACH	Talagante	2.75	172	eP	Pn	20 33 41.6	+0.7
TACH	Talagante	2.75	172	eP	Pn	20 33 41.6	+0.7
PCH	Pirque	2.79	165	eP	Pn	20 33 42.2	+0.7
PCH	Pirque	2.79	165	eP	Pn	20 33 42.2	+0.7

*ISCJB **21** 20:37:38.4±0.6, 41°.19N±0°.02×114°.84W±0°.02, h11^{km}±5^{km}, Error ellipse: s-maj=3.3km s-min=3.0km az=43.1*
*IDC **21** 20:37:38.4±1.2, 41°.21N×114°.79W, h0^{km}, mb2.3/1, mb1 3.0/3, mb1mx3.0/21, mbtmp2.6/3, ML3.2/2, Error ellipse: s-maj=29.2km s-min=5.7km az=135.0*
*NEIC **21** 20:37:39.0, 41°.21N×114°.83W, h4^{km}, ML2.9, After REN.*
ISC 21 20:37:38.4±0.4, **41°.19N**±0°.02×**114°.82W**±0°.02, **h5**^{km}±3^{km}, **n81,** σ**0^{s}.92**/90, **27C-18D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.37	206	⇓P	Pg	20 37 46.7	+1.1
	baz=0.4,SNR=14						
N12A				⇑S	Sg	20 37 52.1	+1.6
	baz=0.4						
M13A	Montello	0.53	71	P	Pg	20 37 49.0	+0.6
	baz=0.5,SNR=88						
ELK	Elko	0.54	215	Pg	Pg	20 37 49.6	+0.7
	18nm,0.3s,baz=18,slow=17,SNR=18						
ELK				Lg		20 37 56.8	
	89nm,0.3s,baz=43,slow=16,SNR=94						
N13A	Wendover, West	0.57	125	⇑P	Pg	20 37 50.2	+0.8
	baz=0.6,SNR=55						
M11A	Holland Ranch,	0.77	289	⇓P	Pg	20 37 53.4	+0.3
	baz=0.8,SNR=72						
N11A	Elko Archery C	0.79	242	⇓P	Pg	20 37 54.0	+0.6
	baz=0.8,SNR=35						
O12A	Currie	0.92	176	⇑P	Pg	20 37 56.7	+0.6
	baz=0.9,SNR=19						
L12A	House Creek Ra	0.97	351	P	Pg	20 37 56.8	-0.2
	baz=1.0,SNR=41						
L12A				⇑S	Sg	20 38 09.5	0.0
	baz=1.0						
L13A	Double Diamond	1.11	36	⇓P	Pg	20 37 59.0	-0.8
	baz=1.1,SNR=42						
L13A				⇓S	Sg	20 38 14.0	-0.2
	baz=1.1						
M14A	Sheep Mountain	1.16	74	P	Pg	20 37 59.9	-0.6
	baz=1.2,SNR=125						
M14A				⇓S	Sg	20 38 15.9	+0.3
	baz=1.2						
L11A	Cat Creek Ranc	1.20	325	⇑P	Pg	20 38 00.4	-1.0
	baz=1.2,SNR=115						
L11A				⇑S	Sg	20 38 16.6	-0.4
	baz=1.2						
O11A	Cowboy Ranch,	1.23	211	⇑P	Pg	20 38 02.0	0.0
	baz=1.2,SNR=24						
O13A	Hicks Ranch, I	1.24	149	⇑P	Pg	20 38 01.8	-0.3
	baz=1.3,SNR=26						
N14A	Grayback Hills	1.28	105	⇑P	Pn	20 38 01.9	-1.1
	baz=1.3,SNR=56						
N14A				⇓S	Sg	20 38 20.2	+0.6
	baz=1.3						
M10A	I.L. Ranch, Tu	1.33	285	P	Pn	20 38 03.1	-0.5
	baz=1.3,SNR=57						
BGU	Big Grassy Mou	1.38	100	ePn	Pn	20 38 03.4	-0.9
K12A	Draper Farm, C	1.45	358	P	Pn	20 38 04.0	-1.2
	baz=1.4,SNR=75						
L14A	Malta	1.46	54	⇓P	Pn	20 38 04.8	-0.5
	baz=1.5,SNR=58						
L10A	Juniper Basin	1.52	306	⇑P	Pn	20 38 05.6	-0.6
	baz=1.5,SNR=41						
O10A	Cortez Mining,	1.56	235	P	Pn	20 38 06.3	-0.4
	baz=1.6,SNR=40						
K13A	Stover Farm, H	1.56	20	⇑P	Pn	20 38 06.2	-0.5
	baz=1.5,SNR=26						
HVU	Hansel Valley	1.65	68	ePn	Pn	20 38 07.2	-0.7
P12A	McGill	1.72	182	⇑P	Pn	20 38 08.7	-0.1
	baz=1.7,SNR=28						
P12A				⇑S	Sn	20 38 31.5	+0.4
	baz=1.7						
N15A	Stansbury Isla	1.77	99	⇓P	Pn	20 38 09.2	-0.4
	baz=1.8,SNR=80						
SPUT	South Promonto	1.79	85	ePn	Pn	20 38 09.5	-0.4
M15A	Larsen Ranch,	1.81	81	⇑P	Pn	20 38 09.6	-0.6
	baz=1.8,SNR=75						
K11A	Parker Ranch,	1.82	331	⇑P	Pn	20 38 09.6	-0.7
	baz=1.8,SNR=114						
DUG	Dugway	1.82	122	⇓P	Pn	20 38 09.8	-0.6
	baz=1.8,SNR=31						
DUG	Dugway	1.82	122	ePn	Pn	20 38 09.0	-1.4
K14A	Jones Ranch, D	1.83	42	⇑P	Pn	20 38 10.3	-0.1
	baz=1.8,SNR=22						
BMN	Battle Mountai	1.97	248	ePn	Pn	20 38 10.6	-1.7
M09A	Marrel Ranch,	1.99	278	⇓P	Pn	20 38 12.3	-0.4
	baz=2.0						
L15A	Malad City	2.00	65	⇑P	Pn	20 38 12.4	-0.4
	baz=2.0,SNR=31						
N09A	Rock Creek Ran	2.07	262	⇓P	Pn	20 38 12.8	-0.9
	baz=2.1,SNR=13						
P14A	Drum Mountains	2.08	139	P	Pn	20 38 13.4	-0.5
	baz=2.1,SNR=21						
NOQ	North Oquirrh	2.12	104	ePn	Pn	20 38 15.1	+0.8
Q12A	Willow Creek R	2.15	180	⇓P	Pn	20 38 14.6	-0.2
	baz=2.2,SNR=18						
J13A	Cove Ranch, Pi	2.26	12	⇑P	Pn	20 38 17.1	+0.8
	baz=2.2,SNR=28						
K15A	Arbon	2.27	48	⇓P	Pn	20 38 16.9	+0.4
	baz=2.3,SNR=42						
Q13A	Wheeler Ranch,	2.31	164	P	Pn	20 38 16.8	-0.3
	baz=2.3,SNR=24						
J14A	Carey	2.34	24	⇓P	Pn	20 38 18.3	+0.9
	baz=2.3,SNR=28						
HLID	Hailey	2.39	7	⇑P	Pn	20 38 19.0	+0.9
	baz=2.4,SNR=52						
HLID	Hailey	2.39	7	P	Pn	20 38 19.0	+0.9
NLU	North Lily Min	2.43	120	ePn	Pn	20 38 15.8	-2.8
Q14A	Sevier Lake (B	2.50	151	⇑P	Pn	20 38 18.8	-0.8
	baz=2.5,SNR=16						
P15A	Leamington	2.53	129	⇑P	Pn	20 38 19.3	-0.7
	baz=2.5,SNR=17						
MPU	Maple Canyon	2.70	115	ePn	Pn	20 38 21.6	-0.7
DAU	Daniels Canyon	2.82	105	ePn	Pn	20 38 27.6	+3.6
R11A	Troy Canyon, C	2.90	192	P	Pn	20 38 25.0	-0.1
	baz=2.9,SNR=8.7						
P08A	Dixie Valley	2.90	240	⇑P	Pn	20 38 24.9	-0.2
	baz=2.9,SNR=5.9						
K16A	Soda Springs	2.92	55	⇓P	Pn	20 38 26.2	+0.8
	baz=2.9,SNR=16						
R13A	O'Grain Ranch,	3.08	167	⇑P	Pn	20 38 27.9	+0.3
	baz=3.1,SNR=38						
WVOR	Wild Horse Val	3.11	295	ePn	Pn	20 38 28.2	+0.2
J16A	Bone	3.17	48	⇑P	Pn	20 38 29.7	+0.9
	baz=3.2,SNR=11						
O07A	Toulon	3.25	253	⇑P	Pn	20 38 29.2	-0.7
	baz=3.2,SNR=27						
M07A	Soldier Meadow	3.28	275	⇓P	Pn	20 38 29.9	-0.4
	baz=3.3,SNR=14						
TMUT	Trail Mountain	3.35	123	ePn	Pn	20 38 33.3	+1.9
MSU	Marysvale	3.36	142	ePn	Pn	20 38 31.5	0.0
RRI2	Red Ridge	3.38	49	ePn	Pn	20 38 32.3	+0.6
REDW	Red Top Meadow	3.66	52	ePn	Pn	20 38 35.0	-0.6
TPAW	Teton Pass	3.68	50	ePn	Pn	20 38 35.8	0.0
S13A	Holt Ranch, En	3.68	168	P	Pn	20 38 36.2	+0.4
	baz=3.7,SNR=34						
CCUT	Cedar City	3.81	162	ePn	Pn	20 38 38.4	+0.8
P18A	Preston Nutter	3.83	113	⇑P	Pn	20 38 38.6	+0.7
	baz=3.8,SNR=5.5						
NVAR	Mina Array Bea	3.84	225	Pn	Pn	20 38 41.0	+2.9
	1.0nm,0.3s,baz=36,slow=13,SNR=4.9						
NVAR				Sn	Sn	20 39 26.9	+3.2
	2.9nm,0.3s,baz=48,slow=25,SNR=3.8						
NVAR				Lg		20 39 37.9	
	2.7nm,0.3s,baz=52,slow=30,SNR=4.1						
SRU	San Rafael	3.89	121	ePn	Pn	20 38 38.9	+0.1
MCMT	McKenzie Canyo	3.91	21	Pn	Pn	20 38 40.6	+1.5
O06A	Flanigan	3.94	257	⇓P	Pn	20 38 38.9	-0.5
	baz=3.9,SNR=5.9						
IMW	Indian Meadow	3.94	45	ePn	Pn	20 38 41.2	+1.7
LOHW	Long Hollow	3.95	51	ePn	Pn	20 38 40.7	+1.1
MOOW	Moose Ponds	3.96	48	ePn	Pn	20 38 40.6	+0.9
BMO	Blue Mountains	4.09	334	Pn	Pn	20 38 43.1	+1.6
MOD	Modoc	4.17	282	ePn	Pn	20 38 42.0	-0.6
PDAR	Pinedale Array	4.23	66	Pn	Pn	20 38 46.1	+2.7
	0.2nm,0.3s,baz=240,slow=12,SNR=7.0						
PDAR				Lg		20 39 48.9	
	0.5nm,0.3s,baz=235,slow=28,SNR=3.4						
T14A	Hurricane	4.34	161	⇑P	Pn	20 38 45.3	+0.4
	baz=4.4,SNR=5.9						
BEKR	Beckwourth	4.42	254	P	Pn	20 38 45.6	-0.4
	baz=4.4,SNR=36						
LRM	Limekiln Ridge	4.94	20	ePn	Pn	20 38 54.6	+1.4
PV04	Paradox Valley	5.34	120	ePg	Pg	20 39 20.9	+0.1
PV04				eSg	Sg	20 40 27.6	-2.4
WUAZ	Wupatki	6.28	153	ePg	Pg	20 39 37.0	-1.6
MVCO	Mesa Verde	6.32	127	ePg	Pg	20 39 38.3	-1.1
YKA	Yellowknife Ar	21.34	0	P	P	20 42 24.7	-1.2
	0.1nm,0.5s,baz=191,slow=10,SNR=2.7						

*ISCJB **21** 20:39:06.7±0.5, 36°.29N±0°.03×7°.75W±0°.03, h10^{km}, Error ellipse: s-maj=4.7km s-min=2.4km az=33.7*
*MDD **21** 20:39:08.5±0.5, 36°.08N×7°.98W, h42^{km}±28^{km}, mb4.0/26, Error ellipse: s-maj=5.9km s-min=3.6km az=56.0, PRIMO*
*CNRM **21** 20:39:08.2, 36°.02N×8°.02W, h30^{km}, MD3.2*
*SFS **21** 20:39:08.0, 36°.24N×7°.85W, h13^{km}, ML2.7*
*NEIC **21** 20:39:08.9, 36°.24N×7°.85W, h13^{km}, MN2.7(MDD), After MDD.*
*INMG **21** 20:39:09.6±1.1, 36°.17N×7°.92W, h21^{km}±7^{km}, MD2.8, ML2.6, Error ellipse: s-maj=6.4km s-min=2.1km az=41.0*
*LDG **21** 20:39:10.0±0.2, 36°.16N×7°.93W, h25^{km}, Ml3.5/4, Error ellipse: s-maj=3.2km s-min=1.7km az=28.0*
*CSEM **21** 20:39:10.7±0.3, 36°.38N×7°.72W, h20^{km}, ML3.4/15, Error ellipse: s-maj=5.7km s-min=2.7km az=38.0*
ISC 21 20:39:08.8±0.5, **36°.35N**±0°.03×**7°.73W**±0°.03, **h10**^{km}, **n166,** σ**1^{s}.19**/318, **4C-6D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBDV	Barranco-do-Ve	0.90	350	eP	Pg	20 39 27.8	+1.6
PBDV				eS	Sg	20 39 41.8	+3.8
PBDV				A		20 39 48.5	
	60nm,0.3s						
PBDV	Barranco-do-Ve	0.90	350	⇓P	Pg	20 39 27.8	+1.6
PBDV				S	Sg	20 39 41.8	+3.8
	60nm,0.3s						
PVAQ	Vaqueiros	1.05	1	eP	Pb	20 39 30.1	+1.0
PVAQ				eS	Sg	20 39 45.6	+3.0
PVAQ				A		20 39 47.3	
	70nm,0.3s						
PVAQ	Vaqueiros	1.05	1	⇓P	Pb	20 39 30.1	+1.0
PVAQ				S	Sg	20 39 45.6	+3.0
	70nm,0.3s						
ERIP	Rio Piedras	1.09	20	⇑P	Pb	20 39 31.3	+1.6
	13nm,0.1s,SNR=18						
ERIP				S	Sb	20 39 47.2	+3.3
	89nm,0.1s,SNR=7.9						
ERIP	Rio Piedras	1.09	20	P	Pb	20 39 31.3	+1.6
	13nm,0.1s,SNR=18						
ERIP				S	Sb	20 39 47.2	+3.2
	89nm,0.1s,SNR=7.9						
PFVI	Vila Bisbo	1.18	312	i P	Pb	20 39 28.8	-2.4
PFVI				eS	Sb	20 39 43.9	-2.6
PFVI				A		20 39 46.9	
	43nm,0.2s						
PFVI	Vila Bisbo	1.18	312	⇓P	Pb	20 39 28.8	-2.4
PFVI				S	Sb	20 39 43.9	-2.6
	22nm,0.2s						
EGRO	El Granado	1.20	10	⇓P	Pn	20 39 32.6	+1.0
	7.9nm,0.3s,SNR=18						
EGRO				S	Sb	20 39 49.6	+2.5
	34nm,0.3s,SNR=20						
EGRO	El Granado	1.20	10	P	Pn	20 39 32.0	+0.4
EGRO				S	Sb	20 39 49.6	+2.5
EGRO	El Granado	1.20	10	P	Pn	20 39 32.6	+1.0
	7.9nm,0.3s,SNR=18						
EGRO				S	Sb	20 39 49.6	+2.5
	34nm,0.3s,SNR=20						
MORF	Marmelete	1.20	322	eP	Pn	20 39 30.1	-1.6
MORF				eS	Sb	20 39 46.3	-1.0
MORF				A		20 39 51.6	
	60nm,0.2s						
MORF	Marmelete	1.20	322	⇓P	Pn	20 39 30.1	-1.6
MORF				S	Sb	20 39 46.3	-1.0
	60nm,0.2s						
CNIL	Conil	1.35	89	⇓P	Pn	20 39 34.6	+0.9
CNIL				S	Sb	20 39 55.5	+3.9
CNIL	Conil	1.35	89	i P	Pn	20 39 34.6	+0.8
CNIL				eS	Sb	20 39 55.5	+3.9
PTEO	Sao Teotonio	1.43	327	eP	Pn	20 39 33.6	-1.2
PTEO				eS	Sn	20 39 52.6	-1.1
PTEO				A		20 39 56.5	
	33nm,0.5s						
PTEO	Sao Teotonio	1.43	327	P	Pn	20 39 33.6	-1.2
PTEO				S	Sn	20 39 52.6	-1.1
	17nm,0.5s						
PTEO	Sao Teotonio	1.43	327	eP	Pn	20 39 33.6	-1.2
PTEO				eS	Sn	20 39 52.6	-1.1
	33nm,0.5s						
ESPR	Espera	1.59	71	⇑P	Pn	20 39 37.5	+0.4
	18nm,0.2s,SNR=18						
ESPR				S	Sn	20 39 58.8	+1.1
	205nm,0.4s,SNR=7.9						
ESPR	Espera	1.59	71	P	Pn	20 39 37.4	+0.3
ESPR				S	Sn	20 39 58.8	+1.1
ESPR	Espera	1.59	71	P	Pn	20 39 37.5	+0.4
	18nm,0.2s,SNR=18						
ESPR				S	Sn	20 39 58.8	+1.1
	205nm,0.4s,SNR=7.9						
EMIN	Mina Concepcio	1.65	31	P	Pn	20 39 38.7	+0.9
	1.6nm,0.3s,SNR=27						
EMIN				S	Sn	20 40 00.1	+1.1
	17nm,0.4s,SNR=6.0						
EMIN	Mina Concepcio	1.65	31	P	Pn	20 39 38.7	+0.9
EMIN				S	Sn	20 40 00.1	+1.1
EMIN	Mina Concepcio	1.65	31	P	Pn	20 39 38.7	+0.9
	1.6nm,0.3s,SNR=27						
EMIN				S	Sn	20 40 00.1	+1.1
	17nm,0.4s,SNR=6.0						
PBEJ	Beja	1.67	356	ePn	Pn	20 39 38.4	+0.2
PBEJ				eSn	Sn	20 39 59.9	+0.2
PBEJ				A		20 40 02.9	
	27nm,0.2s						
PBEJ	Beja	1.67	356	P	Pn	20 39 38.4	+0.2
PBEJ				S	Sn	20 39 59.9	+0.2
	14nm,0.2s						
PBEJ	Beja	1.67	356	ePn	Pn	20 39 38.4	+0.2
PBEJ				eSn	Sn	20 39 59.9	+0.2
	27nm,0.2s						
EJIF	Jimena Fronter	1.83	86	P	Pn	20 39 40.7	+0.4
	3.4nm,0.6s,SNR=7.9						
EJIF				S	Sn	20 40 04.3	+0.9
	19nm,0.6s,SNR=7.9						
EJIF	Jimena Fronter	1.83	86	P	Pn	20 39 40.3	0.0
EJIF				S	Sn	20 40 03.3	-0.1
EJIF	Jimena Fronter	1.83	86	P	Pn	20 39 40.7	+0.4
	3.4nm,0.6s,SNR=7.9						
EJIF				S	Sn	20 40 04.3	+0.8
	19nm,0.6s,SNR=7.9						
LIJA	Lijar	1.95	73	P	Pn	20 39 42.7	+0.7
LIJA				S	Sn	20 40 04.1	-2.4
LIJA	Lijar	1.95	73	eP	Pn	20 39 42.7	+0.7
LIJA				eS	Sn	20 40 04.1	-2.4
ECEU	Ceuta	1.96	103	P	Pn	20 39 41.3	-0.8
	14nm,0.3s,SNR=11						
ECEU				S	Sn	20 40 05.9	-0.8
	43nm,0.6s,SNR=7.9						
ECEU	Ceuta	1.96	103	P	Pn	20 39 41.3	-0.8
	14nm,0.3s,SNR=11						
ECEU				S	Sn	20 40 05.9	-0.8
	43nm,0.6s,SNR=7.9						
EVO	Evora	2.19	354	ePn	Pn	20 39 45.0	-0.2
EVO				eSn	Sn	20 40 11.9	-0.4
	38nm,0.3s						
EVO	Evora	2.19	354	ePn	Pn	20 39 45.4	+0.2
EVO				eSn	Sn	20 40 12.7	+0.4
EVO				A		20 40 14.9	
	33nm,0.3s						
EVO	Evora	2.19	354	Pn	Pn	20 39 45.4	+0.2
EVO				Sn	Sn	20 40 12.7	+0.4
	33nm,0.3s						
EVO	Evora	2.19	354	ePn	Pn	20 39 45.4	+0.2
EVO				eSn	Sn	20 40 12.7	+0.4
	33nm,0.3s						
EVOP	Sao Brissos	2.19	352	ePn	Pn	20 39 45.0	-0.3
EVOP				eSn	Sn	20 40 11.9	-0.6
	19nm,0.3s						
EMIJ	Mijas	2.39	84	P	Pn	20 39 47.3	-0.7
	16nm,0.4s,SNR=27						
EMIJ				S	Sn	20 40 17.5	0.0
	29nm,1.0s,SNR=5.7						
EMIJ	Mijas	2.39	84	P	Pn	20 39 47.3	-0.8
	16nm,0.4s,SNR=27						
EMIJ				S	Sn	20 40 17.5	0.0
	29nm,1.0s,SNR=5.7						
EBAD	Badajoz	2.46	13	P	Pn	20 39 49.7	+0.7
	5.4nm,0.2s,SNR=86						
EBAD				S	Sn	20 40 19.6	+0.3
	13nm,0.3s,SNR=14						
EBAD	Badajoz	2.46	13	P	Pn	20 39 49.7	+0.7
	5.4nm,0.2s,SNR=86						
EBAD				S	Sn	20 40 19.5	+0.3
	13nm,0.3s,SNR=14						
PESTR	Estremoz	2.51	3	ePn	Pn	20 39 50.2	+0.5
PESTR				eSn	Sn	20 40 20.7	+0.3
PESTR				A		20 40 45.5	
	19nm,0.8s						
PESTR	Estremoz	2.51	3	Pn	Pn	20 39 50.2	+0.5
PESTR				Sn	Sn	20 40 20.7	+0.3
	19nm,0.8s						
PESTR	Estremoz	2.51	3	ePn	Pn	20 39 50.2	+0.5
PESTR				eSn	Sn	20 40 20.7	+0.3
	19nm,0.8s						
ECAB	El Cabril	2.52	46	P	Pn	20 39 50.7	+0.9
	4.7nm,0.3s,SNR=17						
ECAB				S	Sn	20 40 20.7	+0.1
	24nm,0.4s,SNR=12						
ECAB	El Cabril	2.52	46	P	Pn	20 39 50.6	+0.7

ECAB				S	Sn	20 40 20.7	+0.1
ECAB	El Cabril	2.52	46	P	Pn	20 39 50.6	+0.8
ECAB				S	Sn	20 40 20.7	+0.1
	24nm,0.4s,SNR=12						
PMAFR	Mafra	2.88	335	ePn	Pn	20 39 54.3	-0.4
PMAFR				eSn	Sn	20 40 28.1	-1.2
PMAFR				A		20 40 30.1	
	44nm,0.2s						
PMAFR	Mafra	2.88	335	Pn	Pn	20 39 54.3	-0.4
PMAFR				Sn	Sn	20 40 28.1	-1.2
	44nm,0.2s						
PMAFR	Mafra	2.88	335	ePn	Pn	20 39 54.3	-0.4
PMAFR				eSn	Sn	20 40 28.1	-1.2
	44nm,0.2s						
ELOJ	Sierra Loja	2.98	74	P	Pn	20 39 57.0	+0.8
	2.1nm,0.4s,SNR=7.9						
ELOJ				S	Sn	20 40 31.9	-0.1
	6.8nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	2.98	74	P	Pn	20 39 57.0	+0.9
	2.1nm,0.4s,SNR=7.9						
ELOJ				S	Sn	20 40 31.9	0.0
	6.8nm,0.2s,SNR=7.9						
ELUQ	Luque	3.02	65	P	Pn	20 39 57.4	+0.7
	0.5nm,0.4s,SNR=7.9						
ELUQ				S	Sn	20 40 32.7	-0.3
	23nm,0.5s,SNR=7.9						
ELUQ	Luque	3.02	65	P	Pn	20 39 57.8	+1.0
ELUQ				S	Sn	20 40 32.7	-0.3
ELUQ	Luque	3.02	65	P	Pn	20 39 57.4	+0.7
	0.5nm,0.4s,SNR=7.9						
ELUQ				S	Sn	20 40 32.7	-0.3
	23nm,0.5s,SNR=7.9						
PMRV	Marv??o	3.08	5	ePn	Pn	20 39 58.1	+0.6
PMRV				eSn	Sn	20 40 34.5	+0.1
PMRV				A		20 40 36.6	
	17nm,0.5s						
PMRV	Marv??o	3.08	5	Pn	Pn	20 39 58.1	+0.6
PMRV				Sn	Sn	20 40 34.5	+0.1
	17nm,0.5s						
PMRV	Marv??o	3.08	5	ePn	Pn	20 39 58.1	+0.6
PMRV				eSn	Sn	20 40 34.5	+0.1
	17nm,0.5s						
EADA	Adamuz	3.10	53	⇑P	Pn	20 39 58.8	+1.0
	6.4nm,0.3s,SNR=18						
EADA				S	Sn	20 40 34.0	-0.8
	94nm,0.7s,SNR=7.9						
EADA	Adamuz	3.10	53	P	Pn	20 39 58.6	+0.9
EADA				S	Sn	20 40 34.0	-0.8
EADA	Adamuz	3.10	53	P	Pn	20 39 58.6	+0.8
EADA				S	Sn	20 40 34.0	-0.9
	94nm,0.7s,SNR=7.9						
ERON	Agron	3.22	77	P	Pn	20 40 00.2	+0.8
	2.5nm,0.2s,SNR=7.9						
ERON				S	Sn	20 40 37.4	-0.5
	4.7nm,0.4s,SNR=7.9						
ERON	Agron	3.22	77	P	Pn	20 40 00.5	+1.1
ERON				S	Sn	20 40 37.4	-0.5
ERON	Agron	3.22	77	P	Pn	20 40 00.2	+0.7
	2.5nm,0.2s,SNR=7.9						
ERON				S	Sn	20 40 37.4	-0.5
	4.7nm,0.4s,SNR=7.9						
PTOM	Tomar	3.30	351	eSn	Sn	20 40 39.4	-0.5
PTOM				A		20 40 41.8	
	23nm,0.5s						
PTOM	Tomar	3.30	351	Sn	Sn	20 40 39.4	-0.5
	12nm,0.5s						
PTOM	Tomar	3.30	351	eSn	Sn	20 40 39.4	-0.5
	23nm,0.5s						
EGUA	Guajares	3.39	81	P	Pn	20 40 01.3	-0.4
	3.6nm,0.3s,SNR=7.9						
EGUA				S	Sn	20 40 41.2	-0.7
	31nm,0.5s,SNR=7.9						
EGUA	Guajares	3.39	81	P	Pn	20 40 01.3	-0.4
	3.6nm,0.3s,SNR=7.9						
EGUA				S	Sn	20 40 41.2	-0.7
	31nm,0.5s,SNR=7.9						
ECOG	Cogollos-Vega	3.47	73	P	Pn	20 40 03.8	+1.0
	14nm,0.3s,SNR=9.8						
ECOG				S	Sn	20 40 44.0	0.0
	SNR=8.5						
ECOG	Cogollos-Vega	3.47	73	P	Pn	20 40 03.8	+1.0
	14nm,0.3s,SNR=9.8						
ECOG				S	Sn	20 40 44.0	+0.1
	SNR=8.5						
PCBR	Castelo Branco	3.49	3	ePn	Pn	20 40 03.1	0.0
PCBR				eSn	Sn	20 40 43.4	-1.0
PCBR				A		20 40 46.1	
	8.1nm,0.3s						
PCBR	Castelo Branco	3.49	3	Pn	Pn	20 40 03.1	0.0
PCBR				Sn	Sn	20 40 43.4	-1.0
	4.1nm,0.3s						
PCBR	Castelo Branco	3.49	3	ePn	Pn	20 40 03.1	0.0
PCBR				eSn	Sn	20 40 43.4	-1.0
	8.1nm,0.3s						
EQUE	Quentar	3.55	75	P	Pn	20 40 04.7	+0.8
	2.7nm,0.3s,SNR=5.8						
EQUE				S	Sn	20 40 45.8	-0.1
	5.1nm,0.4s,SNR=9.6						
EQUE	Quentar	3.55	75	P	Pn	20 40 04.7	+0.8
	2.7nm,0.3s,SNR=5.8						
EQUE				S	Sn	20 40 45.8	-0.1
	5.1nm,0.4s,SNR=9.6						
MIF	Mishlifen	3.58	144	P	Pn	20 40 00.5	-3.9
MIF				S	Sn	20 40 38.0	-8.8
MIF	Mishlifen	3.58	144	iP	Pn	20 40 00.5	-3.9
EBAN	Banos Encina	3.63	59	⇑P	Pn	20 40 05.5	+0.5
	19nm,0.3s,SNR=18						
EBAN				S	Sn	20 40 45.9	-2.1
	21nm,0.4s,SNR=7.9						
EBAN	Banos Encina	3.63	59	P	Pn	20 40 05.5	+0.4
	19nm,0.3s,SNR=18						
EBAN				S	Sn	20 40 45.9	-2.0
	21nm,0.4s,SNR=7.9						
TZK	Tazeka	3.68	127	P	Pn	20 40 02.5	-3.2
TZK				S	Sn	20 40 42.0	-7.1
TZK	Tazeka	3.68	127	iP	Pn	20 40 02.5	-3.2
EPLA	Plasencia	3.93	19	P	Pn	20 40 09.9	+0.8
	3.1nm,0.2s,SNR=7.9						
EPLA				S	Sn	20 40 55.4	+0.1
	18nm,0.4s,SNR=7.9						
EPLA	Plasencia	3.93	19	P	Pn	20 40 09.6	+0.5
EPLA				S	Sn	20 40 55.4	+0.1
EPLA	Plasencia	3.93	19	P	Pn	20 40 09.6	+0.5
EPLA				S	Sn	20 40 55.3	+0.1
	18nm,0.4s,SNR=7.9						
EBER	Berja	3.93	81	P	Pn	20 40 09.1	-0.1
	1.3nm,0.2s,SNR=7.9						
EBER				S	Sn	20 40 54.9	-0.5
	16nm,0.5s,SNR=7.9						
EBER	Berja	3.93	81	P	Pn	20 40 09.1	-0.1
	1.3nm,0.2s,SNR=7.9						
EBER				S	Sn	20 40 54.9	-0.5
	16nm,0.5s,SNR=7.9						
CZD	Col de Zad	3.98	145	P	Pn	20 40 05.0	-4.9
CZD				S	Sn	20 40 46.0	-11
EQES	Quesada	4.00	67	P	Pn	20 40 10.4	+0.3
	0.4nm,0.2s,SNR=7.9						
EQES				S	Sn	20 40 56.2	-0.8
	11nm,0.4s,SNR=7.9						
EQES	Quesada	4.00	67	P	Pn	20 40 10.4	+0.3
EQES				S	Sn	20 40 57.0	-0.1
EQES	Quesada	4.00	67	P	Pn	20 40 10.4	+0.3
	0.4nm,0.2s,SNR=7.9						
EQES				S	Sn	20 40 56.2	-0.8
	11nm,0.4s,SNR=7.9						
KIB	El Ksiba	4.02	159	P	Pn	20 40 04.0	-6.4
KIB				S	Sn	20 40 45.0	-13
MTE	Manteigas	4.04	2	ePn	Pn	20 40 11.3	+0.6
MTE				eSn	Sn	20 40 57.6	-0.5
MTE				A		20 41 00.8	
	14nm,0.7s						
MTE	Manteigas	4.04	2	ePn	Pn	20 40 11.3	+0.6
MTE				eSn	Sn	20 40 57.6	-0.5
	14nm,0.7s						
PVIS	Viseu	4.36	358	ePn	Pn	20 40 15.7	+0.6
PVIS				eSn	Sn	20 41 05.4	-0.5
PVIS				A		20 41 10.2	
	5.6nm,0.5s						
PVIS	Viseu	4.36	358	Pn	Pn	20 40 15.7	+0.6
PVIS				Sn	Sn	20 41 05.4	-0.5
	2.8nm,0.5s						
PVIS	Viseu	4.36	358	ePn	Pn	20 40 15.7	+0.6
PVIS				eSn	Sn	20 41 05.4	-0.5
	5.6nm,0.5s						
EHUE	Huescar	4.36	69	P	Pn	20 40 15.3	+0.2
	0.4nm,0.2s,SNR=7.9						
EHUE				S	Sn	20 41 04.2	-1.8
	2.5nm,0.3s,SNR=7.9						
EHUE	Huescar	4.36	69	P	Pn	20 40 15.3	+0.2
	0.4nm,0.2s,SNR=7.9						
EHUE				S	Sn	20 41 04.2	-1.7
	2.5nm,0.3s,SNR=7.9						
ESDC	Sonseca Array	4.46	41	P	Pn	20 40 17.3	+0.9
	0.3nm,0.2s,baz=229,slow=13,SNR=3.9						
ESDC				S	Sn	20 41 06.7	-1.6
	2.5nm,0.3s,baz=223,slow=24,SNR=11						
ESDC	Sonseca Array	4.46	41	P	Pn	20 40 17.3	+0.9
	0.3nm,0.2s,slow=13,SNR=3.9						
ESDC				S	Sn	20 41 06.7	-1.6
	2.5nm,0.3s,baz=223,slow=24,SNR=11						
EVIA	Vianos	4.74	60	P	Pn	20 40 20.2	-0.2
	6.3nm,0.2s,SNR=7.9						
EVIA				S	Sn	20 41 13.9	-1.4
	6.2nm,0.4s,SNR=7.9						
EVIA	Vianos	4.74	60	P	Pn	20 40 20.2	-0.1
EVIA				S	Sn	20 41 13.9	-1.4
EVIA	Vianos	4.74	60	P	Pn	20 40 20.2	-0.1
	6.3nm,0.2s,SNR=7.9						
EVIA				S	Sn	20 41 13.9	-1.5
	6.2nm,0.4s,SNR=7.9						
MVO	Moncorvo	4.84	6	ePn	Pn	20 40 22.1	+0.5
MVO				eSn	Sn	20 41 16.3	-1.3
MVO				A		20 41 18.2	
	20nm,0.3s						
MVO	Moncorvo	4.84	6	Pn	Pn	20 40 22.1	+0.5
MVO				Sn	Sn	20 41 16.3	-1.3
	9.9nm,0.3s						
MVO	Moncorvo	4.84	6	ePn	Pn	20 40 22.1	+0.5
MVO				eSn	Sn	20 41 16.3	-1.3
	20nm,0.3s						
CIA	Chichaoua	4.85	190	P	Pn	20 40 13.0	-8.9
CIA				S	Sn	20 41 02.0	-16
PVRL	Vila Real	4.92	0	ePn	Pn	20 40 23.2	+0.5
PVRL				eSn	Sn	20 41 18.2	-1.4
PVRL				A		20 41 21.1	
	8.6nm,0.3s						
PVRL	Vila Real	4.92	0	Pn	Pn	20 40 23.2	+0.5
PVRL				Sn	Sn	20 41 18.2	-1.4
	4.3nm,0.3s						
PVRL	Vila Real	4.92	0	ePn	Pn	20 40 23.2	+0.5
PVRL				eSn	Sn	20 41 18.2	-1.4
	8.6nm,0.3s						
GUD	Guadarrama	5.12	32	P	Pn	20 40 26.8	+1.3
	1.2nm,0.2s,SNR=7.9						
GUD				S	Sn	20 41 23.5	-1.1
	2.8nm,0.2s,SNR=7.9						
GUD	Guadarrama	5.12	32	P	Pn	20 40 26.8	+1.3
	1.2nm,0.2s,SNR=7.9						
GUD				S	Sn	20 41 23.5	-1.2
	2.8nm,0.2s,SNR=7.9						
ZFT	Errachidia	5.14	146	P	Pn	20 40 20.0	-5.8
ZFT				S	Sn	20 41 15.0	-10
PCAB	Cabril	5.36	358	ePn	Pn	20 40 28.7	0.0
PCAB				eSn	Sn	20 41 27.9	-2.5
PCAB				A		20 41 31.6	
	5.7nm,0.2s						
PCAB	Cabril	5.36	358	Pn	Pn	20 40 28.7	0.0
PCAB				Sn	Sn	20 41 27.9	-2.5
	2.8nm,0.2s						
PCAB	Cabril	5.36	358	ePn	Pn	20 40 28.7	0.0
PCAB				eSn	Sn	20 41 27.9	-2.5
	5.7nm,0.2s						
ETOB	Tobarra	5.42	63	P	Pn	20 40 29.5	-0.2
	1.7nm,0.2s,SNR=7.9						
ETOB				S	Sn	20 41 29.6	-2.5
	7.2nm,0.4s,SNR=7.9						
ETOB	Tobarra	5.42	63	P	Pn	20 40 29.5	-0.2
	1.7nm,0.2s,SNR=7.9						
ETOB				S	Sn	20 41 29.6	-2.5
	7.2nm,0.4s,SNR=7.9						
PBRG	Braganca	5.50	8	ePn	Pn	20 40 31.2	+0.5
PBRG				eSn	Sn	20 41 32.2	-1.8
PBRG				A		20 41 34.3	
	6.0nm,0.6s						
PBRG	Braganca	5.50	8	Pn	Pn	20 40 31.2	+0.5
PBRG				Sn	Sn	20 41 32.2	-1.8
	3.0nm,0.6s						
PBRG	Braganca	5.50	8	ePn	Pn	20 40 31.2	+0.5
PBRG				eSn	Sn	20 41 32.2	-1.8
	6.0nm,0.6s						
ELOB	Lobios	5.51	357	P	Pn	20 40 31.3	+0.4
	2.8nm,0.3s,SNR=19						
ELOB				S	Sn	20 41 31.0	-3.3
	82nm,1.2s,SNR=5.4						
ELOB	Lobios	5.51	357	P	Pn	20 40 31.3	+0.4
	2.8nm,0.3s,SNR=19						
ELOB				S	Sn	20 41 31.0	-3.3
	82nm,1.2s,SNR=5.4						
ECAL	Calabor	5.63	8	P	Pn	20 40 33.1	+0.6
	3.8nm,0.3s,SNR=8.1						
ECAL				S	Sn	20 41 34.7	-2.6
	0.1nm,0.1s,SNR=7.9						
ECAL	Calabor	5.63	8	P	Pn	20 40 33.1	+0.5
	3.8nm,0.3s,SNR=8.1						
ECAL				S	Sn	20 41 34.7	-2.6
	0.1nm,0.1s,SNR=7.9						
ETOR	Torete	6.30	43	P	Pn	20 40 43.4	+1.7
	5.1nm,0.3s,SNR=12						
ETOR				S	Sn	20 41 51.7	-2.0
	12nm,0.3s,SNR=14						
ETOR	Torete	6.30	43	P	Pn	20 40 43.4	+1.7
	5.1nm,0.3s,SNR=12						
ETOR				S	Sn	20 41 51.7	-1.9
	12nm,0.3s,SNR=14						
EBEN	Beniarda	6.41	66	P	Pn	20 40 42.9	-0.3
	0.3nm,0.2s,SNR=7.9						
EBEN				S	Sn	20 41 53.5	-2.9
	5.4nm,0.5s,SNR=7.9						
EBEN	Beniarda	6.41	66	P	Pn	20 40 43.9	+0.6
EBEN				S	Sn	20 41 53.7	-2.7
EBEN	Beniarda	6.41	66	P	Pn	20 40 43.9	+0.7
EBEN				S	Sn	20 41 53.7	-2.8
EMAZ	Mazaricos	6.66	352	P	Pn	20 40 46.4	-0.2
	1.3nm,0.3s,SNR=7.9						
EMAZ				S	Sn	20 41 58.0	-4.5
	8.4nm,1.2s,SNR=7.9						
EMAZ	Mazaricos	6.66	352	P	Pn	20 40 46.4	-0.2
	1.3nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	6.97	53	P	Pn	20 40 52.4	+1.5
	0.3nm,0.2s,SNR=7.9						
EMOS				S	Sn	20 42 07.3	-2.9
	6.8nm,0.7s,SNR=7.9						
EMOS	Mosqueruela	6.97	53	P	Pn	20 40 52.4	+1.5
	0.3nm,0.2s,SNR=7.9						
EMOS				S	Sn	20 42 07.3	-2.9
	6.8nm,0.7s,SNR=7.9						
EPON	Pontenova	6.98	3	P	Pn	20 40 51.4	+0.3
EPON				S	Sn	20 42 06.7	-3.8
EPON	Pontenova	6.98	3	P	Pn	20 40 51.4	+0.3
EPON				S	Sn	20 42 06.7	-3.8
EARI	Arriondas	7.21	15	P	Pn	20 40 55.4	+1.2
	0.1nm,0.4s,SNR=7.9						
EARI				S	Sn	20 42 12.8	-3.2
	18nm,0.8s,SNR=7.9						
EARI	Arriondas	7.21	15	P	Pn	20 40 54.4	+0.3
EARI				S	Sn	20 42 12.8	-3.2
EARI	Arriondas	7.21	15	P	Pn	20 40 54.4	+0.3
EARI				S	Sn	20 42 12.9	-3.1
	18nm,0.8s,SNR=7.9						
ECRI	Cripan	7.44	31	P	Pn	20 40 57.6	+0.3
	0.7nm,0.2s,SNR=7.9						
ECRI				S	Sn	20 42 18.7	-3.0
	2.8nm,0.6s,SNR=7.9						
ECRI	Cripan	7.44	31	P	Pn	20 40 57.6	+0.3
	0.7nm,0.2s,SNR=7.9						
ECRI				S	Sn	20 42 18.7	-3.0
	2.8nm,0.6s,SNR=7.9						
ELAN	Lanestosa	7.62	24	P	Pn	20 41 00.8	+0.9
	1.5nm,0.3s,SNR=7.9						
ELAN				S	Sn	20 42 23.0	-3.3
	4.2nm,1.8s,SNR=7.9						
ELAN	Lanestosa	7.62	24	P	Pn	20 41 00.8	+0.9
	1.5nm,0.3s,SNR=7.9						
ELAN				S	Sn	20 42 23.0	-3.3
	4.2nm,1.8s,SNR=7.9						
EIBI	Ibiza	7.67	67	P	Pn	20 40 59.4	-1.2
	0.3nm,0.1s,SNR=7.9						
EIBI				S	Sn	20 42 23.5	-4.0
	0.5nm,1.1s,SNR=7.9						
EIBI	Ibiza	7.67	67	P	Pn	20 41 01.3	+0.7
EIBI	Ibiza	7.67	67	P	Pn	20 41 01.3	+0.7
ESAC	San Caprasio	7.79	44	S	Sn	20 42 31.1	+0.7
	36nm,2.3s,SNR=7.9						
ESAC	San Caprasio	7.79	44	S	Sn	20 42 31.1	+0.8
	36nm,2.3s,SNR=7.9						
ERTA	Horta de San J	7.80	51	P	Pn	20 41 03.4	+1.0
ERTA	Horta de San J	7.80	51	P	Pn	20 41 03.4	+1.0
EALK	Alkurruntz	8.36	33	P	Pn	20 41 11.3	+1.3
	3.9nm,0.4s,SNR=7.9						
EALK				S	Sn	20 42 40.6	-3.9
	2.6nm,0.3s,SNR=9.9						
EALK	Alkurruntz	8.36	33	P	Pn	20 41 11.3	+1.3
	3.9nm,0.4s,SNR=7.9						
EALK				S	Sn	20 42 40.6	-3.9
	2.6nm,0.3s,SNR=9.9						
SJPF	Ste Jean	8.41	35	ePn	Pn	20 41 12.5	+1.9
SJPF				eSn	Sn	20 42 40.0	-5.5
	4.4nm,0.4s						
SJPF	Ste Jean	8.41	35	P	Pn	20 41 12.5	+1.9
SJPF				S	Sn	20 42 40.0	-5.5
	2.2nm,0.4s						
SJPF	Ste Jean	8.41	35	ePn	Pn	20 41 12.5	+1.9
ETSF	Etsaut	8.56	38	ePn	Pn	20 41 14.3	+1.5
ETSF				eSn	Sn	20 42 45.9	-3.5
	4.0nm,0.4s						
ETSF	Etsaut	8.56	38	P	Pn	20 41 14.3	+1.5
ETSF				S	Sn	20 42 45.9	-3.5
	2.0nm,0.4s						
ETSF	Etsaut	8.56	38	ePn	Pn	20 41 14.3	+1.5
ETSF				eSn	Sn	20 42 45.9	-3.5
	2.0nm,0.4s						
EBIE	Bielsa	8.77	41	P	Pn	20 41 17.1	+1.4
	0.2nm,0.2s,SNR=7.9						
EBIE				S	Sn	20 42 50.2	-4.3
	1.5nm,4.7s,SNR=7.9						
EBIE	Bielsa	8.77	41	P	Pn	20 41 17.1	+1.4
	0.2nm,0.2s,SNR=7.9						
EPF	Esparros	9.12	41	ePn	Pn	20 41 21.9	+1.5
EPF				eSn	Sn	20 43 00.8	-2.2
	2.1nm,0.3s						
EPF	Esparros	9.12	41	P	Pn	20 41 21.9	+1.5
EPF				S	Sn	20 43 00.8	-2.2
	1.1nm,0.3s						
EPF	Esparros	9.12	41	ePn	Pn	20 41 21.9	+1.5
EPF				eSn	Sn	20 43 00.8	-2.2
	1.0nm,0.3s						

SGS ***21*** *20:41:03.6, 15°.24N×43°.54E, h26^{km}*
ISCJB ***21*** *20:41:06.6±0.9, 15°.72N±0°.04×43°.47E±0°.05, h12^{km}±6^{km}, Error ellipse: s-maj=8.9km s-min=6.4km az=153.1*
CSEM ***21*** *20:41:06.2±0.2, 15°.74N×43°.52E, h12^{km}, ML3.4, Error ellipse: s-maj=8.2km s-min=4.8km az=65.0*
DHMR ***21*** *20:41:06.9±1.5, 15°.58N×43°.48E, h4^{km}±13^{km}, ML3.4*
ISC 21 20:41:06.9±0.8**, 15°.74N**±0°.05×**43°.51E**±0°.07**, h13**^{km}±6^{km}**, n18, σ0^{s}.87**/30**, 1C-7D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAJJ	Hajjah	0.10	116	⇓iP	Pg	20 41 10.4	+0.6
HAJJ				AML	AML	20 41 10.7	
	comp=Z,14μm,0.2s						
HAJJ				iS	Sg	20 41 12.4	+0.4
HAJJ	Hajjah	0.10	116	⇓iP	Pg	20 41 10.4	+0.5
	comp=Z,7μm,0.2s						
HAJJ				iS	Sg	20 41 12.4	+0.4
SANA	San‘a	0.76	118	⇑iP	Pg	20 41 21.4	-0.2
SANA				iS	Sg	20 41 30.8	-0.8
JAZS	Jizan	1.44	337	P	Pn	20 41 32.0	-0.6
JAZS	Jizan	1.44	337	P	Pn	20 41 32.0	-0.6
DHBB	Dhamar BB	1.44	144	iP	Pn	20 41 31.7	-1.0
DHBB				iS	Sn	20 41 51.4	-0.1
DHBB	Dhamar BB	1.44	144	iP	Pn	20 41 31.7	-1.0
DHBB				iS	Sn	20 41 51.3	-0.2
FRSS	Farasan al Kab	1.66	307	P	Pn	20 41 34.6	-1.2
FRSS	Farasan al Kab	1.66	307	P	Pn	20 41 34.6	-1.1
ZUQR	Zugar Island	1.89	203	⇓iP	Pn	20 41 37.5	-1.4
ZUQR				iS	Sn	20 42 03.4	+0.8
ZUQR	Zugar Island	1.89	203	⇓iP	Pn	20 41 37.5	-1.4
ZUQR				iS	Sn	20 42 03.4	+0.8
DJNS	Zahran al Janu	1.95	1	P	Pn	20 41 40.4	+0.8
DJNS	Zahran al Janu	1.95	1	P	Pn	20 41 40.4	+0.7
DJNS				S	Sn	20 42 08.0	+4.0
HNSH	Hunish Island	2.18	201	iP	Pn	20 41 42.8	0.0
HNSH				iS	Sn	20 42 10.3	+0.7
HNSH	Hunish Island	2.18	201	iP	Pn	20 41 42.8	0.0
HNSH				iS	Sn	20 42 10.3	+0.7
TRBA	At Turbah	2.56	167	⇓iP	Pn	20 41 48.4	+0.3
BDHA	Al Bayda’	2.66	131	⇓iP	Pn	20 41 52.7	+3.3
BDHA				iS	Sn	20 42 26.8	+5.3
BDHA				AML	AML	20 42 29.4	
	comp=N,124nm,0.3s						
BDHA	Al Bayda’	2.66	131	⇓iP	Pn	20 41 52.7	+3.3
BDHA				iS	Sn	20 42 26.8	+5.3
	comp=N,62nm,0.3s						

IDC 21 20:44:23.8±24.0**, 17°.12S**×**172°.57W, h0**^{km}**, mb4.3**/4**, mb1 4.4**/4**, mb1mx3.9**/19**, mbtmp4.3**/4**, Error ellipse: s-maj=448.2km s-min=154.5km az=73.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	39.07	259	P	P	20 51 52.1	-0.7
	1.1nm,0.4s,baz=70,slow=11,SNR=6.3						
STKA	Stephens Creek	43.90	242	P	P	20 52 32.7	+0.3
	1.5nm,0.5s,baz=100,slow=6.1,SNR=2.7						
WRA	Warramunga Arr	50.25	258	P	P	20 53 21.9	-0.2
	1.1nm,0.5s,baz=98,slow=6.3,SNR=40						
ASAR	Alice Springs	50.36	253	P	P	20 53 23.2	+0.3
	8.1nm,0.7s,baz=90,slow=8.5,SNR=131						

CASC 21 20:55:43.8±2.3**, 9°.98N**×**83°.01W, h13**^{km}±7^{km}**, MD4.0, 4C-6D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIO	Limon	0.03	313	⇓eP	Pg	20 55 48.2	+2.0
CNI	Changuinola	0.75	139	⇑iP	Pg	20 55 56.8	-1.5
URSC	Urasca	0.77	259	⇓eP	Pg	20 55 58.2	-0.6
BAR1		0.79	202	⇑eP	Pg	20 55 58.8	-0.5
BUS	Buena Vista	0.85	240	⇓iP	Pg	20 55 59.8	-0.4
BUS				eS	Sg	20 56 13.3	+1.9
LCR2	La Lucha 2	1.01	256	⇓eP	Pb	20 56 02.1	-1.0
SJS	Escuela Geolog	1.03	268	eP	Pb	20 56 02.9	-0.6
SJS				eS	Sb	20 56 16.1	-0.7
LAJ	Bijagual	1.10	264	⇓eP	Pb	20 56 11.5	+6.8
LAJ				eS	Sb	20 56 33.0	+14
ACR	Cerro Adams	1.33	187	⇑eP	Pn	20 56 06.7	-1.4
ACR				eS	Sb	20 56 24.0	-1.6
CGA2	Cerro Gallo 2	1.43	271	⇑eP	Pn	20 56 08.8	-0.6
CGA2				eS	Sn	20 56 28.4	+0.2
FORC	Fortuna	1.70	287	⇓eP	Pn	20 56 13.2	0.0
FORC				eS	Sn	20 56 34.5	-0.3
CHPA	Chiripa	1.92	284	iP	Pn	20 56 15.8	-0.4
JCR	Jicaral	2.07	266	eP	Pn	20 56 17.9	-0.3
JCR				eS	Sn	20 56 44.4	+0.4
PTEN	Parque Tenorio	2.08	291	iP	Pn	20 56 18.2	-0.1
GB1A	Borinquen Arri	2.49	290	iP	Pn	20 56 24.0	0.0
VCR	Vista de Mar	2.58	273	eP	Pn	20 56 25.4	0.0

NEIC ***21*** *20:58:49.7, 36°.29N×21°.70E, h15^{km}, MD3.6(ATH), After ATH.*
ATH ***21*** *20:58:49.7, 36°.29N×21°.70E, h15^{km}±2^{km}, MD3.6/13*
ISCJB ***21*** *20:58:51.0±0.8, 36°.29N±0°.03×21°.74E±0°.08, h10^{km}, Error ellipse: s-maj=9.4km s-min=3.7km az=157.3*
CSEM ***21*** *20:58:51.1±0.5, 36°.31N×21°.80E, h2^{km}, ML3.7/3, Error ellipse: s-maj=12.5km s-min=4.5km az=59.0*
THE ***21*** *20:58:51.8, 36°.32N×21°.78E, h1^{km}±4^{km}, ML3.7/3, Error ellipse: s-maj=7.3km s-min=1.6km az=240.0*
ISC 21 20:58:51.9±0.8**, 36°.29N**±0°.04×**21°.76E**±0°.08**, h10**^{km}**, n66, σ1^{s}.10**/91**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.60	359	P	Pg	20 59 01.0	-2.6
PYL				S	Sg	20 59 10.1	-1.4
PYL	PYLOS	0.60	359	ePB	Pg	20 59 01.2	-2.4
PYL				eSN	Sg	20 59 09.9	-1.6
PYL	PYLOS	0.60	359	P	Pg	20 59 01.0	-2.6
PYL	PYLOS	0.60	359	ePb	Pg	20 59 01.2	-2.4

PYL				S	Sg	20 59 10.1	-1.4
ITM	Ithomi	0.89	9	ePN	Pg	20 59 07.0	-2.2
ITM				eSN	Sg	20 59 20.4	-0.4
ITM	Ithomi	0.89	9	ePn	Pg	20 59 07.0	-2.2
ITM				eSn	Sg	20 59 20.4	-0.4
KYTH	Kithira	1.03	90	ePN	Pg	20 59 10.2	-1.6
KYTH	Kithira	1.03	90	ePn	Pg	20 59 10.2	-1.6
VLI	Veliai	1.04	66	ePN	Pg	20 59 10.4	-1.5
VLI	Veliai	1.04	66	ePn	Pg	20 59 10.4	-1.5
VLX	Vlachokerasia	1.18	25	ePN	Pn	20 59 12.1	-2.4
VLX				eSN	Sn	20 59 29.2	-1.5
VLX	Vlachokerasia	1.18	25	ePn	Pn	20 59 12.1	-2.4
VLX				eSn	Sn	20 59 29.2	-1.5
DID	Didima	1.69	44	P	Pn	20 59 21.2	-0.4
DID				S	Sn	20 59 44.6	+1.3
DID	Didima	1.69	44	ePN	Pn	20 59 21.2	-0.4
DID	Didima	1.69	44	ePn	Pn	20 59 21.2	-0.4
DID				S	Sn	20 59 44.6	+1.3
GUR	Goura	1.70	16	ePN	Pn	20 59 20.8	-0.9
GUR	Goura	1.70	16	ePn	Pn	20 59 20.8	-0.9
LAKA	Lakka	1.95	5	P	Pn	20 59 25.7	+0.6
LAKA				S	Sn	20 59 49.3	-0.3
LAKA	Lakka	1.95	5	P	Pn	20 59 25.7	+0.6
LAKA				S	Sn	20 59 49.3	-0.3
KARN	Karanos	1.97	116	P	Pn	20 59 25.6	+0.3
KARN				S	Sn	20 59 51.0	+1.0
KARN	Karanos	1.97	116	ePB	Pn	20 59 24.4	-0.9
KARN	Karanos	1.97	116	ePb	Pn	20 59 24.4	-0.9
KARN	Karanos	1.97	116	P	Pn	20 59 25.6	+0.3
KARN				S	Sn	20 59 51.0	+1.0
LTK	Loutraki	1.98	29	P	Pn	20 59 26.7	+1.2
LTK				S	Sn	20 59 50.9	+0.6
LTK	Loutraki	1.98	29	ePN	Pn	20 59 26.0	+0.5
LTK	Loutraki	1.98	29	ePn	Pn	20 59 26.0	+0.5
LTK	Loutraki	1.98	29	P	Pn	20 59 26.7	+1.2
LTK				S	Sn	20 59 50.9	+0.6
NAIG	Nisos Aigina	2.01	43	ePN	Pn	20 59 26.5	+0.6
NAIG	Nisos Aigina	2.01	43	ePn	Pn	20 59 26.5	+0.6
TRIZ	Trizonia	2.08	7	P	Pn	20 59 27.1	+0.2
TRIZ				S	Sn	20 59 53.5	+0.6
TRIZ	Trizonia	2.08	7	P	Pn	20 59 27.1	+0.2
TRIZ				S	Sn	20 59 53.5	+0.6
VLS	Valsamata	2.10	334	P	Pn	20 59 27.1	0.0
VLS	Valsamata	2.10	334	ePN	Pn	20 59 27.5	+0.4
VLS	Valsamata	2.10	334	P	Pn	20 59 27.1	0.0
VLS	Valsamata	2.10	334	ePn	Pn	20 59 27.5	+0.4
KALE	Kalithea	2.12	8	P	Pn	20 59 28.3	+1.0
KALE				S	Sn	20 59 54.8	+1.1
KALE	Kalithea	2.12	8	P	Pn	20 59 28.3	+1.0
KALE				S	Sn	20 59 54.8	+1.1
EFP	Efpalio	2.13	3	ePN	Pn	20 59 27.2	-0.4
EFP	Efpalio	2.13	3	ePn	Pn	20 59 27.2	-0.4
VAM	Vamos	2.17	113	ePN	Pn	20 59 29.3	+1.2
VAM	Vamos	2.17	113	ePn	Pn	20 59 29.3	+1.2
PTL	Penteli	2.43	43	ePN	Pn	20 59 31.0	-0.7
PTL	Penteli	2.43	43	ePn	Pn	20 59 31.0	-0.7
LKR	Lokris	2.55	22	P	Pn	20 59 32.3	-1.0
LKR				S	Sn	21 00 06.8	+2.4
LKR	Lokris	2.55	22	ePN	Pn	20 59 32.5	-0.8
LKR	Lokris	2.55	22	P	Pn	20 59 32.3	-1.0
LKR	Lokris	2.55	22	ePn	Pn	20 59 32.5	-0.8
LKR				S	Sn	21 00 06.8	+2.4
AGG	Agios Georgios	2.76	9	P	Pn	20 59 37.1	+0.9
AGG				S	Sn	21 00 11.2	+1.6
AGG	Agios Georgios	2.76	9	P	Pn	20 59 37.1	+0.9
AGG				S	Sn	21 00 11.2	+1.6
SIVA	Sivas	2.79	116	P	Pn	20 59 35.5	-1.2
SIVA	Sivas	2.79	116	P	Pn	20 59 35.5	-1.2
LAST	Lasithi	3.23	109	P	Pn	20 59 42.8	+0.1
LAST	Lasithi	3.23	109	ePN	Pn	20 59 43.2	+0.5
LAST	Lasithi	3.23	109	P	Pn	20 59 42.8	+0.1
LAST	Lasithi	3.23	109	ePn	Pn	20 59 43.2	+0.5
XOR	Xorichti	3.27	20	P	Pn	20 59 43.9	+0.7
XOR	Xorichti	3.27	20	P	Pn	20 59 43.9	+0.7
THL	Klokotos Trika	3.27	3	P	Pn	20 59 43.1	-0.1
THL				S	Sn	21 00 22.7	+0.5
THL	Klokotos Trika	3.27	3	ePN	Pn	20 59 43.1	-0.1
THL	Klokotos Trika	3.27	3	ePn	Pn	20 59 43.1	-0.1
THL				S	Sn	21 00 22.7	+0.5
NPS	Neapolis	3.30	107	ePN	Pn	20 59 43.4	-0.2
NPS	Neapolis	3.30	107	ePn	Pn	20 59 43.4	-0.2
MEV	Metsovon	3.51	353	P	Pn	20 59 47.7	+1.2
MEV	Metsovon	3.51	353	P	Pn	20 59 47.7	+1.2
ZKR	Zakros	3.82	107	P	Pn	20 59 51.5	+0.8
ZKR	Zakros	3.82	107	P	Pn	20 59 51.5	+0.8

MAN 21 21:03:19,7°.21N×123°.69E,h33km,mb4.4,ML3.2,MS3.1, 1C-1D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTBH	Cotabato--PC H	0.55	88	⇓iP	Pb	21 03 31.6	+1.2
CTBH				i S	Sb	21 03 39.8	+1.5
PAGZ	Pagadian	0.71	335	eP	Pn	21 03 33.4	+0.7
PAGZ				eS	Sn	21 03 43.5	+1.1
IPIL	Ipil	1.25	298	eP	Pn	21 03 41.4	+1.2
IPIL				eS	Sn	21 03 56.8	+1.0
BUKP	Musuan	1.52	64	eP	Pn	21 03 46.9	+3.0
BUKP				eS	Sn	21 04 02.3	-0.2
CGP	Cagayan de Oro	1.59	39	⇑iP	Pn	21 03 46.9	+2.1
CGP				i S	Sn	21 04 09.8	+5.4

IDC 21 21:24:43.9±2.5,7°.24N×125°.02E,h0km,mb3.5/3, mb1 3.7/3,mb1mx3.4/20,mbtmp3.5/3,Error ellipse: s-maj=231.5km s-min=25.0km az=65.0,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	28.52	161	P	P	21 30 41.5	+0.1
	0.2nm,0.3s,baz=342,slow=9.0,SNR=7.5						
ASAR	Alice Springs	31.92	164	P	P	21 31 11.3	0.0
	0.3nm,0.3s,baz=341,slow=6.9,SNR=7.7						
MKAR	Makanchi Array	53.73	325	P	P	21 34 07.8	0.0
	0.4nm,0.5s,baz=121,slow=8.3,SNR=11						

IDC ***21*** *21:41:36.6±0.5,2°.07S×139°.08E,h0km,mb5.1/15, mb1 5.2/19,mb1mx5.2/21,mbtmp5.2/19,ML5.2/4,MS5.0/12, Ms1 5.0/12,ms1mx4.9/20,Error ellipse: s-maj=18.1km s-min=12.1km az=75.0*

NEIC ***21*** *21:41:37.7±0.2,2°.15S×138°.96E,h11km,mb5.6/49, MS5.3/172,MW5.6,Error ellipse: s-maj=8.3km s-min=5.4km az=82.0,Moment Tensor Solution. s20 Moment tensor: Scale 10^{17}Nm; M_{rr}0.06; $M_{\theta\theta}$0.02; $M_{\phi\phi}$-0.08; $M_{r\theta}$-0.33; $M_{\theta\phi}$2.71; $M_{\phi r}$-0.25; Best double couple: $M_0$2.70000×10^{17} NP1:ϕ_s180.00000°,δ83.00000°, λ175.00000°. NP2:ϕ_s271.00000°,δ85.00000°,λ7.00000°. Principal axes: T 2.7400, Plg8.0000°, Azm135.0000°; N 0.0000, Plg81.0000°, Azm308.0000°; P -2.7400, Plg1.0000°, Azm45.0000°;*

NEIC Felt [IV] at Sarmi.

GCMT ***21*** *21:41:37.7±0.1,1°.90S×138°.96E,h16km,MW5.6/107, Moment Tensor Solution. s86,c158; s107,c283; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.30±.03; $M_{\theta\theta}$0.62±.03; $M_{\phi\phi}$-0.32±.04; $M_{r\theta}$0.52±.09; $M_{\theta\phi}$2.99±.03; $M_{\phi r}$0.55±.10; Best double couple: $M_0$3.10600×10^{17} NP1:ϕ_s95.00000°,δ80.00000°, λ7.00000°. NP2:ϕ_s4.00000°,δ83.00000°,λ170.00000°. Principal axes: T 3.3320, Plg12.0000°, Azm319.0000°; N -0.4510, Plg78.0000°, Azm149.0000°; P -2.8810, Plg2.0000°, Azm50.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

BJI ***21*** *21:41:37.8,1°.93S×139°.14E,h16km,mB5.4/32,mb5.2/57, Ms5.2/62,Ms7 5.0/55*

ISCJB ***21*** *21:41:39.7±0.2,2°.11S±0°.03×139°.02E±0°.03,h30km, mb5.5/129,MS5.2/203,Error ellipse: s-maj=4.0km s-min=3.5km az=141.8*

MOS ***21*** *21:41:39.3±0.9,2°.18S×138°.87E,h31km,mb5.6/29, MS5.1/23,Error ellipse: s-maj=11.0km s-min=6.0km az=104.6*

DJA ***21*** *21:41:43,2°.07S×139°.13E,h44km,mb5.6/37*

ISC 21 21:41:41.9±0.2,2°.10S±0°.03×139°.01E±0°.03,h32km, h32km±1.2km:pP-P,n482,σ1^{s}17/304,mb5.5/129,MS5.2/203, 15C-12D,Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMPI	Sarmi	0.32	290	P	Pb	21 41 47.8	-2.0
JAY	Jayapura	1.74	104	P	Pn	21 42 07.8	-2.1
BAKI	Biak	3.04	287	P	Pn	21 42 25.9	-1.9
TLE	Tual	7.17	241	⇑eP	Pn	21 43 19.8	-4.9
AAI	Ambon	10.91	261	⇑eP	Pn	21 44 17.6	+1.6
AAI	Ambon	10.91	261	P	Pn	21 44 17.5	+1.5
	386nm,1.2s,4μm						
NLAI	Namlea	11.95	264	P	Pn	21 44 31.0	+0.8
	580nm,1.4s						
TNTI	Ternate	11.98	284	P	Pn	21 44 35.6	+5.0
	301nm,2.2s,5μm						
KAKA	Kakadu	12.39	211	eP	Pn	21 44 34.4	-1.7
	221nm,0.6s						
KAKA				eS	Sn	21 46 43.7	-9.4
KAKA	Kakadu	12.39	211	⇑ePn	Pn	21 44 33.7	-2.4
	678nm,0.6s						
KAKA				eSn	Sn	21 46 45.2	-7.9
KAKA	Kakadu	12.39	211	P	Pn	21 44 35.2	-0.9
	574nm,0.8s,5μm						
COEN	Coen	12.48	161	ePn	Pn	21 44 36.7	-0.7
	380nm,0.6s						
COEN				eSn	Sx	21 47 42.1	
COEN	Coen	12.48	161	P	Pn	21 44 39.3	+1.9
	322nm,1.1s						
MNI	Manado	14.60	284	⇓eP	Pn	21 45 06.0	-0.3
MNI	Manado	14.60	284	P	Pn	21 45 10.1	+3.8
	349nm,1.1s,5μm						
KMSI	Cibinong	15.26	280	P	Pn	21 45 17.3	+2.2
	720nm,1.3s						
DAV	Davao City (W)	16.21	304	Pn	Pn	21 45 28.0	+0.6
	41nm,0.3s,baz=357,slow=2.5,SNR=4.2						
DAV				LR	LR	21 51 17.6	
	comp=Z,4μm,18.5s,baz=237,slow=36						
DAV	Davao City (W)	16.21	304	⇓eP	Pn	21 45 28.4	+1.1
KDI	Kendari	16.47	263	⇓eP	Pn	21 45 30.8	0.0
KDI				eS	Sn	21 48 32.8	+0.1
KDI	Kendari	16.47	263	P	Pn	21 45 30.8	0.0
	285nm,2.1s,5μm						
GUMO	Guam	16.64	20	Pn	Pn	21 45 33.3	+0.5
	7.4nm,0.3s,baz=48,slow=20,SNR=2.9						
GUMO				LR	LR	21 51 10.1	
	comp=Z,2μm,18.6s,baz=20,slow=35						
GUMO	Guam	16.64	20	Pn	Pn	21 45 33.3	+0.5
GUMO				eP		21 45 38.0	
GUMO				LR	LR	21 51 10.1	
BUKP	Musuan	17.08	306	eP	Pn	21 45 41.0	+2.5
APSI	Ampana	17.39	274	P	Pn	21 45 44.3	+1.9
	632nm,1.3s,7μm						
SCPH	Surigao	17.91	311	eP	Pn	21 45 48.4	-0.2
WRAB	Tennant Creek	18.30	194	P	Pn	21 45 53.0	-0.4
	2μm,0.9s,SNR=48						
WRAB	Tennant Creek	18.30	194	eP	Pn	21 45 50.0	-3.4
WRAB				e		21 49 06.6	
WRAB				pmax	pmax		
	comp=Z,193nm,0.8s						
WRAB	Tennant Creek	18.30	194	ePn	Pn	21 45 50.0	-3.4
	comp=Z,193nm,0.8s						
WRAB				eSn	Sn	21 49 06.6	-10
WRAB	Tennant Creek	18.30	194	P	Pn	21 45 52.2	-1.2
	comp=Z,260nm,1.1s,comp=Z,3μm						
WRA	Warramunga Arr	18.31	194	P	Pn	21 45 50.9	-2.7
	comp=Z,9.0nm,0.3s,baz=19,slow=11,SNR=134						
WRA				S	Sn	21 49 07.3	-10
	comp=Z,0.8nm,0.3s,baz=13,slow=22,SNR=6.7						
PAGZ	Pagadian	18.46	303	eP	Pn	21 45 56.0	+0.6
MSLP	Maasin	18.61	311	eP	Pn	21 45 56.1	-1.1
BNSI	Bone	19.01	263	P	Pn	21 46 04.7	+2.6
	comp=Z,317nm,1.8s,comp=Z,5μm						
TBP	Tagbilaran	19.10	308	eP	Pn	21 46 02.4	-0.8
PCI	Palu	19.20	273	⇑eP	Pn	21 46 06.5	+2.1
PCI	Palu	19.20	273	P	Pn	21 46 06.3	+1.9
	comp=Z,345nm,1.1s						
CTA	Charters Tower	19.23	159	eP	Pn	21 46 03.9	-0.7
	comp=Z,37nm,0.5s						
CTA	Charters Tower	19.23	159	P	Pn	21 46 03.9	-0.7
	comp=Z,6.7nm,0.3s,baz=337,slow=11,SNR=28						
CTA	Charters Tower	19.23	159	P	Pn	21 46 03.9	-0.7
CTAO	Charters Tower	19.23	159	eP	Pn	21 46 04.1	-0.5
CTAO				pmax	pmax		
	comp=Z,1μm,2.8s						
CTAO	Charters Tower	19.23	159	ePn	Pn	21 46 04.1	-0.5
	comp=Z,1μm,2.8s						
CTAO	Charters Tower	19.23	159	P	Pn	21 46 05.2	+0.6
	comp=Z,114nm,1.6s						
KAPI	Kappang	19.43	261	P	Pn	21 46 08.7	+1.5
	comp=Z,813nm,1.2s,SNR=7.1						
KAPI	Kappang	19.43	261	P	Pn	21 46 07.1	-0.1
	comp=Z,0.7nm,0.3s,baz=92,slow=7.9,SNR=13						
FITZ	Fitzroy Crossi	20.61	219	eP	P	21 46 18.0	-0.6
	comp=Z,189nm,0.9s						
FITZ				eS	S	21 50 01.0	-6.5
FITZ	Fitzroy Crossi	20.61	219	P	P	21 46 18.1	-0.5
	comp=Z,44nm,0.8s,baz=54,slow=9.9,SNR=23						
FITZ				S	S	21 49 58.6	-8.9
	comp=Z,46nm,0.7s,baz=209,slow=16,SNR=4.5						
FITZ				LR	LR	21 55 18.8	
	comp=Z,10μm,18.9s,MS5.2,baz=40,slow=40						
FITZ	Fitzroy Crossi	20.61	219	ePn	P	21 46 17.8	-0.8
	comp=Z,0.9nm,0.5s						
FITZ				eS	S	21 49 58.0	-10
FITZ	Fitzroy Crossi	20.61	219	P	P	21 46 18.1	-0.5
	comp=Z,298nm,1.0s						
GUIM	Jordan	20.66	308	eP	P	21 46 19.0	-0.2
PVCP	Virac	21.45	317	eP	P	21 46 26.0	-1.7
MYLDM	Lahad Datu	21.73	290	P	P	21 46 34.2	+3.5
MYLDM	Lahad Datu	21.73	290	P	P	21 46 33.6	+2.9
	comp=Z,246nm,1.9s,mb5.3						
ASAR	Alice Springs	22.00	193	P	P	21 46 32.8	-0.7
	comp=Z,226nm,1.0s,mb5.6,baz=24,slow=10,SNR=187						
ASAR				S	S	21 50 33.2	-1.5
	comp=Z,15nm,0.7s,baz=12,slow=25,SNR=5.0						
CUYO	Cuyo Island	22.04	306	eP	P	21 46 37.1	+3.0
HNR	Honiara	22.05	110	P	P	21 46 34.8	+0.6
HNR				pmax	pmax		
	comp=Z,630nm,1.0s,mb6.0						
HNR	Honiara	22.05	110	P	P	21 46 30.8	-3.4
	comp=Z,83nm,0.6s,mb5.4,baz=184,slow=7.6,SNR=3.2						
HNR	Honiara	22.05	110	eP	P	21 46 31.4	-2.8
	comp=Z,635nm,1.0s,mb6.0						
HNR				LR	LR		
	comp=Z,3μm,20.0s,MS4.7						
TSM	Tawau	22.06	287	P	P	21 46 34.8	+0.5
KBKI	Kotabaru	22.85	267	P	P	21 46 43.7	+1.0
	comp=Z,205nm,1.2s,comp=Z,3μm,mb5.4						
SJMP	San Jose	22.91	310	eP	P	21 46 43.3	0.0
SDKM	Sandakan	23.10	290	P	P	21 46 45.2	-0.1
ENPP	El Nido	23.54	305	eP	P	21 46 48.1	-1.7
BATP	Bataraza	23.75	297	eP	P	21 46 51.6	-0.1
TGY	Tagaytay City	24.08	312	P	P	21 46 54.0	-0.7
	comp=Z,130nm,0.3s,mb5.8,baz=35,slow=2.7,SNR=7.1						
TGY				LR	LR	21 54 55.3	
	comp=Z,14nm,20.7s,baz=274,slow=33						
KHKI	Kahang-Kahang	24.11	254	P	P	21 46 54.6	-0.4
	comp=Z,382nm,1.9s,comp=Z,6μm,mb5.5						
BBKI	Banjar Baru	24.18	266	P	P	21 46 57.0	+1.4
	comp=Z,1μm,1.2s,mb6.3						
PLKI	Palangkaraya	25.05	269	P	P	21 47 03.5	0.0
	comp=Z,564nm,1.0s,comp=Z,3μm,mb6.0						
NBBI	Negara	25.06	255	P	P	21 47 04.4	+0.8
	comp=Z,449nm,1.2s,comp=Z,6μm,mb5.9						
EIDS	Eidsvold	25.89	154	eP	P	21 47 12.0	+1.0
	comp=Z,304nm,0.8s,mb5.9						
MBWA	Marble Bar	26.68	223	eP	P	21 47 17.6	-0.6
	comp=Z,344nm,1.0s,mb5.8						
MBWA				LR	LR		
	comp=Z,8μm,19.0s,MS5.3						
MBWA	Marble Bar	26.68	223	P	P	21 47 20.7	+2.5
	comp=Z,278nm,1.1s,mb5.7						
SBUM	Sibu	27.16	279	P	P	21 47 23.7	+1.0
	comp=Z,77nm,1.0s,mb5.2						
PWJI	Pagerwojo	27.72	257	P	P	21 47 27.5	-0.1
	comp=Z,104nm,1.4s,mb5.3						
KSM	Kuching	28.91	277	eP	P	21 47 38.6	+0.2
	comp=Z,38nm,0.9s,mb5.1						
KSM				LR	LR		
	comp=Z,3μm,22.0s,MS4.8						
KSM	Kuching	28.91	277	P	P	21 47 40.1	+1.8
	comp=Z,59nm,1.1s,mb5.2						
STKA	Stephens Creek	29.72	176	eP	P	21 47 44.4	-0.8
	comp=Z,38nm,0.6s,mb5.3						
STKA	Stephens Creek	29.72	176	P	P	21 47 44.8	-0.4
	comp=Z,41nm,0.6s,mb5.3,baz=333,slow=8.4,SNR=40						
STKA				LR	LR	21 59 26.6	
	comp=Z,6μm,18.8s,MS5.3,baz=350,slow=36						
FORT	Forrest	30.35	199	eP	P	21 47 51.1	+0.3
	comp=Z,95nm,0.5s,mb5.8						
FORT	Forrest	30.35	199	eP	P	21 47 47.3	-3.5
	comp=Z,280nm,1.0s,mb6.0						
ARMA	Armidale	30.60	158	eP	P	21 47 54.3	+1.3
ARMA	Armidale	30.60	158	eP	P	21 47 53.3	+0.3
YULB	Yu-li	30.65	327	eP	P	21 47 52.5	-1.0
	comp=Z,25nm,0.8s,mb5.1						
NACB	Ninganchiao	31.12	328	eP	P	21 47 57.8	+0.1
	comp=Z,307nm,1.5s,mb5.9						
NACB				epP	pP	21 48 05.0	-2.1
SSLB	Suanglung	31.16	327	eP	P	21 47 55.7	-2.3
	comp=Z,36nm,0.9s,mb5.2						
SSLB				ePcP	PcP	21 50 53.5	+0.7
TPI	Tanjungpandan	31.33	268	P	P	21 48 02.0	+2.2
	comp=Z,51nm,1.0s,mb5.3						
YHNB	Yeheng	31.64	328	eP	P	21 48 01.6	-0.6
	comp=Z,65nm,0.9s,mb5.5						
YHNB				LR	LR		
	comp=Z,3μm,21.0s,MS5.0						
TATO	Taipei	31.83	329	PFAKE		21 48 20.0	+16
TATO				LR	LR		
	comp=Z,2μm,19.0s,MS4.8						
QZH	Quanzhou	33.39	325	P	P	21 48 16.9	-0.7
QZH				sP	sP	21 48 25.5	-5.4
QZH				S	S	21 53 34.8	-2.0
QZH				SS	SS	21 55 36.0	-26
QZH				pmax	pmax		
	comp=Z,60nm,0.6s,mb5.7						
QZH				pmax	pmax		
	comp=Z,1μm,3.1s						
QZH				LR	LR		
	comp=N,3μm,18.0s,MS5.2						
QZH				LR	LR		
	comp=E,3μm,19.1s,MS5.2						
QZH				LR	LR		
	comp=Z,3μm,20.1s,MS5.0						
TARA	Tarawa	34.08	85	PFAKE		21 48 40.0	+16
TARA				LR	LR		
	comp=Z,3μm,19.0s,MS5.1						
CAN	Canberra	34.33	165	eP	P	21 48 24.0	-1.6
CAN				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.7						
CAN				MLR	MLR		
	comp=Z,8μm,19.0s,MS5.5						
CAN	Canberra	34.33	165	eP	P	21 48 24.0	-1.6
	comp=Z,100nm,1.0s,mb5.7						
CAN				LR	LR		
	comp=Z,8μm,19.0s,MS5.5						
CNB	Canberra Magne	34.42	165	eP	P	21 48 27.1	+0.7
KASI	Kota Agung	34.60	263	P	P	21 48 26.3	-2.0
	comp=Z,109nm,1.0s,mb5.8						
MYKOM	Kota Tinggi	35.36	276	P	P	21 48 35.6	+0.7
MYKOM	Kota Tinggi	35.36	276	P	P	21 48 35.5	+0.6
	comp=Z,90nm,1.3s,mb5.5						
GZH	Guangzhou	35.39	316	P	P	21 48 33.4	-1.5
GZH				S	S	21 54 10.5	+2.8
GZH				LR	LR		
	comp=N,1μm,18.1s,MS4.9						
GZH				LR	LR		
	comp=E,1μm,15.6s,MS4.9						
GZH				LR	LR		
	comp=Z,3μm,18.0s,MS5.1						
TOO	Toolangi	35.80	171	eP	P	21 48 39.3	+1.1
KSI	Kapahiang	36.40	267	P	P	21 48 43.8	0.0
	comp=Z,162nm,1.1s,mb5.9						
MUN	Mundaring	36.67	213	eP	P	21 48 47.3	+1.5
NWAO	Narrogin (SRO)	36.85	211	eP	P	21 48 45.5	-1.8
NWAO				pmax	pmax		
	comp=Z,103nm,1.1s						
NWAO				MLR	MLR		
	comp=Z,8μm,22.0s						
NWAO	Narrogin (SRO)	36.85	211	eP	P	21 48 45.5	-1.8
	comp=Z,103nm,1.1s,mb5.6						
NWAO				LR	LR		
	comp=Z,8μm,22.0s,MS5.4						
SSE	Sheshan	37.12	334	⇑P	P	21 48 48.5	-1.1
SSE				pP	pP	21 48 59.1	0.0
SSE				sP	sP	21 49 03.4	+0.4
SSE				S	S	21 54 33.9	0.0
SSE				ScS	ScS	21 59 02.3	+0.2
SSE				pmax	pmax		
	comp=Z,51nm,0.7s,mb5.5						
SSE				pmax	pmax		
	comp=Z,64nm,3.5s						
SSE				LR	LR		
	comp=N,940nm,22.3s,MS5.0						
SSE				LR	LR		
	comp=E,3μm,22.4s,MS5.0						
SSE				LR	LR		
	comp=Z,2μm,18.5s,MS4.9						
FRIM	Kepong	37.74	278	P	P	21 48 55.5	+0.3
MJAR	Matsushiro Arr	38.45	359	P	P	21 48 58.9	-1.9
	comp=Z,3.5nm,0.8s,mb4.2,baz=175,slow=8.8,SNR=8.6						
MJAR				PcP	PcP	21 51 13.8	+0.1
	comp=Z,3.2nm,0.8s,baz=173,slow=2.7,SNR=4.2						
MAJO	Matsushiro	38.45	359	PFAKE		21 49 10.0	+9.2
MAJO				LR	LR		
	comp=Z,2μm,20.0s,MS4.9						
MAT	Matsushiro	38.45	359	P	P	21 48 59.3	-1.5
MAT				S	S	21 55 00.0	+6.0
IPM	Ipoh	38.51	280	P	P	21 49 03.5	+1.8
IPM	Ipoh	38.51	280	P	P	21 49 02.8	+1.1
	comp=Z,136nm,1.2s,comp=Z,2μm,mb5.5						
PPI	Padang Panjang	38.63	272	P	P	21 49 02.2	-0.5
	comp=Z,198nm,1.2s,comp=Z,2μm,mb5.7						
NJ2	Nanjing	38.98	332	eP	P	21 49 05.3	0.0
NJ2				pP	pP	21 49 10.8	-4.0
NJ2				sP	sP	21 49 13.3	-5.4
NJ2				PP	PP	21 50 36.1	+1.1
NJ2				S	S	21 55 02.0	0.0
NJ2				sS	sS	21 55 08.9	-8.8
NJ2				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.4						
NJ2				pmax	pmax		
	comp=Z,590nm,3.8s						
NJ2				LR	LR		
	comp=N,2μm,23.9s,MS5.2						
NJ2				LR	LR		
	comp=E,3μm,25.8s,MS5.2						
NJ2				LR	LR		
	comp=Z,9μm,22.6s,MS5.6						
KULM	Kulim	39.01	281	eP	P	21 49 04.9	-1.0
	comp=Z,161nm,1.2s,mb5.6						
KULM				LR	LR		
	comp=Z,1μm,22.0s,MS4.8						
KULM	Kulim	39.01	281	P	P	21 49 05.6	-0.3
	comp=Z,145nm,1.1s,mb5.6						
SNG	Songkhla	39.40	284	P	P	21 49 10.0	+0.9
	comp=Z,240nm,0.9s,mb5.9						
SISI	Saibi	39.91	270	P	P	21 49 13.7	+0.3
	comp=Z,329nm,1.3s,mb5.9						
WHN	Wuhan	40.08	326	⇓P	P	21 49 15.0	+0.5
WHN				pP	pP	21 49 25.4	+1.3
WHN				PP	PP	21 50 54.3	+7.2
WHN				S	S	21 55 21.4	+2.7
WHN				LR	LR		
	comp=N,3μm,18.8s						
WHN				LR	LR		
	comp=E,790nm,9.5s						
WHN				LR	LR		
	comp=Z,2μm,20.1s,MS5.0						
KKTK	Khon Kaen	40.16	298	P	P	21 49 18.0	+2.6
PSI	Prapat	40.37	277	P	P	21 49 16.2	-0.9
	comp=Z,113nm,0.9s,mb5.6,baz=128,slow=3.2,SNR=36						
FUNA	Funafuti	40.49	101	PFAKE		21 49 30.0	+12
FUNA				LR	LR		
	comp=Z,12μm,19.0s,MS5.8						
KSRS	Korea Array	40.68	346	P	P	21 49 18.2	-1.1
KSRS						21 51 20.8	
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.3						
KSRS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.2						
KSRS	Korea Array	40.68	346	P	P	21 49 18.1	-1.2
	comp=Z,6.1nm,0.8s,mb4.3,baz=161,slow=8.7,SNR=13						
KSRS				PcP	PcP	21 51 20.8	+0.1
	comp=Z,5.7nm,1.0s,baz=188,slow=3.6,SNR=6.0						
MOO	Moorlands	40.83	171	eP	P	21 49 20.7	+0.2
INCN	Inchon	41.02	345	PFAKE		21 49 30.0	+7.8
INCN				LR	LR		
	comp=Z,2μm,19.0s,MS4.9						
TAU	Tasmania Unive	41.30	171	eP	P	21 49 23.4	-1.0
TAU				pmax	pmax		
	comp=Z,72nm,1.1s,mb5.2						

TAU				MLR	MLR		
	comp=Z,7µm,19.0s,MS5.5						
TAU	Tasmania Unive	41.30	171	eP	P	21 49 23.4	-1.0
	comp=Z,72nm,1.1s,mb5.2						
TAU				LR	LR		
	comp=Z,7µm,19.0s,MS5.5						
GYA	Guiyang	42.21	314	⇓iP	P	21 49 32.6	+0.5
GYA				pP	pP	21 49 42.4	+0.7
GYA				sP	sP	21 49 46.4	+0.9
GYA				PP	PP	21 51 13.1	+2.9
GYA				PcP	PcP	21 51 28.0	+2.0
GYA				ScP	ScP	21 55 14.5	+0.1
GYA				S	S	21 55 48.3	-2.1
GYA				sS	sS	21 56 05.3	-0.9
GYA				SS	SS	21 58 51.1	-8.3
GYA				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.3						
GYA				pmax	pmax		
	comp=Z,320nm,5.8s						
GYA				LR	LR		
	comp=N,2µm,21.9s,MS5.1						
GYA				LR	LR		
	comp=E,2µm,21.0s,MS5.1						
GYA				LR	LR		
	comp=Z,3µm,20.1s,MS5.1						
NST	Nakhon Sawan	42.30	296	P	P	21 49 31.0	-2.0
	comp=Z,67nm,0.5s,mb5.5						
COCO	West Island	42.96	254	i P	P	21 49 34.2	-4.2
COCO	West Island	42.96	254	PFAKE		21 49 50.0	+12
COCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
DL2	Dalian	43.84	340	P	P	21 49 48.0	+3.0
DL2				LR	LR		
	comp=N,450nm,19.4s,MS4.7						
DL2				LR	LR		
	comp=E,660nm,17.3s,MS4.7						
DL2				LR	LR		
	comp=Z,930nm,30.7s						
ERM	Erimo	44.07	4	PFAKE		21 50 00.0	+13
ERM				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
CHRT	Chiangrai	44.25	301	⇓P	P	21 49 48.5	-0.2
	comp=Z,290nm,1.1s,mb5.9						
BSI	Banda Aceh	44.31	280	P	P	21 49 47.7	-1.6
	comp=Z,94nm,1.3s,mb5.3						
KMI	Kunming	44.36	310	P	P	21 49 49.9	+0.4
KMI				pP	pP	21 49 58.6	-0.5
KMI				sP	sP	21 50 01.9	-1.1
KMI				PP	PP	21 51 37.3	+4.0
KMI				S	S	21 56 22.3	+0.3
KMI				sS	sS	21 56 39.4	+1.6
KMI				SS	SS	21 59 33.1	-8.4
KMI				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						
KMI				pmax	pmax		
	comp=Z,120nm,4.4s						
KMI				LR	LR		
	comp=N,1µm,17.8s,MS5.0						
KMI				LR	LR		
	comp=E,1µm,22.4s,MS5.0						
KMI				LR	LR		
	comp=Z,3µm,24.1s,MS5.1						
CMAR	Chiang Mai Arr	44.40	299	P	P	21 49 49.7	-0.2
CMAR						21 51 34.8	
CMAR	Chiang Mai Arr	44.40	299	P	P	21 49 49.7	-0.2
	comp=Z,23nm,0.7s,mb5.0,baz=119,slow=6.6,SNR=103						
CMAR				PcP	PcP	21 51 34.8	+1.3
	comp=Z,5.2nm,0.8s,baz=170,slow=2.8,SNR=6.1						
CMAR				LR	LR	22 07 06.5	
	comp=Z,1µm,21.9s,MS4.8,baz=119,slow=34						
CHG	Chiang Mai	44.54	300	⇓P	P	21 49 50.7	-0.3
	comp=Z,32nm,0.7s,mb5.3						
CHTO	Chiang Mai	44.54	300	eP	P	21 49 50.1	-0.9
CHTO				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.0						
CHTO				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.8						
CHTO	Chiang Mai	44.54	300	eP	P	21 49 50.1	-0.9
	comp=Z,22nm,0.8s,mb5.0						
CHTO				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
CHTO	Chiang Mai	44.54	300	P	P	21 49 50.5	-0.5
	comp=Z,44nm,1.2s,comp=Z,1µm,mb5.2						
XAN	Xi'an	45.75	324	P	P	21 49 59.5	-0.9
XAN				pP	pP	21 50 10.0	-0.1
XAN				sP	sP	21 50 14.3	+0.4
XAN				PP	PP	21 51 44.0	-4.1
XAN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
XAN				pmax	pmax		
	comp=Z,190nm,7.4s						
XAN				LR	LR		
	comp=N,1µm,22.5s,MS4.9						
XAN				LR	LR		
	comp=E,1µm,24.7s,MS4.9						
XAN				LR	LR		
	comp=Z,3µm,26.9s,MS5.1						
SNY	Shenyang	45.91	344	⇓P	P	21 50 03.8	+2.3
SNY				S	S	21 56 46.8	+2.9
SNY				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
SNY				pmax	pmax		
	comp=Z,420nm,4.5s						
SNY				LR	LR		
	comp=N,1µm,18.4s						
SNY				LR	LR		
	comp=Z,2µm,17.0s,MS5.0						
BJT	Baijiatuau	46.85	336	PFAKE		21 50 20.0	+11
BJT				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
BJI	Beijing	46.86	336	P	P	21 50 08.3	-0.7
BJI				sP	sP	21 50 22.8	+0.2
BJI				S	S	21 56 55.8	-1.8
BJI				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
BJI				LR	LR		
	comp=N,2µm,22.6s,MS5.2						
BJI				LR	LR		
	comp=E,2µm,24.1s,MS5.2						
BJI				LR	LR		
	comp=Z,3µm,36.5s						
CD2	Chengdu	46.94	317	P	P	21 50 09.8	0.0
CD2				pP	pP	21 50 19.6	+0.1
CD2				sP	sP	21 50 23.5	+0.2
CD2				PP	PP	21 52 00.0	-0.6
CD2				S	S	21 56 58.3	-0.7
CD2				sS	sS	21 57 13.5	-1.4
CD2				SS	SS	22 00 18.1	-8.1
CD2				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.8						
CD2				LR	LR		
	comp=N,2µm,21.4s						
CD2				LR	LR		
	comp=Z,2µm,17.8s,MS5.1						
MDJ	Mudanjiang	47.27	351	P	P	21 50 11.3	-0.8
MDJ				pP	pP	21 50 20.3	-1.5
MDJ				sP	sP	21 50 24.3	-1.3
MDJ				PP	PP	21 52 01.5	-1.9
MDJ				ScP	ScP	21 55 34.5	-0.2
MDJ				PcS	PcS	21 55 38.3	+0.3
MDJ				S	S	21 57 01.4	-1.8
MDJ				sS	sS	21 57 17.1	-2.0
MDJ				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
MDJ				pmax	pmax		
	comp=Z,43nm,3.2s						
MDJ				LR	LR		
	comp=N,920nm,24.4s,MS5.1						
MDJ				LR	LR		
	comp=E,2µm,26.0s,MS5.1						
MDJ				LR	LR		
	comp=Z,1µm,31.7s						
MDJ	Mudanjiang	47.27	351	PFAKE		21 50 20.0	+7.9
MDJ				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
CN2	Changchun	47.29	347	⇑P	P	21 50 11.9	-0.4
CN2				esP	sP	21 50 25.5	-0.3
CN2				eS	S	21 57 03.4	-0.2
CN2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,2µm,21.0s,MS5.1						
CN2				LR	LR		
	comp=E,2µm,21.0s,MS5.1						
CN2				LR	LR		
	comp=Z,1µm,23.0s,MS4.8						
YSS	Yuzh-Sakhalins	48.96	3	eP	P	21 50 22.6	-2.5
YSS				eS	S	21 57 20.0	-7.1
YSS				MLR	MLR		
	comp=N,800nm,16.0s						
YSS				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.9						
YSS	Yuzh-Sakhalins	48.96	3	eP	P	21 50 23.6	-1.5
	comp=Z,49nm,0.7s,mb5.7						
YSS				LR	LR		
	comp=Z,469nm,22.0s,MS4.4						
HHC	Hu-ho-hao-te	49.53	333	eP	P	21 50 29.3	-0.3
HHC				pP	pP	21 50 39.0	-0.3
HHC				sP	sP	21 50 43.3	+0.1
HHC				PP	PP	21 52 24.0	-0.2
HHC				PcS	PcS	21 55 44.9	-2.8
HHC				eS	S	21 57 34.3	-1.0
HHC				sS	sS	21 57 50.9	-0.4
HHC				ScS	ScS	22 00 15.1	-4.0
HHC				SS	SS	22 01 02.5	-5.3
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
HHC				pmax	pmax		
	comp=Z,620nm,3.8s						
HHC				LR	LR		
	comp=N,2µm,18.1s,MS5.2						
HHC				LR	LR		
	comp=E,580nm,13.8s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,20.2s						
BTO	Baotou	50.06	331	eP	P	21 50 34.3	+0.6
LZH	Lanzhou	50.18	323	eP	P	21 50 35.3	+0.7
LZH				pP	pP	21 50 40.0	-4.4
LZH				sP	sP	21 50 43.3	-4.9
LZH				PcP	PcP	21 51 55.3	+1.6
LZH				PP	PP	21 52 33.3	+3.1
LZH				eS	S	21 57 46.6	+2.0
LZH				sS	sS	21 57 54.3	-6.3
LZH				SS	SS	22 01 13.1	-5.3
LZH				pmax	pmax		
	comp=Z,52nm,1.3s,mb5.4						
LZH				pmax	pmax		
	comp=Z,340nm,4.9s						
LZH				LR	LR		
	comp=N,950nm,14.4s						
LZH				LR	LR		
	comp=Z,1µm,15.7s,MS5.0						
RPZ	Rata Peaks	50.26	150	eP	P	21 50 34.8	-0.4
	comp=Z,70nm,1.0s,mb5.7						
HABR	Khabarovsk	50.49	357	eP	P	21 50 35.6	-1.1
HABR				e*PP	pP	21 50 44.2	-2.3
HABR				e*SP	sP	21 50 48.1	-2.2
HABR						21 51 53.4	
HABR						21 52 30.0	
HABR				eS	S	21 57 48.7	+0.3
HABR				*SS	sS	21 58 05.6	+1.2
HABR				e		22 00 22.3	
HABR				eSS	SS	22 01 22.6	-0.2
HABR				eSSS		22 02 53.2	
HABR				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.7						
HABR				pmax	pmax		
	comp=N,33nm,1.0s						
HABR				pmax	pmax		
	comp=E,32nm,1.0s						
HABR				MLR	MLR		
	comp=Z,730nm,18.0s,MS4.7						
SNZO	South Karori	50.55	145	PFAKE		21 50 50.0	+13
SNZO				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
KLR	Kul'dur	51.51	354	eP	P	21 50 40.0	-4.4
KLR				eS	S	21 58 04.0	+1.5
AGT	Agartala	53.11	302	ePKP	P	21 50 55.0	-1.8
SHL	Shillong	53.24	304	ePKP	P	21 50 56.4	-1.3
SHL				AMb	AMB	21 51 01.9	
	comp=Z,55nm,0.9s,mb5.5						
HIA	Hailar	53.81	344	PFAKE		21 51 10.0	+8.6
HIA				LR	LR		
	comp=Z,943nm,20.0s,MS4.8						
SKR	Severo-Kuril's	54.58	13	P	P	21 51 05.7	-1.3
SKR				eS	S	21 59 07.0	+23
SKR				e		22 00 45.0	
SKR				smax			
	comp=E,3µm,10.0s						
SKR				MLR	MLR		
	comp=N,2µm,14.0s,MS5.4						
SKR				MLR	MLR		
	comp=E,2µm,14.0s,MS5.4						
SKR				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.2						
GTA	Gaotai	54.76	323	eP	P	21 51 08.8	+0.2
GTA				pP	pP	21 51 18.5	+0.1
GTA				sP	sP	21 51 22.4	+0.2
GTA				PP	PP	21 53 12.4	+0.8
GTA				S	S	21 58 46.1	-1.1
GTA				sS	sS	21 59 03.9	+0.6
GTA				SS	SS	22 02 29.5	-1.3
GTA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
GTA				pmax	pmax		
	comp=Z,170nm,7.1s						
GTA				LR	LR		
	comp=N,450nm,17.8s,MS4.8						
GTA				LR	LR		
	comp=E,630nm,20.2s,MS4.8						
GTA				LR	LR		
	comp=Z,920nm,18.4s,MS4.9						
LSA	Lhasa	55.57	309	P	P	21 51 15.1	+0.5
LSA				pP	pP	21 51 25.8	+1.4
LSA				S	S	21 58 57.6	-0.7
LSA				LR	LR		
	comp=N,530nm,30.4s,MS4.7						
LSA				LR	LR		
	comp=E,840nm,26.8s,MS4.7						
LSA				LR	LR		
	comp=Z,930nm,25.0s,MS4.8						
LSA	Lhasa	55.57	309	PFAKE		21 51 30.0	+15
LSA				LR	LR		
	comp=Z,838nm,19.0s,MS4.8						
ULN	Ulaanbaatar	57.04	335	eP	P	21 51 24.9	+0.2
ULN				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
ULN	Ulaanbaatar	57.04	335	P	P	21 51 25.1	+0.4
PETK	Petropavlovsk-	57.20	13	P	P	21 51 25.5	-0.3
	comp=Z,15nm,0.9s,mb5.0,baz=172,slow=4.0,SNR=11						
PETK				LR	LR	22 12 44.8	
	comp=Z,590nm,20.7s,MS4.7,baz=201,slow=33						
SONM	Songino Array	57.30	334	P	P	21 51 26.5	0.0
	comp=Z,8.3nm,0.6s,mb5.0,baz=152,slow=8.2,SNR=47						
SONM				LR	LR	22 17 20.0	
	comp=Z,3µm,19.3s,MS5.3,baz=138,slow=37						
PET	Petropavlovsk	57.35	14	eP	P	21 51 28.5	+1.7
PET				e		21 52 20.3	
PET				e		21 53 40.2	
PET				eS	S	21 59 23.8	+2.7
PET				eSS	SS	22 03 13.9	+2.9
PET				eSSS		22 05 30.8	
PET				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
PET				pmax	pmax		
	comp=Z,100nm,12.8s						
PET				MLR	MLR		
	comp=Z,800nm,17.0s,MS4.9						
PET	Petropavlovsk	57.35	14	⇑eP	P	21 51 27.3	+0.5
PET				LR	LR		
	comp=Z,838nm,22.0s,MS4.8						
TAPN	Taplejung	57.38	304	eP	P	21 51 27.7	+0.2
	comp=Z,162nm,1.2s,mb5.9						
ODAN	Odare	57.46	304	eP	P	21 51 28.3	+0.2
	comp=Z,62nm,0.6s,mb5.8						
BOK	Bokaro	57.68	300	ePKP	P	21 51 28.5	-1.2
BOK				AMb	AMB	21 51 44.1	
	comp=Z,63nm,1.3s,mb5.5						
CIT	Chita	58.07	342	eP	P	21 51 32.5	+0.7
RAMN	Ramite	58.15	304	eP	P	21 51 33.3	+0.4
	comp=Z,85nm,0.7s,mb5.9						
VIS	Vishakhapatnam	58.26	292	ePKP	P	21 51 32.3	-1.6
VIS				AMb	AMB	21 51 48.2	
	comp=Z,86nm,2.0s,mb5.4						
JIRN	Jiri	58.74	304	eP	P	21 51 37.4	+0.3
	comp=Z,58nm,0.7s,mb5.7						
GUN	Gumba	59.09	304	eP	P	21 51 39.8	+0.3
	comp=Z,96nm,0.7s,mb5.9						
PKI	Pulchoki	59.36	304	eP	P	21 51 41.2	-0.1
KKN	Kakani	59.54	304	eP	P	21 51 42.8	+0.2
	comp=Z,135nm,0.9s,mb6.0						
KKN	Kakani	59.54	304	eP	P	21 51 42.8	+0.2
KKN				pmax	pmax		
	comp=Z,135nm,0.9s,mb6.0						
DMN	Daman	59.62	304	eP	P	21 51 43.5	+0.3
	comp=Z,145nm,0.9s,mb6.0						
NRGR	Nerungri	59.71	351	eP	P	21 51 46.1	+3.0
NRGR				S	S	22 00 01.5	+10
NRGR				smax			
	comp=N,26nm,0.8s						
CLNS	Chul'man	59.85	351	eP	P	21 51 44.1	0.0
CLNS				e		21 52 31.3	
CLNS				e		21 53 56.9	
CLNS				eS	S	21 59 54.3	+0.8
CLNS				e		22 01 26.1	
CLNS				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=N,15nm,0.9s						
CLNS				pmax	pmax		
	comp=E,12nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.9s						
CLNS				smax			
	comp=N,113nm,14.9s						
CLNS				smax			
	comp=E,295nm,13.8s						
CLNS				MLR	MLR		
	comp=Z,309nm,16.0s,MS4.5						
CLNS				MLR	MLR		
	comp=N,285nm,19.0s,MS4.6						
CLNS				MLR	MLR		
	comp=E,225nm,15.0s,MS4.6						
GKN	Gorkha	60.15	304	eP	P	21 51 46.9	+0.1
	comp=E,131nm,0.7s,mb6.1						
ZAK	Zakamensk	60.57	335	⇑iP	P	21 51 49.2	0.0
ZAK				pmax	pmax		
	comp=Z,90nm,1.4s,mb5.7						
KOLN	Koldanda	60.93	303	eP	P	21 51 52.3	+0.2
	comp=Z,101nm,1.0s,mb5.9						
DANN	Dangsing	61.00	304	eP	P	21 51 52.7	+0.1
	comp=Z,81nm,0.6s,mb6.0						
TLY	Talaya	61.39	336	P	P	21 51 55.6	+0.9
	comp=Z,165nm,1.8s,mb5.9,SNR=9.8						
TLY	Talaya	61.39	336	eP	P	21 51 54.9	+0.2
TLY				ePPP		21 55 36.1	
TLY				eS	S	22 00 24.3	+11
TLY				eSS	SS	22 04 21.5	+7.0
TLY				pmax	pmax		
	comp=Z,80nm,1.7s,mb5.6						
TLY				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.2						
TLY	Talaya	61.39	336	eP	P	21 51 53.3	-1.4
TLY				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
IRK	Irkutsk	61.56	337	eP	P	21 51 59.0	+3.1
IRK				eS	S	22 00 22.1	+6.6
IRK				pmax	pmax		
	comp=Z,114nm,1.8s,mb5.7						
MOY	Mondy	62.49	334	eP	P	21 52 03.0	+0.9
MOY				pmax	pmax		
	comp=Z,196nm,2.6s,mb5.8						
HYB	Hyderabad	62.64	291	i P	P	21 52 05.0	+1.2
HYB	Hyderabad	62.64	291	eP	P	21 52 03.0	-0.8
BOD	Bodaibo	63.00	345	eP	P	21 52 04.5	-0.9
BOD				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.2						
XMAS	Kiritimati	63.66	87	PFAKE		21 52 20.0	+9.3
XMAS				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
YAK	Yakutsk	64.35	355	eP	P	21 52 13.2	-1.1
YAK				e*PP	pP	21 52 24.2	-0.1
YAK				e		21 52 47.0	
YAK				e		21 54 36.6	
YAK				eS	S	22 00 53.8	+3.7
YAK				e		22 02 05.4	
YAK				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,19nm,1.0s						
YAK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
YAK				smax			
	comp=N,215nm,4.2s						
YAK				smax			
	comp=E,66nm,2.8s						
YAK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
YAK				MLR	MLR		
	comp=N,670nm,20.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,375nm,17.0s,MS4.9						
YAK	Yakutsk	64.35	355	eP	P	21 52 14.1	-0.2
YAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
WMQ	Urumqi	64.72	321	P	P	21 52 17.5	+0.5
WMQ				pP	pP	21 52 28.0	+1.0
WMQ				sP	sP	21 52 32.0	+1.2
WMQ				PcP	PcP	21 52 51.0	+0.5
WMQ				PP	PP	21 54 42.0	+2.3
WMQ				S	S	22 00 53.0	-2.3
WMQ				sS	sS	22 01 11.0	-0.8
WMQ				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.5						
WMQ				pmax	pmax		
	comp=Z,630nm,3.7s						
WMQ				LR	LR		
	comp=N,2µm,17.0s,MS5.5						
WMQ				LR	LR		
	comp=E,2µm,20.6s,MS5.5						
WMQ				LR	LR		
	comp=Z,2µm,26.8s						
BHPL	Bhopal	64.97	297	ePKP	P	21 52 18.0	-1.0
ADK	Adak	65.50	28	PFAKE		21 52 30.0	+8.1
ADK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
SEY	Seymchan	65.64	7	⇑eP	P	21 52 23.9	+1.3
SEY	Seymchan	65.64	7	⇑eP	P	21 52 23.0	+0.4
KIP	Kipapa	65.81	65	P	P	21 52 31.3	+6.8
KIP				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.7						
NDI	New Delhi	66.57	302	ex	x	21 52 25.0	
KAD	Karad	66.71	290	ePKP	P	21 52 28.1	-2.3
CASY	Casey	67.13	192	PFAKE		21 52 40.0	+7.9
CASY				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
POO	Poona	67.24	291	ePKP	P	21 52 30.6	-3.1
POO				AMb	AMB	21 52 47.0	
	comp=Z,77nm,2.0s,mb5.4						
SDNR	Sundarnagar	67.58	305	ePKP	P	21 52 36.0	+0.3
AJM	Ajmer	68.20	300	ePKP	P	21 52 38.6	-1.1
THN	Thein Dam	68.88	306	ePKP	P	21 52 41.5	-2.3
MKAR	Makanchi Array	69.49	322	P	P	21 52 47.3	0.0
	comp=Z,18nm,0.6s,mb5.2,baz=114,slow=7.4,SNR=63						
MKAR				LR	LR	22 27 00.7	
	comp=Z,796nm,19.6s,MS5.0,baz=110,slow=39						
KSH	Kashi	70.89	313	P	P	21 52 58.0	+2.0
KSH				pP	pP	21 53 08.4	+2.3
KSH				sP	sP	21 53 12.1	+2.2
KSH				ePcP	PcP	21 53 19.0	+2.6
KSH				ePP	PP	21 55 35.9	+2.5
KSH				eS	S	22 02 07.8	-1.5
KSH				sS	sS	22 02 25.3	-0.7
KSH				eSKS		22 02 53.0	
KSH				eScS	ScS	22 02 55.0	-2.7
KSH				eSS	SS	22 06 42.0	-0.5
KSH				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KSH				pmax	pmax		
	comp=Z,190nm,4.5s						
KSH				LR	LR		
	comp=N,2µm,23.0s						
KSH				LR	LR		
	comp=E,1µm,14.5s						
KSH				LR	LR		
	comp=Z,1µm,14.6s						
NIL	Nilore	71.20	307	PFAKE		21 53 10.0	+12
NIL				LR	LR		
	comp=Z,41nm,20.0s,MS3.7						

ZALV	Zalesovo Beam	71.56	330	P	P	21 52 58.7	-1.0
	comp=Z,6.7nm,0.7s,mb4.7,baz=109,slow=6.2,SNR=22						
ZALV				LR	LR	22 22 55.4	
	comp=Z,415nm,19.6s,MS4.7,baz=117,slow=35						
PPT	Papeete	71.65	108	*e*P	P	21 53 02.3	+1.2
	comp=Z,46nm,1.1s,mb5.3						
PPT				*e*S	S	22 02 18.2	-0.8
	comp=Z,1µm,23.2s						
PPT				*e*LQ		22 11 52.8	
	comp=Z,2µm,25.8s						
PPT				*e*LR	LR	22 15 03.9	
	comp=Z,4µm,24.5s						
PAE	Paea	71.66	108	*e*P	P	21 53 02.1	+1.0
	comp=Z,53nm,0.8s,mb5.5						
TIAR	Tiarei	71.87	108	*e*P	P	21 53 03.5	+1.1
	comp=Z,64nm,1.0s,mb5.5						
TVO	Taravao	71.98	108	*e*P	P	21 53 04.3	+1.3
	comp=Z,58nm,0.8s,mb5.6						
KZA	Kyzart	72.26	315	P	P	21 53 06.0	+1.7
	SNR=21						
TKM2	Tokmak 2	72.31	316	*e*P	P	21 53 04.0	-0.5
TKM2				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
TKM2				MLR	MLR		
	comp=Z,923nm,20.0s,MS5.0						
TKM2	Tokmak 2	72.31	316	P	P	21 53 05.1	+0.6
	SNR=9.6						
TKM2	Tokmak 2	72.31	316	*e*P	P	21 53 04.0	-0.5
	comp=Z,16nm,0.8s,mb5.0						
TKM2				LR	LR		
	comp=Z,923nm,20.0s,MS5.0						
BILL	Bilibino	72.52	10	*e*P	P	21 53 05.8	+0.6
BILL				*e*		21 53 19.4	
BILL				pmax	pmax		
	comp=Z,7.0nm,2.6s,mb4.1						
BILL	Bilibino	72.52	10	*e*P	P	21 53 04.2	-1.0
	comp=Z,19nm,1.4s,mb4.8						
BILL				LR	LR		
	comp=Z,545nm,21.0s,MS4.8						
KBK	Karagaybulak	72.67	316	P	P	21 53 07.4	+0.7
	SNR=8.1						
NVS	Novosibirsk	72.82	330	*e*P	P	21 53 02.4	-4.8
NVS				pmax	pmax		
	comp=N,94nm,1.7s						
NVS				pmax	pmax		
	comp=E,91nm,1.7s						
NVS				pmax	pmax		
	comp=Z,141nm,1.7s,mb5.6						
UCH	Uchtor	72.83	315	P	P	21 53 09.1	+1.5
	SNR=18						
UCH	Uchtor	72.83	315	*e*P	P	21 53 08.4	+0.8
	comp=Z,24nm,0.8s,mb5.2						
UCH				LR	LR		
	comp=Z,800nm,21.0s,MS5.0						
AAK	Ala-Archa	72.98	316	*e*P	P	21 53 09.0	+0.5
AAK				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.2						
AAK				MLR	MLR		
	comp=Z,690nm,21.0s,MS4.9						
AAK	Ala-Archa	72.98	316	*e*P	P	21 53 09.0	+0.5
	comp=Z,43nm,1.4s,mb5.2						
AAK				LR	LR		
	comp=Z,690nm,21.0s,MS4.9						
PMOR	Pomariorio Ree	73.13	105	*e*P	P	21 53 11.2	+1.3
	comp=Z,135nm,1.0s,mb5.8						
AML	Almayashu	73.38	315	P	P	21 53 12.2	+1.4
	SNR=21						
AML	Almayashu	73.38	315	*e*P	P	21 53 12.2	+1.4
	comp=Z,31nm,0.8s,mb5.3						
AML				LR	LR		
	comp=Z,923nm,19.0s,MS5.1						
KURK	Kurchatov	73.39	325	P	P	21 53 10.5	-0.2
	comp=Z,231nm,2.1s,mb5.7,SNR=15						
KURK	Kurchatov	73.39	325	*e*P	P	21 53 10.5	-0.2
KURK	Kurchatov	73.39	325⇑	*e*P	P	21 53 09.4	-1.3
VAH	Vaihoa	73.40	105	*e*P	P	21 53 12.4	+0.9
	comp=Z,82nm,1.1s,mb5.6						
EKS2	Erkin-Say	73.49	316	P	P	21 53 12.4	+1.0
	SNR=8.9						
EKS2	Erkin-Say	73.49	316	*e*P	P	21 53 12.1	+0.6
	comp=Z,43nm,1.2s,mb5.2						
EKS2				LR	LR		
	comp=Z,834nm,21.0s,MS5.0						
TIXI	Tiksi	73.92	357	PFAKE		21 53 20.0	+6.6
TIXI				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
GAMB	Gambell	75.11	20	*e*P	P	21 53 20.7	+0.2
	comp=Z,32nm,1.3s,mb5.1						
VNDA	Vanda	76.36	175	P	P	21 53 27.0	-0.4
	comp=Z,8.5nm,0.6s,mb4.8,baz=326,slow=6.6,SNR=20						
VNDA				LR	LR	22 27 28.8	
	comp=Z,2µm,19.6s,MS5.4,baz=351,slow=36						
VNDA	Vanda	76.36	175	P	P	21 53 27.0	-0.4
VNDA				LR	LR	22 27 28.8	
SBA	Scott Base	77.12	174	PFAKE		21 53 40.0	+8.3
SBA				LR	LR		
	comp=Z,904nm,20.0s,MS5.1						
TNA	Tin City	77.48	20	*e*P	P	21 53 33.9	0.0
	comp=Z,40nm,1.4s,mb5.2						
BRVK	Borovoye	79.06	325	P	P	21 53 43.4	+0.5
	comp=Z,329nm,0.6s,mb6.4,SNR=31						
BRVK	Borovoye	79.06	325	PFAKE		21 53 50.0	+7.1
BRVK				LR	LR		
	comp=Z,723nm,20.0s,MS5.0						
SVW2	Sparrevohn	80.20	27	*e*P	P	21 53 49.4	+0.5
KDAK	Kodiak Island	80.43	30	PFAKE		21 54 00.0	+10
KDAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
TAOE	Nuku Hiva Isla	80.64	99	*e*LR	LR	22 19 12.6	
	comp=Z,8µm,24.2s						
PPLA	Purkeypile	82.35	26	*e*P	P	21 54 00.6	+0.3
	comp=Z,57nm,1.4s,mb5.3						
CHUM	Lake Minchumin	82.64	25	*e*P	P	21 54 01.9	+0.2
	comp=Z,104nm,1.1s,mb5.8						
RC01	Rabbit Creek A	82.86	28	*e*P	P	21 54 02.9	-0.1
	comp=Z,75nm,1.1s,mb5.6						
IMA2	Indian Mountai	82.88	22	*e*P	P	21 54 03.7	+0.8
IMA2				*e*pP	pP	21 54 13.3	+0.1
KTH	Kantishna Hill	83.11	25	*e*P	P	21 54 03.5	-0.7
	comp=Z,68nm,1.3s,mb5.5						
BPAW	Bear Paw Mtn.	83.26	25	*e*P	P	21 54 04.8	-0.2
	comp=Z,93nm,1.8s,mb5.5						
BPAW				*e*pP	pP	21 54 08.5	-6.8
PMR	Palmer	83.29	27	P	P	21 54 08.2	+3.0
PMR				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.5						
PMR	Palmer	83.29	27	*e*P	P	21 54 07.9	+2.7
	comp=Z,50nm,1.1s,mb5.5						
MSEY	Mahe Island	83.39	266	PFAKE		21 54 20.0	+13
MSEY				LR	LR		
	comp=Z,567nm,20.0s,MS4.9						
MCK	McKinley	84.01	25	P	P	21 54 09.6	+0.8
MCK				pmax	pmax		
	comp=Z,120nm,1.5s,mb5.8						
MCK	McKinley	84.01	25	*e*P	P	21 54 08.5	-0.3
	comp=Z,125nm,1.5s,mb5.8						
ABKT	Ailbek	84.10	308	P	P	21 54 09.0	-0.9
	comp=Z,240nm,1.2s,mb6.2,SNR=6.7						
COLD	Coldfoot	84.58	22	*e*P	P	21 54 12.6	+1.0
	comp=Z,13nm,1.0s,mb5.0						
COLA	College	84.79	24	*e*P	P	21 54 13.6	+0.8
COLA				*e**PP	pP	21 54 21.9	-1.2
COLA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
COLA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
COLA	College	84.79	24	*e*P	P	21 54 13.6	+0.9
	comp=Z,6.8nm,0.9s,mb4.8						
COLA				*e*pP	pP	21 54 21.9	-1.2
COLA				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
PAX	Paxson	85.31	26	*e*P	P	21 54 15.7	+0.3
PAX				pmax	pmax		
	comp=Z,39nm,1.5s,mb5.3						
PAX	Paxson	85.31	26	*e*P	P	21 54 15.7	+0.2
	comp=Z,39nm,1.5s,mb5.3						
SVE	Sverdlovsk	85.39	327⇓	*e*P	P	21 54 18.5	+2.5
SVE				*e*S	S	22 04 38.7	-5.9
SVE				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.2						
SVE				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.2						
RKT	Rikitea	85.52	113	*e*LR	LR	22 21 27.8	
	comp=Z,2µm,38.5s						
MENT	Mentasta	86.08	27	*e*P	P	21 54 19.5	+0.3
ARU	Arti	86.45	327	P	P	21 54 21.0	-0.2
	comp=Z,179nm,0.7s,mb6.4,SNR=8.2						
ARU	Arti	86.45	327*d*	*i*P	P	21 54 19.7	-1.5
ARU				S	SKSac	22 04 42.7	-2.5
ARU				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
ARU	Arti	86.45	327	*e*P	P	21 54 20.4	-0.8
	comp=Z,30nm,0.9s,mb5.5						
ARU				LR	LR		
	comp=Z,941nm,19.0s,MS5.2						
EGAK	Eagle	87.55	25	*e*P	P	21 54 26.7	+0.3
	comp=Z,61nm,1.3s,mb5.7						
EGAK				*e*pP	pP	21 54 36.8	+0.1
EGAK				LR	LR		
	comp=Z,908nm,19.0s,MS5.2						
DAWY	Dawson	88.20	26	*e*P	P	21 54 30.3	+0.8
PTCN	Pitcairn Islan	89.93	115	PFAKE		21 54 50.0	+11
PTCN				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
INK	Inuvik	91.00	22	*e*P	P	21 54 43.4	+0.9
INK				*e**PP	pP	21 54 52.4	-0.5
INK				pmax	pmax		
	comp=Z,14nm,1.3s						
INK	Inuvik	91.00	22	*e*P	P	21 54 43.4	+0.9
	comp=Z,14nm,1.3s,mb5.1						
INK				*e*pP	pP	21 54 52.4	-0.5
ABPO	Ambohimpanom	91.01	251	PFAKE		21 54 50.0	+6.4
ABPO				LR	LR		
	comp=Z,704nm,19.0s,MS5.1						
SYO	Syowa Base	91.43	201⇑	*e*P	P	21 54 45.0	+0.5
SYO	Syowa Base	91.43	201⇑	*e*PP	PP	21 58 20.0	-2.2
MAK	Makhachkala	92.52	313	*e*P	sP	21 55 02.8	-1.4
PRGR	Permogore	93.45	331	*e*P	P	21 54 51.7	-2.3
PRGR				pmax	pmax		
	comp=Z,85nm,1.2s,mb6.0						
GNI	Garni	94.61	310	*e*P	P	21 54 57.9	-1.9
GNI				MLR	MLR		
	comp=Z,376nm,22.0s						
KIV	Kislovodsk	96.01	314	*e*P	P	21 54 59.7	-6.4
KIV				*e*		22 05 31.2	
KIV				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.9						
KIV				MLR	MLR		
	comp=Z,319nm,19.0s,MS4.8						
KIV	Kislovodsk	96.01	314	PFAKE		21 55 20.0	+14
KIV				LR	LR		
	comp=Z,398nm,20.0s,MS4.9						
VRHR	Novokhopersk	96.27	321	*e*P	P	21 55 06.8	-0.3
VRHR				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.5						
VRHR				pmax	pmax		
	comp=N,20nm,0.6s						
NLWA	Neilton Lookou	96.37	43	PFAKE		21 55 20.0	+12
NLWA				LR	LR		
	comp=Z,926nm,20.0s,MS5.3						
KLMR	Klimovskoe	96.45	331⇓	*i*P	sP	21 55 21.8	0.0
KLMR				*e*		21 59 06.6	
KLMR				pmax	pmax		
	comp=Z,35nm,1.8s,mb5.5						
COR	Corvallis	96.95	46	PFAKE		21 55 20.0	+10
COR				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
LVZ	Lovozero	97.33	338	PFAKE		21 55 20.0	+8.5
LVZ				LR	LR		
	comp=Z,788nm,21.0s,MS5.2						
HUMO	Hull Mountain	97.34	47	PFAKE		21 55 20.0	+7.8
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
HOPS	Hopland	97.48	51	PFAKE		21 55 20.0	+7.1
HOPS				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
YBH	Yreka Blue Hor	97.58	48	LR	LR	22 31 45.3	
	comp=Z,1µm,20.8s,MS5.4,baz=5.1,slow=31						
YBH	Yreka Blue Hor	97.58	48	PFAKE		21 55 20.0	+6.7
YBH				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
VORD	Divnogorie	97.75	321	*e*P	P	21 55 14.1	+0.3
VORD				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.5						
VORD				pmax	pmax		
	comp=N,9.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
WDC	Whiskeytown Da	97.78	50	PFAKE		21 55 20.0	+5.8
WDC				LR	LR		
	comp=Z,985nm,21.0s,MS5.3						
VSR	Storozhevoye	97.80	321	*e*P	P	21 55 14.6	+0.6
VSR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.3						
VSR				pmax	pmax		
	comp=N,5.0nm,1.4s						
VSR				pmax	pmax		
	comp=E,10.0nm,1.3s						
APA	Apatity	97.86	338⇓	*e*P	P	21 55 15.3	+1.3
APA				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.6						
SOC	Sochi	98.18	314	*e*P	P	21 55 11.6	-4.3
SOC				*e*S	SKSac	22 05 47.6	-4.0
KBS	Kingsbay	98.75	351⇑	*e*P	P	21 55 15.7	-2.1
KBS				pmax	pmax		
	comp=Z,102nm,2.5s,mb5.9						
KBS	Kingsbay	98.75	351⇑	*e*P	P	21 55 15.8	-2.0
KBS				LR	LR		
	comp=Z,730nm,20.0s,MS5.2						
OBN	Obninsk	98.83	325	P	P	21 55 16.9	-1.7
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.1						
OBN	Obninsk	98.83	325	PFAKE		21 55 30.0	+11
OBN				LR	LR		
	comp=Z,963nm,20.0s,MS5.3						
SAO	San Andreas Ge	98.90	53	PFAKE		21 55 30.0	+11
SAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
YKA	Yellowknife Ar	99.39	27	P	P	21 55 20.3	-0.6
	comp=Z,2.7nm,0.9s,mb4.8,baz=287,slow=4.7,SNR=21						
YKA				PKKPbc	PKKPbc	22 11 44.7	-2.1
	comp=Z,0.3nm,0.5s,baz=108,slow=2.7,SNR=5.7						
YKA				LR	LR	22 38 02.1	
	comp=Z,486nm,20.6s,MS5.0,baz=25,slow=34						
YKA	Yellowknife Ar	99.39	27	P	P	21 55 20.3	-0.6
YKA				PKKPbc	PKKPbc	22 11 44.7	-2.1
YKA				LR	LR	22 38 02.1	
KEV	Kevo	99.47	341	PFAKE		21 55 30.0	+8.9
KEV				LR	LR		
	comp=Z,909nm,21.0s,MS5.2						
MALT	Malatya	99.60	308	PFAKE		21 55 30.0	+8.0
MALT				LR	LR		
	comp=Z,332nm,20.0s,MS4.8						
CMB	Columbia Colle	99.65	52	PFAKE		21 55 30.0	+7.8
CMB				LR	LR		
	comp=Z,952nm,20.0s,MS5.3						
ANN	Anapa	99.69	315	*e*	Pdif	21 55 17.7	-4.7
ANN				pmax	pmax		
	comp=Z,54nm,0.9s,mb6.0						
ARCES	ARCESS Array B	100.04	341	P	Pdif	21 55 21.7	-2.2
	comp=Z,5.6nm,0.7s,baz=76,slow=5.1,SNR=14						
WVOR	Wild Horse Val	100.53	47	PFAKE		21 55 40.0	+14
WVOR				LR	LR		
	comp=Z,701nm,21.0s,MS5.2						
BMO	Blue Mountains	101.17	45	PFAKE		21 55 40.0	+11
BMO				LR	LR		
	comp=Z,636nm,20.0s,MS5.1						
NVAR	Mina Array Bea	101.24	51	P	Pdif	21 55 29.8	+0.5
	comp=Z,1.8nm,1.0s,baz=262,slow=5.4,SNR=2.5						
BMN	Battle Mountai	101.83	49	PFAKE		21 55 40.0	+8.1
BMN				LR	LR		
	comp=Z,807nm,20.0s,MS5.2						
DAC	Darwin (Calif)	102.04	53	PFAKE		21 55 40.0	+7.2
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
BRTR	Keskin Array B	103.15	310	Pdiff	Pdif	21 55 37.0	-0.8
	comp=Z,0.5nm,0.6s,baz=114,slow=6.1,SNR=4.2						
MSO	Missoula	103.16	42	PFAKE		21 55 50.0	+12
MSO				LR	LR		
	comp=Z,714nm,19.0s,MS5.2						
PFO	Pinyon Flat Ob	103.26	56	PFAKE		21 55 50.0	+12
PFO				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
ELK	Elko	103.29	49	PFAKE		21 55 50.0	+12
ELK				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
HLID	Hailey	103.43	46	PFAKE		21 55 50.0	+11
HLID				LR	LR		
	comp=Z,729nm,20.0s,MS5.2						
CSS	Prodhromos	104.04	305	PFAKE		21 55 50.0	+8.3
CSS				LR	LR		
	comp=Z,408nm,22.0s,MS4.9						
AKASG	Malin Array Be	104.08	322	Pdiff	Pdif	21 55 40.9	-1.1
	comp=Z,0.5nm,0.5s,baz=65,slow=3.2,SNR=4.4						
KIEV	Kiev	104.09	322	PFAKE		21 55 50.0	+8.0
KIEV				LR	LR		
	comp=Z,758nm,19.0s,MS5.2						
BOZ	Bozeman (W)	104.97	43	PFAKE		22 00 10.0	+9.1
BOZ				LR	LR		
	comp=Z,635nm,20.0s,MS5.2						
DUG	Dugway	105.20	49	PFAKE		22 00 10.0	+8.5
DUG				LR	LR		
	comp=Z,860nm,20.0s,MS5.3						
EGMT	Eagleton	105.66	41	PFAKE		22 00 10.0	+7.9
EGMT				LR	LR		
	comp=Z,932nm,19.0s,MS5.3						
ISP	Isparta	105.86	309	PFAKE		22 00 10.0	+7.2
ISP				LR	LR		
	comp=Z,324nm,20.0s,MS4.9						
MVU	Marysvale	105.96	51	PFAKE		22 00 10.0	+7.0
MVU				LR	LR		
	comp=Z,970nm,21.0s,MS5.3						
AHID	Auburn Hatcher	105.96	46	PFAKE		22 00 10.0	+7.1
AHID				LR	LR		
	comp=Z,960nm,21.0s,MS5.3						
LKWY	Lake	106.06	44	PFAKE		22 00 10.0	+7.0
LKWY				LR	LR		
	comp=Z,917nm,21.0s,MS5.3						
RLMT	Red Lodge	106.71	43	PFAKE		22 00 20.0	+16
RLMT				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
BW06	Boulder Array	107.07	46	PFAKE		22 00 20.0	+15
BW06				LR	LR		
	comp=Z,770nm,20.0s,MS5.2						
WUAZ	Wupatki	107.14	54	PFAKE		22 00 20.0	+15
WUAZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
LVV	L'vov	107.52	322	*e*P	Pdif	21 56 06.6	+9.4
FFC	Flin Flon	108.11	32	PFAKE		22 00 20.0	+14
FFC				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
TUC	Tucson	108.16	57	PFAKE		22 00 20.0	+13
TUC				LR	LR		
	comp=Z,743nm,19.0s,MS5.3						
MBAR	Mbarara	108.23	269	PFAKE		22 00 20.0	+12
MBAR				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
LAO	LASA Array	108.34	41	PFAKE		22 00 20.0	+13
LAO				LR	LR		
	comp=Z,950nm,22.0s,MS5.3						
KWP	Kalwaria Pacla	108.40	322	PFAKE		22 00 20.0	+13
KWP				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
UZH	Uzhgorod	108.98	321	*e*P	Pdif	21 56 06.6	+2.9
DGMT	Dagmar	109.09	39	PFAKE		22 00 20.0	+11
DGMT				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MVCO	Mesa Verde	109.10	51	PFAKE		22 00 20.0	+11
MVCO				LR	LR		
	comp=Z,923nm,19.0s,MS5.4						
LSZ	Lusaka	109.47	253	PFAKE		22 00 20.0	+10
LSZ				LR	LR		
	comp=Z,677nm,21.0s,MS5.2						
ISCO	Idaho Springs	110.68	48	PFAKE		22 00 20.0	+8.2
ISCO				LR	LR		
	comp=Z,898nm,21.0s,MS5.3						
PSZ	Piszkesteto	110.73	321	PFAKE		22 00 20.0	+8.4
PSZ				LR	LR		
	comp=Z,571nm,20.0s,MS5.2						
PMSA	Palmer Station	111.17	170	PFAKE		22 00 20.0	+8.0
PMSA				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
ANMO	Albuquerque	111.20	53	PFAKE		22 00 20.0	+7.1
ANMO				LR	LR		
	comp=Z,924nm,20.0s,MS5.4						
SDCO	Great Sand Dun	111.29	50	PFAKE		22 00 20.0	+7.0
SDCO				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
SUR	Sutherland	112.34	234	PFAKE		22 00 30.0	+15
SUR				LR	LR		
	comp=Z,932nm,21.0s,MS5.3						
OGNE	Ogallala	112.97	46	PFAKE		22 00 30.0	+14
OGNE				LR	LR		
	comp=Z,734nm,20.0s,MS5.3						
TIR	Tirane	112.98	314	PFAKE		22 00 30.0	+14
TIR				LR	LR		
	comp=Z,776nm,22.0s,MS5.3						
BRG	Berggiesshubel	113.08	326	*e*SS	SS	22 17 20.5	+34
BRG	Berggiesshubel	113.08	326	*e*P	PKiKP	22 00 19.8	+3.8
	comp=Z,19nm,1.8s						
BRG							
	comp=N,947nm,22.1s						
BRG							
	comp=E,611nm,18.6s						
BRG							
	comp=Z,2µm,20.4s						
CLL	Collm	113.40	326	*e*SS	SS	22 17 00.0	+8.8
CLL					LmV	22 52 00.0	
	comp=Z,900nm,19.8s						
GEC2	GERESS Array S	114.14	324	*e*SS	SS	22 17 32.5	+31
GERES	GERESS Array B	114.14	324	PKP	PKiKP	22 00 18.4	+0.3
	comp=Z,0.8nm,0.5s,baz=64,slow=3.1,SNR=3.8						
AGMN	Agassiz Refuge	114.27	37	PFAKE		22 00 30.0	+12
AGMN				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
WET	Wettzell	114.48	324	*e*SS	SS	22 17 30.2	+25
ROTZ	Rotzenmuhle	114.58	325	*e*SS	SS	22 17 40.3	+34
AMTX	Amarillo	115.02	52	PFAKE		22 00 30.0	+10
AMTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
GRF	Grafenberg Arr	115.17	325	*e*SS	SS	22 17 40.8	+26
GRF				*e*L		22 49 19.1	
	comp=Z,1µm,21.8s						
UBBA	Unterbreizbach	115.29	327	*e*SS	SS	22 17 57.5	+42
CBKS	Cedar Bluff	115.33	48	PFAKE		22 00 30.0	+9.3
CBKS				LR	LR		
	comp=Z,707nm,21.0s,MS5.2						
TRI	Trieste	115.47	321	PFAKE		22 00 30.0	+9.3
TRI				LR	LR		
	comp=Z,820nm,21.0s,MS5.3						
ECSD	EROS Data Cent	115.73	42	PFAKE		22 00 30.0	+8.7
ECSD				LR	LR		
	comp=Z,842nm,21.0s,MS5.3						
TIP	Timpagrande	115.94	313	PFAKE		22 00 30.0	+8.1
TIP				LR	LR		
	comp=Z,909nm,21.0s,MS5.4						
CUC	Castrocucco	116.33	314	PFAKE		22 00 30.0	+7.4
CUC				LR	LR		
	comp=Z,516nm,19.0s,MS5.2						
TNS	Taunus Mts	116.44	327	*e*SS	SS	22 18 07.2	+36
STU	Stuttgart	116.78	325	*e*SS	SS	22 18 10.7	+35
CEL	Celeste	116.89	312	PFAKE		22 00 30.0	+6.3
CEL				LR	LR		
	comp=Z,455nm,21.0s,MS5.1						
EYMN	Ely	117.02	36	PFAKE		22 00 30.0	+6.3
EYMN				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
WMOK	Wichita Mounta	117.34	52	PFAKE		22 00 40.0	+15
WMOK				LR	LR		
	comp=Z,877nm,21.0s,MS5.4						
BFO	Black Forest	117.50	325	*e*SS	SS	22 18 18.7	+34
BFO	Black Forest	117.50	325	PFAKE		22 00 40.0	+15
BFO				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
KSU1	Kansas State U	117.52	46	PFAKE		22 00 40.0	+15
KSU1				LR	LR		
	comp=Z,741nm,20.0s,MS5.3						
JCT	Junction City	117.72	57	PFAKE		22 00 40.0	+14
JCT				LR	LR		
	comp=Z,774nm,20.0s,MS5.3						
TUE	Stuetta	117.85	323	PFAKE		22 00 40.0	+15
TUE				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
WLF	Walferdange	117.99	327	PFAKE		22 00 40.0	+15
WLF				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
CDF	Champ du Feu	118.06	326	*e*PKIKP	PKPdf	22 00 22.5	-3.1
ECH	Echery	118.23	326	PFAKE		22 00 40.0	+14
ECH				LR	LR		
	comp=Z,701nm,20.0s,MS5.3						
VLC	Villacollemand	118.31	320	PFAKE		22 00 40.0	+14
VLC				LR	LR		
	comp=Z,743nm,20.0s,MS5.3						
HINF	Hinteralfeld	118.62	325	*e*PKIKP	PKPdf	22 00 24.0	-2.7
	comp=Z,7.9nm,0.6s						
WDD	Wield Dalam	118.74	310	PFAKE		22 00 40.0	+13
WDD				LR	LR		

	comp=Z,336nm,21.0s,MS5.0						
SCIA	**State Center**	**118.76**	**42**	PFAKE		22 00 40.0	+13
SCIA				LR	LR		
	comp=Z,784nm,20.0s,MS5.3						
HAU	**Haudompre**	**118.80**	**326**	*e*PKIKP	PKPdf	22 00 24.5	-2.6
	comp=Z,7.2nm,0.6s						
HAU				*e*MLR	MLR		
	comp=Z,832nm,21.2s,MS5.0						
HAU	**Haudompre**	**118.80**	**326**	*e*PKPdf	PKPdf	22 00 24.5	-2.6
HAU				LR	LR		
	comp=Z,830nm,21.3s,MS5.3						
MEZF	**Maizieres J'vi**	**119.25**	**327**	*e*PKIKP	PKPdf	22 00 25.7	-2.2
COWI	**Conover**	**119.35**	**36**	PFAKE		22 00 40.0	+12
COWI				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
CABF	**La Chapelle**	**119.70**	**324**	*e*PKIKP	PKPdf	22 00 26.5	-2.4
	comp=Z,11nm,0.8s						
LPG	**La Plagne**	**119.90**	**323**	*e*PKIKP	PKPdf	22 00 27.3	-2.0
	comp=Z,8.8nm,0.8s						
LPL	**La Plagne**	**119.91**	**323**	*e*PKIKP	PKPdf	22 00 27.3	-2.0
	comp=Z,5.2nm,0.6s						
PGF	**Pioggiola**	**119.95**	**319**	*e*PKIKP	PKPdf	22 00 27.1	-2.4
	comp=Z,55nm,1.2s						
KVTX	**Kingsville**	**120.09**	**59**	PFAKE		22 00 40.0	+10
KVTX				LR	LR		
	comp=Z,774nm,19.0s,MS5.4						
BNI	**Bardonecchia**	**120.18**	**323**	PFAKE		22 00 40.0	+10
BNI				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
JFWS	**Jewell Farm**	**120.26**	**40**	PFAKE		22 00 40.0	+10
JFWS				LR	LR		
	comp=Z,634nm,19.0s,MS5.3						
MBDF	**Montbardon**	**120.29**	**322**	*e*PKIKP	PKPdf	22 00 27.9	-2.2
	comp=Z,6.2nm,0.7s						
SBF	**Sospel**	**120.32**	**321**	*e*PKIKP	PKPdf	22 00 27.3	-2.8
LOR	**Lormes**	**120.61**	**326**	*e*PKIKP	PKPdf	22 00 28.2	-2.4
	comp=Z,24nm,1.3s						
LOR				*e*MLR	MLR		
	comp=Z,863nm,19.2s,MS5.1						
LOR	**Lormes**	**120.61**	**326**	*e*PKPdf	PKPdf	22 00 28.2	-2.4
LOR				LR	LR		
	comp=Z,860nm,19.3s,MS5.4						
ORIF	**Oris-en-Rattie**	**120.73**	**323**	*e*PKIKP	PKPdf	22 00 29.2	-1.7
	comp=Z,5.4nm,0.7s						
ORIF				*e*MLR	MLR		
	comp=Z,1µm,20.2s,MS5.2						
SSF	**Saint Saulge**	**120.92**	**326**	*e*PKIKP	PKPdf	22 00 29.0	-2.2
	comp=Z,13nm,1.0s						
FRF	**La Foret Royal**	**120.97**	**321**	*e*PKIKP	PKPdf	22 00 28.7	-2.7
	comp=Z,31nm,1.2s						
SMF	**Signal de Mont**	**120.97**	**325**	*e*PKIKP	PKPdf	22 00 28.7	-2.6
	comp=Z,34nm,1.3s						
VSL	**Villasalto**	**121.08**	**316**	PFAKE		22 00 40.0	+8.3
VSL				LR	LR		
	comp=Z,493nm,20.0s,MS5.2						
AVF	**Avril sur Loir**	**121.17**	**326**	*e*PKIKP	PKPdf	22 00 29.6	-2.1
HKT	**Hockley**	**121.17**	**56**	PFAKE		22 00 40.0	+7.8
HKT				LR	LR		
	comp=Z,985nm,19.0s,MS5.5						
LMR	**La Mourre**	**121.17**	**321**	*e*PKIKP	PKPdf	22 00 29.2	-2.6
SSB	**Saint Sauveur**	**121.33**	**324**	PFAKE		22 00 40.0	+8.0
SSB				LR	LR		
	comp=Z,386nm,19.0s,MS5.1						
SMRF	**Simiane la Rot**	**121.42**	**322**	*e*PKIKP	PKPdf	22 00 30.4	-1.8
	comp=Z,26nm,1.0s						
VIVF	**Saint-Julien-l**	**121.49**	**323**	*e*PKIKP	PKPdf	22 00 29.9	-2.5
	comp=Z,20nm,1.2s						
NATX	**Nacogdoches**	**121.56**	**54**	PFAKE		22 00 40.0	+7.1
NATX				LR	LR		
	comp=Z,791nm,21.0s,MS5.3						
BGF	**Bois d'Agland**	**121.59**	**326**	*e*PKIKP	PKPdf	22 00 29.8	-2.7
	comp=Z,9.6nm,0.7s						
CCM	**Cathedral Cave**	**121.79**	**46**	PFAKE		22 00 40.0	+6.9
CCM				LR	LR		
	comp=Z,707nm,21.0s,MS5.3						
LDF	**La Druitiere**	**121.94**	**329**	*e*PKIKP	PKPdf	22 00 30.5	-2.6
FLN	**La Foliniere**	**122.01**	**330**	*e*PKIKP	PKPdf	22 00 30.6	-2.6
FLN				*e*MLR	MLR		
	comp=Z,1µm,21.2s,MS5.2						
FLN	**La Foliniere**	**122.01**	**330**	*e*PKPdf	PKPdf	22 00 30.6	-2.6
FLN				LR	LR		
	comp=Z,1µm,21.3s,MS5.5						
HDIL	**Hopedale**	**122.01**	**42**	PFAKE		22 00 40.0	+6.5
HDIL				LR	LR		
	comp=Z,755nm,20.0s,MS5.3						
TCF	**Toulx Ste Croi**	**122.10**	**326**	*e*PKIKP	PKPdf	22 00 31.3	-2.2
	comp=Z,27nm,1.0s						
LASF	**Ste Croix**	**122.41**	**323**	*e*PKIKP	PKPdf	22 00 31.7	-2.4
GLMI	**Grayling**	**122.71**	**36**	PFAKE		22 00 50.0	+15
GLMI				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
RJF	**Les Rejaudoux**	**123.07**	**325**	*e*PKIKP	PKPdf	22 00 33.1	-2.3
RJF				*e*MLR	MLR		
	comp=Z,622nm,19.8s,MS5.0						
RJF	**Les Rejaudoux**	**123.07**	**325**	*e*PKPdf	PKPdf	22 00 33.1	-2.3
RJF				LR	LR		
	comp=Z,620nm,19.8s,MS5.3						
MFF	**Saint Martin d**	**123.20**	**327**	*e*PKIKP	PKPdf	22 00 33.3	-2.3
	comp=Z,25nm,1.3s						
SCHQ	**Schefferville**	**123.37**	**18**	PKP	PKPdf	22 00 36.6	+1.0
	comp=Z,3.1nm,0.8s,baz=98,slow=2.8,SNR=6.2						
MTLF	**Montolieu**	**123.80**	**323**	*e*PKIKP	PKPdf	22 00 34.6	-2.2
	comp=Z,13nm,1.0s						
OXF	**Oxford**	**124.63**	**49**	PFAKE		22 00 50.0	+11
OXF				LR	LR		
	comp=Z,997nm,19.0s,MS5.5						
VBMS	**Vicksburg**	**124.69**	**52**	PFAKE		22 00 50.0	+11
VBMS				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
AAM	**Ann Arbor**	**124.72**	**38**	PFAKE		22 00 50.0	+11
AAM				LR	LR		
	comp=Z,980nm,19.0s,MS5.5						
WVT	**Waverly**	**125.09**	**46**	PFAKE		22 00 50.0	+10
WVT				LR	LR		
	comp=Z,896nm,20.0s,MS5.4						
WCI	**Wyandotte Cave**	**125.17**	**43**	PFAKE		22 00 50.0	+10
WCI				LR	LR		
	comp=Z,755nm,20.0s,MS5.4						
PLAL	**Pickwick Lake**	**125.42**	**48**	PFAKE		22 00 50.0	+10
PLAL				LR	LR		
	comp=Z,909nm,21.0s,MS5.4						
ACSO	**Alum Creek Sta**	**126.30**	**39**	PFAKE		22 00 50.0	+8.3
ACSO				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ERPA	**Erie**	**127.03**	**36**	PFAKE		22 00 50.0	+6.9
ERPA				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
BRAL	**Brewton**	**127.88**	**52**	PFAKE		22 01 00.0	+15
BRAL				LR	LR		
	comp=Z,845nm,21.0s,MS5.4						
LONY	**Lake Ozonia**	**128.31**	**30**	PFAKE		22 01 00.0	+15
LONY				LR	LR		
	comp=Z,946nm,20.0s,MS5.5						
MCWV	**Mont Chateau**	**128.60**	**38**	PFAKE		22 01 00.0	+14
MCWV				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
NCB	**Newcomb**	**128.96**	**31**	PFAKE		22 01 00.0	+13
NCB				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
SSPA	**Standing Stone**	**129.19**	**36**	PFAKE		22 01 00.0	+13
SSPA				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
BINY	**Binghamton**	**129.25**	**33**	PFAKE		22 01 00.0	+13
BINY				LR	LR		
	comp=Z,906nm,20.0s,MS5.5						
GOGA	**Godfrey**	**129.53**	**47**	PFAKE		22 01 00.0	+12
GOGA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PLCA	**Paso Flores**	**129.56**	**151**	PKP	PKPdf	22 00 48.8	+0.8
	comp=Z,3.4nm,0.8s,baz=222,slow=4.0,SNR=8.3						
LBNH	**Lisbon**	**129.90**	**29**	PFAKE		22 01 00.0	+12
LBNH				LR	LR		
	comp=Z,862nm,20.0s,MS5.4						
PAB	**San Pablo**	**130.02**	**323**	PFAKE		22 01 00.0	+11
PAB				LR	LR		
	comp=Z,645nm,19.0s,MS5.3						
TAM	**Tamanrasset**	**130.44**	**298**	PFAKE		22 01 00.0	+10
TAM				LR	LR		
	comp=Z,289nm,19.0s,MS5.0						
TEIG	**Tepich**	**130.48**	**65**	PFAKE		22 01 00.0	+10
TEIG				LR	LR		
	comp=Z,488nm,21.0s,MS5.2						
PAYG	**Puerto Ayora**	**130.64**	**93**	PFAKE		22 01 00.0	+9.2
PAYG				LR	LR		
	comp=Z,820nm,19.0s,MS5.5						
CBN	**Corbin**	**131.02**	**38**	PFAKE		22 01 00.0	+9.2
CBN				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
MTE	**Manteigas**	**131.32**	**326**	PFAKE		22 01 00.0	+8.7
MTE				LR	LR		
	comp=Z,778nm,21.0s,MS5.4						
NHSC	**New Hope**	**132.06**	**46**	PFAKE		22 01 00.0	+7.1
NHSC				LR	LR		
	comp=Z,962nm,22.0s,MS5.5						
CNNC	**Cliffs of the**	**132.46**	**42**	PFAKE		22 01 00.0	+6.4
CNNC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
TGUH	**Tegucigalpa,Un**	**132.77**	**73**	PFAKE		22 01 10.0	+15
TGUH				LR	LR		
	comp=Z,457nm,20.0s,MS5.2						
DWPF	**Disney**	**133.54**	**52**	PFAKE		22 01 10.0	+14
DWPF				LR	LR		
	comp=Z,695nm,19.0s,MS5.4						
RTC	**Rabat Centre**	**135.04**	**319**	PFAKE		22 01 10.0	+12
RTC				LR	LR		
	comp=Z,466nm,20.0s,MS5.2						
JTS	**JuntasAbangare**	**135.59**	**77**	PFAKE		22 01 10.0	+10
JTS				LR	LR		
	comp=Z,436nm,19.0s,MS5.2						
TORD	**Torodi Ar. Bea**	**136.37**	**287**	PKhKP		22 00 47.6	
	comp=Z,0.6nm,0.5s,baz=57,slow=2.2,SNR=9.2						
TORD				PKP	PKPdf	22 01 01.8	+0.3
	comp=Z,2.7nm,0.9s,baz=95,slow=1.6,SNR=8.7						
TORD	**Torodi Ar. Bea**	**136.37**	**287**	PKP	PKPdf	22 01 01.8	+0.3
LCO	**Las Campanas**	**137.96**	**140**	PFAKE		22 01 20.0	+16
LCO				LR	LR		
	comp=Z,804nm,22.0s,MS5.4						
NNA	**Nana**	**141.73**	**112**	PFAKE		22 01 20.0	+8.7
NNA				LR	LR		
	comp=Z,668nm,19.0s,MS5.4						
GTBY	**Guantanamo Bay**	**142.25**	**60**	PFAKE		22 01 20.0	+7.9
GTBY				LR	LR		
	comp=Z,567nm,21.0s,MS5.3						
OTAV	**Otavalo**	**142.50**	**92**	PFAKE		22 01 20.0	+7.3
OTAV				LR	LR		
	comp=Z,504nm,21.0s,MS5.3						
BBSR	**BB Station**	**142.53**	**34**	PFAKE		22 01 20.0	+7.8
BBSR				LR	LR		
	comp=Z,795nm,19.0s,MS5.5						
LVC	**Limon Verde**	**143.32**	**134**	PFAKE		22 01 30.0	+16
LVC				LR	LR		
	comp=Z,716nm,22.0s,MS5.4						
KIC	**Kosan Boka**	**143.61**	**278**	*e*PKP2	PKPdf	22 01 12.1	-2.6
	comp=Z,230nm,1.2s						
DBIC	**Dimbokro**	**143.70**	**278**	PKhKP		22 01 11.5	
	comp=Z,14nm,0.6s,baz=66,slow=3.9,SNR=18						
TIC	**Toumodi**	**143.86**	**278**	*e*PKP2	PKPdf	22 01 12.8	-2.3
	comp=Z,363nm,1.3s						
LIC	**Lamto**	**143.91**	**278**	*e*PKIKP	PKPdf	22 01 12.1	-3.1
	comp=Z,158nm,1.2s						
LIC				*e*MLR	MLR		
	comp=Z,611nm,21.2s,MS5.0						
LIC	**Lamto**	**143.91**	**278**	*e*PKP2	PKPdf	22 01 13.3	-1.9
	comp=Z,167nm,1.2s						
LIC	**Lamto**	**143.91**	**278**	*e*PKPdf	PKPdf	22 01 12.1	-3.1
LIC				LR	LR		
	comp=Z,310nm,21.3s,MS5.0						
ARE	**Arequipa**	**144.68**	**123**	*e*PKIKP	PKPdf	22 01 16.0	-0.4
ROSC	**El Rosal**	**146.61**	**84**	PKPbc	PKPbc	22 01 21.4	0.0
	comp=Z,9.2nm,0.4s,baz=102,slow=21,SNR=8.4						
CPUP	**Villa Florida**	**147.62**	**152**	PKP2	PKPab	22 01 22.9	-3.1
CPUP				pmax	pmax		
	comp=Z,7.0nm,0.7s						
CPUP	**Villa Florida**	**147.62**	**152**	PKPbc	PKPbc	22 01 22.9	-0.9
	comp=Z,6.6nm,0.7s,baz=209,slow=2.4,SNR=16						
SDV	**Santo Domingo**	**149.75**	**76**	PFAKE		22 01 40.0	+15
SDV				LR	LR		
	comp=Z,217nm,21.0s,MS4.9						
SJG	**San Juan**	**150.64**	**56**	PFAKE		22 01 40.0	+14
SJG				LR	LR		
	comp=Z,860nm,20.0s,MS5.5						
SPB	**Sao Paulo**	**153.70**	**167**	PFAKE		22 01 40.0	+9.3
SPB				LR	LR		
	comp=Z,654nm,21.0s,MS5.4						
ANWB	**Willy Bob**	**154.38**	**52**	PFAKE		22 01 40.0	+8.2
ANWB				LR	LR		
	comp=Z,485nm,21.0s,MS5.3						
FDF	**Fort de France**	**156.47**	**57**	PFAKE		22 01 50.0	+15
FDF				LR	LR		
	comp=Z,593nm,19.0s,MS5.4						
GRGR	**Grenville**	**157.23**	**63**	PFAKE		22 01 50.0	+14
GRGR				LR	LR		
	comp=Z,455nm,19.0s,MS5.3						
RCBR	**Riachuelo**	**170.63**	**213**	PFAKE		22 02 00.0	+12
RCBR				LR	LR		
	comp=Z,1µm,21.0s						

CASC 21 21:53:38.1±1.5, 8°.98N×82°.63W, h10^{km}±5^{km}, MD3.8, 2C-4D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRU2	**Volcan**	**0.20**	**199**	⇓*i*P	Pg	21 53 42.8	+0.6
BRU2				*e*S	Sg	21 53 46.5	+1.5
CNI	**Changuinola**	**0.45**	**14**	⇓*i*P	Pg	21 53 47.4	+0.5
ACR	**Cerro Adams**	**0.63**	**239**	⇓*e*P	Pg	21 53 50.0	-0.2
ACR				*e*S	Sg	21 53 58.8	+0.4
BAR1		**0.72**	**291**	⇓*e*P	Pg	21 53 50.9	-1.2
LIO	**Limon**	**1.09**	**338**	*e*P	Pg	21 53 58.3	-0.9
LIO				*e*S	Sg	21 54 13.0	-0.4
BUS	**Buena Vista**	**1.25**	**297**	*e*P	Pn	21 54 01.3	-0.4
BUS				*e*S	Sb	21 54 19.3	+1.1
URSC	**Urasca**	**1.42**	**307**	⇑*e*P	Pn	21 54 03.2	-0.8
URSC				*e*S	Sn	21 54 23.0	+0.3
LCR2	**La Lucha 2**	**1.55**	**299**	*e*P	Pn	21 54 06.1	+0.2
LCR2				*e*S	Sn	21 54 26.5	+0.4
LAJ	**Bijagual**	**1.72**	**301**	*e*P	Pn	21 54 13.3	+5.2
LAJ				*e*S	Sn	21 54 39.6	+10
CGA2	**Cerro Gallo 2**	**2.08**	**300**	⇑*e*P	Pn	21 54 14.2	+1.0
CGA2				*e*S	Sn	21 54 39.9	+0.6
BCIP	**Isla Barro Col**	**2.76**	**86**	*e*P	Pn	21 54 22.5	0.0
BCIP				*e*S	Sn	21 54 55.3	-0.7

BNS ***21*** *22:06:48.4±3.6, 50°.28N×9°.03E, h1^{km}, ML1.7*
ISCJB ***21*** *22:06:50.8±0.3, 49°.36N±0°.02×6°.77E±0°.03, h0^{km}, Error ellipse: s-maj=3.0km s-min=2.4km az=175.7*
CSEM ***21*** *22:06:51.7±0.1, 49°.36N×6°.78E, h2^{km}, ML2.5/11, Error ellipse: s-maj=3.1km s-min=2.5km az=96.0*
NEIC ***21*** *22:06:52.6, 49°.38N×6°.81E, h1^{km}, ML2.5(LDG), After LDG.*
LDG ***21*** *22:06:52.6±0.1, 49°.38N×6°.81E, h1^{km}, Md2.6/2, Ml2.5/11, Error ellipse: s-maj=2.0km s-min=1.7km az=128.0, Suspected Mining induced.*
BGR ***21*** *22:06:52.7±0.4, 49°.37N×6°.81E, h1^{km}, ML1.9/3, Error ellipse: s-maj=7.8km s-min=4.4km az=33.0*

ISC 21 22:06:51.8±0.3, 49°.37N±0°.02×6°.78E±0°.03, h0^{km}, n55, $\sigma 0^{s}84$/88, Germany

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLF	**Walferdange**	**0.51**	**306**	P	**Pg**	**22 07 03.0**	**+1.5**
WLF	**Walferdange**	**0.51**	**306**	*e*Pg	**Pg**	**22 07 03.0**	**+1.5**
	SNR=4.2						
WLF				*e*Sg	**Sg**	**22 07 08.9**	**+0.8**
WLF	**Walferdange**	**0.51**	**306**	*e*Pg	**Pg**	**22 07 03.1**	**+1.6**
WLF				*e*Sg	**Sg**	**22 07 08.3**	**+0.2**
WLF	**Walferdange**	**0.51**	**306**	Pg	**Pg**	**22 07 03.0**	**+1.5**
	SNR=4.2						
WLF				Sg	**Sg**	**22 07 08.9**	**+0.8**
BGG	**Burgeitz**	**0.91**	**23**	*e*Pg	**Pg**	**22 07 10.0**	**+0.7**
BGG	**Burgeitz**	**0.91**	**23**	Pg	**Pg**	**22 07 10.0**	**+0.7**
HILG	**Hillesheim**	**0.93**	**356**	*e*Pg	**Pg**	**22 07 10.2**	**+0.6**
HILG	**Hillesheim**	**0.93**	**356**	Pg	**Pg**	**22 07 10.2**	**+0.6**
CDF	**Champ du Feu**	**1.01**	**161**	*e*Pg	**Pg**	**22 07 11.3**	**+0.1**
CDF				*e*Sg	**Sg**	**22 07 25.8**	**+1.5**
	11nm,0.2s						
CDF	**Champ du Feu**	**1.01**	**161**	*e*Pg	**Pg**	**22 07 11.3**	**+0.1**
CDF				*e*Sg	**Sg**	**22 07 25.8**	**+1.5**
	5.4nm,0.2s						
RFYF	**Reffroy**	**1.14**	**230**	*e*Pg	**Pg**	**22 07 14.7**	**+1.1**
	baz=50						
RFYF				*e*Sg	**Sg**	**22 07 28.9**	**+0.6**
	12nm,0.2s						
RFYF	**Reffroy**	**1.14**	**230**	*e*Pg	**Pg**	**22 07 14.7**	**+1.1**
	baz=50						
RFYF				*e*Sg	**Sg**	**22 07 28.9**	**+0.6**
	6.0nm,0.2s						
ECH	**Echery**	**1.18**	**168**	*e*Pg	**Pg**	**22 07 14.9**	**+0.5**
ECH				*e*Sg	**Sg**	**22 07 30.2**	**+0.5**
ECH	**Echery**	**1.18**	**168**	*e*Pg	**Pg**	**22 07 14.9**	**+0.5**
ECH				*e*Sg	**Sg**	**22 07 30.2**	**+0.5**
STB	**Steinbach**	**1.23**	**2**	*e*Pg	**Pg**	**22 07 15.8**	**+0.4**
STB				*e*Sg	**Sg**	**22 07 32.0**	**+0.7**
	10.0nm,0.4s						
STB	**Steinbach**	**1.23**	**2**	Pg	**Pg**	**22 07 15.8**	**+0.4**
STB				Sg	**Sg**	**22 07 32.0**	**+0.7**
	10.0nm,0.4s						
MEM	**Membach**	**1.34**	**338**	P	**Pg**	**22 07 17.8**	**+0.3**
MEM	**Membach**	**1.34**	**338**	P	**Pg**	**22 07 17.7**	**+0.2**
TNS	**Taunus Mts**	**1.38**	**51**	*e*Pn	**Pn**	**22 07 16.8**	**-1.4**
	SNR=1.3						
TNS				*e*Pg	**Pg**	**22 07 18.4**	**+0.1**
	SNR=5.9						
TNS				*e*Sg	**Sg**	**22 07 36.1**	**0.0**
TNS	**Taunus Mts**	**1.38**	**51**	Pn	**Pn**	**22 07 16.8**	**-1.5**
	SNR=1.3						
HAU	**Haudompre**	**1.39**	**192**	*e*Pg	**Pg**	**22 07 18.5**	**0.0**
HAU				*e*Sg	**Sg**	**22 07 37.7**	**+1.1**
	11nm,0.3s						
HAU	**Haudompre**	**1.39**	**192**	*e*Pg	**Pg**	**22 07 18.5**	**0.0**
HAU				*e*Sg	**Sg**	**22 07 37.7**	**+1.1**
	5.4nm,0.3s						
BCLA	**Clavier**	**1.42**	**318**	P	**Pn**	**22 07 18.4**	**-0.5**
BCLA	**Clavier**	**1.42**	**318**	P	**Pn**	**22 07 18.3**	**-0.6**
MEZF	**Maizieres J'vi**	**1.43**	**233**	*e*Pg	**Pg**	**22 07 19.9**	**+0.6**
	baz=51						
MEZF				*e*Sg	**Sg**	**22 07 38.8**	**+1.0**
	5.7nm,0.2s,baz=47						
MEZF	**Maizieres J'vi**	**1.43**	**233**	*e*Pg	**Pg**	**22 07 19.9**	**+0.6**
	baz=51						
MEZF				*e*Sg	**Sg**	**22 07 38.8**	**+1.0**
	2.8nm,0.2s,baz=47						
BFO	**Black Forest**	**1.46**	**135**	*e*Pg	**Pg**	**22 07 20.7**	**+1.0**
	SNR=2.9						
BFO				*e*Sg	**Sg**	**22 07 37.8**	**-0.8**
BFO	**Black Forest**	**1.46**	**135**	Pg	**Pg**	**22 07 20.7**	**+0.9**
	SNR=2.9						
BFO				Sg	**Sg**	**22 07 37.8**	**-0.8**
GIVF	**Givet**	**1.47**	**301**	*e*Pn	**Pn**	**22 07 18.4**	**-1.1**
GIVF				*e*Sg	**Sg**	**22 07 38.9**	**-0.1**
	5.5nm,0.2s						
GIVF	**Givet**	**1.47**	**301**	*e*Pn	**Pn**	**22 07 18.4**	**-1.1**
GIVF				*e*Sg	**Sg**	**22 07 38.9**	**-0.1**
	2.8nm,0.2s						
HINF	**Hinteralfeld**	**1.55**	**178**	*e*Pg	**Pg**	**22 07 21.3**	**-0.3**
HINF				*e*Sg	**Sg**	**22 07 41.6**	**-0.1**
	19nm,0.3s						
HINF	**Hinteralfeld**	**1.55**	**178**	*e*Pg	**Pg**	**22 07 21.3**	**-0.3**
HINF				*e*Sg	**Sg**	**22 07 41.6**	**-0.1**
	9.3nm,0.3s						
DOU	**Dourbes**	**1.59**	**298**	P	**Pn**	**22 07 21.3**	**0.0**
DOU	**Dourbes**	**1.59**	**298**	P	**Pn**	**22 07 21.2**	**-0.1**
SFTF	**Sexfontaines**	**1.64**	**225**	*e*Pn	**Pn**	**22 07 21.3**	**-0.5**
	baz=42						
SFTF				*e*Sg	**Sg**	**22 07 45.5**	**+1.1**
	4.8nm,0.3s						
SFTF	**Sexfontaines**	**1.64**	**225**	*e*Pn	**Pn**	**22 07 21.3**	**-0.5**
	baz=42						
SFTF				*e*Sg	**Sg**	**22 07 45.5**	**+1.1**
	2.4nm,0.3s						
BAIF	**Baives**	**1.81**	**293**	*e*Pg	**Pg**	**22 07 26.7**	**+0.2**
BAIF				*e*Sg	**Sg**	**22 07 49.6**	**-0.3**
	7.6nm,0.4s						
BAIF	**Baives**	**1.81**	**293**	*e*Pn	**Pn**	**22 07 24.0**	**-0.2**
BAIF				*e*Pg	**Pg**	**22 07 26.7**	**+0.2**
BAIF				*e*Sg	**Sg**	**22 07 49.6**	**-0.3**
BAIF	**Baives**	**1.81**	**293**	*e*Pn	**Pn**	**22 07 24.0**	**-0.2**
BAIF	**Baives**	**1.81**	**293**	*e*Pg	**Pg**	**22 07 26.7**	**+0.2**
BAIF				*e*Sg	**Sg**	**22 07 49.6**	**-0.3**
	3.8nm,0.4s						
UCC	**Uccle**	**2.12**	**313**	P	**Pn**	**22 07 32.9**	**+4.5**
CABF	**La Chapelle**	**2.80**	**190**	*e*Pn	**Pn**	**22 07 36.9**	**-0.9**
CABF	**La Chapelle**	**2.80**	**190**	*e*Pn	**Pn**	**22 07 36.9**	**-0.9**
LOR	**Lormes**	**2.87**	**224**	*e*Pn	**Pn**	**22 07 37.4**	**-1.3**
	baz=51						
LOR				*e*Sg	**Sg**	**22 08 23.2**	**-0.7**
	2.2nm,0.2s,baz=53						
LOR	**Lormes**	**2.87**	**224**	*e*Pn	**Pn**	**22 07 37.4**	**-1.3**
	baz=51						
LOR				*e*Sg	**Sg**	**22 08 23.2**	**-0.7**
	1.1nm,0.2s,baz=53						
SSF	**Saint Saulge**	**3.18**	**225**	*e*Pn	**Pn**	**22 07 41.7**	**-1.4**
SSF				*e*Sg	**Sg**	**22 08 33.2**	**-0.8**
	1.0nm,0.3s						
SSF	**Saint Saulge**	**3.18**	**225**	*e*Pn	**Pn**	**22 07 41.7**	**-1.4**
SSF				*e*Sg	**Sg**	**22 08 33.2**	**-0.8**
	0.5nm,0.3s						
SMF	**Signal de Mont**	**3.36**	**217**	*e*Pn	**Pn**	**22 07 43.9**	**-1.7**
SMF	**Signal de Mont**	**3.36**	**217**	*e*Pn	**Pn**	**22 07 43.9**	**-1.7**
AVF	**Avril sur Loir**	**3.45**	**223**	*e*Pn	**Pn**	**22 07 45.3**	**-1.5**
AVF	**Avril sur Loir**	**3.45**	**223**	*e*Pn	**Pn**	**22 07 45.3**	**-1.5**
GEC2	**GERESS Array S**	**4.58**	**94**	*e*Pn	**Pn**	**22 08 02.2**	**0.0**
	SNR=4.2						
GEC2	**GERESS Array S**	**4.58**	**94**	Pn	**Pn**	**22 08 02.2**	**0.0**
	SNR=4.2						
FLN	**La Foliniere**	**4.81**	**266**	*e*Pn	**Pn**	**22 08 04.5**	**-1.0**
FLN	**La Foliniere**	**4.81**	**266**	*e*Pn	**Pn**	**22 08 04.5**	**-1.0**

NEIC ***21*** *22:12:28.3, 36°.32N×21°.87E, h5^{km}, ML3.5(ATH), After ATH.*
CSEM ***21*** *22:12:28.2±0.8, 36°.34N×21°.85E, h8^{km}, ML3.5, Error ellipse: s-maj=16.2km s-min=10.3km az=44.0*

ATH 21 22:12:28.3, 36°.32N×21°.87E, h5^{km}±2^{km}, MD3.2/10, ML3.5, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.58**	**350**	*e*PB	Pg	22 12 39.0	-0.5
PYL				*e*SB	Sg	22 12 47.8	+0.7
PYL	**PYLOS**	**0.58**	**350**	*e*Pb	Pg	22 12 39.0	-0.5
PYL				*e*Sb	Sg	22 12 47.8	+0.7
ITM	**Ithomi**	**0.86**	**3**	*e*PG	Pg	22 12 44.5	-0.3
ITM				*e*SB	Sb	22 12 56.5	-1.0
ITM	**Ithomi**	**0.86**	**3**	*e*Pg	Pg	22 12 44.5	-0.3
ITM				*e*Sb	Sb	22 12 56.5	-1.0
KYTH	**Kithira**	**0.94**	**92**	*e*PB	Pb	22 12 46.3	-0.8
KYTH	**Kithira**	**0.94**	**92**	*e*Pb	Pb	22 12 46.3	-0.8
VLI	**Veliai**	**0.95**	**65**	*e*PB	Pb	22 12 46.5	-0.7
VLI				*e*SB	Sb	22 12 59.4	-0.6
VLI	**Veliai**	**0.95**	**65**	*e*Pb	Pb	22 12 46.5	-0.7
VLI				*e*Sb	Sb	22 12 59.4	-0.6
VLX	**Vlachokerasia**	**1.12**	**21**	*e*PG	Pg	22 12 49.3	-0.6
VLX				*e*SB	Sb	22 13 05.2	0.0
VLX	**Vlachokerasia**	**1.12**	**21**	*e*Pg	Pg	22 12 49.3	-0.6
VLX				*e*Sb	Sb	22 13 05.2	0.0
DID	**Didima**	**1.61**	**42**	*e*PG	Pg	22 12 58.1	-1.1
DID	**Didima**	**1.61**	**42**	*e*Pg	Pg	22 12 58.1	-1.1
GUR	**Goura**	**1.66**	**13**	*e*PG	Pg	22 12 58.8	-1.3
GUR	**Goura**	**1.66**	**13**	*e*Pg	Pg	22 12 58.8	-1.3
RLS	**Riolos of Patr**	**1.76**	**350**	*e*PN	Pn	22 13 01.7	+2.2
LTK	**Loutraki**	**1.91**	**27**	*e*PN	Pn	22 13 02.8	+1.3
LTK	**Loutraki**	**1.91**	**27**	*e*Pn	Pn	22 13 02.8	+1.3
NAIG	**Nisos Aigina**	**1.93**	**42**	*e*PN	Pn	22 13 03.7	+1.9
NAIG	**Nisos Aigina**	**1.93**	**42**	*e*Pn	Pn	22 13 03.7	+1.9
EFP	**Efpalio**	**2.10**	**1**	*e*PN	Pn	22 13 06.6	+2.4
ATH	**Athens Observa**	**2.21**	**41**	*e*PN	Pn	22 13 08.4	+2.7
PTL	**Penteli**	**2.35**	**42**	*e*PN	Pn	22 13 09.0	+1.5
PTL	**Penteli**	**2.35**	**42**	*e*Pn	Pn	22 13 09.0	+1.5
IDI	**Anoyia**	**2.66**	**112**	*e*Pn	Pn	22 13 11.4	-0.4
IDI	**Anoyia**	**2.66**	**112**	*e*Pn	Pn	22 13 11.4	-0.4
TIP	**Timpagrande**	**4.96**	**307**	*e*Pn	Pn	22 13 42.4	-0.9
TIP	**Timpagrande**	**4.96**	**307**	*e*Pn	Pn	22 13 42.4	-0.9

ISCJB ***21*** *22:17:18.5±0.4, 41°.14N±0°.01×114°.90W±0°.02, h5^{km}±3^{km}, Error ellipse: s-maj=2.4km s-min=2.2km az=43.0*
IDC ***21*** *22:17:18.7±1.1, 41°.14N×114°.88W, h0^{km}, mb2.5/1, mb1 3.2/3, mb1mx3.1/21, mbtmp2.8/3, ML3.3/2, MS3.2/2, Ms1 3.2/2, ms1mx2.9/7, Error ellipse: s-maj=38.3km s-min=8.3km az=144.0*
NEIC ***21*** *22:17:19.1, 41°.15N×114°.89W, h7^{km}, ML2.9, After REN.*

ISC 21 22:17:18.7±0.3, 41°.15N±0°.01×114°.90W±0°.02, h1^{km}±2^{km}, n102, $\sigma 0^{s}92$/136, 38C-18D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.32**	**199**	P	**Pg**	**22 17 25.6**	**+0.9**
	baz=0.3,SNR=852						
N12A				⇓S	**Sg**	**22 17 30.3**	**+1.5**

	baz=0.3						
ELK	Elko	0.48	212	*e*Pg	Pg	22 17 28.3	+0.4
ELK				*e*Sg	Sg	22 17 34.8	+0.7
M13A	Montello	0.59	69	⇑P	Pg	22 17 30.2	+0.2
	baz=0.6,SNR=43						
M13A				⇑S	Sg	22 17 38.8	+1.1
	baz=0.6						
N13A	Wendover, West	0.60	119	P	Pg	22 17 30.7	+0.5
	baz=0.6,SNR=418						
N13A				⇑S	Sg	22 17 38.8	+0.7
	baz=0.6						
N11A	Elko Archery C	0.72	242	P	Pg	22 17 33.0	+0.6
	baz=0.7,SNR=83						
N11A				⇑S	Sg	22 17 42.5	+0.9
	baz=0.7						
M11A	Holland Ranch,	0.73	293	⇓P	Pg	22 17 33.0	+0.3
	baz=0.7,SNR=34						
O12A	Currie	0.89	172	P	Pg	22 17 36.0	+0.3
	baz=0.9,SNR=166						
O12A				⇑S	Sg	22 17 48.0	+0.8
	baz=0.9						
L12A	House Creek Ra	1.00	355	⇑P	Pg	22 17 37.6	-0.3
	baz=1.0						
L12A				⇑S	Sg	22 17 51.5	+0.7
	baz=1.0						
O11A	Cowboy Ranch,	1.17	210	⇑P	Pg	22 17 41.0	-0.1
	baz=1.2						
O11A				⇓S	Sg	22 17 56.4	+0.1
	baz=1.2						
L13A	Double Diamond	1.18	37	⇑P	Pg	22 17 40.6	-0.7
	baz=1.2						
L13A				⇑S	Sg	22 17 56.4	-0.2
	baz=1.2						
L11A	Cat Creek Ranc	1.20	328	⇑P	Pg	22 17 41.0	-0.7
	baz=1.2						
L11A				⇑S	Sg	22 17 57.1	-0.1
	baz=1.2						
M14A	Sheep Mountain	1.22	73	⇓P	Pg	22 17 41.1	-0.9
	baz=1.2,SNR=85						
M14A				⇑S	Sg	22 17 57.8	-0.1
	baz=1.2						
O13A	Hicks Ranch, I	1.23	145	⇓P	Pg	22 17 41.9	-0.4
	baz=1.2,SNR=22						
M10A	I.L. Ranch, Tu	1.29	287	⇑P	Pg	22 17 42.6	-0.8
	baz=1.3,SNR=77						
N10A	Dunphy	1.29	251	⇑P	Pg	22 17 42.6	-0.8
	baz=1.3,SNR=14						
N10A				⇑S	Sg	22 18 00.8	+0.6
	baz=1.3						
N14A	Grayback Hills	1.33	102	⇓P	Pg	22 17 42.8	-1.3
	baz=1.3,SNR=83						
BGU	Big Grassy Mou	1.43	98	*e*Pn	Pn	22 17 44.8	-0.9
BGU				*e*Sn	Sn	22 18 03.1	-2.0
K12A	Draper Farm, C	1.48	360	⇑P	Pn	22 17 45.1	-1.4
	baz=1.5						
K12A				⇑S	Sg	22 18 04.5	-1.8
	baz=1.5						
O10A	Cortez Mining,	1.49	235	⇑P	Pn	22 17 45.7	-0.8
	baz=1.5,SNR=62						
O10A				⇓Sb	Sb	22 18 06.5	+0.1
	baz=1.5						
L10A	Juniper Basin	1.50	309	⇑P	Pn	22 17 46.0	-0.6
	baz=1.5,SNR=154						
L14A	Malta	1.53	54	⇓P	Pn	22 17 46.2	-0.8
	baz=1.5,SNR=15						
L14A				⇓Sb	Sb	22 18 06.9	-0.6
	baz=1.5						
K13A	Stover Farm, H	1.62	22	⇑P	Pn	22 17 47.8	-0.4
	baz=1.6,SNR=31						
K13A				⇑Sb	Sb	22 18 09.6	-0.6
	baz=1.6						
P12A	McGill	1.68	180	⇑P	Pn	22 17 48.2	-0.9
	baz=1.7,SNR=162						
P12A				⇓S	Sn	22 18 10.5	-0.7
	baz=1.7						
HVU	Hansel Valley	1.72	68	*e*Pn	Pn	22 17 49.4	-0.2
HVU				*e*Sn	Sn	22 18 11.7	-0.5
P11A	Circle Ranch,	1.73	203	⇑P	Pn	22 17 49.2	-0.6
	baz=1.7,SNR=26						
N15A	Stansbury Isla	1.82	97	⇑P	Pn	22 17 50.3	-0.8
	baz=1.8,SNR=44						
K11A	Parker Ranch,	1.83	333	⇓P	Pn	22 17 51.1	-0.1
	baz=1.8,SNR=57						
K11A				⇓Sb	Sb	22 18 15.9	-0.3
	baz=1.8						
DUG	Dugway	1.85	120	⇑P	Pn	22 17 50.4	-1.0
	baz=1.8						
DUG	Dugway	1.85	120	*e*Pn	Pn	22 17 51.5	0.0
DUG				*e*Sn	Sn	22 18 16.5	+1.0
SPUT	South Promonto	1.85	84	*e*Pn	Pn	22 17 51.7	+0.1
M15A	Larsen Ranch,	1.87	80	⇑P	Pn	22 17 51.5	-0.3
	baz=1.9,SNR=21						
K14A	Jones Ranch, D	1.90	42	⇑P	Pn	22 17 52.1	0.0
	baz=1.9,SNR=20						
BMN	Battle Mountai	1.90	249	*e*Pn	Pn	22 17 50.5	-1.7
BMN				*e*Sn	Sn	22 18 13.5	-3.3
M09A	Marrel Ranch,	1.94	279	⇓P	Pn	22 17 52.5	-0.2
	baz=1.9,SNR=29						
P10A	Eureka	1.94	219	⇑P	Pn	22 17 52.3	-0.4
	baz=1.9,SNR=17						
L15A	Malad City	2.07	65	⇑P	Pn	22 17 54.5	0.0
	baz=2.1,SNR=24						
P14A	Drum Mountains	2.09	138	P	Pn	22 17 53.9	-0.9
	baz=2.1,SNR=24						
J12A	Stokes Ranch,	2.10	356	⇑P	Pn	22 17 55.2	+0.3
	baz=2.1,SNR=99						
Q12A	Willow Creek R	2.11	179	P	Pn	22 17 54.3	-0.7
	baz=2.1,SNR=33						
NOQ	North Oquirrh	2.17	102	*e*Pn	Pn	22 17 57.5	+1.7
NOQ				*e*Sn	Sn	22 18 24.3	+1.1
K10A	MacKenzie Ranc	2.19	319	P	Pn	22 17 56.4	+0.2
	baz=2.2,SNR=53						
L09A	Wilkinson Ranc	2.25	294	⇓P	Pn	22 17 58.5	+1.5
	baz=2.3,SNR=55						
Q13A	Wheeler Ranch,	2.29	163	⇑P	Pn	22 17 56.7	-0.9
	baz=2.3,SNR=7.4						
J13A	Cove Ranch, Pi	2.31	13	⇓P	Pn	22 17 58.2	+0.4
	baz=2.3,SNR=6.2						
K15A	Arbon	2.34	48	P	Pn	22 17 58.4	+0.2
	baz=2.3,SNR=16						
MFID	Camas Ranch	2.37	343	⇑P	Pn	22 17 59.6	+1.1
	baz=2.4,SNR=24						
Q11A	Duckwater	2.38	194	P	Pn	22 17 58.3	-0.4
	baz=2.4,SNR=10						
J14A	Carey	2.40	25	⇑P	Pn	22 17 59.7	+0.6
	baz=2.4,SNR=74						
HLID	Hailey	2.44	8	⇑P	Pn	22 17 59.8	+0.2
	baz=2.4,SNR=41						
HLID	Hailey	2.44	8	*e*Pn	Pn	22 17 59.7	+0.2
HLID				*e*Sn	Sn	22 18 30.2	+0.3
NLU	North Lily Min	2.46	118	*e*Pn	Pn	22 18 00.2	+0.3
Q14A	Sevier Lake (B	2.49	150	P	Pn	22 17 59.3	-1.0
	baz=2.5,SNR=18						
Q10A	Clear Creek Ra	2.59	207	P	Pn	22 18 02.5	+0.8
	baz=2.6,SNR=15						
K09A	Rome	2.62	307	P	Pn	22 18 03.7	+1.7
	baz=2.6,SNR=100						
I12A	Atlanta	2.65	356	⇑P	Pn	22 18 03.5	+1.1
	baz=2.7,SNR=79						
JLU	Jordanelle	2.67	101	*e*Pn	Pn	22 18 03.1	+0.3
MPU	Maple Canyon	2.73	113	*e*Pn	Pn	22 18 03.8	+0.1
I13A	Wildhorse Cree	2.82	12	P	Pn	22 18 05.9	+1.0
	baz=2.8,SNR=47						
R12A	Pony Springs,	2.83	175	⇓P	Pn	22 18 04.5	-0.4
	baz=2.8,SNR=17						
P08A	Dixie Valley	2.83	240	P	Pn	22 18 04.5	-0.5
	baz=2.8,SNR=7.6						
R11A	Troy Canyon, C	2.85	191	P	Pn	22 18 04.5	-0.6
	baz=2.9,SNR=86						
DAU	Daniels Canyon	2.86	104	*e*Pn	Pn	22 18 07.3	+1.9
R13A	O’Grain Ranch,	3.05	166	⇓P	Pn	22 18 07.9	-0.1
	baz=3.1,SNR=21						
WVOR	Wild Horse Val	3.08	296	P	Pn	22 18 12.2	+3.9
N07B	Gerlach	3.10	264	P	Pn	22 18 08.4	-0.3
	baz=3.1,SNR=5.8						
O07A	Toulon	3.18	253	P	Pn	22 18 09.2	-0.6
	baz=3.2,SNR=13						
M07A	Soldier Meadow	3.23	276	P	Pn	22 18 10.4	0.0
	baz=3.2,SNR=10						
AHID	Auburn Hatcher	3.26	59	*e*Pn	Pn	22 18 15.0	+4.1
AHID				*e*Sg	Sn	22 18 26.8	-23
MSU	Marysvale	3.37	141	*e*Pn	Pn	22 18 13.0	+0.7
MSU				*e*Sn	Sn	22 18 55.0	+2.2
TMUT	Trail Mountain	3.38	122	*e*Pn	Pn	22 18 12.1	-0.4
TMUT				*e*Sg	Sg	22 19 09.1	+1.9
H13A	Challis	3.44	8	⇑P	Pn	22 18 14.8	+1.4
	baz=3.4,SNR=8.4						
RRI2	Red Ridge	3.45	49	*e*Pn	Pn	22 18 14.2	+0.8
S10A	Tonopah Range,	3.48	203	⇑P	Pn	22 18 14.3	+0.5
	baz=3.5,SNR=15						
ARUT	Antelope Range	3.54	161	*e*Pn	Pn	22 18 14.7	-0.1
ARUT				*e*Pg	Pg	22 18 26.5	-0.1
ARUT				*e*Sg	Sg	22 19 11.4	-1.1
S13A	Holt Ranch, En	3.66	167	P	Pn	22 18 16.1	-0.1
	baz=3.7,SNR=15						
DCID1	Drake Creek	3.68	47	*e*Pn	Pn	22 18 17.0	+0.4
H10A	Noah’s Angus R	3.69	339	P	Pn	22 18 18.1	+1.3
	baz=3.7,SNR=8.4						
PAHR	Pah Rah Range	3.71	249	*e*Pn	Pn	22 18 16.8	-0.3
PAHR				*e*Sg	Sg	22 19 17.8	-0.1
REDW	Red Top Meadow	3.73	52	*e*Pn	Pn	22 18 15.5	-1.8
TPAW	Teton Pass	3.75	50	*e*Pn	Pn	22 18 17.4	-0.1
NVAR	Mina Array Bea	3.78	225	Pn	Pn	22 18 17.8	-0.1
	2.2nm,0.3s,baz=38,slow=10,SNR=18						
NVAR				Lg		22 19 18.3	
	15nm,0.3s,baz=31,slow=39,SNR=9.2						
CCUT	Cedar City	3.79	161	*e*Pn	Pn	22 18 18.3	+0.2
CCUT				*e*Sg	Sg	22 19 19.3	-1.0
SRU	San Rafael	3.92	120	*e*Pn	Pn	22 18 20.4	+0.5
SRU				*e*Pg	Pg	22 18 32.8	-1.1
MCMT	McKenzie Canyo	3.97	22	*e*Pn	Pn	22 18 23.7	+3.0
IMW	Indian Meadow	4.01	46	*e*Pn	Pn	22 18 24.3	+3.1
LOHW	Long Hollow	4.02	51	*e*Pn	Pn	22 18 19.4	-1.9
MOOW	Moose Ponds	4.02	48	*e*Pn	Pn	22 18 21.5	+0.1
BMO	Blue Mountains	4.10	335	*e*Pn	Pn	22 18 21.5	-0.9
BMO				*e*Sg	Sg	22 19 23.1	-7.2
MOD	Modoc	4.12	282	*e*Pn	Pn	22 18 25.6	+2.8
PDAR	Pinedale Array	4.30	66	Pn	Pn	22 18 28.1	+3.0
	0.2nm,0.3s,baz=242,slow=12,SNR=8.6						
PDAR				Lg		22 19 32.3	
	1.1nm,0.3s,baz=246,slow=24,SNR=7.4						
PDAR				LR	LR	22 20 20.9	
	comp=Z,300nm,20.8s,baz=273,slow=42						
BEKR	Beckwourth	4.36	255	P	Pn	22 18 25.4	-0.5
	baz=4.4,SNR=11						
WAKR	Walker	4.38	234	*e*Pn	Pn	22 18 26.2	-0.1
YFT	Old Faithful	4.45	41	*e*Pg	Pg	22 18 39.3	-4.6
DLMT	Dillon	4.53	21	*e*Pg	Pg	22 18 39.8	-5.7
YMR	Madison River	4.55	38	*e*Pg	Pg	22 18 41.0	-4.9
SHPR	Sheep Range	4.64	183	*e*Pn	Pn	22 18 29.8	-0.1
SHPR				*e*Sg	Sg	22 19 44.9	-2.9
LRM	Limekiln Ridge	5.00	20	*e*Pg	Pg	22 18 49.4	-5.0
LRM				*e*Sg	Sg	22 19 54.8	-4.3
V11A	Goodsprings	5.32	185	⇓P	Pn	22 18 39.5	+0.3
	baz=5.3,SNR=6.0						
V12A	Nelson	5.42	180	P	Pn	22 18 40.6	+0.2
	baz=5.4,SNR=6.9						
CHMT	Chamberlain Mo	5.88	11	*e*Pn	Pn	22 18 43.4	-3.5
CHMT				*e*Sg	Sg	22 20 18.7	-8.9
YBH	Yreka Blue Hor	5.90	278	LR	LR	22 20 51.6	
	comp=Z,197nm,21.1s,baz=268,slow=36						
YKA	Yellowknife Ar	21.38	0	P	P	22 22 07.6	+0.4
	0.2nm,0.7s,baz=177,slow=9.6,SNR=5.3						

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*IDC **21** 22:22:45.2±3.8, 6°.52S×148°.33E, h0^{km}, mb3.8/3, mb1 4.0/4, mb1mx3.6/16, mbtmp3.8/4, ML3.8/1, Error ellipse: s-maj=103.7km s-min=30.8km az=109.0*

NEIC 21 22:22:48.9±3.5**, 6°.41S**×**147°.90E, h10^{km}, mb3.7**/2**, Error ellipse: s-maj=94.8km s-min=17.7km az=103.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	Coen	8.82	211	*e*Pn	Pn	22 24 56.0	-0.6
COEN				*e*Sn	Sn	22 26 30.4	-5.8
WRAB	Tennant Creek	18.81	223	*e*P	Pn	22 27 09.0	-0.3
	0.8nm,0.4s						
WRA	Warramunga Arr	18.82	223	P	Pn	22 27 09.0	-0.5
	0.3nm,0.3s,baz=51,slow=11,SNR=20						
ASAR	Alice Springs	21.80	217	P	P	22 27 42.1	+0.8
	1.9nm,0.4s,baz=51,slow=9.0,SNR=31						
FITZ	Fitzroy Crossi	24.62	240	P	P	22 28 09.8	+0.1
	3.3nm,0.4s,baz=62,slow=7.7,SNR=19						
FITZ	Fitzroy Crossi	24.62	240	P	P	22 28 09.8	+0.1
FITZ				*e*P		22 28 10.0	
MBWA	Marble Bar	30.95	239	*e*P	P	22 29 06.4	-0.1
	1.0nm,0.4s						
MKAR	Makanchi Array	78.38	320	P	P	22 34 49.7	0.0
	0.3nm,0.9s,baz=120,slow=7.5,SNR=3.2						

IGQ 21 22:31:37.3, 2°.37S×78°.96W, h12^{km}±4^{km}, Mb4.0, Ms3.8, 2C-6D, Error ellipse: s-maj=3.4km s-min=2.3km az=15.2, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGUA	Igualata	0.93	20	P	Pg	22 31 54.8	-0.4
ARRY	Arrayan	0.99	31	P	Pb	22 31 56.0	-0.5
BIL2	Estacion Bilba	1.01	27	⇑S	Sg	22 32 11.0	+0.8
BIL2	Estacion Bilba	1.01	27	⇑P	Pb	22 31 57.0	+0.2
JUI6	Juive	1.06	28	P	Pb	22 31 57.3	-0.3
ULBA	Ulba	1.06	31	P	Pb	22 31 57.8	+0.1
RUN5	Runtun	1.09	30	P	Pb	22 31 58.0	0.0
PISA	Pisayambo	1.42	24	S	Sn	22 32 24.4	+2.8
PISA	Pisayambo	1.42	24	P	Pn	22 32 04.2	+1.2
QIL2	Quilotoa	1.49	2	⇓S	Sn	22 32 25.7	+2.5
QIL2	Quilotoa	1.49	2	⇓P	Pn	22 32 05.6	+1.7
MOV1	Cotopaxi Vol s	1.72	18	P	Pn	22 32 10.3	+3.1
CAMI	Rancho Maria	1.74	15	P	Pn	22 32 10.1	+2.8
NAS2	Nasa	1.78	16	P	Pn	22 32 11.7	+3.8
COV1	Cotopaxi Volc	1.80	20	P	Pn	22 32 10.9	+2.7
VC1	Cotopaxi 1	1.80	18	⇓P	Pn	22 32 11.8	+3.6
PITA	Cotopaxi Volc	1.87	16	P	Pn	22 32 11.8	+2.6
ANTI	Antisana	2.06	23	⇓S	Sn	22 32 44.6	+7.0
ANTI	Antisana	2.06	23	⇓P	Pn	22 32 16.0	+4.1
JUA2	San Juan 2	2.17	9	P	Pn	22 32 18.5	+5.3
CHIS	Cerro-Chispas-	2.20	307	P	Pn	22 32 12.0	-1.6
TERV	Terraza Guagua	2.21	9	P	Pn	22 32 19.2	+5.5
GGP	Refugio Guagua	2.21	10	S	Sn	22 32 49.4	+8.3
GGP	Refugio Guagua	2.21	10	P	Pn	22 32 19.0	+5.2
PINO	Pino	2.22	9	P	Pn	22 32 19.0	+5.0
YANA	Yana	2.27	10	P	Pn	22 32 20.0	+5.4
CAYR	Refugio Cayamb	2.55	22	P	Pn	22 32 27.3	+8.7
CAYA	Cayambe	2.61	22	P	Pn	22 32 27.7	+8.4
OTAV	Otavalo	2.64	11	⇓P	Pn	22 32 25.9	+6.2
COTA	Cotacachi	2.75	13	P	Pn	22 32 29.5	+8.2

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*ISCJB **21** 22:38:23.9±0.6, 36°.32N±0°.03×21°.85E±0°.05, h10^{km}, Error ellipse: s-maj=6.7km s-min=3.2km az=142.8*

*CSEM **21** 22:38:23.4±0.4, 36°.30N×21°.69E, h7^{km}, MD3.7, Error ellipse: s-maj=10.3km s-min=6.1km az=49.0*

*THE **21** 22:38:23.0, 36°.24N×21°.73E, h3^{km}±2^{km}, ML3.6/2, Error ellipse: s-maj=5.2km s-min=1.6km az=242.0*

*NEIC **21** 22:38:24.0, 36°.36N×21°.90E, h9^{km}, MD3.7(ATH), After ATH.*

*ATH **21** 22:38:24.0, 36°.36N×21°.90E, h9^{km}±1^{km}, MD3.7/14, ML2.8*

ISC 21 22:38:24.6±0.6**, 36°.33N**±0°.03×**21°.85E**±0°.04**, h10^{km}, n75, σ1^{s}.38**/101**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.57	352	P	Pg	22 38 34.1	-1.6
PYL				S	Sg	22 38 44.1	+0.9
PYL	PYLOS	0.57	352	*e*PB	Pg	22 38 34.2	-1.5
PYL				*e*SB	Sg	22 38 42.4	-0.8
PYL	PYLOS	0.57	352	*e*Pb	Pg	22 38 34.2	-1.5
PYL				*e*Sb	Sg	22 38 42.4	-0.8
ITM	Ithomi	0.85	4	*e*PB	Pg	22 38 39.8	-1.2
ITM				*e*SB	Sg	22 38 50.8	-1.3
ITM	Ithomi	0.85	4	*e*Pb	Pg	22 38 39.8	-1.2
ITM				*e*Sb	Sg	22 38 50.8	-1.3
VLI	Veliai	0.96	66	*e*PB	Pg	22 38 41.5	-1.6
VLI				*e*SB	Sg	22 38 53.6	-2.0
KYTH	Kithira	0.96	93	*e*PB	Pg	22 38 41.4	-1.7
KYTH				*e*SB	Sg	22 38 54.5	-1.1
VLX	Vlachokerasia	1.12	22	*e*PB	Pg	22 38 44.4	-1.8
VLX				*e*SB	Sg	22 38 59.1	-1.7
VLX	Vlachokerasia	1.12	22	*e*Pb	Pg	22 38 44.4	-1.8
GUR	Goura	1.65	14	*e*PB	Pn	22 38 54.3	+0.6
GUR	Goura	1.65	14	*e*Pb	Pn	22 38 54.3	+0.6
RLS	Riolos of Patr	1.75	350	*e*PG	Pn	22 38 55.7	+0.7
RLS	Riolos of Patr	1.75	350	*e*Pg	Pn	22 38 55.7	+0.7
LAKA	Lakka	1.91	3	P	Pn	22 38 58.0	+0.8
LAKA				S	Sn	22 39 23.7	+2.4
LAKA	Lakka	1.91	3	P	Pn	22 38 58.0	+0.8
LAKA				S	Sn	22 39 23.7	+2.4
LTK	Loutraki	1.91	28	P	Pn	22 38 58.5	+1.3
LTK				S	Sn	22 39 23.4	+2.0
LTK	Loutraki	1.91	28	*e*PG	Pn	22 38 58.6	+1.4
LTK				*e*SN	Sn	22 39 23.8	+2.4
LTK	Loutraki	1.91	28	P	Pn	22 38 58.5	+1.3
LTK				S	Sn	22 39 23.4	+2.0
LTK				*e*Sn	Sn	22 39 23.8	+2.4
KARN	Karanos	1.92	118	P	Pn	22 38 55.4	-1.9
KARN				S	Sn	22 39 21.8	+0.3
KARN	Karanos	1.92	118	P	Pn	22 38 55.4	-1.9
KARN				S	Sn	22 39 21.8	+0.3
NAIG	Nisos Aigina	1.94	42	*e*PG	Pn	22 38 58.8	+1.2
TRIZ	Trizonia	2.04	5	P	Pn	22 38 59.0	0.0
TRIZ				S	Sn	22 39 26.2	+1.7
TRIZ	Trizonia	2.04	5	P	Pn	22 38 59.0	0.0
TRIZ				S	Sn	22 39 26.2	+1.7
KALE	Kalithea	2.07	6	P	Pn	22 39 00.7	+1.3
KALE				S	Sg	22 39 29.2	-2.0
KALE	Kalithea	2.07	6	P	Pn	22 39 00.7	+1.3
KALE				S	Sg	22 39 29.2	-2.0
VLS	Valsamata	2.10	332	P	Pn	22 38 58.7	-1.1
VLS	Valsamata	2.10	332	*e*PN	Pn	22 39 01.3	+1.5
VLS	Valsamata	2.10	332	P	Pn	22 38 58.7	-1.1
VAM	Vamos	2.12	115	*e*PN	Pn	22 39 01.0	+0.9
VAM	Vamos	2.12	115	*e*Pn	Pn	22 39 01.0	+0.9
VLY	Voula,Athens	2.18	45	*e*PN	Pn	22 39 01.6	+0.7
VLY	Voula,Athens	2.18	45	*e*Pn	Pn	22 39 01.6	+0.7
ATH	Athens Observa	2.22	42	*e*PN	Pn	22 39 02.3	+0.9
ATH	Athens Observa	2.22	42	*e*Pn	Pn	22 39 02.3	+0.9
ATHU	Athens Univers	2.25	43	P	Pn	22 39 02.9	+1.0
ATHU	Athens Univers	2.25	43	P	Pn	22 39 02.9	+1.0
PTL	Penteli	2.35	43	*e*PN	Pn	22 39 04.3	+1.0
PTL	Penteli	2.35	43	*e*Pn	Pn	22 39 04.3	+1.0
LKR	Lokris	2.49	21	P	Pn	22 39 05.6	+0.4
LKR	Lokris	2.49	21	*e*PB	Pn	22 39 05.8	+0.6
LKR	Lokris	2.49	21	P	Pn	22 39 05.6	+0.4
IDI	Anoyia	2.68	112	P	Pn	22 39 06.8	-1.0
IDI	Anoyia	2.68	112	P	Pn	22 39 06.8	-1.0
AGG	Agios Georgios	2.71	8	P	Pn	22 39 09.2	+0.9
AGG				S	Sn	22 39 43.5	+2.3
AGG	Agios Georgios	2.71	8	*e*PN	Pn	22 39 10.3	+2.0
AGG	Agios Georgios	2.71	8	P	Pn	22 39 09.2	+0.9
AGG	Agios Georgios	2.71	8	*e*Pn	Pn	22 39 10.3	+2.0
AGG				S	Sn	22 39 43.5	+2.3
SIVA	Sivas	2.75	118	P	Pn	22 39 09.6	+0.9
SIVA	Sivas	2.75	118	P	Pn	22 39 09.6	+0.9
LAST	Lasithi	3.18	110	P	Pn	22 39 12.9	-1.7
LAST				S	Sn	22 39 54.1	+1.6
LAST	Lasithi	3.18	110	P	Pn	22 39 12.9	-1.7
LAST				S	Sn	22 39 54.1	+1.6
XOR	Xorichti	3.21	19	P	Pn	22 39 16.4	+1.3
XOR	Xorichti	3.21	19	P	Pn	22 39 16.4	+1.3
THL	Klokotos Trika	3.23	2	P	Pn	22 39 15.1	-0.3
THL	Klokotos Trika	3.23	2	*e*PN	Pn	22 39 16.9	+1.5
THL	Klokotos Trika	3.23	2	P	Pn	22 39 15.1	-0.3
THL	Klokotos Trika	3.23	2	*e*Pn	Pn	22 39 16.9	+1.5
NPS	Neapolis	3.24	108	*e*PN	Pn	22 39 17.1	+1.6
NPS	Neapolis	3.24	108	*e*Pn	Pn	22 39 17.1	+1.6
IGT	Igoumenitsa	3.41	340	P	Pn	22 39 16.4	-1.5
IGT				S	Sn	22 39 58.6	+0.2
IGT	Igoumenitsa	3.41	340	P	Pn	22 39 16.4	-1.5
IGT				S	Sn	22 39 58.6	+0.2
MEV	Metsovon	3.48	352	P	Pn	22 39 19.9	+1.0
MEV	Metsovon	3.48	352	P	Pn	22 39 19.9	+1.0
LIT	Litokhoron	3.80	7	P	Pn	22 39 24.2	+1.0
LIT	Litokhoron	3.80	7	P	Pn	22 39 24.2	+1.0
FNA	Florina	4.46	355	P	Pn	22 39 31.3	-1.0
FNA	Florina	4.46	355	P	Pn	22 39 31.3	-1.0
SOH	Sokhos	4.64	14	*e*PN	Pn	22 39 36.0	+1.3
SOH	Sokhos	4.64	14	*e*Pn	Pn	22 39 36.0	+1.3
TIP	Timpagrande	4.93	307	P	Pn	22 39 37.2	-1.6
TIP	Timpagrande	4.93	307	P	Pn	22 39 37.2	-1.6
CEL	Celeste	5.12	294	P	Pn	22 39 38.8	-2.6
CEL	Celeste	5.12	294	P	Pn	22 39 38.8	-2.6
BARS	Barje	6.48	360	*e*Pn	Pn	22 39 58.3	-1.7
BBLS	Lazići	7.76	347	*e*Pn	Pn	22 40 16.0	-1.5

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*IDC **21** 22:47:27.8±1.1, 41°.20N×114°.93W, h0^{km}, mb3.2/1, mb1 3.7/4, mb1mx3.5/22, mbtmp3.2/4, ML3.6/3, Error ellipse: s-maj=19.7km s-min=5.7km az=133.0*

*ISCJB **21** 22:47:28.7±0.2, 41°.13N±0°.01×114°.92W±0°.02, h10^{km}, Error ellipse: s-maj=2.1km s-min=1.8km az=44.2*

*NEIC **21** 22:47:28.9, 41°.13N×114°.90W, h0^{km}, ML3.2, After REN.*

ISC 21 22:47:29.3±0.2**, 41°.14N**±0°.01×**114°.94W**±0°.02**, h10^{km}, n108, σ1^{s}.23**/138**, 23C-36D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.30	195	P	Pg	22 47 35.0	-0.2
	baz=0.3,SNR=50						
N12A				⇑S	Sg	22 47 39.7	+0.4
	baz=0.3						
ELK	Elko	0.46	210	Pg	Pg	22 47 37.7	-0.5
	66nm,0.3s,baz=20,slow=18,SNR=19						
ELK				Lg		22 47 44.3	
	353nm,0.3s,baz=114,slow=17,SNR=56						
ELK	Elko	0.46	210	*e*Pg	Pg	22 47 37.4	-0.8
ELK				*e*Sg	Sg	22 47 44.0	-0.2
M13A	Montello	0.62	69	⇓P	Pg	22 47 40.0	-1.3
	baz=0.6,SNR=8.3						
N13A	Wendover, West	0.62	117	⇓P	Pg	22 47 40.3	-1.0
	baz=0.6,SNR=53						
N13A				⇓S	Sg	22 47 48.4	-1.0
	baz=0.6						
N11A	Elko Archery C	0.69	242	⇑P	Pg	22 47 42.5	0.0
	baz=0.7,SNR=16						
M11A	Holland Ranch,	0.71	294	⇑P	Pg	22 47 42.1	-0.9
	baz=0.7						
M11A				⇓S	Sg	22 47 51.9	-0.3
	baz=0.7						
O12A	Currie	0.88	171	⇓P	Pg	22 47 45.6	-0.7
	baz=0.9,SNR=22						
O12A				⇓S	Sg	22 47 57.6	-0.1
	baz=0.9						
L12A	House Creek Ra	1.01	357	⇑P	Pg	22 47 47.0	-1.7
	baz=1.0						
L12A				⇓S	Sg	22 48 00.5	-1.3
	baz=1.0						
O11A	Cowboy Ranch,	1.15	209	P	Pb	22 47 51.4	+0.2
	baz=1.2,SNR=13						
O11A				⇓S	Sb	22 48 06.2	0.0
	baz=1.2						
L11A	Cat Creek Ranc	1.20	329	⇓P	Pb	22 47 50.3	-1.7
	baz=1.2						
L11A				⇑S	Sb	22 48 06.2	-1.3
	baz=1.2						
L13A	Double Diamond	1.20	38	⇓S	Sb	22 48 05.8	-2.0
	baz=1.2						
M14A	Sheep Mountain	1.25	73	⇓P	Pn	22 47 50.7	-2.0
	baz=1.2						
M14A				⇓S	Sb	22 48 07.2	-1.9
	baz=1.2						
N10A	Dunphy	1.26	251	⇓P	Pn	22 47 52.4	-0.6
	baz=1.3						
N10A				⇓S	Sb	22 48 09.7	+0.3
	baz=1.3						
M10A	I.L. Ranch, Tu	1.27	288	⇑S	Sb	22 48 09.9	+0.3
	baz=1.3						
N14A	Grayback Hills	1.35	102	⇓P	Pn	22 47 52.6	-1.6
	baz=1.3						
N14A				⇑S	Sb	22 48 10.9	-1.2
	baz=1.3						
O10A	Cortez Mining,	1.46	235	⇓Pb	Pb	22 47 55.5	-1.0
	baz=1.5,SNR=8.3						
O10A				⇓Sb	Sb	22 48 15.8	+0.7
	baz=1.5						
L10A	Juniper Basin	1.48	310	⇑Sb	Sb	22 48 15.4	-0.4
	baz=1.5						
K12A	Draper Farm, C	1.50	1	⇓S	Sn	22 48 13.8	-1.9
	baz=1.5						
L14A	Malta	1.55	54	⇑Sb	Sb	22 48 16.1	-1.7
	baz=1.5						
P12A	McGill	1.67	179	⇓Pb	Pb	22 47 58.9	-1.1
	baz=1.7,SNR=28						
P11A	Circle Ranch,	1.71	202	⇑Sb	Sb	22 48 23.2	+1.0
	baz=1.7						
HVU	Hansel Valley	1.74	68	*e*P	Pn	22 48 00.3	+0.7
HVU				*e*Sg	Sg	22 48 22.0	-3.3
K11A	Parker Ranch,	1.82	334	⇓Sb	Sb	22 48 24.6	-1.0
	baz=1.8						
N15A	Stansbury Isla	1.84	97	⇑Pb	Pb	22 48 00.9	-2.1

	baz=1.8,SNR=22						
BMN	Battle Mountai	1.88	249	ePn	Pn	22 48 00.5	-0.9
BMN				eSn	Sn	22 48 27.7	+2.6
M15A	Larsen Ranch,	1.90	79	⇓Sb	Sb	22 48 26.6	-1.2
	baz=1.9						
M09A	Marrel Ranch,	1.92	279	⇓Sb	Sb	22 48 29.3	+1.0
	baz=1.9						
P10A	Eureka	1.92	218	⇓P	Pn	22 48 01.6	-0.3
	baz=1.9,SNR=18						
O09A	Fish Creek Ran	1.97	241	⇑P	Pn	22 48 02.3	-0.4
	baz=2.0,SNR=19						
Q12A	Willow Creek R	2.10	178	⇑P	Pn	22 48 03.9	-0.6
	baz=2.1,SNR=9.0						
P14A	Drum Mountains	2.10	137	P	Pn	22 48 03.5	-1.0
	baz=2.1,SNR=15						
K10A	MacKenzie Ranc	2.18	319	⇓P	Pn	22 48 05.0	-0.6
	baz=2.2,SNR=13						
NOQ	North Oquirrh	2.19	102	ePn	Pn	22 48 04.9	-0.8
NOQ				eSn	Sn	22 48 37.5	+4.7
Q13A	Wheeler Ranch,	2.29	162	P	Pn	22 48 06.7	-0.4
	baz=2.3,SNR=16						
J13A	Cove Ranch, Pi	2.33	14	⇓P	Pn	22 48 07.5	-0.1
	baz=2.3,SNR=16						
Q11A	Duckwater	2.36	194	⇓P	Pn	22 48 07.9	-0.1
	baz=2.4,SNR=19						
K15A	Arbon	2.37	49	⇓P	Pn	22 48 07.7	-0.4
	baz=2.3,SNR=10						
MFID	Camas Ranch	2.37	344	⇓P	Pn	22 48 08.6	+0.4
	baz=2.4,SNR=14						
J14A	Carey	2.42	25	⇓P	Pn	22 48 09.0	+0.1
	baz=2.4,SNR=11						
HLID	Hailey	2.45	9	⇑P	Pn	22 48 09.5	+0.2
	baz=2.5,SNR=15						
CTU	Camp Tracy	2.45	99	ePn	Pn	22 48 10.8	+1.5
NLU	North Lily Min	2.48	118	ePn	Pn	22 48 11.3	+1.6
Q14A	Sevier Lake (B	2.50	149	P	Pn	22 48 09.2	-0.8
	baz=2.5,SNR=6.4						
P15A	Leamington	2.56	127	P	Pn	22 48 09.6	-1.2
	baz=2.5,SNR=14						
Q10A	Clear Creek Ra	2.57	206	⇑P	Pn	22 48 11.2	+0.2
	baz=2.6,SNR=14						
I12A	Atlanta	2.66	357	⇓P	Pn	22 48 12.7	+0.6
	baz=2.7,SNR=12						
JLU	Jordanelle	2.70	100	ePn	Pn	22 48 13.5	+0.9
MPU	Maple Canyon	2.75	113	ePn	Pn	22 48 16.2	+2.7
P08A	Dixie Valley	2.80	240	P	Pn	22 48 13.7	-0.4
	baz=2.8,SNR=16						
R12A	Pony Springs,	2.82	175	⇓P	Pn	22 48 14.4	0.0
	baz=2.8,SNR=5.9						
R11A	Troy Canyon, C	2.83	190	⇑P	Pn	22 48 14.4	-0.2
	baz=2.8,SNR=7.0						
I13A	Wildhorse Cree	2.84	12	⇓P	Pn	22 48 15.1	+0.5
	baz=2.8,SNR=11						
R13A	O'Grain Ranch,	3.05	166	⇑P	Pn	22 48 17.9	+0.4
	baz=3.0,SNR=14						
WVOR	Wild Horse Val	3.06	296	ePn	Pn	22 48 21.0	+3.4
N07B	Gerlach	3.08	265	⇑P	Pn	22 48 17.6	-0.3
	baz=3.1,SNR=6.8						
O07A	Toulon	3.15	253	⇑P	Pn	22 48 18.1	-0.8
	baz=3.2						
Q08A	Gabbs	3.24	226	⇓P	Pn	22 48 19.9	-0.2
	baz=3.2,SNR=5.3						
AHID	Auburn Hatcher	3.29	59	ePn	Pn	22 48 21.3	+0.5
AHID				eSg	Sg	22 49 16.8	+1.9
MSU	Marysvale	3.38	140	ePn	Pn	22 48 21.6	-0.4
TMUT	Trail Mountain	3.40	122	ePn	Pn	22 48 26.0	+3.7
RRI2	Red Ridge	3.47	49	ePn	Pn	22 48 25.5	+2.1
ARUT	Antelope Range	3.54	160	ePn	Pn	22 48 24.7	+0.4
ARUT				eSn	Sn	22 49 18.1	+12
S11A	Rachel	3.55	190	⇓P	Pn	22 48 24.9	+0.5
	baz=3.5,SNR=7.5						
S14A	Cedar City	3.64	157	⇑P	Pn	22 48 25.5	-0.2
	baz=3.6,SNR=13						
S13A	Holt Ranch, En	3.65	166	⇓P	Pn	22 48 25.6	-0.2
	baz=3.6,SNR=14						
PAHR	Pah Rah Range	3.69	249	ePn	Pn	22 48 25.7	-0.6
NVAR	Mina Array Bea	3.75	225	Pn	Pn	22 48 27.2	+0.1
	4.4nm,0.3s,baz=42,slow=12,SNR=26						
NVAR				Lg		22 49 28.2	
	28nm,0.3s,baz=54,slow=29,SNR=10						
REDW	Red Top Meadow	3.76	52	ePn	Pn	22 48 29.7	+2.5
TPAW	Teton Pass	3.77	50	ePn	Pn	22 48 29.0	+1.6
SNOW	Snow King Moun	3.87	52	ePn	Pn	22 48 31.9	+3.1
T11A	Corn Creek, Al	3.90	183	⇑P	Pn	22 48 29.5	+0.3
	baz=3.9,SNR=9.0						
SRU	San Rafael	3.94	120	ePn	Pn	22 48 30.6	+0.9
SRU				ePg	Pg	22 48 41.5	-3.3
SRU				eSg	Sg	22 49 34.6	-1.2
MCMT	McKenzie Canyo	3.99	22	ePn	Pn	22 48 34.0	+3.5
MCMT				eSn	Sn	22 49 20.4	+3.2
IMW	Indian Meadow	4.04	46	ePn	Pn	22 48 32.9	+1.8
LOHW	Long Hollow	4.05	51	ePn	Pn	22 48 33.2	+2.0
MOOW	Moose Ponds	4.05	49	ePn	Pn	22 48 32.4	+1.1
BMO	Blue Mountains	4.10	336	ePn	Pn	22 48 32.8	+0.8
MOD	Modoc	4.10	282	ePn	Pn	22 48 31.7	-0.2
T14A	Hurricane	4.32	160	⇓P	Pn	22 48 35.2	+0.2
	baz=4.3,SNR=13						
BW06	Boulder Array	4.33	66	ePn	Pn	22 48 37.2	+2.1
PDAR	Pinedale Array	4.33	66	Pn	Pn	22 48 36.8	+1.7
	0.4nm,0.3s,baz=238,slow=12,SNR=10						
PDAR				Lg		22 49 42.6	
	1.8nm,0.3s,baz=252,slow=26,SNR=7.4						
R06C	Coleville	4.35	235	⇑P	Pn	22 48 35.6	+0.2
	baz=4.4,SNR=6.9						
WAKR	Walker	4.35	234	ePn	Pn	22 48 35.8	+0.4
YFT	Old Faithful	4.48	41	ePg	Pg	22 48 47.7	-7.3
QLMT	Earthquake Lak	4.50	34	ePn	Pn	22 48 44.2	+6.8
DLMT	Dillon	4.55	21	ePn	Pn	22 48 39.3	+1.1
DLMT				eSg	Sg	22 49 53.0	-2.4
YMR	Madison River	4.58	38	ePn	Pn	22 48 41.1	+2.7
YMR				eSg	Sg	22 49 51.1	-5.0
SHPR	Sheep Range	4.63	182	ePn	Pn	22 48 39.6	+0.3
SHPR				ePg	Pg	22 48 57.7	-0.3
MTUM	Tungsten Hills	4.72	218	ePn	Pn	22 48 41.6	+1.2
MTUM				eSg	Sg	22 49 59.1	-1.6
LKWY	Lake	4.78	43	ePn	Pn	22 48 46.5	+5.2
LRM	Limekiln Ridge	5.02	20	ePb	Pb	22 48 57.5	+0.4
BOZ	Bozeman (W)	5.11	27	ePg	Pg	22 48 57.8	-9.3
CMB	Columbia Colle	5.23	235	ePn	Pn	22 48 46.0	-1.5
CMB				eSn	Sn	22 49 50.9	+3.1
CMB				eSg	Sg	22 50 14.2	-2.9
LNOR	Lincton Mounta	5.32	334	ePn	Pn	22 48 51.9	+3.3
PV04	Paradox Valley	5.39	119	ePn	Pn	22 48 53.1	+3.4
V12A	Nelson	5.41	179	⇑P	Pn	22 48 50.4	+0.5
	baz=5.4,SNR=12						
PV01	Paradox Valley	5.76	119	ePg	Pg	22 49 19.6	+0.1
RWWY	Rawlins	5.83	82	ePn	Pn	22 48 57.9	+2.1
HRY	Holter Researc	6.00	21	ePg	Pg	22 49 17.1	-7.1
HRY				eSg	Sg	22 50 34.8	-7.1
GSC	Goldstone	6.01	195	ePg	Pg	22 49 24.6	+0.2
GCMT	Greycliff	6.02	38	ePn	Pn	22 49 07.3	+8.9
WUAZ	Wupatki	6.27	152	ePn	Pn	22 49 08.9	+7.1
WUAZ				ePg	Pg	22 49 26.8	-2.6
WUAZ				eSg	Sg	22 50 52.8	+2.2
MVCO	Mesa Verde	6.36	126	ePg	Pg	22 49 25.4	-5.5
BSMT	Bassoo Peak	6.71	1	ePn	Pn	22 49 10.5	+2.7
BSMT				eSg	Sg	22 51 05.1	+0.6
PHWY	Pilot Hill	7.15	86	ePn	Pn	22 49 15.7	+1.9
TXAR	Lajitas Array	14.93	139	Pn	Pn	22 51 04.4	+4.0
	0.0nm,0.3s,baz=318,slow=13,SNR=3.2						
YKA	Yellowknife Ar	21.39	0	P	P	22 52 16.4	-0.3
	0.9nm,0.7s,baz=179,slow=10,SNR=23						

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*ISCJB **21** 22:52:37.3±0.3, 76°.92N±0°.02×18°.7E±0°.2, h10km, mb3.9/24, Error ellipse: s-maj=6.4km s-min=3.0km az=162.2*

*MOS **21** 22:52:37.6±1.4, 76°.87N×18°.27E, h10km, mb4.3/8, Error ellipse: s-maj=57.0km s-min=7.4km az=92.7*

*CSEM **21** 22:52:37.6±0.2, 76°.94N×18°.39E, h2km, mb4.3/7, Error ellipse: s-maj=10.0km s-min=4.4km az=70.0*

*IDC **21** 22:52:38.2±0.5, 76°.92N×18°.17E, h0km, mb3.9/18, mb1 4.0/20, mb1mx4.0/26, mbtmp3.9/20, ML4.2/2, MS3.5/1, Ms1 3.5/1, ms1mx2.9/45, Error ellipse: s-maj=15.5km s-min=7.1km az=74.0*

*NAO **21** 22:52:38.3±1.6, 76°.96N×18°.93E, h14km±18km, ML3.8*

*NEIC **21** 22:52:39.3±0.4, 76°.92N×18°.15E, h10km, mb4.1/6, ML3.8(NAO), Error ellipse: s-maj=11.8km s-min=6.3km az=71.0*

*BER **21** 22:52:41.2±3.6, 77°.05N×19°.46E, h21km±16km, MD2.5, ML3.8, ML3.8(NAO)*

ISC 21 22:52:39.2±0.3, **76°.97N**±0°.02×**18°.7E**±0°.2, **h10km, n111, σ1s.25**/125, **mb3.9**/24, **2D, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.70	275	eP	Pg	22 52 53.8	+1.0
HSP				eS	Sg	22 53 03.1	+1.2
SPA0	Spitsbergen Ar	1.31	339	Pg	Pg	22 53 03.1	-1.3
	baz=150,slow=22						
SPA0				Lg		22 53 20.8	
	baz=152,slow=22						
SPA0	Spitsbergen Ar	1.31	339	Pg	Pg	22 53 03.1	-1.3
	baz=150,slow=20,SNR=95						
SPA0				Lg		22 53 20.8	
	baz=152,slow=20						
SPITS	Spitsbergen Ar	1.31	339	Pn	Pn	22 53 03.7	+0.2
	baz=300,slow=19,SNR=9364						
SPITS				Sn	Sn	22 53 21.7	+0.6
	baz=299,slow=31,SNR=15						
SPITS	Spitsbergen Ar	1.31	339	Pn	Pn	22 53 03.7	+0.2
SPITS				Sn	Sn	22 53 21.7	+0.6
SPB4	Spitsbergen Ar	1.32	339	ePg	Pg	22 53 03.0	-1.4
SPB4				eSg	Sg	22 53 21.1	-0.4
SPB4	Spitsbergen Ar	1.32	339	ePg	Pg	22 53 03.0	-1.4
SPB4				eSg	Sg	22 53 21.0	-0.5
HOPEN	Hopen	1.54	104	eP	Pn	22 53 04.9	-1.7
HOPEN				eSg	Sg	22 53 23.0	-5.5
HOPEN				AML	AML	22 53 31.1	
	comp=Z,4μm,0.7s						
HOPEN	Hopen	1.54	104	eP	Pn	22 53 04.9	-1.7
	SNR=55						
KBS	Kingsbay	2.42	328	Pn	Pn	22 53 17.9	-0.8
KBS				Pg	Pg	22 53 24.0	-1.5
KBS				Lg		22 53 53.8	
KBS	Kingsbay	2.42	328	eP	Pn	22 53 17.7	-1.0
KBS				ePg	Pg	22 53 23.8	-1.7
KBS				eSg	Sg	22 53 55.1	-1.7
KBS				AML	AML	22 54 02.2	
	comp=Z,6μm,0.9s						
KBS	Kingsbay	2.42	328	ePn	Pn	22 53 17.7	-1.0
KBS				eSg	Sg	22 53 53.4	-3.4
KBS	Kingsbay	2.42	328	Pn	Pn	22 53 17.9	-0.8
KBS	Kingsbay	2.42	328	Pg	Pg	22 53 24.0	-1.5
KBS				eSg	Sg	22 53 53.4	-3.4
KBS				Lg		22 53 53.8	
BJO	Bjornoya	2.48	177	ePg	Pg	22 53 25.3	-1.3
BJO				eSg	Sg	22 53 57.2	-1.5
BJO				AML	AML	22 54 07.6	
	comp=Z,2μm,0.8s						
TRO	Tromso	7.38	179	ePn	Pn	22 54 26.6	-0.1
TRO				eSn	Sn	22 55 45.1	-5.2
TRO				AML	AML	22 55 57.1	
	comp=Z,36nm,0.6s						
KEV	Kevo	7.62	158	eP	Pn	22 54 28.1	-2.0
KEV				pmax	pmax		
	comp=Z,21nm,0.8s						
KEV	Kevo	7.62	158	ep	Pn	22 54 28.1	-2.0
	comp=Z,21nm,0.8s						
KEV	Kevo	7.62	158	eP	Pn	22 54 28.1	-2.0
	comp=Z,21nm,0.8s						
ARA0	ARCESS Array S	7.72	162	Pn	Pn	22 54 29.5	-1.9
	baz=349,slow=14						
ARA0				Sn	Sn	22 55 50.3	-8.5
	baz=12,slow=22						
ARA0	ARCESS Array S	7.72	162	Pn	Pn	22 54 29.5	-1.9
	baz=349,slow=13,SNR=454						
ARCES	ARCESS Array B	7.72	162	P	Pn	22 54 30.2	-1.2
ARCES						22 55 50.0	
ARCES	ARCESS Array B	7.72	162	Pn	Pn	22 54 30.2	-1.3
	comp=Z,3.6nm,0.3s,baz=348,slow=11,SNR=98						
ARCES				Sn	Sn	22 55 50.0	-8.8
	comp=Z,7.7nm,0.3s,baz=354,slow=21,SNR=6.8						
ARCES				Lg		22 56 40.9	
	comp=Z,4.0nm,0.3s,baz=347,slow=27,SNR=2.9						
ARCES				LR	LR	22 58 44.8	
	comp=Z,345nm,18.9s,baz=101,slow=48						
ARCES	ARCESS Array B	7.72	162	Pn	Pn	22 54 30.2	-1.3
ARCES				Sn	Sn	22 55 50.0	-8.8
ARCES				Lg		22 56 40.9	
ARCES				LR	LR	22 58 44.8	
ARCES	ARCESS Array B	7.72	162	Pn	Pn	22 54 30.2	-1.2
LOF	Lofoten	9.01	192	ePn	Pn	22 54 52.4	+3.3
LOF				eSn	Sn	22 56 27.2	-3.1
MASU	Masugnsbyn	9.61	172	P	Pn	22 54 57.2	-0.1
DUNU	Dundret	9.92	176	P	Pn	22 55 03.1	+1.6
PAJU	Pajala	10.09	170	P	Pn	22 55 03.6	-0.2
APA0	Apatity Array	10.32	148	Pn	Pn	22 55 04.1	-2.8
	baz=347,slow=11						
APA0	Apatity Array	10.32	148	Pn	Pn	22 55 04.1	-2.9
	baz=347,slow=11,SNR=9.7						
APA	Apatity	10.40	147	⇓iP	Pn	22 55 05.0	-3.1
APA				pmax	pmax		
	comp=Z,31nm,0.7s						
ERTU	Ertsjaerv	10.52	172	P	Pn	22 55 10.0	+0.2
KONS	Konsvik	10.66	192	ePn	Pn	22 55 13.1	+1.5
KONS				eSn	Sn	22 57 04.5	-6.2
KONS				AML	AML	22 57 15.0	
	comp=Z,19nm,0.7s						
STOK	Stokkvaagen	10.83	192	ePn	Pn	22 55 15.6	+1.7
STOK				eSn	Sn	22 57 09.5	-5.4
STOK				AML	AML	22 57 10.1	
	comp=Z,14nm,0.5s						
MOR8	Moi Rana	10.93	189	ePn	Pn	22 55 15.9	+0.6
KALU	Kalix	11.26	170	P	Pn	22 55 20.3	+0.5
SJUU	Sjulsmark	11.56	174	P	Pn	22 55 23.8	-0.1
LILU	Lilltraesk	11.75	178	P	Pn	22 55 27.3	+0.8
BURU	Burvik	12.48	175	P	Pn	22 55 35.7	-0.8
SVAU	Svanoeiden	12.54	178	P	Pn	22 55 39.3	+2.0
JOF	Joensuu	14.70	157	ep	Pn	22 55 59.9	-6.9
	comp=Z,6.7nm,0.8s						
SUMG	Summit	15.03	283	ePn	Pn	22 56 10.3	-0.9
	comp=Z,3.4nm,0.5s						
SUMG	Summit	15.03	283	ePn	Pn	22 56 10.3	-0.9
	comp=Z,3.4nm,0.5s						
KAF	Kangasniemi	15.14	166	eP	Pn	22 56 09.1	-3.6
KAF				pmax	pmax		
	comp=Z,20nm,0.9s						
KAF	Kangasniemi	15.14	166	ep	Pn	22 56 09.1	-3.6
	comp=Z,20nm,0.9s						
FIA0	FINESS Array S	15.79	167	P	Pn	22 56 17.1	-4.1
NB2	NORSAR Subarra	16.20	193	P	Pn	22 56 20.9	-5.5
NOA	NORSAR Array B	16.20	193	Pn	Pn	22 56 22.8	-3.7
	comp=Z,0.6nm,0.3s,baz=15,slow=14,SNR=5.6						
NOA	NORSAR Array B	16.20	193	Pn	Pn	22 56 22.8	-3.7
HFS	Hagfors	17.00	189	Pn	Pn	22 56 35.5	-1.1
	comp=Z,0.5nm,0.3s,baz=19,slow=9.6,SNR=13						
HFS	Hagfors	17.00	189	P	Pn	22 56 35.5	-1.1
SFJD	Kangerlussuaq	22.01	281	P	P	22 57 31.7	-1.3
	comp=Z,8.5nm,0.9s,mb4.2,baz=53,slow=5.1,SNR=3.5						
SFJD	Kangerlussuaq	22.01	281	P	P	22 57 31.7	-1.4
SUW	Suwalki	23.11	173	eP	P	22 57 46.1	+1.3
SUW				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.0						
SUW	Suwalki	23.11	173	eP	P	22 57 46.1	+1.2
	comp=Z,51nm,0.9s,mb5.0						
SUW	Suwalki	23.11	173	eP	P	22 57 46.1	+1.3
	comp=Z,51nm,0.9s,mb5.0						
ARU	Arti	24.97	122	d iP	P	22 58 11.3	+9.0
ARU				e		22 58 48.8	
ARU				SS		23 03 38.2	
ARU				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.6						
AKASG	Malin Array Be	26.68	165	P	P	22 58 17.3	-0.6
	comp=Z,0.3nm,0.3s,mb3.3,baz=350,slow=9.0,SNR=4.1						
AKASG	Malin Array Be	26.68	165	P	P	22 58 17.3	-0.6
VRAC	Vranov	27.78	183	P	P	22 58 29.0	+1.3
	comp=Z,1.2nm,0.6s,mb3.7,baz=27,slow=9.0,SNR=2.9						
VRAC	Vranov	27.78	183	P	P	22 58 29.0	+1.3
GERES	GERESS Array B	28.30	187	P	P	22 58 32.8	+0.4
	comp=Z,0.6nm,0.6s,mb3.4,baz=3.6,slow=9.3,SNR=3.0						
GERES	GERESS Array B	28.30	187	P	P	22 58 32.8	+0.5
ZALV	Zalesovo Beam	32.89	95	PcP	PcP	23 01 56.8	0.0
	comp=Z,1.5nm,0.5s,baz=316,slow=4.1,SNR=7.3						
INK	Inuvik	33.96	342	P	P	22 59 23.5	+1.6
	comp=Z,0.7nm,0.5s,mb3.9,baz=352,slow=6.8,SNR=6.3						
INK				PcP	PcP	23 01 58.9	-0.7
	comp=Z,0.6nm,0.5s,baz=2.6,slow=4.9,SNR=3.5						
INK	Inuvik	33.96	342	P	P	22 59 23.5	+1.6
INK				PcP	PcP	23 01 58.9	-0.7
INK	Inuvik	33.96	342	P	P	22 59 23.5	+1.6
INK	Inuvik	33.96	342	PcP	PcP	23 01 58.9	-0.7
BOD	Bodaibo	35.77	66	eP	P	22 59 37.2	-0.5
BOD	Bodaibo	35.77	66	eP	P	22 59 37.2	-0.5
SCHQ	Schefferville	36.42	284	P	P	22 59 42.6	-0.7
	comp=Z,1.8nm,0.7s,mb4.1,baz=31,slow=16,SNR=6.9						
SCHQ	Schefferville	36.42	284	P	P	22 59 42.6	-0.7
YKA	Yellowknife Ar	37.78	326	P	P	22 59 54.2	-0.6
	comp=Z,0.2nm,0.6s,mb3.0,baz=9.3,slow=8.1,SNR=7.4						
YKA				PcP	PcP	23 02 11.1	+0.1
	comp=Z,0.5nm,0.5s,baz=0.6,slow=2.9,SNR=9.4						
YKA	Yellowknife Ar	37.78	326	P	P	22 59 54.2	-0.6
YKA				PcP	PcP	23 02 11.2	+0.1
YKA	Yellowknife Ar	37.78	326	P	P	22 59 54.2	-0.6
YKA	Yellowknife Ar	37.78	326	PcP	PcP	23 02 11.1	+0.1
BRTR	Keskin Array B	37.91	161	P	P	22 59 57.1	+1.1
	comp=Z,0.3nm,0.6s,mb3.2,baz=138,slow=32,SNR=3.8						
BRTR	Keskin Array B	37.91	161	P	P	22 59 57.2	+1.2
ESDC	Sonseca Array	38.65	208	P	P	23 00 02.8	+0.5
	comp=Z,0.1nm,0.3s,mb3.1,baz=8.5,slow=8.8,SNR=4.1						
ESDC	Sonseca Array	38.65	208	P	P	23 00 02.8	+0.5
MKAR	Makanchi Array	39.03	102	P	P	23 00 06.0	+0.6
	comp=Z,1.0nm,0.7s,mb3.6,baz=335,slow=7.3,SNR=14						
MKAR	Makanchi Array	39.03	102	P	P	23 00 06.0	+0.6
MALT	Malatya	39.71	155	eP	P	23 00 12.1	+0.9
MALT				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
MALT	Malatya	39.71	155	eP	P	23 00 12.1	+0.9
	comp=Z,1.7nm,0.7s,mb3.9						
MALT	Malatya	39.71	155	eP	P	23 00 12.1	+0.9
	comp=Z,1.6nm,0.7s,mb3.9						
KEST	Kesra	41.54	191	P	P	23 00 27.3	+1.0
	comp=Z,0.7nm,0.6s,mb3.5,baz=18,slow=8.2,SNR=6.6						
SONM	Songino Array	43.47	78	P	P	23 00 43.2	+1.3
	comp=Z,1.1nm,0.9s,mb3.6,baz=333,slow=8.8,SNR=8.3						
SONM	Songino Array	43.47	78	P	P	23 00 43.2	+1.3
ULN	Ulaanbaatar	43.59	77	eP	P	23 00 44.1	+1.3
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.0						
ULN	Ulaanbaatar	43.59	77	eP	P	23 00 44.1	+1.3
	comp=Z,3.4nm,1.0s,mb4.0						
ULN	Ulaanbaatar	43.59	77	eP	P	23 00 44.1	+1.3
	comp=Z,3.4nm,1.0s,mb4.0						
PETK	Petropavlovsk-	47.65	32	P	P	23 01 16.7	+1.8
	comp=Z,2.9nm,0.9s,mb4.3,baz=341,slow=8.5,SNR=3.6						
PETK	Petropavlovsk-	47.65	32	P	P	23 01 16.7	+1.8
MSO	Missoula	52.95	321	eP	P	23 01 55.0	0.0
	comp=Z,1.1nm,0.4s,mb4.1						
MSO	Missoula	52.95	321	eP	P	23 01 55.0	0.0
	comp=Z,1.1nm,0.4s,mb4.1						
TAM	Tamanrasset	54.61	195	eP	P	23 02 09.4	+1.9
TAM				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
TAM	Tamanrasset	54.61	195	eP	P	23 02 09.4	+1.9
	comp=Z,0.8nm,0.8s,mb3.8						
PDAR	Pinedale Array	56.25	316	P	P	23 02 19.6	+0.5
	comp=Z,0.4nm,0.6s,mb3.6,baz=38,slow=7.5,SNR=4.8						
MJAR	Matsushiro Arr	60.84	53	P	P	23 02 54.1	+3.0
MJAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MJAR	Matsushiro Arr	60.84	53	P	P	23 02 54.0	+2.9
	comp=Z,2.9nm,0.9s,mb4.4,baz=336,slow=6.8,SNR=6.7						
MJAR	Matsushiro Arr	60.84	53	P	P	23 02 54.1	+3.0
	comp=Z,3.0nm,1.0s,mb4.4						
TORD	Torodi Ar. Bea	64.43	198	P	P	23 03 15.4	+0.1
	comp=Z,1.3nm,0.7s,mb4.1,baz=350,slow=7.7,SNR=20						
TXAR	Lajitas Array	68.36	307	P	P	23 03 39.6	-0.7
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	68.36	307	P	P	23 03 39.5	-0.8
	comp=Z,0.5nm,0.6s,mb3.8,baz=73,slow=3.9,SNR=4.6						
TXAR	Lajitas Array	68.36	307	P	P	23 03 39.6	-0.7
	comp=Z,1.0nm,0.6s,mb4.0						
CMAR	Chiang Mai Arr	69.95	95	P	P	23 03 51.1	+0.8
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR	Chiang Mai Arr	69.95	95	P	P	23 03 51.1	+0.8
	comp=Z,0.7nm,0.4s,mb3.9,baz=347,slow=7.9,SNR=6.1						
CMAR	Chiang Mai Arr	69.95	95	P	P	23 03 51.1	+0.8
	comp=Z,1.0nm,0.4s,mb4.1						
ASAR	Alice Springs	118.52	71	PKIKP	PKPdf	23 11 25.1	-1.2
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	118.52	71	PKP	PKPdf	23 11 25.1	-1.2
	comp=Z,0.6nm,0.5s,baz=359,slow=2.1,SNR=9.1						

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*ISCJB **21** 23:02:50.5±0.4, 41°.11N±0°.02×114°.91W±0°.02, h3km±3km, Error ellipse: s-maj=2.6km s-min=2.2km az=163.7*

*NEIC **21** 23:02:51.5, 41°.12N×114°.92W, h14km, ML2.8, After REN.*

*IDC **21** 23:02:51.3±1.1, 41°.18N×114°.99W, h0km, mb2.5/1, mb1 3.2/3, mb1mx3.1/21, mbtmp2.8/3, ML3.3/2, MS3.1/1, Ms1 3.1/1, ms1mx2.8/7, Error ellipse: s-maj=20.7km s-min=6.0km az=129.0*

ISC 21 23:02:51.2±0.3, **41°.13N**±0°.01×**114°.90W**±0°.02, **h4km**±2km, **n97, σ0s.72**/121, **32C-25D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.29	201	⇓P	Pg	23 02 57.6	+0.8
	baz=0.3,SNR=556						
N12A				⇓S	Sg	23 03 02.0	+1.3
	baz=0.3						
ELK	Elko	0.46	214	Pg	Pg	23 03 00.1	+0.1
	24nm,0.3s,baz=29,slow=15,SNR=36						
ELK				Lg		23 03 06.4	
	128nm,0.3s,baz=134,slow=18,SNR=145						
ELK	Elko	0.46	214	ePg	Pg	23 03 00.3	+0.3
ELK				eSg	Sg	23 03 06.3	+0.3
N13A	Wendover, West	0.59	117	P	Pg	23 03 03.0	+0.5
	baz=0.6,SNR=66						
N13A				⇓S	Sg	23 03 11.1	+0.8
	baz=0.6						
M13A	Montello	0.60	67	⇑P	Pg	23 03 02.7	0.0
	baz=0.6,SNR=43						
M13A				⇓S	Sg	23 03 10.9	+0.4
	baz=0.6						
N11A	Elko Archery C	0.70	244	⇑P	Pg	23 03 04.8	+0.1
	baz=0.7,SNR=57						
N11A				⇓S	Sg	23 03 14.4	+0.6
	baz=0.7						
M11A	Holland Ranch,	0.74	295	⇓P	Pg	23 03 05.3	-0.1
	baz=0.7						
M11A				⇑S	Sg	23 03 15.3	+0.4
	baz=0.7						
O12A	Currie	0.87	172	⇓P	Pg	23 03 08.3	+0.5
	baz=0.9,SNR=45						
O12A				⇑S	Sg	23 03 20.3	+1.2
	baz=0.9						
L12A	House Creek Ra	1.02	355	⇑P	Pg	23 03 10.5	-0.3
	baz=1.0						
L12A				⇑S	Sg	23 03 24.0	0.0
	baz=1.0						
O11A	Cowboy Ranch,	1.15	210	⇑P	Pg	23 03 13.4	+0.2
	baz=1.2,SNR=163						
O11A				⇓S	Sg	23 03 28.2	+0.1
	baz=1.2						
L13A	Double Diamond	1.20	36	⇑P	Pg	23 03 13.7	-0.5
	baz=1.2,SNR=24						
L13A				⇑S	Sg	23 03 29.1	-0.6
	baz=1.2						
O13A	Hicks Ranch, I	1.22	145	⇓P	Pg	23 03 14.3	-0.2
	baz=1.2,SNR=120						
L11A	Cat Creek Ranc	1.22	329	⇓P	Pg	23 03 13.8	-0.8
	baz=1.2						
L11A				⇑S	Sg	23 03 29.6	-0.8
	baz=1.2						
M14A	Sheep Mountain	1.23	72	P	Pg	23 03 13.8	-1.0
	baz=1.2,SNR=66						
M14A				⇑S	Sg	23 03 30.7	0.0
	baz=1.2						
N10A	Dunphy	1.28	252	⇓P	Pg	23 03 15.0	-0.9
	baz=1.3,SNR=6.1						
N10A				⇓S	Sg	23 03 32.8	+0.4
	baz=1.3						
M10A	I.L. Ranch, Tu	1.30	288	P	Pg	23 03 15.2	-0.8
	baz=1.3,SNR=27						
N14A	Grayback Hills	1.33	101	⇑P	Pn	23 03 15.4	-1.1
	baz=1.3,SNR=43						
N14A				⇓S	Sg	23 03 34.2	+0.4
	baz=1.3						
BGU	Big Grassy Mou	1.43	97	ePn	Pn	23 03 17.0	-0.9
BGU				eSg	Sg	23 03 37.6	+0.5
O10A	Cortez Mining,	1.48	236	⇑P	Pn	23 03 17.8	-0.7
	baz=1.5,SNR=65						
K12A	Draper Farm, C	1.51	360	⇓P	Pn	23 03 17.7	-1.2
	baz=1.5,SNR=41						
L10A	Juniper Basin	1.51	309	⇑P	Pn	23 03 18.5	-0.6
	baz=1.5,SNR=61						
L14A	Malta	1.54	53	P	Pn	23 03 19.0	-0.4
	baz=1.5,SNR=16						
K13A	Stover Farm, H	1.64	22	⇑P	Pn	23 03 20.6	-0.2

	baz=1.6,SNR=18						
P12A	McGill	1.65	180	P	Pn	23 03 20.6	-0.3
	baz=1.7,SNR=78						
P11A	Circle Ranch,	1.70	203	⇑P	Pn	23 03 21.6	-0.1
	baz=1.7,SNR=16						
HVU	Hansel Valley	1.73	67	*e*Pn	Pn	23 03 22.3	+0.3
HVU				*e*Sn	Sn	23 03 45.3	+0.8
P13A	Bates Ranch, G	1.80	158	⇓P	Pn	23 03 22.5	-0.5
	baz=1.8						
N15A	Stansbury Isla	1.82	97	P	Pn	23 03 22.8	-0.5
	baz=1.8,SNR=37						
DUG	Dugway	1.84	120	⇓P	Pn	23 03 23.0	-0.5
	baz=1.9,SNR=52						
DUG				⇑Sb	Sb	23 03 49.3	+0.5
	baz=1.9						
DUG	Dugway	1.84	120	*e*Pn	Pn	23 03 22.9	-0.7
DUG				*e*Sg	Sg	23 03 49.8	-0.5
K11A	Parker Ranch,	1.85	333	P	Pn	23 03 23.7	+0.1
	baz=1.8,SNR=45						
SPUT	South Promonto	1.86	84	*e*Pn	Pn	23 03 24.6	+0.8
SPUT				*e*Sn	Sn	23 03 48.9	+1.2
M15A	Larsen Ranch,	1.88	79	P	Pn	23 03 24.1	0.0
	baz=1.9,SNR=26						
M15A				⇑Sb	Sb	23 03 49.8	-0.1
	baz=1.9						
BMN	Battle Mountai	1.90	249	*e*Pn	Pn	23 03 22.6	-1.7
BMN				*e*Sn	Sn	23 03 49.1	+0.6
K14A	Jones Ranch, D	1.92	42	⇑P	Pn	23 03 24.6	+0.1
	baz=1.9,SNR=10						
P10A	Eureka	1.92	219	⇑P	Pn	23 03 24.4	-0.2
	baz=1.9,SNR=17						
M09A	Marrel Ranch,	1.94	280	⇑P	Pn	23 03 24.3	-0.6
	baz=1.9						
O09A	Fish Creek Ran	1.99	242	⇓P	Pn	23 03 24.8	-0.7
	baz=2.0,SNR=10						
O15A	The Old Anders	2.03	114	P	Pn	23 03 25.4	-0.8
	baz=2.0,SNR=35						
P14A	Drum Mountains	2.08	137	P	Pn	23 03 26.1	-0.7
	baz=2.1,SNR=12						
L15A	Malad City	2.08	64	⇓P	Pn	23 03 27.1	+0.3
	baz=2.1						
Q12A	Willow Creek R	2.09	178	P	Pn	23 03 26.6	-0.3
	baz=2.1,SNR=17						
J12A	Stokes Ranch,	2.13	356	P	Pn	23 03 27.6	+0.2
	baz=2.1,SNR=35						
NOQ	North Oquirrh	2.16	102	*e*Pn	Pn	23 03 27.0	-0.9
K10A	MacKenzie Ranc	2.21	319	⇑P	Pn	23 03 29.1	+0.5
	baz=2.2,SNR=13						
L09A	Wilkinson Ranc	2.26	294	⇓P	Pn	23 03 30.1	+0.9
	baz=2.2,SNR=7.4						
Q13A	Wheeler Ranch,	2.27	162	P	Pn	23 03 29.1	-0.3
	baz=2.3,SNR=25						
P09A	Austin	2.33	228	⇑P	Pn	23 03 30.2	0.0
	baz=2.3						
J13A	Cove Ranch, Pi	2.33	13	⇑P	Pn	23 03 30.9	+0.6
	baz=2.3,SNR=31						
Q11A	Duckwater	2.35	194	P	Pn	23 03 30.5	-0.1
	baz=2.4,SNR=18						
K15A	Arbon	2.36	48	P	Pn	23 03 31.0	+0.4
	baz=2.3,SNR=12						
MFID	Camas Ranch	2.39	344	⇑P	Pn	23 03 31.8	+0.8
	baz=2.4,SNR=13						
J14A	Carey	2.42	25	P	Pn	23 03 32.2	+0.6
	baz=2.4,SNR=18						
NLU	North Lily Min	2.45	118	*e*Pn	Pn	23 03 31.4	-0.5
HLID	Hailey	2.46	8	⇑P	Pn	23 03 32.8	+0.8
	baz=2.4,SNR=29						
HLID	Hailey	2.46	8	*e*Pn	Pn	23 03 33.6	+1.5
HLID				*e*Sn	Sn	23 04 06.5	+4.0
Q14A	Sevier Lake (B	2.47	149	P	Pn	23 03 31.4	-0.8
	baz=2.5,SNR=14						
Q10A	Clear Creek Ra	2.57	207	⇓P	Pn	23 03 33.8	+0.2
	baz=2.6,SNR=27						
O08A	Rochester Mine	2.61	252	P	Pn	23 03 33.2	-0.9
	baz=2.6,SNR=12						
K09A	Rome	2.63	308	⇑P	Pn	23 03 35.8	+1.5
	baz=2.6,SNR=30						
JLU	Jordanelle	2.67	100	*e*Pn	Pn	23 03 34.5	-0.4
I12A	Atlanta	2.67	356	⇓P	Pn	23 03 36.3	+1.4
	baz=2.7						
MPU	Maple Canyon	2.73	113	*e*Pn	Pn	23 03 34.8	-0.9
R12A	Pony Springs,	2.81	175	⇑P	Pn	23 03 36.8	0.0
	baz=2.8						
P08A	Dixie Valley	2.82	241	⇓P	Pn	23 03 36.7	-0.3
	baz=2.8						
R11A	Troy Canyon, C	2.83	191	⇑P	Pn	23 03 36.5	-0.5
	baz=2.8,SNR=20						
I13A	Wildhorse Cree	2.84	11	P	Pn	23 03 38.4	+1.0
	baz=2.8,SNR=12						
DAU	Daniels Canyon	2.86	103	*e*Pg	Pg	23 03 46.2	+0.3
Q15A	Fillmore	2.87	137	⇓P	Pn	23 03 37.1	-0.6
	baz=2.9						
J15A	Blackfoot	2.92	38	⇑P	Pn	23 03 39.0	+0.7
	baz=2.9						
R13A	O’Grain Ranch,	3.03	166	⇑P	Pn	23 03 40.0	+0.2
	baz=3.1						
WVOR	Wild Horse Val	3.08	296	*e*Pg	Pg	23 03 45.0	-5.3
WVOR				*e*Sg	Sg	23 04 30.6	+0.3
O07A	Toulon	3.17	254	⇓P	Pn	23 03 41.1	-0.8
	baz=3.2,SNR=9.8						
Q08A	Gabbs	3.25	227	⇓P	Pn	23 03 42.7	-0.2
	baz=3.2						
MSU	Marysvale	3.35	140	*e*Pn	Pn	23 03 44.4	+0.1
TMUT	Trail Mountain	3.37	122	*e*Pg	Pg	23 03 54.1	-1.6
S10A	Tonopah Range,	3.46	203	⇑P	Pn	23 03 46.1	+0.3
	baz=3.5,SNR=9.4						
RRI2	Red Ridge	3.46	49	*e*Pn	Pn	23 03 45.4	-0.4
ARUT	Antelope Range	3.52	161	*e*Pn	Pn	23 03 47.4	+0.7
S13A	Holt Ranch, En	3.63	167	P	Pn	23 03 48.4	+0.2
	baz=3.7,SNR=24						
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	23 03 50.6	+0.9
NVAR	Mina Array Bea	3.76	225	Pn	Pn	23 03 49.4	-0.5
	1.5nm,0.3s,baz=39,slow=12,SNR=18						
NVAR				Lg		23 04 51.2	
	9.9nm,0.3s,baz=50,slow=35,SNR=7.6						
TPAW	Teton Pass	3.76	50	*e*Pn	Pn	23 03 55.8	+5.9
CCUT	Cedar City	3.77	161	*e*Pn	Pn	23 03 50.2	+0.2
CCUT				*e*Sg	Sg	23 04 51.9	-0.3
SRU	San Rafael	3.91	120	*e*Pg	Pg	23 04 04.1	-2.1
MCMT	McKenzie Canyo	3.99	21	*e*Pn	Pn	23 03 57.3	+4.2
IMW	Indian Meadow	4.03	45	*e*Pn	Pn	23 03 55.2	+1.6
LOHW	Long Hollow	4.04	51	*e*Pn	Pn	23 03 57.3	+3.5
MOOW	Moose Ponds	4.04	48	*e*Pn	Pn	23 03 59.8	+6.0
BMO	Blue Mountains	4.12	335	*e*Pn	Pn	23 03 59.9	+5.0
MOD	Modoc	4.13	283	*e*Pn	Pn	23 04 02.3	+7.3
BW06	Boulder Array	4.31	66	*e*Pn	Pn	23 04 04.2	+6.7
PDAR	Pinedale Array	4.31	66	Pn	Pn	23 04 02.2	+4.8
	0.3nm,0.3s,baz=245,slow=13,SNR=8.8						
PDAR				Lg		23 05 06.0	
	0.5nm,0.3s,baz=236,slow=32,SNR=5.0						
WAKR	Walker	4.37	235	*e*Pn	Pn	23 03 58.1	-0.2
SHPR	Sheep Range	4.62	183	*e*Pn	Pn	23 04 02.1	+0.4
SHPR				*e*Sg	Sg	23 05 20.9	+1.4
YBH	Yreka Blue Hor	5.90	278	LR	LR	23 07 10.2	
	comp=Z,155nm,19.4s,baz=131,slow=44						
YKA	Yellowknife Ar	21.40	0	P	P	23 07 39.6	0.0
	0.1nm,0.4s,baz=180,slow=10,SNR=3.3						

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*NEIC **21** 23:06:07.7, 16°.51N×99°.06W, h20^{km}, MD3.6(MEX), After MEX.*

MEX 21 23:06:07.5±0.7**, 16°.49N×99°.06W, h22**^{km}±33^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACX	Acapulco	0.90	294	*i* P	Pb	23 06 21.6	-2.8
ACX				*i* S	Sb	23 06 32.1	-3.9
PNIG	Pinotepa	0.90	96	*i* P	Pb	23 06 22.1	-2.3
PNIG				*i* S	Sb	23 06 32.9	-3.2
CAIG	El Cayaco	1.28	296	*i* P	Pn	23 06 27.6	-2.4
CAIG				*i* S	Sn	23 06 43.2	-3.3
MEIG	Mezcala	1.52	340	*e*P	Pn	23 06 30.6	-2.8
MEIG				*i* S	Sn	23 06 48.2	-4.2
UTMO	Huajuapan	1.79	42	*i* P	Pn	23 06 34.1	-2.9
UTMO				*i* S	Sn	23 06 55.5	-3.7
PLIG	Platanillo	1.93	348	*e*P	Pn	23 06 37.1	-1.9
PLIG				*i* S	Sn	23 07 00.3	-2.3
VHO	Vista Hermosa	2.30	75	*e*P	Pn	23 06 42.3	-1.8
VHO				*i* S	Sn	23 07 08.6	-3.2
TPIG	Tehuac#an	2.51	40	*e*P	Pn	23 06 50.0	+3.1
TPIG				*i* S	Sn	23 07 14.7	-2.2
PPM	Popocatepetl	2.59	9	*e*P	Pn	23 06 46.5	-1.6
PPM				*i* S	Sn	23 07 17.4	-1.5
MZVM		2.69	357	*e*P	Pn	23 06 46.8	-2.6
MZVM				*i* S	Sn	23 07 24.2	+3.0
CMIG	Matias Romero	4.05	81	*i* P	Pn	23 07 04.6	-3.4
CMIG				*i* S	Sn	23 08 00.4	+5.6

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*NEIC **21** 23:19:29.8, 36°.33N×21°.77E, h5^{km}, MD3.7(ATH), After ATH.*

*THE **21** 23:19:29.6, 36°.21N×21°.56E, h0^{km}±5^{km}, ML3.6/2, Error ellipse: s-maj=7.9km s-min=2.3km az=226.0*

*ATH **21** 23:19:29.8, 36°.33N×21°.77E, h5^{km}±2^{km}, MD3.7/18, ML3.0*

*ISCJB **21** 23:19:32.4±0.6, 36°.39N±0°.03×21°.84E±0°.05, h10^{km}, Error ellipse: s-maj=6.4km s-min=3.8km az=152.1*

*CSEM **21** 23:19:32.4±0.6, 36°.34N×21°.81E, h8^{km}, MD3.7, Error ellipse: s-maj=15.0km s-min=7.0km az=48.0*

ISC 21 23:19:33.2±0.6**, 36°.37N**±0°.03×**21°.85E**±0°.05**, h10**^{km}**, n70, σ1^s.39**/93**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.53	350	P	Pg	23 19 41.1	-2.4
PYL	PYLOS	0.53	350	*e*PG	Pg	23 19 40.6	-2.9
PYL				*e*SB	Sg	23 19 49.5	-1.0
PYL	PYLOS	0.53	350	*e*Pg	Pg	23 19 40.6	-2.9
PYL	PYLOS	0.53	350	P	Pg	23 19 41.1	-2.4
PYL				*e*Sb	Sg	23 19 49.5	-1.0
ITM	Ithomi	0.81	4	*e*PB	Pg	23 19 46.3	-2.5
ITM				*e*SB	Sg	23 19 58.6	-0.7
ITM	Ithomi	0.81	4	*e*Pb	Pg	23 19 46.3	-2.5
ITM				*e*Sb	Sg	23 19 58.6	-0.7
VLI	Veliai	0.94	68	*e*PG	Pg	23 19 49.2	-2.1
VLI				*e*SB	Sg	23 20 03.7	+0.2
VLI	Veliai	0.94	68	*e*Pg	Pg	23 19 49.2	-2.1
VLI				*e*Sb	Sg	23 20 03.7	+0.2
KYTH	Kithira	0.96	95	*e*PB	Pg	23 19 49.2	-2.5
KYTH	Kithira	0.96	95	*e*Pb	Pg	23 19 49.2	-2.5
VLX	Vlachokerasia	1.08	23	*e*PN	Pg	23 19 51.3	-2.7
VLX				*e*SB	Sg	23 20 08.2	+0.1
GUR	Goura	1.61	14	*e*PG	Pn	23 20 00.6	-1.1
GUR				*e*SB	Sn	23 20 24.5	+2.0
RLS	Riolos of Patr	1.71	350	*e*PG	Pn	23 20 01.9	-1.2
RLS				*e*SN	Sn	23 20 27.1	+2.1
LAKA	Lakka	1.87	3	P	Pn	23 20 05.1	-0.1
LAKA				S	Sg	23 20 33.3	+0.1
LAKA	Lakka	1.87	3	P	Pn	23 20 05.1	-0.1
LAKA				S	Sg	23 20 33.3	+0.1
LTK	Loutraki	1.87	28	P	Pn	23 20 05.8	+0.5
LTK				S	Sg	23 20 35.1	+1.7
LTK	Loutraki	1.87	28	*e*PN	Pn	23 20 06.2	+0.9
LTK	Loutraki	1.87	28	P	Pn	23 20 05.8	+0.5
LTK	Loutraki	1.87	28	*e*Pn	Pn	23 20 06.2	+0.9
LTK				S	Sg	23 20 35.1	+1.7
NAIG	Nisos Aigina	1.90	43	*e*PN	Pn	23 20 07.1	+1.4
NAIG	Nisos Aigina	1.90	43	*e*Pn	Pn	23 20 07.1	+1.4
KARN	Karanos	1.94	119	P	Pn	23 20 04.8	-1.4
KARN	Karanos	1.94	119	P	Pn	23 20 04.8	-1.4
TRIZ	Trizonia	2.00	5	P	Pn	23 20 06.9	-0.1
TRIZ				S	Sg	23 20 36.5	-0.9
TRIZ	Trizonia	2.00	5	P	Pn	23 20 06.9	-0.1
TRIZ				S	Sg	23 20 36.5	-0.9
KALE	Kalithea	2.03	6	P	Pn	23 20 07.7	+0.3
KALE				S	Sn	23 20 35.3	+2.5
KALE	Kalithea	2.03	6	P	Pn	23 20 07.7	+0.3
KALE				S	Sn	23 20 35.3	+2.5
VLS	Valsamata	2.06	331	P	Pn	23 20 06.0	-1.9
VLS	Valsamata	2.06	331	*e*PN	Pn	23 20 08.5	+0.6
VLS	Valsamata	2.06	331	P	Pn	23 20 06.0	-1.9
VLS	Valsamata	2.06	331	*e*Pn	Pn	23 20 08.5	+0.6
VLY	Voula,Athens	2.14	46	*e*PN	Pn	23 20 10.4	+1.4
VLY	Voula,Athens	2.14	46	*e*Pn	Pn	23 20 10.4	+1.4
ATH	Athens Observa	2.18	42	*e*PG	Pg	23 20 11.2	-3.9
ATHU	Athens Univers	2.21	44	P	Pn	23 20 10.0	0.0
ATHU				S	Sg	23 20 42.0	-2.4
ATHU	Athens Univers	2.21	44	P	Pn	23 20 10.0	0.0
ATHU				S	Sg	23 20 42.0	-2.4
PTL	Penteli	2.32	43	*e*PN	Pn	23 20 12.4	+1.0
PTL	Penteli	2.32	43	*e*Pn	Pn	23 20 12.4	+1.0
LKR	Lokris	2.45	21	P	Pn	23 20 13.2	0.0
LKR	Lokris	2.45	21	*e*PN	Pn	23 20 13.7	+0.5
LKR	Lokris	2.45	21	P	Pn	23 20 13.2	0.0
LKR	Lokris	2.45	21	*e*Pn	Pn	23 20 13.7	+0.5
EVR	Evrytania	2.54	359	*e*PN	Pn	23 20 16.0	+1.5
EVR	Evrytania	2.54	359	*e*Pn	Pn	23 20 16.0	+1.5
AGG	Agios Georgios	2.67	8	P	Pn	23 20 16.6	+0.3
AGG				S	Sg	23 20 53.5	-5.5
AGG	Agios Georgios	2.67	8	*e*PN	Pn	23 20 17.2	+0.9
AGG	Agios Georgios	2.67	8	P	Pn	23 20 16.6	+0.3
AGG	Agios Georgios	2.67	8	*e*Pn	Pn	23 20 17.2	+0.9
AGG				S	Sg	23 20 53.5	-5.5
SIVA	Sivas	2.76	118	P	Pn	23 20 18.8	+1.3
SIVA	Sivas	2.76	118	P	Pn	23 20 18.8	+1.3
XOR	Xorichti	3.17	19	P	Pn	23 20 24.0	+0.9
XOR	Xorichti	3.17	19	P	Pn	23 20 24.0	+0.9
LAST	Lasithi	3.19	111	P	Pn	23 20 22.2	-1.2
LAST	Lasithi	3.19	111	P	Pn	23 20 22.2	-1.2
THL	Klokotos Trika	3.19	2	P	Pn	23 20 22.3	-1.1
THL	Klokotos Trika	3.19	2	*e*PB	Pn	23 20 23.8	+0.4
THL	Klokotos Trika	3.19	2	P	Pn	23 20 22.3	-1.1
NPS	Neapolis	3.25	109	*e*PB	Pn	23 20 25.7	+1.5
JAN	Janina	3.37	347	*e*PN	Pn	23 20 25.8	-0.1
JAN	Janina	3.37	347	*e*Pn	Pn	23 20 25.8	-0.1
IGT	Igoumenitsa	3.38	340	P	Pn	23 20 24.0	-2.0
IGT				S	Sn	23 21 06.8	+0.8
IGT	Igoumenitsa	3.38	340	P	Pn	23 20 24.0	-2.0
IGT				S	Sn	23 21 06.8	+0.8
LIT	Litokhoron	3.75	7	P	Pn	23 20 32.6	+1.4
LIT	Litokhoron	3.75	7	P	Pn	23 20 32.6	+1.4
KZN	Kozani	3.93	359	*e*PN	Pn	23 20 35.3	+1.8
KZN	Kozani	3.93	359	*e*Pn	Pn	23 20 35.3	+1.8
KARP	Karpathos	4.38	99	*e*PN	Pn	23 20 41.3	+1.5
KARP	Karpathos	4.38	99	*e*Pn	Pn	23 20 41.3	+1.5
FNA	Florina	4.42	355	P	Pn	23 20 38.4	-1.9
FNA	Florina	4.42	355	P	Pn	23 20 38.4	-1.9

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*ISCJB **21** 23:21:23.1±0.7, 10°.23N±0°.05×86°.35W±0°.04, h10^{km}, mb3.4/4, Error ellipse: s-maj=8.1km s-min=5.3km az=17.4*

*CASC **21** 23:21:24.5±1.8, 10°.28N×86°.33W, h15^{km}, MD4.0, ML2.8*

*IDC **21** 23:21:24.9±2.3, 11°.56N×84°.77W, h0^{km}, mb3.5/4, mb1 4.0/4, mb1mx3.7/18, mbtmp3.5/4, MS4.2/1, Ms1 4.2/1, ms1mx3.2/29, Error ellipse: s-maj=83.1km s-min=12.5km az=89.0*

ISC 21 23:21:23.9±0.7**, 10°.27N**±0°.05×**86°.31W**±0°.04**, h10**^{km}**, n29, σ1^s.01**/34**, mb3.4**/4**, 3C, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VCR	Vista de Mar	0.68	102	⇑*e*P	Pg	23 21 38.0	+0.9
GPS3	Bodega del ICE	1.04	62	*i* P	Pg	23 21 43.3	-0.7
GPS3				*i* S	Sg	23 21 58.4	+0.7
GPS2	Hotel Rincˆ‡n	1.06	63	*i* P	Pg	23 21 43.3	-0.9
GPS2				*i* S	Sg	23 21 58.9	+1.0
GPS1	Guardaparques	1.07	62	*i* P	Pg	23 21 43.5	-0.9
LIM1	Limonal	1.12	67	⇑*i*P	Pb	23 21 44.4	-1.0
LIM1				*i* S	Sb	23 22 00.6	+0.5
MESS	Mesas	1.19	67	⇑*i*P	Pb	23 21 45.5	-1.1
MESS				*i* S	Sb	23 22 02.6	+0.6
JCR	Jicaral	1.25	109	*e*P	Pn	23 21 46.3	-1.1
JTS	JuntasAbangare	1.33	89	Pg	Pg	23 21 47.5	-2.0
	30nm,0.3s,baz=302,slow=20,SNR=68						
JTS				Lg		23 22 07.6	
	71nm,0.3s,baz=282,slow=20,SNR=8.7						
JTS	JuntasAbangare	1.33	89	*e*P	Pn	23 21 47.5	-1.1
JTS				*e*S	Sb	23 22 09.8	+3.7
CONN	Concepcion	1.45	27	*e*P	Pn	23 21 50.0	-0.2
FORC	Fortuna	1.62	83	*e*P	Pn	23 21 52.7	+0.2
FORC				*e*S	Sn	23 22 18.7	+5.1
CRUN	El Crucero	1.71	0	*e*S	Sn	23 22 22.4	+6.9
CRUN				AML	AML	23 22 24.6	
	comp=Z,110nm,0.4s						
TICN	Ticuantepe	1.76	2	*e*P	Pn	23 21 54.9	+0.4
CGA2	Cerro Gallo 2	1.83	98	*e*P	Pn	23 21 55.4	0.0
CSAN		1.91	357	*e*P	Pn	23 21 56.5	0.0
COPN	Copaltepe	1.92	352	*e*P	Pn	23 21 56.7	0.0
HUEN		2.06	4	*e*P	Pn	23 21 58.3	-0.3
MOMN	Momotombo	2.14	354	*e*P	Pn	23 22 00.2	+0.5
LAJ	Bijagual	2.19	100	*e*P	Pn	23 21 55.4	-5.0
BOAB	BOACO BROADBAN	2.26	16	*e*P	Pn	23 22 00.8	-0.5
LCR2	La Lucha 2	2.33	103	*e*P	Pn	23 22 02.8	+0.5
URSC	Urasca	2.53	100	*e*P	Pn	23 22 06.5	+1.5
BUS	Buena Vista	2.61	106	*e*P	Pn	23 22 07.0	+0.8
BAR1		3.12	109	*e*P	Pn	23 22 13.6	+0.4
PCRV	Puerto La Cruz	21.33	88	LR	LR	23 32 57.1	
	comp=Z,696nm,19.9s,baz=110,slow=35						
TXAR	Lajitas Array	24.97	322	P	P	23 26 49.5	+1.7
	comp=Z,1.1nm,0.6s,mb3.6,baz=140,slow=10.0,SNR=4.8						
PDAR	Pinedale Array	38.21	332	P	P	23 28 44.0	+0.1
	comp=Z,0.4nm,0.6s,mb3.3,baz=132,slow=8.6,SNR=3.8						
NVAR	Mina Array Bea	40.08	320	P	P	23 29 02.6	+3.1
	comp=Z,0.5nm,0.6s,mb3.4,baz=140,slow=7.1,SNR=3.8						
YKA	Yellowknife Ar	56.00	345	P	P	23 30 59.8	-2.5
	comp=Z,0.2nm,0.7s,mb3.3,baz=137,slow=6.9,SNR=6.1						
YKA				PcP	PcP	23 32 00.0	-0.6
	comp=Z,0.2nm,0.6s,baz=136,slow=3.9,SNR=4.0						

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*IDC **21** 23:42:10.2±1.3, 33°.73N×141°.61E, h0^{km}, mb3.6/4, mb1 3.8/6, mb1mx3.6/23, mbtmp3.7/6, ML3.8/2, Error ellipse: s-maj=24.3km s-min=19.6km az=95.0*

*ISCJB **21** 23:42:13.2±0.8, 33°.79N±0°.04×141°.61E±0°.07, h33^{km}, mb3.7/4, Error ellipse: s-maj=8.1km s-min=5.9km az=175.2*

*NEIC **21** 23:42:15.7±1.2, 33°.86N×141°.69E, h45^{km}, MG3.4(JMA), Error ellipse: s-maj=20.1km s-min=17.2km az=90.0*

*JMA **21** 23:42:16.3±0.3, 33°.87N×141°.35E, h37^{km}±5^{km}, M3.4*

ISC 21 23:42:14.9±0.7**, 33°.80N**±0°.04×**141°.57E**±0°.07**, h35**^{km}**, n21, σ0^s.92**/29**, mb3.7**/4**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BSO1	Boso 1	0.98	330	P	Pn	23 42 31.7	-0.5
BSO3	Boso 3	1.33	319	P	Pn	23 42 36.7	-0.3
BSO4	Boso 4	1.56	320	P	Pn	23 42 40.5	+0.3
BSO4				*e*S	Sn	23 42 57.2	-2.0
JHJ2	Mitsune	1.62	245	P	Pn	23 42 41.5	+0.6
JHJ2				*e*S	Sn	23 43 00.7	+0.1
JHJ	Hachijo jima 2	1.64	246	Pn	Pn	23 42 40.4	-0.9
	27nm,0.3s,baz=70,slow=17,SNR=9.8						
JHJ				Sn	Sn	23 43 01.2	+0.1
	31nm,0.3s,baz=68,slow=22,SNR=8.1						
KTR	Katsuura	1.70	323	P	Pn	23 42 42.6	+0.6
KTR				*e*S	Sn	23 43 01.2	-1.3
JIM2	Oshima 3	1.99	298	P	Pn	23 42 45.6	-0.5
JIM2				*e*S	Sn	23 43 08.0	-1.8
JIZS	Izushimoda	2.41	293	P	Pn	23 42 52.1	+0.3
JOD2	Odawara 2	2.52	306	P	Pn	23 42 52.7	-0.6
JYN	Shimob	3.02	305	P	Pn	23 43 00.2	+0.1
JRY	Ryogami san	3.12	316	P	Pn	23 43 01.6	+0.1
JAG	Ashikaga	3.14	327	P	Pn	23 43 02.3	+0.4
MJAR	Matsushiro Arr	3.88	316	Pn	Pn	23 43 12.5	+0.4
	3.3nm,0.3s,baz=127,slow=14,SNR=16						
MJAR				Sn	Sn	23 43 57.7	+1.3
	1.3nm,0.3s,baz=156,slow=21,SNR=5.8						
MAJO	Matsushiro	3.88	316	*e*Pn	Pn	23 43 13.5	+1.4
MAT	Matsushiro	3.88	316	P	Pn	23 43 13.2	+1.1
MAT				S	Sn	23 43 57.4	+1.0
CBIJ	Chichi jima	6.70	175	Pn	Pn	23 43 50.0	-0.9
	6.9nm,0.3s,baz=116,slow=23,SNR=8.8						
CBIJ				Sn	Sn	23 44 59.8	-6.2
	5.2nm,0.3s,baz=285,slow=20,SNR=3.1						
ERM	Erimo	8.30	8	*e*Pn	Pn	23 44 11.1	-1.6
PETK	Petropavlovsk-	22.48	26	P	P	23 47 11.2	+0.3
	3.6nm,0.5s,mb4.1,baz=181,slow=12,SNR=31						
SONM	Songino Array	29.80	309	P	P	23 48 19.8	+1.5
	0.6nm,0.8s,mb3.4,baz=109,slow=8.5,SNR=4.7						
MKAR	Makanchi Array	46.01	305	P	P	23 50 35.5	+0.8
	0.3nm,0.6s,mb3.4,baz=99,slow=8.9,SNR=4.9						
WRA	Warramunga Arr	53.88	188	P	P	23 51 34.3	-0.4
	1.7nm,1.1s,mb3.9,baz=5.6,slow=7.6,SNR=10						

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*NIED **21** 23:43:00, 25°.80N×128°.50E, h11^{km}, Mw4.1 Best double couple: $M_0$1.86000×10^{15} NP1:ϕ_s46.00000°, δ55.00000°, λ88.00000°. NP2:ϕ_s230.00000°, δ35.00000°, λ93.00000°.*

*IDC **21** 23:43:41.7±1.0, 25°.92N×128°.30E, h0^{km}, mb3.8/8, mb1 3.9/8, mb1mx3.8/21, mbtmp3.8/8, MS3.1/1, Ms1 3.1/1, ms1mx2.7/50, Error ellipse: s-maj=40.3km s-min=17.0km az=78.0*

*ISCJB **21** 23:43:43.6±1.0, 25°.91N±0°.04×128°.56E±0°.04, h29^{km}±7^{km}, mb3.9/10, Error ellipse: s-maj=7.2km s-min=6.2km az=15.1*

*JMA **21** 23:43:43.3±0.2, 25°.84N×128°.54E, h47^{km}, M3.8*

*NEIC **21** 23:43:46.8±0.8, 25°.98N×128°.42E, h35^{km}, mb4.2/2, Error ellipse: s-maj=35.4km s-min=12.6km az=73.0*

ISC 21 23:43:44.8±1.0**, 25°.96N**±0°.04×**128°.51E**±0°.04**, h25**^{km}±6^{km}**, n24, σ1^s.01**/33**, mb3.9**/10**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JJT2	Tamagusuku 2	0.71	285	P	Pb	23 43 58.2	-0.4
JJT2				*e*S	Sb	23 44 08.7	+0.7
NAH1	Naha	0.78	289	P	Pb	23 43 58.9	-0.9
NAH1				*e*S	Sb	23 44 10.1	+0.2
JOW	Kunigami	0.90	346	P	Pb	23 44 01.3	-0.5
JOW				*e*S	Sb	23 44 15.8	+2.5
JOW	Kunigami	0.90	346	Pn	Pn	23 44 01.4	-0.4
	187nm,0.3s,baz=161,slow=18,SNR=172						
JOW				Sn	Sn	23 44 12.4	-1.6
	211nm,0.3s,baz=129,slow=19,SNR=16						
JIH	Iheya	1.18	336	P	Pn	23 44 05.9	+0.2
JIH				*e*S	Sn	23 44 21.3	+0.3
JAGN	Aguni-jima	1.30	299	P	Pn	23 44 07.1	-0.3
JAGN				*e*S	Sn	23 44 23.7	-0.4
JKE	Kume jima 2	1.60	284	P	Pn	23 44 10.4	-1.1
JKE				S	Sn	23 44 30.8	-0.5
JTK	Tokunoshima	1.86	12	P	Pn	23 44 15.2	+0.1
JTK				*e*S	Sn	23 44 38.0	+0.1
JMZ	Minamidaito 2	2.44	93	P	Pn	23 44 21.7	-1.4
JMZ				S	Sn	23 44 48.6	-3.5
JAM	Amami Oshima	2.63	21	P	Pn	23 44 26.0	+0.3
JAM				*e*S	Sn	23 44 56.8	0.0
KSRS	Korea Array	11.47	358	LR	LR	23 51 04.3	
	comp=Z,86nm,20.0s,baz=185,slow=38						
GTA	Gaotai	27.50	306	*e*P	P	23 49 28.4	-0.8
GTA				pP	pP	23 49 36.3	-0.3
GTA				sP	sP	23 49 39.9	+0.2
GTA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.4						
SONM	Songino Array	27.92	327	P	P	23 49 34.7	+1.8
	comp=Z,1.3nm,0.7s,mb3.7,baz=140,slow=11,SNR=13						
MKAR	Makanchi Array	41.91	312	P	P	23 51 32.7	-0.5
	comp=Z,0.5nm,0.5s,mb3.4,baz=93,slow=9.5,SNR=14						
MKAR	Makanchi Array	41.91	312	P	P	23 51 32.7	-0.5
ZALV	Zalesovo Beam	42.62	323	P	P	23 51 37.0	-1.8
	comp=Z,0.7nm,0.3s,mb3.8,baz=109,slow=7.9,SNR=6.0						
WRAB	Tennant Creek	45.97	172	*e*P	P	23 52 06.9	+0.9
	comp=Z,1.9nm,0.7s,mb4.1						
WRA	Warramunga Arr	45.97	172	P	P	23 52 05.8	-0.2
	comp=Z,0.9nm,0.7s,mb3.8,baz=352,slow=8.3,SNR=5.7						
ASAR	Alice Springs	49.60	174	P	P	23 52 35.3	+1.2
	comp=Z,0.5nm,0.7s,mb3.6,baz=6.7,slow=10,SNR=3.7						
KBL	Kabul	51.45	295	*e*P	P	23 52 49.4	+1.3
	comp=Z,1.8nm,0.9s,mb4.0						
KBL				*e*pP	pP	23 52 57.4	+1.6
AKASG	Malin Array Be	75.91	320	P	P	23 55 28.6	-0.6
	comp=Z,1.1nm,0.5s,mb4.0,baz=62,slow=6.3,SNR=3.4						
BRTR	Keskin Array B	77.40	308	P	P	23 55 39.2	+1.4
	comp=Z,1.1nm,0.8s,mb3.8,baz=106,slow=4.4,SNR=7.6						
YKA	Yellowknife Ar	78.67	25	P	P	23 55 46.3	+1.9
	comp=Z,0.1nm,0.7s,baz=297,slow=6.1,SNR=4.6						
YKA	Yellowknife Ar	78.67	25	P	P	23 55 46.3	+1.9

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*NEIC **21** 23:48:05.6, 25°.84N×128°.57E, h37^{km}, MG3.1(JMA), After JMA.*

*JMA **21** 23:48:05.6±0.2, 25°.84N×128°.57E, h37^{km}, M3.1*

*ISCJB **21** 23:48:06.4±0.8, 25°.87N±0°.05×128°.54E±0°.05, h33^{km}, mb3.2/3, Error ellipse: s-maj=7.4km s-min=6.7km az=10.6*

*IDC **21** 23:48:09.8±2.3, 26°.22N×128°.82E, h54^{km}±9^{km}, mb3.1/3, mb1 3.2/3, mb1mx3.1/21, mbtmp3.1/3, Error ellipse: s-maj=123.4km s-min=15.2km az=60.0*

ISC 21 23:48:07.6±0.8**, 25°.89N**±0°.06×**128°.50E**±0°.05**, h35**^{km}**, n14, σ0^s.92**/23**, mb3.2**/3**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JJT2	Tamagusuku 2	0.72	291	P	Pn	23 48 20.4	-0.9
JJT2				*e*S	Sn	23 48 31.3	+0.1
NAH1	Naha	0.80	294	P	Pn	23 48 21.4	-1.0
NAH1				*e*S	Sn	23 48 32.6	-0.4
JOW	Kunigami	0.96	348	P	Pn	23 48 23.7	-1.0

JOW				eS	Sn	23 48 36.6	-0.6
JOW	Kunigami	0.96	348	P	Pn	23 48 23.8	-0.9
	34nm,0.3s,baz=160,slow=16,SNR=28						
JOW				S	Sn	23 48 36.8	-0.4
	157nm,0.3s,baz=150,slow=22,SNR=13						
JOW	Kunigami	0.96	348	ePn	Pn	23 48 23.7	-1.0
JOW				eSn	Sn	23 48 36.5	-0.6
JOW				S	Sn	23 48 36.8	-0.4
JIH	Iheya	1.24	337	P	Pn	23 48 28.4	-0.1
JIH				eS	Sn	23 48 44.2	+0.2
JAGN	Aguni-jima	1.33	302	P	Pn	23 48 29.6	-0.1
JAGN				eS	Sn	23 48 48.0	+1.8
JKE	Kume jima 2	1.61	286	P	Pn	23 48 32.5	-1.0
JTK	Tokunoshima	1.94	12	P	Pn	23 48 37.8	-0.2
JTK				eS	Sn	23 49 02.0	+0.9
JMZ	Minamidaito 2	2.45	91	P	Pn	23 48 44.1	-1.0
SONM	Songino Array	27.98	327	P	P	23 53 56.2	+1.4
	0.2nm,0.4s,mb3.1,baz=136,slow=9.3,SNR=3.7						
SONM				pP	pP	23 54 09.4	+4.5
	0.6nm,0.6s,baz=142,slow=9.4,SNR=6.3						
MKAR	Makanchi Array	41.95	312	P	P	23 55 55.1	+0.2
	0.2nm,0.5s,mb3.0,baz=94,slow=10,SNR=5.7						
MKAR				pP	pP	23 56 09.3	+4.1
	0.4nm,0.5s,baz=92,slow=10,SNR=5.9						
MKAR				sP	sP	23 56 17.1	+7.7
	0.4nm,0.7s,baz=95,slow=9.6,SNR=3.3						
MKAR	Makanchi Array	41.95	312	P	P	23 55 55.1	+0.2
MKAR				pP	pP	23 56 09.3	+4.1
MKAR				sP	sP	23 56 17.1	+7.7
WRA	Warramunga Arr	45.90	172	P	P	23 56 28.8	+2.0
	0.3nm,0.6s,mb3.4,baz=355,slow=8.8,SNR=3.6						

IDC 21 23:49:29.5±3.1**, 3°.68S**×**100°.37E, h0^{km}, mb4.0**/6**, mb1 4.2**/6**, mb1mx3.9**/21**, mbtmp4.0**/6**, Error ellipse: s-maj=126.2km s-min=18.7km az=57.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	22.04	356	P	P	23 54 25.8	-0.1
	2.0nm,0.8s,baz=187,slow=9.4,SNR=10						
WRA	Warramunga Arr	36.85	119	P	P	23 56 39.5	-0.3
	0.6nm,0.3s,baz=303,slow=8.5,SNR=18						
ASAR	Alice Springs	37.99	125	P	P	23 56 49.5	0.0
	1.1nm,0.4s,baz=301,slow=7.8,SNR=14						
SONM	Songino Array	51.57	5	P	P	23 58 37.7	+0.3
	2.4nm,0.7s,baz=188,slow=9.1,SNR=25						
MKAR	Makanchi Array	52.73	344	P	P	23 58 46.0	-0.1
	0.8nm,0.4s,baz=160,slow=9.3,SNR=21						
ZALV	Zalesovo Beam	58.88	349	P	P	23 59 29.6	-0.4
	2.1nm,0.8s,baz=175,slow=5.2,SNR=8.6						
TXAR	Lajitas Array	145.78	39	PKPbc	PKPbc	00 09 11.4	+0.1
	2.4nm,0.8s,baz=273,slow=0.4,SNR=11						

ISCJB ***21*** *23:51:50.1±1.4, 50°.9N±0°.1×177°.11W±0°.09, h41^{km}±10^{km}, mb3.9/12, Error ellipse: s-maj=18.6km s-min=8.4km az=166.0*

NEIC ***21*** *23:51:50.8, 50°.93N×177°.21W, h26^{km}, mb3.9/7, After AEIC.*

MOS ***21*** *23:51:50.4±0.7, 51°.01N×177°.09W, h39^{km}, mb4.3/1, Error ellipse: s-maj=21.1km s-min=13.7km az=94.8*

IDC ***21*** *23:51:56.1±9.0, 51°.64N×177°.38W, h48^{km}±48^{km}, mb3.7/10, mb1 3.9/12, mb1mx3.7/29, mbtmp3.8/12, ML4.1/2, Error ellipse: s-maj=191.0km s-min=20.3km az=169.0*

ISC 21 23:51:52.5±1.3**, 51°.0N**±0°.1×**177°.12W**±0°.09**, h43^{km}**±9^{km}**, h17^{km}**±5.0^{km}**:pP-P, n62, σ1^s.03**/63**, mb3.9**/12**, 1C, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	Adak	0.96	16	P	Pn	23 52 07.9	-1.7
ADK				S	Sn	23 52 22.5	+0.4
GSTR	Great Sitkin T	1.31	30	ePn	Pn	23 52 14.5	+0.1
ATKA	Atka Island	2.21	55	P	Pn	23 52 26.8	+0.2
NIKO	Nikolski	5.49	65	ePn	Pn	23 53 12.3	+0.6
SMY	Shemya	5.72	291	eP	Pn	23 53 14.1	-0.8
GAMB	Gambell	13.17	11	ePn	Pn	23 54 60.0	+3.4
OHAK	Old Harbor	15.27	57	ePn	Pn	23 55 24.3	-0.5
PETK	Petropavlovsk-	15.62	288	P	Pn	23 55 29.4	-0.1
PETK	Petropavlovsk-	15.62	288	P	Pn	23 55 29.4	-0.1
	0.4nm,0.3s,baz=91,slow=16,SNR=9.6						
PETK	Petropavlovsk-	15.62	288	P	Pn	23 55 29.4	-0.1
SVW2	Sparrevohn	15.66	41	Pn	Pn	23 55 33.9	+3.9
KDAK	Kodiak Island	15.78	55	P	Pn	23 55 30.3	-1.2
KDAK	Kodiak Island	15.78	55	P	Pn	23 55 30.3	-1.2
	1.4nm,0.3s,baz=239,slow=23,SNR=10						
KDAK	Kodiak Island	15.78	55	P	Pn	23 55 30.3	-1.2
PPLA	Purkeypile	17.96	39	ePn	Pn	23 56 01.4	+2.7
	3.2nm,0.6s						
KTH	Kantishna Hill	18.79	38	eP	Pn	23 56 09.1	+0.5
	8.0nm,0.7s						
BILL	Bilibino	18.97	341	eP	Pn	23 56 10.5	-0.3
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BILL	Bilibino	18.97	341	eP	Pn	23 56 10.5	-0.3
	comp=Z,3.1nm,1.0s						
BPAW	Bear Paw Mtn.	19.04	36	eP	Pn	23 56 12.1	+0.3
	comp=Z,3.2nm,0.5s						
IMA2	Indian Mountai	19.27	29	eP	Pn	23 56 14.6	+0.1
COLD	Coldfoot	21.08	29	eP	P	23 56 35.1	+2.3
	comp=Z,3.0nm,0.8s,mb3.7						
EGAK	Eagle	23.18	40	eP	P	23 56 53.5	-1.5
	comp=Z,4.5nm,0.8s,mb4.0						
INK	Inuvik	27.20	34	P	P	23 57 30.6	-1.1
INK	Inuvik	27.20	34	P	P	23 57 30.6	-1.1
	comp=Z,0.6nm,0.4s,mb3.5,baz=315,slow=5.3,SNR=6.0						
INK	Inuvik	27.20	34	P	P	23 57 30.6	-1.1
KLR	Kul'dur	32.31	287	eP	P	23 58 11.1	-6.0
YKA	Yellowknife Ar	34.75	46	P	P	23 58 38.7	+0.5
YKA	Yellowknife Ar	34.75	46	P	P	23 58 38.7	+0.6
	comp=Z,0.8nm,0.7s,mb3.7,baz=284,slow=7.8,SNR=11						
YKA	Yellowknife Ar	34.75	46	P	P	23 58 38.7	+0.5
CN2	Changchun	38.67	282	eP	P	23 59 12.9	+1.2
CN2				esP	sP	23 59 26.6	-1.9
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SONM	Songino Array	47.78	298	P	P	00 00 25.1	0.0
SONM	Songino Array	47.78	298	P	P	00 00 25.1	0.0
	comp=Z,1.7nm,0.6s,mb4.2,baz=60,slow=8.6,SNR=16						
SONM	Songino Array	47.78	298	P	P	00 00 25.1	0.0
ZAK	Zakamensk	48.08	302	eP	P	00 00 28.0	+0.6
NJ2	Nanjing	49.89	273	eP	P	00 00 42.6	+1.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
FRB	Frobisher Bay	52.83	32	P	P	00 01 02.3	-0.8
FRB	Frobisher Bay	52.83	32	P	P	00 01 02.3	-0.8
	comp=Z,4.0nm,1.1s,mb4.2,baz=304,slow=7.0,SNR=6.9						
FRB	Frobisher Bay	52.83	32	P	P	00 01 02.3	-0.8
XAN	Xi'an	54.78	282	P	P	00 01 16.8	-1.0
XAN				pP	pP	00 01 23.1	-6.9
XAN				sP	sP	00 01 25.8	-9.1
XAN				PP	PP	00 03 19.3	-1.2
XAN				S	S	00 08 55.8	+0.5
XAN				sS	sS	00 09 06.6	-9.0
XAN				ScS	ScS	00 11 04.8	+1.6
XAN				SS	SS	00 12 40.0	+1.6
XAN				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
XAN				pmax	pmax		
	comp=Z,110nm,4.6s						
LZH	Lanzhou	56.52	288	eP	P	00 01 33.0	+2.8
LZH				pP	pP	00 01 40.1	-2.3
LZH				sP	sP	00 01 43.5	-3.9
LZH				pmax	pmax		
	comp=Z,13nm,1.0s						
LZH				pmax	pmax		
	comp=Z,57nm,5.0s						
GTA	Gaotai	56.70	293	eP	P	00 01 32.1	+0.6
GTA				pP	pP	00 01 35.3	-8.4
GTA				sP	sP	00 01 38.4	-10
GTA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
KURK	Kurchatov	60.07	315	P	P	00 01 54.2	-0.6
KURK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
KURK	Kurchatov	60.07	315	P	P	00 01 54.2	-0.6
	comp=Z,1.3nm,0.6s,mb4.2,baz=42,slow=6.7						
KURK	Kurchatov	60.07	315	eP	P	00 01 53.1	-1.7
	comp=Z,1.3nm,0.4s,mb4.3						
MKAR	Makanchi Array	61.12	310	P	P	00 02 00.3	-1.7
MKAR	Makanchi Array	61.12	310	P	P	00 02 00.3	-1.7
	comp=Z,0.3nm,0.4s,mb3.8,baz=46,slow=6.0,SNR=7.9						
MKAR	Makanchi Array	61.12	310	P	P	00 02 00.3	-1.7
GYA	Guiyang	61.42	278⇑	iP	P	00 02 04.8	+0.5
GYA				pP	pP	00 02 12.6	-4.1
GYA				sP	sP	00 02 17.0	-4.6
GYA				PP	PP	00 04 21.3	+1.7
GYA				ScP	ScP	00 06 44.6	+0.6
GYA				S	S	00 10 21.9	-0.3
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
GYA				pmax	pmax		
	comp=Z,110nm,4.6s						
KMI	Kunming	64.84	279	P	P	00 02 26.8	-0.2
KMI				pmax	pmax		
	comp=Z,32nm,1.7s						
TAOE	Nuku Hiva Isla	67.61	140	eS	S	00 11 36.2	-2.4
	comp=Z,8µm,26.1s						
TAOE				eSS	SS	00 15 59.6	-0.7
	comp=Z,1µm,24.8s						
TAOE				eLR	LR	00 23 11.9	
	comp=Z,5µm,22.8s,baz=345						
PPT	Papeete	72.39	152	eS	S	00 12 38.9	+4.6
	comp=Z,2µm,25.5s						
PPT				eLR	LR	00 25 44.8	
	comp=Z,1µm,23.2s,baz=351						
AKASG	Malin Array Be	76.27	343	P	P	00 03 35.4	-0.8
AKASG	Malin Array Be	76.27	343	P	P	00 03 35.4	-0.8
	comp=Z,0.7nm,0.4s,mb3.9,baz=11,slow=4.8,SNR=4.6						
AKASG	Malin Array Be	76.27	343	P	P	00 03 35.4	-0.8
GERES	GERESS Array B	80.14	353	P	P	00 03 57.7	0.0
GERES	GERESS Array B	80.14	353	P	P	00 03 57.7	0.0
	comp=Z,0.7nm,0.7s,mb3.7,baz=20,slow=8.8,SNR=2.1						
GERES	GERESS Array B	80.14	353	P	P	00 03 57.7	0.0
BRTR	Keskin Array B	85.76	337	P	P	00 04 27.4	+0.5
BRTR	Keskin Array B	85.76	337	P	P	00 04 27.4	+0.4
	comp=Z,2.4nm,0.8s,baz=54,slow=2.4,SNR=17						
BRTR	Keskin Array B	85.76	337	P	P	00 04 27.4	+0.4
ESDC	Sonseca Array	89.54	5	P	P	00 04 44.1	-1.0
	comp=Z,0.3nm,0.5s,mb3.9,baz=340,slow=6.1,SNR=3.3						
ESDC	Sonseca Array	89.54	5	P	P	00 04 44.1	-0.9

IDC ***21*** *23:52:06.0±0.6, 51°.20N×177°.37W, h0^{km}, mb4.8/33, mb1 4.8/34, mb1mx4.8/41, mbtmp4.8/34, ML3.6/1, MS4.9/6, Ms1 4.9/6, ms1mx4.4/41, Error ellipse: s-maj=19.3km s-min=10.4km az=164.0*

SZGRF ***21*** *23:52:07.7, 50°.84N×178°.89W, h33^{km}, mb5.3, Andreanof Islands, Aleutian Islands, United States*

ISCJB ***21*** *23:52:08.2±1.2, 51°.01N±0°.06×177°.32W±0°.04, h26^{km}±7^{km}, mb5.2/217, MS5.1/22, Error ellipse: s-maj=9.4km s-min=3.7km az=170.2*

NEIC ***21*** *23:52:08.1, 50°.93N×177°.16W, h16^{km}, mb5.4/121, MS4.9/4, ML5.0(AEIC), After AEIC.*

MOS ***21*** *23:52:09.9±0.9, 51°.10N×177°.36W, h37^{km}, mb5.5/79, MS4.9/8, Error ellipse: s-maj=9.0km s-min=3.8km az=94.2*

GCMT ***21*** *23:52:12.9±0.2, 50°.95N×177°.20W, h20^{km}, MW5.4/103, Moment Tensor Solution. s62,c101; s103,c180; Duration: 1^s.2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.32±.04; $M_{\theta\theta}$-1.00±.03; $M_{\phi\phi}$-0.31±.03; $M_{r\theta}$0.91±.05; $M_{\theta\phi}$-0.42±.02; $M_{\phi r}$0.63±.06; Best double couple: $M_0$1.67700×10^{17} NP1:ϕ_s249.00000°, δ25.00000°, λ99.00000°. NP2:ϕ_s59.00000°, δ66.00000°, λ86.00000°. Principal axes: T 1.7420, Plg69.0000°, Azm320.0000°; N -0.1280, Plg4.0000°, Azm60.0000°; P -1.6120, Plg21.0000°, Azm152.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***21*** *23:52:17.1, 51°.76N×178°.16W, h70^{km}, mB5.5/29, mb5.3/43, Ms5.5/22, Ms7 5.2/25*

ISC 21 23:52:12.6±0.7**, 51°.14N**±0°.06×**177°.34W**±0°.04**, h44^{km}**±4^{km}**, h63^{km}**±4.6^{km}**:pP-P, n728, σ0^s.80**/724**, mb5.2**/217**, MS5.1**/22**, 155C-21D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	Adak	0.85	29	eP	Pn	23 52 27.4	-0.8
GSTR	Great Sitkin T	1.25	39	ePn	Pn	23 52 33.1	-0.5
GSTR				Sn	Sn	23 52 58.0	+8.8
ATKA	Atka Island	2.23	60	P	Pn	23 52 45.0	-2.0
ATKA				S	Sn	23 53 13.5	+0.2
SMY	Shemya	5.53	290	P	Pn	23 53 34.1	+1.9
OKFG	Magazine Ridge	6.22	65	P	Pn	23 53 40.8	-0.9
UNV	Unalaska Valle	7.15	63	ePn	Pn	23 53 52.6	-1.9
SPIA	Saint Paul Isl	7.34	32	P	Pn	23 53 58.6	+1.5
AKUT	Akutan	7.65	62	ePn	Pn	23 54 01.9	+0.5
PET	Petropavlovsk	14.86	287c	iP	Pn	23 55 37.0	-2.6
PET				eS	Sn	23 58 22.8	0.0
PET				pmax	pmax		
	comp=Z,800nm,5.0s						
PET				pmax	pmax		
	comp=Z,1µm,14.5s						
PET				pmax	pmax		
	comp=Z,95nm,1.5s						
PET				MLR	MLR		
	comp=Z,2µm,17.0s						
PET	Petropavlovsk	14.86	287	ePn	Pn	23 55 39.7	+0.1
	comp=Z,111nm,1.2s						
TNA	Tin City	15.26	15	ePn	Pn	23 55 44.2	-0.4
OHAK	Old Harbor	15.30	57	ePn	Pn	23 55 40.3	-4.9
	comp=Z,78nm,0.6s						
PEA0B	Petropavlovsk-	15.43	287	ePn	Pn	23 55 49.8	+2.8
PETK	Petropavlovsk-	15.43	287	P	Pn	23 55 45.3	-1.7
PETK	Petropavlovsk-	15.43	287	Pn	Pn	23 55 45.3	-1.7
	comp=Z,0.2nm,0.3s,baz=95,slow=15,SNR=7.5						
PETK	Petropavlovsk-	15.43	287	Pn	Pn	23 55 45.3	-1.7
SVW2	Sparrevohn	15.63	42	ePn	Pn	23 55 49.5	+0.1
KDAK	Kodiak Island	15.80	55	P	Pn	23 55 53.0	+1.4
	comp=Z,816nm,1.1s,SNR=5.8						
KDAK	Kodiak Island	15.80	55	P	Pn	23 55 51.3	-0.3
KDAK						23 58 47.7	
KDAK	Kodiak Island	15.80	55	Pn	Pn	23 55 51.2	-0.4
	comp=Z,5.8nm,0.3s,baz=139,slow=8.4,SNR=11						
KDAK				Sn	Sn	23 58 47.6	+2.2
	comp=Z,0.6nm,0.3s,baz=37,slow=20,SNR=4.7						
KDAK	Kodiak Island	15.80	55	Pn	Pn	23 55 51.2	-0.4
KDAK				Sn	Sn	23 58 47.6	+2.2
TTA	Tatalina	16.46	36	eP	Pn	23 56 01.8	+1.8
RSO	Redoubt South	16.58	46	eP	Pn	23 56 03.8	+2.2
SKR	Severo-Kuril's	16.72	279	eP	Pn	23 56 04.0	+0.7
SKR				pmax	pmax		
	comp=N,130nm,1.0s						
SKR				pmax	pmax		
	comp=Z,180nm,1.0s						
SKR				pmax	pmax		
	comp=E,3µm,8.0s						
SKR				pmax	pmax		
	comp=Z,3µm,8.0s						
SKR				MLR	MLR		
	comp=N,4µm,18.0s						
SKR				MLR	MLR		
	comp=E,4µm,18.0s						
SKR				MLR	MLR		
	comp=Z,4µm,18.0s						
PPLA	Purkeypile	17.91	39	ePn	Pn	23 56 19.4	+1.4
	comp=Z,197nm,1.1s						
CHUM	Lake Minchumin	18.37	36	eP	Pn	23 56 24.2	+0.7
	comp=Z,134nm,1.2s						
KTH	Kantishna Hill	18.73	38	eP	Pn	23 56 26.9	-1.0
	comp=Z,271nm,1.1s						
BILL	Bilibino	18.75	341⇑	eP	Pn	23 56 28.3	+0.1
BILL				pmax	pmax		
	comp=Z,43nm,1.0s						
BILL				MLR	MLR		
	comp=Z,3µm,16.0s						
BILL	Bilibino	18.75	341	eP	Pn	23 56 28.1	-0.1
	comp=Z,121nm,1.3s						
BPAW	Bear Paw Mtn.	18.99	37	eP	Pn	23 56 30.0	-1.0
	comp=Z,54nm,0.9s						
IMA2	Indian Mountai	19.19	30	eP	Pn	23 56 32.5	-1.0
SEY	Seymchan	20.04	318⇑	eP	P	23 56 42.0	+0.6
COLA	College	20.55	37	eP	P	23 56 46.9	-0.1
COLA				pmax	pmax		
	comp=Z,40nm,0.8s						
COLA				MLR	MLR		
	comp=Z,3µm,19.0s,MS4.7						
COLA	College	20.55	37	eP	P	23 56 46.9	0.0
	comp=Z,40nm,0.8s						
COLA				LR	LR		
	comp=Z,3µm,19.0s,MS4.7						
PAX	Paxson	20.74	43	eP	P	23 56 48.9	-0.1
PAX				pmax	pmax		
	comp=Z,122nm,1.2s						
PAX	Paxson	20.74	43	eP	P	23 56 48.9	-0.1
	comp=Z,122nm,1.2s						
COLD	Coldfoot	21.00	30	eP	P	23 56 52.4	+0.6
	comp=Z,40nm,0.9s,mb4.7						
EGAK	Eagle	23.14	40	eP	P	23 57 12.3	-2.3
	comp=Z,72nm,1.0s,mb5.1						
DAWY	Dawson	23.66	42	eP	P	23 57 18.6	-1.0
HYT	Haines Junctio	23.94	51	eP	P	23 57 24.7	+2.6
YSS	Yuzh-Sakhalins	26.25	277⇑	eP	P	23 57 42.0	-1.3
YSS				e	pP	23 57 49.5	-5.5
YSS				eS	S	00 02 14.0	+1.6
YSS				e		00 02 36.0	
YSS				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.7						
YSS	Yuzh-Sakhalins	26.25	277	eP	P	23 57 44.2	+0.9
	comp=Z,53nm,1.0s,mb5.0						
CRAG	Craig	26.43	63	eP	P	23 57 46.2	+1.5
	comp=Z,140nm,1.1s,mb5.4						
WRAK	Wrangell Islan	26.72	61	eP	P	23 57 48.7	+1.4
	comp=Z,24nm,0.9s,mb4.7						
INK	Inuvik	27.14	34	P	P	23 57 49.9	-1.1
INK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
INK	Inuvik	27.14	34	P	P	23 57 49.9	-1.2
	comp=Z,2.4nm,0.3s,mb4.1,baz=249,slow=7.7,SNR=12						
INK	Inuvik	27.14	34	eP	P	23 57 49.8	-1.2
	comp=Z,23nm,1.0s,mb4.7						
ASAJ	Asahikawa	27.62	271	P	P	23 57 54.7	-0.9
ASAJ				pmax	pmax		
	comp=Z,23nm,0.9s						
ASAJ	Asahikawa	27.62	271	P	P	23 57 54.7	-0.9
	comp=Z,22nm,0.9s,mb4.8,baz=96,slow=5.5,SNR=7.0						
DLBC	Dease Lake	27.73	56	P	P	23 57 57.1	+0.7
	comp=Z,2.8nm,0.9s,baz=209,slow=19,SNR=2.9						
DLBC				LR	LR	00 08 52.8	
	comp=Z,4µm,21.4s,MS4.9,baz=289,slow=36						
DLBC	Dease Lake	27.73	56	P	P	23 57 57.1	+0.7
DLBC				LR	LR	00 08 52.8	
ERM	Erimo	28.34	267	eP	P	23 58 02.5	+0.5
ERM				pmax	pmax		
	comp=Z,31nm,1.3s,mb4.8						
BBB	Bella Bella	30.09	68	P	P	23 58 17.4	0.0
	comp=Z,32nm,1.0s,mb5.0,baz=231,slow=4.8,SNR=3.0						
BBB				LR	LR	00 08 01.5	
	comp=Z,2µm,20.1s,MS4.8,baz=300,slow=32						
BBB	Bella Bella	30.09	68	P	P	23 58 17.4	0.0
BBB				LR	LR	00 08 01.5	
YAK	Yakutsk	30.26	312	eP	P	23 58 16.6	-2.2
YAK				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
YAK				pmax	pmax		
	comp=E,11nm,1.0s						
HABR	Khabarovsk	30.42	284	eP	P	23 58 19.5	-0.9
HABR				e*PP	pP	23 58 28.7	-3.5
HABR				e*SP	sP	23 58 33.3	-4.2
HABR				e		00 01 15.1	
HABR				S	S	00 03 22.2	+4.3
HABR				e*SS	sS	00 03 38.6	+0.9
HABR				e		00 04 58.7	
HABR				eSSS		00 05 20.4	
HABR				e		00 08 52.3	
HABR				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.8						
TIXI	Tiksi	31.30	331⇓	iP	P	23 58 28.2	+0.3
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
TIXI	Tiksi	31.30	331	eP	P	23 58 27.6	-0.3
	comp=Z,62nm,2.1s,mb5.1						
TIXI				LR	LR		
	comp=Z,2µm,21.0s,MS4.7						
KLR	Kul'dur	32.13	287κ	iP	P	23 58 30.2	-5.2
KLR				eS	S	00 03 44.0	-0.5
KLR				pmax	pmax		
	comp=E,97nm,1.6s						
KLR				pmax	pmax		
	comp=Z,180nm,1.6s,mb5.7						
MAJO	Matsushiro	34.66	263	eP	P	23 58 57.6	+0.1
MAJO				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.3						
MAJO	Matsushiro	34.66	263	eP	P	23 58 57.6	0.0
	comp=Z,60nm,1.4s,mb5.3						
MJAR	Matsushiro Arr	34.66	263	P	P	23 58 57.2	-0.3
MJAR	Matsushiro Arr	34.66	263	P	P	23 58 57.2	-0.4
	comp=Z,6.0nm,0.8s,mb4.6,baz=47,slow=7.9,SNR=13						
MJAR	Matsushiro Arr	34.66	263	P	P	23 58 57.2	-0.4
MAT	Matsushiro	34.66	263	P	P	23 58 57.2	-0.3
MAT				S	S	00 04 24.0	0.0
YKA	Yellowknife Ar	34.74	46	P	P	23 58 57.2	-0.7
YKA						00 01 30.9	
YKA	Yellowknife Ar	34.74	46	P	P	23 58 57.2	-0.7
	comp=Z,8.9nm,0.8s,mb4.7,baz=282,slow=8.0,SNR=56						
YKA				PcP	PcP	00 01 30.9	+0.3
	comp=Z,1.5nm,0.7s,baz=288,slow=3.1,SNR=4.9						
YKA	Yellowknife Ar	34.74	46	P	P	23 58 57.2	-0.7
YKA				PcP	PcP	00 01 30.9	+0.3
MDJ	Mudanjiang	35.52	281	P	P	23 59 03.5	-1.4
MDJ				pP	pP	23 59 20.3	+3.5
MDJ				sP	sP	23 59 28.9	+6.8
MDJ				S	S	00 04 32.1	-4.9
MDJ				ScP	ScP	00 05 11.8	-3.4
MDJ				PcS	PcS	00 05 19.5	-0.7
MDJ				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
MDJ				pmax	pmax		
	comp=Z,240nm,9.2s						
MDJ				LR	LR		
	comp=N,880nm,23.3s,MS4.8						
MDJ				LR	LR		
	comp=E,1µm,20.5s,MS4.8						
MDJ				LR	LR		
	comp=Z,2µm,21.2s,MS4.9						
ETW	Entiat	36.50	73	eP	P	23 59 14.2	+1.0
OD2	Odessa Site #2	37.57	72	eP	P	23 59 22.5	+0.2
YBH	Yreka Blue Hor	38.01	82	LR	LR	00 12 09.3	
	comp=Z,2µm,21.1s,MS4.8,baz=300,slow=32						
NEW	Newport	38.11	70	eP	P	23 59 26.7	-0.1
NEW				pmax	pmax		
	comp=Z,32nm,0.9s						
NEW	Newport	38.11	70	eP	P	23 59 26.7	-0.1
	comp=Z,32nm,0.9s,mb5.0						
EDM	Edmonton	38.13	61	eP	P	23 59 27.5	+0.5
CN2	Changchun	38.49	282	eP	P	23 59 31.6	+1.5
CN2				epP	pP	23 59 49.9	+7.7
CN2				eS	S	00 05 20.6	-1.7
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,3µm,20.0s,MS5.1						
CN2				LR	LR		
	comp=E,1µm,20.0s,MS5.1						
CN2				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
BOD	Bodaibo	38.85	307	eP	P	23 59 30.8	-2.2
BOD				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.7						
RES	Resolute Bay	39.59	24	eP	P	23 59 38.2	-0.7
RES				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.7						
RES	Resolute Bay	39.59	24	P	P	23 59 37.9	-1.0
	comp=Z,3.6nm,0.9s,mb4.1,baz=251,slow=12,SNR=10						
RES				PcP	PcP	00 01 45.4	+0.2
	comp=Z,7.8nm,0.7s,baz=269,slow=1.9,SNR=11						
RES				LR	LR	00 18 52.7	
	comp=Z,2µm,19.8s,MS5.0,baz=75,slow=41						
RES	Resolute Bay	39.59	24	P	P	23 59 37.9	-1.0
RES				epP	pP	00 00 04.7	+14
RES				PcP	PcP	00 01 45.4	+0.2
RES				LR	LR	00 18 52.7	
WALA	Waterton Lakes	39.62	67	eP	P	23 59 38.3	-1.1
KSRS	Korea Array	40.56	272	P	P	23 59 47.3	-0.1
KSRS						00 01 49.6	
KSRS				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.0						
KSRS	Korea Array	40.56	272	P	P	23 59 47.3	-0.1
	comp=Z,8.7nm,0.9s,mb4.4,baz=58,slow=7.9,SNR=17						
KSRS				PcP	PcP	00 01 49.5	+0.6
	comp=Z,2.8nm,0.8s,baz=39,slow=3.4,SNR=5.0						
DAC	Darwin (Calif)	44.44	85	eP	P	00 00 13.0	-5.9
DAC				pmax	pmax		
	comp=Z,432nm,0.6s,mb6.4						
DAC	Darwin (Calif)	44.44	85	eP	P	00 00 13.0	-5.9

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      comp=Z,432nm,0.6s,mb6.4
FCC   Fort Churchill   45.47  47  eP    P      00 00 25.4 -1.4
      comp=Z,0.4nm,0.9s
BJI   Beijing          46.32 283   P    P      00 00 34.3 +0.5
BJI                                sP   sP     00 00 59.1 +7.9
BJI                                PP   PP     00 02 23.5 +0.7
BJI                                ScP  ScP    00 05 55.1 -2.7
BJI                                PcS  PcS    00 06 02.8 -0.1
BJI                                sS   sS     00 07 40.8 +2.8
BJI                                ScS  ScS    00 10 21.8 -3.0
BJI                                pmax pmax
      comp=Z,36nm,0.6s,mb5.5
BJI                                pmax pmax
      comp=Z,370nm,4.9s
BJI                                LR   LR
      comp=Z,4µm,21.5s,MS5.3
BJT   Baijiatuau       46.34 283  eP    P      00 00 34.0 +0.1
BJT                                pmax pmax
      comp=Z,21nm,0.8s
BJT   Baijiatuau       46.34 283  eP    P      00 00 34.0 +0.1
      comp=Z,21nm,0.8s,mb5.1
TLY   Talaya           46.97 303   P    P      00 00 38.8 +0.2
      comp=Z,49nm,0.7s,mb5.5,SNR=7.1
TLY   Talaya           46.97 303  eP    P      00 00 38.1 -0.5
TLY                               e            00 02 29.4
TLY                                pmax pmax
      comp=Z,14nm,1.5s,mb4.7
TLY                                MLR  MLR
      comp=Z,3µm,18.0s,MS5.3
TLY   Talaya           46.97 303  eP    P      00 00 38.1 -0.5
      comp=Z,18nm,1.4s,mb4.8
TLY                                LR   LR
      comp=Z,4µm,19.0s,MS5.3
ULN   Ulaanbaatar      47.19 297  eP    P      00 00 40.0 -0.4
ULN                                pmax pmax
      comp=Z,37nm,1.1s,mb5.2
ULN   Ulaanbaatar      47.19 297  eP    P      00 00 40.0 -0.4
      comp=Z,37nm,1.1s,mb5.2
SONM  Songino Array    47.57 298   P    P      00 00 43.6 +0.2
SONM  Songino Array    47.57 298   P    P      00 00 43.6 +0.2
      comp=Z,29nm,0.9s,mb5.3,baz=54,slow=9.9,SNR=88
SONM  Songino Array    47.57 298   P    P      00 00 43.6 +0.2
HHC   Hu-ho-hao-te     48.64 287  eP    P      00 00 51.9 +0.2
HHC                                pP   pP     00 01 11.8 +7.7
HHC                                sP   sP     00 01 20.3  +11
HHC                                pmax pmax
      comp=Z,44nm,1.2s,mb5.4
HHC                                pmax pmax
      comp=Z,680nm,3.8s
HHC                                LR   LR
      comp=Z,7µm,21.3s,MS5.6
ULM   Lac du Bonnet    49.05  57   P    P      00 00 53.2 -1.5
      comp=Z,10nm,0.8s,mb4.9,baz=298,slow=7.8,SNR=14
ULM                                LR   LR     00 24 29.1
      comp=Z,2µm,18.1s,MS5.0,baz=308,slow=40
ULM   Lac du Bonnet    49.05  57   P    P      00 00 53.2 -1.5
ULM                                LR   LR     00 24 29.1
BTO   Baotou           49.71 288  eP    P      00 00 59.8 -0.2
AGMN  Agassiz Refuge   50.18  59  eP    P      00 01 02.6 -0.8
      comp=Z,53nm,1.2s,mb5.5
AGMN                               LR   LR
      comp=Z,2µm,19.0s,MS5.1
SPITS Spitsbergen Ar   50.68 356   P    P      00 01 05.8 -1.0
SPITS Spitsbergen Ar   50.68 356   P    P      00 01 05.8 -0.9
      comp=Z,7.5nm,0.5s,mb4.8,baz=27,slow=7.5,SNR=9.0
SPITS Spitsbergen Ar   50.68 356   P    P      00 01 05.8 -0.9
EYMN  Ely              52.73  57  eP    P      00 01 22.0 -0.5
      comp=Z,46nm,1.1s,mb5.3
FRB   Frobisher Bay    52.75  32   P    P      00 01 21.1 -1.3
FRB   Frobisher Bay    52.75  32   P    P      00 01 21.1 -1.3
      comp=Z,13nm,0.9s,mb4.9,baz=309,slow=7.9,SNR=26
FRB   Frobisher Bay    52.75  32   P    P      00 01 21.1 -1.3
WHN   Wuhan            53.59 275   P    P      00 01 28.1 -0.9
WHN                                pmax pmax
      comp=Z,61nm,1.0s,mb5.5
XAN   Xi'an            54.60 282   P    P      00 01 35.8 -0.6
XAN                                pP   pP     00 01 53.8 +4.9
XAN                                sP   sP     00 02 02.0 +8.0
XAN                                PP   PP     00 03 38.6 -0.2
XAN                                S    S      00 09 09.8 -2.9
XAN                                sS   sS     00 09 40.8 +7.2
XAN                                ScS  ScS    00 11 18.4 -3.3
XAN                                pmax pmax
      comp=Z,13nm,1.1s,mb4.9
XAN                                pmax pmax
      comp=Z,240nm,6.7s
XAN                                LR   LR
      comp=N,2µm,23.0s,MS5.4
XAN                                LR   LR
      comp=E,3µm,22.3s,MS5.4
XAN                                LR   LR
      comp=Z,5µm,24.5s,MS5.5
QZH   Quanzhou         54.84 267⇑iP    P      00 01 39.3 +1.1
ZALV  Zalesovo Beam    54.86 314   P    P      00 01 36.6 -1.3
ZALV                                           00 02 40.2
ZALV  Zalesovo Beam    54.86 314   P    P      00 01 36.6 -1.3
      comp=Z,1.0nm,0.5s,mb4.1,baz=35,slow=8.0,SNR=6.2
ZALV                               PcP  PcP    00 02 40.2 +0.6
      comp=Z,14nm,0.7s,baz=34,slow=4.3,SNR=23
ZALV  Zalesovo Beam    54.86 314   P    P      00 01 36.6 -1.3
ZALV                               PcP  PcP    00 02 40.2 +0.6
NVS   Novosibirsk      54.98 316  i P   P      00 01 36.5 -2.3
GDL2  Guadalupe Moun   55.38  80  eP    P      00 01 42.2 +0.2
SFJD  Kangerlussuaq    55.53  22   P    P      00 01 41.2 -1.3
SFJD  Kangerlussuaq    55.53  22   P    P      00 01 41.2 -1.3
      comp=Z,4.5nm,0.7s,mb4.6,baz=342,slow=9.6,SNR=3.2
SFJD                               LR   LR     00 29 35.6
      comp=Z,862nm,19.0s,MS4.8,baz=304,slow=40
SFJD  Kangerlussuaq    55.53  22   P    P      00 01 41.2 -1.3
SFJD                               LR   LR     00 29 35.6
LZH   Lanzhou          56.33 287  eP    P      00 01 49.8 +1.1
LZH                                PcP  PcP    00 02 44.9 -0.7
LZH                               eS    S      00 09 26.0  -10
LZH                                pmax pmax
      comp=Z,65nm,1.0s,mb5.6
LZH                                pmax pmax
      comp=Z,480nm,4.2s
LZH                                LR   LR
      comp=Z,9µm,16.4s,MS6.0
GTA   Gaotai           56.51 293   P    P      00 01 50.8 +0.9
GTA                                pP   pP     00 02 09.8 +7.3
GTA                                sP   sP     00 02 17.3  +10
GTA                                S    S      00 09 35.8 -2.1
GTA                                pmax pmax
      comp=Z,90nm,0.9s,mb5.8
GTA                                pmax pmax
      comp=Z,590nm,5.3s
JFWS  Jewell Farm      56.61  61  eP    P      00 01 49.6 -1.0
JFWS                               pmax pmax
      comp=Z,103nm,1.5s,mb5.6
JFWS  Jewell Farm      56.61  61  eP    P      00 01 49.6 -1.0
      comp=Z,103nm,1.5s,mb5.6
TXAR  Lajitas Array    57.78  82   P    P      00 02 00.8 +1.7
TXAR  Lajitas Array    57.78  82   P    P      00 02 00.8 +1.6
      comp=Z,5.3nm,0.9s,mb4.6,baz=324,slow=5.9,SNR=3.9
TXAR  Lajitas Array    57.78  82   P    P      00 02 00.8 +1.6
KEV   Kevo             58.12 350  ep    P      00 02 00.2 -0.6
GLMI  Grayling         58.38  57  eP    P      00 02 03.4 +0.4
      comp=Z,142nm,1.4s,mb5.8
ARCES ARCESS Array B   58.48 351   P    P      00 02 02.7 -0.7
ARCES ARCESS Array B   58.48 351   P    P      00 02 02.6 -0.8
      comp=Z,5.9nm,0.8s,mb4.6,baz=22,slow=7.1,SNR=14
ARCES                              ScP  ScP    00 06 58.5 +8.5
      comp=Z,5.7nm,1.0s,baz=27,slow=5.7,SNR=4.1
ARCES ARCESS Array B   58.48 351   P    P      00 02 02.6 -0.8
ARCES                              ScP  ScP    00 06 58.5 +8.5
HDIL  Hopedale         58.72  63  eP    P      00 02 04.7 -0.7
      comp=Z,213nm,1.4s,mb6.0
APA   Apatity          59.38 347⇓eP    PcP    00 02 28.4  -29
APA                                pmax pmax
      comp=Z,25nm,1.2s,mb5.1
APA                                MLR  MLR
      comp=Z,2µm,19.0s,MS5.2
SCHQ  Schefferville    59.62  39   P    P      00 02 11.0 -0.5
      comp=Z,4.2nm,0.7s,mb4.6,baz=355,slow=9.1,SNR=7.1
SCHQ  Schefferville    59.62  39   P    P      00 02 11.0 -0.5
FVM   French Village   59.82  66  eP    P      00 02 12.0 -1.1
FVM                                pmax pmax
      comp=Z,227nm,1.6s,mb6.0
FVM   French Village   59.82  66  eP    P      00 02 12.0 -1.2
      comp=Z,227nm,1.6s,mb6.0
KURK  Kurchatov        59.85 314   P    P      00 02 12.3 -0.8
      comp=Z,96nm,0.6s,mb6.0,SNR=10
KURK  Kurchatov        59.85 314   P    P      00 02 13.0 -0.1
KURK                                           00 02 59.7
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KURK  Kurchatov        59.85 314   P    P      00 02 12.9 -0.2
      comp=Z,8.0nm,0.6s,mb4.9,baz=41,slow=6.4,SNR=5.6
KURK                               PcP  PcP    00 02 59.7 +0.5
      comp=Z,12nm,0.8s,baz=39,slow=3.3,SNR=9.1
KURK  Kurchatov        59.85 314   P    P      00 02 12.9 -0.2
KURK                               PcP  PcP    00 02 59.7 +0.5
WMQ   Urumqi           60.24 304   P    P      00 02 15.8 -0.1
WMQ                                pP   pP     00 02 35.0 +6.4
WMQ                                pmax pmax
      comp=Z,15nm,1.0s,mb5.0
WMQ                                pmax pmax
      comp=Z,210nm,4.6s
AAM   Ann Arbor        60.62  58  eP    P      00 02 18.8 +0.3
AAM                                pmax pmax
      comp=Z,26nm,0.8s,mb5.4
AAM   Ann Arbor        60.62  58  eP    P      00 02 18.8 +0.3
      comp=Z,26nm,0.8s,mb5.4
OLIL  Olney            60.63  64  eP    P      00 02 18.3 -0.3
      comp=Z,103nm,1.2s,mb5.8
SIUC  Southern Illin   60.70  65  eP    P      00 02 18.4 -0.7
      comp=Z,57nm,1.1s,mb5.6
MKAR  Makanchi Array   60.90 309   P    P      00 02 19.0 -1.4
MKAR  Makanchi Array   60.90 309   P    P      00 02 19.0 -1.4
      comp=Z,2.8nm,0.6s,mb4.5,baz=53,slow=6.1,SNR=24
MKAR  Makanchi Array   60.90 309   P    P      00 02 19.0 -1.4
BLO   Bloomington      61.22  62  eP    P      00 02 22.4 -0.2
BLO                                pmax pmax
      comp=Z,305nm,1.9s,mb6.1
BLO   Bloomington      61.22  62  eP    P      00 02 22.4 -0.3
      comp=Z,305nm,1.9s,mb6.1
SADO  Sadowa           61.25  54   P    P      00 02 22.3 -0.5
      comp=Z,24nm,0.9s,mb5.3,baz=323,slow=7.5,SNR=16
SADO  Sadowa           61.25  54   P    P      00 02 22.3 -0.5
GYA   Guiyang          61.26 277⇑iP    P      00 02 25.8 +2.7
GYA                                pP   pP     00 02 45.8  +10
GYA                                sP   sP     00 02 52.6  +12
GYA                                PP   PP     00 04 42.9 +4.8
GYA                                ScP  ScP    00 07 01.0 -2.0
GYA                                PcS  PcS    00 07 09.4 +1.1
GYA                                S    S      00 10 37.8 -2.1
GYA                                pmax pmax
      comp=Z,50nm,1.0s,mb5.6
GYA                                pmax pmax
      comp=Z,190nm,4.9s
USIN  University of    61.41  64  eP    P      00 02 23.6 -0.3
      comp=Z,70nm,0.8s,mb5.8
BVAR  Borovoye Array   61.66 321   P    P      00 02 25.3 -0.1
BVAR  Borovoye Array   61.66 321   P    P      00 02 25.3 -0.1
      comp=Z,29nm,0.7s,mb5.5,baz=50,slow=7.7
BVAR  Borovoye Array   61.66 321   P    P      00 02 25.3 -0.1
BRVK  Borovoye         61.68 321   P    P      00 02 25.1 -0.4
      comp=Z,242nm,0.8s,mb6.4,SNR=14
SVE   Sverdlovsk       62.29 328⇑eP    P      00 02 30.5 +1.0
SVE                                pmax pmax
      comp=Z,58nm,1.2s,mb5.6
ACSO  Alum Creek Sta   62.42  59  eP    P      00 02 30.5 -0.2
      comp=Z,44nm,0.9s,mb5.6
PRGR  Permogore        62.47 338  eP    P      00 02 29.2 -1.5
PRGR                               pmax pmax
      comp=Z,60nm,1.2s,mb5.6
WVT   Waverly          62.60  66  eP    P      00 02 31.3 -0.7
WVT                                pmax pmax
      comp=Z,47nm,1.2s,mb5.5
WVT   Waverly          62.60  66  eP    P      00 02 31.3 -0.7
      comp=Z,47nm,1.2s,mb5.5
ERPA  Erie             62.69  56  eP    P      00 02 33.1 +0.7
      comp=Z,118nm,1.0s,mb6.0
ALLY  Alegheny Colle   62.94  57  eP    P      00 02 34.9 +0.7
      comp=Z,180nm,0.9s,mb6.2
PLAL  Pickwick Lake    63.27  67  eP    P      00 02 35.3 -1.1
      comp=Z,52nm,1.1s,mb5.6
ARU   Arti             63.29 329   P    P      00 02 36.5 +0.3
      comp=Z,283nm,0.5s,mb6.7,SNR=12
ARU   Arti             63.29 329d iP   P      00 02 36.1 -0.1
ARU                               e            00 03 10.6
ARU                                S    S      00 11 08.9 +4.4
ARU                                SS   SS     00 15 13.7 +3.2
ARU                                pmax pmax
      comp=Z,55nm,1.2s,mb5.6
ARU   Arti             63.29 329  eP    P      00 02 35.4 -0.8
      comp=Z,30nm,0.6s,mb5.6
JOF   Joensuu          64.06 346  eP    P      00 02 39.3 -1.9
JOF   Joensuu          64.06 346  ep    P      00 02 39.3 -1.9
      comp=Z,5.1nm,0.6s,mb4.7
JOF   Joensuu          64.06 346  eP    P      00 02 39.3 -1.9
SWET  Sewanee          64.34  65  eP    P      00 02 42.7 -0.7
KLMR  Klimovskoe       64.51 341⇓iP    P      00 02 43.8 -0.3
KLMR                               pmax pmax
      comp=Z,24nm,1.3s,mb5.1
MCWV  Mont Chateau     64.52  58  eP    P      00 02 44.8 +0.2
      comp=Z,55nm,1.0s,mb5.5
KMI   Kunming          64.67 279   P    P      00 02 46.1 +0.4
KMI                                pmax pmax
      comp=Z,35nm,1.4s,mb5.2
BINY  Binghamton       64.69  54  eP    P      00 02 46.2 +0.5
      comp=Z,62nm,1.0s,mb5.6
TZTN  Tazewell         64.73  63  eP    P      00 02 46.2 +0.2
      comp=Z,59nm,1.0s,mb5.6
SSPA  Standing Stone   64.85  56  eP    P      00 02 46.8 +0.1
      comp=Z,49nm,1.0s,mb5.5
CPCT  Cooper Cave      64.97  64  eP    P      00 02 47.5 -0.1
TKL   Tuckaleechee C   65.25  64   P    P      00 02 49.1 -0.3
TKL   Tuckaleechee C   65.25  64   P    P      00 02 49.1 -0.3
      comp=Z,18nm,1.1s,mb5.0,baz=319,slow=3.9,SNR=10
TKL   Tuckaleechee C   65.25  64   P    P      00 02 49.1 -0.3
KAF   Kangasniemi      65.54 348  eP    P      00 02 49.1 -1.7
KAF                                pmax pmax
      comp=Z,4.0nm,0.6s,mb4.6
KAF   Kangasniemi      65.54 348  ep    P      00 02 49.1 -1.7
      comp=Z,4.3nm,0.6s,mb4.7
KAF   Kangasniemi      65.54 348  eP    P      00 02 49.1 -1.7
      comp=Z,4.3nm,0.6s,mb4.7
MVL   Millersville     66.11  56  eP    P      00 02 54.9  0.0
      comp=Z,28nm,1.0s,mb5.2
SDMD  Soldier's Deli   66.29  56  eP    P      00 02 56.1 +0.1
      comp=Z,52nm,1.2s,mb5.4
TKM2  Tokmak 2         66.97 310   P    P      00 03 00.4 +0.1
      SNR=6.8
JSRW  J. Sargeant Re   67.01  58  eP    P      00 03 01.0 +0.4
GOGA  Godfrey          67.05  65  eP    P      00 03 00.2 -0.7
GOGA                               pmax pmax
      comp=Z,54nm,1.1s,mb5.5
GOGA  Godfrey          67.05  65  eP    P      00 03 00.2 -0.8
      comp=Z,54nm,1.1s,mb5.5
USP   Ospenovka        67.24 311   P    P      00 03 02.2 +0.2
      SNR=10
KBK   Karagaybulak     67.49 310   P    P      00 03 03.9 +0.4
      SNR=5.5
AAK   Ala-Archa        67.72 311   P    P      00 03 05.4 +0.3
      comp=Z,135nm,0.7s,mb6.1,SNR=9.4
AAK   Ala-Archa        67.72 311  eP    P      00 03 05.1  0.0
AAK                                pmax pmax
      comp=Z,575nm,1.9s,mb6.3
AAK   Ala-Archa        67.72 311   P    P      00 03 05.3 +0.3
      SNR=13
AAK   Ala-Archa        67.72 311   P    P      00 03 05.2 +0.1
      comp=Z,11nm,0.7s,mb5.0,baz=100,slow=3.3,SNR=29
AAK   Ala-Archa        67.72 311  eP    P      00 03 05.1 +0.1
      comp=Z,575nm,1.9s,mb6.3
KZA   Kyzart           67.78 310   P    P      00 03 05.9 +0.5
      SNR=5.2
NB2   NORSAR Subarra   67.97 356   P    P      00 03 05.8 -0.5
      comp=Z,4.8nm,0.7s,mb4.6,baz=7.2,slow=6.5
NOA   NORSAR Array B   67.97 356   P    P      00 03 06.0 -0.3
NOA   NORSAR Array B   67.97 356   P    P      00 03 06.0 -0.3
      comp=Z,11nm,0.8s,mb4.9,baz=5.8,slow=6.3,SNR=14
NOA   NORSAR Array B   67.97 356   P    P      00 03 06.0 -0.3
EKS2  Erkin-Say        68.04 311   P    P      00 03 07.5 +0.5
      SNR=11
AML   Almayashu        68.49 311   P    P      00 03 10.9 +1.0
      SNR=9.4
VSU   Vasula           69.00 347  eP    P      00 03 11.4 -1.4
VSU                                pmax pmax
      comp=Z,45nm,1.3s,mb5.2
KSH   Kashi            69.38 308   P    P      00 03 19.0 +3.6
KSH                               epP   pP     00 03 39.0  +11
KSH                               ePcP  PcP    00 03 42.1 +3.4
KSH                               esP   sP     00 03 47.0  +14
KSH                               eScP         00 07 38.1
KSH                               ePcS         00 07 46.0
KSH                               eS    S      00 12 18.6 -0.3
KSH                               eScS  ScS    00 13 10.0 -2.8
KSH                                pmax pmax
      comp=Z,24nm,0.5s,mb5.4
KSH                                pmax pmax
      comp=Z,370nm,3.8s
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KSH                                LR   LR
      comp=N,4µm,18.8s,MS5.8
KSH                                LR   LR
      comp=E,3µm,16.1s,MS5.8
KSH                                LR   LR
      comp=Z,3µm,14.3s,MS5.7
MOS   Moscow           69.61 340  eP    P      00 03 13.6 -3.0
MOS                               e     pP     00 03 29.8 +0.3
MOS                                pmax pmax
      comp=Z,74nm,1.2s,mb5.5
OBN   Obninsk          70.42 340⇓iP    P      00 03 21.1 -0.4
OBN                               e     pP     00 03 36.3 +1.9
OBN                               e            00 05 57.8
OBN                               eS    S      00 12 38.4 +7.9
OBN                                pmax pmax
      comp=Z,65nm,1.4s,mb5.4
OBN                                MLR  MLR
      comp=Z,1µm,18.0s,MS5.2
CMAR  Chiang Mai Arr   71.95 277   P    P      00 03 31.2 -0.2
CMAR  Chiang Mai Arr   71.95 277   P    P      00 03 31.1 -0.2
      comp=Z,9.0nm,0.8s,mb4.8,baz=23,slow=6.1,SNR=6.2
CMAR  Chiang Mai Arr   71.95 277   P    P      00 03 31.1 -0.2
VRHR  Novokhopersk     72.91 335  eP    P      00 03 36.2 -0.4
VRHR                               pmax pmax
      comp=Z,50nm,0.6s,mb5.6
VRHR                               pmax pmax
      comp=N,40nm,1.4s
VSR   Storozhevoye     73.43 337  eP    P      00 03 39.5 -0.1
VSR                                pmax pmax
      comp=Z,40nm,0.6s,mb5.5
VSR                                pmax pmax
      comp=N,40nm,0.8s
VSR                                pmax pmax
      comp=E,20nm,1.0s
VORD  Divnogorie       73.63 337  eP    P      00 03 40.5 -0.3
VORD                               pmax pmax
      comp=Z,40nm,0.6s,mb5.5
VORD                               pmax pmax
      comp=N,30nm,0.9s
VORD                               pmax pmax
      comp=E,20nm,0.9s
SUW   Suwalki          73.82 348  eP    P      00 03 40.8 -1.1
SUW   Suwalki          73.82 348  eP    P      00 03 41.0 -0.9
SUW                                pmax pmax
      comp=Z,42nm,0.8s,mb5.4
SUW   Suwalki          73.82 348  eP    P      00 03 40.8 -1.1
BSEG  Bad Segeberg     75.10 355  eP    P      00 03 49.7 +0.3
BSEG  Bad Segeberg     75.10 355  eP    P      00 03 49.7 +0.3
      comp=Z,76nm,1.1s,mb5.5
GKP   Gorka Klasztor   75.25 351  eP    P      00 03 49.7 -0.5
GKP   Gorka Klasztor   75.25 351  eP    P      00 03 49.7 -0.5
AKASG Malin Array Be   76.06 343   P    P      00 03 54.1 -0.8
AKASG Malin Array Be   76.06 343   P    P      00 03 54.1 -0.8
      comp=Z,6.0nm,0.4s,mb4.8,baz=14,slow=5.4,SNR=41
AKASG Malin Array Be   76.06 343   P    P      00 03 54.0 -0.8
RUE   Ruedersdorf      76.33 353  eP    P      00 03 56.6 +0.2
      comp=Z,43nm,1.0s,mb5.3
NRDL  Niedersach Rie   76.55 355  eP    P      00 03 57.5 -0.1
      comp=Z,32nm,0.9s,mb5.2
IBBN  Ibbenburen       76.84 357  eP    P      00 03 59.6 +0.3
      comp=Z,78nm,0.9s,mb5.6
CLZ   Clausthal        77.19 355  eP    P      00 04 01.7 +0.5
CLZ                                pmax pmax
      comp=Z,62nm,0.8s,mb5.6
CLZ   Clausthal        77.19 355  eP    P      00 04 01.7 +0.5
      comp=Z,62nm,0.8s,mb5.6
CLZ   Clausthal        77.19 355  eP    P      00 04 01.7 +0.5
      comp=Z,62nm,0.8s,mb5.6
WTSB  Winterswijk      77.21 357  eP    P      00 04 01.6 +0.2
      comp=Z,43nm,0.9s,mb5.4
CLL   Collm            77.56 353⇑iP    P      00 04 02.8 -0.5
CLL                               i            00 04 08.8
CLL                               i     pP     00 04 17.7 +1.3
CLL                                pmax pmax
      comp=Z,25nm,1.1s,mb5.1
CLL   Collm            77.56 353  eP    P      00 04 02.8 -0.5
      comp=Z,25nm,1.1s,mb5.1
CLL   Collm            77.56 353⇑iP    P      00 04 02.8 -0.5
      comp=Z,25nm,1.1s,mb5.1
CLL                               i sP  sP     00 04 08.8  -13
CLL                               i pPcP pP    00 04 17.7 +1.3
CLL                               ePS          00 14 44.0
CLL   Collm            77.56 353⇑iP    P      00 04 02.8 -0.5
      comp=Z,25nm,1.1s,mb5.1
CLL                               i            00 04 08.8
CLL                               i     pP     00 04 17.7 +1.3
BUG   Bochum--Univer   77.72 357  eP    P      00 04 04.3 +0.1
      comp=Z,40nm,1.2s,mb5.2
KSP   Ksiaz            77.74 351  eP    P      00 04 03.7 -0.6
KSP   Ksiaz            77.74 351  eP    P      00 04 03.2 -1.1
LVV   L'vov            77.78 346⇓iP    P      00 04 12.0 +7.4
LVV                               e     pP     00 04 24.2 +6.5
CTA   Charters Tower   77.79 215   P    P      00 04 03.9 -1.0
CTA   Charters Tower   77.79 215   P    P      00 04 03.9 -1.0
      comp=Z,5.0nm,0.8s,mb4.5,baz=2.3,slow=6.3,SNR=6.1
CTA   Charters Tower   77.79 215   P    P      00 04 03.9 -1.0
FBE   Freiberg         77.92 353  eP    P      00 04 05.0 -0.3
      comp=Z,36nm,1.0s,mb5.3
BRG   Berggiesshubel   77.92 353⇓iP    P      00 04 04.7 -0.6
BRG                                pmax pmax
      comp=Z,13nm,1.0s,mb4.8
BRG   Berggiesshubel   77.92 353  eP    P      00 04 04.8 -0.5
      comp=Z,21nm,1.0s,mb5.0
BRG   Berggiesshubel   77.92 353⇓iP    P      00 04 04.7 -0.6
      comp=Z,21nm,1.0s,mb5.0
OJC   Ojcow            77.97 349  eP    P      00 04 05.4 -0.2
UPC   Upice            78.10 351  eP    P      00 04 06.2 -0.1
KWP   Kalwaria Pacla   78.16 347  eP    P      00 04 07.0 +0.3
KWP   Kalwaria Pacla   78.16 347⇑iP    P      00 04 07.2 +0.5
KWP   Kalwaria Pacla   78.16 347  eP    P      00 04 07.0 +0.3
PVCC  Panska Ves       78.21 352  eP    P      00 04 06.9  0.0
DPC   Dobruska-Polom   78.22 351  eP    P      00 04 07.2 +0.2
DPC                               e*PP  pP     00 04 11.8 -8.3
UBBA  Unterbreizbach   78.23 355  eP    P      00 04 06.7 -0.4
      comp=Z,60nm,2.0s,mb5.2
MOX   Moxa             78.31 354  eP    P      00 04 07.2 -0.3
      comp=Z,45nm,1.5s,mb5.2
MOX   Moxa             78.31 354  eP    P      00 04 07.2 -0.3
MOX                                pmax pmax
      comp=Z,45nm,1.5s,mb5.2
MOX   Moxa             78.31 354  eP    P      00 04 07.2 -0.3
      comp=Z,26nm,1.0s,mb5.1
BEBN  Eben Emael       78.41 358   P    P      00 04 08.1 +0.1
      comp=Z,8.4nm,1.0s,mb4.6
UCC   Uccle            78.43 359   P    P      00 04 08.2  0.0
HGN   Heimansgroeve    78.44 358  eP    P      00 04 07.9 -0.3
      comp=Z,53nm,1.1s,mb5.4
WERD  Werda            78.46 354  eP    P      00 04 08.1 -0.2
      comp=Z,17nm,1.3s,mb4.8
TANN  Tannenbergstha   78.48 354  eP    P      00 04 08.3 -0.2
      comp=Z,30nm,1.6s,mb5.0
OKC   Ostrava-Krasne   78.54 350  eP    P      00 04 08.6 -0.2
OKC                               e*PP  pP     00 04 13.5 -8.4
GUNZ  Gunzen           78.54 354  eP    P      00 04 08.9 +0.1
      comp=Z,20nm,1.2s,mb4.9
STHS  Stebnicka Huta   78.58 348  i P   P      00 04 09.8 +0.8
STHS                               pmax pmax
      comp=Z,14nm,0.9s,mb4.9
STHS  Stebnicka Huta   78.58 348  i P   P      00 04 09.8 +0.8
      comp=Z,14nm,0.9s,mb4.9
MEM   Membach          78.59 358   P    P      00 04 09.1 +0.1
      comp=Z,25nm,1.1s,mb5.1
WERN  Wernitzgruen     78.62 354  eP    P      00 04 08.8 -0.4
      comp=Z,36nm,1.0s,mb5.3
NKC   Novy Kostel      78.67 354  eP    P      00 04 09.4 -0.1
MORC  Moravsky Berou   78.67 350  eP    P      00 04 09.2 -0.3
MORC                               pmax pmax
      comp=Z,10.0nm,1.1s,mb4.7
MORC  Moravsky Berou   78.67 350  eP    P      00 04 09.2 -0.3
      comp=Z,9.9nm,1.1s,mb4.7
NIE   Niedzica         78.69 348  eP    P      00 04 10.1 +0.5
SNF   Seneffe          78.72 359   P    P      00 04 10.1 +0.3
PRU   Pruhonice        78.75 352  eP    P      00 04 09.8 -0.1
PRU                               e*PP  pP     00 04 14.2 -8.8
BCLA  Clavier          78.80 358   P    P      00 04 10.5 +0.3
      comp=Z,32nm,3.2s
ABKT  Ailbek           78.88 318   P    P      00 04 11.4 +0.5
      comp=Z,168nm,1.0s,mb5.9,SNR=12
TNS   Taunus Mts       78.90 356  eP    P      00 04 10.8  0.0
TNS                                pmax pmax
      comp=Z,51nm,0.8s,mb5.5
TNS   Taunus Mts       78.90 356  eP    P      00 04 10.8  0.0
      comp=Z,51nm,0.8s,mb5.5
TNS   Taunus Mts       78.90 356  eP    P      00 04 10.8  0.0
      comp=Z,51nm,0.8s,mb5.5
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KOLS	Kolonicke sedl	78.91	347	i P	P	00 04 10.8	0.0
KOLS				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
KOLS	Kolonicke sedl	78.91	347	i P	P	00 04 10.8	0.0
	comp=Z,15nm,0.8s,mb5.0						
MANZ	Manzenberg	78.93	354	eP	P	00 04 10.6	-0.3
	comp=Z,15nm,1.1s,mb4.8						
CRVS	Cervenica-Dubn	79.05	347	i P	P	00 04 11.8	+0.2
KIV	Kislovodsk	79.12	332	P	P	00 04 12.6	+0.5
	comp=Z,232nm,0.8s,mb6.2,SNR=7.8						
KIV	Kislovodsk	79.12	332	⇑eP	P	00 04 11.2	-0.9
KIV				e		00 04 16.3	
KIV				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.3						
KIV				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
KIV	Kislovodsk	79.12	332	eP	P	00 04 12.2	+0.1
	comp=Z,378nm,1.7s,mb6.0						
GIVF	Givet	79.12	359	eP	P	00 04 11.9	-0.1
	comp=Z,64nm,0.9s,mb5.2						
GIVF	Givet	79.12	359	eP	P	00 04 11.9	-0.1
GIVF				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
GIVF	Givet	79.12	359	eP	P	00 04 11.9	-0.1
	comp=Z,32nm,0.9s,mb5.2						
DOU	Dourbes	79.13	359	P	P	00 04 12.2	+0.1
	comp=Z,24nm,2.9s,mb4.6						
ROTZ	Rotzenmuhle	79.15	354	eP	P	00 04 12.0	-0.1
	comp=Z,16nm,1.0s,mb4.9						
BAIF	Baives	79.17	359	⇑iP	P	00 04 12.5	+0.2
	comp=Z,88nm,0.9s,mb5.4						
BAIF	Baives	79.17	359	⇑iP	P	00 04 12.5	+0.2
BAIF				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.4						
BAIF	Baives	79.17	359	⇑iP	P	00 04 12.5	+0.2
	comp=Z,44nm,0.9s,mb5.4						
UZH	Uzhgorod	79.20	347	⇓iP	P	00 04 12.0	-0.4
UZH				e	pP	00 04 24.2	-1.3
VRAC	Vranov	79.23	351	P	P	00 04 13.1	+0.5
VRAC	Vranov	79.23	351	⇑iP	P	00 04 12.6	0.0
TGUH	Tegucigalpa,Un	79.24	81	eP	P	00 04 14.4	+1.2
	comp=Z,99nm,1.1s,mb5.7						
TGUH				epP	pP	00 04 36.3	+10
GRA1	Grafenberg Arr	79.28	354	eP	P	00 04 13.3	+0.4
	comp=Z,48nm,0.9s,mb5.4						
GRF	Grafenberg Arr	79.28	354	eP	P	00 04 13.3	+0.4
GRF				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.4						
GRF	Grafenberg Arr	79.28	354	eP	P	00 04 13.3	+0.4
GRF				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.4						
GRF	Grafenberg Arr	79.28	354	eP	P	00 04 13.3	+0.4
	comp=Z,48nm,0.9s,mb5.4						
GRF	Grafenberg Arr	79.28	354	eP	P	00 04 13.3	+0.4
	comp=Z,48nm,0.9s,mb5.4						
RUP	Ruppelstein	79.47	357	eP	P	00 04 14.3	+0.4
TOD	Tromm	79.50	356	eP	P	00 04 14.6	+0.6
WLF	Walferdange	79.53	358	P	P	00 04 14.4	+0.2
	comp=Z,25nm,2.4s,mb4.7						
WLF	Walferdange	79.53	358	eP	P	00 04 15.0	+0.8
WLF				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
WLF	Walferdange	79.53	358	eP	P	00 04 14.6	+0.4
	comp=Z,30nm,0.9s,mb5.2						
WLF	Walferdange	79.53	358	eP	P	00 04 15.0	+0.8
	comp=Z,23nm,0.8s,mb5.2						
KECS	Kecovo	79.59	348	i P	P	00 04 14.8	+0.2
KECS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
KECS	Kecovo	79.59	348	i P	P	00 04 14.8	+0.2
	comp=Z,10nm,0.9s,mb4.8						
KHC	Kasperske Hory	79.68	353	eP	P	00 04 15.2	+0.2
KHC				e*PP	pP	00 04 19.5	-8.6
KIS	Kishinev	79.68	342	⇑iP	P	00 04 15.0	-0.1
KIS				e		00 14 25.0	
KIS				e		00 15 19.0	
KIS				pmax	pmax		
	comp=Z,200nm,1.0s,mb6.0						
KIS	Kishinev	79.68	342	⇑iP	P	00 04 15.0	-0.1
	comp=Z,200nm,1.0s,mb6.0						
KIS				LRM		00 46 16.0	
	comp=Z,2µm,20.0s						
WET	Wettzell	79.72	353	eP	P	00 04 15.2	0.0
WET				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.0						
WET	Wettzell	79.72	353	eP	P	00 04 15.2	0.0
	comp=Z,27nm,1.5s,mb5.0						
WET	Wettzell	79.72	353	eP	P	00 04 15.2	0.0
	comp=Z,27nm,1.5s,mb5.0						
IAS	Iasi	79.73	343	P	P	00 04 15.9	+0.5
IAS	Iasi	79.73	343	⇓iP	P	00 04 15.6	+0.2
BURAR	Bucovina Array	79.74	345	⇑iP	P	00 04 15.1	-0.3
VYHS	Vyhne	79.78	349	i P	P	00 04 15.8	+0.2
GEC2	GERESS Array S	79.95	353	eP	P	00 04 16.2	-0.3
GEC2				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
GEC2	GERESS Array S	79.95	353	eP	P	00 04 16.2	-0.3
	comp=Z,12nm,0.9s,mb4.8						
GEC2	GERESS Array S	79.95	353	eP	P	00 04 16.2	-0.3
	comp=Z,12nm,0.9s,mb4.8						
GERES	GERESS Array B	79.95	353	P	P	00 04 16.2	-0.3
GERES	GERESS Array B	79.95	353	P	P	00 04 16.2	-0.3
	comp=Z,5.2nm,0.8s,mb4.5,baz=21,slow=4.9,SNR=16						
GERES	GERESS Array B	79.95	353	P	P	00 04 16.2	-0.3
BMR	Baia Mare	79.95	346	P	P	00 04 17.4	+0.9
BMR	Baia Mare	79.95	346	⇑iP	P	00 04 17.6	+1.1
ONI	Oni	80.14	331	P	P	00 04 20.2	+2.5
LANF	Langenberg	80.17	357	eP	P	00 04 18.2	+0.5
LANF	Langenberg	80.17	357	eP	P	00 04 18.2	+0.5
PSZ	Piszkesteto	80.22	348	eP	P	00 04 18.2	+0.2
PSZ				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
PSZ	Piszkesteto	80.22	348	⇓iP	P	00 04 18.7	+0.7
PSZ	Piszkesteto	80.22	348	⇓eP	P	00 04 19.0	+1.0
ZST	Bratislava	80.27	350	i P	P	00 04 19.1	+0.8
ZST				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
ZST	Bratislava	80.27	350	i P	P	00 04 19.1	+0.8
	comp=Z,16nm,0.9s,mb5.0						
STU	Stuttgart	80.31	356	eP	P	00 04 18.5	0.0
STU	Stuttgart	80.31	356	eP	P	00 04 18.4	-0.1
	comp=Z,31nm,1.0s,mb5.2						
FLN	La Foliniere	80.44	2	⇑iP	P	00 04 18.8	-0.4
	comp=Z,71nm,1.0s,mb5.3						
FLN	La Foliniere	80.44	2	⇑iP	P	00 04 18.8	-0.4
FLN				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
FLN	La Foliniere	80.44	2	⇑iP	P	00 04 18.8	-0.4
	comp=Z,36nm,1.0s,mb5.2						
GOR	Gori	80.47	330	P	P	00 04 19.4	-0.1
SIM	Simferopol’	80.50	338	ceP	P	00 04 19.3	-0.2
SIM				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.2						
TBLG	Delisi	80.50	329	P	P	00 04 20.3	+0.6
LDF	La Druitiere	80.62	2	⇑iP	P	00 04 19.3	-0.8
	comp=Z,58nm,0.7s,mb5.3						
LDF	La Druitiere	80.62	2	⇑iP	P	00 04 19.3	-0.8
LDF				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.3						
LDF	La Druitiere	80.62	2	⇑iP	P	00 04 19.3	-0.8
	comp=Z,29nm,0.7s,mb5.3						
CONA	Conrad Observa	80.67	351	⇑iP	P	00 04 20.9	+0.6
	comp=Z,13nm,0.7s,mb5.0						
CSNA	Conrad Observa	80.67	351	⇑iP	P	00 04 20.8	+0.5
	comp=Z,13nm,0.7s,mb5.0						
MEZF	Maizieres J’vi	80.72	358	⇑iP	P	00 04 20.9	+0.3
	comp=Z,77nm,1.0s,mb5.3						
MEZF	Maizieres J’vi	80.72	358	⇑iP	P	00 04 20.9	+0.3
	comp=Z,77nm,1.0s,mb5.6						
CDF	Champ du Feu	80.75	357	⇑iP	P	00 04 20.8	0.0
	comp=Z,30nm,0.8s,mb5.0						
CDF	Champ du Feu	80.75	357	⇑iP	P	00 04 20.8	0.0
CDF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
CDF	Champ du Feu	80.75	357	⇑iP	P	00 04 20.8	0.0
	comp=Z,15nm,0.8s,mb5.0						
BUD	Budapest	80.76	349	⇓eP	P	00 04 21.9	+1.0
ROSF	Rostrenen	80.78	4	eP	P	00 04 20.8	-0.1
	comp=Z,16nm,0.8s,mb4.7						
ROSF	Rostrenen	80.78	4	eP	P	00 04 20.8	-0.1
ROSF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
ROSF	Rostrenen	80.78	4	eP	P	00 04 20.8	-0.1
	comp=Z,8.1nm,0.8s,mb4.7						
BFO	Black Forest	80.80	356	P	P	00 04 20.8	-0.2
	comp=Z,89nm,0.8s,mb5.8,SNR=6.2						
BFO	Black Forest	80.80	356	i P	P	00 04 21.3	+0.3
BFO	Black Forest	80.80	356	eP	P	00 04 20.8	-0.2
	comp=Z,14nm,0.9s,mb4.9						
BFO	Black Forest	80.80	356	eP	P	00 04 20.8	-0.2
	comp=Z,14nm,0.9s,mb4.9						
FUR	Furstenfeldbru	80.80	354	eP	P	00 04 20.8	-0.3
FUR				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						
FUR	Furstenfeldbru	80.80	354	eP	P	00 04 20.8	-0.3
	comp=Z,36nm,1.3s,mb5.1						
FUR	Furstenfeldbru	80.80	354	eP	P	00 04 20.8	-0.3
	comp=Z,36nm,1.3s,mb5.1						
GRR	Gorron	80.81	2	⇑iP	P	00 04 21.0	-0.1
	comp=Z,84nm,0.9s,mb5.4						
GRR	Gorron	80.81	2	⇑iP	P	00 04 21.0	-0.1
GRR				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.4						
GRR	Gorron	80.81	2	⇑iP	P	00 04 21.0	-0.1
	comp=Z,42nm,0.9s,mb5.4						
SOP	Sopron	80.84	351	⇑eP	P	00 04 24.3	+3.0
SGMF	Saint Gilles	80.89	4	eP	P	00 04 21.5	0.0
	comp=Z,90nm,1.0s,mb5.4						
SGMF	Saint Gilles	80.89	4	eP	P	00 04 21.5	0.0
SGMF				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.3						
SGMF	Saint Gilles	80.89	4	eP	P	00 04 21.5	0.0
	comp=Z,45nm,1.0s,mb5.4						
MOA	Molln	80.89	352	⇑iP	P	00 04 21.4	-0.1
	comp=Z,14nm,1.3s,mb4.7						
DRGR		80.93	346	P	P	00 04 21.9	+0.1
DRGR		80.93	346	⇑iP	P	00 04 21.8	0.0
ECH	Echery	80.95	357	eP	P	00 04 21.9	0.0
ECH	Echery	80.95	357	eP	P	00 04 21.9	0.0
THEF	They Montfort	80.98	358	eP	P	00 04 22.6	+0.6
THEF	They Montfort	80.98	358	eP	P	00 04 22.6	+0.6
SPAK	Spaichingen-Ko	81.00	356	eP	P	00 04 21.9	-0.3
RJOB	Jochberg	81.12	353	eP	P	00 04 22.8	0.0
	comp=Z,13nm,0.8s,mb4.9						
VRI	Vrincioaia	81.17	343	⇑P	P	00 04 23.6	+0.5
VRI	Vrincioaia	81.17	343	⇑iP	P	00 04 23.5	+0.4
HAU	Haudompre	81.19	357	⇑iP	P	00 04 23.0	-0.1
	comp=Z,35nm,0.8s,mb5.1						
HAU	Haudompre	81.19	357	⇑iP	P	00 04 23.0	-0.1
HAU				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
HAU	Haudompre	81.19	357	⇑iP	P	00 04 23.0	-0.1
	comp=Z,17nm,0.8s,mb5.0						
PLOR	Plostina	81.19	343	P	P	00 04 23.9	+0.7
PLOR	Plostina	81.19	343	⇓iP	P	00 04 23.6	+0.4
QUIF	Quistinic	81.20	4	eP	P	00 04 22.9	-0.3
FELD	Feldberg im Sc	81.26	356	eP	P	00 04 23.7	+0.2
MOF	Molkenrain	81.32	357	eP	P	00 04 24.1	+0.3
MOF	Molkenrain	81.32	357	eP	P	00 04 24.1	+0.3
HINF	Hinteralfeld	81.36	357	⇑iP	P	00 04 23.7	-0.4
	comp=Z,21nm,0.7s,mb4.8						
HINF	Hinteralfeld	81.36	357	⇑iP	P	00 04 23.7	-0.4
HINF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
HINF	Hinteralfeld	81.36	357	⇑iP	P	00 04 23.7	-0.4
	comp=Z,10nm,0.7s,mb4.9						
ARSA	Arzberg	81.37	351	⇑iP	P	00 04 24.5	+0.4
	comp=Z,13nm,0.8s,mb4.9						
TLCR		81.42	342	⇓iP	P	00 04 24.4	0.0
RETA	Reutte	81.51	354	⇑iP	P	00 04 24.8	0.0
	comp=Z,8.5nm,1.2s,mb4.6						
MOTA	Moosalm	81.63	354	⇓iP	P	00 04 25.5	0.0
	comp=Z,17nm,1.0s,mb4.9						
MLR	Muntele Rosu	81.67	344	⇓iP	P	00 04 27.2	+1.5
WTTA	Wattenberg	81.68	354	⇑iP	P	00 04 26.3	+0.6
	comp=Z,42nm,1.3s,mb5.2						
BBS	Basel-Blauen	81.69	357	eP	P	00 04 26.3	+0.5
KBA	Koelnbreinsper	81.73	353	⇑iP	P	00 04 27.0	+1.0
	comp=Z,77nm,1.0s,mb5.6						
DAVA	Damuels	81.76	355	⇑iP	P	00 04 27.1	+0.9
	comp=Z,23nm,1.4s,mb4.9						
LOMF	Lomont	81.83	357	eP	P	00 04 26.9	+0.4
LOMF	Lomont	81.83	357	eP	P	00 04 26.9	+0.4
VOIR		81.88	344	⇓iP	P	00 04 28.1	+1.3
GNI	Garni	81.93	329	⇑eP	P	00 04 26.2	-1.0
GNI				pmax	pmax		
	comp=Z,32nm,1.3s						
GNI	Garni	81.93	329	P	P	00 04 28.4	+1.2
	comp=Z,15nm,0.9s,mb4.9,baz=14,slow=4.0,SNR=17						
GNI	Garni	81.93	329	P	P	00 04 28.4	+1.2
LOR	Lormes	81.97	359	⇑iP	P	00 04 27.2	-0.1
	comp=Z,53nm,0.9s,mb5.2						
LOR	Lormes	81.97	359	⇑iP	P	00 04 27.2	-0.1
LOR				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
LOR	Lormes	81.97	359	⇑iP	P	00 04 27.2	-0.1
	comp=Z,26nm,0.9s,mb5.2						
FETA	Feichten	81.98	354	⇑iP	P	00 04 27.7	+0.4
	comp=Z,23nm,1.1s,mb5.0						
HYF	Humbligny	81.98	0	⇑iP	P	00 04 27.6	+0.3
SOKA	Soboth	81.98	351	⇑iP	P	00 04 27.7	+0.4
	comp=Z,58nm,1.2s,mb5.4						
PERS	Pernice	82.02	351	i P	P	00 04 27.8	+0.2
PERS				i PcP	PcP	00 04 29.6	-3.4
PERS				i		00 05 21.9	
PERS	Pernice	82.02	351	i P	P	00 04 27.8	+0.2
PERS				i PcP	PcP	00 04 29.6	-3.4
PERS				i		00 05 21.9	
PKSM	Moragy	82.06	349	P	P	00 04 27.9	+0.1
PKSM	Moragy	82.06	349	⇑iP	P	00 04 26.9	-0.9
HARR	Harsova	82.07	342	P	P	00 04 28.4	+0.5
HARR	Harsova	82.07	342	⇑iP	P	00 04 28.3	+0.4
ABTA	Abfaltersbach	82.13	353	⇑iP	P	00 04 28.1	0.0
	comp=Z,26nm,1.0s,mb5.1						
GROS	Grobnik	82.15	351	i P	P	00 04 28.4	+0.1
GROS	Grobnik	82.15	351	i P	P	00 04 28.4	+0.1
MYKA	Terra Mystica	82.16	352	⇑iP	P	00 04 28.0	-0.3
	comp=Z,16nm,0.9s,mb4.9						
SSF	Saint Saulge	82.18	359	⇑iP	P	00 04 28.4	0.0
	comp=Z,40nm,0.8s,mb5.1						
SSF	Saint Saulge	82.18	359	⇑iP	P	00 04 28.4	0.0
SSF				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
SSF	Saint Saulge	82.18	359	⇑iP	P	00 04 28.4	0.0
	comp=Z,20nm,0.8s,mb5.1						
OBKA	Obir	82.20	352	⇑iP	P	00 04 28.6	+0.1
	comp=Z,41nm,0.8s,mb5.4						
TIRR	Tirgusor	82.20	342	P	P	00 04 29.1	+0.5
TIRR	Tirgusor	82.20	342	⇑iP	P	00 04 28.9	+0.3
BZS	Buzias	82.24	347	P	P	00 04 28.9	+0.1
BZS	Buzias	82.24	347	⇑iP	P	00 04 28.6	-0.1
GZR	Gura Zlata	82.29	346	P	P	00 04 29.4	+0.4
GZR	Gura Zlata	82.29	346	⇑iP	P	00 04 29.2	+0.2
PTCC	Patocco-Chiusa	82.40	353	P	P	00 04 28.8	-0.8
AVF	Avril sur Loir	82.45	360	⇑iP	P	00 04 29.8	0.0
	comp=Z,54nm,1.0s,mb5.2						
AVF	Avril sur Loir	82.45	360	⇑iP	P	00 04 29.8	0.0
AVF				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
AVF	Avril sur Loir	82.45	360	⇑iP	P	00 04 29.8	0.0
	comp=Z,27nm,1.0s,mb5.1						
CABF	La Chapelle	82.59	358	⇑iP	P	00 04 30.9	+0.4
	comp=Z,50nm,1.0s,mb5.2						
CABF	La Chapelle	82.59	358	⇑iP	P	00 04 30.9	+0.4
CABF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
CABF	La Chapelle	82.59	358	⇑iP	P	00 04 30.9	+0.4
	comp=Z,25nm,1.0s,mb5.2						
SMF	Signal de Mont	82.59	359	⇑iP	P	00 04 30.5	-0.1
	comp=Z,97nm,1.1s,mb5.5						
SMF	Signal de Mont	82.59	359	⇑iP	P	00 04 30.5	-0.1
SMF				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.5						
SMF	Signal de Mont	82.59	359	⇑iP	P	00 04 30.5	-0.1
	comp=Z,48nm,1.1s,mb5.4						
MFF	Saint Martin d	82.61	2	⇑iP	P	00 04 30.8	+0.1
	comp=Z,76nm,0.9s,mb5.4						
MFF	Saint Martin d	82.61	2	⇑iP	P	00 04 30.8	+0.1
MFF				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.4						
MFF	Saint Martin d	82.61	2	⇑iP	P	00 04 30.8	+0.1
	comp=Z,38nm,0.9s,mb5.4						
BGF	Bois d’Agland	82.69	360	⇑iP	P	00 04 31.0	0.0
	comp=Z,40nm,1.0s,mb5.1						
BGF	Bois d’Agland	82.69	360	⇑iP	P	00 04 31.0	0.0
BGF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
BGF	Bois d’Agland	82.69	360	⇑iP	P	00 04 31.0	0.0
	comp=Z,20nm,1.0s,mb5.1						
DYDN	Diyadin	82.82	329	i P	P	00 04 32.9	+1.0
JAVS	Javornik	82.85	352	i P	P	00 04 30.9	-1.0
JAVS	Javornik	82.85	352	i P	P	00 04 30.9	-1.0
CTI	Castel Tesino	82.89	354	P	P	00 04 31.5	-0.6
HOMI	Horasan	82.93	331	i P	P	00 04 33.5	+1.1
TCF	Toulx Ste Croi	82.96	0	⇑iP	P	00 04 32.4	0.0
	comp=Z,29nm,0.8s,mb5.1						
TCF	Toulx Ste Croi	82.96	0	⇑iP	P	00 04 32.4	0.0
TCF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
TCF	Toulx Ste Croi	82.96	0	⇑iP	P	00 04 32.4	0.0
	comp=Z,15nm,0.8s,mb5.1						
BOJS	Bojanci	83.13	351	i P	P	00 04 33.1	-0.2
BOJS				i PcP	PcP	00 04 35.0	-2.9
BOJS				i		00 05 44.1	
BOJS	Bojanci	83.13	351	i P	P	00 04 33.1	-0.2
BOJS				i PcP	PcP	00 04 35.0	-2.9
BOJS				i		00 05 44.1	
CRAR	CRAIOVA	83.17	345	P	P	00 04 34.1	+0.5
AGO	Saint Agoulin	83.19	360	eP	P	00 04 34.3	+0.6
AGO	Saint Agoulin	83.19	360	eP	P	00 04 34.3	+0.6
ERZM	Erzurum	83.22	331	i P	P	00 04 35.6	+1.7
PLDF	La Plantade	83.27	359	eP	P	00 04 34.8	+0.7
PLDF	La Plantade	83.27	359	eP	P	00 04 34.8	+0.7
KOPT	Kop Dagi	83.38	332	i P	P	00 04 36.6	+1.9
PYM	Petit Puy Mans	83.50	360	eP	P	00 04 35.7	+0.5
PYM	Petit Puy Mans	83.50	360	eP	P	00 04 35.7	+0.5
ORO	Oropa	83.51	356	P	P	00 04 35.8	+0.5
BOYT	Boyabat	83.62	336	i P	P	00 04 35.0	-0.9
LPL	La Plagne	83.67	357	⇑iP	P	00 04 37.2	+1.1
	comp=Z,11nm,0.8s,mb4.8						
LPL	La Plagne	83.67	357	⇑iP	P	00 04 37.2	+1.1
LPL				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
LPL	La Plagne	83.67	357	⇑iP	P	00 04 37.2	+1.1
	comp=Z,5.6nm,0.8s,mb4.8						
LPG	La Plagne	83.68	357	⇑iP	P	00 04 37.5	+1.3
	comp=Z,30nm,1.1s,mb5.0						
LPG	La Plagne	83.68	357	⇑iP	P	00 04 37.5	+1.3
LPG				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.0						
LPG	La Plagne	83.68	357	⇑iP	P	00 04 37.5	+1.3
	comp=Z,15nm,1.1s,mb5.0						
BALT	Daday	83.89	337	i P	P	00 04 38.3	+0.9
RJF	Les Rejaudoux	83.94	1	eP	P	00 04 37.4	-0.1
	comp=Z,90nm,1.1s,mb5.5						
RJF	Les Rejaudoux	83.94	1	eP	P	00 04 37.4	-0.1
RJF				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.5						
RJF	Les Rejaudoux	83.94	1	eP	P	00 04 37.4	-0.1
	comp=Z,45nm,1.1s,mb5.5						
DIVS	Divibare	83.96	348	P	P	00 04 37.5	-0.1
LBL	Lubilhac	84.01	360	eP	P	00 04 38.7	+0.8
LBL	Lubilhac	84.01	360	eP	P	00 04 38.7	+0.8
BNI	Bardonecchia	84.13	357	eP	P	00 04 39.9	+1.4
BNI				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.3						
BNI	Bardonecchia	84.13	357	eP	P	00 04 39.9	+1.4
	comp=Z,24nm,0.9s,mb5.3						
ILGA	Ilgaz	84.27	337	i P	P	00 04 40.9	+1.6
ORIF	Oris-en-Rattie	84.29	358	⇑iP	P	00 04 40.1	+0.8
	comp=Z,22nm,0.8s,mb5.0						
ORIF	Oris-en-Rattie	84.29	358	⇑iP	P	00 04 40.1	+0.8
ORIF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
ORIF	Oris-en-Rattie	84.29	358	⇑iP	P	00 04 40.1	+0.8
	comp=Z,11nm,0.8s,mb5.0						
LFF	La Frestale	84.29	1	⇑iP	P	00 04 39.5	+0.2
	comp=Z,103nm,0.9s,mb5.6						
LFF	La Frestale	84.29	1	⇑iP	P	00 04 39.5	+0.2
LFF				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.7						
LFF	La Frestale	84.29	1	⇑iP	P	00 04 39.5	+0.2
	comp=Z,51nm,0.9s,mb5.7						
BOB	Bobbio (Coli)	84.30	355	P	P	00 04 40.0	+0.7
CAF	Calviac	84.32	0	⇑iP	P	00 04 39.8	+0.4
	comp=Z,56nm,0.9s,mb5.4						
CAF	Calviac	84.32	0	⇑iP	P	00 04 39.8	+0.4
CAF				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.4						
CAF	Calviac	84.32	0	⇑iP	P	00 04 39.8	+0.4
	comp=Z,28nm,0.9s,mb5.4						
VIVF	Saint-Julien-l	84.37	359	⇑iP	P	00 04 40.1	+0.4
	comp=Z,53nm,1.1s,mb5.3						
VIVF	Saint-Julien-l	84.37	359	⇑iP	P	00 04 40.1	+0.4
VIVF				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.3						
VIVF	Saint-Julien-l	84.37	359	⇑iP	P	00 04 40.1	+0.4
	comp=Z,26nm,1.1s,mb5.3						
CTKT	Corum	84.40	336	i P	P	00 04 40.8	+0.9
MBDF	Montbardon	84.45	357	⇑iP	P	00 04 41.0	+0.9
	comp=Z,27nm,0.9s,mb5.1						
MBDF	Montbardon	84.45	357	⇑iP	P	00 04 41.0	+0.9
MBDF				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
MBDF	Montbardon	84.45	357	⇑iP	P	00 04 41.0	+0.9
	comp=Z,13nm,0.9s,mb5.1						
JMB	Yambol	84.48	342	P	P	00 04 41.2	+0.9
GSCL	Gusciola	84.65	354	P	P	00 04 42.0	+0.9
KEMA	Kemaliye	84.66	333	i P	P	00 04 41.4	+0.1
FNVD	Fontana Vidola	84.79	354	P	P	00 04 42.7	+0.8
	comp=Z,307nm,2.3s,mb6.0						
PLE	Pljevlja	84.80	348	⇑iP	P	00 04 42.7	+0.8
PLE	Pljevlja	84.80	348	⇑iP	P	00 04 42.7	+0.8
PLE	Pljevlja	84.80	348	⇑iP	P	00 04 42.7	+0.8
ELDT	Eldivan	84.87	337	i P	P	00 04 43.0	+0.7
SEI	Scarperia	84.89	354	P	P	00 04 43.9	+1.6
	comp=Z,72nm,0.7s,mb5.9						
RSM	Repubblica di	84.93	353	P	P	00 04 43.4	+0.8
VTS	Vitosha	84.95	345	P	P	00 04 42.7	0.0
VMG	Vicchio	84.97	354	P	P	00 04 43.7	+0.9
	comp=Z,25nm,0.7s,mb5.5						
UPM	Unac-Piva	84.98	348	⇑iP	P	00 04 42.1	-0.7
UPM	Unac-Piva	84.98	348	⇑iP	P	00 04 42.2	-0.7
SFI	Santa Sofia	85.00	353	P	P	00 04 43.7	+0.8
SFI				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.4						
SFI	Santa Sofia	85.00	353	P	P	00 04 43.7	+0.8
	comp=Z,39nm,1.2s,mb5.4						
FITZ	Fitzroy Crossi	85.04	233	P	P	00 04 43.3	0.0
	comp=Z,18nm,0.8s,mb5.3,baz=108,slow=11,SNR=3.7						
FITZ	Fitzroy Crossi	85.04	233	P	P	00 04 43.3	0.0
MAIM	Mastiano	85.09	354	P	P	00 04 42.5	-0.8
	comp=Z,349nm,3.7s						
BEST	Besiri	85.10	330	i P	P	00 04 44.2	+0.7
FSSB	Fossombrone	85.14	353	P	P	00 04 43.7	+0.1
	comp=Z,327nm,3.8s						
TOUF	Mont Tournerai	85.15	357	eP	P	00 04 44.1	+0.5
TOUF	Mont Tournerai	85.15	357	eP	P	00 04 44.1	+0.5
HENT	Hendek	85.15	339	i P	P	00 04 44.6	+0.9
AUTN	L’Aution	85.16	357	eP	P	00 04 43.9	+0.2
AUTN	L’Aution	85.16	357	eP	P	00 04 43.9	+0.2
LASF	Ste Croix	85.16	359	⇑iP	P	00 04 44.2	+0.5
	comp=Z,21nm,0.8s,mb5.0						
SAOF	Saorge	85.16	356	eP	P	00 04 43.3	-0.4
SAOF	Saorge	85.16	356	eP	P	00 04 43.3	-0.4
PLD	Plovdiv	85.17	344	P	P	00 04 43.8	0.0
IVA	Berane	85.18	347	⇑iP	P	00 04 44.0	+0.2
IVA	Berane	85.18	347	⇑iP	P	00 04 44.1	+0.3
SMRF	Simiane la Rot	85.24	358	⇑iP	P	00 04 45.0	+0.9
	comp=Z,75nm,1.0s,mb5.5						
SMRF	Simiane la Rot	85.24	358	⇑iP	P	00 04 45.0	+0.9
	comp=Z,75nm,1.0s,mb5.8						
LUCF	Luceram	85.27	357	eP	P	00 04 44.1	-0.1
MVIF	Mont Vial	85.27	357	eP	P	00 04 44.4	+0.2
MVIF	Mont Vial	85.27	357	eP	P	00 04 44.4	+0.2
PII	Pisa	85.28	354	P	P	00 04 43.2	-1.1
PII				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.6						
PII	Pisa	85.28	354	P	P	00 04 43.2	-1.1
	comp=Z,59nm,1.1s,mb5.6						
SBF	Sospel	85.29	357	⇑iP	P	00 04 44.3	-0.1
	comp=Z,97nm,0.9s,mb5.6						
SBF	Sospel	85.29	357	⇑iP	P	00 04 44.3	-0.1
SBF				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.6						
SBF	Sospel	85.29	357	⇑iP	P	00 04 44.3	-0.1
	comp=Z,49nm,0.9s,mb5.6						
PIEI	Pieia	85.32	353	P	P	00 04 44.3	-0.2
	comp=Z,108nm,2.3s,mb5.6						
BRY	Bratogost	85.33	348	⇑iP	P	00 04 43.4	-1.2
BRY	Bratogost	85.33	348	⇑iP	P	00 04 43.5	-1.1
BRY	Bratogost	85.33	348	⇑iP	P	00 04 43.5	-1.1
NKY	Niksic	85.36	348	eP	P	00 04 44.3	-0.4
NKY	Niksic	85.36	348	eP	P	00 04 44.3	-0.4
NKY	Niksic	85.36	348	eP	P	00 04 44.3	-0.4

VILF	Villemus	85.36	358	*e*P	P	00 04 46.0	+1.3
VILF	Villemus	85.36	358	*e*P	P	00 04 46.0	+1.3
BADI	Badiali	85.37	353	P	P	00 04 45.0	+0.3
	comp=Z,38nm,0.9s,mb5.5						
PRAF	Pradon	85.42	358	*e*P	P	00 04 45.6	+0.6
PRAF	Pradon	85.42	358	*e*P	P	00 04 45.6	+0.6
REVF	Revere	85.42	357	*e*P	P	00 04 45.1	+0.1
REVF	Revere	85.42	357	*e*P	P	00 04 45.1	+0.1
CALN	Calern	85.42	357	*e*P	P	00 04 45.2	+0.2
CALN	Calern	85.42	357	*e*P	P	00 04 45.2	+0.2
DIYA	Diyarbakir	85.42	331	*i* P	P	00 04 45.9	+0.8
PVY	Plav	85.44	347	⇑*i*P	P	00 04 44.7	-0.4
PVY	Plav	85.44	347	⇑*i*P	P	00 04 44.8	-0.3
CDAG	Cicekdag	85.45	336	*i* P	P	00 04 45.9	+0.6
BRTR	Keskin Array B	85.54	337	P	P	00 04 46.0	+0.3
BRTR	Keskin Array B	85.54	337	P	P	00 04 46.0	+0.3
	comp=Z,26nm,0.8s,mb5.5,baz=52,slow=2.8,SNR=99						
BRTR	Keskin Array B	85.54	337	P	P	00 04 46.0	+0.3
SNTG	Esanatoglia	85.56	352	P	P	00 04 46.0	+0.3
	comp=Z,30nm,0.6s,mb5.7						
MALT	Malatya	85.57	333	⇑*i*P	P	00 04 46.6	+0.8
MURB	Monte Urbino	85.59	353	P	P	00 04 46.1	+0.2
	comp=Z,53nm,0.8s,mb5.8						
TREF	Trevaresse	85.59	358	*e*P	P	00 04 47.1	+1.2
TREF	Trevaresse	85.59	358	*e*P	P	00 04 47.1	+1.2
FRF	La Foret Royal	85.62	357	⇑*i*P	P	00 04 45.9	-0.1
	comp=Z,45nm,0.9s,mb5.4						
FRF	La Foret Royal	85.62	357	⇑*i*P	P	00 04 45.9	-0.1
FRF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.4						
FRF	La Foret Royal	85.62	357	⇑*i*P	P	00 04 45.9	-0.1
	comp=Z,23nm,0.9s,mb5.4						
TTG	Podgorica	85.70	348	⇑*i*P	P	00 04 46.1	-0.3
TTG	Podgorica	85.70	348	⇑*i*P	P	00 04 46.1	-0.3
TTG	Podgorica	85.70	348	⇑*i*P	P	00 04 46.1	-0.3
AKCD	Akcadag	85.73	333	*i* P	P	00 04 48.5	+1.8
ASS	Assisi	85.78	353	P	P	00 04 47.2	+0.4
ASS				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.9						
ASS	Assisi	85.78	353	P	P	00 04 47.2	+0.4
	comp=Z,52nm,0.7s,mb5.9						
HCY	Herceg Novi	85.78	348	⇑*i*P	P	00 04 46.0	-0.8
HCY	Herceg Novi	85.78	348	⇑*i*P	P	00 04 46.1	-0.7
HCY	Herceg Novi	85.78	348	⇑*i*P	P	00 04 46.1	-0.7
MARD	Mardin	85.78	330	*i* P	P	00 04 47.6	+0.7
PINB	Pinarbasi	85.80	334	*i* P	P	00 04 47.8	+0.8
GELF	Grande-Etoile	85.83	358	*e*P	P	00 04 48.2	+1.1
GELF	Grande-Etoile	85.83	358	*e*P	P	00 04 48.2	+1.1
SKO	Skopje	85.84	346	P	P	00 04 47.8	+0.7
SKO	Skopje	85.84	346	*e*P	P	00 04 48.1	+1.0
LMR	La Mourre	85.85	357	⇑*i*P	P	00 04 47.2	0.0
	comp=Z,37nm,0.8s,mb5.4						
LMR	La Mourre	85.85	357	⇑*i*P	P	00 04 47.2	0.0
LMR				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.4						
LMR	La Mourre	85.85	357	⇑*i*P	P	00 04 47.2	0.0
	comp=Z,19nm,0.8s,mb5.4						
MSL	Mosul	85.87	328	*e*x	x	00 04 55.0	
MSL				*e*x	x	00 15 02.0	
BUM	Brajici-Budva	85.87	348	⇑*i*P	P	00 04 47.3	0.0
BUM	Brajici-Budva	85.87	348	⇑*i*P	P	00 04 47.3	0.0
BERF	Bertagne	85.89	358	*e*P	P	00 04 48.6	+1.2
BERF	Bertagne	85.89	358	*e*P	P	00 04 48.6	+1.2
MTLF	Montolieu	85.90	0	*e*P	P	00 04 47.8	+0.4
	comp=Z,52nm,0.9s,mb5.4						
MTLF	Montolieu	85.90	0	*e*P	P	00 04 47.8	+0.4
MTLF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.5						
MTLF	Montolieu	85.90	0	*e*P	P	00 04 47.8	+0.4
	comp=Z,26nm,0.9s,mb5.5						
NRCA	Norcia	85.97	352	P	P	00 04 48.1	+0.4
	comp=Z,40nm,0.8s,mb5.7						
SJPF	Ste Jean	86.07	3	⇑*i*P	P	00 04 48.5	+0.3
	comp=Z,7.8nm,0.6s,mb4.8						
SJPF	Ste Jean	86.07	3	⇑*i*P	P	00 04 48.5	+0.3
SJPF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.8						
SJPF	Ste Jean	86.07	3	⇑*i*P	P	00 04 48.5	+0.3
	comp=Z,3.9nm,0.6s,mb4.8						
ALN	Alexandroupoli	86.09	342	P	P	00 04 48.2	-0.2
ALN	Alexandroupoli	86.09	342	P	P	00 04 48.2	-0.2
ALN	Alexandroupoli	86.09	342	P	P	00 04 48.2	-0.2
AVNT	Avonos	86.12	335	*i* P	P	00 04 48.2	-0.3
TERO	Teramo	86.14	352	P	P	00 04 48.8	+0.2
	comp=Z,46nm,0.9s,mb5.7						
ULC	Ulcinj	86.16	348	⇑*i*P	P	00 04 48.7	0.0
ULC	Ulcinj	86.16	348	⇑*i*P	P	00 04 48.7	0.0
ULC	Ulcinj	86.16	348	⇑*i*P	P	00 04 48.7	0.0
EPF	Esparros	86.19	2	*e*P	P	00 04 48.4	-0.4
	comp=Z,20nm,1.1s,mb5.0						
EPF	Esparros	86.19	2	*e*P	P	00 04 48.4	-0.4
EPF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.0						
EPF	Esparros	86.19	2	*e*P	P	00 04 48.4	-0.4
	comp=Z,10nm,1.1s,mb5.0						
MLS	Moulis	86.28	1	*e*P	P	00 04 49.1	-0.2
MLS	Moulis	86.28	1	*e*P	P	00 04 49.1	-0.2
VAY	Valandovo	86.30	345	*e*P	P	00 04 48.9	-0.5
ETSF	Etsaut	86.31	2	⇑*i*P	P	00 04 49.5	+0.1
	comp=Z,33nm,0.9s,mb5.2						
ETSF	Etsaut	86.31	2	⇑*i*P	P	00 04 49.5	+0.1
ETSF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.3						
ETSF	Etsaut	86.31	2	⇑*i*P	P	00 04 49.5	+0.1
	comp=Z,17nm,0.9s,mb5.3						
LRDF	Laroque-de-Fa	86.31	0	*e*P	P	00 04 49.6	+0.2
LRDF	Laroque-de-Fa	86.31	0	*e*P	P	00 04 49.6	+0.2
SRS	Serrai	86.32	344	P	P	00 04 49.2	-0.3
SRS	Serrai	86.32	344	P	P	00 04 49.2	-0.3
SRS	Serrai	86.32	344	P	P	00 04 49.2	-0.3
KNT	Kendrikon	86.40	345	P	P	00 04 50.2	+0.3
RESF	Ens	86.42	2	*e*P	P	00 04 50.6	+0.7
RESF	Ens	86.42	2	*e*P	P	00 04 50.6	+0.7
AQU	L’Aquila	86.42	352	P	P	00 04 50.3	+0.3
AQU				pmax	pmax		
	comp=Z,90nm,1.0s,mb6.0						
AQU	L’Aquila	86.42	352	P	P	00 04 50.3	+0.3
	comp=Z,90nm,1.0s,mb6.0						
KRUS	Krusevo	86.45	346	*e*P	P	00 04 48.9	-1.2
FIAM	Fiamignano	86.53	352	P	P	00 04 50.5	0.0
	comp=Z,53nm,0.8s,mb5.8						
PGF	Pioggiola	86.53	355	⇑*i*P	P	00 04 50.4	-0.1
	comp=Z,106nm,0.8s,mb5.8						
PGF	Pioggiola	86.53	355	⇑*i*P	P	00 04 50.4	-0.1
PGF				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.8						
PGF	Pioggiola	86.53	355	⇑*i*P	P	00 04 50.4	-0.1
	comp=Z,53nm,0.8s,mb5.8						
SOH	Sokhos	86.65	344	P	P	00 04 50.6	-0.5
GRG	Griva	86.68	345	P	P	00 04 52.0	+0.7
GRG	Griva	86.68	345	P	P	00 04 52.0	+0.7
GRG	Griva	86.68	345	P	P	00 04 52.0	+0.7
GZT	Gaziantep	86.71	333	*i* P	P	00 04 51.7	+0.3
PTQR	Pietraquaria	86.75	352	P	P	00 04 51.7	+0.1
	comp=Z,99nm,0.8s,mb6.1						
OHR	Ohrid	86.78	346	*e*P	P	00 04 50.7	-1.1
BIA	Bitola	86.79	346	*e*P	P	00 04 50.5	-1.3
FG2	Serracapriola	86.80	351	P	P	00 04 51.9	+0.1
DURS	Dursunbey	86.86	340	*i* P	P	00 04 51.8	-0.4
VVLD	Villa Vallelon	86.88	352	P	P	00 04 51.4	-0.8
	comp=Z,153nm,2.0s,mb5.9						
RGNG	Rignano Grg	86.88	350	P	P	00 04 51.6	-0.7
HORT	Hortiatis	86.91	345	P	P	00 04 51.7	-0.7
HORT	Hortiatis	86.91	345	P	P	00 04 51.7	-0.7
CIGN	Sant’Elia a Pi	86.97	351	P	P	00 04 52.3	-0.4
FNA	Florina	87.01	346	P	P	00 04 52.1	-0.8
FNA	Florina	87.01	346	P	P	00 04 52.1	-0.8
FNA	Florina	87.01	346	P	P	00 04 52.1	-0.8
OUR	Ouranopolis	87.02	344	P	P	00 04 52.4	-0.5
SDI	San Donato	87.02	352	P	P	00 04 52.6	-0.3
PLG	Polygyros	87.07	344	P	P	00 04 52.3	-0.9
PLG	Polygyros	87.07	344	P	P	00 04 52.3	-0.9
PLG	Polygyros	87.07	344	P	P	00 04 52.3	-0.9
PBRG	Braganca	87.08	7	*e*P	P	00 04 52.9	-0.3
	comp=Z,26nm,2.4s,mb5.0						
LOS	Limnos	87.21	343	P	P	00 04 53.6	-0.3
LOS	Limnos	87.21	343	P	P	00 04 53.6	-0.3
FG5	Orsara di Pugl	87.30	351	P	P	00 04 52.7	-1.6
KUZU	Kuzuini	87.39	333	*i* P	P	00 04 55.4	+0.6
RFI	Roccamonfina	87.41	351	P	P	00 04 55.7	+0.9
LIT	Litokhoron	87.50	345	P	P	00 04 54.4	-0.9
LIT	Litokhoron	87.50	345	P	P	00 04 54.4	-0.9
LIT	Litokhoron	87.50	345	P	P	00 04 54.4	-0.9
PVRL	Vila Real	87.52	8	*e*P	P	00 04 55.0	-0.4
	comp=Z,20nm,1.7s,mb5.1						
MVO	Moncorvo	87.69	7	*e*P	P	00 04 56.1	-0.1
	comp=Z,18nm,1.4s,mb5.1						
CSSN	Cassano Irpino	87.75	351	P	P	00 04 56.2	-0.2
KHAL	Karahalli	87.81	339	*i* P	P	00 04 56.1	-0.7
COBT	Iskenderun	87.86	334	*i* P	P	00 04 57.5	+0.4
MEV	Metsovon	88.01	346	P	P	00 04 58.3	+0.6
MEV	Metsovon	88.01	346	P	P	00 04 58.3	+0.6
PVIS	Viseu	88.06	8	*e*P	P	00 04 57.7	-0.2
	comp=Z,28nm,1.9s,mb5.2						
XOR	Xorichti	88.10	344	P	P	00 04 57.0	-1.1
XOR	Xorichti	88.10	344	P	P	00 04 57.0	-1.1
THL	Klokotos Trika	88.10	345	P	P	00 04 56.9	-1.2
IGT	Igoumenitsa	88.39	346	P	P	00 04 58.8	-0.7
MGR	Morigerati	88.41	350	P	P	00 04 57.9	-1.7
MTE	Manteigas	88.41	8	*e*P	P	00 04 59.3	-0.3
	comp=Z,24nm,0.9s,mb5.4						
MTE	Manteigas	88.41	8	*e*P	P	00 04 59.4	-0.2
	comp=Z,16nm,0.9s,mb5.2						
AGG	Agios Georgios	88.58	345	P	P	00 04 58.8	-1.6
LKR	Lokris	88.83	344	P	P	00 04 59.6	-2.0
LKR	Lokris	88.83	344	P	P	00 04 59.6	-2.0
AYDN	Tasoluk	88.85	340	*i* P	P	00 05 01.4	-0.3
PCBR	Castelo Branco	88.97	8	*e*P	P	00 05 01.0	-1.2
	comp=Z,14nm,1.3s,mb5.1						
PTOM	Tomar	89.11	9	*e*P	P	00 05 02.3	-0.6
	comp=Z,29nm,1.0s,mb5.6						
TIP	Timpagrande	89.22	349	*e*P	P	00 05 03.7	+0.3
	comp=Z,67nm,1.2s,mb5.8						
ESDC	Sonseca Array	89.38	5	P	P	00 05 03.1	-1.0
	comp=Z,6.7nm,0.7s,mb5.1,baz=351,slow=4.1,SNR=32						
ESDC	Sonseca Array	89.38	5	P	P	00 05 03.1	-1.0
PMRV	Marv??o	89.39	8	*e*P	P	00 05 04.2	0.0
	comp=Z,18nm,1.4s,mb5.2						
LAKA	Lakka	89.40	345	P	P	00 05 04.2	-0.1
VLS	Valsamata	89.68	346	P	P	00 05 04.7	-0.9
PESTR	Estremoz	89.92	8	*e*P	P	00 05 05.5	-1.2
	comp=Z,25nm,1.7s,mb5.3						
ZKR	Zakros	91.65	341	P	P	00 05 13.7	-1.1
ZKR	Zakros	91.65	341	P	P	00 05 13.7	-1.1
LAST	Lasithi	91.75	341	P	P	00 05 13.9	-1.4
LAST	Lasithi	91.75	341	P	P	00 05 13.9	-1.4
KEST	Kesra	93.30	355	P	P	00 05 22.1	-0.3
	comp=Z,2.5nm,0.9s,mb4.6,baz=253,slow=5.0,SNR=8.3						
TORD	Torodi Ar. Bea	115.98	1	PKP	PKPdf	00 10 49.7	-1.0
	comp=Z,1.0nm,0.9s,baz=356,slow=2.0,SNR=8.5						
TORD	Torodi Ar. Bea	115.98	1	PKP	PKPdf	00 10 49.7	-1.0
DBIC	Dimbokro	122.06	9	PKIKP	PKPdf	00 11 01.3	-1.1
DBIC	Dimbokro	122.06	9	PKP	PKPdf	00 11 01.3	-1.1
	comp=Z,1.5nm,0.6s,baz=268,slow=6.2,SNR=4.9						
DBIC	Dimbokro	122.06	9	PKP	PKPdf	00 11 01.3	-1.1
PLCA	Paso Flores	130.02	108	PKIKP	PKPdf	00 11 15.8	-0.9
PLCA	Paso Flores	130.02	108	PKP	PKPdf	00 11 15.8	-0.9
	comp=Z,3.3nm,0.8s,baz=312,slow=2.1,SNR=7.2						
PLCA	Paso Flores	130.02	108	PKP	PKPdf	00 11 15.8	-0.9
QSPA	South Pole Qui	140.89	180	PKP	PKPdf	00 11 37.6	+1.9
	comp=Z,4.5nm,0.7s,baz=349,slow=5.2,SNR=5.9						
QSPA	South Pole Qui	140.89	180	PKP	PKPdf	00 11 37.6	+1.9
LBTB	Lobatse	148.54	317	PKP2	PKPbc	00 11 54.7	+0.5
LBTB	Lobatse	148.54	317	PKPbc	PKPbc	00 11 54.7	+0.4
	comp=Z,26nm,0.8s,baz=333,slow=2.2,SNR=11						
LBTB	Lobatse	148.54	317	PKPbc	PKPbc	00 11 54.7	+0.4
BOSA	Boshof	151.81	314	PKIKP	PKPbc	00 12 02.0	0.0
BOSA	Boshof	151.81	314	PKPbc	PKPbc	00 12 02.0	-0.1
	comp=Z,6.6nm,0.6s,baz=46,slow=2.2,SNR=4.0						
BOSA	Boshof	151.81	314	PKPbc	PKPbc	00 12 02.0	-0.1
SYO	Syowa Base	154.94	211	⇓*e*X	PKPab	00 12 16.8	-6.5

IDC ***21*** *23:55:32.8±0.4, 2°.32S×99°.91E, h0^{km}, mb5.3/35, mb1 5.3/37, mb1mx5.3/39, mbtmp5.3/37, ML4.8/2, MS5.4/27, Ms1 5.4/27, ms1mx5.3/41, Error ellipse: s-maj=13.2km s-min=9.1km az=46.0*

BJI ***21*** *23:55:32.8, 2°.48S×99°.86E, h22^{km}, mB6.0/40, mb5.8/56, Ms6.0/69, Ms7 5.7/56*

SZGRF ***21*** *23:55:33.4, 3°.72S×99°.84E, h34^{km}, mb5.8, MS5.5, Southwest of Sumatera, Indonesia*

ISCJB ***21*** *23:55:35.5±0.1, 2°.33S±0°.02×99°.88E±0°.02, h28^{km}, mb5.7/225, MS5.6/234, Error ellipse: s-maj=3.4km s-min=2.2km az=30.2*

NEIC ***21*** *23:55:36.5±0.1, 2°.32S×99°.88E, h24^{km}, mb5.7/84, MS5.6/184, MW5.7, Error ellipse: s-maj=5.0km s-min=3.4km az=219.0, Moment Tensor Solution. s75 Moment tensor: Scale 10^{17}Nm; M$_{rr}$2.41; M$_{\theta\theta}$-0.85; M$_{\phi\phi}$-1.56; M$_{r\theta}$2.97; M$_{\theta\phi}$2.20; M$_{\phi r}$-1.64; Best double couple: M$_0$4.60000×10^{17} NP1:ϕ_s122.00000°, δ71.00000°, λ73.00000°. NP2:ϕ_s344.00000°, δ25.00000°, λ130.00000°. Principal axes: T 4.1900, Plg60.0000°, Azm7.0000°; N 0.6800, Plg15.0000°, Azm127.0000°; P -4.8600, Plg24.0000°, Azm224.0000°;*

NEIC Felt [IV] at Padang, [III] at Padangpanjang and [II] at Bukittinggi, Sumatra. Also felt in Singapore.

GCMT ***21*** *23:55:36.5±0.1, 2°.56S×99°.66E, h22^{km}, MW5.7/95, Moment Tensor Solution. s95,c175; s86,c183; Duration: 1^{s}9 Moment tensor: Scale 10^{17}Nm; M$_{rr}$2.36±.05; M$_{\theta\theta}$-1.51±.04; M$_{\phi\phi}$-0.85±.05; M$_{r\theta}$3.27±.08; M$_{\theta\phi}$1.54±.03; M$_{\phi r}$-2.38±.09; Best double couple: M$_0$4.78600×10^{17} NP1:ϕ_s313.00000°, δ16.00000°, λ96.00000°. NP2:ϕ_s126.00000°, δ74.00000°, λ88.00000°. Principal axes: T 4.5910, Plg61.0000°, Azm34.0000°; N 0.3880, Plg2.0000°, Azm127.0000°; P -4.9800, Plg29.0000°, Azm218.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***21*** *23:55:36.0±0.9, 2°.16S×99°.97E, h29^{km}, mb6.0/80, MS5.5/49 Error ellipse: s-maj=8.1km s-min=3.8km az=122.6*

DJA ***21*** *23:55:37, 2°.41S×99°.77E, h21^{km}, mb5.7/44*

ISC 21 23:55:37.3±0.1**, 2°.36S**±0°.02×**99°.84E**±0°.02**, h30**^{km}**, h30**^{km}±.8^{km}**:pP-P, n880, σ0^{s}99**/713**, mb5.7**/224**, MS5.6**/234**, 67C-24D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	0.44	158	P	Pb	23 55 46.2	-0.6
SISI	Saibi	1.27	324	P	Pn	23 55 58.4	-0.7
PDSI	Padang	1.56	23	P	Pn	23 56 03.6	+0.5
PPI	Padang Panjang	1.97	16	P	Pn	23 56 09.6	+0.9
SDSI	Sungai Dareh	2.12	48	P	Pn	23 56 15.6	+4.8
KSI	Kapahiang	3.03	115	P	Pn	23 56 24.4	+1.1
MNAI	Manna	3.69	123	P	Pn	23 56 32.4	0.0
LHSI	Lahat	3.96	112	P	Px	23 56 55.2	
MDSI	Maura Dua	4.82	116	P	Pn	23 56 48.8	+0.9
PMBI	Palembang	4.96	97	P	Pn	23 56 51.4	+1.6
	2μm,1.0s,32nm						
PSI	Prapat	5.21	350	Pn	Pn	23 56 50.9	-2.3
	16nm,0.3s,baz=164,slow=11,SNR=45						
PSI				LR	LR	23 58 05.0	
	comp=Z,10μm,21.5s,baz=159,slow=30						
PSI	Prapat	5.21	350	Pn	Pn	23 56 50.9	-2.3
PSI				LR	LR	23 58 05.0	
KGM	Kluang	5.56	39	P	Pn	23 57 00.4	+2.2
KASI	Kota Agung	5.61	124	P	Pn	23 56 58.6	-0.2
	2μm,0.9s,11nm						
MYKOM	Kota Tinggi	5.75	44	P	Pn	23 57 02.8	+2.1
MYKOM	Kota Tinggi	5.75	44	P	Pn	23 57 01.9	+1.2
	2μm,1.6s,30nm						
FRIM	Kepong	5.83	18	P	Pn	23 57 03.5	+1.6
RBSI	Rajabasa	6.83	121	P	Pn	23 57 15.7	+0.2
	1μm,1.2s						
IPM	Ipoh	6.89	10	P	Pn	23 57 18.1	+1.7
IPM	Ipoh	6.89	10	P	Pn	23 57 17.9	+1.5
	711nm,1.0s,9.8nm						
SBJI	Serang	7.30	121	P	Pn	23 57 23.6	+1.6
	1μm,1.1s,5.3nm						
KULM	Kulim	7.64	6	P	Pn	23 57 26.8	+0.1
KULM	Kulim	7.64	6	*e*P	Pn	23 57 26.4	-0.3
	78nm,0.8s						
KULM	Kulim	7.64	6	P	Pn	23 57 26.5	-0.2
	935nm,1.3s,7μm2.4nm						
TNG	Tangerang	7.77	119	P	Pn	23 57 30.3	+1.8
	3μm,1.1s,13nm						
TNG	Tangerang	7.77	119	P	Pn	23 57 32.4	+3.9
	3μm,1.1s,13nm						
TPI	Tanjungpandan	7.81	93	P	Pn	23 57 30.7	+1.6
	113nm,0.7s,3.5nm						
CBJI	Citeko	8.07	120	P	Pn	23 57 35.6	+3.0
KTGM	Kuala Trenggan	8.31	23	P	Pn	23 57 38.0	+2.1
LEM	Lembang	8.93	120	P	Pn	23 57 46.0	+1.6
	837nm,1.0s						
BSI	Banda Aceh	9.03	330	⇑*e*P	Pn	23 57 44.0	-1.7
BSI				*e*S	Sn	23 59 19.0	-7.4
BSI	Banda Aceh	9.03	330	P	Pn	23 57 43.0	-2.7
	261nm,1.2s						
SNG	Songkhla	9.50	5	P	Pn	23 57 50.0	-2.3
	2μm,1.1s						
XMIS	Christmas Isla	9.92	145	P	Pn	23 57 57.0	-1.0
	295nm,2.4s						
COCO	West Island	10.21	197	*e*P	Pn	23 58 00.6	-1.4
COCO				pmax	pmax		
	comp=Z,285nm,0.9s						
COCO	West Island	10.21	197	*e*Pn	Pn	23 58 00.6	-1.4
	comp=Z,285nm,0.9s						
COCO	West Island	10.21	197	P	Pn	23 57 59.3	-2.7
	comp=Z,319nm,1.2s						
BJII	Banjamegara	11.00	117	⇓*e*P	Pn	23 58 12.3	-0.5
KSM	Kuching	11.13	70	*e*P	Pn	23 58 14.2	-0.5
	comp=Z,78nm,0.8s						
KSM	Kuching	11.13	70	P	Pn	23 58 16.7	+2.1
	comp=Z,100nm,1.2s,comp=Z,3μm						
SMRI	Semarang	11.54	114	P	Pn	23 58 21.3	+1.1
	comp=Z,756nm,1.2s						
UGM	Wanagama	11.98	118	P	Pn	23 58 24.2	-2.0
	comp=Z,413nm,2.7s						
NGJI	Ngawi	12.60	114	P	Pn	23 58 35.9	+1.2
	comp=Z,431nm,1.2s						
SJI	Sawahan	13.02	115	P	Pn	23 58 39.4	-1.0
	comp=Z,460nm,0.9s						
PWJI	Pagerwojo	13.17	116	P	Pn	23 58 40.7	-1.8
	comp=Z,201nm,1.2s						
SBUM	Sibu	13.26	69	P	Pn	23 58 46.7	+2.9
	comp=Z,638nm,1.4s						
TRT	Tretes	13.80	113	⇓*e*P	Pn	23 58 49.0	-2.1
PLKI	Palangkaraya	14.09	90	P	Pn	23 59 03.2	+8.1
	comp=Z,653nm,1.4s						
KMMI	Kalianget	14.82	109	P	Pn	23 59 04.1	-1.0
	comp=Z,411nm,1.2s						
BBKI	Banjar Baru	15.02	95	P	Pn	23 59 08.8	+1.1
	comp=Z,433nm,1.2s						
ABJI	Asem Bagus	15.31	111	P	Pn	23 59 12.5	+1.0
	comp=Z,449nm,1.1s						
PBA	Port Blair	15.61	333	*e*x	Pn	23 59 18.5	+3.2
PBA				*e*x	x	00 04 37.1	
NBBI	Negara	15.87	113	P	Pn	23 59 21.5	+2.7
	comp=Z,313nm,1.6s						
SRBI	Singaraja	16.32	111	P	Pn	23 59 23.7	-0.9
	comp=Z,237nm,1.1s						
KBKI	Kotabaru	16.33	94	P	Pn	23 59 23.6	-1.1
	comp=Z,184nm,1.7s,comp=Z,4μm						
KHKI	Kahang-Kahang	16.79	111	P	pP	23 59 41.8	+1.5
	comp=Z,295nm,1.2s						
NST	Nakhon Sawan	17.92	1	P	Pn	23 59 40.0	-4.4
	comp=Z,58nm,1.0s						
UBT	Ubonrachathani	18.22	16	P	Pn	23 59 48.0	-0.2
	comp=Z,312nm,1.0s						
KKTK	Khon Kaen	18.81	9	P	Pn	23 59 52.0	-3.3
MKS	Makassar	19.79	99	⇑*e*P	Pn	00 00 04.5	-2.6
MKS				*e*S	Sn	00 03 43.8	-5.0
PCI	Palu	20.04	86	P	P	00 00 08.7	+0.5
	comp=Z,1μm,1.4s						
KAPI	Kappang	20.04	98	P	P	00 00 07.4	-0.8
	comp=Z,4μm,1.0s,SNR=14						
KAPI	Kappang	20.04	98	P	P	00 00 06.6	-1.6
	comp=Z,7.4nm,0.3s,baz=278,slow=9.0,SNR=36						
KAPI				S	S	00 03 49.1	-3.0
	comp=Z,0.6nm,0.3s,baz=323,slow=20,SNR=2.4						
MYLDM	Lahad Datu	20.09	68	P	P	00 00 09.8	+1.1
	comp=Z,8μmcomp=Z,782nm,1.2s						
BNSI	Bone	20.33	96	P	P	00 00 11.5	+0.2
	comp=Z,6μmcomp=Z,730nm,1.1s						
CMAR	Chiang Mai Arr	20.70	358	P	P	00 00 14.7	-0.6
	comp=Z,176nm,1.0s,baz=186,slow=9.8,SNR=309						
CMAR				S	S	00 04 11.8	+6.6
	comp=Z,1.2nm,0.3s,baz=36,slow=23,SNR=3.1						
CMAR				LR	LR	00 08 39.3	
	comp=Z,19μm,19.8s,MS5.5,baz=189,slow=38						
BATP	Bataraza	21.05	58	*e*P	P	00 00 18.8	-0.4
CHTO	Chiang Mai	21.06	358	*e*P	P	00 00 15.8	-3.3
CHTO				pmax	pmax		
	comp=Z,200nm,1.1s,mb5.4						
CHTO				MLR	MLR		
	comp=Z,16μm,20.0s,MS5.4						
CHTO	Chiang Mai	21.06	358	*e*P	P	00 00 15.8	-3.3
	comp=Z,200nm,1.1s,mb5.4						
CHTO				LR	LR		
	comp=Z,16μm,20.0s,MS5.4						
PALK	Pallekele	21.36	297	P	P	00 00 24.3	+1.8
PALK				S	S	00 04 19.2	+0.9
PALK	Pallekele	21.36	297	P	P	00 00 24.3	+1.8
	comp=Z,16nm,0.9s,mb4.3,baz=122,slow=12,SNR=3.8						
PALK				S	S	00 04 19.2	+0.9
	comp=Z,6.9nm,1.0s,baz=273,slow=17,SNR=2.4						
PALK				LR	LR	00 08 12.4	
	comp=Z,13μm,18.2s,MS5.3,baz=114,slow=36						
PALK	Pallekele	21.36	297	P	pP	00 00 33.0	+2.4
	SNR=22						
PALK				P		00 00 33.0	
	SNR=22						
PALK	Pallekele	21.36	297	P	P	00 00 30.3	+7.8
	comp=Z,1μmcomp=Z,108nm,1.6s,mb4.9						
APSI	Ampana	21.84	87	P	P	00 00 28.1	+0.4
	comp=Z,9μmcomp=Z,955nm,1.4s,mb6.0						
PPR	Puerto Princes	22.34	57	⇓*e*P	P	00 00 38.0	+5.0
KDI	Kendari	22.80	95	⇑*e*P	P	00 00 36.5	-1.3
KDI				*e*S	S	00 04 43.4	-2.1
KDI	Kendari	22.80	95	P	P	00 00 37.6	-0.2
	comp=Z,6μmcomp=Z,339nm,1.3s,mb5.6						
ENPP	El Nido	23.68	55	*e*P	P	00 00 46.4	-0.4
BUSP	Coron	24.75	54	*e*P	P	00 00 51.7	-4.8
CUYO	Cuyo Island	24.82	58	*e*P	P	00 00 57.1	-0.1
TRD	Trivandrum	25.24	296	⇑*e*PKP	Px	00 01 28.0	
TRD				*e*S	sS	00 05 44.0	+4.7
MNI	Manado	25.27	82	P	P	00 01 02.9	+1.5
	comp=Z,2μm,1.1s,mb6.5						
PAGZ	Pagadian	25.58	66	*e*P	P	00 01 04.8	+0.7
VIS	Vishakhapatnam	25.75	321	*e*PKP	P	00 01 05.5	-0.1
VIS				AMb	AMB	00 01 25.7	
	comp=Z,542nm,1.6s,mb5.8						
GUIM	Jordan	26.05	60	*e*P	P	00 01 09.0	+0.6
BWNR	Bhubaneshwar	26.39	329	*e*PKP	P	00 01 02.0	-9.3
BWNR				*e*S	S	00 05 34.3	-8.7
OTRP	Odiongan	26.44	56	*e*P	P	00 01 11.8	-0.1
TGY	Tagaytay City	26.55	51	P	P	00 01 12.1	-0.7
	comp=Z,220nm,0.4s,mb6.0,baz=168,slow=11,SNR=4.8						
RCP	Roxas	26.64	58	⇑*e*P	P	00 01 13.7	0.0
TBP	Tagbilaran	26.75	63	*e*P	P	00 01 14.5	-0.2
MBWA	Marble Bar	26.92	135	PFAKE		00 01 30.0	+14
MBWA				LR	LR		
	comp=Z,12μm,22.0s,MS5.4						
BUKP	Musuan	27.13	68	*e*P	P	00 01 18.2	+0.1
CAL	Calcutta	27.18	336	*e*x	P	00 01 23.7	+5.3
CAL				*e*S	S	00 05 56.3	+1.0
NLAI	Namlea	27.24	92	P	P	00 01 22.0	+2.9
	comp=Z,2μmcomp=Z,132nm,1.1s,mb5.4						
DMPH	Davao City--Mi	27.28	70	⇑*e*P	P	00 01 19.7	+0.2
DAV	Davao City (W)	27.34	70	P	P	00 01 20.6	+0.6
	comp=Z,93nm,0.4s,mb5.7,baz=139,slow=5.4,SNR=14						
DAV				LR	LR	00 13 29.1	
	comp=Z,10μm,20.0s,MS5.4,baz=34,slow=40						
DAV	Davao City (W)	27.34	70	⇑*i*P	P	00 01 18.2	-1.8
AGT	Agartala	27.39	343	*e*x	P	00 01 17.0	-3.3
AGT				*e*x		01 01 27.0	
KMI	Kunming	27.46	6	P	P	00 01 21.3	+0.4
KMI				pP	pP	00 01 29.0	-0.6
KMI				sP	sP	00 01 31.8	-1.5
KMI				PP		00 02 10.4	
KMI				PcP	PcP	00 04 40.8	+1.7
KMI				S	S	00 05 59.5	-0.3
KMI				sS	sS	00 06 14.0	-0.1
KMI				SS		00 07 19.0	
KMI				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.0						
KMI				pmax	pmax		
	comp=Z,1μm,7.3s						
KMI				LR	LR		
	comp=N,11μm,20.3s						
KMI				LR	LR		
	comp=E,15μm,15.0s						
KMI				LR	LR		
	comp=Z,12μm,17.1s,MS5.5						
IMP	Imphal	27.58	348	*e*PKP	P	00 01 21.0	-1.0
IMP				*e*x	x	00 06 00.0	
TNTI	Ternate	27.69	84	P	P	00 01 21.4	-1.8
	comp=Z,4μmcomp=Z,319nm,1.5s,mb5.7						

TNE	**Ternate**	**27.70**	**84**	⇑*e*P	**P**	**00 01 18.0**	**-5.2**
LBMI	**Labuha**	**27.70**	**87**	P	**P**	**00 01 22.5**	**-0.8**
	comp=Z,8µmcomp=Z,593nm,1.2s,mb6.1						
HKC	**Hong Kong Obse**	**28.22**	**29**	*i* P	**P**	**00 01 28.0**	**+0.2**
GZH	**Guangzhou**	**28.51**	**27**	P	**P**	**00 01 33.5**	**+3.2**
GZH				LR	LR		
	comp=N,9µm,17.5s,MS5.7						
GZH				LR	LR		
	comp=E,14µm,19.0s,MS5.7						
GZH				LR	LR		
	comp=Z,19µm,14.0s,MS5.8						
HYB	**Hyderabad**	**28.76**	**314**	*e*P	**P**	**00 01 32.0**	**-0.6**
HYB				*e*S	**S**	**00 06 20.0**	**-0.4**
HYB				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.2						
HYB	**Hyderabad**	**28.76**	**314**	*i* P	**P**	**00 01 36.5**	**+3.9**
	comp=Z,50nm,1.0s,mb5.2						
HYB				*e*S	**S**	**00 06 25.0**	**+4.6**
HYB	**Hyderabad**	**28.76**	**314**	*e*P	**P**	**00 01 32.0**	**-0.6**
	comp=Z,50nm,1.0s,mb5.2						
HYB				*e*S	**S**	**00 06 20.0**	**-0.4**
SHL	**Shillong**	**28.81**	**345**	*e*PKP	**P**	**00 01 32.5**	**-0.4**
SHL				⇑*i*P		00 01 34.0	
SHL				*e*S	**S**	**00 06 23.0**	**+2.0**
MNGI	**Mangalore**	**29.12**	**302**	*e*x	x	00 01 52.9	
MNGI				*i* S	**S**	**00 06 24.5**	**-1.6**
BOK	**Bokaro**	**29.33**	**333**	*e*PKP	**P**	**00 01 37.1**	**-0.5**
BOK				AMb	AMB	00 01 54.6	
	comp=Z,391nm,1.4s,mb6.0						
BOK				*e*S	**S**	**00 06 29.0**	**-0.2**
GYA	**Guiyang**	**29.39**	**13**	⇑*i*P	**P**	**00 01 39.4**	**+1.3**
GYA				pP	pP	00 01 46.8	-0.1
GYA				PP	PP	00 02 36.5	-8.4
GYA				PcP	PcP	00 04 45.8	+1.9
GYA				S	**S**	**00 06 32.1**	**+1.9**
GYA				SS	SS	00 08 04.6	-31
GYA				pmax	pmax		
	comp=Z,80nm,0.8s,mb5.5						
GYA				pmax	pmax		
	comp=Z,190nm,4.9s						
GYA				LR	LR		
	comp=N,15µm,16.9s,MS5.8						
GYA				LR	LR		
	comp=E,12µm,16.0s,MS5.8						
GYA				LR	LR		
	comp=Z,14µm,15.1s,MS5.7						
FITZ	**Fitzroy Crossi**	**29.75**	**123**	*e*P	**P**	**00 01 40.2**	**-1.2**
	comp=Z,91nm,0.8s,mb5.6						
FITZ	**Fitzroy Crossi**	**29.75**	**123**	P	**P**	**00 01 40.3**	**-1.0**
	comp=Z,21nm,0.7s,mb5.0,baz=320,slow=6.1,SNR=23						
FITZ				S	**S**	**00 06 32.7**	**-3.3**
	comp=Z,6.9nm,1.0s,baz=189,slow=13,SNR=3.8						
FITZ	**Fitzroy Crossi**	**29.75**	**123**	*e*P	**P**	**00 01 40.8**	**-0.6**
	comp=Z,103nm,1.0s,mb5.5						
FITZ	**Fitzroy Crossi**	**29.75**	**123**	P	**P**	**00 01 40.9**	**-0.5**
	comp=Z,219nm,1.1s,mb5.8						
ODAN	**Odare**	**31.43**	**338**	*e*P	**P**	**00 01 57.0**	**+0.8**
	comp=Z,127nm,0.7s,mb5.9						
TAPN	**Taplejung**	**31.77**	**339**	*e*P	**P**	**00 02 00.4**	**+1.3**
	comp=Z,342nm,1.0s,mb6.2						
RAMN	**Ramite**	**31.82**	**337**	*e*P	**P**	**00 02 00.6**	**+1.1**
	comp=Z,92nm,0.7s,mb5.7						
JBP	**Jabalpur**	**31.91**	**324**	*e*PKP	**P**	**00 02 00.7**	**+0.3**
JBP				*e*x	x	00 02 20.6	
	comp=Z,144nm,1.5s						
JBP				*i* S	**S**	**00 07 09.2**	**-0.5**
KAD	**Karad**	**31.97**	**309**	*e*PKP	**P**	**00 01 59.2**	**-1.9**
KAD				AMb	AMB	00 02 21.8	
	comp=Z,227nm,1.2s,mb5.9						
JIRN	**Jiri**	**32.61**	**337**	*e*P	**P**	**00 02 07.7**	**+1.2**
	comp=Z,172nm,0.7s,mb6.1						
QZH	**Quanzhou**	**32.67**	**33**	⇑*i*P	**P**	**00 02 07.6**	**+0.5**
QZH				S	**S**	**00 07 20.1**	**-1.4**
QZH				pmax	pmax		
	comp=Z,680nm,1.3s,mb6.4						
QZH				pmax	pmax		
	comp=Z,2µm,3.4s						
QZH				LR	LR		
	comp=N,10µm,13.2s,MS6.0						
QZH				LR	LR		
	comp=E,20µm,16.1s,MS6.0						
QZH				LR	LR		
	comp=Z,26µm,16.6s,MS6.0						
PKI	**Pulchoki**	**32.84**	**336**	*e*P	**P**	**00 02 09.1**	**+0.6**
	comp=Z,90nm,1.0s,mb5.7						
PKI	**Pulchoki**	**32.84**	**336**	*e*P	**P**	**00 02 09.1**	**+0.6**
PKI				pmax	pmax		
	comp=Z,91nm,1.0s,mb5.7						
PKIN	**Phulchoki**	**32.85**	**336**	*e*P	**P**	**00 02 08.9**	**+0.3**
LSA	**Lhasa**	**32.94**	**346**	P	**P**	**00 02 10.8**	**+1.4**
LSA				S	**S**	**00 07 26.1**	**+0.5**
LSA				LR	LR		
	comp=N,5µm,23.5s,MS5.3						
LSA				LR	LR		
	comp=E,6µm,24.9s,MS5.3						
LSA				LR	LR		
	comp=Z,9µm,23.5s,MS5.4						
LSA	**Lhasa**	**32.94**	**346**	PFAKE		00 02 20.0	+11
LSA				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
POO	**Poona**	**32.94**	**310**	*e*PKP	**P**	**00 02 09.7**	**+0.2**
POO				AMb	AMB	00 02 24.4	
	comp=Z,134nm,1.3s,mb5.7						
GUN	**Gumba**	**32.96**	**337**	*e*P	**P**	**00 02 10.5**	**+1.0**
	comp=Z,217nm,0.7s,mb6.2						
DMN	**Daman**	**33.00**	**336**	*e*P	**P**	**00 02 10.5**	**+0.6**
	comp=Z,230nm,1.0s,mb6.0						
KKN	**Kakani**	**33.09**	**336**	*e*P	**P**	**00 02 11.2**	**+0.5**
	comp=Z,292nm,1.0s,mb6.2						
KKN	**Kakani**	**33.09**	**336**	*e*P	**P**	**00 02 11.2**	**+0.5**
KKN				pmax	pmax		
	comp=Z,292nm,1.0s,mb6.2						
MUN	**Mundaring**	**33.25**	**154**	*e*P	**P**	**00 02 13.1**	**+1.0**
CD2	**Chengdu**	**33.29**	**6**	P	**P**	**00 02 10.6**	**-1.8**
CD2				pP	pP	00 02 15.3	-5.8
CD2				PP	PP	00 03 22.5	-5.6
CD2				S	**S**	**00 07 30.6**	**-0.4**
CD2				SS	SS	00 09 32.3	-23
CD2				LR	LR		
	comp=N,13µm,18.0s						
CD2				LR	LR		
	comp=Z,18µm,17.8s,MS5.8						
BHPL	**Bhopal**	**33.53**	**321**	*e*PKP	**P**	**00 02 14.4**	**-0.2**
BHPL				AMb	AMB	00 02 33.9	
	comp=Z,108nm,1.2s,mb5.6						
GKN	**Gorkha**	**33.54**	**335**	*e*P	**P**	**00 02 15.1**	**+0.5**
KOLN	**Koldanda**	**33.79**	**334**	*e*P	**P**	**00 02 17.5**	**+0.7**
	comp=Z,321nm,1.1s,mb6.2						
KAKA	**Kakadu**	**33.87**	**109**	*e*P	**P**	**00 02 15.1**	**-2.5**
	comp=Z,22nm,0.6s,mb5.2						
KAKA	**Kakadu**	**33.87**	**109**	P	**P**	**00 02 15.9**	**-1.7**
	comp=Z,531nmcomp=Z,69nm,0.7s,mb5.7						
YHNB	**Yeheng**	**34.04**	**37**	PFAKE		00 02 30.0	+11
YHNB				LR	LR		
	comp=Z,8µm,20.0s,MS5.5						
DANN	**Dangsing**	**34.22**	**334**	*e*P	**P**	**00 02 21.2**	**+0.7**
TATO	**Taipei**	**34.34**	**36**	*e*P	**P**	**00 02 21.9**	**+0.3**
	comp=Z,416nm,1.3s,mb6.2						
TATO				LR	LR		
	comp=Z,7µm,21.0s,MS5.3						
NWAO	**Narrogin (SRO)**	**34.51**	**154**	*e*P	**P**	**00 02 25.3**	**+2.3**
NWAO				pmax	pmax		
	comp=Z,132nm,1.4s						
NWAO				MLR	MLR		
	comp=Z,10µm,21.0s						
NWAO	**Narrogin (SRO)**	**34.51**	**154**	P	**P**	**00 02 23.8**	**+0.8**
	comp=Z,17nm,0.8s,mb5.0,baz=320,slow=9.8,SNR=5.8						
NWAO				LR	LR	00 15 27.5	
	comp=Z,12µm,20.7s,MS5.6,baz=329,slow=35						
NWAO	**Narrogin (SRO)**	**34.51**	**154**	*e*P	**P**	**00 02 25.3**	**+2.3**
	comp=Z,132nm,1.4s,mb5.7						
NWAO				LR	LR		
	comp=Z,10µm,21.0s,MS5.5						
WHN	**Wuhan**	**35.52**	**22**	⇑P	**P**	**00 02 31.6**	**-0.1**
WHN				pP	pP	00 02 39.8	-0.7
WHN				PP	PP	00 03 56.3	+3.5
WHN				S	**S**	**00 08 02.8**	**-2.7**
WHN				pmax	pmax		
	comp=Z,470nm,1.2s,mb6.3						
WHN				pmax	pmax		
	comp=Z,2µm,8.1s						
WHN				LR	LR		
	comp=N,46µm,14.8s,MS6.4						
WHN				LR	LR		
	comp=E,18µm,15.0s,MS6.4						
WHN				LR	LR		
	comp=Z,63µm,16.4s,MS6.5						
PTH	**Pithoragarh**	**36.87**	**331**	*e*PKP	**P**	**00 02 42.5**	**-0.8**
PTH				*e*x	x	00 05 38.8	
XAN	**Xi’an**	**37.20**	**13**	P	**P**	**00 02 44.6**	**-1.4**
XAN				pP	pP	00 02 50.8	-4.0
XAN				sP	sP	00 02 54.0	-4.4
XAN				PP	PP	00 04 10.6	-0.6
XAN				S	**S**	**00 08 25.3**	**-5.7**
XAN				pmax	pmax		
	comp=Z,210nm,1.3s,mb5.8						
XAN				pmax	pmax		
	comp=Z,800nm,6.5s						
XAN				LR	LR		
	comp=N,16µm,14.6s,MS6.1						
XAN				LR	LR		
	comp=E,19µm,16.4s,MS6.1						
XAN				LR	LR		
	comp=Z,31µm,14.9s,MS6.2						
AJM	**Ajmer**	**37.61**	**321**	*e*PKP	**P**	**00 02 49.0**	**-0.6**
AJM				*e*PKP		00 02 49.5	
AJM				AMb	AMB	00 03 09.1	
	comp=Z,169nm,1.3s,mb5.6						
NDI	**New Delhi**	**37.74**	**326**	*e*PKP	**P**	**00 02 48.5**	**-2.1**
NDI				*e*x	x	00 08 54.0	
WRA	**Warramunga Arr**	**37.95**	**120**	P	**P**	**00 02 51.3**	**-1.3**
WRA				S	**S**	**00 08 37.1**	**-5.8**
WRA	**Warramunga Arr**	**37.95**	**120**	P	**P**	**00 02 51.3**	**-1.3**
	comp=Z,61nm,0.5s,mb5.6,baz=306,slow=8.8,SNR=604						
WRA				S	**S**	**00 08 37.1**	**-5.7**
	comp=Z,22nm,1.0s,baz=294,slow=16,SNR=9.1						
WRA				LR	LR	00 20 33.9	
	comp=Z,6µm,21.4s,MS5.3,baz=295,slow=40						
WRAB	**Tennant Creek**	**37.96**	**120**	*e*P	**P**	**00 02 51.4**	**-1.2**
WRAB				pmax	pmax		
	comp=Z,189nm,1.0s,mb5.8						
WRAB				MLR	MLR		
	comp=Z,7µm,21.0s,MS5.4						
WRAB	**Tennant Creek**	**37.96**	**120**	*e*P	**P**	**00 02 51.4**	**-1.2**
	comp=Z,189nm,1.0s,mb5.8						
WRAB				LR	LR		
	comp=Z,7µm,21.0s,MS5.4						
WRAB	**Tennant Creek**	**37.96**	**120**	P	**P**	**00 02 51.6**	**-1.0**
	comp=Z,2µmcomp=Z,243nm,1.1s,mb5.9						
WB2	**Warramunga Arr**	**37.96**	**120**	*e*P	**P**	**00 02 51.7**	**-1.0**
WB2				*e*S	**S**	**00 08 29.2**	**-14**
LZH	**Lanzhou**	**38.43**	**5**	⇑*i*P	**P**	**00 02 56.3**	**0.0**
LZH				pP	pP	00 03 01.9	-3.3
LZH				sP	sP	00 03 03.8	-5.0
LZH				PP	PP	00 04 24.5	-0.2
LZH				PcP	PcP	00 05 11.3	+1.9
LZH				*e*S	**S**	**00 08 46.5**	**-3.1**
LZH				pmax	pmax		
	comp=Z,360nm,1.3s,mb5.9						
LZH				pmax	pmax		
	comp=Z,1µm,5.4s						
LZH				LR	LR		
	comp=N,12µm,14.4s						
LZH				LR	LR		
	comp=Z,14µm,15.1s,MS5.9						
DDI	**Dehra Dun**	**38.58**	**329**	*e*PKP	**P**	**00 02 56.2**	**-1.5**
DDI				*e*x	x	00 08 17.0	
NJ2	**Nanjing**	**38.68**	**26**	*e*P	**P**	**00 02 58.3**	**-0.3**
NJ2				pP	pP	00 03 05.5	-1.9
NJ2				sP	sP	00 03 08.9	-2.1
NJ2				PP	PP	00 04 30.1	+2.6
NJ2				S	**S**	**00 08 53.0**	**-0.6**
NJ2				sS	sS	00 09 05.5	-2.7
NJ2				pmax	pmax		
	comp=Z,150nm,0.9s,mb5.7						
NJ2				pmax	pmax		
	comp=Z,1µm,4.9s						
NJ2				LR	LR		
	comp=N,5µm,12.2s,MS5.8						
NJ2				LR	LR		
	comp=E,6µm,13.0s,MS5.8						
NJ2				LR	LR		
	comp=Z,43µm,13.9s,MS6.4						
FORT	**Forrest**	**38.87**	**140**	*e*P	pP	00 03 08.5	-0.6
	comp=Z,47nm,0.7s						
BHJ	**Bhuj**	**38.90**	**313**	*e*PKP	sP	00 03 16.8	+3.9
BHJ				AMb	AMB	00 03 25.1	
	comp=Z,880nm,1.4s,mb6.3						
SSE	**Sheshan**	**38.98**	**30**	⇑P	**P**	**00 03 01.4**	**+0.3**
SSE				sP	sP	00 03 06.9	-6.7
SSE				pP	pP	00 03 10.5	+0.6
SSE				S	**S**	**00 08 58.8**	**+0.7**
SSE				sS	sS	00 09 08.3	-4.4
SSE				pmax	pmax		
	comp=Z,260nm,1.2s,mb5.8						
SSE				pmax	pmax		
	comp=Z,880nm,5.4s						
SSE				LR	LR		
	comp=N,9µm,16.4s						
SSE				LR	LR		
	comp=Z,10µm,16.2s,MS5.7						
ASAR	**Alice Springs**	**39.17**	**126**	P	**P**	**00 03 02.4**	**-0.5**
	comp=Z,39nm,0.5s,mb5.4,baz=297,slow=6.8,SNR=131						
ASAR				S	**S**	**00 08 58.8**	**-2.4**
	comp=Z,55nm,1.3s,baz=299,slow=14,SNR=17						
SDNR	**Sundarnagar**	**40.08**	**329**	*e*PKP	**P**	**00 03 10.0**	**-0.2**
SDNR				*e*x	x	00 09 54.0	
THN	**Thein Dam**	**41.47**	**329**	*e*PKP	**P**	**00 03 19.5**	**-2.2**
THN				*e*x	x	00 10 01.4	
GTA	**Gaotai**	**41.56**	**360**	⇑*i*P	**P**	**00 03 22.8**	**+0.5**
GTA				pP	pP	00 03 26.8	-4.4
GTA				sP	sP	00 03 29.3	-5.5
GTA				PP	PP	00 05 01.8	+3.0
GTA				S	**S**	**00 09 39.3**	**+2.9**
GTA				sS	sS	00 09 46.3	-4.8
GTA				SS	SS	00 12 37.8	-4.3
GTA				pmax	pmax		
	comp=Z,180nm,1.3s,mb5.5						
GTA				pmax	pmax		
	comp=Z,2µm,7.7s						
GTA				LR	LR		
	comp=N,9µm,14.6s,MS6.0						
GTA				LR	LR		
	comp=E,12µm,15.8s,MS6.0						
GTA				LR	LR		
	comp=Z,10µm,17.6s,MS5.7						
TIA	**Tai’an**	**41.62**	**21**	⇑P	**P**	**00 03 21.8**	**-1.1**
TIA				S	**S**	**00 09 39.0**	**+1.6**
TIA				pmax	pmax		
	comp=Z,92nm,1.2s,mb5.3						
TIA				LR	LR		
	comp=N,10µm,13.0s						
BTO	**Baotou**	**43.76**	**11**	*e*P	**P**	**00 03 39.6**	**-0.5**
HHC	**Hu-ho-hao-te**	**44.31**	**13**	⇑P	**P**	**00 03 45.3**	**+0.7**
HHC				pP	pP	00 03 51.3	-2.2
HHC				PP	PP	00 05 30.5	+2.2
HHC				PcS	PcS	00 09 21.6	0.0
HHC				S	**S**	**00 10 18.8**	**+2.0**
HHC				sS	sS	00 10 28.8	-2.7
HHC				SS	SS	00 13 28.6	-7.4
HHC				ScS	ScS	00 13 39.3	-1.6
HHC				pmax	pmax		
	comp=Z,91nm,1.1s,mb5.4						
HHC				pmax	pmax		
	comp=Z,2µm,5.6s						
HHC				LR	LR		
	comp=N,17µm,15.4s,MS6.2						
HHC				LR	LR		
	comp=E,8µm,11.9s,MS6.2						
HHC				LR	LR		
	comp=Z,12µm,14.0s,MS6.0						
COEN	**Coen**	**44.33**	**108**	P	**P**	**00 03 42.9**	**-2.2**
	comp=Z,2µmcomp=Z,94nm,1.6s,mb5.3						
MSEY	**Mahe Island**	**44.33**	**266**	*e*P	**P**	**00 03 46.2**	**+1.0**
MSEY				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.4						
MSEY	**Mahe Island**	**44.33**	**266**	P	**P**	**00 03 56.5**	**+11**
	SNR=5.9						
MSEY				P		00 03 56.5	
	SNR=5.9						
BJT	**Baijiatuau**	**44.75**	**18**	PFAKE		00 04 00.0	+12
BJT				LR	LR		
	comp=Z,6µm,19.0s,MS5.6						
BJI	**Beijing**	**44.77**	**18**	P	**P**	**00 03 48.0**	**-0.2**
BJI				pP	pP	00 03 55.3	-1.9
BJI				sP	sP	00 03 58.3	-2.5
BJI				PcP	PcP	00 05 30.3	+0.2
BJI				PP	PP	00 05 34.4	+1.2
BJI				S	**S**	**00 10 19.5**	**-3.9**
BJI				sS	sS	00 10 37.1	-1.1
BJI				ScS	ScS	00 13 45.3	+1.5
BJI				pmax	pmax		
	comp=Z,410nm,1.1s,mb6.2						
BJI				pmax	pmax		
	comp=Z,2µm,5.0s						
BJI				LR	LR		
	comp=N,13µm,17.1s,MS6.0						
BJI				LR	LR		
	comp=E,3µm,15.2s,MS6.0						
BJI				LR	LR		
	comp=Z,11µm,17.1s,MS5.8						
QUE	**Quetta**	**45.09**	**318**	*e*P	**P**	**00 03 48.0**	**-3.0**
QUE				*e*S	**S**	**00 10 22.0**	**-6.4**
DL2	**Dalian**	**45.70**	**24**	⇑*i*P	**P**	**00 03 55.8**	**+0.1**
DL2				S	**S**	**00 10 36.3**	**-0.7**
DL2				pmax	pmax		
	comp=Z,180nm,1.3s,mb5.8						
DL2				LR	LR		
	comp=N,4µm,17.6s,MS5.5						
DL2				LR	LR		
	comp=E,3µm,15.3s,MS5.5						
DL2				LR	LR		
	comp=Z,4µm,18.2s,MS5.3						
INCN	**Inchon**	**46.78**	**29**	*e*P	**P**	**00 04 03.4**	**-0.8**
	comp=Z,134nm,1.1s,mb5.8						
INCN				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
RER	**Riviere de l’E**	**46.81**	**243**	PFAKE		00 04 20.0	+15
RER				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
KSH	**Kashi**	**47.09**	**335**	*e*P	**P**	**00 04 05.8**	**-0.7**
KSH				*e*pP	pP	00 04 14.0	-1.6
KSH				*e*sP	sP	00 04 17.0	-2.1
KSH				*e*PcP	PcP	00 05 39.3	+1.1
KSH				*e*PP	PP	00 05 55.1	-2.5
KSH				*e*ScP	ScP	00 09 30.3	+0.1
KSH				*e*PcS	PcS	00 09 32.6	-0.6
KSH				*e*S	**S**	**00 10 53.5**	**-3.3**
KSH				*e*sS	sS	00 11 06.0	-5.6
KSH				*e*ScS	ScS	00 13 56.3	-2.5
KSH				*e*SS	SS	00 14 12.9	-11
KSH				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
KSH				pmax	pmax		
	comp=Z,1µm,3.0s						
KSH				LR	LR		
	comp=N,10µm,20.6s,MS5.8						
KSH				LR	LR		
	comp=E,5µm,16.1s,MS5.8						
KSH				LR	LR		
	comp=Z,8µm,18.8s,MS5.7						
WMQ	**Urumqi**	**47.25**	**348**	⇑*i*P	**P**	**00 04 08.8**	**+1.1**
WMQ				pP	pP	00 04 13.5	-3.2
WMQ				sP	sP	00 04 16.0	-4.3
WMQ				PP	PP	00 05 57.0	-2.0
WMQ				S	**S**	**00 11 00.0**	**+1.1**
WMQ				sS	sS	00 11 09.0	-4.8
WMQ				ScS	ScS	00 14 00.0	+0.3
WMQ				pmax	pmax		
	comp=Z,600nm,1.4s,mb6.3						
WMQ				pmax	pmax		
	comp=Z,2µm,7.0s						
WMQ				LR	LR		
	comp=N,7µm,15.6s,MS5.9						
WMQ				LR	LR		
	comp=E,10µm,20.2s,MS5.9						
WMQ				LR	LR		
	comp=Z,8µm,23.4s,MS5.6						
GUMO	**Guam**	**47.38**	**69**	LR	LR	00 26 34.4	
	comp=Z,1µm,20.7s,MS4.8,baz=90,slow=39						
GUMO	**Guam**	**47.38**	**69**	PFAKE		00 04 20.0	+11
GUMO				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
KSRS	**Korea Array**	**47.41**	**31**	P	**P**	**00 04 08.7**	**-0.4**
	comp=Z,235nm,1.0s,mb6.1,baz=224,slow=8.5,SNR=256						
KSRS				LR	LR	00 24 15.1	
	comp=Z,4µm,20.0s,MS5.4,baz=226,slow=36						
CTA	**Charters Tower**	**48.59**	**115**	*e*P	**P**	**00 04 17.8**	**-0.7**
	comp=Z,114nm,1.3s,mb5.7						
CTA	**Charters Tower**	**48.59**	**115**	P	**P**	**00 04 17.6**	**-1.0**
	comp=Z,131nm,1.0s,mb5.9,baz=287,slow=9.4,SNR=73						
CTAO	**Charters Tower**	**48.59**	**115**	PFAKE		00 04 30.0	+11
CTAO				LR	LR		
	comp=Z,6µm,22.0s,MS5.5						
SNY	**Shenyang**	**48.97**	**24**	⇑P	**P**	**00 04 20.3**	**-0.8**
SNY				PP	PP	00 06 13.8	-1.0
SNY				pmax	pmax		
	comp=Z,120nm,1.1s,mb5.8						
SNY				LR	LR		
	comp=N,3µm,19.8s,MS5.4						
SNY				LR	LR		
	comp=E,2µm,18.3s,MS5.4						
SNY				LR	LR		
	comp=Z,4µm,21.3s,MS5.3						
STKA	**Stephens Creek**	**49.03**	**131**	*e*P	**P**	**00 04 21.9**	**+0.1**
	comp=Z,97nm,1.6s,mb5.6						
STKA	**Stephens Creek**	**49.03**	**131**	P	**P**	**00 04 22.1**	**+0.3**
	comp=Z,46nm,0.9s,mb5.5,baz=300,slow=8.5,SNR=68						
STKA				S	**S**	**00 11 23.6**	**-1.1**
	comp=Z,6.8nm,1.1s,baz=183,slow=19,SNR=2.2						
STKA				LR	LR	00 26 34.1	
	comp=Z,9µm,21.4s,MS5.7,baz=296,slow=38						
ULHL	**Ulahol**	**49.27**	**337**	P	**P**	**00 04 24.8**	**+1.4**
	SNR=7.2						
KZA	**Kyzart**	**49.53**	**336**	P	**P**	**00 04 27.1**	**+1.8**
	SNR=18						
UCH	**Uchtor**	**49.95**	**335**	P	**P**	**00 04 29.9**	**+1.3**
	SNR=23						
UCH	**Uchtor**	**49.95**	**335**	PFAKE		00 04 40.0	+11
UCH				LR	LR		
	comp=Z,5µm,21.0s,MS5.5						
TKM2	**Tokmak 2**	**50.10**	**337**	P	**P**	**00 04 30.2**	**+0.6**
TKM2				pmax	pmax		
	comp=Z,333nm,1.1s,mb6.3						
TKM2	**Tokmak 2**	**50.10**	**337**	P	**P**	**00 04 30.6**	**+0.9**
	SNR=40						
TKM2	**Tokmak 2**	**50.10**	**337**	*e*P	**P**	**00 04 30.3**	**+0.7**
	comp=Z,689nm,1.4s,mb6.5						
TKM2				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
KBK	**Karagaybulak**	**50.13**	**336**	P	**P**	**00 04 31.2**	**+1.3**
	SNR=32						
CBIJ	**Chichi jima**	**50.22**	**51**	LR	LR	00 25 58.9	
	comp=Z,2µm,20.2s,MS5.2,baz=240,slow=36						
AML	**Almayashu**	**50.22**	**335**	P	**P**	**00 04 31.6**	**+1.0**
	SNR=20						
AML	**Almayashu**	**50.22**	**335**	PFAKE		00 04 40.0	+9.4
AML				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
AAK	**Ala-Archa**	**50.30**	**336**	⇑*e*P	**P**	**00 04 30.9**	**-0.3**
AAK				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.3						
AAK	**Ala-Archa**	**50.30**	**336**	P	**P**	**00 04 32.8**	**+1.6**
	SNR=9.0						
AAK	**Ala-Archa**	**50.30**	**336**	P	**P**	**00 04 32.0**	**+0.9**
	comp=Z,7.9nm,0.8s,mb4.8,baz=144,slow=5.6,SNR=13						
AAK				LR	LR	00 29 01.5	
	comp=Z,6µm,20.4s,MS5.6,baz=132,slow=40						
AAK	**Ala-Archa**	**50.30**	**336**	*e*P	**P**	**00 04 32.6**	**+1.4**
AAK				LR	LR		
	comp=Z,6µm,20.0s,MS5.6						
AAK	**Ala-Archa**	**50.30**	**336**	P	**P**	**00 04 32.4**	**+1.2**
	SNR=21						
AAK				P		00 04 32.4	
	SNR=21						
SONM	**Songino Array**	**50.31**	**6**	P	**P**	**00 04 31.9**	**+0.7**
	comp=Z,436nm,1.0s,mb6.4,baz=191,slow=6.7,SNR=222						
SONM				PP	PP	00 06 27.3	+0.4
	comp=Z,25nm,0.8s,baz=178,slow=3.1,SNR=3.5						
ULN	**Ulaanbaatar**	**50.41**	**6**	*e*P	**P**	**00 04 32.5**	**+0.6**
ULN				MLR	MLR		
	comp=Z,11µm,20.0s,MS5.9						
FRU	**Bishkek**	**50.41**	**336**	*e*P	**P**	**00 04 32.0**	**0.0**
FRU				pmax	pmax		
	comp=Z,370nm,1.6s,mb6.2						
FRU				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.6						
EKS2	**Erkin-Say**	**50.62**	**335**	P	**P**	**00 04 34.6**	**+1.1**
	SNR=26						
EKS2	**Erkin-Say**	**50.62**	**335**	PFAKE		00 04 50.0	+16
EKS2				LR	LR		
	comp=Z,5µm,21.0s,MS5.5						
USP	**Ospenovka**	**50.82**	**336**	P	**P**	**00 04 35.6**	**+0.5**
	SNR=41						
MKAR	**Makanchi Array**	**51.33**	**345**	P	**P**	**00 04 39.0**	**+0.1**
	comp=Z,108nm,0.9s,mb5.8,baz=148,slow=7.1,SNR=103						
MKAR				S	**S**	**00 11 57.2**	**+1.1**

	comp=Z,3.7nm,0.9s,baz=163,slow=14,SNR=4.5						
MKAR	**Makanchi Array**	**51.33**	**345**	P	**P**	**00 04 39.0**	**+0.1**
MKAR				S	**S**	**00 11 57.2**	**+1.1**
CN2	**Changchun**	**51.37**	**24**	⇑P	**P**	**00 04 38.4**	**-0.9**
CN2				*e*pP	pP	00 04 46.0	-2.3
CN2				*e*S	**S**	**00 11 55.1**	**-1.7**
CN2				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,2µm,19.0s,MS5.6						
CN2				LR	LR		
	comp=E,5µm,19.0s,MS5.6						
CN2				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
KK31	**Karatay Array**	**52.40**	**333**	*i* P	**P**	**00 04 46.1**	**-0.8**
KK31				pmax	pmax		
	comp=Z,95nm,1.1s,mb5.6						
ZAK	**Zakamensk**	**52.62**	**3**	⇓*e*P	**P**	**00 04 48.2**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.5						
MAJO	**Matsushiro**	**52.65**	**39**	*e*P	**P**	**00 04 47.1**	**-1.8**
MAJO				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.3						
MAT	**Matsushiro**	**52.65**	**39**	P	**P**	**00 04 47.5**	**-1.4**
MJAR	**Matsushiro Arr**	**52.65**	**39**	P	**P**	**00 04 47.8**	**-1.1**
	comp=Z,180nm,1.0s,mb5.9,baz=223,slow=7.5,SNR=147						
PAF	**Port-aux-Franc**	**53.21**	**204**	PFAKE		00 05 10.0	+17
PAF				LR	LR		
	comp=Z,8µm,20.0s,MS5.8						
MDJ	**Mudanjiang**	**53.77**	**26**	PFAKE		00 05 10.0	+13
MDJ				LR	LR		
	comp=Z,8µm,21.0s,MS5.8						
MOY	**Mondy**	**53.83**	**1**	*e*P	**P**	**00 04 57.4**	**+0.1**
MOY				pmax	pmax		
	comp=Z,200nm,2.3s,mb5.6						
TLY	**Talaya**	**53.93**	**3**	P	**P**	**00 04 58.2**	**+0.2**
	comp=Z,495nm,1.1s,mb6.3,SNR=37						
TLY	**Talaya**	**53.93**	**3**	*e*P	**P**	**00 04 58.6**	**+0.6**
TLY				LR	LR		
	comp=Z,4µm,19.0s,MS5.5						
TLY	**Talaya**	**53.93**	**3**	P	**P**	**00 04 59.0**	**+1.0**
	SNR=54						
TLY				P		00 04 59.0	
	SNR=54						
OPO	**Ambohidratompo**	**53.99**	**249**	P	**P**	**00 05 00.3**	**+1.1**
	comp=Z,8.1nm,0.8s,mb4.7,baz=54,slow=12,SNR=5.9						
ABPO	**Ambohimpanom**	**54.04**	**248**	PFAKE		00 05 10.0	+11
ABPO				LR	LR		
	comp=Z,7µm,19.0s,MS5.7						
HIA	**Hailar**	**54.23**	**16**	PFAKE		00 05 10.0	+10
HIA				LR	LR		
	comp=Z,7µm,19.0s,MS5.8						
EIDS	**Eidsvold**	**54.31**	**120**	*e*P	**P**	**00 05 01.1**	**-0.3**
EIDS	**Eidsvold**	**54.31**	**120**	*e*P	**P**	**00 05 01.6**	**+0.3**
IRK	**Irkutsk**	**54.53**	**3**	*e*P	**P**	**00 05 02.4**	**+0.1**
IRK				*e*S	**S**	**00 12 41.4**	**+1.9**
IRK				pmax	pmax		
	comp=Z,330nm,1.7s,mb6.1						
TOO	**Toolangi**	**54.56**	**136**	*e*P	**P**	**00 05 04.6**	**+1.6**
CIT	**Chita**	**55.41**	**10**	*e*P	**P**	**00 05 09.6**	**+0.9**
CIT				*e*	pP	00 05 19.2	+1.3
CIT				pmax	pmax		
	comp=Z,714nm,1.6s,mb6.5						
KURK	**Kurchatov**	**55.90**	**344**	P	**P**	**00 05 12.0**	**-0.3**
KURK				pmax	pmax		
	comp=Z,590nm,1.3s,mb6.5						
KURK	**Kurchatov**	**55.90**	**344**	P	**P**	**00 05 11.7**	**-0.6**
	comp=Z,82nm,1.1s,mb5.7,baz=162,slow=6.8,SNR=74						
KURK				S	**S**	**00 12 57.5**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=138,slow=17,SNR=5.1						
KURK				LR	LR	00 34 37.0	
	comp=Z,4µm,18.5s,MS5.5,baz=115,slow=42						
KURK	**Kurchatov**	**55.90**	**344**	*e*P	**P**	**00 05 12.2**	**-0.1**
KURK				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
KURK	**Kurchatov**	**55.90**	**344**	P	**P**	**00 05 12.7**	**+0.3**
	SNR=57						
KURK				P		00 05 12.7	
	SNR=57						
CAN	**Canberra**	**56.09**	**132**	PFAKE		00 05 30.0	+16
CAN				LR	LR		
	comp=Z,8µm,21.0s,MS5.8						
ARMA	**Armidale**	**56.32**	**125**	*e*P	**P**	**00 05 17.1**	**+1.4**
	comp=Z,198nm,1.8s,mb5.8						
CNB	**Canberra Magne**	**56.36**	**132**	*e*P	**P**	**00 05 16.8**	**+0.9**
ZALV	**Zalesovo Beam**	**57.49**	**350**	P	**P**	**00 05 23.3**	**-0.2**
ZALV				S	**S**	**00 13 18.8**	**0.0**
ZALV	**Zalesovo Beam**	**57.49**	**350**	P	**P**	**00 05 23.3**	**-0.2**
	comp=Z,203nm,0.9s,mb6.2,baz=163,slow=5.4,SNR=131						
ZALV				S	**S**	**00 13 18.8**	**0.0**
	comp=Z,3.8nm,1.0s,baz=153,slow=14,SNR=3.8						
ZALV				PKP2bc		00 35 23.5	
	comp=Z,0.9nm,0.7s,baz=335,slow=5.6,SNR=3.9						
ZALV				PKP2ab		00 35 36.1	
	comp=Z,2.0nm,0.8s,baz=318,slow=2.0,SNR=4.7						
ZALV	**Zalesovo Beam**	**57.49**	**350**	P	**P**	**00 05 23.3**	**-0.2**
ZALV				S	**S**	**00 13 18.8**	**0.0**
ZALV				⇑*e*		00 35 23.5	
ZALV				P’P’ab		00 35 36.1	
MOO	**Moorlands**	**58.09**	**140**	*e*P	pP	00 05 37.0	-0.2
KLR	**Kul’dur**	**58.32**	**24**	κ *i*P	**P**	**00 05 24.6**	**-4.8**
KLR				*e*		00 07 32.0	
KLR				pmax	pmax		
	comp=N,62nm,1.4s						
KLR				pmax	pmax		
	comp=E,260nm,1.4s						
KLR				pmax	pmax		
	comp=Z,820nm,1.4s,mb6.6						
KLR				pmax	pmax		
	comp=Z,2µm,7.5s						
KLR				MLR	MLR		
	comp=E,4µm,14.0s						
KLR				MLR	MLR		
	comp=Z,11µm,14.0s,MS6.1						
TAU	**Tasmania Unive**	**58.41**	**141**	*e*P	**P**	**00 05 32.7**	**+2.5**
TAU				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.5						
NVS	**Novosibirsk**	**58.63**	**349**	*i* P	**P**	**00 05 30.1**	**-1.4**
NVS				*i* S	**S**	**00 13 34.0**	**+0.2**
NVS				pmax	pmax		
	comp=N,199nm,1.5s						
NVS				pmax	pmax		
	comp=E,140nm,1.5s						
NVS				pmax	pmax		
	comp=Z,206nm,1.5s,mb5.9						
NVS				smax			
	comp=N,108nm,1.6s						
NVS				smax			
	comp=E,114nm,1.6s						
ERM	**Erimo**	**59.03**	**37**	*e*P	**P**	**00 05 33.4**	**-1.2**
ERM				pmax	pmax		
	comp=Z,114nm,1.4s,mb5.7						
ERM	**Erimo**	**59.03**	**37**	PFAKE		00 05 50.0	+15
ERM				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
HABR	**Khabarovsk**	**59.15**	**27**	*ce*P	**P**	**00 05 33.6**	**-1.6**
HABR				*e**PP	pP	00 05 43.4	-1.1
HABR				*e**SP	sP	00 05 47.4	-0.6
HABR				*e*		00 06 22.2	
HABR				*e*		00 07 43.9	
HABR				*e*PPP		00 09 04.6	
HABR				*e*S	**S**	**00 13 38.6**	**-2.1**
HABR				*e**SS	sS	00 13 55.5	-0.4
HABR						00 15 20.5	
HABR				SS	SS	00 17 31.5	-4.0
HABR				pmax	pmax		
	comp=Z,260nm,1.1s,mb6.2						
HABR				pmax	pmax		
	comp=N,85nm,1.1s						
HABR				pmax	pmax		
	comp=E,195nm,1.5s						
HABR				pmax	pmax		
	comp=Z,2µm,4.7s						
HABR				MLR	MLR		
	comp=N,5µm,17.0s						
HABR				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.6						
HABR				MLR	MLR		
	comp=E,4µm,15.0s						
ASAJ	**Asahikawa**	**59.99**	**34**	P	**P**	**00 05 41.0**	**-0.1**
	comp=E,398nm,1.2s,mb6.3,baz=248,slow=13,SNR=30						
ASAJ				LR	LR	00 32 59.5	
	comp=E,2µm,19.0s,MS5.3,baz=351,slow=38						
VOSK	**Vostochnaya**	**60.01**	**340**	P	**P**	**00 05 39.8**	**-1.3**
VOSK				pmax	pmax		
	comp=Z,197nm,1.4s,mb6.0						
HNR	**Honiara**	**60.13**	**99**	*e*P	**P**	**00 05 41.3**	**-1.4**
HNR				pmax	pmax		
	comp=Z,118nm,0.8s,mb6.0						
HNR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
HNR	**Honiara**	**60.13**	**99**	P	**P**	**00 05 41.2**	**-1.5**
	comp=Z,175nm,0.9s,mb6.1,baz=183,slow=5.2,SNR=9.1						
HNR				LR	LR	00 33 55.9	
	comp=Z,2µm,21.6s,MS5.1,baz=72,slow=38						
HNR	**Honiara**	**60.13**	**99**	*e*P	**P**	**00 05 41.3**	**-1.4**
	comp=Z,118nm,0.8s,mb6.0						
HNR				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
BVAR	**Borovoye Array**	**60.46**	**340**	P	**P**	**00 05 43.3**	**-0.9**
	comp=Z,12nm,0.7s,mb5.0,baz=142,slow=7.5,SNR=21						
BRVK	**Borovoye**	**60.53**	**340**	PFAKE		00 06 00.0	+15
BRVK				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
BOD	**Bodaibo**	**61.05**	**9**	⇓*i*P	**P**	**00 05 47.9**	**-0.2**
BOD				pmax	pmax		
	comp=Z,189nm,1.5s,mb6.0						
DESE	**Dese**	**61.35**	**284**	*e*P	**P**	**00 05 54.6**	**+3.7**
DESE				S	**S**	**00 14 12.9**	**+2.8**
YUK	**Yuzh-Kuril’sk**	**61.83**	**36**	*e*P	**P**	**00 05 53.0**	**-0.6**
YUK				*e*SS	sS	00 14 30.5	+0.1
YUK				pmax	pmax		
	comp=Z,740nm,1.0s,mb6.8						
YUK				pmax	pmax		
	comp=Z,2µm,1.6s,mb7.1						
YUK				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.5						
YUK				MLR	MLR		
	comp=N,3µm,21.0s						
YUK				MLR	MLR		
	comp=E,3µm,18.0s						
YSS	**Yuzh-Sakhalins**	**61.87**	**32**	*i* P	**P**	**00 05 53.6**	**-0.2**
YSS				*e*XP	sP	00 06 07.0	+0.4
YSS				*e*S	**S**	**00 14 18.0**	**+2.5**
YSS				pmax	pmax		
	comp=Z,540nm,1.0s,mb6.6						
YSS	**Yuzh-Sakhalins**	**61.87**	**32**	*e*P	**P**	**00 05 53.8**	**0.0**
	comp=Z,876nm,1.3s,mb6.7						
YSS				LR	LR		
	comp=Z,751nm,19.0s,MS4.9						
AB31	**Akbulak array**	**61.88**	**332**	P	**P**	**00 05 52.7**	**-1.1**
AB31				pmax	pmax		
	comp=Z,293nm,1.0s,mb6.4						
FURI	**Furi**	**61.97**	**281**	*e*P	**P**	**00 05 56.7**	**+1.5**
FURI				S	**S**	**00 14 17.2**	**-0.9**
NRGR	**Nerungri**	**62.19**	**15**	*i* P	**P**	**00 05 56.5**	**+0.7**
NRGR				S	**S**	**00 14 21.1**	**+1.8**
NRGR				smax			
	comp=N,38nm,0.9s						
CLNS	**Chul’man**	**62.40**	**15**	*e*P	**P**	**00 05 57.1**	**-0.1**
CLNS				*e*		00 06 37.4	
CLNS				*e*		00 08 14.1	
CLNS				*e*PPP		00 09 41.1	
CLNS				*e*S	**S**	**00 14 19.2**	**-2.6**
CLNS				*e*SS	SS	00 18 27.7	+1.7
CLNS				pmax	pmax		
	comp=Z,138nm,0.9s,mb6.1						
CLNS				pmax	pmax		
	comp=N,91nm,1.0s						
CLNS				pmax	pmax		
	comp=E,52nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.2						
CLNS				pmax	pmax		
	comp=N,33nm,1.7s						
CLNS				pmax	pmax		
	comp=E,20nm,1.6s						
CLNS				smax			
	comp=N,1µm,15.2s						
CLNS				smax			
	comp=E,1µm,16.2s						
CLNS				MLR	MLR		
	comp=Z,7µm,16.0s,MS5.9						
CLNS				MLR	MLR		
	comp=N,6µm,17.0s,MS5.9						
CLNS				MLR	MLR		
	comp=E,2µm,16.0s,MS5.9						
KMBO	**Kilima Mbogo**	**62.57**	**270**	LR	LR	00 29 20.4	
	comp=E,4µm,21.3s,MS5.6,baz=116,slow=32						
CASY	**Casey**	**64.24**	**175**	PFAKE		00 06 20.0	+11
CASY				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
GNI	**Garni**	**65.67**	**316**	⇑*e*P	**P**	**00 06 18.1**	**-1.0**
GNI				pmax	pmax		
	comp=Z,53nm,1.3s						
GNI	**Garni**	**65.67**	**316**	P	**P**	**00 06 20.0**	**+0.9**
	comp=Z,10nm,0.8s,mb4.9,baz=167,slow=9.1,SNR=4.3						
GNI	**Garni**	**65.67**	**316**	P	**P**	**00 06 20.0**	**+0.9**
GNI				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
MTA	**Mtatsminda**	**66.32**	**318**	P	**P**	**00 06 23.1**	**-0.1**
TBLG	**Delisi**	**66.37**	**318**	*e*P	**P**	**00 06 22.9**	**-0.6**
TBLG	**Delisi**	**66.37**	**318**	P	**P**	**00 06 22.9**	**-0.7**
GOR	**Gori**	**66.91**	**318**	P	**P**	**00 06 26.5**	**-0.4**
SVE	**Sverdlovsk**	**66.95**	**338**	⇓*e*P	**P**	**00 06 26.6**	**-0.3**
SVE				*e*PPP		00 10 31.3	
SVE				*e*S	S	00 15 21.2	+3.2
SVE				pmax	pmax		
	comp=Z,439nm,1.2s,mb6.4						
SVE				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.6						
ARU	**Arti**	**67.47**	**337**	P	**P**	**00 06 29.5**	**-0.7**
	comp=Z,1µm,1.1s,mb6.8,SNR=18						
ARU	**Arti**	**67.47**	**337**	*d i*P	**P**	**00 06 29.0**	**-1.2**
ARU				*e*		00 06 55.4	
ARU				*e*		00 08 55.6	
ARU				*e*PPP		00 10 36.2	
ARU				S	S	00 15 23.5	-0.8
ARU				pmax	pmax		
	comp=Z,4µm,19.5s						
ARU	**Arti**	**67.47**	**337**	PFAKE		00 06 40.0	+10
ARU				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
ONI	**Oni**	**67.61**	**318**	P	**P**	**00 06 31.2**	**-0.2**
YAK	**Yakutsk**	**68.12**	**15**	*c i*P	**P**	**00 06 33.3**	**-0.9**
YAK				*e**PP	pP	00 06 41.1	-2.5
YAK				*e*		00 06 57.7	
YAK				*e*		00 09 03.3	
YAK				*e*PPP		00 10 42.4	
YAK				*e*S	S	00 15 29.7	-2.2
YAK				*e*		00 16 27.7	
YAK				*e*SS	SS	00 19 57.9	+2.9
YAK				pmax	pmax		
	comp=Z,275nm,1.0s,mb6.2						
YAK				pmax	pmax		
	comp=N,90nm,1.0s						
YAK				pmax	pmax		
	comp=E,80nm,1.2s						
YAK				pmax	pmax		
	comp=Z,63nm,1.7s,mb5.4						
YAK				pmax	pmax		
	comp=N,80nm,1.8s						
YAK				pmax	pmax		
	comp=E,50nm,1.4s						
YAK				smax			
	comp=N,101nm,2.2s						
YAK				smax			
	comp=E,152nm,1.8s						
YAK				MLR	MLR		
	comp=Z,7µm,16.0s,MS6.0						
YAK				MLR	MLR		
	comp=N,4µm,14.0s,MS5.8						
YAK				MLR	MLR		
	comp=E,2µm,13.0s,MS5.8						
YAK	**Yakutsk**	**68.12**	**15**	PFAKE		00 06 50.0	+16
YAK				LR	LR		
	comp=Z,5µm,20.0s,MS5.7						
KIV	**Kislovodsk**	**68.71**	**319**	P	**P**	**00 06 38.9**	**+0.7**
	comp=Z,486nm,1.1s,mb6.3,SNR=7.9						
KIV	**Kislovodsk**	**68.71**	**319**	⇑*i*P	**P**	**00 06 38.1**	**-0.1**
KIV				*i*	pP	00 06 48.1	+0.5
KIV				*i*		00 06 57.3	
KIV				*i* S	S	00 15 43.5	+3.9
KIV				*e*PS		00 16 31.8	
KIV				pmax	pmax		
	comp=Z,111nm,1.2s,mb5.7						
KIV				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
KIV	**Kislovodsk**	**68.71**	**319**	PFAKE		00 06 50.0	+12
KIV				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
KIV	**Kislovodsk**	**68.71**	**319**	P	**P**	**00 06 38.7**	**+0.5**
	SNR=14						
KIV				P		00 06 38.7	
	SNR=14						
MBAR	**Mbarara**	**69.10**	**270**	*e*P	**P**	**00 06 41.3**	**0.0**
MBAR	**Mbarara**	**69.10**	**270**	*e*P	**P**	**00 06 41.4**	**+0.1**
MBAR				AMb	AMB	00 07 27.0	
	comp=Z,72nm,1.5s,mb5.4						
MALT	**Malatya**	**69.46**	**312**	PFAKE		00 07 00.0	+17
MALT				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
MALT	**Malatya**	**69.46**	**312**	P	**P**	**00 06 43.4**	**+0.4**
EIL	**Elat**	**69.58**	**303**	P	**P**	**00 06 44.8**	**+0.8**
	comp=Z,20nm,1.1s,mb5.0,baz=119,slow=3.9,SNR=12						
MAW	**Mawson**	**69.90**	**194**	LR	LR	00 30 38.4	
	comp=Z,4µm,21.5s,MS5.6,baz=36,slow=30						
DRV	**Dumont d’Urvil**	**70.02**	**164**	S	S	00 15 59.0	+4.7
DRV				R		00 27 00.0	
SOKR	**Solikamsk**	**70.34**	**338**	*c i*P	**P**	**00 06 47.4**	**-0.5**
SOKR						00 07 05.5	
SOKR				S	S	00 16 27.2	+29
SOKR				pmax	pmax		
	comp=Z,280nm,1.1s,mb6.1						
SOKR				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.7						
MSNA	**Messina**	**70.45**	**247**	*e*P	**P**	**00 06 50.7**	**+1.2**
MSNA				AMb	AMB	00 07 02.8	
	comp=Z,67nm,1.7s,mb5.3						
SOC	**Sochi**	**70.51**	**318**	*c i*P	**P**	**00 06 48.1**	**-1.3**
SOC				*e**PP	pP	00 06 54.9	-3.9
SOC				*e**SP	sP	00 06 58.9	-3.4
SOC				*e*		00 07 08.2	
SOC				*e*		00 09 21.8	
SOC				*i* S	S	00 15 56.9	-3.9
SOC				*e*		00 16 45.3	
SOC				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.5						
SOC				pmax	pmax		
	comp=Z,96nm,3.0s						
SKR	**Severo-Kuril’s**	**71.25**	**34**	*e*P	**P**	**00 06 54.0**	**+0.3**
SKR				*e*		00 07 14.5	
SKR				pmax	pmax		
	comp=Z,2µm,6.0s						
SKR				pmax	pmax		
	comp=N,180nm,1.0s						
SKR				pmax	pmax		
	comp=Z,450nm,1.0s,mb6.3						
LSZ	**Lusaka**	**71.69**	**255**	LR	LR	00 34 49.7	
	comp=Z,3µm,19.4s,MS5.6,baz=91,slow=33						
LSZ	**Lusaka**	**71.69**	**255**	PFAKE		00 07 10.0	+13
LSZ				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
LSZ	**Lusaka**	**71.69**	**255**	*e*P	**P**	**00 06 56.7**	**-0.4**
LSZ				AMb	AMB	00 07 42.9	
	comp=Z,635nm,1.6s,mb6.3						
CSS	**Prodhromos**	**72.32**	**308**	PFAKE		00 07 10.0	+10
CSS				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
SLR	**Silverton**	**72.38**	**244**	*e*P	**P**	**00 06 59.7**	**-1.3**
SLR				AMb	AMB	00 07 48.0	
	comp=Z,85nm,1.5s,mb5.5						
ERPM	**east rand prop**	**72.48**	**243**	*e*P	**P**	**00 07 00.7**	**-0.9**
ERPM				AMb	AMB	00 07 14.4	
	comp=Z,51nm,1.9s,mb5.1						
ANN	**Anapa**	**72.50**	**319**	*e*P	**P**	**00 06 58.4**	**-2.9**
ANN				*e*S	S	00 16 14.3	-9.4
ANN				pmax	pmax		
	comp=Z,134nm,1.7s,mb5.6						
ANN				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.3						
VRHR	**Novokhopersk**	**72.53**	**326**	*e*P	**P**	**00 07 00.4**	**-1.0**
VRHR				*e**SP	pP	00 07 10.0	-0.8
VRHR				pmax	pmax		
	comp=Z,250nm,1.5s,mb5.9						
VRHR				pmax	pmax		
	comp=N,110nm,0.8s						
TARA	**Tarawa**	**73.16**	**88**	PFAKE		00 07 20.0	+14
TARA				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
SEK	**Senekal**	**73.24**	**241**	*e*P	**P**	**00 07 05.6**	**-0.6**
PEA0B	**Petropavlovsk-**	**73.27**	**32**	*e*P	**P**	**00 07 05.7**	**0.0**
PETK	**Petropavlovsk-**	**73.27**	**32**	P	**P**	**00 07 05.0**	**-0.7**
	comp=Z,71nm,1.0s,mb5.5,baz=195,slow=1.2,SNR=51						
PRYS	**Parys**	**73.33**	**243**	*e*P	**P**	**00 07 06.6**	**0.0**
PRYS				AMb	AMB	00 08 01.0	
	comp=Z,50nm,1.6s,mb5.2						
BRTR	**Keskin Array B**	**73.45**	**313**	P	**P**	**00 07 05.8**	**-1.2**
	comp=Z,7.0nm,0.7s,mb4.7,baz=124,slow=6.1,SNR=13						
BRTR				LR	LR	00 39 47.8	
	comp=Z,884nm,20.7s,MS5.0,baz=199,slow=36						
BRTR	**Keskin Array B**	**73.45**	**313**	P	**P**	**00 07 05.8**	**-1.2**
BRTR				LR	LR	00 39 47.8	
PET	**Petropavlovsk**	**73.74**	**33**	*i* P	**P**	**00 07 08.0**	**-0.5**
PET				*e*S	S	00 16 40.2	+2.7
PET				pmax	pmax		
	comp=Z,239nm,1.0s,mb6.1						
PET	**Petropavlovsk**	**73.74**	**33**	*e*P	**P**	**00 07 08.0**	**-0.5**
	comp=Z,219nm,1.0s,mb6.0						
PET				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
VORD	**Divnogorie**	**73.80**	**325**	*e*P	**P**	**00 07 07.8**	**-1.1**
VORD				*e**SP	pP	00 07 17.8	-0.5
VORD				pmax	pmax		
	comp=Z,170nm,1.2s,mb5.8						
VORD				pmax	pmax		
	comp=N,50nm,0.5s						
VORD				pmax	pmax		
	comp=E,70nm,0.4s						
VSR	**Storozhevoye**	**73.98**	**325**	*e*P	**P**	**00 07 08.4**	**-1.5**
VSR				*e**SP	pP	00 07 17.9	-1.5
VSR				pmax	pmax		
	comp=N,50nm,1.1s						
VSR				pmax	pmax		
	comp=Z,170nm,1.1s,mb5.9						
VSR				pmax	pmax		
	comp=E,140nm,1.2s						
VOR	**Voronezh**	**74.18**	**326**	⇓*i*P	**P**	**00 07 10.0**	**-1.1**
VOR				pmax	pmax		
	comp=Z,500nm,1.5s,mb6.2						
LBTB	**Lobatse**	**74.73**	**245**	P	**P**	**00 07 15.8**	**+0.8**
	comp=Z,4.3nm,0.8s,mb4.4,baz=101,slow=5.5,SNR=5.9						
LBTB				LR	LR	00 35 22.7	
	comp=Z,5µm,19.3s,MS5.9,baz=96,slow=32						
SIM	**Simferopol’**	**74.76**	**318**	*ce*P	**P**	**00 07 13.9**	**-0.7**
SIM				S	S	00 16 45.8	-3.4
SIM				pmax	pmax		
	comp=Z,96nm,1.0s,mb5.7						
RPZ	**Rata Peaks**	**74.84**	**135**	P	**P**	**00 07 16.1**	**+0.9**
	comp=Z,16nm,0.6s,mb5.1,baz=272,slow=2.8,SNR=14						
RPZ	**Rata Peaks**	**74.84**	**135**	*e*P	**P**	**00 07 16.5**	**+1.4**
	comp=Z,69nm,1.0s,mb5.5						
ISP	**Isparta**	**75.27**	**310**	*c i*P	**P**	**00 07 16.6**	**-1.1**
ISP				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.2						
ISP	**Isparta**	**75.27**	**310**	P	**P**	**00 07 17.1**	**-0.6**
ISP				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
BOSA	**Boshof**	**75.35**	**241**	P	**P**	**00 07 19.2**	**+0.8**
	comp=Z,5.6nm,0.9s,mb4.5,baz=96,slow=6.4,SNR=7.9						
BOSA				LR	LR	00 36 48.0	
	comp=Z,4µm,18.1s,MS5.8,baz=81,slow=33						
BOSA	**Boshof**	**75.35**	**241**	P	**P**	**00 07 19.2**	**+0.8**
BOSA				LR	LR	00 36 48.0	
PRGR	**Permogore**	**75.93**	**336**	*e*P	**P**	**00 07 20.5**	**-0.5**
PRGR				*e*		00 07 35.6	
PRGR				*e*S	S	00 16 57.8	-3.8
PRGR				pmax	pmax		
	comp=Z,355nm,1.3s,mb6.1						
SEY	**Seymchan**	**76.01**	**22**	⇑*e*P	**P**	**00 07 21.3**	**-0.1**
TIXI	**Tiksi**	**76.23**	**9**	⇑*e*P	**P**	**00 07 21.1**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,266nm,1.7s,mb5.9						
TIXI	**Tiksi**	**76.23**	**9**	*e*P	**P**	**00 07 21.2**	**-1.3**
	comp=Z,271nm,1.2s,mb6.0						
TIXI				LR	LR		
	comp=Z,8µm,21.0s,MS6.0						
MOS	**Moscow**	**76.72**	**329**	*e*P	**P**	**00 07 23.8**	**-1.8**
MOS				*e*	pP	00 07 33.2	-1.9
MOS				*e*		00 10 18.5	
MOS				*e*S	S	00 17 05.6	-4.9
MOS				pmax	pmax		
	comp=Z,700nm,1.8s,mb6.3						
MOS				pmax	pmax		

	comp=Z,326nm,1.4s,mb6.1						
MOS				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.6						
MOS				MLR	MLR		
	comp=E,3µm,19.0s						
OBN	Obninsk	77.01	328	P	P	00 07 27.2	0.0
	comp=E,855nm,1.3s,mb6.5,SNR=6.5						
OBN	Obninsk	77.01	328⇑	*i*P	P	00 07 26.7	-0.5
OBN				*i*	pP	00 07 36.9	+0.2
OBN				*e*		00 10 27.2	
OBN				*i* S	S	00 17 15.7	+2.0
OBN				*i* PS		00 17 58.3	
OBN				*e*SS	SS	00 22 08.5	-2.6
OBN				pmax	pmax		
	comp=Z,353nm,1.6s,mb6.0						
OBN				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.6						
OBN	Obninsk	77.01	328	*e*P	P	00 07 27.0	-0.3
	comp=Z,342nm,1.3s,mb6.1						
OBN				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
SNZO	South Karori	77.09	132	*e*P	P	00 07 27.9	-0.2
	comp=Z,110nm,1.3s,mb5.6						
SNZO				LR	LR		
	comp=Z,6µm,22.0s,MS5.9						
SYO	Syowa Base	77.48	199⇓	*e*P	PcP	00 07 41.0	+1.1
PKA	Prieska	77.62	240	*e*P	P	00 07 31.9	+0.7
PKA				AMb	AMB	00 08 12.4	
	comp=Z,34nm,1.5s,mb5.0						
ZKR	Zakros	78.02	306	P	P	00 07 33.0	-0.4
BLCB	Balcova	78.06	310	P	P	00 07 33.2	-0.3
KLMR	Klimovskoe	78.08	334⇑	*i*P	P	00 07 33.0	-0.1
KLMR				*e*	pP	00 07 43.1	+0.5
PSN	Preselentsi	78.46	315	P	P	00 07 35.2	-0.4
TIRR	Tirgusor	78.50	316⇑	*i*P	P	00 07 35.3	-0.5
URZ	Urewera	78.55	128	P	P	00 07 36.6	+0.4
	comp=Z,15nm,0.6s,mb5.1,baz=271,slow=2.6,SNR=12						
LAST	Lasithi	78.62	306	P	P	00 07 36.8	+0.1
CVD	Cernavoda	78.73	316⇓	*i*P	P	00 07 38.3	+1.3
CHOS	Chios island	78.82	310	P	P	00 07 37.8	+0.1
PRK	Paraskevi	78.83	311	P	P	00 07 36.5	-1.2
UPI	Upington	78.84	242	*e*P	P	00 07 36.7	-1.3
UPI				AMb	AMB	00 08 19.7	
	comp=Z,70nm,1.6s,mb5.3						
HARR	Harsova	78.89	316⇓	*i*P	P	00 07 38.0	+0.1
PRD	Provadia	78.90	315	P	P	00 07 37.5	-0.5
IDI	Anoyia	79.12	306	P	P	00 07 39.6	+0.2
	comp=Z,15nm,0.9s,mb4.9,baz=100,slow=11,SNR=5.7						
FUNA	Funafuti	79.13	98	PFAKE		00 07 50.0	+10
FUNA				LR	LR		
	comp=Z,13µm,19.0s,MS6.3						
SIVA	Sivas	79.14	306	P	P	00 07 39.2	-0.3
SIGR	SIGRI	79.14	311	P	P	00 07 38.2	-1.2
JMB	Yambol	79.31	314	P	P	00 07 40.5	+0.2
JMB	Yambol	79.31	314	P	P	00 07 41.0	+0.7
ALN	Alexandroupoli	79.36	312	P	P	00 07 40.1	-0.5
SUR	Sutherland	79.48	238	LR	LR	00 36 44.7	
	comp=Z,5µm,20.2s,MS5.9,baz=87,slow=31						
SUR	Sutherland	79.48	238	PFAKE		00 07 50.0	+8.6
SUR				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
SUR	Sutherland	79.48	238	*e*P	P	00 07 42.0	+0.5
SUR				AMb	AMB	00 08 14.3	
	comp=Z,101nm,1.4s,mb5.6						
AKASG	Malin Array Be	79.67	322	P	P	00 07 41.0	-1.0
	comp=Z,1.4nm,0.4s,mb4.2,baz=92,slow=4.2,SNR=29						
KIEV	Kiev	79.68	322	PFAKE		00 07 50.0	+7.9
KIEV				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
LIA	Limnos Island	79.79	311	P	P	00 07 42.1	-0.9
LOS	Limnos	79.87	311	P	P	00 07 42.0	-1.4
KARN	Karanos	79.92	306	P	P	00 07 45.2	+1.4
SZH	Strazhica	79.96	315	P	P	00 07 43.3	-0.5
DIM	Dimitrovgrad	79.98	313	P	P	00 07 43.9	0.0
KDZ	Kurdzhali	79.98	313	P	P	00 07 43.3	-0.6
VRI	Vrincioaia	80.00	317⇑	*i*P	P	00 07 44.5	+0.5
PLOR	Plostina	80.05	317⇑	*i*P	P	00 07 45.1	+0.9
MLR	Muntele Rosu	80.45	317⇑	*i*P	P	00 07 47.5	+1.1
ATHU	Athens Univers	80.49	309	P	P	00 07 45.8	-1.0
RZN	Rozhen	80.50	313	P	P	00 07 46.3	-0.4
ATH	Athens Observa	80.54	309	P	P	00 07 45.8	-1.3
PLD	Plovdiv	80.59	313	P	P	00 07 46.4	-0.8
PLD	Plovdiv	80.59	313	P	P	00 07 46.5	-0.7
OUR	Ouranopolis	80.78	311	P	P	00 07 47.9	-0.4
PAIG	Paliouri	80.93	311	P	P	00 07 48.3	-0.8
VOIR		81.05	317⇓	*i*P	P	00 07 50.0	+0.4
PGB	Panagyurishte	81.08	314	P	P	00 07 49.0	-0.8
LTK	Loutraki	81.13	309	P	P	00 07 47.2	-3.0
PLG	Polygyros	81.19	311	P	P	00 07 49.4	-1.1
XOR	Xorichti	81.20	310	P	P	00 07 48.2	-2.3
MMB	Musomiste	81.21	313	P	P	00 07 49.7	-0.8
LKR	Lokris	81.22	310	P	P	00 07 48.8	-1.9
SRS	Serrai	81.22	312	P	P	00 07 49.5	-1.1
SOH	Sokhos	81.34	312	P	P	00 07 50.3	-0.9
BURAR	Bucovina Array	81.42	319⇑	*i*P	P	00 07 52.5	+1.0
HORT	Hortiatis	81.49	311	P	P	00 07 51.0	-1.0
MICGM	Minsk	81.53	326⇓	*e*P	P	00 07 50.0	-1.9
MPEP	Malo Peshtene	81.54	314	P	P	00 07 51.9	-0.3
MNK	Minsk	81.56	326⇓	*e*P	P	00 07 50.0	-2.1
THE	Thessaloniki	81.60	311	P	P	00 07 50.0	-2.6
KKB	Krupnik	81.73	313	P	P	00 07 52.2	-1.1
KNT	Kendrikon	81.74	312	P	P	00 07 52.5	-0.9
VTS	Vitosha	81.78	313	P	P	00 07 53.0	-0.5
AGG	Agios Georgios	81.80	310	P	P	00 07 51.6	-2.1
KALE	Kalithea	81.84	309	P	P	00 07 52.7	-1.2
VNDA	Vanda	81.84	169	P	P	00 07 53.7	+0.5
	comp=Z,4.2nm,1.2s,mb4.2,baz=333,slow=9.4,SNR=4.1						
VNDA				LR	LR	00 42 54.0	
	comp=Z,2µm,18.6s,MS5.5,baz=314,slow=35						
VNDA	Vanda	81.84	169	P	P	00 07 53.7	+0.5
VNDA				LR	LR	00 42 54.0	
LIT	Litokhoron	81.86	311	P	P	00 07 52.4	-1.6
TRIZ	Trizonia	81.89	309	P	P	00 07 53.0	-1.2
LAKA	Lakka	81.94	309	P	P	00 07 53.0	-1.5
VAY	Valandovo	82.01	312	*e*P	P	00 07 53.6	-1.2
	comp=Z,95nm,1.3s,mb5.6						
GRG	Griva	82.08	312	P	P	00 07 54.0	-1.1
RAO	Raoul Island	82.08	119	PFAKE		00 08 10.0	+15
RAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
THL	Klokotos Trika	82.13	310	P	P	00 07 51.8	-3.6
NACGM	Naroch	82.25	326	*e*	P	00 07 51.0	-4.7
STIP	Stip	82.36	312	*e*P	P	00 07 56.3	-0.3
	comp=Z,0.2nm,0.6s						
JOF	Joensuu	82.47	335	*e*p	P	00 07 54.8	-1.9
	comp=Z,13nm,0.8s,mb4.9						
BMR	Baia Mare	82.57	319⇓	*i*P	P	00 07 58.3	+0.7
GZR	Gura Zlata	82.61	316⇑	*i*P	P	00 07 58.8	+1.0
LVV	L’vov	82.67	321	*e*P	P	00 07 58.0	0.0
LVV				*e*S	S	00 18 09.0	-4.7
LVV				MLR	MLR		
	comp=Z,880nm,17.0s,MS5.2						
FNA	Florina	82.81	311	P	P	00 07 57.6	-1.4
BIA	Bitola	82.89	312	P	P	00 07 57.8	-1.6
BIA	Bitola	82.89	312	*e*P	P	00 07 59.0	-0.4
	comp=Z,11nm,1.4s,mb4.7						
DRGR		82.92	318⇓	*i*P	P	00 08 00.2	+0.8
SBA	Scott Base	82.94	169	PFAKE		00 08 10.0	+11
SBA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
SKO	Skopje	82.96	313	P	P	00 07 59.2	-0.5
SKO	Skopje	82.96	313	*e*P	P	00 07 59.3	-0.4
	comp=Z,89nm,1.6s,mb5.5						
KRUS	Krusevo	83.00	312	*e*P	P	00 07 58.7	-1.3
	comp=Z,37nm,1.4s,mb5.2						
VLS	Valsamata	83.01	309	P	P	00 07 59.6	-0.5
LVZ	Lovozero	83.06	340⇑	*e*P	P	00 07 58.9	-0.8
LVZ				pmax	pmax		
	comp=Z,111nm,1.7s,mb5.6						
LVZ	Lovozero	83.06	340	PFAKE		00 08 10.0	+10
LVZ				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
VSU	Vasula	83.23	330	*e*P	P	00 07 59.7	-1.0
VSU				pmax	pmax		
	comp=Z,153nm,1.5s,mb5.8						
OHR	Ohrid	83.30	312	P	P	00 08 03.2	+1.7
OHR	Ohrid	83.30	312	*e*P	P	00 08 00.3	-1.2
	comp=Z,103nm,1.2s,mb5.7						
APA	Apatity	83.36	339	*e*P	P	00 08 00.0	-1.2
APA				*i* S	S	00 18 20.0	0.0
APA				pmax	pmax		
	comp=Z,86nm,1.3s,mb5.6						
APA				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.8						
IGT	Igoumenitsa	83.41	310	P	P	00 08 01.1	-1.0
BZS	Buzias	83.45	316⇓	*i*P	P	00 08 02.2	0.0
KWP	Kalwaria Pacla	83.48	320	*e*P	P	00 08 02.2	0.0
KWP				LMZ		00 50 58.1	
	comp=Z,2µm,21.1s						
KWP	Kalwaria Pacla	83.48	320⇑	*i*P	P	00 08 03.3	+1.1
BILL	Bilibino	83.54	20⇑	*e*P	P	00 08 00.7	-1.4
BILL				*e*		00 11 14.6	
BILL				pmax	pmax		
	comp=Z,73nm,1.7s,mb5.5						
BILL	Bilibino	83.54	20	PFAKE		00 08 10.0	+7.9
BILL				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
UZH	Uzhgorod	83.55	319⇓	*i*P	P	00 08 02.2	-0.4
UZH				*e*		00 08 14.6	
UZH				*e*		00 11 20.2	
UZH				*e*S	S	00 18 20.2	-2.4
UZH				*e*PS		00 19 18.0	
UZH				*e*SSS		00 27 21.0	
UZH				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.3						
KOLS	Kolonicke sedl	83.62	320	*e*P	P	00 08 03.3	+0.4
KOLS				pmax	pmax		
	comp=Z,115nm,1.4s,mb5.8						
KOLS	Kolonicke sedl	83.62	320	*e*P	P	00 08 03.3	+0.4
	comp=Z,115nm,1.4s,mb5.8						
TIR	Tirane	84.03	312	PFAKE		00 08 20.0	+15
TIR				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
SUW	Suwalki	84.08	325	*e*P	P	00 08 05.0	-0.2
SUW				LMZ		00 50 06.4	
	comp=Z,2µm,21.0s						
SUW	Suwalki	84.08	325	*e*P	P	00 08 04.5	-0.7
SUW				pmax	pmax		
	comp=Z,340nm,1.0s,mb6.4						
CRVS	Cervenica-Dubn	84.14	319	*e*P	P	00 08 06.5	+0.9
CRVS				pmax	pmax		
	comp=Z,109nm,2.2s,mb5.6						
CRVS	Cervenica-Dubn	84.14	319	*e*P	P	00 08 06.5	+0.9
	comp=Z,109nm,2.2s,mb5.6						
DIVS	Divibare	84.35	315	P	P	00 08 06.8	0.0
STHS	Stebnicka Huta	84.37	320	*e*P	P	00 08 07.6	+0.8
STHS				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.3						
STHS	Stebnicka Huta	84.37	320	*e*P	P	00 08 07.6	+0.8
	comp=Z,31nm,1.3s,mb5.3						
KAF	Kangasniemi	84.43	333	*e*P	P	00 08 05.4	-1.4
KAF				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.5						
KAF	Kangasniemi	84.43	333	*e*p	P	00 08 05.4	-1.4
	comp=Z,25nm,0.7s,mb5.5						
NIE	Niedzica	84.97	320	*e*P	P	00 08 10.2	+0.4
PSZ	Piszkesteto	85.00	318⇑	*i*P	P	00 08 11.0	+1.0
PSZ	Piszkesteto	85.00	318⇑	*e*P	P	00 08 10.3	+0.3
PSZ	Piszkesteto	85.00	318	PFAKE		00 08 20.0	+10
PSZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
OJC	Ojcow	85.43	321	*e*P	P	00 08 12.8	+0.7
OJC				*e*sP	pP	00 08 16.5	-5.2
OJC				*e*S	S	00 18 44.9	+3.6
OJC				L		00 44 09.4	
	comp=Z,1.6nm,19.4s						
OJC	Ojcow	85.43	321	*e*P	P	00 08 12.8	+0.7
OJC				*e*sP	pP	00 08 16.5	-5.2
OJC				*e*S	S	00 18 45.0	+3.7
OJC				LR	LR		
	comp=Z,2µm,19.4s,MS5.4						
BUD	Budapest	85.52	318⇑	*e*P	P	00 08 12.6	0.0
PKSM	Moragy	85.60	317⇓	*i*P	P	00 08 13.2	+0.2
VYHS	Vyhne	85.79	319	*e*P	P	00 08 13.8	-0.1
VYHS				*e*S	S	00 18 51.5	+6.6
TIP	Timpagrande	86.11	309	P	P	00 08 16.9	+1.2
TIP				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
KEV	Kevo	86.31	341	P	P	00 08 16.6	+0.6
KEV				pmax	pmax		
	comp=Z,110nm,1.3s,mb5.9						
KEV	Kevo	86.31	341	*e*P	P	00 08 14.1	-1.9
	comp=Z,17nm,0.8s,mb5.3						
KEV				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
OKC	Ostrava-Krasne	86.43	320⇑	*i*P	P	00 08 17.4	+0.4
OKC				*e**PP	pP	00 08 27.3	+0.7
OKC				*e*		00 18 53.6	
ORI	Oriolo Calabro	86.44	310	P	P	00 08 18.8	+1.5
CEL	Celeste	86.69	308	*e*P	P	00 08 19.9	+1.3
	comp=Z,130nm,1.2s,mb6.0						
CEL				*e*pP	pP	00 08 25.2	-3.0
CEL				*e*sP	sP	00 08 29.5	-2.2
CEL				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
ARCES	ARCESS Array B	86.75	340	P	P	00 08 18.6	+0.3
	comp=Z,30nm,0.9s,mb5.5,baz=102,slow=2.9,SNR=23						
ARCES				LR	LR	00 51 18.5	
	comp=Z,4µm,20.2s,MS5.8,baz=111,slow=39						
ARE0	ARCESS Array S	86.75	340	*e*P	P	00 08 19.3	+1.1
PTRP	Pietrapertosa	86.79	311	P	P	00 08 20.3	+1.3
MODS	Modra-Piesok	86.80	319	*e*P	P	00 08 19.3	+0.4
MODS				pmax	pmax		
	comp=Z,31nm,1.5s,mb5.3						
MODS	Modra-Piesok	86.80	319	*e*P	P	00 08 19.3	+0.4
	comp=Z,31nm,1.5s,mb5.3						
MODS				*e*S	S	00 19 10.4	+16
MORC	Moravsky Berou	86.81	320⇓	*i*P	P	00 08 19.5	+0.6
ZST	Bratislava	86.90	318	*e*P	P	00 08 19.3	-0.1
ZST				pmax	pmax		
	comp=Z,87nm,1.6s,mb5.7						
ZST	Bratislava	86.90	318	*e*P	P	00 08 19.3	-0.1
	comp=Z,87nm,1.6s,mb5.7						
CUC	Castrocucco	86.92	310	PFAKE		00 08 30.0	+10
CUC				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
SOP	Sopron	87.20	318⇑	*e*P	P	00 08 20.8	-0.1
VRAC	Vranov	87.36	319⇓	*i*P	P	00 08 22.4	+0.8
GKP	Gorka Klasztor	87.44	323	*e*P	P	00 08 22.1	+0.2
GKP				LMZ		00 54 27.9	
	comp=Z,2µm,22.0s						
FG5	Orsara di Pugl	87.46	311	P	P	00 08 23.5	+1.2
FG5				pmax	pmax		
	comp=Z,155nm,1.4s,mb6.0						
FG5	Orsara di Pugl	87.46	311	P	P	00 08 23.5	+1.2
	comp=Z,155nm,1.4s,mb6.0						
WDD	Wield Dalam	87.57	306	PFAKE		00 08 30.0	+7.1
WDD				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
FG2	Serracapriola	87.59	312	P	P	00 08 24.0	+1.1
	comp=Z,553nm,1.4s,mb6.6						
QSPA	South Pole Qui	87.61	180	P	P	00 08 23.2	+1.0
	comp=Z,6.4nm,1.0s,mb4.8,baz=277,slow=3.8,SNR=5.5						
QSPA				PP	PP	00 11 49.4	+2.1
	comp=Z,10nm,1.0s,baz=347,slow=3.2,SNR=4.3						
QSPA	South Pole Qui	87.61	180	P	P	00 08 23.2	+1.0
QSPA				PP	PP	00 11 49.4	+2.1
QSPA				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
DPC	Dobruska-Polom	87.66	320⇑	*i*P	P	00 08 23.6	+0.6
DPC				*e**PP	pP	00 08 32.9	+0.3
DPC				*e*		00 19 04.9	
DPC				MLR	MLR		
	comp=Z,1µm,17.4s,MS5.4						
KSP	Ksiaz	87.73	321	*e*P	P	00 08 22.9	-0.4
KSP				LMZ		00 54 06.7	
	comp=Z,3µm,20.2s						
KSP	Ksiaz	87.73	321	*e*P	P	00 08 23.0	-0.3
KSP				*e**PP	pP	00 08 31.9	-1.0
KSP				*e*S	S	00 19 02.0	-1.6
KSP				MLR	MLR		
	comp=Z,3µm,20.2s,MS5.7						
KSP	Ksiaz	87.73	321	*e*P	P	00 08 23.0	-0.3
KSP				*e*pP	pP	00 08 31.9	-1.0
KSP				*e*		00 08 56.9	
KSP				*e*S	S	00 19 02.0	-1.6
KSP				LR	LR		
	comp=Z,3µm,20.2s,MS5.7						
ADK	Adak	87.80	38	PFAKE		00 08 30.0	+6.4
ADK				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
ARSA	Arzberg	87.85	317	*i* P	P	00 08 24.5	+0.5
	comp=Z,74nm,1.2s,mb5.8,SNR=17						
BOJS	Bojanci	87.87	316	*i* P	P	00 08 24.4	+0.3
BOJS				*i*	pP	00 08 34.6	+0.9
UPC	Upice	87.87	321⇑	*i*P	P	00 08 24.6	+0.6
UPC				*e**PP	pP	00 08 33.5	-0.1
TREC	Trest	88.08	319	*e*P	P	00 08 25.6	+0.6
SOKA	Soboth	88.13	317⇑	*i*P	P	00 08 25.8	+0.5
	comp=Z,67nm,1.3s,mb5.7						
LJU	Ljubljana	88.42	316	*e*P	P	00 08 27.3	+0.6
LJU				*i*	pP	00 08 36.8	+0.4
RFI	Roccamonfina	88.42	311	P	P	00 08 28.0	+1.2
	comp=Z,39nm,1.6s,mb5.4						
OBKA	Obir	88.45	316⇓	*i*P	P	00 08 27.3	+0.5
	comp=Z,51nm,1.4s,mb5.6,SNR=13						
JAVS	Javornik	88.73	316	*e*P	P	00 08 28.0	-0.2
JAVS				*i*	pP	00 08 37.8	0.0
MOA	Molln	88.76	318⇑	*i*P	P	00 08 28.6	+0.3
	comp=Z,32nm,1.4s,mb5.5,SNR=6.3						
PRU	Pruhonice	88.76	320⇑	*i*P	P	00 08 28.8	+0.6
PRU				*e**PP	pP	00 08 38.2	+0.4
PRU				*e*		00 19 13.3	
PRU				MLR	MLR		
	comp=Z,2µm,22.8s,MS5.4						
PVCC	Panska Ves	88.79	320⇑	*i*P	P	00 08 29.2	+0.8
PVCC				*e**PP	pP	00 08 38.9	+0.9
GORS	Gorjuse	88.81	316	*i* P	P	00 08 28.6	0.0
VOY	Vojsko	88.86	316	*e*P	P	00 08 28.7	-0.1
VOY				*e*	pP	00 08 38.7	+0.3
VOY				*e*		00 09 05.8	
VOY				*e*		00 09 23.3	
TRI	Trieste	88.93	316	PFAKE		00 08 40.0	+11
TRI				LR	LR		
	comp=Z,984nm,21.0s,MS5.2						
AQU	L’Aquila	88.94	312	P	P	00 08 30.0	+0.8
MYKA	Terra Mystica	89.08	317⇑	*i*P	P	00 08 29.8	0.0
	comp=Z,101nm,1.9s,mb5.8						
CING	Cingoli	89.16	313	P	P	00 08 30.9	+0.6
GEC2	GERESS Array S	89.21	319	*e*P	P	00 08 30.8	+0.4
GEC2				pmax	pmax		
	comp=Z,144nm,1.5s,mb6.1						
GEC2	GERESS Array S	89.21	319	*e*P	P	00 08 30.8	+0.4
	comp=Z,144nm,1.5s,mb6.1						
GEC2	GERESS Array S	89.21	319	*e*P	P	00 08 30.8	+0.4
	comp=Z,144nm,1.5s,mb6.1						
GERES	GERESS Array B	89.21	319	P	P	00 08 30.7	+0.3
	comp=Z,20nm,1.1s,mb5.3,baz=104,slow=4.3,SNR=38						
BRG	Berggiesshubel	89.22	321	*i* P	P	00 08 31.0	+0.7
BRG				*i*	pP	00 08 40.9	+0.9
BRG				*e*		00 12 00.8	
BRG				S	S	00 19 21.0	+3.3
BRG				*e*		00 25 12.0	
BRG				pmax	pmax		
	comp=Z,63nm,1.5s,mb5.7						
BRG				pmax	pmax		
	comp=Z,64nm,1.4s,mb5.8						
BRG				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.7						
BRG				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.2						
BRG				pmax	pmax		
	comp=Z,23nm,2.2s,mb5.1						
BRG	Berggiesshubel	89.22	321	*e*P	P	00 08 30.9	+0.6
	comp=Z,105nm,1.5s,mb6.0						
BRG				*e*S	S	00 19 23.6	+5.9
BRG	Berggiesshubel	89.22	321	*i* P	P	00 08 31.0	+0.6
	comp=Z,105nm,1.5s,mb5.9						
BRG				*i*	pP	00 08 40.9	+0.9
	comp=Z,107nm,1.4s						
BRG				*i*		00 09 03.8	
	comp=Z,92nm,1.4s						
BRG				*e*PP	PP	00 12 00.8	-0.2
	comp=Z,25nm,1.3s						
BRG				S	S	00 19 21.0	+3.3
BRG				*e*		00 25 12.0	
BRG				*e*		00 26 02.9	
	comp=Z,39nm,2.2s						
PTCC	Patocco-Chiusa	89.26	316	P	P	00 08 30.9	+0.2
KHC	Kasperske Hory	89.31	319⇑	*i*P	P	00 08 31.0	+0.2
KHC				*e**PP	pP	00 08 40.9	+0.4
KHC				*e*		00 19 18.7	
KHC				MLR	MLR		
	comp=Z,2µm,22.2s,MS5.4						
KHC	Kasperske Hory	89.31	319⇑	*i*P	P	00 08 31.0	+0.2
KHC				*e*pP	pP	00 08 40.9	+0.4
KHC				*e*		00 08 57.5	
KHC				*e*SKS		00 19 18.7	
KHC				LR	LR		
	comp=Z,2µm,22.2s,MS5.4						
KBA	Koelnbreinsper	89.32	317⇑	*i*P	P	00 08 30.8	-0.1
	comp=Z,44nm,1.4s,mb5.6,SNR=9.2						
RDP	Rocca di Papa	89.41	312	P	P	00 08 32.3	+0.8
RUE	Ruedersdorf	89.45	322	*e*P	P	00 08 32.0	+0.6
	comp=Z,224nm,1.4s,mb6.3						
RUE	Ruedersdorf	89.45	322	*e*P	P	00 08 31.8	+0.4
	comp=Z,153nm,1.1s,mb6.2						
ASS	Assisi	89.54	313	P	P	00 08 32.2	+0.2
ASS				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.4						
ASS	Assisi	89.54	313	P	P	00 08 32.2	+0.2
	comp=Z,22nm,1.0s,mb5.5						
FBE	Freiberg	89.59	321	*e*P	P	00 08 32.6	+0.5
	comp=Z,120nm,1.5s,mb6.0						
RJOB	Jochberg	89.74	318	*e*P	P	00 08 32.8	-0.1
	comp=Z,63nm,1.7s,mb5.7						
RJOB				*e*pP	pP	00 08 42.7	+0.2
WET	Wettzell	89.77	319	*e*P	P	00 08 33.4	+0.4
WET				*e*S	S	00 19 27.8	+4.9
WET				pmax	pmax		
	comp=Z,107nm,1.5s,mb6.0						
WET	Wettzell	89.77	319	*e*P	P	00 08 33.4	+0.4
	comp=Z,107nm,1.5s,mb6.0						
WET				*e*S	S	00 19 27.8	+4.9
WET	Wettzell	89.77	319	*e*P	P	00 08 33.4	+0.4
	comp=Z,107nm,1.5s,mb6.0						
WET				*e*S	S	00 19 27.8	+4.9
CLL	Collm	89.84	321⇑	*i*P	P	00 08 33.4	+0.1
CLL				*i* *SP	pP	00 08 43.3	+0.4
CLL				*e*S	S	00 19 29.0	+5.5
CLL				pmax	pmax		
	comp=Z,61nm,1.4s,mb5.7						
CLL				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.4						
CLL	Collm	89.84	321	*e*P	P	00 08 33.3	0.0
	comp=Z,61nm,1.4s,mb5.7						
CLL	Collm	89.84	321⇑	*i*P	P	00 08 33.4	+0.1
	comp=Z,61nm,1.4s,mb5.7						
CLL				*i* sP	pP	00 08 43.3	+0.4
CLL				*i*		00 08 53.2	
CLL				*e*		00 09 10.0	
CLL				*e*S	S	00 19 29.0	+5.5
CLL				*e*PPS		00 20 48.0	
CLL				*e*SS	SS	00 25 12.0	-9.1
CLL				*e*SSS		00 29 06.0	
CLL				*e*SSSS		00 32 12.0	
CLL				LmV		00 57 00.0	
	comp=Z,1µm,18.0s						
CLL	Collm	89.84	321⇑	*i*P	P	00 08 33.4	+0.1
	comp=Z,61nm,1.4s,mb5.7						
CLL				*i* sP	pP	00 08 43.3	+0.4
CLL				*e*S	S	00 19 29.0	+5.5
CLL				LR	LR		
	comp=Z,1µm,18.0s,MS5.4						
BADI	Badiali	89.86	313	P	P	00 08 34.5	+1.0
HFS	Hagfors	90.10	330	LR	LR	00 53 23.0	
	comp=Z,2µm,20.8s,MS5.5,baz=92,slow=38						
NKC	Novy Kostel	90.12	320⇑	*i*P	P	00 08 35.2	+0.6
NKC				*e**PP	pP	00 08 43.0	-1.2
NKC				*e*		00 19 31.6	
TANN	Tannenbergstha	90.12	320	*e*P	P	00 08 35.2	+0.6
	comp=Z,51nm,1.5s,mb5.6						
TANN				*e*S	S	00 19 32.0	+5.9
WERN	Wernitzgruen	90.17	320	*e*P	P	00 08 35.4	+0.6
	comp=Z,48nm,1.4s,mb5.6						
WERN				*e*pP	pP	00 08 45.3	+0.8
GUNZ	Gunzen	90.20	320	*e*P	P	00 08 35.7	+0.7
	comp=Z,73nm,1.5s,mb5.8						
WERD	Werda	90.23	320	*e*P	P	00 08 35.5	+0.4
	comp=Z,59nm,1.5s,mb5.7						
ROTZ	Rotzenmuhle	90.25	320	*e*P	P	00 08 36.1	+0.9
	comp=Z,67nm,1.5s,mb5.8						
MANZ	Manzenberg	90.33	320	*e*P	P	00 08 36.5	+0.9
	comp=Z,108nm,1.4s,mb6.0						
VMG	Vicchio	90.39	314	P	P	00 08 38.0	+2.0
	comp=Z,77nm,1.2s,mb5.9						
CTI	Castel Tesino	90.42	316	P	P	00 08 36.8	+0.7
WTTA	Wattenberg	90.49	317⇑	*i*P	P	00 08 36.2	-0.2
	comp=Z,66nm,1.2s,mb5.8,SNR=8.4						
MOX	Moxa	90.68	320	*e*P	P	00 08 37.7	+0.5
	comp=Z,88nm,1.6s,mb5.8						
MOX				*e*PP	pP	00 08 47.3	+0.5

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MOX                             eS      S        00 19 33.0 +1.8
MOX
      comp=Z,1µm,21.0s
MOX   Moxa             90.68 320 eP     P        00 08 37.7 +0.5
MOX                             e       pP       00 08 47.3 +0.5
MOX                             eS      S        00 19 33.0 +1.8
MOX                              pmax   pmax
      comp=Z,88nm,1.6s,mb5.8
MOX                              MLR    MLR
      comp=Z,1µm,21.0s,MS5.3
MOX   Moxa             90.68 320 eP     P        00 08 37.5 +0.3
      comp=Z,74nm,1.5s,mb5.8
MOX                             eS      S        00 19 35.2 +4.0
FNVD  Fontana Vidola   90.70 314  P     P        00 08 39.0 +1.5
FUR   Furstenfeldbru   90.78 318 eP     P        00 08 37.9 +0.2
FUR                             e*PP    pP       00 08 47.7 +0.4
FUR                             e*SP    sP       00 08 51.1 +0.3
FUR                             eS      S        00 19 36.2 +3.9
FUR                              pmax   pmax
      comp=Z,78nm,1.4s,mb5.8
FUR   Furstenfeldbru   90.78 318 eP     P        00 08 37.9 +0.2
      comp=Z,78nm,1.4s,mb5.8
FUR                             epP     pP       00 08 47.7 +0.4
FUR                             esP     sP       00 08 51.1 +0.3
FUR                             eS      S        00 19 36.2 +3.9
FUR   Furstenfeldbru   90.78 318 eP     P        00 08 37.9 +0.2
      comp=Z,78nm,1.4s,mb5.8
FUR                             epP     pP       00 08 47.7 +0.4
FUR                             esP     sP       00 08 51.1 +0.3
FUR                             eS      S        00 19 36.2 +3.9
MOTA  Moosalm          90.86 317⇑iP     P        00 08 37.8  -0.3
      comp=Z,45nm,1.0s,mb5.7,SNR=15
GRA1  Grafenberg Arr   90.89 320 eP     P        00 08 38.7 +0.5
      comp=Z,141nm,1.5s,mb6.1
GRA1                            epP     pP       00 08 48.7 +0.9
GRA1                            e                00 09 12.2
GRA1                            eS      S        00 19 39.8 +6.6
GRA1                             LR     LR
      comp=Z,2µm,19.5s,MS5.5
GRF   Grafenberg Arr   90.89 320 eP     P        00 08 38.7 +0.5
GRF                             e*PP    pP       00 08 48.7 +0.9
GRF                             eS      S        00 19 39.8 +6.6
GRF                              pmax   pmax
      comp=Z,141nm,1.5s,mb6.1
GRF                              MLR    MLR
      comp=Z,2µm,19.5s,MS5.5
GRF   Grafenberg Arr   90.89 320 eP     P        00 08 38.7 +0.5
GRF                             e*PP    pP       00 08 48.7 +0.9
GRF                             eS      S        00 19 39.8 +6.6
GRF                              pmax   pmax
      comp=Z,141nm,1.5s,mb6.1
GRF                              MLR    MLR
      comp=Z,2µm,19.5s,MS5.5
GRF   Grafenberg Arr   90.89 320 eP     P        00 08 38.7 +0.5
      comp=Z,141nm,1.5s,mb6.1
GRF                             epP     pP       00 08 48.7 +0.9
GRF                             e                00 09 12.2
GRF                             eS      S        00 19 39.8 +6.6
GRF                             eL               00 57 38.3
      comp=Z,2µm,19.5s
GRF   Grafenberg Arr   90.89 320 eP     P        00 08 38.7 +0.5
      comp=Z,141nm,1.5s,mb6.1
GRF                             epP     pP       00 08 48.7 +0.9
GRF                             e                00 09 12.2
GRF                             eS      S        00 19 39.8 +6.6
GRF                              LR     LR
      comp=Z,2µm,19.5s,MS5.5
SPITS Spitsbergen Ar   90.95 348  P     P        00 08 37.3  -0.6
      comp=Z,42nm,1.0s,mb5.7,baz=345,slow=6.0,SNR=8.1
SPITS                            LR     LR       00 57 38.7
      comp=Z,3µm,19.8s,MS5.8,baz=10.0,slow=41
GSCL  Gusciola         91.10 314  P     P        00 08 40.6 +1.3
RETA  Reutte           91.10 317 i P    P        00 08 39.3 +0.1
      comp=Z,98nm,1.6s,mb5.9,SNR=16
FETA  Feichten         91.10 317⇑iP     P        00 08 39.7 +0.5
      comp=Z,62nm,1.3s,mb5.8,SNR=11
MABI  Malga Bissina    91.21 316  P     P        00 08 40.4 +0.6
VLC   Villacollemand   91.23 314  PFAKE          00 08 50.0  +10
VLC                              LR     LR
      comp=Z,2µm,21.0s,MS5.4
NOA   NORSAR Array B   91.38 331  P     P        00 08 40.3 +0.1
      comp=Z,9.0nm,1.1s,mb5.0,baz=94,slow=4.5,SNR=3.7
NOA                              LR     LR       00 58 49.3
      comp=Z,1µm,18.4s,MS5.5,baz=110,slow=42
CLZ   Clausthal        91.51 322 eP     P        00 08 41.3 +0.3
CLZ                             e*PP    pP       00 08 51.7 +1.1
CLZ                              pmax   pmax
      comp=Z,77nm,1.4s,mb5.8
CLZ   Clausthal        91.51 322 eP     P        00 08 41.3 +0.3
      comp=Z,77nm,1.4s,mb5.8
CLZ                             epP     pP       00 08 51.7 +1.1
CLZ   Clausthal        91.51 322 eP     P        00 08 41.3 +0.3
      comp=Z,77nm,1.4s,mb5.8
CLZ                             epP     pP       00 08 51.7 +1.1
BSEG  Bad Segeberg     91.61 324 eP     P        00 08 41.8 +0.4
BSEG                            e*PP    pP       00 08 51.8 +0.8
BSEG  Bad Segeberg     91.61 324 eP     P        00 08 41.8 +0.4
      comp=Z,103nm,1.7s,mb5.9
BSEG                            epP     pP       00 08 51.8 +0.8
DAVA  Damuels          91.69 317 i P    P        00 08 42.4 +0.5
      comp=Z,100nm,1.3s,mb6.0,SNR=20
NRDL  Niedersach Rie   91.69 322 eP     P        00 08 42.3 +0.5
      comp=Z,71nm,1.6s,mb5.8
UBBA  Unterbreizbach   91.71 321 eP     P        00 08 42.4 +0.4
      comp=Z,68nm,1.7s,mb5.7
KEST  Kesra            91.77 306  P     P        00 08 44.0 +1.5
      comp=Z,13nm,1.1s,mb5.2,baz=268,slow=0.9,SNR=16
VSL   Villasalto       91.84 309  PFAKE          00 08 50.0 +7.1
VSL                              LR     LR
      comp=Z,1µm,19.0s,MS5.3
KBS   Kingsbay         91.89 349  PFAKE          00 08 50.0 +7.7
KBS                              LR     LR
      comp=Z,4µm,19.0s,MS5.9
TUE   Stuetta          92.03 316 eP     P        00 08 43.6   0.0
      comp=Z,52nm,1.4s,mb5.7
TUE                              LR     LR
      comp=Z,2µm,21.0s,MS5.5
KONO  Kongsberg        92.14 329  PFAKE          00 08 50.0 +6.2
KONO                             LR     LR
      comp=Z,2µm,20.0s,MS5.6
STU   Stuttgart        92.18 319 eP     P        00 08 45.0 +0.8
      comp=Z,126nm,1.9s,mb5.9
STU                             eS      S        00 19 47.8 +2.8
PGF   Pioggiola        92.20 312 eP     P        00 08 44.9 +0.5
      comp=Z,117nm,1.4s,mb5.7
PGF   Pioggiola        92.20 312 eP     P        00 08 44.9 +0.5
PGF                              pmax   pmax
      comp=Z,58nm,1.4s,mb5.7
PGF   Pioggiola        92.20 312 eP     P        00 08 44.9 +0.5
      comp=Z,58nm,1.4s,mb5.7
SPAK  Spaichingen-Ko   92.44 318 eP     P        00 08 45.4   0.0
TOD   Tromm            92.45 319 eP     P        00 08 45.4   0.0
TNS   Taunus Mts       92.69 320 eP     P        00 08 47.0 +0.5
TNS                             e*PP    pP       00 08 57.1 +0.9
TNS                              pmax   pmax
      comp=Z,89nm,1.4s,mb6.0
TNS   Taunus Mts       92.69 320 eP     P        00 08 47.0 +0.5
      comp=Z,89nm,1.4s,mb6.0
TNS                             epP     pP       00 08 57.1 +0.9
TNS   Taunus Mts       92.69 320 eP     P        00 08 47.0 +0.5
      comp=Z,89nm,1.4s,mb6.0
TNS                             epP     pP       00 08 57.1 +0.9
BFO   Black Forest     92.75 318 eP     P        00 08 46.7  -0.1
BFO                             e*PP    pP       00 08 56.5   0.0
BFO                             eS      S        00 19 53.1 +3.0
BFO                              pmax   pmax
      comp=Z,28nm,1.4s,mb5.5
BFO                              MLR    MLR
      comp=Z,1µm,19.0s,MS5.4
BFO   Black Forest     92.75 318 eP     P        00 08 46.7  -0.1
      comp=Z,28nm,1.4s,mb5.5
BFO                             epP     pP       00 08 56.5   0.0
BFO                             eS      S        00 19 53.1 +3.0
BFO   Black Forest     92.75 318 eP     P        00 08 46.7  -0.1
      comp=Z,28nm,1.4s,mb5.5
BFO                             epP     pP       00 08 56.5   0.0
BFO                             eS      S        00 19 53.1 +3.0
BFO                              LR     LR
      comp=Z,1µm,19.0s,MS5.4
FELD  Feldberg im Sc   92.97 318 eP     P        00 08 47.7  -0.2
ORO   Oropa            92.97 315  P     P        00 08 47.6  -0.3
ORO                              pmax   pmax
      comp=Z,52nm,1.7s,mb5.7
ORO   Oropa            92.97 315  P     P        00 08 47.6  -0.3
      comp=Z,52nm,1.7s,mb5.7
LANF  Langenberg       93.10 319 eP     P        00 08 48.6 +0.2
LANF  Langenberg       93.10 319 eP     P        00 08 48.6 +0.2
LIBD  Limburg          93.24 318 eP     P        00 08 49.5 +0.4
ABH   Alteburg         93.27 320 eP     P        00 08 49.3 +0.1
SAOF  Saorge           93.27 314 eP     P        00 08 49.4 +0.1
SAOF  Saorge           93.27 314 eP     P        00 08 49.4 +0.1
BBS   Basel-Blauen     93.30 317 eP     P        00 08 48.6  -0.8
SBF   Sospel           93.36 314 eP     P        00 08 49.9 +0.2
      comp=Z,118nm,1.3s,mb5.9
SBF   Sospel           93.36 314 eP     P        00 08 49.9 +0.2
SBF                              pmax   pmax
      comp=Z,59nm,1.3s,mb5.9
SBF   Sospel           93.36 314 eP     P        00 08 49.9 +0.2
      comp=Z,59nm,1.3s,mb5.9
AUTN  L'Aution         93.36 314 eP     P        00 08 49.9 +0.1
AUTN  L'Aution         93.36 314 eP     P        00 08 49.9 +0.1
REVF  Revere           93.41 313 eP     P        00 08 50.1 +0.1
REVF  Revere           93.41 313 eP     P        00 08 50.1 +0.1
LUCF  Luceram          93.42 314 eP     P        00 08 50.4 +0.4
BUG   Bochum--Univer   93.44 321 eP     P        00 08 50.4 +0.5
      comp=Z,42nm,1.5s,mb5.7
CDF   Champ du Feu     93.46 318 eP     P        00 08 50.1   0.0
      comp=Z,73nm,1.5s,mb5.6
CDF   Champ du Feu     93.46 318 eP     P        00 08 50.1   0.0
CDF                              pmax   pmax
      comp=Z,36nm,1.5s,mb5.6
CDF   Champ du Feu     93.46 318 eP     P        00 08 50.1   0.0
      comp=Z,36nm,1.5s,mb5.6
TOUF  Mont Tournerai   93.49 314 eP     P        00 08 50.2  -0.2
TOUF  Mont Tournerai   93.49 314 eP     P        00 08 50.2  -0.2
ECH   Echery           93.53 318 eP     P        00 08 50.1  -0.4
ECH   Echery           93.53 318 eP     P        00 08 50.4  -0.1
ECH                              pmax   pmax
      comp=Z,35nm,1.4s,mb5.6
ECH                              MLR    MLR
      comp=Z,1µm,20.0s,MS5.4
ECH   Echery           93.53 318 eP     P        00 08 50.4   0.0
      comp=Z,35nm,1.4s,mb5.6
ECH                              LR     LR
      comp=Z,1µm,20.0s,MS5.4
MOF   Molkenrain       93.56 318 eP     P        00 08 50.1  -0.5
MOF   Molkenrain       93.56 318 eP     P        00 08 50.1  -0.5
MVIF  Mont Vial        93.56 314 eP     P        00 08 51.4 +0.7
MVIF  Mont Vial        93.56 314 eP     P        00 08 51.4 +0.7
RUP   Ruppelstein      93.59 319 eP     P        00 08 51.0 +0.3
HINF  Hinteralfeld     93.74 318 eP     P        00 08 51.2  -0.2
CALN  Calern           93.75 314 eP     P        00 08 51.5  -0.1
CALN  Calern           93.75 314 eP     P        00 08 51.5  -0.1
LOMF  Lomont           93.77 317 eP     P        00 08 51.0  -0.5
LOMF  Lomont           93.77 317 eP     P        00 08 51.0  -0.5
MBDF  Montbardon       93.83 314 eP     P        00 08 51.4  -0.5
      comp=Z,37nm,1.4s,mb5.3
MBDF  Montbardon       93.83 314 eP     P        00 08 51.4  -0.5
MBDF                             pmax   pmax
      comp=Z,19nm,1.4s,mb5.3
MBDF  Montbardon       93.83 314 eP     P        00 08 51.4  -0.5
      comp=Z,18nm,1.4s,mb5.3
LPG   La Plagne        93.84 315 eP     P        00 08 52.4 +0.5
LPL   La Plagne        93.85 315 eP     P        00 08 52.3 +0.3
      comp=Z,52nm,1.3s,mb5.5
LPL   La Plagne        93.85 315 eP     P        00 08 52.3 +0.3
LPL                              pmax   pmax
      comp=Z,26nm,1.3s,mb5.5
LPL   La Plagne        93.85 315 eP     P        00 08 52.3 +0.3
      comp=Z,26nm,1.3s,mb5.5
BNI   Bardonecchia     93.89 315  PFAKE          00 09 00.0 +7.8
BNI                              LR     LR
      comp=Z,2µm,19.0s,MS5.5
FRF   La Foret Royal   93.93 313 eP     P        00 08 52.6 +0.2
      comp=Z,64nm,1.3s,mb5.6
FRF   La Foret Royal   93.93 313 eP     P        00 08 52.6 +0.2
FRF                              pmax   pmax
      comp=Z,32nm,1.3s,mb5.6
FRF   La Foret Royal   93.93 313 eP     P        00 08 52.6 +0.2
      comp=Z,32nm,1.3s,mb5.6
LMR   La Mourre        94.03 313 eP     P        00 08 53.1 +0.2
      comp=Z,33nm,1.3s,mb5.3
LMR   La Mourre        94.03 313 eP     P        00 08 53.1 +0.2
LMR                              pmax   pmax
      comp=Z,17nm,1.3s,mb5.3
LMR   La Mourre        94.03 313 eP     P        00 08 53.1 +0.2
      comp=Z,17nm,1.3s,mb5.3
HAU   Haudompre        94.08 318 eP     P        00 08 52.9  -0.1
      comp=Z,133nm,1.5s,mb5.8
HAU                             eMLR    MLR
      comp=Z,2µm,23.0s,MS5.2
HAU   Haudompre        94.08 318 eP     P        00 08 52.9  -0.1
HAU                              pmax   pmax
      comp=Z,67nm,1.5s,mb5.8
HAU                              MLR    MLR
      comp=Z,2µm,23.0s,MS5.5
HAU   Haudompre        94.08 318 eP     P        00 08 52.9  -0.1
      comp=Z,67nm,1.5s,mb5.8
HAU                              LR     LR
      comp=Z,2µm,23.0s,MS5.5
WLF   Walferdange      94.18 319  P     P        00 08 54.5 +1.2
      comp=Z,24nm,1.4s,mb5.4
WLF   Walferdange      94.18 319 eP     P        00 08 53.5 +0.1
      comp=Z,36nm,1.3s,mb5.6
WLF   Walferdange      94.18 319  PFAKE          00 09 00.0 +6.6
WLF                              LR     LR
      comp=Z,1µm,19.0s,MS5.4
MEM   Membach          94.25 320  P     P        00 08 55.6 +1.9
CABF  La Chapelle      94.28 316 eP     P        00 08 54.4 +0.5
      comp=Z,170nm,1.8s,mb5.9
CABF  La Chapelle      94.28 316 eP     P        00 08 54.4 +0.5
CABF                             pmax   pmax
      comp=Z,85nm,1.8s,mb5.9
CABF  La Chapelle      94.28 316 eP     P        00 08 54.4 +0.5
      comp=Z,85nm,1.8s,mb5.9
THEF  They Montfort    94.32 318 eP     P        00 08 50.1  -4.0
THEF  They Montfort    94.32 318 eP     P        00 08 50.1  -4.0
TAVF  Tavernes         94.36 313 eP     P        00 08 54.9 +0.5
TAVF  Tavernes         94.36 313 eP     P        00 08 54.9 +0.5
ORIF  Oris-en-Rattie   94.46 315 eP     P        00 08 55.1 +0.3
      comp=Z,28nm,1.1s,mb5.3
ORIF                            eMLR    MLR
      comp=Z,2µm,21.5s,MS5.2
ORIF  Oris-en-Rattie   94.46 315 eP     P        00 08 55.1 +0.3
ORIF                             pmax   pmax
      comp=Z,14nm,1.1s,mb5.3
ORIF  Oris-en-Rattie   94.46 315 eP     P        00 08 55.1 +0.3
      comp=Z,14nm,1.1s,mb5.3
VILF  Villemus         94.60 314 eP     P        00 08 56.0 +0.5
VILF  Villemus         94.60 314 eP     P        00 08 56.0 +0.5
SMRF  Simiane la Rot   94.70 314 eP     P        00 08 56.6 +0.7
      comp=Z,54nm,1.4s,mb5.5
SMRF  Simiane la Rot   94.70 314 eP     P        00 08 56.6 +0.7
      comp=Z,54nm,1.4s,mb5.8
GELF  Grande-Etoile    94.82 313 eP     P        00 08 56.8 +0.3
GELF  Grande-Etoile    94.82 313 eP     P        00 08 56.8 +0.3
TAM   Tamanrasset      94.89 293 eP     P        00 08 58.7 +1.5
TAM                              pmax   pmax
      comp=Z,7.0nm,1.1s,mb5.0
TAM                              MLR    MLR
      comp=Z,2µm,19.0s,MS5.5
TAM   Tamanrasset      94.89 293 eP     P        00 08 58.7 +1.5
      comp=Z,7.3nm,1.1s,mb5.0
TAM                              LR     LR
      comp=Z,2µm,19.0s,MS5.5
MEZF  Maizieres J'vi   94.93 318 eP     P        00 08 57.0 +0.1
      comp=Z,97nm,1.4s,mb5.7
MEZF  Maizieres J'vi   94.93 318 eP     P        00 08 57.0 +0.1
      comp=Z,97nm,1.4s,mb6.0
GIVF  Givet            95.02 320 eP     P        00 08 57.4 +0.2
UCC   Uccle            95.29 321  P     P        00 08 59.4 +0.9
VIVF  Saint-Julien-l   95.32 315 eP     P        00 08 58.9 +0.2
      comp=Z,19nm,1.2s,mb5.1
VIVF  Saint-Julien-l   95.32 315 eP     P        00 08 58.9 +0.2
VIVF                             pmax   pmax
      comp=Z,9.0nm,1.2s,mb5.1
VIVF  Saint-Julien-l   95.32 315 eP     P        00 08 58.9 +0.2
      comp=Z,9.3nm,1.2s,mb5.1
SSB   Saint Sauveur    95.40 315  PFAKE          00 09 10.0  +11
SSB                              LR     LR
      comp=Z,755nm,21.0s,MS5.1
BAIF  Baives           95.42 320 eP     P        00 08 59.3 +0.2
      comp=Z,52nm,1.2s,mb5.5
BAIF  Baives           95.42 320 eP     P        00 08 59.3 +0.2
BAIF                             pmax   pmax
      comp=Z,26nm,1.2s,mb5.5
BAIF  Baives           95.42 320 eP     P        00 08 59.3 +0.2
      comp=Z,26nm,1.2s,mb5.5
LOR   Lormes           95.79 317 eP     P        00 09 00.7  -0.1
      comp=Z,72nm,1.5s,mb5.6
LOR                             eMLR    MLR
      comp=Z,1µm,21.0s,MS5.1
LOR   Lormes           95.79 317 eP     P        00 09 00.7  -0.1
LOR                              pmax   pmax
      comp=Z,36nm,1.5s,mb5.6
LOR                              MLR    MLR
      comp=Z,1µm,21.0s,MS5.4
LOR   Lormes           95.79 317 eP     P        00 09 00.7  -0.1
      comp=Z,36nm,1.5s,mb5.6
LOR                              LR     LR
      comp=Z,1µm,21.0s,MS5.4
SMF   Signal de Mont   95.83 316 eP     P        00 09 00.8  -0.2
      comp=Z,48nm,1.4s,mb5.5
SMF   Signal de Mont   95.83 316 eP     P        00 09 00.8  -0.2
SMF                              pmax   pmax
      comp=Z,24nm,1.4s,mb5.4
SMF   Signal de Mont   95.83 316 eP     P        00 09 00.8  -0.2
      comp=Z,24nm,1.4s,mb5.4
LASF  Ste Croix        95.94 314 eP     P        00 09 01.7 +0.1
      comp=Z,42nm,1.6s,mb5.3
PLDF  La Plantade      96.02 316 eP     P        00 09 03.1 +1.2
PLDF  La Plantade      96.02 316 eP     P        00 09 03.1 +1.2
SSF   Saint Saulge     96.04 317 eP     P        00 09 02.2 +0.2
      comp=Z,51nm,1.6s,mb5.4
SSF   Saint Saulge     96.04 317 eP     P        00 09 02.2 +0.2
SSF                              pmax   pmax
      comp=Z,26nm,1.6s,mb5.4
SSF   Saint Saulge     96.04 317 eP     P        00 09 02.2 +0.2
      comp=Z,26nm,1.6s,mb5.4
AVF   Avril sur Loir   96.16 317 eP     P        00 09 02.5   0.0
      comp=Z,50nm,1.5s,mb5.4
AVF   Avril sur Loir   96.16 317 eP     P        00 09 02.5   0.0
AVF                              pmax   pmax
      comp=Z,25nm,1.5s,mb5.4
AVF   Avril sur Loir   96.16 317 eP     P        00 09 02.5   0.0
      comp=Z,25nm,1.5s,mb5.4
LBL   Lubilhac         96.31 315 eP     P        00 09 03.5 +0.2
LBL   Lubilhac         96.31 315 eP     P        00 09 03.5 +0.2
BGF   Bois d'Agland    96.52 316 eP     P        00 09 04.5 +0.3
      comp=Z,80nm,1.6s,mb5.6
BGF   Bois d'Agland    96.52 316 eP     P        00 09 04.5 +0.3
BGF                              pmax   pmax
      comp=Z,40nm,1.6s,mb5.6
BGF   Bois d'Agland    96.52 316 eP     P        00 09 04.5 +0.3
      comp=Z,40nm,1.6s,mb5.6
HYF   Humbligny        96.62 317 eP     P        00 09 05.0 +0.4
TCF   Toulx Ste Croi   96.98 316 eP     P        00 09 06.5 +0.3
      comp=Z,49nm,1.7s,mb5.4
TCF   Toulx Ste Croi   96.98 316 eP     P        00 09 06.5 +0.3
TCF                              pmax   pmax
      comp=Z,24nm,1.7s,mb5.3
TCF   Toulx Ste Croi   96.98 316 eP     P        00 09 06.5 +0.3
      comp=Z,24nm,1.7s,mb5.4
MTLF  Montolieu        97.16 313 eP     P        00 09 07.4 +0.3
      comp=Z,28nm,1.3s,mb5.2
MTLF  Montolieu        97.16 313 eP     P        00 09 07.4 +0.3
MTLF                             pmax   pmax
      comp=Z,14nm,1.3s,mb5.2
MTLF  Montolieu        97.16 313 eP     P        00 09 07.4 +0.3
      comp=Z,14nm,1.3s,mb5.2
CAF   Calviac          97.17 315 eP     P        00 09 07.4 +0.3
      comp=Z,28nm,1.3s,mb5.2
CAF   Calviac          97.17 315 eP     P        00 09 07.4 +0.3
CAF                              pmax   pmax
      comp=Z,14nm,1.3s,mb5.2
CAF   Calviac          97.17 315 eP     P        00 09 07.4 +0.3
      comp=Z,14nm,1.3s,mb5.2
RJF   Les Rejaudoux    97.53 315 eP     P        00 09 09.3 +0.5
      comp=Z,66nm,1.6s,mb5.6
RJF                             eMLR    MLR
      comp=Z,1µm,20.5s,MS5.1
RJF   Les Rejaudoux    97.53 315 eP     P        00 09 09.3 +0.5
RJF                              pmax   pmax
      comp=Z,33nm,1.6s,mb5.6
RJF                              MLR    MLR
      comp=Z,1µm,20.5s,MS5.4
RJF   Les Rejaudoux    97.53 315 eP     P        00 09 09.3 +0.5
      comp=Z,33nm,1.6s,mb5.6
RJF                              LR     LR
      comp=Z,1µm,20.5s,MS5.4
LFF   La Frestale      98.11 315 eP     P        00 09 11.7 +0.3
      comp=Z,90nm,1.7s,mb5.7
LFF   La Frestale      98.11 315 eP     P        00 09 11.7 +0.3
LFF                              pmax   pmax
      comp=Z,45nm,1.7s,mb5.7
LFF   La Frestale      98.11 315 eP     P        00 09 11.7 +0.3
      comp=Z,45nm,1.7s,mb5.7
TORD  Torodi Ar. Bea   98.46 283  P     P        00 09 14.5 +0.9
      comp=Z,1.1nm,1.0s,mb4.3,baz=108,slow=3.3,SNR=3.4
TORD                             PKKPbc PKKPbc   00 25 44.5 +0.8
      comp=Z,0.4nm,0.5s,baz=306,slow=3.4,SNR=4.8
TORD                             LR     LR       00 51 58.8
      comp=Z,2µm,19.1s,MS5.6,baz=105,slow=34
MFF   Saint Martin d   98.57 317 eP     P        00 09 13.6 +0.2
      comp=Z,41nm,1.4s,mb5.5
MFF   Saint Martin d   98.57 317 eP     P        00 09 13.6 +0.2
MFF                              pmax   pmax
      comp=Z,20nm,1.4s,mb5.5
MFF   Saint Martin d   98.57 317 eP     P        00 09 13.6 +0.2
      comp=Z,20nm,1.4s,mb5.5
FLN   La Foliniere     98.58 319 eP     P        00 09 13.1  -0.3
FLN                             eMLR    MLR
      comp=Z,2µm,20.8s,MS5.3
FLN   La Foliniere     98.58 319 eP     P        00 09 13.1  -0.3
FLN                              LR     LR
      comp=Z,2µm,20.8s,MS5.6
GRR   Gorron           98.87 318 eP     P        00 09 15.7 +1.0
      comp=Z,142nm,1.8s,mb5.9
GRR   Gorron           98.87 318 eP     P        00 09 15.7 +1.0
GRR                              pmax   pmax
      comp=Z,71nm,1.8s,mb5.9
GRR   Gorron           98.87 318 eP     P        00 09 15.7 +1.0
      comp=Z,71nm,1.8s,mb5.9
ETSF  Etsaut           99.22 313 eP     P        00 09 16.8 +0.4
      comp=Z,52nm,1.7s,mb5.5
ETSF  Etsaut           99.22 313 eP     P        00 09 16.8 +0.4
ETSF                             pmax   pmax
      comp=Z,26nm,1.7s,mb5.5
ETSF  Etsaut           99.22 313 eP     P        00 09 16.8 +0.4
      comp=Z,26nm,1.7s,mb5.5
SJPF  Ste Jean         99.69 313 eP     Pdif     00 09 19.0 +0.8
      comp=Z,44nm,1.6s
SJPF  Ste Jean         99.69 313 eP     Pdif     00 09 19.0 +0.8
SJPF                             pmax   pmax
      comp=Z,22nm,1.6s,mb5.3
SJPF  Ste Jean         99.69 313 eP     Pdif     00 09 19.0 +0.8
      comp=Z,22nm,1.6s
COLD  Coldfoot         99.81  22 ePdif  Pdif     00 09 18.2  -0.5
      comp=Z,12nm,0.9s
BPAW  Bear Paw Mtn.   100.42  25 eP     Pdif     00 09 20.7  -0.8
BPAW                            ePdif   Pdif     00 09 20.8  -0.6
KDAK  Kodiak Island   101.31  31  PFAKE          00 09 40.0  +15
KDAK                             LR     LR
      comp=Z,3µm,19.0s,MS5.9
MCK   McKinley        101.39  25 eP     Pdif     00 09 28.2 +2.5
      comp=Z,19µm,1.2s
COLA  College         101.47  24  PFAKE          00 09 40.0  +14
COLA                             LR     LR
      comp=Z,1µm,19.0s,MS5.5
PAB   San Pablo       102.43 310  PFAKE          00 09 40.0  +10
PAB                              LR     LR
      comp=Z,1µm,20.0s,MS5.4
SCO   Scoresbysund    102.44 343 i P    PKiKP    00 13 46.0  -5.4
SCO
      comp=Z,2µm,22.0s
XMAS  Kiritimati      102.78  88  PFAKE          00 09 40.0 +8.1
XMAS                             LR     LR
      comp=Z,2µm,20.0s,MS5.6
EGAK  Eagle           104.15  23  PFAKE          00 09 50.0  +12
EGAK                             LR     LR
      comp=Z,3µm,21.0s,MS5.8
SHEL  Horse Pasture   104.31 253  PFAKE          00 09 50.0  +11
SHEL                             LR     LR
      comp=Z,3µm,19.0s,MS5.8
MTE   Manteigas       104.74 311  PFAKE          00 09 50.0 +9.4
MTE                              LR     LR
      comp=Z,1µm,19.0s,MS5.4
DBIC  Dimbokro        104.86 276  PFAKE          00 09 50.0 +8.8
DBIC                             LR     LR
      comp=Z,2µm,19.0s,MS5.6
RTC   Rabat Centre    105.15 304  PFAKE          00 14 10.0  +13
RTC                              LR     LR
      comp=Z,871nm,19.0s,MS5.3
PPT   Papeete         108.83 109 eLR    LR       00 46 08.0
      comp=Z,2µm,25.5s
PMSA  Palmer Station  111.99 187  PFAKE          00 14 20.0  +11
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PMSA				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
SFJD	**Kangerlussuaq**	**112.29**	**348**	PFAKE		00 14 20.0	+10
SFJD				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
YKA	**Yellowknife Ar**	**114.76**	**17**	PKiKP	PKiKP	00 14 12.9	-1.7
	comp=Z,1.0nm,0.8s,baz=328,slow=2.5,SNR=6.2						
YKA	**Yellowknife Ar**	**114.76**	**17**	PKPdf	PKiKP	00 14 12.9	-1.7
TAOE	**Nuku Hiva Isla**	**119.18**	**101**	*e*PP	PP	00 15 39.9	-5.3
	comp=Z,1µm,24.8s						
TAOE				*e*LR	LR	00 50 42.2	
	comp=Z,5µm,24.0s						
RKT	**Rikitea**	**120.94**	**119**	*e*LR	LR	00 51 40.8	
	comp=Z,4µm,28.2s						
NLWA	**Neilton Lookou**	**121.38**	**33**	PFAKE		00 14 40.0	+12
NLWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
FCC	**Fort Churchill**	**122.70**	**9**	*e*PKIKP	PKPdf	00 14 29.5	-0.6
WTV	**Waterville**	**123.28**	**31**	P	PKPdf	00 14 31.3	-0.2
TBM	**Table Mountain**	**123.28**	**32**	P	PKPdf	00 14 32.2	+0.7
COR	**Corvallis**	**123.33**	**36**	PFAKE		00 14 40.0	+8.3
COR				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
NEW	**Newport**	**124.32**	**29**	*e*PKIKP	PKPdf	00 14 33.6	+0.1
NEW				MLR	MLR		
	comp=Z,2µm,20.0s						
HAWA	**Hanford**	**124.34**	**32**	PFAKE		00 14 50.0	+16
HAWA				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
PTCN	**Pitcairn Islan**	**124.47**	**123**	PFAKE		00 14 50.0	+16
PTCN				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
HUMO	**Hull Mountain**	**124.67**	**38**	PFAKE		00 14 50.0	+16
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
FFC	**Flin Flon**	**124.84**	**15**	*e*PKIKP	PKPdf	00 14 34.0	-0.3
FFC				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.8						
VIPM	**Ingram Point**	**124.92**	**34**	PKIKP	PKPdf	00 14 36.0	+1.2
YBH	**Yreka Blue Hor**	**125.31**	**38**	PFAKE		00 14 50.0	+14
YBH				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
BSMT	**Bassoo Peak**	**125.73**	**28**	P	PKPdf	00 14 36.4	+0.2
WDC	**Whiskeytown Da**	**126.06**	**39**	PFAKE		00 14 50.0	+13
WDC				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
SWMT	**Swartz Lake**	**126.34**	**28**	*e*PKPdf	PKPdf	00 14 37.3	-0.1
BMO	**Blue Mountains**	**126.53**	**32**	PFAKE		00 14 50.0	+12
BMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
HOPS	**Hopland**	**126.57**	**41**	PFAKE		00 14 50.0	+12
HOPS				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
SCHQ	**Schefferville**	**126.57**	**350**	PKP	PKPdf	00 14 38.0	+0.4
	comp=Z,5.9nm,1.0s,baz=35,slow=3.0,SNR=8.1						
LBCM	**Butte Creek Ri**	**126.66**	**39**	P	PKPdf	00 14 38.9	+0.7
MOD	**Modoc**	**126.68**	**37**	*e*PKPdf	PKPdf	00 14 39.2	+1.0
MOD				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
MSO	**Missoula**	**126.86**	**29**	PFAKE		00 14 50.0	+12
MSO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
CHMT	**Chamberlain Mo**	**127.13**	**28**	P	PKPdf	00 14 39.4	+0.5
WVOR	**Wild Horse Val**	**127.34**	**35**	*e*PKIKP	PKPdf	00 14 40.5	+1.1
WVOR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.8						
EGMT	**Eagleton**	**127.84**	**25**	PFAKE		00 14 50.0	+10
EGMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
BOZ	**Bozeman (W)**	**128.82**	**28**	PFAKE		00 14 50.0	+7.8
BOZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
SAO	**San Andreas Ge**	**128.85**	**43**	PFAKE		00 14 50.0	+7.5
SAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
CMB	**Columbia Colle**	**128.86**	**41**	PFAKE		00 14 50.0	+7.5
CMB				LR	LR		
	comp=Z,978nm,20.0s,MS5.5						
HLID	**Hailey**	**128.93**	**32**	PFAKE		00 14 50.0	+7.6
HLID				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
BMN	**Battle Mountai**	**129.42**	**37**	PFAKE		00 15 00.0	+17
BMN				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
DGMT	**Dagmar**	**129.63**	**21**	*e*PKPdf	PKPdf	00 14 44.4	+0.7
DGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
YMR	**Madison River**	**129.86**	**28**	*e*PKPdf	PKPdf	00 14 45.8	+1.6
YNR	**Norris Junctio**	**129.97**	**28**	*e*PKPdf	PKPdf	00 14 46.2	+1.9
NVAR	**Mina Array Bea**	**129.97**	**39**	PKP	PKPdf	00 14 45.6	+1.0
	comp=Z,2.8nm,0.8s,baz=301,slow=1.9,SNR=7.0						
LKWY	**Lake**	**130.21**	**28**	PFAKE		00 15 00.0	+15
LKWY				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
RLMT	**Red Lodge**	**130.31**	**27**	PFAKE		00 15 00.0	+15
RLMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
LAO	**LASA Array**	**130.35**	**23**	*e*PKPdf	PKPdf	00 14 46.3	+1.2
LAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
ELK	**Elko**	**130.38**	**35**	PFAKE		00 15 00.0	+15
ELK				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
ULM	**Lac du Bonnet**	**130.45**	**13**	PKP	PKPdf	00 14 45.6	+0.5
	comp=Z,6.6nm,0.7s,baz=4.6,slow=3.2,SNR=8.7						
SNOW	**Snow King Moun**	**130.86**	**29**	*e*PKPdf	PKPdf	00 14 47.3	+1.2
AHID	**Auburn Hatcher**	**131.20**	**30**	PFAKE		00 15 00.0	+13
AHID				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
DAC	**Darwin (Calif)**	**131.69**	**41**	PFAKE		00 15 00.0	+12
DAC				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
BW06	**Boulder Array**	**131.96**	**29**	PFAKE		00 15 00.0	+12
BW06				LR	LR		
	comp=Z,993nm,22.0s,MS5.5						
PDAR	**Pinedale Array**	**131.96**	**29**	PKP	PKPdf	00 14 48.0	-0.3
	comp=Z,2.2nm,0.8s,baz=318,slow=1.2,SNR=3.0						
DUG	**Dugway**	**132.12**	**34**	PFAKE		00 15 00.0	+11
DUG				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
AGMN	**Agassiz Refuge**	**132.28**	**14**	PFAKE		00 15 00.0	+11
AGMN				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
GSC	**Goldstone**	**132.78**	**42**	*e*PKIKP	PKPdf	00 14 49.9	-0.1
GSC				*e*		00 15 00.3	
RSSD	**Black Hills**	**133.34**	**24**	*e*PKIKP	PKPdf	00 14 50.8	0.0
RSSD				*e*		00 15 01.3	
RSSD				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
EYMN	**Ely**	**133.54**	**11**	PFAKE		00 15 00.0	+9.0
EYMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
CCUT	**Cedar City**	**133.57**	**37**	*e*PKPdf	PKPdf	00 14 53.2	+1.7
CCUT				*e*sPKPdf		00 15 03.1	
MVU	**Marysvale**	**133.61**	**35**	PFAKE		00 15 00.0	+8.5
MVU				LR	LR		
	comp=Z,963nm,21.0s,MS5.5						
MSU	**Marysvale**	**133.62**	**35**	*e*PKIKP	PKPdf	00 14 46.6	-4.9
RWWY	**Rawlins**	**133.91**	**28**	*e*PKPdf	PKPdf	00 14 54.2	+2.3
PFO	**Pinyon Flat Ob**	**133.99**	**43**	⇑*i*PKIKP	PKPdf	00 14 55.5	+3.2
PFO	**Pinyon Flat Ob**	**133.99**	**43**	PFAKE		00 15 00.0	+7.7
PFO				LR	LR		
	comp=Z,942nm,21.0s,MS5.5						
RCBR	**Riachuelo**	**135.06**	**259**	PFAKE		00 15 10.0	+15
RCBR				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
COWI	**Conover**	**135.73**	**9**	PFAKE		00 15 10.0	+15
COWI				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
WUAZ	**Wupatki**	**136.11**	**38**	*e*PKPdf	PKPdf	00 14 56.4	+0.2
WUAZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
ISCO	**Idaho Springs**	**136.14**	**29**	PFAKE		00 15 10.0	+14
ISCO				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
ECSD	**EROS Data Cent**	**136.28**	**17**	PFAKE		00 15 10.0	+14
ECSD				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MVCO	**Mesa Verde**	**136.61**	**33**	PFAKE		00 15 10.0	+13
MVCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
OGNE	**Ogallala**	**136.81**	**24**	PFAKE		00 15 10.0	+13
OGNE				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
GLMI	**Grayling**	**137.53**	**5**	PFAKE		00 15 10.0	+11
GLMI				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
LONY	**Lake Ozonia**	**137.63**	**354**	PFAKE		00 15 10.0	+11
LONY				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
LBNH	**Lisbon**	**137.66**	**351**	PFAKE		00 15 10.0	+11
LBNH				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
SDCO	**Great Sand Dun**	**137.79**	**30**	PFAKE		00 15 10.0	+11
SDCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
NCB	**Newcomb**	**138.23**	**354**	PFAKE		00 15 10.0	+10
NCB				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
TUC	**Tucson**	**138.57**	**41**	*e*PKPdf	PKPdf	00 15 00.2	-0.7
TUC				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
JFWS	**Jewell Farm**	**138.63**	**11**	PFAKE		00 15 10.0	+9.3
JFWS				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
SCIA	**State Center**	**138.91**	**15**	PFAKE		00 15 10.0	+8.8
SCIA				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
SPB	**Sao Paulo**	**139.01**	**229**	PFAKE		00 15 10.0	+8.1
SPB				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
ANMO	**Albuquerque**	**139.38**	**34**	PFAKE		00 15 10.0	+7.7
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
CBKS	**Cedar Bluff**	**139.55**	**24**	PFAKE		00 15 10.0	+7.5
CBKS				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
AAM	**Ann Arbor**	**140.11**	**4**	PFAKE		00 15 20.0	+17
AAM				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
BINY	**Binghamton**	**140.16**	**355**	*e*PKPdf	PKPdf	00 15 03.5	0.0
BINY				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
ERPA	**Erie**	**140.42**	**360**	PFAKE		00 15 20.0	+16
ERPA				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
KSU1	**Kansas State U**	**140.47**	**20**	PFAKE		00 15 20.0	+16
KSU1				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
HDIL	**Hopedale**	**141.09**	**11**	PFAKE		00 15 20.0	+15
HDIL				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
SSPA	**Standing Stone**	**141.84**	**357**	PFAKE		00 15 20.0	+13
SSPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
AMTX	**Amarillo**	**141.94**	**29**	PFAKE		00 15 20.0	+13
AMTX				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
ACSO	**Alum Creek Sta**	**142.21**	**4**	*e*PKPdf	PKPdf	00 15 01.1	-6.2
ACSO				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
MCWV	**Mont Chateau**	**142.87**	**360**	PFAKE		00 15 20.0	+12
MCWV				LR	LR		
	comp=Z,4µm,21.0s,MS6.2						
CCM	**Cathedral Cave**	**143.05**	**15**	PFAKE		00 15 20.0	+11
CCM				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
OLIL	**Olney**	**143.07**	**10**	*e*PKPdf	PKPdf	00 15 05.4	-3.4
FVM	**French Village**	**143.31**	**14**	*e*PKIKP	PKPdf	00 15 04.9	-4.4
WMOK	**Wichita Mounta**	**143.41**	**26**	PFAKE		00 15 20.0	+10
WMOK				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
LPIG	**La Paz**	**143.72**	**51**	PKP	PKPdf	00 15 08.9	-1.5
	comp=Z,25nm,0.3s,baz=302,slow=0.8,SNR=7.5						
WCI	**Wyandotte Cave**	**143.86**	**8**	PFAKE		00 15 20.0	+10
WCI				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
USIN	**University of**	**143.90**	**10**	*e*PKPdf	PKPdf	00 15 07.5	-2.8
CPUP	**Villa Florida**	**143.94**	**216**	PKP	PKPdf	00 15 09.3	-1.4
	comp=Z,13nm,1.1s,baz=105,slow=1.9,SNR=11						
CBN	**Corbin**	**144.23**	**356**	PFAKE		00 15 20.0	+9.1
CBN				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
PARMO	**Parma**	**144.73**	**13**	*e*PKPdf	PKPdf	00 15 10.4	-1.4
TXAR	**Lajitas Array**	**145.08**	**37**	PKPbc	PKPbc	00 15 12.7	+0.7
	comp=Z,119nm,0.7s,baz=270,slow=1.8,SNR=375						
GLAT	**Glass**	**145.22**	**13**	*e*PKPbc	PKPbc	00 15 12.3	+0.1
UTMT	**University of**	**145.24**	**12**	*e*PKPbc	PKPbc	00 15 12.2	0.0
ELN	**Prospectdale**	**145.29**	**1**	*e*PKPbc	PKPbc	00 15 11.3	-1.1
BLA	**Blacksburg**	**145.31**	**0**	*e*PKIKP	PKPdf	00 15 11.8	-1.0
BLA				MLR	MLR		
	comp=Z,3µm,21.0s,MS6.1						
GNAR	**Gosnell**	**145.33**	**14**	*e*PKPdf	PKPdf	00 15 12.4	-0.5
HALT	**Halls**	**145.55**	**13**	*e*PKPbc	PKPbc	00 15 13.1	-0.2
HBAR	**Harrisburg**	**145.56**	**15**	*e*PKPbc	PKPbc	00 15 13.5	+0.2
MIAR	**Mount Ida**	**145.62**	**20**	PFAKE		00 15 20.0	+6.6
MIAR				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
WVT	**Waverly**	**145.65**	**11**	*e*PKIKP	PKPdf	00 15 13.0	-0.4
WVT				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.9						
TZTN	**Tazewell**	**145.84**	**5**	*e*PKPbc	PKPbc	00 15 13.6	-0.6
JCT	**Junction City**	**146.41**	**32**	PFAKE		00 15 30.0	+15
JCT				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
TKL	**Tuckaleechee C**	**146.70**	**5**	PKPbc	PKPbc	00 15 15.9	-0.9
	comp=Z,24nm,0.7s,baz=89,slow=1.6,SNR=37						
PLAL	**Pickwick Lake**	**146.72**	**12**	PFAKE		00 15 30.0	+15
PLAL				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
BBSR	**BB Station**	**146.79**	**336**	*e*PKPbc	PKPbc	00 15 17.3	+0.2
BBSR				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
CPCT	**Cooper Cave**	**146.82**	**7**	*e*PKPdf	PKPdf	00 15 15.1	-0.3
OXF	**Oxford**	**146.87**	**14**	*e*PKP2	PKPab	00 15 16.8	-1.8
OXF				MLR	MLR		
	comp=Z,3µm,21.0s,MS6.0						
SWET	**Sewanee**	**146.87**	**9**	*e*PKPbc	PKPbc	00 15 15.8	-1.5
CNNC	**Cliffs of the**	**147.22**	**357**	*e*PKPdf	PKPdf	00 15 15.7	-0.3
CNNC				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
LCO	**Las Campanas**	**147.52**	**196**	*e*PKPbc	PKPbc	00 15 20.2	+0.9
LCO				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
NATX	**Nacogdoches**	**147.72**	**24**	*e*PKPdf	PKPdf	00 15 17.2	+0.2
NATX				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
JSC	**Jenkinsville**	**148.22**	**2**	*e*PKP2	PKPbc	00 15 20.6	-0.4
VBMS	**Vicksburg**	**148.74**	**17**	*e*PKPbc	PKPbc	00 15 22.6	+0.2
VBMS				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
HKT	**Hockley**	**148.78**	**27**	*e*PKIKP	PKPdf	00 15 19.4	+0.6
HKT				MLR	MLR		
	comp=Z,2µm,20.0s,MS6.0						
GOGA	**Godfrey**	**148.95**	**5**	*e*PKPbc	PKPbc	00 15 22.9	0.0
GOGA				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
NHSC	**New Hope**	**149.41**	**0**	*e*PKPbc	PKPbc	00 15 24.2	+0.1
NHSC				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
KVTX	**Kingsville**	**149.75**	**32**	PFAKE		00 15 30.0	+10
KVTX				LR	LR		
	comp=Z,1µm,21.0s,MS5.8						
BRAL	**Brewton**	**150.76**	**12**	*e*PKPdf	PKPdf	00 15 22.2	+0.4
BRAL				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
LVC	**Limon Verde**	**152.86**	**203**	PFAKE		00 15 40.0	+15
LVC				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
DWPF	**Disney**	**154.36**	**3**	PFAKE		00 15 40.0	+13
DWPF				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
ANWB	**Willy Bob**	**156.40**	**311**	PFAKE		00 15 40.0	+10
ANWB				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
BBGH	**Gun Hill**	**156.97**	**299**	PFAKE		00 15 40.0	+8.9
BBGH				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
FDF	**Fort de France**	**157.57**	**304**	PFAKE		00 15 40.0	+8.2
FDF				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
SJG	**San Juan**	**159.17**	**320**	PFAKE		00 15 40.0	+6.3
SJG				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
GRGR	**Grenville**	**159.25**	**299**	PFAKE		00 15 40.0	+6.1
GRGR				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
TEIG	**Tepich**	**160.55**	**23**	PFAKE		00 15 50.0	+15
TEIG				LR	LR		
	comp=Z,2µm,21.0s						
SDDR	**Presa de Saban**	**161.33**	**333**	PFAKE		00 15 50.0	+14
SDDR				LR	LR		
	comp=Z,2µm,21.0s						
GTBY	**Guantanamo Bay**	**161.85**	**345**	PFAKE		00 15 50.0	+13
GTBY				LR	LR		
	comp=Z,1µm,22.0s						
MTDJ	**Mount Denham**	**164.02**	**351**	PFAKE		00 15 50.0	+11
MTDJ				LR	LR		
	comp=Z,2µm,20.0s						
NNA	**Nana**	**165.37**	**193**	PFAKE		00 15 50.0	+10
NNA				LR	LR		
	comp=Z,1µm,20.0s						
TGUH	**Tegucigalpa,Un**	**166.41**	**31**	PFAKE		00 15 50.0	+9.2
TGUH				LR	LR		
	comp=Z,1µm,20.0s						
SDV	**Santo Domingo**	**168.52**	**305**	*e*PKPdf	PKPdf	00 15 41.6	-0.8
SDV				LR	LR		
	comp=Z,1µm,20.0s						
PAYG	**Puerto Ayora**	**169.44**	**106**	PFAKE		00 15 50.0	+7.0
PAYG				LR	LR		
	comp=Z,1µm,21.0s						
JTS	**JuntasAbangare**	**170.79**	**31**	PFAKE		00 15 50.0	+6.3
JTS				LR	LR		
	comp=Z,2µm,20.0s						
BCIP	**Isla Barro Col**	**173.23**	**357**	PFAKE		00 16 00.0	+15
BCIP				LR	LR		
	comp=Z,1µm,21.0s						
ROSC	**El Rosal**	**173.68**	**293**	PKP	PKPdf	00 15 44.5	-0.6
	comp=Z,4.4nm,0.4s,baz=102,slow=19,SNR=6.0						
OTAV	**Otavalo**	**177.29**	**219**	*e*PKPdf	PKPdf	00 15 46.8	+0.8
OTAV				LR	LR		
	comp=Z,2µm,21.0s						

BJI ***21*** *23:57:49.0, 41°.20N×114°.90W, h10^{km}, mB5.5/6, mb5.1/9, Ms5.5/7, Ms7 5.1/7*

ISCJB ***21*** *23:57:51.0±0.1, 41°.101N±0°.010×114°.93W±0°.01, h10^{km}, mb4.6/16, MS5.1/4, Error ellipse: s-maj=1.5km s-min=1.4km az=21.1*

IDC ***21*** *23:57:50.9±0.5, 41°.16N×114°.93W, h0^{km}, mb4.3/9, mb1 4.4/15, mb1mx4.3/28, mbtmp4.2/15, ML4.4/5, MS4.0/5, Ms1 4.0/5, ms1mx3.8/37, Error ellipse: s-maj=10.1km s-min=4.5km az=128.0*

NEIC ***21*** *23:57:51.0, 41°.15N×114°.93W, h11^{km}, mb4.7/6, ML4.6, MW4.6(SLM), After REN.*

NEIC Felt strongly at Wells. Felt [III] at Elko and [II] at Spring Creek. Also felt at Bancroft, Boise, Inkom, Ketchum and Twin Falls, Idaho and at Brigham City and Sandy, Utah.

ISC 21 23:57:52.1±0.1**, 41°.103N**±0°.010×**114°.95W**±0°.01**, h10^{km}, n299, σ1^{s}.06**/309**, mb4.6**/16**, MS5.1**/4**, 96C-68D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.26**	**196**	⇑P	**Pg**	**23 57 56.9**	**-0.5**
	baz=0.3,SNR=1000						
N12A				⇓S	**Sg**	**23 58 01.8**	**+0.9**
	baz=0.3						
ELK	**Elko**	**0.42**	**212**	Pg	**Pg**	**23 58 00.1**	**-0.2**
	2µm,0.3s,baz=15,slow=14,SNR=1719						
ELK				Lg		23 58 06.3	
	5µm,0.3s,baz=127,slow=18,SNR=95						
ELK	**Elko**	**0.42**	**212**	*e*Pg	**Pg**	**23 58 00.1**	**-0.3**
ELK				*e*Sg	**Sg**	**23 58 06.2**	**+0.2**
N13A	**Wendover, West**	**0.61**	**113**	⇓P	**Pg**	**23 58 02.6**	**-1.5**
	baz=0.6,SNR=1000						
N13A				⇓S	**Sg**	**23 58 11.6**	**-0.4**
	baz=0.6						
N13A	**Wendover, West**	**0.61**	**113**	*e*Pg	**Pg**	**23 58 02.9**	**-1.2**
M13A	**Montello**	**0.64**	**66**	⇓P	**Pg**	**23 58 02.3**	**-2.3**
	baz=0.6,SNR=862						
M13A				⇑S	**Sg**	**23 58 10.9**	**-2.1**
	baz=0.6						
N11A	**Elko Archery C**	**0.66**	**245**	⇑P	**Pg**	**23 58 04.2**	**-0.8**
	baz=0.7,SNR=908						
M11A	**Holland Ranch,**	**0.72**	**298**	⇑P	**Pg**	**23 58 04.5**	**-1.4**
	baz=0.7						
M11A				⇑S	**Sg**	**23 58 14.3**	**-1.0**
	baz=0.7						
O12A	**Currie**	**0.85**	**170**	⇑P	**Pg**	**23 58 07.8**	**-0.7**
	baz=0.9,SNR=1000						
L12A	**House Creek Ra**	**1.04**	**357**	⇓P	**Pg**	**23 58 09.9**	**-2.3**
	baz=1.0						
L12A				⇑S	**Sg**	**23 58 24.0**	**-1.8**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.11**	**209**	⇑P	**Pb**	**23 58 12.9**	**-0.5**
	baz=1.2,SNR=1000						
O13A	**Hicks Ranch, I**	**1.22**	**143**	⇓P	**Pn**	**23 58 14.1**	**-1.1**
	baz=1.2,SNR=1000						
L11A	**Cat Creek Ranc**	**1.22**	**331**	⇓P	**Pn**	**23 58 13.4**	**-1.9**
	baz=1.2						
L13A	**Double Diamond**	**1.24**	**37**	⇑P	**Pn**	**23 58 13.0**	**-2.5**
	baz=1.2,SNR=582						
L13A				⇑S	**Sb**	**23 58 29.5**	**-2.1**
	baz=1.2						
N10A	**Dunphy**	**1.24**	**253**	⇑P	**Pn**	**23 58 14.6**	**-0.9**
	baz=1.3,SNR=235						
M14A	**Sheep Mountain**	**1.27**	**71**	⇓P	**Pn**	**23 58 13.9**	**-2.0**
	baz=1.2,SNR=1000						
M14A				⇓S	**Sb**	**23 58 30.4**	**-2.1**
	baz=1.2						
M10A	**I.L. Ranch, Tu**	**1.27**	**290**	P	**Pn**	**23 58 14.8**	**-1.1**
	baz=1.3,SNR=830						
N14A	**Grayback Hills**	**1.36**	**100**	⇑P	**Pn**	**23 58 15.4**	**-1.7**
	baz=1.4						
N14A				⇓S	**Sb**	**23 58 33.7**	**-1.2**
	baz=1.4						
O10A	**Cortez Mining,**	**1.43**	**236**	⇑P	**Pn**	**23 58 17.8**	**-0.4**
	baz=1.5,SNR=1000						
BGU	**Big Grassy Mou**	**1.46**	**96**	*e*Pn	**Pn**	**23 58 16.9**	**-1.6**
L10A	**Juniper Basin**	**1.50**	**311**	⇑P	**Pn**	**23 58 17.8**	**-1.3**
	baz=1.5						
L10A				⇑Sb	**Sb**	**23 58 38.9**	**-0.3**
	baz=1.5						
K12A	**Draper Farm, C**	**1.53**	**1**	⇓P	**Pn**	**23 58 17.5**	**-2.0**
	baz=1.5						
K12A				⇓S	**Sn**	**23 58 37.6**	**-1.9**
	baz=1.5						
L14A	**Malta**	**1.58**	**53**	⇓P	**Pn**	**23 58 18.9**	**-1.3**
	baz=1.5,SNR=1000						
L14A				⇓S	**Sn**	**23 58 39.4**	**-1.3**
	baz=1.5						
P12A	**McGill**	**1.63**	**179**	P	**Pn**	**23 58 20.5**	**-0.4**
	baz=1.7,SNR=1000						
P12A				⇑Sb	**Sb**	**23 58 44.8**	**+2.0**
	baz=1.7						
P11A	**Circle Ranch,**	**1.67**	**202**	P	**Pn**	**23 58 21.5**	**+0.1**
	baz=1.7,SNR=460						
K13A	**Stover Farm, H**	**1.67**	**22**	⇑P	**Pn**	**23 58 19.8**	**-1.7**
	baz=1.6,SNR=861						
K13A				⇑S	**Sn**	**23 58 41.3**	**-1.7**
	baz=1.6						
HVU	**Hansel Valley**	**1.77**	**67**	*e*Pn	**Pn**	**23 58 22.0**	**-0.8**
HVU				*e*Sn	**Sn**	**23 58 45.6**	**+0.3**
P13A	**Bates Ranch, G**	**1.79**	**156**	⇑P	**Pn**	**23 58 22.0**	**-1.1**
	baz=1.8						
P13A				⇑Sb	**Sb**	**23 58 49.0**	**+1.5**
	baz=1.8						
N15A	**Stansbury Isla**	**1.85**	**96**	⇑P	**Pn**	**23 58 22.5**	**-1.4**
	baz=1.8,SNR=1000						
BMN	**Battle Mountai**	**1.85**	**250**	*e*Pn	**Pn**	**23 58 23.1**	**-0.9**
K11A	**Parker Ranch,**	**1.85**	**334**	⇑P	**Pn**	**23 58 23.1**	**-0.8**
	baz=1.8,SNR=1000						
K11A				⇑Sb	**Sb**	**23 58 48.2**	**-1.1**
	baz=1.8						
DUG	**Dugway**	**1.86**	**118**	⇑P	**Pn**	**23 58 22.2**	**-1.8**
	baz=1.9,SNR=432						
DUG	**Dugway**	**1.86**	**118**	*e*Pn	**Pn**	**23 58 22.2**	**-1.8**
P10A	**Eureka**	**1.88**	**219**	P	**Pn**	**23 58 24.5**	**+0.2**
	baz=1.9,SNR=939						
SPUT	**South Promonto**	**1.90**	**83**	*e*Pn	**Pn**	**23 58 24.5**	**0.0**
M09A	**Marrel Ranch,**	**1.91**	**280**	⇓P	**Pn**	**23 58 24.1**	**-0.6**
	baz=1.9,SNR=273						
M15A	**Larsen Ranch,**	**1.92**	**78**	⇓P	**Pn**	**23 58 23.2**	**-1.6**
	baz=1.9						
O09A	**Fish Creek Ran**	**1.94**	**242**	⇑P	**Pn**	**23 58 24.7**	**-0.5**
	baz=2.0,SNR=156						
K14A	**Jones Ranch, D**	**1.96**	**42**	⇑P	**Pn**	**23 58 24.2**	**-1.2**
	baz=1.9,SNR=404						
N09A	**Rock Creek Ran**	**1.97**	**264**	⇓P	**Pn**	**23 58 24.5**	**-1.0**
	baz=2.0,SNR=146						
O15A	**The Old Anders**	**2.06**	**113**	⇑P	**Pn**	**23 58 25.2**	**-1.5**
	baz=2.1,SNR=238						
Q12A	**Willow Creek R**	**2.06**	**177**	⇑P	**Pn**	**23 58 26.3**	**-0.5**
	baz=2.1,SNR=290						
P14A	**Drum Mountains**	**2.08**	**136**	⇓P	**Pn**	**23 58 25.9**	**-1.2**

	baz=2.1,SNR=527						
L15A	Malad City	2.12	64	P	Pn	23 58 26.6	-1.1
	baz=2.1,SNR=520						
J12A	Stokes Ranch,	2.15	357	⇑P	Pn	23 58 27.5	-0.5
	baz=2.1,SNR=1000						
NOQ	North Oquirrh	2.19	101	*e*Pn	Pn	23 58 28.0	-0.5
K10A	MacKenzie Ranc	2.21	320	⇑P	Pn	23 58 28.4	-0.3
	baz=2.2,SNR=307						
L09A	Wilkinson Ranc	2.24	295	P	Pn	23 58 28.9	-0.4
	baz=2.2,SNR=345						
Q13A	Wheeler Ranch,	2.26	161	⇓P	Pn	23 58 28.6	-0.9
	baz=2.3,SNR=485						
P09A	Austin	2.28	228	⇑P	Pn	23 58 29.7	-0.1
	baz=2.3						
Q11A	Duckwater	2.32	194	P	Pn	23 58 30.4	0.0
	baz=2.4,SNR=532						
J13A	Cove Ranch, Pi	2.36	14	P	Pn	23 58 30.7	-0.2
	baz=2.3,SNR=1000						
K15A	Arbon	2.40	48	⇑P	Pn	23 58 30.8	-0.6
	baz=2.4,SNR=283						
MFID	Camas Ranch	2.40	344	⇓P	Pn	23 58 31.3	-0.2
	baz=2.4,SNR=390						
N08A	GE Springer Mi	2.44	263	P	Pn	23 58 30.9	-1.0
	baz=2.4,SNR=67						
CTU	Camp Tracy	2.46	99	*e*Pn	Pn	23 58 31.5	-0.7
J14A	Carey	2.46	25	P	Pn	23 58 32.2	0.0
	baz=2.4,SNR=1000						
Q14A	Sevier Lake (B	2.47	148	⇑P	Pn	23 58 31.1	-1.3
	baz=2.5,SNR=452						
NLU	North Lily Min	2.47	117	*e*Pn	Pn	23 58 30.6	-1.9
HLID	Hailey	2.49	9	⇑P	Pn	23 58 32.6	-0.1
	baz=2.4,SNR=1000						
HLID	Hailey	2.49	9	*e*Pn	Pn	23 58 32.3	-0.4
M16A	Huntsville	2.51	84	⇓P	Pn	23 58 31.7	-1.3
	baz=2.5						
Q10A	Clear Creek Ra	2.54	207	⇑P	Pn	23 58 33.5	+0.2
	baz=2.6,SNR=520						
P15A	Leamington	2.55	126	P	Pn	23 58 32.1	-1.4
	baz=2.6,SNR=352						
O08A	Rochester Mine	2.57	253	P	Pn	23 58 33.0	-0.7
	baz=2.6,SNR=115						
M08A	Happy Creek Ra	2.61	279	P	Pn	23 58 33.6	-0.7
	baz=2.6,SNR=68						
K09A	Rome	2.62	308	⇓P	Pn	23 58 34.0	-0.4
	baz=2.6						
N16A	Rees Ranch, Co	2.67	93	⇓P	Pn	23 58 34.2	-0.9
	baz=2.6,SNR=38						
J10A	Berg Farm, Mel	2.69	330	⇓P	Pn	23 58 35.7	+0.3
	baz=2.7						
I12A	Atlanta	2.69	357	⇓P	Pn	23 58 35.0	-0.5
	baz=2.6,SNR=1000						
JLU	Jordanelle	2.70	100	*e*Pn	Pn	23 58 34.3	-1.2
MPU	Maple Canyon	2.75	112	*e*Pn	Pn	23 58 34.8	-1.5
L08A	Fields	2.77	294	⇑P	Pn	23 58 35.9	-0.6
	baz=2.8,SNR=298						
O16A	Springville	2.77	108	⇑P	Pn	23 58 34.9	-1.6
	baz=2.8						
P08A	Dixie Valley	2.78	241	P	Pn	23 58 36.5	-0.1
	baz=2.8,SNR=81						
R12A	Pony Springs,	2.78	175	⇓P	Pn	23 58 36.5	-0.2
	baz=2.8,SNR=95						
L16A	Fish Haven	2.79	70	⇑P	Pn	23 58 36.3	-0.5
	baz=2.8,SNR=93						
R11A	Troy Canyon, C	2.79	190	P	Pn	23 58 36.7	-0.1
	baz=2.8,SNR=821						
Q09A	Carvers	2.84	218	⇓P	Pn	23 58 37.7	+0.1
	baz=2.9,SNR=60						
I13A	Wildhorse Cree	2.88	12	⇓P	Pn	23 58 38.3	+0.3
	baz=2.8,SNR=665						
Q15A	Fillmore	2.88	136	⇓P	Pn	23 58 36.5	-1.6
	baz=2.9,SNR=98						
DAU	Daniels Canyon	2.89	103	*e*Pn	Pn	23 58 37.2	-0.9
I11A	Placerville	2.91	345	⇑P	Pn	23 58 38.3	-0.1
	baz=2.9						
P16A	Fountain Green	2.92	120	⇓P	Pn	23 58 37.1	-1.6
	baz=2.9,SNR=15						
J15A	Blackfoot	2.96	38	P	Pn	23 58 38.7	-0.4
	baz=2.9,SNR=263						
R10A	Warm Springs	3.00	201	⇓P	Pn	23 58 40.3	+0.6
	baz=3.0						
R13A	O'Grain Ranch,	3.02	165	P	Pn	23 58 40.2	+0.3
	baz=3.1,SNR=555						
I14A	Mackay	3.03	21	P	Pn	23 58 40.4	+0.2
	baz=3.0,SNR=138						
K16A	Soda Springs	3.04	54	⇑P	Pn	23 58 40.2	-0.1
	baz=3.0						
J09A	Fry Pan Ranch,	3.06	318	⇓P	Pn	23 58 40.7	+0.1
	baz=3.0,SNR=14						
WVOR	Wild Horse Val	3.06	297	*e*Pn	Pn	23 58 40.2	-0.4
WVOR				*e*Sg	Sg	23 59 25.8	-4.7
N07B	Gerlach	3.07	265	⇑P	Pn	23 58 39.7	-0.9
	baz=3.1,SNR=95						
N17A	Moffit Pass	3.12	92	⇓P	Pn	23 58 41.4	+0.1
	baz=3.1						
O07A	Toulon	3.14	254	P	Pn	23 58 40.6	-0.9
	baz=3.2,SNR=381						
R14A	James Farms, M	3.17	151	⇑P	Pn	23 58 41.2	-0.8
	baz=3.2,SNR=18						
M07A	Soldier Meadow	3.20	277	⇓P	Pn	23 58 41.8	-0.6
	baz=3.2,SNR=126						
Q08A	Gabbs	3.21	227	⇑P	Pn	23 58 42.3	-0.2
	baz=3.2,SNR=68						
L17A	Cokeville	3.21	71	⇑P	Pn	23 58 42.8	+0.1
	baz=3.2						
M17A	Scullys Gap (B	3.25	82	⇑P	Pn	23 58 43.3	+0.2
	baz=3.2						
J16A	Bone	3.29	48	⇓P	Pn	23 58 43.4	-0.3
	baz=3.2,SNR=72						
R09A	Tonopah	3.30	211	⇓P	Pn	23 58 44.0	+0.2
	baz=3.3						
AHID	Auburn Hatcher	3.32	59	*e*Pn	Pn	23 58 44.1	+0.1
O17A	Robinson Place	3.33	104	⇓P	Pn	23 58 43.3	-0.9
	baz=3.3						
MSU	Marysvale	3.35	140	*e*Pn	Pn	23 58 44.0	-0.6
TMUT	Trail Mountain	3.38	121	*e*Pn	Pn	23 58 44.6	-0.3
P07A	Fallon	3.39	244	⇑P	Pn	23 58 44.7	-0.4
	baz=3.4,SNR=36						
I15A	Monteview	3.42	31	⇑P	Pn	23 58 45.1	-0.4
	baz=3.4						
L07A	Adell	3.42	287	⇑P	Pn	23 58 45.2	-0.3
	baz=3.4,SNR=24						
S10A	Tonopah Range,	3.42	202	⇑P	Pn	23 58 45.9	+0.4
	baz=3.5,SNR=151						
K17A	Gardner Place,	3.43	60	⇑P	Pn	23 58 45.4	-0.2
	baz=3.4						
H12A	Diamond D Ranc	3.45	1	⇓P	Pn	23 58 46.0	+0.1
	baz=3.4						
J08A	Circle Bar Ran	3.46	312	⇑P	Pn	23 58 46.6	+0.6
	baz=3.4						
S12A	Delamar Landin	3.49	179	⇓P	Pn	23 58 46.6	+0.1
	baz=3.5,SNR=68						
H13A	Challis	3.50	8	⇑P	Pn	23 58 47.4	+0.9
	baz=3.4						
RRI2	Red Ridge	3.50	49	*e*Pn	Pn	23 58 46.9	+0.3
S11A	Rachel	3.51	190	⇑P	Pn	23 58 46.8	+0.1
	baz=3.6,SNR=65						
ARUT	Antelope Range	3.51	160	*e*Pn	Pn	23 58 46.7	0.0
I09A	Lost Marbles R	3.53	325	⇑P	Pn	23 58 48.0	+1.0
	baz=3.5						
R15A	Junction	3.55	144	⇓P	Pn	23 58 46.9	-0.4
	baz=3.6,SNR=25						
K07A	Rock Creek Ran	3.58	298	⇑P	Pn	23 58 47.5	-0.2
	baz=3.6,SNR=49						
P17A	Butcher Ranch,	3.60	115	⇑P	Pn	23 58 47.7	-0.3
	baz=3.6						
S14A	Cedar City	3.61	157	⇑P	Pn	23 58 48.1	0.0
	baz=3.7,SNR=22						
S13A	Holt Ranch, En	3.62	166	P	Pn	23 58 48.1	0.0
	baz=3.7,SNR=371						
Q16A	Castle Valley	3.63	126	⇓P	Pn	23 58 47.7	-0.6
	baz=3.6,SNR=9.9						
PAHR	Pah Rah Range	3.66	249	*e*Pn	Pn	23 58 52.8	+3.9
Q07A	Schurz	3.67	235	⇓P	Pn	23 58 48.5	-0.4
	baz=3.7						
R08A	Mina	3.67	223	⇑P	Pn	23 58 48.9	-0.1
	baz=3.7						
H11A	Donnelly	3.68	348	⇓P	Pn	23 58 48.6	-0.5
	baz=3.6						
M18A	Lyman	3.69	83	⇓P	Pn	23 58 49.0	-0.2
	baz=3.7						
NVAR	Mina Array Bea	3.72	225	Pn	Pn	23 58 49.5	0.0
	75nm,0.3s,baz=39,slow=12,SNR=664						
NVAR				Sn	Sn	23 59 35.3	+1.9
	84nm,0.3s,baz=52,slow=17,SNR=3.3						
NVAR				Lg		23 59 50.6	
	282nm,0.3s,baz=142,slow=6.8,SNR=10						
N06A	Buffalo Meadow	3.72	266	⇓P	Pn	23 58 48.7	-0.9
	baz=3.7,SNR=122						
H10A	Noah's Angus R	3.73	340	⇑P	Pn	23 58 50.0	+0.3
	baz=3.7,SNR=125						
DCID1	Drake Creek	3.74	47	*e*Pn	Pn	23 58 50.2	+0.3
CCUT	Cedar City	3.75	160	*e*Pn	Pn	23 58 50.2	+0.2
CCUT				*e*Pg	Pg	23 59 02.4	-1.7
CCUT				*e*Sn	Sn	23 59 34.3	0.0
I16A	Newdale	3.77	42	⇑P	Pn	23 58 50.3	0.0
	baz=3.7						
L18A	Fontenelle, Gr	3.78	76	⇓P	Pn	23 58 50.6	+0.2
	baz=3.7						
REDW	Red Top Meadow	3.79	52	*e*Pn	Pn	23 58 50.7	+0.2
TPAW	Teton Pass	3.80	50	*e*Pn	Pn	23 58 50.5	-0.2
S09A	Goldfield	3.81	208	⇓P	Pn	23 58 51.0	+0.2
	baz=3.9,SNR=43						
O06A	Flanigan	3.83	257	⇑P	Pn	23 58 50.3	-0.8
	baz=3.8,SNR=61						
O18A	Roosevelt	3.85	101	⇑P	Pn	23 58 52.8	+1.4
	baz=3.8						
T11A	Corn Creek, Al	3.86	183	⇓P	Pn	23 58 51.6	+0.1
	baz=3.9,SNR=155						
J17A	Brown Place, J	3.87	53	⇓P	Pn	23 58 51.9	+0.2
	baz=3.8						
I08A	Drewsey	3.88	318	⇓P	Pn	23 58 51.9	+0.1
	baz=3.8,SNR=5.1						
R16A	Teasdale	3.88	135	⇓P	Pn	23 58 51.3	-0.5
	baz=3.9						
H15A	Lima	3.90	25	⇑P	Pn	23 58 52.0	0.0
	baz=3.9						
SNOW	Snow King Moun	3.90	51	*e*Pn	Pn	23 58 53.1	+1.0
SRU	San Rafael	3.93	119	⇑P	Pn	23 58 52.2	-0.3
	baz=3.9						
SRU	San Rafael	3.93	119	*e*Pn	Pn	23 58 52.6	+0.1
J07A	Hines	3.96	306	⇑P	Pn	23 58 54.1	+1.2
	baz=3.9						
S15A	Panguitch	3.96	149	⇓P	Pn	23 58 52.9	0.0
	baz=4.0,SNR=36						
K18A	Toltan Ranch,	3.97	66	⇑P	Pn	23 58 53.8	+0.8
	baz=3.9						
G13A	Cobalt	4.02	7	⇓P	Pn	23 58 54.9	+1.2
	baz=4.0						
MCMT	McKenzie Canyo	4.03	22	*e*Pn	Pn	23 58 54.7	+0.9
G12A	Big Creek, Yel	4.03	356	⇑P	Pn	23 58 54.6	+0.7
	baz=4.0						
P06A	Stead Airport,	4.04	251	⇑P	Pn	23 58 53.3	-0.7
	baz=4.1,SNR=22						
IMW	Indian Meadow	4.07	45	*e*Pn	Pn	23 58 54.7	+0.3
LOHW	Long Hollow	4.08	51	*e*Pn	Pn	23 58 54.9	+0.4
H09A	Durkee	4.08	332	⇑P	Pn	23 58 55.3	+0.8
	baz=4.0						
MOOW	Moose Ponds	4.08	48	*e*Pn	Pn	23 58 54.6	+0.1
WCN	Washoe City	4.10	246	⇓P	Pn	23 58 54.3	-0.5
	baz=4.1,SNR=67						
MOD	Modoc	4.10	283	*e*Pn	Pn	23 58 54.2	-0.7
BMO	Blue Mountains	4.13	336	*e*Pn	Pn	23 58 56.3	+1.1
T13A	Saint George	4.16	168	⇓P	Pn	23 58 55.2	-0.4
	baz=4.2,SNR=11						
Q18A	Rafter H Ranch	4.20	117	⇓P	Pn	23 58 57.4	+1.3
	baz=4.2						
R17A	Hanksville Air	4.22	128	⇑P	Pn	23 58 57.1	+0.6
	baz=4.2						
J18A	Kendall Valley	4.22	58	⇑P	Pn	23 58 57.1	+0.6
	baz=4.2						
G14A	Jackson	4.28	14	⇑P	Pn	23 58 57.9	+0.6
	baz=4.2						
I17A	Pilgrim Ck.	4.29	47	⇑P	Pn	23 58 58.0	+0.6
	baz=4.2						
T14A	Hurricane	4.29	160	⇓P	Pn	23 58 57.4	0.0
	baz=4.3,SNR=61						
BEKR	Beckwourth	4.31	255	P	Pn	23 58 57.1	-0.6
	baz=4.3,SNR=172						
L19A	Farson	4.31	75	⇑P	Pn	23 58 58.9	+1.2
	baz=4.3						
R06C	Coleville	4.32	235	⇓P	Pn	23 58 57.6	-0.3
	baz=4.4,SNR=62						
WAKR	Walker	4.32	235	*e*Pn	Pn	23 58 57.6	-0.3
BW06	Boulder Array	4.35	66	⇑P	Pn	23 58 59.4	+1.2
	baz=4.3						
BW06	Boulder Array	4.35	66	*e*Pn	Pn	23 58 59.4	+1.1
PDAR	Pinedale Array	4.35	66	Pn	Pn	23 58 59.8	+1.5
	8.4nm,0.3s,baz=235,slow=12,SNR=448						
PDAR				Lg		00 00 05.0	
	24nm,0.3s,baz=241,slow=22,SNR=9.0						
T12A	Moapa	4.37	178	⇑P	Pn	23 58 59.7	+1.1
	baz=4.4						
H08A	Prairie City	4.38	322	⇓P	Pn	23 58 59.3	+0.7
	baz=4.3						
M19A	Rock Springs	4.38	83	⇑P	Pn	23 58 59.1	+0.4
	baz=4.3						
J06A	Christmas Vall	4.42	301	⇑P	Pn	23 58 59.7	+0.5
	baz=4.4,SNR=24						
G15A	Dillon	4.44	23	⇓P	Pn	23 58 59.8	+0.3
	baz=4.4						
G10A	Bishop Farm, J	4.48	340	⇑P	Pn	23 59 00.0	0.0
	baz=4.4						
I07A	Izee	4.49	313	⇓P	Pn	23 59 01.4	+1.2
	baz=4.5						
O19A	Miners Draw (B	4.50	98	⇑P	Pn	23 59 01.6	+1.4
	baz=4.5						
H16A	Russell Place,	4.51	36	⇑P	Pn	23 59 00.7	+0.2
	baz=4.5						
GRAC	Grapevine Rang	4.51	206	⇓P	Pn	23 59 01.3	+0.9
	baz=4.6						
YFT	Old Faithful	4.51	41	*e*Pn	Pn	23 59 03.8	+3.4
QLMT	Earthquake Lak	4.53	34	*e*Pn	Pn	23 59 03.4	+2.6
T15A	Red Dirt Ranch	4.54	153	⇑P	Pn	23 59 00.7	-0.2
	baz=4.6						
DLMT	Dillon	4.59	21	*e*Pn	Pn	23 59 03.0	+1.5
SHPR	Sheep Range	4.59	182	*e*Pn	Pn	23 59 01.8	+0.2
MLAC	Mammoth Lakes	4.59	222	⇑P	Pn	23 59 02.5	+0.9
	baz=4.6						
I18A	Diamond G Ranc	4.60	54	⇓P	Pn	23 59 02.7	+1.0
	baz=4.6						
H17A	Grant Village	4.60	43	⇑P	Pn	23 59 02.9	+1.2
	baz=4.6						
F12A	Elk City	4.66	357	⇓P	Pn	23 59 03.1	+0.6
	baz=4.6						
G09A	Cove	4.66	335	⇑P	Pn	23 59 03.3	+0.8
	baz=4.6						
U12A	Valley of Fire	4.67	176	⇓P	Pn	23 59 03.1	+0.4
	baz=4.7						
MTUM	Tungsten Hills	4.68	218	*e*Pn	Pn	23 59 04.2	+1.4
U11A	Corn Creek	4.69	184	⇑P	Pn	23 59 03.5	+0.7
	baz=4.7						
F13A	Darby	4.71	5	⇑P	Pn	23 59 03.7	+0.6
	baz=4.7						
K05A	Summer Lake	4.72	292	P	Pn	23 59 03.8	+0.4
	baz=4.7,SNR=17						
U13A	Pakoon Wash	4.74	170	⇑P	Pn	23 59 03.6	-0.1
	baz=4.8,SNR=55						
YNR	Norris Junctio	4.78	40	*e*Pn	Pn	23 59 07.7	+3.6
F14A	Wisdom	4.84	13	⇑P	Pn	23 59 05.5	+0.5
	baz=4.8						
U14A	Mt Trumbull	4.88	163	⇑P	Pn	23 59 06.2	+0.7
	baz=4.9						
T16A	Glen Canyon Da	4.91	146	⇓P	Pn	23 59 06.5	+0.6
	baz=4.9						
LRM	Limekiln Ridge	5.05	20	*e*Pn	Pn	23 59 08.9	+0.9
BOZ	Bozeman (W)	5.14	27	*e*Pn	Pn	23 59 10.7	+1.5
CMB	Columbia Colle	5.20	236	*e*Pn	Pn	23 59 09.6	-0.4
T17A	Navajo Res., N	5.21	140	⇑P	Pn	23 59 11.2	+1.1
	baz=5.2						
V11A	Goodsprings	5.27	184	⇓P	Pn	23 59 11.2	+0.3
	baz=5.3						
LNOR	Lincton Mounta	5.35	334	*e*Pn	Pn	23 59 14.4	+2.4
V12A	Nelson	5.37	179	⇑P	Pn	23 59 12.6	+0.3
	baz=5.4,SNR=216						
PV04	Paradox Valley	5.38	118	*e*Pn	Pn	23 59 14.7	+2.2
V14A	Boquillas Ranc	5.65	165	⇑P	Pn	23 59 17.4	+1.3
	baz=5.7						
V15A	Kaibab Nationa	5.71	157	⇑P	Pn	23 59 17.5	+0.6
	baz=5.8						
MSO	Missoula	5.77	7	*e*Pn	Pn	23 59 19.0	+1.3
RLMT	Red Lodge	5.78	44	*e*Pn	Pn	23 59 22.0	+4.1
U16A	Tuba City	5.78	148	⇑P	Pn	23 59 18.9	+1.0
	baz=5.8						
WDC	Whiskeytown Da	5.78	267	*e*Pn	Pn	23 59 16.7	-1.3
W12A	Cal Nev Ari	5.79	179	⇑P	Pn	23 59 18.7	+0.6
	baz=5.8						
RWWY	Rawlins	5.85	82	*e*Pn	Pn	23 59 20.6	+1.7
YBH	Yreka Blue Hor	5.87	279	Pn	Pn	23 59 19.6	+0.5
	0.4nm,0.3s,baz=144,slow=19,SNR=5.2						
YBH				Lg		00 00 56.1	
	7.1nm,0.3s,baz=333,slow=16,SNR=7.9						
YBH				LR	LR	00 02 06.4	
	comp=Z,2µm,18.6s,baz=87,slow=44						
YBH	Yreka Blue Hor	5.87	279	*e*Pn	Pn	23 59 21.9	+2.7
CHMT	Chamberlain Mo	5.94	11	*e*Pn	Pn	23 59 20.8	+0.8
GSC	Goldstone	5.97	195	⇓P	Pn	23 59 22.0	+1.4
	baz=6.0						
GSC	Goldstone	5.97	195	*e*Pn	Pn	23 59 21.9	+1.3
LDFC	Landfair	6.02	181	*e*Pn	Pn	23 59 21.3	+0.1
HRY	Holter Researc	6.04	21	*e*Pn	Pn	23 59 23.7	+2.2
ISA	Isabella	6.10	208	*e*Pn	Pn	23 59 24.1	+1.9
HUMO	Hull Mountain	6.17	287	*e*Pn	Pn	23 59 26.3	+3.1
SLMT	Seeley Lake	6.23	9	*e*Pn	Pn	23 59 24.9	+0.9
HAWA	Hanford	6.24	329	*e*Pn	Pn	23 59 23.1	-1.1
WUAZ	Wupatki	6.24	152	*e*Pn	Pn	23 59 26.1	+1.8
MVCO	Mesa Verde	6.34	126	*e*Pn	Pn	23 59 28.0	+2.4
SWMT	Swartz Lake	6.44	6	*e*Pn	Pn	23 59 28.5	+1.5
KHMM	Horse Mountain	6.65	271	*e*Pb	Pb	23 59 49.2	+1.4
JTMT	Jette	6.66	4	*e*Pn	Pn	23 59 31.5	+1.5
BSMT	Bassoo Peak	6.75	1	*e*Pn	Pn	23 59 33.7	+2.5
YBMT	Yellow Bay	6.79	5	*e*Pn	Pn	23 59 33.4	+1.6
OSI	Osito Adit	7.13	206	*e*Pg	Pg	00 00 06.5	-2.2
PHWY	Pilot Hill	7.16	85	*e*Pn	Pn	23 59 38.4	+1.6
KEBM	Edson Butte	7.21	287	*e*Pg	Pg	00 00 07.6	-2.7
ISCO	Idaho Springs	7.24	97	*e*Pn	Pn	23 59 39.9	+2.0
MWC	Mount Wilson	7.30	201	*e*Pg	Pg	00 00 09.3	-2.5
PASC	Pasadena Art C	7.38	201	*e*Pg	Pg	00 00 11.9	-1.5
PASC				*e*Sg	Sg	00 01 46.5	-2.5
PFO	Pinyon Flat Ob	7.58	190	*e*Pn	Pn	23 59 44.0	+1.5
EGMT	Eagleton	7.85	26	*e*Pn	Pn	23 59 47.9	+1.6
GLA	Glamis	8.04	179	*e*Pn	Pn	23 59 50.1	+1.2
SDCO	Great Sand Dun	8.04	112	*e*Pn	Pn	23 59 51.7	+2.8
RSSD	Black Hills	8.59	66	*e*Pn	Pn	23 59 56.2	-0.3
ANMO	Albuquerque	9.08	130	Pn	Pn	00 00 03.0	-0.2
	0.1nm,0.3s,baz=321,slow=13,SNR=6.7						
ANMO				Lg		00 02 34.9	
	0.6nm,0.3s,baz=65,slow=18,SNR=3.9						
ANMO				LR	LR	00 04 08.4	
	comp=Z,1µm,20.3s,baz=132,slow=41						
TUC	Tucson	9.39	158	*e*Pn	Pn	00 00 09.7	+2.2
OGNE	Ogallala	9.76	87	*e*Pn	Pn	00 00 13.3	+0.8
DGMT	Dagmar	10.61	42	*e*Pn	Pn	00 00 25.6	+1.6
CBKS	Cedar Bluff	11.89	96	*e*Pn	Pn	00 00 42.4	+0.6
AMTX	Amarillo	12.16	116	*e*Pn	Pn	00 00 48.8	+3.4
GDL2	Guadalupe Moun	12.29	133	*e*Pn	Pn	00 00 53.0	+5.9
ECSD	EROS Data Cent	13.80	73	*e*Pn	Pn	00 01 05.3	-2.3
ECSD				*e*S	Sx	00 04 53.4	
KSU1	Kansas State U	14.18	92	*e*Pn	Pn	00 01 13.6	+0.6
TXAR	Lajitas Array	14.91	138	Pn	Pn	00 01 27.2	+4.3
	0.1nm,0.3s,baz=327,slow=9.8,SNR=80						
TXAR				Lg		00 05 44.8	
	baz=335,slow=29,SNR=3.8						
TXAR				LR	LR	00 07 50.9	
	comp=Z,733nm,21.2s,baz=10.0,slow=40						
ULM	Lac du Bonnet	16.13	49	LR	LR	00 07 55.1	
	comp=Z,301nm,19.6s,baz=235,slow=38						
JCT	Junction City	16.20	126	*e*P	Pn	00 01 41.7	+1.9
	27nm,0.9s						
LPIG	La Paz	17.39	166	LR	LR	00 08 55.9	
	comp=Z,484nm,18.3s,baz=15,slow=38						
NATX	Nacogdoches	18.76	113	*e*P	Pn	00 02 11.7	0.0
	54nm,0.9s						
UALR	University of	18.89	102	*e*P	Pn	00 02 14.7	+1.5
	46nm,1.2s						
SLM	Saint Louis	19.11	89	P	Pn	00 02 16.0	+0.1
	45nm,0.8s						
DLBC	Dease Lake	19.82	336	P	Pn	00 02 24.2	+0.1
	0.3nm,0.3s,baz=153,slow=6.8,SNR=3.4						
DLBC	Dease Lake	19.82	336	P	Pn	00 02 24.2	+0.1
PARMO	Parma	20.08	95	*e*P	P	00 02 21.8	-3.9
YKA	Yellowknife Ar	21.42	0	P	P	00 02 39.4	-0.5
	33nm,1.0s,mb4.6,baz=180,slow=9.4,SNR=45						
YKA				PcP	PcP	00 06 43.7	+0.8
	0.7nm,0.5s,baz=169,slow=1.6,SNR=7.1						
YKA	Yellowknife Ar	21.42	0	P	P	00 02 39.4	-0.5
YKA				PcP	PcP	00 06 43.7	+0.8
COLA	College	30.33	333	*e*P	P	00 04 05.1	+1.6
	44nm,1.3s,mb5.0						
BPAW	Bear Paw Mtn.	31.05	330	*e*P	P	00 04 11.5	+1.7
	14nm,1.2s,mb4.7						
RES	Resolute Bay	34.91	9	P	P	00 04 43.6	+0.2
	4.9nm,1.0s,mb4.4,baz=168,slow=10,SNR=5.9						
FRB	Frobisher Bay	35.08	34	P	P	00 04 45.5	+0.5
	3.8nm,0.7s,mb4.4,baz=205,slow=14,SNR=3.2						
SFJD	Kangerlussuaq	43.04	31	P	P	00 05 51.9	+0.4
	7.4nm,0.9s,mb4.4,baz=246,slow=14,SNR=2.8						
DOU	Dourbes	74.87	35	P	P	00 09 34.3	+1.6
BCLA	Clavier	74.94	35	P	P	00 09 34.7	+1.6
	comp=Z,18nm,2.2s,mb4.6						
MJAR	Matsushiro Arr	77.77	308	P	P	00 09 50.2	+0.8
	comp=Z,1.0nm,0.3s,mb4.2,baz=35,slow=7.0,SNR=4.1						
ESDC	Sonseca Array	78.02	47	P	P	00 09 50.7	-0.1
	comp=Z,0.5nm,0.6s,mb3.6,baz=304,slow=7.5,SNR=3.9						
CN2	Changchun	79.55	320	*e*P	P	00 10 00.1	+1.0
CN2				*e*sP	sP	00 10 07.1	+3.5
CN2				*e*S	S	00 19 59.3	-1.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				pmax	pmax		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,2µm,14.0s,MS5.6						
CN2				LR	LR		
	comp=E,1µm,14.0s,MS5.6						
CN2				LR	LR		
	comp=Z,2µm,11.0s,MS5.7						
KSRS	Korea Array	82.97	314	P	P	00 10 19.1	+1.7
	comp=Z,4.2nm,1.0s,mb4.4,baz=65,slow=5.0,SNR=6.6						
AKASG	Malin Array Be	83.35	22	P	P	00 10 18.1	-0.9
	comp=Z,2.0nm,0.7s,mb4.3,baz=318,slow=4.0,SNR=3.2						
CPUP	Villa Florida	85.74	131	P	P	00 10 31.2	-0.1
	comp=Z,0.4nm,0.4s,mb4.0,baz=347,slow=7.2,SNR=4.1						
HHC	Hu-ho-hao-te	88.16	327	*e*P	P	00 10 43.3	+0.2
HHC				pP	pP	00 10 47.9	+1.4
HHC				PP	PP	00 14 11.5	+2.3
HHC				SKS		00 21 08.1	
HHC				*e*S	S	00 21 22.8	-4.6
HHC				sS	sS	00 21 31.0	-1.9
HHC				SS	SS	00 27 13.5	-0.9
HHC				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.2						
HHC				LR	LR		
	comp=N,840nm,14.7s,MS5.4						
HHC				LR	LR		
	comp=E,670nm,15.5s,MS5.4						
HHC				LR	LR		
	comp=Z,550nm,13.9s,MS5.1						
XAN	Xi'an	95.02	325	P	P	00 11 14.6	-0.5
XAN				sP	sP	00 11 19.3	-0.4
XAN				PP	PP	00 15 02.9	-0.6
XAN				S	S	00 22 28.3	-1.5
XAN				sS	sS	00 22 34.0	-1.4
XAN				SS	SS	00 28 53.5	0.0
XAN				pmax	pmax		
	comp=Z,8.0nm,1.8s,mb4.8						
XAN				pmax	pmax		
	comp=Z,86nm,12.6s						
XAN				LR	LR		
	comp=N,340nm,18.3s,MS4.9						
XAN				LR	LR		
	comp=E,160nm,17.8s,MS4.9						
XAN				LR	LR		
	comp=Z,360nm,20.3s,MS4.8						
LZH	Lanzhou	95.34	329	*e*P	P	00 11 17.1	+0.6
LZH				pP	pP	00 11 21.6	+1.7
LZH				sP	sP	00 11 24.0	+2.9
LZH				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.4						
LZH				pmax	pmax		
	comp=Z,79nm,4.3s						
CD2	Chengdu	99.91	327	P	Pdif	00 11 36.0	-1.1
CD2				pP		00 11 40.8	
CD2				sP		00 11 43.0	
CD2				PP	PP	00 15 42.8	+1.7
CD2				SKS		00 22 12.8	
CD2				S	S	00 23 05.3	-6.4
CD2				sS	sS	00 23 13.3	-3.9
CD2				SS	SS	00 30 00.6	-1.7
CD2				LR	LR		
	comp=N,72nm,8.3s						
CD2				LR	LR		
	comp=Z,130nm,11.6s,MS4.7						
GYA	Guiyang	102.49	322	*e*P	Pdif	00 11 49.5	+0.9
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KMI	Kunming	105.40	325	P	PKiKP	00 16 15.5	0.0
KMI				pmax	pmax		
	comp=Z,7.0nm,1.3s						
KMI				pmax	pmax		

	comp=Z,8.0nm,1.1s						
KMI	Kunming	105.40	325	P	PKiKP	00 16 15.5	0.0
KMI				pmax	pmax		
	comp=Z,8.0nm,1.1s						
WRA	Warramunga Arr	118.26	268	PKP	PKPdf	00 16 39.8	0.0
	comp=Z,1.5nm,0.7s,baz=34,slow=1.7,SNR=8.4						
ASAR	Alice Springs	120.76	264	PKP	PKPdf	00 16 45.0	+0.4
	comp=Z,0.3nm,0.3s,baz=57,slow=2.9,SNR=4.1						
QSPA	South Pole Qui	130.92	180	PKP	PKPdf	00 17 04.8	+2.5
	comp=Z,7.2nm,1.0s,baz=162,slow=2.9,SNR=6.4						
QSPA	South Pole Qui	130.92	180	PKP	PKPdf	00 17 04.8	+2.5
SUR	Sutherland	143.82	91	PKP	PKPdf	00 17 27.4	0.0
	comp=Z,14nm,0.8s,baz=272,slow=3.2,SNR=6.7						
BOSA	Boshof	145.34	82	PKPbc	PKPbc	00 17 30.1	+0.1
	comp=Z,4.8nm,0.8s,baz=339,slow=4.0,SNR=5.7						

IDC **22** *00:05:06.6±0.7, 51°.05N×177°.22W, h0^{km}, mb4.4/23, mb1 4.5/24, mb1mx4.5/31, mbtmp4.4/24, ML4.6/1, MS4.9/1, Ms1 4.9/1, ms1mx3.7/45, Error ellipse: s-maj=22.7km s-min=13.2km az=156.0*

BJI **22** *00:05:08.3, 51°.10N×177°.20W, h33^{km}, mB5.3/10, mb4.8/22, Ms5.2/6, Ms7 4.8/6*

ISCJB **22** *00:05:10.4±1.5, 51°.00N±0°.06×177°.24W±0°.05, h31^{km}±9^{km}, mb4.7/100, MS4.8/4, Error ellipse: s-maj=11.0km s-min=5.0km az=166.4*

MOS **22** *00:05:11.2±0.9, 51°.02N×177°.17W, h39^{km}, mb4.9/41, Error ellipse: s-maj=14.5km s-min=6.6km az=91.3*

NEIC **22** *00:05:13.4±0.8, 51°.12N×177°.21W, h40^{km}±5^{km}, mb4.7/65, ML4.5(AEIC), Error ellipse: s-maj=8.0km s-min=3.9km az=177.0*

ISC 22 00:05:13.7±0.9**, 51°.09N**±0°.07×**177°.22W**±0°.05**, h42**^{km}±7^{km}**, h28**^{km}±6.4^{km}**:pP-P, n254, σ0ˢ.92**/256**, mb4.7**/100**, MS4.8**/4**, 52C-14D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	Adak	0.86	23	P	Pn	00 05 28.2	-1.1
ADK				S	Sn	00 05 42.5	+1.8
ATKA	Atka Island	2.19	58	P	Pn	00 05 46.6	-0.9
ATKA				S	Sn	00 06 16.0	+2.7
UNV	Unalaska Valle	7.10	63	*e*Pn	Pn	00 06 55.0	+0.1
	54nm,0.7s						
UNV				P		00 06 56.2	
UNV				*e*Sn	Sn	00 08 12.8	-1.4
SPIA	Saint Paul Isl	7.34	31	P	Pn	00 07 00.7	+2.6
SDPT	Sand Point	10.90	60	*e*P	Pn	00 07 45.4	-1.4
	105nm,0.8s						
GAMB	Gambell	13.05	11	*e*Pn	Pn	00 08 17.8	+1.6
	107nm,1.4s						
OHAK	Old Harbor	15.25	57	*e*Pn	Pn	00 08 41.5	-4.3
	26nm,0.6s						
OHAK				*e*Sn	Sn	00 11 42.2	+8.8
TNA	Tin City	15.28	15	*e*Pn	Pn	00 08 43.4	-2.7
	40nm,1.3s						
PEA0B	Petropavlovsk-	15.52	287	*e*Pn	Pn	00 08 49.9	+0.6
PETK	Petropavlovsk-	15.52	287	Pn	Pn	00 08 51.5	+2.2
	0.7nm,0.3s,baz=93,slow=16,SNR=6.1						
SVW2	Sparrevohn	15.61	42	*e*Pn	Pn	00 08 51.1	+0.7
KDAK	Kodiak Island	15.76	55	Pn	Pn	00 08 48.9	-3.4
	2.2nm,0.3s,baz=291,slow=10,SNR=19						
KDAK				Sn	Sn	00 11 47.9	+2.3
	1.1nm,0.3s,baz=254,slow=21,SNR=6.1						
KDAK	Kodiak Island	15.76	55	Pn	Pn	00 08 48.9	-3.4
KDAK				*e*Pn	Pn	00 08 49.3	-3.0
KDAK				Sn	Sn	00 11 47.9	+2.3
SEW	Seward	17.97	49	*e*P	Pn	00 09 17.2	-2.8
	13nm,0.3s						
RC01	Rabbit Creek A	18.16	46	*e*P	Pn	00 09 21.8	-0.5
KTH	Kantishna Hill	18.72	38	*e*Pn	Pn	00 09 28.4	-0.7
	37nm,0.9s						
BILL	Bilibino	18.82	341	*e*P	Pn	00 09 27.8	-2.4
BILL				pmax	pmax		
	comp=Z,2.0nm,0.4s						
BILL	Bilibino	18.82	341	*e*P	Pn	00 09 27.8	-2.4
	comp=Z,1.8nm,0.4s						
COLA	College	20.54	37	*e*P	P	00 09 47.3	-0.8
COLA				*e*S	S	00 13 31.8	-3.4
COLA				pmax	pmax		
	comp=Z,11nm,0.9s						
COLA	College	20.54	37	*e*P	P	00 09 47.3	-0.8
	comp=Z,11nm,0.9s						
COLA				*e*S	S	00 13 31.8	-3.3
EGAK	Eagle	23.12	40	*e*P	P	00 10 13.9	-1.8
	comp=Z,8.9nm,0.6s,mb4.4						
DAWY	Dawson	23.64	42	*e*P	P	00 10 20.0	-0.7
INK	Inuvik	27.13	34	P	P	00 10 51.1	-1.1
	comp=Z,1.2nm,0.3s,mb3.9,baz=233,slow=6.1,SNR=8.5						
KLR	Kul'dur	32.22	287	*e*P	P	00 11 32.0	-5.4
YKA	Yellowknife Ar	34.71	46	P	P	00 11 58.0	-1.0
	comp=Z,2.5nm,0.7s,mb4.2,baz=284,slow=7.9,SNR=12						
YKA	Yellowknife Ar	34.71	46	P	P	00 11 58.0	-1.0
MAT	Matsushiro	34.73	263	P	P	00 11 59.7	+0.3
MJAR	Matsushiro Arr	34.73	263	P	P	00 11 58.3	-1.1
	comp=Z,0.7nm,0.3s,mb4.1,baz=47,slow=7.7,SNR=4.0						
MDJ	Mudanjiang	35.60	281	P	P	00 12 06.1	-0.8
MDJ				pmax	pmax		
	comp=Z,12nm,2.4s,mb4.4						
JHJ	Hachijo jima 2	35.99	257	LR	LR	00 25 16.0	
	comp=Z,2µm,19.4s,MS4.8,baz=240,slow=34						
NEW	Newport	38.05	70	*e*P	P	00 12 28.3	+0.7
NEW				pmax	pmax		
	comp=Z,8.0nm,0.6s						
NEW	Newport	38.05	70	*e*P	P	00 12 28.3	+0.6
	comp=Z,7.6nm,0.6s,mb4.6						
EDM	Edmonton	38.08	61	*e*P	P	00 12 28.8	+1.0
BSMT	Bassoo Peak	39.63	69	*e*P	P	00 12 41.6	+0.8
	comp=Z,7.2nm,0.7s,mb4.5						
JTMT	Jette	39.97	69	*e*P	P	00 12 44.7	+1.0
	comp=Z,3.7nm,0.8s,mb4.2						
MSO	Missoula	40.63	70	*e*P	P	00 12 49.5	+0.3
	comp=Z,4.6nm,0.8s,mb4.2						
KSRS	Korea Array	40.64	272	P	P	00 12 49.1	-0.2
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.8						
KSRS	Korea Array	40.64	272	P	P	00 12 49.0	-0.3
	comp=Z,2.3nm,0.8s,mb3.8,baz=56,slow=8.7,SNR=5.6						
SLMT	Seeley Lake	40.69	70	*e*P	P	00 12 50.2	+0.5
	comp=Z,11nm,1.0s,mb4.4						
HRY	Holter Researc	41.94	69	*e*P	P	00 13 00.5	+0.6
	comp=Z,5.8nm,0.6s,mb4.4						
MCMT	McKenzie Canyo	42.32	72	*e*P	P	00 13 03.6	+0.6
	comp=Z,4.1nm,0.5s,mb4.3						
BOZ	Bozeman (W)	42.61	71	*e*P	P	00 13 04.8	-0.6
BOZ				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
BOZ	Bozeman (W)	42.61	71	*e*P	P	00 13 04.8	-0.6
	comp=Z,5.2nm,0.7s,mb4.4						
YNR	Norris Junctio	43.68	71	*e*P	P	00 13 15.8	+1.8
	comp=Z,16nm,1.2s,mb4.6						
RLMT	Red Lodge	44.30	70	*e*P	P	00 13 19.8	+0.8
	comp=Z,10nm,0.9s,mb4.6						
BW06	Boulder Array	45.45	73	*e*P	P	00 13 28.7	+0.5
	comp=Z,8.0nm,0.8s,mb4.6						
PDAR	Pinedale Array	45.45	73	P	P	00 13 28.7	+0.6
	comp=Z,8.8nm,0.7s,mb4.7,baz=304,slow=3.8,SNR=51						
PDAR				PcP	PcP	00 15 06.4	-0.2
	comp=Z,3.9nm,0.8s,baz=217,slow=0.7,SNR=4.3						
SONM	Songino Array	47.66	298	P	P	00 13 45.5	+0.1
	comp=Z,3.9nm,0.6s,mb4.6,baz=74,slow=5.5,SNR=20						
SONM				PcP	PcP	00 15 14.0	-0.2
	comp=Z,0.8nm,0.8s,baz=64,slow=3.4,SNR=2.1						
ZAK	Zakamensk	47.95	302	*e*P	P	00 13 46.7	-0.9
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
PV04	Paradox Valley	48.46	77	*e*P	P	00 13 52.5	+0.7
PV01	Paradox Valley	48.83	77	*e*P	P	00 13 55.0	+0.5
	comp=Z,718nm,0.7s						
ULM	Lac du Bonnet	49.01	57	P	P	00 13 54.1	-1.6
	comp=Z,2.8nm,0.6s,mb4.5,baz=309,slow=10,SNR=4.6						
NJ2	Nanjing	49.82	273	*e*P	P	00 14 04.5	+2.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
SPITS	Spitsbergen Ar	50.73	356	P	P	00 14 07.0	-1.4
	comp=Z,46nm,1.2s,mb5.3,baz=57,slow=7.2,SNR=6.5						
FRB	Frobisher Bay	52.75	32	P	P	00 14 22.6	-1.0
	comp=Z,2.7nm,0.4s,mb4.5,baz=313,slow=7.6,SNR=12						
XAN	Xi'an	54.69	282	P	P	00 14 37.5	-0.8
XAN				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.3						
XAN				pmax	pmax		
	comp=Z,420nm,11.1s						
ZALV	Zalesovo Beam	54.95	314	PcP	PcP	00 15 41.7	+0.5
	comp=Z,4.5nm,0.7s,baz=38,slow=3.8,SNR=7.7						
KSU1	Kansas State U	55.42	69	*e*P	P	00 14 43.0	-0.4
	comp=Z,157nm,2.1s,mb5.7						
SFJD	Kangerlussuaq	55.54	23	*e*P	pP	00 14 54.0	-2.0
SFJD				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
SFJD				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.3						
SFJD	Kangerlussuaq	55.54	23	*i* P	pP	00 14 54.0	-2.0
	comp=Z,9.2nm,0.9s						
SFJD							
	comp=Z,3µm,20.0s						
LZH	Lanzhou	56.42	287	*e*P	P	00 14 47.3	-3.4
LZH				pP	pP	00 15 04.1	+1.3
LZH				sP	sP	00 15 10.8	+3.1
LZH				*e*PP	PP	00 16 54.8	-1.5
LZH				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,75nm,5.9s						
LZH				LR	LR		
	comp=N,280nm,15.8s						
LZH				LR	LR		
	comp=Z,380nm,18.5s,MS4.5						
JFWS	Jewell Farm	56.56	62	*e*P	P	00 14 50.8	-0.8
JFWS				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
JFWS	Jewell Farm	56.56	62	*e*P	P	00 14 50.8	-0.8
	comp=Z,9.6nm,0.7s,mb4.9						
GTA	Gaotai	56.60	293	P	P	00 14 52.0	+0.1
GTA				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.3						
WMOK	Wichita Mounta	57.02	74	*e*P	P	00 14 55.1	+0.1
WMOK				*e**PP	pP	00 15 05.9	-1.2
WMOK				*e**SP	sP	00 15 15.0	+3.0
WMOK				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.6						
WMOK	Wichita Mounta	57.02	74	*e*P	P	00 14 55.1	+0.2
	comp=Z,84nm,1.3s,mb5.6						
WMOK				*e*pP	pP	00 15 05.9	-1.2
WMOK				*e*sP	sP	00 15 15.0	+3.0
ARCES	ARCESS Array B	58.54	351	P	P	00 15 04.4	-0.7
	comp=Z,2.3nm,0.8s,mb4.3,baz=15,slow=7.1,SNR=14						
ARCES				PcP	PcP	00 15 54.5	-0.6
	comp=Z,3.4nm,0.7s,baz=11,slow=4.1,SNR=5.6						
HDIL	Hopedale	58.66	63	*e*P	P	00 15 01.4	-5.0
	comp=Z,118nm,1.6s,mb5.7						
KURK	Kurchatov	59.94	315	*e*P	P	00 15 14.1	-0.9
KURK						00 16 01.1	
KURK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
KURK	Kurchatov	59.94	315	P	P	00 15 14.6	-0.4
	comp=Z,2.4nm,0.4s,mb4.6,baz=42,slow=6.6,SNR=18						
KURK				PcP	PcP	00 16 01.1	+0.1
	comp=Z,3.1nm,0.8s,baz=38,slow=3.9,SNR=4.2						
KURK	Kurchatov	59.94	315	*e*P	P	00 15 14.1	-0.9
	comp=Z,1.9nm,0.5s,mb4.4						
KURK				P		00 15 14.6	
KURK				PcP	PcP	00 16 01.1	+0.1
MIAR	Mount Ida	60.28	71	*e*P	P	00 15 13.7	-4.0
MIAR				pmax	pmax		
	comp=Z,883nm,1.2s						
MIAR	Mount Ida	60.28	71	*e*P	P	00 15 13.7	-3.9
	comp=Z,883nm,1.2s						
UALR	University of	60.86	70	*e*P	P	00 15 15.5	-6.1
	comp=Z,250nm,1.1s						
MK31	Makanchi Array	60.99	309	*e*P	P	00 15 21.0	-1.3
MKAR	Makanchi Array	60.99	309	P	P	00 15 20.6	-1.6
	comp=Z,1.0nm,0.5s,mb4.2,baz=47,slow=5.9,SNR=24						
GYA	Guiyang	61.34	277⇑	*i*P	P	00 15 26.0	+1.0
GYA				pP	pP	00 15 34.3	-2.9
GYA				sP	sP	00 15 37.9	-4.2
GYA				PP	PP	00 17 42.3	+2.2
GYA				ScP	ScP	00 20 05.8	+0.9
GYA				S	S	00 23 42.4	0.0
GYA				SS	SS	00 27 43.3	+0.3
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
GYA				pmax	pmax		
	comp=Z,110nm,5.4s						
GYA				LR	LR		
	comp=N,420nm,18.8s,MS4.7						
GYA				LR	LR		
	comp=E,330nm,18.2s,MS4.7						
GYA				LR	LR		
	comp=Z,400nm,18.6s,MS4.6						
BVAR	Borovoye Array	61.75	321	P	P	00 15 26.8	-0.5
	comp=Z,8.5nm,0.7s,mb5.0,baz=50,slow=7.4,SNR=20						
BVAR				PcP	PcP	00 16 08.1	0.0
	comp=Z,2.6nm,0.7s,baz=75,slow=2.6,SNR=4.2						
BRVK	Borovoye	61.76	321	*e*P	P	00 15 27.1	-0.3
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.7						
BRVK	Borovoye	61.76	321	*e*P	P	00 15 27.1	-0.3
	comp=Z,3.6nm,0.6s,mb4.7						
KVTX	Kingsville	62.57	79	*e*P	P	00 15 27.1	-6.1
	comp=Z,313nm,1.2s						
JOF	Joensuu	64.12	346	*e*p	P	00 15 37.1	-5.8
KMI	Kunming	64.75	279	P	P	00 15 46.6	-1.0
KMI				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.5						
AAK	Ala-Archa	67.81	311	*e*P	P	00 16 06.2	-0.7
AAK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
AAK	Ala-Archa	67.81	311	*e*P	P	00 16 06.2	-0.7
	comp=Z,2.0nm,0.6s,mb4.3						
NB2	NORSAR Subarra	68.02	356	P	P	00 16 07.2	-0.7
	comp=Z,1.4nm,0.6s,mb4.2,baz=6.8,slow=6.5						
NOA	NORSAR Array B	68.02	356	P	P	00 16 07.6	-0.3
	comp=Z,3.1nm,0.7s,mb4.4,baz=7.3,slow=6.5,SNR=4.5						
NOA	NORSAR Array B	68.02	356	P	P	00 16 07.6	-0.3
EKS2	Erkin-Say	68.13	311	*e*P	P	00 16 08.9	-0.1
	comp=Z,2.5nm,0.6s,mb4.4						
AML	Almayashu	68.58	311	*e*P	P	00 16 12.0	+0.3
	comp=Z,1.7nm,0.5s,mb4.2						
KSH	Kashi	69.47	308	P	P	00 16 20.8	+3.5
KSH				*e*pP	pP	00 16 27.6	-2.1
KSH				*e*sP	sP	00 16 31.0	-3.6
KSH				*e*ScS	ScS	00 26 11.3	-3.7
KSH				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.1						
KSH				pmax	pmax		
	comp=Z,290nm,3.8s						
KSH				LR	LR		
	comp=N,610nm,8.0s						
KSH				LR	LR		
	comp=E,490nm,5.7s						
KSH				LR	LR		
	comp=Z,740nm,8.3s						
SHL	Shillong	71.09	287	*e*PKP	P	00 16 29.0	+1.6
CMAR	Chiang Mai Arr	72.03	277	P	P	00 16 32.5	-0.7
	comp=Z,1.7nm,0.6s,mb4.2,baz=27,slow=6.2,SNR=9.0						
TAPN	Taplejung	72.24	292	*e*P	P	00 16 34.8	+0.5
	comp=Z,52nm,1.3s,mb5.3						
ODAN	Odare	72.79	291	*e*P	P	00 16 37.8	+0.2
GUN	Gumba	72.89	293	*e*P	P	00 16 38.9	+0.7
	comp=Z,26nm,0.4s,mb5.5						
JIRN	Jiri	72.89	293	*e*P	P	00 16 39.0	+0.8
	comp=Z,28nm,0.8s,mb5.2						
RAMN	Ramite	73.19	292	*e*P	P	00 16 40.3	+0.3
	comp=Z,17nm,0.5s,mb5.3						
KKN	Kakani	73.32	294	*e*P	P	00 16 41.3	+0.6
	comp=Z,6.9nm,0.5s,mb4.9						
KKN	Kakani	73.32	294	*e*P	P	00 16 41.3	+0.6
KKN				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
PKI	Pulchoki	73.41	293	*e*P	P	00 16 41.7	+0.4
PKIN	Phulchoki	73.42	293	*e*P	P	00 16 41.4	+0.1
	comp=Z,9.2nm,0.6s,mb4.9						
GKN	Gorkha	73.53	294	*e*P	P	00 16 42.3	+0.3
DMN	Daman	73.56	294	*e*P	P	00 16 42.8	+0.7
DANN	Dangsing	73.77	295	*e*P	P	00 16 44.2	+0.8
KOLN	Koldanda	74.31	295	*e*P	P	00 16 46.6	+0.1
AKASG	Malin Array Be	76.12	343	P	P	00 16 55.8	-0.7
	comp=Z,2.3nm,0.4s,mb4.4,baz=14,slow=5.4,SNR=10						
KWP	Kalwaria Pacla	78.22	347	*e*P	P	00 17 08.5	+0.1
KWP				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
KWP	Kalwaria Pacla	78.22	347⇓	*i*P	P	00 17 08.6	+0.2
KWP	Kalwaria Pacla	78.22	347	*e*P	P	00 17 08.5	+0.2
	comp=Z,31nm,1.1s,mb5.1						
GIVF	Givet	79.17	359	*e*P	P	00 17 13.3	-0.2
BAIF	Baives	79.22	359⇑	*i*P	P	00 17 14.0	+0.2
	comp=Z,23nm,0.8s,mb4.8						
BAIF	Baives	79.22	359⇑	*i*P	P	00 17 14.0	+0.2
BAIF				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
BAIF	Baives	79.22	359⇑	*i*P	P	00 17 14.0	+0.2
	comp=Z,12nm,0.8s,mb4.9						
KECS	Kecovo	79.65	348	*e*	P	00 17 12.1	-4.1
KHC	Kasperske Hory	79.73	353	*e*P	P	00 17 16.5	-0.1
BUR08	Bucovina Ar. S	79.77	345	*e*P	P	00 17 17.2	+0.3
BURAR	Bucovina Array	79.80	345⇓	*i*P	P	00 17 17.2	+0.2
BURAR	Bucovina Array	79.80	345	⇓P	P	00 17 17.2	+0.2
GERES	GERESS Array B	80.00	353	P	P	00 17 17.5	-0.6
	comp=Z,1.2nm,0.6s,mb4.0,baz=40,slow=7.1,SNR=5.7						
FLN	La Foliniere	80.49	2	*e*P	P	00 17 20.2	-0.5
	comp=Z,29nm,1.0s,mb4.9						
FLN	La Foliniere	80.49	2	*e*P	P	00 17 20.2	-0.5
FLN				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
FLN	La Foliniere	80.49	2	*e*P	P	00 17 20.2	-0.5
	comp=Z,14nm,1.0s,mb4.9						
LDF	La Druitiere	80.66	2⇑	*i*P	P	00 17 21.2	-0.5
	comp=Z,18nm,0.5s,mb4.9						
LDF	La Druitiere	80.66	2⇑	*i*P	P	00 17 21.2	-0.5
LDF				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.0						
LDF	La Druitiere	80.66	2⇑	*i*P	P	00 17 21.2	-0.5
	comp=Z,9.0nm,0.5s,mb5.0						
MEZF	Maizieres J'vi	80.77	358⇑	*i*P	P	00 17 22.3	+0.1
	comp=Z,32nm,1.0s,mb4.9						
MEZF	Maizieres J'vi	80.77	358⇑	*i*P	P	00 17 22.3	+0.1
	comp=Z,32nm,1.0s,mb5.2						
CDF	Champ du Feu	80.80	357⇑	*i*P	P	00 17 22.2	-0.2
	comp=Z,9.9nm,0.7s,mb4.6						
CDF	Champ du Feu	80.80	357⇑	*i*P	P	00 17 22.2	-0.2
CDF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
CDF	Champ du Feu	80.80	357⇑	*i*P	P	00 17 22.2	-0.2
	comp=Z,4.9nm,0.6s,mb4.6						
GRR	Gorron	80.85	2⇑	*i*P	P	00 17 22.5	-0.2
	comp=Z,14nm,0.6s,mb4.8						
GRR	Gorron	80.85	2⇑	*i*P	P	00 17 22.5	-0.2
GRR				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
GRR	Gorron	80.85	2⇑	*i*P	P	00 17 22.5	-0.2
	comp=Z,7.1nm,0.6s,mb4.8						
SGMF	Saint Gilles	80.93	4⇑	*i*P	P	00 17 22.0	-1.1
	comp=Z,16nm,0.7s,mb4.8						
SGMF	Saint Gilles	80.93	4⇑	*i*P	P	00 17 22.0	-1.1
SGMF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
SGMF	Saint Gilles	80.93	4⇑	*i*P	P	00 17 22.0	-1.1
	comp=Z,8.1nm,0.7s,mb4.8						
DRGR		81.00	346⇑	*i*P	P	00 17 23.4	-0.1
DRGR		81.00	346	⇑P	P	00 17 23.4	-0.1
VRI	Vrincioaia	81.23	343⇓	*i*P	P	00 17 25.4	+0.7
VRI	Vrincioaia	81.23	343	⇓P	P	00 17 25.4	+0.7
HAU	Haudompre	81.24	358⇑	*i*P	P	00 17 24.5	-0.2
	comp=Z,8.2nm,0.6s,mb4.5						
HAU	Haudompre	81.24	358⇑	*i*P	P	00 17 24.5	-0.2
HAU				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
HAU	Haudompre	81.24	358⇑	*i*P	P	00 17 24.5	-0.2
	comp=Z,4.1nm,0.6s,mb4.5						
QUIF	Quistinic	81.24	4	*e*P	P	00 17 24.4	-0.3
PLOR	Plostina	81.26	343⇓	*i*P	P	00 17 25.4	+0.5
HINF	Hinteralfeld	81.41	357⇑	*i*P	P	00 17 25.3	-0.3
	comp=Z,12nm,0.8s,mb4.5						
HINF	Hinteralfeld	81.41	357⇑	*i*P	P	00 17 25.3	-0.3
HINF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
HINF	Hinteralfeld	81.41	357⇑	*i*P	P	00 17 25.3	-0.3
	comp=Z,5.8nm,0.8s,mb4.6						
TLCR		81.49	342⇓	*i*P	P	00 17 26.5	+0.4
TLCR		81.49	342	⇓P	P	00 17 26.4	+0.3
MLR	Muntele Rosu	81.73	344⇑	*i*P	P	00 17 28.8	+1.4
MLR	Muntele Rosu	81.73	344	⇑P	P	00 17 28.8	+1.4
KBA	Koelnbreinsper	81.79	353⇓	*i*P	P	00 17 28.3	+0.6
	comp=Z,15nm,0.6s,mb5.1						
VOIR		81.94	344⇑	*i*P	P	00 17 29.3	+0.8
VOIR		81.94	344	⇑P	P	00 17 29.3	+0.8
GNI	Garni	82.01	329	P	P	00 17 30.1	+1.1
	comp=Z,4.4nm,0.6s,mb4.5,baz=29,slow=3.6,SNR=6.0						
LOR	Lormes	82.02	359⇑	*i*P	P	00 17 28.8	0.0
	comp=Z,13nm,0.8s,mb4.6						
LOR	Lormes	82.02	359⇑	*i*P	P	00 17 28.8	0.0
LOR				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
LOR	Lormes	82.02	359⇑	*i*P	P	00 17 28.8	0.0
	comp=Z,6.3nm,0.8s,mb4.6						
HYF	Humbligny	82.02	0	*e*P	P	00 17 29.1	+0.2
FETA	Feichten	82.03	355⇑	*i*P	P	00 17 29.2	+0.3
	comp=Z,6.2nm,1.1s,mb4.5						
SOKA	Soboth	82.04	352⇑	*i*P	P	00 17 29.2	+0.2
	comp=Z,10.0nm,0.9s,mb4.7						
HARR	Harsova	82.14	342⇑	*i*P	P	00 17 29.8	+0.3
HARR	Harsova	82.14	342	⇑P	P	00 17 29.8	+0.2
SSF	Saint Saulge	82.23	360⇑	*i*P	P	00 17 29.9	0.0
	comp=Z,11nm,0.7s,mb4.6						
SSF	Saint Saulge	82.23	360⇑	*i*P	P	00 17 29.9	0.0
SSF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
SSF	Saint Saulge	82.23	360⇑	*i*P	P	00 17 29.9	0.0
	comp=Z,5.7nm,0.7s,mb4.6						
OBKA	Obir	82.25	352⇑	*i*P	P	00 17 29.9	-0.2
	comp=Z,7.3nm,0.8s,mb4.6						
TIRR	Tirgusor	82.27	342	*e*P	P	00 17 29.7	-0.5
TIRR				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
TIRR	Tirgusor	82.27	342⇓	*i*P	P	00 17 30.5	+0.3
TIRR	Tirgusor	82.27	342	*e*P	P	00 17 29.7	-0.5
	comp=Z,12nm,1.0s,mb4.8						
TIRR				⇓P		00 17 30.5	
BZS	Buzias	82.31	347⇑	*i*P	P	00 17 30.2	-0.2
BZS	Buzias	82.31	347	⇑P	P	00 17 30.2	-0.2
GZR	Gura Zlata	82.35	346⇓	*i*P	P	00 17 30.9	+0.3
AVF	Avril sur Loir	82.50	360	*e*P	P	00 17 31.2	-0.2
	comp=Z,15nm,1.0s,mb4.6						
AVF	Avril sur Loir	82.50	360	*e*P	P	00 17 31.2	-0.2
AVF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
AVF	Avril sur Loir	82.50	360	*e*P	P	00 17 31.2	-0.2
	comp=Z,7.4nm,1.0s,mb4.6						
WRA	Warramunga Arr	82.51	225	P	P	00 17 29.8	-1.8
	comp=Z,1.0nm,0.8s,mb3.9,baz=38,slow=6.2,SNR=4.0						
CABF	La Chapelle	82.64	358	*e*P	P	00 17 32.6	+0.5
SMF	Signal de Mont	82.64	359⇑	*i*P	P	00 17 32.0	-0.1
	comp=Z,14nm,0.7s,mb4.8						
SMF	Signal de Mont	82.64	359⇑	*i*P	P	00 17 32.0	-0.1
SMF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
SMF	Signal de Mont	82.64	359⇑	*i*P	P	00 17 32.0	-0.1
	comp=Z,7.2nm,0.7s,mb4.8						
TUE	Stuetta	82.65	355	*e*P	P	00 17 32.8	+0.6
	comp=Z,1.2nm,0.5s,mb4.2						
MFF	Saint Martin d	82.66	2	*e*P	P	00 17 32.3	+0.1
	comp=Z,29nm,1.0s,mb5.0						
MFF	Saint Martin d	82.66	2	*e*P	P	00 17 32.3	+0.1
MFF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
MFF	Saint Martin d	82.66	2	*e*P	P	00 17 32.3	+0.1
	comp=Z,14nm,1.0s,mb5.0						
BGF	Bois d'Agland	82.73	360	*e*P	P	00 17 32.5	-0.1
	comp=Z,7.0nm,0.6s,mb4.6						
BGF	Bois d'Agland	82.73	360	*e*P	P	00 17 32.5	-0.1
BGF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BGF	Bois d'Agland	82.73	360	*e*P	P	00 17 32.5	-0.1
	comp=Z,3.5nm,0.6s,mb4.6						
TCF	Toulx Ste Croi	83.00	0⇑	*i*P	P	00 17 33.9	-0.1
	comp=Z,9.4nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	83.00	0⇑	*i*P	P	00 17 33.9	-0.1
TCF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
TCF	Toulx Ste Croi	83.00	0⇑	*i*P	P	00 17 33.9	-0.1
	comp=Z,4.7nm,0.8s,mb4.6						
LPL	La Plagne	83.71	357	*e*P	P	00 17 38.6	+0.9
	comp=Z,2.7nm,0.6s,mb4.2						
LPL	La Plagne	83.71	357	*e*P	P	00 17 38.6	+0.9
LPL				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.1						
LPL	La Plagne	83.71	357	*e*P	P	00 17 38.6	+0.9
	comp=Z,1.4nm,0.6s,mb4.3						
LPG	La Plagne	83.73	357	*e*P	P	00 17 38.9	+1.1
	comp=Z,5.1nm,0.8s,mb4.4						
LPG	La Plagne	83.73	357	*e*P	P	00 17 38.9	+1.1
LPG				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
LPG	La Plagne	83.73	357	*e*P	P	00 17 38.9	+1.1
	comp=Z,2.5nm,0.8s,mb4.4						
RJF	Les Rejaudoux	83.98	1	*e*P	P	00 17 39.2	+0.2

	comp=Z,20nm,1.1s,mb4.9						
RJF	Les Rejaudoux	83.98	1	*e*P	P	00 17 39.2	+0.2
RJF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
RJF	Les Rejaudoux	83.98	1	*e*P	P	00 17 39.2	+0.2
	comp=Z,9.9nm,1.1s,mb4.8						
BNI	Bardonecchia	84.18	357	*e*P	P	00 17 38.6	-1.5
BNI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
BNI	Bardonecchia	84.18	357	*e*P	P	00 17 38.5	-1.5
	comp=Z,2.4nm,0.6s,mb4.5						
LFF	La Frestale	84.33	1	*e*P	P	00 17 41.1	+0.3
	comp=Z,12nm,0.7s,mb4.8						
LFF	La Frestale	84.33	1	*e*P	P	00 17 41.1	+0.3
LFF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.8						
LFF	La Frestale	84.33	1	*e*P	P	00 17 41.1	+0.3
	comp=Z,6.1nm,0.7s,mb4.8						
ORIF	Oris-en-Rattie	84.33	358	*e*P	P	00 17 41.7	+0.9
	comp=Z,4.5nm,0.6s,mb4.5						
ORIF	Oris-en-Rattie	84.33	358	*e*P	P	00 17 41.7	+0.9
ORIF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
ORIF	Oris-en-Rattie	84.33	358	*e*P	P	00 17 41.7	+0.9
	comp=Z,2.3nm,0.6s,mb4.5						
CAF	Calviac	84.36	1	*e*P	P	00 17 41.3	+0.3
	comp=Z,16nm,1.0s,mb4.8						
CAF	Calviac	84.36	1	*e*P	P	00 17 41.3	+0.3
CAF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
CAF	Calviac	84.36	1	*e*P	P	00 17 41.3	+0.3
	comp=Z,8.1nm,1.0s,mb4.8						
VIVF	Saint-Julien-l	84.42	359	*e*P	P	00 17 41.5	+0.2
	comp=Z,9.4nm,0.9s,mb4.6						
VIVF	Saint-Julien-l	84.42	359	*e*P	P	00 17 41.5	+0.2
VIVF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
VIVF	Saint-Julien-l	84.42	359	*e*P	P	00 17 41.5	+0.2
	comp=Z,4.7nm,0.9s,mb4.6						
MBDF	Montbardon	84.50	357	*e*P	P	00 17 42.4	+0.7
	comp=Z,3.3nm,0.5s,mb4.4						
MBDF	Montbardon	84.50	357	*e*P	P	00 17 42.4	+0.7
MBDF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
MBDF	Montbardon	84.50	357	*e*P	P	00 17 42.4	+0.7
	comp=Z,1.6nm,0.5s,mb4.4						
FITZ	Fitzroy Crossi	85.08	233	P	P	00 17 44.2	-0.7
	comp=Z,5.3nm,0.8s,mb4.7,baz=69,slow=4.3,SNR=4.3						
LASF	Ste Croix	85.21	359	*e*P	P	00 17 45.6	+0.3
	comp=Z,6.7nm,0.8s,mb4.5						
SMRF	Simiane la Rot	85.28	358	*e*P	P	00 17 46.6	+1.0
	comp=Z,18nm,0.9s,mb4.9						
SMRF	Simiane la Rot	85.28	358	*e*P	P	00 17 46.6	+1.0
	comp=Z,18nm,0.9s,mb5.2						
SBF	Sospel	85.34	357	*e*P	P	00 17 45.8	-0.1
	comp=Z,16nm,0.7s,mb5.0						
SBF	Sospel	85.34	357	*e*P	P	00 17 45.8	-0.1
SBF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.0						
SBF	Sospel	85.34	357	*e*P	P	00 17 45.8	-0.1
	comp=Z,8.3nm,0.7s,mb5.0						
BRTR	Keskin Array B	85.61	337	P	P	00 17 47.5	+0.2
	comp=Z,7.1nm,0.8s,mb5.0,baz=58,slow=2.7,SNR=31						
MALT	Malatya	85.64	333	⇓*i*P	P	00 17 48.7	+1.2
MALT	Malatya	85.64	333	⇓P	P	00 17 48.7	+1.2
FRF	La Foret Royal	85.67	357	*e*P	P	00 17 47.4	-0.2
	comp=Z,11nm,0.8s,mb4.8						
FRF	La Foret Royal	85.67	357	*e*P	P	00 17 47.4	-0.2
FRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
FRF	La Foret Royal	85.67	357	*e*P	P	00 17 47.4	-0.2
	comp=Z,5.4nm,0.8s,mb4.8						
LMR	La Mourre	85.90	357	*e*P	P	00 17 48.8	+0.1
	comp=Z,5.2nm,0.6s,mb4.6						
LMR	La Mourre	85.90	357	*e*P	P	00 17 48.8	+0.1
LMR				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.7						
LMR	La Mourre	85.90	357	*e*P	P	00 17 48.8	+0.1
	comp=Z,2.6nm,0.6s,mb4.6						
MTLF	Montolieu	85.95	0	*e*P	P	00 17 49.3	+0.4
	comp=Z,10nm,0.8s,mb4.8						
MTLF	Montolieu	85.95	0	*e*P	P	00 17 49.3	+0.4
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
MTLF	Montolieu	85.95	0	*e*P	P	00 17 49.3	+0.4
	comp=Z,5.1nm,0.8s,mb4.8						
ASAR	Alice Springs	85.96	224	P	P	00 17 47.8	-1.3
	comp=Z,1.1nm,0.8s,mb4.2,baz=27,slow=5.7,SNR=5.6						
SJPF	Ste Jean	86.11	3	⇑*i*P	P	00 17 50.0	+0.2
	comp=Z,4.5nm,0.6s,mb4.6						
SJPF	Ste Jean	86.11	3	⇑*i*P	P	00 17 50.0	+0.2
SJPF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.5						
SJPF	Ste Jean	86.11	3	⇑*i*P	P	00 17 50.0	+0.2
	comp=Z,2.3nm,0.6s,mb4.6						
EPF	Esparros	86.23	2	*e*P	P	00 17 49.8	-0.6
	comp=Z,5.2nm,0.9s,mb4.5						
EPF	Esparros	86.23	2	*e*P	P	00 17 49.8	-0.6
EPF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
EPF	Esparros	86.23	2	*e*P	P	00 17 49.8	-0.6
	comp=Z,2.6nm,0.9s,mb4.5						
ETSF	Etsaut	86.34	2	*e*P	P	00 17 50.9	0.0
	comp=Z,5.2nm,0.7s,mb4.5						
ETSF	Etsaut	86.34	2	*e*P	P	00 17 50.9	0.0
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
ETSF	Etsaut	86.34	2	*e*P	P	00 17 50.9	0.0
	comp=Z,2.6nm,0.7s,mb4.6						
ESDC	Sonseca Array	89.42	5	P	P	00 18 04.7	-0.9
	comp=Z,1.2nm,0.7s,mb4.3,baz=353,slow=3.8,SNR=7.2						
ESDC	Sonseca Array	89.42	5	P	P	00 18 04.7	-0.9
TORD	Torodi Ar. Bea	116.03	1	PKP	PKPdf	00 23 51.0	-1.1
	comp=Z,0.2nm,0.3s,baz=358,slow=2.1,SNR=5.1						
LBTB	Lobatse	148.62	317	PKPbc	PKPbc	00 24 56.0	+0.2
	comp=Z,3.7nm,0.7s,baz=264,slow=5.6,SNR=4.1						
BOSA	Boshof	151.90	314	PKPbc	PKPbc	00 25 02.5	-1.1
	comp=Z,1.6nm,0.6s,baz=117,slow=6.8,SNR=6.5						
BOSA	Boshof	151.90	314	*e*PKPbc	PKPbc	00 25 03.0	-0.5

*NEIC **22** 00:07:47.0±6.2, 18°.38S×177°.78W, h589^{km}±65^{km}, mb3.5/1, Error ellipse: s-maj=39.1km s-min=17.3km az=65.0*

IDC 22 00:07:44.9±7.4**, 18°.38S**×**177°.70W, h564**^{km}±78^{km}**, mb3.1**/7**, mb1 3.3**/7**, mb1mx3.1**/20**, mbtmp3.1**/7**, Error ellipse: s-maj=41.3km s-min=19.3km az=67.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	34.04	261	P	P	00 13 43.0	-0.1
	2.1nm,0.6s,baz=90,slow=9.1,SNR=3.4						
WB2	Warramunga Arr	45.20	260	*e*P	P	00 15 12.4	0.0
WRAB	Tennant Creek	45.20	260	*e*P	P	00 15 12.3	-0.2
	0.6nm,0.4s						
WRA	Warramunga Arr	45.21	260	P	P	00 15 12.2	-0.4
	0.7nm,0.4s,baz=97,slow=7.6,SNR=20						
ASAR	Alice Springs	45.32	255	P	P	00 15 13.3	0.0
	1.6nm,0.7s,baz=90,slow=7.2,SNR=11						
ASAR				PcP	PcP	00 16 40.5	-0.4
	1.7nm,0.8s,baz=98,slow=4.2,SNR=5.7						
FITZ	Fitzroy Crossi	53.62	261	P	P	00 16 14.5	+0.1
	2.7nm,1.0s,baz=101,slow=10,SNR=3.4						
VNDA	Vanda	60.04	185	P	P	00 16 57.4	+0.1
	1.1nm,0.9s,baz=342,slow=6.4,SNR=4.0						
VNDA	Vanda	60.04	185	P	P	00 16 57.4	+0.1
QSPA	South Pole Qui	71.68	180	P	P	00 18 09.9	+0.3
	2.9nm,0.8s,baz=82,slow=6.5,SNR=10						
PETK	Petropavlovsk-	74.30	345	P	P	00 18 24.9	0.0
	1.4nm,0.6s,baz=126,slow=7.6,SNR=3.0						
PETK	Petropavlovsk-	74.30	345	P	P	00 18 24.9	0.0
BVAR	Borovoye Array	117.63	321	PKP	PKPdf	00 25 26.3	-0.8
	0.6nm,0.5s,baz=141,slow=4.8,SNR=3.2						
AKASG	Malin Array Be	141.28	333	PKhKP		00 26 06.1	
	0.2nm,0.2s,baz=35,slow=4.2,SNR=4.0						
BRTR	Keskin Array B	145.59	315	PKPbc	PKPbc	00 26 20.8	-0.3
	1.3nm,0.9s,baz=140,slow=4.6,SNR=6.9						
GERES	GERESS Array B	148.23	346	PKPbc	PKPbc	00 26 27.2	-0.6
	1.0nm,0.6s,baz=64,slow=3.1,SNR=5.2						
DAVOX	Davos/Dischmat	150.99	349	PKPbc	PKPbc	00 26 35.0	+0.6
	baz=219,slow=13						

*IDC **22** 00:15:51.0±0.6, 51°.17N×177°.37W, h0^{km}, mb4.4/35, mb1 4.5/36, mb1mx4.5/40, mbtmp4.4/36, ML4.8/1, Error ellipse: s-maj=18.5km s-min=11.1km az=166.0*

*ISCJB **22** 00:15:56.4±0.8, 51°.12N±0°.04×177°.35W±0°.03, h47^{km}±6^{km}, mb4.7/150, MS4.7/6, Error ellipse: s-maj=7.5km s-min=3.2km az=10.9*

*MOS **22** 00:15:56.3±0.9, 51°.24N×177°.29W, h41^{km}, mb5.1/59, Error ellipse: s-maj=9.7km s-min=5.0km az=91.9*

*BJI **22** 00:15:58.8, 51°.61N×177°.73W, h53^{km}, mB5.2/10, mb4.8/27, Ms5.0/12, Ms7 4.7/12*

*NEIC **22** 00:15:58.0±0.6, 51°.16N×177°.33W, h46^{km}±4^{km}, mb4.8/89, ML4.5(AEIC), Error ellipse: s-maj=6.6km s-min=3.0km az=185.0*

*SZGRF **22** 00:16:01.2, 51°.87N×176°.09W, h33^{km}, mb5.0, Andreanof Islands, Aleutian Islands, United States*

ISC 22 00:15:58.9±0.7**, 51°.20N**±0°.05×**177°.35W**±0°.03**, h52**^{km}±5^{km}**, h55**^{km}±1.7^{km}**:pP-P, n526,** σ**0**^{s}**.68**/530**, mb4.7**/150**, MS4.7**/6**, 117C-90D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	Adak	0.80	31	P	Pn	00 16 11.7	-2.2
ADK				S	Sn	00 16 25.7	+0.8
GSTR	Great Sitkin T	1.20	42	*e*Pn	Pn	00 16 18.6	-0.7
GSTR				*e*Sn	Sn	00 16 37.9	+3.5
ATKA	Atka Island	2.20	62	P	Pn	00 16 30.8	-2.1
ATKA				S	Sn	00 16 59.8	+0.8
SMY	Shemya	5.50	289	P	Pn	00 17 18.0	-0.1
NIKO	Nikolski	5.53	68	*e*Pn	Pn	00 17 26.1	+7.6
	268nm,0.9s						
UNV	Unalaska Valle	7.13	64	*e*Pn	Pn	00 17 39.6	-0.8
SPIA	Saint Paul Isl	7.29	32	P	Pn	00 17 44.6	+2.0
SDPT	Sand Point	10.92	61	*e*P	Pn	00 18 28.7	-3.5
	95nm,1.2s						
GAMB	Gambell	12.96	11	*e*Pn	Pn	00 19 01.8	+1.8
	49nm,1.2s						
GAMB				*e*Sn	Sn	00 21 27.2	+4.8
OHAK	Old Harbor	15.26	57	*e*Pn	Pn	00 19 25.8	-4.9
PETK	Petropavlovsk-	15.41	287	Pn	Pn	00 19 34.6	+2.0
	0.5nm,0.3s,baz=90,slow=16,SNR=6.9						
SVW2	Sparrevohn	15.58	42	*e*P	Pn	00 19 35.0	+0.2
KDAK	Kodiak Island	15.76	56	P	Pn	00 19 34.5	-2.7
KDAK						00 22 32.9	
KDAK				pmax	pmax		
	comp=Z,4.0nm,0.3s						
KDAK	Kodiak Island	15.76	56	Pn	Pn	00 19 34.5	-2.7
	comp=Z,4.1nm,0.3s,baz=75,slow=7.6,SNR=22						
KDAK				Sn	Sn	00 22 32.9	+2.2
	comp=Z,0.4nm,0.3s,baz=37,slow=20,SNR=4.4						
KDAK	Kodiak Island	15.76	56	*e*Pn	Pn	00 19 34.8	-2.4
	comp=Z,526nm,2.3s						
KDAK				*e*S	S	00 22 34.6	-8.4
PPLA	Purkeypile	17.86	39	*e*P	Pn	00 20 05.2	+1.9
	comp=Z,27nm,0.7s						
CHUM	Lake Minchumin	18.32	37	P	Pn	00 20 08.3	-0.5
	comp=Z,12nm,0.6s						
KTH	Kantishna Hill	18.68	38	*e*P	Pn	00 20 12.9	-0.3
	comp=Z,56nm,0.8s						
BILL	Bilibino	18.69	341	*e*P	Pn	00 20 13.4	+0.1
BILL				pmax	pmax		
	comp=Z,14nm,1.0s						
BILL	Bilibino	18.69	341	*e*P	Pn	00 20 13.4	+0.2
	comp=Z,14nm,1.0s						
TRF	Thorofare Moun	18.89	39	*e*P	Pn	00 20 14.9	-0.8
	comp=Z,2μm,0.6s						
BPAW	Bear Paw Mtn.	18.93	37	*e*P	Pn	00 20 15.6	-0.6
	comp=Z,18nm,0.7s						
IMA2	Indian Mountai	19.13	30	*e*Pn	Pn	00 20 17.6	-1.0
MCK	McKinley	19.55	39	*e*P	Pn	00 20 21.2	-2.4
MCK				pmax	pmax		
	comp=Z,10μm,1.0s						
MCK	McKinley	19.55	39	*e*P	Pn	00 20 21.2	-2.4
	comp=Z,19μm,1.0s						
SEY	Seymchan	19.99	318	⇑*e*P	Pn	00 20 27.1	-1.6
PAX	Paxson	20.69	43	*e*P	P	00 20 33.8	-0.4
PAX				pmax	pmax		
	comp=Z,8.0nm,0.6s						
PAX	Paxson	20.69	43	*e*P	P	00 20 33.8	-0.4
	comp=Z,7.9nm,0.6s						
EGAK	Eagle	23.09	40	*e*P	P	00 20 58.3	-1.4
	comp=Z,19nm,0.9s,mb4.5						
YSS	Yuzh-Sakhalins	26.24	276	*e*P	P	00 21 28.0	-0.8
YSS				pmax	pmax		
	comp=Z,25nm,1.7s,mb4.5						
INK	Inuvik	27.09	34	P	P	00 21 34.5	-1.6
	comp=Z,4.2nm,1.0s,mb3.9,baz=235,slow=5.6,SNR=15						
TIXI	Tiksi	31.24	330	⇑*e*P	P	00 22 12.6	-0.3
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.0						
KLR	Kul’dur	32.10	287	*e*P	P	00 22 14.0	-6.8
KLR				pmax	pmax		
	comp=E,42nm,1.8s						
KLR				pmax	pmax		
	comp=Z,64nm,1.8s,mb5.2						
MAT	Matsushiro	34.66	263	P	P	00 22 43.0	-0.2
YKA	Yellowknife Ar	34.69	46	P	P	00 22 41.8	-1.3
YKA						00 25 16.1	
YKA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	34.69	46	P	P	00 22 41.8	-1.3
	comp=Z,4.8nm,0.8s,mb4.5,baz=282,slow=8.0,SNR=45						
YKA				PcP	PcP	00 25 16.1	+0.3
	comp=Z,0.7nm,0.7s,baz=290,slow=3.4,SNR=3.6						
A05A	Maple Falls	34.81	71	⇑P	P	00 22 44.2	-0.2
	baz=35						
A06A	Chilliwack	35.13	71	⇓P	P	00 22 46.7	-0.4
	baz=35						
A07A	Ashnola River,	35.81	71	⇑P	P	00 22 52.9	+0.1
	baz=36						
F04A	Amboy	36.01	76	⇑P	P	00 22 55.0	+0.5
	baz=36						
B07A	Winthrop	36.22	71	⇑P	P	00 22 56.3	-0.1
	baz=36,SNR=6.0						
D06A	Cle Elum	36.36	74	⇑P	P	00 22 58.0	+0.3
	baz=36						
ETW	Entiat	36.48	73	*e*P	P	00 22 59.4	+0.8
A08A	Turner Farm, O	36.51	70	⇑P	P	00 22 59.0	+0.2
	baz=36,SNR=6.5						
E06A	Yakima	36.59	75	⇓P	P	00 22 59.8	+0.2
	baz=36						
C07A	Waterville	36.60	72	⇓P	P	00 23 00.1	+0.4
	baz=36						
B08A	Colville Reser	36.73	71	⇓P	P	00 23 01.0	+0.2
	baz=36,SNR=13						
H04A	Detroit Lake	36.77	78	⇑P	P	00 23 01.0	-0.1
	baz=37						
D07A	Quincy	36.89	73	⇓P	P	00 23 02.2	+0.1
	baz=37						
A09A	Danville	36.90	70	⇑P	P	00 23 02.2	0.0
	baz=37,SNR=7.4						
F06A	Goldendale	37.09	76	⇑P	P	00 23 03.6	-0.2
	baz=37						
C08A	Higginbotham F	37.17	72	⇑P	P	00 23 04.4	-0.1
	baz=37						
E07A	Sunnyside	37.26	74	⇓P	P	00 23 05.5	+0.2
	baz=37						
B09A	Rice	37.41	70	⇓P	P	00 23 06.5	0.0
	baz=37						
RSW	Rattlesnake Hi	37.50	74	*e*P	P	00 23 08.4	+1.0
A10A	Northport	37.50	69	⇓P	P	00 23 07.4	+0.1
	baz=37						
OD2	Odessa Site #2	37.55	72	*e*P	P	00 23 08.1	+0.3
D08A	Wollman Farm,	37.59	73	⇑P	P	00 23 08.0	0.0
	baz=37						
C09A	Chrisman Ranch	37.62	71	⇑P	P	00 23 08.7	+0.3
	baz=37						
D09A	Jones Farm, Ri	37.95	72	⇑P	P	00 23 11.0	-0.1
	baz=38						
YBH	Yreka Blue Hor	38.00	82	P	P	00 23 13.0	+1.4
	comp=Z,3.4nm,1.1s,mb4.0,baz=304,slow=7.3,SNR=2.2						
G07A	Ruggs Ranch, H	38.01	76	⇑P	P	00 23 12.0	+0.4
	baz=38						
NEW	Newport	38.09	70	*e*P	P	00 23 12.3	+0.1
NEW				pmax	pmax		
	comp=Z,15nm,0.9s						
NEW	Newport	38.09	70	*e*P	P	00 23 12.3	+0.1
	comp=Z,15nm,0.9s,mb4.7						
EDM	Edmonton	38.10	61	*e*P	P	00 23 12.3	0.0
A11A	Hall Mountain,	38.22	69	⇓P	P	00 23 13.5	+0.2
	baz=38,SNR=7.0						
F08A	Pendleton	38.29	74	⇑P	P	00 23 14.0	0.0
	baz=38						
E09A	Wood Farm, Sta	38.32	73	⇑P	P	00 23 13.7	-0.5
	baz=38						
G08A	Pilot Rock	38.43	75	⇑P	P	00 23 15.1	-0.1
	baz=38						
B11A	Sandpoint	38.45	69	⇑P	P	00 23 15.1	-0.2
	baz=38						
CN2	Changchun	38.47	282	*e*P	P	00 23 15.5	0.0
CN2				*e*pP	pP	00 23 30.8	+1.8
CN2				*e*S	S	00 29 04.3	-2.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,900nm,17.0s,MS4.8						
CN2				LR	LR		
	comp=E,1μm,17.0s,MS4.8						
CN2				LR	LR		
	comp=Z,900nm,16.0s,MS4.7						
D10A	Wagner Farm, O	38.57	72	⇑P	P	00 23 15.9	-0.4
	baz=38,SNR=9.6						
I07A	Izee	38.72	77	⇓P	P	00 23 17.9	+0.3
	baz=38						
J06A	Christmas Vall	38.77	79	⇑P	P	00 23 18.2	+0.2
	baz=39						
BOD	Bodaibo	38.81	307	*e*P	P	00 23 14.4	-3.8
BOD				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.9						
E10A	Myers Farm, Un	38.95	73	⇑P	P	00 23 19.1	-0.4
	baz=39						
H08A	Prairie City	39.01	76	⇓P	P	00 23 19.9	-0.1
	baz=39						
F10A	Beach Ranch, E	39.14	73	⇑P	P	00 23 20.6	-0.5
	baz=39,SNR=6.5						
D11A	Klaveano Farm,	39.14	71	⇓P	P	00 23 20.3	-0.7
	baz=39,SNR=9.2						
G09A	Cove	39.16	75	⇓P	P	00 23 20.9	-0.3
	baz=39						
HIA	Hailar	39.19	293	*e*P	P	00 23 20.4	-1.1
HIA				pmax	pmax		
	comp=Z,29nm,0.9s						
HIA	Hailar	39.19	293	*e*P	P	00 23 20.4	-1.1
	comp=Z,29nm,0.9s,mb5.0						
J07A	Hines	39.22	78	⇓P	P	00 23 22.4	+0.6
	baz=39						
C12B	Naegeli Ranch,	39.33	70	⇑P	P	00 23 22.3	-0.3
	baz=39,SNR=8.1						
A13A	Flathead Natio	39.37	68	⇑P	P	00 23 23.3	+0.3
	baz=39						
I08A	Drewsey	39.39	77	⇑P	P	00 23 23.4	+0.3
	baz=39						
RES	Resolute Bay	39.53	24	P	P	00 23 23.3	-0.7
	comp=Z,0.6nm,0.6s,mb3.5,baz=278,slow=15,SNR=3.8						
RES				PcP	PcP	00 25 30.6	+0.2
	comp=Z,3.2nm,0.7s,baz=237,slow=1.5,SNR=8.1						
RES	Resolute Bay	39.53	24	P	P	00 23 23.3	-0.7
RES				PcP	PcP	00 25 30.6	+0.2
H09A	Durkee	39.54	75	⇓P	P	00 23 24.5	0.0
	baz=39						
G10A	Bishop Farm, J	39.55	74	⇓P	P	00 23 24.5	0.0
	baz=39,SNR=8.1						
E11A	Bogner Ranch,	39.56	72	⇑P	P	00 23 23.8	-0.7
	baz=39						
WALA	Waterton Lakes	39.60	67	*e*P	P	00 23 25.4	+0.5
	comp=Z,0.4nm,1.0s						
B13A	Whitefish	39.60	69	⇑P	P	00 23 24.6	-0.3
	baz=39						
K07A	Rock Creek Ran	39.63	79	⇑P	P	00 23 25.7	+0.5
	baz=39						
BMO	Blue Mountains	39.66	75	*e*P	P	00 23 26.2	+0.8
	comp=Z,18nm,1.7s,mb4.5						
BSMT	Bassoo Peak	39.66	69	*e*P	P	00 23 26.0	+0.6
J08A	Circle Bar Ran	39.74	78	⇓P	P	00 23 26.4	+0.3
	baz=40						
F11A	Grangeville	39.83	73	⇓P	P	00 23 26.9	+0.1
	baz=40						
C13A	Hot Springs	39.87	70	⇓P	P	00 23 27.3	+0.1
	baz=40,SNR=7.1						
A14A	Double T Ranch	39.93	67	⇑P	P	00 23 27.6	0.0
	baz=40,SNR=13						
L07A	Adell	39.94	80	⇓P	P	00 23 28.2	+0.4
	baz=40						
JTMT	Jette	40.01	69	*e*P	P	00 23 28.7	+0.4
YBMT	Yellow Bay	40.12	69	*e*P	P	00 23 29.4	+0.2
H10A	Noah’s Angus R	40.14	75	⇓P	P	00 23 29.6	+0.2
	baz=40,SNR=5.5						
D13A	Huson	40.23	70	⇓P	P	00 23 29.9	-0.2
	baz=40						
SWMT	Swartz Lake	40.30	70	*e*P	P	00 23 31.4	+0.7
C14A	Swan Lake	40.32	69	⇓P	P	00 23 30.9	+0.1
	baz=40						
A15A	Johnson Ranch,	40.32	67	⇑P	P	00 23 30.5	-0.3
	baz=40						
N06A	Buffalo Meadow	40.35	82	⇑P	P	00 23 31.8	+0.6
	baz=40						
I10A	Payette	40.37	76	⇑P	P	00 23 31.8	+0.5
	baz=40						
M07A	Soldier Meadow	40.40	81	⇓P	P	00 23 32.0	+0.4
	baz=40						
F12A	Elk City	40.43	73	⇓P	P	00 23 31.7	-0.1
	baz=40,SNR=13						
L08A	Fields	40.46	79	⇓P	P	00 23 32.4	+0.4
	baz=40						
H11A	Donnelly	40.53	74	⇓P	P	00 23 32.6	0.0
	baz=40						
KSRS	Korea Array	40.55	272	P	P	00 23 32.7	-0.2
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.9						
KSRS	Korea Array	40.55	272	P	P	00 23 32.7	-0.2
	comp=Z,2.9nm,0.9s,mb3.9,baz=71,slow=7.8,SNR=4.3						
MSO	Missoula	40.67	70	*e*P	P	00 23 33.9	+0.1
	comp=Z,8.7nm,0.9s,mb4.4						
SLMT	Seeley Lake	40.73	70	*e*P	P	00 23 34.4	+0.2
B15A	Bradely Ranch,	40.74	68	⇑P	P	00 23 34.0	-0.3
	baz=40,SNR=7.9						
D14A	Greenough	40.80	70	⇑P	P	00 23 34.3	-0.5
	baz=40,SNR=9.3						
M08A	Happy Creek Ra	40.85	80	⇓P	P	00 23 35.3	-0.1
	baz=41						
F13A	Darby	40.97	72	⇑P	P	00 23 36.3	0.0
	baz=41,SNR=6.2						
C15A	Salmond Ranch,	40.98	68	⇑P	P	00 23 36.3	0.0
	baz=41,SNR=9.2						
A16A	West Butte Ran	40.99	66	⇓P	P	00 23 35.7	-0.7
	baz=41,SNR=7.7						
CHMT	Chamberlain Mo	41.04	70	*e*P	P	00 23 36.6	-0.2
E14A	Clinton	41.15	71	⇑P	P	00 23 37.3	-0.3
	baz=41,SNR=6.1						
B16A	M & M Farms, S	41.19	67	⇑P	P	00 23 37.4	-0.6
	baz=41						
O07A	Toulon	41.28	82	⇑P	P	00 23 39.4	+0.5
	baz=41						
H12A	Diamond D Ranc	41.31	74	⇑P	P	00 23 38.8	-0.2
	baz=41						
G13A	Cobalt	41.40	73	⇑P	P	00 23 39.6	-0.1
	baz=41,SNR=7.3						
D15A	Lincoln	41.40	69	⇑P	P	00 23 39.4	-0.4
	baz=41,SNR=5.9						
C16A	Fuhringer Ranc	41.47	68	⇑P	P	00 23 40.2	-0.2
	baz=41						
A17A	Triple J Farms	41.51	66	⇑P	P	00 23 40.1	-0.5
	baz=41,SNR=17						
F14A	Wisdom	41.53	71	⇑P	P	00 23 40.4	-0.5
	baz=41,SNR=6.0						
E15A	Deer Lodge	41.65	70	⇓P	P	00 23 41.1	-0.7
	baz=41,SNR=5.4						
H13A	Challis	41.66	74	⇓P	P	00 23 41.3	-0.7
	baz=41						
B17A	L&G Farms, Che	41.78	67	⇑P	P	00 23 42.6	-0.2
	baz=42,SNR=13						
G14A	Jackson	41.78	72	⇓P	P	00 23 42.9	0.0
	baz=42						
HRY	Holter Researc	41.98	69	*e*P	P	00 23 44.6	+0.1
D16A	Dana Ranch, Ca	41.98	69	⇑P	P	00 23 44.8	+0.3
	baz=42						
F15A	Butte	42.04	71	⇑P	P	00 23 44.2	-0.8
	baz=42						
C17A	Wharram Farm,	42.13	68	⇓P	P	00 23 45.4	-0.3
	baz=42						
E16A	East Helena	42.16	70	⇑P	P	00 23 45.3	-0.7
	baz=42,SNR=5.7						
B18A	Beardsley Farm	42.31	66	⇑P	P	00 23 46.5	-0.7
	baz=42,SNR=6.5						
J13A	Cove Ranch, Pi	42.35	75	⇑P	P	00 23 46.9	-0.6
	baz=42,SNR=5.9						
MCMT	McKenzie Canyo	42.37	72	*e*P	P	00 23 47.7	+0.1
	comp=Z,4.5nm,0.7s,mb4.2						
MCMT				*e*pP	pP	00 24 01.1	-0.2
G15A	Dillon	42.40	72	⇑P	P	00 23 47.6	-0.3
	baz=42,SNR=5.7						
D17A	Six Diamond Ra	42.42	68	⇑P	P	00 23 47.6	-0.5
	baz=42,SNR=6.4						

I14A	Mackay	42.49	74	⇑P	P	00 23 48.9	+0.2
	baz=42						
EGMT	Eagleton	42.52	67	⇑P	P	00 23 48.9	+0.1
	baz=42,SNR=8.1						
EGMT	Eagleton	42.52	67	eP	P	00 23 48.8	0.0
	comp=Z,19nm,1.0s,mb4.8						
F16A	Kennard Place,	42.59	71	⇓P	P	00 23 49.2	-0.2
	baz=42						
H15A	Lima	42.60	73	⇓P	P	00 23 49.5	-0.1
	baz=42						
Q08A	Gabbs	42.64	83	⇓P	P	00 23 49.8	-0.2
	baz=42						
BOZ	Bozeman (W)	42.66	71	eP	P	00 23 49.8	-0.2
BOZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
BOZ	Bozeman (W)	42.66	71	⇑P	P	00 23 50.1	+0.1
	baz=42,SNR=12						
BOZ	Bozeman (W)	42.66	71	eP	P	00 23 49.8	-0.2
	comp=Z,8.7nm,0.8s,mb4.5						
NVAR	Mina Array Bea	42.67	84	P	P	00 23 50.9	+0.7
	comp=Z,1.3nm,0.8s,mb3.7,baz=298,slow=8.2,SNR=3.7						
NVAR	Mina Array Bea	42.67	84	P	P	00 23 50.9	+0.7
E17A	Martinsdale	42.68	69	⇓P	P	00 23 50.1	-0.1
	baz=42						
G16A	Moss Hill, Enn	42.78	71	⇓P	P	00 23 50.7	-0.3
	baz=42,SNR=11						
J14A	Carey	42.79	75	⇓P	P	00 23 51.1	0.0
	baz=42						
D18A	Linhart Farms,	42.91	68	⇑P	P	00 23 52.5	+0.4
	baz=43						
F17A	Fitzpatrick Pl	43.09	70	⇓P	P	00 23 53.4	-0.1
	baz=43						
E18A	Harlowton	43.18	69	⇑P	P	00 23 54.8	+0.6
	baz=43						
QLMT	Earthquake Lak	43.21	72	eP	P	00 23 54.8	+0.3
G17A	Pierce Place,	43.36	71	⇓P	P	00 23 55.6	-0.1
	baz=43						
H16A	Russell Place,	43.39	72	⇓P	P	00 23 55.6	-0.3
	baz=43,SNR=8.4						
J15A	Blackfoot	43.40	74	⇑P	P	00 23 56.6	+0.5
	baz=43						
R09A	Tonopah	43.55	83	⇓P	P	00 23 57.6	+0.2
	baz=43						
Q10A	Clear Creek Ra	43.62	82	⇑P	P	00 23 58.5	+0.6
	baz=43						
F18A	Big Timber	43.65	69	⇑P	P	00 23 57.7	-0.3
	baz=43						
I16A	Newdale	43.71	73	⇑P	P	00 23 59.1	+0.6
	baz=44						
YNR	Norris Junctio	43.73	71	eP	P	00 23 59.8	+1.1
	comp=Z,12nm,0.8s,mb4.7						
YFT	Old Faithful	43.78	72	eP	P	00 24 01.0	+2.0
	comp=Z,8.9nm,0.8s,mb4.5						
H17A	Grant Village	43.96	72	⇓P	P	00 24 01.4	+0.9
	baz=44,SNR=8.6						
J16A	Bone	43.97	74	⇓P	P	00 24 01.0	+0.4
	baz=44,SNR=5.9						
LKWY	Lake	43.97	71	eP	P	00 24 02.3	+1.7
LKWY				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
LKWY	Lake	43.97	71	eP	P	00 24 02.3	+1.7
	comp=Z,10nm,0.8s,mb4.6						
IMW	Indian Meadow	44.02	72	eP	P	00 24 01.8	+0.8
	comp=Z,6.9nm,0.8s,mb4.4						
S10A	Tonopah Range,	44.05	83	⇓P	P	00 24 01.4	+0.1
	baz=44						
G18A	Lazy EL Ranch,	44.06	70	⇓P	P	00 24 01.2	-0.1
	baz=44						
RRI2	Red Ridge	44.10	73	eP	P	00 24 02.6	+1.0
	comp=Z,14nm,1.1s,mb4.6						
K16A	Soda Springs	44.23	74	⇓P	P	00 24 03.6	+0.9
	baz=44,SNR=9.0						
RLMT	Red Lodge	44.34	70	⇑P	P	00 24 03.9	+0.4
	baz=44,SNR=10						
RLMT	Red Lodge	44.34	70	eP	P	00 24 04.2	+0.6
	comp=Z,15nm,1.0s,mb4.7						
L16A	Fish Haven	44.80	75	⇓P	P	00 24 07.2	0.0
	baz=45,SNR=7.2						
I18A	Diamond G Ranc	44.80	72	⇑P	P	00 24 07.4	+0.2
	baz=44						
J18A	Kendall Valley	44.96	73	⇑P	P	00 24 08.3	-0.3
	baz=45,SNR=6.1						
M16A	Huntsville	45.08	76	⇓P	P	00 24 09.7	+0.2
	baz=45						
K18A	Toltan Ranch,	45.28	73	⇑P	P	00 24 11.6	+0.5
	baz=45						
T11A	Corn Creek, Al	45.33	83	⇑P	P	00 24 11.9	+0.4
	baz=45						
S12A	Delamar Landin	45.33	82	⇑P	P	00 24 11.9	+0.3
	baz=45						
DGMT	Dagmar	45.45	63	⇑P	P	00 24 12.1	-0.2
	baz=45						
Q14A	Sevier Lake (B	45.46	80	⇑P	P	00 24 12.7	+0.2
	baz=45						
BW06	Boulder Array	45.49	73	⇑P	P	00 24 12.2	-0.6
	baz=45,SNR=16						
BW06	Boulder Array	45.49	73	eP	P	00 24 12.8	0.0
	comp=Z,14nm,0.8s,mb4.8						
PDAR	Pinedale Array	45.49	73	P	P	00 24 12.7	-0.1
	comp=Z,12nm,0.8s,mb4.8,baz=304,slow=4.1,SNR=62						
M17A	Scullys Gap (B	45.58	75	⇑P	P	00 24 13.3	-0.2
	baz=45						
L18A	Fontenelle, Gr	45.69	74	⇑P	P	00 24 14.4	+0.1
	baz=45						
O16A	Springville	45.82	77	⇓P	P	00 24 15.6	+0.2
	baz=46						
DAU	Daniels Canyon	45.84	77	eP	P	00 24 16.5	+0.9
K19A	Absolon Red Bu	45.89	72	⇑P	P	00 24 15.6	-0.3
	baz=46,SNR=14						
L19A	Farson	46.00	74	⇓P	P	00 24 17.1	+0.4
	baz=46						
T13A	Saint George	46.28	82	⇑P	P	00 24 19.4	+0.3
	baz=46						
K20A	Yellowstone Ra	46.29	72	⇑P	P	00 24 18.6	-0.4
	baz=46						
TMUT	Trail Mountain	46.55	78	eP	P	00 24 22.2	+1.2
	comp=Z,9.6nm,0.9s,mb4.7						
U13A	Pakoon Wash	46.63	83	⇑P	P	00 24 22.0	+0.2
	baz=46						
P18A	Preston Nutter	46.94	77	⇓P	P	00 24 24.8	+0.7
	baz=47						
V13A	Grand Canyon W	46.97	83	⇑P	P	00 24 24.9	+0.4
	baz=47						
R16A	Teasdale	47.00	79	⇓P	P	00 24 25.3	+0.6
	baz=47						
M20A	Sweetwater, Wa	47.07	74	⇑P	P	00 24 25.0	-0.1
	baz=47						
SRU	San Rafael	47.08	78	eP	P	00 24 26.1	+0.8
SRU				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SRU	San Rafael	47.08	78	⇓P	P	00 24 25.5	+0.3
	baz=47						
SRU	San Rafael	47.08	78	eP	P	00 24 26.1	+0.9
	comp=Z,9.6nm,0.9s,mb4.7						
U14A	Mt Trumbull	47.11	82	⇑P	P	00 24 26.0	+0.5
	baz=47						
ULN	Ulaanbaatar	47.15	297	eP	P	00 24 25.8	+0.1
ULN				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
ULN	Ulaanbaatar	47.15	297	eP	P	00 24 25.8	+0.1
	comp=Z,7.0nm,0.7s,mb4.7						
O19A	Miners Draw (B	47.22	75	⇓P	P	00 24 26.0	-0.3
	baz=47,SNR=6.0						
T15A	Red Dirt Ranch	47.23	81	⇓P	P	00 24 26.6	+0.1
	baz=47						
L21A	Rawlins	47.28	73	⇑P	P	00 24 25.9	-0.9
	baz=47,SNR=7.1						
Q18A	Rafter H Ranch	47.33	77	⇓P	P	00 24 27.3	+0.1
	baz=47						
R17A	Hanksville Air	47.39	78	⇑P	P	00 24 27.5	-0.1
	baz=47						
N20A	Spence Gulch,	47.41	74	⇓P	P	00 24 27.6	-0.2
	baz=47						
M21A	Separation Pea	47.49	73	⇓P	P	00 24 28.2	-0.3
	baz=47						
SONM	Songino Array	47.54	297	P	P	00 24 29.1	+0.4
	comp=Z,5.5nm,0.7s,mb4.7,baz=56,slow=8.9,SNR=46						
RWWY	Rawlins	47.54	73	eP	P	00 24 28.5	-0.3
	comp=Z,10nm,0.9s,mb4.9						
V14A	Boquillas Ranc	47.66	83	⇑P	P	00 24 30.2	+0.4
	baz=48						
P19A	Cripple Cowboy	47.71	76	⇑P	P	00 24 30.1	0.0
	baz=48,SNR=7.0						
ZAK	Zakamensk	47.82	302	eP	P	00 24 30.5	-0.3
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.4						
S17A	Black Ridge (B	47.82	79	⇓P	P	00 24 30.8	-0.3
	baz=48						
O20A	White River Ci	47.85	75	⇓P	P	00 24 30.9	-0.3
	baz=48,SNR=6.0						
N21A	Black Mountain	47.91	74	⇑P	P	00 24 31.0	-0.7
	baz=48,SNR=5.3						
R18A	Canyonlands Na	47.92	78	⇓P	P	00 24 31.1	-0.6
	baz=48						
W14A	Seligman	47.94	83	⇑P	P	00 24 32.1	+0.1
	baz=48						
Q19A	Hogan Spring (	47.95	77	⇓P	P	00 24 31.6	-0.4
	baz=48						
RSSD	Black Hills	47.98	68	eP	P	00 24 33.5	+1.3
RSSD				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
RSSD	Black Hills	47.98	68	eP	P	00 24 33.5	+1.3
	comp=Z,2.9nm,0.6s,mb4.5						
M22A	Cedar Creek Ra	48.08	73	⇑P	P	00 24 32.7	-0.3
	baz=48						
V15A	Kaibab Nationa	48.12	82	⇑P	P	00 24 33.4	0.0
	baz=48						
P20A	De Beque	48.15	76	⇓P	P	00 24 33.1	-0.4
	baz=48						
T17A	Navajo Res., N	48.22	80	⇑P	P	00 24 33.6	-0.5
	baz=48						
O21A	Pagoda	48.27	74	⇑P	P	00 24 34.1	-0.3
	baz=48						
S18A	Hurst Farm, Bl	48.29	79	⇑P	P	00 24 34.0	-0.6
	baz=48						
R19A	Curley Farm, L	48.36	78	⇑P	P	00 24 35.0	-0.2
	baz=48						
PV04	Paradox Valley	48.52	77	eP	P	00 24 36.3	-0.1
N22A	Wattenberg Ran	48.53	73	⇓P	P	00 24 36.5	+0.1
	baz=48,SNR=6.3						
Q20A	Ridgley Place,	48.54	76	⇑P	P	00 24 36.2	-0.4
	baz=48						
X14A	Yava	48.55	84	⇓P	P	00 24 36.4	-0.3
	baz=48						
HHC	Hu-ho-hao-te	48.61	287	eP	P	00 24 37.5	+0.4
HHC				pP	pP	00 24 49.8	-1.1
HHC				sP	sP	00 24 55.1	-1.8
HHC				PP	PP	00 26 28.8	-1.3
HHC				PcS	PcS	00 30 00.3	+2.4
HHC				S	S	00 31 30.5	-4.5
HHC				sS	sS	00 31 51.6	-6.7
HHC				ScS	ScS	00 34 23.8	-0.9
HHC				SS	SS	00 34 54.6	-11
HHC				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
HHC				LR	LR		
	comp=N,550nm,15.5s,MS4.8						
HHC				LR	LR		
	comp=E,720nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,360nm,12.0s						
P21A	Newcastle	48.71	75	⇑P	P	00 24 37.5	-0.3
	baz=48						
T18A	Mexican Hat	48.71	79	⇓P	P	00 24 37.6	-0.2
	baz=48						
S19A	Harvey Farm, M	48.78	78	⇑P	P	00 24 38.0	-0.5
	baz=49						
WUAZ	Wupatki	48.81	82	⇓P	P	00 24 38.6	-0.1
	baz=49						
PV01	Paradox Valley	48.89	77	eP	P	00 24 38.6	-0.6
	comp=Z,877nm,0.8s						
X15A	Humboldt	48.94	84	⇑P	P	00 24 39.7	0.0
	baz=49						
R20A	Redvale	48.97	77	⇑P	P	00 24 39.5	-0.4
	baz=49						
W16A	Flagstaff	48.99	82	⇑P	P	00 24 40.4	+0.4
	baz=49						
ULM	Lac du Bonnet	49.02	57	P	P	00 24 39.0	-1.0
	comp=Z,3.9nm,0.8s,mb4.5,baz=307,slow=6.7,SNR=5.6						
R21A	Cimarron	49.37	76	⇓P	P	00 24 42.8	-0.1
	baz=49						
T19A	Beclabito	49.43	79	⇓P	P	00 24 43.6	+0.2
	baz=49						
Q22A	Crested Butte,	49.45	76	⇑P	P	00 24 43.7	+0.2
	baz=49						
X16A	Lo Mia Camp, P	49.49	83	⇑P	P	00 24 44.6	+0.7
	baz=49						
NJ2	Nanjing	49.73	273	eP	P	00 24 52.8	+7.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
Y16A	Circle Bar Ran	49.82	84	⇓P	P	00 24 47.3	+0.9
	baz=50						
KBS	Kingsbay	50.01	358	eP	P	00 24 49.8	+2.5
KBS				pmax	pmax		
	comp=Z,108nm,1.0s,mb5.8						
AGMN	Agassiz Refuge	50.15	59	eP	P	00 24 47.8	-0.9
	comp=Z,23nm,1.4s,mb5.0						
T22A	Edith	50.62	77	⇑P	P	00 24 52.7	+0.3
	baz=50						
SDCO	Great Sand Dun	51.01	76	eP	P	00 24 55.8	+0.5
	comp=Z,10.0nm,1.3s,mb4.6						
ECSD	EROS Data Cent	52.49	64	eP	P	00 25 05.1	-1.2
	comp=Z,7.9nm,1.1s,mb4.6						
FRB	Frobisher Bay	52.70	32	P	P	00 25 06.1	-1.4
	comp=Z,1.9nm,0.4s,mb4.4,baz=317,slow=8.5,SNR=16						
EYMN	Ely	52.70	57	eP	P	00 25 07.0	-0.7
	comp=Z,18nm,1.0s,mb5.0						
CBKS	Cedar Bluff	53.80	71	eP	P	00 25 15.8	-0.1
CBKS				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
CBKS	Cedar Bluff	53.80	71	eP	P	00 25 15.8	-0.1
	comp=Z,15nm,0.8s,mb5.0						
XAN	Xi’an	54.59	282	P	P	00 25 21.8	0.0
XAN				pP	pP	00 25 35.4	-0.4
XAN				sP	sP	00 25 41.5	-0.2
XAN				PP	PP	00 27 24.3	0.0
XAN				S	S	00 32 57.0	-0.4
XAN				sS	sS	00 33 20.6	-0.3
XAN				ScS	ScS	00 35 06.4	+0.1
XAN				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
XAN				pmax	pmax		
	comp=Z,69nm,10.1s						
XAN				LR	LR		
	comp=N,140nm,19.6s,MS4.3						
XAN				LR	LR		
	comp=E,200nm,20.3s,MS4.3						
XAN				LR	LR		
	comp=Z,240nm,22.5s,MS4.2						
ZALV	Zalesovo Beam	54.81	314	P	P	00 25 21.4	-1.6
	comp=Z,0.3nm,0.4s,mb3.7,baz=72,slow=4.8,SNR=4.0						
ZALV				PcP	PcP	00 26 25.1	+0.3
	comp=Z,5.6nm,0.8s,baz=31,slow=4.0,SNR=20						
SFJD	Kangerlussuaq	55.47	22	P	P	00 25 25.9	-1.7
SFJD				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
SFJD	Kangerlussuaq	55.47	22	P	P	00 25 25.9	-1.7
	comp=Z,3.6nm,0.7s,mb4.5,baz=346,slow=4.2,SNR=3.7						
LZH	Lanzhou	56.31	287	eP	P	00 25 33.9	-0.2
LZH				pP	pP	00 25 48.8	+0.6
LZH				sP	sP	00 25 55.0	+0.9
LZH				PP	PP	00 27 41.3	+1.7
LZH				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
LZH				pmax	pmax		
	comp=Z,85nm,6.1s						
LZH				LR	LR		
	comp=N,320nm,15.6s						
LZH				LR	LR		
	comp=Z,400nm,18.0s,MS4.5						
GTA	Gaotai	56.48	293	P	P	00 25 35.4	+0.2
GTA				pP	pP	00 25 50.5	+1.2
GTA				sP	sP	00 25 56.6	+1.3
GTA				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
WMOK	Wichita Mounta	57.07	74	eP	P	00 25 39.2	-0.3
WMOK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
WMOK	Wichita Mounta	57.07	74	eP	P	00 25 39.2	-0.4
	comp=Z,9.3nm,1.1s,mb4.7						
TXAR	Lajitas Array	57.78	82	P	P	00 25 44.1	-0.5
	comp=Z,1.4nm,0.7s,mb4.1,baz=308,slow=5.2,SNR=9.4						
SCHQ	Schefferville	59.57	39	P	P	00 25 55.5	-1.1
	comp=Z,1.8nm,0.7s,mb4.2,baz=302,slow=9.3,SNR=4.6						
KURK	Kurchatov	59.80	314	P	P	00 25 57.9	-0.3
	comp=Z,2.5nm,0.6s,mb4.4,baz=43,slow=6.4,SNR=11						
KURK				PcP	PcP	00 26 44.8	+0.3
	comp=Z,3.1nm,0.8s,baz=43,slow=3.7,SNR=7.6						
KURK	Kurchatov	59.80	314	P	P	00 25 57.9	-0.3
KURK				PcP	PcP	00 26 44.8	+0.3
FVM	French Village	59.80	66	eP	P	00 25 57.4	-1.1
FVM				pmax	pmax		
	comp=Z,124nm,2.6s,mb5.5						
FVM	French Village	59.80	66	eP	P	00 25 57.4	-1.1
	comp=Z,124nm,2.6s,mb5.5						
CD2	Chengdu	59.90	283	P	P	00 26 00.5	+1.2
CD2				pP	pP	00 26 16.6	+3.1
CD2				sP	sP	00 26 23.5	+4.1
CD2				PP	PP	00 28 14.8	+3.2
CD2				S	S	00 34 05.5	-1.8
CD2				sS	sS	00 34 32.9	+1.7
CD2				SS	SS	00 38 03.5	-0.3
CD2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CD2				pmax	pmax		
	comp=Z,150nm,11.7s						
CD2				LR	LR		
	comp=N,670nm,14.3s						
CD2				LR	LR		
	comp=Z,850nm,14.9s,MS5.0						
MIAR	Mount Ida	60.33	71	eP	P	00 26 01.2	-0.9
MIAR				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
MIAR	Mount Ida	60.33	71	eP	P	00 26 01.2	-0.9
	comp=Z,12nm,0.8s,mb5.0						
OLIL	Olney	60.61	64	eP	P	00 26 03.1	-0.9
	comp=Z,25nm,1.0s,mb5.3						
OLIL				epP	pP	00 26 16.3	-1.9
MKAR	Makanchi Array	60.85	309	P	P	00 26 04.0	-1.6
	comp=Z,0.7nm,0.5s,mb4.0,baz=49,slow=5.8,SNR=20						
SADO	Sadowa	61.21	54	P	P	00 26 07.6	-0.4
	comp=Z,9.4nm,0.9s,mb4.9,baz=323,slow=8.8,SNR=7.5						
GYA	Guiyang	61.25	277	⇑iP	P	00 26 10.8	+2.3
GYA				pP	pP	00 26 25.4	+2.6
GYA				sP	sP	00 26 32.0	+3.4
GYA				PP	PP	00 28 27.8	+4.2
GYA				ScP	ScP	00 30 48.6	+1.0
GYA				PcS	PcS	00 30 55.9	+2.2
GYA				S	S	00 34 23.3	-1.3
GYA				SS	SS	00 38 26.8	+1.8
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.2						
GYA				pmax	pmax		
	comp=Z,120nm,4.9s						
GYA				LR	LR		
	comp=N,490nm,18.8s,MS4.8						
GYA				LR	LR		
	comp=E,430nm,17.9s,MS4.8						
GYA				LR	LR		
	comp=Z,460nm,18.0s,MS4.7						
BVAR	Borovoye Array	61.61	321	P	P	00 26 09.8	-0.7
	comp=Z,9.0nm,0.8s,mb5.0,baz=53,slow=7.6,SNR=34						
SVE	Sverdlovsk	62.23	328	eP	P	00 26 15.4	+0.8
SVE				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
ERPA	Erie	62.65	56	eP	P	00 26 17.9	+0.2
	comp=Z,32nm,1.1s,mb5.4						
OXF	Oxford	62.80	68	eP	P	00 26 18.1	-0.7
OXF				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.3						
OXF	Oxford	62.80	68	eP	P	00 26 18.1	-0.8
	comp=Z,22nm,0.9s,mb5.3						
ALLY	Alegheny Colle	62.90	57	eP	P	00 26 19.9	+0.5
	comp=Z,73nm,0.9s,mb5.8						
ARU	Arti	63.23	329d	iP	P	00 26 20.9	-0.4
ARU				e		00 28 42.4	
ARU				S	S	00 34 53.6	+4.9
ARU				pmax	pmax		
	comp=Z,23nm,1.7s,mb5.0						
ARU	Arti	63.23	329	eP	P	00 26 21.2	-0.1
	comp=Z,15nm,0.9s,mb5.1						
MCWV	Mont Chateau	64.49	58	eP	P	00 26 28.8	-1.1
	comp=Z,43nm,1.3s,mb5.3						
KMI	Kunming	64.65	279	P	P	00 26 30.5	-0.6
KMI				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
BINY	Binghamton	64.65	54	eP	P	00 26 30.7	-0.2
	comp=Z,26nm,1.0s,mb5.2						
TKL	Tuckaleechee C	65.22	64	P	P	00 26 34.1	-0.5
	comp=Z,5.1nm,0.7s,mb4.7,baz=325,slow=7.0,SNR=5.7						
ELN	Prospectdale	65.76	60	eP	P	00 26 37.4	-0.7
JSC	Jenkinsville	67.63	63	eP	P	00 26 49.5	-0.6
AAK	Ala-Archa	67.67	311	eP	P	00 26 49.3	-0.9
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
AAK	Ala-Archa	67.67	311	P	P	00 26 50.3	0.0
	comp=Z,3.4nm,0.8s,mb4.4,baz=188,slow=2.6,SNR=5.1						
AAK	Ala-Archa	67.67	311	P	P	00 26 50.3	0.0
NOA	NORSAR Array B	67.90	356	P	P	00 26 51.7	+0.4
	comp=Z,3.7nm,1.0s,mb4.4,baz=18,slow=8.5,SNR=3.3						
HFS	Hagfors	68.66	354	P	P	00 26 55.7	-0.4
	comp=Z,10nm,0.9s,mb4.7,baz=344,slow=4.7,SNR=3.8						
KSH	Kashi	69.33	308	eP	P	00 27 04.1	+3.5
KSH				epP	pP	00 27 20.4	+5.3
KSH				ePcP	PcP	00 27 26.8	+2.9
KSH				ePP	PP	00 29 40.1	+6.3
KSH				eScP		00 31 25.1	
KSH				ePcS		00 31 31.6	
KSH				eS	S	00 36 04.8	+1.6
KSH				eScS	ScS	00 36 56.1	-1.1
KSH				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
KSH				pmax	pmax		
	comp=Z,500nm,6.5s						
KSH				LR	LR		
	comp=N,210nm,4.2s						
KSH				LR	LR		
	comp=E,240nm,4.4s						
KSH				LR	LR		
	comp=Z,180nm,5.1s						
OBN	Obninsk	70.35	340	⇓eP	P	00 27 05.4	-1.2
OBN				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
SHL	Shillong	70.97	287	ePKP	P	00 27 12.0	+1.1
CMAR	Chiang Mai Arr	71.94	277	P	P	00 27 16.6	-0.2
	comp=Z,1.2nm,0.3s,mb4.3,baz=30,slow=6.7,SNR=8.6						
TAPN	Taplejung	72.12	291	eP	P	00 27 18.5	+0.7
ODAN	Odare	72.67	291	eP	P	00 27 21.6	+0.5
GUN	Gumba	72.76	293	eP	P	00 27 22.4	+0.8
	comp=Z,45nm,0.5s,mb5.7						
JIRN	Jiri	72.77	293	eP	P	00 27 22.6	+0.9
	comp=Z,32nm,0.8s,mb5.3						
VRHR	Novokhopersk	72.85	335	eP	P	00 27 20.1	-1.6
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.5s						
RAMN	Ramite	73.07	292	eP	P	00 27 23.7	+0.3
KKN	Kakani	73.20	293	eP	P	00 27 24.9	+0.7
	comp=N,11nm,0.5s,mb5.0						
KKN	Kakani	73.20	293	eP	P	00 27 24.9	+0.7
KKN				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.0						
PKI	Pulchoki	73.29	293	eP	P	00 27 25.2	+0.5
PKIN	Phulchoki	73.30	293	eP	P	00 27 24.8	+0.1
	comp=Z,7.5nm,0.6s,mb4.8						
VSR	Storozhevoye	73.36	337	eP	P	00 27 24.5	-0.2
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VSR				pmax	pmax		
	comp=E,10.0nm,1.2s						
GKN	Gorkha	73.41	294	eP	P	00 27 25.7	+0.3
DMN	Daman	73.44	293	eP	P	00 27 26.2	+0.6
VORD	Divnogorie	73.56	337	eP	P	00 27 25.4	-0.5
VORD				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.2						
VORD				pmax	pmax		
	comp=N,70nm,0.6s						
VORD				pmax	pmax		
	comp=E,40nm,0.7s						
DANN	Dangsing	73.65	295	eP	P	00 27 27.7	+0.9
EKA	Eskdalemuir Ar	73.72	3	P	P	00 27 26.6	-0.2
	comp=E,5.2nm,0.8s,mb4.5,baz=358,slow=4.4,SNR=8.2						
KOLN	Koldanda	74.18	295	eP	P	00 27 30.1	+0.2
	comp=E,31nm,1.1s,mb5.1						
AKASG	Malin Array Be	75.99	343	P	P	00 27 39.4	-0.6
	comp=E,2.3nm,0.4s,mb4.4,baz=13,slow=5.5,SNR=12						
IBBN	Ibbenburen	76.77	357	eP	P	00 27 44.9	+0.5
	comp=Z,41nm,1.1s,mb5.3						
CLZ	Clausthal	77.12	355	eP	P	00 27 46.7	+0.4
CLZ				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
CLZ	Clausthal	77.12	355	eP	P	00 27 46.7	+0.4
	comp=Z,19nm,1.0s,mb5.0						
CLL	Collm	77.49	353	eP	P	00 27 48.0	-0.4
BRG	Berggiesshubel	77.85	353	i P	P	00 27 49.8	-0.6
BRG				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						

BRG	**Berggiesshubel**	**77.85**	**353**	iP	**P**	**00 27 49.8**	**-0.6**
	comp=Z,9.7nm,1.1s,mb4.7						
KWP	**Kalwaria Pacla**	**78.09**	**347**	⇓iP	**P**	**00 27 52.1**	**+0.3**
KWP	**Kalwaria Pacla**	**78.09**	**347**	⇓P	**P**	**00 27 52.1**	**+0.3**
DPC	**Dobruska-Polom**	**78.16**	**351**	eP	**P**	**00 27 52.2**	**+0.1**
DPC	**Dobruska-Polom**	**78.16**	**351**	epP	**P**	**00 27 52.2**	**+0.1**
MOX	**Moxa**	**78.24**	**354**	eP	**P**	**00 27 52.9**	**+0.3**
	comp=Z,9.0nm,1.1s,mb4.6						
MOX	**Moxa**	**78.24**	**354**	eP	**P**	**00 27 52.9**	**+0.3**
MOX				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
MOX	**Moxa**	**78.24**	**354**	eP	**P**	**00 27 52.4**	**-0.2**
	comp=Z,6.0nm,0.9s,mb4.5						
STHS	**Stebnicka Huta**	**78.51**	**348**	eP	**P**	**00 27 54.0**	**-0.1**
STHS				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
STHS	**Stebnicka Huta**	**78.51**	**348**	eP	**P**	**00 27 54.0**	**-0.1**
STHS	**Stebnicka Huta**	**78.51**	**348**	eP	**P**	**00 27 54.0**	**-0.1**
	comp=Z,5.7nm,0.8s,mb4.5						
MEM	**Membach**	**78.53**	**358**	P	**P**	**00 27 54.3**	**+0.2**
	comp=Z,14nm,2.2s,mb4.5						
NKC	**Novy Kostel**	**78.60**	**354**	eP	**P**	**00 27 54.7**	**+0.2**
PRU	**Pruhonice**	**78.68**	**352**	eP	**P**	**00 27 55.2**	**+0.2**
BCLA	**Clavier**	**78.73**	**358**	P	**P**	**00 27 54.9**	**-0.4**
	comp=Z,36nm,3.5s						
TNS	**Taunus Mts**	**78.83**	**356**	eP	**P**	**00 27 55.9**	**+0.1**
TNS				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
TNS	**Taunus Mts**	**78.83**	**356**	eP	**P**	**00 27 55.9**	**+0.1**
	comp=Z,20nm,0.9s,mb5.0						
KOLS	**Kolonicke sedl**	**78.84**	**347**	eP	**P**	**00 27 54.5**	**-1.4**
KOLS				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
KOLS	**Kolonicke sedl**	**78.84**	**347**	eP	**P**	**00 27 54.5**	**-1.4**
KOLS	**Kolonicke sedl**	**78.84**	**347**	eP	**P**	**00 27 54.5**	**-1.4**
	comp=Z,6.4nm,1.2s,mb4.4						
MANZ	**Manzenberg**	**78.87**	**354**	eP	**P**	**00 27 55.7**	**-0.3**
	comp=Z,5.0nm,1.0s,mb4.4						
CRVS	**Cervenica-Dubn**	**78.98**	**347**	eP	**P**	**00 27 57.2**	**+0.5**
GIVF	**Givet**	**79.06**	**359**	eP	**P**	**00 27 57.2**	**+0.1**
KIV	**Kislovodsk**	**79.06**	**332**	⇑eP	**P**	**00 27 57.0**	**-0.2**
KIV				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
ROTZ	**Rotzenmuhle**	**79.08**	**354**	eP	**P**	**00 27 57.4**	**+0.2**
	comp=Z,6.0nm,1.1s,mb4.4						
BAIF	**Baives**	**79.11**	**359**	eP	**P**	**00 27 57.7**	**+0.4**
	comp=Z,28nm,0.8s,mb4.9						
BAIF	**Baives**	**79.11**	**359**	eP	**P**	**00 27 57.7**	**+0.4**
BAIF				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
BAIF	**Baives**	**79.11**	**359**	eP	**P**	**00 27 57.7**	**+0.4**
	comp=Z,14nm,0.8s,mb4.9						
VRAC	**Vranov**	**79.16**	**351**	P	**P**	**00 27 57.8**	**+0.1**
	comp=Z,7.7nm,0.9s,mb4.6,baz=26,slow=7.9,SNR=5.8						
GRA1	**Grafenberg Arr**	**79.22**	**354**	eP	**P**	**00 27 58.1**	**+0.1**
	comp=Z,19nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	**79.22**	**354**	eP	**P**	**00 27 58.1**	**+0.1**
GRF				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	**79.22**	**354**	eP	**P**	**00 27 58.1**	**+0.1**
GRF				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	**79.22**	**354**	eP	**P**	**00 27 58.1**	**+0.1**
	comp=Z,19nm,1.0s,mb5.0						
KHC	**Kasperske Hory**	**79.61**	**353**	eP	**P**	**00 28 00.0**	**-0.1**
WET	**Wettzell**	**79.65**	**353**	eP	**P**	**00 28 00.4**	**+0.1**
WET				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
WET	**Wettzell**	**79.65**	**353**	eP	**P**	**00 28 00.4**	**+0.1**
	comp=Z,6.0nm,1.1s,mb4.4						
BURAR	**Bucovina Array**	**79.67**	**345**	⇓iP	**P**	**00 28 00.8**	**+0.3**
BURAR	**Bucovina Array**	**79.67**	**345**	⇓P	**P**	**00 28 00.8**	**+0.3**
VYHS	**Vyhne**	**79.72**	**349**	eP	**P**	**00 27 59.7**	**-1.0**
ANN	**Anapa**	**79.75**	**336**	eP	PcP	00 28 10.3	+1.8
ANN				pmax	pmax		
	comp=Z,74nm,1.1s,mb5.5						
GERES	**GERESS Array B**	**79.88**	**353**	P	**P**	**00 28 01.6**	**0.0**
	comp=Z,2.0nm,0.8s,mb4.1,baz=35,slow=4.9,SNR=6.3						
ZST	**Bratislava**	**80.21**	**350**	eP	**P**	**00 28 03.8**	**+0.5**
ZST				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
ZST	**Bratislava**	**80.21**	**350**	eP	**P**	**00 28 03.8**	**+0.5**
	comp=Z,7.3nm,0.7s,mb4.7						
FLN	**La Foliniere**	**80.38**	**2**	eP	**P**	**00 28 04.0**	**-0.2**
LDF	**La Druitiere**	**80.55**	**2**	eP	**P**	**00 28 04.9**	**-0.3**
	comp=Z,18nm,0.6s,mb4.9						
LDF	**La Druitiere**	**80.55**	**2**	eP	**P**	**00 28 04.9**	**-0.3**
LDF				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
LDF	**La Druitiere**	**80.55**	**2**	eP	**P**	**00 28 04.9**	**-0.3**
	comp=Z,9.1nm,0.6s,mb4.9						
MEZF	**Maizieres J'vi**	**80.65**	**358**	eP	**P**	**00 28 06.0**	**+0.3**
	comp=Z,21nm,0.9s,mb4.8						
MEZF	**Maizieres J'vi**	**80.65**	**358**	eP	**P**	**00 28 06.0**	**+0.3**
	comp=Z,21nm,0.9s,mb5.1						
CDF	**Champ du Feu**	**80.69**	**357**	eP	**P**	**00 28 05.8**	**-0.1**
	comp=Z,10nm,0.7s,mb4.6						
CDF	**Champ du Feu**	**80.69**	**357**	eP	**P**	**00 28 05.8**	**-0.1**
CDF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
CDF	**Champ du Feu**	**80.69**	**357**	eP	**P**	**00 28 05.8**	**-0.1**
	comp=Z,5.1nm,0.7s,mb4.6						
ROSF	**Rostrenen**	**80.71**	**4**	eP	**P**	**00 28 06.2**	**+0.2**
GRR	**Gorron**	**80.74**	**2**	eP	**P**	**00 28 06.1**	**-0.1**
	comp=Z,30nm,0.8s,mb5.0						
GRR	**Gorron**	**80.74**	**2**	eP	**P**	**00 28 06.1**	**-0.1**
GRR				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
GRR	**Gorron**	**80.74**	**2**	eP	**P**	**00 28 06.1**	**-0.1**
	comp=Z,15nm,0.8s,mb5.0						
SGMF	**Saint Gilles**	**80.82**	**4**	eP	**P**	**00 28 06.6**	**0.0**
	comp=Z,41nm,1.0s,mb5.0						
SGMF	**Saint Gilles**	**80.82**	**4**	eP	**P**	**00 28 06.6**	**0.0**
SGMF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
SGMF	**Saint Gilles**	**80.82**	**4**	eP	**P**	**00 28 06.6**	**0.0**
	comp=Z,20nm,1.0s,mb5.0						
DRGR		**80.87**	**346**	⇓iP	**P**	**00 28 07.2**	**+0.3**
DRGR		**80.87**	**346**	⇓P	**P**	**00 28 07.2**	**+0.2**
VRI	**Vrincioaia**	**81.10**	**343**	⇑iP	**P**	**00 28 08.2**	**0.0**
VRI	**Vrincioaia**	**81.10**	**343**	⇑P	**P**	**00 28 08.2**	**+0.1**
HAU	**Haudompre**	**81.12**	**357**	eP	**P**	**00 28 08.1**	**-0.1**
	comp=Z,15nm,0.8s,mb4.7						
HAU	**Haudompre**	**81.12**	**357**	eP	**P**	**00 28 08.1**	**-0.1**
	comp=Z,7.6nm,0.8s,mb4.7						
PLOR	**Plostina**	**81.13**	**343**	⇓iP	**P**	**00 28 09.2**	**+0.9**
QUIF	**Quistinic**	**81.13**	**4**	eP	**P**	**00 28 08.3**	**0.0**
	comp=Z,45nm,1.2s,mb5.0						
QUIF	**Quistinic**	**81.13**	**4**	eP	**P**	**00 28 08.3**	**0.0**
QUIF				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
QUIF	**Quistinic**	**81.13**	**4**	eP	**P**	**00 28 08.3**	**0.0**
	comp=Z,23nm,1.2s,mb5.0						
HINF	**Hinteralfeld**	**81.29**	**357**	eP	**P**	**00 28 08.8**	**-0.4**
	comp=Z,12nm,0.8s,mb4.5						
HINF	**Hinteralfeld**	**81.29**	**357**	eP	**P**	**00 28 08.8**	**-0.4**
HINF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
HINF	**Hinteralfeld**	**81.29**	**357**	eP	**P**	**00 28 08.8**	**-0.4**
	comp=Z,5.8nm,0.8s,mb4.6						
TLCR		**81.36**	**342**	⇑iP	**P**	**00 28 10.0**	**+0.5**
TLCR		**81.36**	**342**	⇑P	**P**	**00 28 10.0**	**+0.4**
MLR	**Muntele Rosu**	**81.60**	**344**	⇓iP	**P**	**00 28 12.5**	**+1.7**
MLR	**Muntele Rosu**	**81.60**	**344**	⇓P	**P**	**00 28 12.5**	**+1.6**
KBA	**Koelnbreinsper**	**81.67**	**353**	iP	**P**	**00 28 12.0**	**+0.9**
	comp=Z,25nm,0.8s,mb5.2,SNR=23						
VOIR		**81.81**	**344**	⇑iP	**P**	**00 28 13.4**	**+1.5**
VOIR		**81.81**	**344**	⇑P	**P**	**00 28 13.4**	**+1.5**
GNI	**Garni**	**81.87**	**329**	⇑eP	**P**	**00 28 12.6**	**+0.2**
GNI				pmax	pmax		
	comp=Z,14nm,1.7s						
GNI	**Garni**	**81.87**	**329**	P	**P**	**00 28 13.5**	**+1.2**
	comp=Z,4.5nm,0.8s,mb4.5,baz=345,slow=3.9,SNR=8.3						
LOR	**Lormes**	**81.90**	**359**	eP	**P**	**00 28 12.4**	**0.0**
	comp=Z,22nm,0.9s,mb4.8						
LOR	**Lormes**	**81.90**	**359**	eP	**P**	**00 28 12.4**	**0.0**
LOR				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
LOR	**Lormes**	**81.90**	**359**	eP	**P**	**00 28 12.4**	**0.0**
	comp=Z,11nm,0.9s,mb4.8						
FETA	**Feichten**	**81.91**	**354**	iP	**P**	**00 28 12.9**	**+0.4**
	comp=Z,8.0nm,1.1s,mb4.6,SNR=7.9						
HYF	**Humbligny**	**81.91**	**0**	eP	**P**	**00 28 12.7**	**+0.3**
SOKA	**Soboth**	**81.92**	**351**	⇓iP	**P**	**00 28 12.6**	**+0.1**
	comp=Z,12nm,0.9s,mb4.9						
HARR	**Harsova**	**82.01**	**342**	⇑iP	**P**	**00 28 13.3**	**+0.3**
HARR	**Harsova**	**82.01**	**342**	⇑P	**P**	**00 28 13.3**	**+0.4**
SSF	**Saint Saulge**	**82.11**	**359**	eP	**P**	**00 28 13.5**	**0.0**
	comp=Z,16nm,0.8s,mb4.7						
SSF	**Saint Saulge**	**82.11**	**359**	eP	**P**	**00 28 13.5**	**0.0**
SSF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
SSF	**Saint Saulge**	**82.11**	**359**	eP	**P**	**00 28 13.5**	**0.0**
	comp=Z,8.0nm,0.8s,mb4.7						
OBKA	**Obir**	**82.13**	**352**	⇑iP	**P**	**00 28 13.5**	**0.0**
	comp=Z,9.7nm,0.8s,mb4.8,SNR=12						
TIRR	**Tirgusor**	**82.14**	**342**	⇓iP	**P**	**00 28 14.0**	**+0.3**
TIRR	**Tirgusor**	**82.14**	**342**	⇓P	**P**	**00 28 14.0**	**+0.3**
DAVOS	**Davos**	**82.14**	**355**	P	**P**	**00 28 13.9**	**+0.2**
BZS	**Buzias**	**82.18**	**347**	⇓iP	**P**	**00 28 13.7**	**-0.1**
BZS	**Buzias**	**82.18**	**347**	⇓P	**P**	**00 28 13.7**	**-0.2**
DAVOX	**Davos/Dischmat**	**82.20**	**355**	P	**P**	**00 28 13.9**	**0.0**
	comp=Z,4.6nm,0.8s,mb4.5,baz=340,slow=23,SNR=4.3						
GZR	**Gura Zlata**	**82.22**	**346**	⇑iP	**P**	**00 28 14.4**	**+0.3**
GZR	**Gura Zlata**	**82.22**	**346**	⇑P	**P**	**00 28 14.4**	**+0.3**
AVF	**Avril sur Loir**	**82.39**	**360**	eP	**P**	**00 28 14.8**	**-0.1**
	comp=Z,22nm,1.0s,mb4.8						
AVF	**Avril sur Loir**	**82.39**	**360**	eP	**P**	**00 28 14.8**	**-0.1**
AVF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
AVF	**Avril sur Loir**	**82.39**	**360**	eP	**P**	**00 28 14.8**	**-0.1**
	comp=Z,11nm,1.0s,mb4.8						
CABF	**La Chapelle**	**82.52**	**358**	eP	**P**	**00 28 15.9**	**+0.3**
	comp=Z,35nm,1.2s,mb5.0						
CABF	**La Chapelle**	**82.52**	**358**	eP	**P**	**00 28 15.9**	**+0.3**
CABF				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
CABF	**La Chapelle**	**82.52**	**358**	eP	**P**	**00 28 15.9**	**+0.3**
	comp=Z,18nm,1.2s,mb5.0						
WRA	**Warramunga Arr**	**82.53**	**225**	P	**P**	**00 28 13.6**	**-2.2**
	comp=Z,0.5nm,0.7s,mb3.6,baz=38,slow=5.9,SNR=5.3						
SMF	**Signal de Mont**	**82.53**	**359**	eP	**P**	**00 28 15.6**	**-0.1**
	comp=Z,21nm,0.8s,mb4.9						
SMF	**Signal de Mont**	**82.53**	**359**	eP	**P**	**00 28 15.6**	**-0.1**
SMF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
SMF	**Signal de Mont**	**82.53**	**359**	eP	**P**	**00 28 15.6**	**-0.1**
	comp=Z,10nm,0.8s,mb4.9						
MFF	**Saint Martin d**	**82.55**	**2**	eP	**P**	**00 28 15.9**	**+0.1**
	comp=Z,25nm,0.9s,mb5.0						
MFF	**Saint Martin d**	**82.55**	**2**	eP	**P**	**00 28 15.9**	**+0.1**
MFF				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
MFF	**Saint Martin d**	**82.55**	**2**	eP	**P**	**00 28 15.9**	**+0.1**
	comp=Z,12nm,0.9s,mb4.9						
BGF	**Bois d'Agland**	**82.62**	**360**	eP	**P**	**00 28 16.2**	**+0.1**
	comp=Z,15nm,1.0s,mb4.7						
BGF	**Bois d'Agland**	**82.62**	**360**	eP	**P**	**00 28 16.2**	**+0.1**
BGF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
BGF	**Bois d'Agland**	**82.62**	**360**	eP	**P**	**00 28 16.2**	**+0.1**
	comp=Z,7.3nm,1.0s,mb4.7						
TCF	**Toulx Ste Croi**	**82.89**	**0**	eP	**P**	**00 28 17.4**	**-0.1**
	comp=Z,25nm,1.1s,mb4.9						
TCF	**Toulx Ste Croi**	**82.89**	**0**	eP	**P**	**00 28 17.4**	**-0.1**
TCF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
TCF	**Toulx Ste Croi**	**82.89**	**0**	eP	**P**	**00 28 17.4**	**-0.1**
	comp=Z,12nm,1.0s,mb4.9						
LPL	**La Plagne**	**83.60**	**357**	eP	**P**	**00 28 22.3**	**+1.1**
	comp=Z,6.1nm,0.8s,mb4.5						
LPL	**La Plagne**	**83.60**	**357**	eP	**P**	**00 28 22.3**	**+1.1**
LPL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
LPL	**La Plagne**	**83.60**	**357**	eP	**P**	**00 28 22.3**	**+1.1**
	comp=Z,3.0nm,0.8s,mb4.5						
LPG	**La Plagne**	**83.61**	**357**	eP	**P**	**00 28 22.8**	**+1.5**
	comp=Z,10nm,1.0s,mb4.6						
LPG	**La Plagne**	**83.61**	**357**	eP	**P**	**00 28 22.8**	**+1.5**
LPG				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
LPG	**La Plagne**	**83.61**	**357**	eP	**P**	**00 28 22.8**	**+1.5**
	comp=Z,5.2nm,1.0s,mb4.6						
RJF	**Les Rejaudoux**	**83.87**	**1**	eP	**P**	**00 28 22.7**	**+0.1**
	comp=Z,30nm,1.1s,mb5.0						
RJF	**Les Rejaudoux**	**83.87**	**1**	eP	**P**	**00 28 22.7**	**+0.1**
RJF				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.0						
RJF	**Les Rejaudoux**	**83.87**	**1**	eP	**P**	**00 28 22.7**	**+0.1**
	comp=Z,15nm,1.1s,mb5.0						
ORIF	**Oris-en-Rattie**	**84.22**	**358**	eP	**P**	**00 28 25.3**	**+0.9**
	comp=Z,3.9nm,0.7s,mb4.4						
ORIF	**Oris-en-Rattie**	**84.22**	**358**	eP	**P**	**00 28 25.3**	**+0.9**
ORIF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
ORIF	**Oris-en-Rattie**	**84.22**	**358**	eP	**P**	**00 28 25.3**	**+0.9**
	comp=Z,2.0nm,0.6s,mb4.4						
LFF	**La Frestale**	**84.22**	**1**	eP	**P**	**00 28 24.7**	**+0.3**
	comp=Z,68nm,1.1s,mb5.4						
LFF	**La Frestale**	**84.22**	**1**	eP	**P**	**00 28 24.7**	**+0.3**
LFF				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.4						
LFF	**La Frestale**	**84.22**	**1**	eP	**P**	**00 28 24.7**	**+0.3**
	comp=Z,34nm,1.1s,mb5.4						
CAF	**Calviac**	**84.25**	**0**	eP	**P**	**00 28 24.9**	**+0.4**
	comp=Z,25nm,1.0s,mb5.0						
CAF	**Calviac**	**84.25**	**0**	eP	**P**	**00 28 24.9**	**+0.4**
CAF				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
CAF	**Calviac**	**84.25**	**0**	eP	**P**	**00 28 24.9**	**+0.4**
	comp=Z,13nm,1.0s,mb5.0						
VIVF	**Saint-Julien-l**	**84.31**	**359**	eP	**P**	**00 28 25.3**	**+0.5**
	comp=Z,8.6nm,0.9s,mb4.6						
VIVF	**Saint-Julien-l**	**84.31**	**359**	eP	**P**	**00 28 25.3**	**+0.5**
VIVF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
VIVF	**Saint-Julien-l**	**84.31**	**359**	eP	**P**	**00 28 25.3**	**+0.5**
	comp=Z,4.3nm,0.9s,mb4.6						
MBDF	**Montbardon**	**84.38**	**357**	eP	**P**	**00 28 26.1**	**+0.9**
	comp=Z,7.7nm,0.7s,mb4.6						
MBDF	**Montbardon**	**84.38**	**357**	eP	**P**	**00 28 26.1**	**+0.9**
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
MBDF	**Montbardon**	**84.38**	**357**	eP	**P**	**00 28 26.1**	**+0.9**
	comp=Z,3.8nm,0.7s,mb4.6						
FITZ	**Fitzroy Crossi**	**85.08**	**233**	P	**P**	**00 28 28.5**	**-0.4**
	comp=Z,3.4nm,0.9s,mb4.5,baz=148,slow=6.8,SNR=4.4						
LASF	**Ste Croix**	**85.10**	**359**	eP	**P**	**00 28 29.2**	**+0.4**
	comp=Z,20nm,1.0s,mb4.9						
SMRF	**Simiane la Rot**	**85.17**	**358**	eP	**P**	**00 28 30.2**	**+1.0**
	comp=Z,20nm,0.9s,mb5.0						
SMRF	**Simiane la Rot**	**85.17**	**358**	eP	**P**	**00 28 30.2**	**+1.0**
	comp=Z,20nm,0.9s,mb5.2						
SBF	**Sospel**	**85.22**	**357**	eP	**P**	**00 28 29.4**	**-0.1**
	comp=Z,36nm,0.8s,mb5.2						
SBF	**Sospel**	**85.22**	**357**	eP	**P**	**00 28 29.4**	**-0.1**
SBF				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
SBF	**Sospel**	**85.22**	**357**	eP	**P**	**00 28 29.4**	**-0.1**
	comp=Z,18nm,0.8s,mb5.3						
BRTR	**Keskin Array B**	**85.48**	**337**	P	**P**	**00 28 31.1**	**+0.2**
	comp=Z,11nm,0.8s,mb5.0,baz=54,slow=2.6,SNR=62						
MALT	**Malatya**	**85.50**	**333**	⇓iP	**P**	**00 28 32.0**	**+1.0**
MALT	**Malatya**	**85.50**	**333**	⇓P	**P**	**00 28 32.0**	**+1.1**
FRF	**La Foret Royal**	**85.55**	**357**	eP	**P**	**00 28 31.1**	**0.0**
	comp=Z,19nm,0.9s,mb5.0						
FRF	**La Foret Royal**	**85.55**	**357**	eP	**P**	**00 28 31.1**	**0.0**
FRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
FRF	**La Foret Royal**	**85.55**	**357**	eP	**P**	**00 28 31.1**	**0.0**
	comp=Z,9.6nm,0.9s,mb5.0						
LMR	**La Mourre**	**85.78**	**357**	eP	**P**	**00 28 32.4**	**+0.1**
	comp=Z,26nm,1.0s,mb5.1						
LMR	**La Mourre**	**85.78**	**357**	eP	**P**	**00 28 32.4**	**+0.1**
LMR				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.1						
LMR	**La Mourre**	**85.78**	**357**	eP	**P**	**00 28 32.4**	**+0.1**
	comp=Z,13nm,1.0s,mb5.1						
MTLF	**Montolieu**	**85.84**	**0**	eP	**P**	**00 28 32.9**	**+0.4**
	comp=Z,23nm,1.0s,mb5.1						
MTLF	**Montolieu**	**85.84**	**0**	eP	**P**	**00 28 32.9**	**+0.4**
MTLF				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.0						
MTLF	**Montolieu**	**85.84**	**0**	eP	**P**	**00 28 32.9**	**+0.4**
	comp=Z,11nm,1.0s,mb5.1						
ASAR	**Alice Springs**	**85.98**	**224**	P	**P**	**00 28 32.2**	**-1.1**
	comp=Z,1.6nm,0.8s,mb4.3,baz=26,slow=5.1,SNR=9.3						
SJPF	**Ste Jean**	**86.00**	**3**	eP	**P**	**00 28 33.4**	**+0.1**
	comp=Z,6.9nm,0.7s,mb4.7						
SJPF	**Ste Jean**	**86.00**	**3**	eP	**P**	**00 28 33.4**	**+0.1**
SJPF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
SJPF	**Ste Jean**	**86.00**	**3**	eP	**P**	**00 28 33.4**	**+0.1**
	comp=Z,3.5nm,0.7s,mb4.7						
EPF	**Esparros**	**86.12**	**2**	eP	**P**	**00 28 33.5**	**-0.4**
ETSF	**Etsaut**	**86.24**	**2**	eP	**P**	**00 28 35.2**	**+0.7**
	comp=Z,12nm,0.9s,mb4.8						
ETSF	**Etsaut**	**86.24**	**2**	eP	**P**	**00 28 35.2**	**+0.7**
ETSF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
ETSF	**Etsaut**	**86.24**	**2**	eP	**P**	**00 28 35.2**	**+0.7**
	comp=Z,6.0nm,0.9s,mb4.8						
PGF	**Pioggiola**	**86.47**	**355**	eP	**P**	**00 28 35.6**	**0.0**
	comp=Z,28nm,0.7s,mb5.3						
PGF	**Pioggiola**	**86.47**	**355**	eP	**P**	**00 28 35.6**	**0.0**
PGF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.3						
PGF	**Pioggiola**	**86.47**	**355**	eP	**P**	**00 28 35.6**	**0.0**
	comp=Z,14nm,0.7s,mb5.3						
ESDC	**Sonseca Array**	**89.31**	**5**	P	**P**	**00 28 48.8**	**-0.5**
	comp=Z,3.1nm,0.8s,mb4.7,baz=355,slow=4.5,SNR=12						
ESDC	**Sonseca Array**	**89.31**	**5**	P	**P**	**00 28 48.8**	**-0.5**
STKA	**Stephens Creek**	**90.28**	**214**	P	**P**	**00 28 52.6**	**-1.0**
	comp=Z,0.8nm,0.4s,mb4.5,baz=350,slow=6.1,SNR=3.2						
KEST	**Kesra**	**93.23**	**355**	P	**P**	**00 29 06.2**	**-1.3**
	comp=Z,1.0nm,0.9s,mb4.2,baz=336,slow=12,SNR=3.5						
TORD	**Torodi Ar. Bea**	**115.92**	**1**	PKP	PKPdf	00 34 35.0	-0.9
	comp=Z,0.2nm,0.4s,baz=349,slow=2.6,SNR=5.3						
DBIC	**Dimbokro**	**122.00**	**9**	PKP	PKPdf	00 34 46.8	-0.8
	comp=Z,4.1nm,1.1s,baz=333,slow=2.3,SNR=3.4						
PLCA	**Paso Flores**	**130.05**	**108**	PKP	PKPdf	00 35 02.2	+0.1
	comp=Z,1.5nm,0.9s,baz=256,slow=2.5,SNR=3.1						
PLCA	**Paso Flores**	**130.05**	**108**	PKP	PKPdf	00 35 02.2	+0.1
LBTB	**Lobatse**	**148.48**	**317**	PKP2	PKPbc	00 35 39.7	+0.2
LBTB				pmax	pmax		
	comp=Z,5.0nm,0.9s						
LBTB	**Lobatse**	**148.48**	**317**	PKPbc	PKPbc	00 35 39.7	+0.2
	comp=Z,5.0nm,0.9s,baz=216,slow=4.9,SNR=6.2						
BOSA	**Boshof**	**151.76**	**314**	PKPbc	PKPbc	00 35 46.8	-0.6
	comp=Z,2.0nm,0.6s,baz=42,slow=5.9,SNR=6.9						
BOSA				PKPab	PKPab	00 35 56.8	+0.5
	comp=Z,4.0nm,0.7s,baz=66,slow=14,SNR=7.0						

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*BJI **22** 00:20:29.7, 37°.87N×134°.40E, h435^{km}, mB4.8/2, mb4.5/14*
*JMA **22** 00:20:30.3±0.2, 37°.81N×134°.35E, h430^{km}±2^{km}, M3.8*
*MOS **22** 00:20:30.0±1.3, 37°.94N×134°.47E, h431^{km}, mb4.2/7, Error ellipse: s-maj=12.6km s-min=12.0km az=109.2*
*IDC **22** 00:20:30.9±1.3, 38°.00N×134°.55E, h422^{km}±15^{km}, mb3.4/15, Error ellipse: s-maj=20.3km s-min=9.7km az=60.0*
*ISCJB **22** 00:20:30.3±0.3, 37°.88N±0°.04×134°.44E±0°.05, h431^{km}±3^{km}, mb3.8/22, Error ellipse: s-maj=7.0km s-min=5.2km az=145.8*
*NEIC **22** 00:20:31.2±0.5, 38°.00N×134°.53E, h425^{km}±8^{km}, mb4.4/11, Error ellipse: s-maj=12.2km s-min=7.6km az=55.0*
ISC 22 00:20:31.4±0.3**, 37°.84N**±0°.04×**134°.41E**±0°.05**, h420**^{km}±4^{km}**, n74, σ0^{s}.96**/93**, mb3.8**/22**, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKG	**Kaga**	**2.19**	**135**	P	**P**	**00 21 30.7**	**+0.3**
JKSM	**Kasumi**	**2.26**	**175**	P	**P**	**00 21 30.4**	**-0.5**
JKY	**Yasaka**	**2.28**	**166**	P	**P**	**00 21 31.0**	**0.0**
JKY				eS	**S**	**00 22 18.6**	**-0.6**
JSZ	**Suzu**	**2.38**	**99**	P	**P**	**00 21 32.1**	**+0.5**
JTT	**Ttatey**	**2.64**	**117**	P	**P**	**00 21 34.2**	**+0.8**
JWT	**Wachi**	**2.67**	**162**	P	**P**	**00 21 33.8**	**0.0**
JWT				eS	**S**	**00 22 23.3**	**-0.9**
JGM	**Miyama**	**2.83**	**138**	P	**P**	**00 21 34.9**	**0.0**
JGM				eS	**S**	**00 22 27.1**	**+0.8**
JHS	**Saijyo**	**3.02**	**201**	P	**P**	**00 21 35.7**	**-0.7**
JSD	**Sado**	**3.05**	**85**	P	**P**	**00 21 36.8**	**+0.3**
JSD				eS	**S**	**00 22 29.2**	**-0.1**
JNG	**Nsakai**	**3.28**	**115**	P	**P**	**00 21 39.0**	**+0.6**
JNG				eS	**S**	**00 22 35.3**	**+2.6**
MAJO	**Matsushiro**	**3.30**	**112**	eP	**P**	**00 21 37.9**	**-0.6**
MAT	**Matsushiro**	**3.30**	**112**	P	**P**	**00 21 38.7**	**+0.2**
MAT				S	**S**	**00 22 34.2**	**+1.2**
MAT	**Matsushiro**	**3.30**	**112**	P	**P**	**00 21 39.0**	**+0.5**
MJAR	**Matsushiro Arr**	**3.30**	**112**	P	**P**	**00 21 39.3**	**+0.7**
	8.9nm,0.3s,baz=292,slow=10,SNR=151						
JHK	**Hiroka**	**3.71**	**98**	P	**P**	**00 21 42.1**	**+0.1**
JIE	**Ise**	**3.91**	**151**	P	**P**	**00 21 44.4**	**+0.4**
JIE				eS	**S**	**00 22 41.9**	**-0.9**
JRY	**Ryogami san**	**4.03**	**115**	P	**P**	**00 21 45.9**	**+0.9**
JOD2	**Odawara 2**	**4.56**	**123**	P	**P**	**00 21 50.5**	**+0.5**
JOD2				eS	**S**	**00 22 54.1**	**+0.1**
JFT	**Otama**	**4.71**	**92**	P	**P**	**00 21 52.0**	**+0.6**
JMM	**Marumori**	**5.05**	**88**	P	**P**	**00 21 54.9**	**+0.1**
JMM				eS	**S**	**00 23 01.2**	**-1.6**
JRG	**Rokugo**	**5.12**	**70**	P	**P**	**00 21 55.9**	**+0.5**
JRG				eS	**S**	**00 23 03.2**	**-0.7**
JTO	**Tosashimizu**	**5.14**	**195**	P	**P**	**00 21 55.5**	**-0.4**
JFK	**Kawauchi**	**5.15**	**93**	P	**P**	**00 21 54.7**	**-1.2**
JFK				eS	**S**	**00 23 02.8**	**-1.9**
KSRS	**Korea Array**	**5.16**	**268**	P	**P**	**00 21 55.6**	**-0.3**
KSRS				S	**S**	**00 23 04.8**	**0.0**
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KSRS	**Korea Array**	**5.16**	**268**	P	**P**	**00 21 55.5**	**-0.4**
	comp=Z,2.8nm,0.3s,baz=85,slow=10,SNR=102						
KSRS				S	**S**	**00 23 04.8**	**-0.1**
	baz=86,slow=20,SNR=5.5						
JMK	**Ichinoseki**	**5.46**	**76**	P	**P**	**00 21 59.1**	**+0.1**
BSO1	**Boso 1**	**6.19**	**119**	P	**P**	**00 22 05.5**	**-1.2**
BSO1				eS	**S**	**00 23 21.8**	**-2.7**
JOT	**Ohata**	**6.23**	**53**	P	**P**	**00 22 07.8**	**+0.9**
JSJ	**Shimokoshiki**	**7.26**	**214**	P	**P**	**00 22 18.2**	**-0.2**
ERM	**Erimo**	**7.91**	**55**	eP	**P**	**00 22 23.4**	**-1.9**
ERM				eS	**S**	**00 23 50.5**	**-8.2**
ERM				pmax	pmax		
	comp=Z,39nm,0.3s						
ERM	**Erimo**	**7.91**	**55**	eP	**P**	**00 22 23.4**	**-1.9**
	comp=Z,39nm,0.3s						
ERM				eS	**S**	**00 23 50.5**	**-8.3**
ASAJ	**Asahikawa**	**8.81**	**42**	P	**P**	**00 22 35.8**	**+0.6**
ASAJ				S	**S**	**00 24 11.7**	**-5.3**
ASAJ				pmax	pmax		
	comp=Z,8.0nm,0.3s						
ASAJ				smax			
	comp=N,4.0nm,0.3s						
ASAJ	**Asahikawa**	**8.81**	**42**	P	**P**	**00 22 35.8**	**+0.6**
	comp=N,7.6nm,0.3s,baz=248,slow=13,SNR=16						
ASAJ				S	**S**	**00 24 11.7**	**-5.3**
	comp=N,3.7nm,0.3s,baz=302,slow=31,SNR=10						
JWK2	**Keihoku**	**9.34**	**35**	P	**P**	**00 22 42.9**	**+1.9**
JTKR	**Abashiri--Toko**	**9.44**	**47**	P	**P**	**00 22 43.1**	**+0.9**
JTKR				eS	**S**	**00 24 25.3**	**-4.6**
YSS	**Yuzh-Sakhalins**	**10.99**	**31**	eP	**P**	**00 23 00.0**	**+0.7**
YSS	**Yuzh-Sakhalins**	**10.99**	**31**	eP	**P**	**00 23 00.9**	**+1.7**
	comp=N,27nm,0.4s						
BJT	**Baijiatuau**	**14.37**	**284**	eP	**P**	**00 23 35.9**	**-0.4**
BJT				pmax	pmax		
	comp=Z,41nm,0.4s						
BJT	**Baijiatuau**	**14.37**	**284**	eP	**P**	**00 23 35.9**	**-0.3**
	comp=Z,41nm,0.4s						
HHC	**Hu-ho-hao-te**	**17.92**	**287**	eP	**P**	**00 24 14.8**	**+0.7**
HHC				pmax	pmax		
	comp=Z,12nm,0.8s						
HHC	**Hu-ho-hao-te**	**17.92**	**287**	eP	**P**	**00 24 14.5**	**+0.4**
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,7µm,5.9s						
SONM	**Songino Array**	**22.73**	**305**	P	**P**	**00 25 00.4**	**+1.3**
	comp=Z,2.3nm,0.7s,mb3.7,baz=102,slow=8.8,SNR=5.3						
CHTO	**Chiang Mai**	**36.23**	**248**	eP	**P**	**00 26 57.6**	**+0.6**
CHTO				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.3						
CHTO	**Chiang Mai**	**36.23**	**248**	eP	**P**	**00 26 57.5**	**+0.6**
	comp=Z,9.9nm,0.6s,mb4.3						
CMAR	**Chiang Mai Arr**	**36.46**	**248**	P	**P**	**00 27 00.3**	**+1.5**
	comp=Z,4.0nm,0.6s,mb4.0,baz=45,slow=7.9,SNR=18						
LSA	**Lhasa**	**36.60**	**270**	eP	**P**	**00 26 56.8**	**-3.2**
	comp=Z,10nm,0.8s,mb4.2						
ZALV	**Zalesovo Beam**	**37.24**	**312**	P	**P**	**00 27 03.0**	**-1.8**
	comp=Z,1.3nm,0.3s,mb3.7,baz=113,slow=7.0,SNR=6.6						
MKAR	**Makanchi Array**	**38.94**	**300**	P	**P**	**00 27 17.9**	**-1.1**
	comp=Z,1.5nm,0.5s,mb3.6,baz=83,slow=9.7,SNR=16						
KURK	**Kurchatov**	**41.02**	**307**	eP	**P**	**00 27 34.6**	**-1.1**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.0						
KURK	**Kurchatov**	**41.02**	**307**	P	**P**	**00 27 35.1**	**-0.5**
	comp=Z,2.8nm,0.6s,mb3.7,baz=84,slow=7.9,SNR=8.8						
KURK	**Kurchatov**	**41.02**	**307**	eP	**P**	**00 27 34.6**	**-1.0**

	comp=Z,4.9nm,0.7s,mb4.0						
KURK				P		00 27 35.1	
KAPI	Kappang	44.76	201	P	P	00 28 04.8	-0.9
	comp=Z,10nm,1.1s,mb4.1,baz=0.0,slow=0.0,SNR=3.6						
AAK	Ala-Archa	45.16	296	P	P	00 28 08.4	-0.1
	comp=Z,1.4nm,0.4s,mb3.7,baz=112,slow=7.1,SNR=4.2						
AAK	Ala-Archa	45.16	296	P	P	00 28 08.4	-0.1
AML	Almayashu	45.87	295	eP	P	00 28 14.3	+0.4
	comp=Z,8.1nm,0.7s,mb4.2						
BVAR	Borovoye Array	45.87	311	P	P	00 28 12.9	-0.9
	comp=Z,1.1nm,0.4s,mb3.6,baz=90,slow=7.8,SNR=5.4						
COEN	Coen	52.17	169	eP	P	00 29 03.0	+1.7
	comp=Z,12nm,0.5s,mb4.4						
INK	Inuvik	56.19	27	P	P	00 29 26.2	-2.9
	comp=Z,0.4nm,0.4s,mb3.1,baz=283,slow=14,SNR=2.3						
FITZ	Fitzroy Crossi	56.25	190	P	P	00 29 30.3	+0.1
	comp=Z,1.3nm,0.4s,mb3.6,baz=0.0,slow=9.1,SNR=3.1						
FITZ	Fitzroy Crossi	56.25	190	P	P	00 29 30.3	+0.1
FITZ				eP		00 29 30.6	
WRAB	Tennant Creek	57.46	180	eP	P	00 29 38.9	+0.4
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb3.8						
WRAB	Tennant Creek	57.46	180	eP	P	00 29 38.9	+0.3
	comp=Z,2.0nm,0.4s,mb3.8						
WRA	Warramunga Arr	57.47	180	P	P	00 29 38.6	0.0
WRA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
WRA	Warramunga Arr	57.47	180	P	P	00 29 38.6	0.0
	comp=Z,3.9nm,0.5s,mb4.0,baz=355,slow=7.6,SNR=49						
CTA	Charters Tower	58.69	167	P	P	00 29 47.8	+0.9
	baz=337,slow=8.0						
CTAO	Charters Tower	58.69	167	eP	P	00 29 47.3	+0.4
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
CTAO	Charters Tower	58.69	167	eP	P	00 29 47.3	+0.4
	comp=Z,3.8nm,0.8s,mb3.8						
ASAR	Alice Springs	61.18	181	P	P	00 30 04.0	+0.5
	comp=Z,1.8nm,0.4s,mb3.8,baz=2.8,slow=8.7,SNR=20						
ONI	Oni	66.30	306	P	P	00 30 31.8	-4.6
STKA	Stephens Creek	69.68	173	P	P	00 30 57.8	+0.7
	comp=Z,1.8nm,0.9s,mb3.6,baz=331,slow=10,SNR=2.5						
AKASG	Malin Array Be	70.15	319	P	P	00 30 59.3	-0.5
	comp=Z,0.5nm,0.3s,mb3.5,baz=50,slow=6.2,SNR=5.6						
BRTR	Keskin Array B	74.05	308	P	P	00 31 22.9	0.0
	comp=Z,0.2nm,0.4s,mb3.1,baz=354,slow=7.2,SNR=3.7						
ARUT	Antelope Range	82.17	48	eP	P	00 32 02.6	-4.2
ARUT				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.6						
ARUT	Antelope Range	82.17	48	eP	P	00 32 02.5	-4.3
	comp=Z,13nm,1.1s,mb4.6						

ISCJB ***22*** *00:21:19.9±0.5, 76°.93N±0°.04×18°.9E±0°.2, h10^{km}, mb3.7/8, Error ellipse: s-maj=6.9km s-min=4.5km az=140.3*
CSEM ***22*** *00:21:20.5±0.2, 76°.99N×18°.91E, h2^{km}, ML3.6, Error ellipse: s-maj=12.6km s-min=5.2km az=65.0*
NAO ***22*** *00:21:21.6±1.6, 76°.98N×18°.95E, h13^{km}±18^{km}, ML3.6*
NEIC ***22*** *00:21:22.8±0.5, 77°.10N×18°.77E, h10^{km}, ML3.6(NAO), Error ellipse: s-maj=15.1km s-min=7.9km az=74.0*
IDC ***22*** *00:21:22.8±1.7, 76°.95N×18°.29E, h12^{km}±12^{km}, mb3.6/7, mb1 3.9/8, mb1mx3.7/22, mbtmp3.7/8, ML4.3/1, Error ellipse: s-maj=24.9km s-min=9.7km az=69.0*
BER ***22*** *00:21:24.4±2.3, 77°.07N×19°.24E, h15^{km}±14^{km}, MD2.5, ML4.2, ML3.6(NAO)*
ISC 22 00:21:21.4±0.4, **77°.01N**±0°.04×**18°.9E**±0°.2, **h10^{km}, n55, σ1.^{s}34**/65, **mb3.7**/8, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.77	272	eP	Pg	00 21 36.9	+0.8
HSP				eS	Sg	00 21 46.3	+0.2
SPA0	Spitsbergen Ar	1.30	336	Pg	Pg	00 21 46.0	-0.3
	baz=151,slow=22						
SPA0				Lg		00 22 03.7	
	baz=146,slow=37						
SPA0	Spitsbergen Ar	1.30	336	Pg	Pg	00 21 46.0	-0.3
	SNR=92						
SPA0				Lg		00 22 03.7	
	SNR=95						
SPITS	Spitsbergen Ar	1.30	336	Pg	Pg	00 21 46.6	+0.3
	baz=300,slow=18,SNR=3237						
SPITS				Lg		00 22 04.0	
	baz=301,slow=31,SNR=16						
SPITS	Spitsbergen Ar	1.30	336	Pg	Pg	00 21 46.6	+0.3
HOPEN	Hopen	1.48	107	eP	Pn	00 21 47.8	-0.2
HOPEN				eS	Sn	00 22 06.5	-0.9
HOPEN				AML	AML	00 22 12.0	
	comp=Z,7µm,0.3s						
HOPEN	Hopen	1.48	107	eP	Pn	00 21 47.8	-0.3
	SNR=55						
HOPEN				eS	Sn	00 22 06.6	-0.9
	comp=Z,7µm,0.3s,SNR=55						
KBS	Kingsbay	2.42	326	Pn	Pn	00 22 01.0	+0.1
KBS				Pg	Pg	00 22 06.9	-0.9
KBS				Lg		00 22 36.5	
KBS	Kingsbay	2.42	326	eP	Pn	00 22 01.0	0.0
KBS				eSg	Sg	00 22 36.7	-2.3
KBS				AML	AML	00 22 45.4	
	comp=Z,4µm,0.6s						
KBS	Kingsbay	2.42	326	ePn	Pn	00 22 00.8	-0.1
KBS				ePg	Pg	00 22 06.9	-0.8
KBS				eSg	Sg	00 22 37.9	-1.2
KBS	Kingsbay	2.42	326	Pn	Pn	00 22 01.0	+0.1
KBS	Kingsbay	2.42	326	Pg	Pg	00 22 06.9	-0.8
KBS				Lg		00 22 36.5	
KBS				eSg	Sg	00 22 36.7	-2.4
	comp=Z,4µm,0.6s,SNR=91						
BJO	Bjornoya	2.52	178	ePg	Pg	00 22 08.7	-0.8
BJO				eSg	Sg	00 22 41.4	-0.7
BJO				AML	AML	00 22 45.9	
	comp=Z,2µm,0.4s						
BJO	Bjornoya	2.52	178	ePg	Pg	00 22 08.7	-0.8
	SNR=91						
BJO				eSg	Sg	00 22 41.4	-0.7
	comp=Z,2µm,0.4s,SNR=91						
KEV	Kevo	7.64	158	ep	Pn	00 23 11.2	-1.2
	comp=Z,8.1nm,0.3s						
KEV	Kevo	7.64	158	eP	Pn	00 23 11.2	-1.2
	comp=Z,8.1nm,0.3s						
ARA0	ARCESS Array S	7.74	163	Pn	Pn	00 23 13.0	-0.9
	baz=353,slow=11						
ARA0				Sn	Sn	00 24 33.5	-7.9
	baz=357,slow=22						
ARA0	ARCESS Array S	7.74	163	Pn	Pn	00 23 13.0	-0.9
	SNR=220						
ARCES	ARCESS Array B	7.74	163	Pn	Pn	00 23 13.3	-0.6
	comp=Z,7.0nm,0.3s,baz=355,slow=12,SNR=72						
ARCES				Sn	Sn	00 24 34.4	-7.0
	comp=Z,13nm,0.3s,baz=354,slow=21,SNR=6.5						
ARCES	ARCESS Array B	7.74	163	Pn	Pn	00 23 13.3	-0.6
ARCES				Sn	Sn	00 24 34.4	-7.0
ARCES	ARCESS Array B	7.74	163	Pn	Pn	00 23 13.3	-0.6
ARE0	ARCESS Array S	7.74	163	ePn	Pn	00 23 13.6	-0.3
ARE0				eSn	Sn	00 24 34.0	-7.3
ARE0	ARCESS Array S	7.74	163	ePn	Pn	00 23 13.6	-0.3
LOF	Lofoten	9.06	193	e	Pn	00 23 38.4	+6.4
APA0	Apatity Array	10.32	149	Pn	Pn	00 23 46.9	-2.3
	baz=339,slow=14						
APA0				Sn	Sn	00 25 34.2	-10
	baz=348,slow=22						
APA0	Apatity Array	10.32	149	Pn	Pn	00 23 46.9	-2.3
	SNR=8.8						
JOF	Joensuu	14.71	157	ep	Pn	00 24 43.0	-6.1
	comp=Z,1.4nm,0.3s						
KAF	Kangasniemi	15.16	167	ep	Pn	00 24 50.4	-4.8
	comp=Z,2.1nm,0.3s						
FIA0	FINESS Array S	15.82	167	Pn	Pn	00 24 59.6	-4.1
	baz=355,slow=14						
NOA	NORSAR Array B	16.25	194	Pn	Pn	00 25 13.1	+3.8
	comp=Z,0.3nm,0.3s,baz=7.8,slow=13,SNR=3.4						
HFS	Hagfors	17.05	189	Pn	Pn	00 25 21.1	+1.7
	comp=Z,0.2nm,0.3s,baz=19,slow=9.2,SNR=5.8						
HFS	Hagfors	17.05	189	Pn	Pn	00 25 21.1	+1.7
NACGM	Naroch	22.39	168	e	Sx	00 30 40.0	
SUW	Suwalki	23.15	174	eP	P	00 26 30.4	+3.0
	comp=Z,48nm,1.0s,mb4.9						
SUW	Suwalki	23.15	174	eP	P	00 26 30.4	+3.0
	comp=Z,48nm,1.0s,mb4.9						
AKASG	Malin Array Be	26.71	165	P	P	00 27 02.3	+2.0
	comp=Z,0.4nm,0.3s,mb3.4,baz=350,slow=9.0,SNR=3.1						
AKASG	Malin Array Be	26.71	165	P	P	00 27 02.3	+2.0
ZALV	Zalesovo Beam	32.83	96	PcP	PcP	00 30 39.7	+0.8
	comp=Z,1.1nm,0.6s,baz=325,slow=4.3,SNR=4.7						
YKA	Yellowknife Ar	37.78	327	P	P	00 28 37.3	+0.4
	comp=Z,0.2nm,0.6s,mb3.0,baz=10,slow=8.1,SNR=3.7						
YKA				PcP	PcP	00 30 53.7	+0.5
	comp=Z,0.6nm,0.6s,baz=3.9,slow=2.9,SNR=10						
YKA	Yellowknife Ar	37.78	327	P	P	00 28 37.3	+0.4
YKA				PcP	PcP	00 30 53.7	+0.5
YKA	Yellowknife Ar	37.78	327	P	P	00 28 37.3	+0.3
YKA	Yellowknife Ar	37.78	327	PcP	PcP	00 30 53.7	+0.5
MKAR	Makanchi Array	38.97	102	P	P	00 28 49.0	+1.9
	comp=Z,0.8nm,0.8s,mb3.5,baz=354,slow=8.5,SNR=4.2						
MKAR				PcP	PcP	00 30 58.2	+1.0
	comp=Z,0.3nm,0.6s,baz=340,slow=3.3,SNR=3.1						
MKAR	Makanchi Array	38.97	102	P	P	00 28 49.0	+1.9
MKAR				PcP	PcP	00 30 58.2	+1.0
SONM	Songino Array	43.40	78	P	P	00 29 26.3	+2.8
	comp=Z,1.1nm,0.9s,mb3.6,baz=337,slow=8.1,SNR=5.7						
SONM	Songino Array	43.40	78	P	P	00 29 26.3	+2.8
RLMT	Red Lodge	53.93	317	eP	P	00 30 41.6	-2.8
TORD	Torodi Ar. Bea	64.49	199	P	P	00 31 58.7	+0.8
	comp=Z,0.6nm,0.5s,mb3.9,baz=7.2,slow=4.9,SNR=13						
TORD	Torodi Ar. Bea	64.49	199	P	P	00 31 58.7	+0.8
TXAR	Lajitas Array	68.39	308	P	P	00 32 22.9	+0.3
	comp=Z,0.4nm,0.5s,mb3.7,baz=30,slow=4.9,SNR=6.9						
TXAR	Lajitas Array	68.39	308	P	P	00 32 23.0	+0.3
CMAR	Chiang Mai Arr	69.89	95	P	P	00 32 34.2	+2.2
	comp=Z,0.8nm,0.4s,mb4.0,baz=343,slow=6.4,SNR=4.2						
CMAR	Chiang Mai Arr	69.89	95	P	P	00 32 34.2	+2.1
ASAR	Alice Springs	118.45	71	PKP	PKPdf	00 40 08.2	-0.1
	comp=Z,0.3nm,0.4s,baz=7.0,slow=1.8,SNR=7.0						
ASAR	Alice Springs	118.45	71	PKIKP	PKPdf	00 40 08.2	-0.1

TAP ***22*** *00:22:04.9, 23°.62N×120°.81E, h5^{km}, ML4.1, C*
NEIC ***22*** *00:22:05.5±2.8, 23°.62N×120°.82E, h3^{km}±18^{km}, ML4.4(TAP), Error ellipse: s-maj=34.4km s-min=10.1km az=97.0*
NEIC Recorded [2 TAP] in Chia-i, Nan-t'ou and Yun-lin; [1 TAP] in Kao-hsiung.
ISCJB ***22*** *00:22:06.3±0.2, 23°.611N±0°.010×120°.85E±0°.01, h2^{km}±2^{km}, Error ellipse: s-maj=2.2km s-min=1.5km az=23.0*
ISC 22 00:22:06.7±0.2, **23°.611N**±0°.010×**120°.84E**±0°.01, **h4**^{km}±2^{km}, **n72, σ1.^{s}06**/129, **10C-19D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALS	Alishan	0.11	200	⇓iP	Pg	00 22 08.0	-0.9
	baz=172						
ALS				i S	Sg	00 22 10.3	0.0
	baz=172						
YUS	Yu-Shan	0.16	141	⇑iP	Pg	00 22 09.9	+0.1
	baz=136						
YUS				S	Sg	00 22 13.1	+1.2
	baz=136						
SSLB	Suanglung	0.20	30	ePg	Pg	00 22 09.6	-1.1
SSLB				eSg	Sg	00 22 12.9	-0.5
WGK	Gukeng	0.27	286	⇑iP	Pg	00 22 11.2	-0.8
	baz=286						
WGK				S	Sg	00 22 16.3	+0.8
	baz=286						
SMLT	Sun Moon Lake	0.28	11	⇓iP	Pg	00 22 11.6	-0.5
	baz=29						
SMLT				eS	Sg	00 22 16.4	+0.8
	baz=29						
TYC	Yuchr	0.29	2	⇓iP	Pg	00 22 11.8	-0.6
	baz=20						
TYC				eS	Sg	00 22 17.4	+1.1
	baz=20						
WNT	Mingjian	0.30	331	⇓iP	Pg	00 22 12.4	-0.2
	baz=337						
WNT				S	Sg	00 22 17.7	+1.1
	baz=337						
CHN4	Tsaushan	0.35	222	⇓iP	Pg	00 22 12.7	-0.7
	baz=207						
CHN4				S	Sg	00 22 19.0	+1.1
	baz=207						
CHN2	Minshiung	0.35	257	⇑P	Pg	00 22 13.0	-0.4
	baz=253						
CHN2				S	Sg	00 22 19.0	+1.0
	baz=253						
CHY	Chiayi	0.40	254	⇑iP	Pg	00 22 14.0	-0.5
	baz=249						
CHY				i S	Sg	00 22 20.6	+0.9
	baz=249						
WTP	Ta-pu	0.42	210	⇓iP	Pg	00 22 14.0	-0.8
	baz=197						
WTP				eS	Sg	00 22 20.9	+0.7
	baz=197						
ELDTW	Lidau	0.45	159	⇓iP	Pg	00 22 14.8	-0.5
	baz=149						
ELDTW				S	Sg	00 22 20.8	-0.3
	baz=149						
EHY	Hungye	0.45	103	⇑iP	Pg	00 22 15.3	0.0
	baz=105						
EHY				i S	Sg	00 22 22.8	+1.6
	baz=105						
STYT	Tauyuan	0.45	190	⇓iP	Pg	00 22 14.6	-0.8
	baz=175						
STYT				S	Sg	00 22 21.1	-0.2
	baz=175						
YULB	Yu-li	0.47	118	⇓iPg	Pg	00 22 15.2	-0.6
YULB				eSg	Sg	00 22 22.3	+0.4
TWK	Hsinying	0.47	224	⇓iP	Pg	00 22 15.2	-0.6
	baz=218						
TWK				eS	Sg	00 22 23.0	+1.0
	baz=218						
TWF1	Yuli	0.49	122	⇑iP	Pg	00 22 16.0	-0.1
	baz=121						
TWF1				S	Sg	00 22 23.2	+0.8
	baz=121						
CHN1	Nanshi	0.51	215	⇓iP	Pg	00 22 15.9	-0.6
	baz=208						
CHN1				S	Sg	00 22 24.2	+0.9
	baz=208						
TCU	Taichung	0.56	344	⇓iP	Pg	00 22 17.3	-0.1
	baz=349						
TCU				eS	Sg	00 22 25.9	+1.3
	baz=349						
WSF	Szhu	0.57	273	eP	Pg	00 22 16.7	-1.0
	baz=270						
WSF				eS	Sg	00 22 25.2	+0.1
	baz=270						
WTCT	Ta-ch'eng	0.57	296	eP	Pg	00 22 16.6	-1.2
	baz=296						
WTCT				eS	Sg	00 22 25.5	+0.3
	baz=296						
ESL	Shilin	0.58	69	⇑iP	Pg	00 22 17.6	-0.2
	baz=83						
ESL				i S	Sg	00 22 25.3	0.0
	baz=83						
SGST	Jiashian	0.58	205	⇓iP	Pg	00 22 17.3	-0.5
	baz=189						
SGST				eS	Sg	00 22 26.9	+1.5
	baz=189						
CHN8	Yiju	0.64	246	eP	Pg	00 22 17.9	-1.1
	baz=242						
CHN8				S	Sg	00 22 28.8	+1.5
	baz=242						
WHF	Hehuan Shan	0.66	36	⇑iP	Pg	00 22 18.8	-0.5
	baz=40						
WHF				eS	Sg	00 22 28.9	+1.0
	baz=40						
CHN3	Shinhua	0.69	220	eP	Pg	00 22 19.8	-0.1
	baz=215						
CHN3				eS	Sg	00 22 32.0	+3.1
	baz=215						
CHKT	Chengkung	0.70	137	eP	Pg	00 22 20.1	0.0
	baz=135						
CHKT				eS	Sg	00 22 31.4	+2.2
	baz=135						
TWT	Tachien	0.71	25	⇓P	Pg	00 22 19.4	-0.9
	baz=39						
TWT				eS	Sg	00 22 28.7	-0.9
	baz=39						
TWQ1	Liyutan	0.74	355	⇓iP	Pg	00 22 20.9	0.0
	baz=359						
TWQ1				eS	Sg	00 22 32.2	+1.7
	baz=359						
SCLT	Jiali	0.74	234	eP	Pg	00 22 20.6	-0.3
	baz=230						
SCLT				S	Sg	00 22 32.7	+2.2
	baz=230						
HWA	Hwalien	0.79	62	i P	Pg	00 22 21.4	-0.4
	baz=76						
HWA				S	Sg	00 22 32.9	+0.8
	baz=76						
TAI1	Yung-k'ang	0.80	225	eP	Pg	00 22 22.1	-0.1
	baz=221						
TAI1				eS	Sg	00 22 35.3	+2.8
	baz=221						
NSY	Sanyi	0.81	355	⇓iP	Pg	00 22 22.4	+0.2
	baz=358						
NSY				eS	Sg	00 22 34.3	+1.6
	baz=358						
TWG	Pinlang	0.81	165	⇑iPg	Pg	00 22 21.4	-1.0
TWG				eSg	Sg	00 22 35.0	+2.1
TWG	Pinlang	0.81	165	⇓iP	Pg	00 22 21.7	-0.6
	baz=162						
TWD	Chiawan	0.83	56	i P	Pg	00 22 21.9	-0.7
	baz=69						
TWD				eS	Sg	00 22 32.6	-0.9
	baz=69						
TWM1	Shoushan	0.88	206	eP	Pg	00 22 23.9	+0.4
	baz=202						
SSD	Sandimen	0.88	193	⇓iP	Pg	00 22 22.8	-0.9
	baz=180						
SSD				eS	Sg	00 22 36.1	+1.0
	baz=180						
NACB	Ninganchiao	0.89	51	⇓iPg	Pg	00 22 22.4	-1.3
NACB				eSg	Sg	00 22 34.1	-1.2
TTN	Taitung	0.90	162	eP	Pg	00 22 23.6	-0.3
	baz=147						
SGLT	Jiouru	0.94	200	eP	Pg	00 22 23.2	-1.6
	baz=196						
NNS	Nan Shan	0.96	30	eP	Pg	00 22 23.8	-1.3
	baz=42						
ECL	Taimali	1.01	174	eP	Pg	00 22 24.7	-1.5
	baz=162						
ECL				eS	Sg	00 22 39.2	-0.1
	baz=162						
NSTT	Nanjuang	1.03	8	eP	Pg	00 22 25.6	-0.8
	baz=12						
NSTT				eS	Sg	00 22 40.7	+1.0
	baz=12						
KAU	Kaohsiung	1.15	206	eP	Pg	00 22 28.6	-0.1
	baz=202						
ENA	Nanau	1.16	45	eP	Pg	00 22 27.6	-1.3
	baz=58						
NSK	Sanguang	1.16	24	eP	Pg	00 22 27.2	-1.8
	baz=28						
NSK				eS	Sg	00 22 44.9	+0.8
	baz=28						
YHNB	Yeheng	1.16	25	ePn	Pn	00 22 27.3	-2.3
YHNB				eSn	Sn	00 22 46.4	+0.4
PNG	Penghu	1.18	268	⇑P	Pg	00 22 26.3	-3.1
	baz=265						
PNG				eS	Sg	00 22 41.4	-3.3
	baz=265						
HSN	Hsinchu	1.19	5	eP	Pg	00 22 30.4	+0.9
	baz=11						
ENTT	Nioudou	1.22	33	P	Pg	00 22 29.0	-1.1
	baz=37						
ENTT				eS	Sg	00 22 47.6	+1.7
	baz=37						
EAST	Anshuo	1.22	180	eP	Pg	00 22 29.0	-1.1
	baz=168						
TAW	Tawu	1.25	178	eP	Pg	00 22 29.0	-1.6
	baz=168						
TAW				eS	Sg	00 22 47.9	+1.0
	baz=168						
SCZT	Fangliau	1.25	190	eP	Pg	00 22 29.3	-1.3
	baz=179						
SCZT				eS	Sg	00 22 48.3	+1.4
	baz=179						
TWP	Hsiaoliuchiu	1.33	200	eP	Pn	00 22 31.2	-0.9
	baz=195						
TWE	Neicheng	1.34	34	eP	Pn	00 22 31.0	-1.1
	baz=39						
TWE				eS	Sg	00 22 51.1	+1.4
	baz=39						
TWC	Suao	1.35	43	P	Pn	00 22 31.0	-1.3
	baz=54						
TWC				eS	Sg	00 22 50.7	+0.5
	baz=54						
NCU	National Centr	1.39	13	eP	Pn	00 22 31.9	-0.9
	baz=2.0						
NCU				eS	Sb	00 22 52.4	+1.1
	baz=2.0						
TATO	Taipei	1.48	23	ePn	Pn	00 22 34.3	+0.3
TATO				eSn	Sn	00 22 53.5	-0.3
TWA	Mucha	1.52	26	eP	Pn	00 22 34.0	-0.7
	baz=15						
TWA				eS	Sn	00 22 55.8	+0.9
	baz=15						
TAP1	Taipei	1.55	23	eP	Pn	00 22 35.1	+0.1
	baz=34						
TAP1				eS	Sn	00 22 58.1	+2.5
	baz=34						
TWS1	Kuangyinshan	1.57	19	eP	Pn	00 22 36.0	+0.6
	baz=31						
TWS1				eS	Sn	00 22 57.1	+0.9
	baz=31						
HEN	Hengchun	1.60	184	eP	Pn	00 22 36.2	+0.4
	baz=180						
TWK1	Hengchun	1.66	181	eP	Pn	00 22 37.6	+1.1
	baz=178						
NWF	Wu-fen Shan	1.69	30	eP	Pn	00 22 37.5	+0.6
	baz=35						
NWF				eS	Sn	00 23 02.6	+3.7
	baz=35						
LAY	Lan-yu	1.69	157	eP	Pn	00 22 35.4	-1.6
	baz=155						
TSEB	Hengchuen, Pin	1.70	178	eP	Pn	00 22 38.1	+1.0
	baz=167						
TWB1	Santiao Chiao	1.74	37	eP	Pn	00 22 38.2	+0.5
	baz=53						
TWB1				eS	Sn	00 23 02.7	+2.4
	baz=53						
TWY	Chenhua	1.79	22	eP	Pn	00 22 38.2	-0.2
	baz=11						
PCYT	Pengchaiyu	2.30	29	eP	Pn	00 22 45.1	-0.2
	baz=33						
KNM	Kinmen	2.35	290	eP	Pn	00 22 44.3	-1.7
	baz=287						
QZH	Quanzhou	2.45	303	Pn	Pn	00 22 45.4	-2.0
QZH				Pg	Pg	00 22 52.5	-1.1
QZH				Sn	Sn	00 23 13.8	-3.9
QZH				Sg	Sg	00 23 20.8	-4.5
QZH				smax			
	comp=N,470nm,0.4s						
QZH				smax			
	comp=E,410nm,0.9s						

IDC ***22*** *00:46:00.0±1.9, 51°.64N×177°.34W, h0^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.8/26, mbtmp3.9/8, ML3.9/1, Error ellipse: s-maj=57.6km s-min=20.6km az=179.0*
ISCJB ***22*** *00:46:03.7±1.6, 51°.1N±0°.1×177°.1W±0°.1, h64^{km}±10^{km}, mb4.0/11, Error ellipse: s-maj=23.0km s-min=10.1km az=164.2*
NEIC ***22*** *00:46:05.6±2.4, 51°.24N×177°.04W, h59^{km}±12^{km}, mb4.3/2, ML3.8(AEIC), Error ellipse: s-maj=40.4km s-min=11.0km az=174.0*
ISC 22 00:46:03.6±1.7, **51°.0N**±0°.1×**177°.1W**±0°.1, **h50**^{km}±13^{km}, **n21, σ1.^{s}18**/25, **mb4.0**/11, **Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	Adak	0.94	15	ePb	Pn	00 46 18.6	-1.8
ADK				eSb	Sn	00 46 32.1	-0.7
GSTR	Great Sitkin T	1.28	30	ePn	Pn	00 46 24.6	-0.6
GSTR				eSn	Sn	00 46 42.2	+1.0
ATKA	Atka Island	2.18	55	P	Pn	00 46 37.5	+0.2
ATKA				S	Sn	00 47 05.0	+2.0
SPIA	Saint Paul Isl	7.39	30	ePn	Pn	00 47 49.3	+0.5
SPIA				eSn	Sn	00 49 12.1	+0.9
OHAK	Old Harbor	15.24	57	eP	Pn	00 49 33.9	-1.4
	147nm,1.9s						
SVW2	Sparrevohn	15.63	41	eP	Pn	00 49 45.0	+4.7
PETK	Petropavlovsk-	15.63	288	Pn	Pn	00 49 42.4	+2.0
	0.2nm,0.3s,baz=87,slow=18,SNR=5.1						
KDAK	Kodiak Island	15.75	55	Pn	Pn	00 49 39.2	-2.6
	0.5nm,0.3s,baz=241,slow=10,SNR=6.7						
EGAK	Eagle	23.15	40	eP	P	00 51 05.1	-0.2
	1.4nm,0.4s,mb3.7						
DAWY	Dawson	23.67	42	eP	P	00 51 09.2	-0.9
INK	Inuvik	27.17	34	P	P	00 51 41.1	-0.7
	0.3nm,0.4s,mb3.2,baz=246,slow=10.0,SNR=5.2						
YKA	Yellowknife Ar	34.72	46	P	P	00 52 48.5	+0.2
	0.1nm,0.4s,mb3.1,baz=286,slow=7.4,SNR=5.5						
YKA	Yellowknife Ar	34.72	46	P	P	00 52 48.5	+0.2
MDJ	Mudanjiang	35.70	281	P	P	00 52 56.0	-1.0
MDJ				pmax	pmax		

	comp=Z,10.0nm,2.5s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,400nm,12.5s						
PDAR	Pinedale Array	45.40	73	P	P	00 54 18.9	+1.9
	comp=Z,1.7nm,0.6s,mb4.0,baz=312,slow=3.9,SNR=17						
PDAR				PcP	PcP	00 56 00.8	+5.4
	comp=Z,0.7nm,0.7s,baz=316,slow=3.8,SNR=3.8						
SONM	Songino Array	47.79	298	P	P	00 54 35.9	+0.3
	comp=Z,2.3nm,0.7s,mb4.3,baz=51,slow=8.6,SNR=20						
GTA	Gaotai	56.72	293	eP	P	00 55 42.4	+0.5
GTA				pP	pP	00 55 46.5	-9.2
GTA				sP	sP	00 55 48.8	-13
GTA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
ARCES	ARCESS Array B	58.66	351	P	P	00 55 54.1	-0.9
	comp=Z,3.9nm,0.9s,mb4.4,baz=10,slow=7.0,SNR=5.3						
MKAR	Makanchi Array	61.12	310	P	P	00 56 10.8	-1.4
	comp=Z,0.2nm,0.5s,mb3.5,baz=40,slow=4.4,SNR=5.3						
GYA	Guiyang	61.44	278	eP	P	00 56 16.3	+1.6
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
BRTR	Keskin Array B	85.75	337	P	P	00 58 37.6	+0.6
	comp=Z,1.4nm,0.8s,mb4.2,baz=89,slow=1.4,SNR=9.4						

ISCJB ***22*** *00:48:55.4±0.8, 42°.91N±0°.07×145°.64E±0°.06, h71^{km}±5^{km}, mb4.1/10, Error ellipse: s-maj=12.5km s-min=5.7km az=151.2*

SKHL ***22*** *00:48:56.9±0.4, 42°.90N×145°.73E, h60^{km}±4^{km}, mb5.3/1*

JMA ***22*** *00:48:56.5±0.1, 42°.91N×145°.61E, h65^{km}±1^{km}, M4.0*

JMA Felt I J1.

MOS ***22*** *00:49:00.4±1.2, 43°.55N×145°.43E, h86^{km}, mb4.1/8, Error ellipse: s-maj=25.1km s-min=17.3km az=119.6*

IDC ***22*** *00:49:01.7±6.0, 43°.22N×145°.40E, h91^{km}±31^{km}, mb3.8/8, mb1 3.9/9, mb1mx3.5/24, mbtmp3.8/9, MS3.1/1, Ms1 3.1/1, ms1mx3.0/52, Error ellipse: s-maj=78.0km s-min=21.5km az=169.0*

ISC 22 00:48:56.4±0.9**, 42°.90N**±0°.07×**145°.63E**±0°.06**, h62**^{km}±5^{km}**, n33, σ0^{s}.67**/46**, mb4.1**/10**, 7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.47	10	⇓P	Pn	00 49 08.5	+0.3
NEM2				eS	Sn	00 49 17.1	+0.2
JAK	Akkeshi	0.69	278	⇓P	Pn	00 49 10.8	+0.1
JAK				eS	Sn	00 49 21.4	+0.2
JNK	Nakash	0.95	316	⇓P	Pn	00 49 13.6	-0.3
JNK				eS	Sn	00 49 26.1	-0.8
JRA	Rausu	1.10	340	⇓P	Pn	00 49 16.0	+0.2
JRA				eS	Sn	00 49 30.3	0.0
YUK	Yuzh-Kuril'sk	1.15	8	ePN	Pn	00 49 16.1	-0.3
YUK				i S	Sn	00 49 30.5	-0.8
YUK				pmax	pmax		
	comp=N,180nm,0.3s						
YUK				pmax	pmax		
	comp=Z,940nm,0.3s						
YUK				smax			
	comp=E,10µm,0.6s						
YUK				smax			
	comp=N,5µm,0.7s						
YUK				smax			
	comp=N,8µm,0.2s						
YUK				smax			
	comp=E,4µm,0.4s						
YUK	Yuzh-Kuril'sk	1.15	8	eP	Pn	00 49 16.1	-0.3
YUK				AMB	AMB	00 49 16.7	
	comp=E,180nm,0.3s						
YUK				AMB	AMB	00 49 16.7	
	comp=E,940nm,0.3s						
YUK				i S	Sn	00 49 30.5	-0.8
YUK				A		00 49 32.0	
	comp=E,10µm,0.6s						
YUK				A		00 49 32.0	
	comp=E,5µm,0.7s						
YUK				A		00 49 32.4	
	comp=E,4µm,0.3s						
YUK				A		00 49 32.4	
	comp=E,8µm,0.2s						
JOB	Onbets	1.32	271	⇓P	Pn	00 49 18.8	+0.1
JOB				eS	Sn	00 49 35.0	-0.4
JAR	Ashorobuto	1.42	287	⇓P	Pn	00 49 20.2	+0.2
JAR				eS	Sn	00 49 37.8	0.0
JTKR	Abashiri--Toko	1.65	311	⇓P	Pn	00 49 23.8	+0.7
JTKR				eS	Sn	00 49 44.5	+1.2
JCH	Churui	1.70	261	P	Pn	00 49 23.6	-0.1
JCH				eS	Sn	00 49 43.6	-0.8
ASAJ	Asahikawa	2.52	300	PN	Pn	00 49 36.5	+1.6
ASAJ				S	Sn	00 50 04.4	-0.1
ASAJ				pmax	pmax		
	comp=Z,11nm,0.3s						
ASAJ				smax			
	comp=N,12nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,370nm,19.2s						
ASAJ	Asahikawa	2.52	300	P	Pn	00 49 36.5	+1.6
	comp=Z,11nm,0.3s,baz=62,slow=30,SNR=18						
ASAJ				S	Sn	00 50 04.4	-0.1
	comp=Z,12nm,0.3s,baz=265,slow=33,SNR=5.7						
ASAJ				LR	LR	00 50 53.7	
	comp=Z,370nm,19.2s,baz=36,slow=50						
KUR	Kuril'sk	2.83	34	eP	Pn	00 49 38.5	-0.7
KUR				eS	Sn	00 50 12.0	-0.1
SONM	Songino Array	27.79	294	P	P	00 54 39.9	+0.7
SONM				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SONM	Songino Array	27.79	294	P	P	00 54 39.9	+0.6
	comp=Z,2.5nm,0.7s,mb4.0,baz=85,slow=8.9,SNR=20						
ZAK	Zakamensk	29.69	299	eP	P	00 54 55.3	-0.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.8						
ZALV	Zalesovo Beam	40.63	308	P	P	00 56 29.2	-0.7
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
ZALV	Zalesovo Beam	40.63	308	P	P	00 56 29.2	-0.7
	comp=Z,1.0nm,0.4s,mb3.8,baz=81,slow=9.2,SNR=12						
MKAR	Makanchi Array	44.00	298	P	P	00 56 57.1	-0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	44.00	298	P	P	00 56 57.1	-0.3
	comp=Z,1.2nm,0.6s,mb3.8,baz=82,slow=9.2,SNR=14						
INK	Inuvik	47.69	30	P	P	00 57 26.8	+0.6
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	47.69	30	P	P	00 57 26.8	+0.6
	comp=Z,0.7nm,0.6s,mb3.9,baz=299,slow=3.9,SNR=4.8						
RES	Resolute Bay	56.09	16	P	P	00 58 27.8	-0.7
RES				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
RES	Resolute Bay	56.09	16	P	P	00 58 27.8	-0.7
	comp=Z,2.9nm,0.5s,mb4.5,baz=309,slow=6.7,SNR=29						
YKA	Yellowknife Ar	57.12	33	P	P	00 58 37.8	+1.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	57.12	33	P	P	00 58 37.8	+1.8
	comp=Z,0.5nm,0.6s,mb3.7,baz=305,slow=6.9,SNR=12						
ARCES	ARCESS Array B	59.65	339	P	P	00 58 54.0	+0.5
ARCES				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ARCES	ARCESS Array B	59.65	339	P	P	00 58 54.0	+0.5
	comp=Z,9.0nm,1.0s,mb4.7,baz=47,slow=6.6,SNR=3.3						
JOF	Joensuu	62.32	332	eP	P	00 59 10.6	-1.1
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
JOF	Joensuu	62.32	332	ep	P	00 59 10.6	-1.1
	comp=Z,2.4nm,0.5s,mb4.6						
NB2	NORSAR Subarra	69.99	338	P	P	01 00 00.9	+0.1
	comp=Z,1.2nm,0.4s,mb4.2,baz=32,slow=6.5						
NOA	NORSAR Array B	69.99	338	P	P	01 00 00.6	-0.2
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	NORSAR Array B	69.99	338	P	P	01 00 00.6	-0.2
	comp=Z,1.6nm,0.6s,mb4.2,baz=33,slow=6.3,SNR=4.0						

ISCJB ***22*** *00:51:35.3±2.6, 51°.2N±0°.3×177°.1W±0°.1, h69^{km}±14^{km}, mb3.4/7, Error ellipse: s-maj=45.0km s-min=13.4km az=174.0*

NEIC ***22*** *00:51:36.6±2.4, 51°.34N×177°.07W, h62^{km}±12^{km}, mb3.4/1, ML3.1(AEIC), Error ellipse: s-maj=43.9km s-min=11.9km az=173.0*

IDC ***22*** *00:51:38.3±7.2, 51°.45N×177°.21W, h75^{km}±60^{km}, mb3.2/6, mb1 3.4/8, mb1mx3.3/27, mbtmp3.3/8, ML3.5/2, Error ellipse: s-maj=84.9km s-min=20.3km az=177.0*

ISC 22 00:51:35.8±2.5**, 51°.2N**±0°.2×**177°.1W**±0°.1**, h62**^{km}±15^{km}**, n14, σ1^{s}.23**/16**, mb3.5**/7**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	Adak	0.75	20	ePg	Pn	00 51 48.5	-2.3
ADK				eSg	Sn	00 52 02.7	+0.9
GSTR	Great Sitkin T	1.12	35	ePg	Pn	00 51 55.0	-0.5
ATKA	Atka Island	2.08	59	P	Pn	00 52 07.8	-0.5
ATKA				S	Sn	00 52 35.3	+2.3
SPIA	Saint Paul Isl	7.23	31	ePn	Pn	00 53 18.7	+0.1
PETK	Petropavlovsk-	15.57	287	P	Pn	00 55 13.2	+1.9
	0.1nm,0.3s,baz=92,slow=15,SNR=3.5						
KDAK	Kodiak Island	15.65	55	P	Pn	00 55 11.0	-1.1
	0.3nm,0.3s,baz=278,slow=19,SNR=4.9						
KDAK	Kodiak Island	15.65	55	P	Pn	00 55 11.0	-1.1
EGAK	Eagle	23.01	40	eP	P	00 56 33.7	-1.3
	0.6nm,0.4s,mb3.4						
INK	Inuvik	27.02	34	P	P	00 57 12.0	+0.5
	0.3nm,0.4s,mb3.2,baz=223,slow=3.6,SNR=4.2						
YKA	Yellowknife Ar	34.59	46	P	P	00 58 18.0	-0.2
	0.3nm,0.8s,mb3.3,baz=284,slow=8.5,SNR=4.0						
PDAR	Pinedale Array	45.35	73	P	P	00 59 49.0	+1.5
	0.9nm,0.8s,mb3.7,baz=310,slow=3.8,SNR=7.0						
SONM	Songino Array	47.69	298	P	P	01 00 06.0	+0.2
	0.5nm,0.5s,mb3.8,baz=59,slow=9.7,SNR=5.9						
MKAR	Makanchi Array	60.99	309	P	P	01 01 40.4	-1.9
	0.1nm,0.3s,mb3.4,baz=41,slow=5.6,SNR=6.0						
BRTR	Keskin Array B	85.57	337	P	P	01 04 07.7	+0.7
	0.8nm,0.8s,mb4.0,baz=47,slow=1.6,SNR=6.1						

NEIC 22 00:53:35.2±2.9**, 50°.93N**×**177°.41W, h30**^{km}**, mb3.2**/1**,** **ML2.8**(AEIC)**, Error ellipse: s-maj=56.5km s-min=29.3km az=161.0, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	Adak	1.06	25	P	Pn	00 53 53.9	-0.2
ADK				ePg	Pn	00 53 54.1	+0.1
ADK				S	Sn	00 54 07.5	-0.2
ADK				eSg	Sn	00 54 07.9	+0.1
ATKA	Atka Island	2.38	56	P	Pn	00 54 11.8	-0.4
ATKA				S	Sn	00 54 40.5	+0.2
EGAK	Eagle	23.33	40	eP	P	00 58 41.4	+0.8
	0.3nm,0.4s						

IDC ***22*** *01:07:53.4±3.4, 28°.73S×177°.59W, h53^{km}±20^{km}, mb3.9/5, mb1 4.1/5, mb1mx3.8/16, mbtmp3.9/5, MS4.3/3, Ms1 4.3/3, ms1mx3.7/34, Error ellipse: s-maj=47.3km s-min=27.5km az=37.0*

NEIC ***22*** *01:07:56.1±2.3, 29°.08S×177°.74W, h65^{km}±10^{km}, mb4.2/2, Error ellipse: s-maj=57.5km s-min=26.2km az=214.0*

ISC 22 01:07:52.9±5.5**, 28°.7S**±0°.3×**177°.5W**±0°.4**, h54**^{km}±32^{km}**, n12, σ0^{s}.89**/9**, mb4.2**/6**, MS4.3**/3**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	0.70	214	P	Pn	01 08 06.3	-0.5
	669nm,0.3s,baz=72,slow=21,SNR=44						
RAO				S	Sn	01 08 17.3	+0.4
	1µm,0.3s,baz=73,slow=20,SNR=16						
CTA	Charters Tower	34.02	276	P	P	01 14 32.3	+0.5
	2.5nm,0.5s,mb4.4,baz=121,slow=12,SNR=5.7						
CTA				LR	LR	01 25 10.5	
	comp=Z,58nm,19.2s,MS3.3,baz=81,slow=31						
CTAO	Charters Tower	34.02	276	eP	P	01 14 34.4	+2.7
	3.2nm,0.7s,mb4.4						
STKA	Stephens Creek	35.35	254	P	P	01 14 41.9	-1.3
	1.9nm,0.5s,mb4.3,baz=76,slow=8.3,SNR=3.7						
ASAR	Alice Springs	43.69	265	P	P	01 15 51.8	-0.9
	0.4nm,0.3s,mb3.6,baz=106,slow=7.4,SNR=6.4						
WRAB	Tennant Creek	44.52	270	eP	P	01 16 00.3	+1.0
	1.1nm,0.3s,mb4.2						
WRA	Warramunga Arr	44.52	270	P	P	01 15 59.2	-0.1
	2.5nm,0.3s,mb4.6,baz=110,slow=8.1,SNR=168						
QSPA	South Pole Qui	61.44	180	P	P	01 18 03.4	+0.3
	2.6nm,1.0s,mb4.3,baz=110,slow=0.6,SNR=5.3						
YBH	Yreka Blue Hor	86.39	38	LR	LR	01 53 56.6	
	comp=Z,437nm,19.6s,MS4.9,baz=127,slow=32						
JTS	JuntasAbangare	97.05	82	LR	LR	01 53 16.7	
	comp=Z,300nm,20.3s,MS4.8,baz=238,slow=28						
BRTR	Keskin Array B	152.13	302	PKPbc	PKPbc	01 27 43.9	+1.7
	0.8nm,0.9s,baz=134,slow=5.3,SNR=4.5						
TORD	Torodi Ar. Bea	164.54	177	PKPab	PKPab	01 28 46.5	+0.5
	0.5nm,0.7s,baz=165,slow=5.0,SNR=5.8						

GUC 22 01:08:55.4±1.3**, 32°.66S**×**71°.65W, h19**^{km}±53^{km}**, MD3.8, ML2.5, 1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IHA	Instituto Hidr	0.36	179	eP	Pg	01 09 02.8	-0.4
IHA				i S	Sg	01 09 08.7	+0.3
PEL	Peldehue	0.94	121	eP	Pb	01 09 12.5	-0.7
PEL				i S	Sb	01 09 25.2	-0.1
PEL				AML	AML	01 09 27.4	
	comp=E,346nm,0.3s						
RCDM	Rinconada Maip	1.09	140	eP	Pb	01 09 14.5	-1.1
RCDM				i S	Sb	01 09 28.7	-0.7
RCDM				AML	AML	01 09 31.4	
	comp=E,155nm,0.2s						
FCH	Farellones	1.32	121	⇓eP	Pn	01 09 19.4	+0.6
FCH				i S	Sn	01 09 36.2	+0.3
FCH				AML	AML	01 09 37.9	
	comp=E,117nm,0.2s						
CMCH	Combarbala	1.58	21	eP	Pn	01 09 22.5	+0.1
CMCH				i S	Sn	01 09 43.0	+0.7
CMCH				AML	AML	01 09 47.2	
	comp=E,239nm,0.8s						

ISK ***22*** *01:09:28.4, 40°.57N×32°.98E, h7^{km}, MD2.9*

ISCJB ***22*** *01:09:29.4±0.7, 40°.58N±0°.04×32°.96E±0°.05, h10^{km}, Error ellipse: s-maj=6.0km s-min=4.1km az=137.2*

CSEM ***22*** *01:09:29.0±0.1, 40°.54N×32°.96E, h5^{km}, MD2.8, Error ellipse: s-maj=2.8km s-min=2.0km az=151.0*

DDA ***22*** *01:09:30.1, 40°.54N×33°.06E, h15^{km}±1^{km}, Md2.8*

ISC 22 01:09:29.5±0.7**, 40°.58N**±0°.04×**32°.96E**±0°.05**, h8**^{km}±6^{km}**, n23, σ0^{s}.73**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELDT	Eldivan	0.37	104	i P	Pg	01 09 36.5	-0.2
ELDT				i S	Sg	01 09 40.9	-0.6
ELDT	Eldivan	0.37	104	i P	Pg	01 09 36.5	-0.2
ELDT				i S	Sg	01 09 40.9	-0.6
CANT	Cankiri	0.50	87	ePG	Pg	01 09 38.5	-0.8
CANT				eSG	Sg	01 09 45.8	-0.1
LOD	Lodumlu	0.70	192	ePG	Pg	01 09 41.8	-1.3
LOD				eSG	Sg	01 09 52.6	+0.4
LOD	Lodumlu	0.70	192	ePg	Pg	01 09 41.8	-1.3
LOD				eSg	Sg	01 09 52.6	+0.4
ILGA	Ilgaz	0.74	50	i P	Pg	01 09 43.7	-0.2
ILGA				i S	Sg	01 09 54.7	+1.1
ILGA	Ilgaz	0.74	50	i P	Pg	01 09 43.7	-0.2
ILGA				i S	Sg	01 09 54.7	+1.1
TOS	Tosya	0.93	60	ePG	Pg	01 09 46.7	-0.7
TOS	Tosya	0.93	60	ePg	Pg	01 09 46.7	-0.7
BALT	Daday	1.01	18	i P	Pg	01 09 49.6	+0.7
BALT	Daday	1.01	18	i P	Pg	01 09 49.6	+0.7
BALAT	Bala	1.03	173	i P	Pg	01 09 49.1	-0.1
BALAT				i S	Sg	01 10 04.7	+2.1
MDU	Mudurnu	1.33	266	ePN	Pn	01 09 54.5	0.0
MDU	Mudurnu	1.33	266	ePn	Pn	01 09 54.5	0.0
CTKT	Corum	1.39	88	i P	Pn	01 09 56.3	+1.0
CTKT				i S	Sb	01 10 13.9	+0.2
CTKT	Corum	1.39	88	i P	Pn	01 09 56.3	+1.0
CTKT				i S	Sb	01 10 13.9	+0.1
CDAG	Cicekdag	1.44	131	i P	Pn	01 09 55.7	-0.2
CDAG				i S	Sn	01 10 14.9	-0.1
CDAG	Cicekdag	1.44	131	i P	Pn	01 09 55.7	-0.3
CDAG				i S	Sn	01 10 14.9	-0.2
ESKT	Eskisehir	1.93	238	ePN	Pn	01 10 02.3	-0.4
ESKT	Eskisehir	1.93	238	ePn	Pn	01 10 02.3	-0.4
YOZ	Yozgat	2.04	117	ePN	Pn	01 10 03.8	-0.4
YOZ	Yozgat	2.04	117	ePn	Pn	01 10 03.8	-0.3
POO	Poona	41.32	110	ex	x	01 17 39.0	

IDC 22 01:17:40.6±29.0**, 16°.52S**×**174°.04W, h0**^{km}**, mb4.1**/4**, mb1 4.3**/4**, mb1mx3.8**/18**, mbtmp4.1**/4**, Error ellipse: s-maj=570.2km s-min=162.3km az=86.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	42.95	241	P	P	01 25 42.5	+0.9
	2.2nm,0.7s,baz=68,slow=5.4,SNR=2.9						
WRA	Warramunga Arr	49.00	258	P	P	01 26 29.4	0.0
	0.9nm,0.4s,baz=96,slow=7.4,SNR=43						
ASAR	Alice Springs	49.19	253	P	P	01 26 30.6	-0.2
	1.7nm,0.4s,baz=92,slow=7.8,SNR=23						
FITZ	Fitzroy Crossi	57.38	259	P	P	01 27 30.8	-0.5
	3.4nm,1.0s,baz=76,slow=4.2,SNR=3.0						

IDC ***22*** *01:38:44.7±0.7, 36°.18N×21°.96E, h0^{km}, mb3.8/11, mb1 3.8/15, mb1mx3.7/29, mbtmp3.8/15, ML3.3/2, Error ellipse: s-maj=18.3km s-min=14.6km az=149.0*

NEIC ***22*** *01:38:45.5, 36°.06N×21°.74E, h12^{km}, ML3.6(ATH), After ATH.*

ISCJB ***22*** *01:38:45.2±0.6, 36°.07N±0°.02×21°.66E±0°.03, h7^{km}±4^{km}, mb3.9/10, Error ellipse: s-maj=3.8km s-min=3.0km az=164.3*

ATH ***22*** *01:38:45.5, 36°.06N×21°.74E, h12^{km}±1^{km}, MD3.8/29, ML3.6*

CSEM ***22*** *01:38:46.5±0.1, 36°.10N×21°.73E, h2^{km}, ML4.4/4, Error ellipse: s-maj=3.7km s-min=3.1km az=73.0*

THE ***22*** *01:38:47.5, 36°.13N×21°.76E, h3^{km}±2^{km}, ML4.4/4, Error ellipse: s-maj=3.9km s-min=1.3km az=244.0*

ISC 22 01:38:46.8±0.7**, 36°.09N**±0°.02×**21°.72E**±0°.03**, h4**^{km}±4^{km}**, n197, σ1^{s}.04**/237**, mb3.9**/10**, 5C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.81	1	P	Pg	01 39 01.2	-1.0
PYL				S	Sg	01 39 13.1	+0.4
PYL	PYLOS	0.81	1	ePB	Pg	01 39 01.3	-0.9
PYL				eSB	Sg	01 39 12.7	0.0
PYL	PYLOS	0.81	1	ePb	Pg	01 39 01.3	-0.9
PYL				eSb	Sg	01 39 12.7	0.0
KYTH	Kithira	1.08	79	ePN	Pg	01 39 06.6	-0.8
KYTH	Kithira	1.08	79	ePn	Pg	01 39 06.6	-0.8
ITM	Ithomi	1.10	8	ePB	Pg	01 39 06.7	-1.2
ITM				eSB	Sg	01 39 22.5	+0.3
ITM	Ithomi	1.10	8	ePb	Pg	01 39 06.7	-1.2
ITM				eSb	Sg	01 39 22.5	+0.3
VLI	Veliai	1.16	57	ePN	Pn	01 39 07.2	-2.6
VLI				eSB	Sn	01 39 24.0	-2.1
VLI	Veliai	1.16	57	ePn	Pn	01 39 07.2	-2.6
VLI				eSb	Sn	01 39 24.0	-2.1
VLX	Vlachokerasia	1.38	22	ePG	Pn	01 39 11.1	-1.7
VLX				eSB	Sn	01 39 30.6	-1.0
VLX	Vlachokerasia	1.38	22	ePg	Pn	01 39 11.1	-1.7
VLX				eSb	Sn	01 39 30.6	-1.0
GUR	Goura	1.91	15	ePN	Pn	01 39 20.5	+0.4
GUR				eSN	Sn	01 39 45.8	+1.2
GUR	Goura	1.91	15	ePn	Pn	01 39 20.5	+0.4
GUR				eSn	Sn	01 39 45.8	+1.2
KARN	Karanos	1.91	110	P	Pn	01 39 20.4	+0.3
KARN				S	Sn	01 39 45.7	+1.1
KARN	Karanos	1.91	110	P	Pn	01 39 20.4	+0.3
KARN				S	Sn	01 39 45.7	+1.1
RLS	Riolos of Patr	1.98	354	ePN	Pn	01 39 22.0	+1.0
RLS				eSN	Sn	01 39 47.5	+1.3
RLS	Riolos of Patr	1.98	354	ePn	Pn	01 39 22.0	+1.0
RLS				eSn	Sn	01 39 47.5	+1.3
VAM	Vamos	2.12	108	ePN	Pn	01 39 22.5	-0.5
VAM	Vamos	2.12	108	ePn	Pn	01 39 22.5	-0.5
LAKA	Lakka	2.16	5	P	Pn	01 39 25.0	+1.5
LAKA	Lakka	2.16	5	P	Pn	01 39 25.0	+1.5
LTK	Loutraki	2.17	27	P	Pn	01 39 23.7	0.0
LTK				S	Sn	01 39 51.4	+0.4
LTK	Loutraki	2.17	27	ePN	Pn	01 39 23.9	+0.2
LTK	Loutraki	2.17	27	ePn	Pn	01 39 23.9	+0.2
LTK				S	Sn	01 39 51.4	+0.4
NAIG	Nisos Aigina	2.19	40	ePN	Pn	01 39 24.5	+0.6
NAIG	Nisos Aigina	2.19	40	ePn	Pn	01 39 24.5	+0.6
VLS	Valsamata	2.27	337	P	Pn	01 39 25.3	+0.2
VLS	Valsamata	2.27	337	ePN	Pn	01 39 25.7	+0.6
VLS	Valsamata	2.27	337	ePn	Pn	01 39 25.7	+0.6
TRIZ	Trizonia	2.29	7	P	Pn	01 39 27.8	+2.5
TRIZ	Trizonia	2.29	7	P	Pn	01 39 27.8	+2.5
KALE	Kalithea	2.32	8	P	Pn	01 39 26.8	+1.1
KALE	Kalithea	2.32	8	P	Pn	01 39 26.8	+1.1
VLY	Voula,Athens	2.42	43	ePB	Pn	01 39 26.7	-0.4
VLY	Voula,Athens	2.42	43	ePb	Pn	01 39 26.7	-0.4
ATH	Athens Observa	2.46	40	ePN	Pn	01 39 28.5	+0.8
ATH	Athens Observa	2.46	40	ePn	Pn	01 39 28.5	+0.8
ATHU	Athens Univers	2.50	41	P	Pn	01 39 27.2	-0.9
ATHU				S	Sn	01 39 59.1	+0.1
ATHU	Athens Univers	2.50	41	P	Pn	01 39 27.2	-0.9
ATHU				S	Sn	01 39 59.1	+0.1
PTL	Penteli	2.60	41	ePB	Pn	01 39 29.5	-0.1
PTL	Penteli	2.60	41	ePb	Pn	01 39 29.5	-0.1
IDI	Anoyia	2.70	106	ePN	Pn	01 39 31.3	+0.4
IDI	Anoyia	2.70	106	Pn	Pn	01 39 31.0	+0.1
	11nm,0.3s,baz=300,slow=15,SNR=84						
IDI	Anoyia	2.70	106	ePn	Pn	01 39 31.3	+0.4
SIVA	Sivas	2.73	112	P	Pn	01 39 31.7	+0.3
SIVA				S	Sn	01 40 06.1	+1.2
SIVA	Sivas	2.73	112	P	Pn	01 39 32.2	+0.8
SIVA	Sivas	2.73	112	P	Pn	01 39 31.7	+0.3
SIVA				S	Sn	01 40 06.1	+1.2
LKR	Lokris	2.75	21	P	Pn	01 39 30.7	-1.0
LKR				S	Sn	01 40 05.9	+0.6
LKR	Lokris	2.75	21	ePN	Pn	01 39 31.4	-0.3
LKR	Lokris	2.75	21	P	Pn	01 39 30.7	-1.0
LKR	Lokris	2.75	21	ePn	Pn	01 39 31.4	-0.3
LKR				S	Sn	01 40 05.9	+0.6
EVR	Evrytania	2.82	1	ePB	Pn	01 39 34.0	+1.4
EVR	Evrytania	2.82	1	ePb	Pn	01 39 34.0	+1.4
AGG	Agios Georgios	2.97	9	P	Pn	01 39 36.0	+1.4
AGG				S	Sn	01 40 11.8	+1.1
AGG	Agios Georgios	2.97	9	ePB	Pn	01 39 36.0	+1.4
AGG	Agios Georgios	2.97	9	P	Pn	01 39 36.0	+1.4
AGG				S	Sn	01 40 11.8	+1.1
LAST	Lasithi	3.19	106	P	Pn	01 39 37.7	-0.1
LAST	Lasithi	3.19	106	P	Pn	01 39 37.7	-0.1
NPS	Neapolis	3.27	103	ePN	Pn	01 39 38.0	-0.8
NPS	Neapolis	3.27	103	ePn	Pn	01 39 38.0	-0.8
XOR	Xorichti	3.47	19	P	Pn	01 39 40.5	-1.1
XOR	Xorichti	3.47	19	P	Pn	01 39 40.5	-1.1
THL	Klokotos Trika	3.48	4	P	Pn	01 39 42.0	+0.4
THL	Klokotos Trika	3.48	4	ePN	Pn	01 39 42.5	+0.9
THL	Klokotos Trika	3.48	4	P	Pn	01 39 42.0	+0.4
AOS	Alonnisos	3.52	28	P	Pn	01 39 40.6	-1.6
AOS	Alonnisos	3.52	28	P	Pn	01 39 40.6	-1.6
IGT	Igoumenitsa	3.61	343	P	Pn	01 39 43.3	-0.2
IGT				S	Sn	01 40 26.2	-0.3
IGT	Igoumenitsa	3.61	343	P	Pn	01 39 43.3	-0.2
IGT				S	Sn	01 40 26.2	-0.3
JAN	Janina	3.63	349	ePn	Pn	01 39 44.5	+0.8
JAN				P		01 39 48.1	
JAN	Janina	3.63	349	ePn	Pn	01 39 44.5	+0.8
MEV	Metsovon	3.71	354	P	Pn	01 39 45.9	+1.1
MEV	Metsovon	3.71	354	P	Pn	01 39 45.9	+1.1
ZKR	Zakros	3.79	104	P	Pn	01 39 46.0	+0.1
ZKR	Zakros	3.79	104	P	Pn	01 39 46.0	+0.1
KEK	Kerkira	3.93	338	ePN	Pn	01 39 48.5	+0.7
KEK	Kerkira	3.93	338	ePn	Pn	01 39 48.5	+0.7
LIT	Litokhoron	4.05	8	P	Pn	01 39 50.2	+0.7
LIT	Litokhoron	4.05	8	P	Pn	01 39 50.2	+0.7
PAIG	Paliouri	4.13	21	P	Pn	01 39 50.2	-0.4
PAIG	Paliouri	4.13	21	P	Pn	01 39 50.2	-0.4
CHOS	Chios island	4.15	55	P	Pn	01 39 49.5	-1.3
CHOS	Chios island	4.15	55	P	Pn	01 39 49.5	-1.3
KZN	Kozani	4.21	0	ePN	Pn	01 39 52.6	+0.9
KZN	Kozani	4.21	0	ePn	Pn	01 39 52.6	+0.9
SMG	Samos	4.41	67	ePN	Pn	01 39 55.0	+0.6
SMG	Samos	4.41	67	ePn	Pn	01 39 55.0	+0.6
LTBQ	Tobruq	4.42	155	i P	Pn	01 39 56.2	+1.7
	SNR=23						
LTBQ				eS	Sn	01 40 45.3	-1.1
	21nm,0.6s,SNR=23						
KARP	Karpathos	4.45	95	ePN	Pn	01 39 54.6	-0.4
KARP	Karpathos	4.45	95	ePn	Pn	01 39 54.6	-0.4
PLG	Polygyros	4.49	17	P	Pn	01 39 56.4	+0.9
PLG	Polygyros	4.49	17	ePN	Pn	01 39 56.6	+1.1
PLG	Polygyros	4.49	17	ePn	Pn	01 39 56.6	+1.1

SIGR	SIGRI	4.52	45	P	Pn	01 39 54.9	-1.1
SIGR	SIGRI	4.52	45	P	Pn	01 39 54.9	-1.1
OUR	Ouranopolis	4.60	22	P	Pn	01 39 57.6	+0.6
OUR	Ouranopolis	4.60	22	P	Pn	01 39 57.6	+0.6
HORT	Hortiatis	4.63	13	P	Pn	01 39 57.2	-0.3
HORT	Hortiatis	4.63	13	P	Pn	01 39 57.2	-0.3
THE	Thessaloniki	4.64	12	P	Pn	01 39 57.3	-0.3
THE	Thessaloniki	4.64	12	P	Pn	01 39 57.3	-0.3
LOS	Limnos	4.67	34	P	Pn	01 39 58.9	+1.0
LOS	Limnos	4.67	34	P	Pn	01 39 58.9	+1.0
LIA	Limnos Island	4.68	35	P	Pn	01 39 59.2	+1.0
LIA	Limnos Island	4.68	35	*e*PN	Pn	01 39 59.9	+1.7
LIA	Limnos Island	4.68	35	P	Pn	01 39 59.2	+1.0
FNA	Florina	4.70	357	P	Pn	01 39 58.0	-0.4
FNA				S	Sn	01 40 52.8	-0.5
FNA	Florina	4.70	357	P	Pn	01 39 58.0	-0.4
FNA				S	Sn	01 40 52.8	-0.5
PRK	Paraskevi	4.79	47	P	Pn	01 40 01.3	+1.6
PRK	Paraskevi	4.79	47	*e*PN	Pn	01 40 01.4	+1.7
PRK	Paraskevi	4.79	47	P	Pn	01 40 01.3	+1.6
GRG	Griva	4.89	6	P	Pn	01 40 00.6	-0.4
GRG	Griva	4.89	6	P	Pn	01 40 00.6	-0.4
SOH	Sokhos	4.90	15	P	Pn	01 40 01.7	+0.6
SOH	Sokhos	4.90	15	*e*PN	Pn	01 40 02.7	+1.6
SOH	Sokhos	4.90	15	P	Pn	01 40 01.7	+0.6
SOH	Sokhos	4.90	15	*e*Pn	Pn	01 40 02.7	+1.6
BIA	Bitola	4.93	356	P	Pn	01 40 01.1	-0.5
BIA	Bitola	4.93	356	*e*Pn	Pn	01 40 01.0	-0.6
BIA	Bitola	4.93	356	P	Pn	01 40 01.1	-0.5
TIP	Timpagrande	5.00	310	P	Pn	01 40 03.6	+1.0
TIP	Timpagrande	5.00	310	P	Pn	01 40 03.6	+1.0
OHR	Ohrid	5.07	352	P	Pn	01 40 04.6	+1.1
OHR	Ohrid	5.07	352	*e*Pn	Pn	01 40 04.1	+0.7
OHR	Ohrid	5.07	352	P	Pn	01 40 04.6	+1.1
CEL	Celeste	5.13	297	P	Pn	01 40 05.2	+0.8
CEL	Celeste	5.13	297	P	Pn	01 40 05.2	+0.8
KNT	Kendrikon	5.15	10	P	Pn	01 40 05.1	+0.5
KNT	Kendrikon	5.15	10	P	Pn	01 40 05.1	+0.5
ARG	Arkhangelos	5.18	87	*e*PN	Pn	01 40 05.4	+0.3
ARG	Arkhangelos	5.18	87	*e*Pn	Pn	01 40 05.4	+0.3
SRS	Serrai	5.23	16	P	Pn	01 40 05.8	+0.1
SRS	Serrai	5.23	16	P	Pn	01 40 05.8	+0.1
VAY	Valandovo	5.27	7	P	Pn	01 40 05.9	-0.3
VAY	Valandovo	5.27	7	P	Pn	01 40 05.9	-0.3
KRUS	Krusevo	5.29	356	*e*Pn	Pn	01 40 05.6	-0.9
KRUS				*e*Sg	Sn	01 41 06.5	-1.3
KRUS	Krusevo	5.29	356	*e*Pn	Pn	01 40 05.5	-1.0
LJBD	Adjabya	5.32	194	*i*P	Pn	01 40 07.9	+1.0
	SNR=23						
LJBD				*e*S	Sn	01 41 08.4	-0.2
	SNR=23						
HAVL	Avola	5.39	281	Pn	Pn	01 40 07.3	-0.6
HAVL	Avola	5.39	281	Pn	Pn	01 40 07.3	-0.6
TIR	Tirane	5.45	345	P	Pn	01 40 09.1	+0.4
TIR	Tirane	5.45	345	P	Pn	01 40 09.1	+0.4
NVR	Nevrokopi	5.51	17	P	Pn	01 40 12.7	+3.1
TAR1	Taranto	5.64	323	*e*Pn	Pn	01 40 11.1	-0.2
HVZN	Vizzini	5.74	283	Pn	Pn	01 40 14.6	+1.9
	144nm,0.6s						
HVZN	Vizzini	5.74	283	Pn	Pn	01 40 14.6	+1.9
	144nm,0.6s						
ALN	Alexandroupoli	5.88	34	P	Pn	01 40 15.0	+0.4
ALN	Alexandroupoli	5.88	34	P	Pn	01 40 15.0	+0.4
VAE	Valguarnera	6.03	285	Pn	Pn	01 40 17.5	+0.8
	0.4nm,0.3s,baz=100,slow=19,SNR=2.3						
VAE				Sn	Sn	01 41 30.5	+4.3
	1.1nm,0.3s,baz=72,slow=19,SNR=3.6						
VAE	Valguarnera	6.03	285	Pn	Pn	01 40 17.5	+0.8
CUC	Castrocucco	6.08	312	*e*Pn	Pn	01 40 17.1	-0.2
	23nm,0.6s						
CUC				*e*Sn	Sn	01 41 25.2	-2.1
CUC	Castrocucco	6.08	312	*e*Pn	Pn	01 40 17.1	-0.2
	23nm,0.6s						
CUC				*e*Sn	Sn	01 41 25.2	-2.1
MGR	Morigerati	6.32	312	Pn	Pn	01 40 20.9	+0.2
MGR	Morigerati	6.32	312	Pn	Pn	01 40 20.9	+0.2
BARS	Barje	6.72	1	⇑*i*Pn	Pn	01 40 25.2	-1.0
LUJL	Ujela	6.96	183	*i*P	Pn	01 40 28.8	-0.7
	SNR=22						
NISS		7.31	1	⇑*i*Pn	Pn	01 40 33.4	-0.8
STON	Ston	7.45	337	*e*Pn	Pn	01 40 33.8	-2.4
STON				Sn	Sn	01 41 53.0	-8.2
STON	Ston	7.45	337	*e*Pn	Pn	01 40 33.8	-2.4
BOLS	Boljevac	7.73	1	⇑*i*Pn	Pn	01 40 38.0	-2.1
BBLS	Lazići	7.97	348	⇑*i*Pn	Pn	01 40 42.3	-1.0
LZLA	Zalla	8.30	206	*i*P	Pn	01 40 47.5	-0.4
	SNR=22						
NVLJ	Novalja	9.95	330	*e*Pn	Pn	01 41 10.4	0.0
NVLJ				Sn	Sn	01 42 54.3	-8.2
NVLJ	Novalja	9.95	330	*e*Pn	Pn	01 41 10.4	0.0
BRTR	Keskin Array B	10.09	65	Pn	Pn	01 41 13.8	+1.4
	0.1nm,0.3s,baz=248,slow=13,SNR=6.4						
BRTR	Keskin Array B	10.09	65	Pn	Pn	01 41 13.8	+1.4
BOJS	Bojanci	10.60	334	*i*Pn	Pn	01 41 18.0	-1.4
BOJS				*i*Sn	Sn	01 43 11.3	-7.2
BOJS	Bojanci	10.60	334	*i*Pn	Pn	01 41 18.0	-1.4
VISS	Visnje	11.01	334	*i*Pn	Pn	01 41 24.7	-0.2
VISS				*i*Sn	Sn	01 43 20.2	-8.3
VISS	Visnje	11.01	334	*i*Pn	Pn	01 41 24.7	-0.2
JAVS	Javornik	11.37	332	*i*Pn	Pn	01 41 30.3	+0.4
JAVS				*i*Sn	Sn	01 43 28.9	-8.4
JAVS	Javornik	11.37	332	*i*Pn	Pn	01 41 30.3	+0.4
MMAI	Mount Meron Ar	11.69	101	Pn	Pn	01 41 30.3	-4.0
	1.2nm,0.3s,baz=284,slow=11,SNR=6.6						
OBKA	Obir	11.72	335	⇑*i*Pn	Pn	01 41 34.1	-0.6
OBKA	Obir	11.72	335	Sn	Sn	01 43 31.1	-15
OBKA	Obir	11.72	335	Pn	Pn	01 41 34.1	-0.6
EIL	Elat	12.82	116	Pn	Pn	01 41 45.1	-4.7
	0.3nm,0.3s,baz=236,slow=3.6,SNR=7.2						
AKASG	Malin Array Be	15.58	18	Pn	Pn	01 42 28.5	+1.5
	1.0nm,0.3s,baz=202,slow=11,SNR=4.0						
AKASG	Malin Array Be	15.58	18	Pn	Pn	01 42 28.5	+1.5
GNI	Garni	18.55	70	Pn	Pn	01 43 03.9	-0.6
	0.2nm,0.3s,baz=16,slow=19,SNR=4.1						
GNI	Garni	18.55	70	Pn	Pn	01 43 03.9	-0.6
ESDC	Sonseca Array	20.57	288	P	P	01 43 27.2	+0.8
	0.4nm,0.6s,baz=82,slow=7.5,SNR=2.9						
ESDC	Sonseca Array	20.57	288	P	P	01 43 27.2	+0.8
HFS	Hagfors	24.61	350	P	P	01 44 05.4	-2.4
	5.5nm,1.0s,mb4.0,baz=156,slow=7.4,SNR=8.4						
NOA	NORSAR Array B	25.85	348	P	P	01 44 18.1	-1.0
	0.6nm,0.7s,mb3.2,baz=156,slow=9.7,SNR=2.7						
NOA	NORSAR Array B	25.85	348	P	P	01 44 18.1	-1.0
TORD	Torodi Ar. Bea	29.09	223	P	P	01 44 48.8	+0.2
	1.6nm,0.7s,mb3.8,baz=31,slow=9.2,SNR=15						
ARCES	ARCESS Array B	33.57	2	P	P	01 45 25.2	-2.2
	1.3nm,0.7s,mb4.0,baz=189,slow=11,SNR=7.7						
DBIC	Dimbokro	38.08	226	P	P	01 46 06.0	-0.7
	2.0nm,1.0s,mb3.8,baz=35,slow=9.4,SNR=4.8						
DBIC	Dimbokro	38.08	226	P	P	01 46 06.0	-0.7
AAK	Ala-Archa	40.77	64	P	P	01 46 25.5	-3.3
	1.8nm,0.8s,mb3.8,baz=234,slow=4.9,SNR=4.4						
KURK	Kurchatov	42.78	52	P	P	01 46 41.5	-3.8
	0.6nm,0.4s,mb3.7,baz=279,slow=8.7,SNR=6.8						
MKAR	Makanchi Array	45.61	57	P	P	01 47 04.7	-3.3
	0.8nm,0.4s,mb4.0,baz=269,slow=7.6,SNR=26						
ZALV	Zalesovo Beam	46.40	47	P	P	01 47 10.4	-3.7
	0.9nm,0.3s,mb4.1,baz=267,slow=8.4,SNR=5.1						
BOSA	Boshof	64.44	177	P	P	01 49 24.3	+0.1
	1.1nm,0.6s,mb4.1,baz=353,slow=8.1,SNR=2.8						
BOSA	Boshof	64.44	177	P	P	01 49 24.3	+0.1
BOSA	Boshof	64.44	177	P	P	01 49 24.3	+0.1

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*NEIC **22** 01:40:53.3, 36°.25N×21°.52E, h5^{km}, ML3.5(ATH), After ATH.*

*ATH **22** 01:40:53.3, 36°.25N×21°.52E, h5^{km}±1^{km}, MD3.9/23, ML3.5*

*ISCJB **22** 01:40:54.9±0.9, 36°.31N±0°.03×21°.51E±0°.05, h11^{km}±5^{km}, Error ellipse: s-maj=7.0km s-min=4.9km az=146.0*

*CSEM **22** 01:40:54.9±0.4, 36°.29N×21°.56E, h2^{km}, ML4.2/5, Error ellipse: s-maj=8.2km s-min=5.1km az=43.0*

*THE **22** 01:40:57.1, 36°.34N×21°.64E, h11^{km}±2^{km}, ML4.2/5, Error ellipse: s-maj=3.8km s-min=1.8km az=253.0*

ISC 22 01:40:55.6±0.9**, 36°.30N**±0°.03×**21°.56E**±0°.05**, h7**^{km}±5^{km}**,**
n104, σ1.^{s}02/134**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.61	14	P	Pg	01 41 06.3	-1.1
PYL				S	Sg	01 41 16.5	+1.0
PYL	PYLOS	0.61	14	*e*PB	Pg	01 41 06.3	-1.1
PYL				*e*SB	Sg	01 41 15.0	-0.5
PYL	PYLOS	0.61	14	*e*Pb	Pg	01 41 06.3	-1.1
PYL				*e*Sb	Sg	01 41 15.0	-0.5
PYL				S	Sg	01 41 16.5	+1.0
ITM	Ithomi	0.93	19	*e*PN	Pg	01 41 12.4	-1.0
ITM				*e*SB	Sg	01 41 25.0	-0.5
ITM	Ithomi	0.93	19	*e*Pn	Pg	01 41 12.4	-1.0
ITM				*e*Sb	Sg	01 41 25.0	-0.5
VLI	Veliai	1.19	69	*e*PB	Pn	01 41 16.7	-1.9
VLI				*e*SB	Sn	01 41 33.4	-1.7
VLI	Veliai	1.19	69	*e*Pb	Pn	01 41 16.7	-1.9
VLI				*e*Sb	Sn	01 41 33.4	-1.7
KYTH	Kithira	1.20	90	*e*PG	Pn	01 41 16.1	-2.6
KYTH	Kithira	1.20	90	*e*Pg	Pn	01 41 16.1	-2.6
VLX	Vlachokerasia	1.26	31	*e*PG	Pn	01 41 17.5	-2.1
VLX				*e*SB	Sn	01 41 36.2	-0.6
VLX	Vlachokerasia	1.26	31	*e*Pg	Pn	01 41 17.5	-2.1
VLX				*e*Sb	Sn	01 41 36.2	-0.6
GUR	Goura	1.75	21	*e*PN	Pn	01 41 27.5	+1.1
GUR				*e*SN	Sn	01 41 52.1	+3.2
GUR	Goura	1.75	21	*e*Pn	Pn	01 41 27.5	+1.1
GUR				*e*Sn	Sn	01 41 52.1	+3.2
RLS	Riolos of Patr	1.76	358	*e*PN	Pn	01 41 27.1	+0.6
RLS	Riolos of Patr	1.76	358	*e*Pn	Pn	01 41 27.1	+0.6
LAKA	Lakka	1.97	10	P	Pn	01 41 30.2	+0.9
LAKA	Lakka	1.97	10	P	Pn	01 41 30.2	+0.9
VLS	Valsamata	2.03	338	P	Pn	01 41 30.0	-0.2
VLS	Valsamata	2.03	338	*e*PN	Pn	01 41 30.8	+0.6
VLS	Valsamata	2.03	338	*e*Pn	Pn	01 41 30.8	+0.6
LTK	Loutraki	2.06	33	P	Pn	01 41 30.8	+0.2
LTK				S	Sn	01 41 55.8	-0.7
LTK	Loutraki	2.06	33	*e*PG	Pn	01 41 32.2	+1.6
LTK				*e*SN	Sn	01 41 58.9	+2.4
LTK	Loutraki	2.06	33	*e*Pg	Pn	01 41 32.2	+1.6
LTK				S	Sn	01 41 55.8	-0.7
LTK				*e*Sn	Sn	01 41 58.9	+2.4
TRIZ	Trizonia	2.10	11	P	Pn	01 41 32.2	+1.0
TRIZ	Trizonia	2.10	11	P	Pn	01 41 32.2	+1.0
KARN	Karanos	2.12	114	P	Pn	01 41 31.0	-0.4
KARN	Karanos	2.12	114	P	Pn	01 41 31.0	-0.4
NAIG	Nisos Aigina	2.13	46	*e*PN	Pn	01 41 32.0	+0.5
NAIG	Nisos Aigina	2.13	46	*e*Pn	Pn	01 41 32.0	+0.5
KALE	Kalithea	2.14	12	P	Pn	01 41 33.1	+1.4
KALE	Kalithea	2.14	12	P	Pn	01 41 33.1	+1.4
VAM	Vamos	2.33	112	*e*PN	Pn	01 41 34.0	-0.2
VAM	Vamos	2.33	112	*e*Pn	Pn	01 41 34.0	-0.2
VLY	Voula,Athens	2.37	48	*e*PN	Pn	01 41 36.4	+1.5
VLY	Voula,Athens	2.37	48	*e*Pn	Pn	01 41 36.4	+1.5
ATH	Athens Observa	2.40	45	*e*PN	Pn	01 41 36.2	+0.9
ATH	Athens Observa	2.40	45	*e*Pn	Pn	01 41 36.2	+0.9
ATHU	Athens Univers	2.44	46	P	Pn	01 41 35.3	-0.5
ATHU	Athens Univers	2.44	46	P	Pn	01 41 35.3	-0.5
PTL	Penteli	2.54	46	*e*PN	Pn	01 41 38.5	+1.3
PTL	Penteli	2.54	46	*e*Pn	Pn	01 41 38.5	+1.3
LKR	Lokris	2.61	26	P	Pn	01 41 37.3	-0.9
LKR				S	Sn	01 42 09.2	-1.0
LKR	Lokris	2.61	26	*e*PN	Pn	01 41 39.8	+1.6
LKR	Lokris	2.61	26	P	Pn	01 41 37.3	-0.9
LKR	Lokris	2.61	26	*e*Pn	Pn	01 41 39.8	+1.6
LKR				S	Sn	01 42 09.2	-1.0
AGG	Agios Georgios	2.79	13	P	Pn	01 41 41.6	+1.0
AGG				S	Sn	01 42 14.2	-0.3
AGG	Agios Georgios	2.79	13	*e*PN	Pn	01 41 42.0	+1.4
AGG	Agios Georgios	2.79	13	*e*Pn	Pn	01 41 42.0	+1.4
AGG				S	Sn	01 42 14.2	-0.3
SIVA	Sivas	2.94	115	P	Pn	01 41 43.1	+0.4
SIVA	Sivas	2.94	115	P	Pn	01 41 43.1	+0.4
THL	Klokotos Trika	3.28	6	P	Pn	01 41 47.9	+0.5
THL	Klokotos Trika	3.28	6	*e*PN	Pn	01 41 48.1	+0.7
THL	Klokotos Trika	3.28	6	*e*Pn	Pn	01 41 48.1	+0.7
IGT	Igoumenitsa	3.37	344	P	Pn	01 41 48.1	-0.5
IGT				S	Sn	01 42 28.8	-0.1
IGT	Igoumenitsa	3.37	344	P	Pn	01 41 48.1	-0.5
IGT				S	Sn	01 42 28.8	-0.1
LAST	Lasithi	3.39	108	P	Pn	01 41 48.1	-0.8
LAST	Lasithi	3.39	108	P	Pn	01 41 48.1	-0.8
JAN	Janina	3.40	351	*e*PN	Pn	01 41 49.5	+0.5
JAN	Janina	3.40	351	*e*Pn	Pn	01 41 49.5	+0.5
NPS	Neapolis	3.46	106	*e*PN	Pn	01 41 50.6	+0.8
NPS	Neapolis	3.46	106	*e*Pn	Pn	01 41 50.6	+0.8
MEV	Metsovon	3.49	356	P	Pn	01 41 51.5	+1.2
MEV	Metsovon	3.49	356	P	Pn	01 41 51.5	+1.2
KEK	Kerkira	3.68	338	*e*PN	Pn	01 41 53.0	+0.1
KEK	Kerkira	3.68	338	*e*Pn	Pn	01 41 53.0	+0.1
LIT	Litokhoron	3.87	11	P	Pn	01 41 56.1	+0.7
LIT	Litokhoron	3.87	11	P	Pn	01 41 56.1	+0.7
PAIG	Paliouri	3.99	24	P	Pn	01 41 56.6	-0.6
PAIG	Paliouri	3.99	24	P	Pn	01 41 56.6	-0.6
KZN	Kozani	4.01	2	*e*PN	Pn	01 41 58.5	+1.2
KZN	Kozani	4.01	2	*e*Pn	Pn	01 41 58.5	+1.2
CHOS	Chios island	4.15	58	P	Pn	01 41 59.2	-0.1
CHOS	Chios island	4.15	58	P	Pn	01 41 59.2	-0.1
PLG	Polygyros	4.33	19	P	Pn	01 42 02.4	+0.6
PLG	Polygyros	4.33	19	*e*PN	Pn	01 42 02.3	+0.5
PLG	Polygyros	4.33	19	*e*Pn	Pn	01 42 02.3	+0.5
OUR	Ouranopolis	4.46	25	P	Pn	01 42 03.0	-0.6
OUR	Ouranopolis	4.46	25	P	Pn	01 42 03.0	-0.6
HORT	Hortiatis	4.46	15	P	Pn	01 42 03.2	-0.4
HORT	Hortiatis	4.46	15	P	Pn	01 42 03.2	-0.4
FNA	Florina	4.48	358	P	Pn	01 42 03.9	0.0
FNA				S	Sn	01 42 56.9	+0.7
FNA	Florina	4.48	358	P	Pn	01 42 03.9	0.0
FNA				S	Sn	01 42 56.9	+0.7
GRG	Griva	4.70	8	P	Pn	01 42 07.0	+0.1
GRG	Griva	4.70	8	P	Pn	01 42 07.0	+0.1
BIA	Bitola	4.72	358	P	Pn	01 42 06.8	-0.3
BIA				S	Sn	01 43 01.8	-0.3
BIA	Bitola	4.72	358	*e*Pn	Pn	01 42 07.0	-0.1
BIA				*e*Sg	Sn	01 43 01.8	-0.3
BIA	Bitola	4.72	358	*e*Pn	Pn	01 42 07.0	-0.1
BIA				S	Sn	01 43 01.8	-0.3
SOH	Sokhos	4.73	17	P	Pn	01 42 08.0	+0.7
SOH	Sokhos	4.73	17	*e*PN	Pn	01 42 08.6	+1.3
SOH	Sokhos	4.73	17	*e*Pn	Pn	01 42 08.6	+1.3
CEL	Celeste	4.92	295	P	Pn	01 42 09.5	-0.4
CEL	Celeste	4.92	295	P	Pn	01 42 09.5	-0.4
KNT	Kendrikon	4.97	12	P	Pn	01 42 11.3	+0.7
KNT	Kendrikon	4.97	12	P	Pn	01 42 11.3	+0.7
KRUS	Krusevo	5.07	357	*e*Pn	Pn	01 42 11.2	-0.7
KRUS				*e*Sg	Sn	01 43 09.2	-1.6
KRUS	Krusevo	5.07	357	*e*Pn	Pn	01 42 11.2	-0.8
SRS	Serrai	5.07	18	P	Pn	01 42 12.2	+0.3
SRS	Serrai	5.07	18	P	Pn	01 42 12.2	+0.3
VAY	Valandovo	5.08	9	*e*Pn	Pn	01 42 11.8	-0.3
VAY	Valandovo	5.08	9	*e*Pn	Pn	01 42 11.8	-0.3
TAR1	Taranto	5.39	323	*e*Pn	Pn	01 42 15.7	-0.7
TAR1				*e*Sn	Sn	01 43 16.5	-2.2
STON	Ston	7.21	337	*e*Pn	Pn	01 42 38.5	-2.9
STON				Sn	Sn	01 43 55.1	-8.3
STON	Ston	7.21	337	*e*Pn	Pn	01 42 38.5	-2.8
NVLJ	Novalja	9.70	330	Sn	Sn	01 44 57.4	-7.2

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*ISCJB **22** 01:41:00.3±0.8, 43°.81N±0°.07×145°.97E±0°.09, h118^{km}±6^{km}, mb3.4/2, Error ellipse: s-maj=12.3km s-min=10.7km az=161.4*

*IDC **22** 01:41:00.5±3.0, 43°.81N×146°.03E, h109^{km}±21^{km}, mb3.3/2, mb1 3.4/5, mb1mx3.2/24, mbtmp3.4/5, MS3.5/1, Ms1 3.5/1, ms1mx2.8/24, Error ellipse: s-maj=37.7km s-min=24.8km az=167.0*

*JMA **22** 01:41:02.9±0.2, 43°.82N×145°.88E, h103^{km}±2^{km}, M3.4*

ISC 22 01:41:01.3±0.8**, 43°.81N**±0°.07×**145°.98E**±0°.09**, h112**^{km}±6^{km}**,**
n15, σ0.^{s}67/22**, mb3.4**/2**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.47	201	P	Pn	01 41 18.9	+0.7
NEM2				*e*S	Sn	01 41 30.6	-0.2
JRA	Rausu	0.63	282	P	Pn	01 41 19.5	+0.3
JRA				*e*S	Sn	01 41 32.1	-0.7
JNK	Nakash	0.94	257	P	Pn	01 41 22.4	+0.4
JAK	Akkeshi	1.24	230	P	Pn	01 41 25.7	+0.6
JAK				*e*S	Sn	01 41 42.7	-0.5
JTKR	Abashiri--Toko	1.50	277	P	Pn	01 41 28.3	+0.1
JTKR				*e*S	Sn	01 41 48.2	-0.5
JAR	Ashorobuto	1.68	253	P	Pn	01 41 31.1	+0.7
JOB	Onbets	1.81	241	P	Pn	01 41 32.8	+0.9
JOB				*e*S	Sn	01 41 55.4	+0.2
JMP	Maruseppu	1.90	277	P	Pn	01 41 33.4	+0.3
JMP				*e*S	Sn	01 41 56.8	-0.6
JCH	Churui	2.25	239	P	Pn	01 41 37.9	+0.4
JCH				*e*S	Sn	01 42 04.4	-0.9
ASAJ	Asahikawa	2.46	278	P	Pn	01 41 41.1	+1.0
	15nm,0.3s,baz=88,slow=13,SNR=26						
ASAJ				S	Sn	01 42 10.3	+0.3
	3.1nm,0.3s,baz=331,slow=24,SNR=7.5						
MJAR	Matsushiro Arr	9.38	222	P	Pn	01 43 11.7	-1.6
	0.4nm,0.3s,baz=36,slow=13,SNR=5.6						
JHJ	Hachijo jima 2	11.72	206	LR	LR	01 48 11.7	
	comp=Z,235nm,21.3s,baz=249,slow=37						
PETK	Petropavlovsk-	12.12	36	P	Pn	01 43 48.8	-1.1
	0.2nm,0.3s,baz=210,slow=8.3,SNR=4.4						
SONM	Songino Array	27.66	292	P	P	01 46 38.7	+0.4
	1.4nm,0.9s,mb3.5,baz=77,slow=8.7,SNR=9.0						
MKAR	Makanchi Array	43.80	297	P	P	01 48 55.3	-0.3
	0.4nm,0.6s,mb3.3,baz=79,slow=8.2,SNR=4.8						

IDC 22 01:49:24.0±47.0**, 15°.89S**×**174°.72W, h0**^{km}**, mb4.1**/3**,**
mb1 4.3/3**, mb1mx3.8**/16**, mbtmp4.1**/3**, Error ellipse:**
s-maj=889.8km s-min=166.9km az=78.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	42.69	240	P	P	01 57 22.6	-0.2
	1.1nm,0.4s,baz=81,slow=8.9,SNR=6.5						
WRA	Warramunga Arr	48.50	257	P	P	01 58 08.9	-0.1
	0.8nm,0.7s,baz=92,slow=7.3,SNR=15						
ASAR	Alice Springs	48.75	252	P	P	01 58 10.9	0.0
	5.6nm,0.5s,baz=89,slow=8.2,SNR=80						

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*IDC **22** 01:50:04.7±0.6, 41°.14N×114°.89W, h0^{km}, mb3.9/3, mb1 4.1/7, mb1mx3.8/23, mbtmp3.9/7, ML3.8/4, Error ellipse: s-maj=11.5km s-min=4.7km az=131.0*

*ISCJB **22** 01:50:05.1±0.1, 41°.08N±0°.01×114°.90W±0°.01, h10^{km}, mb4.0/4, Error ellipse: s-maj=1.5km s-min=1.3km az=152.4*

*NEIC **22** 01:50:05.2, 41°.14N×114°.92W, h8^{km}, ML3.9, MW3.9(SLM), After REN.*

ISC 22 01:50:05.8±0.1**, 41°.106N**±0°.009×**114°.89W**±0°.01**, h10**^{km}**,**
n208, σ1.^{s}26/351**, mb4.0**/4**, 64C-51D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.28	203	⇑P	Pg	01 50 11.1	-0.3
	baz=0.3,SNR=1000						
N12A				⇑S	Sg	01 50 15.8	+0.7
	baz=0.3						
ELK	Elko	0.45	216	Pg	Pg	01 50 14.1	-0.5
	410nm,0.3s,baz=16,slow=14,SNR=200						
ELK				Lg		01 50 19.9	
	2µm,0.3s,baz=120,slow=22,SNR=193						
ELK	Elko	0.45	216	*e*Pg	Pg	01 50 14.2	-0.3
ELK				*e*Sg	Sg	01 50 19.9	-0.5
N13A	Wendover, West	0.58	115	P	Pg	01 50 17.0	0.0
	baz=0.6,SNR=199						
N13A				⇑S	Sg	01 50 24.8	+0.2
	baz=0.6						
M13A	Montello	0.60	65	⇑P	Pg	01 50 16.7	-0.8
	baz=0.6,SNR=346						
M13A				⇑S	Sg	01 50 25.0	-0.5
	baz=0.6						
N11A	Elko Archery C	0.70	246	⇑P	Pg	01 50 18.5	-0.9
	baz=0.7,SNR=488						
N11A				⇑S	Sg	01 50 27.9	-0.6
	baz=0.7						
M11A	Holland Ranch,	0.75	296	⇑P	Pg	01 50 19.1	-1.2
	baz=0.7						
O12A	Currie	0.84	172	P	Pg	01 50 21.9	-0.3
	baz=0.9,SNR=1000						
L12A	House Creek Ra	1.04	355	⇑P	Pg	01 50 24.3	-1.6
	baz=1.0						
L12A				⇓S	Sg	01 50 38.2	-1.3
	baz=1.0						
O11A	Cowboy Ranch,	1.13	211	⇑P	Pb	01 50 26.9	-0.6
	baz=1.2,SNR=1000						
O11A				⇓S	Sb	01 50 42.1	-0.2
	baz=1.2						
O13A	Hicks Ranch, I	1.20	144	⇑P	Pn	01 50 28.0	-0.6
	baz=1.2,SNR=778						
O13A				⇑S	Sb	01 50 45.3	+1.2
	baz=1.2						
L13A	Double Diamond	1.21	36	⇓P	Pn	01 50 27.2	-1.6
	baz=1.2,SNR=137						
L13A				⇑S	Sb	01 50 43.8	-0.8
	baz=1.2						
M14A	Sheep Mountain	1.23	71	P	Pn	01 50 27.9	-1.2
	baz=1.2,SNR=236						
M14A				⇑S	Sb	01 50 44.5	-0.6
	baz=1.2						
L11A	Cat Creek Ranc	1.24	329	⇓P	Pn	01 50 27.6	-1.6
	baz=1.2						
L11A				⇓S	Sb	01 50 44.0	-1.4
	baz=1.2						
N10A	Dunphy	1.28	253	⇓P	Pn	01 50 28.5	-1.3
	baz=1.3,SNR=131						
N10A				⇓S	Sb	01 50 46.5	0.0
	baz=1.3						
M10A	I.L. Ranch, Tu	1.31	289	⇓P	Pn	01 50 28.9	-1.2
	baz=1.3,SNR=553						
M10A				⇑S	Sb	01 50 46.7	-0.6
	baz=1.3						
N14A	Grayback Hills	1.32	101	P	Pn	01 50 29.3	-1.0
	baz=1.3,SNR=414						
N14A				⇓S	Sb	01 50 47.7	+0.1
	baz=1.3						
BGU	Big Grassy Mou	1.42	97	*e*Pn	Pn	01 50 31.1	-0.6
BGU				*e*Sn	Sn	01 50 49.9	-0.5
O10A	Cortez Mining,	1.47	237	⇑P	Pn	01 50 31.7	-0.7
	baz=1.5,SNR=220						
O10A				⇑S	Sn	01 50 51.5	-0.1
	baz=1.5						
K12A	Draper Farm, C	1.53	360	⇑P	Pn	01 50 31.7	-1.5
	baz=1.5						
K12A				⇓S	Sn	01 50 51.7	-1.4
	baz=1.5						
L10A	Juniper Basin	1.53	310	⇓P	Pn	01 50 31.7	-1.5
	baz=1.5,SNR=1000						
L10A				⇓Sb	Sb	01 50 53.0	-0.8
	baz=1.5						
L14A	Malta	1.55	53	⇓P	Pn	01 50 32.8	-0.7
	baz=1.5,SNR=153						
L14A				⇑Sb	Sb	01 50 54.2	0.0
	baz=1.5						
P12A	McGill	1.63	180	⇑P	Pn	01 50 34.3	-0.3
	baz=1.7,SNR=375						
P12A				⇑S	Sn	01 50 56.3	+0.7
	baz=1.7						
K13A	Stover Farm, H	1.66	21	⇓P	Pn	01 50 34.3	-0.6
	baz=1.6,SNR=201						
K13A				⇓Sb	Sb	01 50 56.7	-0.6
	baz=1.6						
P11A	Circle Ranch,	1.69	203	⇑P	Pn	01 50 35.0	-0.3
	baz=1.7,SNR=53						
HVU	Hansel Valley	1.73	66	*e*Pn	Pn	01 50 35.2	-0.7
HVU				*e*Sn	Sn	01 50 58.8	+0.7
P13A	Bates Ranch, G	1.78	158	⇓P	Pn	01 50 35.9	-0.7
	baz=1.8						
N15A	Stansbury Isla	1.81	96	⇓P	Pn	01 50 36.5	-0.6
	baz=1.8,SNR=237						
DUG	Dugway	1.83	119	⇑P	Pn	01 50 36.1	-1.2
	baz=1.9,SNR=195						
DUG				⇓Sb	Sb	01 51 03.2	+1.0
	baz=1.9						
DUG	Dugway	1.83	119	*e*Pn	Pn	01 50 36.5	-0.7
DUG				*e*Sn	Sn	01 51 02.8	+2.4
SPUT	South Promonto	1.85	83	*e*Pn	Pn	01 50 37.4	-0.3
SPUT				*e*Sn	Sn	01 51 02.1	+0.9
K11A	Parker Ranch,	1.87	333	⇓P	Pn	01 50 37.5	-0.3
	baz=1.8,SNR=365						
M15A	Larsen Ranch,	1.88	78	⇑P	Pn	01 50 37.1	-0.9
	baz=1.9						
M15A				⇑Sb	Sb	01 51 03.9	+0.2
	baz=1.9						
BMN	Battle Mountai	1.89	250	*e*Pn	Pn	01 50 36.8	-1.4
BMN				*e*Sn	Sn	01 51 04.0	+2.0
P10A	Eureka	1.91	219	⇑P	Pn	01 50 38.4	0.0
	baz=1.9,SNR=139						
K14A	Jones Ranch, D	1.93	41	⇑P	Pn	01 50 38.3	-0.4
	baz=1.9,SNR=78						
M09A	Marrel Ranch,	1.95	280	⇑P	Pn	01 50 38.6	-0.4
	baz=1.9,SNR=95						
O09A	Fish Creek Ran	1.98	243	⇑P	Pn	01 50 38.8	-0.6
	baz=2.0,SNR=43						
N09A	Rock Creek Ran	2.01	264	⇓P	Pn	01 50 38.6	-1.1

	baz=2.0,SNR=120						
O15A	**The Old Anders**	**2.02**	**113**	⇓P	**Pn**	**01 50 38.9**	**-1.0**
	baz=2.0,SNR=61						
P14A	**Drum Mountains**	**2.06**	**137**	⇑P	**Pn**	**01 50 39.8**	**-0.6**
	baz=2.1,SNR=49						
Q12A	**Willow Creek R**	**2.06**	**179**	P	**Pn**	**01 50 40.3**	**-0.2**
	baz=2.1,SNR=45						
L15A	**Malad City**	**2.08**	**64**	⇑P	**Pn**	**01 50 40.5**	**-0.3**
	baz=2.1,SNR=101						
J12A	**Stokes Ranch,**	**2.15**	**356**	⇑P	**Pn**	**01 50 41.8**	**+0.1**
	baz=2.1,SNR=234						
NOQ	**North Oquirrh**	**2.15**	**101**	*e*Pn	**Pn**	**01 50 42.7**	**+0.9**
NOQ				*e*Sb	**Sb**	**01 51 13.6**	**+2.0**
K10A	**MacKenzie Ranc**	**2.23**	**319**	⇓P	**Pn**	**01 50 42.6**	**-0.2**
	baz=2.2,SNR=229						
Q13A	**Wheeler Ranch,**	**2.25**	**162**	⇓P	**Pn**	**01 50 42.8**	**-0.3**
	baz=2.3,SNR=102						
L09A	**Wilkinson Ranc**	**2.27**	**295**	⇓P	**Pn**	**01 50 42.9**	**-0.5**
	baz=2.2,SNR=266						
P09A	**Austin**	**2.31**	**229**	⇑P	**Pn**	**01 50 43.7**	**-0.3**
	baz=2.3,SNR=27						
Q11A	**Duckwater**	**2.33**	**195**	P	**Pn**	**01 50 44.2**	**0.0**
	baz=2.4,SNR=161						
J13A	**Cove Ranch, Pi**	**2.35**	**13**	⇑P	**Pn**	**01 50 45.0**	**+0.5**
	baz=2.3,SNR=229						
K15A	**Arbon**	**2.37**	**47**	⇑P	**Pn**	**01 50 44.8**	**+0.1**
	baz=2.4,SNR=86						
MFID	**Camas Ranch**	**2.41**	**344**	⇑P	**Pn**	**01 50 46.0**	**+0.7**
	baz=2.4,SNR=80						
CTU	**Camp Tracy**	**2.42**	**99**	*e*Pn	**Pn**	**01 50 46.1**	**+0.7**
CTU				*e*Pg	**Pg**	**01 50 52.0**	**-0.2**
CTU				*e*Sn	**Sn**	**01 51 14.4**	**-0.6**
CTU				*e*Sg	**Sg**	**01 51 24.8**	**+1.3**
NLU	**North Lily Min**	**2.44**	**117**	*e*Pn	**Pn**	**01 50 45.6**	**0.0**
NLU				*e*Pg	**Pg**	**01 50 52.0**	**-0.5**
J14A	**Carey**	**2.44**	**24**	P	**Pn**	**01 50 46.4**	**+0.7**
	baz=2.4,SNR=80						
Q14A	**Sevier Lake (B**	**2.45**	**149**	⇑P	**Pn**	**01 50 45.1**	**-0.8**
	baz=2.5,SNR=27						
N08A	**GE Springer Mi**	**2.48**	**264**	⇑P	**Pn**	**01 50 45.0**	**-1.2**
	baz=2.5,SNR=17						
HLID	**Hailey**	**2.48**	**8**	⇓P	**Pn**	**01 50 46.9**	**+0.6**
	baz=2.5,SNR=304						
HLID	**Hailey**	**2.48**	**8**	*e*Pn	**Pn**	**01 50 47.0**	**+0.7**
HLID				*e*Sn	**Sn**	**01 51 19.2**	**+2.6**
P15A	**Leamington**	**2.52**	**127**	⇓P	**Pn**	**01 50 45.9**	**-0.9**
	baz=2.6,SNR=46						
Q10A	**Clear Creek Ra**	**2.56**	**207**	⇑P	**Pn**	**01 50 47.1**	**-0.2**
	baz=2.6,SNR=138						
O08A	**Rochester Mine**	**2.61**	**253**	⇑P	**Pn**	**01 50 47.1**	**-1.0**
	baz=2.6,SNR=48						
K09A	**Rome**	**2.65**	**308**	⇑P	**Pn**	**01 50 50.1**	**+1.5**
	baz=2.6,SNR=338						
M08A	**Happy Creek Ra**	**2.65**	**279**	⇓P	**Pn**	**01 50 49.9**	**+1.3**
	baz=2.6						
JLU	**Jordanelle**	**2.66**	**100**	*e*Pn	**Pn**	**01 50 50.1**	**+1.4**
I12A	**Atlanta**	**2.69**	**356**	⇓P	**Pn**	**01 50 48.3**	**-0.9**
	baz=2.7,SNR=287						
J10A	**Berg Farm, Mel**	**2.71**	**330**	⇑P	**Pn**	**01 50 50.4**	**+1.1**
	baz=2.7						
MPU	**Maple Canyon**	**2.71**	**113**	*e*Pn	**Pn**	**01 50 49.4**	**-0.1**
MPU				*e*Pg	**Pg**	**01 50 57.2**	**-0.6**
MPU				*e*Sn	**Sn**	**01 51 24.7**	**+2.4**
MPU				*e*Sg	**Sg**	**01 51 34.7**	**+1.8**
L16A	**Fish Haven**	**2.75**	**70**	⇓P	**Pn**	**01 50 50.1**	**+0.1**
	baz=2.8,SNR=30						
R12A	**Pony Springs,**	**2.78**	**175**	⇑P	**Pn**	**01 50 50.4**	**0.0**
	baz=2.8,SNR=26						
L08A	**Fields**	**2.80**	**294**	⇓P	**Pn**	**01 50 53.2**	**+2.5**
	baz=2.8						
R11A	**Troy Canyon, C**	**2.81**	**191**	P	**Pn**	**01 50 50.6**	**-0.1**
	baz=2.8,SNR=55						
P08A	**Dixie Valley**	**2.81**	**241**	P	**Pn**	**01 50 50.5**	**-0.3**
	baz=2.8,SNR=44						
DAU	**Daniels Canyon**	**2.85**	**103**	*e*Pn	**Pn**	**01 50 52.6**	**+1.3**
DAU				*e*Pg	**Pg**	**01 50 59.7**	**-0.7**
DAU				*e*Sg	**Sg**	**01 51 36.8**	**-0.6**
Q15A	**Fillmore**	**2.85**	**137**	⇑P	**Pn**	**01 50 50.9**	**-0.5**
	baz=2.9,SNR=17						
I13A	**Wildhorse Cree**	**2.87**	**11**	P	**Pn**	**01 50 52.5**	**+1.0**
	baz=2.8,SNR=175						
Q09A	**Carvers**	**2.87**	**219**	⇓P	**Pn**	**01 50 52.0**	**+0.4**
	baz=2.9,SNR=28						
I11A	**Placerville**	**2.91**	**345**	⇓P	**Pn**	**01 50 54.3**	**+2.1**
	baz=2.9						
J15A	**Blackfoot**	**2.93**	**38**	⇓P	**Pn**	**01 50 52.8**	**+0.3**
	baz=2.9,SNR=27						
K16A	**Soda Springs**	**3.01**	**54**	⇓P	**Pn**	**01 50 54.3**	**+0.7**
	baz=3.0,SNR=14						
R13A	**O’Grain Ranch,**	**3.01**	**166**	⇑P	**Pn**	**01 50 53.8**	**+0.3**
	baz=3.1,SNR=75						
I14A	**Mackay**	**3.02**	**20**	⇑P	**Pn**	**01 50 54.4**	**+0.8**
	baz=3.0,SNR=25						
R10A	**Warm Springs**	**3.02**	**202**	⇑P	**Pn**	**01 50 54.0**	**+0.3**
	baz=3.0,SNR=13						
J09A	**Fry Pan Ranch,**	**3.09**	**317**	⇓P	**Pn**	**01 50 55.1**	**+0.5**
	baz=3.0						
WVOR	**Wild Horse Val**	**3.10**	**297**	*e*Pn	**Pn**	**01 50 56.1**	**+1.3**
WVOR				*e*Sn	**Sn**	**01 51 32.4**	**+0.6**
WVOR				*e*Sg	**Sg**	**01 51 40.6**	**-4.7**
N07B	**Gerlach**	**3.11**	**265**	⇓P	**Pn**	**01 50 54.0**	**-0.9**
	baz=3.1,SNR=20						
R14A	**James Farms, M**	**3.15**	**152**	⇓P	**Pn**	**01 50 55.2**	**-0.3**
	baz=3.2,SNR=5.8						
O07A	**Toulon**	**3.17**	**254**	⇓P	**Pn**	**01 50 54.7**	**-1.1**
	baz=3.2,SNR=17						
Q08A	**Gabbs**	**3.24**	**227**	⇓P	**Pn**	**01 50 56.2**	**-0.4**
	baz=3.2						
M07A	**Soldier Meadow**	**3.24**	**276**	⇓P	**Pn**	**01 50 56.7**	**0.0**
	baz=3.2,SNR=16						
J16A	**Bone**	**3.26**	**47**	⇓P	**Pn**	**01 50 57.8**	**+0.8**
	baz=3.2,SNR=13						
AHID	**Auburn Hatcher**	**3.28**	**58**	*e*Pn	**Pn**	**01 51 01.0**	**+3.8**
AHID				*e*Pg	**Pg**	**01 51 09.8**	**+1.1**
AHID				*e*Sg	**Sg**	**01 51 48.6**	**-2.5**
R09A	**Tonopah**	**3.32**	**211**	⇓P	**Pn**	**01 50 58.5**	**+0.7**
	baz=3.3,SNR=8.5						
MSU	**Marysvale**	**3.33**	**140**	*e*Pn	**Pn**	**01 50 58.0**	**+0.1**
MSU				*e*Pg	**Pg**	**01 51 09.3**	**-0.3**
MSU				*e*Sg	**Sg**	**01 51 47.3**	**-5.5**
TMUT	**Trail Mountain**	**3.35**	**121**	*e*Pn	**Pn**	**01 51 01.9**	**+3.7**
TMUT				*e*Pg	**Pg**	**01 51 09.5**	**-0.6**
TMUT				*e*Sg	**Sg**	**01 51 54.1**	**+0.7**
P07A	**Fallon**	**3.43**	**244**	⇑P	**Pn**	**01 50 59.1**	**-0.2**
	baz=3.4,SNR=23						
S10A	**Tonopah Range,**	**3.44**	**203**	⇓P	**Pn**	**01 50 59.8**	**+0.3**
	baz=3.5,SNR=14						
L07A	**Adell**	**3.46**	**287**	⇑P	**Pn**	**01 51 01.0**	**+1.3**
	baz=3.4,SNR=48						
RRI2	**Red Ridge**	**3.47**	**49**	*e*Pn	**Pn**	**01 51 00.8**	**+0.9**
RRI2				*e*Pg	**Pg**	**01 51 11.2**	**-1.1**
RRI2				*e*Sg	**Sg**	**01 51 53.9**	**-3.5**
J08A	**Circle Bar Ran**	**3.48**	**311**	⇑P	**Pn**	**01 51 01.2**	**+1.2**
	baz=3.4						
H13A	**Challis**	**3.49**	**8**	⇑P	**Pn**	**01 51 01.9**	**+1.8**
	baz=3.5						
S12A	**Delamar Landin**	**3.49**	**179**	⇓P	**Pn**	**01 51 00.4**	**+0.2**
	baz=3.5,SNR=12						
ARUT	**Antelope Range**	**3.50**	**161**	*e*Pn	**Pn**	**01 51 00.5**	**+0.3**
ARUT				*e*Pg	**Pg**	**01 51 11.2**	**-1.6**
ARUT				*e*Sn	**Sn**	**01 51 40.2**	**-1.5**
ARUT				*e*Sg	**Sg**	**01 51 55.4**	**-2.8**
S11A	**Rachel**	**3.52**	**191**	⇓P	**Pn**	**01 51 01.0**	**+0.4**
	baz=3.6,SNR=6.8						
R15A	**Junction**	**3.53**	**144**	⇓P	**Pn**	**01 51 00.5**	**-0.1**
	baz=3.6,SNR=7.7						
S14A	**Cedar City**	**3.60**	**158**	⇑P	**Pn**	**01 51 01.9**	**+0.3**
	baz=3.6,SNR=14						
S13A	**Holt Ranch, En**	**3.61**	**167**	⇑P	**Pn**	**01 51 02.1**	**+0.3**
	baz=3.7,SNR=45						
K07A	**Rock Creek Ran**	**3.62**	**297**	⇓P	**Pn**	**01 51 02.8**	**+1.0**
	baz=3.6,SNR=22						
PAHR	**Pah Rah Range**	**3.70**	**249**	*e*Pn	**Pn**	**01 51 02.4**	**-0.7**
Q07A	**Schurz**	**3.70**	**236**	⇓P	**Pn**	**01 51 03.2**	**+0.1**
	baz=3.7						
R08A	**Mina**	**3.70**	**223**	⇑P	**Pn**	**01 51 03.3**	**+0.2**
	baz=3.7,SNR=8.4						
DCID1	**Drake Creek**	**3.71**	**47**	*e*Pn	**Pn**	**01 51 04.2**	**+1.1**
DCID1				*e*Pg	**Pg**	**01 51 16.2**	**-0.6**
DCID1				*e*Sn	**Sn**	**01 51 51.6**	**+4.7**
DCID1				*e*Sg	**Sg**	**01 52 01.5**	**-3.3**
H10A	**Noah’s Angus R**	**3.74**	**339**	⇑P	**Pn**	**01 51 04.5**	**+0.9**
	baz=3.7,SNR=19						
CCUT	**Cedar City**	**3.74**	**161**	*e*Pn	**Pn**	**01 51 04.2**	**+0.5**
CCUT				*e*Pg	**Pg**	**01 51 16.1**	**-1.4**
CCUT				*e*Sn	**Sn**	**01 51 47.6**	**-0.1**
CCUT				*e*Sg	**Sg**	**01 52 03.4**	**-2.7**
NVAR	**Mina Array Bea**	**3.75**	**226**	Pn	**Pn**	**01 51 03.5**	**-0.2**
	14nm,0.3s,baz=39,slow=12,SNR=172						
NVAR				Sn	**Sn**	**01 51 50.8**	**+2.9**
	50nm,0.3s,baz=44,slow=21,SNR=6.0						
NVAR				Lg		01 52 03.6	
	178nm,0.3s,baz=252,slow=14,SNR=17						
REDW	**Red Top Meadow**	**3.75**	**52**	*e*Pn	**Pn**	**01 51 04.8**	**+1.0**
REDW				*e*Sn	**Sn**	**01 51 51.7**	**+3.7**
REDW				*e*Sg	**Sg**	**01 52 03.6**	**-2.7**
N06A	**Buffalo Meadow**	**3.76**	**266**	P	**Pn**	**01 51 03.0**	**-0.9**
	baz=3.7,SNR=21						
TPAW	**Teton Pass**	**3.77**	**50**	*e*Pn	**Pn**	**01 51 04.8**	**+0.8**
TPAW				*e*Pg	**Pg**	**01 51 13.2**	**-4.9**
TPAW				*e*Sn	**Sn**	**01 51 52.6**	**+4.2**
TPAW				*e*Sg	**Sg**	**01 52 02.9**	**-4.0**
T11A	**Corn Creek, Al**	**3.87**	**184**	P	**Pn**	**01 51 05.5**	**+0.2**
	baz=3.9,SNR=46						
SNOW	**Snow King Moun**	**3.87**	**51**	*e*Pn	**Pn**	**01 51 07.3**	**+1.9**
SRU	**San Rafael**	**3.90**	**119**	*e*Pn	**Pn**	**01 51 06.3**	**+0.6**
SRU				*e*Pg	**Pg**	**01 51 17.9**	**-2.6**
SRU				*e*Sg	**Sg**	**01 52 06.9**	**-4.1**
S15A	**Panguitch**	**3.95**	**149**	⇑P	**Pn**	**01 51 06.8**	**+0.4**
	baz=4.0,SNR=8.2						
BURN	**Burns**	**3.99**	**310**	P	**Pn**	**01 51 11.9**	**+4.9**
MCMT	**McKenzie Canyo**	**4.01**	**21**	*e*Pn	**Pn**	**01 51 08.9**	**+1.7**
MCMT				*e*Pg	**Pg**	**01 51 20.6**	**-2.0**
MCMT				*e*Sg	**Sg**	**01 52 09.3**	**-5.3**
IMW	**Indian Meadow**	**4.04**	**45**	*e*Pn	**Pn**	**01 51 08.8**	**+1.1**
IMW				*e*Sg	**Sg**	**01 52 10.2**	**-5.3**
LOHW	**Long Hollow**	**4.05**	**50**	*e*Pn	**Pn**	**01 51 09.1**	**+1.3**
LOHW				*e*Pg	**Pg**	**01 51 18.6**	**-4.7**
LOHW				*e*Sg	**Sg**	**01 52 14.5**	**-1.3**
MOOW	**Moose Ponds**	**4.05**	**48**	*e*Pn	**Pn**	**01 51 09.0**	**+1.2**
MOOW				*e*Sn	**Sn**	**01 51 58.5**	**+3.3**
MOOW				*e*Sg	**Sg**	**01 52 12.9**	**-2.9**
P06A	**Stead Airport,**	**4.08**	**251**	⇑P	**Pn**	**01 51 07.6**	**-0.7**
	baz=4.1,SNR=8.7						
WCN	**Washoe City**	**4.14**	**246**	⇑P	**Pn**	**01 51 08.3**	**-0.7**
	baz=4.1,SNR=32						
MOD	**Modoc**	**4.14**	**283**	*e*Pn	**Pn**	**01 51 08.7**	**-0.3**
MOD				*e*Pg	**Pg**	**01 51 22.4**	**-2.8**
MOD				*e*Sg	**Sg**	**01 52 15.5**	**-3.3**
BMO	**Blue Mountains**	**4.14**	**336**	*e*Pn	**Pn**	**01 51 10.7**	**+1.6**
BMO				*e*Pg	**Pg**	**01 51 22.7**	**-2.5**
BMO				*e*Sg	**Sg**	**01 52 10.9**	**-7.8**
T14A	**Hurricane**	**4.28**	**160**	⇓P	**Pn**	**01 51 11.5**	**+0.6**
	baz=4.3,SNR=32						
BW06	**Boulder Array**	**4.31**	**66**	*e*Pn	**Pn**	**01 51 13.8**	**+2.4**
BW06				*e*Pg	**Pg**	**01 51 26.6**	**-1.8**
BW06				*e*Sg	**Sg**	**01 52 20.5**	**-3.8**
PDAR	**Pinedale Array**	**4.31**	**66**	Pn	**Pn**	**01 51 13.8**	**+2.3**
	1.2nm,0.3s,baz=240,slow=12,SNR=58						
PDAR				Lg		01 52 19.8	
	6.1nm,0.3s,baz=221,slow=25,SNR=6.7						
BEKR	**Beckwourth**	**4.35**	**255**	P	**Pn**	**01 51 11.2**	**-0.7**
	baz=4.3,SNR=103						
R06C	**Coleville**	**4.36**	**235**	⇑P	**Pn**	**01 51 11.7**	**-0.3**
	baz=4.4,SNR=38						
WAKR	**Walker**	**4.36**	**235**	*e*Pn	**Pn**	**01 51 11.8**	**-0.3**
J06A	**Christmas Vall**	**4.46**	**300**	⇓P	**Pn**	**01 51 14.5**	**+1.0**
	baz=4.4,SNR=20						
YFT	**Old Faithful**	**4.48**	**40**	*e*Pn	**Pn**	**01 51 16.9**	**+3.1**
YFT				*e*Pb	**Pb**	**01 51 25.4**	**+0.8**
YFT				*e*Pg	**Pg**	**01 51 29.9**	**-1.8**
YFT				*e*Sg	**Sg**	**01 52 27.5**	**-2.2**
QLMT	**Earthquake Lak**	**4.51**	**33**	*e*Pn	**Pn**	**01 51 20.7**	**+6.6**
DLMT	**Dillon**	**4.57**	**21**	*e*Pn	**Pn**	**01 51 17.4**	**+2.3**
DLMT				*e*Pg	**Pg**	**01 51 29.4**	**-4.1**
DLMT				*e*Sg	**Sg**	**01 52 26.9**	**-5.7**
YMR	**Madison River**	**4.58**	**38**	*e*Pn	**Pn**	**01 51 16.8**	**+1.6**
YMR				*e*Pg	**Pg**	**01 51 28.9**	**-4.7**
SHPR	**Sheep Range**	**4.60**	**183**	*e*Pn	**Pn**	**01 51 12.8**	**-2.6**
MTUM	**Tungsten Hills**	**4.71**	**218**	*e*Pn	**Pn**	**01 51 18.4**	**+1.5**
U13A	**Pakoon Wash**	**4.74**	**171**	⇑P	**Pn**	**01 51 17.7**	**+0.3**
	baz=4.8,SNR=20						
YNR	**Norris Junctio**	**4.75**	**39**	*e*Pn	**Pn**	**01 51 21.5**	**+4.0**
YNR				*e*Pg	**Pg**	**01 51 29.9**	**-7.0**
YNR				*e*Sg	**Sg**	**01 52 36.6**	**-1.8**
LKWY	**Lake**	**4.78**	**42**	*e*Pn	**Pn**	**01 51 22.4**	**+4.5**
LKWY				*e*Pg	**Pg**	**01 51 35.6**	**-1.8**
LKWY				*e*Sg	**Sg**	**01 52 39.5**	**+0.2**
LRM	**Limekiln Ridge**	**5.04**	**20**	*e*Pn	**Pn**	**01 51 23.6**	**+2.2**
LRM				*e*Pb	**Pb**	**01 51 34.5**	**+0.4**
LRM				*e*Pg	**Pg**	**01 51 39.1**	**-3.2**
LRM				*e*Sg	**Sg**	**01 52 37.7**	**-10**
BOZ	**Bozeman (W)**	**5.12**	**27**	*e*Pn	**Pn**	**01 51 26.3**	**+3.7**
BOZ				*e*Pg	**Pg**	**01 51 38.4**	**-5.6**
BOZ				*e*Sg	**Sg**	**01 52 40.6**	**-10**
CMB	**Columbia Colle**	**5.24**	**236**	*e*Pn	**Pn**	**01 51 24.3**	**+0.1**
CMB				*e*Pg	**Pg**	**01 51 41.7**	**-4.4**
CMB				*e*Sn	**Sn**	**01 52 25.5**	**+1.0**
CMB				*e*Sg	**Sg**	**01 52 49.2**	**-4.8**
V11A	**Goodsprings**	**5.28**	**185**	⇑P	**Pn**	**01 51 25.6**	**+0.9**
	baz=5.3,SNR=17						
V13A	**Grand Canyon W**	**5.29**	**172**	⇑P	**Pn**	**01 51 25.8**	**+0.8**
	baz=5.3,SNR=8.2						
OHCM	**Honcut**	**5.34**	**253**	*e*Pg	**Pg**	**01 51 43.6**	**-4.6**
PV04	**Paradox Valley**	**5.35**	**118**	*e*Pn	**Pn**	**01 51 27.7**	**+2.0**
PV04				*e*Pg	**Pg**	**01 51 45.8**	**-2.5**
PV04				*e*Sn	**Sn**	**01 52 30.3**	**+2.9**
PV04				*e*Sg	**Sg**	**01 52 55.9**	**-1.7**
LNOR	**Lincton Mounta**	**5.36**	**334**	*e*Pb	**Pb**	**01 51 34.2**	**-5.4**
V12A	**Nelson**	**5.37**	**180**	⇑P	**Pn**	**01 51 26.5**	**+0.5**
	baz=5.4,SNR=75						
MPMC	**Manual Prospec**	**5.43**	**203**	⇑P	**Pn**	**01 51 27.7**	**+0.8**
	baz=5.5,SNR=10						
PV01	**Paradox Valley**	**5.71**	**119**	*e*Pn	**Pn**	**01 51 33.8**	**+3.1**
	4µm,0.6s						
PV01				*e*Pg	**Pg**	**01 51 53.1**	**-2.2**
PV01				*e*Sg	**Sg**	**01 53 04.2**	**-5.0**
RLMT	**Red Lodge**	**5.75**	**44**	*e*Pn	**Pn**	**01 51 34.9**	**+3.7**
RLMT				*e*Pg	**Pg**	**01 51 53.3**	**-2.6**
MSO	**Missoula**	**5.76**	**7**	*e*Pn	**Pn**	**01 51 34.0**	**+2.7**
MSO				*e*Pg	**Pg**	**01 51 52.2**	**-3.9**
MSO				*e*Sg	**Sg**	**01 53 03.2**	**-7.5**
RWWY	**Rawlins**	**5.81**	**82**	*e*Pn	**Pn**	**01 51 34.4**	**+2.4**
RWWY				*e*Pg	**Pg**	**01 51 49.5**	**-7.6**
RWWY				*e*Sg	**Sg**	**01 53 04.4**	**-7.8**
WDC	**Whiskeytown Da**	**5.82**	**267**	*e*Pn	**Pn**	**01 51 33.8**	**+1.6**
WDC				*e*Pg	**Pg**	**01 51 51.2**	**-6.1**
WDC				*e*Sg	**Sg**	**01 53 06.3**	**-6.5**
YBH	**Yreka Blue Hor**	**5.91**	**279**	Pn	**Pn**	**01 51 35.4**	**+2.0**
	0.4nm,0.3s,baz=75,slow=9.2,SNR=6.0						
YBH				Pg	**Pg**	**01 51 53.1**	**-5.9**
	0.6nm,0.3s,baz=92,slow=6.8,SNR=6.6						
YBH				Lg		01 53 10.1	
	1.6nm,0.3s,baz=349,slow=13,SNR=3.8						
YBH	**Yreka Blue Hor**	**5.91**	**279**	*e*Pn	**Pn**	**01 51 32.4**	**-1.0**
YBH				Pg	**Pg**	**01 51 53.1**	**-5.9**
YBH				*e*Pg	**Pg**	**01 51 53.5**	**-5.5**
YBH				Lg		01 53 10.1	
YBH				*e*Sg	**Sg**	**01 53 11.0**	**-4.5**
CHMT	**Chamberlain Mo**	**5.93**	**11**	*e*Pn	**Pn**	**01 51 35.8**	**+2.2**
CHMT				*e*Pg	**Pg**	**01 52 00.2**	**+0.9**
CHMT				*e*Sg	**Sg**	**01 53 08.5**	**-7.5**
GSC	**Goldstone**	**5.99**	**195**	*e*Pn	**Pn**	**01 51 35.4**	**+0.9**
GSC				*e*Pg	**Pg**	**01 51 57.9**	**-2.6**
GSC				*e*Sg	**Sg**	**01 53 11.8**	**-6.2**
LDFC	**Landfair**	**6.02**	**182**	*e*Pn	**Pn**	**01 51 35.1**	**+0.2**
LDFC				*e*Pg	**Pg**	**01 52 00.2**	**-0.9**
LDFC				*e*Sg	**Sg**	**01 53 16.4**	**-2.7**
HRY	**Holter Researc**	**6.02**	**21**	*e*Pn	**Pn**	**01 51 39.7**	**+4.8**
HRY				*e*Pg	**Pg**	**01 51 55.0**	**-6.1**
HRY				*e*Sg	**Sg**	**01 53 09.9**	**-9.2**
GCMT	**Greycliff**	**6.03**	**37**	*e*Pn	**Pn**	**01 51 39.1**	**+4.1**
GCMT				*e*Pg	**Pb**	**01 51 50.9**	**-0.1**
GCMT				*e*Sg	**Sb**	**01 53 07.5**	**+4.3**
ISA	**Isabella**	**6.12**	**208**	*e*Pn	**Pn**	**01 51 37.3**	**+1.1**
ISA				*e*Pg	**Pg**	**01 51 59.8**	**-3.2**
ISA				*e*Sg	**Sg**	**01 53 16.9**	**-5.3**
HUMO	**Hull Mountain**	**6.21**	**287**	*e*Pn	**Pn**	**01 51 43.3**	**+5.9**
HUMO				*e*Pg	**Pg**	**01 51 58.3**	**-6.3**
SLMT	**Seeley Lake**	**6.22**	**9**	*e*Pn	**Pn**	**01 51 39.4**	**+1.8**
SLMT				*e*Pg	**Pg**	**01 52 01.0**	**-3.9**
SLMT				*e*Sg	**Sg**	**01 53 16.7**	**-8.6**
WUAZ	**Wupatki**	**6.23**	**153**	*e*Pn	**Pn**	**01 51 39.1**	**+1.3**
WUAZ				*e*Pg	**Pg**	**01 52 01.7**	**-3.4**
WUAZ				*e*Sg	**Sg**	**01 53 22.1**	**-3.6**
HAWA	**Hanford**	**6.26**	**329**	*e*Pn	**Pn**	**01 51 40.8**	**+2.6**
HAWA				*e*Pg	**Pg**	**01 51 58.4**	**-7.3**
HAWA				*e*Sg	**Sg**	**01 53 19.9**	**-6.8**
RSW	**Rattlesnake Hi**	**6.29**	**329**	*e*Pb	**Pb**	**01 51 53.7**	**-1.6**
MVCO	**Mesa Verde**	**6.31**	**126**	*e*Pn	**Pn**	**01 51 38.1**	**-0.8**
MVCO				*e*Pg	**Pg**	**01 52 01.8**	**-4.8**
MVCO				*e*Sg	**Sg**	**01 53 23.2**	**-5.1**
GMRC	**Granite Mounta**	**6.34**	**186**	⇓P	**Pn**	**01 51 39.0**	**-0.3**
	baz=6.4,SNR=9.6						
SWMT	**Swartz Lake**	**6.43**	**5**	*e*Pn	**Pn**	**01 51 42.2**	**+1.7**
SWMT				*e*Pg	**Pg**	**01 52 04.9**	**-4.1**
SWMT				*e*Sg	**Sg**	**01 53 22.6**	**-10**
HOOD	**Mount Hood Mea**	**6.49**	**313**	*e*Pg	**Pg**	**01 52 04.8**	**-5.3**
JTMT	**Jette**	**6.65**	**4**	*e*Pn	**Pn**	**01 51 44.2**	**+0.6**
JTMT				*e*Sg	**Sg**	**01 53 33.2**	**-6.1**
BSMT	**Bassoo Peak**	**6.75**	**1**	*e*Pn	**Pn**	**01 51 45.7**	**+0.9**
BSMT				*e*Pg	**Pg**	**01 52 10.5**	**-4.4**
BSMT				*e*Sg	**Sg**	**01 53 37.0**	**-5.2**
YBMT	**Yellow Bay**	**6.79**	**5**	*e*Pn	**Pn**	**01 51 47.3**	**+1.9**
YBMT				*e*Pg	**Pg**	**01 52 11.4**	**-4.3**
YBMT				*e*Sg	**Sg**	**01 53 35.3**	**-8.2**
OD2	**Odessa Site #2**	**6.85**	**338**	*e*Pn	**Pn**	**01 51 49.5**	**+3.2**
OD2				*e*Pb	**Pb**	**01 52 11.6**	**+6.6**
PHWY	**Pilot Hill**	**7.12**	**85**	*e*Pn	**Pn**	**01 51 53.0**	**+3.0**
PHWY				*e*Sg	**Sg**	**01 53 48.5**	**-5.8**
ISCO	**Idaho Springs**	**7.20**	**97**	*e*Pn	**Pn**	**01 51 54.7**	**+3.7**
ISCO				*e*Pg	**Pg**	**01 52 21.6**	**-2.0**
ISCO				*e*Sg	**Sg**	**01 53 47.7**	**-9.0**
NEW	**Newport**	**7.33**	**348**	*e*Pn	**Pn**	**01 51 54.9**	**+2.0**
NEW				*e*Sg	**Sg**	**01 53 57.1**	**-3.9**
LON	**Longmire**	**7.53**	**321**	*e*Pg	**Pb**	**01 52 18.7**	**+2.2**
ETW	**Entiat**	**7.57**	**331**	*e*Pn	**Pn**	**01 51 59.4**	**+3.2**
PFO	**Pinyon Flat Ob**	**7.59**	**190**	*e*Pn	**Pn**	**01 51 57.1**	**+0.6**
PFO				*e*Sg	**Sg**	**01 53 57.7**	**-12**
EGMT	**Eagleton**	**7.83**	**26**	*e*Pn	**Pn**	**01 52 03.1**	**+3.5**
EGMT				*e*Lg		01 54 07.0	
WALA	**Waterton Lakes**	**7.98**	**5**	*e*Pn	**Pn**	**01 52 08.0**	**+6.1**
LAO	**LASA Array**	**8.38**	**45**	*e*Pn	**Pn**	**01 52 10.3**	**+3.0**
RSSD	**Black Hills**	**8.55**	**66**	*e*Pn	**Pn**	**01 52 10.1**	**+0.4**
RSSD				*e*Lg		01 54 31.5	
ANMO	**Albuquerque**	**9.05**	**130**	Pn	**Pn**	**01 52 20.4**	**+3.9**
	0.1nm,0.3s,baz=344,slow=12,SNR=2.1						
ANMO				Pg	Pn	01 52 51.2	+35
	0.3nm,0.3s,baz=341,slow=14,SNR=4.5						
ANMO				Lg		01 54 46.4	
	0.1nm,0.3s,baz=18,slow=13,SNR=2.1						
ANMO	**Albuquerque**	**9.05**	**130**	Pn	**Pn**	**01 52 20.4**	**+3.9**
ANMO				Pg	Pn	01 52 51.2	+35
ANMO				Lg		01 54 46.4	
ECSD	**EROS Data Cent**	**13.76**	**73**	*e*Pn	**Pn**	**01 53 22.3**	**+1.5**
TXAR	**Lajitas Array**	**14.89**	**139**	Pn	**Pn**	**01 53 40.4**	**+4.0**
	0.0nm,0.3s,baz=320,slow=9.4,SNR=12						
FFC	**Flin Flon**	**16.11**	**28**	*e*P	**Pn**	**01 53 54.4**	**+2.2**
	1.5nm,0.8s						
FVM	**French Village**	**19.11**	**91**	*e*P	**Pn**	**01 54 30.1**	**+0.5**
	9.4nm,0.8s						
YKA	**Yellowknife Ar**	**21.42**	**0**	P	**P**	**01 54 53.8**	**+0.2**
	2.3nm,0.7s,mb3.6,baz=179,slow=10,SNR=32						
YKA				PcP	PcP	01 58 57.1	+0.5
	0.3nm,0.5s,baz=177,slow=2.5,SNR=5.2						
YKA	**Yellowknife Ar**	**21.42**	**0**	P	**P**	**01 54 53.8**	**+0.2**
YKA				PcP	PcP	01 58 57.1	+0.5
PETK	**Petropavlovsk-**	**57.10**	**314**	P	**P**	**01 59 53.8**	**+1.7**
	2.4nm,0.9s,mb4.2,baz=82,slow=12,SNR=3.7						
MDJ	**Mudanjiang**	**76.94**	**319**	P	**P**	**02 01 58.3**	**0.0**
MDJ				pmax	pmax		
	comp=Z,10.0nm,2.7s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,130nm,6.2s						
MKAR	**Makanchi Array**	**91.16**	**348**	P	**P**	**02 03 10.7**	**0.0**
	comp=Z,0.5nm,0.9s,mb3.9,baz=7.6,slow=4.4,SNR=3.7						
GYA	**Guiyang**	**102.52**	**322**	*e*P	Pdif	02 04 04.0	+1.6
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WRA	**Warramunga Arr**	**118.30**	**268**	PKP	PKPdf	02 08 52.8	-0.8
	comp=Z,0.8nm,0.9s,baz=56,slow=2.0,SNR=4.9						
ASAR	**Alice Springs**	**120.80**	**264**	PKP	PKPdf	02 08 57.6	-0.7
	comp=Z,0.5nm,0.6s,baz=61,slow=2.2,SNR=5.4						

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*IDC **22** 02:05:09.9±0.8, 36.°44N×21.°77E, h0km, mb3.8/10, mb1 3.8/15, mb1mx3.8/29, mbtmp3.7/15, ML3.7/4, Error ellipse: s-maj=19.4km s-min=15.6km az=160.0*

*ATH **22** 02:05:10.9, 36.°27N×21.°69E, h4km±1km, MD4.1/26, ML3.7*

*NEIC **22** 02:05:10.9, 36.°27N×21.°69E, h4km, mb3.9/12, ML3.7(ATH), After ATH.*

*ISCJB **22** 02:05:11.2±0.6, 36.°29N±0.°02×21.°75E±0.°02, h2km±4km, mb3.9/14, Error ellipse: s-maj=3.7km s-min=3.0km az=20.5*

*CSEM **22** 02:05:11.9±0.2, 36.°28N×21.°71E, h2km, ML4.3/4, Error ellipse: s-maj=4.3km s-min=3.5km az=24.0*

*THE **22** 02:05:13.3, 36.°34N×21.°81E, h2km±1km, ML4.3/4, Error ellipse: s-maj=2.6km s-min=1.0km az=238.0*

*MOS **22** 02:05:17.1±1.1, 36.°40N×21.°92E, h57km, mb4.4/5, Error ellipse: s-maj=7.7km s-min=4.5km az=123.0*

ISC 22 02:05:12.7±0.6, **36.°30N**±0.°02×**21.°78E**±0.°02, **h2**km±4km, **n292**, σ1.°33/331, **mb3.9**/14, **2C-1D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.60**	**357**	P	**Pg**	**02 05 22.9**	**-1.3**
PYL				S	**Sg**	**02 05 32.0**	**+0.1**
PYL	**PYLOS**	**0.60**	**357**	*e*PG	**Pg**	**02 05 22.9**	**-1.3**
PYL				*e*SG	**Sg**	**02 05 31.5**	**-0.4**
PYL	**PYLOS**	**0.60**	**357**	*e*Pg	**Pg**	**02 05 22.9**	**-1.3**
PYL				*e*Sg	**Sg**	**02 05 31.5**	**-0.4**
ITM	**Ithomi**	**0.89**	**7**	*e*PG	**Pg**	**02 05 28.7**	**-1.0**
ITM				*e*SG	**Sg**	**02 05 41.3**	**+0.1**
ITM	**Ithomi**	**0.89**	**7**	*e*Pg	**Pg**	**02 05 28.7**	**-1.0**
ITM				*e*Sg	**Sg**	**02 05 41.3**	**+0.1**
KYTH	**Kithira**	**1.01**	**91**	*e*PG	**Pg**	**02 05 31.9**	**-0.2**
KYTH	**Kithira**	**1.01**	**91**	*e*Pg	**Pg**	**02 05 31.9**	**-0.2**
VLI	**Veliai**	**1.02**	**65**	*e*PG	**Pg**	**02 05 31.6**	**-0.7**
VLI				*e*SB	**Sg**	**02 05 46.6**	**+1.1**
VLI	**Veliai**	**1.02**	**65**	*e*Pg	**Pg**	**02 05 31.6**	**-0.7**
VLI				*e*Sb	**Sg**	**02 05 46.6**	**+1.1**
VLX	**Vlachokerasia**	**1.17**	**24**	*e*PG	**Pg**	**02 05 33.8**	**-1.4**
VLX				*e*SB	**Sg**	**02 05 51.4**	**+1.0**
VLX	**Vlachokerasia**	**1.17**	**24**	*e*Pg	**Pg**	**02 05 33.8**	**-1.4**
VLX				*e*Sb	**Sg**	**02 05 51.4**	**+1.0**
GUR	**Goura**	**1.69**	**15**	*e*PG	**Pn**	**02 05 43.3**	**-0.1**
GUR				*e*SB	**Sg**	**02 06 08.3**	**+1.1**
GUR	**Goura**	**1.69**	**15**	*e*Pg	**Pn**	**02 05 43.3**	**-0.1**
GUR				*e*Sb	**Sg**	**02 06 08.3**	**+1.1**
RLS	**Riolos of Patr**	**1.77**	**352**	*e*PB	**Pn**	**02 05 44.7**	**+0.2**
RLS				*e*SB	**Sn**	**02 06 08.7**	**+1.1**
RLS	**Riolos of Patr**	**1.77**	**352**	*e*Pb	**Pn**	**02 05 44.7**	**+0.2**
RLS				*e*Sb	**Sn**	**02 06 08.7**	**+1.1**
LAKA	**Lakka**	**1.94**	**5**	P	**Pn**	**02 05 46.9**	**+0.1**
LAKA	**Lakka**	**1.94**	**5**	P	**Pn**	**02 05 46.9**	**+0.1**
KARN	**Karanos**	**1.95**	**117**	P	**Pn**	**02 05 46.8**	**-0.1**
KARN	**Karanos**	**1.95**	**117**	P	**Pn**	**02 05 46.8**	**-0.1**
LTK	**Loutraki**	**1.96**	**28**	P	**Pn**	**02 05 46.9**	**-0.2**
LTK				S	**Sn**	**02 06 11.5**	**-0.8**
LTK	**Loutraki**	**1.96**	**28**	*e*PG	**Pg**	**02 05 48.8**	**-1.6**
LTK				*e*SN	**Sn**	**02 06 15.2**	**+2.9**
LTK	**Loutraki**	**1.96**	**28**	*e*Pg	**Pg**	**02 05 48.8**	**-1.6**
LTK				S	**Sn**	**02 06 11.5**	**-0.8**
LTK				*e*Sn	**Sn**	**02 06 15.2**	**+2.9**
NAIG	**Nisos Aigina**	**2.00**	**43**	*e*PG	**Pg**	**02 05 49.5**	**-1.5**
NAIG	**Nisos Aigina**	**2.00**	**43**	*e*Pg	**Pg**	**02 05 49.5**	**-1.5**
TRIZ	**Trizonia**	**2.08**	**6**	P	**Pn**	**02 05 48.4**	**-0.2**
TRIZ				S	**Sn**	**02 06 13.5**	**-1.6**
TRIZ	**Trizonia**	**2.08**	**6**	P	**Pn**	**02 05 48.4**	**-0.2**
TRIZ				S	**Sn**	**02 06 13.5**	**-1.6**
VLS	**Valsamata**	**2.10**	**333**	P	**Pn**	**02 05 48.3**	**-0.7**
VLS	**Valsamata**	**2.10**	**333**	*e*PG	**Pn**	**02 05 49.6**	**+0.6**
VLS	**Valsamata**	**2.10**	**333**	P	**Pn**	**02 05 48.3**	**-0.7**
VLS	**Valsamata**	**2.10**	**333**	*e*Pg	**Pn**	**02 05 49.6**	**+0.6**
KALE	**Kalithea**	**2.11**	**8**	P	**Pn**	**02 05 49.0**	**0.0**
KALE				S	**Sn**	**02 06 15.3**	**-0.6**
KALE	**Kalithea**	**2.11**	**8**	P	**Pn**	**02 05 49.0**	**0.0**
KALE				S	**Sn**	**02 06 15.3**	**-0.6**
VAM	**Vamos**	**2.15**	**114**	*e*PN	**Pn**	**02 05 50.5**	**+0.8**
VAM	**Vamos**	**2.15**	**114**	*e*Pn	**Pn**	**02 05 50.5**	**+0.8**
VLY	**Voula,Athens**	**2.23**	**45**	*e*PN	**Pn**	**02 05 52.0**	**+1.2**
VLY	**Voula,Athens**	**2.23**	**45**	*e*Pn	**Pn**	**02 05 52.0**	**+1.2**
ATH	**Athens Observa**	**2.28**	**42**	*e*PN	**Pn**	**02 05 53.0**	**+1.7**
ATH	**Athens Observa**	**2.28**	**42**	*e*Pn	**Pn**	**02 05 53.0**	**+1.7**
ATHU	**Athens Univers**	**2.31**	**43**	P	**Pn**	**02 05 51.1**	**-0.7**
ATHU				S	**Sn**	**02 06 20.1**	**-0.7**
ATHU	**Athens Univers**	**2.31**	**43**	P	**Pn**	**02 05 51.1**	**-0.7**
ATHU				S	**Sn**	**02 06 20.1**	**-0.7**

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PTL   Penteli              2.41  43 ePN       Pn          02 05 54.8 +1.6
PTL   Penteli              2.41  43 ePn       Pn          02 05 54.8 +1.6
LKR   Lokris               2.54  22  P        Pn          02 05 53.9 -1.1
LKR   Lokris               2.54  22 ePN       Pn          02 05 56.3 +1.3
LKR   Lokris               2.54  22  P        Pn          02 05 53.9 -1.1
LKR   Lokris               2.54  22 ePn       Pn          02 05 56.3 +1.3
EVR   Evrytania            2.61   0 ePB       Pn          02 05 57.0 +1.0
EVR   Evrytania            2.61   0 ePb       Pn          02 05 57.0 +1.0
IDI   Anoyia               2.72 111 ePN       Pn          02 05 58.2 +0.8
IDI   Anoyia               2.72 111  Pn       Pn          02 05 57.3 -0.1
      4.6nm,0.3s,baz=290,slow=15,SNR=28
IDI   Anoyia               2.72 111 ePn       Pn          02 05 58.2 +0.8
AGG   Agios Georgios       2.75   9  P        Pn          02 05 57.6 -0.3
AGG                                  S        Sn          02 06 32.2 +0.4
AGG   Agios Georgios       2.75   9 ePN       Pn          02 05 58.7 +0.8
AGG   Agios Georgios       2.75   9  P        Pn          02 05 57.6 -0.3
AGG   Agios Georgios       2.75   9 ePn       Pn          02 05 58.7 +0.8
AGG                                  S        Sn          02 06 32.2 +0.4
SIVA  Sivas                2.78 117  P        Pn          02 05 58.3 +0.1
SIVA  Sivas                2.78 117  P        Pn          02 05 58.3 +0.1
NEO   Neokhori             3.21  20 ePN       Pn          02 06 06.0 +1.8
NEO   Neokhori             3.21  20 ePn       Pn          02 06 06.0 +1.8
LAST  Lasithi              3.21 110  P        Pn          02 06 04.3 +0.1
LAST  Lasithi              3.21 110  P        Pn          02 06 04.8 +0.6
LAST  Lasithi              3.21 110  P        Pn          02 06 04.3 +0.1
XOR   Xorichti             3.26  20  P        Pn          02 06 04.1 -0.8
XOR   Xorichti             3.26  20  P        Pn          02 06 04.1 -0.8
THL   Klokotos Trika       3.27   3  P        Pn          02 06 05.0  0.0
THL                                  S        Sn          02 06 45.4 +1.0
THL   Klokotos Trika       3.27   3 ePN       Pn          02 06 05.1 +0.1
THL   Klokotos Trika       3.27   3 ePn       Pn          02 06 05.1 +0.1
THL                                  S        Sn          02 06 45.4 +1.0
NPS   Neapolis             3.28 107 ePN       Pn          02 06 05.7 +0.5
NPS   Neapolis             3.28 107 ePn       Pn          02 06 05.7 +0.5
AOS   Alonnisos            3.31  29  P        Pn          02 06 05.6  0.0
AOS   Alonnisos            3.31  29  P        Pn          02 06 05.6  0.0
IGT   Igoumenitsa          3.43 341  P        Pn          02 06 06.2 -1.0
IGT                                  S        Sn          02 06 48.0 -0.4
IGT   Igoumenitsa          3.43 341  P        Pn          02 06 06.2 -1.0
IGT                                  S        Sn          02 06 48.0 -0.4
JAN   Janina               3.43 348 ePn       Pn          02 06 07.3  0.0
JAN                                  P                    02 06 10.8
JAN   Janina               3.43 348 ePn       Pn          02 06 07.3  0.0
MEV   Metsovon             3.51 353  P        Pn          02 06 08.5 +0.2
MEV   Metsovon             3.51 353  P        Pn          02 06 08.5 +0.2
KEK   Kerkira              3.75 336 ePN       Pn          02 06 12.0 +0.4
KEK   Kerkira              3.75 336 ePn       Pn          02 06 12.0 +0.4
ZKR   Zakros               3.80 107  P        Pn          02 06 12.1 -0.2
ZKR   Zakros               3.80 107  P        Pn          02 06 12.1 -0.2
LIT   Litokhoron           3.84   8  P        Pn          02 06 12.4 -0.4
LIT   Litokhoron           3.84   8  P        Pn          02 06 12.4 -0.4
PAIG  Paliouri             3.92  22  P        Pn          02 06 13.2 -0.7
PAIG  Paliouri             3.92  22  P        Pn          02 06 13.2 -0.7
CHOS  Chios island         3.99  57  P        Pn          02 06 14.1 -0.8
CHOS  Chios island         3.99  57  P        Pn          02 06 14.1 -0.8
KZN   Kozani               4.00 360 ePN       Pn          02 06 15.6 +0.5
KZN   Kozani               4.00 360 ePn       Pn          02 06 15.6 +0.5
PLG   Polygyros            4.27  17  P        Pn          02 06 18.0 -0.8
PLG   Polygyros            4.27  17 ePN       Pn          02 06 19.3 +0.5
PLG   Polygyros            4.27  17  P        Pn          02 06 18.0 -0.8
PLG   Polygyros            4.27  17 ePn       Pn          02 06 19.3 +0.5
SMG   Samos                4.28  69  P        Pn          02 06 19.9 +1.0
SMG   Samos                4.28  69  P        Pn          02 06 19.9 +1.0
SIGR  SIGRI                4.34  47  P        Pn          02 06 19.4 -0.4
SIGR  SIGRI                4.34  47  P        Pn          02 06 19.4 -0.4
URLA  Izmir                4.35  60 eP        Pn          02 06 20.6 +0.7
URLA  Izmir                4.35  60 eP        Pn          02 06 20.6 +0.7
OUR   Ouranopolis          4.38  23  P        Pn          02 06 19.4 -0.9
OUR   Ouranopolis          4.38  23  P        Pn          02 06 19.4 -0.9
HORT  Hortiatis            4.42  13  P        Pn          02 06 20.9 +0.1
HORT  Hortiatis            4.42  13  P        Pn          02 06 20.9 +0.1
KARP  Karpathos            4.43  98 ePN       Pn          02 06 23.5 +2.6
KARP  Karpathos            4.43  98 ePn       Pn          02 06 23.5 +2.6
LOS   Limnos               4.46  35  P        Pn          02 06 21.4  0.0
LOS   Limnos               4.46  35  P        Pn          02 06 21.4  0.0
LIA   Limnos Island        4.48  36  P        Pn          02 06 21.4 -0.3
LIA   Limnos Island        4.48  36  P        Pn          02 06 21.4 -0.3
FNA   Florina              4.49 356  P        Pn          02 06 20.7 -1.1
FNA   Florina              4.49 356  P        Pn          02 06 20.7 -1.1
LTBQ  Tobruq               4.59 157 i P       Pn          02 06 22.2 -0.9
      SNR=23
BDRM  Kayabasi             4.61  79 i P       Pn          02 06 23.7 +0.2
BDRM  Kayabasi             4.61  79 i P       Pn          02 06 23.7 +0.2
PRK   Paraskevi            4.62  49  P        Pn          02 06 24.5 +1.0
PRK   Paraskevi            4.62  49  P        Pn          02 06 24.5 +1.0
GRG   Griva                4.68   6  P        Pn          02 06 23.6 -0.7
GRG   Griva                4.68   6  P        Pn          02 06 23.6 -0.7
BLCB  Balcova              4.68  62  P        Pn          02 06 25.1 +0.7
BLCB  Balcova              4.68  62  P        Pn          02 06 25.1 +0.7
SOH   Sokhos               4.68  15  P        Pn          02 06 23.7 -0.7
SOH   Sokhos               4.68  15 ePN       Pn          02 06 25.2 +0.8
SOH   Sokhos               4.68  15  P        Pn          02 06 23.7 -0.7
SOH   Sokhos               4.68  15 ePn       Pn          02 06 25.2 +0.8
BIA   Bitola               4.73 356  P        Pn          02 06 24.0 -1.0
BIA                                  S        Sn          02 07 20.9 +0.4
BIA   Bitola               4.73 356 ePn       Pn          02 06 23.6 -1.4
BIA   Bitola               4.73 356 ePn       Pn          02 06 23.6 -1.4
BIA   Bitola               4.73 356  P        Pn          02 06 24.0 -1.0
BIA                                  S        Sn          02 07 20.9 +0.4
SOI   Samo                 4.91 293  P        Pn          02 06 26.1 -1.4
SOI   Samo                 4.91 293  Pn       Pn          02 06 26.1 -1.4
TIP   Timpagrande          4.91 307 ePn       Pn          02 06 26.2 -1.3
TIP                                 eSn       Sn          02 07 22.9 -2.2
TIP   Timpagrande          4.91 307 ePn       Pn          02 06 26.2 -1.4
TIP                                 eSn       Sn          02 07 22.9 -2.1
KNT   Kendrikon            4.93  10  P        Pn          02 06 27.6 -0.3
KNT   Kendrikon            4.93  10  P        Pn          02 06 27.6 -0.3
SRS   Serrai               5.01  16  P        Pn          02 06 28.8 -0.2
SRS   Serrai               5.01  16  P        Pn          02 06 28.8 -0.2
VAY   Valandovo            5.05   7 ePn       Pn          02 06 28.2 -1.3
VAY   Valandovo            5.05   7 ePn       Pn          02 06 28.2 -1.3
AYDN  Tasoluk              5.07  73 i P       Pn          02 06 31.1 +1.4
AYDN  Tasoluk              5.07  73 i P       Pn          02 06 31.1 +1.4
KRUS  Krusevo              5.08 355 ePn       Pn          02 06 27.8 -2.1
KRUS  Krusevo              5.08 355 ePn       Pn          02 06 27.8 -2.1
CEL   Celeste              5.09 294  P        Pn          02 06 30.3 +0.3
CEL   Celeste              5.09 294  P        Pn          02 06 30.3 +0.3
ARG   Arkhangelos          5.13  89 ePN       Pn          02 06 32.3 +1.8
ARG   Arkhangelos          5.13  89 ePn       Pn          02 06 32.3 +1.8
MTTG  Motta San Giov       5.15 291  Pn       Pn          02 06 29.1 -1.8
MTTG  Motta San Giov       5.15 291  Pn       Pn          02 06 29.1 -1.8
PE1   Pezze di Greco       5.65 324 ePn       Pn          02 06 36.1 -1.6
ALN   Alexandroupoli       5.68  35  P        Pn          02 06 39.4 +1.3
ALN   Alexandroupoli       5.68  35  P        Pn          02 06 39.4 +1.3
CUC   Castrocucco          5.98 310 ePn       Pn          02 06 42.5 +0.3
      64nm,0.9s
CUC   Castrocucco          5.98 310 ePn       Pn          02 06 42.5 +0.3
      64nm,0.9s
VAE   Valguarnera          6.03 283  Pn       Pn          02 06 43.5 +0.6
      0.3nm,0.3s,baz=283,slow=4.1,SNR=6.7
VAE                                  Sn       Sn          02 07 51.6 -0.9
      0.7nm,0.3s,baz=333,slow=4.5,SNR=2.2
VAE   Valguarnera          6.03 283  Pn       Pn          02 06 43.5 +0.6
VAE                                  Sn       Sn          02 07 51.6 -0.8
SG1   Sgolgore (BA)        6.04 320 ePn       Pn          02 06 42.2 -0.9
SG1                                 eSn       Sn          02 07 50.1 -2.8
BAI   Bari                 6.14 323 ePn       Pn          02 06 43.4 -1.1
BAI                                 eSn       Sn          02 07 52.0 -3.4
PTRP  Pietrapertosa        6.16 315  Pn       Pn          02 06 44.5 -0.2
PTRP  Pietrapertosa        6.16 315  Pn       Pn          02 06 44.5 -0.2
GOLH  Golhisar             6.31  79 eP        Pn          02 06 49.2 +2.3
GOLH  Golhisar             6.31  79 eP        Pn          02 06 49.2 +2.4
AKAS  Kas                  6.32  88 i P       Pn          02 06 46.1 -0.8
AKAS  Kas                  6.32  88 i P       Pn          02 06 46.2 -0.7
VTS   Vitosha              6.38  10  P        Pn          02 06 48.7 +1.0
VTS   Vitosha              6.38  10  P        Pn          02 06 48.7 +1.0
BARS  Barje                6.51   0⇓iPn       Pn          02 06 47.9 -1.6
CSSN  Cassano Irpino       6.98 313  Pn       Pn          02 06 58.6 +2.6
      14nm,0.4s
NISS                       7.10   1 ePn       Pn          02 06 55.8 -1.8
FG5   Orsara di Pugl       7.12 316  P        Pn          02 06 57.8  0.0
FG5   Orsara di Pugl       7.12 316  Pn       Pn          02 06 57.8  0.0
LUJL  Ujela                7.17 183 i P       Pn          02 06 55.1 -3.5
      SNR=22
RGNG  Rignano Grg          7.22 320  Pn       Pn          02 06 58.2 -1.0
RGNG  Rignano Grg          7.22 320  Pn       Pn          02 06 58.2 -1.0
BOLS  Boljevac             7.52   1⇑iPn       Pn          02 07 00.4 -3.0
FG2   Serracapriola        7.53 319  Pn       Pn          02 06 59.2 -4.4
GRUS  Gruza                7.62 354⇑iPn       Pn          02 07 01.8 -3.0
SGG   Gregorio Mates       7.69 314  Pn       Pn          02 07 07.3 +1.5
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      34nm,1.1s
BBLS  Lazi&#263;i          7.78 347 ePn       Pn          02 07 04.0 -2.9
DIVS  Divibare             7.91 351  P        Pn          02 07 05.8 -2.9
DIVS  Divibare             7.91 351  P        Pn          02 07 05.8 -2.9
SDI   San Donato           8.23 313  P        Pn          02 07 16.8 +3.7
NRCA  Norcia               9.35 317  Pn       Pn          02 07 29.1 +0.7
NRCA  Norcia               9.35 317  Pn       Pn          02 07 29.1 +0.7
MLR   Muntele Rosu         9.71  18  Pn       Pn          02 07 39.3 +5.9
      0.3nm,0.3s,baz=98,slow=23,SNR=3.7
BRTR  Keskin Array B       9.96  66  Pn       Pn          02 07 39.0 +2.1
      0.1nm,0.3s,baz=240,slow=11,SNR=10
BRTR  Keskin Array B       9.96  66  P        Pn          02 07 39.0 +2.1
KEST  Kesra               10.09 270  Pn       Pn          02 07 36.1 -2.6
      0.0nm,0.3s,baz=217,slow=10,SNR=3.2
FSSB  Fossombrone         10.11 320  Pn       Pn          02 07 42.7 +3.8
BOJS  Bojanci             10.44 334 i Pn      Pn          02 07 43.4 +0.1
BOJS                                i Sn      Sn          02 09 34.7 -6.1
BOJS  Bojanci             10.44 334 i Pn      Pn          02 07 43.4 +0.1
VISS  Visnje              10.84 333 i Pn      Pn          02 07 49.9 +1.0
VISS                                i Sn      Sn          02 09 46.5 -4.3
VISS  Visnje              10.84 333 i Pn      Pn          02 07 49.9 +1.0
MMAI  Mount Meron Ar      11.68 102  Pn       Pn          02 07 58.4 -2.1
      0.5nm,0.3s,baz=311,slow=13,SNR=5.2
PGF   Pioggiola           11.69 306 eP        Pn          02 08 02.5 +2.0
      34nm,1.2s
PGF   Pioggiola           11.69 306 eP        Pn          02 08 02.5 +2.0
PGF                                   pmax    pmax
      comp=Z,17nm,1.2s
PGF   Pioggiola           11.69 306 eP        Pn          02 08 02.5 +2.0
      comp=Z,17nm,1.2s
EIL   Elat                12.87 117  Pn       Pn          02 08 15.2 -1.6
      comp=Z,0.4nm,0.3s,baz=260,slow=6.1,SNR=3.6
EIL   Elat                12.87 117  Pn       Pn          02 08 15.2 -1.6
MALT  Malatya             13.40  76 eP        Pn          02 08 23.2 -0.8
MALT                                  pmax    pmax
      comp=Z,3.0nm,0.8s
MALT  Malatya             13.40  76 ePn       Pn          02 08 23.2 -0.7
      comp=Z,2.8nm,0.8s
MALT  Malatya             13.40  76 eP        Pn          02 08 23.2 -0.8
      comp=Z,3.0nm,0.8s
FRF   La Foret Royal      13.68 307 eP        Pn          02 08 29.2 +1.5
GERES GERESS Array B      13.87 337  Pn       Pn          02 08 25.7 -4.5
      comp=Z,0.2nm,0.3s,baz=140,slow=12,SNR=6.3
MBDF  Montbardon          14.17 311 eP        Pn          02 08 37.4 +3.0
      comp=Z,14nm,1.0s
MBDF  Montbardon          14.17 311 eP        Pn          02 08 37.4 +3.0
MBDF                                  pmax    pmax
      comp=Z,7.0nm,1.0s
MBDF  Montbardon          14.17 311 eP        Pn          02 08 37.4 +3.0
      comp=Z,7.3nm,1.0s
MBDF  Montbardon          14.17 311 eP        Pn          02 08 37.4 +3.0
      comp=Z,7.2nm,1.0s
LPG   La Plagne           14.60 314 eP        Pn          02 08 42.6 +2.4
LPL   La Plagne           14.62 314 eP        Pn          02 08 42.8 +2.3
ORIF  Oris-en-Rattie      14.81 310 eP        Pn          02 08 45.8 +2.6
ORIF  Oris-en-Rattie      14.81 310 eP        Pn          02 08 45.8 +2.6
CABF  La Chapelle         15.61 316 eP        Pn          02 08 53.6 -0.2
LASF  Ste Croix           15.73 305 eP        Pn          02 08 55.6 +0.3
LASF  Ste Croix           15.73 305 eP        Pn          02 08 55.6 +0.3
CDF   Champ du Feu        16.14 323 eP        Pn          02 09 02.5 +1.9
      comp=Z,10nm,0.8s
CDF   Champ du Feu        16.14 323 eP        Pn          02 09 02.5 +1.9
CDF                                   pmax    pmax
      comp=Z,5.0nm,0.8s
CDF   Champ du Feu        16.14 323 eP        Pn          02 09 02.5 +1.9
      comp=Z,5.2nm,0.8s
CDF   Champ du Feu        16.14 323 eP        Pn          02 09 02.5 +1.9
      comp=Z,5.2nm,0.8s
HAU   Haudompre           16.33 321 eP        Pn          02 09 04.5 +1.5
HAU   Haudompre           16.33 321 eP        Pn          02 09 04.5 +1.5
SMF   Signal de Mont      16.92 313 eP        Pn          02 09 10.7 +0.1
      comp=Z,5.4nm,0.8s
SMF   Signal de Mont      16.92 313 eP        Pn          02 09 10.7 +0.1
SMF                                   pmax    pmax
      comp=Z,3.0nm,0.8s
SMF   Signal de Mont      16.92 313 eP        Pn          02 09 10.7 +0.1
      comp=Z,2.7nm,0.8s
SMF   Signal de Mont      16.92 313 eP        Pn          02 09 10.7 +0.1
      comp=Z,2.7nm,0.8s
LOR   Lormes              17.24 315 eP        Pn          02 09 14.6  0.0
      comp=Z,15nm,1.1s
LOR   Lormes              17.24 315 eP        Pn          02 09 14.6  0.0
LOR                                   pmax    pmax
      comp=Z,7.0nm,1.1s
LOR   Lormes              17.24 315 eP        Pn          02 09 14.6  0.0
      comp=Z,7.3nm,1.1s
LOR   Lormes              17.24 315 eP        Pn          02 09 14.6  0.0
      comp=Z,7.3nm,1.1s
AVF   Avril sur Loir      17.29 313 eP        Pn          02 09 15.0 -0.1
AVF   Avril sur Loir      17.29 313 eP        Pn          02 09 15.0 -0.1
MEZF  Maizieres J'vi      17.32 320 eP        Pn          02 09 17.6 +2.1
MEZF  Maizieres J'vi      17.32 320 eP        Pn          02 09 17.6 +2.1
SSF   Saint Saulge        17.34 314 eP        Pn          02 09 15.6 -0.2
      comp=Z,7.9nm,0.9s
SSF   Saint Saulge        17.34 314 eP        Pn          02 09 15.6 -0.2
SSF                                   pmax    pmax
      comp=Z,4.0nm,0.9s
SSF   Saint Saulge        17.34 314 eP        Pn          02 09 15.6 -0.2
      comp=Z,4.0nm,0.9s
SSF   Saint Saulge        17.34 314 eP        Pn          02 09 15.6 -0.2
      comp=Z,4.0nm,0.9s
BGF   Bois d'Agland       17.47 312 eP        Pn          02 09 18.4 +0.9
      comp=Z,29nm,1.1s
BGF   Bois d'Agland       17.47 312 eP        Pn          02 09 18.4 +0.9
BGF                                   pmax    pmax
      comp=Z,15nm,1.1s
BGF   Bois d'Agland       17.47 312 eP        Pn          02 09 18.4 +0.9
      comp=Z,15nm,1.1s
BGF   Bois d'Agland       17.47 312 eP        Pn          02 09 18.4 +0.9
      comp=Z,15nm,1.1s
TCF   Toulx Ste Croi      17.73 310 eP        Pn          02 09 22.3 +1.6
      comp=Z,42nm,1.4s
TCF   Toulx Ste Croi      17.73 310 eP        Pn          02 09 22.3 +1.6
TCF                                   pmax    pmax
      comp=Z,21nm,1.4s
TCF   Toulx Ste Croi      17.73 310 eP        Pn          02 09 22.3 +1.6
      comp=Z,21nm,1.4s
TCF   Toulx Ste Croi      17.73 310 eP        Pn          02 09 22.3 +1.6
      comp=Z,21nm,1.4s
RJF   Les Rejaudoux       17.75 307 eP        Pn          02 09 22.7 +1.8
RJF   Les Rejaudoux       17.75 307 eP        Pn          02 09 22.7 +1.8
LFF   La Frestale         18.12 305 eP        Pn          02 09 27.9 +2.4
ETSF  Etsaut              18.41 298 eP        Pn          02 09 30.0 +0.9
      comp=Z,6.4nm,1.1s
ETSF  Etsaut              18.41 298 eP        Pn          02 09 30.0 +0.9
ETSF                                  pmax    pmax
      comp=Z,3.0nm,1.1s
ETSF  Etsaut              18.41 298 eP        Pn          02 09 30.0 +0.9
      comp=Z,3.2nm,1.1s
ETSF  Etsaut              18.41 298 eP        Pn          02 09 30.0 +0.9
      comp=Z,3.2nm,1.1s
GNI   Garni               18.43  71  P        Pn          02 09 30.0 +0.7
      comp=Z,0.4nm,0.3s,baz=296,slow=2.6,SNR=4.8
GNI   Garni               18.43  71  P        Pn          02 09 30.0 +0.6
SJPF  Ste Jean            18.93 298 eP        Pn          02 09 37.8 +2.4
      comp=Z,13nm,0.9s
SJPF  Ste Jean            18.93 298 eP        Pn          02 09 37.8 +2.4
SJPF                                  pmax    pmax
      comp=Z,7.0nm,0.9s
SJPF  Ste Jean            18.93 298 eP        Pn          02 09 37.8 +2.4
      comp=Z,6.6nm,0.9s
MFF   Saint Martin d      19.34 309 eP        Pn          02 09 41.6 +1.4
LDF   La Druitiere        20.22 314 eP        P           02 09 50.9 +2.0
FLN   La Foliniere        20.51 314 eP        P           02 09 53.8 +1.8
      comp=Z,19nm,0.9s
FLN   La Foliniere        20.51 314 eP        P           02 09 53.8 +1.8
FLN                                   pmax    pmax
      comp=Z,9.0nm,0.9s
FLN   La Foliniere        20.51 314 eP        P           02 09 53.8 +1.8
      comp=Z,9.4nm,0.9s
GRR   Gorron              20.55 313 eP        P           02 09 53.8 +1.3
QUIF  Quistinic           21.75 310 eP        P           02 10 06.8 +1.4
      comp=Z,57nm,1.2s,mb4.6
QUIF  Quistinic           21.75 310 eP        P           02 10 06.8 +1.4
QUIF                                  pmax    pmax
      comp=Z,28nm,1.2s,mb4.6
QUIF  Quistinic           21.75 310 eP        P           02 10 06.8 +1.4
      comp=Z,28nm,1.2s,mb4.6
ROSF  Rostrenen           21.98 311 eP        P           02 10 09.1 +1.2
      comp=Z,22nm,0.9s,mb4.3
ROSF  Rostrenen           21.98 311 eP        P           02 10 09.1 +1.2
ROSF                                  pmax    pmax
      comp=Z,11nm,0.9s,mb4.3
ROSF  Rostrenen           21.98 311 eP        P           02 10 09.1 +1.2
      comp=Z,11nm,0.9s,mb4.3
MDT   Midelt              21.99 269  P        P           02 10 06.2 -1.9
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      comp=Z,1.6nm,0.8s,mb3.5,baz=93,slow=7.5,SNR=3.5
MDT   Midelt              21.99 269  P        P           02 10 06.2 -2.0
HFS   Hagfors             24.42 350  P        P           02 10 29.6 -2.7
      comp=Z,3.1nm,0.7s,mb3.8,baz=169,slow=11,SNR=7.0
HFS   Hagfors             24.42 350  P        P           02 10 29.6 -2.7
TORD  Torodi Ar. Bea      29.28 223  P        P           02 11 14.4 -2.0
      comp=Z,0.9nm,0.8s,mb3.6,baz=35,slow=7.8,SNR=7.0
ARCES ARCESS Array B      33.36   2  P        P           02 11 48.2 -3.7
      comp=Z,1.5nm,0.8s,mb4.0,baz=187,slow=8.6,SNR=3.7
ARCES ARCESS Array B      33.36   2  P        P           02 11 48.2 -3.7
DBIC  Dimbokro            38.25 226  P        P           02 12 32.3 -2.2
      comp=Z,1.8nm,0.8s,mb3.9,baz=34,slow=7.3,SNR=3.8
DBIC  Dimbokro            38.25 226  P        P           02 12 32.3 -2.2
EKS2  Erkin-Say           40.10  64 eP        P           02 12 47.9 -1.9
      comp=Z,6.7nm,0.8s,mb4.4
EKS2  Erkin-Say           40.10  64 eP        P           02 12 47.8 -1.9
      comp=Z,6.7nm,0.8s,mb4.4
NVS   Novosibirsk         45.24  46 eP        P           02 13 34.4 +3.1
MKAR  Makanchi Array      45.45  57  P        P           02 13 29.5 -3.5
      comp=Z,0.8nm,0.4s,mb3.9,baz=270,slow=7.2,SNR=27
ZAA0  Zalesovo Array      46.22  47 eP        P           02 13 35.0 -4.0
ZALV  Zalesovo Beam       46.22  47  P        P           02 13 35.3 -3.7
      comp=Z,1.9nm,0.8s,mb4.1,baz=274,slow=8.8,SNR=7.0
ZAK   Zakamensk           58.05  48 eP        P           02 15 05.0 -2.1
ZAK                                   pmax    pmax
      comp=Z,2.0nm,1.1s,mb4.1
ZAK   Zakamensk           58.05  48 eP        P           02 15 05.0 -2.1
      comp=Z,2.0nm,1.1s,mb4.1
SONM  Songino Array       60.88  50  P        P           02 15 23.3 -3.4
      comp=Z,0.3nm,0.6s,mb3.6,baz=286,slow=5.4,SNR=2.8
YKA   Yellowknife Ar      75.50 341  P        P           02 16 55.5 -2.6
      comp=Z,0.2nm,0.5s,mb3.3,baz=36,slow=5.4,SNR=4.3
YKA   Yellowknife Ar      75.50 341  P        P           02 16 55.5 -2.6
YKA   Yellowknife Ar      75.50 341  P        P           02 16 55.5 -2.6
KSRS  Korea Array         79.74  51  P        P           02 17 19.5 -2.8
KSRS                                  pmax    pmax
      comp=Z,1.0nm,0.6s,mb3.9
KSRS  Korea Array         79.74  51  P        P           02 17 19.4 -2.8
      comp=Z,1.2nm,0.6s,mb4.0,baz=304,slow=5.0,SNR=4.8
KSRS  Korea Array         79.74  51  P        P           02 17 19.5 -2.8
      comp=Z,1.0nm,0.6s,mb3.9
```

ISCJB ***22*** *02:09:15.0±0.2, 41.°13N±0.°01×114.°85W±0.°01, h10km,*
Error ellipse: s-maj=1.8km s-min=1.6km az=154.6
NEIC ***22*** *02:09:15.3, 41.°17N×114.°92W, h9km, ML3.0, After REN.*
IDC ***22*** *02:09:15.5±1.0, 41.°18N×114.°99W, h0km, mb2.9/1,*
mb1 3.4/3, mb1mx3.3/21, mbtmp3.0/3, ML3.4/2, Error
ellipse: s-maj=21.0km s-min=5.5km az=129.0
ISC 22 02:09:15.6±0.1, **41.°14N**±0.°01×**114.°88W**±0.°01, **h10km,**
n121, σ1ˢ05/215, **44C-41D, Nevada**

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Code  Station Name         Δ°   AZ°    Phase ID          Time       Res
                                     Op       ISC      h  m  s     ISC
N12A  Clover Valley,       0.31 202  P        Pg          02 09 22.0 +0.1
      baz=0.3,SNR=382
N12A                                ⇑S        Sg          02 09 26.6 +0.6
      baz=0.3
ELK   Elko                 0.48 214  Pg       Pg          02 09 24.4 -0.5
      54nm,0.3s,baz=15,slow=17,SNR=53
ELK                                  Lg                   02 09 30.5
      206nm,0.3s,baz=113,slow=17,SNR=139
M13A  Montello             0.58  68 ⇓P        Pg          02 09 26.6 -0.3
      baz=0.6,SNR=105
N13A  Wendover, West       0.59 119 ⇓P        Pg          02 09 27.3 +0.3
      baz=0.6,SNR=318
N11A  Elko Archery C       0.72 243  P        Pg          02 09 28.7 -0.9
      baz=0.7,SNR=71
N11A                                ⇑S        Sg          02 09 38.1 -0.9
      baz=0.7
M11A  Holland Ranch,       0.74 293 ⇑P        Pg          02 09 28.7 -1.2
      baz=0.7
O12A  Currie               0.88 173 ⇓P        Pg          02 09 32.3 -0.3
      baz=0.9,SNR=110
O12A                                ⇓S        Sg          02 09 44.6 +0.6
      baz=0.9
L12A  House Creek Ra       1.01 354 ⇑P        Pg          02 09 34.1 -0.9
      baz=1.0
L12A                                ⇓S        Sg          02 09 47.0 -1.1
      baz=1.0
O11A  Cowboy Ranch,        1.17 210 ⇓P        Pb          02 09 38.1 +0.2
      baz=1.2,SNR=186
O11A                                ⇑S        Sb          02 09 52.8 -0.3
      baz=1.2
L13A  Double Diamond       1.18  36 ⇓P        Pb          02 09 36.9 -1.1
      baz=1.2
L13A                                ⇓S        Sb          02 09 52.6 -0.8
      baz=1.2
M14A  Sheep Mountain       1.21  72  P        Pn          02 09 38.0 -0.6
      baz=1.2,SNR=138
M14A                                ⇓S        Sb          02 09 54.5 +0.2
      baz=1.2
L11A  Cat Creek Ranc       1.21 328 ⇓P        Pn          02 09 37.3 -1.3
      baz=1.2
L11A                                ⇑S        Sb          02 09 52.8 -1.6
      baz=1.2
O13A  Hicks Ranch, I       1.22 146 ⇓P        Pn          02 09 38.7  0.0
      baz=1.3,SNR=137
O13A                                ⇑S        Sb          02 09 55.9 +1.3
      baz=1.3
N10A  Dunphy               1.30 252 ⇓P        Pn          02 09 39.2 -0.6
      baz=1.3,SNR=62
N10A                                ⇑S        Sb          02 09 56.4 -0.5
      baz=1.3
M10A  I.L. Ranch, Tu       1.30 287 ⇑P        Pn          02 09 39.3 -0.5
      baz=1.3,SNR=94
M10A                                ⇑S        Sb          02 09 56.5 -0.4
      baz=1.3
N14A  Grayback Hills       1.32 102 ⇑P        Pn          02 09 39.5 -0.6
      baz=1.3,SNR=88
N14A                                ⇓S        Sb          02 09 58.6 +1.3
      baz=1.3
BGU   Big Grassy Mou       1.42  98 ePn       Pn          02 09 41.2 -0.3
BGU                                 eSn       Sn          02 10 00.5 +0.4
K12A  Draper Farm, C       1.49 359 ⇑P        Pn          02 09 41.8 -0.6
      baz=1.5
O10A  Cortez Mining,       1.50 236 ⇓P        Pn          02 09 42.2 -0.3
      baz=1.5,SNR=39
O10A                                ⇑S        Sn          02 10 02.4 +0.4
      baz=1.5
L10A  Juniper Basin        1.51 309 ⇑P        Pn          02 09 42.5 -0.2
      baz=1.5,SNR=162
L14A  Malta                1.52  54 ⇓P        Pn          02 09 42.9 +0.1
      baz=1.5,SNR=86
L14A                                ⇑S        Sn          02 10 03.3 +0.6
      baz=1.5
K13A  Stover Farm, H       1.62  21 ⇓P        Pn          02 09 44.2  0.0
      baz=1.6,SNR=42
K13A                                ⇑S        Sn          02 10 05.3 +0.2
      baz=1.6
P12A  McGill               1.67 181 ⇑P        Pn          02 09 44.9  0.0
      baz=1.7,SNR=37
P12A                                ⇑S        Sn          02 10 07.5 +1.2
      baz=1.7
HVU   Hansel Valley        1.71  67 ePn       Pn          02 09 45.3 -0.1
HVU                                 eSn       Sn          02 10 07.3  0.0
HVU                                 eSg       Sg          02 10 09.9 -0.6
P11A  Circle Ranch,        1.72 203 ⇑P        Pn          02 09 45.2 -0.4
      baz=1.7,SNR=24
N15A  Stansbury Isla       1.81  97 ⇑P        Pn          02 09 46.8 +0.1
      baz=1.8,SNR=96
P13A  Bates Ranch, G       1.81 158 ⇑P        Pn          02 09 46.5 -0.4
      baz=1.8
DUG   Dugway               1.84 120  P        Pn          02 09 47.0 -0.1
      baz=1.9,SNR=54
DUG   Dugway               1.84 120 ePn       Pn          02 09 48.5 +1.3
DUG                                 eSg       Sg          02 10 14.7  0.0
SPUT  South Promonto       1.84  84 ePn       Pn          02 09 47.8 +0.5
SPUT                                eSg       Sg          02 10 14.4 -0.5
M15A  Larsen Ranch,        1.86  79 ⇓P        Pn          02 09 47.4 -0.2
      baz=1.9,SNR=101
K14A  Jones Ranch, D       1.90  42 ⇑P        Pn          02 09 48.2 +0.3
      baz=1.9,SNR=30
BMN   Battle Mountai       1.91 249 ePn       Pn          02 09 48.0 -0.2
BMN                                 eSg       Sg          02 10 14.9 -2.2
P10A  Eureka               1.94 219 ⇑P        Pn          02 09 48.9 +0.2
      baz=1.9,SNR=29
M09A  Marrel Ranch,        1.95 279 ⇑P        Pn          02 09 49.5 +0.7
      baz=1.9,SNR=35
N09A  Rock Creek Ran       2.02 263 ⇑P        Pn          02 09 48.9 -0.8
      baz=2.0,SNR=24
L15A  Malad City           2.06  65 ⇓P        Pn          02 09 50.5 +0.3
      baz=2.1,SNR=50
P14A  Drum Mountains       2.08 138 ⇑P        Pn          02 09 50.3 -0.2
      baz=2.1,SNR=14
P14A                                ⇓Sb       Sb          02 10 21.9 +2.6
```

	baz=2.1						
Q12A	Willow Creek R	2.10	179	⇑P	Pn	02 09 50.8	0.0
	baz=2.1,SNR=21						
J12A	Stokes Ranch,	2.11	356	P	Pn	02 09 51.6	+0.7
	baz=2.1,SNR=70						
NOQ	North Oquirrh	2.15	102	*e*Pn	Pn	02 09 51.9	+0.4
NOQ				*e*Pb	Pb	02 09 54.1	-0.5
NOQ				*e*Pg	Pg	02 09 56.6	-0.3
NOQ				*e*Sn	Sn	02 10 17.9	-0.3
NOQ				*e*Sg	Sg	02 10 23.6	-1.1
K10A	MacKenzie Ranc	2.21	318	⇓P	Pn	02 09 53.4	+1.1
	baz=2.2,SNR=22						
L09A	Wilkinson Ranc	2.26	294	⇓P	Pn	02 09 54.3	+1.3
	baz=2.2,SNR=27						
Q13A	Wheeler Ranch,	2.28	163	⇑P	Pn	02 09 53.4	+0.1
	baz=2.3,SNR=44						
J13A	Cove Ranch, Pi	2.31	13	P	Pn	02 09 54.8	+1.0
	baz=2.3,SNR=68						
K15A	Arbon	2.34	48	⇓P	Pn	02 09 54.9	+0.8
	baz=2.3,SNR=8.7						
K15A				⇓Sb	Sb	02 10 28.1	+1.4
	baz=2.3						
Q11A	Duckwater	2.37	195	⇑P	Pn	02 09 54.7	+0.2
	baz=2.4,SNR=34						
MFID	Camas Ranch	2.38	343	⇑P	Pn	02 09 55.9	+1.3
	baz=2.3,SNR=30						
J14A	Carey	2.40	25	⇓P	Pn	02 09 56.1	+1.1
	baz=2.4,SNR=61						
CTU	Camp Tracy	2.42	100	*e*Pn	Pn	02 09 55.2	0.0
CTU				*e*Pg	Pg	02 10 02.4	+0.5
CTU				*e*Sg	Sg	02 10 33.7	+0.4
HLID	Hailey	2.44	8	P	Pn	02 09 56.6	+1.1
	baz=2.4,SNR=45						
HLID	Hailey	2.44	8	*e*Pn	Pn	02 09 56.1	+0.6
HLID				*e*Sg	Sg	02 10 29.0	-5.1
NLU	North Lily Min	2.45	118	*e*Pn	Pn	02 09 55.6	0.0
NLU				*e*Pb	Pb	02 09 59.4	-0.2
NLU				*e*Pg	Pg	02 10 01.1	-1.5
NLU				*e*Sg	Sg	02 10 32.8	-1.5
Q14A	Sevier Lake (B	2.48	150	⇑P	Pn	02 09 55.6	-0.4
	baz=2.5,SNR=15						
N08A	GE Springer Mi	2.49	263	⇓P	Pn	02 09 55.4	-0.8
	baz=2.5,SNR=9.7						
P15A	Leamington	2.54	127	⇓P	Pn	02 09 56.5	-0.2
	baz=2.6,SNR=25						
Q10A	Clear Creek Ra	2.59	207	⇓P	Pn	02 09 57.8	+0.2
	baz=2.6,SNR=27						
O08A	Rochester Mine	2.63	252	⇓P	Pn	02 09 57.5	-0.6
	baz=2.6,SNR=11						
K09A	Rome	2.63	307	⇑P	Pn	02 09 59.7	+1.6
	baz=2.6,SNR=61						
I12A	Atlanta	2.66	356	⇓P	Pn	02 09 59.9	+1.5
	baz=2.6,SNR=43						
MPU	Maple Canyon	2.72	113	*e*Pn	Pn	02 10 00.3	+1.0
MPU				*e*Pg	Pg	02 10 06.8	-0.9
MPU				*e*Sg	Sg	02 10 43.0	0.0
L16A	Fish Haven	2.73	70	⇑P	Pn	02 10 00.4	+0.9
	baz=2.7,SNR=18						
R12A	Pony Springs,	2.82	176	⇓P	Pn	02 10 00.8	+0.1
	baz=2.8,SNR=12						
I13A	Wildhorse Cree	2.83	11	⇑P	Pn	02 10 02.2	+1.4
	baz=2.8,SNR=46						
R11A	Troy Canyon, C	2.84	191	⇓P	Pn	02 10 01.0	-0.1
	baz=2.9,SNR=18						
DAU	Daniels Canyon	2.85	104	*e*Pn	Pn	02 10 03.3	+2.2
DAU				*e*Pg	Pg	02 10 09.7	-0.5
DAU				*e*Sg	Sg	02 10 46.6	-0.5
J15A	Blackfoot	2.90	38	⇓P	Pn	02 10 02.6	+0.8
	baz=2.9,SNR=32						
Q09A	Carvers	2.91	218	⇑P	Pn	02 10 02.6	+0.7
	baz=2.9,SNR=9.0						
K16A	Soda Springs	2.98	54	⇑P	Pn	02 10 04.3	+1.4
	baz=3.0,SNR=10						
R13A	O'Grain Ranch,	3.04	166	⇑P	Pn	02 10 04.6	+0.9
	baz=3.1,SNR=17						
R10A	Warm Springs	3.05	201	⇑P	Pn	02 10 05.0	+1.0
	baz=3.1,SNR=16						
WVOR	Wild Horse Val	3.09	296	P	Pn	02 10 08.0	+3.6
O07A	Toulon	3.19	253	P	Pn	02 10 05.1	-0.7
	baz=3.2,SNR=12						
J16A	Bone	3.23	48	⇓P	Pn	02 10 07.7	+1.4
	baz=3.2,SNR=7.5						
M07A	Soldier Meadow	3.24	276	P	Pn	02 10 06.5	0.0
	baz=3.2,SNR=9.0						
AHID	Auburn Hatcher	3.25	59	*e*Pn	Pn	02 10 05.8	-0.9
AHID				*e*Pg	Pg	02 10 14.8	-3.1
AHID				*e*Sg	Sg	02 10 58.0	-2.1
MSU	Marysvale	3.35	141	*e*Pn	Pn	02 10 08.5	+0.5
MSU				*e*Pg	Pg	02 10 16.5	-3.3
MSU				*e*Sg	Sg	02 11 02.4	-0.9
TMUT	Trail Mountain	3.36	122	*e*Pn	Pn	02 10 09.4	+1.2
TMUT				*e*Pg	Pg	02 10 18.9	-1.2
TMUT				*e*Sg	Sg	02 11 03.6	-0.1
RRI2	Red Ridge	3.44	49	*e*Pn	Pn	02 10 09.4	+0.2
RRI2				*e*Sg	Sg	02 11 02.0	-4.1
S10A	Tonopah Range,	3.48	203	⇑P	Pn	02 10 10.2	+0.4
	baz=3.5,SNR=10.0						
S12A	Delamar Landin	3.53	180	⇓P	Pn	02 10 10.9	+0.4
	baz=3.6,SNR=11						
ARUT	Antelope Range	3.53	161	*e*Pn	Pn	02 10 11.2	+0.7
ARUT				*e*Pg	Pg	02 10 22.2	-1.1
ARUT				*e*Sg	Sg	02 11 08.9	-0.2
K07A	Rock Creek Ran	3.60	297	⇓P	Pn	02 10 12.5	+1.0
	baz=3.6,SNR=9.0						
S14A	Cedar City	3.63	158	⇑P	Pn	02 10 12.6	+0.8
	baz=3.7,SNR=12						
S13A	Holt Ranch, En	3.65	167	⇓P	Pn	02 10 12.7	+0.6
	baz=3.7,SNR=42						
DCID1	Drake Creek	3.67	47	*e*Pn	Pn	02 10 11.8	-0.7
DCID1				*e*Pg	Pg	02 10 20.4	-5.7
DCID1				*e*Sg	Sg	02 11 12.7	-1.0
REDW	Red Top Meadow	3.72	52	*e*Pn	Pn	02 10 14.8	+1.7
TPAW	Teton Pass	3.74	50	*e*Pn	Pn	02 10 14.4	+1.1
TPAW				*e*Pg	Pg	02 10 21.1	-6.2
TPAW				*e*Sg	Sg	02 11 11.9	-3.8
CCUT	Cedar City	3.78	161	*e*Pn	Pn	02 10 14.8	+0.9
CCUT				*e*Pb	Pb	02 10 21.8	-0.6
CCUT				*e*Pg	Pg	02 10 26.4	-1.5
CCUT				*e*Sg	Sg	02 11 15.5	-1.4
NVAR	Mina Array Bea	3.78	225	Pn	Pn	02 10 14.1	+0.2
	2.1nm,0.3s,baz=40,slow=12,SNR=37						
NVAR				Pg	Pg	02 10 24.8	-3.3
	8.1nm,0.3s,baz=40,slow=16,SNR=36						
NVAR				Sn	Sn	02 10 59.7	+1.3
	8.1nm,0.3s,baz=48,slow=19,SNR=6.7						
NVAR				Lg		02 11 16.0	
	19nm,0.3s,baz=340,slow=6.6,SNR=11						
NVAR	Mina Array Bea	3.78	225	Pn	Pn	02 10 14.1	+0.2
NVAR				Pg	Pg	02 10 24.8	-3.3
NVAR				Sn	Sn	02 10 59.7	+1.3
NVAR				Lg		02 11 16.0	
SNOW	Snow King Moun	3.84	52	*e*Pn	Pn	02 10 15.2	+0.5
SNOW				*e*Pb	Pb	02 10 20.6	-2.9
SNOW				*e*Pg	Pg	02 10 22.3	-6.9
SNOW				*e*Sg	Sg	02 11 14.9	-4.0
T11A	Corn Creek, Al	3.91	184	⇑P	Pn	02 10 16.1	+0.5
	baz=3.9,SNR=34						
SRU	San Rafael	3.91	120	*e*Pn	Pn	02 10 17.6	+1.9
SRU				*e*Pg	Pg	02 10 29.2	-1.3
SRU				*e*Sg	Sg	02 11 19.5	-1.6
MCMT	McKenzie Canyo	3.97	21	*e*Pn	Pn	02 10 16.6	0.0
MCMT				*e*Pb	Pb	02 10 23.1	-2.6
MCMT				*e*Pg	Pg	02 10 27.4	-4.4
MCMT				*e*Sg	Sg	02 11 18.7	-4.5
S15A	Panguitch	3.98	150	⇑P	Pn	02 10 17.4	+0.8
	baz=4.0,SNR=7.3						
G13A	Cobalt	3.98	7	⇑P	Pn	02 10 18.6	+2.0
	baz=4.0,SNR=9.2						
IMW	Indian Meadow	4.01	45	*e*Pn	Pn	02 10 17.9	+0.9
IMW				*e*Pg	Pg	02 10 27.5	-4.9
IMW				*e*Sg	Sg	02 11 16.7	-7.6
LOHW	Long Hollow	4.02	51	*e*Pn	Pn	02 10 18.4	+1.2
LOHW				*e*Pb	Pb	02 10 22.7	-3.7
LOHW				*e*Pg	Pg	02 10 25.7	-6.8
MOOW	Moose Ponds	4.02	48	*e*Pn	Pn	02 10 18.2	+1.0
MOOW				*e*Sg	Sg	02 11 17.9	-6.7
BMO	Blue Mountains	4.11	335	*e*Pn	Pn	02 10 17.8	-0.7
BMO				*e*Pb	Pb	02 10 24.5	-3.5
BMO				*e*Pg	Pg	02 10 28.7	-5.7
BMO				*e*Sg	Sg	02 11 19.8	-7.8
MOD	Modoc	4.14	282	*e*Pn	Pn	02 10 18.2	-0.6
MOD				*e*Pb	Pb	02 10 26.7	-1.9
MOD				*e*Pg	Pg	02 10 31.6	-3.3
MOD				*e*Sg	Sg	02 11 25.9	-2.6
PDAR	Pinedale Array	4.29	66	Pn	Pn	02 10 24.1	+3.1
	0.3nm,0.3s,baz=245,slow=12,SNR=15						
PDAR				Pg	Pg	02 10 34.5	-3.3
	1.0nm,0.3s,baz=230,slow=13,SNR=20						
PDAR				Lg		02 11 28.9	
	1.3nm,0.3s,baz=242,slow=26,SNR=5.8						
T14A	Hurricane	4.31	160	⇓P	Pn	02 10 22.1	+0.9
	baz=4.3,SNR=11						
R06C	Coleville	4.38	235	⇑P	Pn	02 10 22.4	+0.2
	baz=4.4,SNR=11						
DLMT	Dillon	4.54	21	*e*Pn	Pn	02 10 25.8	+1.5
DLMT				*e*Pg	Pg	02 10 37.9	-4.6
DLMT				*e*Sg	Sg	02 11 34.6	-6.6
YMR	Madison River	4.55	38	*e*Pn	Pn	02 10 24.7	+0.2
YMR				*e*Pg	Pg	02 10 35.8	-6.9
F13A	Darby	4.66	5	⇓P	Pn	02 10 28.1	+2.1
	baz=4.6,SNR=5.8						
LKWY	Lake	4.75	42	*e*Pn	Pn	02 10 26.9	-0.3
LKWY				*e*Pg	Pg	02 10 42.2	-4.4
LKWY				*e*Sg	Sg	02 11 40.1	-7.9
U13A	Pakoon Wash	4.78	171	⇓P	Pn	02 10 28.3	+0.7
	baz=4.8,SNR=12						
BOZ	Bozeman (W)	5.09	27	*e*Pn	Pn	02 10 32.5	+0.7
BOZ				*e*Pg	Pg	02 10 44.4	-8.6
BOZ				*e*Sg	Sg	02 11 46.0	-13
CMB	Columbia Colle	5.26	236	*e*Pn	Pn	02 10 37.7	+3.4
CMB				*e*Pg	Pg	02 10 52.5	-4.0
CMB				*e*Sn	Sn	02 11 36.7	+1.7
CMB				*e*Sg	Sg	02 11 59.7	-4.8
V11A	Goodsprings	5.31	185	⇓P	Pn	02 10 36.1	+1.1
	baz=5.3,SNR=14						
PV04	Paradox Valley	5.36	119	*e*Pn	Pn	02 10 35.3	-0.4
PV04				*e*Pg	Pg	02 10 56.3	-2.0
PV04				*e*Sg	Sg	02 12 07.0	-0.8
V12A	Nelson	5.41	180	⇓P	Pn	02 10 37.3	+1.0
	baz=5.4,SNR=26						
PV01	Paradox Valley	5.72	120	*e*Pg	Pg	02 10 59.0	-6.2
RWWY	Rawlins	5.79	82	*e*Pn	Pn	02 10 44.5	+2.9
RWWY				*e*Pg	Pg	02 11 00.3	-6.2
RWWY				*e*Sg	Sg	02 12 15.9	-5.7
GSC	Goldstone	6.03	195	*e*Pg	Pg	02 11 08.3	-2.6
WUAZ	Wupatki	6.26	153	*e*Pg	Pg	02 11 13.1	-2.3
WUAZ				*e*Sg	Sg	02 12 30.1	-6.4
MVCO	Mesa Verde	6.33	126	*e*Pg	Pg	02 11 10.3	-6.5
MVCO				*e*Sg	Sg	02 12 30.6	-8.1
YKA	Yellowknife Ar	21.38	0	P	P	02 14 03.6	+0.6
	0.5nm,0.7s,baz=180,slow=10,SNR=9.7						

MEX 22 02:11:56.5±0.5**,19°.13N**×**98°.49W,h1^{km},MD3.7,Central Mexico**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPM	Popocatepetl	0.14	246	*i* P	Pg	02 11 58.9	-0.4
PPM				*i* P		02 11 58.9	
PPM				*i* S	Sg	02 12 01.2	+0.1
PPM				*i* S	Sg	02 12 01.6	+0.5
MZVM		0.70	275	*i* P	Pg	02 12 10.1	+0.1
MZVM				*i* S	Sg	02 12 19.3	+0.2
UTMO	Huajuapan	1.44	153	*i* P	Pn	02 12 21.0	-2.8
UTMO				*i* S	Sg	02 12 38.8	-4.1
VHO	Vista Hermosa	2.64	140	*e*P	Pn	02 12 38.4	-1.9
VHO				*i* S	Sn	02 13 08.7	-4.2
CAIG	El Cayaco	2.67	220	*e*P	Pn	02 12 38.9	-1.8
CAIG				*i* S	Sn	02 13 15.5	+1.8

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*CSEM **22** 02:19:25.6±0.2, 77°.07N×18°.29E, h10^{km}, ML3.7, Error ellipse: s-maj=11.6km s-min=4.0km az=55.0*

*NAO **22** 02:19:25.8±0.9, 77°.09N×18°.68E, ML3.5*

*BER **22** 02:19:30.2±2.3, 77°.20N×18°.76E, h22^{km}±12^{km}, MD2.1, ML3.7, ML3.5(NAO)*

ISC 22 02:19:26.3±0.7**,77°.15N**±0°.04×**18°.6E**±0°.2**,h17^{km}**±7^{km}**,n20, σ1^{s}01**/27**,Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	0.70	260	*e*P	Pg	02 19 41.1	+1.1
HSP				*e*S	Sg	02 19 50.1	+0.8
SPA0	Spitsbergen Ar	1.14	336	Pg	Pg	02 19 48.6	+0.2
	baz=150,slow=22						
SPA0				Lg		02 20 04.3	
	baz=157,slow=28						
SPA0	Spitsbergen Ar	1.14	336	Pg	Pg	02 19 48.6	+0.3
	SNR=95						
SPA0				Lg		02 20 04.3	
	SNR=8.3						
HOPEN	Hopen	1.60	110	*e*P	Pn	02 19 54.8	+1.1
HOPEN				*e*Sg	Sg	02 20 18.3	+0.6
HOPEN				AML	AML	02 20 21.6	
	comp=Z,2μm,0.5s						
HOPEN	Hopen	1.60	110	*e*P	Pn	02 19 54.8	+1.2
	SNR=55						
HOPEN				*e*Sg	Sg	02 20 18.3	+0.6
	comp=Z,2μm,0.5s,SNR=93						
KBS	Kingsbay	2.27	325	Pn	Pn	02 20 03.8	+1.0
KBS				Pg	Pg	02 20 09.1	-0.6
KBS				Lg		02 20 37.9	
KBS	Kingsbay	2.27	325	*e*Pg	Pg	02 20 09.3	-0.3
KBS				*e*Sg	Sg	02 20 37.2	-1.8
KBS				AML	AML	02 20 45.0	
	comp=Z,1μm,0.5s						
KBS	Kingsbay	2.27	325	Pn	Pn	02 20 03.8	+1.0
KBS	Kingsbay	2.27	325	Pg	Pg	02 20 09.1	-0.5
KBS				Lg		02 20 37.9	
BJO	Bjornoya	2.66	177	*e*Pg	Pg	02 20 17.0	-0.2
BJO				*e*Sg	Sg	02 20 50.6	-1.0
BJO				AML	AML	02 20 54.4	
	comp=Z,252nm,0.7s						
TRO	Tromso	7.56	179	*e*	Pn	02 21 16.5	+1.1
KEV	Kevo	7.79	158	*e*p	Pn	02 21 18.3	-0.3
	comp=Z,2.4nm,0.3s						
KEV	Kevo	7.79	158	*e*P	Pn	02 21 18.3	-0.3
	comp=Z,2.4nm,0.3s						
ARA0	ARCESS Array S	7.89	162	Pn	Pn	02 21 20.5	+0.5
	baz=350,slow=12						
ARA0				Sn	Sn	02 22 42.3	-6.5
	baz=358,slow=22						
ARA0	ARCESS Array S	7.89	162	Pn	Pn	02 21 20.5	+0.5
	SNR=167						
APA0	Apatity Array	10.48	148	Pn	Pn	02 21 54.5	-0.8
	baz=351,slow=8.6						
APA0	Apatity Array	10.48	148	Pn	Pn	02 21 54.5	-0.8
	SNR=0.1						
JOF	Joensuu	14.87	157	*e*p	Pn	02 22 49.4	-5.9
	comp=Z,0.3nm,0.3s						
KAF	Kangasniemi	15.32	166	*e*p	Pn	02 22 57.7	-3.5
	comp=Z,2.5nm,0.6s						
FIA0	FINESS Array S	15.97	167	Pn	Pn	02 23 08.1	-1.6
	baz=353,slow=14						

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*NEIC **22** 02:33:42.3±1.6, 51°.57N×16°.06E, h5^{km}, ML2.5(SZGRF), Error ellipse: s-maj=17.3km s-min=6.1km az=34.0*

*ISCJB **22** 02:33:42.2±0.7, 51°.46N±0°.03×15°.98E±0°.04, h0^{km}, Error ellipse: s-maj=5.2km s-min=2.9km az=18.6*

*CSEM **22** 02:33:43.0±0.3, 51°.51N×16°.00E, h2^{km}, ML3.2/7, Error ellipse: s-maj=5.3km s-min=2.8km az=28.0*

*WAR **22** 02:33:43.9, 51°.54N×16°.01E, ML2.4, Mining Induced*

*PRU **22** 02:33:44.2, 51°.49N×16°.00E, h0^{km}*

*VIE **22** 02:33:45.5±0.3, 51°.32N×16°.06E, h0^{km}, mb2.2/2, ML2.4/4, Error ellipse: s-maj=2.0km s-min=1.9km az=108.0 71 km WNW of Wroclaw Suspected Mining induced.*

ISC 22 02:33:43.1±0.7**,51°.51N**±0°.04×**16°.01E**±0°.04**,h0^{km},n41, σ0^{s}68**/76**,5C-1D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.70	165	*e*Pg		02 33 57.0	
KSP				*e*Sg		02 34 06.7	
KSP	Ksiaz	0.70	165	*e*Pg	Pg	02 33 57.0	+0.6
KSP				*e*Sg	Sg	02 34 06.6	+1.2
KSP	Ksiaz	0.70	165	*e*Pg	Pg	02 33 57.0	+0.6
KSP				*e*Sg	Sg	02 34 06.6	+1.2
UPC	Upice	1.01	180	*e*PG	Pg	02 34 02.7	+0.3
UPC	Upice	1.01	180	Pg	Pg	02 34 02.7	+0.3
DPC	Dobruska-Polom	1.18	170	*e*PG	Pg	02 34 05.8	+0.1
DPC				*e*SG	Sg	02 34 21.2	+0.2
	comp=Z,13nm,0.2s						
DPC	Dobruska-Polom	1.18	170	Pg	Pg	02 34 05.8	+0.1
DPC				Sg	Sg	02 34 21.2	+0.2
	comp=Z,13nm,0.2s						
PVCC	Panska Ves	1.34	223	*e*PG	Pg	02 34 09.3	+0.6
PVCC				*e*SG	Sg	02 34 26.3	+0.2
	comp=Z,67nm,0.2s						
PVCC	Panska Ves	1.34	223	Pg	Pg	02 34 09.3	+0.6
PVCC				Sg	Sg	02 34 26.3	+0.2
	comp=Z,67nm,0.2s						
BRG	Berggiesshubel	1.45	244	PG	Pg	02 34 10.8	0.0
BRG				SG	Sg	02 34 30.8	+1.3
	comp=Z,42nm,0.5s						
BRG	Berggiesshubel	1.45	244	Pg	Pg	02 34 10.8	0.0
BRG				Sg	Sg	02 34 30.8	+1.3
PRU	Pruhonice	1.79	212	*e*PN	Pn	02 34 14.9	-0.2
PRU				*e*PG	Pg	02 34 16.5	-0.8
PRU				*e*SG	Sg	02 34 40.5	0.0
	comp=Z,18nm,0.5s						
PRU	Pruhonice	1.79	212	Pn	Pn	02 34 14.9	-0.2
CLL	Collm	1.89	265	*e*Pg	Pg	02 34 18.0	-1.3
CLL				*e*Sg	Sg	02 34 44.0	+0.2
	comp=Z,16nm,0.6s						
CLL	Collm	1.89	265	*e*Pg	Pg	02 34 18.0	-1.3
CLL				*e*Sg	Sg	02 34 44.0	+0.2
MORC	Moravsky Berou	2.00	150	*e*Pn	Pn	02 34 16.5	-1.5
MORC				*e*Pg	Pg	02 34 21.3	0.0
MORC				*e*Sg	Sg	02 34 47.0	-0.2
MORC	Moravsky Berou	2.00	150	*e*Pn	Pn	02 34 16.5	-1.5
OKC	Ostrava-Krasne	2.16	140	*e*SG	Sg	02 34 52.7	+0.2
OKC	Ostrava-Krasne	2.16	140	Sg	Sg	02 34 52.7	+0.2
VRAC	Vranov	2.24	170	*e*Pn	Pn	02 34 21.9	+0.5
VRAC				*e*Sg	Sg	02 34 55.5	+0.5
TREC	Trest	2.25	189	*e*PG	Pg	02 34 25.5	-0.6
TREC	Trest	2.25	189	Pg	Pg	02 34 25.5	-0.6
NKC	Novy Kostel	2.59	242	*e*PN	Pn	02 34 26.4	+0.2
NKC				*e*PG	Pg	02 34 32.8	+0.1
NKC				*e*SG	Sg	02 35 06.6	+0.3
	comp=Z,16nm,0.3s						
NKC	Novy Kostel	2.59	242	Pn	Pn	02 34 26.4	+0.2
OJC	Ojcow	2.73	117	*e*Pg	Pg	02 34 35.6	+0.2
OJC				*e*Sg	Sg	02 35 10.9	+0.2
KHC	Kasperske Hory	2.85	214	*e*PN	Pn	02 34 30.1	+0.4
KHC				*e*PG	Pg	02 34 35.8	-1.8
KHC				*e*SN	Sn	02 35 03.5	-1.2
KHC				*e*SG	Sg	02 35 12.6	-1.9
KHC	Kasperske Hory	2.85	214	*e*Pn	Pn	02 34 28.4	-1.3
KHC				*e*Pg	Pg	02 34 37.1	-0.5
KHC				*e*Sn	Sn	02 35 03.5	-1.2
KHC				*e*Sg	Sg	02 35 12.6	-1.9
KHC	Kasperske Hory	2.85	214	Pn	Pn	02 34 30.1	+0.4
KHC	Kasperske Hory	2.85	214	*e*Pg	Pg	02 34 37.1	-0.5
KHC				Sn	Sn	02 35 03.5	-1.2
KHC				Sg	Sg	02 35 12.6	-1.9
MOX	Moxa	2.90	254	*e*PG	Pg	02 34 39.1	+0.5
MOX				*e*SG	Sg	02 35 17.6	+1.4
MOX	Moxa	2.90	254	*e*Pg	Pg	02 34 39.1	+0.5
MOX				*e*Sg	Sg	02 35 17.6	+1.4
GEC2	GERESS Array S	3.06	210	*e*Pn	Pn	02 34 32.9	+0.3
GEC2				*e*Pg	Pg	02 34 41.2	-0.4
GEC2				*e*Sn	Sn	02 35 09.5	-0.2
GEC2	GERESS Array S	3.06	210	*e*Pn	Pn	02 34 32.9	+0.4
CLZ	Clausthal	3.52	278	*e*Pn	Pn	02 34 38.7	-0.3
CLZ	Clausthal	3.52	278	*e*Pn	Pn	02 34 38.7	-0.3
CONA	Conrad Observa	3.59	182	⇑*i*Pn	Pn	02 34 39.9	0.0
CONA				⇑*i*Sg	Sg	02 35 37.8	-0.6
	comp=Z,6.5nm,0.4s						
CONA	Conrad Observa	3.59	182	Pn	Pn	02 34 39.9	0.0
CONA				Sg	Sg	02 35 37.8	-0.6
	comp=Z,6.5nm,0.4s						
CSNA	Conrad Observa	3.59	182	⇑*i*Pn	Pn	02 34 39.9	0.0
CSNA				⇓*i*Sg	Sg	02 35 38.1	-0.3
	comp=Z,4.2nm,0.3s						
CSNA	Conrad Observa	3.59	182	Pn	Pn	02 34 39.9	0.0
CSNA				Sg	Sg	02 35 38.1	-0.3
	comp=Z,4.2nm,0.3s						
MOA	Molln	3.84	198	⇑*i*Pn	Pn	02 34 43.9	+0.6
MOA				⇑*i*Sg	Sg	02 35 46.7	+0.4
	comp=Z,8.0nm,0.6s						
MOA	Molln	3.84	198	Pn	Pn	02 34 43.9	+0.6
MOA				Sg	Sg	02 35 46.7	+0.4
	comp=Z,8.0nm,0.6s						

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*ISCJB **22** 02:35:09.8±1.0, 57°.1S±0°.1×26°.5W±0°.3, h10^{km}, mb4.0/3, Error ellipse: s-maj=25.6km s-min=16.3km az=3.4*

*IDC **22** 02:35:10.0±1.0, 57°.32S×25°.78W, h0^{km}, mb4.1/3, mb1 4.1/3, mb1mx3.8/14, mbtmp4.1/3, Error ellipse: s-maj=70.2km s-min=28.1km az=104.0*

*NEIC **22** 02:35:14.8±9.3, 57°.33S×25°.80W, h32^{km}±63^{km}, mb4.6/1, Error ellipse: s-maj=33.9km s-min=20.4km az=119.0*

ISC 22 02:35:11.8±1.0**,57°.1S**±0°.1×**26°.5W**±0°.3**,h10^{km},n10, σ1^{s}40**/6**,mb4.0**/3**,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	Neumayer Olymp	15.86	160	*e*P	Pn	02 38 53.9	-0.8
VNA2	Neumayer--Watz	16.06	157	*e*P	Pn	02 38 58.9	+1.6
	baz=317,slow=14						
PMSA	Palmer Station	19.50	231	*e*P	Pn	02 39 40.4	+0.5
	11nm,0.3s						
VNDA	Vanda	45.52	183	P	P	02 43 29.1	-1.5
	1.2nm,0.6s,mb4.0,baz=196,slow=6.5,SNR=7.4						
DBIC	Dimbokro	65.99	24	P	P	02 45 58.0	-0.2
	3.0nm,1.1s,mb4.2,baz=221,slow=9.3,SNR=3.1						
TORD	Torodi Ar. Bea	73.81	29	P	P	02 46 46.5	+0.4
	1.0nm,0.6s,mb3.9,baz=199,slow=6.5,SNR=13						
YKA	Yellowknife Ar	137.21	317	PKP	PKPdf	02 54 33.4	-0.2
	0.3nm,0.5s,baz=133,slow=2.1,SNR=10						
INK	Inuvik	146.86	319	PKPbc	PKPbc	02 54 52.5	0.0
	0.9nm,0.4s,baz=55,slow=1.9,SNR=14						
SONM	Songino Array	150.41	88	PKPbc	PKPbc	02 55 00.3	-1.9
	0.6nm,0.6s,baz=231,slow=3.5,SNR=4.2						
KDAK	Kodiak Island	151.61	294	PKPbc	PKPbc	02 55 05.9	+1.1
	7.6nm,0.7s,baz=70,slow=6.0,SNR=4.5						

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*ISCJB **22** 02:41:28.8±1.0, 24°.74S±0°.07×179°.80E±0°.08, h515^{km}±12^{km}, mb4.6/27, Error ellipse: s-maj=11.5km s-min=10.9km az=174.2*

*IDC **22** 02:41:28.8±1.1, 24°.69S×179°.84E, h504^{km}±11^{km}, mb3.8/11, mb1 4.0/13, mb1mx3.9/18, mbtmp3.8/13, Error ellipse: s-maj=13.8km s-min=11.7km az=158.0*

*NEIC **22** 02:41:29.2±0.7, 24°.73S×179°.93E, h518^{km}±8^{km}, mb4.7/18, Error ellipse: s-maj=9.0km s-min=7.6km az=173.0*

*DJA **22** 02:41:56, 23°.69S×177°.18E, h650^{km}, mb5.2/5*

ISC 22 02:41:29.8±1.0**,24°.80S**±0°.07×**179°.86E**±0°.08**, h516^{km}**±11^{km}**,n122,** σ**0^{s}85**/55**,mb4.6**/27**,5C-18D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	4.85	156	P	P	02 42 55.9	-0.4
	70nm,0.3s,baz=105,slow=15,SNR=5.9						
RAO				S	S	02 43 57.9	-9.1
	68nm,0.3s,baz=98,slow=19,SNR=2.4						
DZM	Mont Dzumac	12.61	280	*e*P	P	02 44 16.1	+1.3
	25nm,0.7s						
URZ	Urewera	13.62	189	P	P	02 44 24.3	-0.8
	2.1nm,0.3s,baz=256,slow=6.6,SNR=7.8						
URZ				S	S	02 46 48.5	-1.1
	1.0nm,0.3s,baz=53,slow=23,SNR=10						
RPZ	Rata Peaks	20.20	199	P	P	02 45 29.3	+0.1
	9.6nm,0.6s,baz=3.6,slow=5.6,SNR=3.8						
ARMA	Armidale	25.59	251	*e*P	P	02 46 19.4	+1.8
EIDS	Eidsvold	26.05	263	*e*P	P	02 46 22.2	+0.5
	23nm,0.9s,mb4.8						
CNB	Canberra Magne	28.29	241	*e*P	P	02 46 42.6	+1.3
CTA	Charters Tower	31.36	272	*e*P	P	02 47 08.7	+0.6
	71nm,0.4s,mb5.5						
CTA	Charters Tower	31.36	272	P	P	02 47 08.9	+0.8
	92nm,0.4s,mb5.7,baz=95,slow=12,SNR=44						
CTA				PcP	PcP	02 49 46.1	-0.1
	4.2nm,0.8s,baz=146,slow=2.1,SNR=3.6						
CTAO	Charters Tower	31.36	272	*e*P	P	02 47 08.6	+0.6
	88nm,0.4s,mb5.6						
TOO	Toolangi	31.86	238	*e*P	P	02 47 13.4	+1.4
STKA	Stephens Creek	34.27	249	*e*P	P	02 47 33.4	+0.8
	12nm,0.4s,mb4.8						
STKA	Stephens Creek	34.27	249	P	P	02 47 33.4	+0.8
	15nm,0.4s,mb4.9,baz=93,slow=9.6,SNR=49						
STKA				PcP	PcP	02 49 54.5	+0.1
	2.5nm,0.7s,baz=149,slow=14,SNR=2.8						
STKA	Stephens Creek	34.27	249	P	P	02 47 33.4	+0.8
STKA				PcP	PcP	02 49 54.5	+0.1

COEN	Coen	36.14	280	eP	P	02 47 48.0	-0.4
	65nm,0.6s,mb5.3						
ASAR	Alice Springs	41.77	262	P	P	02 48 33.9	+0.1
	9.8nm,0.4s,mb4.7,baz=98,slow=8.4,SNR=176						
ASAR				pP	pP	02 50 05.8	-1.3
	2.3nm,0.8s,baz=99,slow=8.1,SNR=5.1						
ASAR				ScP	ScP	02 53 22.4	+3.1
	0.9nm,0.7s,baz=88,slow=4.9,SNR=4.3						
ASAR				S	S	02 54 13.8	+0.1
	1.0nm,0.7s,baz=108,slow=16,SNR=5.5						
WB2	Warramunga Arr	42.21	267	eP	P	02 48 36.7	-0.7
WRAB	Tennant Creek	42.22	267	eP	P	02 48 36.7	-0.8
	41nm,0.4s,mb5.3						
WRA	Warramunga Arr	42.22	267	P	P	02 48 37.2	-0.2
	44nm,0.4s,mb5.3,baz=99,slow=8.0,SNR=339						
WRA				ScP	ScP	02 53 24.8	+3.7
	7.9nm,0.8s,baz=103,slow=4.1,SNR=22						
WRA				S	S	02 54 18.7	-1.7
	3.5nm,0.9s,baz=103,slow=15,SNR=7.8						
FORT	Forrest	45.88	250	⇓iP	P	02 49 04.9	-0.8
	68nm,0.5s,mb5.4						
FORT	Forrest	45.88	250	eP	P	02 49 04.8	-0.9
	76nm,0.6s,mb5.4						
KAKA	Kakadu	46.27	276	eP	P	02 49 07.7	-1.1
	24nm,0.3s,mb5.2						
KAKA	Kakadu	46.27	276	eP	P	02 49 07.6	-1.3
	65nm,0.4s,mb5.5						
FITZ	Fitzroy Crossi	50.63	266	eP	P	02 49 41.4	+0.1
	56nm,0.7s,mb5.0						
FITZ	Fitzroy Crossi	50.63	266	eP	P	02 49 41.6	+0.2
	42nm,0.8s,mb4.8						
VNDA	Vanda	53.47	185	P	P	02 50 02.0	+1.2
	0.7nm,0.5s,baz=353,slow=7.9,SNR=9.0						
VNDA				PcP	PcP	02 50 59.7	+0.1
	1.2nm,0.8s,baz=56,slow=3.6,SNR=3.5						
VNDA	Vanda	53.47	185	P	P	02 50 02.0	+1.2
VNDA				PcP	PcP	02 50 59.7	+0.1
MBWA	Marble Bar	55.09	261	eP	P	02 50 12.1	-1.0
	17nm,0.5s,mb4.5						
MUN	Mundaring	55.76	247	eP	P	02 50 17.0	-0.6
KDI	Kendari	58.72	281	⇑eP	P	02 50 37.1	-1.1
CASY	Casey	59.24	206	eP	P	02 50 40.5	-0.3
	10nm,0.6s,mb4.2						
KKM	Kota Kinabalu	69.04	287	eP	P	02 51 43.5	-0.5
	16nm,0.7s,mb4.7						
KSM	Kuching	72.13	280	eP	P	02 52 01.8	-0.5
	9.0nm,0.6s,mb4.4						
MJAR	Matsushiro Arr	72.57	326	P	P	02 52 03.4	-0.9
	6.1nm,0.8s,mb4.1,baz=161,slow=5.7,SNR=12						
MAJO	Matsushiro	72.57	326	eP	P	02 52 03.0	-1.3
	5.8nm,0.5s,mb4.3						
KSRS	Korea Array	78.85	320	P	P	02 52 39.5	+0.3
	3.3nm,0.6s,mb3.8,baz=131,slow=5.9,SNR=13						
YSS	Yuzh-Sakhalins	78.89	335	eP	P	02 52 38.7	-0.4
	12nm,0.5s,mb4.5						
PETK	Petropavlovsk-	79.94	347	P	P	02 52 43.6	-0.9
	6.0nm,0.6s,mb4.1,baz=121,slow=6.1,SNR=15						
VNA3	Neumayer Olymp	83.98	177	e	P	02 53 05.1	+0.1
VNA2	Neumayer--Watz	84.40	178	e	P	02 53 07.9	+0.8
	baz=181,slow=5.1						
GLA	Glamis	84.70	50	eP	P	02 53 09.4	+0.2
	7.4nm,1.0s,mb4.2						
TUC	Tucson	87.17	53	eP	P	02 53 21.3	+0.3
	6.5nm,1.1s,mb4.2						
XAN	Xi'an	89.19	308	P	P	02 53 30.9	+0.5
XAN				pP	PcP	02 53 38.0	+6.6
XAN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
XAN				pmax	pmax		
	comp=Z,33nm,3.2s						
CMAR	Chiang Mai Arr	89.72	290	P	P	02 53 34.8	+1.7
	comp=Z,6.5nm,0.9s,mb4.5,baz=139,slow=3.2,SNR=24						
CHTO	Chiang Mai	89.87	291	eP	P	02 53 34.9	+1.0
	comp=Z,5.3nm,1.0s,mb4.3						
TXAR	Lajitas Array	91.02	58	P	P	02 53 39.2	+0.3
	comp=Z,1.9nm,0.8s,mb4.1,baz=215,slow=6.7,SNR=20						
TXAR	Lajitas Array	91.02	58	P	P	02 53 39.2	+0.3
ANMO	Albuquerque	91.61	52	P	P	02 53 41.4	-0.1
	comp=Z,0.8nm,0.9s,mb3.8,baz=189,slow=7.6,SNR=4.4						
ANMO	Albuquerque	91.61	52	P	P	02 53 41.4	-0.1
ANMO	Albuquerque	91.61	52	eP	P	02 53 40.9	-0.7
	comp=Z,0.9nm,0.8s,mb3.9						
SONM	Songino Array	97.70	319	P	P	02 54 09.9	+1.1
	comp=Z,0.3nm,0.5s,mb3.9,baz=85,slow=3.6,SNR=3.8						
ZALV	Zalesovo Beam	112.56	320	PKiKP	PKiKP	02 59 05.3	-1.5
	comp=Z,0.5nm,0.3s,baz=136,slow=2.4,SNR=3.5						
MKAR	Makanchi Array	112.67	312	Pdiff	Pdif	02 55 18.8	+3.2
	comp=Z,0.2nm,0.8s,baz=85,slow=5.8,SNR=4.4						
MKAR				PKiKP	PKiKP	02 59 05.7	-1.5
	comp=Z,0.4nm,0.4s,baz=265,slow=0.2,SNR=12						
MKAR				SKP		03 01 54.8	
	comp=Z,0.4nm,0.5s,baz=79,slow=1.6,SNR=7.0						
KURK	Kurchatov	115.76	316	ePKPdf	PKPdf	02 59 11.7	-1.4
TKM2	Tokmak 2	116.58	307	ePKPdf	PKPdf	02 59 13.5	-1.4
UCH	Uchtor	117.25	306	ePKPdf	PKPdf	02 59 16.1	-0.1
EKS2	Erkin-Say	117.86	307	ePKPdf	PKPdf	02 59 17.0	-0.4
KBL	Kabul	120.13	297	ePKPdf	PKPdf	02 59 21.8	-0.2
BRVK	Borovoye	121.09	318	ePKPdf	PKPdf	02 59 21.9	-1.3
ARU	Arti	127.53	323	ePKPdf	PKPdf	02 59 34.6	-0.9
LSZ	Lusaka	131.51	218	ePKPdf	PKPdf	02 59 45.1	+0.7
ARCES	ARCESS Array B	132.74	348	PKhKP		02 59 35.2	
	comp=Z,4.0nm,0.9s,baz=321,slow=1.6,SNR=5.9						
ARCES				PKP	PKPdf	02 59 43.9	-1.1
	comp=Z,2.7nm,0.6s,baz=79,slow=2.8,SNR=16						
ARCES				SKPbc	SKPbc	03 02 24.7	+0.7
	comp=Z,5.2nm,0.9s,baz=19,slow=4.1,SNR=7.2						
ARCES	ARCESS Array B	132.74	348	PKP		02 59 35.2	
ARCES				PKP	PKPdf	02 59 43.9	-1.1
ARCES				SKPbc	SKPbc	03 02 24.7	+0.7
NB2	NORSAR Subarra	142.95	351	PKP		03 00 00.1	
	comp=Z,0.3nm,0.4s,baz=16,slow=3.2						
NOA	NORSAR Array B	142.95	351	PKhKP		03 00 00.2	
	comp=Z,3.7nm,0.9s,baz=15,slow=2.4,SNR=5.2						
MALT	Malatya	144.74	302	⇓iP	PKPdf	03 00 08.6	+0.9
MALT	Malatya	144.74	302	ePKPdf	PKPdf	03 00 08.1	+0.4
AKASG	Malin Array Be	145.65	326	PKPbc	PKPbc	03 00 09.0	-1.4
	comp=Z,5.4nm,0.5s,baz=44,slow=4.1,SNR=27						
KIEV	Kiev	145.66	326	ePKPbc	PKPbc	03 00 09.0	-1.4
BRTR	Keskin Array B	148.01	306	PKPbc	PKPbc	03 00 16.4	-0.6
	comp=Z,4.8nm,0.7s,baz=139,slow=3.9,SNR=33						
IAS	Iasi	148.63	322	⇑iP	PKPbc	03 00 21.5	+3.1
IAS	Iasi	148.63	322	⇑P	PKPbc	03 00 21.6	+3.2
TLCR		149.02	318	⇓iP	PKPbc	03 00 18.9	-0.5
TLCR		149.02	318	⇓P	PKPbc	03 00 18.9	-0.5
CSS	Prodhromos	149.39	297	ePKPdf	PKPdf	03 00 15.5	0.0
CSS				ePKPbc	PKPbc	03 00 20.0	-0.6
KWP	Kalwaria Pacla	149.49	330	⇓iP	PKPbc	03 00 20.2	-0.1
KWP	Kalwaria Pacla	149.49	330	⇓P	PKPbc	03 00 20.2	-0.1
BUR08	Bucovina Ar. S	149.63	325	ePKPbc	PKPbc	03 00 20.9	+0.2
TIRR	Tirgusor	149.64	317	⇑iP	PKPbc	03 00 19.8	-1.1
TIRR	Tirgusor	149.64	317	⇑P	PKPbc	03 00 19.8	-1.1
BURAR	Bucovina Array	149.64	325	⇓iP	PKPbc	03 00 20.8	0.0
BURAR	Bucovina Array	149.64	325	⇓P	PKPbc	03 00 20.8	+0.1
KOLS	Kolonicke sedl	150.19	330	ePKP	PKPbc	03 00 22.2	+0.2
OJC	Ojcow	150.29	334	eP	PKPbc	03 00 21.7	-0.5
STHS	Stebnicka Huta	150.29	331	ePKP	PKPbc	03 00 22.4	+0.2
MLR	Muntele Rosu	150.54	321	⇓iP	PKPbc	03 00 22.4	-0.5
MLR	Muntele Rosu	150.54	321	⇓P	PKPbc	03 00 22.4	-0.6
CRVS	Cervenica-Dubn	150.58	330	ePKP	PKPbc	03 00 22.9	0.0
NIE	Niedzica	150.69	332	ePX	PKPbc	03 00 23.4	+0.2
KSP	Ksiaz	151.08	338	eP	PKPbc	03 00 23.8	-0.2
VOIR		151.08	322	⇓iP	PKPbc	03 00 23.8	-0.4
VOIR		151.08	322	⇓P	PKPbc	03 00 23.8	-0.4
DRGR		151.47	326	⇓iP	PKPbc	03 00 24.5	-0.5
MORC	Moravsky Berou	151.52	336	⇓iP	PKPbc	03 00 24.4	-0.6
MORC	Moravsky Berou	151.52	336	ePKPbc	PKPbc	03 00 24.2	-0.8
CLL	Collm	151.68	342	i PKPbc	PKPbc	03 00 24.7	-0.6
	comp=Z,10.0nm,0.8s						
CLL				ePKPab	PKPab	03 00 36.0	-0.5
CLL	Collm	151.68	342	i P	PKPbc	03 00 24.7	-0.6
CLL				e		03 00 36.0	
VYHS	Vyhne	152.03	333	ePKP	PKPbc	03 00 25.6	-0.6
GZR	Gura Zlata	152.36	324	⇓iP	PKPbc	03 00 26.2	-0.8
GZR	Gura Zlata	152.36	324	⇓P	PKPbc	03 00 26.2	-0.9
BZS	Buzias	152.82	325	⇓iP	PKPbc	03 00 26.6	-1.4
BZS	Buzias	152.82	325	⇓P	PKPbc	03 00 26.6	-1.4
KHC	Kasperske Hory	153.44	340	ePKPAB	PKPab	03 00 43.0	-1.1
GERES	GERESS Array B	153.65	339	PKPbc	PKPbc	03 00 29.2	-0.5
	comp=Z,0.3nm,0.3s,baz=1.1,slow=4.9,SNR=2.6						
GERES				PKPab	PKPab	03 00 44.3	-0.7
	comp=Z,0.8nm,0.6s,baz=76,slow=5.6,SNR=3.5						
CDF	Champ du Feu	155.72	348	ePKP2	PKPab	03 00 52.8	-1.1
HAU	Haudompre	156.28	349	ePKP2	PKPab	03 00 55.2	-1.1
	comp=Z,5.2nm,0.6s						
SSF	Saint Saulge	157.60	353	ePKP2	PKPab	03 01 01.0	-1.0
CABF	La Chapelle	157.67	349	ePKP2	PKPab	03 01 01.4	-1.0
AVF	Avril sur Loir	157.88	354	ePKP2	PKPab	03 01 01.4	-1.9
SMF	Signal de Mont	157.97	353	ePKP2	PKPab	03 01 02.5	-1.2
	comp=Z,14nm,0.9s						
BGF	Bois d'Agland	158.16	354	ePKP2	PKPab	03 01 02.3	-2.2
	comp=Z,7.3nm,0.8s						
LPL	La Plagne	158.60	347	ePKP2	PKPab	03 01 05.5	-0.9
LPG	La Plagne	158.61	347	ePKP2	PKPab	03 01 05.8	-0.7
	comp=Z,5.4nm,0.8s						
MBDF	Montbardon	159.34	346	ePKP2	PKPab	03 01 09.5	-0.2
ORIF	Oris-en-Rattie	159.34	348	ePKP2	PKPab	03 01 09.2	-0.5
	comp=Z,6.4nm,0.8s						
VIVF	Saint-Julien-l	159.62	350	ePKP2	PKPab	03 01 09.3	-1.6
SBF	Sospel	160.00	344	ePKP2	PKPab	03 01 11.6	-1.0
	comp=Z,10.0nm,0.7s						
SMRF	Simiane la Rot	160.31	348	ePKP2	PKPab	03 01 12.8	-1.2
FRF	La Foret Royal	160.48	345	ePKP2	PKPab	03 01 13.6	-1.1
	comp=Z,5.1nm,0.7s						
LMR	La Mourre	160.72	345	ePKP2	PKPab	03 01 14.7	-1.1
	comp=Z,9.1nm,1.0s						
TORD	Torodi Ar. Bea	168.28	189	PKP	PKPdf	03 00 36.7	-1.1
	comp=Z,0.5nm,0.9s,baz=312,slow=1.4,SNR=3.6						
TORD				PKPab	PKPab	03 01 49.6	0.0
	comp=Z,1.2nm,0.6s,baz=184,slow=3.9,SNR=16						
TORD	Torodi Ar. Bea	168.28	189	PKP	PKPdf	03 00 36.7	-1.1
TORD				PKPab	PKPab	03 01 49.6	0.0

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*ISCJB **22** 02:43:51.7±0.3, 39°.33N±0°.02×20°.85E±0°.03, h10^{km}, Error ellipse: s-maj=2.8km s-min=2.4km az=160.5*
*CSEM **22** 02:43:51.6±0.2, 39°.33N×20°.89E, h2^{km}, MD3.5, Error ellipse: s-maj=3.9km s-min=2.8km az=67.0*
*NEIC **22** 02:43:51.4, 39°.31N×20°.91E, h4^{km}, MD3.5(ATH), After ATH.*
*ATH **22** 02:43:51.4, 39°.31N×20°.91E, h4^{km}±2^{km}, MD3.5/14*
*THE **22** 02:43:51.5, 39°.34N×20°.87E, h0^{km}±1^{km}, ML3.3/11, Error ellipse: s-maj=1.6km s-min=0.8km az=240.0*
ISC 22 02:43:51.5±0.4, **39°.32N**±0°.02×**20°.87E**±0°.03, **h1**^{km}±3^{km}, **n103,** σ1^{s}.**06**/150, **5C, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAN	Janina	0.34	357	⇑iPG	Pg	02 43 58.6	+0.6
JAN				eSG	Sg	02 44 02.7	+0.2
JAN	Janina	0.34	357	⇑iPg	Pg	02 43 58.6	+0.6
JAN				eSg	Sg	02 44 02.7	+0.2
IGT	Igoumenitsa	0.47	297	P	Pg	02 44 00.7	+0.2
IGT				S	Sg	02 44 07.2	+0.5
IGT	Igoumenitsa	0.47	297	P	Pg	02 44 00.7	+0.2
IGT				S	Sg	02 44 07.2	+0.5
MEV	Metsovon	0.54	30	P	Pg	02 44 01.7	-0.2
MEV	Metsovon	0.54	30	P	Pg	02 44 01.7	-0.2
EVR	Evrytania	0.83	118	ePG	Pg	02 44 06.0	-1.4
EVR				eSG	Sg	02 44 17.5	-0.6
EVR	Evrytania	0.83	118	ePg	Pg	02 44 06.0	-1.4
EVR				eSg	Sg	02 44 17.5	-0.6
THL	Klokotos Trika	0.92	74	P	Pg	02 44 08.3	-0.8
THL				S	Sg	02 44 21.6	+0.6
THL	Klokotos Trika	0.92	74	ePG	Pg	02 44 08.4	-0.7
THL				eSG	Sg	02 44 21.1	+0.1
THL	Klokotos Trika	0.92	74	ePg	Pg	02 44 08.4	-0.7
THL				eSg	Sg	02 44 21.1	+0.1
KEK	Kerkira	0.92	296	ePG	Pg	02 44 08.8	-0.4
KEK				eSG	Sg	02 44 22.9	+1.8
KEK	Kerkira	0.92	296	ePg	Pg	02 44 08.8	-0.4
VLS	Valsamata	1.16	191	P	Pg	02 44 12.7	-1.0
VLS				S	Sg	02 44 31.2	+2.5
VLS	Valsamata	1.16	191	ePG	Pn	02 44 12.9	-1.9
VLS				eSB	Sn	02 44 29.0	-2.2
VLS	Valsamata	1.16	191	ePg	Pn	02 44 12.9	-1.9
VLS				eSb	Sn	02 44 29.0	-2.2
VLS				S	Sg	02 44 31.2	+2.5
AGG	Agios Georgios	1.17	104	P	Pg	02 44 13.0	-0.9
AGG				S	Sg	02 44 30.5	+1.4
AGG	Agios Georgios	1.17	104	ePB	Pn	02 44 13.1	-1.8
AGG	Agios Georgios	1.17	104	ePb	Pn	02 44 13.1	-1.8
AGG				S	Sg	02 44 30.5	+1.4
KZN	Kozani	1.21	35	⇑iPG	Pg	02 44 13.7	-0.9
KZN				eSB	Sb	02 44 31.1	-0.1
KZN	Kozani	1.21	35	⇑iPg	Pg	02 44 13.7	-0.9
KZN				eSb	Sb	02 44 31.1	-0.1
TRIZ	Trizonia	1.33	135	P	Pg	02 44 17.1	+0.1
TRIZ	Trizonia	1.33	135	P	Pg	02 44 17.1	+0.1
RLS	Riolos of Patr	1.34	160	ePN	Pn	02 44 16.6	-0.7
RLS				eSB	Sb	02 44 35.3	+0.3
RLS	Riolos of Patr	1.34	160	ePn	Pn	02 44 16.6	-0.7
RLS				eSb	Sb	02 44 35.3	+0.3
KALE	Kalithea	1.35	133	P	Pg	02 44 17.2	-0.2
KALE	Kalithea	1.35	133	P	Pg	02 44 17.2	-0.2
LAKA	Lakka	1.38	141	P	Pn	02 44 17.9	+0.1
LAKA				S	Sg	02 44 38.0	+2.2
LAKA	Lakka	1.38	141	P	Pn	02 44 17.9	+0.1
LAKA				S	Sg	02 44 38.0	+2.2
LIT	Litokhoron	1.47	57	P	Pn	02 44 18.0	-1.1
LIT				S	Sb	02 44 39.9	+1.1
LIT	Litokhoron	1.47	57	P	Pn	02 44 18.0	-1.1
LIT				S	Sb	02 44 39.9	+1.1
FNA	Florina	1.52	15	P	Pn	02 44 18.9	-0.8
FNA				S	Sn	02 44 39.7	-0.4
FNA	Florina	1.52	15	P	Pn	02 44 18.9	-0.8
FNA				S	Sn	02 44 39.7	-0.4
BIA	Bitola	1.74	11	P	Pn	02 44 22.6	-0.1
BIA				S	Sn	02 44 44.7	-0.8
BIA	Bitola	1.74	11	ePn	Pn	02 44 22.7	-0.1
BIA				eSg	Sg	02 44 49.0	+1.7
BIA	Bitola	1.74	11	ePn	Pn	02 44 22.6	-0.1
BIA				S	Sn	02 44 44.7	-0.8
BIA				eSg	Sg	02 44 49.0	+1.7
LKR	Lokris	1.79	111	P	Pn	02 44 23.6	+0.2
LKR				S	Sn	02 44 47.5	+0.8
LKR	Lokris	1.79	111	ePG	Pg	02 44 23.9	-1.8
LKR	Lokris	1.79	111	ePg	Pg	02 44 23.9	-1.8
LKR				S	Sn	02 44 47.5	+0.8
OHR	Ohrid	1.79	358	ePn	Pn	02 44 25.1	+1.5
OHR	Ohrid	1.79	358	ePn	Pn	02 44 25.0	+1.5
GUR	Goura	1.79	140	ePB	Pb	02 44 24.9	-0.2
GUR	Goura	1.79	140	ePb	Pb	02 44 24.9	-0.2
XOR	Xorichti	1.80	88	P	Pn	02 44 22.2	-1.4
XOR				S	Sn	02 44 48.1	+1.1
XOR	Xorichti	1.80	88	P	Pn	02 44 22.2	-1.4
XOR				S	Sn	02 44 48.1	+1.1
NEO	Neokhori	1.82	90	ePB	Pb	02 44 25.0	-0.6
NEO	Neokhori	1.82	90	ePb	Pb	02 44 25.0	-0.6
GRG	Griva	2.02	35	P	Pn	02 44 26.2	-0.4
GRG	Griva	2.02	35	P	Pn	02 44 26.2	-0.4
KRUS	Krusevo	2.07	8	ePn	Pn	02 44 28.7	+1.4
KRUS	Krusevo	2.07	8	ePn	Pn	02 44 28.6	+1.3
LTK	Loutraki	2.09	128	P	Pn	02 44 27.8	+0.3
LTK	Loutraki	2.09	128	ePN	Pn	02 44 28.6	+1.1
LTK	Loutraki	2.09	128	ePn	Pn	02 44 28.6	+1.1
HORT	Hortiatis	2.14	52	P	Pn	02 44 27.3	-0.9
HORT				S	Sn	02 44 56.2	+0.8
HORT	Hortiatis	2.14	52	P	Pn	02 44 27.3	-0.9
HORT				S	Sn	02 44 56.2	+0.8
PLG	Polygyros	2.25	61	P	Pn	02 44 29.1	-0.6
PLG				S	Sn	02 44 59.0	+1.0
PLG	Polygyros	2.25	61	ePB	Pb	02 44 30.0	-2.8
PLG	Polygyros	2.25	61	P	Pn	02 44 29.1	-0.6
PLG				S	Sn	02 44 59.0	+1.0
PAIG	Paliouri	2.25	73	P	Pn	02 44 28.6	-1.2
PAIG				S	Sn	02 44 59.1	+0.9
PAIG	Paliouri	2.25	73	P	Pn	02 44 28.6	-1.2
PAIG				S	Sn	02 44 59.1	+0.9
VLX	Vlachokerasia	2.27	148	ePN	Pn	02 44 32.1	+2.0
VLX	Vlachokerasia	2.27	148	ePn	Pn	02 44 32.1	+2.0
ITM	Ithomi	2.29	158	ePN	Pn	02 44 32.5	+2.2
ITM	Ithomi	2.29	158	ePn	Pn	02 44 32.5	+2.2
AOS	Alonnisos	2.34	93	P	Pn	02 44 30.0	-1.0
AOS	Alonnisos	2.34	93	P	Pn	02 44 30.0	-1.0
VAY	Valandovo	2.39	32	P	Pn	02 44 31.4	-0.3
VAY	Valandovo	2.39	32	ePn	Pn	02 44 31.3	-0.4
VAY	Valandovo	2.39	32	P	Pn	02 44 31.4	-0.3
KNT	Kendrikon	2.41	39	P	Pn	02 44 32.0	0.0
KNT	Kendrikon	2.41	39	P	Pn	02 44 32.0	0.0
SOH	Sokhos	2.43	51	P	Pn	02 44 32.2	0.0
SOH				S	Sn	02 45 02.8	+0.3
SOH	Sokhos	2.43	51	ePN	Pn	02 44 34.0	+1.8
SOH	Sokhos	2.43	51	P	Pn	02 44 32.2	0.0
SOH				S	Sn	02 45 02.8	+0.3
OUR	Ouranopolis	2.60	66	P	Pn	02 44 34.6	0.0
OUR	Ouranopolis	2.60	66	P	Pn	02 44 34.6	0.0
ATHU	Athens Univers	2.65	120	P	Pn	02 44 36.0	+0.7
ATHU	Athens Univers	2.65	120	P	Pn	02 44 36.0	+0.7
PTL	Penteli	2.66	117	ePN	Pn	02 44 36.7	+1.3
PTL	Penteli	2.66	117	ePn	Pn	02 44 36.7	+1.3
VLY	Voula,Athens	2.72	122	ePN	Pn	02 44 37.2	+1.0
VLY	Voula,Athens	2.72	122	ePn	Pn	02 44 37.2	+1.0
SRS	Serrai	2.75	48	P	Pn	02 44 36.0	-0.7
SRS				S	Sn	02 45 10.9	+0.4
SRS	Serrai	2.75	48	P	Pn	02 44 36.0	-0.7
SRS				S	Sn	02 45 10.9	+0.4
VLI	Veliai	3.06	147	ePN	Pn	02 44 42.0	+1.0
VLI	Veliai	3.06	147	ePn	Pn	02 44 42.0	+1.0
LOS	Limnos	3.31	78	P	Pn	02 44 43.3	-1.0
LOS	Limnos	3.31	78	P	Pn	02 44 43.3	-1.0
LIA	Limnos Island	3.38	79	P	Pn	02 44 44.4	-0.9
LIA	Limnos Island	3.38	79	P	Pn	02 44 44.4	-0.9
BARS	Barje	3.57	11	⇑iPn	Pn	02 44 49.4	+1.5
CHOS	Chios island	4.15	101	P	Pn	02 44 56.1	+0.2
CHOS	Chios island	4.15	101	P	Pn	02 44 56.1	+0.2
ALN	Alexandroupoli	4.27	67	P	Pn	02 44 57.9	+0.4
ALN	Alexandroupoli	4.27	67	P	Pn	02 44 57.9	+0.4
STON	Ston	4.29	327	ePn	Pn	02 44 55.9	-1.9
STON				Sn	Sn	02 45 43.6	-4.7
STON	Ston	4.29	327	ePn	Pn	02 44 55.9	-1.9
STON				Sn	Sn	02 45 43.6	-4.8
DIVS	Divibare	4.82	352	P	Pn	02 45 04.7	-0.5
DIVS	Divibare	4.82	352	P	Pn	02 45 04.7	-0.5
DIVS	Divibare	4.82	352	i Pn	Pn	02 45 05.2	0.0
NVLJ	Novalja	6.89	321	ePn	Pn	02 45 33.0	-0.6
NVLJ				Sn	Sn	02 46 47.4	-5.2
NVLJ	Novalja	6.89	321	ePn	Pn	02 45 33.0	-0.6

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*IDC **22** 02:51:42.9±0.8, 41°.21N×114°.99W, h0^{km}, mb2.3/1, mb1 3.2/4, mb1mx3.1/22, mbtmp2.9/4, ML3.3/3, Error ellipse: s-maj=11.1km s-min=5.7km az=129.0*
*ISCJB **22** 02:51:43.5±0.2, 41°.10N±0°.01×114°.93W±0°.02, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.7km az=44.8*
*NEIC **22** 02:51:44.0, 41°.11N×114°.93W, h10^{km}, ML2.8, After REN.*
ISC 22 02:51:43.8±0.2, **41°.11N**±0°.01×**114°.91W**±0°.02, **h10**^{km}, **n103,** σ1^{s}.**16**/169, **35C-33D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.28	201	⇑P	Pg	02 51 49.7	+0.4
	baz=0.3,SNR=427						
N12A				⇓S	Sg	02 51 53.7	+0.7
	baz=0.3						
ELK	Elko	0.44	215	Pg	Pg	02 51 52.5	+0.1
	26nm,0.3s,baz=22,slow=16,SNR=26						
ELK				Lg		02 51 58.2	
	168nm,0.3s,baz=127,slow=17,SNR=108						
ELK	Elko	0.44	215	ePg	Pg	02 51 52.3	-0.1
ELK				eSg	Sg	02 51 58.3	0.0
N13A	Wendover, West	0.59	115	⇓P	Pg	02 51 55.7	+0.4
	baz=0.6,SNR=241						
N13A				⇑S	Sg	02 52 03.6	+0.6
	baz=0.6						
N11A	Elko Archery C	0.69	245	⇑S	Sg	02 52 05.2	-0.9
	baz=0.7						
M11A	Holland Ranch,	0.74	296	⇑S	Sg	02 52 07.4	-0.2
	baz=0.7						
O12A	Currie	0.85	171	⇑S	Sg	02 52 11.7	+0.5
	baz=0.9						
L12A	House Creek Ra	1.04	356	⇑P	Pg	02 52 03.3	-0.5
	baz=1.0						
L12A				⇓S	Sg	02 52 17.1	-0.2
	baz=1.0						
O11A	Cowboy Ranch,	1.13	210	⇑S	Sb	02 52 19.7	-0.4
	baz=1.1						
L13A	Double Diamond	1.22	36	⇓S	Sb	02 52 22.5	-0.2
	baz=1.2						
L11A	Cat Creek Ranc	1.23	329	⇑Pb	Pb	02 52 06.6	-0.6
	baz=1.2						
L11A				⇑S	Sb	02 52 22.4	-0.7
	baz=1.2						
M14A	Sheep Mountain	1.24	71	⇓Pb	Pb	02 52 07.0	-0.3
	baz=1.2,SNR=79						
N10A	Dunphy	1.27	253	⇓Pb	Pb	02 52 07.0	-0.8
	baz=1.3,SNR=32						
N14A	Grayback Hills	1.33	101	⇓Pb	Pb	02 52 08.2	-0.6
	baz=1.3,SNR=94						
BGU	Big Grassy Mou	1.43	97	ePn	Pn	02 52 10.0	+0.1
BGU				eSn	Sn	02 52 28.9	+0.2
K12A	Draper Farm, C	1.53	0	⇑Sb	Sb	02 52 31.2	-0.3
	baz=1.5						
L14A	Malta	1.56	53	⇑Pb	Pb	02 52 12.0	-0.7
	baz=1.6,SNR=70						
P12A	McGill	1.63	180	⇓Pb	Pb	02 52 13.0	-1.0
	baz=1.6,SNR=125						
P12A				⇓Sb	Sb	02 52 34.8	+0.1
	baz=1.6						
K13A	Stover Farm, H	1.66	22	⇓Pb	Pb	02 52 13.6	-0.8
	baz=1.7,SNR=29						
K13A				⇑Sb	Sb	02 52 35.3	-0.1
	baz=1.7						
P11A	Circle Ranch,	1.68	203	⇑Sb	Sb	02 52 35.8	-0.2
	baz=1.7						
HVU	Hansel Valley	1.74	67	ePn	Pn	02 52 14.8	+0.7
HVU				eSn	Sn	02 52 37.8	+1.6
N15A	Stansbury Isla	1.82	96	⇑Pb	Pb	02 52 16.4	-0.8
	baz=1.8,SNR=48						
DUG	Dugway	1.84	119	⇓Sb	Sb	02 52 41.4	+0.9
	baz=1.8						
DUG	Dugway	1.84	119	ePn	Pn	02 52 15.5	+0.1
DUG				eSn	Sn	02 52 41.4	+2.7
K11A	Parker Ranch,	1.86	334	⇓Pb	Pb	02 52 16.6	-1.3
	baz=1.9,SNR=26						
K11A				⇓Sb	Sb	02 52 41.1	0.0
	baz=1.9						
SPUT	South Promonto	1.87	83	ePn	Pn	02 52 17.0	+1.2
SPUT				eSn	Sn	02 52 42.0	+2.6
BMN	Battle Mountai	1.88	250	ePn	Pn	02 52 15.7	-0.3
BMN				eSn	Sn	02 52 42.7	+2.9
M15A	Larsen Ranch,	1.89	78	⇓Pb	Pb	02 52 17.3	-1.0
	baz=1.9,SNR=43						
M15A				⇑Sb	Sb	02 52 42.6	+0.6
	baz=1.9						
P10A	Eureka	1.90	219	⇓Pb	Pb	02 52 17.1	-1.5
	baz=1.9,SNR=26						
P10A				⇓Sb	Sb	02 52 42.1	-0.3
	baz=1.9						
K14A	Jones Ranch, D	1.93	42	Pb	Pb	02 52 18.6	-0.5
	baz=1.9,SNR=22						
M09A	Marrel Ranch,	1.94	280	⇓Pb	Pb	02 52 17.9	-1.4
	baz=1.9,SNR=21						
O09A	Fish Creek Ran	1.97	242	⇑P	Pn	02 52 17.3	+0.1
	baz=2.0,SNR=20						
N09A	Rock Creek Ran	2.00	263	⇑P	Pn	02 52 17.2	-0.3
	baz=2.0,SNR=30						
O15A	The Old Anders	2.03	113	⇑P	Pn	02 52 18.2	+0.1
	baz=2.0,SNR=59						
Q12A	Willow Creek R	2.07	178	⇑P	Pn	02 52 19.0	+0.4
	baz=2.1,SNR=14						
P14A	Drum Mountains	2.07	137	P	Pn	02 52 18.6	+0.1
	baz=2.1,SNR=30						
L15A	Malad City	2.10	64	⇑P	Pn	02 52 19.0	+0.1
	baz=2.1,SNR=47						
NOQ	North Oquirrh	2.16	101	ePn	Pn	02 52 19.9	0.0
NOQ				eSn	Sn	02 52 46.1	-0.6
NOQ				eSg	Sg	02 52 52.6	-0.7
K10A	MacKenzie Ranc	2.22	319	⇑Pb	Pb	02 52 22.4	-1.6
	baz=2.2,SNR=22						
Q13A	Wheeler Ranch,	2.26	162	P	Pn	02 52 21.7	+0.6
	baz=2.3,SNR=45						
L09A	Wilkinson Ranc	2.26	295	⇓Pb	Pb	02 52 23.2	-1.5
	baz=2.2,SNR=8.2						
P09A	Austin	2.31	228	⇑P	Pn	02 52 22.1	+0.3
	baz=2.3,SNR=12						
Q11A	Duckwater	2.33	194	⇑P	Pn	02 52 22.9	+0.7
	baz=2.3,SNR=13						
J13A	Cove Ranch, Pi	2.35	13	⇓P	Pn	02 52 22.9	+0.5
	baz=2.4,SNR=55						
K15A	Arbon	2.37	48	⇓P	Pn	02 52 23.8	+1.1
	baz=2.4,SNR=26						
J14A	Carey	2.44	25	⇓P	Pn	02 52 25.5	+1.8
	baz=2.4,SNR=37						
NLU	North Lily Min	2.45	117	ePn	Pn	02 52 23.5	-0.3
NLU				ePb	Pb	02 52 28.1	+0.2
NLU				ePg	Pg	02 52 31.0	+0.3
NLU				eSg	Sg	02 53 00.5	-2.0
Q14A	Sevier Lake (B	2.46	149	⇓P	Pn	02 52 24.0	0.0
	baz=2.5,SNR=17						
N08A	GE Springer Mi	2.46	263	⇓P	Pn	02 52 23.6	-0.4

	baz=2.4,SNR=12						
HLID	**Hailey**	**2.48**	**8**	*e*Pn	**Pn**	**02 52 25.2**	**+1.0**
HLID				*e*Sg	**Sg**	**02 52 59.1**	**-4.3**
P15A	**Leamington**	**2.53**	**127**	⇓P	**Pn**	**02 52 24.9**	**0.0**
	baz=2.5,SNR=16						
Q10A	**Clear Creek Ra**	**2.55**	**207**	⇑P	**Pn**	**02 52 25.3**	**+0.1**
	baz=2.6,SNR=34						
O08A	**Rochester Mine**	**2.60**	**253**	⇑P	**Pn**	**02 52 25.6**	**-0.2**
	baz=2.6,SNR=15						
K09A	**Rome**	**2.63**	**308**	⇓Pb	**Pb**	**02 52 29.5**	**-1.6**
	baz=2.6,SNR=37						
I12A	**Atlanta**	**2.69**	**357**	⇑P	**Pn**	**02 52 28.6**	**+1.6**
	baz=2.7,SNR=42						
MPU	**Maple Canyon**	**2.73**	**113**	*e*Pn	**Pn**	**02 52 27.3**	**-0.2**
MPU				*e*Pg	**Pg**	**02 52 35.2**	**-0.8**
MPU				*e*Sg	**Sg**	**02 53 10.5**	**-0.8**
R12A	**Pony Springs,**	**2.79**	**175**	⇓P	**Pn**	**02 52 29.1**	**+0.7**
	baz=2.8,SNR=13						
L08A	**Fields**	**2.79**	**294**	⇑Pb	**Pb**	**02 52 31.8**	**-1.9**
	baz=2.8						
P08A	**Dixie Valley**	**2.80**	**241**	⇓P	**Pn**	**02 52 28.9**	**+0.3**
	baz=2.8,SNR=13						
R11A	**Troy Canyon, C**	**2.81**	**191**	⇑P	**Pn**	**02 52 29.2**	**+0.5**
	baz=2.8,SNR=15						
DAU	**Daniels Canyon**	**2.86**	**103**	*e*Pn	**Pn**	**02 52 30.5**	**+1.1**
DAU				*e*Pb	**Pb**	**02 52 36.6**	**+1.7**
DAU				*e*Pg	**Pg**	**02 52 38.8**	**+0.2**
DAU				*e*Sg	**Sg**	**02 53 13.8**	**-1.9**
I13A	**Wildhorse Cree**	**2.86**	**12**	⇓P	**Pn**	**02 52 31.4**	**+1.9**
	baz=2.9,SNR=72						
Q09A	**Carvers**	**2.87**	**218**	⇓P	**Pn**	**02 52 30.5**	**+1.0**
	baz=2.9,SNR=6.1						
R13A	**O'Grain Ranch,**	**3.01**	**166**	⇑P	**Pn**	**02 52 32.7**	**+1.1**
	baz=3.0,SNR=26						
R10A	**Warm Springs**	**3.02**	**201**	⇓P	**Pn**	**02 52 32.9**	**+1.4**
	baz=3.0,SNR=6.3						
WVOR	**Wild Horse Val**	**3.09**	**297**	*e*Pn	**Pn**	**02 52 31.2**	**-1.3**
WVOR				*e*Pg	**Pg**	**02 52 37.4**	**-5.5**
WVOR				*e*Sg	**Sg**	**02 53 18.3**	**-4.6**
R14A	**James Farms, M**	**3.16**	**152**	P	**Pn**	**02 52 34.3**	**+0.7**
	baz=3.2,SNR=5.2						
M07A	**Soldier Meadow**	**3.23**	**276**	⇓P	**Pn**	**02 52 35.0**	**+0.5**
	baz=3.2,SNR=11						
MSU	**Marysvale**	**3.34**	**140**	*e*Pn	**Pn**	**02 52 36.6**	**+0.6**
MSU				*e*Pg	**Pg**	**02 52 47.8**	**0.0**
MSU				*e*Sg	**Sg**	**02 53 29.0**	**-2.1**
TMUT	**Trail Mountain**	**3.36**	**121**	*e*Pn	**Pn**	**02 52 38.2**	**+1.8**
TMUT				*e*Pg	**Pg**	**02 52 47.3**	**-0.9**
TMUT				*e*Sg	**Sg**	**02 53 30.9**	**-1.0**
RRI2	**Red Ridge**	**3.48**	**49**	*e*Pn	**Pn**	**02 52 39.3**	**+1.3**
RRI2				*e*Sn	**Sn**	**02 53 22.1**	**+2.9**
RRI2				*e*Sg	**Sg**	**02 53 34.2**	**-1.3**
ARUT	**Antelope Range**	**3.51**	**161**	*e*Pn	**Pn**	**02 52 39.2**	**+0.9**
ARUT				*e*Pg	**Pg**	**02 52 50.0**	**-1.0**
ARUT				*e*Sg	**Sg**	**02 53 30.2**	**-6.2**
S14A	**Cedar City**	**3.61**	**157**	⇓P	**Pn**	**02 52 40.7**	**+1.0**
	baz=3.6,SNR=5.5						
S13A	**Holt Ranch, En**	**3.62**	**167**	⇑P	**Pn**	**02 52 40.8**	**+0.9**
	baz=3.6,SNR=14						
NVAR	**Mina Array Bea**	**3.74**	**225**	Pn	**Pn**	**02 52 42.3**	**+0.8**
	2.1nm,0.3s,baz=38,slow=14,SNR=17						
NVAR				Pg	**Pg**	**02 52 51.0**	**-4.4**
	5.0nm,0.3s,baz=43,slow=19,SNR=15						
NVAR				Sn	**Sn**	**02 53 29.1**	**+3.5**
	5.9nm,0.3s,baz=264,slow=32,SNR=7.4						
NVAR				Lg		02 53 41.8	
	12nm,0.3s,baz=60,slow=17,SNR=10.0						
CCUT	**Cedar City**	**3.75**	**161**	*e*Pg	**Pg**	**02 52 53.6**	**-2.0**
CCUT				*e*Sg	**Sg**	**02 53 42.9**	**-1.3**
REDW	**Red Top Meadow**	**3.76**	**52**	*e*Pn	**Pn**	**02 52 44.5**	**+2.7**
REDW				*e*Sg	**Sg**	**02 53 41.5**	**-3.0**
TPAW	**Teton Pass**	**3.78**	**50**	*e*Pn	**Pn**	**02 52 43.3**	**+1.3**
TPAW				*e*Pg	**Pg**	**02 52 50.0**	**-6.2**
TPAW				*e*Sg	**Sg**	**02 53 41.0**	**-4.2**
T11A	**Corn Creek, Al**	**3.87**	**184**	⇓P	**Pn**	**02 52 44.2**	**+0.8**
	baz=3.9,SNR=7.2						
SNOW	**Snow King Moun**	**3.88**	**51**	*e*Pn	**Pn**	**02 52 44.3**	**+0.9**
SNOW				*e*Pb	**Pb**	**02 52 51.4**	**-0.8**
SNOW				*e*Pg	**Pg**	**02 52 54.3**	**-3.8**
SRU	**San Rafael**	**3.91**	**119**	*e*Pn	**Pn**	**02 52 45.7**	**+1.8**
SRU				*e*Pg	**Pg**	**02 52 55.9**	**-2.8**
SRU				*e*Sg	**Sg**	**02 53 47.5**	**-1.8**
MCMT	**McKenzie Canyo**	**4.01**	**21**	*e*Pn	**Pn**	**02 52 47.5**	**+2.2**
MCMT				*e*Pg	**Pg**	**02 52 54.2**	**-6.4**
MCMT				*e*Sg	**Sg**	**02 53 49.2**	**-3.4**
IMW	**Indian Meadow**	**4.05**	**45**	*e*Pn	**Pn**	**02 52 47.5**	**+1.7**
IMW				*e*Pg	**Pg**	**02 52 53.6**	**-7.7**
IMW				*e*Sg	**Sg**	**02 53 47.9**	**-5.9**
LOHW	**Long Hollow**	**4.05**	**50**	*e*Pn	**Pn**	**02 52 47.5**	**+1.7**
LOHW				*e*Pb	**Pb**	**02 52 53.9**	**-1.3**
LOHW				*e*Pg	**Pg**	**02 52 57.8**	**-3.6**
MOOW	**Moose Ponds**	**4.06**	**48**	*e*Pn	**Pn**	**02 52 47.8**	**+2.0**
MOOW				*e*Pg	**Pg**	**02 52 54.1**	**-7.4**
MOOW				*e*Sg	**Sg**	**02 53 47.9**	**-6.2**
MOD	**Modoc**	**4.13**	**283**	*e*Pn	**Pn**	**02 52 41.3**	**-5.5**
MOD				*e*Pg	**Pg**	**02 52 57.5**	**-5.4**
MOD				*e*Sg	**Sg**	**02 53 54.1**	**-2.2**
WCN	**Washoe City**	**4.13**	**246**	⇑P	**Pn**	**02 52 47.2**	**+0.3**
	baz=4.1,SNR=8.5						
BMO	**Blue Mountains**	**4.13**	**336**	*e*Pn	**Pn**	**02 52 48.8**	**+1.9**
BMO				*e*Sg	**Sg**	**02 53 49.5**	**-7.0**
T14A	**Hurricane**	**4.28**	**160**	⇑P	**Pn**	**02 52 50.2**	**+1.2**
	baz=4.3,SNR=6.3						
PDAR	**Pinedale Array**	**4.32**	**66**	Pn	**Pn**	**02 52 53.1**	**+3.6**
	0.2nm,0.3s,baz=240,slow=12,SNR=15						
PDAR				Lg		02 53 57.2	
	1.0nm,0.3s,baz=233,slow=29,SNR=8.6						
BEKR	**Beckwourth**	**4.34**	**255**	P	**Pn**	**02 52 49.9**	**+0.2**
	baz=4.3,SNR=19						
R06C	**Coleville**	**4.35**	**235**	⇑P	**Pn**	**02 52 50.6**	**+0.7**
	baz=4.3,SNR=10						
YMR	**Madison River**	**4.59**	**38**	*e*Pn	**Pn**	**02 52 55.0**	**+1.9**
YMR				*e*Pg	**Pg**	**02 53 04.4**	**-7.3**
U13A	**Pakoon Wash**	**4.75**	**171**	⇑P	**Pn**	**02 52 56.4**	**+1.1**
	baz=4.8,SNR=6.6						
LKWY	**Lake**	**4.79**	**42**	*e*Pn	**Pn**	**02 52 56.1**	**+0.2**
LKWY				*e*Pg	**Pg**	**02 53 14.0**	**-1.5**
BOZ	**Bozeman (W)**	**5.13**	**27**	*e*Pn	**Pn**	**02 53 00.5**	**-0.1**
BOZ				*e*Pg	**Pg**	**02 53 15.3**	**-6.6**
BOZ				*e*Sg	**Sg**	**02 54 15.8**	**-13**
CMB	**Columbia Colle**	**5.23**	**236**	*e*Pn	**Pn**	**02 53 01.2**	**-0.7**
CMB				*e*Pg	**Pg**	**02 53 14.6**	**-9.3**
CMB				*e*Sn	**Sn**	**02 54 02.7**	**+0.4**
CMB				*e*Sg	**Sg**	**02 54 27.8**	**-3.8**
PV04	**Paradox Valley**	**5.36**	**118**	*e*Pg	**Pg**	**02 53 23.3**	**-3.2**
V12A	**Nelson**	**5.37**	**179**	⇑P	**Pn**	**02 53 05.4**	**+1.4**
	baz=5.4,SNR=6.9						
YBH	**Yreka Blue Hor**	**5.90**	**279**	Pn	**Pn**	**02 53 11.4**	**+0.2**
	0.1nm,0.3s,baz=68,slow=12,SNR=3.7						
YBH				Lg		02 54 46.0	
	0.1nm,0.3s,baz=119,slow=10,SNR=2.3						
WUAZ	**Wupatki**	**6.24**	**152**	*e*Pg	**Pg**	**02 53 41.8**	**-1.4**
WUAZ				*e*Sg	**Sg**	**02 55 01.9**	**-2.0**
MVCO	**Mesa Verde**	**6.32**	**126**	*e*Pg	**Pg**	**02 53 40.6**	**-4.3**
MVCO				*e*Sg	**Sg**	**02 55 04.1**	**-2.6**
YKA	**Yellowknife Ar**	**21.42**	**0**	P	**P**	**02 56 29.4**	**-2.2**
	0.1nm,0.6s,baz=183,slow=10,SNR=3.1						

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*ISCJB **22** 03:05:12.4±0.8, 19°.53S±0°.08×67°.3W±0°.1, h279^{km}±11^{km}, mb3.9/5, Error ellipse: s-maj=19.5km s-min=9.0km az=150.3*
*GUC **22** 03:05:12.7±0.5, 19°.64S×67°.36W, h270^{km}±7^{km}, ML5.2*
*NEIC **22** 03:05:13.6±1.5, 19°.49S×67°.24W, h282^{km}±23^{km}, mb3.8/2, Error ellipse: s-maj=32.8km s-min=16.8km az=46.0*
*IDC **22** 03:05:19.0±9.5, 19°.52S×66°.56W, h303^{km}±82^{km}, mb3.5/4, mb1 3.4/5, mb1mx3.1/18, mbtmp3.3/5, Error ellipse: s-maj=79.3km s-min=24.8km az=136.0*
ISC 22 03:05:13.4±0.7, 19°.54S±0°.08×67°.4W±0°.1, h288^{km}±10^{km}, n19, σ0^s.99/26, mb3.9/5, 3C-3D, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNMC	**Miæe Miæ**	**2.10**	**281**	⇑*e*P	**Pn**	**03 06 00.6**	**+0.7**
MNMC				*i* S	**S**	**03 06 37.3**	**+0.5**
HMBC	**Humberston**	**2.45**	**252**	⇑*e*P	**Pn**	**03 06 03.1**	**+0.2**
HMBC				*e*S	**S**	**03 06 41.8**	**-0.5**
HMBC				AML	AML	03 06 43.7	
	comp=N,2µm,0.4s						
PB01	**Plate Boundary**	**2.46**	**232**	*e*P	**Pn**	**03 06 03.0**	**0.0**
PB01				*i* S	**S**	**03 06 40.8**	**-1.7**
PSGC	**Pisagua**	**2.56**	**268**	⇑*e*P	**Pn**	**03 06 04.2**	**+0.2**
PSGC				*i* S	**S**	**03 06 43.9**	**-0.3**
LVC	**Limon Verde**	**3.37**	**204**	⇓*e*P	**Pn**	**03 06 13.0**	**+0.9**
LVC				*i* S	**S**	**03 06 58.4**	**-0.5**
LVC	**Limon Verde**	**3.37**	**204**	⇓*e*P	**Pn**	**03 06 13.0**	**+0.9**
LVC				*i* S	**S**	**03 06 58.4**	**-0.5**
TOCH	**Tocopilla**	**3.65**	**225**	⇓*e*P	**Pn**	**03 06 15.9**	**+0.9**
TOCH				*i* S	**S**	**03 07 03.9**	**-0.4**
TOCH				AML	AML	03 07 06.7	
	comp=N,1µm,0.1s						
PECH	**Pedro de Valdi**	**3.71**	**214**	*i* S	**S**	**03 07 05.3**	**-0.2**
PECH				AML	AML	03 07 07.1	
	comp=E,1µm,0.2s						
LCO	**Las Campanas**	**9.90**	**197**	*e*Pn	**Pn**	**03 07 31.4**	**+1.1**
CPUP	**Villa Florida**	**11.48**	**128**	P	**Pn**	**03 07 49.7**	**-0.1**
	comp=E,0.3nm,0.3s,baz=313,slow=18,SNR=3.1						
NNA	**Nana**	**11.78**	**308**	*e*P	**Pn**	**03 07 55.9**	**+2.3**
NNA				*e*S	**S**	**03 10 04.6**	**-0.3**
PLCA	**Paso Flores**	**21.30**	**187**	P	**P**	**03 09 42.9**	**+5.1**
	comp=E,3.9nm,0.7s,mb3.8,baz=2.0,slow=10,SNR=16						
WMOK	**Wichita Mounta**	**61.66**	**331**	*e*P	**P**	**03 14 59.6**	**-1.7**
	comp=E,1.4nm,0.6s,mb3.8						
DBIC	**Dimbokro**	**66.83**	**74**	P	**P**	**03 15 33.4**	**-1.7**
	comp=E,0.9nm,0.4s,mb3.9,baz=229,slow=5.1,SNR=5.8						
DBIC	**Dimbokro**	**66.83**	**74**	*e*P	**P**	**03 15 34.4**	**-0.7**
	comp=E,0.9nm,0.4s,mb3.9						
TOA0	**Torodi Ar. Sit**	**75.37**	**70**	*e*P	**P**	**03 16 25.3**	**-0.8**
TORD	**Torodi Ar. Bea**	**75.37**	**70**	P	**P**	**03 16 25.4**	**-0.7**
	comp=E,1.2nm,0.3s,mb4.0,baz=254,slow=5.4,SNR=79						
BOSA	**Boshof**	**83.12**	**118**	P	**P**	**03 17 10.1**	**+2.4**
	comp=E,1.6nm,0.7s,mb4.0,baz=262,slow=6.2,SNR=3.1						
SONM	**Songino Array**	**151.32**	**9**	PKPbc	PKPbc	03 24 37.9	+5.0
	comp=E,0.4nm,0.5s,baz=317,slow=1.2,SNR=4.5						

IDC 22 03:25:12.9±9.0, 2°.71S×139°.07E, h0^{km}, mb3.3/2, mb1 3.5/3, mb1mx3.4/14, mbtmp3.4/3, ML3.6/1, Error ellipse: s-maj=376.3km s-min=29.5km az=86.0, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**17.74**	**195**	P	Pn	03 29 21.5	0.0
	0.2nm,0.3s,baz=13,slow=13,SNR=20						
ASAR	**Alice Springs**	**21.42**	**193**	P	P	03 30 02.8	+0.1
	0.3nm,0.5s,baz=24,slow=11,SNR=4.0						
MKAR	**Makanchi Array**	**70.01**	**322**	P	P	03 36 26.6	+0.1
	0.4nm,0.5s,baz=100,slow=7.5,SNR=8.3						

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*ISCJB **22** 03:48:57.4±1.5, 35°.19N±0°.04×29°.64E±0°.06, h8^{km}±13^{km}, Error ellipse: s-maj=8.7km s-min=5.5km az=150.0*
*CSEM **22** 03:48:58.9±0.2, 35°.23N×29°.61E, h10^{km}, MD3.6, Error ellipse: s-maj=6.7km s-min=4.2km az=56.0*
*ISK **22** 03:48:58.8, 35°.24N×29°.67E, h19^{km}, MD3.6*
*HLW **22** 03:49:02.9, 35°.34N×30°.51E, h33^{km}, Mb3.7*
ISC 22 03:48:58.9±1.6, 35°.24N±0°.04×29°.61E±0°.06, h9^{km}±13^{km}, n59, σ0^s.78/62, 5D, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKAS	**Kas**	**1.00**	**360**	*i* P	**Pg**	**03 49 17.6**	**-0.5**
AKAS	**Kas**	**1.00**	**360**	*i* P	**Pg**	**03 49 17.6**	**-0.5**
ELL	**Elmali**	**1.53**	**9**	*e*PN	**Pn**	**03 49 25.6**	**-0.7**
ELL				*e*SN	**Sn**	**03 49 45.3**	**-1.1**
ELL	**Elmali**	**1.53**	**9**	*e*Pn	**Pn**	**03 49 25.7**	**-0.7**
ELL				*e*Sn	**Sn**	**03 49 45.3**	**-1.1**
DALT	**Dalyan (Mudla)**	**1.72**	**333**	*e*PN	**Pn**	**03 49 29.1**	**0.0**
DALT	**Dalyan (Mudla)**	**1.72**	**333**	*e*Pn	**Pn**	**03 49 29.1**	**+0.1**
TURN	**Turunc**	**1.83**	**334**	*i* P	**Pn**	**03 49 31.4**	**+1.0**
TURN	**Turunc**	**1.83**	**334**	*i* P	**Pn**	**03 49 31.4**	**+0.9**
GOLH	**Golhisar**	**2.00**	**359**	*i* P	**Pn**	**03 49 33.1**	**+0.2**
GOLH	**Golhisar**	**2.00**	**359**	*i* P	**Pn**	**03 49 33.1**	**+0.3**
YER	**Yerkesik**	**2.18**	**331**	*e*PN	**Pn**	**03 49 35.4**	**0.0**
YER	**Yerkesik**	**2.18**	**331**	*e*Pn	**Pn**	**03 49 35.4**	**+0.1**
DAT	**Datca**	**2.22**	**313**	*e*PN	**Pn**	**03 49 35.5**	**-0.4**
DAT	**Datca**	**2.22**	**313**	*e*Pn	**Pn**	**03 49 35.5**	**-0.4**
BCK	**Bucak**	**2.36**	**19**	*e*PN	**Pn**	**03 49 37.5**	**-0.3**
BCK	**Bucak**	**2.36**	**19**	*e*Pn	**Pn**	**03 49 37.5**	**-0.3**
BDRM	**Kayabasi**	**2.53**	**317**	*i* P	**Pn**	**03 49 39.3**	**-0.9**
BDRM	**Kayabasi**	**2.53**	**317**	*i* P	**Pn**	**03 49 39.3**	**-0.9**
BODT	**Bodrum**	**2.61**	**315**	*e*PN	**Pn**	**03 49 41.9**	**+0.7**
BODT	**Bodrum**	**2.61**	**315**	*e*Pn	**Pn**	**03 49 41.9**	**+0.7**
LEF	**Lefka**	**2.69**	**92**	*e*PN	**Pn**	**03 49 40.9**	**-1.4**
LEF	**Lefka**	**2.69**	**92**	*e*Pn	**Pn**	**03 49 40.9**	**-1.4**
AYDN	**Tasoluk**	**2.79**	**331**	*i* P	**Pn**	**03 49 44.4**	**+0.6**
AYDN	**Tasoluk**	**2.79**	**331**	*i* P	**Pn**	**03 49 44.3**	**+0.5**
HDMB	**Hadim**	**2.90**	**53**	*e*PN	**Pn**	**03 49 45.1**	**0.0**
HDMB	**Hadim**	**2.90**	**53**	*e*Pn	**Pn**	**03 49 45.2**	**0.0**
KHAL	**Karahalli**	**3.13**	**358**	*i* P	**Pn**	**03 49 47.4**	**-1.0**
KHAL	**Karahalli**	**3.13**	**358**	*i* P	**Pn**	**03 49 47.3**	**-1.1**
LFK	**Lefkose**	**3.21**	**88**	*e*PN	**Pn**	**03 49 49.1**	**-0.4**
LFK	**Lefkose**	**3.21**	**88**	*e*Pn	**Pn**	**03 49 49.1**	**-0.4**
KONT	**Konya--Tatoy**	**3.49**	**38**	*e*PN	**Pn**	**03 49 53.5**	**+0.1**
KONT	**Konya--Tatoy**	**3.49**	**38**	*e*Pn	**Pn**	**03 49 53.5**	**+0.1**
EREN	**Erenkoy**	**3.74**	**84**	*e*PN	**Pn**	**03 49 56.7**	**0.0**
EREN	**Erenkoy**	**3.74**	**84**	*e*Pn	**Pn**	**03 49 56.7**	**0.0**
BLCB	**Balcova**	**3.76**	**328**	*e*PN	**Pn**	**03 49 58.4**	**+1.4**
BLCB	**Balcova**	**3.76**	**328**	*e*Pn	**Pn**	**03 49 58.4**	**+1.4**
KDHN	**Kadinhani**	**3.85**	**31**	*i* P	**Pn**	**03 49 58.0**	**-0.3**
KDHN	**Kadinhani**	**3.85**	**31**	*i* P	**Pn**	**03 49 58.0**	**-0.2**
MERS	**Mersin**	**4.30**	**66**	*e*PN	**Pn**	**03 50 05.2**	**+0.7**
MERS	**Mersin**	**4.30**	**66**	*e*Pn	**Pn**	**03 50 05.2**	**+0.7**
ESKT	**Eskisehir**	**4.39**	**13**	*e*PN	**Pn**	**03 50 05.7**	**0.0**
ESKT	**Eskisehir**	**4.39**	**13**	*e*Pn	**Pn**	**03 50 05.7**	**0.0**
DURS	**Dursunbey**	**4.45**	**349**	*e*P	**Pn**	**03 50 02.6**	**-3.9**
DURS	**Dursunbey**	**4.45**	**349**	*e*P	**Pn**	**03 50 02.6**	**-3.9**
KARA	**Karaisali**	**4.84**	**64**	*e*PN	**Pn**	**03 50 12.2**	**+0.3**
KARA	**Karaisali**	**4.84**	**64**	*e*Pn	**Pn**	**03 50 12.2**	**+0.3**
KOZT	**Kozan**	**5.49**	**64**	*e*PN	**Pn**	**03 50 22.2**	**+1.4**
COBT	**Iskenderun**	**5.54**	**75**	*e*P	**Pn**	**03 50 23.7**	**+2.2**
COBT	**Iskenderun**	**5.54**	**75**	*e*P	**Pn**	**03 50 23.7**	**+2.1**
KOT	**Kottamia**	**5.61**	**160**	⇓P	**Pn**	**03 50 22.8**	**+0.3**
KOT				S	**Sn**	**03 51 21.6**	**-5.5**
KOT	**Kottamia**	**5.61**	**160**	P	**Pn**	**03 50 22.8**	**+0.3**
HHAG	**Hagoal**	**5.67**	**158**	⇓P	**Pn**	**03 50 23.6**	**+0.3**
HHAG	**Hagoal**	**5.67**	**158**	P	**Pn**	**03 50 23.6**	**+0.3**
	2µm,0.1s						
SUZ		**6.03**	**152**	⇓P	**Pn**	**03 50 27.2**	**-1.0**
SUZ		**6.03**	**152**	P	**Pn**	**03 50 27.2**	**-1.0**
ZAF		**6.43**	**156**	⇓P	**Pn**	**03 50 33.8**	**0.0**
ZAF		**6.43**	**156**	P	**Pn**	**03 50 33.8**	**0.0**
ZNM		**6.46**	**154**	⇓P	**Pn**	**03 50 33.5**	**-0.7**
ZNM		**6.46**	**154**	P	**Pn**	**03 50 33.5**	**-0.7**

KRSC 22 04:19:11.6±0.1, 54°.42N×162°.44E, h38^{km}±28^{km}, ML3.6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	**Mys Kozlova**	**0.44**	**289**	*e*P	Pn	04 19 21.4	0.0
MKZ				*i* S	Sn	04 19 27.6	-0.6
TUMR	**Tumrok**	**1.58**	**304**	*e*P	Pn	04 19 37.9	+0.8
KBTR	**Krutoberegovo**	**1.81**	**7**	*e*P	Pn	04 19 41.0	+0.9
KMNR	**Kamenistaya**	**1.84**	**317**	*e*P	Pn	04 19 41.9	+1.2
KMNR				*i* S	Sn	04 20 04.8	+2.1
ZLN	**Zelenaya**	**1.85**	**330**	*e*P	Pn	04 19 42.4	+1.6
ZLN				*i* S	Sn	04 20 04.6	+1.6
BZMR	**Bezymyannaya**	**1.89**	**324**	*e*P	Pn	04 19 43.2	+2.0
BZMR				*i* S	Sn	04 20 06.2	+2.4
KIRR	**Kirishev**	**1.95**	**323**	*e*P	Pn	04 19 43.7	+1.6
KIRR				*i* S	Sn	04 20 07.1	+1.7
SPN	**Mys Shipunski**	**1.95**	**228**	*e*P	Pn	04 19 43.4	+1.2
SPN				*i* S	Sn	04 20 06.0	+0.6
CIRR	**Tsirk**	**1.96**	**331**	*e*P	Pn	04 19 44.0	+1.8
CIRR				*i* S	Sn	04 20 07.5	+2.0
KPT	**Kopyto**	**2.00**	**322**	*e*P	Pn	04 19 44.5	+1.6
KPT				*i* S	Sn	04 20 08.7	+2.0
KLY	**Klyuchi**	**2.15**	**332**	*e*P	Pn	04 19 45.9	+1.0
KLY				*i* S	Sn	04 20 11.3	+0.9
KOZ	**Kozyrevsk**	**2.20**	**319**	*e*P	Pn	04 19 47.7	+2.1
KOZ				*i* S	Sn	04 20 14.0	+2.4
NLC	**Nalytchevo**	**2.22**	**237**	*e*P	Pn	04 19 47.4	+1.5
NLC				*i* S	Sn	04 20 13.5	+1.5
SMKR	**Semkarok**	**2.24**	**346**	*e*P	Pn	04 19 48.0	+1.9
SMKR				*i* S	Sn	04 20 14.6	+2.2
BDR	**Baidarnaya**	**2.26**	**342**	*e*P	Pn	04 19 49.0	+2.6
BDR				*i* S	Sn	04 20 16.4	+3.3
SRKR	**Sorokina**	**2.35**	**343**	*e*P	Pn	04 19 49.6	+1.9
SRKR				*i* S	Sn	04 20 17.6	+2.3
SRDR	**Sredinnyy**	**2.46**	**322**	*e*P	Pn	04 19 50.2	+1.1
SRDR				*i* S	Sn	04 20 19.3	+1.5
AVH	**Avacha**	**2.48**	**244**	*e*P	Pn	04 19 52.1	+2.7
AVH				*i* S	Sn	04 20 21.3	+2.9
PET	**Petropavlovsk**	**2.65**	**240**	*e*P	Pn	04 19 54.4	+2.7
PET				*i* S	Sn	04 20 25.6	+3.0
GNL	**Ganaly**	**2.75**	**257**	*e*P	Pn	04 19 55.7	+2.6
GNL				*i* S	Sn	04 20 27.2	+2.2
RUS	**Russkaya**	**3.08**	**231**	*e*P	Pn	04 19 59.6	+2.0
RUS				*i* S	Sn	04 20 34.4	+1.2

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*FUNV **22** 04:20:41.6, 11°.01N×61°.83W, h41^{km}, MW2.3*
*ISCJB **22** 04:20:42.0±0.7, 10°.96N±0°.04×61°.90W±0°.03, h47^{km}±11^{km}, Error ellipse: s-maj=7.1km s-min=5.0km az=174.4*
*TRN **22** 04:20:44.0, 11°.00N×61°.72W, h26^{km}, MD3.2*
*NEIC **22** 04:20:44.4, 10°.98N×61°.70W, h27^{km}, MD3.2(TRN), After TRN.*
ISC 22 04:20:42.5±0.6, 10°.95N±0°.04×61°.89W±0°.03, h44^{km}±12^{km}, n13, σ0^s.98/25, 1C, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TCE	**Chacachacare**	**0.29**	**151**	*e*P	**Pn**	**04 20 50.4**	**-0.5**
TCE				*e*S	**Sn**	**04 20 57.4**	**+0.5**
GUIV	**Guiria**	**0.44**	**227**	*e*P	**Pn**	**04 20 52.8**	**+0.1**
GUIV				*e*S	**Sn**	**04 21 00.7**	**+0.8**
TRN	**Trinidad (W)**	**0.57**	**122**	⇑*e*P	**Pn**	**04 20 53.0**	**-1.3**
TRN				*e*S	**Sn**	**04 21 00.9**	**-1.8**
TPP	**Pointe-a-Pierr**	**0.76**	**145**	*e*P	**Pn**	**04 20 58.4**	**+1.4**
TPP				*e*S	**Sn**	**04 21 08.4**	**+1.1**
TPP	**Pointe-a-Pierr**	**0.76**	**145**	*e*P	**Pn**	**04 20 56.4**	**-0.5**
TPP				*e*S	**Sn**	**04 21 08.4**	**+1.1**
TBH	**Brigand Hill**	**0.93**	**120**	*e*P	**Pn**	**04 20 59.7**	**+0.5**
TBH				*e*S	**Sn**	**04 21 12.2**	**+0.7**
TPR	**Prospect**	**1.12**	**78**	*e*P	**Pn**	**04 21 02.4**	**+0.6**
TPR				*e*S	**Sn**	**04 21 14.2**	**-1.8**
GRW	**Mount Saint Ca**	**1.22**	**11**	*e*P	**Pn**	**04 21 05.5**	**+2.3**
GRW				*e*S	**Sn**	**04 21 19.0**	**+0.4**
GRW	**Mount Saint Ca**	**1.22**	**11**	*e*P	**Pn**	**04 21 05.5**	**+2.3**
GRW				*e*S	**Sn**	**04 21 17.4**	**-1.2**
ITEV	**Isla Los Testi**	**1.28**	**288**	*e*P	**Pn**	**04 21 03.4**	**-0.5**
ITEV				*e*S	**Sn**	**04 21 19.0**	**-1.0**
GUNV	**Guanoco**	**1.29**	**233**	*e*P	**Pn**	**04 21 03.9**	**-0.2**
GUNV				*e*S	**Sn**	**04 21 20.6**	**+0.3**
CRUV	**Carupano**	**1.35**	**258**	*e*P	**Pn**	**04 21 04.3**	**-0.6**
CRUV				*e*S	**Sn**	**04 21 21.4**	**-0.2**
SVB	**Belmont**	**2.39**	**15**	*e*P	Px	04 21 30.4	
SVB				*e*S	**Sn**	**04 21 48.5**	**+1.1**

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*CSEM **22** 04:24:36.9±0.6, 76°.93N×18°.21E, h2^{km}, ML2.6, Error ellipse: s-maj=27.7km s-min=8.6km az=43.0*
*ISCJB **22** 04:24:38.1±0.7, 77°.05N±0°.05×19°.0E±0°.2, h10^{km}, Error ellipse: s-maj=7.9km s-min=5.2km az=33.2*
*BER **22** 04:24:42.8±3.0, 77°.19N×19°.25E, h12^{km}±18^{km}, MD1.9, ML2.9, ML2.6(NAO)*
*NAO **22** 04:24:42.1±1.8, 77°.14N×18°.67E, h24^{km}±16^{km}, ML2.6*
ISC 22 04:24:39.1±0.7, 77°.13N±0°.04×18°.9E±0°.2, h10^{km}, n12, σ0^s.80/19, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	**Hornsund**	**0.77**	**262**	*e*P	**Pg**	**04 24 54.1**	**+0.3**
HSP				*e*S	**Sg**	**04 25 03.8**	**0.0**
SPA0	**Spitsbergen Ar**	**1.19**	**334**	Pn	**Pn**	**04 25 02.1**	**+0.4**
	baz=147,slow=18						
SPA0				Lg		04 25 18.4	
	baz=152,slow=22						
SPA0	**Spitsbergen Ar**	**1.19**	**334**	Pn	**Pn**	**04 25 02.1**	**+0.4**
	SNR=5.0						
SPA0				Lg		04 25 18.4	
	SNR=95						
HOPEN	**Hopen**	**1.53**	**111**	*e*P	**Pn**	**04 25 07.4**	**+1.0**
HOPEN				*e*Sg	**Sg**	**04 25 27.4**	**-0.9**
HOPEN				AML	AML	04 25 32.7	
	comp=Z,220nm,0.6s						
HOPEN	**Hopen**	**1.53**	**111**	*e*P	**Pn**	**04 25 07.4**	**+1.0**
	SNR=55						
HOPEN				*e*Sg	**Sg**	**04 25 27.4**	**-0.9**
	comp=Z,220nm,0.6s,SNR=90						
KBS	**Kingsbay**	**2.32**	**325**	Pn	**Pn**	**04 25 18.1**	**+0.9**
KBS				Pg	**Pg**	**04 25 22.5**	**-0.9**
KBS				Lg		04 25 52.3	
KBS	**Kingsbay**	**2.32**	**325**	*e*Pg	**Pg**	**04 25 22.9**	**-0.5**
KBS				*e*Sg	**Sg**	**04 25 52.4**	**-1.0**
KBS				AML	AML	04 26 01.1	
	comp=Z,206nm,0.4s						
KBS	**Kingsbay**	**2.32**	**325**	Pn	**Pn**	**04 25 18.1**	**+0.9**
KBS	**Kingsbay**	**2.32**	**325**	Pg	**Pg**	**04 25 22.5**	**-0.9**
KBS				*e*Sg	**Sg**	**04 25 52.3**	**-1.1**
	comp=Z,206nm,0.4s,SNR=90						
BJO	**Bjornoya**	**2.64**	**178**	*e*Sg	**Sg**	**04 26 02.8**	**-1.0**
BJO				AML	AML	04 26 08.5	
	comp=Z,73nm,0.6s						
ARA0	**ARCESS Array S**	**7.86**	**163**	Pn	**Pn**	**04 26 34.1**	**+0.9**
	baz=355,slow=14						
ARA0				Sn	**Sn**	**04 27 56.6**	**-5.4**
	baz=3.9,slow=22						
ARA0	**ARCESS Array S**	**7.86**	**163**	Sn	**Sn**	**04 27 56.7**	**-5.3**
	SNR=8.1						

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*ISCJB **22** 04:32:38.1±0.7, 36°.26N±0°.03×21°.77E±0°.04, h5^{km}±4^{km}, Error ellipse: s-maj=6.1km s-min=5.0km az=41.4*
*CSEM **22** 04:32:38.8±0.3, 36°.25N×21°.82E, h2^{km}, ML3.9/5, Error ellipse: s-maj=6.4km s-min=4.5km az=30.0*
*NEIC **22** 04:32:39.0, 36°.27N×21°.82E, h19^{km}, MD3.8(ATH), After ATH.*
*ATH **22** 04:32:39.0, 36°.27N×21°.82E, h19^{km}±1^{km}, MD3.8/12*
*THE **22** 04:32:40.2, 36°.33N×21°.87E, h2^{km}±2^{km}, ML3.9/5, Error ellipse: s-maj=3.3km s-min=1.4km az=235.0*
ISC 22 04:32:39.4±0.8, 36°.27N±0°.03×21°.81E±0°.04, h5^{km}±4^{km}, n100, σ0^s.75/130, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.63**	**355**	P	**Pg**	**04 32 50.6**	**-0.9**
PYL				S	**Sg**	**04 32 59.1**	**-0.6**
PYL	**PYLOS**	**0.63**	**355**	*e*PN	**Pg**	**04 32 51.4**	**-0.1**
PYL				*e*SN	**Sg**	**04 32 59.8**	**+0.1**
PYL	**PYLOS**	**0.63**	**355**	P	**Pg**	**04 32 50.6**	**-0.9**
PYL	**PYLOS**	**0.63**	**355**	*e*Pn	**Pg**	**04 32 51.4**	**-0.1**
PYL				S	**Sg**	**04 32 59.1**	**-0.6**
ITM	**Ithomi**	**0.91**	**6**	*e*PB	**Pg**	**04 32 56.1**	**-0.9**
ITM				*e*SN	**Sg**	**04 33 09.5**	**+0.6**
ITM	**Ithomi**	**0.91**	**6**	*e*Pb	**Pg**	**04 32 56.1**	**-0.9**
ITM				*e*Sn	**Sg**	**04 33 09.5**	**+0.6**
KYTH	**Kithira**	**0.99**	**89**	*e*PN	**Pg**	**04 32 58.1**	**-0.4**
KYTH	**Kithira**	**0.99**	**89**	*e*Pn	**Pg**	**04 32 58.1**	**-0.4**
VLI	**Veliai**	**1.01**	**63**	*e*PN	**Pg**	**04 32 58.4**	**-0.5**
VLI				*e*SN	**Sg**	**04 33 12.4**	**+0.4**
VLI	**Veliai**	**1.01**	**63**	*e*Pn	**Pg**	**04 32 58.4**	**-0.5**
VLI				*e*Sn	**Sg**	**04 33 12.4**	**+0.4**
VLX	**Vlachokerasia**	**1.19**	**22**	*e*PB	**Pn**	**04 33 00.8**	**-2.0**
VLX				*e*SN	**Sn**	**04 33 18.4**	**-0.9**
VLX	**Vlachokerasia**	**1.19**	**22**	*e*Pb	**Pn**	**04 33 00.8**	**-2.0**
VLX				*e*Sn	**Sn**	**04 33 18.4**	**-0.9**
DID	**Didima**	**1.68**	**42**	P	**Pn**	**04 33 09.3**	**-0.2**
DID				S	**Sn**	**04 33 30.8**	**-0.7**
DID	**Didima**	**1.68**	**42**	*e*PN	**Pn**	**04 33 09.5**	**0.0**
DID	**Didima**	**1.68**	**42**	*e*Pn	**Pn**	**04 33 09.5**	**0.0**
DID				S	**Sn**	**04 33 30.8**	**-0.7**
GUR	**Goura**	**1.72**	**14**	*e*PN	**Pn**	**04 33 10.3**	**+0.3**
GUR	**Goura**	**1.72**	**14**	*e*Pn	**Pn**	**04 33 10.3**	**+0.3**
RLS	**Riolos of Patr**	**1.81**	**351**	*e*PN	**Pn**	**04 33 12.3**	**+1.1**
RLS	**Riolos of Patr**	**1.81**	**351**	*e*Pn	**Pn**	**04 33 12.3**	**+1.1**
KARN	**Karanos**	**1.92**	**116**	P	**Pn**	**04 33 12.3**	**-0.5**
KARN	**Karanos**	**1.92**	**116**	P	**Pn**	**04 33 12.3**	**-0.5**
LAKA	**Lakka**	**1.97**	**4**	P	**Pn**	**04 33 13.8**	**+0.3**
LAKA				S	**Sn**	**04 33 39.2**	**+0.6**
LAKA	**Lakka**	**1.97**	**4**	P	**Pn**	**04 33 13.8**	**+0.3**
LAKA				S	**Sn**	**04 33 39.2**	**+0.6**
LTK	**Loutraki**	**1.98**	**28**	P	**Pn**	**04 33 13.6**	**0.0**
LTK				S	**Sn**	**04 33 38.2**	**-0.6**
LTK	**Loutraki**	**1.98**	**28**	*e*PN	**Pn**	**04 33 14.2**	**+0.6**
LTK	**Loutraki**	**1.98**	**28**	*e*Pn	**Pn**	**04 33 14.2**	**+0.6**
LTK				S	**Sn**	**04 33 38.2**	**-0.6**
NAIG	**Nisos Aigina**	**2.00**	**42**	*e*PN	**Pn**	**04 33 13.7**	**-0.2**
NAIG	**Nisos Aigina**	**2.00**	**42**	*e*Pn	**Pn**	**04 33 13.7**	**-0.2**
TRIZ	**Trizonia**	**2.10**	**6**	P	**Pn**	**04 33 16.4**	**+1.1**
TRIZ				S	**Sn**	**04 33 40.5**	**-1.3**

TRIZ	**Trizonia**	**2.10**	**6**	P	**Pn**	**04 33 16.4**	**+1.1**
TRIZ				S	**Sn**	**04 33 40.5**	**-1.3**
VAM	**Vamos**	**2.12**	**113**	*e*PB	**Pn**	**04 33 15.5**	**-0.1**
VAM	**Vamos**	**2.12**	**113**	*e*Pb	**Pn**	**04 33 15.5**	**-0.1**
KALE	**Kalithea**	**2.13**	**7**	P	**Pn**	**04 33 16.4**	**+0.7**
KALE				S	**Sn**	**04 33 43.7**	**+1.1**
KALE	**Kalithea**	**2.13**	**7**	P	**Pn**	**04 33 16.4**	**+0.7**
KALE				S	**Sn**	**04 33 43.7**	**+1.1**
VLS	**Valsamata**	**2.14**	**333**	P	**Pn**	**04 33 16.0**	**+0.2**
VLS	**Valsamata**	**2.14**	**333**	*e*PN	**Pn**	**04 33 17.0**	**+1.2**
VLS	**Valsamata**	**2.14**	**333**	P	**Pn**	**04 33 16.0**	**+0.2**
VLS	**Valsamata**	**2.14**	**333**	*e*Pn	**Pn**	**04 33 17.0**	**+1.2**
EFP	**Efpalio**	**2.16**	**2**	*e*PN	**Pn**	**04 33 16.8**	**+0.8**
EFP	**Efpalio**	**2.16**	**2**	*e*Pn	**Pn**	**04 33 16.8**	**+0.8**
VLY	**Voula,Athens**	**2.24**	**45**	*e*PB	**Pn**	**04 33 16.9**	**-0.3**
VLY	**Voula,Athens**	**2.24**	**45**	*e*Pb	**Pn**	**04 33 16.9**	**-0.3**
ATHU	**Athens Univers**	**2.32**	**42**	P	**Pn**	**04 33 17.9**	**-0.3**
ATHU				S	**Sn**	**04 33 46.2**	**-0.9**
ATHU	**Athens Univers**	**2.32**	**42**	P	**Pn**	**04 33 17.9**	**-0.3**
ATHU				S	**Sn**	**04 33 46.2**	**-0.9**
PTL	**Penteli**	**2.42**	**42**	*e*PB	**Pn**	**04 33 20.0**	**+0.4**
PTL	**Penteli**	**2.42**	**42**	*e*Pb	**Pn**	**04 33 20.0**	**+0.4**
LKR	**Lokris**	**2.56**	**21**	P	**Pn**	**04 33 20.7**	**-0.9**
LKR				S	**Sn**	**04 33 53.4**	**+0.3**
LKR	**Lokris**	**2.56**	**21**	*e*PN	**Pn**	**04 33 21.6**	**0.0**
LKR	**Lokris**	**2.56**	**21**	*e*Pn	**Pn**	**04 33 21.6**	**0.0**
LKR				S	**Sn**	**04 33 53.4**	**+0.3**
EVR	**Evrytania**	**2.64**	**360**	*e*PN	**Pn**	**04 33 23.5**	**+0.8**
EVR	**Evrytania**	**2.64**	**360**	*e*Pn	**Pn**	**04 33 23.5**	**+0.8**
AGG	**Agios Georgios**	**2.78**	**8**	P	**Pn**	**04 33 25.2**	**+0.6**
AGG				S	**Sn**	**04 33 58.7**	**+0.2**
AGG	**Agios Georgios**	**2.78**	**8**	*e*PB	**Pn**	**04 33 26.2**	**+1.6**
AGG	**Agios Georgios**	**2.78**	**8**	P	**Pn**	**04 33 25.2**	**+0.6**
AGG	**Agios Georgios**	**2.78**	**8**	*e*Pb	**Pn**	**04 33 26.2**	**+1.6**
AGG				S	**Sn**	**04 33 58.7**	**+0.2**
LAST	**Lasithi**	**3.18**	**109**	P	**Pn**	**04 33 30.3**	**+0.1**
LAST	**Lasithi**	**3.18**	**109**	P	**Pn**	**04 33 30.3**	**+0.1**
XOR	**Xorichti**	**3.28**	**19**	P	**Pn**	**04 33 30.9**	**-0.6**
XOR	**Xorichti**	**3.28**	**19**	P	**Pn**	**04 33 30.9**	**-0.6**
THL	**Klokotos Trika**	**3.29**	**3**	P	**Pn**	**04 33 32.0**	**+0.3**
THL	**Klokotos Trika**	**3.29**	**3**	P	**Pn**	**04 33 32.0**	**+0.3**
AOS	**Alonnisos**	**3.33**	**29**	P	**Pn**	**04 33 33.0**	**+0.8**
AOS	**Alonnisos**	**3.33**	**29**	P	**Pn**	**04 33 33.0**	**+0.8**
IGT	**Igoumenitsa**	**3.46**	**341**	P	**Pn**	**04 33 33.3**	**-0.7**
IGT				S	**Sn**	**04 34 15.5**	**+0.2**
IGT	**Igoumenitsa**	**3.46**	**341**	P	**Pn**	**04 33 33.3**	**-0.7**
IGT				S	**Sn**	**04 34 15.5**	**+0.2**
MEV	**Metsovon**	**3.54**	**353**	P	**Pn**	**04 33 36.1**	**+1.1**
MEV	**Metsovon**	**3.54**	**353**	P	**Pn**	**04 33 36.1**	**+1.1**
LIT	**Litokhoron**	**3.86**	**8**	P	**Pn**	**04 33 39.2**	**-0.3**
LIT	**Litokhoron**	**3.86**	**8**	P	**Pn**	**04 33 39.2**	**-0.3**
CHOS	**Chios island**	**3.99**	**57**	P	**Pn**	**04 33 40.7**	**-0.5**
CHOS	**Chios island**	**3.99**	**57**	P	**Pn**	**04 33 40.7**	**-0.5**
SMG	**Samos**	**4.27**	**69**	P	**Pn**	**04 33 46.4**	**+1.3**
SMG	**Samos**	**4.27**	**69**	P	**Pn**	**04 33 46.4**	**+1.3**
OUR	**Ouranopolis**	**4.40**	**22**	P	**Pn**	**04 33 47.3**	**+0.4**
OUR	**Ouranopolis**	**4.40**	**22**	P	**Pn**	**04 33 47.3**	**+0.4**
HORT	**Hortiatis**	**4.44**	**13**	P	**Pn**	**04 33 47.1**	**-0.3**
HORT	**Hortiatis**	**4.44**	**13**	P	**Pn**	**04 33 47.1**	**-0.3**
LOS	**Limnos**	**4.48**	**34**	P	**Pn**	**04 33 48.9**	**+1.0**
LOS	**Limnos**	**4.48**	**34**	P	**Pn**	**04 33 48.9**	**+1.0**
FNA	**Florina**	**4.52**	**356**	P	**Pn**	**04 33 48.3**	**-0.2**
FNA				S	**Sn**	**04 34 42.1**	**+0.7**
FNA	**Florina**	**4.52**	**356**	P	**Pn**	**04 33 48.3**	**-0.2**
FNA				S	**Sn**	**04 34 42.1**	**+0.7**
GRG	**Griva**	**4.70**	**5**	P	**Pn**	**04 33 50.6**	**-0.4**
GRG	**Griva**	**4.70**	**5**	P	**Pn**	**04 33 50.6**	**-0.4**
SOH	**Sokhos**	**4.70**	**14**	P	**Pn**	**04 33 52.2**	**+1.2**
SOH	**Sokhos**	**4.70**	**14**	P	**Pn**	**04 33 52.2**	**+1.2**
BIA	**Bitola**	**4.76**	**356**	P	**Pn**	**04 33 52.0**	**+0.2**
BIA	**Bitola**	**4.76**	**356**	P	**Pn**	**04 33 52.0**	**+0.2**
TIP	**Timpagrande**	**4.95**	**307**	P	**Pn**	**04 33 53.9**	**-0.5**
TIP	**Timpagrande**	**4.95**	**307**	P	**Pn**	**04 33 53.9**	**-0.5**
KNT	**Kendrikon**	**4.96**	**10**	P	**Pn**	**04 33 54.5**	**0.0**
KNT	**Kendrikon**	**4.96**	**10**	P	**Pn**	**04 33 54.5**	**0.0**
SRS	**Serrai**	**5.04**	**16**	P	**Pn**	**04 33 56.1**	**+0.5**
SRS	**Serrai**	**5.04**	**16**	P	**Pn**	**04 33 56.1**	**+0.5**
KRUS	**Krusevo**	**5.11**	**355**	*e*Pn	**Pn**	**04 33 56.0**	**-0.6**
KRUS				*e*Sg	**Sn**	**04 34 53.5**	**-2.5**
KRUS	**Krusevo**	**5.11**	**355**	*e*Pn	**Pn**	**04 33 56.0**	**-0.6**
CEL	**Celeste**	**5.12**	**295**	P	**Pn**	**04 33 55.3**	**-1.4**
CEL	**Celeste**	**5.12**	**295**	P	**Pn**	**04 33 55.3**	**-1.4**
CUC	**Castrocucco**	**6.01**	**310**	*e*Pn	**Pn**	**04 34 08.7**	**-0.3**
	14nm,0.7s						
CUC	**Castrocucco**	**6.01**	**310**	*e*Pn	**Pn**	**04 34 08.7**	**-0.3**
	14nm,0.7s						
SG1	**Sgolgore (BA)**	**6.08**	**320**	*e*Pn	**Pn**	**04 34 09.6**	**-0.4**

*NEIC **22** 04:34:04.7, 34°.94S×71°.61W, h65^{km}, MD3.6(GUC), After GUC.*

GUC 22 04:34:04.7±0.7**, 34°.94S**×**71°.61W, h65**^{km}±8^{km}**, MD3.6, ML4.0, 6C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TALC	**Talca**	**0.46**	**183**	⇑*i*P	Pn	04 34 17.2	+0.6
TALC				*i* S	Sn	04 34 26.0	+0.6
TALC	**Talca**	**0.46**	**183**	⇑*i*P	Pn	04 34 17.2	+0.6
TALC				*i* S	Sn	04 34 26.0	+0.6
TALC				AML	AML	04 34 28.9	
	comp=E,26μm,0.1s						
CTCH	**Constitucion**	**0.77**	**239**	⇑*e*P	Pn	04 34 20.2	+0.1
CTCH				*i* S	Sn	04 34 31.8	+0.4
CTCH	**Constitucion**	**0.77**	**239**	⇑*e*P	Pn	04 34 20.2	+0.1
CTCH				*i* S	Sn	04 34 31.8	+0.4
CTCH				AML	AML	04 34 34.0	
	comp=N,19μm,0.4s						
CACH	**El Canelo**	**1.17**	**46**	⇓*i*P	Pn	04 34 25.7	+0.6
CACH				*i* S	Sn	04 34 41.5	+1.2
CACH	**El Canelo**	**1.17**	**46**	⇓*i*P	Pn	04 34 25.7	+0.6
CACH				*i* S	Sn	04 34 41.5	+1.2
CHCH	**Chadas Angostu**	**1.27**	**38**	*e*P	Pn	04 34 26.7	+0.2
CHCH				*i* S	Sn	04 34 43.6	+0.8
CHCH	**Chadas Angostu**	**1.27**	**38**	*e*P	Pn	04 34 26.7	+0.2
CHCH				*i* S	Sn	04 34 43.6	+0.8
TACH	**Talagante**	**1.40**	**24**	*i* S	Sn	04 34 46.9	+1.2
RCDM	**Rinconada Maip**	**1.59**	**25**	*e*P	Pn	04 34 30.5	-0.2
RCDM				*i* S	Sn	04 34 50.6	+0.3
RCDM	**Rinconada Maip**	**1.59**	**25**	*e*P	Pn	04 34 30.5	-0.2
RCDM				*i* S	Sn	04 34 50.6	+0.3
RCDM				AML	AML	04 34 54.0	
	comp=E,2μm,0.2s						
PCH	**Pirque**	**1.59**	**35**	⇑*i*P	Pn	04 34 31.4	+0.6
PCH				*i* S	Sn	04 34 51.7	+1.2
PCH	**Pirque**	**1.59**	**35**	⇑*i*P	Pn	04 34 31.4	+0.6
PCH				*i* S	Sn	04 34 51.7	+1.2
SJCH	**San Jose de Ma**	**1.66**	**39**	*e*P	Pn	04 34 32.9	+1.3
SJCH				*i* S	Sn	04 34 54.1	+2.2
SJCH	**San Jose de Ma**	**1.66**	**39**	*e*P	Pn	04 34 32.9	+1.3
SJCH				*i* S	Sn	04 34 54.1	+2.2
SJCH				AML	AML	04 34 59.7	
	comp=N,984nm,0.8s						
FSR	**Penalolen**	**1.71**	**32**	⇓*e*P	Pn	04 34 33.0	+0.8
FSR				*i* S	Sn	04 34 54.3	+1.1
FSR	**Penalolen**	**1.71**	**32**	⇓*e*P	Pn	04 34 33.0	+0.8
FSR				*i* S	Sn	04 34 54.3	+1.1
IHA	**Instituto Hidr**	**1.91**	**359**	P	Pn	04 34 33.6	-1.4
IHA	**Instituto Hidr**	**1.91**	**359**	*e*P	Pn	04 34 33.6	-1.4

IDC 22 04:38:26.1±67.0**, 2°.05N**×**96°.04E, h0**^{km}**, mb3.7**/3**, mb1 3.7**/3**, mb1mx3.4**/20**, mbtmp3.7**/3**, 1C, Error ellipse: s-maj=1288.0km s-min=154.8km az=177.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.97**	**75**	⇑*e*P	Pn	04 39 21.6	+7.1
MKAR	**Makanchi Array**	**46.15**	**347**	P	P	04 46 52.2	0.0
	0.5nm,0.5s,baz=165,slow=7.5,SNR=8.2						
SONM	**Songino Array**	**46.48**	**10**	P	P	04 46 54.9	+0.1
	0.6nm,0.7s,baz=192,slow=8.3,SNR=4.8						
ZALV	**Zalesovo Beam**	**52.54**	**352**	P	P	04 47 41.0	0.0
	0.7nm,0.5s,baz=180,slow=5.2,SNR=3.9						

CASC 22 04:41:02.6±4.5**, 11°.10N**×**86°.67W, h36**^{km}±999^{km}**, MD3.7, ML1.6, 1D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSN	**San Juan del S**	**0.83**	**76**	*e*P	Pn	04 41 17.5	-0.3
APON	**Apoyo**	**1.00**	**36**	*e*P	Pn	04 41 20.7	+0.5
TICN	**Ticuantepe**	**1.02**	**25**	*e*P	Pn	04 41 20.9	+0.5
COPN	**Copaltepe**	**1.07**	**4**	*e*P	Pn	04 41 21.0	-0.2
CSAN		**1.10**	**13**	*e*P	Pn	04 41 21.0	-0.5
TISN	**Laguna Tiscapa**	**1.11**	**21**	*e*P	Pn	04 41 21.8	+0.1
MGAN	**Managua**	**1.12**	**22**	AML	AML	04 41 44.2	
	comp=N,8.7nm,0.5s						
CONN	**Concepcion**	**1.12**	**66**	*e*P	Pn	04 41 21.6	-0.3
MOMN	**Momotombo**	**1.30**	**6**	*e*P	Pn	04 41 24.8	+0.5
HUEN		**1.32**	**22**	*e*P	Pn	04 41 25.0	+0.4
MIRN	**Miramar**	**1.33**	**358**	*e*P	Pn	04 41 24.4	-0.3
CRIN	**San Cristobal**	**1.63**	**347**	*e*P	Pn	04 41 28.3	-0.6
BOAB	**BOACO BROADBAN**	**1.66**	**36**	*e*P	Pn	04 41 29.3	+0.1
JTS	**JuntasAbangare**	**1.87**	**115**	*e*P	Pn	04 41 30.6	-1.6
CGA2	**Cerro Gallo 2**	**2.42**	**116**	*e*P	Pn	04 41 46.8	+7.1
CGA2				*e*S	Sn	04 42 07.1	-1.1
LAJ	**Bijagual**	**2.79**	**116**	⇓*e*P	Pn	04 41 39.8	-5.0
URSC	**Urasca**	**3.11**	**114**	*e*P	Pn	04 41 50.3	+1.0
BUS	**Buena Vista**	**3.25**	**118**	*e*P	Pn	04 41 50.9	-0.3

*ISCJB **22** 04:49:58.5±0.6, 37°.55N±0°.02×21°.64E±0°.05, h2^{km}±5^{km}, Error ellipse: s-maj=6.3km s-min=4.0km az=174.9*
*CSEM **22** 04:49:58.6±0.2, 37°.57N×21°.67E, h0^{km}±1^{km}, MD3.4, Error ellipse: s-maj=4.9km s-min=3.5km az=77.0*
*NEIC **22** 04:49:58.8, 37°.56N×21°.69E, h24^{km}, MD3.4(ATH), After ATH.*
*ATH **22** 04:49:58.8, 37°.56N×21°.69E, h24^{km}±1^{km}, MD3.5/15*
*THE **22** 04:49:59.4, 37°.55N×21°.72E, h0^{km}±2^{km}, ML3.5/4, Error ellipse: s-maj=2.2km s-min=0.8km az=254.0*

ISC 22 04:49:59.0±0.6**, 37°.55N**±0°.02×**21°.66E**±0°.04**, h2**^{km}±4^{km}**, n60,** σ**0**^{s}**.87**/77**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	**Ithomi**	**0.43**	**150**	*e*PB	**Pg**	**04 50 07.8**	**+0.6**
ITM	**Ithomi**	**0.43**	**150**	*e*Pb	**Pg**	**04 50 07.8**	**+0.6**
RLS	**Riolos of Patr**	**0.53**	**343**	*e*PN	**Pg**	**04 50 09.2**	**0.0**
RLS	**Riolos of Patr**	**0.53**	**343**	*e*Pn	**Pg**	**04 50 09.2**	**0.0**
VLX	**Vlachokerasia**	**0.60**	**107**	*e*PN	**Pg**	**04 50 10.2**	**-0.3**
VLX	**Vlachokerasia**	**0.60**	**107**	*e*Pn	**Pg**	**04 50 10.2**	**-0.3**
PYL	**PYLOS**	**0.66**	**174**	P	**Pg**	**04 50 11.5**	**-0.1**
PYL				S	**Sg**	**04 50 21.8**	**+1.7**
PYL	**PYLOS**	**0.66**	**174**	*e*PN	**Pg**	**04 50 11.8**	**+0.2**
PYL	**PYLOS**	**0.66**	**174**	P	**Pg**	**04 50 11.5**	**-0.1**
PYL	**PYLOS**	**0.66**	**174**	*e*Pn	**Pg**	**04 50 11.8**	**+0.2**
PYL				S	**Sg**	**04 50 21.8**	**+1.7**
GUR	**Goura**	**0.67**	**54**	*e*PB	**Pg**	**04 50 11.0**	**-0.8**
GUR	**Goura**	**0.67**	**54**	*e*Pb	**Pg**	**04 50 11.0**	**-0.8**
LAKA	**Lakka**	**0.73**	**20**	P	**Pg**	**04 50 12.5**	**-0.6**
LAKA				S	**Sg**	**04 50 23.7**	**+1.1**
LAKA	**Lakka**	**0.73**	**20**	P	**Pg**	**04 50 12.5**	**-0.6**
LAKA				S	**Sg**	**04 50 23.7**	**+1.1**
TRIZ	**Trizonia**	**0.88**	**22**	P	**Pg**	**04 50 15.1**	**-0.8**
TRIZ				S	**Sg**	**04 50 28.6**	**+1.4**
TRIZ	**Trizonia**	**0.88**	**22**	P	**Pg**	**04 50 15.1**	**-0.8**
EFP	**Efpalio**	**0.90**	**12**	*e*PN	**Pg**	**04 50 15.9**	**-0.3**
EFP	**Efpalio**	**0.90**	**12**	*e*Pn	**Pg**	**04 50 15.9**	**-0.3**
KALE	**Kalithea**	**0.92**	**24**	P	**Pg**	**04 50 16.0**	**-0.7**
KALE				S	**Sg**	**04 50 30.5**	**+1.8**
KALE	**Kalithea**	**0.92**	**24**	P	**Pg**	**04 50 16.0**	**-0.7**
VLS	**Valsamata**	**1.05**	**307**	P	**Pg**	**04 50 19.0**	**-0.2**
VLS	**Valsamata**	**1.05**	**307**	*e*PN	**Pg**	**04 50 20.0**	**+0.8**
VLS	**Valsamata**	**1.05**	**307**	P	**Pg**	**04 50 19.0**	**-0.2**
VLS	**Valsamata**	**1.05**	**307**	*e*Pn	**Pg**	**04 50 20.0**	**+0.8**
LTK	**Loutraki**	**1.14**	**65**	P	**Pg**	**04 50 19.6**	**-1.3**
LTK				S	**Sg**	**04 50 35.7**	**+0.1**
LTK	**Loutraki**	**1.14**	**65**	*e*PN	**Pn**	**04 50 20.6**	**-1.3**
LTK	**Loutraki**	**1.14**	**65**	P	**Pg**	**04 50 19.6**	**-1.3**
LTK	**Loutraki**	**1.14**	**65**	*e*Pn	**Pn**	**04 50 20.6**	**-1.3**
DID	**Didima**	**1.25**	**92**	P	**Pg**	**04 50 22.2**	**-0.9**
DID				S	**Sg**	**04 50 39.5**	**+0.2**
DID	**Didima**	**1.25**	**92**	*e*PN	**Pn**	**04 50 22.5**	**-1.0**
DID	**Didima**	**1.25**	**92**	*e*Pn	**Pn**	**04 50 22.5**	**-1.0**
DID				S	**Sg**	**04 50 39.5**	**+0.2**
VLI	**Veliai**	**1.32**	**129**	*e*PN	**Pn**	**04 50 24.2**	**-0.2**
VLI	**Veliai**	**1.32**	**129**	*e*Pn	**Pn**	**04 50 24.2**	**-0.2**
EVR	**Evrytania**	**1.37**	**5**	*e*PN	**Pn**	**04 50 24.0**	**-1.1**
EVR	**Evrytania**	**1.37**	**5**	*e*Pn	**Pn**	**04 50 24.0**	**-1.1**
NAIG	**Nisos Aigina**	**1.47**	**81**	*e*PN	**Pn**	**04 50 25.9**	**-0.5**
NAIG	**Nisos Aigina**	**1.47**	**81**	*e*Pn	**Pn**	**04 50 25.9**	**-0.5**
LKR	**Lokris**	**1.52**	**43**	P	**Pn**	**04 50 26.1**	**-1.1**
LKR				S	**Sn**	**04 50 48.3**	**+0.7**
LKR	**Lokris**	**1.52**	**43**	*e*PN	**Pn**	**04 50 26.1**	**-1.1**
LKR	**Lokris**	**1.52**	**43**	*e*Pn	**Pn**	**04 50 26.1**	**-1.1**
LKR				S	**Sn**	**04 50 48.3**	**+0.7**
AGG	**Agios Georgios**	**1.56**	**20**	P	**Pn**	**04 50 27.6**	**-0.1**
AGG				S	**Sn**	**04 50 49.7**	**+1.2**
AGG	**Agios Georgios**	**1.56**	**20**	*e*PN	**Pn**	**04 50 27.6**	**-0.1**
AGG	**Agios Georgios**	**1.56**	**20**	P	**Pn**	**04 50 27.6**	**-0.1**
AGG				S	**Sn**	**04 50 49.7**	**+1.2**
KYTH	**Kithira**	**1.68**	**139**	*e*Pn	**Pn**	**04 50 31.9**	**+2.5**
ATHU	**Athens Univers**	**1.73**	**75**	P	**Pn**	**04 50 30.3**	**+0.2**
ATHU				S	**Sn**	**04 50 53.1**	**+0.3**
ATHU	**Athens Univers**	**1.73**	**75**	P	**Pn**	**04 50 30.3**	**+0.2**
ATHU				S	**Sn**	**04 50 53.1**	**+0.3**
THL	**Klokotos Trika**	**2.03**	**8**	*e*PB	**Pn**	**04 50 33.5**	**-0.7**
XOR	**Xorichti**	**2.18**	**33**	P	**Pn**	**04 50 36.1**	**-0.1**
XOR				S	**Sn**	**04 51 04.0**	**+0.3**
XOR	**Xorichti**	**2.18**	**33**	P	**Pn**	**04 50 36.1**	**-0.1**
XOR				S	**Sn**	**04 51 04.0**	**+0.3**
JAN	**Janina**	**2.20**	**343**	*e*PB	**Pn**	**04 50 36.1**	**-0.4**
MEV	**Metsovon**	**2.26**	**352**	P	**Pn**	**04 50 38.3**	**+1.0**
MEV	**Metsovon**	**2.26**	**352**	P	**Pn**	**04 50 38.3**	**+1.0**
AOS	**Alonnisos**	**2.38**	**47**	P	**Pn**	**04 50 39.0**	**0.0**
AOS	**Alonnisos**	**2.38**	**47**	P	**Pn**	**04 50 39.0**	**0.0**
KEK	**Kerkira**	**2.60**	**327**	*e*PN	**Pn**	**04 50 41.0**	**-1.1**
KEK	**Kerkira**	**2.60**	**327**	*e*Pn	**Pn**	**04 50 41.0**	**-1.1**
LIT	**Litokhoron**	**2.63**	**14**	P	**Pn**	**04 50 43.2**	**+0.8**
LIT	**Litokhoron**	**2.63**	**14**	P	**Pn**	**04 50 43.2**	**+0.8**
OUR	**Ouranopolis**	**3.32**	**32**	P	**Pn**	**04 50 52.2**	**+0.3**
OUR	**Ouranopolis**	**3.32**	**32**	P	**Pn**	**04 50 52.2**	**+0.3**

*ISCJB **22** 04:51:50.5±1.0, 76°.98N±0°.05×19°.2E±0°.3, h8^{km}±9^{km}, Error ellipse: s-maj=11.6km s-min=6.1km az=150.8*
*CSEM **22** 04:51:52.5±0.2, 77°.00N×18°.83E, h10^{km}, ML3.6, Error ellipse: s-maj=9.1km s-min=3.7km az=64.0*
*NAO **22** 04:51:53.7±1.7, 76°.98N×18°.45E, h16^{km}±16^{km}, ML3.3*
*BER **22** 04:51:56.5±3.0, 77°.09N×19°.18E, h18^{km}±19^{km}, MD2.3, ML3.6, ML3.3(NAO)*

ISC 22 04:51:52.7±1.1**, 77°.03N**±0°.04×**19°.0E**±0°.3**, h14**^{km}±12^{km}, **n18,** σ**1**^{s}**.11**/27**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	**Hornsund**	**0.78**	**270**	*e*P	**Pg**	**04 52 09.2**	**+1.5**
HSP				*e*S	**Sg**	**04 52 18.8**	**+0.9**
SPA0	**Spitsbergen Ar**	**1.29**	**335**	Pg	**Pg**	**04 52 17.6**	**+0.2**
	baz=150,slow=22						
SPA0				Lg		04 52 34.1	
	baz=144,slow=37						
SPA0	**Spitsbergen Ar**	**1.29**	**335**	Pg	**Pg**	**04 52 17.6**	**+0.2**
	SNR=451						
SPA0				Lg		04 52 34.1	
	SNR=2.7						
HOPEN	**Hopen**	**1.48**	**108**	*e*P	**Pn**	**04 52 20.1**	**+1.3**
HOPEN				*e*S	**Sn**	**04 52 39.1**	**+1.2**
HOPEN				AML	AML	04 52 44.0	
	comp=Z,1μm,0.2s						
HOPEN	**Hopen**	**1.48**	**108**	*e*P	**Pn**	**04 52 20.1**	**+1.3**
	SNR=55						
HOPEN				*e*S	**Sn**	**04 52 39.1**	**+1.2**
	comp=Z,1μm,0.2s,SNR=55						
KBS	**Kingsbay**	**2.41**	**326**	Pn	**Pn**	**04 52 32.5**	**+0.9**
KBS				Pg	**Pg**	**04 52 38.6**	**-0.3**
KBS				Lg		04 53 08.0	
KBS	**Kingsbay**	**2.41**	**326**	*e*P	**Pn**	**04 52 32.5**	**+0.8**
KBS				*e*Pg	**Pg**	**04 52 38.4**	**-0.4**
KBS				*e*Sg	**Sg**	**04 53 08.2**	**-1.9**
KBS				AML	AML	04 53 15.7	
	comp=Z,766nm,0.4s						
KBS	**Kingsbay**	**2.41**	**326**	Pn	**Pn**	**04 52 32.5**	**+0.8**
KBS	**Kingsbay**	**2.41**	**326**	Pg	**Pg**	**04 52 38.6**	**-0.3**
KBS				Lg		04 53 08.0	
BJO	**Bjornoya**	**2.54**	**179**	*e*Pg	**Pg**	**04 52 40.9**	**-0.3**
BJO				*e*Sg	**Sg**	**04 53 13.9**	**-0.1**
BJO				AML	AML	04 53 17.8	
	comp=Z,470nm,0.3s						
BJO	**Bjornoya**	**2.54**	**179**	*e*Pg	**Pg**	**04 52 40.9**	**-0.3**
	SNR=91						
BJO				*e*Sg	**Sg**	**04 53 13.9**	**-0.1**
	comp=Z,470nm,0.3s,SNR=91						
KEV	**Kevo**	**7.65**	**159**	*e*p	**Pn**	**04 53 43.6**	**+0.1**
	comp=Z,2.1nm,0.3s						
ARA0	**ARCESS Array S**	**7.75**	**163**	Pn	**Pn**	**04 53 45.2**	**+0.3**
	baz=349,slow=14						
ARA0				Sn	**Sn**	**04 55 06.5**	**-5.8**
	baz=5.5,slow=22						
ARA0	**ARCESS Array S**	**7.75**	**163**	Pn	**Pn**	**04 53 45.2**	**+0.3**
	SNR=144						
APA0	**Apatity Array**	**10.33**	**149**	Pn	**Pn**	**04 54 19.5**	**-0.6**
	baz=337,slow=8.6						
APA0	**Apatity Array**	**10.33**	**149**	Pn	**Pn**	**04 54 19.5**	**-0.6**
	SNR=4.1						
JOF	**Joensuu**	**14.73**	**157**	*e*p	**Pn**	**04 55 18.3**	**-1.8**
	comp=Z,0.5nm,0.3s						
KAF	**Kangasniemi**	**15.18**	**167**	*e*p	**Pn**	**04 55 23.4**	**-2.8**
	comp=Z,0.8nm,0.3s						

*SOF **22** 04:57:38.7, 37°.35N×20°.81E, h5^{km}, MD3.7*
*BJI **22** 04:57:38.5, 36°.94N×20°.61E, h24^{km}, mB5.4/2, mb4.6/4, Ms5.0/1, Ms7 4.6/1*
*ISCJB **22** 04:57:43.5±0.2, 37°.77N±0°.01×20°.89E±0°.02, h10^{km}, mb4.7/58, MS3.7/10, Error ellipse: s-maj=2.3km s-min=1.5km az=32.6*
*PRU **22** 04:57:45.6, 37°.95N×20°.12E, h0^{km}, M4.6*
*CSEM **22** 04:57:45.3±0.2, 37°.65N×20°.84E, h20^{km}, mb4.7/32, Error ellipse: s-maj=4.7km s-min=2.7km az=42.0*
*NEIC **22** 04:57:46.7, 37°.76N×21°.05E, h24^{km}, mb4.6/32, ML4.4(ATH), ML4.6(PDG), ML5.0(THE), After ATH.*
*ATH **22** 04:57:46.7, 37°.76N×21°.05E, h24^{km}±1^{km}, MD4.2/37, ML4.4*
*THE **22** 04:57:46.3, 37°.74N×21°.04E, h2^{km}±1^{km}, ML5.0/5, Error ellipse: s-maj=1.7km s-min=0.8km az=224.0*
*PDG **22** 04:57:46.3±0.1, 37°.75N×20°.09E, h10^{km}±11^{km}, MD4.7/3, ML4.6/10, Error ellipse: s-maj=44.2km s-min=7.4km az=90.0*
*MOS **22** 04:57:48.5±1.2, 37°.88N×21°.01E, h54^{km}, mb4.8/18, Error ellipse: s-maj=4.6km s-min=2.4km az=89.1*
*IDC **22** 04:57:49.8±1.0, 37°.87N×21°.05E, h48^{km}±11^{km}, mb4.2/20, mb1 4.3/32, mb1mx4.2/39, mbtmp4.2/32, ML4.3/10, MS3.5/14, Ms1 3.5/14, ms1mx3.3/53, Error ellipse: s-maj=11.7km s-min=7.9km az=17.0*
*HLW **22** 04:57:54.3, 37°.73N×22°.38E, h33^{km}, Mb4.0*
*SKO **22** 04:57:57.2, 38°.58N×21°.20E, h0^{km}*
*UPP **22** 04:58:11.6, 38°.55N×21°.05E, h28^{km}*

ISC 22 04:57:45.4±0.2**, 37°.74N**±0°.01×**20°.94E**±0°.02**, h10**^{km}**, n656,** σ**1**^{s}**.37**/745**, mb4.7**/58**, MS3.7**/10**, 55C-25D, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	**Valsamata**	**0.52**	**327**	P	**Pg**	**04 57 57.3**	**+1.8**
VLS				S	**Sg**	**04 58 05.2**	**+2.8**
VLS	**Valsamata**	**0.52**	**327**	*e*PN	**Pg**	**04 57 57.5**	**+2.0**
VLS				*e*SN	**Sg**	**04 58 07.2**	**+4.8**
VLS	**Valsamata**	**0.52**	**327**	*e*Pn	**Pg**	**04 57 57.5**	**+2.0**
VLS				S	**Sg**	**04 58 05.2**	**+2.8**
VLS				*e*Sn	**Sg**	**04 58 07.2**	**+4.8**
RLS	**Riolos of Patr**	**0.52**	**52**	*e*PB	**Pg**	**04 57 55.7**	**+0.1**
RLS				*e*SB	**Sg**	**04 58 03.5**	**+1.1**
RLS	**Riolos of Patr**	**0.52**	**52**	*e*Pb	**Pg**	**04 57 55.7**	**+0.1**
RLS				*e*Sb	**Sg**	**04 58 03.5**	**+1.1**
LAKA	**Lakka**	**0.96**	**58**	P	**Pg**	**04 58 02.6**	**-1.3**
LAKA				S	**Sg**	**04 58 16.2**	**-0.1**
LAKA	**Lakka**	**0.96**	**58**	P	**Pg**	**04 58 02.6**	**-1.3**
LAKA				S	**Sg**	**04 58 16.2**	**-0.1**
ITM	**Ithomi**	**0.96**	**125**	*e*Pn	**Pg**	**04 58 04.0**	**+0.1**
ITM				*e*Sn	**Sg**	**04 58 17.1**	**+0.7**
EFP	**Efpalio**	**1.02**	**48**	*e*PB	**Pg**	**04 58 04.1**	**-1.0**
EFP				*e*SN	**Sg**	**04 58 18.4**	**0.0**
PYL	**PYLOS**	**1.06**	**143**	P	**Pg**	**04 58 05.3**	**-0.4**
PYL				S	**Sg**	**04 58 19.3**	**-0.2**
PYL	**PYLOS**	**1.06**	**143**	*e*PB	**Pg**	**04 58 05.8**	**+0.1**
PYL				*e*SN	**Sn**	**04 58 21.2**	**+0.2**
PYL	**PYLOS**	**1.06**	**143**	P	**Pg**	**04 58 05.3**	**-0.4**
PYL				S	**Sg**	**04 58 19.3**	**-0.2**
PYL				*e*Sn	**Sn**	**04 58 21.2**	**+0.2**
TRIZ	**Trizonia**	**1.09**	**55**	P	**Pg**	**04 58 04.8**	**-1.6**
TRIZ	**Trizonia**	**1.09**	**55**	P	**Pg**	**04 58 04.8**	**-1.6**
GUR	**Goura**	**1.12**	**80**	*e*PB	**Pg**	**04 58 05.9**	**-1.1**
KALE	**Kalithea**	**1.15**	**55**	P	**Pg**	**04 58 05.8**	**-1.7**
KALE	**Kalithea**	**1.15**	**55**	P	**Pg**	**04 58 05.8**	**-1.7**
VLX	**Vlachokerasia**	**1.20**	**108**	*e*PN	**Pn**	**04 58 09.1**	**+0.9**
VLX	**Vlachokerasia**	**1.20**	**108**	*e*Pn	**Pn**	**04 58 09.1**	**+0.9**
EVR	**Evrytania**	**1.36**	**30**	*e*PB	**Pn**	**04 58 10.0**	**-0.4**
LTK	**Loutraki**	**1.62**	**79**	P	**Pn**	**04 58 14.8**	**+0.7**
LTK				S	**Sn**	**04 58 35.6**	**+0.5**
LTK	**Loutraki**	**1.62**	**79**	*e*PN	**Pn**	**04 58 15.1**	**+1.0**
LTK	**Loutraki**	**1.62**	**79**	P	**Pn**	**04 58 14.8**	**+0.7**
LTK	**Loutraki**	**1.62**	**79**	*e*Pn	**Pn**	**04 58 15.1**	**+1.0**
LTK				S	**Sn**	**04 58 35.6**	**+0.5**
AGG	**Agios Georgios**	**1.68**	**40**	P	**Pn**	**04 58 15.6**	**+0.7**
AGG				S	**Sn**	**04 58 38.2**	**+1.7**
AGG	**Agios Georgios**	**1.68**	**40**	*e*PN	**Pn**	**04 58 16.8**	**+1.9**
AGG	**Agios Georgios**	**1.68**	**40**	P	**Pn**	**04 58 15.6**	**+0.7**
AGG	**Agios Georgios**	**1.68**	**40**	*e*Pn	**Pn**	**04 58 16.8**	**+1.9**
AGG				S	**Sn**	**04 58 38.2**	**+1.7**
DID	**Didima**	**1.83**	**97**	P	**Pn**	**04 58 17.8**	**+0.8**
DID	**Didima**	**1.83**	**97**	*e*PN	**Pn**	**04 58 18.2**	**+1.2**
DID	**Didima**	**1.83**	**97**	P	**Pn**	**04 58 17.8**	**+0.8**
DID	**Didima**	**1.83**	**97**	*e*Pn	**Pn**	**04 58 18.2**	**+1.2**
IGT	**Igoumenitsa**	**1.85**	**345**	P	**Pn**	**04 58 18.5**	**+1.3**
IGT				S	**Sn**	**04 58 43.2**	**+2.5**
IGT	**Igoumenitsa**	**1.85**	**345**	P	**Pn**	**04 58 18.5**	**+1.3**
IGT				S	**Sn**	**04 58 43.2**	**+2.5**
LKR	**Lokris**	**1.86**	**60**	P	**Pn**	**04 58 18.5**	**+1.2**
LKR				S	**Sn**	**04 58 42.0**	**+1.2**
LKR	**Lokris**	**1.86**	**60**	*e*PN	**Pn**	**04 58 18.8**	**+1.5**
LKR	**Lokris**	**1.86**	**60**	P	**Pn**	**04 58 18.5**	**+1.2**
LKR	**Lokris**	**1.86**	**60**	*e*Pn	**Pn**	**04 58 18.8**	**+1.5**
LKR				S	**Sn**	**04 58 42.0**	**+1.2**
VLI	**Veliai**	**1.89**	**122**	*e*PN	**Pn**	**04 58 20.2**	**+2.5**
VLI	**Veliai**	**1.89**	**122**	*e*Pn	**Pn**	**04 58 20.2**	**+2.5**
JAN	**Janina**	**1.92**	**358**	*e*PN	**Pn**	**04 58 20.3**	**+2.2**
JAN	**Janina**	**1.92**	**358**	*e*Pn	**Pn**	**04 58 20.3**	**+2.2**
THL	**Klokotos Trika**	**2.00**	**24**	P	**Pn**	**04 58 21.4**	**+2.1**
THL				S	**Sn**	**04 58 45.8**	**+1.3**
THL	**Klokotos Trika**	**2.00**	**24**	*e*PN	**Pn**	**04 58 20.9**	**+1.6**
THL	**Klokotos Trika**	**2.00**	**24**	*e*Pn	**Pn**	**04 58 20.9**	**+1.6**
THL	**Klokotos Trika**	**2.00**	**24**	P	**Pn**	**04 58 21.4**	**+2.1**
THL				S	**Sn**	**04 58 45.8**	**+1.3**
NAIG	**Nisos Aigina**	**2.02**	**89**	*e*PN	**Pn**	**04 58 20.6**	**+1.1**
NAIG	**Nisos Aigina**	**2.02**	**89**	*e*Pn	**Pn**	**04 58 20.6**	**+1.1**
MEV	**Metsovon**	**2.05**	**6**	P	**Pn**	**04 58 22.8**	**+2.8**
MEV	**Metsovon**	**2.05**	**6**	P	**Pn**	**04 58 22.8**	**+2.8**
KEK	**Kerkira**	**2.16**	**336**	*e*PN	**Pn**	**04 58 23.0**	**+1.5**
KEK	**Kerkira**	**2.16**	**336**	*e*Pn	**Pn**	**04 58 23.0**	**+1.5**
ATH	**Athens Observa**	**2.21**	**83**	*e*PB	**Pb**	**04 58 23.1**	**-2.3**
KYTH	**Kithira**	**2.22**	**130**	*e*PB	**Pb**	**04 58 24.7**	**-0.9**
ATHU	**Athens Univers**	**2.26**	**83**	P	**Pn**	**04 58 23.6**	**+0.8**
ATHU	**Athens Univers**	**2.26**	**83**	P	**Pn**	**04 58 23.6**	**+0.8**
VLY	**Voula,Athens**	**2.26**	**86**	*e*PN	**Pn**	**04 58 23.7**	**+0.9**
VLY	**Voula,Athens**	**2.26**	**86**	*e*Pn	**Pn**	**04 58 23.7**	**+0.9**
PTL	**Penteli**	**2.33**	**82**	*e*PB	**Pb**	**04 58 25.0**	**-2.5**
XOR	**Xorichti**	**2.40**	**47**	P	**Pn**	**04 58 25.6**	**+0.9**
XOR	**Xorichti**	**2.40**	**47**	P	**Pn**	**04 58 25.7**	**+1.0**
XOR	**Xorichti**	**2.40**	**47**	P	**Pn**	**04 58 25.6**	**+0.9**
KZN	**Kozani**	**2.64**	**14**	*e*PN	**Pn**	**04 58 30.0**	**+1.9**
KZN	**Kozani**	**2.64**	**14**	*e*Pn	**Pn**	**04 58 30.0**	**+1.9**
LIT	**Litokhoron**	**2.65**	**27**	P	**Pn**	**04 58 29.2**	**+1.0**
LIT				S	**Sn**	**04 59 02.6**	**+2.3**
LIT	**Litokhoron**	**2.65**	**27**	P	**Pn**	**04 58 29.2**	**+1.0**
LIT				S	**Sn**	**04 59 02.6**	**+2.3**
AOS	**Alonnisos**	**2.71**	**57**	P	**Pn**	**04 58 29.9**	**+0.9**
AOS	**Alonnisos**	**2.71**	**57**	P	**Pn**	**04 58 29.9**	**+0.9**
PAIG	**Paliouri**	**3.06**	**44**	P	**Pn**	**04 58 34.1**	**+0.3**
PAIG	**Paliouri**	**3.06**	**44**	P	**Pn**	**04 58 34.1**	**+0.3**
FNA	**Florina**	**3.06**	**6**	P	**Pn**	**04 58 35.5**	**+1.7**
FNA	**Florina**	**3.06**	**6**	P	**Pn**	**04 58 35.5**	**+1.7**
PLG	**Polygyros**	**3.27**	**36**	P	**Pn**	**04 58 37.3**	**+0.6**
PLG	**Polygyros**	**3.27**	**36**	*e*PN	**Pn**	**04 58 37.7**	**+1.0**
PLG	**Polygyros**	**3.27**	**36**	P	**Pn**	**04 58 37.3**	**+0.6**

PLG	Polygyros	3.27	36	*e*Pn	Pn	04 58 37.7	+1.0
THE	Thessaloniki	3.29	28	P	Pn	04 58 37.8	+0.8
THE	Thessaloniki	3.29	28	P	Pn	04 58 37.8	+0.8
BIA	Bitola	3.29	5	P	Pn	04 58 38.0	+1.0
BIA	Bitola	3.29	5	*e*Pn	Pn	04 58 38.7	+1.7
BIA	Bitola	3.29	5	P	Pn	04 58 38.0	+1.0
BIA	Bitola	3.29	5	*e*Pn	Pn	04 58 38.6	+1.6
HORT	Hortiatis	3.31	30	P	Pn	04 58 38.1	+0.8
HORT	Hortiatis	3.31	30	P	Pn	04 58 38.1	+0.8
KARN	Karanos	3.34	133	P	Pn	04 58 38.6	+0.9
KARN	Karanos	3.34	133	P	Pn	04 58 38.6	+0.9
OHR	Ohrid	3.37	358	*e*Pn	Pn	04 58 39.7	+1.7
OHR	Ohrid	3.37	358	*e*Pn	Pn	04 58 39.7	+1.6
GRG	Griva	3.41	19	P	Pn	04 58 39.5	+0.9
GRG	Griva	3.41	19	P	Pn	04 58 39.5	+0.9
VAM	Vamos	3.51	131	*e*PN	Pn	04 58 41.0	+1.0
VAM	Vamos	3.51	131	*e*Pn	Pn	04 58 41.0	+1.0
OUR	Ouranopolis	3.51	41	P	Pn	04 58 40.9	+0.9
OUR	Ouranopolis	3.51	41	P	Pn	04 58 40.9	+0.9
TIP	Timpagrande	3.59	295	*e*Pn	Pn	04 58 41.9	+0.9
TIP	Timpagrande	3.59	295	*e*Pn	Pn	04 58 41.9	+0.8
SOH	Sokhos	3.60	31	P	Pn	04 58 42.4	+1.1
SOH	Sokhos	3.60	31	*e*PN	Pn	04 58 43.0	+1.7
SOH	Sokhos	3.60	31	P	Pn	04 58 42.4	+1.1
SOH	Sokhos	3.60	31	*e*Pn	Pn	04 58 43.0	+1.7
KRUS	Krusevo	3.63	4	*e*Pn	Pn	04 58 42.7	+1.0
TIR	Tirane	3.70	347	P	Pn	04 58 44.0	+1.4
TIR	Tirane	3.70	347	*e*PN	Pn	04 58 44.1	+1.5
TIR	Tirane	3.70	347	*e*Pn	Pn	04 58 44.1	+1.5
KNT	Kendrikon	3.74	23	P	Pn	04 58 44.3	+1.2
VAY	Valandovo	3.79	19	*e*Pn	Pn	04 58 44.5	+0.6
VAY	Valandovo	3.79	19	P	Pn	04 58 44.3	+0.4
SOI	Samo	3.88	276	P	Pn	04 58 47.4	+2.3
SOI	Samo	3.88	276	Pn	Pn	04 58 47.4	+2.3
LOS	Limnos	3.90	55	P	Pn	04 58 45.9	+0.5
LOS	Limnos	3.90	55	P	Pn	04 58 45.9	+0.5
SRS	Serrai	3.95	30	P	Pn	04 58 47.0	+1.0
LIA	Limnos Island	3.95	56	*e*PN	Pn	04 58 46.6	+0.5
LIA	Limnos Island	3.95	56	*e*Pn	Pn	04 58 46.6	+0.5
TAR1	Taranto	3.98	315	*e*Sn	Sn	04 59 33.5	+0.3
IDI	Anoyia	4.01	126	*e*PN	Pn	04 58 49.5	+2.6
IDI	Anoyia	4.01	126	P	Pn	04 58 47.7	+0.8
	3.1nm,0.3s,baz=291,slow=16,SNR=33						
IDI				S	Sn	04 59 35.9	+1.9
	44nm,0.3s,baz=355,slow=18,SNR=10						
IDI				LR	LR	05 00 50.7	
	comp=Z,184nm,19.0s,baz=298,slow=45						
CEL	Celeste	4.02	279	*e*Pn	Pn	04 58 47.9	+0.8
CEL				*e*Sn	Sn	04 59 36.3	+2.1
CEL	Celeste	4.02	279	*e*Pn	Pn	04 58 47.8	+0.7
CHOS	Chios island	4.08	79	P	Pn	04 58 48.9	+1.0
CHOS	Chios island	4.08	79	P	Pn	04 58 48.9	+1.0
PE1	Pezze di Greco	4.10	319	*e*Sn	Sn	04 59 37.6	+1.4
SIGR	SIGRI	4.12	68	P	Pn	04 58 49.4	+0.9
SIGR	SIGRI	4.12	68	P	Pn	04 58 49.4	+0.9
SIVA	Sivas	4.14	130	P	Pn	04 58 49.1	+0.5
SIVA	Sivas	4.14	130	P	Pn	04 58 49.1	+0.5
SKO	Skopje	4.24	5	P	Pn	04 58 51.6	+1.5
SKO	Skopje	4.24	5	*e*Pn	Pn	04 58 51.7	+1.6
SKO	Skopje	4.24	5	*e*Pn	Pn	04 58 51.6	+1.5
NVR	Nevrokopi	4.25	31	*e*PN	Pn	04 58 51.3	+1.1
NVR	Nevrokopi	4.25	31	*e*Pn	Pn	04 58 51.3	+1.1
MMB	Musomiste	4.40	28	P	Pn	04 58 53.1	+0.8
ULC	Ulcinj	4.42	343	⇑*i*Pn	Pn	04 58 52.6	+0.2
ULC				*e*Sn	Sn	04 59 42.7	-1.2
ULC	Ulcinj	4.42	343	⇑*i*Pn	Pn	04 58 52.6	+0.2
ULC				*e*Sn	Sn	04 59 42.7	-1.2
KKB	Krupnik	4.44	21	P	Pn	04 58 54.0	+1.2
KKB				S	Sn	04 59 42.4	-2.1
PRK	Paraskevi	4.44	69	*e*PN	Pn	04 58 53.5	+0.7
PRK	Paraskevi	4.44	69	*e*Pn	Pn	04 58 53.5	+0.7
LAST	Lasithi	4.47	124	P	Pn	04 58 53.2	0.0
LAST	Lasithi	4.47	124	P	Pn	04 58 53.2	0.0
NPS	Neapolis	4.50	122	*e*PN	Pn	04 58 56.5	+2.9
SG1	Sgolgore (BA)	4.53	314	*e*Pn	Pn	04 58 55.4	+1.4
SG1				*e*Sn	Sn	04 59 47.2	+0.5
GADA	Gvkgeada	4.57	56	*e*PN	Pn	04 58 54.6	0.0
GADA	Gvkgeada	4.57	56	*e*Pn	Pn	04 58 54.6	0.0
CUC	Castrocucco	4.59	301	*e*Pn	Pn	04 58 57.4	+2.5
CUC	Castrocucco	4.59	301	*e*Pn	Pn	04 58 57.3	+2.4
BAI	Bari	4.61	318	*e*Pn	Pn	04 58 56.6	+1.5
BAI				*e*Sn	Sn	04 59 49.6	+1.0
SMG	Samos	4.67	89	*e*PN	Pn	04 58 56.8	+0.8
SMG	Samos	4.67	89	*e*Pn	Pn	04 58 56.8	+0.8
EZN	Ezine	4.69	62	*e*PN	Pn	04 58 55.8	-0.5
EZN	Ezine	4.69	62	*e*Pn	Pn	04 58 55.8	-0.5
BUM	Brajici-Budva	4.82	342	⇑*i*Pn	Pn	04 58 57.8	-0.2
BUM				*e*Sn	Sn	04 59 52.0	-1.8
BUM	Brajici-Budva	4.82	342	⇑*i*Pn	Pn	04 58 57.8	-0.2
BUM				*e*Sn	Sn	04 59 52.0	-1.8
BLCB	Balcova	4.86	81	*e*PN	Pn	04 58 59.1	+0.6
BLCB	Balcova	4.86	81	*e*Pn	Pn	04 58 59.1	+0.6
PDG	Podgorica	4.86	345	⇑*i*Pn	Pn	04 58 58.7	+0.2
PDG				*e*Sn	Sn	04 59 53.8	-1.0
TTG	Podgorica	4.86	345	⇑*i*Pn	Pn	04 58 58.7	+0.2
TTG				*e*Sn	Sn	04 59 53.8	-1.0
TTG	Podgorica	4.86	345	⇑*i*Pn	Pn	04 58 58.7	+0.2
TTG				*e*Sn	Sn	04 59 53.8	-1.0
RZN	Rozhen	4.90	35	P	Pn	04 59 00.7	+1.6
PVY	Plav	4.91	352	⇑*i*Pn	Pn	04 59 00.6	+1.4
PVY				*e*Sn	Sn	04 59 56.9	+0.9
PVY	Plav	4.91	352	⇑*i*Pn	Pn	04 59 00.6	+1.4
PVY				*e*Sn	Sn	04 59 56.9	+0.9
RDO	Rodhopi	4.92	45	*e*PN	Pn	04 58 59.7	+0.3
RDO	Rodhopi	4.92	45	*e*Pn	Pn	04 58 59.7	+0.3
IZM	Izmir	5.03	81	*e*PN	Pn	04 59 02.0	+1.1
ENEZ	Enez	5.03	52	*e*PN	Pn	04 59 00.0	-0.9
ENEZ	Enez	5.03	52	*e*Pn	Pn	04 59 00.0	-0.9
ALN	Alexandroupoli	5.06	50	P	Pn	04 59 01.4	+0.1
ALN	Alexandroupoli	5.06	50	*e*PN	Pn	04 59 01.5	+0.2
ALN	Alexandroupoli	5.06	50	*e*Pn	Pn	04 59 01.5	+0.2
HCY	Herceg Novi	5.06	339	⇑*i*Pn	Pn	04 59 00.6	-0.7
HCY				*e*Sn	Sn	04 59 56.9	-2.9
HCY	Herceg Novi	5.06	339	⇑*i*Pn	Pn	04 59 00.6	-0.7
HCY				*e*Sn	Sn	04 59 56.9	-2.9
BARS	Barje	5.11	7	⇑*i*Pn	Pn	04 59 02.6	+0.6
BODT	Bodrum	5.11	96	*e*PN	Pn	04 59 03.5	+1.5
BODT	Bodrum	5.11	96	*e*Pn	Pn	04 59 03.5	+1.4
VTS	Vitosha	5.15	19	P	Pn	04 59 04.0	+1.5
VTS	Vitosha	5.15	19	*e*PN	Pn	04 59 04.3	+1.8
VTS	Vitosha	5.15	19	P	Pn	04 59 03.9	+1.4
VTS	Vitosha	5.15	19	*e*Pn	Pn	04 59 04.3	+1.8
BEY	Berane	5.19	351	⇑*i*Pn	Pn	04 59 04.4	+1.3
BEY				*e*Sn	Sn	05 00 03.4	+0.5
IVA	Berane	5.19	351	⇑*i*Pn	Pn	04 59 04.4	+1.3
IVA				*e*Sn	Sn	05 00 03.4	+0.5
IVA	Berane	5.19	351	⇑*i*Pn	Pn	04 59 04.4	+1.3
IVA				*e*Sn	Sn	05 00 03.4	+0.5
VAE	Valguarnera	5.19	269	P	Pn	04 59 08.7	+5.6
	1.5nm,0.3s,baz=132,slow=23,SNR=4.7						
VAE				S	Sn	05 00 06.9	+3.8
	5.6nm,0.3s,baz=101,slow=19,SNR=4.2						
KDZ	Kurdzhali	5.21	40	P	Pn	04 59 03.3	-0.1
PLD	Plovdiv	5.23	32	P	Pn	04 59 04.0	+0.4
PLD	Plovdiv	5.23	32	P	Pn	04 59 04.9	+1.3
PLD	Plovdiv	5.23	32	P	Pn	04 59 04.0	+0.4
LPK	Lapseki	5.23	58	*e*PN	Pn	04 59 04.0	+0.3
LPK	Lapseki	5.23	58	*e*Pn	Pn	04 59 04.0	+0.3
NKY	Niksic	5.28	344	⇑*i*Pn	Pn	04 59 04.3	0.0
NKY				*e*Sn	Sn	05 00 03.7	-1.5
NKY	Niksic	5.28	344	⇑*i*Pn	Pn	04 59 04.3	0.0
NKY				*e*Sn	Sn	05 00 03.7	-1.5
DAT	Datca	5.39	99	*e*PN	Pn	04 59 09.6	+3.8
PGB	Panagyurishte	5.40	26	P	Pn	04 59 06.5	+0.5
KARP	Karpathos	5.46	112	*e*PN	Pn	04 59 07.3	+0.5
KARP	Karpathos	5.46	112	*e*Pn	Pn	04 59 07.3	+0.5
BRY	Bratogost	5.47	341	⇑*i*Pn	Pn	04 59 06.4	-0.6
BRY				*e*Sn	Sn	05 00 07.5	-2.4
BRY	Bratogost	5.47	341	⇑*i*Pn	Pn	04 59 06.4	-0.6
BRY				*e*Sn	Sn	05 00 07.5	-2.4
WDD	Wield Dalam	5.48	252	*e*Pn	Pn	04 59 08.5	+1.4
	238nm,0.6s						
WDD				*e*Sn	Sn	05 00 09.7	-0.5
WDD	Wield Dalam	5.48	252	*e*Pn	Pn	04 59 08.5	+1.4
	238nm,0.6s						
WDD				*e*Sn	Sn	05 00 09.7	-0.5
AKS	Akhisar	5.52	76	*e*PN	Pn	04 59 08.2	+0.6
AKS	Akhisar	5.52	76	*e*Pn	Pn	04 59 08.2	+0.6
DIM	Dimitrovgrad	5.56	38	P	Pn	04 59 09.5	+1.2
UPM	Unac-Piva	5.67	345	⇑*i*Pn	Pn	04 59 10.0	+0.3
UPM				*e*Sn	Sn	05 00 13.1	-1.8
UPM	Unac-Piva	5.67	345	⇑*i*Pn	Pn	04 59 10.0	+0.3
UPM				*e*Sn	Sn	05 00 13.1	-1.8
STON	Ston	5.69	335	⇑*i*Pn	Pn	04 59 09.5	-0.5
STON				Sn	Sn	05 00 12.4	-3.0
STON	Ston	5.69	335	⇑*i*Pn	Pn	04 59 09.5	-0.5
STON				Sn	Sn	05 00 12.4	-3.0
PLE	Pljevlja	5.71	349	⇑*i*Pn	Pn	04 59 11.0	+0.8
PLE				*e*Sn	Sn	05 00 15.0	-0.7
PLE	Pljevlja	5.71	349	⇑*i*Pn	Pn	04 59 11.0	+0.8
PLE				*e*Sn	Sn	05 00 15.0	-0.7
NISS		5.71	7	*i* Pn	Pn	04 59 10.4	+0.2
BALB	Balikesir	5.75	69	*e*PN	Pn	04 59 10.3	-0.5
BALB	Balikesir	5.75	69	*e*Pn	Pn	04 59 10.3	-0.5
YER	Yerkesik	5.87	94	*e*PN	Pn	04 59 15.2	+2.7
YER	Yerkesik	5.87	94	*e*Pn	Pn	04 59 15.2	+2.7
PSB1	Pescosannita	5.88	308	Pn	Pn	04 59 16.2	+3.6
	81nm,0.6s						
ARG	Arkhangelos	5.95	103	*e*PN	Pn	04 59 16.4	+2.9
ARG	Arkhangelos	5.95	103	*e*Pn	Pn	04 59 16.4	+2.9
EDC	Edincik	5.98	62	*e*PN	Pn	04 59 14.7	+0.8
EDC	Edincik	5.98	62	*e*Pn	Pn	04 59 14.7	+0.7
BNT	Bandirma	6.03	62	*e*PN	Pn	04 59 15.4	+0.8
EDRB	Edirne	6.06	46	*e*PN	Pn	04 59 15.1	0.0
EDRB	Edirne	6.06	46	*e*Pn	Pn	04 59 15.1	0.0
BOLS	Boljevac	6.13	7	⇑*i*Pn	Pn	04 59 15.3	-0.7
KULA	Kula-Manisa	6.13	80	*e*PN	Pn	04 59 17.2	+1.2
KULA	Kula-Manisa	6.13	80	*e*Pn	Pn	04 59 17.2	+1.1
GRUS	Gruza	6.14	358	⇑*i*Pn	Pn	04 59 15.5	-0.7
LTBQ	Tobruq	6.18	156	*i* P	Pn	04 59 17.1	+0.4
	SNR=23						
LTBQ				*e*S	Sn	05 00 22.3	-5.0
	SNR=23						
DALT	Dalyan (Mudla)	6.21	97	*e*PN	Pn	04 59 20.7	+3.5
DIVS	Divibare	6.39	354	⇑*i*Pn	Pn	04 59 19.1	-0.5
JMB	Yambol	6.40	41	P	Pn	04 59 20.3	+0.6
JMB	Yambol	6.40	41	P	Pn	04 59 20.0	+0.3
JMB	Yambol	6.40	41	P	Pn	04 59 20.3	+0.6
MIDA	Miranda	6.46	309	Pn	Pn	04 59 23.8	+3.2
TRUS	Trudelj	6.49	357	⇑*i*Pn	Pn	04 59 19.6	-1.3
SLVT	Silivri	6.61	56	*e*PN	Pn	04 59 22.8	+0.2
SLVT	Silivri	6.61	56	*e*Pn	Pn	04 59 22.8	+0.2
SZH	Strazhica	6.70	33	P	Pn	04 59 25.1	+1.3
CTYL	Yal??k??y-??at	6.79	54	*e*PN	Pn	04 59 25.2	+0.2
CTYL	Yal??k??y-??at	6.79	54	*e*Pn	Pn	04 59 25.3	+0.3
VVLD	Villa Vallelon	6.98	308	Pn	Pn	04 59 33.0	+5.3
BEO	Beograd	7.07	357	⇑*i*Pn	Pn	04 59 27.9	-1.0
ELL	Elmali	7.22	95	*e*PN	Pn	04 59 34.6	+3.6
ALT	Altintas	7.32	77	*e*PN	Pn	04 59 34.5	+2.1
ALT	Altintas	7.32	77	*e*Pn	Pn	04 59 34.5	+2.2
NEF	NEVSHA	7.33	39	P	Pn	04 59 33.1	+0.7
PRD	Provadia	7.34	40	P	Pn	04 59 32.9	+0.2
CAVI	Cavuskoy	7.36	68	*e*PN	Pn	04 59 33.4	+0.5
CAVI	Cavuskoy	7.36	68	*e*Pn	Pn	04 59 33.4	+0.6
AQU	L'Aquila	7.39	311	P	Pn	04 59 41.4	+8.0
AQU				pmax	pmax		
	comp=Z,160nm,1.0s						
AQU	L'Aquila	7.39	311	Pn	Pn	04 59 41.4	+8.0
	comp=Z,160nm,1.0s						
SILT	Sile	7.54	60	*e*PN	Pn	04 59 36.0	+0.5
SILT	Sile	7.54	60	*e*Pn	Pn	04 59 36.0	+0.6
SHUT	Suhut-Afyon	7.62	81	*e*PN	Pn	04 59 38.2	+1.9
SHUT	Suhut-Afyon	7.62	81	*e*Pn	Pn	04 59 38.3	+1.9
GZR	Gura Zlata	7.77	10	⇓*i*P	Pn	04 59 38.8	+0.3
GZR	Gura Zlata	7.77	10	P	Pn	04 59 39.1	+0.6
GZR	Gura Zlata	7.77	10	P	Pn	04 59 39.1	+0.6
NRCA	Norcia	7.85	313	Pn	Pn	04 59 42.3	+2.7
BZS	Buzias	7.89	3	⇑*i*P	Pn	04 59 39.5	-0.6
BZS	Buzias	7.89	3	⇑P	Pn	04 59 39.5	-0.6
BZS	Buzias	7.89	3	P	Pn	04 59 39.5	-0.6
PSN	Preselentsi	8.09	41	P	Pn	04 59 43.3	+0.4
NVLJ	Novalja	8.21	328	*e*Pn	Pn	04 59 44.9	+0.4
NVLJ				Sn	Sn	05 01 13.8	-3.6
NVLJ	Novalja	8.21	328	*e*Pn	Pn	04 59 44.9	+0.4
NVLJ				Sn	Sn	05 01 13.8	-3.5
VOIR		8.28	20	⇓*i*P	Pn	04 59 47.2	+1.7
VOIR		8.28	20	P	Pn	04 59 46.8	+1.3
VOIR		8.28	20	P	Pn	04 59 46.8	+1.3
RHK3	Tenkes	8.39	347	⇓*e*P	Pn	04 59 45.7	-1.2
MDU	Mudurnu	8.44	68	*e*PN	Pn	04 59 49.4	+1.7
MDU	Mudurnu	8.44	68	*e*Pn	Pn	04 59 49.4	+1.7
MLR	Muntele Rosu	8.60	24	⇓*i*P	Pn	04 59 52.3	+2.4
MLR	Muntele Rosu	8.60	24	P	Pn	04 59 51.1	+1.3
	comp=Z,1.2nm,0.3s,baz=237,slow=12,SNR=16						
MLR	Muntele Rosu	8.60	24	P	Pn	04 59 52.4	+2.5
MLR	Muntele Rosu	8.60	24	P	Pn	04 59 52.4	+2.5
PKSM	Moragy	8.64	349	⇑*i*P	Pn	04 59 49.1	-1.3
PKSM	Moragy	8.64	349	P	Pn	04 59 49.0	-1.4
PKSM	Moragy	8.64	349	P	Pn	04 59 49.1	-1.3
HARR	Harsova	8.71	35	⇑*i*P	Pn	04 59 52.0	+0.6
HARR	Harsova	8.71	35	P	Pn	04 59 52.8	+1.4
HARR	Harsova	8.71	35	P	Pn	04 59 52.8	+1.4
TIRR	Tirgusor	8.76	38	⇑*i*P	Pn	04 59 52.7	+0.6
TIRR	Tirgusor	8.76	38	P	Pn	04 59 52.6	+0.5
TIRR	Tirgusor	8.76	38	P	Pn	04 59 53.0	+0.9
TIRR	Tirgusor	8.76	38	P	Pn	04 59 53.0	+0.9
BOJS	Bojanci	8.85	333	*i* Pn	Pn	04 59 53.2	-0.1
BOJS				*i* Sn	Sn	05 01 29.5	-3.5
BOJS	Bojanci	8.85	333	*i* Pn	Pn	04 59 53.2	-0.1
BOJS				*i* Sn	Sn	05 01 29.5	-3.5
KONT	Konya--Tatoy	9.04	85	*e*PN	Pn	04 59 58.7	+2.8
KONT	Konya--Tatoy	9.04	85	*e*Pn	Pn	04 59 58.7	+2.8
PKS9	Tamasi	9.06	348	⇓*e*P	Pn	04 59 55.3	-0.9
DRGR		9.14	8	⇓*i*P	Pn	04 59 57.6	+0.3
DRGR		9.14	8	P	Pn	04 59 57.7	+0.4
DRGR		9.14	8	P	Pn	04 59 57.7	+0.4
PLOR	Plostina	9.15	26	P	Pn	04 59 59.8	+2.3
PLOR	Plostina	9.15	26	⇑*i*P	Pn	05 00 00.5	+3.0
PLOR	Plostina	9.15	26	P	Pn	04 59 59.8	+2.3
VRI	Vrincioaia	9.19	26	⇑*i*P	Pn	05 00 00.2	+2.2
VRI	Vrincioaia	9.19	26	P	Pn	05 00 00.1	+2.1
VRI	Vrincioaia	9.19	26	P	Pn	05 00 00.1	+2.1
HDMB	Hadim	9.22	91	*e*PN	Pn	04 59 58.9	+0.4
HDMB	Hadim	9.22	91	*e*Pn	Pn	04 59 58.9	+0.4
VISS	Visnje	9.25	332	*i* Pn	Pn	04 59 58.8	-0.1
VISS				*i* Sn	Sn	05 01 38.2	-4.7
VISS	Visnje	9.25	332	*i* Pn	Pn	04 59 58.8	-0.1
SWA2		9.27	155	⇓P	Pn	05 00 00.6	+1.5
SWA2				S	Sn	05 01 33.0	-11
TLCR		9.49	36	⇑*i*P	Pn	05 00 03.3	+1.1
TLCR		9.49	36	P	Pn	05 00 03.3	+1.1
KEST	Kesra	9.52	261	P	Pn	05 00 05.5	+2.9
	comp=Z,0.1nm,0.3s,baz=351,slow=4.0,SNR=7.0						
KEST				S	Sn	05 01 49.6	-0.1
	comp=Z,0.1nm,0.3s,baz=66,slow=21,SNR=2.3						
KEST				LR	LR	05 04 05.8	
	comp=Z,53nm,20.3s,baz=62,slow=39						
TRI	Trieste	9.60	328	*e*P	Pn	05 00 02.9	-0.7
TRI				*e*		05 01 42.1	
TRI				pmax	pmax		
	comp=Z,16nm,0.5s						
TRI	Trieste	9.60	328	*e*Pn	Pn	05 00 02.9	-0.6
	comp=Z,16nm,0.5s						
TRI				*e*Sn	Sn	05 01 42.1	-9.3
TRI	Trieste	9.60	328	*e*Pn	Pn	05 00 02.9	-0.7
	comp=Z,16nm,0.5s						
LJFR	Jufra	9.62	208	*i* P	Pn	05 00 02.3	-1.6
	comp=Z,33nm,1.3s,SNR=22						
JAVS	Javornik	9.63	330	*i* Pn	Pn	05 00 03.4	-0.5
JAVS				*i* Sn	Sn	05 01 47.0	-5.1
JAVS	Javornik	9.63	330	*i* Pn	Pn	05 00 03.4	-0.5
VOY	Vojsko	9.81	330	*e*Pn	Pn	05 00 05.9	-0.5
VOY				*e*Sn	Sn	05 01 52.0	-4.5
VOY	Vojsko	9.81	330	*e*Pn	Pn	05 00 05.9	-0.5
PKSG		9.83	350	⇓*e*P	Pn	05 00 06.9	+0.2
PERS	Pernice	9.88	336	*i* Pn	Pn	05 00 06.6	-0.9
PERS				*i* Sn	Sn	05 01 50.6	-7.8
PERS	Pernice	9.88	336	*i* Pn	Pn	05 00 06.6	-0.8
SOKA	Soboth	9.95	336	⇑*i*Pn	Pn	05 00 07.2	-1.1
SOKA				⇑*i*Sn	Sn	05 01 53.3	-6.6
OBKA	Obir	9.96	334	⇓*i*Pn	Pn	05 00 07.8	-0.7
	SNR=11						
OBKA				⇑*i*Sn	Sn	05 01 54.7	-5.7
BRTR	Keskin Array B	10.12	75	P	Pn	05 00 12.7	+2.0
	comp=Z,1.0nm,0.3s,baz=260,slow=13,SNR=32						
BRTR				S	Sn	05 02 02.9	-1.2
	comp=Z,0.0nm,0.3s,baz=172,slow=12,SNR=1.9						
BRTR	Keskin Array B	10.12	75	P	Pn	05 00 12.7	+2.0
BRTR				S	Sn	05 02 02.9	-1.3
PSZ	Piszkesteto	10.20	356	⇓*i*P	Pn	05 00 11.6	-0.2
PSZ	Piszkesteto	10.20	356	⇑*e*P	Pn	05 00 11.7	-0.1
PSZ	Piszkesteto	10.20	356	*e*Pn	Pn	05 00 11.1	-0.7
PSZ				*e*Sn	Sn	05 02 01.5	-4.7
PSZ	Piszkesteto	10.20	356	*e*Pn	Pn	05 00 11.1	-0.7
ARSA	Arzberg	10.31	339	⇓*i*Pn	Pn	05 00 11.9	-1.4
	SNR=8.0						
ARSA				⇑*i*Sn	Sn	05 02 07.7	-1.2
PGF	Pioggiola	10.33	301	*e*P	Pn	05 00 14.5	+1.0
	comp=Z,31nm,1.2s						
PGF	Pioggiola	10.33	301	*e*P	Pn	05 00 14.5	+1.0
PGF				pmax	pmax		
	comp=Z,15nm,1.2s						
PGF	Pioggiola	10.33	301	*e*P	Pn	05 00 14.5	+1.0
	comp=Z,15nm,1.2s						
PGF	Pioggiola	10.33	301	*e*P	Pn	05 00 14.5	+1.0
	comp=Z,15nm,1.2s						
BURAR	Bucovina Array	10.36	16	⇓*i*P	Pn	05 00 15.4	+1.5
BURAR	Bucovina Array	10.36	16	P	Pn	05 00 15.6	+1.7
BURAR	Bucovina Array	10.36	16	P	Pn	05 00 15.6	+1.7
BUR08	Bucovina Ar. S	10.38	16	*e*Pn	Pn	05 00 15.3	+1.0
BUR08	Bucovina Ar. S	10.38	16	*e*Pn	Pn	05 00 15.3	+1.0
SOP	Sopron	10.45	343	*e*P	Pn	05 00 16.0	+0.8
SOP	Sopron	10.45	343	*e*P	Pn	05 00 16.0	+0.8
KECS	Kecovo	10.74	358	*e*PN	Pn	05 00 19.1	-0.1
KECS				*e*SN	Sn	05 02 13.0	-6.5
KECS	Kecovo	10.74	358	*e*Pn	Pn	05 00 19.1	-0.1
VYHS	Vyhne	10.86	353	*e*PN	Pn	05 00 20.0	-0.8
VYHS				*e*SN	Sn	05 02 13.3	-9.0
VYHS	Vyhne	10.86	353	*e*Pn	Pn	05 00 20.0	-0.8
KBA	Koelnbreinsper	10.89	331	⇑*i*Pn	Pn	05 00 20.9	-0.2
	SNR=12						
KBA				⇑*i*Sn	Sn	05 02 22.3	-0.6
ABTA	Abfaltersbach	10.95	328	⇓*i*Pn	Pn	05 00 21.4	-0.7
	SNR=8.6						
ABTA				⇑*i*Sn	Sn	05 02 20.9	-3.7
MODS	Modra-Piesok	10.96	347	*e*PN	Pn	05 00 19.9	-2.3
MODS				*e*SN	Sn	05 02 15.3	-9.5
MODS	Modra-Piesok	10.96	347	*e*Pn	Pn	05 00 19.9	-2.3
KOLL	Kolacno	10.99	351	*e*SN	Sn	05 02 18.6	-6.9
CRVS	Cervenica-Dubn	11.16	2	*e*PN	Pn	05 00 25.2	+0.2
CRVS	Cervenica-Dubn	11.16	2	*e*Pn	Pn	05 00 25.2	+0.2
MOA	Molln	11.23	336	⇑*i*Pn	Pn	05 00 25.2	-0.6
	SNR=8.3						
MOA				⇓*i*Sn	Sn	05 02 25.7	-5.6
KOLS	Kolonicke sedl	11.23	5	*e*PN	Pn	05 00 26.7	+0.8
KOLS	Kolonicke sedl	11.23	5	*e*Pn	Pn	05 00 26.7	+0.8
APPI	Appiano	11.32	324	Pn	Pn	05 00 28.6	+1.5
APPI	Appiano	11.32	324	Pn	Pn	05 00 28.6	+1.5
HMYD	Mayadein	11.40	131	⇓P	Pn	05 00 25.0	-3.3
HMYD	Mayadein	11.40	131	P	Pn	05 00 25.0	-3.3
AWBH		11.52	142	⇓P	Pn	05 00 28.6	-1.3
AWBH		11.52	142	P	Pn	05 00 28.6	-1.4
RJOB	Jochberg	11.64	332	*e*P	Pn	05 00 27.9	-3.6
STHS	Stebnicka Huta	11.67	1	*e*PN	Pn	05 00 32.5	+0.5
STHS	Stebnicka Huta	11.67	1	*e*Pn	Pn	05 00 32.5	+0.5
NIE	Niedzica	11.68	358	*e*P	Pn	05 00 32.8	+0.7
NIE	Niedzica	11.68	358	*e*P	Pn	05 00 32.8	+0.7
WTTA	Wattenberg	11.73	327	⇑*i*Pn	Pn	05 00 31.9	-0.8
	SNR=8.2						
WTTA				⇑*i*Sn	Sn	05 02 38.0	-5.6
WATA	Walderalm	11.81	327	⇑*i*Pn	Pn	05 00 33.3	-0.5
	SNR=8.2						
WATA				⇑*i*Sn	Sn	05 02 44.9	-0.7
SBF	Sospel	11.92	305	*e*P	Pn	05 00 34.6	-0.7
SBF	Sospel	11.92	305	*e*P	Pn	05 00 34.6	-0.7
KOT	Kottamia	11.94	128	⇓P	Pn	05 00 31.6	-4.0
KOT				S	Sn	05 02 26.3	-23
KOT	Kottamia	11.94	128	P	Pn	05 00 31.6	-4.0
KOT				S	Sn	05 02 26.3	-23
HSAF	As Saff	11.98	129	⇓P	Pn	05 00 33.0	-3.3
HSAF	As Saff	11.98	129	P	Pn	05 00 33.0	-3.2
VRAC	Vranov	11.98	346	P	Pn	05 00 35.4	-0.8
	comp=Z,0.8nm,0.3s,baz=199,slow=11,SNR=4.4						
VRAC	Vranov	11.98	346	P	Pn	05 00 35.4	-0.8
MOTA	Moosalm	12.02	326	⇑*i*Pn	Pn	05 00 36.8	+0.1
	SNR=7.3						
MOTA				⇑*i*Sn	Sn	05 02 49.5	-1.2
HHAG	Hagoal	12.09	127	⇓P	Pn	05 00 33.0	-4.7
HHAG	Hagoal	12.09	127	P	Pn	05 00 33.0	-4.7
GLL	Jalalah	12.10	129	⇓P	Pn	05 00 34.0	-4.0
GLL	Jalalah	12.10	129	P	Pn	05 00 34.0	-3.9
DAVOX	Davos/Dischmat	12.19	321	P	Pn	05 00 40.9	+1.9
	comp=Z,0.7nm,0.3s,baz=179,slow=9.7,SNR=11						
DAVOX				S	Sn	05 02 50.5	-4.4
	comp=Z,1.5nm,0.3s,baz=287,slow=21,SNR=8.1						
DAVOX				LR	LR	05 05 40.5	
	comp=Z,76nm,20.4s,baz=309,slow=39						
TUE	Stuetta	12.25	319	*e*Pn	Pn	05 00 40.9	+1.1
	comp=Z,11nm,0.8s						
TUE				*e*Sn	Sn	05 02 47.5	-8.8
TUE	Stuetta	12.25	319	*e*Pn	Pn	05 00 40.9	+1.1
	comp=Z,11nm,0.8s						
OKC	Ostrava-Krasne	12.26	351	*e*P	Pn	05 00 39.6	-0.4
OKC				*e*x	x	05 00 48.4	
OKC	Ostrava-Krasne	12.26	351	*e*P	Pn	05 00 39.6	-0.4
DAVOS	Davos	12.27	321	P	Pn	05 00 40.9	+0.8
DAVOS				S	Sn	05 02 50.5	-6.3
DAVOS	Davos	12.27	321	P	Pn	05 00 40.9	+0.8
MORC	Moravsky Berou	12.28	350	*e*P	Pn	05 00 39.9	-0.3
MORC				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MORC	Moravsky Berou	12.28	350	*e*Pn	Pn	05 00 39.9	-0.4
	comp=Z,4.6nm,0.8s						
MORC	Moravsky Berou	12.28	350	*e*P	Pn	05 00 39.9	-0.3
	comp=Z,5.0nm,0.8s						
GEC2	GERESS Array S	12.28	337	*e*P	Pn	05 00 38.8	-1.5
GEC2				pmax	pmax		
	comp=Z,1µm,0.5s						
GEC2	GERESS Array S	12.28	337	*e*P	Pn	05 00 33.3	-7.0
GEC2	GERESS Array S	12.28	337	*e*Pn	Pn	05 00 38.8	-1.5
	comp=Z,1µm,0.5s						
GEC2	GERESS Array S	12.28	337	*e*Pn	Pn	05 00 38.8	-1.5
	comp=Z,1µm,0.5s						
GERES	GERESS Array B	12.28	337	P	Pn	05 00 39.0	-1.2
	comp=Z,1.5nm,0.3s,baz=153,slow=14,SNR=21						
GERES				S	Sn	05 02 46.5	-11
	comp=Z,0.4nm,0.3s,baz=184,slow=16,SNR=3.0						
GERES	GERESS Array B	12.28	337	P	Pn	05 00 39.0	-1.3
KHC	Kasperske Hory	12.57	337	*e*P	Pn	05 00 42.7	-1.5
KHC				*e*x	x	05 00 53.4	
KHC				*e*x	x	05 00 58.5	
KHC				*e*x	x	05 01 31.5	
KHC				*e*x	x	05 02 52.5	
KHC	Kasperske Hory	12.57	337	*e*P	Pn	05 00 42.7	-1.5
SUZ		12.63	125	P	Pn	05 00 40.7	-4.5
SUZ		12.63	125	P	Pn	05 00 40.7	-4.5
MMAI	Mount Meron Ar	12.70	107	P	Pn	05 00 47.4	+1.2
	comp=Z,1.2nm,0.3s,baz=312,slow=13,SNR=3.5						
MMAI				S	Sn	05 02 57.8	-10
	comp=Z,5.3nm,0.3s,baz=309,slow=24,SNR=5.8						
MBDF	Montbardon	12.74	308	*e*P	Pn	05 00 49.3	+2.8
	comp=Z,18nm,0.8s						
MBDF	Montbardon	12.74	308	*e*P	Pn	05 00 49.3	+2.8
MBDF				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MBDF	Montbardon	12.74	308	*e*P	Pn	05 00 49.3	+2.8
	comp=Z,8.8nm,0.8s						
DPC	Dobruska-Polom	13.03	347	*e*P	Pn	05 00 49.5	-1.0
DPC				*e*x	x	05 01 01.2	
DPC	Dobruska-Polom	13.03	347	*e*P	Pn	05 00 49.5	-1.0
PRU	Pruhonice	13.08	341	*e*P	Pn	05 00 49.4	-1.7
PRU				*e*x	x	05 01 01.7	
PRU	Pruhonice	13.08	341	*e*P	Pn	05 00 49.4	-1.7
LPG	La Plagne	13.13	311	*e*P	Pn	05 00 55.6	+3.7
	comp=Z,6.8nm,0.6s						
LPG	La Plagne	13.13	311	*e*P	Pn	05 00 55.6	+3.7
LPG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
LPG	La Plagne	13.13	311	*e*P	Pn	05 00 55.6	+3.7
	comp=Z,3.4nm,0.6s						
LPL	La Plagne	13.15	311	*e*P	Pn	05 00 55.9	+3.7
	comp=Z,11nm,0.7s						
LPL	La Plagne	13.15	311	*e*P	Pn	05 00 55.9	+3.7
LPL				pmax	pmax		
	comp=Z,5.0nm,0.6s						
LPL	La Plagne	13.15	311	*e*P	Pn	05 00 55.9	+3.7
	comp=Z,5.3nm,0.6s						
UPC	Upice	13.24	346	*e*P	Pn	05 00 50.9	-2.5
UPC				*e*x	x	05 01 05.1	
ORIF	Oris-en-Rattie	13.39	307	*e*P	Pn	05 00 58.6	+3.2
	comp=Z,9.1nm,0.7s						
ORIF	Oris-en-Rattie	13.39	307	*e*P	Pn	05 00 58.6	+3.2
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.7s						

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ORIF  Oris-en-Rattie    13.39 307 eP      Pn        05 00 58.6 +3.2
      comp=Z,4.6nm,0.7s
PVCC  Panska Ves        13.57 342 eP      Pn        05 00 59.5 +1.6
PVCC  Panska Ves        13.57 342 eP      Pn        05 00 59.5 +1.6
MALT  Malatya           13.80  82 eP      Pn        05 00 59.5 -1.5
MALT                               pmax   pmax
      comp=Z,9.0nm,1.0s
MALT  Malatya           13.80  82 ePn     Pn        05 00 59.5 -1.5
      comp=Z,8.7nm,1.0s
MALT  Malatya           13.80  82 ePn     Pn        05 00 59.5 -1.5
      comp=Z,8.7nm,1.0s
GRA1  Grafenberg Arr    13.85 333 eP      Pn        05 01 05.5 +3.9
GRA1  Grafenberg Arr    13.85 333 eP      Pn        05 01 05.5 +3.9
GRF   Grafenberg Arr    13.85 333 eP      Pn        05 01 05.5 +3.9
GRF   Grafenberg Arr    13.85 333 eP      Pn        05 01 05.5 +3.9
NKC   Novy Kostel       13.89 337 eP      Pn        05 01 04.1 +1.9
NKC                               ex      x         05 01 12.0
BRG   Berggiesshubel    14.04 341 eP      Pn        05 01 03.4 -0.9
BRG                                pmax   pmax
      comp=Z,6.0nm,1.4s
BRG                                pmax   pmax
      comp=Z,4.0nm,0.7s
BRG   Berggiesshubel    14.04 341 eP      Pn        05 01 03.4 -0.9
      comp=Z,10nm,1.4s
BRG                               e                 05 01 14.6
      comp=Z,6.8nm,0.7s
CABF  La Chapelle       14.12 314 eP      Pn        05 01 07.5 +2.1
      comp=Z,13nm,0.8s
CABF  La Chapelle       14.12 314 eP      Pn        05 01 07.5 +2.1
CABF                               pmax   pmax
      comp=Z,6.0nm,0.8s
CABF  La Chapelle       14.12 314 eP      Pn        05 01 07.5 +2.1
      comp=Z,6.3nm,0.8s
HDK1  Dakhla            14.12 147 ⇓P      Pn        05 01 05.0 -0.5
HDK1  Dakhla            14.12 147  P      Pn        05 01 05.0 -0.5
WERD  Werda             14.12 337 eP      Pn        05 01 08.3 +2.9
VIVF  Saint-Julien-l    14.13 305 eP      Pn        05 01 08.3 +2.7
VIVF  Saint-Julien-l    14.13 305 eP      Pn        05 01 08.3 +2.7
EIL   Elat              14.16 121  P      Pn        05 01 02.8 -3.1
      comp=Z,0.4nm,0.3s,baz=322,slow=18,SNR=7.4
EIL                                S      Sn        05 03 30.6  -12
      comp=Z,2.7nm,0.3s,baz=358,slow=14,SNR=6.3
KIEV  Kiev              14.23  22 eP      Pn        05 01 04.2 -2.6
KIEV                               pmax   pmax
      comp=Z,23nm,0.6s
KIEV  Kiev              14.23  22 ePn     Pn        05 01 04.2 -2.7
      comp=Z,24nm,0.6s
KIEV                              eP                05 01 13.3
AKASG Malin Array Be    14.24  22  P      Pn        05 01 05.2 -1.7
      comp=Z,2.1nm,0.3s,baz=211,slow=12,SNR=13
ANN   Anapa             14.25  55 eP      Pn        05 01 07.8 +0.6
ANN                                pmax   pmax
      comp=Z,109nm,1.4s
HKAT  Jabal Katrina     14.27 126 ⇓P      Pn        05 01 03.2 -4.3
HKAT  Jabal Katrina     14.27 126  P      Pn        05 01 03.2 -4.3
HINF  Hinteralfeld      14.42 319 eP      Pn        05 01 08.9 -0.5
      comp=Z,7.7nm,0.5s
HINF  Hinteralfeld      14.42 319 eP      Pn        05 01 08.9 -0.5
HINF                               pmax   pmax
      comp=Z,4.0nm,0.5s
HINF  Hinteralfeld      14.42 319 eP      Pn        05 01 08.9 -0.5
      comp=Z,3.8nm,0.5s
MOX   Moxa              14.52 336 eP      Pn        05 01 10.7  0.0
      comp=Z,13nm,0.9s
MOX   Moxa              14.52 336 eP      Pn        05 01 10.7  0.0
MOX                                pmax   pmax
      comp=Z,13nm,0.9s
MOX   Moxa              14.52 336 eP      Pn        05 01 11.4 +0.7
ECH   Echery            14.52 321 ePn     Pn        05 01 09.5 -1.2
ECH                               eSn     Sn        05 03 41.1  -11
ECH   Echery            14.52 321 ePn     Pn        05 01 09.5 -1.3
CDF   Champ du Feu      14.59 321 eP      Pn        05 01 13.0 +1.3
      comp=Z,14nm,0.8s
CDF   Champ du Feu      14.59 321 eP      Pn        05 01 13.0 +1.3
CDF                                pmax   pmax
      comp=Z,7.0nm,0.8s
CDF   Champ du Feu      14.59 321 eP      Pn        05 01 13.0 +1.3
      comp=Z,6.9nm,0.8s
AKRG  Al Kharijah       14.65 144 ⇓P      Pn        05 01 10.8 -1.9
CLL   Collm             14.69 340 eP      Pn        05 01 15.2 +2.1
CLL   Collm             14.69 340 epP     Pn        05 01 15.0 +1.9
CLL                               i PP              05 01 21.2
      comp=Z,31nm,1.3s
CLL                               i sPP             05 01 28.6
CLL   Collm             14.69 340 eP      Pn        05 01 15.0 +1.9
CLL                               i                 05 01 21.2
HAU   Haudompre         14.80 319 eP      Pn        05 01 15.1 +0.5
      comp=Z,39nm,0.8s
HAU   Haudompre         14.80 319 eP      Pn        05 01 15.1 +0.5
HAU                                pmax   pmax
      comp=Z,19nm,0.8s
HAU   Haudompre         14.80 319 eP      Pn        05 01 15.1 +0.5
      comp=Z,20nm,0.8s
TNS   Taunus Mts        15.35 328 eP      Pn        05 01 23.8 +1.8
TNS   Taunus Mts        15.35 328 eP      Pn        05 01 23.8 +1.8
SMF   Signal de Mont    15.46 311 eP      Pn        05 01 27.8 +4.3
SMF   Signal de Mont    15.46 311 eP      Pn        05 01 27.8 +4.3
GKP   Gorka Klasztor    15.74 352 eP      Pn        05 01 32.1 +5.0
GKP   Gorka Klasztor    15.74 352 eP      Pn        05 01 32.1 +5.0
LOR   Lormes            15.76 313 eP      Pn        05 01 29.8 +2.4
LOR   Lormes            15.76 313 eP      Pn        05 01 29.8 +2.4
MEZF  Maizieres J'vi    15.79 318 eP      Pn        05 01 28.7 +1.0
      comp=Z,102nm,1.3s
MEZF  Maizieres J'vi    15.79 318 eP      Pn        05 01 28.7 +1.0
      comp=Z,102nm,1.3s
MEZF  Maizieres J'vi    15.79 318 eP      Pn        05 01 28.7 +1.0
      comp=Z,51nm,1.3s
AVF   Avril sur Loir    15.83 310 eP      Pn        05 01 32.7 +4.5
SSF   Saint Saulge      15.87 311 eP      Pn        05 01 31.1 +2.4
      comp=Z,18nm,1.0s
SSF   Saint Saulge      15.87 311 eP      Pn        05 01 31.1 +2.4
SSF                                pmax   pmax
      comp=Z,9.0nm,1.0s
SSF   Saint Saulge      15.87 311 eP      Pn        05 01 31.1 +2.4
      comp=Z,9.1nm,1.0s
SSF   Saint Saulge      15.87 311 eP      Pn        05 01 31.1 +2.4
      comp=Z,9.1nm,1.0s
WLF   Walferdange       15.98 323 eP      Pn        05 01 28.5 -1.6
WLF                                pmax   pmax
      comp=Z,28nm,1.0s
WLF   Walferdange       15.98 323 ePn     Pn        05 01 28.5 -1.7
      comp=Z,28nm,1.0s
WLF   Walferdange       15.98 323 ePn     Pn        05 01 28.5 -1.6
      comp=Z,28nm,1.0s
SUW   Suwalki           16.35   5 eP      Pn        05 01 34.4 -0.4
SUW   Suwalki           16.35   5 eP      Pn        05 01 34.4 -0.5
SUW   Suwalki           16.35   5 eP      Pn        05 01 34.4 -0.5
GIVF  Givet             16.91 322 eP      Pn        05 01 42.8 +0.8
      comp=Z,67nm,1.3s
GIVF  Givet             16.91 322 eP      Pn        05 01 42.8 +0.8
GIVF                               pmax   pmax
      comp=Z,33nm,1.3s
GIVF  Givet             16.91 322 eP      Pn        05 01 42.8 +0.8
      comp=Z,33nm,1.3s
GIVF  Givet             16.91 322 eP      Pn        05 01 42.8 +0.8
      comp=Z,33nm,1.3s
BAIF  Baives            17.19 321 eP      Pn        05 01 46.1 +0.6
      comp=Z,13nm,0.7s
BAIF  Baives            17.19 321 eP      Pn        05 01 46.1 +0.6
BAIF                               pmax   pmax
      comp=Z,6.0nm,0.7s
BAIF  Baives            17.19 321 eP      Pn        05 01 46.1 +0.6
      comp=Z,6.4nm,0.7s
BAIF  Baives            17.19 321 eP      Pn        05 01 46.1 +0.6
      comp=Z,6.4nm,0.7s
KIV   Kislovodsk        17.56  62 eP      Pn        05 01 50.5 +0.3
KIV                                pmax   pmax
      comp=Z,8.0nm,1.2s
KIV   Kislovodsk        17.56  62 eP      Pn        05 01 50.5 +0.3
      comp=Z,8.0nm,1.2s
NACGM Naroch            17.62  11 e       Pn        05 01 45.0 -5.8
ONI   Oni               17.85  67  P      Pn        05 01 54.4 +0.6
GOR   Gori              18.27  69  P      Pn        05 01 58.0 -0.9
VORD  Divnogorie        18.56  39 eP      Pn        05 02 00.3 -2.1
VORD                               pmax   pmax
      comp=Z,10.0nm,0.6s
VORD                               pmax   pmax
      comp=N,20nm,0.9s
VORD                               pmax   pmax
      comp=E,10.0nm,0.6s
VORD  Divnogorie        18.56  39 eP      Pn        05 02 00.3 -2.1
      comp=E,20nm,0.9s
VSR   Storozhevoye      18.65  38 eP      Pn        05 02 01.3 -2.2
VSR                                pmax   pmax
      comp=Z,30nm,1.2s
VSR                                pmax   pmax
      comp=N,20nm,0.8s
VSR                                pmax   pmax
      comp=E,10.0nm,0.8s
VSR   Storozhevoye      18.65  38 eP      Pn        05 02 01.3 -2.2
      comp=E,30nm,1.2s
GNI   Garni             18.66  75  P      Pn        05 02 03.6 -0.1
GNI                                pmax   pmax
      comp=Z,1.0nm,0.3s
GNI                                MLR    MLR
      comp=Z,111nm,20.0s
GNI   Garni             18.66  75  P      Pn        05 02 03.6 -0.1
      comp=Z,0.7nm,0.3s,baz=315,slow=5.2,SNR=7.3
GNI                                LR     LR        05 09 10.3
      comp=Z,111nm,20.0s,baz=277,slow=37
GNI   Garni             18.66  75 eP      Pn        05 02 02.1 -1.5
      comp=Z,11nm,0.8s
GNI                                LR     LR        05 09 10.3
GNI   Garni             18.66  75 eP      Pn        05 02 02.2 -1.5
      comp=Z,11nm,0.8s
MTA   Mtatsminda        18.75  70  P      Pn        05 02 05.2 +0.4
ESDC  Sonseca Array     19.52 283  P      Pn        05 02 14.6 +0.5
      comp=Z,0.3nm,0.3s,baz=82,slow=12,SNR=8.5
VRHR  Novokhopersk      19.82  41 eP      Pn        05 02 14.9 -2.7
VRHR                               pmax   pmax
      comp=Z,20nm,1.0s
VRHR                               pmax   pmax
      comp=N,20nm,0.5s
VRHR  Novokhopersk      19.82  41 eP      Pn        05 02 14.9 -2.7
      comp=N,20nm,0.5s
TAM   Tamanrasset       19.94 226 eP      Pn        05 02 19.8 +0.6
TAM                                pmax   pmax
      comp=Z,5.0nm,1.0s
TAM   Tamanrasset       19.94 226 eP      Pn        05 02 19.8 +0.6
      comp=Z,5.4nm,1.0s
OBN   Obninsk           20.36  26⇑eP      P         05 02 20.0 -1.9
OBN                               e                 05 02 38.4
OBN                                pmax   pmax
      comp=Z,35nm,0.8s
OBN   Obninsk           20.36  26 eP      P         05 02 19.3 -2.5
      comp=Z,55nm,0.6s
OBN   Obninsk           20.36  26 eP      P         05 02 20.0 -1.9
      comp=Z,35nm,0.8s
VSU   Vasula            21.08   8c iP     P         05 02 28.3 -1.3
VSU                                pmax   pmax
      comp=Z,180nm,0.9s,mb5.4
VSU   Vasula            21.08   8 i P     P         05 02 28.3 -1.3
      comp=Z,180nm,0.9s,mb5.4
MOS   Moscow            21.23  27 eP      P         05 02 28.4 -2.8
MOS                               e                 05 02 45.9
MOS                               e                 05 06 21.5
MOS                                pmax   pmax
      comp=Z,130nm,0.7s,mb5.4
MOS   Moscow            21.23  27 eP      P         05 02 28.4 -2.8
      comp=Z,130nm,0.7s,mb5.4
MDT   Midelt            21.41 264  P      P         05 02 34.6 +1.2
      comp=Z,4.3nm,0.9s,mb3.8,baz=91,slow=14,SNR=8.1
PUL   Pulkovo           22.85  12 eP      P         05 02 47.3 -1.2
PUL                                pmax   pmax
      comp=Z,109nm,0.4s,mb5.6
HFS   Hagfors           22.89 351  P      P         05 02 47.3 -1.5
      comp=Z,15nm,0.4s,mb4.7,baz=160,slow=10,SNR=65
HFS                                LR     LR        05 11 20.2
      comp=Z,345nm,19.8s,MS3.8,baz=320,slow=36
EKA   Eskdalemuir Ar    23.98 325  P      P         05 03 00.0 +0.2
      comp=Z,11nm,0.7s,mb4.4,baz=124,slow=8.4,SNR=18
ESK   Eskdalemuir       23.99 325 eP      P         05 02 59.8 -0.1
ESK                                pmax   pmax
      comp=Z,17nm,0.8s,mb4.5
ESK   Eskdalemuir       23.99 325 eP      P         05 02 59.8 -0.2
      comp=Z,17nm,0.8s,mb4.5
NB2   NORSAR Subarra    24.11 348  P      P         05 02 59.7 -1.3
      comp=Z,12nm,0.8s,mb4.4,baz=161,slow=9.3
NOA   NORSAR Array B    24.11 348  P      P         05 02 59.7 -1.3
      comp=Z,8.1nm,0.6s,mb4.4,baz=161,slow=8.6,SNR=25
NOA   NORSAR Array B    24.11 348  P      P         05 02 59.7 -1.3
KAF   Kangasniemi       24.62   6 eP      P         05 03 03.8 -1.8
KAF                                pmax   pmax
      comp=Z,20nm,0.5s,mb4.9
KAF   Kangasniemi       24.62   6 ep      P         05 03 03.8 -1.8
      comp=Z,20nm,0.5s,mb4.9
KAF   Kangasniemi       24.62   6 eP      P         05 03 03.8 -1.8
      comp=Z,20nm,0.5s,mb4.9
KLMR  Klimovskoe        25.93  21⇓iP      P         05 03 15.3 -2.2
KLMR                               pmax   pmax
      comp=Z,34nm,0.9s,mb4.9
JOF   Joensuu           25.99  11 ep      P         05 03 15.4 -2.7
      comp=Z,6.6nm,0.4s,mb4.5
JOF   Joensuu           25.99  11 eP      P         05 03 15.4 -2.7
      comp=Z,6.6nm,0.4s,mb4.5
PRGR  Permogore         28.42  25  P      P         05 03 38.1 -1.7
PRGR                               pmax   pmax
      comp=Z,84nm,1.3s,mb5.2
PRGR  Permogore         28.42  25  P      P         05 03 38.1 -1.7
      comp=Z,84nm,1.3s,mb5.2
AB31  Akbulak array     30.22  55  P      P         05 03 53.9 -2.0
AB31                               pmax   pmax
      comp=Z,4.0nm,0.4s,mb4.5
AB31  Akbulak array     30.22  55  P      P         05 03 53.9 -2.0
      comp=Z,4.0nm,0.4s,mb4.5
ARU   Arti              31.17  41d iP     P         05 04 02.1 -2.2
ARU                                                 05 05 02.7
ARU                                S      S         05 09 11.4 +1.5
ARU                                SS     SS        05 10 55.1  -28
ARU                                pmax   pmax
      comp=Z,17nm,1.7s,mb4.6
ARU   Arti              31.17  41 eP      P         05 04 02.0 -2.3
      comp=Z,7.3nm,0.4s,mb4.9
ARU   Arti              31.17  41 i P     P         05 04 02.1 -2.2
      comp=Z,17nm,1.7s,mb4.6
ARCES ARCESS Array B    31.95   3  P      P         05 04 09.2 -1.7
      comp=Z,6.5nm,0.8s,mb4.5,baz=185,slow=10,SNR=33
ARCES                              LR     LR        05 18 20.9
      comp=Z,214nm,21.1s,MS3.8,baz=26,slow=39
ARCES ARCESS Array B    31.95   3  P      P         05 04 09.3 -1.7
KEV   Kevo              32.24   4 ep      P         05 04 11.0 -2.6
KEV   Kevo              32.24   4 eP      P         05 04 11.0 -2.6
BRVK  Borovoye          37.09  49 eP      P         05 04 54.0 -1.6
BRVK                               pmax   pmax
      comp=Z,11nm,0.6s,mb4.9
BRVK  Borovoye          37.09  49 eP      P         05 04 54.0 -1.6
      comp=Z,11nm,0.6s,mb4.9
BRVK  Borovoye          37.09  49 eP      P         05 04 54.0 -1.6
      comp=Z,11nm,0.6s,mb4.9
BVAR  Borovoye Array    37.15  49  P      P         05 04 54.6 -1.6
      comp=Z,12nm,0.5s,mb5.0,baz=262,slow=6.2,SNR=88
BVAR                               LR     LR        05 22 33.5
      comp=Z,79nm,18.6s,MS3.5,baz=35,slow=40
BVAR  Borovoye Array    37.15  49  P      P         05 04 54.6 -1.5
VOSK  Vostochnaya       37.48  50  P      P         05 04 56.1 -2.9
VOSK                               pmax   pmax
      comp=Z,7.0nm,0.7s,mb4.6
VOSK  Vostochnaya       37.48  50  P      P         05 04 56.1 -2.9
      comp=Z,7.0nm,0.7s,mb4.6
KK31  Karatay Array     37.67  66 i P     P         05 04 59.1 -1.6
KK31                               pmax   pmax
      comp=Z,9.0nm,0.6s,mb4.7
KK31  Karatay Array     37.67  66 i P     P         05 04 59.1 -1.6
      comp=Z,9.0nm,0.6s,mb4.7
DBIC  Dimbokro          38.80 224  P      P         05 05 10.2 -0.3
      comp=Z,7.3nm,0.9s,mb4.4,baz=33,slow=9.0,SNR=8.6
DBIC                               LR     LR        05 22 31.1
      comp=Z,69nm,19.1s,MS3.5,baz=123,slow=38
HOPEN Hopen             38.91   2 eP      P         05 05 07.1 -3.7
HOPEN                             eS      sP        05 05 26.6  +12
HOPEN                              AML    AML       05 05 31.9
      comp=Z,26nm,0.3s
TIC   Toumodi           38.91 224 eP      P         05 05 11.4  0.0
      comp=Z,42nm,1.0s,mb5.1
KIC   Kosan Boka        39.00 223 eP      P         05 05 12.0 -0.1
      comp=Z,32nm,0.9s,mb5.1
LIC   Lamto             39.27 223 eP      P         05 05 14.6 +0.2
      comp=Z,17nm,0.7s,mb4.6
LIC   Lamto             39.27 223 eP      P         05 05 14.6 +0.2
      comp=Z,35nm,0.8s,mb5.1
EKS2  Erkin-Say         40.11  66 eP      P         05 05 19.6 -1.5
      comp=Z,5.0nm,0.6s,mb4.4
EKS2  Erkin-Say         40.11  66 eP      P         05 05 19.6 -1.5
      comp=Z,5.0nm,0.6s,mb4.4
BBTS  Babate            40.34 245  LR     LR        05 23 54.2
      comp=Z,94nm,18.4s,MS3.7,baz=60,slow=39
AAK   Ala-Archa         40.63  66  P      P         05 05 25.1 -0.4
AAK                                pmax   pmax
      comp=Z,1.0nm,0.4s,mb3.8
AAK   Ala-Archa         40.63  66  P      P         05 05 25.1 -0.4
      comp=Z,1.3nm,0.4s,mb3.9,baz=254,slow=8.1,SNR=5.4
AAK   Ala-Archa         40.63  66 eP      P         05 05 24.3 -1.2
      comp=Z,3.7nm,0.8s,mb4.1
AAK   Ala-Archa         40.63  66 eP      P         05 05 24.3 -1.2
      comp=Z,3.7nm,0.8s,mb4.1
UCH   Uchtor            40.73  66 eP      P         05 05 25.4 -0.9
      comp=Z,2.4nm,0.8s,mb3.9
UCH   Uchtor            40.73  66 eP      P         05 05 25.4 -0.9
      comp=Z,2.4nm,0.8s,mb3.9
KURK  Kurchatov         42.27  53  P      P         05 05 36.2 -2.6
KURK                               pmax   pmax
      comp=Z,10.0nm,0.5s,mb4.7
KURK                               MLR    MLR
      comp=Z,60nm,18.8s,MS3.5
KURK  Kurchatov         42.27  53  P      P         05 05 36.2 -2.6
      comp=Z,9.7nm,0.5s,mb4.7,baz=281,slow=8.8,SNR=51
KURK                               LR     LR        05 24 51.8
      comp=Z,60nm,18.8s,MS3.5,baz=230,slow=38
KURK  Kurchatov         42.27  53 eP      P         05 05 35.8 -3.0
      comp=Z,7.5nm,0.8s,mb4.4
KURK                               LR     LR        05 24 51.8
KURK  Kurchatov         42.27  53  P      P         05 05 36.2 -2.6
      comp=Z,60nm,18.8s
KSH   Kashi             42.46  70 eP      P         05 05 37.5 -3.0
KSH                               epP     pP        05 05 47.9 +4.3
KSH                               esP     sP        05 05 50.8 +6.0
KSH                               ePP     PP        05 07 20.0 +1.3
KSH                               ePcP    PcP       05 07 26.1 -7.2
KSH                               eScP    ScP       05 11 14.3  -10
KSH                               ePcS    PcS       05 11 17.6 -7.6
KSH                               eS      S         05 12 01.6 -0.7
KSH                               esS     sS        05 12 17.0  +10
KSH                               eSS     SS        05 15 08.1 -3.2
KSH                               eScS    ScS       05 15 32.0  -10
KSH                                pmax   pmax
      comp=Z,5.0nm,0.3s,mb4.6
KSH                                pmax   pmax
      comp=Z,410nm,4.2s
KSH                                LR     LR
      comp=N,180nm,5.8s
KSH                                LR     LR
      comp=E,300nm,5.0s
KSH                                LR     LR
      comp=Z,190nm,4.4s
MKAR  Makanchi Array    45.25  58  P      P         05 06 00.5 -2.4
      comp=Z,4.9nm,0.5s,mb4.6,baz=271,slow=7.3,SNR=43
MKAR                               LR     LR        05 28 17.9
      comp=Z,56nm,19.1s,MS3.5,baz=174,slow=40
ZAA0  Zalesovo Array    45.74  48 eP      P         05 06 03.9 -2.6
ZAA0  Zalesovo Array    45.74  48 eP      P         05 06 03.9 -2.7
ZALV  Zalesovo Beam     45.74  48  P      P         05 06 04.2 -2.4
      comp=Z,23nm,0.4s,mb5.4,baz=274,slow=8.6,SNR=85
ZALV                               LR     LR        05 27 37.5
      comp=Z,75nm,18.4s,MS3.7,baz=209,slow=39
ZALV  Zalesovo Beam     45.74  48  P      P         05 06 04.2 -2.4
DANN  Dangsing          52.62  81 eP      P         05 06 57.6 -2.0
      comp=Z,31nm,0.6s,mb5.4
DANN  Dangsing          52.62  81 eP      P         05 06 57.6 -2.0
      comp=Z,31nm,0.6s,mb5.4
KOLN  Koldanda          52.76  81 eP      P         05 06 58.0 -2.7
      comp=Z,15nm,0.5s,mb5.2
KOLN  Koldanda          52.76  81 eP      P         05 06 58.0 -2.7
      comp=Z,15nm,0.5s,mb5.2
GKN   Gorkha            53.46  81 eP      P         05 07 03.1 -2.8
      comp=Z,24nm,0.6s,mb5.3
GKN   Gorkha            53.46  81 eP      P         05 07 03.1 -2.8
      comp=Z,24nm,0.6s,mb5.3
DMN   Daman             54.01  81 eP      P         05 07 07.5 -2.4
      comp=Z,20nm,0.7s,mb5.2
DMN   Daman             54.01  81 eP      P         05 07 07.5 -2.4
      comp=Z,20nm,0.7s,mb5.2
KKN   Kakani            54.06  80 eP      P         05 07 07.9 -2.4
      comp=Z,19nm,0.6s,mb5.2
KKN   Kakani            54.06  80 eP      P         05 07 07.9 -2.4
KKN                                pmax   pmax
      comp=Z,19nm,0.6s,mb5.2
KKN   Kakani            54.06  80 eP      P         05 07 07.9 -2.4
      comp=Z,19nm,0.6s,mb5.2
PKIN  Phulchoki         54.26  81 eP      P         05 07 09.0 -2.7
      comp=Z,7.8nm,0.6s,mb4.8
PKI   Pulchoki          54.27  81 eP      P         05 07 09.1 -2.7
PKI   Pulchoki          54.27  81 eP      P         05 07 09.1 -2.7
GUN   Gumba             54.48  80 eP      P         05 07 10.9 -2.4
      comp=Z,14nm,0.6s,mb5.1
GUN   Gumba             54.48  80 eP      P         05 07 10.9 -2.4
      comp=Z,14nm,0.6s,mb5.1
JIRN  Jiri              54.84  80 eP      P         05 07 13.4 -2.5
      comp=Z,6.8nm,0.4s,mb5.1
JIRN  Jiri              54.84  80 eP      P         05 07 13.4 -2.5
      comp=Z,6.8nm,0.4s,mb5.0
RAMN  Ramite            55.50  81 eP      P         05 07 17.3 -3.4
      comp=Z,21nm,0.6s,mb5.3
RAMN  Ramite            55.50  81 eP      P         05 07 17.3 -3.4
      comp=Z,21nm,0.6s,mb5.3
TAPN  Taplejung         56.17  80 eP      P         05 07 23.1 -2.4
TAPN  Taplejung         56.17  80 eP      P         05 07 23.1 -2.4
TLY   Talaya            57.34  47 eP      P         05 07 31.9 -1.5
TLY                                pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.4
TLY   Talaya            57.34  47 eP      P         05 07 31.9 -1.5
      comp=Z,3.0nm,0.7s,mb4.4
ZAK   Zakamensk         57.59  49 eP      P         05 07 33.5 -1.7
ZAK                                pmax   pmax
      comp=Z,2.0nm,1.1s,mb4.1
ZAK   Zakamensk         57.59  49 eP      P         05 07 33.5 -1.7
      comp=Z,2.0nm,1.1s,mb4.1
LSA   Lhasa             57.72  76 eP      P         05 07 35.2 -1.3
LSA                                pmax   pmax
      comp=Z,4.0nm,0.5s,mb4.7
LSA   Lhasa             57.72  76 eP      P         05 07 35.1 -1.3
      comp=Z,3.8nm,0.5s,mb4.7
LSA   Lhasa             57.72  76 eP      P         05 07 35.2 -1.3
      comp=Z,3.8nm,0.5s,mb4.7
SCHQ  Schefferville     59.01 318  P      P         05 07 44.5 -0.5
      comp=Z,3.7nm,0.5s,mb4.7,baz=65,slow=6.1,SNR=13
SCHQ  Schefferville     59.01 318  P      P         05 07 44.5 -0.5
TIXI  Tiksi             59.95  20 eP      P         05 07 49.3 -2.0
TIXI                               pmax   pmax
      comp=Z,2.0nm,0.8s,mb4.2
TIXI  Tiksi             59.95  20 eP      P         05 07 49.3 -2.0
      comp=Z,2.0nm,0.8s,mb4.2
RES   Resolute Bay      60.28 344 eP      P         05 07 53.1 -0.4
RES                                pmax   pmax
      comp=Z,2.0nm,0.7s,mb4.3
RES   Resolute Bay      60.28 344 eP      P         05 07 53.1 -0.4
      comp=Z,2.0nm,0.7s,mb4.3
RES   Resolute Bay      60.28 344 eP      P         05 07 53.1 -0.4
      comp=Z,2.0nm,0.7s,mb4.3
SONM  Songino Array     60.48  51  P      P         05 07 53.5 -1.8
      comp=Z,1.5nm,0.7s,mb4.2,baz=287,slow=8.8,SNR=13
SONM  Songino Array     60.48  51  P      P         05 07 53.5 -1.8
ULN   Ulaanbaatar       60.87  50 eP      P         05 07 56.0 -1.9
ULN                                pmax   pmax
      comp=Z,1.0nm,0.4s,mb4.3
ULN   Ulaanbaatar       60.87  50 eP      P         05 07 56.0 -2.0
      comp=Z,1.4nm,0.4s,mb4.4
ULN   Ulaanbaatar       60.87  50 eP      P         05 07 56.0 -1.9
      comp=Z,1.4nm,0.4s,mb4.4
BOSA  Boshof            66.13 176  P      P         05 08 33.4 +0.7
      comp=Z,1.2nm,0.5s,mb4.2,baz=346,slow=4.8,SNR=4.5
BOSA  Boshof            66.13 176  P      P         05 08 33.4 +0.7
CHTO  Chiang Mai        69.42  82 eP      P         05 08 51.3 -2.6
CHTO                               pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
CHTO  Chiang Mai        69.42  82 eP      P         05 08 51.3 -2.7
      comp=Z,4.3nm,0.8s,mb4.4
CHTO  Chiang Mai        69.42  82 eP      P         05 08 51.3 -2.6
      comp=Z,4.3nm,0.8s,mb4.4
CMAR  Chiang Mai Arr    69.62  82  P      P         05 08 53.1 -2.0
      comp=Z,3.8nm,0.7s,mb4.5,baz=302,slow=7.7,SNR=18
CMAR  Chiang Mai Arr    69.62  82  P      P         05 08 53.1 -2.0
FCC   Fort Churchill    69.80 330 eP      P         05 08 55.3 -0.3
      comp=Z,0.4nm,1.6s
FCC   Fort Churchill    69.80 330 eP      P         05 08 55.3 -0.3
BILL  Bilibino          71.37  13 eP      P         05 09 02.9 -2.1
BILL  Bilibino          71.37  13 eP      P         05 09 02.9 -2.2
BILL  Bilibino          71.37  13 eP      P         05 09 02.9 -2.1
SEY   Seymchan          72.42  21 eP      P         05 09 09.8 -1.6
SEY   Seymchan          72.42  21 eP      P         05 09 09.8 -1.6
INK   Inuvik            72.55 350  P      P         05 09 10.5 -1.6
      comp=Z,1.7nm,0.8s,mb4.0,baz=49,slow=9.7,SNR=6.1
INK   Inuvik            72.55 350  P      P         05 09 10.5 -1.6
YKW3  Yellowknife Ar    73.86 340 eP      P         05 09 18.9 -1.1
YKW3  Yellowknife Ar    73.86 340 eP      P         05 09 18.9 -1.1
YKA   Yellowknife Ar    73.92 340  P      P         05 09 19.7 -0.6
      comp=Z,1.2nm,0.6s,mb4.0,baz=34,slow=5.3,SNR=21
YKA   Yellowknife Ar    73.92 340  P      P         05 09 19.7 -0.6
YKA   Yellowknife Ar    73.92 340  P      P         05 09 19.7 -0.6
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COLD	Coldfoot	75.14	356	eP	P	05 09 27.2	-0.1
	comp=Z,3.2nm,1.0s,mb4.2						
COLD	Coldfoot	75.14	356	eP	P	05 09 27.2	-0.1
	comp=Z,3.2nm,1.0s,mb4.2						
FFC	Flin Flon	75.73	330	eP	P	05 09 30.2	-0.7
FFC				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
FFC	Flin Flon	75.73	330	eP	P	05 09 30.2	-0.7
	comp=Z,4.7nm,1.2s,mb4.3						
FFC	Flin Flon	75.73	330	eP	P	05 09 30.2	-0.7
	comp=Z,4.7nm,1.2s,mb4.3						
ULM	Lac du Bonnet	76.25	324	P	P	05 09 33.9	-0.1
	comp=Z,1.9nm,0.6s,mb4.2,baz=44,slow=8.9,SNR=4.2						
IMA2	Indian Mountai	76.44	358	eP	P	05 09 34.5	-0.3
IMA2	Indian Mountai	76.44	358	eP	P	05 09 34.5	-0.2
KSRS	Korea Array	79.35	51	P	P	05 09 49.8	-1.7
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
KSRS	Korea Array	79.35	51	P	P	05 09 49.8	-1.7
	comp=Z,3.1nm,0.7s,mb4.3,baz=313,slow=5.4,SNR=9.3						
KSRS	Korea Array	79.35	51	P	P	05 09 49.8	-1.7
	comp=Z,3.0nm,0.7s,mb4.3						
YSS	Yuzh-Sakhalins	80.92	36	eP	P	05 09 56.0	-3.8
YSS	Yuzh-Sakhalins	80.92	36	eP	P	05 09 56.0	-3.8
PETK	Petropavlovsk-	82.06	25	LR	LR	05 51 03.7	
	comp=Z,52nm,19.2s,MS3.9,baz=97,slow=39						
JTMT	Jette	85.99	332	eP	P	05 10 25.7	-0.1
	comp=Z,4.3nm,1.0s,mb4.6						
MJAR	Matsushiro Arr	86.05	46	P	P	05 10 24.8	-1.6
	comp=Z,0.9nm,0.3s,mb4.4,baz=168,slow=20,SNR=3.4						
MJAR	Matsushiro Arr	86.05	46	P	P	05 10 24.8	-1.6
MJAR	Matsushiro Arr	86.05	46	P	P	05 10 24.8	-1.6
CPUP	Villa Florida	97.14	242	LR	LR	05 55 30.7	
	comp=Z,66nm,18.6s,MS4.2,baz=190,slow=36						
WRA	Warramunga Arr	120.19	93	PKP	PKPdf	05 16 35.2	-1.7
	comp=Z,0.5nm,0.7s,baz=322,slow=2.1,SNR=3.8						
ASAR	Alice Springs	121.79	97	PKP	PKPdf	05 16 38.5	-1.4
	comp=Z,0.4nm,0.5s,baz=297,slow=1.5,SNR=6.8						

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*ISCJB **22** 05:07:22.5±0.2, 41.°15N±0.°01×114.°91W±0.°02, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.7km az=43.7*
*NEIC **22** 05:07:22.5, 41.°18N×114.°93W, h5^{km}, ML3.2, After REN.*
*IDC **22** 05:07:22.0±1.0, 41.°20N×114.°92W, h0^{km}, mb3.2/1, mb1 3.6/4, mb1mx3.4/22, mbtmp3.2/4, ML3.2/3, MS3.3/1, Ms1 3.2/1, ms1mx2.7/15, Error ellipse: s-maj=19.8km s-min=5.1km az=134.0*
ISC 22 05:07:23.0±0.1**, 41.°16N**±0.°01×**114.°90W**±0.°01**, h10**^{km}**, n121, σ1**^{s}**14**/193**, 34C-47D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.32	199	P	Pg	05 07 29.4	0.0
	baz=0.3,SNR=438						
N12A				⇓S	Sg	05 07 34.0	+0.2
	baz=0.3						
ELK	Elko	0.49	212	Pg	Pg	05 07 32.0	-0.5
	33nm,0.3s,baz=13,slow=17,SNR=63						
ELK				Lg		05 07 38.4	
	114nm,0.3s,baz=134,slow=12,SNR=99						
ELK	Elko	0.49	212	ePg	Pg	05 07 31.7	-0.8
ELK				eSg	Sg	05 07 38.3	-0.6
M13A	Montello	0.59	70	⇓P	Pg	05 07 33.8	-0.7
	baz=0.6						
N13A	Wendover, West	0.61	120	P	Pg	05 07 34.7	-0.1
	baz=0.6,SNR=332						
N13A				⇓S	Sg	05 07 43.1	+0.3
	baz=0.6						
N11A	Elko Archery C	0.72	242	⇓P	Pg	05 07 36.1	-0.8
	baz=0.7,SNR=71						
N11A				⇓S	Sg	05 07 45.8	-0.5
	baz=0.7						
M11A	Holland Ranch,	0.72	292	⇑P	Pg	05 07 35.7	-1.3
	baz=0.7,SNR=52						
M11A				⇑S	Sg	05 07 45.5	-0.9
	baz=0.7						
O12A	Currie	0.90	172	⇓P	Pg	05 07 39.8	-0.5
	baz=0.9,SNR=183						
O12A				⇑S	Sg	05 07 52.3	+0.3
	baz=0.9						
L12A	House Creek Ra	0.99	355	⇓P	Pg	05 07 40.8	-1.3
	baz=1.0,SNR=106						
L12A				⇓S	Sg	05 07 54.4	-0.6
	baz=1.0						
L13A	Double Diamond	1.17	37	⇑P	Pb	05 07 44.1	-1.3
	baz=1.2,SNR=91						
L13A				⇑S	Sb	05 08 00.1	-0.5
	baz=1.2						
O11A	Cowboy Ranch,	1.18	210	⇓P	Pb	05 07 45.0	-0.5
	baz=1.2,SNR=95						
O11A				⇑S	Sb	05 08 00.7	0.0
	baz=1.2						
L11A	Cat Creek Ranc	1.19	328	⇑P	Pb	05 07 44.4	-1.3
	baz=1.2,SNR=124						
L11A				⇓S	Sb	05 08 00.2	-1.0
	baz=1.2						
M14A	Sheep Mountain	1.22	73	P	Pn	05 07 45.2	-0.9
	baz=1.2,SNR=128						
M14A				⇑S	Sb	05 08 01.9	0.0
	baz=1.2						
O13A	Hicks Ranch, I	1.24	145	P	Pn	05 07 46.2	-0.2
	baz=1.3,SNR=198						
O13A				⇑S	Sb	05 08 04.3	+1.7
	baz=1.3						
M10A	I.L. Ranch, Tu	1.29	287	⇓P	Pn	05 07 46.3	-0.7
	baz=1.3,SNR=69						
M10A				⇑S	Sb	05 08 04.1	+0.2
	baz=1.3						
N10A	Dunphy	1.29	251	⇓P	Pn	05 07 46.2	-0.9
	baz=1.3,SNR=37						
N10A				⇓S	Sb	05 08 04.1	0.0
	baz=1.3						
N14A	Grayback Hills	1.33	103	P	Pn	05 07 47.1	-0.5
	baz=1.4,SNR=115						
N14A				⇑S	Sb	05 08 05.7	+0.5
	baz=1.4						
BGU	Big Grassy Mou	1.43	99	ePn	Pn	05 07 48.5	-0.5
BGU				eSg	Sg	05 08 08.9	-0.3
K12A	Draper Farm, C	1.48	360	⇓P	Pn	05 07 48.4	-1.3
	baz=1.5,SNR=159						
K12A				⇓S	Sn	05 08 07.9	-1.1
	baz=1.5						
L10A	Juniper Basin	1.49	308	⇑P	Pn	05 07 49.0	-0.8
	baz=1.5,SNR=80						
L10A				⇑S	Sn	05 08 09.3	-0.1
	baz=1.5						
O10A	Cortez Mining,	1.49	235	⇓P	Pn	05 07 49.5	-0.3
	baz=1.5,SNR=45						
O10A				⇓S	Sn	05 08 10.1	+0.7
	baz=1.5						
L14A	Malta	1.52	54	⇑P	Pn	05 07 50.1	-0.2
	baz=1.5,SNR=110						
L14A				⇓S	Sn	05 08 10.7	+0.6
	baz=1.5						
K13A	Stover Farm, H	1.61	22	⇑P	Pn	05 07 51.1	-0.4
	baz=1.6,SNR=65						
K13A				⇑S	Sn	05 08 12.8	+0.5
	baz=1.6						
P12A	McGill	1.68	180	P	Pn	05 07 52.5	0.0
	baz=1.7,SNR=253						
P12A				⇓S	Sn	05 08 15.2	+1.1
	baz=1.7						
HVU	Hansel Valley	1.71	68	ePn	Pn	05 07 52.6	-0.3
HVU				eSg	Sg	05 08 16.4	-1.7
P11A	Circle Ranch,	1.73	202	⇓P	Pn	05 07 53.3	+0.1
	baz=1.7,SNR=16						
K11A	Parker Ranch,	1.82	333	⇓P	Pn	05 07 54.2	-0.2
	baz=1.8,SNR=150						
N15A	Stansbury Isla	1.82	98	⇓P	Pn	05 07 54.2	-0.2
	baz=1.8,SNR=164						
P13A	Bates Ranch, G	1.83	158	⇓P	Pn	05 07 54.0	-0.5
	baz=1.9						
SPUT	South Promonto	1.85	85	ePn	Pn	05 07 55.2	+0.4
SPUT				eSg	Sg	05 08 20.8	-1.9
DUG	Dugway	1.86	121	⇓P	Pn	05 07 54.0	-0.8
	baz=1.9,SNR=308						
DUG	Dugway	1.86	121	ePn	Pn	05 07 54.1	-0.7
DUG				eSg	Sg	05 08 20.9	-1.8
M15A	Larsen Ranch,	1.87	80	P	Pn	05 07 54.9	-0.2
	baz=1.9,SNR=177						
K14A	Jones Ranch, D	1.89	42	P	Pn	05 07 55.5	+0.2
	baz=1.9,SNR=74						
BMN	Battle Mountai	1.91	248	ePn	Pn	05 07 54.6	-0.9
BMN				eSg	Sg	05 08 22.0	-2.3
M09A	Marrel Ranch,	1.94	279	⇓P	Pn	05 07 55.5	-0.5
	baz=1.9,SNR=16						
P10A	Eureka	1.95	218	⇓P	Pn	05 07 56.4	+0.3
	baz=2.0,SNR=29						
N09A	Rock Creek Ran	2.01	262	P	Pn	05 07 56.3	-0.7
	baz=2.0,SNR=28						
N09A				⇓S	Sn	05 08 22.0	-0.2
	baz=2.0						
O15A	The Old Anders	2.04	115	P	Pn	05 07 57.1	-0.3
	baz=2.1,SNR=96						
O15A				⇓Sb	Sb	05 08 28.1	+2.4
	baz=2.1						
L15A	Malad City	2.07	65	P	Pn	05 07 58.1	+0.3
	baz=2.1,SNR=42						
J12A	Stokes Ranch,	2.10	356	⇓P	Pn	05 07 58.5	+0.3
	baz=2.1,SNR=130						
P14A	Drum Mountains	2.10	138	P	Pn	05 07 58.0	-0.2
	baz=2.1,SNR=72						
P14A				⇑Sb	Sb	05 08 29.4	+2.1
	baz=2.1						
Q12A	Willow Creek R	2.12	179	P	Pn	05 07 58.6	+0.1
	baz=2.1,SNR=38						
Q12A				⇑Sb	Sb	05 08 30.1	+2.3
	baz=2.1						
NOQ	North Oquirrh	2.17	103	ePn	Pn	05 07 59.0	-0.2
NOQ				eSg	Sg	05 08 29.5	-3.2
K10A	MacKenzie Ranc	2.19	318	⇑P	Pn	05 07 59.5	+0.1
	baz=2.1						
L09A	Wilkinson Ranc	2.25	293	⇓P	Pn	05 08 00.1	-0.2
	baz=2.2						
J13A	Cove Ranch, Pi	2.30	13	⇑P	Pn	05 08 01.9	+0.9
	baz=2.3						
Q13A	Wheeler Ranch,	2.30	163	⇑P	Pn	05 08 00.9	-0.1
	baz=2.3,SNR=61						
K15A	Arbon	2.33	48	⇓P	Pn	05 08 02.2	+0.8
	baz=2.3						
P09A	Austin	2.35	228	⇑P	Pn	05 08 01.4	-0.2
	baz=2.3						
MFID	Camas Ranch	2.36	343	⇑P	Pn	05 08 02.7	+0.9
	baz=2.3						
Q11A	Duckwater	2.38	194	⇑P	Pn	05 08 02.3	+0.2
	baz=2.4,SNR=22						
J14A	Carey	2.39	25	⇑P	Pn	05 08 03.4	+1.1
	baz=2.4						
HLID	Hailey	2.43	8	⇓P	Pn	05 08 03.8	+1.0
	baz=2.4						
HLID				⇑Sb	Sb	05 08 37.3	+0.5
	baz=2.4						
HLID	Hailey	2.43	8	ePn	Pn	05 08 03.6	+0.9
HLID				eSg	Sg	05 08 35.8	-5.2
NLU	North Lily Min	2.47	118	ePn	Pn	05 08 05.3	+2.1
M16A	Huntsville	2.47	85	⇓P	Pn	05 08 03.9	+0.5
	baz=2.5						
N08A	GE Springer Mi	2.48	262	⇑P	Pn	05 08 02.4	-1.0
	baz=2.5,SNR=28						
N08A				⇓S	Sn	05 08 33.6	-0.1
	baz=2.5						
Q14A	Sevier Lake (B	2.50	150	⇑P	Pn	05 08 03.2	-0.5
	baz=2.5,SNR=40						
P15A	Leamington	2.56	128	⇓P	Pn	05 08 04.0	-0.4
	baz=2.6,SNR=39						
Q10A	Clear Creek Ra	2.60	207	⇓P	Pn	05 08 05.2	+0.1
	baz=2.6,SNR=27						
K09A	Rome	2.61	307	⇓P	Pn	05 08 07.1	+1.9
	baz=2.6						
MPU	Maple Canyon	2.74	114	ePg	Pg	05 08 12.2	-3.2
MPU				eSg	Sg	05 08 49.8	-1.2
P08A	Dixie Valley	2.83	240	⇑P	Pn	05 08 08.1	-0.2
	baz=2.8,SNR=6.3						
R12A	Pony Springs,	2.84	175	P	Pn	05 08 08.8	+0.5
	baz=2.9,SNR=18						
R11A	Troy Canyon, C	2.86	191	P	Pn	05 08 08.9	+0.3
	baz=2.9,SNR=26						
DAU	Daniels Canyon	2.87	104	ePn	Pn	05 08 11.2	+2.5
DAU				ePg	Pg	05 08 17.6	-0.3
DAU				eSg	Sg	05 08 53.2	-1.8
Q15A	Fillmore	2.90	137	⇓P	Pn	05 08 08.9	-0.3
	baz=2.9,SNR=9.7						
R13A	O'Grain Ranch,	3.06	166	P	Pn	05 08 12.2	+0.8
	baz=3.1,SNR=85						
WVOR	Wild Horse Val	3.07	296	ePn	Pn	05 08 12.0	+0.5
WVOR				eSn	Sn	05 08 50.3	+2.0
WVOR				eSg	Sg	05 08 59.2	-2.5
N07B	Gerlach	3.10	264	⇑P	Pn	05 08 11.6	-0.4
	baz=3.1,SNR=10						
R14A	James Farms, M	3.20	152	⇓P	Pn	05 08 13.2	-0.2
	baz=3.2,SNR=6.4						
M07A	Soldier Meadow	3.23	275	⇓P	Pn	05 08 13.4	-0.3
	baz=3.2,SNR=17						
Q08A	Gabbs	3.27	226	⇑P	Pn	05 08 13.9	-0.4
	baz=3.3						
MSU	Marysvale	3.37	141	ePn	Pn	05 08 15.9	+0.2
MSU				ePg	Pg	05 08 27.2	-0.4
MSU				eSg	Sg	05 09 13.6	+2.3
RRI2	Red Ridge	3.44	49	ePn	Pn	05 08 17.8	+1.1
RRI2				eSg	Sg	05 09 11.1	-2.4
ARUT	Antelope Range	3.55	161	ePn	Pn	05 08 18.9	+0.8
ARUT				ePg	Pg	05 08 29.8	-1.3
ARUT				eSg	Sg	05 09 17.1	0.0
K07A	Rock Creek Ran	3.59	297	⇑P	Pn	05 08 19.0	+0.3
	baz=3.5,SNR=7.1						
S14A	Cedar City	3.65	158	⇓P	Pn	05 08 19.9	+0.4
	baz=3.7,SNR=28						
S13A	Holt Ranch, En	3.66	167	⇓P	Pn	05 08 20.2	+0.5
	baz=3.7,SNR=31						
DCID1	Drake Creek	3.67	47	ePn	Pn	05 08 21.0	+1.2
DCID1				eSg	Sg	05 09 17.8	-3.1
REDW	Red Top Meadow	3.73	52	ePn	Pn	05 08 22.3	+1.7
REDW				eSg	Sg	05 09 22.1	-0.5
TPAW	Teton Pass	3.74	50	ePn	Pn	05 08 22.1	+1.3
TPAW				eSg	Sg	05 09 18.3	-4.8
NVAR	Mina Array Bea	3.78	225	Pn	Pn	05 08 21.5	+0.1
	2.2nm,0.3s,baz=40,slow=12,SNR=55						
NVAR				Pg	Pg	05 08 33.2	-2.3
	5.7nm,0.3s,baz=43,slow=16,SNR=23						
NVAR				Lg		05 09 22.7	
	7.9nm,0.3s,baz=316,slow=8.6,SNR=6.1						
NVAR	Mina Array Bea	3.78	225	Pn	Pn	05 08 21.5	+0.1
NVAR				Pg	Pg	05 08 33.2	-2.3
NVAR				Lg		05 09 22.6	
CCUT	Cedar City	3.79	161	ePn	Pn	05 08 21.8	+0.2
CCUT				ePg	Pg	05 08 32.9	-2.9
CCUT				eSg	Sg	05 09 23.4	-1.5
SNOW	Snow King Moun	3.84	52	ePg	Pg	05 08 29.3	-7.3
T11A	Corn Creek, Al	3.92	184	P	Pn	05 08 23.9	+0.7
	baz=4.0,SNR=16						
SRU	San Rafael	3.93	120	ePn	Pn	05 08 24.4	+1.0
SRU				ePg	Pg	05 08 35.8	-2.4
SRU				eSg	Sg	05 09 27.7	-1.5
MCMT	McKenzie Canyo	3.96	22	ePn	Pn	05 08 25.6	+1.8
MCMT				eSg	Sg	05 09 24.1	-6.2
IMW	Indian Meadow	4.01	46	ePn	Pn	05 08 26.2	+1.8
IMW				eSg	Sg	05 09 23.5	-8.2
LOHW	Long Hollow	4.02	51	ePn	Pn	05 08 25.9	+1.3
MOOW	Moose Ponds	4.02	49	ePn	Pn	05 08 25.5	+0.9
MOOW				eSg	Sg	05 09 24.3	-7.7
BMO	Blue Mountains	4.09	335	ePn	Pn	05 08 27.7	+2.1
BMO				eS	Sn	05 09 22.7	+9.2
MOD	Modoc	4.12	282	ePn	Pn	05 08 27.8	+1.7
WCN	Washoe City	4.15	245	⇑P	Pn	05 08 25.8	-0.6
	baz=4.1,SNR=8.5						
PDAR	Pinedale Array	4.29	66	Pn	Pn	05 08 30.5	+2.1
	0.2nm,0.3s,baz=242,slow=12,SNR=11						
PDAR				Pg	Pg	05 08 38.2	-7.0
	0.5nm,0.3s,baz=244,slow=13,SNR=18						
PDAR				Lg		05 09 37.3	
	2.2nm,0.3s,baz=230,slow=18,SNR=7.6						
T14A	Hurricane	4.33	160	⇓P	Pn	05 08 29.7	+0.9
	baz=4.4,SNR=14						
BEKR	Beckwourth	4.36	255	⇑P	Pn	05 08 28.7	-0.5
	baz=4.3,SNR=33						
YFT	Old Faithful	4.45	41	ePn	Pn	05 08 32.1	+1.7
DLMT	Dillon	4.53	21	ePn	Pn	05 08 32.7	+1.1
DLMT				eSg	Sg	05 09 45.2	-3.0
YMR	Madison River	4.54	38	ePn	Pn	05 08 33.5	+1.7
YMR				eSg	Sg	05 09 47.0	-1.9
LKWY	Lake	4.75	43	ePg	Pg	05 08 44.2	-10
U13A	Pakoon Wash	4.79	171	⇓P	Pn	05 08 35.9	+0.6
	baz=4.8,SNR=7.9						
U14A	Mt Trumbull	4.92	164	⇓P	Pn	05 08 38.1	+1.1
	baz=5.0,SNR=21						
LRM	Limekiln Ridge	4.99	20	ePn	Pn	05 08 37.7	-0.2
LRM				ePg	Pg	05 08 53.3	-5.2
LRM				eSg	Sg	05 09 54.8	-8.3
V11A	Goodsprings	5.33	185	⇓P	Pn	05 08 43.8	+1.2
	baz=5.4,SNR=9.6						
PV04	Paradox Valley	5.38	119	ePn	Pn	05 08 47.0	+3.7
PV04				ePg	Pg	05 09 04.6	-1.5
PV04				eSg	Sg	05 10 10.5	-5.2
V12A	Nelson	5.42	180	⇓P	Pn	05 08 45.0	+1.1
	baz=5.5,SNR=11						
PV01	Paradox Valley	5.74	120	ePn	Pn	05 08 50.5	+2.2
PV01				ePg	Pg	05 09 10.0	-3.0
CHMT	Chamberlain Mo	5.88	11	ePn	Pn	05 08 52.0	+1.9
CHMT				eSg	Sg	05 10 24.4	-7.1
GCMT	Greycliff	5.99	38	ePg	Pb	05 09 07.2	-0.3
GCMT				eSg	Sb	05 10 21.7	+2.5
ISA	Isabella	6.16	208	ePg	Pg	05 09 15.5	-5.5
ISA				eSg	Sg	05 10 35.2	-5.6
SLMT	Seeley Lake	6.17	9	ePn	Pn	05 08 55.8	+1.7
SLMT				ePg	Pg	05 09 14.9	-6.1
SLMT				eSg	Sg	05 10 33.6	-7.2
WUAZ	Wupatki	6.28	153	ePn	Pn	05 08 58.7	+3.1
WUAZ				ePg	Pg	05 09 20.8	-2.4
MVCO	Mesa Verde	6.34	126	ePg	Pg	05 09 19.2	-5.3
MVCO				eSg	Sg	05 10 44.1	-2.5
BSMT	Bassoo Peak	6.69	1	ePn	Pn	05 09 02.0	+0.7
BSMT				ePg	Pg	05 09 25.7	-5.4
BSMT				eSg	Sg	05 10 53.0	-4.7
ANMO	Albuquerque	9.09	130	Pg	Px	05 10 11.0	
	0.1nm,0.3s,baz=326,slow=13,SNR=6.3						
ANMO				Lg		05 12 10.3	
	0.1nm,0.3s,baz=249,slow=12,SNR=4.2						
TXAR	Lajitas Array	14.93	139	Pn	Pn	05 10 59.4	+5.3
	0.0nm,0.3s,baz=176,slow=18,SNR=3.5						
ULM	Lac du Bonnet	16.06	49	LR	LR	05 16 39.8	
	comp=Z,103nm,19.3s,baz=189,slow=35						
YKA	Yellowknife Ar	21.37	0	P	P	05 12 11.0	+0.8
	0.9nm,0.7s,baz=180,slow=10,SNR=22						

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*NEIC **22** 05:15:00.6, 12.°30N×59.°85W, h15^{km}, MD3.7(TRN), After TRN.*
*TRN **22** 05:15:02.3, 12.°13N×60.°39W, h3^{km}, MD3.6*
*ISCJB **22** 05:15:06.0±0.9, 12.°21N±0.°05×61.°73W±0.°08, h134^{km}±9^{km}, Error ellipse: s-maj=14.7km s-min=5.9km az=29.3*
*FUNV **22** 05:15:08.9, 12.°15N×61.°62W, h113^{km}, MW2.8*
ISC 22 05:15:06.6±1.0**, 12.°22N**±0.°05×**61.°72W**±0.°08**, h132**^{km}±10^{km}**, n17, σ1**^{s}**26**/27**, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FCV	Fort Charlotte	1.04	26	eP	Pn	05 15 29.0	-1.1
FCV				eS	Sn	05 15 51.4	+3.4
SVV	Soufriere Volc	1.20	24	eP	Pn	05 15 30.5	-1.2
SVV				eS	Sn	05 15 52.5	+1.8
SSV	Crater Summit	1.22	25	eS	Sn	05 15 51.9	+0.8
TRN	Trinidad (W)	1.59	169	eP	Pn	05 15 36.9	+1.0
TRN				eS	Sn	05 16 00.1	+1.8
TRN	Trinidad (W)	1.59	169	eP	Pn	05 15 37.6	+1.7
TRN				eS	Sn	05 16 07.4	+9.1
ITEV	Isla Los Testi	1.62	238	eP	Pn	05 15 37.1	+0.8
ITEV				eS	Sn	05 15 58.3	-0.6
GUIV	Guiria	1.64	198	eP	Pn	05 15 36.8	+0.4
GUIV				eS	Sn	05 15 57.9	-1.3
SLB	Belfond	1.73	22	eP	Pn	05 15 36.1	-1.5
SLB				eS	Sn	05 15 58.6	-2.6
SLB	Belfond	1.73	22	eP	Pn	05 15 35.4	-2.2
SLB				eS	Sn	05 15 58.6	-2.6
CRUV	Carupano	2.13	224	eP	Pn	05 15 43.5	+1.1
CRUV				eS	Sn	05 16 08.6	-1.2
GUNV	Guanoco	2.37	211	eP	Pn	05 15 46.0	+0.7
GUNV				eS	Sn	05 16 13.8	-1.2
PCRV	Puerto La Cruz	3.50	235	eP	Pn	05 16 01.4	+1.5
ORIV	Oritupano	3.54	208	eP	Pn	05 16 01.0	+0.6
RIOV	Rio Grande	4.12	181	eP	Pn	05 16 08.3	+0.2
LUEV	Luepa	6.34	178	eP	Pn	05 16 36.0	-1.8
CAOV	Caicara del Or	6.64	223	eP	Pn	05 16 41.5	-0.4
BAUV	El Baul	7.01	243	eP	Pn	05 16 47.9	+1.1

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*ISCJB **22** 05:28:18.8±0.6, 10.°5S±0.°1×66.°74E±0.°09, h10^{km}, mb4.4/26, MS3.7/7, Error ellipse: s-maj=17.5km s-min=12.3km az=2.4*
*BJI **22** 05:28:18.5, 10.°50S×66.°70E, h10^{km}, mB4.9/3, mb4.5/8, Ms5.0/1, Ms7 4.7/1*
*MOS **22** 05:28:18.6±0.9, 10.°53S×66.°74E, h10^{km}, mb4.9/10, Error ellipse: s-maj=15.0km s-min=11.2km az=89.0*
*IDC **22** 05:28:18.8±0.8, 10.°54S×66.°72E, h0^{km}, mb4.2/15, mb1 4.4/15, mb1mx4.3/24, mbtmp4.3/15, MS3.7/7, Ms1 3.7/7, ms1mx3.3/40, Error ellipse: s-maj=24.1km s-min=17.4km az=5.0*
*NEIC **22** 05:28:20.6±0.5, 10.°55S×66.°74E, h10^{km}, mb4.7/5, Error ellipse: s-maj=13.8km s-min=9.7km az=6.0*
ISC 22 05:28:20.7±0.6**, 10.°5S**±0.°1×**66.°73E**±0.°09**, h10**^{km}**, n52, σ0**^{s}**76**/42**, mb4.4**/26**, MS3.7**/7**, 3C, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	22.49	39	P	P	05 33 20.9	+0.4
	14nm,1.1s,mb4.3,baz=270,slow=5.7,SNR=4.1						
PSI	Prapat	34.67	69	LR	LR	05 46 30.9	
	comp=Z,201nm,19.2s,MS3.9,baz=321,slow=32						
LSZ	Lusaka	37.83	259	eP	P	05 35 38.1	+0.3
LSZ				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.6						
LSZ	Lusaka	37.83	259	P	P	05 35 38.3	+0.5
	comp=Z,13nm,1.2s,mb4.5,baz=80,slow=9.5,SNR=7.6						
LSZ				LR	LR	05 49 57.9	
	comp=Z,102nm,18.2s,MS3.7,baz=339,slow=34						
LSZ	Lusaka	37.83	259	eP	P	05 35 38.1	+0.3
	comp=Z,15nm,1.3s,mb4.6						
LBTB	Lobatse	41.56	244	LR	LR	05 52 12.4	
	comp=Z,68nm,20.7s,MS3.5,baz=334,slow=34						
BOSA	Boshof	42.76	239	LR	LR	05 54 00.9	
	comp=Z,66nm,18.4s,MS3.6,baz=267,slow=36						
CMAR	Chiang Mai Arr	42.89	48	P	P	05 36 20.9	+1.2
	comp=Z,1.0nm,0.3s,mb4.0,baz=247,slow=9.6,SNR=6.9						
CMAR				LR	LR	05 53 32.8	
	comp=Z,52nm,19.2s,MS3.4,baz=270,slow=35						
SHL	Shillong	43.44	34	ePKP	P	05 36 24.5	+0.5
KSH	Kashi	50.52	9	eP	P	05 37 17.0	-2.1
KSH				ePcP	PcP	05 38 35.0	-2.0
KSH				ePP	PP	05 39 14.0	-1.1
KSH				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
KSH				pmax	pmax		
	comp=Z,74nm,4.2s						
KSH				LR	LR		
	comp=N,280nm,7.0s						
KSH				LR	LR		
	comp=E,240nm,8.8s						
KSH				LR	LR		
	comp=Z,310nm,7.8s						
GNI	Garni	54.38	339⇑	eP	P	05 37 47.8	+0.1
GNI				pmax	pmax		
	comp=Z,9.0nm,1.3s						
GTA	Gaotai	58.42	30	eP	P	05 38 17.4	+0.8
GTA				pP	pP	05 38 27.0	+7.2
GTA				sP	sP	05 38 31.4	+10
GTA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
BRTR	Keskin Array B	58.67	330	P	P	05 38 18.7	+0.4
	comp=Z,1.0nm,0.9s,mb3.8,baz=126,slow=6.3,SNR=6.5						
MKAR	Makanchi Array	58.73	12	P	P	05 38 17.9	-0.7
	comp=Z,0.9nm,0.6s,mb4.0,baz=200,slow=7.9,SNR=14						
KURK	Kurchatov	61.85	9	eP	P	05 38 39.4	-0.5
KURK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
KURK	Kurchatov	61.85	9	eP	P	05 38 39.4	-0.5
	comp=Z,6.6nm,1.0s,mb4.7						
ASAR	Alice Springs	65.03	111	P	P	05 39 00.6	-1.0
	comp=Z,1.5nm,0.7s,mb4.1,baz=287,slow=5.9,SNR=10						
WRA	Warramunga Arr	65.55	107	P	P	05 39 04.7	-0.3
	comp=Z,4.8nm,1.0s,mb4.5,baz=275,slow=5.4,SNR=17						
WRAB	Tennant Creek	65.56	107	eP	P	05 39 04.9	-0.2
WRAB				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
WRAB	Tennant Creek	65.56	107	eP	P	05 39 04.9	-0.2
	comp=Z,9.3nm,1.0s,mb4.8						
ZALV	Zalesovo Beam	66.03	12	P	P	05 39 06.5	-0.9
	comp=Z,2.4nm,0.9s,mb4.2,baz=216,slow=6.6,SNR=9.7						
ZALV	Zalesovo Beam	66.03	12	P	P	05 39 06.5	-0.9
ARU	Arti	67.05	355c	iP	P	05 39 13.1	-0.7
ARU				e		05 41 39.4	
ARU				S	S	05 47 59.4	-8.0
ARU				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
SONM	Songino Array	67.91	28	P	P	05 39 20.1	+0.7

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             comp=Z,7.6nm,1.0s,mb4.7,baz=217,slow=6.3,SNR=35
ULN    Ulaanbaatar        68.24  28 eP        P           05 39 21.9 +0.4
ULN                                 pmax      pmax
             comp=Z,2.0nm,0.8s,mb4.2
ULN    Ulaanbaatar        68.24  28 eP        P           05 39 21.9 +0.4
             comp=Z,2.2nm,0.8s,mb4.2
ZAK    Zakamensk          68.50  24 eP        P           05 39 22.7 -0.4
ZAK                                 pmax      pmax
             comp=Z,3.0nm,1.5s,mb4.0
AKASG  Malin Array Be     69.14 336  P        P           05 39 25.4 -1.6
             comp=Z,1.9nm,0.7s,mb4.1,baz=136,slow=5.4,SNR=6.3
AKASG  Malin Array Be     69.14 336  P        P           05 39 25.4 -1.6
TLY    Talaya             69.66  24 eP        P           05 39 31.0 +0.7
TLY                                 pmax      pmax
             comp=Z,6.0nm,1.1s,mb4.4
DBIC   Dimbokro           73.28 280  P        P           05 39 53.2 +0.2
             comp=Z,5.0nm,1.0s,mb4.4,baz=97,slow=7.7,SNR=4.5
DBIC                                LR        LR          06 10 32.1
             comp=Z,39nm,18.2s,MS3.7,baz=134,slow=35
KLMR   Klimovskoe         74.34 347 eP        P           05 39 57.2 -0.9
KLMR                                pmax      pmax
             comp=Z,30nm,1.7s,mb5.0
KSRS   Korea Array        74.50  46  P        P           05 39 59.9 +0.3
             comp=Z,0.8nm,0.5s,mb3.9,baz=243,slow=5.5,SNR=4.8
KSRS                                LR        LR          06 10 06.5
             comp=Z,67nm,18.5s,MS4.0,baz=220,slow=34
DPC    Dobruska-Polom     74.80 329 eP        P           05 40 00.9 -0.1
GERES  GERESS Array B     75.25 327  P        P           05 40 03.4 -0.4
             comp=Z,1.3nm,0.8s,mb3.9,baz=131,slow=7.0,SNR=2.4
KHC    Kasperske Hory     75.49 327 eP        P           05 40 04.6 -0.4
PVCC   Panska Ves         75.80 329 eP        P           05 40 07.0 +0.2
BRG    Berggiesshubel     76.32 329 eP        P           05 40 10.9 +1.1
BRG                                 pmax      pmax
             comp=Z,8.0nm,1.4s,mb4.5
BRG    Berggiesshubel     76.32 329 eP        P           05 40 10.9 +1.2
             comp=Z,13nm,1.4s,mb4.7
NKC    Novy Kostel        76.72 328 eP        P           05 40 13.1 +1.0
CLL    Collm              77.06 329 eP        P           05 40 15.0 +1.1
MJAR   Matsushiro Arr     81.72  51  P        P           05 40 40.4 +0.6
             comp=Z,0.8nm,0.3s,mb4.1,baz=242,slow=7.7,SNR=4.3
ESDC   Sonseca Array      82.21 313  P        P           05 40 42.5 +0.3
             comp=Z,0.5nm,0.6s,mb3.7,baz=123,slow=5.5,SNR=5.0
ESDC   Sonseca Array      82.21 313  P        P           05 40 42.5 +0.3
TIXI   Tiksi              91.52  16⇑eP        P           05 41 26.4 -0.6
TIXI                                pmax      pmax
             comp=Z,8.0nm,1.5s,mb4.8
YKA    Yellowknife Ar    128.11   1  PKIKP    PKPdf       05 47 25.9 -0.9
YKA                                  pmax     pmax
             comp=Z,1.0nm,1.1s
YKA    Yellowknife Ar    128.11   1  PKP      PKPdf       05 47 25.9 -0.9
             comp=Z,0.6nm,1.1s,baz=307,slow=1.0,SNR=5.2
RLMT   Red Lodge         145.35 355 ePKPdf    PKPdf       05 47 58.8 -0.3
MCMT   McKenzie Canyo    145.81 359 ePKPdf    PKPdf       05 48 00.5 +0.6
PDAR   Pinedale Array    147.71 355  PKPbc    PKPbc       05 48 05.7 -0.2
             comp=Z,1.5nm,1.0s,baz=352,slow=3.0,SNR=9.4
TXAR   Lajitas Array     159.24 336  PKP2     PKPab       05 48 56.9  0.0
TXAR                                 pmax     pmax
             comp=Z,1.0nm,1.0s
TXAR   Lajitas Array     159.24 336  PKPab    PKPab       05 48 56.9  0.0
             comp=Z,0.8nm,1.0s,baz=66,slow=3.0,SNR=5.2
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*ISCJB **22** 05:36:20.8±0.2, 41°.12N±0°.01×114°.94W±0°.02, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.9km az=29.1*

*NEIC **22** 05:36:21.2±0.5, 41°.12N×114°.99W, h5^{km}, ML2.6, Error ellipse: s-maj=7.0km s-min=5.9km az=165.0*

*IDC **22** 05:36:21.2±1.0, 41°.10N×114°.90W, h0^{km}, mb2.5/1, mb1 3.1/3, mb1mx3.0/21, mbtmp2.7/3, ML3.0/2, Error ellipse: s-maj=26.8km s-min=5.1km az=137.0*

ISC 22 05:36:20.9±0.2**, 41°.12N**±0°.01×**114°.93W**±0°.02**, h10^{km}, n72, σ1ˢ04**/113**, 29C-31D, Nevada**

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Code   Station Name        Δ°  AZ°     Phase ID           Time      Res
                                     Op        ISC       h  m  s    ISC
N12A   Clover Valley,     0.28 197 ⇑P         Pg         05 36 26.9 +0.4
             baz=0.3
N12A                               ⇓S         Sg         05 36 31.2 +0.9
             baz=0.3
ELK    Elko               0.44 212  Pg        Pg         05 36 29.3 -0.1
             22nm,0.3s,baz=131,slow=21,SNR=13
ELK                                 Lg                   05 36 35.4
             31nm,0.3s,baz=124,slow=22,SNR=96
ELK    Elko               0.44 212 ePg        Pg         05 36 29.2 -0.3
ELK                                eSg        Sg         05 36 35.2 -0.1
N13A   Wendover, West     0.61 115 ⇑P         Pg         05 36 32.8 +0.1
             baz=0.6,SNR=61
N13A                               ⇓S         Sg         05 36 41.3 +0.5
             baz=0.6
M13A   Montello           0.63  67 ⇓P         Pg         05 36 33.4 +0.4
             baz=0.6,SNR=26
M13A                               ⇑S         Sg         05 36 42.2 +1.0
             baz=0.6
N11A   Elko Archery C     0.68 244 ⇓P         Pg         05 36 34.2 +0.2
             baz=0.7,SNR=35
M11A   Holland Ranch,     0.72 296 ⇓P         Pg         05 36 34.5 -0.2
             baz=0.7
M11A                               ⇓S         Sg         05 36 44.0 -0.1
             baz=0.7
O12A   Currie             0.86 170 ⇓P         Pg         05 36 37.6 +0.1
             baz=0.9,SNR=104
O12A                               ⇑S         Sg         05 36 49.5 +0.8
             baz=0.9
L12A   House Creek Ra     1.03 357 ⇓P         Pg         05 36 40.0 -0.6
             baz=1.0
L12A                               ⇓S         Sg         05 36 53.6 -0.3
             baz=1.0
O11A   Cowboy Ranch,      1.13 209 ⇓P         Pb         05 36 42.4 -0.1
             baz=1.1,SNR=13
O11A                               ⇑S         Sb         05 36 57.2  0.0
             baz=1.1
L11A   Cat Creek Ranc     1.21 330 ⇑P         Pn         05 36 43.0 -0.9
             baz=1.2
L11A                               ⇑S         Sb         05 36 59.1 -0.5
             baz=1.2
L13A   Double Diamond     1.22  37 ⇑Pb        Pb         05 36 43.7 -0.3
             baz=1.2,SNR=8.8
L13A                               ⇑S         Sb         05 36 59.6 -0.2
             baz=1.2
O13A   Hicks Ranch, I     1.23 143 ⇓Pb        Pb         05 36 44.1  0.0
             baz=1.2,SNR=32
M14A   Sheep Mountain     1.25  72 ⇓P         Pn         05 36 43.8 -0.7
             baz=1.3,SNR=24
M14A                               ⇑S         Sb         05 37 00.9 +0.1
             baz=1.3
N10A   Dunphy             1.26 252 ⇓Pb        Pb         05 36 44.4 -0.3
             baz=1.2,SNR=11
N14A   Grayback Hills     1.35 101 ⇓P         Pn         05 36 45.2 -0.5
             baz=1.4,SNR=23
N14A                               ⇑S         Sb         05 37 03.9 +0.4
             baz=1.4
O10A   Cortez Mining,     1.45 236 ⇑Pb        Pb         05 36 47.2 -0.7
             baz=1.4,SNR=28
O10A                               ⇑Sb        Sb         05 37 07.0 +0.5
             baz=1.4
BGU    Big Grassy Mou     1.45  97 ePn        Pn         05 36 47.0 -0.2
BGU                                eSg        Sg         05 37 07.7 +0.1
L10A   Juniper Basin      1.50 310 ⇑Pb        Pb         05 36 47.9 -0.8
             baz=1.5,SNR=22
L10A                               ⇓Sb        Sb         05 37 08.1 +0.3
             baz=1.5
K12A   Draper Farm, C     1.51   1 ⇓P         Pn         05 36 47.2 -0.8
             baz=1.5,SNR=18
K12A                               ⇓S         Sn         05 37 07.1 -0.7
             baz=1.5
L14A   Malta              1.56  54 ⇓Pb        Pb         05 36 49.2 -0.7
             baz=1.6
L14A                               ⇓Sb        Sb         05 37 10.0 +0.3
             baz=1.6
P12A   McGill             1.65 179  Pb        Pb         05 36 50.3 -1.0
             baz=1.7,SNR=75
P12A                               ⇑Sb        Sb         05 37 13.0 +1.0
             baz=1.7
K13A   Stover Farm, H     1.65  22 ⇓Pb        Pb         05 36 50.5 -0.9
             baz=1.7
K13A                               ⇑Sb        Sb         05 37 12.5 +0.2
             baz=1.7
P11A   Circle Ranch,      1.69 202 ⇑Pb        Pb         05 36 51.4 -0.5
             baz=1.7
N15A   Stansbury Isla     1.84  96 ⇓Pb        Pb         05 36 53.7 -0.9
             baz=1.8,SNR=25
N15A                               ⇑Sb        Sb         05 37 18.5 +0.8
             baz=1.8
K11A   Parker Ranch,      1.84 334 ⇑Pb        Pb         05 36 53.4 -1.2
             baz=1.8,SNR=19
K11A                               ⇑Sb        Sb         05 37 17.8 +0.1
             baz=1.8
DUG    Dugway             1.86 119 ⇑Sb        Sb         05 37 19.1 +0.9
             baz=1.9
DUG    Dugway             1.86 119 ePn        Pn         05 36 54.4 +1.6
DUG                                eSg        Sg         05 37 19.1 -1.5
BMN    Battle Mountai     1.87 249 ePn        Pn         05 36 54.1 +1.2
BMN                                eSg        Sg         05 37 18.7 -2.2
SPUT   South Promonto     1.88  83 ePn        Pn         05 36 54.1 +1.0
SPUT                               eSg        Sg         05 37 18.8 -2.6
P10A   Eureka             1.90 218  Pb        Pb         05 36 54.4 -1.2
             baz=1.9,SNR=23
M09A   Marrel Ranch,      1.92 280 ⇓Pb        Pb         05 36 54.8 -1.2
             baz=1.9,SNR=11
N09A   Rock Creek Ran     1.98 263 ⇓P         Pn         05 36 53.9 -0.5
             baz=2.0,SNR=15
Q12A   Willow Creek R     2.08 178 ⇑P         Pn         05 36 55.9 +0.1
             baz=2.1,SNR=12
P14A   Drum Mountains     2.09 136  P         Pn         05 36 56.0  0.0
             baz=2.1,SNR=18
L15A   Malad City         2.11  64 ⇓P         Pn         05 36 56.5 +0.3
             baz=2.1,SNR=11
J12A   Stokes Ranch,      2.13 357 ⇑P         Pn         05 36 57.5 +1.0
             baz=2.1,SNR=46
NOQ    North Oquirrh      2.18 101 ePn        Pn         05 36 59.6 +2.4
NOQ                                eSg        Sg         05 37 29.8 -1.3
K10A   MacKenzie Ranc     2.20 320 ⇑Pb        Pb         05 36 59.3 -1.4
             baz=2.2,SNR=32
L09A   Wilkinson Ranc     2.24 295  Pb        Pb         05 37 00.2 -1.2
             baz=2.2,SNR=17
Q13A   Wheeler Ranch,     2.27 162 ⇑P         Pn         05 36 58.8 +0.3
             baz=2.3,SNR=24
Q11A   Duckwater          2.34 194  P         Pn         05 37 00.3 +1.0
             baz=2.3,SNR=10
J13A   Cove Ranch, Pi     2.34  14 ⇓P         Pn         05 37 00.6 +1.2
             baz=2.3,SNR=41
K15A   Arbon              2.38  48 ⇓P         Pn         05 37 00.9 +1.0
             baz=2.4,SNR=12
MFID   Camas Ranch        2.39 344  P         Pn         05 37 02.0 +2.0
             baz=2.4,SNR=14
J14A   Carey              2.44  25 ⇑P         Pn         05 37 02.0 +1.2
             baz=2.4,SNR=18
HLID   Hailey             2.47   9 ⇑P         Pn         05 37 02.5 +1.3
             baz=2.5,SNR=32
HLID   Hailey             2.47   9 ePn        Pn         05 37 02.2 +1.1
HLID                               eSg        Sg         05 37 35.4 -4.9
NLU    North Lily Min     2.47 117 ePn        Pn         05 37 07.7 +6.5
NLU                                eSg        Sg         05 37 38.7 -1.5
Q14A   Sevier Lake (B     2.48 149 ⇑P         Pn         05 37 01.2 -0.1
             baz=2.5,SNR=13
P15A   Leamington         2.55 126 ⇑P         Pn         05 37 02.1 -0.2
             baz=2.6,SNR=14
K09A   Rome               2.61 308  Pb        Pb         05 37 06.1 -1.7
             baz=2.6,SNR=32
P08A   Dixie Valley       2.79 240 ⇓P         Pn         05 37 06.1 +0.5
             baz=2.8,SNR=6.9
R11A   Troy Canyon, C     2.81 190 ⇓P         Pn         05 37 06.5 +0.7
             baz=2.8,SNR=17
I13A   Wildhorse Cree     2.86  12  P         Pn         05 37 08.2 +1.8
             baz=2.9,SNR=18
DAU    Daniels Canyon     2.88 103 ePn        Pn         05 37 10.0 +3.2
DAU                                ePg        Pg         05 37 15.7 -0.4
DAU                                eSg        Sg         05 37 52.8 -0.6
R13A   O'Grain Ranch,     3.03 165  P         Pn         05 37 10.1 +1.2
             baz=3.0,SNR=23
WVOR   Wild Horse Val     3.06 297 ePn        Pn         05 37 09.0 -0.3
WVOR                               eSn        Sn         05 37 54.5 +8.5
WVOR                               eSg        Sg         05 38 05.9 +6.7
TMUT   Trail Mountain     3.38 121 ePg        Pg         05 37 26.1 +0.4
TMUT                               eSg        Sg         05 38 07.9 -1.6
RRI2   Red Ridge          3.49  49 ePn        Pn         05 37 15.6 +0.5
RRI2                               eSg        Sg         05 38 10.0 -2.7
ARUT   Antelope Range     3.52 160 ePn        Pn         05 37 16.9 +1.2
ARUT                               ePg        Pg         05 37 27.1 -1.2
ARUT                               eSg        Sg         05 38 13.7 -0.3
S13A   Holt Ranch, En     3.63 166 ⇓P         Pn         05 37 18.0 +0.9
             baz=3.6,SNR=15
NVAR   Mina Array Bea     3.74 225  Pn        Pn         05 37 19.3 +0.7
             0.5nm,0.3s,baz=42,slow=12,SNR=9.6
NVAR                                Pg        Pg         05 37 28.8 -3.6
             1.4nm,0.3s,baz=38,slow=17,SNR=6.8
NVAR                                Sn        Sn         05 38 06.1 +3.5
             0.9nm,0.3s,baz=230,slow=50,SNR=3.7
NVAR                                Lg                   05 38 19.1
             2.2nm,0.3s,baz=63,slow=40,SNR=6.0
CCUT   Cedar City         3.77 161 ePg        Pg         05 37 30.2 -2.9
CCUT                               eSg        Sg         05 38 20.9 -0.9
TPAW   Teton Pass         3.79  50 ePn        Pn         05 37 21.6 +2.4
TPAW                               eSg        Sg         05 38 18.9 -3.5
T11A   Corn Creek, Al     3.88 183 ⇓P         Pn         05 37 21.5 +1.0
             baz=3.9,SNR=10
BMO    Blue Mountains     4.12 336 ePn        Pn         05 37 25.0 +1.3
BMO                                eSg        Sg         05 38 24.4 -8.6
BEKR   Beckwourth         4.32 255 ⇓P         Pn         05 37 26.8 +0.2
             baz=4.3,SNR=13
PDAR   Pinedale Array     4.33  66  Pn        Pn         05 37 30.0 +3.2
             0.1nm,0.3s,baz=234,slow=12,SNR=6.9
PDAR                                Pg        Pg         05 37 38.3 -5.5
             0.2nm,0.3s,baz=236,slow=14,SNR=6.1
PDAR                                Lg                   05 38 37.3
             0.4nm,0.3s,baz=244,slow=31,SNR=6.9
WUAZ   Wupatki            6.25 152 ePg        Pg         05 38 18.9 -1.7
MVCO   Mesa Verde         6.34 126 ePg        Pg         05 38 18.6 -3.7
YKA    Yellowknife Ar    21.41   0  P         P          05 41 10.3 +1.8
             0.2nm,0.7s,baz=180,slow=10,SNR=6.2
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CASC 22 05:38:43.7±3.0**, 9°.02N**×**83°.20W, h41^{km}**±16^{km}**, MD3.6, 2C-2D, Costa Rica**

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Code   Station Name        Δ°  AZ°     Phase ID           Time      Res
                                     Op        ISC       h  m  s    ISC
BAR1                      0.24 334⇑eP         Pn         05 38 52.1 +0.6
BAR1                               eS         Sn         05 38 58.5 +1.5
ACR    Cerro Adams        0.37 175⇓eP         Pn         05 38 51.4 -1.4
ACR                                eS         Sn         05 38 58.9 -0.3
CNI    Changuinola        0.78  60⇑iP         Pn         05 39 00.9 +2.7
CNI                                eS         Sn         05 39 07.3 -1.6
URSC   Urasca             0.99 325 eP         Pn         05 39 01.2  0.0
URSC                               eS         Sn         05 39 15.1 +1.1
LCR2   La Lucha 2         1.07 312 eP         Pn         05 39 01.6 -0.6
LCR2                               eS         Sn         05 39 16.8 +0.9
LAJ    Bijagual           1.23 313⇓eP         Pn         05 39 09.1 +4.6
LAJ                                eS         Sn         05 39 28.1 +8.2
CGA2   Cerro Gallo 2      1.59 309 eP         Pn         05 39 10.2 +0.8
CGA2                               eS         Sn         05 39 29.4 +0.7
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*ISCJB **22** 05:42:55.0±1.9, 18°.0S±0°.1×178°.54W±0°.09, h546^{km}±25^{km}, mb4.1/25, Error ellipse: s-maj=21.0km s-min=10.9km az=158.3*

*NEIC **22** 05:42:55.2±1.6, 17°.95S×178°.47W, h539^{km}±19^{km}, mb4.4/11, Error ellipse: s-maj=15.9km s-min=9.1km az=171.0*

*IDC **22** 05:42:57.8±2.1, 17°.94S×178°.53W, h565^{km}±24^{km}, mb3.6/16, mb1 3.8/16, mb1mx3.8/21, mbtmp3.6/16, Error ellipse: s-maj=18.4km s-min=10.4km az=152.0*

ISC 22 05:42:55.7±1.8**, 18°.0S**±0°.1×**178°.51W**±0°.09**, h541^{km}**±23^{km}**, n57, σ0ˢ86**/44**, mb4.1**/25**, 1C-8D, Fiji Islands region**

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Code   Station Name        Δ°  AZ°     Phase ID           Time      Res
                                     Op        ISC       h  m  s    ISC
RAO    Raoul Island      11.27 177  P         P          05 45 25.2 -1.3
             160nm,0.3s,baz=219,slow=20,SNR=8.1
URZ    Urewera           20.60 190  P         P          05 46 56.3 -1.2
             11nm,0.8s,baz=85,slow=21,SNR=3.4
EIDS   Eidsvold          29.17 250 eP         P          05 48 13.8 +0.2
             13nm,0.7s,mb4.7
ARMA   Armidale          29.84 240 eP         P          05 48 20.8 +1.5
ARMA   Armidale          29.84 240 eP         P          05 48 20.6 +1.2
             7.5nm,0.6s,mb4.4
CNB    Canberra Magne    33.33 232 eP         P          05 48 50.2 +1.2
CTA    Charters Tower    33.35 261⇓iP         P          05 48 49.7 +0.3
             8.6nm,0.6s,mb4.5
CTA    Charters Tower    33.35 261  P         P          05 48 49.9 +0.5
             5.9nm,0.5s,mb4.4,baz=90,slow=10,SNR=20
CTA    Charters Tower    33.35 261  P         P          05 48 49.9 +0.5
CTAO   Charters Tower    33.35 261 eP         P          05 48 49.7 +0.2
             8.3nm,0.6s,mb4.4
COEN   Coen              37.01 270 eP         P          05 49 20.5 +0.5
             91nm,0.6s
COEN                               epP        pP         05 50 54.6 +1.2
TOO    Toolangi          37.07 231 eP         P          05 49 21.4 +1.3
STKA   Stephens Creek    38.53 241⇓iP         P          05 49 33.3 +1.2
             9.6nm,0.7s,mb4.4
STKA   Stephens Creek    38.53 241  P         P          05 49 33.3 +1.2
             11nm,0.6s,mb4.6,baz=91,slow=9.0,SNR=22
WB2    Warramunga Arr    44.52 260 eP         P          05 50 18.7 -1.0
WRAB   Tennant Creek     44.52 260 eP         P          05 50 18.7 -1.0
             5.0nm,0.4s,mb4.4
WRA    Warramunga Arr    44.53 260  P         P          05 50 19.2 -0.6
             12nm,0.5s,mb4.7,baz=94,slow=7.2,SNR=110
WRA                                 S         S          05 56 14.3 -1.9
             1.3nm,1.1s,baz=5.8,slow=21,SNR=3.2
ASAR   Alice Springs     44.69 254  P         P          05 50 21.3 +0.4
             114nm,0.5s,baz=89,slow=8.3,SNR=1009
ASAR                                S         S          05 56 17.1 -1.3
             2.2nm,0.9s,baz=84,slow=16,SNR=8.7
KAKA   Kakadu            47.49 269 eP         P          05 50 42.1 -0.2
             11nm,0.4s,mb4.7
KAKA   Kakadu            47.49 269 eP         P          05 50 41.7 -0.5
             53nm,0.6s,mb5.2
FORT   Forrest           49.91 245 eP         P          05 50 59.5 -0.5
             26nm,0.6s,mb4.8
FORT   Forrest           49.91 245 eP         P          05 50 59.4 -0.6
             32nm,0.7s,mb4.9
FITZ   Fitzroy Crossi    52.93 261 eP         P          05 51 22.4 +0.4
             4.1nm,0.3s,mb4.2
FITZ   Fitzroy Crossi    52.93 261  P         P          05 51 22.4 +0.4
             2.3nm,0.3s,mb4.0,baz=130,slow=3.6,SNR=15
FITZ   Fitzroy Crossi    52.93 261 eP         P          05 51 21.9 -0.1
             3.6nm,0.6s,mb3.9
MJAR   Matsushiro Arr    67.88 323  P         P          05 52 59.8 -0.6
             3.8nm,0.6s,mb4.1,baz=165,slow=6.3,SNR=9.8
QSPA   South Pole Qui    72.11 180  P         P          05 53 25.7 +0.9
             1.5nm,0.7s,mb3.5,baz=74,slow=1.0,SNR=7.8
PETK   Petropavlovsk-    73.69 345  P         P          05 53 33.5 -0.7
             2.1nm,0.6s,mb3.7,baz=140,slow=9.4,SNR=6.6
KSRS   Korea Array       74.67 318  P         P          05 53 40.5 +0.4
             1.2nm,0.5s,mb3.5,baz=125,slow=6.6,SNR=4.8
ISA    Isabella          77.91  46 eP         P          05 53 57.7 -0.3
             4.5nm,0.8s,mb3.9
NVAR   Mina Array Bea    79.52  44  P         P          05 54 06.8 +0.3
             2.7nm,0.7s,mb3.7,baz=223,slow=8.6,SNR=6.9
TUC    Tucson            81.80  52 eP         P          05 54 18.8 +0.4
             1.4nm,0.8s,mb3.4
PSI    Prapat            83.80 275  P         P          05 54 27.6 -1.3
             7.4nm,0.8s,mb4.3,baz=115,slow=3.3,SNR=4.3
TXAR   Lajitas Array     86.09  58  P         P          05 54 40.5 +0.8
             3.1nm,0.7s,mb4.0,baz=217,slow=5.8,SNR=34
XAN    Xi'an             86.21 307  P         P          05 54 40.8 +0.6
XAN                                 pmax      pmax
             comp=Z,8.0nm,0.9s,mb4.3
XAN                                 pmax      pmax
             comp=Z,52nm,4.9s
BILL   Bilibino          86.46 354 eP         P          05 54 40.6  0.0
             comp=Z,9.5nm,0.6s,mb4.6
IMW    Indian Meadow     87.08  42 eP         P          05 54 44.2 +0.2
             comp=Z,8.2nm,1.5s,mb4.1
PDAR   Pinedale Array    87.44  43  P         P          05 54 45.5 -0.3
             comp=Z,1.1nm,0.6s,mb3.6,baz=219,slow=2.5,SNR=8.4
CMAR   Chiang Mai Arr    88.81 290  P         P          05 54 54.2 +1.6
             comp=Z,1.0nm,0.4s,mb4.0,baz=112,slow=2.9,SNR=8.3
SONM   Songino Array     93.52 319  P         P          05 55 13.9 +0.2
             comp=Z,0.4nm,0.8s,mb3.6,baz=106,slow=4.7,SNR=3.6
YKA    Yellowknife Ar    94.41  25  P         P          05 55 15.9 -1.4
             comp=Z,0.3nm,0.8s,mb3.5,baz=246,slow=4.7,SNR=7.6
YKA    Yellowknife Ar    94.41  25  P         P          05 55 15.9 -1.5
MKAR   Makanchi Array   109.10 314  PKiKP     PKiKP      06 00 22.6 -1.4
             comp=Z,0.4nm,0.4s,baz=208,slow=0.5,SNR=7.0
BVAR   Borovoye Array   116.82 321  PKP       PKPdf      06 00 37.1 -1.5
             comp=Z,0.8nm,0.4s,baz=139,slow=2.1,SNR=5.1
BUR08  Bucovina Ar. S   144.59 332 ePKPdf     PKPdf      06 01 30.9 +0.1
BURAR  Bucovina Array   144.60 332⇓iP         PKPdf      06 01 31.6 +0.8
BRTR   Keskin Array B   144.75 315  PKP       PKPdf      06 01 31.2 -0.1
             comp=Z,1.8nm,0.4s,baz=130,slow=3.9,SNR=13
VRI    Vrincioaia       145.16 329⇓iP         PKPab      06 01 39.1 +5.4
CLL    Collm            145.48 347⇑iPKPbc     PKPbc      06 01 33.0 -0.4
             comp=Z,10.0nm,1.1s
MLR    Muntele Rosu     145.82 329⇓iP         PKPbc      06 01 35.5 +0.9
MMAI   Mount Meron Ar   146.09 303  PKPbc     PKPbc      06 01 36.0 +0.2
             comp=Z,3.5nm,0.6s,baz=64,slow=3.7,SNR=5.4
VOIR                    146.29 330⇓iP         PKPbc      06 01 35.7 -0.2
DRGR                    146.33 333⇓iP         PKPbc      06 01 36.1 +0.1
GZR    Gura Zlata       147.39 332⇓iP         PKPbc      06 01 38.3 -0.6
KHC    Kasperske Hory   147.39 345 ePKP       PKPbc      06 01 38.0 -0.7
GERES  GERESS Array B   147.63 345  PKPbc     PKPbc      06 01 39.0 -0.4
             comp=Z,2.3nm,0.5s,baz=20,slow=3.0,SNR=9.6
DAVOX  Davos/Dischmat   150.43 348  PKPbc     PKPbc      06 01 46.2  0.0
             comp=Z,4.2nm,0.6s,baz=192,slow=0.6,SNR=8.6
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*BJI **22** 05:45:44.7, 39°.71N×77°.24E, h24^{km}, ML2.8/5*

ISC 22 05:45:37.3±2.5**, 39°.1N**±0°.1×**77°.6E**±0°.1**, h10^{km}, n10, σ1ˢ26**/13**, 2C-3D, Southern Xinjiang**

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Code   Station Name        Δ°  AZ°     Phase ID           Time      Res
                                     Op        ISC       h  m  s    ISC
KSH    Kashi              1.34 289⇓iPg        Pg         05 46 03.0 -0.1
KSH                                 Sg        Sg         05 46 20.5 -0.1
KSH                                 smax
             comp=N,480nm,0.4s
KSH                                 smax
             comp=E,310nm,0.6s
ULHL   Ulahol             3.32 342  P         Pn         05 46 28.9 -0.4
             SNR=23
KZA    Kyzart             3.49 330  P         Pn         05 46 31.1 -0.5
             SNR=26
UCH    Uchtor             3.92 324  P         Pn         05 46 39.4 +1.8
             SNR=18
KBK    Karagaybulak       4.10 331  P         Sn         05 47 28.0 +0.1
             SNR=5.8
TKM2   Tokmak 2           4.12 339 ⇑Pn        Pn         05 46 37.8 -2.5
             comp=E,4.0nm,0.3s
TKM2                               ⇓Sn        Sn         05 47 28.5  0.0
             comp=E,24nm,0.7s
TKM2   Tokmak 2           4.12 339  P         Pn         05 46 43.6 +3.3
             SNR=5.8
AAK    Ala-Archa          4.26 327  P         Pn         05 46 45.2 +3.0
             SNR=10
AML    Almayashu          4.26 317  P         Pn         05 46 38.7 -3.5
             SNR=10
KK31   Karatay Array      6.70 309 ⇓Pn        Pb         05 47 28.8 -5.0
             comp=E,1.5nm,0.6s,baz=132,slow=16,SNR=14
KK31                               ⇑Sn        Sb         05 48 47.1 -6.7
             comp=E,1.4nm,0.5s,baz=123,slow=29,SNR=3.0
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*ISCJB **22** 05:47:46.3±0.2, 41°.15N±0°.01×114°.89W±0°.02, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.8km az=144.7*

*NEIC **22** 05:47:46.2, 41°.15N×114°.93W, h14^{km}, ML2.6, After REN.*

*IDC **22** 05:47:46.5±1.1, 41°.14N×114°.87W, h0^{km}, mb2.4/1, mb1 3.0/3, mb1mx3.0/21, mbtmp2.6/3, ML3.0/2, Error ellipse: s-maj=27.7km s-min=5.2km az=137.0*

ISC 22 05:47:46.5±0.2**, 41°.15N**±0°.01×**114°.89W**±0°.02**, h10^{km}, n91, σ1ˢ08**/139**, 39C-38D, Nevada**

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Code   Station Name        Δ°  AZ°     Phase ID           Time      Res
                                     Op        ISC       h  m  s    ISC
N12A   Clover Valley,     0.31 201  P         Pg         05 47 52.9 +0.2
             baz=0.3,SNR=162
N12A                               ⇑S         Sg         05 47 57.7 +0.7
             baz=0.3
ELK    Elko               0.48 213  Pg        Pg         05 47 55.5 -0.4
             19nm,0.3s,baz=9.9,slow=12,SNR=27
ELK                                 Lg                   05 48 02.1
             47nm,0.3s,baz=131,slow=20,SNR=70
ELK    Elko               0.48 213 ePg        Pg         05 47 55.5 -0.4
ELK                                eSg        Sg         05 48 02.0 -0.2
M13A   Montello           0.59  68 ⇓P         Pg         05 47 57.8 -0.1
             baz=0.6,SNR=31
N13A   Wendover, West     0.59 119  P         Pg         05 47 58.2 +0.1
             baz=0.6,SNR=188
N13A                               ⇑S         Sg         05 48 06.3 +0.5
             baz=0.6
N11A   Elko Archery C     0.72 243 ⇓P         Pg         05 47 59.7 -0.7
             baz=0.7,SNR=31
N11A                               ⇑S         Sg         05 48 09.2 -0.6
             baz=0.7
M11A   Holland Ranch,     0.73 293 ⇑P         Pg         05 47 59.3 -1.4
             baz=0.7
M11A                               ⇓S         Sg         05 48 08.7 -1.6
             baz=0.7
O12A   Currie             0.89 173  P         Pg         05 48 03.4 -0.1
             baz=0.9,SNR=46
O12A                               ⇓S         Sg         05 48 15.7 +0.7
             baz=0.9
L12A   House Creek Ra     1.00 355 ⇑P         Pg         05 48 04.8 -1.0
             baz=1.0
L12A                               ⇑S         Sg         05 48 17.8 -1.0
             baz=1.0
O11A   Cowboy Ranch,      1.17 210 ⇓P         Pb         05 48 08.9 +0.1
             baz=1.2,SNR=56
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O11A				⇓S	Sb	05 48 23.9	-0.1
	baz=1.2						
L13A	Double Diamond	1.18	37	⇓P	Pb	05 48 07.6	-1.3
	baz=1.2						
L13A				⇓S	Sb	05 48 23.6	-0.7
	baz=1.2						
L11A	Cat Creek Ranc	1.21	328	⇓P	Pb	05 48 08.2	-1.3
	baz=1.2						
L11A				⇓S	Sb	05 48 23.8	-1.3
	baz=1.2						
M14A	Sheep Mountain	1.22	72	⇓P	Pn	05 48 08.5	-1.0
	baz=1.2						
M14A				⇑S	Sb	05 48 25.4	0.0
	baz=1.2						
O13A	Hicks Ranch, I	1.23	145	⇑P	Pn	05 48 09.6	-0.1
	baz=1.2,SNR=114						
O13A				⇑S	Sb	05 48 27.3	+1.7
	baz=1.2						
M10A	I.L. Ranch, Tu	1.30	287	⇓P	Pn	05 48 10.3	-0.3
	baz=1.3,SNR=70						
M10A				⇑S	Sb	05 48 27.8	+0.1
	baz=1.3						
N10A	Dunphy	1.30	251	⇓P	Pn	05 48 10.6	-0.1
	baz=1.3,SNR=14						
N10A				⇑S	Sb	05 48 27.8	+0.1
	baz=1.3						
N14A	Grayback Hills	1.32	102	⇓P	Pn	05 48 10.5	-0.5
	baz=1.3,SNR=89						
N14A				⇑S	Sb	05 48 29.4	+1.0
	baz=1.3						
BGU	Big Grassy Mou	1.43	98	*e*Pn	Pn	05 48 12.1	-0.3
BGU				*e*Sg	Sg	05 48 32.7	+0.3
K12A	Draper Farm, C	1.49	360	⇑P	Pn	05 48 12.2	-1.1
	baz=1.5						
K12A				⇓S	Sn	05 48 31.4	-1.4
	baz=1.5						
O10A	Cortez Mining,	1.49	236	⇑P	Pn	05 48 13.1	-0.2
	baz=1.5,SNR=28						
O10A				⇑S	Sn	05 48 33.8	+0.9
	baz=1.5						
L10A	Juniper Basin	1.51	309	⇑P	Pn	05 48 12.9	-0.6
	baz=1.5,SNR=174						
L10A				⇑S	Sn	05 48 33.1	-0.1
	baz=1.5						
L14A	Malta	1.52	54	⇑P	Pn	05 48 13.4	-0.3
	baz=1.5,SNR=44						
L14A				⇑S	Sn	05 48 34.1	+0.5
	baz=1.5						
K13A	Stover Farm, H	1.62	22	⇑P	Pn	05 48 14.8	-0.3
	baz=1.6,SNR=27						
K13A				⇑S	Sn	05 48 36.1	+0.1
	baz=1.6						
P12A	McGill	1.67	180	⇑P	Pn	05 48 15.8	0.0
	baz=1.7,SNR=70						
P12A				⇓S	Sn	05 48 38.5	+1.2
	baz=1.7						
HVU	Hansel Valley	1.71	68	*e*Pn	Pn	05 48 15.9	-0.5
HVU				*e*Sg	Sg	05 48 39.6	-1.9
P11A	Circle Ranch,	1.72	203	⇑P	Pn	05 48 16.8	+0.3
	baz=1.7,SNR=9.2						
N15A	Stansbury Isla	1.81	97	⇓P	Pn	05 48 17.5	-0.2
	baz=1.8,SNR=70						
P13A	Bates Ranch, G	1.82	158	⇑P	Pn	05 48 17.6	-0.2
	baz=1.8						
P13A				⇓Sb	Sb	05 48 44.5	+1.9
	baz=1.8						
K11A	Parker Ranch,	1.83	333	⇑P	Pn	05 48 17.3	-0.7
	baz=1.8,SNR=48						
K11A				⇑S	Sn	05 48 42.1	+0.8
	baz=1.8						
DUG	Dugway	1.84	120	⇓P	Pn	05 48 17.8	-0.4
	baz=1.9,SNR=117						
DUG	Dugway	1.84	120	*e*Pn	Pn	05 48 19.2	+1.1
DUG				*e*Sg	Sg	05 48 44.1	-1.6
SPUT	South Promonto	1.85	84	*e*Pn	Pn	05 48 19.2	+0.9
SPUT				*e*Sg	Sg	05 48 44.3	-1.7
M15A	Larsen Ranch,	1.87	79	⇑P	Pn	05 48 19.0	+0.5
	baz=1.9,SNR=55						
K14A	Jones Ranch, D	1.90	42	⇑P	Pn	05 48 19.0	+0.1
	baz=1.9,SNR=18						
BMN	Battle Mountai	1.91	249	*e*Pn	Pn	05 48 19.2	+0.2
BMN				*e*Sg	Sg	05 48 45.6	-2.2
P10A	Eureka	1.94	219	⇓P	Pn	05 48 19.4	-0.1
	baz=1.9,SNR=17						
M09A	Marrel Ranch,	1.95	279	⇑P	Pn	05 48 19.5	-0.1
	baz=1.9,SNR=30						
M09A				⇑Sb	Sb	05 48 47.3	+0.9
	baz=1.9						
N09A	Rock Creek Ran	2.02	262	⇓P	Pn	05 48 19.7	-0.8
	baz=2.0						
O15A	The Old Anders	2.03	114	⇓P	Pn	05 48 20.9	+0.2
	baz=2.1						
L15A	Malad City	2.07	65	⇓P	Pn	05 48 21.4	+0.1
	baz=2.1,SNR=23						
P14A	Drum Mountains	2.09	138	⇓P	Pn	05 48 21.3	-0.3
	baz=2.1,SNR=24						
Q12A	Willow Creek R	2.10	179	⇓P	Pn	05 48 21.9	+0.1
	baz=2.1,SNR=12						
J12A	Stokes Ranch,	2.11	356	P	Pn	05 48 22.4	+0.6
	baz=2.1,SNR=59						
NOQ	North Oquirrh	2.16	102	*e*Pn	Pn	05 48 24.3	+1.8
NOQ				*e*Sg	Sg	05 48 54.5	-1.3
K10A	MacKenzie Ranc	2.20	318	⇓P	Pn	05 48 24.3	+1.2
	baz=2.2,SNR=20						
L09A	Wilkinson Ranc	2.26	294	⇑P	Pn	05 48 25.2	+1.3
	baz=2.2,SNR=16						
Q13A	Wheeler Ranch,	2.29	163	⇓P	Pn	05 48 24.4	+0.1
	baz=2.3,SNR=21						
J13A	Cove Ranch, Pi	2.31	13	⇑P	Pn	05 48 25.5	+0.9
	baz=2.3,SNR=56						
K15A	Arbon	2.34	48	⇓P	Pn	05 48 25.7	+0.7
	baz=2.4,SNR=21						
MFID	Camas Ranch	2.37	343	⇓P	Pn	05 48 27.1	+1.6
	baz=2.4,SNR=16						
Q11A	Duckwater	2.37	195	⇓P	Pn	05 48 25.8	+0.4
	baz=2.4,SNR=18						
J14A	Carey	2.40	25	P	Pn	05 48 26.9	+1.1
	baz=2.4,SNR=44						
HLID	Hailey	2.44	8	P	Pn	05 48 27.4	+1.0
	baz=2.4,SNR=44						
HLID	Hailey	2.44	8	*e*Pn	Pn	05 48 27.1	+0.8
HLID				*e*Sg	Sg	05 48 59.1	-5.8
NLU	North Lily Min	2.45	118	*e*Pn	Pn	05 48 27.3	+0.7
NLU				*e*Pg	Pg	05 48 31.1	-2.4
N08A	GE Springer Mi	2.48	263	⇑P	Pn	05 48 26.2	-0.7
	baz=2.5						
Q14A	Sevier Lake (B	2.49	150	⇓P	Pn	05 48 26.8	-0.2
	baz=2.5,SNR=8.7						
Q10A	Clear Creek Ra	2.59	207	⇓P	Pn	05 48 28.7	+0.2
	baz=2.6						
L16A	Fish Haven	2.74	70	⇓P	Pn	05 48 31.7	+1.2
	baz=2.8						
L08A	Fields	2.79	293	⇓P	Pn	05 48 33.8	+2.7
	baz=2.8						
I13A	Wildhorse Cree	2.83	11	⇑P	Pn	05 48 33.0	+1.3
	baz=2.8,SNR=28						
R11A	Troy Canyon, C	2.84	191	⇑P	Pn	05 48 32.1	+0.2
	baz=2.8,SNR=28						
DAU	Daniels Canyon	2.86	104	*e*Pg	Pg	05 48 40.7	-0.5
DAU				*e*Sg	Sg	05 49 17.0	-1.2
I11A	Placerville	2.87	344	⇑P	Pn	05 48 34.0	+1.7
	baz=2.9,SNR=11						
J15A	Blackfoot	2.90	38	⇓P	Pn	05 48 33.6	+1.0
	baz=2.9,SNR=11						
Q09A	Carvers	2.90	218	⇓P	Pn	05 48 33.7	+1.0
	baz=2.9						
K16A	Soda Springs	2.98	55	⇓P	Pn	05 48 34.9	+1.1
	baz=3.0,SNR=11						
R13A	O’Grain Ranch,	3.05	166	⇑P	Pn	05 48 35.6	+0.9
	baz=3.1,SNR=34						
WVOR	Wild Horse Val	3.08	296	*e*Pg	Pg	05 48 38.9	-6.6
WVOR				*e*Sg	Sg	05 49 20.1	-5.4
N07B	Gerlach	3.11	265	⇑P	Pn	05 48 35.3	-0.3
	baz=3.1						
MSU	Marysvale	3.36	141	*e*Pn	Pn	05 48 40.8	+1.8
TMUT	Trail Mountain	3.37	122	*e*Pg	Pg	05 48 48.5	-2.6
RRI2	Red Ridge	3.44	49	*e*Pn	Pn	05 48 41.3	+1.2
RRI2				*e*Sg	Sg	05 49 31.9	-5.2
ARUT	Antelope Range	3.54	161	*e*Pg	Pg	05 48 53.6	-0.7
ARUT				*e*Sg	Sg	05 49 39.2	-0.9
DCID1	Drake Creek	3.68	47	*e*Pn	Pn	05 48 47.9	+4.5
DCID1				*e*Sg	Sg	05 49 43.6	-0.9
TPAW	Teton Pass	3.74	50	*e*Pn	Pn	05 48 48.2	+3.9
TPAW				*e*Sg	Sg	05 49 40.5	-6.2
NVAR	Mina Array Bea	3.78	225	Pn	Pn	05 48 44.7	-0.1
	0.4nm,0.3s,baz=41,slow=12,SNR=3.5						
NVAR				Pg	Pg	05 48 55.6	-3.2
	1.8nm,0.3s,baz=50,slow=16,SNR=14						
NVAR				Lg		05 49 46.0	
	4.4nm,0.3s,baz=199,slow=39,SNR=8.0						
NVAR	Mina Array Bea	3.78	225	Pn	Pn	05 48 44.7	-0.1
NVAR				Pg	Pg	05 48 55.6	-3.2
NVAR				Lg		05 49 46.0	
CCUT	Cedar City	3.78	161	*e*Pg	Pg	05 48 56.7	-2.3
CCUT				*e*Sg	Sg	05 49 46.5	-1.4
T11A	Corn Creek, Al	3.91	184	⇓P	Pn	05 48 47.0	+0.4
	baz=3.9,SNR=12						
MCMT	McKenzie Canyo	3.97	21	*e*Pn	Pn	05 48 49.5	+2.1
MCMT				*e*Sg	Sg	05 49 50.2	-3.8
IMW	Indian Meadow	4.01	45	*e*Pn	Pn	05 48 49.9	+1.9
IMW				*e*Sg	Sg	05 49 45.5	-10
LOHW	Long Hollow	4.02	51	*e*Pg	Pb	05 48 53.7	-3.6
MOOW	Moose Ponds	4.02	48	Pn	Pn	05 48 49.8	+1.7
MOOW				*e*Pg	Pb	05 48 53.9	-3.5
MOOW				*e*Sg	Sg	05 49 48.3	-7.3
BMO	Blue Mountains	4.11	335	*e*Pg	Pg	05 48 59.4	-5.7
BMO				*e*Sg	Sg	05 49 50.3	-8.0
MOD	Modoc	4.13	282	*e*Pn	Pn	05 48 52.0	+2.3
MOD				*e*Sg	Sg	05 49 56.3	-2.9
PDAR	Pinedale Array	4.29	66	Pn	Pn	05 48 55.0	+3.2
	0.1nm,0.3s,baz=252,slow=12,SNR=7.1						
PDAR				Pg	Pg	05 49 02.7	-6.0
	0.1nm,0.3s,baz=241,slow=13,SNR=4.2						
PDAR				Lg		05 50 01.9	
	0.5nm,0.3s,baz=231,slow=28,SNR=4.9						
BEKR	Beckwourth	4.36	255	⇑P	Pn	05 48 52.4	-0.4
	baz=4.3,SNR=14						
WUAZ	Wupatki	6.26	153	*e*Pg	Pg	05 49 44.2	-2.2
MVCO	Mesa Verde	6.33	126	*e*Pg	Pg	05 49 43.8	-3.9
YKA	Yellowknife Ar	21.38	0	P	P	05 52 34.9	+1.1
	0.1nm,0.7s,baz=181,slow=9.6,SNR=3.6						

*ISCJB **22** 05:51:39.6±1.3, 36°.37N±0°.06×69°.4E±0°.2, h124^{km}±22^{km}, Error ellipse: s-maj=24.3km s-min=10.1km az=178.3*

*IDC **22** 05:51:44.8±9.7, 36°.59N×69°.46E, h146^{km}±71^{km}, mb3.6/2, mb1 3.3/6, mb1mx3.0/26, mbtmp3.2/6, Error ellipse: s-maj=93.7km s-min=66.4km az=158.0*

ISC 22 05:51:40.2±1.3**, 36°.38N**±0°.05×**69°.3E**±0°.2**, h110**^{km}±19^{km}**, n10, σ1^{s}.12**/14**, 3C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	3.31	139	⇑P	Pn	05 52 31.0	+0.7
CEP				S	Sn	05 53 09.0	-0.1
SARP	Sargodha	5.24	147	P	Pn	05 52 54.6	-1.6
KK31	Karatay Array	6.78	7	Pn	Pn	05 53 18.0	+1.0
	1.1nm,0.3s,baz=194,slow=13,SNR=55						
KK31				⇓Sn	Sn	05 54 30.4	-2.2
	1.9nm,0.3s,baz=194,slow=25,SNR=8.2						
AAK	Ala-Archa	7.42	31	P	Pn	05 53 26.5	+0.8
	0.1nm,0.3s,baz=171,slow=5.4,SNR=32						
AAK				S	Sn	05 54 47.8	-0.4
	0.0nm,0.3s,baz=157,slow=23,SNR=10						
MKAR	Makanchi Array	14.21	39	P	Pn	05 54 58.2	+2.0
	0.1nm,0.3s,baz=216,slow=8.9,SNR=4.0						
AB02	Akbulak array	14.58	335	⇑Pn	Pn	05 55 01.1	+0.2
	0.5nm,0.4s						
AB02				⇑Sn	Sn	05 57 33.0	-8.7
	0.9nm,0.8s						
KURK	Kurchatov	15.82	22	P	Pn	05 55 16.6	+0.1
	0.1nm,0.3s,baz=211,slow=10,SNR=3.8						
BVAR	Borovoye Array	16.66	2	P	Pn	05 55 28.1	+1.3
	0.3nm,0.3s,baz=172,slow=8.4,SNR=4.2						
ZALV	Zalesovo Beam	20.61	27	P	P	05 56 09.1	-1.4
	1.4nm,0.4s,baz=214,slow=11,SNR=7.8						
ARCES	ARCESS Array B	40.75	338	P	P	05 59 09.2	-0.6
	4.4nm,0.9s,baz=103,slow=8.0,SNR=6.4						

*TRN **22** 05:53:12.9, 17°.69N×62°.40W, h59^{km}, MD3.5, M3.7(FDF)*

*ISCJB **22** 05:53:13.7±0.6, 17°.67N±0°.08×62°.44W±0°.05, h74^{km}±6^{km}, Error ellipse: s-maj=14.6km s-min=3.8km az=30.9*

*NEIC **22** 05:53:15.0±0.7, 17°.75N×62°.42W, h35^{km}, MD3.9(RSPR), Error ellipse: s-maj=17.2km s-min=6.5km az=21.0*

*RSPR **22** 05:53:15.5, 17°.66N×62°.47W, h71^{km}, MD3.9/11, MD3.9/11*

ISC 22 05:53:14.5±0.6**, 17°.68N**±0°.07×**62°.41W**±0°.05**, h67**^{km}±8^{km}**, n30, σ0^{s}.55**/43**, 22C-1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKI	Saint Kitts	0.47	222	*e*P	Pn	05 53 27.1	+0.4
SKI				*e*S	Sn	05 53 36.1	+0.4
SEUS	St. Eustatius	0.58	251	⇑*e*P	Pn	05 53 28.1	+0.3
SEUS	St. Eustatius	0.58	251	⇑*e*P	Pn	05 53 28.5	+0.7
SEUS				*e*S	Sn	05 53 37.8	+0.2
ANWB	Willy Bob	0.60	91	*e*Pn	Pn	05 53 28.4	+0.3
SMRT	St. Maarten	0.73	300	⇑*e*P	Pn	05 53 29.8	+0.3
SMRT				*e*S	Sn	05 53 41.0	+0.4
SABA	Saba	0.80	266	⇑*e*P	Pn	05 53 30.3	0.0
SABA				*e*S	Sn	05 53 41.8	-0.2
BPA	Boggy Peak	0.83	140	⇑*e*P	Pn	05 53 29.2	-1.4
BPA				*e*S	Sn	05 53 41.6	-1.0
BPA	Boggy Peak	0.83	140	⇑*e*P	Pn	05 53 29.2	-1.4
BPA				*e*S	Sn	05 53 41.3	-1.3
SEG	Port Louis	1.54	146	⇑*i*P	Pn	05 53 40.2	+0.3
LZG	Guadaloupe-1	1.65	158	⇑*i*P	Pn	05 53 41.4	0.0
BCG	Bois Riant Cap	1.76	154	*e*P	Pn	05 53 43.2	+0.3
SCG	Saint Claude	1.79	157	⇑*i*P	Pn	05 53 43.4	+0.2
DOG	Dongo Capester	1.81	155	⇑*i*P	Pn	05 53 43.8	+0.3
PHG	Guadaloupe-2	1.81	156	*e*P	Pn	05 53 44.0	+0.5
HMG	Houelmont	1.82	158	*e*P	Pn	05 53 43.9	+0.2
DEG	La Desirade	1.88	136	*e*P	Pn	05 53 44.4	0.0
DEG				*e*S	Sn	05 54 06.5	-0.7
MGG	Marie-Galante	2.04	149	*e*P	Pn	05 53 46.8	+0.1
ABV	Anegada	2.10	300	⇑*e*P	Pn	05 53 47.8	+0.4
ABV				*e*S	Sn	05 54 13.0	+0.4
TBVI	Tortola	2.22	289	⇑*e*P	Pn	05 53 48.6	-0.4
TBVI				*e*S	Sn	05 54 13.6	-1.9
CDVI	St. Croix	2.25	272	⇑*e*P	Pn	05 53 49.5	+0.1
STVI	Saint Thomas	2.51	286	⇑*e*P	Pn	05 53 52.8	-0.2
STVI				*e*S	Sn	05 54 21.5	-1.0
MTP	Monte Pirata	3.02	278	⇓*e*P	Pn	05 53 59.8	-0.1
MTP				*e*S	Sn	05 54 34.9	-0.1
HUMP	Col San Antoni	3.31	278	⇑*e*P	Pn	05 54 03.9	0.0
HUMP				*e*S	Sn	05 54 41.3	-0.7
CBYP	Canovanas	3.33	281	⇑*e*P	Pn	05 54 04.5	+0.3
CPD	Cerro la Pandu	3.36	277	⇑*e*P	Pn	05 54 05.0	+0.5
CPD	Cerro la Pandu	3.36	277	⇑*e*P	Pn	05 54 05.0	+0.5
SJG	San Juan	3.59	277	⇑*e*P	Pn	05 54 08.1	+0.5
SJG				*e*S	Sn	05 54 49.0	+0.2
CELP	Cerrillos	3.99	276	⇑*e*P	Pn	05 54 13.3	+0.2
AOPR	Arecibo Observ	4.18	280	⇑*e*P	Pn	05 54 15.8	-0.1
LSP	Las Mesas	4.48	277	⇑*e*P	Pn	05 54 20.5	+0.7

*ISCJB **22** 06:20:07.5±0.9, 51°.11N±0°.06×177°.30W±0°.04, h50^{km}±6^{km}, mb4.5/76, MS4.1/6, Error ellipse: s-maj=9.9km s-min=3.9km az=8.8*

*MOS **22** 06:20:07.0±1.2, 51°.20N×177°.21W, h44^{km}, mb4.7/21, Error ellipse: s-maj=11.3km s-min=7.9km az=85.9*

*NEIC **22** 06:20:08.6±1.0, 51°.08N×177°.26W, h47^{km}±7^{km}, mb4.4/41, ML4.3(AEIC), Error ellipse: s-maj=11.8km s-min=4.8km az=183.0*

*BJI **22** 06:20:08.7, 51°.78N×177°.59W, h44^{km}, mB5.1/14, mb4.7/21, Ms4.5/10, Ms7 4.4/9*

*IDC **22** 06:20:09.3±4.6, 51°.16N×177°.33W, h50^{km}±42^{km}, mb3.9/18, mb1 4.1/20, mb1mx4.0/27, mbtmp3.9/20, ML4.0/2, MS3.7/3, Ms1 3.7/3, ms1mx3.1/44, Error ellipse: s-maj=23.7km s-min=13.9km az=176.0*

ISC 22 06:20:09.9±0.8**, 51°.18N**±0°.06×**177°.30W**±0°.04**, h54**^{km}±5^{km}**, h47**^{km}±.9^{km}**:pP-P, n289, σ0^{s}.72**/291**, mb4.5**/75**, MS4.1**/6**, 63C-69D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	Adak	0.80	28	P	Pn	06 20 23.3	-1.8
ADK				S	Sn	06 20 37.1	+0.9
GSTR	Great Sitkin T	1.20	40	*e*Pn	Pn	06 20 28.9	-1.4
ATKA	Atka Island	2.19	61	P	Pn	06 20 41.2	-2.5
ATKA				S	Sn	06 21 10.6	+1.0
FX1	Attu Island--F	6.13	290	P	Pn	06 21 37.3	-0.4
OKFG	Magazine Ridge	6.18	65	P	Pn	06 21 37.1	-1.2
UNV	Unalaska Valle	7.11	64	P	Pn	06 21 50.0	-1.1
SPIA	Saint Paul Isl	7.29	32	P	Pn	06 21 55.9	+2.3
SDPT	Sand Point	10.90	61	*e*P	Pn	06 22 39.9	-3.0
	137nm,1.0s						
GAMB	Gambell	12.98	11	*e*Pn	Pn	06 23 12.3	+1.1
	22nm,1.1s						
PET	Petropavlovsk	14.88	287	*e*P	Pn	06 23 39.9	+3.2
PET				pmax	pmax		
	comp=Z,25nm,1.7s						
PETK	Petropavlovsk-	15.45	287	P	Pn	06 23 45.6	+1.5
	comp=Z,0.2nm,0.3s,baz=84,slow=16,SNR=4.2						
PETK				LR	LR	06 29 22.6	
	comp=Z,146nm,19.2s,baz=300,slow=36						
SVW2	Sparrevohn	15.58	42	*e*P	Pn	06 23 47.1	+1.5
KDAK	Kodiak Island	15.75	56	*i* P	Pn	06 23 44.0	-3.9
KDAK	Kodiak Island	15.75	56	P	Pn	06 23 49.5	+1.6
	comp=Z,2.5nm,0.3s,baz=126,slow=5.5,SNR=11						
KDAK	Kodiak Island	15.75	56	*e*P	Pn	06 23 43.5	-4.4
	comp=Z,33nm,0.8s						
TTA	Tatalina	16.41	36	*e*P	Pn	06 24 00.1	+4.0
PPLA	Purkeypile	17.86	39	*e*P	Pn	06 24 15.7	+1.6
	comp=Z,78nm,1.5s						
CHUM	Lake Minchumin	18.32	36	*e*P	Pn	06 24 20.1	+0.5
	comp=Z,15nm,0.9s						
KTH	Kantishna Hill	18.68	38	*e*P	Pn	06 24 23.4	-0.7
	comp=Z,29nm,0.9s						
BILL	Bilibino	18.72	341	*e*P	Pn	06 24 25.4	+0.9
BILL				pmax	pmax		
	comp=Z,9.0nm,1.0s						
BILL	Bilibino	18.72	341	*e*P	Pn	06 24 25.4	+0.8
	comp=Z,8.6nm,1.0s						
TRF	Thorofare Moun	18.89	39	*e*P	Pn	06 24 27.5	+1.0
	comp=Z,14nm,0.9s						
BPAW	Bear Paw Mtn.	18.93	37	*e*P	Pn	06 24 25.9	-1.1
	comp=Z,7.0nm,0.6s						
IMA2	Indian Mountai	19.14	30	*e*P	Pn	06 24 29.5	0.0
MCK	McKinley	19.55	39	*e*P	Pn	06 24 31.2	-3.2
MCK				pmax	pmax		
	comp=Z,14nm,0.8s						
MCK	McKinley	19.55	39	*e*P	Pn	06 24 31.2	-3.2
	comp=Z,14nm,0.8s						
SEY	Seymchan	20.03	318	⇑*e*P	P	06 24 38.0	+0.2
COLA	College	20.50	37	*e*P	P	06 24 42.5	-0.4
COLA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
COLA	College	20.50	37	*e*P	P	06 24 42.5	-0.4
	comp=Z,8.4nm,0.8s						
PAX	Paxson	20.68	43	*e*P	P	06 24 45.7	+0.7
PAX				pmax	pmax		
	comp=Z,7.0nm,0.8s						
PAX	Paxson	20.68	43	*e*P	P	06 24 45.7	+0.7
	comp=Z,6.9nm,0.8s						
COLD	Coldfoot	20.95	30	*e*P	P	06 24 47.9	+0.1
	comp=Z,10nm,0.8s						
MENT	Mentasta	21.43	44	*e*P	P	06 24 57.2	+4.2
EGAK	Eagle	23.09	40	*e*P	P	06 25 09.4	-1.1
	comp=Z,9.4nm,0.6s,mb4.4						
DAWY	Dawson	23.61	42	*e*P	P	06 25 13.6	-1.9
YSS	Yuzh-Sakhalins	26.28	277	*e*P	P	06 25 41.6	+1.7
YSS				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.1						
INK	Inuvik	27.09	34	P	P	06 25 46.1	-0.8
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	Inuvik	27.09	34	P	P	06 25 46.0	-0.9
	comp=Z,0.8nm,0.4s,mb3.6,baz=241,slow=6.3,SNR=13						
INK	Inuvik	27.09	34	*e*P	P	06 25 45.5	-1.5
	comp=Z,2.2nm,0.9s,mb3.7						
DLBC	Dease Lake	27.68	56	LR	LR	06 36 17.9	
	comp=Z,131nm,19.8s,MS3.5,baz=321,slow=35						
KLR	Kul’dur	32.14	287	*e*P	P	06 26 26.9	-5.0
YKA	Yellowknife Ar	34.69	46	P	P	06 26 53.5	-0.3
	comp=Z,2.4nm,0.8s,mb4.2,baz=283,slow=7.9,SNR=30						
YKA				PcP	PcP	06 29 26.3	-0.2
	comp=Z,0.5nm,0.9s,baz=288,slow=3.1,SNR=4.2						
YKA	Yellowknife Ar	34.69	46	P	P	06 26 53.5	-0.3
YKA				PcP	PcP	06 29 26.3	-0.2
MDJ	Mudanjiang	35.54	281	P	P	06 26 59.9	-1.5
MDJ				pmax	pmax		
	comp=Z,94nm,5.5s						
A07A	Ashnola River,	35.78	71	⇓P	P	06 27 03.8	+0.4
	baz=36						
B07A	Winthrop	36.20	71	⇓P	P	06 27 07.6	+0.7
	baz=36,SNR=6.5						
A08A	Turner Farm, O	36.48	70	⇓P	P	06 27 09.8	+0.4
	baz=36,SNR=5.9						
C07A	Waterville	36.58	72	⇑P	P	06 27 10.5	+0.3
	baz=36						
B08A	Colville Reser	36.71	71	⇑P	P	06 27 11.5	+0.2
	baz=37,SNR=10.0						
D07A	Quincy	36.86	73	⇑P	P	06 27 12.7	+0.1
	baz=37						
A09A	Danville	36.88	70	⇓P	P	06 27 13.1	+0.4
	baz=37						
C08A	Higginbotham F	37.15	72	⇑P	P	06 27 15.2	+0.2
	baz=37						
E07A	Sunnyside	37.24	74	⇓P	P	06 27 15.6	-0.2
	baz=37						
B09A	Rice	37.39	70	⇓P	P	06 27 17.4	+0.3
	baz=37						
A10A	Northport	37.48	69	⇑P	P	06 27 18.4	+0.5
	baz=37						
D08A	Wollman Farm,	37.56	73	⇑P	P	06 27 18.7	+0.1
	baz=37						
C09A	Chrisman Ranch	37.60	71	⇑P	P	06 27 19.4	+0.5
	baz=38						
E08A	Dider Farm, El	37.75	74	⇑P	P	06 27 20.3	+0.2
	baz=38						
NEW	Newport	38.07	70	*e*P	P	06 27 22.6	-0.2
NEW				pmax	pmax		
	comp=Z,8.0nm,0.8s						
NEW	Newport	38.07	70	*e*P	P	06 27 22.6	-0.3
	comp=Z,7.6nm,0.8s,mb4.5						
EDM	Edmonton	38.09	61	*e*P	P	06 27 23.0	+0.1
C10A	Spilker Farm,	38.16	71	⇑P	P	06 27 23.8	+0.2
	baz=38						
A11A	Hall Mountain,	38.20	69	⇓P	P	06 27 24.8	+0.9
	baz=38,SNR=6.3						
G08A	Pilot Rock	38.41	75	⇓P	P	06 27 25.9	+0.2
	baz=38						
CN2	Changchun	38.51	282	*e*P	P	06 27 26.8	+0.2
D10A	Wagner Farm, O	38.55	72	⇓P	P	06 27 26.8	-0.1
	baz=38						
A12A	Yaak River Ran	38.62	68	⇑P	P	06 27 27.9	+0.4
	baz=38						
I07A	Izee	38.70	77	⇑P	P	06 27 28.4	+0.3
	baz=39						
E10A	Myers Farm, Un	38.93	73	⇓P	P	06 27 29.6	-0.4
	baz=39						
D11A	Klaveano Farm,	39.12	71	⇓P	P	06 27 31.5	-0.1
	baz=39,SNR=7.0						
HIA	Hailar	39.23	293	*e*P	P	06 27 32.2	-0.4
HIA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
HIA	Hailar	39.23	293	*e*P	P	06 27 32.2	-0.3
	comp=Z,9.3nm,0.8s,mb4.6						
C12B	Naegeli Ranch,	39.30	70	⇓P	P	06 27 33.0	-0.2
	baz=39						
A13A	Flathead Natio	39.35	68	⇑P	P	06 27 33.8	+0.3
	baz=39						
I08A	Drewsey	39.36	77	⇓P	P	06 27 33.7	0.0
	baz=39						
G10A	Bishop Farm, J	39.52	74	⇑P	P	06 27 34.8	-0.2
	baz=39,SNR=6.3						
E11A	Bogner Ranch,	39.53	72	⇑P	P	06 27 34.7	-0.4
	baz=39						
RES	Resolute Bay	39.53	24	PcP	PcP	06 29 41.6	+0.5
	comp=Z,2.2nm,0.8s,baz=262,slow=1.3,SNR=9.6						
WALA	Waterton Lakes	39.58	67	*e*P	P	06 27 35.6	+0.1
	comp=Z,0.2nm,1.0s						
K07A	Rock Creek Ran	39.60	79	⇓P	P	06 27 35.2	-0.4
	baz=40						
BSMT	Bassoo Peak	39.64	69	*e*P	P	06 27 36.5	+0.5
	comp=Z,7.6nm,0.7s,mb4.5						
C13A	Hot Springs	39.85	70	⇑P	P	06 27 37.3	-0.4
	baz=40						
A14A	Double T Ranch	39.90	67	⇓P	P	06 27 38.2	+0.1
	baz=40,SNR=11						
WVOR	Wild Horse Val	40.12	79	*e*P	P	06 27 40.3	+0.3
WVOR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
WVOR	Wild Horse Val	40.12	79	*e*P	P	06 27 40.3	+0.3
	comp=Z,10.0nm,1.1s,mb4.5						
D13A	Huson	40.21	70	⇓P	P	06 27 40.1	-0.6
	baz=40						
C14A	Swan Lake	40.30	69	⇓P	P	06 27 41.1	-0.2
	baz=40						
A15A	Johnson Ranch,	40.30	67	⇑P	P	06 27 41.3	-0.1
	baz=40						
F12A	Elk City	40.41	73	⇑P	P	06 27 42.1	-0.3
	baz=40,SNR=5.6						

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H11A  Donnelly            40.50  74 ⇑P     P       06 27 42.9 -0.2
      baz=40
G12A  Big Creek, Yel      40.69  73 ⇓P     P       06 27 44.9 +0.2
      baz=40
E13A  Victor              40.70  71 ⇓P     P       06 27 44.4 -0.3
      baz=40
SLMT  Seeley Lake         40.70  70 eP     P       06 27 44.6 -0.2
      comp=Z,5.7nm,0.8s,mb4.2
SLMT                              e        pP      06 27 58.0 -0.9
B15A  Bradely Ranch,      40.72  68 ⇑P     P       06 27 45.0 +0.1
      baz=41
D14A  Greenough           40.78  70 ⇓P     P       06 27 45.2 -0.2
      baz=41,SNR=8.7
F13A  Darby               40.95  72 ⇓P     P       06 27 46.8  0.0
      baz=41,SNR=7.5
C15A  Salmond Ranch,      40.96  68 ⇓P     P       06 27 47.1 +0.3
      baz=41,SNR=9.3
A16A  West Butte Ran      40.97  66 ⇑P     P       06 27 46.6 -0.4
      baz=41
CHMT  Chamberlain Mo      41.01  70 eP     P       06 27 46.8 -0.5
      comp=Z,3.0nm,1.0s,mb3.9
E14A  Clinton             41.12  71 ⇑P     P       06 27 48.2 -0.1
      baz=41
G13A  Cobalt              41.37  73 ⇓P     P       06 27 49.8 -0.4
      baz=41
D15A  Lincoln             41.38  69 ⇑P     P       06 27 49.9 -0.4
      baz=41
C16A  Fuhringer Ranc      41.45  68 ⇓P     P       06 27 50.6 -0.3
      baz=41,SNR=5.0
A17A  Triple J Farms      41.49  66 ⇓P     P       06 27 51.2  0.0
      baz=41,SNR=10
F14A  Wisdom              41.51  71 ⇑P     P       06 27 51.4  0.0
      baz=41
E15A  Deer Lodge          41.62  70 ⇓P     P       06 27 52.4 +0.1
      baz=42
G14A  Jackson             41.75  72 ⇑P     P       06 27 53.3 -0.2
      baz=42
B17A  L&G Farms, Che      41.76  67 ⇑P     P       06 27 53.3  0.0
      baz=42,SNR=8.0
HRY   Holter Researc      41.95  69 eP     P       06 27 54.8 -0.3
      comp=Z,5.8nm,0.6s,mb4.4
D16A  Dana Ranch, Ca      41.96  69 ⇑P     P       06 27 55.0  0.0
      baz=42
A18A  Metzger Ranch,      41.99  66 ⇓P     P       06 27 55.5 +0.1
      baz=42,SNR=6.2
F15A  Butte               42.02  71 ⇑P     P       06 27 55.5 -0.1
      baz=42
C17A  Wharram Farm,       42.11  68 ⇑P     P       06 27 55.8 -0.5
      baz=42
E16A  East Helena         42.14  70 ⇓P     P       06 27 56.4 -0.2
      baz=42
B18A  Beardsley Farm      42.29  66 ⇓P     P       06 27 57.6 -0.1
      baz=42,SNR=6.4
J13A  Cove Ranch, Pi      42.32  75 ⇑P     P       06 27 58.0  0.0
      baz=42,SNR=5.1
MCMT  McKenzie Canyo      42.34  72 eP     P       06 27 58.1 -0.1
      comp=Z,2.2nm,0.6s,mb4.0
G15A  Dillon              42.38  72 ⇓P     P       06 27 58.2 -0.3
      baz=42,SNR=5.4
I14A  Mackay              42.47  74 ⇓P     P       06 27 59.0 -0.2
      baz=42
EGMT  Eagleton            42.49  67 ⇓P     P       06 27 59.7 +0.3
      baz=42
EGMT  Eagleton            42.49  67 eP     P       06 27 59.1 -0.3
      comp=Z,5.5nm,0.8s,mb4.2
F16A  Kennard Place,      42.56  71 ⇓P     P       06 27 59.9 -0.1
      baz=42
H15A  Lima                42.58  73 ⇑P     P       06 28 00.2 +0.1
      baz=42
BOZ   Bozeman (W)         42.63  71 ⇓P     P       06 28 00.5 -0.1
      baz=42,SNR=8.4
NVAR  Mina Array Bea      42.64  84  P     P       06 28 02.2 +1.5
      comp=Z,0.4nm,0.5s,mb3.4,baz=0.0,slow=1.9,SNR=3.3
NVAR  Mina Array Bea      42.64  84  P     P       06 28 02.2 +1.5
E17A  Martinsdale         42.66  69 ⇑P     P       06 28 00.9 +0.1
      baz=42
G16A  Moss Hill, Enn      42.75  71 ⇓P     P       06 28 01.8 +0.3
      baz=43
J14A  Carey               42.76  75 ⇓P     P       06 28 01.7 +0.1
      baz=43
D18A  Linhart Farms,      42.89  68 ⇓P     P       06 28 02.7  0.0
      baz=43
F17A  Fitzpatrick Pl      43.07  70 ⇑P     P       06 28 04.4 +0.3
      baz=43
E18A  Harlowton           43.16  69 ⇓P     P       06 28 05.3 +0.5
      baz=43
G17A  Pierce Place,       43.34  71 ⇑P     P       06 28 06.6 +0.4
      baz=43
H16A  Russell Place,      43.37  72 ⇑P     P       06 28 07.0 +0.5
      baz=43
F18A  Big Timber          43.63  69 ⇑P     P       06 28 08.7 +0.1
      baz=44
I16A  Newdale             43.68  73 ⇓P     P       06 28 09.4 +0.3
      baz=44
H17A  Grant Village       43.94  72 ⇓P     P       06 28 12.2 +1.1
      baz=44,SNR=5.4
J16A  Bone                43.94  74 ⇑P     P       06 28 11.5 +0.4
      baz=44
LKWY  Lake                43.95  71 eP     P       06 28 12.5 +1.3
LKWY                                 pmax  pmax
      comp=Z,7.0nm,0.8s,mb4.4
LKWY  Lake                43.95  71 eP     P       06 28 12.5 +1.3
      comp=Z,7.0nm,0.8s,mb4.4
R10A  Warm Springs        43.98  82 ⇓P     P       06 28 11.5 +0.1
      baz=44
S10A  Tonopah Range,      44.02  83 ⇓P     P       06 28 11.6 -0.2
      baz=44
I17A  Pilgrim Ck.         44.20  72 ⇓P     P       06 28 14.3 +1.1
      baz=44
K16A  Soda Springs        44.21  74 ⇑P     P       06 28 14.4 +1.1
      baz=44
RLMT  Red Lodge           44.32  70 ⇓P     P       06 28 14.5 +0.4
      baz=44,SNR=9.2
RLMT  Red Lodge           44.32  70 eP     P       06 28 14.6 +0.5
      comp=Z,7.4nm,0.9s,mb4.4
J17A  Brown Place, J      44.44  73 ⇑P     P       06 28 16.0 +0.9
      baz=44
L16A  Fish Haven          44.77  75 ⇑P     P       06 28 18.2 +0.5
      baz=45,SNR=7.3
I18A  Diamond G Ranc      44.78  72 ⇑P     P       06 28 18.4 +0.6
      baz=45
J18A  Kendall Valley      44.94  73 ⇓P     P       06 28 19.0  0.0
      baz=45,SNR=5.3
M16A  Huntsville          45.06  76 ⇓P     P       06 28 20.5 +0.4
      baz=45
K18A  Toltan Ranch,       45.25  73 ⇑P     P       06 28 21.9 +0.3
      baz=45
S12A  Delamar Landin      45.30  82 ⇓P     P       06 28 22.2 +0.2
      baz=45
FCC   Fort Churchill      45.42  47 eP     P       06 28 21.0 -1.7
      comp=Z,0.1nm,0.7s
DGMT  Dagmar              45.43  63 ⇑P     P       06 28 23.2 +0.2
      baz=45
BW06  Boulder Array       45.47  73 ⇑P     P       06 28 23.5 +0.2
      baz=45,SNR=13
BW06  Boulder Array       45.47  73 eP     P       06 28 23.4 +0.1
      comp=Z,7.7nm,0.8s,mb4.6
PDAR  Pinedale Array      45.47  73  P     P       06 28 23.8 +0.5
      comp=Z,7.2nm,0.8s,mb4.6,baz=306,slow=3.9,SNR=69
L18A  Fontenelle, Gr      45.67  74 ⇓P     P       06 28 25.0 +0.1
      baz=46
K19A  Absolon Red Bu      45.86  72 ⇓P     P       06 28 25.9 -0.5
      baz=46,SNR=8.8
K20A  Yellowstone Ra      46.26  72 ⇑P     P       06 28 29.1 -0.4
      baz=46,SNR=5.6
L20A  Wamsutter           46.65  73 ⇑P     P       06 28 32.4 -0.2
      baz=46
M20A  Sweetwater, Wa      47.04  74 ⇓P     P       06 28 36.1 +0.4
      baz=47
SRU   San Rafael          47.05  78 eP     P       06 28 36.2 +0.4
SRU                                  pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.5
SRU   San Rafael          47.05  78 eP     P       06 28 36.2 +0.4
      comp=Z,3.7nm,0.6s,mb4.5
O19A  Miners Draw (B      47.19  75 ⇑P     P       06 28 36.9 +0.1
      baz=47,SNR=6.6
ULN   Ulaanbaatar         47.19 297 eP     P       06 28 36.0 -0.7
ULN                                  pmax  pmax
      comp=Z,5.0nm,1.0s,mb4.4
ULN   Ulaanbaatar         47.19 297 eP     P       06 28 36.0 -0.8
      comp=Z,5.1nm,1.0s,mb4.4
T15A  Red Dirt Ranch      47.20  81 ⇓P     P       06 28 36.9 -0.1
      baz=47
L21A  Rawlins             47.25  73 ⇑P     P       06 28 37.0 -0.3
      baz=47,SNR=7.5
Q18A  Rafter H Ranch      47.30  77 ⇑P     P       06 28 37.6 -0.1
      baz=47
R17A  Hanksville Air      47.37  78 ⇑P     P       06 28 38.1 -0.1
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      baz=47
N20A  Spence Gulch,       47.39  74 ⇑P     P       06 28 38.7 +0.3
      baz=47
M21A  Separation Pea      47.47  73 ⇓P     P       06 28 38.8 -0.2
      baz=47
SONM  Songino Array       47.58 298  P     P       06 28 40.7 +0.9
      comp=Z,3.3nm,0.7s,mb4.5,baz=56,slow=8.6,SNR=30
SONM                                 LR    LR      06 49 10.0
      comp=Z,139nm,19.8s,MS3.9,baz=29,slow=37
P19A  Cripple Cowboy      47.68  76 ⇑P     P       06 28 40.9 +0.2
      baz=48
S17A  Black Ridge (B      47.80  79 ⇑P     P       06 28 41.9 +0.3
      baz=48
O20A  White River Ci      47.83  75 ⇓P     P       06 28 41.4 -0.4
      baz=48,SNR=5.4
ZAK   Zakamensk           47.86 302 eP     P       06 28 37.9 -4.0
ZAK                                  pmax  pmax
      comp=Z,3.0nm,1.2s,mb4.2
N21A  Black Mountain      47.88  74 ⇓P     P       06 28 42.1 -0.1
      baz=48
W14A  Seligman            47.91  83 ⇑P     P       06 28 41.8 -0.7
      baz=48
RSSD  Black Hills         47.96  68 eP     P       06 28 42.0 -0.8
RSSD                                 pmax  pmax
      comp=Z,2.0nm,0.6s,mb4.3
RSSD  Black Hills         47.96  68 eP     P       06 28 42.0 -0.8
      comp=Z,2.1nm,0.6s,mb4.3
M22A  Cedar Creek Ra      48.05  73 ⇓P     P       06 28 44.0 +0.5
      baz=48
V15A  Kaibab Nationa      48.09  82 ⇑P     P       06 28 43.6 -0.2
      baz=48
P20A  De Beque            48.12  76 ⇓P     P       06 28 44.3 +0.2
      baz=48
T17A  Navajo Res., N      48.20  80 ⇓P     P       06 28 44.9 +0.2
      baz=48
O21A  Pagoda              48.24  74 ⇓P     P       06 28 45.3 +0.3
      baz=48
S18A  Hurst Farm, Bl      48.26  79 ⇑P     P       06 28 45.3 +0.1
      baz=48
R19A  Curley Farm, L      48.34  78 ⇓P     P       06 28 45.8  0.0
      baz=48
PV04  Paradox Valley      48.49  77 eP     P       06 28 46.9 -0.1
N22A  Wattenberg Ran      48.50  73 ⇓P     P       06 28 47.4 +0.5
      baz=48,SNR=5.4
HHC   Hu-ho-hao-te        48.65 287 eP     P       06 28 48.3 +0.2
HHC                                  pP    pP      06 29 00.5 -2.0
HHC                                  sP    sP      06 29 05.9 -2.9
HHC                                  PP    PP      06 30 39.8 -1.4
HHC                                  PcS   PcS     06 34 07.9 -0.9
HHC                                 eS     S       06 35 44.3 -1.8
HHC                                  sS    sS      06 36 05.3 -5.0
HHC                                  ScS   ScS     06 38 33.1 -2.3
HHC                                  SS    SS      06 39 09.3 -7.1
HHC                                  pmax  pmax
      comp=Z,14nm,1.0s,mb5.0
HHC                                  pmax  pmax
      comp=Z,110nm,4.4s
HHC                                  LR    LR
      comp=N,100nm,18.6s,MS4.2
HHC                                  LR    LR
      comp=E,230nm,18.0s,MS4.2
HHC                                  LR    LR
      comp=Z,170nm,16.7s,MS4.1
P21A  Newcastle           48.68  75 ⇓P     P       06 28 48.2 -0.1
      baz=48
PV01  Paradox Valley      48.86  77 eP     P       06 28 49.5 -0.3
      comp=Z,327nm,0.6s
R20A  Redvale             48.94  77 ⇓P     P       06 28 50.6 +0.2
      baz=49
ULM   Lac du Bonnet       49.00  57  P     P       06 28 50.5 -0.2
      comp=Z,2.3nm,0.6s,mb4.4,baz=308,slow=8.3,SNR=4.7
T19A  Beclabito           49.40  79 ⇑P     P       06 28 54.1 +0.1
      baz=49
Q22A  Crested Butte,      49.42  76 ⇑P     P       06 28 54.4 +0.4
      baz=49
ISCO  Idaho Springs       49.62  74 eP     P       06 28 55.8 +0.2
ISCO                                 pmax  pmax
      comp=Z,3.0nm,0.9s,mb4.3
ISCO  Idaho Springs       49.62  74 eP     P       06 28 55.8 +0.3
      comp=Z,2.8nm,0.9s,mb4.3
NJ2   Nanjing             49.76 273 eP     P       06 29 00.8 +4.1
NJ2                                  pmax  pmax
      comp=Z,20nm,0.5s,mb5.4
AGMN  Agassiz Refuge      50.13  59 eP     P       06 28 58.4 -0.9
      comp=Z,6.6nm,1.0s,mb4.6
SDCO  Great Sand Dun      50.98  76 eP     P       06 29 05.7 -0.1
      comp=Z,1.9nm,1.0s,mb4.0
Y20A  Horse Springs,      51.70  81 ⇓P     P       06 29 12.0 +0.7
      baz=52
KSU1  Kansas State U      55.44  69 eP     P       06 29 37.9 -0.7
      comp=Z,5.6nm,0.6s,mb4.8
LZH   Lanzhou             56.34 287 eP     P       06 29 46.5 +1.4
LZH                                  pP    pP      06 29 59.3 -0.5
LZH                                  sP    sP      06 30 04.6 -1.4
LZH                                 ePP    PP      06 31 53.8 +3.1
LZH                                  pmax  pmax
      comp=Z,15nm,1.2s,mb4.9
LZH                                  pmax  pmax
      comp=Z,67nm,5.5s
LZH                                  LR    LR
      comp=E,190nm,15.2s
LZH                                  LR    LR
      comp=Z,260nm,17.9s,MS4.4
GTA   Gaotai              56.52 293 eP     P       06 29 46.9 +0.7
GTA                                  pP    pP      06 29 59.3 -1.6
GTA                                  sP    sP      06 30 05.4 -1.7
GTA                                  PP    PP      06 31 56.1 +4.0
GTA                                  S     S       06 37 34.4 +0.9
GTA                                  sS    sS      06 37 56.3 -1.8
GTA                                  pmax  pmax
      comp=Z,13nm,0.9s,mb5.0
GTA                                  pmax  pmax
      comp=Z,47nm,4.5s
GTA                                  LR    LR
      comp=N,220nm,23.2s,MS4.3
GTA                                  LR    LR
      comp=E,190nm,19.6s,MS4.3
GTA                                  LR    LR
      comp=Z,140nm,18.4s,MS4.1
WMOK  Wichita Mounta      57.05  74 eP     P       06 29 49.8 -0.3
WMOK                                 pmax  pmax
      comp=Z,3.0nm,0.8s,mb4.4
WMOK  Wichita Mounta      57.05  74 eP     P       06 29 49.8 -0.3
      comp=Z,2.9nm,0.8s,mb4.4
TXAR  Lajitas Array       57.75  82  P     P       06 29 54.9 -0.2
      baz=282,slow=4.5
ARCES ARCESS Array B      58.45 351  P     P       06 29 58.6 -0.8
      comp=Z,5.5nm,1.1s,mb4.5,baz=18,slow=7.2,SNR=6.4
ARCES                                PcP   PcP     06 30 49.6 +0.2
      comp=Z,2.9nm,0.8s,baz=351,slow=5.5,SNR=3.9
SCHQ  Schefferville       59.57  39  P     P       06 30 08.0 +0.6
      comp=Z,1.6nm,0.7s,mb4.1,baz=319,slow=6.4,SNR=2.9
KURK  Kurchatov           59.84 315 eP     P       06 30 08.5 -0.8
KURK                                 pmax  pmax
      comp=Z,2.0nm,0.3s,mb4.6
KURK  Kurchatov           59.84 315 eP     P       06 30 08.5 -0.8
      comp=Z,1.9nm,0.3s,mb4.6
CD2   Chengdu             59.94 283  P     P       06 30 11.0 +0.7
CD2                                  pP    pP      06 30 23.8 -1.3
CD2                                  sP    sP      06 30 29.0 -2.2
CD2                                  PP    PP      06 32 25.1 +2.4
CD2                                  S     S       06 38 17.3 -1.0
CD2                                  sS    sS      06 38 38.8 -4.4
CD2                                  SS    SS      06 42 15.0 +0.1
CD2                                  pmax  pmax
      comp=Z,10.0nm,0.5s,mb5.1
CD2                                  pmax  pmax
      comp=Z,140nm,5.3s
CD2                                  LR    LR
      comp=N,190nm,5.9s
CD2                                  LR    LR
      comp=Z,180nm,10.7s,MS4.5
MIAR  Mount Ida           60.30  71 eP     P       06 30 12.1 -0.6
MIAR                                 pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.5
MIAR  Mount Ida           60.30  71 eP     P       06 30 12.1 -0.7
      comp=Z,3.7nm,0.8s,mb4.5
OLIL  Olney               60.59  64 eP     P       06 30 14.0 -0.6
      comp=Z,14nm,0.9s,mb5.1
MKAR  Makanchi Array      60.89 309  P     P       06 30 15.7 -0.9
      comp=Z,0.3nm,0.3s,mb3.9,baz=54,slow=5.5,SNR=7.1
GYA   Guiyang             61.28 277 eP     P       06 30 20.5 +1.0
GYA                                  pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.9
BRVK  Borovoye            61.66 321 eP     P       06 30 21.0 -0.6
BRVK                                 pmax  pmax
```

```
      comp=Z,7.0nm,1.0s,mb4.8
BRVK  Borovoye            61.66 321 eP     P       06 30 21.0 -0.7
      comp=Z,7.5nm,1.0s,mb4.8
ARU   Arti                63.27 329d iP    P       06 30 30.1 -2.2
ARU                                  S     S       06 39 01.1 +1.5
ARU                                  SS    SS      06 43 08.9 +3.2
ARU                                  pmax  pmax
      comp=Z,43nm,3.8s
KMI   Kunming             64.69 279  P     P       06 30 42.0 -0.1
KMI                                  pP    pP      06 30 54.8 -2.2
KMI                                  sP    sP      06 31 00.5 -2.7
KMI                                  pmax  pmax
      comp=Z,7.0nm,0.8s,mb4.7
AAK   Ala-Archa           67.71 311  P     P       06 31 01.7 +0.5
AAK                                  pmax  pmax
      comp=Z,2.0nm,0.6s,mb4.3
AAK   Ala-Archa           67.71 311  P     P       06 31 01.7 +0.5
      comp=Z,1.9nm,0.6s,mb4.3,baz=179,slow=4.0,SNR=7.0
AAK   Ala-Archa           67.71 311 eP     P       06 31 01.6 +0.4
      comp=Z,4.0nm,0.8s,mb4.5
NOA   NORSAR Array B      67.92 356  P     P       06 31 02.5 +0.3
      comp=Z,1.7nm,0.9s,mb4.1,baz=5.6,slow=6.4,SNR=3.8
SHL   Shillong            71.01 287 ePKP   P       06 31 20.5 -1.3
CMAR  Chiang Mai Arr      71.97 277  P     P       06 31 27.6  0.0
      comp=Z,0.9nm,0.3s,mb4.2,baz=23,slow=5.8,SNR=5.1
AKASG Malin Array Be      76.02 343  P     P       06 31 50.6 -0.2
      comp=Z,3.0nm,0.6s,mb4.4,baz=14,slow=5.6,SNR=10
KBL   Kabul               76.70 309 eP     P       06 31 54.6 -0.4
KBL                                  pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.5
KBL   Kabul               76.70 309 eP     P       06 31 54.6 -0.4
      comp=Z,4.8nm,0.7s,mb4.5
BRG   Berggiesshubel      77.88 353 i P    P       06 32 00.7 -0.6
BRG                                  pmax  pmax
      comp=Z,3.0nm,0.7s,mb4.3
BRG   Berggiesshubel      77.88 353 i P    P       06 32 00.7 -0.6
      comp=Z,4.8nm,0.7s,mb4.5
GIVF  Givet               79.08 359 eP     P       06 32 07.0 -0.9
KIV   Kislovodsk          79.10 332⇑eP     P       06 32 09.5 +1.4
KIV                                  pmax  pmax
      comp=Z,12nm,1.6s,mb4.6
BAIF  Baives              79.13 359 eP     P       06 32 07.6 -0.6
      comp=Z,20nm,0.8s,mb4.8
BAIF  Baives              79.13 359 eP     P       06 32 07.6 -0.6
BAIF                                 pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.8
BAIF  Baives              79.13 359 eP     P       06 32 07.6 -0.6
      comp=Z,9.8nm,0.8s,mb4.8
KHC   Kasperske Hory      79.64 353 eP     P       06 32 11.9 +0.9
BUR08 Bucovina Ar. S      79.68 345 eP     P       06 32 11.8 +0.6
BURAR Bucovina Array      79.70 345⇓iP     P       06 32 12.2 +0.9
GERES GERESS Array B      79.91 353  P     P       06 32 12.6 +0.2
      comp=Z,1.2nm,0.8s,mb3.9,baz=44,slow=5.9,SNR=5.5
FLN   La Foliniere        80.40   2 eP     P       06 32 13.9 -1.2
LDF   La Druitiere        80.58   2 eP     P       06 32 14.9 -1.1
MEZF  Maizieres J'vi      80.68 358 eP     P       06 32 16.0 -0.6
CDF   Champ du Feu        80.71 357 eP     P       06 32 15.8 -0.9
GRR   Gorron              80.77   2 eP     P       06 32 16.0 -1.0
      comp=Z,21nm,0.9s,mb4.8
SGMF  Saint Gilles        80.84   4 eP     P       06 32 16.5 -1.0
      comp=Z,29nm,1.0s,mb4.9
VRI   Vrincioaia          81.13 343⇓iP     P       06 32 20.3 +1.3
HAU   Haudompre           81.15 358 eP     P       06 32 18.1 -1.0
      comp=Z,7.2nm,0.7s,mb4.4
MLR   Muntele Rosu        81.64 344⇑iP     P       06 32 22.9 +1.2
KBA   Koelnbreinsper      81.69 353⇑iP     P       06 32 22.8 +0.8
      comp=Z,13nm,0.8s,mb4.9
VOIR                      81.84 344⇑iP     P       06 32 24.5 +1.7
LOR   Lormes              81.93 359 eP     P       06 32 22.2 -1.0
SOKA  Soboth              81.95 351⇑iP     P       06 32 23.9 +0.5
      comp=Z,6.1nm,0.7s,mb4.6
SSF   Saint Saulge        82.14 359 eP     P       06 32 23.5 -0.8
      comp=Z,6.1nm,0.7s,mb4.3
TIRR  Tirgusor            82.17 342⇓iP     P       06 32 25.3 +0.8
GZR   Gura Zlata          82.25 346⇓iP     P       06 32 25.5 +0.5
AVF   Avril sur Loir      82.41 360 eP     P       06 32 25.9 +0.2
      comp=Z,17nm,1.1s,mb4.6
WRA   Warramunga Arr      82.53 225  P     P       06 32 25.7 -0.8
      comp=Z,0.4nm,0.7s,mb3.5,baz=32,slow=5.8,SNR=3.9
CABF  La Chapelle         82.55 358 eP     P       06 32 26.0 -0.5
SMF   Signal de Mont      82.55 359 eP     P       06 32 26.7 +0.2
      comp=Z,14nm,0.9s,mb4.7
MFF   Saint Martin d      82.57   2 eP     P       06 32 26.6  0.0
      comp=Z,24nm,1.0s,mb4.9
TCF   Toulx Ste Croi      82.91   0 eP     P       06 32 27.4 -1.0
      comp=Z,9.7nm,0.9s,mb4.5
RJF   Les Rejaudoux       83.89   1 eP     P       06 32 33.7 +0.3
LFF   La Frestale         84.25   1 eP     P       06 32 34.5 -0.7
CAF   Calviac             84.28   0 eP     P       06 32 34.8 -0.6
MBDF  Montbardon          84.41 357 eP     P       06 32 37.1 +1.0
      comp=Z,5.0nm,0.7s,mb4.4
LASF  Ste Croix           85.12 359 eP     P       06 32 40.1 +0.5
      comp=Z,12nm,1.0s,mb4.7
HYB   Hyderabad           85.17 292 i P    P       06 32 40.0 -0.3
SMRF  Simiane la Rot      85.19 358 eP     P       06 32 40.2 +0.2
      comp=Z,22nm,1.1s,mb4.9
SBF   Sospel              85.25 357 eP     P       06 32 40.3  0.0
      comp=Z,26nm,0.9s,mb5.0
BRTR  Keskin Array B      85.51 337  P     P       06 32 42.4 +0.7
BRTR                                 pmax  pmax
      comp=Z,5.0nm,0.8s
BRTR  Keskin Array B      85.51 337  P     P       06 32 42.4 +0.7
      comp=Z,5.4nm,0.8s,mb4.8,baz=72,slow=4.0,SNR=25
MALT  Malatya             85.54 333⇓iP     P       06 32 42.9 +1.1
FRF   La Foret Royal      85.58 357 eP     P       06 32 40.9 -1.0
      comp=Z,15nm,0.9s,mb4.9
LMR   La Mourre           85.81 357 eP     P       06 32 42.3 -0.8
      comp=Z,22nm,1.1s,mb5.0
MTLF  Montolieu           85.86   0 eP     P       06 32 43.0 -0.3
      comp=Z,5.4nm,0.7s,mb4.6
ASAR  Alice Springs       85.98 224  P     P       06 32 43.0 -1.0
ASAR                                 pmax  pmax
      comp=Z,1.0nm,0.7s
ASAR  Alice Springs       85.98 224  P     P       06 32 43.0 -1.0
      comp=Z,0.7nm,0.7s,mb4.0,baz=35,slow=4.6,SNR=4.8
SJPF  Ste Jean            86.03   3 eP     P       06 32 43.9 -0.3
ETSF  Etsaut              86.26   2 eP     P       06 32 45.3  0.0
      comp=Z,5.2nm,0.9s,mb4.5
PGF   Pioggiola           86.49 355 eP     P       06 32 45.5 -1.0
      comp=Z,19nm,0.9s,mb5.0
ESDC  Sonseca Array       89.34   5  P     P       06 32 59.5 -0.6
      comp=Z,0.6nm,0.4s,mb4.3,baz=350,slow=4.1,SNR=4.7
LBTB  Lobatse            148.52 317  PKPbc PKPbc   06 39 51.1 +0.8
      comp=Z,4.7nm,0.8s,baz=130,slow=1.0,SNR=3.2
BOSA  Boshof             151.80 314  PKPbc PKPbc   06 39 58.4 +0.3
      comp=Z,3.3nm,1.1s,baz=135,slow=3.8,SNR=3.0
BOSA                                 PKPab PKPab   06 40 07.8 +0.6
      comp=Z,3.3nm,0.9s,baz=109,slow=10,SNR=3.1
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*IDC **22** 06:21:46.9±3.3, 5°.45S×101°.88E, h0^{km}, mb4.1/7, mb1 4.3/8, mb1mx4.0/22, mbtmp4.1/8, ML4.2/1, MS3.5/3, Ms1 3.6/3, ms1mx2.9/32, Error ellipse: s-maj=146.5km s-min=15.7km az=55.0*

*ISCJB **22** 06:21:48.6±2.2, 5°.53S±0°.06×101°.68E±0°.06, h32^{km}±18^{km}, mb4.2/8, MS3.5/3, Error ellipse: s-maj=12.5km s-min=7.6km az=139.9*

*DJA **22** 06:21:49, 5°.63S×101°.77E, h30^{km}, MLv4.8/6*

ISC 22 06:21:48.5±3.0**, 5°.51S**±0°.06×**101°.76E**±0°.07**, h14**^{km}±20^{km}**, n25,** σ0ˢ.74/23**, mb4.2**/8**, MS3.5**/3**, Southwest of Sumatera**

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Code  Station Name         Δ°  AZ°   Phase ID          Time     Res
                                     Op    ISC      h  m  s     ISC
MNAI  Manna               1.65  46   P     Pn      06 22 16.5 -0.6
KSI   Kapahiang           2.03  24   P     Pn      06 22 22.6 +0.3
MDSI  Maura Dua           2.62  67   P     Pn      06 22 30.3 -0.1
KASI  Kota Agung          2.73  90   P     Pn      06 22 31.1 -0.8
KLI   Kotabumi            3.15  78   P     Pn      06 22 40.2 +2.4
PPSI  Pulau Pagai         3.24 327   P     Pn      06 22 39.5 +0.6
SDSI  Sungai Dareh        4.56 356   P     Pn      06 22 57.1  0.0
PDSI  Padang              4.75 344   P     Pn      06 22 59.9 +0.2
SISI  Saibi               4.94 327   P     Pn      06 23 03.2 +0.9
      469nm,0.8s,5µm
RGRI  Rengat              5.16   6   P     Px      06 23 20.2
PPI   Padang Panjang      5.20 345   P     Pn      06 23 06.4 +0.5
      237nm,0.7s,3µm0.8nm
XMIS  Christmas Isla      6.27 142   P     Pn      06 23 14.5 -6.1
      208nm,2.3s,1.4nm
COCO  West Island         8.23 216   P     Pn      06 23 47.7 +0.2
PSI   Prapat              8.73 341   Pn    Pn      06 23 52.5 -2.0
      2.8nm,0.3s,baz=180,slow=3.2,SNR=8.1
PSI                                  Sn    Sn      06 25 32.8 +0.1
      1.6nm,0.3s,baz=198,slow=10,SNR=2.8
BSI   Banda Aceh         12.69 329   P     Pn      06 24 47.8 -1.0
CMAR  Chiang Mai Arr     23.98 353   P     P       06 27 03.0 +0.3
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	2.9nm,0.5s,mb3.9,baz=187,slow=9.2,SNR=12						
CMAR				LR	LR	06 38 50.8	
	comp=Z,72nm,18.4s,MS3.2,baz=185,slow=43						
FITZ	**Fitzroy Crossi**	**26.47**	**120**	P	**P**	**06 27 25.5**	**0.0**
	4.0nm,0.9s,mb3.9,baz=276,slow=9.0,SNR=3.0						
WRA	**Warramunga Arr**	**34.77**	**117**	P	**P**	**06 28 38.4**	**-0.4**
	1.6nm,0.6s,mb4.1,baz=288,slow=12,SNR=14						
ASAR	**Alice Springs**	**35.82**	**124**	P	**P**	**06 28 47.6**	**-0.2**
	2.2nm,0.6s,mb4.3,baz=300,slow=7.8,SNR=20						
STKA	**Stephens Creek**	**45.54**	**130**	P	**P**	**06 30 08.2**	**+0.1**
	2.6nm,0.6s,mb4.3,baz=320,slow=6.0,SNR=5.0						
STKA				LR	LR	06 49 19.6	
	comp=Z,96nm,19.1s,MS3.8,baz=205,slow=36						
KSH	**Kashi**	**50.73**	**334**	P	**P**	**06 30 47.6**	**-0.4**
KSH				*e*pP	pP	06 30 57.4	+5.0
KSH				*e*sP	sP	06 31 01.9	+7.8
KSH				*e*PcP	PcP	06 31 19.3	-46
KSH				*e*PP	PP	06 33 13.3	+29
KSH				*e*ScP	ScP	06 35 18.3	-43
KSH				*e*PcS	PcS	06 35 22.3	-40
KSH				*e*S	S	06 39 28.0	+85
KSH				*e*sS	sS	06 39 43.3	+93
KSH				*e*ScS	ScS	06 40 36.3	-2.4
KSH				*e*SS	SS	06 43 43.0	
KSH				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
KSH				pmax	pmax		
	comp=Z,330nm,4.7s						
KSH				LR	LR		
	comp=N,190nm,3.8s						
KSH				LR	LR		
	comp=E,210nm,5.2s						
KSH				LR	LR		
	comp=Z,160nm,5.2s						
MKAR	**Makanchi Array**	**54.86**	**344**	P	**P**	**06 31 18.8**	**+0.4**
	comp=Z,0.9nm,0.5s,mb4.1,baz=157,slow=8.7,SNR=12						
KURK	**Kurchatov**	**59.45**	**343**	LR	LR	07 00 20.5	
	comp=Z,41nm,18.7s,MS3.6,baz=100,slow=39						
ZALV	**Zalesovo Beam**	**60.92**	**349**	P	**P**	**06 32 00.8**	**0.0**
	comp=Z,0.9nm,0.5s,mb4.2,baz=187,slow=5.8,SNR=4.0						
TXAR	**Lajitas Array**	**146.26**	**42**	PKPbc	PKPbc	06 41 30.4	+1.0
	baz=270,slow=0.9						

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*NEIC **22** 06:38:24.3, 51°.01N×177°.21W, h20km, ML2.9(AEIC), After AEIC.*
*IDC **22** 06:38:33.4±6.4, 51°.38N×177°.25W, h102km±54km, mb3.4/7, mb1 3.6/9, mb1mx3.4/27, mbtmp3.4/9, Error ellipse: s-maj=72.4km s-min=19.2km az=178.0*
ISC 22 06:38:21.5±2.6**, 51°.0N**±0°.2×**177°.5W**±0°.2**, h13**km±12km**, n13, σ0s.88**/15**, mb3.7**/7**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	**Adak**	**1.02**	**29**	*e*Pg	**Pg**	**06 38 40.8**	**-0.3**
ADK				*e*Sg	**Sg**	**06 38 54.5**	**+0.1**
GSTR	**Great Sitkin T**	**1.41**	**38**	*e*Pn	**Pn**	**06 38 46.7**	**-0.2**
GSTR				*e*Sn	**Sn**	**06 39 05.6**	**+0.3**
PETK	**Petropavlovsk-**	**15.39**	**288**	P	**Pn**	**06 42 05.9**	**+7.8**
	0.1nm,0.3s,baz=91,slow=16,SNR=3.7						
PETK	**Petropavlovsk-**	**15.39**	**288**	P	**Pn**	**06 42 05.9**	**+7.7**
KDAK	**Kodiak Island**	**15.95**	**55**	P	**Pn**	**06 42 07.2**	**+1.8**
	2.0nm,0.3s,baz=161,slow=2.4,SNR=15						
INK	**Inuvik**	**27.30**	**34**	P	**P**	**06 44 04.2**	**-1.2**
	0.3nm,0.4s,mb3.2,baz=173,slow=6.4,SNR=4.6						
YKA	**Yellowknife Ar**	**34.90**	**46**	P	**P**	**06 45 11.3**	**-0.9**
	0.4nm,0.7s,mb3.5,baz=285,slow=7.9,SNR=6.7						
PDAR	**Pinedale Array**	**45.63**	**73**	P	**P**	**06 46 41.5**	**+0.1**
	1.5nm,0.7s,mb4.1,baz=316,slow=4.1,SNR=14						
SONM	**Songino Array**	**47.56**	**298**	P	**P**	**06 46 58.3**	**+1.8**
	0.5nm,0.5s,mb3.8,baz=55,slow=9.5,SNR=5.2						
MKAR	**Makanchi Array**	**60.92**	**309**	P	**P**	**06 48 33.2**	**-0.5**
	0.1nm,0.3s,mb3.4,baz=46,slow=6.9,SNR=6.1						
MKAR	**Makanchi Array**	**60.92**	**309**	P	**P**	**06 48 33.2**	**-0.5**
AKASG	**Malin Array Be**	**76.16**	**343**	P	**P**	**06 50 08.2**	**-0.6**
	0.4nm,0.3s,mb3.8,baz=16,slow=5.6,SNR=3.5						
BRTR	**Keskin Array B**	**85.63**	**336**	P	**P**	**06 50 59.5**	**0.0**
	1.1nm,0.8s,mb4.2,baz=91,slow=4.9,SNR=5.0						

IDC 22 06:41:40.2±1.4**, 28°.48S**×**68°.70W, h88**km±12km**, mb3.6**/3**, mb1 3.6**/7**, mb1mx3.5**/18**, mbtmp3.5**/7**, Error ellipse: s-maj=32.1km s-min=10.3km az=88.0, La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFAA	**Coronel Fontan**	**3.15**	**173**	P	Pn	06 42 29.2	+1.5
	6.2nm,0.3s,baz=352,slow=12,SNR=499						
CFAA				S	Sn	06 43 04.6	+0.4
	6.8nm,0.3s,baz=162,slow=17,SNR=25						
LVC	**Limon Verde**	**5.84**	**358**	P	Pn	06 43 05.7	+1.3
	3.6nm,0.3s,baz=147,slow=10,SNR=29						
LVC				S	Sn	06 44 10.1	+0.1
	4.5nm,0.3s,baz=237,slow=20,SNR=11						
CPUP	**Villa Florida**	**10.33**	**81**	P	Pn	06 44 05.1	-0.4
	0.4nm,0.3s,baz=253,slow=12,SNR=5.9						
SIV	**San Ignacio**	**14.29**	**31**	P	Pn	06 44 57.4	-0.9
	0.2nm,0.3s,baz=228,slow=14,SNR=5.4						
TORD	**Torodi Ar. Bea**	**79.60**	**69**	P	P	06 53 38.5	+0.3
	1.2nm,0.6s,baz=258,slow=5.5,SNR=9.0						
PDAR	**Pinedale Array**	**80.24**	**331**	P	P	06 53 41.7	+0.8
	0.3nm,0.4s,baz=130,slow=9.6,SNR=3.4						
YKA	**Yellowknife Ar**	**97.80**	**340**	P	P	06 55 04.3	-0.6
	0.1nm,0.4s,baz=138,slow=5.4,SNR=2.5						
WRA	**Warramunga Arr**	**126.97**	**207**	PKP	PKPdf	07 00 33.0	-1.6
	0.6nm,1.0s,baz=155,slow=1.8,SNR=6.6						
KURK	**Kurchatov**	**146.85**	**39**	PKPbc	PKPbc	07 01 11.9	0.0
	1.2nm,0.6s,baz=293,slow=3.3,SNR=3.4						
ZALV	**Zalesovo Beam**	**148.03**	**30**	PKPbc	PKPbc	07 01 15.0	-0.1
	1.6nm,0.4s,baz=343,slow=4.3,SNR=5.0						
MKAR	**Makanchi Array**	**150.88**	**43**	PKPbc	PKPbc	07 01 22.1	-0.2
	2.0nm,0.6s,baz=295,slow=2.0,SNR=29						
MKAR				PKPab	PKPab	07 01 29.3	-0.6
	0.5nm,0.6s,baz=290,slow=3.7,SNR=4.2						

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*NEIC **22** 06:42:40.5, 51°.00N×177°.22W, h21km, ML3.8(AEIC), After AEIC.*
*IDC **22** 06:42:51.0±13.0, 51°.58N×177°.36W, h107km±79km, mb3.2/5, mb1 3.3/6, mb1mx3.2/26, mbtmp3.2/6, ML3.4/1, Error ellipse: s-maj=245.1km s-min=23.7km az=168.0*
ISC 22 06:42:38.1±4.9**, 50°.9N**±0°.2×**177°.3W**±0°.3**, h16**km±33km**, n11, σ0s.72**/13**, mb3.8**/7**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	**Adak**	**1.01**	**20**	*e*Pn	**Pn**	**06 42 57.3**	**-0.2**
ADK				*e*Sn	**Sn**	**06 43 11.2**	**-0.2**
GSTR	**Great Sitkin T**	**1.38**	**32**	*e*Pn	**Pn**	**06 43 03.1**	**+0.5**
GSTR				*e*Sn	**Sn**	**06 43 20.9**	**+0.5**
PETK	**Petropavlovsk-**	**15.55**	**288**	P	**Pn**	**06 46 21.9**	**+5.6**
	0.1nm,0.3s,baz=98,slow=17,SNR=2.8						
INK	**Inuvik**	**27.27**	**34**	P	**P**	**06 48 20.3**	**-0.8**
	0.2nm,0.4s,mb3.0,baz=221,slow=12,SNR=5.6						
YKA	**Yellowknife Ar**	**34.83**	**46**	P	**P**	**06 49 27.7**	**0.0**
	0.2nm,0.6s,mb3.2,baz=281,slow=7.7,SNR=5.5						
YKA	**Yellowknife Ar**	**34.83**	**46**	P	**P**	**06 49 27.7**	**0.0**
MDJ	**Mudanjiang**	**35.61**	**281**	P	**P**	**06 49 34.8**	**+0.1**
MDJ				pmax	pmax		
	comp=Z,11nm,2.2s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,81nm,4.8s						
SONM	**Songino Array**	**47.72**	**298**	P	**P**	**06 51 14.3**	**+0.7**
	comp=Z,0.6nm,0.6s,mb3.8,baz=55,slow=8.6,SNR=6.6						
MKAR	**Makanchi Array**	**61.07**	**309**	P	**P**	**06 52 48.9**	**-1.9**
	comp=Z,0.3nm,0.8s,mb3.5,baz=50,slow=5.7,SNR=5.1						
GYA	**Guiyang**	**61.34**	**277**	*e*P	**P**	**06 52 53.8**	**+0.9**
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
BRTR	**Keskin Array B**	**85.75**	**337**	P	**P**	**06 55 16.4**	**+0.3**
	comp=Z,0.6nm,0.9s,mb3.8,baz=96,slow=4.3,SNR=4.2						

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*ISCJB **22** 06:49:35.8±0.2, 41°.13N±0°.01×114°.89W±0°.02, h10km, Error ellipse: s-maj=1.8km s-min=1.6km az=144.1*
*NEIC **22** 06:49:35.9, 41°.14N×114°.93W, h14km, ML2.8, After REN.*
*IDC **22** 06:49:36.0±0.9, 41°.15N×114°.90W, h0km, mb2.7/1, mb1 3.2/3, mb1mx3.1/21, mbtmp2.8/3, ML3.3/2, Error ellipse: s-maj=23.1km s-min=4.9km az=136.0*
ISC 22 06:49:36.3±0.2**, 41°.15N**±0°.01×**114°.90W**±0°.01**, h10**km**, n109, σ1s.06**/172**, 40C-38D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.32**	**200**	⇑P	**Pg**	**06 49 42.3**	**-0.3**
	baz=0.3,SNR=26						
N12A				⇑S	**Sg**	**06 49 46.8**	**0.0**
	baz=0.3						
ELK	**Elko**	**0.48**	**213**	Pg	**Pg**	**06 49 44.9**	**-0.7**
	30nm,0.3s,baz=18,slow=14,SNR=66						
ELK				Lg		06 49 51.3	
	108nm,0.3s,baz=114,slow=19,SNR=90						
ELK	**Elko**	**0.48**	**213**	*e*Pg	**Pg**	**06 49 44.5**	**-1.2**
ELK				*e*Sg	**Sg**	**06 49 50.2**	**-1.7**
M13A	**Montello**	**0.59**	**69**	⇓P	**Pg**	**06 49 48.0**	**+0.3**
	baz=0.6,SNR=14						
N13A	**Wendover, West**	**0.60**	**119**	P	**Pg**	**06 49 47.8**	**-0.1**
	baz=0.6,SNR=38						
N13A				⇓S	**Sg**	**06 49 55.9**	**0.0**
	baz=0.6						
N11A	**Elko Archery C**	**0.72**	**243**	⇓P	**Pg**	**06 49 49.0**	**-1.1**
	baz=0.7,SNR=17						
N11A				⇓S	**Sg**	**06 49 58.7**	**-0.7**
	baz=0.7						
M11A	**Holland Ranch,**	**0.73**	**293**	⇓P	**Pg**	**06 49 49.2**	**-1.2**
	baz=0.7						
M11A				⇑S	**Sg**	**06 49 58.7**	**-1.2**
	baz=0.7						
O12A	**Currie**	**0.89**	**172**	⇑P	**Pg**	**06 49 52.9**	**-0.5**
	baz=0.9,SNR=28						
O12A				⇓S	**Sg**	**06 50 05.0**	**0.0**
	baz=0.9						
L12A	**House Creek Ra**	**1.00**	**355**	⇓P	**Pg**	**06 49 54.5**	**-1.0**
	baz=1.0						
L12A				⇑S	**Sg**	**06 50 07.6**	**-0.9**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.17**	**210**	⇓P	**Pb**	**06 49 58.3**	**-0.3**
	baz=1.1,SNR=65						
O11A				⇓S	**Sb**	**06 50 13.1**	**-0.6**
	baz=1.1						
L13A	**Double Diamond**	**1.18**	**37**	⇑P	**Pb**	**06 49 57.4**	**-1.4**
	baz=1.2						
L13A				⇑S	**Sb**	**06 50 13.4**	**-0.7**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.20**	**328**	⇓P	**Pb**	**06 49 57.7**	**-1.4**
	baz=1.2						
L11A				⇑S	**Sb**	**06 50 13.5**	**-1.3**
	baz=1.2						
M14A	**Sheep Mountain**	**1.22**	**73**	⇓P	**Pn**	**06 49 58.4**	**-1.0**
	baz=1.2						
M14A				⇓S	**Sb**	**06 50 15.0**	**-0.3**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.23**	**145**	⇓P	**Pn**	**06 49 59.2**	**-0.4**
	baz=1.2						
O13A				⇑S	**Sb**	**06 50 16.7**	**+1.1**
	baz=1.2						
M10A	**I.L. Ranch, Tu**	**1.29**	**287**	⇓P	**Pn**	**06 49 59.7**	**-0.7**
	baz=1.3,SNR=36						
M10A				⇑S	**Sb**	**06 50 17.1**	**-0.1**
	baz=1.3						
N10A	**Dunphy**	**1.29**	**251**	P	**Pn**	**06 49 59.7**	**-0.7**
	baz=1.3,SNR=28						
N10A				⇓S	**Sb**	**06 50 17.1**	**-0.2**
	baz=1.3						
N14A	**Grayback Hills**	**1.33**	**102**	P	**Pn**	**06 50 00.2**	**-0.7**
	baz=1.4,SNR=36						
N14A				⇓S	**Sb**	**06 50 19.1**	**+0.7**
	baz=1.4						
BGU	**Big Grassy Mou**	**1.43**	**98**	*e*Pn	**Pn**	**06 50 01.5**	**-0.8**
BGU				*e*Sg	**Sg**	**06 50 22.1**	**-0.3**
K12A	**Draper Farm, C**	**1.49**	**360**	⇑P	**Pn**	**06 50 02.1**	**-0.9**
	baz=1.5						
K12A				⇓S	**Sn**	**06 50 21.1**	**-1.4**
	baz=1.5						
O10A	**Cortez Mining,**	**1.49**	**235**	⇓P	**Pn**	**06 50 02.6**	**-0.5**
	baz=1.5,SNR=30						
O10A				⇑S	**Sn**	**06 50 23.0**	**+0.5**
	baz=1.5						
L10A	**Juniper Basin**	**1.50**	**309**	⇑P	**Pn**	**06 50 02.9**	**-0.3**
	baz=1.5,SNR=78						
L10A				⇓S	**Sn**	**06 50 22.5**	**-0.3**
	baz=1.5						
L14A	**Malta**	**1.53**	**54**	⇑P	**Pn**	**06 50 03.1**	**-0.5**
	baz=1.6,SNR=28						
L14A				⇑S	**Sn**	**06 50 23.9**	**+0.4**
	baz=1.6						
K13A	**Stover Farm, H**	**1.62**	**22**	⇓P	**Pn**	**06 50 04.6**	**-0.3**
	baz=1.6,SNR=18						
K13A				⇑S	**Sn**	**06 50 26.0**	**+0.3**
	baz=1.6						
P12A	**McGill**	**1.67**	**180**	⇓P	**Pn**	**06 50 05.3**	**-0.4**
	baz=1.7,SNR=50						
P12A				⇓Sb	**Sb**	**06 50 30.0**	**+1.7**
	baz=1.7						
HVU	**Hansel Valley**	**1.72**	**68**	*e*Pn	**Pn**	**06 50 05.8**	**-0.4**
HVU				*e*Sg	**Sg**	**06 50 29.0**	**-2.5**
P11A	**Circle Ranch,**	**1.72**	**203**	⇑P	**Pn**	**06 50 06.1**	**-0.2**
	baz=1.7,SNR=20						
N15A	**Stansbury Isla**	**1.82**	**97**	⇑P	**Pn**	**06 50 07.3**	**-0.4**
	baz=1.8,SNR=21						
P13A	**Bates Ranch, G**	**1.82**	**158**	⇓P	**Pn**	**06 50 07.1**	**-0.6**
	baz=1.8						
P13A				⇑Sb	**Sb**	**06 50 34.5**	**+2.0**
	baz=1.8						
K11A	**Parker Ranch,**	**1.83**	**333**	⇓P	**Pn**	**06 50 07.7**	**0.0**
	baz=1.8,SNR=16						
K11A				⇑S	**Sn**	**06 50 31.7**	**+0.7**
	baz=1.8						
DUG	**Dugway**	**1.85**	**120**	*e*Pn	**Pn**	**06 50 09.1**	**+1.0**
DUG				*e*Sg	**Sg**	**06 50 33.7**	**-2.1**
SPUT	**South Promonto**	**1.85**	**84**	*e*Pn	**Pn**	**06 50 08.4**	**+0.3**
SPUT				*e*Sg	**Sg**	**06 50 34.3**	**-1.6**
M15A	**Larsen Ranch,**	**1.87**	**80**	⇓P	**Pn**	**06 50 08.7**	**+0.4**
	baz=1.9,SNR=32						
K14A	**Jones Ranch, D**	**1.90**	**42**	P	**Pn**	**06 50 08.8**	**+0.1**
	baz=1.9,SNR=14						
K14A				⇑Sb	**Sb**	**06 50 35.5**	**+0.8**
	baz=1.9						
BMN	**Battle Mountai**	**1.90**	**249**	*e*Pn	**Pn**	**06 50 09.4**	**+0.6**
BMN				*e*Sg	**Sg**	**06 50 34.2**	**-3.2**
P10A	**Eureka**	**1.94**	**219**	⇑P	**Pn**	**06 50 08.8**	**-0.5**
	baz=1.9,SNR=26						
P10A				⇓S	**Sn**	**06 50 35.2**	**+1.5**
	baz=1.9						
M09A	**Marrel Ranch,**	**1.94**	**279**	P	**Pn**	**06 50 10.1**	**+0.7**
	baz=1.9,SNR=23						
M09A				⇑Sb	**Sb**	**06 50 36.7**	**+0.7**
	baz=1.9						
O09A	**Fish Creek Ran**	**2.00**	**241**	⇑P	**Pn**	**06 50 09.4**	**-0.7**
	baz=2.0,SNR=5.5						
N09A	**Rock Creek Ran**	**2.01**	**262**	⇑P	**Pn**	**06 50 09.4**	**-0.8**
	baz=2.0,SNR=14						
L15A	**Malad City**	**2.07**	**65**	⇑P	**Pn**	**06 50 10.9**	**-0.2**
	baz=2.1,SNR=24						
P14A	**Drum Mountains**	**2.09**	**137**	P	**Pn**	**06 50 11.1**	**-0.3**
	baz=2.1,SNR=15						
J12A	**Stokes Ranch,**	**2.10**	**356**	P	**Pn**	**06 50 12.2**	**+0.6**
	baz=2.1,SNR=23						
Q12A	**Willow Creek R**	**2.11**	**179**	⇓P	**Pn**	**06 50 11.3**	**-0.3**
	baz=2.1,SNR=26						
NOQ	**North Oquirrh**	**2.16**	**102**	*e*Pn	**Pn**	**06 50 14.2**	**+1.9**
NOQ				*e*Sg	**Sg**	**06 50 43.6**	**-2.2**
K10A	**MacKenzie Ranc**	**2.19**	**319**	⇑P	**Pn**	**06 50 13.8**	**+1.0**
	baz=2.2,SNR=29						
L09A	**Wilkinson Ranc**	**2.25**	**294**	⇓P	**Pn**	**06 50 14.9**	**+1.3**
	baz=2.2,SNR=33						
Q13A	**Wheeler Ranch,**	**2.29**	**163**	P	**Pn**	**06 50 14.0**	**-0.1**
	baz=2.3,SNR=25						
J13A	**Cove Ranch, Pi**	**2.31**	**13**	⇓P	**Pn**	**06 50 15.0**	**+0.6**
	baz=2.3,SNR=38						
K15A	**Arbon**	**2.34**	**48**	⇑P	**Pn**	**06 50 15.4**	**+0.6**
	baz=2.4,SNR=18						
MFID	**Camas Ranch**	**2.37**	**343**	P	**Pn**	**06 50 16.6**	**+1.5**
	baz=2.4,SNR=16						
Q11A	**Duckwater**	**2.37**	**194**	⇓P	**Pn**	**06 50 15.3**	**0.0**
	baz=2.4,SNR=24						
J14A	**Carey**	**2.40**	**25**	P	**Pn**	**06 50 16.7**	**+1.0**
	baz=2.4,SNR=34						
HLID	**Hailey**	**2.44**	**8**	⇓P	**Pn**	**06 50 17.1**	**+0.9**
	baz=2.5,SNR=24						
HLID	**Hailey**	**2.44**	**8**	*e*Pn	**Pn**	**06 50 16.9**	**+0.8**
HLID				*e*Sg	**Sg**	**06 50 48.3**	**-6.3**
NLU	**North Lily Min**	**2.46**	**118**	*e*Pn	**Pn**	**06 50 18.6**	**+2.1**
NLU				*e*Sn	**Sn**	**06 50 46.4**	**-0.2**
NLU				*e*Sg	**Sg**	**06 50 57.1**	**+1.7**
N08A	**GE Springer Mi**	**2.48**	**263**	⇑P	**Pn**	**06 50 15.5**	**-1.1**
	baz=2.4,SNR=8.2						
Q14A	**Sevier Lake (B**	**2.49**	**150**	⇑P	**Pn**	**06 50 16.3**	**-0.6**
	baz=2.5,SNR=15						
P15A	**Leamington**	**2.55**	**127**	P	**Pn**	**06 50 17.1**	**-0.5**
	baz=2.6,SNR=30						
Q10A	**Clear Creek Ra**	**2.59**	**207**	⇓P	**Pn**	**06 50 17.6**	**-0.7**
	baz=2.6,SNR=25						
K09A	**Rome**	**2.62**	**307**	⇓P	**Pn**	**06 50 20.6**	**+2.0**
	baz=2.6,SNR=36						
O08A	**Rochester Mine**	**2.62**	**252**	⇓P	**Pn**	**06 50 17.8**	**-0.8**
	baz=2.6,SNR=8.7						
J10A	**Berg Farm, Mel**	**2.67**	**329**	⇑Sb	**Sb**	**06 50 57.3**	**+0.5**
	baz=2.7						
MPU	**Maple Canyon**	**2.73**	**113**	*e*Pn	**Pn**	**06 50 24.0**	**+3.8**
MPU				*e*Sg	**Sg**	**06 51 01.3**	**-2.7**
L16A	**Fish Haven**	**2.74**	**70**	⇑P	**Pn**	**06 50 21.0**	**+0.8**
	baz=2.8,SNR=14						
I13A	**Wildhorse Cree**	**2.82**	**12**	⇑P	**Pn**	**06 50 22.6**	**+1.1**
	baz=2.8,SNR=24						
R11A	**Troy Canyon, C**	**2.85**	**191**	P	**Pn**	**06 50 21.5**	**-0.2**
	baz=2.8,SNR=50						
DAU	**Daniels Canyon**	**2.86**	**104**	*e*Pn	**Pn**	**06 50 24.3**	**+2.3**
DAU				*e*Pg	**Pg**	**06 50 30.6**	**-0.5**
J15A	**Blackfoot**	**2.90**	**38**	⇓P	**Pn**	**06 50 23.1**	**+0.6**
	baz=2.9,SNR=14						
K16A	**Soda Springs**	**2.99**	**55**	⇑P	**Pn**	**06 50 24.8**	**+1.1**
	baz=3.0,SNR=16						
R13A	**O'Grain Ranch,**	**3.05**	**166**	P	**Pn**	**06 50 25.2**	**+0.7**
	baz=3.1,SNR=23						
R10A	**Warm Springs**	**3.06**	**201**	⇓P	**Pn**	**06 50 25.3**	**+0.7**
	baz=3.0,SNR=18						
WVOR	**Wild Horse Val**	**3.08**	**296**	*e*Pn	**Pn**	**06 50 26.6**	**+1.7**
WVOR				*e*Sg	**Sg**	**06 51 09.8**	**-5.3**
O07A	**Toulon**	**3.18**	**253**	P	**Pn**	**06 50 25.5**	**-0.9**
	baz=3.1,SNR=12						
M07A	**Soldier Meadow**	**3.23**	**276**	⇓P	**Pn**	**06 50 26.9**	**-0.1**
	baz=3.2,SNR=7.2						
AHID	**Auburn Hatcher**	**3.26**	**59**	*e*Pn	**Pn**	**06 50 28.3**	**+0.8**
AHID				*e*Sg	**Sg**	**06 51 17.9**	**-3.1**
MSU	**Marysvale**	**3.37**	**141**	*e*Pn	**Pn**	**06 50 28.6**	**-0.3**
TMUT	**Trail Mountain**	**3.38**	**122**	*e*Pg	**Pg**	**06 50 37.0**	**-4.0**
TMUT				*e*Sg	**Sg**	**06 51 25.1**	**+0.3**
RRI2	**Red Ridge**	**3.45**	**49**	*e*Pn	**Pn**	**06 50 30.6**	**+0.6**
RRI2				*e*Sg	**Sg**	**06 51 22.1**	**-4.8**
S10A	**Tonopah Range,**	**3.48**	**203**	⇑P	**Pn**	**06 50 30.7**	**+0.3**
	baz=3.5,SNR=11						
ARUT	**Antelope Range**	**3.54**	**161**	*e*Pn	**Pn**	**06 50 31.5**	**+0.2**
ARUT				*e*Pg	**Pg**	**06 50 43.4**	**-0.8**
ARUT				*e*Sg	**Sg**	**06 51 31.0**	**+1.0**
S11A	**Rachel**	**3.56**	**191**	P	**Pn**	**06 50 32.3**	**+0.7**
	baz=3.6,SNR=7.8						
S14A	**Cedar City**	**3.64**	**158**	⇑P	**Pn**	**06 50 33.2**	**+0.5**
	baz=3.6,SNR=5.6						
S13A	**Holt Ranch, En**	**3.65**	**167**	P	**Pn**	**06 50 33.2**	**+0.4**
	baz=3.7,SNR=17						
DCID1	**Drake Creek**	**3.68**	**47**	*e*Pn	**Pn**	**06 50 33.2**	**0.0**
DCID1				*e*Sg	**Sg**	**06 51 32.7**	**-1.8**
REDW	**Red Top Meadow**	**3.73**	**52**	*e*Pn	**Pn**	**06 50 35.4**	**+1.6**
TPAW	**Teton Pass**	**3.75**	**50**	*e*Pn	**Pn**	**06 50 35.1**	**+1.0**
TPAW				*e*Sg	**Sg**	**06 51 32.2**	**-4.4**
NVAR	**Mina Array Bea**	**3.78**	**225**	Pn	**Pn**	**06 50 34.4**	**-0.2**
	1.2nm,0.3s,baz=40,slow=13,SNR=27						
NVAR				Pg	**Pg**	**06 50 44.4**	**-4.2**
	2.9nm,0.3s,baz=45,slow=17,SNR=30						
NVAR				Sn	**Sn**	**06 51 20.9**	**+1.9**
	4.2nm,0.3s,baz=49,slow=19,SNR=7.6						
NVAR				Lg		06 51 36.7	
	8.4nm,0.3s,baz=257,slow=30,SNR=9.2						
CCUT	**Cedar City**	**3.79**	**161**	*e*Pn	**Pn**	**06 50 35.0**	**+0.3**
CCUT				*e*Pg	**Pg**	**06 50 46.1**	**-2.7**
CCUT				*e*Sg	**Sg**	**06 51 35.9**	**-2.0**
SNOW	**Snow King Moun**	**3.84**	**52**	*e*Pn	**Pn**	**06 50 36.7**	**+1.3**
SNOW				*e*Sg	**Sg**	**06 51 34.3**	**-5.4**
T11A	**Corn Creek, Al**	**3.91**	**184**	P	**Pn**	**06 50 36.7**	**+0.3**
	baz=3.9,SNR=16						
SRU	**San Rafael**	**3.92**	**120**	*e*Pn	**Pn**	**06 50 31.0**	**-5.6**
SRU				*e*Pg	**Pg**	**06 50 46.9**	**-4.5**
MCMT	**McKenzie Canyo**	**3.97**	**22**	*e*Pn	**Pn**	**06 50 40.0**	**+2.8**
MCMT				*e*Sg	**Sg**	**06 51 37.5**	**-6.3**
IMW	**Indian Meadow**	**4.01**	**46**	*e*Pn	**Pn**	**06 50 39.1**	**+1.3**
IMW				*e*Sg	**Sg**	**06 51 36.8**	**-8.3**
LOHW	**Long Hollow**	**4.02**	**51**	*e*Pn	**Pn**	**06 50 38.8**	**+0.9**
MOOW	**Moose Ponds**	**4.02**	**48**	*e*Pn	**Pn**	**06 50 38.7**	**+0.8**
MOOW				*e*Sg	**Sg**	**06 51 38.2**	**-7.3**
BMO	**Blue Mountains**	**4.10**	**335**	*e*Pn	**Pn**	**06 50 44.5**	**+5.5**
BMO				*e*Sg	**Sg**	**06 51 40.0**	**-8.0**
MOD	**Modoc**	**4.13**	**282**	*e*Pn	**Pn**	**06 50 39.6**	**+0.2**
MOD				*e*Sg	**Sg**	**06 51 46.1**	**-2.6**
PDAR	**Pinedale Array**	**4.30**	**66**	Pn	**Pn**	**06 50 44.5**	**+2.9**
	0.2nm,0.3s,baz=240,slow=12,SNR=11						
PDAR				Pg	**Pg**	**06 50 53.6**	**-5.0**
	0.4nm,0.3s,baz=229,slow=13,SNR=13						
PDAR				Lg		06 51 50.3	
	0.9nm,0.3s,baz=234,slow=17,SNR=5.7						
T14A	**Hurricane**	**4.32**	**160**	⇑P	**Pn**	**06 50 42.4**	**+0.4**
	baz=4.3,SNR=12						
BEKR	**Beckwourth**	**4.36**	**255**	⇑P	**Pn**	**06 50 42.0**	**-0.5**
	baz=4.3,SNR=10						
DLMT	**Dillon**	**4.53**	**21**	*e*Pn	**Pn**	**06 50 43.9**	**-1.1**
DLMT				*e*Sg	**Sg**	**06 51 55.8**	**-6.0**
YMR	**Madison River**	**4.55**	**38**	*e*Pn	**Pn**	**06 50 44.9**	**-0.3**
U13A	**Pakoon Wash**	**4.78**	**171**	⇑P	**Pn**	**06 50 48.8**	**+0.4**
	baz=4.8,SNR=5.8						
CMB	**Columbia Colle**	**5.26**	**236**	*e*Pn	**Pn**	**06 50 58.2**	**+3.4**
CMB				*e*Sn	**Sn**	**06 51 56.6**	**+1.1**
CMB				*e*Sg	**Sg**	**06 52 19.5**	**-5.6**
V11A	**Goodsprings**	**5.32**	**185**	⇓P	**Pn**	**06 50 56.4**	**+0.7**
	baz=5.3,SNR=6.0						
PV04	**Paradox Valley**	**5.38**	**119**	*e*Pg	**Pg**	**06 51 16.0**	**-3.3**
PV04				*e*Sg	**Sg**	**06 52 27.2**	**-1.7**
V12A	**Nelson**	**5.41**	**180**	⇑P	**Pn**	**06 50 57.8**	**+0.8**
	baz=5.4,SNR=14						
WUAZ	**Wupatki**	**6.27**	**153**	*e*Pn	**Pn**	**06 51 10.3**	**+1.5**
WUAZ				*e*Pg	**Pg**	**06 51 34.2**	**-2.1**
WUAZ				*e*Sg	**Sg**	**06 52 49.1**	**-8.3**
MVCO	**Mesa Verde**	**6.34**	**126**	*e*Pg	**Pg**	**06 51 30.8**	**-6.9**
YKA	**Yellowknife Ar**	**21.38**	**0**	P	**P**	**06 54 24.0**	**+0.4**
	0.3nm,0.8s,baz=180,slow=10,SNR=6.7						

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*ISCJB **22** 06:55:28.9±0.3, 45°.71N±0°.02×14°.27E±0°.02, h7km±4km, Error ellipse: s-maj=3.8km s-min=2.8km az=20.8*
*CSEM **22** 06:55:28.7±0.1, 45°.69N×14°.23E, h10km, ML2.5/7, Error ellipse: s-maj=2.8km s-min=2.0km az=17.0*
*VIE **22** 06:55:29.0±0.2, 45°.73N×14°.25E, h8km±2km, mb1.8/1, ML2.5/2, Error ellipse: s-maj=2.2km s-min=1.0km az=1.0 35 km SSE of Idrija*
*LJU **22** 06:55:28.5, 45°.70N×14°.25E, h15km, ML1.9*
ISC 22 06:55:29.3±0.3**, 45°.70N**±0°.02×**14°.26E**±0°.03**, h8**km±4km**, n43, σ0s.68**/77**, 8C-5D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEY	**Cerknica**	**0.13**	**70**	⇑*i*Pg	**Pg**	**06 55 32.1**	**0.0**
CEY							
	comp=Z,85nm,0.1s						
CEY	**Cerknica**	**0.13**	**70**	Pg	**Pg**	**06 55 32.1**	**+0.1**
	comp=Z,85nm,0.1s						
KNDS	**Knezji Dol**	**0.19**	**153**	⇑*i*Pg	**Pg**	**06 55 33.2**	**+0.1**
KNDS				*i* Sg	**Sg**	**06 55 36.3**	**+0.6**
KNDS							
	comp=Z,127nm,0.2s						
KNDS	**Knezji Dol**	**0.19**	**153**	⇑*i*Pg	**Pg**	**06 55 33.2**	**+0.1**
KNDS				*i* Sg	**Sg**	**06 55 36.3**	**+0.6**
	comp=Z,127nm,0.2s						
SKDS	**Skadanscina**	**0.23**	**229**	⇑*i*Pg	**Pg**	**06 55 33.6**	**-0.2**
SKDS				*i* Sg	**Sg**	**06 55 37.4**	**+0.6**
SKDS							
	comp=Z,160nm,0.1s						
SKDS	**Skadanscina**	**0.23**	**229**	⇑*i*Pg	**Pg**	**06 55 33.6**	**-0.2**
SKDS				*i* Sg	**Sg**	**06 55 37.4**	**+0.5**
	comp=Z,160nm,0.1s						
JAVS	**Javornik**	**0.24**	**326**	⇓*i*Pg	**Pg**	**06 55 33.8**	**-0.3**
JAVS				*i* Sg	**Sg**	**06 55 37.6**	**+0.3**
JAVS							
	comp=Z,138nm,0.1s						
JAVS	**Javornik**	**0.24**	**326**	⇓*i*Pg	**Pg**	**06 55 33.8**	**-0.3**
JAVS				*i* Sg	**Sg**	**06 55 37.6**	**+0.3**
	comp=Z,138nm,0.1s						
TRI	**Trieste**	**0.35**	**272**	⇓*i*Pg	**Pg**	**06 55 35.5**	**-0.5**
TRI				*i* Sg	**Sg**	**06 55 40.8**	**+0.2**
TRI	**Trieste**	**0.35**	**272**	*i* Pg	**Pg**	**06 55 35.5**	**-0.5**
TRI				*i* Sg	**Sg**	**06 55 40.8**	**+0.2**
VISS	**Visnje**	**0.42**	**75**	*i* Pg	**Pg**	**06 55 37.3**	**-0.1**
VISS				*i* Sg	**Sg**	**06 55 43.5**	**+0.5**
VISS							
	comp=Z,16nm,0.1s						
VISS	**Visnje**	**0.42**	**75**	*i* Pg	**Pg**	**06 55 37.3**	**-0.2**

VISS				i Sg	Sg	06 55 43.5	+0.5
	comp=Z,16nm,0.1s						
VOJS	**Vojsko**	0.43	322	i Pg	Pg	06 55 37.0	-0.5
VOJS				i Sg	Sg	06 55 43.8	+0.7
VOJS							
	comp=Z,16nm,0.1s						
VOJS	**Vojsko**	0.43	322	i Pg	Pg	06 55 37.0	-0.5
VOJS				i Sg	Sg	06 55 43.8	+0.7
	comp=Z,16nm,0.1s						
VNDS	**Vrh nad Dolski**	0.51	37	i Pg	Pg	06 55 39.1	0.0
VNDS	**Vrh nad Dolski**	0.51	37	i Pg	Pg	06 55 39.1	-0.1
SABO	**M.te Sabotino**	0.54	302	⇑iPg	Pg	06 55 38.8	-0.9
SABO				i Sg	Sg	06 55 46.9	+0.1
SABO	**M.te Sabotino**	0.54	302	i Pg	Pg	06 55 38.8	-0.9
SABO				i Sg	Sg	06 55 46.9	+0.1
PDKS	**Podkum**	0.63	54	i Pg	Pg	06 55 41.5	0.0
DRE	**Drenchia**	0.64	318	⇑iPg	Pg	06 55 40.6	-1.0
DRE				i Sg	Sg	06 55 50.5	+0.5
DRE	**Drenchia**	0.64	318	i Pg	Pg	06 55 40.7	-0.9
DRE				i Sg	Sg	06 55 50.5	+0.5
CADS	**Cadrg**	0.64	326	i Pg	Pg	06 55 40.6	-1.1
CADS				i Sg	Sg	06 55 51.0	+0.9
CADS	**Cadrg**	0.64	326	i Pg	Pg	06 55 40.6	-1.1
CADS				i Sg	Sg	06 55 51.0	+0.9
GORS	**Gorjuse**	0.65	344	i Pg	Pg	06 55 41.6	-0.2
GORS	**Gorjuse**	0.65	344	i Pg	Pg	06 55 41.6	-0.2
BOJS	**Bojanci**	0.72	105	i Pg	Pg	06 55 43.0	-0.2
BOJS				i Sg	Sg	06 55 53.0	+0.4
BOJS	**Bojanci**	0.72	105	i Pg	Pg	06 55 43.0	-0.2
BOJS				i Sg	Sg	06 55 53.0	+0.4
COLI	**Coloredo**	0.75	306	⇓iPg	Pg	06 55 42.9	-0.8
COLI				i Sg	Sg	06 55 54.5	+0.9
COLI	**Coloredo**	0.75	306	i Pg	Pg	06 55 42.9	-0.9
COLI				i Sg	Sg	06 55 54.5	+0.9
OBKA	**Obir**	0.84	14	⇑iPg	Pg	06 55 44.9	-0.5
OBKA				⇓iSg	Sg	06 55 56.5	+0.2
	comp=Z,21nm,0.3s						
OBKA	**Obir**	0.84	14	Pg	Pg	06 55 44.9	-0.5
OBKA				Sg	Sg	06 55 56.5	+0.2
	comp=Z,21nm,0.3s						
ZAVS	**Zavodnje**	0.91	36	i Pg	Pg	06 55 46.8	0.0
ZAVS				eSg	Sg	06 55 58.9	+0.2
ZAVS	**Zavodnje**	0.91	36	i Pg	Pg	06 55 46.8	0.0
ZAVS				eSg	Sg	06 55 58.9	+0.3
GOLS	**Golise**	1.01	71	i Pg	Pg	06 55 48.6	0.0
GOLS				eSg	Sg	06 56 02.3	+0.7
GOLS							
	comp=Z,17nm,0.3s						
GOLS	**Golise**	1.01	71	i Pg	Pg	06 55 48.6	0.0
GOLS				eSg	Sg	06 56 02.3	+0.7
	comp=Z,17nm,0.3s						
GROS	**Grobnik**	1.16	48	i Pg	Pg	06 55 50.9	-0.6
GROS							
	comp=Z,5.0nm,0.1s						
GROS	**Grobnik**	1.16	48	i Pg	Pg	06 55 50.9	-0.6
	comp=Z,5.0nm,0.1s						
NVLJ	**Novalja**	1.21	159	ePg	Pn	06 55 51.0	-1.5
NVLJ				Sg	Sn	06 56 10.0	+0.8
NVLJ	**Novalja**	1.21	159	ePg	Pn	06 55 51.0	-1.6
NVLJ				Sg	Sn	06 56 09.9	+0.7
CIMO	**Cimolais**	1.41	297	ePg	Pn	06 55 53.7	-1.5
CIMO				eSg	Sn	06 56 14.5	+0.5
CIMO	**Cimolais**	1.41	297	ePg	Pn	06 55 53.7	-1.5
CIMO				eSg	Sn	06 56 14.5	+0.5
VARN	**Col Varnada, M**	1.53	282	ePg	Pn	06 55 56.9	-0.1
VARN				eSg	Sn	06 56 19.2	+2.1
VARN	**Col Varnada, M**	1.53	282	ePg	Pn	06 55 56.8	-0.2
VARN				eSg	Sn	06 56 19.2	+2.1

IDC 22 07:08:56.2±1.4**, 2°.34N×125°.91E, h0^{km}, mb3.5**/4**,**
mb1 3.7/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, Error ellipse:**
s-maj=160.2km s-min=21.8km az=69.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	23.64	160	P	P	07 14 07.6	-1.8
	0.2nm,0.3s,baz=336,slow=11,SNR=11						
ASAR	**Alice Springs**	26.99	164	P	P	07 14 41.9	+2.0
	0.5nm,0.5s,baz=345,slow=11,SNR=7.4						
SONM	**Songino Array**	48.36	342	P	P	07 17 38.5	-1.2
	1.4nm,0.6s,baz=156,slow=6.1,SNR=4.6						
MKAR	**Makanchi Array**	58.24	326	P	P	07 18 53.2	+0.8
	0.3nm,0.6s,baz=106,slow=6.1,SNR=3.9						

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*IDC **22** 07:33:34.8±0.9, 41°.15N×114°.93W, h0^{km}, mb3.0/1,*
mb1 3.7/3, mb1mx3.4/21, mbtmp3.3/3, ML3.8/2, Error
ellipse: s-maj=21.7km s-min=4.9km az=135.0
*ISCJB **22** 07:33:35.1±0.1, 41°.12N±0°.01×114°.93W±0°.01, h10^{km},*
Error ellipse: s-maj=1.7km s-min=1.5km az=147.7
*NEIC **22** 07:33:35.1, 41°.14N×114°.95W, h13^{km}, ML3.1, After REN.*
ISC 22 07:33:35.6±0.1**, 41°.13N**±0°.01×**114°.91W**±0°.01**, h10^{km},**
n139, σ1^{s}13/221**, 63C-57D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.30	199	⇓P	Pg	07 33 41.3	-0.1
	baz=0.3,SNR=448						
N12A				⇓S	Sg	07 33 45.6	+0.1
	baz=0.3						
ELK	**Elko**	0.46	213	Pg	Pg	07 33 43.6	-0.9
	62nm,0.3s,baz=12,slow=12,SNR=122						
ELK				Lg		07 33 50.0	
	166nm,0.3s,baz=124,slow=18,SNR=123						
ELK	**Elko**	0.46	213	ePg	Pg	07 33 43.8	-0.8
ELK				eSg	Sg	07 33 50.0	-0.7
N13A	**Wendover, West**	0.60	117	⇑P	Pg	07 33 47.2	-0.1
	baz=0.6,SNR=316						
N13A				⇑S	Sg	07 33 55.3	+0.2
	baz=0.6						
M13A	**Montello**	0.61	68	⇑P	Pg	07 33 46.7	-0.6
	baz=0.6,SNR=148						
N11A	**Elko Archery C**	0.70	243	⇓P	Pg	07 33 48.0	-1.1
	baz=0.7,SNR=148						
N11A				⇑S	Sg	07 33 56.6	-1.7
	baz=0.7						
M11A	**Holland Ranch,**	0.73	294	⇑P	Pg	07 33 48.4	-1.2
	baz=0.7,SNR=90						
M11A				⇑S	Sg	07 33 57.9	-1.2
	baz=0.7						
O12A	**Currie**	0.87	172	⇑P	Pg	07 33 51.9	-0.4
	baz=0.9,SNR=265						
O12A				⇓S	Sg	07 34 04.0	+0.2
	baz=0.9						
L12A	**House Creek Ra**	1.01	356	⇓P	Pg	07 33 54.1	-1.0
	baz=1.0,SNR=42						
L12A				⇓S	Sg	07 34 07.6	-0.7
	baz=1.0						
O11A	**Cowboy Ranch,**	1.15	210	⇓P	Pb	07 33 56.9	-0.6
	baz=1.1						
O11A				⇓S	Sb	07 34 12.0	-0.5
	baz=1.1						
L13A	**Double Diamond**	1.20	37	⇓P	Pb	07 33 57.3	-1.1
	baz=1.2,SNR=60						
L13A				⇑S	Sb	07 34 13.8	-0.1
	baz=1.2						
L11A	**Cat Creek Ranc**	1.21	329	⇑P	Pn	07 33 57.1	-1.5
	baz=1.2						
L11A				⇓S	Sb	07 34 13.4	-0.8
	baz=1.2						
O13A	**Hicks Ranch, I**	1.23	144	⇑P	Pn	07 33 58.5	-0.2
	baz=1.2,SNR=161						
O13A				⇓S	Sb	07 34 15.8	+1.2
	baz=1.2						
M14A	**Sheep Mountain**	1.23	72	⇑P	Pn	07 33 58.1	-0.7
	baz=1.3,SNR=126						
M14A				⇓S	Sb	07 34 15.2	+0.2
	baz=1.3						
N10A	**Dunphy**	1.28	252	⇓P	Pn	07 33 58.5	-0.9
	baz=1.3						
N10A				⇓S	Sb	07 34 16.3	+0.1
	baz=1.3						
M10A	**I.L. Ranch, Tu**	1.29	288	⇓P	Pn	07 33 58.6	-0.9
	baz=1.3,SNR=45						
M10A				⇑S	Sb	07 34 16.4	-0.1
	baz=1.3						
N14A	**Grayback Hills**	1.33	102	⇑P	Pn	07 33 59.7	-0.5
	baz=1.4,SNR=93						
N14A				⇑S	Sb	07 34 18.6	+0.8
	baz=1.4						
BGU	**Big Grassy Mou**	1.44	98	ePn	Pn	07 34 00.9	-0.7
BGU				eSg	Sg	07 34 20.2	-1.6
O10A	**Cortez Mining,**	1.47	236	⇑P	Pn	07 34 01.9	-0.2
	baz=1.4,SNR=111						
O10A				⇑S	Sn	07 34 21.8	+0.4
	baz=1.4						
K12A	**Draper Farm, C**	1.50	0	⇓P	Pn	07 34 01.7	-0.9
	baz=1.5,SNR=68						
K12A				⇓S	Sn	07 34 21.7	-0.4
	baz=1.5						
L10A	**Juniper Basin**	1.50	309	⇓P	Pn	07 34 02.3	-0.2
	baz=1.5,SNR=61						
L10A				⇑S	Sn	07 34 22.2	0.0
	baz=1.5						
L14A	**Malta**	1.54	54	⇓P	Pn	07 34 03.0	0.0
	baz=1.6,SNR=90						
L14A				⇑S	Sn	07 34 23.8	+0.6
	baz=1.6						
K13A	**Stover Farm, H**	1.64	22	⇑P	Pn	07 34 04.4	0.0
	baz=1.6,SNR=30						
K13A				⇓S	Sn	07 34 25.9	+0.5
	baz=1.6						
P12A	**McGill**	1.66	180	⇑P	Pn	07 34 04.7	+0.1
	baz=1.7,SNR=169						
P12A				⇓Sb	Sb	07 34 29.1	+2.0
	baz=1.7						
P11A	**Circle Ranch,**	1.71	202	⇑P	Pn	07 34 05.4	+0.1
	baz=1.7,SNR=20						
P11A				⇓S	Sn	07 34 27.8	+0.7
	baz=1.7						
HVU	**Hansel Valley**	1.73	67	ePn	Pn	07 34 05.4	-0.3
HVU				eSg	Sg	07 34 29.5	-1.7
P13A	**Bates Ranch, G**	1.81	157	⇓P	Pn	07 34 06.4	-0.4
	baz=1.8						
P13A				⇑Sb	Sb	07 34 33.9	+2.4
	baz=1.8						
N15A	**Stansbury Isla**	1.82	97	⇑P	Pn	07 34 07.0	0.0
	baz=1.8,SNR=278						
K11A	**Parker Ranch,**	1.84	333	⇑P	Pn	07 34 07.1	0.0
	baz=1.8,SNR=93						
K11A				⇑Sb	Sb	07 34 32.6	+0.3
	baz=1.8						
DUG	**Dugway**	1.85	120	⇓P	Pn	07 34 06.6	-0.7
	baz=1.9,SNR=263						
DUG				⇑Sb	Sb	07 34 34.4	+1.7
	baz=1.9						
DUG	**Dugway**	1.85	120	ePn	Pn	07 34 06.7	-0.6
DUG				eSg	Sg	07 34 33.2	-1.9
SPUT	**South Promonto**	1.86	84	ePn	Pn	07 34 07.6	0.0
SPUT				eSg	Sg	07 34 33.0	-2.5
M15A	**Larsen Ranch,**	1.89	79	⇓P	Pn	07 34 07.7	-0.1
	baz=1.9,SNR=147						
M15A				⇓S	Sn	07 34 32.8	+1.2
	baz=1.9						
BMN	**Battle Mountai**	1.89	249	ePn	Pn	07 34 07.0	-0.9
BMN				eSg	Sg	07 34 33.6	-2.7
K14A	**Jones Ranch, D**	1.92	42	⇑P	Pn	07 34 08.4	+0.2
	baz=1.9,SNR=46						
K14A				⇑Sb	Sb	07 34 35.4	+0.9
	baz=1.9						
P10A	**Eureka**	1.92	219	⇓P	Pn	07 34 08.6	+0.4
	baz=1.9,SNR=105						
M09A	**Marrel Ranch,**	1.94	279	⇓P	Pn	07 34 07.7	-0.7
	baz=1.9,SNR=32						
O09A	**Fish Creek Ran**	1.98	242	⇑P	Pn	07 34 08.6	-0.5
	baz=2.0,SNR=22						
O09A				⇑Sb	Sb	07 34 37.5	+1.1
	baz=2.0						
N09A	**Rock Creek Ran**	2.00	263	⇓P	Pn	07 34 08.5	-0.8
	baz=2.0						
N09A				⇑Sb	Sb	07 34 37.6	+0.7
	baz=2.0						
O15A	**The Old Anders**	2.04	114	⇑P	Pn	07 34 09.6	-0.3
	baz=2.1,SNR=132						
O15A				⇓Sb	Sb	07 34 40.6	+2.4
	baz=2.1						
L15A	**Malad City**	2.08	65	⇑P	Pn	07 34 10.9	+0.3
	baz=2.1,SNR=77						
P14A	**Drum Mountains**	2.09	137	⇓P	Pn	07 34 10.3	-0.2
	baz=2.1,SNR=45						
P14A				⇑Sb	Sb	07 34 41.7	+2.2
	baz=2.1						
Q12A	**Willow Creek R**	2.09	178	⇑P	Pn	07 34 10.7	0.0
	baz=2.1,SNR=8.4						
Q12A				⇑Sb	Sb	07 34 42.0	+2.4
	baz=2.1						
J12A	**Stokes Ranch,**	2.12	356	⇓P	Pn	07 34 11.5	+0.5
	baz=2.1,SNR=118						
NOQ	**North Oquirrh**	2.17	102	ePn	Pn	07 34 11.7	0.0
NOQ				eSg	Sg	07 34 44.5	-0.7
K10A	**MacKenzie Ranc**	2.20	319	⇑P	Pn	07 34 12.5	+0.4
	baz=2.2,SNR=54						
L09A	**Wilkinson Ranc**	2.25	294	⇓P	Pn	07 34 12.7	-0.1
	baz=2.2,SNR=31						
L09A				⇓Sb	Sb	07 34 44.9	+0.8
	baz=2.2						
Q13A	**Wheeler Ranch,**	2.28	162	P	Pn	07 34 13.1	-0.1
	baz=2.3,SNR=66						
P09A	**Austin**	2.32	228	⇑P	Pn	07 34 13.7	-0.2
	baz=2.3						
P09A				⇑Sb	Sb	07 34 48.3	+2.1
	baz=2.3						
J13A	**Cove Ranch, Pi**	2.33	13	⇓P	Pn	07 34 15.0	+1.1
	baz=2.3,SNR=149						
Q11A	**Duckwater**	2.35	194	⇓P	Pn	07 34 14.7	+0.4
	baz=2.4,SNR=30						
K15A	**Arbon**	2.36	48	⇓P	Pn	07 34 15.2	+0.9
	baz=2.4,SNR=86						
MFID	**Camas Ranch**	2.38	344	⇓P	Pn	07 34 15.2	+0.6
	baz=2.4,SNR=67						
J14A	**Carey**	2.42	25	⇑P	Pn	07 34 16.5	+1.3
	baz=2.4,SNR=89						
CTU	**Camp Tracy**	2.44	99	ePn	Pn	07 34 15.7	+0.3
CTU				eSg	Sg	07 34 50.9	-2.9
HLID	**Hailey**	2.46	8	P	Pn	07 34 16.9	+1.3
	baz=2.5,SNR=109						
HLID	**Hailey**	2.46	8	ePn	Pn	07 34 16.6	+0.9
HLID				eSg	Sg	07 34 49.0	-5.5
NLU	**North Lily Min**	2.46	118	ePn	Pn	07 34 14.8	-0.9
NLU				eSg	Sg	07 34 53.0	-1.6
N08A	**GE Springer Mi**	2.47	263	⇓P	Pn	07 34 14.8	-1.0
	baz=2.4						
M16A	**Huntsville**	2.48	85	⇑P	Pn	07 34 16.1	+0.2
	baz=2.5						
Q14A	**Sevier Lake (B**	2.48	149	⇓P	Pn	07 34 15.5	-0.5
	baz=2.5,SNR=48						
P15A	**Leamington**	2.55	127	⇑P	Pn	07 34 16.5	-0.4
	baz=2.6,SNR=24						
Q10A	**Clear Creek Ra**	2.57	207	⇑P	Pn	07 34 17.6	+0.4
	baz=2.6,SNR=66						
O08A	**Rochester Mine**	2.61	252	⇑P	Pn	07 34 17.0	-0.7
	baz=2.6,SNR=22						
MPU	**Maple Canyon**	2.73	113	ePn	Pn	07 34 18.9	-0.6
MPU				ePg	Pg	07 34 24.8	-3.1
MPU				eSg	Sg	07 35 02.2	-1.2
L16A	**Fish Haven**	2.75	70	⇑P	Pn	07 34 20.5	+0.8
	baz=2.8						
R12A	**Pony Springs,**	2.81	175	⇓P	Pn	07 34 20.9	+0.4
	baz=2.8						
P08A	**Dixie Valley**	2.81	240	P	Pn	07 34 20.6	+0.1
	baz=2.8,SNR=22						
R11A	**Troy Canyon, C**	2.83	191	⇓P	Pn	07 34 21.0	+0.2
	baz=2.8,SNR=46						
I13A	**Wildhorse Cree**	2.84	12	⇑P	Pn	07 34 22.5	+1.5
	baz=2.8,SNR=63						
DAU	**Daniels Canyon**	2.87	103	ePn	Pn	07 34 23.4	+2.1
DAU				ePg	Pg	07 34 30.3	-0.2
DAU				eSg	Sg	07 35 06.0	-1.6
Q09A	**Carvers**	2.88	218	⇓P	Pn	07 34 22.6	+1.1
	baz=2.9						
Q15A	**Fillmore**	2.88	137	⇓P	Pn	07 34 21.4	-0.1
	baz=2.9,SNR=14						
J15A	**Blackfoot**	2.92	38	⇑P	Pn	07 34 22.7	+0.7
	baz=2.9,SNR=21						
K16A	**Soda Springs**	3.00	54	⇑P	Pn	07 34 24.5	+1.4
	baz=3.0,SNR=24						
R10A	**Warm Springs**	3.04	201	⇑P	Pn	07 34 23.6	0.0
	baz=3.0						
R13A	**O'Grain Ranch,**	3.04	166	⇑P	Pn	07 34 24.5	+0.8
	baz=3.1,SNR=85						
WVOR	**Wild Horse Val**	3.07	296	ePn	Pn	07 34 24.8	+0.6
WVOR				eSg	Sg	07 35 08.9	-5.4
N07B	**Gerlach**	3.10	265	⇑P	Pn	07 34 23.8	-0.6
	baz=3.1,SNR=6.3						
O07A	**Toulon**	3.17	253	⇓P	Pn	07 34 24.6	-0.8
	baz=3.1,SNR=36						
R14A	**James Farms, M**	3.18	152	⇑P	Pn	07 34 25.9	+0.3
	baz=3.2,SNR=9.2						
M07A	**Soldier Meadow**	3.22	276	⇓P	Pn	07 34 25.8	-0.3
	baz=3.2,SNR=16						
Q08A	**Gabbs**	3.25	227	⇓P	Pn	07 34 26.4	-0.1
	baz=3.2,SNR=27						
J16A	**Bone**	3.25	48	⇑P	Pn	07 34 27.9	+1.3
	baz=3.3,SNR=13						
AHID	**Auburn Hatcher**	3.28	59	ePn	Pn	07 34 30.6	+3.7
AHID				eSg	Sg	07 35 17.8	-3.0
R09A	**Tonopah**	3.34	211	⇓P	Pn	07 34 28.5	+0.7
	baz=3.3						
MSU	**Marysvale**	3.36	140	ePn	Pn	07 34 28.3	+0.3
MSU				ePg	Pg	07 34 35.4	-4.5
TMUT	**Trail Mountain**	3.38	122	ePn	Pn	07 34 27.9	-0.4
TMUT				ePg	Pg	07 34 37.2	-3.1
TMUT				eSg	Sg	07 35 20.7	-3.3
L07A	**Adell**	3.44	286	⇓P	Pn	07 34 29.2	+0.1
	baz=3.4						
S10A	**Tonopah Range,**	3.46	203	⇑P	Pn	07 34 29.9	+0.5
	baz=3.5,SNR=14						
RRI2	**Red Ridge**	3.46	49	ePn	Pn	07 34 30.7	+1.2
RRI2				eSg	Sg	07 35 23.9	-2.9
ARUT	**Antelope Range**	3.53	161	ePn	Pn	07 34 30.9	+0.5
ARUT				ePg	Pg	07 34 41.1	-2.1
ARUT				eSg	Sg	07 35 25.8	-3.1
S11A	**Rachel**	3.54	191	⇓P	Pn	07 34 31.4	+0.8
	baz=3.5,SNR=21						
R15A	**Junction**	3.56	144	⇑P	Pn	07 34 31.2	+0.4
	baz=3.6,SNR=7.7						
K07A	**Rock Creek Ran**	3.59	297	⇓P	Pn	07 34 31.6	+0.4
	baz=3.6,SNR=8.7						
S14A	**Cedar City**	3.63	158	⇑P	Pn	07 34 32.5	+0.7
	baz=3.6,SNR=8.3						
S13A	**Holt Ranch, En**	3.64	167	P	Pn	07 34 32.5	+0.6
	baz=3.7,SNR=51						
DCID1	**Drake Creek**	3.70	47	ePn	Pn	07 34 34.4	+1.7
DCID1				eSg	Sg	07 35 31.5	-2.8
Q07A	**Schurz**	3.71	235	⇓P	Pn	07 34 32.8	0.0
	baz=3.7,SNR=9.2						
REDW	**Red Top Meadow**	3.75	52	ePn	Pn	07 34 35.0	+1.6
N06A	**Buffalo Meadow**	3.75	266	⇑P	Pn	07 34 32.9	-0.5
	baz=3.7,SNR=12						
NVAR	**Mina Array Bea**	3.76	225	Pn	Pn	07 34 33.7	+0.2
	5.9nm,0.3s,baz=37,slow=13,SNR=77						
NVAR				Pg	Pg	07 34 42.1	-5.4
	15nm,0.3s,baz=34,slow=17,SNR=25						
NVAR				Lg		07 35 33.4	
	24nm,0.3s,baz=304,slow=18,SNR=13						
NVAR	**Mina Array Bea**	3.76	225	Pn	Pn	07 34 33.7	+0.2
NVAR				Pg	Pg	07 34 42.1	-5.4
NVAR				Lg		07 35 33.4	
TPAW	**Teton Pass**	3.76	50	ePn	Pn	07 34 35.1	+1.5
TPAW				eSg	Sg	07 35 30.1	-6.3
CCUT	**Cedar City**	3.77	161	ePn	Pn	07 34 34.0	+0.3
CCUT				ePg	Pg	07 34 46.3	-1.5
CCUT				eSg	Sg	07 35 34.5	-2.2
SNOW	**Snow King Moun**	3.86	52	ePn	Pn	07 34 36.8	+1.8
SNOW				eSg	Sg	07 35 35.5	-4.0
O06A	**Flanigan**	3.86	257	⇓P	Pn	07 34 34.4	-0.6
	baz=3.8,SNR=7.3						
T11A	**Corn Creek, Al**	3.90	184	P	Pn	07 34 36.1	+0.7
	baz=3.9,SNR=30						
SRU	**San Rafael**	3.92	120	ePn	Pn	07 34 39.5	+3.7
SRU				ePg	Pg	07 34 47.9	-2.8
SRU				eSg	Sg	07 35 41.5	0.0
S15A	**Panguitch**	3.98	149	⇑P	Pn	07 34 37.3	+0.7
	baz=4.0,SNR=14						
G13A	**Cobalt**	3.99	7	⇓P	Pn	07 34 38.0	+1.3
	baz=4.0,SNR=11						
MCMT	**McKenzie Canyo**	3.99	22	ePn	Pn	07 34 41.2	+4.4
MCMT				eSg	Sg	07 35 36.3	-7.3
IMW	**Indian Meadow**	4.03	45	ePn	Pn	07 34 39.1	+1.8
IMW				eSg	Sg	07 35 36.1	-8.8
LOHW	**Long Hollow**	4.04	51	ePn	Pn	07 34 39.3	+1.9
MOOW	**Moose Ponds**	4.04	48	ePn	Pn	07 34 38.9	+1.4
MOOW				eSg	Sg	07 35 37.8	-7.5
P06A	**Stead Airport,**	4.08	251	⇑P	Pn	07 34 37.4	-0.5
	baz=4.0						
BMO	**Blue Mountains**	4.11	336	ePn	Pn	07 34 40.4	+2.0
BMO				eSg	Sg	07 35 38.5	-9.1
MOD	**Modoc**	4.12	283	ePn	Pn	07 34 38.1	-0.5
MOD				eSg	Sg	07 35 47.0	-0.9
WCN	**Washoe City**	4.14	245	⇓P	Pn	07 34 38.2	-0.5
	baz=4.1,SNR=24						
T14A	**Hurricane**	4.31	160	⇑P	Pn	07 34 41.9	+0.8
	baz=4.3,SNR=12						
PDAR	**Pinedale Array**	4.31	66	Pn	Pn	07 34 44.1	+2.9
	0.7nm,0.3s,baz=237,slow=12,SNR=20						
PDAR				Pg	Pg	07 34 51.3	-6.8
	1.0nm,0.3s,baz=264,slow=13,SNR=12						
PDAR				Lg		07 35 50.3	
	2.7nm,0.3s,baz=247,slow=29,SNR=9.5						
BEKR	**Beckwourth**	4.34	255	⇓P	Pn	07 34 41.1	-0.5
	baz=4.3,SNR=25						
R06C	**Coleville**	4.36	235	⇑P	Pn	07 34 41.7	-0.1
	baz=4.3,SNR=16						
DLMT	**Dillon**	4.55	21	Pn	Pn	07 34 48.4	+3.9
T15A	**Red Dirt Ranch**	4.56	154	⇑P	Pn	07 34 45.4	+0.8
	baz=4.6,SNR=10						
YMR	**Madison River**	4.57	38	ePn	Pn	07 34 49.1	+4.4
YMR				eSg	Sb	07 35 51.2	+0.4
LRM	**Limekiln Ridge**	5.02	20	ePn	Pn	07 34 47.6	-3.2
LRM				ePg	Pg	07 35 06.4	-5.2
LRM				eSg	Sg	07 36 13.4	-3.2
BOZ	**Bozeman (W)**	5.11	27	ePn	Pn	07 34 54.8	+2.8
BOZ				eSg	Sb	07 36 04.4	-1.9
CMB	**Columbia Colle**	5.24	236	ePn	Pn	07 34 53.4	-0.5
	5.8nm,0.4s						
CMB				ePg	Pg	07 35 11.5	-4.4
CMB				eSn	Sn	07 35 53.0	-1.4
CMB				eSg	Sg	07 36 19.6	-4.2
V11A	**Goodsprings**	5.30	185	⇓P	Pn	07 34 55.9	+1.1
	baz=5.3,SNR=8.5						
PV04	**Paradox Valley**	5.38	119	ePn	Pn	07 34 57.8	+2.0
PV04				ePg	Pg	07 35 16.2	-2.3
PV04				eSg	Sg	07 36 24.3	-3.8
V12A	**Nelson**	5.40	179	⇑P	Pn	07 34 57.1	+1.0
	baz=5.4,SNR=15						
PV01	**Paradox Valley**	5.74	119	ePn	Pn	07 35 02.5	+1.7
HRY	**Holter Researc**	6.00	21	ePg	Pg	07 35 24.9	-5.5
HRY				eSg	Sg	07 36 39.6	-8.6
GCMT	**Greycliff**	6.02	38	ePn	Pn	07 35 12.7	+8.1
WUAZ	**Wupatki**	6.26	153	ePg	Pg	07 35 31.8	-3.6
WUAZ				eSg	Sg	07 36 52.4	-4.1
MVCO	**Mesa Verde**	6.34	126	ePg	Pg	07 35 32.0	-4.9
MVCO				eSg	Sg	07 36 55.4	-3.5
PHWY	**Pilot Hill**	7.13	86	ePn	Pn	07 35 23.0	+3.2
YKA	**Yellowknife Ar**	21.39	0	P	P	07 38 24.0	+0.9
	0.8nm,0.9s,baz=180,slow=9.6,SNR=10						

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*ISCJB **22** 07:40:54.4±0.5, 41°.14N±0°.02×114°.93W±0°.02, h5^{km}±4^{km},*
Error ellipse: s-maj=2.6km s-min=2.5km az=26.6
*IDC **22** 07:40:54.6±1.1, 41°.16N×114°.93W, h0^{km}, mb2.1/1,*
mb1 2.7/3, mb1mx2.7/21, mbtmp2.3/3, ML2.7/2, Error
ellipse: s-maj=23.0km s-min=5.9km az=133.0
ISC 22 07:40:54.7±0.3**, 41°.14N**±0°.01×**114°.93W**±0°.02**, h5^{km}**±3^{km}**,**
n52, σ0^{s}74/74**, 37C-29D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.30	196	P	Pg	07 41 01.0	+0.4
	baz=0.3,SNR=49						
N12A				⇑S	Sg	07 41 05.3	+0.8
	baz=0.3						
ELK	**Elko**	0.46	211	Pg	Pg	07 41 03.5	-0.1
	18nm,0.3s,baz=119,slow=20,SNR=8.6						
ELK				Lg		07 41 09.8	
	18nm,0.3s,baz=125,slow=19,SNR=38						
M13A	**Montello**	0.61	69	⇑P	Pg	07 41 06.8	+0.2
	baz=0.6,SNR=13						
M13A				⇑S	Sg	07 41 15.4	+0.8
	baz=0.6						
N13A	**Wendover, West**	0.62	117	⇑P	Pg	07 41 06.8	+0.2
	baz=0.6,SNR=72						
N13A				⇑S	Sg	07 41 15.2	+0.6
	baz=0.6						
N11A	**Elko Archery C**	0.69	242	⇓P	Pg	07 41 08.4	+0.4
	baz=0.7,SNR=16						
N11A				⇓S	Sg	07 41 17.4	+0.4
	baz=0.7						
M11A	**Holland Ranch,**	0.71	294	⇓P	Pg	07 41 08.6	+0.3
	baz=0.7,SNR=10.0						
M11A				⇓S	Sg	07 41 18.2	+0.6
	baz=0.7						
O12A	**Currie**	0.89	171	⇑P	Pg	07 41 11.9	+0.2
	baz=0.9,SNR=24						

O12A				⇑S	Sg	07 41 23.8	+0.6
	baz=0.9						
L12A	House Creek Ra	1.00	356	⇓P	Pg	07 41 13.7	-0.3
	baz=1.0						
L12A				⇑S	Sg	07 41 27.4	+0.4
	baz=1.0						
O11A	Cowboy Ranch,	1.15	209	⇓P	Pg	07 41 16.9	+0.1
	baz=1.1,SNR=7.8						
O11A				⇑S	Sg	07 41 31.7	-0.1
	baz=1.1						
L11A	Cat Creek Ranc	1.20	329	⇓P	Pg	07 41 16.8	-0.9
	baz=1.2						
L11A				⇓S	Sg	07 41 32.5	-0.6
	baz=1.2						
L13A	Double Diamond	1.20	38	⇑P	Pg	07 41 16.9	-0.9
	baz=1.2,SNR=6.6						
L13A				⇓S	Sg	07 41 32.6	-0.7
	baz=1.2						
O13A	Hicks Ranch, I	1.24	144	⇑P	Pg	07 41 18.1	-0.5
	baz=1.2,SNR=21						
O13A				⇑S	Sg	07 41 34.9	+0.3
	baz=1.2						
M14A	Sheep Mountain	1.24	73	⇓P	Pg	07 41 17.6	-1.0
	baz=1.2,SNR=37						
M14A				⇓S	Sg	07 41 34.6	-0.1
	baz=1.2						
N10A	Dunphy	1.27	251	⇓P	Pg	07 41 18.3	-0.8
	baz=1.3						
N10A				⇑S	Sg	07 41 35.4	-0.2
	baz=1.3						
M10A	I.L. Ranch, Tu	1.27	288	⇓P	Pg	07 41 18.4	-0.7
	baz=1.3						
M10A				⇓S	Sg	07 41 35.7	+0.1
	baz=1.3						
N14A	Grayback Hills	1.35	102	⇑P	Pn	07 41 19.3	-1.0
	baz=1.3,SNR=21						
N14A				⇑S	Sb	07 41 38.1	0.0
	baz=1.3						
O10A	Cortez Mining,	1.47	235	⇓P	Pn	07 41 21.0	-0.9
	baz=1.5,SNR=16						
O10A				⇑Sb	Sb	07 41 41.4	0.0
	baz=1.5						
L10A	Juniper Basin	1.49	309	⇑Sb	Sb	07 41 41.8	-0.3
	baz=1.5						
K12A	Draper Farm, C	1.49	1	⇑S	Sn	07 41 40.8	-1.3
	baz=1.5						
L14A	Malta	1.55	54	⇑P	Pn	07 41 22.5	-0.5
	baz=1.5,SNR=17						
L14A				⇑S	Sn	07 41 43.3	-0.2
	baz=1.5						
K13A	Stover Farm, H	1.63	22	⇓S	Sn	07 41 44.9	-0.6
	baz=1.6						
P12A	McGill	1.67	179	⇑P	Pn	07 41 24.0	-0.6
	baz=1.7,SNR=19						
K11A	Parker Ranch,	1.82	334	⇑P	Pn	07 41 26.3	-0.5
	baz=1.8,SNR=12						
K11A				⇑Sb	Sb	07 41 51.1	-0.6
	baz=1.8						
P13A	Bates Ranch, G	1.82	157	⇓P	Pn	07 41 26.2	-0.6
	baz=1.8						
P13A				⇓Sb	Sb	07 41 52.4	+0.6
	baz=1.8						
N15A	Stansbury Isla	1.84	97	⇑P	Pn	07 41 26.5	-0.5
	baz=1.8,SNR=18						
DUG	Dugway	1.87	120	⇑P	Pn	07 41 26.6	-0.7
	baz=1.8						
DUG				⇑Sb	Sb	07 41 53.3	+0.4
	baz=1.8						
M15A	Larsen Ranch,	1.90	79	⇑P	Pn	07 41 27.3	-0.4
	baz=1.9,SNR=26						
P10A	Eureka	1.92	218	⇑P	Pn	07 41 27.6	-0.5
	baz=1.9,SNR=12						
N09A	Rock Creek Ran	1.99	262	⇑Pb	Pb	07 41 30.3	-1.1
	baz=2.0,SNR=14						
L15A	Malad City	2.09	65	⇑P	Pn	07 41 30.1	-0.4
	baz=2.1,SNR=12						
P14A	Drum Mountains	2.10	137	⇑P	Pn	07 41 29.9	-0.8
	baz=2.1,SNR=11						
J12A	Stokes Ranch,	2.11	357	P	Pn	07 41 31.1	+0.4
	baz=2.1,SNR=15						
K10A	MacKenzie Ranc	2.18	319	⇑P	Pn	07 41 32.8	+1.1
	baz=2.2,SNR=14						
K10A				⇓S	Sn	07 42 01.2	+2.0
	baz=2.2						
Q13A	Wheeler Ranch,	2.29	162	⇓P	Pn	07 41 32.7	-0.5
	baz=2.3						
J13A	Cove Ranch, Pi	2.32	14	⇓P	Pn	07 41 34.4	+0.8
	baz=2.3,SNR=17						
K15A	Arbon	2.36	48	⇑P	Pn	07 41 34.7	+0.5
	baz=2.4,SNR=12						
MFID	Camas Ranch	2.37	344	⇑P	Pn	07 41 35.4	+1.1
	baz=2.4,SNR=7.4						
J14A	Carey	2.42	25	⇓P	Pn	07 41 35.8	+0.8
	baz=2.4,SNR=12						
HLID	Hailey	2.45	9	P	Pn	07 41 36.3	+1.0
	baz=2.5,SNR=6.2						
N08A	GE Springer Mi	2.45	263	⇓P	Pn	07 41 34.4	-1.0
	baz=2.5						
Q14A	Sevier Lake (B	2.50	149	⇓P	Pn	07 41 35.2	-0.8
	baz=2.5						
Q10A	Clear Creek Ra	2.58	207	⇓P	Pn	07 41 38.0	+0.8
	baz=2.6,SNR=8.8						
O08A	Rochester Mine	2.60	252	⇓P	Pn	07 41 36.4	-1.0
	baz=2.6						
K09A	Rome	2.60	308	⇑P	Pn	07 41 38.9	+1.5
	baz=2.6,SNR=16						
I12A	Atlanta	2.66	357	⇓P	Pn	07 41 39.5	+1.3
	baz=2.7,SNR=16						
I13A	Wildhorse Cree	2.83	12	⇓P	Pn	07 41 41.8	+1.1
	baz=2.9,SNR=11						
R11A	Troy Canyon, C	2.84	190	⇓P	Pn	07 41 40.5	-0.2
	baz=2.8						
R13A	O'Grain Ranch,	3.05	166	⇑P	Pn	07 41 43.7	+0.1
	baz=3.0,SNR=15						
S13A	Holt Ranch, En	3.65	167	⇑P	Pn	07 41 52.1	+0.1
	baz=3.6,SNR=7.6						
NVAR	Mina Array Bea	3.75	225	Pn	Pn	07 41 53.6	+0.3
	0.4nm,0.3s,baz=37,slow=12,SNR=4.1						
NVAR				Pg	Pg	07 42 02.1	-4.6
	0.8nm,0.3s,baz=44,slow=16,SNR=7.7						
NVAR				Lg		07 42 53.1	
	2.6nm,0.3s,baz=258,slow=27,SNR=9.1						
PDAR	Pinedale Array	4.32	66	Pn	Pn	07 42 03.7	+2.5
	0.1nm,0.3s,baz=244,slow=12,SNR=3.3						
PDAR				Lg		07 43 10.4	
	0.2nm,0.3s,baz=245,slow=24,SNR=5.7						
YKA	Yellowknife Ar	21.38	0	P	P	07 45 43.4	+0.5
	0.1nm,0.6s,baz=175,slow=9.9,SNR=2.7						

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*NEIC **22** 07:49:44.4, 15°.79N×94°.54W, h35^{km}, MD4.3(MEX), After MEX.*

MEX 22 07:49:44.4±0.5**, 15°.79N×94°.53W, h35**^{km}±12^{km}**, MD4.3, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.27	94	i P	Pn	07 50 04.0	-1.7
PCIG				i S	Sn	07 50 19.0	-2.4
CMIG	Matias Romero	1.33	345	i P	Pn	07 50 04.8	-1.7
CMIG				i S	Sn	07 50 21.0	-2.1
HUIG	Huatulco	1.52	269	i P	Pn	07 50 07.5	-1.6
HUIG				i S	Sn	07 50 25.1	-2.5
TGIG		1.67	54	i P	Pn	07 50 09.5	-1.6
TGIG				i S	Sn	07 50 28.6	-2.8
CCIG	Comitan	2.35	78	i P	Pn	07 50 20.2	-0.4
CCIG				i S	Sn	07 50 46.6	-1.7
THIG		2.36	112	eP	Pn	07 50 19.8	-0.9
THIG				i S	Sn	07 50 46.2	-2.2
OXX	Oaxaca	2.46	302	eP	Pn	07 50 20.3	-1.8
OXX				i S	Sn	07 50 48.7	-2.2
VHO	Vista Hermosa	2.46	301	i P	Pn	07 50 22.3	+0.2
VHO				i S	Sn	07 50 50.1	-0.8
VHO	Vista Hermosa	2.46	301	i P	Pn	07 50 22.9	+0.9
VHO				i S	Sn	07 50 48.8	-2.2
PNIG	Pinotepa	3.51	280	eP	Pn	07 50 35.3	-1.1
PNIG				i S	Sn	07 51 12.6	-4.2
PNIG	Pinotepa	3.51	280	eP	Pn	07 50 35.3	-1.1
PNIG				i S	Sn	07 51 11.9	-4.8
UTMO	Huajuapan	3.73	303	eP	Pn	07 50 37.9	-1.6
UTMO				i S	Sn	07 51 21.4	-0.8
TPIG	Tehuac#an	3.76	314	eP	Pn	07 50 39.4	-0.5
TPIG				i S	Sn	07 51 22.8	-0.1
PPM	Popocatepetl	5.08	310	i P	Pn	07 50 57.8	-0.3
PPM				i S	Sn	07 51 55.5	-0.2
PPM	Popocatepetl	5.08	310	i P	Pn	07 50 57.8	-0.3
PPM				i S	Sn	07 51 54.2	-1.5
MZVM		5.61	308	eP	Pn	07 51 07.0	+1.6
MZVM				i S	Sn	07 52 06.5	-2.1
CAIG	El Cayaco	5.64	284	eP	Pn	07 51 05.5	-0.3
CAIG				i S	Sn	07 52 07.4	-2.0
CAIG	El Cayaco	5.64	284	eP	Pn	07 51 05.5	-0.3
CAIG				i S	Sn	07 52 05.5	-4.0
TEIG	Tepich	7.41	53	eP	Pn	07 51 29.5	-0.5
TEIG				i S	Sn	07 52 49.3	-3.6

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*CSEM **22** 07:56:04.2±0.5, 36°.25N×21°.67E, h2^{km}, ML3.9/1, Error ellipse: s-maj=12.6km s-min=6.0km az=66.0*

*NEIC **22** 07:56:04.6, 36°.25N×21°.79E, h14^{km}, MD3.6(ATH), After ATH.*

*THE **22** 07:56:04.7, 36°.26N×21°.59E, h1^{km}±3^{km}, ML3.9/1, Error ellipse: s-maj=4.7km s-min=1.5km az=239.0*

*ATH **22** 07:56:04.6, 36°.25N×21°.79E, h14^{km}±2^{km}, MD3.6/7*

*ISCJB **22** 07:56:05.2±0.9, 36°.25N±0°.04×21°.77E±0°.07, h10^{km}, Error ellipse: s-maj=8.8km s-min=5.5km az=151.3*

ISC 22 07:56:05.7±0.9**, 36°.24N**±0°.05×**21°.77E**±0°.07**, h10^{km}, n48,** σ**1^{s}.27**/63**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.66	358	P	Pg	07 56 16.0	-2.4
PYL				S	Sg	07 56 26.1	-0.9
PYL	PYLOS	0.66	358	ePG	Pg	07 56 16.7	-1.7
PYL	PYLOS	0.66	358	P	Pg	07 56 16.0	-2.4
PYL	PYLOS	0.66	358	ePg	Pg	07 56 16.7	-1.7
PYL				S	Sg	07 56 26.1	-0.9
ITM	Ithomi	0.95	8	ePB	Pg	07 56 22.5	-1.5
ITM				eSB	Sg	07 56 34.9	-1.4
ITM	Ithomi	0.95	8	ePb	Pg	07 56 22.5	-1.5
ITM				eSb	Sg	07 56 34.9	-1.4
KYTH	Kithira	1.03	87	ePN	Pg	07 56 24.1	-1.3
KYTH	Kithira	1.03	87	ePn	Pg	07 56 24.1	-1.3
VLI	Veliai	1.06	63	ePN	Pg	07 56 24.5	-1.5
VLI				eSB	Sg	07 56 38.6	-1.2
VLI	Veliai	1.06	63	ePn	Pg	07 56 24.5	-1.5
VLX	Vlachokerasia	1.23	23	ePG	Pn	07 56 27.1	-1.9
VLX	Vlachokerasia	1.23	23	ePg	Pn	07 56 27.1	-1.9
DID	Didima	1.73	43	P	Pn	07 56 36.5	+0.7
DID				S	Sn	07 57 01.1	+3.2
DID	Didima	1.73	43	ePG	Pn	07 56 37.1	+1.3
DID	Didima	1.73	43	P	Pn	07 56 36.5	+0.7
DID	Didima	1.73	43	ePg	Pn	07 56 37.1	+1.3
DID				S	Sn	07 57 01.1	+3.2
GUR	Goura	1.76	15	ePN	Pn	07 56 36.5	+0.3
GUR	Goura	1.76	15	ePn	Pn	07 56 36.5	+0.3
RLS	Riolos of Patr	1.83	353	ePN	Pn	07 56 37.9	+0.7
RLS	Riolos of Patr	1.83	353	ePn	Pn	07 56 37.9	+0.7
KARN	Karanos	1.94	115	P	Pn	07 56 39.4	+0.8
KARN	Karanos	1.94	115	ePN	Pn	07 56 38.8	+0.2
KARN	Karanos	1.94	115	ePn	Pn	07 56 38.8	+0.2
KARN	Karanos	1.94	115	P	Pn	07 56 39.4	+0.8
LAKA	Lakka	2.01	5	P	Pn	07 56 39.1	-0.5
LAKA	Lakka	2.01	5	P	Pn	07 56 39.1	-0.5
LTK	Loutraki	2.02	28	P	Pn	07 56 40.6	+0.8
LTK				S	Sn	07 57 07.3	+2.1
LTK	Loutraki	2.02	28	ePN	Pn	07 56 40.5	+0.7
LTK	Loutraki	2.02	28	ePn	Pn	07 56 40.5	+0.7
LTK				S	Sn	07 57 07.3	+2.1
NAIG	Nisos Aigina	2.05	42	ePN	Pn	07 56 40.3	+0.1
NAIG	Nisos Aigina	2.05	42	ePn	Pn	07 56 40.3	+0.1
TRIZ	Trizonia	2.14	6	P	Pn	07 56 41.4	0.0
TRIZ				S	Sn	07 57 08.4	+0.4
TRIZ	Trizonia	2.14	6	P	Pn	07 56 41.4	0.0
TRIZ				S	Sn	07 57 08.4	+0.4
VAM	Vamos	2.14	112	ePN	Pn	07 56 42.0	+0.5
VAM	Vamos	2.14	112	ePn	Pn	07 56 42.0	+0.5
VLS	Valsamata	2.15	334	P	Pn	07 56 39.6	-2.0
VLS	Valsamata	2.15	334	P	Pn	07 56 39.6	-2.0
KALE	Kalithea	2.17	8	P	Pn	07 56 41.5	-0.4
KALE				S	Sn	07 57 10.4	+1.6
KALE	Kalithea	2.17	8	P	Pn	07 56 41.5	-0.4
KALE				S	Sn	07 57 10.4	+1.6
EFP	Efpalio	2.19	3	ePG	Pn	07 56 44.3	+2.2
EFP	Efpalio	2.19	3	ePg	Pn	07 56 44.3	+2.2
LKR	Lokris	2.60	22	P	Pn	07 56 48.5	+0.7
LKR				S	Sn	07 57 21.4	+2.0
LKR	Lokris	2.60	22	ePN	Pn	07 56 48.7	+0.9
LKR	Lokris	2.60	22	ePn	Pn	07 56 48.7	+0.9
LKR				S	Sn	07 57 21.4	+2.0
EVR	Evrytania	2.67	1	ePB	Pn	07 56 50.0	+1.2
EVR	Evrytania	2.67	1	ePb	Pn	07 56 50.0	+1.2
AGG	Agios Georgios	2.81	9	ePN	Pn	07 56 50.3	-0.4
AGG	Agios Georgios	2.81	9	ePn	Pn	07 56 50.3	-0.4

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*NIED **22** 08:00:00, 38°.50N×142°.20E, h44^{km}, Mw3.8 Best double couple: M$_0$5.79000×10^{14} NP1:ϕ_s13.00000°, δ71.00000°, λ80.00000°. NP2:ϕ_s221.00000°, δ21.00000°, λ116.00000°.*

*ISCJB **22** 08:00:29.8±0.9, 38°.44N±0°.04×142°.21E±0°.08, h47^{km}±9^{km}, mb3.6/8, Error ellipse: s-maj=11.2km s-min=5.4km az=20.8*

*JMA **22** 08:00:30.8±0.1, 38°.47N×142°.15E, h39^{km}±1^{km}, M3.8*

*MOS **22** 08:00:31.6±1.8, 38°.51N×142°.06E, h68^{km}, mb4.1/5, Error ellipse: s-maj=25.0km s-min=16.6km az=87.0*

*IDC **22** 08:00:32.4±2.3, 38°.40N×142°.15E, h52^{km}±22^{km}, mb3.4/7, mb1 3.6/10, mb1mx3.5/24, mbtmp3.5/10, ML3.3/3, MS2.9/2, Ms1 2.9/2, ms1mx2.3/31, Error ellipse: s-maj=26.0km s-min=13.3km az=102.0*

ISC 22 08:00:31.2±0.9**, 38°.45N**±0°.04×**142°.17E**±0°.08**, h39**^{km}±10^{km}**, n29,** σ**0^{s}.82**/41**, mb3.6**/8**, 9D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIO	Ouri	0.64	271	⇓P	Pn	08 00 43.3	-0.5
JIO				S	Sn	08 00 51.8	-1.0
OFUJ	Ofunato	0.74	328	⇓P	Pn	08 00 44.6	-0.6
OFUJ				S	Sn	08 00 54.3	-0.9
JMK	Ichinoseki	0.90	304	⇓P	Pn	08 00 46.9	-0.4
JMK				eS	Sn	08 00 58.6	-0.4
JOU	Okura	1.19	266	⇓P	Pn	08 00 51.1	-0.2
JOU				eS	Sn	08 01 06.2	+0.1
JOM	Ohasama	1.23	327	⇓P	Pn	08 00 51.9	0.0
JOM				eS	Sn	08 01 07.1	-0.2
JMM	Marumori	1.23	242	⇓P	Pn	08 00 51.0	-0.9
JMM				eS	Sn	08 01 07.3	0.0
JFK	Kawauchi	1.49	224	⇓P	Pn	08 00 54.6	-0.8
JYK	Kaneyama	1.49	289	⇓P	Pn	08 00 55.6	+0.1
JYK				eS	Sn	08 01 14.2	+0.5
JYS	Shirataka	1.67	263	P	Pn	08 00 57.9	0.0
JYS				eS	Sn	08 01 18.6	+0.5
JFT	Otama	1.72	238	⇓P	Pn	08 00 58.6	0.0
JFT				eS	Sn	08 01 20.2	+0.9
MJAR	Matsushiro Arr	3.68	240	P	Pn	08 01 28.0	+2.5
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,185nm,18.1s						
MJAR	Matsushiro Arr	3.68	240	P	Pn	08 01 28.0	+2.5
	comp=Z,2.6nm,0.3s,baz=28,slow=15,SNR=17						
MJAR				LR	LR	08 03 03.6	
	comp=Z,184nm,18.1s,baz=60,slow=42						
MAT	Matsushiro	3.68	240	P	Pn	08 01 28.9	+3.3
MAT				eS	Sn	08 02 08.7	+1.0
JHJ	Hachijo jima 2	5.66	201	P	Pn	08 01 52.2	-0.5
	comp=Z,5.9nm,0.3s,baz=72,slow=20,SNR=4.1						
JHJ				S	Sn	08 02 51.0	-5.5
	comp=Z,22nm,0.3s,baz=99,slow=23,SNR=6.1						
ASAJ	Asahikawa	5.67	3	P	Pn	08 01 53.3	+0.4
ASAJ				S	Sn	08 02 59.5	+2.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				smax			
	comp=N,2.0nm,0.3s						
ASAJ	Asahikawa	5.67	3	P	Pn	08 01 53.3	+0.4
	comp=N,0.6nm,0.3s,baz=150,slow=16,SNR=2.5						
ASAJ				S	Sn	08 02 59.5	+2.8
	comp=N,1.8nm,0.3s,baz=345,slow=25,SNR=3.8						
KSRS	Korea Array	11.29	269	LR	LR	08 07 08.9	
	comp=N,40nm,19.7s,baz=345,slow=35						
SONM	Songino Array	27.52	302	P	P	08 06 14.3	+0.3
	comp=N,0.4nm,0.6s,mb3.2,baz=99,slow=9.0,SNR=3.6						
ZAK	Zakamensk	29.89	306	eP	P	08 06 30.5	-4.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.7						
ZALV	Zalesovo Beam	41.42	311	P	P	08 08 13.3	-0.3
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
ZALV	Zalesovo Beam	41.42	311	P	P	08 08 13.3	-0.3
	comp=Z,1.3nm,0.5s,mb3.9,baz=80,slow=9.2,SNR=6.8						
MKAR	Makanchi Array	43.89	301	P	P	08 08 33.3	-0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	43.89	301	P	P	08 08 33.3	-0.4
	comp=Z,0.8nm,0.7s,mb3.5,baz=84,slow=9.4,SNR=10						
INK	Inuvik	52.86	28	P	P	08 09 43.5	+1.0
	comp=Z,0.3nm,0.4s,mb3.5,baz=285,slow=6.2,SNR=3.4						
WRA	Warramunga Arr	58.54	189	P	P	08 10 23.0	-0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	58.54	189	P	P	08 10 23.0	-0.7
	comp=Z,1.0nm,0.5s,mb4.2,baz=6.4,slow=6.9,SNR=21						
ASAR	Alice Springs	62.27	189	P	P	08 10 48.4	-0.7
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	62.27	189	P	P	08 10 48.4	-0.8
	comp=Z,0.5nm,0.7s,mb3.8,baz=20,slow=7.0,SNR=5.7						
YKA	Yellowknife Ar	62.29	31	P	P	08 10 48.8	-0.1
	comp=Z,0.2nm,0.5s,mb3.5,baz=298,slow=5.8,SNR=3.6						

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*NNC **22** 08:11:56.6±4.5, 43°.38N×85°.23E, h0^{km}, mb3.9, mpv3.5, Error ellipse: s-maj=44.1km s-min=26.4km az=132.0*

BJI 22 08:12:01.2, 43°.25N×84°.75E, h12^{km}, mb4.5/1**, ML3.5**/10**, 3C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	2.22	74	Pn	Pn	08 12 39.5	+1.8
WMQ				Sg	Sg	08 13 07.3	-5.1
WMQ				smax			
	comp=N,330nm,0.3s						
WMQ				smax			
	comp=E,290nm,0.4s						
MK31	Makanchi Array	3.95	335	⇑Pn	Pn	08 13 02.2	+0.7
	comp=E,5.3nm,0.5s,baz=151,slow=14						
MK31				⇓Lg		08 14 01.7	
	comp=E,34nm,0.5s,baz=145,slow=29						
TKM2	Tokmak 2	6.71	270	⇓Pn	Pn	08 13 40.8	+1.3
	comp=E,2.4nm,0.8s						
TKM2				⇓Lg		08 15 36.2	
	comp=E,23nm,0.9s						
KSH	Kashi	7.58	243	Pn	Pn	08 14 00.8	+9.4
KSH				Sn	Sn	08 15 33.9	+17
KSH				smax			
	comp=N,16nm,0.7s						
KSH				smax			
	comp=E,10.0nm,0.6s						
KURBB	Kurchatov Arra	8.51	332	⇑Lg		08 16 30.3	
	comp=E,4.8nm,0.6s						
KURK	Kurchatov	8.56	333	⇑Lg		08 16 28.7	
	comp=E,12nm,0.6s						

IDC 22 08:12:23.9±44.0**, 15°.61S×172°.26W, h0^{km}, mb4.4**/3**, mb1 4.6**/3**, mb1mx4.0**/17**, mbtmp4.4**/3**, Error ellipse: s-maj=851.2km s-min=177.5km az=79.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	44.88	240	P	P	08 20 40.8	+0.4
	2.7nm,1.1s,baz=86,slow=11,SNR=5.6						
WRA	Warramunga Arr	50.86	257	P	P	08 21 26.5	-0.4
	1.0nm,0.5s,baz=95,slow=7.0,SNR=33						
ASAR	Alice Springs	51.09	252	P	P	08 21 28.6	0.0
	9.6nm,0.6s,baz=89,slow=8.2,SNR=173						

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*IDC **22** 08:15:25.7±1.2, 14°.44N×92°.44W, h0^{km}, mb4.2/9, mb1 4.4/9, mb1mx4.1/21, mbtmp4.2/9, MS3.9/16, Ms1 3.9/16, ms1mx3.6/48, Error ellipse: s-maj=64.0km s-min=16.7km az=53.0*

*ISCJB **22** 08:15:28.0±1.3, 14°.30N±0°.04×93°.06W±0°.02, h15^{km}±9^{km}, mb4.3/28, MS4.0/15, Error ellipse: s-maj=6.8km s-min=3.5km az=13.0*

*BJI **22** 08:15:28.6, 14°.30N×93°.10W, h10^{km}, Ms4.9/1, Ms7 4.8/1*

*MEX **22** 08:15:30.5±0.7, 14°.30N×93°.11W, h11^{km}±12^{km}, MD4.5*

*NEIC **22** 08:15:30.6, 14°.31N×93°.11W, h10^{km}, mb4.3/23, MD4.5(MEX), After MEX.*

*CASC **22** 08:15:30.9±1.3, 14°.05N×92°.90W, h22^{km}±433^{km}, MD4.3, mb4.3(NEIC)*

ISC 22 08:15:28.4±1.1**, 14°.31N**±0°.04×**93°.03W**±0°.03**, h6**^{km}±7^{km}**, n280,** σ**0^{s}.86**/284**, mb4.3**/28**, MS4.0**/15**, 86C-87D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.95	51	i P	Pg	08 15 46.5	-0.1
THIG				i S	Sg	08 15 59.8	+0.9
JAT	Jato	1.35	90	eP	Pn	08 15 53.6	-0.1
PCIG		1.40	352	i P	Pn	08 15 52.2	-2.3
PCIG				i S	Sb	08 16 08.8	-4.2
TP2	Tecpan 2	2.00	76	eP	Pn	08 16 03.2	+0.5
TP2				eS	Sn	08 16 35.5	+7.6
FG6		2.09	83	eP	Pn	08 16 03.7	-0.3
FG6				eS	Sn	08 16 30.1	-0.1
FUG	Fuego 3	2.12	86	eP	Pn	08 16 03.4	-1.0
CCIG	Comitan	2.14	24	i P	Pn	08 16 04.6	0.0
CCIG				i S	Sn	08 16 30.8	-0.7
PCG	Pacaya	2.34	88	eP	Pn	08 16 07.3	-0.1
TGIG		2.46	358	i P	Pn	08 16 08.3	-0.6
TGIG				i S	Sn	08 16 36.5	-2.7
NBG	Las Nubes	2.61	84	eP	Pn	08 16 12.2	+1.1
RBDL	Robledal	3.24	93	eP	Pn	08 16 18.9	-0.9
CMIG	Matias Romero	3.29	327	i P	Pn	08 16 19.4	-1.1
CMIG				i S	Sn	08 16 57.7	-2.3
CMIG	Matias Romero	3.29	327	Pn	Pn	08 16 18.9	-1.6
	7.4nm,0.3s,baz=139,slow=11,SNR=100						
CMIG				Sn	Sn	08 17 02.9	+3.0
	42nm,0.3s,baz=69,slow=14,SNR=8.8						
CMIG				LR	LR	08 17 52.4	
	comp=Z,452nm,18.8s,baz=309,slow=42						
CMIG	Matias Romero	3.29	327	i P	Pn	08 16 19.4	-1.1
CMIG				i S	Sn	08 16 57.7	-2.3
CMIG				Sn	Sn	08 17 02.9	+3.0
RTR	El Retiro	3.31	97	eP	Pn	08 16 19.8	-0.8
HUIG	Huatulco	3.31	296	i P	Pn	08 16 18.7	-2.0
HUIG				i S	Sn	08 16 57.3	-3.1
SBLS	San Blas	3.33	98	eP	Pn	08 16 19.8	-1.2
SNJE	San Jose	3.35	97	eP	Pn	08 16 20.4	-0.9
LBRS	Las Brisas	3.91	98	eP	Pn	08 16 28.1	-0.8
LFRS	El Faro	3.91	100	eP	Pn	08 16 27.7	-1.2
OXX	Oaxaca	4.50	308	eP	Pn	08 16 35.1	-2.1
OXX				i S	Sn	08 17 25.7	-4.1
OXX	Oaxaca	4.50	308	eP	Pn	08 16 33.1	-4.1
OXX				i S	Sn	08 17 23.7	-6.1
VHO	Vista Hermosa	4.50	308	eP	Pn	08 16 35.7	-1.4
VHO				i S	Sn	08 17 26.9	-3.0
CNCH	Conchagua	5.15	101	eP	Pn	08 16 45.7	-0.3
PNIG	Pinotepa	5.34	293	eP	Pn	08 16 46.2	-2.4
PNIG				i S	Sn	08 17 46.7	-3.7
TGUH	Tegucigalpa,Un	5.58	92	ePn	Pn	08 16 52.2	+0.2
	61nm,0.8s						
UTMO	Huajuapan	5.77	308	eP	Pn	08 16 52.1	-2.5
UTMO				i S	Sn	08 17 58.4	-2.8
TPIG	Tehuac#an	5.83	315	eP	Pn	08 17 01.8	+6.4
TPIG				i S	Sn	08 18 06.0	+3.4
PPM	Popocatepetl	7.15	312	eP	Pn	08 17 13.0	-0.5
PPM				i S	Sn	08 18 33.7	-1.5
PLIG	Platanillo	7.42	304	i S	Sn	08 18 43.2	+1.4
TEIG	Tepich	7.43	37	eP	Pn	08 17 16.7	-0.6
TEIG				i S	Sn	08 18 43.3	+1.4
TEIG	Tepich	7.43	37	Pn	Pn	08 17 15.2	-2.1
	19nm,0.3s,baz=228,slow=2.7,SNR=43						
TEIG				Sn	Sn	08 18 39.5	-2.4
	3.4nm,0.3s,baz=285,slow=20,SNR=2.5						
TEIG	Tepich	7.43	37	ePn	Pn	08 17 16.8	-0.5
TEIG				i S	Sn	08 18 43.3	+1.4
CAIG	El Cayaco	7.49	292	eP	Pn	08 17 16.8	-1.4
CAIG				i S	Sn	08 18 41.0	-2.5
MZVM		7.67	310	eP	Pn	08 17 23.4	+2.7
MZVM				i S	Sn	08 18 40.7	-7.2
SZVM	Salazar	7.87	310	eP	Pn	08 17 23.3	-0.1
SZVM				i S	Sn	08 18 50.8	-1.9
JTS	JuntasAbangare	8.84	116	Pn	Pn	08 17 36.7	-0.1
	0.3nm,0.3s,baz=313,slow=19,SNR=3.3						

JTS	JuntasAbangare 31nm,0.9s	8.84	116	*e*Pn	Pn	08 17 38.7	+1.9
JCT	Junction City 15nm,1.1s	17.26	340	*e*P	Pn	08 19 33.1	+3.0
LPIG	La Paz comp=Z,120nm,20.9s,baz=80,slow=40	18.99	303	LR	LR	08 28 10.8	
MIAR	Mount Ida 19nm,0.9s	20.15	359	*e*P	P	08 20 01.8	-1.5
ROSC	El Rosal 6.0nm,0.8s,baz=95,slow=21,SNR=5.9	20.67	115	P	P	08 20 08.4	-0.8
WMOK	Wichita Mounta 3.2nm,0.8s	20.99	347	*e*P	P	08 20 11.8	-0.6
222A	Williams Famil baz=22	21.89	326	⇓P	P	08 20 22.6	+0.5
AMTX	Amarillo 31nm,0.7s,mb4.8	21.92	341	*e*P	P	08 20 21.1	-1.3
320A	Kipp Ranch, An baz=22	22.12	323	⇑P	P	08 20 25.3	+0.7
122A	Conniff Cattle baz=22	22.30	328	⇓P	P	08 20 27.4	+0.8
220A	Playas Peak, P baz=22	22.53	324	⇓P	P	08 20 30.1	+1.1
SDV	Santo Domingo 5.3nm,0.8s,mb4.0,baz=312,slow=5.0,SNR=7.2	22.58	101	P	P	08 20 28.4	-1.3
SDV	Santo Domingo 6.1nm,0.8s,mb4.1	22.58	101	*e*P	P	08 20 27.9	-1.8
121A	Cookes Peak, D baz=23	22.59	326	⇑P	P	08 20 30.9	+1.3
319A	Douglas baz=23	22.60	321	⇓P	P	08 20 30.7	+0.9
TKL	Tuckaleechee C comp=Z,150nm,19.9s,MS3.4,baz=259,slow=40	22.82	20	LR	LR	08 30 27.9	
219A	White Tail Can baz=23	23.03	323	⇓P	P	08 20 35.1	+0.8
120A	U Bar Ranch, L baz=23	23.07	325	⇑P	P	08 20 35.7	+1.0
318A	Bisbee baz=23,SNR=10	23.07	320	⇓P	P	08 20 35.4	+0.7
BNM	Barren Site 7.1nm,1.0s,mb4.0	23.28	330	*e*P	P	08 20 38.0	+1.1
Z20A	Nine Sixteen R baz=24	23.47	326	⇓P	P	08 20 39.4	+0.4
218A	Dragoon baz=24,SNR=6.6	23.48	321	⇑P	P	08 20 39.0	-0.1
119A	Ashpeak Ranch, baz=24,SNR=6.7	23.61	324	⇑P	P	08 20 40.1	-0.2
Y21A	Point of Rocks baz=24	23.68	328	⇑P	P	08 20 41.5	+0.5
CCM	Cathedral Cave 6.9nm,0.8s,mb4.1	23.70	4	*e*P	P	08 20 37.5	-3.6
LAZ	Ladron 3.9nm,1.2s,mb3.7	23.73	330	*e*P	P	08 20 41.0	-0.4
217A	Green Valley baz=24,SNR=10.0	23.82	320	⇑P	P	08 20 42.6	+0.3
ANMO	Albuquerque 2.5nm,0.8s,mb3.7,baz=148,slow=13,SNR=12	23.86	332	P	P	08 20 42.0	-0.6
ANMO	comp=Z,121nm,18.2s,MS3.4,baz=154,slow=39			LR	LR	08 31 10.4	
ANMO	Albuquerque 3.2nm,1.0s,mb3.7	23.86	332	*e*P	P	08 20 41.2	-1.4
118A	Homack Ranch, baz=24,SNR=11	23.91	323	⇓P	P	08 20 43.0	-0.1
Y20A	Horse Springs, baz=24	23.96	327	⇓P	P	08 20 43.8	+0.3
X21A	Alamocita Cree baz=24	24.08	329	⇓P	P	08 20 44.9	+0.3
TUC	Tucson 7.3nm,1.0s,mb4.1	24.16	321	*e*P	P	08 20 45.5	+0.1
Z18A	Geronimo baz=24	24.26	323	⇓P	P	08 20 46.7	+0.4
117A	Oracle baz=24,SNR=7.2	24.32	321	⇓P	P	08 20 47.4	+0.6
Y19A	Nutrioso baz=24	24.47	326	⇓P	P	08 20 48.6	+0.4
X20A	Quemado baz=24	24.52	328	⇑P	P	08 20 49.1	+0.5
KSU1	Kansas State U 22nm,0.7s,mb4.8	24.89	353	*e*P	P	08 20 48.5	-3.5
W20A	Ramah baz=25	24.98	329	⇓P	P	08 20 53.3	+0.5
214A	Organ Pipe Nat baz=25	25.21	318	⇓P	P	08 20 55.4	+0.4
ATAH	Atahualpa comp=Z,68nm,19.2s,MS3.2,baz=206,slow=30	25.67	145	LR	LR	08 28 18.0	
T22A	Edith baz=26,SNR=7.9	25.78	334	⇑P	P	08 21 00.5	+0.5
SDCO	Great Sand Dun 6.8nm,1.0s,mb4.1	25.84	337	*e*P	P	08 21 00.4	-0.1
Y15A	Casa Rosa Ranc baz=26	26.23	322	⇓P	P	08 21 04.5	+0.3
X15A	Humboldt baz=27	26.55	323	⇓P	P	08 21 07.1	0.0
V17A	Tonalea, Kykot baz=27	26.55	326	⇓P	P	08 21 06.5	-0.6
Z13A	Yuma Proving G baz=27	26.56	319	⇑P	P	08 21 06.5	-0.6
Y14A	Wickenburg baz=27	26.63	321	⇓P	P	08 21 07.7	-0.1
R22A	Saguache, Gunn baz=27	26.75	335	⇑P	P	08 21 09.4	+0.6
X14A	Yava baz=27	26.92	322	⇓P	P	08 21 11.0	+0.5
Q22A	Crested Butte, baz=27	27.36	336	⇓P	P	08 21 15.0	+0.7
PV04	Paradox Valley	27.80	333	*e*P	P	08 21 18.8	+0.6
V14A	Boquillas Ranc baz=28	27.86	323	⇑P	P	08 21 19.2	+0.4
W13A	Hualapai Mount baz=28	27.95	321	⇓P	P	08 21 19.6	0.0
Q19A	Hogan Spring (baz=28	28.42	333	⇓P	P	08 21 25.0	+1.2
P20A	De Beque baz=28	28.50	335	⇑P	P	08 21 24.8	+0.3
T14A	Hurricane baz=29	28.86	325	⇑P	P	08 21 28.0	+0.2
N22A	Wattenberg Ran baz=29	28.88	339	⇓P	P	08 21 28.3	+0.4
U13A	Pakoon Wash baz=29	28.90	323	⇓P	P	08 21 28.6	+0.5
V12A	Nelson baz=29	28.95	321	⇓P	P	08 21 28.7	+0.1
O20A	White River Ci baz=29	28.98	335	⇑P	P	08 21 29.5	+0.8
N21A	Black Mountain baz=29	29.23	337	⇓P	P	08 21 31.8	+0.8
U12A	Valley of Fire baz=29	29.25	323	⇓P	P	08 21 31.6	+0.5
S14A	Cedar City baz=29	29.42	326	⇑P	P	08 21 33.4	+0.7
M22A	Cedar Creek Ra baz=30	29.46	339	⇓P	P	08 21 33.7	+0.7
O19A	Miners Draw (B baz=30	29.48	334	⇓P	P	08 21 33.3	+0.2
N20A	Spence Gulch, baz=30,SNR=6.5	29.58	336	⇓P	P	08 21 34.1	+0.1
S13A	Holt Ranch, En baz=30	29.66	325	⇓P	P	08 21 35.8	+1.0
O18A	Roosevelt baz=30	29.82	333	⇑P	P	08 21 37.1	+0.8
M21A	Separation Pea baz=30	29.91	338	⇓P	P	08 21 37.8	+0.8
O17A	Robinson Place baz=30	30.09	332	⇓P	P	08 21 38.8	+0.2
M20A	Sweetwater, Wa baz=30	30.11	337	⇑P	P	08 21 39.4	+0.6
LZG	Guadaloupe-1	30.19	82	*e*P	P	08 21 41.4	+1.6
L21A	Rawlins baz=30	30.23	338	⇑P	P	08 21 40.3	+0.6
HMG	Houelmont	30.27	83	*e*P	P	08 21 41.4	+1.0
R12A	Pony Springs, baz=31	30.61	325	⇑P	P	08 21 44.0	+0.8
L20A	Wamsutter baz=31	30.62	337	⇑P	P	08 21 43.2	-0.1
Q13A	Wheeler Ranch, baz=31	30.75	327	⇑P	P	08 21 45.1	+0.7
L19A	Farson baz=31	31.09	336	⇓P	P	08 21 49.3	+1.9
M17A	Scullys Gap (B baz=31	31.10	334	⇓P	P	08 21 49.2	+1.7
P13A	Bates Ranch, G baz=31	31.11	328	⇓P	P	08 21 48.6	+0.9
R11A	Troy Canyon, C baz=31	31.17	324	⇑P	P	08 21 48.7	+0.6
L18A	Fontenelle, Gr baz=31	31.21	335	⇑P	P	08 21 48.9	+0.4
S10A	Tonopah Range, baz=32	31.46	323	⇑P	P	08 21 50.9	+0.2
K19A	Absolon Red Bu baz=32	31.51	337	⇑P	P	08 21 51.0	-0.1
Q11A	Duckwater baz=32	31.55	325	⇓P	P	08 21 52.0	+0.4
S09A	Goldfield baz=32	31.70	322	⇑P	P	08 21 53.4	+0.6
BW06	Boulder Array baz=32	31.73	337	⇓P	P	08 21 53.0	-0.1
PDAR	Pinedale Array 2.0nm,1.0s,mb3.9,baz=139,slow=9.2,SNR=7.2	31.73	337	P	P	08 21 52.4	-0.6
N14A	Grayback Hills baz=32	31.75	330	⇓P	P	08 21 54.2	+0.9
K18A	Toltan Ranch, baz=32,SNR=12	31.81	336	⇓P	P	08 21 53.9	+0.2
L16A	Fish Haven baz=32	31.87	334	⇓P	P	08 21 54.5	+0.2
M15A	Larsen Ranch, baz=32	31.88	332	⇓P	P	08 21 54.7	+0.3
R09A	Tonopah baz=32	31.95	323	⇑P	P	08 21 55.8	+0.8
Q10A	Clear Creek Ra baz=32	31.96	324	⇓P	P	08 21 56.3	+1.2
RCTC	Rector, Farmer baz=32	32.09	318	⇑P	P	08 21 56.6	+0.4
O12A	Currie baz=32	32.09	328	⇑P	P	08 21 57.3	+1.0
K17A	Gardner Place, baz=32	32.26	335	⇑P	P	08 21 58.1	+0.4
L15A	Malad City baz=32	32.28	332	⇓P	P	08 21 58.0	0.0
J18A	Kendall Valley baz=32,SNR=6.6	32.29	336	⇓P	P	08 21 57.7	-0.2
P10A	Eureka baz=33	32.55	325	⇓P	P	08 22 00.6	+0.4
SADO	Sadowa comp=Z,131nm,20.6s,MS3.6,baz=194,slow=37	32.57	19	LR	LR	08 35 22.4	
K16A	Soda Springs baz=33	32.61	334	⇑P	P	08 22 01.5	+0.8
M13A	Montello baz=33	32.62	330	⇓P	P	08 22 01.5	+0.7
I18A	Diamond G Ranc baz=33,SNR=9.0	32.63	337	⇓P	P	08 22 00.7	-0.2
J17A	Brown Place, J baz=33,SNR=19	32.69	336	⇓P	P	08 22 01.6	+0.1
ELK	Elko comp=Z,220nm,19.0s,MS3.9,baz=285,slow=42	32.70	328	LR	LR	08 38 23.9	
L14A	Malta baz=33	32.70	332	⇑P	P	08 22 01.7	+0.1
REDW	Red Top Meadow	32.74	336	*e*P	P	08 22 01.8	-0.2
SNOW	Snow King Moun 34nm,0.8s,mb5.3	32.79	336	*e*P	P	08 22 02.3	0.0
NVAR	Mina Array Bea 4.7nm,0.8s,mb4.5,baz=140,slow=8.9,SNR=8.6	32.81	322	P	P	08 22 03.4	+0.8
LOHW	Long Hollow	32.86	336	*e*P	P	08 22 02.7	-0.2
Q08A	Gabbs baz=33	32.87	323	⇓P	P	08 22 04.0	+0.9
TPAW	Teton Pass	32.89	336	*e*P	P	08 22 03.3	+0.1
RRI2	Red Ridge	32.92	335	*e*P	P	08 22 04.7	+1.2
J16A	Bone baz=33	32.98	335	⇑P	P	08 22 04.1	+0.1
MOOW	Moose Ponds	33.03	336	*e*P	P	08 22 03.9	-0.5
DCID1	Drake Creek 13nm,1.0s,mb4.8	33.07	335	*e*P	P	08 22 04.3	-0.5
K14A	Jones Ranch, D baz=33	33.07	332	⇓P	P	08 22 05.0	+0.3
I17A	Pilgrim Ck. baz=33,SNR=13	33.10	336	⇓P	P	08 22 05.1	0.0
IMW	Indian Meadow	33.23	336	*e*P	P	08 22 05.4	-0.7
I16A	Newdale baz=34	33.43	335	⇑P	P	08 22 08.4	+0.5
J15A	Blackfoot baz=34	33.43	334	⇑P	P	08 22 07.5	-0.4
M11A	Holland Ranch, baz=34	33.48	328	⇓P	P	08 22 09.0	+0.6
LKWY	Lake 4.4nm,0.8s,mb4.4	33.59	337	*e*P	P	08 22 10.6	+1.4
RLMT	Red Lodge baz=34	33.66	339	⇑P	P	08 22 09.5	-0.4
RLMT	Red Lodge 2.0nm,0.7s,mb4.2	33.66	339	*e*P	P	08 22 08.4	-1.4
J14A	Carey baz=34	33.84	333	⇑P	P	08 22 12.0	+0.5
G18A	Lazy EL Ranch, baz=34	33.93	339	⇑P	P	08 22 11.9	-0.3
M10A	I.L. Ranch, Tu baz=34	33.93	328	⇑P	P	08 22 12.8	+0.5
L11A	Cat Creek Ranc baz=34,SNR=5.2	34.01	329	⇓P	P	08 22 12.7	-0.3
H16A	Russell Place, baz=34	34.02	337	⇑P	P	08 22 14.0	+1.0
J13A	Cove Ranch, Pi baz=34	34.19	332	⇓P	P	08 22 14.4	-0.2
O07A	Toulon baz=34	34.28	324	⇑P	P	08 22 15.4	+0.1
I14A	Mackay baz=34	34.29	333	⇑P	P	08 22 16.2	+0.8
M09A	Marrel Ranch, baz=34	34.34	327	⇑P	P	08 22 16.2	+0.3
G17A	Pierce Place, baz=34	34.35	338	⇓P	P	08 22 16.6	+0.7
GCMT	Greycliff 4.1nm,0.8s,mb4.4	34.38	339	*e*P	P	08 22 14.7	-1.4
HLID	Hailey baz=34	34.43	332	⇓P	P	08 22 16.7	+0.1
HLID	Hailey	34.43	332	*e*P	P	08 22 16.5	-0.1
F18A	Big Timber baz=35,SNR=5.9	34.49	339	⇑P	P	08 22 16.6	-0.6
H15A	Lima baz=35,SNR=7.4	34.51	335	⇑P	P	08 22 17.5	+0.2
I13A	Wildhorse Cree baz=35	34.57	333	⇓P	P	08 22 19.3	+1.4
G16A	Moss Hill, Enn baz=35	34.68	336	⇓P	P	08 22 19.8	+1.1
MCMT	McKenzie Canyo 5.1nm,0.8s,mb4.5	34.77	335	*e*P	P	08 22 20.6	+1.1
F17A	Fitzpatrick Pl baz=35,SNR=11	34.83	338	⇑P	P	08 22 19.9	-0.1
O06A	Flanigan baz=35	34.83	323	⇓P	P	08 22 20.5	+0.4
G15A	Dillon baz=35,SNR=12	34.90	336	⇓P	P	08 22 20.8	+0.2
I12A	Atlanta baz=35,SNR=7.2	34.94	332	⇑P	P	08 22 21.0	-0.1
BEKR	Beckwourth baz=35	34.95	322	⇑P	P	08 22 21.7	+0.5
BOZ	Bozeman (W) baz=35	34.96	337	⇑P	P	08 22 22.0	+0.8
F16A	Kennard Place, baz=35	35.08	337	⇑P	P	08 22 22.3	+0.2
E18A	Harlowton baz=35,SNR=7.1	35.14	340	⇓P	P	08 22 22.2	-0.5
H13A	Challis baz=35,SNR=8.7	35.15	333	⇓P	P	08 22 22.7	-0.1
N06A	Buffalo Meadow baz=35	35.21	324	⇓P	P	08 22 23.8	+0.4
L08A	Fields baz=35	35.36	327	⇑P	P	08 22 24.6	-0.1
E17A	Martinsdale baz=35	35.37	339	⇓P	P	08 22 24.7	0.0
K09A	Rome baz=35,SNR=5.6	35.39	328	⇑P	P	08 22 25.1	+0.2
H12A	Diamond D Ranc baz=35,SNR=7.9	35.40	333	⇓P	P	08 22 24.9	-0.1
I11A	Placerville baz=35,SNR=17	35.41	331	⇓P	P	08 22 24.9	-0.2
LRM	Limekiln Ridge 40nm,0.9s,mb5.3	35.43	336	*e*P	P	08 22 25.3	+0.1
F15A	Butte baz=36,SNR=5.4	35.46	336	⇑P	P	08 22 25.4	-0.1
G13A	Cobalt baz=36	35.56	334	⇓P	P	08 22 26.7	+0.4
D18A	Linhart Farms, baz=36	35.65	340	⇑P	P	08 22 27.5	+0.4
E16A	East Helena baz=36	35.73	338	⇓P	P	08 22 27.9	+0.1
L07A	Adell baz=36	35.78	326	⇓P	P	08 22 28.4	+0.1
F14A	Wisdom baz=36	35.78	335	⇑P	P	08 22 28.4	+0.2
J09A	Fry Pan Ranch, baz=36	35.87	329	⇑P	P	08 22 29.2	+0.2
D17A	Six Diamond Ra baz=36	35.91	339	⇓P	P	08 22 28.9	-0.4
ULM	Lac du Bonnet comp=Z,142nm,19.9s,MS3.7,baz=217,slow=39	35.92	357	LR	LR	08 38 37.4	
E15A	Deer Lodge baz=36	36.00	337	⇑P	P	08 22 30.1	0.0
H11A	Donnelly baz=36	36.04	332	⇓P	P	08 22 30.6	+0.1
G12A	Big Creek, Yel baz=36	36.06	333	⇑P	P	08 22 30.8	+0.1
F13A	Darby baz=36	36.16	334	⇑P	P	08 22 31.2	-0.2
K07A	Rock Creek Ran baz=36	36.19	327	⇓P	P	08 22 31.8	0.0
J08A	Circle Bar Ran baz=36	36.25	328	⇓P	P	08 22 32.5	+0.3
H10A	Noah's Angus R baz=36	36.30	331	⇓P	P	08 22 32.3	-0.4
E14A	Clinton baz=36	36.33	336	⇓P	P	08 22 33.1	+0.3
C17A	Wharram Farm, baz=36,SNR=7.6	36.35	340	⇑P	P	08 22 32.5	-0.6
EGMT	Eagleton baz=36	36.37	341	⇑P	P	08 22 32.9	-0.3
D15A	Lincoln baz=36	36.47	337	⇓P	P	08 22 33.7	-0.4
F12A	Elk City baz=37,SNR=11	36.52	334	⇓P	P	08 22 34.0	-0.6
E13A	Victor baz=37,SNR=12	36.62	335	⇑P	P	08 22 35.1	-0.4
CHMT	Chamberlain Mo 2.2nm,1.1s,mb3.9	36.64	337	*e*P	P	08 22 34.6	-1.0
I08A	Drewsey baz=37	36.69	329	⇑P	P	08 22 36.1	+0.1
B18A	Beardsley Farm baz=37	36.70	341	⇑P	P	08 22 35.9	-0.2
C16A	Fuhringer Ranc baz=37,SNR=6.9	36.84	339	⇓P	P	08 22 36.8	-0.4
D14A	Greenough baz=37	36.88	337	⇑P	P	08 22 37.3	-0.3
G10A	Bishop Farm, J baz=37	37.00	331	⇑P	P	08 22 38.4	-0.3
C15A	Salmond Ranch, baz=37	37.12	338	⇑P	P	08 22 39.5	-0.1
H08A	Prairie City baz=37	37.18	329	⇑P	P	08 22 40.0	-0.1
A18A	Metzger Ranch, baz=37	37.19	342	⇑P	P	08 22 39.4	-0.8
D13A	Huson baz=37,SNR=5.2	37.26	336	⇓P	P	08 22 40.1	-0.8
G09A	Cove baz=37	37.30	331	⇓P	P	08 22 40.7	-0.5
E11A	Bogner Ranch, baz=37	37.41	333	⇑P	P	08 22 41.6	-0.5
A17A	Triple J Farms baz=38	37.48	341	⇑P	P	08 22 42.1	-0.5
C14A	Swan Lake baz=38	37.54	337	⇑P	P	08 22 43.5	+0.3
F10A	Beach Ranch, E baz=38,SNR=6.1	37.56	332	⇑P	P	08 22 42.9	-0.5
H07A	Lands Inn, Kim baz=38	37.68	329	⇑P	P	08 22 43.9	-0.5
JTMT	Jette 4.4nm,1.1s,mb4.1	37.73	336	*e*P	P	08 22 44.0	-0.8
C13A	Hot Springs baz=38	37.78	336	⇑P	P	08 22 45.5	+0.2
A15A	Johnson Ranch, baz=38	38.18	339	⇑P	P	08 22 48.4	-0.2
B13A	Whitefish baz=38	38.31	337	⇑P	P	08 22 49.4	-0.3
A14A	Double T Ranch baz=38,SNR=8.0	38.42	338	⇓P	P	08 22 50.2	-0.4
A13A	Flathead Natio baz=39	38.75	337	⇑P	P	08 22 53.3	-0.1
B12A	Libby baz=39	38.82	336	⇓P	P	08 22 53.9	-0.1
D09A	Jones Farm, Ri baz=39	38.88	332	⇑P	P	08 22 54.2	-0.3
H04A	Detroit Lake baz=39	39.10	327	⇓P	P	08 22 56.1	-0.3
B11A	Sandpoint baz=39	39.11	335	⇑P	P	08 22 56.1	-0.3
A12A	Yaak River Ran baz=39	39.22	336	⇑P	P	08 22 57.1	-0.2
A11A	Hall Mountain, baz=40	39.52	336	⇓P	P	08 22 59.4	-0.5
C08A	Higginbotham F baz=40	39.75	332	⇑P	P	08 23 01.4	-0.4
E06A	Yakima baz=40	39.76	330	⇓P	P	08 23 02.0	+0.1
B09A	Rice baz=40	39.84	334	⇑P	P	08 23 02.4	-0.1
A09A	Danville baz=40	40.45	334	⇑P	P	08 23 07.4	-0.1
A07A	Ashnola River, baz=41	41.29	333	⇑P	P	08 23 14.3	-0.2
SIV	San Ignacio 1.2nm,0.7s,mb3.7,baz=292,slow=11,SNR=8.0	43.63	132	P	P	08 23 29.5	-4.4
FCC	Fort Churchill 0.1nm,0.8s	44.38	359	*e*P	P	08 23 36.6	-2.8
SCHQ	Schefferville comp=Z,227nm,19.1s,MS4.1,baz=21,slow=39	45.28	21	LR	LR	08 44 21.4	
YKA	Yellowknife Ar 4.6nm,0.7s,mb4.5,baz=152,slow=7.3,SNR=67	50.50	347	P	P	08 24 25.2	-1.8
YKA	Yellowknife Ar	50.50	347	P	P	08 24 25.2	-1.8
CFAA	Coronel Fontan 0.1nm,0.7s,baz=316,slow=12,SNR=3.8	51.48	153	P	P	08 24 31.8	-2.9
DLBC	Dease Lake 3.6nm,0.8s,mb4.4,baz=155,slow=5.5,SNR=5.2	51.97	336	P	P	08 24 38.0	-0.1
DLBC	Dease Lake	51.97	336	P	P	08 24 38.0	-0.1
FRB	Frobisher Bay comp=Z,226nm,18.6s,MS4.2,baz=304,slow=39	52.24	13	LR	LR	08 49 09.9	
CPUP	Villa Florida comp=Z,70nm,18.6s,MS3.7,baz=283,slow=35	53.26	139	LR	LR	08 46 30.2	
SFJD	Kangerlussuaq comp=Z,163nm,20.1s,MS4.2,baz=222,slow=36	59.52	18	LR	LR	08 50 25.8	
INK	Inuvik 6.0nm,0.9s,mb4.6,baz=132,slow=7.5,SNR=20	59.86	344	P	P	08 25 32.8	-1.6
INK	Inuvik 5.2nm,0.8s,mb4.6	59.86	344	*e*P	P	08 25 32.5	-1.9
RES	Resolute Bay 46nm,2.2s,mb5.1	60.38	359	*e*P	P	08 25 34.6	-3.3
BBTS	Babate comp=Z,112nm,18.1s,MS4.2,baz=228,slow=32	73.69	79	LR	LR	08 54 13.8	
BILL	Bilibino 4.3nm,0.8s,mb4.4	80.80	338	*e*P	P	08 27 41.2	-1.3
NOA	NORSAR Array B comp=Z,317nm,20.0s,MS4.7,baz=345,slow=38	84.35	28	LR	LR	09 08 15.9	
HFS	Hagfors comp=Z,195nm,20.1s,MS4.5,baz=160,slow=35	85.81	29	LR	LR	09 05 36.6	
ARCES	ARCESS Array B comp=Z,274nm,19.5s,MS4.7,baz=72,slow=38	86.15	18	LR	LR	09 10 17.8	
DBIC	Dimbokro 2.2nm,0.7s,mb4.5,baz=270,slow=4.0,SNR=2.8	86.61	84	P	P	08 28 08.9	-4.5
TORD	Torodi Ar. Bea 0.2nm,0.5s,mb3.7,baz=264,slow=5.8,SNR=2.9	91.27	76	P	P	08 28 31.1	-4.4
CN2	Changchun	112.34	331	*e*PKP	PKiKP	08 34 01.8	-3.7
UCH	Uchtor	122.58	11	*e*PKPdf	PKPdf	08 34 22.8	-2.4
NJ2	Nanjing	124.70	327	*e*PKP	PKPdf	08 34 34.4	+4.8
LZH	Lanzhou	127.40	343	*e*PKP	PKPdf	08 34 32.5	-2.1
LZH	comp=E,130nm,18.0s			LR	LR		
LZH	comp=Z,190nm,20.3s,MS4.8			LR	LR		
CD2	Chengdu	132.23	340	PKP	PKPdf	08 34 40.3	-3.6
CMAR	Chiang Mai Arr comp=Z,2.0nm,0.5s,baz=342,slow=3.6,SNR=11	145.37	340	PKPbc	PKPbc	08 35 05.8	-2.1

ISCJB ***22*** *08:17:22.7±0.2, 41°.15N±0°.01×114°.90W±0°.02, h10^{km},*
Error ellipse: s-maj=1.9km s-min=1.8km az=163.8
IDC ***22*** *08:17:22.5±1.0, 41°.17N×114°.91W, h0^{km}, mb2.5/1,*
mb1 3.1/3, mb1mx3.0/21, mbtmp2.7/3, ML2.9/2, Error
ellipse: s-maj=22.8km s-min=5.3km az=135.0
NEIC ***22*** *08:17:23.2±0.5, 41°.07N×114°.85W, h5^{km}, ML2.6, Error*
ellipse: s-maj=7.4km s-min=6.2km az=161.0
ISC 22 08:17:22.9±0.2, **41°.14N**±0°.01×**114°.89W**±0°.02, **h10^{km}, n89,**
σ**1^{s}.16**/143, **36C-42D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	Clover Valley, baz=0.3	0.31	201	⇓P	Pg	08 17 29.1	+0.1
N12A	baz=0.3			⇑S	Sg	08 17 33.9	+0.6
ELK	Elko 13nm,0.3s,baz=15,slow=16,SNR=22	0.48	214	Pg	Pg	08 17 31.8	-0.4
ELK	43nm,0.3s,baz=125,slow=16,SNR=94			Lg		08 17 38.4	
ELK	Elko	0.48	214	*e*Pg	Pg	08 17 31.7	-0.5
ELK				*e*Sg	Sg	08 17 38.0	-0.5
M13A	Montello baz=0.6,SNR=30	0.59	68	⇓P	Pg	08 17 34.0	-0.3
N13A	Wendover, West baz=0.6	0.59	119	⇑P	Pg	08 17 34.5	+0.1

N13A				⇓S	Sg	08 17 42.7	+0.6
	baz=0.6						
N11A	Elko Archery C	0.72	243	⇓P	Pg	08 17 36.1	-0.7
	baz=0.7,SNR=32						
N11A				⇑S	Sg	08 17 45.8	-0.3
	baz=0.7						
M11A	Holland Ranch,	0.74	293	⇓P	Pg	08 17 36.3	-0.8
	baz=0.7,SNR=31						
M11A				⇑S	Sg	08 17 45.7	-1.1
	baz=0.7						
O12A	Currie	0.88	173	⇓P	Pg	08 17 39.9	+0.1
	baz=0.9						
O12A				⇓S	Sg	08 17 52.0	+0.7
	baz=0.9						
L12A	House Creek Ra	1.01	355	⇑P	Pg	08 17 41.0	-1.3
	baz=1.0,SNR=26						
L12A				⇑S	Sg	08 17 54.5	-1.0
	baz=1.0						
O11A	Cowboy Ranch,	1.17	210	⇓P	Pb	08 17 45.3	+0.2
	baz=1.2,SNR=62						
O11A				⇓S	Sb	08 18 00.1	-0.2
	baz=1.2						
L13A	Double Diamond	1.18	36	P	Pb	08 17 44.2	-1.3
	baz=1.2,SNR=42						
L13A				⇑S	Sb	08 17 59.9	-0.9
	baz=1.2						
L11A	Cat Creek Ranc	1.21	328	⇓P	Pn	08 17 44.4	-1.6
	baz=1.2,SNR=91						
L11A				⇓S	Sb	08 18 00.2	-1.5
	baz=1.2						
M14A	Sheep Mountain	1.22	72	⇓P	Pn	08 17 45.0	-0.9
	baz=1.2,SNR=100						
M14A				⇓S	Sb	08 18 01.9	+0.2
	baz=1.2						
O13A	Hicks Ranch, I	1.22	145	P	Pn	08 17 46.1	0.0
	baz=1.3,SNR=79						
N10A	Dunphy	1.30	252	⇑P	Pn	08 17 46.4	-0.7
	baz=1.3						
N10A				⇑S	Sb	08 18 04.2	+0.1
	baz=1.3						
M10A	I.L. Ranch, Tu	1.30	288	⇓P	Pn	08 17 46.3	-0.9
	baz=1.3,SNR=40						
M10A				⇑S	Sb	08 18 04.0	-0.1
	baz=1.3						
N14A	Grayback Hills	1.32	102	⇑P	Pn	08 17 46.9	-0.5
	baz=1.3,SNR=70						
N14A				⇓S	Sb	08 18 05.9	+1.2
	baz=1.3						
BGU	Big Grassy Mou	1.42	98	*e*Pn	Pn	08 17 48.4	-0.4
BGU				*e*Sg	Sg	08 18 06.8	-1.9
O10A	Cortez Mining,	1.49	236	⇑P	Pn	08 17 49.5	-0.3
	baz=1.5,SNR=17						
O10A				⇑S	Sn	08 18 09.9	+0.7
	baz=1.5						
K12A	Draper Farm, C	1.49	360	⇓P	Pn	08 17 48.4	-1.4
	baz=1.5,SNR=24						
K12A				⇓S	Sn	08 18 08.1	-1.3
	baz=1.5						
L10A	Juniper Basin	1.51	309	⇑P	Pn	08 17 49.1	-0.9
	baz=1.5,SNR=63						
L10A				⇑S	Sn	08 18 09.2	-0.6
	baz=1.5						
L14A	Malta	1.52	54	⇓P	Pn	08 17 50.0	-0.2
	baz=1.5,SNR=81						
L14A				⇓S	Sn	08 18 10.7	+0.6
	baz=1.5						
K13A	Stover Farm, H	1.62	21	⇓P	Pn	08 17 51.2	-0.3
	baz=1.6,SNR=10						
K13A				⇓S	Sn	08 18 12.7	+0.2
	baz=1.6						
P12A	McGill	1.67	180	⇓P	Pn	08 17 52.4	+0.2
	baz=1.7,SNR=61						
P12A				⇓S	Sn	08 18 15.3	+1.8
	baz=1.7						
HVU	Hansel Valley	1.71	67	*e*Pn	Pn	08 17 52.7	-0.1
HVU				*e*Sg	Sg	08 18 16.0	-1.9
N15A	Stansbury Isla	1.81	97	⇑P	Pn	08 17 54.1	-0.1
	baz=1.8,SNR=53						
N15A				⇑S	Sn	08 18 18.7	+1.6
	baz=1.8						
P13A	Bates Ranch, G	1.81	158	⇓P	Pn	08 17 53.9	-0.3
	baz=1.8						
P13A				⇑Sb	Sb	08 18 21.1	+2.2
	baz=1.8						
K11A	Parker Ranch,	1.84	333	⇓P	Pn	08 17 54.1	-0.4
	baz=1.8,SNR=74						
K11A				⇑S	Sn	08 18 18.4	+0.5
	baz=1.8						
DUG	Dugway	1.84	120	⇑P	Pn	08 17 54.1	-0.4
	baz=1.9,SNR=41						
DUG				⇓Sb	Sb	08 18 21.7	+2.0
	baz=1.9						
DUG	Dugway	1.84	120	*e*Pn	Pn	08 17 54.1	-0.5
DUG				*e*Sg	Sg	08 18 21.7	-0.4
SPUT	South Promonto	1.85	84	*e*Pn	Pn	08 17 54.9	+0.3
SPUT				*e*Sg	Sg	08 18 18.4	-3.9
M15A	Larsen Ranch,	1.87	79	⇓P	Pn	08 17 54.8	-0.1
	baz=1.9						
M15A				⇑S	Sn	08 18 19.8	+1.2
	baz=1.9						
BMN	Battle Mountai	1.91	249	*e*Pn	Pn	08 17 54.3	-1.2
BMN				*e*Sg	Sg	08 18 22.0	-2.2
P10A	Eureka	1.94	219	⇑P	Pn	08 17 56.1	+0.2
	baz=1.9,SNR=12						
P10A				⇑S	Sn	08 18 22.0	+1.8
	baz=1.9						
M09A	Marrel Ranch,	1.95	279	⇓P	Pn	08 17 55.7	-0.4
	baz=1.9						
O09A	Fish Creek Ran	2.00	242	⇑P	Pn	08 17 56.4	-0.4
	baz=2.0						
N09A	Rock Creek Ran	2.02	263	⇓P	Pn	08 17 56.3	-0.6
	baz=2.0						
O15A	The Old Anders	2.03	114	P	Pn	08 17 57.1	0.0
	baz=2.1,SNR=29						
L15A	Malad City	2.07	65	⇓P	Pn	08 17 57.5	-0.2
	baz=2.1						
P14A	Drum Mountains	2.08	137	⇓P	Pn	08 17 57.8	0.0
	baz=2.1,SNR=14						
Q12A	Willow Creek R	2.10	179	⇓P	Pn	08 17 58.3	+0.2
	baz=2.1,SNR=13						
J12A	Stokes Ranch,	2.11	356	P	Pn	08 17 58.6	+0.3
	baz=2.1,SNR=70						
NOQ	North Oquirrh	2.15	102	*e*Pn	Pn	08 17 59.0	+0.1
K10A	MacKenzie Ranc	2.20	319	⇑P	Pn	08 17 59.8	+0.3
	baz=2.2,SNR=26						
L09A	Wilkinson Ranc	2.26	294	⇓P	Pn	08 18 01.6	+1.2
	baz=2.2,SNR=6.7						
Q13A	Wheeler Ranch,	2.28	163	⇓P	Pn	08 18 00.9	+0.3
	baz=2.3,SNR=12						
J13A	Cove Ranch, Pi	2.32	13	⇑P	Pn	08 18 01.6	+0.5
	baz=2.3,SNR=81						
K15A	Arbon	2.34	48	⇓P	Pn	08 18 01.9	+0.5
	baz=2.3,SNR=18						
MFID	Camas Ranch	2.38	343	⇓P	Pn	08 18 02.5	+0.6
	baz=2.3,SNR=19						
J14A	Carey	2.41	25	⇑P	Pn	08 18 03.3	+0.9
	baz=2.4,SNR=32						
HLID	Hailey	2.44	8	⇑P	Pn	08 18 03.6	+0.7
	baz=2.4,SNR=67						
HLID	Hailey	2.44	8	*e*Pn	Pn	08 18 03.4	+0.6
HLID				*e*Sg	Sg	08 18 35.4	-6.1
NLU	North Lily Min	2.45	118	*e*Pn	Pn	08 18 04.4	+1.5
NLU				*e*Sg	Sg	08 18 40.0	-1.6
Q14A	Sevier Lake (B	2.48	150	⇓P	Pn	08 18 03.1	-0.3
	baz=2.5,SNR=9.7						
N08A	GE Springer Mi	2.48	263	⇓P	Pn	08 18 02.6	-0.8
	baz=2.5						
P15A	Leamington	2.54	127	⇑P	Pn	08 18 03.9	-0.2
	baz=2.6						
Q10A	Clear Creek Ra	2.59	207	⇓P	Pn	08 18 06.2	+1.4
	baz=2.6,SNR=19						
K09A	Rome	2.63	307	P	Pn	08 18 07.2	+1.8
	baz=2.6,SNR=34						
M08A	Happy Creek Ra	2.65	278	⇑P	Pn	08 18 08.3	+2.6
	baz=2.6,SNR=14						
I12A	Atlanta	2.66	356	⇑P	Pn	08 18 07.0	+1.2
	baz=2.6,SNR=48						
MPU	Maple Canyon	2.72	113	*e*Pn	Pn	08 18 11.3	+4.7
MPU				*e*Sg	Sg	08 18 49.6	-0.8
L08A	Fields	2.79	293	⇓P	Pn	08 18 10.0	+2.4
	baz=2.8,SNR=15						
I13A	Wildhorse Cree	2.83	11	P	Pn	08 18 09.4	+1.3
	baz=2.8,SNR=26						
R11A	Troy Canyon, C	2.84	191	⇑P	Pn	08 18 08.7	+0.4
	baz=2.9,SNR=25						
DAU	Daniels Canyon	2.85	104	*e*Pn	Pn	08 18 11.6	+3.1
DAU				*e*Sg	Sg	08 18 52.4	-2.1
I11A	Placerville	2.88	344	⇓P	Pn	08 18 11.1	+2.3
	baz=2.9						
R13A	O’Grain Ranch,	3.04	166	⇓P	Pn	08 18 12.1	+1.0
	baz=3.1,SNR=34						
WVOR	Wild Horse Val	3.09	296	*e*Pn	Pn	08 18 15.5	+3.8
WVOR				*e*Sg	Sg	08 18 58.8	-3.2
M07A	Soldier Meadow	3.24	276	⇑P	Pn	08 18 13.4	-0.3
	baz=3.2,SNR=14						
MSU	Marysvale	3.35	141	*e*Pn	Pn	08 18 15.8	+0.5
MSU				*e*Pg	Pg	08 18 25.1	-2.1
MSU				*e*Sg	Sg	08 19 08.1	-2.5
TMUT	Trail Mountain	3.37	122	*e*Pn	Pn	08 18 18.9	+3.3
TMUT				*e*Sg	Sg	08 19 12.6	+1.6
RRI2	Red Ridge	3.45	49	*e*Pn	Pn	08 18 18.5	+1.9
RRI2				*e*Sg	Sg	08 19 08.8	-4.8
ARUT	Antelope Range	3.53	161	*e*Pn	Pn	08 18 18.8	+1.0
ARUT				*e*Pg	Pg	08 18 29.4	-1.2
ARUT				*e*Sg	Sg	08 19 14.0	-2.3
S13A	Holt Ranch, En	3.64	167	⇑P	Pn	08 18 20.1	+0.8
	baz=3.7,SNR=20						
REDW	Red Top Meadow	3.73	52	*e*Pn	Pn	08 18 22.4	+1.9
TPAW	Teton Pass	3.75	50	*e*Pn	Pn	08 18 25.4	+4.6
TPAW				*e*Sg	Sg	08 19 17.7	-5.5
NVAR	Mina Array Bea	3.77	225	Pn	Pn	08 18 21.3	+0.2
	0.8nm,0.3s,baz=39,slow=13,SNR=8.8						
NVAR				Pg	Pg	08 18 30.8	-4.4
	3.0nm,0.3s,baz=40,slow=14,SNR=13						
NVAR				Lg		08 19 21.3	
	5.4nm,0.3s,baz=261,slow=28,SNR=9.6						
CCUT	Cedar City	3.78	161	*e*Pn	Pn	08 18 21.9	+0.8
CCUT				*e*Sg	Sg	08 19 22.9	-1.2
SRU	San Rafael	3.91	120	*e*Pn	Pn	08 18 27.4	+4.4
SRU				*e*Pg	Pg	08 18 35.8	-2.1
SRU				*e*Sg	Sg	08 19 26.4	-2.1
IMW	Indian Meadow	4.01	45	*e*Pn	Pn	08 18 29.9	+5.5
IMW				*e*Sn	Sn	08 19 18.8	+7.3
IMW				*e*Sg	Sg	08 19 26.3	-5.4
LOHW	Long Hollow	4.02	51	*e*Pn	Pn	08 18 28.5	+3.9
MOOW	Moose Ponds	4.02	48	*e*Pn	Pb	08 18 30.1	-3.8
MOOW				*e*S	Sb	08 19 23.6	+1.1
BMO	Blue Mountains	4.11	335	*e*Pn	Pb	08 18 31.2	-4.1
BMO				*e*Sg	Sg	08 19 34.7	-0.2
MOD	Modoc	4.13	282	Pn	Pn	08 18 28.7	+2.6
MOD				*e*Sg	Sb	08 19 29.4	+3.7
PDAR	Pinedale Array	4.29	66	Pn	Pn	08 18 31.1	+2.8
	0.1nm,0.3s,baz=242,slow=12,SNR=4.3						
PDAR				Pg	Pg	08 18 40.2	-5.0
	0.2nm,0.3s,baz=242,slow=13,SNR=6.0						
PDAR				Lg		08 19 35.5	
	0.4nm,0.3s,baz=239,slow=26,SNR=6.6						
T14A	Hurricane	4.31	160	⇑P	Pn	08 18 29.5	+1.0
	baz=4.3,SNR=6.9						
BEKR	Beckwourth	4.36	255	⇑P	Pn	08 18 28.9	-0.3
	baz=4.3,SNR=11						
WUAZ	Wupatki	6.26	153	*e*Pg	Pg	08 19 21.1	-1.6
WUAZ				*e*Sg	Sg	08 20 41.0	-2.8
YKA	Yellowknife Ar	21.39	0	P	P	08 22 10.5	+0.2
	0.2nm,0.7s,baz=180,slow=9.3,SNR=4.1						

IDC 22 08:18:35.8±2.2**, 1°.58N×96°.16E, h0**^{km}**, mb3.7**/4**, mb1 3.8**/6**, mb1mx3.6**/23**, mbtmp3.7**/6**, ML3.4**/2**, 1D, Error ellipse: s-maj=55.5km s-min=26.0km az=52.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.01	66	Pn	Pn	08 19 25.6	+0.8
	2.2nm,0.3s,baz=319,slow=5.8,SNR=7.9						
BSI	Banda Aceh	3.98	347	⇓*e*P	Px	08 20 06.0	
BSI				*e*S	Sn	08 20 21.0	-4.6
CMAR	Chiang Mai Arr	16.99	9	Pn	Pn	08 22 34.4	-0.6
	0.1nm,0.3s,baz=197,slow=12,SNR=6.6						
WRA	Warramunga Arr	43.12	122	P	P	08 26 38.0	-0.3
	0.7nm,0.9s,baz=302,slow=9.1,SNR=2.6						
MKAR	Makanchi Array	46.63	347	P	P	08 27 06.5	+0.7
	1.1nm,0.8s,baz=164,slow=8.1,SNR=12						
SONM	Songino Array	46.92	9	P	P	08 27 07.3	-0.7
	0.4nm,0.7s,baz=193,slow=9.3,SNR=3.3						
ZALV	Zalesovo Beam	53.02	352	P	P	08 27 54.4	0.0
	1.4nm,0.7s,baz=164,slow=5.9,SNR=5.1						

NIED ***22*** *08:24:00, 34°.50N×138°.00E, h280^{km}, Mw4.4 Best double couple: $M_0$4.98000×10^{15} NP1:ϕ_s52.00000°, δ81.00000°, λ-131.00000°. NP2:ϕ_s311.00000°, δ41.00000°, λ-14.00000°.*

SZGRF ***22*** *08:24:12.1, 34°.19N×139°.53E, h33^{km}, mb5.1, Near south coast of eastern Honshu, Japan*

BJI ***22*** *08:24:39.5, 34°.35N×137°.99E, h276^{km}, mB4.7/28, mb4.8/48*

ISCJB ***22*** *08:24:41.8±0.2, 34°.41N±0°.03×137°.94E±0°.04, h285^{km}±1^{km}, mb4.4/89, Error ellipse: s-maj=4.7km s-min=4.5km az=169.0*

NEIC ***22*** *08:24:42.0±0.5, 34°.38N×137°.91E, h273^{km}±4^{km}, mb4.6/47, MW4.4(NIED), Error ellipse: s-maj=5.7km s-min=4.0km az=96.0*

MOS ***22*** *08:24:41.1±0.9, 34°.39N×137°.95E, h279^{km}, mb4.5/36, Error ellipse: s-maj=10.0km s-min=5.5km az=114.3*

JMA ***22*** *08:24:42.5±0.1, 34°.50N×138°.02E, h285^{km}±2^{km}, M4.6 Broadband fault plane solution: P waves. NP1: ϕ_s306.00000°, δ53.00000°, λ-18.00000°. NP2:ϕ_s47.00000°, δ75.00000°, λ-142.00000°. Principal axes: T Plg14.0000°, Azm172.0000°; N Plg50.0000°, Azm65.0000°; P Plg37.0000°, Azm273.0000°;*

IDC ***22*** *08:24:42.4±0.5, 34°.40N×137°.92E, h276^{km}±4^{km}, mb3.9/24, mb1 4.0/27, mb1mx4.0/33, mbtmp3.9/27 Error ellipse: s-maj=10.5km s-min=6.5km az=78.0*

ISC 22 08:24:42.8±0.2**, 34°.45N**±0°.03×**137°.94E**±0°.03**, h280**^{km}±1^{km}**, h259**^{km}±2.4^{km}**:pP-P, n249,** σ**0.89**/280**, mb4.4**/89**, 23C-21D, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK04	Tokai 4	0.08	222	⇓P	Pn	08 25 19.4	+0.8
TK04				S	S	08 25 48.7	+1.8
TK03	Tokai 3	0.28	176	P	Pn	08 25 19.4	+0.6
TK03				S	S	08 25 49.7	+2.4
JSG	Sagara	0.31	42	⇓P	Pn	08 25 19.5	+0.8
JSG				S	S	08 25 48.7	+1.6
JKKG	Kakegawa	0.34	5	P	Pn	08 25 19.1	+0.3
JKKG				S	S	08 25 47.4	+0.1
JHMK	Hamakita	0.40	338	P	Pn	08 25 19.4	+0.5
JHMK				S	S	08 25 47.0	-0.5
HMMJ	Hamamatsu 2	0.45	336	⇓P	Pn	08 25 18.8	-0.2
HMMJ				S	S	08 25 47.8	+0.2
JNY	Yasuok	0.91	356	⇑P	Pn	08 25 21.1	+0.5
JNY				S	S	08 25 50.2	-0.4
JAO	Obara	0.99	326	⇑P	Pn	08 25 21.4	+0.4
JAO				S	S	08 25 51.8	+0.6
JIE	Ise	1.02	267	⇑P	Pn	08 25 21.7	+0.5
JIE				*e*S	S	08 25 51.7	+0.2
NJJJ	Nii jima 2	1.11	92	⇓P	Pn	08 25 21.8	+0.2
JYN	Shimob	1.16	25	P	Pn	08 25 22.0	+0.1
JOD2	Odawara 2	1.25	49	⇓P	Pn	08 25 22.3	-0.1
JOD2				*e*S	S	08 25 52.8	-0.9
JKN2	Miekihoku	1.39	262	⇑P	Pn	08 25 23.8	+0.5
JEG	Eigenji	1.45	299	⇑P	Pn	08 25 24.3	+0.7
JEG				S	S	08 25 56.0	0.0
JGM	Miyama	1.60	322	⇑P	Pn	08 25 25.3	+0.6
JGM				S	S	08 25 57.6	-0.3
JRY	Ryogami san	1.75	26	⇑P	Pn	08 25 26.0	+0.2
JRY				S	S	08 26 00.5	+0.6
JHU	Hanno	1.78	38	⇓P	Pn	08 25 25.9	-0.1
JHU				*e*S	S	08 25 57.9	-2.4
JWY	Kouya	1.96	264	P	Pn	08 25 28.2	+0.7
JWY				S	S	08 26 03.2	+0.3
JHJ	Hachijo jima 2	2.03	130	P	Pn	08 25 28.1	-0.1
	115nm,0.3s,baz=73,slow=22,SNR=47						
JHJ				S	S	08 26 04.0	0.0
	162nm,0.3s,baz=70,slow=21,SNR=8.9						
JHJ2	Mitsune	2.05	130	P	Pn	08 25 27.9	-0.4
MJAR	Matsushiro Arr	2.10	6	P	Pn	08 25 28.1	-0.5
	90nm,0.3s,baz=186,slow=9.5,SNR=1428						
MJAR				S	S	08 26 03.8	-1.3
	13nm,0.3s,baz=41,slow=32,SNR=7.4						
MAJO	Matsushiro	2.10	6	*e*P	Pn	08 25 28.2	-0.4
MAT	Matsushiro	2.10	6	P	Pn	08 25 28.6	0.0
MAT				S	S	08 26 03.5	-1.6
MAT	Matsushiro	2.10	6	P	Pn	08 25 28.4	-0.2
MAT				S	S	08 26 03.7	-1.4
JWT	Wachi	2.25	293	⇑P	Pn	08 25 30.4	+0.5
JWT				*e*S	S	08 26 06.8	-0.6
JKG	Kaga	2.25	325	⇑P	Pn	08 25 30.1	+0.2
JKG				*e*S	S	08 26 07.8	+0.4
JAG	Ashikaga	2.33	32	⇓P	Pn	08 25 29.4	-1.3
JAG				S	S	08 26 05.8	-2.9
JAI	Aioi	2.97	258	*e*S	S	08 26 18.6	-1.3
CBIJ	Chichi jima	8.18	152	P	Pn	08 26 32.4	-6.3
	81nm,0.3s,baz=308,slow=5.4,SNR=30						
CBIJ				S	S	08 27 59.4	-13
	195nm,0.3s,baz=307,slow=22,SNR=19						
ERM	Erimo	8.60	27	*e*P	Pn	08 26 39.2	-4.3
ERM				*e*S	S	08 28 13.7	-7.7
KSRS	Korea Array	8.66	293	P	Pn	08 26 45.5	+1.1
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	Korea Array	8.66	293	P	Pn	08 26 45.5	+1.1
	comp=Z,1.2nm,0.3s,baz=110,slow=13,SNR=39						
INCN	Inchon	9.65	292	*e*Pn	Pn	08 26 57.6	+0.9
	comp=Z,37nm,0.7s						
ASAJ	Asahikawa	10.31	19	P	Pn	08 27 02.4	-2.3
ASAJ				pmax	pmax		
	comp=Z,8.0nm,0.3s						
ASAJ	Asahikawa	10.31	19	P	Pn	08 27 02.4	-2.4
	comp=Z,8.0nm,0.3s,baz=225,slow=12,SNR=19						
YUK	Yuzh-Kuril’sk	11.37	30	P	Pn	08 27 19.2	+1.4
YUK				*e*S	S	08 29 16.8	-7.9
YUK				pmax	pmax		
	comp=N,210nm,0.5s						
YUK				pmax	pmax		
	comp=Z,210nm,0.5s						
YUK				smax			
	comp=N,800nm,0.6s						
YUK				smax			
	comp=E,530nm,0.8s						
YUK				smax			
	comp=N,2µm,0.7s						
YUK				smax			
	comp=E,2µm,0.7s						
MDJ	Mudanjiang	12.02	330	P	Pn	08 27 25.5	-0.3
MDJ				sP		08 28 24.8	
MDJ				S	S	08 29 39.3	-0.2
MDJ				ScS	ScS	08 39 30.3	+3.0
MDJ				pmax	pmax		
	comp=Z,13nm,1.1s						
MDJ				pmax	pmax		
	comp=Z,110nm,5.6s						
MDJ	Mudanjiang	12.02	330	*e*Pn	Pn	08 27 26.0	+0.1
YSS	Yuzh-Sakhalins	13.02	15	*e*P	Pn	08 27 36.4	-1.5
YSS				pmax	pmax		
	comp=Z,220nm,0.8s						
YSS	Yuzh-Sakhalins	13.02	15	*e*Pn	Pn	08 27 35.9	-2.0
CN2	Changchun	13.45	318	*e*P	Pn	08 27 43.3	+0.1
CN2				*e*sP		08 28 44.8	
CN2				*e*S	S	08 30 07.1	-4.8
CN2				pmax	pmax		
	comp=Z,40nm,0.6s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
SNY	Shenyang	13.48	307	⇓P	Pn	08 27 44.6	+1.0
SNY				S	S	08 30 11.0	-1.7
SNY				pmax	pmax		
	comp=Z,56nm,0.6s						
SNY				LR	LR		
	comp=N,200nm,7.2s						
SNY				LR	LR		
	comp=E,180nm,6.0s						
SNY				LR	LR		
	comp=Z,130nm,9.6s						
HABR	Khabarovsk	14.18	352	*e*P	Pn	08 27 49.2	-2.7
HABR				*e*S	S	08 30 24.4	-3.8
HABR				MLR	MLR		
	comp=Z,80nm,13.0s						
KLR	Kul’dur	15.47	345	⇓*i*P	Pn	08 28 01.6	-5.6
YHNB	Yeheng	17.37	240	*e*P	P	08 28 27.4	+0.5
	comp=Z,28nm,0.9s						
NACB	Ninganchiao	17.53	239	*e*P	P	08 28 28.1	-0.4
	comp=Z,25nm,0.4s						
BJI	Beijing	18.19	294	P	P	08 28 34.0	-1.5
BJI				sP	sP	08 29 48.8	-5.5
BJI				S	S	08 31 49.8	+1.0
BJI				pmax	pmax		
	comp=Z,54nm,0.6s						
BJT	Baijiatuau	18.19	294	*e*P	P	08 28 33.3	-2.2
BJT				pmax	pmax		
	comp=Z,50nm,0.5s						
BJT	Baijiatuau	18.19	294	*e*P	P	08 28 33.3	-2.3
	comp=Z,50nm,0.5s						
SSLB	Suanglung	18.22	239	*e*P	P	08 28 33.8	-2.2
	comp=Z,17nm,0.6s						
YULB	Yu-li	18.24	237	*e*P	P	08 28 33.9	-2.3
	comp=Z,16nm,0.8s						
TPUB	Ta-pu	18.76	238	*e*P	P	08 28 40.4	-1.5
	comp=Z,25nm,0.6s						
TWG	Pinlang	18.77	236	*e*P	P	08 28 41.8	-0.1
	comp=Z,30nm,0.5s						
HIA	Hailar	20.00	323	*e*P	P	08 28 53.1	-1.6
HIA				pmax	pmax		
	comp=Z,18nm,0.7s						
HIA	Hailar	20.00	323	*e*P	P	08 28 53.1	-1.5
	comp=Z,18nm,0.7s						
WHN	Wuhan	20.26	265	⇑P	P	08 28 56.9	-0.8
GUMO	Guam	21.69	161	P	P	08 29 10.2	-1.5
GUMO				pmax	pmax		
	comp=Z,44nm,0.4s,mb5.1						
GUMO	Guam	21.69	161	P	P	08 29 10.2	-1.4
	comp=Z,44nm,0.4s,mb5.2,baz=166,slow=5.4,SNR=5.5						
GUMO	Guam	21.69	161	*e*P	P	08 29 10.1	-1.5
	comp=Z,167nm,0.9s,mb5.4						
HHC	Hu-ho-hao-te	21.80	295	*e*P	P	08 29 12.8	+0.4
HHC				*e*S	S	08 32 52.1	-0.9
HHC				PcP	PcP	08 33 04.3	+3.0
HHC				ScP	ScP	08 36 15.8	+4.4
HHC				PcS	PcS	08 36 41.8	+2.0
HHC				pmax	pmax		
	comp=Z,69nm,0.7s,mb5.1						
HHC				pmax	pmax		
	comp=Z,150nm,3.7s						
PETK	Petropavlovsk-	23.35	31	P	P	08 29 26.7	+0.3
	comp=Z,2.7nm,1.0s,mb3.5,baz=235,slow=4.2,SNR=4.3						
PETK	Petropavlovsk-	23.35	31	P	P	08 29 26.7	+0.3
XAN	Xi’an	23.96	277	P	P	08 29 31.3	-0.8
XAN				sP	sP	08 30 51.5	-5.6
XAN				S	S	08 33 29.6	+1.8
XAN				ScS	ScS	08 40 06.6	+1.9
XAN				pmax	pmax		
	comp=Z,35nm,0.6s,mb4.9						
XAN				pmax	pmax		
	comp=Z,90nm,5.7s						
ULN	Ulaanbaatar	26.64	310	*e*P	P	08 29 57.3	+1.3
ULN				pmax	pmax		
	comp=Z,25nm,0.9s,mb4.6						
ULN	Ulaanbaatar	26.64	310	*e*P	P	08 29 57.3	+1.3
	comp=Z,25nm,0.9s,mb4.7						
SONM	Songino Array	27.05	309	P	P	08 30 00.9	+1.3
	comp=Z,9.0nm,0.5s,mb4.5,baz=117,slow=9.7,SNR=73						
SONM				PcP	PcP	08 33 13.5	+0.7
	comp=Z,1.2nm,0.7s,baz=145,slow=1.1,SNR=5.5						
LZH	Lanzhou	27.81	283	⇑P	P	08 30 05.5	-1.0
LZH				PP	PP	08 31 15.8	+0.3
LZH				S	S	08 34 21.5	-6.8
LZH				pmax	pmax		
	comp=Z,37nm,1.3s,mb4.7						
LZH				pmax	pmax		
	comp=Z,150nm,4.5s						
GYA	Guiyang	28.03	262	⇓*i*P	P	08 30 07.5	-1.1
GYA				pP	pP	08 30 57.1	-5.5
GYA				PcP	PcP	08 33 18.3	+2.7
GYA				S	S	08 34 30.3	-1.7
GYA				ScP	ScP	08 36 33.3	+4.0
GYA				PcS	PcS	08 36 59.1	+1.0
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.6						
GYA				pmax	pmax		
	comp=Z,110nm,5.8s						
YAK	Yakutsk	28.10	352	*e*P	P	08 30 04.4	-4.3
YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.1						
CD2	Chengdu	28.91	273	⇓*i*P	P	08 30 15.1	-1.2
CD2				pP	pP	08 31 07.0	-3.5
CD2				PcP	PcP	08 33 20.4	+2.7
CD2				S	S	08 34 45.6	-0.1
CD2				pmax	pmax		
	comp=Z,120nm,0.6s,mb5.5						

CD2				pmax	pmax		
	comp=Z,120nm,4.9s						
ZAK	Zakamensk	29.80	313	*e*P	P	08 30 24.3	+0.4
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.1						
TLY	Talaya	30.04	316	*e*P	P	08 30 27.3	+1.4
TLY				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.3						
TLY	Talaya	30.04	316	*e*P	P	08 30 27.2	+1.2
	comp=Z,22nm,1.4s,mb4.5						
GTA	Gaotai	30.72	291	*e*P	P	08 30 31.9	-0.2
GTA				pP	pP	08 31 23.8	-2.9
GTA				PcP	PcP	08 33 23.4	+1.1
GTA				ScP	ScP	08 36 39.5	+1.7
GTA				ScS	ScS	08 40 35.6	+0.7
GTA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.3						
KMI	Kunming	31.80	263	P	P	08 30 40.9	-0.8
KMI				pP	pP	08 31 31.5	-4.9
KMI				sP	sP	08 32 04.3	-4.5
KMI				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.0						
KMI				pmax	pmax		
	comp=Z,35nm,3.6s						
BILL	Bilibino	37.32	17	*e*P	P	08 31 27.1	-1.0
BILL				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb3.7						
TIXI	Tiksi	37.58	355	*e*P	P	08 31 29.3	-1.0
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.6						
CHTO	Chiang Mai	37.92	256	*e*P	P	08 31 33.2	-0.6
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.1						
CHTO	Chiang Mai	37.92	256	*e*P	P	08 31 33.2	-0.6
	comp=Z,7.3nm,0.8s,mb4.2						
CMAR	Chiang Mai Arr	38.11	255	P	P	08 31 34.7	-0.7
	comp=Z,4.5nm,0.6s,mb4.1,baz=48,slow=7.3,SNR=21						
WMQ	Urumqi	39.55	299	P	P	08 31 47.3	+0.3
WMQ				pP	pP	08 32 40.0	-3.6
WMQ				pmax	pmax		
	comp=Z,26nm,0.9s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,330nm,5.8s						
LSA	Lhasa	39.66	276	P	P	08 31 48.3	+0.2
LSA	Lhasa	39.66	276	*e*P	P	08 31 48.2	+0.1
LSA				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.1						
LSA	Lhasa	39.66	276	*e*P	P	08 31 48.2	+0.1
	comp=Z,9.1nm,0.9s,mb4.1						
ZAA0	Zalesovo Array	41.64	315	*e*P	P	08 32 03.6	-0.2
ZALV	Zalesovo Beam	41.64	315	P	P	08 32 03.8	0.0
ZALV						08 33 54.7	
ZALV	Zalesovo Beam	41.64	315	P	P	08 32 03.8	-0.1
	comp=Z,6.8nm,0.4s,mb4.3,baz=104,slow=8.1,SNR=26						
ZALV				PcP	PcP	08 33 54.7	-0.1
	comp=Z,1.7nm,0.5s,baz=93,slow=3.0,SNR=5.0						
ZALV				ScP	ScP	08 37 18.1	+0.3
	comp=Z,0.6nm,0.4s,baz=69,slow=8.1,SNR=3.6						
NVS	Novosibirsk	42.65	316	*e*P	P	08 32 11.9	0.0
NVS				pmax	pmax		
	comp=N,2.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.3						
NVS				pmax	pmax		
	comp=E,7.0nm,0.6s						
KAPI	Kappang	42.84	207	P	P	08 32 12.3	-1.6
	comp=E,5.3nm,0.7s,mb3.9,baz=353,slow=1.8,SNR=4.0						
MK31	Makanchi Array	43.16	304	P	P	08 32 15.9	-0.2
MK31				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb4.4						
MKAR	Makanchi Array	43.16	304	P	P	08 32 16.6	+0.5
MKAR						08 34 00.1	
MKAR	Makanchi Array	43.16	304	P	P	08 32 16.6	+0.5
	comp=Z,19nm,0.6s,mb4.5,baz=91,slow=10.0,SNR=213						
MKAR				PcP	PcP	08 34 00.1	+0.1
	comp=Z,1.9nm,0.6s,baz=67,slow=3.2,SNR=5.2						
MKAR				ScP	ScP	08 37 23.6	-0.4
	comp=Z,1.2nm,0.6s,baz=84,slow=5.0,SNR=8.4						
TAPN	Taplejung	43.32	275	*e*P	P	08 32 17.5	-0.2
	comp=Z,47nm,0.3s,mb5.1						
ODAN	Odare	43.77	274	*e*P	P	08 32 20.9	-0.3
	comp=Z,23nm,0.3s,mb4.9						
RAMN	Ramite	44.38	275	*e*P	P	08 32 25.9	-0.2
	comp=Z,58nm,0.4s,mb5.2						
JIRN	Jiri	44.45	276	*e*P	P	08 32 27.1	+0.5
	comp=Z,179nm,0.4s						
GUN	Gumba	44.62	276	*e*P	P	08 32 28.2	+0.3
	comp=Z,37nm,0.3s,mb5.1						
PKI	Pulchoki	45.13	276	*e*P	P	08 32 31.6	-0.3
	comp=Z,41nm,0.5s,mb5.0						
PKI	Pulchoki	45.13	276	*e*P	P	08 32 31.6	-0.3
PKI				pmax	pmax		
	comp=Z,41nm,0.5s,mb4.9						
PKIN	Phulchoki	45.14	276	*e*P	P	08 32 31.5	-0.5
	comp=Z,36nm,0.4s,mb4.9						
KKN	Kakani	45.15	277	*e*P	P	08 32 32.0	-0.1
	comp=Z,68nm,0.6s,mb5.0						
KKN	Kakani	45.15	277	*e*P	P	08 32 32.0	-0.1
KKN				pmax	pmax		
	comp=Z,68nm,0.6s,mb5.0						
KURK	Kurchatov	45.36	310	*e*P	P	08 32 33.2	-0.2
KURK				pmax	pmax		
	comp=Z,32nm,1.0s,mb4.5						
KURK	Kurchatov	45.36	310	*e*P	P	08 32 33.2	-0.2
	comp=Z,32nm,1.0s,mb4.5						
DMN	Daman	45.36	276	*e*P	P	08 32 33.5	-0.3
	comp=Z,22nm,0.4s,mb4.8						
GKN	Gorkha	45.60	277	*e*P	P	08 32 35.4	-0.2
	comp=Z,37nm,0.3s,mb5.1						
DANN	Dangsing	46.19	278	*e*P	P	08 32 40.6	+0.4
	comp=Z,158nm,0.4s						
KOLN	Koldanda	46.54	277	*e*P	P	08 32 42.8	-0.1
	comp=Z,12nm,0.3s,mb4.7						
KAKA	Kakadu	47.19	187	⇑*i*P	P	08 32 46.6	-1.3
	comp=Z,10nm,0.6s,mb4.3						
KAKA	Kakadu	47.19	187	*e*P	P	08 32 46.6	-1.3
COEN	Coen	48.39	173	*e*P	P	08 32 57.0	-0.1
	comp=Z,64nm,0.6s,mb5.1						
TKM2	Tokmak 2	48.41	300	P	P	08 32 57.8	+0.8
TKM2				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.3						
TKM2	Tokmak 2	48.41	300	P	P	08 32 58.2	+1.2
	SNR=13						
TKM2	Tokmak 2	48.41	300	*e*P	P	08 32 58.0	+1.0
	comp=Z,13nm,0.6s,mb4.4						
KZA	Kyzart	48.84	299	P	P	08 33 02.1	+1.8
	SNR=6.7						
KSH	Kashi	48.91	295	P	P	08 33 04.5	+3.7
KSH				*e*PP	PP	08 34 54.3	-2.6
KSH				*e*S	S	08 39 46.3	+3.7
KSH				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.4						
KSH				pmax	pmax		
	comp=Z,270nm,4.4s						
KSH				LR	LR		
	comp=N,540nm,7.9s						
KSH				LR	LR		
	comp=E,720nm,14.1s						
KSH				LR	LR		
	comp=Z,250nm,7.3s						
KBK	Karagaybulak	48.93	299	P	P	08 33 01.9	+1.0
	SNR=8.3						
USP	Ospenovka	49.12	300	P	P	08 33 02.8	+0.4
	SNR=7.2						
AAK	Ala-Archa	49.26	299	*e*P	P	08 33 04.0	+0.6
AAK				*e*		08 34 21.7	
AAK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.2						
AAK	Ala-Archa	49.26	299	P	P	08 33 04.0	+0.6
	SNR=8.6						
AAK	Ala-Archa	49.26	299	P	P	08 33 04.2	+0.7
	comp=Z,7.6nm,0.6s,mb4.2,baz=117,slow=5.6,SNR=21						
AAK	Ala-Archa	49.26	299	*e*P	P	08 33 04.0	+0.6
	comp=Z,9.5nm,0.7s,mb4.2						
AAK				*e*PcP	PcP	08 34 21.7	-0.1
UCH	Uchtor	49.34	299	P	P	08 33 05.5	+1.5
	SNR=7.4						
EKS2	Erkin-Say	49.77	300	P	P	08 33 08.0	+0.8
	SNR=6.9						
AML	Almayashu	49.95	299	P	P	08 33 10.2	+1.5
	SNR=42						
BVA0	Borovoye Array	50.26	313	P	P	08 33 10.4	-0.3
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.6						
BVAR	Borovoye Array	50.26	313	ScP	ScP	08 37 53.8	+0.1
	comp=Z,0.7nm,0.5s,baz=117,slow=3.3,SNR=3.7						
BRVK	Borovoye	50.32	313	*e*P	P	08 33 11.3	+0.1
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.0						
BRVK	Borovoye	50.32	313	*e*P	P	08 33 11.3	+0.2
	comp=Z,7.5nm,0.9s,mb4.0						
KK31	Karatay Array	52.00	301	*i* P	P	08 33 23.8	0.0
KK31				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.2						
FITZ	Fitzroy Crossi	53.55	195	*e*P	P	08 33 34.9	-0.3
	comp=Z,3.5nm,0.3s,mb4.2						
FITZ	Fitzroy Crossi	53.55	195	P	P	08 33 34.6	-0.6
	comp=Z,2.5nm,0.4s,mb3.9,baz=348,slow=8.5,SNR=20						
FITZ	Fitzroy Crossi	53.55	195	*e*P	P	08 33 34.8	-0.5
	comp=Z,6.6nm,1.0s,mb3.9						
WRAB	Tennant Creek	54.18	184	*e*P	P	08 33 38.0	-1.8
WRAB				pmax	pmax		
	comp=Z,29nm,1.5s,mb4.4						
WRAB	Tennant Creek	54.18	184	*e*P	P	08 33 38.0	-1.8
	comp=Z,29nm,1.5s,mb4.4						
WRA	Warramunga Arr	54.19	184	P	P	08 33 39.1	-0.8
	comp=Z,7.8nm,0.3s,mb4.5,baz=0.7,slow=7.6,SNR=267						
CTA	Charters Tower	54.80	170	⇓*i*P	P	08 33 44.2	0.0
	comp=Z,4.1nm,0.6s,mb4.0						
CTAO	Charters Tower	54.80	170	*e*P	P	08 33 44.2	0.0
CTAO				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.0						
CTAO	Charters Tower	54.80	170	*e*P	P	08 33 44.2	0.0
	comp=Z,7.2nm,1.0s,mb4.1						
HYB	Hyderabad	55.30	268	*i* P	P	08 33 48.5	+0.6
HYB	Hyderabad	55.30	268	*e*P	P	08 33 47.0	-0.9
KBL	Kabul	55.71	291	*e*P	P	08 33 50.3	-0.3
KBL				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.3						
KBL	Kabul	55.71	291	*e*P	P	08 33 50.3	-0.4
	comp=Z,11nm,0.8s,mb4.3						
ARU	Arti	56.44	319	*d i*P	P	08 33 55.5	+0.1
ARU				*e*		08 36 03.0	
ARU				S	S	08 41 22.8	-0.9
ARU				SS	SS	08 45 13.2	-1.7
ARU				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.7						
ARU	Arti	56.44	319	*e*P	P	08 33 55.4	0.0
	comp=Z,38nm,1.1s,mb4.7						
AB31	Akbulak array	57.46	311	P	P	08 34 02.1	-0.5
AB31				pmax	pmax		
	comp=Z,31nm,0.7s,mb4.8						
ASAR	Alice Springs	57.92	184	P	P	08 34 05.6	-0.4
	comp=Z,4.5nm,0.3s,mb4.3,baz=356,slow=4.7,SNR=212						
INK	Inuvik	57.96	26	*e*P	P	08 34 06.7	+0.9
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	57.96	26	P	P	08 34 06.0	+0.2
	comp=Z,0.9nm,0.5s,mb3.5,baz=309,slow=6.5,SNR=13						
INK	Inuvik	57.96	26	*e*P	P	08 34 06.7	+0.9
	comp=Z,0.9nm,0.6s,mb3.4						
AKTO	Aktyubinsk	58.31	312	P	P	08 34 07.7	-0.8
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
PALK	Pallekele	59.04	257	P	P	08 34 13.1	-0.9
	comp=Z,7.9nm,0.7s,mb4.2,baz=47,slow=4.6,SNR=4.9						
EIDS	Eidsvold	60.78	166	*e*P	P	08 34 26.2	+0.7
	comp=Z,5.7nm,0.7s,mb4.2						
PRGR	Permogore	61.40	327	*e*P	P	08 34 28.4	-0.8
PRGR				pmax	pmax		
	comp=Z,61nm,1.1s,mb5.0						
KLMR	Klimovskoe	64.42	328	*e*P	P	08 34 48.1	-1.0
KLMR				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.5						
KEV	Kevo	64.85	339	*e*p	P	08 34 51.3	-0.3
ARCES	ARCESS Array B	65.41	339	P	P	08 34 55.5	+0.3
	comp=Z,2.4nm,0.5s,mb4.1,baz=68,slow=9.5,SNR=19						
FORT	Forrest	65.54	189	*e*P	P	08 34 56.3	-0.2
	comp=Z,24nm,0.9s,mb4.9						
FORT	Forrest	65.54	189	*e*P	P	08 34 56.2	-0.3
	comp=Z,31nm,0.9s,mb5.0						
RES	Resolute Bay	65.79	13	P	P	08 34 58.2	+0.6
RES				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
RES	Resolute Bay	65.79	13	P	P	08 34 58.1	+0.6
	comp=Z,2.6nm,0.5s,mb4.3,baz=306,slow=6.7,SNR=25						
RES	Resolute Bay	65.79	13	*e*P	P	08 34 58.3	+0.7
	comp=Z,36nm,2.3s,mb4.7						
ARMA	Armidale	65.80	167	⇓*i*P	P	08 34 59.1	+1.0
ARMA	Armidale	65.80	167	*e*P	P	08 34 58.9	+0.7
	comp=Z,6.8nm,0.7s,mb4.5						
STKA	Stephens Creek	66.06	177	*e*P	P	08 35 00.1	+0.3
	comp=Z,4.9nm,1.3s,mb4.1						
STKA	Stephens Creek	66.06	177	P	P	08 34 60.0	+0.2
	comp=Z,2.0nm,0.5s,mb4.1,baz=6.9,slow=8.8,SNR=11						
JOF	Joensuu	66.90	332	*e*p	P	08 35 03.2	-1.6
	comp=Z,6.9nm,0.5s,mb4.6						
YKA	Yellowknife Ar	67.45	29	P	P	08 35 08.2	0.0
	comp=Z,0.4nm,0.4s,mb3.5,baz=302,slow=6.1,SNR=7.4						
OBN	Obninsk	68.46	323	⇑*e*P	P	08 35 13.6	-1.0
OBN				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
OBN				pmax	pmax		
	comp=Z,34nm,1.6s,mb4.8						
KAF	Kangasniemi	69.29	332	*e*P	P	08 35 18.0	-1.6
KAF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.7						
KAF	Kangasniemi	69.29	332	*e*p	P	08 35 18.0	-1.6
	comp=Z,7.6nm,0.5s,mb4.7						
KIV	Kislovodsk	70.44	310	⇓*e*P	P	08 35 28.2	+1.3
KIV				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.0						
KIV	Kislovodsk	70.44	310	*e*P	P	08 35 27.8	+1.0
	comp=Z,25nm,0.7s,mb5.0						
GNI	Garni	70.96	306	⇑*e*P	P	08 35 30.8	+0.7
GNI				pmax	pmax		
	comp=Z,6.0nm,1.1s						
SUMG	Summit	73.24	359	*e*P	P	08 35 44.9	+1.9
	comp=Z,8.3nm,0.8s,mb4.4						
AKASG	Malin Array Be	74.58	321	P	P	08 35 50.5	-0.6
	comp=Z,7.0nm,0.5s,mb4.5,baz=48,slow=6.1,SNR=21						
NB2	NORSAR Subarra	75.44	336	P	P	08 35 55.5	-0.3
	comp=Z,3.3nm,0.6s,mb4.1,baz=43,slow=5.6						
NOA	NORSAR Array B	75.44	336	P	P	08 35 55.8	0.0
	comp=Z,4.5nm,0.7s,mb4.2,baz=42,slow=5.7,SNR=12						
MALT	Malatya	76.10	307	*e*P	P	08 36 01.1	+1.2
MALT				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.0						
MALT	Malatya	76.10	307	⇓*i*P	P	08 36 01.5	+1.6
MALT	Malatya	76.10	307	*e*P	P	08 36 01.1	+1.1
	comp=Z,3.8nm,1.1s,mb3.9						
BRTR	Keskin Array B	78.41	310	P	P	08 36 13.2	+0.6
	comp=Z,2.1nm,0.4s,mb4.2,baz=68,slow=2.9,SNR=14						
BUR08	Bucovina Ar. S	78.53	320	*e*P	P	08 36 13.6	+0.4
BURAR	Bucovina Array	78.55	320	⇑*i*P	P	08 36 13.8	+0.6
BURAR	Bucovina Array	78.55	320	⇑P	P	08 36 13.8	+0.5
NVAR	Mina Array Bea	78.81	51	P	P	08 36 16.2	+1.4
	comp=Z,0.5nm,0.4s,mb3.6,baz=292,slow=7.3,SNR=2.5						
VRI	Vrincioaia	78.82	318	⇓*i*P	P	08 36 15.5	+0.7
VRI	Vrincioaia	78.82	318	⇓P	P	08 36 15.5	+0.7
PLOR	Plostina	78.88	318	⇑*i*P	P	08 36 15.9	+0.8
HARR	Harsova	78.88	317	⇑*i*P	P	08 36 15.6	+0.5
HARR	Harsova	78.88	317	⇑P	P	08 36 15.7	+0.6
STHS	Stebnicka Huta	79.40	324	*e*P	P	08 36 17.8	0.0
STHS				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.1						
STHS	Stebnicka Huta	79.40	324	*e*P	P	08 36 17.8	0.0
	comp=Z,5.7nm,1.5s,mb4.1						
MLR	Muntele Rosu	79.49	318	⇑*i*P	P	08 36 18.9	+0.5
MLR	Muntele Rosu	79.49	318	⇑P	P	08 36 18.9	+0.6
CRVS	Cervenica-Dubn	79.64	323	*e*P	P	08 36 19.2	+0.1
CRVS	Cervenica-Dubn	79.64	323	*e*P	P	08 36 19.3	+0.2
FRB	Frobisher Bay	79.90	12	P	P	08 36 20.3	+0.1
	comp=Z,2.9nm,0.5s,mb4.2,baz=348,slow=6.4,SNR=13						
VOIR		80.01	319	⇓*i*P	P	08 36 22.2	+1.0
VOIR		80.01	319	⇓P	P	08 36 22.2	+1.0
MORC	Moravsky Berou	80.93	326	*e*P	P	08 36 25.9	-0.1
MORC				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
MORC	Moravsky Berou	80.93	326	⇓*i*P	P	08 36 26.4	+0.4
MORC	Moravsky Berou	80.93	326	*e*P	P	08 36 25.9	-0.1
	comp=Z,5.8nm,0.6s,mb4.5						
DPC	Dobruska-Polom	81.10	326	*e*P	P	08 36 27.6	+0.8
UPC	Upice	81.13	327	*e*P	P	08 36 27.5	+0.5
VYHS	Vyhne	81.20	324	*e*P	P	08 36 27.6	+0.2
VYHS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
VYHS	Vyhne	81.20	324	*e*P	P	08 36 27.6	+0.2
	comp=Z,3.0nm,0.7s,mb4.1						
GZR	Gura Zlata	81.26	320	⇑*i*P	P	08 36 28.4	+0.6
GZR	Gura Zlata	81.26	320	⇑P	P	08 36 28.4	+0.6
PDAR	Pinedale Array	81.49	43	P	P	08 36 29.1	+0.1
	comp=Z,0.4nm,0.8s,baz=153,slow=0.2,SNR=3.3						
PVCC	Panska Ves	81.76	327	*e*P	P	08 36 31.2	+0.9
CLL	Collm	81.88	329	*e*P	P	08 36 31.0	+0.1
MODS	Modra-Piesok	82.03	325	*e*P	P	08 36 33.0	+1.3
MODS				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.0						
MODS	Modra-Piesok	82.03	325	*e*P	P	08 36 33.0	+1.3
	comp=Z,3.1nm,1.0s,mb4.0						
PRU	Pruhonice	82.16	327	*e*P	P	08 36 32.9	+0.5
NKC	Novy Kostel	82.91	328	*e*P	P	08 36 37.2	+1.0
KHC	Kasperske Hory	83.22	327	*e*P	P	08 36 38.0	+0.2
ROTZ	Rotzenmuhle	83.36	328	*e*P	P	08 36 39.5	+1.0
	comp=Z,32nm,1.6s,mb4.9						
GEC2	GERESS Array S	83.37	327	*e*P	P	08 36 38.8	+0.2
GEC2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
GEC2	GERESS Array S	83.37	327	*e*P	P	08 36 38.8	+0.2
	comp=Z,7.0nm,0.8s,mb4.5						
GERES	GERESS Array B	83.37	327	P	P	08 36 38.7	+0.1
	comp=Z,4.6nm,0.6s,mb4.5,baz=46,slow=5.8,SNR=13						
WET	Wettzell	83.52	327	*e*P	P	08 36 40.0	+0.7
WET				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
WET	Wettzell	83.52	327	*e*P	P	08 36 40.0	+0.7
	comp=Z,7.0nm,1.0s,mb4.5						
GRA1	Grafenberg Arr	83.84	328	*e*P	P	08 36 41.8	+0.9
	comp=Z,11nm,0.9s,mb4.7						
GRF	Grafenberg Arr	83.84	328	*e*P	P	08 36 41.8	+0.9
GRF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
GRF	Grafenberg Arr	83.84	328	*e*P	P	08 36 41.8	+0.9
GRF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
GRF	Grafenberg Arr	83.84	328	*e*P	P	08 36 41.8	+0.9
	comp=Z,11nm,0.9s,mb4.7						
CDF	Champ du Feu	86.50	330	*e*P	P	08 36 54.2	+0.1
HINF	Hinteralfeld	87.14	329	*e*P	P	08 36 57.1	-0.1
	comp=Z,2.2nm,0.3s,mb4.1						
HAU	Haudompre	87.20	330	*e*P	P	08 36 56.7	-0.8
	comp=Z,3.6nm,0.4s,mb4.3						
CABF	La Chapelle	88.41	329	*e*P	P	08 37 02.7	-0.5
	comp=Z,11nm,0.8s,mb4.5						
CABF	La Chapelle	88.41	329	*e*P	P	08 37 02.7	-0.5
CABF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
CABF	La Chapelle	88.41	329	*e*P	P	08 37 02.7	-0.5
	comp=Z,5.6nm,0.8s,mb4.5						
LPG	La Plagne	89.00	328	*e*P	P	08 37 06.1	+0.1
	comp=Z,6.4nm,0.5s,mb4.4						
LPG	La Plagne	89.00	328	*e*P	P	08 37 06.1	+0.1
LPG				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
LPG	La Plagne	89.00	328	*e*P	P	08 37 06.1	+0.1
	comp=Z,3.2nm,0.5s,mb4.4						
AVF	Avril sur Loir	89.40	331	*e*P	P	08 37 07.4	-0.4
MFF	Saint Martin d	90.93	333	*e*P	P	08 37 14.9	0.0
	comp=Z,11nm,0.8s,mb4.4						
MFF	Saint Martin d	90.93	333	*e*P	P	08 37 14.9	0.0
MFF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
MFF	Saint Martin d	90.93	333	*e*P	P	08 37 14.9	0.0
	comp=Z,5.3nm,0.8s,mb4.4						
RJF	Les Rejaudoux	91.36	331	*e*P	P	08 37 17.1	+0.2
LFF	La Frestale	91.97	331	*e*P	P	08 37 20.1	+0.4
	comp=Z,14nm,0.5s,mb4.8						
LFF	La Frestale	91.97	331	*e*P	P	08 37 20.1	+0.4
LFF				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
LFF	La Frestale	91.97	331	*e*P	P	08 37 20.1	+0.4
	comp=Z,6.8nm,0.5s,mb4.8						
TORD	Torodi Ar. Bea	117.02	311	PKP	PKPdf	08 42 53.7	-1.2
	comp=Z,0.7nm,0.6s,baz=84,slow=1.1,SNR=10						
BOSA	Boshof	123.26	256	PKIKP	PKPdf	08 43 05.9	-0.6
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BOSA	Boshof	123.26	256	PKP	PKPdf	08 43 05.9	-0.6
	comp=Z,1.0nm,0.6s,baz=124,slow=3.6,SNR=2.6						
DBIC	Dimbokro	126.08	312	PKIKP	PKPdf	08 43 12.5	+0.1
DBIC				pmax	pmax		
	comp=Z,3.0nm,1.0s						
DBIC	Dimbokro	126.08	312	PKP	PKPdf	08 43 12.4	+0.1
	comp=Z,3.3nm,1.0s,baz=333,slow=2.3,SNR=3.0						

NEIC ***22*** *08:33:43.7, 36°.33N×21°.77E, h14km, MD3.8(ATH), After ATH.*

THE ***22*** *08:33:43.9, 36°.34N×21°.68E, h0km±2km, ML4.0/3, Error ellipse: s-maj=2.9km s-min=0.8km az=246.0*

ATH ***22*** *08:33:43.7, 36°.33N×21°.77E, h14km±2km, MD3.8/8*

ISCJB ***22*** *08:33:44.4±0.8, 36°.34N±0°.04×21°.74E±0°.06, h10km, Error ellipse: s-maj=7.7km s-min=4.2km az=150.6*

CSEM ***22*** *08:33:44.2±0.4, 36°.39N×21°.75E, h2km, MD3.8, Error ellipse: s-maj=10.3km s-min=5.3km az=56.0*

ISC 22 08:33:45.1±0.8**, 36°.34N**±0°.04×**21°.76E**±0°.06**, h10km, n54, σ1§28**/73**, 2C-2D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.56	359	P	Pg	08 33 54.1	-1.8
PYL				S	Sg	08 34 02.9	-0.3
PYL	PYLOS	0.56	359	⇓*i*PB	Pg	08 33 54.2	-1.7
PYL				*e*SB	Sg	08 34 02.6	-0.6
PYL	PYLOS	0.56	359	⇓*i*Pb	Pg	08 33 54.2	-1.7
PYL				*e*Sb	Sg	08 34 02.6	-0.6
ITM	Ithomi	0.85	9	*e*PB	Pg	08 34 00.0	-1.5
ITM				*e*SB	Sg	08 34 12.6	+0.1
ITM	Ithomi	0.85	9	*e*Pb	Pg	08 34 00.0	-1.5
ITM				*e*Sb	Sg	08 34 12.6	+0.1
VLI	Veliai	1.02	68	*e*PB	Pg	08 34 03.0	-1.8
VLI				*e*SB	Sg	08 34 17.3	-0.8
VLI	Veliai	1.02	68	*e*Pb	Pg	08 34 03.0	-1.8
VLI				*e*Sb	Sg	08 34 17.3	-0.8
KYTH	Kithira	1.04	93	*e*PN	Pg	08 34 03.3	-1.7
VLX	Vlachokerasia	1.14	26	*e*PG	Pn	08 34 05.1	-2.0
VLX	Vlachokerasia	1.14	26	*e*Pg	Pn	08 34 05.1	-2.0
GUR	Goura	1.66	16	*e*PB	Pn	08 34 14.4	+0.2
GUR	Goura	1.66	16	*e*Pb	Pn	08 34 14.4	+0.2
DID	Didima	1.66	45	P	Pn	08 34 13.9	-0.4
DID				S	Sn	08 34 37.5	+1.8
DID	Didima	1.66	45	*e*PB	Pb	08 34 14.1	-1.7
DID	Didima	1.66	45	P	Pn	08 34 13.9	-0.4
DID				S	Sn	08 34 37.5	+1.8
RLS	Riolos of Patr	1.73	352	*e*PG	Pn	08 34 16.1	+0.9
RLS	Riolos of Patr	1.73	352	*e*Pg	Pn	08 34 16.1	+0.9
LTK	Loutraki	1.94	30	P	Pn	08 34 18.1	0.0
LTK				S	Sn	08 34 44.6	+2.1
LTK	Loutraki	1.94	30	*e*PG	Pg	08 34 20.0	-2.3
LTK	Loutraki	1.94	30	P	Pn	08 34 18.1	0.0
LTK	Loutraki	1.94	30	*e*Pg	Pg	08 34 20.0	-2.3
LTK				S	Sn	08 34 44.6	+2.1
NAIG	Nisos Aigina	1.98	44	*e*PN	Pn	08 34 18.9	+0.3
NAIG	Nisos Aigina	1.98	44	*e*Pn	Pn	08 34 18.9	+0.3
KARN	Karanos	1.99	117	P	Pn	08 34 18.7	0.0
KARN				S	Sn	08 34 46.5	+2.8
KARN	Karanos	1.99	117	P	Pn	08 34 18.7	0.0
KARN				S	Sn	08 34 46.5	+2.8
VLS	Valsamata	2.06	333	P	Pn	08 34 19.0	-0.7
VLS	Valsamata	2.06	333	*e*PN	Pn	08 34 20.3	+0.6
VLS	Valsamata	2.06	333	P	Pn	08 34 19.0	-0.7
VLS	Valsamata	2.06	333	*e*Pn	Pn	08 34 20.3	+0.6
EFP	Efpalio	2.09	3	*e*PG	Pn	08 34 22.3	+2.2
EFP	Efpalio	2.09	3	*e*Pg	Pn	08 34 22.3	+2.2
VAM	Vamos	2.19	114	*e*PN	Pn	08 34 22.0	+0.5
VAM	Vamos	2.19	114	*e*Pn	Pn	08 34 22.0	+0.5
ATHU	Athens Univers	2.29	44	P	Pn	08 34 22.9	0.0
ATHU	Athens Univers	2.29	44	P	Pn	08 34 22.9	0.0
LKR	Lokris	2.51	23	P	Pn	08 34 25.3	-0.6
LKR				S	Sn	08 34 58.6	+2.0
LKR	Lokris	2.51	23	*e*PB	Pn	08 34 25.3	-0.6
LKR	Lokris	2.51	23	P	Pn	08 34 25.3	-0.6
LKR				S	Sn	08 34 58.6	+2.0
EVR	Evrytania	2.57	1	*e*PN	Pn	08 34 28.5	+1.7
EVR	Evrytania	2.57	1	*e*Pn	Pn	08 34 28.5	+1.7
AGG	Agios Georgios	2.72	9	P	Pn	08 34 29.1	+0.4
AGG				S	Sn	08 35 02.8	+1.1
AGG	Agios Georgios	2.72	9	P	Pn	08 34 29.1	+0.4
AGG				S	Sn	08 35 02.8	+1.1
SIVA	Sivas	2.81	117	P	Pn	08 34 30.9	+0.8
SIVA	Sivas	2.81	117	P	Pn	08 34 30.9	+0.8
XOR	Xorichti	3.23	20	P	Pn	08 34 35.5	-0.3
LAST	Lasithi	3.25	110	P	Pn	08 34 36.9	+0.8
LAST	Lasithi	3.25	110	P	Pn	08 34 36.9	+0.8

MEV	**Metsovon**	3.46	353	P	Pn	08 34 38.6	-0.4
LIT	**Litokhoron**	3.80	9	P	Pn	08 34 43.9	+0.3
LIT	**Litokhoron**	3.80	9	P	Pn	08 34 43.9	+0.3
FNA	**Florina**	4.45	356	P	Pn	08 34 52.3	-0.2
FNA				S	Sn	08 35 46.5	+2.2
FNA	**Florina**	4.45	356	P	Pn	08 34 52.3	-0.2
FNA				S	Sn	08 35 46.5	+2.2
BARS	**Barje**	6.47	0	⇑iPn	Pn	08 35 19.2	-1.1
DIVS	**Divibare**	7.87	351	⇑iPn	Pn	08 35 36.8	-2.7

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*NIED **22** 08:34:00, 31°.10N×132°.20E, h11^{km}, Mw4.1 Best double couple: M$_0$1.64000×10^{15} NP1:φ$_s$152.00000°, δ51.00000°, λ-107.00000°. NP2:φ$_s$357.00000°, δ42.00000°, λ-71.00000°.*

*IDC **22** 08:34:44.8±0.5, 31°.13N×132°.03E, h0^{km}, mb4.2/20, mb1 4.4/22, mb1mx4.3/31, mbtmp4.3/22, ML4.2/2, MS3.1/4, Ms1 3.1/4, ms1mx2.7/44, Error ellipse: s-maj=17.6km s-min=14.1km az=85.0*

*MOS **22** 08:34:45.4±0.8, 31°.11N×132°.07E, h18^{km}, mb4.5/7, Error ellipse: s-maj=15.7km s-min=10.5km az=99.0*

*ISCJB **22** 08:34:47.7±1.8, 31°.09N±0°.06×132°.21E±0°.06, h32^{km}±13^{km}, mb4.3/30, Error ellipse: s-maj=10.6km s-min=7.9km az=150.1*

*NEIC **22** 08:34:47.9±2.3, 31°.13N×132°.04E, h20^{km}±14^{km}, mb4.4/9, Error ellipse: s-maj=6.1km s-min=5.2km az=124.0*

NEIC Recorded [1 JMA] in Kagoshima.

*BJI **22** 08:34:48.1, 31°.14N×132°.30E, h34^{km}, mB4.4/5, mb4.2/11*

*JMA **22** 08:34:48.9±0.1, 31°.08N×132°.18E, h60^{km}±2^{km}, M3.9*

JMA Felt I J1.

ISC 22 08:34:49.3±2.0**, 31°.12N**±0°.06×**132°.13E**±0°.06**, h29**^{km}±14^{km}**, n64, σ0^s.70**/62**, mb4.3**/30**, 5C, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNAR	**Kushima--Naru**	0.83	299	⇑P	Pn	08 35 05.8	+0.7
JNAR				S	Sx	08 35 18.5	
JTSR	**Tashiro 2**	1.03	273	⇑P	Pn	08 35 08.2	+0.4
JTSR				eS	Sx	08 35 22.3	
JTN	**Tanegashima 3**	1.09	245	⇑P	Pn	08 35 08.8	+0.2
JTN				eS	Sx	08 35 23.7	
JTZ	**Takazaki**	1.18	312	P	Pn	08 35 10.3	+0.5
JTZ				S	Sx	08 35 26.1	
JIU2	**Izumi 2**	1.81	322	⇑P	Pn	08 35 19.7	+1.3
JIU2				eS	Sx	08 35 42.2	
JTO	**Tosashimizu**	1.83	18	⇑P	Pn	08 35 16.7	-2.0
JTO				eS	Sx	08 35 35.9	
JOW	**Kunigami**	5.44	219	Pn	Pn	08 36 07.4	-1.1
	16nm,0.3s,baz=90,slow=13,SNR=44						
JOW				Sn	Sx	08 37 05.5	
	18nm,0.3s,baz=202,slow=29,SNR=11						
JHJ	**Hachijo jima 2**	6.79	71	LR	LR	08 38 46.5	
	comp=Z,162nm,20.2s,baz=191,slow=35						
MAJO	**Matsushiro**	7.40	41	eP	Pn	08 36 35.3	-0.1
MAJO				pmax	pmax		
	comp=Z,17nm,0.4s						
MAJO	**Matsushiro**	7.40	41	ePn	Pn	08 36 35.3	0.0
	comp=Z,17nm,0.4s						
MAT	**Matsushiro**	7.40	41	P	Pn	08 36 35.5	+0.1
MAT				S	Sn	08 37 53.0	-5.4
MJAR	**Matsushiro Arr**	7.40	41	Pn	Pn	08 36 35.7	+0.3
	comp=Z,3.2nm,0.3s,baz=254,slow=14,SNR=35						
MJAR				LR	LR	08 39 10.5	
	comp=Z,46nm,19.2s,baz=205,slow=36						
ASAJ	**Asahikawa**	15.38	30	LR	LR	08 44 26.4	
	comp=Z,127nm,20.4s,baz=251,slow=38						
XAN	**Xi'an**	19.76	285	P	Pn	08 39 18.0	-0.6
XAN				pP	pP	08 39 26.8	+2.1
XAN				sP	sP	08 39 31.3	+3.0
XAN				pmax	pmax		
	comp=Z,6.0nm,1.1s						
XAN				pmax	pmax		
	comp=Z,61nm,6.1s						
LZH	**Lanzhou**	24.03	290	eP	P	08 40 07.5	+5.8
LZH				pP		08 40 17.5	
LZH				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.3						
LZH				pmax	pmax		
	comp=Z,65nm,4.3s						
CD2	**Chengdu**	24.29	277	P	P	08 40 05.4	+1.2
CD2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.6						
CD2				pmax	pmax		
	comp=Z,110nm,4.8s						
ULN	**Ulaanbaatar**	25.40	318	eP	P	08 40 13.6	-0.5
ULN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
ULN	**Ulaanbaatar**	25.40	318	eP	P	08 40 13.6	-0.5
	comp=Z,4.4nm,0.9s,mb4.0						
SONM	**Songino Array**	25.77	318	P	P	08 40 16.8	-0.6
	comp=Z,1.9nm,0.7s,mb3.7,baz=136,slow=9.3,SNR=14						
GTA	**Gaotai**	27.54	296	eP	P	08 40 33.8	+0.3
GTA				pP	pP	08 40 49.8	+8.0
GTA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
PETK	**Petropavlovsk-**	28.75	33	LR	LR	08 53 33.2	
	comp=Z,42nm,18.1s,baz=187,slow=39						
MKAR	**Makanchi Array**	41.08	307	P	P	08 42 29.3	-1.0
	comp=Z,1.1nm,0.7s,mb3.6,baz=90,slow=11,SNR=8.6						
MKAR				PcP	PcP	08 44 29.5	0.0
	comp=Z,0.5nm,0.7s,baz=92,slow=4.1,SNR=4.0						
MKAR	**Makanchi Array**	41.08	307	P	P	08 42 29.3	-1.0
MKAR				PcP	PcP	08 44 29.5	-0.1
KURK	**Kurchatov**	43.84	312	P	P	08 42 51.7	-1.0
KURK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
KURK	**Kurchatov**	43.84	312	P	P	08 42 51.7	-1.0
	comp=Z,2.6nm,0.6s,mb4.1,baz=98,slow=8.9,SNR=6.8						
KURK	**Kurchatov**	43.84	312	eP	P	08 42 51.5	-1.1
	comp=Z,2.5nm,0.6s,mb4.1						
TKM2	**Tokmak 2**	45.86	301	eP	P	08 43 08.9	0.0
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
TKM2	**Tokmak 2**	45.86	301	eP	P	08 43 08.9	0.0
	comp=Z,3.1nm,0.5s,mb4.5						
AAK	**Ala-Archa**	46.69	301	P	P	08 43 15.5	+0.1
AAK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
AAK	**Ala-Archa**	46.69	301	P	P	08 43 15.5	+0.1
	comp=Z,2.3nm,0.5s,mb4.4,baz=127,slow=8.1,SNR=8.5						
AAK	**Ala-Archa**	46.69	301	eP	P	08 43 15.0	-0.4
	comp=Z,3.6nm,0.7s,mb4.4						
UCH	**Uchtor**	46.72	301	eP	P	08 43 16.2	+0.5
	comp=Z,4.4nm,1.0s,mb4.3						
UCH				e		08 43 27.3	
AML	**Almayashu**	47.34	300	eP	P	08 43 21.1	+0.6
	comp=Z,2.1nm,0.5s,mb4.3						
AML				e		08 43 32.1	
BVAR	**Borovoye Array**	49.07	315	P	P	08 43 33.2	-0.5
	comp=Z,3.6nm,0.5s,mb4.6,baz=98,slow=9.5,SNR=26						
BVAR				PcP	PcP	08 44 56.4	-0.6
	comp=Z,1.2nm,0.7s,baz=90,slow=1.5,SNR=4.3						
BRVK	**Borovoye**	49.13	315	eP	P	08 43 33.5	-0.6
BRVK				e		08 43 44.4	
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
BRVK	**Borovoye**	49.13	315	eP	P	08 43 33.5	-0.6
	comp=Z,3.2nm,0.4s,mb4.7						
BRVK				e		08 43 44.4	
WRA	**Warramunga Arr**	50.81	177	P	P	08 43 46.7	-0.4
	comp=Z,3.6nm,0.7s,mb4.4,baz=353,slow=8.2,SNR=20						
CTAO	**Charters Tower**	52.69	163	eP	P	08 44 01.2	0.0
CTAO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
CTAO	**Charters Tower**	52.69	163	eP	P	08 44 01.2	0.0
	comp=Z,2.4nm,0.6s,mb4.3						
ASAR	**Alice Springs**	54.50	178	P	P	08 44 14.8	+0.3
	comp=Z,3.7nm,0.5s,mb4.7,baz=12,slow=13,SNR=85						
KDAK	**Kodiak Island**	56.57	38	P	P	08 44 30.0	+1.0
	comp=Z,4.8nm,0.5s,mb4.8,baz=288,slow=23,SNR=9.6						
INK	**Inuvik**	63.05	25	P	P	08 45 13.6	+0.3
	comp=Z,0.8nm,0.7s,mb4.0,baz=301,slow=6.3,SNR=8.7						
STKA	**Stephens Creek**	63.30	171	P	P	08 45 15.4	+0.1
	comp=Z,4.3nm,0.5s,mb4.8,baz=357,slow=7.3,SNR=17						
JOF	**Joensuu**	67.44	331	ep	P	08 45 40.5	-1.4
	comp=Z,3.4nm,0.5s,mb4.6						
RES	**Resolute Bay**	70.10	12	P	P	08 45 58.4	+0.1
RES				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
RES	**Resolute Bay**	70.10	12	P	P	08 45 58.4	+0.2
	comp=Z,1.9nm,0.7s,mb4.2,baz=301,slow=6.7,SNR=14						
RES	**Resolute Bay**	70.10	12	eP	P	08 45 58.1	-0.2
	comp=Z,1.9nm,0.6s,mb4.2						
YKA	**Yellowknife Ar**	72.65	27	P	P	08 46 14.0	+0.1
	comp=Z,0.8nm,0.9s,mb3.7,baz=301,slow=5.7,SNR=11						
YKA	**Yellowknife Ar**	72.65	27	P	P	08 46 14.0	+0.1
AKASG	**Malin Array Be**	74.03	320	P	P	08 46 21.7	-0.5
	comp=Z,1.4nm,0.6s,mb4.1,baz=48,slow=5.6,SNR=5.3						
AKASG	**Malin Array Be**	74.03	320	P	P	08 46 21.7	-0.5
NOA	**NORSAR Array B**	76.42	335	P	P	08 46 35.0	-0.7
	comp=Z,1.5nm,0.7s,mb4.1,baz=51,slow=5.6,SNR=3.7						
BRTR	**Keskin Array B**	76.72	308	P	P	08 46 38.1	+0.3
	comp=Z,1.1nm,0.8s,mb3.9,baz=268,slow=36,SNR=6.8						
CLL	**Collm**	82.05	326	eP	P	08 47 07.0	+0.3
FCC	**Fort Churchill**	82.55	22	eP	P	08 47 09.1	-0.1
	comp=Z,0.1nm,0.8s						
GERES	**GERESS Array B**	83.31	324	P	P	08 47 13.8	+0.5
	comp=Z,0.4nm,0.3s,mb4.0,baz=101,slow=5.1,SNR=3.4						
GERES	**GERESS Array B**	83.31	324	P	P	08 47 13.8	+0.5
FRB	**Frobisher Bay**	84.04	9	P	P	08 47 16.6	-0.1
	comp=Z,4.2nm,0.6s,mb4.8,baz=351,slow=6.2,SNR=27						
NVAR	**Mina Array Bea**	84.68	48	P	P	08 47 21.5	+1.0
	comp=Z,2.4nm,0.5s,mb4.6,baz=297,slow=5.3,SNR=26						
NVAR	**Mina Array Bea**	84.68	48	P	P	08 47 21.5	+1.0
PDAR	**Pinedale Array**	87.23	40	P	P	08 47 33.5	+0.5
	comp=Z,0.7nm,0.7s,mb4.0,baz=338,slow=3.2,SNR=7.3						
ULM	**Lac du Bonnet**	88.52	29	P	P	08 47 38.2	-0.8
	comp=Z,1.3nm,0.6s,mb4.5,baz=291,slow=5.4,SNR=4.0						
ULM	**Lac du Bonnet**	88.52	29	P	P	08 47 38.2	-0.8
PV01	**Paradox Valley**	90.85	43	eP	P	08 47 51.1	+0.9
	comp=Z,544nm,1.5s						

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*ISCJB **22** 08:41:42.7±1.0, 30°.7S±0°.2×68°.7W±0°.2, h101^{km}±15^{km}, mb3.9/2, Error ellipse: s-maj=34.4km s-min=15.6km az=135.5*

*NEIC **22** 08:41:43.0±0.9, 30°.78S×68°.84W, h106^{km}±8^{km}, Error ellipse: s-maj=22.5km s-min=16.0km az=210.0*

*IDC **22** 08:41:44.9±2.5, 31°.28S×68°.81W, h122^{km}±19^{km}, mb3.8/2, mb1 3.7/2, mb1mx3.4/13, mbtmp3.8/2, Error ellipse: s-maj=91.3km s-min=38.4km az=150.0*

ISC 22 08:41:43.7±1.0**, 30°.7S**±0°.1×**68°.7W**±0°.2**, h95**^{km}±13^{km}**, n11, σ0^s.14**/8**, mb3.9**/2**, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFAA	**Coronel Fontan**	1.03	157	P	Pn	08 42 04.2	+0.1
	11nm,0.3s,baz=320,slow=11,SNR=5019						
CFAA				S	Sn	08 42 19.3	-0.1
	61nm,0.3s,baz=331,slow=11,SNR=151						
CFAA	**Coronel Fontan**	1.03	157	P	Pn	08 42 04.2	+0.1
CFAA				S	Sn	08 42 19.3	-0.1
LCO	**Las Campanas**	2.38	313	ePn	Pn	08 42 21.1	0.0
CPUP	**Villa Florida**	10.90	69	P	Pn	08 44 16.6	0.0
	0.8nm,0.3s,baz=231,slow=11,SNR=7.1						
DBIC	**Dimbokro**	71.42	70	P	P	08 52 54.1	+0.1
	4.9nm,1.1s,mb4.2,baz=211,slow=5.9,SNR=3.0						
TORD	**Torodi Ar. Bea**	80.39	69	P	P	08 53 44.9	-0.1
	0.5nm,0.5s,mb3.6,baz=273,slow=6.4,SNR=4.7						
ASAR	**Alice Springs**	121.79	205	PKP	PKPdf	09 00 23.7	-3.4
	0.9nm,1.1s,baz=129,slow=1.3,SNR=2.6						
WRA	**Warramunga Arr**	125.03	207	PKP	PKPdf	09 00 30.0	-3.3
	0.5nm,0.7s,baz=160,slow=1.7,SNR=7.0						
ZALV	**Zalesovo Beam**	149.91	32	PKPbc	PKPbc	09 01 21.8	-0.5
	2.4nm,0.3s,baz=339,slow=3.8,SNR=6.8						
ZALV	**Zalesovo Beam**	149.91	32	PKPbc	PKPbc	09 01 21.8	-0.5
MKAR	**Makanchi Array**	152.44	46	PKPbc	PKPbc	09 01 27.5	-0.9
	0.6nm,0.7s,baz=284,slow=2.0,SNR=6.9						
MKAR				PKPab	PKPab	09 01 38.4	-0.6
	0.4nm,0.6s,baz=300,slow=2.7,SNR=5.7						

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*IDC **22** 08:44:52.8±0.6, 27°.02N×143°.00E, h0^{km}, mb4.3/18, mb1 4.4/20, mb1mx4.4/26, mbtmp4.2/20, ML3.6/2, MS3.2/2, Ms1 3.2/2, ms1mx2.5/34, Error ellipse: s-maj=15.2km s-min=12.7km az=9.0*

*ISCJB **22** 08:44:53.4±1.6, 26°.97N±0°.05×142°.90E±0°.05, h12^{km}±10^{km}, mb4.5/55, MS3.9/4, Error ellipse: s-maj=8.7km s-min=7.8km az=25.0*

*MOS **22** 08:44:54.0±0.9, 27°.01N×142°.91E, h19^{km}, mb4.7/20, Error ellipse: s-maj=13.7km s-min=6.9km az=111.7*

*BJI **22** 08:44:54.4, 26°.70N×143°.32E, h47^{km}, mB4.9/20, mb4.5/31, Ms4.5/13, Ms7 4.3/13*

*NEIC **22** 08:44:59.5±0.2, 26°.96N×142°.87E, mb4.5/26, Error ellipse: s-maj=5.4km s-min=4.9km az=105.0*

ISC 22 08:44:57.9±1.6**, 26°.98N**±0°.05×**142°.94E**±0°.05**, h31**^{km}±11^{km}**, h45**^{km}±1.5^{km}**:pP-P, n101, σ0^s.88**/105**, mb4.5**/55**, MS3.9**/4**, 2C, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	0.69	280	Pn	Pn	08 45 11.6	+0.1
	223nm,0.3s,baz=93,slow=13,SNR=140						
CBIJ				Sn	Sn	08 45 23.6	+2.6
	733nm,0.3s,baz=287,slow=19,SNR=24						
MJAR	**Matsushiro Arr**	10.35	338	Pn	Pn	08 47 21.6	-2.5
	0.5nm,0.3s,baz=165,slow=12,SNR=9.7						
MAJO	**Matsushiro**	10.35	338	eP	Pn	08 47 25.0	+0.8
MAT	**Matsushiro**	10.35	338	P	Pn	08 47 25.0	+0.8
KSRS	**Korea Array**	16.43	313	Pn	Pn	08 48 45.0	-1.2
	0.2nm,0.3s,baz=124,slow=12,SNR=10.0						
KSRS				LR	LR	08 54 16.1	
	comp=Z,56nm,20.1s,baz=120,slow=34						
YSS	**Yuzh-Sakhalins**	19.94	360	eP	Pn	08 49 25.9	-3.1
YSS				pmax	pmax		
	comp=Z,32nm,1.7s						
SSLB	**Suanglung**	20.11	266	eP	P	08 49 28.1	-1.1
	comp=Z,37nm,1.1s						
MDJ	**Mudanjiang**	20.61	332	P	P	08 49 34.8	+0.3
MDJ				pP		08 49 44.8	
MDJ				sP	sP	08 49 50.0	+3.2
MDJ				S	S	08 53 24.9	+1.6
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MDJ				pmax	pmax		
	comp=Z,56nm,3.1s						
NJ2	**Nanjing**	21.55	289	eP	P	08 49 46.8	+2.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.5						
CN2	**Changchun**	21.95	324	eP	P	08 49 51.8	+2.9
CN2				eS	S	08 53 46.8	-2.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
KLR	**Kul'dur**	23.85	342	eP	P	08 50 03.3	-5.0
WHN	**Wuhan**	25.29	285	eP	P	08 50 22.0	+0.4
HIA	**Hailar**	28.57	327	eP	P	08 50 51.3	+0.4
HHC	**Hu-ho-hao-te**	29.31	306	eP	P	08 50 58.3	+0.7
HHC				pP	pP	08 51 09.8	+3.2
HHC				sP	sP	08 51 15.9	+5.5
HHC				PP	PP	08 51 53.8	-10
HHC				eS	S	08 55 46.8	-2.1
HHC				sS	sS	08 56 06.0	+2.3
HHC				PcS	PcS	08 57 46.6	0.0
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
HHC				pmax	pmax		
	comp=Z,110nm,5.4s						
HHC				LR	LR		
	comp=N,81nm,10.0s,MS4.1						
HHC				LR	LR		
	comp=E,220nm,12.0s,MS4.1						
HHC				LR	LR		
	comp=Z,190nm,12.3s,MS3.9						
XAN	**Xi'an**	30.05	292	P	P	08 51 02.6	-1.6
XAN				pP	pP	08 51 15.4	+2.2
XAN				sP	sP	08 51 20.5	+3.5
XAN				S	S	08 56 00.0	-0.6
XAN				sS	sS	08 56 19.0	+3.6
XAN				ScS	ScS	09 01 40.1	-1.1
XAN				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
XAN				pmax	pmax		
	comp=Z,140nm,12.3s						
XAN				LR	LR		
	comp=N,77nm,11.0s,MS3.8						
XAN				LR	LR		
	comp=E,110nm,12.4s,MS3.8						
XAN				LR	LR		
	comp=Z,140nm,11.0s,MS3.9						
GYA	**Guiyang**	32.34	277	P	P	08 51 24.8	+0.3
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
LZH	**Lanzhou**	34.35	295	eP	P	08 51 42.5	+0.6
LZH				pP	pP	08 51 56.8	+5.8
LZH				sP	sP	08 52 00.3	+5.5
LZH				ePP	PP	08 52 58.5	-1.5
LZH				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,98nm,4.8s						
LZH				LR	LR		
	comp=N,350nm,13.2s						
LZH				LR	LR		
	comp=Z,490nm,17.3s,MS4.3						
CD2	**Chengdu**	34.39	286	P	P	08 51 41.1	-1.3
CD2				pP	pP	08 51 53.0	+1.6
CD2				sP	sP	08 51 58.5	+3.3
CD2				PP	PP	08 52 57.1	-3.4
CD2				S	S	08 57 04.1	-4.3
CD2				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.5						
CD2				pmax	pmax		
	comp=Z,230nm,10.7s						
CD2				LR	LR		
	comp=N,210nm,7.1s						
CD2				LR	LR		
	comp=Z,140nm,9.5s						
ULN	**Ulaanbaatar**	34.87	316	eP	P	08 51 46.1	-0.2
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
ULN	**Ulaanbaatar**	34.87	316	eP	P	08 51 46.1	-0.2
	comp=Z,3.3nm,1.0s,mb4.2						
ULN				esP	sP	08 52 05.1	+6.0
SONM	**Songino Array**	35.27	316	P	P	08 51 49.1	-0.5
	comp=Z,1.3nm,0.8s,mb3.9,baz=119,slow=7.6,SNR=10						
SONM				LR	LR	09 07 08.6	
	comp=Z,51nm,18.4s,MS3.3,baz=172,slow=38						
KMI	**Kunming**	36.06	276	P	P	08 51 56.8	0.0
KMI				pP	pP	08 52 10.1	+4.2
KMI				sP	sP	08 52 15.8	+6.2
KMI				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
SEY	**Seymchan**	36.49	7	⇑eP	P	08 51 59.9	-0.1
BOD	**Bodaibo**	36.95	334	eP	P	08 52 02.7	-1.3
BOD				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
GTA	**Gaotai**	37.82	300	eP	P	08 52 11.3	-0.3
GTA				pP	pP	08 52 23.8	+3.1
GTA				sP	sP	08 52 29.3	+4.8
GTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
ZAK	**Zakamensk**	38.14	319	eP	P	08 52 13.6	-0.6
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.2						
TLY	**Talaya**	38.46	321	eP	P	08 52 17.4	+0.6
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
TLY	**Talaya**	38.46	321	eP	P	08 52 17.4	+0.7
	comp=Z,9.4nm,1.1s,mb4.4						
CHTO	**Chiang Mai**	41.17	268	eP	P	08 52 39.0	-0.8
CHTO				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.2						
CHTO	**Chiang Mai**	41.17	268	eP	P	08 52 39.0	-0.7
	comp=Z,6.1nm,1.0s,mb4.2						
CMAR	**Chiang Mai Arr**	41.29	268	P	P	08 52 40.5	-0.3
	comp=Z,1.2nm,0.3s,mb4.0,baz=58,slow=8.0,SNR=11						
BILL	**Bilibino**	43.42	13	eP	P	08 52 56.7	-0.7
BILL				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
BILL	**Bilibino**	43.42	13	eP	P	08 52 56.7	-0.7
	comp=Z,6.6nm,1.1s,mb4.3						
TIXI	**Tiksi**	45.40	354	eP	P	08 53 12.7	-0.5
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.5						
TIXI	**Tiksi**	45.40	354	eP	P	08 53 12.7	-0.4
	comp=Z,3.4nm,0.4s,mb4.5						
CTA	**Charters Tower**	46.90	176	eP	P	08 53 25.3	-0.2
	comp=Z,2.2nm,0.7s,mb4.2						
CTAO	**Charters Tower**	46.90	176	eP	P	08 53 24.9	-0.6
CTAO				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
CTAO	**Charters Tower**	46.90	176	eP	P	08 53 24.9	-0.6
	comp=Z,4.6nm,0.9s,mb4.4						
WMQ	**Urumqi**	47.19	306	eP	P	08 53 29.0	+1.3
WRAB	**Tennant Creek**	47.37	191	eP	P	08 53 28.4	-0.8
WRAB				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
WRAB	**Tennant Creek**	47.37	191	eP	P	08 53 28.4	-0.8
	comp=Z,20nm,0.7s,mb5.2						
WRA	**Warramunga Arr**	47.38	191	P	P	08 53 29.3	0.0
	comp=Z,16nm,0.7s,mb5.1,baz=12,slow=8.6,SNR=122						
FITZ	**Fitzroy Crossi**	47.85	202	eP	P	08 53 33.7	+0.7
	comp=Z,21nm,0.8s,mb5.2						
FITZ	**Fitzroy Crossi**	47.85	202	eP	P	08 53 33.0	0.0
	comp=Z,15nm,0.8s,mb5.1						
ZALV	**Zalesovo Beam**	50.02	319	P	P	08 53 49.0	-0.3
	comp=Z,2.5nm,0.6s,mb4.4,baz=91,slow=7.4,SNR=9.5						
ZALV				PcP	PcP	08 55 08.0	-0.8
	comp=Z,0.9nm,0.4s,baz=64,slow=6.6,SNR=2.6						
MKAR	**Makanchi Array**	51.07	310	P	P	08 53 56.5	-0.8
	comp=Z,1.0nm,0.7s,mb3.8,baz=93,slow=8.1,SNR=11						
MKAR				PcP	PcP	08 55 12.4	-0.4
	comp=Z,1.2nm,0.7s,baz=84,slow=5.8,SNR=6.4						
MKAR	**Makanchi Array**	51.07	310	P	P	08 53 56.5	-0.8
MKAR				PcP	PcP	08 55 12.4	-0.4
ASAR	**Alice Springs**	51.10	191	P	P	08 53 57.4	-0.3
	comp=Z,1.0nm,0.6s,mb3.9,baz=8.8,slow=5.5,SNR=24						
KURK	**Kurchatov**	53.55	315	eP	P	08 54 15.0	-0.6
KURK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
KURK	**Kurchatov**	53.55	315	P	P	08 54 15.7	0.0
	baz=90,slow=7.5						
KURK	**Kurchatov**	53.55	315	eP	P	08 54 14.9	-0.7
	comp=Z,7.2nm,0.8s,mb4.7						
KSH	**Kashi**	56.22	301	P	P	08 54 38.3	+3.2
KSH				epP	pP	08 54 49.8	+5.2
KSH				esP	sP	08 54 56.3	+8.0
KSH				ePcP	PcP	08 55 34.1	+1.5
KSH				ePP	PP	08 56 45.3	+4.9
KSH				eScP	ScP	08 59 29.3	-0.4
KSH				ePcS	PcS	08 59 34.0	+1.0
KSH				eS	S	09 02 23.0	+0.2
KSH				esS	sS	09 02 44.1	+5.7
KSH				eScS	ScS	09 04 19.8	-2.4
KSH				eSS	SS	09 06 09.6	+0.2
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
KSH				pmax	pmax		
	comp=Z,320nm,4.2s						
KSH				LR	LR		
	comp=N,170nm,5.2s						
KSH				LR	LR		
	comp=E,190nm,6.2s						
KSH				LR	LR		
	comp=Z,170nm,5.6s						
COLD	**Coldfoot**	56.48	25	eP	P	08 54 36.8	+0.2
	comp=Z,2.4nm,0.8s,mb4.3						
AAK	**Ala-Archa**	56.88	305	P	P	08 54 39.9	+0.1
	comp=Z,0.6nm,0.4s,mb4.0,baz=180,slow=13,SNR=2.7						
AML	**Almayashu**	57.53	304	eP	P	08 54 45.2	+0.8
	comp=Z,3.5nm,0.8s,mb4.4						
AML				ePcP	PcP	08 55 38.6	+0.9
STKA	**Stephens Creek**	58.54	181	eP	Px	08 54 41.5	
	comp=Z,3.4nm,1.2s						
STKA	**Stephens Creek**	58.54	181	P	P	08 54 51.1	-0.3
	comp=Z,3.9nm,0.8s,mb4.5,baz=269,slow=8.6,SNR=4.7						
BVAR	**Borovoye Array**	58.59	318	P	P	08 54 51.8	+0.2
	comp=Z,13nm,0.8s,mb5.0,baz=92,slow=8.9,SNR=52						
BRVK	**Borovoye**	58.65	318	eP	P	08 54 51.8	-0.2
BRVK				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
BRVK	**Borovoye**	58.65	318	eP	P	08 54 51.8	-0.2
	comp=Z,12nm,0.8s,mb5.0						
PALK	**Pallekele**	62.02	264	i P	P	08 55 16.6	+0.9
INK	**Inuvik**	62.86	25	eP	P	08 55 19.9	-0.5
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	**Inuvik**	62.86	25	P	P	08 55 19.9	-0.6
	comp=Z,3.3nm,0.6s,mb4.6,baz=301,slow=6.7,SNR=36						
INK	**Inuvik**	62.86	25	eP	P	08 55 19.9	-0.5
	comp=Z,2.4nm,0.6s,mb4.5						
ARU	**Arti**	64.93	322	c iP	P	08 55 34.2	-0.1
ARU				S	S	09 04 13.9	+0.3
ARU				SS	SS	09 08 22.4	-2.6
ARU				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
ARU	**Arti**	64.93	322	eP	P	08 55 34.4	+0.1
	comp=Z,22nm,1.3s,mb5.0						
AKTK	**Aktyubinsk**	66.59	316	P	P	08 55 44.7	-0.3
AKTO	**Aktyubinsk**	66.59	316	P	P	08 55 44.7	-0.3

	comp=Z,2.5nm,0.6s,mb4.4,baz=86,slow=13,SNR=8.5						
YKA	Yellowknife Ar	71.92	28	P	P	08 56 17.2	-0.7
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	Yellowknife Ar	71.92	28	P	P	08 56 17.2	-0.6
	comp=Z,1.8nm,0.7s,mb4.1,baz=293,slow=6.1,SNR=30						
RES	Resolute Bay	72.02	14	eP	P	08 56 17.7	-0.6
RES				e*PP	pP	08 56 31.9	+3.9
RES				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
RES	Resolute Bay	72.02	14	eP	P	08 56 17.7	-0.6
	comp=Z,3.3nm,1.1s,mb4.2						
RES				epP	pP	08 56 31.9	+3.9
ARCES	ARCESS Array B	73.87	341	P	P	08 56 29.3	0.0
	comp=Z,9.1nm,1.1s,mb4.6,baz=29,slow=2.8,SNR=3.6						
YBH	Yreka Blue Hor	75.61	50	P	P	08 56 40.7	+0.8
	comp=Z,2.4nm,0.8s,mb4.2,baz=304,slow=6.3,SNR=5.5						
NEW	Newport	76.54	43	eP	P	08 56 45.1	+0.1
NEW				pmax	pmax		
	comp=Z,3.0nm,1.1s						
NEW	Newport	76.54	43	eP	P	08 56 45.1	+0.1
	comp=Z,3.0nm,1.1s,mb4.1						
MOD	Modoc	77.18	49	eP	P	08 56 49.2	+0.4
MOD				epP	pP	08 57 01.3	+2.7
BMO	Blue Mountains	77.90	46	eP	P	08 56 52.6	-0.2
	comp=Z,6.1nm,1.2s,mb4.4						
WALA	Waterton Lakes	78.09	41	eP	P	08 56 54.2	+0.4
	comp=Z,0.1nm,1.0s						
JTMT	Jette	78.48	42	eP	P	08 56 56.0	+0.2
	comp=Z,4.7nm,1.2s,mb4.3						
KIV	Kislovodsk	78.62	314	eP	P	08 56 57.1	+0.4
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
CMB	Columbia Colle	78.76	53	eP	P	08 56 57.8	+0.2
CMB				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
CMB	Columbia Colle	78.76	53	eP	P	08 56 57.8	+0.2
	comp=Z,2.7nm,0.6s,mb4.3						
GNI	Garni	78.92	309	eP	P	08 56 58.5	0.0
NVAR	Mina Array Bea	80.06	52	P	P	08 57 05.0	+0.3
	comp=Z,1.8nm,0.7s,mb4.1,baz=291,slow=5.6,SNR=9.7						
HRY	Holter Researc	80.44	42	eP	P	08 57 07.5	+0.9
	comp=Z,6.3nm,1.2s,mb4.4						
LRM	Limekiln Ridge	80.49	43	eP	P	08 57 07.5	+0.6
FFC	Flin Flon	81.48	32	eP	P	08 57 11.9	-0.1
FFC				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
FFC	Flin Flon	81.48	32	eP	P	08 57 11.9	-0.1
	comp=Z,2.7nm,1.0s,mb4.1						
FFC				epP	pP	08 57 25.6	+3.8
IMW	Indian Meadow	82.38	44	eP	P	08 57 17.7	+0.8
	comp=Z,3.3nm,0.8s,mb4.3						
RRI2	Red Ridge	82.41	45	eP	P	08 57 17.8	+0.7
	comp=Z,2.3nm,0.8s,mb4.2						
RLMT	Red Lodge	82.78	43	eP	P	08 57 20.2	+1.2
	comp=Z,80nm,2.9s,mb5.2						
RLMT				epP	pP	08 57 33.8	+4.9
AKASG	Malin Array Be	83.11	324	P	P	08 57 19.5	-1.1
	comp=Z,0.3nm,0.3s,mb3.8,baz=53,slow=5.0,SNR=3.8						
PDAR	Pinedale Array	83.82	45	P	P	08 57 23.8	-0.6
	comp=Z,0.8nm,0.9s,mb3.9,baz=270,slow=3.0,SNR=6.2						
MALT	Malatya	84.11	310	eP	P	08 57 27.3	+1.3
MALT				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.8						
MALT	Malatya	84.11	310	eP	P	08 57 27.3	+1.3
	comp=Z,11nm,1.3s,mb4.8						
BRTR	Keskin Array B	86.58	313	P	P	08 57 37.8	-0.5
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BRTR	Keskin Array B	86.58	313	P	P	08 57 37.8	-0.5
	comp=Z,1.6nm,0.8s,mb4.3,baz=108,slow=4.7,SNR=6.7						
TORD	Torodi Ar. Bea	125.17	312	PKP	PKPdf	09 03 55.7	-0.4
	comp=Z,0.3nm,0.6s,baz=49,slow=2.0,SNR=2.8						
NNA	Nana	139.83	76	ePKPdf	PKPdf	09 04 23.4	-0.2
PLCA	Paso Flores	149.19	125	PKPbc	PKPbc	09 04 43.6	+0.3
	comp=Z,2.0nm,0.7s,baz=240,slow=3.4,SNR=8.4						

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*NEIC **22** 08:54:07.6, 11°.47N×60°.64W, h34^{km}, MD3.8(TRN), After TRN.*

TRN 22 08:54:02.3, 11°.52N×60°.13W, h26^{km}, MD3.8, M4.2(FDF)**, 6C, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOT	Bacolet	0.68	239	⇑eP	Pb	08 54 17.3	+1.8
BOT				eS	Sb	08 54 24.3	-0.2
BOT	Bacolet	0.68	239	⇑eP	Pb	08 54 17.3	+1.8
BOT				eS	Sb	08 54 22.3	-2.2
TPR	Prospect	0.72	243	⇑eP	Pb	08 54 18.0	+1.8
TPR				eS	Sb	08 54 25.7	0.0
TPR	Prospect	0.72	243	⇑eP	Pb	08 54 18.0	+1.8
TPR				eS	Sb	08 54 22.7	-3.0
TBH	Brigand Hill	1.38	222	eP	Pn	08 54 27.4	+1.6
TBH				eS	Sn	08 54 45.2	+2.0
TBH	Brigand Hill	1.38	222	eP	Pn	08 54 27.4	+1.6
TBH				eS	Sn	08 54 37.0	-6.3
TRN	Trinidad (W)	1.52	236	⇑iP	Pn	08 54 29.1	+1.3
TRN				eS	Sn	08 54 47.6	+0.9
TRN	Trinidad (W)	1.52	236	⇑iP	Pn	08 54 29.1	+1.3
TRN				eS	Sn	08 54 41.2	-5.6
GRIC	Isle de Caille	1.62	298	eP	Pn	08 54 30.9	+1.7
GRW	Mount Saint Ca	1.63	293	eP	Pn	08 54 30.5	+1.2
GRW				eS	Sn	08 54 53.4	+3.8
GRW	Mount Saint Ca	1.63	293	eP	Pn	08 54 30.5	+1.2
GRW				eS	Sn	08 54 54.7	+5.1
GRHS	Sauteurs	1.64	296	eP	Pn	08 54 30.3	+0.8
GRSS	Sisters	1.65	298	eP	Pn	08 54 30.2	+0.6
GRSS				eS	Sn	08 54 53.7	+3.7
TCE	Chacachacare	1.79	243	eP	Pn	08 54 33.7	+2.2
TCE	Chacachacare	1.79	243	eP	Pn	08 54 34.3	+2.7
FCV	Fort Charlotte	1.96	326	eP	Pn	08 54 34.7	+0.8
FCV				eS	Sn	08 55 00.2	+2.5
SSV	Crater Summit	2.08	330	eS	Sn	08 55 01.7	+1.1
SVV	Soufriere Volc	2.08	329	eP	Pn	08 54 37.4	+1.8
SVV				eS	Sn	08 55 02.3	+1.6
SVV	Soufriere Volc	2.08	329	eP	Pn	08 54 36.1	+0.5
SVV				eS	Sn	08 55 02.3	+1.6
SLB	Belfond	2.47	339	eP	Pn	08 54 44.6	+3.8
SLB				eS	Sn	08 55 11.8	+1.7
MVM	Montagne Vaucl	3.11	346	eP	Pn	08 54 49.7	0.0
MVM				eS	Sn	08 55 25.5	-0.6
BIM	Bigot	3.12	343	eP	Pn	08 54 49.1	-0.8
BIM				eS	Sn	08 55 24.9	-1.4
FDF	Fort de France	3.35	343	eP	Pn	08 54 52.4	-0.6
FDF				eS	Sn	08 55 31.2	-0.8

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*LDG **22** 08:55:54.6±0.2, 14°.85S×166°.78E, h90^{km}, Mb4.2/2, Error ellipse: s-maj=37.6km s-min=6.0km az=86.0*

*IDC **22** 08:56:32.9±27.0, 15°.34S×166°.05E, h432^{km}±258^{km}, mb3.5/5, mb1 3.5/6, mb1mx3.3/17, mbtmp3.5/6, Error ellipse: s-maj=169.4km s-min=46.4km az=76.0*

ISC 22 08:55:58.3±3.1**, 15°.3S**±0°.2×**167°.5E**±0°.2**, h141**^{km}±26^{km}**, n38, σ1^{s}.09**/12**, mb4.1**/5**, 9C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	6.85	188	eP	Pn	08 57 36.2	-0.1
DZM				eS	Sn	08 58 51.6	-1.5
NOUC	Port Laguerre	6.90	189	eP	Pn	08 57 37.3	+0.3
NOUC				eS	Sn	08 58 55.4	+1.0
CTA	Charters Tower	20.81	254	P	P	09 00 30.6	+2.0
	0.3nm,0.3s,baz=54,slow=7.4,SNR=3.5						
STKA	Stephens Creek	28.83	230	P	P	09 01 44.5	+1.2
	6.0nm,0.7s,mb4.5,baz=39,slow=7.8,SNR=33						
WRA	Warramunga Arr	31.93	257	P	P	09 02 08.8	-1.9
	1.2nm,0.7s,mb3.8,baz=84,slow=8.5,SNR=21						
ASAR	Alice Springs	32.71	250	P	P	09 02 16.3	-1.2
	3.6nm,0.6s,mb4.3,baz=84,slow=9.0,SNR=54						
SONM	Songino Array	83.06	324	P	P	09 08 08.0	+0.2
	0.8nm,0.4s,mb3.8,baz=148,slow=8.3,SNR=9.4						
VNA3	Neumayer Olymp	93.69	181	e	P	09 08 58.0	-0.4
VNA2	Neumayer--Watz	93.96	182	e	P	09 09 00.5	+0.8
	baz=203,slow=4.4						
MKAR	Makanchi Array	97.74	316	P	P	09 09 16.8	-0.3
	0.8nm,0.6s,mb4.3,baz=88,slow=6.9,SNR=8.8						
ARCES	ARCESS Array B	120.82	345	PKP	PKPdf	09 14 32.8	-0.2
	2.1nm,0.6s,baz=50,slow=1.9,SNR=9.4						
GIVF	Givet	142.51	342	ePKP1	PKPdf	09 15 16.6	+2.3
HAU	Haudompre	143.82	338	ePKP1	PKPdf	09 15 18.3	+1.6
CABF	La Chapelle	145.10	337	⇑iPKP1	PKPbc	09 15 19.6	+0.9
FLN	La Foliniere	145.16	346	ePKP1	PKPbc	09 15 18.8	0.0
LDF	La Druitiere	145.23	346	ePKP1	PKPbc	09 15 19.0	0.0
LOR	Lormes	145.31	340	⇑iPKP1	PKPbc	09 15 19.8	+0.5
	20nm,0.8s						
GRR	Gorron	145.60	346	ePKP1	PKPbc	09 15 20.5	+0.3
	26nm,0.7s						
SSF	Saint Saulge	145.60	341	⇑iPKP1	PKPbc	09 15 20.9	+0.7
	22nm,0.8s						
LPL	La Plagne	145.76	336	ePKP1	PKPbc	09 15 21.9	+1.1
LPG	La Plagne	145.77	336	ePKP1	PKPbc	09 15 22.1	+1.3
AVF	Avril sur Loir	145.89	340	⇑iPKP1	PKPbc	09 15 22.0	+0.9
	8.2nm,0.9s						
SGMF	Saint Gilles	146.09	348	⇑iPKP1	PKPbc	09 15 21.9	+0.2
	18nm,0.7s						
ROSF	Rostrenen	146.15	349	ePKP1	PKPbc	09 15 21.6	-0.2
BGF	Bois d’Agland	146.26	341	⇑iPKP1	PKPbc	09 15 22.7	+0.5
	10nm,0.6s						
MBDF	Montbardon	146.40	335	⇑iPKP1	PKPbc	09 15 23.7	+1.0
	4.8nm,0.6s						
QUIF	Quistinic	146.53	349	ePKP1	PKPbc	09 15 22.6	-0.4
ORIF	Oris-en-Rattie	146.60	336	ePKP1	PKPbc	09 15 24.0	+0.7
TCF	Toulx Ste Croi	146.70	341	⇑iPKP1	PKPbc	09 15 23.9	+0.4
	3.3nm,0.6s						
MFF	Saint Martin d	147.09	344	⇑iPKP1	PKPbc	09 15 25.0	+0.4
	22nm,0.6s						
VIVF	Saint-Julien-l	147.11	337	ePKP1	PKPbc	09 15 25.4	+0.7
PGF	Pioggiola	147.12	330	ePKP1	PKPbc	09 15 24.9	+0.1
	12nm,0.7s						
RJF	Les Rejaudoux	147.80	341	ePKP1	PKPbc	09 15 27.1	+0.5
	8.8nm,0.7s						
LASF	Ste Croix	148.08	337	ePKP1	PKPbc	09 15 28.0	+0.6
	5.2nm,0.7s						
LFF	La Frestale	148.36	342	ePKP1	PKPbc	09 15 28.6	+0.5
EPF	Esparros	150.21	341	ePKP1	PKPbc	09 15 33.0	+0.3
	4.1nm,0.6s						
ETSF	Etsaut	150.61	342	ePKP1	PKPbc	09 15 33.8	+0.1
	5.5nm,0.6s						
TORD	Torodi Ar. Bea	166.09	263	PKP	PKPdf	09 15 47.0	-0.3
	0.6nm,0.6s,baz=23,slow=2.1,SNR=4.6						

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*ISCJB **22** 09:19:29.3±0.6, 24°.31S±0°.05×67°.21W±0°.10, h171^{km}±16^{km}, Error ellipse: s-maj=14.8km s-min=8.1km az=3.2*

*IDC **22** 09:19:29.9±1.2, 24°.35S×67°.07W, h151^{km}±16^{km}, mb3.9/1, mb1 3.4/5, mb1mx3.3/18, mbtmp3.4/5, Error ellipse: s-maj=24.7km s-min=13.1km az=77.0*

*GUC **22** 09:19:33.1±0.7, 24°.20S×67°.70W, h194^{km}±10^{km}, ML4.5*

*NEIC **22** 09:19:33.1, 24°.20S×67°.70W, h194^{km}, MG4.5(GUC), After GUC.*

ISC 22 09:19:30.2±0.6**, 24°.31S**±0°.05×**67°.17W**±0°.10**, h162**^{km}±16^{km}**, n19, σ1^{s}.15**/28**, 1C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.32	316	P	Pn	09 20 12.2	+2.4
	14nm,0.3s,baz=128,slow=8.5,SNR=132						
LVC				S	Sn	09 20 41.5	+1.2
	134nm,0.3s,baz=21,slow=18,SNR=109						
LVC	Limon Verde	2.32	316	P	Pn	09 20 12.2	+2.4
LVC				S	Sn	09 20 41.5	+1.2
LVC	Limon Verde	2.32	316	eP	Pn	09 20 11.9	+2.1
LVC				eS	Sn	09 20 41.6	+1.3
LVC				AML	AML	09 20 42.9	
	comp=N,892nm,0.3s						
PECH	Pedro de Valdi	2.86	306	eP	Pn	09 20 17.3	+1.0
PECH				i S	Sn	09 20 51.3	-0.6
PECH				AML	AML	09 20 52.3	
	comp=E,4μm,0.4s						
PB04	Plate Boundary	2.94	313	eP	Pn	09 20 23.7	+6.4
PB04				i S	Sn	09 21 02.0	+8.2
PB04				AML	AML	09 21 03.5	
	comp=E,1μm,0.2s						
CPN1	Cerro Paranal	2.96	263	⇑eP	Pn	09 20 18.6	+1.1
CPN1				i S	Sn	09 20 53.3	-0.8
CPN1				AML	AML	09 20 55.2	
	comp=E,584nm,0.6s						
MACH	Maria Elena	3.17	311	eP	Pn	09 20 21.5	+1.3
MACH				i S	Sn	09 20 58.4	-0.6
TOCH	Tocopilla	3.55	308	eP	Pn	09 20 25.7	+0.7
TOCH				i S	Sn	09 21 04.9	-2.7
TOCH				AML	AML	09 21 07.5	
	comp=E,908nm,0.4s						
PB01	Plate Boundary	3.89	326	eP	Pn	09 20 29.6	+0.2
PB01				i S	Sn	09 21 13.6	-1.8
PB01				AML	AML	09 21 20.1	
	comp=N,412nm,0.3s						
MNMC	Miæe Miæ	5.62	336	eP	Pn	09 20 51.6	-0.4
LCO	Las Campanas	5.65	213	ePn	Pn	09 20 52.0	-0.3
	comp=N,16nm,0.3s						
CFAA	Coronel Fontan	7.33	187	P	Pn	09 21 15.4	+0.8
	comp=N,0.1nm,0.3s,baz=10,slow=11,SNR=15						
CFAA				S	Sn	09 22 33.8	-2.9
	comp=N,0.3nm,0.3s,baz=240,slow=18,SNR=18						
CPUP	Villa Florida	9.13	105	P	Pn	09 21 37.8	-0.7
	comp=N,0.2nm,0.3s,baz=270,slow=12,SNR=3.6						
SIV	San Ignacio	10.06	36	P	Pn	09 21 50.2	-0.7
	comp=N,1.5nm,0.3s,baz=235,slow=11,SNR=22						
PLCA	Paso Flores	16.62	189	P	Pn	09 23 14.3	+0.6
	comp=N,0.2nm,0.3s,baz=4.0,slow=13,SNR=5.9						
PLCA	Paso Flores	16.62	189	P	Pn	09 23 14.3	+0.6
TORD	Torodi Ar. Bea	76.83	69	P	P	09 31 04.5	-0.1
	comp=N,1.4nm,0.4s,baz=257,slow=5.5,SNR=15						
TORD	Torodi Ar. Bea	76.83	69	P	P	09 31 04.5	-0.1
MKAR	Makanchi Array	146.86	40	PKPbc	PKPbc	09 38 54.3	+1.0
	comp=N,1.1nm,0.6s,baz=292,slow=3.4,SNR=13						

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*ISCJB **22** 09:20:01.0±0.5, 48°.70N±0°.04×132°.05E±0°.06, h10^{km}, mb3.7/12, Error ellipse: s-maj=5.9km s-min=4.9km az=37.4*

*SKHL **22** 09:20:01.0±1.5, 48°.53N×131°.59E, h19^{km}±1^{km}, mb4.8/8*

SKHL Felt (III-IV) at Obluchie, Kuldur, Birobidzhan.

*MOS **22** 09:20:04.4±2.0, 48°.60N×131°.57E, h21^{km}, mb4.2/1, Error ellipse: s-maj=17.7km s-min=11.1km az=101.4*

*BJI **22** 09:20:05.4, 48°.45N×131°.49E, h30^{km}, ML4.6/12*

*IDC **22** 09:20:05.7±0.7, 48°.44N×131°.59E, h18^{km}±4^{km}, mb3.6/10, mb1 3.8/12, mb1mx3.7/25, mbtmp3.6/12, ML3.0/1, MS2.9/2, Ms1 2.9/2, ms1mx2.6/36, Error ellipse: s-maj=17.2km s-min=16.5km az=113.0*

*NEIC **22** 09:20:08.8±1.4, 48°.46N×131°.65E, h43^{km}±16^{km}, mb4.0/1, Error ellipse: s-maj=12.0km s-min=10.3km az=181.0*

ISC 22 09:20:03.2±0.4**, 48°.66N**±0°.03×**131°.91E**±0°.05**, h10**^{km}**, (h22**^{km}±1.2^{km}**:pP-P), n38, σ1^{s}.48**/59**, mb3.7**/12**, 4C-1D, Priamurye-Northeastern China border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KLR	Kul’dur	0.58	350	⇓iPg	Pg	09 20 13.4	-1.1
KLR				eSg	Sg	09 20 23.5	+1.3
HABR	Khabarovsk	2.10	94	c iP	Pg	09 20 46.7	+3.3
HABR				e		09 21 15.5	
HABR				pmax	pmax		
	comp=Z,961nm,0.6s						
HABR				pmax	pmax		
	comp=E,1μm,0.8s						
HABR				pmax	pmax		
	comp=N,162nm,0.8s						
HABR				pmax	pmax		
	comp=N,645nm,0.3s						
HABR				pmax	pmax		
	comp=Z,1μm,0.3s						
HABR				pmax	pmax		
	comp=E,708nm,0.2s						
HABR				MLR	MLR		
	comp=Z,186nm,6.0s						
HABR	Khabarovsk	2.10	94	ePn	Pn	09 20 41.5	+3.2
HABR				⇑ePg	Pg	09 20 46.4	+3.0
HABR				eSg	Sg	09 21 15.6	+5.1
GRNR	Gornyy	3.62	52	ePn	Pn	09 20 57.8	-1.4
GRNR				ePg	Pg	09 21 10.0	-2.4
GRNR				AMB	AMB	09 21 11.0	
	comp=Z,59nm,0.8s						
GRNR				AMB	AMB	09 21 11.0	
	comp=Z,56nm,0.8s						
GRNR				AMB	AMB	09 21 11.0	
	comp=Z,420nm,0.8s						
GRNR				eSg	Sg	09 21 59.0	-0.2
GRNR				A		09 21 59.8	
	comp=Z,460nm,0.8s						
MDJ	Mudanjiang	4.34	202	Pn	Pn	09 21 08.8	-0.4
MDJ				Pg	Pg	09 21 21.4	-4.9
MDJ				Sg	Sg	09 22 12.3	-10
MDJ				smax			
	comp=N,950nm,1.0s						
MDJ				smax			
	comp=E,1μm,0.9s						
MDJ	Mudanjiang	4.34	202	ePn	Pn	09 21 08.1	-1.1
MDJ				ePg	Pg	09 21 22.0	-4.3
MDJ				eSg	Sg	09 22 12.4	-10
EKMR	Ekimchan	4.47	8	ePn	Pn	09 21 10.9	0.0
EKMR				pPn		09 21 17.3	
EKMR				ePg	Pg	09 21 24.4	-4.3
EKMR				AMB	AMB	09 21 28.8	
	comp=E,71nm,0.4s						
EKMR				AMB	AMB	09 21 28.8	
	comp=E,47nm,0.4s						
EKMR				AMB	AMB	09 21 28.8	
	comp=E,82nm,0.4s						
EKMR				eSg	Sg	09 22 26.0	-0.6
EKMR				A		09 22 27.0	
	comp=E,360nm,0.5s						
EKMR				A		09 22 27.0	
	comp=E,270nm,0.5s						
EKMR				A		09 22 27.0	
	comp=E,220nm,0.5s						
TEY	Ternei	4.85	137	ePn	Pn	09 21 14.5	-1.6
TEY				ePg	Pg	09 21 32.6	-3.4
TEY				eSg	Sg	09 22 32.9	-5.8
TEY				A		09 22 39.5	
	comp=E,468nm,0.8s						
YASR	Yasnyy	5.26	333	⇑iPn	Pn	09 21 21.2	-0.6
YASR				AMB	AMB	09 21 21.8	
	comp=E,70nm,0.4s						
YASR				AMB	AMB	09 21 21.8	
	comp=E,34nm,0.4s						
YASR				AMB	AMB	09 21 21.8	
	comp=E,90nm,0.4s						
YASR				pPn		09 21 28.3	
YASR				eSg	Sg	09 22 47.4	-4.6
YASR				A		09 22 53.9	
	comp=E,220nm,0.5s						
YASR				A		09 22 53.9	
	comp=E,200nm,0.5s						
YASR				A		09 22 53.9	
	comp=E,120nm,0.5s						
ZEA	Zeya	5.87	332	ePn	Pn	09 21 28.9	-1.2
ZEA				AMB	AMB	09 21 29.7	
	comp=E,97nm,0.6s						
ZEA				eSg	Sg	09 23 06.0	-5.5
ZEA				A		09 23 15.6	
	comp=E,260nm,0.8s						
BMKR	Bomnak	6.36	344	ePn	Pn	09 21 35.5	-1.3
BMKR				AMB	AMB	09 21 37.1	
	comp=E,27nm,0.3s						
BMKR				sPn		09 21 44.2	
BMKR				eSg	Sg	09 23 20.5	-6.5
BMKR				A		09 23 28.0	
	comp=E,252nm,0.5s						
KROS	Kirovskiy	6.55	334	⇑iPn	Pn	09 21 37.7	-1.8
KROS				AMB	AMB	09 21 39.0	
	comp=E,14nm,0.5s						
KROS				AMB	AMB	09 21 39.0	
	comp=E,19nm,0.5s						
KROS				eSg	Sg	09 23 25.5	-7.8
KROS				A		09 23 33.5	
	comp=E,110nm,0.5s						
KROS				A		09 23 33.5	
	comp=E,84nm,0.5s						
KROS				A		09 23 33.5	
	comp=E,120nm,0.5s						
CN2	Changchun	6.60	225	Pn	Pn	09 21 37.5	-2.7
CN2	Changchun	6.60	225	Pg	Pb	09 22 03.9	+5.9
NKL	Nikolayevsk	7.14	48	ePn	Pn	09 21 48.5	+0.9
NKL				ePg	Pg	09 22 14.8	-5.0
NKL				AMB	AMB	09 22 16.9	
	comp=E,58nm,0.4s						
NKL				eSg	Sg	09 23 52.0	-0.2
NKL				A		09 24 09.0	
	comp=E,300nm,0.6s						
NKL				A		09 24 09.0	
	comp=E,190nm,0.6s						
TYV	Tymovskoe	7.31	68	ePn	Pn	09 21 54.2	+4.3
TYV				ePg	Pg	09 22 21.0	-2.0
TYV				AMB	AMB	09 22 30.0	
	comp=E,22nm,0.8s						
TYV				eSg	Sg	09 23 58.5	+1.0
TYV				A		09 24 20.0	
	comp=E,110nm,1.0s						
TYV				A		09 24 20.0	
	comp=E,88nm,1.0s						
NRGR	Nerungri	9.12	334	eP	Pn	09 22 17.2	+2.5
NRGR				S	Sn	09 24 03.3	+6.0
NRGR				smax			
	comp=E,78nm,0.6s						
MJAR	Matsushiro Arr	12.96	157	Pn	Pn	09 23 09.1	+1.8
	comp=E,0.1nm,0.3s,baz=326,slow=15,SNR=4.3						
MJAR	Matsushiro Arr	12.96	157	Pn	Pn	09 23 09.1	+1.8
PETK	Petropavlovsk-	16.84	65	P	Pn	09 24 03.9	+5.2
	baz=258,slow=7.2,SNR=1.9						
SONM	Songino Array	16.99	277	Pn	Pn	09 24 03.0	+2.3
	comp=E,0.1nm,0.3s,baz=81,slow=13,SNR=2.4						
SONM				LR	LR	09 30 39.3	
	comp=E,58nm,20.5s,baz=350,slow=38						
ZAK	Zakamensk	18.62	286	eP	Pn	09 24 27.6	+6.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.7s						
CBIJ	Chichi jima	22.96	156	LR	LR	09 33 46.0	
	comp=Z,24nm,18.1s,baz=103,slow=36						
TIXI	Tiksi	23.11	358	eP	P	09 25 12.4	+3.5
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
TIXI	Tiksi	23.11	358	eP	P	09 25 12.4	+3.5
	comp=Z,3.6nm,0.6s,mb4.0						
ZALV	Zalesovo Beam	29.47	298	P	P	09 26 07.8	+0.9
	comp=Z,2.2nm,0.6s,mb4.0,baz=91,slow=7.8,SNR=2.0						
MKAR	Makanchi Array	32.96	286	P	P	09 26 37.5	-0.2
	comp=Z,0.3nm,0.6s,mb3.4,baz=72,slow=9.6,SNR=2.7						
KURK	Kurchatov	33.92	294	P	P	09 26 47.4	+1.3
	comp=Z,0.8nm,0.5s,mb3.9,baz=72,slow=9.3,SNR=4.4						
KURK				pP	pP	09 26 52.7	+3.6
	comp=Z,1.9nm,0.7s,baz=72,slow=9.2,SNR=8.6						
KURK	Kurchatov	33.92	294	P	P	09 26 47.4	+1.3
KURK				pP	pP	09 26 52.7	+3.6
BVAR	Borovoye Array	38.04	301	P	P	09 27 21.9	+0.6
	comp=Z,0.5nm,0.5s,mb3.5,baz=74,slow=7.7,SNR=3.6						
INK	Inuvik	47.53	30	P	P	09 28 40.5	+2.5
	comp=Z,0.7nm,0.7s,mb3.8,baz=170,slow=5.8,SNR=4.2						
INK				pP	pP	09 28 48.0	+6.8
	comp=Z,1.1nm,0.7s,baz=320,slow=7.7,SNR=4.5						
JOF	Joensuu	52.43	325	ep	P	09 29 15.1	-0.2
	comp=Z,0.8nm,0.3s,mb4.1						
YKA	Yellowknife Ar	57.30	30	P	P	09 29 52.5	+1.9
	comp=Z,0.1nm,0.4s,mb3.2,baz=313,slow=6.9,SNR=6.0						
YKA				pP	pP	09 29 59.1	+5.3
	comp=Z,1.0nm,1.0s,baz=311,slow=7.5,SNR=12						
YKA	Yellowknife Ar	57.30	30	P	P	09 29 52.5	+1.9
YKA				pP	pP	09 29 59.1	+5.3
WRA	Warramunga Arr	68.32	178	P	P	09 31 04.0	-0.4
	comp=Z,1.0nm,0.7s,mb3.9,baz=352,slow=6.9,SNR=7.5						
WRA				pP	pP	09 31 10.0	+2.4
	comp=Z,1.1nm,0.8s,baz=349,slow=6.9,SNR=3.8						
ASAR	Alice Springs	72.01	178	P	P	09 31 26.6	-0.3
	comp=Z,0.6nm,1.0s,mb3.5,baz=357,slow=6.8,SNR=3.0						
ASAR				pP	pP	09 31 33.0	+2.8
	comp=Z,0.7nm,0.6s,baz=358,slow=6.2,SNR=4.7						
NVAR	Mina Array Bea	73.32	50	P	P	09 31 38.5	+3.7
	comp=Z,0.3nm,0.6s,mb3.4,baz=311,slow=4.7,SNR=2.9						
PDAR	Pinedale Array	74.15	42	P	P	09 31 44.2	+4.6
	comp=Z,0.4nm,0.5s,mb3.6,baz=15,slow=3.3,SNR=4.7						

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*UPP **22** 09:38:30.5, 60°.09N×22°.87E, h1^{km}, ML0.8, Suspected Mining explosion.*

*CSEM **22** 09:38:35.9±0.5, 60°.63N×22°.29E, h2^{km}, ML1.5, Error ellipse: s-maj=13.5km s-min=6.3km az=163.0, Mining explosion.*

HEL 22 09:38:36.1±0.1**, 60°.54N×22°.20E, h0**^{km}**, ML1.5, ML0.8**(UPP)**, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAF	Rauma	0.53	336	eP	Pg	09 38 44.9	-1.3
RAF				eS	Sg	09 38 52.2	-0.8
RAF				eRG		09 38 52.8	
RAF	Rauma	0.53	336	Pg	Pg	09 38 44.8	-1.4
RAF				Sg	Sg	09 38 52.2	-0.8
AAL	Aland	1.16	252	eP	Pg	09 38 56.9	-1.4

GRAU	**Graesoe**	**1.83**	**265**	*e*P	Pn	09 39 08.1	-0.6
GRAU				*e*S	Sn	09 39 33.7	+1.2
GRAU	**Graesoe**	**1.83**	**265**	P	Pn	09 39 08.1	-0.6
GRAU				S	Sn	09 39 33.7	+1.2
KEF	**Keuruu**	**2.07**	**37**	MSG		09 39 39.9	
	comp=Z,1.4nm,0.4s						
KEF				*e*SG	Sg	09 39 39.9	-2.8
KEF	**Keuruu**	**2.07**	**37**	Sg	Sg	09 39 39.9	-2.8
FIA0	**FINESS Array S**	**2.09**	**63**	*e*P	Pn	09 39 12.2	-0.1
FIA0				*e*SG	Sg	09 39 40.5	-2.7
FIA0				MSG		09 39 40.5	
	comp=Z,1.0nm,0.5s						
FIA0	**FINESS Array S**	**2.09**	**63**	Pn	Pn	09 39 12.2	-0.1
FIA0				Sg	Sg	09 39 40.5	-2.7
FIA1	**FINESS Array S**	**2.09**	**63**	*e*SG	Sg	09 39 40.2	-3.1
FIA1				MSG		09 39 40.2	
	comp=Z,6.0nm,0.4s						
FIA1	**FINESS Array S**	**2.09**	**63**	Sg	Sg	09 39 40.2	-3.1
IGGU	**Iggoen**	**2.43**	**280**	*e*P	Pn	09 39 17.2	+0.3
IGGU	**Iggoen**	**2.43**	**280**	P	Pn	09 39 17.2	+0.3
KAF	**Kangasniemi**	**2.53**	**50**	*e*p	Sn	09 39 50.8	+1.0
	comp=Z,2.9nm,0.4s						
KAF	**Kangasniemi**	**2.53**	**50**	*e*SB	Sb	09 39 52.0	-1.9
KAF				MSG		09 39 52.0	
	comp=Z,1.3nm,0.4s						
KAF	**Kangasniemi**	**2.53**	**50**	Sg	Sg	09 39 52.0	-5.2

*NEIC **22** 09:55:10.2,64°.86N×139°.56W,h5^{km},ML2.5(PGC),After PGC.*

PGC 22 09:55:10.2±69.0**,64°.86N×139°.56W,h5**^{km}**,ML2.5**/3**,2D, 89km northeast of Dawson, Yt Southern Yukon Territory, Canada,Southern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EGAK	**Eagle**	**0.69**	**264**	*e*Pg	Pg	09 55 21.3	-2.0
EGAK				*e*Sg	Sg	09 55 29.6	-2.7
DAWY	**Dawson**	**0.80**	**175**	⇓P	Pg	09 55 24.6	-0.8
DAWY				⇓S	Sg	09 55 34.6	-1.1
DAWY	**Dawson**	**0.80**	**175**	*e*Pg	Pg	09 55 24.7	-0.7
DAWY				*e*Sg	Sg	09 55 35.5	-0.3
MENT	**Mentasta**	**2.66**	**226**	*e*Pn	Pn	09 55 53.6	0.0
MENT				*e*Sg	Sg	09 56 30.7	-4.8
HYT	**Haines Junctio**	**4.16**	**166**	*e*Pn	Pn	09 56 13.5	-0.6
HYT				*e*Pg	Pg	09 56 25.1	-4.6
HYT				*e*Sg	Sg	09 57 17.9	-5.6
INK	**Inuvik**	**4.22**	**32**	*e*Pn	Pn	09 56 13.8	-1.2
INK				*e*Sn	Sn	09 57 02.5	-2.0

*NEIC **22** 09:58:44.7±0.6,49°.24S×121°.04E,h10^{km},Error ellipse: s-maj=24.2km s-min=10.4km az=95.0*

IDC 22 09:58:43.3±1.1**,49°.24S×121°.07E,h0**^{km}**,mb4.3**/5**, mb1 4.5**/6**,mb1mx4.2**/15**,mbtmp4.4**/6**,ML2.5**/1**,MS3.7**/8**, Ms1 3.7**/8**,ms1mx3.5**/24**,Error ellipse: s-maj=55.0km s-min=18.2km az=102.0,Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	**16.55**	**349**	Pn	Pn	10 02 37.0	+0.4
	0.8nm,0.3s,baz=183,slow=9.8,SNR=9.2						
NWAO				LR	LR	10 07 18.3	
	comp=Z,404nm,21.6s,baz=190,slow=31						
STKA	**Stephens Creek**	**23.20**	**49**	P	P	10 03 52.4	+0.7
	5.8nm,0.8s,baz=228,slow=9.8,SNR=5.9						
STKA				LR	LR	10 11 46.7	
	comp=Z,84nm,18.8s,baz=203,slow=34						
ASAR	**Alice Springs**	**27.45**	**26**	P	P	10 04 30.4	-0.4
	4.4nm,0.9s,baz=202,slow=9.3,SNR=17						
WRA	**Warramunga Arr**	**31.10**	**25**	P	P	10 05 02.5	-0.8
	2.2nm,0.9s,baz=199,slow=8.2,SNR=11						
VNDA	**Vanda**	**32.31**	**165**	P	P	10 05 13.3	-0.1
	3.9nm,0.7s,baz=289,slow=7.7,SNR=9.3						
VNDA				LR	LR	10 17 42.9	
	comp=Z,328nm,18.1s,baz=312,slow=35						
VNDA	**Vanda**	**32.31**	**165**	P	P	10 05 13.3	-0.1
MAW	**Mawson**	**33.91**	**216**	LR	LR	10 15 40.8	
	comp=Z,99nm,18.7s,baz=346,slow=30						
CTA	**Charters Tower**	**35.38**	**44**	LR	LR	10 17 22.6	
	comp=Z,81nm,19.7s,baz=65,slow=32						
QSPA	**South Pole Qui**	**40.89**	**180**	P	P	10 06 26.4	-0.1
	5.9nm,0.6s,baz=324,slow=2.3,SNR=82						
HNR	**Honiara**	**51.21**	**53**	LR	LR	10 27 31.0	
	comp=Z,103nm,19.5s,baz=167,slow=34						
CMAR	**Chiang Mai Arr**	**70.20**	**338**	LR	LR	10 39 12.0	
	comp=Z,21nm,19.2s,baz=195,slow=35						
PLCA	**Paso Flores**	**89.83**	**171**	LR	LR	10 52 44.4	
	comp=Z,67nm,20.4s,baz=320,slow=36						
TORD	**Torodi Ar. Bea**	**118.94**	**256**	PKP	PKPdf	10 17 33.9	0.0
	0.6nm,1.1s,baz=127,slow=2.9,SNR=2.9						
PDAR	**Pinedale Array**	**144.80**	**81**	PKP	PKPdf	10 18 21.6	+0.2
	0.4nm,0.8s,baz=256,slow=1.3,SNR=3.7						
YKA	**Yellowknife Ar**	**147.19**	**45**	PKPbc	PKPbc	10 18 27.3	+0.2
	1.6nm,0.8s,baz=271,slow=2.7,SNR=34						

*CSEM **22** 10:07:43.6,29°.93N×36°.65E,h15^{km},ML3.5*

HLW 22 10:07:43.6,29°.93N×36°.65E,h15^{km}**,Mb3.5,Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HBST	**Basata**	**1.81**	**247**	P	Pn	10 08 14.0	-0.3
HBST	**Basata**	**1.81**	**247**	P	Pn	10 08 14.0	-0.3
HNKL	**Nakhl**	**2.32**	**271**	P	Pn	10 08 20.5	-0.7
HNKL				S	Sn	10 08 47.6	-1.8
HNKL	**Nakhl**	**2.32**	**271**	P	Pn	10 08 20.5	-0.7
HNKL				S	Sn	10 08 47.6	-1.8
HKAT	**Jabal Katrina**	**2.71**	**240**	P	Pn	10 08 25.9	-0.8
HKAT	**Jabal Katrina**	**2.71**	**240**	P	Pn	10 08 25.9	-0.7

IDC 22 10:13:27.2±4.4**,18°.30S×178°.49W,h544**^{km}±49^{km}**, mb3.3**/10**,mb1 3.5**/10**,mb1mx3.4**/19**,mbtmp3.3**/10**,Error ellipse: s-maj=26.2km s-min=16.3km az=73.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**20.25**	**190**	P	P	10 17 24.5	-1.2
	8.2nm,0.6s,baz=33,slow=23,SNR=7.3						
HNR	**Honiara**	**22.69**	**290**	P	P	10 17 49.9	+1.9
	66nm,0.4s,baz=125,slow=12,SNR=10.0						
STKA	**Stephens Creek**	**38.37**	**242**	P	P	10 20 02.7	+0.6
	3.1nm,0.5s,baz=85,slow=9.6,SNR=12						
WRA	**Warramunga Arr**	**44.48**	**260**	P	P	10 20 49.3	-1.3
	0.5nm,0.3s,baz=98,slow=7.3,SNR=28						
ASAR	**Alice Springs**	**44.61**	**255**	P	P	10 20 51.1	-0.5
	4.4nm,0.4s,baz=89,slow=8.3,SNR=95						
MJAR	**Matsushiro Arr**	**68.17**	**323**	P	P	10 23 32.1	-1.2
	1.3nm,0.5s,baz=161,slow=5.6,SNR=4.7						
QSPA	**South Pole Qui**	**71.76**	**180**	P	P	10 23 55.4	+1.4
	2.9nm,0.7s,baz=27,slow=4.5						
PETK	**Petropavlovsk-**	**74.04**	**345**	P	P	10 24 07.2	-0.2
	2.1nm,0.7s,baz=118,slow=6.4,SNR=5.0						
PDAR	**Pinedale Array**	**87.69**	**43**	P	P	10 25 18.9	+0.8
	0.6nm,0.5s,baz=208,slow=2.5,SNR=6.0						
INK	**Inuvik**	**92.28**	**15**	P	P	10 25 38.1	-0.7
	0.4nm,0.4s,baz=229,slow=3.5,SNR=5.2						
YKA	**Yellowknife Ar**	**94.72**	**25**	P	P	10 25 49.2	-0.8
	0.2nm,0.6s,baz=243,slow=4.2,SNR=5.0						
MKAR	**Makanchi Array**	**109.35**	**314**	PKiKP	PKiKP	10 30 54.5	-1.2
	0.2nm,0.5s,baz=82,slow=1.7,SNR=3.8						
BRTR	**Keskin Array B**	**145.00**	**314**	PKPbc	PKPbc	10 32 02.8	-0.8
	0.8nm,0.6s,baz=83,slow=4.8,SNR=4.4						
GERES	**GERESS Array B**	**147.97**	**345**	PKPbc	PKPbc	10 32 11.5	+0.2
	0.6nm,0.5s,baz=35,slow=3.6,SNR=2.4						
TORD	**Torodi Ar. Bea**	**174.87**	**182**	PKPab	PKPab	10 34 14.2	+0.4
	0.3nm,0.9s,baz=174,slow=4.3,SNR=2.6						

*ISCJB **22** 10:27:10.9±0.2,41°.14N±0°.01×114°.87W±0°.02,h10^{km}, Error ellipse: s-maj=2.0km s-min=1.9km az=172.0*

*IDC **22** 10:27:10.1±1.0,41°.26N×115°.04W,h0^{km},mb3.0/1, mb1 3.5/3,mb1mx3.3/21,mbtmp3.1/3,ML3.4/2,Error ellipse: s-maj=14.6km s-min=5.6km az=123.0*

*NEIC **22** 10:27:11.6,41°.11N×114°.90W,h17^{km},ML3.1,After REN.*

ISC 22 10:27:10.8±0.3**,41°.17N**±0°.01×**114°.92W**±0°.02**,h0**^{km}±3^{km}**, n66,**σ0^{s}.**97**/110**,19C-15D,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.33**	**196**	⇓P	**Pg**	**10 27 17.7**	**+0.7**
	baz=0.3						
N12A				⇑S	**Sg**	**10 27 22.5**	**+1.2**
	baz=0.3						
ELK	**Elko**	**0.49**	**210**	Pg	**Pg**	**10 27 21.1**	**+1.0**
	57nm,0.3s,baz=16,slow=17,SNR=21						
ELK				Lg		10 27 27.2	
	160nm,0.3s,baz=120,slow=20,SNR=43						
ELK	**Elko**	**0.49**	**210**	*e*Pg	**Pg**	**10 27 20.7**	**+0.6**
ELK				*e*Sg	**Sg**	**10 27 26.6**	**+0.1**
N13A	**Wendover, West**	**0.62**	**120**	⇑P	**Pg**	**10 27 23.1**	**+0.4**
	baz=0.6						
M11A	**Holland Ranch,**	**0.71**	**292**	⇓P	**Pg**	**10 27 24.9**	**+0.6**
	baz=0.7						
M11A				⇑S	**Sg**	**10 27 34.5**	**+1.1**
	baz=0.7						
N11A	**Elko Archery C**	**0.71**	**241**	⇓P	**Pg**	**10 27 25.1**	**+0.7**
	baz=0.7						
O12A	**Currie**	**0.91**	**172**	⇓S	**Sg**	**10 27 40.4**	**+0.4**
	baz=0.8						
L12A	**House Creek Ra**	**0.98**	**356**	⇑P	**Pg**	**10 27 29.6**	**+0.1**
	baz=1.0						
L12A				⇑S	**Sg**	**10 27 42.9**	**+0.7**
	baz=1.0						
L13A	**Double Diamond**	**1.17**	**38**	⇓S	**Sg**	**10 27 48.3**	**-0.1**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.18**	**328**	⇓S	**Sg**	**10 27 48.5**	**-0.1**
	baz=1.2						
O11A	**Cowboy Ranch,**	**1.18**	**209**	⇑S	**Sg**	**10 27 48.6**	**0.0**
	baz=1.1						
M14A	**Sheep Mountain**	**1.23**	**74**	⇑S	**Sg**	**10 27 50.1**	**-0.1**
	baz=1.2						
M10A	**I.L. Ranch, Tu**	**1.27**	**287**	⇑S	**Sg**	**10 27 52.4**	**+0.8**
	baz=1.3						
N10A	**Dunphy**	**1.28**	**250**	⇓S	**Sg**	**10 27 52.6**	**+0.6**
	baz=1.3						
N14A	**Grayback Hills**	**1.35**	**103**	⇑P	**Pg**	**10 27 35.5**	**-1.1**
	baz=1.3						
N14A				⇓S	**Sg**	**10 27 53.9**	**-0.2**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.45**	**99**	*e*Pn	**Pn**	**10 27 37.2**	**-1.0**
BGU				*e*Sg	**Sg**	**10 27 57.9**	**+0.6**
K12A	**Draper Farm, C**	**1.47**	**0**	⇑P	**Pn**	**10 27 37.3**	**-1.1**
	baz=1.5						
K12A				⇓S	**Sg**	**10 27 56.3**	**-1.6**
	baz=1.5						
L10A	**Juniper Basin**	**1.48**	**308**	⇑P	**Pn**	**10 27 38.1**	**-0.4**
	baz=1.5						
L10A				⇑S	**Sg**	**10 27 57.7**	**-0.5**
	baz=1.5						
O10A	**Cortez Mining,**	**1.49**	**234**	⇓P	**Pn**	**10 27 38.1**	**-0.5**
	baz=1.5						
O10A				⇑S	**Sg**	**10 27 58.2**	**-0.4**
	baz=1.5						
L14A	**Malta**	**1.53**	**55**	⇓P	**Pn**	**10 27 38.5**	**-0.8**
	baz=1.6						
L14A				⇓S	**Sn**	**10 27 58.6**	**-1.2**
	baz=1.6						
K13A	**Stover Farm, H**	**1.60**	**23**	⇑P	**Pn**	**10 27 39.6**	**-0.7**
	baz=1.7						
K13A				⇑S	**Sn**	**10 28 00.8**	**-0.9**
	baz=1.7						
P12A	**McGill**	**1.69**	**180**	⇑P	**Pn**	**10 27 41.0**	**-0.6**
	baz=1.6						
P12A				⇑S	**Sn**	**10 28 03.2**	**-0.7**
	baz=1.6						
HVU	**Hansel Valley**	**1.72**	**69**	*e*Pn	**Pn**	**10 27 41.7**	**-0.2**
HVU				*e*Sg	**Sg**	**10 28 05.3**	**-0.8**
P11A	**Circle Ranch,**	**1.74**	**202**	⇓P	**Pn**	**10 27 41.8**	**-0.3**
	baz=1.7						
SPUT	**South Promonto**	**1.87**	**85**	*e*Pn	**Pn**	**10 27 44.0**	**+0.1**
SPUT				*e*Sg	**Sg**	**10 28 10.8**	**+0.1**
DUG	**Dugway**	**1.87**	**121**	*e*Pn	**Pn**	**10 27 44.6**	**+0.6**
DUG				*e*Sg	**Sg**	**10 28 11.3**	**+0.4**
BMN	**Battle Mountai**	**1.90**	**248**	*e*Pn	**Pn**	**10 27 44.6**	**+0.3**
BMN				*e*Sg	**Sg**	**10 28 09.5**	**-2.2**
P10A	**Eureka**	**1.95**	**218**	⇑P	**Pn**	**10 27 44.7**	**-0.2**
	baz=1.9						
NOQ	**North Oquirrh**	**2.18**	**103**	*e*Pn	**Pn**	**10 27 49.3**	**+1.1**
NOQ				*e*Sg	**Sg**	**10 28 20.7**	**-0.1**
Q13A	**Wheeler Ranch,**	**2.32**	**162**	⇓P	**Pn**	**10 27 49.4**	**-0.7**
	baz=2.3						
HLID	**Hailey**	**2.42**	**9**	*e*Pn	**Pn**	**10 27 52.0**	**+0.5**
HLID				*e*Sg	**Sg**	**10 28 24.4**	**-4.2**
CTU	**Camp Tracy**	**2.45**	**100**	*e*Pn	**Pn**	**10 27 53.4**	**+1.6**
CTU				*e*Sg	**Sg**	**10 28 29.2**	**-0.1**
NLU	**North Lily Min**	**2.48**	**118**	*e*Pn	**Pn**	**10 27 53.0**	**+0.6**
NLU				*e*Sg	**Sg**	**10 28 33.8**	**+3.3**
I12A	**Atlanta**	**2.63**	**357**	⇓Sb	**Sb**	**10 28 32.0**	**+0.5**
	baz=2.7						
J10A	**Berg Farm, Mel**	**2.64**	**329**	⇑Sb	**Sb**	**10 28 32.5**	**+0.7**
	baz=2.7						
MPU	**Maple Canyon**	**2.75**	**114**	Pn	**Pn**	**10 27 55.2**	**-0.9**
MPU				*e*Sg	**Sg**	**10 28 39.8**	**+0.6**
DAU	**Daniels Canyon**	**2.88**	**104**	*e*Pg	**Pg**	**10 28 06.3**	**+0.3**
DAU				*e*Sg	**Sg**	**10 28 42.7**	**-0.7**
WVOR	**Wild Horse Val**	**3.05**	**296**	*e*Pn	**Pn**	**10 28 02.5**	**+2.3**
WVOR				*e*Sg	**Sg**	**10 28 48.0**	**-0.9**
MSU	**Marysvale**	**3.39**	**141**	*e*Pn	**Pn**	**10 28 03.9**	**-0.9**
MSU				*e*Pg	**Pg**	**10 28 17.3**	**+1.5**
TMUT	**Trail Mountain**	**3.40**	**122**	*e*Pn	**Pn**	**10 28 01.0**	**-4.0**
TMUT				*e*Pg	**Pg**	**10 28 15.1**	**-0.8**
TMUT				*e*Sg	**Sg**	**10 29 03.6**	**+3.6**
RRI2	**Red Ridge**	**3.45**	**50**	*e*Pn	**Pn**	**10 28 07.0**	**+1.4**
RRI2				*e*Sg	**Sg**	**10 29 00.3**	**-1.1**
ARUT	**Antelope Range**	**3.56**	**161**	*e*Pn	**Pn**	**10 28 01.8**	**-5.4**
ARUT				*e*Pg	**Pg**	**10 28 19.3**	**+0.2**
DCID1	**Drake Creek**	**3.68**	**48**	*e*Pn	**Pn**	**10 28 09.5**	**+0.7**
DCID1				*e*Sg	**Sg**	**10 29 02.6**	**-6.3**
REDW	**Red Top Meadow**	**3.73**	**53**	*e*Pn	**Pn**	**10 28 12.1**	**+2.6**
REDW				*e*Sg	**Sg**	**10 29 12.0**	**+1.5**
TPAW	**Teton Pass**	**3.75**	**50**	*e*Pn	**Pn**	**10 28 10.2**	**+0.5**
TPAW				*e*Sg	**Sg**	**10 29 06.0**	**-5.1**
NVAR	**Mina Array Bea**	**3.78**	**225**	Pn	**Pn**	**10 28 08.6**	**-1.6**
	2.7nm,0.3s,baz=40,slow=14,SNR=24						
NVAR				Pg	**Pg**	**10 28 20.1**	**-3.0**
	6.1nm,0.3s,baz=53,slow=15,SNR=15						
NVAR				Sn	**Sn**	**10 28 54.3**	**-1.0**
	5.2nm,0.3s,baz=47,slow=19,SNR=3.3						
NVAR				Lg		10 29 08.7	
	9.5nm,0.3s,baz=44,slow=38,SNR=4.3						
CCUT	**Cedar City**	**3.81**	**161**	*e*Pn	**Pn**	**10 28 10.4**	**-0.2**
CCUT				*e*Sg	**Sg**	**10 29 12.0**	**-1.2**
SNOW	**Snow King Moun**	**3.84**	**52**	Pn	**Pn**	**10 28 11.4**	**+0.3**
SNOW				*e*Sg	**Sg**	**10 29 13.4**	**-0.9**
SRU	**San Rafael**	**3.95**	**120**	Pn	**Pn**	**10 28 07.9**	**-4.6**
SRU				*e*Pg	**Pg**	**10 28 24.8**	**-1.6**
MCMT	**McKenzie Canyo**	**3.96**	**22**	*e*Pn	**Pn**	**10 28 12.9**	**+0.2**
MCMT				*e*Sg	**Sg**	**10 29 16.6**	**-1.3**
IMW	**Indian Meadow**	**4.01**	**46**	Pn	**Pn**	**10 28 14.8**	**+1.4**
IMW				*e*Sg	**Sg**	**10 29 14.6**	**-4.9**
LOHW	**Long Hollow**	**4.02**	**51**	*e*Pn	**Pn**	**10 28 14.4**	**+0.9**
LOHW				*e*Sg	**Sg**	**10 29 15.8**	**-4.1**
MOOW	**Moose Ponds**	**4.02**	**49**	*e*Pn	**Pn**	**10 28 13.7**	**+0.2**
MOOW				*e*Sg	**Sg**	**10 29 13.7**	**-6.3**
BMO	**Blue Mountains**	**4.08**	**335**	Pn	**Pn**	**10 28 15.1**	**+0.8**
BMO				*e*Sg	**Sg**	**10 29 16.6**	**-5.1**
PDAR	**Pinedale Array**	**4.30**	**66**	Pn	**Pn**	**10 28 19.9**	**+2.6**
	0.3nm,0.3s,baz=247,slow=12,SNR=9.6						
PDAR				Lg		10 29 25.2	
	1.1nm,0.3s,baz=242,slow=30,SNR=5.3						
DLMT	**Dillon**	**4.52**	**21**	*e*Pn	**Pn**	**10 28 18.1**	**-2.3**
DLMT				*e*Sg	**Sg**	**10 29 35.0**	**-0.9**
YMR	**Madison River**	**4.54**	**38**	*e*Pn	**Pn**	**10 28 22.1**	**+1.4**
YMR				*e*Sg	**Sg**	**10 29 31.8**	**-5.0**
LRM	**Limekiln Ridge**	**4.99**	**20**	*e*Pn	**Pn**	**10 28 27.7**	**+1.0**
LRM				*e*Sg	**Sg**	**10 29 46.2**	**-4.7**
BOZ	**Bozeman (W)**	**5.08**	**27**	*e*Pn	**Pn**	**10 28 27.6**	**-0.4**
BOZ				*e*Sg	**Sb**	**10 29 42.6**	**+0.7**
PV01	**Paradox Valley**	**5.76**	**120**	*e*Pn	**Pn**	**10 28 38.1**	**+0.6**
YBH	**Yreka Blue Hor**	**5.88**	**278**	Lg		10 30 15.7	
	0.1nm,0.3s,baz=360,slow=14,SNR=3.7						
HRY	**Holter Researc**	**5.97**	**21**	*e*Pn	**Pn**	**10 28 40.3**	**0.0**
HRY				*e*Pg	**Pg**	**10 28 59.9**	**-5.2**
LDFC	**Landfair**	**6.08**	**181**	*e*Pn	**Pn**	**10 28 41.4**	**-0.5**
MVCO	**Mesa Verde**	**6.36**	**126**	*e*Pn	**Pn**	**10 28 44.4**	**-1.3**
ANMO	**Albuquerque**	**9.11**	**130**	Pg	Px	10 29 57.0	
	0.1nm,0.3s,baz=341,slow=16,SNR=3.7						
ANMO				Lg		10 31 58.9	
	0.1nm,0.3s,baz=93,slow=3.2,SNR=3.5						
YKA	**Yellowknife Ar**	**21.36**	**0**	P	**P**	**10 31 59.2**	**0.0**
	0.6nm,0.7s,baz=180,slow=10,SNR=18						

*ISCJB **22** 10:30:40.4±0.2,41°.12N±0°.01×114°.87W±0°.02,h10^{km}, Error ellipse: s-maj=1.9km s-min=1.7km az=174.4*

*NEIC **22** 10:30:40.8,41°.15N×114°.92W,h12^{km},ML2.7,After REN.*

*IDC **22** 10:30:40.7±0.9,41°.16N×114°.91W,h0^{km},mb2.3/1, mb1 3.1/3,mb1mx3.0/21,mbtmp2.7/3,ML3.2/2,Error ellipse: s-maj=20.5km s-min=4.8km az=134.0*

ISC 22 10:30:40.2±0.3**,41°.15N**±0°.01×**114°.91W**±0°.01**,h2**^{km}±2^{km}**, n98,**σ0^{s}.**96**/159**,34C-39D,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.31**	**198**	⇑P	**Pg**	**10 30 47.2**	**+1.0**
	baz=0.3,SNR=166						
N12A				⇓S	**Sg**	**10 30 51.9**	**+1.6**
	baz=0.3						
ELK	**Elko**	**0.47**	**211**	Pg	**Pg**	**10 30 49.8**	**+0.5**
	27nm,0.3s,baz=24,slow=14,SNR=10						
ELK				Lg		10 30 56.3	
	103nm,0.3s,baz=66,slow=16,SNR=29						
M13A	**Montello**	**0.60**	**69**	⇑P	**Pg**	**10 30 52.5**	**+0.7**
	baz=0.6,SNR=38						
N13A	**Wendover, West**	**0.61**	**119**	⇓P	**Pg**	**10 30 52.8**	**+0.9**
	baz=0.6,SNR=45						
N13A				⇑S	**Sg**	**10 31 01.1**	**+1.2**
	baz=0.6						
N11A	**Elko Archery C**	**0.71**	**242**	⇓P	**Pg**	**10 30 53.9**	**+0.2**
	baz=0.7,SNR=72						
N11A				⇑S	**Sg**	**10 31 03.3**	**+0.4**
	baz=0.7						
M11A	**Holland Ranch,**	**0.72**	**293**	⇓P	**Pg**	**10 30 54.1**	**+0.1**
	baz=0.7						
M11A				⇑S	**Sg**	**10 31 03.8**	**+0.4**
	baz=0.7						
O12A	**Currie**	**0.89**	**172**	⇓P	**Pg**	**10 30 57.7**	**+0.4**
	baz=0.9,SNR=91						
O12A				⇓S	**Sg**	**10 31 09.9**	**+1.1**
	baz=0.9						
L12A	**House Creek Ra**	**1.00**	**356**	⇑P	**Pg**	**10 30 59.4**	**0.0**
	baz=1.0						
L12A				⇑S	**Sg**	**10 31 13.1**	**+0.8**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.17**	**209**	⇓P	**Pg**	**10 31 03.2**	**+0.6**
	baz=1.2,SNR=83						
O11A				⇑S	**Sg**	**10 31 18.0**	**+0.3**
	baz=1.2						
L13A	**Double Diamond**	**1.19**	**37**	⇓P	**Pg**	**10 31 02.7**	**-0.3**
	baz=1.2						
L13A				⇑S	**Sg**	**10 31 18.5**	**+0.1**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.20**	**328**	⇓P	**Pg**	**10 31 02.8**	**-0.3**
	baz=1.2						
L11A				⇑S	**Sg**	**10 31 18.4**	**-0.3**
	baz=1.2						
M14A	**Sheep Mountain**	**1.23**	**73**	P	**Pg**	**10 31 03.4**	**-0.4**
	baz=1.2,SNR=151						
M14A				⇓S	**Sg**	**10 31 20.1**	**+0.4**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.24**	**145**	⇓P	**Pg**	**10 31 04.1**	**+0.1**
	baz=1.2,SNR=156						
O13A				⇑S	**Sg**	**10 31 22.1**	**+2.1**
	baz=1.2						
M10A	**I.L. Ranch, Tu**	**1.28**	**287**	⇑P	**Pg**	**10 31 04.5**	**-0.3**
	baz=1.3						
M10A				⇑S	**Sg**	**10 31 21.9**	**+0.5**
	baz=1.3						
N10A	**Dunphy**	**1.28**	**251**	⇑P	**Pg**	**10 31 04.4**	**-0.5**
	baz=1.3,SNR=24						
N10A				⇑S	**Sg**	**10 31 21.8**	**+0.4**
	baz=1.3						
N14A	**Grayback Hills**	**1.34**	**102**	P	**Pg**	**10 31 05.2**	**-0.7**
	baz=1.3,SNR=100						
N14A				⇓S	**Sg**	**10 31 24.2**	**+1.0**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.44**	**98**	*e*Pn	**Pn**	**10 31 06.8**	**-0.6**
BGU				*e*Sg	**Sg**	**10 31 25.4**	**-1.1**
O10A	**Cortez Mining,**	**1.48**	**235**	⇓P	**Pn**	**10 31 07.4**	**-0.4**
	baz=1.5,SNR=53						
O10A				⇑S	**Sb**	**10 31 27.7**	**0.0**
	baz=1.5						
K12A	**Draper Farm, C**	**1.48**	**0**	⇓P	**Pn**	**10 31 07.1**	**-0.9**
	baz=1.5						
K12A				⇓S	**Sb**	**10 31 26.1**	**-1.7**
	baz=1.5						
L10A	**Juniper Basin**	**1.49**	**309**	⇓P	**Pn**	**10 31 07.6**	**-0.4**
	baz=1.5						
L10A				⇓S	**Sb**	**10 31 27.5**	**-0.5**
	baz=1.5						
L14A	**Malta**	**1.53**	**54**	⇓P	**Pn**	**10 31 08.4**	**-0.2**
	baz=1.5,SNR=65						
L14A				⇑S	**Sn**	**10 31 29.2**	**+0.1**
	baz=1.5						
K13A	**Stover Farm, H**	**1.62**	**22**	⇓P	**Pn**	**10 31 09.6**	**-0.2**
	baz=1.6,SNR=17						
K13A				⇑S	**Sn**	**10 31 30.9**	**-0.3**
	baz=1.6						
P12A	**McGill**	**1.68**	**180**	⇑P	**Pn**	**10 31 10.3**	**-0.2**
	baz=1.7,SNR=128						
P12A				⇓S	**Sn**	**10 31 33.0**	**+0.4**
	baz=1.7						
P11A	**Circle Ranch,**	**1.72**	**202**	⇓P	**Pn**	**10 31 11.0**	**-0.1**
	baz=1.7,SNR=17						
HVU	**Hansel Valley**	**1.73**	**68**	*e*Pn	**Pn**	**10 31 10.8**	**-0.5**
HVU				*e*Sg	**Sg**	**10 31 35.1**	**-0.6**
K11A	**Parker Ranch,**	**1.82**	**333**	⇓P	**Pn**	**10 31 12.6**	**0.0**
	baz=1.8,SNR=66						
K11A				⇑S	**Sn**	**10 31 36.6**	**+0.3**
	baz=1.8						
P13A	**Bates Ranch, G**	**1.83**	**158**	⇓P	**Pn**	**10 31 11.9**	**-0.8**
	baz=1.8						
N15A	**Stansbury Isla**	**1.83**	**97**	⇓P	**Pn**	**10 31 12.2**	**-0.5**
	baz=1.8,SNR=140						
DUG	**Dugway**	**1.86**	**120**	P	**Pn**	**10 31 12.3**	**-0.8**
	baz=1.9,SNR=225						
DUG	**Dugway**	**1.86**	**120**	*e*Pn	**Pn**	**10 31 12.5**	**-0.6**
DUG				*e*Sg	**Sg**	**10 31 38.6**	**-1.4**
SPUT	**South Promonto**	**1.86**	**84**	*e*Pn	**Pn**	**10 31 13.6**	**+0.5**
SPUT				*e*Sg	**Sg**	**10 31 39.3**	**-0.8**
M15A	**Larsen Ranch,**	**1.88**	**80**	⇑P	**Pn**	**10 31 13.5**	**+0.1**
	baz=1.9,SNR=122						
BMN	**Battle Mountai**	**1.90**	**248**	*e*Pn	**Pn**	**10 31 12.8**	**-0.8**
BMN				*e*Sg	**Sg**	**10 31 40.3**	**-0.8**
K14A	**Jones Ranch, D**	**1.90**	**42**	⇑P	**Pn**	**10 31 13.7**	**0.0**
	baz=1.9,SNR=28						
M09A	**Marrel Ranch,**	**1.93**	**279**	⇓P	**Pn**	**10 31 13.3**	**-0.7**
	baz=1.9,SNR=15						
P10A	**Eureka**	**1.94**	**218**	⇓P	**Pn**	**10 31 14.2**	**+0.1**
	baz=1.9,SNR=45						
O09A	**Fish Creek Ran**	**1.99**	**241**	⇑P	**Pn**	**10 31 14.2**	**-0.7**
	baz=2.0						
N09A	**Rock Creek Ran**	**2.00**	**262**	⇑P	**Pn**	**10 31 14.1**	**-0.9**
	baz=2.0						
O15A	**The Old Anders**	**2.05**	**114**	⇑P	**Pn**	**10 31 15.2**	**-0.6**
	baz=2.1,SNR=70						
L15A	**Malad City**	**2.08**	**65**	⇓P	**Pn**	**10 31 15.9**	**-0.2**
	baz=2.1,SNR=28						
P14A	**Drum Mountains**	**2.10**	**137**	⇓P	**Pn**	**10 31 15.8**	**-0.6**
	baz=2.1,SNR=23						
J12A	**Stokes Ranch,**	**2.10**	**356**	⇑P	**Pn**	**10 31 16.7**	**+0.2**
	baz=2.1,SNR=78						
Q12A	**Willow Creek R**	**2.11**	**178**	⇓P	**Pn**	**10 31 16.4**	**-0.1**
	baz=2.1,SNR=10						
NOQ	**North Oquirrh**	**2.17**	**102**	*e*Pn	**Pn**	**10 31 17.4**	**-0.1**
NOQ				*e*Pg	**Pg**	**10 31 22.7**	**+0.8**
NOQ				*e*Sg	**Sg**	**10 31 50.9**	**+0.8**
K10A	**MacKenzie Ranc**	**2.19**	**319**	P	**Pn**	**10 31 18.9**	**+1.3**
	baz=2.2,SNR=68						
L09A	**Wilkinson Ranc**	**2.24**	**294**	⇓P	**Pn**	**10 31 19.8**	**+1.5**
	baz=2.2,SNR=30						
Q13A	**Wheeler Ranch,**	**2.30**	**162**	P	**Pn**	**10 31 19.0**	**-0.1**
	baz=2.3,SNR=30						
J13A	**Cove Ranch, Pi**	**2.31**	**13**	P	**Pn**	**10 31 20.2**	**+0.9**
	baz=2.3,SNR=99						
K15A	**Arbon**	**2.35**	**48**	⇓P	**Pn**	**10 31 20.3**	**+0.5**
	baz=2.4,SNR=25						
MFID	**Camas Ranch**	**2.36**	**344**	⇓P	**Pn**	**10 31 21.4**	**+1.4**
	baz=2.4,SNR=14						
Q11A	**Duckwater**	**2.37**	**194**	⇑P	**Pn**	**10 31 20.0**	**-0.1**
	baz=2.4,SNR=14						
J14A	**Carey**	**2.41**	**25**	P	**Pn**	**10 31 21.7**	**+1.1**
	baz=2.4,SNR=22						
HLID	**Hailey**	**2.44**	**9**	P	**Pn**	**10 31 22.1**	**+1.0**
	baz=2.4,SNR=69						
HLID	**Hailey**	**2.44**	**9**	P	**Pn**	**10 31 22.0**	**+0.9**
CTU	**Camp Tracy**	**2.44**	**100**	*e*Pn	**Pn**	**10 31 22.9**	**+1.8**
CTU				*e*Pg	**Pg**	**10 31 27.8**	**+0.9**
CTU				*e*Sg	**Sg**	**10 31 60.0**	**+1.4**
N08A	**GE Springer Mi**	**2.47**	**262**	P	**Pn**	**10 31 20.8**	**-0.7**

	baz=2.5,SNR=11						
NLU	**North Lily Min**	2.47	118	*e*Pn	Pn	10 31 21.6	+0.1
NLU				*e*Sg	Sg	10 31 58.9	-0.7
Q14A	**Sevier Lake (B**	2.50	149	⇑P	Pn	10 31 21.3	-0.6
	baz=2.5,SNR=11						
P15A	**Leamington**	2.56	127	P	Pn	10 31 22.1	-0.6
	baz=2.6,SNR=18						
Q10A	**Clear Creek Ra**	2.59	207	⇓P	Pn	10 31 23.0	-0.1
	baz=2.6,SNR=21						
K09A	**Rome**	2.61	307	P	Pn	10 31 25.7	+2.3
	baz=2.6,SNR=59						
O08A	**Rochester Mine**	2.61	252	P	Pn	10 31 22.8	-0.6
	baz=2.6,SNR=9.3						
I12A	**Atlanta**	2.65	357	⇑P	Pn	10 31 25.5	+1.6
	baz=2.7,SNR=43						
MPU	**Maple Canyon**	2.74	113	*e*Pn	Pn	10 31 24.5	-0.8
MPU				*e*Pg	Pg	10 31 33.3	+0.6
MPU				*e*Sg	Sg	10 32 08.3	0.0
L16A	**Fish Haven**	2.75	71	⇓P	Pn	10 31 26.1	+0.7
	baz=2.8,SNR=6.5						
P08A	**Dixie Valley**	2.82	240	⇑P	Pn	10 31 25.9	-0.4
	baz=2.8,SNR=5.6						
I13A	**Wildhorse Cree**	2.82	12	⇓P	Pn	10 31 27.5	+1.2
	baz=2.8,SNR=18						
R11A	**Troy Canyon, C**	2.85	191	⇑P	Pn	10 31 26.5	-0.1
	baz=2.8,SNR=16						
DAU	**Daniels Canyon**	2.87	104	*e*Pg	Pg	10 31 36.2	+1.0
DAU				*e*Sg	Sg	10 32 11.7	-0.9
Q15A	**Fillmore**	2.90	137	⇑P	Pn	10 31 27.0	-0.4
	baz=2.9,SNR=7.2						
R13A	**O'Grain Ranch,**	3.06	166	P	Pn	10 31 30.3	+0.8
	baz=3.1,SNR=16						
WVOR	**Wild Horse Val**	3.07	296	*e*Pn	Pn	10 31 29.3	-0.3
WVOR				*e*Sg	Sg	10 32 09.3	-9.4
O07A	**Toulon**	3.17	253	P	Pn	10 31 30.3	-0.8
	baz=3.2,SNR=24						
M07A	**Soldier Meadow**	3.22	276	⇑P	Pn	10 31 31.5	-0.3
	baz=3.2,SNR=8.0						
Q08A	**Gabbs**	3.26	226	⇓P	Pn	10 31 32.0	-0.3
	baz=3.2						
AHID	**Auburn Hatcher**	3.27	59	*e*Pn	Pn	10 31 32.3	-0.1
AHID				*e*Sg	Sg	10 32 23.6	-1.6
MSU	**Marysvale**	3.37	140	*e*Pn	Pn	10 31 32.1	-1.8
MSU				*e*Pg	Pg	10 31 45.1	+0.2
MSU				*e*Sg	Sg	10 32 25.0	-3.5
TMUT	**Trail Mountain**	3.39	122	Pn	Pn	10 31 32.3	-1.8
RRI2	**Red Ridge**	3.45	49	*e*Pn	Pn	10 31 36.8	+1.8
RRI2				*e*Pg	Pg	10 31 47.1	+0.7
RRI2				*e*Sg	Sg	10 32 30.1	-1.1
ARUT	**Antelope Range**	3.55	161	*e*Pn	Pn	10 31 36.7	+0.4
ARUT				*e*Pg	Pg	10 31 48.7	+0.5
ARUT				*e*Sg	Sg	10 32 32.9	-1.3
Q16A	**Castle Valley**	3.64	127	P	Pn	10 31 35.9	-1.6
	baz=3.6,SNR=10						
S13A	**Holt Ranch, En**	3.66	167	⇑P	Pn	10 31 37.9	+0.1
	baz=3.7,SNR=19						
DCID1	**Drake Creek**	3.69	47	*e*Pn	Pn	10 31 39.2	+1.0
DCID1				*e*Pg	Pg	10 31 53.9	+3.1
DCID1				*e*Sg	Sg	10 32 37.7	-0.9
TPAW	**Teton Pass**	3.75	50	*e*Pn	Pn	10 31 41.8	+2.6
TPAW				*e*Sg	Sg	10 32 38.0	-2.8
NVAR	**Mina Array Bea**	3.77	225	Pn	Pn	10 31 39.5	+0.1
	1.3nm,0.3s,baz=40,slow=14,SNR=9.8						
NVAR				Pg	Pg	10 31 49.2	-3.3
	4.2nm,0.3s,baz=50,slow=14,SNR=16						
NVAR				Sn	Sn	10 32 23.7	-0.6
	2.1nm,0.3s,baz=56,slow=20,SNR=2.9						
NVAR				Lg		10 32 39.3	
	9.3nm,0.3s,baz=49,slow=30,SNR=8.8						
CCUT	**Cedar City**	3.79	161	*e*Pn	Pn	10 31 38.9	-0.7
CCUT				*e*Pg	Pg	10 31 52.2	-0.7
CCUT				*e*Sg	Sg	10 32 41.2	-0.8
T11A	**Corn Creek, Al**	3.91	184	⇓P	Pn	10 31 41.5	+0.2
	baz=3.9,SNR=15						
SRU	**San Rafael**	3.93	120	*e*Pn	Pn	10 31 43.6	+2.0
SRU				*e*Pg	Pg	10 31 54.9	-0.7
MCMT	**McKenzie Canyo**	3.97	22	*e*Pn	Pn	10 31 44.6	+2.4
MCMT				*e*Pg	Pg	10 31 54.4	-2.0
MCMT				*e*Sg	Sg	10 32 39.2	-8.6
IMW	**Indian Meadow**	4.02	46	*e*Pn	Pn	10 31 43.2	+0.4
IMW				*e*Pg	Pg	10 31 57.8	+0.5
IMW				*e*Sg	Sg	10 32 44.6	-4.7
LOHW	**Long Hollow**	4.03	51	*e*Pn	Pn	10 31 45.0	+2.0
LOHW				*e*Pg	Pg	10 31 57.3	-0.2
LOHW				*e*Sg	Sg	10 32 46.4	-3.3
MOOW	**Moose Ponds**	4.03	49	Pn	Pn	10 31 41.4	-1.5
MOOW				*e*Pg	Pg	10 31 54.2	-3.3
MOOW				*e*Sg	Sg	10 32 42.1	-7.6
BMO	**Blue Mountains**	4.09	335	*e*Pn	Pn	10 31 43.2	-0.7
BMO				*e*Pg	Pg	10 31 58.0	-0.6
BMO				*e*Sg	Sg	10 32 44.4	-7.4
PDAR	**Pinedale Array**	4.31	66	Pn	Pn	10 31 49.5	+2.8
	0.2nm,0.3s,baz=242,slow=12,SNR=7.1						
PDAR				Pg	Pg	10 31 57.8	-4.9
	0.3nm,0.3s,baz=240,slow=14,SNR=8.7						
PDAR				Lg		10 32 54.9	
	0.7nm,0.3s,baz=242,slow=29,SNR=5.9						
BEKR	**Beckwourth**	4.34	255	⇓P	Pn	10 31 46.8	-0.5
	baz=4.3,SNR=16						
R06C	**Coleville**	4.37	235	⇓P	Pn	10 31 47.5	-0.1
	baz=4.4,SNR=9.0						
YBH	**Yreka Blue Hor**	5.89	278	Lg	Sg	10 33 46.1	-3.3
	0.1nm,0.3s,baz=356,slow=16,SNR=2.8						
YKA	**Yellowknife Ar**	21.38	0	P	P	10 35 29.2	+0.5
	0.2nm,0.8s,baz=180,slow=9.2,SNR=5.1						

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*NEIC **22** 10:45:11.9±1.2, 32.°82S×178.°29W, mb4.4/1, Error ellipse: s-maj=25.7km s-min=19.3km az=77.0*

*IDC **22** 10:45:11.8±1.3, 32.°78S×178.°26W, h45^{km}±8^{km}, mb4.1/5, mb1 4.2/6, mb1mx4.0/17, mbtmp4.1/6, ML4.0/1, MS3.6/2, Ms1 3.5/2, ms1mx3.0/30, Error ellipse: s-maj=25.4km s-min=20.2km az=67.0*

ISC 22 10:45:09.9±5.3, **32.°87S**±0.°09×**178.°4W**±0.°3, **h20**^{km}±36^{km}, **h45**^{km}±2.6^{km}**:pP-P, n14,** σ**1^{s}23**/12, **mb4.3**/6, **MS3.5**/2,
South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	3.63	7	S	Sn	10 46 36.2	-11
	128nm,0.3s,baz=107,slow=19,SNR=3.5						
URZ	**Urewera**	6.49	213	P	Pn	10 46 45.7	+1.6
	3.2nm,0.3s,baz=278,slow=4.0,SNR=23						
URZ				S	Sn	10 48 00.8	+3.3
	14nm,0.3s,baz=168,slow=17,SNR=12						
SNZO	**South Karori**	10.04	211	*e*Sn	Sn	10 49 24.0	-1.0
RPZ	**Rata Peaks**	13.60	214	P	Pn	10 48 19.6	-1.9
	0.7nm,0.3s,baz=68,slow=4.7,SNR=4.4						
RPZ				S	Sn	10 50 43.1	-8.9
	0.8nm,0.3s,baz=51,slow=13,SNR=5.0						
STKA	**Stephens Creek**	33.63	261	P	P	10 51 50.3	+1.2
	2.5nm,1.0s,mb4.1,baz=105,slow=17,SNR=2.2						
STKA				LR	LR	11 04 54.9	
	comp=Z,114nm,19.2s,MS3.6,baz=27,slow=35						
CTA	**Charters Tower**	33.91	283	P	P	10 51 52.6	+1.0
	7.0nm,0.6s,mb4.7,baz=110,slow=9.7,SNR=11						
CTA				LR	LR	11 04 07.3	
	comp=Z,80nm,21.0s,MS3.4,baz=52,slow=33						
ASAR	**Alice Springs**	42.66	270	P	P	10 53 05.0	-0.3
	4.0nm,0.7s,mb4.3,baz=107,slow=7.4,SNR=46						
ASAR				pP	pP	10 53 18.3	+6.8
	3.7nm,0.8s,baz=110,slow=7.7,SNR=7.7						
WRAB	**Tennant Creek**	43.87	275	*e*P	P	10 53 14.0	-1.1
	4.7nm,0.6s,mb4.4						
WRA	**Warramunga Arr**	43.87	275	P	P	10 53 14.2	-0.9
	3.3nm,0.4s,mb4.4,baz=112,slow=8.0,SNR=72						
WRA				pP	pP	10 53 27.7	+6.3
	4.6nm,0.7s,baz=115,slow=7.6,SNR=8.3						
QSPA	**South Pole Qui**	57.25	180	P	P	10 54 55.5	+0.2
	1.4nm,1.0s,mb4.0,baz=330,slow=15,SNR=4.2						
QSPA				pP	pP	10 55 07.3	+5.6
	4.0nm,0.6s,baz=78,slow=2.0,SNR=9.2						
KURK	**Kurchatov**	122.46	313	PKP	PKPdf	11 04 01.0	-2.3
	1.1nm,0.2s,baz=115,slow=1.6,SNR=4.2						
KURK	**Kurchatov**	122.46	313	PKP	PKPdf	11 04 01.0	-2.3
BRTR	**Keskin Array B**	153.35	294	PKPbc	PKPbc	11 05 05.1	-1.3
	1.2nm,0.8s,baz=116,slow=3.4,SNR=6.7						
TORD	**Torodi Ar. Bea**	160.37	180	PKPab	PKPab	11 05 48.6	-0.6
	0.2nm,0.4s,baz=183,slow=3.0,SNR=6.0						

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*ISCJB **22** 10:47:55.1±0.2, 41.°13N±0.°01×114.°91W±0.°02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.9km az=150.7*

*NEIC **22** 10:47:55.4, 41.°15N×114.°94W, h14^{km}, ML2.6, After REN.*

*IDC **22** 10:47:55.1±1.0, 41.°16N×114.°89W, h0^{km}, mb2.3/1, mb1 3.0/3, mb1mx3.0/21, mbtmp2.6/3, ML3.0/2, Error ellipse: s-maj=21.5km s-min=5.7km az=133.0*

ISC 22 10:47:54.7±0.3, **41.°16N**±0.°01×**114.°92W**±0.°02, **h0**^{km}±2^{km},
n97, σ**1^{s}02**/153, **28C-41D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.32	197	⇑P	Pg	10 48 02.0	+1.1
	baz=0.3						
N12A				⇑S	Sg	10 48 06.7	+1.7
	baz=0.3						
ELK	**Elko**	0.48	211	Pg	Pg	10 48 04.6	+0.7
	18nm,0.3s,baz=27,slow=15,SNR=40						
ELK				Lg		10 48 10.9	
	76nm,0.3s,baz=19,slow=18,SNR=86						
M13A	**Montello**	0.60	70	⇑P	Pg	10 48 07.2	+0.9
	baz=0.6						
N13A	**Wendover, West**	0.62	119	P	Pg	10 48 07.5	+0.9
	baz=0.6,SNR=307						
N11A	**Elko Archery C**	0.71	241	⇓P	Pg	10 48 08.7	+0.4
	baz=0.7						
N11A				⇓S	Sg	10 48 18.2	+0.7
	baz=0.7						
M11A	**Holland Ranch,**	0.71	293	⇓P	Pg	10 48 08.6	+0.2
	baz=0.7						
M11A				⇓S	Sg	10 48 18.7	+1.1
	baz=0.7						
O12A	**Currie**	0.90	172	P	Pg	10 48 12.7	+0.7
	baz=0.9,SNR=184						
O12A				⇑S	Sg	10 48 24.9	+1.2
	baz=0.9						
L12A	**House Creek Ra**	0.99	356	⇓P	Pg	10 48 14.1	+0.5
	baz=1.0						
L12A				⇑S	Sg	10 48 28.0	+1.5
	baz=1.0						
O11A	**Cowboy Ranch,**	1.17	209	⇓P	Pg	10 48 17.5	+0.3
	baz=1.2,SNR=195						
O11A				⇑S	Sg	10 48 32.7	+0.3
	baz=1.2						
L13A	**Double Diamond**	1.18	38	⇓P	Pg	10 48 17.3	-0.1
	baz=1.2						
L13A				⇓S	Sg	10 48 33.1	+0.5
	baz=1.2						
L11A	**Cat Creek Ranc**	1.19	328	⇑P	Pg	10 48 17.5	0.0
	baz=1.2						
L11A				⇑S	Sg	10 48 33.1	+0.3
	baz=1.2						
M14A	**Sheep Mountain**	1.23	73	P	Pg	10 48 18.1	-0.2
	baz=1.2,SNR=281						
M14A				⇓S	Sg	10 48 34.9	+0.7
	baz=1.2						
O13A	**Hicks Ranch, I**	1.25	145	P	Pg	10 48 18.9	+0.3
	baz=1.3,SNR=237						
M10A	**I.L. Ranch, Tu**	1.27	287	⇓P	Pg	10 48 19.0	-0.2
	baz=1.3						
N10A	**Dunphy**	1.28	250	⇓P	Pg	10 48 18.9	-0.4
	baz=1.3,SNR=23						
N10A				⇓S	Sg	10 48 36.4	+0.4
	baz=1.3						
N14A	**Grayback Hills**	1.34	103	P	Pg	10 48 19.9	-0.6
	baz=1.4,SNR=186						
BGU	**Big Grassy Mou**	1.45	99	*e*Pn	Pn	10 48 21.5	-0.7
BGU				*e*Sg	Sg	10 48 38.8	-2.4
K12A	**Draper Farm, C**	1.47	0	⇑P	Pn	10 48 21.4	-1.2
	baz=1.5,SNR=45						
K12A				⇓S	Sg	10 48 40.9	-1.2
	baz=1.5						
L10A	**Juniper Basin**	1.48	309	⇓Pb	Pb	10 48 22.4	-0.7
	baz=1.5						
L10A				⇑Sb	Sb	10 48 42.2	-0.3
	baz=1.5						
O10A	**Cortez Mining,**	1.48	235	⇑Pb	Pb	10 48 22.2	-1.0
	baz=1.5,SNR=32						
L14A	**Malta**	1.53	55	⇑Pb	Pb	10 48 23.2	-0.8
	baz=1.5,SNR=67						
L14A				⇑Sb	Sb	10 48 43.8	0.0
	baz=1.5						
K13A	**Stover Farm, H**	1.61	22	⇑Pb	Pb	10 48 24.4	-0.9
	baz=1.6,SNR=12						
P12A	**McGill**	1.69	180	⇓Pb	Pb	10 48 25.4	-1.2
	baz=1.7,SNR=128						
HVU	**Hansel Valley**	1.72	68	*e*Pn	Pn	10 48 25.8	-0.2
HVU				*e*Sg	Sg	10 48 49.5	-0.6
P11A	**Circle Ranch,**	1.73	202	⇓Pb	Pb	10 48 26.1	-1.2
	baz=1.7,SNR=22						
K11A	**Parker Ranch,**	1.81	333	⇑Pb	Pb	10 48 27.6	-1.1
	baz=1.8,SNR=41						
K11A				⇓Sb	Sb	10 48 51.7	-0.3
	baz=1.8						
N15A	**Stansbury Isla**	1.83	98	⇓Pb	Pb	10 48 28.2	-0.9
	baz=1.8,SNR=111						
P13A	**Bates Ranch, G**	1.84	158	⇓P	Pn	10 48 26.8	-0.7
	baz=1.8						
SPUT	**South Promonto**	1.87	85	*e*Pn	Pn	10 48 27.8	-0.1
SPUT				*e*Sg	Sg	10 48 52.5	-2.2
DUG	**Dugway**	1.87	120	⇓P	Pn	10 48 26.9	-1.0
	baz=1.9,SNR=64						
DUG	**Dugway**	1.87	120	*e*Pn	Pn	10 48 27.3	-0.7
DUG				*e*Pg	Pg	10 48 31.8	+1.3
DUG				*e*Sg	Sg	10 48 51.9	-2.9
M15A	**Larsen Ranch,**	1.88	80	⇑P	Pn	10 48 27.7	-0.4
	baz=1.9,SNR=108						
M15A				⇑Sb	Sb	10 48 54.1	0.0
	baz=1.9						
BMN	**Battle Mountai**	1.90	248	*e*Pn	Pn	10 48 27.5	-0.8
BMN				*e*Pg	Pg	10 48 31.6	+0.5
BMN				*e*Sg	Sg	10 48 54.9	-0.7
K14A	**Jones Ranch, D**	1.90	43	⇑P	Pn	10 48 28.7	+0.3
	baz=1.9,SNR=26						
M09A	**Marrel Ranch,**	1.93	279	⇓P	Pn	10 48 28.8	+0.1
	baz=1.9,SNR=15						
P10A	**Eureka**	1.94	218	⇓P	Pn	10 48 29.0	+0.1
	baz=1.9,SNR=26						
O09A	**Fish Creek Ran**	1.99	241	⇑P	Pn	10 48 29.1	-0.5
	baz=2.0,SNR=12						
N09A	**Rock Creek Ran**	2.00	262	⇑P	Pn	10 48 29.0	-0.7
	baz=2.0						
O15A	**The Old Anders**	2.06	115	P	Pn	10 48 30.0	-0.5
	baz=2.1,SNR=64						
L15A	**Malad City**	2.08	65	⇓P	Pn	10 48 30.6	-0.1
	baz=2.1,SNR=36						
J12A	**Stokes Ranch,**	2.09	356	⇑P	Pn	10 48 31.5	+0.5
	baz=2.1,SNR=57						
P14A	**Drum Mountains**	2.11	137	⇓P	Pn	10 48 30.6	-0.6
	baz=2.1,SNR=21						
Q12A	**Willow Creek R**	2.12	178	⇑P	Pn	10 48 31.1	-0.3
	baz=2.1,SNR=11						
K10A	**MacKenzie Ranc**	2.17	319	⇑P	Pn	10 48 31.8	-0.4
	baz=2.2,SNR=40						
K10A				⇓Sb	Sb	10 49 02.1	-0.3
	baz=2.2						
NOQ	**North Oquirrh**	2.18	103	*e*Pn	Pn	10 48 33.4	+1.2
NOQ				*e*Sg	Sg	10 49 03.3	-1.4
L09A	**Wilkinson Ranc**	2.23	293	⇑Pb	Pb	10 48 34.7	-1.3
	baz=2.2,SNR=18						
J13A	**Cove Ranch, Pi**	2.30	14	⇓P	Pn	10 48 34.9	+1.0
	baz=2.3,SNR=54						
J13A				⇓Sb	Sb	10 49 06.4	+0.3
	baz=2.3						
Q13A	**Wheeler Ranch,**	2.31	162	⇓P	Pn	10 48 33.7	-0.3
	baz=2.3,SNR=26						
K15A	**Arbon**	2.34	49	⇓P	Pn	10 48 35.1	+0.7
	baz=2.4,SNR=22						
MFID	**Camas Ranch**	2.35	344	⇓P	Pn	10 48 35.9	+1.4
	baz=2.4,SNR=18						
Q11A	**Duckwater**	2.38	194	P	Pn	10 48 35.1	+0.2
	baz=2.4,SNR=13						
J14A	**Carey**	2.40	25	⇓P	Pn	10 48 36.3	+1.1
	baz=2.4,SNR=34						
HLID	**Hailey**	2.43	9	⇑P	Pn	10 48 36.6	+1.0
	baz=2.4,SNR=49						
HLID	**Hailey**	2.43	9	P	Pn	10 48 36.7	+1.1
NLU	**North Lily Min**	2.48	118	*e*Pn	Pn	10 48 34.6	-1.7
NLU				*e*Sg	Sg	10 49 18.4	+4.1
Q14A	**Sevier Lake (B**	2.51	149	⇓P	Pn	10 48 35.8	-0.9
	baz=2.5,SNR=17						
P15A	**Leamington**	2.57	127	⇑P	Pn	10 48 36.7	-0.8
	baz=2.6,SNR=12						
Q10A	**Clear Creek Ra**	2.60	207	⇑P	Pn	10 48 38.2	+0.2
	baz=2.6,SNR=27						
K09A	**Rome**	2.60	307	P	Pn	10 48 40.4	+2.4
	baz=2.6,SNR=29						
O08A	**Rochester Mine**	2.61	252	P	Pn	10 48 37.6	-0.5
	baz=2.6,SNR=9.1						
I12A	**Atlanta**	2.64	357	⇑P	Pn	10 48 40.2	+1.7
	baz=2.6,SNR=28						
L16A	**Fish Haven**	2.75	71	⇓P	Pn	10 48 40.8	+0.8
	baz=2.8,SNR=7.2						
MPU	**Maple Canyon**	2.75	114	*e*Pn	Pn	10 48 39.3	-0.7
MPU				*e*Pg	Pg	10 48 48.1	+0.6
I13A	**Wildhorse Cree**	2.81	12	⇓P	Pn	10 48 42.3	+1.4
	baz=2.8,SNR=22						
R11A	**Troy Canyon, C**	2.86	191	P	Pn	10 48 41.5	0.0
	baz=2.9,SNR=37						
DAU	**Daniels Canyon**	2.88	104	*e*Pg	Pg	10 48 51.0	+1.1
DAU				*e*Sg	Sg	10 49 28.3	+1.1
J15A	**Blackfoot**	2.90	39	⇓P	Pn	10 48 42.9	+0.8
	baz=2.9,SNR=7.4						
K16A	**Soda Springs**	2.99	55	⇓P	Pn	10 48 44.5	+1.2
	baz=3.0,SNR=7.5						
WVOR	**Wild Horse Val**	3.06	296	*e*Pg	Pg	10 48 50.3	-3.0
WVOR				*e*Sg	Sg	10 49 31.0	-2.0
K08A	**Mann Creek Ran**	3.09	302	⇓P	Pn	10 48 49.9	+5.2
	baz=3.1,SNR=26						
O07A	**Toulon**	3.17	253	P	Pn	10 48 45.1	-0.8
	baz=3.1,SNR=16						
M07A	**Soldier Meadow**	3.21	275	⇓P	Pn	10 48 46.4	0.0
	baz=3.2,SNR=8.1						
AHID	**Auburn Hatcher**	3.27	59	*e*Pg	Pg	10 48 57.4	0.0
AHID				*e*Sg	Sg	10 49 36.5	-3.2
MSU	**Marysvale**	3.38	141	*e*Pn	Pn	10 48 49.8	+1.1
MSU				*e*Pg	Pg	10 49 00.3	+0.7
MSU				*e*Sg	Sg	10 49 45.0	+1.6
TMUT	**Trail Mountain**	3.40	122	*e*Pn	Pn	10 48 48.1	-0.8
TMUT				*e*Sg	Sg	10 49 36.6	-7.2
RRI2	**Red Ridge**	3.45	50	*e*Pn	Pn	10 48 51.4	+1.7
RRI2				*e*Sg	Sg	10 49 38.9	-6.7
ARUT	**Antelope Range**	3.56	161	*e*Pn	Pn	10 48 52.4	+1.2
ARUT				*e*Pg	Pg	10 49 03.7	+0.8
ARUT				*e*Sg	Sg	10 49 46.2	-2.8
S13A	**Holt Ranch, En**	3.67	167	⇓P	Pn	10 48 52.7	0.0
	baz=3.7,SNR=15						
DCID1	**Drake Creek**	3.68	47	*e*Pn	Pn	10 48 56.0	+3.2
DCID1				*e*Sg	Sg	10 49 52.5	-0.5
REDW	**Red Top Meadow**	3.73	53	*e*Pn	Pn	10 48 55.2	+1.7
REDW				*e*Sg	Sg	10 49 47.3	-7.3
TPAW	**Teton Pass**	3.75	50	*e*Pn	Pn	10 48 53.0	-0.8
TPAW				*e*Sg	Sg	10 49 52.1	-3.1
NVAR	**Mina Array Bea**	3.77	225	Pn	Pn	10 48 54.3	+0.2
	0.9nm,0.3s,baz=44,slow=13,SNR=19						
NVAR				Pg	Pg	10 49 03.9	-3.2
	2.8nm,0.3s,baz=50,slow=14,SNR=18						
NVAR				Sn	Sn	10 49 39.2	0.0
	2.0nm,0.3s,baz=60,slow=26,SNR=5.1						
NVAR				Lg		10 49 54.8	
	4.5nm,0.3s,baz=49,slow=28,SNR=4.1						
CCUT	**Cedar City**	3.80	161	*e*Pn	Pn	10 48 55.4	+0.9
CCUT				*e*Pg	Pg	10 49 07.3	-0.3
CCUT				*e*Sg	Sg	10 49 56.3	-0.5
T11A	**Corn Creek, Al**	3.92	184	⇓P	Pn	10 48 56.3	+0.1
	baz=3.9,SNR=13						
MCMT	**McKenzie Canyo**	3.97	22	*e*Pn	Pn	10 49 01.1	+4.4
MCMT				*e*Sg	Sg	10 49 54.0	-8.1
IMW	**Indian Meadow**	4.01	46	*e*Pn	Pn	10 48 58.3	+0.9
IMW				*e*Pg	Pg	10 49 12.5	+0.9
IMW				*e*Sg	Sg	10 49 58.9	-4.8
LOHW	**Long Hollow**	4.03	51	*e*Pn	Pn	10 49 01.3	+3.7
LOHW				*e*Sg	Sg	10 49 57.6	-6.4
MOOW	**Moose Ponds**	4.03	49	Pn	Pn	10 49 01.1	+3.5
MOOW				*e*Sg	Sg	10 49 57.0	-7.1
BMO	**Blue Mountains**	4.08	335	*e*Pn	Pn	10 48 57.6	-0.8
BMO				*e*Sg	Sg	10 49 57.3	-8.6
MOD	**Modoc**	4.11	282	*e*Pn	Pn	10 48 57.5	-1.3
MOD				*e*Pg	Pg	10 49 14.2	+0.7
MOD				*e*Sg	Sg	10 50 02.9	-3.9
PDAR	**Pinedale Array**	4.30	66	Pn	Pn	10 49 04.0	+2.5
	0.1nm,0.3s,baz=240,slow=12,SNR=5.8						
PDAR				Pg	Pg	10 49 15.9	-1.3
	0.5nm,0.3s,baz=225,slow=14,SNR=11						
PDAR				Lg		10 50 09.7	
	0.5nm,0.3s,baz=242,slow=30,SNR=7.8						
PDAR	**Pinedale Array**	4.30	66	Pn	Pn	10 49 04.0	+2.5
PDAR				Pg	Pg	10 49 15.9	-1.3
PDAR				Lg		10 50 09.7	
BEKR	**Beckwourth**	4.34	254	⇓P	Pn	10 49 01.5	-0.5
	baz=4.3,SNR=10						
DLMT	**Dillon**	4.53	21	*e*Pg	Pg	10 49 21.8	+0.3
DLMT				*e*Sg	Sg	10 50 19.3	-0.9
PV04	**Paradox Valley**	5.39	119	*e*Pn	Pn	10 49 07.7	-8.6
PV04				*e*Pg	Pg	10 49 38.4	+0.3
WUAZ	**Wupatki**	6.29	153	*e*Pn	Pn	10 49 25.2	-3.4
WUAZ				*e*Pg	Pg	10 49 54.8	-0.3
YKA	**Yellowknife Ar**	21.37	0	P	P	10 52 43.1	-0.2
	0.1nm,0.6s,baz=176,slow=9.9,SNR=4.4						

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*ISCJB **22** 11:05:29.9±0.1, 41.°134N±0.°010×114.°90W±0.°01, h10^{km}, Error ellipse: s-maj=1.4km s-min=1.4km az=153.3*

*NEIC **22** 11:05:29.8, 41.°18N×114.°93W, h11^{km}, ML3.2, After REN.*

*IDC **22** 11:05:30.0±0.7, 41.°18N×114.°92W, h0^{km}, mb3.1/1, mb1 3.5/4, mb1mx3.4/22, mbtmp3.2/4, ML3.5/3, Error ellipse: s-maj=12.7km s-min=4.7km az=133.0*

ISC 22 11:05:30.6±0.1, **41.°153N**±0.°009×**114.°91W**±0.°01, **h10**^{km},
n154, σ**1^{s}07**/245, **58C-62D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.32	198	P	Pg	11 05 36.8	0.0
	baz=0.3,SNR=325						
N12A				⇓S	Sg	11 05 41.5	+0.5
	baz=0.3						
ELK	**Elko**	0.48	211	Pg	Pg	11 05 39.4	-0.4
	112nm,0.3s,baz=25,slow=15,SNR=106						
ELK				Lg		11 05 46.0	
	285nm,0.3s,baz=113,slow=17,SNR=95						
ELK	**Elko**	0.48	211	Pg	Pg	11 05 39.4	-0.4
ELK				Lg		11 05 46.0	
M13A	**Montello**	0.60	70	⇑P	Pg	11 05 41.2	-1.0
	baz=0.6,SNR=285						
M13A				⇑S	Sg	11 05 50.1	0.0
	baz=0.6						
N13A	**Wendover, West**	0.61	119	P	Pg	11 05 42.1	-0.3
	baz=0.6,SNR=1000						
N13A				⇓S	Sg	11 05 51.0	+0.6
	baz=0.6						
N11A	**Elko Archery C**	0.71	242	⇓P	Pg	11 05 43.7	-0.6
	baz=0.7,SNR=180						
N11A				⇓S	Sg	11 05 53.1	-0.4
	baz=0.7						
M11A	**Holland Ranch,**	0.72	293	P	Pg	11 05 43.4	-1.1
	baz=0.7,SNR=261						
M11A				⇓S	Sg	11 05 53.3	-0.5
	baz=0.7						
O12A	**Currie**	0.89	172	⇑P	Pg	11 05 47.4	-0.4
	baz=0.9,SNR=439						
O12A				⇑S	Sg	11 05 59.8	+0.4
	baz=0.9						
L12A	**House Creek Ra**	0.99	356	⇓P	Pg	11 05 48.7	-1.1
	baz=1.0						
L12A				⇑S	Sg	11 06 01.9	-0.7
	baz=1.0						
O11A	**Cowboy Ranch,**	1.17	209	⇓P	Pb	11 05 52.7	-0.1
	baz=1.2,SNR=685						
O11A				⇓S	Sb	11 06 07.6	-0.3
	baz=1.2						
L13A	**Double Diamond**	1.18	38	⇑P	Pb	11 05 51.7	-1.4
	baz=1.2,SNR=132						
L13A				⇓S	Sb	11 06 07.5	-0.9
	baz=1.2						
L11A	**Cat Creek Ranc**	1.19	328	⇑P	Pb	11 05 52.0	-1.3
	baz=1.2,SNR=688						
L11A				⇓S	Sb	11 06 07.7	-1.1
	baz=1.2						
M14A	**Sheep Mountain**	1.23	73	P	Pn	11 05 52.7	-1.1
	baz=1.2,SNR=375						
M14A				⇓S	Sb	11 06 09.5	-0.3
	baz=1.2						
O13A	**Hicks Ranch, I**	1.24	145	P	Pn	11 05 53.5	-0.4
	baz=1.3,SNR=971						
O13A				⇓S	Sb	11 06 10.9	+0.7
	baz=1.3						
M10A	**I.L. Ranch, Tu**	1.28	287	⇓P	Pn	11 05 53.5	-1.0
	baz=1.3,SNR=456						
N10A	**Dunphy**	1.28	251	⇓P	Pn	11 05 53.7	-0.8
	baz=1.3,SNR=37						
N10A				⇑S	Sb	11 06 11.4	+0.1
	baz=1.3						
N14A	**Grayback Hills**	1.34	102	P	Pn	11 05 54.5	-0.8
	baz=1.4,SNR=628						
N14A				⇑S	Sb	11 06 13.2	+0.2
	baz=1.4						

BGU	Big Grassy Mou	1.44	98	ePg	Pg	11 05 56.0	-2.2
BGU				eSg	Sg	11 06 17.1	+0.2
K12A	Draper Farm, C	1.48	0	⇓P	Pn	11 05 56.0	-1.2
	baz=1.5,SNR=174						
K12A				⇓S	Sn	11 06 15.4	-1.3
	baz=1.5						
O10A	Cortez Mining,	1.48	235	P	Pn	11 05 57.0	-0.2
	baz=1.5,SNR=110						
O10A				⇓Sb	Sb	11 06 17.7	+0.7
	baz=1.5						
L10A	Juniper Basin	1.49	309	⇓P	Pn	11 05 56.5	-0.9
	baz=1.5,SNR=994						
L10A				⇓Sb	Sb	11 06 17.0	-0.2
	baz=1.5						
L14A	Malta	1.53	54	⇑P	Pn	11 05 57.4	-0.6
	baz=1.5,SNR=308						
L14A				⇑Sb	Sb	11 06 18.4	-0.1
	baz=1.5						
K13A	Stover Farm, H	1.62	22	⇑P	Pn	11 05 58.3	-0.8
	baz=1.6,SNR=50						
K13A				⇑Sb	Sb	11 06 20.2	-0.8
	baz=1.6						
P11A	Circle Ranch,	1.72	202	⇓P	Pn	11 06 00.6	0.0
	baz=1.7,SNR=51						
HVU	Hansel Valley	1.72	68	ePn	Pn	11 06 00.2	-0.4
HVU				eSg	Sg	11 06 23.5	-2.5
K11A	Parker Ranch,	1.82	333	⇓Pb	Pb	11 06 02.4	-1.5
	baz=1.8,SNR=301						
K11A				⇑Sb	Sb	11 06 26.4	-0.4
	baz=1.8						
N15A	Stansbury Isla	1.83	97	⇓P	Pn	11 06 01.4	-0.6
	baz=1.8,SNR=313						
N15A				⇑Sb	Sb	11 06 27.9	+0.9
	baz=1.8						
P13A	Bates Ranch, G	1.83	158	⇑P	Pn	11 06 01.5	-0.5
	baz=1.9						
P13A				⇓Sb	Sb	11 06 28.2	+1.2
	baz=1.9						
DUG	Dugway	1.86	120	P	Pn	11 06 01.7	-0.8
	baz=1.9,SNR=229						
DUG				⇓Sb	Sb	11 06 28.8	+0.9
	baz=1.9						
DUG	Dugway	1.86	120	ePn	Pn	11 06 01.7	-0.7
DUG				eSg	Sg	11 06 28.7	-1.7
SPUT	South Promonto	1.86	84	ePn	Pn	11 06 02.8	+0.3
SPUT				eSg	Sg	11 06 29.1	-1.4
M15A	Larsen Ranch,	1.88	80	⇑P	Pn	11 06 02.1	-0.7
	baz=1.9,SNR=315						
M15A				⇑Sb	Sb	11 06 29.1	+0.5
	baz=1.9						
BMN	Battle Mountai	1.90	248	ePn	Pn	11 06 01.5	-1.5
BMN				ePg	Pg	11 06 09.2	+2.3
BMN				eSg	Sg	11 06 29.8	-1.7
K14A	Jones Ranch, D	1.90	42	⇑P	Pn	11 06 02.7	-0.4
	baz=1.9,SNR=86						
K14A				⇑Sb	Sb	11 06 29.6	+0.4
	baz=1.9						
M09A	Marrel Ranch,	1.93	279	⇑P	Pn	11 06 03.0	-0.4
	baz=1.9						
M09A				⇓Sb	Sb	11 06 30.6	+0.7
	baz=1.9						
P10A	Eureka	1.94	218	⇓P	Pn	11 06 03.6	+0.1
	baz=1.9						
O09A	Fish Creek Ran	1.99	241	⇓P	Pn	11 06 03.7	-0.5
	baz=2.0,SNR=39						
O09A				⇓Sb	Sb	11 06 32.9	+1.2
	baz=2.0						
N09A	Rock Creek Ran	2.00	262	⇑P	Pn	11 06 03.6	-0.8
	baz=2.0,SNR=77						
N09A				⇓S	Sn	11 06 29.2	-0.3
	baz=2.0						
O15A	The Old Anders	2.05	114	⇑Pb	Pb	11 06 07.3	-0.6
	baz=2.1,SNR=43						
O15A				⇑Sb	Sb	11 06 34.7	+1.3
	baz=2.1						
L15A	Malad City	2.08	65	P	Pn	11 06 05.4	0.0
	baz=2.1,SNR=100						
J12A	Stokes Ranch,	2.10	356	⇑P	Pn	11 06 06.3	+0.5
	baz=2.1,SNR=196						
J12A				⇓Sb	Sb	11 06 34.5	-0.3
	baz=2.1						
P14A	Drum Mountains	2.10	137	⇓P	Pn	11 06 05.3	-0.5
	baz=2.1,SNR=69						
Q12A	Willow Creek R	2.11	178	⇓P	Pn	11 06 05.8	-0.1
	baz=2.1,SNR=84						
NOQ	North Oquirrh	2.17	102	ePn	Pn	11 06 06.8	0.0
NOQ				eSg	Sg	11 06 39.5	-1.0
K10A	MacKenzie Ranc	2.18	319	⇑Pb	Pb	11 06 08.4	-1.7
	baz=2.2						
K10A				⇓Sb	Sb	11 06 36.8	-0.5
	baz=2.2						
L09A	Wilkinson Ranc	2.24	294	⇑Pb	Pb	11 06 09.4	-1.7
	baz=2.2						
Q13A	Wheeler Ranch,	2.30	162	⇑P	Pn	11 06 08.3	-0.2
	baz=2.3,SNR=87						
J13A	Cove Ranch, Pi	2.31	13	P	Pn	11 06 09.4	+0.8
	baz=2.3,SNR=331						
J13A				⇑Sb	Sb	11 06 40.8	-0.1
	baz=2.3						
P09A	Austin	2.34	227	⇓P	Pn	11 06 09.0	0.0
	baz=2.3,SNR=16						
K15A	Arbon	2.35	48	P	Pn	11 06 09.7	+0.5
	baz=2.3,SNR=90						
MFID	Camas Ranch	2.36	344	⇓P	Pn	11 06 10.2	+0.9
	baz=2.3,SNR=72						
MFID				⇑Sb	Sb	11 06 42.5	+0.2
	baz=2.3						
Q11A	Duckwater	2.37	194	⇑P	Pn	11 06 09.6	+0.1
	baz=2.4,SNR=53						
J14A	Carey	2.40	25	P	Pn	11 06 10.9	+1.0
	baz=2.4,SNR=134						
HLID	Hailey	2.44	9	P	Pn	11 06 11.3	+1.0
	baz=2.4,SNR=147						
HLID				⇓Sb	Sb	11 06 44.5	0.0
	baz=2.4						
HLID	Hailey	2.44	9	ePn	Pn	11 06 11.2	+0.8
HLID				eSg	Sg	11 06 43.5	-5.3
CTU	Camp Tracy	2.44	100	ePn	Pn	11 06 12.0	+1.5
CTU				eSg	Sg	11 06 47.2	-1.8
N08A	GE Springer Mi	2.47	262	⇓P	Pn	11 06 09.9	-0.9
	baz=2.5,SNR=26						
N08A				⇑S	Sn	11 06 40.9	-0.1
	baz=2.5						
NLU	North Lily Min	2.47	118	ePn	Pn	11 06 09.3	-1.5
NLU				eSg	Sg	11 06 51.7	+1.8
M16A	Huntsville	2.48	85	⇑P	Pn	11 06 11.6	+0.6
	baz=2.5,SNR=61						
M16A				⇑Sb	Sb	11 06 47.2	+1.5
	baz=2.5						
Q14A	Sevier Lake (B	2.50	149	P	Pn	11 06 10.7	-0.5
	baz=2.5,SNR=46						
P15A	Leamington	2.56	127	P	Pn	11 06 11.4	-0.7
	baz=2.6,SNR=80						
Q10A	Clear Creek Ra	2.59	207	⇓P	Pn	11 06 12.8	+0.3
	baz=2.6,SNR=65						
K09A	Rome	2.61	307	⇓P	Pn	11 06 14.7	+2.0
	baz=2.6,SNR=143						
O08A	Rochester Mine	2.61	252	⇑P	Pn	11 06 12.1	-0.7
	baz=2.6,SNR=28						
M08A	Happy Creek Ra	2.63	278	⇓Pb	Pb	11 06 16.2	-1.5
	baz=2.6						
N16A	Rees Ranch, Co	2.64	95	P	Pn	11 06 14.2	+1.0
	baz=2.7,SNR=22						
I12A	Atlanta	2.65	357	⇓P	Pn	11 06 14.6	+1.3
	baz=2.6,SNR=174						
I12A				⇑Sb	Sb	11 06 51.3	+0.8
	baz=2.6						
J10A	Berg Farm, Mel	2.66	329	⇑Pb	Pb	11 06 16.4	-1.8
	baz=2.6,SNR=43						
J10A				⇑Sb	Sb	11 06 51.4	+0.5
	baz=2.6						
MPU	Maple Canyon	2.74	113	ePn	Pn	11 06 14.0	-0.6
MPU				ePg	Pg	11 06 22.6	-0.6
MPU				eSg	Sg	11 06 52.3	-6.4
L16A	Fish Haven	2.75	71	P	Pn	11 06 15.5	+0.8
	baz=2.7,SNR=24						
L08A	Fields	2.77	293	⇓P	Pn	11 06 17.7	+2.8
	baz=2.7,SNR=77						
I13A	Wildhorse Cree	2.82	12	P	Pn	11 06 17.0	+1.3
	baz=2.8,SNR=101						
P08A	Dixie Valley	2.82	240	⇓P	Pn	11 06 15.6	-0.1
	baz=2.8,SNR=12						
R12A	Pony Springs,	2.83	175	⇑P	Pn	11 06 16.0	+0.2
	baz=2.9,SNR=19						
R11A	Troy Canyon, C	2.85	191	⇓P	Pn	11 06 16.0	-0.1
	baz=2.9,SNR=57						
I11A	Placerville	2.86	345	⇓P	Pn	11 06 19.1	+2.9
	baz=2.8,SNR=40						
I11A				⇑Sb	Sb	11 06 57.7	+0.9
	baz=2.8						
DAU	Daniels Canyon	2.87	104	ePn	Pn	11 06 16.6	+0.2
DAU				ePg	Pg	11 06 25.2	-0.4
DAU				eSg	Sg	11 07 01.8	-1.0
Q09A	Carvers	2.90	218	⇑P	Pn	11 06 17.7	+0.9
	baz=2.9,SNR=16						
Q15A	Fillmore	2.90	137	P	Pn	11 06 16.5	-0.3
	baz=2.9,SNR=16						
J15A	Blackfoot	2.90	39	⇓P	Pn	11 06 17.5	+0.7
	baz=2.9,SNR=56						
P16A	Fountain Green	2.92	121	⇑P	Pn	11 06 16.7	-0.4
	baz=2.9						
I14A	Mackay	2.98	21	⇑P	Pn	11 06 18.8	+1.0
	baz=3.0,SNR=12						
K16A	Soda Springs	2.99	55	⇓P	Pn	11 06 19.1	+1.1
	baz=3.0,SNR=29						
J09A	Fry Pan Ranch,	3.04	317	⇓Pb	Pb	11 06 23.1	-1.7
	baz=3.0						
R13A	O'Grain Ranch,	3.06	166	⇓P	Pn	11 06 19.5	+0.6
	baz=3.1						
WVOR	Wild Horse Val	3.06	296	ePn	Pn	11 06 22.4	+3.4
WVOR				eSg	Sg	11 07 05.4	-3.6
N07B	Gerlach	3.10	264	⇑P	Pn	11 06 19.2	-0.3
	baz=3.1,SNR=31						
K08A	Mann Creek Ran	3.10	302	⇑Pb	Pb	11 06 23.9	-1.8
	baz=3.1						
L17A	Cokeville	3.17	71	⇓P	Pn	11 06 21.8	+1.3
	baz=3.2,SNR=8.0						
O07A	Toulon	3.17	253	⇑P	Pn	11 06 19.8	-0.7
	baz=3.2,SNR=19						
R14A	James Farms, M	3.20	152	⇑P	Pn	11 06 20.8	-0.1
	baz=3.2						
M07A	Soldier Meadow	3.22	276	⇓P	Pn	11 06 21.1	0.0
	baz=3.2,SNR=14						
J16A	Bone	3.24	48	⇓P	Pn	11 06 22.5	+1.1
	baz=3.2,SNR=12						
Q08A	Gabbs	3.26	226	⇓P	Pn	11 06 21.6	-0.1
	baz=3.3,SNR=13						
AHID	Auburn Hatcher	3.27	59	ePg	Pg	11 06 31.7	-1.4
AHID				eSg	Sg	11 07 11.9	-3.6
R09A	Tonopah	3.35	210	⇓P	Pn	11 06 24.1	+1.1
	baz=3.4,SNR=7.2						
MSU	Marysvale	3.38	141	ePn	Pn	11 06 23.5	+0.2
MSU				ePg	Pg	11 06 34.6	-0.6
MSU				eSg	Sg	11 07 14.0	-4.9
TMUT	Trail Mountain	3.39	122	ePg	Pg	11 06 34.6	-0.9
TMUT				eSg	Sg	11 07 17.0	-2.3
L07A	Adell	3.43	286	⇓P	Pn	11 06 24.7	+0.6
	baz=3.4,SNR=15						
P07A	Fallon	3.44	243	⇑P	Pn	11 06 24.0	-0.2
	baz=3.4						
H13A	Challis	3.44	8	⇑P	Pn	11 06 26.0	+1.8
	baz=3.4,SNR=18						
RRI2	Red Ridge	3.45	49	ePn	Pn	11 06 25.4	+1.1
S10A	Tonopah Range,	3.48	203	⇓P	Pn	11 06 25.1	+0.4
	baz=3.5						
S12A	Delamar Landin	3.54	179	⇓P	Pn	11 06 26.1	+0.5
	baz=3.6,SNR=12						
ARUT	Antelope Range	3.55	161	ePn	Pn	11 06 26.6	+0.9
ARUT				ePg	Pg	11 06 38.6	+0.1
ARUT				eSg	Sg	11 07 20.5	-4.0
S11A	Rachel	3.56	191	⇓P	Pn	11 06 26.5	+0.6
	baz=3.6,SNR=16						
S13A	Holt Ranch, En	3.66	167	P	Pn	11 06 27.6	+0.4
	baz=3.7,SNR=49						
DCID1	Drake Creek	3.69	47	ePn	Pn	11 06 28.6	+1.0
DCID1				eSg	Sg	11 07 21.4	-7.5
Q07A	Schurz	3.72	235	⇑P	Pn	11 06 28.0	-0.1
	baz=3.7,SNR=7.9						
REDW	Red Top Meadow	3.74	52	ePn	Pn	11 06 29.7	+1.5
REDW				eSg	Sg	11 07 30.4	-0.1
N06A	Buffalo Meadow	3.75	265	⇓P	Pn	11 06 28.0	-0.4
	baz=3.7,SNR=10						
TPAW	Teton Pass	3.75	50	ePn	Pn	11 06 29.7	+1.3
TPAW				eSg	Sg	11 07 26.4	-4.6
NVAR	Mina Array Bea	3.77	225	Pn	Pn	11 06 28.9	+0.1
	3.7nm,0.3s,baz=41,slow=12,SNR=48						
NVAR				Pg	Pg	11 06 38.9	-3.9
	8.4nm,0.3s,baz=39,slow=15,SNR=20						
NVAR				Sn	Sn	11 07 15.6	+2.5
	9.5nm,0.3s,baz=50,slow=16,SNR=3.7						
NVAR				Lg		11 07 29.1	
	21nm,0.3s,baz=44,slow=26,SNR=6.2						
CCUT	Cedar City	3.79	161	Pn	Pn	11 06 28.4	-0.6
CCUT				ePg	Pg	11 06 43.2	0.0
CCUT				eSg	Sg	11 07 30.7	-1.6
SNOW	Snow King Moun	3.85	52	ePn	Pn	11 06 29.4	-0.4
S09A	Goldfield	3.86	208	⇑P	Pn	11 06 30.4	+0.4
	baz=3.9						
T11A	Corn Creek, Al	3.91	184	P	Pn	11 06 31.0	+0.3
	baz=3.9,SNR=74						
SRU	San Rafael	3.93	120	ePn	Pn	11 06 31.7	+0.8
SRU				ePg	Pg	11 06 44.1	-1.8
G13A	Cobalt	3.97	7	⇓P	Pn	11 06 33.4	+2.0
	baz=3.9,SNR=14						
MCMT	McKenzie Canyo	3.97	22	ePn	Pn	11 06 33.2	+1.8
MCMT				ePg	Pg	11 06 41.6	-5.1
MCMT				eSg	Sg	11 07 35.5	-2.6
IMW	Indian Meadow	4.02	46	ePn	Pn	11 06 31.4	-0.7
IMW				eSg	Sg	11 07 34.2	-5.3
LOHW	Long Hollow	4.03	51	Pn	Pn	11 06 31.2	-1.0
MOOW	Moose Ponds	4.03	49	ePn	Pn	11 06 33.4	+1.1
MOOW				eSg	Sg	11 07 32.8	-7.1
BMO	Blue Mountains	4.09	335	Pn	Pn	11 06 31.5	-1.6
BMO				eSg	Sg	11 07 34.7	-7.3
MOD	Modoc	4.12	282	ePn	Pn	11 06 34.6	+1.1
MOD				eSg	Sg	11 07 40.4	-2.3
WCN	Washoe City	4.14	245	⇑P	Pn	11 06 33.4	-0.5
	baz=4.1,SNR=12						
T13A	Saint George	4.20	169	⇑P	Pn	11 06 34.9	+0.3
	baz=4.2,SNR=9.2						
PDAR	Pinedale Array	4.31	66	Pn	Pn	11 06 38.8	+2.7
	0.5nm,0.3s,baz=243,slow=12,SNR=22						
PDAR				Pg	Pg	11 06 47.1	-5.9
	0.9nm,0.3s,baz=252,slow=14,SNR=15						
PDAR				Lg		11 07 44.2	
	2.1nm,0.3s,baz=238,slow=27,SNR=6.1						
T14A	Hurricane	4.33	160	⇑P	Pn	11 06 37.1	+0.7
	baz=4.4,SNR=35						
BEKR	Beckwourth	4.35	255	P	Pn	11 06 36.2	-0.4
	baz=4.3,SNR=42						
R06C	Coleville	4.37	235	⇓P	Pn	11 06 37.3	+0.4
	baz=4.4,SNR=32						
YFT	Old Faithful	4.46	41	ePg	Pg	11 06 54.4	-1.5
DLMT	Dillon	4.54	21	ePn	Pn	11 06 40.6	+1.4
DLMT				ePg	Pg	11 06 54.0	-3.4
DLMT				eSg	Sg	11 07 50.7	-5.4
YMR	Madison River	4.55	38	ePg	Pg	11 06 52.2	-5.6
YMR				eSg	Sg	11 07 50.7	-6.0
F13A	Darby	4.65	5	⇑P	Pn	11 06 42.8	+1.9
	baz=4.6,SNR=9.1						
LKWY	Lake	4.76	43	ePn	Pn	11 06 43.0	+0.7
LKWY				ePg	Pg	11 06 57.8	-3.8
U13A	Pakoon Wash	4.79	171	⇓P	Pn	11 06 43.3	+0.6
	baz=4.8,SNR=12						
LRM	Limekiln Ridge	5.00	20	ePn	Pn	11 06 47.0	+1.5
LRM				eSg	Sb	11 08 00.2	+2.0
BOZ	Bozeman (W)	5.09	27	ePn	Pn	11 06 48.3	+1.5
BOZ				eSg	Sb	11 08 01.3	+0.5
CMB	Columbia Colle	5.25	235	ePn	Pn	11 06 49.7	+0.6
CMB				ePg	Pg	11 07 07.3	-3.8
CMB				eSn	Sn	11 07 52.7	+3.0
V11A	Goodsprings	5.32	185	⇑P	Pn	11 06 51.2	+1.1
	baz=5.4,SNR=21						
PV04	Paradox Valley	5.39	119	ePn	Pn	11 06 50.5	-0.5
PV04				ePg	Pg	11 07 13.2	-0.5
PV04				eSg	Sb	11 08 12.5	+3.1
V12A	Nelson	5.42	179	⇑P	Pn	11 06 52.3	+0.9
	baz=5.5,SNR=35						
MSO	Missoula	5.72	7	ePn	Pn	11 06 57.7	+2.3
MSO				eSg	Sg	11 08 26.5	-7.5
PV01	Paradox Valley	5.75	120	ePn	Pn	11 06 59.0	+3.1
PV01				ePg	Pg	11 07 17.6	-3.0
CHMT	Chamberlain Mo	5.88	11	ePn	Pn	11 06 59.1	+1.4
CHMT				eSg	Sg	11 08 29.4	-10
YBH	Yreka Blue Hor	5.89	278	Pn	Pn	11 06 59.6	+1.7
	0.1nm,0.3s,baz=99,slow=13,SNR=2.2						
YBH				Lg		11 08 35.1	
	0.3nm,0.3s,baz=351,slow=18,SNR=5.6						
HRY	Holter Researc	5.99	21	ePn	Pn	11 06 60.0	+0.8
HRY				eSg	Sg	11 08 34.9	-7.7
LDFC	Landfair	6.07	182	ePn	Pn	11 07 00.3	0.0
SLMT	Seeley Lake	6.17	9	ePg	Pg	11 07 30.2	+1.5
WUAZ	Wupatki	6.28	153	ePg	Pg	11 07 28.8	-1.9
WUAZ				eSg	Sg	11 08 44.2	-7.8
MVCO	Mesa Verde	6.35	126	ePn	Pn	11 07 03.7	-0.4
MVCO				eSg	Sg	11 08 50.6	-3.8
GMRC	Granite Mounta	6.39	186	⇑P	Pn	11 07 05.1	+0.4
	baz=6.4,SNR=7.7						
YKA	Yellowknife Ar	21.37	0	P	P	11 10 18.3	+0.5
	0.7nm,0.7s,baz=180,slow=10,SNR=26						

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*ISCJB **22** 11:09:30.6±0.1, 41°.14N±0°.01×114°.91W±0°.01, h10^{km},*
Error ellipse: s-maj=1.6km s-min=1.5km az=23.4
*NEIC **22** 11:09:30.5, 41°.18N×114°.93W, h11^{km}, ML3.0, After REN.*
*IDC **22** 11:09:30.3±1.0, 41°.17N×114°.91W, h0^{km}, mb2.8/1,*
mb1 3.3/3, mb1mx3.2/21, mbtmp2.9/3, ML3.2/2, MS3.3/1,
Ms1 3.3/1, ms1mx2.7/12, Error ellipse: s-maj=21.1km
s-min=4.8km az=134.0
ISC 22 11:09:31.2±0.1, **41°.16N**±0°.01×**114°.92W**±0°.01, **h10**^{km},
n121, σ**0^{s}.99**/192, **63C-50D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.32	197	⇑P	Pg	11 09 37.0	-0.5
	baz=0.3,SNR=1000						
N12A				⇓S	Sg	11 09 42.0	+0.1
	baz=0.3						
ELK	Elko	0.48	211	Pg	Pg	11 09 39.9	-0.7
	40nm,0.3s,baz=16,slow=14,SNR=74						
ELK				Lg		11 09 46.2	
	99nm,0.3s,baz=120,slow=20,SNR=75						
ELK	Elko	0.48	211	Pg	Pg	11 09 39.9	-0.7
ELK				Lg		11 09 46.2	
M13A	Montello	0.60	70	⇑P	Pg	11 09 41.8	-0.9
	baz=0.6,SNR=265						
N13A	Wendover, West	0.62	119	P	Pg	11 09 42.8	-0.4
	baz=0.6,SNR=654						
N13A				⇑S	Sg	11 09 51.2	0.0
	baz=0.6						
N11A	Elko Archery C	0.71	241	⇑P	Pg	11 09 44.0	-0.8
	baz=0.7,SNR=24						
N11A				⇓S	Sg	11 09 53.7	-0.4
	baz=0.7						
M11A	Holland Ranch,	0.71	293	⇓P	Pg	11 09 43.7	-1.2
	baz=0.7,SNR=137						
M11A				⇑S	Sg	11 09 53.6	-0.6
	baz=0.7						
O12A	Currie	0.90	172	⇑P	Pg	11 09 47.8	-0.7
	baz=0.9,SNR=438						
O12A				⇑S	Sg	11 10 00.1	-0.1
	baz=0.9						
L12A	House Creek Ra	0.99	356	⇓P	Pg	11 09 49.1	-1.0
	baz=1.0						
L12A				⇑S	Sg	11 10 02.7	-0.3
	baz=1.0						
O11A	Cowboy Ranch,	1.17	209	⇓P	Pb	11 09 53.0	-0.5
	baz=1.2,SNR=656						
O11A				⇓S	Sb	11 10 08.4	-0.3
	baz=1.2						
L13A	Double Diamond	1.18	38	⇑P	Pb	11 09 52.3	-1.3
	baz=1.2,SNR=118						
L13A				⇑S	Sb	11 10 08.3	-0.6
	baz=1.2						
L11A	Cat Creek Ranc	1.19	328	⇑P	Pb	11 09 52.7	-1.0
	baz=1.2,SNR=576						
L11A				⇓S	Sb	11 10 08.3	-0.8
	baz=1.2						
M14A	Sheep Mountain	1.23	73	⇑P	Pn	11 09 53.3	-1.0
	baz=1.2,SNR=514						
M14A				⇓S	Sb	11 10 10.1	-0.2
	baz=1.2						
O13A	Hicks Ranch, I	1.25	145	P	Pn	11 09 54.2	-0.5
	baz=1.3,SNR=502						
O13A				⇑S	Sb	11 10 11.9	+0.9
	baz=1.3						
M10A	I.L. Ranch, Tu	1.27	287	⇓P	Pn	11 09 54.2	-0.8
	baz=1.3,SNR=213						
M10A				⇓S	Sb	11 10 12.0	+0.3
	baz=1.3						
N10A	Dunphy	1.28	250	⇓P	Pn	11 09 54.2	-0.9
	baz=1.3,SNR=27						
N10A				⇑S	Sb	11 10 12.0	+0.1
	baz=1.3						
N14A	Grayback Hills	1.34	103	P	Pn	11 09 55.2	-0.8
	baz=1.4,SNR=567						
N14A				⇑S	Sb	11 10 13.9	+0.2
	baz=1.4						
BGU	Big Grassy Mou	1.45	99	ePn	Pn	11 09 56.8	-0.5
K12A	Draper Farm, C	1.47	0	P	Pn	11 09 56.7	-1.1
	baz=1.5,SNR=173						
K12A				⇓S	Sn	11 10 15.9	-1.2
	baz=1.5						
L10A	Juniper Basin	1.48	309	⇓P	Pn	11 09 57.0	-0.9
	baz=1.5,SNR=491						
L10A				⇑S	Sn	11 10 17.4	+0.2
	baz=1.5						
O10A	Cortez Mining,	1.48	235	⇑P	Pn	11 09 57.4	-0.5
	baz=1.5,SNR=62						
O10A				⇑S	Sn	11 10 17.7	+0.4
	baz=1.5						
L14A	Malta	1.53	55	⇓Pb	Pb	11 09 58.4	-1.2
	baz=1.5,SNR=144						
L14A				⇑S	Sn	11 10 18.6	+0.2
	baz=1.5						
K13A	Stover Farm, H	1.61	22	⇓Pb	Pb	11 09 59.6	-1.4
	baz=1.6,SNR=23						
K13A				⇑S	Sn	11 10 20.6	+0.1
	baz=1.6						
HVU	Hansel Valley	1.72	68	ePn	Pn	11 10 01.0	-0.2
P11A	Circle Ranch,	1.73	202	⇓P	Pn	11 10 01.3	+0.1
	baz=1.7,SNR=13						
K11A	Parker Ranch,	1.81	333	⇓Pb	Pb	11 10 02.8	-1.5
	baz=1.8,SNR=124						
K11A				⇓Sb	Sb	11 10 26.9	-0.2
	baz=1.8						
N15A	Stansbury Isla	1.83	98	⇑P	Pn	11 10 02.0	-0.6
	baz=1.8,SNR=159						
P13A	Bates Ranch, G	1.84	158	⇓P	Pn	11 10 02.0	-0.7
	baz=1.9						
P13A				⇓Sb	Sb	11 10 29.1	+1.2
	baz=1.9						
DUG	Dugway	1.87	120	⇑P	Pn	11 10 02.3	-0.8
	baz=1.9,SNR=324						
DUG	Dugway	1.87	120	ePn	Pn	11 10 02.0	-1.2
DUG				eSg	Sg	11 10 32.2	+1.1
M15A	Larsen Ranch,	1.88	80	⇓P	Pn	11 10 02.8	-0.6
	baz=1.9,SNR=178						
M15A				⇓S	Sn	11 10 27.6	+0.5
	baz=1.9						
BMN	Battle Mountai	1.90	248	ePn	Pn	11 10 02.8	-0.7
BMN				eSg	Sg	11 10 30.7	-1.4
K14A	Jones Ranch, D	1.90	43	⇑P	Pn	11 10 03.4	-0.1
	baz=1.9,SNR=42						
K14A				⇑Sb	Sb	11 10 30.2	+0.6
	baz=1.9						
M09A	Marrel Ranch,	1.93	279	⇑P	Pn	11 10 03.7	-0.3
	baz=1.9,SNR=23						
M09A				⇑Sb	Sb	11 10 31.3	+0.9
	baz=1.9						
P10A	Eureka	1.94	218	⇑P	Pn	11 10 04.3	+0.1
	baz=1.9,SNR=50						
P10A				⇑S	Sn	11 10 29.6	+1.0
	baz=1.9						
O09A	Fish Creek Ran	1.99	241	⇑P	Pn	11 10 04.1	-0.8
	baz=2.0						
O09A				⇓Sb	Sb	11 10 33.4	+1.0
	baz=2.0						
N09A	Rock Creek Ran	2.00	262	⇓P	Pn	11 10 04.1	-0.8
	baz=2.0,SNR=19						
N09A				⇑S	Sn	11 10 30.5	+0.5
	baz=2.0						
O15A	The Old Anders	2.06	115	⇑Pb	Pb	11 10 07.8	-0.7
	baz=2.1,SNR=31						
O15A				⇓Sb	Sb	11 10 35.6	+1.4
	baz=2.1						
L15A	Malad City	2.08	65	⇑P	Pn	11 10 05.9	-0.1
	baz=2.1,SNR=52						
L15A				⇑Sb	Sb	11 10 35.5	+0.7
	baz=2.1						
J12A	Stokes Ranch,	2.09	356	⇑P	Pn	11 10 06.5	+0.3
	baz=2.1,SNR=103						
P14A	Drum Mountains	2.11	137	P	Pn	11 10 06.0	-0.5
	baz=2.1,SNR=42						
Q12A	Willow Creek R	2.12	178	⇓P	Pn	11 10 06.4	-0.2
	baz=2.1,SNR=45						
Q12A				⇓Sb	Sb	11 10 38.1	+2.2
	baz=2.1						
K10A	MacKenzie Ranc	2.18	319	⇑Pb	Pb	11 10 09.2	-1.4

	baz=2.2,SNR=62						
NOQ	North Oquirrh	2.18	103	*e*Pn	Pn	11 10 07.5	+0.1
NOQ				*e*Sg	Sg	11 10 38.3	-2.8
L09A	Wilkinson Ranc baz=2.2,SNR=53	2.23	293	⇓Pb	Pb	11 10 10.0	-1.6
L09A	baz=2.2			⇑Sb	Sb	11 10 40.1	+0.8
J13A	Cove Ranch, Pi baz=2.3,SNR=179	2.30	14	⇓P	Pn	11 10 10.0	+0.9
J13A	baz=2.3			⇓Sb	Sb	11 10 41.5	+0.2
Q13A	Wheeler Ranch, baz=2.3,SNR=48	2.31	162	⇑P	Pn	11 10 08.9	-0.3
P09A	Austin baz=2.3,SNR=6.6	2.34	227	⇓P	Pn	11 10 09.5	-0.1
K15A	Arbon baz=2.3,SNR=36	2.34	49	P	Pn	11 10 10.3	+0.6
MFID	Camas Ranch baz=2.3,SNR=25	2.35	344	⇑P	Pn	11 10 11.4	+1.6
Q11A	Duckwater baz=2.4,SNR=25	2.38	194	⇓P	Pn	11 10 10.3	+0.1
J14A	Carey baz=2.4,SNR=58	2.40	25	P	Pn	11 10 11.6	+1.1
HLID	Hailey baz=2.4,SNR=108	2.43	9	⇑P	Pn	11 10 11.8	+0.9
HLID	baz=2.4			⇑Sb	Sb	11 10 45.7	+0.9
HLID	Hailey	2.43	9	*e*Pn	Pn	11 10 09.9	-0.9
HLID				*e*Sg	Sg	11 10 44.4	-4.8
N08A	GE Springer Mi baz=2.5,SNR=11	2.47	262	⇓P	Pn	11 10 10.6	-0.8
NLU	North Lily Min	2.48	118	*e*Pn	Pn	11 10 10.8	-0.8
NLU				*e*Sg	Sg	11 10 52.9	+2.1
M16A	Huntsville baz=2.5,SNR=24	2.48	85	⇑P	Pn	11 10 12.8	+1.2
Q14A	Sevier Lake (B baz=2.5,SNR=25	2.51	149	P	Pn	11 10 11.3	-0.6
P15A	Leamington baz=2.6,SNR=41	2.57	127	⇑P	Pn	11 10 12.0	-0.7
Q10A	Clear Creek Ra baz=2.6,SNR=39	2.60	207	P	Pn	11 10 13.5	+0.3
K09A	Rome baz=2.6,SNR=100	2.60	307	⇓Pb	Pb	11 10 16.6	-1.2
O08A	Rochester Mine baz=2.6,SNR=15	2.61	252	⇑P	Pn	11 10 12.7	-0.7
M08A	Happy Creek Ra baz=2.6,SNR=48	2.62	277	⇑Pb	Pb	11 10 17.0	-1.3
I12A	Atlanta baz=2.6,SNR=81	2.64	357	⇑P	Pn	11 10 14.7	+1.0
I12A	baz=2.6			⇓Sb	Sb	11 10 51.7	+0.9
J10A	Berg Farm, Mel baz=2.6,SNR=16	2.65	329	⇓P	Pn	11 10 16.5	+2.6
J10A	baz=2.6			⇑Sb	Sb	11 10 52.1	+0.9
L16A	Fish Haven baz=2.7	2.75	71	⇓P	Pn	11 10 16.4	+1.2
MPU	Maple Canyon	2.75	114	*e*Pn	Pn	11 10 14.8	-0.5
MPU				*e*Pg	Pg	11 10 23.3	-0.5
MPU				*e*Sg	Sg	11 10 58.0	-1.4
L08A	Fields baz=2.7,SNR=37	2.77	293	P	Pn	11 10 18.4	+2.9
I13A	Wildhorse Cree baz=2.8,SNR=50	2.81	12	P	Pn	11 10 17.6	+1.4
P08A	Dixie Valley baz=2.8,SNR=7.7	2.83	240	⇑P	Pn	11 10 16.1	-0.2
R12A	Pony Springs, baz=2.9,SNR=7.8	2.84	175	⇑P	Pn	11 10 16.8	+0.3
I11A	Placerville baz=2.8	2.85	345	⇓P	Pn	11 10 20.0	+3.3
I11A	baz=2.8			⇓Sb	Sb	11 10 58.6	+1.5
R11A	Troy Canyon, C baz=2.9,SNR=59	2.86	191	P	Pn	11 10 16.7	0.0
R11A	baz=2.9			⇑S	Sn	11 10 51.8	+0.6
DAU	Daniels Canyon	2.88	104	*e*Pn	Pn	11 10 17.5	+0.4
DAU				*e*Pg	Pg	11 10 26.0	-0.3
DAU				*e*Sg	Sg	11 11 01.7	-1.9
J15A	Blackfoot baz=2.9,SNR=25	2.90	39	⇓P	Pn	11 10 18.1	+0.8
Q09A	Carvers baz=2.9,SNR=7.4	2.90	218	⇓P	Pn	11 10 18.2	+0.8
Q15A	Fillmore baz=2.9,SNR=8.7	2.91	137	⇓P	Pn	11 10 16.7	-0.7
I14A	Mackay baz=3.0,SNR=13	2.97	21	⇑P	Pn	11 10 19.5	+1.3
K16A	Soda Springs baz=3.0,SNR=9.7	2.99	55	⇑P	Pn	11 10 19.6	+1.0
WVOR	Wild Horse Val	3.06	296	*e*Pn	Pn	11 10 23.7	+4.2
WVOR				*e*Sg	Sg	11 11 05.9	-3.5
R10A	Warm Springs baz=3.1	3.06	201	⇓P	Pn	11 10 20.6	+1.0
R13A	O'Grain Ranch, baz=3.1	3.07	166	⇑P	Pn	11 10 20.3	+0.7
N07B	Gerlach baz=3.1,SNR=7.7	3.09	264	⇑P	Pn	11 10 19.8	-0.2
O07A	Toulon baz=3.2,SNR=33	3.17	253	⇑P	Pn	11 10 20.2	-0.9
M07A	Soldier Meadow baz=3.2,SNR=12	3.21	275	⇓P	Pn	11 10 21.6	-0.1
Q08A	Gabbs baz=3.3,SNR=7.4	3.26	226	⇓P	Pn	11 10 22.2	-0.1
R09A	Tonopah baz=3.4,SNR=7.2	3.36	210	⇓P	Pn	11 10 24.5	+0.9
MSU	Marysvale	3.38	141	*e*Pn	Pn	11 10 24.4	+0.4
MSU				*e*Pg	Pg	11 10 35.5	-0.5
MSU				*e*Sg	Sg	11 11 15.2	-4.6
TMUT	Trail Mountain	3.40	122	*e*Pn	Pn	11 10 24.8	+0.7
TMUT				*e*Sg	Sg	11 11 11.3	-8.9
H13A	Challis baz=3.4,SNR=9.6	3.44	8	⇑P	Pn	11 10 26.8	+2.1
S10A	Tonopah Range, baz=3.5,SNR=7.0	3.48	202	⇓P	Pn	11 10 26.2	+0.8
ARUT	Antelope Range	3.56	161	*e*Pn	Pn	11 10 26.6	+0.3
ARUT				*e*Pg	Pg	11 10 38.9	-0.4
ARUT				*e*Sg	Sg	11 11 25.8	+0.5
S11A	Rachel baz=3.6,SNR=8.0	3.57	191	⇑P	Pn	11 10 27.3	+0.7
K07A	Rock Creek Ran baz=3.5,SNR=9.3	3.58	297	⇓P	Pn	11 10 27.2	+0.6
S14A	Cedar City baz=3.7	3.66	158	⇑P	Pn	11 10 28.1	+0.4
S13A	Holt Ranch, En baz=3.7,SNR=30	3.67	167	⇑P	Pn	11 10 28.3	+0.4
REDW	Red Top Meadow	3.73	53	*e*Pn	Pn	11 10 30.9	+2.1
REDW				*e*Sg	Sg	11 11 31.5	+0.5
TPAW	Teton Pass	3.75	50	*e*Pn	Pn	11 10 30.2	+1.2
TPAW				*e*Sg	Sg	11 11 27.2	-4.3
NVAR	Mina Array Bea 1.7nm,0.3s,baz=42,slow=12,SNR=4.7	3.77	225	Pn	Pn	11 10 29.4	+0.1
NVAR	3.1nm,0.3s,baz=42,slow=15,SNR=15			Pg	Pg	11 10 37.7	-5.8
NVAR	4.3nm,0.3s,baz=53,slow=18,SNR=5.1			Sn	Sn	11 11 15.6	+1.8
NVAR	7.9nm,0.3s,baz=50,slow=30,SNR=6.3			Lg		11 11 28.8	
NVAR	Mina Array Bea	3.77	225	Pn	Pn	11 10 29.4	+0.1
NVAR				Pg	Pg	11 10 37.7	-5.8
NVAR				Sn	Sn	11 11 15.6	+1.8
NVAR				Lg		11 11 28.8	
CCUT	Cedar City	3.80	161	*e*Pn	Pn	11 10 30.6	+0.9
CCUT				*e*Pg	Pg	11 10 42.5	-1.5
CCUT				*e*Sg	Sg	11 11 31.7	-1.5
SNOW	Snow King Moun	3.85	52	*e*Pn	Pn	11 10 28.9	-1.5
SNOW				*e*Sg	Sg	11 11 28.3	-6.4
T11A	Corn Creek, Al baz=3.9,SNR=31	3.92	184	P	Pn	11 10 31.8	+0.4
SRU	San Rafael	3.94	120	*e*Pg	Pg	11 10 43.6	-3.0
SRU				*e*Sg	Sg	11 11 35.5	-2.1
MCMT	McKenzie Canyo	3.97	22	*e*Pn	Pn	11 10 30.3	-1.7
MCMT				*e*Pg	Pg	11 10 42.0	-5.1
MCMT				*e*Sg	Sg	11 11 32.3	-6.2
S15A	Panguitch baz=4.0	4.00	150	⇑P	Pn	11 10 33.0	+0.5
IMW	Indian Meadow	4.01	46	*e*Pn	Pn	11 10 29.4	-3.3
IMW				*e*Sg	Sg	11 11 34.6	-5.4
LOHW	Long Hollow	4.03	51	Pn	Pn	11 10 33.2	+0.5
LOHW				*e*Pg	Pg	11 10 45.4	-2.8
LOHW				*e*Sg	Sg	11 11 35.9	-4.4
MOOW	Moose Ponds	4.03	49	*e*Pn	Pn	11 10 34.1	+1.3
MOOW				*e*Sg	Sg	11 11 33.6	-6.8
BMO	Blue Mountains	4.08	335	*e*Pn	Pn	11 10 35.8	+2.2
BMO				*e*Sg	Sg	11 11 34.5	-7.8
MOD	Modoc	4.11	282	*e*Pn	Pn	11 10 33.8	-0.2
MOD				*e*Pg	Pg	11 10 49.7	-0.2
MOD				*e*Sg	Sg	11 11 38.3	-4.8
R17A	Hanksville Air baz=4.3,SNR=9.3	4.24	129	⇑P	Pn	11 10 37.2	+1.4
PDAR	Pinedale Array 0.2nm,0.3s,baz=246,slow=13,SNR=7.0	4.30	66	Pn	Pn	11 10 39.5	+2.9
PDAR	0.4nm,0.3s,baz=240,slow=14,SNR=7.8			Pg	Pg	11 10 46.5	-7.0
PDAR	1.0nm,0.3s,baz=235,slow=26,SNR=7.1			Lg		11 11 44.6	
T14A	Hurricane baz=4.4,SNR=7.6	4.33	160	⇑P	Pn	11 10 37.6	+0.6
BEKR	Beckwourth baz=4.3,SNR=25	4.34	254	P	Pn	11 10 36.8	-0.4
R06C	Coleville baz=4.4,SNR=10	4.37	234	⇑P	Pn	11 10 37.9	+0.3
U13A	Pakoon Wash baz=4.8,SNR=5.7	4.80	171	⇑P	Pn	11 10 44.1	+0.6
V11A	Goodsprings baz=5.4,SNR=6.8	5.33	185	⇓P	Pn	11 10 51.5	+0.7
V12A	Nelson baz=5.4,SNR=12	5.43	179	⇓P	Pn	11 10 52.8	+0.7
DLBC	Dease Lake comp=Z,89nm,21.9s,baz=40,slow=39	19.77	336	LR	LR	11 22 13.0	
YKA	Yellowknife Ar 0.4nm,0.7s,baz=179,slow=10,SNR=12	21.37	0	P	P	11 14 19.0	+0.7

ISCJB ***22*** *11:17:24.7±0.1, 41°.14N±0°.01×114°.89W±0°.01, h10*^{km}*, Error ellipse: s-maj=1.6km s-min=1.5km az=169.9*

NEIC ***22*** *11:17:24.8±0.4, 41°.16N×114°.96W, h5*^{km}*, ML3.2, Error ellipse: s-maj=6.2km s-min=4.6km az=113.0*

IDC ***22*** *11:17:24.7±0.8, 41°.15N×114°.86W, h0*^{km}*, mb3.1/1, mb1 3.6/4, mb1mx3.4/22, mbtmp3.3/4, ML3.4/3, Error ellipse: s-maj=13.8km s-min=5.5km az=134.0*

ISC 22 11:17:25.4±0.1**, 41°.16N**±0°.01×**114°.92W**±0°.01**, h10**^{km}**, n126,** σ1^s.03/207**, 47C-46D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	Clover Valley, baz=0.4,SNR=568	0.32	196	⇑P	Pg	11 17 31.4	-0.3
N12A	baz=0.4			⇑S	Sg	11 17 36.2	+0.1
ELK	Elko 64nm,0.3s,baz=11,slow=13,SNR=176	0.48	210	Pg	Pg	11 17 34.1	-0.7
ELK	120nm,0.3s,baz=105,slow=20,SNR=95			Lg		11 17 40.8	
ELK	Elko	0.48	210	*e*Pg	Pg	11 17 34.0	-0.7
ELK				*e*Sg	Sg	11 17 40.6	-0.5
M13A	Montello baz=0.6,SNR=148	0.60	71	⇑P	Pg	11 17 35.9	-1.1
M13A	baz=0.6			⇑S	Sg	11 17 45.1	+0.2
N13A	Wendover, West baz=0.7,SNR=1000	0.62	119	⇓P	Pg	11 17 36.8	-0.6
N13A	baz=0.7			⇑S	Sg	11 17 46.2	+0.6
N11A	Elko Archery C baz=0.7,SNR=55	0.71	241	P	Pg	11 17 38.2	-0.8
N11A	baz=0.7			⇓S	Sg	11 17 48.3	0.0
M11A	Holland Ranch, baz=0.7	0.71	293	⇑P	Pg	11 17 37.7	-1.3
M11A	baz=0.7			⇑S	Sg	11 17 47.8	-0.5
O12A	Currie baz=1.0,SNR=452	0.90	171	⇓P	Pg	11 17 42.0	-0.7
O12A	baz=1.0			⇑S	Sg	11 17 55.0	+0.5
L12A	House Creek Ra baz=0.9	0.98	356	⇑P	Pg	11 17 42.7	-1.6
L12A	baz=0.9			⇓S	Sg	11 17 56.6	-0.6
O11A	Cowboy Ranch, baz=1.2,SNR=184	1.17	209	⇑P	Pb	11 17 47.5	-0.2
O11A	baz=1.2			⇓S	Sb	11 18 02.8	-0.1
L13A	Double Diamond baz=1.2	1.18	38	⇑P	Pb	11 17 46.2	-1.6
L13A	baz=1.2			⇓S	Sb	11 18 02.3	-0.8
L11A	Cat Creek Ranc baz=1.1	1.18	328	⇑P	Pb	11 17 46.5	-1.4
L11A	baz=1.1			⇑S	Sb	11 18 02.2	-1.0
M14A	Sheep Mountain baz=1.2,SNR=331	1.23	73	P	Pn	11 17 47.4	-1.3
M14A	baz=1.2			⇑S	Sb	11 18 04.5	-0.2
O13A	Hicks Ranch, I baz=1.3,SNR=316	1.25	145	P	Pn	11 17 48.2	-0.7
O13A	baz=1.3			⇑S	Sb	11 18 06.9	+1.6
M10A	I.L. Ranch, Tu baz=1.2,SNR=154	1.27	287	⇑P	Pn	11 17 48.4	-0.8
M10A	baz=1.2			⇑S	Sb	11 18 06.1	+0.3
N10A	Dunphy baz=1.3,SNR=9.9	1.28	250	⇑P	Pn	11 17 48.9	-0.4
N10A	baz=1.3			⇓S	Sb	11 18 06.2	+0.2
N14A	Grayback Hills baz=1.4,SNR=294	1.35	103	P	Pn	11 17 49.2	-1.0
N14A	baz=1.4			⇓S	Sb	11 18 07.9	-0.1
BGU	Big Grassy Mou	1.45	99	*e*Pn	Pn	11 17 50.8	-0.8
BGU				*e*Sg	Sg	11 18 11.8	-0.2
K12A	Draper Farm, C baz=1.4	1.47	1	⇓P	Pn	11 17 50.7	-1.2
K12A	baz=1.4			⇑S	Sn	11 18 10.2	-1.1
L10A	Juniper Basin baz=1.4,SNR=377	1.48	309	⇓P	Pn	11 17 51.1	-0.9
L10A	baz=1.4			⇓S	Sn	11 18 11.4	+0.1
O10A	Cortez Mining, baz=1.5,SNR=94	1.48	235	P	Pn	11 17 51.7	-0.4
O10A	baz=1.5			⇑S	Sn	11 18 12.4	+1.0
L14A	Malta baz=1.5,SNR=190	1.53	55	⇓P	Pn	11 17 52.3	-0.5
L14A	baz=1.5			⇓S	Sn	11 18 12.9	+0.1
K13A	Stover Farm, H baz=1.6,SNR=44	1.61	23	⇑P	Pn	11 17 53.5	-0.3
K13A	baz=1.6			⇓S	Sn	11 18 14.6	0.0
HVU	Hansel Valley	1.73	68	*e*Pn	Pn	11 17 54.9	-0.5
HVU				*e*Sg	Sg	11 18 19.0	-1.8
P11A	Circle Ranch, baz=1.8,SNR=18	1.73	202	⇓P	Pn	11 17 55.4	0.0
K11A	Parker Ranch, baz=1.8,SNR=217	1.81	333	⇓P	Pn	11 17 56.1	-0.5
K11A	baz=1.8			⇓Sb	Sb	11 18 21.0	-0.3
N15A	Stansbury Isla baz=1.9,SNR=210	1.84	98	P	Pn	11 17 56.5	-0.4
N15A	baz=1.9			⇑S	Sn	11 18 22.3	+2.1
P13A	Bates Ranch, G baz=1.9	1.84	158	⇑P	Pn	11 17 56.2	-0.8
P13A	baz=1.9			⇓S	Sn	11 18 22.8	+2.5
SPUT	South Promonto	1.87	85	*e*Pn	Pn	11 17 57.7	+0.3
SPUT				*e*Sg	Sg	11 18 23.5	-1.9
DUG	Dugway baz=1.9,SNR=241	1.87	120	⇓P	Pn	11 17 56.4	-1.0
DUG	Dugway	1.87	120	*e*Pn	Pn	11 17 56.2	-1.2
DUG				*e*Sg	Sg	11 18 24.3	-1.2
M15A	Larsen Ranch, baz=1.9,SNR=261	1.89	80	⇑P	Pn	11 17 57.1	-0.5
M15A	baz=1.9			⇓S	Sn	11 18 22.5	+1.1
BMN	Battle Mountai	1.89	248	*e*Pn	Pn	11 17 56.9	-0.8
BMN				*e*Sg	Sg	11 18 24.5	-1.7
K14A	Jones Ranch, D baz=1.9,SNR=52	1.90	43	⇑P	Pn	11 17 57.3	-0.5
K14A	baz=1.9			⇓S	Sn	11 18 23.4	+1.6
M09A	Marrel Ranch, baz=1.9	1.92	279	⇑P	Pn	11 17 57.5	-0.6
M09A	baz=1.9			⇑Sb	Sb	11 18 25.6	+1.0
P10A	Eureka baz=2.0,SNR=47	1.94	218	⇓P	Pn	11 17 58.5	+0.2
P10A	baz=2.0			⇓Sb	Sb	11 18 27.8	+2.8
O09A	Fish Creek Ran baz=2.0,SNR=31	1.99	241	⇓P	Pn	11 17 58.5	-0.6
O09A	baz=2.0			⇑Sb	Sb	11 18 28.0	+1.5
N09A	Rock Creek Ran baz=2.0,SNR=45	2.00	262	⇓P	Pn	11 17 58.2	-0.9
N09A	baz=2.0			⇓S	Sn	11 18 24.6	+0.5
O15A	The Old Anders baz=2.1	2.06	115	⇓Sb	Sb	11 18 29.7	+1.2
L15A	Malad City baz=2.1,SNR=65	2.08	65	⇓P	Pn	11 17 59.9	-0.4
L15A	baz=2.1			⇓Sb	Sb	11 18 29.7	+0.7
J12A	Stokes Ranch, baz=2.0,SNR=152	2.09	356	P	Pn	11 18 01.0	+0.6
J12A	baz=2.0			⇓Sb	Sb	11 18 29.1	-0.2
P14A	Drum Mountains baz=2.2,SNR=26	2.11	137	⇓P	Pn	11 17 60.0	-0.8
P14A	baz=2.2			⇑Sb	Sb	11 18 33.2	+3.2
Q12A	Willow Creek R baz=2.2,SNR=29	2.12	178	P	Pn	11 18 00.6	-0.3
K10A	MacKenzie Ranc baz=2.1,SNR=55	2.17	319	⇑P	Pn	11 18 02.6	+1.1
K10A	baz=2.1			⇓Sb	Sb	11 18 31.6	-0.1
NOQ	North Oquirrh	2.18	103	*e*Pn	Pn	11 18 02.5	+0.9
NOQ				*e*Sg	Sg	11 18 34.5	-1.0
L09A	Wilkinson Ranc baz=2.2,SNR=73	2.23	293	⇓P	Pn	11 18 03.8	+1.4
J13A	Cove Ranch, Pi baz=2.3,SNR=255	2.30	14	P	Pn	11 18 04.1	+0.7
Q13A	Wheeler Ranch, baz=2.4,SNR=45	2.31	162	⇓P	Pn	11 18 03.1	-0.4
P09A	Austin baz=2.4,SNR=9.4	2.34	227	⇑P	Pn	11 18 03.7	-0.2
K15A	Arbon baz=2.3,SNR=39	2.34	49	P	Pn	11 18 04.4	+0.5
MFID	Camas Ranch baz=2.3,SNR=27	2.35	344	⇓P	Pn	11 18 05.4	+1.4
Q11A	Duckwater baz=2.4,SNR=26	2.38	194	P	Pn	11 18 04.4	0.0
J14A	Carey baz=2.4,SNR=107	2.40	25	P	Pn	11 18 05.6	+0.9
HLID	Hailey baz=2.4,SNR=171	2.43	9	P	Pn	11 18 06.0	+0.9
HLID	Hailey	2.43	9	*e*Pn	Pn	11 18 05.8	+0.8
HLID				*e*Sg	Sg	11 18 38.4	-5.0
CTU	Camp Tracy	2.45	100	*e*Pn	Pn	11 18 07.7	+2.4
CTU				*e*Sg	Sg	11 18 42.0	-2.0
N08A	GE Springer Mi baz=2.4,SNR=6.8	2.46	262	⇓P	Pn	11 18 04.8	-0.7
NLU	North Lily Min	2.48	118	*e*Pn	Pn	11 18 05.5	-0.3
NLU				*e*Pg	Pg	11 18 13.2	+0.3
NLU				*e*Sg	Sg	11 18 46.4	+1.4
Q14A	Sevier Lake (B baz=2.6,SNR=25	2.51	149	⇑P	Pn	11 18 05.3	-0.9
P15A	Leamington baz=2.6,SNR=34	2.57	127	P	Pn	11 18 06.2	-0.8
K09A	Rome baz=2.6,SNR=190	2.60	307	⇓P	Pn	11 18 09.6	+2.2
Q10A	Clear Creek Ra baz=2.6,SNR=50	2.60	206	P	Pn	11 18 07.5	+0.1
O08A	Rochester Mine baz=2.6,SNR=15	2.61	252	⇓P	Pn	11 18 06.9	-0.7
I12A	Atlanta baz=2.6,SNR=168	2.63	357	⇓P	Pn	11 18 09.1	+1.1
J10A	Berg Farm, Mel baz=2.6,SNR=30	2.65	329	⇑P	Pn	11 18 10.9	+2.9
L16A	Fish Haven baz=2.7,SNR=17	2.75	71	⇑P	Pn	11 18 10.2	+0.7
MPU	Maple Canyon	2.75	114	*e*Pn	Pn	11 18 09.4	-0.2
MPU				*e*Pg	Pg	11 18 17.4	-0.7
MPU				*e*Sg	Sg	11 18 46.6	-7.2
I13A	Wildhorse Cree baz=2.8,SNR=55	2.81	12	⇑P	Pn	11 18 11.5	+1.2
R12A	Pony Springs, baz=2.9,SNR=9.2	2.84	175	⇑P	Pn	11 18 10.9	+0.1
R11A	Troy Canyon, C baz=2.9,SNR=88	2.86	191	P	Pn	11 18 10.7	-0.3
DAU	Daniels Canyon	2.88	104	*e*Pn	Pn	11 18 12.9	+1.6
DAU				*e*Pg	Pg	11 18 20.0	-0.5
DAU				*e*Sg	Sg	11 18 50.0	-7.9
J15A	Blackfoot baz=2.9,SNR=29	2.90	39	⇑P	Pn	11 18 12.2	+0.6
Q15A	Fillmore baz=3.0,SNR=6.6	2.91	137	⇓P	Pn	11 18 11.0	-0.7
I14A	Mackay baz=2.9,SNR=15	2.97	21	⇑P	Pn	11 18 13.6	+1.1
K16A	Soda Springs baz=3.0,SNR=18	2.99	55	⇓P	Pn	11 18 13.8	+1.0
WVOR	Wild Horse Val	3.06	296	*e*Pg	Pg	11 18 17.9	-6.0
WVOR				*e*Sg	Sg	11 19 00.5	-3.0
R10A	Warm Springs baz=3.1	3.06	201	⇑P	Pn	11 18 14.6	+0.9
R13A	O'Grain Ranch, baz=3.1,SNR=52	3.07	166	P	Pn	11 18 14.4	+0.5
N07B	Gerlach baz=3.1,SNR=11	3.09	264	⇑P	Pn	11 18 14.0	-0.2
O07A	Toulon baz=3.2,SNR=23	3.17	253	P	Pn	11 18 14.5	-0.8
M07A	Soldier Meadow baz=3.2,SNR=19	3.21	275	⇑P	Pn	11 18 15.8	-0.1
J16A	Bone baz=3.2,SNR=10	3.24	48	⇑P	Pn	11 18 17.1	+0.9
Q08A	Gabbs baz=3.3,SNR=8.9	3.26	226	⇑P	Pn	11 18 16.3	-0.2
AHID	Auburn Hatcher	3.27	59	*e*Pn	Pn	11 18 16.7	+0.1
AHID				*e*Pg	Pg	11 18 26.5	-1.5
AHID				*e*Sg	Sg	11 19 06.7	-3.6
R09A	Tonopah baz=3.4	3.36	210	⇑P	Pn	11 18 18.3	+0.5
MSU	Marysvale	3.39	141	*e*Pn	Pn	11 18 18.5	+0.2
MSU				*e*Sg	Sg	11 19 14.9	+0.8
TMUT	Trail Mountain	3.40	122	*e*Pn	Pn	11 18 18.6	+0.2
TMUT				*e*Pg	Pg	11 18 29.5	-1.0
P07A	Fallon baz=3.4	3.44	243	⇓P	Pn	11 18 18.8	-0.1
RRI2	Red Ridge	3.45	50	*e*Pn	Pn	11 18 18.8	-0.4
RRI2				*e*Sg	Sg	11 19 11.8	-4.4
S10A	Tonopah Range, baz=3.5,SNR=9.7	3.48	202	P	Pn	11 18 20.0	+0.4
ARUT	Antelope Range	3.56	161	*e*Pn	Pn	11 18 20.9	+0.3
ARUT				*e*Pg	Pg	11 18 32.9	-0.7
S11A	Rachel baz=3.6	3.57	191	⇑P	Pn	11 18 21.2	+0.4
S13A	Holt Ranch, En baz=3.7,SNR=39	3.67	167	P	Pn	11 18 22.4	+0.2
DCID1	Drake Creek	3.68	47	*e*Pn	Pn	11 18 23.0	+0.7
DCID1				*e*Sg	Sg	11 19 15.8	-7.8
REDW	Red Top Meadow	3.73	53	*e*Pn	Pn	11 18 25.0	+2.0
REDW				*e*Sg	Sg	11 19 16.8	-8.5
TPAW	Teton Pass	3.75	50	*e*Pn	Pn	11 18 24.5	+1.2
TPAW				*e*Pg	Pg	11 18 35.8	-1.4
TPAW				*e*Sg	Sg	11 19 21.4	-4.4
NVAR	Mina Array Bea 2.5nm,0.3s,baz=42,slow=12,SNR=75	3.77	225	Pn	Pn	11 18 23.5	-0.1
NVAR	11nm,0.3s,baz=50,slow=30,SNR=6.0			Lg		11 19 25.1	
CCUT	Cedar City	3.80	161	*e*Pn	Pn	11 18 24.2	+0.3
CCUT				*e*Pg	Pg	11 18 37.8	-0.5
CCUT				*e*Sg	Sg	11 19 25.5	-2.0
SNOW	Snow King Moun	3.85	52	Pn	Pn	11 18 22.8	-1.9
SNOW				*e*Sg	Sg	11 19 19.9	-9.1
T11A	Corn Creek, Al baz=4.0,SNR=26	3.92	184	P	Pn	11 18 25.8	+0.2
SRU	San Rafael	3.94	120	*e*Pn	Pn	11 18 26.2	+0.3
SRU				*e*Pg	Pg	11 18 37.7	-3.2
G13A	Cobalt baz=3.9,SNR=15	3.96	7	⇓P	Pn	11 18 28.0	+1.8
MCMT	McKenzie Canyo	3.97	22	*e*Pn	Pn	11 18 26.6	+0.5
MCMT				*e*Pg	Pg	11 18 36.2	-5.1
MCMT				*e*Sg	Sg	11 19 26.4	-6.3
IMW	Indian Meadow	4.01	46	*e*Pn	Pn	11 18 27.6	+0.8
IMW				*e*Sg	Sg	11 19 28.5	-5.8
LOHW	Long Hollow	4.03	51	*e*Pn	Pn	11 18 28.4	+1.3
MOOW	Moose Ponds	4.03	49	*e*Pn	Pn	11 18 28.2	+1.2
MOOW				*e*Sg	Sg	11 19 27.5	-7.1
BMO	Blue Mountains	4.08	335	*e*Pn	Pn	11 18 29.3	+1.5
BMO				*e*Sg	Sb	11 19 25.6	-1.1
MOD	Modoc	4.11	282	*e*Pn	Pn	11 18 28.7	+0.5
MOD				*e*Sg	Sg	11 19 32.3	-4.9
PDAR	Pinedale Array	4.31	66	Pn	Pn	11 18 33.5	+2.6

	0.4nm,0.3s,baz=243,slow=12,SNR=16						
PDAR				Lg		11 19 38.4	
	1.7nm,0.3s,baz=241,slow=30,SNR=7.3						
T14A	**Hurricane**	**4.34**	**160**	⇓P	**Pn**	**11 18 31.8**	**+0.5**
	baz=4.4,SNR=12						
BEKR	**Beckwourth**	**4.34**	**254**	⇑P	**Pn**	**11 18 31.0**	**-0.4**
	baz=4.3,SNR=12						
R06C	**Coleville**	**4.37**	**234**	⇓P	**Pn**	**11 18 32.1**	**+0.3**
	baz=4.4,SNR=10						
DLMT	**Dillon**	**4.53**	**21**	*e*Pn	**Pn**	**11 18 35.5**	**+1.6**
DLMT				*e*Pg	**Pg**	**11 18 47.3**	**-4.7**
DLMT				*e*Sg	**Sg**	**11 19 45.4**	**-5.3**
YMR	**Madison River**	**4.55**	**38**	*e*Pn	**Pn**	**11 18 33.6**	**-0.7**
YMR				*e*Sg	**Sg**	**11 19 45.7**	**-5.8**
LRM	**Limekiln Ridge**	**4.99**	**20**	*e*Pg	**Pg**	**11 18 55.2**	**-5.8**
LRM				*e*Sg	**Sg**	**11 20 00.1**	**-5.4**
BOZ	**Bozeman (W)**	**5.08**	**27**	*e*Pn	**Pn**	**11 18 40.6**	**-0.9**
BOZ				*e*Sg	**Sb**	**11 19 57.6**	**+2.2**
V11A	**Goodsprings**	**5.33**	**184**	⇓P	**Pn**	**11 18 45.8**	**+0.8**
	baz=5.4						
PV04	**Paradox Valley**	**5.40**	**119**	*e*Pn	**Pn**	**11 18 48.2**	**+2.3**
PV04				*e*Pg	**Pg**	**11 19 07.2**	**-1.5**
PV04				*e*Sg	**Sg**	**11 20 12.3**	**-6.2**
V12A	**Nelson**	**5.43**	**179**	⇑P	**Pn**	**11 18 46.9**	**+0.6**
	baz=5.5,SNR=12						
PV01	**Paradox Valley**	**5.76**	**120**	*e*Pn	**Pn**	**11 18 53.6**	**+2.8**
PV01				*e*Sg	**Sg**	**11 20 25.6**	**-4.6**
YBH	**Yreka Blue Hor**	**5.88**	**278**	Pn	**Pn**	**11 18 56.6**	**+4.1**
	0.1nm,0.3s,baz=122,slow=9.5,SNR=1.9						
YBH				Lg		11 20 28.9	
	0.2nm,0.3s,baz=90,slow=20,SNR=4.3						
HRY	**Holter Researc**	**5.98**	**21**	*e*Pn	**Pn**	**11 18 53.7**	**-0.1**
HRY				*e*Pg	**Pg**	**11 19 15.5**	**-4.3**
HRY				*e*Sg	**Sg**	**11 20 28.5**	**-8.7**
LDFC	**Landfair**	**6.08**	**181**	*e*Pn	**Pn**	**11 18 55.1**	**-0.1**
WUAZ	**Wupatki**	**6.29**	**153**	*e*Pg	**Pg**	**11 19 23.3**	**-2.4**
WUAZ				*e*Sg	**Sg**	**11 20 43.2**	**-3.9**
MVCO	**Mesa Verde**	**6.36**	**126**	*e*Pg	**Pg**	**11 19 22.1**	**-5.0**
MVCO				*e*Sg	**Sg**	**11 20 54.2**	**+4.8**
YKA	**Yellowknife Ar**	**21.36**	**0**	P	**P**	**11 22 13.0**	**+0.5**
	0.7nm,0.7s,baz=180,slow=10,SNR=20						

*NEIC **22** 11:26:08.9, 16°.77N×99°.66W, h7^{km}, MD3.5(MEX), After MEX.*

MEX 22 11:26:08.8±0.6**, 16°.79N×99°.65W, h6**^{km}±4^{km}**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	**0.27**	**287**	*i* P	Pg	11 26 13.7	-0.3
ACX				*i* S	Sg	11 26 18.0	+0.4
CAIG	**El Cayaco**	**0.65**	**294**	*i* P	Pg	11 26 20.1	-1.1
CAIG				*i* S	Sg	11 26 29.6	0.0
MEIG	**Mezcala**	**1.13**	**1**	*i* P	Pg	11 26 27.1	-3.4
MEIG				*i* S	Sg	11 26 42.3	-3.0
PNIG	**Pinotepa**	**1.51**	**105**	*e*P	Pn	11 26 33.3	-3.1
PNIG				*i* S	Sn	11 26 51.9	-4.5
PLIG	**Platanillo**	**1.60**	**5**	*i* P	Pn	11 26 34.5	-3.1
PLIG				*i* S	Sn	11 26 54.0	-4.8
UTMO	**Huajuapan**	**2.05**	**59**	*i* P	Pn	11 26 41.1	-2.7
UTMO				*i* S	Sn	11 27 05.1	-4.6
MZVM		**2.42**	**9**	*e*P	Pn	11 26 44.4	-4.6
MZVM				*i* S	Sn	11 27 15.3	-3.7
PPM	**Popocatepetl**	**2.47**	**23**	*e*P	Pn	11 26 51.0	+1.4
PPM				*i* S	Sn	11 27 21.2	+1.1
VHO	**Vista Hermosa**	**2.81**	**84**	*e*P	Px	11 27 17.4	
VHO				*i* S	Sn	11 27 34.1	+5.7
HUIG	**Huatulco**	**3.55**	**106**	*i* P	Pn	11 27 06.0	+1.5
HUIG				*i* S	Sn	11 27 22.4	-24

*MOS **22** 11:26:55.8±1.2, 36°.87N×141°.34E, h29^{km}, mb3.7/1, Error ellipse: s-maj=17.5km s-min=11.2km az=78.4*

*ISCJB **22** 11:26:57.5±0.7, 36°.89N±0°.03×141°.36E±0°.06, h42^{km}±7^{km}, mb3.8/10, MS3.1/2, Error ellipse: s-maj=8.3km s-min=4.4km az=25.9*

*IDC **22** 11:26:58.3±0.6, 36°.82N×141°.29E, h29^{km}±4^{km}, mb3.6/9, mb1 3.8/15, mb1mx3.7/27, mbtmp3.8/15, ML4.0/6, MS3.1/3, Ms1 3.1/3, ms1mx2.6/41, Error ellipse: s-maj=18.8km s-min=12.4km az=104.0*

*NIED **22** 11:27:00, 36°.90N×141°.20E, h41^{km}, Mw3.9 Best double couple: M$_0$8.89000×10^{14} NP1:φ$_s$275.00000°, δ75.00000°, λ-79.00000°. NP2:φ$_s$58.00000°, δ18.00000°, λ-125.00000°.*

*NEIC **22** 11:27:00.0, 36°.94N×141°.15E, h50^{km}, MG4.4(JMA), After JMA.*

NEIC Recorded [2 JMA] in Fukushima and Ibaraki; [1 JMA] in Miyagi and Tochigi.

*JMA **22** 11:27:00.0±0.1, 36°.94N×141°.15E, h50^{km}±1^{km}, M4.2 Broadband fault plane solution: P waves. NP1: φ$_s$100.00000°, δ17.00000°, λ-60.00000°. NP2: φ$_s$249.00000°, δ75.00000°, λ-99.00000°. Principal axes: T Plg30.0000°, Azm346.0000°; N Plg8.0000°, Azm251.0000°; P Plg59.0000°, Azm147.0000°;*

JMA Felt II J1.

ISC 22 11:26:58.7±0.8**, 36°.90N**±0°.03×**141°.31E**±0°.05**, h33**^{km}±4^{km}**, n37, σ0^{s}.75**/52**, mb3.8**/10**, MS3.1**/2**, 3C-6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ONAJ	**Iwakimizuishiy**	**0.45**	**296**	⇓P	**Pb**	**11 27 09.1**	**+0.5**
ONAJ				S	**Sb**	**11 27 15.5**	**+0.2**
JFK	**Kawauchi**	**0.58**	**323**	⇓P	**Pb**	**11 27 10.8**	**+0.3**
JFK				S	**Sb**	**11 27 18.1**	**-0.5**
JHO	**Hitachi**	**0.66**	**244**	⇑P	**Pn**	**11 27 11.8**	**0.0**
JHO				S	**Sb**	**11 27 20.4**	**-0.4**
JFT	**Otama**	**0.99**	**309**	⇓P	**Pn**	**11 27 16.8**	**+0.5**
JFT				S	**Sn**	**11 27 28.6**	**-0.5**
JMM	**Marumori**	**1.04**	**337**	⇓P	**Pn**	**11 27 16.9**	**-0.2**
JMM				S	**Sn**	**11 27 29.4**	**-1.1**
JFY	**Yanaizu**	**1.38**	**292**	⇑P	**Pn**	**11 27 21.6**	**0.0**
JFY				*e*S	**Sn**	**11 27 37.9**	**-0.8**
JOU	**Okura**	**1.55**	**341**	⇑P	**Pn**	**11 27 24.3**	**+0.3**
JOU				*e*S	**Sn**	**11 27 43.1**	**+0.2**
JIO	**Ouri**	**1.55**	**1**	⇓P	**Pn**	**11 27 24.4**	**+0.4**
JIO				S	**Sn**	**11 27 42.1**	**-0.9**
JAG	**Ashikaga**	**1.57**	**253**	⇓P	**Pn**	**11 27 24.2**	**0.0**
JAG				*e*S	**Sn**	**11 27 42.4**	**-1.0**
MJAR	**Matsushiro Arr**	**2.52**	**263**	Pn	**Pn**	**11 27 38.0**	**+0.7**
	21nm,0.3s,baz=87,slow=14,SNR=98						
MJAR				Sn	**Sn**	**11 28 07.4**	**+0.6**
	25nm,0.3s,baz=86,slow=26,SNR=6.6						
MAT	**Matsushiro**	**2.52**	**263**	P	**Pn**	**11 27 38.5**	**+1.2**
MAT				S	**Sn**	**11 28 08.4**	**+1.5**
JHJ	**Hachijo jima 2**	**3.98**	**199**	Pn	**Pn**	**11 27 57.5**	**+0.1**
	67nm,0.3s,baz=67,slow=24,SNR=74						
JHJ				Sn	**Sn**	**11 28 42.9**	**0.0**
	66nm,0.3s,baz=102,slow=22,SNR=10.0						
ERM	**Erimo**	**5.30**	**15**	*e*P	**Pn**	**11 28 16.8**	**+1.2**
ERM				*e*		11 29 16.5	
ERM				pmax	pmax		
	comp=Z,30nm,0.4s						
ERM	**Erimo**	**5.30**	**15**	*e*Pn	**Pn**	**11 28 16.8**	**+1.2**
	comp=Z,30nm,0.4s						
ERM				*e*Sn	**Sn**	**11 29 16.5**	**+1.0**
ASAJ	**Asahikawa**	**7.27**	**7**	P	**Pn**	**11 28 42.8**	**+0.2**
ASAJ						11 30 03.5	
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				smax			
	comp=N,1.0nm,0.3s						
ASAJ	**Asahikawa**	**7.27**	**7**	Pn	**Pn**	**11 28 42.8**	**+0.2**
	comp=N,4.5nm,0.3s,baz=209,slow=12,SNR=18						
ASAJ				Sn	**Sn**	**11 30 03.5**	**-0.5**
	comp=N,0.8nm,0.3s,baz=126,slow=19,SNR=2.9						
YUK	**Yuzh-Kuril'sk**	**7.92**	**25**	P	**Pn**	**11 28 49.9**	**-1.6**
YUK				*e*S	**Sn**	**11 30 15.0**	**-5.0**
YUK				pmax	pmax		
	comp=Z,180nm,0.4s						
YUK				smax			
	comp=N,400nm,0.5s						
YUK				smax			
	comp=E,180nm,0.5s						
YUK				smax			
	comp=E,2μm,0.7s						
CBIJ	**Chichi jima**	**9.81**	**175**	Pn	**Pn**	**11 29 15.8**	**-1.7**
	comp=E,8.4nm,0.3s,baz=306,slow=18,SNR=13						
CBIJ				Sn	**Sn**	**11 30 57.7**	**-8.7**
	comp=E,8.1nm,0.3s,baz=270,slow=20,SNR=5.2						
KSRS	**Korea Array**	**10.70**	**277**	Pn	**Pn**	**11 29 28.7**	**-0.9**
	comp=E,0.1nm,0.3s,baz=89,slow=15,SNR=3.1						
PETK	**Petropavlovsk-**	**19.84**	**30**	P	**Pn**	**11 31 27.9**	**-0.5**
	comp=E,0.1nm,0.3s,baz=197,slow=11,SNR=3.8						
PETK				LR	LR	11 39 28.2	
	comp=E,20nm,18.2s,baz=49,slow=38						
GUMO	**Guam**	**23.43**	**171**	LR	LR	11 40 10.8	
	comp=E,68nm,18.7s,MS3.1,baz=89,slow=34						
SONM	**Songino Array**	**27.79**	**304**	P	**P**	**11 32 45.0**	**+0.5**
	comp=E,0.8nm,0.5s,mb3.6,baz=107,slow=8.6,SNR=8.4						
SONM				LR	LR	11 43 04.7	
	comp=E,49nm,19.1s,MS3.1,baz=190,slow=35						
SONM	**Songino Array**	**27.79**	**304**	P	**P**	**11 32 45.0**	**+0.5**
KMI	**Kunming**	**34.86**	**261**	P	**P**	**11 33 46.3**	**-0.6**
KMI				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
ZALV	**Zalesovo Beam**	**41.94**	**312**	P	**P**	**11 34 46.6**	**+0.5**
	comp=Z,0.7nm,0.3s,mb3.8,baz=88,slow=9.9,SNR=3.4						
MKAR	**Makanchi Array**	**44.12**	**302**	P	**P**	**11 35 03.2**	**-0.6**
	comp=Z,0.5nm,0.5s,mb3.5,baz=86,slow=9.7,SNR=6.4						
MKAR	**Makanchi Array**	**44.12**	**302**	P	**P**	**11 35 03.2**	**-0.6**
INK	**Inuvik**	**54.54**	**27**	P	**P**	**11 36 23.7**	**+0.6**
	comp=Z,0.3nm,0.4s,mb3.6,baz=292,slow=5.4,SNR=4.4						
INK				sP	sP	11 36 37.7	+0.8
	comp=Z,0.7nm,0.6s,baz=290,slow=8.1,SNR=3.6						
INK	**Inuvik**	**54.54**	**27**	P	**P**	**11 36 23.7**	**+0.6**
INK				sP	sP	11 36 37.7	+0.8
ARU	**Arti**	**56.40**	**319**	*e*P	**P**	**11 36 42.7**	**+6.1**
ARU	**Arti**	**56.40**	**319**	*e*P	**P**	**11 36 42.7**	**+6.1**
	comp=Z,39nm,0.9s						
WRA	**Warramunga Arr**	**56.92**	**188**	P	**P**	**11 36 39.8**	**-0.8**
	comp=Z,1.4nm,0.6s,mb4.2,baz=6.0,slow=7.4,SNR=18						
WRA				pP	pP	11 36 47.7	-2.8
	comp=Z,0.8nm,0.4s,baz=1.2,slow=7.6,SNR=5.1						
ASAR	**Alice Springs**	**60.65**	**188**	P	**P**	**11 37 06.5**	**0.0**
	comp=Z,0.7nm,0.8s,mb3.9,baz=5.8,slow=7.9,SNR=9.2						
ASAR				pP	pP	11 37 14.7	-1.8
	comp=Z,0.2nm,0.4s,baz=350,slow=2.8,SNR=2.0						
YKA	**Yellowknife Ar**	**63.96**	**30**	P	**P**	**11 37 28.2**	**-0.1**
	comp=Z,0.1nm,0.6s,mb3.0,baz=299,slow=5.5,SNR=4.4						
YKA				sP	sP	11 37 41.7	-0.4
	comp=Z,0.4nm,0.7s,baz=303,slow=6.6,SNR=7.1						
YKA	**Yellowknife Ar**	**63.96**	**30**	P	**P**	**11 37 28.2**	**-0.1**
YKA				sP	sP	11 37 41.7	-0.4
ARCES	**ARCESS Array B**	**64.09**	**339**	P	**P**	**11 37 29.4**	**+0.4**
	comp=Z,6.8nm,1.0s,mb4.7,baz=58,slow=6.8,SNR=3.3						
PDAR	**Pinedale Array**	**77.82**	**45**	P	**P**	**11 38 54.3**	**+1.6**
	comp=Z,0.2nm,0.6s,mb3.2,baz=334,slow=5.7,SNR=2.6						

DJA 22 11:41:19, 1°.65N×121°.48E, h30^{km}**, MLv4.0**/4**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APSI	**Ampana**	**2.55**	**176**	P	Pn	11 42 02.1	+3.8
APSI				S	Sn	11 42 28.9	+0.5
KMSI	**Cibinong**	**2.72**	**113**	P	Pn	11 42 02.2	+1.5
PCI	**Palu**	**3.02**	**213**	P	Pn	11 42 03.9	-1.0
MNI	**Manado**	**3.37**	**93**	P	Pn	11 42 07.9	-1.7

*ATH **22** 11:57:53.9, 36°.20N×21°.81E, h5^{km}, MD3.8/9*

*NEIC **22** 11:57:53.9, 36°.20N×21°.81E, h5^{km}, MD3.8(ATH), After ATH.*

*ISCJB **22** 11:57:54.6±0.8, 36°.32N±0°.03×21°.77E±0°.06, h10^{km}, Error ellipse: s-maj=7.5km s-min=3.9km az=152.5*

*CSEM **22** 11:57:57.5±0.5, 36°.24N×21°.82E, h2^{km}, ML3.8/3, Error ellipse: s-maj=13.7km s-min=6.5km az=60.0*

*THE **22** 11:57:58.2, 36°.28N×21°.66E, h1^{km}±2^{km}, ML3.8/3, Error ellipse: s-maj=4.7km s-min=0.7km az=245.0*

ISC 22 11:57:55.9±0.8**, 36°.29N**±0°.03×**21°.81E**±0°.06**, h10**^{km}**, n51, σ1^{s}.49**/71**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.61**	**355**	P	**Pg**	**11 58 09.9**	**+2.1**
PYL				S	**Sg**	**11 58 18.8**	**+3.0**
PYL	**PYLOS**	**0.61**	**355**	*e*PB	**Pg**	**11 58 07.3**	**-0.5**
PYL	**PYLOS**	**0.61**	**355**	*e*Pb	**Pg**	**11 58 07.3**	**-0.5**
PYL	**PYLOS**	**0.61**	**355**	P	**Pg**	**11 58 09.9**	**+2.1**
PYL				S	**Sg**	**11 58 18.8**	**+3.0**
ITM	**Ithomi**	**0.90**	**6**	*e*PG	**Pg**	**11 58 12.4**	**-0.8**
ITM				*e*SB	**Sg**	**11 58 26.3**	**+1.4**
ITM	**Ithomi**	**0.90**	**6**	*e*Pg	**Pg**	**11 58 12.4**	**-0.8**
ITM				*e*Sb	**Sg**	**11 58 26.3**	**+1.4**
KYTH	**Kithira**	**0.99**	**90**	*e*PB	**Pg**	**11 58 13.2**	**-1.8**
KYTH	**Kithira**	**0.99**	**90**	*e*Pb	**Pg**	**11 58 13.2**	**-1.8**
VLI	**Veliai**	**1.00**	**64**	*e*PB	**Pg**	**11 58 14.1**	**-1.2**
VLI				*e*SB	**Sg**	**11 58 29.1**	**+0.8**
VLI	**Veliai**	**1.00**	**64**	*e*Pb	**Pg**	**11 58 14.1**	**-1.2**
VLI				*e*Sb	**Sg**	**11 58 29.1**	**+0.8**
VLX	**Vlachokerasia**	**1.17**	**23**	*e*PG	**Pn**	**11 58 17.2**	**-1.2**
VLX	**Vlachokerasia**	**1.17**	**23**	*e*Pg	**Pn**	**11 58 17.2**	**-1.2**
GUR	**Goura**	**1.70**	**14**	*e*PG	**Pn**	**11 58 26.9**	**+1.2**
GUR	**Goura**	**1.70**	**14**	*e*Pg	**Pn**	**11 58 26.9**	**+1.2**
RLS	**Riolos of Patr**	**1.79**	**351**	*e*PN	**Pg**	**11 58 29.9**	**-0.4**
RLS	**Riolos of Patr**	**1.79**	**351**	*e*Pn	**Pg**	**11 58 29.9**	**-0.4**
KARN	**Karanos**	**1.93**	**117**	P	**Pg**	**11 58 33.1**	**+0.2**
KARN				S	**Sg**	**11 59 00.5**	**+2.7**
KARN	**Karanos**	**1.93**	**117**	*e*PG	**Pn**	**11 58 28.5**	**-0.2**
KARN	**Karanos**	**1.93**	**117**	*e*Pg	**Pn**	**11 58 28.5**	**-0.2**
LAKA	**Lakka**	**1.95**	**4**	P	**Pg**	**11 58 32.4**	**-1.0**
LAKA				S	**Sg**	**11 58 58.2**	**-0.6**
LAKA	**Lakka**	**1.95**	**4**	P	**Pg**	**11 58 32.4**	**-1.0**
LAKA				S	**Sg**	**11 58 58.2**	**-0.6**
LTK	**Loutraki**	**1.96**	**28**	P	**Pg**	**11 58 32.3**	**-1.3**
LTK				S	**Sg**	**11 58 59.7**	**+0.6**
LTK	**Loutraki**	**1.96**	**28**	*e*PG	**Pg**	**11 58 32.5**	**-1.1**
LTK	**Loutraki**	**1.96**	**28**	P	**Pg**	**11 58 32.3**	**-1.3**
LTK	**Loutraki**	**1.96**	**28**	*e*Pg	**Pg**	**11 58 32.5**	**-1.1**
LTK				S	**Sg**	**11 58 59.7**	**+0.6**
NAIG	**Nisos Aigina**	**1.99**	**42**	*e*PG	**Pg**	**11 58 33.6**	**-0.5**
NAIG	**Nisos Aigina**	**1.99**	**42**	*e*Pg	**Pg**	**11 58 33.6**	**-0.5**
KALE	**Kalithea**	**2.12**	**7**	P	**Pg**	**11 58 34.6**	**-1.9**
KALE				S	**Sg**	**11 59 02.4**	**-1.6**
KALE	**Kalithea**	**2.12**	**7**	P	**Pg**	**11 58 34.6**	**-1.9**
KALE				S	**Sg**	**11 59 02.4**	**-1.6**
VAM	**Vamos**	**2.13**	**114**	*e*PG	**Pg**	**11 58 33.5**	**-3.3**
VAM	**Vamos**	**2.13**	**114**	*e*Pg	**Pg**	**11 58 33.5**	**-3.3**
PTL	**Penteli**	**2.41**	**42**	*e*PN	**Pn**	**11 58 37.7**	**+2.4**
PTL	**Penteli**	**2.41**	**42**	*e*Pn	**Pn**	**11 58 37.7**	**+2.4**
LKR	**Lokris**	**2.54**	**21**	P	**Pg**	**11 58 41.0**	**-3.7**
LKR				S	**Sg**	**11 59 13.6**	**-4.0**
LKR	**Lokris**	**2.54**	**21**	P	**Pg**	**11 58 41.0**	**-3.7**
LKR				S	**Sg**	**11 59 13.6**	**-4.0**
EVR	**Evrytania**	**2.62**	**360**	*e*PN	**Pg**	**11 58 42.5**	**-3.8**
EVR	**Evrytania**	**2.62**	**360**	*e*Pn	**Pg**	**11 58 42.5**	**-3.8**
SIVA	**Sivas**	**2.75**	**117**	P	**Pg**	**11 58 43.8**	**-4.9**
SIVA	**Sivas**	**2.75**	**117**	P	**Pg**	**11 58 43.8**	**-4.9**
AGG	**Agios Georgios**	**2.76**	**8**	P	**Pn**	**11 58 43.0**	**+2.8**
AGG				S	**Sn**	**11 59 19.0**	**+5.4**
AGG	**Agios Georgios**	**2.76**	**8**	P	**Pn**	**11 58 43.0**	**+2.8**
AGG				S	**Sn**	**11 59 19.0**	**+5.4**
LAST	**Lasithi**	**3.19**	**110**	P	**Pg**	**11 58 51.2**	**-5.8**
LAST				S	**Sg**	**11 59 31.1**	**-7.2**
LAST	**Lasithi**	**3.19**	**110**	*e*PB	**Pn**	**11 58 46.6**	**+0.5**
NPS	**Neapolis**	**3.25**	**107**	*e*PB	**Pn**	**11 58 48.4**	**+1.4**
XOR	**Xorichti**	**3.26**	**19**	P	**Pn**	**11 58 51.0**	**+3.9**
XOR				S	**Sn**	**11 59 32.1**	**+6.1**
XOR	**Xorichti**	**3.26**	**19**	P	**Pn**	**11 58 51.0**	**+3.9**
XOR				S	**Sn**	**11 59 32.1**	**+6.1**
MEV	**Metsovon**	**3.52**	**353**	P	**Pn**	**11 58 53.2**	**+2.5**
MEV	**Metsovon**	**3.52**	**353**	P	**Pn**	**11 58 53.2**	**+2.5**
ZKR	**Zakros**	**3.77**	**107**	*e*PN	**Pn**	**11 58 55.5**	**+1.4**
ZKR	**Zakros**	**3.77**	**107**	*e*Pn	**Pn**	**11 58 55.5**	**+1.4**
CUC	**Castrocucco**	**6.00**	**310**	*e*Pn	**Pn**	**11 59 23.5**	**-1.3**
	15nm,0.9s						

*IDC **22** 12:02:56.0±1.0, 41°.19N×114°.95W, h0^{km}, mb2.8/1, mb1 3.2/3, mb1mx3.1/21, mbtmp2.7/3, ML2.9/2, Error ellipse: s-maj=19.4km s-min=5.8km az=129.0*

*ISCJB **22** 12:02:56.2±0.2, 41°.15N±0°.01×114°.88W±0°.02, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.7km az=3.2*

*NEIC **22** 12:02:56.5, 41°.14N×114°.93W, h15^{km}, ML2.6, After REN.*

ISC 22 12:02:56.7±0.2**, 41°.17N**±0°.01×**114°.90W**±0°.02**, h10**^{km}**, n105, σ1^{s}.03**/161**, 45C-37D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.33**	**198**	P	**Pg**	**12 03 03.1**	**-0.2**
	baz=0.3,SNR=558						
N12A				⇓S	**Sg**	**12 03 07.8**	**+0.1**
	baz=0.3						
ELK	**Elko**	**0.49**	**211**	Pg	**Pg**	**12 03 05.7**	**-0.6**
	18nm,0.3s,baz=24,slow=17,SNR=53						
ELK				Lg		12 03 12.1	
	59nm,0.3s,baz=216,slow=19,SNR=65						
ELK	**Elko**	**0.49**	**211**	Pg	**Pg**	**12 03 05.7**	**-0.6**
ELK				Lg		12 03 12.1	
M13A	**Montello**	**0.59**	**71**	⇑P	**Pg**	**12 03 08.1**	**0.0**
	baz=0.6,SNR=44						
N13A	**Wendover, West**	**0.61**	**120**	P	**Pg**	**12 03 08.4**	**-0.2**
	baz=0.6,SNR=91						
N13A				⇑S	**Sg**	**12 03 16.7**	**+0.1**
	baz=0.6						
M11A	**Holland Ranch,**	**0.72**	**292**	⇓P	**Pg**	**12 03 09.5**	**-1.1**
	baz=0.7,SNR=56						
M11A				⇓S	**Sg**	**12 03 19.4**	**-0.5**
	baz=0.7						
N11A	**Elko Archery C**	**0.72**	**241**	P	**Pg**	**12 03 10.1**	**-0.6**
	baz=0.7,SNR=71						
O12A	**Currie**	**0.91**	**172**	⇑P	**Pg**	**12 03 13.8**	**-0.4**
	baz=0.9,SNR=276						
O12A				⇓S	**Sg**	**12 03 26.1**	**+0.1**
	baz=0.9						
L12A	**House Creek Ra**	**0.98**	**355**	P	**Pg**	**12 03 14.8**	**-0.8**
	baz=1.0,SNR=68						
L12A				⇑S	**Sg**	**12 03 28.1**	**-0.3**
	baz=1.0						
L13A	**Double Diamond**	**1.17**	**38**	P	**Pb**	**12 03 17.8**	**-1.2**
	baz=1.2,SNR=46						
L13A				⇑S	**Sb**	**12 03 33.6**	**-0.6**
	baz=1.2						
O11A	**Cowboy Ranch,**	**1.18**	**209**	⇑P	**Pb**	**12 03 18.8**	**-0.5**
	baz=1.1,SNR=152						
O11A				⇓S	**Sb**	**12 03 34.2**	**-0.4**
	baz=1.1						
L11A	**Cat Creek Ranc**	**1.19**	**328**	⇑P	**Pb**	**12 03 18.0**	**-1.3**
	baz=1.2,SNR=110						
L11A				⇑S	**Sb**	**12 03 33.7**	**-1.0**
	baz=1.2						
M14A	**Sheep Mountain**	**1.22**	**74**	⇑P	**Pn**	**12 03 19.0**	**-0.8**
	baz=1.2,SNR=89						
M14A				⇓S	**Sb**	**12 03 35.5**	**-0.1**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.25**	**146**	⇓P	**Pn**	**12 03 19.7**	**-0.5**
	baz=1.2,SNR=150						
O13A				⇑S	**Sb**	**12 03 37.9**	**+1.4**
	baz=1.2						
M10A	**I.L. Ranch, Tu**	**1.28**	**287**	⇓P	**Pn**	**12 03 19.8**	**-0.8**
	baz=1.3,SNR=44						
M10A				⇓S	**Sb**	**12 03 37.7**	**+0.3**
	baz=1.3						
N10A	**Dunphy**	**1.29**	**250**	⇑P	**Pn**	**12 03 20.0**	**-0.8**
	baz=1.3,SNR=10						
N10A				⇓S	**Sb**	**12 03 37.7**	**-0.1**
	baz=1.3						
N14A	**Grayback Hills**	**1.34**	**103**	⇓P	**Pn**	**12 03 20.8**	**-0.6**
	baz=1.3,SNR=42						
N14A				⇓S	**Sb**	**12 03 39.2**	**+0.2**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.44**	**99**	*e*Pn	**Pn**	**12 03 22.3**	**-0.5**
BGU				*e*Sg	**Sg**	**12 03 43.1**	**+0.1**
K12A	**Draper Farm, C**	**1.47**	**0**	⇑P	**Pn**	**12 03 22.0**	**-1.2**
	baz=1.5,SNR=49						
K12A				⇑S	**Sn**	**12 03 41.3**	**-1.2**
	baz=1.5						
L10A	**Juniper Basin**	**1.49**	**308**	⇑Pb	**Pb**	**12 03 23.1**	**-1.3**
	baz=1.5,SNR=78						
L10A				⇑Sb	**Sb**	**12 03 43.1**	**-0.2**
	baz=1.5						
O10A	**Cortez Mining,**	**1.50**	**235**	⇓Pb	**Pb**	**12 03 23.5**	**-1.1**
	baz=1.5,SNR=17						
O10A				⇓Sb	**Sb**	**12 03 44.0**	**+0.5**
	baz=1.5						
L14A	**Malta**	**1.52**	**55**	⇓Pb	**Pb**	**12 03 23.9**	**-1.0**
	baz=1.5,SNR=51						
L14A				⇑Sb	**Sb**	**12 03 44.6**	**+0.3**
	baz=1.5						
K13A	**Stover Farm, H**	**1.60**	**22**	⇑Pb	**Pb**	**12 03 25.1**	**-1.2**
	baz=1.6,SNR=25						
K13A				⇑Sb	**Sb**	**12 03 47.0**	**+0.3**
	baz=1.6						
HVU	**Hansel Valley**	**1.71**	**68**	*e*Pn	**Pn**	**12 03 26.9**	**+0.3**
HVU				*e*Sg	**Sg**	**12 03 50.5**	**-1.3**
P11A	**Circle Ranch,**	**1.74**	**202**	⇓Pb	**Pb**	**12 03 27.4**	**-1.3**
	baz=1.7,SNR=21						
P11A				⇑Sb	**Sb**	**12 03 51.5**	**+1.0**
	baz=1.7						
K11A	**Parker Ranch,**	**1.81**	**333**	⇑Pb	**Pb**	**12 03 28.5**	**-1.4**
	baz=1.8,SNR=63						
K11A				⇑Sb	**Sb**	**12 03 52.5**	**-0.1**
	baz=1.8						
N15A	**Stansbury Isla**	**1.82**	**98**	⇑P	**Pn**	**12 03 28.0**	**-0.1**
	baz=1.8,SNR=34						
P13A	**Bates Ranch, G**	**1.84**	**158**	⇓P	**Pn**	**12 03 27.7**	**-0.6**
	baz=1.8						
P13A				⇑Sb	**Sb**	**12 03 55.0**	**+1.5**
	baz=1.8						
SPUT	**South Promonto**	**1.86**	**85**	*e*Pn	**Pn**	**12 03 29.9**	**+1.3**
SPUT				*e*Sg	**Sg**	**12 03 54.2**	**-2.2**
DUG	**Dugway**	**1.86**	**121**	⇑P	**Pn**	**12 03 27.9**	**-0.7**
	baz=1.9,SNR=73						
DUG	**Dugway**	**1.86**	**121**	*e*Pn	**Pn**	**12 03 28.2**	**-0.4**
DUG				*e*Sg	**Sg**	**12 03 56.3**	**-0.3**
M15A	**Larsen Ranch,**	**1.87**	**80**	⇓P	**Pn**	**12 03 29.2**	**+0.4**
	baz=1.9,SNR=37						
K14A	**Jones Ranch, D**	**1.89**	**43**	⇑P	**Pn**	**12 03 29.1**	**+0.1**
	baz=1.9,SNR=20						
BMN	**Battle Mountai**	**1.91**	**248**	*e*Pn	**Pn**	**12 03 27.9**	**-1.3**
BMN				*e*Pg	**Pg**	**12 03 33.7**	**+0.4**
BMN				*e*Sg	**Sg**	**12 03 56.4**	**-1.6**
M09A	**Marrel Ranch,**	**1.94**	**278**	⇑P	**Pn**	**12 03 29.5**	**-0.1**
	baz=1.9,SNR=18						
P10A	**Eureka**	**1.95**	**218**	⇑P	**Pn**	**12 03 30.0**	**+0.2**
	baz=1.9,SNR=19						
P10A				⇑Sb	**Sb**	**12 03 56.4**	**-0.3**
	baz=1.9						
N09A	**Rock Creek Ran**	**2.01**	**262**	⇓P	**Pn**	**12 03 29.9**	**-0.8**
	baz=2.0,SNR=29						
O15A	**The Old Anders**	**2.05**	**115**	P	**Pn**	**12 03 30.8**	**-0.5**
	baz=2.1,SNR=36						
L15A	**Malad City**	**2.06**	**65**	⇑P	**Pn**	**12 03 31.2**	**-0.2**
	baz=2.1,SNR=11						
J12A	**Stokes Ranch,**	**2.09**	**356**	⇑P	**Pn**	**12 03 32.3**	**+0.5**
	baz=2.1,SNR=55						
P14A	**Drum Mountains**	**2.11**	**138**	⇓P	**Pn**	**12 03 31.6**	**-0.4**
	baz=2.1,SNR=21						
Q12A	**Willow Creek R**	**2.12**	**178**	⇑P	**Pn**	**12 03 32.1**	**-0.2**
	baz=2.1,SNR=9.8						
NOQ	**North Oquirrh**	**2.17**	**103**	*e*Pn	**Pn**	**12 03 32.3**	**-0.6**
NOQ				*e*Pg	**Pg**	**12 03 38.0**	**-0.3**
NOQ				*e*Sg	**Sg**	**12 04 02.7**	**-3.8**
K10A	**MacKenzie Ranc**	**2.18**	**318**	⇑P	**Pn**	**12 03 33.6**	**+0.6**
	baz=2.2,SNR=26						
L09A	**Wilkinson Ranc**	**2.24**	**293**	⇓P	**Pn**	**12 03 35.4**	**+1.6**
	baz=2.2,SNR=19						
J13A	**Cove Ranch, Pi**	**2.29**	**13**	⇓P	**Pn**	**12 03 35.6**	**+1.0**
	baz=2.3,SNR=86						
Q13A	**Wheeler Ranch,**	**2.31**	**163**	⇑P	**Pn**	**12 03 34.5**	**-0.3**
	baz=2.3,SNR=38						
K15A	**Arbon**	**2.33**	**49**	⇓P	**Pn**	**12 03 35.9**	**+0.8**
	baz=2.4,SNR=17						
MFID	**Camas Ranch**	**2.35**	**343**	⇓P	**Pn**	**12 03 36.7**	**+1.4**
	baz=2.4,SNR=12						
J14A	**Carey**	**2.39**	**25**	⇑P	**Pn**	**12 03 37.0**	**+1.2**
	baz=2.4,SNR=40						
Q11A	**Duckwater**	**2.39**	**194**	⇓P	**Pn**	**12 03 36.2**	**+0.3**
	baz=2.4,SNR=16						
HLID	**Hailey**	**2.42**	**8**	⇓P	**Pn**	**12 03 37.4**	**+1.1**
	baz=2.5,SNR=60						
HLID	**Hailey**	**2.42**	**8**	P	**Pn**	**12 03 37.5**	**+1.1**
NLU	**North Lily Min**	**2.47**	**118**	*e*Pn	**Pn**	**12 03 35.8**	**-1.2**
NLU				*e*Pg	**Pg**	**12 03 42.4**	**-1.7**
NLU				*e*Sg	**Sg**	**12 04 11.6**	**-4.6**
N08A	**GE Springer Mi**	**2.48**	**262**	⇓P	**Pn**	**12 03 36.2**	**-0.8**
	baz=2.4,SNR=9.0						
Q14A	**Sevier Lake (B**	**2.51**	**150**	P	**Pn**	**12 03 37.2**	**-0.3**
	baz=2.5,SNR=9.7						
K09A	**Rome**	**2.60**	**307**	⇑P	**Pn**	**12 03 40.9**	**+2.1**
	baz=2.6,SNR=31						
Q10A	**Clear Creek Ra**	**2.61**	**207**	⇓P	**Pn**	**12 03 39.3**	**+0.4**
	baz=2.6,SNR=29						
I12A	**Atlanta**	**2.63**	**356**	P	**Pn**	**12 03 40.7**	**+1.5**
	baz=2.7,SNR=57						
M08A	**Happy Creek Ra**	**2.63**	**277**	⇑Pb	**Pb**	**12 03 42.4**	**-1.6**

	baz=2.6,SNR=22						
J10A	**Berg Farm, Mel**	2.65	329	⇑Pb	Pb	12 03 42.7	-1.5
	baz=2.7,SNR=7.9						
MPU	**Maple Canyon**	2.74	114	*e*Pn	Pn	12 03 40.5	-0.2
MPU				*e*Pg	Pg	12 03 49.5	+0.2
MPU				*e*Sg	Sg	12 04 24.9	0.0
L08A	**Fields**	2.77	293	⇑P	Pn	12 03 43.7	+2.6
	baz=2.8,SNR=11						
I13A	**Wildhorse Cree**	2.81	12	⇓P	Pn	12 03 42.9	+1.3
	baz=2.8,SNR=46						
I11A	**Placerville**	2.85	344	⇓P	Pn	12 03 45.0	+2.8
	baz=2.9						
R11A	**Troy Canyon, C**	2.86	191	P	Pn	12 03 42.5	+0.1
	baz=2.8,SNR=32						
DAU	**Daniels Canyon**	2.87	104	*e*Pg	Pg	12 03 52.3	+0.6
DAU				*e*Sg	Sg	12 04 27.5	-1.4
J15A	**Blackfoot**	2.89	39	⇑P	Pn	12 03 43.4	+0.6
	baz=2.9,SNR=11						
Q15A	**Fillmore**	2.91	137	⇓P	Pn	12 03 42.7	-0.3
	baz=2.9						
I14A	**Mackay**	2.96	21	⇓P	Pn	12 03 45.0	+1.2
	baz=3.0						
WVOR	**Wild Horse Val**	3.06	296	*e*Pn	Pn	12 03 47.0	+1.8
WVOR				*e*Sg	Sg	12 04 29.7	-5.5
R13A	**O'Grain Ranch,**	3.07	166	P	Pn	12 03 46.1	+0.8
	baz=3.1,SNR=18						
K08A	**Mann Creek Ran**	3.10	301	⇓Pb	Pb	12 03 50.2	-1.7
	baz=3.1						
O07A	**Toulon**	3.19	253	P	Pn	12 03 46.1	-0.7
	baz=3.1,SNR=12						
M07A	**Soldier Meadow**	3.22	275	⇑P	Pn	12 03 47.2	-0.2
	baz=3.2,SNR=20						
J16A	**Bone**	3.23	48	⇑P	Pn	12 03 48.7	+1.3
	baz=3.3						
MSU	**Marysvale**	3.38	141	*e*Pn	Pn	12 03 50.3	+0.8
MSU				*e*Sg	Sg	12 04 41.9	-3.4
TMUT	**Trail Mountain**	3.39	122	*e*Pg	Pg	12 04 02.1	+0.4
TMUT				*e*Sg	Sg	12 04 45.0	-0.6
RRI2	**Red Ridge**	3.44	49	*e*Pn	Pn	12 03 52.1	+1.8
RRI2				*e*Pg	Pg	12 04 02.0	-0.5
RRI2				*e*Sg	Sg	12 04 44.5	-2.6
ARUT	**Antelope Range**	3.56	161	*e*Pn	Pn	12 03 53.0	+1.0
ARUT				*e*Pg	Pg	12 04 04.1	-0.8
ARUT				*e*Sg	Sg	12 04 47.8	-3.2
S11A	**Rachel**	3.58	191	⇑P	Pn	12 03 53.1	+0.8
	baz=3.6,SNR=7.4						
S13A	**Holt Ranch, En**	3.67	167	⇑P	Pn	12 03 53.9	+0.3
	baz=3.7,SNR=5.4						
REDW	**Red Top Meadow**	3.72	53	*e*Pn	Pn	12 03 55.3	+1.1
REDW				*e*Sg	Sg	12 04 51.9	-4.3
TPAW	**Teton Pass**	3.74	50	*e*Pn	Pn	12 03 56.1	+1.7
TPAW				*e*Sg	Sg	12 04 50.9	-5.8
NVAR	**Mina Array Bea**	3.79	225	Pn	Pn	12 03 55.2	+0.1
	0.7nm,0.3s,baz=40,slow=12,SNR=11						
NVAR				Pg	Pg	12 04 03.3	-6.0
	1.0nm,0.3s,baz=44,slow=16,SNR=14						
NVAR				Sn	Sn	12 04 41.2	+1.5
	2.3nm,0.3s,baz=53,slow=23,SNR=3.6						
NVAR				Lg		12 04 54.7	
	4.5nm,0.3s,baz=54,slow=34,SNR=6.4						
NVAR	**Mina Array Bea**	3.79	225	Pn	Pn	12 03 55.2	+0.1
NVAR				Pg	Pg	12 04 03.3	-6.0
NVAR				Sn	Sn	12 04 41.2	+1.5
NVAR				Lg		12 04 54.7	
CCUT	**Cedar City**	3.80	161	*e*Pn	Pn	12 03 56.1	+0.8
CCUT				*e*Pg	Pg	12 04 08.4	-1.2
CCUT				*e*Sg	Sg	12 04 59.4	+0.6
SNOW	**Snow King Moun**	3.84	52	*e*Pg	Pg	12 04 04.4	-5.8
T11A	**Corn Creek, Al**	3.93	184	⇓P	Pn	12 03 57.3	+0.3
	baz=3.9,SNR=24						
G13A	**Cobalt**	3.96	7	⇓P	Pn	12 03 59.6	+2.2
	baz=4.0,SNR=6.2						
MCMT	**McKenzie Canyo**	3.96	22	*e*Pn	Pn	12 03 59.3	+1.9
MCMT				*e*Sg	Sg	12 04 58.8	-4.9
IMW	**Indian Meadow**	4.00	46	*e*Pn	Pn	12 04 00.0	+2.0
IMW				*e*Sg	Sg	12 04 57.8	-7.5
S15A	**Panguitch**	4.00	150	⇑P	Pn	12 03 58.6	+0.5
	baz=4.0,SNR=5.8						
LOHW	**Long Hollow**	4.01	51	*e*Pn	Pn	12 03 58.8	+0.6
MOOW	**Moose Ponds**	4.01	49	*e*Pn	Pn	12 04 00.1	+1.8
MOOW				*e*Sg	Sg	12 04 59.3	-6.3
BMO	**Blue Mountains**	4.08	335	*e*Pn	Pn	12 04 01.5	+2.4
BMO				*e*Sg	Sg	12 04 59.7	-8.1
MOD	**Modoc**	4.12	282	*e*Pn	Pn	12 03 59.6	0.0
PDAR	**Pinedale Array**	4.29	66	Pn	Pn	12 04 05.1	+3.0
	0.1nm,0.3s,baz=235,slow=13,SNR=4.9						
PDAR				Lg		12 05 11.1	
	0.3nm,0.3s,baz=216,slow=20,SNR=5.1						
PDAR	**Pinedale Array**	4.29	66	Pn	Pn	12 04 05.1	+3.0
PDAR				Lg		12 05 11.1	
T14A	**Hurricane**	4.34	160	⇓P	Pn	12 04 03.2	+0.6
	baz=4.3,SNR=9.0						
DLMT	**Dillon**	4.52	21	*e*Pn	Pn	12 04 03.9	-1.3
DLMT				*e*Pg	Pg	12 04 22.9	-0.4
DLMT				*e*Sg	Sg	12 05 20.5	-1.3
LKWY	**Lake**	4.74	43	*e*Pn	Pn	12 04 04.2	-4.0
V11A	**Goodsprings**	5.34	185	⇓P	Pn	12 04 17.3	+0.9
	baz=5.3,SNR=6.2						
V12A	**Nelson**	5.43	180	⇑P	Pn	12 04 18.5	+0.7
	baz=5.4,SNR=6.0						
YKA	**Yellowknife Ar**	21.36	0	P	P	12 07 44.6	+0.8
	0.4nm,0.8s,baz=179,slow=10.0,SNR=12						

IDC 22 12:27:19.7±1.6**, 49°.20S**×**120°.87E, h0**^{km}**, mb4.1**/4**, mb1 4.3**/5**, mb1mx4.0**/15**, mbtmp4.2**/5**, MS3.4**/3**, Ms1 3.4**/3**, ms1mx3.2**/14**, Error ellipse: s-maj=74.1km s-min=22.1km az=104.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	16.48	349	Pn	Pn	12 31 12.7	+0.6
	1.9nm,0.3s,baz=160,slow=12,SNR=14						
NWAO				LR	LR	12 36 15.2	
	comp=Z,151nm,20.7s,baz=10.0,slow=32						
STKA	**Stephens Creek**	23.27	50	P	P	12 32 29.4	+0.6
	5.3nm,0.9s,baz=195,slow=12,SNR=4.2						
STKA				LR	LR	12 40 58.6	
	comp=Z,71nm,19.0s,baz=205,slow=35						
ASAR	**Alice Springs**	27.47	27	P	P	12 33 07.1	-0.3
	2.2nm,0.8s,baz=199,slow=8.8,SNR=11						
WRA	**Warramunga Arr**	31.12	25	P	P	12 33 39.1	-0.7
	1.3nm,0.8s,baz=199,slow=8.1,SNR=8.8						
VNDA	**Vanda**	32.39	165	LR	LR	12 44 13.1	
	comp=Z,89nm,20.0s,baz=128,slow=31						
QSPA	**South Pole Qui**	40.93	180	P	P	12 35 03.1	0.0
	2.4nm,0.6s,baz=324,slow=8.7,SNR=38						
YKA	**Yellowknife Ar**	147.26	45	PKPbc	PKPbc	12 47 03.8	+0.2
	0.7nm,0.8s,baz=272,slow=2.8,SNR=14						

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*MEX **22** 12:47:03.9±1.1, 14°.03N×93°.17W, h17^{km}±79^{km}, MD4.4*
*NEIC **22** 12:47:04.4±1.0, 14°.36N×93°.00W, h10^{km}, mb4.3/4, Error ellipse: s-maj=27.6km s-min=12.0km az=223.0*
*CASC **22** 12:47:05.5±1.5, 14°.06N×93°.05W, h69^{km}±90^{km}, MD4.0, mb4.3(NEIC)*
*IDC **22** 12:47:07.7±5.7, 14°.46N×92°.92W, h32^{km}±42^{km}, mb3.6/5, mb1 4.0/8, mb1mx3.8/23, mbtmp3.8/8, ML4.1/3, MS3.3/4, Ms1 3.3/4, ms1mx3.0/30, Error ellipse: s-maj=42.1km s-min=18.7km az=47.0*
ISC 22 12:47:02.4±1.3**, 14°.27N**±0°.05×**93°.16W**±0°.03**, h2**^{km}±8^{km}**, n32, σ1^{s}12**/45**, mb3.9**/8**, MS3.4**/2**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		1.07	53	*e*P	Pg	12 47 22.2	-0.8
THIG				*i* S	Sg	12 47 37.8	+0.8
PCIG		1.43	358	*e*P	Pn	12 47 28.1	-1.3
PCIG				*i* S	Sg	12 47 47.9	-0.6
JAT	**Jato**	1.47	88	*e*P	Pn	12 47 29.4	-0.6
TP2	**Tecpan 2**	2.13	76	*e*P	Pn	12 47 39.0	0.0
TP2				*e*S	Sn	12 48 11.2	+5.2
FG6		2.22	82	*e*P	Pn	12 47 39.5	-0.7
FG6				*e*S	Sn	12 48 07.1	-1.2
CCIG	**Comitan**	2.23	26	*e*P	Pn	12 47 41.7	+1.3
CCIG				*i* S	Sn	12 48 08.2	-0.4
FUG	**Fuego 3**	2.25	85	*e*P	Pn	12 47 39.5	-1.1
PCG	**Pacaya**	2.47	87	*e*P	Pn	12 47 43.2	-0.5
TGIG		2.50	1	*e*P	Pn	12 47 44.8	+0.7
TGIG				*i* S	Sn	12 48 15.7	+0.6
NBG	**Las Nubes**	2.74	83	*e*P	Pn	12 47 48.3	+1.0
HUIG	**Huatulco**	3.22	298	*i* P	Pn	12 47 52.9	-1.1
HUIG				*i* S	Sn	12 48 30.4	-2.5
CMIG	**Matias Romero**	3.27	330	*e*P	Pn	12 47 54.5	-0.1
CMIG				*i* S	Sn	12 48 34.5	+0.5
CMIG	**Matias Romero**	3.27	330	Pn	Pn	12 47 54.6	0.0
	5.9nm,0.3s,baz=154,slow=12,SNR=45						
CMIG				Sn	Sn	12 48 33.2	-0.8
	19nm,0.3s,baz=101,slow=12,SNR=6.6						
CMIG				LR	LR	12 49 18.5	
	comp=Z,135nm,18.0s,baz=134,slow=40						
CMIG	**Matias Romero**	3.27	330	Pn	Pn	12 47 54.6	0.0
CMIG				Sn	Sn	12 48 33.2	-0.8
CMIG				LR	LR	12 49 18.5	
VHO	**Vista Hermosa**	4.43	309	*i* P	Pn	12 48 11.5	+0.8
VHO				*i* S	Sn	12 49 03.5	+0.6
PNIG	**Pinotepa**	5.24	294	*i* P	Pn	12 48 20.8	-1.0
PNIG				*i* S	Sn	12 49 21.1	-1.7
PPM	**Popocatepetl**	7.09	313	*i* P	Pn	12 48 49.4	+2.2
PPM				*i* S	Sn	12 50 08.3	-0.1
TEIG	**Tepich**	7.54	37	Pn	Pn	12 48 52.0	-1.3
	18nm,0.3s,baz=221,slow=1.3,SNR=45						
TEIG				Sn	Sn	12 50 13.3	-6.2
	3.0nm,0.3s,baz=171,slow=19,SNR=2.8						
TEIG				LR	LR	12 52 09.8	
	comp=Z,211nm,21.2s,baz=216,slow=42						
TEIG	**Tepich**	7.54	37	Pn	Pn	12 48 52.0	-1.3
TEIG				Sn	Sn	12 50 13.3	-6.2
TEIG				LR	LR	12 52 09.8	
JTS	**JuntasAbangare**	8.94	115	Pn	Pn	12 49 13.0	+0.4
	1.0nm,0.3s,baz=292,slow=19,SNR=2.9						
JTS				Sn	Sn	12 51 08.2	+14
	1.0nm,0.3s,baz=323,slow=20,SNR=2.8						
MIAR	**Mount Ida**	20.20	359	*e*P	P	12 51 41.8	+3.4
	7.3nm,0.8s						
AMTX	**Amarillo**	21.92	341	*e*P	P	12 51 57.5	+0.4
	14nm,0.6s,mb4.5						
TKL	**Tuckaleechee C**	22.91	20	LR	LR	13 02 42.1	
	comp=Z,99nm,19.0s,MS3.3,baz=312,slow=41						
ANMO	**Albuquerque**	23.84	332	P	P	12 52 17.7	+0.7
	1.2nm,0.7s,mb3.4,baz=166,slow=13,SNR=7.0						
SDCO	**Great Sand Dun**	25.83	337	*e*P	P	12 52 37.3	+2.2
	3.7nm,1.1s,mb3.8						
PDAR	**Pinedale Array**	31.73	337	P	P	12 53 28.4	+0.8
	0.6nm,0.9s,mb3.4,baz=124,slow=9.1,SNR=4.4						
SADO	**Sadowa**	32.66	19	LR	LR	13 08 08.2	
	comp=Z,101nm,20.7s,MS3.5,baz=262,slow=39						
NVAR	**Mina Array Bea**	32.77	322	P	P	12 53 39.0	+2.2
	1.4nm,0.7s,mb4.0,baz=138,slow=8.4,SNR=9.5						
TPAW	**Teton Pass**	32.88	336	*e*P	P	12 53 41.4	+3.6
	7.9nm,1.2s,mb4.5						
SIV	**San Ignacio**	43.69	132	P	P	12 55 09.5	+0.5
	0.5nm,0.5s,mb3.5,baz=292,slow=5.4,SNR=3.6						
YKA	**Yellowknife Ar**	50.52	347	P	P	12 56 00.8	-0.9
	1.8nm,0.7s,mb4.1,baz=152,slow=7.3,SNR=41						
YKA				PcP	PcP	12 57 19.4	-0.3
	0.2nm,0.6s,baz=152,slow=4.5,SNR=4.2						
CMAR	**Chiang Mai Arr**	145.37	340	PKPbc	PKPbc	13 06 41.2	-1.4
	0.9nm,0.7s,baz=330,slow=2.3,SNR=4.9						

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*ISCJB **22** 12:56:21.3±0.6, 53°.28N±0°.03×160°.54E±0°.08, h55^{km}±5^{km}, mb3.8/9, Error ellipse: s-maj=9.0km s-min=3.2km az=33.7*
*KRSC **22** 12:56:21.6±0.7, 53°.35N×160°.43E, h41^{km}±41^{km}, ML4.1*
*MOS **22** 12:56:21.1±1.5, 53°.40N×160°.34E, h58^{km}, mb4.3/2, Error ellipse: s-maj=20.1km s-min=9.1km az=71.7*
*NEIC **22** 12:56:25.7±1.2, 53°.50N×159°.90E, h73^{km}±11^{km}, mb4.6/1, Error ellipse: s-maj=21.7km s-min=14.0km az=151.0*
*IDC **22** 12:56:25.5±2.4, 53°.49N×160°.16E, h77^{km}±20^{km}, mb3.3/8, mb1 3.6/8, mb1mx3.4/22, mbtmp3.3/8, Error ellipse: s-maj=26.7km s-min=18.7km az=135.0*
ISC 22 12:56:22.5±0.6**, 53°.27N**±0°.04×**160°.50E**±0°.08**, h51**^{km}±5^{km}**, n44, σ0^{s}95**/65**, mb3.8**/9**, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	**Mys Shipunski**	0.34	239	*i* P	Pn	12 56 31.3	-0.6
SPN				*i* S	Sn	12 56 37.8	-0.9
NLC	**Nalytchevo**	0.70	262	*e*P	Pn	12 56 35.3	-0.9
NLC				*i* S	Sn	12 56 45.0	-1.2
AVH	**Avacha**	1.06	270	*e*P	Pn	12 56 40.7	-0.2
AVH				*i* S	Sn	12 56 54.5	-0.1
PET	**Petropavlovsk**	1.14	258	*e*P	Pn	12 56 41.6	-0.4
PET				*i* S	Sn	12 56 55.9	-0.6
PET	**Petropavlovsk**	1.14	258	*e*Pg	Pn	12 56 41.6	-0.4
PET				*e*Sn	Sn	12 56 56.3	-0.2
RUS	**Russkaya**	1.47	236	*e*P	Pn	12 56 46.2	-0.3
RUS				*i* S	Sn	12 57 03.8	-0.7
MKZ	**Mys Kozlova**	1.48	29	*e*P	Pn	12 56 44.8	-1.8
MKZ				*i* S	Sn	12 57 01.6	-3.2
GNL	**Ganaly**	1.59	287	*e*P	Pn	12 56 47.8	-0.3
GNL				*i* S	Sn	12 57 06.7	-0.7
GRL	**Gorelyy**	1.64	245	*e*P	Pn	12 56 49.4	+0.6
GRL				*i* S	Sn	12 57 09.3	+0.7
PEA0B	**Petropavlovsk-**	1.69	266	*e*Pn	Pn	12 56 49.8	+0.2
PEA0B				*e*Sn	Sn	12 57 11.8	+1.8
PETK	**Petropavlovsk-**	1.69	266	P	Pn	12 56 49.8	+0.2
	54nm,0.3s,baz=78,slow=19,SNR=1399						
PETK				S	Sn	12 57 10.6	+0.5
	32nm,0.3s,baz=90,slow=18,SNR=7.6						
TUMR	**Tumrok**	2.03	354	*e*P	Pn	12 56 54.0	-0.1
TUMR				*i* S	Sn	12 57 17.9	-0.3
MIPR	**Malaya Ipel'ka**	2.48	248	*e*P	Pn	12 57 01.7	+1.4
MIPR				*i* S	Sn	12 57 31.3	+1.9
KMNR	**Kamenistaya**	2.50	357	*e*P	Pn	12 57 00.8	+0.3
KMNR				*i* S	Sn	12 57 29.6	-0.1
BZMR	**Bezymyannaya**	2.67	360	*e*P	Pn	12 57 03.6	+0.7
BZMR				*i* S	Sn	12 57 34.8	+0.8
KIRR	**Kirishev**	2.69	358	*e*P	Pn	12 57 03.8	+0.6
KPT	**Kopyto**	2.71	357	*e*P	Pn	12 57 03.6	+0.2
ZLN	**Zelenaya**	2.76	4	*e*P	Pn	12 57 05.0	+0.9
ZLN				*i* S	Sn	12 57 37.4	+1.3
KOZ	**Kozyrevsk**	2.82	353	*e*P	Pn	12 57 05.0	+0.1
KOZR	**Kozyr**	2.82	353	PN	Pn	12 57 05.0	0.0
CIRR	**Tsirk**	2.85	3	*e*P	Pn	12 57 06.3	+0.9
CIRR				*i* S	Sn	12 57 39.5	+1.0
KRSR	**Krestovskiy**	2.95	1	*e*P	Pn	12 57 06.9	+0.1
KLY	**Klyuchi**	3.05	2	*e*P	Pn	12 57 08.6	+0.5
KLY				*i* S	Sn	12 57 43.7	+0.4
SRDR	**Sredinnyy**	3.09	352	*e*P	Pn	12 57 08.3	-0.3
SRDR				*i* S	Sn	12 57 43.0	-1.2
BDR	**Baidarnaya**	3.33	7	*e*P	Pn	12 57 13.0	+1.1
BDR				*i* S	Sn	12 57 49.6	-0.6
SMKR	**Semkarok**	3.37	9	*e*P	Pn	12 57 12.9	+0.5
SMKR				*i* S	Sn	12 57 51.2	+0.1
SRKR	**Sorokina**	3.41	6	*e*P	Pn	12 57 13.8	+0.7
SRKR				*i* S	Sn	12 57 51.7	-0.5
SKR	**Severo-Kuril's**	3.75	228	*e*PN	Px	12 57 31.5	
SKR				*e*		12 57 59.4	
BILL	**Bilibino**	15.07	8	*i* P	Pn	12 59 49.1	-2.7
ERM	**Erimo**	16.18	233	*e*P	Pn	13 00 05.6	-0.6
MJAR	**Matsushiro Arr**	22.85	232	*e*P	P	13 01 22.6	+1.5
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MJAR	**Matsushiro Arr**	22.85	232	P	P	13 01 21.8	+0.6
	comp=Z,0.7nm,0.4s,mb3.5,baz=20,slow=11,SNR=5.3						
CHGN	**Chignik**	23.63	66	*e*P	P	13 01 33.0	+4.4
SONM	**Songino Array**	34.10	283	P	P	13 03 00.5	-1.3
	comp=Z,0.3nm,0.6s,mb3.4,baz=63,slow=8.6,SNR=2.8						
SONM				PcP	PcP	13 05 37.6	-0.5
	comp=Z,0.2nm,0.4s,baz=57,slow=2.3,SNR=3.6						
YKA	**Yellowknife Ar**	42.87	43	P	P	13 04 15.4	+0.2
	comp=Z,0.2nm,0.5s,mb3.1,baz=299,slow=8.4,SNR=4.7						
MKAR	**Makanchi Array**	48.30	296	P	P	13 04 55.9	-2.4
	comp=Z,0.5nm,0.5s,mb3.8,baz=52,slow=8.5,SNR=5.4						
ARCES	**ARCESS Array B**	53.20	342	P	P	13 05 32.7	-2.0
	comp=Z,4.4nm,1.0s,mb4.3,baz=36,slow=7.8,SNR=4.8						
LKWY	**Lake**	55.54	60	*e*P	P	13 05 57.2	+5.1
LKWY				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
LKWY	**Lake**	55.54	60	*e*P	P	13 05 57.2	+5.1
	comp=Z,4.0nm,0.7s,mb4.6						
NOA	**NORSAR Array B**	63.44	344	P	P	13 06 44.7	-1.6
	comp=Z,1.9nm,0.9s,mb4.2,baz=14,slow=5.2,SNR=3.3						
TXAR	**Lajitas Array**	70.34	67	P	P	13 07 31.8	+1.2
	baz=292,slow=5.5						
WRA	**Warramunga Arr**	76.34	205	P	P	13 08 06.1	+0.3
	comp=Z,0.8nm,1.0s,mb3.6,baz=8.8,slow=6.6,SNR=3.9						
ASAR	**Alice Springs**	80.02	205	*e*P	P	13 08 27.1	+1.0
ASAR	**Alice Springs**	80.02	205	P	P	13 08 27.1	+1.0
	comp=Z,0.3nm,0.6s,mb3.4,baz=15,slow=5.0,SNR=7.1						

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*NEIC **22** 12:58:17.1, 37°.45N×19°.98E, h7^{km}, MD3.8(ATH), After ATH.*
*ATH **22** 12:58:17.1, 37°.45N×19°.98E, h7^{km}±3^{km}, MD3.8/7*
*ISCJB **22** 12:58:18.8±1.3, 37°.48N±0°.05×20°.02E±0°.07, h5^{km}±9^{km}, Error ellipse: s-maj=9.8km s-min=8.9km az=0.5*
*CSEM **22** 12:58:19.1±0.5, 37°.46N×20°.13E, h2^{km}, ML3.6/2, Error ellipse: s-maj=10.9km s-min=6.8km az=53.0*
*THE **22** 12:58:19.4, 37°.44N×20°.12E, h0^{km}±4^{km}, ML3.6/2, Error ellipse: s-maj=6.8km s-min=1.4km az=264.0*
ISC 22 12:58:19.4±1.5**, 37°.47N**±0°.06×**20°.05E**±0°.08**, h4**^{km}±9^{km}**, n44, σ0^{s}91**/54**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	**Valsamata**	0.82	31	P	Pg	12 58 34.8	-0.4
VLS				S	Sg	12 58 46.7	+0.7
VLS	**Valsamata**	0.82	31	*e*PB	Pg	12 58 34.4	-0.8
VLS				*e*SB	Sg	12 58 46.2	+0.2
VLS	**Valsamata**	0.82	31	*e*Pb	Pg	12 58 34.4	-0.8
VLS	**Valsamata**	0.82	31	P	Pg	12 58 34.8	-0.4
VLS				*e*Sb	Sg	12 58 46.2	+0.2
VLS				S	Sg	12 58 46.7	+0.7
RLS	**Riolos of Patr**	1.27	62	*e*PB	Pn	12 58 42.6	-1.2
RLS				*e*SB	Sn	12 58 59.7	-1.6
RLS	**Riolos of Patr**	1.27	62	*e*Pb	Pn	12 58 42.6	-1.2
RLS				*e*Sb	Sn	12 58 59.7	-1.6
PYL	**PYLOS**	1.47	112	P	Pn	12 58 44.8	-1.8
PYL	**PYLOS**	1.47	112	*e*PG	Pn	12 58 45.1	-1.5
PYL	**PYLOS**	1.47	112	P	Pn	12 58 44.8	-1.8
PYL	**PYLOS**	1.47	112	*e*Pg	Pn	12 58 45.1	-1.5
ITM	**Ithomi**	1.52	100	*e*PG	Pn	12 58 46.1	-1.3
ITM	**Ithomi**	1.52	100	*e*Pg	Pn	12 58 46.1	-1.3
LAKA	**Lakka**	1.71	63	P	Pn	12 58 49.5	-0.4
LAKA				S	Sn	12 59 12.4	+0.2
LAKA	**Lakka**	1.71	63	P	Pn	12 58 49.5	-0.4
LAKA				S	Sn	12 59 12.4	+0.2
VLX	**Vlachokerasia**	1.86	92	*e*PG	Pn	12 58 53.0	+1.1
VLX	**Vlachokerasia**	1.86	92	*e*Pg	Pn	12 58 53.0	+1.1
GUR	**Goura**	1.88	75	*e*PN	Pn	12 58 52.1	-0.1
GUR	**Goura**	1.88	75	*e*Pn	Pn	12 58 52.1	-0.1
KALE	**Kalithea**	1.89	60	P	Pn	12 58 52.1	-0.3
KALE	**Kalithea**	1.89	60	P	Pn	12 58 52.1	-0.3
EVR	**Evrytania**	2.00	43	*e*PN	Pn	12 58 54.5	+0.6
EVR	**Evrytania**	2.00	43	*e*Pn	Pn	12 58 54.5	+0.6
KEK	**Kerkira**	2.25	355	*e*PN	Pn	12 58 56.6	-0.7
KEK	**Kerkira**	2.25	355	*e*Pn	Pn	12 58 56.6	-0.7
JAN	**Janina**	2.27	16	*e*PN	Pn	12 58 57.2	-0.5
JAN	**Janina**	2.27	16	*e*Pn	Pn	12 58 57.2	-0.5
AGG	**Agios Georgios**	2.37	48	P	Pn	12 58 58.6	-0.4
AGG				S	Sn	12 59 29.5	+1.0
AGG	**Agios Georgios**	2.37	48	*e*PN	Pn	12 58 59.5	+0.5
AGG	**Agios Georgios**	2.37	48	P	Pn	12 58 58.6	-0.4
AGG	**Agios Georgios**	2.37	48	*e*Pn	Pn	12 58 59.5	+0.5
AGG				S	Sn	12 59 29.5	+1.0
LTK	**Loutraki**	2.38	76	*e*PG	Pn	12 59 01.2	+2.1
LTK	**Loutraki**	2.38	76	*e*Pg	Pn	12 59 01.2	+2.1
VLI	**Veliai**	2.43	107	*e*PN	Pn	12 59 00.6	+0.8
VLI	**Veliai**	2.43	107	*e*Pn	Pn	12 59 00.6	+0.8
MEV	**Metsovon**	2.49	21	P	Pn	12 59 01.1	+0.5
MEV	**Metsovon**	2.49	21	P	Pn	12 59 01.1	+0.5
THL	**Klokotos Trika**	2.60	36	*e*PB	Pn	12 59 01.7	-0.4
THL	**Klokotos Trika**	2.60	36	P	Pn	12 59 01.7	-0.4
LKR	**Lokris**	2.61	62	*e*PN	Pn	12 59 03.2	+0.9
LKR	**Lokris**	2.61	62	*e*Pn	Pn	12 59 03.2	+0.9
KYTH	**Kithira**	2.67	115	*e*PN	Pn	12 59 04.0	+0.8
KYTH	**Kithira**	2.67	115	*e*Pn	Pn	12 59 04.0	+0.8
CUC	**Castrocucco**	4.16	309	*e*Pn	Pn	12 59 24.1	+0.4
CUC	**Castrocucco**	4.16	309	*e*Pn	Pn	12 59 24.1	+0.5

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*CSEM **22** 13:00:35.1, 44°.83N×35°.05E, h22^{km}, mb3.8, After OBN*
MOS 22 13:00:35.1±1.6**, 44°.83N×35°.05E, h22**^{km}**, mb3.8**/1**, 1C-2D, Error ellipse: s-maj=29.7km s-min=20.8km az=155.5, Crimea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUDU	**Sudak**	0.07	327	⇑*i*P	Pb	13 00 39.7	+0.6
SUDU				*e*		13 00 43.3	
SUDU	**Sudak**	0.07	327	*i* P	Pb	13 00 39.7	+0.6
SUDU				*e*S	Sb	13 00 43.3	+1.5
FEO	**Feodosiya**	0.30	52	⇓*i*P	Pb	13 00 43.6	+1.6
FEO				*e*		13 00 49.7	
FEO	**Feodosiya**	0.30	52	*i* P	Pb	13 00 43.6	+1.6
FEO				*e*S	Sb	13 00 49.7	+3.1
ALU	**Alushta**	0.49	252	⇓*e*P	Pb	13 00 45.5	+0.5
ALU				*i*		13 00 54.7	
ALU	**Alushta**	0.49	252	*e*P	Pb	13 00 45.5	+0.5
ALU				*i* S	Sb	13 00 54.7	+3.0
SIM	**Simferopol'**	0.68	280	*e*P	Pb	13 00 50.8	+2.6
SIM				*e*		13 01 01.4	
SIM				pmax	pmax		
	comp=Z,35nm,0.3s						
SIM	**Simferopol'**	0.68	280	*e*P	Pb	13 00 50.8	+2.6
	comp=Z,35nm,0.3s						
SIM				*e*S	Sb	13 01 01.4	+4.3
YAL	**Yalta**	0.73	242	*e*P	Pb	13 00 50.2	+1.1
YAL				*e*		13 01 01.5	
YAL	**Yalta**	0.73	242	*e*P	Pb	13 00 50.2	+1.1
YAL				*e*S	Sb	13 01 01.5	+2.9
SEV	**Sevastopol'**	1.03	254	*e*P	Pn	13 00 53.4	-0.8
SEV				*e*		13 01 07.4	
SEV	**Sevastopol'**	1.03	254	*e*P	Pn	13 00 53.4	-0.8
SEV				*e*S	Sb	13 01 07.4	+0.2

MAN 22 13:03:24, 9°.66N×125°.87E, h6^{km}**, mb4.3, ML3.1, MS2.9, 1C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	**Surigao**	0.39	288	⇑*e*P	Pg	13 03 32.4	+0.7
SCPH				*e*S	Sg	13 03 43.4	+6.6
BUTP	**Butuan**	0.73	200	*e*P	Pg	13 03 38.6	+0.6
BUTP				*e*S	Sg	13 03 52.5	+5.0
MSLP	**Maasin**	1.10	295	*e*P	Pg	13 03 44.6	-0.5
MSLP				*e*S	Sg	13 04 02.0	+2.5
CGP	**Cagayan de Oro**	1.67	224	⇓*i*P	Pn	13 03 54.9	+1.1
CGP				*i* S	Sn	13 04 21.7	+6.2
BUKP	**Musuan**	1.94	204	*e*P	Pn	13 03 57.6	+0.1
BUKP				*e*S	Sn	13 04 20.6	-1.7

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*NEIC **22** 13:43:14.0, 39°.33N×25°.81E, h7^{km}, MD3.8(ATH), ML3.6(ISK), After ISK.*
*ISCJB **22** 13:43:19.0±0.4, 39°.42N±0°.02×26°.27E±0°.03, h5^{km}±3^{km}, Error ellipse: s-maj=3.4km s-min=2.8km az=160.9*
*DDA **22** 13:43:18.8, 39°.40N×26°.27E, h17^{km}±2^{km}, Md3.6*
*ISK **22** 13:43:18.2, 39°.41N×26°.24E, h5^{km}, MD3.4*
*ATH **22** 13:43:19.5, 39°.41N×26°.26E, h13^{km}±1^{km}, MD3.8/5*
*CSEM **22** 13:43:19.5±0.1, 39°.41N×26°.30E, h5^{km}, ML4.0/4, Error ellipse: s-maj=2.7km s-min=2.4km az=81.0*
*THE **22** 13:43:20.5, 39°.39N×26°.24E, h5^{km}±2^{km}, ML4.0/4, Error ellipse: s-maj=2.2km s-min=0.4km az=209.0*
ISC 22 13:43:19.7±0.3**, 39°.41N**±0°.02×**26°.29E**±0°.03**, h5**^{km}±3^{km}**, n91, σ0^{s}74**/125**, 2C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	**Paraskevi**	0.16	186	P	Pg	13 43 23.0	0.0
PRK				S	Sg	13 43 25.9	+0.7
PRK	**Paraskevi**	0.16	186	⇑*i*PG	Pg	13 43 23.1	+0.1
PRK				*e*SG	Sg	13 43 26.0	+0.8
PRK	**Paraskevi**	0.16	186	⇑*i*Pg	Pg	13 43 23.1	+0.1
PRK				*e*Sg	Sg	13 43 26.0	+0.8
AYVA	**Ayvalik**	0.32	108	*i* P	Pg	13 43 25.9	0.0
AYVA				*i* S	Sg	13 43 30.9	+0.7
AYVA	**Ayvalik**	0.32	108	*i* P	Pg	13 43 25.9	-0.1
AYVA				*i* S	Sg	13 43 30.9	+0.7
SIGR	**SIGRI**	0.39	240	P	Pg	13 43 27.4	+0.1
SIGR				S	Sg	13 43 32.5	+0.1
SIGR	**SIGRI**	0.39	240	P	Pg	13 43 27.4	+0.1
SIGR				S	Sg	13 43 32.5	+0.1
EZN	**Ezine**	0.42	3	*e*PG	Pg	13 43 27.3	-0.5
EZN				*e*SG	Sg	13 43 33.5	+0.3
EZN	**Ezine**	0.42	3	*e*Pg	Pg	13 43 27.3	-0.4
EZN				*e*Sg	Sg	13 43 33.5	+0.3
BOZC	**Bozcaada**	0.47	337	*i* P	Pg	13 43 28.6	-0.2
BOZC				*i* S	Sg	13 43 35.6	+0.7

LIA	Limnos Island	0.99	300	P	Pg	13 43 38.4	-0.2
LIA				S	Sg	13 43 53.0	+1.6
LIA	Limnos Island	0.99	300	*e*PN	Pg	13 43 38.4	-0.2
LIA				*e*SB	Sg	13 43 51.9	+0.5
LIA	Limnos Island	0.99	300	*e*Pn	Pg	13 43 38.4	-0.2
LIA				*e*Sb	Sg	13 43 51.9	+0.5
LIA				S	Sg	13 43 53.0	+1.6
LPK	Lapseki	1.03	20	*e*PG	Pg	13 43 38.5	-0.8
LPK				*e*SG	Sg	13 43 52.6	-0.1
LPK	Lapseki	1.03	20	*e*Pg	Pg	13 43 38.6	-0.8
LPK				*e*Sg	Sg	13 43 52.6	-0.1
CHOS	Chios island	1.04	190	P	Pg	13 43 39.3	-0.3
CHOS	Chios island	1.04	190	P	Pg	13 43 39.3	-0.3
LOS	Limnos	1.07	300	P	Pg	13 43 40.4	+0.1
LOS	Limnos	1.07	300	P	Pg	13 43 40.4	+0.1
URLA	Izmir	1.07	167	*i* P	Pg	13 43 39.7	-0.6
URLA				*i* S	Sg	13 43 54.9	+0.7
URLA	Izmir	1.07	167	*i* P	Pg	13 43 39.7	-0.6
URLA				*i* S	Sg	13 43 54.9	+0.7
BALY	Balya	1.08	72	*i* P	Pg	13 43 40.0	-0.3
BALY				*i* S	Sg	13 43 55.3	+1.0
BALY	Balya	1.08	72	*i* P	Pg	13 43 40.0	-0.3
BALY				*i* S	Sg	13 43 55.3	+1.0
BLCB	Balcova	1.18	150	P	Pg	13 43 42.5	+0.2
BLCB	Balcova	1.18	150	P	Pg	13 43 42.5	+0.2
BALB	Balikesir	1.25	79	*e*PN	Pn	13 43 43.3	-0.4
BALB	Balikesir	1.25	79	*e*Pn	Pn	13 43 43.3	-0.4
IZM	Izmir	1.26	143	*e*PN	Pn	13 43 42.6	-1.3
IZM				*e*SN	Sn	13 44 01.8	+0.5
IZM	Izmir	1.26	143	*e*Pn	Pn	13 43 42.6	-1.3
IZM				*e*Sn	Sn	13 44 01.8	+0.6
AKHS	Akhisar	1.29	114	*i* P	Pn	13 43 43.3	-1.1
AKHS				*i* S	Sg	13 44 01.2	-0.1
AKHS	Akhisar	1.29	114	*i* P	Pn	13 43 43.3	-1.1
AKHS				*i* S	Sg	13 44 01.2	-0.1
AKS	Akhisar	1.29	114	*e*PN	Pn	13 43 44.1	-0.3
AKS	Akhisar	1.29	114	*e*Pn	Pn	13 43 44.1	-0.3
SART	Tekirdag	1.45	28	*i* P	Pn	13 43 45.4	-1.1
SART				*i* S	Sb	13 44 06.0	+0.2
SART	Tekirdag	1.45	28	*i* P	Pn	13 43 45.4	-1.1
SART				*i* S	Sb	13 44 06.0	+0.2
ALN	Alexandroupoli	1.50	353	P	Pn	13 43 47.2	0.0
ALN				S	Sn	13 44 07.8	+0.7
ALN	Alexandroupoli	1.50	353	*e*PG	Pg	13 43 47.3	-1.1
ALN				*e*SB	Sb	13 44 07.9	+0.7
ALN	Alexandroupoli	1.50	353	*e*Pg	Pg	13 43 47.3	-1.1
ALN				*e*Sb	Sb	13 44 07.9	+0.7
EDC	Edincik	1.53	52	*e*PN	Pn	13 43 47.0	-0.6
EDC	Edincik	1.53	52	*e*Pn	Pn	13 43 47.0	-0.6
DURS	Dursunbey	1.70	83	*i* P	Pn	13 43 49.6	-0.3
DURS				*i* S	Sn	13 44 11.7	-0.3
DURS	Dursunbey	1.70	83	*i* P	Pn	13 43 49.6	-0.3
DURS				*i* S	Sn	13 44 11.6	-0.4
SMG	Samos	1.75	166	*e*PG	Pg	13 43 52.1	-1.1
SMG	Samos	1.75	166	*e*Pg	Pg	13 43 52.1	-1.1
RDO	Rodhopi	1.83	342	*e*PB	Pb	13 43 51.1	-2.5
RDO	Rodhopi	1.83	342	*e*Pb	Pb	13 43 51.1	-2.5
TKR	Tekirdag	1.84	31	*e*PN	Pn	13 43 51.4	-0.5
TKR	Tekirdag	1.84	31	*e*Pn	Pn	13 43 51.4	-0.5
GCAM	G?zelcaml?	1.86	156	*i* P	Pn	13 43 53.9	+1.7
GCAM				*i* S	Sn	13 44 20.1	+4.1
GCAM	G?zelcaml?	1.86	156	*i* P	Pn	13 43 53.9	+1.8
GCAM				*i* S	Sn	13 44 20.0	+4.0
MANT	Manisa	1.99	117	*i* P	Pn	13 43 53.9	0.0
MANT	Manisa	1.99	117	*i* P	Pn	13 43 53.9	0.0
KULA	Kula-Manisa	2.05	115	*e*PN	Pn	13 43 54.8	0.0
KULA	Kula-Manisa	2.05	115	*e*Pn	Pn	13 43 54.8	0.0
PAIG	Paliouri	2.08	285	P	Pn	13 43 54.5	-0.7
PAIG	Paliouri	2.08	285	P	Pn	13 43 54.5	-0.7
AYDN	Tasoluk	2.14	144	*i* P	Pn	13 43 55.1	-1.0
AYDN	Tasoluk	2.14	144	*i* P	Pn	13 43 55.1	-0.9
ULDT	Uludag	2.31	71	*i* P	Pn	13 43 57.9	-0.4
ULDT				*i* S	Sn	13 44 33.4	+6.3
ULDT	Uludag	2.31	71	*i* P	Pn	13 43 57.9	-0.4
SLVT	Silivri	2.33	38	*e*PN	Pn	13 43 58.6	-0.1
SLVT	Silivri	2.33	38	*e*Pn	Pn	13 43 58.6	-0.1
PLG	Polygyros	2.39	295	*e*PB	Pb	13 43 59.6	-3.6
PLG	Polygyros	2.39	295	*e*Pb	Pb	13 43 59.6	-3.6
GEMT	Gemlik	2.45	64	*e*PN	Pn	13 44 01.1	+0.8
GEMT	Gemlik	2.45	64	*e*Pn	Pn	13 44 01.1	+0.8
CTKS	Kestanelik-??a	2.49	42	*e*PN	Pn	13 44 01.0	+0.2
CTKS	Kestanelik-??a	2.49	42	*e*Pn	Pn	13 44 01.0	+0.2
CTYL	Yal??k??y-??at	2.56	36	*e*PN	Pn	13 44 01.8	-0.1
CTYL	Yal??k??y-??at	2.56	36	*e*Pn	Pn	13 44 01.8	0.0
YLV	Yalova	2.63	63	*e*PN	Pn	13 44 03.7	+0.9
YLV	Yalova	2.63	63	*e*Pn	Pn	13 44 03.7	+0.9
SOH	Sokhos	2.66	303	*e*PB	Pb	13 44 03.6	-4.1
SOH	Sokhos	2.66	303	*e*Pb	Pb	13 44 03.6	-4.1
LKR	Lokris	2.67	255	*e*PB	Pb	13 44 03.5	-4.5
LKR	Lokris	2.67	255	*e*Pb	Pb	13 44 03.5	-4.5
ISK	Istanbul-Kandi	2.69	51	*e*PN	Pn	13 44 04.0	+0.5
ISK	Istanbul-Kandi	2.69	51	*e*Pn	Pn	13 44 04.0	+0.5
NAIG	Nisos Aigina	2.75	234	*e*PN	Pn	13 44 05.3	+0.9
NAIG	Nisos Aigina	2.75	234	*e*Pn	Pn	13 44 05.3	+0.9
KLYT	Kilyos	2.79	48	*e*PN	Pn	13 44 05.5	+0.5
KLYT	Kilyos	2.79	48	*e*Pn	Pn	13 44 05.5	+0.5
ADVT	Abdulvahap	2.84	68	*e*PN	Pn	13 44 06.3	+0.7
ADVT	Abdulvahap	2.84	68	*e*Pn	Pn	13 44 06.3	+0.7
SILT	Sile	3.10	55	*e*PN	Pn	13 44 09.8	+0.7
SILT	Sile	3.10	55	*e*Pn	Pn	13 44 09.8	+0.6
VLI	Veliai	3.77	226	P	Pn	13 44 17.7	-0.8
VLI	Veliai	3.77	226	P	Pn	13 44 17.7	-0.8
BARS	Barje	4.80	317	*e*Pn	Pn	13 44 33.1	+0.6
NISS		5.16	322	*i* Pn	Pn	13 44 37.5	0.0
BOLS	Boljevac	5.48	325	*e*Pn	Pn	13 44 43.0	+1.1

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*CSEM **22** 13:44:04.7, 12°.11N×43°.96E, h12^{km}, ML3.6, After DHMR*

DHMR 22 13:44:04.7±1.0**, 12°.11N×43°.96E, h12^{km}±5^{km}, ML3.6, 3C-2D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRBA	At Turbah	1.12	8	⇑*i*P	Pb	13 44 25.5	-0.6
TRBA				*i* S	Sb	13 44 41.4	+0.8
TRBA				AML	AML	13 44 42.5	
	comp=N,1μm,0.3s						
ADEN	Aden	1.19	56	⇑*i*P	Pn	13 44 26.7	-0.5
ADEN				*i* S	Sb	13 44 43.1	+0.5
ADEN				AML	AML	13 44 48.9	
	comp=E,1μm,0.3s						
ADEN	Aden	1.19	56	⇑*i*P	Pn	13 44 26.7	-0.5
ADEN				*i* S	Sb	13 44 43.1	+0.4
	comp=E,742nm,0.3s						
UDYN	Al ‘Udayn	1.84	0	*i* P	Pn	13 44 37.2	+1.1
UDYN				*i* S	Sn	13 45 03.4	+4.0
UDYN				AML	AML	13 45 11.8	
	comp=Z,682nm,0.7s						
UDYN	Al ‘Udayn	1.84	0	*i* P	Pn	13 44 37.2	+1.0
UDYN				*i* S	Sn	13 45 03.4	+4.0
	comp=Z,341nm,0.7s						
HNSH	Hunish Island	1.99	322	*i* P	Pn	13 44 39.5	+1.3
HNSH				*i* S	Sn	13 45 05.9	+2.9
HNSH				AML	AML	13 45 13.0	
	comp=E,754nm,0.4s						
HNSH	Hunish Island	1.99	322	*i* P	Pn	13 44 39.5	+1.4
HNSH				*i* S	Sn	13 45 05.9	+2.9
	comp=E,377nm,0.4s						
ZUQR	Zugar Island	2.20	328	⇓*i*P	Pn	13 44 43.0	+1.8
ZUQR				*i* S	Sn	13 45 12.6	+4.3
ZUQR				AML	AML	13 45 18.2	
	comp=N,528nm,0.3s						
ZUQR	Zugar Island	2.20	328	⇓*i*P	Pn	13 44 43.0	+1.9
ZUQR				*i* S	Sn	13 45 12.6	+4.3
	comp=N,264nm,0.3s						
BDHA	Al Bayda’	2.42	40	*i* P	Pn	13 44 46.7	+2.6
BDHA				*i* S	Sn	13 45 19.1	+5.4
BDHA				AML	AML	13 45 24.9	
	comp=N,402nm,0.3s						
BDHA	Al Bayda’	2.42	40	*i* P	Pn	13 44 46.7	+2.6
BDHA				*i* S	Sn	13 45 19.1	+5.4
	comp=N,201nm,0.3s						
DHBB	Dhamar BB	2.48	10	*i* P	Pn	13 44 47.4	+2.5
DHBB				*i* S	Sn	13 45 21.0	+5.9
DHBB	Dhamar BB	2.48	10	*i* P	Pn	13 44 47.4	+2.5
DHBB				*i* S	Sn	13 45 21.0	+5.9

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*ISCJB **22** 13:56:20.3±0.8, 51°.45N±0°.05×16°.07E±0°.04, h0^{km}, Error ellipse: s-maj=6.8km s-min=3.2km az=17.7*

*CSEM **22** 13:56:21.8±0.4, 51°.44N×16°.07E, h2^{km}, ML3.2/5, Error ellipse: s-maj=7.3km s-min=3.8km az=15.0*

*NEIC **22** 13:56:21.7±1.3, 51°.47N×16°.10E, h5^{km}, ML2.6(SZGRF), Error ellipse: s-maj=13.7km s-min=6.9km az=200.0*

*WAR **22** 13:56:22.7, 51°.47N×16°.09E, ML2.5, Mining Induced*

*PRU **22** 13:56:23.1, 51°.41N×16°.09E, h0^{km}*

ISC 22 13:56:21.9±0.8**, 51°.43N**±0°.04×**16°.09E**±0°.04**, h0^{km}, n32, σ0^{s}.93**/56**, 2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.60	168	*e*Pg	Pg	13 56 34.5	+1.0
KSP				*e*Sg	Sg	13 56 43.2	+2.0
KSP	Ksiaz	0.60	168	*i* Pg	Pg	13 56 34.4	+1.0
KSP				*e*Sg	Sg	13 56 43.2	+2.0
KSP	Ksiaz	0.60	168	⇓*i*Pg	Pg	13 56 34.4	+1.0
KSP				*e*Sg	Sg	13 56 43.2	+2.0
KSP	Ksiaz	0.60	168	⇓*i*Pg	Pg	13 56 34.4	+1.0
KSP				*e*Sg	Sg	13 56 43.2	+2.0
UPC	Upice	0.93	183	*e*PG	Pg	13 56 40.3	+0.7
UPC	Upice	0.93	183	Pg	Pg	13 56 40.3	+0.7
DPC	Dobruska-Polom	1.09	172	*e*PG	Pg	13 56 43.1	+0.3
DPC				*e*SG	Sg	13 56 57.6	+0.6
	comp=Z,20nm,0.4s						
DPC	Dobruska-Polom	1.09	172	Pg	Pg	13 56 43.1	+0.3
DPC				Sg	Sg	13 56 57.6	+0.6
	comp=Z,20nm,0.4s						
PVCC	Panska Ves	1.32	227	*e*PG	Pg	13 56 47.4	+0.2
PVCC				*e*SG	Sg	13 57 05.4	+1.1
	comp=Z,85nm,0.2s						
PVCC	Panska Ves	1.32	227	Pg	Pg	13 56 47.4	+0.2
PVCC				Sg	Sg	13 57 05.4	+1.1
	comp=Z,85nm,0.2s						
BRG	Berggiesshubel	1.47	248	PN	Pn	13 56 49.2	-0.3
BRG				PG	Pg	13 56 50.0	+0.1
BRG				SG	Sg	13 57 10.1	+1.2
	comp=Z,35nm,0.3s						
BRG	Berggiesshubel	1.47	248	Pn	Pn	13 56 49.2	-0.3
PRU	Pruhonice	1.75	215	*e*PG	Pg	13 56 54.9	-0.5
PRU				*e*SG	Sg	13 57 17.1	-1.0
	comp=Z,8.6nm,0.2s						
PRU	Pruhonice	1.75	215	Pg	Pg	13 56 54.9	-0.5
PRU				Sg	Sg	13 57 17.1	-1.0
	comp=Z,8.6nm,0.2s						
MORC	Moravsky Berou	1.90	150	*e*Pn	Pn	13 56 54.1	-1.4
MORC				*e*Sn	Sn	13 57 21.5	+1.4
MORC	Moravsky Berou	1.90	150	*e*Pn	Pn	13 56 54.1	-1.4
MORC				*e*Sn	Sn	13 57 21.5	+1.5
MORC				*e*Sg	Sg	13 57 22.4	-0.4
CLL	Collm	1.94	268	*e*Pg	Pg	13 56 58.0	-1.1
CLL				*e*Sg	Sg	13 57 24.0	-0.2
	comp=Z,12nm,0.6s						
CLL	Collm	1.94	268	*e*Pg	Pg	13 56 58.0	-1.1
CLL				*e*Sg	Sg	13 57 24.0	-0.2
OKC	Ostrava-Krasne	2.06	140	*e*SG	Sg	13 57 27.4	-0.7
OKC	Ostrava-Krasne	2.06	140	Sg	Sg	13 57 27.4	-0.7
TREC	Trest	2.17	191	*e*PG	Pg	13 57 02.9	-0.6
TREC	Trest	2.17	191	Pg	Pg	13 57 02.9	-0.6
NKC	Novy Kostel	2.60	244	*e*PN	Pn	13 57 05.7	+0.5
NKC				*e*PG	Pg	13 57 11.1	-0.7
NKC				*e*SG	Sg	13 57 45.9	+0.4
	comp=Z,22nm,0.4s						
NKC	Novy Kostel	2.60	244	Pn	Pn	13 57 05.7	+0.5
KHC	Kasperske Hory	2.81	216	*e*PN	Pn	13 57 08.5	+0.5
KHC				*e*PG	Pg	13 57 14.1	-1.7
KHC				*e*SN	Sn	13 57 42.1	-0.5
KHC				*e*SG	Sg	13 57 50.8	-1.4
	comp=Z,4.6nm,0.3s						
KHC	Kasperske Hory	2.81	216	Pn	Pn	13 57 08.5	+0.5
MOX	Moxa	2.94	256	*e*PG	Pg	13 57 17.8	-0.3
MOX				*e*SG	Sg	13 57 57.3	+1.2
GEC2	GERESS Array S	3.01	212	*e*Pn	Pn	13 57 11.6	+0.8
GEC2	GERESS Array S	3.01	212	*e*Pn	Pn	13 57 11.6	+0.8
MODS	Modra-Piesok	3.16	166	*e*SN	Sg	13 58 01.3	-1.9
STHS	Stebnicka Huta	3.86	119	*e*PN	Pn	13 57 22.1	-0.3
STHS				*e*PG	Pg	13 57 36.8	+1.0
STHS	Stebnicka Huta	3.86	119	*e*Pn	Pn	13 57 22.1	-0.3

SSNC 22 13:57:09.5±4.0**, 19°.68N×76°.33W, h7^{km}±23^{km}, MD3.3, ML3.5, 1C, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RCC	Rio Carpintero	0.68	62	⇑*i*PG	Pg	13 57 21.7	-0.8
RCC				*i* SG	Sg	13 57 30.6	-0.8
	comp=N,2μm,0.7s						
RCC				*e*			
	comp=E,1μm,0.4s						
LMGC	Las Mercedes	0.74	301	*e*PG	Pg	13 57 22.0	-1.8
LMGC				*e*SG	Sg	13 57 31.8	-1.7
	comp=N,5μm,0.3s						
LMGC				*e*			
	comp=E,3μm,0.3s						
GTMO	Guantanamo	1.19	70	*i* PG	Pg	13 57 28.7	-3.7
GTMO				*i* SG	Sg	13 57 43.6	-4.2
HLGC	Holguin	1.23	12	*e*PG	Pg	13 57 29.0	-4.2
HLGC				*e*SG	Sg	13 57 43.9	-5.3
	comp=N,257nm,0.3s						
HLGC				*e*			
	comp=E,233nm,0.2s						
SABC	Sabc	1.28	57	*i* PG	Pg	13 57 28.7	-5.4
SABC				*i* SG	Sg	13 57 45.1	-5.6
MOAC	Moa	1.62	53	*e*P	Pn	13 57 36.4	-2.0
MOAC				*e*S	Sn	13 57 57.4	-2.1
	comp=N,243nm,0.4s						
MOAC				*e*			
	comp=E,319nm,0.6s						
CCCC	Cccc	2.03	319	*e*P	Pn	13 57 39.8	-4.3
CCCC				*e*S	Sn	13 58 01.7	-7.9
	comp=N,523nm,0.4s						
CCCC				*e*			
	comp=E,687nm,0.4s						
MASC	Masc	2.04	76	*e*P	Pn	13 57 42.5	-1.7
MASC				*e*S	Sn	13 58 11.6	+1.7
	comp=N,5μm,0.3s						
MASC				*e*			
	comp=E,6μm,0.3s						
MGV	Manicaragua	4.18	306	*e*P	Pn	13 58 10.4	-3.3
MGV				*e*S	Sn	13 58 58.5	-4.4
	comp=N,2μm,0.5s						
MGV				*e*			
	comp=E,362nm,0.5s						

IDC 22 14:21:53.7±1.9**, 2°.56N×127°.08E, h0^{km}, mb3.3**/3**, mb1 3.6**/4**, mb1mx3.4**/19**, mbtmp3.5**/4**, ML3.4**/1**, Error ellipse: s-maj=61.9km s-min=28.1km az=68.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	10.50	224	Pn	Pn	14 24 25.7	0.0
	0.3nm,0.3s,baz=214,slow=7.3,SNR=3.9						
WRA	Warramunga Arr	23.47	163	P	P	14 27 04.6	-0.6
	0.9nm,0.7s,baz=341,slow=10,SNR=6.9						
ASAR	Alice Springs	26.90	166	P	P	14 27 37.1	+0.5
	0.2nm,0.4s,baz=345,slow=11,SNR=6.8						
MKAR	Makanchi Array	58.71	325	P	P	14 31 53.3	0.0
	0.1nm,0.4s,baz=130,slow=8.1,SNR=2.8						

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*ISCJB **22** 14:48:31.6±0.6, 37°.80S±0°.08×176°.2E±0°.1, h224^{km}±8^{km}, mb3.6/6, Error ellipse: s-maj=19.1km s-min=9.7km az=33.9*

*NEIC **22** 14:48:32.5, 37°.72S×176°.35E, h221^{km}, mb3.7/3, After WEL.*

*IDC **22** 14:48:33.3±0.7, 37°.90S×175°.78E, h188^{km}±10^{km}, mb3.5/4, mb1 3.6/5, mb1mx3.5/15, mbtmp3.5/5, Error ellipse: s-maj=22.1km s-min=19.8km az=74.0*

ISC 22 14:48:32.5±0.6**, 37°.84S**±0°.09×**176°.3E**±0°.1**, h223^{km}**±9^{km}**, n41, σ0^{s}.84**/45**, mb3.6**/6**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.79	122	P	Pn	14 49 02.4	-1.0
	102nm,0.3s,baz=290,slow=1.6,SNR=785						
URZ				S	S	14 49 25.5	-2.1
	44nm,0.3s,baz=178,slow=22,SNR=19						
URZ	Urewera	0.79	122	P	Pn	14 49 02.7	-0.7
MWZ	Matawai	1.11	117	P	Pn	14 49 05.0	-0.3
MWZ				S	S	14 49 31.9	+0.9
HIZ	Hauiti	1.30	238	P	Pn	14 49 07.6	+0.9
BKZ	Black Stump Fm	1.34	172	P	Pn	14 49 07.7	+0.8
BKZ				S	S	14 49 33.8	-0.2
TUVZ	Tukino	1.50	198	P	Pn	14 49 09.6	+1.3
WNVZ	Wahianoa	1.58	199	P	Pn	14 49 10.2	+1.4
PUZ	Puketiti	1.59	99	P	Pn	14 49 08.4	-0.6
KNZ	Kokohu	1.62	137	P	Pn	14 49 10.2	+1.0
MOVZ	Moawhango	1.62	194	P	Pn	14 49 10.1	+0.9
MXZ	Matakaoa Point	1.64	81	P	Pn	14 49 08.8	-0.7
TSZ	Takapari Road	2.23	186	P	Pn	14 49 15.9	+0.9
BFZ	Birch Farm	2.84	180	P	Pn	14 49 22.1	+0.6
MRZ	Mangatainoka R	2.87	191	P	Pn	14 49 22.0	+0.2
KIW	Kapiti Island	3.20	199	P	Pn	14 49 25.5	0.0
MTW	Mount Morrison	3.37	190	P	Pn	14 49 27.2	-0.3
CAW	Cannon Point	3.39	195	P	Pn	14 49 27.9	+0.1
MRW	Makara Radio	3.59	199	P	Pn	14 49 30.3	+0.1
PAWZ	Paruwai Farm	3.60	190	P	Pn	14 49 30.4	+0.2
WEL	Wellington	3.63	198	P	Pn	14 49 30.7	+0.1
MSWZ	Moikau Station	3.66	192	P	Pn	14 49 30.7	-0.2
SNZO	South Karori	3.67	199	P	Pn	14 49 30.8	-0.3
TCW	Tory Channel	3.70	204	P	Pn	14 49 31.4	-0.1
BHW	Baring Head	3.72	196	P	Pn	14 49 31.4	-0.3
NNZ	Nelson	4.04	213	P	Pn	14 49 35.6	0.0
QRZ	Quartz Range	4.16	223	P	Pn	14 49 36.8	-0.2
BSWZ	Blackbirch Sta	4.29	205	P	Pn	14 49 38.6	+0.1
THZ	Tophouse	4.70	212	P	Pn	14 49 43.7	+0.1
KHZ	Kahutara	5.03	204	P	Pn	14 49 47.3	-0.4
DSZ	Denniston Nort	5.20	220	P	Pn	14 49 48.8	-1.1
LTZ	Lake Taylor	5.80	210	P	Pn	14 49 56.7	-0.8
MQZ	McQueen’s Vall	6.47	204	P	Pn	14 50 04.9	-1.1
RPZ	Rata Peaks	7.08	212	P	Pn	14 50 10.8	-3.0
	0.3nm,0.3s,baz=30,slow=18,SNR=2.8						
RPZ				S	S	14 51 28.8	-5.9
	1.3nm,0.3s,baz=222,slow=23,SNR=10						
ODZ	Otahua Downs	8.34	209	P	Pn	14 50 30.0	0.0
STKA	Stephens Creek	28.95	271	P	P	14 54 13.0	+1.8
	4.4nm,1.0s,mb4.0,baz=106,slow=7.4,SNR=2.8						
CTAO	Charters Tower	31.47	296	*e*P	P	14 54 32.7	-0.7
	1.0nm,0.4s,mb3.8						
ASAR	Alice Springs	38.72	279	P	P	14 55 35.7	+0.5
	0.9nm,0.5s,mb3.6,baz=123,slow=7.8,SNR=40						
WRAB	Tennant Creek	40.42	284	*e*P	P	14 55 48.2	-1.1
	1.2nm,0.7s,mb3.4						
WRA	Warramunga Arr	40.42	284	P	P	14 55 49.4	+0.1
	0.2nm,0.3s,mb3.0,baz=129,slow=6.6,SNR=4.6						
QSPA	South Pole Qui	52.28	180	P	P	14 57 24.8	+4.3
	0.8nm,0.4s,mb3.5,baz=207,slow=3.8,SNR=30						
QSPA	South Pole Qui	52.28	180	*e*P	P	14 57 23.6	+3.1
	0.8nm,0.3s,mb3.6						

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*NEIC **22** 15:01:47.2±3.3, 17°.82S×178°.33W, h496^{km}±39^{km}, mb4.3/5, Error ellipse: s-maj=25.4km s-min=14.9km az=170.0*

*IDC **22** 15:01:50.7±3.2, 18°.03S×178°.22W, h533^{km}±37^{km}, mb3.4/10, mb1 3.7/11, mb1mx3.6/17, mbtmp3.4/11, Error ellipse: s-maj=22.6km s-min=14.9km az=163.0*

ISC 22 15:01:53.2±5.1**, 17°.9S**±0°.2×**178°.5W**±0°.2**, h552^{km}**±62^{km}**, n34, σ0^{s}.93**/27**, mb4.0**/17**, 1C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAR	Rarotonga	17.96	104	P	P	15 05 24.4	-6.3
	7.3nm,0.3s,baz=167,slow=14,SNR=5.9						
URZ	Urewera	20.67	190	P	P	15 05 54.0	-0.9
	16nm,1.0s,baz=307,slow=5.1,SNR=2.9						
ARMA	Armidale	29.88	240	*e*P	P	15 07 17.8	+1.4
CTA	Charters Tower	33.36	260	⇓*i*P	P	15 07 46.5	+0.2
	8.2nm,0.8s,mb4.3						
CTAO	Charters Tower	33.36	260	*e*P	P	15 07 43.1	-3.2
	15nm,1.0s,mb4.5						
CNB	Canberra Magne	33.37	232	*e*P	P	15 07 47.3	+1.1
TOO	Toolangi	37.12	231	*e*P	P	15 08 18.3	+1.1
STKA	Stephens Creek	38.56	241	⇓*i*P	P	15 08 30.2	+1.1
	14nm,0.5s,mb4.7						
STKA	Stephens Creek	38.56	241	P	P	15 08 30.2	+1.1
	18nm,0.5s,mb4.9,baz=92,slow=9.1,SNR=83						
WB2	Warramunga Arr	44.54	260	*e*P	P	15 09 15.5	-0.9
WRAB	Tennant Creek	44.54	260	*e*P	P	15 09 15.2	-1.2
	9.0nm,0.6s,mb4.5						
WRA	Warramunga Arr	44.55	260	P	P	15 09 15.9	-0.6
	8.1nm,0.4s,mb4.6,baz=95,slow=7.4,SNR=323						
WRA				PcP	PcP	15 10 47.6	-0.1
	1.1nm,0.4s,baz=97,slow=3.6,SNR=4.5						
ASAR	Alice Springs	44.71	254	P	P	15 09 17.9	+0.2
	59nm,0.5s,baz=88,slow=8.5,SNR=1911						
ASAR				PcP	PcP	15 10 47.8	-0.4
	2.1nm,0.6s,baz=108,slow=3.9,SNR=4.5						
KAKA	Kakadu	47.49	269	⇑*i*P	P	15 09 38.8	-0.1
	22nm,0.5s,mb5.0						
FORT	Forrest	49.94	245	*e*P	P	15 09 56.2	-0.6
	27nm,0.6s,mb4.8						
FITZ	Fitzroy Crossi	52.94	261	*e*P	P	15 10 18.3	-0.4
	8.3nm,1.5s,mb3.8						
MBWA	Marble Bar	57.99	256	*e*P	P	15 10 52.7	-1.1
	7.8nm,0.4s,mb4.3						
NWAO	Narrogin (SRO)	59.14	242	*e*P	P	15 11 01.1	-0.2
	4.4nm,0.7s,mb3.8						
MUN	Mundaring	60.06	243	*e*P	P	15 11 07.0	-0.4
MJAR	Matsushiro Arr	67.83	323	P	P	15 11 56.4	-0.2
	0.7nm,0.5s,mb3.5,baz=110,slow=10,SNR=5.5						
QSPA	South Pole Qui	72.18	180	*e*P	P	15 12 22.0	+0.3
	7.1nm,1.0s,mb4.0						
PETK	Petropavlovsk-	73.62	345	P	P	15 12 30.6	+0.3
	0.7nm,0.6s,mb3.3,baz=118,slow=8.6,SNR=3.3						
KSRS	Korea Array	74.62	318	P	P	15 12 37.8	+1.5
	0.6nm,0.6s,mb3.2,baz=134,slow=5.2,SNR=3.3						
NVAR	Mina Array Bea	79.46	44	P	P	15 13 03.0	+0.4
	1.2nm,0.7s,mb3.3,baz=226,slow=8.8,SNR=8.6						
PDAR	Pinedale Array	87.39	43	P	P	15 13 42.4	+0.5
	0.9nm,0.7s,mb3.5,baz=234,slow=3.8,SNR=9.2						
CMAR	Chiang Mai Arr	88.79	290	P	P	15 13 50.2	+1.2
	1.3nm,0.9s,mb3.8,baz=119,slow=2.7,SNR=9.6						
YKA	Yellowknife Ar	94.34	25	P	P	15 14 11.4	-2.0
	0.2nm,0.6s,mb3.5,baz=250,slow=5.0,SNR=3.4						
MKAR	Makanchi Array	109.05	314	PKiKP	PKiKP	15 19 18.8	-1.4
	0.3nm,0.5s,baz=171,slow=0.2,SNR=11						
KURK	Kurchatov	111.74	318	PKiKP	PKiKP	15 19 24.2	-1.1
	0.4nm,0.7s,baz=90,slow=1.2,SNR=3.8						
BVAR	Borovoye Array	116.76	321	PKP	PKPdf	15 19 33.5	-1.3
	0.8nm,0.4s,baz=140,slow=2.3,SNR=9.4						
BRTR	Keskin Array B	144.70	315	PKPbc	PKPdf	15 20 27.6	+0.1
	1.3nm,0.4s,baz=123,slow=4.0,SNR=9.2						
MMAI	Mount Meron Ar	146.05	303	PKPbc	PKPbc	15 20 31.3	-0.7
	2.7nm,0.6s,baz=76,slow=7.0,SNR=7.1						
GERES	GERESS Array B	147.56	345	PKPbc	PKPbc	15 20 35.4	-0.1
	1.5nm,0.6s,baz=29,slow=3.0,SNR=7.9						
TORD	Torodi Ar. Bea	175.29	182	PKPab	PKPab	15 22 40.1	-0.8
	0.3nm,0.8s,baz=170,slow=2.1,SNR=2.7						

DJA 22 15:09:20, 2°.99S×119°.61E, h80^{km}, MLv3.6/6**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TTSI	Tana Toraja	0.22	105	P	Pn	15 09 28.2	-3.6
TTSI				S	Sn	15 09 36.3	-4.3
BNSI	Bone	1.49	161	P	Pn	15 09 53.3	+8.1
PCI	Palu	2.08	6	P	Pn	15 09 51.1	-1.9
PCI				S	Sn	15 10 20.4	+2.2
APSI	Ampana	2.90	45	P	Pn	15 10 01.3	-2.7
KMSI	Cibinong	5.62	51	P	Pn	15 10 52.9	+12
	61nm,1.0s,0.2nm						
PLKI	Palangkaraya	5.71	278	P	Pn	15 10 41.1	-1.2

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*ISCJB **22** 15:18:45.4±0.4, 10°.38N±0°.04×62°.27W±0°.03, h20^{km}±6^{km}, Error ellipse: s-maj=7.2km s-min=4.2km az=177.1*

*FUNV **22** 15:18:45.9, 10°.36N×62°.31W, h1^{km}, MW3.0*

*NEIC **22** 15:18:49.7, 10°.95N×62°.01W, h33^{km}, MD3.0(TRN), After TRN.*

*TRN **22** 15:18:50.6, 10°.91N×61°.99W, h33^{km}, MD3.0*

ISC 22 15:18:45.7±0.6**, 10°.40N**±0°.04×**62°.26W**±0°.02**, h17^{km}**±5^{km}**, n17, σ1^{s}.16**/30**, 1C-3D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	Guiria	0.25	9	⇑*e*P	Pg	15 18 51.5	+0.1
GUIV				*e*S	Sg	15 18 56.2	+1.0
TCE	Chacachacare	0.58	59	*e*P	Pg	15 18 57.8	+0.6
TCE				*e*S	Sg	15 19 04.9	-0.1
GUNV	Guanoco	0.71	251	⇓*i*P	Pg	15 18 57.9	-1.8
GUNV				*e*S	Sg	15 19 08.7	-0.4
TRN	Trinidad (W)	0.88	74	*e*P	Pb	15 19 03.3	+0.8
TRN				*e*S	Sb	15 19 12.7	-1.3
CRUV	Carupano	1.00	286	⇓*i*P	Pb	15 19 02.5	-2.0

CRUV				*e*S	**Sb**	**15 19 15.9**	**-1.4**
TBH	**Brigand Hill**	**1.18**	**86**	*e*P	**Pn**	**15 19 09.1**	**+1.7**
TBH				*e*S	**Sb**	**15 19 20.9**	**-1.7**
ITEV	**Isla Los Testi**	**1.28**	**318**⇓	*e*P	**Pn**	**15 19 09.1**	**+0.3**
ITEV				*e*S	**Sb**	**15 19 27.0**	**+1.5**
TPR	**Prospect**	**1.65**	**62**	*e*P	**Pn**	**15 19 12.2**	**-1.8**
TPR				*e*S	**Sn**	**15 19 26.9**	**-8.0**
ORIV	**Oritupano**	**1.74**	**221**	*e*S	**Sn**	**15 19 38.8**	**+1.8**
PCRV	**Puerto La Cruz**	**2.35**	**265**	*e*P	**Pn**	**15 19 23.9**	**+0.4**
RIOV	**Rio Grande**	**2.36**	**169**	*e*P	**Pn**	**15 19 25.0**	**+1.3**
RIOV				*e*S	**Sn**	**15 19 53.3**	**+1.1**
GURV	**El Guri**	**2.75**	**197**	*e*P	**Pn**	**15 19 29.2**	**+0.2**
PRGV	**PARIAGUAN**	**2.86**	**235**	*e*P	**Pn**	**15 19 31.8**	**+1.3**
CUPV	**Cœpira**	**3.49**	**265**	*e*P	**Pn**	**15 19 40.0**	**+0.8**
CUPV				*e*S	**Sn**	**15 20 19.2**	**-0.9**
LUEV	**Luepa**	**4.60**	**170**	*e*P	**Pn**	**15 19 54.6**	**+0.2**
LUEV				*e*S	**Sn**	**15 20 46.1**	**-1.4**
CAOV	**Caicara del Or**	**5.04**	**233**	*e*P	**Pn**	**15 19 59.7**	**-0.9**
CAOV				*e*S	**Sn**	**15 20 54.5**	**-4.0**
BAUV	**El Baul**	**5.88**	**256**	*e*P	**Pn**	**15 20 12.3**	**+0.2**
BAUV				*e*S	**Sn**	**15 21 14.7**	**-4.5**

ATH ***22*** *15:19:18.4, 38.°25N×26.°72E, h57^{km}±6^{km}, MD3.5/3*

ISK ***22*** *15:19:18.7, 38.°23N×26.°57E, h14^{km}, MD2.7*

CSEM ***22*** *15:19:19.4±0.1, 38.°26N×26.°55E, h15^{km}, ML3.7/3, Error ellipse: s-maj=3.5km s-min=2.1km az=53.0*

ISCJB ***22*** *15:19:19.2±0.6, 38.°26N±0.°03×26.°52E±0.°04, h10^{km}±5^{km}, Error ellipse: s-maj=5.7km s-min=3.5km az=136.9*

DDA ***22*** *15:19:19.7, 38.°27N×26.°59E, h7^{km}±4^{km}, Md3.1, Ml3.2*

THE ***22*** *15:19:19.9, 38.°32N×26.°56E, h8^{km}±3^{km}, ML3.7/3, Error ellipse: s-maj=3.7km s-min=0.7km az=177.0*

ISC 22 15:19:19.6±0.5**, 38.°27N**±0.°03×**26.°53E**±0.°04**, h14**^{km}±4^{km}**, n44, σ0.^{s}77**/67**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOS	**Chios island**	**0.39**	**288**	P	**Pg**	**15 19 27.7**	**+0.3**
CHOS				S	**Sg**	**15 19 33.9**	**+1.2**
CHOS	**Chios island**	**0.39**	**288**	P	**Pg**	**15 19 27.7**	**+0.3**
CHOS				S	**Sg**	**15 19 33.9**	**+1.2**
BLCB	**Balcova**	**0.42**	**73**	*e*PG	**Pg**	**15 19 27.4**	**-0.7**
BLCB				*e*SG	**Sg**	**15 19 33.3**	**-0.4**
BLCB	**Balcova**	**0.42**	**73**	P	**Pg**	**15 19 27.6**	**-0.4**
BLCB				S	**Sg**	**15 19 33.3**	**-0.5**
BLCB	**Balcova**	**0.42**	**73**	*e*Pg	**Pg**	**15 19 27.4**	**-0.6**
BLCB				*e*Sg	**Sg**	**15 19 33.3**	**-0.5**
IZM	**Izmir**	**0.59**	**77**	*e*PG	**Pg**	**15 19 30.7**	**-0.5**
IZM	**Izmir**	**0.59**	**77**	*e*Pg	**Pg**	**15 19 30.7**	**-0.5**
SMG	**Samos**	**0.61**	**156**	*e*P	**Pg**	**15 19 31.1**	**-0.3**
SMG				*e*S	**Sg**	**15 19 40.8**	**+1.3**
SMG	**Samos**	**0.61**	**156**	*e*P	**Pg**	**15 19 31.1**	**-0.3**
SMG				*e*S	**Sg**	**15 19 40.8**	**+1.3**
GCAM	**G?zelcaml?**	**0.80**	**135**	*i* P	**Pg**	**15 19 34.4**	**-0.5**
GCAM				*i* S	**Sg**	**15 19 45.6**	**+0.2**
GCAM	**G?zelcaml?**	**0.80**	**135**	*i* P	**Pg**	**15 19 34.4**	**-0.6**
GCAM				*i* S	**Sg**	**15 19 45.6**	**+0.2**
PRK	**Paraskevi**	**1.00**	**349**	P	**Pb**	**15 19 38.1**	**-0.5**
PRK				S	**Sb**	**15 19 51.9**	**+0.3**
PRK	**Paraskevi**	**1.00**	**349**	*e*P	**Pb**	**15 19 38.2**	**-0.4**
PRK				*e*S	**Sb**	**15 19 52.1**	**+0.5**
PRK	**Paraskevi**	**1.00**	**349**	*e*P	**Pb**	**15 19 38.2**	**-0.4**
PRK				S	**Sb**	**15 19 51.9**	**+0.3**
AYVA	**Ayvalik**	**1.05**	**7**	*i* P	**Pb**	**15 19 38.9**	**-0.6**
AYVA				*i* S	**Sb**	**15 19 54.4**	**+1.3**
AYVA	**Ayvalik**	**1.05**	**7**	*i* P	**Pb**	**15 19 38.9**	**-0.6**
AYVA				*i* S	**Sb**	**15 19 54.3**	**+1.2**
SIGR	**SIGRI**	**1.08**	**331**	P	**Pb**	**15 19 39.5**	**-0.5**
SIGR				S	**Sb**	**15 19 53.8**	**-0.1**
SIGR	**SIGRI**	**1.08**	**331**	P	**Pb**	**15 19 39.5**	**-0.5**
SIGR				S	**Sb**	**15 19 53.8**	**-0.1**
AKS	**Akhisar**	**1.18**	**58**	*e*PN	**Pn**	**15 19 40.6**	**-1.0**
AKS	**Akhisar**	**1.18**	**58**	*e*Pn	**Pn**	**15 19 40.7**	**-0.9**
AKHS	**Akhisar**	**1.18**	**58**	*i* P	**Pn**	**15 19 40.8**	**-0.9**
AKHS				*i* S	**Sb**	**15 19 57.6**	**+0.7**
AKHS	**Akhisar**	**1.18**	**58**	*i* P	**Pn**	**15 19 40.8**	**-0.8**
AYDN	**Tasoluk**	**1.23**	**119**	*i* P	**Pn**	**15 19 43.0**	**+0.7**
AYDN				*i* S	**Sb**	**15 19 58.5**	**+0.3**
AYDN	**Tasoluk**	**1.23**	**119**	*i* P	**Pn**	**15 19 43.0**	**+0.8**
AYDN				*i* S	**Sb**	**15 19 58.5**	**+0.3**
BODT	**Bodrum**	**1.35**	**152**	*e*PN	**Pn**	**15 19 42.9**	**-1.1**
BODT	**Bodrum**	**1.35**	**152**	*e*Pn	**Pn**	**15 19 42.9**	**-1.1**
MLSB	**Milas**	**1.39**	**134**	*e*PN	**Pn**	**15 19 43.7**	**-0.7**
MLSB	**Milas**	**1.39**	**134**	*e*Pn	**Pn**	**15 19 43.7**	**-0.7**
MANT	**Manisa**	**1.61**	**81**	*i* P	**Pn**	**15 19 49.9**	**+2.3**
MANT				*i* S	**Sn**	**15 20 09.5**	**+1.4**
MANT	**Manisa**	**1.61**	**81**	*i* P	**Pn**	**15 19 49.9**	**+2.4**
BOZC	**Bozcaada**	**1.62**	**347**	*i* P	**Pn**	**15 19 46.9**	**-0.7**
KULA	**Kula-Manisa**	**1.70**	**81**	*e*PN	**Pn**	**15 19 48.1**	**-0.6**
KULA	**Kula-Manisa**	**1.70**	**81**	*e*Pn	**Pn**	**15 19 48.1**	**-0.6**
BALY	**Balya**	**1.70**	**30**	*i* P	**Pn**	**15 19 48.5**	**-0.3**
BALY				*i* S	**Sn**	**15 20 15.8**	**+5.5**
BALY	**Balya**	**1.70**	**30**	*i* P	**Pn**	**15 19 48.5**	**-0.3**
BALB	**Balikesir**	**1.73**	**37**	*e*PN	**Pn**	**15 19 49.7**	**+0.5**
BALB	**Balikesir**	**1.73**	**37**	*e*Pn	**Pn**	**15 19 49.7**	**+0.5**
YER	**Yerkesik**	**1.79**	**128**	*e*PN	**Pn**	**15 19 49.6**	**-0.4**
YER	**Yerkesik**	**1.79**	**128**	*e*Pn	**Pn**	**15 19 49.6**	**-0.4**
LIA	**Limnos Island**	**1.94**	**328**	P	**Pn**	**15 19 51.6**	**-0.4**
LIA	**Limnos Island**	**1.94**	**328**	*e*P	**Pn**	**15 19 51.9**	**-0.1**
LIA				*e*S	**Sn**	**15 20 15.9**	**-0.2**
LIA	**Limnos Island**	**1.94**	**328**	*e*P	**Pn**	**15 19 51.9**	**-0.1**
LIA				*e*S	**Sn**	**15 20 15.9**	**-0.2**
DST	**Dursunbey**	**2.12**	**50**	*e*PN	**Pn**	**15 19 54.6**	**+0.1**
DST	**Dursunbey**	**2.12**	**50**	*e*Pn	**Pn**	**15 19 54.6**	**+0.1**

IDC ***22*** *15:26:46.2±0.4, 20.°97S×174.°48W, h0^{km}, mb4.8/22, mb1 4.9/23, mb1mx4.9/26, mbtmp4.8/23, ML4.6/1, MS4.3/19, Ms1 4.3/19, ms1mx4.2/25, Error ellipse: s-maj=18.4km s-min=13.2km az=132.0*

ISCJB ***22*** *15:26:49.6±0.2, 21.°09S±0.°05×174.°49W±0.°05, h33^{km}, mb5.0/81, MS4.5/31, Error ellipse: s-maj=7.9km s-min=4.9km az=135.4*

SZGRF ***22*** *15:26:49.3, 21.°90S×174.°48W, h33^{km}, Tonga Islands*

BJI ***22*** *15:26:50.5, 20.°83S×174.°08W, h41^{km}, mB5.5/25, mb5.1/40, Ms5.3/24, Ms7 4.9/24*

NEIC ***22*** *15:26:51.4±0.2, 20.°99S×174.°53W, h35^{km}, mb5.1/44, MS5.1/1, Error ellipse: s-maj=9.0km s-min=5.1km az=144.0*

GCMT ***22*** *15:26:51.4±0.2, 21.°12S×173.°79W, h28^{km}, MW5.1/65, Moment Tensor Solution. s41,c63; s65,c103; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.83±.20; $M_{\theta\theta}$0.43±.14; $M_{\phi\phi}$-4.27±.14; $M_{r\theta}$2.52±.31; $M_{\theta\phi}$-1.99±.10; $M_{\phi r}$3.11±.22; Best double couple: $M_0$5.99800×10^{16} NP1:ϕ_s181.00000°, δ27.00000°, λ60.00000°. NP2: ϕ_s35.00000°, δ67.00000°, λ104.00000°. Principal axes: T 5.5690, Plg65.0000°, Azm330.0000°; N 0.8540, Plg13.0000°, Azm209.0000°; P -6.4280, Plg21.0000°, Azm114.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

DJA ***22*** *15:26:51, 21.°24S×174.°90W, h10^{km}, mb5.5/12*

BGS ***22*** *15:26:52.1±4.6, 20.°99S×174.°53W, h33^{km}, mb5.1(NEIC)*

MOS ***22*** *15:26:53.6±3.1, 20.°61S×174.°77W, h37^{km}, mb5.3/18, Error ellipse: s-maj=12.2km s-min=10.7km az=84.5*

ISC 22 15:26:46.2±5.2**, 21.°04S**±0.°05×**174.°44W**±0.°05**, h1**^{km}±31^{km}**, n316, σ1.^{s}01**/138**, mb5.1**/81**, MS4.5**/31**, 28C-15D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**8.76**	**200**	Sn	**Sn**	**15 30 32.6**	**-0.8**
	101nm,0.3s,baz=224,slow=23,SNR=7.0						
RAR	**Rarotonga**	**13.69**	**93**	Pn	**Pn**	**15 29 52.7**	**-8.9**
	37nm,0.3s,baz=248,slow=10,SNR=24						
RAR				Sn	Sn	15 32 09.5	-25
	4.5nm,0.3s,baz=347,slow=22,SNR=4.5						
DZM	**Mont Dzumac**	**17.81**	**263**	*e*Pn	**Pn**	**15 30 58.3**	**+2.7**
	26nm,0.6s						
NOUC	**Port Laguerre**	**17.94**	**263**	*e*P	**Pn**	**15 31 01.1**	**+4.0**
URZ	**Urewera**	**18.65**	**201**	P	**Pn**	**15 31 06.2**	**+0.6**
	2.0nm,0.3s,baz=88,slow=1.5,SNR=9.4						
URZ				S	**Sn**	**15 34 16.5**	**-18**
	0.5nm,0.3s,baz=332,slow=18,SNR=2.9						
URZ				LR	LR	15 37 43.9	
	comp=Z,867nm,19.8s,baz=13,slow=35						
KHZ	**Kahutara**	**23.59**	**203**	*e*P	**P**	**15 31 57.3**	**-1.3**
	22nm,0.4s,mb5.0						
PPT	**Papeete**	**23.71**	**86**	*e*LQ		15 36 22.6	
	1μm,27.2s						
PPT				*e*LR	LR	15 37 35.9	
	2μm,26.2s,baz=261						
PPT	**Papeete**	**23.71**	**86**	LR	LR	15 38 36.3	
	comp=Z,784nm,21.1s,MS4.2,baz=82,slow=30						
TVO	**Taravao**	**23.97**	**87**	*e*P	**P**	**15 32 01.7**	**-0.7**
	97nm,0.9s,mb5.3						
RPZ	**Rata Peaks**	**25.64**	**205**	P	**P**	**15 32 18.1**	**+0.8**
	20nm,0.5s,mb5.0,baz=254,slow=1.0,SNR=22						
RPZ	**Rata Peaks**	**25.64**	**205**	*e*P	**P**	**15 32 18.0**	**+0.7**
	45nm,0.8s,mb5.2						
PMOR	**Pomariorio Ree**	**25.93**	**81**	*e*P	**P**	**15 32 18.6**	**-1.7**
	55nm,1.2s,mb5.1						
HNR	**Honiara**	**27.23**	**291**	P	**P**	**15 32 31.3**	**-0.6**
	53nm,0.7s,mb5.4,baz=222,slow=6.7,SNR=6.1						
HNR				LR	LR	15 41 32.3	
	comp=Z,704nm,21.6s,MS4.2,baz=301,slow=33						
ARMA	**Armidale**	**31.86**	**246**	*e*P	**P**	**15 33 14.3**	**+1.3**
EIDS	**Eidsvold**	**31.92**	**256**	*e*P	**P**	**15 33 13.9**	**+0.3**
	11nm,0.8s,mb4.8						
TAOE	**Nuku Hiva Isla**	**35.19**	**75**	*e*LR	LR	15 42 50.1	
	3μm,27.0s						
RKT	**Rikitea**	**36.56**	**101**	*e*LR	LR	15 43 34.5	
	1μm,27.0s,baz=269						
CTA	**Charters Tower**	**36.75**	**264**	*e*P	**P**	**15 33 54.8**	**-0.7**
	6.7nm,0.6s,mb4.5						
CTAO	**Charters Tower**	**36.75**	**264**	*e*P	**P**	**15 33 55.1**	**-0.4**
CTAO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
CTAO	**Charters Tower**	**36.75**	**264**	*e*P	**P**	**15 33 55.1**	**-0.4**
	comp=Z,10nm,0.8s,mb4.6						
TOO	**Toolangi**	**38.30**	**236**	*e*P	**P**	**15 34 09.6**	**+1.1**
STKA	**Stephens Creek**	**40.57**	**245**	*e*P	**P**	**15 34 27.0**	**-0.5**
	comp=Z,5.0nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**40.57**	**245**	P	**P**	**15 34 27.0**	**-0.4**
	comp=Z,4.9nm,0.6s,mb4.4,baz=85,slow=10.0,SNR=18						
STKA				LR	LR	15 50 59.4	
	comp=Z,690nm,18.2s,MS4.5,baz=64,slow=36						
STKA	**Stephens Creek**	**40.57**	**245**	P	**P**	**15 34 27.0**	**-0.4**
STKA				LR	LR	15 50 59.4	
COEN	**Coen**	**40.94**	**273**	*e*P	**P**	**15 34 30.8**	**+0.1**
	comp=Z,142nm,0.8s,mb5.8						
ASAR	**Alice Springs**	**47.63**	**257**	P	**P**	**15 35 23.1**	**-1.2**
	comp=Z,28nm,0.7s,mb5.5,baz=102,slow=7.9,SNR=311						
ASAR				PcP	PcP	15 36 53.8	-0.3
	comp=Z,5.2nm,0.9s,baz=103,slow=4.6,SNR=4.9						
WB2	**Warramunga Arr**	**47.81**	**262**	*e*P	**P**	**15 35 23.6**	**-2.1**
WRAB	**Tennant Creek**	**47.81**	**262**	P	**P**	**15 35 24.0**	**-1.7**
	comp=Z,96nm,0.7s,mb6.0,SNR=9.8						
WRAB	**Tennant Creek**	**47.81**	**262**	*e*P	**P**	**15 35 25.0**	**-0.7**
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
WRAB	**Tennant Creek**	**47.81**	**262**	*e*P	**P**	**15 35 25.0**	**-0.7**
	comp=Z,12nm,0.8s,mb5.1						
WRA	**Warramunga Arr**	**47.82**	**262**	P	**P**	**15 35 24.8**	**-1.0**
WRA						15 36 54.3	
WRA	**Warramunga Arr**	**47.82**	**262**	P	**P**	**15 35 24.8**	**-1.0**
	comp=Z,11nm,0.6s,mb5.1,baz=97,slow=8.7,SNR=59						
WRA				PcP	PcP	15 36 54.3	-0.5
	comp=Z,6.3nm,0.9s,baz=92,slow=3.9,SNR=5.7						
WRA				LR	LR	15 55 20.6	
	comp=Z,542nm,18.1s,MS4.6,baz=85,slow=36						
KAKA	**Kakadu**	**51.31**	**270**	*e*P	**P**	**15 35 50.6**	**-1.9**
	comp=Z,38nm,1.2s,mb5.2						
KAKA	**Kakadu**	**51.31**	**270**	*e*P	**P**	**15 35 50.4**	**-2.1**
FORT	**Forrest**	**52.14**	**247**	*e*P	**P**	**15 35 55.7**	**-2.8**
	comp=Z,33nm,0.6s,mb5.4						
FORT	**Forrest**	**52.14**	**247**	*e*P	**P**	**15 35 56.8**	**-1.7**
	comp=Z,65nm,1.0s,mb5.5						
GUMO	**Guam**	**52.74**	**307**	*e*P	**P**	**15 36 02.5**	**-0.6**
GUMO				pmax	pmax		
	comp=Z,1μm,2.0s						
GUMO	**Guam**	**52.74**	**307**	*e*P	**P**	**15 36 02.5**	**-0.6**
	comp=Z,1μm,2.0s						
FITZ	**Fitzroy Crossi**	**56.25**	**262**	*e*P	**P**	**15 36 27.0**	**-1.7**
	comp=Z,16nm,1.4s,mb4.9						
VNDA	**Vanda**	**57.69**	**186**	P	**P**	**15 36 39.9**	**+1.9**
	comp=Z,5.5nm,1.0s,mb4.5,baz=33,slow=4.6,SNR=3.6						
VNDA				LR	LR	15 57 38.4	
	comp=Z,115nm,20.3s,MS4.0,baz=16,slow=32						
MBWA	**Marble Bar**	**60.98**	**257**	*e*P	**P**	**15 37 00.5**	**-1.1**
	comp=Z,118nm,1.5s,mb5.8						
NWAO	**Narrogin (SRO)**	**61.10**	**243**	*e*P	**P**	**15 37 02.2**	**-0.1**
NWAO				pmax	pmax		
	comp=Z,32nm,1.3s						
NWAO	**Narrogin (SRO)**	**61.10**	**243**	*e*P	**P**	**15 37 02.2**	**0.0**
	comp=Z,32nm,1.3s,mb5.3						
MUN	**Mundaring**	**62.09**	**244**	*e*P	**P**	**15 37 09.2**	**+0.2**
CASY	**Casey**	**64.91**	**206**	*e*P	**P**	**15 37 27.7**	**+0.7**
	comp=Z,39nm,1.1s,mb5.5						
DAV	**Davao City (W)**	**65.15**	**289**	LR	LR	16 04 18.9	
	comp=Z,203nm,18.3s,MS4.3,baz=167,slow=35						
QSPA	**South Pole Qui**	**69.03**	**180**	*e*P	**P**	**15 37 53.0**	**0.0**
	comp=Z,23nm,1.0s,mb5.4						
QSPA				*e*P		15 37 53.8	
MJAR	**Matsushiro Arr**	**72.66**	**322**	P	**P**	**15 38 15.2**	**-0.4**
	comp=Z,26nm,0.8s,mb5.4,baz=160,slow=5.9,SNR=70						
MJAR				LR	LR	16 10 18.0	
	comp=Z,127nm,18.5s,MS4.2,baz=275,slow=36						
MAJO	**Matsushiro**	**72.66**	**322**	*e*P	**P**	**15 38 15.5**	**-0.2**
MAJO				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.6						
MAJO	**Matsushiro**	**72.66**	**322**	*e*P	**P**	**15 38 15.5**	**-0.2**
	comp=Z,39nm,0.8s,mb5.6						
MAT	**Matsushiro**	**72.66**	**322**	P	**P**	**15 38 15.3**	**-0.4**
KSM	**Kuching**	**76.78**	**277**	*e*P	**P**	**15 38 40.1**	**-0.1**
	comp=Z,22nm,0.9s,mb5.3						
SSLB	**Suanglung**	**77.07**	**302**	*e*P	**P**	**15 38 39.7**	**-1.8**
	comp=Z,15nm,0.8s,mb5.2						
TPUB	**Ta-pu**	**77.08**	**301**	*e*P	**P**	**15 38 38.6**	**-2.9**
	comp=Z,49nm,0.8s,mb5.7						
PET	**Petropavlovsk**	**77.37**	**344**	*e*P	**P**	**15 38 44.7**	**+2.2**
PET				*e*		15 48 35.4	
PET				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.2						
PFO	**Pinyon Flat Ob**	**77.49**	**46**	P	**P**	**15 38 43.0**	**-0.7**
	comp=Z,6.1nm,0.9s,mb4.7,baz=337,slow=11,SNR=5.3						
CMB	**Columbia Colle**	**77.64**	**41**	*e*P	**P**	**15 38 45.0**	**+0.6**
CMB				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
CMB	**Columbia Colle**	**77.64**	**41**	*e*P	**P**	**15 38 45.0**	**+0.6**
	comp=Z,8.0nm,0.9s,mb4.8						
PEA0B	**Petropavlovsk-**	**77.69**	**343**	*e*P	**P**	**15 38 43.4**	**-0.9**
PETK	**Petropavlovsk-**	**77.69**	**343**	P	**P**	**15 38 43.8**	**-0.5**
	comp=Z,14nm,0.8s,mb5.2,baz=124,slow=8.6,SNR=26						
PETK				LR	LR	16 06 38.5	
	comp=Z,200nm,20.5s,MS4.4,baz=150,slow=31						
YSS	**Yuzh-Sakhalins**	**77.91**	**332**	*e*P	**P**	**15 38 46.0**	**+0.3**
YSS				*e*		15 38 56.0	
YSS				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.6						
YSS	**Yuzh-Sakhalins**	**77.91**	**332**	*e*P	**P**	**15 38 46.3**	**+0.6**
	comp=Z,44nm,1.0s,mb5.5						
YBH	**Yreka Blue Hor**	**78.68**	**37**	P	**P**	**15 38 50.1**	**+0.1**
	comp=Z,3.3nm,1.0s,mb4.3,baz=21,slow=9.4,SNR=2.3						
NVAR	**Mina Array Bea**	**79.17**	**42**	P	**P**	**15 38 53.2**	**+0.4**
	comp=Z,6.6nm,0.8s,mb4.7,baz=224,slow=9.5,SNR=29						
NVAR	**Mina Array Bea**	**79.17**	**42**	P	**P**	**15 38 53.2**	**+0.4**
LDFC	**Landfair**	**79.25**	**46**	*e*P	**P**	**15 38 54.1**	**+0.7**
KSRS	**Korea Array**	**79.53**	**317**	P	**P**	**15 38 56.2**	**+1.5**
	comp=Z,14nm,0.9s,mb4.9,baz=134,slow=6.0,SNR=24						
KSRS				LR	LR	16 08 48.3	
	comp=Z,155nm,20.1s,MS4.3,baz=320,slow=32						
MOD	**Modoc**	**80.15**	**38**	*e*P	**P**	**15 38 58.3**	**+0.2**
	comp=Z,11nm,1.0s,mb4.7						
KDAK	**Kodiak Island**	**80.62**	**12**	P	**P**	**15 39 01.4**	**+1.2**
	comp=Z,7.2nm,0.9s,mb4.7,baz=270,slow=3.0,SNR=2.8						
TUC	**Tucson**	**80.73**	**50**	*e*P	**P**	**15 39 01.5**	**+0.1**
TUC				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.7						
TUC	**Tucson**	**80.73**	**50**	*e*P	**P**	**15 39 01.5**	**+0.1**
	comp=Z,11nm,1.4s,mb4.7						
WVOR	**Wild Horse Val**	**81.45**	**38**	*e*P	**P**	**15 39 03.1**	**-1.9**
WVOR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
WVOR	**Wild Horse Val**	**81.45**	**38**	*e*P	**P**	**15 39 03.1**	**-1.9**
	comp=Z,8.6nm,1.0s,mb4.7						
MAW	**Mawson**	**82.16**	**199**	P	**P**	**15 39 09.0**	**+0.5**
	comp=Z,29nm,1.1s,mb5.3,baz=153,slow=4.5,SNR=3.3						
MAW				LR	LR	16 13 27.7	
	comp=Z,211nm,18.8s,MS4.5,baz=121,slow=34						
HABR	**Khabarovsk**	**82.59**	**329**	*e*P	**P**	**15 39 09.8**	**-1.1**
HABR				*e**PP		15 39 19.8	
HABR				S	S	15 49 24.7	-4.2
HABR				SS	SS	15 54 46.3	-4.8
HABR				SSS		15 58 15.5	
HABR				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.5						
HABR				MLR	MLR		
	comp=Z,159nm,19.0s,MS4.4						
NJ2	**Nanjing**	**82.81**	**308**	*e*P	**P**	**15 39 13.3**	**+0.9**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.2						
MDJ	**Mudanjiang**	**82.90**	**323**	P	**P**	**15 39 13.5**	**+0.9**
MDJ				pP		15 39 22.8	
MDJ				pmax	pmax		
	comp=Z,20nm,2.2s,mb5.0						
MDJ				pmax	pmax		
	comp=Z,170nm,5.4s						
MDJ				LR	LR		
	comp=N,98nm,22.1s,MS4.3						
MDJ				LR	LR		
	comp=E,130nm,22.1s,MS4.3						
MDJ				LR	LR		
	comp=Z,200nm,22.1s,MS4.4						
MSU	**Marysvale**	**83.13**	**44**	*e*P	**P**	**15 39 15.4**	**+1.5**
DUG	**Dugway**	**83.66**	**43**	*e*PP	PP	15 42 29.1	-0.5
BMO	**Blue Mountains**	**83.70**	**37**	*e*P	**P**	**15 39 16.3**	**-0.4**
	comp=Z,28nm,1.8s,mb5.2						
ETW	**Entiat**	**83.81**	**33**	*e*P	**P**	**15 39 17.4**	**+0.2**
TMUT	**Trail Mountain**	**84.19**	**44**	*e*P	**P**	**15 39 20.6**	**+1.3**
	comp=Z,22nm,1.1s,mb5.3						
SPUT	**South Promonto**	**84.51**	**42**	*e*PP	PP	15 42 29.7	-6.8
SRU	**San Rafael**	**84.53**	**45**	*e*P	**P**	**15 39 21.4**	**+0.3**
SRU				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.1						
SRU	**San Rafael**	**84.53**	**45**	*e*P	**P**	**15 39 21.4**	**+0.3**
	comp=Z,11nm,0.8s,mb5.2						
GAMB	**Gambell**	**84.56**	**1**	*e*P	**P**	**15 39 19.6**	**-1.0**
	comp=Z,22nm,1.4s,mb5.2						
HVU	**Hansel Valley**	**84.57**	**41**	*e*P	**P**	**15 39 21.5**	**+0.3**
HVU				pmax	pmax		
	comp=Z,16nm,0.4s,mb5.6						
HVU	**Hansel Valley**	**84.57**	**41**	*e*P	**P**	**15 39 21.5**	**+0.3**
	comp=Z,16nm,0.4s,mb5.6						
HLID	**Hailey**	**84.60**	**39**	*e*P	**P**	**15 39 21.6**	**+0.3**
	comp=Z,7.3nm,0.9s,mb4.9						
HLID				*e*PP	PP	15 42 43.5	+6.2
BNM	**Barren Site**	**84.66**	**50**	*e*P	**P**	**15 39 22.1**	**+0.3**
	comp=Z,28nm,1.7s,mb5.2						
KLR	**Kul'dur**	**84.72**	**328**	*e*P	**P**	**15 39 17.8**	**-4.0**
LPM	**Los Pinos Moun**	**84.74**	**50**	*e*P	**P**	**15 39 23.0**	**+0.7**
CN2	**Changchun**	**84.79**	**321**	⇑P	**P**	**15 39 23.0**	**+0.7**
CN2				*e*sP	sP	15 39 37.4	+15
CN2				*e*S	S	15 49 48.3	-3.0
CN2				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.2						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,900nm,20.0s,MS5.2						
CN2				LR	LR		
	comp=E,500nm,20.0s,MS5.2						
CN2				LR	LR		
	comp=Z,400nm,21.0s,MS4.8						
TTA	**Tatalina**	**84.95**	**8**	*e*P	**P**	**15 39 22.7**	**+0.1**
ANMO	**Albuquerque**	**85.18**	**50**	P	**P**	**15 39 25.1**	**+0.6**
	comp=Z,3.6nm,0.8s,mb4.6,baz=202,slow=4.0,SNR=8.6						
PV01	**Paradox Valley**	**85.32**	**46**	*e*P	**P**	**15 39 25.1**	**0.0**
GDL2	**Guadalupe Moun**	**85.38**	**53**	*e*P	**P**	**15 39 28.1**	**+2.5**
WHN	**Wuhan**	**85.46**	**305**	*e*P	**P**	**15 39 27.0**	**+1.0**
MCMT	**McKenzie Canyo**	**86.25**	**39**	*e*P	**P**	**15 39 29.0**	**-0.5**
	comp=Z,3.1nm,1.0s,mb4.4						
KTH	**Kantishna Hill**	**86.31**	**10**	*e*P	**P**	**15 39 27.4**	**-1.9**
	comp=Z,8.3nm,0.8s,mb4.9						
TRF	**Thorofare Moun**	**86.32**	**11**	*e*P	**P**	**15 39 28.4**	**-1.0**
	comp=Z,20nm,0.7s,mb5.4						
PLCA	**Paso Flores**	**86.47**	**132**	P	**P**	**15 39 31.1**	**+0.2**
	comp=Z,2.1nm,0.9s,mb4.3,baz=239,slow=9.2,SNR=3.7						
PLCA				LR	LR	16 08 44.4	
	comp=Z,219nm,20.2s,MS4.5,baz=220,slow=29						
TNA	**Tin City**	**86.47**	**3**	*e*P	**P**	**15 39 29.6**	**-0.6**
	comp=Z,4.8nm,0.7s,mb4.7						
REDW	**Red Top Meadow**	**86.63**	**41**	*e*P	**P**	**15 39 30.8**	**-0.6**
	comp=Z,8.6nm,1.3s,mb4.8						
CMIG	**Matias Romero**	**86.69**	**70**	P	**P**	**15 39 31.3**	**-1.0**
	comp=Z,1.7nm,0.8s,mb4.3,baz=225,slow=10.0,SNR=2.4						
MCK	**McKinley**	**86.82**	**11**	*e*P	**P**	**15 39 31.2**	**-0.7**
MCK				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.5						
MCK	**McKinley**	**86.82**	**11**	*e*P	**P**	**15 39 31.2**	**-0.7**
	comp=Z,31nm,0.9s,mb5.5						
IMW	**Indian Meadow**	**86.87**	**40**	*e*P	**P**	**15 39 32.9**	**+0.4**
	comp=Z,30nm,2.2s,mb5.1						
BSMT	**Bassoo Peak**	**86.90**	**36**	*e*P	**P**	**15 39 34.1**	**+1.4**
BW06	**Boulder Array**	**87.11**	**42**	*e*P	**P**	**15 39 33.2**	**-0.5**
	comp=Z,3.4nm,0.9s,mb4.6						
PDAR	**Pinedale Array**	**87.11**	**42**	P	**P**	**15 39 33.1**	**-0.6**
	comp=Z,2.5nm,0.8s,mb4.5,baz=212,slow=3.5,SNR=19						
PDAR				LR	LR	16 16 05.4	
	comp=Z,178nm,18.2s,MS4.5,baz=77,slow=34						
MENT	**Mentasta**	**87.14**	**14**	*e*P	**P**	**15 39 32.4**	**-1.1**
DLBC	**Dease Lake**	**87.28**	**22**	P	**P**	**15 39 34.7**	**+0.5**
	comp=Z,3.7nm,0.9s,mb4.6,baz=224,slow=8.1,SNR=5.4						
VNA3	**Neumayer Olymp**	**87.35**	**175**	*e*P	**P**	**15 39 35.3**	**+0.7**
BOZ	**Bozeman (W)**	**87.42**	**39**	*e*P	**P**	**15 39 35.1**	**-0.1**
BOZ				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.9						
BOZ	**Bozeman (W)**	**87.42**	**39**	*e*P	**P**	**15 39 35.1**	**-0.2**
	comp=Z,6.9nm,0.8s,mb4.9						
SEY	**Seymchan**	**87.69**	**345**	*e*P	**P**	**15 39 35.7**	**-0.4**
VNA2	**Neumayer--Watz**	**87.83**	**176**	*e*P	**P**	**15 39 36.6**	**-0.3**
PSI	**Prapat**	**87.85**	**274**⇑	*e*P	**P**	**15 39 37.6**	**-0.5**
HRY	**Holter Researc**	**87.90**	**38**	*e*P	**P**	**15 39 34.7**	**-2.8**
	comp=Z,1.8nm,0.6s,mb4.6						
COLA	**College**	**88.06**	**11**	*e*P	**P**	**15 39 37.0**	**-0.8**
COLA				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.3						
COLA	**College**	**88.06**	**11**	*e*P	**P**	**15 39 37.0**	**-0.8**
	comp=Z,17nm,1.1s,mb5.3						
WALA	**Waterton Lakes**	**88.08**	**35**	*e*P	**P**	**15 39 38.4**	**0.0**
	comp=Z,0.6nm,1.5s						
IMA2	**Indian Mountai**	**88.26**	**8**	*e*P	**P**	**15 39 37.6**	**-1.2**
BJI	**Beijing**	**88.64**	**314**	P	**P**	**15 39 42.3**	**+1.1**
BJI				sP	sP	15 39 55.4	+14
BJI				PP	PP	15 43 09.8	-0.1
BJI				S	S	15 50 26.3	-2.5
BJI				sS	sS	15 50 43.5	+14
BJI				SS	SS	15 56 20.5	+0.1
BJI				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.3						
BJI				LR	LR		
	comp=Z,140nm,21.1s,MS4.3						
DAWY	**Dawson**	**89.10**	**15**	*e*P	**P**	**15 39 42.7**	**-0.1**
EGAK	**Eagle**	**89.31**	**14**	*e*P	**P**	**15 39 43.9**	**+0.2**
	comp=Z,16nm,1.1s,mb5.2						
GYA	**Guiyang**	**89.82**	**298**	P	**P**	**15 39 48.1**	**+1.0**
GYA				pP		15 39 58.8	
GYA				sP	sP	15 40 02.6	+15
GYA				PP	PP	15 43 23.8	+4.1
GYA				SKS		15 50 14.4	
GYA				S	S	15 50 36.1	-4.4
GYA				SS	SS	15 56 38.8	+0.7
GYA				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
GYA				pmax	pmax		
	comp=Z,120nm,9.0s						
GYA				LR	LR		
	comp=N,280nm,19.2s,MS4.8						
GYA				LR	LR		
	comp=E,240nm,20.0s,MS4.8						
GYA				LR	LR		
	comp=Z,410nm,20.4s,MS4.8						
BILL	**Bilibino**	**89.95**	**353**	*e*P	**P**	**15 39 46.4**	**-0.2**
BILL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.6						
BILL	**Bilibino**	**89.95**	**353**	*e*P	**P**	**15 39 46.4**	**-0.3**
	comp=Z,3.2nm,0.8s,mb4.6						
EDM	**Edmonton**	**90.78**	**32**	*e*P	**P**	**15 39 51.2**	**+0.3**
XAN	**Xi'an**	**91.12**	**306**	P	**P**	**15 39 54.1**	**+1.2**
XAN				pP		15 40 03.0	
XAN				PP	PP	15 43 30.3	+0.4
XAN				S	S	15 50 49.8	-2.4
XAN				sS	sS	15 51 06.3	+14
XAN				SS	SS	15 56 56.1	-0.6
XAN				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.8						
XAN				pmax	pmax		
	comp=Z,120nm,5.1s						
XAN				LR	LR		
	comp=N,97nm,18.8s,MS4.7						

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XAN                                  LR       LR
      comp=E,200nm,16.5s,MS4.7
XAN                                  LR       LR
      comp=Z,200nm,19.2s,MS4.6
HHC   Hu-ho-hao-te      92.13 313   eP        P       15 39 58.6 +1.2
HHC                                  pP               15 40 09.0
HHC                                  sP       sP      15 40 13.5  +16
HHC                                  PP       PP      15 43 41.8 +4.1
HHC                                  SKS              15 50 26.9
HHC                                 eS        S       15 50 54.8 -6.2
HHC                                  sS       sS      15 51 13.6  +12
HHC                                  SS       SS      15 57 09.8 -1.1
HHC                                  pmax     pmax
      comp=Z,14nm,1.2s,mb5.2
HHC                                  pmax     pmax
      comp=Z,210nm,5.5s
HHC                                  LR       LR
      comp=N,210nm,14.9s,MS4.7
HHC                                  LR       LR
      comp=E,120nm,17.5s,MS4.7
HHC                                  LR       LR
      comp=Z,200nm,20.8s,MS4.5
KMI   Kunming           92.57 296    P        P       15 40 01.9 +2.0
KMI                                  pP               15 40 09.6
KMI                                  sP       sP      15 40 14.0  +14
KMI                                  PP       PP      15 43 43.4 +1.9
KMI                                  S        S       15 50 57.9 -7.7
KMI                                  SS       SS      15 57 13.3 -4.5
KMI                                  pmax     pmax
      comp=Z,25nm,1.1s,mb5.6
KMI                                  pmax     pmax
      comp=Z,99nm,3.1s
KMI                                  LR       LR
      comp=N,200nm,18.4s,MS4.7
KMI                                  LR       LR
      comp=E,200nm,19.5s,MS4.7
KMI                                  LR       LR
      comp=Z,290nm,18.4s,MS4.8
NNA   Nana              92.71 104    LR       LR      16 12 03.0
      comp=Z,80nm,19.7s,MS4.2,baz=152,slow=29
ATAH  Atahualpa         93.12  99    LR       LR      16 16 35.1
      comp=Z,130nm,18.1s,MS4.4,baz=313,slow=32
DGMT  Dagmar            93.23  39   eP        P       15 40 02.8 +0.5
      comp=Z,27nm,1.0s,mb5.6
CMAR  Chiang Mai Arr    93.44 288    P        P       15 40 05.4 +1.4
      comp=Z,12nm,0.9s,mb5.3,baz=94,slow=2.7,SNR=69
CMAR                                 LR       LR      16 16 26.5
      comp=Z,123nm,19.7s,MS4.4,baz=302,slow=32
CHTO  Chiang Mai        93.56 289   eP        P       15 40 05.5 +0.9
CHTO                                 pmax     pmax
      comp=Z,16nm,0.9s,mb5.3
CHTO  Chiang Mai        93.56 289   eP        P       15 40 05.5 +1.0
      comp=Z,16nm,0.9s,mb5.3
TEIG  Tepich            93.67  70    LR       LR      16 12 39.9
      comp=Z,156nm,21.5s,MS4.4,baz=133,slow=29
YAK   Yakutsk           93.89 337   eP        P       15 40 05.7 +0.7
YAK                                  pmax     pmax
      comp=Z,12nm,0.8s,mb5.3
CD2   Chengdu           93.90 301    P        P       15 40 06.8 +1.0
CD2                                  pP               15 40 17.4
CD2                                  sP       sP      15 40 21.3  +15
CD2                                  PP       PP      15 43 56.0 +4.2
CD2                                  SKS              15 50 37.5
CD2                                  S        S       15 51 11.8 -5.3
CD2                                  sS       sS      15 51 29.0  +11
CD2                                  SS       SS      15 57 36.0 -0.6
CD2                                  pmax     pmax
      comp=Z,10.0nm,0.6s,mb5.3
CD2                                  pmax     pmax
      comp=Z,230nm,7.1s
CD2                                  LR       LR
      comp=N,220nm,7.7s
CD2                                  LR       LR
      comp=Z,190nm,10.1s,MS4.8
INK   Inuvik            93.95  14    P        P       15 40 04.6 -0.6
      comp=Z,3.1nm,0.8s,mb4.7,baz=209,slow=5.0,SNR=15
YKA   Yellowknife Ar    95.64  24    P        P       15 40 12.6 -0.4
      comp=Z,1.6nm,0.7s,mb4.7,baz=238,slow=4.4,SNR=36
LZH   Lanzhou           95.75 306   eP        P       15 40 15.6 +1.4
LZH                                  pP               15 40 26.1
LZH                                  sP       sP      15 40 30.0  +15
LZH                                 ePP       PP      15 44 10.5 +4.3
LZH                                  SKS              15 50 48.3
LZH                                 eS        S       15 51 28.0 -5.1
LZH                                  sS       sS      15 51 46.3  +13
LZH                                 eSS       SS      15 58 03.3 +0.4
LZH                                  pmax     pmax
      comp=Z,16nm,1.5s,mb5.3
LZH                                  pmax     pmax
      comp=Z,83nm,9.3s
LZH                                  LR       LR
      comp=E,270nm,17.8s
LZH                                  LR       LR
      comp=Z,370nm,18.5s,MS4.9
ECSD  EROS Data Cent    95.92  45   eP        P       15 40 14.5 -0.3
      comp=Z,10nm,1.1s,mb5.3
VBMS  Vicksburg         96.06  58   ePP       PP      15 43 57.5  -11
SONM  Songino Array     98.36 318    LR       LR      16 20 41.1
      comp=Z,174nm,18.3s,MS4.6,baz=178,slow=33
ULM   Lac du Bonnet     98.91  40    LR       LR      16 21 15.1
      comp=Z,250nm,18.2s,MS4.8,baz=229,slow=33
GTA   Gaotai            99.90 308   eP        Pdif    15 40 33.9 +1.2
GTA                                  pP               15 40 46.5
GTA                                  sP               15 40 53.3
GTA                                  pmax     pmax
      comp=Z,3.0nm,1.0s,mb4.9
TIXI  Tiksi            100.14 344   eP        Pdif    15 40 33.2 -0.6
TIXI                                 pmax     pmax
      comp=Z,1.0nm,1.2s
LHS   Liberty Hill     104.48  58   ePP       PP      15 45 02.5  -10
WMQ   Urumqi           109.80 310   eP        PKiKP   15 45 18.5 -0.7
WMQ                                  pP               15 45 33.0
WMQ                                  LR       LR
      comp=Z,330nm,20.3s,MS4.9
ZALV  Zalesovo Beam    113.00 321    PKiKP    PKiKP   15 45 23.9 -1.0
      comp=Z,2.5nm,0.5s,baz=230,slow=0.4,SNR=7.2
MKAR  Makanchi Array   114.00 313    PKiKP    PKiKP   15 45 26.2 -0.8
      comp=Z,1.1nm,0.6s,baz=106,slow=1.5,SNR=11
KURK  Kurchatov        116.65 317   ePKIKP    PKPdf   15 45 30.6 -1.4
KSH   Kashi            117.93 304   ePKP      PKPdf   15 45 35.0 +0.1
KSH                                 esPKP             15 45 49.1
KSH                                 ePKS              15 49 10.0
KSH                                 eSKS      SKSdf   15 52 42.3 -5.8
KSH                                  AMB      AMB
      comp=Z,400nm,6.9s
KSH                                  LR       LR
      comp=N,240nm,6.6s
KSH                                  LR       LR
      comp=E,180nm,4.6s
KSH                                  LR       LR
      comp=Z,280nm,5.8s
AAK   Ala-Archa        119.25 308   ePKIKP    PKPdf   15 45 36.8 -0.5
AAK                                  pmax     pmax
      comp=Z,5.0nm,2.5s
BRVK  Borovoye         121.69 320   ePKIKP    PKPdf   15 45 40.8 -0.8
BOSA  Boshof           127.10 202    PKP      PKPdf   15 45 54.4 +1.5
      comp=Z,4.6nm,1.0s,baz=181,slow=6.5,SNR=4.3
BOSA  Boshof           127.10 202    PKP      PKPdf   15 45 54.4 +1.5
ARU   Arti             127.52 326   i PKIKP   PKPdf   15 45 51.6 -1.1
ARU                                                   15 47 49.0
ARU                                                   15 52 54.2
ARCES ARCESS Array B   130.01 351    PKP      PKPdf   15 45 56.8 -0.3
      comp=Z,2.9nm,0.5s,baz=60,slow=1.1,SNR=20
OBN   Obninsk          138.78 333   ePKIKP    PKPdf   15 46 13.5 -0.4
OBN                                  pmax     pmax
      comp=Z,6.0nm,0.6s
NOA   NORSAR Array B   139.84 356    PKP      PKPdf   15 46 14.7 -1.0
      comp=Z,3.3nm,0.9s,baz=14,slow=4.2,SNR=3.5
EBH   Black Hill       144.20   9   eP        PKPdf   15 46 21.5 -2.1
SUW   Suwalki          144.45 342   ePKP      PKPdf   15 46 22.8 -1.3
SUW   Suwalki          144.45 342   ePKP      PKPdf   15 46 22.8 -1.3
EAU   Auchinoon        144.60   9   eP        PKPdf   15 46 22.8 -1.5
ESY   Stoneypath       144.64   8   eP        PKPdf   15 46 22.1 -2.2
EBL   Broad Law        144.73   8   eP        PKPdf   15 46 22.8 -1.7
BEST  Besiri           144.93 307   i P       PKPdf   15 46 25.2 -0.2
BEST                                i P               15 46 25.7
AKASG Malin Array Be   145.04 334    PKP      PKPdf   15 46 23.8 -1.4
      comp=Z,28nm,0.8s,baz=40,slow=4.1,SNR=80
AKASG Malin Array Be   145.04 334    PKP      PKPdf   15 46 23.8 -1.4
KIEV  Kiev             145.05 334   ePKHKP    PKPbc   15 46 23.5 -1.1
ESK   Eskdalemuir      145.15   9   eP        PKPbc   15 46 22.2 -2.5
MARD  Mardin           145.47 306   i P       PKPdf   15 46 26.7 +0.2
KEMA  Kemaliye         146.47 310   i P       PKPbc   15 46 30.1 +0.7
SIM   Simferopol’      146.51 322   i PKP2    PKPab   15 46 30.0 -0.3
SIM                                  pmax     pmax
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      comp=Z,39nm,0.7s
MALT  Malatya          146.88 309⥣iP        PKPbc   15 46 31.8 +1.2
MALT  Malatya          146.88 309 ⥣P        PKPbc   15 46 31.8 +1.2
WLF1  Llynfaes         146.91  11 eP        PKPdf   15 46 28.8 +0.5
BSEG  Bad Segeberg     146.96 355 ePKPbc    PKPbc   15 46 30.4 +0.1
KBI1  Birley Grange    147.39   8 eP        PKPbc   15 46 30.7 -0.8
KWE   Weaver Farm      147.58   8 eP        PKPbc   15 46 31.6 -0.4
LVV   L’vov            147.76 337⥥iPKP2     PKPab   15 46 37.0 +2.0
GZT   Gaziantep        147.87 307 i P       PKPbc   15 46 34.0 +0.6
BOYT  Boyabat          147.96 316 i P       PKPbc   15 46 33.7 +0.2
RUE   Ruedersdorf      147.98 351 ePKPbc    PKPbc   15 46 33.4 +0.2
KWP   Kalwaria Pacla   148.38 339 ePKP      PKPbc   15 46 35.1 +0.7
KWP   Kalwaria Pacla   148.38 339 ePKP      PKPbc   15 46 35.1 +0.8
MCH1  Michaelchurch    148.40  10 eP        PKPbc   15 46 33.3 -1.0
NRDL  Niedersach Rie   148.41 355 ePKPbc    PKPbc   15 46 34.2 -0.1
CTKT  Corum            148.43 315 i P       PKPbc   15 46 35.9 +1.1
OJC   Ojcow            148.78 342 ePKP      PKPbc   15 46 35.6 +0.3
CLZ   Clausthal        149.03 354 ePKPbc    PKPbc   15 46 36.2 +0.3
STHS  Stebnicka Huta   149.06 340 ePKP      PKPbc   15 46 36.8 +0.7
BUR08 Bucovina Ar. S   149.08 334 ePKPbc    PKPbc   15 46 36.6 +0.4
KSP   Ksiaz            149.08 347 ePKP      PKPbc   15 46 36.7 +0.6
KSP   Ksiaz            149.08 347 ePKP      PKPbc   15 46 36.6 +0.5
BURAR Bucovina Array   149.10 334⥥iP        PKPdf   15 46 32.9 +0.8
BURAR Bucovina Array   149.10 334 ⥥P        PKPdf   15 46 32.9 +0.8
KOLS  Kolonicke sedl   149.13 338 ePKP      PKPbc   15 46 36.9 +0.6
COBT  Iskenderun       149.15 307 i P       PKPbc   15 46 37.4 +0.7
CLL   Collm            149.24 351 ePKPbc    PKPbc   15 46 36.6 +0.1
CLL   Collm            149.24 351⥣iPKPbc    PKPbc   15 46 36.6 +0.1
      comp=Z,45nm,1.0s
CLL                               epPKPbc   pPKPab  15 46 48.0 +6.8
AVNT  Avonos           149.25 312 i P       PKPbc   15 46 36.8 -0.1
NIE   Niedzica         149.34 341 ePKP      PKPbc   15 46 37.7 +0.9
UZH   Uzhgorod         149.38 338⥥iPKP2     PKPbc   15 46 37.0 +0.1
CRVS  Cervenica-Dubn   149.43 339 ePKP      PKPbc   15 46 37.3 +0.3
UPC   Upice            149.46 347⥣ePKP      PKPbc   15 46 37.6 +0.6
UPC                               ePKPAB    PKPab   15 46 43.3 +1.5
BRG   Berggiesshubel   149.51 350 ePKIKP    PKPdf   15 46 33.7 +1.0
BRG                               i                 15 46 41.1
BRG                                pmax     pmax
      comp=Z,13nm,1.8s
BRG                                pmax     pmax
      comp=Z,15nm,0.8s
BRG                                pmax     pmax
      comp=Z,12nm,0.9s
BRG   Berggiesshubel   149.51 350 ePKPbc    PKPbc   15 46 37.3 +0.2
BRG   Berggiesshubel   149.51 350 ePKP      PKPdf   15 46 33.6 +1.0
      comp=Z,22nm,1.8s
BRG                               i                 15 46 37.4
      comp=Z,26nm,0.8s
BRG                               i                 15 46 41.1
      comp=Z,20nm,0.9s
DPC   Dobruska-Polom   149.54 346⥣ePKP      PKPbc   15 46 37.7 +0.5
DPC                               ePKPAB    PKPab   15 46 41.5 -0.6
FBE   Freiberg         149.56 350 ePKPbc    PKPbc   15 46 37.8 +0.5
OKC   Ostrava-Krasne   149.58 344⥣ePKP      PKPbc   15 46 37.7 +0.3
BUG   Bochum--Univer   149.63 358 ePKPbc    PKPbc   15 46 37.4  0.0
BRTR  Keskin Array B   149.64 314  PKPbc    PKPbc   15 46 38.0 +0.1
      comp=Z,10nm,0.8s,baz=128,slow=5.4,SNR=50
PVCC  Panska Ves       149.73 349⥣ePKP      PKPbc   15 46 38.3 +0.6
MORC  Moravsky Berou   149.79 344⥥iP        PKPbc   15 46 38.7 +0.8
MORC  Moravsky Berou   149.79 344 ePKPab    PKPbc   15 46 37.9  0.0
TIRR  Tirgusor         149.95 326⥣iP        PKPbc   15 46 38.4  0.0
TIRR  Tirgusor         149.95 326 ⥣P        PKPbc   15 46 38.4  0.0
HARR  Harsova          150.03 327⥣iP        PKPbc   15 46 39.6 +1.0
HARR  Harsova          150.03 327  P        PKPbc   15 46 39.4 +0.7
MOX   Moxa             150.07 352 ePKP      PKPbc   15 46 38.7 +0.2
      comp=Z,36nm,1.4s
UBBA  Unterbreizbach   150.08 354 ePKPbc    PKPbc   15 46 38.4 -0.1
KECS  Kecovo           150.11 340 ePKP      PKPbc   15 46 38.7  0.0
WERD  Werda            150.18 351 ePKPbc    PKPbc   15 46 39.1 +0.3
TANN  Tannenbergstha   150.19 351 ePKPbc    PKPbc   15 46 39.1 +0.3
PRU   Pruhonice        150.25 348⥣ePKP      PKPbc   15 46 39.2 +0.2
PRU                               ePKPAB    PKPab   15 46 42.5 -2.5
GUNZ  Gunzen           150.25 351 ePKPbc    PKPbc   15 46 39.4 +0.4
WERN  Wernitzgruen     150.32 351 ePKPbc    PKPbc   15 46 39.5 +0.4
NKC   Novy Kostel      150.37 351⥣ePKP      PKPbc   15 46 39.6 +0.3
MLR   Muntele Rosu     150.42 330⥥iP        PKPbc   15 46 39.7 +0.2
MLR   Muntele Rosu     150.42 330  P        PKPbc   15 46 39.8 +0.2
VRAC  Vranov           150.46 345⥥iP        PKPbc   15 46 40.2 +0.7
VRAC  Vranov           150.46 345  P        PKPbc   15 46 40.0 +0.5
MEM   Membach          150.49 359  PKPbc    PKPbc   15 46 39.9 +0.3
SNF   Seneffe          150.58   2  PKPbc    PKPbc   15 46 40.0 +0.2
VYHS  Vyhne            150.61 342 ePKP      PKPbc   15 46 40.1 +0.2
MANZ  Manzenberg       150.66 351 ePKPbc    PKPbc   15 46 40.1 +0.2
KOLL  Kolacno          150.66 342 ePKP      PKPbc   15 46 40.6 +0.6
BCLA  Clavier          150.68   0  PKPbc    PKPbc   15 46 40.1 +0.1
TREC  Trest            150.72 347 ePKIKP    PKPbc   15 46 40.6 +0.5
TREC  Trest            150.72 347⥣ePKP      PKPbc   15 46 40.6 +0.5
DRGR                   150.77 335⥣iP        PKPbc   15 46 40.0 -0.3
DRGR                   150.77 335  P        PKPbc   15 46 40.1 -0.2
TNS   Taunus Mts       150.79 356 ePKPbc    PKPbc   15 46 40.5 +0.2
PSZ   Piszkesteto      150.80 340⥥iP        PKPbc   15 46 40.9 +0.5
PSZ   Piszkesteto      150.80 340⥥epPKP     PKPbc   15 46 40.9 +0.5
PSZ   Piszkesteto      150.80 340 ePKPab    PKPbc   15 46 40.6 +0.3
ROTZ  Rotzenmuhle      150.85 351 ePKPbc    PKPbc   15 46 40.7 +0.3
VOIR                   150.87 331⥥iP        PKPbc   15 46 41.6 +1.0
VOIR                   150.87 331  P        PKPbc   15 46 41.4 +0.8
GIVF  Givet            151.00   1 ePKP1     PKPbc   15 46 41.0 +0.3
      comp=Z,75nm,0.9s
DOU   Dourbes          151.00   1  PKPbc    PKPbc   15 46 41.0 +0.3
BAIF  Baives           151.03   2 ePKP1     PKPbc   15 46 41.2 +0.4
      comp=Z,64nm,1.0s
GRA1  Grafenberg Arr   151.06 352 ePKPbc    PKPbc   15 46 41.3 +0.4
GRF   Grafenberg Arr   151.06 352 ePKPbc    PKPbc   15 46 41.3 +0.4
MODS  Modra-Piesok     151.15 344 ePKP      PKPbc   15 46 42.0 +0.8
KHC   Kasperske Hory   151.25 349⥣ePKP      PKPbc   15 46 41.7 +0.3
KHC                               ePKPAB    PKPab   15 46 52.0 +2.8
KDHN  Kadinhani        151.26 313 i P       PKPbc   15 46 42.0 +0.2
WET   Wettzell         151.36 350 ePKPbc    PKPbc   15 46 41.5 -0.1
WLF   Walferdange      151.44 359  PKPbc    PKPbc   15 46 42.4 +0.6
WLF   Walferdange      151.44 359 ePKPbc    PKPbc   15 46 42.6 +0.8
WLF   Walferdange      151.44 359 ePKPab    PKPbc   15 46 42.8 +1.0
BUD   Budapest         151.46 341⥥epPKP     PKPbc   15 46 41.3 -0.6
GEC2  GERESS Array S   151.50 349 ePKPbc    PKPbc   15 46 41.8 -0.2
GEC2  GERESS Array S   151.50 349 ePKPbc    PKPbc   15 46 41.2 -0.8
GERES GERESS Array B   151.50 349  PKP      PKPdf   15 46 36.3 +0.5
      comp=Z,0.6nm,0.6s,baz=8.9,slow=7.0,SNR=3.1
GERES                              PKPbc    PKPbc   15 46 42.4 +0.4
      comp=Z,10nm,0.8s,baz=45,slow=2.1,SNR=42
GZR   Gura Zlata       151.88 334⥥iP        PKPbc   15 46 43.3 +0.3
GZR   Gura Zlata       151.88 334 ⥥P        PKPbc   15 46 43.3 +0.3
CONA  Conrad Observa   151.92 345 i PKiKP   PKPbc   15 46 43.3 +0.4
      comp=Z,18nm,0.9s,SNR=6.8
CSNA  Conrad Observa   151.92 345⥣iPKiKP    PKPbc   15 46 43.4 +0.5
      comp=Z,17nm,0.9s
FLN   La Foliniere     151.92   9 ePKP1     PKPbc   15 46 42.6 -0.3
      comp=Z,34nm,0.8s
CSS   Prodhromos       151.94 306 ePKPbc    PKPbc   15 46 42.4 -1.1
CSS                               ePKPab    PKPab   15 46 52.5 -0.2
SOP   Sopron           151.97 344⥥epPKP     PKPbc   15 46 43.8 +0.7
SGMF  Saint Gilles     152.08  12 ePKP1     PKPbc   15 46 42.8 -0.5
      comp=Z,72nm,1.1s
LDF   La Druitiere     152.14   8 ePKP1     PKPbc   15 46 43.1 -0.3
      comp=Z,24nm,0.8s
BZS   Buzias           152.17 335⥣iP        PKPbc   15 46 43.9 +0.3
BZS   Buzias           152.17 335 ⥣P        PKPbc   15 46 43.9 +0.3
GRR   Gorron           152.23   9 ePKP1     PKPbc   15 46 43.5 -0.1
      comp=Z,25nm,0.6s
ULDT  Uludag           152.32 319 i P       PKPbc   15 46 44.5 +0.4
MOA   Molln            152.35 347⥣iPKiKP    PKPbc   15 46 43.7 -0.2
      comp=Z,8.9nm,0.8s
MEZF  Maizieres J’vi   152.60   1 ePKP1     PKPbc   15 46 44.8 +0.3
      comp=Z,48nm,1.1s
CDF   Champ du Feu     152.66 358 ePKP1     PKPbc   15 46 44.8 +0.2
      comp=Z,29nm,0.9s
BFO   Black Forest     152.69 356 ePKPbc    PKPbc   15 46 44.6 -0.1
PKSM  Moragy           152.71 340⥣iP        PKPbc   15 46 44.8  0.0
PKSM  Moragy           152.71 340  P        PKPbc   15 46 44.9 +0.1
RJOB  Jochberg         152.73 349 ePKPbc    PKPbc   15 46 44.7 -0.1
HAU   Haudompre        153.09 359 ePKP1     PKPbc   15 46 45.7 +0.1
      comp=Z,20nm,0.6s
HINF  Hinteralfeld     153.27 358 ePKP1     PKPbc   15 46 45.8 -0.2
KBA   Koelnbreinsper   153.27 348⥣iPKiKP    PKPbc   15 46 45.4 -0.6
      comp=Z,7.8nm,0.9s
PERS  Pernice          153.31 345 i PKPdf   PKPdf   15 46 39.8 +1.2
PERS                              i PKPbc   PKPbc   15 46 45.5 -0.6
WATA  Walderalm        153.32 351⥥iPKiKP    PKPbc   15 46 45.9 -0.2
      comp=Z,10.0nm,0.7s
MOTA  Moosalm          153.38 352⥣iPKiKP    PKPbc   15 46 45.8 -0.4
      comp=Z,12nm,0.9s
WTTA  Wattenberg       153.38 351⥣iPKiKP    PKPbc   15 46 46.2  0.0
      comp=Z,19nm,0.7s,SNR=6.6
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DAVA  Damuels          153.59 353⥣iPKiKP    PKPbc   15 46 46.8 +0.2
      comp=Z,17nm,0.9s
ABTA  Abfaltersbach    153.74 349⥣iPKiKP    PKPbc   15 46 46.4 -0.6
      comp=Z,13nm,0.7s
FETA  Feichten         153.75 352⥣iPKiKP    PKPbc   15 46 47.3 +0.2
      comp=Z,8.9nm,0.8s
LOR   Lormes           153.80   3 ePKP1     PKPbc   15 46 47.3 +0.2
      comp=Z,8.7nm,0.7s
LOR                               eMLR      MLR
      comp=Z,273nm,20.2s,MS4.8
LOR   Lormes           153.80   3 ePKP      PKPbc   15 46 47.3 +0.2
LOR                                LR       LR
      comp=Z,270nm,20.3s,MS5.0
SSF   Saint Saulge     153.99   3 ePKP1     PKPbc   15 46 47.8 +0.2
      comp=Z,15nm,0.8s
JAVS  Javornik         154.25 346 i PKPdf   PKPdf   15 46 39.4 -0.5
JAVS                              i PKPbc   PKPbc   15 46 47.5 -0.7
AVF   Avril sur Loir   154.25   3 ePKP1     PKPbc   15 46 48.0 -0.1
BOJS  Bojanci          154.33 344 i PKPdf   PKPdf   15 46 40.0 -0.1
BOJS                              i PKPbc   PKPbc   15 46 48.4  0.0
SMF   Signal de Mont   154.42   3 ePKP1     PKPbc   15 46 48.5  0.0
BGF   Bois d’Agland    154.45   4 ePKP1     PKPbc   15 46 48.5 -0.1
      comp=Z,14nm,0.7s
CABF  La Chapelle      154.49 359 ePKP1     PKPbc   15 46 49.4 +0.8
ESDC  Sonseca Array    159.72  22  PKPab    PKPab   15 47 25.9 +0.3
      comp=Z,0.2nm,0.3s,baz=316,slow=5.4,SNR=4.0
DBIC  Dimbokro         162.51 143  PKP      PKPdf   15 46 49.3 -1.6
      comp=Z,2.5nm,1.0s,baz=231,slow=5.2,SNR=3.2
DBIC                               PKPab    PKPab   15 47 39.9 +1.3
      comp=Z,2.8nm,0.7s,baz=168,slow=6.1,SNR=4.0
TORD  Torodi Ar. Bea   171.32 154  PKP      PKPdf   15 46 55.9 -1.6
      comp=Z,1.4nm,1.0s,baz=293,slow=1.0,SNR=6.9
TORD                               PKPab    PKPab   15 48 17.5 +0.3
      comp=Z,1.2nm,0.9s,baz=229,slow=4.4,SNR=4.3
TORD  Torodi Ar. Bea   171.32 154  PKP      PKPdf   15 46 55.9 -1.6
TORD                               PKPab    PKPab   15 48 17.5 +0.3
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*ISCJB **22** 15:30:22.9±0.1, 41.°110N±0.°010×114.°94W±0.°01, h10km,*
Error ellipse: s-maj=1.4km s-min=1.4km az=37.1
*NEIC **22** 15:30:22.8, 41.°13N×114.°92W, h5km, ML3.3, After REN.*
*IDC **22** 15:30:22.4±1.0, 41.°15N×114.°92W, h0km, mb2.9/1,*
mb1 3.6/3, mb1mx3.4/21, mbtmp3.2/3, ML3.7/2, Error
ellipse: s-maj=22.5km s-min=5.5km az=134.0
ISC 22 15:30:23.5±0.1, **41.°120N**±0.°010×**114.°94W**±0.°01, **h10km,**
n146, σ1.§**14**/213, **65C-63D, Nevada**

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Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                      Op       ISC      h  m  s    ISC
N12A  Clover Valley,     0.28 196 ⥥P       Pg      15 30 28.9 -0.2
      baz=0.3,SNR=596
N12A                              ⥣S       Sg      15 30 33.0 +0.1
      baz=0.3
ELK   Elko               0.44 212  Pg      Pg      15 30 31.4 -0.7
      102nm,0.3s,baz=20,slow=14,SNR=114
ELK                                Lg              15 30 37.5
      505nm,0.3s,baz=140,slow=19,SNR=170
ELK   Elko               0.44 212 ePg      Pg      15 30 31.6 -0.6
N13A  Wendover, West     0.61 115 ⥣P       Pg      15 30 34.5 -0.9
      baz=0.6
N13A                              ⥣S       Sg      15 30 42.3 -1.1
      baz=0.6
M13A  Montello           0.63  67 ⥣P       Pg      15 30 34.1 -1.6
      baz=0.6,SNR=114
N11A  Elko Archery C     0.68 244 ⥥P       Pg      15 30 35.8 -0.8
      baz=0.7,SNR=188
N11A                              ⥥S       Sg      15 30 45.4 -0.1
      baz=0.7
M11A  Holland Ranch,     0.72 296 ⥣P       Pg      15 30 36.2 -1.2
      baz=0.7,SNR=67
M11A                              ⥣S       Sg      15 30 46.2 -0.5
      baz=0.7
O12A  Currie             0.86 170 ⥣P       Pg      15 30 39.1 -1.1
      baz=0.9,SNR=288
O12A                              ⥣S       Sg      15 30 51.2 -0.2
      baz=0.9
L12A  House Creek Ra     1.03 357 ⥥P       Pg      15 30 41.7 -1.6
      baz=1.0,SNR=152
L12A                              ⥥S       Sg      15 30 55.7 -1.0
      baz=1.0
O11A  Cowboy Ranch,      1.13 209 ⥥P       Pb      15 30 44.3 -0.8
      baz=1.1,SNR=845
O11A                              ⥣S       Sb      15 30 59.3 -0.6
      baz=1.1
L11A  Cat Creek Ranc     1.21 330 ⥥P       Pn      15 30 45.0 -1.6
      baz=1.2,SNR=371
L11A                              ⥥S       Sb      15 31 01.5 -0.8
      baz=1.2
L13A  Double Diamond     1.22  37 ⥣P       Pn      15 30 44.6 -2.0
      baz=1.2,SNR=98
L13A                              ⥥S       Sb      15 31 00.9 -1.6
      baz=1.2
O13A  Hicks Ranch, I     1.23 143 ⥥P       Pn      15 30 45.5 -1.2
      baz=1.2,SNR=240
O13A                              ⥥S       Sb      15 31 02.7 +0.1
      baz=1.2
M14A  Sheep Mountain     1.26  72 ⥣P       Pn      15 30 45.4 -1.7
      baz=1.2,SNR=151
M14A                              ⥥S       Sb      15 31 02.1 -1.4
      baz=1.2
N10A  Dunphy             1.26 252 ⥣P       Pn      15 30 46.2 -1.0
      baz=1.3,SNR=32
N10A                              ⥥S       Sb      15 31 03.8 +0.2
      baz=1.3
M10A  I.L. Ranch, Tu     1.27 289 ⥣P       Pn      15 30 46.2 -1.2
      baz=1.3,SNR=38
M10A                              ⥥S       Sb      15 31 04.3 +0.3
      baz=1.3
N14A  Grayback Hills     1.35 101 ⥥P       Pn      15 30 46.8 -1.6
      baz=1.3,SNR=117
N14A                              ⥥S       Sb      15 31 05.4 -0.8
      baz=1.3
O10A  Cortez Mining,     1.45 236 ⥥P       Pn      15 30 49.1 -0.7
      baz=1.5,SNR=95
O10A                              ⥣S       Sn      15 31 09.2 +0.4
      baz=1.5
L10A  Juniper Basin      1.50 310 ⥣Pb      Pb      15 30 49.8 -1.6
      baz=1.5,SNR=200
L10A                              ⥥S       Sn      15 31 09.7 -0.3
      baz=1.5
K12A  Draper Farm, C     1.52   1 ⥥P       Pn      15 30 49.2 -1.5
      baz=1.5
K12A                              ⥣S       Sn      15 31 09.3 -1.2
      baz=1.5
L14A  Malta              1.57  54 ⥥Pb      Pb      15 30 50.4 -2.1
      baz=1.5,SNR=69
L14A                              ⥥Sb      Sb      15 31 11.9 -0.5
      baz=1.5
K13A  Stover Farm, H     1.66  22 ⥥Pb      Pb      15 30 51.9 -2.2
      baz=1.6,SNR=48
K13A                              ⥣Sb      Sb      15 31 13.8 -1.2
      baz=1.6
P11A  Circle Ranch,      1.69 202 ⥥P       Pn      15 30 52.6 -0.4
      baz=1.7,SNR=27
HVU   Hansel Valley      1.75  67 ePn      Pn      15 30 53.2 -0.8
HVU                               eSn      Sn      15 31 16.3  0.0
P13A  Bates Ranch, G     1.81 157 ⥥P       Pn      15 30 53.4 -1.2
      baz=1.8
P13A                              ⥥Sb      Sb      15 31 20.2 +0.9
      baz=1.8
K11A  Parker Ranch,      1.84 334 ⥣Pb      Pb      15 30 55.3 -2.0
      baz=1.8,SNR=133
N15A  Stansbury Isla     1.84  96 ⥥P       Pn      15 30 53.8 -1.4
      baz=1.8,SNR=82
N15A                              ⥥Sb      Sb      15 31 19.9 -0.4
      baz=1.8
DUG   Dugway             1.86 119  P       Pn      15 30 54.1 -1.3
      baz=1.9,SNR=74
DUG                               ⥥Sb      Sb      15 31 20.7 -0.2
      baz=1.9
DUG   Dugway             1.86 119 ePn      Pn      15 30 53.6 -1.8
DUG                               eSn      Sn      15 31 19.1 +0.2
BMN   Battle Mountai     1.87 249 ePn      Pn      15 30 54.6 -1.0
BMN                               eSg      Sg      15 31 23.1 -0.4
SPUT  South Promonto     1.89  83 ePn      Pn      15 30 56.0 +0.3
SPUT                              eSn      Sn      15 31 20.4 +0.8
P10A  Eureka             1.90 218 ⥣P       Pn      15 30 56.0  0.0
      baz=1.9
M09A  Marrel Ranch,      1.92 280 ⥣P       Pn      15 30 56.0 -0.3
      baz=1.9,SNR=19
M09A                              ⥣Sb      Sb      15 31 23.4 +0.8
      baz=1.9
K14A  Jones Ranch, D     1.94  42 ⥣Pb      Pb      15 30 56.8 -2.2
      baz=1.9,SNR=49
K14A                              ⥥Sb      Sb      15 31 22.9 -0.3
      baz=1.9
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O09A	Fish Creek Ran baz=2.0	1.96	242	⇑Pb	Pb	15 30 58.3	-1.1
N09A	Rock Creek Ran baz=2.0,SNR=14	1.98	263	⇓P	Pn	15 30 56.1	-0.9
N09A	baz=2.0			⇑Sb	Sb	15 31 25.1	+0.8
O15A	The Old Anders baz=2.0	2.05	113	⇑Pb	Pb	15 30 59.3	-1.6
O15A	baz=2.0			⇑Sb	Sb	15 31 26.9	+0.5
Q12A	Willow Creek R baz=2.1,SNR=11	2.08	178	⇑P	Pn	15 30 57.8	-0.6
Q12A	baz=2.1			⇑Sb	Sb	15 31 28.8	+1.6
P14A	Drum Mountains baz=2.1	2.09	136	⇑P	Pn	15 30 57.4	-1.2
P14A	baz=2.1			⇓Sb	Sb	15 31 28.3	+0.8
L15A	Malad City baz=2.1,SNR=44	2.11	64	⇑P	Pn	15 30 58.2	-0.6
J12A	Stokes Ranch, baz=2.1,SNR=122	2.13	357	⇑P	Pn	15 30 59.2	+0.1
NOQ	North Oquirrh	2.19	101	*e*Pn	Pn	15 31 01.3	+1.4
NOQ				*e*Sn	Sn	15 31 31.2	+4.2
K10A	MacKenzie Ranc baz=2.2,SNR=12	2.20	320	⇑Pb	Pb	15 31 01.3	-2.0
K10A	baz=2.2			⇓Sb	Sb	15 31 30.7	0.0
L09A	Wilkinson Ranc baz=2.2,SNR=14	2.24	295	⇑Pb	Pb	15 31 02.3	-1.8
L09A	baz=2.2			⇑Sb	Sb	15 31 32.4	+0.6
Q13A	Wheeler Ranch, baz=2.3,SNR=16	2.27	162	⇓P	Pn	15 31 00.4	-0.8
Q13A	baz=2.3			⇑Sb	Sb	15 31 34.5	+1.7
P09A	Austin baz=2.3,SNR=20	2.30	228	⇑P	Pn	15 31 01.1	-0.4
Q11A	Duckwater baz=2.4	2.34	194	⇑P	Pn	15 31 01.7	-0.3
Q11A	baz=2.4			⇓S	Sn	15 31 31.7	+0.9
J13A	Cove Ranch, Pi baz=2.3,SNR=78	2.34	14	⇑P	Pn	15 31 02.4	+0.3
J13A	baz=2.3			⇓Sb	Sb	15 31 34.2	-0.7
K15A	Arbon baz=2.4,SNR=28	2.38	48	⇓P	Pn	15 31 02.6	0.0
K15A	baz=2.4			⇑Sb	Sb	15 31 35.5	-0.4
MFID	Camas Ranch baz=2.4,SNR=34	2.39	344	⇓P	Pn	15 31 03.4	+0.7
MFID	baz=2.4			⇓Sb	Sb	15 31 36.3	+0.3
J14A	Carey baz=2.4,SNR=49	2.44	25	⇓P	Pn	15 31 03.8	+0.4
J14A	baz=2.4			⇑Sb	Sb	15 31 37.3	-0.3
N08A	GE Springer Mi baz=2.5	2.45	263	⇓P	Pn	15 31 02.4	-1.1
N08A	baz=2.5			⇑S	Sn	15 31 33.4	0.0
CTU	Camp Tracy	2.45	99	*e*Pn	Pn	15 31 04.9	+1.4
HLID	Hailey baz=2.5,SNR=82	2.47	9	⇑P	Pn	15 31 04.4	+0.5
HLID	baz=2.5			⇓Sb	Sb	15 31 37.8	-0.7
HLID	Hailey	2.47	9	P	Pn	15 31 04.4	+0.6
NLU	North Lily Min	2.47	117	*e*Pn	Pn	15 31 01.6	-2.2
Q14A	Sevier Lake (B baz=2.5	2.48	149	⇓P	Pn	15 31 02.7	-1.2
Q14A	baz=2.5			⇑Sb	Sb	15 31 40.2	+1.4
M16A	Huntsville baz=2.5	2.50	84	⇑P	Pn	15 31 05.5	+1.2
M16A	baz=2.5			⇑Sb	Sb	15 31 39.5	+0.2
P15A	Leamington baz=2.5,SNR=19	2.55	126	⇓P	Pn	15 31 03.6	-1.4
Q10A	Clear Creek Ra baz=2.6,SNR=50	2.55	207	⇓P	Pn	15 31 04.9	-0.1
Q10A	baz=2.6			⇑S	Sn	15 31 37.3	+1.3
O08A	Rochester Mine baz=2.6	2.58	252	⇑P	Pn	15 31 04.6	-0.7
K09A	Rome baz=2.6,SNR=94	2.61	308	P	Pn	15 31 07.8	+2.0
K09A	baz=2.6			⇑Sb	Sb	15 31 43.4	+0.9
M08A	Happy Creek Ra baz=2.6	2.62	278	⇑Pb	Pb	15 31 08.9	-1.6
M08A	baz=2.6			⇑Sb	Sb	15 31 45.0	+2.3
I12A	Atlanta baz=2.7,SNR=105	2.68	357	⇑P	Pn	15 31 07.4	+0.7
I12A	baz=2.7			⇓Sb	Sb	15 31 44.6	+0.2
J10A	Berg Farm, Mel baz=2.7	2.68	330	⇑P	Pn	15 31 08.8	+2.2
J10A	baz=2.7			⇓Sb	Sb	15 31 45.2	+0.8
MPU	Maple Canyon	2.75	113	*e*Pn	Pn	15 31 10.2	+2.6
L08A	Fields baz=2.8	2.77	294	⇑P	Pn	15 31 10.7	+2.8
L08A	baz=2.8			⇓Sb	Sb	15 31 47.7	+0.6
L16A	Fish Haven baz=2.8	2.78	70	⇑P	Pn	15 31 09.2	+1.1
P08A	Dixie Valley baz=2.8,SNR=7.3	2.79	240	⇓P	Pn	15 31 07.7	-0.5
R11A	Troy Canyon, C baz=2.8,SNR=8.6	2.81	190	⇑P	Pn	15 31 08.1	-0.4
R11A	baz=2.8			⇓S	Sn	15 31 43.1	+0.7
I13A	Wildhorse Cree baz=2.8,SNR=50	2.86	12	P	Pn	15 31 10.1	+0.9
I13A	baz=2.8			⇑Sb	Sb	15 31 49.2	-0.4
Q09A	Carvers baz=2.9,SNR=22	2.86	218	⇓P	Pn	15 31 09.5	+0.3
Q09A	baz=2.9			⇑S	Sn	15 31 44.5	+0.8
DAU	Daniels Canyon	2.88	103	*e*Pg	Pg	15 31 17.6	-1.2
Q15A	Fillmore baz=2.9	2.89	136	⇑P	Pn	15 31 08.5	-1.0
I11A	Placerville baz=2.9	2.89	345	⇓P	Pn	15 31 12.0	+2.4
I11A	baz=2.9			⇓Sb	Sb	15 31 51.2	+0.6
P16A	Fountain Green baz=2.9	2.92	120	⇓S	Sn	15 31 44.7	-0.4
J15A	Blackfoot baz=2.9,SNR=12	2.94	38	P	Pn	15 31 10.7	+0.4
I14A	Mackay baz=3.0	3.01	21	⇓P	Pn	15 31 12.0	+0.7
R10A	Warm Springs baz=3.0	3.02	201	⇓P	Pn	15 31 11.3	0.0
R13A	O’Grain Ranch, baz=3.0,SNR=33	3.03	165	⇓P	Pn	15 31 11.5	0.0
WVOR	Wild Horse Val	3.06	297	*e*Pn	Pn	15 31 10.8	-1.2
WVOR				*e*Sn	Sn	15 31 55.5	+6.9
O07A	Toulon baz=3.2,SNR=14	3.15	254	⇓P	Pn	15 31 12.2	-0.9
M07A	Soldier Meadow baz=3.2,SNR=10.0	3.21	276	⇓P	Pn	15 31 13.2	-0.7
Q08A	Gabbs baz=3.2,SNR=12	3.22	227	⇓P	Pn	15 31 13.7	-0.5
AHID	Auburn Hatcher	3.30	59	*e*Pn	Pn	15 31 15.0	-0.2
R09A	Tonopah baz=3.3,SNR=6.9	3.31	211	⇓P	Pn	15 31 16.1	+0.6
MSU	Marysvale	3.36	140	*e*Pn	Pn	15 31 15.4	-0.7
TMUT	Trail Mountain	3.38	121	*e*Pn	Pn	15 31 18.6	+2.2
H12A	Diamond D Ranc baz=3.4,SNR=23	3.43	1	⇑P	Pn	15 31 18.1	+1.2
S10A	Tonopah Range, baz=3.5	3.44	202	⇑P	Pn	15 31 17.4	+0.2
H13A	Challis baz=3.5,SNR=22	3.48	8	⇓P	Pn	15 31 19.3	+1.6
RRI2	Red Ridge	3.49	49	*e*Pn	Pn	15 31 19.2	+1.4
S12A	Delamar Landin baz=3.5,SNR=11	3.51	179	⇓P	Pn	15 31 18.5	+0.4
S11A	Rachel baz=3.5,SNR=14	3.53	191	⇑P	Pn	15 31 18.6	+0.3
K07A	Rock Creek Ran baz=3.6,SNR=13	3.58	297	P	Pn	15 31 20.1	+1.0
S13A	Holt Ranch, En baz=3.6,SNR=25	3.63	166	P	Pn	15 31 19.9	+0.1
PAHR	Pah Rah Range	3.68	249	*e*Pn	Pn	15 31 19.9	-0.6
H10A	Noah’s Angus R baz=3.7,SNR=20	3.71	340	⇑P	Pn	15 31 22.0	+1.1
DCID1	Drake Creek	3.72	47	*e*Pn	Pn	15 31 20.5	-0.5
N06A	Buffalo Meadow baz=3.7,SNR=8.4	3.73	266	P	Pn	15 31 20.6	-0.6
NVAR	Mina Array Bea 5.4nm,0.3s,baz=39,slow=13,SNR=78	3.74	225	Pn	Pn	15 31 21.1	-0.1
NVAR	18nm,0.3s,baz=35,slow=14,SNR=35			Pg	Pg	15 31 29.4	-5.7
NVAR	8.2nm,0.3s,baz=263,slow=32,SNR=2.8			Sn	Sn	15 32 07.1	+1.9
NVAR	23nm,0.3s,baz=346,slow=16,SNR=10			Lg		15 32 21.7	
REDW	Red Top Meadow	3.77	52	*e*Pn	Pn	15 31 23.2	+1.5
TPAW	Teton Pass	3.79	50	*e*Pn	Pn	15 31 23.8	+1.9
T11A	Corn Creek, Al baz=3.9,SNR=20	3.88	183	P	Pn	15 31 23.2	0.0
SNOW	Snow King Moun	3.88	52	*e*Pn	Pn	15 31 25.5	+2.2
SRU	San Rafael	3.93	119	*e*Pn	Pn	15 31 25.6	+1.7
G13A	Cobalt baz=4.0,SNR=9.9	4.00	7	P	Pn	15 31 26.7	+1.8
MCMT	McKenzie Canyo	4.01	22	*e*Pn	Pn	15 31 25.9	+1.0
MCMT				*e*Sn	Sn	15 32 16.9	+4.9
IMW	Indian Meadow	4.05	45	*e*Pn	Pn	15 31 25.7	+0.1
LOHW	Long Hollow	4.06	51	*e*Pn	Pn	15 31 27.4	+1.7
MOOW	Moose Ponds	4.06	48	*e*Pn	Pn	15 31 26.4	+0.7
MOD	Modoc	4.11	283	*e*Pn	Pn	15 31 25.5	-0.8
MOD				*e*Sn	Sn	15 32 10.7	-3.7
WCN	Washoe City baz=4.1,SNR=8.3	4.11	245	P	Pn	15 31 26.4	0.0
BMO	Blue Mountains	4.12	336	*e*Pn	Pn	15 31 27.7	+1.2
BMO				*e*Sn	Sn	15 32 28.0	+13
R17A	Hanksville Air baz=4.2	4.23	128	⇑P	Pn	15 31 27.9	-0.1
T14A	Hurricane baz=4.3,SNR=11	4.30	160	⇑P	Pn	15 31 29.0	0.0
BEKR	Beckwourth baz=4.3,SNR=28	4.32	255	P	Pn	15 31 28.7	-0.5
BW06	Boulder Array	4.33	66	*e*Pn	Pn	15 31 32.3	+2.8
PDAR	Pinedale Array 0.5nm,0.3s,baz=237,slow=12,SNR=23	4.33	66	Pn	Pn	15 31 31.9	+2.5
PDAR	2.8nm,0.3s,baz=225,slow=25,SNR=11			Lg		15 32 36.8	
R06C	Coleville baz=4.4,SNR=8.7	4.34	235	⇑P	Pn	15 31 29.4	-0.1
WAKR	Walker	4.34	234	*e*Pn	Pn	15 31 28.9	-0.7
YFT	Old Faithful	4.49	41	Pn	Pn	15 31 30.8	-0.8
QLMT	Earthquake Lak	4.51	34	*e*Pn	Pn	15 31 38.9	+7.0
DLMT	Dillon	4.57	21	*e*Pn	Pn	15 31 29.6	-3.1
DLMT				*e*Pg	Pg	15 31 43.7	-7.4
YMR	Madison River	4.59	38	*e*Pn	Pn	15 31 33.1	+0.2
YMR				*e*Sn	Sn	15 32 29.3	+2.9
SHPR	Sheep Range	4.61	182	*e*Pn	Pn	15 31 33.7	+0.5
F13A	Darby baz=4.7,SNR=7.4	4.69	5	⇓P	Pn	15 31 35.7	+1.4
YNR	Norris Junctio	4.76	40	*e*Pn	Pn	15 31 37.2	+1.9
LKWY	Lake	4.79	43	*e*Pn	Pn	15 31 37.5	+1.8
LRM	Limekiln Ridge	5.04	20	*e*Pn	Pn	15 31 40.1	+1.0
CMB	Columbia Colle	5.22	236	*e*Pn	Pn	15 31 42.0	+0.4
LNOR	Lincton Mounta	5.34	334	*e*Pn	Pn	15 31 44.2	+1.0
PV04	Paradox Valley	5.38	118	*e*Pn	Pn	15 31 47.0	+3.1
PV01	Paradox Valley	5.75	119	*e*Pg	Pg	15 32 10.0	-3.5
MSO	Missoula	5.75	7	Pn	Pn	15 31 51.7	+2.8
MSO				*e*Sg	Sg	15 33 20.1	-8.0
YBH	Yreka Blue Hor 0.3nm,0.3s,baz=350,slow=13,SNR=5.6	5.88	279	Lg		15 33 26.2	
CHMT	Chamberlain Mo	5.92	11	*e*Pn	Pn	15 31 51.0	-0.2
CHMT				*e*Sg	Sg	15 33 26.5	-6.9
HRY	Holter Researc	6.02	21	*e*Pn	Pn	15 31 54.5	+1.9
HRY				*e*Sg	Sb	15 33 26.7	+6.1
LDFC	Landfair	6.03	181	*e*Pn	Pn	15 31 52.8	-0.1
ISA	Isabella	6.12	208	*e*Pn	Pn	15 31 55.4	+1.5
ISA				*e*Pg	Pg	15 32 17.3	-3.4
SLMT	Seeley Lake	6.21	9	*e*Pn	Pn	15 31 57.2	+2.1
SLMT				*e*Sg	Sg	15 33 36.2	-6.5
MVCO	Mesa Verde	6.34	126	*e*Pg	Pg	15 32 19.5	-5.5
BSMT	Bassoo Peak	6.73	1	*e*Pg	Pg	15 32 28.6	-3.8
PHWY	Pilot Hill	7.15	85	*e*Pn	Pn	15 32 11.5	+3.4
RSSD	Black Hills	8.58	66	*e*Pn	Pn	15 32 28.7	+1.1
YKA	Yellowknife Ar 0.4nm,0.7s,baz=180,slow=10,SNR=9.3	21.41	0	P	P	15 35 11.2	+0.1

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*NIED **22** 15:48:00,23°.70N×125°.80E,h5^{km},Mw4.1 Best double couple: M$_0$1.55000×10^{15} NP1:φ$_s$104.00000°,δ50.00000°,λ84.00000°. NP2:φ$_s$294.00000°,δ41.00000°,λ97.00000°.*

JMA 22 15:48:14.3±0.3,**23°.74N×125°.83E,h21**^{km}**,M3.5, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOGS	Gusukube	1.09	339	P	Pn	15 48 34.0	-0.3
JOGS				*e*S	Sb	15 48 49.2	+1.0
JMJ	Miyako jima 2	1.18	336	P	Pn	15 48 35.6	+0.1
JMJ				*e*S	Sb	15 48 51.2	+0.4
JTJ	Tarama	1.37	311	P	Pn	15 48 38.2	+0.1
JTJ				*e*S	Sn	15 48 55.3	-0.3
JIJ	Ishigaki jima	1.66	292	P	Pn	15 48 42.8	+0.6
JIJ				*e*S	Sn	15 49 02.6	-0.3
JKRS	Kuro-shima	1.74	287	P	Pn	15 48 44.8	+1.6
JKRS				*e*S	Sn	15 49 04.7	-0.1
HATJ	Hateruma jima	1.88	280	P	Pn	15 48 46.2	+1.0
HATJ				*e*S	Sn	15 49 08.2	-0.1
IRIF	Iriomote-Funau	2.01	288	P	Pn	15 48 48.2	+1.2
IRIF				*e*S	Sn	15 49 12.5	+1.0
YOJ	Yonaguni jima	2.67	286	P	Pn	15 48 57.3	+1.2
JAGN	Aguni-jima	3.11	24	P	Pn	15 49 03.3	+1.1

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*IDC **22** 15:52:44.5±2.3,2°.59N×95°.67E,h0^{km},mb3.5/3,mb1 3.6/4, mb1mx3.4/22,mbtmp3.5/4,ML3.4/1,MS3.9/1,Ms1 3.9/1, ms1mx2.6/30,Error ellipse: s-maj=71.8km s-min=28.3km az=50.0*

*NEIC **22** 15:52:49.5±1.2,2°.60N×95°.74E,h35^{km},mb3.9/1,Error ellipse: s-maj=31.8km s-min=17.7km az=45.0*

*ISCJB **22** 15:52:50.2±4.7,2°.9N±0°.3×95°.9E±0°.4,h57^{km}±35^{km}, mb3.6/4,Error ellipse: s-maj=84.3km s-min=13.2km az=141.1*

ISC 22 15:52:50.9±5.0,**2°.9N**±0°.3×**95°.9E**±0°.4,**h47**^{km}±38^{km}**,n10, σ0^{s}.84**/10,**mb3.6**/4,**1C-1D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.68	348	⇑*e*P	Pn	15 53 32.0	+0.3
BSI				*e*S	Sn	15 54 02.0	-1.0
PSI	Prapat	3.04	91	⇓*e*P	Pn	15 53 37.3	+0.7
PSI	Prapat 3.8nm,0.3s,baz=296,slow=6.7,SNR=11	3.04	91	Pn	Pn	15 53 37.2	+0.6
PSI	Prapat	3.04	91	Pn	Pn	15 53 37.2	+0.6
WRA	Warramunga Arr 0.6nm,0.6s,mb3.5,baz=301,slow=9.3,SNR=5.5	44.03	123	P	P	16 00 54.7	+0.4
WRAB	Tennant Creek 2.0nm,0.8s,mb3.9	44.04	123	P	P	16 00 53.4	-1.0
WB2	Warramunga Arr	44.04	123	P	P	16 00 53.7	-0.7
MKAR	Makanchi Array 0.5nm,0.4s,mb3.7,baz=159,slow=8.5,SNR=6.1	45.33	347	P	P	16 01 05.9	+1.6
ASAR	Alice Springs 0.3nm,0.7s,mb3.2,baz=302,slow=7.8,SNR=5.8	45.44	128	P	P	16 01 05.3	-0.3
ZALV	Zalesovo Beam comp=Z,124nm,18.8s,baz=355,slow=42	51.73	352	LR	LR	16 28 48.4	

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*ISCJB **22** 16:00:51.6±2.2,37°.1N±0°.1×72°.3E±0°.2,h105^{km}±46^{km}, Error ellipse: s-maj=25.0km s-min=12.6km az=144.1*

*NEIC **22** 16:00:51.1±5.7,36°.87N×72°.32E,h35^{km},mb3.9/3,Error ellipse: s-maj=112.0km s-min=4.5km az=70.0*

*NNC **22** 16:00:57.7±4.6,37°.95N×71°.82E,h0^{km},mb3.9,mpv3.5, Error ellipse: s-maj=37.7km s-min=33.5km az=38.0*

ISC 22 16:00:52.1±1.7,**37°.0N**±0°.1×**72°.3E**±0°.1,**h79**^{km}±49^{km}**,n19, σ0^{s}.80**/24,**1C-2D,Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.84	47	Pn	Pn	16 01 49.8	+1.0
KSH				Sn	Sn	16 02 32.1	-0.6
KSH	comp=N,94nm,0.2s			smax			
KSH	comp=E,110nm,0.2s			smax			
AML	Almayashu comp=E,52nm,0.4s	5.26	11	*e*Pn	Pn	16 02 09.0	+0.8
AML				*e*Sn	Sn	16 03 06.2	-1.3
UCH	Uchtor comp=E,7.0nm,0.4s	5.52	17	*e*Pn	Pn	16 02 12.8	+1.1
EKS2	Erkin-Say comp=E,11nm,0.6s	5.79	11	*e*Pn	Pn	16 02 15.8	+0.4
AAK	Ala-Archa comp=E,26nm,0.8s	5.90	16	*e*Pn	Pn	16 02 17.5	+0.6
AAK				*e*Sn	Sn	16 03 22.6	-0.4
KK31	Karatay Array comp=E,2.4nm,0.3s,baz=172,slow=16,SNR=48	6.28	348	⇓Pn	Pn	16 02 20.3	-1.8
KK31	comp=E,3.6nm,0.4s,baz=168,slow=15,SNR=12			⇑Sn	Sn	16 03 25.3	-7.1
TKM2	Tokmak 2 comp=E,5.5nm,0.9s	6.46	22	Pn	Pn	16 02 25.4	+1.0
TKM2	comp=E,3.6nm,0.8s			Sn	Sn	16 03 31.3	-5.2
DANN	Dangsing	12.90	128	*e*P	Pn	16 03 51.7	-0.6
KOLN	Koldanda comp=E,2.9nm,0.4s	13.22	131	*e*P	Pn	16 03 55.7	-0.8
GKN	Gorkha comp=E,4.1nm,0.2s	13.70	127	*e*P	Pn	16 04 02.5	-0.4
DMN	Daman comp=E,5.4nm,0.4s	14.27	127	*e*P	Pn	16 04 10.0	-0.3
PKIN	Phulchoki comp=E,3.1nm,0.3s	14.48	127	*e*P	Pn	16 04 12.3	-0.7
PKI	Pulchoki comp=E,3.7nm,0.3s	14.49	127	*e*P	Pn	16 04 12.8	-0.4
GUN	Gumba comp=E,3.3nm,0.2s	14.57	124	*e*P	Pn	16 04 13.9	-0.3
JIRN	Jiri comp=E,14nm,0.5s	14.94	124	*e*P	Pn	16 04 19.3	+0.3
AB08	Akbulak array comp=E,1.1nm,0.5s	15.22	328	⇓Pn	Pn	16 04 15.2	-7.1
RAMN	Ramite comp=E,6.0nm,0.5s	15.69	125	*e*P	Pn	16 04 29.0	+0.5
TAPN	Taplejung comp=E,3.0nm,0.3s	16.16	122	*e*P	Pn	16 04 35.5	+1.1
ODAN	Odare comp=E,4.0nm,0.5s	16.27	124	*e*P	Pn	16 04 36.4	+0.6

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*CSEM **22** 16:06:59.3±0.4,36°.43N×21°.89E,h10^{km},MD3.6,Error ellipse: s-maj=14.2km s-min=6.2km az=33.0*

*NEIC **22** 16:07:00.0,36°.46N×21°.89E,h5^{km},MD3.6(ATH),After ATH.*

ATH 22 16:07:00.0,36°.46N×21°.89E,h5^{km}**,MD3.6**/6**,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.45	345	*e*PB	Pg	16 07 08.6	-0.1
PYL	PYLOS	0.45	345	*e*Pb	Pg	16 07 08.6	-0.1
ITM	Ithomi	0.72	2	*e*PB	Pb	16 07 14.3	-0.7
ITM	Ithomi	0.72	2	*e*Pb	Pb	16 07 14.3	-0.7
VLI	Veliai	0.88	73	*e*PB	Pb	16 07 17.6	-0.2
VLI	Veliai	0.88	73	*e*Pb	Pb	16 07 17.6	-0.2
KYTH	Kithira	0.94	101	*e*PG	Pg	16 07 17.4	-0.7
KYTH	Kithira	0.94	101	*e*Pg	Pg	16 07 17.4	-0.7
VLX	Vlachokerasia	0.99	23	*e*PN	Pn	16 07 19.4	-1.1
VLX	Vlachokerasia	0.99	23	*e*Pn	Pn	16 07 19.4	-1.1
VAM	Vamos	2.15	119	*e*PG	Pg	16 07 40.0	-1.2
VAM	Vamos	2.15	119	*e*Pg	Pg	16 07 40.0	-1.2
TIP	Timpagrande	4.89	305	*e*Pn	Pn	16 08 12.4	-1.7
TIP	Timpagrande	4.89	305	*e*Pn	Pn	16 08 12.4	-1.7
CUC	Castrocucco 16nm,0.6s	5.94	308	*e*Pn	Pn	16 08 28.7	+0.1
CUC	Castrocucco 16nm,0.6s	5.94	308	*e*Pn	Pn	16 08 28.7	+0.1

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*IDC **22** 16:16:06.3±4.4,2°.75S×139°.23E,h0^{km},mb3.8/3, mb1 4.0/4,mb1mx3.7/14,mbtmp3.8/4,ML3.8/1,MS3.3/1, Ms1 3.3/1,ms1mx2.8/30,Error ellipse: s-maj=189.7km s-min=25.6km az=88.0*

*ISCJB **22** 16:16:09.1±3.1,2°.85S±0°.05×139°.25E±0°.05,h15^{km}±23^{km}, mb3.7/3,Error ellipse: s-maj=9.2km s-min=7.6km az=149.3*

*NEIC **22** 16:16:09.2±1.2,2°.81S×139°.92E,h35^{km},mb3.5/2,Error ellipse: s-maj=41.8km s-min=13.9km az=86.0*

*DJA **22** 16:16:12,1°.84S×139°.52E,h15^{km},MLv3.9/4*

ISC 22 16:16:07.5±1.6,**2°.82S**±0°.05×**139°.30E**±0°.05,**h3**^{km}±13^{km}**, n14,σ0^{s}.96**/14,**mb3.7**/3,**Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMPI	Sarmi	1.01	324	P	Pg	16 16 26.5	-0.4
SMPI				S	Sg	16 16 40.1	+0.1
JAY	Jayapura	1.44	78	P	Pn	16 16 35.3	+0.8
JAY				S	Sb	16 16 53.8	+0.1
BAKI	Biak	3.58	297	P	Pn	16 17 06.2	+2.3
MMPI	Merauke	5.71	169	P	Pb	16 17 47.3	-0.6
TLE	Tual	7.12	247	P	Px	16 18 04.8	
MSAI	Masohi	10.37	267	P	Px	16 18 45.4	
WRAB	Tennant Creek 3.1nm,0.8s	17.68	195	*e*Pn	Pn	16 20 14.7	-0.3
WRAB				*e*Sn	Sn	16 23 32.9	+0.3
WB2	Warramunga Arr	17.69	195	*e*Pn	Pn	16 20 16.3	+1.2
WRA	Warramunga Arr 0.3nm,0.3s,baz=17,slow=13,SNR=21	17.70	196	P	Pn	16 20 14.0	-1.2
CTAO	Charters Tower 3.0nm,0.9s	18.46	159	P	Pn	16 20 19.8	-4.8
FITZ	Fitzroy Crossi comp=Z,82nm,18.6s,baz=249,slow=41	20.25	220	LR	LR	16 29 58.5	
ASAR	Alice Springs 1.5nm,0.7s,mb3.4,baz=21,slow=8.8,SNR=23	21.37	194	P	P	16 20 56.8	+0.5
MKAR	Makanchi Array 0.7nm,0.6s,mb3.8,baz=108,slow=7.8,SNR=6.7	70.23	322	P	P	16 27 21.3	-0.7
ZALV	Zalesovo Beam 0.5nm,0.3s,mb3.9,baz=140,slow=7.6,SNR=2.3	72.33	330	P	P	16 27 32.8	-1.7

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*CSEM **22** 16:21:57.3,37°.17N×21°.89E,h4^{km},MD3.5,After ATH*

ATH 22 16:21:57.3,37°.17N×21°.89E,h4^{km}**,MD3.5**/5**,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.03	72	*e*PG	Pg	16 21 58.3	+0.1
ITM	Ithomi	0.03	72	*e*Pg	Pg	16 21 58.3	+0.1
PYL	PYLOS	0.30	203	*e*PG	Pg	16 22 03.2	+0.2
PYL	PYLOS	0.30	203	*e*Pg	Pg	16 22 03.2	+0.2
VLI	Veliai	0.95	118	*e*PG	Pg	16 22 15.8	+0.2
VLI	Veliai	0.95	118	*e*Pg	Pg	16 22 15.8	+0.2
EVR	Evrytania	1.75	358	*e*PB	Pb	16 22 30.0	+0.1
EVR	Evrytania	1.75	358	*e*Pb	Pb	16 22 30.0	+0.1
VAM	Vamos	2.56	133	*e*PN	Pn	16 22 40.3	+0.7
VAM	Vamos	2.56	133	*e*Pn	Pn	16 22 40.3	+0.7

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*ISCJB **22** 16:29:47.7±0.5,18°.10N±0°.03×101°.97W±0°.02,h51^{km}±6^{km}, mb4.1/14,MS3.7/2,Error ellipse: s-maj=5.6km s-min=3.2km az=27.6*

*MEX **22** 16:29:49.9±0.6,18°.08N×101°.98W,h32^{km}±6^{km},MD4.5*

*NEIC **22** 16:29:50.2,18°.10N×101°.98W,h30^{km},mb4.0/10, MD4.7(MEX),After MEX.*

NEIC Felt at Ixtapa.

*IDC **22** 16:29:55.5±4.3,18°.42N×101°.56W,h102^{km}±37^{km},mb3.8/8, mb1 3.9/10,mb1mx3.8/20,mbtmp3.7/10,MS3.5/5, Ms1 3.5/5,ms1mx3.2/39,Error ellipse: s-maj=45.4km s-min=18.7km az=56.0*

ISC 22 16:29:48.9±0.5,**18°.08N**±0°.03×**102°.00W**±0°.02,**h44**^{km}±6^{km}**, n63,σ1^{s}.20**/98,**mb4.1**/14,**MS3.7**/2,**Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMIG	Aquila	1.30	279	*i* P	Pn	16 30 09.7	-0.9
MMIG				*i* S	Sn	16 30 26.3	-0.4
MOIG	Morelia	1.76	26	*i* P	Pn	16 30 16.2	-0.7
MOIG				*i* S	Sn	16 30 37.6	-0.5
CAIG	El Cayaco	1.95	122	*e*P	Pn	16 30 18.7	-0.8
CAIG				*i* S	Sn	16 30 41.8	-0.9
MEIG	Mezcala	2.27	94	*e*P	Pn	16 30 24.3	+0.5
MEIG				*i* S	Sn	16 30 49.5	-1.1
ACX	Acapulco	2.33	121	*e*P	Pn	16 30 24.1	-0.5
ACX				*i* S	Sn	16 30 51.4	-0.7
ACX	Acapulco	2.33	121	*e*P	Pn	16 30 24.1	-0.5
ACX				*i* S	Sn	16 30 53.1	+1.1
PLIG	Platanillo	2.39	82	*e*P	Pn	16 30 24.6	-1.0
PLIG				*i* S	Sn	16 30 52.9	-0.8
PLIG	Platanillo	2.39	82	*e*P	Pn	16 30 24.6	-1.0
PLIG				*i* S	Sn	16 30 53.7	0.0

SZVM	Salazar	2.77	63	*i* P	Pn	16 30 29.1	-1.7
SZVM				*i* S	Sn	16 31 02.6	-0.4
MZVM		2.85	67	*e*P	Pn	16 30 31.6	-0.3
MZVM				*i* S	Sn	16 31 03.5	-1.4
CHVM	Chichinautzin	2.88	69	*i* P	Pn	16 30 33.1	+0.8
CHVM				*i* S	Sn	16 31 08.4	+2.7
YAIG	Yautepec	2.89	74	*e*P	Pn	16 30 32.0	-0.3
YAIG				*i* S	Sn	16 31 04.6	-1.2
UNM	Universidad Na	2.95	65	*e*P	Pn	16 30 34.7	+1.5
UNM				*i* S	Sn	16 31 10.1	+2.8
PBVM	Pinon	3.07	63	*e*P	Pn	16 30 34.5	-0.5
PBVM				*i* S	Sn	16 31 12.7	+2.3
PBVM	Pinon	3.07	63	*e*P	Pn	16 30 32.5	-2.5
PBVM				*i* S	Sn	16 31 12.7	+2.3
CJM	Chamela	3.21	297	*e*P	Pn	16 30 37.2	+0.4
CJM				*i* S	Sn	16 31 13.7	-0.2
CJM	Chamela	3.21	297	*e*P	Pn	16 30 36.2	-0.6
CJM				*i* S	Sn	16 31 10.6	-3.2
PPM	Popocatepetl	3.34	72	*i* P	Pn	16 30 38.3	-0.3
PPM				*e*P		16 30 39.9	
PPM				*i* S	Sn	16 31 18.0	+0.8
PPM				*i* S	Sn	16 31 21.8	+4.6
PPM	Popocatepetl	3.34	72	*i* P	Pn	16 30 37.3	-1.3
PPM				*e*P		16 30 39.9	
PPM				*i* S	Sn	16 31 18.0	+0.8
PPM				*i* S	Sn	16 31 21.8	+4.6
DEIG	Demacu	3.56	51	*e*P	Pn	16 30 42.2	+0.6
DEIG				*i* S	Sn	16 31 22.3	-0.3
ANIG	Ahuacatlan	3.79	322	*e*P	Pn	16 30 45.0	+0.2
ANIG				*i* S	Sn	16 31 28.3	+0.1
UTMO	Huajuapan	4.00	93	*i* P	Pn	16 30 47.8	+0.1
UTMO				*i* S	Sn	16 31 32.8	-0.5
PNIG	Pinotepa	4.06	114	*e*P	Pn	16 30 49.0	+0.4
PNIG				*i* S	Sn	16 31 37.8	+2.9
PNIG	Pinotepa	4.06	114	*e*P	Pn	16 30 49.0	+0.4
PNIG				*i* S	Sn	16 31 43.8	+8.9
ZAIG	Zacatecas	4.69	354	*e*P	Pn	16 30 57.9	+0.7
ZAIG				*i* S	Sn	16 31 50.4	0.0
VHO	Vista Hermosa	5.12	101	*e*P	Pn	16 31 03.9	+0.8
VHO				*i* S	Sn	16 32 00.3	-0.6
VHO	Vista Hermosa	5.12	101	*e*P	Pn	16 30 59.8	-3.3
VHO				*i* S	Sn	16 32 00.3	-0.6
OXX	Oaxaca	5.13	100	*e*P	Pn	16 31 06.0	+2.8
OXX				*i* S	Sn	16 31 59.9	-1.3
OXX	Oaxaca	5.13	100	*e*P	Pn	16 31 00.5	-2.6
OXX				*i* S	Sn	16 31 59.9	-1.3
LVIG	Laguna Verde	5.53	72	*e*P	Pn	16 31 08.6	0.0
LVIG				*i* S	Sn	16 32 09.5	-1.5
HUIG	Huatulco	6.09	111	*e*P	Pn	16 31 17.0	+0.6
HUIG				*i* S	Sn	16 32 24.4	-0.4
HUIG	Huatulco	6.09	111	*e*P	Pn	16 31 10.8	-5.5
HUIG				*i* S	Sn	16 32 31.3	+6.5
CMIG	Matias Romero	6.86	97	P	Pn	16 31 28.4	+1.5
	3.4nm,0.3s,baz=256,slow=10,SNR=41						
CMIG				S	Sn	16 32 58.3	+15
	3.9nm,0.3s,baz=36,slow=17,SNR=10						
CMIG				LR	LR	16 34 18.9	
	comp=Z,470nm,18.3s,baz=247,slow=41						
CMIG	Matias Romero	6.86	97	*e*P	Pn	16 31 29.1	+2.2
CMIG				S	Sn	16 32 58.3	+15
CMIG				LR	LR	16 34 18.9	
LNIG	Linares	7.18	19	*i* P	Pn	16 31 31.5	+0.2
LNIG				*i* S	Sn	16 32 51.6	+0.1
TGIG		8.57	97	*e*P	Pn	16 31 53.7	+3.3
TGIG				*i* S	Sn	16 33 26.9	+1.1
PCIG		8.73	104	*e*P	Pn	16 31 54.7	+2.0
PCIG				*e*S	Sn	16 33 30.9	+1.1
HPIG		9.44	340	*i* S	Sn	16 33 50.6	+3.5
CCIG	Comitan	9.59	99	*e*P	Pn	16 32 04.2	-0.2
TEIG	Tepich	13.14	78	LR	LR	16 39 00.9	
	comp=Z,79nm,18.6s,baz=174,slow=43						
BNM	Barren Site	16.53	346	*e*Pn	Pn	16 33 39.5	+2.0
	11nm,1.4s						
WMOK	Wichita Mounta	16.83	9	*e*Pn	Pn	16 33 40.7	-0.7
	3.4nm,1.0s						
ANMO	Albuquerque	17.26	348	P	Pn	16 33 49.5	+2.8
	0.1nm,0.3s,baz=182,slow=9.6,SNR=2.6						
ANMO				LR	LR	16 41 08.4	
	comp=Z,133nm,19.1s,baz=53,slow=40						
WUAZ	Wupatki	19.25	336	*e*P	Pn	16 34 12.1	+1.2
	7.3nm,0.9s						
SDCO	Great Sand Dun	19.83	352	*e*P	Pn	16 34 13.5	-4.2
	5.8nm,1.2s						
ISCO	Idaho Springs	21.87	353	*e*P	P	16 34 37.4	-0.5
	7.8nm,1.3s,mb4.0						
ARUT	Antelope Range	22.04	335	*e*P	P	16 34 40.9	+1.1
	3.7nm,0.4s,mb4.2						
NVAR	Mina Array Bea	24.77	328	P	P	16 35 07.5	+1.1
	7.6nm,0.8s,mb4.3,baz=150,slow=9.6,SNR=30						
PDAR	Pinedale Array	25.43	347	P	P	16 35 11.9	-0.5
	2.0nm,0.9s,mb3.7,baz=149,slow=8.4,SNR=14						
TPAW	Teton Pass	26.43	345	*e*P	P	16 35 21.1	-0.4
	6.2nm,1.2s,mb4.0						
SDV	Santo Domingo	31.80	103	*e*P	P	16 36 10.5	+1.0
	2.3nm,0.5s,mb4.3						
ULM	Lac du Bonnet	32.46	7	P	P	16 36 12.4	-2.5
	0.7nm,0.4s,mb3.9,baz=177,slow=9.8,SNR=3.1						
ULM				LR	LR	16 51 40.4	
	comp=Z,119nm,18.6s,MS3.6,baz=270,slow=41						
FFC	Flin Flon	36.57	0	*e*P	P	16 36 47.8	-2.6
	5.5nm,1.0s,mb4.3						
YKA	Yellowknife Ar	45.23	352	P	P	16 37 59.2	-2.3
	1.4nm,0.8s,mb3.8,baz=162,slow=7.7,SNR=22						
YKA				PcP	PcP	16 39 39.6	-1.3
	0.8nm,1.0s,baz=160,slow=3.6,SNR=4.9						
YKA	Yellowknife Ar	45.23	352	P	P	16 37 59.2	-2.3
YKA				PcP	PcP	16 39 39.6	-1.3
DLBC	Dease Lake	45.25	340	LR	LR	16 59 19.4	
	comp=Z,117nm,18.6s,MS3.9,baz=239,slow=39						
SCHQ	Schefferville	45.45	28	P	P	16 37 59.9	-3.5
	2.1nm,0.8s,mb4.0,baz=252,slow=3.2,SNR=3.2						
LVC	Limon Verde	51.79	140	*e*P	P	16 38 53.4	+0.8
	3.1nm,0.8s,mb4.3						
CPUP	Villa Florida	61.90	134	P	P	16 40 04.2	+0.1
	0.3nm,0.3s,mb3.8,baz=315,slow=6.6,SNR=4.5						
PETK	Petropavlovsk-	81.75	323	P	P	16 42 03.5	+0.7
	1.9nm,0.9s,mb4.0,baz=77,slow=6.3,SNR=4.1						
ARCES	ARCESS Array B	85.12	16	P	P	16 42 19.0	-0.8
	4.8nm,1.1s,mb4.6,baz=286,slow=4.6,SNR=3.5						
WRA	Warramunga Arr	126.92	258	PKP	PKPdf	16 48 47.8	-0.9
	0.4nm,0.8s,baz=71,slow=2.5,SNR=4.5						
CMAR	Chiang Mai Arr	138.26	329	PKP	PKPdf	16 49 10.2	+0.1
	0.4nm,0.8s,baz=318,slow=3.1,SNR=4.3						

IDC ***22*** *17:05:17.2±1.0, 8°.83S×126°.73E, h0^{km}, mb4.0/6, mb1 4.1/9, mb1mx3.9/19, mbtmp4.0/9, ML3.8/3, MS3.0/2, Ms1 3.0/2, ms1mx2.3/25, Error ellipse: s-maj=46.4km s-min=21.9km az=70.0*

NEIC ***22*** *17:05:21.4±0.5, 8°.99S×126°.71E, h35^{km}, mb4.0/3, Error ellipse: s-maj=23.5km s-min=8.0km az=60.0*

ISCJB ***22*** *17:05:24.8±2.0, 9°.24S±0°.08×126°.75E±0°.10, h92^{km}±21^{km}, mb3.9/6, Error ellipse: s-maj=17.7km s-min=10.6km az=148.7*

ISC 22 17:05:24.7±2.0, **9°.2S**±0°.1×**126°.8E**±0°.1, **h72**^{km}±23^{km}, **n22, σ0^{s}.94**/24, **mb3.9**/6, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.54	123	*e*P	Pn	17 07 01.6	+3.3
	8.3nm,0.6s						
FITZ	Fitzroy Crossi	8.97	187	*e*P	Pn	17 07 33.0	+1.5
	7.7nm,0.3s						
FITZ				*e*S	Sn	17 09 10.8	-0.1
FITZ	Fitzroy Crossi	8.97	187	Pn	Pn	17 07 32.5	+1.1
	1.0nm,0.3s,baz=21,slow=10.0,SNR=39						
FITZ				Sn	Sn	17 09 11.2	+0.3
	3.3nm,0.3s,baz=183,slow=7.8,SNR=10						
WRAB	Tennant Creek	12.95	147	*e*Pn	Pn	17 08 25.1	-0.6
WRAB				*e*Sn	Sn	17 10 44.6	-3.4
WRA	Warramunga Arr	12.95	147	Pn	Pn	17 08 25.3	-0.5
	0.4nm,0.3s,baz=313,slow=13,SNR=18						
WRA				Sn	Sn	17 10 48.0	0.0
	0.7nm,0.3s,baz=316,slow=24,SNR=6.1						
WRA				LR	LR	17 12 49.2	
	comp=Z,23nm,18.3s,baz=355,slow=34						
WB2	Warramunga Arr	12.95	147	*e*Pn	Pn	17 08 25.2	-0.7
WB2				*e*Sn	Sn	17 10 47.7	-0.5
ASAR	Alice Springs	15.94	156	Pn	Pn	17 09 05.5	+1.0
	0.3nm,0.3s,baz=319,slow=10,SNR=21						
ASAR				Sn	Sn	17 12 00.8	+0.2
	0.3nm,0.3s,baz=318,slow=19,SNR=5.6						
KSM	Kuching	19.56	302	*e*Pn	Pn	17 09 43.2	-5.6
	15nm,1.1s						
STKA	Stephens Creek	26.44	151	LR	LR	17 23 40.9	
	comp=Z,79nm,18.0s,baz=205,slow=41						
CMAR	Chiang Mai Arr	38.86	315	P	P	17 12 42.2	-1.1
	0.6nm,0.7s,mb3.6,baz=144,slow=6.7,SNR=6.4						
CHTO	Chiang Mai	39.10	315	*e*P	P	17 12 45.2	-0.1
	1.2nm,0.6s,mb3.9						
PETK	Petropavlovsk-	67.36	20	P	P	17 16 12.9	+0.9
	1.3nm,0.7s,mb3.9,baz=185,slow=4.1,SNR=10						
MKAR	Makanchi Array	68.37	329	P	P	17 16 18.2	-0.3
	1.0nm,0.6s,mb3.8,baz=130,slow=7.7,SNR=12						
ZALV	Zalesovo Beam	72.17	335	P	P	17 16 40.7	-0.9
	1.7nm,0.4s,mb4.2,baz=139,slow=9.2,SNR=4.1						
ZALV	Zalesovo Beam	72.17	335	P	P	17 16 40.7	-0.9
KURK	Kurchatov	72.77	330	P	P	17 16 44.8	-0.4
	0.7nm,0.5s,mb3.8,baz=140,slow=5.1,SNR=5.8						
KURK	Kurchatov	72.77	330	*e*P	P	17 16 44.3	-0.9
	1.1nm,0.6s,mb3.9						
BVAR	Borovoye Array	78.25	329	P	P	17 17 16.7	+0.2
	0.4nm,0.5s,baz=123,slow=9.0,SNR=6.0						
COLA	College	96.23	25	P	P	17 18 46.4	+1.8
TORD	Torodi Ar. Bea	126.11	280	PKP	PKPdf	17 24 23.8	+4.0
	0.5nm,0.6s,baz=90,slow=1.5,SNR=4.4						
CPUP	Villa Florida	144.50	174	PKP	PKPdf	17 24 57.7	+4.1
	0.9nm,0.5s,baz=160,slow=6.9,SNR=4.5						
CPUP	Villa Florida	144.50	174	PKP	PKPdf	17 24 57.7	+4.1

ISCJB ***22*** *17:10:19.7±0.2, 41°.09N±0°.01×114°.88W±0°.02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.7km az=144.8*

IDC ***22*** *17:10:19.8±1.0, 41°.16N×114°.96W, h0^{km}, mb2.7/1, mb1 3.5/3, mb1mx3.3/21, mbtmp3.1/3, ML3.7/2, Error ellipse: s-maj=21.1km s-min=5.4km az=130.0*

NEIC ***22*** *17:10:20.4, 41°.12N×114°.91W, h8^{km}, ML3.2, After REN.*

ISC 22 17:10:19.4±0.3, **41°.12N**±0°.01×**114°.90W**±0°.02, **h1**^{km}±2^{km}, **n110, σ1^{s}.03**/173, **34C-33D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.28	201	P	Pg	17 10 26.2	+1.4
	baz=0.3,SNR=400						
N12A				⇓S	Sg	17 10 30.3	+1.9
	baz=0.3						
ELK	Elko	0.45	215	Pg	Pg	17 10 29.1	+1.0
	42nm,0.3s,baz=15,slow=16,SNR=70						
ELK				Lg		17 10 34.8	
	219nm,0.3s,baz=152,slow=15,SNR=119						
N13A	Wendover, West	0.59	116	P	Pg	17 10 31.9	+1.2
	baz=0.6,SNR=88						
N13A				⇑S	Sg	17 10 39.7	+1.3
	baz=0.6						
M13A	Montello	0.61	66	⇓P	Pg	17 10 31.9	+0.8
	baz=0.6,SNR=25						
M13A				⇑S	Sg	17 10 40.7	+1.8
	baz=0.6						
N11A	Elko Archery C	0.70	245	⇑P	Pg	17 10 33.5	+0.7
	baz=0.7,SNR=62						
N11A				⇑S	Sg	17 10 42.8	+1.0
	baz=0.7						
M11A	Holland Ranch,	0.74	296	⇓P	Pg	17 10 34.1	+0.5
	baz=0.7,SNR=170						
O12A	Currie	0.85	172	P	Pg	17 10 36.6	+0.8
	baz=0.9,SNR=95						
O12A				⇑S	Sg	17 10 48.3	+1.4
	baz=0.9						
L12A	House Creek Ra	1.03	355	⇓P	Pg	17 10 39.4	+0.2
	baz=1.0,SNR=42						
L12A				⇓S	Sg	17 10 53.3	+0.6
	baz=1.0						
O11A	Cowboy Ranch,	1.14	211	⇓P	Pg	17 10 41.2	0.0
	baz=1.1,SNR=421						
O11A				⇑S	Sg	17 10 56.6	+0.7
	baz=1.1						
O13A	Hicks Ranch, I	1.21	144	⇑P	Pg	17 10 42.7	+0.2
	baz=1.2,SNR=303						
L13A	Double Diamond	1.21	36	P	Pg	17 10 42.2	-0.4
	baz=1.2,SNR=56						
L13A				⇓S	Sg	17 10 58.5	+0.2
	baz=1.2						
L11A	Cat Creek Ranc	1.23	329	⇑P	Pg	17 10 42.5	-0.5
	baz=1.2						
L11A				⇑S	Sg	17 10 59.1	+0.2
	baz=1.2						
M14A	Sheep Mountain	1.23	71	⇑P	Pg	17 10 43.0	-0.1
	baz=1.2,SNR=126						
M14A				⇑S	Sg	17 10 59.5	+0.4
	baz=1.2						
N10A	Dunphy	1.28	252	⇓P	Pg	17 10 43.5	-0.4
	baz=1.3,SNR=24						
M10A	I.L. Ranch, Tu	1.30	289	⇓P	Pg	17 10 43.9	-0.3
	baz=1.3,SNR=222						
N14A	Grayback Hills	1.33	101	⇓P	Pg	17 10 44.2	-0.6
	baz=1.3,SNR=250						
N14A				⇑Sb	Sb	17 11 02.5	-0.1
	baz=1.3						
BGU	Big Grassy Mou	1.43	97	*e*Pn	Pn	17 10 46.0	-0.5
BGU				*e*Sn	Sn	17 11 04.6	-1.4
O10A	Cortez Mining,	1.47	236	⇓P	Pn	17 10 46.1	-0.9
	baz=1.5,SNR=54						
O10A				⇓Sb	Sb	17 11 06.4	-0.3
	baz=1.5						
K12A	Draper Farm, C	1.52	0	P	Pn	17 10 46.8	-1.0
	baz=1.5,SNR=178						
K12A				⇓S	Sb	17 11 06.6	-1.6
	baz=1.5						
L10A	Juniper Basin	1.52	310	⇑P	Pn	17 10 47.0	-0.7
	baz=1.5,SNR=407						
L14A	Malta	1.55	53	⇑P	Pn	17 10 47.7	-0.5
	baz=1.5,SNR=57						
L14A				⇓Sb	Sb	17 11 09.0	0.0
	baz=1.5						
K13A	Stover Farm, H	1.65	21	⇓P	Pn	17 10 49.5	0.0
	baz=1.6,SNR=35						
K13A				⇑Sb	Sb	17 11 11.9	-0.1
	baz=1.6						
P11A	Circle Ranch,	1.69	203	⇑P	Pn	17 10 49.8	-0.3
	baz=1.7,SNR=12						
HVU	Hansel Valley	1.73	67	*e*Pn	Pn	17 10 49.9	-0.8
HVU				*e*Sn	Sn	17 11 11.9	-1.6
HVU				*e*Sg	Sg	17 11 14.1	-1.0
P13A	Bates Ranch, G	1.79	157	⇓P	Pn	17 10 50.8	-0.7
	baz=1.8						
N15A	Stansbury Isla	1.82	96	⇑P	Pn	17 10 51.5	-0.4
	baz=1.8,SNR=135						
DUG	Dugway	1.84	119	P	Pn	17 10 51.4	-0.8
	baz=1.8,SNR=109						
DUG	Dugway	1.84	119	*e*Pn	Pn	17 10 51.5	-0.7
DUG				*e*Pg	Pg	17 10 56.0	+1.4
DUG				*e*Sn	Sn	17 11 10.9	-5.1
DUG				*e*Sg	Sg	17 11 18.2	-0.3
K11A	Parker Ranch,	1.86	333	⇑P	Pn	17 10 52.4	0.0
	baz=1.8,SNR=291						
SPUT	South Promonto	1.86	83	*e*Pn	Pn	17 10 53.0	+0.5
SPUT				*e*Sg	Sg	17 11 18.2	-1.1
M15A	Larsen Ranch,	1.88	79	⇑P	Pn	17 10 53.2	+0.5
	baz=1.9,SNR=143						
BMN	Battle Mountai	1.89	250	*e*Pn	Pn	17 10 53.2	+0.4
BMN				*e*Sg	Sg	17 11 19.2	-0.9
P10A	Eureka	1.91	219	⇓P	Pn	17 10 53.3	+0.1
	baz=1.9,SNR=49						
K14A	Jones Ranch, D	1.93	42	⇓P	Pn	17 10 53.6	+0.2
	baz=1.9,SNR=42						
M09A	Marrel Ranch,	1.94	280	⇑P	Pn	17 10 53.1	-0.5
	baz=1.9,SNR=30						
O09A	Fish Creek Ran	1.98	242	⇓P	Pn	17 10 53.7	-0.4
	baz=2.0						
N09A	Rock Creek Ran	2.00	263	⇓P	Pn	17 10 53.5	-0.8
	baz=2.0,SNR=70						
O15A	The Old Anders	2.03	113	⇓P	Pn	17 10 54.1	-0.6
	baz=2.0,SNR=108						
P14A	Drum Mountains	2.07	137	⇑P	Pn	17 10 54.7	-0.6
	baz=2.1						
Q12A	Willow Creek R	2.07	178	⇓P	Pn	17 10 54.9	-0.4
	baz=2.1,SNR=29						
L15A	Malad City	2.09	64	⇑P	Pn	17 10 55.6	0.0
	baz=2.1,SNR=37						
J12A	Stokes Ranch,	2.14	356	⇓P	Pn	17 10 56.4	+0.1
	baz=2.1,SNR=119						
NOQ	North Oquirrh	2.16	101	*e*Pn	Pn	17 10 57.6	+1.0
NOQ				*e*Pg	Pg	17 11 02.2	+1.3
NOQ				*e*Sg	Sg	17 11 29.2	+0.4
K10A	MacKenzie Ranc	2.22	319	⇑P	Pn	17 10 57.2	-0.2
	baz=2.2,SNR=117						
Q13A	Wheeler Ranch,	2.26	162	⇑P	Pn	17 10 57.7	-0.2
	baz=2.3						
Q11A	Duckwater	2.34	195	⇓P	Pn	17 10 58.9	-0.1
	baz=2.3						
J13A	Cove Ranch, Pi	2.34	13	⇑P	Pn	17 11 00.0	+0.9
	baz=2.3,SNR=121						
K15A	Arbon	2.37	48	⇑P	Pn	17 11 00.0	+0.6
	baz=2.4,SNR=21						
MFID	Camas Ranch	2.40	344	⇑P	Pn	17 11 00.3	+0.5
	baz=2.4,SNR=52						
CTU	Camp Tracy	2.43	99	*e*Pn	Pn	17 11 01.0	+0.7
J14A	Carey	2.44	25	⇑P	Pn	17 11 01.5	+1.1
	baz=2.4,SNR=76						
NLU	North Lily Min	2.45	117	*e*Pn	Pn	17 10 59.7	-0.8
NLU				*e*Pb	Pb	17 11 03.7	-0.5
NLU				*e*Pg	Pg	17 11 06.1	-0.2
Q14A	Sevier Lake (B	2.46	149	⇓P	Pn	17 11 00.0	-0.7
	baz=2.5,SNR=22						
HLID	Hailey	2.47	8	⇓P	Pn	17 11 01.9	+1.1
	baz=2.5,SNR=109						
HLID	Hailey	2.47	8	*e*Pn	Pn	17 11 01.6	+0.8
HLID				*e*Sn	Sn	17 11 32.4	+0.6
P15A	Leamington	2.53	127	P	Pn	17 11 00.9	-0.7
	baz=2.5,SNR=28						
Q10A	Clear Creek Ra	2.56	207	⇑P	Pn	17 11 02.1	0.0
	baz=2.6,SNR=66						
O08A	Rochester Mine	2.61	253	P	Pn	17 11 02.2	-0.5
	baz=2.6,SNR=12						
I12A	Atlanta	2.68	356	P	Pn	17 11 05.4	+1.6
	baz=2.7,SNR=141						
MPU	Maple Canyon	2.72	113	*e*Pn	Pn	17 11 04.5	+0.3
MPU				*e*Pg	Pg	17 11 11.0	-0.6
MPU				*e*Sg	Sg	17 11 46.8	-0.1
R12A	Pony Springs,	2.79	175	⇑P	Pn	17 11 05.3	+0.1
	baz=2.8,SNR=15						
R11A	Troy Canyon, C	2.81	191	⇑P	Pn	17 11 05.4	-0.2
	baz=2.8						
I13A	Wildhorse Cree	2.86	11	⇑P	Pn	17 11 07.5	+1.4
	baz=2.9,SNR=68						
DAU	Daniels Canyon	2.86	103	*e*Pn	Pn	17 11 08.9	+2.8
DAU				*e*Pg	Pg	17 11 14.6	+0.4
DAU				*e*Sg	Sg	17 11 51.2	0.0
Q15A	Fillmore	2.87	137	⇓P	Pn	17 11 06.4	+0.1
	baz=2.9						
Q09A	Carvers	2.87	218	⇓P	Pn	17 11 06.6	+0.3
	baz=2.9,SNR=11						
J15A	Blackfoot	2.93	38	⇑P	Pn	17 11 07.9	+0.8
	baz=2.9,SNR=17						
R13A	O'Grain Ranch,	3.02	166	⇑P	Pn	17 11 08.8	+0.5
	baz=3.0,SNR=17						
WVOR	Wild Horse Val	3.09	296	*e*Pn	Pn	17 11 09.2	-0.1
WVOR				*e*Pb	Pb	17 11 13.0	-2.2
WVOR				*e*Sg	Sg	17 11 55.0	-3.6
N07B	Gerlach	3.10	265	P	Pn	17 11 09.2	-0.2
	baz=3.1,SNR=10.0						
M07A	Soldier Meadow	3.23	276	⇓P	Pn	17 11 11.2	-0.1
	baz=3.2,SNR=10						
AHID	Auburn Hatcher	3.28	59	*e*Pn	Pn	17 11 13.0	+1.0
AHID				*e*Sg	Sg	17 12 03.1	-1.7
MSU	Marysvale	3.34	140	*e*Pn	Pn	17 11 11.9	-0.9
MSU				*e*Pg	Pg	17 11 23.9	+0.4
MSU				*e*Sg	Sg	17 12 09.2	+2.4
TMUT	Trail Mountain	3.36	121	*e*Pn	Pn	17 11 15.0	+1.9
TMUT				*e*Pb	Pb	17 11 20.7	+0.8
TMUT				*e*Pg	Pg	17 11 25.3	+1.4
RRI2	Red Ridge	3.47	49	*e*Pn	Pn	17 11 15.2	+0.6
RRI2				*e*Sg	Sg	17 12 09.1	-1.9
ARUT	Antelope Range	3.51	161	*e*Pn	Pn	17 11 15.4	+0.2
ARUT				*e*Pg	Pg	17 11 27.6	+0.9
ARUT				*e*Sg	Sg	17 12 09.7	-2.5
K07A	Rock Creek Ran	3.60	297	⇓P	Pn	17 11 17.2	+0.8
	baz=3.6,SNR=11						
S13A	Holt Ranch, En	3.62	167	⇓P	Pn	17 11 17.0	+0.3
	baz=3.6,SNR=22						
DCID1	Drake Creek	3.71	47	*e*Pg	Pg	17 11 31.6	+1.2
H10A	Noah's Angus R	3.73	339	P	Pn	17 11 19.7	+1.6
	baz=3.7,SNR=18						
NVAR	Mina Array Bea	3.75	225	Pn	Pn	17 11 18.5	+0.1
	1.7nm,0.3s,baz=39,slow=12,SNR=38						
NVAR				Sn	Sn	17 12 02.8	-0.4
	5.0nm,0.3s,baz=41,slow=17,SNR=3.4						
NVAR				Lg		17 12 17.4	
	17nm,0.3s,baz=108,slow=21,SNR=14						
NVAR	Mina Array Bea	3.75	225	Pn	Pn	17 11 18.5	+0.1
NVAR				Sn	Sn	17 12 02.8	-0.4
NVAR				Lg		17 12 17.4	
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	17 11 18.6	+0.2
CCUT	Cedar City	3.75	161	*e*Pn	Pn	17 11 18.4	-0.1
CCUT				*e*Pg	Pg	17 11 31.3	0.0
CCUT				*e*Sg	Sg	17 12 17.7	-2.3
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	17 11 21.6	+2.9
J17A	Brown Place, J	3.84	53	P	Pn	17 11 18.3	-1.4
	baz=3.8,SNR=209						
SNOW	Snow King Moun	3.87	51	*e*Pn	Pn	17 11 19.6	-0.4
T11A	Corn Creek, Al	3.88	184	⇓P	Pn	17 11 20.3	+0.1
	baz=3.9,SNR=16						
SRU	San Rafael	3.91	119	*e*Pn	Pn	17 11 19.1	-1.6
SRU				*e*Pg	Pg	17 11 33.2	-1.2
BURN	Burns	3.98	309	P	Pn	17 11 27.0	+5.4
MCMT	McKenzie Canyo	4.00	21	*e*Pn	Pn	17 11 23.7	+1.8
MCMT				*e*Sg	Sg	17 12 23.5	-4.6
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	17 11 24.1	+1.7
IMW				*e*Pg	Pg	17 11 37.2	+0.4
IMW				*e*Sg	Sg	17 12 25.1	-4.1
LOHW	Long Hollow	4.05	51	*e*Pn	Pn	17 11 22.1	-0.4
MOOW	Moose Ponds	4.05	48	*e*Pn	Pn	17 11 24.5	+1.9
MOOW				*e*Sg	Sg	17 12 24.8	-4.6
BMO	Blue Mountains	4.13	336	*e*Pn	Pn	17 11 25.4	+1.8
BMO				*e*Sg	Sg	17 12 25.7	-6.3
MOD	Modoc	4.13	283	*e*Pn	Pn	17 11 22.5	-1.1
MOD				*e*Sg	Sg	17 12 30.8	-1.3
J18A	Kendall Valley	4.19	58	P	Pn	17 11 23.6	-0.8
	baz=4.2,SNR=68						
PDAR	Pinedale Array	4.32	66	Pn	Pn	17 11 28.9	+2.8
	0.8nm,0.3s,baz=250,slow=13,SNR=26						
PDAR				Lg		17 12 35.5	
	1.2nm,0.3s,baz=223,slow=32,SNR=5.0						
BEKR	Beckwourth	4.34	255	P	Pn	17 11 26.3	-0.3
	baz=4.3,SNR=9.0						
DLMT	Dillon	4.57	21	Pn	Pn	17 11 29.7	0.0
DLMT				*e*Pb	Pb	17 11 38.5	-1.8
DLMT				*e*Pg	Pg	17 11 46.6	-0.3
DLMT				*e*Sg	Sg	17 12 43.6	-2.5
I18A	Diamond G Ranc	4.57	54	⇓P	Pn	17 11 29.2	-0.4
	baz=4.6,SNR=17						
YMR	Madison River	4.58	38	*e*Pn	Pn	17 11 28.3	-1.5
YMR				*e*Pb	Pb	17 11 40.4	-0.2
LKWY	Lake	4.78	42	Pn	Pn	17 11 35.4	+2.8
LRM	Limekiln Ridge	5.03	20	*e*Pg	Pg	17 11 53.2	-2.7
	30nm,0.8s						
LRM				*e*Sg	Sg	17 12 56.8	-4.2
BOZ	Bozeman (W)	5.12	27	*e*Pg	Pg	17 11 51.9	-5.6
	3.0nm,0.6s						
PV04	Paradox Valley	5.36	119	*e*Pg	Pg	17 11 59.5	-2.7
PV04				*e*Sg	Sg	17 13 10.6	-1.0
LDFC	Landfair	6.03	182	*e*Pn	Pn	17 11 49.1	-0.6
	7.0nm,0.4s						
LDFC				*e*Pg	Pg	17 12 14.8	-0.2
LDFC				*e*Sg	Sg	17 13 31.8	-1.3
WUAZ	Wupatki	6.24	152	*e*Pg	Pg	17 12 16.4	-2.6
	16nm,0.8s						
WUAZ				*e*Sg	Sg	17 13 36.3	-3.6
MVCO	Mesa Verde	6.32	126	*e*Pg	Pg	17 12 16.9	-3.6
	12nm,0.8s						
MVCO				*e*Sg	Sg	17 13 37.5	-4.9
YKA	Yellowknife Ar	21.41	0	P	P	17 15 09.7	+1.2
	0.3nm,0.6s,baz=179,slow=10,SNR=7.3						

ATH ***22*** *17:22:11.6, 36°.36N×21°.78E, h5^{km}, MD3.7/6*

THE ***22*** *17:22:11.9, 36°.36N×21°.50E, h0^{km}±4^{km}, ML3.7/2, Error ellipse: s-maj=10.3km s-min=3.2km az=134.0*

CSEM ***22*** *17:22:12.3±1.1, 36°.44N×21°.49E, h2^{km}, MD3.7, Error ellipse: s-maj=21.1km s-min=18.0km az=152.0*

ISC 22 17:22:12.7±1.7, **36°.40N**±0°.09×**21°.9E**±0°.1, **h10**^{km}, **n28, σ1^{s}.02**/36, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.50	347	P	Pg	17 22 21.4	-1.1
PYL				S	Sg	17 22 30.6	+1.5
PYL	PYLOS	0.50	347	*e*PG	Pg	17 22 21.7	-0.8
PYL				*e*SB	Sg	17 22 30.2	+1.1
PYL	PYLOS	0.50	347	P	Pg	17 22 21.4	-1.1
PYL	PYLOS	0.50	347	*e*Pg	Pg	17 22 21.7	-0.8
PYL				*e*Sb	Sg	17 22 30.2	+1.1
PYL				S	Sg	17 22 30.6	+1.5

ITM	Ithomi	0.78	3	ePG	Pg	17 22 27.3	-0.3
ITM	Ithomi	0.78	3	ePg	Pg	17 22 27.3	-0.3
GUR	Goura	1.57	13	ePG	Pg	17 22 42.2	-0.6
GUR	Goura	1.57	13	ePg	Pg	17 22 42.2	-0.6
LTK	Loutraki	1.83	28	P	Pg	17 22 47.4	-0.4
LTK	Loutraki	1.83	28	ePN	Pg	17 22 47.8	0.0
LTK	Loutraki	1.83	28	P	Pg	17 22 47.4	-0.4
LTK	Loutraki	1.83	28	ePn	Pg	17 22 47.8	0.0
LAKA	Lakka	1.83	2	P	Pn	17 22 45.8	+1.6
LAKA				S	Sg	17 23 11.3	-0.3
LAKA	Lakka	1.83	2	P	Pn	17 22 45.8	+1.6
LAKA				S	Sg	17 23 11.3	-0.3
NAIG	Nisos Aigina	1.86	43	ePN	Pg	17 22 48.2	-0.2
NAIG	Nisos Aigina	1.86	43	ePn	Pg	17 22 48.2	-0.2
KALE	Kalithea	1.99	6	P	Pn	17 22 47.3	+0.9
KALE	Kalithea	1.99	6	P	Pn	17 22 47.3	+0.9
VLS	Valsamata	2.05	330	P	Pn	17 22 45.1	-2.1
VLS	Valsamata	2.05	330	P	Pn	17 22 45.1	-2.1
EVR	Evrytania	2.51	359	ePG	Pg	17 22 59.2	-1.5
EVR	Evrytania	2.51	359	ePg	Pg	17 22 59.2	-1.5
AGG	Agios Georgios	2.64	8	P	Pn	17 22 55.7	+0.5
AGG				S	Sn	17 23 32.1	+4.8
AGG	Agios Georgios	2.64	8	P	Pn	17 22 55.7	+0.5
AGG				S	Sn	17 23 32.1	+4.8
THL	Klokotos Trika	3.16	2	P	Pn	17 23 02.9	+0.5
THL	Klokotos Trika	3.16	2	P	Pn	17 23 02.9	+0.5
MEV	Metsovon	3.42	352	P	Pn	17 23 07.2	+1.3
MEV	Metsovon	3.42	352	P	Pn	17 23 07.2	+1.3

IDC 22 17:27:23.5±3.8**, 7°.29S**×**129°.57E, h114^{km}**±30^{km}**, mb3.3**/1**, mb1 3.2**/3**, mb1mx3.1**/16**, mbtmp3.0**/3**, Error ellipse: s-maj=112.5km s-min=27.9km az=66.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	13.40	160	P	Pn	17 30 28.0	-1.2
	0.3nm,0.3s,baz=339,slow=14,SNR=17						
WRA				S	Sn	17 32 50.0	-6.9
	0.5nm,0.3s,baz=330,slow=22,SNR=10						
ASAR	Alice Springs	16.81	166	P	Pn	17 31 13.9	+1.9
	0.2nm,0.3s,baz=334,slow=9.0,SNR=12						
ASAR				S	S	17 34 13.2	-6.4
	0.2nm,0.3s,baz=346,slow=26,SNR=7.1						
ASAR				ScP	ScP	17 39 16.8	-1.3
	0.1nm,0.3s,baz=344,slow=1.1,SNR=5.6						
MKAR	Makanchi Array	68.23	327	P	P	17 38 12.0	+0.1
	0.3nm,0.5s,baz=115,slow=7.6,SNR=11						

IDC ***22*** *17:31:43.9±0.9, 41°.24N×115°.06W, h0^{km}, mb2.7/1, mb1 3.4/3, mb1mx3.3/21, mbtmp3.0/3, ML3.3/2, Error ellipse: s-maj=12.9km s-min=5.1km az=130.0*

ISCJB ***22*** *17:31:44.3±0.1, 41°.08N±0°.01×114°.85W±0°.01, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.6km az=0.5*

NEIC ***22*** *17:31:45.0, 41°.11N×114°.88W, h8^{km}, ML3.1, After REN.*

ISC 22 17:31:44.3±0.3**, 41°.10N**±0°.01×**114°.87W**±0°.01**, h3^{km}**±2^{km}**, n125, σ1^{s}.01**/192**, 44C-40D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.27	208	⇑P	Pg	17 31 50.9	+1.3
	baz=0.3,SNR=287						
N12A				⇑S	Sg	17 31 55.0	+1.9
	baz=0.3						
N12A	Clover Valley,	0.27	208	ePg	Pg	17 31 50.7	+1.1
ELK	Elko	0.45	219	Pg	Pg	17 31 54.3	+1.4
	59nm,0.3s,baz=15,slow=12,SNR=178						
ELK				Lg		17 32 00.0	
	198nm,0.3s,baz=236,slow=18,SNR=44						
N13A	Wendover, West	0.56	115	⇑P	Pg	17 31 56.1	+1.1
	baz=0.6,SNR=261						
N13A				⇑S	Sg	17 32 03.7	+1.4
	baz=0.6						
N13A	Wendover, West	0.56	115	ePg	Pg	17 31 55.9	+0.9
N13A				eSg	Sg	17 32 04.4	+2.1
M13A	Montello	0.59	63	⇓P	Pg	17 31 56.0	+0.3
	baz=0.6,SNR=37						
M13A				⇓S	Sg	17 32 04.8	+1.4
	baz=0.6						
M13A	Montello	0.59	63	ePg	Pg	17 31 55.9	+0.1
M13A				eSg	Sg	17 32 03.9	+0.4
N11A	Elko Archery C	0.71	247	⇑P	Pg	17 31 58.2	+0.3
	baz=0.7,SNR=112						
N11A				⇓S	Sg	17 32 07.9	+0.6
	baz=0.7						
M11A	Holland Ranch,	0.77	296	⇑P	Pg	17 31 58.9	-0.3
	baz=0.8,SNR=206						
M11A				⇑S	Sg	17 32 10.0	+0.8
	baz=0.8						
O12A	Currie	0.83	173	⇑P	Pg	17 32 00.7	+0.5
	baz=0.9,SNR=213						
O12A				⇓S	Sg	17 32 12.6	+1.6
	baz=0.9						
L12A	House Creek Ra	1.06	354	⇑P	Pg	17 32 04.3	-0.3
	baz=1.0,SNR=30						
L12A				⇓S	Sg	17 32 17.8	-0.5
	baz=1.0						
O11A	Cowboy Ranch,	1.13	212	⇓P	Pg	17 32 06.4	+0.3
	baz=1.1,SNR=317						
O13A	Hicks Ranch, I	1.18	145	⇑P	Pg	17 32 07.1	+0.2
	baz=1.2,SNR=290						
L13A	Double Diamond	1.21	35	⇓P	Pg	17 32 06.5	-1.1
	baz=1.2,SNR=33						
L13A				⇓S	Sg	17 32 22.8	-0.5
	baz=1.2						
M14A	Sheep Mountain	1.22	70	⇑P	Pg	17 32 06.9	-0.7
	baz=1.2,SNR=164						
M14A				⇓S	Sg	17 32 23.4	-0.1
	baz=1.2						
L11A	Cat Creek Ranc	1.26	329	⇓P	Pg	17 32 07.2	-1.3
	baz=1.2						
L11A				⇑S	Sg	17 32 23.7	-1.1
	baz=1.2						
N10A	Dunphy	1.30	254	⇑P	Pg	17 32 08.1	-1.1
	baz=1.3,SNR=41						
N10A				⇑S	Sg	17 32 26.3	+0.3
	baz=1.3						
N14A	Grayback Hills	1.30	100	P	Pg	17 32 08.3	-0.9
	baz=1.3,SNR=184						
N14A				⇓S	Sg	17 32 26.9	+0.9
	baz=1.3						
M10A	I.L. Ranch, Tu	1.33	289	⇑P	Pn	17 32 08.6	-1.1
	baz=1.3,SNR=296						
M10A				⇑S	Sg	17 32 27.2	+0.2
	baz=1.3						
BGU	Big Grassy Mou	1.40	96	ePn	Pn	17 32 09.7	-1.1
BGU				eSn	Sn	17 32 24.8	-4.9
O10A	Cortez Mining,	1.48	238	⇓P	Pn	17 32 10.8	-0.9
	baz=1.5,SNR=88						
K12A	Draper Farm, C	1.54	359	⇑P	Pn	17 32 11.2	-1.4
	baz=1.5,SNR=72						
K12A				⇑S	Sn	17 32 32.0	-1.1
	baz=1.5						
L14A	Malta	1.54	52	⇓P	Pn	17 32 12.0	-0.7
	baz=1.5,SNR=29						
L10A	Juniper Basin	1.55	310	⇓P	Pn	17 32 11.9	-0.9
	baz=1.5,SNR=470						
K13A	Stover Farm, H	1.66	20	⇓P	Pn	17 32 13.6	-0.6
	baz=1.6,SNR=14						
P11A	Circle Ranch,	1.68	204	⇑P	Pn	17 32 14.3	-0.3
	baz=1.7,SNR=23						
HVU	Hansel Valley	1.72	66	ePn	Pn	17 32 14.2	-0.8
HVU				ePg	Pg	17 32 17.6	+0.3
HVU				eSn	Sn	17 32 37.2	-0.3
P13A	Bates Ranch, G	1.76	158	⇑P	Pn	17 32 14.9	-0.8
	baz=1.8						
N15A	Stansbury Isla	1.79	96	⇓P	Pn	17 32 15.6	-0.5
	baz=1.8,SNR=126						
DUG	Dugway	1.81	119	⇓P	Pn	17 32 15.4	-0.8
	baz=1.8,SNR=354						
DUG	Dugway	1.81	119	ePn	Pn	17 32 15.3	-0.9
DUG				eSn	Sn	17 32 40.3	+0.7
SPUT	South Promonto	1.84	83	ePn	Pn	17 32 16.9	+0.2
SPUT				eSn	Sn	17 32 39.7	-0.8
M15A	Larsen Ranch,	1.86	78	⇑P	Pn	17 32 16.4	-0.7
	baz=1.9,SNR=148						
K11A	Parker Ranch,	1.89	333	⇓P	Pn	17 32 16.9	-0.4
	baz=1.9,SNR=262						
BMN	Battle Mountai	1.91	250	ePn	Pn	17 32 16.2	-1.5
BMN				ePb	Pb	17 32 18.5	-1.2
BMN				ePg	Pg	17 32 21.0	+0.1
BMN				eSn	Sn	17 32 39.9	-2.2
P10A	Eureka	1.91	220	⇑P	Pn	17 32 17.7	-0.1
	baz=1.9,SNR=37						
K14A	Jones Ranch, D	1.92	41	⇑P	Pn	17 32 17.4	-0.5
	baz=1.9,SNR=21						
M09A	Marrel Ranch,	1.97	280	⇑P	Pn	17 32 19.1	+0.5
	baz=2.0,SNR=38						
O09A	Fish Creek Ran	1.99	243	⇑P	Pn	17 32 18.1	-0.8
	baz=2.0,SNR=14						
O15A	The Old Anders	2.00	113	⇓P	Pn	17 32 18.1	-0.8
	baz=2.0						
N09A	Rock Creek Ran	2.02	264	⇑P	Pn	17 32 18.3	-1.0
	baz=2.0						
P14A	Drum Mountains	2.04	137	⇑P	Pn	17 32 18.9	-0.6
	baz=2.1						
Q12A	Willow Creek R	2.05	179	⇑P	Pn	17 32 19.4	-0.3
	baz=2.1,SNR=26						
L15A	Malad City	2.07	63	⇑P	Pn	17 32 19.6	-0.3
	baz=2.1,SNR=55						
NOQ	North Oquirrh	2.13	101	ePn	Pn	17 32 19.6	-1.1
NOQ				ePb	Pb	17 32 22.9	-0.6
NOQ				eSg	Sg	17 32 53.4	+0.6
J12A	Stokes Ranch,	2.16	356	⇓P	Pn	17 32 21.3	+0.2
	baz=2.1,SNR=59						
Q13A	Wheeler Ranch,	2.23	163	P	Pn	17 32 21.8	-0.4
	baz=2.3,SNR=56						
K10A	MacKenzie Ranc	2.25	319	⇓P	Pn	17 32 22.4	+0.1
	baz=2.2,SNR=71						
L09A	Wilkinson Ranc	2.29	295	⇓P	Pn	17 32 24.5	+1.5
	baz=2.3						
Q11A	Duckwater	2.33	195	⇑P	Pn	17 32 23.4	-0.1
	baz=2.3						
J13A	Cove Ranch, Pi	2.36	12	⇓P	Pn	17 32 24.3	+0.4
	baz=2.3,SNR=178						
K15A	Arbon	2.36	47	⇓P	Pn	17 32 24.1	+0.2
	baz=2.3,SNR=37						
CTU	Camp Tracy	2.40	99	ePn	Pn	17 32 25.6	+1.2
CTU				ePg	Pg	17 32 31.1	+0.8
NLU	North Lily Min	2.42	117	ePn	Pn	17 32 23.9	-0.8
NLU				ePb	Pb	17 32 27.4	-1.0
NLU				ePg	Pg	17 32 30.1	-0.5
NLU				eSn	Sn	17 32 53.5	-1.2
NLU				eSg	Sg	17 33 02.3	+0.4
MFID	Camas Ranch	2.42	343	⇑P	Pn	17 32 25.7	+0.9
	baz=2.4,SNR=56						
Q14A	Sevier Lake (B	2.43	149	⇓P	Pn	17 32 24.1	-0.8
	baz=2.5,SNR=26						
J14A	Carey	2.44	24	P	Pn	17 32 25.7	+0.7
	baz=2.4,SNR=87						
M16A	Huntsville	2.46	84	⇓P	Pn	17 32 27.8	+2.6
	baz=2.5						
HLID	Hailey	2.49	8	⇑P	Pn	17 32 26.3	+0.6
	baz=2.5,SNR=155						
HLID	Hailey	2.49	8	ePn	Pn	17 32 25.8	+0.1
HLID				ePb	Pb	17 32 29.2	-0.4
HLID				eSg	Sg	17 32 59.4	-4.9
P15A	Leamington	2.50	127	⇓P	Pn	17 32 25.1	-0.7
	baz=2.5,SNR=10						
Q10A	Clear Creek Ra	2.55	208	⇓P	Pn	17 32 26.6	+0.1
	baz=2.6,SNR=94						
O08A	Rochester Mine	2.62	253	⇓P	Pn	17 32 26.6	-0.9
	baz=2.6,SNR=14						
K09A	Rome	2.67	308	⇑P	Pn	17 32 29.9	+1.8
	baz=2.6						
M08A	Happy Creek Ra	2.67	279	⇓P	Pn	17 32 30.5	+2.3
	baz=2.7						
MPU	Maple Canyon	2.69	113	ePn	Pn	17 32 30.2	+1.7
MPU				ePb	Pb	17 32 32.6	-0.4
MPU				ePg	Pg	17 32 35.8	-0.1
MPU				eSg	Sg	17 33 11.2	+0.4
I12A	Atlanta	2.71	356	⇓P	Pn	17 32 29.5	+0.9
	baz=2.7,SNR=46						
J10A	Berg Farm, Mel	2.72	329	⇓P	Pn	17 32 31.3	+2.4
	baz=2.7						
R12A	Pony Springs,	2.77	176	⇑P	Pn	17 32 29.8	+0.3
	baz=2.8,SNR=14						
R11A	Troy Canyon, C	2.80	192	P	Pn	17 32 29.8	-0.1
	baz=2.8,SNR=123						
P08A	Dixie Valley	2.82	241	P	Pn	17 32 30.0	-0.3
	baz=2.8,SNR=8.1						
L08A	Fields	2.82	294	⇓P	Pn	17 32 33.0	+2.7
	baz=2.8						
DAU	Daniels Canyon	2.83	103	ePn	Pn	17 32 33.5	+3.2
DAU				ePg	Pg	17 32 38.8	+0.3
Q15A	Fillmore	2.83	137	⇑P	Pn	17 32 30.2	-0.2
	baz=2.9,SNR=6.2						
I13A	Wildhorse Cree	2.87	11	P	Pn	17 32 31.9	+1.0
	baz=2.9,SNR=63						
Q09A	Carvers	2.87	219	⇓P	Pn	17 32 31.2	+0.3
	baz=2.9,SNR=10						
I11A	Placerville	2.93	344	⇑P	Pn	17 32 34.3	+2.6
	baz=2.9						
J15A	Blackfoot	2.93	37	⇑P	Pn	17 32 32.0	+0.3
	baz=2.9,SNR=14						
R13A	O'Grain Ranch,	2.99	166	⇓P	Pn	17 32 33.2	+0.6
	baz=3.0,SNR=27						
J09A	Fry Pan Ranch,	3.11	317	⇓P	Pn	17 32 37.6	+3.4
	baz=3.1						
WVOR	Wild Horse Val	3.12	297	ePn	Pn	17 32 36.4	+2.0
WVOR				eSg	Sg	17 33 20.6	-3.9
N07B	Gerlach	3.12	266	⇓P	Pn	17 32 33.8	-0.5
	baz=3.1,SNR=9.5						
K08A	Mann Creek Ran	3.15	302	⇓P	Pn	17 32 38.5	+3.7
	baz=3.1						
O07A	Toulon	3.19	254	P	Pn	17 32 34.4	-0.9
	baz=3.2,SNR=20						
Q08A	Gabbs	3.24	228	⇑P	Pn	17 32 35.6	-0.4
	baz=3.2						
J16A	Bone	3.26	47	⇑P	Pn	17 32 36.9	+0.7
	baz=3.2						
M07A	Soldier Meadow	3.26	277	⇓P	Pn	17 32 35.9	-0.3
	baz=3.2,SNR=18						
AHID	Auburn Hatcher	3.27	58	ePn	Pn	17 32 34.7	-1.7
AHID				eSg	Sg	17 33 29.1	-0.2
MSU	Marysvale	3.31	140	ePn	Pn	17 32 36.5	-0.5
MSU				ePb	Pb	17 32 44.1	+0.5
MSU				ePg	Pg	17 32 47.6	-0.2
MSU				eSg	Sg	17 33 34.2	+3.6
R09A	Tonopah	3.32	212	⇑P	Pn	17 32 37.7	+0.6
	baz=3.3						
TMUT	Trail Mountain	3.33	121	Pn	Pn	17 32 38.0	+0.7
TMUT				ePb	Pb	17 32 44.1	+0.1
TMUT				ePg	Pg	17 32 48.4	+0.3
TMUT				eSg	Sg	17 33 33.3	+2.0
S10A	Tonopah Range,	3.44	203	⇑P	Pn	17 32 38.7	0.0
	baz=3.5,SNR=19						
RRI2	Red Ridge	3.47	48	ePn	Pn	17 32 39.8	+0.7
RRI2				ePb	Pb	17 32 46.1	-0.2
RRI2				eSn	Sb	17 33 30.6	+1.9
ARUT	Antelope Range	3.48	161	ePn	Pn	17 32 39.6	+0.3
ARUT				ePg	Pg	17 32 51.8	+0.7
ARUT				eSg	Sg	17 33 35.3	-0.9
S11A	Rachel	3.51	191	⇓P	Pn	17 32 40.0	+0.3
	baz=3.5,SNR=11						
S13A	Holt Ranch, En	3.59	167	P	Pn	17 32 41.3	+0.4
	baz=3.6,SNR=40						
K07A	Rock Creek Ran	3.64	297	⇑P	Pn	17 32 41.7	+0.3
	baz=3.6,SNR=12						
DCID1	Drake Creek	3.70	46	ePn	Pn	17 32 42.5	+0.2
CCUT	Cedar City	3.73	161	ePn	Pn	17 32 42.9	+0.2
CCUT				ePg	Pg	17 32 55.1	-0.7
CCUT				eSg	Sg	17 33 42.2	-1.9
REDW	Red Top Meadow	3.75	51	ePn	Pn	17 32 43.7	+0.8
NVAR	Mina Array Bea	3.75	226	Pn	Pn	17 32 43.1	0.0
	1.6nm,0.3s,baz=38,slow=13,SNR=43						
NVAR				Pg	Pg	17 32 49.9	-6.3
	2.8nm,0.3s,baz=31,slow=16,SNR=17						
NVAR				Sn	Sn	17 33 28.8	+1.1
	7.4nm,0.3s,baz=187,slow=12,SNR=4.9						
NVAR				Lg		17 33 43.6	
	18nm,0.3s,baz=186,slow=17,SNR=8.3						
NVAR	Mina Array Bea	3.75	226	Pn	Pn	17 32 43.1	0.0
NVAR				Pg	Pg	17 32 49.9	-6.3
NVAR				Sn	Sn	17 33 28.8	+1.2
NVAR				Lg		17 33 43.6	
H10A	Noah's Angus R	3.75	339	⇑P	Pn	17 32 44.1	+1.0
	baz=3.7,SNR=23						
TPAW	Teton Pass	3.77	49	ePn	Pn	17 32 43.8	+0.5
TPAW				ePb	Pb	17 32 50.9	-0.5
TPAW				eSg	Sg	17 33 41.5	-3.8
T11A	Corn Creek, Al	3.86	184	P	Pn	17 32 44.8	+0.3
	baz=3.9,SNR=40						
SNOW	Snow King Moun	3.86	51	Pn	Pn	17 32 50.6	+6.1
SRU	San Rafael	3.88	119	ePn	Pn	17 32 45.9	+1.2
SRU				ePg	Pg	17 32 56.9	-1.8
MCMT	McKenzie Canyo	4.01	21	Pn	Pn	17 32 46.1	-0.6
IMW	Indian Meadow	4.04	45	ePn	Pn	17 32 47.8	+0.9
LOHW	Long Hollow	4.04	50	ePn	Pn	17 32 47.0	+0.1
LOHW				ePb	Pb	17 32 54.5	-1.5
MOOW	Moose Ponds	4.04	48	ePn	Pn	17 32 47.8	+0.8
MOOW				eSg	Sg	17 33 45.8	-8.4
BMO	Blue Mountains	4.16	335	ePn	Pn	17 32 49.9	+1.3
BMO				ePb	Pb	17 32 54.5	-3.6
PDAR	Pinedale Array	4.30	65	Pn	Pn	17 32 53.1	+2.5
	0.2nm,0.3s,baz=242,slow=11,SNR=15						
PDAR				Pg	Pg	17 33 03.4	-3.4
	0.8nm,0.3s,baz=234,slow=12,SNR=16						
PDAR				Lg		17 34 00.2	
	1.6nm,0.3s,baz=224,slow=21,SNR=8.5						
BEKR	Beckwourth	4.36	255	⇑P	Pn	17 32 50.9	-0.5
	baz=4.3,SNR=24						
YFT	Old Faithful	4.48	40	ePg	Pg	17 33 06.1	-4.0
DLMT	Dillon	4.58	21	Pn	Pn	17 32 53.6	-0.8
YMR	Madison River	4.58	37	ePn	Pn	17 32 54.3	-0.1
YMR				ePb	Pb	17 33 05.0	-0.3
LKWY	Lake	4.78	42	Pn	Pn	17 33 00.5	+3.4
LRM	Limekiln Ridge	5.04	20	Pn	Pn	17 33 06.6	+5.9
LRM				eSg	Sg	17 34 19.7	-6.5
PV04	Paradox Valley	5.33	118	Pn	Pn	17 33 05.5	+0.8
PV04				ePg	Pg	17 33 23.7	-2.7
GSC	Goldstone	5.98	195	ePg	Pg	17 33 39.0	+0.1
LDFC	Landfair	6.01	182	ePn	Pn	17 33 13.8	-0.2
LDFC				ePg	Pg	17 33 38.5	-1.0
LDFC				eSg	Sg	17 34 55.6	-1.7
WUAZ	Wupatki	6.21	153	ePg	Pg	17 33 40.7	-2.6
MVCO	Mesa Verde	6.29	126	ePg	Pg	17 33 40.6	-4.2
YKA	Yellowknife Ar	21.43	0	P	P	17 36 30.8	-2.3
	0.4nm,0.7s,baz=178,slow=10,SNR=6.2						

CSEM ***22*** *18:14:18.8±0.2, 41°.82N×22°.82E, h5^{km}, ML2.0, Error ellipse: s-maj=6.4km s-min=3.9km az=86.0*

SKO ***22*** *18:14:18.4, 41°.82N×22°.85E, h15^{km}, M1.5, ML2.0*

THE ***22*** *18:14:18.8, 41°.81N×22°.88E, h4^{km}±31^{km}, ML2.5/2, Error ellipse: s-maj=31.4km s-min=0.8km az=61.0*

ISCJB ***22*** *18:14:19.2±0.8, 41°.80N±0°.03×22°.83E±0°.05, h9^{km}±6^{km}, Error ellipse: s-maj=6.2km s-min=4.6km az=174.3*

BEO ***22*** *18:14:20.2±0.3, 41°.81N×22°.81E, h0^{km}, ML1.8/4*

ISC 22 18:14:19.3±0.6**, 41°.80N**±0°.03×**22°.84E**±0°.05**, h6^{km}**±7^{km}**, n24, σ0^{s}.80**/38**, 1C-4D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STIP	Stip	0.50	257	eSg	Sg	18 14 36.3	+0.9
STIP	Stip	0.50	257	eSg	Sg	18 14 36.3	+0.8
VAY	Valandovo	0.52	203	⇓iPg	Pg	18 14 29.9	+0.5
VAY				i Sg	Sg	18 14 36.4	+0.2
VAY	Valandovo	0.52	203	i Pg	Pg	18 14 30.0	+0.6
VAY				eSg	Sg	18 14 37.0	+0.8
VAY				eLg		18 14 37.0	
	comp=E,45nm,0.4s						
VAY				eLg		18 14 38.0	
	comp=N,55nm,0.3s						
VAY	Valandovo	0.52	203	i Pg	Pg	18 14 29.9	+0.5
VAY				eSg	Sg	18 14 36.9	+0.7
KNT	Kendrikon	0.64	176	P	Pg	18 14 31.4	-0.3
KNT	Kendrikon	0.64	176	P	Pg	18 14 31.4	-0.3
VTS	Vitosha	0.83	19	P	Pg	18 14 34.1	-1.2
VTS				S	Sg	18 14 45.7	-0.5
VTS	Vitosha	0.83	19	ePg	Pg	18 14 36.9	+1.6
VTS				eSg	Sg	18 14 45.7	-0.5
VTS	Vitosha	0.83	19	ePg	Pg	18 14 36.9	+1.6
VTS				eSg	Sg	18 14 45.7	-0.5
SRS	Serrai	0.89	140	P	Pg	18 14 35.5	-0.9
SRS				S	Sg	18 14 47.6	-0.4
SRS	Serrai	0.89	140	P	Pg	18 14 35.5	-0.9
SRS				S	Sg	18 14 47.6	-0.4
GRG	Griva	0.91	201	P	Pg	18 14 36.3	-0.4
GRG				S	Sg	18 14 49.1	+0.6
GRG	Griva	0.91	201	P	Pg	18 14 36.3	-0.4
GRG				S	Sg	18 14 49.1	+0.6
SOH	Sokhos	1.06	158	P	Pg	18 14 39.0	-0.6
SOH	Sokhos	1.06	158	P	Pg	18 14 39.0	-0.6
BARS	Barje	1.26	323	⇓iPg	Pn	18 14 42.9	-0.7
BARS				eSg	Sn	18 14 59.2	-1.7
BARS	Barje	1.26	323	⇓iPg	Pn	18 14 42.9	-0.7
BARS				eSg	Sn	18 14 59.2	-1.7
KRUS	Krusevo	1.27	250	ePg	Pn	18 14 42.7	-0.9
KRUS				eLg		18 15 02.5	
	comp=N,1.4nm,0.2s						
KRUS				eLg		18 15 02.7	
	comp=E,1.4nm,0.2s						
KRUS	Krusevo	1.27	250	ePg	Pn	18 14 42.7	-0.9
PLD	Plovdiv	1.42	77	⇓iPg	Pn	18 14 46.0	+0.3
PLD				eSg	Sn	18 15 05.9	+1.1
ZAPS	Zavoj	1.48	354	⇑iPg	Pn	18 14 46.8	+0.3
ZAPS				eSg	Sn	18 15 07.3	+1.2
NISS		1.73	338	ePg	Pn	18 14 50.0	+0.1
NISS		1.73	338	ePg	Pn	18 14 50.0	+0.1

ISCJB ***22*** *18:30:18.5±0.2, 41°.10N±0°.01×114°.87W±0°.02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.6km az=147.0*

IDC ***22*** *18:30:18.7±1.0, 41°.07N×114°.83W, h0^{km}, mb3.1/1, mb1 3.5/3, mb1mx3.4/21, mbtmp3.1/3, ML3.3/2, Error ellipse: s-maj=37.4km s-min=6.9km az=143.0*

NEIC ***22*** *18:30:19.2, 41°.11N×114°.91W, h13^{km}, ML3.0, After REN.*

ISC 22 18:30:18.4±0.2**, 41°.11N**±0°.01×**114°.90W**±0°.01**, h3^{km}**±2^{km}**, n112, σ0^{s}.96**/183**, 33C-41D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.28	202	⇓P	Pg	18 30 24.8	+0.9
	baz=0.3,SNR=1000						
N12A				⇓S	Sg	18 30 29.4	+1.9
	baz=0.3						
N12A	Clover Valley,	0.28	202	ePg	Pg	18 30 25.1	+1.3
N12A				eSg	Sg	18 30 28.8	+1.3
ELK	Elko	0.45	215	ePg	Pg	18 30 27.6	+0.6
ELK				eSg	Sg	18 30 33.5	+0.6
N13A	Wendover, West	0.58	116	P	Pg	18 30 30.7	+1.1
	baz=0.6,SNR=554						
N13A				⇓S	Sg	18 30 38.5	+1.3
	baz=0.6						
N13A	Wendover, West	0.58	116	ePg	Pg	18 30 30.3	+0.7
N13A				eSg	Sg	18 30 38.1	+0.9
M13A	Montello	0.60	66	⇓P	Pg	18 30 30.7	+0.7
	baz=0.6,SNR=187						
M13A	Montello	0.60	66	ePg	Pg	18 30 30.7	+0.6
M13A				eSg	Sg	18 30 39.1	+1.2
N11A	Elko Archery C	0.70	245	⇑P	Pg	18 30 32.4	+0.5
	baz=0.7						
N11A				⇑S	Sg	18 30 41.9	+0.9
	baz=0.7						
M11A	Holland Ranch,	0.74	296	⇑P	Pg	18 30 32.9	+0.2
	baz=0.7,SNR=157						
M11A				⇓S	Sg	18 30 43.3	+0.9
	baz=0.7						
O12A	Currie	0.85	172	⇓P	Pg	18 30 35.4	+0.6
	baz=0.8,SNR=585						
O12A				⇓S	Sg	18 30 47.2	+1.4
	baz=0.8						
L12A	House Creek Ra	1.04	355	⇓P	Pg	18 30 38.5	+0.2
	baz=1.0,SNR=89						
L12A				⇑S	Sg	18 30 52.3	+0.6
	baz=1.0						
O11A	Cowboy Ranch,	1.14	211	⇑P	Pg	18 30 40.5	+0.3
	baz=1.1,SNR=679						
O11A				⇑S	Sg	18 30 55.7	+0.7
	baz=1.1						
O13A	Hicks Ranch, I	1.20	144	⇑P	Pg	18 30 41.6	+0.1
	baz=1.2						
O13A				⇑S	Sg	18 30 58.6	+1.6
	baz=1.2						
L13A	Double Diamond	1.21	36	⇓P	Pg	18 30 41.0	-0.6
	baz=1.2,SNR=110						
L13A				⇑S	Sg	18 30 57.4	+0.2
	baz=1.2						
M14A	Sheep Mountain	1.23	71	⇓P	Pg	18 30 41.7	-0.3
	baz=1.2,SNR=514						
M14A				⇓S	Sg	18 30 58.5	+0.5
	baz=1.2						
L11A	Cat Creek Ranc	1.23	329	⇓P	Pg	18 30 41.5	-0.6
	baz=1.2,SNR=558						
L11A				⇑S	Sg	18 30 58.2	+0.1
	baz=1.2						
N10A	Dunphy	1.28	253	⇑P	Pg	18 30 42.3	-0.7
	baz=1.3,SNR=41						
N10A				⇓S	Sg	18 31 00.4	+0.8
	baz=1.3						

M10A	I.L. Ranch, Tu	1.30	289	⇑P	Pg	18 30 42.9	-0.6
	baz=1.3,SNR=459						
M10A				⇑S	Sg	18 31 01.1	+0.8
	baz=1.3						
N14A	Grayback Hills	1.32	101	⇓P	Pg	18 30 43.0	-0.8
	baz=1.3,SNR=395						
N14A				⇓S	Sg	18 31 01.7	+0.8
	baz=1.3						
BGU	Big Grassy Mou	1.43	97	*e*Pn	Pn	18 30 44.7	-0.5
BGU				*e*Sn	Sn	18 31 03.1	-1.3
O10A	Cortez Mining,	1.47	237	⇑P	Pn	18 30 45.4	-0.4
	baz=1.5,SNR=126						
O10A				⇓S	Sb	18 31 05.6	+0.2
	baz=1.5						
K12A	Draper Farm, C	1.52	360	P	Pn	18 30 45.7	-0.8
	baz=1.5,SNR=121						
K12A				⇑S	Sn	18 31 06.1	-0.8
	baz=1.5						
L10A	Juniper Basin	1.52	310	⇓P	Pn	18 30 46.1	-0.4
	baz=1.5,SNR=897						
L14A	Malta	1.55	53	⇑P	Pn	18 30 46.4	-0.5
	baz=1.6,SNR=20						
K13A	Stover Farm, H	1.65	21	⇓P	Pn	18 30 47.8	-0.5
	baz=1.7,SNR=46						
P11A	Circle Ranch,	1.69	203	⇓S	Sn	18 31 10.8	-0.2
	baz=1.7						
HVU	Hansel Valley	1.73	67	*e*Pn	Pn	18 30 49.1	-0.3
HVU				*e*Sn	Sn	18 31 12.2	+0.3
HVU				*e*Sg	Sg	18 31 15.3	+1.4
P13A	Bates Ranch, G	1.79	158	⇑P	Pn	18 30 49.4	-0.8
	baz=1.8						
N15A	Stansbury Isla	1.81	96	⇑P	Pn	18 30 50.0	-0.6
	baz=1.8,SNR=217						
DUG	Dugway	1.83	119	⇓P	Pn	18 30 50.1	-0.7
	baz=1.8,SNR=402						
DUG				⇓Sb	Sb	18 31 17.2	+1.3
	baz=1.8						
DUG	Dugway	1.83	119	*e*Pn	Pn	18 30 50.0	-0.8
DUG				*e*Sg	Sg	18 31 16.3	-0.9
SPUT	South Promonto	1.86	83	*e*Pn	Pn	18 30 51.2	+0.1
SPUT				*e*Sg	Sg	18 31 16.7	-1.4
K11A	Parker Ranch,	1.86	333	⇑P	Pn	18 30 50.7	-0.5
	baz=1.9,SNR=292						
M15A	Larsen Ranch,	1.88	78	⇓P	Pn	18 30 51.1	-0.4
	baz=1.9,SNR=143						
BMN	Battle Mountai	1.89	250	*e*Pn	Pn	18 30 50.6	-1.1
BMN				*e*Sg	Sg	18 31 18.2	-1.1
P10A	Eureka	1.91	219	⇑P	Pn	18 30 51.8	-0.1
	baz=1.9,SNR=44						
K14A	Jones Ranch, D	1.92	41	⇓P	Pn	18 30 52.1	+0.1
	baz=1.9,SNR=60						
M09A	Marrel Ranch,	1.95	280	⇓P	Pn	18 30 52.0	-0.4
	baz=1.9,SNR=22						
O09A	Fish Creek Ran	1.98	242	⇓P	Pn	18 30 52.4	-0.5
	baz=2.0						
N09A	Rock Creek Ran	2.01	263	⇓P	Pn	18 30 52.6	-0.6
	baz=2.0						
O15A	The Old Anders	2.02	113	⇓P	Pn	18 30 52.9	-0.5
	baz=2.0,SNR=84						
P14A	Drum Mountains	2.06	137	P	Pn	18 30 53.5	-0.5
	baz=2.1,SNR=109						
Q12A	Willow Creek R	2.07	179	⇓P	Pn	18 30 53.7	-0.4
	baz=2.1,SNR=52						
L15A	Malad City	2.08	64	⇓P	Pn	18 30 53.8	-0.4
	baz=2.1,SNR=40						
J12A	Stokes Ranch,	2.14	356	⇓P	Pn	18 30 55.8	+0.7
	baz=2.1,SNR=117						
NOQ	North Oquirrh	2.15	101	*e*Pn	Pn	18 30 55.5	+0.3
NOQ				*e*Sg	Sg	18 31 27.6	0.0
K10A	MacKenzie Ranc	2.22	319	⇓P	Pn	18 30 56.9	+0.7
	baz=2.2,SNR=57						
Q13A	Wheeler Ranch,	2.26	162	⇑P	Pn	18 30 56.4	-0.3
	baz=2.3,SNR=95						
P09A	Austin	2.32	228	⇑P	Pn	18 30 58.0	+0.5
	baz=2.3,SNR=5.6						
Q11A	Duckwater	2.34	195	⇓P	Pn	18 30 57.7	0.0
	baz=2.3						
J13A	Cove Ranch, Pi	2.34	13	⇑P	Pn	18 30 58.7	+0.8
	baz=2.4,SNR=278						
K15A	Arbon	2.36	48	P	Pn	18 30 58.9	+0.8
	baz=2.4,SNR=56						
J14A	Carey	2.43	24	P	Pn	18 31 00.2	+1.1
	baz=2.4,SNR=126						
NLU	North Lily Min	2.44	117	*e*Pn	Pn	18 30 58.1	-1.1
NLU				*e*Pg	Pg	18 31 04.9	-0.4
Q14A	Sevier Lake (B	2.46	149	⇓P	Pn	18 30 58.7	-0.8
	baz=2.5,SNR=38						
HLID	Hailey	2.47	8	⇓P	Pn	18 31 00.7	+1.0
	baz=2.5,SNR=165						
HLID	Hailey	2.47	8	P	Pn	18 31 00.8	+1.2
P15A	Leamington	2.52	127	⇓P	Pn	18 30 59.7	-0.7
	baz=2.5,SNR=55						
Q10A	Clear Creek Ra	2.56	207	⇓P	Pn	18 31 01.1	+0.3
	baz=2.6,SNR=75						
O08A	Rochester Mine	2.61	253	⇑P	Pn	18 31 00.8	-0.7
	baz=2.6,SNR=21						
MPU	Maple Canyon	2.72	113	*e*Pn	Pn	18 31 02.7	-0.2
MPU				*e*Pg	Pg	18 31 10.9	+0.4
MPU				*e*Sg	Sg	18 31 45.7	0.0
R12A	Pony Springs,	2.79	175	⇑P	Pn	18 31 04.3	+0.3
	baz=2.8,SNR=17						
R11A	Troy Canyon, C	2.81	191	P	Pn	18 31 04.3	+0.1
	baz=2.8,SNR=42						
P08A	Dixie Valley	2.81	241	⇑P	Pn	18 31 04.1	-0.2
	baz=2.8,SNR=14						
DAU	Daniels Canyon	2.85	103	*e*Pb	Pb	18 31 08.4	-1.5
DAU				*e*Pg	Pg	18 31 13.8	+0.7
DAU				*e*Sg	Sg	18 31 49.6	-0.5
I13A	Wildhorse Cree	2.86	11	⇓P	Pn	18 31 06.3	+1.4
	baz=2.9,SNR=130						
Q15A	Fillmore	2.86	137	⇑P	Pn	18 31 04.7	-0.3
	baz=2.9,SNR=14						
Q09A	Carvers	2.88	218	⇑P	Pn	18 31 05.8	+0.7
	baz=2.9,SNR=17						
WVOR	Wild Horse Val	3.09	296	*e*Pb	Pb	18 31 12.4	-1.7
WVOR				*e*Sg	Sg	18 31 54.2	-3.6
N07B	Gerlach	3.10	265	⇓P	Pn	18 31 07.8	-0.5
	baz=3.1,SNR=8.3						
O07A	Toulon	3.17	254	P	Pn	18 31 08.5	-0.8
	baz=3.2,SNR=12						
M07A	Soldier Meadow	3.23	276	⇑P	Pn	18 31 09.8	-0.3
	baz=3.2,SNR=8.5						
Q08A	Gabbs	3.24	227	⇑P	Pn	18 31 10.0	-0.2
	baz=3.2,SNR=6.5						
AHID	Auburn Hatcher	3.28	59	Pn	Pn	18 31 08.0	-2.7
AHID				*e*Pg	Pg	18 31 23.6	+2.3
MSU	Marysvale	3.34	140	*e*Pn	Pn	18 31 11.5	0.0
MSU				*e*Pg	Pg	18 31 22.3	-0.1
TMUT	Trail Mountain	3.36	122	*e*Pn	Pn	18 31 14.5	+2.7
TMUT				*e*Pg	Pg	18 31 23.1	+0.4
S10A	Tonopah Range,	3.45	203	⇑P	Pn	18 31 13.6	+0.6
	baz=3.4,SNR=16						
RRI2	Red Ridge	3.47	49	*e*Pn	Pn	18 31 14.4	+1.1
RRI2				*e*Sg	Sg	18 32 08.0	-1.9
ARUT	Antelope Range	3.51	161	*e*Pn	Pn	18 31 14.3	+0.4
ARUT				*e*Pg	Pg	18 31 26.3	+0.6
ARUT				*e*Sg	Sg	18 32 09.3	-1.8
S13A	Holt Ranch, En	3.62	167	P	Pn	18 31 15.7	+0.3
	baz=3.6,SNR=28						
DCID1	Drake Creek	3.70	47	Pn	Pn	18 31 16.7	+0.1
CCUT	Cedar City	3.75	161	*e*Pn	Pn	18 31 17.5	+0.3
CCUT				*e*Pg	Pg	18 31 29.8	-0.5
CCUT				*e*Sg	Sg	18 32 17.7	-1.2
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	18 31 16.2	-1.0
REDW				*e*Pb	Pb	18 31 26.4	+1.2
REDW				*e*Sg	Sg	18 32 19.5	+0.6
NVAR	Mina Array Bea	3.75	226	Pn	Pn	18 31 17.4	+0.2
	2.4nm,0.3s,baz=38,slow=12,SNR=39						
NVAR				Pg	Pg	18 31 26.0	-4.3
	6.6nm,0.3s,baz=30,slow=15,SNR=21						
NVAR				Sn	Sn	18 32 03.9	+2.0
	11nm,0.3s,baz=24,slow=16,SNR=6.3						
NVAR				Lg		18 32 17.2	
	17nm,0.3s,baz=35,slow=38,SNR=7.2						
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	18 31 17.7	+0.3
TPAW				*e*Sg	Sg	18 32 20.4	+0.9
SNOW	Snow King Moun	3.87	51	Pn	Pn	18 31 18.2	-0.6
SNOW				*e*Pb	Pb	18 31 28.1	+0.8
SNOW				*e*Pg	Pg	18 31 33.8	+1.3
T11A	Corn Creek, Al	3.88	184	⇑P	Pn	18 31 19.1	+0.2
	baz=3.9,SNR=11						
SRU	San Rafael	3.90	119	Pn	Pn	18 31 19.8	+0.5
SRU				*e*Pg	Pg	18 31 32.6	-0.7
SRU				*e*Sg	Sg	18 32 23.2	-0.6
S15A	Panguitch	3.95	149	⇓P	Pn	18 31 20.4	+0.4
	baz=4.0,SNR=6.8						
MCMT	McKenzie Canyo	4.00	21	Pn	Pn	18 31 22.4	+1.8
MCMT				*e*Pg	Pg	18 31 33.8	-1.3
MCMT				*e*Sg	Sg	18 32 24.4	-2.6
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	18 31 21.6	+0.5
IMW				*e*Pb	Pb	18 31 29.4	-0.7
IMW				*e*Pg	Pg	18 31 36.0	+0.2
LOHW	Long Hollow	4.04	50	*e*Pn	Pn	18 31 21.9	+0.7
LOHW				*e*Pb	Pb	18 31 30.0	-0.3
MOOW	Moose Ponds	4.05	48	Pn	Pn	18 31 24.7	+3.5
BMO	Blue Mountains	4.13	335	*e*Pn	Pn	18 31 22.1	-0.3
BMO				*e*Pb	Pb	18 31 29.6	-2.2
BMO				*e*Pg	Pg	18 31 39.0	+1.4
BMO				*e*Sg	Sg	18 32 24.0	-7.2
MOD	Modoc	4.14	283	*e*Pn	Pn	18 31 22.2	-0.3
MOD				*e*Sg	Sg	18 32 29.7	-1.6
T14A	Hurricane	4.29	160	⇑P	Pn	18 31 25.3	+0.8
	baz=4.3,SNR=7.6						
PDAR	Pinedale Array	4.31	66	Pn	Pn	18 31 27.6	+2.7
	0.2nm,0.3s,baz=234,slow=12,SNR=15						
PDAR				Lg		18 32 32.8	
	1.2nm,0.3s,baz=218,slow=26,SNR=7.8						
BEKR	Beckwourth	4.35	255	P	Pn	18 31 25.0	-0.3
	baz=4.3,SNR=22						
R06C	Coleville	4.36	235	⇓P	Pn	18 31 25.4	-0.1
	baz=4.3,SNR=6.7						
DLMT	Dillon	4.57	21	*e*Pn	Pn	18 31 28.1	-0.3
DLMT				*e*Pb	Pb	18 31 40.3	+1.1
DLMT				*e*Pg	Pg	18 31 48.0	+2.0
YMR	Madison River	4.58	38	*e*Pn	Pn	18 31 29.9	+1.4
YMR				*e*Pb	Pb	18 31 38.9	-0.5
U13A	Pakoon Wash	4.75	171	⇓P	Pn	18 31 31.5	+0.6
	baz=4.7,SNR=6.1						
LKWY	Lake	4.78	42	Pn	Pn	18 31 32.1	+0.8
LRM	Limekiln Ridge	5.03	20	*e*Pb	Pb	18 31 46.3	-0.8
LRM				*e*Pg	Pg	18 31 53.7	-1.1
LRM				*e*Sg	Sg	18 32 52.7	-7.3
PV04	Paradox Valley	5.36	119	Pn	Pn	18 31 43.3	+4.0
PV04				*e*Pg	Pg	18 31 58.6	-2.4
PV04				*e*Sg	Sg	18 33 08.2	-2.3
GSC	Goldstone	5.99	195	*e*Pg	Pg	18 32 13.1	-0.2
GCMT	Greycliff	6.03	37	*e*Pg	Pg	18 32 05.6	-8.3
GCMT				*e*Sg	Sg	18 33 25.6	-6.3
LDFC	Landfair	6.03	182	*e*Pg	Pg	18 32 12.0	-1.9
WUAZ	Wupatki	6.24	153	*e*Pg	Pg	18 32 16.1	-1.8
MVCO	Mesa Verde	6.32	126	*e*Pg	Pg	18 32 16.2	-3.2
MVCO				*e*Sg	Sg	18 33 36.2	-5.1
SWMT	Swartz Lake	6.43	5	*e*Pg	Pg	18 32 18.0	-3.5
SWMT				*e*Sb	Sb	18 33 28.6	+0.6
SWMT				*e*Sg	Sg	18 33 43.0	-1.8
YKA	Yellowknife Ar	21.41	0	P	P	18 35 08.3	+1.2
	0.8nm,0.8s,baz=180,slow=9.9,SNR=16						

IDC 22 19:06:01.0±1.1,**34°.93S**×**111°.65W,h0^{km},mb3.8**/3, **mb1 4.0**/3,**mb1mx3.9**/14,**mbtmp3.7**/3,**MS3.8**/5,**Ms1 3.8**/5, **ms1mx3.5**/27,**Error ellipse: s-maj=58.6km s-min=35.5km az=34.0,Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RPN	Rapa Nui	8.03	15	LR	LR	19 09 31.7	
	comp=Z,230nm,18.2s,baz=114,slow=26						
PLCA	Paso Flores	32.75	113	P	P	19 12 35.9	+0.3
	0.7nm,0.5s,baz=257,slow=2.2,SNR=2.2						
CPUP	Villa Florida	47.04	95	LR	LR	19 31 58.7	
	comp=Z,40nm,21.1s,baz=72,slow=33						
VNDA	Vanda	55.44	195	LR	LR	19 32 28.3	
	comp=Z,85nm,21.1s,baz=142,slow=29						
URZ	Urewera	55.98	244	LR	LR	19 34 04.3	
	comp=Z,211nm,20.1s,baz=44,slow=30						
VNA3	Neumayer Olymp	61.04	159	*e*	P	19 16 16.3	+0.3
VNA2	Neumayer--Watz	61.85	159	*e*	P	19 16 22.3	+0.8
	baz=273,slow=7.6						
PDAR	Pinedale Array	77.35	2	P	P	19 17 57.1	-0.1
	0.5nm,0.7s,baz=151,slow=3.4,SNR=3.7						
STKA	Stephens Creek	84.37	235	LR	LR	19 48 49.2	
	comp=Z,152nm,19.2s,baz=206,slow=30						
YKA	Yellowknife Ar	97.11	359	P	P	19 19 35.8	+1.5
	0.1nm,0.3s,baz=179,slow=4.3,SNR=3.7						
AKASG	Malin Array Be	147.70	49	PKPbc	PKPbc	19 25 47.1	+0.1
	2.9nm,0.9s,baz=275,slow=3.8,SNR=2.6						
CMAR	Chiang Mai Arr	148.29	247	PKPbc	PKPbc	19 25 49.5	0.0
	2.3nm,0.9s,baz=172,slow=2.6,SNR=14						
SONM	Songino Array	149.00	306	PKPbc	PKPbc	19 25 49.3	-1.2
	1.0nm,0.6s,baz=104,slow=1.8,SNR=3.5						
BRTR	Keskin Array B	152.10	70	PKPbc	PKPbc	19 25 56.9	-1.3
	1.0nm,0.9s,baz=244,slow=2.1,SNR=5.9						

IGQ 22 19:16:01.6,2°.08S×79°.72W,h16^{km}±4^{km},Mb4.0,Ms3.8, 1C-5D,Error ellipse: s-maj=8.1km s-min=2.7km az=66.8, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
IGUA	Igualata	1.23	61	⇓P	Pn	19 16 25.4	+1.3
BIL2	Estacion Bilba	1.36	63	S	Sn	19 16 45.8	+2.0
BIL2	Estacion Bilba	1.36	63	P	Pn	19 16 27.6	+1.6
ARRY	Arrayan	1.38	66	S	Sn	19 16 45.2	+0.9
ARRY	Arrayan	1.38	66	P	Pn	19 16 27.2	+0.9
PATA	Patacocha	1.41	66	⇓P	Pn	19 16 27.8	+1.2
JUI6	Juive	1.41	62	⇓S	Sn	19 16 46.5	+1.7
JUI6	Juive	1.41	62	⇓P	Pn	19 16 28.0	+1.4
QIL2	Quilotoa	1.45	34	P	Pn	19 16 27.4	+0.2
RUN5	Runtun	1.45	63	P	Pn	19 16 28.6	+1.3
ULBA	Ulba	1.45	64	P	Pn	19 16 28.8	+1.6
PISA	Pisayambo	1.67	53	P	Pn	19 16 33.0	+2.7
CAMI	Rancho Maria	1.85	41	P	Pn	19 16 36.1	+3.5
MOV1	Cotopaxi Vol s	1.86	43	P	Pn	19 16 35.9	+3.0
NAS2	Nasa	1.90	41	P	Pn	19 16 36.8	+3.5
TAMB	Tambo	1.93	44	P	Pn	19 16 37.0	+3.3
VC1	Cotopaxi 1	1.94	43	P	Pn	19 16 37.1	+3.1
COV1	Cotopaxi Volc	1.97	44	P	Pn	19 16 36.9	+2.6
PITA	Cotopaxi Volc	1.98	40	P	Pn	19 16 37.8	+3.2
JUA2	San Juan 2	2.16	31	P	Pn	19 16 40.5	+3.5
GGP	Refugio Guagua	2.20	31	⇑P	Pn	19 16 40.7	+3.2
PINO	Pino	2.21	30	P	Pn	19 16 40.2	+2.6
ANTI	Antisana	2.25	44	⇓P	Pn	19 16 40.6	+2.5
YANA	Yana	2.26	30	P	Pn	19 16 41.2	+2.8
OTAV	Otavalo	2.63	29	P	Pn	19 16 45.9	+2.5
CAYR	Refugio Cayamb	2.69	39	P	Pn	19 16 45.6	+1.3
CAYA	Cayambe	2.75	39	P	Pn	19 16 48.3	+3.3
COTA	Cotacachi	2.77	30	P	Pn	19 16 48.1	+2.8

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*IDC **22** 19:22:28.7±0.8, 41°.21N×114°.95W, h0^{km}, mb3.5/2, mb1 3.7/5, mb1mx3.5/23, mbtmp3.4/5, ML3.5/3, Error ellipse: s-maj=10.8km s-min=5.0km az=127.0*

*ISCJB **22** 19:22:29.4±0.1, 41°.11N±0°.01×114°.89W±0°.01, h10^{km}, mb3.5/2, Error ellipse: s-maj=1.6km s-min=1.5km az=143.6*

*NEIC **22** 19:22:30.3, 41°.12N×114°.89W, h5^{km}, ML3.3, After REN.*

ISC 22 19:22:29.8±0.1,**41°.14N**±0°.01×**114°.89W**±0°.01,**h10^{km}, n163,**σ1^{s}.**11**/254,**mb3.5**/2,**51C-47D,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.30	202	⇑P	Pg	19 22 36.3	+0.4
	baz=0.3						
N12A				⇑S	Sg	19 22 40.5	+0.6
	baz=0.3						
N12A	Clover Valley,	0.30	202	*e*Pg	Pg	19 22 36.0	+0.1
N12A				*e*Sg	Sg	19 22 40.1	+0.2
ELK	Elko	0.47	214	Pg	Pg	19 22 39.1	+0.1
	112nm,0.3s,baz=27,slow=14,SNR=280						
ELK				Lg		19 22 45.0	
	312nm,0.3s,baz=17,slow=20,SNR=121						
ELK	Elko	0.47	214	*e*Pg	Pg	19 22 38.9	-0.1
ELK				*e*Sg	Sg	19 22 45.0	-0.2
N13A	Wendover, West	0.59	118	⇑P	Pg	19 22 41.5	+0.3
	baz=0.6,SNR=220						
N13A				⇑S	Sg	19 22 49.2	+0.3
	baz=0.6						
N13A	Wendover, West	0.59	118	*e*Pg	Pg	19 22 41.4	+0.2
N13A				*e*Sg	Sg	19 22 49.9	+1.0
M13A	Montello	0.59	67	⇑P	Pg	19 22 41.2	-0.1
	baz=0.6,SNR=57						
M13A				⇑S	Sg	19 22 50.2	+1.2
	baz=0.6						
M13A	Montello	0.59	67	*e*Pg	Pg	19 22 41.0	-0.3
M13A				*e*Sg	Sg	19 22 50.0	+1.0
N11A	Elko Archery C	0.72	244	⇑P	Pg	19 22 43.4	-0.3
	baz=0.7,SNR=97						
N11A				⇑S	Sg	19 22 53.2	+0.2
	baz=0.7						
M11A	Holland Ranch,	0.74	294	⇑P	Pg	19 22 43.8	-0.3
	baz=0.7,SNR=129						
M11A				⇓S	Sg	19 22 54.9	+1.1
	baz=0.7						
O12A	Currie	0.87	173	⇓P	Pg	19 22 46.4	-0.2
	baz=0.9,SNR=110						
O12A				⇓S	Sg	19 22 58.2	+0.2
	baz=0.9						
L12A	House Creek Ra	1.01	355	⇑P	Pg	19 22 49.1	-0.2
	baz=1.0,SNR=34						
L12A				⇑S	Sg	19 23 03.0	+0.5
	baz=1.0						
O11A	Cowboy Ranch,	1.16	211	⇑P	Pb	19 22 51.9	-0.1
	baz=1.1,SNR=416						
O11A				⇑S	Sb	19 23 07.0	0.0
	baz=1.1						
L13A	Double Diamond	1.19	36	P	Pb	19 22 51.9	-0.6
	baz=1.2,SNR=51						
L13A				⇑S	Sb	19 23 08.0	+0.2
	baz=1.2						
O13A	Hicks Ranch, I	1.22	145	P	Pn	19 22 52.5	-0.3
	baz=1.2,SNR=152						
O13A				⇑S	Sb	19 23 09.2	+0.6
	baz=1.2						
L11A	Cat Creek Ranc	1.22	328	⇑P	Pn	19 22 52.4	-0.5
	baz=1.2,SNR=104						
L11A				⇓S	Sb	19 23 08.8	+0.1
	baz=1.2						
M14A	Sheep Mountain	1.22	72	P	Pn	19 22 52.5	-0.4
	baz=1.2,SNR=123						
M14A				⇓S	Sb	19 23 08.8	+0.1
	baz=1.2						
N10A	Dunphy	1.29	252	⇑P	Pn	19 22 53.4	-0.6
	baz=1.3,SNR=29						
N10A				⇓S	Sb	19 23 11.2	+0.3
	baz=1.3						
M10A	I.L. Ranch, Tu	1.30	288	⇑P	Pn	19 22 53.7	-0.3
	baz=1.3,SNR=186						
N14A	Grayback Hills	1.32	102	⇓P	Pn	19 22 53.7	-0.5
	baz=1.3,SNR=151						
N14A				⇓S	Sb	19 23 11.9	+0.3
	baz=1.3						
BGU	Big Grassy Mou	1.42	98	*e*Pn	Pn	19 22 55.4	-0.3
BGU				*e*Sn	Sn	19 23 10.6	-3.8
O10A	Cortez Mining,	1.49	236	⇓P	Pn	19 22 56.6	+0.1
	baz=1.5,SNR=116						
O10A				⇓S	Sn	19 23 16.5	+0.5
	baz=1.5						
K12A	Draper Farm, C	1.50	360	⇓P	Pn	19 22 56.3	-0.5
	baz=1.5,SNR=101						
K12A				⇓S	Sn	19 23 16.7	+0.3
	baz=1.5						
L10A	Juniper Basin	1.52	309	⇑P	Pn	19 22 56.6	-0.4
	baz=1.5,SNR=313						
L10A				⇑Sb	Sb	19 23 18.1	+0.9
	baz=1.5						
L14A	Malta	1.53	53	P	Pn	19 22 57.4	+0.3
	baz=1.5,SNR=68						
L14A				⇓Sb	Sb	19 23 18.3	+0.7
	baz=1.5						
K13A	Stover Farm, H	1.63	21	⇓P	Pn	19 22 58.6	+0.1
	baz=1.6,SNR=57						
K13A				⇑Sb	Sb	19 23 21.3	+0.8
	baz=1.6						
P11A	Circle Ranch,	1.71	203	⇓P	Pn	19 22 59.8	+0.1
	baz=1.7,SNR=20						
P11A				⇓S	Sn	19 23 21.5	0.0
	baz=1.7						
HVU	Hansel Valley	1.71	67	*e*Pn	Pn	19 22 59.4	-0.3
HVU				*e*Sn	Sn	19 23 21.4	-0.3
P13A	Bates Ranch, G	1.81	158	⇑P	Pn	19 23 00.5	-0.5
	baz=1.8						
P13A				⇑Sb	Sb	19 23 27.0	+1.4
	baz=1.8						
N15A	Stansbury Isla	1.81	97	⇑P	Pn	19 23 00.7	-0.3
	baz=1.8,SNR=43						
DUG	Dugway	1.84	120	P	Pn	19 23 00.9	-0.5
	baz=1.8,SNR=252						
DUG				⇑Sb	Sb	19 23 27.6	+1.1
	baz=1.8						
DUG	Dugway	1.84	120	*e*Pn	Pn	19 23 00.6	-0.8
DUG				*e*Sg	Sg	19 23 28.5	-0.4
K11A	Parker Ranch,	1.84	333	⇑P	Pn	19 23 01.8	+0.3
	baz=1.8,SNR=416						
SPUT	South Promonto	1.85	84	*e*Pn	Pn	19 23 01.8	+0.3
SPUT				*e*Sn	Sn	19 23 26.0	+1.1
M15A	Larsen Ranch,	1.87	79	⇓P	Pn	19 23 02.1	+0.3
	baz=1.9,SNR=138						
K14A	Jones Ranch, D	1.90	42	⇓P	Pn	19 23 02.5	+0.2
	baz=1.9,SNR=45						
BMN	Battle Mountai	1.91	249	*e*Pn	Pn	19 23 02.3	0.0
BMN				*e*Sg	Sg	19 23 29.3	-1.8
P10A	Eureka	1.93	219	⇓P	Pn	19 23 03.0	+0.3
	baz=1.9,SNR=51						
M09A	Marrel Ranch,	1.95	279	⇑P	Pn	19 23 03.3	+0.3
	baz=1.9						
O09A	Fish Creek Ran	2.00	242	⇑P	Pn	19 23 03.6	0.0
	baz=2.0						
N09A	Rock Creek Ran	2.02	263	⇑P	Pn	19 23 03.5	-0.3
	baz=2.0,SNR=58						
O15A	The Old Anders	2.03	114	P	Pn	19 23 03.7	-0.3
	baz=2.0,SNR=92						
L15A	Malad City	2.07	64	⇓P	Pn	19 23 04.7	+0.1
	baz=2.1,SNR=49						
P14A	Drum Mountains	2.08	137	P	Pn	19 23 04.4	-0.3
	baz=2.1,SNR=49						
Q12A	Willow Creek R	2.09	179	⇓P	Pn	19 23 04.8	-0.1
	baz=2.1,SNR=38						
J12A	Stokes Ranch,	2.12	356	⇑P	Pn	19 23 06.3	+1.0
	baz=2.1,SNR=160						
NOQ	North Oquirrh	2.15	102	*e*Pn	Pn	19 23 07.2	+1.5
NOQ				*e*Sn	Sn	19 23 31.0	-1.5
K10A	MacKenzie Ranc	2.21	319	⇓P	Pn	19 23 07.2	+0.7
	baz=2.2						
L09A	Wilkinson Ranc	2.26	294	⇑Pb	Pb	19 23 09.8	-0.9
	baz=2.2						
Q13A	Wheeler Ranch,	2.28	163	P	Pn	19 23 07.5	0.0
	baz=2.3,SNR=40						
J13A	Cove Ranch, Pi	2.32	13	P	Pn	19 23 09.7	+1.7
	baz=2.3,SNR=134						
P09A	Austin	2.34	228	⇑P	Pn	19 23 08.5	+0.3
	baz=2.3,SNR=5.8						
K15A	Arbon	2.34	48	P	Pn	19 23 09.6	+1.3
	baz=2.4,SNR=34						
Q11A	Duckwater	2.36	195	⇓P	Pn	19 23 08.8	+0.2
	baz=2.3						
MFID	Camas Ranch	2.38	343	⇑P	Pn	19 23 10.3	+1.4
	baz=2.4,SNR=49						
J14A	Carey	2.41	25	P	Pn	19 23 11.0	+1.7
	baz=2.4,SNR=78						
CTU	Camp Tracy	2.42	99	*e*Pn	Pn	19 23 12.2	+2.8
NLU	North Lily Min	2.45	118	*e*Pn	Pn	19 23 10.2	+0.4
NLU				*e*Pb	Pb	19 23 13.0	-0.9
NLU				*e*Pg	Pg	19 23 15.5	-1.2
NLU				*e*Sg	Sg	19 23 47.8	-0.6
HLID	Hailey	2.45	8	⇑P	Pn	19 23 11.4	+1.6
	baz=2.5,SNR=119						
HLID	Hailey	2.45	8	P	Pn	19 23 11.8	+2.0
M16A	Huntsville	2.46	85	⇑P	Pn	19 23 10.8	+0.8
	baz=2.5						
Q14A	Sevier Lake (B	2.48	149	P	Pn	19 23 09.8	-0.4
	baz=2.5,SNR=29						
N08A	GE Springer Mi	2.48	263	⇓P	Pn	19 23 10.1	-0.2
	baz=2.5						
P15A	Leamington	2.53	127	P	Pn	19 23 10.6	-0.4
	baz=2.5,SNR=52						
Q10A	Clear Creek Ra	2.58	207	⇓P	Pn	19 23 12.0	+0.3
	baz=2.6,SNR=54						
O08A	Rochester Mine	2.62	252	P	Pn	19 23 12.1	-0.1
	baz=2.6,SNR=14						
K09A	Rome	2.63	307	⇑Pb	Pb	19 23 15.5	-1.5
	baz=2.6						
M08A	Happy Creek Ra	2.65	278	⇓Pb	Pb	19 23 16.2	-1.1
	baz=2.6						
I12A	Atlanta	2.66	356	⇓P	Pn	19 23 14.6	+1.9
	baz=2.7,SNR=58						
J10A	Berg Farm, Mel	2.68	329	⇓Pb	Pb	19 23 16.6	-1.3
	baz=2.7						
MPU	Maple Canyon	2.72	113	*e*Pn	Pn	19 23 13.9	+0.4
MPU				*e*Pg	Pg	19 23 21.4	-0.5
O16A	Springville	2.74	109	⇓P	Pn	19 23 14.0	+0.3
	baz=2.7						
L16A	Fish Haven	2.74	70	⇑P	Pn	19 23 14.9	+1.1
	baz=2.8						
L08A	Fields	2.80	293	⇓Pb	Pb	19 23 18.2	-1.6

	baz=2.8						
R12A	Pony Springs,	2.81	175	⇓P	Pn	19 23 15.0	+0.2
	baz=2.8,SNR=20						
P08A	Dixie Valley	2.83	240	⇑P	Pn	19 23 15.2	+0.2
	baz=2.8,SNR=11						
R11A	Troy Canyon, C	2.83	191	P	Pn	19 23 15.2	+0.1
	baz=2.8,SNR=168						
I13A	Wildhorse Cree	2.84	11	⇓P	Pn	19 23 17.1	+2.0
	baz=2.9,SNR=56						
DAU	Daniels Canyon	2.85	103	*e*Pn	Pn	19 23 17.4	+2.1
DAU				*e*Pg	Pg	19 23 24.2	-0.3
DAU				*e*Sg	Sg	19 23 59.4	-1.9
Q15A	Fillmore	2.87	137	⇑P	Pn	19 23 15.5	-0.1
	baz=2.9,SNR=8.6						
I11A	Placerville	2.89	344	⇓Pb	Pb	19 23 19.7	-1.6
	baz=2.9						
Q09A	Carvers	2.90	218	⇓P	Pn	19 23 16.9	+0.9
	baz=2.9,SNR=10						
J15A	Blackfoot	2.91	38	⇑P	Pn	19 23 17.3	+1.2
	baz=2.9,SNR=15						
I14A	Mackay	2.99	20	⇑P	Pn	19 23 18.8	+1.6
	baz=3.0						
K16A	Soda Springs	2.99	54	⇑P	Pn	19 23 18.5	+1.3
	baz=3.0,SNR=10						
R13A	O’Grain Ranch,	3.04	166	⇑P	Pn	19 23 18.6	+0.8
	baz=3.0						
R10A	Warm Springs	3.04	201	⇓P	Pn	19 23 18.5	+0.5
	baz=3.0						
J09A	Fry Pan Ranch,	3.07	317	⇓Pb	Pb	19 23 23.1	-1.4
	baz=3.1						
WVOR	Wild Horse Val	3.09	296	*e*Pn	Pn	19 23 22.7	+4.1
WVOR				*e*Sn	Sn	19 24 05.3	+10
N07B	Gerlach	3.11	265	⇓P	Pn	19 23 18.7	-0.2
	baz=3.1,SNR=5.6						
K08A	Mann Creek Ran	3.12	302	⇑Pb	Pb	19 23 23.8	-1.6
	baz=3.1						
R14A	James Farms, M	3.18	152	⇓P	Pn	19 23 19.6	-0.2
	baz=3.2						
O07A	Toulon	3.19	254	P	Pn	19 23 19.7	-0.2
	baz=3.2,SNR=21						
M07A	Soldier Meadow	3.24	276	⇓P	Pn	19 23 21.0	+0.3
	baz=3.2,SNR=8.7						
J16A	Bone	3.24	48	⇓P	Pn	19 23 22.0	+1.4
	baz=3.3,SNR=5.9						
AHID	Auburn Hatcher	3.26	59	*e*Pn	Pn	19 23 22.0	+1.0
AHID				*e*Sg	Sg	19 24 13.7	-0.9
I10A	Payette	3.27	335	⇑Pb	Pb	19 23 26.3	-1.6
	baz=3.3						
R09A	Tonopah	3.35	211	⇓P	Pn	19 23 22.8	+0.7
	baz=3.3,SNR=16						
MSU	Marysvale	3.35	141	*e*Pn	Pn	19 23 22.4	+0.2
MSU				*e*Pg	Pg	19 23 33.8	-0.2
TMUT	Trail Mountain	3.36	122	*e*Pn	Pn	19 23 26.1	+3.7
TMUT				*e*Pg	Pg	19 23 33.8	-0.4
RRI2	Red Ridge	3.45	49	*e*Pn	Pn	19 23 25.0	+1.5
RRI2				*e*Sg	Sg	19 24 16.6	-4.0
L07A	Adell	3.45	286	⇓Pb	Pb	19 23 29.6	-1.5
	baz=3.4						
J08A	Circle Bar Ran	3.47	311	⇓Pb	Pb	19 23 29.5	-1.7
	baz=3.5						
S10A	Tonopah Range,	3.47	203	P	Pn	19 23 24.4	+0.6
	baz=3.5,SNR=19						
S12A	Delamar Landin	3.52	179	⇑P	Pn	19 23 25.0	+0.4
	baz=3.5						
ARUT	Antelope Range	3.52	161	*e*Pn	Pn	19 23 25.1	+0.6
ARUT				*e*Pg	Pg	19 23 37.4	+0.1
I09A	Lost Marbles R	3.53	324	⇓Pb	Pb	19 23 31.2	-1.2
	baz=3.5						
K07A	Rock Creek Ran	3.60	297	⇑P	Pn	19 23 26.9	+1.2
	baz=3.6,SNR=13						
S13A	Holt Ranch, En	3.64	167	P	Pn	19 23 26.7	+0.5
	baz=3.6,SNR=70						
DCID1	Drake Creek	3.68	47	*e*Pn	Pn	19 23 26.9	+0.2
DCID1				*e*Pb	Pb	19 23 35.1	+0.1
H10A	Noah’s Angus R	3.71	339	P	Pn	19 23 29.6	+2.5
	baz=3.7,SNR=14						
REDW	Red Top Meadow	3.73	52	*e*Pn	Pn	19 23 28.0	+0.5
REDW				*e*Pb	Pb	19 23 34.8	-1.0
REDW				*e*Pg	Pg	19 23 39.9	-1.4
TPAW	Teton Pass	3.75	50	*e*Pn	Pn	19 23 28.6	+0.9
TPAW				*e*Pb	Pb	19 23 35.3	-0.8
CCUT	Cedar City	3.77	161	*e*Pn	Pn	19 23 28.2	+0.2
CCUT				*e*Pg	Pg	19 23 40.8	-1.2
NVAR	Mina Array Bea	3.77	225	Pn	Pn	19 23 27.8	-0.2
	2.9nm,0.3s,baz=40,slow=13,SNR=100						
NVAR				Pg	Pg	19 23 40.0	-2.1
	8.8nm,0.3s,baz=208,slow=19,SNR=30						
NVAR				Sn	Sn	19 24 13.7	+1.3
	19nm,0.3s,baz=49,slow=20,SNR=10						
NVAR				Lg		19 24 27.6	
	11nm,0.3s,baz=226,slow=19,SNR=4.4						
NVAR	Mina Array Bea	3.77	225	Pn	Pn	19 23 27.8	-0.2
NVAR				Pg	Pg	19 23 40.0	-2.1
NVAR				Sn	Sn	19 24 13.7	+1.3
NVAR				Lg		19 24 27.6	
SNOW	Snow King Moun	3.85	51	*e*Pn	Pn	19 23 30.8	+1.7
SNOW				*e*Pb	Pb	19 23 36.9	-0.9
S09A	Goldfield	3.86	209	⇑P	Pn	19 23 30.4	+1.3
	baz=3.8						
T11A	Corn Creek, Al	3.90	184	P	Pn	19 23 30.3	+0.6
	baz=3.9,SNR=35						
SRU	San Rafael	3.91	120	*e*Pn	Pn	19 23 29.4	-0.4
SRU				*e*Pg	Pg	19 23 42.0	-2.6
MCMT	McKenzie Canyo	3.98	21	*e*Pn	Pn	19 23 32.8	+1.9
MCMT				*e*Pb	Pb	19 23 38.6	-1.4
MCMT				*e*Pg	Pg	19 23 42.9	-3.2
IMW	Indian Meadow	4.02	45	*e*Pn	Pn	19 23 33.0	+1.7
IMW				*e*Pb	Pb	19 23 39.4	-1.3
LOHW	Long Hollow	4.03	51	*e*Pn	Pn	19 23 33.2	+1.8
LOHW				*e*Pb	Pb	19 23 39.7	-1.1
LOHW				*e*Pg	Pg	19 23 43.6	-3.3
MOOW	Moose Ponds	4.03	48	*e*Pn	Pn	19 23 33.3	+1.8
MOOW				*e*Sg	Sg	19 24 32.8	-6.3
BMO	Blue Mountains	4.12	335	*e*Pn	Pn	19 23 35.2	+2.4
BMO				*e*Sn	Sn	19 24 26.7	+5.8
MOD	Modoc	4.14	282	*e*Pn	Pn	19 23 32.6	-0.4
MOD				*e*Sg	Sg	19 24 41.8	-0.9
T13A	Saint George	4.18	169	⇓P	Pn	19 23 33.9	+0.3
	baz=4.2,SNR=6.9						
PDAR	Pinedale Array	4.30	66	Pn	Pn	19 23 38.2	+3.1
	0.5nm,0.3s,baz=240,slow=12,SNR=26						
PDAR				Pg	Pg	19 23 49.0	-3.1
	2.0nm,0.3s,baz=233,slow=14,SNR=24						
PDAR				Lg		19 24 43.1	
	3.1nm,0.3s,baz=224,slow=27,SNR=10						
T14A	Hurricane	4.30	160	⇓P	Pn	19 23 36.0	+0.8
	baz=4.3,SNR=8.5						
BEKR	Beckwourth	4.36	255	⇑P	Pn	19 23 36.2	+0.2
	baz=4.3,SNR=7.8						
R06C	Coleville	4.38	235	⇓P	Pn	19 23 36.8	+0.5
	baz=4.3,SNR=6.6						
YFT	Old Faithful	4.46	41	*e*Pb	Pb	19 23 43.8	-4.3
DLMT	Dillon	4.54	21	*e*Pn	Pn	19 23 36.5	-2.1
DLMT				*e*Pb	Pb	19 23 46.1	-3.5
YMR	Madison River	4.56	38	*e*Pn	Pn	19 23 40.8	+2.0
YMR				*e*Pb	Pb	19 23 49.4	-0.5
YMR				*e*Pg	Pg	19 23 58.0	+0.9
YNR	Norris Junctio	4.73	39	Pn	Pn	19 23 46.0	+4.9
LKWY	Lake	4.76	42	*e*Pn	Pn	19 23 39.8	-1.8
LKWY				*e*Pb	Pb	19 23 53.6	+0.4
LKWY				*e*Pg	Pg	19 23 59.8	-1.1
LRM	Limekiln Ridge	5.01	20	Pn	Pn	19 23 51.9	+6.9
LRM				*e*Pg	Pg	19 24 01.4	-4.3
LRM				*e*Sg	Sg	19 25 06.9	-3.7
BOZ	Bozeman (W)	5.10	27	P	Pn	19 23 49.4	+3.2
CMB	Columbia Colle	5.25	236	*e*Pn	Pn	19 23 48.3	-0.1
CMB				*e*Pg	Pg	19 24 07.0	-3.4
CMB				*e*Sn	Sn	19 24 51.1	+2.2
CMB				*e*Sg	Sg	19 25 15.5	-3.0
V13A	Grand Canyon W	5.32	172	⇑P	Pn	19 23 50.3	+1.0
	baz=5.3,SNR=8.6						
PV04	Paradox Valley	5.36	119	*e*Pn	Pn	19 23 48.8	-1.0
PV04				*e*Pg	Pg	19 24 09.3	-3.2
PV04				*e*Sg	Sg	19 25 20.8	-1.1
V12A	Nelson	5.40	180	⇑P	Pn	19 23 51.2	+0.8
	baz=5.4,SNR=8.7						
MSO	Missoula	5.73	7	Pn	Pn	19 23 56.7	+1.8
MSO				*e*Pg	Pg	19 24 17.3	-2.2
MSO				*e*Sg	Sg	19 25 28.8	-5.0
RWWY	Rawlins	5.80	82	*e*Pn	Pn	19 23 54.5	-1.3
RWWY				*e*Pg	Pg	19 24 20.5	-0.3
RWWY				*e*Sg	Sg	19 25 29.2	-6.7
WDC	Whiskeytown Da	5.83	267	*e*Pg	Pg	19 24 16.3	-5.1
CHMT	Chamberlain Mo	5.90	11	*e*Pn	Pn	19 24 00.8	+3.7
CHMT				*e*Sg	Sg	19 25 33.3	-5.7
YBH	Yreka Blue Hor	5.91	278	Pn	Pn	19 23 58.0	+0.6
	0.1nm,0.3s,baz=132,slow=18,SNR=2.3						
YBH				Pg	Pg	19 24 18.4	-4.6
	0.6nm,0.3s,baz=98,slow=15,SNR=8.0						
YBH				Lg		19 25 35.2	
	0.2nm,0.3s,baz=147,slow=6.8,SNR=2.2						
GCMT	Greycliff	6.01	37	*e*Pb	Pb	19 24 12.9	-1.6
	6.7nm,1.1s						
GSC	Goldstone	6.02	195	*e*Pn	Pn	19 23 59.0	+0.2
GSC				*e*Pg	Pg	19 24 24.7	-0.3
LDFC	Landfair	6.05	182	*e*Pn	Pn	19 23 59.2	-0.1
LDFC				*e*Pg	Pg	19 24 24.2	-1.4
LDFC				*e*Sg	Sg	19 25 40.2	-3.7
SLMT	Seeley Lake	6.19	9	*e*Pg	Pg	19 24 24.9	-3.4
SLMT				*e*Sg	Sg	19 25 43.1	-5.3
HUMO	Hull Mountain	6.20	286	*e*Pn	Pb	19 24 11.8	-6.0
HAWA	Hanford	6.24	329	Pn	Pn	19 24 00.2	-1.6
WUAZ	Wupatki	6.25	153	*e*Pg	Pg	19 24 26.6	-2.9
MVCO	Mesa Verde	6.32	126	*e*Pn	Pn	19 24 06.4	+3.3
MVCO				*e*Pg	Pg	19 24 25.2	-5.7
MVCO				*e*Sg	Sg	19 25 50.5	-2.3
SWMT	Swartz Lake	6.41	5	*e*Pg	Pg	19 24 29.4	-3.0
SWMT				*e*Sg	Sb	19 25 42.9	+5.0
HOOD	Mount Hood Mea	6.47	313	*e*Pg	Pg	19 24 35.0	+1.3
BSMT	Bassoo Peak	6.72	1	*e*Pg	Pg	19 24 38.3	0.0
BSMT				*e*Sg	Sg	19 26 02.4	-2.9
PHWY	Pilot Hill	7.11	86	*e*Pn	Pn	19 24 17.5	+3.6
ISCO	Idaho Springs	7.20	98	Pn	Pn	19 24 21.3	+6.3
ISCO				*e*Pg	Pg	19 24 45.2	-2.4
ISCO				*e*Sg	Sg	19 26 10.6	-10
ANMO	Albuquerque	9.07	130	Pg	Px	19 25 17.7	
	0.2nm,0.3s,baz=322,slow=14,SNR=2.8						
ANMO				Lg		19 27 13.5	
	0.2nm,0.3s,baz=50,slow=7.9,SNR=2.8						
YKA	Yellowknife Ar	21.39	0	P	P	19 27 17.7	+0.4
	1.0nm,0.7s,mb3.3,baz=179,slow=10,SNR=27						
RES	Resolute Bay	34.88	9	P	P	19 29 19.2	-1.5
	0.6nm,0.5s,mb3.8,baz=194,slow=8.3,SNR=4.9						

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*BJI **22** 19:31:14.5, 32°.40N×115°.30W, h10^{km}, mB5.7/9, mb5.2/10, Ms5.1/8, Ms7 4.7/9*

*ECX **22** 19:31:17.2±0.4, 32°.43N×115°.32W, h9^{km}, MD4.9, ML5.0, MW5.0, Fault plane solution: NP1:ϕ_s205.60000°, δ75.50000°, λ-26.60000°.*

*ISCJB **22** 19:31:17.1±0.4, 32°.39N±0°.02×115°.30W±0°.02, h8^{km}±2^{km}, mb4.6/27, MS4.5/27, Error ellipse: s-maj=3.6km s-min=2.3km az=176.9*

*GCMT **22** 19:31:17.6±0.3, 32°.45N×115°.24W, h12^{km}±1^{km}, MW4.9/85, Moment Tensor Solution. s15,c16; s85,c128; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.64±.11; $M_{\theta\theta}$-1.89±.09; $M_{\phi\phi}$2.53±.12; $M_{r\theta}$0.08±.26; $M_{\theta\phi}$1.32±.08; $M_{\phi r}$-1.24±.34; Best double couple: $M_0$2.80800×10^{16} NP1:ϕ_s242.00000°, δ67.00000°, λ1.00000°. NP2: ϕ_s151.00000°, δ89.00000°, λ157.00000°. Principal axes: T 3.2520, Plg17.0000°, Azm104.0000°; N -0.8830, Plg67.0000°, Azm329.0000°; P -2.3650, Plg15.0000°, Azm199.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **22** 19:31:17.6±0.8, 32°.36N×115°.33W, h16^{km}±5^{km}, mb4.7/29, ML4.8(PAS), ML5.0(ECX) Error ellipse: s-maj=8.5km s-min=5.7km az=180.0*

NEIC Felt [V] at Brawley; [IV] at Calexico, Imperial and Winterhaven; [III] at Chula Vista, El Centro and San Diego; [II] at Blythe and La Jolla, California. Also felt at Boulevard, El Cajon, Heber, Imperial Beach, Lakeside and La Mesa. Felt [IV] at Yuma and [III] at Somerton, Arizona. Also felt at Parker, Roll and Wellton.

*IDC **22** 19:31:19.8±0.9, 32°.53N×114°.82W, h0^{km}, mb4.2/11, mb1 4.2/16, mb1mx4.1/28, mbtmp4.2/16, ML3.5/4, MS4.3/25, Ms1 4.3/25, ms1mx4.2/36, Error ellipse: s-maj=25.2km s-min=10.9km az=64.0*

ISC 22 19:31:17.6±0.4, **32°.34N**±0°.02×**115°.33W**±0°.02, **h0**^{km}±2^{km}, **n237**, σ**1^{s}64**/239, **mb4.6**/27, **MS4.5**/27, **32C-26D,**
California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.08	17	⇓*i*P	Pg	19 31 19.9	+0.6
CPBX				*e*S	Sg	19 31 22.2	+1.9
CPBX	Cerro Prieto	0.08	17	⇓*i*P	Pg	19 31 19.9	+0.6
CPBX				*e*S	Sg	19 31 22.7	+2.4
DELX	Delta	0.12	82	*e*P	Pg	19 31 22.5	+2.5
DELX				*e*S	Sg	19 31 26.8	+5.1
CHIX	Chihuahua	0.17	27	*i*P	Pg	19 31 20.9	0.0
SGL	Mount Signal	0.45	313	⇑*e*P	Pg	19 31 26.5	+0.2
ERPC	Ernies Place	0.49	325	⇑*e*P	Pg	19 31 27.3	+0.2
COA	Coachella	0.55	19	⇓*e*P	Pg	19 31 27.7	-0.5
YUH	Yuha Desert	0.59	302	⇑*e*P	Pg	19 31 29.0	+0.1
COK	Cook Ranch	0.61	327	⇑*e*P	Pg	19 31 29.0	-0.3
RDX	Rancho Dawling	0.66	232	⇓*e*P	Pg	19 31 32.8	+2.5
RDX				*e*S	Sg	19 31 44.5	+5.7
112A	Yuma	0.67	73	⇓P	Pg	19 31 30.0	-0.4
	baz=0.6,SNR=246						
112A				⇑S	Sg	19 31 39.0	-0.1
	baz=0.6						
RMX	La Rumorosa	0.68	293	*e*P	Pg	19 31 31.4	+0.6
YMD	Yuma Desert	0.70	72	⇑*e*P	Pg	19 31 30.5	-0.5
SWSC	Sam W. Stewart	0.72	327	P	Pg	19 31 30.3	-1.1
	baz=0.7,SNR=665						
SWSC				⇓S	Sg	19 31 40.1	-0.6
	baz=0.7						
DVTC	Desert V Tower	0.72	296	P	Pg	19 31 31.9	+0.3
	baz=0.7,SNR=530						
DVTC				⇑S	Sg	19 31 41.6	+0.7
	baz=0.7						
DVTC	Desert V Tower	0.72	296	⇑*e*P	Pg	19 31 31.9	+0.4
CRR	Carrizo Plain	0.77	316	⇑*e*P	Pg	19 31 31.7	-0.7
GLA	Glamis	0.83	31	⇓P	Pg	19 31 31.7	-1.9
	baz=0.7,SNR=1000						
GLA				⇑S	Sg	19 31 41.9	-2.4
	baz=0.7						
GLA	Glamis	0.83	31	⇓*i*Pg	Pg	19 31 31.7	-1.9
GLA				*e*Sg	Sg	19 31 41.8	-2.5
MONP	Monument Peak	1.07	301	P	Pg	19 31 37.0	-1.1
	baz=1.1,SNR=425						
MONP				⇑S	Sg	19 31 51.4	-0.7
	baz=1.1						
CBX	Cerro Bola	1.13	269	⇑*e*P	Pg	19 31 39.5	+0.3
CBX				*i*S	Sg	19 31 55.3	+1.4
BAR	Barrett	1.18	287	⇑*i*Pn	Pn	19 31 39.0	-2.4
BAR				*e*Sg	Sg	19 31 55.2	-0.5
ECNX	Esteban Cantu	1.27	238	*e*P	Pg	19 31 41.5	-0.5
ECNX				*e*PN	Pn	19 31 42.2	-0.4
SPX	San Pedro Mart	1.29	185	*e*P	Pg	19 31 42.9	+0.5
SPX				⇓*e*		19 32 26.2	
	comp=E,13μm,1.1s						
BC3	Big Chuckw Mtn	1.32	356	P	Pg	19 31 39.1	-3.8
	baz=1.2,SNR=542						
PBX	Punta Banda	1.32	244	*e*P	Pg	19 31 42.4	-0.6
PBX	Punta Banda	1.32	244	*e*P	Pg	19 31 42.4	-0.6
113A	Mohawk Valley,	1.39	72	P	Pn	19 31 40.9	-3.3
	baz=1.3,SNR=618						
113A				⇑S	Sg	19 31 59.6	-2.8
	baz=1.3						
Y12C	Blythe	1.56	26	⇑P	Pn	19 31 42.5	-4.2
	baz=1.5,SNR=245						
Y12C				⇑S	Sn	19 32 04.1	-3.4
	baz=1.5						
PFO	Pinyon Flat Ob	1.58	324	P	Pn	19 31 43.1	-3.7
	baz=1.5,SNR=157						
PFO	Pinyon Flat Ob	1.58	324	⇑*e*Pn	Pn	19 31 43.0	-3.8
109C	Camp Elliot, M	1.59	291	⇑P	Pn	19 31 44.9	-2.1
	baz=1.6,SNR=212						
109C				⇑S	Sn	19 32 07.3	-1.0
	baz=1.6						
Z13A	Yuma Proving G	1.65	58	⇑P	Pn	19 31 44.4	-3.4
	baz=1.6						
Z13A				⇓S	Sn	19 32 07.3	-2.5
	baz=1.6						
BELC	Belle Mtn.	1.75	342	⇑P	Pn	19 31 45.1	-4.1
	baz=1.7						
IRM	Iron Mountain	1.82	5	⇓P	Pn	19 31 46.3	-4.0
	baz=1.7,SNR=331						
Y13A	Salome	1.94	40	⇓P	Pn	19 31 48.1	-3.7
	baz=1.9						
Y13A				⇑S	Sn	19 32 14.9	-2.0
	baz=1.9						
MURC	Murrieta	2.01	309	⇓P	Pn	19 31 49.7	-3.1
	baz=2.0,SNR=42						
114A	Black Gap (USA	2.11	78	P	Pn	19 31 51.2	-2.9
	baz=2.1,SNR=147						
214A	Organ Pipe Nat	2.17	99	P	Pn	19 31 51.9	-3.1
	baz=2.1,SNR=783						
PDMCI	Parker Dam,Lak	2.20	27	⇓P	Pn	19 31 51.8	-3.5
	baz=2.1						
Z14A	Wintersburg	2.25	62	⇓P	Pn	19 31 52.9	-3.2
	baz=2.2,SNR=45						
GMRC	Granite Mounta	2.45	354	⇓P	Pn	19 31 55.3	-3.5
	baz=2.4						
NEE2	Needles Airpor	2.50	14	⇑P	Pn	19 31 56.1	-3.4
	baz=2.4,SNR=7.9						
Y14A	Wickenburg	2.52	50	⇓P	Pn	19 31 56.7	-3.1
	baz=2.4						
X13A	Yucca	2.58	29	⇓P	Pn	19 31 57.3	-3.2
	baz=2.5,SNR=104						
HEC	Hector,Ludlow	2.62	342	⇑P	Pn	19 31 57.9	-3.3
	baz=2.6						
115A	Sonoran Desert	2.65	81	⇑P	Pn	19 31 58.8	-2.8
	baz=2.6						
BFSC	Mount Baldy St	2.72	315	⇑P	Pn	19 31 59.9	-2.6
	baz=2.7						
LDFC	Landfair	2.74	4	⇓*e*Pn	Pn	19 32 00.4	-2.4
SCI	San Clemente I	2.79	284	⇓P	Pn	19 32 02.0	-1.5
	baz=2.8						
CIS	Catalina Islan	2.79	293	⇑P	Pn	19 32 01.6	-2.0
	baz=2.8						
Z15A	Gila River Ind	2.84	70	⇓P	Pn	19 32 01.2	-2.9
	baz=2.8						
X14A	Yava	2.95	43	⇓P	Pn	19 32 02.8	-2.9
	baz=2.9						
MWC	Mount Wilson	2.96	310	*e*Pn	Pn	19 32 03.1	-2.7
W12A	Cal Nev Ari	2.98	7	⇓P	Pn	19 32 03.4	-2.8
	baz=2.9						
Y15A	Casa Rosa Ranc	2.99	57	⇑P	Pn	19 32 02.9	-3.3
	baz=2.9,SNR=45						
W13A	Hualapai Mount	3.01	23	⇑P	Pn	19 32 03.6	-2.9
	baz=2.9						
PASC	Pasadena Art C	3.01	308	*e*Pn	Pn	19 32 11.1	+4.6
116A	Eloy	3.08	85	⇓P	Pn	19 32 04.3	-3.1
	baz=3.0,SNR=28						
TUQ	Turquoise Moun	3.13	351	⇓P	Pn	19 32 05.1	-3.0
	baz=3.1						
GSC	Goldstone	3.20	338	⇑P	Pn	19 32 07.7	-1.5
	baz=3.1						
GSC	Goldstone	3.20	338	*e*Pn	Pn	19 32 06.2	-2.9
216A	Three Points,	3.30	95	⇑P	Pn	19 32 07.4	-3.1
	baz=3.3,SNR=56						
X15A	Humboldt	3.36	50	⇑P	Pn	19 32 09.6	-1.8
	baz=3.3						
EDW2	Edwards Air Fo	3.37	320	⇓P	Pn	19 32 10.1	-1.3
	baz=3.3						
OSI	Osito Adit	3.63	310	*e*Pn	Pn	19 32 12.3	-2.7
SNCC	San Nicolas Is	3.65	286	*e*Pn	Pn	19 32 12.1	-3.2
TUC	Tucson	3.85	89	*e*Pn	Pn	19 32 14.0	-4.1
SHPR	Sheep Range	4.16	2	*e*Pn	Pn	19 32 20.4	-2.0
ISA	Isabella	4.22	323	*e*Pn	Pn	19 32 22.3	-0.8
WUAZ	Wupatki	4.57	45	*e*Pn	Pn	19 32 26.6	-1.3
CCUT	Cedar City	5.45	17	*e*Pn	Pn	19 32 38.4	-1.6
	comp=E,508nm,0.5s						
ARUT	Antelope Range	5.65	15	*e*Pn	Pn	19 32 40.9	-2.0
	comp=E,31nm,0.4s						
MTUM	Tungsten Hills	5.67	333	*e*Pn	Pn	19 32 50.6	+7.6
NVAR	Mina Array Bea	6.54	339	Pn	Pn	19 32 58.1	+3.1
	comp=E,0.2nm,0.3s,baz=161,slow=15,SNR=5.9						
NVAR				Pg	Pg	19 33 24.6	+1.6
	comp=E,2.6nm,0.3s,baz=159,slow=16,SNR=21						
NVAR				Lg		19 34 44.9	
	baz=138,slow=16,SNR=1.9						
NVAR	Mina Array Bea	6.54	339	Pn	Pn	19 32 58.1	+3.1
NVAR				Pg	Pg	19 33 24.6	+1.6
NVAR				Lg		19 34 44.9	
MSU	Marysvale	6.68	22	*e*Pn	Pn	19 32 59.0	+2.1
WAKR	Walker	7.00	333	*e*Pn	Pn	19 32 58.2	-3.2
CMB	Columbia Colle	7.03	325	*e*Pn	Pn	19 33 01.0	-0.7
LAZ	Ladron	7.16	71	*e*Pn	Pn	19 33 02.1	-1.4
	comp=E,588nm,2.5s						
LENM	Lemitar	7.24	73	*e*Pn	Pn	19 33 03.7	-0.9
MVCO	Mesa Verde	7.43	47	*e*Pn	Pn	19 33 08.3	+1.1
BNM	Barren Site	7.51	74	*e*Pn	Pn	19 33 06.9	-1.5
	comp=E,647nm,2.7s						
LPM	Los Pinos Moun	7.54	73	*e*Pn	Pn	19 33 07.4	-1.4
TMUT	Trail Mountain	7.71	25	*e*Pn	Pn	19 33 11.3	+0.3
SRU	San Rafael	7.81	29	*e*Pn	Pn	19 33 12.2	-0.2
ANMO	Albuquerque	7.84	68	Pn	Pn	19 33 12.7	-0.2
	comp=E,0.4nm,0.3s,baz=265,slow=10,SNR=12						
ANMO				Lg		19 35 16.8	
	comp=E,2.0nm,0.3s,baz=315,slow=13,SNR=1.7						
ANMO				LR	LR	19 36 29.8	
	comp=E,2μm,20.5s,baz=255,slow=42						
ANMO	Albuquerque	7.84	68	*e*Pn	Pn	19 33 12.3	-0.6
PV01	Paradox Valley	8.00	42	*e*Pn	Pn	19 33 16.1	+1.0
	comp=E,1μm,2.5s						
PV04	Paradox Valley	8.00	39	*e*Pn	Pn	19 33 15.7	+0.6
NLU	North Lily Min	8.04	18	*e*Pn	Pn	19 33 11.9	-3.8
PAHR	Pah Rah Range	8.05	337	*e*Pn	Pn	19 33 19.1	+3.4
DUG	Dugway	8.10	14	Pn	Pn	19 33 13.4	-3.0
BMN	Battle Mountai	8.22	350	Pn	Pn	19 33 17.7	-0.4
	comp=E,100nm,1.1s						
MPU	Maple Canyon	8.22	20	*e*Pn	Pn	19 33 20.8	+2.6
ELK	Elko	8.39	0	Pn	Pn	19 33 19.4	-1.0
	comp=E,0.4nm,0.3s,baz=164,slow=14,SNR=2.6						
ELK				Pg	Pg	19 33 56.1	-2.2
	comp=E,0.8nm,0.3s,baz=173,slow=14,SNR=3.5						
ELK				Lg		19 35 38.1	
	comp=E,0.7nm,0.3s,baz=267,slow=14,SNR=2.8						
ELK	Elko	8.39	0	*e*Pn	Pn	19 33 17.6	-2.9
N12A	Clover Valley,	8.50	2	*e*Pn	Pn	19 33 20.8	-1.1
	comp=E,141nm,0.9s						
N13A	Wendover, West	8.55	6	*e*Pn	Pn	19 33 21.0	-1.6
	comp=E,288nm,1.0s						
NOQ	North Oquirrh	8.69	16	*e*Pn	Pn	19 33 24.7	+0.2
DAU	Daniels Canyon	8.70	21	*e*Pn	Pn	19 33 26.3	+1.6
BGU	Big Grassy Mou	8.77	12	*e*Pn	Pn	19 33 25.8	+0.2
	comp=E,22nm,1.0s						
JLU	Jordanelle	8.82	20	*e*Pn	Pn	19 33 28.3	+2.0
CTU	Camp Tracy	8.82	18	*e*P	Pn	19 33 29.7	+3.4
	comp=E,73nm,0.9s						
M13A	Montello	9.05	6	*e*Pn	Pn	19 33 28.4	-1.1
	comp=E,97nm,1.0s						
SPUT	South Promonto	9.25	14	*e*Pn	Pn	19 33 34.3	+2.2
GDL2	Guadalupe Moun	9.29	88	*e*Pn	Pn	19 33 33.1	+0.3
LPIG	La Paz	9.32	150	Pn	Pn	19 33 35.0	+1.8
	comp=E,12nm,0.3s,baz=102,slow=12,SNR=9.9						
HVU	Hansel Valley	9.64	11	*e*Pn	Pn	19 33 37.4	-0.2
SDCO	Great Sand Dun	9.70	53	*e*Pn	Pn	19 33 38.6	+0.3
MOD	Modoc	10.34	339	*e*Pn	Pn	19 33 40.9	-6.2
WVOR	Wild Horse Val	10.41	346	*e*Pn	Pn	19 33 49.1	+1.0
	comp=E,8.5nm,1.1s						
ISCO	Idaho Springs	10.82	44	*e*Pn	Pn	19 33 56.2	+2.4
	comp=E,114nm,1.3s						
AHID	Auburn Hatcher	10.94	17	*e*Pn	Pn	19 33 58.3	+3.0
YBH	Yreka Blue Hor	11.07	330	Pn	Pn	19 34 02.2	+5.0
	comp=E,0.1nm,0.3s,baz=170,slow=17,SNR=2.4						
YBH				Lg		19 37 18.1	
	comp=E,0.1nm,0.3s,baz=74,slow=8.1,SNR=3.4						
YBH				LR	LR	19 37 49.9	
	comp=E,805nm,18.1s,baz=330,slow=35						
RWWY	Rawlins	11.36	32	*e*Pn	Pn	19 34 02.5	+1.4
BW06	Boulder Array	11.37	22	*e*Pn	Pn	19 34 03.5	+2.3
PDAR	Pinedale Array	11.37	22	Pn	Pn	19 34 03.4	+2.2
	comp=E,0.1nm,0.3s,baz=216,slow=9.1,SNR=15						
PDAR				Lg		19 37 11.9	
	comp=E,0.3nm,0.3s,baz=74,slow=18,SNR=3.5						
PDAR				LR	LR	19 38 36.5	
	comp=E,3μm,19.4s,baz=213,slow=40						
RRI2	Red Ridge	11.44	15	*e*Pn	Pn	19 34 04.4	+2.3
REDW	Red Top Meadow	11.56	17	*e*Pn	Pn	19 34 06.0	+2.2
TPAW	Teton Pass	11.66	16	*e*Pn	Pn	19 34 07.7	+2.5
AMTX	Amarillo	11.66	74	*e*Pn	Pn	19 34 06.2	+1.0
SNOW	Snow King Moun	11.68	17	*e*Pn	Pn	19 34 07.4	+2.0
DCID1	Drake Creek	11.70	15	*e*Pn	Pn	19 34 08.1	+2.3
LOHW	Long Hollow	11.85	17	*e*Pn	Pn	19 34 08.8	+1.0
PHWY	Pilot Hill	11.93	39	*e*Pn	Pn	19 34 14.5	+5.5
MOOW	Moose Ponds	11.95	16	*e*Pn	Pn	19 34 11.1	+2.0
IMW	Indian Meadow	12.04	15	*e*Pn	Pn	19 34 12.8	+2.3
YFT	Old Faithful	12.60	15	*e*Pn	Pn	19 34 21.3	+3.3
MCMT	McKenzie Canyo	12.62	8	*e*Pn	Pn	19 34 22.1	+3.8
YMR	Madison River	12.78	14	*e*Pn	Pn	19 34 21.7	+1.3
	comp=E,44nm,1.1s						
LKWY	Lake	12.80	16	*e*Pn	Pn	19 34 25.4	+4.6
QLMT	Earthquake Lak	12.84	13	*e*Pn	Pn	19 34 25.1	+3.8
YNR	Norris Junctio	12.88	15	*e*Pn	Pn	19 34 24.4	+2.5
DLMT	Dillon	13.18	8	*e*Pn	Pn	19 34 29.8	+3.9

JCT	Junction City	13.39	94	ePn	Pn	19 34 31.1	+2.1
BOZ	Bozeman (W)	13.60	11	ePn	Pn	19 34 34.1	+2.5
RLMT	Red Lodge	13.61	19	ePn	Pn	19 34 32.8	+1.0
LRM	Limekiln Ridge	13.65	9	ePn	Pn	19 34 33.6	+1.3
LNOR	Lincton Mounta	13.71	351	ePn	Pn	19 34 40.1	+7.0
HOOD	Mount Hood Mea	13.86	341	ePn	Pn	19 34 39.5	+4.3
WMOK	Wichita Mounta	14.01	76	ePn	Pn	19 34 30.6	-6.8
GCMT	Greycliff	14.13	16	ePn	Pn	19 34 38.8	-0.1
CBKS	Cedar Bluff	14.23	59	ePn	Pn	19 34 48.8	+8.4
HAWA	Hanford	14.40	348	ePn	Pn	19 34 46.4	+3.8
RSW	Rattlesnake Hi	14.41	348	ePn	Pn	19 34 46.3	+3.5
MSO	Missoula	14.51	4	ePn	Pn	19 34 45.0	+0.9
HRY	Holter Researc	14.60	10	ePn	Pn	19 34 48.5	+3.2
CHMT	Chamberlain Mo	14.64	6	ePn	Pn	19 34 48.3	+2.4
RSSD	Black Hills	14.72	34	ePn	Pn	19 34 49.7	+2.7
SLMT	Seeley Lake	14.95	5	ePn	Pn	19 34 50.5	+0.4
SWMT	Swartz Lake	15.19	3	ePn	Pn	19 34 54.2	+0.9
LON	Longmire	15.23	343	ePn	Pn	19 34 55.4	+1.6
	comp=E,47nm,1.4s						
OD2	Odessa Site #2	15.25	351	ePn	Pn	19 34 56.1	+1.9
JTMT	Jette	15.41	3	ePn	Pn	19 34 57.3	+1.0
BSMT	Bassoo Peak	15.50	1	ePn	Pn	19 34 59.7	+2.3
YBMT	Yellow Bay	15.54	3	ePn	Pn	19 34 58.4	+0.5
ETW	Entiat	15.72	347	ePn	Pn	19 35 04.0	+3.8
LAO	LASA Array	15.94	23	ePn	Pn	19 35 03.3	+0.2
	comp=E,99nm,1.4s						
LAO				eSn	Sn	19 37 54.7	-5.8
NEW	Newport	15.97	356	ePn	Pn	19 35 05.7	+2.2
	comp=E,45nm,1.0s						
EGMT	Eagleton	16.23	14	ePn	Pn	19 35 08.5	+1.6
	comp=E,83nm,1.4s						
GNW	Green Mountain	16.24	342	ePn	Pn	19 35 11.2	+4.1
	comp=E,37nm,1.2s						
NLWA	Neilton Lookou	16.38	339	eP	Pn	19 35 19.0	+10
KSU1	Kansas State U	16.62	61	ePn	Pn	19 35 11.2	-0.7
	comp=E,39nm,0.9s						
WALA	Waterton Lakes	16.74	3	ePn	Pn	19 35 13.3	0.0
	comp=E,3.0nm,1.5s						
HKT	Hockley	16.86	93	ePn	Pn	19 35 14.8	-0.2
	comp=E,74nm,1.4s						
PGC	Sidney	17.41	342	eP	Pn	19 35 23.1	+1.3
	comp=E,8.2nm,1.4s						
DGMT	Dagmar	18.18	24	ePn	Pn	19 35 31.7	+0.4
	comp=E,110nm,1.2s						
MIAR	Mount Ida	18.29	77	ePn	Pn	19 35 32.2	-0.6
	comp=E,30nm,1.0s						
ECSD	EROS Data Cent	18.58	47	ePn	Pn	19 35 36.8	+0.6
	comp=E,26nm,1.4s						
UALR	University of	19.31	76	eP	Pn	19 35 43.6	-1.5
	comp=E,9.8nm,0.7s						
SCIA	State Center	20.01	55	P	P	19 35 55.7	+3.9
	comp=E,36nm,1.0s						
CCM	Cathedral Cave	20.47	67	eP	P	19 35 57.3	+0.5
EDM	Edmonton	20.92	3	eP	P	19 36 00.2	-1.3
VBMS	Vicksburg	20.97	84	eP	P	19 36 03.2	+0.9
	comp=E,102nm,1.1s						
FVM	French Village	21.10	68	ePn	P	19 36 05.9	+2.3
	comp=E,42nm,1.1s,mb4.7						
PARMO	Parma	21.50	71	P	P	19 36 04.6	-3.3
AGMN	Agassiz Refuge	21.69	37	eP	P	19 36 13.0	+3.1
	comp=E,54nm,1.0s,mb4.9						
BBB	Bella Bella	21.91	339	P	P	19 36 15.5	+3.3
	comp=E,12nm,0.9s,mb4.3,baz=173,slow=15,SNR=2.3						
BBB				LR	LR	19 44 09.0	
	comp=E,587nm,18.6s,MS4.0,baz=350,slow=35						
SIUC	Southern Illin	22.02	69	eP	P	19 36 13.1	-0.4
	comp=E,64nm,1.4s,mb4.9						
PLAL	Pickwick Lake	22.82	76	eP	P	19 36 15.2	-6.8
	comp=E,24nm,1.1s,mb4.6						
ULM	Lac du Bonnet	22.99	33	P	P	19 36 22.4	-1.4
	comp=E,6.9nm,1.0s,mb4.1,baz=236,slow=9.0,SNR=5.4						
ULM				Lg		19 43 13.3	
	comp=E,2.9nm,1.0s,baz=136,slow=15,SNR=2.1						
ULM				LR	LR	19 46 43.0	
	comp=E,335nm,19.1s,MS3.8,baz=50,slow=41						
OLIL	Olney	23.01	66	eP	P	19 36 24.8	+0.7
	comp=E,52nm,1.0s,mb5.0						
WVT	Waverly	23.02	73	eP	P	19 36 21.9	-2.3
	comp=E,19nm,1.0s,mb4.6						
EYMN	Ely	23.84	42	eP	P	19 36 32.4	0.0
CMIG	Matias Romero	23.92	125	P	P	19 36 33.5	+0.2
	comp=E,7.5nm,0.9s,mb4.2,baz=313,slow=9.5,SNR=11						
CMIG				LR	LR	19 46 10.3	
	comp=E,852nm,19.0s,MS4.2,baz=111,slow=38						
FFC	Flin Flon	24.30	19	eP	P	19 36 32.8	-3.7
COWI	Conover	24.37	48	eP	P	19 36 38.5	+1.2
	comp=E,24nm,1.1s,mb4.6						
CPCT	Cooper Cave	25.71	75	eP	P	19 36 58.9	+9.4
TKL	Tuckaleechee C	26.31	74	LR	LR	19 47 41.9	
	comp=E,1µm,20.6s,MS4.4,baz=270,slow=38						
TEIG	Tepich	27.01	110	LR	LR	19 50 56.4	
	comp=E,518nm,18.0s,MS4.1,baz=315,slow=44						
ACSO	Alum Creek Sta	27.13	64	eP	P	19 37 01.5	-0.8
DLBC	Dease Lake	27.94	343	P	P	19 37 15.2	+5.9
	comp=E,8.7nm,0.9s,mb4.6,baz=190,slow=6.2,SNR=11						
DLBC				LR	LR	19 48 17.8	
	comp=E,1µm,19.8s,MS4.4,baz=165,slow=36						
FCC	Fort Churchill	30.06	22	eP	P	19 37 28.5	+0.3
YKA	Yellowknife Ar	30.18	1	P	P	19 37 28.4	-0.7
	comp=E,0.7nm,0.8s,baz=180,slow=8.8,SNR=16						
YKA				LR	LR	19 50 13.2	
	comp=E,557nm,18.9s,baz=5.0,slow=38						
DAWY	Dawson	35.11	342	eP	P	19 38 18.9	+6.5
EGAK	Eagle	36.15	342	eP	P	19 38 22.1	+0.9
	comp=E,14nm,1.1s,mb4.7						
INK	Inuvik	37.52	349	P	P	19 38 33.6	+0.8
	comp=E,4.9nm,1.0s,mb4.2,baz=156,slow=7.5,SNR=7.8						
INK	Inuvik	37.52	349	eP	P	19 38 31.3	-1.5
	comp=E,14nm,1.3s,mb4.5						
MCK	McKinley	37.77	336	eP	P	19 38 38.6	+3.6
	comp=E,14nm,1.2s,mb4.6						
BPAW	Bear Paw Mtn.	38.71	336	eP	P	19 38 44.5	+1.6
	comp=E,10.0nm,1.0s,mb4.4						
IMA2	Indian Mountai	40.81	337	eP	P	19 38 57.2	-3.2
ROSC	El Rosal	47.05	117	P	P	19 39 52.3	+1.1
	comp=E,6.2nm,0.4s,mb5.1,baz=270,slow=20,SNR=3.2						
ROSC				LR	LR	19 59 16.8	
	comp=E,259nm,21.7s,MS4.2,baz=32,slow=36						
OTAV	Otavalo	47.21	125	eP	P	19 39 54.2	+1.8
	comp=E,24nm,1.5s,mb5.1						
TAOE	Nuku Hiva Isla	47.32	214	eS	S	19 46 52.3	+4.4
	comp=E,386nm,25.1s						
TAOE				eLR	LR	19 53 15.5	
	comp=E,1µm,25.4s						
SUMG	Summit	55.56	21	eP	P	19 40 49.9	-4.4
	comp=E,7.7nm,0.8s,mb4.8						
BILL	Bilibino	56.13	334	eP	P	19 41 01.2	+2.8
	comp=E,12nm,1.2s,mb4.8						
PPT	Papeete	59.48	219	eLR	LR	19 59 02.6	
	comp=E,392nm,25.2s						
SCO	Scoresbysund	61.02	23	iP	P	19 41 32.5	+0.1
	comp=E,2.7nm,1.0s,mb4.3						
SCO							
	comp=Z,510nm,17.0s						
SCO	Scoresbysund	61.02	23	eP	P	19 41 32.5	+0.1
	comp=Z,2.7nm,1.0s,mb4.3						
SCO				LR	LR		
	comp=Z,520nm,17.0s,MS4.8						
PETK	Petropavlovsk-	63.15	318	P	P	19 41 51.6	+4.6
	comp=Z,1.5nm,0.8s,mb4.2,baz=111,slow=8.1,SNR=4.0						
PETK				LR	LR	20 04 13.2	
	comp=Z,117nm,21.9s,MS4.0,baz=257,slow=31						
TIXI	Tiksi	67.16	342	P	P	19 42 12.3	-0.5
ARCES	ARCESS Array B	74.49	13	LR	LR	20 16 14.1	
	comp=Z,544nm,18.3s,MS4.9,baz=151,slow=36						
NOA	NORSAR Array B	77.31	24	LR	LR	20 16 31.5	
	comp=Z,250nm,21.0s,MS4.5,baz=230,slow=35						
CPUP	Villa Florida	80.35	129	P	P	19 43 30.6	-0.1
	comp=Z,0.4nm,0.4s,mb3.7,baz=267,slow=5.1,SNR=3.6						
CPUP				LR	LR	20 22 04.2	
	comp=Z,82nm,19.1s,MS4.1,baz=94,slow=38						
MJAR	Matsushiro Arr	82.97	309	LR	LR	20 13 25.0	
	comp=Z,142nm,20.1s,MS4.3,baz=80,slow=30						
PLCA	Paso Flores	83.65	147	LR	LR	20 14 17.6	
	comp=Z,122nm,18.3s,MS4.3,baz=80,slow=31						
CLL	Collm	85.14	30	epP	pP	19 43 58.0	+2.5
CN2	Changchun	86.10	321	eP	P	19 44 00.5	+0.1
CN2				eS	S	19 54 33.1	-2.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.1						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,500nm,13.0s,MS5.2						
CN2				LR	LR		
	comp=E,400nm,13.0s,MS5.2						
CN2				LR	LR		
	comp=Z,300nm,14.0s,MS4.8						
GERES	GERESS Array B	87.28	31	LR	LR	20 27 21.6	
	comp=Z,384nm,18.4s,MS4.8,baz=129,slow=39						
KSRS	Korea Array	88.90	315	LR	LR	20 21 40.4	
	comp=Z,65nm,18.6s,MS4.1,baz=245,slow=34						
HNR	Honiara	90.56	259	LR	LR	20 18 16.7	
	comp=Z,192nm,18.2s,MS4.6,baz=220,slow=31						
AKASG	Malin Array Be	91.59	22	P	P	19 44 27.2	+0.9
	comp=Z,0.5nm,0.4s,mb4.2,baz=320,slow=4.1,SNR=4.4						
AKASG				LR	LR	20 26 20.1	
	comp=Z,347nm,19.6s,MS4.8,baz=355,slow=36						
AKASG	Malin Array Be	91.59	22	P	P	19 44 27.2	+0.9
AKASG				LR	LR	20 26 20.1	
SONM	Songino Array	91.85	333	LR	LR	20 30 25.3	
	comp=Z,183nm,19.9s,MS4.5,baz=358,slow=39						
ZALV	Zalesovo Beam	92.31	348	P	P	19 44 31.9	+2.3
	comp=Z,0.6nm,0.3s,mb4.4,baz=14,slow=7.9,SNR=2.5						
BVAR	Borovoye Array	94.85	357	P	P	19 44 42.0	+0.8
	comp=Z,0.7nm,0.7s,mb4.2,baz=0.0,slow=7.2,SNR=4.5						
BVAR				LR	LR	20 30 19.3	
	comp=Z,231nm,19.9s,MS4.7,baz=17,slow=37						
HHC	Hu-ho-hao-te	95.28	326	eP	P	19 44 40.8	-2.6
HHC				sP	sP	19 44 47.9	+4.3
HHC				PP	PP	19 48 32.6	0.0
HHC				SKS		19 55 14.0	
HHC				eS	S	19 55 51.0	-9.3
HHC				sS	sS	19 55 59.8	-0.6
HHC				SS	SS	20 02 19.1	-6.1
HHC				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.6						
HHC				pmax	pmax		
	comp=Z,82nm,4.2s						
HHC				LR	LR		
	comp=N,170nm,16.2s,MS4.8						
HHC				LR	LR		
	comp=E,250nm,16.7s,MS4.8						
HHC				LR	LR		
	comp=Z,230nm,14.0s,MS4.8						
JOW	Kunigami	95.58	306	LR	LR	20 24 30.8	
	comp=Z,150nm,19.2s,MS4.5,baz=327,slow=33						
NJ2	Nanjing	98.02	316	eP	P	19 44 54.9	-1.1
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s						
MKAR	Makanchi Array	99.64	348	LR	LR	20 31 26.9	
	comp=Z,185nm,21.7s,MS4.5,baz=359,slow=36						
WMQ	Urumqi	101.34	343	eP	Pdif	19 45 13.0	+2.4
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,190nm,5.8s						
WMQ				LR	LR		
	comp=Z,220nm,20.0s,MS4.7						
LZH	Lanzhou	102.67	328	eP	Pdif	19 45 15.3	-1.2
LZH				pP		19 45 20.0	
LZH				sP		19 45 22.3	
LZH				pmax	pmax		
	comp=Z,17nm,1.4s						
LZH				pmax	pmax		
	comp=Z,78nm,6.7s						
LZH				LR	LR		
	comp=N,170nm,17.2s						
LZH				LR	LR		
	comp=Z,220nm,19.6s,MS4.7						
CD2	Chengdu	107.02	325	P	Pdif	19 45 36.6	+0.8
GYA	Guiyang	109.15	321	ePdif	Pdif	19 45 44.3	-1.0
GYA				PKP	PKiKP	19 49 47.5	-2.3
GYA				PP	PP	19 50 18.3	+1.1
GYA				PKS		19 53 22.8	
GYA				SS	SS	20 05 33.9	-3.8
GYA				AMB	AMB		
	comp=Z,110nm,7.9s						
GYA				LR	LR		
	comp=N,280nm,21.2s,MS4.9						
GYA				LR	LR		
	comp=E,240nm,22.0s,MS4.9						
GYA				LR	LR		
	comp=Z,210nm,24.4s,MS4.6						
KMI	Kunming	112.29	323	PKP	PKiKP	19 49 54.1	-1.7
BOSA	Boshof	145.96	94	PKPbc	PKPbc	19 50 58.1	-1.3
	comp=Z,2.4nm,0.8s,baz=217,slow=5.1,SNR=3.6						

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*ISCJB **22** 19:33:52.1±0.7, 32.°46N±0.°05×115.°30W±0.°07, h12^{km}±6^{km}, Error ellipse: s-maj=11.4km s-min=6.7km az=33.7*

*ECX **22** 19:33:52.9±0.5, 32.°39N×115.°30W, h6^{km}, MD4.5, ML4.6*

*BJI **22** 19:33:52.2, 32.°40N×115.°30W, h15^{km}, mB5.1/2, mb4.9/6, Ms4.7/2, Ms7 4.6/2*

*NEIC **22** 19:33:53.8, 32.°45N×115.°33W, h15^{km}, ML4.1(ECX), ML4.4(PAS), After ECX.*

NEIC Felt [III] at Calexico and El Centro; [II] at La Jolla and San Diego, California. Also felt at Brawley, Chula Vista, Earp, El Cajon, Heber, Holtville, Jamul, Julian, Lakeside, La Mesa, Oceanside and Solana Beach. Felt [III] at Yuma, Arizona. Also felt at Somerton and Wellton.

ISC 22 19:33:52.5±0.7, **32.°45N**±0.°05×**115.°31W**±0.°07, **h10**^{km}±5^{km}, **n17**, σ**0^{s}55**/18, **2C-2D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.03	166	eP	Pg	19 33 54.2	-0.1
ERPC	Ernies Place	0.42	315	eP	Pg	19 34 01.0	+0.3
WESC	Westside Schoo	0.47	311	eP	Pg	19 34 02.1	+0.5
DVTC	Desert V Tower	0.70	288	⇑iP	Pg	19 34 05.9	0.0
GLA	Glamis	0.73	34	ePg	Pg	19 34 06.1	-0.4
GLA				eSg	Sg	19 34 16.1	0.0
RDX	Rancho Dawling	0.74	226	⇓eP	Pg	19 34 07.0	+0.1
RDX				eS	Sg	19 34 16.8	+0.2
CBX	Cerro Bola	1.15	264	eP	Pb	19 34 13.3	-1.2
ECNX	Esteban Cantu	1.35	234	ePN	Pn	19 34 17.3	-0.1
ECNX				ePN	Pn	19 34 16.5	-0.9
PBX	Punta Banda	1.39	240	ePN	Pn	19 34 18.0	0.0
SPX	San Pedro Mart	1.41	185	ePN	Pn	19 34 18.4	+0.2
SPX				⇑e		19 34 49.1	
	comp=N,7µm,0.8s						
SPX				⇓e		19 34 50.6	
	comp=E,5µm,0.6s						
PFO	Pinyon Flat Ob	1.50	321	ePn	Pn	19 34 18.7	-0.8
GSC	Goldstone	3.10	337	ePn	Pn	19 34 49.2	+7.7
SNCC	San Nicolas Is	3.63	284	ePn	Pn	19 34 49.4	+0.6
CN2	Changchun	86.03	321	eP	P	19 46 34.5	+1.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NJ2	Nanjing	97.95	316	eP	P	19 47 28.9	-0.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
LZH	Lanzhou	102.59	328	eP	Pdif	19 47 48.6	-0.8
LZH				pP		19 47 53.3	
LZH				sP		19 47 55.8	
LZH				ePP	PP	19 52 04.0	+2.2
LZH				LR	LR		
	comp=N,120nm,17.5s						
LZH				LR	LR		
	comp=Z,170nm,19.7s						
KMI	Kunming	112.21	323	PKP	PKiKP	19 52 28.0	-0.9

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*ISCJB **22** 19:34:17.5±0.7, 24.°95S±0.°05×179.°85E±0.°07, h488^{km}±8^{km}, mb4.7/44, Error ellipse: s-maj=10.2km s-min=8.1km az=170.8*

*NEIC **22** 19:34:18.5±0.8, 24.°95S×179.°95E, h498^{km}±9^{km}, mb4.9/21, Error ellipse: s-maj=11.5km s-min=9.1km az=197.0*

*BJI **22** 19:34:18.5, 25.°00S×179.°90E, h498^{km}, mB5.4/4, mb4.7/10*

*IDC **22** 19:34:19.2±0.9, 25.°04S×179.°71E, h493^{km}±9^{km}, mb4.1/15, mb1 4.2/18, mb1mx4.1/22, mbtmp4.1/18, Error ellipse: s-maj=11.3km s-min=10.1km az=67.0*

*DJA **22** 19:34:33, 25.°22S×178.°89E, h600^{km}, mb5.0/15*

ISC 22 19:34:18.8±0.7, **25.°06S**±0.°05×**179.°90E**±0.°07, **h493**^{km}±7^{km}, **n140**, σ**1^{s}10**/81, **mb4.7**/44, **12C-6D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	4.60	156	P	P	19 35 43.1	+1.4
	124nm,0.3s,baz=234,slow=22,SNR=7.1						
RAO				S	S	19 36 48.4	-1.0
	46nm,0.3s,baz=79,slow=22,SNR=2.2						
DZM	Mont Dzumac	12.69	281	eP	P	19 37 05.6	+0.9
	33nm,1.0s						
DZM				eS	S	19 39 21.5	-0.1
URZ	Urewera	13.37	190	P	P	19 37 11.0	-0.7
	4.0nm,0.3s,baz=49,slow=4.0,SNR=13						
URZ				S	S	19 39 32.7	-1.5
	1.9nm,0.3s,baz=189,slow=20,SNR=6.7						
SNZO	South Karori	16.77	194	eP	P	19 37 48.0	+0.7
	67nm,1.1s						
SNZO				eS	S	19 40 36.7	-2.3
RAR	Rarotonga	19.08	83	P	P	19 38 07.3	-2.1
	276nm,1.8s						
RPZ	Rata Peaks	19.97	199	P	P	19 38 17.4	+0.3
	2.6nm,0.3s,baz=46,slow=2.0,SNR=11						
RPZ				S	S	19 41 30.3	-0.8
	0.4nm,0.3s,baz=332,slow=20,SNR=3.0						
HNR	Honiara	24.54	306	P	P	19 38 57.1	-1.6
	138nm,0.7s,mb5.5,baz=193,slow=0.7,SNR=14						
HNR	Honiara	24.54	306	eP	P	19 38 56.9	-1.8
	123nm,0.7s,mb5.4						
ARMA	Armidale	25.55	252	eP	P	19 39 09.6	+2.1
EIDS	Eidsvold	26.05	263	eP	P	19 39 12.7	+0.6
	35nm,0.9s,mb4.8						
EIDS				epP		19 40 32.8	
CNB	Canberra Magne	28.20	242	eP	P	19 39 32.7	+1.9
CTA	Charters Tower	31.41	272	⇓iP	P	19 39 59.1	+0.3
	34nm,0.3s,mb5.2						
CTA	Charters Tower	31.41	272	P	P	19 39 59.2	+0.5
	53nm,0.4s,mb5.4,baz=95,slow=11,SNR=94						
CTA				ScP	ScP	19 45 34.7	+1.0
	5.8nm,0.9s,baz=162,slow=4.5,SNR=4.9						
CTA	Charters Tower	31.41	272	P	P	19 39 59.2	+0.5
CTA				ScP	ScP	19 45 34.7	+1.0
CTAO	Charters Tower	31.41	272	⇓iP	P	19 39 59.0	+0.2
	68nm,0.6s,mb5.2						
CTAO	Charters Tower	31.41	272	P	P	19 39 59.2	+0.4
	113nm,0.8s,mb5.3						
TOO	Toolangi	31.75	239	eP	P	19 40 02.9	+1.4
TAU	Tasmania Unive	32.09	228	P	P	19 40 05.9	+1.7
STKA	Stephens Creek	34.22	250	eP	P	19 40 23.1	+0.6
	9.5nm,0.4s,mb4.6						
STKA	Stephens Creek	34.22	250	P	P	19 40 23.4	+0.8
	12nm,0.4s,mb4.7,baz=94,slow=10,SNR=90						
COEN	Coen	36.23	281	eP	P	19 40 40.0	+0.6
	86nm,0.6s,mb5.4						
COEN	Coen	36.23	281	P	P	19 40 40.1	+0.6
	110nm,0.9s,mb5.3						
ASAR	Alice Springs	41.77	262	P	P	19 41 24.1	-0.3
	17nm,0.6s,mb4.7,baz=91,slow=7.4,SNR=572						
ASAR				pP	pP	19 42 51.4	-3.2
	1.0nm,0.6s,baz=94,slow=9.4,SNR=1.6						
ASAR				ScP	ScP	19 46 13.5	+1.1
	1.6nm,0.8s,baz=111,slow=4.3,SNR=5.9						
ASAR				S	S	19 47 00.8	-4.8
	1.1nm,0.8s,baz=100,slow=15,SNR=5.6						
WRAB	Tennant Creek	42.24	267	eP	P	19 41 27.3	-0.8
	38nm,0.6s,mb5.0						
WRAB	Tennant Creek	42.24	267	P	P	19 41 27.5	-0.6
	67nm,0.7s,mb5.2						
WRA	Warramunga Arr	42.25	267	P	P	19 41 27.3	-0.9
	30nm,0.4s,mb5.0,baz=100,slow=7.1,SNR=770						
WRA				ScP	ScP	19 46 15.9	+1.5
	6.3nm,0.9s,baz=104,slow=3.9,SNR=14						
WRA				S	S	19 47 07.3	-5.3
	9.3nm,1.0s,baz=101,slow=14,SNR=4.3						
FORT	Forrest	45.83	251	eP	P	19 41 55.0	-0.9
	42nm,0.6s,mb5.0						
KAKA	Kakadu	46.33	276	eP	P	19 41 58.9	-1.0
	15nm,0.6s,mb4.6						
KAKA	Kakadu	46.33	276	eP	P	19 41 58.2	-1.7
	68nm,0.6s,mb5.3						
KAKA	Kakadu	46.33	276	P	P	19 41 59.0	-0.9
	51nm,0.6s,606nm,mb5.2						
FITZ	Fitzroy Crossi	50.66	267	eP	P	19 42 32.0	-0.1
	50nm,0.6s,mb5.0						
FITZ	Fitzroy Crossi	50.66	267	P	P	19 42 32.1	-0.1
	32nm,0.7s,mb4.8,baz=111,slow=5.4,SNR=48						
FITZ	Fitzroy Crossi	50.66	267	P	P	19 42 32.4	+0.3
	133nm,1.0s,mb5.2						
NWAO	Narrogin (SRO)	54.68	246	eP	P	19 43 00.4	-0.4
	11nm,1.0s,mb4.1						
NLAI	Namlea	55.17	284	P	P	19 43 04.3	-0.2
	62nm,0.8s,mb5.0						
MUN	Mundaring	55.69	247	eP	P	19 43 07.6	-0.3
TNTI	Ternate	56.91	289	P	P	19 43 15.9	-0.6
	70nm,1.0s,mb5.0						
KDI	Kendari	58.80	281	⇑eP	P	19 43 28.5	-1.0
KDI				eS	Sx	19 51 25.1	
KDI	Kendari	58.80	281	P	P	19 43 28.7	-0.8
	26nm,1.2s,mb4.4						
BNSI	Bone	60.85	279	P	P	19 43 43.3	+0.1
	36nm,1.2s,mb4.7						
KAPI	Kappang	60.90	279	P	P	19 43 42.0	-1.5
	6.5nm,0.5s,mb4.3,baz=127,slow=13,SNR=6.3						
APSI	Ampana	61.06	284	P	P	19 43 44.7	+0.1
	42nm,0.8s,mb4.9						
PCI	Palu	62.67	283	P	P	19 43 55.4	+0.4
	44nm,1.5s,mb4.8						
QSPA	South Pole Qui	65.03	180	P	P	19 44 11.0	+2.1
	3.6nm,0.7s,mb4.1,baz=40,slow=1.5,SNR=27						
QSPA	South Pole Qui	65.03	180	P	P	19 44 11.0	+2.0
PLKI	Palangkaraya	67.32	279	P	P	19 44 24.6	+0.1
	167nm,0.9s,mb5.7						
SBUM	Sibu	70.96	282	P	P	19 44 46.4	0.0
	14nm,1.4s,mb4.3						
KSM	Kuching	72.22	280	eP	P	19 44 52.9	-0.8
	4.7nm,0.6s,mb4.2						
MJAR	Matsushiro Arr	72.80	326	P	P	19 44 55.9	-0.7
	7.2nm,0.8s,mb4.3,baz=163,slow=5.9,SNR=19						
MAJO	Matsushiro	72.80	326	eP	P	19 44 55.6	-0.9
	9.3nm,0.8s,mb4.4						
MAT	Matsushiro	72.80	326	P	P	19 44 55.9	-0.7
TPUB	Ta-pu	74.91	305	eP	P	19 45 06.2	-2.6
	24nm,0.7s,mb4.8						
SSLB	Suanglung	74.95	306	eP	P	19 45 07.2	-1.9
	11nm,0.6s,mb4.6						
TATO	Taipei	75.27	307	eP	P	19 45 09.3	-1.6
	30nm,0.9s,mb4.8						
MAW	Mawson	76.63	201	P	P	19 45 18.5	+0.8
	7.1nm,0.5s,mb4.4,baz=117,slow=6.8,SNR=5.0						
KSI	Kapahiang	76.97	272	P	P	19 45 19.6	-0.9
	83nm,1.0s,mb5.2						
COCO	West Island	78.73	262	eP	P	19 45 33.0	+2.9
	91nm,0.6s,mb5.5						
KSRS	Korea Array	79.08	320	P	P	19 45 31.5	+0.2
	4.2nm,0.7s,mb4.1,baz=132,slow=5.9,SNR=14						
YSS	Yuzh-Sakhalins	79.14	335	eP	P	19 45 31.9	+0.4
	14nm,0.5s,mb4.8						
PETK	Petropavlovsk-	80.20	347	P	P	19 45 36.5	-0.3
	7.1nm,0.6s,mb4.3,baz=123,slow=6.5,SNR=11						
KULM	Kulim	82.54	279	eP	P	19 45 49.3	-0.6
	26nm,1.3s,mb4.6						
MDJ	Mudanjiang	83.18	326	eP	P	19 45 51.9	-0.4
	16nm,1.2s,mb4.4						
VNA3	Neumayer Olymp	83.73	177	ePdiff	P	19 45 55.4	+0.6
CMB	Columbia Colle	84.11	43	P	P	19 45 57.0	-0.1
	2.3nm,0.8s,mb3.8						
VNA2	Neumayer--Watz	84.14	178	ePdiff	P	19 45 57.4	+0.6
	baz=190,slow=4.6						
NVAR	Mina Array Bea	85.65	44	P	P	19 46 06.1	+1.5
	1.0nm,0.7s,mb3.5,baz=224,slow=7.6,SNR=5.7						
PLCA	Paso Flores	87.52	134	P	P	19 46 14.6	+0.9
	1.6nm,0.8s,mb3.8,baz=233,slow=2.8,SNR=3.4						
PLCA	Paso Flores	87.52	134	P	P	19 46 14.6	+0.9
XAN	Xi'an	89.38	308	P	P	19 46 23.4	+1.1
XAN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
XAN				pmax	pmax		
	comp=Z,79nm,5.6s						
KMI	Kunming	89.72	298	P	P	19 46 25.9	+1.8
KMI				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.6						
CMAR	Chiang Mai Arr	89.84	290	P	P	19 46 26.2	+1.4
	comp=Z,5.5nm,0.8s,mb4.4,baz=140,slow=3.6,SNR=40						
CHTO	Chiang Mai	90.00	291	eP	P	19 46 26.6	+1.1
	comp=Z,9.2nm,0.8s,mb4.7						
CHTO	Chiang Mai	90.00	291	P	P	19 46 26.8	+1.3
CD2	Chengdu	91.64	303	P	P	19 46 34.3	+1.5
CD2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
CD2				pmax	pmax		
	comp=Z,200nm,4.6s						
MKAR	Makanchi Array	112.87	312	PKiKP	PKiKP	19 51 57.6	-1.2
	comp=Z,0.5nm,0.5s,baz=216,slow=1.0,SNR=11						
MKAR				SKP		19 54 46.0	
	comp=Z,0.8nm,0.7s,baz=222,slow=0.8,SNR=6.5						
BVAR	Borovoye Array	121.25	318	PKP	PKPdf	19 52 14.0	-0.8
	comp=Z,3.0nm,0.5s,baz=139,slow=2.0,SNR=37						
KEV	Kevo	132.53	348	epkp	PKPdf	19 52 34.7	-1.1
ARCES	ARCESS Array B	133.00	348	PKP	PKPdf	19 52 36.6	-0.2
	comp=Z,3.3nm,0.6s,baz=90,slow=0.6,SNR=12						
ARCES				SKPbc	SKPbc	19 55 18.4	+0.4

	comp=Z,5.4nm,0.7s,baz=28,slow=2.8,SNR=13						
ARCES	ARCESS Array B	133.00	348	PKP	PKPdf	19 52 36.6	-0.1
ARCES				SKPbc	SKPbc	19 55 18.4	+0.4
JOF	Joensuu	136.79	340	epkp	PKPdf	19 52 43.7	-0.3
KAF	Kangasniemi	138.91	341	epkp		19 52 40.0	
MBAR	Mbarara	140.74	234	ePKPdf	PKPdf	19 52 50.6	-2.1
NB2	NORSAR Subarra	143.21	351	PKP		19 52 52.5	
	comp=Z,3.5nm,0.8s,baz=16,slow=3.2						
NOA	NORSAR Array B	143.21	351	PKhKP		19 52 52.7	
	comp=Z,5.5nm,0.8s,baz=15,slow=4.9,SNR=11						
NOA	NORSAR Array B	143.21	351	PKP		19 52 52.7	
HFS	Hagfors	143.66	348	PKP	PKPdf	19 52 53.9	-2.5
	comp=Z,19nm,0.5s,baz=60,slow=3.6,SNR=67						
NACGM	Naroch	144.21	333	e	PKPdf	19 52 53.0	-4.5
KONO	Kongsberg	144.78	351	ePKPdf	PKPdf	19 52 57.4	-1.0
MALT	Malatya	144.91	302	⇓iP	PKPdf	19 53 00.6	+1.3
MALT	Malatya	144.91	302	ePKPdf	PKPdf	19 53 00.1	+0.9
MALT	Malatya	144.91	302	P	PKPdf	19 53 00.7	+1.4
AKASG	Malin Array Be	145.89	326	PKPbc	PKPbc	19 53 01.3	-0.9
	comp=Z,11nm,0.6s,baz=45,slow=4.3,SNR=40						
AKASG				PKPab	PKPab	19 53 03.1	-0.8
	comp=Z,11nm,0.6s,baz=45,slow=4.3,SNR=36						
AKASG	Malin Array Be	145.89	326	PKPbc	PKPbc	19 53 01.3	-1.0
AKASG				PKPab	PKPab	19 53 03.1	-0.8
AKBB	Malin Array Si	145.89	326	ePKPdf	PKPdf	19 52 59.9	-0.7
KIEV	Kiev	145.90	326	ePKPdf	PKPdf	19 53 00.6	+0.1
BRTR	Keskin Array B	148.19	306	PKPbc	PKPbc	19 53 08.2	-0.5
	comp=Z,3.8nm,0.6s,baz=141,slow=3.7,SNR=31						
BRTR				PKPab	PKPab	19 53 13.3	-0.2
	comp=Z,3.7nm,0.6s,baz=104,slow=3.3,SNR=15						
TLCR		149.23	318	⇑iP	PKPbc	19 53 10.7	-0.4
CSS	Prodhromos	149.54	297	ePKPbc	PKPbc	19 53 11.7	-0.5
CSS				ePKPab	PKPab	19 53 18.8	-0.5
KWP	Kalwaria Pacla	149.73	330	⇓iP	PKPbc	19 53 12.4	+0.3
TIRR	Tirgusor	149.85	317	⇑iP	PKPbc	19 53 12.2	-0.4
BUR08	Bucovina Ar. S	149.86	325	ePKPbc	PKPbc	19 53 13.0	+0.5
BURAR	Bucovina Array	149.87	325	⇑iP	PKPbc	19 53 14.1	+1.6
HARR	Harsova	150.03	318	⇑iP	PKPbc	19 53 13.6	+0.6
VRI	Vrincioaia	150.10	321	⇑iP	PKPbc	19 53 11.5	-1.6
KOLS	Kolonicke sedl	150.43	329	ePKP	PKPbc	19 53 14.6	+0.8
OJC	Ojcow	150.54	334	ePX	PKPbc	19 53 14.2	+0.2
STHS	Stebnicka Huta	150.54	331	ePKP	PKPbc	19 53 14.5	+0.5
MLR	Muntele Rosu	150.76	321	⇓iP	PKPbc	19 53 15.1	+0.4
CRVS	Cervenica-Dubn	150.82	330	ePKP	PKPbc	19 53 15.0	+0.3
NIE	Niedzica	150.94	332	ePX	PKPbc	19 53 15.6	+0.6
VOIR		151.30	321	⇑iP	PKPbc	19 53 16.1	+0.2
KECS	Kecovo	151.57	331	ePKP	PKPbc	19 53 16.2	-0.2
DRGR		151.70	326	⇑iP	PKPbc	19 53 16.4	-0.4
MORC	Moravsky Berou	151.77	335	⇑iP	PKPbc	19 53 17.3	+0.5
CLL	Collm	151.93	342	i PKPbc	PKPbc	19 53 17.1	0.0
	comp=Z,11nm,0.8s						
CLL				ePKPab	PKPab	19 53 28.0	-0.7
BRG	Berggiesshubel	152.05	341	i P	PKPbc	19 53 17.9	+0.4
	comp=Z,6.8nm,0.7s						
BRG				e		19 53 29.3	
	comp=Z,5.7nm,0.8s						
KOLL	Kolacno	152.39	333	ePKP	PKPbc	19 53 18.4	+0.2
VRAC	Vranov	152.51	336	⇓iP	PKPdf	19 53 11.4	+0.4
GZR	Gura Zlata	152.59	323	⇑iP	PKPbc	19 53 18.6	-0.2
MODS	Modra-Piesok	153.01	334	ePKP	PKPab	19 53 36.9	+3.5
BZS	Buzias	153.05	325	⇑iP	PKPbc	19 53 19.8	0.0
GERES	GERESS Array B	153.91	339	PKPbc	PKPbc	19 53 21.7	+0.2
	comp=Z,0.6nm,0.6s,baz=343,slow=4.2,SNR=2.3						
GERES				PKPab	PKPab	19 53 36.7	-0.4
	comp=Z,1.0nm,0.6s,baz=29,slow=3.0,SNR=4.8						
PKSM	Moragy	154.10	329	⇑iP	PKPbc	19 53 20.8	-1.2
CDF	Champ du Feu	155.98	348	ePKP2	PKPab	19 53 44.5	-1.6
	comp=Z,4.4nm,0.7s						
MEZF	Maizieres J'vi	156.25	351	ePKP2	PKPab	19 53 45.9	-1.3
HAU	Haudompre	156.54	349	ePKP2	PKPab	19 53 47.6	-0.9
HINF	Hinteralfeld	156.63	348	ePKP2	PKPab	19 53 47.8	-1.1
	comp=Z,3.4nm,0.5s						
SSF	Saint Saulge	157.86	353	ePKP2	PKPab	19 53 53.5	-0.7
	comp=Z,13nm,0.9s						
CABF	La Chapelle	157.93	349	ePKP2	PKPab	19 53 54.1	-0.5
AVF	Avril sur Loir	158.14	354	ePKP2	PKPab	19 53 54.5	-1.0
	comp=Z,16nm,1.2s						
SMF	Signal de Mont	158.23	353	ePKP2	PKPab	19 53 55.1	-0.8
	comp=Z,18nm,1.0s						
TCF	Toulx Ste Croi	158.74	356	ePKP2	PKPab	19 53 56.1	-2.0
LPL	La Plagne	158.86	347	ePKP2	PKPab	19 53 58.9	+0.3
LPG	La Plagne	158.87	347	ePKP2	PKPab	19 53 59.1	+0.4
	comp=Z,3.2nm,0.5s						
ORIF	Oris-en-Rattie	159.60	348	ePKP2	PKPab	19 54 01.8	-0.1
	comp=Z,5.1nm,0.7s						
SMRF	Simiane la Rot	160.57	348	ePKP2	PKPab	19 54 06.1	-0.1
FRF	La Foret Royal	160.74	345	ePKP2	PKPab	19 54 05.9	-1.0
	comp=Z,5.8nm,0.9s						
LMR	La Mourre	160.98	345	ePKP2	PKPab	19 54 07.3	-0.7
TORD	Torodi Ar. Bea	168.03	188	PKP	PKPdf	19 53 28.1	-0.8
	comp=Z,0.6nm,0.8s,baz=242,slow=0.8,SNR=3.7						
TORD				PKPab	PKPab	19 54 39.9	+0.3
	comp=Z,1.3nm,0.7s,baz=168,slow=3.7,SNR=7.1						
TORD	Torodi Ar. Bea	168.03	188	PKP	PKPdf	19 53 28.1	-0.8
TORD				PKPab	PKPab	19 54 39.9	+0.3

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*NEIC **22** 19:47:35.2, 16°.29N×95°.76W, h69^{km}, MD4.1(MEX), After MEX.*

MEX 22 19:47:35.2±1.4, 16°.29N×95°.76W, h69^{km}±16^{km}, MD4.1, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	Huatulco	0.62	213	i P	Pn	19 47 47.8	-1.4
HUIG				i S	Sn	19 47 57.8	-1.6
CMIG	Matias Romero	1.16	47	eP	Pn	19 47 53.9	-1.7
CMIG				i S	Sn	19 48 09.0	-2.0
VHO	Vista Hermosa	1.21	310	i P	Pn	19 47 55.7	-0.6
VHO				i S	Sn	19 48 11.0	-1.2
PNIG	Pinotepa	2.27	273	eP	Pn	19 48 09.2	-1.3
PNIG				i S	Sn	19 48 34.5	-3.0
PCIG		2.52	103	i P	Pn	19 48 14.4	+0.6
PCIG				i S	Sn	19 48 40.8	-2.6
TGIG		2.58	79	i P	Pn	19 48 12.3	-2.3
TGIG				i S	Sn	19 48 43.1	-1.8

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*ISCJB **22** 20:16:45.1±2.8, 21°.9S±0°.2×179°.1W±0°.1, h535^{km}±38^{km}, mb4.0/13, Error ellipse: s-maj=30.8km s-min=14.4km az=171.6*

*NEIC **22** 20:16:45.5±2.4, 21°.91S×179°.01W, h534^{km}±31^{km}, mb4.3/4, Error ellipse: s-maj=22.0km s-min=11.1km az=175.0*

*IDC **22** 20:16:46.5±3.7, 21°.92S×179°.03W, h542^{km}±46^{km}, mb3.4/10, mb1 3.6/12, mb1mx3.5/21, mbtmp3.5/12, Error ellipse: s-maj=27.9km s-min=15.3km az=175.0*

ISC 22 20:16:44.5±3.0, 21°.9S±0°.2×179°.0W±0°.1, h515^{km}±40^{km}, n25, σ0^s.74/23, mb4.0/13, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	16.66	191	P	P	20 20 11.0	-0.4
	0.9nm,0.3s,baz=120,slow=15,SNR=8.1						
RAR	Rarotonga	17.93	91	P	P	20 20 23.4	-0.1
	2.4nm,0.3s,baz=197,slow=12,SNR=6.1						
RAR	Rarotonga	17.93	91	eP	P	20 20 22.8	-0.7
	43nm,0.7s						
EIDS	Eidsvold	27.58	257	eP	P	20 21 50.5	+0.6
	4.6nm,0.8s,mb4.2						
ARMA	Armidale	27.62	246	eP	P	20 21 52.1	+1.9
CTA	Charters Tower	32.42	267	eP	P	20 22 32.3	+0.4
	2.9nm,0.4s,mb4.2						
CTA	Charters Tower	32.42	267	P	P	20 22 32.7	+0.8
	3.2nm,0.4s,mb4.2,baz=92,slow=11,SNR=12						
CTA	Charters Tower	32.42	267	P	P	20 22 32.7	+0.8
CTAO	Charters Tower	32.42	267	eP	P	20 22 32.2	+0.4
	5.2nm,0.7s,mb4.2						
STKA	Stephens Creek	36.34	246	P	P	20 23 05.3	+0.7
	5.7nm,0.9s,mb4.1,baz=85,slow=9.2,SNR=8.2						
ASAR	Alice Springs	43.28	258	P	P	20 24 00.2	-0.3
	3.3nm,0.3s,mb4.3,baz=93,slow=8.1,SNR=78						
WRAB	Tennant Creek	43.47	264	eP	P	20 24 00.9	-1.1
	11nm,0.9s,mb4.4						
WRA	Warramunga Arr	43.48	264	P	P	20 24 01.3	-0.8
	3.0nm,0.3s,mb4.3,baz=96,slow=7.9,SNR=336						
KAKA	Kakadu	47.06	273	eP	P	20 24 28.9	-0.7
	8.1nm,0.3s,mb4.7						
FITZ	Fitzroy Crossi	51.91	264	eP	P	20 25 05.3	0.0
	9.2nm,1.5s,mb3.9						
FITZ	Fitzroy Crossi	51.91	264	P	P	20 25 05.2	-0.2
	2.3nm,0.7s,mb3.6,baz=21,slow=20,SNR=11						
NWAO	Narrogin (SRO)	56.90	244	P	P	20 25 39.6	-0.7
	7.6nm,0.9s,mb3.9,baz=90,slow=6.1,SNR=3.0						
QSPA	South Pole Qui	68.20	180	P	P	20 26 52.8	+0.3
	1.6nm,0.8s,mb3.6,baz=304,slow=1.9,SNR=6.4						
QSPA	South Pole Qui	68.20	180	P	P	20 26 52.8	+0.3
NVAR	Mina Array Bea	82.68	44	P	P	20 28 14.5	+0.7
	1.7nm,0.9s,mb3.6,baz=233,slow=8.8,SNR=4.8						
NVAR	Mina Array Bea	82.68	44	P	P	20 28 14.5	+0.7
CMAR	Chiang Mai Arr	89.67	290	P	P	20 28 47.5	-0.3
	2.0nm,1.2s,mb3.8,baz=132,slow=3.1,SNR=4.4						
PDAR	Pinedale Array	90.62	44	P	P	20 28 51.9	+0.3
	0.7nm,0.8s,mb3.6,baz=191,slow=3.0,SNR=3.7						
AKASG	Malin Array Be	143.72	329	PKP	PKPdf	20 35 16.9	-3.5
	0.7nm,0.4s,baz=42,slow=3.8,SNR=4.1						
AKASG	Malin Array Be	143.72	329	PKP	PKPdf	20 35 16.9	-3.5

TRN 22 20:29:26.4, 16°.15N×61°.78W, h157^{km}, MD3.5, M3.5(FDF), 3C, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LZG	Guadaloupe-1	0.01	156	eP	Pn	20 29 48.3	+1.0
SCG	Saint Claude	0.16	142	eP	Pn	20 29 48.7	+1.3
HMG	Houelmont	0.19	155	eP	Pn	20 29 48.6	+1.1
HMG				eS	Sn	20 30 04.4	+0.9
PHG	Guadaloupe-2	0.19	136	eP	Pn	20 29 49.1	+1.6
DOG	Dongo Capester	0.20	127	eP	Pn	20 29 48.8	+1.3
TBG	Guadaloupe-3	0.33	156	eP	Pn	20 29 48.9	+1.1
SEG	Port Louis	0.36	47	eP	Pn	20 29 49.3	+1.4
MGG	Marie-Galante	0.50	118	⇑iP	Pn	20 29 49.8	+1.3
SFG	Saint Francois	0.57	80	eP	Pn	20 29 50.0	+1.1
DEG	La Desirade	0.71	77	eP	Pn	20 29 50.9	+1.2
DEG				eS	Sn	20 30 08.3	+0.9
BPA	Boggy Peak	0.89	355	⇑iP	Pn	20 29 52.7	+1.7
BPA				eS	Sn	20 30 10.0	+0.1
FDF	Fort de France	1.54	157	eP	Pn	20 29 57.0	+0.2
FDF				eS	Sn	20 30 21.2	+0.9
BIM	Bigot	1.77	157	⇑eP	Pn	20 29 59.7	+0.4
MVM	Montagne Vaucl	1.80	152	eP	Pn	20 30 00.4	+0.6
MVM				eS	Sn	20 30 26.9	+1.5

GUC 22 20:34:45.7±0.8, 24°.08S×67°.58W, h207^{km}±13^{km}, ML3.8, 5C, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	1.90	320	⇑iP	Pn	20 35 25.6	+1.7
LVC				i S	Sn	20 35 56.0	+2.5
PECH	Pedro de Valdi	2.42	307	⇑iP	Pn	20 35 30.6	+1.4
PECH				i S	Sn	20 36 05.4	+2.2
PECH				AML	AML	20 36 07.0	
	comp=E,228nm,0.2s						
PB04	Plate Boundary	2.52	315	⇑iP	Pn	20 35 37.4	+7.1
PB04				i S	Sn	20 36 16.6	+12
PB04				AML	AML	20 36 20.7	
	comp=N,99nm,0.1s						
CPN1	Cerro Paranal	2.63	257	eP	Pn	20 35 33.8	+2.3
CPN1				i S	Sn	20 36 10.2	+2.9
CPN1				AML	AML	20 36 10.9	
	comp=E,264nm,0.4s						
PB01	Plate Boundary	3.50	329	⇑iP	Pn	20 35 42.7	+1.0
PB01				i S	Sn	20 36 26.4	+0.9
HMBC	Humberston	4.34	330	⇑iP	Pn	20 35 52.1	+0.1
HMBC				i S	Sn	20 36 44.5	+0.2
PSGC	Pisagua	5.04	332	eP	Pn	20 35 59.9	-1.0
PSGC				i S	Sn	20 36 58.9	-1.4

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*IDC **22** 20:43:48.4±1.9, 2°.35N×95°.78E, h0^{km}, mb3.7/5, mb1 3.8/7, mb1mx3.6/23, mbtmp3.7/7, ML3.5/2, Error ellipse: s-maj=58.5km s-min=20.6km az=56.0*

*ISCJB **22** 20:43:52.7±3.4, 2°.5N±0°.2×95°.9E±0°.2, h40^{km}±23^{km}, mb3.8/7, Error ellipse: s-maj=46.4km s-min=14.8km az=139.3*

*NEIC **22** 20:43:54.9±6.2, 2°.47N×95°.98E, h41^{km}±45^{km}, mb4.0/2, Error ellipse: s-maj=68.2km s-min=10.7km az=60.0*

ISC 22 20:43:52.7±8.6, 2°.4N±0°.2×95°.9E±0°.2, h26^{km}±56^{km}, n13, σ0^s.48/13, mb3.8/7, 1C-1D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	3.06	83	⇑eP	Pn	20 44 40.7	+1.2
PSI	Prapat	3.06	83	Pn	Pn	20 44 39.5	0.0
	3.1nm,0.3s,baz=297,slow=6.8,SNR=11						
BSI	Banda Aceh	3.12	349	⇓eP	Pn	20 44 40.0	-0.3
KULM	Kulim	5.55	59	ePn	Pn	20 45 13.0	-0.7
	44nm,0.8s						
CMAR	Chiang Mai Arr	16.22	10	Pn	Pn	20 47 39.5	+0.5
	0.1nm,0.3s,baz=200,slow=10,SNR=8.8						
LSA	Lhasa	27.50	351	eP	P	20 49 37.5	+0.3
	2.6nm,0.8s,mb3.9						
WRA	Warramunga Arr	43.79	122	P	P	20 51 57.1	+0.4
	0.4nm,0.6s,mb3.4,baz=300,slow=8.7,SNR=2.5						
ASAR	Alice Springs	45.17	127	P	P	20 52 07.2	-0.5
	0.2nm,0.6s,mb3.2,baz=306,slow=7.9,SNR=3.0						
MKAR	Makanchi Array	45.76	347	P	P	20 52 12.4	+0.4
	1.3nm,0.7s,mb4.0,baz=160,slow=8.1,SNR=18						
SONM	Songino Array	46.15	10	P	P	20 52 15.0	0.0
	0.5nm,0.4s,mb3.8,baz=189,slow=7.6,SNR=3.8						
ULN	Ulaanbaatar	46.29	10	P	P	20 52 16.2	0.0
	2.1nm,1.0s,mb4.0						
ZALV	Zalesovo Beam	52.17	352	P	P	20 53 00.3	-0.6
	1.1nm,0.4s,mb4.2,baz=172,slow=5.2,SNR=5.1						
ZALV	Zalesovo Beam	52.17	352	P	P	20 53 00.3	-0.6

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*ISCJB **22** 20:55:12.8±0.5, 24°.09N±0°.05×109°.02W±0°.04, h10^{km}, mb4.5/41, MS3.9/15, Error ellipse: s-maj=7.0km s-min=4.9km az=26.1*

*IDC **22** 20:55:13.5±0.9, 24°.28N×109°.25W, h0^{km}, mb4.2/6, mb1 4.5/11, mb1mx4.3/22, mbtmp4.2/11, ML4.3/2, MS3.9/19, Ms1 3.9/19, ms1mx3.8/39, Error ellipse: s-maj=22.0km s-min=18.2km az=147.0*

*NEIC **22** 20:55:14.9±0.6, 24°.21N×109°.15W, h10^{km}, mb4.5/58, Error ellipse: s-maj=9.5km s-min=7.1km az=206.0*

ISC 22 20:55:13.1±0.6, 23°.94N±0°.05×109°.04W±0°.04, h10^{km}, n338, σ0^s.95/326, mb4.5/41, MS3.9/15, 92C-128D, Baja California

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	1.18	278	Pn	Pn	20 55 32.8	-2.7
	325nm,0.3s,baz=110,slow=0.2,SNR=244						
LPIG				Sn	Sn	20 55 45.3	-6.3
	378nm,0.3s,baz=92,slow=31,SNR=20						
320A	Kipp Ranch, An	7.39	3	⇓P	Pn	20 56 58.6	-2.3
	baz=7.1						
319A	Douglas	7.41	358	⇓P	Pn	20 56 58.3	-3.1
	baz=7.2,SNR=22						
318A	Bisbee	7.52	354	⇓P	Pn	20 57 00.3	-2.5
	baz=7.3,SNR=33						
220A	Playas Peak, P	7.95	3	⇓P	Pn	20 57 05.9	-2.8
	baz=7.7						
217A	Green Valley	7.97	349	⇑P	Pn	20 57 06.0	-2.9
	baz=7.7						
219A	White Tail Can	8.04	359	⇓P	Pn	20 57 07.1	-2.8
	baz=7.8,SNR=18						
218A	Dragoon	8.06	354	⇓P	Pn	20 57 07.6	-2.5
	baz=7.8						
221A	Mesquite Ranch	8.12	8	⇑P	Pn	20 57 08.9	-2.1
	baz=7.9						
216A	Three Points,	8.31	346	⇓P	Pn	20 57 11.3	-2.4
	baz=8.1						
222A	Williams Famil	8.31	11	⇑P	Pn	20 57 11.2	-2.5
	baz=8.1						
TUC	Tucson	8.48	350	ePn	Pn	20 57 11.4	-4.6
	5µm,4.3s						
TUC				eSn	Sn	20 59 03.3	+11
120A	U Bar Ranch, L	8.59	2	⇑P	Pn	20 57 14.4	-3.0
	baz=8.3						
121A	Cookes Peak, D	8.63	7	⇓P	Pn	20 57 16.1	-2.0
	baz=8.4						
118A	Homack Ranch,	8.71	355	⇓P	Pn	20 57 16.8	-2.3
	baz=8.5,SNR=12						
117A	Oracle	8.73	350	⇓P	Pn	20 57 17.0	-2.4
	baz=8.5,SNR=12						
119A	Ashpeak Ranch,	8.80	359	⇑P	Pn	20 57 18.9	-1.5
	baz=8.6,SNR=12						
Z20A	Nine Sixteen R	9.15	2	⇓P	Pn	20 57 23.0	-2.1
	baz=8.9						
Z19A	T-Link Ranch,	9.32	359	⇓P	Pn	20 57 25.8	-1.7
	baz=9.1						
Z17A	San Carlos Hig	9.41	353	⇑P	Pn	20 57 27.5	-1.2
	baz=9.2						
Y17A	Roosevelt	9.85	351	⇑P	Pn	20 57 33.5	-1.3
	baz=9.6,SNR=7.0						
Y20A	Horse Springs,	9.95	3	⇓P	Pn	20 57 34.9	-1.2
	baz=9.7						
Y19A	Nutrioso	9.99	359	⇓P	Pn	20 57 37.0	+0.4
	baz=9.7,SNR=23						
Y21A	Point of Rocks	10.11	6	⇓P	Pn	20 57 37.9	-0.4
	baz=9.9						
Y16A	Circle Bar Ran	10.14	348	⇓P	Pn	20 57 38.6	-0.1
	baz=9.9,SNR=6.8						
BNM	Barren Site	10.39	11	ePn	Pn	20 57 41.6	-0.5
	41nm,1.6s						
X17A	Forest Lakes	10.48	352	⇓P	Pn	20 57 42.9	-0.5
	baz=10,SNR=5.2						
JCT	Junction City	10.48	50	ePn	Pn	20 57 45.5	+2.0
	9.7nm,0.8s						
JCT				eS	Sn	21 00 04.5	+24
X21A	Alamocita Cree	10.53	6	⇓P	Pn	20 57 43.5	-0.5
	baz=10						
LAZ	Ladron	10.56	9	ePn	Pn	20 57 43.8	-0.7
	21nm,1.1s						
LAZ				eS	Sn	21 00 29.9	+47
X20A	Quemado	10.58	2	⇑P	Pn	20 57 44.3	-0.5
	baz=10						
X18A	Snowflake	10.59	356	⇓P	Pn	20 57 44.2	-0.6
	baz=10						
X16A	Lo Mia Camp, P	10.65	349	⇑P	Pn	20 57 44.7	-1.0
	baz=10						
X22A	Bernardo	10.68	9	⇓P	Pn	20 57 47.1	+1.0
	baz=10,SNR=14						
W18A	Petrified Fore	11.16	357	⇑P	Pn	20 57 53.2	+0.5
	baz=11,SNR=11						
W20A	Ramah	11.16	2	⇓P	Pn	20 57 53.4	+0.7
	baz=11,SNR=15						
W17A	Winslow	11.20	353	⇑P	Pn	20 57 53.0	-0.2
	baz=11						
ANMO	Albuquerque	11.20	11	Pn	Pn	20 57 52.0	-1.3
	0.1nm,0.3s,baz=192,slow=13,SNR=19						
ANMO				LR	LR	21 02 34.6	
	comp=Z,343nm,21.1s,baz=183,slow=40						
ANMO	Albuquerque	11.20	11	Pn	Pn	20 57 52.0	-1.3
	97nm,0.7s						
ANMO				LR	LR	21 02 34.6	
W21A	San Fidel	11.21	6	⇑P	Pn	20 57 53.7	+0.4
	baz=11						
PDMCI	Parker Dam,Lak	11.25	338	⇓P	Pn	20 57 54.6	+0.8
	baz=11						
W16A	Flagstaff	11.33	350	⇓P	Pn	20 57 55.5	+0.5
	baz=11,SNR=5.3						
W15A	Williams	11.55	347	⇓P	Pn	20 57 58.6	+0.6
	baz=11,SNR=8.4						
PFO	Pinyon Flat Ob	11.62	328	Pn	Pn	20 57 58.5	-0.5
WUAZ	Wupatki	11.72	351	⇓P	Pn	20 57 59.9	-0.5
	baz=12						
WUAZ	Wupatki	11.72	351	ePn	Pn	20 58 00.8	+0.5
V17A	Tonalea, Kykot	11.74	353	⇓P	Pn	20 58 00.4	-0.3
	baz=12						
V18A	Ganado	11.76	356	⇓P	Pn	20 58 01.6	+0.7
	baz=12,SNR=11						
W14A	Seligman	11.78	344	⇑P	Pn	20 58 01.6	+0.5
	baz=12,SNR=7.2						
V20A	Brimhall	11.83	2	⇓P	Pn	20 58 02.3	+0.4
	baz=12						
V21A	Milan	11.89	6	⇓P	Pn	20 58 04.0	+1.3
	baz=12						
W13A	Hualapai Mount	11.90	340	⇑P	Pn	20 58 03.2	+0.5
	baz=12						
MURC	Murrieta	11.99	325	⇑P	Pn	20 58 04.6	+0.5
	baz=12						
V15A	Kaibab Nationa	12.15	348	⇑P	Pn	20 58 06.7	+0.5
	baz=12,SNR=7.3						
V14A	Boquillas Ranc	12.18	344	⇑P	Pn	20 58 07.2	+0.6
	baz=12,SNR=6.4						
U16A	Tuba City	12.30	352	⇓P	Pn	20 58 09.1	+0.8
	baz=12,SNR=18						
U19A	Dine' College,	12.32	359	⇓P	Pn	20 58 10.5	+2.0
	baz=12						
U20A	Newcomb	12.41	2	⇑P	Pn	20 58 10.7	+1.0
	baz=12						
U18A	Rough Rock, Ch	12.46	357	⇑P	Pn	20 58 11.2	+0.7
	baz=12,SNR=5.3						
HEC	Hector,Ludlow	12.57	331	⇓P	Pn	20 58 12.9	+0.8
	baz=12						
V13A	Grand Canyon W	12.62	341	⇑P	Pn	20 58 13.7	+1.0
	baz=12						
AMTX	Amarillo	12.65	29	ePn	Pn	20 58 11.7	-1.3
	8.3nm,0.7s						
U17A	Shonto	12.70	354	⇓P	Pn	20 58 13.7	0.0
	baz=12						
T19A	Beclabito	12.85	0	⇑P	Pn	20 58 16.2	+0.4
	baz=13						
U14A	Mt Trumbull	12.94	345	⇓P	Pn	20 58 17.7	+0.6
	baz=13,SNR=8.5						
T17A	Navajo Res., N	13.11	354	⇑P	Pn	20 58 19.4	+0.2
	baz=13						
U13A	Pakoon Wash	13.14	342	⇑P	Pn	20 58 20.2	+0.4
	baz=13						
T22A	Edith	13.16	8	⇑P	Pn	20 58 21.8	+1.8
	baz=13,SNR=25						
T18A	Mexican Hat	13.18	357	⇓P	Pn	20 58 20.7	+0.5
	baz=13						
GSC	Goldstone	13.18	331	Pn	Pn	20 58 20.9	+0.6
MVCO	Mesa Verde	13.24	2	ePn	Pn	20 58 20.6	-0.5
	61nm,1.4s						
T15A	Red Dirt Ranch	13.35	348	⇓P	Pn	20 58 23.6	+0.9
	baz=13						
SHOC	Shoshone	13.47	334	⇓P	Pn	20 58 25.3	+1.1
	baz=13						
T14A	Hurricane	13.54	346	⇓P	Pn	20 58 26.0	+0.9
	baz=13						
T13A	Saint George	13.70	343	⇓P	Pn	20 58 27.8	+0.5
	baz=13						
S18A	Hurst Farm, Bl	13.73	357	⇑P	Pn	20 58 28.5	+0.6
	baz=14						
S17A	Black Ridge (B	13.74	354	⇓P	Pn	20 58 29.5	+1.5
	baz=14,SNR=15						
S19A	Harvey Farm, M	13.77	360	⇓P	Pn	20 58 29.3	+1.1
	baz=14,SNR=12						
WMOK	Wichita Mounta	13.98	37	ePn	Pn	20 58 29.6	-1.6
	7.6nm,0.8s						
WMOK				eS	Sn	21 01 44.2	+38
CCUT	Cedar City	14.07	346	ePn	Pn	20 58 34.1	+1.7
	13nm,1.1s						
MPMC	Manual Prospec	14.12	331	⇑P	Pn	20 58 34.3	+1.2
	baz=14,SNR=6.8						
PV01	Paradox Valley	14.16	1	ePn	Pn	20 58 32.5	-1.2
S13A	Holt Ranch, En	14.21	344	⇓P	Pn	20 58 35.3	+0.9
	baz=14						
R20A	Redvale	14.22	2	⇑P	Pn	20 58 35.0	+0.5
	baz=14						
ISA	Isabella	14.26	327	Pn	Pn	20 58 33.3	-1.8
T11A	Corn Creek, Al	14.28	340	⇓P	Pn	20 58 36.5	+1.2
	baz=14,SNR=10						
ARUT	Antelope Range	14.31	346	ePn	Pn	20 58 38.0	+2.2
	20nm,0.9s						
ARUT				eP		20 58 44.4	
R22A	Saguache, Gunn	14.38	7	⇑P	Pn	20 58 37.6	+0.9
	baz=14						
PV04	Paradox Valley	14.41	0	ePn	Pn	20 58 36.3	-0.8
R18A	Canyonlands Na	14.42	357	⇓P	Pn	20 58 38.0	+0.8
	baz=14,SNR=9.5						
R16A	Teasdale	14.46	352	⇓P	Pn	20 58 38.6	+0.9
	baz=14,SNR=5.2						
R17A	Hanksville Air	14.51	355	⇓P	Pn	20 58 39.0	+0.6
	baz=14,SNR=20						
S12A	Delamar Landin	14.51	341	⇓P	Pn	20 58 39.5	+1.1
	baz=14,SNR=6.2						
MSU	Marysvale	14.78	350	ePn	Pn	20 58 37.8	-4.3
	6.3nm,0.8s						
R13A	O'Grain Ranch,	14.81	345	⇑P	Pn	20 58 43.0	+0.5
	baz=15						
S11A	Rachel	14.82	339	⇓P	Pn	20 58 43.3	+0.6
	baz=15,SNR=6.4						
CMIG	Matias Romero	14.90	115	Pn	Pn	20 58 49.5	+5.7
	0.2nm,0.3s,baz=289,slow=6.5,SNR=3.2						
CMIG				LR	LR	21 04 35.1	
	comp=Z,858nm,20.6s,baz=280,slow=37						
Q19A	Hogan Spring (	14.97	359	⇓P	Pn	20 58 44.6	-0.2
	baz=15						
Q20A	Ridgley Place,	14.98	2	⇓P	Pn	20 58 45.9	+1.0
	baz=15,SNR=5.9						
Q22A	Crested Butte,	14.99	6	⇓P	Pn	20 58 45.5	+0.5
	baz=15						
Q16A	Castle Valley	15.04	354	⇑P	Pn	20 58 45.4	-0.3
	baz=15,SNR=10						
R12A	Pony Springs,	15.11	343	⇓P	Pn	20 58 47.4	+0.8

	baz=15,SNR=11						
Q18A	Rafter H Ranch baz=15	15.15	357	⇓P	Pn	20 58 47.2	+0.1
SRU	San Rafael baz=15,SNR=5.5	15.18	356	⇓P	Pn	20 58 48.6	+1.1
S10A	Tonopah Range, baz=15,SNR=9.4	15.37	337	⇑P	Pn	20 58 50.5	+0.6
R11A	Troy Canyon, C baz=15,SNR=7.4	15.41	340	⇓P	Pn	20 58 50.6	0.0
TMUT	Trail Mountain 15nm,1.0s	15.42	354	*e*Pn	Pn	20 58 50.4	-0.3
S09A	Goldfield baz=15,SNR=14	15.43	335	⇑P	Pn	20 58 51.3	+0.5
Q14A	Sevier Lake (B baz=15,SNR=10	15.43	347	⇑P	Pn	20 58 52.2	+1.3
P20A	De Beque baz=15	15.53	2	⇑P	Pn	20 58 52.6	+0.6
P17A	Butcher Ranch, baz=15	15.56	355	⇑P	Pn	20 58 52.7	+0.3
Q13A	Wheeler Ranch, baz=15,SNR=30	15.56	345	⇓P	Pn	20 58 53.7	+1.2
R10A	Warm Springs baz=15	15.59	338	⇓P	Pn	20 58 53.4	+0.5
P21A	Newcastle baz=15	15.60	5	⇓P	Pn	20 58 54.0	+1.0
P19A	Cripple Cowboy baz=15,SNR=5.8	15.65	0	⇑P	Pn	20 58 53.8	+0.2
P18A	Preston Nutter baz=15,SNR=19	15.68	357	⇑P	Pn	20 58 54.3	+0.3
R09A	Tonopah baz=16,SNR=15	15.82	336	⇑P	Pn	20 58 55.7	-0.2
P15A	Leamington baz=16,SNR=11	15.83	351	⇑P	Pn	20 58 56.3	+0.3
Q12A	Willow Creek R baz=16,SNR=15	15.84	343	⇑P	Pn	20 58 56.8	+0.7
Q11A	Duckwater baz=16	15.89	341	⇓P	Pn	20 58 57.0	+0.2
P14A	Drum Mountains baz=16,SNR=49	15.98	349	⇓P	Pn	20 58 58.6	+0.7
P13A	Bates Ranch, G baz=16	16.04	346	⇓P	Pn	20 58 58.9	+0.3
ISCO	Idaho Springs 48nm,1.4s	16.08	10	*e*Pn	Pn	20 59 00.9	+1.7
Q10A	Clear Creek Ra baz=16,SNR=16	16.11	339	⇓P	Pn	20 58 60.0	+0.4
O20A	White River Ci baz=16	16.16	2	⇓P	Pn	20 59 01.2	+0.9
NLU	North Lily Min 21nm,1.1s	16.18	352	*e*Pn	Pn	20 59 00.3	-0.2
MPU	Maple Canyon 42nm,1.2s	16.18	353	*e*Pn	Pn	20 59 01.6	+1.1
O17A	Robinson Place baz=16,SNR=8.2	16.27	355	⇓P	Pn	20 59 01.9	+0.2
O21A	Pagoda baz=16	16.29	4	⇑P	Pn	20 59 02.4	+0.6
O18A	Roosevelt baz=16,SNR=8.6	16.30	357	⇓P	Pn	20 59 02.5	+0.4
O19A	Miners Draw (B baz=16,SNR=21	16.31	360	⇓P	Pn	20 59 02.8	+0.6
NVAR	Mina Array Bea baz=157,slow=12,SNR=17	16.46	333	Pn	Pn	20 59 04.7	+0.5
DUG	Dugway baz=16	16.52	350	⇓P	Pn	20 59 05.4	+0.5
DUG	Dugway	16.52	350	*e*Pn	Pn	20 59 05.1	+0.2
DAU	Daniels Canyon 43nm,1.2s	16.53	354	*e*Pn	Pn	20 59 04.9	-0.1
O15A	The Old Anders baz=16,SNR=14	16.55	351	⇑P	Pn	20 59 06.3	+1.0
P11A	Circle Ranch, baz=16	16.57	342	⇓P	Pn	20 59 05.9	+0.4
O13A	Hicks Ranch, I baz=16	16.68	347	⇑P	Pn	20 59 07.4	+0.6
Q08A	Gabbs baz=16	16.69	335	⇑P	Pn	20 59 07.7	+0.7
N21A	Black Mountain baz=17	16.82	4	⇑P	Pn	20 59 09.7	+1.0
P10A	Eureka baz=17	16.85	340	⇑P	Pn	20 59 09.7	+0.6
N20A	Spence Gulch, baz=17	16.86	2	⇓P	Pn	20 59 09.5	+0.3
O12A	Currie baz=17,SNR=7.2	16.98	345	⇓P	Pn	20 59 11.0	+0.3
N16A	Rees Ranch, Co baz=17,SNR=7.0	17.02	354	⇑P	Pn	20 59 11.3	+0.1
N17A	Moffit Pass baz=17,SNR=9.5	17.02	355	⇓P	Pn	20 59 11.3	0.0
CMB	Columbia Colle 5.2nm,1.1s	17.07	328	*e*P	Pn	20 59 12.2	+0.3
MIAR	Mount Ida 22nm,1.0s	17.12	48	*e*P	Pn	20 59 15.2	+2.7
N15A	Stansbury Isla baz=17	17.16	351	⇑P	Pn	20 59 13.3	+0.5
N14A	Grayback Hills baz=17,SNR=9.3	17.22	349	⇓P	Pn	20 59 14.1	+0.4
N13A	Wendover, West 29nm,1.0s	17.42	347	*e*Pn	Pn	20 59 16.2	+0.1
M16A	Huntsville baz=17,SNR=12	17.46	353	⇑P	Pn	20 59 16.7	0.0
M19A	Rock Springs baz=17	17.52	360	⇓P	Pn	20 59 17.9	+0.6
M17A	Scullys Gap (B baz=17	17.54	356	⇑P	Pn	20 59 18.4	+0.7
ELK	Elko baz=171,slow=8.5,SNR=11	17.55	344	P	Pn	20 59 16.6	-1.1
ELK	comp=Z,245nm,20.4s,baz=166,slow=41			LR	LR	21 06 56.2	
ELK	Elko	17.55	344	P	Pn	20 59 16.6	-1.1
ELK				LR	LR	21 06 56.2	
SPUT	South Promonto 43nm,1.4s	17.56	351	*e*P	Pn	20 59 14.7	-3.2
N12A	Clover Valley, baz=17,SNR=9.5	17.60	345	⇑P	Pn	20 59 18.6	+0.1
M21A	Separation Pea baz=18,SNR=12	17.68	4	⇑P	Pn	20 59 19.3	-0.1
M15A	Larsen Ranch, baz=18,SNR=18	17.71	352	⇑P	Pn	20 59 19.8	0.0
RWWY	Rawlins 64nm,1.1s	17.77	4	P	Pn	20 59 15.6	-4.9
BMN	Battle Mountai	17.83	339	P	Pn	20 59 17.0	-4.3
M14A	Sheep Mountain baz=18,SNR=25	17.89	349	⇑P	Pn	20 59 21.9	0.0
M13A	Montello 12nm,1.1s	17.90	347	*e*P	Pn	20 59 20.9	-1.1
OGNE	Ogallala 52nm,1.0s	17.95	17	*e*Pn	Pn	20 59 22.1	-0.6
L18A	Fontenelle, Gr baz=18,SNR=8.5	17.96	358	⇑P	Pn	20 59 22.4	-0.5
HVU	Hansel Valley 17nm,0.8s	18.07	351	*e*P	Pn	20 59 23.8	-0.3
L16A	Fish Haven baz=18,SNR=9.1	18.14	354	⇓P	Pn	20 59 24.6	-0.4
L17A	Cokeville baz=18	18.18	356	⇓P	Pn	20 59 25.4	-0.1
L15A	Malad City baz=18,SNR=11	18.23	352	⇓P	Pn	20 59 26.5	+0.3
L14A	Malta baz=18,SNR=29	18.39	350	⇓P	Pn	20 59 28.7	+0.7
KSU1	Kansas State U 22nm,0.9s	18.43	32	*e*P	Pn	20 59 28.1	-0.5
BEKR	Beckwourth baz=18	18.54	332	⇓P	Pn	20 59 29.5	-0.5
L13A	Double Diamond baz=18	18.56	348	⇑P	Pn	20 59 30.1	-0.1
M10A	I.L. Ranch, Tu baz=18,SNR=5.4	18.62	342	⇑P	Pn	20 59 31.9	+0.9
K18A	Toltan Ranch, baz=18,SNR=7.5	18.67	358	⇓P	Pn	20 59 30.9	-0.6
BW06	Boulder Array baz=19,SNR=9.5	18.79	359	⇓P	Pn	20 59 31.6	-1.3
PDAR	Pinedale Array 0.3nm,0.3s,baz=164,slow=12,SNR=38	18.79	359	P	Pn	20 59 31.9	-1.0
L12A	House Creek Ra baz=19,SNR=5.9	18.83	346	⇑P	Pn	20 59 33.5	0.0
K14A	Jones Ranch, D baz=19,SNR=18	18.88	351	⇑P	Pn	20 59 33.4	-0.6
K15A	Arbon baz=19,SNR=15	18.92	352	⇓P	Pn	20 59 34.3	-0.2
K16A	Soda Springs baz=19	18.96	354	⇓P	Pn	20 59 35.1	0.0
L11A	Cat Creek Ranc baz=19,SNR=11	19.02	345	⇓P	Pn	20 59 35.9	+0.2
N06A	Buffalo Meadow baz=19	19.06	334	⇓P	Pn	20 59 36.1	-0.1
L10A	Juniper Basin baz=19,SNR=10	19.12	343	⇓P	Pn	20 59 37.4	+0.4
K13A	Stover Farm, H baz=19,SNR=12	19.13	349	⇑P	Pn	20 59 37.5	+0.5
J18A	Kendall Valley baz=19	19.24	358	⇓P	Pn	20 59 37.8	-0.6
K12A	Draper Farm, C baz=19,SNR=14	19.27	347	⇓P	Pn	20 59 38.5	-0.3
J16A	Bone baz=19,SNR=7.8	19.41	354	⇑P	Pn	20 59 39.9	-0.4
RRI2	Red Ridge 76nm,1.5s	19.45	355	*e*P	Pn	20 59 38.9	-2.0
TPAW	Teton Pass 32nm,1.3s	19.57	356	*e*P	Pn	20 59 41.1	-1.2
TEIG	Tepich comp=Z,286nm,18.3s,baz=82,slow=42	19.59	97	LR	LR	21 09 07.3	
J15A	Blackfoot baz=19	19.61	353	⇓P	Pn	20 59 41.9	-0.9
K11A	Parker Ranch, baz=19,SNR=14	19.66	345	⇓P	Pn	20 59 42.8	-0.6
LOHW	Long Hollow 18nm,0.9s	19.67	357	*e*P	Pn	20 59 41.4	-2.2
DCID1	Drake Creek 80nm,1.4s	19.69	355	*e*P	Pn	20 59 43.6	-0.2
J14A	Carey baz=19	19.69	350	⇓P	Pn	20 59 43.1	-0.7
I18A	Diamond G Ranc baz=20,SNR=8.7	19.73	358	⇑P	Pn	20 59 43.1	-1.1
MOOW	Moose Ponds 6.4nm,0.8s	19.81	356	*e*P	Pn	20 59 43.4	-1.8
J13A	Cove Ranch, Pi baz=20,SNR=6.3	19.87	349	⇓P	Pn	20 59 45.2	-0.7
K10A	MacKenzie Ranc baz=20	19.88	343	⇓P	Pn	20 59 44.8	-1.2
J12A	Stokes Ranch, baz=20	19.90	347	⇓P	Pn	20 59 45.1	-1.2
L07A	Adell baz=20	19.97	337	⇓P	Pn	20 59 45.3	-1.8
IMW	Indian Meadow 17nm,1.0s	19.97	356	*e*P	Pn	20 59 45.5	-1.6
I17A	Pilgrim Ck. baz=20,SNR=7.5	19.97	357	⇑P	Pn	20 59 46.3	-0.8
I16A	Newdale baz=20	19.99	355	⇑P	Pn	20 59 46.3	-1.0
K09A	Rome baz=20,SNR=20	20.05	341	⇑P	P	20 59 46.9	+0.6
HLID	Hailey baz=20	20.07	349	⇑P	P	20 59 47.1	+0.6
HLID	Hailey 11nm,1.0s	20.07	349	*e*P	P	20 59 44.5	-2.0
WVOR	Wild Horse Val 8.2nm,1.0s	20.10	339	*e*P	P	20 59 46.8	0.0
I15A	Monteview baz=20	20.21	353	⇓P	P	20 59 48.6	+0.6
MOD	Modoc	20.23	335	*e*P	P	20 59 49.3	+1.1
I14A	Mackay baz=20,SNR=5.3	20.27	351	⇓P	P	20 59 49.6	+0.9
I13A	Wildhorse Cree baz=20,SNR=16	20.36	349	⇑P	P	20 59 50.8	+1.1
I12A	Atlanta baz=20	20.43	347	⇑P	P	20 59 51.0	+0.6
YFT	Old Faithful 31nm,1.3s	20.52	356	*e*P	P	20 59 54.9	+3.6
K07A	Rock Creek Ran baz=20,SNR=7.3	20.53	338	⇓P	P	20 59 52.3	+0.8
J09A	Fry Pan Ranch, baz=20	20.65	342	⇑P	P	20 59 53.1	+0.3
CCM	Cathedral Cave 22nm,1.0s	20.70	43	*e*P	P	20 59 54.0	+0.6
I11A	Placerville baz=20	20.72	346	⇑P	P	20 59 54.0	+0.5
YMR	Madison River 33nm,1.1s	20.74	356	*e*P	P	20 59 53.5	-0.3
YNR	Norris Junctio 18nm,1.1s	20.77	357	*e*P	P	20 59 54.4	+0.3
H16A	Russell Place, baz=21,SNR=12	20.80	356	⇑P	P	20 59 55.2	+0.9
H15A	Lima baz=21,SNR=20	20.84	353	⇑P	P	20 59 56.2	+1.3
J08A	Circle Bar Ran baz=21,SNR=7.0	20.88	340	⇓P	P	20 59 55.9	+0.6
H13A	Challis baz=21,SNR=16	21.02	350	⇓P	P	20 59 58.0	+1.3
MCMT	McKenzie Canyo	21.07	352	*e*P	P	20 59 58.4	+1.1
YBH	Yreka Blue Hor comp=Z,270nm,18.8s,MS3.7,baz=147,slow=38	21.09	331	LR	LR	21 08 27.9	
H12A	Diamond D Ranc baz=21,SNR=20	21.11	348	⇓P	P	20 59 58.6	+0.9
J07A	Hines baz=21	21.16	339	⇑P	P	20 59 58.9	+0.6
PLAL	Pickwick Lake 12nm,0.8s,mb4.3	21.27	54	*e*P	P	21 00 01.1	+1.5
J06A	Christmas Vall baz=21	21.34	337	⇑P	P	21 00 00.3	+0.1
G16A	Moss Hill, Enn baz=21,SNR=18	21.36	355	⇑P	P	21 00 01.6	+1.1
G15A	Dillon baz=21,SNR=8.0	21.36	353	⇓P	P	21 00 02.1	+1.6
G17A	Pierce Place, baz=21	21.38	357	⇓P	P	21 00 01.5	+0.8
H11A	Donnelly baz=21,SNR=12	21.49	346	⇑P	P	21 00 02.7	+0.9
G13A	Cobalt baz=21,SNR=10	21.53	350	⇑P	P	21 00 03.2	+0.9
H10A	Noah's Angus R baz=21,SNR=17	21.55	345	⇓P	P	21 00 02.8	+0.3
G14A	Jackson baz=21	21.56	351	⇓P	P	21 00 03.2	+0.6
DLMT	Dillon	21.57	353	*e*P	P	21 00 02.0	-0.7
G12A	Big Creek, Yel baz=22	21.75	348	⇓P	P	21 00 05.3	+0.7
BOZ	Bozeman (W) baz=22	21.76	355	⇓P	P	21 00 05.2	+0.4
BOZ	Bozeman (W) 7.4nm,0.9s,mb4.1	21.76	355	*e*P	P	21 00 03.2	-1.5
SIUC	Southern Illin 20nm,0.8s,mb4.6	21.81	46	*e*P	P	21 00 06.1	+0.7
GCMT	Greycliff 26nm,1.0s,mb4.6	21.81	359	*e*P	P	21 00 03.0	-2.3
H09A	Durkee baz=22	21.85	343	⇓P	P	21 00 05.9	+0.2
BMO	Blue Mountains 8.2nm,1.0s,mb4.1	21.93	344	*e*P	P	21 00 05.8	-0.8
F17A	Fitzpatrick Pl baz=22,SNR=7.8	21.96	357	⇓P	P	21 00 08.2	+1.3
WVT	Waverly 24nm,1.0s,mb4.6	21.96	52	*e*P	P	21 00 07.7	+0.7
I06A	Prineville baz=22	21.96	338	⇓P	P	21 00 07.2	+0.3
H08A	Prairie City baz=22	21.99	341	⇓P	P	21 00 07.5	+0.3
LRM	Limekiln Ridge	22.01	354	*e*P	P	21 00 07.5	0.0
F15A	Butte baz=22,SNR=10	22.03	354	⇓P	P	21 00 07.8	+0.1
F13A	Darby baz=22,SNR=16	22.22	350	⇓P	P	21 00 09.6	0.0
ECSD	EROS Data Cent 32nm,0.8s,mb4.8	22.23	24	*e*P	P	21 00 09.5	-0.3
SCIA	State Center 34nm,1.1s,mb4.7	22.24	33	*e*P	P	21 00 10.8	+0.9
F12A	Elk City baz=22	22.34	348	⇑P	P	21 00 11.1	+0.1
G09A	Cove baz=22	22.45	344	⇑P	P	21 00 11.9	-0.1
E17A	Martinsdale baz=22	22.52	357	⇓P	P	21 00 13.0	+0.1
E16A	East Helena baz=22,SNR=7.8	22.65	355	⇓P	P	21 00 14.4	+0.2
F11A	Grangeville baz=22,SNR=6.1	22.65	347	⇓P	P	21 00 13.9	-0.3
H06A	Lindquist Farm baz=22	22.70	339	⇓P	P	21 00 14.7	-0.1
LAO	LASA Array 66nm,1.2s,mb4.9	22.82	5	*e*P	P	21 00 10.9	-5.1
HRY	Holter Researc 8.0nm,0.7s,mb4.3	22.84	355	*e*P	P	21 00 16.0	-0.2
G07A	Ruggs Ranch, H baz=23	22.97	340	⇑P	P	21 00 17.3	-0.3
OLIL	Olney 39nm,1.0s,mb4.8	23.10	45	*e*P	P	21 00 21.7	+2.5
E11A	Bogner Ranch, baz=23	23.11	347	⇑P	P	21 00 18.2	-0.8
D16A	Dana Ranch, Ca baz=23,SNR=7.1	23.13	356	⇓P	P	21 00 19.5	+0.2
CHMT	Chamberlain Mo	23.18	353	*e*P	P	21 00 18.6	-1.1
MSO	Missoula 4.3nm,1.1s,mb3.8	23.18	351	*e*P	P	21 00 18.4	-1.4
MSO				*e*		21 00 26.4	
F08A	Pendleton baz=23	23.19	343	⇓P	P	21 00 19.7	-0.3
D17A	Six Diamond Ra baz=23,SNR=6.7	23.20	357	⇑P	P	21 00 19.2	-0.9
D14A	Greenough baz=23,SNR=8.8	23.37	352	⇑P	P	21 00 21.8	-0.1
HDIL	Hopedale 21nm,0.8s,mb4.6	23.44	40	*e*P	P	21 00 22.7	+0.1
HDIL				*e*		21 00 30.0	
D13A	Huson baz=23	23.51	351	⇑P	P	21 00 23.2	-0.1
SLMT	Seeley Lake 13nm,1.2s,mb4.2	23.53	352	*e*P	P	21 00 22.2	-1.2
C17A	Wharram Farm, baz=24,SNR=11	23.69	357	⇑P	P	21 00 25.0	+0.1
D11A	Klaveano Farm, baz=24	23.79	348	⇑P	P	21 00 25.2	-0.7
SWMT	Swartz Lake 6.4nm,1.1s,mb4.0	23.86	352	*e*P	P	21 00 24.9	-1.6
C16A	Fuhringer Ranc baz=24,SNR=7.0	23.91	355	⇓P	P	21 00 26.6	-0.4
EGMT	Eagleton baz=24	24.05	359	⇓P	P	21 00 28.3	+0.1
EGMT	Eagleton 23nm,1.0s,mb4.6	24.05	359	*e*P	P	21 00 27.3	-0.9
C13A	Hot Springs baz=24	24.10	351	⇓P	P	21 00 28.0	-0.8
YBMT	Yellow Bay 5.0nm,1.1s,mb3.9	24.20	352	*e*P	P	21 00 28.4	-1.3
B17A	L&G Farms, Che baz=24	24.35	357	⇓P	P	21 00 31.2	+0.2
JFWS	Jewell Farm	24.48	35	P	P	21 00 32.2	0.0
B15A	Bradely Ranch, baz=24,SNR=7.2	24.49	354	⇑P	P	21 00 31.9	-0.3
TKL	Tuckaleechee C 9.7nm,0.9s,mb4.3,baz=208,slow=15,SNR=2.5	24.77	56	P	P	21 00 36.1	+1.2
TKL	comp=Z,520nm,18.7s,MS4.1,baz=255,slow=38			LR	LR	21 11 07.1	
B13A	Whitefish baz=24	24.77	351	⇓P	P	21 00 34.4	-0.4
D07A	Quincy baz=24	24.80	342	⇑P	P	21 00 35.1	0.0
A17A	Triple J Farms baz=25,SNR=7.8	24.99	357	⇑P	P	21 00 36.6	-0.3
B12A	Libby baz=25	25.03	350	⇓P	P	21 00 37.3	+0.1
A16A	West Butte Ran baz=25	25.05	356	⇓P	P	21 00 37.5	+0.2
C08A	Higginbotham F baz=25	25.10	344	⇑P	P	21 00 37.5	-0.4
NEW	Newport 12nm,1.1s,mb4.4	25.11	347	*e*P	P	21 00 37.1	-0.9
B11A	Sandpoint baz=25	25.13	348	⇓P	P	21 00 38.3	+0.2
A15A	Johnson Ranch, baz=25	25.16	354	⇑P	P	21 00 38.3	-0.1
A14A	Double T Ranch baz=25	25.23	353	⇓P	P	21 00 38.7	-0.2
A13A	Flathead Natio baz=25	25.31	352	⇓P	P	21 00 39.8	+0.1
WALA	Waterton Lakes 0.5nm,1.1s	25.37	352	*e*P	P	21 00 39.9	-0.4
B08A	Colville Reser baz=25	25.70	344	⇑P	P	21 00 43.2	-0.1
COWI	Conover 20nm,1.0s,mb4.6	27.32	31	*e*P	P	21 00 57.8	-0.2
EYMN	Ely 21nm,1.1s,mb4.7	27.72	26	*e*P	P	21 01 00.4	-1.1
EYMN				*e*		21 01 08.4	
ULM	Lac du Bonnet 7.5nm,1.0s,mb4.3,baz=214,slow=10,SNR=7.0	28.20	18	P	P	21 01 04.6	-1.1
ULM	comp=Z,201nm,20.8s,MS3.7,baz=46,slow=36			LR	LR	21 11 54.8	
SSPA	Standing Stone 18nm,1.0s,mb4.8	30.94	50	*e*P	P	21 01 31.0	+0.8
FFC	Flin Flon 18nm,1.4s,mb4.7	31.20	8	*e*P	P	21 01 30.7	-1.5
BINY	Binghamton 20nm,0.9s,mb5.0	32.87	48	*e*P	P	21 01 46.8	-0.3
FCC	Fort Churchill 0.8nm,1.0s,mb3.6	36.38	13	*e*P	P	21 02 15.7	-1.6
FCC				*e*		21 02 23.0	
ROSC	El Rosal comp=Z,100nm,18.4s,MS3.7,baz=214,slow=38	38.42	114	LR	LR	21 20 03.8	
YKA	Yellowknife Ar 4.3nm,0.9s,mb4.2,baz=171,slow=7.8,SNR=55	38.73	356	P	P	21 02 35.5	-1.5
YKA	comp=Z,149nm,19.4s,MS3.8,baz=0.0,slow=37			LR	LR	21 18 45.0	
YKA	Yellowknife Ar	38.73	356	P	P	21 02 35.5	-1.6
YKA				LR	LR	21 18 45.0	
SCHQ	Schefferville 6.8nm,1.0s,mb4.3,baz=250,slow=9.0,SNR=6.3	43.84	34	P	P	21 03 18.8	-0.4
SCHQ	comp=Z,112nm,18.1s,MS3.8,baz=154,slow=38			LR	LR	21 23 09.5	
DAWY	Dawson	44.80	342	*e*P	P	21 03 26.7	0.0
INK	Inuvik comp=Z,194nm,19.1s,MS4.1,baz=147,slow=35	46.83	348	LR	LR	21 22 39.0	
INK	Inuvik 8.8nm,1.3s,mb4.5	46.83	348	*e*P	P	21 03 42.4	-0.4
MCK	McKinley 6.2nm,0.9s,mb4.6	47.65	337	*e*P	P	21 03 49.1	-0.1
FRB	Frobisher Bay comp=Z,147nm,18.1s,MS4.0,baz=302,slow=40	47.87	23	LR	LR	21 26 57.8	
TRF	Thorofare Moun 14nm,0.7s,mb5.1	47.97	336	*e*P	P	21 03 52.1	+0.5
KTH	Kantishna Hill 8.6nm,0.9s,mb4.8	48.26	336	*e*P	P	21 03 54.0	+0.1
PPLA	Purkeypile 26nm,1.3s,mb5.1	48.37	335	*e*P	P	21 03 55.1	+0.4
RES	Resolute Bay comp=Z,91nm,18.4s,MS3.8,baz=19,slow=39	51.34	5	LR	LR	21 28 21.1	
TNA	Tin City 2.3nm,1.0s,mb4.2	55.70	334	*e*P	P	21 04 47.6	-1.7
TNA				*e*		21 04 54.9	
CPUP	Villa Florida 0.3nm,0.3s,mb3.6,baz=14,slow=8.1,SNR=2.3	70.68	132	P	P	21 06 33.6	+4.3
CPUP	comp=Z,30nm,21.5s,MS3.5,baz=352,slow=33			LR	LR	21 34 40.2	
CPUP	Villa Florida 13nm,1.0s,mb4.8	70.68	132	P	P	21 06 33.5	+4.3
CPUP				LR	LR	21 34 40.2	
PETK	Petropavlovsk- comp=Z,71nm,20.7s,MS3.9,baz=257,slow=30	73.12	321	LR	LR	21 31 43.9	
TIXI	Tiksi 2.4nm,0.8s,mb4.2	76.78	344	*e*P	P	21 07 03.0	-1.4
TIXI				*e*		21 07 09.6	
ARCES	ARCESS Array B comp=Z,335nm,18.1s,MS4.7,baz=52,slow=36	81.26	15	LR	LR	21 44 22.3	
FLN	La Foliniere 56nm,1.2s,mb5.3	83.69	39	*e*P	P	21 07 43.1	+1.0
ESDC	Sonseca Array 1.2nm,0.9s,mb4.1,baz=308,slow=5.5,SNR=4.2	85.82	48	P	P	21 07 53.9	+0.9
TCF	Toulx Ste Croi 9.8nm,1.0s,mb4.7	86.52	40	*e*P	P	21 07 56.7	+0.4
RJF	Les Rejaudoux 15nm,1.1s,mb4.8	86.61	41	*e*P	P	21 07 56.5	-0.3
SSF	Saint Saulge 14nm,1.1s,mb4.8	86.87	39	*e*P	P	21 07 58.5	+0.5
LOR	Lormes	86.96	39	*e*P	P	21 07 58.2	-0.3
MJAR	Matsushiro Arr comp=Z,85nm,19.1s,MS4.2,baz=110,slow=32	92.63	312	LR	LR	21 44 14.0	
KEST	Kesra comp=Z,65nm,19.1s,MS4.1,baz=253,slow=36	96.85	46	LR	LR	21 53 19.4	
KSRS	Korea Array comp=Z,26nm,18.5s,MS3.8,baz=25,slow=33	98.79	318	LR	LR	21 49 40.6	
WRA	Warramunga Arr 0.3nm,0.7s,baz=78,slow=3.2,SNR=3.1	121.50	261	PKP	PKPdf	21 14 11.1	+3.6
ASAR	Alice Springs 0.2nm,0.5s,baz=82,slow=2.1,SNR=3.6	122.87	256	PKP	PKPdf	21 14 13.7	+3.7
CMAR	Chiang Mai Arr 0.3nm,0.3s,baz=208,slow=31,SNR=3.2	129.80	325	PKP	PKPdf	21 14 26.0	+2.5

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*ISCJB **22** 21:01:58.7±0.5, 39°.41N±0°.03×26°.30E±0°.04, h8^{km}±5^{km},*
Error ellipse: s-maj=5.4km s-min=5.0km az=155.2
*CSEM **22** 21:01:58.8±0.1, 39°.39N×26°.29E, h8^{km}, ML2.5/2, Error*
ellipse: s-maj=2.6km s-min=2.2km az=160.0
*DDA **22** 21:01:58.1, 39°.40N×26°.31E, h7^{km}±3^{km}, Md2.8*
*THE **22** 21:01:59.2, 39°.39N×26°.26E, h0^{km}±1^{km}, ML2.5/2, Error*
ellipse: s-maj=1.9km s-min=0.6km az=43.0
ISC 22 21:01:58.9±0.5, **39°.40N**±0°.03×**26°.30E**±0°.04, **h10**^{km}±6^{km},
n19, σ0^{s}.39/32, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRK	Paraskevi	0.15	187	P	Pg	21 02 02.0	-0.3
PRK				S	Sg	21 02 04.8	+0.2
PRK	Paraskevi	0.15	187	P	Pg	21 02 02.0	-0.3
PRK				S	Sg	21 02 04.8	+0.2
AYVA	Ayvalik	0.32	107	*i* P	Pg	21 02 05.0	-0.2
AYVA				*i* S	Sg	21 02 09.8	+0.4

AYVA	Ayvalik	0.32	107	iP	Pg	21 02 05.0	-0.2
AYVA				iS	Sg	21 02 09.8	+0.3
SIGR	SIGRI	0.39	241	P	Pg	21 02 06.5	0.0
SIGR				S	Sg	21 02 12.1	+0.4
SIGR	SIGRI	0.39	241	P	Pg	21 02 06.5	0.0
SIGR				S	Sg	21 02 12.1	+0.4
BOZC	Bozcaada	0.48	337	iP	Pg	21 02 07.8	-0.4
BOZC				iS	Sg	21 02 14.7	+0.1
LIA	Limnos Island	0.99	300	P	Pg	21 02 17.6	-0.4
LIA	Limnos Island	0.99	300	P	Pg	21 02 17.6	-0.4
CHOS	Chios island	1.03	191	P	Pg	21 02 18.4	-0.2
CHOS	Chios island	1.03	191	P	Pg	21 02 18.4	-0.2
URLA	Izmir	1.06	167	iP	Pg	21 02 18.7	-0.6
URLA				iS	Sg	21 02 33.3	+0.1
URLA	Izmir	1.06	167	iP	Pg	21 02 18.7	-0.6
URLA				iS	Sg	21 02 33.3	+0.2
BALY	Balya	1.08	71	iP	Pg	21 02 19.9	+0.3
BALY				iS	Sg	21 02 33.5	-0.1
BALY	Balya	1.08	71	iP	Pg	21 02 19.9	+0.3
BALY				iS	Sg	21 02 33.5	-0.1
ALN	Alexandroupoli	1.51	353	P	Pn	21 02 26.5	+0.5
ALN	Alexandroupoli	1.51	353	P	Pn	21 02 26.5	+0.5
DURS	Dursunbey	1.70	83	iP	Pn	21 02 29.3	+0.8
DURS				iS	Sn	21 02 49.7	-0.7
DURS	Dursunbey	1.70	83	iP	Pn	21 02 29.3	+0.7
DURS				iS	Sn	21 02 49.7	-0.6

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*NEIC **22** 21:08:04.4, 32°.44N×115°.32W, h10km, ML3.1(PAS), ML3.2(ECX), After ECX.*

ECX 22 21:07:59.7±0.3**, 32°.37N×115°.31W, h5km, MD3.1, ML3.2, 5C-4D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGL	Mount Signal	0.45	309	⇑iP	Pg	21 08 10.6	+2.2
COA	Coachella	0.52	18	⇓iP	Pg	21 08 11.7	+1.9
YUH	Yuha Desert	0.59	299	⇑iP	Pg	21 08 13.1	+2.0
COK	Cook Ranch	0.60	324	⇑iP	Pg	21 08 13.0	+1.8
RDX	Rancho Dawling	0.69	231	⇓eP	Pg	21 08 16.9	+4.0
RDX				eS	Sg	21 08 27.1	+5.1
RDX				⇓e		21 08 30.0	
	comp=N,801nm,0.5s						
RDX	Rancho Dawling	0.69	231	⇓eP	Pg	21 08 16.9	+4.0
RDX				eS	Sg	21 08 27.1	+5.1
CRR	Carrizo Plain	0.76	313	⇑iP	Pg	21 08 15.7	+1.4
GLA	Glamis	0.80	31	ePg	Pg	21 08 15.6	+0.6
GLA				eSg	Sg	21 08 25.1	-0.2
CBX	Cerro Bola	1.15	268	⇑ePN	Pn	21 08 24.1	+1.7
BAR	Barrett	1.19	286	ePg	Pg	21 08 24.1	+1.5
BAR				eSg	Sg	21 08 39.5	+1.4
ECNX	Esteban Cantu	1.30	237	ePN	Pn	21 08 27.0	+2.5
PFO	Pinyon Flat Ob	1.57	322	ePn	Pn	21 08 27.2	-1.0
GSC	Goldstone	3.18	337	ePn	Pn	21 08 59.8	+9.4
GSC				eSg	Sn	21 09 25.5	-3.2
TUC	Tucson	3.83	90	ePg	Pg	21 09 17.5	+4.4
TUC				eSg	Sg	21 09 57.2	-5.6

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*ISCJB **22** 21:19:02.8±0.8, 36°.36N±0°.04×21°.78E±0°.06, h10km, Error ellipse: s-maj=7.9km s-min=4.6km az=145.2*

*CSEM **22** 21:19:02.4±0.4, 36°.33N×21°.77E, h2km, MD3.5, Error ellipse: s-maj=8.4km s-min=5.5km az=41.0*

*NEIC **22** 21:19:03.9, 36°.42N×21°.89E, h2km, MD3.5(ATH), After ATH.*

*ATH **22** 21:19:03.9, 36°.42N×21°.89E, h2km, MD3.5/5*

*THE **22** 21:19:04.0, 36°.38N×21°.81E, h1km±4km, ML3.5/2, Error ellipse: s-maj=6.9km s-min=2.1km az=239.0*

ISC 22 21:19:03.6±0.7**, 36°.36N**±0°.04×**21°.80E**±0°.05**, h10km, n29, σ1ˢ.32**/46**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.53	355	P	Pg	21 19 12.8	-1.2
PYL				S	Sg	21 19 20.1	-0.9
PYL	PYLOS	0.53	355	ePG	Pg	21 19 12.9	-1.1
PYL	PYLOS	0.53	355	ePg	Pg	21 19 12.9	-1.1
PYL				S	Sg	21 19 20.1	-0.9
ITM	Ithomi	0.82	7	ePG	Pg	21 19 18.5	-1.0
ITM				eSG	Sg	21 19 29.5	-0.7
ITM	Ithomi	0.82	7	ePg	Pg	21 19 18.5	-1.0
ITM				eSg	Sg	21 19 29.5	-0.7
VLI	Veliai	0.98	69	ePG	Pg	21 19 21.4	-1.1
VLI				eSG	Sg	21 19 33.5	-1.8
VLI	Veliai	0.98	69	ePg	Pg	21 19 21.4	-1.1
VLI				eSg	Sg	21 19 33.5	-1.8
KYTH	Kithira	1.00	94	ePG	Pg	21 19 22.0	-0.9
KYTH	Kithira	1.00	94	ePg	Pg	21 19 22.0	-0.9
VLX	Vlachokerasia	1.11	25	ePG	Pg	21 19 23.5	-1.4
VLX	Vlachokerasia	1.11	25	ePg	Pg	21 19 23.5	-1.4
LAKA	Lakka	1.88	4	P	Pn	21 19 37.2	+1.4
LAKA				S	Sn	21 20 00.7	+1.2
LAKA	Lakka	1.88	4	P	Pn	21 19 37.2	+1.4
LAKA				S	Sn	21 20 00.7	+1.2
LTK	Loutraki	1.90	29	P	Pn	21 19 37.9	+1.8
LTK	Loutraki	1.90	29	P	Pn	21 19 37.9	+1.8
KARN	Karanos	1.97	119	P	Pn	21 19 36.7	-0.3
KARN				S	Sn	21 20 03.7	+2.0
KARN	Karanos	1.97	119	P	Pn	21 19 36.7	-0.3
KARN				S	Sn	21 20 03.7	+2.0
KALE	Kalithea	2.04	7	P	Pn	21 19 40.0	+2.0
KALE	Kalithea	2.04	7	P	Pn	21 19 40.0	+2.0
VLS	Valsamata	2.05	332	P	Pn	21 19 38.2	0.0
VLS				S	Sn	21 20 05.5	+1.7
VLS	Valsamata	2.05	332	P	Pn	21 19 38.2	0.0
VLS				S	Sn	21 20 05.5	+1.7
AGG	Agios Georgios	2.69	9	P	Pn	21 19 48.6	+1.7
AGG				S	Sn	21 20 20.9	+1.4
AGG	Agios Georgios	2.69	9	P	Pn	21 19 48.6	+1.7
AGG				S	Sn	21 20 20.9	+1.4
IDI	Anoyia	2.73	112	ePn	Pn	21 19 47.4	-0.1
IDI	Anoyia	2.73	112	ePn	Pn	21 19 47.4	-0.1
TIP	Timpagrande	4.88	307	ePn	Pn	21 20 16.5	-0.6
TIP				eSn	Sn	21 21 05.4	-8.3
TIP	Timpagrande	4.88	307	ePn	Pn	21 20 16.5	-0.6
CEL	Celeste	5.08	294	ePn	Pn	21 20 18.2	-1.5
CEL				eSn	Sn	21 21 15.0	-3.4
CEL	Celeste	5.08	294	ePn	Pn	21 20 18.2	-1.5
CEL				eSn	Sn	21 21 15.0	-3.4

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*ISCJB **22** 21:33:03.7±0.2, 41°.17N±0°.01×114°.84W±0°.02, h10km, Error ellipse: s-maj=2.0km s-min=1.8km az=5.7*

*NEIC **22** 21:33:04.1±0.3, 41°.18N×114°.82W, h5km, ML2.7, Error ellipse: s-maj=5.0km s-min=4.1km az=168.0*

*IDC **22** 21:33:04.2±0.9, 41°.17N×114°.85W, h0km, mb2.8/1, mb1 3.2/3, mb1mx3.1/21, mbtmp2.8/3, ML3.1/2, Error ellipse: s-maj=24.4km s-min=4.8km az=136.0*

ISC 22 21:33:03.4±0.3**, 41°.20N**±0°.01×**114°.87W**±0°.02**, h1km**±3km**, n85, σ0ˢ.97**/135**, 25C-32D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.37	200	P	Pg	21 33 11.2	+0.6
	baz=0.4,SNR=172						
N12A				⇑S	Sg	21 33 16.5	+1.1
	baz=0.4						
N12A	Clover Valley,	0.37	200	⇓iPg	Pg	21 33 11.1	+0.6
N12A				eSg	Sg	21 33 16.4	+1.1
ELK	Elko	0.53	212	Pg	Pg	21 33 13.9	+0.2
	24nm,0.3s,baz=13,slow=17,SNR=28						
ELK				Lg		21 33 21.0	
	132nm,0.3s,baz=123,slow=19,SNR=84						
ELK	Elko	0.53	212	ePg	Pg	21 33 14.0	+0.3
ELK				eSg	Sg	21 33 20.4	-0.2
M13A	Montello	0.55	73	⇓P	Pg	21 33 14.5	+0.5
	baz=0.5,SNR=34						
M13A	Montello	0.55	73	ePg	Pg	21 33 14.3	+0.2
M13A				eSg	Sg	21 33 23.3	+2.1
N13A	Wendover, West	0.61	124	⇓P	Pg	21 33 15.6	+0.5
	baz=0.6,SNR=134						
N13A				⇑S	Sg	21 33 23.7	+0.7
	baz=0.6						
N13A	Wendover, West	0.61	124	ePg	Pg	21 33 15.5	+0.4
N13A				eSg	Sg	21 33 22.9	-0.1
M11A	Holland Ranch,	0.73	289	⇑P	Pg	21 33 18.1	+0.6
	baz=0.7,SNR=32						
M11A				⇓S	Sg	21 33 27.5	+0.6
	baz=0.7						
N11A	Elko Archery C	0.76	240	⇓P	Pg	21 33 18.5	+0.5
	baz=0.8,SNR=22						
N11A				⇑S	Sg	21 33 28.1	+0.2
	baz=0.8						
O12A	Currie	0.94	174	⇓P	Pg	21 33 21.5	+0.2
	baz=1.0,SNR=28						
O12A				⇓S	Sg	21 33 34.0	+0.5
	baz=1.0						
L12A	House Creek Ra	0.95	353	⇓P	Pg	21 33 22.2	+0.5
	baz=0.9,SNR=34						
L12A				⇑S	Sg	21 33 35.2	+1.2
	baz=0.9						
L13A	Double Diamond	1.13	38	⇓P	Pg	21 33 25.0	-0.1
	baz=1.1,SNR=6.8						
L13A				⇑S	Sg	21 33 39.9	+0.3
	baz=1.1						
L11A	Cat Creek Ranc	1.17	326	⇑P	Pg	21 33 25.7	-0.2
	baz=1.2,SNR=14						
L11A				⇓S	Sg	21 33 41.3	+0.2
	baz=1.2						
M14A	Sheep Mountain	1.19	75	⇓P	Pg	21 33 25.8	-0.4
	baz=1.1,SNR=53						
M14A				⇓S	Sg	21 33 41.9	+0.4
	baz=1.1						
O11A	Cowboy Ranch,	1.23	210	⇓S	Sg	21 33 42.8	+0.1
	baz=1.3						
O13A	Hicks Ranch, I	1.26	147	⇑Pb	Pb	21 33 27.3	-0.7
	baz=1.3						
M10A	I.L. Ranch, Tu	1.30	285	⇓S	Sg	21 33 45.9	+0.8
	baz=1.3						
N14A	Grayback Hills	1.32	105	⇓Pb	Pb	21 33 27.9	-1.0
	baz=1.3,SNR=28						
N14A				⇓S	Sg	21 33 46.1	+0.3
	baz=1.3						
N10A	Dunphy	1.33	249	⇑S	Sg	21 33 46.1	-0.1
	baz=1.4						
BGU	Big Grassy Mou	1.42	101	eP	Pn	21 33 29.4	-0.8
BGU				eSg	Sg	21 33 50.0	+1.0
K12A	Draper Farm, C	1.44	359	⇑P	Pn	21 33 29.4	-1.1
	baz=1.4						
K12A				⇑S	Sg	21 33 48.8	-0.7
	baz=1.4						
L14A	Malta	1.48	55	⇑Pb	Pb	21 33 30.9	-0.8
	baz=1.4,SNR=12						
L14A				⇓Sb	Sb	21 33 50.6	-0.3
	baz=1.4						
L10A	Juniper Basin	1.49	307	⇓Pb	Pb	21 33 31.3	-0.5
	baz=1.5						
L10A				⇑Sb	Sb	21 33 51.3	+0.1
	baz=1.5						
O10A	Cortez Mining,	1.54	234	⇑Pb	Pb	21 33 31.9	-0.8
	baz=1.6,SNR=7.7						
K13A	Stover Farm, H	1.56	22	⇑Pb	Pb	21 33 32.3	-0.8
	baz=1.5,SNR=9.2						
HVU	Hansel Valley	1.68	69	ePn	Pn	21 33 33.7	-0.1
HVU				eSg	Sg	21 33 57.0	-0.2
P11A	Circle Ranch,	1.78	203	⇓Pb	Pb	21 33 35.7	-1.1
	baz=1.8						
K11A	Parker Ranch,	1.79	331	⇓P	Pn	21 33 35.7	+0.3
	baz=1.8						
N15A	Stansbury Isla	1.80	99	⇓Pb	Pb	21 33 36.0	-1.2
	baz=1.8,SNR=20						
SPUT	South Promonto	1.83	86	ePn	Pn	21 33 36.6	+0.7
SPUT				eSg	Sg	21 34 03.2	+1.0
M15A	Larsen Ranch,	1.84	81	⇓P	Pn	21 33 36.1	0.0
	baz=1.8,SNR=16						
DUG	Dugway	1.86	122	ePn	Pn	21 33 35.7	-0.6
DUG				eSg	Sg	21 34 02.0	-1.1
BMN	Battle Mountai	1.94	248	ePn	Pn	21 33 39.1	+1.6
BMN				eSg	Sg	21 34 04.4	-1.4
J12A	Stokes Ranch,	2.06	355	⇓P	Pn	21 33 38.3	-0.8
	baz=2.0,SNR=38						
P14A	Drum Mountains	2.12	139	⇓P	Pn	21 33 38.2	-1.6
	baz=2.1						
NOQ	North Oquirrh	2.15	104	ePn	Pn	21 33 39.7	-0.7
NOQ				ePg	Pg	21 33 42.2	-2.5
NOQ				eSg	Sg	21 34 13.7	+1.1
Q12A	Willow Creek R	2.16	179	⇓P	Pn	21 33 39.8	-0.7
	baz=2.2,SNR=9.5						
L09A	Wilkinson Ranc	2.25	292	⇓P	Pn	21 33 40.6	-1.1
	baz=2.3,SNR=13						
J13A	Cove Ranch, Pi	2.26	13	⇑P	Pn	21 33 42.3	+0.5
	baz=2.2,SNR=74						
K15A	Arbon	2.29	49	P	Pn	21 33 43.0	+0.7
	baz=2.3,SNR=16						
MFID	Camas Ranch	2.33	343	⇑P	Pn	21 33 43.2	+0.4
	baz=2.3,SNR=22						
Q13A	Wheeler Ranch,	2.33	164	⇑P	Pn	21 33 42.3	-0.6
	baz=2.4,SNR=26						
J14A	Carey	2.35	25	⇑P	Pn	21 33 44.0	+0.9
	baz=2.3,SNR=40						
HLID	Hailey	2.38	8	⇓P	Pn	21 33 44.5	+0.9
	baz=2.4,SNR=90						
HLID	Hailey	2.38	8	ePn	Pn	21 33 44.4	+0.8
HLID				eSn	Sn	21 34 16.9	+3.5
M16A	Huntsville	2.44	86	⇑P	Pn	21 33 45.3	+0.9
	baz=2.4,SNR=16						
NLU	North Lily Min	2.46	119	ePn	Pn	21 33 43.8	-0.9
NLU				eSn	Sn	21 34 20.2	+4.9
NLU				eSg	Sg	21 34 28.4	+5.8
Q14A	Sevier Lake (B	2.52	151	⇓P	Pn	21 33 44.4	-1.1
	baz=2.5						
P15A	Leamington	2.56	129	⇑P	Pn	21 33 44.9	-1.1
	baz=2.6						
I12A	Atlanta	2.60	356	P	Pn	21 33 47.8	+1.3
	baz=2.6,SNR=48						
K09A	Rome	2.60	306	P	Pn	21 33 48.7	+2.1
	baz=2.6,SNR=23						
Q10A	Clear Creek Ra	2.65	207	P	Pn	21 33 48.3	+1.1
	baz=2.7,SNR=11						
O08A	Rochester Mine	2.66	251	⇓P	Pn	21 33 46.5	-0.8
	baz=2.7,SNR=6.0						
MPU	Maple Canyon	2.73	115	ePg	Pg	21 33 55.8	0.0
MPU				eSg	Sg	21 34 34.4	+3.2
I13A	Wildhorse Cree	2.77	11	P	Pn	21 33 50.2	+1.4
	baz=2.7,SNR=64						
DAU	Daniels Canyon	2.85	105	ePn	Pn	21 33 50.6	+0.5
DAU				ePg	Pg	21 33 58.8	+0.7
DAU				eSg	Sg	21 34 35.5	+0.5
R12A	Pony Springs,	2.88	176	⇑P	Pn	21 33 50.0	-0.4
	baz=2.9,SNR=13						
R11A	Troy Canyon, C	2.90	191	⇓P	Pn	21 33 50.2	-0.5
	baz=2.9,SNR=9.1						
WVOR	Wild Horse Val	3.07	295	ePn	Pn	21 33 52.5	-0.5
WVOR				eSg	Sg	21 34 40.6	-1.5
R13A	O'Grain Ranch,	3.10	167	⇑P	Pn	21 33 53.4	0.0
	baz=3.1,SNR=45						
M07A	Soldier Meadow	3.25	275	⇓P	Pn	21 33 54.9	-0.5
	baz=3.3,SNR=11						
TMUT	Trail Mountain	3.39	123	ePg	Pg	21 34 08.0	-0.3
MSU	Marysvale	3.39	141	ePn	Pn	21 33 57.2	-0.2
RRI2	Red Ridge	3.40	50	ePn	Pn	21 34 02.7	+5.2
RRI2				eSn	Sn	21 34 48.7	+10
ARUT	Antelope Range	3.58	162	ePn	Pn	21 34 00.2	+0.2
ARUT				ePg	Pg	21 34 13.6	+1.5
ARUT				eSg	Sg	21 34 58.1	-0.4
REDW	Red Top Meadow	3.68	53	ePn	Pn	21 34 05.2	+3.9
TPAW	Teton Pass	3.70	50	Pg	Pg	21 34 07.2	-7.1
TPAW				eSg	Sg	21 34 58.0	-4.1
S13A	Holt Ranch, En	3.70	167	⇓P	Pn	21 34 01.5	-0.1
	baz=3.7,SNR=35						
CCUT	Cedar City	3.83	162	ePn	Pn	21 34 04.2	+0.8
CCUT				ePg	Pg	21 34 21.1	+4.3
CCUT				eSg	Sg	21 35 06.8	+0.4
NVAR	Mina Array Bea	3.83	225	Pn	Pn	21 34 04.0	+0.6
	0.7nm,0.3s,baz=40,slow=14,SNR=13						
NVAR				Pg	Pg	21 34 12.8	-4.0
	2.0nm,0.3s,baz=138,slow=41,SNR=14						
NVAR				Sn	Sn	21 34 44.6	-4.4
	1.9nm,0.3s,baz=45,slow=19,SNR=3.8						
NVAR				Lg		21 35 04.8	
	6.7nm,0.3s,baz=351,slow=18,SNR=12						
NVAR	Mina Array Bea	3.83	225	Pn	Pn	21 34 04.0	+0.6
NVAR				Pg	Pg	21 34 12.8	-4.0
NVAR				Sn	Sn	21 34 44.6	-4.4
NVAR				Lg		21 35 04.8	
MCMT	McKenzie Canyo	3.92	22	ePn	Pn	21 34 10.8	+6.2
MCMT				eSg	Sg	21 35 05.7	-3.5
SRU	San Rafael	3.93	121	ePg	Pg	21 34 18.6	-0.1
SRU				eSg	Sg	21 35 08.1	-1.5
IMW	Indian Meadow	3.96	46	Pn	Pn	21 34 04.8	-0.5
IMW				eSg	Sg	21 35 08.3	-2.4
T11A	Corn Creek, Al	3.96	184	⇑P	Pn	21 34 05.1	-0.2
	baz=4.0,SNR=18						
LOHW	Long Hollow	3.97	51	ePn	Pn	21 34 11.5	+6.1
MOOW	Moose Ponds	3.97	49	ePn	Pn	21 34 11.5	+6.1
MOOW				eSg	Sg	21 35 10.4	-0.6
BMO	Blue Mountains	4.06	335	Pn	Pn	21 34 09.0	+2.4
BMO				Pg	Pg	21 34 13.1	-8.2
BMO				eSg	Sg	21 35 07.6	-6.3
MOD	Modoc	4.14	282	Pn	Pn	21 34 08.8	+1.2
MOD				eSg	Sg	21 35 13.2	-3.2
PDAR	Pinedale Array	4.26	67	Pn	Pn	21 34 12.1	+2.7
	0.2nm,0.3s,baz=233,slow=13,SNR=6.7						
PDAR				Pg	Pg	21 34 21.1	-3.9
	0.5nm,0.3s,baz=239,slow=13,SNR=15						
PDAR				Lg		21 35 16.6	
	0.4nm,0.3s,baz=303,slow=44,SNR=4.4						
T14A	Hurricane	4.36	161	⇑P	Pn	21 34 11.2	+0.5
	baz=4.4,SNR=5.3						
YMR	Madison River	4.50	38	ePg	Pg	21 34 24.9	-4.7
LRM	Limekiln Ridge	4.94	20	ePg	Pg	21 34 37.4	-0.7
LRM				eSg	Sg	21 35 40.4	-1.7
YKA	Yellowknife Ar	21.33	0	P	P	21 37 51.9	+0.5
	0.3nm,0.7s,baz=180,slow=9.9,SNR=8.1						

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*DDA **22** 21:34:11.6, 38°.55N×37°.80E, h7km±80km, Md2.8*

*ISK **22** 21:34:15.9, 37°.84N×36°.19E, h2km, MD2.8*

*ISCJB **22** 21:34:16.9±0.5, 37°.86N±0°.03×36°.14E±0°.04, h10km, Error ellipse: s-maj=4.9km s-min=4.3km az=175.9*

*CSEM **22** 21:34:16.6±0.3, 37°.84N×36°.17E, h2km, MD2.8, Error ellipse: s-maj=6.8km s-min=6.0km az=86.0*

ISC 22 21:34:17.2±0.6**, 37°.86N**±0°.03×**36°.15E**±0°.04**, h1km**±9km**, n24, σ0ˢ.87**/32**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOZT	Kozan	0.46	214	ePG	Pg	21 34 25.8	-0.1
KOZT				eSG	Sg	21 34 32.9	+1.1
KMRS	Kahramanmaras	0.69	120	ePG	Pg	21 34 29.3	-1.2
KMRS				eSG	Sg	21 34 39.3	-0.2
KMRS	Kahramanmaras	0.69	120	ePg	Pg	21 34 29.3	-1.2
KMRS				eSg	Sg	21 34 39.3	-0.2
PINB	Pinarbasi	0.84	14	iP	Pg	21 34 31.8	-1.4
PINB				iS	Sg	21 34 44.6	+0.4
PINB	Pinarbasi	0.84	14	iP	Pg	21 34 31.8	-1.5
PINB				iS	Sg	21 34 44.6	+0.4
SARI	SarD1z-Kayseri	0.93	28	ePG	Px	21 34 28.0	
SARI	SarD1z-Kayseri	0.93	28	ePg	Px	21 34 28.0	
BNN	Bunyan	1.02	347	ePG	Pg	21 34 37.1	+0.4
BNN	Bunyan	1.02	347	ePg	Pg	21 34 37.1	+0.4
KARA	Karaisali	1.05	236	ePG	Pg	21 34 37.4	0.0
KARA	Karaisali	1.05	236	ePg	Pg	21 34 37.4	0.0
GAZ	Gaziantep	1.09	129	ePG	Pg	21 34 37.3	-0.8
GAZ	Gaziantep	1.09	129	ePg	Pg	21 34 37.3	-0.8
GZT	Gaziantep	1.23	114	iP	Pg	21 34 40.6	-0.2
GZT				iS	Sg	21 34 57.0	+0.2
NIG	Nigde	1.24	282	ePN	Pn	21 34 41.4	-0.2
NIG	Nigde	1.24	282	ePn	Pn	21 34 41.4	-0.2
KUZU	Kuzuini	1.31	145	iP	Pg	21 34 39.1	-3.2
KUZU				iS	Sg	21 35 00.4	+1.0
KUZU	Kuzuini	1.31	145	iP	Pg	21 34 39.1	-3.2
KUZU				iS	Sg	21 35 00.4	+1.1
AKCD	Akcadag	1.47	72	iP	Pn	21 34 44.4	-0.4
AKCD				iS	Sg	21 35 06.0	+1.7
AKCD	Akcadag	1.47	72	iP	Pn	21 34 44.4	-0.4
AKCD				iS	Sg	21 35 06.0	+1.7
MALT	Malatya	1.85	75	ePN	Pn	21 34 50.0	-0.1
MALT	Malatya	1.85	75	ePn	Pn	21 34 50.0	-0.1
SVSK	Karacayir	2.16	18	ePN	Pn	21 34 55.0	+0.8
SVSK	Karacayir	2.16	18	ePn	Pn	21 34 55.0	+0.7

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*NEIC **22** 21:35:06.2, 31°.46S×69°.53W, h153km, MD3.3(GUC), After GUC.*

GUC 22 21:35:06.2±0.6**, 31°.46S×69°.53W, h153km**±11km**, MD3.3, ML3.5, 6D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	Combarbala	1.29	283	⇓iP	Pn	21 35 33.2	-0.6
CMCH				iS	Sn	21 35 54.7	-0.1
CMCH	Combarbala	1.29	283	⇓iP	Pn	21 35 33.2	-0.6
CMCH				iS	Sn	21 35 54.7	-0.1
OVCH	Ovalle	1.67	300	eP	Pn	21 35 38.0	+0.3
OVCH				iS	Sn	21 36 01.9	+0.1
OVCH	Ovalle	1.67	300	eP	Pn	21 35 38.0	+0.3
OVCH				iS	Sn	21 36 01.9	+0.1
OVCH				AML	AML	21 36 02.8	
	comp=N,472nm,0.3s						
CHNG	Los Chungos	1.73	255	eP	Pn	21 35 38.9	+0.6
CHNG				iS	Sn	21 36 03.4	+0.3
PEL	Peldehue	1.94	210	⇓iP	Pn	21 35 41.2	+0.5
PEL				iS	Sn	21 36 07.9	+0.5
PEL				AML	AML	21 36 10.0	
	comp=E,451nm,0.3s						
FCH	Farellones	1.97	199	⇓iP	Pn	21 35 42.6	+1.5
FCH				iS	Sn	21 36 09.7	+1.7
FCH				AML	AML	21 36 15.8	
	comp=E,218nm,0.5s						
PCH	Pirque	2.31	201	iP	Pn	21 35 45.8	+0.8
PCH				iS	Sn	21 36 15.7	+0.6
PCH	Pirque	2.31	201	iP	Pn	21 35 45.8	+0.8
PCH				iS	Sn	21 36 15.7	+0.6
TACH	Talagante	2.48	208	⇓iP	Pn	21 35 47.5	+0.3
TACH				iS	Sn	21 36 19.1	+0.2
TACH	Talagante	2.48	208	⇓iP	Pn	21 35 47.5	+0.3
TACH				iS	Sn	21 36 19.1	+0.2
LCO	Las Campanas	2.64	337	ePn	Pn	21 35 49.4	+0.1
LCO				eSn	Sn	21 36 19.4	-3.0

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*IDC **22** 21:46:41.2±1.3, 31°.44N×139°.70E, h0km, mb3.5/3, mb1 3.7/5, mb1mx3.5/22, mbtmp3.6/5, ML3.3/1, Error ellipse: s-maj=53.9km s-min=18.4km az=81.0*

*ISCJB **22** 21:46:44.4±0.8, 31°.87N±0°.06×140°.9E±0°.2, h73km±12km, mb3.6/3, Error ellipse: s-maj=22.4km s-min=7.7km az=163.8*

*NEIC **22** 21:46:47.5, 32°.07N×140°.78E, h29km, MG3.8(JMA), After JMA.*

*JMA **22** 21:46:47.5±0.2, 32°.07N×140°.78E, h29km, M3.8*

ISC 22 21:46:45.3±0.7**, 31°.85N**±0°.06×**140°.9E**±0°.2**, h62km**±12km**, n18, σ1ˢ.49**/28**, mb3.6**/3**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	1.58	323	P	Pn	21 47 10.4	-0.7
JHJ2				S	Sn	21 47 27.8	-2.7
JHJ2	Mitsune	1.58	323	ePn	Pn	21 47 10.8	-0.2
JHJ2				eSn	Sn	21 47 23.0	-7.5
JHJ	Hachijo jima 2	1.60	323	Pn	Pn	21 47 10.7	-0.7
	23nm,0.3s,baz=76,slow=22,SNR=52						
JHJ				Sn	Sn	21 47 27.1	-3.9
	182nm,0.3s,baz=251,slow=22,SNR=32						
JKO	Kozu shima	2.78	328	P	Pn	21 47 28.3	+0.9
BSO1	Boso 1	2.80	1	P	Pn	21 47 28.0	+0.3
BSO2	Boso 2	2.90	357	eS	Sn	21 48 01.5	-1.3
BSO3	Boso 3	2.97	353	P	Pn	21 47 30.7	+0.7
BSO3				S	Sn	21 48 02.1	-2.3
JOD2	Odawara 2	3.74	336	P	Pn	21 47 41.5	+1.0
JOD2				eS	Sn	21 48 21.1	-2.2
JYN	Shimob	4.15	332	P	Pn	21 47 48.5	+2.3
JRY	Ryogami san	4.49	338	P	Pn	21 47 53.4	+2.6
CBIJ	Chichi jima	4.86	167	Pn	Pn	21 47 56.6	+0.8
	2.8nm,0.3s,baz=334,slow=18,SNR=3.3						
CBIJ				Sn	Sn	21 48 48.6	-2.2
	5.6nm,0.3s,baz=306,slow=21,SNR=2.7						
CBIJ	Chichi jima	4.86	167	Pn	Pn	21 47 55.9	0.0
CBIJ				eSn	Sn	21 48 49.2	-1.6
MJAR	Matsushiro Arr	5.20	335	Pn	Pn	21 48 02.5	+1.9
	1.0nm,0.3s,baz=160,slow=13,SNR=8.4						
MJAR				Sn	Sn	21 48 58.9	-0.2
	0.5nm,0.3s,baz=141,slow=21,SNR=5.9						
MAJO	Matsushiro	5.20	335	ePn	Pn	21 48 02.4	+1.8
MAJO				eSn	Sn	21 48 57.8	-1.4
MAT	Matsushiro	5.20	335	P	Pn	21 48 03.8	+3.3
MAT				S	Sn	21 49 01.8	+2.6
MKAR	Makanchi Array	46.70	306	P	P	21 55 07.2	-0.7
	0.2nm,0.4s,mb3.4,baz=86,slow=8.7,SNR=7.8						
WRA	Warramunga Arr	51.88	188	P	P	21 55 46.9	-0.6
	0.5nm,0.3s,mb3.9,baz=2.3,slow=7.7,SNR=26						
ASAR	Alice Springs	55.61	188	P	P	21 56 15.0	+0.3
	0.3nm,0.5s,mb3.6,baz=2.1,slow=7.4,SNR=4.9						

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*NEIC **22** 21:51:01.8, 36°.22N×21°.66E, h9km, ML3.5(ATH), After*

ATH.

ATH ***22*** *21:51:01.8, 36°.22N×21°.66E, h9^{km}±4^{km}, MD3.9/7, ML3.5*

ISCJB ***22*** *21:51:03.1±0.6, 36°.28N±0°.04×21°.66E±0°.04, h10^{km}, Error ellipse: s-maj=6.6km s-min=3.9km az=38.5*

CSEM ***22*** *21:51:04.1±0.3, 36°.34N×21°.76E, h2^{km}, ML4.1/2, Error ellipse: s-maj=7.9km s-min=4.5km az=41.0*

THE ***22*** *21:51:06.9, 36°.50N×21°.80E, h0^{km}±4^{km}, ML4.1/2, Error ellipse: s-maj=6.6km s-min=2.6km az=192.0*

ISC 22 21:51:04.8±0.6**, 36°.31N**±0°.04×**21°.74E**±0°.04**, h10^{km}, n80, σ1^{s}03**/98**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.58	360	P	Pg	21 51 14.7	-1.4
PYL				S	Sg	21 51 20.0	-3.7
PYL	PYLOS	0.58	360	*e*PB	Pg	21 51 14.7	-1.4
PYL	PYLOS	0.58	360	*e*Pb	Pg	21 51 14.7	-1.4
PYL				S	Sg	21 51 20.0	-3.7
ITM	Ithomi	0.88	10	*e*PB	Pg	21 51 20.3	-1.4
ITM				*e*SB	Sg	21 51 34.2	+1.0
ITM	Ithomi	0.88	10	*e*Pb	Pg	21 51 20.3	-1.4
ITM				*e*Sb	Sg	21 51 34.2	+1.0
ITM	Ithomi	0.88	10	*e*Pb	Pg	21 51 20.3	-1.4
ITM				*e*Sb	Sg	21 51 34.2	+1.0
VLI	Veliai	1.04	67	*e*PB	Pg	21 51 23.4	-1.5
VLI	Veliai	1.04	67	*e*Pb	Pg	21 51 23.4	-1.5
KYTH	Kithira	1.04	91	*e*PN	Pg	21 51 23.1	-1.8
KYTH	Kithira	1.04	91	*e*Pn	Pg	21 51 23.1	-1.8
VLX	Vlachokerasia	1.17	26	*e*PN	Pn	21 51 25.3	-2.0
VLX	Vlachokerasia	1.17	26	*e*Pn	Pn	21 51 25.3	-2.0
GUR	Goura	1.69	16	*e*PN	Pn	21 51 35.0	+0.6
GUR	Goura	1.69	16	*e*Pn	Pn	21 51 35.0	+0.6
RLS	Riolos of Patr	1.75	353	*e*PG	Pn	21 51 36.2	+0.9
RLS	Riolos of Patr	1.75	353	*e*Pg	Pn	21 51 36.2	+0.9
LAKA	Lakka	1.93	5	P	Pn	21 51 39.0	+1.3
LAKA				S	Sn	21 52 02.8	+0.7
LAKA	Lakka	1.93	5	P	Pn	21 51 39.0	+1.3
LAKA				S	Sn	21 52 02.8	+0.7
LTK	Loutraki	1.97	29	P	Pn	21 51 38.4	+0.2
LTK	Loutraki	1.97	29	P	Pn	21 51 38.4	+0.2
KARN	Karanos	1.99	117	P	Pn	21 51 38.8	+0.3
KARN				S	Sn	21 52 04.6	+1.2
KARN	Karanos	1.99	117	P	Pn	21 51 38.8	+0.3
KARN				S	Sn	21 52 04.6	+1.2
NAIG	Nisos Aigina	2.01	44	*e*PN	Pn	21 51 39.5	+0.7
NAIG	Nisos Aigina	2.01	44	*e*Pn	Pn	21 51 39.5	+0.7
TRIZ	Trizonia	2.06	7	P	Pn	21 51 40.9	+1.4
TRIZ	Trizonia	2.06	7	P	Pn	21 51 40.9	+1.4
VLS	Valsamata	2.08	334	P	Pn	21 51 39.3	-0.4
VLS				S	Sn	21 52 06.7	+1.1
VLS	Valsamata	2.08	334	P	Pn	21 51 39.3	-0.4
VLS				S	Sn	21 52 06.7	+1.1
KALE	Kalithea	2.10	9	P	Pn	21 51 41.0	+1.0
KALE	Kalithea	2.10	9	P	Pn	21 51 41.0	+1.0
ATH	Athens Observa	2.29	43	*e*PG	Pg	21 51 46.0	-2.6
ATH	Athens Observa	2.29	43	*e*Pg	Pg	21 51 46.0	-2.6
ATHU	Athens Univers	2.32	44	P	Pn	21 51 43.2	+0.2
ATHU	Athens Univers	2.32	44	P	Pn	21 51 43.2	+0.2
PTL	Penteli	2.42	44	*e*PB	Pn	21 51 44.4	-0.1
PTL	Penteli	2.42	44	*e*Pb	Pn	21 51 44.4	-0.1
LKR	Lokris	2.54	23	P	Pn	21 51 45.5	-0.5
LKR	Lokris	2.54	23	P	Pn	21 51 45.5	-0.5
AGG	Agios Georgios	2.74	10	P	Pn	21 51 49.6	+0.7
AGG				S	Sn	21 52 20.7	-1.4
AGG	Agios Georgios	2.74	10	P	Pn	21 51 49.6	+0.7
AGG				S	Sn	21 52 20.7	-1.4
IDI	Anoyia	2.75	111	P	Pn	21 51 49.7	+0.7
IDI	Anoyia	2.75	111	P	Pn	21 51 49.7	+0.7
LAST	Lasithi	3.25	110	P	Pn	21 51 55.4	-0.4
LAST	Lasithi	3.25	110	P	Pn	21 51 55.4	-0.4
THL	Klokotos Trika	3.25	4	P	Pn	21 51 56.3	+0.4
THL	Klokotos Trika	3.25	4	P	Pn	21 51 56.3	+0.4
XOR	Xorichti	3.25	20	P	Pn	21 51 55.2	-0.7
XOR	Xorichti	3.25	20	P	Pn	21 51 55.2	-0.7
AOS	Alonnisos	3.32	30	P	Pn	21 51 57.7	+0.9
AOS	Alonnisos	3.32	30	P	Pn	21 51 57.7	+0.9
IGT	Igoumenitsa	3.40	341	P	Pn	21 51 57.9	0.0
IGT	Igoumenitsa	3.40	341	P	Pn	21 51 57.9	0.0
MEV	Metsovon	3.49	353	P	Pn	21 52 00.8	+1.7
MEV	Metsovon	3.49	353	P	Pn	21 52 00.8	+1.7
LIT	Litokhoron	3.83	9	P	Pn	21 52 04.3	+0.5
LIT	Litokhoron	3.83	9	P	Pn	21 52 04.3	+0.5
ZKR	Zakros	3.83	107	P	Pn	21 52 03.9	+0.1
ZKR	Zakros	3.83	107	P	Pn	21 52 03.9	+0.1
CHOS	Chios island	4.01	58	P	Pn	21 52 05.4	-0.9
CHOS	Chios island	4.01	58	P	Pn	21 52 05.4	-0.9
SMG	Samos	4.31	70	P	Pn	21 52 11.4	+1.0
SMG	Samos	4.31	70	P	Pn	21 52 11.4	+1.0
HORT	Hortiatis	4.41	14	P	Pn	21 52 12.3	+0.6
HORT	Hortiatis	4.41	14	P	Pn	21 52 12.3	+0.6
FNA	Florina	4.47	356	P	Pn	21 52 12.6	0.0
FNA	Florina	4.47	356	P	Pn	21 52 12.6	0.0
GRG	Griva	4.66	6	P	Pn	21 52 14.9	-0.4
GRG	Griva	4.66	6	P	Pn	21 52 14.9	-0.4
TIP	Timpagrande	4.88	307	*e*Pn	Pn	21 52 17.2	-1.0
TIP				*e*Sn	Sn	21 53 12.5	-2.2
TIP	Timpagrande	4.88	307	*e*Pn	Pn	21 52 17.2	-1.0
TIP				*e*Sn	Sn	21 53 12.5	-2.2
KNT	Kendrikon	4.92	10	P	Pn	21 52 18.7	-0.1
KNT	Kendrikon	4.92	10	P	Pn	21 52 18.7	-0.1
SRS	Serrai	5.01	16	P	Pn	21 52 20.2	+0.2
SRS	Serrai	5.01	16	P	Pn	21 52 20.2	+0.2
CEL	Celeste	5.05	294	*e*Pn	Pn	21 52 17.2	-3.4
	18nm,0.6s						
CEL				*e*Sn	Sn	21 53 12.1	-6.9
CEL	Celeste	5.05	294	*e*Pn	Pn	21 52 17.2	-3.4
	18nm,0.6s						
CUC	Castrocucco	5.94	310	*e*Pn	Pn	21 52 33.3	+0.4
	12nm,0.6s						
CUC				*e*Sn	Sn	21 53 42.2	+1.3
CUC	Castrocucco	5.94	310	*e*Pn	Pn	21 52 33.3	+0.5
	12nm,0.6s						
CUC				*e*Sn	Sn	21 53 42.2	+1.3
SG1	Sgolgore (BA)	6.01	320	*e*Pn	Pn	21 52 33.7	-0.1
BAI	Bari	6.11	323	*e*Pn	Pn	21 52 34.3	-0.9

NEIC ***22*** *22:01:27.8, 32°.42N×115°.30W, h0^{km}, MD3.1(ECX), ML3.1(PAS), After ECX.*

ECX 22 22:01:23.8±0.2**, 32°.33N**×**115°.31W, h7^{km}, MD3.1, ML3.2, 4C-8D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.09	1	⇓*e*P	Pg	22 01 27.5	+1.5
CPBX				*e*S	Sg	22 01 30.1	+2.8
CPBX	Cerro Prieto	0.09	1	⇓*e*P	Pg	22 01 27.5	+1.5
CPBX				*e*S	Sg	22 01 27.8	+0.4
SGL	Mount Signal	0.48	312	⇓*i*P	Pg	22 01 34.9	+1.9
SNR	Schaffner Ranc	0.54	348	*e*P	Pg	22 01 36.2	+1.9
COA	Coachella	0.56	16	⇓*i*P	Pg	22 01 36.3	+1.7
YUH	Yuha Desert	0.61	302	*e*P	Pg	22 01 37.4	+1.8
COK	Cook Ranch	0.63	326	⇓*i*P	Pg	22 01 37.5	+1.5
RDX	Rancho Dawling	0.67	234	⇑*e*P	Pg	22 01 41.2	+4.5
RDX				*e*S	Sg	22 01 51.1	+5.6
RDX				⇓*e*		22 01 53.0	
	comp=N,1µm,0.3s						
RDX	Rancho Dawling	0.67	234	*e*P	Pg	22 01 41.2	+4.5
RDX				*e*S	Sg	22 01 51.1	+5.7
YMD	Yuma Desert	0.68	70	*e*P	Pg	22 01 39.0	+2.1
RMX	La Rumorosa	0.71	293	⇓*e*P	Pg	22 01 39.8	+2.3
RMX				*e*S	Sg	22 01 49.1	+2.4
GLA	Glamis	0.83	29	*e*Pg	Pg	22 01 40.2	+0.5
GLA				*e*Sg	Sg	22 01 50.0	-0.4
CBX	Cerro Bola	1.15	270	⇑*e*PN	Pn	22 01 48.3	+2.0
BAR	Barrett	1.21	287	*e*Pg	Pg	22 01 48.5	+1.6
BAR				*e*Sg	Sg	22 02 03.8	+1.1
ECNX	Esteban Cantu	1.28	239	*e*PN	Pn	22 01 51.1	+3.0
ECNX				*e*PN	Pn	22 01 49.3	+1.1
SPX	San Pedro Mart	1.29	186	*e*PN	Pn	22 01 51.2	+3.0
SPX				⇑*e*		22 02 14.6	
	comp=E,325nm,0.4s						
SPX				⇓*e*		22 02 15.8	
	comp=N,270nm,0.5s						
PBX	Punta Banda	1.34	245	*e*PN	Pn	22 01 51.8	+2.9
PBX	Punta Banda	1.34	245	⇑*e*P	Pn	22 01 52.7	+3.8
PBX				*e*S	Sb	22 02 11.1	+4.5
PFO	Pinyon Flat Ob	1.60	323	*e*Pn	Pn	22 01 51.5	-1.0
LDFC	Landfair	2.75	3	*e*Pg	Pg	22 02 16.9	+0.5
GSC	Goldstone	3.22	338	*e*Pg	Pg	22 02 28.9	+3.5
TUC	Tucson	3.83	89	*e*Pg	Pg	22 02 42.1	+5.0
ISA	Isabella	4.24	323	*e*Pg	Pg	22 02 47.8	+2.8
WUAZ	Wupatki	4.56	45	*e*Pg	Pg	22 02 44.5	-6.6
CCUT	Cedar City	5.45	16	*e*Pg	Pg	22 02 58.3	-10
ARUT	Antelope Range	5.66	15	*e*Pg	Pg	22 03 11.4	-0.7
	comp=N,7.1nm,0.6s						

ISCJB ***22*** *22:06:59.6±0.5, 43°.77N±0°.05×105°.23W±0°.07, h0^{km}, Error ellipse: s-maj=7.2km s-min=7.0km az=21.7*

IDC ***22*** *22:06:59.4±2.0, 43°.59N×105°.41W, h0^{km}, mb1 3.7/3, mb1mx3.5/23, mbtmp3.5/3, ML3.5/3, Error ellipse: s-maj=47.8km s-min=8.1km az=151.0*

NEIC ***22*** *22:07:00.8±0.4, 43°.76N×105°.26W, h0^{km}, ML2.9, Error ellipse: s-maj=6.2km s-min=5.8km az=155.0, Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

ISC 22 22:07:00.6±0.5**, 43°.70N**±0°.04×**105°.28W**±0°.06**, h0^{km}, n18, σ1^{s}25**/22**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.99	64	*e*Pg	Pg	22 07 20.1	+0.4
PHWY	Pilot Hill	2.40	183	*e*Pn	Pn	22 07 42.0	+0.9
PHWY				*e*Sg	Sg	22 08 15.6	-2.0
RWWY	Rawlins	2.46	216	*e*Pn	Pn	22 07 43.7	+1.7
RWWY				*e*Sg	Sg	22 08 17.0	-2.7
LAO	LASA Array	3.06	348	*e*Pn	Pn	22 07 49.9	-0.3
RLMT	Red Lodge	3.19	298	*e*Pn	Pn	22 07 52.9	+0.9
PDAR	Pinedale Array	3.26	255	Pn	Pn	22 07 53.7	+0.7
	4.7nm,0.3s,baz=70,slow=16,SNR=68						
PDAR				Pg	Pg	22 07 59.5	-3.6
	10nm,0.3s,baz=77,slow=18,SNR=54						
PDAR				Lg		22 08 37.3	
	8.4nm,0.3s,baz=76,slow=33,SNR=6.6						
OGNE	Ogallala	3.66	138	*e*Pn	Pn	22 07 59.5	+1.1
GCMT	Greycliff	3.76	305	*e*Pn	Pn	22 08 00.2	+0.4
ISCO	Idaho Springs	3.90	184	*e*Pn	Pn	22 08 03.0	+1.2
IMW	Indian Meadow	4.10	275	Pn	Pn	22 08 05.6	+1.1
IMW				*e*Pg	Pg	22 08 15.6	-3.6
TPAW	Teton Pass	4.12	269	*e*Pn	Pn	22 08 06.5	+1.7
DGMT	Dagmar	4.83	9	*e*Pn	Pn	22 08 13.9	-0.7
EGMT	Eagleton	5.33	326	*e*Pn	Pn	22 08 21.0	-0.4
	9.0nm,0.3s						
SRU	San Rafael	6.04	222	*e*Pn	Pn	22 08 30.6	-0.6
	9.1nm,0.3s						
ECSD	EROS Data Cent	6.28	87	*e*Pn	Pn	22 08 34.1	-0.3
	3.2nm,0.3s						
YBMT	Yellow Bay	7.39	307	*e*Pn	Pn	22 08 47.6	-2.0
	4.6nm,0.3s						
ULM	Lac du Bonnet	9.18	41	Pn	Pn	22 09 12.5	-1.7
	2.8nm,0.3s,baz=230,slow=11,SNR=15						
ULM				Lg		22 11 44.5	
	0.2nm,0.3s,baz=134,slow=20,SNR=1.8						
YKA	Yellowknife Ar	19.60	347	P	Pn	22 11 31.3	0.0
	0.1nm,0.3s,baz=154,slow=11,SNR=6.5						

CSEM ***22*** *22:11:35.8, 42°.58N×45°.72E, h9^{km}, mb3.9, After OBN*

MOS ***22*** *22:11:35.8±2.5, 42°.58N×45°.72E, h9^{km}, mb3.9/1, Error ellipse: s-maj=13.6km s-min=9.5km az=27.6*

ISCJB ***22*** *22:11:36.7±0.7, 42°.64N±0°.03×45°.63E±0°.04, h12^{km}±5^{km}, Error ellipse: s-maj=5.3km s-min=4.8km az=16.9*

ISC 22 22:11:38.8±0.7**, 42°.64N**±0°.04×**45°.57E**±0°.05**, h24^{km}**±7^{km}**, n27, σ0^{s}94**/44**, 3C-4D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTLR	Botlikh	0.48	87	*e*PG	Pb	22 11 49.2	+0.6
BTLR				pmax	pmax		
	comp=Z,53nm,0.2s						
BTLR	Botlikh	0.48	87	*e*Pg	Pb	22 11 49.2	+0.6
	comp=Z,53nm,0.2s						
SNJR	Sundja	0.70	308	⇑*i*PG	Pb	22 11 51.7	-0.6
SNJR				*e*S	Sb	22 12 00.9	-0.7
SNJR	Sundja	0.70	308	*i* Pg	Pb	22 11 51.7	-0.6
SNJR				*e*Sg	Sb	22 12 00.9	-0.7
DBC	Dubki	1.00	67	*i* PG	Pn	22 11 52.0	-5.3
DBC				*e*S	Sb	22 12 10.5	+0.4
DBC	Dubki	1.00	67	*i* Pg	Pn	22 11 52.0	-5.3
DBC				*e*Sg	Sb	22 12 10.5	+0.4
KRNR	Karanay	1.00	79	⇓*i*PG	Pn	22 11 50.0	-7.3
KRNR				*e*S	Sb	22 12 06.3	-3.9
KRNR				pmax	pmax		
	comp=Z,57nm,0.2s						
KRNR	Karanay	1.00	79	*i* Pg	Pn	22 11 50.0	-7.3
	comp=Z,57nm,0.2s						
KRNR				*e*Sg	Sb	22 12 06.3	-3.9
BTKR	Batakoyurt	1.05	314	*e*PG	Pn	22 11 58.5	+0.6
BTKR				*i* S	Sb	22 12 12.6	+1.1
BTKR	Batakoyurt	1.05	314	*e*Pg	Pn	22 11 58.5	+0.6
BTKR				*i* Sg	Sb	22 12 12.6	+1.1
ARNR	Ardon	1.09	300	⇓*i*PG	Pn	22 11 58.3	-0.2
ARNR				*i* S	Sb	22 12 12.1	-0.7
ARNR	Ardon	1.09	300	*i* Pg	Pn	22 11 58.3	-0.2
ARNR				*i* Sg	Sb	22 12 12.1	-0.7
TBLG	Delisi	1.10	214	P	Pn	22 11 58.3	-0.3
TBLG				S	Sb	22 12 13.7	+0.6
TBLG	Delisi	1.10	214	Pg	Pn	22 11 58.3	-0.3
TBLG				Sg	Sb	22 12 13.7	+0.7
MTA	Mtatsminda	1.11	212	P	Pn	22 11 59.1	+0.3
MTA				S	Sb	22 12 14.0	+0.7
ZEI	Tsey	1.24	276	⇑*i*PG	Pn	22 11 58.5	-2.0
ZEI	Tsey	1.24	276	*i* Pg	Pn	22 11 58.5	-2.0
TRKR	Terskaya	1.24	331	⇑*i*PG	Pn	22 12 02.9	+2.3
TRKR				*i* S	Sn	22 12 20.7	+4.2
TRKR	Terskaya	1.24	331	*i* Pg	Pn	22 12 02.9	+2.3
TRKR				*i* Sg	Sn	22 12 20.7	+4.2
GOR	Gori	1.27	239	P	Pn	22 12 00.0	-0.9
GOR				S	Sn	22 12 16.6	-0.5
LSNR	Lesken	1.43	297	⇓*i*PG	Pn	22 12 03.6	+0.4
LSNR	Lesken	1.43	297	*i* Pg	Pn	22 12 03.6	+0.4
DIGR	Digorskoe uzhe	1.49	281	⇓*i*PG	Pn	22 12 03.1	-0.8
DIGR	Digorskoe uzhe	1.49	281	*i* Pg	Pn	22 12 03.1	-0.8
ONI	Oni	1.57	268	P	Pn	22 12 05.2	+0.2
ONI				S	Sn	22 12 25.1	+0.6
KIV	Kislovodsk	2.48	303	*e*PN	Pn	22 12 21.2	+3.6
KIV				pmax	pmax		
	comp=Z,3.0nm,0.5s						
KIV	Kislovodsk	2.48	303	*e*Pn	Pn	22 12 21.2	+3.6
	comp=Z,3.0nm,0.5s						

IDC 22 22:16:26.3±2.3**, 1°.18N**×**126°.73E, h0^{km}, mb3.1**/3**, mb1 3.4**/3**, mb1mx3.3**/17**, mbtmp3.2**/3**, Error ellipse: s-maj=195.4km s-min=26.9km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.28	161	P	P	22 21 24.0	-1.2
	0.4nm,0.5s,baz=339,slow=11,SNR=8.3						
ASAR	Alice Springs	25.66	165	P	P	22 21 59.0	+1.1
	0.3nm,0.3s,baz=345,slow=11,SNR=6.5						
MKAR	Makanchi Array	59.65	326	P	P	22 26 32.3	0.0
	0.1nm,0.6s,baz=134,slow=7.4,SNR=4.3						

ISCJB ***22*** *23:24:02.3±0.1, 41°.09N±0°.01×114°.88W±0°.01, h0^{km}, Error ellipse: s-maj=1.6km s-min=1.4km az=152.5*

NEIC ***22*** *23:24:03.9, 41°.11N×114°.91W, h10^{km}, ML3.2, After REN.*

IDC ***22*** *23:24:03.2±0.9, 41°.17N×114°.96W, h0^{km}, mb3.3/1, mb1 3.8/3, mb1mx3.5/21, mbtmp3.4/3, ML3.6/2, Error ellipse: s-maj=18.0km s-min=4.6km az=132.0*

ISC 22 23:24:03.0±0.1**, 41°.10N**±0°.01×**114°.89W**±0°.01**, h0^{km}, n147, σ1^{s}04**/216**, 43C-55D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.27	204	⇓P	Pg	23 24 09.6	+1.4
	baz=0.3,SNR=114						
N12A				⇑S	Sg	23 24 13.8	+2.1
	baz=0.3						
N12A	Clover Valley,	0.27	204	*e*Pg	Pg	23 24 09.3	+1.1
N12A				*e*Sg	Sg	23 24 13.5	+1.8
ELK	Elko	0.44	217	Pg	Pg	23 24 12.1	+0.7
	67nm,0.3s,baz=19,slow=16,SNR=113						
ELK				Lg		23 24 18.3	
	290nm,0.3s,baz=126,slow=19,SNR=76						
ELK	Elko	0.44	217	*e*Pg	Pg	23 24 12.2	+0.8
ELK				*e*Sg	Sg	23 24 18.1	+0.9
N13A	Wendover, West	0.57	115	P	Pg	23 24 15.3	+1.2
	baz=0.6,SNR=141						
N13A				⇑S	Sg	23 24 23.0	+1.5
	baz=0.6						
N13A	Wendover, West	0.57	115	*e*Pg	Pg	23 24 15.2	+1.1
N13A				*e*Sg	Sg	23 24 22.6	+1.2
M13A	Montello	0.61	64	⇑P	Pg	23 24 15.5	+0.8
	baz=0.6,SNR=29						
M13A	Montello	0.61	64	*e*Pg	Pg	23 24 14.9	+0.2
M13A				*e*Sg	Sg	23 24 22.8	+0.2
N11A	Elko Archery C	0.70	246	⇑P	Pg	23 24 17.2	+0.8
	baz=0.7,SNR=76						
N11A				⇑S	Sg	23 24 26.4	+1.0
	baz=0.7						
M11A	Holland Ranch,	0.75	296	⇓P	Pg	23 24 17.6	+0.2
	baz=0.7,SNR=98						
M11A				⇓S	Sg	23 24 27.6	+0.3
	baz=0.7						
O12A	Currie	0.84	172	⇑P	Pg	23 24 19.9	+0.8
	baz=0.8,SNR=203						
O12A				⇑S	Sg	23 24 31.7	+1.7
	baz=0.8						
L12A	House Creek Ra	1.05	355	⇓P	Pg	23 24 22.9	-0.2
	baz=1.0,SNR=43						
L12A				⇑S	Sg	23 24 36.5	-0.3
	baz=1.0						
O11A	Cowboy Ranch,	1.13	211	⇑P	Pg	23 24 25.1	+0.5
	baz=1.1,SNR=109						
O11A				⇓S	Sg	23 24 40.3	+1.1
	baz=1.1						
O13A	Hicks Ranch, I	1.19	144	P	Pg	23 24 26.2	+0.4
	baz=1.2,SNR=333						
O13A				⇓S	Sg	23 24 43.3	+2.1
	baz=1.2						
L13A	Double Diamond	1.22	35	⇑P	Pg	23 24 25.5	-0.9
	baz=1.2,SNR=50						
L13A				⇑S	Sg	23 24 42.1	-0.1
	baz=1.2						
M14A	Sheep Mountain	1.23	70	P	Pg	23 24 26.3	-0.3
	baz=1.2,SNR=61						
M14A				⇓S	Sg	23 24 43.2	+0.6
	baz=1.2						
L11A	Cat Creek Ranc	1.25	329	P	Pg	23 24 26.1	-0.8
	baz=1.2,SNR=192						
L11A				⇑S	Sg	23 24 42.6	-0.5
	baz=1.2						
N10A	Dunphy	1.28	253	⇓P	Pg	23 24 26.6	-1.0
	baz=1.3,SNR=58						
N10A				⇑S	Sg	23 24 44.6	+0.5
	baz=1.3						
M10A	I.L. Ranch, Tu	1.31	289	P	Pg	23 24 27.6	-0.6
	baz=1.3,SNR=207						
M10A				⇑S	Sg	23 24 45.3	+0.2
	baz=1.3						
N14A	Grayback Hills	1.32	100	⇓P	Pg	23 24 27.2	-1.0
	baz=1.3,SNR=53						
N14A				⇑S	Sg	23 24 46.1	+0.9
	baz=1.3						
BGU	Big Grassy Mou	1.42	96	*e*Pn	Pn	23 24 29.0	-1.1
BGU				*e*Sn	Sn	23 24 49.2	-0.2
O10A	Cortez Mining,	1.46	237	⇑P	Pn	23 24 29.8	-0.9
	baz=1.5,SNR=94						
O10A				⇓S	Sg	23 24 50.5	+0.4
	baz=1.5						
L10A	Juniper Basin	1.54	310	⇓P	Pn	23 24 30.6	-1.0
	baz=1.5,SNR=548						
L10A				⇓S	Sn	23 24 51.3	-1.0
	baz=1.5						
K12A	Draper Farm, C	1.54	360	⇓P	Pn	23 24 30.4	-1.3
	baz=1.5,SNR=87						
K12A				⇓S	Sn	23 24 50.8	-1.5
	baz=1.5						
L14A	Malta	1.55	52	⇓P	Pn	23 24 31.0	-0.9
	baz=1.6,SNR=23						
L14A				⇑S	Sn	23 24 52.2	-0.6
	baz=1.6						
K13A	Stover Farm, H	1.66	21	⇑P	Pn	23 24 32.9	-0.5
	baz=1.7,SNR=34						
K13A				⇓S	Sn	23 24 54.8	-0.6
	baz=1.7						
P11A	Circle Ranch,	1.68	203	⇓P	Pn	23 24 33.5	-0.1
	baz=1.7,SNR=32						
P11A				⇓S	Sn	23 24 56.2	+0.4
	baz=1.7						
HVU	Hansel Valley	1.73	66	*e*Pn	Pn	23 24 33.7	-0.7
P13A	Bates Ranch, G	1.77	157	⇓P	Pn	23 24 33.9	-1.0
	baz=1.8						
N15A	Stansbury Isla	1.81	96	⇑P	Pn	23 24 34.7	-0.7
	baz=1.8,SNR=56						
DUG	Dugway	1.82	119	⇓P	Pn	23 24 34.3	-1.3
	baz=1.8,SNR=75						
DUG				⇑Sb	Sb	23 25 01.6	+1.0
	baz=1.8						
DUG	Dugway	1.82	119	*e*Pn	Pn	23 24 34.5	-1.1
DUG				*e*Pg	Pg	23 24 39.1	+1.1
DUG				*e*Sg	Sg	23 25 01.4	-0.2
SPUT	South Promonto	1.86	83	*e*Pn	Pn	23 24 36.0	-0.1
SPUT				*e*Sn	Sn	23 24 59.6	-0.6
K11A	Parker Ranch,	1.88	333	⇑P	Pn	23 24 35.9	-0.5
	baz=1.9,SNR=257						
K11A				⇓Sb	Sb	23 25 01.8	-0.3
	baz=1.9						
M15A	Larsen Ranch,	1.88	78	⇑P	Pn	23 24 35.9	-0.5
	baz=1.9,SNR=96						
BMN	Battle Mountai	1.89	250	*e*Pn	Pn	23 24 35.2	-1.3
BMN				*e*Sg	Sg	23 25 02.5	-1.2
P10A	Eureka	1.90	220	⇓P	Pn	23 24 36.5	-0.2
	baz=1.9,SNR=32						
K14A	Jones Ranch, D	1.93	41	⇑P	Pn	23 24 36.7	-0.5
	baz=1.9,SNR=33						
M09A	Marrel Ranch,	1.95	280	⇑P	Pn	23 24 36.4	-1.0
	baz=1.9,SNR=92						
O09A	Fish Creek Ran	1.98	243	⇓P	Pn	23 24 36.9	-0.9
	baz=2.0						
N09A	Rock Creek Ran	2.01	264	⇑P	Pn	23 24 36.7	-1.4
	baz=2.0,SNR=32						
N09A				⇑Sb	Sb	23 25 06.5	+0.6
	baz=2.0						
O15A	The Old Anders	2.02	113	⇑P	Pn	23 24 37.4	-0.9
	baz=2.0						
P14A	Drum Mountains	2.05	137	⇓P	Pn	23 24 37.9	-0.8
	baz=2.1,SNR=60						
Q12A	Willow Creek R	2.06	179	⇓P	Pn	23 24 38.4	-0.4
	baz=2.1						
L15A	Malad City	2.09	64	⇓P	Pn	23 24 38.7	-0.6
	baz=2.1,SNR=32						
NOQ	North Oquirrh	2.15	101	*e*Pg	Pg	23 24 42.2	-2.0
NOQ				*e*Sn	Sn	23 25 04.8	-2.6
J12A	Stokes Ranch,	2.15	356	⇓P	Pn	23 24 40.1	-0.1
	baz=2.1,SNR=191						
K10A	MacKenzie Ranc	2.23	319	⇓P	Pn	23 24 41.1	-0.1
	baz=2.2,SNR=70						
Q13A	Wheeler Ranch,	2.24	162	P	Pn	23 24 40.8	-0.6
	baz=2.3,SNR=89						
L09A	Wilkinson Ranc	2.27	295	⇓P	Pn	23 24 41.9	+0.1
	baz=2.3,SNR=49						
L09A				⇑Sb	Sb	23 25 13.6	0.0
	baz=2.3						
P09A	Austin	2.31	229	⇓P	Pn	23 24 41.1	-1.2
	baz=2.3,SNR=15						
Q11A	Duckwater	2.33	195	⇑P	Pn	23 24 42.2	-0.3
	baz=2.3						
J13A	Cove Ranch, Pi	2.36	13	P	Pn	23 24 43.5	+0.5
	baz=2.4,SNR=272						
J13A				⇓Sb	Sb	23 25 15.2	-0.8
	baz=2.4						
K15A	Arbon	2.37	47	⇓P	Pn	23 24 43.2	+0.1
	baz=2.4,SNR=83						
CTU	Camp Tracy	2.42	99	*e*Pn	Pn	23 24 44.5	+0.8
CTU				*e*Sg	Sg	23 25 21.9	+1.3
MFID	Camas Ranch	2.42	344	⇑P	Pn	23 24 44.4	+0.6
	baz=2.4,SNR=64						
NLU	North Lily Min	2.43	117	*e*Pn	Pn	23 24 43.3	-0.7
NLU				*e*Sn	Sn	23 25 14.0	-0.4
Q14A	Sevier Lake (B	2.45	149	⇓P	Pn	23 24 43.1	-1.1
	baz=2.5,SNR=38						
J14A	Carey	2.45	24	P	Pn	23 24 44.8	+0.6
	baz=2.4,SNR=104						
M16A	Huntsville	2.47	84	⇑P	Pn	23 24 46.5	+1.9
	baz=2.5						
N08A	GE Springer Mi	2.48	264	⇓P	Pn	23 24 43.2	-1.4
	baz=2.5						
HLID	Hailey	2.49	8	P	Pn	23 24 45.4	+0.6
	baz=2.5,SNR=64						
HLID	Hailey	2.49	8	*e*Pn	Pn	23 24 45.3	+0.5
HLID				*e*Pg	Sn	23 25 18.7	+2.9
P15A	Leamington	2.52	127	⇑P	Pn	23 24 44.1	-1.0
	baz=2.5,SNR=74						

Q10A	Clear Creek Ra	2.55	207	⇑P	Pn	23 24 45.4	-0.2
	baz=2.6,SNR=63						
K09A	Rome	2.65	308	P	Pn	23 24 48.6	+1.6
	baz=2.6,SNR=101						
I12A	Atlanta	2.70	356	⇓P	Pn	23 24 48.4	+0.7
	baz=2.7,SNR=110						
MPU	Maple Canyon	2.71	112	*e*Pn	Pn	23 24 46.9	-0.9
MPU				*e*Sn	Sn	23 25 21.3	0.0
J10A	Berg Farm, Mel	2.71	330	⇑P	Pn	23 24 50.6	+2.8
	baz=2.7						
R12A	Pony Springs,	2.78	175	⇑P	Pn	23 24 48.5	-0.3
	baz=2.8,SNR=28						
R11A	Troy Canyon, C	2.80	191	P	Pn	23 24 48.8	-0.2
	baz=2.8,SNR=40						
L08A	Fields	2.81	294	⇓P	Pn	23 24 51.6	+2.5
	baz=2.8						
P08A	Dixie Valley	2.81	241	⇓P	Pn	23 24 48.6	-0.6
	baz=2.8,SNR=10						
DAU	Daniels Canyon	2.85	103	*e*Pn	Pn	23 24 49.7	0.0
DAU				*e*Sg	Sg	23 25 34.9	+0.4
Q15A	Fillmore	2.85	137	⇓P	Pn	23 24 48.8	-0.9
	baz=2.9,SNR=10						
Q09A	Carvers	2.87	219	⇓P	Pn	23 24 50.2	+0.3
	baz=2.9,SNR=11						
I13A	Wildhorse Cree	2.87	11	P	Pn	23 24 50.9	+0.9
	baz=2.9,SNR=168						
J15A	Blackfoot	2.94	38	⇓P	Pn	23 24 51.0	+0.1
	baz=2.9,SNR=12						
R13A	O'Grain Ranch,	3.00	166	⇑P	Pn	23 24 52.0	+0.2
	baz=3.0						
I14A	Mackay	3.02	20	⇑P	Pn	23 24 52.8	+0.7
	baz=3.0						
WVOR	Wild Horse Val	3.10	297	P	Pn	23 24 56.7	+3.5
N07B	Gerlach	3.10	265	P	Pn	23 24 52.6	-0.6
	baz=3.1,SNR=7.8						
K08A	Mann Creek Ran	3.14	302	⇓P	Pn	23 24 57.2	+3.5
	baz=3.1						
R14A	James Farms, M	3.15	152	⇑P	Pn	23 24 53.4	-0.4
	baz=3.2						
O07A	Toulon	3.17	254	P	Pn	23 24 53.0	-1.2
	baz=3.2,SNR=11						
M07A	Soldier Meadow	3.24	277	P	Pn	23 24 55.1	0.0
	baz=3.2,SNR=15						
J16A	Bone	3.27	47	⇓P	Pn	23 24 56.3	+0.8
	baz=3.3,SNR=7.8						
AHID	Auburn Hatcher	3.28	58	*e*Pn	Pn	23 24 56.1	+0.4
AHID				*e*Sg	Sg	23 25 49.4	+0.9
R09A	Tonopah	3.31	211	⇑P	Pn	23 24 56.5	+0.4
	baz=3.3,SNR=13						
MSU	Marysvale	3.32	140	*e*Pn	Pn	23 24 56.0	-0.2
MSU				*e*Sg	Sg	23 25 55.6	+5.8
TMUT	Trail Mountain	3.35	121	*e*Pn	Pn	23 24 60.0	+3.4
TMUT				*e*Sn	Sn	23 25 39.3	+2.3
S10A	Tonopah Range,	3.43	203	⇑P	Pn	23 24 57.9	+0.1
	baz=3.4,SNR=16						
H12A	Diamond D Ranc	3.45	0	⇓P	Pn	23 24 59.3	+1.3
	baz=3.4						
L07A	Adell	3.46	287	⇓P	Pn	23 25 01.9	+3.8
	baz=3.4						
RRI2	Red Ridge	3.48	49	*e*Pn	Pn	23 24 58.5	+0.1
RRI2				*e*Sn	Sn	23 25 40.6	+0.4
S12A	Delamar Landin	3.49	179	⇓P	Pn	23 24 58.4	0.0
	baz=3.5,SNR=6.2						
ARUT	Antelope Range	3.49	161	*e*Pn	Pn	23 24 58.6	+0.1
ARUT				*e*Sn	Sn	23 25 38.1	-2.4
H13A	Challis	3.50	8	⇑P	Pn	23 25 00.2	+1.6
	baz=3.5						
R15A	Junction	3.52	144	⇑P	Pn	23 24 58.6	-0.3
	baz=3.5						
S14A	Cedar City	3.59	158	⇓P	Pn	23 25 00.0	+0.1
	baz=3.6,SNR=5.4						
S13A	Holt Ranch, En	3.60	167	P	Pn	23 25 00.1	+0.1
	baz=3.6,SNR=82						
DCID1	Drake Creek	3.71	47	*e*Pn	Pn	23 25 00.5	-1.1
DCID1				*e*Sn	Sn	23 25 49.8	+3.9
CCUT	Cedar City	3.74	161	*e*Pn	Pn	23 25 02.1	+0.2
CCUT				*e*Sg	Sg	23 26 02.9	-0.2
NVAR	Mina Array Bea	3.74	226	Pn	Pn	23 25 01.7	-0.3
	3.2nm,0.3s,baz=43,slow=14,SNR=73						
NVAR				Pg	Pg	23 25 09.9	-4.9
	6.0nm,0.3s,baz=43,slow=18,SNR=23						
NVAR				Sn	Sn	23 25 47.8	+1.0
	11nm,0.3s,baz=34,slow=16,SNR=6.6						
NVAR				Lg		23 26 03.1	
	24nm,0.3s,baz=49,slow=30,SNR=7.4						
REDW	Red Top Meadow	3.76	52	*e*Pn	Pn	23 25 03.9	+1.7
REDW				*e*Sn	Sn	23 25 48.2	+1.1
TPAW	Teton Pass	3.78	49	*e*Pn	Pn	23 25 03.4	+0.9
TPAW				*e*Sg	Sg	23 26 04.3	0.0
T11A	Corn Creek, Al	3.86	184	P	Pn	23 25 03.6	0.0
	baz=3.9,SNR=48						
SNOW	Snow King Moun	3.87	51	*e*Pn	Pn	23 25 05.2	+1.4
SRU	San Rafael	3.90	119	*e*Pn	Pn	23 25 00.3	-3.8
SRU				*e*Sg	Sg	23 26 06.8	-1.3
S15A	Panguitch	3.94	149	⇓P	Pn	23 25 05.0	+0.3
	baz=4.0,SNR=10						
G13A	Cobalt	4.02	7	⇓P	Pn	23 25 07.5	+1.6
	baz=4.0						
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	23 25 06.9	+0.8
IMW				*e*Sn	Sn	23 25 53.1	-1.1
LOHW	Long Hollow	4.05	50	*e*Pn	Pn	23 25 07.4	+1.2
LOHW				*e*Sg	Sg	23 26 11.1	-2.0
MOOW	Moose Ponds	4.05	48	*e*Pn	Pn	23 25 02.9	-3.4
MOOW				*e*Sg	Sg	23 26 06.8	-6.5
WCN	Washoe City	4.13	246	⇓P	Pn	23 25 06.4	-0.9
	baz=4.1						
MOD	Modoc	4.14	283	*e*Pn	Pn	23 25 06.4	-1.1
MOD				*e*Sn	Sn	23 25 57.7	+1.1
BMO	Blue Mountains	4.15	336	*e*Pn	Pn	23 25 00.9	-6.7
BMO				*e*Sg	Sg	23 26 08.9	-7.4
T14A	Hurricane	4.27	160	⇓P	Pn	23 25 09.6	+0.3
	baz=4.3,SNR=12						
PDAR	Pinedale Array	4.32	66	Pn	Pn	23 25 12.2	+2.4
	0.4nm,0.3s,baz=244,slow=12,SNR=15						
PDAR				Pg	Pg	23 25 21.6	-4.2
	0.7nm,0.3s,baz=244,slow=21,SNR=13						
PDAR				Lg		23 26 17.8	
	1.8nm,0.3s,baz=228,slow=28,SNR=7.1						
BEKR	Beckwourth	4.35	255	⇓P	Pn	23 25 09.5	-0.8
	baz=4.3,SNR=12						
R06C	Coleville	4.35	235	⇑P	Pn	23 25 09.7	-0.7
	baz=4.3,SNR=12						
YFT	Old Faithful	4.49	40	*e*Pg	Pg	23 25 29.7	+0.7
T15A	Red Dirt Ranch	4.52	154	⇓P	Pn	23 25 13.0	+0.3
	baz=4.5						
DLMT	Dillon	4.58	21	*e*Pn	Pn	23 25 14.4	+0.9
YMR	Madison River	4.59	38	*e*Pg	Pg	23 25 23.5	-7.5
YMR				*e*Sg	Sg	23 26 29.0	-1.4
F13A	Darby	4.71	5	⇓P	Pn	23 25 16.1	+0.9
	baz=4.7,SNR=11						
U13A	Pakoon Wash	4.73	171	⇓P	Pn	23 25 15.8	+0.1
	baz=4.8,SNR=14						
YNR	Norris Junctio	4.76	39	*e*Pg	Pg	23 25 30.5	-3.7
LKWY	Lake	4.79	42	*e*Pn	Pn	23 25 16.9	+0.5
LKWY				*e*Pb	Pb	23 25 27.9	+0.2
LKWY				*e*Pg	Pg	23 25 34.9	+0.2
BOZ	Bozeman (W)	5.13	27	*e*Pn	Pn	23 25 21.6	+0.6
CMB	Columbia Colle	5.23	236	*e*Pn	Pn	23 25 22.6	+0.1
CMB				*e*Sn	Sn	23 26 25.4	+2.0
CMB				*e*Sg	Sg	23 26 47.5	-3.6
PV04	Paradox Valley	5.35	118	*e*Pg	Pg	23 25 39.9	-5.6
V12A	Nelson	5.36	180	⇓P	Pn	23 25 24.5	+0.2
	baz=5.4,SNR=19						
PV01	Paradox Valley	5.71	119	*e*Pg	Pg	23 25 48.7	-3.7
PV01				*e*Sg	Sg	23 27 05.8	-0.6
MSO	Missoula	5.77	7	*e*Pn	Pn	23 25 32.8	+2.9
MSO				*e*Sg	Sg	23 27 06.0	-2.4
YBH	Yreka Blue Hor	5.91	279	Pg	Pg	23 25 50.9	-5.4
	0.1nm,0.3s,baz=102,slow=12,SNR=2.4						
YBH				Lg		23 27 08.2	
	0.4nm,0.3s,baz=174,slow=18,SNR=3.8						
CHMT	Chamberlain Mo	5.93	11	*e*Pn	Pn	23 25 34.0	+1.9
CHMT				*e*Sn	Sn	23 26 45.2	+4.4
GSC	Goldstone	5.98	195	*e*Pg	Pg	23 25 54.9	-2.7
ISA	Isabella	6.11	209	*e*Pg	Pg	23 25 58.0	-2.2
ISA				*e*Sg	Sg	23 27 18.4	-0.9
WUAZ	Wupatki	6.22	152	*e*Pg	Pg	23 26 00.6	-1.6
WUAZ				*e*Sg	Sg	23 27 26.6	+3.8
MVCO	Mesa Verde	6.31	126	*e*Pg	Pg	23 25 58.5	-5.3
MVCO				*e*Sg	Sg	23 27 24.3	-1.2
JTMT	Jette	6.66	4	*e*Pn	Pn	23 25 43.9	+1.8
JTMT				*e*Sg	Sb	23 27 26.8	+7.1
YBMT	Yellow Bay	6.79	5	*e*Pg	Pg	23 26 12.1	-1.0
PHWY	Pilot Hill	7.12	85	*e*Pn	Pn	23 25 48.5	+0.1
EGMT	Eagleton	7.83	26	*e*Pn	Pn	23 26 02.2	+4.0
ANMO	Albuquerque	9.05	130	Pg	Px	23 26 56.0	
	0.2nm,0.3s,baz=329,slow=13,SNR=4.5						
YKA	Yellowknife Ar	21.43	0	P	P	23 28 52.1	-0.2
	1.3nm,0.8s,baz=181,slow=9.9,SNR=16						

BJI ***22*** *23:27:42.2, 40°.50N×115°.63W, h8*^{km}*, mB5.4/7, mb4.9/11, Ms4.7/5, Ms7 4.6/5*

ISCJB ***22*** *23:27:44.7±0.1, 41°.08N±0°.01×114°.88W±0°.01, h10*^{km}*, mb4.5/32, MS4.0/4, Error ellipse: s-maj=1.6km s-min=1.4km az=149.5*

IDC ***22*** *23:27:44.7±0.5, 41°.13N×114°.89W, h0*^{km}*, mb4.2/15, mb1 4.2/20, mb1mx4.1/27, mbtmp4.1/20, ML4.3/3, MS3.4/8, Ms1 3.4/8, ms1mx3.3/33, Error ellipse: s-maj=11.5km s-min=4.0km az=129.0*

MOS ***22*** *23:27:45.6±1.0, 41°.07N×114°.97W, h19*^{km}*, mb4.5/19, Error ellipse: s-maj=6.6km s-min=5.5km az=89.6*

NEIC ***22*** *23:27:45.3, 41°.10N×114°.92W, h16*^{km}*, mb4.5/19, ML4.2, MW4.3(SLM), After REN.*

NEIC Felt [IV] at Wells, [III] at Elko and [II] at Spring Creek. Felt at Caldwell, Filer, Nampa and Twin Falls, Idaho. Also felt at Sandy, Utah.

ISC 22 23:27:45.6±0.1, **41°.091N**±0°.009×**114°.91W**±0°.01, **h10**^{km}, **n276**, σ1^{s}14/363, **mb4.5**/32, **MS4.0**/4, **54C-43D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.26	202	⇓P	Pg	23 27 51.0	+0.2
	baz=0.3,SNR=1000						
N12A				⇓S	Sg	23 27 55.4	+1.1
	baz=0.3						
N12A	Clover Valley,	0.26	202	*e*Pg	Pg	23 27 51.4	+0.6
N12A				*e*Sg	Sg	23 27 54.2	-0.1
ELK	Elko	0.42	216	Pg	Pg	23 27 53.8	-0.1
	786nm,0.3s,baz=21,slow=15,SNR=139						
ELK				Lg		23 27 59.8	
	1µm,0.3s,baz=128,slow=19,SNR=100						
ELK	Elko	0.42	216	*e*Pg	Pg	23 27 53.9	0.0
ELK				*e*Sg	Sg	23 28 00.2	+0.7
N13A	Wendover, West	0.59	113	⇓P	Pg	23 27 56.7	-0.3
	baz=0.6,SNR=1000						
N13A				⇑S	Sg	23 28 04.6	-0.1
	baz=0.6						
N13A	Wendover, West	0.59	113	*e*Pg	Pg	23 27 57.0	+0.1
N13A				*e*Sg	Sg	23 28 05.0	+0.3
M13A	Montello	0.63	64	P	Pg	23 27 57.0	-0.7
	baz=0.6,SNR=473						
M13A	Montello	0.63	64	*e*Pg	Pg	23 27 57.3	-0.4
M13A				*e*Sg	Sg	23 28 06.0	+0.1
N11A	Elko Archery C	0.68	247	⇑P	Pg	23 27 58.3	-0.4
	baz=0.7,SNR=615						
N11A				⇓S	Sg	23 28 08.0	+0.4
	baz=0.7						
M11A	Holland Ranch,	0.74	298	⇓P	Pg	23 27 59.0	-1.0
	baz=0.7,SNR=1000						
M11A				⇑S	Sg	23 28 09.3	-0.4
	baz=0.7						
O12A	Currie	0.83	171	P	Pg	23 28 01.4	-0.2
	baz=0.8,SNR=1000						
O12A				⇓S	Sg	23 28 13.3	+0.8
	baz=0.8						
L12A	House Creek Ra	1.06	356	P	Pg	23 28 04.5	-1.5
	baz=1.0,SNR=320						
L12A				⇑S	Sg	23 28 18.4	-1.3
	baz=1.0						
O11A	Cowboy Ranch,	1.11	211	⇑P	Pb	23 28 06.7	-0.2
	baz=1.1,SNR=1000						
O11A				⇑S	Sg	23 28 21.9	+0.4
	baz=1.1						
O13A	Hicks Ranch, I	1.19	143	P	Pb	23 28 07.8	-0.5
	baz=1.2,SNR=1000						
L13A	Double Diamond	1.23	36	P	Pn	23 28 07.2	-1.7
	baz=1.2,SNR=772						
L13A				⇓S	Sb	23 28 23.9	-1.1
	baz=1.2						
L11A	Cat Creek Ranc	1.25	330	⇑P	Pn	23 28 07.3	-1.8
	baz=1.2						
L11A				⇑S	Sb	23 28 24.3	-1.0
	baz=1.2						
M14A	Sheep Mountain	1.25	70	P	Pn	23 28 07.7	-1.4
	baz=1.2,SNR=1000						
M14A				⇑S	Sb	23 28 24.3	-1.1
	baz=1.2						
N10A	Dunphy	1.26	253	P	Pn	23 28 08.3	-0.9
	baz=1.3,SNR=409						
M10A	I.L. Ranch, Tu	1.30	290	⇑P	Pn	23 28 09.1	-0.7
	baz=1.3,SNR=1000						
N14A	Grayback Hills	1.33	100	P	Pn	23 28 09.1	-1.1
	baz=1.3,SNR=1000						
BGU	Big Grassy Mou	1.44	96	*e*Pn	Pn	23 28 10.5	-1.2
BGU				*e*S	Sn	23 28 30.6	+0.1
O10A	Cortez Mining,	1.45	237	⇓P	Pn	23 28 11.6	-0.2
	baz=1.4,SNR=583						
L10A	Juniper Basin	1.53	311	⇓P	Pn	23 28 12.0	-1.0
	baz=1.5,SNR=1000						
K12A	Draper Farm, C	1.54	0	⇑P	Pn	23 28 11.5	-1.7
	baz=1.5,SNR=808						
L14A	Malta	1.57	53	⇑P	Pn	23 28 12.7	-0.8
	baz=1.6,SNR=84						
P11A	Circle Ranch,	1.67	203	⇓P	Pn	23 28 14.9	+0.1
	baz=1.7,SNR=122						
K13A	Stover Farm, H	1.68	21	⇓P	Pn	23 28 14.2	-0.7
	baz=1.7,SNR=183						
HVU	Hansel Valley	1.75	66	*e*Pn	Pn	23 28 15.2	-0.7
HVU				*e*Sn	Sn	23 28 38.2	-0.1
P13A	Bates Ranch, G	1.77	157	⇓P	Pn	23 28 15.5	-0.8
	baz=1.8						
P13A				⇑Sb	Sb	23 28 42.1	+1.6
	baz=1.8						
N15A	Stansbury Isla	1.82	96	P	Pn	23 28 16.3	-0.7
	baz=1.8,SNR=337						
DUG	Dugway	1.83	119	⇓P	Pn	23 28 16.1	-1.0
	baz=1.8,SNR=415						
DUG	Dugway	1.83	119	*e*Pn	Pn	23 28 16.1	-1.0
DUG				*e*Sg	Sg	23 28 44.0	-0.5
BMN	Battle Mountai	1.87	250	*e*Pn	Pn	23 28 16.9	-0.7
BMN				*e*Sg	Sg	23 28 44.4	-1.4
SPUT	South Promonto	1.87	83	*e*Pn	Pn	23 28 17.6	0.0
SPUT				*e*Sg	Sg	23 28 43.7	-2.1
K11A	Parker Ranch,	1.88	334	⇑P	Pn	23 28 17.4	-0.3
	baz=1.9,SNR=1000						
K11A				⇓Sb	Sb	23 28 43.1	-0.4
	baz=1.9						
P10A	Eureka	1.89	219	⇓P	Pn	23 28 18.1	+0.3
	baz=1.9,SNR=141						
M15A	Larsen Ranch,	1.90	78	⇑P	Pn	23 28 17.0	-1.0
	baz=1.9,SNR=536						
M15A				⇑Sb	Sb	23 28 43.7	-0.3
	baz=1.9						
M09A	Marrel Ranch,	1.94	281	⇑P	Pn	23 28 17.7	-0.9
	baz=1.9,SNR=159						
K14A	Jones Ranch, D	1.95	41	⇑P	Pn	23 28 18.1	-0.6
	baz=1.9,SNR=176						
O09A	Fish Creek Ran	1.96	243	⇓P	Pn	23 28 18.4	-0.5
	baz=2.0,SNR=65						
N09A	Rock Creek Ran	1.99	264	⇑P	Pn	23 28 18.3	-1.0
	baz=2.0,SNR=126						
N09A				⇑Sb	Sb	23 28 47.0	+0.3
	baz=2.0						
O15A	The Old Anders	2.03	113	⇓P	Pn	23 28 18.7	-1.1
	baz=2.0,SNR=130						
Q12A	Willow Creek R	2.05	178	P	Pn	23 28 19.9	-0.2
	baz=2.1,SNR=200						
P14A	Drum Mountains	2.06	136	P	Pn	23 28 19.6	-0.6
	baz=2.1,SNR=353						
L15A	Malad City	2.11	63	⇑P	Pn	23 28 20.4	-0.5
	baz=2.1,SNR=69						
J12A	Stokes Ranch,	2.16	356	⇑P	Pn	23 28 21.7	0.0
	baz=2.1,SNR=998						
J12A				⇑Sb	Sb	23 28 50.9	-0.8
	baz=2.1						
NOQ	North Oquirrh	2.16	101	*e*Pn	Pn	23 28 21.7	0.0
NOQ				*e*Pg	Pg	23 28 27.4	+0.3
NOQ				*e*Sg	Sg	23 28 54.4	-0.7
K10A	MacKenzie Ranc	2.23	320	P	Pn	23 28 22.7	+0.1
	baz=2.2,SNR=678						
Q13A	Wheeler Ranch,	2.24	162	⇑P	Pn	23 28 22.2	-0.5
	baz=2.3,SNR=81						
L09A	Wilkinson Ranc	2.27	295	⇑P	Pn	23 28 23.1	+0.1
	baz=2.3,SNR=202						
P09A	Austin	2.29	229	⇑P	Pn	23 28 23.3	-0.2
	baz=2.3,SNR=46						
Q11A	Duckwater	2.31	194	⇓P	Pn	23 28 24.0	+0.2
	baz=2.3						
J13A	Cove Ranch, Pi	2.37	13	P	Pn	23 28 24.9	+0.4
	baz=2.4,SNR=724						
K15A	Arbon	2.39	47	⇑P	Pn	23 28 24.9	+0.2
	baz=2.4,SNR=83						
MFID	Camas Ranch	2.42	344	P	Pn	23 28 26.5	+1.3
	baz=2.4,SNR=348						
CTU	Camp Tracy	2.43	98	*e*Pn	Pn	23 28 26.5	+1.1
CTU				*e*Sn	Sn	23 28 52.3	-2.8
NLU	North Lily Min	2.44	117	*e*Pn	Pn	23 28 24.7	-0.8
NLU				*e*Pg	Pg	23 28 31.5	-1.0
NLU				*e*Sg	Sg	23 29 01.8	-2.3
Q14A	Sevier Lake (B	2.45	149	P	Pn	23 28 24.7	-0.9
	baz=2.5,SNR=318						
N08A	GE Springer Mi	2.46	264	⇓P	Pn	23 28 24.9	-0.8
	baz=2.5,SNR=14						
J14A	Carey	2.46	24	P	Pn	23 28 26.1	+0.4
	baz=2.4,SNR=782						
HLID	Hailey	2.50	8	P	Pn	23 28 26.9	+0.6
	baz=2.5,SNR=739						
P15A	Leamington	2.52	126	P	Pn	23 28 25.6	-1.0
	baz=2.5,SNR=293						
Q10A	Clear Creek Ra	2.54	207	⇑P	Pn	23 28 26.9	+0.1
	baz=2.5,SNR=304						
O08A	Rochester Mine	2.59	253	⇓P	Pn	23 28 27.0	-0.6
	baz=2.6,SNR=115						
M08A	Happy Creek Ra	2.64	279	⇑P	Pn	23 28 27.5	-0.7
	baz=2.6,SNR=31						
N16A	Rees Ranch, Co	2.64	93	⇑P	Pn	23 28 28.6	+0.3
	baz=2.6,SNR=38						
I12A	Atlanta	2.71	357	P	Pn	23 28 30.4	+1.3
	baz=2.7,SNR=534						
MPU	Maple Canyon	2.72	112	*e*Pn	Pn	23 28 28.7	-0.7
MPU				*e*Pg	Pg	23 28 37.0	-0.7
MPU				*e*Sg	Sg	23 29 12.5	-0.5
R12A	Pony Springs,	2.77	175	⇓P	Pn	23 28 30.2	+0.2
	baz=2.8,SNR=22						
L16A	Fish Haven	2.77	69	⇓P	Pn	23 28 30.0	0.0
	baz=2.8,SNR=32						
R11A	Troy Canyon, C	2.79	191	P	Pn	23 28 30.2	0.0
	baz=2.8,SNR=527						
P08A	Dixie Valley	2.79	241	P	Pn	23 28 30.3	0.0
	baz=2.8,SNR=64						
Q09A	Carvers	2.85	218	⇓P	Pn	23 28 31.2	+0.1
	baz=2.9,SNR=50						
Q15A	Fillmore	2.85	136	P	Pn	23 28 30.6	-0.5
	baz=2.9,SNR=42						
DAU	Daniels Canyon	2.86	103	*e*Pn	Pn	23 28 31.5	+0.3
DAU				*e*Pg	Pg	23 28 40.1	-0.3
I13A	Wildhorse Cree	2.88	12	P	Pn	23 28 32.5	+0.9
	baz=2.9,SNR=426						
J15A	Blackfoot	2.95	38	⇑P	Pn	23 28 32.7	+0.1
	baz=2.9,SNR=134						
R10A	Warm Springs	3.00	201	⇑P	Pn	23 28 33.8	+0.6
	baz=3.0,SNR=19						
R13A	O'Grain Ranch,	3.00	166	⇓P	Pn	23 28 33.7	+0.6
	baz=3.0						
K16A	Soda Springs	3.03	54	⇓P	Pn	23 28 34.2	+0.7
	baz=3.0,SNR=21						
I14A	Mackay	3.04	20	⇓P	Pn	23 28 34.3	+0.6
	baz=3.0,SNR=37						
N07B	Gerlach	3.09	266	⇓P	Pn	23 28 33.8	-0.6
	baz=3.1,SNR=64						
WVOR	Wild Horse Val	3.09	297	*e*Pn	Pn	23 28 34.1	-0.3
WVOR				*e*Sg	Sg	23 29 20.7	-4.2
R14A	James Farms, M	3.15	152	⇑P	Pn	23 28 35.0	-0.2
	baz=3.2,SNR=12						
O07A	Toulon	3.16	254	P	Pn	23 28 34.5	-0.8
	baz=3.1,SNR=95						
Q08A	Gabbs	3.21	227	⇑P	Pn	23 28 36.1	0.0
	baz=3.2,SNR=11						
M07A	Soldier Meadow	3.22	277	⇓P	Pn	23 28 35.6	-0.6
	baz=3.2,SNR=73						
J16A	Bone	3.28	47	⇑P	Pn	23 28 37.7	+0.6
	baz=3.3,SNR=34						
R09A	Tonopah	3.30	211	⇑P	Pn	23 28 38.3	+1.0
	baz=3.3,SNR=53						
AHID	Auburn Hatcher	3.30	58	*e*Pn	Pn	23 28 38.3	+1.0
AHID				*e*Sg	Sg	23 29 28.4	-3.2
MSU	Marysvale	3.33	140	*e*Pn	Pn	23 28 37.7	0.0
MSU				*e*Sg	Sg	23 29 33.9	+1.5
TMUT	Trail Mountain	3.36	121	*e*Pn	Pn	23 28 38.9	+0.8
TMUT				*e*Sn	Sn	23 29 16.5	-1.4
P07A	Fallon	3.41	244	⇓P	Pn	23 28 38.8	0.0
	baz=3.4,SNR=13						
S10A	Tonopah Range,	3.42	203	⇓P	Pn	23 28 39.3	+0.3
	baz=3.4,SNR=65						
S12A	Delamar Landin	3.48	179	⇑P	Pn	23 28 40.2	+0.4
	baz=3.5,SNR=27						
J08A	Circle Bar Ran	3.48	312	⇓P	Pn	23 28 41.3	+1.5
	baz=3.5,SNR=66						
ARUT	Antelope Range	3.49	160	*e*Pn	Pn	23 28 40.8	+0.8
ARUT				*e*Pg	Pg	23 28 52.1	-0.3
ARUT				*e*Sg	Sg	23 29 36.1	-1.5
RRI2	Red Ridge	3.49	49	*e*Pn	Pn	23 28 40.5	+0.5
RRI2				*e*Sn	Sn	23 29 19.2	-2.1
S11A	Rachel	3.50	191	⇓P	Pn	23 28 40.7	+0.6
	baz=3.5,SNR=16						
R15A	Junction	3.52	144	⇑P	Pn	23 28 40.5	+0.1
	baz=3.5,SNR=12						
S14A	Cedar City	3.59	157	⇑P	Pn	23 28 41.6	+0.3
	baz=3.6,SNR=18						
S13A	Holt Ranch, En	3.60	167	P	Pn	23 28 41.7	+0.3
	baz=3.6,SNR=217						
Q16A	Castle Valley	3.60	126	⇑P	Pn	23 28 41.4	-0.1
	baz=3.6,SNR=15						
K07A	Rock Creek Ran	3.61	298	⇑P	Pn	23 28 41.9	+0.4
	baz=3.6,SNR=39						
Q07A	Schurz	3.68	236	⇑P	Pn	23 28 42.7	+0.2
	baz=3.7,SNR=8.6						
R08A	Mina	3.68	223	⇑P	Pn	23 28 43.0	+0.4
	baz=3.7,SNR=9.9						
H11A	Donnelly	3.70	348	⇓P	Pn	23 28 44.3	+1.5
	baz=3.7,SNR=24						
NVAR	Mina Array Bea	3.73	226	Pn	Pn	23 28 43.2	+0.1
	18nm,0.3s,baz=39,slow=13,SNR=70						
NVAR				Pg	Pg	23 28 51.5	-5.5
	69nm,0.3s,baz=36,slow=14,SNR=32						
NVAR				Sn	Sn	23 29 32.1	+5.0
	73nm,0.3s,baz=55,slow=33,SNR=4.5						
NVAR				Lg		23 29 44.0	
	185nm,0.3s,baz=273,slow=25,SNR=4.2						
NVAR	Mina Array Bea	3.73	226	Pn	Pn	23 28 43.2	+0.1
NVAR				Pg	Pg	23 28 51.5	-5.5
NVAR				Sn	Sn	23 29 32.1	+5.1
NVAR				Lg		23 29 44.0	
DCID1	Drake Creek	3.73	47	*e*Pn	Pn	23 28 43.7	+0.5
DCID1				*e*Sn	Sn	23 29 25.9	-1.2
CCUT	Cedar City	3.73	161	*e*Pn	Pn	23 28 43.7	+0.4
CCUT				*e*Pg	Pg	23 28 55.8	-1.3
CCUT				*e*Sg	Sg	23 29 44.2	-1.3
N06A	Buffalo Meadow	3.74	266	P	Pn	23 28 42.9	-0.5
	baz=3.7,SNR=28						
REDW	Red Top Meadow	3.77	52	*e*Pn	Pn	23 28 44.5	+0.7
REDW				*e*Pg	Pg	23 28 56.9	-1.0
REDW				*e*Sg	Sg	23 29 47.6	+0.8
TPAW	Teton Pass	3.79	49	*e*Pn	Pn	23 28 44.8	+0.8
TPAW				*e*Pg	Pg	23 28 59.0	+0.7
TPAW				*e*Sg	Sg	23 29 42.9	-4.5
S09A	Goldfield	3.81	209	⇑P	Pn	23 28 44.9	+0.6
	baz=3.8,SNR=22						
O06A	Flanigan	3.85	258	⇓P	Pn	23 28 44.6	-0.3
	baz=3.8,SNR=12						
T11A	Corn Creek, Al	3.85	184	⇓P	Pn	23 28 45.2	+0.3
	baz=3.9,SNR=89						
SNOW	Snow King Moun	3.89	51	*e*Pn	Pn	23 28 47.0	+1.6
SNOW				*e*Sg	Sg	23 29 47.0	-3.5
H15A	Lima	3.90	25	⇑P	Pn	23 28 46.0	+0.4
	baz=3.9,SNR=16						
SRU	San Rafael	3.90	119	⇓P	Pn	23 28 46.0	+0.4
	baz=3.9,SNR=22						
SRU	San Rafael	3.90	119	*e*Pn	Pn	23 28 45.9	+0.3
SRU				*e*Pg	Pg	23 28 58.7	-1.7
SRU				*e*Sn	Sn	23 29 29.2	-2.3
S15A	Panguitch	3.94	149	⇓P	Pn	23 28 46.5	+0.4
	baz=4.0,SNR=27						
P06A	Stead Airport,	4.06	251	⇑P	Pn	23 28 47.3	-0.4
	baz=4.1,SNR=8.2						
IMW	Indian Meadow	4.06	45	*e*Pn	Pn	23 28 48.9	+1.1
IMW				*e*Sg	Sg	23 29 55.0	-1.0
LOHW	Long Hollow	4.07	50	*e*Pn	Pn	23 28 48.4	+0.5
LOHW				*e*Sg	Sg	23 29 53.1	-3.1
MOOW	Moose Ponds	4.07	48	*e*Pn	Pn	23 28 48.6	+0.7
MOOW				*e*Sg	Sg	23 29 53.4	-3.0
WCN	Washoe City	4.12	246	⇓P	Pn	23 28 48.2	-0.3
	baz=4.1,SNR=53						
MOD	Modoc	4.13	283	*e*Pn	Pn	23 28 48.9	+0.2
MOD				*e*Sg	Sg	23 29 57.9	-0.3

T13A	Saint George	4.14	169	⇓P	Pn	23 28 49.0	+0.1
	baz=4.2,SNR=17						
BMO	Blue Mountains	4.15	336	ePn	Pn	23 28 50.3	+1.4
BMO				eSg	Sg	23 29 57.4	-1.4
TPNV	Topopah Spring	4.26	195	ePn	Pn	23 28 52.3	+1.8
TPNV				eSg	Sg	23 30 00.7	-1.9
T14A	Hurricane	4.27	160	⇑P	Pn	23 28 51.0	+0.4
	baz=4.3,SNR=32						
BEKR	Beckwourth	4.33	255	⇑P	Pn	23 28 51.1	-0.3
	baz=4.3,SNR=80						
BW06	Boulder Array	4.33	65	ePn	Pn	23 28 51.4	-0.1
BW06				eSg	Sg	23 30 06.3	+1.7
PDAR	Pinedale Array	4.33	65	Pn	Pn	23 28 53.3	+1.8
	2.6nm,0.3s,baz=256,slow=12,SNR=26						
PDAR				Pg	Pg	23 29 05.2	-3.4
	9.8nm,0.3s,baz=240,slow=12,SNR=33						
PDAR				Lg		23 29 59.3	
	14nm,0.3s,baz=215,slow=25,SNR=7.5						
R06C	Coleville	4.33	235	⇑P	Pn	23 28 51.5	0.0
	baz=4.3,SNR=31						
YFT	Old Faithful	4.50	40	ePn	Pn	23 28 51.4	-2.4
YFT				eSg	Sg	23 30 14.3	+4.1
T15A	Red Dirt Ranch	4.52	153	⇑P	Pn	23 28 54.5	+0.5
	baz=4.5						
DLMT	Dillon	4.59	21	ePn	Pn	23 28 55.8	+0.8
DLMT				eSg	Sg	23 30 07.8	-5.2
YMR	Madison River	4.61	38	ePn	Pn	23 28 57.4	+2.1
YMR				eSg	Sg	23 30 11.8	-1.6
F13A	Darby	4.72	5	⇑P	Pn	23 28 58.0	+1.3
	baz=4.7,SNR=16						
U13A	Pakoon Wash	4.73	171	⇓P	Pn	23 28 57.4	+0.5
	baz=4.7,SNR=28						
YNR	Norris Junctio	4.77	39	ePn	Pn	23 29 02.6	+5.1
LKWY	Lake	4.80	42	ePn	Pn	23 28 59.3	+1.4
LKWY				eSg	Sg	23 30 22.9	+3.1
U14A	Mt Trumbull	4.86	163	⇑P	Pn	23 28 59.6	+0.9
	baz=4.9,SNR=28						
BOZ	Bozeman (W)	5.14	27	ePn	Pn	23 29 03.2	+0.6
BOZ				eSg	Sg	23 30 28.6	-2.1
CMB	Columbia Colle	5.21	236	ePn	Pn	23 29 02.7	-0.9
CMB				eSg	Sg	23 30 30.1	-2.9
V11A	Goodsprings	5.26	185	⇓P	Pn	23 29 05.2	+0.9
	baz=5.3,SNR=29						
V13A	Grand Canyon W	5.28	172	⇓P	Pn	23 29 05.6	+1.1
	baz=5.3,SNR=16						
V12A	Nelson	5.36	179	P	Pn	23 29 06.5	+0.9
	baz=5.4,SNR=62						
PV04	Paradox Valley	5.36	118	ePn	Pn	23 29 05.8	+0.2
PV04				eSg	Sg	23 30 36.2	-1.4
MPMC	Manual Prospec	5.41	203	⇓P	Pn	23 29 07.3	+1.0
	baz=5.4,SNR=9.9						
PV01	Paradox Valley	5.72	119	ePn	Pn	23 29 12.5	+2.0
PV01				eSg	Sg	23 30 48.0	-1.2
RLMT	Red Lodge	5.77	44	ePn	Pn	23 29 12.8	+1.6
RLMT				eSg	Sg	23 30 44.8	-6.1
MSO	Missoula	5.78	7	ePn	Pn	23 29 11.8	+0.5
MSO				ePg	Pg	23 29 32.8	-3.4
MSO				eSg	Sg	23 30 47.6	-3.5
WDC	Whiskeytown Da	5.81	267	ePn	Pn	23 29 11.4	-0.3
WDC				ePg	Pg	23 29 33.2	-3.6
WDC				eSg	Sg	23 30 49.8	-2.3
RWWY	Rawlins	5.83	82	ePn	Pn	23 29 13.4	+1.4
RWWY				ePg	Pg	23 29 35.9	-1.2
RWWY				Sg	Sg	23 30 55.7	+3.1
YBH	Yreka Blue Hor	5.90	279	Pn	Pn	23 29 16.4	+3.4
	0.5nm,0.3s,baz=97,slow=5.4,SNR=3.7						
YBH				Pg	Pg	23 29 33.2	-5.3
	2.6nm,0.3s,baz=100,slow=12,SNR=15						
YBH				Lg		23 30 49.6	
	3.3nm,0.3s,baz=310,slow=4.2,SNR=4.2						
YBH				LR	LR	23 32 00.0	
	comp=Z,505nm,19.0s,baz=89,slow=43						
YBH	Yreka Blue Hor	5.90	279	ePn	Pn	23 29 13.5	+0.5
YBH				eSg	Sg	23 30 50.8	-4.0
GSC	Goldstone	5.97	195	ePn	Pn	23 29 14.9	+0.9
GSC				ePg	Pg	23 29 39.0	-0.9
GSC				eSg	Sg	23 30 59.7	+2.5
LDFC	Landfair	6.00	182	ePn	Pn	23 29 14.5	+0.1
LDFC				ePg	Pg	23 29 38.1	-2.4
LDFC				eSg	Sg	23 30 56.5	-1.8
GCMT	Greycliff	6.05	37	ePg	Pb	23 29 30.4	-0.8
GCMT				eSg	Sg	23 31 01.7	+1.9
ISA	Isabella	6.10	208	ePn	Pn	23 29 17.2	+1.5
ISA				ePg	Pg	23 29 40.6	-1.8
ISA				eSg	Sg	23 30 57.7	-3.6
HUMO	Hull Mountain	6.20	287	ePn	Pn	23 29 21.9	+4.9
HUMO				eSg	Sg	23 31 01.0	-3.4
WUAZ	Wupatki	6.22	152	ePn	Pn	23 29 17.9	+0.5
WUAZ				ePg	Pg	23 29 41.8	-2.9
WUAZ				eSg	Sg	23 31 07.4	+2.1
HAWA	Hanford	6.27	329	ePn	Pn	23 29 21.5	+3.5
HAWA				eSg	Sg	23 30 57.8	-8.9
MVCO	Mesa Verde	6.31	126	ePn	Pn	23 29 20.4	+1.7
MVCO				eSg	Sg	23 31 03.7	-4.5
HOOD	Mount Hood Mea	6.49	313	ePg	Pg	23 29 45.3	-4.6
OSI	Osito Adit	7.13	206	ePg	Pg	23 30 00.0	-2.1
PHWY	Pilot Hill	7.14	85	ePn	Pn	23 29 32.7	+2.7
PHWY				eSg	Sg	23 31 26.6	-8.0
ISCO	Idaho Springs	7.21	97	eP	Pn	23 29 34.3	+3.3
ISCO				S	Sn	23 31 01.2	+8.3
NEW	Newport	7.34	348	ePn	Pn	23 29 35.9	+3.1
NEW				ePg	Pg	23 30 03.5	-2.6
NEW				eSg	Sg	23 31 35.5	-5.6
LON	Longmire	7.53	321	ePn	Pn	23 29 35.0	-0.5
LON				ePg	Pg	23 30 05.4	-4.4
LON				eSg	Sg	23 31 49.4	+2.1
EGMT	Eagleton	7.85	26	ePn	Pn	23 29 44.2	+4.5
WALA	Waterton Lakes	8.00	5	ePn	Pn	23 29 44.3	+2.5
WALA				eS	Sn	23 31 56.0	+44
SDCO	Great Sand Dun	8.01	112	ePn	Pn	23 29 41.2	-0.8
LAO	LASA Array	8.40	45	ePn	Pn	23 29 49.3	+1.9
RSSD	Black Hills	8.57	66	ePn	Pn	23 29 50.2	+0.5
RSSD				eSg	Sn	23 32 06.7	+40
GNW	Green Mountain	8.60	321	ePn	Pn	23 29 55.9	+5.8
ANMO	Albuquerque	9.06	130	Pn	Pn	23 29 58.8	+2.5
	0.1nm,0.3s,baz=320,slow=13,SNR=2.9						
ANMO				Pg	Pn	23 30 33.1	+37
	0.4nm,0.3s,baz=329,slow=12,SNR=3.8						
ANMO				Lg		23 32 27.6	
	0.3nm,0.3s,baz=243,slow=14,SNR=3.1						
ANMO				LR	LR	23 34 03.4	
	comp=Z,261nm,21.0s,baz=122,slow=42						
DGMT	Dagmar	10.60	42	ePn	Pn	23 30 22.5	+5.1
CBKS	Cedar Bluff	11.87	96	eP	Pn	23 30 36.5	+1.7
EDM	Edmonton	12.18	4	eP	Pn	23 30 43.0	+4.0
ECSD	EROS Data Cent	13.78	73	ePn	Pn	23 30 59.9	-0.9
WMOK	Wichita Mounta	14.22	111	Pn	Px	23 31 17.2	
BBB	Bella Bella	14.30	325	LR	LR	23 37 32.7	
	comp=Z,80nm,22.0s,baz=208,slow=41						
ULM	Lac du Bonnet	16.12	49	Pn	Pn	23 31 31.1	-0.9
	0.3nm,0.3s,baz=231,slow=13,SNR=2.3						
ULM				LR	LR	23 37 00.8	
	comp=Z,67nm,19.9s,baz=244,slow=35						
ULM	Lac du Bonnet	16.12	49	Pn	Pn	23 31 31.1	-0.9
ULM				LR	LR	23 37 00.8	
FFC	Flin Flon	16.13	28	eP	Pn	23 31 34.5	+2.3
FFC				pmax	pmax		
	comp=Z,10.0nm,1.2s						
FFC	Flin Flon	16.13	28	ePn	Pn	23 31 34.5	+2.4
	comp=Z,9.8nm,1.2s						
JCT	Junction City	16.18	126	eP	Pn	23 31 38.6	+5.6
JCT				pmax	pmax		
	comp=Z,12nm,0.9s						
JCT	Junction City	16.18	126	eP	Pn	23 31 38.6	+5.6
	comp=Z,12nm,0.9s						
LPIG	La Paz	17.37	166	LR	LR	23 38 52.9	
	comp=Z,178nm,19.4s,baz=347,slow=38						
EYMN	Ely	18.01	60	eP	Pn	23 31 53.5	-2.4
	comp=Z,8.2nm,1.2s						
MIAR	Mount Ida	18.06	104	eP	Pn	23 31 57.6	+1.0
MIAR				pmax	pmax		
	comp=Z,19nm,1.1s						
MIAR	Mount Ida	18.06	104	eP	Pn	23 31 57.5	+1.0
	comp=Z,20nm,1.1s						
HKT	Hockley	19.06	120	eP	Pn	23 32 14.5	+5.8
HKT				pmax	pmax		
	comp=Z,12nm,1.3s						
HKT	Hockley	19.06	120	eP	Pn	23 32 14.5	+5.8
	comp=Z,12nm,1.3s						
FVM	French Village	19.12	91	eP	Pn	23 32 12.6	+3.1
FVM				pmax	pmax		
	comp=Z,28nm,1.2s						
FVM	French Village	19.12	91	eP	Pn	23 32 12.6	+3.1
	comp=Z,28nm,1.2s						
COWI	Conover	19.29	66	eP	Pn	23 32 16.2	+4.8
	comp=Z,10nm,1.1s						
COWI				eS	Sn	23 35 08.7	-39
KVTX	Kingsville	19.45	129	eP	Pn	23 32 10.7	-2.8
	comp=Z,49nm,0.5s						
DLBC	Dease Lake	19.84	336	LR	LR	23 39 32.2	
	comp=Z,126nm,18.5s,baz=177,slow=36						
OXF	Oxford	21.15	100	eP	P	23 32 31.5	+0.7
OXF				e		23 32 38.9	
OXF				pmax	pmax		
	comp=Z,83nm,1.2s,mb4.9						
OXF	Oxford	21.15	100	eP	P	23 32 31.5	+0.7
	comp=Z,83nm,1.2s,mb4.9						
OXF				e		23 32 38.9	
YKA	Yellowknife Ar	21.44	0	P	P	23 32 33.7	+0.1
YKA						23 36 37.4	
YKA				pmax	pmax		
	comp=Z,15nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				MLR	MLR		
	comp=Z,154nm,18.7s						
YKA	Yellowknife Ar	21.44	0	P	P	23 32 33.7	+0.1
	comp=Z,15nm,0.8s,mb4.4,baz=180,slow=9.8,SNR=90						
YKA				PcP	PcP	23 36 37.4	+1.0
	comp=Z,0.5nm,0.7s,baz=180,slow=2.5,SNR=4.2						
YKA				Lg		23 38 58.0	
	comp=Z,2.2nm,1.1s,baz=173,slow=27,SNR=4.9						
YKA				LR	LR	23 41 23.2	
	comp=Z,154nm,18.7s,MS3.4,baz=30,slow=38						
YKA	Yellowknife Ar	21.44	0	P	P	23 32 33.7	+0.1
YKA				PcP	PcP	23 36 37.4	+1.0
YKA				Lg		23 38 58.0	
YKA				LR	LR	23 41 23.2	
WVT	Waverly	21.70	94	P	P	23 32 38.1	+1.5
WVT				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.4						
WVT	Waverly	21.70	94	P	P	23 32 38.1	+1.5
	comp=Z,21nm,1.3s,mb4.4						
PLAL	Pickwick Lake	21.95	97	eP	P	23 32 41.1	+1.7
	comp=Z,55nm,1.6s,mb4.7						
FCC	Fort Churchill	22.03	30	eP	P	23 32 40.2	+0.2
WCI	Wyandotte Cave	22.18	88	eP	P	23 32 43.8	+2.1
WCI				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.5						
WCI	Wyandotte Cave	22.18	88	eP	P	23 32 43.8	+2.1
	comp=Z,20nm,1.0s,mb4.5						
SWET	Sewanee	23.47	95	eP	P	23 32 56.9	+1.5
ACSO	Alum Creek Sta	24.17	81	eP	P	23 33 02.2	+0.4
	comp=Z,42nm,1.2s,mb4.7						
TKL	Tuckaleechee C	24.93	92	P	P	23 33 09.3	+0.5
TKL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
TKL				MLR	MLR		
	comp=Z,108nm,18.0s,MS3.4						
TKL	Tuckaleechee C	24.93	92	P	P	23 33 09.2	+0.4
	comp=Z,7.1nm,1.0s,mb4.2,baz=278,slow=9.2,SNR=3.8						
TKL				LR	LR	23 42 10.6	
	comp=Z,108nm,18.0s,MS3.4,baz=314,slow=35						
INK	Inuvik	29.06	346	P	P	23 33 46.1	+0.5
INK				pmax	pmax		
	comp=Z,1.0nm,0.9s						
INK	Inuvik	29.06	346	P	P	23 33 46.0	+0.4
	comp=Z,1.0nm,0.9s,mb3.6,baz=208,slow=11,SNR=4.1						
IMA2	Indian Mountai	33.05	332	eP	P	23 34 22.1	+1.3
SCHQ	Schefferville	34.29	50	P	P	23 34 32.0	+0.2
	comp=Z,5.5nm,1.1s,mb4.4,baz=258,slow=15,SNR=3.3						
RES	Resolute Bay	34.92	9	P	P	23 34 37.7	+0.7
RES				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
RES	Resolute Bay	34.92	9	P	P	23 34 37.6	+0.7
	comp=Z,4.2nm,1.1s,mb4.3,baz=201,slow=12,SNR=4.8						
BILL	Bilibino	48.56	331	eP	P	23 36 30.2	+1.7
BILL				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BILL	Bilibino	48.56	331	eP	P	23 36 30.2	+1.6
	comp=Z,4.1nm,0.6s,mb4.6						
SEY	Seymchan	55.54	326	⇑eP	P	23 37 22.6	+2.1
PETK	Petropavlovsk-	57.10	314	P	P	23 37 33.7	+1.9
PETK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
PETK	Petropavlovsk-	57.10	314	P	P	23 37 33.7	+1.9
	comp=Z,11nm,0.9s,mb4.9,baz=78,slow=12,SNR=9.7						
TIXI	Tiksi	58.99	341	⇑eP	P	23 37 45.9	+1.1
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.3						
TIXI	Tiksi	58.99	341	eP	P	23 37 45.4	+0.6
	comp=Z,2.9nm,0.8s,mb4.4						
NOA	NORSAR Array B	69.20	25	P	P	23 38 51.3	-0.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	NORSAR Array B	69.20	25	P	P	23 38 51.3	-0.7
	comp=Z,2.3nm,0.9s,mb4.1,baz=316,slow=9.0,SNR=3.4						
SGMF	Saint Gilles	72.85	40	eP	P	23 39 18.4	+4.0
	comp=Z,145nm,1.6s,mb5.4						
SGMF	Saint Gilles	72.85	40	eP	P	23 39 18.4	+4.0
SGMF				pmax	pmax		
	comp=Z,73nm,1.6s,mb5.4						
SGMF	Saint Gilles	72.85	40	eP	P	23 39 18.4	+4.0
	comp=Z,73nm,1.6s,mb5.4						
BOD	Bodaibo	73.31	335	eP	P	23 39 15.6	-1.3
BOD				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
SSF	Saint Saulge	76.59	38	eP	P	23 39 40.2	+4.1
LOR	Lormes	76.61	38	eP	P	23 39 41.4	+5.3
	comp=Z,38nm,1.3s,mb4.8						
LOR	Lormes	76.61	38	eP	P	23 39 41.4	+5.3
LOR				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
LOR	Lormes	76.61	38	eP	P	23 39 41.4	+5.3
	comp=Z,19nm,1.3s,mb4.9						
AVF	Avril sur Loir	76.72	38	eP	P	23 39 40.5	+3.7
	comp=Z,20nm,1.3s,mb4.6						
AVF	Avril sur Loir	76.72	38	eP	P	23 39 40.5	+3.7
AVF				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
AVF	Avril sur Loir	76.72	38	eP	P	23 39 40.5	+3.7
	comp=Z,9.8nm,1.3s,mb4.6						
MDJ	Mudanjiang	76.94	319	P	P	23 39 37.5	-0.6
MDJ				sP	sP	23 39 41.9	-0.7
MDJ				PcP	PcP	23 39 48.5	-0.7
MDJ				pmax	pmax		
	comp=Z,8.0nm,1.9s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,140nm,5.1s						
SMF	Signal de Mont	77.05	38	eP	P	23 39 42.8	+4.1
HAU	Haudompre	77.19	36	eP	P	23 39 39.4	0.0
CDF	Champ du Feu	77.29	35	eP	P	23 39 44.6	+4.6
HINF	Hinteralfeld	77.56	36	eP	P	23 39 43.9	+2.4
MJAR	Matsushiro Arr	77.80	308	P	P	23 39 43.1	+0.1
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MJAR	Matsushiro Arr	77.80	308	P	P	23 39 43.1	+0.1
	comp=Z,1.5nm,0.7s,mb4.0,baz=49,slow=6.1,SNR=3.0						
BRG	Berggiesshubel	78.11	30	P	P	23 39 49.6	+5.1
BRG				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.6						
BRG	Berggiesshubel	78.11	30	e(P)	P	23 39 49.6	+5.1
	comp=Z,19nm,1.6s,mb4.8						
CN2	Changchun	79.58	320	eP	P	23 39 53.1	+0.4
GERES	GERESS Array B	79.64	32	P	P	23 39 53.7	+0.8
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	79.64	32	P	P	23 39 53.7	+0.8
	comp=Z,0.8nm,0.7s,mb3.8,baz=334,slow=6.5,SNR=3.2						
AKASG	Malin Array Be	83.35	22	P	P	23 40 11.8	-0.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	83.35	22	P	P	23 40 11.8	-0.7
	comp=Z,1.3nm,0.6s,mb4.1,baz=327,slow=4.8,SNR=4.4						
ZALV	Zalesovo Beam	83.83	348	P	P	23 40 14.7	-0.2
	comp=Z,0.4nm,0.3s,mb4.1,baz=7.1,slow=5.8,SNR=3.0						
SONM	Songino Array	84.19	333	P	P	23 40 17.6	+0.7
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	84.19	333	P	P	23 40 17.6	+0.7
	comp=Z,0.6nm,0.5s,mb4.0,baz=46,slow=4.2,SNR=2.8						
KEST	Kesra	88.03	42	P	P	23 40 37.6	+1.5
	comp=Z,1.6nm,1.0s,mb4.2,baz=115,slow=5.1,SNR=4.0						
HHC	Hu-ho-hao-te	88.18	327	eP	P	23 40 36.3	-0.4
HHC				PP	PP	23 44 04.4	+1.5
HHC				SKS		23 51 01.3	
HHC				eS	S	23 51 16.5	-4.6
HHC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
HHC				pmax	pmax		
	comp=Z,140nm,5.0s						
HHC				LR	LR		
	comp=N,190nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=E,230nm,15.5s,MS4.8						
HHC				LR	LR		
	comp=Z,180nm,12.5s,MS4.7						
PLCA	Paso Flores	90.86	148	P	P	23 40 51.2	+2.3
PLCA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
PLCA	Paso Flores	90.86	148	P	P	23 40 51.1	+2.3
	comp=Z,1.2nm,0.9s,mb4.2,baz=208,slow=2.8,SNR=2.8						
MKAR	Makanchi Array	91.17	348	P	P	23 40 51.0	+0.4
MKAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
MKAR	Makanchi Array	91.17	348	P	P	23 40 51.0	+0.4
	comp=Z,2.5nm,1.1s,mb4.5,baz=15,slow=5.0,SNR=7.6						
MKAR	Makanchi Array	91.17	348	P	P	23 40 51.0	+0.4
NJ2	Nanjing	91.93	317	eP	P	23 40 54.5	+0.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.4						
SOC	Sochi	92.67	18	eP	P	23 40 56.1	-1.5
LZH	Lanzhou	95.36	329	eP	P	23 41 10.0	-0.1
LZH				pP	pP	23 41 14.8	+1.3
LZH				sP	sP	23 41 17.3	+2.7
LZH				ePP	PP	23 45 01.6	+2.1
LZH				pmax	pmax		
	comp=Z,15nm,1.5s,mb5.2						
LZH				pmax	pmax		
	comp=Z,78nm,6.1s						
LZH				LR	LR		
	comp=E,120nm,17.4s						
LZH				LR	LR		
	comp=Z,190nm,19.8s,MS4.6						
CD2	Chengdu	99.94	327	P	Pdif	23 41 31.5	+0.8
CD2				pP		23 41 36.3	
CD2				sP		23 41 37.5	
CD2				PP	PP	23 45 38.3	+3.6
CD2				SKS		23 52 08.3	
CD2				S	S	23 53 01.5	-3.8
CD2				sS	sS	23 53 08.4	-2.5
CD2				SS	SS	23 59 55.1	-1.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.5						
CD2				pmax	pmax		
	comp=Z,150nm,5.9s						
CD2				LR	LR		
	comp=N,200nm,7.6s						
CD2				LR	LR		
	comp=Z,210nm,6.5s						
GYA	Guiyang	102.52	322	eP	Pdif	23 41 42.9	+0.7
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WRA	Warramunga Arr	118.29	268	PKIKP	PKPdf	23 46 33.4	+0.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	118.29	268	PKP	PKPdf	23 46 33.4	+0.1
	comp=Z,0.8nm,0.7s,baz=56,slow=1.9,SNR=3.1						
BOSA	Boshof	145.31	82	PKPbc	PKPbc	23 47 23.3	-0.1
	comp=Z,6.9nm,1.0s,baz=264,slow=6.4,SNR=7.0						

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*IDC **22** 23:40:45.6±3.2, 1°.97S×139°.74E, h0km, mb3.6/3, mb1 4.0/4, mb1mx3.7/15, mbtmp3.8/4, ML4.2/1, Error ellipse: s-maj=108.3km s-min=28.5km az=92.0*

NEIC 22 23:40:47.7±0.7**, 2°.00S**×**139°.51E, h10**km**, mb3.8**/2**, Error ellipse: s-maj=38.7km s-min=9.7km az=105.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	16.37	19	Pn	Pn	23 44 37.8	0.0
	695nm,1.7s						
WRAB	Tennant Creek	18.52	195	eP	Pn	23 45 04.4	-0.2
	26nm,1.5s						
WRA	Warramunga Arr	18.54	195	P	Pn	23 45 04.2	-0.6
	0.9nm,0.3s,baz=18,slow=12,SNR=47						
FITZ	Fitzroy Crossi	21.01	219	P	P	23 45 33.3	+1.7
	3.1nm,0.9s,baz=47,slow=14,SNR=5.6						
FITZ	Fitzroy Crossi	21.01	219	eP	P	23 45 31.8	+0.2
	1.0nm,0.4s						
ASAR	Alice Springs	22.21	194	P	P	23 45 44.9	+0.4
	1.8nm,0.6s,baz=22,slow=11,SNR=24						
MKAR	Makanchi Array	69.72	322	P	P	23 51 57.7	-0.2
	0.3nm,0.7s,baz=116,slow=6.1,SNR=3.5						
TORD	Torodi Ar. Bea	136.82	287	PKP	PKPdf	00 00 12.5	+0.8
	0.3nm,0.7s,baz=60,slow=2.1,SNR=2.3						

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*ISK **22** 23:44:20.8, 36°.86N×27°.62E, h7km, MD3.2*

*ISCJB **22** 23:44:21.3±0.6, 36°.86N±0°.04×27°.62E±0°.06, h8km±6km, Error ellipse: s-maj=8.5km s-min=5.9km az=155.3*

*CSEM **22** 23:44:21.4±0.1, 36°.86N×27°.61E, h8km, MD3.2, Error ellipse: s-maj=3.0km s-min=2.4km az=43.0*

*ATH **22** 23:44:21.7, 36°.81N×27°.47E, h10km, MD3.2/3*

ISC 22 23:44:21.4±0.6**, 36°.84N**±0°.04×**27°.60E**±0°.06**, h10**km±6km**,** **n24,** σ0ˢ.45/28**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAT	Datca	0.11	188	ePG	Pg	23 44 24.3	+0.1
DAT				eSG	Sg	23 44 26.5	+0.3
DAT	Datca	0.11	188	ePg	Pg	23 44 24.3	+0.1
DAT				eSg	Sg	23 44 26.5	+0.3
BODT	Bodrum	0.32	314	ePG	Pg	23 44 27.6	-0.1
BODT				eSG	Sg	23 44 32.6	+0.5
BODT	Bodrum	0.32	314	ePg	Pg	23 44 27.7	-0.1
BODT				eSg	Sg	23 44 32.6	+0.5
MLSB	Milas	0.47	17	ePG	Pg	23 44 29.9	-0.8
MLSB	Milas	0.47	17	ePg	Pg	23 44 29.9	-0.8
YER	Yerkesik	0.62	62	ePG	Pg	23 44 33.6	+0.1
YER	Yerkesik	0.62	62	ePg	Pg	23 44 33.6	+0.1
ARG	Arkhangelos	0.76	146	ePB	Pb	23 44 36.9	+0.2
ARG	Arkhangelos	0.76	146	ePb	Pb	23 44 36.9	+0.2
DALT	Dalyan (Mudla)	0.84	95	ePG	Pg	23 44 37.2	-0.3
DALT	Dalyan (Mudla)	0.84	95	ePg	Pg	23 44 37.2	-0.4
SMG	Samos	1.06	325	ePB	Pb	23 44 41.2	-0.6
SMG	Samos	1.06	325	ePb	Pb	23 44 41.2	-0.6
KARP	Karpathos	1.34	195	ePB	Pb	23 44 45.8	-0.8
KARP	Karpathos	1.34	195	ePb	Pb	23 44 45.8	-0.8
IZM	Izmir	1.57	350	ePN	Pn	23 44 49.5	+0.1
IZM	Izmir	1.57	350	ePn	Pn	23 44 49.5	+0.1
BLCB	Balcova	1.60	344	ePN	Pn	23 44 50.1	+0.3
BLCB	Balcova	1.60	344	ePn	Pn	23 44 50.1	+0.3
ELL	Elmali	1.86	92	ePN	Pn	23 44 53.9	+0.6
ELL	Elmali	1.86	92	ePn	Pn	23 44 53.9	+0.6
KULA	Kula-Manisa	1.87	26	ePN	Pn	23 44 53.8	+0.3
KULA	Kula-Manisa	1.87	26	ePn	Pn	23 44 53.8	+0.3

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*NEIC **23** 00:06:33.0, 32°.38N×115°.27W, h6km, ML3.0(PAS), After PAS.*

ECX 23 00:06:34.5±0.5**, 32°.44N**×**115°.30W, h6**km**, MD3.2, ML3.3, 3C-5D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	Mount Signal	0.42	300	⇑iP	Pg	00 06 41.6	-0.9
SNR	Schaffner Ranc	0.43	344	eP	Pg	00 06 42.8	-0.2
COA	Coachella	0.45	19	⇓iP	Pg	00 06 42.9	-0.2
EMX	El Mayor	0.46	174	⇓eP	Pg	00 06 42.3	-1.0
EMX				eS	Sg	00 06 48.8	-0.4
EMX				e		00 06 51.0	
	comp=N,1μm,0.8s						
COK	Cook Ranch	0.54	318	eP	Pg	00 06 44.0	-1.0
YUH	Yuha Desert	0.57	291	⇑iP	Pg	00 06 44.1	-1.3
RMX	La Rumorosa	0.68	284	eP	Pg	00 06 46.4	-1.1
RMX				eS	Sg	00 06 55.7	-0.7
CRR	Carrizo Plain	0.72	308	⇑iP	Pg	00 06 46.9	-1.5
GLA	Glamis	0.73	33	⇓iP	Pg	00 06 46.9	-1.6
GLA	Glamis	0.73	33	ePg	Pg	00 06 46.8	-1.7
GLA				eSg	Sg	00 06 56.3	-1.6
RDX	Rancho Dawling	0.75	228	eP	Pg	00 06 47.6	-1.3
RDX				eS	Sg	00 06 57.9	-0.7
RDX				⇓e		00 06 59.8	
	comp=N,983nm,0.5s						
ECBX	El Chinero	0.99	168	⇓eP	Pg	00 06 52.0	-1.5
ECBX				eS	Sg	00 07 05.5	-0.9
CBX	Cerro Bola	1.16	264	eP	Pg	00 06 55.0	-1.8
CBX				eS	Sg	00 07 10.3	-1.6
BAR	Barrett	1.19	282	ePg	Pg	00 06 55.1	-2.1
BAR				eSg	Sg	00 07 10.9	-1.8

ECNX	Esteban Cantu	1.35	235	*e*P	Pn	00 06 58.1	-1.8
PBX	Punta Banda	1.40	240	*e*P	Pn	00 06 58.7	-1.8
PBX				*e*S	Sb	00 07 17.6	-1.5
PFO	Pinyon Flat Ob	1.52	320	*e*Pg	Pg	00 06 58.2	-5.4
MWC	Mount Wilson	2.92	308	*e*Pn	Pn	00 07 21.1	-0.3
MWC				*e*Sn	Sn	00 07 56.8	0.0
TUC	Tucson	3.82	91	*e*Pn	Pn	00 07 32.4	-1.4
TUC				*e*Sn	Sn	00 08 16.9	-2.1

UPP ***23*** *00:27:06.2, 67°.83N×20°.18E, h0^{km}, ML1.0, Mining explosion.*

CSEM ***23*** *00:27:06.2, 67°.83N×20°.18E, h0^{km}, ML1.0, Mining explosion.*

HEL 23 00:26:52.8±0.1**, 67°.82N×20°.22E, h0**^{km}**, ML1.5, ML2.5**(UPP)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.14	18	*i* P	Pg	00 26 55.1	-0.3
KUA				*i* S	Sg	00 26 57.2	0.0
LANU	Lannavaara	0.71	70	*e*P	Pg	00 27 05.4	-0.8
	baz=263						
LANU				*e*S	Sg	00 27 15.3	-0.1
LANU				*e*RG		00 27 16.2	
LANU	Lannavaara	0.71	70	Pg	Pg	00 27 05.4	-0.9
LANU				Sg	Sg	00 27 15.3	-0.1
DUNU	Dundret	0.72	169	*i* P	Pg	00 27 05.6	-0.9
DUNU	Dundret	0.72	169	P	Pg	00 27 05.6	-0.9
MASU	Masugnsbyn	0.77	118	*i* P	Pg	00 27 06.9	-0.7
MASU	Masugnsbyn	0.77	118	P	Pg	00 27 06.9	-0.7
SALU	Saltoluokta	0.79	237	*i* P	Pg	00 27 07.2	-0.8
SALU	Saltoluokta	0.79	237	P	Pg	00 27 07.2	-0.8
KIF	Kilpisjarvi	1.21	10	*e*PB	Pb	00 27 15.4	-1.0
	baz=199						
KIF				MSG		00 27 31.8	
	comp=Z,4.4nm,0.4s						
KIF				*e*SB	Sb	00 27 31.8	-0.8
KIF				*e*RG		00 27 35.7	
KIF	Kilpisjarvi	1.21	10	Pg	Pg	00 27 15.4	-0.5
KIF				Sg	Sg	00 27 31.8	+0.3
PAJU	Pajala	1.38	124	*e*P	Pg	00 27 17.4	-1.7
PAJU	Pajala	1.38	124	P	Pg	00 27 17.4	-1.7
HEF	Hetta	1.42	64	*e*P	Pn	00 27 18.2	-1.6
	baz=247						
HEF				MSG		00 27 38.0	
	comp=Z,2.5nm,0.4s						
HEF				*e*SN	Sn	00 27 38.0	-1.1
HEF	Hetta	1.42	64	Pg	Pg	00 27 18.2	-1.7
HEF				Sg	Sg	00 27 38.0	-0.2
SGF	Sodankyl	2.44	96	*e*PB	Pb	00 27 35.4	-2.1
	baz=293						
RNF	Rovaniemi	2.56	116	*e*PB	Pb	00 27 36.9	-2.7
	baz=301						
RNF				*e*SB	Sb	00 28 10.3	-1.3
RNF				MSG		00 28 10.3	
	comp=Z,0.9nm,0.1s						
RNF	Rovaniemi	2.56	116	Pn	Pn	00 27 36.9	+1.4
ARA0	ARCESS Array S	2.59	46	*e*P	Pn	00 27 36.3	+0.5
	baz=225						
ARA0				MSG		00 28 09.4	
	comp=Z,1.9nm,0.3s						
ARA0				*e*SB	Sb	00 28 09.4	-2.8
ARA0	ARCESS Array S	2.59	46	Pn	Pn	00 27 36.3	+0.5
KEV	Kevo	3.14	49	*e*SB	Sb	00 28 26.4	-1.7
KEV				MSG		00 28 26.4	
	comp=Z,2.0nm,0.4s						

LDG ***23*** *01:43:52.0±0.4, 12°.25S×166°.65E, h10^{km}, Mb4.9/4, Ms4.7/1, Error ellipse: s-maj=51.6km s-min=10.8km az=83.0*

NEIC ***23*** *01:43:55.7±0.4, 12°.67S×166°.85E, mb4.8/13, Error ellipse: s-maj=11.3km s-min=8.0km az=117.0*

IDC ***23*** *01:43:55.1±1.5, 12°.85S×166°.91E, h40^{km}±5^{km}, mb4.3/9, mb1 4.5/10, mb1mx4.2/18, mbtmp4.4/10, ML5.2/1, MS4.1/6, Ms1 4.1/6, ms1mx3.7/25, Error ellipse: s-maj=43.8km s-min=18.8km az=128.0*

ISCJB ***23*** *01:43:56.6±2.0, 12°.77S±0°.07×166°.6E±0°.1, h54^{km}±16^{km}, mb4.9/35, MS4.2/8, Error ellipse: s-maj=18.9km s-min=11.0km az=166.4*

BJI ***23*** *01:43:58.9, 11°.81S×166°.59E, h43^{km}, mB5.1/8, mb4.8/19, Ms4.9/2, Ms7 4.4/3*

ISC 23 01:43:59.2±1.6**, 12°.76S**±0°.07×**166°.6E**±0°.1**, h63**^{km}±13^{km}**, h43**^{km}±1.8^{km}**:pP-P, n74, σ0^{s}.79**/50**, mb4.9**/35**, 10C-1D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	7.34	296	P	Pn	01 45 43.4	-0.5
	38nm,0.3s,baz=172,slow=1.8,SNR=31						
HNR				S	Sn	01 47 01.1	-4.7
	12nm,0.3s,baz=359,slow=23,SNR=7.9						
DZM	Mont Dzumac	9.27	181	*e*P	Pn	01 46 10.2	+0.1
DZM	Mont Dzumac	9.27	181	*e*Pn	Pn	01 46 10.5	+0.4
DZM				*e*Sn	Sn	01 47 52.2	-0.6
NOUC	Port Laguerre	9.30	182	*e*P	Pn	01 46 11.6	+1.0
EIDS	Eidsvold	19.30	227	*e*P	Pn	01 48 20.8	+0.1
	10nm,0.6s						
CTA	Charters Tower	20.85	247	*e*P	P	01 48 36.9	+0.9
	11nm,0.8s						
CTAO	Charters Tower	20.85	247	*e*P	P	01 48 36.4	+0.4
	15nm,0.8s						
ARMA	Armidale	22.39	216	*e*P	P	01 48 53.6	+1.2
ARMA	Armidale	22.39	216	*e*P	P	01 48 53.5	+1.1
	56nm,1.3s,mb4.8						
COEN	Coen	22.85	264	*e*P	P	01 48 57.3	-0.1
	102nm,0.9s,mb5.3						
URZ	Urewera	27.06	162	LR	LR	01 58 22.7	
	comp=Z,339nm,19.6s,baz=169,slow=32						
STKA	Stephens Creek	29.85	226	*e*P	P	01 50 01.5	+0.9
	5.8nm,0.8s,mb4.4						
STKA	Stephens Creek	29.85	226	P	P	01 50 00.0	-0.6
	7.4nm,0.7s,mb4.5,baz=41,slow=13,SNR=8.3						
STKA				LR	LR	02 01 01.8	
	comp=Z,426nm,20.0s,baz=28,slow=34						
WRAB	Tennant Creek	31.75	253	*e*P	P	01 50 16.1	-1.4
	5.6nm,0.9s,mb4.4						
WRA	Warramunga Arr	31.76	253	P	P	01 50 16.9	-0.7
	4.6nm,0.9s,mb4.3,baz=86,slow=8.6,SNR=20						
WRA				pP	pP	01 50 29.1	-4.0
	3.7nm,0.9s,baz=84,slow=9.4,SNR=6.9						
WRA				LR	LR	02 01 37.1	
	comp=Z,283nm,21.7s,baz=80,slow=33						
ASAR	Alice Springs	32.85	246	P	P	01 50 26.1	-1.1
	8.1nm,0.7s,mb4.8,baz=73,slow=9.7,SNR=81						
ASAR				pP	pP	01 50 38.5	-4.1
	4.8nm,0.8s,baz=73,slow=9.4,SNR=9.1						
GUMO	Guam	33.92	320	LR	LR	02 02 41.8	
	comp=Z,371nm,21.6s,baz=125,slow=33						
FORT	Forrest	39.81	237	*e*P	P	01 51 25.6	-0.8
	26nm,0.8s,mb5.0						
FORT				*e*	pP	01 51 39.5	-2.7
FORT	Forrest	39.81	237	*e*P	P	01 51 25.5	-1.0
	31nm,0.8s,mb5.1						
FORT				*e*pP	pP	01 51 39.3	-3.0
FITZ	Fitzroy Crossi	39.81	257	*e*P	P	01 51 26.0	-0.6
	10nm,0.9s,mb4.6						
FITZ	Fitzroy Crossi	39.81	257	LR	LR	02 07 05.0	
	comp=Z,196nm,18.1s,baz=114,slow=35						
PPT	Papeete	42.47	102	*e*LR	LR	02 03 45.6	
	610nm,27.2s						
KAPI	Kappang	46.89	275	*e*P	P	01 52 22.9	-0.9
	20nm,1.1s,mb5.0						
NWAO	Narrogin (SRO)	49.25	237	LR	LR	02 13 26.2	
	comp=Z,301nm,19.8s,baz=11,slow=36						
MUN	Mundaring	49.92	239	*e*P	P	01 52 46.7	-0.1
TAOE	Nuku Hiva Isla	52.35	91	*e*LR	LR	02 08 16.5	
	1µm,27.9s						
KKM	Kota Kinabalu	53.46	287	*e*P	P	01 53 14.0	+0.5
	65nm,1.0s,mb5.5						
RKT	Rikitea	56.20	109	*e*LR	LR	02 10 04.0	
	284nm,27.5s						
KSM	Kuching	57.64	280	*e*P	P	01 53 43.5	0.0
YHNB	Yeheng	57.74	310	*e*P	P	01 53 44.1	+0.2
	33nm,1.1s,mb5.3						
PETK	Petropavlovsk-	66.04	354	P	P	01 54 37.6	-1.5
	2.9nm,0.9s,mb4.3,baz=140,slow=11,SNR=3.2						
XAN	Xi'an	71.91	312	P	P	01 55 16.3	+0.4
XAN				pP	pP	01 55 27.8	-5.3
XAN				sP	sP	01 55 33.0	-7.1
XAN				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
XAN				pmax	pmax		
	comp=Z,140nm,10.2s						
KMI	Kunming	72.75	302	P	P	01 55 22.8	+1.7
KMI				pP	pP	01 55 34.8	-3.5
KMI				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
KMI				pmax	pmax		
	comp=Z,120nm,4.9s						
KMI				LR	LR		
	comp=N,330nm,20.2s						
KMI				LR	LR		
	comp=E,190nm,22.1s						
KMI				LR	LR		
	comp=Z,260nm,34.3s						
CMAR	Chiang Mai Arr	73.59	294	P	P	01 55 27.4	+1.3
	comp=Z,7.0nm,0.7s,mb4.7,baz=123,slow=4.3,SNR=28						
CMAR				pP	pP	01 55 39.5	-3.9
	comp=Z,4.6nm,0.6s,baz=118,slow=4.3,SNR=3.9						
CHTO	Chiang Mai	73.71	294	*e*P	P	01 55 27.2	+0.3
	comp=Z,22nm,1.4s,mb4.9						
LZH	Lanzhou	76.54	312	⇓P	P	01 55 44.5	+1.6
LZH				pP	pP	01 55 55.0	-5.2
LZH				sP	sP	01 55 59.1	-8.1
LZH				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
LZH				pmax	pmax		
	comp=Z,89nm,4.3s						
ULN	Ulaanbaatar	80.18	324	*e*P	P	01 56 03.1	+0.4
	comp=Z,4.8nm,0.9s,mb4.4						
SONM	Songino Array	80.55	324	P	P	01 56 04.5	-0.1
	comp=Z,2.5nm,0.9s,mb4.1,baz=132,slow=2.2,SNR=8.6						
SONM				pP	pP	01 56 17.3	-4.8
	comp=Z,2.1nm,0.8s,baz=130,slow=4.6,SNR=3.4						
GTA	Gaotai	80.86	314	*e*P	P	01 56 07.9	+1.4
GTA				pP	pP	01 56 19.8	-4.2
GTA				sP	sP	01 56 24.4	-6.5
GTA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
GTA				pmax	pmax		
	comp=Z,130nm,4.5s						
GTA				LR	LR		
	comp=N,200nm,15.7s						
GTA				LR	LR		
	comp=E,230nm,16.4s						
GTA				LR	LR		
	comp=Z,130nm,14.9s						
LSA	Lhasa	83.99	302	*e*P	P	01 56 23.9	+0.8
	comp=Z,3.6nm,0.6s,mb4.7						
TLY	Talaya	84.02	326	*e*P	P	01 56 22.3	-0.4
	comp=Z,2.4nm,0.9s,mb4.3						
TAPN	Taplejung	86.19	299	*e*P	P	01 56 34.4	+0.3
	comp=Z,18nm,1.0s,mb5.3						
ODAN	Odare	86.32	298	*e*P	P	01 56 35.1	+0.3
	comp=Z,55nm,1.0s,mb5.8						
RAMN	Ramite	87.03	298	*e*P	P	01 56 38.4	+0.2
	comp=Z,8.4nm,0.6s,mb5.2						
JIRN	Jiri	87.57	299	*e*P	P	01 56 41.3	+0.5
	comp=Z,17nm,0.9s,mb5.3						
GUN	Gumba	87.90	299	*e*P	P	01 56 42.3	-0.1
	comp=Z,25nm,0.9s,mb5.4						
PKI	Pulchoki	88.21	299	*e*P	P	01 56 43.9	0.0
	comp=Z,32nm,1.0s,mb5.5						
KKN	Kakani	88.38	299	*e*P	P	01 56 44.6	-0.1
	comp=Z,27nm,0.8s,mb5.5						
DMN	Daman	88.48	299	*e*P	P	01 56 45.4	+0.2
	comp=Z,58nm,0.9s,mb5.8						
GKN	Gorkha	88.98	299	*e*P	P	01 56 47.0	-0.5
	comp=Z,40nm,0.9s,mb5.8						
KOLN	Koldanda	89.81	298	*e*P	P	01 56 50.9	-0.5
	comp=Z,26nm,1.1s,mb5.5						
DANN	Dangsing	89.82	299	*e*P	P	01 56 51.3	-0.1
MKAR	Makanchi Array	95.35	317	P	P	01 57 16.4	-0.1
	comp=Z,3.1nm,0.8s,mb4.8,baz=99,slow=6.1,SNR=34						
MKAR				pP	pP	01 57 28.4	-5.9
	comp=Z,4.4nm,0.8s,baz=98,slow=6.3,SNR=19						
ZALV	Zalesovo Beam	95.44	324	P	P	01 57 15.7	-1.1
	comp=Z,1.0nm,0.6s,mb4.4,baz=117,slow=5.2,SNR=5.6						
ZALV				pP	pP	01 57 27.4	-7.1
	comp=Z,0.5nm,0.4s,baz=98,slow=4.5,SNR=2.6						
YKA	Yellowknife Ar	96.09	27	P	P	01 57 17.5	-2.0
	comp=Z,0.2nm,0.7s,mb3.6,baz=273,slow=4.7,SNR=4.5						
ARCES	ARCESS Array B	118.20	345	PKP	PKPdf	02 02 37.1	-1.5
	comp=Z,6.5nm,1.0s,baz=64,slow=2.8,SNR=10						
LPL	La Plagne	143.15	336	*e*PKP1	PKPdf	02 03 24.9	-1.3
MBDF	Montbardon	143.78	335	*e*PKP1	PKPdf	02 03 25.8	-1.6
	comp=Z,3.0nm,0.8s						
ORIF	Oris-en-Rattie	143.98	337	*e*PKP1	PKPdf	02 03 25.7	-2.0
	comp=Z,12nm,0.8s						
TCF	Toulx Ste Croi	144.07	341	*e*PKP1	PKPdf	02 03 25.5	-2.3
SBF	Sospel	144.21	334	⇑*i*PKP1	PKPdf	02 03 25.8	-2.3
	comp=Z,22nm,0.8s						
MFF	Saint Martin d	144.47	344	⇑*i*PKP1	PKPdf	02 03 26.8	-1.7
	comp=Z,10.0nm,0.7s						
VIVF	Saint-Julien-l	144.49	338	⇑*i*PKP1	PKPdf	02 03 27.3	-1.3
	comp=Z,15nm,1.1s						
PGF	Pioggiola	144.54	331	⇑*i*PKP1	PKPdf	02 03 27.2	-1.5
	comp=Z,22nm,0.8s						
FRF	La Foret Royal	144.79	334	⇑*i*PKP1	PKPdf	02 03 27.8	-1.3
	comp=Z,24nm,0.9s						
SMRF	Simiane la Rot	144.89	336	⇑*i*PKP1	PKPdf	02 03 28.8	-0.5
	comp=Z,9.1nm,0.8s						
LMR	La Mourre	145.03	334	⇑*i*PKP1	PKPbc	02 03 28.7	-0.3
	comp=Z,22nm,0.9s						
RJF	Les Rejaudoux	145.17	341	⇑*i*PKP1	PKPbc	02 03 29.4	0.0
	comp=Z,20nm,1.1s						
CAF	Calviac	145.34	341	*e*PKP1	PKPbc	02 03 30.2	+0.3
LASF	Ste Croix	145.46	338	⇑*i*PKP1	PKPbc	02 03 30.5	+0.1
	comp=Z,18nm,1.0s						
LFF	La Frestale	145.74	342	*e*PKP1	PKPbc	02 03 31.0	-0.2
MTLF	Montolieu	146.69	339	⇑*i*PKP1	PKPbc	02 03 34.1	0.0
	comp=Z,14nm,0.9s						
KEST	Kesra	149.29	322	PKPbc	PKPbc	02 03 41.3	0.0
	comp=Z,3.0nm,0.8s,baz=293,slow=2.9,SNR=10						
TORD	Torodi Ar. Bea	165.31	273	PKPab	PKPab	02 04 55.8	+0.3
	comp=Z,4.3nm,0.9s,baz=83,slow=4.8,SNR=20						
TORD				pPKPab	pPKPab	02 05 07.5	-5.7
	comp=Z,3.5nm,0.9s,baz=77,slow=3.8,SNR=8.0						

ISCJB ***23*** *01:47:58.8±0.5, 1°.32S±0°.09×15°.74W±0°.07, h10^{km}, mb4.2/21, MS4.6/14, Error ellipse: s-maj=14.5km s-min=8.1km az=147.1*

IDC ***23*** *01:47:58.9±0.8, 1°.25S×15°.67W, h0^{km}, mb3.9/12, mb1 4.1/13, mb1mx3.9/24, mbtmp3.9/13, ML3.7/1, MS4.6/16, Ms1 4.6/16, ms1mx4.5/29, Error ellipse: s-maj=26.2km s-min=18.4km az=132.0*

NEIC ***23*** *01:48:00.4±0.3, 1°.30S×15°.68W, h10^{km}, mb4.6/11, Error ellipse: s-maj=11.7km s-min=7.6km az=143.0*

ISC 23 01:48:00.6±0.5**, 1°.31S**±0°.09×**15°.74W**±0°.07**, h10**^{km}**, n47, σ1^{s}.14**/39**, mb4.2**/21**, MS4.6**/14**, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIC	Lamto	13.06	55	*e*P	Pn	01 51 09.6	+3.2
	132nm,1.5s						
LIC	Lamto	13.06	55	*e*P	Pn	01 51 09.0	+2.6
	109nm,1.5s						
LIC	Lamto	13.06	55	*e*P	Pn	01 51 09.6	+3.2
	66nm,1.5s						
TIC	Toumodi	13.31	53	*e*P	Pn	01 51 11.9	+2.1
	346nm,1.6s						
KIC	Kosan Boka	13.37	55	*e*P	Pn	01 51 12.5	+1.9
	193nm,1.4s						
DBIC	Dimbokro	13.45	54	Pn	Pn	01 51 10.2	-1.5
	0.4nm,0.3s,baz=221,slow=14,SNR=9.4						
DBIC				Sn	Sn	01 53 32.9	-8.6
	0.4nm,0.3s,baz=341,slow=19,SNR=3.0						
DBIC				LR	LR	01 55 24.4	
	comp=Z,5µm,20.8s,baz=204,slow=33						
DBIC	Dimbokro	13.45	54	Pn	Pn	01 51 10.2	-1.5
DBIC				Sn	Sn	01 53 32.9	-8.6
DBIC				LR	LR	01 55 24.4	
BBTS	Babate	15.89	357	Pn	Pn	01 51 48.4	+3.8
	1.1nm,0.3s,baz=160,slow=5.1,SNR=5.1						
BBTS				LR	LR	01 57 25.0	
	comp=Z,3µm,18.8s,baz=0.4,slow=36						
RCBR	Riachuelo	20.61	257	*e*P	P	01 52 41.6	+1.3
	38nm,1.5s						
TOA0	Torodi Ar. Sit	22.49	50	*e*P	P	01 53 00.6	+0.2
TORD	Torodi Ar. Bea	22.49	50	P	P	01 52 59.0	-1.4
	8.8nm,1.1s,mb4.1,baz=227,slow=6.1,SNR=29						
TORD				PcP	PcP	01 56 56.0	+1.3
	0.5nm,0.8s,baz=236,slow=1.7,SNR=2.9						
TAM	Tamanrasset	31.68	40	*e*P	P	01 54 25.5	+1.0
	3.0nm,1.0s,mb4.1						
ESDC	Sonseca Array	42.20	14	LR	LR	02 13 51.3	
	comp=Z,905nm,19.1s,MS4.7,baz=180,slow=37						
KEST	Kesra	43.66	30	P	P	01 56 06.4	+0.8
	0.9nm,0.7s,mb3.6,baz=243,slow=11,SNR=3.0						
KEST				LR	LR	02 15 18.9	
	comp=Z,881nm,18.1s,MS4.7,baz=316,slow=38						
LSZ	Lusaka	45.51	110	P	P	01 56 21.9	+1.2
	1.8nm,0.8s,mb4.1,baz=302,slow=6.6,SNR=4.1						
LSZ				LR	LR	02 12 13.4	
	comp=Z,752nm,21.2s,MS4.6,baz=289,slow=32						
LSZ	Lusaka	45.51	110	*e*P	P	01 56 20.8	+0.1
	8.6nm,1.1s,mb4.6						
LSZ				LR	LR	02 12 13.4	
SJPF	Ste Jean	46.12	15	*e*P	P	01 56 24.8	-0.3
	34nm,1.3s,mb4.8						
SJPF	Ste Jean	46.12	15	*e*P	P	01 56 24.8	-0.3
	17nm,1.3s,mb4.8						
SUR	Sutherland	46.24	136	LR	LR	02 12 14.0	
	comp=Z,534nm,19.7s,MS4.5,baz=305,slow=32						
SUR	Sutherland	46.24	136	*e*P	P	01 56 26.7	+0.4
	16nm,1.0s,mb4.9						
EPF	Esparros	46.46	16	*e*P	P	01 56 28.2	+0.5
	26nm,1.3s,mb4.7						
EPF	Esparros	46.46	16	*e*P	P	01 56 28.2	+0.5
	13nm,1.3s,mb4.7						
SIV	San Ignacio	46.98	249	P	P	01 56 33.1	+0.7
	0.5nm,0.5s,mb3.7,baz=260,slow=17,SNR=4.0						
CPUP	Villa Florida	47.07	234	P	P	01 56 33.4	+0.5
	0.3nm,0.3s,mb3.6,baz=61,slow=7.1,SNR=5.5						
CPUP				LR	LR	02 13 47.7	
	comp=Z,1µm,20.5s,MS4.9,baz=45,slow=33						
BOSA	Boshof	47.60	129	P	P	01 56 35.4	-1.6
	5.2nm,0.7s,mb4.7,baz=312,slow=7.1,SNR=10						
BOSA				LR	LR	02 13 14.5	
	comp=Z,398nm,18.2s,MS4.4,baz=312,slow=32						
LFF	La Frestale	48.33	16	*e*P	P	01 56 42.3	0.0
MBDF	Montbardon	50.03	21	*e*P	P	01 56 56.5	+1.1
	12nm,1.1s,mb4.6						
MBDF	Montbardon	50.03	21	*e*P	P	01 56 56.5	+1.1
	6.2nm,1.0s,mb4.6						
GERES	GERESS Array B	56.08	23	P	P	01 57 39.6	-0.3
	0.9nm,0.6s,mb4.0,baz=189,slow=7.6,SNR=3.4						
GERES				LR	LR	02 24 19.1	
	comp=Z,513nm,18.2s,MS4.7,baz=85,slow=39						
ROSC	El Rosal	58.85	276	LR	LR	02 20 34.9	
	comp=Z,653nm,20.4s,MS4.7,baz=44,slow=33						
LCO	Las Campanas	59.08	237	*e*P	P	01 58 01.4	0.0
	3.4nm,0.8s,mb4.4						
BRTR	Keskin Array B	60.83	42	P	P	01 58 11.4	-1.8
	1.0nm,0.9s,mb4.0,baz=224,slow=6.4,SNR=6.6						
BRTR				LR	LR	02 27 56.8	
	comp=Z,322nm,19.9s,MS4.5,baz=202,slow=40						
PLCA	Paso Flores	63.09	224	LR	LR	02 21 53.4	
	comp=Z,565nm,18.9s,MS4.8,baz=66,slow=32						
AKASG	Malin Array Be	64.39	30	P	P	01 58 35.2	-1.6
	1.8nm,0.9s,mb4.1,baz=232,slow=7.2,SNR=6.2						
AKASG	Malin Array Be	64.39	30	P	P	01 58 35.2	-1.6
NOA	NORSAR Array B	65.56	14	P	P	01 58 42.6	-1.5
	1.6nm,0.8s,mb4.1,baz=209,slow=6.3,SNR=2.8						
NOA				LR	LR	02 25 42.7	
	comp=Z,388nm,20.8s,MS4.6,baz=185,slow=35						
ARCES	ARCESS Array B	75.93	14	P	P	01 59 47.5	+0.2
	2.7nm,0.9s,mb4.2,baz=224,slow=5.0,SNR=3.1						
ARCES				LR	LR	02 32 24.6	
	comp=Z,549nm,20.2s,MS4.9,baz=98,slow=35						
AGMN	Agassiz Refuge	84.40	319	*e*P	P	02 00 32.5	-0.8
	2.4nm,0.8s,mb4.4						
MAW	Mawson	84.45	158	LR	LR	02 29 25.4	
	comp=Z,141nm,19.8s,MS4.3,baz=71,slow=29						
JCT	Junction City	85.54	301	*e*P	P	02 00 38.7	-0.8
	4.3nm,0.6s,mb4.9						
SDCO	Great Sand Dun	90.60	308	*e*P	P	02 01 03.9	+0.4
	2.4nm,1.1s,mb4.4						
YKA	Yellowknife Ar	95.26	333	P	P	02 01 23.4	-1.0
	0.3nm,0.8s,mb3.8,baz=85,slow=5.1,SNR=4.9						
YKA				LR	LR	02 43 14.3	
	comp=Z,201nm,20.2s,MS4.6,baz=120,slow=35						
ASAR	Alice Springs	141.44	132	PKhKP		02 07 25.1	
	1.6nm,0.8s,baz=221,slow=3.3,SNR=8.3						
WRA	Warramunga Arr	143.85	127	PKhKP		02 07 32.8	
	1.4nm,0.8s,baz=247,slow=3.0,SNR=7.8						
KAKA	Kakadu	145.49	115	*e*PKPbc	PKPbc	02 07 40.7	+0.6
CTA	Charters Tower	152.36	141	PKPbc	PKPbc	02 07 58.1	+0.2
	1.8nm,0.3s,baz=40,slow=2.1,SNR=6.1						
CTAO	Charters Tower	152.36	141	*e*PKPdf	PKPdf	02 07 49.9	-1.2
CTAO				*e*PKPbc	PKPbc	02 07 58.3	+0.4

ISCJB ***23*** *01:54:04.9±0.9, 1°.4S±0°.2×15°.8W±0°.2, h10^{km}, mb4.0/9, Error ellipse: s-maj=31.8km s-min=17.0km az=41.9*

IDC ***23*** *01:54:05.2±1.3, 1°.38S×15°.81W, h0^{km}, mb3.9/6, mb1 4.0/7, mb1mx3.8/22, mbtmp3.9/7, ML3.2/1, Error ellipse: s-maj=44.5km s-min=25.7km az=128.0*

NEIC ***23*** *01:54:06.9±0.9, 1°.42S×15°.76W, h10^{km}, mb4.3/3, Error ellipse: s-maj=30.3km s-min=15.7km az=133.0*

ISC 23 01:54:07.0±0.9**, 1°.4S**±0°.2×**15°.8W**±0°.2**, h10**^{km}**, n13, σ0^{s}.93**/13**, mb4.0**/9**, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	Dimbokro	13.53	53	Pn	Pn	01 57 17.7	-1.4
	0.1nm,0.3s,baz=225,slow=18,SNR=5.9						
TORD	Torodi Ar. Bea	22.57	50	P	P	01 59 07.2	-0.4
	11nm,1.2s,mb4.2,baz=233,slow=4.6,SNR=16						
TORD	Torodi Ar. Bea	22.57	50	P	P	01 59 07.2	-0.4
TAM	Tamanrasset	31.77	40	*e*P	P	02 00 33.9	+2.3
	3.9nm,1.3s,mb4.1						
CPUP	Villa Florida	46.99	235	P	P	02 02 38.0	-0.6
	0.2nm,0.3s,mb3.5,baz=63,slow=12,SNR=2.1						
BOSA	Boshof	47.57	129	P	P	02 02 43.5	+0.4
	4.5nm,1.0s,mb4.4,baz=309,slow=1.9,SNR=3.9						
BOSA	Boshof	47.57	129	P	P	02 02 43.5	+0.4
GERES	GERESS Array B	56.18	23	P	P	02 03 47.4	+0.5
	0.7nm,0.6s,mb3.9,baz=200,slow=7.1,SNR=4.6						
PSZ	Piszkesteto	58.11	28	*e*P	P	02 04 00.2	-0.4
	4.9nm,1.0s,mb4.5						
BRTR	Keskin Array B	60.91	42	P	P	02 04 21.1	+0.9
	0.9nm,0.8s,mb3.9,baz=224,slow=6.9,SNR=6.2						
MALT	Malatya	63.58	45	*e*P	P	02 04 38.1	0.0
	1.6nm,0.9s,mb4.0						
AKASG	Malin Array Be	64.48	30	P	P	02 04 43.0	-0.8
	0.2nm,0.2s,mb3.7,baz=229,slow=6.6,SNR=6.1						
AKASG	Malin Array Be	64.48	30	P	P	02 04 43.0	-0.8

IDC 23 01:59:18.8±3.2**, 5°.49S**×**150°.74E, h0**^{km}**, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.8**/16**, mbtmp3.8**/3**, Error ellipse: s-maj=108.1km s-min=44.6km az=119.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	21.46	227	P	P	02 04 09.3	+0.3
	1.0nm,0.5s,baz=52,slow=10,SNR=14						
ASAR	Alice Springs	24.28	220	P	P	02 04 37.9	0.0
	1.1nm,0.6s,baz=57,slow=8.8,SNR=19						
FITZ	Fitzroy Crossi	27.53	241	P	P	02 05 07.1	-0.3
	2.0nm,0.7s,baz=56,slow=4.9,SNR=4.2						
TORD	Torodi Ar. Bea	148.55	286	PKPbc	PKPbc	02 19 08.3	-0.4
	0.8nm,0.5s,baz=78,slow=2.5,SNR=11						

GCMT ***23*** *02:01:02.9±0.2, 51°.96N×176°.46E, h26^{km}, MW5.2/94, Moment Tensor Solution. s46,c69; s94,c161; Duration: 1^{s}.0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.33±.02; M$_{\theta\theta}$-0.39±.02; M$_{\phi\phi}$0.71±.02; M$_{r\theta}$0.25±.04; M$_{\theta\phi}$0.42±.01; M$_{\phi r}$0.34±.03; Best double couple: M$_0$0.80300×10^{17} NP1:φ$_s$334.00000°, δ53.00000°, λ-166.00000°. NP2: φ$_s$236.00000°, δ79.00000°, λ-38.00000°. Principal axes: T 0.9860, Plg17.0000°, Azm290.0000°; N -0.3640, Plg50.0000°, Azm42.0000°; P -0.6210, Plg34.0000°, Azm188.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***23*** *02:01:02.9, 51°.80N×176°.50E, h8^{km}, mb4.9/88, ML4.7(PMR), ML4.7(AEIC), After AEIC.*

BJI ***23*** *02:01:03.9, 52°.38N×176°.23E, h21^{km}, mB5.2/27, mb4.8/35, Ms5.0/28, Ms7 4.6/28*

MOS ***23*** *02:01:04.8±1.0, 51°.97N×176°.31E, h33^{km}, mb5.0/63, MS4.0/7, Error ellipse: s-maj=8.1km s-min=5.3km az=97.3*

ISCJB ***23*** *02:01:04.8±0.7, 51°.86N±0°.05×176°.38E±0°.03, h37^{km}±5^{km}, mb4.7/147, MS4.5/30, Error ellipse: s-maj=8.1km s-min=3.3km az=177.0*

IDC ***23*** *02:01:06.8±2.9, 51°.99N×176°.39E, h38^{km}±23^{km}, mb4.1/25, mb1 4.3/27, mb1mx4.3/31, mbtmp4.2/27, ML4.5/2, MS4.4/17,* *Ms1 4.4/17, ms1mx4.1/34, Error ellipse: s-maj=16.9km s-min=10.2km az=161.0*

ISC 23 02:01:07.7±0.6, **51°.91N**±0°.05×**176°.34E**±0°.03, **h44**^{km}±4^{km}, **h40**^{km}±2.8^{km}:**pP-P, n394,** σ1^{s}.**10**/395, **mb4.7**/147, **MS4.5**/30, **46C-32D, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMY	**Shemya**	**1.60**	**302**	P	**Pn**	**02 01 32.8**	**-0.7**
SMY				S	**Sn**	**02 01 56.0**	**+3.1**
GSTR	**Great Sitkin T**	**4.70**	**85**	*e*Pn	**Pn**	**02 02 18.2**	**+2.3**
ATKA	**Atka Island**	**5.85**	**83**	P	**Pn**	**02 02 29.4**	**-2.3**
ATKA				S	**Sn**	**02 03 35.9**	**-1.4**
NIKO	**Nikolski**	**9.11**	**77**	P	**Pn**	**02 03 15.2**	**-1.1**
SPIA	**Saint Paul Isl**	**9.41**	**51**	P	**Pn**	**02 03 19.8**	**-0.5**
OKFG	**Magazine Ridge**	**9.69**	**75**	P	**Pn**	**02 03 22.8**	**-1.5**
UNV	**Unalaska Valle**	**10.55**	**73**	*e*Pn	**Pn**	**02 03 35.1**	**-1.0**
	212nm,1.2s						
PET	**Petropavlovsk**	**10.85**	**283**	*e*P	**Pn**	**02 03 41.4**	**+1.2**
PET				*e*S	**Sn**	**02 05 35.5**	**-4.6**
PET				pmax	pmax		
	comp=Z,19nm,0.7s						
PET				pmax	pmax		
	comp=Z,400nm,9.0s						
PET				smax			
	comp=N,63nm,0.5s						
PET				smax			
	comp=E,48nm,0.4s						
PET				MLR	MLR		
	comp=Z,1μm,17.0s						
PET				MLR	MLR		
	comp=Z,1μm,17.0s						
PET	**Petropavlovsk**	**10.85**	**283**	*e*Pn	**Pn**	**02 03 37.7**	**-2.5**
PET				*e*Sn	**Sn**	**02 05 31.4**	**-8.7**
PEA0B	**Petropavlovsk-**	**11.43**	**283**	*e*Pn	**Pn**	**02 03 47.6**	**-0.4**
PEA0B				*e*Sn	**Sn**	**02 05 51.1**	**-3.0**
PETK	**Petropavlovsk-**	**11.43**	**283**	Pn	**Pn**	**02 03 48.7**	**+0.7**
	comp=Z,2.5nm,0.3s,baz=97,slow=19,SNR=22						
PETK				Sn	**Sn**	**02 05 52.8**	**-1.3**
	comp=Z,2.7nm,0.3s,baz=79,slow=32,SNR=6.7						
SKR	**Severo-Kuril's**	**12.72**	**272**	*e*P	**Pn**	**02 04 05.0**	**-0.6**
SKR				*e*S	**Sn**	**02 06 21.0**	**-4.7**
SKR				pmax	pmax		
	comp=Z,60nm,0.6s						
SKR				smax			
	comp=N,40nm,0.4s						
SKR				smax			
	comp=E,90nm,0.4s						
SKR				MLR	MLR		
	comp=N,2μm,16.0s						
SKR				MLR	MLR		
	comp=E,1μm,16.0s						
SKR				MLR	MLR		
	comp=Z,1μm,16.0s						
GAMB	**Gambell**	**13.46**	**23**	*e*Pn	**Pn**	**02 04 16.3**	**+0.6**
	comp=Z,186nm,1.7s						
TNA	**Tin City**	**15.86**	**24**	*e*Pn	**Pn**	**02 04 48.1**	**+0.6**
	comp=Z,141nm,1.2s						
SEY	**Seymchan**	**16.86**	**320**	⇑*e*P	**Pn**	**02 05 01.5**	**+1.4**
BILL	**Bilibino**	**16.91**	**347**	⇓*e*P	**Pn**	**02 05 03.1**	**+2.5**
BILL				pmax	pmax		
	comp=Z,97nm,1.7s						
BILL				MLR	MLR		
	comp=Z,1μm,18.0s						
BILL	**Bilibino**	**16.91**	**347**	*e*Pn	**Pn**	**02 05 03.1**	**+2.5**
	comp=Z,208nm,1.5s						
SVW2	**Sparrevohn**	**17.88**	**48**	*e*P	**Pn**	**02 05 14.5**	**+1.8**
TTA	**Tatalina**	**18.36**	**42**	*e*P	**Pn**	**02 05 19.4**	**+0.9**
KDAK	**Kodiak Island**	**18.72**	**59**	P	**Pn**	**02 05 21.5**	**-1.4**
KDAK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KDAK	**Kodiak Island**	**18.72**	**59**	P	**Pn**	**02 05 21.5**	**-1.4**
	comp=Z,1.8nm,0.3s,baz=288,slow=8.2,SNR=20						
KDAK	**Kodiak Island**	**18.72**	**59**	*e*P	**Pn**	**02 05 20.3**	**-2.6**
	comp=Z,64nm,1.0s						
PPLA	**Purkeypile**	**19.98**	**44**	*e*P	**Pn**	**02 05 38.4**	**+0.6**
	comp=Z,340nm,1.5s						
CHUM	**Lake Minchumin**	**20.26**	**42**	*e*P	**P**	**02 05 40.2**	**+1.3**
	comp=Z,100nm,1.2s						
RC01	**Rabbit Creek A**	**20.63**	**50**	*e*P	**P**	**02 05 43.8**	**+0.9**
	comp=Z,130nm,0.9s						
IMA2	**Indian Mountai**	**20.67**	**35**	*e*P	**P**	**02 05 44.0**	**+0.7**
KTH	**Kantishna Hill**	**20.73**	**43**	*e*P	**P**	**02 05 44.6**	**+0.6**
	comp=Z,109nm,1.1s						
BPAW	**Bear Paw Mtn.**	**20.89**	**42**	*e*P	**P**	**02 05 46.5**	**+0.8**
	comp=Z,34nm,1.0s						
TRF	**Thorofare Moun**	**20.97**	**44**	*e*P	**P**	**02 05 47.3**	**+0.7**
	comp=Z,84nm,1.0s						
PMR	**Palmer**	**21.01**	**49**	*e*P	**P**	**02 05 48.6**	**+1.5**
PMR				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.2						
PMR	**Palmer**	**21.01**	**49**	*e*P	**P**	**02 05 48.6**	**+1.5**
	comp=Z,6.5nm,0.5s,mb4.2						
MCK	**McKinley**	**21.63**	**43**	*e*P	**P**	**02 05 54.0**	**+0.3**
MCK				pmax	pmax		
	comp=Z,61nm,1.2s,mb4.9						
MCK	**McKinley**	**21.63**	**43**	*e*P	**P**	**02 05 54.0**	**+0.3**
	comp=Z,60nm,1.2s,mb4.9						
YSS	**Yuzh-Sakhalins**	**22.27**	**271**	*e*P	**P**	**02 06 04.9**	**+4.3**
YSS				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.3						
COLA	**College**	**22.43**	**41**	*e*P	**P**	**02 06 01.7**	**-0.4**
COLA				pmax	pmax		
	comp=Z,47nm,1.1s,mb4.8						
COLA	**College**	**22.43**	**41**	*e*P	**P**	**02 06 01.7**	**-0.4**
	comp=Z,47nm,1.1s,mb4.8						
COLD	**Coldfoot**	**22.44**	**34**	*e*P	**P**	**02 06 02.7**	**+0.5**
	comp=Z,38nm,1.2s,mb4.7						
PAX	**Paxson**	**22.96**	**46**	*e*P	**P**	**02 06 07.1**	**-0.7**
PAX				pmax	pmax		
	comp=Z,61nm,1.1s,mb4.9						
PAX	**Paxson**	**22.96**	**46**	*e*P	**P**	**02 06 07.1**	**-0.8**
	comp=Z,61nm,1.1s,mb5.0						
ASAJ	**Asahikawa**	**23.71**	**264**	P	**P**	**02 06 16.2**	**+0.9**
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.2s						
ASAJ				MLR	MLR		
	comp=Z,553nm,18.6s						
ASAJ	**Asahikawa**	**23.71**	**264**	P	**P**	**02 06 16.1**	**+0.9**
	comp=Z,9.4nm,0.2s,mb4.8,baz=343,slow=32,SNR=4.2						
ASAJ				LR	LR	02 14 45.3	
	comp=Z,553nm,18.6s,MS4.1,baz=283,slow=34						
MENT	**Mentasta**	**23.75**	**47**	*e*P	**P**	**02 06 15.1**	**-0.3**
ERM	**Erimo**	**24.52**	**259**	*e*P	**P**	**02 06 23.0**	**+0.3**
ERM				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.3						
EGAK	**Eagle**	**25.18**	**43**	*e*P	**P**	**02 06 27.4**	**-1.0**
	comp=Z,80nm,0.9s,mb5.2						
PNL	**Peninsula**	**25.64**	**55**	*e*P	**P**	**02 06 34.1**	**+1.5**
	comp=Z,81nm,1.0s,mb5.2						
DAWY	**Dawson**	**25.83**	**45**	*e*P	**P**	**02 06 34.1**	**-0.2**
DAWY				*e*ScP	ScP	02 13 39.6	+1.6
HABR	**Khabarovsk**	**26.40**	**279**	*e*P	**P**	**02 06 38.2**	**-1.5**
HABR				*e**PP	pP	02 06 48.2	-3.2
HABR				*e*		02 07 19.0	
HABR				*e*S	**S**	**02 11 10.8**	**+1.0**
HABR				*SS	sS	02 11 26.8	-2.8
HABR				SS		02 12 15.8	
HABR				MLR	MLR		
	comp=Z,217nm,16.0s,MS3.8						
HYT	**Haines Junctio**	**26.55**	**52**	*e*P	**P**	**02 06 43.9**	**+3.0**
YAK	**Yakutsk**	**26.78**	**310**	*e*P	**P**	**02 06 41.4**	**-1.5**
YAK				*e**PP	pP	02 06 54.0	-0.7
YAK				*e*S	**S**	**02 11 12.2**	**-3.3**
YAK				*e**SS	sS	02 11 27.6	-7.7
YAK				pmax	pmax		
	comp=Z,32nm,1.2s,mb4.7						
YAK				pmax	pmax		
	comp=N,6.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,17nm,1.6s						
YAK				pmax	pmax		
	comp=Z,24nm,0.8s,mb4.8						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,39nm,1.7s						
YAK				smax			
	comp=N,108nm,4.9s						
YAK				smax			
	comp=E,152nm,4.1s						
YAK				MLR	MLR		
	comp=Z,766nm,18.0s,MS4.3						
YAK				MLR	MLR		
	comp=N,314nm,14.0s						
YAK				MLR	MLR		
	comp=E,472nm,20.0s						
YAK	**Yakutsk**	**26.78**	**310**	*e*P	**P**	**02 06 40.5**	**-2.5**
	comp=E,35nm,0.7s,mb5.0						
SKAG	**Skagway**	**27.72**	**55**	*e*P	**P**	**02 06 55.3**	**+4.0**
	comp=E,196nm,2.5s,mb5.3						
KLR	**Kul'dur**	**28.12**	**282**	*e*P	**P**	**02 06 52.2**	**-2.8**
KLR				pmax	pmax		
	comp=Z,63nm,2.0s,mb4.9						
TIXI	**Tiksi**	**28.69**	**331**	*e*P	**P**	**02 06 57.5**	**-2.4**
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.5						
INK	**Inuvik**	**28.79**	**36**	P	**P**	**02 07 01.2**	**+0.4**
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
INK				MLR	MLR		
	comp=Z,622nm,20.0s						
INK	**Inuvik**	**28.79**	**36**	P	**P**	**02 07 01.2**	**+0.4**
	comp=Z,3.0nm,1.0s,mb4.0,baz=233,slow=7.4,SNR=10						
INK				LR	LR	02 20 13.8	
	comp=Z,622nm,20.0s,MS4.2,baz=53,slow=40						
INK	**Inuvik**	**28.79**	**36**	*e*P	**P**	**02 07 01.4**	**+0.5**
	comp=Z,13nm,0.8s,mb4.7						
DLBC	**Dease Lake**	**30.59**	**56**	*e*P	**P**	**02 07 19.0**	**+2.2**
DLBC				*e*pP	pP	02 07 30.6	+2.0
MJAR	**Matsushiro Arr**	**30.93**	**255**	P	**P**	**02 07 20.8**	**+0.7**
	comp=Z,1.1nm,0.7s,mb3.8,baz=318,slow=46,SNR=3.3						
MJAR				LR	LR	02 17 29.4	
	comp=Z,430nm,20.3s,MS4.1,baz=65,slow=32						
CN2	**Changchun**	**34.48**	**277**	*e*P	**P**	**02 07 52.4**	**+1.4**
BOD	**Bodaibo**	**35.21**	**305**	*e*P	**P**	**02 07 56.1**	**-1.0**
BOD				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
KSRS	**Korea Array**	**36.63**	**266**	P	**P**	**02 08 08.8**	**-0.6**
	comp=Z,1.7nm,0.7s,mb4.0,baz=56,slow=7.8,SNR=5.2						
KSRS				LR	LR	02 20 48.8	
	comp=Z,173nm,19.8s,MS3.8,baz=57,slow=32						
YKA	**Yellowknife Ar**	**37.05**	**46**	P	**P**	**02 08 11.9**	**-0.9**
YKA						02 10 32.8	
YKA	**Yellowknife Ar**	**37.05**	**46**	P	**P**	**02 08 11.9**	**-0.9**
	comp=Z,3.0nm,0.4s,mb4.4,baz=287,slow=8.5,SNR=56						
YKA				PcP	PcP	02 10 32.8	+0.3
	comp=Z,1.1nm,0.9s,baz=287,slow=4.4,SNR=3.6						
YKA				ScP	ScP	02 14 16.1	+0.5
	comp=Z,0.3nm,0.7s,baz=290,slow=3.4,SNR=4.8						
YKA				LR	LR	02 22 36.9	
	comp=Z,588nm,21.8s,MS4.3,baz=50,slow=35						
YKA	**Yellowknife Ar**	**37.05**	**46**	P	**P**	**02 08 11.9**	**-0.9**
YKA				PcP	PcP	02 10 32.8	+0.3
YKA				ScP	ScP	02 14 16.1	+0.5
YKA				LR	LR	02 22 36.9	
A07A	**Ashnola River,**	**39.24**	**68**	⇑P	**P**	**02 08 35.6**	**+4.2**
	baz=39						
B07A	**Winthrop**	**39.68**	**69**	⇑P	**P**	**02 08 39.4**	**+4.3**
	baz=40						
D06A	**Cle Elum**	**39.90**	**71**	⇑P	**P**	**02 08 42.0**	**+5.2**
	baz=40						
B08A	**Colville Reser**	**40.19**	**69**	⇑P	**P**	**02 08 42.8**	**+3.5**
	baz=40						
A09A	**Danville**	**40.31**	**67**	⇑P	**P**	**02 08 44.9**	**+4.6**
	baz=40						
RES	**Resolute Bay**	**40.51**	**24**	*e*P	**P**	**02 08 41.8**	**+0.2**
RES				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.5						
RES	**Resolute Bay**	**40.51**	**24**	*e*P	**P**	**02 08 41.8**	**+0.2**
	comp=Z,20nm,1.4s,mb4.5						
C08A	**Higginbotham F**	**40.65**	**69**	⇓P	**P**	**02 08 47.2**	**+4.1**
	baz=40						
B09A	**Rice**	**40.84**	**68**	⇓P	**P**	**02 08 48.5**	**+3.9**
	baz=41,SNR=6.1						
RSW	**Rattlesnake Hi**	**41.05**	**71**	*e*P	**P**	**02 08 51.8**	**+5.4**
C09A	**Chrisman Ranch**	**41.09**	**69**	⇑P	**P**	**02 08 51.6**	**+4.9**
	baz=41						
D08A	**Wollman Farm,**	**41.09**	**70**	⇑P	**P**	**02 08 50.9**	**+4.2**
	baz=41						
F07A	**Phinny Hill Vi**	**41.12**	**72**	⇓P	**P**	**02 08 52.1**	**+5.1**
	baz=41						
EDM	**Edmonton**	**41.17**	**59**	*e*P	**P**	**02 08 46.5**	**-0.8**
NEW	**Newport**	**41.51**	**68**	*e*P	**P**	**02 08 50.1**	**0.0**
NEW				pmax	pmax		
	comp=Z,11nm,1.1s						
NEW	**Newport**	**41.51**	**68**	*e*P	**P**	**02 08 50.1**	**0.0**
	comp=Z,11nm,1.1s,mb4.4						
H06A	**Lindquist Farm**	**41.51**	**74**	⇑P	**P**	**02 08 54.5**	**+4.4**
	baz=41						
A11A	**Hall Mountain,**	**41.59**	**66**	⇓P	**P**	**02 08 55.5**	**+4.7**
	baz=41,SNR=7.3						
YBH	**Yreka Blue Hor**	**41.78**	**79**	P	**P**	**02 08 52.9**	**+0.5**
	comp=Z,3.2nm,0.6s,mb4.1,baz=14,slow=11,SNR=5.3						
E09A	**Wood Farm, Sta**	**41.84**	**70**	⇑P	**P**	**02 08 57.2**	**+4.4**
	baz=42						
D10A	**Wagner Farm, O**	**42.05**	**69**	⇑P	**P**	**02 08 54.1**	**-0.5**
	baz=42,SNR=5.6						
BJI	**Beijing**	**42.30**	**278**	P	**P**	**02 08 58.3**	**+1.6**
BJI				pP	pP	02 09 06.9	-2.0
BJI				sP	sP	02 09 12.3	-1.8
BJI				S	**S**	**02 15 12.8**	**-1.4**
BJI				sS	sS	02 15 32.3	-2.2
BJI				SS	SS	02 18 23.1	-0.5
BJI				pmax	pmax		
	comp=Z,17nm,1.7s,mb4.4						
BJI				pmax	pmax		
	comp=Z,210nm,4.3s						
BJI				LR	LR		
	comp=N,830nm,22.6s,MS4.6						
BJI				LR	LR		
	comp=E,410nm,23.9s,MS4.6						
BJI				LR	LR		
	comp=Z,300nm,22.9s,MS4.1						
WDC	**Whiskeytown Da**	**42.56**	**80**	*e*P	**P**	**02 09 05.6**	**+6.8**
WDC				pmax	pmax		
	comp=Z,73nm,2.1s,mb5.0						
WDC	**Whiskeytown Da**	**42.56**	**80**	*e*P	**P**	**02 09 05.6**	**+6.8**
	comp=Z,73nm,2.1s,mb5.0						
IRK	**Irkutsk**	**42.58**	**300**	*e*P	**P**	**02 08 58.4**	**-0.4**
IRK				pmax	pmax		
	comp=Z,25nm,2.3s,mb4.5						
D11A	**Klaveano Farm,**	**42.60**	**69**	⇓P	**P**	**02 09 02.8**	**+3.7**
	baz=42						
A13A	**Flathead Natio**	**42.70**	**65**	⇑P	**P**	**02 09 04.5**	**+4.7**
	baz=42						
G09A	**Cove**	**42.72**	**72**	⇑P	**P**	**02 09 03.6**	**+3.6**
	baz=42,SNR=7.3						
J07A	**Hines**	**42.88**	**75**	⇓P	**P**	**02 09 04.9**	**+3.5**
	baz=43						
WALA	**Waterton Lakes**	**42.92**	**65**	*e*P	**P**	**02 09 02.8**	**+1.2**
	comp=Z,0.8nm,1.2s						
E11A	**Bogner Ranch,**	**43.05**	**70**	⇓P	**P**	**02 09 05.9**	**+3.2**
	baz=43						
BSMT	**Bassoo Peak**	**43.06**	**67**	*e*P	**P**	**02 09 06.5**	**+3.7**
G10A	**Bishop Farm, J**	**43.10**	**71**	⇑P	**P**	**02 09 07.5**	**+4.4**
	baz=43,SNR=8.9						
H09A	**Durkee**	**43.13**	**72**	⇓P	**P**	**02 09 07.0**	**+3.7**
	baz=43						
MOD	**Modoc**	**43.14**	**77**	*e*P	**P**	**02 09 03.5**	**0.0**
TLY	**Talaya**	**43.20**	**300**	*e*P	**P**	**02 09 03.9**	**+0.1**
TLY				*e*S	**S**	**02 15 32.4**	**+5.3**
TLY				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
TLY				MLR	MLR		
	comp=Z,873nm,20.0s,MS4.7						
BMO	**Blue Mountains**	**43.24**	**72**	*e*P	**P**	**02 09 05.5**	**+1.3**
	comp=Z,7.8nm,1.1s,mb4.3						
A14A	**Double T Ranch**	**43.24**	**65**	⇓P	**P**	**02 09 08.5**	**+4.4**
	baz=43,SNR=6.9						
ULN	**Ulaanbaatar**	**43.29**	**293**	*e*P	**P**	**02 09 04.8**	**+0.2**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
ULN	**Ulaanbaatar**	**43.29**	**293**	*e*P	**P**	**02 09 04.8**	**+0.2**
	comp=Z,7.1nm,0.9s,mb4.4						
F11A	**Grangeville**	**43.34**	**70**	⇑P	**P**	**02 09 08.6**	**+3.6**
	baz=43						
J08A	**Circle Bar Ran**	**43.39**	**75**	⇑P	**P**	**02 09 08.9**	**+3.4**
	baz=43						
YBMT	**Yellow Bay**	**43.49**	**67**	*e*P	**P**	**02 09 11.3**	**+5.0**
L07A	**Adell**	**43.65**	**77**	⇓P	**P**	**02 09 08.9**	**+1.4**
	baz=43						
SONM	**Songino Array**	**43.68**	**294**	P	**P**	**02 09 08.6**	**+0.8**
	comp=Z,5.2nm,0.7s,mb4.4,baz=63,slow=8.4,SNR=15						
H10A	**Noah's Angus R**	**43.72**	**72**	⇑P	**P**	**02 09 11.2**	**+3.2**
	baz=44						
WVOR	**Wild Horse Val**	**43.83**	**76**	*e*P	**P**	**02 09 12.2**	**+3.2**
WVOR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
WVOR	**Wild Horse Val**	**43.83**	**76**	*e*P	**P**	**02 09 12.2**	**+3.1**
	comp=Z,5.8nm,0.9s,mb4.3						
F12A	**Elk City**	**43.93**	**70**	⇑P	**P**	**02 09 07.8**	**-2.0**
	baz=44						
OHCM	**Honcut**	**43.96**	**81**	*e*P	**P**	**02 09 15.4**	**+5.3**
ZAK	**Zakamensk**	**44.06**	**298**	⇑*i*P	**P**	**02 09 11.2**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.3						
B15A	**Bradely Ranch,**	**44.07**	**65**	⇑P	**P**	**02 09 08.5**	**-2.4**
	baz=44,SNR=5.9						
H11A	**Donnelly**	**44.08**	**71**	⇑P	**P**	**02 09 10.4**	**-0.6**
	baz=44,SNR=7.0						
MSO	**Missoula**	**44.10**	**68**	*e*P	**P**	**02 09 11.9**	**+0.8**
	comp=Z,8.2nm,1.3s,mb4.3						
M07A	**Soldier Meadow**	**44.12**	**77**	⇑P	**P**	**02 09 10.0**	**-1.4**
	baz=44						
SLMT	**Seeley Lake**	**44.13**	**67**	*e*P	**P**	**02 09 13.1**	**+1.7**
E13A	**Victor**	**44.17**	**68**	⇓P	**P**	**02 09 10.8**	**-0.9**
	baz=44						
D14A	**Greenough**	**44.21**	**67**	⇑P	**P**	**02 09 10.3**	**-1.7**
	baz=44,SNR=7.0						
A16A	**West Butte Ran**	**44.27**	**64**	⇓P	**P**	**02 09 10.9**	**-1.6**
	baz=44,SNR=6.2						
C15A	**Salmond Ranch,**	**44.34**	**66**	⇑P	**P**	**02 09 12.0**	**-1.0**
	baz=44						
O06A	**Flanigan**	**44.46**	**79**	⇑P	**P**	**02 09 13.4**	**-0.7**
	baz=44						
MOY	**Mondy**	**44.62**	**301**	*e*P	**P**	**02 09 16.2**	**+1.0**
HHC	**Hu-ho-hao-te**	**44.62**	**282**	*e*P	**P**	**02 09 17.1**	**+1.7**
HHC				sP	sP	02 09 28.0	-4.9
HHC				PP	PP	02 11 01.4	+1.5
HHC				PcS	PcS	02 14 53.3	+2.4
HHC				*e*S	**S**	**02 15 47.9**	**-0.3**
HHC				sS	sS	02 16 00.6	-8.0
HHC				SS	SS	02 18 58.8	-10
HHC				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
HHC				pmax	pmax		
	comp=Z,170nm,5.5s						
HHC				LR	LR		
	comp=N,950nm,20.0s,MS4.8						
HHC				LR	LR		
	comp=E,580nm,15.1s,MS4.8						
HHC				LR	LR		
	comp=Z,380nm,14.7s,MS4.5						
K10A	**MacKenzie Ranc**	**44.69**	**74**	⇓P	**P**	**02 09 15.0**	**-0.9**
	baz=44						
G13A	**Cobalt**	**44.90**	**70**	⇓P	**P**	**02 09 16.9**	**-0.7**
	baz=45						
F14A	**Wisdom**	**44.99**	**69**	⇑P	**P**	**02 09 17.3**	**-1.0**
	baz=45						
E15A	**Deer Lodge**	**45.07**	**68**	⇓P	**P**	**02 09 17.4**	**-1.4**
	baz=45						
I12A	**Atlanta**	**45.12**	**72**	⇑P	**P**	**02 09 17.7**	**-1.7**
	baz=45						
D16A	**Dana Ranch, Ca**	**45.35**	**66**	⇓P	**P**	**02 09 19.4**	**-1.7**
	baz=45						
HRY	**Holter Researc**	**45.37**	**67**	*e*P	**P**	**02 09 19.7**	**-1.5**
	comp=Z,2.2nm,0.5s,mb4.2						
C17A	**Wharram Farm,**	**45.46**	**65**	⇑P	**P**	**02 09 20.4**	**-1.5**
	baz=45						
LRM	**Limekiln Ridge**	**45.52**	**68**	*e*P	**P**	**02 09 23.8**	**+1.4**
	comp=Z,18nm,1.1s,mb4.9						
HLID	**Hailey**	**45.68**	**72**	*e*P	**P**	**02 09 26.7**	**+2.9**
	comp=Z,17nm,1.4s,mb4.8						
BTO	**Baotou**	**45.70**	**283**	*e*P	**P**	**02 09 24.8**	**+0.8**
NJ2	**Nanjing**	**45.79**	**268**	*e*P	**P**	**02 09 25.6**	**+0.9**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
EGMT	**Eagleton**	**45.80**	**64**	*e*P	**P**	**02 09 29.4**	**+4.8**
	comp=Z,16nm,1.4s,mb4.8						
GUMO	**Guam**	**45.81**	**225**	LR	LR	02 27 31.3	
	comp=Z,211nm,18.3s,MS4.1,baz=71,slow=34						
MCMT	**McKenzie Canyo**	**45.86**	**69**	*e*P	**P**	**02 09 29.3**	**+4.1**
	comp=Z,2.1nm,0.9s,mb4.1						
BOZ	**Bozeman (W)**	**46.09**	**68**	*e*P	**P**	**02 09 26.0**	**-0.9**
BOZ				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
BOZ	**Bozeman (W)**	**46.09**	**68**	*e*P	**P**	**02 09 26.0**	**-0.9**
	comp=Z,16nm,1.4s,mb4.8						
FFC	**Flin Flon**	**46.26**	**53**	*e*P	**P**	**02 09 28.5**	**+0.4**
FFC				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
FFC	**Flin Flon**	**46.26**	**53**	*e*P	**P**	**02 09 28.5**	**+0.4**
	comp=Z,4.7nm,0.8s,mb4.5						
NVAR	**Mina Array Bea**	**46.47**	**80**	P	**P**	**02 09 29.4**	**-0.6**
	comp=Z,2.6nm,0.8s,mb4.2,baz=294,slow=7.2,SNR=12						
NVAR				PcP	PcP	02 11 05.8	+1.9
	comp=Z,1.3nm,1.0s,baz=310,slow=4.6,SNR=2.0						
H16A	**Russell Place,**	**46.86**	**69**	⇑P	**P**	**02 09 31.3**	**-1.6**
	baz=47						
R09A	**Tonopah**	**47.34**	**79**	⇑P	**P**	**02 09 35.3**	**-1.5**
	baz=47						
LKWY	**Lake**	**47.43**	**68**	*e*P	**P**	**02 09 43.8**	**+6.4**
LKWY				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
LKWY	**Lake**	**47.43**	**68**	*e*P	**P**	**02 09 43.8**	**+6.4**
	comp=Z,6.3nm,0.9s,mb4.5						
IMW	**Indian Meadow**	**47.51**	**69**	*e*P	**P**	**02 09 43.7**	**+5.6**
	comp=Z,5.8nm,1.3s,mb4.5						
RRI2	**Red Ridge**	**47.62**	**70**	*e*P	**P**	**02 09 44.6**	**+5.6**
	comp=Z,107nm,3.0s						
RLMT	**Red Lodge**	**47.75**	**67**	*e*P	**P**	**02 09 42.2**	**+2.3**
	comp=Z,12nm,1.1s,mb4.8						
FCC	**Fort Churchill**	**47.75**	**45**	*e*P	**P**	**02 09 39.4**	**-0.3**
	comp=Z,0.4nm,1.0s,mb3.4						
ISA	**Isabella**	**48.14**	**83**	*e*P	**P**	**02 09 50.0**	**+7.0**
ISA				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.7						
ISA	**Isabella**	**48.14**	**83**	*e*P	**P**	**02 09 50.0**	**+6.9**
	comp=Z,11nm,1.3s,mb4.7						
LAO	**LASA Array**	**48.53**	**64**	*e*P	**P**	**02 09 48.9**	**+3.0**
	comp=Z,56nm,1.9s,mb5.3						
DUG	**Dugway**	**48.67**	**74**	*e*P	**P**	**02 09 53.2**	**+6.1**
BW06	**Boulder Array**	**49.00**	**70**	⇓P	**P**	**02 09 48.5**	**-1.1**
	baz=49						
BW06	**Boulder Array**	**49.00**	**70**	*e*P	**P**	**02 09 49.4**	**-0.2**
PDAR	**Pinedale Array**	**49.00**	**70**	P	**P**	**02 09 48.4**	**-1.2**
	comp=Z,1.0nm,0.6s,mb4.0,baz=310,slow=3.0,SNR=12						
T11A	**Corn Creek, Al**	**49.10**	**79**	⇑P	**P**	**02 09 49.0**	**-1.4**
	baz=49						
JLU	**Jordanelle**	**49.23**	**73**	*e*P	**P**	**02 09 57.4**	**+6.1**
	comp=Z,6.7nm,1.1s,mb4.6						
GSC	**Goldstone**	**49.40**	**82**	*e*P	**P**	**02 09 53.4**	**+0.7**
GSC				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
GSC	**Goldstone**	**49.40**	**82**	*e*P	**P**	**02 09 53.4**	**+0.7**
	comp=Z,17nm,0.9s,mb5.1						
DAU	**Daniels Canyon**	**49.46**	**73**	*e*P	**P**	**02 09 54.4**	**+1.3**
ARUT	**Antelope Range**	**49.83**	**77**	*e*P	**P**	**02 09 58.3**	**+2.4**
TMUT	**Trail Mountain**	**50.20**	**74**	*e*P	**P**	**02 09 59.0**	**+0.3**
	comp=Z,11nm,1.0s,mb4.8						
XAN	**Xi'an**	**50.59**	**277**	P	**P**	**02 10 00.8**	**-0.9**
XAN				pP	pP	02 10 12.3	-1.9
XAN				sP	sP	02 10 17.3	-2.0
XAN				PP	PP	02 11 56.8	-0.8
XAN				S	**S**	**02 17 11.6**	**-1.3**
XAN				sS	sS	02 17 31.3	-2.3
XAN				ScS	ScS	02 19 48.4	-0.2
XAN				SS	SS	02 20 47.1	+0.1
XAN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
XAN				pmax	pmax		
	comp=Z,140nm,7.3s						
XAN				LR	LR		
	comp=N,200nm,15.7s,MS4.5						
XAN				LR	LR		
	comp=E,380nm,17.7s,MS4.5						
XAN				LR	LR		
	comp=Z,350nm,19.0s,MS4.4						
SRU	**San Rafael**	**50.73**	**74**	*e*P	**P**	**02 10 02.9**	**+0.2**
SRU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
SRU	**San Rafael**	**50.73**	**74**	*e*P	**P**	**02 10 02.9**	**+0.2**
	comp=Z,11nm,1.0s,mb4.7						
ZALV	**Zalesovo Beam**	**51.43**	**311**	P	**P**	**02 10 07.4**	**-0.4**
ZALV						02 11 21.8	
ZALV	**Zalesovo Beam**	**51.43**	**311**	P	**P**	**02 10 07.4**	**-0.4**
	comp=Z,1.2nm,0.6s,mb4.0,baz=38,slow=7.5,SNR=4.9						
ZALV				PcP	PcP	02 11 21.8	+0.1
	comp=Z,3.3nm,0.7s,baz=30,slow=3.9,SNR=6.1						
ZALV				LR	LR	02 33 53.2	
	comp=Z,374nm,19.1s,MS4.4,baz=337,slow=38						
ZALV	**Zalesovo Beam**	**51.43**	**311**	P	**P**	**02 10 07.4**	**-0.4**
ZALV				PcP	PcP	02 11 21.8	+0.1
ZALV				LR	LR	02 33 53.2	
NVS	**Novosibirsk**	**51.62**	**313**	*e*P	**P**	**02 10 07.5**	**-1.6**
NVS				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
NVS				pmax	pmax		

	comp=N,23nm,2.1s						
NVS				pmax	pmax		
	comp=E,23nm,2.1s						
ULM	Lac du Bonnet	51.88	55	P	P	02 10 09.9	-1.3
	comp=E,1.7nm,0.4s,mb4.3,baz=310,slow=6.7,SNR=5.8						
ULM				LR	LR	02 32 49.5	
	comp=E,620nm,19.3s,MS4.7,baz=311,slow=37						
PV04	Paradox Valley	52.16	74	*e*P	P	02 10 13.7	+0.3
LZH	Lanzhou	52.32	283	*e*P	P	02 10 15.9	+1.2
LZH				pP	pP	02 10 28.5	+1.4
LZH				*e*S	S	02 17 35.3	-1.4
LZH				sS	sS	02 17 56.1	-1.4
LZH				*e*SS	SS	02 21 11.0	-3.4
LZH				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.1						
LZH				pmax	pmax		
	comp=Z,190nm,7.2s						
LZH				LR	LR		
	comp=N,880nm,14.5s						
LZH				LR	LR		
	comp=Z,2µm,17.8s,MS5.1						
T18A	Mexican Hat	52.40	76	⇓P	P	02 10 13.9	-1.4
	baz=52						
PV01	Paradox Valley	52.52	74	*e*P	P	02 10 16.8	+0.7
	comp=Z,512nm,0.9s						
GTA	Gaotai	52.54	288	*e*P	P	02 10 16.9	+0.6
GTA				pP	pP	02 10 26.5	-2.2
GTA				sP	sP	02 10 30.5	-3.4
GTA				PP	PP	02 12 16.3	+1.1
GTA				S	S	02 17 41.8	+2.1
GTA				sS	sS	02 17 56.8	-3.7
GTA				SS	SS	02 21 17.9	+0.2
GTA				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.4						
GTA				pmax	pmax		
	comp=Z,190nm,4.8s						
GTA				LR	LR		
	comp=N,820nm,18.4s,MS4.9						
GTA				LR	LR		
	comp=E,620nm,17.5s,MS4.9						
GTA				LR	LR		
	comp=Z,610nm,19.0s,MS4.7						
WUAZ	Wupatki	52.57	78	*e*P	P	02 10 17.6	+1.1
V17A	Tonalea, Kykot	52.85	78	⇓P	P	02 10 17.5	-1.1
	baz=53						
AGMN	Agassiz Refuge	53.11	57	*e*P	P	02 10 20.7	+0.4
	comp=Z,13nm,0.9s,mb4.8						
X16A	Lo Mia Camp, P	53.27	79	⇑P	P	02 10 20.6	-1.1
	baz=53						
V20A	Brimhall	54.14	76	⇑P	P	02 10 27.4	-0.6
	baz=54						
T22A	Edith	54.26	74	⇑P	P	02 10 28.0	-0.9
	baz=54						
X20A	Quemado	54.97	77	⇓P	P	02 10 34.6	+0.6
	baz=55						
TUC	Tucson	55.11	81	*e*P	P	02 10 35.9	+0.8
TUC				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
TUC	Tucson	55.11	81	*e*P	P	02 10 35.9	+0.8
	comp=Z,7.3nm,1.1s,mb4.6						
X21A	Alamocita Cree	55.46	77	⇑P	P	02 10 36.5	-1.1
	baz=55						
EYMN	Ely	55.57	55	*e*P	P	02 10 38.5	+0.3
	comp=Z,12nm,0.8s,mb5.0						
ECSD	EROS Data Cent	55.67	61	*e*P	P	02 10 38.5	-0.5
	comp=Z,5.0nm,0.9s,mb4.5						
LAZ	Ladron	55.88	76	*e*P	P	02 10 40.8	+0.2
	comp=Z,2.6nm,1.2s,mb4.1						
CD2	Chengdu	55.90	278	P	P	02 10 42.3	+1.5
CD2				pP	pP	02 10 51.3	-2.1
CD2				sP	sP	02 10 54.8	-3.7
CD2				PP	PP	02 12 48.0	+2.4
CD2				S	S	02 18 24.5	-0.7
CD2				sS	sS	02 18 40.8	-5.3
CD2				SS	SS	02 22 09.3	-1.7
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
CD2				pmax	pmax		
	comp=Z,180nm,6.9s						
CD2				LR	LR		
	comp=N,420nm,14.9s						
CD2				LR	LR		
	comp=Z,400nm,13.1s,MS4.7						
SFJD	Kangerlussuaq	56.24	20	*e*P	P	02 10 42.4	-0.3
SFJD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
SFJD	Kangerlussuaq	56.24	20	*i* P	P	02 10 42.4	-0.3
	comp=Z,5.1nm,0.8s,mb4.6						
SFJD	Kangerlussuaq	56.24	20	*e*P	P	02 10 42.4	-0.3
	comp=Z,5.1nm,0.8s,mb4.6						
KURK	Kurchatov	56.42	311	*e*P	P	02 10 43.4	-0.8
KURK				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.3						
KURK	Kurchatov	56.42	311	*e*P	P	02 10 43.4	-0.8
	comp=Z,28nm,0.9s,mb5.3						
WMQ	Urumqi	56.48	300	P	P	02 10 45.5	+0.7
WMQ				pP	pP	02 10 55.0	-2.4
WMQ				sP	sP	02 10 59.0	-3.5
WMQ				PP	PP	02 12 52.0	+1.6
WMQ				*e*S	S	02 18 31.0	-1.5
WMQ				sS	sS	02 18 50.0	-3.5
WMQ				ScS	ScS	02 20 29.0	-0.9
WMQ				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,220nm,5.6s						
WMQ				LR	LR		
	comp=N,1µm,22.2s,MS5.1						
WMQ				LR	LR		
	comp=E,970nm,17.9s,MS5.1						
WMQ				LR	LR		
	comp=Z,600nm,20.4s,MS4.7						
KEV	Kevo	56.60	348	*e*p	P	02 10 43.0	-2.2
ARCES	ARCESS Array B	57.00	348	P	P	02 10 46.9	-1.2
	comp=Z,5.1nm,0.7s,mb4.7,baz=41,slow=11,SNR=13						
SCO	Scoresbysund	57.20	7	*e*P	P	02 10 50.3	+0.8
SCO				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
SCO	Scoresbysund	57.20	7	*i* P	P	02 10 50.3	+0.8
	comp=Z,5.2nm,0.9s,mb4.6						
SCO	Scoresbysund	57.20	7	*e*P	P	02 10 50.3	+0.8
	comp=Z,5.2nm,0.9s,mb4.6						
GYA	Guiyang	57.27	272	*e*P	P	02 10 50.6	0.0
GYA				pP	pP	02 11 04.3	+1.1
GYA				PP	PP	02 13 01.4	+3.6
GYA				ScP	ScP	02 15 40.8	+0.5
GYA				S	S	02 18 41.0	-2.3
GYA				sS	sS	02 19 03.3	-1.0
GYA				SS	SS	02 22 31.9	-0.7
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
GYA				pmax	pmax		
	comp=Z,120nm,5.2s						
GYA				LR	LR		
	comp=N,480nm,19.2s,MS4.8						
GYA				LR	LR		
	comp=E,440nm,18.0s,MS4.8						
GYA				LR	LR		
	comp=Z,450nm,19.4s,MS4.6						
MK31	Makanchi Array	57.30	305	*i* P	P	02 10 49.8	-0.7
MK31				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
MKAR	Makanchi Array	57.30	305	P	P	02 10 49.7	-0.8
	comp=Z,3.4nm,0.4s,mb4.7,baz=54,slow=5.9,SNR=60						
COWI	Conover	58.01	55	*e*P	P	02 10 54.9	-0.6
	comp=Z,7.0nm,0.7s,mb4.8						
VOSK	Vostochnaya	58.45	317	P	P	02 10 57.9	-0.6
VOSK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
BVA0	Borovoye Array	58.48	317	P	P	02 10 58.6	-0.1
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BVAR	Borovoye Array	58.48	317	LR	LR	02 40 14.3	
	comp=Z,684nm,19.0s,MS4.8,baz=197,slow=40						
BRVK	Borovoye	58.50	317	*e*P	P	02 10 58.5	-0.3
BRVK				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
BRVK	Borovoye	58.50	317	*e*P	P	02 10 58.5	-0.4
	comp=Z,19nm,0.8s,mb5.2						
SCIA	State Center	58.75	61	*e*P	P	02 11 01.9	+1.2
	comp=Z,6.8nm,0.5s,mb4.9						
JFWS	Jewell Farm	59.63	58	*e*P	P	02 11 05.8	-1.0
JFWS				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
JFWS	Jewell Farm	59.63	58	*e*P	P	02 11 05.8	-1.1
	comp=Z,12nm,0.9s,mb4.9						
PRGR	Permogore	60.22	335	*e*P	P	02 11 09.8	-0.7
PRGR				pmax	pmax		
	comp=Z,93nm,1.4s,mb5.6						
ARU	Arti	60.51	326	*d i*P	P	02 11 14.8	+2.2
ARU				*e*		02 13 25.5	
ARU				S	S	02 19 29.2	+4.7
ARU				pmax	pmax		
	comp=Z,19nm,1.7s,mb5.0						
KMI	Kunming	60.66	274	P	P	02 11 16.5	+2.4
KMI				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.2						
KMI				LR	LR		
	comp=Z,280nm,38.5s,MS4.1						
SCHQ	Schefferville	61.41	36	P	P	02 11 17.6	-1.2
	comp=Z,5.9nm,1.2s,mb4.6,baz=354,slow=8.6,SNR=5.5						
SCHQ				LR	LR	02 38 57.7	
	comp=Z,360nm,18.7s,MS4.5,baz=335,slow=37						
TXAR	Lajitas Array	61.53	78	P	P	02 11 18.8	-1.2
	comp=Z,1.5nm,0.6s,mb4.3,baz=304,slow=4.9,SNR=22						
JOF	Joensuu	62.25	343	*e*p	P	02 11 22.8	-1.5
	comp=Z,9.2nm,0.6s,mb5.1						
KLMR	Klimovskoe	62.40	338	*e*P	P	02 11 24.6	-0.7
KLMR				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.1						
HNR	Honiara	62.70	198	LR	LR	02 33 43.7	
	comp=Z,131nm,21.4s,MS4.1,baz=118,slow=31						
TKM2	Tokmak 2	63.40	306	*e*P	P	02 11 32.4	+0.2
TKM2				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.8						
TKM2	Tokmak 2	63.40	306	*e*P	P	02 11 32.4	+0.1
	comp=Z,8.9nm,1.2s,mb4.8						
MIAR	Mount Ida	63.75	67	*e*P	P	02 11 33.8	-0.8
MIAR				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.9						
MIAR	Mount Ida	63.75	67	*e*P	P	02 11 33.8	-0.8
	comp=Z,15nm,1.3s,mb4.9						
KAF	Kangasniemi	63.87	345	*e*P	P	02 11 31.9	-3.1
KAF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
KAF	Kangasniemi	63.87	345	*e*p	P	02 11 31.9	-3.1
	comp=Z,5.5nm,0.5s,mb4.8						
AAK	Ala-Archa	64.16	307	⇑*e*P	P	02 11 38.5	+1.3
AAK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
AAK	Ala-Archa	64.16	307	*e*P	P	02 11 37.9	+0.7
	comp=Z,8.8nm,0.8s,mb4.8						
LSA	Lhasa	64.40	286	P	P	02 11 37.8	-1.2
LSA	Lhasa	64.40	286	*e*P	P	02 11 39.8	+0.8
LSA				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
LSA	Lhasa	64.40	286	*e*P	P	02 11 39.8	+0.8
	comp=Z,7.4nm,0.6s,mb4.9						
UCH	Uchtor	64.45	306	*e*P	P	02 11 39.5	+0.4
	comp=Z,8.5nm,1.2s,mb4.7						
EKS2	Erkin-Say	64.49	307	*e*P	P	02 11 39.4	0.0
	comp=Z,11nm,0.8s,mb4.9						
AML	Almayashu	64.93	307	*e*P	P	02 11 43.2	+0.9
	comp=Z,195nm,0.9s						
ERPA	Erie	65.44	53	*e*P	P	02 11 45.6	0.0
	comp=Z,12nm,0.3s,mb5.4						
AKTO	Aktyubinsk	65.45	322	P	P	02 11 45.6	+0.1
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
AB31	Akbulak array	65.63	320	P	P	02 11 46.9	+0.2
AB31				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
KSH	Kashi	65.72	303	*e*P	P	02 11 51.8	+4.4
KSH				*e*PcP	PcP	02 12 22.1	+3.7
KSH				*e*PP	PP	02 14 18.0	+6.1
KSH				*e*ScP		02 16 20.0	
KSH				*e*PcS		02 16 25.0	
KSH				*e*S	S	02 20 33.8	+3.7
KSH				*e*ScS	ScS	02 21 40.3	+1.0
KSH				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
KSH				pmax	pmax		
	comp=Z,220nm,4.1s						
KSH				LR	LR		
	comp=N,190nm,4.5s						
KSH				LR	LR		
	comp=E,310nm,5.3s						
KSH				LR	LR		
	comp=Z,270nm,5.4s						
KK31	Karatay Array	65.75	309	*i* P	P	02 11 47.2	-0.4
KK31				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
AFI	Afiamalu	66.35	167	LR	LR	02 34 35.2	
	comp=Z,123nm,19.8s,MS4.1,baz=341,slow=30						
NB2	NORSAR Subarra	66.78	352	P	P	02 11 53.0	-0.8
	comp=Z,8.0nm,0.8s,mb4.8,baz=12,slow=6.5						
NOA	NORSAR Array B	66.78	352	P	P	02 11 52.9	-0.9
	comp=Z,5.7nm,0.9s,mb4.6,baz=11,slow=6.3,SNR=7.1						
NOA				LR	LR	02 45 22.4	
	comp=Z,221nm,18.2s,MS4.4,baz=40,slow=40						
NOA	NORSAR Array B	66.78	352	P	P	02 11 52.9	-0.9
NOA				LR	LR	02 45 22.4	
SHL	Shillong	66.99	282	*e*PKP	P	02 11 56.0	+0.3
CMAR	Chiang Mai Arr	67.96	272	P	P	02 12 02.0	+0.1
	comp=Z,2.0nm,0.3s,mb4.6,baz=27,slow=7.0,SNR=8.5						
TAPN	Taplejung	68.17	287	*e*P	P	02 12 03.9	+0.7
	comp=Z,75nm,1.1s,mb5.6						
OBN	Obninsk	68.24	336	⇑*e*P	P	02 12 03.5	+0.4
OBN				*e*		02 14 37.2	
OBN				*e*S	S	02 21 02.7	+2.8
OBN				pmax	pmax		
	comp=Z,44nm,1.7s,mb5.2						
OBN				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.7						
ODAN	Odare	68.72	287	*e*P	P	02 12 07.3	+0.7
	comp=Z,23nm,0.8s,mb5.2						
GUN	Gumba	68.83	288	*e*P	P	02 12 08.4	+1.1
	comp=Z,88nm,0.7s,mb5.8						
JIRN	Jiri	68.84	288	*e*P	P	02 12 08.4	+1.1
	comp=Z,43nm,0.6s,mb5.6						
RAMN	Ramite	69.12	287	*e*P	P	02 12 09.8	+0.7
	comp=Z,64nm,0.7s,mb5.7						
KKN	Kakani	69.28	289	*e*P	P	02 12 10.7	+0.7
	comp=Z,23nm,0.6s,mb5.3						
KKN	Kakani	69.28	289	*e*P	P	02 12 10.7	+0.7
KKN				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.3						
PKI	Pulchoki	69.36	288	*e*P	P	02 12 11.2	+0.6
	comp=Z,40nm,0.7s,mb5.4						
PKI	Pulchoki	69.36	288	*e*P	P	02 12 11.2	+0.6
PKI				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.5						
GKN	Gorkha	69.49	289	*e*P	P	02 12 11.9	+0.5
	comp=Z,50nm,0.9s,mb5.4						
DMN	Daman	69.51	289	*e*P	P	02 12 12.1	+0.6
	comp=Z,33nm,0.9s,mb5.3						
DANN	Dangsing	69.74	290	*e*P	P	02 12 13.7	+0.8
	comp=Z,69nm,0.8s,mb5.6						
KOLN	Koldanda	70.27	290	*e*P	P	02 12 16.5	+0.3
	comp=Z,23nm,0.9s,mb5.1						
TAOE	Nuku Hiva Isla	71.10	134	*e*LR	LR	02 33 59.4	
	comp=Z,1µm,21.9s						
DDI	Dehra Dun	71.51	296	*e*x	P	02 12 22.5	-1.2
KBL	Kabul	73.08	305	*e*P	P	02 12 32.1	-0.9
KBL				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.2						
KBL	Kabul	73.08	305	*e*P	P	02 12 32.1	-0.8
	comp=Z,26nm,0.8s,mb5.2						
PMOR	Pomariorio Ree	73.51	144	*e*T		03 32 53.8	
	comp=Z,205nm,0.2s						
AKASG	Malin Array Be	74.04	339	P	P	02 12 38.0	-0.3
	comp=Z,2.9nm,0.4s,mb4.6,baz=21,slow=5.6,SNR=14						
AKASG				LR	LR	02 48 53.2	
	comp=Z,339nm,18.6s,MS4.7,baz=60,slow=39						
KIEV	Kiev	74.05	339	*e*P	P	02 12 37.8	-0.6
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
KIEV	Kiev	74.05	339	*e*P	P	02 12 37.8	-0.6
	comp=Z,5.0nm,0.5s,mb4.7						
KAKA	Kakadu	74.70	225	*e*P	P	02 12 42.2	-0.3
	comp=Z,13nm,0.9s,mb4.8						
KAKA	Kakadu	74.70	225	*e*P	P	02 12 42.2	-0.3
	comp=Z,29nm,0.7s,mb5.3						
PPT	Papeete	75.29	146	*e*LR	LR	02 35 56.3	
	comp=Z,549nm,23.0s,baz=343						
PPT				*e*T		03 35 06.6	
	comp=Z,35nm,0.2s						
PPT	Papeete	75.29	146	LR	LR	02 37 14.5	
	comp=Z,402nm,21.3s,MS4.7,baz=166,slow=29						
TIAR	Tiarei	75.36	146	*e*T		03 35 11.8	
	comp=Z,16nm,0.3s						
PAE	Paea	75.37	146	*e*T		03 35 13.1	
	comp=Z,24nm,0.4s						
CTA	Charters Tower	76.36	209	P	P	02 12 51.5	-0.4
	comp=Z,1.3nm,0.3s,mb4.3,baz=16,slow=4.6,SNR=3.0						
KWP	Kalwaria Pacla	76.38	343	*e*P	P	02 12 52.0	+0.2
KWP				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
KWP	Kalwaria Pacla	76.38	343	*e*P	P	02 12 52.0	+0.2
	comp=Z,27nm,0.8s,mb5.2						
KIV	Kislovodsk	76.46	327	⇓*e*P	P	02 12 53.2	+0.9
KIV				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.5						
KIV	Kislovodsk	76.46	327	*e*P	P	02 12 52.2	-0.1
	comp=Z,13nm,1.0s,mb4.8						
DPC	Dobruska-Polom	76.72	347	*e*P	P	02 12 58.1	+4.4
OKC	Ostrava-Krasne	76.95	346	*e*P	P	02 12 55.2	+0.2
NKC	Novy Kostel	77.32	349	*e*P	P	02 12 57.2	+0.1
NKC				*e*PCP	PcP	02 13 11.5	+4.0
VRAC	Vranov	77.70	347	⇓*i*P	P	02 12 59.0	-0.2
VRAC	Vranov	77.70	347	⇓P	P	02 12 59.0	-0.1
BUR08	Bucovina Ar. S	77.79	340	*e*P	P	02 13 00.3	+0.5
BURAR	Bucovina Array	77.82	340	⇓*i*P	P	02 13 00.7	+0.8
BURAR	Bucovina Array	77.82	340	⇓P	P	02 13 00.7	+0.8
TRPA	Tarpa	77.85	342	⇓*i*P	P	02 13 01.1	+1.0
BAIF	Baives	78.19	355	*e*P	P	02 13 01.6	-0.3
	comp=Z,52nm,1.5s,mb5.0						
BAIF	Baives	78.19	355	*e*P	P	02 13 01.6	-0.3
BAIF				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.9						
BAIF	Baives	78.19	355	*e*P	P	02 13 01.6	-0.3
	comp=Z,26nm,1.5s,mb4.9						
KHC	Kasperske Hory	78.27	349	*e*P	P	02 13 03.0	+0.6
KHC				*e*PCP	PcP	02 13 15.8	+4.1
PSZ	Piszkesteto	78.53	344	*e*P	P	02 13 03.5	-0.3
PSZ				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
PSZ	Piszkesteto	78.53	344	⇓*i*P	P	02 13 06.5	+2.7
PSZ	Piszkesteto	78.53	344	*e*P	P	02 13 03.5	-0.3
	comp=Z,8.6nm,1.0s,mb4.6						
GERES	GERESS Array B	78.54	348	P	P	02 13 03.9	0.0
	comp=Z,0.9nm,0.7s,mb3.8,baz=41,slow=9.1,SNR=3.3						
GERES				LR	LR	02 52 34.1	
	comp=Z,286nm,19.3s,MS4.6,baz=347,slow=39						
GNI	Garni	79.11	324	*e*P	P	02 13 05.3	-1.9
GNI				pmax	pmax		
	comp=Z,32nm,1.4s						
GNI	Garni	79.11	324	LR	LR	02 51 00.4	
	comp=Z,416nm,20.1s,MS4.8,baz=32,slow=38						
GNI	Garni	79.11	324	*e*P	P	02 13 05.3	-1.9
	comp=Z,32nm,1.4s,mb5.1						
BFO	Black Forest	79.62	352	*i* P	P	02 13 11.5	+1.7
CDF	Champ du Feu	79.62	353	*e*P	P	02 13 09.2	-0.6
FLN	La Foliniere	79.67	358	*e*P	P	02 13 09.6	-0.4
MEZF	Maizieres J'vi	79.69	354	*e*P	P	02 13 09.8	-0.4
LDF	La Druitiere	79.83	358	*e*P	P	02 13 10.6	-0.3
	comp=Z,22nm,1.0s,mb4.8						
LDF	La Druitiere	79.83	358	*e*P	P	02 13 10.6	-0.3
LDF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
LDF	La Druitiere	79.83	358	*e*P	P	02 13 10.6	-0.3
	comp=Z,11nm,1.0s,mb4.8						
VOIR		79.93	340	⇑*i*P	P	02 13 12.9	+1.4
VOIR		79.93	340	⇑P	P	02 13 12.9	+1.4
GRR	Gorron	80.05	358	*e*P	P	02 13 12.3	+0.2
HAU	Haudompre	80.10	353	*e*P	P	02 13 11.9	-0.5
HINF	Hinteralfeld	80.25	353	*e*P	P	02 13 12.6	-0.6
KBA	Koelnbreinsper	80.32	348	⇑*i*P	P	02 13 14.4	+0.9
	comp=Z,13nm,1.0s,mb4.8						
WRAB	Tennant Creek	80.38	220	*e*P	P	02 13 12.9	-1.2
WRAB				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
WRAB	Tennant Creek	80.38	220	*e*P	P	02 13 12.9	-1.1
	comp=Z,10nm,0.9s,mb4.8						
WRA	Warramunga Arr	80.39	220	P	P	02 13 13.5	-0.7
	comp=Z,1.9nm,0.4s,mb4.4,baz=30,slow=5.8,SNR=35						
PKSM	Moragy	80.39	344	⇑*i*P	P	02 13 14.3	+0.3
PKSM	Moragy	80.39	344	⇑P	P	02 13 14.3	+0.3
GZR	Gura Zlata	80.44	341	⇓*i*P	P	02 13 16.1	+1.9
GZR	Gura Zlata	80.44	341	⇓P	P	02 13 16.1	+1.9
BZS	Buzias	80.44	342	⇑*i*P	P	02 13 14.6	+0.3
BZS	Buzias	80.44	342	⇑P	P	02 13 14.6	+0.3
SOKA	Soboth	80.49	347	⇑*i*P	P	02 13 14.9	+0.4
	comp=Z,12nm,1.2s,mb4.7						
PERS	Pernice	80.52	347	*i* P	P	02 13 14.9	+0.2
OBKA	Obir	80.72	347	⇑*i*P	P	02 13 16.0	+0.2
	comp=Z,9.9nm,1.1s,mb4.7						
LOR	Lormes	80.99	355	*e*P	P	02 13 16.9	-0.3
HYB	Hyderabad	81.18	287	*i* P	P	02 13 20.5	+1.9
HYB	Hyderabad	81.18	287	*e*P	P	02 13 20.5	+1.9
SSF	Saint Saulge	81.22	355	*e*P	P	02 13 18.2	-0.2
AVF	Avril sur Loir	81.50	355	*e*P	P	02 13 19.1	-0.8
CABF	La Chapelle	81.50	353	*e*P	P	02 13 18.9	-1.0
SMF	Signal de Mont	81.61	355	*e*P	P	02 13 20.1	-0.4
	comp=Z,20nm,1.1s,mb4.6						
SMF	Signal de Mont	81.61	355	*e*P	P	02 13 20.1	-0.4
SMF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
SMF	Signal de Mont	81.61	355	*e*P	P	02 13 20.1	-0.4
	comp=Z,9.9nm,1.1s,mb4.7						
BGF	Bois d'Agland	81.75	355	*e*P	P	02 13 20.8	-0.4
MFF	Saint Martin d	81.82	358	*e*P	P	02 13 20.9	-0.7
TCF	Toulx Ste Croi	82.05	356	*e*P	P	02 13 22.5	-0.3
	comp=Z,10.0nm,1.0s,mb4.4						
TCF	Toulx Ste Croi	82.05	356	*e*P	P	02 13 22.5	-0.3
TCF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
TCF	Toulx Ste Croi	82.05	356	*e*P	P	02 13 22.5	-0.3
	comp=Z,5.0nm,1.0s,mb4.4						
FITZ	Fitzroy Crossi	82.49	228	*e*P	P	02 13 25.2	-0.1
	comp=Z,19nm,1.5s,mb4.8						
FITZ	Fitzroy Crossi	82.49	228	P	P	02 13 25.8	+0.5
	comp=Z,3.4nm,0.5s,mb4.5,baz=87,slow=3.8,SNR=9.3						
FITZ	Fitzroy Crossi	82.49	228	*e*P	P	02 13 24.7	-0.6
	comp=Z,7.4nm,0.7s,mb4.7						
LPL	La Plagne	82.54	353	*e*P	P	02 13 26.2	+0.8
	comp=Z,16nm,1.1s,mb4.7						
LPL	La Plagne	82.54	353	*e*P	P	02 13 26.2	+0.8
LPL				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
LPL	La Plagne	82.54	353	*e*P	P	02 13 26.2	+0.8
	comp=Z,8.3nm,1.1s,mb4.7						
LPG	La Plagne	82.56	353	*e*P	P	02 13 26.3	+0.8
	comp=Z,18nm,1.1s,mb4.7						
LPG	La Plagne	82.56	353	*e*P	P	02 13 26.3	+0.8
LPG				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
LPG	La Plagne	82.56	353	*e*P	P	02 13 26.3	+0.8
	comp=Z,8.8nm,1.1s,mb4.7						
MALT	Malatya	82.94	328	*e*P	P	02 13 28.7	+1.2
MALT				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.9						
MALT	Malatya	82.94	328	⇓*i*P	pP	02 13 37.9	-2.8
MALT	Malatya	82.94	328	*e*P	P	02 13 28.7	+1.2
	comp=Z,19nm,1.5s,mb4.9						
BNI	Bardonecchia	83.01	353	*e*P	P	02 13 27.2	-0.6
BNI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
BNI	Bardonecchia	83.01	353	*e*P	P	02 13 27.2	-0.6
	comp=Z,8.2nm,0.9s,mb4.8						
POO	Poona	83.06	291	*e*x	P	02 13 27.5	-1.0
BRTR	Keskin Array B	83.13	332	P	P	02 13 28.2	-0.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=44,slow=3.2,SNR=14						
ORIF	Oris-en-Rattie	83.20	353	*e*P	P	02 13 29.4	+0.6
	comp=Z,11nm,0.8s,mb4.6						
ORIF	Oris-en-Rattie	83.20	353	*e*P	P	02 13 29.4	+0.6
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ORIF	Oris-en-Rattie	83.20	353	*e*P	P	02 13 29.4	+0.6
	comp=Z,5.4nm,0.8s,mb4.6						
MBDF	Montbardon	83.32	353	*e*P	P	02 13 29.1	-0.3
	comp=Z,14nm,0.8s,mb4.7						
MBDF	Montbardon	83.32	353	*e*P	P	02 13 29.1	-0.3
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
MBDF	Montbardon	83.32	353	*e*P	P	02 13 29.1	-0.3
	comp=Z,6.8nm,0.8s,mb4.7						
VIVF	Saint-Julien-l	83.35	354	*e*P	P	02 13 29.1	-0.4
ASAR	Alice Springs	83.92	218	P	P	02 13 33.2	+0.7
	comp=Z,2.0nm,0.8s,mb4.3,baz=23,slow=5.3,SNR=20						
SBF	Sospel	84.13	352	*e*P	P	02 13 32.9	-0.7
	comp=Z,25nm,1.0s,mb5.0						
SBF	Sospel	84.13	352	*e*P	P	02 13 32.9	-0.7
SBF				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
SBF	Sospel	84.13	352	*e*P	P	02 13 32.9	-0.7
	comp=Z,13nm,1.0s,mb5.0						
SMRF	Simiane la Rot	84.16	353	*e*P	P	02 13 33.2	-0.5

FRF	La Foret Royal	84.49	352	eP	P	02 13 35.0	-0.4
	comp=Z,6.5nm,0.8s,mb4.5						
FRF	La Foret Royal	84.49	352	eP	P	02 13 35.0	-0.4
FRF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
FRF	La Foret Royal	84.49	352	eP	P	02 13 35.0	-0.4
	comp=Z,3.3nm,0.8s,mb4.5						
LMR	La Mourre	84.73	353	eP	P	02 13 35.9	-0.7
	comp=Z,13nm,1.2s,mb4.6						
LMR	La Mourre	84.73	353	eP	P	02 13 35.9	-0.7
LMR				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.6						
LMR	La Mourre	84.73	353	eP	P	02 13 35.9	-0.7
	comp=Z,6.4nm,1.2s,mb4.6						
MTLF	Montolieu	84.99	356	eP	P	02 13 36.6	-1.3
	comp=Z,10nm,0.9s,mb4.7						
MTLF	Montolieu	84.99	356	eP	P	02 13 36.6	-1.3
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
MTLF	Montolieu	84.99	356	eP	P	02 13 36.6	-1.3
	comp=Z,5.1nm,0.9s,mb4.7						
PGF	Pioggiola	85.28	351	eP	P	02 13 39.3	-0.1
	comp=Z,28nm,1.0s,mb5.0						
PGF	Pioggiola	85.28	351	eP	P	02 13 39.3	-0.1
PGF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
PGF	Pioggiola	85.28	351	eP	P	02 13 39.3	-0.1
	comp=Z,14nm,1.0s,mb5.0						
ETSF	Etsaut	85.53	358	eP	P	02 13 40.1	-0.5
	comp=Z,8.1nm,0.8s,mb4.7						
ETSF	Etsaut	85.53	358	eP	P	02 13 40.1	-0.5
ETSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
ETSF	Etsaut	85.53	358	eP	P	02 13 40.1	-0.5
	comp=Z,4.1nm,0.8s,mb4.7						
RKT	Rikitea	85.98	136	eLR	LR	02 40 54.8	
	comp=Z,440nm,33.0s						
STKA	Stephens Creek	88.82	209	P	P	02 13 57.3	+0.9
	comp=Z,1.8nm,0.7s,mb4.5,baz=351,slow=13,SNR=3.7						
TORD	Torodi Ar. Bea	115.05	354	PKP	PKiKP	02 19 42.5	-1.4
	comp=Z,0.6nm,0.5s,baz=344,slow=2.1,SNR=5.9						
DBIC	Dimbokro	121.64	1	PKP	PKPdf	02 19 55.4	-1.3
	comp=Z,2.8nm,0.7s,baz=59,slow=2.8,SNR=12						
PLCA	Paso Flores	134.03	104	PKP	PKPdf	02 20 19.9	+0.7
	comp=Z,1.6nm,0.8s,baz=285,slow=1.5,SNR=6.4						
MAW	Mawson	145.05	218	PKPbc	PKPbc	02 20 38.9	+0.9
	comp=Z,23nm,0.9s,baz=253,slow=0.4,SNR=11						
BOSA	Boshof	148.29	306	PKPbc	PKPbc	02 20 47.4	-1.2
	comp=Z,3.4nm,0.7s,baz=353,slow=3.5,SNR=12						

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*IDC **23** 02:08:57.0±1.2, 2°.45S×99°.86E, h0^{km}, mb4.3/14, mb1 4.3/15, mb1mx4.2/25, mbtmp4.3/15, ML3.5/1, Error ellipse: s-maj=44.5km s-min=14.2km az=55.0*

*ISCJB **23** 02:09:01.1±0.6, 2°.18S±0°.07×100°.1E±0°.1, h33^{km}, mb4.4/18, Error ellipse: s-maj=16.2km s-min=8.1km az=155.8*

*BJI **23** 02:09:01.7, 2°.30S×100°.10E, h35^{km}, mB5.3/2, mb4.6/5*

*NEIC **23** 02:09:02.8±0.5, 2°.29S×100°.07E, h35^{km}, mb4.6/7, Error ellipse: s-maj=15.2km s-min=6.3km az=55.0*

ISC 23 02:09:03.3±0.6, 2°.24S±0°.07×100°.1E±0°.1, h35^{km}, n30, σ0^{s}87/28, mb4.4/18, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.14	347	Pn	Pn	02 10 14.9	-3.0
	1.8nm,0.3s,baz=66,slow=13,SNR=4.3						
KULM	Kulim	7.50	4	ePn	Pn	02 10 50.1	-0.1
KULM				eSn	Sn	02 12 12.8	-1.3
KKM	Kota Kinabalu	18.06	63	eP	Pn	02 13 11.9	+0.3
	56nm,1.3s						
CMAR	Chiang Mai Arr	20.60	357	P	P	02 13 39.6	+0.1
	3.1nm,0.8s,baz=186,slow=10,SNR=14						
WRA	Warramunga Arr	37.78	120	P	P	02 16 16.0	-0.4
	6.6nm,0.7s,mb4.5,baz=304,slow=9.1,SNR=39						
WRAB	Tennant Creek	37.78	120	eP	P	02 16 16.0	-0.4
	7.6nm,0.8s,mb4.5						
ASAR	Alice Springs	39.02	126	P	P	02 16 26.7	-0.1
	1.4nm,0.5s,mb4.0,baz=299,slow=7.7,SNR=21						
GTA	Gaotai	41.45	360	eP	P	02 16 47.9	+1.3
GTA				pP	pP	02 16 57.5	+0.6
GTA				sP	sP	02 17 01.3	+0.2
GTA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
KSRS	Korea Array	47.17	30	P	P	02 17 33.7	+1.3
	comp=Z,5.0nm,0.9s,mb4.5,baz=225,slow=8.9,SNR=7.1						
CTA	Charters Tower	48.40	115	P	P	02 17 41.0	-1.2
	comp=Z,3.3nm,0.7s,mb4.5,baz=299,slow=9.1,SNR=5.5						
CTAO	Charters Tower	48.40	115	eP	P	02 17 41.3	-0.9
	comp=Z,3.7nm,0.8s,mb4.5						
STKA	Stephens Creek	48.91	132	P	P	02 17 45.9	-0.1
	comp=Z,1.5nm,0.4s,mb4.4,baz=313,slow=16,SNR=4.0						
TKM2	Tokmak 2	50.09	337	eP	P	02 17 55.7	+0.9
	comp=Z,8.1nm,1.0s,mb4.7						
SONM	Songino Array	50.17	6	P	P	02 17 56.9	+1.6
	comp=Z,6.5nm,0.8s,mb4.7,baz=188,slow=8.6,SNR=22						
AML	Almayashu	50.23	334	eP	P	02 17 55.6	-0.2
	comp=Z,2.3nm,0.6s,mb4.4						
ULN	Ulaanbaatar	50.27	6	eP	P	02 17 57.1	+1.0
	comp=Z,10nm,1.0s,mb4.8						
EKS2	Erkin-Say	50.62	335	eP	P	02 17 59.3	+0.4
MKAR	Makanchi Array	51.29	344	P	P	02 18 04.3	+0.6
	comp=Z,3.7nm,0.5s,mb4.6,baz=158,slow=8.9,SNR=72						
KURK	Kurchatov	55.87	344	P	P	02 18 37.1	-0.1
	comp=Z,2.4nm,0.8s,mb4.3,baz=164,slow=7.0,SNR=12						
KURK	Kurchatov	55.87	344	eP	P	02 18 36.7	-0.6
	comp=Z,4.5nm,0.8s,mb4.5						
ZAA0	Zalesovo Array	57.42	349	eP	P	02 18 48.1	-0.1
ZALV	Zalesovo Beam	57.42	349	P	P	02 18 48.4	+0.1
	comp=Z,1.7nm,0.3s,mb4.5,baz=177,slow=5.8,SNR=13						
BVAR	Borovoye Array	60.45	340	P	P	02 19 08.5	-0.7
	comp=Z,0.7nm,0.4s,mb4.0,baz=142,slow=7.3,SNR=5.1						
PETK	Petropavlovsk-	73.03	32	P	P	02 20 29.3	-0.2
	comp=Z,2.3nm,0.8s,mb4.2,baz=230,slow=3.7,SNR=3.6						
PETK	Petropavlovsk-	73.03	32	P	P	02 20 29.3	-0.2
BRTR	Keskin Array B	73.56	313	P	P	02 20 31.4	-1.6
	comp=Z,0.3nm,0.4s,mb3.5,baz=117,slow=7.1,SNR=4.4						
ARCES	ARCESS Array B	86.73	340	P	P	02 21 43.5	+0.2
	comp=Z,3.9nm,0.9s,mb4.6,baz=91,slow=5.4,SNR=2.8						
TXAR	Lajitas Array	144.82	38	PKPbc	PKPdf	02 28 37.3	0.0
	comp=Z,4.4nm,0.5s,baz=270,slow=0.9,SNR=88						
WVT	Waverly	145.49	11	ePKPbc	PKPbc	02 28 37.7	-0.6
JCT	Junction City	146.17	32	ePKPbc	PKPbc	02 28 40.9	+0.4

KRSC 23 02:09:34.1±0.8, 51°.41N×158°.39E, h16^{km}±16^{km}, ML3.5, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUS	Russkaya	1.03	4	eP	Pb	02 09 54.2	+0.7
RUS				i S	Sb	02 10 08.6	+1.9
MIPR	Malaya Ipel'ka	1.33	311	eP	Pn	02 09 58.3	+0.3
MIPR				i S	Sn	02 10 16.3	+0.9
PET	Petropavlovsk	1.62	6	eP	Pn	02 10 03.2	+1.2
PET				i S	Sn	02 10 24.1	+1.5
NLC	Nalytchevo	1.86	18	eP	Pn	02 10 05.1	-0.1
NLC				i S	Sn	02 10 27.4	-1.0
AVH	Avacha	1.87	6	eP	Pn	02 10 07.5	+2.1
SPN	Mys Shipunski	1.97	30	eP	Pn	02 10 08.0	+1.3
SPN				i S	Sn	02 10 33.2	+2.2
GNL	Ganaly	2.31	353	eP	Pn	02 10 13.1	+1.7
MKZ	Mys Kozlova	3.74	31	eP	Pn	02 10 33.0	+1.9
MKZ				i S	Sn	02 11 15.6	+0.8
KBTR	Krutoberegovo	5.48	27	eP	Pn	02 10 57.7	+2.8

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*NEIC **23** 02:18:45.2, 32°.40N×115°.27W, h6^{km}, ML3.3(PAS), After PAS.*

ECX 23 02:18:47.4±0.6, 32°.50N×115°.34W, h7^{km}, MD3.5, ML3.6, 7C-5D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	Mount Signal	0.36	294	⇑iP	Pg	02 18 53.7	-0.7
SNR	Schaffner Ranc	0.37	347	⇓iP	Pg	02 18 54.5	-0.1
COA	Coachella	0.41	26	⇓iP	Pg	02 18 54.7	-0.6
COK	Cook Ranch	0.48	317	eP	Pg	02 18 56.0	-0.7
EMX	El Mayor	0.52	171	⇓eP	Pg	02 18 56.7	-0.6
EMX				eS	Sg	02 19 03.9	-0.2
EMX				⇓e		02 19 04.5	
	comp=N,2µm,0.5s						
YUH	Yuha Desert	0.52	287	⇑iP	Pg	02 18 56.2	-1.2
RMX	La Rumorosa	0.64	279	⇓eP	Pg	02 18 58.7	-0.9
RMX				eS	Sg	02 19 07.8	-0.1
CRR	Carrizo Plain	0.66	306	eP	Pg	02 18 58.3	-1.8
GLA	Glamis	0.70	38	ePg	Pg	02 18 58.8	-2.0
GLA				eSg	Sg	02 19 08.3	-1.7
RDX	Rancho Dawling	0.77	223	⇑eP	Pg	02 19 00.9	-1.2
RDX				eS	Sg	02 19 11.2	-0.9
RDX				⇑e		02 19 13.4	
	comp=N,2µm,0.3s						
ECBX	El Chinero	1.05	167	⇑eP	Pg	02 19 06.6	-1.0
ECBX				eS	Sg	02 19 20.9	-0.4
ECBX				⇑e		02 19 21.9	
	comp=E,796nm,0.4s						
ECBX				e		02 19 22.2	
	comp=N,1µm,0.6s						
CBX	Cerro Bola	1.14	261	eP	Pg	02 19 07.2	-2.0
CBX				eS	Sg	02 19 22.8	-1.2
BAR	Barrett	1.14	279	ePg	Pg	02 19 06.9	-2.5
BAR				eSg	Sg	02 19 22.4	-1.8
ECNX	Esteban Cantu	1.36	232	eP	Pn	02 19 10.8	-2.0
ECNX				eP		02 19 10.1	
PBX	Punta Banda	1.40	238	eP	Pn	02 19 11.2	-2.1
PFO	Pinyon Flat Ob	1.45	320	ePn	Pn	02 19 13.0	-1.0
SPX	San Pedro Mart	1.46	184	eP	Pn	02 19 12.3	-1.8
SPX				⇑e		02 19 33.8	
	comp=N,447nm,0.5s						
SPX				e		02 19 34.1	
	comp=E,416nm,0.3s						
LDFC	Landfair	2.58	4	ePg	Pg	02 19 37.2	+0.4
MWC	Mount Wilson	2.85	308	ePn	Pn	02 19 31.9	-1.5
MWC				ePg	Pg	02 19 41.1	-1.0
MWC				eSn	Sn	02 20 09.1	+1.1
MWC				eSg	Sg	02 20 17.4	-1.7
GSC	Goldstone	3.05	337	ePg	Pg	02 19 46.0	+0.1
TUC	Tucson	3.85	92	ePn	Pn	02 19 44.7	-2.4
TUC				ePg	Pg	02 19 55.4	-5.9
TUC				eSg	Sg	02 20 44.9	-6.3
ISA	Isabella	4.09	321	ePn	Pn	02 19 49.7	-0.7
ISA				ePg	Pg	02 20 04.8	-1.0
ISA				eSg	Sg	02 20 58.7	-0.1
WUAZ	Wupatki	4.46	46	ePn	Pn	02 19 54.1	-1.3
WUAZ				ePb	Pb	02 20 04.5	-1.5
WUAZ				ePg	Pg	02 20 10.7	-2.1
WUAZ				eSg	Sg	02 21 05.7	-4.9
ARUT	Antelope Range	5.50	16	ePn	Pn	02 20 08.8	-0.9
	comp=E,12nm,0.7s						
ARUT				ePg	Pg	02 20 29.7	-3.0
MSU	Marysvale	6.53	22	ePn	Pn	02 20 24.2	+0.4
	comp=E,4.9nm,0.6s						
MSU				ePg	Pg	02 20 49.6	-2.8
MVCO	Mesa Verde	7.32	48	ePn	Pn	02 20 34.8	+0.1
	comp=E,7.0nm,0.8s						
MVCO				ePg	Pg	02 21 02.7	-4.9
MVCO				eSg	Sg	02 22 37.9	-4.6
SRU	San Rafael	7.67	29	ePn	Pn	02 20 38.1	-1.4
	comp=E,3.2nm,1.0s						
SRU				ePb	Pb	02 20 58.2	-2.5
SRU				ePg	Pg	02 21 08.7	-5.4
SRU				eSg	Sg	02 22 48.4	-5.1

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*NNC **23** 02:22:51.7±6.1, 35°.56N×74°.27E, h0^{km}, mb3.5, mpv3.5, Error ellipse: s-maj=63.0km s-min=45.4km az=127.0*

*IDC **23** 02:22:58.3±1.1, 36°.51N×75°.84E, h0^{km}, mb3.7/6, mb1 3.7/12, mb1mx3.6/29, mbtmp3.6/12, ML3.4/5, Error ellipse: s-maj=26.5km s-min=19.9km az=78.0*

*ISCJB **23** 02:23:02.7±2.9, 36°.5N±0°.2×75°.6E±0°.1, h43^{km}±22^{km}, mb3.7/6, Error ellipse: s-maj=29.7km s-min=14.2km az=27.8*

*BJI **23** 02:23:02.3, 37°.00N×75°.54E, h15^{km}, mb3.7/1, ML3.6/5*

*NEIC **23** 02:23:08.6±3.0, 36°.84N×75°.90E, h81^{km}±23^{km}, mb3.9/1, Error ellipse: s-maj=29.0km s-min=18.0km az=188.0*

ISC 23 02:23:05.4±2.5, 36°.5N±0°.2×75°.7E±0°.1, h51^{km}±19^{km}, n32, σ1^{s}46/37, mb3.7/6, 5C-5D, Kashmir-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.00	4	⇑iPn	Pn	02 23 43.9	-6.5
KSH				Sn	Sn	02 24 16.6	-8.4
KSH				smax			
	comp=N,260nm,0.4s						
KSH				smax			
	comp=E,500nm,0.6s						
UCH	Uchtor	5.77	351	ePn	Pn	02 24 29.1	+0.7
	comp=E,13nm,0.6s						
UCH				eSn	Sn	02 25 22.5	-11
AAK	Ala-Archa	6.17	352	Pn	Pn	02 24 34.9	+1.1
	comp=E,0.0nm,0.3s,baz=156,slow=11,SNR=16						
AAK				Sn	Sn	02 25 48.6	+5.5
	comp=E,0.0nm,0.3s,baz=191,slow=22,SNR=1.4						
AAK	Ala-Archa	6.17	352	ePn	Pn	02 24 35.7	+1.8
AAK				Sn	Sn	02 25 48.6	+5.5
EKS2	Erkin-Say	6.31	347	ePn	Pn	02 24 37.2	+1.4
TKM2	Tokmak 2	6.39	359	⇓Pn	Pn	02 24 39.1	+2.3
	comp=E,2.2nm,0.4s						
TKM2				⇓Sn	Sn	02 26 09.5	+21
	comp=E,7.6nm,0.6s						
TKM2	Tokmak 2	6.39	359	ePn	Pn	02 24 35.8	-1.1
	comp=E,4.0nm,0.4s						
KK31	Karatay Array	7.69	330	Pn	Pn	02 24 52.8	-1.8
	comp=E,0.6nm,0.3s,baz=151,slow=15,SNR=28						
KK31				⇓Sn	Sn	02 26 21.1	+0.8
	comp=E,3.5nm,0.7s,baz=159,slow=23,SNR=6.3						
MKAR	Makanchi Array	11.38	24	Pn	Pn	02 25 42.2	-2.9
	comp=E,0.3nm,0.3s,baz=202,slow=14,SNR=14						
MKAR	Makanchi Array	11.38	24	Pn	Pn	02 25 42.2	-2.9
KURBB	Kurchatov Arra	14.24	7	⇑P	Pn	02 26 30.8	+6.7
	comp=E,0.5nm,0.7s,baz=129,slow=12						
KURK	Kurchatov	14.35	8	⇓P	Pn	02 26 31.7	+6.3
	comp=E,3.6nm,0.6s,baz=129,slow=12						
KURK	Kurchatov	14.35	8	Pn	Pn	02 26 21.4	-4.0
	comp=E,0.0nm,0.3s,baz=191,slow=12,SNR=5.8						
KURK	Kurchatov	14.35	8	ePn	Pn	02 26 21.9	-3.4
VOSK	Vostochnaya	16.54	350	⇑P	Pn	02 26 55.2	+1.6
	comp=E,1.8nm,0.8s						
BVA0	Borovoye Array	16.92	349	⇓P	Pn	02 26 58.8	+0.5
	comp=E,0.4nm,0.8s						
BVAR	Borovoye Array	16.92	349	Pn	Pn	02 26 55.2	-3.1
	comp=E,0.1nm,0.3s,baz=157,slow=11,SNR=2.4						
BVAR	Borovoye Array	16.92	349	Pn	Pn	02 26 55.2	-3.1
AB09	Akbulak array	17.15	323	⇑P	Pn	02 26 55.7	-5.5
	comp=E,0.3nm,0.4s						
ZALV	Zalesovo Beam	18.55	17	P	Pn	02 27 14.8	-3.4
	comp=E,0.3nm,0.3s,baz=194,slow=11,SNR=2.3						
ZALV	Zalesovo Beam	18.55	17	P	Pn	02 27 14.8	-3.4
AKTK	Aktyubinsk	18.85	323	P	Pn	02 27 20.4	-1.6
AKTO	Aktyubinsk	18.85	323	⇑P	Pn	02 27 12.9	-9.0
	comp=E,0.2nm,0.7s,baz=129,slow=12						
AKTO	Aktyubinsk	18.85	323	P	Pn	02 27 20.4	-1.6
	comp=E,0.1nm,0.3s,baz=124,slow=16,SNR=6.1						
GTA	Gaotai	19.22	74	eP	Pn	02 27 28.3	+1.8
GTA				pP	pP	02 27 31.5	-5.2
GTA				sP	sP	02 27 34.4	-8.8
GTA				pmax	pmax		
	comp=Z,4.0nm,1.2s						
ARU	Arti	23.02	335	eP	P	02 28 05.2	-0.5
	comp=Z,3.6nm,0.6s,mb4.0						
SONM	Songino Array	25.24	54	P	P	02 28 25.7	-0.6
	comp=Z,0.7nm,0.7s,mb3.3,baz=255,slow=8.8,SNR=2.9						
ARCES	ARCESS Array B	42.60	336	P	P	02 30 58.0	+2.0
	comp=Z,4.0nm,1.0s,mb4.1,baz=111,slow=10,SNR=3.1						
TORD	Torodi Ar. Bea	69.50	271	P	P	02 34 09.3	+0.5
	comp=Z,0.4nm,0.5s,mb3.6,baz=43,slow=4.7,SNR=5.9						
INK	Inuvik	73.22	11	P	P	02 34 31.7	+1.2
	comp=Z,0.3nm,0.5s,mb3.5,baz=304,slow=1.3,SNR=3.5						
WRA	Warramunga Arr	78.85	125	P	P	02 35 02.9	-0.2
	comp=Z,0.5nm,0.8s,mb3.5,baz=322,slow=5.9,SNR=3.0						
YKA	Yellowknife Ar	80.98	5	P	P	02 35 12.9	-1.2
	comp=Z,0.1nm,0.5s,baz=348,slow=5.6,SNR=5.5						

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*NEIC **23** 02:27:16.9, 36°.33N×21°.67E, h30^{km}, MD3.4(ATH), After ATH.*

*ATH **23** 02:27:16.9, 36°.33N×21°.67E, h30^{km}±3^{km}, MD3.4/5*

*ISCJB **23** 02:27:18.7±1.6, 36°.35N±0°.08×21°.9E±0°.1, h10^{km}, Error ellipse: s-maj=16.8km s-min=7.5km az=142.8*

*CSEM **23** 02:27:19.4±0.8, 36°.46N×21°.95E, h2^{km}, MD3.5, Error ellipse: s-maj=22.4km s-min=7.4km az=39.0*

ISC 23 02:27:19.2±2.1, 36°.36N±0°.10×21°.9E±0°.1, h7^{km}±10^{km}, n26, σ0^{s}80/32, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.54	350	ePN	Pg	02 27 28.8	-0.8
PYL				eSN	Sg	02 27 37.2	+0.6
PYL	PYLOS	0.54	350	ePB	Pg	02 27 28.7	-0.9
PYL	PYLOS	0.54	350	ePb	Pg	02 27 28.7	-0.9
ITM	Ithomi	0.82	4	ePB	Pg	02 27 34.4	-0.5
ITM				eSB	Sb	02 27 47.0	+0.1
ITM	Ithomi	0.82	4	ePn	Pg	02 27 34.2	-0.7
ITM				ePb	Pg	02 27 34.4	-0.5
ITM				eSb	Sb	02 27 47.0	+0.1
ITM	Ithomi	0.82	4	ePn	Pg	02 27 34.2	-0.7
ITM	Ithomi	0.82	4	ePb	Pg	02 27 34.4	-0.5
ITM				eSb	Sb	02 27 47.0	+0.1
VLI	Veliai	0.94	68	ePN	Pg	02 27 38.0	+0.8
VLI	Veliai	0.94	68	ePB	Pg	02 27 37.8	+0.6
VLI	Veliai	0.94	68	ePb	Pg	02 27 37.8	+0.6
VLI				ePn	Pg	02 27 38.0	+0.8
VLI	Veliai	0.94	68	ePb	Pg	02 27 37.8	+0.6
VLI	Veliai	0.94	68	ePn	Pg	02 27 38.0	+0.8
KYTH	Kithira	0.95	95	ePN	Pg	02 27 37.5	0.0
KYTH	Kithira	0.95	95	ePB	Pg	02 27 37.5	0.0
KYTH	Kithira	0.95	95	ePb	Pg	02 27 37.5	0.0
VLX	Vlachokerasia	1.09	22	ePN	Pn	02 27 38.8	-2.1
VLX	Vlachokerasia	1.09	22	ePN	Pn	02 27 39.5	-1.4
VLX	Vlachokerasia	1.09	22	ePn	Pn	02 27 39.5	-1.4
RLS	Riolos of Patr	1.72	350	ePN	Pn	02 27 50.7	+1.2
RLS	Riolos of Patr	1.72	350	ePn	Pn	02 27 50.7	+1.2
RLS	Riolos of Patr	1.72	350	ePn	Pn	02 27 50.7	+1.2
VLS	Valsamata	2.07	331	ePN	Pn	02 27 54.7	+0.3
VLS	Valsamata	2.07	331	ePn	Pn	02 27 54.7	+0.3
VLS	Valsamata	2.07	331	ePn	Pn	02 27 54.7	+0.3
EVR	Evrytania	2.55	359	ePG	Pn	02 28 06.1	+5.2
EVR	Evrytania	2.55	359	ePg	Pn	02 28 06.1	+5.2

IDC 23 02:39:19.9±1.1, 6°.89S×72°.29E, h0^{km}, mb3.7/3, mb1 4.0/3, mb1mx3.5/23, mbtmp3.7/3, Error ellipse: s-maj=30.9km s-min=18.9km az=57.0, Chagos Archipelago region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	54.18	8	P	P	02 48 46.2	-0.8
	0.1nm,0.5s,baz=191,slow=7.4,SNR=3.7						
ASAR	Alice Springs	61.29	113	P	P	02 49 37.8	+0.2
	0.8nm,0.6s,baz=278,slow=6.2,SNR=10						
WRA	Warramunga Arr	61.43	109	P	P	02 49 39.0	+0.4
	1.3nm,0.6s,baz=278,slow=6.8,SNR=9.9						

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*ISCJB **23** 03:11:43.1±0.5, 50°.11N±0°.04×19°.08E±0°.03, h0^{km}, Error ellipse: s-maj=5.7km s-min=2.7km az=7.9*

*CSEM **23** 03:11:43.5±0.5, 50°.18N×19°.05E, h5^{km}, Error ellipse: s-maj=11.7km s-min=4.0km az=7.0*

*WAR **23** 03:11:43.6, 50°.11N×19°.18E, ML2.5, Mining Induced*

*PRU **23** 03:11:43.7, 50°.17N×19°.06E, h0^{km}*

ISC 23 03:11:43.9±0.5, 50°.10N±0°.04×19°.09E±0°.03, h0^{km}, n31, σ1^{s}40/56, 2C-1D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.47	74	ePg	Pg	03 11 51.9	-1.0
OJC				eSg	Sg	03 11 58.1	-0.9
OKC	Ostrava-Krasne	0.66	247	ePG	Pg	03 11 57.4	+0.9
OKC				eSG	Sg	03 12 06.8	+1.8
	comp=Z,24nm,0.4s						
OKC	Ostrava-Krasne	0.66	247	Pg	Pg	03 11 57.4	+0.9
OKC				Sg	Sg	03 12 06.8	+1.8
	comp=Z,24nm,0.4s						
NIE	Niedzica	1.04	130	ePg	Pg	03 12 03.8	0.0
NIE				eSg	Sg	03 12 19.5	+2.2
NIE	Niedzica	1.04	130	ePg	Pg	03 12 03.8	0.0
NIE				eSg	Sg	03 12 19.5	+2.2
MORC	Moravsky Berou	1.05	253	⇑iP	Pg	03 12 04.8	+0.9
MORC	Moravsky Berou	1.05	253	ePg	Pg	03 12 04.5	+0.6
MORC				eSg	Sg	03 12 18.2	+0.7
STHS	Stebnicka Huta	1.55	115	ePN	Pn	03 12 13.1	+0.4
STHS				eSN	Sn	03 12 32.4	-1.1
STHS	Stebnicka Huta	1.55	115	ePn	Pn	03 12 13.1	+0.4
STHS				eSn	Sn	03 12 32.4	-1.1
KOLL	Kolacno	1.58	197	ePN	Pn	03 12 14.1	+1.0
KOLL				eSN	Sn	03 12 31.7	-2.5
KOLL	Kolacno	1.58	197	ePn	Pn	03 12 14.1	+1.0
KOLL				eSn	Sn	03 12 31.7	-2.5
VYHS	Vyhne	1.61	186	ePN	Pn	03 12 12.9	-0.6
VYHS				eSN	Sn	03 12 34.3	-0.6
DPC	Dobruska-Polom	1.80	279	ePG	Pg	03 12 15.6	-2.7
DPC				eSG	Sg	03 12 40.3	-1.2
	comp=Z,14nm,0.4s						
DPC	Dobruska-Polom	1.80	279	Pg	Pg	03 12 15.6	-2.7
DPC				Sg	Sg	03 12 40.3	-1.2
	comp=Z,14nm,0.4s						
VRAC	Vranov	1.80	245	⇓iP	Pn	03 12 17.5	+1.4
VRAC	Vranov	1.80	245	ePn	Pn	03 12 16.1	0.0
VRAC				eSg	Sg	03 12 40.3	-1.4
KECS	Kecovo	1.85	150	ePN	Pn	03 12 15.6	-1.2
KECS				eSN	Sn	03 12 39.0	-1.9
KSP	Ksiaz	1.94	294	ePn	Pn	03 12 21.4	+3.4
KSP				eSg	Sg	03 12 47.4	+1.3
KSP	Ksiaz	1.94	294	ePg	Pg	03 12 23.0	+2.0
KSP				eSg	Sg	03 12 46.4	+0.3
CRVS	Cervenica-Dubn	1.95	127	ePN	Pn	03 12 19.7	+1.5
CRVS				eSN	Sn	03 12 45.1	+1.7
CRVS	Cervenica-Dubn	1.95	127	ePn	Pn	03 12 19.7	+1.5
CRVS				eSn	Sn	03 12 45.1	+1.7
UPC	Upice	2.02	283	eSG	Sg	03 12 46.7	-1.9
UPC	Upice	2.02	283	Sg	Sg	03 12 46.7	-1.9
MODS	Modra-Piesok	2.09	215	ePN	Pn	03 12 23.2	+3.1
MODS				eSN	Sn	03 12 46.3	-0.5
MODS	Modra-Piesok	2.09	215	ePn	Pn	03 12 23.2	+3.1
MODS				eSn	Sn	03 12 46.3	-0.5
PSZ	Piszkesteto	2.24	166	⇑iP	Pn	03 12 28.6	+6.4
KOLS	Kolonicke sedl	2.38	118	ePN	Pn	03 12 25.6	+1.5
KOLS				eSN	Sn	03 12 52.6	-1.3
KOLS	Kolonicke sedl	2.38	118	ePn	Pn	03 12 25.6	+1.5
KOLS				eSn	Sn	03 12 52.6	-1.3
PRU	Pruhonice	2.93	270	ePG	Pn	03 12 36.9	+5.2
PRU				eSG	Sn	03 13 15.5	+7.9
BRG	Berggiesshubel	3.38	285	SG	Sg	03 13 31.5	-0.8
	comp=Z,4.0nm,0.5s						
KHC	Kasperske Hory	3.71	257	ePG	Pn	03 12 50.2	+7.8
KHC				eSG	Sn	03 13 41.5	+15
	comp=Z,7.9nm,0.5s						

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*ISCJB **23** 03:14:21.6±0.3, 41°.84N±0°.02×22°.68E±0°.02, h10^{km}, Error ellipse: s-maj=2.4km s-min=2.2km az=161.7*

*SOF **23** 03:14:21.2, 41°.83N×22°.71E, h20^{km}, MD2.8*

*SKO **23** 03:14:22.4, 41°.79N×22°.66E, h23^{km}, M2.1, ML2.5*

*THE **23** 03:14:22.7, 41°.81N×22°.71E, h1^{km}±1^{km}, ML3.3/5, Error ellipse: s-maj=2.0km s-min=0.8km az=10.0*

*CSEM **23** 03:14:22.2±0.1, 41°.82N×22°.69E, h2^{km}, ML2.6, Error ellipse: s-maj=3.0km s-min=2.2km az=74.0*

*BEO **23** 03:14:23.1±0.3, 41°.83N×22°.65E, h4^{km}±3^{km}, ML2.6/6*

*ATH **23** 03:14:35.8, 41°.09N×23°.78E, h2^{km}, MD3.3/5*

*NEIC **23** 03:14:35.8, 41°.09N×23°.78E, h2^{km}, MD3.3(ATH), After ATH.*

ISC 23 03:14:22.3±0.3, 41°.83N±0°.02×22°.68E±0°.02, h1^{km}±4^{km}, n78, σ0^{s}73/113, 7C-4D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKB	Krupnik	0.30	82	Pg	Pg	03 14 28.7	+0.6
STIP	Stip	0.39	251	P	Pg	03 14 30.1	+0.2
STIP	Stip	0.39	251	ePg	Pg	03 14 30.3	+0.4
STIP				i Sg	Sg	03 14 35.8	+0.8
STIP	Stip	0.39	251	i Pg	Pg	03 14 30.9	+1.1
STIP				i Sg	Sg	03 14 35.9	+0.9
STIP				eLg		03 14 35.9	
	comp=E,117nm,0.2s						
STIP				eLg		03 14 35.9	
	comp=N,334nm,0.2s						
STIP	Stip	0.39	251	ePg	Pg	03 14 30.3	+0.4
STIP				i Sg	Sg	03 14 35.8	+0.8
STIP				eLg		03 14 35.9	
	comp=N,334nm,0.2s						
VAY	Valandovo	0.51	190	P	Pg	03 14 32.0	-0.1
VAY	Valandovo	0.51	190	⇑iPg	Pg	03 14 32.1	0.0
VAY				i Sg	Sg	03 14 39.4	+0.7
VAY	Valandovo	0.51	190	i Pg	Pg	03 14 32.2	+0.1
VAY				eLg		03 14 39.4	
	comp=E,700nm,0.2s						

VAY				*i* Sg	Sg	03 14 39.4	+0.7
VAY				*e*Lg		03 14 39.5	
	comp=N,529nm,0.5s						
VAY	Valandovo	0.51	190	Pg	Pg	03 14 32.1	0.0
VAY				Sg	Sg	03 14 39.2	+0.5
VAY	Valandovo	0.51	190	⇑*i*Pg	Pg	03 14 32.1	0.0
VAY				*i* Sg	Sg	03 14 39.4	+0.7
VAY				*e*Lg		03 14 39.4	
	comp=N,529nm,0.5s						
KNT	Kendrikon	0.68	166	P	Pg	03 14 35.3	-0.1
KNT				S	Sg	03 14 44.6	+0.3
KNT	Kendrikon	0.68	166	P	Pg	03 14 35.3	-0.1
KNT				S	Sg	03 14 44.6	+0.3
MMB	Musomiste	0.82	106	Pg	Pg	03 14 38.3	+0.3
MMB				Sg	Sg	03 14 49.2	+0.6
VTS	Vitosha	0.86	27	P	Pg	03 14 38.3	-0.5
VTS	Vitosha	0.86	27	*e*Pg	Pg	03 14 40.2	+1.4
VTS				*e*Sg	Sg	03 14 50.1	+0.2
VTS	Vitosha	0.86	27	Pg	Pg	03 14 39.2	+0.4
VTS				Sg	Sg	03 14 50.2	+0.3
VTS	Vitosha	0.86	27	P	Pg	03 14 38.3	-0.5
VTS	Vitosha	0.86	27	*e*Pg	Pg	03 14 40.2	+1.4
GRG	Griva	0.89	194	P	Pg	03 14 39.0	-0.5
GRG	Griva	0.89	194	P	Pg	03 14 39.0	-0.5
SKO	Skopje	0.94	279	*i* Pg	Pg	03 14 40.7	+0.4
SKO				*e*Lg		03 14 57.2	
	comp=E,33nm,0.5s						
SKO				*e*Lg		03 14 58.5	
	comp=N,38nm,0.3s						
SKO	Skopje	0.94	279	*i* Pg	Pg	03 14 40.7	+0.4
SKO				*e*Lg		03 14 57.1	
	comp=N,33nm,0.5s						
SRS	Serrai	0.98	136	P	Pg	03 14 40.7	-0.5
SRS				S	Sg	03 14 53.8	-0.1
SRS	Serrai	0.98	136	P	Pg	03 14 40.7	-0.5
SRS				S	Sg	03 14 53.8	-0.1
NVR	Nevrokopi	1.00	118	*e*PG	Pg	03 14 41.3	-0.3
NVR	Nevrokopi	1.00	118	*e*Pg	Pg	03 14 41.3	-0.3
SOH	Sokhos	1.12	153	P	Pg	03 14 43.5	-0.4
SOH				S	Sg	03 14 58.8	+0.4
SOH	Sokhos	1.12	153	*e*PG	Pg	03 14 43.7	-0.2
SOH	Sokhos	1.12	153	P	Pg	03 14 43.5	-0.4
SOH	Sokhos	1.12	153	*e*Pg	Pg	03 14 43.7	-0.2
SOH				S	Sg	03 14 58.8	+0.4
KRUS	Krusevo	1.17	247	*i* Pg	Pg	03 14 44.3	-0.4
KRUS				*i* Sg	Sg	03 15 00.1	+0.2
KRUS				*e*Lg		03 15 00.7	
	comp=E,16nm,0.3s						
KRUS				*e*Lg		03 15 00.8	
	comp=N,20nm,0.2s						
KRUS	Krusevo	1.17	247	*i* Pg	Pg	03 14 44.2	-0.5
KRUS				*i* Sg	Sg	03 15 00.0	+0.1
KRUS				*e*Lg		03 15 00.6	
	comp=N,16nm,0.3s						
BARS	Barje	1.18	327	⇑*i*Pg	Pg	03 14 44.6	-0.4
BARS				*e*Sg	Sg	03 15 00.6	+0.3
BARS	Barje	1.18	327	⇑*i*Pg	Pg	03 14 44.6	-0.4
BARS				*e*Sg	Sg	03 15 00.6	+0.3
THE	Thessaloniki	1.21	170	P	Pg	03 14 45.0	-0.5
THE	Thessaloniki	1.21	170	P	Pg	03 14 45.0	-0.5
HORT	Hortiatis	1.27	165	P	Pg	03 14 46.0	-0.6
HORT	Hortiatis	1.27	165	P	Pg	03 14 46.0	-0.6
BIA	Bitola	1.30	232	*i* Pg	Pg	03 14 47.3	0.0
BIA				*i* Sg	Sg	03 15 04.7	+0.6
BIA				*e*Lg		03 15 04.9	
	comp=E,48nm,0.2s						
BIA				*e*Lg		03 15 05.3	
	comp=N,46nm,0.3s						
BIA	Bitola	1.30	232	*i* Pg	Pg	03 14 47.2	-0.1
BIA				*i* Sg	Sg	03 15 04.6	+0.5
BIA				*e*Lg		03 15 04.9	
	comp=N,48nm,0.2s						
PGB	Panagyurishte	1.32	56	Pg	Pg	03 14 47.4	-0.2
FNA	Florina	1.43	224	P	Pn	03 14 49.1	-0.3
FNA				S	Sg	03 15 08.8	+0.5
FNA	Florina	1.43	224	P	Pn	03 14 49.1	-0.3
FNA				S	Sg	03 15 08.8	+0.5
ZAPS	Zavoj	1.45	359	⇓*i*Pg	Pg	03 14 49.9	-0.2
ZAPS				*e*Sg	Sg	03 15 09.7	+0.9
RZN	Rozhen	1.53	95	Pg	Pg	03 14 50.8	-0.8
RZN				Sg	Sg	03 15 12.4	+1.0
PLD	Plovdiv	1.53	79	P	Pn	03 14 50.5	-0.3
PLD	Plovdiv	1.53	79	*i* Pn	Pn	03 14 50.6	-0.2
PLD				*i* Sg	Sg	03 15 12.3	+0.7
PLD	Plovdiv	1.53	79	Pg	Pg	03 14 51.6	-0.1
PLD				Sg	Sg	03 15 12.2	+0.6
PLD	Plovdiv	1.53	79	*i* Pn	Pn	03 14 50.6	-0.2
PLD				*i* Sg	Sg	03 15 12.3	+0.7
PLG	Polygyros	1.56	158	P	Pn	03 14 50.6	-0.6
PLG	Polygyros	1.56	158	*e*PB	Pn	03 14 50.8	-0.4
PLG	Polygyros	1.56	158	*e*Pb	Pn	03 14 50.8	-0.4
OHR	Ohrid	1.59	244	*i* Sg	Sg	03 15 13.0	-0.2
OHR	Ohrid	1.59	244	*i* Sg	Sg	03 15 13.0	-0.3
NISS		1.67	341	⇓*i*Pn	Pn	03 14 53.7	+1.1
NISS				*e*Sg	Sg	03 15 15.3	-0.6
NISS		1.67	341	⇓*i*Pn	Pn	03 14 53.7	+1.1
OUR	Ouranopolis	1.79	146	P	Pn	03 14 53.4	-0.8
OUR	Ouranopolis	1.79	146	P	Pn	03 14 53.4	-0.8
BOLS	Boljevac	2.07	345	⇑*i*Pn	Pn	03 14 59.5	+1.3
BOLS				*e*Sg	Sg	03 15 28.7	-0.2
BOLS	Boljevac	2.07	345	⇑*i*Pn	Pn	03 14 59.5	+1.3
BOLS				*e*Sg	Sg	03 15 28.7	-0.2
DIM	Dimitrovgrad	2.14	83	Pg	Pg	03 15 02.3	-1.0
RDO	Rodhopi	2.25	107	*e*PG	Pn	03 15 00.6	0.0
RDO	Rodhopi	2.25	107	*e*Pg	Pn	03 15 00.6	0.0
GRUS	Gruza	2.52	326	*e*Pn	Pn	03 15 05.8	+1.5
GRUS				*e*Sg	Sg	03 15 41.9	-1.3
GRUS	Gruza	2.52	326	*e*Pn	Pn	03 15 05.8	+1.5
GRUS				*e*Sg	Sg	03 15 41.9	-1.3
SVIS	Svilajnac	2.67	337	*e*Pn	Pn	03 15 07.8	+1.5
SVIS				*e*Sg	Sg	03 15 46.8	-1.1
ALN	Alexandroupoli	2.70	109	P	Pn	03 15 06.1	-0.7
ALN	Alexandroupoli	2.70	109	P	Pn	03 15 06.1	-0.7
LIA	Limnos Island	2.70	135	*e*PB	Pn	03 15 06.3	-0.6
LIA	Limnos Island	2.70	135	*e*Pb	Pn	03 15 06.3	-0.6
AGG	Agios Georgios	2.81	186	P	Pn	03 15 08.1	-0.3
AGG	Agios Georgios	2.81	186	P	Pn	03 15 08.1	-0.3
DIVS	Divibare	3.01	320	*e*Pn	Pn	03 15 09.1	-2.0
DIVS	Divibare	3.01	320	*e*Pn	Pn	03 15 09.1	-2.0
GZR	Gura Zlata	3.57	1	⇓*i*P	Pn	03 15 20.3	+1.6
BZS	Buzias	3.87	349	*e*Pn	Pn	03 15 21.7	-1.2
BZS	Buzias	3.87	349	⇑*i*P	Pn	03 15 21.4	-1.5
BZS	Buzias	3.87	349	*e*Pn	Pn	03 15 21.7	-1.2

GCMT ***23*** *03:23:06.6±0.2, 4°.06N×78°.75W, h12^{km}, MW5.1/91, Moment Tensor Solution. s39,c49; s91,c150; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.20±.11; $M_{\theta\theta}$1.82±.09; $M_{\phi\phi}$3.38±.13; $M_{r\theta}$1.15±.39; $M_{\theta\phi}$2.38±.08; $M_{\phi r}$0.77±.37; Best double couple: $M_0$5.33400×10^{16} NP1:ϕ_s31.00000°,δ38.00000°,λ-98.00000°. NP2: ϕ_s221.00000°,δ52.00000°,λ-84.00000°. Principal axes: T 5.2660, Plg7.0000°, Azm307.0000°; N 0.1360, Plg5.0000°, Azm37.0000°; P -5.4020, Plg81.0000°, Azm161.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***23*** *03:23:06.6, 4°.00N×78°.70W, h10^{km}, mB5.6/8, Ms5.2/8, Ms7 5.0/8*

NEIC ***23*** *03:23:06.6±0.2, 3°.97N×78°.75W, h10^{km}, mb4.9/106, Error ellipse: s-maj=6.3km s-min=4.0km az=36.0*

MOS ***23*** *03:23:07.6±0.9, 4°.16N×78°.79W, h21^{km}, mb5.0/45, Error ellipse: s-maj=10.1km s-min=6.5km az=103.2*

ISCJB ***23*** *03:23:08.4±1.8, 4°.11N±0°.04×78°.63W±0°.03, h27^{km}±12^{km}, mb4.8/127, MS4.4/16, Error ellipse: s-maj=7.0km s-min=4.2km az=29.3*

IDC ***23*** *03:23:10.3±3.2, 4°.05N×78°.72W, h33^{km}±24^{km}, mb4.3/19, mb1 4.6/26, mb1mx4.5/28, mbtmp4.4/26, ML4.2/7, MS4.2/16, Ms1 4.2/16, ms1mx4.1/25, Error ellipse: s-maj=16.3km s-min=9.9km az=63.0*

ISC 23 03:23:11.4±0.7, **4°.09N**±0°.03×**78°.63W**±0°.03, **h35**^{km}±6^{km}, **n596, σ0^s.78**/548, **mb4.8**/127, **MS4.4**/16, **150C-129D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTAV	Otavalo	3.83	177	*e*Pn	Pn	03 24 01.7	-6.2
ROSC	El Rosal	4.35	80	Pn	Pn	03 24 17.7	+2.7
	44nm,0.3s,baz=318,slow=3.2,SNR=168						
ROSC				Sn	Sn	03 25 14.5	+10
	3.8nm,0.3s,baz=262,slow=21,SNR=3.0						
ROSC				LR	LR	03 25 48.3	
	comp=Z,1µm,20.1s,baz=254,slow=35						
BCIP	Isla Barro Col	5.19	347	*e*Pn	Pn	03 24 24.9	-1.7
	53nm,0.5s						
JTS	JuntasAbangare	8.79	315	P	Pn	03 25 14.2	-2.0
JTS						03 26 51.5	
JTS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
JTS				MLR	MLR		
	comp=Z,1µm,18.2s						
JTS	JuntasAbangare	8.79	315	Pn	Pn	03 25 14.2	-2.0
	comp=Z,1.4nm,0.3s,baz=106,slow=17,SNR=10						
JTS				Sn	Sn	03 26 51.5	-2.6
	comp=Z,0.4nm,0.3s,baz=120,slow=23,SNR=1.7						
JTS				LR	LR	03 28 33.1	
	comp=Z,1µm,18.1s,baz=133,slow=37						
JTS	JuntasAbangare	8.79	315	*e*Pn	Pn	03 25 13.2	-3.0
	comp=Z,24nm,0.8s						
SDV	Santo Domingo	9.26	59	Pn	Pn	03 25 23.0	+0.4
	comp=Z,10.0nm,0.3s,baz=242,slow=11,SNR=41						
SDV				Sn	Sn	03 27 06.4	+0.8
	comp=Z,2.7nm,0.3s,baz=345,slow=18,SNR=2.7						
SDV				LR	LR	03 29 29.5	
	comp=Z,1µm,18.6s,baz=83,slow=40						
SDV	Santo Domingo	9.26	59	*e*Pn	Pn	03 25 23.3	+0.7
	comp=Z,30nm,0.5s						
ATAH	Atahualpa	11.02	179	Pn	Pn	03 25 47.9	+1.3
	comp=Z,1.6nm,0.3s,baz=57,slow=8.7,SNR=9.2						
ATAH				Sn	Sn	03 27 47.5	-1.2
	comp=Z,2.1nm,0.3s,baz=220,slow=23,SNR=8.6						
PAYG	Puerto Ayora	12.58	248	*e*Pn	Pn	03 26 05.4	-2.6
	comp=Z,44nm,1.2s						
TGUH	Tegucigalpa,Un	13.07	320	*e*Pn	Pn	03 26 14.3	-0.5
	comp=Z,267nm,1.7s						
PCRV	Puerto La Cruz	15.14	66	Pn	Pn	03 26 43.8	+1.1
	comp=Z,0.8nm,0.3s,baz=346,slow=12,SNR=3.2						
NNA	Nana	16.07	174	Pn	Pn	03 26 54.4	-0.5
	comp=Z,7.4nm,0.3s,baz=352,slow=9.8,SNR=42						
NNA				LR	LR	03 33 51.5	
	comp=Z,830nm,21.5s,baz=338,slow=40						
NNA	Nana	16.07	174	*e*Pn	Pn	03 26 56.5	+1.6
	comp=Z,62nm,0.7s						
TEIG	Tepich	18.59	330	P	Pn	03 27 25.9	-0.3
	comp=Z,0.7nm,0.3s,baz=312,slow=6.1,SNR=5.1						
TEIG				LR	LR	03 34 22.1	
	comp=Z,619nm,18.9s,baz=281,slow=36						
CBYP	Canovanas	18.84	41	*e*P	Pn	03 27 30.1	+1.0
	comp=Z,36nm,0.9s						
CMIG	Matias Romero	20.52	310	P	P	03 27 45.5	-1.4
	comp=Z,3.5nm,0.5s,baz=117,slow=7.0,SNR=8.7						
CMIG				LR	LR	03 34 40.6	
	comp=Z,744nm,19.7s,MS4.0,baz=114,slow=34						
CMIG	Matias Romero	20.52	310	P	P	03 27 45.5	-1.4
CMIG				LR	LR	03 34 40.6	
SIV	San Ignacio	26.45	139	P	P	03 28 43.8	-1.5
	comp=Z,11nm,0.7s,mb4.5,baz=329,slow=11,SNR=29						
LVC	Limon Verde	28.18	161	P	P	03 29 00.5	-0.3
	comp=Z,9.2nm,1.0s,mb4.4,baz=334,slow=6.6,SNR=5.3						
LVC				LR	LR	03 41 53.5	
	comp=Z,355nm,18.7s,MS4.0,baz=317,slow=40						
LVC	Limon Verde	28.18	161	*e*P	P	03 28 59.4	-1.4
	comp=Z,18nm,0.9s,mb4.7						
PLAL	Pickwick Lake	31.96	345	*e*P	P	03 29 32.3	-1.8
	comp=Z,16nm,1.2s,mb4.7						
PLAL				*e*PcP	PcP	03 32 22.7	-1.1
JCT	Junction City	32.99	325	*e*P	P	03 29 42.1	-1.1
JCT				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
JCT	Junction City	32.99	325	*e*P	P	03 29 42.0	-1.2
	comp=Z,9.0nm,1.2s,mb4.6						
WVT	Waverly	33.00	346	*e*P	P	03 29 41.4	-1.8
WVT				*e*		03 32 25.7	
WVT				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
WVT	Waverly	33.00	346	*e*P	P	03 29 41.4	-1.7
	comp=Z,9.7nm,0.9s,mb4.7						
WVT				*e*PcP	PcP	03 32 25.7	-0.9
LCO	Las Campanas	33.78	167	*e*P	P	03 29 48.6	-1.5
	comp=Z,24nm,1.5s,mb4.9						
TXAR	Lajitas Array	34.55	319	P	P	03 29 56.8	0.0
TXAR						03 32 30.8	
TXAR	Lajitas Array	34.55	319	P	P	03 29 56.8	0.0
	comp=Z,1.9nm,0.8s,mb4.1,baz=135,slow=9.0,SNR=16						
TXAR				PcP	PcP	03 32 30.8	-0.4
	comp=Z,6.7nm,1.0s,baz=134,slow=3.9,SNR=28						
TXAR				LR	LR	03 43 33.9	
	comp=Z,303nm,21.7s,MS4.0,baz=260,slow=35						
TXAR	Lajitas Array	34.55	319	P	P	03 29 56.8	0.0
TXAR				PcP	PcP	03 32 30.8	-0.4
TXAR				LR	LR	03 43 33.9	
WCI	Wyandotte Cave	34.69	349	*e*P	P	03 29 57.3	-0.6
WCI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
WCI	Wyandotte Cave	34.69	349	*e*P	P	03 29 57.3	-0.6
	comp=Z,7.4nm,0.7s,mb4.7						
USIN	University of	34.72	347	*e*P	P	03 29 57.2	-0.9
	comp=Z,24nm,0.7s,mb5.2						
SIUC	Southern Illin	34.84	345	*e*P	P	03 29 58.2	-1.0
	comp=Z,29nm,1.0s,mb5.2						
FVM	French Village	35.42	344	*e*P	P	03 30 02.6	-1.5
FVM				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
FVM	French Village	35.42	344	*e*P	P	03 30 02.6	-1.5
	comp=Z,42nm,1.0s,mb5.3						
OLIL	Olney	35.55	347	*e*P	P	03 30 03.8	-1.5
	comp=Z,32nm,1.1s,mb5.2						
OLIL				*e*PcP	PcP	03 32 32.9	-1.0
CCM	Cathedral Cave	35.72	343	*e*P	P	03 30 04.5	-2.2
CCM				*e*		03 32 33.4	
CCM				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
CCM	Cathedral Cave	35.72	343	*e*P	P	03 30 04.5	-2.2
	comp=Z,30nm,1.0s,mb5.2						
CCM				*e*PcP	PcP	03 32 33.4	-1.0
WMOK	Wichita Mounta	35.77	331	*e*P	P	03 30 05.4	-1.8
WMOK				*e*		03 32 33.9	
WMOK				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.8						
WMOK	Wichita Mounta	35.77	331	*e*P	P	03 30 05.4	-1.8
	comp=Z,20nm,1.6s,mb4.8						
WMOK				*e*PcP	PcP	03 32 33.9	-0.8
CPUP	Villa Florida	36.60	147	P	P	03 30 11.9	-2.5
CPUP						03 32 35.6	
CPUP	Villa Florida	36.60	147	P	P	03 30 11.8	-2.6
	comp=Z,2.4nm,0.7s,mb4.1,baz=322,slow=9.8,SNR=12						
CPUP				PcP	PcP	03 32 35.6	-1.7
	comp=Z,2.2nm,0.9s,baz=344,slow=4.9,SNR=2.5						
CPUP				LR	LR	03 47 33.1	
	comp=Z,854nm,18.2s,MS4.6,baz=298,slow=40						
CFAA	Coronel Fontan	36.85	165	P	P	03 30 16.7	+0.3
	comp=Z,0.6nm,0.6s,mb3.6,baz=347,slow=5.9,SNR=19						
HDIL	Hopedale	37.56	347	*e*P	P	03 30 20.2	-2.2
	comp=Z,17nm,0.5s,mb5.0						
HDIL				*e*PcP	PcP	03 32 39.4	-0.5
KSU1	Kansas State U	38.49	337	*e*P	P	03 30 28.5	-1.7
	comp=Z,42nm,1.2s,mb5.0						
122A	Conniff Cattle	38.92	320	⇓P	P	03 30 35.0	+1.1
	baz=39						
221A	Mesquite Ranch	38.97	319	⇓P	P	03 30 35.9	+1.4
	baz=39						
320A	Kipp Ranch, An	39.05	317	⇓P	P	03 30 36.1	+0.9
	baz=39						
121A	Cookes Peak, D	39.31	319	⇑P	P	03 30 38.4	+1.2
	baz=39						
220A	Playas Peak, P	39.40	318	⇑P	P	03 30 39.3	+1.3
	baz=40						
CBKS	Cedar Bluff	39.54	334	*e*P	P	03 30 38.5	-0.5
CBKS				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
CBKS	Cedar Bluff	39.54	334	*e*P	P	03 30 38.5	-0.6
	comp=Z,19nm,0.9s,mb4.8						
319A	Douglas	39.59	317	⇓P	P	03 30 40.5	+0.9
	baz=40,SNR=7.9						
BNM	Barren Site	39.65	322	*e*P	P	03 30 40.6	+0.6
	comp=Z,6.8nm,1.0s,mb4.3						
SCIA	State Center	39.85	343	*e*P	P	03 30 39.6	-2.0
	comp=Z,20nm,0.9s,mb4.8						
120A	U Bar Ranch, L	39.87	319	⇑P	P	03 30 42.8	+0.9
	baz=40						
219A	White Tail Can	39.95	318	⇑P	P	03 30 43.7	+1.1
	baz=40						
JFWS	Jewell Farm	40.02	347	*e*P	P	03 30 40.5	-2.5
JFWS				*e*		03 32 46.6	
JFWS				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.0						
JFWS	Jewell Farm	40.02	347	*e*P	P	03 30 40.5	-2.5
	comp=Z,17nm,0.5s,mb5.0						
JFWS				*e*PcP	PcP	03 32 46.6	-1.0
ANMO	Albuquerque	40.10	323	*e*P	P	03 30 44.0	+0.3
ANMO				pmax	pmax		
	comp=Z,24nm,1.3s						
ANMO	Albuquerque	40.10	323	*e*P	P	03 30 44.0	+0.2
	comp=Z,24nm,1.3s,mb4.8						
318A	Bisbee	40.11	316	⇑P	P	03 30 45.0	+1.0
	baz=40						
X22A	Bernardo	40.12	322	⇑P	P	03 30 45.2	+1.3
	baz=40,SNR=5.8						
LAZ	Ladron	40.13	322	*e*P	P	03 30 45.1	+1.1
	comp=Z,23nm,1.3s,mb4.7						
Y21A	Point of Rocks	40.20	321	⇓P	P	03 30 45.7	+1.1
	baz=40						
Z20A	Nine Sixteen R	40.20	320	⇑P	P	03 30 45.9	+1.2
	baz=40						
119A	Ashpeak Ranch,	40.45	319	⇑P	P	03 30 47.7	+1.0
	baz=40,SNR=5.8						
218A	Dragoon	40.47	317	⇑P	P	03 30 47.8	+0.9
	baz=41						
LONY	Lake Ozonia	40.52	4	*e*P	P	03 30 48.0	+0.9
X21A	Alamocita Cree	40.56	322	⇓P	P	03 30 48.4	+0.8
	baz=41						
Y20A	Horse Springs,	40.58	321	⇑P	P	03 30 48.5	+0.7
	baz=41						
118A	Homack Ranch,	40.82	318	P	P	03 30 51.0	+1.2
	baz=41,SNR=8.0						
217A	Green Valley	40.88	316	⇓P	P	03 30 50.8	+0.5
	baz=41						
X20A	Quemado	41.06	321	⇓P	P	03 30 52.7	+1.0
	baz=41						
Y19A	Nutrioso	41.17	320	⇓P	P	03 30 54.1	+1.5
	baz=41,SNR=6.0						
TUC	Tucson	41.17	317	*e*P	P	03 30 52.8	+0.1
TUC				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.5						
TUC	Tucson	41.17	317	*e*P	P	03 30 52.8	+0.1
	comp=Z,16nm,1.4s,mb4.5						
117A	Oracle	41.30	317	⇑P	P	03 30 54.0	+0.3
	baz=41						
V21A	Milan	41.38	323	⇑P	P	03 30 55.4	+1.1
	baz=42						
W20A	Ramah	41.45	322	P	P	03 30 56.5	+1.6
	baz=42,SNR=23						
216A	Three Points,	41.46	316	⇑P	P	03 30 55.6	+0.6
	baz=42						
SDCO	Great Sand Dun	41.54	327	*e*P	P	03 30 56.2	+0.6
	comp=Z,35nm,1.7s,mb4.7						
SDCO				*e*PcP	PcP	03 32 52.6	0.0
Z17A	San Carlos Hig	41.55	318	P	P	03 30 56.9	+1.1
	baz=42,SNR=6.5						
T22A	Edith	41.79	325	⇓P	P	03 30 58.7	+1.1
	baz=42						
V20A	Brimhall	41.87	323	⇑P	P	03 30 59.4	+1.0
	baz=42						
116A	Eloy	41.95	316	⇑P	P	03 30 59.7	+0.6
	baz=42						
X18A	Snowflake	41.97	320	⇓P	P	03 31 00.3	+1.1
	baz=42						
W19A	Sanders	41.99	321	P	P	03 31 00.8	+1.5
	baz=42,SNR=9.8						
Y17A	Roosevelt	42.04	318	⇓P	P	03 31 00.4	+0.6
	baz=42						
V19A	Window Rock	42.17	322	⇑P	P	03 31 01.5	+0.7
	baz=42						
W18A	Petrified Fore	42.21	321	⇓P	P	03 31 02.4	+1.3
	baz=42,SNR=12						
Z16A	Peralta Trail,	42.22	318	⇑P	P	03 31 01.9	+0.7
	baz=42						
U20A	Newcomb	42.29	323	⇑P	P	03 31 02.7	+0.9
	baz=42						
214A	Organ Pipe Nat	42.38	315	⇑P	P	03 31 03.7	+1.2
	baz=42						
115A	Sonoran Desert	42.39	316	⇓P	P	03 31 03.4	+0.8
	baz=42						
ECSD	EROS Data Cent	42.57	341	*e*P	P	03 31 01.2	-2.6
	comp=Z,19nm,1.0s,mb4.8						
ECSD				*e*PcP	PcP	03 32 54.5	-1.4
R22A	Saguache, Gunn	42.57	327	⇑P	P	03 31 04.7	+0.7
	baz=43,SNR=10						
Y16A	Circle Bar Ran	42.57	318	⇑P	P	03 31 05.0	+0.9
	baz=43,SNR=14						
U19A	Dine' College,	42.65	323	⇓P	P	03 31 05.1	+0.5
	baz=43						
Z15A	Gila River Ind	42.68	317	⇑P	P	03 31 06.1	+1.1
	baz=43						
MVCO	Mesa Verde	42.84	324	⇓P	P	03 31 06.8	+0.5
	baz=43						
MVCO	Mesa Verde	42.84	324	*e*P	P	03 31 06.7	+0.4
	comp=Z,41nm,1.4s,mb5.0						
X16A	Lo Mia Camp, P	42.87	319	⇑P	P	03 31 07.6	+1.1
	baz=43						
T19A	Beclabito	42.90	323	⇓P	P	03 31 06.9	+0.2
	baz=43						
Q22A	Crested Butte,	43.11	327	⇑P	P	03 31 08.7	+0.3
	baz=43,SNR=13						
U18A	Rough Rock, Ch	43.14	322	⇓P	P	03 31 09.2	+0.5
	baz=43						
Y15A	Casa Rosa Ranc	43.19	318	⇑P	P	03 31 09.4	+0.4
	baz=43,SNR=10						
V17A	Tonalea, Kykot	43.20	321	⇑P	P	03 31 10.3	+1.1
	baz=43						
Z14A	Wintersburg	43.26	316	⇓P	P	03 31 10.3	+0.6
	baz=43						
W16A	Flagstaff	43.34	320	⇑P	P	03 31 11.4	+1.0
	baz=43						
X15A	Humboldt	43.44	318	⇓P	P	03 31 12.0	+0.9
	baz=44,SNR=7.7						
R20A	Redvale	43.45	325	⇓P	P	03 31 12.3	+1.2
	baz=44,SNR=14						
Q21A	Lamborn Mesa,	43.45	327	⇓P	P	03 31 12.2	+1.0
	baz=44,SNR=9.5						
113A	Mohawk Valley,	43.50	315	⇓P	P	03 31 12.7	+1.1
	baz=44						
WUAZ	Wupatki	43.50	320	⇓P	P	03 31 12.6	+1.1
	baz=44,SNR=16						
WUAZ	Wupatki	43.50	320	*e*P	P	03 31 12.2	+0.6
	comp=Z,36nm,1.1s,mb5.0						
WUAZ				*e*PcP	PcP	03 32 59.1	-0.1
PV01	Paradox Valley	43.52	325	*e*P	P	03 31 12.1	+0.4
	comp=Z,2µm,1.2s						
S19A	Harvey Farm, M	43.58	324	⇑P	P	03 31 12.6	+0.4
	baz=44,SNR=9.1						
T18A	Mexican Hat	43.61	323	⇓P	P	03 31 12.6	+0.2
	baz=44,SNR=11						
Y14A	Wickenburg	43.63	317	⇑P	P	03 31 13.4	+0.7
	baz=44,SNR=5.3						
Z13A	Yuma Proving G	43.66	316	⇓P	P	03 31 13.7	+0.8
	baz=44						
U16A	Tuba City	43.74	321	⇓P	P	03 31 14.3	+0.8
	baz=44,SNR=8.3						
X14A	Yava	43.86	318	P	P	03 31 15.7	+1.2
	baz=44,SNR=6.8						
W15A	Williams	43.87	319	⇓P	P	03 31 15.7	+1.2
	baz=44,SNR=7.8						
P21A	Newcastle	43.88	327	⇓P	P	03 31 15.9	+1.3
	baz=44						
PV04	Paradox Valley	43.89	325	*e*P	P	03 31 14.8	+0.1
Q20A	Ridgley Place,	43.94	326	⇑P	P	03 31 15.5	+0.4
	baz=44,SNR=7.9						
112A	Yuma	43.95	314	⇑P	P	03 31 16.7	+1.4
	baz=44						
R19A	Curley Farm, L	44.02	325	⇓P	P	03 31 15.9	+0.1
	baz=44,SNR=11						
S18A	Hurst Farm, Bl	44.05	324	⇓P	P	03 31 16.3	+0.4
	baz=44,SNR=8.0						
T17A	Navajo Res., N	44.08	322	⇓P	P	03 31 17.0	+0.8
	baz=44,SNR=13						
Y13A	Salome	44.12	316	⇑P	P	03 31 18.0	+1.4
	baz=44						
V15A	Kaibab Nationa	44.20	320	⇓P	P	03 31 18.7	+1.5
	baz=44,SNR=33						
N22A	Wattenberg Ran	44.30	330	⇓P	P	03 31 18.4	+0.6
	baz=44						
P20A	De Beque	44.37	327	⇓P	P	03 31 19.2	+0.7
	baz=44,SNR=9.4						
O21A	Pagoda	44.39	328	⇑P	P	03 31 19.3	+0.7
	baz=44						
W14A	Seligman	44.43	319	⇑P	P	03 31 19.8	+0.8
	baz=44,SNR=8.0						
R18A	Canyonlands Na	44.45	324	⇑P	P	03 31 19.0	-0.2
	baz=45,SNR=9.2						
Q19A	Hogan Spring (	44.48	325	⇓P	P	03 31 19.8	+0.4
	baz=45,SNR=22						
S17A	Black Ridge (B	44.49	323	⇓P	P	03 31 19.7	+0.2
	baz=45,SNR=10						

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T16A  Glen Canyon Da  44.50 322 ⇓P    P     03 31 20.2 +0.6
      baz=45
X13A  Yucca           44.57 317 ⇑P    P     03 31 20.6 +0.5
      baz=45
Y12C  Blythe          44.57 316 ⇑P    P     03 31 20.8 +0.6
      baz=45
PDMCI Parker Dam,Lak  44.61 317 ⇑P    P     03 31 20.9 +0.4
      baz=45
V14A  Boquillas Ranc  44.69 319 ⇑P    P     03 31 22.5 +1.4
      baz=45,SNR=20
O20A  White River Ci  44.74 327 ⇑P    P     03 31 22.1 +0.7
      baz=45
P19A  Cripple Cowboy  44.79 326 ⇓P    P     03 31 22.2 +0.4
      baz=45,SNR=9.2
N21A  Black Mountain  44.81 329 ⇑P    P     03 31 22.1 +0.2
      baz=45,SNR=8.1
M22A  Cedar Creek Ra  44.81 330 ⇑P    P     03 31 22.6 +0.6
      baz=45
W13A  Hualapai Mount  44.90 318 ⇓P    P     03 31 23.8 +1.0
      baz=45,SNR=7.2
R17A  Hanksville Air  44.95 324 ⇓P    P     03 31 23.8 +0.6
      baz=45,SNR=21
T15A  Red Dirt Ranch  45.07 321 ⇓P    P     03 31 25.0 +0.9
      baz=45
EYMN  Ely             45.07 348 eP    P     03 31 21.6 -2.3
      comp=Z,5.1nm,0.6s,mb4.5
EYMN                            ePcP  PcP   03 33 03.1 -1.2
Q18A  Rafter H Ranch  45.07 325 ⇓P    P     03 31 24.7 +0.6
      baz=45,SNR=21
U14A  Mt Trumbull     45.21 320 ⇓P    P     03 31 26.1 +0.9
      baz=45
PLCA  Paso Flores     45.21 171  P    P     03 31 25.1 -0.1
      comp=Z,15nm,0.7s,mb5.0,baz=347,slow=8.8,SNR=54
PLCA                             PcP  PcP   03 33 03.4 -1.5
      comp=Z,2.4nm,0.9s,baz=351,slow=5.3,SNR=2.7
IRM   Iron Mountain   45.23 316 ⇑P    P     03 31 26.1 +0.6
      baz=45,SNR=9.5
N20A  Spence Gulch,   45.25 328 ⇓P    P     03 31 25.9 +0.4
      baz=45
SRU   San Rafael      45.30 325 eP    P     03 31 26.1 +0.2
SRU                             e           03 33 04.7
SRU                              pmax pmax
      comp=Z,40nm,1.2s,mb5.1
SRU   San Rafael      45.30 325 ⇑P    P     03 31 26.0 +0.1
      baz=45,SNR=29
SRU   San Rafael      45.30 325 eP    P     03 31 26.1 +0.1
      comp=Z,40nm,1.2s,mb5.1
SRU                             ePcP  PcP   03 33 04.7 -0.6
R16A  Teasdale        45.32 323 ⇓P    P     03 31 26.6 +0.5
      baz=45,SNR=6.3
M21A  Separation Pea  45.35 330 ⇑P    P     03 31 26.7 +0.4
      baz=46,SNR=8.9
V13A  Grand Canyon W  45.40 319 ⇑P    P     03 31 27.6 +0.8
      baz=46
S15A  Panguitch       45.47 322 ⇑P    P     03 31 27.9 +0.6
      baz=46
P18A  Preston Nutter  45.49 325 ⇓P    P     03 31 27.9 +0.5
      baz=46,SNR=12
T14A  Hurricane       45.54 321 ⇑P    P     03 31 27.6 -0.2
      baz=46,SNR=5.8
Q16A  Castle Valley   45.55 324 ⇓P    P     03 31 27.2 -0.7
      baz=46
L21A  Rawlins         45.62 330 ⇑P    P     03 31 28.4  0.0
      baz=46,SNR=8.5
P17A  Butcher Ranch,  45.67 325 ⇑P    P     03 31 28.4 -0.5
      baz=46,SNR=5.4
M20A  Sweetwater, Wa  45.69 329 ⇑P    P     03 31 28.2 -0.7
      baz=46
U13A  Pakoon Wash     45.72 319 ⇓P    P     03 31 29.6 +0.4
      baz=46
RSSD  Black Hills     45.73 334 eP    P     03 31 29.3 +0.1
RSSD                             pmax pmax
      comp=Z,40nm,1.2s,mb5.2
RSSD  Black Hills     45.73 334 eP    P     03 31 29.3 +0.1
      comp=Z,40nm,1.2s,mb5.2
R15A  Junction        45.76 322 ⇑P    P     03 31 29.5 -0.1
      baz=46,SNR=7.5
O18A  Roosevelt       45.80 326 ⇓P    P     03 31 29.8  0.0
      baz=46,SNR=7.4
TMUT  Trail Mountain  45.82 324 eP    P     03 31 30.4 +0.3
      comp=Z,18nm,1.4s,mb4.8
TMUT                            ePcP  PcP   03 33 06.8 -0.3
PFO   Pinyon Flat Ob  45.85 314 ⇓P    P     03 31 30.7 +0.3
      baz=46
V12A  Nelson          45.90 318 ⇓P    P     03 31 30.9 +0.2
      baz=46,SNR=6.1
GMRC  Granite Mounta  45.92 316 ⇓P    P     03 31 31.5 +0.6
      baz=46,SNR=5.3
T13A  Saint George    46.04 320 ⇓P    P     03 31 31.9 +0.1
      baz=46,SNR=7.1
L20A  Wamsutter       46.14 329 ⇓P    P     03 31 32.3 -0.2
      baz=46,SNR=5.6
O17A  Robinson Place  46.16 326 ⇑P    P     03 31 33.1 +0.5
      baz=46,SNR=10.0
ARUT  Antelope Range  46.21 321 eP    P     03 31 33.0 -0.1
ARUT                             pmax pmax
      comp=Z,6.0nm,1.0s,mb4.5
ARUT  Antelope Range  46.21 321 eP    P     03 31 33.0 -0.1
      comp=Z,6.2nm,1.0s,mb4.5
P16A  Fountain Green  46.29 324 ⇑P    P     03 31 34.4 +0.7
      baz=46
Q15A  Fillmore        46.32 323 ⇓P    P     03 31 34.4 +0.4
      baz=46
S13A  Holt Ranch, En  46.35 321 ⇑P    P     03 31 34.8 +0.6
      baz=46,SNR=19
AGMN  Agassiz Refuge  46.46 344 eP    P     03 31 32.6 -2.3
      comp=Z,11nm,1.1s,mb4.7
AGMN                            ePcP  PcP   03 33 08.0 -1.1
MPU   Maple Canyon    46.55 325 eP    P     03 31 35.8 +0.1
      comp=Z,10nm,0.9s,mb4.8
MPU                             ePcP  PcP   03 33 09.6  0.0
DAU   Daniels Canyon  46.59 325 eP    P     03 31 36.7 +0.6
DAU                             e           03 33 09.7
DAU                              pmax pmax
      comp=Z,43nm,1.3s,mb5.2
DAU   Daniels Canyon  46.59 325 eP    P     03 31 36.7 +0.6
      comp=Z,43nm,1.3s,mb5.2
DAU                             ePcP  PcP   03 33 09.7 -0.1
K20A  Yellowstone Ra  46.62 330 ⇑P    P     03 31 35.5 -0.7
      baz=47
P15A  Leamington      46.63 324 ⇑P    P     03 31 36.7 +0.3
      baz=47,SNR=5.7
M18A  Lyman           46.63 327 ⇓P    P     03 31 35.8 -0.5
      baz=47,SNR=8.6
N17A  Moffit Pass     46.72 326 ⇓P    P     03 31 37.1  0.0
      baz=47,SNR=7.0
L19A  Farson          46.73 329 ⇓P    P     03 31 37.0 -0.1
      baz=47,SNR=10
R13A  O’Grain Ranch,  46.78 321 ⇓P    P     03 31 37.7 +0.1
      baz=47
Q14A  Sevier Lake (B  46.85 323 ⇓P    P     03 31 38.8 +0.7
      baz=47,SNR=18
L18A  Fontenelle, Gr  46.97 328 ⇑P    P     03 31 38.9 -0.1
      baz=47,SNR=14
M17A  Scullys Gap (B  46.99 327 ⇑P    P     03 31 39.0 -0.1
      baz=47,SNR=8.4
S12A  Delamar Landin  46.99 320 ⇑P    P     03 31 39.6 +0.3
      baz=47
GSC   Goldstone       46.99 316 ⇓P    P     03 31 40.2 +0.9
      baz=47,SNR=5.1
K19A  Absolon Red Bu  46.99 330 ⇓P    P     03 31 38.4 -0.8
      baz=47,SNR=15
T11A  Corn Creek, Al  47.02 319 ⇑P    P     03 31 40.1 +0.7
      baz=47
BFSC  Mount Baldy St  47.03 315 ⇑P    P     03 31 40.7 +1.0
      baz=47
P14A  Drum Mountains  47.11 323 ⇓P    P     03 31 41.0 +0.9
      baz=47,SNR=13
R12A  Pony Springs,   47.27 321 ⇓P    P     03 31 41.4  0.0
      baz=47,SNR=8.5
Q13A  Wheeler Ranch,  47.29 322 ⇑P    P     03 31 41.7 +0.2
      baz=47,SNR=18
PDAR  Pinedale Array  47.31 329  P    P     03 31 40.4 -1.3
      comp=Z,15nm,1.2s,mb4.8,baz=134,slow=8.5,SNR=34
PDAR                             PcP  PcP   03 33 11.3 -0.9
      comp=Z,3.6nm,1.0s,baz=131,slow=3.7,SNR=6.2
PDAR                            LR    LR    03 54 18.9
      comp=Z,237nm,18.8s,MS4.2,baz=147,slow=40
BW06  Boulder Array   47.31 329 ⇑P    P     03 31 41.3 -0.4
      baz=48,SNR=19
BW06  Boulder Array   47.31 329 eP    P     03 31 41.2 -0.5
      comp=Z,34nm,1.4s,mb5.1
BW06                            ePcP  PcP   03 33 11.0 -1.3
DUG   Dugway          47.35 324 eP    P     03 31 42.2 +0.2
DUG                              pmax pmax
      comp=Z,21nm,1.3s,mb4.9
DUG   Dugway          47.35 324 ⇑P    P     03 31 42.1 +0.1
      baz=48,SNR=17
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DUG   Dugway          47.35 324 eP    P     03 31 42.1 +0.2
      comp=Z,20nm,1.3s,mb4.9
M16A  Huntsville      47.41 326 ⇑P    P     03 31 42.4  0.0
      baz=48,SNR=6.4
K18A  Toltan Ranch,   47.47 329 ⇑P    P     03 31 43.3 +0.4
      baz=48,SNR=22
P13A  Bates Ranch, G  47.59 323 ⇓P    P     03 31 44.8 +0.9
      baz=48
EDW2  Edwards Air Fo  47.60 315 ⇑P    P     03 31 44.3 +0.3
      baz=48,SNR=5.6
L16A  Fish Haven      47.78 327 ⇑P    P     03 31 45.0 -0.3
      baz=48,SNR=8.9
Q12A  Willow Creek R  47.84 322 ⇓P    P     03 31 46.4 +0.6
      baz=48,SNR=6.2
SPUT  South Promonto  47.87 326 eP    P     03 31 45.6 -0.4
      comp=Z,29nm,1.2s,mb5.2
SPUT                            ePcP  PcP   03 33 13.7 -0.6
J18A  Kendall Valley  47.87 329 ⇑P    P     03 31 45.7 -0.3
      baz=48,SNR=24
R11A  Troy Canyon, C  47.90 320 ⇑P    P     03 31 47.0 +0.7
      baz=48,SNR=8.1
M15A  Larsen Ranch,   47.97 326  P    P     03 31 46.8 +0.1
      baz=48,SNR=14
N14A  Grayback Hills  47.99 325 ⇑P    P     03 31 47.2 +0.3
      baz=48,SNR=15
O13A  Hicks Ranch, I  47.99 323 ⇑P    P     03 31 46.8 -0.2
      baz=48,SNR=5.2
K17A  Gardner Place,  48.01 328 ⇓P    P     03 31 46.6 -0.4
      baz=48,SNR=6.7
I18A  Diamond G Ranc  48.12 330 ⇑P    P     03 31 47.8 -0.1
      baz=48,SNR=6.4
Q11A  Duckwater       48.23 321 ⇓P    P     03 31 49.2 +0.3
      baz=48
ULM   Lac du Bonnet   48.25 345  P    P     03 31 46.6 -2.1
      comp=Z,6.2nm,0.6s,mb4.8,baz=163,slow=8.1,SNR=9.9
ULM                              PcP  PcP   03 33 14.2 -1.3
      comp=Z,3.6nm,0.8s,baz=154,slow=4.2,SNR=2.6
ULM                              LR   LR    03 53 05.0
      comp=Z,209nm,18.5s,MS4.2,baz=59,slow=37
ULM   Lac du Bonnet   48.25 345  P    P     03 31 46.6 -2.1
ULM                              PcP  PcP   03 33 14.2 -1.3
ULM                              LR   LR    03 53 05.0
L15A  Malad City      48.30 326  P    P     03 31 49.1 -0.2
      baz=48,SNR=15
S10A  Tonopah Range,  48.30 319 ⇓P    P     03 31 49.8 +0.4
      baz=48,SNR=8.2
ARVC  Arvin           48.31 315 ⇓P    P     03 31 49.7 +0.1
      baz=48
R10A  Warm Springs    48.32 320 ⇑P    P     03 31 49.4 -0.1
      baz=48
J17A  Brown Place, J  48.33 329 ⇑P    P     03 31 49.6  0.0
      baz=48,SNR=25
ISA   Isabella        48.34 316 ⇑P    P     03 31 50.2 +0.5
      baz=48
REDW  Red Top Meadow  48.40 329 eP    P     03 31 49.8 -0.4
      comp=Z,55nm,1.4s,mb5.4
K16A  Soda Springs    48.42 328 ⇑P    P     03 31 49.8 -0.5
      baz=49,SNR=7.6
SNOW  Snow King Moun  48.42 329 eP    P     03 31 50.2 -0.1
      comp=Z,61nm,1.5s,mb5.4
LOHW  Long Hollow     48.45 329 eP    P     03 31 50.3 -0.2
      comp=Z,27nm,1.3s,mb5.1
M14A  Sheep Mountain  48.50 325 ⇓P    P     03 31 50.7 -0.2
      baz=49,SNR=8.5
O12A  Currie          48.54 323 ⇑P    P     03 31 51.2  0.0
      baz=49
TPAW  Teton Pass      48.55 329 eP    P     03 31 51.1 -0.1
      comp=Z,19nm,1.3s,mb5.0
S09A  Goldfield       48.60 319 ⇑P    P     03 31 51.9 +0.2
      baz=49
MOOW  Moose Ponds     48.62 329 eP    P     03 31 51.6 -0.1
      comp=Z,7.5nm,1.0s,mb4.7
RRI2  Red Ridge       48.64 328 eP    P     03 31 51.6 -0.3
      comp=Z,46nm,1.6s,mb5.3
RRI2                            ePcP  PcP   03 33 16.5 -0.6
I17A  Pilgrim Ck.     48.66 329 ⇑P    P     03 31 52.2 +0.2
      baz=49,SNR=15
Q10A  Clear Creek Ra  48.69 320 ⇓P    P     03 31 52.2 -0.2
      baz=49,SNR=7.6
LAO   LASA Array      48.71 335 eP    P     03 31 51.2 -1.2
      comp=Z,21nm,1.4s,mb5.0
J16A  Bone            48.74 328 ⇑P    P     03 31 52.0 -0.7
      baz=49,SNR=17
L14A  Malta           48.79 326 ⇑P    P     03 31 52.4 -0.7
      baz=49,SNR=7.6
R09A  Tonopah         48.79 319 ⇓P    P     03 31 52.2 -1.0
      baz=49,SNR=6.6
IMW   Indian Meadow   48.83 329 eP    P     03 31 53.0 -0.3
      comp=Z,8.9nm,0.6s,mb5.0
IMW                             ePcP  PcP   03 33 17.9 +0.2
K15A  Arbon           48.83 327 ⇑P    P     03 31 52.9 -0.5
      baz=49
M13A  Montello        48.88 324 ⇑P    P     03 31 53.3 -0.5
      baz=49
M13A  Montello        48.88 324 eP    P     03 31 53.1 -0.7
      comp=Z,6.8nm,1.0s,mb4.6
RLMT  Red Lodge       48.88 331 ⇑P    P     03 31 52.8 -0.9
      baz=49,SNR=11
RLMT  Red Lodge       48.88 331 eP    P     03 31 53.0 -0.8
      comp=Z,16nm,1.2s,mb4.9
O11A  Cowboy Ranch,   49.01 322 ⇓P    P     03 31 54.3 -0.5
      baz=49
I16A  Newdale         49.09 329 ⇑P    P     03 31 55.2 -0.2
      baz=49
K14A  Jones Ranch, D  49.09 326 ⇑P    P     03 31 54.9 -0.5
      baz=49,SNR=14
YFT   Old Faithful    49.17 330 eP    P     03 31 56.9 +0.9
      comp=Z,30nm,1.2s,mb5.2
G18A  Lazy EL Ranch,  49.17 331 ⇓P    P     03 31 55.0 -0.9
      baz=49,SNR=7.3
P10A  Eureka          49.20 321 ⇓P    P     03 31 56.3 +0.1
      baz=49
J15A  Blackfoot       49.26 328 ⇑P    P     03 31 56.5 -0.1
      baz=49,SNR=17
DGMT  Dagmar          49.33 338 ⇑P    P     03 31 56.4 -0.7
      baz=50,SNR=8.1
DGMT  Dagmar          49.33 338 eP    P     03 31 56.3 -0.8
      comp=Z,18nm,0.8s,mb5.2
DGMT                            ePcP  PcP   03 33 18.8 -0.7
YMR   Madison River   49.38 330 eP    P     03 31 58.2 +0.6
      comp=Z,26nm,1.1s,mb5.2
YMR                             ePcP  PcP   03 33 19.6 -0.1
R08A  Mina            49.53 319 ⇓P    P     03 31 59.0 +0.2
      baz=50
H16A  Russell Place,  49.55 330 ⇓P    P     03 31 59.2 +0.3
      baz=50,SNR=13
GCMT  Greycliff       49.57 332 eP    P     03 31 58.5 -0.4
      comp=Z,24nm,1.2s,mb5.1
P09A  Austin          49.58 321 ⇑P    P     03 31 59.5 +0.3
      baz=50
O10A  Cortez Mining,  49.62 322 ⇓P    P     03 31 59.7 +0.2
      baz=50,SNR=8.6
K13A  Stover Farm, H  49.67 326 ⇑P    P     03 31 59.7 -0.1
      baz=50,SNR=5.3
F18A  Big Timber      49.67 332  P    P     03 31 59.5 -0.2
      baz=50,SNR=34
Q08A  Gabbs           49.70 320 ⇑P    P     03 31 60.0 -0.1
      baz=50
I15A  Monteview       49.70 328 ⇑P    P     03 32 00.2 +0.2
      baz=50,SNR=5.2
NVAR  Mina Array Bea  49.70 319  P    P     03 31 59.5 -0.6
      comp=Z,3.4nm,0.8s,mb4.5,baz=132,slow=6.9,SNR=29
NVAR                             PcP  PcP   03 33 21.2 +0.2
      comp=Z,2.5nm,0.6s,baz=125,slow=4.2,SNR=8.7
G17A  Pierce Place,   49.74 331 ⇑P    P     03 32 00.6 +0.3
      baz=50,SNR=6.1
J14A  Carey           49.80 327 ⇓P    P     03 32 01.1 +0.3
      baz=50,SNR=19
L12A  House Creek Ra  49.87 325  P    P     03 32 01.4  0.0
      baz=50,SNR=12
O09A  Fish Creek Ran  49.97 321 ⇑P    P     03 32 02.5 +0.3
      baz=50,SNR=12
K12A  Draper Farm, C  50.12 325  P    P     03 32 03.5 +0.2
      baz=50,SNR=5.0
F17A  Fitzpatrick Pl  50.12 331 ⇑P    P     03 32 03.6 +0.4
      baz=50,SNR=12
I14A  Mackay          50.16 327 ⇑P    P     03 32 03.9 +0.4
      baz=50,SNR=6.4
G16A  Moss Hill, Enn  50.20 330 ⇓P    P     03 32 04.1 +0.3
      baz=50,SNR=16
J13A  Cove Ranch, Pi  50.20 327 ⇑P    P     03 32 03.6 -0.3
      baz=50,SNR=9.9
H15A  Lima            50.21 329 ⇓P    P     03 32 04.1 +0.3
      baz=50,SNR=14
E18A  Harlowton       50.25 332 ⇑P    P     03 32 03.9 -0.3
      baz=50,SNR=9.1
L11A  Cat Creek Ranc  50.31 324 ⇓P    P     03 32 04.2 -0.5
      baz=50,SNR=6.9
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BOZ   Bozeman (W)     50.41 330 eP    P     03 32 04.9 -0.5
BOZ                             e           03 33 21.8
BOZ                              pmax pmax
      comp=Z,33nm,0.6s,mb5.5
BOZ   Bozeman (W)     50.41 330 ⇓P    P     03 32 05.1 -0.3
      baz=51,SNR=24
BOZ   Bozeman (W)     50.41 330 eP    P     03 32 04.9 -0.5
      comp=Z,33nm,0.6s,mb5.5
BOZ                             ePcP  PcP   03 33 21.8 -1.7
HLID  Hailey          50.44 327 ⇑P    P     03 32 05.1 -0.5
      baz=51,SNR=8.1
HLID  Hailey          50.44 327 eP    P     03 32 05.5 -0.2
      comp=Z,5.8nm,1.1s,mb4.5
MCMT  McKenzie Canyo  50.46 329 eP    P     03 32 06.2 +0.5
      comp=Z,9.3nm,1.5s,mb4.6
G15A  Dillon          50.51 329 ⇓P    P     03 32 06.5 +0.3
      baz=51,SNR=11
F16A  Kennard Place,  50.51 330 ⇓P    P     03 32 05.5 -0.6
      baz=51,SNR=10
I13A  Wildhorse Cree  50.51 327  P    P     03 32 06.7 +0.5
      baz=51,SNR=9.6
N09A  Rock Creek Ran  50.58 322 ⇑P    P     03 32 06.6 -0.2
      baz=51
E17A  Martinsdale     50.62 332  P    P     03 32 07.2 +0.2
      baz=51,SNR=10
J12A  Stokes Ranch,   50.62 326 ⇑P    P     03 32 06.8 -0.2
      baz=51,SNR=12
L10A  Juniper Basin   50.68 324 ⇓P    P     03 32 07.3 -0.1
      baz=51,SNR=6.3
DLMT  Dillon          50.70 329 eP    P     03 32 07.5 -0.1
      comp=Z,14nm,1.4s,mb4.7
DLMT                            ePcP  PcP   03 33 24.5  0.0
K11A  Parker Ranch,   50.85 325 ⇑P    P     03 32 08.7  0.0
      baz=51,SNR=13
N08A  GE Springer Mi  50.91 322 ⇑P    P     03 32 08.8 -0.5
      baz=51
LRM   Limekiln Ridge  50.94 330 eP    P     03 32 09.3 -0.1
      comp=Z,154nm,1.6s,mb5.7
F15A  Butte           50.98 330 ⇓P    P     03 32 09.5 -0.1
      baz=51,SNR=9.0
I12A  Atlanta         50.99 326 ⇓P    P     03 32 09.8 +0.1
      baz=51,SNR=7.5
O07A  Toulon          51.03 320 ⇑P    P     03 32 09.6 -0.6
      baz=51
D17A  Six Diamond Ra  51.05 332 ⇑P    P     03 32 10.2 +0.1
      baz=51,SNR=13
G14A  Jackson         51.06 329 ⇓P    P     03 32 09.9 -0.3
      baz=51,SNR=9.5
E16A  East Helena     51.06 331 ⇓P    P     03 32 09.5 -0.8
      baz=51,SNR=16
MFID  Camas Ranch     51.14 326 ⇑P    P     03 32 10.7 -0.2
      baz=51,SNR=8.7
HRY   Holter Researc  51.27 331 eP    P     03 32 11.3 -0.5
      comp=Z,3.0nm,0.5s,mb4.5
EGMT  Eagleton        51.27 334 ⇓P    P     03 32 11.1 -0.7
      baz=51,SNR=9.3
EGMT  Eagleton        51.27 334 eP    P     03 32 11.2 -0.6
      comp=Z,18nm,1.2s,mb4.9
EGMT                            ePcP  PcP   03 33 25.7 -0.8
H12A  Diamond D Ranc  51.33 327 ⇓P    P     03 32 12.0 -0.3
      baz=52,SNR=8.7
K10A  MacKenzie Ranc  51.34 324 ⇑P    P     03 32 12.3 -0.1
      baz=52,SNR=12
L09A  Wilkinson Ranc  51.35 323 ⇓P    P     03 32 12.4 -0.1
      baz=52,SNR=5.5
G13A  Cobalt          51.36 328 ⇓P    P     03 32 12.3 -0.2
      baz=52
D16A  Dana Ranch, Ca  51.36 332 ⇓P    P     03 32 12.3 -0.2
      baz=52,SNR=14
F14A  Wisdom          51.40 329 ⇓P    P     03 32 12.6 -0.2
      baz=52,SNR=8.4
C17A  Wharram Farm,   51.43 333 ⇑P    P     03 32 12.6 -0.4
      baz=52,SNR=23
N07B  Gerlach         51.44 321 ⇓P    P     03 32 13.0 -0.2
      baz=52
E15A  Deer Lodge      51.46 330 ⇑P    P     03 32 12.4 -0.8
      baz=52,SNR=11
SCHQ  Schefferville   51.49   9  P    P     03 32 13.7 +0.4
      comp=Z,6.1nm,0.7s,mb4.7,baz=185,slow=6.1,SNR=22
SCHQ                            LR    LR    03 53 51.9
      comp=Z,188nm,18.0s,MS4.2,baz=70,slow=36
SCHQ  Schefferville   51.49   9  P    P     03 32 13.7 +0.4
SCHQ                            LR    LR    03 53 51.9
I11A  Placerville     51.52 326 ⇓P    P     03 32 13.6 -0.2
      baz=52,SNR=8.5
B18A  Beardsley Farm  51.56 334 ⇓P    P     03 32 13.7 -0.3
      baz=52,SNR=12
O06A  Flanigan        51.64 320 ⇓P    P     03 32 14.8 +0.1
      baz=52,SNR=8.8
K09A  Rome            51.79 324 ⇓P    P     03 32 15.7 -0.1
      baz=52,SNR=34
BEKR  Beckwourth      51.82 319 ⇑P    P     03 32 16.1  0.0
      baz=52
D15A  Lincoln         51.84 331 ⇑P    P     03 32 15.8 -0.3
      baz=52,SNR=6.6
L08A  Fields          51.86 323  P    P     03 32 16.4 +0.1
      baz=52,SNR=18
E14A  Clinton         51.88 330 ⇑P    P     03 32 16.0 -0.4
      baz=52,SNR=14
F13A  Darby           51.88 329 ⇓P    P     03 32 15.7 -0.7
      baz=52,SNR=18
M07A  Soldier Meadow  51.90 322 ⇑P    P     03 32 16.2 -0.5
      baz=52
N06A  Buffalo Meadow  51.96 321 ⇑P    P     03 32 16.5 -0.6
      baz=52
G12A  Big Creek, Yel  51.96 328 ⇑P    P     03 32 16.6 -0.5
      baz=52
A18A  Metzger Ranch,  51.98 334 ⇓P    P     03 32 16.4 -0.7
      baz=52,SNR=12
C16A  Fuhringer Ranc  52.01 332 ⇓P    P     03 32 17.2 -0.1
      baz=52,SNR=12
H11A  Donnelly        52.06 327 ⇑P    P     03 32 17.1 -0.7
      baz=52,SNR=6.6
WVOR  Wild Horse Val  52.18 323 eP    P     03 32 18.5 -0.2
WVOR                            e           03 33 30.7
WVOR                             pmax pmax
      comp=Z,58nm,1.2s,mb5.4
WVOR  Wild Horse Val  52.18 323 eP    P     03 32 18.5 -0.2
      comp=Z,58nm,1.2s,mb5.4
WVOR                            ePcP  PcP   03 33 30.7 +0.6
J09A  Fry Pan Ranch,  52.20 324 ⇑P    P     03 32 18.0 -0.8
      baz=52,SNR=7.2
E13A  Victor          52.25 329 ⇑P    P     03 32 18.5 -0.6
      baz=52,SNR=10
K08A  Mann Creek Ran  52.26 323 ⇑P    P     03 32 19.4 +0.1
      baz=52
F12A  Elk City        52.34 328 ⇑P    P     03 32 19.4 -0.4
      baz=52,SNR=21
D14A  Greenough       52.34 330 ⇓P    P     03 32 19.2 -0.6
      baz=52
L07A  Adell           52.37 322 ⇓P    P     03 32 19.8 -0.3
      baz=52,SNR=16
A17A  Triple J Farms  52.37 334 ⇑P    P     03 32 19.8 -0.2
      baz=52,SNR=13
H10A  Noah’s Angus R  52.39 326 ⇑P    P     03 32 18.7 -1.6
      baz=52,SNR=8.4
C15A  Salmond Ranch,  52.40 332 ⇑P    P     03 32 20.3 +0.1
      baz=53,SNR=17
B16A  M & M Farms, S  52.44 333 ⇑P    P     03 32 19.9 -0.6
      baz=53,SNR=7.0
SLMT  Seeley Lake     52.45 331 eP    P     03 32 19.9 -0.7
      comp=Z,5.8nm,1.2s,mb4.4
SLMT                            ePcP  PcP   03 33 30.8 -0.2
I09A  Lost Marbles R  52.57 325 ⇓P    P     03 32 20.5 -1.1
      baz=53,SNR=5.9
J08A  Circle Bar Ran  52.63 324 ⇓P    P     03 32 21.4 -0.6
      baz=53,SNR=11
B15A  Bradely Ranch,  52.76 332 ⇓P    P     03 32 22.3 -0.5
      baz=53,SNR=12
A16A  West Butte Ran  52.78 333 ⇑P    P     03 32 22.8 -0.2
      baz=53,SNR=7.5
D13A  Huson           52.83 330 ⇓P    P     03 32 23.2 -0.2
      baz=53,SNR=10
F11A  Grangeville     52.90 328 ⇑P    P     03 32 23.1 -0.9
      baz=53,SNR=11
C14A  Swan Lake       52.94 331 ⇑P    P     03 32 23.3 -0.9
      baz=53
G10A  Bishop Farm, J  53.04 327  P    P     03 32 24.4 -0.7
      baz=53,SNR=8.3
J07A  Hines           53.13 324 ⇑P    P     03 32 24.3 -1.4
      baz=53
YBMT  Yellow Bay      53.13 331 eP    P     03 32 26.4 +0.8
      comp=Z,11nm,1.2s,mb4.7
YBMT                            ePcP  PcP   03 33 33.4 -0.1
JTMT  Jette           53.19 331 eP    P     03 32 25.6 -0.5
      comp=Z,9.6nm,1.3s,mb4.6
JTMT                            ePcP  PcP   03 33 33.3 -0.4
E11A  Bogner Ranch,   53.23 328  P    P     03 32 25.7 -0.7
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	baz=53,SNR=13						
C13A	**Hot Springs**	**53.28**	**330**	⇑P	**P**	**03 32 26.8**	**+0.1**
	baz=53,SNR=7.7						
A15A	**Johnson Ranch,**	**53.31**	**333**	⇓P	**P**	**03 32 26.6**	**-0.3**
	baz=54,SNR=8.0						
G09A	**Cove**	**53.40**	**326**	⇑P	**P**	**03 32 26.5**	**-1.2**
	baz=54						
BSMT	**Bassoo Peak**	**53.50**	**330**	*e*P	**P**	**03 32 28.7**	**+0.3**
	comp=Z,23nm,1.4s,mb4.9						
BSMT				*e*PcP	PcP	03 33 34.2	-0.7
F10A	**Beach Ranch, E**	**53.53**	**327**	⇑P	**P**	**03 32 28.0**	**-0.6**
	baz=54,SNR=5.2						
J06A	**Christmas Vall**	**53.56**	**323**	⇑P	**P**	**03 32 28.4**	**-0.5**
	baz=54,SNR=5.4						
A14A	**Double T Ranch**	**53.63**	**332**	⇓P	**P**	**03 32 28.9**	**-0.4**
	baz=54						
I07A	**Izee**	**53.66**	**324**	⇓P	**P**	**03 32 28.6**	**-1.0**
	baz=54						
B13A	**Whitefish**	**53.71**	**331**	⇑P	**P**	**03 32 29.8**	**-0.1**
	baz=54,SNR=9.7						
C12B	**Naegeli Ranch,**	**53.75**	**330**	⇑P	**P**	**03 32 29.8**	**-0.4**
	baz=54,SNR=15						
D11A	**Klaveano Farm,**	**53.75**	**329**	⇓P	**P**	**03 32 29.0**	**-1.2**
	baz=54,SNR=16						
E10A	**Myers Farm, Un**	**53.79**	**328**	P	**P**	**03 32 30.0**	**-0.5**
	baz=54,SNR=6.3						
FFC	**Flin Flon**	**53.92**	**343**	*e*P	**P**	**03 32 30.1**	**-1.2**
FFC				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
FFC	**Flin Flon**	**53.92**	**343**	*e*P	**P**	**03 32 30.1**	**-1.2**
	comp=Z,19nm,1.3s,mb4.9						
H07A	**Lands Inn, Kim**	**53.99**	**325**	⇓P	**P**	**03 32 31.6**	**-0.4**
	baz=54						
I06A	**Prineville**	**53.99**	**324**	⇑P	**P**	**03 32 31.8**	**-0.2**
	baz=54						
G08A	**Pilot Rock**	**54.06**	**326**	⇓P	**P**	**03 32 31.8**	**-0.7**
	baz=54,SNR=12						
A13A	**Flathead Natio**	**54.07**	**332**	⇓P	**P**	**03 32 32.3**	**-0.2**
	baz=54,SNR=14						
D10A	**Wagner Farm, O**	**54.24**	**328**	⇑P	**P**	**03 32 33.0**	**-0.8**
	baz=54,SNR=11						
F08A	**Pendleton**	**54.27**	**326**	P	**P**	**03 32 33.6**	**-0.4**
	baz=54,SNR=14						
B12A	**Libby**	**54.32**	**330**	P	**P**	**03 32 34.8**	**+0.4**
	baz=54,SNR=5.3						
E09A	**Wood Farm, Sta**	**54.37**	**327**	⇑P	**P**	**03 32 34.0**	**-0.7**
	baz=54,SNR=10.0						
G07A	**Ruggs Ranch, H**	**54.45**	**325**	⇑P	**P**	**03 32 35.1**	**-0.2**
	baz=55						
H06A	**Lindquist Farm**	**54.52**	**324**	⇓P	**P**	**03 32 36.0**	**+0.1**
	baz=55						
A12A	**Yaak River Ran**	**54.66**	**331**	⇓P	**P**	**03 32 36.7**	**-0.1**
	baz=55,SNR=5.2						
B11A	**Sandpoint**	**54.68**	**330**	⇓P	**P**	**03 32 36.7**	**-0.3**
	baz=55,SNR=11						
D09A	**Jones Farm, Ri**	**54.80**	**328**	⇓P	**P**	**03 32 37.3**	**-0.5**
	baz=55						
NEW	**Newport**	**54.95**	**329**	*e*P	**P**	**03 32 38.0**	**-0.9**
NEW				pmax	pmax		
	comp=Z,12nm,1.1s						
NEW	**Newport**	**54.95**	**329**	*e*P	**P**	**03 32 38.0**	**-0.9**
	comp=Z,12nm,1.1s,mb4.8						
G06A	**Carlson Farm,**	**54.98**	**325**	⇓P	**P**	**03 32 39.8**	**+0.6**
	baz=55,SNR=6.0						
A11A	**Hall Mountain,**	**55.03**	**331**	⇑P	**P**	**03 32 39.4**	**-0.1**
	baz=55,SNR=9.6						
D08A	**Wollman Farm,**	**55.12**	**327**	⇓P	**P**	**03 32 39.7**	**-0.4**
	baz=55						
E07A	**Sunnyside**	**55.33**	**326**	⇑P	**P**	**03 32 41.3**	**-0.3**
	baz=55						
F06A	**Goldendale**	**55.38**	**325**	⇓P	**P**	**03 32 42.0**	**0.0**
	baz=56						
G05A	**Wamic**	**55.38**	**324**	⇓P	**P**	**03 32 41.5**	**-0.6**
	baz=56						
B09A	**Rice**	**55.57**	**329**	P	**P**	**03 32 42.9**	**-0.5**
	baz=56,SNR=23						
HOOD	**Mount Hood Mea**	**55.62**	**324**	*e*P	**P**	**03 32 44.3**	**+0.5**
	comp=Z,60nm,1.1s,mb5.5						
A10A	**Northport**	**55.63**	**330**	⇑P	**P**	**03 32 43.1**	**-0.7**
	baz=56						
FCC	**Fort Churchill**	**55.84**	**350**	*e*P	**P**	**03 32 43.1**	**-2.0**
	comp=Z,0.2nm,1.0s						
G04A	**Mulino**	**56.04**	**324**	⇑P	**P**	**03 32 46.7**	**-0.1**
	baz=56						
C07A	**Waterville**	**56.12**	**327**	⇑P	**P**	**03 32 47.0**	**-0.4**
	baz=56						
B08A	**Colville Reser**	**56.15**	**328**	⇓P	**P**	**03 32 47.2**	**-0.3**
	baz=56,SNR=7.8						
A09A	**Danville**	**56.15**	**329**	⇑P	**P**	**03 32 47.3**	**-0.2**
	baz=56,SNR=8.8						
B07A	**Winthrop**	**56.62**	**328**	⇑P	**P**	**03 32 50.6**	**-0.2**
	baz=57						
EDM	**Edmonton**	**56.66**	**336**	*e*P	**P**	**03 32 49.3**	**-1.8**
D05A	**Enumclaw**	**56.88**	**326**	⇓P	**P**	**03 32 52.6**	**-0.2**
	baz=57						
A07A	**Ashnola River,**	**57.12**	**329**	⇑P	**P**	**03 32 54.7**	**+0.2**
	baz=57,SNR=9.9						
TAOE	**Nuku Hiva Isla**	**62.66**	**258**	*e*LR	LR	03 52 08.5	
	comp=Z,2µm,26.4s						
YKA	**Yellowknife Ar**	**64.06**	**342**	P	**P**	**03 33 39.5**	**-1.9**
	comp=Z,4.3nm,0.8s,mb4.5,baz=133,slow=6.7,SNR=60						
YKA				LR	LR	04 05 23.0	
	comp=Z,158nm,20.6s,MS4.2,baz=135,slow=40						
YKA	**Yellowknife Ar**	**64.06**	**342**	P	**P**	**03 33 39.5**	**-1.9**
YKA				LR	LR	04 05 23.0	
DLBC	**Dease Lake**	**67.20**	**334**	*e*P	**P**	**03 34 01.9**	**0.0**
RES	**Resolute Bay**	**71.17**	**355**	*e*P	**P**	**03 34 24.2**	**-2.0**
RES				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
RES	**Resolute Bay**	**71.17**	**355**	*e*P	**P**	**03 34 24.2**	**-1.9**
	comp=Z,3.3nm,1.1s,mb4.2						
EVO	**Evora**	**72.32**	**51**	*e*P	**P**	**03 34 33.6**	**-0.2**
	comp=Z,34nm,1.2s,mb4.9						
SUMG	**Summit**	**72.71**	**12**	*e*P	**P**	**03 34 36.0**	**+0.5**
	comp=Z,39nm,0.9s,mb5.3						
TIC	**Toumodi**	**73.27**	**84**	*e*P	**P**	**03 34 40.6**	**+0.7**
	comp=Z,106nm,1.4s,mb5.6						
LIC	**Lamto**	**73.28**	**85**	*e*P	**P**	**03 34 39.6**	**-0.4**
	comp=Z,20nm,0.8s,mb4.8						
LIC				*e*MLR	MLR		
	comp=Z,230nm,21.5s,MS4.1						
LIC	**Lamto**	**73.28**	**85**	*e*P	**P**	**03 34 39.7**	**-0.3**
	comp=Z,31nm,0.8s,mb5.3						
LIC	**Lamto**	**73.28**	**85**	*e*P	**P**	**03 34 39.6**	**-0.4**
	comp=Z,9.8nm,0.8s,mb4.8						
LIC				LR	LR		
	comp=Z,120nm,21.5s,MS4.1						
DBIC	**Dimbokro**	**73.43**	**84**	P	**P**	**03 34 40.7**	**-0.1**
	comp=Z,7.7nm,0.8s,mb4.7,baz=255,slow=4.5,SNR=11						
DBIC				LR	LR	04 03 35.7	
	comp=Z,146nm,19.4s,MS4.3,baz=248,slow=33						
DBIC	**Dimbokro**	**73.43**	**84**	P	**P**	**03 34 40.7**	**-0.1**
DBIC				LR	LR	04 03 35.7	
KIC	**Kosan Boka**	**73.56**	**85**	*e*P	**P**	**03 34 41.3**	**-0.3**
	comp=Z,58nm,0.9s,mb5.5						
INK	**Inuvik**	**73.80**	**342**	*e*P	**P**	**03 34 41.3**	**-0.6**
INK				pmax	pmax		
	comp=Z,72nm,1.8s						
INK	**Inuvik**	**73.80**	**342**	*e*P	**P**	**03 34 41.3**	**-0.6**
	comp=Z,72nm,1.8s,mb5.3						
DAWY	**Dawson**	**73.87**	**336**	*e*P	**P**	**03 34 41.9**	**-0.6**
EGAK	**Eagle**	**74.86**	**337**	*e*P	**P**	**03 34 47.6**	**-0.5**
	comp=Z,79nm,1.9s,mb5.3						
MENT	**Mentasta**	**75.22**	**335**	*e*P	**P**	**03 34 49.9**	**-0.4**
ESDC	**Sonseca Array**	**75.60**	**50**	P	**P**	**03 34 52.9**	**-0.1**
	comp=Z,2.3nm,0.9s,mb4.1,baz=268,slow=5.8,SNR=7.3						
PAX	**Paxson**	**75.98**	**334**	*e*P	**P**	**03 34 54.2**	**-0.4**
PAX				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
PAX	**Paxson**	**75.98**	**334**	*e*P	**P**	**03 34 54.2**	**-0.5**
	comp=Z,3.9nm,0.5s,mb4.6						
QUIF	**Quistinic**	**77.24**	**42**	*e*P	**P**	**03 35 02.6**	**+0.5**
COLA	**College**	**77.58**	**336**	*e*P	**P**	**03 35 02.7**	**-0.9**
COLA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
COLA	**College**	**77.58**	**336**	*e*P	**P**	**03 35 02.7**	**-0.9**
	comp=Z,7.8nm,1.0s,mb4.6						
SGMF	**Saint Gilles**	**77.69**	**42**	*e*P	**P**	**03 35 05.0**	**+0.4**
	comp=Z,45nm,1.1s,mb5.0						
SGMF	**Saint Gilles**	**77.69**	**42**	*e*P	**P**	**03 35 05.0**	**+0.4**
SGMF				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
SGMF	**Saint Gilles**	**77.69**	**42**	*e*P	**P**	**03 35 05.0**	**+0.4**
	comp=Z,22nm,1.1s,mb5.0						
MCK	**McKinley**	**77.70**	**335**	*e*P	**P**	**03 35 03.6**	**-0.7**
MCK				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
MCK	**McKinley**	**77.70**	**335**	*e*P	**P**	**03 35 03.6**	**-0.7**
	comp=Z,21nm,1.2s,mb5.0						
SJPF	**Ste Jean**	**78.02**	**47**	*e*P	**P**	**03 35 07.6**	**+1.1**
KDAK	**Kodiak Island**	**78.03**	**328**	*i* P	**P**	**03 35 05.5**	**-0.7**
TRF	**Thorofare Moun**	**78.21**	**334**	*e*P	**P**	**03 35 06.5**	**-0.6**
	comp=Z,27nm,1.4s,mb5.0						
EKA	**Eskdalemuir Ar**	**78.40**	**34**	P	**P**	**03 35 08.1**	**-0.2**
	comp=Z,5.7nm,0.9s,mb4.5,baz=249,slow=4.8,SNR=8.7						
KTH	**Kantishna Hill**	**78.51**	**334**	*e*P	**P**	**03 35 07.7**	**-1.2**
	comp=Z,16nm,1.1s,mb4.9						
BPAW	**Bear Paw Mtn.**	**78.67**	**335**	*e*P	**P**	**03 35 08.9**	**-0.8**
	comp=Z,24nm,1.2s,mb5.0						
GRR	**Gorron**	**78.83**	**42**	*e*P	**P**	**03 35 11.4**	**+0.5**
	comp=Z,34nm,1.2s,mb4.8						
GRR	**Gorron**	**78.83**	**42**	*e*P	**P**	**03 35 11.4**	**+0.5**
GRR				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
GRR	**Gorron**	**78.83**	**42**	*e*P	**P**	**03 35 11.4**	**+0.5**
	comp=Z,17nm,1.2s,mb4.8						
PPLA	**Purkeypile**	**78.92**	**333**	*e*P	**P**	**03 35 09.8**	**-1.2**
	comp=Z,37nm,1.2s,mb5.2						
FLN	**La Foliniere**	**79.12**	**41**	*e*P	**P**	**03 35 13.0**	**+0.5**
	comp=Z,27nm,1.1s,mb4.8						
FLN	**La Foliniere**	**79.12**	**41**	*e*P	**P**	**03 35 13.0**	**+0.5**
FLN				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
FLN	**La Foliniere**	**79.12**	**41**	*e*P	**P**	**03 35 13.0**	**+0.5**
	comp=Z,13nm,1.1s,mb4.8						
MFF	**Saint Martin d**	**79.13**	**43**	*e*P	**P**	**03 35 13.1**	**+0.6**
	comp=Z,12nm,0.8s,mb4.6						
MFF	**Saint Martin d**	**79.13**	**43**	*e*P	**P**	**03 35 13.1**	**+0.6**
MFF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
MFF	**Saint Martin d**	**79.13**	**43**	*e*P	**P**	**03 35 13.1**	**+0.6**
	comp=Z,6.2nm,0.8s,mb4.6						
EPF	**Esparros**	**79.16**	**47**	*e*P	**P**	**03 35 12.9**	**+0.1**
	comp=Z,3.1nm,0.6s,mb4.1						
EPF	**Esparros**	**79.16**	**47**	*e*P	**P**	**03 35 12.9**	**+0.1**
EPF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
EPF	**Esparros**	**79.16**	**47**	*e*P	**P**	**03 35 12.9**	**+0.1**
	comp=Z,1.5nm,0.6s,mb4.1						
COLD	**Coldfoot**	**79.17**	**338**	*e*P	**P**	**03 35 12.5**	**+0.1**
	comp=Z,9.4nm,1.1s,mb4.6						
LDF	**La Druitiere**	**79.34**	**41**	*e*P	**P**	**03 35 14.2**	**+0.5**
	comp=Z,19nm,0.9s,mb4.7						
LDF	**La Druitiere**	**79.34**	**41**	*e*P	**P**	**03 35 14.2**	**+0.5**
LDF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
LDF	**La Druitiere**	**79.34**	**41**	*e*P	**P**	**03 35 14.2**	**+0.5**
	comp=Z,9.4nm,0.9s,mb4.7						
LFF	**La Frestale**	**79.60**	**45**	*e*P	**P**	**03 35 14.9**	**-0.2**
	comp=Z,5.6nm,0.7s,mb4.3						
LFF	**La Frestale**	**79.60**	**45**	*e*P	**P**	**03 35 14.9**	**-0.2**
LFF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
LFF	**La Frestale**	**79.60**	**45**	*e*P	**P**	**03 35 14.9**	**-0.2**
	comp=Z,2.8nm,0.7s,mb4.3						
TOA0	**Torodi Ar. Sit**	**79.67**	**77**	*e*P	**P**	**03 35 15.2**	**-0.9**
TORD	**Torodi Ar. Bea**	**79.67**	**77**	P	**P**	**03 35 15.6**	**-0.5**
	comp=Z,3.2nm,0.6s,mb4.4,baz=282,slow=6.7,SNR=63						
TORD				LR	LR	04 08 54.8	
	comp=Z,192nm,18.9s,MS4.5,baz=265,slow=34						
TORD	**Torodi Ar. Bea**	**79.67**	**77**	P	**P**	**03 35 15.6**	**-0.5**
TORD				LR	LR	04 08 54.8	
SVW2	**Sparrevohn**	**80.14**	**331**	*e*P	**P**	**03 35 16.3**	**-1.4**
RJF	**Les Rejaudoux**	**80.17**	**45**	*e*P	**P**	**03 35 18.8**	**+0.6**
	comp=Z,7.5nm,0.8s,mb4.3						
RJF	**Les Rejaudoux**	**80.17**	**45**	*e*P	**P**	**03 35 18.8**	**+0.6**
RJF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
RJF	**Les Rejaudoux**	**80.17**	**45**	*e*P	**P**	**03 35 18.8**	**+0.6**
	comp=Z,3.8nm,0.8s,mb4.4						
IMA2	**Indian Mountai**	**80.24**	**336**	*e*P	**P**	**03 35 17.1**	**-1.1**
CAF	**Calviac**	**80.53**	**45**	*e*P	**P**	**03 35 20.7**	**+0.5**
	comp=Z,9.6nm,0.9s,mb4.4						
CAF	**Calviac**	**80.53**	**45**	*e*P	**P**	**03 35 20.7**	**+0.5**
CAF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
CAF	**Calviac**	**80.53**	**45**	*e*P	**P**	**03 35 20.7**	**+0.5**
	comp=Z,4.8nm,0.9s,mb4.4						
MTLF	**Montolieu**	**80.55**	**47**	*e*P	**P**	**03 35 20.7**	**+0.4**
	comp=Z,9.0nm,1.0s,mb4.3						
MTLF	**Montolieu**	**80.55**	**47**	*e*P	**P**	**03 35 20.7**	**+0.4**
MTLF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
MTLF	**Montolieu**	**80.55**	**47**	*e*P	**P**	**03 35 20.7**	**+0.4**
	comp=Z,4.5nm,1.0s,mb4.3						
TCF	**Toulx Ste Croi**	**80.72**	**44**	*e*P	**P**	**03 35 21.3**	**+0.1**
	comp=Z,12nm,1.0s,mb4.5						
TCF	**Toulx Ste Croi**	**80.72**	**44**	*e*P	**P**	**03 35 21.3**	**+0.1**
TCF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TCF	**Toulx Ste Croi**	**80.72**	**44**	*e*P	**P**	**03 35 21.3**	**+0.1**
	comp=Z,6.3nm,1.0s,mb4.5						
BGF	**Bois d'Agland**	**81.18**	**44**	*e*P	**P**	**03 35 24.1**	**+0.5**
	comp=Z,5.7nm,0.7s,mb4.3						
BGF	**Bois d'Agland**	**81.18**	**44**	*e*P	**P**	**03 35 24.1**	**+0.5**
BGF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BGF	**Bois d'Agland**	**81.18**	**44**	*e*P	**P**	**03 35 24.1**	**+0.5**
	comp=Z,2.8nm,0.7s,mb4.3						
AVF	**Avril sur Loir**	**81.54**	**43**	*e*P	**P**	**03 35 25.6**	**+0.1**
	comp=Z,16nm,1.0s,mb4.6						
AVF	**Avril sur Loir**	**81.54**	**43**	*e*P	**P**	**03 35 25.6**	**+0.1**
AVF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
AVF	**Avril sur Loir**	**81.54**	**43**	*e*P	**P**	**03 35 25.6**	**+0.1**
	comp=Z,7.8nm,1.0s,mb4.6						
SSF	**Saint Saulge**	**81.66**	**43**	*e*P	**P**	**03 35 26.1**	**-0.1**
	comp=Z,8.8nm,1.0s,mb4.4						
SSF	**Saint Saulge**	**81.66**	**43**	*e*P	**P**	**03 35 26.1**	**-0.1**
SSF				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
SSF	**Saint Saulge**	**81.66**	**43**	*e*P	**P**	**03 35 26.1**	**-0.1**
	comp=Z,4.4nm,1.0s,mb4.3						
LASF	**Ste Croix**	**81.77**	**46**	*e*P	**P**	**03 35 27.8**	**+1.0**
	comp=Z,9.3nm,0.9s,mb4.4						
SMF	**Signal de Mont**	**81.87**	**44**	*e*P	**P**	**03 35 27.3**	**0.0**
LOR	**Lormes**	**81.91**	**43**	*e*P	**P**	**03 35 27.6**	**+0.1**
BAIF	**Baives**	**82.28**	**40**	*e*P	**P**	**03 35 29.5**	**+0.2**
	comp=Z,13nm,1.0s,mb4.5						
BAIF	**Baives**	**82.28**	**40**	*e*P	**P**	**03 35 29.5**	**+0.2**
BAIF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
BAIF	**Baives**	**82.28**	**40**	*e*P	**P**	**03 35 29.5**	**+0.2**
	comp=Z,6.6nm,1.0s,mb4.5						
MEZF	**Maizieres J'vi**	**82.77**	**42**	*e*P	**P**	**03 35 32.3**	**+0.4**
	comp=Z,6.9nm,0.6s,mb4.5						
MEZF	**Maizieres J'vi**	**82.77**	**42**	*e*P	**P**	**03 35 32.3**	**+0.4**
	comp=Z,6.9nm,0.6s,mb4.9						
SMRF	**Simiane la Rot**	**83.01**	**46**	*e*P	**P**	**03 35 33.3**	**0.0**
TAM	**Tamanrasset**	**83.04**	**68**	*e*P	**P**	**03 35 35.4**	**+1.5**
TAM				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
TAM	**Tamanrasset**	**83.04**	**68**	*e*P	**P**	**03 35 35.4**	**+1.5**
	comp=Z,4.3nm,0.8s,mb4.5						
ORIF	**Oris-en-Rattie**	**83.24**	**45**	*e*P	**P**	**03 35 34.7**	**+0.2**
	comp=Z,6.5nm,0.8s,mb4.4						
ORIF	**Oris-en-Rattie**	**83.24**	**45**	*e*P	**P**	**03 35 34.7**	**+0.2**
ORIF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
ORIF	**Oris-en-Rattie**	**83.24**	**45**	*e*P	**P**	**03 35 34.7**	**+0.2**
	comp=Z,3.3nm,0.8s,mb4.4						
WLF	**Walferdange**	**83.52**	**41**	P	**P**	**03 35 36.4**	**+0.6**
HAU	**Haudompre**	**83.62**	**42**	*e*P	**P**	**03 35 36.4**	**+0.1**
LMR	**La Mourre**	**83.68**	**47**	*e*P	**P**	**03 35 36.2**	**-0.5**
FRF	**La Foret Royal**	**83.78**	**47**	*e*P	**P**	**03 35 37.1**	**-0.1**
	comp=Z,14nm,1.2s,mb4.7						
FRF	**La Foret Royal**	**83.78**	**47**	*e*P	**P**	**03 35 37.1**	**-0.1**
FRF				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.7						
FRF	**La Foret Royal**	**83.78**	**47**	*e*P	**P**	**03 35 37.1**	**-0.1**
	comp=Z,7.0nm,1.2s,mb4.7						
LPL	**La Plagne**	**83.85**	**45**	*e*P	**P**	**03 35 37.9**	**+0.3**
LPG	**La Plagne**	**83.86**	**45**	*e*P	**P**	**03 35 38.1**	**+0.5**
	comp=Z,7.8nm,1.0s,mb4.5						
LPG	**La Plagne**	**83.86**	**45**	*e*P	**P**	**03 35 38.1**	**+0.5**
LPG				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
LPG	**La Plagne**	**83.86**	**45**	*e*P	**P**	**03 35 38.1**	**+0.5**
	comp=Z,3.9nm,1.0s,mb4.5						
HINF	**Hinteralfeld**	**83.95**	**43**	*e*P	**P**	**03 35 38.0**	**0.0**
	comp=Z,6.9nm,0.8s,mb4.5						
HINF	**Hinteralfeld**	**83.95**	**43**	*e*P	**P**	**03 35 38.0**	**0.0**
HINF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
HINF	**Hinteralfeld**	**83.95**	**43**	*e*P	**P**	**03 35 38.0**	**0.0**
	comp=Z,3.5nm,0.8s,mb4.5						
SBF	**Sospel**	**84.35**	**46**	*e*P	**P**	**03 35 40.6**	**+0.5**
	comp=Z,14nm,0.8s,mb4.8						
SBF	**Sospel**	**84.35**	**46**	*e*P	**P**	**03 35 40.6**	**+0.5**
SBF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
SBF	**Sospel**	**84.35**	**46**	*e*P	**P**	**03 35 40.6**	**+0.5**
	comp=Z,7.2nm,0.8s,mb4.8						
PGF	**Pioggiola**	**85.51**	**48**	*e*P	**P**	**03 35 45.7**	**-0.3**
	comp=Z,7.9nm,0.8s,mb4.7						
PGF	**Pioggiola**	**85.51**	**48**	*e*P	**P**	**03 35 45.7**	**-0.3**
PGF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
PGF	**Pioggiola**	**85.51**	**48**	*e*P	**P**	**03 35 45.7**	**-0.3**
	comp=Z,4.0nm,0.8s,mb4.7						
KEST	**Kesra**	**85.99**	**55**	P	**P**	**03 35 49.5**	**+0.9**
	comp=Z,2.8nm,1.0s,mb4.5,baz=242,slow=1.6,SNR=7.3						
TNA	**Tin City**	**86.02**	**335**	*e*P	**P**	**03 35 47.7**	**-0.3**
	comp=Z,63nm,2.6s,mb5.4						
NOA	**NORSAR Array B**	**86.38**	**29**	P	**P**	**03 35 50.2**	**+0.3**
	comp=Z,5.6nm,0.9s,mb4.8,baz=270,slow=4.7,SNR=7.1						
NOA	**NORSAR Array B**	**86.38**	**29**	P	**P**	**03 35 50.2**	**+0.3**
VNA3	**Neumayer Olymp**	**87.20**	**162**	*e*P	**P**	**03 35 52.8**	**-0.9**
VNA3				*e*		03 35 55.3	
GAMB	**Gambell**	**87.73**	**334**	*e*P	**P**	**03 35 56.2**	**-0.2**
	comp=Z,4.2nm,0.9s,mb4.7						
BRG	**Berggiesshubel**	**88.48**	**39**	P	**P**	**03 36 02.4**	**+2.2**
BRG				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.7						
BRG	**Berggiesshubel**	**88.48**	**39**	*e*(P)	**P**	**03 36 02.4**	**+2.2**
	comp=Z,8.9nm,1.1s,mb4.9						
GERES	**GERESS Array B**	**88.49**	**41**	P	**P**	**03 36 00.7**	**+0.4**
	comp=Z,1.8nm,0.9s,mb4.3,baz=294,slow=4.2,SNR=6.2						
GERES				LR	LR	04 12 21.1	
	comp=Z,247nm,20.2s,MS4.6,baz=278,slow=33						
ARCES	**ARCESS Array B**	**91.11**	**20**	P	**P**	**03 36 11.6**	**-0.5**
	comp=Z,8.3nm,0.9s,mb5.1,baz=323,slow=3.8,SNR=8.5						
BILL	**Bilibino**	**95.37**	**340**	⇑*e*P	**P**	**03 36 31.1**	**-0.7**
BILL				*e*	PP	03 40 22.1	0.0
BILL				*e*S	SKSac	03 47 09.2	+4.4
BILL				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.8						
ZALV	**Zalesovo Beam**	**120.53**	**11**	PKP	PKPdf	03 41 58.4	-1.0
	comp=Z,3.4nm,0.9s,baz=297,slow=1.0,SNR=8.0						
KURK	**Kurchatov**	**122.01**	**17**	PKP	PKPdf	03 42 01.3	-1.0
	comp=Z,2.5nm,1.0s,baz=327,slow=2.4,SNR=7.2						
MOY	**Mondy**	**124.46**	**0**	*e*PKIKP	PKPdf	03 42 05.4	-1.6
MKAR	**Makanchi Array**	**126.60**	**16**	PKP	PKPdf	03 42 10.3	-0.9
	comp=Z,1.6nm,0.8s,baz=347,slow=2.0,SNR=13						
MKAR	**Makanchi Array**	**126.60**	**16**	PKP	PKPdf	03 42 10.3	-0.9
EKS2	**Erkin-Say**	**127.18**	**25**	*e*PKPdf	PKPdf	03 42 13.3	+0.8
AAK	**Ala-Archa**	**127.50**	**25**	⇑*i*PKIKP	PKPdf	03 42 12.7	-0.4
AAK				pmax	pmax		
	comp=Z,3.0nm,1.7s						
CN2	**Changchun**	**127.63**	**338**	*e*PKP	PKPdf	03 42 14.3	+1.0
UCH	**Uchtor**	**127.84**	**25**	*e*PKPdf	PKPdf	03 42 14.4	+0.6
ULN	**Ulaanbaatar**	**128.03**	**355**	*e*PKIKP	PKPdf	03 42 13.2	-0.7
SONM	**Songino Array**	**128.11**	**356**	PKP	PKPdf	03 42 13.2	-0.9
	comp=Z,1.6nm,0.6s,baz=225,slow=1.0,SNR=7.3						
KSH	**Kashi**	**130.70**	**26**	*e*PKP	PKPdf	03 42 20.0	+0.7
KSH				*e*PP	PP	03 44 41.0	+7.3
KSH				*e*PKS		03 45 55.3	
KSH				*e*SKS	SKSdf	03 49 26.6	-1.8
KSH				*e*SKKS	SKKSac	03 51 29.4	+0.6
KSH				AMB	AMB		
	comp=Z,580nm,7.7s						
KSH				LR	LR		
	comp=N,230nm,11.5s						
KSH				LR	LR		
	comp=E,220nm,5.4s						
KSH				LR	LR		
	comp=Z,300nm,4.7s						
WMQ	**Urumqi**	**130.74**	**13**	*e*PKP	PKPdf	03 42 14.0	-5.2
KSRS	**Korea Array**	**131.85**	**331**	PKIKP	PKPdf	03 42 20.4	-1.1
KSRS				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KSRS	**Korea Array**	**131.85**	**331**	PKP	PKPdf	03 42 20.4	-1.1
	comp=Z,3.2nm,1.0s,baz=239,slow=24,SNR=5.1						
STKA	**Stephens Creek**	**133.25**	**229**	*e*PKP	PKPdf	03 42 23.4	-0.9
	comp=Z,4.3nm,1.5s						
STKA	**Stephens Creek**	**133.25**	**229**	PKP	PKPdf	03 42 23.1	-1.2
	comp=Z,3.2nm,0.7s,baz=44,slow=9.5,SNR=5.7						
CTAO	**Charters Tower**	**133.51**	**246**	*e*PKIKP	PKPdf	03 42 23.9	-1.2
HHC	**Hu-ho-hao-te**	**134.32**	**349**	*e*PKP	PKPdf	03 42 26.5	+0.5
HHC				PP	PP	03 45 00.0	+3.5
HHC				PKS		03 46 01.1	
HHC				SKS	SKSdf	03 49 32.8	-2.0
HHC				SKKS	SKKSac	03 51 47.3	-3.4
HHC				AMB	AMB		
	comp=Z,190nm,6.5s						
HHC				LR	LR		
	comp=N,240nm,14.3s,MS5.2						
HHC				LR	LR		
	comp=E,200nm,13.1s,MS5.2						
HHC				LR	LR		
	comp=Z,210nm,15.3s,MS5.0						
GTA	**Gaotai**	**136.69**	**2**	*e*PKP	PKPdf	03 42 30.8	+0.3
LZH	**Lanzhou**	**139.97**	**357**	*e*PKP	PKPdf	03 42 32.5	-4.1
LZH				sPKP		03 42 37.0	
LZH				LR	LR		
	comp=E,170nm,18.0s						
LZH				LR	LR		
	comp=Z,230nm,20.1s,MS4.9						
ASAR	**Alice Springs**	**143.07**	**235**	PKhKP		03 42 36.7	
	comp=Z,4.7nm,0.7s,baz=130,slow=3.4,SNR=36						
ASAR				PKP	PKPdf	03 42 40.8	-1.8
	comp=Z,4.2nm,0.8s,baz=134,slow=3.1,SNR=12						
DANN	**Dangsing**	**143.56**	**27**	*e*P	PKPdf	03 42 40.9	-2.4
	comp=Z,17nm,0.3s						
KOLN	**Koldanda**	**143.99**	**27**	*e*P	PKPdf	03 42 41.1	-2.9
	comp=Z,7.2nm,0.6s						
WRAB	**Tennant Creek**	**144.22**	**241**	*e*PKIKP	PKPdf	03 42 41.0	-3.6
WRA	**Warramunga Arr**	**144.23**	**241**	PKP	PKPdf	03 42 40.8	-3.9
	comp=Z,50nm,1.0s,baz=108,slow=3.3,SNR=105						
GKN	**Gorkha**	**144.25**	**26**	*e*P	PKPdf	03 42 42.3	-2.2
	comp=Z,22nm,0.7s						
KKN	**Kakani**	**144.71**	**25**	*e*P	PKPdf	03 42 44.2	-1.1
	comp=Z,107nm,1.1s						
DMN	**Daman**	**144.79**	**26**	*e*P	PKPdf	03 42 44.6	-0.9
	comp=Z,152nm,1.2s						
GUN	**Gumba**	**144.85**	**24**	*e*P	PKPdf	03 42 44.7	-0.8
	comp=Z,261nm,0.9s						
PKI	**Pulchoki**	**144.96**	**25**	*e*P	PKPdf	03 42 44.3	-1.4
	comp=Z,104nm,1.1s						
LSA	**Lhasa**	**145.00**	**16**	PKPbc	PKPbc	03 42 42.3	-2.7
LSA	**Lhasa**	**145.00**	**16**	*e*PKPbc	PKPbc	03 42 45.1	+0.1
CD2	**Chengdu**	**145.12**	**356**	PKPbc	PKPbc	03 42 45.3	-0.1
CD2				PP	PP	03 46 07.0	+4.1
CD2				PKS		03 46 19.3	
CD2				SKS	SKSdf	03 49 52.9	0.0
CD2				SKKS	SKKSac	03 52 56.0	+1.6
CD2				SS	SS	04 04 55.0	+5.1
CD2				AMB	AMB		
	comp=Z,150nm,7.7s						
CD2				LR	LR		
	comp=N,130nm,7.7s						
CD2				LR	LR		
	comp=Z,220nm,5.9s						
JIRN	**Jiri**	**145.20**	**24**	*e*P	PKPbc	03 42 45.4	-0.3
	comp=Z,129nm,1.2s						
RAMN	**Ramite**	**146.00**	**24**	*e*P	PKPdf	03 42 47.8	+0.3
	comp=Z,31nm,0.7s						
TAPN	**Taplejung**	**146.07**	**22**	*e*P	PKPdf	03 42 48.1	+0.4
	comp=Z,27nm,0.6s						
SSLB	**Suanglung**	**146.36**	**326**	*e*PKPbc	PKPdf	03 42 46.8	-1.4
ODAN	**Odare**	**146.39**	**23**	*e*P	PKPdf	03 42 48.5	+0.3
	comp=Z,76nm,1.2s						
KMBL	**Kambalda**	**146.71**	**213**	*e*PKP	PKPdf	03 42 48.5	-0.1
	comp=Z,73nm,0.5s						
TPUB	**Ta-pu**	**146.92**	**326**	*e*PKPbc	PKPdf	03 42 49.7	+0.5
KAKA	**Kakadu**	**148.13**	**252**	*e*PKP	PKPdf	03 42 52.7	+1.3
	comp=Z,24nm,0.9s						
KAKA	**Kakadu**	**148.13**	**252**	*e*PKPbc	PKPdf	03 42 52.0	+0.6
HYB	**Hyderabad**	**148.95**	**46**	*i* PKP	PKPdf	03 42 51.0	-1.6
MUN	**Mundaring**	**148.96**	**205**	*e*PKP	PKPdf	03 42 51.5	-0.8
SHL	**Shillong**	**149.12**	**17**	*e*PKP	PKPdf	03 42 52.5	-0.2
GYA	**Guiyang**	**149.21**	**351**	PKPbc	PKPdf	03 42 52.5	-0.4
GYA				PKPab	PKPab	03 43 01.3	-0.1
GYA				PKS		03 46 29.8	
GYA				SKKS	SKKSac	03 53 17.0	-0.4
GYA				SS	SS	04 05 38.9	+2.8
GYA				AMB	AMB		
	comp=Z,50nm,5.2s						
GYA				LR	LR		

	comp=N,90nm,21.9s,MS4.7						
GYA				LR	LR		
	comp=E,80nm,21.9s,MS4.7						
GYA				LR	LR		
	comp=Z,140nm,23.5s,MS4.7						
BLDU	**Ballidu**	**149.91**	**207**	*e*PKP	PKPbc	03 42 57.1	-1.6
	comp=Z,9.9nm,1.1s						
KMI	**Kunming**	**150.93**	**357**	PKPbc	PKPdf	03 42 53.8	-1.8
KMI				pPKP	pPKPdf	03 42 58.3	-8.8
KMI				sPKP		03 43 01.3	
KMI				LR	LR		
	comp=N,170nm,23.3s,MS4.9						
KMI				LR	LR		
	comp=E,150nm,24.0s,MS4.9						
KMI				LR	LR		
	comp=Z,140nm,25.7s,MS4.7						
FITZ	**Fitzroy Crossi**	**152.47**	**238**	*e*PKP	PKPbc	03 43 03.3	-1.7
	comp=Z,20nm,0.8s						
CMAR	**Chiang Mai Arr**	**157.47**	**6**	PKP	PKPdf	03 43 04.0	-0.9
	comp=Z,0.7nm,0.3s,baz=310,slow=2.7,SNR=5.3						
CMAR				PKPab	PKPab	03 43 35.1	-1.2
	comp=Z,4.6nm,0.8s,baz=331,slow=5.3,SNR=14						

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*CSEM **23** 03:24:10.1, 34°.68N×23°.03E, h33^{km}, ML3.9*

HLW 23 03:24:10.1, 34°.68N×23°.03E, h33^{km}, Mb3.9, Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SWA2		**5.80**	**159**	P	Pn	03 25 33.0	-0.8
SWA2				S	Sn	03 26 34.5	-4.7
AWBH		**8.08**	**140**	P	Pn	03 26 03.5	-1.6
AWBH		**8.08**	**140**	P	Pn	03 26 03.5	-1.6
HFRF	**Wahat Farafira**	**8.77**	**147**	P	Pn	03 26 13.3	-1.2
HFRF	**Wahat Farafira**	**8.77**	**147**	P	Pn	03 26 13.3	-1.3
STON	**Ston**	**9.18**	**335**	*e*Pn	Pn	03 26 19.1	-1.0
STON				Sn	Sn	03 27 54.4	-7.7
SUZ		**9.60**	**117**	P	Pn	03 26 24.5	-1.4
SUZ		**9.60**	**117**	P	Pn	03 26 24.5	-1.4

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*ISCJB **23** 03:34:35.4±0.4, 40°.48N±0°.03×29°.16E±0°.04, h5^{km}±5^{km}, Error ellipse: s-maj=4.8km s-min=4.4km az=154.0*

*CSEM **23** 03:34:35.6±0.1, 40°.46N×29°.16E, h5^{km}, MD2.8, Error ellipse: s-maj=2.1km s-min=1.8km az=36.0*

*DDA **23** 03:34:35.9, 40°.43N×29°.21E, h7^{km}±3^{km}, Md2.8*

*ISK **23** 03:34:35.0, 40°.45N×29°.17E, h7^{km}, MD2.8*

ISC 23 03:34:35.8±0.4, **40°.47N**±0°.03×**29°.18E**±0°.04, **h7**^{km}±6^{km}, **n33, σ0^s.51**/45, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GEMT	**Gemlik**	**0.04**	**165**	PG	**Pg**	**03 34 36.6**	**-0.6**
GEMT				*e*SG	**Sg**	**03 34 37.8**	**-0.4**
GEMT	**Gemlik**	**0.04**	**165**	*i* Pg	**Pg**	**03 34 36.6**	**-0.5**
GEMT				*e*Sg	**Sg**	**03 34 37.8**	**-0.3**
YLV	**Yalova**	**0.18**	**58**	PG	**Pg**	**03 34 39.8**	**+0.5**
YLV				*e*SG	**Sg**	**03 34 42.5**	**+0.8**
YLV	**Yalova**	**0.18**	**58**	*i* Pg	**Pg**	**03 34 39.8**	**+0.4**
YLV				*e*Sg	**Sg**	**03 34 42.6**	**+0.8**
ULDT	**Uludag**	**0.33**	**185**	*i* P	**Pg**	**03 34 41.6**	**-0.6**
ULDT				*i* S	**Sg**	**03 34 47.6**	**+1.0**
ULDT	**Uludag**	**0.33**	**185**	*i* P	**Pg**	**03 34 41.6**	**-0.6**
ULDT				*i* S	**Sg**	**03 34 47.6**	**+1.0**
ADVT	**Abdulvahap**	**0.43**	**95**	*e*PG	**Pg**	**03 34 43.8**	**-0.3**
ADVT				*e*SG	**Sg**	**03 34 49.7**	**0.0**
ADVT	**Abdulvahap**	**0.43**	**95**	*e*Pg	**Pg**	**03 34 43.8**	**-0.3**
ADVT				*e*Sg	**Sg**	**03 34 49.7**	**-0.1**
CAVI	**Cavuskoy**	**0.58**	**118**	*e*PG	**Pg**	**03 34 47.3**	**+0.4**
CAVI	**Cavuskoy**	**0.58**	**118**	*e*Pg	**Pg**	**03 34 47.3**	**+0.4**
ISK	**Istanbul-Kandi**	**0.60**	**352**	*e*PG	**Pg**	**03 34 47.5**	**+0.2**
ISK	**Istanbul-Kandi**	**0.60**	**352**	*e*Pg	**Pg**	**03 34 47.5**	**+0.2**
SILT	**Sile**	**0.77**	**27**	*e*PG	**Pg**	**03 34 50.6**	**+0.1**
SILT	**Sile**	**0.77**	**27**	*e*Pg	**Pg**	**03 34 50.6**	**+0.1**
BGKT	**Bogazkoy**	**0.77**	**337**	*e*PG	**Pg**	**03 34 50.6**	**+0.1**
BGKT	**Bogazkoy**	**0.77**	**337**	*e*Pg	**Pg**	**03 34 50.6**	**0.0**
KLYT	**Kilyos**	**0.79**	**353**	*e*PG	**Pg**	**03 34 50.9**	**+0.1**
KLYT	**Kilyos**	**0.79**	**353**	*e*Pg	**Pg**	**03 34 50.9**	**0.0**
CTKS	**Kestanelik-??a**	**0.92**	**327**	*e*PG	**Pg**	**03 34 53.5**	**+0.2**
CTKS	**Kestanelik-??a**	**0.92**	**327**	*e*Pg	**Pg**	**03 34 53.5**	**+0.1**
BNT	**Bandirma**	**0.97**	**263**	*e*PG	**Pg**	**03 34 54.2**	**-0.1**
EDC	**Edincik**	**1.01**	**263**	*e*PG	**Pg**	**03 34 54.3**	**-0.9**
EDC	**Edincik**	**1.01**	**263**	*e*Pg	**Pg**	**03 34 54.3**	**-0.8**
DURS	**Dursunbey**	**1.02**	**212**	*i* P	**Pg**	**03 34 55.3**	**-0.1**
DURS				*i* S	**Sg**	**03 35 09.9**	**+1.2**
DURS	**Dursunbey**	**1.02**	**212**	*i* P	**Pg**	**03 34 55.3**	**-0.1**
DURS				*i* S	**Sg**	**03 35 09.9**	**+1.2**
SLVT	**Silivri**	**1.05**	**316**	*e*PG	**Pg**	**03 34 55.9**	**-0.1**
SLVT	**Silivri**	**1.05**	**316**	*e*Pg	**Pg**	**03 34 55.9**	**-0.1**
BORA	**Eskisehir**	**1.15**	**121**	*i* P	**Pg**	**03 34 57.2**	**-0.5**
BORA				*i* S	**Sg**	**03 35 12.0**	**-0.5**
BORA	**Eskisehir**	**1.15**	**121**	*i* P	**Pg**	**03 34 57.2**	**-0.5**
BORA				*i* S	**Sg**	**03 35 12.0**	**-0.6**
CTYL	**Yal??k??y-??at**	**1.20**	**326**	*e*PN	**Pn**	**03 34 58.8**	**-0.3**
CTYL	**Yal??k??y-??at**	**1.20**	**326**	*e*Pn	**Pn**	**03 34 58.8**	**-0.3**
CRLT	**Corlu**	**1.27**	**301**	*e*PN	**Pn**	**03 35 00.0**	**0.0**
CRLT	**Corlu**	**1.27**	**301**	*e*Pn	**Pn**	**03 35 00.0**	**0.0**

MAN 23 03:56:11, 5°.94N×125°.53E, h24^{km}, mb4.1, ML2.9, MS2.7, 1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**0.60**	**284**	⇑*e*P	Pb	03 56 20.5	-2.3
GSPH				*e*S	Sb	03 56 29.5	-1.4
MATI	**Mati**	**1.23**	**36**	*e*P	Pn	03 56 33.2	+0.5
MATI				*e*S	Sn	03 56 49.3	+0.7
BUKP	**Musuan**	**1.98**	**346**	*e*P	Pn	03 56 44.7	+1.6
BUKP				*e*S	Sn	03 57 14.5	+7.3

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*IDC **23** 04:16:24.0±1.9, 37°.39N×20°.74E, h0^{km}, mb3.6/3, mb1 3.6/4, mb1mx3.4/22, mbtmp3.6/4, ML2.4/1, Error ellipse: s-maj=135.2km s-min=26.7km az=140.0*

*NEIC **23** 04:16:27.5, 36°.25N×21°.77E, h5^{km}, ML3.2(ATH), After ATH.*

*ISCJB **23** 04:16:27.7±0.7, 36°.22N±0°.04×21°.67E±0°.06, h10^{km}, mb3.5/3, Error ellipse: s-maj=7.6km s-min=5.6km az=160.3*

*ATH **23** 04:16:27.5, 36°.25N×21°.77E, h5^{km}, MD3.6/11, ML3.2*

*CSEM **23** 04:16:28.1±0.5, 36°.22N×21°.74E, h2^{km}, ML3.2, Error ellipse: s-maj=11.0km s-min=8.6km az=37.0*

*THE **23** 04:16:33.0, 36°.28N×21°.87E, h31^{km}±67^{km}, ML3.7/6, Error ellipse: s-maj=67.4km s-min=2.6km az=198.0*

ISC 23 04:16:29.4±0.7, **36°.24N**±0°.04×**21°.74E**±0°.06, **h10**^{km}, **n63, σ1^s.29**/69, **mb3.5**/3, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.66**	**0**	*e*PB	**Pg**	**04 16 39.4**	**-2.7**
PYL				*e*SB	**Sg**	**04 16 49.8**	**-0.9**
PYL	**PYLOS**	**0.66**	**0**	*e*Pb	**Pg**	**04 16 39.4**	**-2.7**
PYL				*e*Sb	**Sg**	**04 16 49.8**	**-0.9**
ITM	**Ithomi**	**0.95**	**9**	*e*PG	**Pg**	**04 16 45.1**	**-2.6**
ITM				*e*SB	**Sg**	**04 16 59.2**	**-0.9**
ITM	**Ithomi**	**0.95**	**9**	*e*Pg	**Pg**	**04 16 45.1**	**-2.6**
ITM				*e*Sb	**Sg**	**04 16 59.2**	**-0.9**
KYTH	**Kithira**	**1.05**	**87**	*e*PB	**Pg**	**04 16 47.2**	**-2.3**
KYTH	**Kithira**	**1.05**	**87**	*e*Pb	**Pg**	**04 16 47.2**	**-2.3**
VLI	**Veliai**	**1.08**	**63**	*e*PG	**Pg**	**04 16 47.5**	**-2.5**
VLI	**Veliai**	**1.08**	**63**	*e*Pg	**Pg**	**04 16 47.5**	**-2.5**
VLX	**Vlachokerasia**	**1.24**	**24**	*e*PG	**Pn**	**04 16 50.3**	**-2.4**
VLX	**Vlachokerasia**	**1.24**	**24**	*e*Pg	**Pn**	**04 16 50.3**	**-2.4**
DID	**Didima**	**1.74**	**43**	P	**Pn**	**04 16 59.4**	**-0.3**
DID	**Didima**	**1.74**	**43**	P	**Pn**	**04 16 59.4**	**-0.3**
GUR	**Goura**	**1.76**	**16**	*e*PG	**Pn**	**04 17 00.1**	**+0.2**
KARN	**Karanos**	**1.96**	**115**	P	**Pn**	**04 17 02.4**	**-0.2**
KARN	**Karanos**	**1.96**	**115**	P	**Pn**	**04 17 02.4**	**-0.2**
LAKA	**Lakka**	**2.01**	**5**	P	**Pn**	**04 17 04.5**	**+1.2**
LAKA	**Lakka**	**2.01**	**5**	P	**Pn**	**04 17 04.5**	**+1.2**
LTK	**Loutraki**	**2.03**	**28**	P	**Pn**	**04 17 03.9**	**+0.3**
LTK	**Loutraki**	**2.03**	**28**	P	**Pn**	**04 17 03.9**	**+0.3**
NAIG	**Nisos Aigina**	**2.06**	**42**	*e*PN	**Pn**	**04 17 05.3**	**+1.2**
NAIG	**Nisos Aigina**	**2.06**	**42**	*e*Pn	**Pn**	**04 17 05.3**	**+1.2**
VLS	**Valsamata**	**2.14**	**335**	*e*PN	**Pn**	**04 17 07.1**	**+2.0**
VLS	**Valsamata**	**2.14**	**335**	*e*Pn	**Pn**	**04 17 07.1**	**+2.0**
KALE	**Kalithea**	**2.17**	**8**	P	**Pn**	**04 17 06.4**	**+0.8**
KALE	**Kalithea**	**2.17**	**8**	P	**Pn**	**04 17 06.4**	**+0.8**
ATH	**Athens Observa**	**2.34**	**42**	*e*PN	**Pn**	**04 17 09.4**	**+1.5**
ATH	**Athens Observa**	**2.34**	**42**	*e*Pn	**Pn**	**04 17 09.4**	**+1.5**
ATHU	**Athens Univers**	**2.38**	**43**	P	**Pn**	**04 17 08.6**	**+0.3**
ATHU	**Athens Univers**	**2.38**	**43**	P	**Pn**	**04 17 08.6**	**+0.3**
PTL	**Penteli**	**2.48**	**43**	*e*PG	**Pn**	**04 17 13.3**	**+3.5**
EVR	**Evrytania**	**2.67**	**1**	*e*PG	**Pn**	**04 17 17.3**	**+4.8**
EVR	**Evrytania**	**2.67**	**1**	*e*Pg	**Pn**	**04 17 17.3**	**+4.8**
AGG	**Agios Georgios**	**2.82**	**9**	P	**Pn**	**04 17 15.8**	**+1.4**
AGG	**Agios Georgios**	**2.82**	**9**	P	**Pn**	**04 17 15.8**	**+1.4**
LAST	**Lasithi**	**3.23**	**108**	P	**Pn**	**04 17 20.7**	**+0.7**
LAST	**Lasithi**	**3.23**	**108**	P	**Pn**	**04 17 20.7**	**+0.7**
THL	**Klokotos Trika**	**3.33**	**4**	P	**Pn**	**04 17 22.2**	**+0.8**
THL	**Klokotos Trika**	**3.33**	**4**	P	**Pn**	**04 17 22.2**	**+0.8**
IGT	**Igoumenitsa**	**3.47**	**342**	P	**Pn**	**04 17 23.1**	**-0.3**
IGT	**Igoumenitsa**	**3.47**	**342**	P	**Pn**	**04 17 23.1**	**-0.3**
LIT	**Litokhoron**	**3.90**	**8**	P	**Pn**	**04 17 31.0**	**+1.7**
LIT	**Litokhoron**	**3.90**	**8**	P	**Pn**	**04 17 31.0**	**+1.7**
CHOS	**Chios island**	**4.05**	**57**	P	**Pn**	**04 17 30.0**	**-1.4**
CHOS	**Chios island**	**4.05**	**57**	P	**Pn**	**04 17 30.0**	**-1.4**
HORT	**Hortiatis**	**4.48**	**13**	P	**Pn**	**04 17 37.9**	**+0.6**
HORT	**Hortiatis**	**4.48**	**13**	P	**Pn**	**04 17 37.9**	**+0.6**
FNA	**Florina**	**4.55**	**356**	P	**Pn**	**04 17 38.4**	**+0.2**
FNA				S	**Sn**	**04 18 31.1**	**0.0**
FNA	**Florina**	**4.55**	**356**	P	**Pn**	**04 17 38.4**	**+0.2**
FNA				S	**Sn**	**04 18 31.1**	**0.0**
SOH	**Sokhos**	**4.75**	**15**	P	**Pn**	**04 17 42.3**	**+1.4**
SOH	**Sokhos**	**4.75**	**15**	P	**Pn**	**04 17 42.3**	**+1.4**
KNT	**Kendrikon**	**5.00**	**10**	P	**Pn**	**04 17 45.1**	**+0.7**
KNT	**Kendrikon**	**5.00**	**10**	P	**Pn**	**04 17 45.1**	**+0.7**
CEL	**Celeste**	**5.08**	**295**	*e*Pn	**Pn**	**04 17 43.7**	**-1.9**
	14nm,0.8s						
CEL	**Celeste**	**5.08**	**295**	*e*Pn	**Pn**	**04 17 43.7**	**-1.9**
	14nm,0.8s						
SRS	**Serrai**	**5.08**	**16**	P	**Pn**	**04 17 45.6**	**+0.1**
SRS	**Serrai**	**5.08**	**16**	P	**Pn**	**04 17 45.6**	**+0.1**
CUC	**Castrocucco**	**5.99**	**311**	*e*Pn	**Pn**	**04 17 57.2**	**-0.8**
	12nm,0.8s						
CUC	**Castrocucco**	**5.99**	**311**	*e*Pn	**Pn**	**04 17 57.2**	**-0.8**
	12nm,0.8s						
BRTR	**Keskin Array B**	**10.02**	**66**	Pn	**Pn**	**04 18 54.5**	**+1.3**
	0.0nm,0.3s,baz=258,slow=10.0,SNR=7.3						
BRTR	**Keskin Array B**	**10.02**	**66**	Pn	**Pn**	**04 18 54.5**	**+1.3**
TORD	**Torodi Ar. Bea**	**29.21**	**223**	P	**P**	**04 22 30.3**	**-0.9**
	0.3nm,0.9s,mb3.0,baz=25,slow=8.3,SNR=3.8						
MKAR	**Makanchi Array**	**45.51**	**57**	P	**P**	**04 24 45.3**	**-3.5**
	0.4nm,0.4s,mb3.7,baz=270,slow=8.0,SNR=15						
ZALV	**Zalesovo Beam**	**46.28**	**47**	P	**P**	**04 24 49.6**	**-5.2**
	0.5nm,0.3s,mb3.9,baz=284,slow=7.3,SNR=3.2						

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*CSEM **23** 04:40:17.9, 12°.04N×43°.95E, h12^{km}, ML3.6, After DHMR*

DHMR 23 04:40:17.9±1.1, **12°.04N×43°.95E, h13**^{km}±6^{km}, **ML3.6, 5C-2D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRBA	**At Turbah**	**1.20**	**8**	⇑*i*P	Pn	04 40 40.3	-0.1
TRBA				*i* S	Sb	04 40 57.3	+1.4
TRBA				AML	AML	04 40 57.5	
	comp=N,1µm,0.2s						
ADEN	**Aden**	**1.25**	**54**	⇓*i*P	Pn	04 40 40.9	-0.2
ADEN				*i* S	Sb	04 40 58.5	+1.1
ADEN				AML	AML	04 41 08.3	
	comp=E,2µm,0.4s						
ADEN	**Aden**	**1.25**	**54**	⇓*i*P	Pn	04 40 40.9	-0.2
ADEN				*i* S	Sb	04 40 58.5	+1.1
	comp=E,280nm,0.5s						
UDYN	**Al ‘Udayn**	**1.92**	**1**	*i* P	Pn	04 40 51.3	+1.0
UDYN				*i* S	Sn	04 41 18.2	+3.9
UDYN				AML	AML	04 41 27.4	
	comp=N,560nm,0.5s						
UDYN	**Al ‘Udayn**	**1.92**	**1**	*i* P	Pn	04 40 51.3	+1.0
UDYN				*i* S	Sn	04 41 18.2	+3.9
HNSH	**Hunish Island**	**2.04**	**324**	*i* P	Pn	04 40 52.6	+0.6
HNSH				*i* S	Sn	04 41 21.2	+3.9
HNSH	**Hunish Island**	**2.04**	**324**	*i* P	Pn	04 40 52.6	+0.7
HNSH				*i* S	Sn	04 41 21.2	+3.9
ZUQR	**Zugar Island**	**2.26**	**329**	⇑*i*P	Pn	04 40 57.3	+2.3
ZUQR				*i* S	Sn	04 41 27.6	+4.9
ZUQR				AML	AML	04 41 32.9	
	comp=E,429nm,0.3s						
ZUQR	**Zugar Island**	**2.26**	**329**	⇑*i*P	Pn	04 40 57.3	+2.3
ZUQR				*i* S	Sn	04 41 27.6	+4.8
	comp=E,215nm,0.3s						
BDHA	**Al Bayda’**	**2.49**	**39**	⇑*i*P	Pn	04 41 01.1	+2.9
BDHA				*i* S	Sn	04 41 34.5	+6.1
BDHA				AML	AML	04 41 39.4	
	comp=N,308nm,0.8s						
BDHA	**Al Bayda’**	**2.49**	**39**	⇑*i*P	Pn	04 41 01.1	+2.9
BDHA				*i* S	Sn	04 41 34.5	+6.0
	comp=N,154nm,0.8s						
DHBB	**Dhamar BB**	**2.55**	**10**	*i* P	Pn	04 41 02.5	+3.5
DHBB				*i* S	Sn	04 41 36.2	+6.2

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*SZGRF **23** 04:40:58.8, 36°.12N×71°.56E, h33^{km}, mb4.9, Afghanistan-Tajikistan border region*

*NEIC **23** 04:41:18.9±0.3, 36°.46N×70°.93E, h193^{km}±3^{km}, mb4.6/112, Error ellipse: s-maj=3.5km s-min=2.3km az=208.0*

*ISCJB **23** 04:41:18.1±0.1, 36°.47N±0°.02×70°.91E±0°.02, h199^{km}, mb4.6/187, Error ellipse: s-maj=2.5km s-min=2.0km az=39.8*

*BJI **23** 04:41:18.2, 36°.64N×70°.84E, h194^{km}, mB4.8/26, mb4.9/38*

*GCMT **23** 04:41:18.9±0.5, 36°.45N×70°.69E, h194^{km}±4^{km}, MW4.9/68, Moment Tensor Solution. s19,c29; s68,c87; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.44±.12; M$_{\theta\theta}$-1.50±.15; M$_{\phi\phi}$0.05±.13; M$_{r\theta}$1.99±.10; M$_{\theta\phi}$0.16±.14; M$_{\phi r}$0.62±.10; Best double couple: M$_0$2.55600×10^{16} NP1:φ$_s$292.00000°, δ20.00000°, λ123.00000°. NP2: φ$_s$77.00000°, δ73.00000°, λ79.00000°. Principal axes: T 2.6010, Plg60.0000°, Azm331.0000°; N -0.0900, Plg11.0000°, Azm81.0000°; P -2.5120, Plg27.0000°, Azm176.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **23** 04:41:18.1±0.8, 36°.49N×70°.90E, h198^{km}, mb4.7/62 Error ellipse: s-maj=5.6km s-min=3.4km az=122.2*

*IDC **23** 04:41:19.5±0.6, 36°.47N×70°.90E, h200^{km}±5^{km}, mb4.4/27, mb1 4.5/32, mb1mx4.5/34, mbtmp4.4/32, Error ellipse: s-maj=8.4km s-min=7.6km az=14.0*

*TEH **23** 04:41:19.7, 36°.53N×70°.95E, h200^{km}*

*NNC **23** 04:41:23.4±2.3, 36°.96N×70°.90E, h187^{km}±20^{km}, mb4.3, mpv5.8, Error ellipse: s-maj=18.3km s-min=14.4km az=179.0*

*DJA **23** 04:41:24, 36°.82N×71°.05E, h245^{km}, mb5.0/15*

ISC 23 04:41:19.8±0.1, **36°.49N**±0°.02×**70°.95E**±0°.02, **h201**^{km}, **h201**^{km}±2.4^{km}**:pP-P, n517, σ0^s.97**/556, **mb4.6**/187, **100C-36D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.49**	**219**	⇑*i*Pn	**Pn**	**04 42 02.5**	**-1.1**
KBL				*e*Sn	**Sn**	**04 42 34.3**	**-3.5**
CEP	**Cherat**	**2.77**	**163**	⇓P	**Pn**	**04 42 07.1**	**+0.2**
CEP				S	**Sn**	**04 42 43.0**	**-0.7**
SRNI	**Srinagar**	**3.98**	**126**	*e*x	**Pn**	**04 42 28.0**	**+6.6**
SRNI				*e*S	**Sn**	**04 43 02.0**	**-7.8**
SARP	**Sargodha**	**4.78**	**162**	⇑P	**Pn**	**04 42 30.5**	**-0.9**
SARP				S	**Sn**	**04 43 24.0**	**-3.8**
JMU	**Jammu**	**4.98**	**138**	*e*PKP	**Pn**	**04 42 31.5**	**-2.5**
JMU				*e*S	**Sn**	**04 43 24.5**	**-7.9**
KSH	**Kashi**	**4.99**	**51**	⇓*i*P	**Pn**	**04 42 29.4**	**-4.6**
KSH				S	**Sn**	**04 43 22.4**	**-10**
KSH				smax			
	comp=N,5µm,0.4s						
KSH				smax			
	comp=E,5µm,0.3s						
THN	**Thein Dam**	**5.65**	**134**	*e*PKP	**Pn**	**04 42 41.0**	**-1.5**
THN				*e*S	**Sn**	**04 43 40.7**	**-7.2**
AML	**Almayashu**	**6.02**	**20**	P	**Pn**	**04 42 46.5**	**-0.7**
	SNR=2231						
AML	**Almayashu**	**6.02**	**20**	⇓*i*Pn	**Pn**	**04 42 46.4**	**-0.8**
AML				*e*Sn	**Sn**	**04 43 52.4**	**-4.1**
UCH	**Uchtor**	**6.36**	**25**	P	**Pn**	**04 42 51.1**	**-0.5**
	SNR=626						
UCH	**Uchtor**	**6.36**	**25**	⇓*i*Pn	**Pn**	**04 42 51.0**	**-0.6**
	comp=E,1µm,0.7s						
UCH				*e*Sn	**Sn**	**04 43 58.3**	**-6.1**
KZA	**Kyzart**	**6.50**	**30**	P	**Pn**	**04 42 52.4**	**-1.1**
	SNR=146						
EKS2	**Erkin-Say**	**6.54**	**19**	P	**Pn**	**04 42 53.2**	**-0.7**
	SNR=689						
EKS2	**Erkin-Say**	**6.54**	**19**	⇓*i*Pn	**Pn**	**04 42 53.0**	**-0.9**
	comp=E,458nm,0.5s						
EKS2				*e*Sn	**Sn**	**04 44 03.2**	**-5.4**
KK31	**Karatay Array**	**6.61**	**357**	Pn	**Pn**	**04 42 52.8**	**-2.0**
	comp=E,200nm,0.5s,baz=181,slow=14,SNR=4827						
KK31				⇑Sn	**Sn**	**04 44 03.1**	**-7.2**
	comp=E,472nm,0.4s,baz=180,slow=21,SNR=18						
KK31	**Karatay Array**	**6.61**	**357**	*e*PN	**Pn**	**04 42 53.3**	**-1.6**
KK31				pmax	pmax		
	comp=Z,452nm,0.5s						
AAK	**Ala-Archa**	**6.72**	**23**	P	**Pn**	**04 42 55.7**	**-0.6**
	SNR=478						
AAK	**Ala-Archa**	**6.72**	**23**	P	**Pn**	**04 42 55.8**	**-0.5**
	comp=Z,3.4nm,0.3s,baz=170,slow=5.9,SNR=1252						
AAK				S	**Sn**	**04 44 09.2**	**-3.6**
	comp=Z,1.5nm,0.3s,baz=324,slow=22,SNR=21						
AAK	**Ala-Archa**	**6.72**	**23**	⇓*i*Pn	**Pn**	**04 42 55.7**	**-0.6**
AAK				*e*Sn	**Sn**	**04 44 08.8**	**-4.0**
BHK	**Bhakra**	**6.80**	**137**	*e*x	**Pn**	**04 42 54.6**	**-2.8**
BHK				*e*S	**Sn**	**04 44 06.8**	**-8.1**
KBK	**Karagaybulak**	**6.89**	**25**	P	**Pn**	**04 42 58.2**	**-0.2**
	SNR=229						
FRU	**Bishkek**	**6.94**	**23**	κ*i*PN	**Pn**	**04 42 58.0**	**-1.1**
FRU				*i* S	**Sn**	**04 44 15.5**	**-2.5**
FRU				pmax	pmax		
	comp=Z,520nm,1.2s						
FRU				smax			
	comp=E,2µm,1.9s						
SDNR	**Sundarnagar**	**7.05**	**133**	*e*PKP	**Pn**	**04 43 00.0**	**-0.7**
SDNR				*e*S	**Sn**	**04 44 14.0**	**-6.9**
ULHL	**Ulahol**	**7.06**	**34**	P	**Pn**	**04 43 00.1**	**-0.6**
	SNR=91						
QUE	**Quetta**	**7.12**	**209**	⇓*i*P	Px	04 42 49.0	
QUE				*e*S	Sx	04 44 06.0	
CHMS	**Chumysh**	**7.13**	**23**	P	**Pn**	**04 43 00.1**	**-1.5**
	SNR=173						
USP	**Ospenovka**	**7.30**	**21**	P	**Pn**	**04 43 02.2**	**-1.6**
	SNR=241						
TKM2	**Tokmak 2**	**7.35**	**28**	⇓Pn	**Pn**	**04 43 03.4**	**-1.1**
	comp=E,1µm,0.7s						
TKM2				⇑Sn	**Sn**	**04 44 24.0**	**-3.8**
	comp=E,422nm,1.1s						
TKM2	**Tokmak 2**	**7.35**	**28**	⇓*i*PN	**Pn**	**04 43 04.0**	**-0.5**
TKM2				pmax	pmax		
	comp=Z,1µm,0.6s						
TKM2	**Tokmak 2**	**7.35**	**28**	P	**Pn**	**04 43 03.9**	**-0.6**
	SNR=581						
TKM2	**Tokmak 2**	**7.35**	**28**	⇓*i*Pn	**Pn**	**04 43 04.0**	**-0.5**
	comp=Z,1µm,0.6s						
KNDC	**Almaty**	**8.16**	**33**	Pn	**Pn**	**04 43 14.3**	**-0.6**
KNDC				Sn	**Sn**	**04 44 39.4**	**-7.3**
DDI	**Dehra Dun**	**8.55**	**134**	*e*PKP	**Pn**	**04 43 19.0**	**-1.2**
NDI	**New Delhi**	**9.41**	**144**	*e*x	**Pn**	**04 43 28.0**	**-3.4**
NDI				*e*S	**Sn**	**04 45 06.0**	**-11**
AYAN	**Aya Nagar**	**9.54**	**145**	*e*PKP	**Pn**	**04 43 31.3**	**-1.7**
AYAN				*e*S	**Sn**	**04 45 09.4**	**-10**
AYAN				AML	AML	04 45 15.1	
	comp=Z,444nm,0.3s						
JASL	**Jaisalmer**	**9.54**	**180**	*e*x	x	04 43 20.3	
JASL				*e*x	x	04 44 39.5	
JASL				AML	AML	04 45 01.4	
	comp=Z,233nm,0.2s						
PTH	**Pithoragarh**	**10.41**	**129**	*e*x	**Pn**	**04 43 40.8**	**-3.5**
PTH				*e*S	**Sn**	**04 45 32.0**	**-8.6**
AJM	**Ajmer**	**10.47**	**161**	*e*PKP	**Pn**	**04 43 43.0**	**-2.1**
AJM				*e*S	**Sn**	**04 45 27.5**	**-14**
LGTI	**Lohaghat**	**10.50**	**129**	*e*PKP	**Pn**	**04 43 44.0**	**-1.4**
LGTI				*e*PKP		04 43 44.0	
LGTI				*e*x	x	04 45 33.0	
LGTI				*e*x	x	04 45 33.0	
BHJ	**Bhuj**	**13.24**	**185**	*e*x	**Pn**	**04 44 23.1**	**+2.9**
BHJ				*e*x	x	04 46 40.1	
MK31	**Makanchi Array**	**13.32**	**36**	P	**Pn**	**04 44 21.2**	**+0.2**
	comp=Z,75nm,0.7s,baz=210,slow=10,SNR=701						
MK31				⇑S	**S**	**04 46 46.6**	**-2.8**
	comp=Z,5.9nm,0.6s,baz=157,slow=34,SNR=3.7						
MK31	**Makanchi Array**	**13.32**	**36**	*i* P	**Pn**	**04 44 19.3**	**-1.8**
MK31				pmax	pmax		
	comp=Z,75nm,0.7s						
MKAR	**Makanchi Array**	**13.32**	**36**	P	**Pn**	**04 44 19.6**	**-1.4**
	comp=Z,2.0nm,0.3s,baz=213,slow=10,SNR=98						
DANN	**Dangsing**	**13.52**	**123**	*e*P	**Pn**	**04 44 22.3**	**-1.4**
	comp=Z,514nm,0.4s						
KOLN	**Koldanda**	**13.79**	**125**	*e*P	**Pn**	**04 44 25.6**	**-1.5**
	comp=Z,228nm,0.5s						
IANJ	**Anjilo**	**13.84**	**271**	*e*P	**Pn**	**04 44 29.1**	**+1.5**
GKN	**Gorkha**	**14.33**	**122**	*e*P	**Pn**	**04 44 32.8**	**-1.0**
	comp=Z,743nm,0.5s						
BHPL	**Bhopal**	**14.34**	**155**	*e*PKP	**Pn**	**04 44 32.3**	**-1.6**
BHPL				*e*x	x	04 47 00.7	
ALBI	**Allahabad**	**14.52**	**137**	*e*x	**Pn**	**04 44 32.0**	**-4.1**
BHV	**Bhavnagar**	**14.73**	**176**	*e*PKP	**Pn**	**04 44 38.0**	**-0.6**
WMQ	**Urumqi**	**14.74**	**55**	P	**Pn**	**04 44 38.9**	**+0.3**
WMQ				S	**S**	**04 47 18.0**	**-4.2**
WMQ				PcP	PcP	04 49 38.0	+2.6
WMQ				pmax	pmax		
	comp=Z,77nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,410nm,6.6s						
DMN	**Daman**	**14.90**	**122**	*e*P	**Pn**	**04 44 39.9**	**-0.9**
	comp=Z,352nm,0.5s						
KKN	**Kakani**	**14.91**	**122**	*e*P	**Pn**	**04 44 40.3**	**-0.5**
	comp=Z,512nm,0.5s						
KKN	**Kakani**	**14.91**	**122**	*e*P	**Pn**	**04 44 40.3**	**-0.5**
KKN				pmax	pmax		
	comp=Z,512nm,0.5s						
AB31	**Akbulak array**	**15.07**	**331**	P	**Pn**	**04 44 39.8**	**-2.8**
AB31						04 47 19.9	
AB31				pmax	pmax		
	comp=Z,153nm,0.9s						
AB31				smax			
	comp=N,51nm,0.9s						
AB09	**Akbulak array**	**15.09**	**331**	P	**Pn**	**04 44 41.3**	**-1.5**
AB09				S	**S**	**04 47 23.9**	**-6.2**
PKI	**Pulchoki**	**15.14**	**122**	*e*P	**Pn**	**04 44 43.2**	**-0.4**
	comp=N,1µm,0.7s						
PKI	**Pulchoki**	**15.14**	**122**	*e*P	**Pn**	**04 44 43.2**	**-0.4**
PKI				pmax	pmax		
	comp=Z,1µm,0.7s						
KURBB	**Kurchatov Arra**	**15.14**	**19**	⇑P	**Pn**	**04 44 41.0**	**-2.4**
	comp=Z,5.6nm,0.5s						
KURBB				⇓S	**S**	**04 47 26.8**	**-4.5**
	comp=Z,4.1nm,0.7s						
GUN	**Gumba**	**15.25**	**120**	*e*P	**Pn**	**04 44 44.5**	**-0.5**
	comp=Z,197nm,0.4s						
KURK	**Kurchatov**	**15.25**	**19**	⇑P	**Pn**	**04 44 42.4**	**-2.4**
	comp=Z,38nm,0.8s						
KURK				⇓S	**S**	**04 47 28.3**	**-5.5**
	comp=Z,62nm,1.1s						
KURK	**Kurchatov**	**15.25**	**19**	*e*P	**Pn**	**04 44 43.3**	**-1.5**
KURK				*e*S	**S**	**04 47 34.4**	**+0.6**
KURK				pmax	pmax		
	comp=Z,128nm,1.5s						
KURK	**Kurchatov**	**15.25**	**19**	P	**Pn**	**04 44 41.1**	**-3.7**
	comp=Z,0.3nm,0.3s,baz=210,slow=9.9,SNR=39						
KURK	**Kurchatov**	**15.25**	**19**	*e*Pn	**Pn**	**04 44 43.3**	**-1.5**
	comp=Z,128nm,1.5s						
KURK				*e*S	**S**	**04 47 34.4**	**+0.6**
JBP	**Jabalpur**	**15.41**	**147**	*i* P	**Pn**	**04 44 45.0**	**-2.0**
JBP				*e*x	x	04 44 49.8	
	comp=Z,205nm,0.8s						
JBP				*e*x	x	04 47 25.5	
JIRN	**Jiri**	**15.62**	**120**	*e*P	**Pn**	**04 44 49.6**	**+0.1**
	comp=Z,450nm,0.5s						
IZEF	**Zefreh**	**15.73**	**262**	*e*P	**Pn**	**04 44 50.7**	**0.0**
VOSK	**Vostochnaya**	**16.23**	**0**	⇑P	**P**	**04 44 55.3**	**-0.5**
	comp=Z,47nm,0.8s						
VOSK				⇓S	**S**	**04 47 49.2**	**-6.2**
	comp=Z,18nm,0.7s						
RAMN	**Ramite**	**16.35**	**121**	*e*P	**P**	**04 44 58.0**	**+0.6**
	comp=Z,614nm,0.6s						
BVA0	**Borovoye Array**	**16.54**	**359**	⇓P	**P**	**04 44 59.1**	**-0.1**
	comp=Z,9.2nm,0.8s						
BVA0				⇓S	**S**	**04 48 00.0**	**-1.6**
	comp=Z,14nm,1.1s						
BVAR	**Borovoye Array**	**16.54**	**359**	P	**P**	**04 44 59.5**	**+0.3**
	comp=Z,5.9nm,0.3s,baz=157,slow=11,SNR=127						
BVAR				S	**S**	**04 48 00.8**	**-0.9**
	comp=Z,4.1nm,0.3s,baz=165,slow=23,SNR=8.3						
BRVK	**Borovoye**	**16.57**	**359**	⇑*i*P	**P**	**04 44 59.8**	**+0.2**
BRVK				*e*S	**S**	**04 47 56.4**	**-5.9**
BRVK				pmax	pmax		
	comp=Z,184nm,1.4s						
BRVK	**Borovoye**	**16.57**	**359**	⇑*i*P	**P**	**04 44 59.8**	**+0.2**

	comp=Z,184nm,1.4s						
BRVK				*e*S	**S**	**04 47 56.4**	**-6.0**
AKTK	**Aktyubinsk**	**16.77**	**330**	P	**P**	**04 45 02.3**	**+0.5**
AKTK				S	**S**	**04 48 06.3**	**0.0**
AKTO	**Aktyubinsk**	**16.77**	**330**	⇓P	**P**	**04 45 02.0**	**+0.2**
	comp=Z,51nm,0.8s						
AKTO				⇓S	**S**	**04 48 04.5**	**-1.8**
	comp=Z,6.5nm,1.0s						
AKTO	**Aktyubinsk**	**16.77**	**330**	P	**P**	**04 45 02.3**	**+0.5**
	comp=Z,9.5nm,0.3s,baz=141,slow=10,SNR=631						
AKTO				S	**S**	**04 48 06.3**	**0.0**
	comp=Z,2.8nm,0.3s,baz=240,slow=20,SNR=4.4						
TAPN	**Taplejung**	**16.88**	**118**	*e*P	**P**	**04 45 04.7**	**+1.4**
	comp=Z,465nm,0.8s						
ODAN	**Odare**	**16.95**	**120**	*e*P	**P**	**04 45 05.6**	**+1.5**
	comp=Z,461nm,0.6s						
BOK	**Bokaro**	**18.05**	**130**	*e*PKP	**P**	**04 45 17.4**	**+1.3**
BOK				AMb	AMB	04 45 19.4	
	comp=Z,73nm,0.9s						
BOK				*e*x	x	04 48 25.5	
POO	**Poona**	**18.07**	**171**	⇓*i*P	**P**	**04 45 15.0**	**-1.4**
	comp=Z,140nm,1.0s						
LSA	**Lhasa**	**18.22**	**106**	*e*P	**P**	**04 45 20.6**	**+2.8**
LSA				pmax	pmax		
	comp=Z,69nm,0.8s						
LSA	**Lhasa**	**18.22**	**106**	*e*Pn	**Pn**	**04 45 20.6**	**+0.4**
	comp=Z,69nm,0.8s						
LSA				*e*ScP	ScP	04 52 56.0	-1.2
KAD	**Karad**	**19.32**	**171**	*e*PKP	**P**	**04 45 30.8**	**+0.9**
ZAA0	**Zalesovo Array**	**19.94**	**25**	⇑*i*P	**P**	**04 45 36.1**	**-0.1**
ZALV	**Zalesovo Beam**	**19.94**	**25**	P	**P**	**04 45 36.1**	**-0.1**
	comp=Z,20nm,0.3s,baz=220,slow=12,SNR=487						
ZALV				S	**S**	**04 49 07.5**	**-1.6**
	comp=Z,1.2nm,0.3s,baz=218,slow=16,SNR=5.5						
HYB	**Hyderabad**	**20.16**	**158**	*e*P	**P**	**04 45 40.0**	**+1.2**
HYB				*e*S	**S**	**04 49 17.0**	**+3.1**
HYB				pmax	pmax		
	comp=Z,190nm,1.0s						
HYB	**Hyderabad**	**20.16**	**158**	*i* P	**P**	**04 45 40.0**	**+1.2**
	comp=Z,190nm,1.0s						
HYB				*e*S	**S**	**04 49 12.0**	**-1.9**
HYB	**Hyderabad**	**20.16**	**158**	*e*P	**P**	**04 45 40.0**	**+1.2**
	comp=Z,190nm,1.0s						
HYB				*e*S	**S**	**04 49 17.0**	**+3.1**
NVS	**Novosibirsk**	**20.20**	**21**	⇑*i*P	**P**	**04 45 38.4**	**-0.5**
NVS				*e*		04 46 36.8	
NVS				*e*S	**S**	**04 49 10.7**	**-3.5**
NVS				pmax	pmax		
	comp=N,92nm,0.7s						
NVS				pmax	pmax		
	comp=E,30nm,0.7s						
NVS				pmax	pmax		
	comp=Z,112nm,0.7s						
NVS				smax			
	comp=N,95nm,1.3s						
NVS				smax			
	comp=E,100nm,1.2s						
UMR	**Umm Al-Rimmam**	**20.64**	**257**	*e*P	**P**	**04 45 43.8**	**-0.2**
UMR				AMb	AMB	04 45 47.0	
	comp=Z,144nm,1.1s						
BWNR	**Bhubaneshwar**	**20.72**	**137**	*e*x	x	04 45 37.2	
BWNR				*e*S	**S**	**04 49 25.2**	**+0.4**
MIB	**Mutribah**	**20.84**	**258**	*e*P	**P**	**04 45 45.0**	**-0.9**
MIB				AMb	AMB	04 45 48.4	
	comp=Z,148nm,1.0s						
GNI	**Garni**	**20.86**	**288**	P	**P**	**04 45 46.3**	**+0.3**
GNI				pmax	pmax		
	comp=Z,31nm,0.9s						
GNI	**Garni**	**20.86**	**288**	P	**P**	**04 45 46.3**	**+0.2**
	comp=Z,31nm,0.9s,baz=14,slow=2.0,SNR=37						
GNI	**Garni**	**20.86**	**288**	*e*P	**P**	**04 45 47.3**	**+1.2**
	comp=Z,76nm,1.0s						
MTA	**Mtatsminda**	**20.92**	**292**	P	**P**	**04 45 47.7**	**+1.0**
SHL	**Shillong**	**20.94**	**115**	*e*PKP	**P**	**04 45 48.5**	**+1.4**
SHL				*e*S	**S**	**04 49 30.0**	**+1.3**
RDF	**Al-Radifah**	**21.05**	**256**	*e*P	**P**	**04 45 47.3**	**-0.9**
RDF				AMb	AMB	04 45 54.1	
	comp=Z,72nm,0.4s,mb5.6						
NAY	**Al-Naaiem**	**21.15**	**257**	*e*P	**P**	**04 45 48.3**	**-1.0**
NAY				AMb	AMB	04 45 51.2	
	comp=Z,72nm,0.9s,mb5.2						
GOR	**Gori**	**21.46**	**293**	P	**P**	**04 45 54.6**	**+2.3**
SVE	**Sverdlovsk**	**21.49**	**344**	⇓*e*P	**P**	**04 45 52.6**	**+0.1**
SVE				*e*S	**S**	**04 49 55.0**	**+18**
SVE				pmax	pmax		
	comp=Z,128nm,1.0s,mb5.4						
AGT	**Agartala**	**21.53**	**120**	*e*x	**P**	**04 45 49.0**	**-4.3**
AGT				*e*x	x	04 46 16.0	
ARU	**Arti**	**21.63**	**341**	*c* *i*P	**P**	**04 45 53.9**	**0.0**
ARU				*e*		04 46 26.1	
ARU				S	**S**	**04 49 39.9**	**+0.6**
ARU				pmax	pmax		
	comp=Z,249nm,1.2s,mb5.6						
ARU	**Arti**	**21.63**	**341**	*e*P	**P**	**04 45 53.7**	**-0.3**
	comp=Z,201nm,1.1s,mb5.6						
VIS	**Vishakhapatnam**	**21.66**	**146**	*e*PKP	**P**	**04 45 55.9**	**+1.2**
ONI	**Oni**	**22.01**	**294**	P	**P**	**04 45 59.0**	**+1.2**
KIV	**Kislovodsk**	**22.75**	**298**	⇑*e*P	**P**	**04 46 05.2**	**+0.6**
KIV				pmax	pmax		
	comp=Z,61nm,3.0s						
KIV	**Kislovodsk**	**22.75**	**298**	*e*P	**P**	**04 46 04.8**	**+0.3**
	comp=Z,32nm,0.8s,mb4.9						
IMP	**Imphal**	**22.90**	**114**	*e*PKP	**P**	**04 46 08.0**	**+1.9**
IMP				*e*x	x	04 47 15.0	
GTA	**Gaotai**	**22.91**	**74**	⇑P	**P**	**04 46 08.4**	**+2.4**
GTA				pP		04 46 46.1	
GTA				PP		04 46 48.6	
GTA				sP	sP	04 47 09.8	+2.3
GTA				S	**S**	**04 50 02.4**	**+2.0**
GTA				SS		04 51 05.4	
GTA				pmax	pmax		
	comp=Z,34nm,0.9s,mb4.9						
GTA				pmax	pmax		
	comp=Z,160nm,5.0s						
MDRS	**Chennai**	**24.77**	**158**	*e*x	x	04 46 38.3	
MDRS				AMb	AMB	04 46 41.8	
	comp=Z,50nm,1.1s,mb5.1						
SOC	**Sochi**	**24.84**	**296**	*e*P	**P**	**04 46 23.1**	**-0.4**
SOC				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.0						
SOKR	**Solikamsk**	**24.85**	**343**	⇓*i*P	**P**	**04 46 25.2**	**+1.8**
SOKR				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.2						
VRHR	**Novokhopersk**	**25.50**	**314**	*e*P	**P**	**04 46 29.0**	**-0.4**
VRHR				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.2						
VRHR				pmax	pmax		
	comp=N,20nm,0.7s						
MALT	**Malatya**	**25.83**	**284**	*e*P	**P**	**04 46 34.0**	**+1.5**
MALT				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
MALT	**Malatya**	**25.83**	**284**	⇓*i*P	**P**	**04 46 33.8**	**+1.3**
MALT	**Malatya**	**25.83**	**284**	*e*P	**P**	**04 46 34.0**	**+1.5**
	comp=Z,3.6nm,0.8s,mb4.0						
MOY	**Mondy**	**26.14**	**45**	*e*P	**P**	**04 46 36.9**	**+1.8**
LZH	**Lanzhou**	**26.45**	**81**	⇑P	**P**	**04 46 39.3**	**+1.2**
LZH				PP	PP	04 47 30.3	-12
LZH				S	**S**	**04 50 59.6**	**+2.9**
LZH				pmax	pmax		
	comp=Z,29nm,1.1s,mb4.8						
LZH				pmax	pmax		
	comp=Z,110nm,4.2s						
VORD	**Divnogorie**	**26.82**	**313**	*e*P	**P**	**04 46 41.0**	**-0.1**
VORD				pmax	pmax		
	comp=Z,70nm,1.3s,mb5.1						
VORD				pmax	pmax		
	comp=N,60nm,0.6s						
VORD				pmax	pmax		
	comp=E,120nm,1.4s						
VSR	**Storozhevoye**	**26.98**	**313**	*e*P	**P**	**04 46 42.6**	**0.0**
VSR				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.2						
VSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VSR				pmax	pmax		
	comp=E,80nm,1.0s						
ZAK	**Zakamensk**	**27.03**	**49**	⇑*i*P	**P**	**04 46 44.7**	**+1.6**
ZAK				*e*	pP	04 47 25.2	+1.6
ZAK				*e*		04 47 51.2	
ZAK				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
VOR	**Voronezh**	**27.14**	**314**	P	**P**	**04 46 44.0**	**-0.1**
VOR				pmax	pmax		
	comp=Z,160nm,1.4s,mb5.5						
TLY	**Talaya**	**27.68**	**46**	*e*P	**P**	**04 46 50.9**	**+2.1**
TLY				*e*	pP	04 47 33.9	+4.4
TLY				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.5						
CD2	**Chengdu**	**27.77**	**92**	P	**P**	**04 46 51.9**	**+2.0**
CD2				pP	pP	04 47 30.4	-0.2
CD2				PP	PP	04 47 49.6	-7.2
CD2				sP	sP	04 47 52.6	-1.4
CD2				S	**S**	**04 51 18.5**	**+0.9**
CD2				sS	sS	04 52 26.8	-3.6
CD2				SS	SS	04 52 56.1	-28
CD2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.2						
CD2				pmax	pmax		
	comp=Z,80nm,4.3s						
IRK	**Irkutsk**	**28.24**	**46**	*e*P	**P**	**04 46 54.8**	**+1.0**
IRK				*e*	pP	04 47 38.5	+4.0
IRK				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.7						
ASF	**Jabal al Asfar**	**28.36**	**271**	PcP	PcP	04 50 00.8	-1.6
	comp=Z,2.1nm,0.7s,baz=273,slow=2.0,SNR=3.5						
SONM	**Songino Array**	**28.38**	**55**	P	**P**	**04 46 56.4**	**+1.4**
	comp=Z,20nm,0.8s,mb4.8,baz=258,slow=9.9,SNR=46						
ULN	**Ulaanbaatar**	**28.82**	**55**	⇑*i*P	**P**	**04 47 00.4**	**+1.4**
ULN				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.8						
ULN	**Ulaanbaatar**	**28.82**	**55**	⇑*i*P	**P**	**04 47 00.4**	**+1.5**
	comp=Z,16nm,0.6s,mb4.8						
MMAI	**Mount Meron Ar**	**29.31**	**274**	PcP	PcP	04 50 04.0	-0.8
	comp=Z,4.7nm,0.5s,baz=71,slow=6.3,SNR=18						
BRTR	**Keskin Array B**	**29.40**	**288**	P	**P**	**04 47 04.5**	**+0.3**
	comp=Z,2.5nm,0.6s,mb4.0,baz=109,slow=8.9,SNR=21						
BRTR				pP	pP	04 47 44.9	-0.3
	comp=Z,2.0nm,0.6s,baz=105,slow=9.6,SNR=2.3						
BRTR				PcP	PcP	04 50 04.8	-0.1
	comp=Z,2.5nm,0.8s,baz=146,slow=3.6,SNR=6.5						
KMI	**Kunming**	**29.44**	**104**	P	**P**	**04 47 08.6**	**+3.9**
KMI				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
MOS	**Moscow**	**29.64**	**321**	*e*P	**P**	**04 47 05.3**	**-0.8**
MOS				pmax	pmax		
	comp=Z,179nm,1.2s,mb5.6						
PRGR	**Permogore**	**29.76**	**336**	⇑*i*P	**P**	**04 47 06.3**	**-0.8**
PRGR				pmax	pmax		
	comp=Z,122nm,0.8s,mb5.6						
OBN	**Obninsk**	**29.92**	**319**	⇑*e*P	**P**	**04 47 08.8**	**+0.2**
OBN				*e**PP	pP	04 47 51.2	+1.7
OBN				*e*		04 48 18.6	
OBN				*e*S	**S**	**04 51 52.3**	**+1.6**
OBN				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.5						
OBN	**Obninsk**	**29.92**	**319**	*e*P	**P**	**04 47 08.9**	**+0.3**
	comp=Z,103nm,0.7s,mb5.6						
CHG	**Chiang Mai**	**30.25**	**118**	⇓P	**P**	**04 47 13.7**	**+1.8**
	comp=Z,13nm,0.7s,mb4.7						
CHTO	**Chiang Mai**	**30.25**	**118**	*e*P	**P**	**04 47 12.6**	**+0.7**
CHTO				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.5						
CHTO	**Chiang Mai**	**30.25**	**118**	*e*P	**P**	**04 47 12.6**	**+0.7**
	comp=Z,6.5nm,0.5s,mb4.5						
PALK	**Pallekele**	**30.42**	**161**	*e*P	**P**	**04 47 14.2**	**+0.8**
PALK				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.1						
PALK	**Pallekele**	**30.42**	**161**	P	**P**	**04 47 14.2**	**+0.8**
	comp=Z,43nm,0.9s,mb5.1,baz=330,slow=8.5,SNR=16						
PALK	**Pallekele**	**30.42**	**161**	*e*P	**P**	**04 47 14.2**	**+0.8**
	comp=Z,42nm,0.8s,mb5.1						
CMAR	**Chiang Mai Arr**	**30.49**	**119**	P	**P**	**04 47 14.7**	**+0.7**
	comp=Z,8.5nm,0.6s,mb4.6,baz=297,slow=8.0,SNR=43						
CMAR				ScP	ScP	04 53 29.6	-1.7
	comp=Z,1.3nm,0.6s,baz=288,slow=4.7,SNR=4.1						
XAN	**Xi'an**	**30.97**	**83**	P	**P**	**04 47 17.8**	**-0.3**
XAN				pP	pP	04 47 56.9	-2.3
XAN				sP	sP	04 48 19.1	-3.3
XAN				PP	PP	04 48 31.6	-0.6
XAN				S	**S**	**04 52 08.5**	**+0.9**
XAN				sS	sS	04 53 18.6	-2.1
XAN				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.2						
XAN				pmax	pmax		
	comp=Z,98nm,5.7s						
BDT	**Bhumibol Dam**	**31.34**	**120**	P	**P**	**04 47 23.0**	**+1.5**
KLMR	**Klimovskoe**	**31.47**	**331**	⇑*i*P	**P**	**04 47 22.1**	**0.0**
KLMR				pmax	pmax		
	comp=Z,110nm,1.3s,mb5.3						
HHC	**Hu-ho-hao-te**	**31.81**	**70**	*e*P	**P**	**04 47 27.4**	**+2.1**
HHC				pP	pP	04 48 06.6	+0.1
HHC				sP	sP	04 48 28.5	-1.2
HHC				PP	PP	04 48 40.8	-0.5
HHC				PcP	PcP	04 50 13.4	+2.1
HHC				sS	sS	04 53 31.4	-2.3
HHC				PcS	PcS	04 53 58.3	+2.3
HHC				SS	SS	04 54 29.0	-17
HHC				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.8						
HHC				pmax	pmax		
	comp=Z,100nm,4.8s						
HHC				LR	LR		
	comp=N,180nm,9.8s						
HHC				LR	LR		
	comp=E,220nm,10.2s						
HHC				LR	LR		
	comp=Z,130nm,12.3s						
GYA	**Guiyang**	**31.91**	**98**	P	**P**	**04 47 28.3**	**+1.9**
GYA				pP	pP	04 48 07.8	+0.3
GYA				sP	sP	04 48 29.8	-0.9
GYA				PP	PP	04 48 42.5	-0.1
GYA				PcP	PcP	04 50 13.3	+1.5
GYA				S	**S**	**04 52 23.5**	**+1.2**
GYA				sS	sS	04 53 34.4	-1.1
GYA				SS	SS	04 54 33.0	-15
GYA				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
GYA				pmax	pmax		
	comp=Z,80nm,4.1s						
GYA				LR	LR		
	comp=N,160nm,17.9s						
GYA				LR	LR		
	comp=E,160nm,16.5s						
GYA				LR	LR		
	comp=Z,380nm,17.1s						
KIS	**Kishinev**	**32.78**	**302**	*e*P	**P**	**04 47 34.0**	**+0.3**
KIS	**Kishinev**	**32.78**	**302**	*e*UNK		04 47 34.0	
AKASG	**Malin Array Be**	**32.92**	**309**	P	**P**	**04 47 34.3**	**-0.6**
	comp=Z,39nm,0.8s,mb5.0,baz=79,slow=7.5,SNR=89						
AKASG				ScP	ScP	04 53 37.1	-1.9
	comp=Z,1.3nm,0.6s,baz=77,slow=3.3,SNR=5.5						
KIEV	**Kiev**	**32.93**	**309**	*e*P	**P**	**04 47 34.1**	**-0.8**
KIEV				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.7						
KIEV	**Kiev**	**32.93**	**309**	*e*P	**P**	**04 47 34.1**	**-0.9**
	comp=Z,16nm,0.6s,mb4.7						
MLR	**Muntele Rosu**	**34.75**	**299**	⇑*i*P	**P**	**04 47 51.7**	**+1.0**
PUL	**Pulkovo**	**34.90**	**325**	*e*P	**P**	**04 47 52.7**	**+0.9**
PUL				pmax	pmax		
	comp=Z,106nm,1.0s,mb5.3						
NACGM	**Naroch**	**35.19**	**316**	*e*	**P**	**04 47 51.0**	**-3.3**
BURAR	**Bucovina Array**	**35.26**	**303**	⇑*i*P	**P**	**04 47 55.6**	**+0.6**
BURAR	**Bucovina Array**	**35.26**	**303**	⇑P	**P**	**04 47 55.6**	**+0.7**
BUR08	**Bucovina Ar. S**	**35.27**	**303**	*e*P	**P**	**04 47 55.0**	**-0.1**
BUR08				*e*PP	PP	04 49 18.9	-0.5
VOIR		**35.38**	**299**	⇓*i*P	**P**	**04 47 56.9**	**+0.8**
BOD	**Bodaibo**	**35.38**	**39**	*e*P	**P**	**04 47 56.3**	**+0.4**
BOD				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.6						
BJI	**Beijing**	**35.40**	**70**	P	**P**	**04 47 57.9**	**+1.6**
BJI				sP	sP	04 48 57.5	-3.6
BJI				PP	PP	04 49 20.1	-0.9
BJI				PcP	PcP	04 50 21.6	+0.1
BJI				S	**S**	**04 53 15.9**	**+0.1**
BJI				ScP	ScP	04 53 49.1	+1.0
BJI				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.7						
BJI				LR	LR		
	comp=N,160nm,13.0s						
BJI				LR	LR		
	comp=E,240nm,10.1s						
BJI				LR	LR		
	comp=Z,47nm,19.0s						
JOF	**Joensuu**	**35.86**	**330**	*e*p	**P**	**04 47 59.1**	**-0.8**
	comp=Z,77nm,0.6s,mb5.4						
LVV	**L'vov**	**36.13**	**307**	*e*P	**P**	**04 48 11.2**	**+8.8**
LVV				*i*	pP	04 48 48.6	+4.3
LVV				*i*		04 49 17.4	
LVV				*e*		04 49 37.8	
DRGR		**36.97**	**302**	⇓*i*P	**P**	**04 48 09.9**	**+0.4**
DRGR		**36.97**	**302**	⇓P	**P**	**04 48 09.9**	**+0.4**
GZR	**Gura Zlata**	**36.98**	**299**	⇓*i*P	**P**	**04 48 10.0**	**+0.4**
GZR	**Gura Zlata**	**36.98**	**299**	⇓P	**P**	**04 48 10.0**	**+0.3**
KWP	**Kalwaria Pacla**	**36.98**	**306**	*e*P	**P**	**04 48 10.7**	**+1.1**
TRPA	**Tarpa**	**37.06**	**304**	⇑*i*P	**P**	**04 48 11.0**	**+0.7**
SUW	**Suwalki**	**37.09**	**314**	*e*P	**P**	**04 48 10.5**	**0.0**
SUW	**Suwalki**	**37.09**	**314**	*e*P	**P**	**04 48 10.5**	**0.0**
UZH	**Uzhgorod**	**37.23**	**305**	*e*P	**P**	**04 48 11.2**	**-0.5**
UZH				*i*	pP	04 48 48.6	-5.1
UZH				*i*		04 49 17.4	
UZH				*i*		04 49 50.4	
KOLS	**Kolonicke sedl**	**37.25**	**305**	*e*P	**P**	**04 48 10.8**	**-1.0**
HIA	**Hailar**	**37.33**	**54**	*e*P	**P**	**04 48 13.7**	**+1.2**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HIA	**Hailar**	**37.33**	**54**	*e*P	**P**	**04 48 13.7**	**+1.2**
	comp=Z,6.1nm,0.6s,mb4.3						
LVZ	**Lovozero**	**37.45**	**338**	⇑*e*P	**P**	**04 48 14.4**	**+1.1**
LVZ				pmax	pmax		
	comp=Z,77nm,1.3s,mb5.1						
KAF	**Kangasniemi**	**37.61**	**327**	*e*P	**P**	**04 48 13.9**	**-0.8**
KAF				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.1						
KAF	**Kangasniemi**	**37.61**	**327**	*e*p	**P**	**04 48 13.9**	**-0.8**
	comp=Z,61nm,0.9s,mb5.1,baz=112,slow=8.6						
BZS	**Buzias**	**37.78**	**300**	⇓*i*P	**P**	**04 48 16.7**	**+0.3**
BZS	**Buzias**	**37.78**	**300**	⇓P	**P**	**04 48 16.7**	**+0.4**
CRVS	**Cervenica-Dubn**	**37.78**	**305**	*e*P	**P**	**04 48 15.8**	**-0.5**
STHS	**Stebnicka Huta**	**37.93**	**306**	*e*P	**P**	**04 48 16.3**	**-1.2**
STHS				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.2						
STHS	**Stebnicka Huta**	**37.93**	**306**	*e*P	**P**	**04 48 16.3**	**-1.2**
	comp=Z,4.9nm,0.6s,mb4.2						
KECS	**Kecovo**	**38.43**	**304**	*e*P	**P**	**04 48 22.2**	**+0.5**
KECS				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
KECS	**Kecovo**	**38.43**	**304**	*e*P	**P**	**04 48 22.2**	**+0.5**
KECS				*e*		05 21 34.0	
KECS	**Kecovo**	**38.43**	**304**	*e*P	**P**	**04 48 22.2**	**+0.5**
	comp=Z,3.4nm,0.6s,mb4.0						
NIE	**Niedzica**	**38.54**	**306**	*e*P	**P**	**04 48 24.3**	**+1.7**
PSZ	**Piszkesteto**	**38.84**	**303**	*e*P	**P**	**04 48 25.7**	**+0.5**
PSZ				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.2						
PSZ	**Piszkesteto**	**38.84**	**303**	⇑*i*P	**P**	**04 48 26.2**	**+1.0**
PSZ	**Piszkesteto**	**38.84**	**303**	*e*P	**P**	**04 48 25.7**	**+0.5**
	comp=Z,7.2nm,0.9s,mb4.2						
OJC	**Ojcow**	**38.88**	**307**	*e*P	**P**	**04 48 26.0**	**+0.6**
NJ2	**Nanjing**	**39.52**	**82**	*e*P	**P**	**04 48 32.9**	**+1.9**
NJ2				pmax	pmax		
	comp=Z,30nm,0.8s,mb4.8						
VYHS	**Vyhne**	**39.53**	**304**	*e*P	**P**	**04 48 29.2**	**-1.6**
PKSM	**Moragy**	**39.80**	**301**	⇑*i*P	**P**	**04 48 33.2**	**+0.1**
PKSM	**Moragy**	**39.80**	**301**	⇑P	**P**	**04 48 33.2**	**0.0**
KOLL	**Kolacno**	**39.81**	**305**	*e*P	**P**	**04 48 33.8**	**+0.6**
OKC	**Ostrava-Krasne**	**39.94**	**307**	*e*P	**P**	**04 48 34.0**	**-0.2**
OKC				*e*PP	PP	04 50 06.4	-3.9
MORC	**Moravsky Berou**	**40.34**	**306**	*e*P	**P**	**04 48 37.8**	**+0.4**
MORC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
MORC	**Moravsky Berou**	**40.34**	**306**	⇓*i*P	**P**	**04 48 38.4**	**+1.0**
MORC	**Moravsky Berou**	**40.34**	**306**	*e*P	**P**	**04 48 37.8**	**+0.4**
	comp=Z,9.4nm,0.7s,mb4.3						
KEV	**Kevo**	**40.80**	**338**	*e*P	**P**	**04 48 39.6**	**-1.3**
KEV				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.0						
KEV	**Kevo**	**40.80**	**338**	*e*p	**P**	**04 48 39.6**	**-1.3**
	comp=Z,50nm,0.7s,mb5.0						
VRAC	**Vranov**	**40.97**	**306**	⇑*i*P	**P**	**04 48 43.4**	**+0.8**
VRAC	**Vranov**	**40.97**	**306**	⇑P	**P**	**04 48 43.4**	**+0.8**
DPC	**Dobruska-Polom**	**41.10**	**307**	*e*P	**P**	**04 48 44.6**	**+0.9**
KSP	**Ksiaz**	**41.11**	**308**	*e*P	**P**	**04 48 44.2**	**+0.5**
ARCES	**ARCESS Array B**	**41.14**	**338**	P	**P**	**04 48 44.5**	**+0.8**
	comp=Z,76nm,0.7s,mb5.2,baz=108,slow=8.2,SNR=193						
ARE0	**ARCESS Array S**	**41.14**	**338**	*e*P	**P**	**04 48 44.3**	**+0.6**
UPC	**Upice**	**41.30**	**308**	*e*P	**P**	**04 48 46.2**	**+0.9**
KULM	**Kulim**	**41.30**	**132**	*e*P	**P**	**04 48 46.3**	**+0.6**
	comp=Z,14nm,0.8s,mb4.4						
CONA	**Conrad Observa**	**41.55**	**304**	⇓*i*P	**P**	**04 48 48.0**	**+0.6**
	comp=Z,16nm,0.8s,mb4.5,SNR=16						
CSNA	**Conrad Observa**	**41.55**	**304**	⇓*i*P	**P**	**04 48 48.0**	**+0.6**
	comp=Z,13nm,0.7s,mb4.5						
KTK1	**Kautokeino**	**41.61**	**336**	*e*P	**P**	**04 48 48.0**	**+0.5**
CN2	**Changchun**	**41.65**	**62**	*e*P	**P**	**04 48 49.0**	**+0.8**
CN2				*e*pP	pP	04 49 30.3	-0.8
CN2				*e*S	**S**	**04 54 50.0**	**+0.7**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
GROS	**Grobnik**	**41.94**	**302**	*i* P	**P**	**04 48 50.8**	**+0.2**
PERS	**Pernice**	**42.19**	**302**	*i* P	**P**	**04 48 52.9**	**+0.3**
SOKA	**Soboth**	**42.24**	**302**	⇑*i*P	**P**	**04 48 53.4**	**+0.4**
	comp=Z,18nm,0.8s,mb4.6						
BOJS	**Bojanci**	**42.24**	**300**	*i* P	**P**	**04 48 53.3**	**+0.3**
PRU	**Pruhonice**	**42.27**	**307**	*e*P	**P**	**04 48 53.6**	**+0.5**
PRU				*e*PP	PP	04 50 36.0	+0.8
TIP	**Timpagrande**	**42.35**	**291**	*e*P	**P**	**04 48 53.0**	**-1.0**
	comp=Z,10nm,0.9s,mb4.3						
BRG	**Berggiesshubel**	**42.60**	**308**	*e*P	**P**	**04 48 56.2**	**+0.4**
BRG				*e*		04 50 03.3	
BRG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.1						
BRG				pmax	pmax		
	comp=Z,17nm,1.7s,mb4.2						
BRG	**Berggiesshubel**	**42.60**	**308**	*e*P	**P**	**04 48 56.0**	**+0.2**
	comp=Z,17nm,0.8s,mb4.5						
BRG	**Berggiesshubel**	**42.60**	**308**	*e*P	**P**	**04 48 56.2**	**+0.4**
	comp=Z,10.0nm,0.7s,mb4.3						
BRG				*e*		04 50 03.3	
	comp=Z,28nm,1.7s						
MOA	**Molln**	**42.63**	**304**	⇑*i*P	**P**	**04 48 56.3**	**+0.2**
	comp=Z,13nm,0.8s,mb4.4						
LJU	**Ljubljana**	**42.67**	**301**	*e*P	**P**	**04 48 57.0**	**+0.5**
CUC	**Castrocucco**	**42.86**	**292**	*e*P	**P**	**04 48 58.1**	**0.0**
	comp=Z,30nm,0.8s,mb4.8						
GEC2	**GERESS Array S**	**42.90**	**305**	*e*P	**P**	**04 48 57.7**	**-0.6**
GEC2				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.9						
GEC2	**GERESS Array S**	**42.90**	**305**	*e*P	**P**	**04 48 57.7**	**-0.6**
	comp=Z,4.0nm,0.9s,mb3.9						
GERES	**GERESS Array B**	**42.90**	**305**	P	**P**	**04 48 58.5**	**+0.2**
	comp=Z,2.1nm,0.6s,mb3.7,baz=80,slow=7.3,SNR=9.5						
GERES				PP	PP	04 50 34.9	-7.1
	comp=Z,1.7nm,0.8s,baz=96,slow=5.4,SNR=4.6						
GERES				ScP	ScP	04 54 15.2	-1.7
	comp=Z,1.2nm,0.8s,baz=110,slow=12,SNR=4.2						
KHC	**Kasperske Hory**	**42.95**	**306**	*e*P	**P**	**04 48 58.7**	**0.0**
KHC				*e*x	x	04 49 09.0	
KHC				*e*x	x	04 49 20.0	
KHC				*e*PP	PP	04 50 40.9	-1.7
FG5	**Orsara di Pugl**	**42.98**	**294**	P	**P**	**04 48 59.7**	**+0.7**
FG5				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.7						
FG5	**Orsara di Pugl**	**42.98**	**294**	P	**P**	**04 48 59.7**	**+0.7**
	comp=Z,23nm,0.8s,mb4.7						
VOY	**Vojsko**	**43.11**	**301**	*e*P	**P**	**04 49 00.2**	**+0.3**
CLL	**Collm**	**43.16**	**309**	*e*P	**P**	**04 48 59.3**	**-1.0**
	comp=Z,12nm,0.9s,mb4.3						
CLL	**Collm**	**43.16**	**309**	*e*P	**P**	**04 49 00.0**	**-0.3**
CADS	**Cadrg**	**43.19**	**301**	*i* P	**P**	**04 49 00.4**	**-0.2**
MYKA	**Terra Mystica**	**43.20**	**302**	⇑*i*P	**P**	**04 49 01.1**	**+0.5**
	comp=Z,9.7nm,0.9s,mb4.2						
TRO	**Tromso**	**43.26**	**336**	*e*P	**P**	**04 49 01.4**	**+0.6**
PTCC	**Patocco-Chiusa**	**43.42**	**302**	P	**P**	**04 49 02.8**	**+0.3**
TANN	**Tannenbergstha**	**43.57**	**308**	*e*P	**P**	**04 49 03.9**	**+0.3**
	comp=Z,21nm,1.6s,mb4.2						
NKC	**Novy Kostel**	**43.59**	**307**	*e*P	**P**	**04 49 05.3**	**+1.5**
RJOB	**Jochberg**	**43.62**	**304**	*e*P	**P**	**04 49 04.1**	**+0.1**
	comp=Z,10.0nm,0.8s,mb4.2						
ROTZ	**Rotzenmuhle**	**43.79**	**307**	*e*P	**P**	**04 49 06.9**	**+1.6**
	comp=Z,31nm,1.7s,mb4.4						
MOR8	**Moi Rana**	**43.80**	**331**	*e*P	**P**	**04 49 04.8**	**-0.4**
MOR8				AMB	AMB	04 49 06.2	
	comp=Z,215nm,0.9s,mb5.5						
MANZ	**Manzenberg**	**43.83**	**307**	*e*P	**P**	**04 49 06.6**	**+0.9**
	comp=Z,9.0nm,1.0s,mb4.0						
ABTA	**Abfaltersbach**	**43.95**	**302**	⇓*i*P	**P**	**04 49 05.4**	**-1.3**
	comp=Z,6.0nm,0.7s,mb4.1						
YAK	**Yakutsk**	**44.00**	**35**	*e*P	**P**	**04 49 06.7**	**-0.1**
YAK				*e**PP	pP	04 49 51.1	+1.0
YAK				*e*		04 50 46.9	
YAK				*e*		04 50 50.2	
YAK				*e*S	**S**	**04 55 23.9**	**+0.9**
YAK				*e*		04 58 39.0	
YAK				pmax	pmax		

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      comp=Z,36nm,0.7s,mb4.8
YAK                              pmax     pmax
      comp=N,5.0nm,1.1s
YAK                              pmax     pmax
      comp=E,8.0nm,1.2s
YAK                              pmax     pmax
      comp=Z,160nm,4.0s
YAK                              pmax     pmax
      comp=N,33nm,2.8s
YAK                              pmax     pmax
      comp=E,39nm,1.9s
YAK                              smax
      comp=N,38nm,2.5s
YAK                              smax
      comp=E,16nm,1.6s
YAK   Yakutsk          44.00  35 eP       P        04 49 07.0 +0.2
      comp=E,79nm,0.7s,mb5.2
MOX   Moxa             44.09 308 eP       P        04 49 08.3 +0.6
      comp=E,35nm,1.7s,mb4.4
MOX   Moxa             44.09 308 eP       P        04 49 08.3 +0.6
MOX                              pmax     pmax
      comp=Z,35nm,1.7s,mb4.4
PTQR  Pietraquaria     44.18 296 P        P        04 49 09.8 +1.2
      comp=Z,17nm,0.7s,mb4.5
NRCA  Norcia           44.22 297 P        P        04 49 09.0 +0.1
      comp=Z,6.0nm,0.8s,mb4.0
SNTG  Esanatoglia      44.26 297 P        P        04 49 09.5 +0.3
      comp=Z,18nm,0.8s,mb4.5
FSSB  Fossombrone      44.29 298 P        P        04 49 09.7 +0.3
      comp=Z,9.5nm,0.6s,mb4.3
NB2   NORSAR Subarra   44.36 323 P        P        04 49 09.4 -0.3
      comp=Z,83nm,0.8s,mb5.1,baz=95,slow=7.9
NOA   NORSAR Array B   44.36 323 P        P        04 49 09.2 -0.5
      comp=Z,55nm,0.7s,mb5.0,baz=96,slow=7.8,SNR=134
NOA                              sP       sP       04 50 14.8 -0.9
      comp=Z,7.0nm,0.7s,baz=96,slow=8.1,SNR=2.6
NOA                              PP       PP       04 50 53.0 -4.2
      comp=Z,5.4nm,0.9s,baz=94,slow=10,SNR=3.6
STOK  Stokkvaagen      44.40 331 eP       P        04 49 10.9 +0.9
GRA1  Grafenberg Arr   44.43 307 eP       P        04 49 11.3 +0.9
      comp=Z,22nm,0.9s,mb4.5
GRF   Grafenberg Arr   44.43 307 eP       P        04 49 11.3 +0.9
GRF                              pmax     pmax
      comp=Z,22nm,0.9s,mb4.5
GRF   Grafenberg Arr   44.43 307 eP       P        04 49 11.3 +0.9
GRF                              pmax     pmax
      comp=Z,22nm,0.9s,mb4.5
GRF   Grafenberg Arr   44.43 307 eP       P        04 49 11.3 +0.9
      comp=Z,22nm,0.9s,mb4.5
NSS   Namsos           44.48 328 eP       P        04 49 10.4 -0.2
OSL   Oslo             44.52 321 eP       P        04 49 11.0 +0.1
CTI   Castel Tesino    44.65 302 P        P        04 49 06.0 -6.2
BSEG  Bad Segeberg     44.67 313 eP       P        04 49 12.5 +0.3
      comp=Z,152nm,2.1s,mb5.0
BADI  Badiali          44.70 298 P        P        04 49 14.3 +1.6
CLZ   Clausthal        44.77 310 eP       P        04 49 12.7 -0.3
CLZ                              pmax     pmax
      comp=Z,21nm,0.9s,mb4.5
CLZ   Clausthal        44.77 310 eP       P        04 49 12.7 -0.3
      comp=Z,21nm,0.9s,mb4.5
MOTA  Moosalm          44.81 303⇑iP       P        04 49 11.7 -1.8
      comp=Z,12nm,0.7s,mb4.3
NRDL  Niedersach Rie   44.88 311 eP       P        04 49 13.9  0.0
      comp=Z,33nm,1.2s,mb4.5
KSRS  Korea Array      44.92  71 P        P        04 49 14.6 +0.1
KSRS                                               04 50 51.6
KSRS                             pmax     pmax
      comp=Z,5.0nm,0.9s,mb3.8
KSRS                             pmax     pmax
      comp=Z,4.0nm,0.8s,mb3.8
KSRS  Korea Array      44.92  71 P        P        04 49 14.6  0.0
      comp=Z,4.7nm,0.9s,mb3.8,baz=274,slow=8.0,SNR=5.7
KSRS                             PcP      PcP      04 50 51.5 -0.7
      comp=Z,4.4nm,0.8s,baz=292,slow=3.5,SNR=5.8
KONO  Kongsberg        45.07 321 eP       P        04 49 15.5 +0.2
UBBA  Unterbreizbach   45.09 308 eP       P        04 49 16.3 +0.7
      comp=Z,126nm,3.0s
VMG   Vicchio          45.11 299 P        P        04 49 17.2 +1.4
      comp=Z,36nm,0.7s,mb4.8
FETA  Feichten         45.12 303 i P      P        04 49 15.2 -0.7
      comp=Z,8.6nm,0.8s,mb4.1,SNR=11
KLR   Kul'dur          45.18  54 eP       P        04 49 12.9 -3.5
DAVA  Damuels          45.64 304⇓iP       P        04 49 19.6 -0.4
      comp=Z,30nm,0.7s,mb4.8,SNR=14
TIXI  Tiksi            45.80  22⇑iP       P        04 49 21.4 +0.5
TIXI                             pmax     pmax
      comp=Z,74nm,0.8s,mb5.1
TIXI  Tiksi            45.80  22⇑iP       P        04 49 21.4 +0.5
      comp=Z,74nm,0.8s,mb5.1
STU   Stuttgart        45.87 306 eP       P        04 49 22.3 +0.6
      comp=Z,9.0nm,0.7s,mb4.2
STU   Stuttgart        45.87 306 eP       P        04 49 22.0 +0.3
TUE   Stuetta          46.15 303 eP       P        04 49 23.3 -0.6
      comp=Z,6.7nm,0.6s,mb4.2
IBBN  Ibbenburen       46.33 311 eP       P        04 49 26.1 +0.8
      comp=Z,29nm,0.7s,mb4.7
BFO   Black Forest     46.50 305 eP       P        04 49 26.0 -0.7
BFO                              pmax     pmax
      comp=Z,9.0nm,1.4s,mb3.9
BFO   Black Forest     46.50 305 eP       P        04 49 26.0 -0.7
      comp=Z,9.0nm,1.4s,mb3.9
VAI   Varese           46.66 302 P        P        04 49 27.0 -0.9
VAI                              pmax     pmax
      comp=Z,14nm,0.6s,mb4.5
VAI   Varese           46.66 302 P        P        04 49 27.0 -0.9
      comp=Z,14nm,0.6s,mb4.5
BUG   Bochum--Univer   46.73 310 eP       P        04 49 28.6 +0.2
      comp=Z,18nm,1.3s,mb4.2
CDF   Champ du Feu     47.18 306⇑iP       P        04 49 31.9  0.0
      comp=Z,14nm,0.9s,mb4.0
CDF   Champ du Feu     47.18 306⇑iP       P        04 49 31.9  0.0
CDF                              pmax     pmax
      comp=Z,7.0nm,0.9s,mb4.0
CDF   Champ du Feu     47.18 306⇑iP       P        04 49 31.9  0.0
      comp=Z,6.8nm,0.9s,mb4.0
PGF   Pioggiola        47.24 297⇑iP       P        04 49 31.5 -1.0
      comp=Z,22nm,0.8s,mb4.3
PGF   Pioggiola        47.24 297⇑iP       P        04 49 31.5 -1.0
PGF                              pmax     pmax
      comp=Z,11nm,0.8s,mb4.2
PGF   Pioggiola        47.24 297⇑iP       P        04 49 31.5 -1.0
      comp=Z,11nm,0.8s,mb4.2
HABR  Khabarovsk       47.45  54 eP       P        04 49 32.0 -2.0
HABR                             e*PP     pP       04 50 15.5 -2.4
HABR                             e*SP     sP       04 50 38.3 -2.2
HABR                             e                 04 50 59.9
HABR                             e                 04 51 26.3
HABR                             ePPP              04 52 18.8
HABR                             eS       S        04 56 11.1 -1.7
HABR                             e                 04 59 05.3
HABR                             MLR      MLR
      comp=Z,128nm,15.0s
HINF  Hinteralfeld     47.57 305⇑iP       P        04 49 34.4 -0.5
      comp=Z,15nm,0.8s,mb4.1
HINF  Hinteralfeld     47.57 305⇑iP       P        04 49 34.4 -0.5
HINF                             pmax     pmax
      comp=Z,7.0nm,0.8s,mb4.0
HINF  Hinteralfeld     47.57 305⇑iP       P        04 49 34.4 -0.5
      comp=Z,7.4nm,0.8s,mb4.1
MEM   Membach          47.64 309 P        P        04 49 35.9 +0.5
WLF   Walferdange      47.70 307 P        P        04 49 36.5 +0.6
WLF   Walferdange      47.70 307 eP       P        04 49 36.2 +0.3
WLF                              pmax     pmax
      comp=Z,10.0nm,0.7s,mb4.2
WLF   Walferdange      47.70 307 eP       P        04 49 36.2 +0.3
      comp=Z,17nm,1.0s,mb4.3
WLF   Walferdange      47.70 307 eP       P        04 49 36.2 +0.3
      comp=Z,9.7nm,0.7s,mb4.2
HAU   Haudompre        47.87 305⇑iP       P        04 49 36.8 -0.4
      comp=Z,16nm,0.7s,mb4.1
HAU   Haudompre        47.87 305⇑iP       P        04 49 36.8 -0.4
HAU                              pmax     pmax
      comp=Z,8.0nm,0.7s,mb4.2
HAU   Haudompre        47.87 305⇑iP       P        04 49 36.8 -0.4
      comp=Z,8.2nm,0.7s,mb4.2
SBF   Sospel           48.02 299⇑iP       P        04 49 38.1 -0.4
      comp=Z,34nm,0.9s,mb4.4
SBF   Sospel           48.02 299⇑iP       P        04 49 38.1 -0.4
SBF                              pmax     pmax
      comp=Z,17nm,0.9s,mb4.4
SBF   Sospel           48.02 299⇑iP       P        04 49 38.1 -0.4
      comp=Z,17nm,0.9s,mb4.4
LPG   La Plagne        48.12 302 eP       P        04 49 39.3 +0.1
      comp=Z,32nm,0.7s,mb4.5
LPG   La Plagne        48.12 302 eP       P        04 49 39.3 +0.1
LPG                              pmax     pmax
      comp=Z,16nm,0.7s,mb4.5
LPG   La Plagne        48.12 302 eP       P        04 49 39.3 +0.1
      comp=Z,16nm,0.7s,mb4.5
LPL   La Plagne        48.12 302⇑iP       P        04 49 39.3 +0.1
      comp=Z,16nm,0.7s,mb4.2
LPL                              epP      pP       04 50 24.7 +1.4
LPL   La Plagne        48.12 302⇑iP       P        04 49 39.3 +0.1
LPL                              e*PP     pP       04 50 24.7 +1.4
LPL                              pmax     pmax
      comp=Z,8.0nm,0.7s,mb4.2
LPL   La Plagne        48.12 302⇑iP       P        04 49 39.3 +0.1
      comp=Z,8.1nm,0.7s,mb4.2
LPL                              epP      pP       04 50 24.7 +1.4
BNI   Bardonecchia     48.27 301 eP       P        04 49 40.4 +0.1
BNI                              pmax     pmax
      comp=Z,207nm,3.0s
BNI   Bardonecchia     48.27 301 eP       P        04 49 40.4  0.0
      comp=Z,207nm,3.0s
MBDF  Montbardon       48.28 301⇑iP       P        04 49 39.7 -0.7
      comp=Z,12nm,0.6s,mb4.1
MBDF  Montbardon       48.28 301⇑iP       P        04 49 39.7 -0.7
MBDF                             pmax     pmax
      comp=Z,6.0nm,0.6s,mb4.1
MBDF  Montbardon       48.28 301⇑iP       P        04 49 39.7 -0.7
      comp=Z,6.0nm,0.6s,mb4.1
CABF  La Chapelle      48.32 303⇑iP       P        04 49 41.6 +0.9
      comp=Z,24nm,0.7s,mb4.3
CABF  La Chapelle      48.32 303⇑iP       P        04 49 41.6 +0.9
CABF                             pmax     pmax
      comp=Z,12nm,0.7s,mb4.3
CABF  La Chapelle      48.32 303⇑iP       P        04 49 41.6 +0.9
      comp=Z,12nm,0.7s,mb4.3
GIVF  Givet            48.47 308 eP       P        04 49 42.6 +0.8
KBS   Kingsbay         48.61 347⇑eP       P        04 49 43.3 +0.8
KBS                              pmax     pmax
      comp=Z,81nm,1.3s,mb4.9
KBS   Kingsbay         48.61 347 eP       P        04 49 42.1 -0.4
      comp=Z,56nm,0.8s,mb4.9
MEZF  Maizieres J'vi   48.62 306⇑iP       P        04 49 43.1 +0.1
      comp=Z,25nm,0.9s,mb4.2
MEZF  Maizieres J'vi   48.62 306⇑iP       P        04 49 43.1 +0.1
      comp=Z,25nm,0.9s,mb4.5
FRF   La Foret Royal   48.65 299 eP       P        04 49 42.5 -0.8
      comp=Z,8.7nm,0.7s,mb3.9
FRF   La Foret Royal   48.65 299 eP       P        04 49 42.5 -0.8
FRF                              pmax     pmax
      comp=Z,4.0nm,0.7s,mb3.9
FRF   La Foret Royal   48.65 299 eP       P        04 49 42.5 -0.8
      comp=Z,4.3nm,0.7s,mb3.9
LMR   La Mourre        48.81 299 eP       P        04 49 43.5 -1.0
ORIF  Oris-en-Rattie   48.85 301 eP       P        04 49 44.1 -0.7
      comp=Z,9.2nm,0.8s,mb3.8
ORIF  Oris-en-Rattie   48.85 301 eP       P        04 49 44.1 -0.7
ORIF                             pmax     pmax
      comp=Z,5.0nm,0.8s,mb3.9
ORIF  Oris-en-Rattie   48.85 301 eP       P        04 49 44.1 -0.7
      comp=Z,4.6nm,0.8s,mb3.9
BAIF  Baives           48.87 308 eP       P        04 49 45.2 +0.4
      comp=Z,14nm,0.8s,mb4.1
BAIF  Baives           48.87 308 eP       P        04 49 45.2 +0.4
BAIF                             pmax     pmax
      comp=Z,7.0nm,0.8s,mb4.0
BAIF  Baives           48.87 308 eP       P        04 49 45.2 +0.4
      comp=Z,7.2nm,0.8s,mb4.0
KEST  Kesra            49.00 288 P        P        04 49 46.5 +0.5
      comp=Z,2.8nm,0.7s,mb3.7,baz=229,slow=1.5,SNR=19
SMRF  Simiane la Rot   49.30 300 eP       P        04 49 47.9 -0.3
LOR   Lormes           49.67 305 eP       P        04 49 50.7 -0.2
      comp=Z,11nm,1.0s,mb3.9
LOR   Lormes           49.67 305 eP       P        04 49 50.7 -0.2
LOR                              pmax     pmax
      comp=Z,6.0nm,1.0s,mb3.9
LOR   Lormes           49.67 305 eP       P        04 49 50.7 -0.2
      comp=Z,5.6nm,1.0s,mb3.9
SSB   Saint Sauveur    49.68 302 eP       P        04 49 50.0 -1.0
SSB                              pmax     pmax
      comp=Z,6.0nm,0.7s,mb4.0
SSB   Saint Sauveur    49.68 302 eP       P        04 49 50.0 -1.1
      comp=Z,6.4nm,0.7s,mb4.1
VIVF  Saint-Julien-l   49.70 301⇑iP       P        04 49 50.9 -0.3
      comp=Z,17nm,0.8s,mb4.2
VIVF  Saint-Julien-l   49.70 301⇑iP       P        04 49 50.9 -0.3
VIVF                             pmax     pmax
      comp=Z,9.0nm,0.8s,mb4.2
VIVF  Saint-Julien-l   49.70 301⇑iP       P        04 49 50.9 -0.3
      comp=Z,8.6nm,0.8s,mb4.1
SMF   Signal de Mont   49.82 304⇑iP       P        04 49 51.6 -0.5
      comp=Z,28nm,0.7s,mb4.4
SMF                              epP      pP       04 50 37.0 +0.6
SMF   Signal de Mont   49.82 304⇑iP       P        04 49 51.6 -0.5
SMF                              e*PP     pP       04 50 37.0 +0.6
SMF                              pmax     pmax
      comp=Z,14nm,0.7s,mb4.4
SMF   Signal de Mont   49.82 304⇑iP       P        04 49 51.6 -0.5
      comp=Z,14nm,0.7s,mb4.4
SMF                              epP      pP       04 50 37.0 +0.6
SSF   Saint Saulge     49.95 304⇑iP       P        04 49 52.4 -0.6
      comp=Z,8.9nm,0.8s,mb3.8
SSF   Saint Saulge     49.95 304⇑iP       P        04 49 52.4 -0.6
SSF                              pmax     pmax
      comp=Z,4.0nm,0.8s,mb3.8
SSF   Saint Saulge     49.95 304⇑iP       P        04 49 52.4 -0.6
      comp=Z,4.4nm,0.8s,mb3.8
AVF   Avril sur Loir   50.12 304⇑iP       P        04 49 53.8 -0.5
      comp=Z,32nm,0.8s,mb4.4
AVF   Avril sur Loir   50.12 304⇑iP       P        04 49 53.8 -0.5
AVF                              pmax     pmax
      comp=Z,16nm,0.8s,mb4.4
AVF   Avril sur Loir   50.12 304⇑iP       P        04 49 53.8 -0.5
      comp=Z,16nm,0.8s,mb4.4
LASF  Ste Croix        50.47 301⇑iP       P        04 49 56.9 -0.1
      comp=Z,19nm,1.0s,mb4.1
HYF   Humbligny        50.47 305 eP       P        04 49 56.9 -0.1
BGF   Bois d'Agland    50.51 304 eP       P        04 49 56.7 -0.6
      comp=Z,12nm,0.8s,mb4.1
BGF   Bois d'Agland    50.51 304 eP       P        04 49 56.7 -0.6
BGF                              pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.1
BGF   Bois d'Agland    50.51 304 eP       P        04 49 56.7 -0.6
      comp=Z,5.8nm,0.8s,mb4.1
TCF   Toulx Ste Croi   51.00 304⇑iP       P        04 50 00.8 -0.1
      comp=Z,22nm,1.0s,mb4.3
TCF                              epP      pP       04 50 46.4 +0.9
TCF   Toulx Ste Croi   51.00 304⇑iP       P        04 50 00.8 -0.1
TCF                              e*PP     pP       04 50 46.4 +0.9
TCF                              pmax     pmax
      comp=Z,11nm,1.0s,mb4.2
TCF   Toulx Ste Croi   51.00 304⇑iP       P        04 50 00.8 -0.1
      comp=Z,11nm,1.0s,mb4.2
TCF                              epP      pP       04 50 46.4 +0.9
CAF   Calviac          51.47 302 eP       P        04 50 04.3 -0.1
      comp=Z,13nm,1.0s,mb4.0
CAF   Calviac          51.47 302 eP       P        04 50 04.3 -0.1
CAF                              pmax     pmax
      comp=Z,7.0nm,1.0s,mb4.0
CAF   Calviac          51.47 302 eP       P        04 50 04.3 -0.1
      comp=Z,6.7nm,1.0s,mb4.0
RJF   Les Rejaudoux    51.73 303 eP       P        04 50 06.5 +0.1
      comp=Z,11nm,0.9s,mb4.0
RJF   Les Rejaudoux    51.73 303 eP       P        04 50 06.5 +0.1
RJF                              pmax     pmax
      comp=Z,6.0nm,0.9s,mb4.0
RJF   Les Rejaudoux    51.73 303 eP       P        04 50 06.5 +0.1
      comp=Z,5.7nm,0.9s,mb4.0
MTLF  Montolieu        51.81 300⇑iP       P        04 50 06.7 -0.3
      comp=Z,7.0nm,0.7s,mb3.9
MTLF  Montolieu        51.81 300⇑iP       P        04 50 06.7 -0.3
MTLF                             pmax     pmax
      comp=Z,4.0nm,0.7s,mb4.0
MTLF  Montolieu        51.81 300⇑iP       P        04 50 06.7 -0.3
      comp=Z,3.5nm,0.7s,mb3.9
LDF   La Druitiere     51.95 307 eP       P        04 50 07.2 -0.7
FLN   La Foliniere     52.14 307 eP       P        04 50 09.2 -0.1
      comp=Z,27nm,0.8s,mb4.4
FLN   La Foliniere     52.14 307 eP       P        04 50 09.2 -0.1
FLN                              pmax     pmax
      comp=Z,14nm,0.8s,mb4.4
FLN   La Foliniere     52.14 307 eP       P        04 50 09.2 -0.1
      comp=Z,14nm,0.8s,mb4.4
LFF   La Frestale      52.37 302 eP       P        04 50 10.8 -0.2
      comp=Z,18nm,0.8s,mb4.2
LFF   La Frestale      52.37 302 eP       P        04 50 10.8 -0.2
LFF                              pmax     pmax
      comp=Z,9.0nm,0.8s,mb4.2
LFF   La Frestale      52.37 302 eP       P        04 50 10.8 -0.2
      comp=Z,8.9nm,0.8s,mb4.2
MBAR  Mbarara          52.47 234 eP       P        04 50 11.3 -0.8
GRR   Gorron           52.48 307 eP       P        04 50 10.9 -0.9
      comp=Z,12nm,0.7s,mb4.2
GRR   Gorron           52.48 307 eP       P        04 50 10.9 -0.9
GRR                              pmax     pmax
      comp=Z,6.0nm,0.6s,mb4.2
GRR   Gorron           52.48 307 eP       P        04 50 10.9 -0.9
      comp=Z,5.9nm,0.6s,mb4.2
MFF   Saint Martin d   52.49 305 eP       P        04 50 11.3 -0.6
      comp=Z,12nm,0.8s,mb4.1
MFF   Saint Martin d   52.49 305 eP       P        04 50 11.3 -0.6
MFF                              pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.1
MFF   Saint Martin d   52.49 305 eP       P        04 50 11.3 -0.6
      comp=Z,6.2nm,0.8s,mb4.1
YSS   Yuzh-Sakhalins   52.87  55 eP       P        04 50 14.8 +0.2
YSS                              pmax     pmax
      comp=Z,13nm,1.0s,mb4.3
MJAR  Matsushiro Arr   53.00  68 P        P        04 50 16.2 +0.4
      comp=Z,3.4nm,0.9s,mb3.8,baz=294,slow=12,SNR=4.3
MJAR                             PcP      PcP      04 51 20.6 -1.1
      comp=Z,1.6nm,0.7s,baz=262,slow=3.3,SNR=4.1
EPF   Esparros         53.22 300 eP       P        04 50 15.9 -1.4
      comp=Z,3.6nm,0.6s,mb3.7
EPF   Esparros         53.22 300 eP       P        04 50 15.9 -1.4
EPF                              pmax     pmax
      comp=Z,2.0nm,0.6s,mb3.7
EPF   Esparros         53.22 300 eP       P        04 50 15.9 -1.4
      comp=Z,1.8nm,0.6s,mb3.7
SGMF  Saint Gilles     53.60 307 eP       P        04 50 19.5 -0.5
      comp=Z,14nm,0.8s,mb4.2
SGMF  Saint Gilles     53.60 307 eP       P        04 50 19.5 -0.5
SGMF                             pmax     pmax
      comp=Z,7.0nm,0.8s,mb4.2
SGMF  Saint Gilles     53.60 307 eP       P        04 50 19.5 -0.5
      comp=Z,7.0nm,0.8s,mb4.2
ETSF  Etsaut           53.88 300⇑iP       P        04 50 21.9 -0.2
      comp=Z,21nm,0.7s,mb4.5
ETSF                             epP      pP       04 51 06.8 -0.3
ETSF  Etsaut           53.88 300⇑iP       P        04 50 21.9 -0.2
ETSF                             e*PP     pP       04 51 06.8 -0.3
ETSF                             pmax     pmax
      comp=Z,10.0nm,0.7s,mb4.5
ETSF  Etsaut           53.88 300⇑iP       P        04 50 21.9 -0.2
      comp=Z,10nm,0.7s,mb4.5
ETSF                             epP      pP       04 51 06.8 -0.3
ROSF  Rostrenen        54.04 308 eP       P        04 50 23.2  0.0
      comp=Z,28nm,0.9s,mb4.5
ROSF  Rostrenen        54.04 308 eP       P        04 50 23.2  0.0
ROSF                             pmax     pmax
      comp=Z,14nm,0.9s,mb4.5
ROSF  Rostrenen        54.04 308 eP       P        04 50 23.2  0.0
      comp=Z,14nm,0.9s,mb4.5
QUIF  Quistinic        54.09 307 eP       P        04 50 23.4 -0.1
      comp=Z,22nm,0.9s,mb4.4
QUIF  Quistinic        54.09 307 eP       P        04 50 23.4 -0.1
QUIF                             pmax     pmax
      comp=Z,11nm,0.9s,mb4.4
QUIF  Quistinic        54.09 307 eP       P        04 50 23.4 -0.1
      comp=Z,11nm,0.9s,mb4.4
SJPF  Ste Jean         54.28 301 eP       P        04 50 24.9 -0.1
      comp=Z,9.7nm,0.9s,mb4.0
SJPF  Ste Jean         54.28 301 eP       P        04 50 24.9 -0.1
SJPF                             pmax     pmax
      comp=Z,5.0nm,0.9s,mb4.0
SJPF  Ste Jean         54.28 301 eP       P        04 50 24.9 -0.1
      comp=Z,4.8nm,0.9s,mb4.0
SEY   Seymchan         54.45  34⇑eP       P        04 50 27.1 +1.2
CART  Cartagena        56.08 294 eP       P        04 50 37.9  0.0
      comp=Z,43nm,1.0s,mb4.9
SCO   Scoresbysund     57.05 336 i P      P        04 50 44.9 +0.7
SCO                              pmax     pmax
      comp=Z,4.0nm,0.8s,mb4.1
SCO   Scoresbysund     57.05 336 i P      P        04 50 44.9 +0.7
      comp=Z,3.8nm,0.8s,mb4.1
ESDC  Sonseca Array    57.42 298 P        P        04 50 46.8 -0.5
      comp=Z,5.0nm,0.7s,mb4.3,baz=56,slow=7.8,SNR=16
TAM   Tamanrasset      57.50 276 eP       P        04 50 47.3 -0.8
TAM                              pmax     pmax
      comp=Z,5.0nm,0.9s,mb4.1
TAM   Tamanrasset      57.50 276 eP       P        04 50 47.3 -0.8
      comp=Z,5.1nm,0.9s,mb4.2
BILL  Bilibino         58.63  26⇑eP       P        04 50 56.4 +1.1
BILL                             e*PP     pP       04 51 48.2 +7.2
BILL                             e                 04 53 06.6
BILL                             pmax     pmax
      comp=Z,43nm,1.0s,mb5.0
BILL  Bilibino         58.63  26 eP       P        04 50 56.1 +0.9
      comp=Z,47nm,0.9s,mb5.1
MVO   Moncorvo         59.00 301 eP       P        04 50 58.4 +0.1
      comp=Z,24nm,1.6s,mb4.6
PVIS  Viseu            59.78 300 eP       P        04 51 04.2 +0.6
      comp=Z,34nm,1.8s,mb4.7
PETK  Petropavlovsk-   60.01  44 P        P        04 51 04.7 -0.2
      comp=Z,2.1nm,0.6s,mb3.9,baz=5.7,slow=3.0,SNR=5.6
EVO   Evora            60.77 298 eP       P        04 51 10.5 +0.2
      comp=Z,127nm,1.6s,mb5.0
SUMG  Summit           61.06 341 eP       P        04 51 13.3 +1.6
      comp=Z,27nm,0.8s,mb4.9
LSZ   Lusaka           65.42 226 eP       P        04 51 41.4 +0.4
LSZ                              pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.2
LSZ   Lusaka           65.42 226 eP       P        04 51 41.4 +0.3
      comp=Z,4.3nm,0.6s,mb4.3
TOA0  Torodi Ar. Sit   65.67 269 eP       P        04 51 40.5 -2.3
TORD  Torodi Ar. Bea   65.67 269 P        P        04 51 40.8 -2.1
      comp=Z,34nm,0.6s,mb5.2,baz=42,slow=5.7,SNR=296
SFJD  Kangerlussuaq    67.75 339 i P      P        04 51 54.4 -0.7
SFJD                             pmax     pmax
      comp=Z,8.0nm,1.1s,mb4.3
SFJD  Kangerlussuaq    67.75 339 i P      P        04 51 54.4 -0.7
      comp=Z,7.6nm,1.1s,mb4.2
GAMB  Gambell          68.53  25 eP       P        04 52 00.3 +0.3
      comp=Z,3µm,0.6s
TNA   Tin City         68.59  22⇑iP       P        04 52 01.1 +0.8
      comp=Z,21nm,0.8s,mb4.8
RES   Resolute Bay     68.71 356 P        P        04 52 01.2 +0.2
RES                              pmax     pmax
      comp=Z,3.0nm,0.6s,mb4.1
RES   Resolute Bay     68.71 356 P        P        04 52 01.1 +0.2
      comp=Z,3.2nm,0.6s,mb4.1,baz=24,slow=11,SNR=23
RES   Resolute Bay     68.71 356 eP       P        04 52 01.1 +0.2
      comp=Z,3.5nm,0.7s,mb4.1
COLD  Coldfoot         71.99  16⇑iP       P        04 52 21.3 +0.4
      comp=Z,37nm,0.8s,mb5.1
IMA2  Indian Mountai   72.14  18 eP       P        04 52 21.8 -0.1
INK   Inuvik           73.92   9 P        P        04 52 33.1 +0.9
INK                              pmax     pmax
      comp=Z,35nm,0.6s
INK   Inuvik           73.92   9 P        P        04 52 33.1 +0.9
      comp=Z,34nm,0.6s,mb5.2,baz=359,slow=7.2,SNR=351
INK   Inuvik           73.92   9⇑iP       P        04 52 33.0 +0.8
      comp=Z,33nm,0.5s,mb5.2
TTA   Tatalina         74.05  20 eP       P        04 52 34.3 +1.2
CHUM  Lake Minchumin   74.26  18⇑iP       P        04 52 35.0 +0.7
      comp=Z,36nm,0.6s,mb5.2
BPAW  Bear Paw Mtn.    74.42  18⇑iP       P        04 52 35.3 +0.2
      comp=Z,30nm,0.9s,mb4.9
COLA  College          74.50  16⇑iP       P        04 52 35.9 +0.3
COLA                             pmax     pmax
      comp=Z,38nm,0.8s,mb5.1
COLA  College          74.50  16⇑iP       P        04 52 35.9 +0.3
      comp=Z,38nm,0.8s,mb5.1
LBTB  Lobatse          74.64 222 P        P        04 52 36.7 -0.3
      comp=Z,6.5nm,0.4s,mb4.6,baz=37,slow=5.2,SNR=20
DBIC  Dimbokro         74.66 267 P        P        04 52 35.7 -1.7
      comp=Z,4.6nm,0.7s,mb4.2,baz=55,slow=8.3,SNR=11
KIC   Kosan Boka       74.74 267 eP       P        04 52 36.3 -1.6
      comp=Z,46nm,0.8s,mb5.1
TIC   Toumodi          74.80 267 eP       P        04 52 36.5 -1.7
      comp=Z,50nm,0.8s,mb5.2
KTH   Kantishna Hill   74.89  18⇑iP       P        04 52 38.2 +0.3
      comp=Z,27nm,0.5s,mb5.1
FITZ  Fitzroy Crossi   74.92 127 eP       P        04 52 38.9 +0.2
      comp=Z,8.6nm,0.6s,mb4.6
FITZ  Fitzroy Crossi   74.92 127 eP       P        04 52 38.8 +0.1
      comp=Z,5.5nm,0.8s,mb4.2
LIC   Lamto            75.05 267 eP       P        04 52 37.2 -2.5
      comp=Z,13nm,0.6s,mb4.4
LIC   Lamto            75.05 267 eP       P        04 52 37.8 -1.9
      comp=Z,22nm,0.6s,mb4.9
LIC   Lamto            75.05 267 eP       P        04 52 37.2 -2.5
      comp=Z,6.4nm,0.6s,mb4.4
PPLA  Purkeypile       75.11  19⇑iP       P        04 52 39.6 +0.4
      comp=Z,21nm,0.5s,mb5.0
TRF   Thorofare Moun   75.13  18 eP       P        04 52 39.6 +0.4
      comp=Z,6.6nm,0.6s,mb4.4
MCK   McKinley         75.22  17 eP       P        04 52 39.7 -0.1
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MCK                                pmax    pmax
      comp=Z,21nm,0.5s,mb5.0
MCK   McKinley           75.22  17 eP      P       04 52 39.7 -0.1
      comp=Z,21nm,0.5s,mb5.0
KNA   Kununurra          75.31 123 eP      P       04 52 41.2 +0.2
      comp=Z,28nm,0.6s,mb5.1
SVW2  Sparrevohn         75.63  21 eP      P       04 52 43.2 +1.0
KAKA  Kakadu             75.77 118 eP      P       04 52 43.3 -0.3
      comp=Z,3.9nm,0.5s,mb4.3
EGAK  Eagle              75.97  14 eP      P       04 52 44.4 +0.4
      comp=Z,6.4nm,0.6s,mb4.4
PAX   Paxson             76.68  16⇑iP      P       04 52 48.5 +0.5
PAX                                pmax    pmax
      comp=Z,14nm,0.5s,mb4.8
PAX   Paxson             76.68  16⇑iP      P       04 52 48.5 +0.4
      comp=Z,14nm,0.5s,mb4.9
DAWY  Dawson             76.94  13 eP      P       04 52 50.0 +0.6
PMR   Palmer             76.99  18 eP      P       04 52 49.9 +0.1
PMR                                pmax    pmax
      comp=Z,17nm,0.7s,mb4.8
PMR   Palmer             76.99  18 eP      P       04 52 49.9 +0.1
      comp=Z,17nm,0.7s,mb4.8
MENT  Mentasta           77.09  15 eP      P       04 52 51.1 +0.8
RC01  Rabbit Creek A     77.26  19 eP      P       04 52 51.2 -0.1
      comp=Z,11nm,0.4s,mb4.8
BOSA  Boshof             77.71 220 P       P       04 52 54.2  0.0
      comp=Z,6.2nm,0.5s,mb4.5,baz=50,slow=6.3,SNR=23
BOSA  Boshof             77.71 220 P       P       04 52 54.2  0.0
KDAK  Kodiak Island      79.22  22 eP      P       04 53 02.5 +0.4
KDAK                               pmax    pmax
      comp=Z,14nm,0.6s,mb4.8
KDAK  Kodiak Island      79.22  22 eP      P       04 53 02.5 +0.3
      comp=Z,14nm,0.6s,mb4.8
YKA   Yellowknife Ar     81.26   3 P       P       04 53 13.0 +0.1
YKA                                *PP     pP      04 54 00.8 -0.8
YKA                                                04 56 20.2
YKA                                pmax    pmax
      comp=Z,13nm,0.5s
YKA                                pmax    pmax
      comp=Z,3.0nm,0.8s
YKA                                pmax    pmax
      comp=Z,3.0nm,1.0s
YKA   Yellowknife Ar     81.26   3 P       P       04 53 13.0 +0.2
      comp=Z,13nm,0.5s,mb4.9,baz=351,slow=5.4,SNR=632
YKA                                pP      pP      04 54 00.8 -0.8
      comp=Z,3.3nm,0.8s,baz=348,slow=5.4,SNR=1.6
YKA                                PP      PP      04 56 20.2 -0.2
      comp=Z,2.9nm,1.0s,baz=354,slow=7.7,SNR=6.9
YKA                                PKKPbc  PKKPbc  05 11 44.3 -2.4
      comp=Z,0.1nm,0.5s,baz=165,slow=1.7,SNR=5.2
YKA   Yellowknife Ar     81.26   3 P       P       04 53 13.1 +0.2
YKA                                pP      pP      04 54 00.8 -0.8
YKA                                PP      PP      04 56 20.2 -0.2
YKA                                PKKPbc  PKKPbc  05 11 44.3 -2.4
SKAG  Skagway            81.95  13 eP      P       04 53 18.0 +1.4
      comp=Z,41nm,1.4s,mb4.9
WRA   Warramunga Arr     82.02 122 P       P       04 53 16.9 -0.6
      comp=Z,4.7nm,0.3s,mb4.5,baz=324,slow=5.0,SNR=67
WRAB  Tennant Creek      82.02 122 eP      P       04 53 16.7 -0.8
WRAB                               pmax    pmax
      comp=Z,6.0nm,0.3s,mb4.7
WRAB  Tennant Creek      82.02 122 eP      P       04 53 16.7 -0.8
      comp=Z,6.3nm,0.3s,mb4.7
SCHQ  Schefferville      82.09 337 P       P       04 53 17.7 +0.3
      comp=Z,7.0nm,0.7s,mb4.4,baz=47,slow=5.2,SNR=25
SCHQ  Schefferville      82.09 337 P       P       04 53 17.7 +0.3
DLBC  Dease Lake         83.81  11 P       P       04 53 26.9 +0.8
      comp=Z,4.5nm,0.5s,mb4.4,baz=322,slow=4.9,SNR=9.5
DLBC  Dease Lake         83.81  11 eP      P       04 53 26.7 +0.5
ASAR  Alice Springs      84.28 125 P       P       04 53 28.5 -0.5
      comp=Z,6.9nm,0.5s,mb4.6,baz=310,slow=5.0,SNR=148
ASAR                               pP      pP      04 54 17.9 -0.2
      comp=Z,3.8nm,0.9s,baz=325,slow=5.6,SNR=2.8
FCC   Fort Churchill     84.28 352 eP      P       04 53 29.0 +0.5
FCC                                pmax    pmax
      comp=Z,1.0nm,1.4s,mb3.4
FCC   Fort Churchill     84.28 352 eP      P       04 53 29.0 +0.5
      comp=Z,1.0nm,1.4s,mb3.4
COEN  Coen               84.44 112 eP      P       04 53 29.1 -0.9
FORT  Forrest            85.69 134 eP      P       04 53 35.8  0.0
      comp=Z,21nm,0.6s,mb5.0
FORT  Forrest            85.69 134 eP      P       04 53 35.9 +0.1
      comp=Z,26nm,0.6s,mb5.1
FFC   Flin Flon          88.95 356 eP      P       04 53 51.2  0.0
FFC                                pmax    pmax
      comp=Z,23nm,1.1s,mb4.9
FFC   Flin Flon          88.95 356 eP      P       04 53 51.2 +0.1
      comp=Z,23nm,1.1s,mb4.9
CTA   Charters Tower     90.58 115 eP      P       04 53 58.8 -0.4
      comp=Z,4.9nm,0.6s,mb4.6
CTA   Charters Tower     90.58 115 P       P       04 53 58.8 -0.5
      comp=Z,6.6nm,0.6s,mb4.8,baz=318,slow=5.7,SNR=10
CTA                                pP      pP      04 54 49.0 +0.1
      comp=Z,1.4nm,0.3s,baz=308,slow=7.8,SNR=2.1
CTAO  Charters Tower     90.58 115 eP      P       04 53 58.6 -0.6
CTAO                               pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.7
CTAO  Charters Tower     90.58 115 eP      P       04 53 58.6 -0.7
      comp=Z,5.8nm,0.6s,mb4.7
EDM   Edmonton           90.58   3 eP      P       04 53 59.4 +0.6
ULM   Lac du Bonnet      92.85 352 P       P       04 54 08.9 -0.5
      comp=Z,9.0nm,0.9s,mb4.8,baz=1.8,slow=4.3,SNR=14
EYMN  Ely                94.49 348 eP      P       04 54 16.3 -0.6
      comp=Z,8.7nm,1.0s,mb4.7
AGMN  Agassiz Refuge     94.77 351 eP      P       04 54 17.6 -0.6
      comp=Z,2.1nm,0.7s,mb4.4
NEW   Newport            95.31   5 eP      P       04 54 20.8 +0.1
NEW                                pmax    pmax
      comp=Z,4.0nm,0.8s
NEW   Newport            95.31   5 eP      P       04 54 20.8 +0.1
      comp=Z,4.2nm,0.8s,mb4.6
EGMT  Eagleton           95.86   0 eP      P       04 54 23.5 +0.3
      comp=Z,8.6nm,0.9s,mb5.0
BSMT  Bassoo Peak        95.88   4 eP      P       04 54 23.8 +0.5
      comp=Z,3.3nm,0.9s,mb4.6
CHMT  Chamberlain Mo     96.89   3 eP      P       04 54 27.9 +0.1
      comp=Z,2.3nm,1.0s,mb4.4
PDAR  Pinedale Array    101.12   0 P       Pdif    04 54 47.5 +0.7
      comp=Z,0.5nm,0.8s,baz=37,slow=3.7,SNR=4.3
QSPA  South Pole Qui    126.29 180 PKP     PKPdf   04 59 56.1 -0.9
      comp=Z,1.4nm,0.7s,baz=283,slow=1.4,SNR=9.1
ROSC  El Rosal          127.61 314 PKP     PKPdf   05 00 02.0 +0.5
      comp=Z,8.3nm,0.8s,baz=90,slow=12,SNR=6.4
SIV   San Ignacio       132.92 283 PKP     PKPdf   05 00 10.9 -0.5
      comp=Z,1.3nm,0.5s,baz=127,slow=2.1,SNR=9.9
SIV                                SKPbc   SKPbc   05 03 18.7 -1.3
      comp=Z,0.9nm,0.6s,baz=76,slow=5.0,SNR=4.8
RAR   Rarotonga         133.55  85 PKIKP   PKPdf   05 00 11.0 -1.5
RAR                                pmax    pmax
      comp=Z,6.0nm,0.4s
RAR   Rarotonga         133.55  85 PKP     PKPdf   05 00 11.0 -1.4
      comp=Z,6.0nm,0.4s,baz=281,slow=5.5,SNR=4.0
CPUP  Villa Florida     135.17 268 PKP     PKPdf   05 00 14.4 -1.0
      comp=Z,5.3nm,0.6s,baz=39,slow=1.8,SNR=33
CPUP                               SKPbc   SKPbc   05 03 26.2 -0.8
      comp=Z,0.3nm,0.4s,baz=54,slow=5.5,SNR=3.3
LCO   Las Campanas      147.06 272 ePKPdf  PKPdf   05 00 37.1 +0.6
LCO                                ePKPbc  PKPbc   05 00 40.0 +1.1
FCH   Farellones        148.20 264 eP      PKPbc   05 00 42.5 +0.6
PLCA  Paso Flores       149.78 250 PKP     PKPdf   05 00 41.4 +0.8
      comp=Z,21nm,0.8s,baz=121,slow=2.7,SNR=7.5
PLCA                               PKPbc   PKPbc   05 00 45.3 -0.2
      comp=Z,21nm,0.8s,baz=143,slow=4.3,SNR=45
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MAN 23 04:55:16, 10°.46N×123°.41E, h22^{km}, mb4.6, ML3.5, MS3.4, 2D, Cebu

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Code  Station Name          Δ°  AZ°    Phase ID          Time      Res
                                    Op      ISC      h  m  s     ISC
LLP   Lapu-Lapu           0.57 104⇓iP      Pb      04 55 26.6 -0.6
LLP                                i S     Sb      04 55 34.5 -0.4
GUIM  Jordan              0.82 282 eP      Pb      04 55 32.7 +1.1
GUIM                               eS      Sb      04 55 45.0 +2.6
TBP   Tagbilaran          0.88 149 eP      Pb      04 55 33.4 +0.8
TBP                                eS      Sb      04 55 46.4 +2.4
SNPH  Sibulan             1.12 189 eP      Pn      04 55 39.0 +2.7
RCP   Roxas               1.28 329⇓eP      Pn      04 55 38.9 +0.4
RCP                                eS      Sn      04 55 56.3 +1.3
MSLP  Maasin              1.46 102 eP      Pn      04 55 42.5 +1.4
MSLP                               eS      Sn      04 56 01.3 +1.7
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*IGIL **23** 04:57:02.9, 36°.74N×7°.23W, h19^{km}, ML2.9*

*INMG **23** 04:57:02.9±1.4, 36°.74N×7°.21W, h21^{km}±3^{km}, MD3.2, ML3.0, Error ellipse: s-maj=3.7km s-min=2.0km az=43.0*

*MDD **23** 04:57:02.5±0.4, 36°.76N×7°.16W, h23^{km}±1^{km}, mbLg3.2/17, Error ellipse: s-maj=4.2km s-min=2.6km az=37.0, PRIMO*

*CSEM **23** 04:57:02.9±0.1, 36°.85N×7°.11W, h30^{km}, ML3.5/28, Error ellipse: s-maj=3.3km s-min=2.0km az=32.0*

*NEIC **23** 04:57:03.7, 36°.82N×7°.15W, h29^{km}, ML3.3(LDG), MN3.1(MDD), After MDD.*

*SFS **23** 04:57:03.0, 36°.82N×7°.15W, h0^{km}, ML3.1*

*LDG **23** 04:57:03.0±0.1, 36°.84N×7°.10W, h10^{km}, Ml3.3/6, Error ellipse: s-maj=3.1km s-min=1.5km az=23.0*

*CNRM **23** 04:57:07.3, 36°.50N×7°.16W, h30^{km}, MD3.4*

ISC 23 04:57:03.6±0.3**, 36°.87N**±0°.02×**7°.09W**±0°.02**, h48^{km}**±12^{km}**, n214, σ1^{s}06**/368**, 6C-6D, Strait of Gibraltar**

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Code  Station Name          Δ°  AZ°    Phase ID          Time      Res
                                    Op      ISC      h  m  s     ISC
ERIP  Rio Piedras         0.52 345⇑Pg      Pn      04 57 14.7 -0.1
      1µm,0.2s,SNR=18
ERIP                                Lg             04 57 23.2
      723nm,0.1s,SNR=7.9
ERIP  Rio Piedras         0.52 345  Pg     Pn      04 57 14.7 -0.1
      1µm,0.2s,SNR=18
PVAQ  Vaqueiros           0.73 317 eP      Pn      04 57 17.0 -0.6
PVAQ                               eS      Sn      04 57 27.1 -0.6
PVAQ                                A              04 57 27.8
      1µm,0.3s
PVAQ  Vaqueiros           0.73 317  Pg     Pn      04 57 17.0 -0.6
PVAQ                                Lg             04 57 27.1
      1µm,0.3s
PVAQ  Vaqueiros           0.73 317 eP      Pn      04 57 17.0 -0.6
PVAQ                               eS      Sn      04 57 27.1 -0.6
      1µm,0.3s
EGRO  El Granado          0.73 335⇓Pg      Pn      04 57 17.6  0.0
      33nm,0.1s,SNR=18
EGRO                                Lg             04 57 28.1
      380nm,0.2s,SNR=38
EGRO  El Granado          0.73 335  Pg     Pn      04 57 17.6  0.0
      33nm,0.1s,SNR=18
PBDV  Barranco-do-Ve      0.77 299 eP      Pn      04 57 16.9 -1.2
PBDV                               eS      Sn      04 57 27.1 -1.5
PBDV                                A              04 57 28.9
      232nm,0.2s
PBDV  Barranco-do-Ve      0.77 299  Pg     Pn      04 57 16.9 -1.2
PBDV                                Lg             04 57 27.1
      232nm,0.2s
PBDV  Barranco-do-Ve      0.77 299 eP      Pn      04 57 16.9 -1.2
PBDV                               eS      Sn      04 57 27.1 -1.5
      232nm,0.2s
EMIN  Mina Concepcio      0.95  20  Pn     Pn      04 57 20.9 +0.4
      3.2nm,0.1s,SNR=490
EMIN                                Pg     Pn      04 57 21.9 +1.4
      24nm,0.1s,SNR=7.9
EMIN                                Lg             04 57 35.5
      205nm,0.1s,SNR=11
EMIN  Mina Concepcio      0.95  20  Pn     Pn      04 57 20.9 +0.3
      3.2nm,0.1s,SNR=490
EMIN  Mina Concepcio      0.95  20  Pg     Pn      04 57 22.0 +1.4
ESPR  Espera              0.99  90  Pg     Pn      04 57 21.0 -0.1
      4.5nm,0.1s,SNR=7.9
ESPR                                Lg             04 57 34.8
      198nm,0.2s,SNR=5.7
ESPR  Espera              0.99  90  Pn     Pn      04 57 21.0 -0.1
ESPR                                Pg     Pn      04 57 21.8 +0.7
ESPR                                Lg             04 57 34.8
ESPR  Espera              0.99  90  Pg     Pn      04 57 21.8 +0.7
PBAR  Barrancos           1.30   2 eP      Pn      04 57 25.9 +0.6
PBAR                               eS      Sn      04 57 44.4 +2.9
PBAR                                A              04 57 50.0
      150nm,0.2s
PBAR  Barrancos           1.30   2  Pn     Pn      04 57 25.9 +0.6
PBAR                                Sn     Sn      04 57 44.4 +2.9
      150nm,0.2s
PBAR  Barrancos           1.30   2 eP      Pn      04 57 25.9 +0.6
PBAR                               eS      Sn      04 57 44.4 +2.9
      150nm,0.2s
PBEJ  Beja                1.30 332 eP      Pn      04 57 25.3 -0.1
PBEJ                               eS      Sn      04 57 42.6 +1.0
PBEJ                                A              04 57 49.0
      128nm,0.3s
PBEJ  Beja                1.30 332  Pn     Pn      04 57 25.3 -0.1
PBEJ                                Sn     Sn      04 57 42.6 +1.0
      64nm,0.3s
PBEJ  Beja                1.30 332 eP      Pn      04 57 25.3 -0.1
PBEJ                               eS      Sn      04 57 42.6 +1.0
      128nm,0.3s
MORF  Marmelete           1.32 290 eP      Pn      04 57 24.1 -1.4
MORF                               eS      Sn      04 57 39.8 -2.2
MORF                                A              04 57 41.4
      212nm,0.2s
MORF  Marmelete           1.32 290  Pg     Pn      04 57 24.1 -1.4
MORF                                Sn     Sn      04 57 39.8 -2.2
      212nm,0.2s
MORF  Marmelete           1.32 290 eP      Pn      04 57 24.1 -1.4
MORF                               eS      Sn      04 57 39.8 -2.2
      212nm,0.2s
LIJA  Lijar               1.35  88  Pg     Pn      04 57 28.0 +2.0
LIJA  Lijar               1.35  88 eP      Pn      04 57 28.0 +2.0
EJIF  Jimena Fronter      1.37 107  Pg     Pn      04 57 26.9 +0.6
      6.9nm,0.4s,SNR=7.9
EJIF                                Sn     Sn      04 57 41.7 -1.5
      11nm,0.2s,SNR=7.9
EJIF  Jimena Fronter      1.37 107  Pn     Pn      04 57 26.9 +0.6
EJIF                                Sn     Sn      04 57 41.1 -2.1
EJIF  Jimena Fronter      1.37 107  Pg     Pn      04 57 26.9 +0.6
      6.9nm,0.4s,SNR=7.9
EJIF                                Sn     Sn      04 57 41.1 -2.2
PTEO  Sao Teotonio        1.47 298 eP      Pn      04 57 26.8 -0.7
PTEO                               eS      Sn      04 57 44.5 -1.0
PTEO                                A              04 57 58.6
      111nm,0.5s
PTEO  Sao Teotonio        1.47 298  Pn     Pn      04 57 26.8 -0.7
PTEO                                Sn     Sn      04 57 44.5 -1.0
      55nm,0.5s
PTEO  Sao Teotonio        1.47 298 eP      Pn      04 57 26.8 -0.7
PTEO                               eS      Sn      04 57 44.5 -1.0
      111nm,0.5s
ECEU  Ceuta               1.69 125  Pn     Pn      04 57 30.3 -0.3
      7.5nm,0.2s,SNR=5.6
ECEU                                Sn     Sn      04 57 44.9 -6.2
      8.5nm,0.1s,SNR=7.9
ECEU                                Lg             04 57 52.6
      SNR=7.9
ECEU  Ceuta               1.69 125  Pn     Pn      04 57 30.3 -0.3
      7.5nm,0.2s,SNR=5.6
TSY   Tnine Yamani        1.75 148  Pg     Pn      04 57 31.0 -0.5
TSY                                 Sn     Sn      04 57 47.0 -5.6
TSY   Tnine Yamani        1.75 148 eP      Pn      04 57 31.0 -0.5
TSY                                eS      Sn      04 57 47.0 -5.6
ECAB  El Cabril           1.79  47  Pn     Pn      04 57 32.6 +0.6
      4.2nm,0.2s,SNR=54
ECAB                                Sn     Sn      04 57 53.6  0.0
      33nm,0.1s,SNR=10
ECAB                                Lg             04 58 00.1
      79nm,0.3s,SNR=17
ECAB  El Cabril           1.79  47  Pn     Pn      04 57 32.7 +0.7
      4.2nm,0.2s,SNR=54
ECAB                                Sn     Sn      04 57 53.6  0.0
      33nm,0.1s,SNR=10
EVO   Evora               1.81 336 ePn     Pn      04 57 32.9 +0.7
EVO   Evora               1.81 336 ePg     Pn      04 57 37.6 +5.4
EVO                                eSn     Sn      04 57 55.4 +1.4
EVO                                eSg     Sn      04 58 01.5 +7.5
      189nm,0.2s
EVO   Evora               1.81 336 ePn     Pn      04 57 32.5 +0.3
EVO                                eSn     Sn      04 57 54.3 +0.3
EVO                                 A              04 58 06.2
      106nm,0.1s
EVO   Evora               1.81 336  Pn     Pn      04 57 32.5 +0.3
EVO                                 Sn     Sn      04 57 54.3 +0.3
      106nm,0.1s
EVO   Evora               1.81 336 ePn     Pn      04 57 32.5 +0.3
EVO                                eSn     Sn      04 57 54.3 +0.3
      106nm,0.1s
EVOP  Sao Brissos         1.84 334 ePn     Pn      04 57 32.9 +0.2
EVOP  Sao Brissos         1.84 334 ePg     Pn      04 57 37.6 +4.9
EVOP                               eSn     Sn      04 57 55.4 +0.6
EVOP                               eSg     Sn      04 58 01.5 +6.7
      94nm,0.2s
EBAD  Badajoz             1.88   2⇓Pn      Pn      04 57 33.7 +0.5
      4.4nm,0.1s,SNR=18
EBAD                                Pg     Pn      04 57 38.6 +5.4
      SNR=7.9
EBAD                                Sn     Sn      04 57 56.7 +1.0
      21nm,0.1s,SNR=7.9
EBAD                                Lg             04 58 03.6
      46nm,0.1s,SNR=7.9
EBAD  Badajoz             1.88   2⇓Pn      Pn      04 57 33.7 +0.5
EBAD                                Sn     Sn      04 57 56.7 +1.0
EBAD                                Lg             04 58 02.7
EBAD  Badajoz             1.88   2  Pn     Pn      04 57 33.7 +0.5
      4.4nm,0.1s,SNR=18
EBAD                                Sn     Sn      04 57 56.7 +1.0
      21nm,0.1s,SNR=7.9
PESTR Estremoz            2.03 349 ePn     Pn      04 57 35.5 +0.2
PESTR                              eSg     Sn      04 58 09.4  +10
PESTR                               A              04 58 13.5
      63nm,0.5s
PESTR Estremoz            2.03 349  Pn     Pn      04 57 35.5 +0.2
PESTR                               Lg             04 58 09.4
      63nm,0.5s
PESTR Estremoz            2.03 349 ePn     Pn      04 57 35.5 +0.2
PESTR                              eSg     Sn      04 58 09.4  +10
      63nm,0.5s
ELUQ  Luque               2.36  72  Pn     Pn      04 57 40.2 +0.5
      3.7nm,0.2s,SNR=7.9
ELUQ                                Sn     Sn      04 58 07.8 +0.3
      26nm,0.2s,SNR=7.9
ELUQ  Luque               2.36  72  Pn     Pn      04 57 40.2 +0.5
ELUQ                                Sn     Sn      04 58 07.8 +0.3
ELUQ                                Lg             04 58 18.0
ELUQ  Luque               2.36  72  Pn     Pn      04 57 40.2 +0.4
      3.7nm,0.2s,SNR=7.9
ELUQ                                Sn     Sn      04 58 07.8 +0.3
      26nm,0.2s,SNR=7.9
ELOJ  Sierra Loja         2.37  82  Pn     Pn      04 57 40.8 +0.9
      3.4nm,0.2s,SNR=7.0
ELOJ                                Sn     Sn      04 58 07.4 -0.3
      11nm,0.4s,SNR=8.2
ELOJ  Sierra Loja         2.37  82  Pn     Pn      04 57 40.8 +0.9
      3.4nm,0.2s,SNR=7.0
ELOJ                                Sn     Sn      04 58 07.4 -0.3
      11nm,0.4s,SNR=8.2
EADA  Adamuz              2.38  56  Pn     Pn      04 57 41.2 +1.1
      5.3nm,0.1s,SNR=25
EADA                                Sn     Sn      04 58 08.3 +0.3
      9.9nm,0.1s,SNR=7.9
EADA                                Lg             04 58 17.1
      9.3nm,0.1s,SNR=7.9
EADA  Adamuz              2.38  56  Pn     Pn      04 57 41.2 +1.1
      5.3nm,0.1s,SNR=25
EADA                                Sn     Sn      04 58 08.3 +0.3
      9.9nm,0.1s,SNR=7.9
LIS   Lisbon              2.46 319 eP      Pn      04 57 41.3 +0.2
LIS                                eS      Sn      04 58 08.5 -1.4
LIS                                eS      Sn      04 58 08.5 -1.4
LIS                                 AML    AML     04 58 09.6
      comp=E,72nm,0.4s
LIS   Lisbon              2.46 319 eP      Pn      04 57 41.3 +0.2
LIS                                eS      Sn      04 58 08.5 -1.4
LIS   Lisbon              2.46 319 eP      Pn      04 57 41.3 +0.2
LIS                                eS      Sn      04 58 08.5 -1.4
PMRV  Marv??o             2.56 355 ePn     Pn      04 57 43.1 +0.5
PMRV                               eSn     Sn      04 58 13.6 +1.1
PMRV                                A              04 58 28.5
      comp=E,58nm,0.6s
PMRV  Marv??o             2.56 355  Pn     Pn      04 57 43.1 +0.5
PMRV                                Sn     Sn      04 58 13.6 +1.1
      comp=E,29nm,0.6s
PMRV  Marv??o             2.56 355 ePn     Pn      04 57 43.1 +0.5
PMRV                               eSn     Sn      04 58 13.6 +1.1
      comp=E,58nm,0.6s
ALMR  Almeirim            2.56 333 eP      Pn      04 57 42.8 +0.3
ALMR                               eS      Sn      04 58 12.2 -0.3
ALMR                               eS      Sn      04 58 12.2 -0.2
ALMR                                AML    AML     04 58 13.0
      comp=E,34nm,0.4s
ALMR  Almeirim            2.56 333 eP      Pn      04 57 42.8 +0.2
ALMR                               eS      Sn      04 58 12.2 -0.3
ALMR  Almeirim            2.56 333 eP      Pn      04 57 42.8 +0.2
ALMR                               eS      Sn      04 58 12.2 -0.3
ERON  Agron               2.64  86  Sn     Sn      04 58 14.8 +0.5
      comp=E,8.3nm,0.4s,SNR=7.9
ERON  Agron               2.64  86  Sn     Sn      04 58 14.8 +0.5
      comp=E,8.3nm,0.4s,SNR=7.9
PMAFR Mafra               2.71 321 ePn     Pn      04 57 44.9 +0.4
PMAFR                              eSn     Sn      04 58 16.6 +0.6
PMAFR                               A              04 58 18.5
      comp=E,85nm,0.2s
PMAFR Mafra               2.71 321  Pn     Pn      04 57 44.9 +0.4
PMAFR                               Sn     Sn      04 58 16.6 +0.6
      comp=E,43nm,0.2s
PMAFR Mafra               2.71 321 ePn     Pn      04 57 44.9 +0.4
PMAFR                              eSn     Sn      04 58 16.6 +0.6
      comp=E,85nm,0.2s
EGUA  Guajares            2.83  90  Pn     Pn      04 57 48.0 +1.7
      comp=E,0.7nm,0.1s,SNR=7.9
EGUA                                Sn     Sn      04 58 18.0 -1.0
      comp=E,14nm,0.2s,SNR=7.9
EGUA  Guajares            2.83  90  Pn     Pn      04 57 48.0 +1.8
      comp=E,0.7nm,0.1s,SNR=7.9
EGUA                                Sn     Sn      04 58 18.0 -1.1
      comp=E,14nm,0.2s,SNR=7.9
ECOG  Cogollos-Vega       2.85  81  Pn     Pn      04 57 49.0 +2.5
      comp=E,0.6nm,0.1s,SNR=7.9
ECOG                                Sn     Sn      04 58 19.6  0.0
      comp=E,4.1nm,0.1s,SNR=8.1
EBAN  Banos Encina        2.93  63⇓Pn      Pn      04 57 48.0 +0.4
      comp=E,11nm,0.1s,SNR=18
EBAN                                Sn     Sn      04 58 19.8 -1.7
      comp=E,12nm,0.2s,SNR=9.2
EBAN                                Lg             04 58 35.1
      comp=E,11nm,0.2s,SNR=7.9
EBAN  Banos Encina        2.93  63⇓Pn      Pn      04 57 48.0 +0.4
EBAN                                Sn     Sn      04 58 19.8 -1.7
EBAN  Banos Encina        2.93  63  Pn     Pn      04 57 48.0 +0.4
      comp=E,11nm,0.1s,SNR=18
EBAN                                Sn     Sn      04 58 19.8 -1.7
      comp=E,12nm,0.2s,SNR=9.2
PTOM  Tomar               2.93 340 ePn     Pn      04 57 48.1 +0.5
PTOM                               eSn     Sn      04 58 21.8 +0.3
PTOM                               eSg     Sn      04 58 37.9  +16
PTOM                                A              04 58 41.8
      comp=E,76nm,0.6s
PTOM  Tomar               2.93 340  Pn     Pn      04 57 48.1 +0.5
PTOM                                Sn     Sn      04 58 21.8 +0.3
PTOM                                Lg             04 58 37.9
      comp=E,38nm,0.6s
PTOM  Tomar               2.93 340 ePn     Pn      04 57 48.1 +0.5
PTOM                               eSn     Sn      04 58 21.8 +0.3
PTOM                               eSg     Sn      04 58 37.9  +16
      comp=E,76nm,0.6s
EQUE  Quentar             2.94  82  Pn     Pn      04 57 49.4 +1.6
      comp=E,0.1nm,0.1s,SNR=7.9
EQUE                                Sn     Sn      04 58 21.9 +0.1
      comp=E,5.1nm,0.2s,SNR=7.9
EQUE  Quentar             2.94  82  Pn     Pn      04 57 49.4 +1.6
      comp=E,0.1nm,0.1s,SNR=7.9
EQUE                                Sn     Sn      04 58 21.9 +0.1
      comp=E,5.1nm,0.2s,SNR=7.9
PCBR  Castelo Branco      2.98 354 ePn     Pn      04 57 48.3  0.0
PCBR                               eSn     Sn      04 58 23.1 +0.4
PCBR                                A              04 58 51.5
      comp=E,23nm,0.4s
PCBR  Castelo Branco      2.98 354  Pn     Pn      04 57 48.3  0.0
PCBR                                Sn     Sn      04 58 23.1 +0.4
      comp=E,12nm,0.4s
PCBR  Castelo Branco      2.98 354 ePn     Pn      04 57 48.3  0.0
PCBR                               eSn     Sn      04 58 23.1 +0.4
      comp=E,23nm,0.4s
EQES  Quesada             3.34  73  Pn     Pn      04 57 53.5 +0.3
      comp=E,1.8nm,0.1s,SNR=7.9
EQES                                Pg     Pn      04 58 01.2 +8.1
      comp=E,3.1nm,0.1s,SNR=7.9
EQES                                Sn     Sn      04 58 30.5 -1.1
      comp=E,2.8nm,0.2s,SNR=7.9
EQES  Quesada             3.34  73  Pn     Pn      04 57 53.5 +0.3
EQES                                Sn     Sn      04 58 30.5 -1.1
EQES                                Lg             04 58 41.7
EQES  Quesada             3.34  73  Pn     Pn      04 57 53.5 +0.3
      comp=E,1.8nm,0.1s,SNR=7.9
EQES                                Sn     Sn      04 58 30.5 -1.1
      comp=E,2.8nm,0.2s,SNR=7.9
EBER  Berja               3.37  88  Pn     Pn      04 57 55.3 +1.7
      comp=E,0.3nm,0.2s,SNR=7.9
EBER                                Sn     Sn      04 58 32.9 +0.5
      comp=E,0.3nm,0.3s,SNR=7.9
EBER  Berja               3.37  88  Pn     Pn      04 57 55.3 +1.7
      comp=E,0.3nm,0.2s,SNR=7.9
EBER                                Sn     Sn      04 58 32.9 +0.5
      comp=E,0.3nm,0.3s,SNR=7.9
MTE   Manteigas           3.54 354 ePn     Pn      04 57 56.5 +0.5
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MTE				*e*Sn	Sn	04 58 37.6	+1.1
MTE				A		04 59 04.5	
	comp=E,51nm,0.5s						
MTE	Manteigas	3.54	354	*e*Pn	Pn	04 57 56.1	+0.2
MTE				*e*Sn	Sn	04 58 37.8	+1.3
MTE	Manteigas	3.54	354	*e*Pn	Pn	04 57 56.5	+0.5
MTE				*e*Sn	Sn	04 58 37.6	+1.1
	comp=E,51nm,0.5s						
EHUE	Huescar	3.71	74	Pn	Pn	04 57 58.3	0.0
	comp=E,0.1nm,0.1s,SNR=7.9						
EHUE				Sn	Sn	04 58 40.0	-0.7
	comp=E,4.3nm,0.1s,SNR=7.9						
EHUE	Huescar	3.71	74	Pn	Pn	04 57 58.3	0.0
	comp=E,0.1nm,0.1s,SNR=7.9						
EHUE				Sn	Sn	04 58 40.0	-0.7
	comp=E,4.3nm,0.1s,SNR=7.9						
ESDC	Sonseca Array	3.73	40	Pn	Pn	04 57 59.5	+0.9
	comp=E,38nm,0.1s,baz=225,slow=13,SNR=41						
ESDC				Sn	Sn	04 58 39.1	-2.0
	comp=E,9.8nm,0.2s,baz=223,slow=24,SNR=7.9						
ESDC	Sonseca Array	3.73	40	Pn	Pn	04 57 59.5	+1.0
	comp=E,38nm,0.1s,slow=13,SNR=41						
ESDC				Sn	Sn	04 58 39.1	-2.0
	comp=E,9.8nm,0.2s,baz=223,slow=24,SNR=7.9						
PVIS	Viseu	3.89	351	*e*Pn	Pn	04 58 01.3	+0.6
PVIS				*e*Sn	Sn	04 58 46.0	+0.9
PVIS				A		04 59 22.7	
	comp=E,18nm,0.8s						
PVIS	Viseu	3.89	351	Pn	Pn	04 58 01.3	+0.6
PVIS				Sn	Sn	04 58 46.0	+0.9
	comp=E,9.2nm,0.8s						
PVIS	Viseu	3.89	351	*e*Pn	Pn	04 58 01.3	+0.6
PVIS				*e*Sn	Sn	04 58 46.0	+0.9
	comp=E,18nm,0.8s						
EVIA	Vianos	4.04	63	Pn	Pn	04 58 02.8	-0.1
	comp=E,54nm,0.1s,SNR=79						
EVIA				Sn	Sn	04 58 46.8	-2.1
	comp=E,8.3nm,0.2s,SNR=7.9						
EVIA	Vianos	4.04	63	Pn	Pn	04 58 02.8	-0.1
	comp=E,54nm,0.1s,SNR=79						
EVIA				Sn	Sn	04 58 46.8	-2.1
	comp=E,8.3nm,0.2s,SNR=7.9						
CZD	Col de Zad	4.18	156	Pn	Pn	04 58 04.0	-0.9
CZD				Sn	Sn	04 58 46.0	-6.5
CZD	Col de Zad	4.18	156	*i* P	Pn	04 58 04.0	-0.9
MVO	Moncorvo	4.29	1	*e*Pn	Pn	04 58 06.8	+0.6
MVO				*e*Sn	Sn	04 58 54.6	-0.3
MVO				A		04 59 31.6	
	comp=E,32nm,0.5s						
MVO	Moncorvo	4.29	1	Pn	Pn	04 58 06.8	+0.6
MVO				Sn	Sn	04 58 54.6	-0.3
	comp=E,16nm,0.5s						
MVO	Moncorvo	4.29	1	*e*Pn	Pn	04 58 06.8	+0.6
MVO				*e*Sn	Sn	04 58 54.6	-0.3
	comp=E,32nm,0.5s						
KIB	El Ksiba	4.37	168	Pn	Pn	04 58 07.0	-0.5
KIB				Sn	Sn	04 58 50.0	-7.1
KIB	El Ksiba	4.37	168	*i* P	Pn	04 58 07.0	-0.5
GUD	Guadarrama	4.41	30	⇑Pn	Pn	04 58 09.4	+1.5
	comp=E,1.8nm,0.1s,SNR=18						
GUD				Sn	Sn	04 58 57.4	-0.5
	comp=E,1.7nm,0.2s,SNR=7.9						
GUD				Lg		04 59 17.3	
	comp=E,33nm,0.7s,SNR=7.9						
GUD	Guadarrama	4.41	30	⇑Pn	Pn	04 58 09.3	+1.4
GUD				Pg	Pn	04 58 16.4	+8.5
GUD				Sn	Sn	04 58 57.4	-0.5
GUD	Guadarrama	4.41	30	⇑Pn	Pn	04 58 09.3	+1.4
GUD				Sn	Sn	04 58 57.4	-0.5
	comp=E,1.7nm,0.2s,SNR=7.9						
PTO	Porto	4.42	345	*e*Pn	Pn	04 58 08.4	+0.4
PTO				*e*Sn	Sn	04 58 57.2	-0.9
PTO	Porto	4.42	345	*e*Pn	Pn	04 58 08.4	+0.4
PTO				*e*Sn	Sn	04 58 57.2	-0.9
PVRL	Vila Real	4.42	354	*e*Pn	Pn	04 58 08.5	+0.4
PVRL				*e*Sn	Sn	04 58 57.4	-0.9
PVRL				A		04 59 32.0	
	comp=E,18nm,0.7s						
PVRL	Vila Real	4.42	354	Pn	Pn	04 58 08.5	+0.4
PVRL				Sn	Sn	04 58 57.4	-0.9
	comp=E,8.9nm,0.7s						
PVRL	Vila Real	4.42	354	*e*Pn	Pn	04 58 08.5	+0.4
PVRL				*e*Sn	Sn	04 58 57.4	-0.9
	comp=E,18nm,0.7s						
ETOB	Tobarra	4.74	66	⇓Pn	Pn	04 58 12.2	-0.2
	comp=E,1.1nm,0.1s,SNR=18						
ETOB				Sn	Sn	04 59 03.9	-2.1
	comp=E,12nm,0.1s,SNR=7.9						
ETOB	Tobarra	4.74	66	Pn	Pn	04 58 12.2	-0.2
ETOB				Sn	Sn	04 59 04.3	-1.7
ETOB	Tobarra	4.74	66	Pn	Pn	04 58 12.2	-0.2
	comp=E,1.1nm,0.1s,SNR=18						
ETOB				Sn	Sn	04 59 04.3	-1.7
PCAB	Cabril	4.88	352	*e*Pn	Pn	04 58 14.8	+0.4
PCAB				*e*Sn	Sn	04 59 09.0	-0.6
PCAB	Cabril	4.88	352	*e*Pn	Pn	04 58 14.8	+0.4
PCAB				*e*Sn	Sn	04 59 09.0	-0.6
PBRG	Braganca	4.93	3	*e*Pn	Pn	04 58 15.8	+0.7
PBRG				*e*Sn	Sn	04 59 10.4	-0.4
PBRG				A		04 59 53.4	
	comp=E,16nm,0.7s						
PBRG	Braganca	4.93	3	Pn	Pn	04 58 15.8	+0.7
PBRG				Sn	Sn	04 59 10.4	-0.4
	comp=E,7.9nm,0.7s						
PBRG	Braganca	4.93	3	*e*Pn	Pn	04 58 15.8	+0.7
PBRG				*e*Sn	Sn	04 59 10.4	-0.4
	comp=E,16nm,0.7s						
ELOB	Lobios	5.04	352	Pn	Pn	04 58 17.0	+0.4
	comp=E,1.2nm,0.1s,SNR=7.9						
ELOB				Sn	Sn	04 59 12.3	-1.2
	comp=E,0.4nm,0.2s,SNR=4.5						
ELOB				Lg		04 59 43.6	
	SNR=7.9						
ELOB	Lobios	5.04	352	Pn	Pn	04 58 17.0	+0.4
ELOB				Sn	Sn	04 59 12.3	-1.2
ELOB	Lobios	5.04	352	Pn	Pn	04 58 17.0	+0.4
	comp=E,1.2nm,0.1s,SNR=7.9						
ELOB				Sn	Sn	04 59 12.4	-1.1
	comp=E,0.4nm,0.2s,SNR=4.5						
ECAL	Calabor	5.07	3	Pn	Pn	04 58 17.6	+0.6
	comp=E,0.8nm,0.1s,SNR=7.9						
ECAL				Sn	Sn	04 59 13.8	-0.3
	comp=E,11nm,0.3s,SNR=6.7						
ECAL				Lg		04 59 45.7	
	comp=E,47nm,0.5s,SNR=7.9						
ECAL	Calabor	5.07	3	Pn	Pn	04 58 17.6	+0.6
ECAL				Sn	Sn	04 59 13.8	-0.3
ECAL	Calabor	5.07	3	Pn	Pn	04 58 17.6	+0.7
	comp=E,0.8nm,0.1s,SNR=7.9						
ECAL				Sn	Sn	04 59 13.8	-0.3
	comp=E,11nm,0.3s,SNR=6.7						
EZAM	Zamans	5.41	347	Pn	Pn	04 58 22.2	+0.5
	comp=E,4.2nm,0.1s,SNR=7.9						
EZAM	Zamans	5.41	347	Pn	Pn	04 58 22.2	+0.5
EZAM				Sn	Sn	04 59 19.4	-3.2
EZAM	Zamans	5.41	347	Pn	Pn	04 58 22.2	+0.6
	comp=E,4.2nm,0.1s,SNR=7.9						
CIA	Chichaoua	5.47	195	Pn	Pn	04 58 21.0	-1.5
CIA				Sn	Sn	04 59 15.0	-9.2
CIA	Chichaoua	5.47	195	*e*P	Pn	04 58 21.0	-1.5
ERUA	La Rua	5.51	360	Pn	Pn	04 58 23.4	+0.4
	comp=E,3.3nm,0.1s,SNR=7.9						
ERUA	La Rua	5.51	360	Pn	Pn	04 58 23.4	+0.4
	comp=E,3.3nm,0.1s,SNR=7.9						
ECHE	Chera	5.53	59	Pn	Pn	04 58 23.6	+0.3
	comp=E,0.0nm,0.2s,SNR=7.9						
ECHE				Sn	Sn	04 59 23.4	-2.2
	comp=E,3.5nm,0.4s,SNR=7.9						
ECHE	Chera	5.53	59	Pn	Pn	04 58 23.6	+0.3
	SNR=7.9						
ECHE				Sn	Sn	04 59 23.4	-2.2
	comp=E,3.5nm,0.4s,SNR=7.9						
ETOR	Torete	5.57	43	⇑Pn	Pn	04 58 24.9	+1.2
	comp=E,8.5nm,0.2s,SNR=18						
ETOR				Sn	Sn	04 59 23.6	-2.8
	comp=E,2.0nm,0.1s,SNR=7.9						
ETOR				Lg		05 00 02.5	
	comp=E,21nm,0.2s,SNR=7.9						
ETOR	Torete	5.57	43	⇑Pn	Pn	04 58 24.9	+1.2
ETOR				Sn	Sn	04 59 23.6	-2.8
ETOR	Torete	5.57	43	Pn	Pn	04 58 24.9	+1.1
	comp=E,8.5nm,0.2s,SNR=18						
OUK	Oukaimeden	5.69	187	Pn	Pn	04 58 23.0	-2.5
OUK				Sn	Sn	04 59 21.0	-8.4
EBEN	Beniarda	5.74	69	Pn	Pn	04 58 25.8	-0.3
	comp=E,0.2nm,0.1s,SNR=7.9						
EBEN				Sn	Sn	04 59 28.7	-1.9
	comp=E,0.1nm,0.2s,SNR=7.9						
EBEN	Beniarda	5.74	69	Pn	Pn	04 58 25.8	-0.3
	comp=E,0.2nm,0.1s,SNR=7.9						
EBEN				Sn	Sn	04 59 28.7	-1.9
	comp=E,0.1nm,0.2s,SNR=7.9						
STS	Santiago	6.11	350	Pn	Pn	04 58 31.7	+0.5
	comp=E,1.4nm,0.1s,SNR=7.9						
STS	Santiago	6.11	350	Pn	Pn	04 58 31.7	+0.5
	comp=E,1.4nm,0.1s,SNR=7.9						
EMAZ	Mazaricos	6.24	347	Pn	Pn	04 58 33.7	+0.7
	comp=E,0.2nm,0.1s,SNR=7.9						
EMAZ				Sn	Sn	04 59 40.1	-2.8
	comp=E,4.7nm,0.3s,SNR=7.9						
EMAZ	Mazaricos	6.24	347	Pn	Pn	04 58 33.7	+0.7
	comp=E,0.2nm,0.1s,SNR=7.9						
EMOS	Mosqueruela	6.25	54	Pn	Pn	04 58 34.4	+1.4
	comp=E,0.5nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	04 59 40.1	-3.0
	comp=E,0.1nm,0.2s,SNR=7.9						
EMOS				Lg		05 00 20.6	
	comp=E,5.6nm,0.6s,SNR=7.9						
EMOS	Mosqueruela	6.25	54	Pn	Pn	04 58 34.4	+1.4
EMOS				Sn	Sn	04 59 40.1	-3.0
EMOS	Mosqueruela	6.25	54	Pn	Pn	04 58 34.4	+1.3
	comp=E,0.5nm,0.1s,SNR=7.9						
EPON	Pontenova	6.45	360	Pn	Pn	04 58 36.5	+0.7
	comp=E,24nm,0.9s,SNR=7.9						
EPON	Pontenova	6.45	360	Pn	Pn	04 58 36.5	+0.7
	comp=E,24nm,0.9s,SNR=7.9						
EARI	Arriondas	6.58	12	Pn	Pn	04 58 38.9	+1.3
	comp=E,0.9nm,0.2s,SNR=7.9						
EARI				Sn	Sn	04 59 48.8	-2.5
	comp=E,2.2nm,0.4s,SNR=7.9						
EARI				Lg		05 00 32.3	
	comp=E,19nm,1.4s,SNR=5.0						
EARI	Arriondas	6.58	12	Pn	Pn	04 58 38.9	+1.3
EARI				Sn	Sn	04 59 48.8	-2.5
EARI	Arriondas	6.58	12	Pn	Pn	04 58 38.9	+1.2
	comp=E,0.9nm,0.2s,SNR=7.9						
ECRI	Cripan	6.73	30	Pn	Pn	04 58 41.3	+1.6
	comp=E,1.0nm,0.2s,SNR=7.9						
ECRI				Sn	Sn	04 59 52.4	-2.6
	comp=E,1.1nm,0.1s,SNR=7.9						
ECRI	Cripan	6.73	30	Pn	Pn	04 58 41.3	+1.6
	comp=E,1.0nm,0.2s,SNR=7.9						
ELAN	Lanestosa	6.94	23	Pn	Pn	04 58 43.0	+0.4
	comp=E,0.4nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	04 59 56.8	-3.4
	comp=E,2.6nm,0.3s,SNR=7.9						
ELAN				Lg		05 00 45.3	
	comp=E,12nm,0.9s,SNR=7.9						
ELAN	Lanestosa	6.94	23	Pn	Pn	04 58 43.0	+0.4
ELAN				Sn	Sn	04 59 56.8	-3.4
ELAN	Lanestosa	6.94	23	Pn	Pn	04 58 43.0	+0.4
	comp=E,0.4nm,0.2s,SNR=7.9						
EIBI	Ibiza	7.00	70	Pn	Pn	04 58 43.3	-0.2
	comp=E,0.2nm,0.1s,SNR=7.9						
EIBI				Sn	Sn	04 59 57.4	-4.3
	comp=E,0.3nm,0.1s,SNR=7.9						
EIBI	Ibiza	7.00	70	Pn	Pn	04 58 43.3	-0.2
	comp=E,0.2nm,0.1s,SNR=7.9						
ESAC	San Caprasio	7.06	45	Pn	Pn	04 58 45.5	+1.3
ESAC	San Caprasio	7.06	45	Pn	Pn	04 58 45.5	+1.3
ERTA	Horta de San J	7.08	53	Pn	Pn	04 58 45.8	+1.3
	comp=E,0.0nm,0.0s,SNR=7.9						
ERTA	Horta de San J	7.08	53	Pn	Pn	04 58 45.8	+1.3
	SNR=7.9						
ELIZ	Elizondo	7.59	32	Pn	Pn	04 58 52.7	+1.1
	comp=E,0.7nm,0.1s,SNR=7.9						
ELIZ				Sn	Sn	05 00 12.4	-3.8
	comp=E,1.1nm,0.3s,SNR=7.9						
ELIZ	Elizondo	7.59	32	Pn	Pn	04 58 52.7	+1.1
	comp=E,0.7nm,0.1s,SNR=7.9						
EALK	Alkurruntz	7.65	32	Pn	Pn	04 58 53.8	+1.5
	comp=E,0.1nm,0.2s,SNR=7.9						
EALK				Sn	Sn	05 00 13.6	-4.0
	comp=E,0.8nm,0.3s,SNR=7.9						
EALK	Alkurruntz	7.65	32	Pn	Pn	04 58 53.8	+1.5
	comp=E,0.1nm,0.2s,SNR=7.9						
SJPF	Ste Jean	7.69	34	*e*Pn	Pn	04 58 53.2	+0.4
SJPF				*e*Sn	Sn	05 00 15.1	-3.4
	comp=E,2.3nm,0.2s						
SJPF	Ste Jean	7.69	34	Pn	Pn	04 58 53.2	+0.4
SJPF				Sn	Sn	05 00 15.1	-3.4
	comp=E,1.2nm,0.2s						
SJPF	Ste Jean	7.69	34	*e*Pn	Pn	04 58 53.2	+0.4
ETSF	Etsaut	7.84	38	*e*Pn	Pn	04 58 55.3	+0.4
ETSF				*e*Sn	Sn	05 00 17.8	-4.4
	comp=E,1.1nm,0.3s						
ETSF	Etsaut	7.84	38	Pn	Pn	04 58 55.3	+0.4
ETSF				Sn	Sn	05 00 17.8	-4.4
	comp=E,0.6nm,0.3s						
ETSF	Etsaut	7.84	38	*e*Pn	Pn	04 58 55.3	+0.4
EBIE	Bielsa	8.04	42	Pn	Pn	04 58 58.8	+1.0
	comp=E,1.2nm,0.3s,SNR=9.4						
EBIE				Sn	Sn	05 00 24.1	-3.1
	comp=E,0.9nm,0.3s,SNR=7.9						
EBIE	Bielsa	8.04	42	Pn	Pn	04 58 59.3	+1.6
EBIE				Sn	Sn	05 00 24.1	-3.1
EBIE	Bielsa	8.04	42	Pn	Pn	04 58 58.8	+1.1
	comp=E,1.2nm,0.3s,SNR=9.4						
ETOS	Mallorca	8.31	67	Sn	Sn	05 00 29.0	-4.7
	comp=E,0.1nm,0.1s,SNR=7.9						
EPF	Esparros	8.39	41	*e*Pn	Pn	04 59 02.6	+0.2
EPF				*e*Sn	Sn	05 00 32.0	-3.7
	comp=E,2.5nm,0.5s						
EPF	Esparros	8.39	41	Pn	Pn	04 59 02.6	+0.2
EPF				Sn	Sn	05 00 32.0	-3.7
	comp=E,1.2nm,0.5s						
EPF	Esparros	8.39	41	*e*Pn	Pn	04 59 02.6	+0.2
LFF	La Frestale	10.00	34	*e*Pn	Pn	04 59 24.7	+0.2
LFF	La Frestale	10.00	34	*e*Pn	Pn	04 59 24.7	+0.2
CAF	Calviac	10.61	38	*e*Pn	Pn	04 59 32.9	+0.1
CAF				*e*Sn	Sn	05 01 25.2	-5.0
	comp=E,0.9nm,0.3s						
CAF	Calviac	10.61	38	Pn	Pn	04 59 32.9	+0.1
CAF				Sn	Sn	05 01 25.2	-5.0
	comp=E,0.4nm,0.3s						
CAF	Calviac	10.61	38	*e*Pn	Pn	04 59 32.9	+0.1
RJF	Les Rejaudoux	10.63	35	*e*Pn	Pn	04 59 32.9	-0.2
RJF				*e*Sn	Sn	05 01 24.7	-5.9
	comp=E,1.0nm,0.3s						
RJF	Les Rejaudoux	10.63	35	Pn	Pn	04 59 32.9	-0.2
RJF				Sn	Sn	05 01 24.7	-5.9
	comp=E,0.5nm,0.3s						
RJF	Les Rejaudoux	10.63	35	*e*Pn	Pn	04 59 32.9	-0.2
MFF	Saint Martin d	11.01	26	*e*Pn	Pn	04 59 38.3	0.0
MFF	Saint Martin d	11.01	26	*e*Pn	Pn	04 59 38.3	0.0
QUIF	Quistinic	11.41	13	*e*Pn	Pn	04 59 43.2	-0.5
QUIF	Quistinic	11.41	13	*e*Pn	Pn	04 59 43.2	-0.5
TCF	Toulx Ste Croi	11.70	34	*e*Pn	Pn	04 59 47.7	+0.1
TCF	Toulx Ste Croi	11.70	34	*e*Pn	Pn	04 59 47.7	+0.1
ROSF	Rostrenen	11.79	13	*e*Pn	Pn	04 59 48.0	-1.0
ROSF	Rostrenen	11.79	13	*e*Pn	Pn	04 59 48.0	-1.0
SGMF	Saint Gilles	11.85	15	*e*Pn	Pn	04 59 49.7	-0.1
SGMF	Saint Gilles	11.85	15	*e*Pn	Pn	04 59 49.7	-0.1
BGF	Bois d'Agland	12.19	34	*e*Pn	Pn	04 59 54.1	-0.2
BGF	Bois d'Agland	12.19	34	*e*Pn	Pn	04 59 54.1	-0.2
GRR	Gorron	12.38	20	*e*Pn	Pn	04 59 56.7	-0.3
GRR	Gorron	12.38	20	*e*Pn	Pn	04 59 56.7	-0.3
SSF	Saint Saulge	12.86	34	*e*Pn	Pn	05 00 03.5	-0.1
SSF	Saint Saulge	12.86	34	*e*Pn	Pn	05 00 03.5	-0.1
CABF	La Chapelle	13.82	41	*e*Pn	Pn	05 00 16.7	+0.1
CABF	La Chapelle	13.82	41	*e*Pn	Pn	05 00 16.7	+0.1

ISCJB ***23*** *05:01:09.3±0.2, 44°.62N±0°.02×112°.06W±0°.02, h10^{km}, Error ellipse: s-maj=2.7km s-min=2.0km az=152.8*

NEIC ***23*** *05:01:09.0, 44°.61N×112°.09W, h10^{km}, ML2.5(BUT), After BUT.*

ISC 23 05:01:09.7±0.2**, 44°.64N**±0°.01×**112°.08W**±0°.02**, h10^{km}, n61, **σ1^{s}.**23**/91**, Eastern Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCMT	McKenzie Canyo	0.58	289	*e*Pg	Pg	05 01 20.6	-0.3
MCMT				*e*Sg	Sg	05 01 28.4	-0.1
H16A	Russell Place,	0.60	83	P	Pg	05 01 20.9	-0.3
	baz=0.6,SNR=334						
G15A	Dillon	0.60	331	P	Pg	05 01 21.1	-0.3
	baz=0.6,SNR=788						
G16A	Moss Hill, Enn	0.62	18	P	Pg	05 01 21.4	-0.3
	baz=0.6,SNR=285						
I15A	Monteview	0.70	205	P	Pg	05 01 22.4	-0.7
	baz=0.7,SNR=81						
YMR	Madison River	0.80	87	*e*Pg	Pg	05 01 24.9	-0.1
YMR				*e*Sg	Sg	05 01 35.5	+0.1
DLMT	Dillon	0.81	333	*e*Pg	Pg	05 01 24.9	-0.5
DLMT				*e*Sg	Sg	05 01 36.4	+0.5
YFT	Old Faithful	0.91	101	*e*Pg	Pg	05 01 27.1	-0.1
YNR	Norris Junctio	1.00	85	*e*Pn	Pg	05 01 28.6	-0.4
YNR				*e*Sg	Sg	05 01 42.1	+0.1
BOZ	Bozeman (W)	1.06	17	*e*Pn	Pg	05 01 28.2	-1.8
BOZ				*e*Sg	Sg	05 01 45.5	+1.6
H17A	Grant Village	1.10	102	P	Pg	05 01 31.9	+1.1
	baz=1.1,SNR=11						
IMW	Indian Meadow	1.10	132	*e*Pn	Pg	05 01 29.5	-1.4
IMW				*e*Sg	Sg	05 01 44.5	-0.8
G14A	Jackson	1.15	302	P	Pb	05 01 31.2	-0.4
	baz=1.2,SNR=51						
G17A	Pierce Place,	1.17	54	P	Pb	05 01 31.7	-0.3
	baz=1.2,SNR=54						
LKWY	Lake	1.20	93	*e*Pn	Pn	05 01 32.7	+0.3
I14A	Mackay	1.21	235	P	Pn	05 01 31.8	-0.9
	baz=1.2,SNR=157						
LRM	Limekiln Ridge	1.21	348	*e*Pn	Pn	05 01 31.6	-1.0
LRM				*e*Sg	Sg	05 01 48.2	-0.6
DCID1	Drake Creek	1.23	148	*e*Pn	Pn	05 01 31.5	-1.3
DCID1				*e*Sg	Sg	05 01 48.7	-0.4
F15A	Butte	1.24	347	P	Pn	05 01 32.6	-0.4
	baz=1.3,SNR=161						
MOOW	Moose Ponds	1.31	132	*e*Pn	Pn	05 01 33.2	-0.7
MOOW				*e*Sg	Sg	05 01 49.6	-2.2
RRI2	Red Ridge	1.40	157	*e*Pn	Pn	05 01 34.4	-0.8
RRI2				*e*Sg	Sg	05 01 53.2	-1.5
TPAW	Teton Pass	1.41	144	*e*Pn	Pn	05 01 34.6	-0.7
TPAW				*e*Sg	Sg	05 01 53.5	-1.4
LOHW	Long Hollow	1.48	133	*e*Pn	Pn	05 01 35.7	-0.6
LOHW				*e*Sg	Sg	05 01 54.6	-2.5
F14A	Wisdom	1.49	323	P	Pn	05 01 37.4	+1.0
	baz=1.5,SNR=139						
SNOW	Snow King Moun	1.51	140	*e*Pn	Pn	05 01 37.1	+0.4
SNOW				*e*Sg	Sg	05 01 58.4	0.0
REDW	Red Top Meadow	1.55	145	*e*Pn	Pn	05 01 37.3	0.0
H13A	Challis	1.55	268	P	Pn	05 01 38.0	+0.7
	baz=1.5,SNR=141						
G13A	Cobalt	1.60	287	P	Pn	05 01 38.2	+0.3
	baz=1.6,SNR=181						
J17A	Brown Place, J	1.61	142	P	Pn	05 01 38.9	+0.7
	baz=1.6,SNR=37						
F17A	Fitzpatrick Pl	1.62	38	P	Pn	05 01 39.9	+1.7
	baz=1.6,SNR=100						
I13A	Wildhorse Cree	1.63	244	P	Pn	05 01 39.0	+0.6
	baz=1.6,SNR=94						
J14A	Carey	1.67	219	P	Pn	05 01 39.1	+0.1
	baz=1.7,SNR=70						
E15A	Deer Lodge	1.83	348	P	Pn	05 01 42.4	+1.2
	baz=1.8,SNR=128						
K16A	Soda Springs	1.84	169	P	Pn	05 01 42.0	+0.7
	baz=1.8,SNR=19						
G18A	Lazy EL Ranch,	1.91	68	P	Pn	05 01 44.2	+2.0
	baz=1.9,SNR=53						
E16A	East Helena	1.92	8	P	Pn	05 01 43.2	+0.9
	baz=1.9,SNR=15						
J13A	Cove Ranch, Pi	1.95	231	P	Pn	05 01 43.4	+0.6
	baz=1.9,SNR=59						
K15A	Arbon	1.98	190	P	Pn	05 01 44.1	+1.0
	baz=2.0,SNR=18						
K15A				S	Sn	05 02 10.3	+2.4
	baz=2.0,SNR=6.1						
HLID	Hailey	1.99	238	P	Pn	05 01 44.5	+1.1
	baz=2.0,SNR=98						
HLID	Hailey	1.99	238	*e*Pn	Pn	05 01 43.8	+0.4
HLID				*e*Sg	Sg	05 02 10.8	-2.9
AHID	Auburn Hatcher	2.00	159	*e*Pn	Pn	05 01 44.4	+0.9
AHID				*e*Sg	Sg	05 02 12.4	-1.5
E17A	Martinsdale	2.02	25	P	Pn	05 01 44.6	+1.0
	baz=2.0,SNR=53						
RLMT	Red Lodge	2.06	75	*e*Pn	Pn	05 01 46.2	+2.0
RLMT				*e*Sg	Sg	05 02 13.6	-2.2
GCMT	Greycliff	2.06	55	*e*Pn	Pn	05 01 46.0	+1.7
GCMT				*e*Sg	Sg	05 02 12.2	-3.6
J18A	Kendall Valley	2.06	133	P	Pn	05 01 46.3	+2.0
	baz=2.1,SNR=28						
HRY	Holter Researc	2.08	5	*e*Pn	Pn	05 01 45.5	+0.9
HRY				*e*Pg	Pg	05 01 48.8	-0.8
HRY				*e*Sg	Sg	05 02 15.9	-0.7
F18A	Big Timber	2.10	52	P	Pn	05 01 46.8	+2.0
	baz=2.1,SNR=21						
K14A	Jones Ranch, D	2.24	201	P	Pn	05 01 47.8	+1.1
	baz=2.2,SNR=30						
CHMT	Chamberlain Mo	2.42	341	*e*Pn	Pn	05 01 49.7	+0.5
CHMT				*e*Sg	Sg	05 02 24.6	-2.8
D16A	Dana Ranch, Ca	2.42	9	P	Pn	05 01 50.3	+1.0
	baz=2.4,SNR=24						
D15A	Lincoln	2.42	353	P	Pn	05 01 50.2	+0.9
	baz=2.4,SNR=26						
E18A	Harlowton	2.46	37	P	Pn	05 01 51.5	+1.7
	baz=2.5,SNR=14						
MSO	Missoula	2.55	330	Pn	Pn	05 01 50.9	-0.1
MSO				*e*Pg	Pg	05 01 57.0	-1.5
MSO				*e*Sg	Sg	05 02 29.2	-2.4
D14A	Greenough	2.64	338	P	Pn	05 01 53.1	+0.9
	baz=2.6,SNR=6.7						
SLMT	Seeley Lake	2.79	340	*e*Pn	Pn	05 01 54.9	+0.7
SLMT				*e*Pg	Pg	05 02 01.1	-1.9
SLMT				*e*Sg	Sg	05 02 37.2	-1.9
HVU	Hansel Valley	2.90	190	*e*Pn	Pn	05 01 57.4	+1.6
HVU				*e*Sg	Sg	05 02 39.5	-3.3
SWMT	Swartz Lake	3.17	336	*e*Pg	Pg	05 02 08.0	-2.4
SWMT				*e*Sg	Sg	05 02 48.8	-2.6
JTMT	Jette	3.47	335	*e*Pn	Pn	05 02 04.3	+0.7
JTMT				*e*Sg	Sg	05 02 59.4	-1.6
M13A	Montello	3.61	206	*e*Pn	Pn	05 02 08.4	+2.8
M13A				*e*Pg	Pg	05 02 19.6	+0.7
EGMT	Eagleton	3.75	25	*e*Pn	Pn	05 02 09.1	+1.6
EGMT				*e*Sn	Sn	05 02 52.8	+1.1
L09A	Wilkinson Ranc	4.84	239	S	Sn	05 03 19.5	+0.9
	baz=4.8,SNR=14						

IDC ***23*** *05:04:53.0±1.0, 41°.19N×114°.86W, h0^{km}, mb2.4/1, mb1 2.9/3, mb1mx2.9/21, mbtmp2.5/3, ML2.6/2, Error ellipse: s-maj=16.1km s-min=6.0km az=134.0*

ISCJB ***23*** *05:04:53.5±0.3, 41°.18N±0°.03×114°.88W±0°.04, h10^{km}, Error ellipse: s-maj=5.2km s-min=3.9km az=145.4*

ISC 23 05:04:53.9±0.3**, 41°.18N**±0°.03×**114°.88W**±0°.04**, h10^{km}, n30, **σ**0^{s}.88**/33**, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.35	201	P	Pg	05 05 00.2	-0.6
	baz=0.9,SNR=165						
ELK	Elko	0.51	213	Pg	Pg	05 05 03.0	-0.9
	8.1nm,0.3s,baz=28,slow=18,SNR=23						
ELK				Lg		05 05 09.8	
	24nm,0.3s,baz=301,slow=22,SNR=64						
M13A	Montello	0.57	71	P	Pg	05 05 04.4	-0.5
	baz=0.3,SNR=85						
N13A	Wendover, West	0.60	122	P	Pg	05 05 05.1	-0.5
	baz=0.4,SNR=106						
M11A	Holland Ranch,	0.73	291	P	Pg	05 05 07.7	-0.5
	baz=1.5,SNR=26						
N11A	Elko Archery C	0.74	241	P	Pg	05 05 07.5	-0.8
	baz=1.5,SNR=28						
O12A	Currie	0.91	174	P	Pg	05 05 10.7	-0.8
	baz=1.1,SNR=131						
L12A	House Creek Ra	0.97	354	P	Pg	05 05 12.0	-0.7
	baz=1.4,SNR=35						
L13A	Double Diamond	1.15	37	P	Pg	05 05 14.7	-1.3
	baz=1.0,SNR=39						
L11A	Cat Creek Ranc	1.19	327	P	Pb	05 05 15.3	-1.2
	baz=1.8,SNR=90						
M14A	Sheep Mountain	1.20	74	P	Pb	05 05 15.7	-1.0
	baz=0.5,SNR=69						
O11A	Cowboy Ranch,	1.20	210	P	Pb	05 05 16.3	-0.5
	baz=1.7,SNR=99						
M10A	I.L. Ranch, Tu	1.30	286	P	Pn	05 05 17.6	-0.5
	baz=2.1,SNR=32						
L10A	Juniper Basin	1.50	307	P	Pn	05 05 20.9	0.0
	baz=2.2,SNR=97						
L14A	Malta	1.50	55	P	Pn	05 05 20.6	-0.2
	baz=1.0,SNR=41						
O10A	Cortez Mining,	1.52	235	P	Pn	05 05 21.6	+0.4
	baz=2.2,SNR=15						
K13A	Stover Farm, H	1.59	22	P	Pn	05 05 22.1	0.0
	baz=1.5,SNR=22						

N15A	**Stansbury Isla**	**1.81**	**98**	P	**Pn**	**05 05 25.6**	**+0.5**
	baz=1.0,SNR=21						
K11A	**Parker Ranch,**	**1.81**	**332**	P	**Pn**	**05 05 25.6**	**+0.4**
	baz=2.3,SNR=47						
DUG	**Dugway**	**1.85**	**121**	P	**Pn**	**05 05 26.9**	**+1.2**
	baz=1.2,SNR=42						
M15A	**Larsen Ranch,**	**1.85**	**80**	P	**Pn**	**05 05 26.0**	**+0.3**
	baz=1.1,SNR=26						
K14A	**Jones Ranch, D**	**1.87**	**42**	P	**Pn**	**05 05 26.4**	**+0.5**
	baz=1.5,SNR=16						
M09A	**Marrel Ranch,**	**1.96**	**278**	P	**Pn**	**05 05 28.1**	**+0.9**
	baz=2.7,SNR=32						
N09A	**Rock Creek Ran**	**2.03**	**262**	P	**Pn**	**05 05 29.6**	**+1.5**
	baz=2.8,SNR=11						
L15A	**Malad City**	**2.04**	**65**	P	**Pn**	**05 05 28.4**	**0.0**
	baz=1.4,SNR=11						
J12A	**Stokes Ranch,**	**2.08**	**356**	P	**Pn**	**05 05 29.4**	**+0.6**
	baz=2.3,SNR=32						
K15A	**Arbon**	**2.31**	**48**	P	**Pn**	**05 05 32.7**	**+0.7**
	baz=1.8,SNR=12						
NVAR	**Mina Array Bea**	**3.81**	**225**	Pn	**Pn**	**05 05 52.3**	**-0.3**
	0.3nm,0.3s,baz=37,slow=14,SNR=7.7						
NVAR				Pg	**Pg**	**05 06 02.1**	**-4.7**
	1.0nm,0.3s,baz=41,slow=17,SNR=8.7						
NVAR				Sn	**Sn**	**05 06 40.2**	**+2.8**
	1.0nm,0.3s,baz=40,slow=24,SNR=3.0						
NVAR				Lg		05 06 53.8	
	3.6nm,0.3s,baz=258,slow=18,SNR=12						
PDAR	**Pinedale Array**	**4.27**	**66**	Pn	**Pn**	**05 06 01.0**	**+2.0**
	0.1nm,0.3s,baz=227,slow=13,SNR=2.7						
PDAR				Pg	**Pg**	**05 06 12.0**	**-3.7**
	0.2nm,0.3s,baz=247,slow=14,SNR=8.7						
PDAR				Lg		05 07 06.9	
	0.3nm,0.3s,baz=239,slow=29,SNR=6.3						
YKA	**Yellowknife Ar**	**21.35**	**0**	P	**P**	**05 09 41.5**	**+0.5**
	0.1nm,0.4s,baz=181,slow=11,SNR=3.9						

PRE 23 05:11:02.5±0.7, 21°.98S×33°.92E, h5^{km}, ML3.7, Mozambique

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSNA	**Messina**	**3.63**	**263**	*e*P	Pn	05 12 00.1	+0.8
MSNA				*e*S	Sn	05 12 42.0	-0.5
MSNA				AML	AML	05 12 54.4	
	comp=Z,118nm,0.4s						
POGA	**Pongola**	**5.76**	**201**	*e*P	Pn	05 12 28.8	0.0
POGA				*e*S	Sn	05 13 31.7	-3.6
POGA				AML	AML	05 14 29.6	
	comp=Z,17nm,0.7s						
SLR	**Silverton**	**6.37**	**233**	*e*S	Sn	05 13 48.2	-2.1
SLR				AML	AML	05 14 36.1	
	comp=Z,31nm,0.7s						
PRYS	**Parys**	**7.74**	**229**	*e*P	Pn	05 12 56.8	+0.9
PRYS				*e*S	Sn	05 14 20.4	-3.6
PRYS				AML	AML	05 15 25.6	
	comp=Z,9.4nm,0.7s						
PKA	**Prieska**	**12.63**	**230**	*e*P	Pn	05 14 05.1	+2.2

ISCJB ***23*** *05:17:54.5±0.4, 34°.87N±0°.03×23°.21E±0°.03, h62^{km}±4^{km}, mb4.2/21, Error ellipse: s-maj=6.1km s-min=3.0km az=44.5*

MOS ***23*** *05:17:56.1±1.5, 35°.05N×23°.19E, h58^{km}, mb4.2/15, Error ellipse: s-maj=8.9km s-min=5.4km az=97.5*

CSEM ***23*** *05:17:56.6±0.2, 34°.91N×23°.18E, h55^{km}±2^{km}, mb4.1/14, Error ellipse: s-maj=7.2km s-min=3.5km az=41.0*

NEIC ***23*** *05:17:58.2, 35°.12N×23°.34E, h53^{km}, mb3.9/5, MD3.9(ATH), After ATH.*

ATH ***23*** *05:17:58.2, 35°.12N×23°.34E, h53^{km}±4^{km}, MD3.9/27, ML3.6*

IDC ***23*** *05:17:59.6±1.8, 35°.21N×23°.29E, h64^{km}±15^{km}, mb3.8/14, mb1 3.9/18, mb1mx3.8/29, mbtmp3.8/18, Error ellipse: s-maj=20.8km s-min=15.1km az=15.0*

HLW ***23*** *05:17:59.9, 35°.02N×23°.57E, h34^{km}, Mb3.9*

THE ***23*** *05:17:59.2, 35°.17N×23°.30E, h52^{km}±11^{km}, ML4.1/2, Error ellipse: s-maj=11.6km s-min=1.8km az=182.0*

GII ***23*** *05:18:05.5±0.0, 34°.72N×24°.48E, h1^{km}, Md3.6/12*

ISC 23 05:17:56.5±0.3, 34°.92N±0°.03×23°.23E±0°.03, h53^{km}±4^{km}, n263, $\sigma 1\overset{s}{.}19$/285, mb4.2/21, Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARN	**Karanos**	**0.74**	**49**	*e*P	**Pn**	**05 18 10.1**	**-0.8**
KARN				*e*S	**Sn**	**05 18 20.5**	**-0.9**
KARN	**Karanos**	**0.74**	**49**	*e*P	**Pn**	**05 18 10.1**	**-0.8**
VAM	**Vamos**	**0.93**	**58**	*e*P	**Pn**	**05 18 13.5**	**+0.1**
VAM	**Vamos**	**0.93**	**58**	*e*P	**Pn**	**05 18 13.5**	**+0.1**
SIVA	**Sivas**	**1.30**	**85**	P	**Pn**	**05 18 20.0**	**+1.6**
SIVA	**Sivas**	**1.30**	**85**	*e*P	**Pn**	**05 18 20.1**	**+1.7**
SIVA	**Sivas**	**1.30**	**85**	P	**Pn**	**05 18 20.0**	**+1.6**
KYTH	**Kithira**	**1.37**	**353**	*e*P	**Pn**	**05 18 20.1**	**+0.8**
KYTH	**Kithira**	**1.37**	**353**	*e*P	**Pn**	**05 18 20.1**	**+0.8**
IDI	**Anoyia**	**1.41**	**74**	*e*P	**Pn**	**05 18 21.0**	**+1.2**
IDI	**Anoyia**	**1.41**	**74**	P	**Pn**	**05 18 21.1**	**+1.2**
	32nm,0.3s,baz=271,slow=16,SNR=154						
IDI				S	**Sn**	**05 18 38.8**	**+1.5**
	62nm,0.3s,baz=354,slow=19,SNR=10						
IDI	**Anoyia**	**1.41**	**74**	*e*P	**Pn**	**05 18 21.0**	**+1.2**
VLI	**Veliai**	**1.81**	**353**	*e*P	**Pn**	**05 18 26.3**	**+1.0**
VLI	**Veliai**	**1.81**	**353**	*e*P	**Pn**	**05 18 26.3**	**+1.0**
LAST	**Lasithi**	**1.86**	**82**	P	**Pn**	**05 18 27.9**	**+1.9**
LAST	**Lasithi**	**1.86**	**82**	*e*P	**Pn**	**05 18 28.0**	**+2.0**
LAST	**Lasithi**	**1.86**	**82**	P	**Pn**	**05 18 27.9**	**+1.9**
NPS	**Neapolis**	**1.98**	**79**	*e*P	**Pn**	**05 18 28.6**	**+0.9**
NPS	**Neapolis**	**1.98**	**79**	*e*P	**Pn**	**05 18 28.6**	**+0.9**
PYL	**PYLOS**	**2.31**	**329**	P	**Pn**	**05 18 31.9**	**-0.3**
PYL	**PYLOS**	**2.31**	**329**	*e*P	**Pn**	**05 18 32.9**	**+0.7**
PYL	**PYLOS**	**2.31**	**329**	P	**Pn**	**05 18 31.9**	**-0.3**
THR1	**Thera Island**	**2.32**	**51**	P	**Pn**	**05 18 32.2**	**-0.1**
THR1	**Thera Island**	**2.32**	**51**	P	**Pn**	**05 18 32.2**	**-0.1**
ZKR	**Zakros**	**2.46**	**85**	P	**Pn**	**05 18 36.3**	**+2.1**
ZKR	**Zakros**	**2.46**	**85**	*e*P	**Pn**	**05 18 36.4**	**+2.2**
ZKR	**Zakros**	**2.46**	**85**	P	**Pn**	**05 18 36.3**	**+2.1**
ITM	**Ithomi**	**2.49**	**335**	*e*P	**Pn**	**05 18 35.4**	**+0.8**
ITM	**Ithomi**	**2.49**	**335**	*e*P	**Pn**	**05 18 35.4**	**+0.8**
VLX	**Vlachokerasia**	**2.54**	**345**	*e*P	**Pn**	**05 18 37.0**	**+1.7**
VLX	**Vlachokerasia**	**2.54**	**345**	*e*P	**Pn**	**05 18 37.0**	**+1.7**
DID	**Didima**	**2.58**	**0**	P	**Pn**	**05 18 35.3**	**-0.5**
DID	**Didima**	**2.58**	**0**	*e*P	**Pn**	**05 18 36.9**	**+1.1**
DID	**Didima**	**2.58**	**0**	*e*P	**Pn**	**05 18 36.9**	**+1.1**
NAIG	**Nisos Aigina**	**2.84**	**4**	*e*P	**Pn**	**05 18 39.9**	**+0.5**
NAIG	**Nisos Aigina**	**2.84**	**4**	*e*P	**Pn**	**05 18 39.9**	**+0.5**
VLY	**Voula,Athens**	**2.96**	**9**	*e*P	**Pn**	**05 18 41.0**	**-0.1**
VLY	**Voula,Athens**	**2.96**	**9**	*e*P	**Pn**	**05 18 41.0**	**-0.1**
ATH	**Athens Observa**	**3.07**	**7**	*e*P	**Pn**	**05 18 42.6**	**0.0**
ATH	**Athens Observa**	**3.07**	**7**	*e*P	**Pn**	**05 18 42.6**	**0.0**
ATHU	**Athens Univers**	**3.07**	**8**	P	**Pn**	**05 18 42.4**	**-0.2**
ATHU	**Athens Univers**	**3.07**	**8**	P	**Pn**	**05 18 42.4**	**-0.2**
GUR	**Goura**	**3.10**	**347**	*e*P	**Pn**	**05 18 44.7**	**+1.8**
GUR	**Goura**	**3.10**	**347**	*e*P	**Pn**	**05 18 44.7**	**+1.8**
LTK	**Loutraki**	**3.10**	**356**	P	**Pn**	**05 18 43.1**	**+0.1**
LTK	**Loutraki**	**3.10**	**356**	*e*P	**Pn**	**05 18 43.8**	**+0.8**
LTK	**Loutraki**	**3.10**	**356**	*e*P	**Pn**	**05 18 43.8**	**+0.8**
PTL	**Penteli**	**3.17**	**9**	*e*P	**Pn**	**05 18 44.0**	**+0.2**
PTL	**Penteli**	**3.17**	**9**	*e*P	**Pn**	**05 18 44.0**	**+0.2**
KARP	**Karpathos**	**3.28**	**78**	*e*P	**Pn**	**05 18 47.5**	**+2.1**
KARP				*e*S	**Sn**	**05 19 22.5**	**-0.6**
KARP	**Karpathos**	**3.28**	**78**	*e*P	**Pn**	**05 18 47.5**	**+2.1**
KARP				*e*S	**Sn**	**05 19 22.5**	**-0.6**
RLS	**Riolos of Patr**	**3.44**	**336**	*e*P	**Pn**	**05 18 48.6**	**+1.0**
RLS	**Riolos of Patr**	**3.44**	**336**	*e*P	**Pn**	**05 18 48.6**	**+1.0**
LAKA	**Lakka**	**3.46**	**343**	P	**Pn**	**05 18 48.6**	**+0.7**
LAKA	**Lakka**	**3.46**	**343**	P	**Pn**	**05 18 48.6**	**+0.7**
TRIZ	**Trizonia**	**3.56**	**345**	P	**Pn**	**05 18 49.8**	**+0.5**
TRIZ	**Trizonia**	**3.56**	**345**	P	**Pn**	**05 18 49.8**	**+0.5**
KALE	**Kalithea**	**3.58**	**346**	P	**Pn**	**05 18 49.8**	**+0.4**
KALE	**Kalithea**	**3.58**	**346**	P	**Pn**	**05 18 49.8**	**+0.4**
EFP	**Efpalio**	**3.66**	**343**	*e*P	**Pn**	**05 18 52.8**	**+2.2**
EFP	**Efpalio**	**3.66**	**343**	*e*P	**Pn**	**05 18 52.8**	**+2.2**
LKR	**Lokris**	**3.73**	**357**	P	**Pn**	**05 18 51.8**	**+0.2**
LKR	**Lokris**	**3.73**	**357**	*e*P	**Pn**	**05 18 52.0**	**+0.4**
LKR	**Lokris**	**3.73**	**357**	*e*P	**Pn**	**05 18 52.0**	**+0.4**
VLS	**Valsamata**	**3.88**	**328**	P	**Pn**	**05 18 53.3**	**-0.4**
VLS	**Valsamata**	**3.88**	**328**	P	**Pn**	**05 18 53.8**	**+0.1**
VLS	**Valsamata**	**3.88**	**328**	P	**Pn**	**05 18 53.8**	**+0.1**
SMG	**Samos**	**4.03**	**45**	*e*P	**Pn**	**05 18 56.4**	**+0.7**
SMG				*e*S	**Sn**	**05 19 39.6**	**-2.0**
SMG	**Samos**	**4.03**	**45**	*e*P	**Pn**	**05 18 56.4**	**+0.7**
CHOS	**Chios island**	**4.14**	**32**	P	**Pn**	**05 18 56.5**	**-0.7**
CHOS	**Chios island**	**4.14**	**32**	P	**Pn**	**05 18 56.5**	**-0.7**
AGG	**Agios Georgios**	**4.16**	**350**	P	**Pn**	**05 18 58.0**	**+0.6**
AGG	**Agios Georgios**	**4.16**	**350**	P	**Pn**	**05 18 58.0**	**+0.6**
ARG	**Arkhangelos**	**4.20**	**71**	*e*P	**Pn**	**05 18 59.5**	**+1.5**
ARG	**Arkhangelos**	**4.20**	**71**	*e*P	**Pn**	**05 18 59.5**	**+1.5**
AOS	**Alonnisos**	**4.28**	**7**	P	**Pn**	**05 18 58.7**	**-0.3**
AOS	**Alonnisos**	**4.28**	**7**	P	**Pn**	**05 18 58.7**	**-0.3**
XOR	**Xorichti**	**4.44**	**360**	P	**Pn**	**05 19 01.5**	**+0.2**
XOR	**Xorichti**	**4.44**	**360**	P	**Pn**	**05 19 01.5**	**+0.2**
XOR	**Xorichti**	**4.44**	**360**	P	**Pn**	**05 19 01.5**	**+0.2**
THL	**Klokotos Trika**	**4.74**	**349**	*e*P	**Pn**	**05 19 06.0**	**+0.6**
THL	**Klokotos Trika**	**4.74**	**349**	*e*P	**Pn**	**05 19 06.0**	**+0.6**
PRK	**Paraskevi**	**4.96**	**28**	*e*P	**Pn**	**05 19 10.0**	**+1.6**
PRK	**Paraskevi**	**4.96**	**28**	*e*P	**Pn**	**05 19 10.0**	**+1.6**
LIA	**Limnos Island**	**5.21**	**17**	P	**Pn**	**05 19 11.5**	**-0.3**
LIA	**Limnos Island**	**5.21**	**17**	P	**Pn**	**05 19 11.5**	**-0.3**
PLG	**Polygyros**	**5.45**	**2**	*e*P	**Pn**	**05 19 15.0**	**-0.1**
PLG	**Polygyros**	**5.45**	**2**	*e*P	**Pn**	**05 19 15.0**	**-0.1**
KZN	**Kozani**	**5.50**	**348**	*e*P	**Pn**	**05 19 17.3**	**+1.5**
KZN	**Kozani**	**5.50**	**348**	*e*P	**Pn**	**05 19 17.3**	**+1.5**
KEK	**Kerkira**	**5.51**	**331**	*e*P	**Pn**	**05 19 17.0**	**+1.0**
KEK	**Kerkira**	**5.51**	**331**	*e*P	**Pn**	**05 19 17.0**	**+1.0**
SWA2		**5.96**	**161**	P	**Pn**	**05 19 24.9**	**+2.6**
SWA2				S	**Sn**	**05 20 28.4**	**-0.8**
BIA	**Bitola**	**6.27**	**347**	*e*Pn	**Pn**	**05 19 25.5**	**-0.9**
BIA				*e*Sn	**Sn**	**05 20 32.3**	**-4.4**
BIA	**Bitola**	**6.27**	**347**	*e*Pn	**Pn**	**05 19 25.5**	**-0.9**
NVR	**Nevrokopi**	**6.44**	**4**	P	**Pn**	**05 19 29.2**	**+0.5**
NVR	**Nevrokopi**	**6.44**	**4**	P	**Pn**	**05 19 29.2**	**+0.5**
SOI	**Samo**	**6.58**	**301**	P	**Pn**	**05 19 29.9**	**-0.7**
SOI				pmax	pmax		
	comp=Z,6.0nm,0.3s						
SOI	**Samo**	**6.58**	**301**	Pn	**Pn**	**05 19 29.9**	**-0.7**
	comp=Z,5.6nm,0.3s						
SOI	**Samo**	**6.58**	**301**	Pn	**Pn**	**05 19 29.9**	**-0.7**
	comp=Z,5.6nm,0.3s						
KRUS	**Krusevo**	**6.63**	**347**	*e*Pn	**Pn**	**05 19 29.7**	**-1.5**
KRUS				*e*Sn	**Sn**	**05 20 40.5**	**-4.9**
KRUS	**Krusevo**	**6.63**	**347**	*e*Pn	**Pn**	**05 19 29.7**	**-1.5**
TIP	**Timpagrande**	**6.70**	**311**	P	**Pn**	**05 19 32.4**	**+0.2**
TIP	**Timpagrande**	**6.70**	**311**	P	**Pn**	**05 19 32.4**	**+0.2**
CEL	**Celeste**	**6.78**	**302**	P	**Pn**	**05 19 33.6**	**+0.3**
CEL	**Celeste**	**6.78**	**302**	P	**Pn**	**05 19 33.6**	**+0.3**
TAR1	**Taranto**	**7.31**	**322**	*e*Pn	**Pn**	**05 19 38.9**	**-1.8**
PE1	**Pezze di Greco**	**7.46**	**324**	*e*Pn	**Pn**	**05 19 41.0**	**-1.6**
VAE	**Valguarnera**	**7.57**	**292**	S	**Sn**	**05 21 04.7**	**-4.0**
	comp=Z,2.0nm,0.3s,baz=340,slow=2.5,SNR=6.2						
LTRZ	**Laterza**	**7.61**	**320**	Pn	**Pn**	**05 19 42.7**	**-2.1**
LTRZ	**Laterza**	**7.61**	**320**	Pn	**Pn**	**05 19 42.7**	**-2.1**
CUC	**Castrocucco**	**7.77**	**313**	P	**Pn**	**05 19 48.3**	**+1.4**
CUC	**Castrocucco**	**7.77**	**313**	P	**Pn**	**05 19 48.3**	**+1.4**
SG1	**Sgolgore (BA)**	**7.86**	**321**	*e*Pn	**Pn**	**05 19 47.0**	**-1.1**
BARS	**Barje**	**7.96**	**352**	*i* Pn	**Pn**	**05 19 47.7**	**-1.8**
PTRP	**Pietrapertosa**	**7.97**	**317**	Pn	**Pn**	**05 19 49.3**	**-0.3**
PTRP	**Pietrapertosa**	**7.97**	**317**	Pn	**Pn**	**05 19 49.3**	**-0.3**
MGR	**Morigerati**	**8.02**	**313**	Pn	**Pn**	**05 19 49.5**	**-0.8**
MGR	**Morigerati**	**8.02**	**313**	Pn	**Pn**	**05 19 49.5**	**-0.8**
AWBH		**8.16**	**142**	P	**Pn**	**05 19 53.5**	**+1.1**
AWBH		**8.16**	**142**	P	**Pn**	**05 19 53.5**	**+1.1**
HNAT	**Natroun**	**8.18**	**128**	P	**Pn**	**05 19 52.6**	**+0.1**
HNAT	**Natroun**	**8.18**	**128**	P	**Pn**	**05 19 52.6**	**0.0**
AYT	**Al ‘Ayyat**	**8.48**	**126**	P	**Pn**	**05 19 57.0**	**+0.3**
AYT	**Al ‘Ayyat**	**8.48**	**126**	P	**Pn**	**05 19 57.0**	**+0.3**
KOT	**Kottamia**	**8.81**	**122**	P	**Pn**	**05 20 01.3**	**+0.1**
KOT	**Kottamia**	**8.81**	**122**	P	**Pn**	**05 20 01.3**	**+0.1**
MS1	**Monte Sant’Ang**	**8.87**	**322**	*e*Pn	**Pn**	**05 20 00.1**	**-1.8**
HFRF	**Wahat Farafira**	**8.89**	**149**	P	**Pn**	**05 20 03.8**	**+1.5**
HFRF	**Wahat Farafira**	**8.89**	**149**	P	**Pn**	**05 20 03.8**	**+1.5**
GLL	**Jalalah**	**8.94**	**124**	P	**Pn**	**05 20 02.8**	**-0.2**
GLL	**Jalalah**	**8.94**	**124**	P	**Pn**	**05 20 02.8**	**-0.2**
STON	**Ston**	**9.03**	**333**	*e*Pn	**Pn**	**05 20 00.4**	**-3.8**
STON				Sn	**Sn**	**05 21 31.0**	**-13**
SUZ		**9.57**	**119**	P	**Pn**	**05 20 10.8**	**-0.7**
SUZ		**9.57**	**119**	P	**Pn**	**05 20 10.8**	**-0.8**
BRTR	**Keskin Array B**	**9.58**	**57**	P	**Pn**	**05 20 11.3**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=236,slow=13,SNR=6.9						
BRTR	**Keskin Array B**	**9.58**	**57**	P	**Pn**	**05 20 11.4**	**-0.2**
ZAF		**9.70**	**123**	P	**Pn**	**05 20 13.2**	**-0.1**
ZAF		**9.70**	**123**	P	**Pn**	**05 20 13.2**	**-0.1**
KZIT	**Kziot**	**10.20**	**110**	Pn	**Pn**	**05 20 18.6**	**-1.7**
KZIT				Sn	**Sn**	**05 22 04.5**	**-8.7**
SLTI	**Sal’it**	**10.21**	**102**	Pn	**Pn**	**05 20 18.0**	**-2.3**
SLTI				Sn	**Sn**	**05 22 03.9**	**-9.4**
MMAI	**Mount Meron Ar**	**10.29**	**97**	P	**Pn**	**05 20 19.9**	**-1.5**
	comp=Z,1.4nm,0.3s,baz=300,slow=12,SNR=11						
MMAI				S	**Sn**	**05 22 10.5**	**-4.7**
	comp=Z,2.5nm,0.3s,baz=274,slow=32,SNR=6.6						
MMA2	**Mount Meron ar**	**10.29**	**97**	Pn	**Pn**	**05 20 20.2**	**-1.2**
MMA2				Sn	**Sn**	**05 22 06.0**	**-9.3**
MMLI	**Mount Malkishu**	**10.46**	**100**	Pn	**Pn**	**05 20 22.8**	**-0.9**
MMLI				Sn	**Sn**	**05 22 09.6**	**-10**
YTIR	**Yattir**	**10.58**	**106**	Pn	**Pn**	**05 20 24.8**	**-0.6**
YTIR				Sn	**Sn**	**05 22 13.9**	**-8.4**
HMDT	**Nahal Hemdat**	**10.60**	**101**	Pn	**Pn**	**05 20 24.7**	**-0.9**
HMDT				Sn	**Sn**	**05 22 12.9**	**-10**
DSI	**Dead Sea**	**10.71**	**105**	Pn	**Pn**	**05 20 25.4**	**-1.8**
DSI				Sn	**Sn**	**05 22 16.6**	**-8.9**
HDK1	**Dakhla**	**10.76**	**149**	P	**Pn**	**05 20 29.1**	**+1.2**
HDK1	**Dakhla**	**10.76**	**149**	P	**Pn**	**05 20 29.1**	**+1.2**
MZDA	**Masada**	**10.79**	**106**	Pn	**Pn**	**05 20 26.6**	**-1.7**
MZDA				Sn	**Sn**	**05 22 18.4**	**-9.2**
KRMI	**Paran Flat**	**10.82**	**113**	Pn	**Pn**	**05 20 27.4**	**-1.3**
KRMI				Sn	**Sn**	**05 22 20.1**	**-8.2**
PRNI	**Paran**	**10.92**	**111**	Pn	**Pn**	**05 20 28.8**	**-1.3**
PRNI				Sn	**Sn**	**05 22 22.8**	**-7.9**
ZFRI	**Zfri**	**10.96**	**110**	Sn	**Sn**	**05 22 22.3**	**-9.4**
MBRI	**Mt Berech**	**11.12**	**114**	Pn	**Pn**	**05 20 31.4**	**-1.4**
MBRI				Sn	**Sn**	**05 22 27.6**	**-8.1**
EIL	**Elat**	**11.21**	**115**	P	**Pn**	**05 20 33.0**	**-1.1**
	comp=Z,0.9nm,0.3s,baz=296,slow=10,SNR=16						
EIL	**Elat**	**11.21**	**115**	Pn	**Pn**	**05 20 33.0**	**-1.1**
EIL				Sn	**Sn**	**05 22 28.8**	**-9.1**
EIL	**Elat**	**11.21**	**115**	P	**Pn**	**05 20 33.0**	**-1.1**
AKRG	**Al Kharijah**	**11.29**	**144**	P	**Pn**	**05 20 36.1**	**+1.0**
GTR	**Jabal at Tayr**	**11.31**	**144**	P	**Pn**	**05 20 36.1**	**+0.6**
GTR	**Jabal at Tayr**	**11.31**	**144**	P	**Pn**	**05 20 36.1**	**+0.6**
NVLJ	**Novalja**	**11.58**	**329**	*e*Pn	**Pn**	**05 20 37.1**	**-1.8**
NVLJ				Sn	**Sn**	**05 22 36.3**	**-10**
NVLJ	**Novalja**	**11.58**	**329**	*e*Pn	**Pn**	**05 20 37.1**	**-1.8**
HHRG	**Al Ghardaqah**	**11.72**	**128**	P	**Pn**	**05 20 40.8**	**-0.2**
HHRG	**Al Ghardaqah**	**11.72**	**128**	P	**Pn**	**05 20 40.8**	**-0.2**
VOJS	**Vojsko**	**13.17**	**330**	*e*Pn	**Pn**	**05 20 58.5**	**-2.2**
VOJS	**Vojsko**	**13.17**	**330**	*e*Pn	**Pn**	**05 20 58.5**	**-2.2**
VYHS	**Vyhne**	**13.95**	**348**	*e*P	**Pn**	**05 21 18.8**	**+7.5**
VYHS	**Vyhne**	**13.95**	**348**	*e*P	**Pn**	**05 21 18.8**	**+7.5**
VYHS	**Vyhne**	**13.95**	**348**	*e*	**Pn**	**05 21 18.8**	**+7.5**
VRAC	**Vranov**	**15.19**	**343**	P	**Pn**	**05 21 27.3**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=160,slow=9.1,SNR=2.2						
OKC	**Ostrava-Krasne**	**15.37**	**348**	*e*P	**Pn**	**05 21 34.3**	**+4.5**
OKC	**Ostrava-Krasne**	**15.37**	**348**	*e*P	**Pn**	**05 21 34.3**	**+4.5**
GEC2	**GERESS Array S**	**15.60**	**336**	*e*P	**Pn**	**05 21 38.3**	**+5.5**
GEC2	**GERESS Array S**	**15.60**	**336**	*e*P	**Pn**	**05 21 38.3**	**+5.5**
GERES	**GERESS Array B**	**15.60**	**336**	P	**Pn**	**05 21 30.5**	**-2.3**
	comp=Z,0.2nm,0.3s,baz=150,slow=14,SNR=4.4						
KHC	**Kasperske Hory**	**15.89**	**336**	*e*P	**Pn**	**05 21 41.0**	**+4.5**
KHC				*e*x	x	05 21 54.5	
KHC	**Kasperske Hory**	**15.89**	**336**	*e*P	**Pn**	**05 21 41.0**	**+4.5**
WET	**Wettzell**	**16.14**	**335**	*e*P	**Pn**	**05 21 43.6**	**+4.0**
WET	**Wettzell**	**16.14**	**335**	*e*P	**Pn**	**05 21 43.6**	**+4.0**
DPC	**Dobruska-Polom**	**16.23**	**344**	*e*P	**Pn**	**05 21 37.0**	**-3.7**
DPC				*e*x	x	05 21 44.0	
PRU	**Pruhonice**	**16.35**	**340**	*e*P	**Pn**	**05 21 45.5**	**+3.2**
PRU	**Pruhonice**	**16.35**	**340**	*e*P	**Pn**	**05 21 45.5**	**+3.2**
AKASG	**Malin Array Be**	**16.37**	**14**	P	**Pn**	**05 21 42.5**	**0.0**
	comp=Z,3.0nm,0.3s,baz=208,slow=9.2,SNR=7.8						
AKASG	**Malin Array Be**	**16.37**	**14**	P	**Pn**	**05 21 42.5**	**0.0**
UPC	**Upice**	**16.44**	**344**	*e*P	**Pn**	**05 21 35.5**	**-8.0**
UPC				*e*x	x	05 21 45.2	
GRA1	**Grafenberg Arr**	**17.19**	**333**	*e*P	**Pn**	**05 21 55.3**	**+2.5**
GRF	**Grafenberg Arr**	**17.19**	**333**	*e*P	**Pn**	**05 21 55.3**	**+2.5**
GRF	**Grafenberg Arr**	**17.19**	**333**	*e*P	**Pn**	**05 21 55.3**	**+2.5**
BRG	**Berggiesshubel**	**17.31**	**340**	*e*P	**Pn**	**05 21 56.6**	**+2.3**
BRG				pmax	pmax		
	comp=Z,7.0nm,1.5s						
BRG	**Berggiesshubel**	**17.31**	**340**	*e*P	**Pn**	**05 21 56.6**	**+2.3**
	comp=Z,12nm,1.5s						
BRG	**Berggiesshubel**	**17.31**	**340**	*e*P	**Pn**	**05 21 56.6**	**+2.3**
	comp=Z,6.9nm,1.5s						
CDF	**Champ du Feu**	**17.95**	**324**	*e*P	**Pn**	**05 21 57.0**	**-5.1**
HAU	**Haudompre**	**18.14**	**321**	*e*P	**Pn**	**05 22 01.3**	**-3.2**
HAU	**Haudompre**	**18.14**	**321**	*e*P	**Pn**	**05 22 01.3**	**-3.2**
LOR	**Lormes**	**19.05**	**316**	*e*P	**Pn**	**05 22 13.7**	**-1.7**
LOR	**Lormes**	**19.05**	**316**	*e*P	**Pn**	**05 22 13.7**	**-1.7**
SSF	**Saint Saulge**	**19.14**	**315**	*e*P	**Pn**	**05 22 14.5**	**-2.0**
	comp=Z,3.9nm,0.8s						
SSF	**Saint Saulge**	**19.14**	**315**	*e*P	**Pn**	**05 22 14.5**	**-2.0**
SSF				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SSF	**Saint Saulge**	**19.14**	**315**	*e*P	**Pn**	**05 22 14.5**	**-2.0**
	comp=Z,2.0nm,0.8s						
SSF	**Saint Saulge**	**19.14**	**315**	*e*P	**Pn**	**05 22 14.5**	**-2.0**
	comp=Z,2.0nm,0.8s						
BAIF	**Baives**	**20.54**	**323**	*e*P	**P**	**05 22 29.7**	**-0.7**
	comp=Z,13nm,0.8s						
BAIF	**Baives**	**20.54**	**323**	*e*P	**P**	**05 22 29.7**	**-0.7**
BAIF				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BAIF	**Baives**	**20.54**	**323**	*e*P	**P**	**05 22 29.7**	**-0.7**
	comp=Z,6.4nm,0.8s						
BAIF	**Baives**	**20.54**	**323**	*e*P	**P**	**05 22 29.7**	**-0.7**
	comp=Z,6.4nm,0.8s						
MFF	**Saint Martin d**	**21.12**	**311**	*e*P	**P**	**05 22 36.1**	**-0.6**
	comp=Z,23nm,1.2s,mb4.1						
MFF	**Saint Martin d**	**21.12**	**311**	*e*P	**P**	**05 22 36.1**	**-0.6**
MFF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.1						
MFF	**Saint Martin d**	**21.12**	**311**	*e*P	**P**	**05 22 36.1**	**-0.6**
	comp=Z,12nm,1.2s,mb4.1						
MFF	**Saint Martin d**	**21.12**	**311**	*e*P	**P**	**05 22 36.1**	**-0.6**
	comp=Z,12nm,1.2s,mb4.1						
LDF	**La Druitiere**	**22.03**	**315**	*e*P	**P**	**05 22 45.0**	**-1.3**
	comp=Z,9.6nm,0.8s,mb4.0						
LDF	**La Druitiere**	**22.03**	**315**	*e*P	**P**	**05 22 45.0**	**-1.3**
LDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.0						
LDF	**La Druitiere**	**22.03**	**315**	*e*P	**P**	**05 22 45.0**	**-1.3**
	comp=Z,4.8nm,0.8s,mb4.0						
LDF	**La Druitiere**	**22.03**	**315**	*e*P	**P**	**05 22 45.0**	**-1.3**
	comp=Z,4.8nm,0.8s,mb4.0						
FLN	**La Foliniere**	**22.32**	**316**	*e*P	**P**	**05 22 48.6**	**-0.8**
FLN	**La Foliniere**	**22.32**	**316**	*e*P	**P**	**05 22 48.6**	**-0.8**
HFS	**Hagfors**	**25.98**	**349**	P	**P**	**05 23 22.8**	**-1.1**
	comp=Z,2.6nm,0.4s,mb4.1,baz=144,slow=10,SNR=18						
HFS	**Hagfors**	**25.98**	**349**	P	**P**	**05 23 22.8**	**-1.1**
HFS	**Hagfors**	**25.98**	**349**	P	**P**	**05 23 22.8**	**-1.1**
NOA	**NORSAR Array B**	**27.26**	**347**	P	**P**	**05 23 35.4**	**0.0**
	comp=Z,1.2nm,0.6s,mb3.6,baz=152,slow=11,SNR=5.3						
NOA	**NORSAR Array B**	**27.26**	**347**	P	**P**	**05 23 35.4**	**0.0**
ARCES	**ARCESS Array B**	**34.69**	**1**	P	**P**	**05 24 39.5**	**-1.2**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	**ARCESS Array B**	**34.69**	**1**	P	**P**	**05 24 39.5**	**-1.2**
	comp=Z,1.5nm,0.7s,mb4.0,baz=192,slow=8.4,SNR=13						
ARCES	**ARCESS Array B**	**34.69**	**1**	P	**P**	**05 24 39.5**	**-1.2**
	comp=Z,2.0nm,0.7s,mb4.2						
BVAR	**Borovoye Array**	**37.66**	**46**	P	**P**	**05 25 06.6**	**+0.3**
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	**Borovoye Array**	**37.66**	**46**	P	**P**	**05 25 06.6**	**+0.3**
	comp=Z,0.6nm,0.7s,mb3.4,baz=262,slow=7.1,SNR=3.2						
BVAR	**Borovoye Array**	**37.66**	**46**	P	**P**	**05 25 06.6**	**+0.3**
	comp=Z,1.0nm,0.7s,mb3.6						
DBIC	**Dimbokro**	**38.20**	**229**	P	**P**	**05 25 15.1**	**+3.9**
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
DBIC	**Dimbokro**	**38.20**	**229**	P	**P**	**05 25 15.1**	**+3.9**
	comp=Z,2.6nm,0.6s,mb4.2,baz=2.7,slow=9.2,SNR=7.0						
TIC	**Toumodi**	**38.32**	**229**	*e*P	**P**	**05 25 15.8**	**+3.6**
	comp=Z,6.2nm,0.2s,mb4.9						
KIC	**Kosan Boka**	**38.36**	**229**	*e*P	**P**	**05 25 16.4**	**+3.8**
	comp=Z,108nm,1.6s,mb5.3						
LIC	**Lamto**	**38.65**	**229**	*e*P	**P**	**05 25 18.9**	**+3.9**
	comp=Z,4.7nm,0.3s,mb4.4						
LIC	**Lamto**	**38.65**	**229**	*e*P	**P**	**05 25 18.7**	**+3.7**
	comp=Z,55nm,1.5s,mb5.0						
KURK	**Kurchatov**	**42.56**	**51**	P	**P**	**05 25 46.1**	**-0.8**
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
KURK	**Kurchatov**	**42.56**	**51**	P	**P**	**05 25 46.1**	**-0.8**
	comp=Z,1.0nm,0.5s,mb3.8,baz=276,slow=8.6,SNR=6.9						
KURK	**Kurchatov**	**42.56**	**51**	P	**P**	**05 25 46.1**	**-0.8**
	comp=Z,1.0nm,0.5s,mb3.8						
SPITS	**Spitsbergen Ar**	**43.46**	**358**	P	**P**	**05 25 54.2**	**+0.4**
SPITS				pmax	pmax		
	comp=Z,12nm,0.9s						
SPITS	**Spitsbergen Ar**	**43.46**	**358**	P	**P**	**05 25 54.2**	**+0.3**
	comp=Z,12nm,0.9s,mb4.6,baz=242,slow=4.2,SNR=6.0						
SPITS	**Spitsbergen Ar**	**43.46**	**358**	P	**P**	**05 25 54.2**	**+0.4**
	comp=Z,12nm,0.9s,mb4.6						
MKAR	**Makanchi Array**	**45.23**	**56**	P	**P**	**05 26 08.7**	**+0.4**
MKAR						05 27 47.2	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**45.23**	**56**	P	**P**	**05 26 08.7**	**+0.4**
	comp=Z,0.8nm,0.4s,mb3.9,baz=269,slow=7.8,SNR=29						
MKAR				PcP	PcP	05 27 47.2	-0.4
	comp=Z,0.4nm,0.7s,baz=264,slow=1.9,SNR=2.6						
MKAR	**Makanchi Array**	**45.23**	**56**	P	**P**	**05 26 08.7**	**+0.4**
	comp=Z,1.0nm,0.4s,mb4.0						
MKAR	**Makanchi Array**	**45.23**	**56**	PcP	PcP	05 27 47.2	-0.4
NVS	**Novosibirsk**	**45.38**	**45**	*e*P	**P**	**05 26 08.8**	**-0.6**
NVS	**Novosibirsk**	**45.38**	**45**	*e*P	**P**	**05 26 08.8**	**-0.6**
ZALV	**Zalesovo Beam**	**46.31**	**46**	P	**P**	**05 26 16.2**	**-0.6**
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
ZALV	**Zalesovo Beam**	**46.31**	**46**	P	**P**	**05 26 16.1**	**-0.6**
	comp=Z,1.7nm,0.3s,mb4.4,baz=272,slow=8.9,SNR=6.2						
ZALV	**Zalesovo Beam**	**46.31**	**46**	P	**P**	**05 26 16.2**	**-0.6**
	comp=Z,2.0nm,0.3s,mb4.5						
ZAK	**Zakamensk**	**58.09**	**48**	*e*P	**P**	**05 27 45.2**	**+1.0**
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
ZAK	**Zakamensk**	**58.09**	**48**	*e*P	**P**	**05 27 45.2**	**+1.0**
	comp=Z,1.0nm,0.9s,mb3.9						
SONM	**Songino Array**	**60.86**	**50**	P	**P**	**05 28 04.3**	**+1.0**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**60.86**	**50**	P	**P**	**05 28 04.3**	**+1.0**
	comp=Z,0.9nm,0.7s,mb4.0,baz=286,slow=7.6,SNR=6.4						
SONM	**Songino Array**	**60.86**	**50**	P	**P**	**05 28 04.3**	**+1.0**
	comp=Z,1.0nm,0.7s,mb4.0						
BOD	**Bodaibo**	**61.61**	**37**	*e*P	**P**	**05 28 08.1**	**-0.2**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.3						
BOD	**Bodaibo**	**61.61**	**37**	*e*P	**P**	**05 28 08.1**	**-0.2**
	comp=Z,3.0nm,1.3s,mb4.3						
SCHQ	**Schefferville**	**62.34**	**319**	P	**P**	**05 28 14.3**	**+1.1**
	comp=Z,1.6nm,0.7s,mb4.3,baz=124,slow=16,SNR=6.1						
CMAR	**Chiang Mai Arr**	**68.17**	**82**	P	**P**	**05 28 53.0**	**+1.5**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**68.17**	**82**	P	**P**	**05 28 53.0**	**+1.4**
	comp=Z,1.1nm,0.3s,mb4.3,baz=298,slow=8.3,SNR=5.6						
CMAR	**Chiang Mai Arr**	**68.17**	**82**	P	**P**	**05 28 53.0**	**+1.5**
	comp=Z,1.0nm,0.3s,mb4.3						
YKA	**Yellowknife Ar**	**77.18**	**341**	P	**P**	**05 29 45.3**	**+1.0**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**77.18**	**341**	P	**P**	**05 29 45.3**	**+1.0**
	comp=Z,0.5nm,0.6s,mb3.6,baz=35,slow=5.5,SNR=10						
YKA	**Yellowknife Ar**	**77.18**	**341**	P	**P**	**05 29 45.3**	**+1.0**
	comp=Z,1.0nm,0.6s,mb3.9						
KSRS	**Korea Array**	**79.68**	**51**	P	**P**	**05 29 59.6**	**+1.1**
KSRS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
KSRS	**Korea Array**	**79.68**	**51**	P	**P**	**05 29 59.6**	**+1.1**
	comp=Z,2.5nm,1.1s,mb4.1,baz=325,slow=4.0,SNR=4.3						
KSRS	**Korea Array**	**79.68**	**51**	P	**P**	**05 29 59.6**	**+1.1**
	comp=Z,3.0nm,1.1s,mb4.1						

MAN 23 05:25:56, 10°.54N×123°.42E, h3^{km}, mb4.2, ML3.0, MS2.8, 1C, Cebu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LLP	**Lapu-Lapu**	**0.59**	**112**	*e*P	Pg	05 26 07.7	+0.4
LLP				*e*S	Sg	05 26 15.4	+0.5
GUIM	**Jordan**	**0.82**	**276**	*e*P	Pg	05 26 13.5	+1.8
GUIM				*e*S	Sg	05 26 26.2	+3.9
TBP	**Tagbilaran**	**0.95**	**152**	*e*P	Pg	05 26 15.0	+0.7
TBP				*e*S	Sg	05 26 26.7	0.0
RCP	**Roxas**	**1.21**	**327**⇑	*e*P	Pg	05 26 20.0	+0.8
RCP				*e*S	Sg	05 26 37.2	+2.3
MSLP	**Maasin**	**1.48**	**106**	*e*P	Pn	05 26 23.7	+0.2
MSLP				*e*S	Sb	05 26 45.5	+2.2

*ISCJB **23** 05:31:00.2±1.2,77°.05N±0°.05×19°.4E±0°.3,h2^{km}±9^{km}, Error ellipse: s-maj=13.5km s-min=5.4km az=153.0*
*CSEM **23** 05:31:02.5±0.2,77°.08N×18°.96E,h10^{km},ML3.4,Error ellipse: s-maj=16.4km s-min=3.0km az=67.0*
*IDC **23** 05:31:02.9±1.0,76°.96N×17°.58E,h0^{km},mb3.2/2, mb1 3.6/3,mb1mx3.3/22,mbtmp3.4/3,ML3.6/1,Error ellipse: s-maj=47.6km s-min=8.0km az=72.0*
*NAO **23** 05:31:02.4±0.9,77°.01N×18°.89E,ML3.1*
*BER **23** 05:31:06.7±2.3,77°.15N×19°.14E,h20^{km}±15^{km},MD2.6, ML3.4,ML3.1(NAO)*
ISC 23 05:31:01.9±1.2,77°.11N±0°.04×19°.2E±0°.3,h0^{km}±9^{km},n19, σ0^{s}.64/29,Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	**Hornsund**	**0.83**	**265**	*e*P	**Pg**	**05 31 18.4**	**+0.7**
HSP				*e*S	**Sg**	**05 31 28.1**	**-0.3**
SPA0	**Spitsbergen Ar**	**1.24**	**332**	Pg	**Pg**	**05 31 26.6**	**+0.9**
	baz=155,slow=22						
SPA0				Lg		05 31 43.8	
	baz=146,slow=37						
SPA0	**Spitsbergen Ar**	**1.24**	**332**	Pg	**Pg**	**05 31 26.5**	**+0.9**
	SNR=94						
SPA0				Lg		05 31 43.8	
	SNR=9.3						
SPITS	**Spitsbergen Ar**	**1.24**	**332**	Pn	**Pn**	**05 31 26.7**	**+0.2**
	baz=313,slow=29,SNR=1277						
SPITS				Sn	**Sn**	**05 31 44.0**	**+0.2**
	baz=292,slow=42,SNR=26						
KBS	**Kingsbay**	**2.38**	**324**	Pn	**Pn**	**05 31 41.7**	**-0.3**
KBS				Pg	**Pg**	**05 31 47.9**	**+0.5**
KBS				Lg		05 32 16.6	
KBS	**Kingsbay**	**2.38**	**324**	*e*P	**Pn**	**05 31 41.8**	**-0.2**
KBS				*e*Pg	**Pg**	**05 31 46.8**	**-0.6**
KBS				*e*Sg	**Sg**	**05 32 16.6**	**-1.4**
KBS				AML	AML	05 32 25.4	
	comp=Z,534nm,0.7s						
KBS	**Kingsbay**	**2.38**	**324**	Pn	**Pn**	**05 31 41.7**	**-0.3**
KBS	**Kingsbay**	**2.38**	**324**	Pg	**Pg**	**05 31 47.9**	**+0.5**
KBS				*e*Sg	**Sg**	**05 32 16.6**	**-1.5**
	comp=Z,534nm,0.7s,SNR=92						
KBS				Lg		05 32 16.6	
BJO	**Bjornoya**	**2.62**	**180**	*e*Pg	**Pg**	**05 31 52.0**	**0.0**
BJO				*e*Sg	**Sg**	**05 32 26.1**	**+0.4**
BJO				AML	AML	05 32 37.5	
	comp=Z,350nm,0.7s						
BJO	**Bjornoya**	**2.62**	**180**	*e*Pg	**Pg**	**05 31 52.0**	**0.0**
	SNR=92						
BJO				*e*Sg	**Sg**	**05 32 26.1**	**+0.3**
	comp=Z,350nm,0.7s,SNR=92						
KEV	**Kevo**	**7.71**	**159**	*e*p	**Pn**	**05 32 55.1**	**-0.1**
	comp=Z,20nm,1.0s						
KEV	**Kevo**	**7.71**	**159**	*e*P	**Pn**	**05 32 55.1**	**-0.1**
	comp=Z,20nm,1.0s						
ARA0	**ARCESS Array S**	**7.82**	**163**	Pn	**Pn**	**05 32 56.1**	**-0.5**
	baz=353,slow=12						
ARA0				Sn	**Sn**	**05 34 18.2**	**-7.4**
	baz=0.5,slow=22						
ARA0	**ARCESS Array S**	**7.82**	**163**	Pn	**Pn**	**05 32 56.1**	**-0.6**
	SNR=0.5						
ARCES	**ARCESS Array B**	**7.82**	**163**	Pn	**Pn**	**05 32 56.6**	**-0.1**
	comp=Z,1.3nm,0.3s,baz=351,slow=11,SNR=47						
ARCES				Sn	**Sn**	**05 34 19.0**	**-6.7**
	comp=Z,1.6nm,0.3s,baz=0.9,slow=22,SNR=7.6						
APA0	**Apatity Array**	**10.37**	**150**	Pn	**Pn**	**05 33 30.8**	**-0.9**
	baz=342,slow=11						
APA0	**Apatity Array**	**10.37**	**150**	Pn	**Pn**	**05 33 30.8**	**-0.8**
	SNR=4.1						
YKA	**Yellowknife Ar**	**37.73**	**327**	P	**P**	**05 38 19.5**	**+0.9**
	comp=Z,0.1nm,0.6s,baz=8.4,slow=8.9,SNR=5.3						
MKAR	**Makanchi Array**	**38.94**	**103**	P	**P**	**05 38 33.3**	**+4.4**
	comp=Z,0.5nm,1.0s,baz=354,slow=8.7,SNR=3.1						

GUC 23 06:20:35.5±0.6,22°.58S×70°.34W,h36^{km}±1^{km},MD3.7, ML3.6,2C-3D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TOCH	**Tocopilla**	**0.50**	**15**	⇓*i*P	Pn	06 20 45.8	-0.3
TOCH				*i* S	Sn	06 20 53.6	+0.1
TOCH				AML	AML	06 20 56.5	
	comp=E,4µm,0.3s						
PECH	**Pedro de Valdi**	**0.62**	**92**	*i* P	Pn	06 20 47.9	+0.1
PECH				*i* S	Sn	06 20 56.9	+0.4
PECH				AML	AML	06 20 57.4	
	comp=N,5µm,0.2s						
MACH	**Maria Elena**	**0.66**	**55**	⇑*i*P	Pn	06 20 48.7	+0.3
MACH				*i* S	Sn	06 20 58.5	+1.0
PB04	**Plate Boundary**	**0.85**	**69**	⇓*i*P	Pn	06 20 43.5	-7.4
PB04				*i* S	Sn	06 20 49.5	-13
PB04				AML	AML	06 20 49.8	
	comp=E,8µm,0.2s						
LVC	**Limon Verde**	**1.32**	**92**	⇓*i*P	Pn	06 20 59.3	+1.8
LVC				*i* S	Sn	06 21 16.9	+3.0
PB01	**Plate Boundary**	**1.72**	**28**	⇑*i*P	Pn	06 21 04.7	+1.8
PB01				*i* S	Sn	06 21 26.9	+3.2
PB01				AML	AML	06 21 30.9	
	comp=E,1µm,0.4s						
CPN1	**Cerro Paranal**	**2.04**	**182**	AML	AML	06 21 40.0	
	comp=E,577nm,0.7s						
HMBC	**Humberston**	**2.33**	**11**	*e*P	Pn	06 21 13.6	+2.3
HMBC				*i* S	Sn	06 21 42.3	+3.6
HMBC				AML	AML	06 21 51.4	
	comp=N,806nm,0.8s						
PSGC	**Pisagua**	**2.97**	**4**	AML	AML	06 22 17.0	
	comp=E,144nm,0.4s						

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*ISCJB **23** 06:29:16.9±0.5,41°.08N±0°.05×114°.95W±0°.06,h10^{km}, Error ellipse: s-maj=6.6km s-min=6.2km az=153.0*
*IDC **23** 06:29:18.5±1.2,40°.86N×114°.55W,h0^{km},mb2.6/1, mb1 3.0/3,mb1mx2.9/21,mbtmp2.5/3,ML2.6/2,Error ellipse: s-maj=23.1km s-min=7.3km az=161.0*
ISC 23 06:29:17.0±0.5,41°.07N±0°.05×114°.98W±0°.06,h10^{km},n19, σ0^{s}.64/19,Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.22**	**192**	P	**Pg**	**06 29 21.3**	**-0.3**
	baz=0.8,SNR=16						
ELK	**Elko**	**0.38**	**212**	Pg	**Pg**	**06 29 29.2**	**+4.7**
	27nm,0.3s,baz=314,slow=23,SNR=80						
ELK				Lg		06 29 34.8	
	58nm,0.3s,baz=127,slow=20,SNR=59						
N13A	**Wendover, West**	**0.62**	**110**	P	**Pg**	**06 29 28.0**	**-1.1**
	baz=0.8,SNR=22						
N11A	**Elko Archery C**	**0.63**	**246**	P	**Pg**	**06 29 28.6**	**-0.6**
	baz=1.2,SNR=12						
M13A	**Montello**	**0.68**	**64**	P	**Pg**	**06 29 29.4**	**-0.6**
	baz=0.4,SNR=28						
O11A	**Cowboy Ranch,**	**1.07**	**209**	P	**Pg**	**06 29 37.7**	**+0.1**
	baz=1.7,SNR=40						
L11A	**Cat Creek Ranc**	**1.24**	**332**	P	**Pn**	**06 29 39.5**	**-0.9**
	baz=1.1,SNR=32						
M10A	**I.L. Ranch, Tu**	**1.26**	**291**	P	**Pn**	**06 29 41.0**	**+0.3**
	baz=1.5,SNR=35						
L13A	**Double Diamond**	**1.28**	**37**	P	**Pn**	**06 29 40.1**	**-0.8**
	baz=0.7,SNR=14						
L10A	**Juniper Basin**	**1.51**	**312**	P	**Pn**	**06 29 44.1**	**0.0**
	baz=1.5,SNR=55						
K12A	**Draper Farm, C**	**1.56**	**2**	P	**Pn**	**06 29 45.0**	**+0.1**
	baz=1.1,SNR=9.3						
P13A	**Bates Ranch, G**	**1.77**	**155**	P	**Pn**	**06 29 48.9**	**+1.2**
	baz=2.2,SNR=24						
N15A	**Stansbury Isla**	**1.87**	**95**	P	**Pn**	**06 29 49.3**	**+0.3**
	baz=1.7,SNR=18						
K11A	**Parker Ranch,**	**1.87**	**335**	P	**Pn**	**06 29 49.6**	**+0.5**
	baz=1.6,SNR=14						
M15A	**Larsen Ranch,**	**1.95**	**78**	P	**Pn**	**06 29 50.6**	**+0.6**
	baz=1.6,SNR=23						
J13A	**Cove Ranch, Pi**	**2.40**	**14**	P	**Pn**	**06 29 57.1**	**+0.7**
	baz=1.8,SNR=22						
NVAR	**Mina Array Bea**	**3.68**	**225**	Pn	**Pn**	**06 30 19.3**	**+5.4**
	1.1nm,0.3s,baz=41,slow=12,SNR=14						
NVAR				Lg		06 31 14.8	
	2.5nm,0.3s,baz=59,slow=18,SNR=3.6						
PDAR	**Pinedale Array**	**4.38**	**65**	Pn	**Pn**	**06 30 24.1**	**+0.5**
	0.0nm,0.3s,baz=234,slow=12,SNR=2.7						
YKA	**Yellowknife Ar**	**21.46**	**0**	P	**P**	**06 34 10.5**	**+5.4**
	0.2nm,0.7s,baz=180,slow=10,SNR=7.8						

IDC 23 06:29:26.6±1.1,40°.86N×114°.43W,h0^{km},mb2.5/1, mb1 3.2/3,mb1mx3.1/21,mbtmp2.8/3,ML3.0/2,Error ellipse: s-maj=42.2km s-min=8.6km az=145.0,Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELK	**Elko**	**0.62**	**260**	Lg		06 29 47.0	
	78nm,0.3s,baz=133,slow=16,SNR=24						
NVAR	**Mina Array Bea**	**3.85**	**232**	Pn	Pn	06 30 27.1	+0.1
	1.5nm,0.3s,baz=41,slow=14,SNR=15						
NVAR				Lg		06 31 28.4	
	6.7nm,0.3s,baz=48,slow=29,SNR=5.3						
PDAR	**Pinedale Array**	**4.11**	**61**	Pn	Pn	06 30 31.4	+0.8
	0.1nm,0.3s,baz=244,slow=13,SNR=5.2						
PDAR				Pg	Pg	06 30 42.5	-2.9
	0.2nm,0.3s,baz=240,slow=12,SNR=7.1						
PDAR				Lg		06 31 37.6	
	0.4nm,0.3s,baz=224,slow=23,SNR=5.0						
YKA	**Yellowknife Ar**	**21.66**	**360**	P	P	06 34 19.4	+1.0
	0.2nm,0.6s,baz=180,slow=10,SNR=6.6						

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*IDC **23** 06:33:57.4±1.1,41°.24N×115°.02W,h0^{km},mb2.4/1, mb1 3.0/3,mb1mx3.0/21,mbtmp2.6/3,ML3.0/2,Error ellipse: s-maj=15.8km s-min=5.9km az=125.0*
*ISCJB **23** 06:33:59.0±0.2,41°.08N±0°.02×114°.85W±0°.02,h10^{km}, Error ellipse: s-maj=2.7km s-min=2.4km az=161.0*
*NEIC **23** 06:33:58.4,41°.15N×114°.93W,h17^{km},ML2.5,After REN.*
ISC 23 06:33:58.9±0.5,41°.11N±0°.02×114°.88W±0°.02,h4^{km}±4^{km}, n69,σ0^{s}.94/96,Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.28**	**205**	P	**Pg**	**06 34 05.2**	**+0.8**
	baz=0.6,SNR=190						
N12A	**Clover Valley,**	**0.28**	**205**	*e*Pg	**Pg**	**06 34 04.9**	**+0.5**
N12A				*e*Sg	**Sg**	**06 34 09.0**	**+1.0**
ELK	**Elko**	**0.45**	**217**	Pg	**Pg**	**06 34 07.8**	**+0.2**
	14nm,0.3s,baz=17,slow=17,SNR=11						
ELK				Lg		06 34 14.4	
	41nm,0.3s,baz=120,slow=17,SNR=106						
ELK	**Elko**	**0.45**	**217**	*e*Pg	**Pg**	**06 34 07.4**	**-0.1**
ELK				*e*Sg	**Sg**	**06 34 13.3**	**-0.1**
N13A	**Wendover, West**	**0.57**	**116**	P	**Pg**	**06 34 10.7**	**+0.8**
	baz=1.0,SNR=119						
N13A	**Wendover, West**	**0.57**	**116**	*e*Pg	**Pg**	**06 34 10.6**	**+0.7**
N13A				*e*Sg	**Sg**	**06 34 19.1**	**+1.8**
M13A	**Montello**	**0.60**	**65**	P	**Pg**	**06 34 11.1**	**+0.7**
	baz=0.8,SNR=39						
M13A	**Montello**	**0.60**	**65**	*e*Pg	**Pg**	**06 34 10.0**	**-0.3**
M13A				*e*Sg	**Sg**	**06 34 18.4**	**+0.3**
O12A	**Currie**	**0.85**	**173**	P	**Pg**	**06 34 15.8**	**+0.6**
	baz=1.2,SNR=215						
O11A	**Cowboy Ranch,**	**1.14**	**211**	P	**Pg**	**06 34 21.2**	**+0.5**
	baz=1.4,SNR=166						
O13A	**Hicks Ranch, I**	**1.20**	**145**	P	**Pg**	**06 34 22.2**	**+0.4**
	baz=1.6,SNR=132						
N14A	**Grayback Hills**	**1.31**	**101**	P	**Pn**	**06 34 23.1**	**-0.8**
	baz=1.6,SNR=193						
BGU	**Big Grassy Mou**	**1.42**	**97**	*e*Pn	**Pn**	**06 34 24.5**	**-0.9**
BGU				*e*Sg	**Sg**	**06 34 44.0**	**-0.3**
O10A	**Cortez Mining,**	**1.48**	**237**	P	**Pn**	**06 34 25.7**	**-0.5**
	baz=1.5,SNR=82						
L14A	**Malta**	**1.54**	**53**	P	**Pn**	**06 34 26.4**	**-0.7**
	baz=1.6,SNR=68						
P11A	**Circle Ranch,**	**1.69**	**203**	P	**Pn**	**06 34 29.5**	**+0.4**
	baz=1.9,SNR=13						
HVU	**Hansel Valley**	**1.72**	**66**	*e*Pn	**Pn**	**06 34 28.8**	**-0.8**
HVU				*e*Sg	**Sn**	**06 34 53.1**	**+1.1**
P13A	**Bates Ranch, G**	**1.78**	**158**	P	**Pn**	**06 34 30.0**	**-0.4**
	baz=2.2,SNR=93						
N15A	**Stansbury Isla**	**1.80**	**96**	P	**Pn**	**06 34 30.4**	**-0.3**
	baz=2.1,SNR=94						
DUG	**Dugway**	**1.82**	**119**	P	**Pn**	**06 34 30.4**	**-0.6**
	baz=2.2,SNR=55						
DUG	**Dugway**	**1.82**	**119**	*e*Pn	**Pn**	**06 34 30.4**	**-0.6**
DUG				*e*Sg	**Sg**	**06 34 58.1**	**+0.8**
SPUT	**South Promonto**	**1.85**	**83**	*e*Pn	**Pn**	**06 34 30.9**	**-0.4**
SPUT				*e*Sg	**Sn**	**06 34 55.9**	**+0.8**
M15A	**Larsen Ranch,**	**1.87**	**78**	P	**Pn**	**06 34 31.8**	**+0.2**
	baz=2.1,SNR=162						
BMN	**Battle Mountai**	**1.90**	**250**	*e*Pn	**Pn**	**06 34 30.6**	**-1.5**
BMN				*e*Sg	**Sn**	**06 34 57.5**	**+1.1**
P10A	**Eureka**	**1.92**	**220**	P	**Pn**	**06 34 32.5**	**+0.3**
	baz=2.1,SNR=25						
K14A	**Jones Ranch, D**	**1.92**	**41**	P	**Pn**	**06 34 32.5**	**+0.2**
	baz=1.9,SNR=30						
O15A	**The Old Anders**	**2.01**	**114**	P	**Pn**	**06 34 33.2**	**-0.3**
	baz=2.4,SNR=51						
P14A	**Drum Mountains**	**2.06**	**137**	P	**Pn**	**06 34 34.0**	**-0.2**
	baz=2.5,SNR=45						
Q12A	**Willow Creek R**	**2.07**	**179**	P	**Pn**	**06 34 34.6**	**+0.2**
	baz=2.4,SNR=18						
L15A	**Malad City**	**2.08**	**64**	P	**Pn**	**06 34 34.1**	**-0.3**
	baz=2.2,SNR=34						
J12A	**Stokes Ranch,**	**2.14**	**356**	P	**Pn**	**06 34 34.9**	**-0.5**
	baz=1.8,SNR=67						
NOQ	**North Oquirrh**	**2.15**	**101**	*e*Pn	**Pn**	**06 34 34.1**	**-1.3**
K10A	**MacKenzie Ranc**	**2.23**	**319**	P	**Pn**	**06 34 36.5**	**0.0**
	baz=1.8,SNR=55						
Q13A	**Wheeler Ranch,**	**2.25**	**163**	P	**Pn**	**06 34 36.9**	**0.0**
	baz=2.7,SNR=57						
L09A	**Wilkinson Ranc**	**2.28**	**294**	P	**Pn**	**06 34 37.8**	**+0.6**
	baz=1.9,SNR=25						
J13A	**Cove Ranch, Pi**	**2.35**	**13**	P	**Pn**	**06 34 38.2**	**0.0**
	baz=2.1,SNR=156						
K15A	**Arbon**	**2.36**	**47**	P	**Pn**	**06 34 38.4**	**0.0**
	baz=2.3,SNR=22						
MFID	**Camas Ranch**	**2.41**	**343**	P	**Pn**	**06 34 39.4**	**+0.4**
	baz=2.0,SNR=12						
NLU	**North Lily Min**	**2.43**	**117**	*e*Pn	**Pn**	**06 34 38.4**	**-0.9**
NLU				*e*Pg	**Pg**	**06 34 45.1**	**-0.4**
NLU				*e*Sg	**Sg**	**06 35 15.0**	**-2.0**
J14A	**Carey**	**2.43**	**24**	P	**Pn**	**06 34 39.8**	**+0.4**
	baz=2.3,SNR=40						
Q14A	**Sevier Lake (B**	**2.45**	**149**	P	**Pn**	**06 34 39.4**	**-0.2**
	baz=2.9,SNR=21						
HLID	**Hailey**	**2.48**	**8**	P	**Pn**	**06 34 40.0**	**+0.1**
	baz=2.2,SNR=72						
HLID	**Hailey**	**2.48**	**8**	*e*Pn	**Pn**	**06 34 39.7**	**-0.2**
HLID				*e*Sg	**Sn**	**06 35 10.6**	**0.0**
P15A	**Leamington**	**2.52**	**127**	P	**Pn**	**06 34 40.1**	**-0.4**
	baz=2.9,SNR=12						
K09A	**Rome**	**2.65**	**308**	P	**Pn**	**06 34 43.2**	**+0.8**
	baz=2.2,SNR=33						
I12A	**Atlanta**	**2.69**	**356**	P	**Pn**	**06 34 43.3**	**+0.4**
	baz=2.4,SNR=46						
MPU	**Maple Canyon**	**2.71**	**113**	*e*Pg	**Pg**	**06 34 47.8**	**-3.0**
MPU				*e*Sg	**Sg**	**06 35 23.7**	**-2.1**
R11A	**Troy Canyon, C**	**2.81**	**191**	P	**Pn**	**06 34 44.9**	**+0.3**
	baz=3.1,SNR=31						
P08A	**Dixie Valley**	**2.82**	**241**	P	**Pn**	**06 34 44.2**	**-0.4**
	baz=2.8,SNR=6.1						
DAU	**Daniels Canyon**	**2.84**	**103**	*e*Pg	**Pn**	**06 34 49.3**	**+4.3**
DAU				*e*Sg	**Sg**	**06 35 30.2**	**+0.1**
Q15A	**Fillmore**	**2.85**	**137**	P	**Pn**	**06 34 45.1**	**0.0**
	baz=3.3,SNR=6.6						
I13A	**Wildhorse Cree**	**2.86**	**11**	P	**Pn**	**06 34 45.6**	**+0.4**
	baz=2.6,SNR=21						
WVOR	**Wild Horse Val**	**3.10**	**296**	*e*Pg	**Pn**	**06 34 51.2**	**+2.6**
WVOR				*e*Sg	**Sn**	**06 35 32.1**	**+6.1**
MSU	**Marysvale**	**3.33**	**140**	*e*Pn	**Pn**	**06 34 52.0**	**+0.3**
MSU				*e*Pg	**Pg**	**06 35 04.0**	**+1.4**
MSU				*e*Sg	**Sg**	**06 35 48.7**	**+2.9**
TMUT	**Trail Mountain**	**3.35**	**122**	*e*Pg	**Pn**	**06 34 59.5**	**+7.5**
TMUT				*e*Sg	**Sg**	**06 35 46.6**	**+0.2**
ARUT	**Antelope Range**	**3.50**	**161**	*e*Pg	**Pg**	**06 35 05.1**	**-0.9**
CCUT	**Cedar City**	**3.75**	**161**	*e*Pn	**Pn**	**06 34 57.0**	**-0.4**
CCUT				*e*Pg	**Pg**	**06 35 09.5**	**-1.2**
CCUT				*e*Sg	**Sg**	**06 35 59.7**	**+0.5**
REDW	**Red Top Meadow**	**3.75**	**52**	*e*Pn	**Pn**	**06 34 59.8**	**+2.4**
NVAR	**Mina Array Bea**	**3.76**	**226**	Pn	**Pn**	**06 34 57.3**	**-0.3**
	0.8nm,0.3s,baz=37,slow=13,SNR=4.0						
NVAR				Pg	**Pg**	**06 35 04.3**	**-6.6**
	1.6nm,0.3s,baz=32,slow=14,SNR=7.9						
NVAR				Lg		06 35 54.7	
	3.3nm,0.3s,baz=40,slow=23,SNR=5.4						
SNOW	**Snow King Moun**	**3.86**	**51**	Pn	**Pn**	**06 34 56.2**	**-2.8**
SNOW				*e*Pg	**Pg**	**06 35 04.1**	**-8.8**
SRU	**San Rafael**	**3.89**	**119**	*e*Pg	**Pg**	**06 35 09.1**	**-4.4**
SRU				*e*Sg	**Sg**	**06 36 03.7**	**-0.2**
MCMT	**McKenzie Canyo**	**4.00**	**21**	*e*Pg	**Pn**	**06 35 06.8**	**+5.9**
IMW	**Indian Meadow**	**4.03**	**45**	*e*Pn	**Pn**	**06 35 02.6**	**+1.3**
IMW				*e*Sg	**Sg**	**06 36 02.9**	**-5.5**
LOHW	**Long Hollow**	**4.04**	**50**	*e*Pn	**Pn**	**06 35 04.8**	**+3.3**
BMO	**Blue Mountains**	**4.14**	**335**	*e*Pg	**Pn**	**06 35 07.3**	**+4.5**
BMO				*e*Sg	**Sn**	**06 36 01.4**	**+10**
MOD	**Modoc**	**4.15**	**283**	*e*Pn	**Pn**	**06 35 01.6**	**-1.3**
MOD				*e*Pg	**Pg**	**06 35 10.7**	**-7.6**
MOD				*e*Sg	**Sg**	**06 36 09.9**	**-2.1**
PDAR	**Pinedale Array**	**4.30**	**66**	Pn	**Pn**	**06 35 06.5**	**+1.5**
	0.1nm,0.3s,baz=236,slow=11,SNR=5.3						
PDAR				Lg		06 36 12.3	
	0.5nm,0.3s,baz=236,slow=28,SNR=8.1						
PDAR	**Pinedale Array**	**4.30**	**66**	Pn	**Pn**	**06 35 06.5**	**+1.5**
PDAR				Lg		06 36 12.3	
YKA	**Yellowknife Ar**	**21.42**	**0**	P	**P**	**06 38 46.9**	**-0.5**
	0.1nm,0.6s,baz=179,slow=10,SNR=5.1						

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*IDC **23** 06:35:53.4±1.2,2°.16N×99°.70E,h0^{km},mb3.8/10, mb1 4.0/11,mb1mx3.9/25,mbtmp3.9/11,ML4.7/1,Error ellipse: s-maj=39.6km s-min=10.9km az=33.0*
*ISCJB **23** 06:35:56.6±0.8,1°.91N±0°.07×99°.12E±0°.09,h47^{km}±9^{km}, mb3.8/10,Error ellipse: s-maj=15.1km s-min=10.6km az=151.6*
*DJA **23** 06:35:56,2°.12N×98°.93E,h10^{km},MLv4.3/4*
ISC 23 06:35:57.5±0.9,1°.91N±0°.07×99°.09E±0°.09,h37^{km}±10^{km}, n20,σ1^{s}.32/19,mb3.8/10,1D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**0.90**	**349**	Pg	**Pn**	**06 36 12.1**	**-1.7**
	42nm,0.3s,baz=156,slow=10.0,SNR=49						
PSI				Lg		06 36 24.9	
	68nm,0.3s,baz=54,slow=19,SNR=22						
GSI	**Gunungsitoli**	**1.63**	**248**	P	**Pn**	**06 36 22.7**	**-1.0**
TSI	**Tuntungan**	**1.67**	**342**	⇓*e*P	**Pn**	**06 36 25.5**	**+1.2**
PPI	**Padang Panjang**	**2.69**	**151**	P	**Pn**	**06 36 41.9**	**+3.6**
PDSI	**Padang**	**3.12**	**154**	P	**Pn**	**06 36 45.8**	**+1.6**
IPM	**Ipoh**	**3.20**	**37**	P	**Pn**	**06 36 47.6**	**+2.2**
SISI	**Saibi**	**3.21**	**180**	P	**Pn**	**06 36 37.2**	**-8.3**
SDSI	**Sungai Dareh**	**3.66**	**140**	P	Px	06 37 03.8	
MYKOM	**Kota Tinggi**	**4.76**	**91**	P	**Pn**	**06 37 05.6**	**-1.2**
CMAR	**Chiang Mai Arr**	**16.45**	**360**	Pn	**Pn**	**06 39 44.0**	**-1.6**
	1.0nm,0.3s,baz=157,slow=11,SNR=4.4						
WRA	**Warramunga Arr**	**40.83**	**124**	P	**P**	**06 43 34.5**	**-1.4**
	0.7nm,0.5s,mb3.5,baz=301,slow=9.1,SNR=4.9						
ASAR	**Alice Springs**	**42.34**	**129**	P	**P**	**06 43 47.5**	**-0.7**
	0.3nm,0.9s,mb2.9,baz=306,slow=7.1,SNR=4.2						
AAK	**Ala-Archa**	**46.13**	**335**	P	**P**	**06 44 21.7**	**+3.4**
	0.5nm,0.3s,mb3.9,baz=156,slow=12,SNR=2.4						
SONM	**Songino Array**	**46.18**	**7**	P	**P**	**06 44 19.3**	**+0.7**
	0.3nm,0.4s,mb3.5,baz=180,slow=12,SNR=4.2						
SONM				PcP	PcP	06 45 55.3	+1.3
	0.4nm,0.7s,baz=197,slow=4.4,SNR=2.3						
MKAR	**Makanchi Array**	**47.05**	**344**	P	**P**	**06 44 25.7**	**+0.3**
	0.9nm,0.7s,mb3.8,baz=154,slow=8.1,SNR=13						
KURK	**Kurchatov**	**51.63**	**344**	P	**P**	**06 44 59.9**	**-0.4**
	0.8nm,0.6s,mb3.8,baz=161,slow=6.6,SNR=3.6						
ZALV	**Zalesovo Beam**	**53.19**	**350**	P	**P**	**06 45 10.9**	**-0.9**
	0.8nm,0.4s,mb4.0,baz=178,slow=8.8,SNR=5.9						
BVAR	**Borovoye Array**	**56.23**	**340**	P	**P**	**06 45 33.8**	**-0.1**
	0.5nm,0.4s,mb3.9,baz=138,slow=9.8,SNR=4.2						
BRTR	**Keskin Array B**	**70.05**	**312**	P	**P**	**06 47 08.1**	**+2.2**
	0.5nm,0.4s,mb3.8,baz=88,slow=6.6,SNR=2.9						
ARCES	**ARCESS Array B**	**82.51**	**340**	P	**P**	**06 48 16.2**	**+0.2**
	6.8nm,0.9s,mb4.7,baz=90,slow=8.6,SNR=3.6						

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*IDC **23** 06:36:11.7±1.2,41°.11N×114°.84W,h0^{km},mb2.4/1, mb1 3.0/3,mb1mx3.0/21,mbtmp2.6/3,Error ellipse: s-maj=33.9km s-min=6.0km az=137.0*
*ISCJB **23** 06:36:12.4±0.4,41°.10N±0°.03×114°.88W±0°.03,h10^{km}, Error ellipse: s-maj=4.6km s-min=3.3km az=150.2*
*NEIC **23** 06:36:12.3±0.7,41°.10N×114°.94W,h5^{km},ML2.5,Error ellipse: s-maj=10.4km s-min=6.4km az=150.0*
ISC 23 06:36:12.1±0.8,41°.13N±0°.04×114°.92W±0°.03,h2^{km}±8^{km}, n31,σ0^{s}.85/39,Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.29**	**198**	*e*Pg	**Pg**	**06 36 18.3**	**+0.6**
N12A				*e*Sg	**Sg**	**06 36 22.4**	**+0.9**
ELK	**Elko**	**0.45**	**212**	Pg	**Pg**	**06 36 20.2**	**-0.6**
	9.9nm,0.3s,baz=18,slow=18,SNR=7.1						
ELK				Lg		06 36 27.1	
	37nm,0.3s,baz=113,slow=17,SNR=28						
ELK	**Elko**	**0.45**	**212**	*e*Pg	**Pg**	**06 36 20.6**	**-0.2**
ELK				*e*Sg	**Sg**	**06 36 27.0**	**+0.3**
N13A	**Wendover, West**	**0.60**	**117**	P	**Pg**	**06 36 24.6**	**+0.9**
	baz=0.6,SNR=22						
N13A	**Wendover, West**	**0.60**	**117**	*e*Pg	**Pg**	**06 36 23.9**	**+0.2**
O12A	**Currie**	**0.87**	**171**	P	**Pg**	**06 36 29.7**	**+0.9**
	baz=0.8,SNR=17						
O11A	**Cowboy Ranch,**	**1.14**	**210**	P	**Pg**	**06 36 34.8**	**+0.7**
	baz=1.1,SNR=12						
O13A	**Hicks Ranch, I**	**1.23**	**144**	P	**Pg**	**06 36 35.3**	**-0.3**
	baz=1.2,SNR=35						
N10A	**Dunphy**	**1.27**	**252**	S	**Sg**	**06 36 53.2**	**+0.2**
	baz=1.2,SNR=8.0						
N14A	**Grayback Hills**	**1.34**	**101**	P	**Pg**	**06 36 36.2**	**-1.6**
	baz=1.3,SNR=26						
BGU	**Big Grassy Mou**	**1.44**	**97**	*e*Pn	**Pn**	**06 36 37.7**	**-1.5**
BGU				*e*Sg	**Sg**	**06 36 58.9**	**+0.4**
O10A	**Cortez Mining,**	**1.46**	**236**	P	**Pn**	**06 36 38.9**	**-0.6**
	baz=1.4,SNR=17						
L14A	**Malta**	**1.55**	**54**	P	**Pn**	**06 36 39.5**	**-1.2**
	baz=1.6,SNR=27						
K13A	**Stover Farm, H**	**1.64**	**22**	P	**Pn**	**06 36 42.5**	**+0.6**
	baz=1.7,SNR=8.7						
DUG	**Dugway**	**1.85**	**120**	*e*Pn	**Pn**	**06 36 45.5**	**+0.7**
DUG				*e*Sg	**Sg**	**06 37 11.2**	**-0.4**
BMN	**Battle Mountai**	**1.88**	**249**	*e*Pn	**Pn**	**06 36 44.6**	**-0.7**
BMN				*e*Sg	**Sg**	**06 37 11.3**	**-1.2**
M15A	**Larsen Ranch,**	**1.89**	**79**	P	**Pn**	**06 36 45.0**	**-0.3**
	baz=1.9,SNR=11						
N09A	**Rock Creek Ran**	**1.99**	**263**	P	**Pn**	**06 36 47.5**	**+0.7**
	baz=2.0,SNR=16						
J12A	**Stokes Ranch,**	**2.12**	**356**	P	**Pn**	**06 36 48.2**	**-0.4**
	baz=2.2,SNR=12						
NOQ	**North Oquirrh**	**2.17**	**102**	*e*Pn	**Pn**	**06 36 49.5**	**+0.2**
Q13A	**Wheeler Ranch,**	**2.28**	**162**	P	**Pn**	**06 36 50.0**	**-0.7**
	baz=2.2,SNR=14						
J13A	**Cove Ranch, Pi**	**2.33**	**13**	P	**Pn**	**06 36 51.5**	**+0.1**
	baz=2.4,SNR=22						
K15A	**Arbon**	**2.37**	**48**	P	**Pn**	**06 36 51.6**	**-0.2**
	baz=2.4,SNR=11						
HLID	**Hailey**	**2.46**	**9**	*e*Pn	**Pn**	**06 36 54.0**	**+0.8**
HLID				*e*Sg	**Sg**	**06 37 26.4**	**-4.8**
NLU	**North Lily Min**	**2.46**	**117**	*e*Pn	**Pn**	**06 36 57.1**	**+3.9**
I13A	**Wildhorse Cree**	**2.85**	**12**	P	**Pn**	**06 36 58.7**	**+0.2**
	baz=2.9,SNR=14						
DAU	**Daniels Canyon**	**2.87**	**103**	*e*Pn	**Pn**	**06 37 02.3**	**+3.4**
DAU				*e*Sg	**Sg**	**06 37 43.8**	**-0.5**
NVAR	**Mina Array Bea**	**3.75**	**225**	Pn	**Pn**	**06 37 10.0**	**-1.0**
	baz=40,slow=14,SNR=2.7						
NVAR				Pg	**Pg**	**06 37 20.0**	**-4.0**
	2.7nm,0.3s,baz=57,slow=35,SNR=6.1						
NVAR				Lg		06 38 11.7	
	6.1nm,0.3s,baz=243,slow=18,SNR=8.0						
LOHW	**Long Hollow**	**4.05**	**51**	*e*Pn	**Pn**	**06 37 18.9**	**+3.9**
PDAR	**Pinedale Array**	**4.32**	**66**	Pn	**Pn**	**06 37 20.2**	**+1.4**
	baz=222,slow=12,SNR=2.4						
PDAR				Lg		06 38 26.6	
	0.5nm,0.3s,baz=237,slow=30,SNR=6.8						
YKA	**Yellowknife Ar**	**21.40**	**0**	P	**P**	**06 41 01.3**	**+0.6**
	0.1nm,0.6s,baz=172,slow=9.4,SNR=2.8						

IDC 23 06:41:01.6±3.3,2°.88N×96°.57E,h0^{km},mb3.6/6,mb1 3.7/6, mb1mx3.5/24,mbtmp3.6/6,Error ellipse: s-maj=142.4km s-min=21.7km az=58.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**43.46**	**123**	P	P	06 49 07.1	+0.2
	0.4nm,0.8s,baz=298,slow=9.5,SNR=2.6						
ASAR	**Alice Springs**	**44.91**	**128**	P	P	06 49 18.1	-0.3
	0.2nm,0.6s,baz=298,slow=10.0,SNR=4.2						
MKAR	**Makanchi Array**	**45.47**	**346**	P	P	06 49 22.2	-0.3
	0.8nm,0.7s,baz=163,slow=8.0,SNR=5.9						
SONM	**Songino Array**	**45.58**	**9**	P	P	06 49 23.4	0.0
	0.7nm,0.4s,baz=190,slow=8.1,SNR=5.7						
KURK	**Kurchatov**	**50.02**	**345**	P	P	06 49 58.2	+0.4
	0.6nm,0.6s,baz=165,slow=7.5,SNR=3.0						
ZALV	**Zalesovo Beam**	**51.81**	**351**	P	P	06 50 10.6	-0.6
	0.9nm,0.4s,baz=169,slow=8.3,SNR=4.0						

ISCJB ***23*** *06:47:34.0±0.6, 37°.06N±0°.03×35°.86E±0°.04, h5^{km}±7^{km}, Error ellipse: s-maj=5.9km s-min=5.4km az=163.6*
ISK ***23*** *06:47:33.8, 37°.08N×35°.85E, h10^{km}, MD2.9*
CSEM ***23*** *06:47:34.4±0.1, 37°.06N×35°.85E, h12^{km}, MD2.9, Error ellipse: s-maj=2.1km s-min=1.7km az=36.0*
DDA ***23*** *06:47:35.0, 37°.05N×35°.92E, h6^{km}±7^{km}, Md3.1*
ISC 23 06:47:34.5±0.6, **37°.06N**±0°.03×**35°.85E**±0°.04, **h10**^{km}±7^{km}, **n20, σ0^{s}87**/29, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOZT	**Kozan**	**0.42**	**357**	*e*PG	**Pg**	**06 47 42.3**	**-0.5**
KOZT				*e*SG	**Sg**	**06 47 48.5**	**+0.1**
KRTS	**Karatas**	**0.62**	**218**	*e*PG	**Pg**	**06 47 46.5**	**+0.1**
KRTS				*e*SG	**Sg**	**06 47 55.8**	**+1.3**
KRTS	**Karatas**	**0.62**	**218**	*e*Pg	**Pg**	**06 47 46.5**	**0.0**
KRTS				*e*Sg	**Sg**	**06 47 55.8**	**+1.3**
COBT	**Iskenderun**	**0.63**	**149**	*i* P	**Pg**	**06 47 47.0**	**+0.3**
COBT				*i* S	**Sg**	**06 47 55.1**	**+0.2**
COBT	**Iskenderun**	**0.63**	**149**	*i* P	**Pg**	**06 47 47.0**	**+0.3**
COBT				*i* S	**Sg**	**06 47 55.1**	**+0.2**
KARA	**Karaisali**	**0.67**	**288**	*e*PG	**Pg**	**06 47 47.0**	**-0.4**
KARA	**Karaisali**	**0.67**	**288**	*e*Pg	**Pg**	**06 47 47.1**	**-0.3**
KMRS	**Kahramanmaras**	**0.95**	**62**	*e*PG	**Pg**	**06 47 52.7**	**-0.1**
KMRS	**Kahramanmaras**	**0.95**	**62**	*e*Pg	**Pg**	**06 47 52.7**	**-0.1**
KUZU	**Kuzuini**	**1.02**	**106**	*i* P	**Pg**	**06 47 53.9**	**-0.3**
KUZU				*i* S	**Sg**	**06 48 07.2**	**-0.3**
KUZU	**Kuzuini**	**1.02**	**106**	*i* P	**Pg**	**06 47 53.9**	**-0.3**
KUZU				*i* S	**Sg**	**06 48 07.2**	**-0.2**
MERS	**Mersin**	**1.08**	**260**	*e*PN	**Pn**	**06 47 54.0**	**-1.7**
MERS	**Mersin**	**1.08**	**260**	*e*Pn	**Pn**	**06 47 54.0**	**-1.7**
GAZ	**Gaziantep**	**1.09**	**84**	*e*PN	**Pn**	**06 47 55.0**	**-1.0**
GAZ	**Gaziantep**	**1.09**	**84**	*e*Pn	**Pn**	**06 47 55.0**	**-0.9**
NIG	**Nigde**	**1.44**	**317**	*e*PN	**Pn**	**06 48 00.3**	**-0.4**
NIG	**Nigde**	**1.44**	**317**	*e*Pn	**Pn**	**06 48 00.3**	**-0.4**
PINB	**Pinarbasi**	**1.67**	**15**	*i* P	**Pn**	**06 48 04.9**	**+1.0**
PINB				*i* S	**Sn**	**06 48 27.7**	**+2.3**
PINB	**Pinarbasi**	**1.67**	**15**	*i* P	**Pn**	**06 48 04.9**	**+1.0**
PINB				*i* S	**Sn**	**06 48 27.7**	**+2.3**
SARI	**SarD1z-Kayseri**	**1.75**	**22**	*e*PN	**Pn**	**06 48 00.1**	**-4.9**

IDC ***23*** *06:59:30.0±9.4, 55°.19N×159°.67W, h0^{km}, mb3.2/3, mb1 3.6/4, mb1mx3.3/24, mbtmp3.2/4, ML3.2/1, Error ellipse: s-maj=161.9km s-min=48.6km az=83.0*
NEIC 23 06:58:31.8, 52°.20N×175°.87W, h222^{km}**, MG3.2**(AEIC), **After AEIC., Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	**Adak**	**0.59**	**238**	P	Pn	06 59 00.8	-1.0
ADK				S	S	06 59 24.1	-0.9
INK	**Inuvik**	**25.74**	**35**	P	P	07 03 39.2	-2.3
	0.1nm,0.3s,baz=258,slow=11,SNR=4.1						
INK	**Inuvik**	**25.74**	**35**	P	P	07 03 39.2	-2.3
YKA	**Yellowknife Ar**	**33.34**	**48**	P	P	07 04 45.7	-2.7
	0.1nm,0.5s,baz=272,slow=9.3,SNR=11						
YKA	**Yellowknife Ar**	**33.34**	**48**	P	P	07 04 45.7	-2.7
NVAR	**Mina Array Bea**	**41.66**	**86**	P	P	07 06 00.1	+1.8
	0.4nm,0.6s,baz=303,slow=8.5,SNR=3.7						
NVAR	**Mina Array Bea**	**41.66**	**86**	P	P	07 06 00.1	+1.8
PDAR	**Pinedale Array**	**44.33**	**75**	P	P	07 06 19.4	-0.2
	0.3nm,0.3s,baz=329,slow=2.7,SNR=6.2						
PDAR	**Pinedale Array**	**44.33**	**75**	P	P	07 06 19.4	-0.2

ISCJB ***23*** *06:58:55.3±0.5, 33°.35N±0°.02×35°.40E±0°.03, h7^{km}±4^{km}, Error ellipse: s-maj=5.1km s-min=2.8km az=29.3*
CSEM ***23*** *06:58:55.9±0.4, 33°.35N×35°.39E, h2^{km}, ML3.1, Error ellipse: s-maj=11.2km s-min=4.8km az=100.0*
GII ***23*** *06:58:55.5±0.8, 33°.25N×35°.43E, h1^{km}±3^{km}, Md2.2/8*
GRAL ***23*** *06:58:56.5±0.5, 33°.32N×35°.42E, h0^{km}±8^{km}, MD3.1*
NSSC ***23*** *06:58:58, 33°.38N×35°.53E, h20^{km}±3^{km}*
ISC 23 06:58:55.9±0.5, **33°.35N**±0°.02×**35°.41E**±0°.03, **h8**^{km}±4^{km}, **n27, σ0^{s}73**/46, **3D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	**Matirih**	**0.15**	**334**	*e*P	**Pg**	**06 58 59.9**	**+0.7**
MATL	**Matirih**	**0.15**	**334**	*e*P	**Pg**	**06 58 59.9**	**+0.7**
KSDI	**Kefar Szold**	**0.26**	**127**	Pg	**Pg**	**06 59 00.6**	**-0.6**
KSDI				Sg	**Sg**	**06 59 04.6**	**-0.1**
HNTI	**Hanita**	**0.33**	**216**	Pg	**Pg**	**06 59 02.4**	**-0.1**
HNTI				Sg	**Sg**	**06 59 07.1**	**+0.2**
MMA0	**Mount Meron ar**	**0.34**	**181**	Pg	**Pg**	**06 59 01.7**	**-0.8**
MMA0				Sg	**Sg**	**06 59 07.1**	**+0.1**
RCY	**Rachaya**	**0.37**	**69**	*e*P	**Pg**	**06 59 03.4**	**+0.2**
RCY				*e*S	**Sg**	**06 59 08.7**	**+0.7**
RCY	**Rachaya**	**0.37**	**69**	*e*P	**Pg**	**06 59 03.4**	**+0.3**
RCY				*e*S	**Sg**	**06 59 08.7**	**+0.7**
BRBR	**Barbar**	**0.46**	**82**	⇑P	**Pg**	**06 59 05.0**	**+0.2**
BRBR				⇑S	**Sg**	**06 59 12.0**	**+1.1**
KSHT	**Keshet**	**0.50**	**137**	Pg	**Pg**	**06 59 06.4**	**+0.8**
KSHT				Sg	**Sg**	**06 59 12.7**	**+0.5**
BHL	**Bhannes**	**0.59**	**20**	*e*P	**Pg**	**06 59 07.4**	**+0.1**
BHL	**Bhannes**	**0.59**	**20**	*e*P	**Pg**	**06 59 07.4**	**+0.1**
BLGI	**Bet Lehem HaGe**	**0.64**	**197**	Pg	**Pg**	**06 59 07.9**	**-0.4**
BLGI				Sg	**Sg**	**06 59 17.3**	**+0.6**
QASN	**Qassioun**	**0.75**	**76**	⇑P	**Pg**	**06 59 10.0**	**-0.3**
QASN				⇑S	**Sg**	**06 59 20.0**	**-0.1**
OFRI	**‘Ofer**	**0.81**	**206**	Pg	**Pg**	**06 59 11.0**	**-0.5**
OFRI				Sg	**Sg**	**06 59 23.7**	**+1.6**
MMLI	**Mount Malkishu**	**0.91**	**179**	Pg	**Pg**	**06 59 12.2**	**-1.3**
MMLI				Sg	**Sg**	**06 59 24.9**	**-0.4**
HWQ	**Hawqa**	**1.03**	**26**	*e*P	**Pg**	**06 59 15.4**	**-0.3**
HWQ				*e*S	**Sg**	**06 59 29.3**	**+0.3**
HWQ	**Hawqa**	**1.03**	**26**	*e*P	**Pg**	**06 59 15.4**	**-0.3**
HWQ				*e*S	**Sg**	**06 59 29.3**	**+0.3**
HMDT	**Nahal Hemdat**	**1.10**	**175**	Pg	**Pg**	**06 59 15.7**	**-1.4**
HMDT				Sg	**Sg**	**06 59 31.7**	**+0.3**
SLTI	**Sal’it**	**1.15**	**196**	Pg	**Pg**	**06 59 16.9**	**-1.1**
SLTI				Sg	**Sg**	**06 59 32.7**	**-0.3**
FKH	**Fakeheh**	**1.21**	**43**	*e*P	**Pb**	**06 59 19.2**	**+0.1**
FKH	**Fakeheh**	**1.21**	**43**	*e*P	**Pb**	**06 59 19.2**	**+0.1**
SALA	**Sala**	**1.28**	**120**	⇓P	**Pn**	**06 59 19.0**	**-1.2**
SALA				⇓S	**Sb**	**06 59 36.0**	**-1.0**
DSI	**Dead Sea**	**1.78**	**181**	Pn	**Pn**	**06 59 26.6**	**-0.3**
DSI				Sn	**Sn**	**06 59 50.7**	**+1.0**
BIDA	**Albida**	**1.82**	**24**	⇓P	**Pn**	**06 59 28.0**	**+0.4**
BIDA				⇑S	**Sn**	**06 59 50.0**	**-0.9**
MZDA	**Masada**	**2.04**	**181**	Pn	**Pn**	**06 59 31.0**	**+0.5**
MZDA				Sn	**Sn**	**06 59 58.0**	**+1.9**
PRNI	**Paran**	**3.01**	**187**	Pn	**Pn**	**06 59 44.2**	**+0.3**
KRMI	**Paran Flat**	**3.28**	**190**	Pn	**Pn**	**06 59 47.2**	**-0.4**

BJI ***23*** *07:17:06.5, 2°.79S×99°.89E, h27^{km}, mB5.6/41, mb5.5/63, Ms5.6/65, Ms7 5.4/56*
ISCJB ***23*** *07:17:09.8±0.2, 2°.49S±0°.03×99°.89E±0°.02, h31^{km}, mb5.4/152, MS5.3/194, Error ellipse: s-maj=4.2km s-min=2.7km az=32.6*
DJA ***23*** *07:17:10, 2°.58S×99°.68E, h34^{km}, mb5.3/31*
MOS ***23*** *07:17:10.6±1.1, 2°.41S×100°.02E, h38^{km}, mb5.7/47, MS5.1/39, Error ellipse: s-maj=9.3km s-min=4.7km az=112.8*
GCMT ***23*** *07:17:11.5±0.2, 2°.72S×99°.72E, h16^{km}, MW5.6/70, Moment Tensor Solution. s70,c112; s69,c99; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}0.86±.03; $M_{\theta\theta}$-0.52±.03; $M_{\phi\phi}$-0.34±.03; $M_{r\theta}$2.36±.08; $M_{\theta\phi}$0.50±.02; $M_{\phi r}$-1.47±.08; Best double couple: $M_0$2.92200×10^{17} NP1:ϕ_s319.00000°, δ9.00000°, λ106.00000°. NP2: ϕ_s122.00000°, δ81.00000°, λ87.00000°. Principal axes: T 2.8940, Plg54.0000°, Azm29.0000°; N 0.0560, Plg3.0000°, Azm123.0000°; P -2.9500, Plg36.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC ***23*** *07:17:11.5±2.0, 2°.51S×99°.96E, h33^{km}±13^{km}, mb5.5/72, MS5.3/147, MW5.4 Error ellipse: s-maj=6.7km s-min=4.1km az=217.0, Moment Tensor Solution. s36 Moment tensor: Scale 10^{17}Nm; M_{rr}0.00; $M_{\theta\theta}$0.00; $M_{\phi\phi}$0.00; $M_{r\theta}$0.00; $M_{\theta\phi}$0.00; $M_{\phi r}$0.00; Best double couple: $M_0$1.50000×10^{17} NP1:ϕ_s110.00000°, δ59.00000°, λ72.00000°. NP2:ϕ_s322.00000°, δ35.00000°, λ117.00000°. Principal axes: T 1.1800, Plg70.0000°, Azm340.0000°; N 0.4600, Plg15.0000°, Azm119.0000°; P -1.6300, Plg12.0000°, Azm212.0000°;*
IDC ***23*** *07:17:12.5±2.1, 2°.51S×99°.95E, h42^{km}±18^{km}, mb4.9/23, mb1 5.0/25, mb1mx4.9/28, mbtmp4.9/25, ML3.8/1, MS5.1/26, Ms1 5.1/26, ms1mx4.9/45 Error ellipse: s-maj=15.1km s-min=9.0km az=41.0*
SZGRF ***23*** *07:17:13.4, 2°.15S×99°.90E, h33^{km}, mb5.4, MS5.0, Southern Sumatera, Indonesia*
ISC 23 07:17:11.9±0.2, **2°.52S**±0°.03×**99°.87E**±0°.02, **h33**^{km}, **h33**^{km}±.6^{km}**:pP-P, n548, σ1^{s}04**/419, **mb5.4**/152, **MS5.3**/194, **25C-18D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	**Pulau Pagai**	**0.28**	**150**	P	**Pb**	**07 17 20.7**	**+1.3**
SISI	**Saibi**	**1.42**	**327**	P	**Pn**	**07 17 39.0**	**+3.6**
PDSI	**Padang**	**1.70**	**20**	P	**Pn**	**07 17 39.8**	**+0.5**
PPI	**Padang Panjang**	**2.11**	**14**	P	**Pn**	**07 17 44.6**	**-0.4**
SDSI	**Sungai Dareh**	**2.21**	**45**	P	**Pn**	**07 17 47.3**	**+0.9**
KSI	**Kapahiang**	**2.94**	**113**	P	**Pn**	**07 17 55.8**	**-0.6**
RGRI	**Rengat**	**3.27**	**49**	P	**Pn**	**07 18 02.3**	**+1.4**
MNAI	**Manna**	**3.58**	**121**	P	**Pn**	**07 18 06.5**	**+1.3**
GSI	**Gunungsitoli**	**4.44**	**329**	P	**Pn**	**07 18 15.3**	**-1.6**
MDSI	**Maura Dua**	**4.72**	**115**	P	**Pn**	**07 18 21.9**	**+1.0**
PMBI	**Palembang**	**4.91**	**95**	P	**Pn**	**07 18 25.7**	**+2.2**
	708nm,1.1s,16nm						
DSRI	**Dabo**	**5.12**	**67**	P	**Pn**	**07 18 27.7**	**+1.3**
PSI	**Prapat**	**5.37**	**350**	P	**Pn**	**07 18 26.9**	**-2.8**
	3.6nm,0.3s,baz=163,slow=9.5,SNR=31						
PSI				LR	LR	07 21 11.9	
	comp=Z,34µm,18.1s,baz=159,slow=45						
KASI	**Kota Agung**	**5.50**	**123**	P	**Pn**	**07 18 31.4**	**-0.1**
	585nm,0.7s,4.0nm						
KGM	**Kluang**	**5.67**	**37**	P	**Pn**	**07 18 35.6**	**+1.7**
MYKOM	**Kota Tinggi**	**5.84**	**43**	P	**Pn**	**07 18 37.6**	**+1.3**
MYKOM	**Kota Tinggi**	**5.84**	**43**	P	**Pn**	**07 18 36.6**	**+0.3**
	554nm,0.8s,6µm5.2nm						
FRIM	**Kepong**	**5.98**	**17**	P	**Pn**	**07 18 38.8**	**+0.7**
TSI	**Tuntungan**	**6.12**	**348**	⇓*e*P	**Pn**	**07 18 46.5**	**+6.4**
RBSI	**Rajabasa**	**6.72**	**120**	P	**Pn**	**07 18 50.1**	**+1.7**
	357nm,1.2s						
IPM	**Ipoh**	**7.05**	**9**	P	**Pn**	**07 18 54.1**	**+1.3**
IPM	**Ipoh**	**7.05**	**9**	P	**Pn**	**07 18 53.5**	**+0.7**
	166nm,0.8s,4µm2.0nm						
KULM	**Kulim**	**7.79**	**6**	P	**Pn**	**07 19 02.8**	**-0.3**
KULM	**Kulim**	**7.79**	**6**	*e*Pn	**Pn**	**07 19 02.0**	**-1.0**
	78nm,0.6s						
CBJI	**Citeko**	**7.96**	**119**	P	**Pn**	**07 19 07.7**	**+2.3**
KTGM	**Kuala Trenggan**	**8.45**	**23**	P	**Pn**	**07 19 13.2**	**+1.1**
LEM	**Lembang**	**8.83**	**119**	⇑*e*P	**Pn**	**07 19 20.4**	**+3.1**
LEM				*e*S	**Sn**	**07 20 54.5**	**-1.2**
LEM	**Lembang**	**8.83**	**119**	P	**Pn**	**07 19 20.4**	**+3.1**
	268nm,1.1s						
BSI	**Banda Aceh**	**9.18**	**330**	P	**Pn**	**07 19 20.7**	**-1.4**
	152nm,0.9s,2µm						
SNG	**Songkhla**	**9.66**	**4**	P	**Pn**	**07 19 28.0**	**-0.7**
	200nm,0.9s						
XMIS	**Christmas Isla**	**9.77**	**144**	*e*P	**Pn**	**07 19 23.2**	**-7.0**
XMIS				*e*S	**Sn**	**07 21 03.2**	**-16**
COCO	**West Island**	**10.07**	**197**	*e*Pn	**Pn**	**07 19 29.3**	**-5.0**
COCO	**West Island**	**10.07**	**197**	P	**Pn**	**07 19 29.5**	**-4.8**
	165nm,2.2s						
KSM	**Kuching**	**11.16**	**69**	P	**Pn**	**07 19 50.9**	**+1.6**
KSM	**Kuching**	**11.16**	**69**	*e*Pn	**Pn**	**07 19 51.0**	**+1.7**
	17nm,0.6s						
KSM				*e*		07 20 07.2	
KSM	**Kuching**	**11.16**	**69**	P	**Pn**	**07 19 50.5**	**+1.2**
	40nm,1.2s						
SMRI	**Semarang**	**11.45**	**114**	P	**Pn**	**07 19 54.0**	**+0.7**
	258nm,1.1s						
SJI	**Sawahan**	**12.93**	**114**	P	**Pn**	**07 20 12.3**	**-1.2**
	101nm,0.8s						
SBUM	**Sibu**	**13.29**	**68**	P	**Pn**	**07 20 21.2**	**+2.7**
SBUM	**Sibu**	**13.29**	**68**	P	**Pn**	**07 20 21.1**	**+2.6**
	125nm,1.3s,3µm						
BTM	**Bintulu**	**14.38**	**67**	P	**Pn**	**07 20 35.6**	**+2.3**
BBKI	**Banjar Baru**	**14.98**	**94**	P	**Pn**	**07 20 42.6**	**+1.2**
	284nm,0.8s						
ABJI	**Asem Bagus**	**15.23**	**111**	P	**Pn**	**07 20 44.2**	**-0.5**
	125nm,0.9s						
KBKI	**Kotabaru**	**16.29**	**93**	P	**Pn**	**07 20 58.2**	**-0.2**
	86nm,2.0s						
KHKI	**Kahang-Kahang**	**16.70**	**111**	P	**Pn**	**07 21 04.6**	**+1.0**
	88nm,1.6s						
SMKI	**Samarinda**	**17.45**	**84**	P	**Pn**	**07 21 14.7**	**+1.7**
	230nm,1.6s						
NST	**Nakhon Sawan**	**18.07**	**1**	P	**Pn**	**07 21 20.0**	**-0.6**
KKM	**Kota Kinabalu**	**18.41**	**62**	P	**Pn**	**07 21 25.5**	**+0.8**
KKM	**Kota Kinabalu**	**18.41**	**62**	*e*P	**Pn**	**07 21 24.2**	**-0.4**
	130nm,0.9s						
KKM	**Kota Kinabalu**	**18.41**	**62**	P	**Pn**	**07 21 24.7**	**0.0**
	189nm,0.9s,3µm						
SDKM	**Sandakan**	**19.11**	**65**	P	**Pn**	**07 21 32.9**	**-0.3**
TSM	**Tawau**	**19.22**	**69**	P	**Pn**	**07 21 33.8**	**-0.7**
KDM	**Kudat**	**19.35**	**61**	P	**Pn**	**07 21 35.8**	**-0.3**
BDT	**Bhumibol Dam**	**19.66**	**358**	P	**Pn**	**07 21 34.0**	**-5.7**
	29nm,0.9s						
TTSI	**Tana Toraja**	**19.93**	**92**	P	**Pn**	**07 21 42.0**	**-1.0**
	176nm,1.5s,3µm						
KAPI	**Kappang**	**19.99**	**98**	P	**Pn**	**07 21 40.0**	**-3.7**
	900nm,1.1s,SNR=14						
KAPI	**Kappang**	**19.99**	**98**	P	**Pn**	**07 21 39.9**	**-3.9**
	8.1nm,0.3s,baz=284,slow=12,SNR=20						
PCI	**Palu**	**20.02**	**86**	⇓*e*P	**P**	**07 21 43.5**	**+1.3**
PCI				*i* S		07 21 46.0	
PCI	**Palu**	**20.02**	**86**	P	**P**	**07 21 42.5**	**+0.3**
	288nm,1.9s,6µm						
MYLDM	**Lahad Datu**	**20.12**	**68**	P	**P**	**07 21 44.6**	**+1.3**
MYLDM	**Lahad Datu**	**20.12**	**68**	P	**P**	**07 21 44.2**	**+0.9**
	245nm,1.5s						
BNSI	**Bone**	**20.29**	**96**	P	**P**	**07 21 44.7**	**-0.4**
	223nm,1.4s						
CMAR	**Chiang Mai Arr**	**20.86**	**358**	P	**P**	**07 21 50.4**	**-0.9**
	53nm,0.9s,baz=187,slow=10.0,SNR=168						
CMAR				LR	LR	07 30 28.4	
	comp=Z,6µm,18.9s,MS5.0,baz=188,slow=38						
CHG	**Chiang Mai**	**21.22**	**358**	⇓P	**P**	**07 21 53.1**	**-1.9**
	58nm,0.9s,mb4.9						
CHTO	**Chiang Mai**	**21.22**	**358**	*e*P	**P**	**07 21 53.5**	**-1.5**
CHTO				pmax	pmax		
	comp=Z,42nm,0.8s,mb4.8						
CHTO				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.0						
CHTO	**Chiang Mai**	**21.22**	**358**	*e*P	**P**	**07 21 53.5**	**-1.5**
	comp=Z,42nm,0.8s,mb4.8						
CHTO				LR	LR		
	comp=Z,6µm,20.0s,MS5.0						
CHTO	**Chiang Mai**	**21.22**	**358**	P	**P**	**07 21 54.1**	**-0.9**
	comp=Z,74nm,0.9s,mb5.0						
PALK	**Pallekele**	**21.46**	**297**	*e*P	**P**	**07 21 59.3**	**+1.6**
PALK				pmax	pmax		
	comp=Z,81nm,1.3s,mb4.9						
PALK	**Pallekele**	**21.46**	**297**	P	**P**	**07 21 58.4**	**+0.6**
	comp=Z,15nm,0.9s,mb4.3,baz=105,slow=11,SNR=5.3						
PALK				LR	LR	07 29 28.3	
	comp=Z,6µm,18.1s,MS5.0,baz=114,slow=34						
PALK	**Pallekele**	**21.46**	**297**	*e*P	**P**	**07 21 59.3**	**+1.5**
	comp=Z,81nm,1.3s,mb4.9						
PALK	**Pallekele**	**21.46**	**297**	P	**P**	**07 21 57.0**	**-0.7**
	comp=Z,24nm,2.4s,mb4.1						
APSI	**Ampana**	**21.83**	**86**	P	**P**	**07 22 02.6**	**+0.9**
	comp=Z,405nm,1.5s,comp=Z,5µm,mb5.6						
KDI	**Kendari**	**22.76**	**94**	⇑*e*P	**P**	**07 22 10.0**	**-1.6**
KDI				*e*S	**S**	**07 26 07.7**	**-11**
KDI	**Kendari**	**22.76**	**94**	P	**P**	**07 22 11.9**	**+0.3**
	comp=Z,78nm,2.3s,mb4.7						
QIZ	**Qiongzhong**	**23.55**	**24**	P	**P**	**07 22 17.6**	**-2.1**
QIZ				pP		07 22 28.1	
QIZ				sP	sP	07 22 32.1	-0.8
QIZ				S	**S**	**07 26 23.3**	**-8.2**
QIZ				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.0						
QIZ				pmax	pmax		
	comp=Z,1µm,3.5s						
QIZ				LR	LR		
	comp=N,4µm,13.2s						
QIZ				LR	LR		
	comp=Z,5µm,15.8s,MS5.1						
QIZ	**Qiongzhong**	**23.55**	**24**	*e*P	**P**	**07 22 17.6**	**-2.1**
	comp=Z,63nm,0.9s,mb5.0						
QIZ				LR	LR		
	comp=Z,3µm,19.0s,MS4.8						
KMSI	**Cibinong**	**24.30**	**83**	P	**P**	**07 22 26.9**	**+0.3**
	comp=Z,405nm,1.1s,mb5.8						
VIS	**Vishakhapatnam**	**25.89**	**322**	*e*PKP	**P**	**07 22 41.5**	**+0.5**
VIS				AMb	AMB	07 23 10.7	
	comp=Z,79nm,0.9s,mb5.2						
VIS				*e*x	x	07 27 07.5	
TGY	**Tagaytay City**	**26.62**	**51**	P	**P**	**07 22 47.0**	**-0.7**
	comp=Z,128nm,0.3s,mb5.9,baz=249,slow=17,SNR=4.4						
MBWA	**Marble Bar**	**26.79**	**135**	PFAKE		07 23 00.0	+11
MBWA				LR	LR		
	comp=Z,7µm,21.0s,MS5.2						
CAL	**Calcutta**	**27.33**	**336**	*e*PKP	**P**	**07 23 00.6**	**+6.7**
CAL				*e*S	**S**	**07 27 46.6**	**+15**
DAV	**Davao City (W)**	**27.37**	**69**	P	**P**	**07 22 54.9**	**+0.4**
	comp=Z,138nm,0.4s,mb5.9,baz=40,slow=19,SNR=4.8						
DAV				LR	LR	07 34 53.8	
	comp=Z,4µm,21.0s,MS5.0,baz=78,slow=39						
DAV	**Davao City (W)**	**27.37**	**69**	⇑*e*P	**P**	**07 22 52.1**	**-2.3**
AGT	**Agartala**	**27.55**	**343**	*e*x	**P**	**07 22 50.0**	**-5.9**
AGT				*e*x	x	07 23 39.0	
KMI	**Kunming**	**27.62**	**6**	P	**P**	**07 22 56.8**	**+0.3**
KMI				pP	pP	07 23 04.5	-1.4
KMI				sP	sP	07 23 07.6	-2.3
KMI				S	**S**	**07 27 34.5**	**-1.6**
KMI				sS	sS	07 27 47.6	-4.2
KMI				pmax	pmax		
	comp=Z,39nm,1.7s,mb4.8						
KMI				pmax	pmax		
	comp=Z,470nm,10.0s						
KMI				LR	LR		
	comp=N,5µm,16.1s,MS5.3						
KMI				LR	LR		
	comp=E,4µm,16.4s,MS5.3						
KMI				LR	LR		
	comp=Z,6µm,14.8s,MS5.3						
TNTI	**Ternate**	**27.68**	**84**	P	**P**	**07 22 54.9**	**-2.4**
	comp=Z,121nm,1.6s,mb5.3						
IMP	**Imphal**	**27.74**	**348**	*e*PKP	**P**	**07 22 59.0**	**+1.4**
HKC	**Hong Kong Obse**	**28.35**	**29**	P	**P**	**07 23 02.0**	**-1.1**
GZH	**Guangzhou**	**28.64**	**27**	P	**P**	**07 23 11.8**	**+6.2**
GZH				S	**S**	**07 28 11.6**	**+19**
GZH				LR	LR		
	comp=N,7µm,13.1s,MS5.5						
GZH				LR	LR		
	comp=E,4µm,13.4s,MS5.5						
GZH				LR	LR		
	comp=Z,11µm,14.5s,MS5.6						
HYB	**Hyderabad**	**28.89**	**314**	*i* P	**P**	**07 23 12.0**	**+4.1**
HYB	**Hyderabad**	**28.89**	**314**	*e*P	**P**	**07 23 03.5**	**-4.4**
SHL	**Shillong**	**28.97**	**345**	*e*PKP	**P**	**07 23 09.5**	**+1.0**
SHL				AMb	AMB	07 23 15.7	
	comp=Z,93nm,1.4s,mb5.3						
SHL				*e*x	x	07 28 09.0	
BOK	**Bokaro**	**29.48**	**333**	*e*PKP	**P**	**07 23 14.2**	**+1.1**
BOK				AMb	AMB	07 23 26.6	
	comp=Z,94nm,1.5s,mb5.3						
BOK				*e*S	**S**	**07 28 07.7**	**+2.1**
GYA	**Guiyang**	**29.55**	**12**	⇑*i*P	**P**	**07 23 13.3**	**-0.3**
GYA				pP	pP	07 23 22.8	-0.3
GYA				sP	sP	07 23 26.8	-0.3
GYA				PP	PP	07 24 09.1	-12
GYA				PcP	PcP	07 26 19.0	+0.6
GYA				S	**S**	**07 28 06.5**	**0.0**
GYA				sS	sS	07 28 19.5	-2.6
GYA				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.3						
GYA				pmax	pmax		
	comp=Z,540nm,7.3s						
GYA				LR	LR		
	comp=N,6µm,16.2s,MS5.5						
GYA				LR	LR		
	comp=E,6µm,12.3s,MS5.5						
GYA				LR	LR		
	comp=Z,9µm,15.9s,MS5.5						
FITZ	**Fitzroy Crossi**	**29.63**	**123**	*e*P	**P**	**07 23 13.4**	**-1.1**
	comp=Z,23nm,0.6s,mb5.1						
FITZ				*e*S	**S**	**07 28 04.9**	**-3.2**
FITZ	**Fitzroy Crossi**	**29.63**	**123**	P	**P**	**07 23 13.3**	**-1.3**
	comp=Z,13nm,0.9s,mb4.7,baz=281,slow=6.9,SNR=15						
FITZ				LR	LR	07 36 07.7	
	comp=Z,4µm,21.1s,MS5.0,baz=302,slow=38						
FITZ	**Fitzroy Crossi**	**29.63**	**123**	*e*P	**P**	**07 23 13.0**	**-1.6**
	comp=Z,11nm,0.6s,mb4.8						
FITZ	**Fitzroy Crossi**	**29.63**	**123**	P	**P**	**07 23 14.1**	**-0.4**
	comp=Z,47nm,2.0s,mb4.9						
SWI	**Sorong**	**31.42**	**88**	P	**P**	**07 23 29.1**	**-1.3**
	comp=Z,202nm,0.8s,comp=Z,2µm,mb6.0						
ODAN	**Odare**	**31.59**	**338**	*e*P	**P**	**07 23 32.4**	**+0.7**
	comp=Z,121nm,0.8s,mb5.8						
TAPN	**Taplejung**	**31.92**	**339**	*e*P	**P**	**07 23 35.3**	**+0.7**
	comp=Z,298nm,0.9s,mb6.1						
RAMN	**Ramite**	**31.97**	**337**	*e*P	**P**	**07 23 36.2**	**+1.2**
	comp=Z,83nm,0.8s,mb5.6						
KAD	**Karad**	**32.10**	**309**	*e*PKP	**P**	**07 23 36.8**	**+0.5**
TPUB	**Ta-pu**	**32.68**	**37**	*e*P	**P**	**07 23 40.4**	**-0.9**
	comp=Z,109nm,0.9s,mb5.8						
JIRN	**Jiri**	**32.77**	**337**	*e*P	**P**	**07 23 42.3**	**+0.3**
	comp=Z,137nm,0.9s,mb5.9						
QZH	**Quanzhou**	**32.79**	**33**	P	**P**	**07 23 43.4**	**+1.1**
QZH				S	**S**	**07 29 02.0**	**+4.7**
QZH				pmax	pmax		
	comp=Z,270nm,1.4s,mb6.0						
QZH				LR	LR		
	comp=N,8µm,14.4s,MS5.6						
QZH				LR	LR		
	comp=E,4µm,13.5s,MS5.6						
QZH				LR	LR		
	comp=Z,11µm,18.0s,MS5.6						
PKI	**Pulchoki**	**33.00**	**336**	*e*P	**P**	**07 23 44.7**	**+0.7**
	comp=Z,28nm,0.7s,mb5.3						
PKI	**Pulchoki**	**33.00**	**336**	*e*P	**P**	**07 23 44.7**	**+0.7**
PKI				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.3						
POO	**Poona**	**33.07**	**310**	*e*PKP	**P**	**07 23 45.4**	**+0.7**
MUN	**Mundaring**	**33.10**	**154**	*e*P	pP	07 23 56.2	+1.8
MUN				*e*S	**S**	**07 29 08.9**	**+7.0**
LSA	**Lhasa**	**33.10**	**346**	P	**P**	**07 23 46.0**	**+1.1**
LSA	**Lhasa**	**33.10**	**346**	*e*P	**P**	**07 23 45.8**	**+0.9**
LSA				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.4						
LSA				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.8						
LSA	**Lhasa**	**33.10**	**346**	*e*P	**P**	**07 23 45.8**	**+0.9**
	comp=Z,48nm,0.9s,mb5.4						
LSA				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
GUN	**Gumba**	**33.11**	**337**	*e*P	**P**	**07 23 46.1**	**+1.1**
	comp=Z,83nm,0.4s,mb6.0						
YULB	**Yu-li**	**33.15**	**38**	*e*P	**P**	**07 23 45.9**	**+0.4**
	comp=Z,30nm,0.8s,mb5.3						
DMN	**Daman**	**33.16**	**336**	*e*P	**P**	**07 23 46.0**	**+0.6**
	comp=Z,58nm,0.9s,mb5.5						
SSLB	**Suanglung**	**33.24**	**37**	*e*P	**P**	**07 23 45.9**	**-0.2**
	comp=Z,76nm,1.0s,mb5.6						
KKN	**Kakani**	**33.25**	**336**	*e*P	**P**	**07 23 46.5**	**+0.3**
	comp=Z,87nm,0.8s,mb5.7						
KKN	**Kakani**	**33.25**	**336**	*e*P	**P**	**07 23 46.5**	**+0.3**
KKN				pmax	pmax		
	comp=Z,87nm,0.8s,mb5.7						
CD2	**Chengdu**	**33.45**	**6**	P	**P**	**07 23 47.3**	**-0.6**
CD2				pP	pP	07 23 57.0	-0.4
CD2				sP	sP	07 24 00.9	-0.5
CD2				PP	PP	07 25 00.8	-3.2
CD2				S	**S**	**07 29 08.0**	**+0.7**
CD2				sS	sS	07 29 23.8	+0.7
CD2				SS	SS	07 31 14.8	-18
CD2				pmax	pmax		
	comp=Z,100nm,0.7s,mb5.8						
CD2				pmax	pmax		
	comp=Z,370nm,4.7s						
CD2				LR	LR		
	comp=N,8µm,14.3s						
CD2				LR	LR		
	comp=Z,6µm,17.3s,MS5.3						
BHPL	**Bhopal**	**33.67**	**321**	*e*PKP	**P**	**07 23 50.4**	**+0.3**
GKN	**Gorkha**	**33.70**	**335**	*e*P	**P**	**07 23 50.7**	**+0.6**
	comp=Z,112nm,1.1s,mb5.7						
KAKA	**Kakadu**	**33.79**	**109**	*e*P	**P**	**07 23 47.9**	**-3.2**
	comp=Z,21nm,0.6s,mb5.2						
KAKA	**Kakadu**	**33.79**	**109**	*e*P	**P**	**07 23 47.6**	**-3.5**
	comp=Z,71nm,0.6s,mb5.8						
NACB	**Ninganchiao**	**33.91**	**37**	*e*P	**P**	**07 23 51.6**	**-0.4**
	comp=Z,37nm,0.8s,mb5.4						
KOLN	**Koldanda**	**33.94**	**334**	*e*P	**P**	**07 23 53.0**	**+0.7**
	comp=Z,69nm,0.8s,mb5.7						
YHNB	**Yeheng**	**34.15**	**36**	*e*P	**P**	**07 23 54.2**	**0.0**
	comp=Z,18nm,0.8s,mb5.0						
NWAO	**Narrogin (SRO)**	**34.36**	**154**	P	**P**	**07 23 55.5**	**-0.3**
	comp=Z,14nm,0.9s,mb4.9,baz=330,slow=7.8,SNR=5.6						
NWAO	**Narrogin (SRO)**	**34.36**	**154**	P	**P**	**07 23 55.5**	**-0.3**

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NWAO                                 LR      LR
      comp=Z,4µm,21.0s,MS5.1
DANN  Dangsing          34.38 334  eP      P       07 23 56.8 +0.8
      comp=Z,79nm,0.5s,mb5.9
TATO  Taipei            34.45  36   PFAKE          07 24 10.0  +13
TATO                                LR      LR
      comp=Z,3µm,20.0s,MS5.0
WHN   Wuhan             35.66  22 ⇓P       P       07 24 06.8 -0.3
WHN                                 LR      LR
      comp=N,19µm,17.2s,MS6.0
WHN                                 LR      LR
      comp=E,14µm,15.4s,MS6.0
WHN                                 LR      LR
      comp=Z,25µm,15.7s,MS6.1
LGTI  Lohaghat          36.93 331  ePKP    P       07 24 19.3 +1.4
XAN   Xi'an             37.35  12   P      P       07 24 19.8 -1.6
XAN                                 pP     pP      07 24 30.5 -0.5
XAN                                 sP     sP      07 24 34.5 -0.5
XAN                                 PP     PP      07 25 49.5 +2.4
XAN                                 S      S       07 30 11.8 +4.6
XAN                                 sS     sS      07 30 27.0 +4.0
XAN                                 pmax   pmax
      comp=Z,170nm,0.8s,mb5.9
XAN                                 pmax   pmax
      comp=Z,340nm,8.4s
XAN                                 LR     LR
      comp=N,6µm,13.5s,MS5.7
XAN                                 LR     LR
      comp=E,8µm,17.5s,MS5.7
XAN                                 LR     LR
      comp=Z,12µm,15.5s,MS5.8
WRA   Warramunga Arr    37.85 120   P      P       07 24 24.8 -1.1
WRA                                 S      S       07 30 11.8 -3.4
WRA   Warramunga Arr    37.85 120   P      P       07 24 24.8 -1.1
      comp=Z,78nm,0.7s,mb5.5,baz=302,slow=9.1,SNR=362
WRA                                 S      S       07 30 11.8 -3.4
      comp=Z,6.0nm,0.8s,baz=296,slow=15,SNR=9.8
WRA                                 LR     LR      07 42 01.5
      comp=Z,3µm,21.3s,MS5.0,baz=290,slow=39
WRAB  Tennant Creek     37.85 120   P      P       07 24 25.0 -0.9
      comp=Z,790nm,0.5s,mb6.7,SNR=88
WRAB  Tennant Creek     37.85 120  eP      P       07 24 24.8 -1.1
WRAB                                pmax   pmax
      comp=Z,86nm,0.6s,mb5.7
WRAB                                MLR    MLR
      comp=Z,3µm,22.0s,MS5.1
WRAB  Tennant Creek     37.85 120  eP      P       07 24 24.8 -1.1
      comp=Z,86nm,0.6s,mb5.7
WRAB                                LR     LR
      comp=Z,3µm,22.0s,MS5.1
WRAB  Tennant Creek     37.85 120   P      P       07 24 25.2 -0.7
LZH   Lanzhou           38.58   5 ⇑P       P       07 24 31.3 -0.5
LZH                                 pP     pP      07 24 41.3 -0.1
LZH                                 sP     sP      07 24 45.1 -0.3
LZH                                 PP     PP      07 26 04.5 +3.9
LZH                                 PcP    PcP     07 26 42.6 -1.3
LZH                                 S      S       07 30 26.4 +0.6
LZH                                 PcS    PcS     07 30 31.8 -1.4
LZH                                 sS     sS      07 30 42.6 +0.9
LZH                                 SS     SS      07 33 09.5 -7.2
LZH                                 ScS    ScS     07 34 37.0 -3.1
LZH                                 pmax   pmax
      comp=Z,130nm,1.3s,mb5.5
LZH                                 pmax   pmax
      comp=Z,570nm,8.2s
LZH                                 LR     LR
      comp=N,4µm,14.2s
LZH                                 LR     LR
      comp=Z,6µm,17.5s,MS5.5
FORT  Forrest           38.73 139  eP      P       07 24 35.1 +1.9
      comp=Z,28nm,0.6s,mb5.2
NJ2   Nanjing           38.81  26  eP      P       07 24 33.8  0.0
NJ2                                 pP     pP      07 24 43.4  0.0
NJ2                                 sP     sP      07 24 47.5 +0.1
NJ2                                 PP     PP      07 26 07.0 +3.8
NJ2                                 S      S       07 30 30.5 +1.0
NJ2                                 sS     sS      07 30 46.0 +0.7
NJ2                                 SS     SS      07 33 13.5 -8.0
NJ2                                 pmax   pmax
      comp=Z,60nm,0.8s,mb5.4
NJ2                                 pmax   pmax
      comp=Z,510nm,4.6s
NJ2                                 LR     LR
      comp=N,7µm,13.8s,MS5.7
NJ2                                 LR     LR
      comp=E,4µm,14.4s,MS5.7
NJ2                                 LR     LR
      comp=Z,2µm,17.6s,MS5.1
ASAR  Alice Springs     39.06 125   P      P       07 24 34.9 -1.1
      comp=Z,57nm,0.7s,mb5.4,baz=297,slow=7.1,SNR=107
ASAR                                S      S       07 30 32.3 -1.1
      comp=Z,6.6nm,0.9s,baz=298,slow=16,SNR=24
SSE   Sheshan           39.11  30   P      P       07 24 37.1 +0.8
SSE                                 pP     pP      07 24 48.3 +2.4
SSE                                 sP     sP      07 24 53.4 +3.5
SSE                                 PP     PP      07 26 08.4 +2.0
SSE                                 S      S       07 30 36.5 +2.6
SSE                                 pmax   pmax
      comp=Z,75nm,0.8s,mb5.5
SSE                                 pmax   pmax
      comp=Z,430nm,5.1s
SSE                                 LR     LR
      comp=N,3µm,12.3s,MS5.5
SSE                                 LR     LR
      comp=E,4µm,12.3s,MS5.5
SSE                                 LR     LR
      comp=Z,6µm,10.5s,MS5.7
THN   Thein Dam         41.62 329  ePKP    P       07 24 54.9 -2.2
GTA   Gaotai            41.72 360   P      P       07 24 57.5 -0.3
GTA                                 pP     pP      07 25 07.3 -0.2
GTA                                 sP     sP      07 25 11.5 +0.1
GTA                                 PP     PP      07 26 39.9 +5.2
GTA                                 S      S       07 31 16.3 +3.6
GTA                                 pmax   pmax
      comp=Z,70nm,1.4s,mb5.1
GTA                                 pmax   pmax
      comp=Z,680nm,7.4s
GTA                                 LR     LR
      comp=N,3µm,16.4s,MS5.5
GTA                                 LR     LR
      comp=E,5µm,15.5s,MS5.5
GTA                                 LR     LR
      comp=Z,4µm,16.9s,MS5.3
TIA   Tai'an            41.76  21  eP      P       07 24 56.8 -1.3
TIA                                 pmax   pmax
      comp=Z,57nm,0.8s,mb5.2
TIA                                 LR     LR
      comp=N,6µm,15.0s
BTO   Baotou            43.91  11  eP      P       07 25 15.8 +0.3
MSEY  Mahe Island       44.35 266   PFAKE          07 25 30.0  +10
MSEY                                LR     LR
      comp=Z,2µm,22.0s,MS4.9
HHC   Hu-ho-hao-te      44.46  13⇑iP       P       07 25 20.9 +1.0
HHC                                 pP     pP      07 25 30.6 +0.9
HHC                                 sP     sP      07 25 35.1 +1.5
HHC                                 PP     PP      07 27 05.8 +1.7
HHC                                 PcS    PcS     07 30 55.4 -0.9
HHC                                eS      S       07 31 55.0 +2.2
HHC                                 sS     sS      07 32 11.6 +2.7
HHC                                 SS     SS      07 35 06.5 -6.4
HHC                                 ScS    ScS     07 35 13.3 -2.3
HHC                                 pmax   pmax
      comp=Z,55nm,0.8s,mb5.3
HHC                                 pmax   pmax
      comp=Z,820nm,3.6s
HHC                                 LR     LR
      comp=N,6µm,15.7s,MS5.6
HHC                                 LR     LR
      comp=E,2µm,14.7s,MS5.6
HHC                                 LR     LR
      comp=Z,5µm,14.7s,MS5.5
BJT   Baijiatuau        44.89  18  eP      P       07 25 23.3 -0.1
BJT                                 pmax   pmax
      comp=Z,187nm,0.8s
BJT                                 MLR    MLR
      comp=Z,3µm,19.0s
BJT   Baijiatuau        44.89  18  eP      P       07 25 23.3 -0.1
      comp=Z,187nm,0.8s,mb6.0
BJT                                 LR     LR
      comp=Z,3µm,19.0s,MS5.2
BJI   Beijing           44.91  18   P      P       07 25 23.6 +0.1
BJI                                 pP     pP      07 25 33.1 -0.2
BJI                                 sP     sP      07 25 37.9 +0.7
BJI                                 S      S       07 32 09.0  +10
BJI                                 sS     sS      07 32 19.1 +3.6
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BJI                                 pmax   pmax
      comp=Z,240nm,0.8s,mb6.1
BJI                                 pmax   pmax
      comp=Z,1µm,4.4s
BJI                                 LR     LR
      comp=N,6µm,16.8s,MS5.6
BJI                                 LR     LR
      comp=E,2µm,14.4s,MS5.6
BJI                                 LR     LR
      comp=Z,4µm,17.1s,MS5.4
DL2   Dalian            45.84  24   P      P       07 25 30.6 -0.3
DL2                                 S      S       07 32 10.4 -2.4
DL2                                 pmax   pmax
      comp=Z,50nm,1.0s,mb5.4
DL2                                 pmax   pmax
      comp=Z,280nm,5.5s
DL2                                 LR     LR
      comp=N,1µm,15.3s,MS5.2
DL2                                 LR     LR
      comp=E,2µm,15.0s,MS5.2
DL2                                 LR     LR
      comp=Z,1µm,17.5s,MS5.0
INCN  Inchon            46.91  29   PFAKE          07 25 50.0  +11
INCN                                LR     LR
      comp=Z,2µm,19.0s,MS5.1
KSH   Kashi             47.24 335   P      P       07 25 41.0 -0.9
KSH                                epP     pP      07 25 51.0 -0.7
KSH                                esP     sP      07 25 53.8 -1.8
KSH                                ePcP    PcP     07 27 12.1 -0.8
KSH                                ePP     PP      07 27 30.0 -3.2
KSH                                eScP    ScP     07 31 02.1 -2.5
KSH                                ePcS    PcS     07 31 06.3 -1.7
KSH                                eS      S       07 32 28.8 -4.1
KSH                                esS     sS      07 32 45.1 -3.9
KSH                                eScS    ScS     07 35 29.3 -4.4
KSH                                 pmax   pmax
      comp=Z,22nm,0.8s,mb5.1
KSH                                 LR     LR
      comp=N,5µm,21.7s,MS5.6
KSH                                 LR     LR
      comp=E,5µm,20.3s,MS5.6
KSH                                 LR     LR
      comp=Z,2µm,13.9s
WMQ   Urumqi            47.41 348⇑iP       P       07 25 43.8 +0.7
WMQ                                 pP     pP      07 25 54.0 +1.1
WMQ                                 sP     sP      07 25 58.0 +1.2
WMQ                                 PP     PP      07 27 35.0 +0.4
WMQ                                 S      S       07 32 36.0 +0.9
WMQ                                 sS     sS      07 32 52.0 +0.7
WMQ                                 ScS    ScS     07 35 32.0 -2.6
WMQ                                 pmax   pmax
      comp=Z,150nm,1.0s,mb5.9
WMQ                                 pmax   pmax
      comp=Z,710nm,4.6s
WMQ                                 LR     LR
      comp=N,3µm,18.0s,MS5.4
WMQ                                 LR     LR
      comp=E,3µm,22.0s,MS5.4
WMQ                                 LR     LR
      comp=Z,3µm,25.0s,MS5.1
GUMO  Guam              47.41  69   PFAKE          07 25 50.0 +6.4
GUMO                                LR     LR
      comp=Z,1µm,20.0s,MS4.9
KSRS  Korea Array       47.53  30   P      P       07 25 43.5 -0.7
      comp=Z,63nm,0.8s,mb5.7,baz=225,slow=8.4,SNR=99
KSRS                                PcP    PcP     07 27 12.3 -1.6
      comp=Z,2.6nm,0.7s,baz=217,slow=3.6,SNR=5.0
KSRS                                LR     LR      07 45 52.4
      comp=Z,1µm,20.2s,MS4.9,baz=235,slow=36
CTA   Charters Tower    48.50 115  eP      P       07 25 50.9 -1.1
      comp=Z,42nm,0.9s,mb5.5
CTA                                eS      S       07 32 49.0 -2.3
CTA                                eSCS    ScS     07 35 43.9 +1.1
CTA   Charters Tower    48.50 115   P      P       07 25 51.5 -0.4
      comp=Z,65nm,1.0s,mb5.6,baz=288,slow=8.8,SNR=58
CTAO  Charters Tower    48.50 115  eP      P       07 25 51.1 -0.9
CTAO                                pmax   pmax
      comp=Z,78nm,1.0s,mb5.7
CTAO                                MLR    MLR
      comp=Z,2µm,20.0s,MS5.1
CTAO  Charters Tower    48.50 115  eP      P       07 25 51.1 -0.9
      comp=Z,78nm,1.0s,mb5.7
CTAO                                LR     LR
      comp=Z,2µm,20.0s,MS5.1
STKA  Stephens Creek    48.91 131  eP      P       07 25 55.0 +0.1
      comp=Z,33nm,0.5s,mb5.6
STKA                               eS      S       07 32 55.9 -0.9
STKA  Stephens Creek    48.91 131   P      P       07 25 55.4 +0.4
      comp=Z,57nm,0.7s,mb5.7,baz=307,slow=7.9,SNR=42
STKA                                LR     LR      07 47 50.5
      comp=Z,5µm,21.2s,MS5.4,baz=297,slow=38
SNY   Shenyang          49.11  23 ⇓P       P       07 25 55.9 -0.3
SNY                                 S      S       07 32 59.3 +0.1
SNY                                 pmax   pmax
      comp=Z,56nm,2.0s,mb5.2
SNY                                 LR     LR
      comp=N,2µm,15.3s,MS5.5
SNY                                 LR     LR
      comp=E,4µm,14.1s,MS5.5
SNY                                 LR     LR
      comp=Z,3µm,14.1s,MS5.5
KZA   Kyzart            49.68 336   P      P       07 26 01.6 +0.9
      SNR=12
UCH   Uchtor            50.11 336   P      P       07 26 04.4 +0.5
      SNR=26
UCH   Uchtor            50.11 336  eP      P       07 26 04.2 +0.3
      comp=Z,38nm,1.0s,mb5.4
UCH                                 LR     LR
      comp=Z,2µm,21.0s,MS5.1
TKM2  Tokmak 2          50.25 337  eP      P       07 26 05.4 +0.4
TKM2                                pmax   pmax
      comp=Z,97nm,0.8s,mb5.9
TKM2                                MLR    MLR
      comp=Z,2µm,20.0s,MS5.1
TKM2  Tokmak 2          50.25 337   P      P       07 26 05.6 +0.6
      SNR=43
TKM2  Tokmak 2          50.25 337  eP      P       07 26 05.4 +0.5
      comp=Z,97nm,0.8s,mb5.9
TKM2                                LR     LR
      comp=Z,2µm,20.0s,MS5.1
KBK   Karagaybulak      50.29 336   P      P       07 26 05.8 +0.5
      SNR=14
AML   Almayashu         50.38 335   P      P       07 26 07.4 +1.5
      SNR=20
AML   Almayashu         50.38 335  eP      P       07 26 06.7 +0.8
      comp=Z,104nm,1.1s,mb5.8
AML                                 LR     LR
      comp=Z,1µm,20.0s,MS4.9
AAK   Ala-Archa         50.45 336   P      P       07 26 07.5 +1.0
      comp=Z,230nm,1.0s,mb6.2,SNR=9.4
AAK   Ala-Archa         50.45 336⇑eP       P       07 26 07.5 +1.0
AAK                                 pmax   pmax
      comp=Z,40nm,2.5s,mb5.0
AAK                                 MLR    MLR
      comp=Z,1µm,21.0s,MS5.0
AAK   Ala-Archa         50.45 336   P      P       07 26 07.8 +1.3
      SNR=14
AAK   Ala-Archa         50.45 336⇑eP       P       07 26 07.6 +1.1
AAK                                 LR     LR
      comp=Z,3µm,20.0s,MS5.2
SONM  Songino Array     50.47   6   P      P       07 26 06.6 +0.1
      comp=Z,120nm,0.9s,mb5.9,baz=190,slow=6.9,SNR=268
SONM                                PcP    PcP     07 27 24.0 -0.4
      comp=Z,9.8nm,0.9s,baz=202,slow=2.4,SNR=1.6
SONM  Songino Array     50.47   6   P      P       07 26 06.6 +0.1
SONM                                PcP    PcP     07 27 23.9 -0.4
ULN   Ulaanbaatar       50.57   6  eP      P       07 26 07.5 +0.3
ULN                                 pmax   pmax
      comp=Z,115nm,1.0s,mb5.8
ULN                                 MLR    MLR
      comp=Z,4µm,22.0s,MS5.4
ULN   Ulaanbaatar       50.57   6  eP      P       07 26 07.5 +0.2
      comp=Z,115nm,1.0s,mb5.8
ULN                                 LR     LR
      comp=Z,4µm,22.0s,MS5.4
FRU   Bishkek           50.57 336⇑iP       P       07 26 07.5 +0.1
FRU                                 pmax   pmax
      comp=Z,280nm,2.2s,mb5.8
FRU                                 MLR    MLR
      comp=Z,3µm,20.0s,MS5.3
CHMS  Chumysh           50.66 336   P      P       07 26 08.1 +0.1
      SNR=19
EKS2  Erkin-Say         50.77 335   P      P       07 26 09.3 +0.3
      SNR=50
EKS2  Erkin-Say         50.77 335  eP      P       07 26 09.3 +0.4
      comp=Z,80nm,0.8s,mb5.7
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EKS2                                LR     LR
      comp=Z,1µm,19.0s,MS5.0
USP   Ospenovka         50.98 336   P      P       07 26 10.1 -0.3
      SNR=42
MK31  Makanchi Array    51.49 345  eP      P       07 26 13.6 -0.6
MK31                                pmax   pmax
      comp=Z,67nm,0.7s,mb5.7
MK31  Makanchi Array    51.49 345  i P     P       07 26 13.7 -0.5
MKAR  Makanchi Array    51.49 345   P      P       07 26 13.8 -0.4
      comp=Z,87nm,0.7s,mb5.8,baz=151,slow=7.0,SNR=449
MKAR                                LR     LR      07 52 30.7
      comp=Z,977nm,18.0s,MS4.9,baz=162,slow=41
MKAR  Makanchi Array    51.49 345   P      P       07 26 13.8 -0.4
MKAR                                LR     LR      07 52 30.7
CN2   Changchun         51.51  24 ⇑P       P       07 26 13.0 -1.4
CN2                                esP     sP      07 26 27.0 -1.2
CN2                                 PcP    PcP     07 27 28.3  0.0
CN2                                eS      S       07 33 32.8 +0.2
CN2                                 SS     SS      07 37 06.4 -2.7
CN2                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.8
CN2                                 pmax   pmax
      comp=Z,200nm,3.0s
CN2                                 LR     LR
      comp=N,3µm,16.0s,MS5.5
CN2                                 LR     LR
      comp=E,3µm,16.0s,MS5.5
CN2                                 LR     LR
      comp=Z,3µm,14.0s,MS5.5
KK31  Karatay Array     52.55 333  i P     P       07 26 21.2 -1.0
KK31                                pmax   pmax
      comp=Z,7.0nm,0.5s,mb4.8
KK31  Karatay Array     52.55 333  i P     P       07 26 21.3 -0.9
MAJO  Matsushiro        52.76  39  eP      P       07 26 22.7 -1.1
MAJO                                pmax   pmax
      comp=Z,38nm,0.9s,mb5.3
MAJO                                MLR    MLR
      comp=Z,1µm,19.0s,MS5.0
MAJO  Matsushiro        52.76  39  eP      P       07 26 22.7 -1.2
      comp=Z,38nm,0.9s,mb5.3
MAJO                                LR     LR
      comp=Z,1µm,19.0s,MS5.0
MAT   Matsushiro        52.76  39   P      P       07 26 21.8 -2.0
MAT                                 S      S       07 33 59.6  +10
MJAR  Matsushiro Arr    52.76  39   P      P       07 26 22.0 -1.8
      comp=Z,25nm,0.9s,mb5.1,baz=214,slow=7.9,SNR=32
MJAR                                LR     LR      07 50 51.2
      comp=Z,880nm,19.0s,MS4.8,baz=240,slow=38
ZAK   Zakamensk         52.77   3  eP      P       07 26 23.0 -0.7
ZAK                                e               07 27 32.9
ZAK                                 pmax   pmax
      comp=Z,21nm,1.1s,mb5.0
PAF   Port-aux-Franc    53.08 204   PFAKE          07 26 40.0  +14
PAF                                 LR     LR
      comp=Z,3µm,19.0s,MS5.4
MDJ   Mudanjiang        53.91  26   P      P       07 26 32.4 +0.3
MDJ                                 pP     pP      07 26 37.9 -4.2
MDJ                                 sP     sP      07 26 40.8 -5.1
MDJ                                 PP     PP      07 28 34.6 +0.9
MDJ                                 ScP    ScP     07 31 34.3 +1.2
MDJ                                 PcS    PcS     07 31 36.3 -0.1
MDJ                                 S      S       07 34 09.1 +3.8
MDJ                                 sS     sS      07 34 20.1 -1.5
MDJ                                 pmax   pmax
      comp=Z,70nm,0.9s,mb5.6
MDJ                                 pmax   pmax
      comp=Z,470nm,6.2s
MDJ                                 LR     LR
      comp=N,2µm,14.8s,MS5.6
MDJ                                 LR     LR
      comp=E,4µm,15.6s,MS5.6
MDJ                                 LR     LR
      comp=Z,3µm,13.2s,MS5.6
MDJ   Mudanjiang        53.91  26  eP      P       07 26 32.1  0.0
      comp=Z,68nm,1.0s,mb5.5
MDJ                                 LR     LR
      comp=Z,690nm,22.0s,MS4.7
OPO   Ambohidratompo    53.96 249   P      P       07 26 33.7 +0.7
      comp=Z,1.8nm,0.5s,mb4.2,baz=21,slow=5.3,SNR=3.6
MOY   Mondy             53.99   1  eP      P       07 26 33.1 +0.5
MOY                                 pmax   pmax
      comp=Z,74nm,2.7s,mb5.1
ABPO  Ambohimpanom      54.01 248   PFAKE          07 26 50.0  +17
ABPO                                LR     LR
      comp=Z,3µm,20.0s,MS5.3
TLY   Talaya            54.09   3   P      P       07 26 34.8 +1.5
      comp=Z,196nm,0.7s,mb6.2,SNR=26
TLY   Talaya            54.09   3  eP      P       07 26 33.1 -0.2
TLY                                eS      S       07 34 19.9  +12
TLY                                 pmax   pmax
      comp=Z,31nm,0.8s,mb5.3
TLY                                 MLR    MLR
      comp=Z,3µm,15.0s,MS5.4
TLY   Talaya            54.09   3  eP      P       07 26 33.8 +0.5
      comp=Z,27nm,0.7s,mb5.3
TLY                                 LR     LR
      comp=Z,1µm,20.0s,MS5.0
EIDS  Eidsvold          54.21 120  eP      P       07 26 34.6 -0.1
      comp=Z,91nm,1.6s,mb5.5
HIA   Hailar            54.37  16  eP      P       07 26 34.6 -0.8
HIA                                 pmax   pmax
      comp=Z,68nm,1.0s
HIA                                 MLR    MLR
      comp=Z,3µm,19.0s
HIA   Hailar            54.37  16  eP      P       07 26 34.6 -0.9
      comp=Z,68nm,1.0s,mb5.5
HIA                                 LR     LR
      comp=Z,3µm,19.0s,MS5.4
TOO   Toolangi          54.43 136  eP      P       07 26 38.5 +2.4
IRK   Irkutsk           54.68   3  eP      P       07 26 38.2 +0.6
IRK                                eS      S       07 34 19.4 +3.9
IRK                                 pmax   pmax
      comp=Z,89nm,2.0s,mb5.5
CIT   Chita             55.56  10  eP      P       07 26 45.8 +1.8
CIT                                e       pP      07 26 54.4 +0.5
CIT                                e               07 27 01.4
CIT                                 pmax   pmax
      comp=Z,281nm,1.9s,mb6.0
CAN   Canberra          55.96 132   PFAKE          07 27 00.0  +13
CAN                                 LR     LR
      comp=Z,4µm,21.0s,MS5.5
KURK  Kurchatov         56.06 344   P      P       07 26 47.1 -0.5
      comp=Z,649nm,0.9s,mb6.7,SNR=19
KURK  Kurchatov         56.06 344  eP      P       07 26 46.5 -1.1
KURK                                pmax   pmax
      comp=Z,104nm,0.9s,mb5.9
KURK                                MLR    MLR
      comp=Z,1µm,20.0s,MS5.1
KURK  Kurchatov         56.06 344  eP      P       07 26 46.5 -1.1
      comp=Z,104nm,0.9s,mb5.9
KURK                                LR     LR
      comp=Z,1µm,20.0s,MS5.1
ARMA  Armidale          56.21 125  eP      P       07 26 46.3 -2.8
ARMA                               eS      S       07 34 42.0 +5.3
CNB   Canberra Magne    56.23 132  eP      P       07 26 51.3 +2.1
ZAA0  Zalesovo Array    57.65 350  eP      P       07 26 58.0 -0.7
ZALV  Zalesovo Beam     57.65 350   P      P       07 26 58.0 -0.8
      comp=Z,93nm,0.8s,mb5.8,baz=175,slow=5.4,SNR=203
KLR   Kul'dur           58.45  24  eP      P       07 27 00.0 -4.5
KLR                                eS      S       07 35 18.0  +12
KLR                                 pmax   pmax
      comp=E,85nm,1.6s
KLR                                 pmax   pmax
      comp=Z,240nm,1.6s,mb6.0
NVS   Novosibirsk       58.79 349⇑iP       P       07 27 04.9 -1.9
NVS                                eS      S       07 35 08.1 -1.6
NVS                                 pmax   pmax
      comp=Z,61nm,1.2s,mb5.5
NVS                                 pmax   pmax
      comp=N,70nm,1.7s
NVS                                 pmax   pmax
      comp=E,40nm,1.7s
NVS                                 smax
      comp=N,22nm,2.0s
NVS                                 smax
      comp=E,25nm,2.0s
ERM   Erimo             59.15  37   PFAKE          07 27 20.0  +11
ERM                                 LR     LR
      comp=Z,1µm,20.0s,MS4.9
HABR  Khabarovsk        59.28  26  eP      P       07 27 06.0 -4.3
HABR                               e*PP    pP      07 27 17.3 -3.0
HABR                               e*SP    sP      07 27 21.8 -2.4
HABR                                               07 27 54.6
HABR                               e               07 29 17.8
HABR                                S      S       07 35 11.9 -4.4
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HABR				e*SS	sS	07 35 31.2	-1.6
HABR				eSS	SS	07 39 08.4	-3.0
HABR				pmax	pmax		
	comp=N,36nm,1.8s						
HABR				pmax	pmax		
	comp=Z,86nm,1.7s,mb5.5						
HABR				pmax	pmax		
	comp=E,62nm,1.5s						
HABR				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.3						
HNR	**Honiara**	**60.08**	**99**	P	**P**	**07 27 14.5**	**-1.9**
	comp=Z,92nm,0.8s,mb5.9,baz=230,slow=6.3,SNR=5.6						
HNR	**Honiara**	**60.08**	**99**	P	**P**	**07 27 14.6**	**-1.9**
HNR				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
BVA0	**Borovoye Array**	**60.62**	**340**	P	**P**	**07 27 17.8**	**-1.6**
BVA0				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
BRVK	**Borovoye**	**60.69**	**340**	P	**P**	**07 27 19.7**	**-0.1**
	comp=Z,208nm,0.7s,mb6.4,SNR=8.0						
BRVK	**Borovoye**	**60.69**	**340**	eP	**P**	**07 27 18.7**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.4						
BRVK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
BRVK	**Borovoye**	**60.69**	**340**	eP	**P**	**07 27 18.7**	**-1.1**
	comp=Z,27nm,0.8s,mb5.4						
BRVK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
BOD	**Bodaibo**	**61.21**	**9**	eP	**P**	**07 27 22.5**	**-0.8**
BOD				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.7						
YSS	**Yuzh-Sakhalins**	**61.99**	**32**α	iP	**P**	**07 27 28.7**	**0.0**
YSS				pmax	pmax		
	comp=N,90nm,1.2s						
YSS				pmax	pmax		
	comp=Z,150nm,1.2s,mb6.0						
YSS				MLR	MLR		
	comp=N,2µm,14.0s						
YSS				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.2						
YSS	**Yuzh-Sakhalins**	**61.99**	**32**	eP	**P**	**07 27 28.1**	**-0.6**
	comp=Z,101nm,0.9s,mb6.0						
YSS				LR	LR		
	comp=Z,403nm,20.0s,MS4.6						
AB31	**Akbulak array**	**62.03**	**332**	P	**P**	**07 27 27.3**	**-1.7**
AB31				pmax	pmax		
	comp=Z,78nm,0.8s,mb5.9						
NRGR	**Nerungri**	**62.34**	**15**	eP	**P**	**07 27 31.0**	**+0.1**
NRGR				S	S	07 36 16.2	+21
NRGR				smax			
	comp=N,37nm,0.6s						
CLNS	**Chul'man**	**62.54**	**15**	eP	**P**	**07 27 32.5**	**+0.2**
CLNS				pmax	pmax		
	comp=Z,3µm,14.8s						
CLNS				pmax	pmax		
	comp=N,27nm,0.8s						
CLNS				pmax	pmax		
	comp=E,20nm,0.8s						
CLNS				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.5						
CLNS				MLR	MLR		
	comp=N,2µm,13.0s,MS5.5						
CLNS				MLR	MLR		
	comp=E,893nm,12.0s,MS5.5						
AKTK	**Aktyubinsk**	**63.75**	**332**	i P	**P**	**07 27 39.2**	**-1.2**
AKTO	**Aktyubinsk**	**63.75**	**332**	P	**P**	**07 27 39.1**	**-1.3**
AKTO				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
GNI	**Garni**	**65.81**	**316**	eP	**P**	**07 27 54.8**	**+0.7**
GNI				e		07 28 08.6	
GNI				pmax	pmax		
	comp=Z,22nm,1.0s						
GNI				MLR	MLR		
	comp=Z,578nm,21.0s						
GNI	**Garni**	**65.81**	**316**	eP	**P**	**07 27 54.8**	**+0.7**
	comp=Z,22nm,1.0s,mb5.2						
GNI				e		07 28 08.6	
GNI				LR	LR		
	comp=Z,578nm,21.0s,MS4.8						
TBLG	**Delisi**	**66.51**	**318**	P	**P**	**07 27 58.1**	**-0.5**
SVE	**Sverdlovsk**	**67.11**	**338**⇓	eP	**P**	**07 28 01.0**	**-1.0**
SVE				eS	S	07 36 52.2	-1.6
SVE				e		07 37 57.7	
SVE				pmax	pmax		
	comp=Z,87nm,1.0s,mb5.7						
SVE				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.2						
ARU	**Arti**	**67.63**	**337**	P	**P**	**07 28 04.5**	**-0.8**
	comp=Z,224nm,1.0s,mb6.2,SNR=7.1						
ARU	**Arti**	**67.63**	**337**d	iP	**P**	**07 28 04.2**	**-1.1**
ARU				e		07 30 31.8	
ARU				S	S	07 36 58.6	-1.4
ARU				SS	SS	07 41 15.8	-5.6
ARU				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.4						
ARU	**Arti**	**67.63**	**337**	eP	**P**	**07 28 04.2**	**-1.1**
	comp=Z,49nm,1.1s,mb5.5						
ARU				e	pP	07 28 12.7	-2.8
ARU				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
ONI	**Oni**	**67.75**	**318**	P	**P**	**07 28 07.4**	**+1.0**
YAK	**Yakutsk**	**68.27**	**15**	eP	**P**	**07 28 07.3**	**-1.9**
YAK				e*PP	pP	07 28 16.6	-2.8
YAK				e		07 28 23.7	
YAK				e		07 30 34.0	
YAK				eS	S	07 37 04.8	-2.7
YAK				pmax	pmax		
	comp=Z,179nm,0.9s,mb6.1						
YAK				pmax	pmax		
	comp=N,63nm,1.1s						
YAK				pmax	pmax		
	comp=E,49nm,1.4s						
YAK				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,18nm,1.5s						
YAK				smax			
	comp=N,228nm,4.9s						
YAK				smax			
	comp=E,269nm,4.3s						
YAK				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.6						
YAK				MLR	MLR		
	comp=N,1µm,16.0s,MS5.4						
YAK				MLR	MLR		
	comp=E,893nm,17.0s,MS5.4						
YAK	**Yakutsk**	**68.27**	**15**	eP	**P**	**07 28 07.8**	**-1.5**
	comp=E,187nm,0.8s,mb6.2						
YAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
KIV	**Kislovodsk**	**68.85**	**319**⇑	eP	**P**	**07 28 13.3**	**+0.1**
KIV				e		07 30 47.2	
KIV				i S	S	07 37 12.9	-2.2
KIV				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.2						
KIV				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.7						
KIV	**Kislovodsk**	**68.85**	**319**	eP	**P**	**07 28 13.1**	**-0.1**
	comp=Z,29nm,1.0s,mb5.2						
KIV				e	pP	07 28 23.3	-0.2
KIV				LR	LR		
	comp=Z,683nm,20.0s,MS4.9						
MBAR	**Mbarara**	**69.13**	**270**	i P	**P**	**07 28 15.7**	**+0.1**
MBAR				MLR	MLR		
	comp=Z,321nm,22.0s,MS4.5						
MALT	**Malatya**	**69.59**	**313**	eP	**P**	**07 28 18.3**	**+0.3**
MALT				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.0						
MALT				MLR	MLR		
	comp=Z,851nm,21.0s,MS5.0						
MALT	**Malatya**	**69.59**	**313**⇑	iP	**P**	**07 28 18.6**	**+0.6**
MALT	**Malatya**	**69.59**	**313**	eP	**P**	**07 28 18.3**	**+0.4**
	comp=Z,24nm,1.3s,mb5.0						
MALT				LR	LR		
	comp=Z,851nm,21.0s,MS5.0						
MAW	**Mawson**	**69.75**	**194**	LR	LR	07 52 16.4	
	comp=Z,1µm,20.5s,MS5.2,baz=28,slow=30						
SOKR	**Solikamsk**	**70.50**	**338**d	iP	**P**	**07 28 23.2**	**+0.2**
SOKR				S	SKSac	07 38 06.6	-16
SOKR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
SOC	**Sochi**	**70.65**	**318**	eP	**P**	**07 28 23.3**	**-1.0**
SOC				e*PP	pP	07 28 32.7	-1.9
SOC				e		07 31 02.8	
SOC				eS	S	07 37 36.6	+0.3
SOC				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
SOC				MLR	MLR		
	comp=Z,246nm,9.0s						
SKR	**Severo-Kuril's**	**71.37**	**34**	eP	**P**	**07 28 28.0**	**-0.5**
SKR				e	pP	07 28 38.0	-0.8
SKR				pmax	pmax		
	comp=E,80nm,0.9s						
SKR				pmax	pmax		
	comp=Z,180nm,0.9s,mb6.0						
SKR				pmax	pmax		
	comp=Z,2µm,8.0s						
LSZ	**Lusaka**	**71.67**	**255**	eP	**P**	**07 28 30.9**	**-0.2**
LSZ				e	pP	07 28 40.0	-1.3
LSZ				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
LSZ				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
LSZ	**Lusaka**	**71.67**	**255**	eP	**P**	**07 28 30.9**	**-0.2**
	comp=Z,8.4nm,0.8s,mb4.7						
LSZ				e	pP	07 28 40.0	-1.3
LSZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
CSS	**Prodhromos**	**72.44**	**308**	PFAKE		07 28 50.0	+15
CSS				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
VRHR	**Novokhopersk**	**72.68**	**326**	eP	**P**	**07 28 35.5**	**-0.9**
VRHR				e*PP	pP	07 28 45.7	-0.9
VRHR				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
VRHR				pmax	pmax		
	comp=N,60nm,0.8s						
PEA0B	**Petropavlovsk-**	**73.39**	**32**	eP	**P**	**07 28 39.2**	**-1.3**
PETK	**Petropavlovsk-**	**73.39**	**32**	P	**P**	**07 28 40.0**	**-0.6**
	comp=N,24nm,0.9s,mb5.1,baz=156,slow=0.2,SNR=32						
PETK	**Petropavlovsk-**	**73.39**	**32**	P	**P**	**07 28 40.0**	**-0.6**
BRTR	**Keskin Array B**	**73.58**	**313**	P	**P**	**07 28 40.7**	**-1.2**
	comp=N,7.2nm,0.9s,mb4.6,baz=119,slow=6.7,SNR=28						
BRTR				LR	LR	08 03 41.2	
	comp=N,411nm,19.6s,MS4.7,baz=242,slow=38						
PET	**Petropavlovsk**	**73.86**	**33**	eP	**P**	**07 28 41.1**	**-2.2**
PET				eS	S	07 38 09.7	-3.0
PET				ePS		07 38 39.3	
PET				eSS	SS	07 42 57.9	+0.6
PET				eSSS		07 46 09.5	
PET				pmax	pmax		
	comp=Z,91nm,0.8s,mb5.8						
PET				pmax	pmax		
	comp=Z,600nm,17.3s						
PET	**Petropavlovsk**	**73.86**	**33**	eP	**P**	**07 28 42.8**	**-0.6**
	comp=Z,64nm,0.8s,mb5.6						
PET				LR	LR		
	comp=Z,875nm,19.0s,MS5.1						
VORD	**Divnogorie**	**73.95**	**325**	eP	**P**	**07 28 42.9**	**-1.0**
VORD				e*PP	pP	07 28 52.6	-1.5
VORD				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
VORD				pmax	pmax		
	comp=N,30nm,0.8s						
VORD				pmax	pmax		
	comp=E,30nm,0.9s						
VSR	**Storozhevoye**	**74.12**	**325**	eP	**P**	**07 28 43.6**	**-1.3**
VSR				e*PP	pP	07 28 53.3	-1.9
VSR				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.6						
VSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,70nm,1.0s						
LBTB	**Lobatse**	**74.69**	**245**	LR	LR	07 57 02.7	
	comp=E,2µm,19.0s,MS5.5,baz=93,slow=32						
RPZ	**Rata Peaks**	**74.71**	**135**	LR	LR	08 00 41.1	
	comp=E,3µm,20.9s,MS5.5,baz=196,slow=35						
BOSA	**Boshof**	**75.30**	**241**	P	**P**	**07 28 51.7**	**-0.5**
	comp=E,1.8nm,0.8s,mb4.1,baz=75,slow=9.6,SNR=3.7						
BOSA				LR	LR	07 58 36.0	
	comp=E,2µm,18.0s,MS5.4,baz=94,slow=33						
BOSA	**Boshof**	**75.30**	**241**	P	**P**	**07 28 51.7**	**-0.5**
BOSA				LR	LR	07 58 36.0	
ISP	**Isparta**	**75.40**	**310**	PFAKE		07 29 00.0	+7.4
ISP				LR	LR		
	comp=Z,673nm,19.0s,MS5.0						
PRGR	**Permogore**	**76.09**	**336**⇑	iP	**P**	**07 28 55.0**	**-1.0**
PRGR				pmax	pmax		
	comp=Z,94nm,0.8s,mb5.8						
SEY	**Seymchan**	**76.15**	**22**⇑	eP	**P**	**07 28 56.1**	**-0.2**
TIXI	**Tiksi**	**76.39**	**9**⇑	eP	**P**	**07 28 56.3**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,112nm,1.7s,mb5.5						
TIXI	**Tiksi**	**76.39**	**9**	eP	**P**	**07 28 55.7**	**-1.8**
	comp=Z,40nm,0.7s,mb5.5						
TIXI				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
MOS	**Moscow**	**76.87**	**329**	eP	**P**	**07 28 59.3**	**-1.2**
MOS				pmax	pmax		
	comp=Z,73nm,0.9s,mb5.6						
SNZO	**South Karori**	**76.96**	**132**	PFAKE		07 29 10.0	+8.6
SNZO				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
OBN	**Obninsk**	**77.16**	**328**⇑	eP	**P**	**07 29 02.1**	**-0.1**
OBN				e		07 31 58.5	
OBN				i S	S	07 38 44.1	-5.1
OBN				pmax	pmax		
	comp=Z,100nm,1.7s,mb5.5						
OBN	**Obninsk**	**77.16**	**328**	eP	**P**	**07 29 02.5**	**+0.3**
	comp=Z,98nm,1.3s,mb5.6						
KLMR	**Klimovskoe**	**78.24**	**334**⇓	iP	**P**	**07 29 08.5**	**+0.4**
KLMR				e	pP	07 29 17.7	-0.7
KLMR				pmax	pmax		
	comp=Z,65nm,1.5s,mb5.3						
URZ	**Urewera**	**78.43**	**128**	LR	LR	08 05 01.4	
	comp=Z,1µm,19.3s,MS5.3,baz=302,slow=37						
TIRR	**Tirgusor**	**78.64**	**316**	eP	**P**	**07 29 09.6**	**-1.0**
TIRR				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
TIRR	**Tirgusor**	**78.64**	**316**⇑	iP	**P**	**07 29 10.3**	**-0.3**
TIRR	**Tirgusor**	**78.64**	**316**	eP	**P**	**07 29 09.6**	**-1.1**
	comp=Z,19nm,1.0s,mb5.0						
KIS	**Kishinev**	**79.03**	**319**	eP	**P**	**07 29 13.0**	**+0.2**
KIS				e	pP	07 29 22.0	-1.1
KIS				e		07 29 33.0	
KIS	**Kishinev**	**79.03**	**319**	eP	**P**	**07 29 13.0**	**+0.2**
KIS				LRM		08 12 30.0	
	comp=Z,1µm,18.0s						
FUNA	**Funafuti**	**79.08**	**98**	PFAKE		07 29 20.0	+6.3
FUNA				LR	LR		
	comp=Z,8µm,21.0s,MS6.0						
SUR	**Sutherland**	**79.41**	**238**	PFAKE		07 29 30.0	+15
SUR				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
AKASG	**Malin Array Be**	**79.81**	**322**	P	**P**	**07 29 15.8**	**-1.2**
	comp=Z,1.1nm,0.4s,mb4.2,baz=89,slow=4.8,SNR=13						
VRI	**Vrincioaia**	**80.14**	**317**⇓	iP	**P**	**07 29 19.3**	**+0.5**
MLR	**Muntele Rosu**	**80.59**	**317**⇓	iP	**P**	**07 29 21.1**	**-0.1**
MLR	**Muntele Rosu**	**80.59**	**317**	⇓P	**P**	**07 29 21.1**	**-0.2**
VOIR		**81.19**	**317**⇓	iP	**P**	**07 29 24.1**	**-0.3**
VOIR		**81.19**	**317**	⇓P	**P**	**07 29 24.1**	**-0.3**
BURAR	**Bucovina Array**	**81.56**	**319**⇑	iP	**P**	**07 29 27.5**	**+1.1**
BURAR	**Bucovina Array**	**81.56**	**319**	⇑P	**P**	**07 29 27.6**	**+1.2**
BUR08	**Bucovina Ar. S**	**81.58**	**319**	eP	**P**	**07 29 26.8**	**+0.3**
VNDA	**Vanda**	**81.68**	**169**	LR	LR	08 04 30.4	
	comp=Z,916nm,18.1s,MS5.2,baz=314,slow=35						
NACGM	**Naroch**	**82.40**	**326**	e	**P**	**07 29 26.0**	**-4.6**
JOF	**Joensuu**	**82.62**	**335**	ep	**P**	**07 29 28.5**	**-3.1**
	comp=Z,15nm,0.9s,mb5.0						
LVV	**L'vov**	**82.81**	**321**	eP	**P**	**07 29 32.6**	**-0.3**
LVV				e	pP	07 29 43.6	+0.3
LVZ	**Lovozero**	**83.22**	**340**	PFAKE		07 29 50.0	+15
LVZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
TRPA	**Tarpa**	**83.43**	**319**⇑	iP	**P**	**07 29 36.4**	**+0.3**
BZS	**Buzias**	**83.59**	**316**⇑	iP	**P**	**07 29 37.1**	**+0.1**
BILL	**Bilibino**	**83.68**	**20**⇓	iP	**P**	**07 29 36.8**	**-0.2**
BILL				e		07 32 51.1	
BILL				eS	S	07 40 01.3	+4.3
BILL				pmax	pmax		
	comp=Z,24nm,2.0s,mb5.0						
BILL				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.3						
BILL	**Bilibino**	**83.68**	**20**	eP	**P**	**07 29 36.4**	**-0.6**
	comp=Z,16nm,1.1s,mb5.1						
BILL				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
UZH	**Uzhgorod**	**83.69**	**319**	eP	**P**	**07 29 32.6**	**-4.8**
UZH				e	pP	07 29 43.6	-4.2
KOLS	**Kolonicke sedl**	**83.76**	**320**	eP	**P**	**07 29 38.1**	**+0.3**
KOLS				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.2						
KOLS	**Kolonicke sedl**	**83.76**	**320**	eP	**P**	**07 29 38.1**	**+0.3**
	comp=Z,22nm,1.0s,mb5.2						
TIR	**Tirane**	**84.16**	**312**	PFAKE		07 29 50.0	+10
TIR				LR	LR		
	comp=Z,679nm,20.0s,MS5.0						
SUW	**Suwalki**	**84.23**	**325**	eP	**P**	**07 29 39.9**	**-0.1**
SUW	**Suwalki**	**84.23**	**325**	eP	**P**	**07 29 39.9**	**-0.2**
CRVS	**Cervenica-Dubn**	**84.28**	**319**	eP	**P**	**07 29 41.0**	**+0.6**
STHS	**Stebnicka Huta**	**84.51**	**320**	eP	**P**	**07 29 42.3**	**+0.7**
STHS				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
STHS	**Stebnicka Huta**	**84.51**	**320**	eP	**P**	**07 29 42.3**	**+0.7**
	comp=Z,11nm,1.0s,mb5.0						
KAF	**Kangasniemi**	**84.58**	**333**	eP	**P**	**07 29 40.3**	**-1.4**
KAF				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
KAF	**Kangasniemi**	**84.58**	**333**	ep	**P**	**07 29 40.3**	**-1.4**
	comp=Z,17nm,0.8s,mb5.2						
KECS	**Kecovo**	**84.84**	**319**	eP	**P**	**07 29 42.1**	**-1.2**
KECS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
KECS	**Kecovo**	**84.84**	**319**	eP	**P**	**07 29 42.1**	**-1.2**
	comp=Z,3.9nm,0.9s,mb4.5						
PSZ	**Piszkesteto**	**85.14**	**318**	eP	**P**	**07 29 44.5**	**-0.3**
PSZ				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
PSZ	**Piszkesteto**	**85.14**	**318**⇓	iP	**P**	**07 29 45.5**	**+0.7**
PSZ	**Piszkesteto**	**85.14**	**318**	eP	**P**	**07 29 44.5**	**-0.3**
	comp=Z,9.4nm,0.9s,mb4.9						
PKSM	**Moragy**	**85.73**	**317**⇓	iP	**P**	**07 29 46.4**	**-1.4**
PKSM	**Moragy**	**85.73**	**317**	⇓P	**P**	**07 29 46.4**	**-1.4**
VYHS	**Vyhne**	**85.93**	**319**	eP	**P**	**07 29 48.0**	**-0.7**
TIP	**Timpagrande**	**86.23**	**309**	eP	**P**	**07 29 48.3**	**-2.2**
	comp=Z,24nm,1.3s,mb5.3						
TIP				LR	LR		
	comp=Z,743nm,20.0s,MS5.1						
OKC	**Ostrava-Krasne**	**86.57**	**320**	eP	**P**	**07 29 52.5**	**+0.7**
OKC				epP	pP	07 30 02.8	+0.5
CEL	**Celeste**	**86.81**	**308**	P	**P**	**07 29 55.2**	**+1.9**
CEL				LR	LR		
	comp=Z,343nm,20.0s,MS4.8						
PTRP	**Pietrapertosa**	**86.91**	**311**	P	**P**	**07 29 54.9**	**+1.2**
	comp=Z,106nm,1.4s,mb5.9						
ARCES	**ARCESS Array B**	**86.91**	**340**	P	**P**	**07 29 53.3**	**+0.2**
	comp=Z,16nm,0.8s,mb5.3,baz=100,slow=6.3,SNR=19						
ARCES				LR	LR	08 13 48.7	
	comp=Z,944nm,18.9s,MS5.2,baz=110,slow=39						
MODS	**Modra-Piesok**	**86.94**	**319**	eP	**P**	**07 29 52.0**	**-1.7**
MORC	**Moravsky Berou**	**86.95**	**320**	eP	**P**	**07 29 52.7**	**-1.0**
MORC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.0						
MORC	**Moravsky Berou**	**86.95**	**320**	eP	**P**	**07 29 52.7**	**-1.0**
	comp=Z,9.5nm,1.0s,mb5.0						
ACER	**Acerenza**	**87.03**	**311**	P	**P**	**07 29 53.8**	**-0.5**
	comp=Z,335nm,2.7s,mb6.1						
CUC	**Castrocucco**	**87.04**	**310**	PFAKE		07 30 10.0	+16
CUC				LR	LR		
	comp=Z,747nm,19.0s,MS5.1						
QSPA	**South Pole Qui**	**87.45**	**180**	P	**P**	**07 29 54.9**	**-0.6**
	comp=Z,3.6nm,0.8s,mb4.7,baz=212,slow=0.8,SNR=16						
QSPA	**South Pole Qui**	**87.45**	**180**	eP	**P**	**07 29 55.7**	**+0.1**
	comp=Z,5.5nm,0.9s,mb4.8						
QSPA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
WDD	**Wield Dalam**	**87.69**	**306**	PFAKE		07 30 10.0	+12
WDD				LR	LR		
	comp=Z,642nm,19.0s,MS5.0						
DPC	**Dobruska-Polom**	**87.80**	**320**	eP	**P**	**07 29 58.8**	**+1.0**
DPC				epP	pP	07 30 07.1	-1.1
AFI	**Afiamalu**	**87.80**	**104**	LR	LR	08 07 50.6	
	comp=Z,420nm,21.8s,MS4.8,baz=267,slow=35						
GROS	**Grobnik**	**87.92**	**316**	i P	**P**	**07 29 57.3**	**-1.1**
BOJS	**Bojanci**	**88.00**	**316**	i P	**P**	**07 29 59.2**	**+0.4**
BOJS				epP	pP	07 30 06.7	-2.7
UPC	**Upice**	**88.01**	**321**	eP	**P**	**07 29 59.3**	**+0.5**
PERS	**Pernice**	**88.20**	**317**	i P	**P**	**07 30 00.1**	**+0.3**
PERS				epP	pP	07 30 10.3	+0.1
VISS	**Visnje**	**88.32**	**316**	eP	**P**	**07 30 00.8**	**+0.4**
LJU	**Ljubljana**	**88.56**	**316**	eP	**P**	**07 30 02.2**	**+0.8**
SDI	**San Donato**	**88.71**	**312**	P	**P**	**07 30 02.6**	**+0.3**
SDI				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.4						
SDI	**San Donato**	**88.71**	**312**	P	**P**	**07 30 02.6**	**+0.3**
	comp=Z,24nm,1.2s,mb5.4						
PRU	**Pruhonice**	**88.90**	**320**	eP	**P**	**07 30 04.0**	**+1.0**
PRU				epP	pP	07 30 13.6	+0.1
NRCA	**Norcia**	**89.31**	**313**	P	**P**	**07 30 05.1**	**0.0**
	comp=Z,15nm,1.0s,mb5.3						
GEC2	**GERESS Array S**	**89.35**	**319**	eP	**P**	**07 30 05.7**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,62nm,1.6s,mb5.7						
GEC2	**GERESS Array S**	**89.35**	**319**	eP	**P**	**07 30 05.7**	**+0.6**
	comp=Z,62nm,1.6s,mb5.7						
GERES	**GERESS Array B**	**89.35**	**319**	P	**P**	**07 30 05.3**	**+0.2**
	comp=Z,5.0nm,0.9s,mb4.8,baz=102,slow=4.4,SNR=18						
BRG	**Berggiesshubel**	**89.36**	**321**	eP	**P**	**07 30 05.7**	**+0.6**
BRG				e	pP	07 30 15.5	-0.1
BRG				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
BRG				pmax	pmax		
	comp=Z,43nm,2.0s,mb5.4						
BRG				pmax	pmax		
	comp=Z,39nm,2.4s,mb5.3						
BRG	**Berggiesshubel**	**89.36**	**321**	eP	**P**	**07 30 06.0**	**+0.9**
	comp=Z,16nm,1.1s,mb5.3						
BRG	**Berggiesshubel**	**89.36**	**321**	eP	**P**	**07 30 05.7**	**+0.6**
	comp=Z,16nm,1.1s,mb5.2						
BRG				e	pP	07 30 15.5	-0.1
	comp=Z,72nm,2.0s						
BRG				i		07 41 18.0	
BRG				e		07 47 10.1	
	comp=Z,66nm,2.4s						
PTCC	**Patocco-Chiusa**	**89.40**	**316**	P	**P**	**07 30 05.2**	**-0.2**
KHC	**Kasperske Hory**	**89.45**	**319**	eP	**P**	**07 30 05.9**	**+0.3**
KHC				epP	pP	07 30 16.2	+0.1
FSSB	**Fossombrone**	**89.61**	**314**	P	**P**	**07 30 07.6**	**+1.1**
	comp=Z,118nm,2.0s,mb5.9						
FBE	**Freiberg**	**89.73**	**321**	eP	**P**	**07 30 08.0**	**+1.1**
	comp=Z,94nm,1.9s,mb5.8						
RSM	**Repubblica di**	**89.87**	**314**	P	**P**	**07 30 09.0**	**+1.3**
WET	**Wettzell**	**89.91**	**319**	eP	**P**	**07 30 08.2**	**+0.4**
WET				pmax	pmax		
	comp=Z,68nm,1.9s,mb5.7						
WET	**Wettzell**	**89.91**	**319**	eP	**P**	**07 30 08.2**	**+0.4**
	comp=Z,68nm,1.9s,mb5.7						
CLL	**Collm**	**89.98**	**321**	i P	**P**	**07 30 08.4**	**+0.4**
CLL				e	pP	07 30 18.0	-0.5
CLL				eS	S	07 40 58.0	-0.6
CLL				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.2						
CLL				MLR	MLR		
	comp=Z,600nm,19.1s,MS5.0						
CLL	**Collm**	**89.98**	**321**	eP	**P**	**07 30 08.3**	**+0.3**
	comp=Z,55nm,2.1s,mb5.5						
CLL	**Collm**	**89.98**	**321**	i P	**P**	**07 30 08.4**	**+0.4**
	comp=Z,15nm,1.2s,mb5.2						
CLL				LmV		07 19 00.0	
	comp=Z,600nm,19.1s						
CLL				epP	pP	07 30 18.0	-0.5
CLL				eS	S	07 40 58.0	-0.6
	comp=N,400nm,26.5s						
CLL				ePS	PS	07 42 12.0	+3.3
CLL				eSSSS		07 53 54.0	
CLL	**Collm**	**89.98**	**321**	i P	**P**	**07 30 08.4**	**+0.4**
	comp=N,15nm,1.2s,mb5.2						
CLL				e	pP	07 30 18.0	-0.5
CLL				eS	S	07 40 58.0	-0.6
CLL				LR	LR		
	comp=Z,600nm,19.1s,MS5.0						
HFS	**Hagfors**	**90.25**	**330**	LR	LR	08 18 02.8	
	comp=Z,813nm,21.8s,MS5.1,baz=91,slow=40						
NKC	**Novy Kostel**	**90.26**	**320**	eP	**P**	**07 30 01.5**	**-7.9**
NKC				e*PP	pP	07 30 10.4	-9.4
NKC	**Novy Kostel**	**90.26**	**320**	eP	**P**	**07 30 10.8**	**+1.4**
	comp=Z,12nm,1.1s,mb5.1						
NKC	**Novy Kostel**	**90.26**	**320**	eP	**P**	**07 30 10.4**	**+1.0**
TANN	**Tannenbergstha**	**90.27**	**320**	eP	**P**	**07 30 10.1**	**+0.7**
	comp=Z,75nm,2.2s,mb5.6						

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SFI   Santa Sofia       90.30 314  P        P          07 30 10.7 +1.0
WERN  Wernitzgruen      90.31 320 eP        P          07 30 10.5 +0.9
      comp=Z,29nm,1.8s,mb5.3
GUNZ  Gunzen            90.35 320 eP        P          07 30 10.4 +0.7
      comp=Z,21nm,1.3s,mb5.3
WERD  Werda             90.37 320 eP        P          07 30 10.5 +0.7
      comp=Z,23nm,1.4s,mb5.3
ROTZ  Rotzenmuhle       90.39 320 eP        P          07 30 10.9 +0.9
      comp=Z,27nm,1.4s,mb5.4
MANZ  Manzenberg        90.47 320 eP        P          07 30 11.2 +0.9
      comp=Z,53nm,1.6s,mb5.6
CTI   Castel Tesino     90.56 316  P        P          07 30 11.8 +1.0
NEUB  Neuenburg         90.75 321 eP        P          07 30 12.1 +0.5
      comp=Z,26nm,1.1s,mb5.5
MOX   Moxa              90.82 320 eP        P          07 30 12.4 +0.5
      comp=Z,41nm,1.6s,mb5.5
MOX   Moxa              90.82 320 eP        P          07 30 12.4 +0.5
MOX                                pmax     pmax
      comp=Z,41nm,1.6s,mb5.5
MOX   Moxa              90.82 320 eP        P          07 30 12.7 +0.8
      comp=Z,40nm,1.6s,mb5.5
GRA1  Grafenberg Arr    91.03 320 eP        P          07 30 13.6 +0.7
      comp=Z,57nm,1.6s,mb5.7
GRA1                               LR       LR
      comp=Z,600nm,20.4s,MS5.0
GRF   Grafenberg Arr    91.03 320 eP        P          07 30 13.6 +0.7
GRF                                pmax     pmax
      comp=Z,57nm,1.6s,mb5.7
GRF                                MLR      MLR
      comp=Z,600nm,20.4s,MS5.0
GRF   Grafenberg Arr    91.03 320 eP        P          07 30 13.6 +0.7
GRF                                pmax     pmax
      comp=Z,57nm,1.6s,mb5.7
GRF                                MLR      MLR
      comp=Z,600nm,20.4s,MS5.0
GRF   Grafenberg Arr    91.03 320 eP        P          07 30 13.6 +0.7
      comp=Z,57nm,1.6s,mb5.7
GRF                               eL                   08 19 52.9
      comp=Z,587nm,20.4s
SPITS Spitsbergen Ar    91.11 348  LR       LR         08 19 06.6
      comp=Z,1µm,19.9s,MS5.3,baz=0.0,slow=41
VLC   Villacollemand    91.36 314  PFAKE               07 30 30.0  +15
VLC                                LR       LR
      comp=Z,568nm,20.0s,MS5.0
NB2   NORSAR Subarra    91.53 331  P        P          07 30 14.7  -0.3
      comp=Z,4.7nm,0.9s,mb4.8,baz=95,slow=4.6
NOA   NORSAR Array B    91.53 331  P        P          07 30 13.8  -1.2
      comp=Z,2.8nm,0.8s,mb4.6,baz=94,slow=4.6,SNR=4.9
NOA                                LR       LR         08 15 47.1
      comp=Z,649nm,19.2s,MS5.1,baz=50,slow=38
NOA   NORSAR Array B    91.53 331  P        P          07 30 13.8  -1.2
NOA                                LR       LR         08 15 47.0
KEST  Kesra             91.88 306  P        P          07 30 18.1 +0.9
      comp=Z,4.8nm,0.9s,mb4.8,baz=318,slow=5.5,SNR=12
KEST                               LR       LR         08 12 14.0
      comp=Z,386nm,19.5s,MS4.9,baz=5.8,slow=36
VSL   Villasalto        91.97 309 eP        P          07 30 18.0 +0.5
VSL                                LR       LR
      comp=Z,281nm,20.0s,MS4.7
KBS   Kingsbay          92.05 349  PFAKE               07 30 30.0  +13
KBS                                LR       LR
      comp=Z,2µm,19.0s,MS5.5
TUE   Stuetta           92.17 316  PFAKE               07 30 30.0  +12
TUE                                LR       LR
      comp=Z,618nm,20.0s,MS5.0
TNA   Tin City          93.19  25 eP        P          07 30 21.6  -0.9
      comp=Z,4.3nm,1.0s,mb4.8
LPG   La Plagne         93.97 315 eP        P          07 30 26.9 +0.3
LPL   La Plagne         93.98 315 eP        P          07 30 26.9 +0.2
      comp=Z,7.1nm,0.7s,mb4.9
LPL   La Plagne         93.98 315 eP        P          07 30 26.9 +0.2
LPL                                pmax     pmax
      comp=Z,4.0nm,0.7s,mb5.0
LPL   La Plagne         93.98 315 eP        P          07 30 26.9 +0.2
      comp=Z,3.5nm,0.7s,mb4.9
TAM   Tamanrasset       94.97 293  PFAKE               07 30 40.0 +8.2
TAM                                LR       LR
      comp=Z,658nm,20.0s,MS5.1
SSB   Saint Sauveur     95.53 315  PFAKE               07 30 40.0 +6.2
SSB                                LR       LR
      comp=Z,483nm,20.0s,MS5.0
JMIC  Jan Mayen         98.31 342  LR       LR         08 19 54.1
      comp=Z,476nm,18.1s,MS5.0,baz=246,slow=38
TORD  Torodi Ar. Bea    98.53 283  P        P          07 30 51.5 +3.5
      comp=Z,0.5nm,0.8s,mb4.1,baz=89,slow=5.9,SNR=3.2
TORD                               LR       LR         08 13 14.6
      comp=Z,617nm,19.7s,MS5.1,baz=85,slow=34
RAR   Rarotonga         98.74 112  LR       LR         08 10 29.7
      comp=Z,283nm,21.8s,MS4.7,baz=124,slow=32
IMA2  Indian Mountai    98.93  23 eP        P          07 30 47.7  -0.9
BPAW  Bear Paw Mtn.    100.55  25 ePdif     Pdif       07 30 54.9  -1.3
      comp=Z,51nm,2.1s
KDAK  Kodiak Island    101.43  31  PFAKE               07 31 10.0  +10
KDAK                               LR       LR
      comp=Z,1µm,21.0s,MS5.5
COLA  College          101.61  24  PFAKE               07 31 10.0 +9.2
COLA                               LR       LR
      comp=Z,623nm,20.0s,MS5.1
PAB   San Pablo        102.56 310  PFAKE               07 31 20.0  +15
PAB                                LR       LR
      comp=Z,395nm,20.0s,MS4.9
EGAK  Eagle            104.29  23  PFAKE               07 31 20.0 +7.3
EGAK                               LR       LR
      comp=Z,803nm,19.0s,MS5.3
SFS   San Fernando     104.41 307  PFAKE               07 31 30.0  +17
SFS                                LR       LR
      comp=Z,1µm,21.0s,MS5.5
MTE   Manteigas        104.86 311  PFAKE               07 31 30.0  +15
MTE                                LR       LR
      comp=Z,617nm,19.0s,MS5.2
RTC   Rabat Centre     105.26 304  PFAKE               07 35 40.0 +8.3
RTC                                LR       LR
      comp=Z,474nm,19.0s,MS5.0
PPT   Papeete          108.75 109 eLR       LR         08 07 31.9
      comp=Z,1µm,24.2s
PMSA  Palmer Station   111.84 187  PFAKE               07 35 50.0 +6.9
PMSA                               LR       LR
      comp=Z,2µm,22.0s,MS5.5
SFJD  Kangerlussuaq    112.45 348  PFAKE               07 36 00.0  +16
SFJD                               LR       LR
      comp=Z,2µm,19.0s,MS5.7
YKA   Yellowknife Ar   114.90  17  PKP      PKiKP      07 35 47.6  -1.4
      comp=Z,0.8nm,0.8s,baz=322,slow=2.1,SNR=12
YKA                                PP       PP         07 36 37.5   -10
      comp=Z,1.0nm,0.9s,baz=321,slow=5.8,SNR=5.3
YKA                                PKKPbc   PKKPbc     07 46 32.3 +4.2
      comp=Z,0.2nm,0.8s,baz=151,slow=3.8,SNR=5.1
YKA   Yellowknife Ar   114.90  17  PKP      PKiKP      07 35 47.6  -1.4
YKA                                PP       PP         07 36 37.5   -10
YKA                                PKKPbc   PKKPbc     07 46 32.4 +4.2
TAOE  Nuku Hiva Isla   119.12 102 eLR       LR         08 12 22.9
      comp=Z,3µm,23.2s
RKT   Rikitea          120.83 119 eLR       LR         08 13 26.8
      comp=Z,1µm,28.0s
EDM   Edmonton         122.51  23 ePKIKP    PKPdf      07 36 03.3  -0.6
EFI   East Falkland    122.85 196  PFAKE               07 36 20.0  +15
EFI                                LR       LR
      comp=Z,634nm,20.0s,MS5.3
NEW   Newport          124.45  29  PFAKE               07 36 20.0  +12
NEW                                LR       LR
      comp=Z,799nm,20.0s,MS5.4
HAWA  Hanford          124.46  32  PFAKE               07 36 20.0  +12
HAWA                               LR       LR
      comp=Z,582nm,19.0s,MS5.3
HUMO  Hull Mountain    124.78  38  PFAKE               07 36 20.0  +11
HUMO                               LR       LR
      comp=Z,646nm,22.0s,MS5.2
FFC   Flin Flon        124.99  15 i PKIKP   PKPdf      07 36 08.9 +0.2
FFC   Flin Flon        124.99  15  PFAKE               07 36 20.0  +11
FFC                                LR       LR
      comp=Z,1µm,21.0s,MS5.5
BSMT  Bassoo Peak      125.86  28 ePKPdf    PKPdf      07 36 09.8  -0.8
WDC   Whiskeytown Da   126.16  40  PFAKE               07 36 20.0 +8.6
WDC                                LR       LR
      comp=Z,571nm,22.0s,MS5.2
SWMT  Swartz Lake      126.47  28 ePKPdf    PKPdf      07 36 09.8  -2.0
BMO   Blue Mountains   126.65  32  PFAKE               07 36 20.0 +7.9
BMO                                LR       LR
      comp=Z,480nm,20.0s,MS5.2
SCHQ  Schefferville    126.74 350  PKP      PKPdf      07 36 12.0   0.0
      comp=Z,1.3nm,0.7s,baz=53,slow=3.4,SNR=5.1
SCHQ                               PP       PP         07 38 06.5  -1.7
      comp=Z,6.6nm,1.1s,baz=16,slow=2.0,SNR=3.7
SLMT  Seeley Lake      126.90  28 ePKPdf    PKPdf      07 36 12.2  -0.4
MSO   Missoula         126.99  29  PFAKE               07 36 20.0 +7.3
MSO                                LR       LR
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      comp=Z,498nm,20.0s,MS5.2
CHMT  Chamberlain Mo   127.26  28 ePKPdf    PKPdf      07 36 12.6  -0.7
WVOR  Wild Horse Val   127.45  35  PFAKE               07 36 30.0  +16
WVOR                               LR       LR
      comp=Z,329nm,20.0s,MS5.0
EGMT  Eagleton         127.98  25 ePKPdf    PKPdf      07 36 14.6 +0.1
EGMT                               LR       LR
      comp=Z,669nm,21.0s,MS5.3
DLMT  Dillon           128.70  29 ePKPdf    PKPdf      07 36 16.3 +0.2
BOZ   Bozeman (W)      128.95  28  PFAKE               07 36 30.0  +13
BOZ                                LR       LR
      comp=Z,596nm,20.0s,MS5.3
CMB   Columbia Colle   128.96  41  PFAKE               07 36 30.0  +13
CMB                                LR       LR
      comp=Z,382nm,20.0s,MS5.1
HLID  Hailey           129.05  32 ePKPdf    PKPdf      07 36 18.0 +1.2
HLID                               LR       LR
      comp=Z,765nm,21.0s,MS5.4
BMN   Battle Mountai   129.53  37  PFAKE               07 36 30.0  +12
BMN                                LR       LR
      comp=Z,608nm,21.0s,MS5.3
DGMT  Dagmar           129.77  21  PFAKE               07 36 30.0  +12
DGMT                               LR       LR
      comp=Z,855nm,20.0s,MS5.4
NVAR  Mina Array Bea   130.08  39  PKP      PKPdf      07 36 20.3 +1.4
      comp=Z,1.4nm,0.8s,baz=255,slow=3.1,SNR=7.7
NVAR                               PP       PP         07 38 28.4  -2.6
      comp=Z,0.6nm,0.8s,baz=273,slow=5.5,SNR=4.1
LKWY  Lake             130.34  28  PFAKE               07 36 30.0  +11
LKWY                               LR       LR
      comp=Z,894nm,20.0s,MS5.5
RLMT  Red Lodge        130.44  27  PFAKE               07 36 30.0  +11
RLMT                               LR       LR
      comp=Z,867nm,20.0s,MS5.5
LAO   LASA Array       130.49  23 ePKPdf    PKPdf      07 36 21.2 +1.8
LAO                                LR       LR
      comp=Z,805nm,19.0s,MS5.4
ELK   Elko             130.49  35  PFAKE               07 36 30.0  +10
ELK                                LR       LR
      comp=Z,565nm,20.0s,MS5.3
ULM   Lac du Bonnet    130.60  13  PKP      PKPdf      07 36 19.2  -0.2
      comp=Z,3.1nm,0.8s,baz=358,slow=5.0,SNR=7.5
REDW  Red Top Meadow   131.01  30 ePKPdf    PKPdf      07 36 21.5 +1.0
AHID  Auburn Hatcher   131.33  30  PFAKE               07 36 30.0 +8.9
AHID                               LR       LR
      comp=Z,847nm,20.0s,MS5.4
DAC   Darwin (Calif)   131.80  41  PFAKE               07 36 30.0 +7.8
DAC                                LR       LR
      comp=Z,535nm,20.0s,MS5.2
BW06  Boulder Array    132.09  29  PFAKE               07 36 30.0 +7.4
BW06                               LR       LR
      comp=Z,463nm,21.0s,MS5.2
PDAR  Pinedale Array   132.09  29  PKhKP               07 36 19.1
      comp=Z,0.5nm,0.7s,baz=26,slow=2.3,SNR=3.8
PDAR                               PP       PP         07 38 42.7  -0.9
      comp=Z,1.2nm,1.0s,baz=337,slow=3.4,SNR=4.4
DUG   Dugway           132.23  34  PFAKE               07 36 30.0 +7.1
DUG                                LR       LR
      comp=Z,617nm,20.0s,MS5.3
AGMN  Agassiz Refuge   132.42  14  PFAKE               07 36 30.0 +7.0
AGMN                               LR       LR
      comp=Z,946nm,21.0s,MS5.5
RSSD  Black Hills      133.48  24 ePKIKP    PKPdf      07 36 22.7  -2.4
RSSD                               MLR      MLR
      comp=Z,542nm,19.0s,MS5.3
EYMN  Ely              133.69  11  PFAKE               07 36 40.0  +15
EYMN                               LR       LR
      comp=Z,1µm,22.0s,MS5.5
MVU   Marysvale        133.73  35  PFAKE               07 36 40.0  +14
MVU                                LR       LR
      comp=Z,524nm,20.0s,MS5.2
MSU   Marysvale        133.74  35 ePKIKP    PKPdf      07 36 27.0 +1.2
RCBR  Riachuelo        135.06 259  PFAKE               07 36 40.0  +11
RCBR                               LR       LR
      comp=Z,657nm,20.0s,MS5.3
COWI  Conover          135.88   9  PFAKE               07 36 40.0  +10
COWI                               LR       LR
      comp=Z,697nm,19.0s,MS5.4
WUAZ  Wupatki          136.22  38  PFAKE               07 36 40.0 +9.5
WUAZ                               LR       LR
      comp=Z,465nm,20.0s,MS5.2
ISCO  Idaho Springs    136.27  29  PFAKE               07 36 40.0  +10
ISCO                               LR       LR
      comp=Z,548nm,19.0s,MS5.3
ECSD  EROS Data Cent   136.43  17  PFAKE               07 36 40.0 +9.3
ECSD                               LR       LR
      comp=Z,637nm,20.0s,MS5.3
OGNE  Ogallala         136.94  24  PFAKE               07 36 40.0 +8.3
OGNE                               LR       LR
      comp=Z,734nm,20.0s,MS5.4
GLMI  Grayling         137.68   5  PFAKE               07 36 40.0 +7.0
GLMI                               LR       LR
      comp=Z,767nm,19.0s,MS5.5
LONY  Lake Ozonia      137.79 354  PFAKE               07 36 40.0 +6.8
LONY                               LR       LR
      comp=Z,754nm,21.0s,MS5.4
LBNH  Lisbon           137.82 351  PFAKE               07 36 40.0 +6.8
LBNH                               LR       LR
      comp=Z,1µm,20.0s,MS5.6
SDCO  Great Sand Dun   137.92  30  PFAKE               07 36 50.0  +16
SDCO                               LR       LR
      comp=Z,565nm,19.0s,MS5.3
NCB   Newcomb          138.39 354  PFAKE               07 36 50.0  +16
NCB                                LR       LR
      comp=Z,677nm,21.0s,MS5.4
TUC   Tucson           138.68  41  PFAKE               07 36 50.0  +15
TUC                                LR       LR
      comp=Z,410nm,20.0s,MS5.2
JFWS  Jewell Farm      138.78  11  PFAKE               07 36 50.0  +15
JFWS                               LR       LR
      comp=Z,813nm,21.0s,MS5.4
SPB   Sao Paulo        138.93 229  PFAKE               07 36 50.0  +14
SPB                                LR       LR
      comp=Z,593nm,20.0s,MS5.3
SCIA  State Center     139.06  15  PFAKE               07 36 50.0  +14
SCIA                               LR       LR
      comp=Z,729nm,20.0s,MS5.4
ANMO  Albuquerque      139.50  34  PFAKE               07 36 50.0  +13
ANMO                               LR       LR
      comp=Z,1µm,19.0s,MS5.6
CBKS  Cedar Bluff      139.68  24  PFAKE               07 36 50.0  +13
CBKS                               LR       LR
      comp=Z,771nm,19.0s,MS5.5
AAM   Ann Arbor        140.27   4  PFAKE               07 36 50.0  +12
AAM                                LR       LR
      comp=Z,903nm,21.0s,MS5.5
BINY  Binghamton       140.32 355  PFAKE               07 36 50.0  +12
BINY                               LR       LR
      comp=Z,887nm,19.0s,MS5.5
ERPA  Erie             140.58 360  PFAKE               07 36 50.0  +12
ERPA                               LR       LR
      comp=Z,676nm,20.0s,MS5.4
KSU1  Kansas State U   140.61  20  PFAKE               07 36 50.0  +12
KSU1                               LR       LR
      comp=Z,835nm,20.0s,MS5.5
HDIL  Hopedale         141.24  11  PFAKE               07 36 50.0  +10
HDIL                               LR       LR
      comp=Z,894nm,21.0s,MS5.5
SSPA  Standing Stone   142.00 357  PFAKE               07 36 50.0 +9.1
SSPA                               LR       LR
      comp=Z,799nm,20.0s,MS5.5
AMTX  Amarillo         142.07  29  PFAKE               07 36 50.0 +8.8
AMTX                               LR       LR
      comp=Z,807nm,22.0s,MS5.4
ACSO  Alum Creek Sta   142.37   4  PFAKE               07 36 50.0 +8.4
ACSO                               LR       LR
      comp=Z,1µm,21.0s,MS5.6
MCWV  Mont Chateau     143.03 360  PFAKE               07 36 50.0 +7.2
MCWV                               LR       LR
      comp=Z,1µm,21.0s,MS5.6
BLO   Bloomington      143.06   8 ePKIKP    PKPdf      07 36 38.5  -4.4
CCM   Cathedral Cave   143.19  15 ePKIKP    PKPdf      07 36 38.5  -4.6
CCM                                MLR      MLR
      comp=Z,694nm,20.0s,MS5.4
WMOK  Wichita Mounta   143.54  26 ePKIKP    PKPdf      07 36 39.6  -4.2
CPUP  Villa Florida    143.83 216  PKP      PKPdf      07 36 42.9  -1.7
      comp=Z,0.8nm,0.5s,baz=140,slow=2.7,SNR=6.8
WCI   Wyandotte Cave   144.01   8 ePKIKP    PKPdf      07 36 41.1  -3.5
WCI                                MLR      MLR
      comp=Z,997nm,20.0s,MS5.6
CBN   Corbin           144.40 356  PFAKE               07 37 00.0  +15
CBN                                LR       LR
      comp=Z,739nm,20.0s,MS5.5
PARMO Parma            144.88  14 ePKPdf    PKPdf      07 36 44.1  -2.0
TXAR  Lajitas Array    145.19  38  PKPbc    PKPbc      07 36 46.4   0.0
```

```
      comp=Z,77nm,0.7s,baz=267,slow=1.6,SNR=576
GLAT  Glass            145.36  13 ePKPdf    PKPdf      07 36 46.1  -0.8
UTMT  University of    145.39  12 ePKPdf    PKPdf      07 36 46.3  -0.7
ELN   Prospectdale     145.45   1 ePKPdf    PKPdf      07 36 45.7  -1.4
BLA   Blacksburg       145.47   0 ePKIKP    PKPdf      07 36 46.0  -1.1
BLA                                MLR      MLR
      comp=Z,931nm,20.0s,MS5.6
GNAR  Gosnell          145.48  14 ePKPdf    PKPdf      07 36 46.8  -0.4
HALT  Halls            145.70  13 ePKPdf    PKPdf      07 36 47.0  -0.6
HBAR  Harrisburg       145.71  15 ePKPdf    PKPdf      07 36 47.5  -0.1
MIAR  Mount Ida        145.76  20 ePKP2     PKPab      07 36 47.5  -1.0
MIAR                               MLR      MLR
      comp=Z,521nm,20.0s,MS5.3
WVT   Waverly          145.80  11 ePKP2     PKPab      07 36 46.4  -2.2
WVT                                MLR      MLR
      comp=Z,801nm,19.0s,MS5.5
UALR  University of    145.95  18 ePKPdf    PKPdf      07 36 49.6 +1.5
TZTN  Tazewell         146.00   5 ePKPdf    PKPdf      07 36 47.9  -0.2
JCT   Junction City    146.53  32 ePKP2     PKPbc      07 36 49.6  -0.9
JCT                                MLR      MLR
      comp=Z,577nm,20.0s,MS5.4
TKL   Tuckaleechee C   146.85   5 ePKP2     PKPbc      07 36 50.4  -0.9
PLAL  Pickwick Lake    146.87  12 ePKPdf    PKPdf      07 36 48.9  -0.6
PLAL                               LR       LR
      comp=Z,843nm,22.0s,MS5.5
BBSR  BB Station       146.95 336  PFAKE               07 37 00.0  +10
BBSR                               LR       LR
      comp=Z,504nm,20.0s,MS5.3
CPCT  Cooper Cave      146.98   7 ePKPbc    PKPbc      07 36 50.7  -1.0
OXF   Oxford           147.01  14 ePKIKP    PKPdf      07 36 48.4  -1.4
OXF                               e                    07 36 51.0
OXF                                MLR      MLR
      comp=Z,827nm,22.0s,MS5.5
SWET  Sewanee          147.02   9 ePKPdf    PKPdf      07 36 49.4  -0.5
LCO   Las Campanas     147.37 195 ePKPbc    PKPbc      07 36 53.6 +0.7
LCO                                LR       LR
      comp=Z,342nm,19.0s,MS5.2
CNNC  Cliffs of the    147.38 357  PFAKE               07 37 00.0  +10
CNNC                               LR       LR
      comp=Z,802nm,21.0s,MS5.5
JSC   Jenkinsville     148.38   2 ePKP2     PKPbc      07 36 53.9  -1.6
VBMS  Vicksburg        148.88  17 ePKPbc    PKPbc      07 36 56.6  -0.3
VBMS                               LR       LR
      comp=Z,716nm,21.0s,MS5.4
HKT   Hockley          148.91  27 ePKP2     PKPbc      07 36 56.4  -0.6
HKT                                MLR      MLR
      comp=Z,888nm,21.0s,MS5.5
GOGA  Godfrey          149.11   5 ePKP2     PKPbc      07 36 56.2  -1.2
GOGA                               MLR      MLR
      comp=Z,654nm,20.0s,MS5.4
NHSC  New Hope         149.57   0  PFAKE               07 37 00.0 +6.0
NHSC                               LR       LR
      comp=Z,882nm,20.0s,MS5.5
KVTX  Kingsville       149.87  33 ePKPbc    PKPbc      07 37 00.9 +1.4
KVTX                               LR       LR
      comp=Z,706nm,19.0s,MS5.5
BRAL  Brewton          150.91  12  PFAKE               07 37 10.0  +14
BRAL                               LR       LR
      comp=Z,860nm,20.0s,MS5.5
LVC   Limon Verde      152.73 203 ePKPbc    PKPbc      07 37 05.8  -0.4
LVC                                LR       LR
      comp=Z,510nm,19.0s,MS5.3
SIV   San Ignacio      153.67 225  PKPbc    PKPbc      07 37 07.3  -1.2
      comp=Z,1.0nm,0.6s,baz=155,slow=2.8,SNR=6.1
DWPF  Disney           154.52   3  PFAKE               07 37 10.0 +8.4
DWPF                               LR       LR
      comp=Z,978nm,21.0s,MS5.6
ANWB  Willy Bob        156.53 311  PFAKE               07 37 20.0  +15
ANWB                               LR       LR
      comp=Z,471nm,20.0s,MS5.3
FDF   Fort de France   157.68 304  PFAKE               07 37 20.0  +14
FDF                                LR       LR
      comp=Z,400nm,20.0s,MS5.2
SJG   San Juan         159.31 319  PFAKE               07 37 20.0  +12
SJG                                LR       LR
      comp=Z,806nm,20.0s,MS5.6
GRGR  Grenville        159.35 298  PFAKE               07 37 20.0  +12
GRGR                               LR       LR
      comp=Z,538nm,21.0s,MS5.4
TEIG  Tepich           160.69  24  PFAKE               07 37 20.0  +11
TEIG                               LR       LR
      comp=Z,648nm,20.0s
SDDR  Presa de Saban   161.49 333 ePKPab    PKPab      07 37 53.7  -0.9
SDDR                               LR       LR
      comp=Z,684nm,20.0s
GTBY  Guantanamo Bay   162.02 345  PFAKE               07 37 20.0 +9.1
GTBY                               LR       LR
      comp=Z,589nm,19.0s
NNA   Nana             165.22 193  PFAKE               07 37 20.0 +6.0
NNA                                LR       LR
      comp=Z,482nm,19.0s
TGUH  Tegucigalpa,Un   166.54  31  PFAKE               07 37 30.0  +15
TGUH                               LR       LR
      comp=Z,358nm,19.0s
SDV   Santo Domingo    168.63 304  PFAKE               07 37 30.0  +13
SDV                                LR       LR
      comp=Z,306nm,19.0s
PAYG  Puerto Ayora     169.36 107  PFAKE               07 37 30.0  +13
PAYG                               LR       LR
      comp=Z,474nm,19.0s
JTS   JuntasAbangare   170.91  32  PFAKE               07 37 30.0  +12
JTS                                LR       LR
      comp=Z,666nm,22.0s
BCIP  Isla Barro Col   173.39 357  PFAKE               07 37 30.0  +11
BCIP                               LR       LR
      comp=Z,741nm,21.0s
OTAV  Otavalo          177.18 217 ePKPdf    PKPdf      07 37 20.5 +0.4
OTAV                               LR       LR
      comp=Z,634nm,21.0s
```

IDC ***23*** *07:20:51.9±0.9, 27°.62S×176°.42W, h0^{km}, mb4.1/6, mb1 4.4/7, mb1mx4.3/14, mbtmp4.1/7, ML4.4/1, MS3.8/1, Ms1 3.8/1, ms1mx2.9/31, Error ellipse: s-maj=38.0km s-min=20.5km az=133.0*

ISCJB ***23*** *07:20:57.0±4.2, 27°.5S±0°.3×176°.6W±0°.2, h40^{km}±42^{km}, mb4.1/6, Error ellipse: s-maj=50.2km s-min=26.1km az=144.4*

ISC 23 07:20:56.6±7.1**, 27°.5S**±0°.2×**176°.6W**±0°.2**, h26**^{km}±50^{km}**, n15, σ0^{s}.86**/8**, mb4.1**/6**, Kermadec Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time      Res
                                   Op       ISC        h  m  s     ISC
RAO   Raoul Island       2.10 214  Pn       Pn         07 21 30.2 +0.1
      123nm,0.3s,baz=245,slow=22,SNR=3.3
RAO                                Sn       Sn         07 21 55.6 +0.1
      183nm,0.3s,baz=54,slow=23,SNR=10
RAR   Rarotonga         16.52  71  LR       LR         07 29 47.7
      comp=Z,312nm,20.6s,baz=117,slow=33
ASAR  Alice Springs     44.61 263  P        P          07 29 07.2 +0.2
      1.9nm,0.8s,mb4.0,baz=111,slow=7.6,SNR=6.5
WRA   Warramunga Arr    45.34 269  P        P          07 29 12.3  -0.6
      1.8nm,0.8s,mb4.0,baz=108,slow=7.7,SNR=5.6
MJAR  Matsushiro Arr    76.63 324  P        P          07 32 44.5  -0.5
      0.6nm,0.4s,mb3.9,baz=155,slow=5.9,SNR=2.9
PETK  Petropavlovsk-    83.36 345  P        P          07 33 22.3 +1.4
      2.4nm,0.9s,mb4.2,baz=193,slow=10,SNR=3.2
NVAR  Mina Array Bea    85.26  42  P        P          07 33 31.2 +0.2
      1.4nm,0.8s,mb4.2,baz=231,slow=7.5,SNR=7.7
PDAR  Pinedale Array    93.17  43  P        P          07 34 07.8  -0.7
      0.6nm,0.7s,mb4.1,baz=163,slow=1.5,SNR=6.1
ZALV  Zalesovo Beam    116.70 319  PKP      PKPdf      07 39 36.7  -1.3
      0.6nm,0.4s,baz=111,slow=3.7,SNR=2.5
MKAR  Makanchi Array   116.87 311  PKP      PKPdf      07 39 37.2  -1.4
      0.7nm,0.8s,baz=96,slow=2.4,SNR=4.9
NB2   NORSAR Subarra   146.07 353  PKP      PKPdf      07 40 33.4 +0.7
      comp=Z,2.6nm,0.8s,baz=10,slow=3.2
NOA   NORSAR Array B   146.07 353  PKPbc    PKPbc      07 40 33.8 +0.1
      comp=Z,4.3nm,0.8s,baz=5.0,slow=2.4,SNR=7.2
AKASG Malin Array Be   149.68 327  PKPbc    PKPbc      07 40 43.1  -0.6
      comp=Z,2.8nm,0.9s,baz=44,slow=2.6,SNR=3.6
BRTR  Keskin Array B   152.19 304  PKPbc    PKPbc      07 40 51.2 +1.3
      comp=Z,0.8nm,0.8s,baz=20,slow=4.6,SNR=3.9
TORD  Torodi Ar. Bea   165.61 173  PKPab    PKPab      07 41 55.8  -2.4
      comp=Z,1.2nm,0.9s,baz=191,slow=4.4,SNR=4.7
```

NNC ***23*** *07:31:43.9±5.0, 37°.99N×72°.26E, h218^{km}±86^{km}, mb2.5, mpv3.6, Error ellipse: s-maj=65.0km s-min=26.9km az=9.0*

ISC 23 07:31:47.0±2.5**, 38°.2N**±0°.2×**72°.2E**±0°.2**, h241**^{km}±43^{km}**, n11, σ0^{s}.78**/13**, 1C-2D, Tajikistan**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time      Res
                                   Op       ISC        h  m  s     ISC
AML   Almayashu          4.11  16  P        Pn         07 32 51.1  -0.4
```

	SNR=154						
UCH	Uchtor	4.42	23	P	Pn	07 32 55.2	0.0
	SNR=22						
KZA	Kyzart	4.54	30	P	Pn	07 32 56.1	-0.6
	SNR=16						
EKS2	Erkin-Say	4.64	14	P	Pn	07 32 59.0	+1.0
	SNR=49						
AAK	Ala-Archa	4.78	21	P	Pn	07 32 60.0	+0.3
	SNR=13						
KBK	Karagaybulak	4.94	24	P	Pn	07 33 02.6	+1.0
	SNR=7.1						
KK31	Karatay Array	5.09	346	P	Pn	07 33 01.8	-1.7
	4.0nm,0.3s,baz=171,slow=11,SNR=154						
KK31				S	S	07 34 05.0	+0.6
	2.8nm,0.3s,baz=172,slow=20,SNR=12						
CHMS	Chumysh	5.19	21	P	Pn	07 33 05.4	+0.7
	SNR=9.8						
TKM2	Tokmak 2	5.40	28	⇑P	Pn	07 33 06.4	-0.8
	3.7nm,0.6s						
TKM2				⇓S	S	07 34 10.6	-0.8
	1.5nm,0.6s						
TKM2	Tokmak 2	5.40	28	P	Pn	07 33 07.9	+0.7
	SNR=5.8						
AB09	Akbulak array	14.18	325	⇓P	Pn	07 34 57.3	0.0
	0.4nm,0.5s						

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*NEIC **23** 07:33:14.3, 16°.97N×100°.22W, h5^{km}, MD3.6(MEX), After MEX.*

MEX 23 07:33:14.0±0.6**, 17°.08N×100°.17W, h0**^{km}±10^{km}**, MD3.6, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.10	251	*e*P	Pg	07 33 15.5	-0.4
CAIG				*i* S	Sg	07 33 17.9	+0.8
ACX	Acapulco	0.32	131	*i* P	Pg	07 33 20.1	-0.1
ACX				*i* S	Sg	07 33 24.6	+0.3
ZIIG	Zihuatanejo	1.34	293	*i* P	Pg	07 33 36.4	-3.4
ZIIG				*i* S	Sg	07 33 53.2	-4.0
PNIG	Pinotepa	2.08	109	*i* P	Pn	07 33 46.9	-3.2
PNIG				*i* S	Sn	07 34 12.5	-4.1
UTMO	Huajuapan	2.38	71	*i* P	Pn	07 33 52.0	-2.3
UTMO				*i* S	Sn	07 34 21.5	-2.7

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*IDC **23** 07:44:24.0±1.0, 3°.81S×128°.95E, h0^{km}, mb3.9/4, mb1 4.0/6, mb1mx3.8/19, mbtmp3.9/6, ML3.7/1, Error ellipse: s-maj=50.3km s-min=20.9km az=59.0*

*ISCJB **23** 07:44:27.2±1.1, 3°.92S±0°.09×128°.87E±0°.07, h34^{km}±15^{km}, mb3.9/3, Error ellipse: s-maj=15.3km s-min=11.7km az=2.1*

*DJA **23** 07:44:30, 3°.40S×128°.62E, h22^{km}, MLv3.6/4*

ISC 23 07:44:28.0±1.4**, 3°.89S**±0°.09×**128°.87E**±0°.07**, h26**^{km}±12^{km}**, n13, σ0^{s}.99**/12**, mb3.9**/3**, 1C, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSAI	Masohi	0.54	6	P	Pb	07 44 38.6	-0.4
AAI	Ambon	0.71	287	⇑*e*P	Pb	07 44 41.5	-0.2
AAI				*e*S	Sb	07 44 51.9	+0.9
AAI	Ambon	0.71	287	P	Pb	07 44 41.4	-0.3
NLAI	Namlea	1.88	290	P	Pn	07 44 56.2	-2.3
SWI	Sorong	3.84	38	P	Pn	07 45 26.0	+0.6
KAPI	Kappang	9.16	263	Pn	Pn	07 46 39.0	+0.4
	0.7nm,0.3s,baz=108,slow=9.6,SNR=4.0						
WRA	Warramunga Arr	16.82	162	Pn	Pn	07 48 20.3	-1.6
	0.2nm,0.3s,baz=338,slow=13,SNR=4.8						
ASAR	Alice Springs	20.25	167	P	P	07 49 02.9	+1.4
	4.8nm,0.8s,baz=348,slow=10,SNR=56						
CTA	Charters Tower	23.37	135	P	P	07 49 35.1	+0.2
	2.0nm,0.5s,mb3.8,baz=337,slow=12,SNR=3.3						
MKAR	Makanchi Array	65.03	327	P	P	07 55 06.5	+0.7
	1.0nm,0.6s,mb4.0,baz=117,slow=7.6,SNR=17						
ZALV	Zalesovo Beam	68.31	334	P	P	07 55 26.3	-0.4
	0.4nm,0.3s,mb3.9,baz=129,slow=5.7,SNR=3.9						
TORD	Torodi Ar. Bea	127.05	283	PKP	PKPdf	08 03 30.5	-0.3
	0.4nm,0.6s,baz=78,slow=1.6,SNR=3.9						
CPUP	Villa Florida	149.36	169	PKPbc	PKPbc	08 04 14.7	-0.7
	0.2nm,0.3s,baz=146,slow=7.3,SNR=5.5						

IDC 23 07:55:16.8±5.4**, 0°.59S×102°.47E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/19**, mbtmp3.4**/3**, Error ellipse: s-maj=308.6km s-min=28.1km az=54.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	36.65	124	P	P	08 02 25.8	+0.4
	0.5nm,0.7s,baz=304,slow=9.0,SNR=3.4						
ASAR	Alice Springs	38.16	129	P	P	08 02 37.7	-0.4
	0.2nm,0.7s,baz=295,slow=8.2,SNR=5.4						
MKAR	Makanchi Array	50.39	342	P	P	08 04 15.8	0.0
	0.6nm,0.7s,baz=148,slow=7.9,SNR=7.2						

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*BJI **23** 08:04:52.9, 40°.50N×29°.40W, h10^{km}, mB5.5/6, mb4.8/10, Ms4.9/4, Ms7 4.6/4*

*ISCJB **23** 08:04:54.0±0.2, 40°.42N±0°.02×29°.44W±0°.04, h10^{km}, mb4.5/95, MS4.3/6, Error ellipse: s-maj=4.7km s-min=2.7km az=159.3*

*IDC **23** 08:04:54.9±0.8, 40°.64N×29°.37W, h0^{km}, mb4.1/23, mb1 4.1/24, mb1mx4.1/36, mbtmp4.0/24, MS4.3/5, Ms1 4.3/5, ms1mx3.7/44, Error ellipse: s-maj=23.6km s-min=12.9km az=10.0*

*NEIC **23** 08:04:56.0±0.3, 40°.49N×29°.39W, h10^{km}, mb4.6/72, Error ellipse: s-maj=7.8km s-min=3.8km az=183.0*

*PDA **23** 08:04:57.9±0.9, 40°.62N×29°.30W, h10^{km}, MD4.1, ML4.2, Error ellipse: s-maj=5.4km s-min=4.0km az=83.0*

*CSEM **23** 08:04:57.1±0.1, 40°.39N×29°.36W, h20^{km}, mb4.6/66, Ms3.6, Error ellipse: s-maj=5.0km s-min=4.0km az=57.0*

*INMG **23** 08:04:57.0, 40°.60N×29°.30W, h10^{km}, ML4.1*

*SZGRF **23** 08:04:58.3, 40°.83N×29°.87W, h18^{km}, mb4.6, Azores Islands region*

*MOS **23** 08:04:59.1±1.1, 40°.97N×29°.42W, h28^{km}, mb4.7/62, Error ellipse: s-maj=10.5km s-min=4.7km az=146.4*

ISC 23 08:04:55.7±0.2**, 40°.37N**±0°.02×**29°.40W**±0°.04**, h10**^{km}**, (h17**^{km}±1.5^{km}**:pP-P), n390, σ1^{s}.03**/391**, mb4.5**/95**, MS4.3**/6**, 5C-1D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRBC	Serra Branca	1.70	141	*e*P	Sg	08 05 53.0	+2.8
PCED	Cedros	1.82	163	*i* P	Pn	08 05 28.1	+1.0
PCED				*i* S	Sn	08 05 50.2	0.0
PCED				A		08 05 51.7	
	592nm,0.5s						
CALA	Caldeira	1.87	163	*e*P	Pn	08 05 28.8	+1.1
CALA				*e*S	Sn	08 05 51.4	0.0
CALA	Caldeira	1.87	163	*e*P	Pn	08 05 28.8	+1.1
CALA				*e*S	Sn	08 05 51.4	0.0
ROSA	Rosais	1.88	151	*e*P	Pn	08 05 28.1	+0.2
ROSA				*e*S	Sn	08 05 50.7	-0.9
ROSA	Rosais	1.88	151	*e*P	Pn	08 05 28.1	+0.2
ROSA				*e*S	Sn	08 05 50.7	-0.9
HOR	Horta	1.94	162	*e*P	Pn	08 05 29.9	+1.2
HOR				*e*S	Sn	08 05 52.9	-0.1
HOR	Horta	1.94	162	*e*P	Pn	08 05 29.9	+1.2
HOR				*e*S	Sn	08 05 52.9	-0.1
PMAN	Manadas	2.01	149	*i* P	Pn	08 05 29.4	-0.3
PMAN				*e*S	Sn	08 05 53.3	-1.6
PMAN				A		08 05 57.7	
	310nm,0.3s						
PICO	Pico	2.02	158	*e*P	Pn	08 05 30.4	+0.7
PICO				*e*S	Sn	08 05 54.7	-0.3
PICO	Pico	2.02	158	*e*P	Pn	08 05 30.4	+0.7
PICO				*e*S	Sn	08 05 54.7	-0.3
PID	Ribeirinha	2.17	152	*e*P	Pn	08 05 32.4	+0.6
PID				*e*S	Sn	08 05 58.0	-0.7
PID	Ribeirinha	2.17	152	*e*P	Pn	08 05 32.4	+0.6
PID				*e*S	Sn	08 05 58.0	-0.7
ADH	Angra Heroismo	2.40	135	*i* P	Pn	08 05 34.2	-0.8
ADH				*e*S	Sn	08 06 02.2	-2.2
ADH				A		08 06 09.7	
	334nm,0.5s						
PSET	Sete Cidades	3.83	131	*i* P	Pn	08 05 54.3	-0.4
PSET				*e*S	Sn	08 06 36.4	-3.3
PSET				A		08 06 43.5	
	44nm,0.4s						
PDA	Ponta Delgada	3.92	131	*e*P	Pn	08 05 55.1	-0.8
PDA				*e*S	Sn	08 06 38.7	-3.1
PDA	Ponta Delgada	3.92	131	*e*P	Pn	08 05 55.1	-0.8
PDA				*e*S	Sn	08 06 38.7	-3.1
CMLA	Cha da Macela	3.98	130	*e*P	Pn	08 05 56.2	-0.6
CMLA				*e*S	Sn	08 06 40.0	-3.6
CMLA				A		08 06 47.2	
	89nm,0.4s						
CMLA	Cha da Macela	3.98	130	*e*P	Pn	08 05 56.2	-0.6
CMLA				*e*S	Sn	08 06 40.0	-3.6
PSMA	Santa Maria	4.75	134	*e*P	Pn	08 06 07.2	-0.1
PSMA				*e*S	Sn	08 06 59.1	-3.3
PSMA				A		08 07 04.4	
	30nm,0.3s						
PSMN	Pico do Norte,	4.78	133	*e*P	Pn	08 06 06.8	-0.9
PSMN				*e*S	Sn	08 06 59.5	-3.6
PSMN	Pico do Norte,	4.78	133	*e*P	Pn	08 06 06.8	-0.9
PSMN				*e*S	Sn	08 06 59.5	-3.6
EZAM	Zamans	15.67	77	P	Pn	08 08 40.7	+4.2
EZAM				pmax	pmax		
	comp=Z,12nm,0.6s						
EZAM	Zamans	15.67	77	P	Pn	08 08 40.7	+4.2
	comp=Z,12nm,0.6s						
EZAM	Zamans	15.67	77	P	Pn	08 08 40.7	+4.2
	comp=Z,12nm,0.6s						
PTEO	Sao Teotonio	16.32	93	*e*P	Pn	08 08 45.5	+0.6
	comp=Z,149nm,2.2s						
PTEO	Sao Teotonio	16.32	93	*e*P	Pn	08 08 45.5	+0.6
	comp=Z,149nm,2.2s						
PVIS	Viseu	16.35	82	*e*P	Pn	08 08 48.8	+3.6
	comp=Z,45nm,2.3s						
PVIS	Viseu	16.35	82	*e*P	Pn	08 08 48.8	+3.6
	comp=Z,45nm,2.3s						
PFVI	Vila Bisbo	16.37	95	*e*LR	LR	08 13 16.0	
	comp=Z,324nm,20.0s						
PVRL	Vila Real	16.44	80	*e*P	Pn	08 08 49.8	+3.5
	comp=Z,46nm,1.5s						
PVRL	Vila Real	16.44	80	*e*P	Pn	08 08 49.8	+3.5
	comp=Z,46nm,1.5s						
MORF	Marmelete	16.45	94	*e*P	Pn	08 08 46.7	+0.2
	comp=Z,19nm,0.6s						
MORF				*e*LR	LR	08 13 14.4	
	comp=Z,383nm,18.0s						
MORF	Marmelete	16.45	94	*e*P	Pn	08 08 46.7	+0.2
	comp=Z,19nm,0.6s						
EVOP	Sao Brissos	16.53	90	*e*P	Pn	08 08 49.4	+1.8
EVO	Evora	16.62	89	*e*P	Pn	08 08 49.4	+0.7
EVO				*e*MLR	MLR		
	comp=Z,677nm,21.8s						
EVO	Evora	16.62	89	*e*P	Pn	08 08 52.7	+4.0
	comp=Z,38nm,2.3s						
EVO	Evora	16.62	89	*e*P	Pn	08 08 52.7	+4.0
	comp=Z,38nm,2.3s						
MTE	Manteigas	16.65	83	*e*P	Pn	08 08 53.0	+3.9
	comp=Z,57nm,1.3s						
MTE	Manteigas	16.65	83	*e*P	Pn	08 08 49.6	+0.5
	comp=Z,30nm,1.1s						
MTE	Manteigas	16.65	83	*e*P	Pn	08 08 49.6	+0.5
	comp=Z,30nm,1.1s						
PESTR	Estremoz	16.87	88	*e*LR	LR	08 13 12.6	
	comp=Z,323nm,20.0s						
PMRV	Marv??o	16.91	86	*e*LR	LR	08 13 12.2	
	comp=Z,355nm,20.0s						
MVO	Moncorvo	16.96	80	*e*P	Pn	08 08 55.1	+2.1
	comp=Z,46nm,1.1s						
MVO	Moncorvo	16.96	80	*e*P	Pn	08 08 55.1	+2.1
	comp=Z,46nm,1.1s						
PBDV	Barranco-do-Ve	17.02	94	*e*LR	LR	08 13 07.2	
	comp=Z,340nm,18.0s						
ECAL	Calabor	17.13	77	P	Pn	08 08 59.7	+4.5
	comp=Z,263nm,2.3s						
PVAQ	Vaqueiros	17.13	93	*e*LR	LR	08 13 03.1	
	comp=Z,314nm,20.0s						
PBAR	Barrancos	17.45	90	*e*P	Pn	08 09 00.1	+1.0
	comp=Z,31nm,1.7s						
PBAR				*e*LR	LR	08 13 28.5	
	comp=Z,440nm,20.0s						
PBAR	Barrancos	17.45	90	*e*P	Pn	08 09 00.1	+1.0
	comp=Z,31nm,1.7s						
GUD	Guadarrama	19.18	81	P	Pn	08 09 24.6	+4.3
GUD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GUD	Guadarrama	19.18	81	P	Pn	08 09 24.6	+4.3
	comp=Z,10nm,0.9s						
ESDC	Sonseca Array	19.48	84	P	Pn	08 09 23.4	-0.5
	baz=287,slow=11,SNR=6.3						
ESDC				LR	LR	08 15 35.0	
	comp=Z,378nm,21.2s,baz=125,slow=33						
ESDC	Sonseca Array	19.48	84	P	Pn	08 09 27.2	+3.3
	comp=Z,28nm,1.7s						
ESDC				LR	LR	08 15 35.0	
ELAN	Lanestosa	19.54	73	P	Pn	08 09 28.1	+3.5
	comp=Z,622nm,3.7s						
ELOJ	Sierra Loja	19.93	91	P	Pn	08 09 32.0	+2.8
ELOJ				pmax	pmax		
	comp=Z,21nm,1.0s						
ELOJ	Sierra Loja	19.93	91	P	Pn	08 09 32.0	+2.8
	comp=Z,21nm,1.0s						
QUIF	Quistinic	20.21	59	*e*P	P	08 09 30.2	-0.4
	comp=Z,149nm,1.5s						
QUIF	Quistinic	20.21	59	*e*P	P	08 09 30.2	-0.4
QUIF				pmax	pmax		
	comp=Z,74nm,1.5s						
QUIF	Quistinic	20.21	59	*e*P	P	08 09 30.2	-0.4
	comp=Z,74nm,1.5s						
QUIF	Quistinic	20.21	59	*e*P	P	08 09 30.2	-0.4
	comp=Z,74nm,1.5s						
ROSF	Rostrenen	20.23	58	*e*P	P	08 09 31.8	+1.0
	comp=Z,110nm,1.4s						
ROSF	Rostrenen	20.23	58	*e*P	P	08 09 31.8	+1.0
ROSF				pmax	pmax		
	comp=Z,55nm,1.4s						
ROSF	Rostrenen	20.23	58	*e*P	P	08 09 31.8	+1.0
	comp=Z,55nm,1.4s						
ROSF	Rostrenen	20.23	58	*e*P	P	08 09 31.8	+1.0
	comp=Z,55nm,1.4s						
ECOG	Cogollos-Vega	20.34	90	P	P	08 09 36.5	+4.5
	comp=Z,0.5nm,1.0s						
EQES	Quesada	20.57	89	P	P	08 09 39.4	+4.8
	comp=Z,346nm,2.8s						
SGMF	Saint Gilles	20.68	59	*e*P	P	08 09 35.5	-0.2
	comp=Z,86nm,1.4s						
SGMF	Saint Gilles	20.68	59	*e*P	P	08 09 35.5	-0.2
SGMF				pmax	pmax		
	comp=Z,43nm,1.4s						
SGMF	Saint Gilles	20.68	59	*e*P	P	08 09 35.5	-0.2
	comp=Z,43nm,1.4s						
SGMF	Saint Gilles	20.68	59	*e*P	P	08 09 35.5	-0.2
	comp=Z,43nm,1.4s						
ETOR	Torete	20.74	80	P	P	08 09 41.2	+4.8
ETOR				pmax	pmax		
	comp=Z,19nm,1.1s						
ETOR	Torete	20.74	80	P	P	08 09 41.1	+4.8
	comp=Z,18nm,1.1s						
EVIA	Vianos	20.80	86	P	P	08 09 41.6	+4.6
EVIA				pmax	pmax		
	comp=Z,12nm,1.2s						
EVIA	Vianos	20.80	86	P	P	08 09 41.6	+4.5
	comp=Z,12nm,1.2s						
EHUE	Huescar	20.93	88	P	P	08 09 43.0	+4.5
EHUE				pmax	pmax		
	comp=Z,5.0nm,0.6s						
EHUE	Huescar	20.93	88	P	P	08 09 43.0	+4.5
	comp=Z,5.0nm,0.6s						
SJPF	Ste Jean	21.16	73	*e*P	P	08 09 40.7	-0.2
	comp=Z,71nm,1.2s,mb4.6						
SJPF	Ste Jean	21.16	73	*e*P	P	08 09 40.7	-0.2
SJPF				pmax	pmax		
	comp=Z,35nm,1.2s,mb4.6						
SJPF	Ste Jean	21.16	73	*e*P	P	08 09 40.7	-0.2
	comp=Z,35nm,1.2s,mb4.6						
SJPF	Ste Jean	21.16	73	*e*P	P	08 09 40.7	-0.2
	comp=Z,35nm,1.2s,mb4.6						
MDT	Midelt	21.24	103	P	P	08 09 43.7	+2.0
	comp=Z,7.4nm,0.8s,mb4.1,baz=327,slow=12,SNR=5.7						
MDT	Midelt	21.24	103	P	P	08 09 43.7	+1.9
ETSF	Etsaut	21.66	74	*e*P	P	08 09 46.4	+0.2
	comp=Z,42nm,1.2s,mb4.4						
ETSF	Etsaut	21.66	74	*e*P	P	08 09 46.4	+0.2
ETSF				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.4						
ETSF	Etsaut	21.66	74	*e*P	P	08 09 46.4	+0.2
	comp=Z,21nm,1.2s,mb4.4						
ETSF	Etsaut	21.66	74	*e*P	P	08 09 46.4	+0.2
	comp=Z,21nm,1.2s,mb4.4						
ECHE	Chera	21.77	83	P	P	08 09 52.0	+4.6
ECHE				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
ECHE	Chera	21.77	83	P	P	08 09 52.0	+4.6
	comp=Z,9.2nm,1.0s,mb4.2						
ESAC	San Caprasio	21.82	77	P	P	08 09 52.7	+4.7
	comp=Z,267nm,2.6s,mb5.2						
GRR	Gorron	21.82	59	*e*P	P	08 09 47.2	-0.7
	comp=Z,59nm,1.0s,mb4.7						
GRR	Gorron	21.82	59	*e*P	P	08 09 47.2	-0.7
GRR				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.7						
GRR	Gorron	21.82	59	*e*P	P	08 09 47.2	-0.7
	comp=Z,30nm,1.0s,mb4.7						
GRR	Gorron	21.82	59	*e*P	P	08 09 47.2	-0.7
	comp=Z,30nm,1.0s,mb4.7						
EMOS	Mosqueruela	22.00	81	P	P	08 09 55.3	+5.4
	comp=Z,207nm,3.2s						
MFF	Saint Martin d	22.04	64	*e*P	P	08 09 51.3	+1.0
	comp=Z,49nm,1.3s,mb4.5						
MFF	Saint Martin d	22.04	64	*e*P	P	08 09 51.3	+1.0
MFF				pmax	pmax		
	comp=Z,24nm,1.3s,mb4.5						
MFF	Saint Martin d	22.04	64	*e*P	P	08 09 51.3	+1.0
	comp=Z,24nm,1.3s,mb4.5						
MFF	Saint Martin d	22.04	64	*e*P	P	08 09 51.3	+1.0
	comp=Z,24nm,1.3s,mb4.5						
FLN	La Foliniere	22.14	58	*e*P	P	08 09 52.2	+0.9
	comp=Z,28nm,0.9s,mb4.4						
FLN	La Foliniere	22.14	58	*e*P	P	08 09 52.2	+0.9
FLN				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.4						
FLN	La Foliniere	22.14	58	*e*P	P	08 09 52.2	+0.9
	comp=Z,14nm,0.9s,mb4.4						
FLN	La Foliniere	22.14	58	*e*P	P	08 09 52.2	+0.9
	comp=Z,14nm,0.9s,mb4.4						
EBIE	Bielsa	22.19	74	P	P	08 09 56.6	+4.7
	comp=Z,1µm,6.3s						
EPF	Esparros	22.31	73	*e*P	P	08 09 52.7	-0.5
	comp=Z,56nm,1.2s,mb4.6						
EPF	Esparros	22.31	73	*e*P	P	08 09 52.7	-0.5
EPF				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.6						
EPF	Esparros	22.31	73	*e*P	P	08 09 52.7	-0.5
	comp=Z,28nm,1.2s,mb4.6						
EPF	Esparros	22.31	73	*e*P	P	08 09 52.7	-0.5
	comp=Z,28nm,1.2s,mb4.6						
LDF	La Druitiere	22.34	59	*e*P	P	08 09 53.8	+0.3
	comp=Z,52nm,1.0s,mb4.6						
LDF	La Druitiere	22.34	59	*e*P	P	08 09 53.8	+0.3
LDF				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.6						
LDF	La Druitiere	22.34	59	*e*P	P	08 09 53.8	+0.3
	comp=Z,26nm,1.0s,mb4.6						
LDF	La Druitiere	22.34	59	*e*P	P	08 09 53.8	+0.3
	comp=Z,26nm,1.0s,mb4.6						
ERTA	Horta de San J	22.52	79	P	P	08 10 01.2	+5.8
	comp=Z,153nm,2.5s,mb5.0						
LFF	La Frestale	22.56	68	*e*P	P	08 09 54.5	-1.3
	comp=Z,32nm,0.8s,mb4.5						
LFF	La Frestale	22.56	68	*e*P	P	08 09 54.5	-1.3
LFF				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.5						
LFF	La Frestale	22.56	68	*e*P	P	08 09 54.5	-1.3
	comp=Z,16nm,0.8s,mb4.5						
LFF	La Frestale	22.56	68	*e*P	P	08 09 54.5	-1.3
	comp=Z,16nm,0.8s,mb4.5						
EKA	Eskdalemuir Ar	22.91	40	P	P	08 09 59.0	-0.5
EKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
EKA	Eskdalemuir Ar	22.91	40	P	P	08 09 59.0	-0.5
	comp=Z,3.5nm,0.8s,mb3.9,baz=231,slow=9.0,SNR=3.7						
EKA	Eskdalemuir Ar	22.91	40	P	P	08 09 59.0	-0.5
	comp=Z,4.0nm,0.8s,mb3.9						
EPOB	Poblet	23.02	78	P	P	08 10 04.0	+3.3
	comp=Z,402nm,3.2s						
RJF	Les Rejaudoux	23.12	67	*e*P	P	08 10 01.9	+0.2
	comp=Z,43nm,1.2s,mb4.4						
RJF	Les Rejaudoux	23.12	67	*e*P	P	08 10 01.9	+0.2
RJF				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.4						
RJF	Les Rejaudoux	23.12	67	*e*P	P	08 10 01.9	+0.2
	comp=Z,21nm,1.2s,mb4.5						
RJF	Les Rejaudoux	23.12	67	*e*P	P	08 10 01.9	+0.2
	comp=Z,21nm,1.2s,mb4.4						
CAF	Calviac	23.50	68	*e*P	P	08 10 04.2	-1.6
	comp=Z,32nm,1.1s,mb4.4						
CAF	Calviac	23.50	68	*e*P	P	08 10 04.2	-1.6
CAF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.4						
CAF	Calviac	23.50	68	*e*P	P	08 10 04.2	-1.6
	comp=Z,16nm,1.1s,mb4.4						
CAF	Calviac	23.50	68	*e*P	P	08 10 04.2	-1.6
	comp=Z,16nm,1.1s,mb4.4						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	08 10 06.1	-1.0
	comp=Z,70nm,1.3s,mb4.6						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	08 10 06.1	-1.0
TCF				pmax	pmax		
	comp=Z,35nm,1.3s,mb4.6						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	08 10 06.1	-1.0
	comp=Z,35nm,1.3s,mb4.6						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	08 10 06.1	-1.0
	comp=Z,35nm,1.3s,mb4.6						
MTLF	Montolieu	23.66	72	*e*P	P	08 10 06.4	-0.9
	comp=Z,47nm,1.1s,mb4.5						
MTLF	Montolieu	23.66	72	*e*P	P	08 10 06.4	-0.9
MTLF				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.5						
MTLF	Montolieu	23.66	72	*e*P	P	08 10 06.4	-0.9
	comp=Z,23nm,1.1s,mb4.5						
MTLF	Montolieu	23.66	72	*e*P	P	08 10 06.4	-0.9
	comp=Z,23nm,1.1s,mb4.5						
BGF	Bois d’Agland	24.09	64	*e*P	P	08 10 10.9	-0.3
	comp=Z,44nm,0.8s,mb4.6						
BGF	Bois d’Agland	24.09	64	*e*P	P	08 10 10.9	-0.3
BGF				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.6						
BGF	Bois d’Agland	24.09	64	*e*P	P	08 10 10.9	-0.3
	comp=Z,22nm,0.8s,mb4.6						
BGF	Bois d’Agland	24.09	64	*e*P	P	08 10 10.9	-0.3
	comp=Z,22nm,0.8s,mb4.6						
AVF	Avril sur Loir	24.45	64	*e*P	P	08 10 14.0	-0.5
	comp=Z,38nm,1.2s,mb4.4						
AVF	Avril sur Loir	24.45	64	*e*P	P	08 10 14.0	-0.5
AVF				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.4						
AVF	Avril sur Loir	24.45	64	*e*P	P	08 10 14.0	-0.5
	comp=Z,19nm,1.2s,mb4.4						
AVF	Avril sur Loir	24.45	64	*e*P	P	08 10 14.0	-0.5
	comp=Z,19nm,1.2s,mb4.4						
SSF	Saint Saulge	24.58	63	*e*P	P	08 10 14.9	-0.7
	comp=Z,40nm,1.1s,mb4.5						
SSF	Saint Saulge	24.58	63	*e*P	P	08 10 14.9	-0.7
SSF				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.6						
SSF	Saint Saulge	24.58	63	*e*P	P	08 10 14.9	-0.7
	comp=Z,20nm,1.1s,mb4.6						
SSF	Saint Saulge	24.58	63	*e*P	P	08 10 14.9	-0.7
	comp=Z,20nm,1.1s,mb4.5						
SMF	Signal de Mont	24.78	64	*e*P	P	08 10 17.5	0.0
	comp=Z,55nm,1.1s,mb4.7						
SMF	Signal de Mont	24.78	64	*e*P	P	08 10 17.5	0.0
SMF				pmax	pmax		
	comp=Z,27nm,1.1s,mb4.7						
SMF	Signal de Mont	24.78	64	*e*P	P	08 10 17.5	0.0
	comp=Z,27nm,1.1s,mb4.7						
SMF	Signal de Mont	24.78	64	*e*P	P	08 10 17.5	0.0
	comp=Z,27nm,1.1s,mb4.7						
LASF	Ste Croix	24.80	70	*e*P	P	08 10 18.1	+0.4
	comp=Z,50nm,1.2s,mb4.6						
LASF	Ste Croix	24.80	70	*e*P	P	08 10 18.1	+0.4
	comp=Z,25nm,1.2s,mb4.6						
LOR	Lormes	24.83	63	*e*P	P	08 10 17.8	-0.1
	comp=Z,53nm,1.4s,mb4.6						
LOR	Lormes	24.83	63	*e*P	P	08 10 17.8	-0.1
LOR				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.6						
LOR	Lormes	24.83	63	*e*P	P	08 10 17.8	-0.1
	comp=Z,26nm,1.4s,mb4.6						
LOR	Lormes	24.83	63	*e*P	P	08 10 17.8	-0.1
	comp=Z,26nm,1.4s,mb4.6						
SSB	Saint Sauveur	25.25	68	*e*P	P	08 10 23.4	+1.6
SSB				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.4						
SSB	Saint Sauveur	25.25	68	*e*P	P	08 10 23.4	+1.6
	comp=Z,12nm,1.0s,mb4.4						
SSB	Saint Sauveur	25.25	68	*e*P	P	08 10 23.4	+1.6
	comp=Z,12nm,1.0s,mb4.4						
VIVF	Saint-Julien-l	25.36	69	*e*P	P	08 10 23.1	+0.4
	comp=Z,43nm,1.1s,mb4.6						

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VIVF  Saint-Julien-l   25.36  69 eP     P      08 10 23.1 +0.4
VIVF                                pmax   pmax
      comp=Z,22nm,1.1s,mb4.6
VIVF  Saint-Julien-l   25.36  69 eP     P      08 10 23.1 +0.4
      comp=Z,22nm,1.1s,mb4.6
VIVF  Saint-Julien-l   25.36  69 eP     P      08 10 23.1 +0.4
      comp=Z,22nm,1.1s,mb4.6
BAIF  Baives           25.39  56 eP     P      08 10 21.7 -1.3
      comp=Z,72nm,1.3s,mb4.8
BAIF  Baives           25.39  56 eP     P      08 10 21.7 -1.3
BAIF                                pmax   pmax
      comp=Z,36nm,1.3s,mb4.7
BAIF  Baives           25.39  56 eP     P      08 10 21.7 -1.3
      comp=Z,36nm,1.3s,mb4.7
BAIF  Baives           25.39  56 eP     P      08 10 21.7 -1.3
      comp=Z,36nm,1.3s,mb4.8
SNF   Seneffe          25.51  55  P     P      08 10 23.8 -0.3
SNF                               AP    pP     08 10 28.2 +1.1
      comp=Z,17nm,1.3s
SNF                               E            08 10 36.0
UCC   Uccle            25.61  55  AP    pP     08 10 28.7 +0.7
DOU   Dourbes          25.64  56  P     P      08 10 24.4 -0.9
DOU                               AP    pP     08 10 28.8 +0.5
      comp=Z,17nm,1.7s
MEZF  Maizieres J'vi   25.73  60 eP     P      08 10 25.1 -1.0
      comp=Z,117nm,1.2s,mb5.0
MEZF  Maizieres J'vi   25.73  60 eP     P      08 10 25.1 -1.0
      comp=Z,117nm,1.2s,mb5.3
MEZF  Maizieres J'vi   25.73  60 eP     P      08 10 25.1 -1.0
      comp=Z,58nm,1.2s,mb5.0
GIVF  Givet            25.78  56 eP     P      08 10 25.2 -1.4
      comp=Z,59nm,1.1s,mb4.7
GIVF  Givet            25.78  56 eP     P      08 10 25.2 -1.4
GIVF                                pmax   pmax
      comp=Z,29nm,1.1s,mb4.7
GIVF  Givet            25.78  56 eP     P      08 10 25.2 -1.4
      comp=Z,29nm,1.1s,mb4.7
GIVF  Givet            25.78  56 eP     P      08 10 25.2 -1.4
      comp=Z,29nm,1.1s,mb4.7
SMRF  Simiane la Rot   26.05  70 eP     P      08 10 29.7 +0.7
      comp=Z,29nm,1.0s,mb4.5
SMRF  Simiane la Rot   26.05  70 eP     P      08 10 29.7 +0.7
      comp=Z,29nm,1.0s,mb4.8
SMRF  Simiane la Rot   26.05  70 eP     P      08 10 29.7 +0.7
      comp=Z,14nm,1.0s,mb4.5
BCLA  Clavier          26.14  56  P     P      08 10 30.9 +1.1
      comp=Z,19nm,1.6s,mb4.4
BCLA                              AP    pP     08 10 33.5 +0.7
ORIF  Oris-en-Rattie   26.21  68 eP     P      08 10 33.1 +2.6
      comp=Z,21nm,0.9s,mb4.3
ORIF  Oris-en-Rattie   26.21  68 eP     P      08 10 33.1 +2.6
ORIF                                pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.3
ORIF  Oris-en-Rattie   26.21  68 eP     P      08 10 33.1 +2.6
      comp=Z,10nm,0.9s,mb4.4
CABF  La Chapelle      26.33  64 eP     P      08 10 31.6 +0.1
      comp=Z,84nm,1.6s,mb4.7
CABF  La Chapelle      26.33  64 eP     P      08 10 31.6 +0.1
CABF                                pmax   pmax
      comp=Z,42nm,1.6s,mb4.7
CABF  La Chapelle      26.33  64 eP     P      08 10 31.6 +0.1
      comp=Z,42nm,1.6s,mb4.7
CABF  La Chapelle      26.33  64 eP     P      08 10 31.6 +0.1
      comp=Z,42nm,1.6s,mb4.7
BEBN  Eben Emael       26.43  55  E     pP     08 10 38.0 +2.5
HAU   Haudompre        26.56  61 eP     P      08 10 33.7 +0.1
      comp=Z,27nm,1.0s,mb4.4
HAU   Haudompre        26.56  61 eP     P      08 10 33.7 +0.1
HAU                                 pmax   pmax
      comp=Z,14nm,1.0s,mb4.5
HAU   Haudompre        26.56  61 eP     P      08 10 33.7 +0.1
      comp=Z,14nm,1.0s,mb4.4
HAU   Haudompre        26.56  61 eP     P      08 10 33.7 +0.1
      comp=Z,14nm,1.0s,mb4.4
WLF   Walferdange      26.57  58  P     P      08 10 33.7 -0.1
      comp=Z,16nm,1.5s,mb4.3
WLF   Walferdange      26.57  58 eP     P      08 10 32.7 -1.0
WLF                                 pmax   pmax
      comp=Z,23nm,1.1s,mb4.6
WLF   Walferdange      26.57  58 eP     P      08 10 32.7 -1.0
      comp=Z,23nm,1.1s,mb4.6
WLF   Walferdange      26.57  58 eP     P      08 10 32.7 -1.0
      comp=Z,23nm,1.1s,mb4.6
MEM   Membach          26.61  55  E     pP     08 10 40.7 +3.6
BNI   Bardonecchia     26.77  68 eP     P      08 10 36.8 +1.3
BNI                                 pmax   pmax
      comp=Z,72nm,1.9s,mb4.9
BNI   Bardonecchia     26.77  68 eP     P      08 10 36.8 +1.3
      comp=Z,72nm,1.9s,mb4.9
BNI   Bardonecchia     26.77  68 eP     P      08 10 36.8 +1.3
      comp=Z,72nm,1.9s,mb4.9
LMR   La Mourre        26.78  72 eP     P      08 10 35.5 -0.2
      comp=Z,91nm,1.6s,mb4.7
LMR   La Mourre        26.78  72 eP     P      08 10 35.5 -0.2
LMR                                 pmax   pmax
      comp=Z,45nm,1.6s,mb4.8
LMR   La Mourre        26.78  72 eP     P      08 10 35.5 -0.2
      comp=Z,45nm,1.6s,mb4.8
LMR   La Mourre        26.78  72 eP     P      08 10 35.5 -0.2
      comp=Z,45nm,1.6s,mb4.7
LPL   La Plagne        26.79  67 eP     P      08 10 36.4 +0.7
LPL   La Plagne        26.79  67 eP     P      08 10 36.4 +0.7
LPG   La Plagne        26.80  67 eP     P      08 10 36.7 +0.9
LPG   La Plagne        26.80  67 eP     P      08 10 36.7 +0.9
MBDF  Montbardon       26.85  69 eP     P      08 10 36.5 +0.2
      comp=Z,9.5nm,0.9s,mb4.0
MBDF  Montbardon       26.85  69 eP     P      08 10 36.5 +0.2
MBDF                                pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.0
MBDF  Montbardon       26.85  69 eP     P      08 10 36.5 +0.2
      comp=Z,4.8nm,0.9s,mb4.0
MBDF  Montbardon       26.85  69 eP     P      08 10 36.5 +0.2
      comp=Z,4.8nm,0.9s,mb4.0
FRF   La Foret Royal   26.86  71 eP     P      08 10 35.5 -0.8
      comp=Z,21nm,0.9s,mb4.3
FRF   La Foret Royal   26.86  71 eP     P      08 10 35.5 -0.8
FRF                                 pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.3
FRF   La Foret Royal   26.86  71 eP     P      08 10 35.5 -0.8
      comp=Z,10nm,0.9s,mb4.4
FRF   La Foret Royal   26.86  71 eP     P      08 10 35.5 -0.8
      comp=Z,10nm,0.9s,mb4.3
ECH   Echery           27.11  61 eP     P      08 10 40.2 +1.6
ECH                                 pmax   pmax
      comp=Z,13nm,0.9s,mb4.5
ECH   Echery           27.11  61 eP     P      08 10 40.2 +1.6
      comp=Z,13nm,0.9s,mb4.5
ECH   Echery           27.11  61 eP     P      08 10 40.2 +1.6
      comp=Z,13nm,0.9s,mb4.5
CDF   Champ du Feu     27.20  61 eP     P      08 10 38.8 -0.6
      comp=Z,76nm,1.3s,mb4.8
CDF   Champ du Feu     27.20  61 eP     P      08 10 38.8 -0.6
CDF                                 pmax   pmax
      comp=Z,38nm,1.3s,mb4.8
CDF   Champ du Feu     27.20  61 eP     P      08 10 38.8 -0.6
      comp=Z,38nm,1.3s,mb4.8
CDF   Champ du Feu     27.20  61 eP     P      08 10 38.8 -0.6
      comp=Z,38nm,1.3s,mb4.8
SBF   Sospel           27.40  70 eP     P      08 10 42.5 +1.3
SBF   Sospel           27.40  70 eP     P      08 10 42.5 +1.3
BFO   Black Forest     27.90  61 eP     P      08 10 45.9 +0.3
BFO                                 pmax   pmax
      comp=Z,15nm,1.2s,mb4.5
BFO   Black Forest     27.90  61 eP     P      08 10 45.9 +0.3
      comp=Z,15nm,1.2s,mb4.5
BFO   Black Forest     27.90  61 eP     P      08 10 45.9 +0.3
      comp=Z,15nm,1.2s,mb4.5
PGF   Pioggiola        28.70  73 eP     P      08 10 56.8 +4.0
      comp=Z,18nm,0.9s,mb4.5
PGF   Pioggiola        28.70  73 eP     P      08 10 56.8 +4.0
PGF                                 pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.5
PGF   Pioggiola        28.70  73 eP     P      08 10 56.8 +4.0
      comp=Z,9.1nm,0.9s,mb4.5
DAVOX Davos/Dischmat   28.94  64  LR    LR     08 20 48.5
      comp=Z,448nm,21.8s,MS4.0,baz=41,slow=33
GRA1  Grafenberg Arr   29.86  58 eP     P      08 11 02.8 -0.2
      comp=Z,12nm,1.1s,mb4.5
GRA1                             epP    pP     08 11 07.3 +1.2
GRA1  Grafenberg Arr   29.86  58 eP     P      08 11 02.8 -0.2
      comp=Z,12nm,1.1s,mb4.5
GRF   Grafenberg Arr   29.86  58 eP     P      08 11 02.8 -0.2
GRF                              e*PP   pP     08 11 07.3 +1.2
GRF                                 pmax   pmax
      comp=Z,12nm,1.1s,mb4.5
GRF   Grafenberg Arr   29.86  58 eP     P      08 11 02.8 -0.2
GRF                              e*PP   pP     08 11 07.3 +1.2
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GRF                                 pmax   pmax
      comp=Z,12nm,1.1s,mb4.5
GRF   Grafenberg Arr   29.86  58 eP     P      08 11 02.8 -0.2
      comp=Z,12nm,1.1s,mb4.5
GRF                              epP    pP     08 11 07.3 +1.2
GRF   Grafenberg Arr   29.86  58 eP     P      08 11 02.8 -0.2
      comp=Z,12nm,1.1s,mb4.5
CLL   Collm            31.08  55 esP    sP     08 11 18.0 -0.1
KHC   Kasperske Hory   31.39  59 eP     P      08 11 16.1 -0.4
KHC                              epP    pP     08 11 20.9 +1.3
KHC   Kasperske Hory   31.39  59  P     P      08 11 16.1 -0.4
GERES GERESS Array B   31.47  60  P     P      08 11 15.9 -1.4
GERES                               pmax   pmax
      comp=Z,1.0nm,0.6s
GERES GERESS Array B   31.47  60  P     P      08 11 15.9 -1.4
      comp=Z,0.5nm,0.6s,mb3.5,baz=304,slow=13,SNR=2.2
PRU   Pruhonice        32.02  58 eP     P      08 11 22.7 +0.7
PRU                              epP    pP     08 11 27.0 +1.9
PRU   Pruhonice        32.02  58  P     P      08 11 22.7 +0.7
FRB   Frobisher Bay    32.71 329  P     P      08 11 27.1 -0.9
FRB                                 pmax   pmax
      comp=Z,2.0nm,1.0s
FRB   Frobisher Bay    32.71 329  P     P      08 11 27.1 -0.9
      comp=Z,2.1nm,1.0s,mb4.0,baz=76,slow=5.3,SNR=4.2
UPC   Upice            32.96  57 eP     P      08 11 29.6 -0.7
UPC                              epP    pP     08 11 34.8 +1.4
DPC   Dobruska-Polom   33.16  57 eP     P      08 11 28.2 -3.9
DPC                              epP    pP     08 11 36.5 +1.4
VAE   Valguarnera      33.95  80  LR    LR     08 24 47.7
      comp=Z,351nm,20.4s,MS4.1,baz=336,slow=35
OJC   Ojcow            35.39  57 eP     P      08 11 51.2 -0.2
UZH   Uzhgorod         37.16  60 eP     P      08 12 06.8 +0.3
LVV   L'vov            38.15  57 eP     P      08 12 06.8 -8.1
TOA0  Torodi Ar. Sit   38.45 126 eP     P      08 12 18.9 +1.1
TORD  Torodi Ar. Bea   38.45 126  P     P      08 12 19.2 +1.5
      comp=Z,7.8nm,1.1s,mb4.3,baz=319,slow=7.4,SNR=18
BUR08 Bucovina Ar. S   39.23  61 eP     P      08 12 24.6 +0.6
ARCES ARCESS Array B   40.67  26  P     P      08 12 34.7 -1.0
ARCES                               pmax   pmax
      comp=Z,5.0nm,1.0s
ARCES ARCESS Array B   40.67  26  P     P      08 12 34.7 -0.9
      comp=Z,4.7nm,1.0s,mb4.1,baz=248,slow=6.7,SNR=4.6
AKASG Malin Array Be   41.33  55  P     P      08 12 39.6 -1.7
AKASG                               pmax   pmax
      comp=Z,3.0nm,0.7s
AKASG Malin Array Be   41.33  55  P     P      08 12 39.6 -1.8
      comp=Z,2.9nm,0.7s,mb4.0,baz=269,slow=9.3,SNR=5.8
TIRR  Tirgusor         42.11  65 eP     P      08 12 45.6 -2.3
TIRR                                pmax   pmax
      comp=Z,17nm,0.9s,mb4.7
TIRR  Tirgusor         42.11  65 eP     P      08 12 45.5 -2.3
      comp=Z,17nm,0.9s,mb4.7
IDI   Anoyia           42.62  79  P     P      08 12 52.7 +0.6
      comp=Z,2.9nm,0.8s,mb4.1,baz=24,slow=11,SNR=3.3
FCC   Fort Churchill   43.87 317 eP     P      08 13 01.6 -0.3
      comp=Z,0.1nm,1.0s
OBN   Obninsk          45.02  48⇓eP     P      08 13 10.5 -0.6
OBN                              eS     S      08 19 48.6 -0.9
OBN                                 pmax   pmax
      comp=Z,25nm,1.3s,mb4.9
RES   Resolute Bay     45.07 340 eP     P      08 13 10.6 -0.7
RES                                 pmax   pmax
      comp=Z,3.0nm,1.1s,mb4.0
RES   Resolute Bay     45.07 340  P     P      08 13 10.4 -0.8
      comp=Z,1.0nm,0.9s,mb3.7,baz=73,slow=7.9,SNR=5.1
RES   Resolute Bay     45.07 340 eP     P      08 13 10.6 -0.7
      comp=Z,3.1nm,1.1s,mb4.0
KLMR  Klimovskoe       45.80  40 eP     P      08 13 18.9 +1.7
KLMR                                pmax   pmax
      comp=Z,20nm,1.5s,mb4.8
RCBR  Riachuelo        46.36 189 eP     P      08 13 23.0 +0.9
      comp=Z,21nm,1.3s,mb4.9
AGMN  Agassiz Refuge   46.84 303 eP     P      08 13 25.4 -0.2
      comp=Z,1.6nm,0.6s,mb4.1
BRTR  Keskin Array B   47.32  69  P     P      08 13 29.8 +0.3
BRTR                                pmax   pmax
      comp=Z,2.0nm,0.9s
BRTR  Keskin Array B   47.32  69  P     P      08 13 29.8 +0.3
      comp=Z,1.6nm,0.8s,mb4.0,baz=296,slow=5.6,SNR=6.4
BRTR  Keskin Array B   47.32  69  P     P      08 13 29.8 +0.3
BRTR  Keskin Array B   47.32  69  P     P      08 13 29.8 +0.3
      comp=Z,2.0nm,0.9s,mb4.0
PRGR  Permogore        48.61  38  P     P      08 13 37.0 -2.1
PRGR                                pmax   pmax
      comp=Z,84nm,1.8s,mb5.5
PRGR  Permogore        48.61  38  P     P      08 13 37.0 -2.1
      comp=Z,84nm,1.8s,mb5.5
ECSD  EROS Data Cent   48.78 297 eP     P      08 13 41.8 +1.1
      comp=Z,7.1nm,0.9s,mb4.7
ECSD  EROS Data Cent   48.78 297 eP     P      08 13 41.8 +1.1
      comp=Z,7.1nm,0.9s,mb4.7
MIAR  Mount Ida        50.29 285 eP     P      08 13 53.3 +1.0
MIAR                                pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.5
MIAR  Mount Ida        50.29 285 eP     P      08 13 53.3 +1.0
      comp=Z,4.2nm,0.9s,mb4.5
MIAR  Mount Ida        50.29 285 eP     P      08 13 53.3 +1.0
      comp=Z,4.2nm,0.9s,mb4.5
YKA   Yellowknife Ar   53.05 325  P     P      08 14 11.7 -0.8
YKA                                            08 15 20.4
YKA                                 pmax   pmax
      comp=Z,1.0nm,0.9s
YKA                                 pmax   pmax
      comp=Z,1.0nm,0.8s
YKA   Yellowknife Ar   53.05 325  P     P      08 14 11.7 -0.9
      comp=Z,1.2nm,0.9s,mb3.8,baz=70,slow=7.2,SNR=16
YKA                               PcP   PcP    08 15 20.4 -0.5
      comp=Z,0.6nm,0.8s,baz=73,slow=3.9,SNR=6.8
YKA   Yellowknife Ar   53.05 325  P     P      08 14 11.7 -0.9
YKA                               PcP   PcP    08 15 20.4 -0.5
YKA   Yellowknife Ar   53.05 325  P     P      08 14 11.7 -0.8
      comp=Z,1.0nm,0.9s,mb3.8
YKA   Yellowknife Ar   53.05 325  PcP   PcP    08 15 20.4 -0.5
      comp=Z,1.0nm,0.8s
GNI   Garni            54.94  64 i P    P      08 14 27.9 +1.2
GNI                                 pmax   pmax
      comp=Z,17nm,1.3s
GNI   Garni            54.94  64 i P    P      08 14 27.9 +1.2
      comp=Z,17nm,1.3s,mb4.9
ARU   Arti             56.52  42c iP    P      08 14 36.5 -1.3
ARU                               S     S      08 22 21.8 -7.1
ARU                               SS    SS     08 26 03.9  -12
ARU                                 pmax   pmax
      comp=Z,27nm,1.7s,mb5.0
ARU   Arti             56.52  42 eP     P      08 14 37.2 -0.5
      comp=Z,46nm,1.7s,mb5.2
ARU   Arti             56.52  42 eP     P      08 14 37.2 -0.6
      comp=Z,46nm,1.7s,mb5.2
WALA  Waterton Lakes   57.72 309 eP     P      08 14 46.1 -0.3
      comp=Z,1.4nm,1.8s,mb3.7
WALA  Waterton Lakes   57.72 309 eP     P      08 14 46.1 -0.3
      comp=Z,1.4nm,1.8s,mb3.7
BW06  Boulder Array    57.81 301 eP     P      08 14 46.9 -0.3
      comp=Z,1.7nm,0.9s,mb4.1
BW06  Boulder Array    57.81 301 eP     P      08 14 46.9 -0.3
      comp=Z,1.7nm,0.9s,mb4.1
PDAR  Pinedale Array   57.81 301  P     P      08 14 47.0 -0.1
      comp=Z,0.9nm,0.9s,mb3.8,baz=64,slow=6.8,SNR=7.1
PDAR  Pinedale Array   57.81 301  P     P      08 14 47.0 -0.1
INK   Inuvik           58.02 335  P     P      08 14 45.8 -2.4
INK                                 pmax   pmax
      comp=Z,1.0nm,0.9s
INK   Inuvik           58.02 335  P     P      08 14 45.8 -2.3
      comp=Z,1.3nm,0.9s,mb4.0,baz=66,slow=13,SNR=5.3
AKTK  Aktyubinsk       58.80  48  P     P      08 14 54.0 +0.1
AKTK  Aktyubinsk       58.80  48  P     P      08 14 54.0 +0.1
      comp=Z,4.0nm,0.7s,mb4.6
AKTO  Aktyubinsk       58.80  48  P     P      08 14 54.0 +0.1
AKTO                                pmax   pmax
      comp=Z,4.0nm,0.7s,mb4.6
AKTO  Aktyubinsk       58.80  48  P     P      08 14 54.0 +0.1
      comp=Z,3.7nm,0.7s,mb4.5,baz=312,slow=6.8,SNR=15
ANMO  Albuquerque      59.44 292  P     P      08 14 59.9 +1.3
ANMO                                pmax   pmax
      comp=Z,1.0nm,0.7s
ANMO  Albuquerque      59.44 292  P     P      08 14 59.9 +1.3
      comp=Z,0.5nm,0.7s,mb3.6,baz=114,slow=7.1,SNR=2.3
ANMO  Albuquerque      59.44 292  P     P      08 14 59.9 +1.3
      comp=Z,1.0nm,0.7s,mb4.0
NEW   Newport          59.98 310 eP     P      08 15 01.7 -0.4
NEW                                 pmax   pmax
      comp=Z,32nm,1.9s
NEW   Newport          59.98 310 eP     P      08 15 01.7 -0.4
      comp=Z,32nm,1.9s,mb5.0
NEW   Newport          59.98 310 eP     P      08 15 01.7 -0.4
      comp=Z,32nm,1.9s,mb5.0
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DAU   Daniels Canyon   60.05 299 eP     P      08 15 03.9 +1.2
DAU                                 pmax   pmax
      comp=Z,19nm,1.8s,mb4.8
DAU   Daniels Canyon   60.05 299 eP     P      08 15 03.9 +1.1
      comp=Z,18nm,1.8s,mb4.8
DAU   Daniels Canyon   60.05 299 eP     P      08 15 03.9 +1.2
      comp=Z,19nm,1.8s,mb4.8
TXAR  Lajitas Array    60.31 285  P     P      08 15 05.4 +0.7
TXAR                                pmax   pmax
      comp=Z,1.0nm,0.7s
TXAR  Lajitas Array    60.31 285  P     P      08 15 05.4 +0.7
      comp=Z,1.3nm,0.7s,mb4.0,baz=74,slow=6.7,SNR=14
TXAR  Lajitas Array    60.31 285  P     P      08 15 05.4 +0.7
      comp=Z,1.0nm,0.7s,mb4.0
DUG   Dugway           61.19 300 eP     P      08 15 10.8 +0.3
DUG                                 pmax   pmax
      comp=Z,4.0nm,1.1s,mb4.5
DUG   Dugway           61.19 300 eP     P      08 15 10.8 +0.3
      comp=Z,4.2nm,1.1s,mb4.5
DUG   Dugway           61.19 300 eP     P      08 15 10.8 +0.3
      comp=Z,4.2nm,1.1s,mb4.5
ELK   Elko             62.51 301  LR    LR     08 42 55.1
      comp=Z,449nm,21.7s,MS4.6,baz=338,slow=37
BRVK  Borovoye         64.09  41 eP     P      08 15 29.6  0.0
BRVK                                pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.5
BRVK  Borovoye         64.09  41 eP     P      08 15 29.6  0.0
      comp=Z,4.4nm,0.8s,mb4.5
BRVK  Borovoye         64.09  41 eP     P      08 15 29.6  0.0
      comp=Z,4.3nm,0.8s,mb4.5
BVAR  Borovoye Array   64.17  41  P     P      08 15 30.2 +0.1
BVAR                                pmax   pmax
      comp=Z,2.0nm,0.6s
BVAR  Borovoye Array   64.17  41  P     P      08 15 30.2  0.0
      comp=Z,2.3nm,0.6s,mb4.4,baz=298,slow=6.4,SNR=12
BVAR  Borovoye Array   64.17  41  P     P      08 15 30.2 +0.1
      comp=Z,2.0nm,0.6s,mb4.3
IMA2  Indian Mountai   65.57 338 eP     P      08 15 38.1 -1.0
IMA2  Indian Mountai   65.57 338 eP     P      08 15 38.1 -1.0
NVAR  Mina Array Bea   65.74 301  P     P      08 15 41.5 +0.9
      comp=Z,0.1nm,0.3s,mb3.4,baz=81,slow=5.6,SNR=3.0
NVAR  Mina Array Bea   65.74 301  P     P      08 15 41.5 +0.9
YBH   Yreka Blue Hor   66.75 306  LR    LR     08 44 48.7
      comp=Z,386nm,18.3s,MS4.7,baz=345,slow=36
TIXI  Tiksi            67.22   7⇑eP     P      08 15 50.2 +0.7
TIXI                                pmax   pmax
      comp=Z,19nm,2.5s,mb4.7
TIXI  Tiksi            67.22   7 eP     P      08 15 50.1 +0.5
      comp=Z,8.0nm,1.0s,mb4.7
TIXI  Tiksi            67.22   7 eP     P      08 15 50.1 +0.6
      comp=Z,8.0nm,1.0s,mb4.7
RC01  Rabbit Creek A   67.89 333 eP     P      08 15 53.5 -0.5
      comp=Z,13nm,0.5s,mb5.2
RC01  Rabbit Creek A   67.89 333 eP     P      08 15 53.5 -0.4
      comp=Z,13nm,0.5s,mb5.2
NVS   Novosibirsk      69.13  35 eP     P      08 16 01.3 -0.5
NVS                                 pmax   pmax
      comp=N,6.0nm,1.0s
NVS                                 pmax   pmax
      comp=E,3.0nm,1.0s
NVS                                 pmax   pmax
      comp=Z,12nm,1.0s,mb4.8
NVS   Novosibirsk      69.13  35 eP     P      08 16 01.3 -0.5
KURK  Kurchatov        69.64  40  P     P      08 16 05.0  0.0
KURK                                pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.4
KURK  Kurchatov        69.64  40  P     P      08 16 05.0 -0.1
      comp=Z,5.0nm,0.8s,mb4.5,baz=312,slow=6.4,SNR=28
KURK  Kurchatov        69.64  40 eP     P      08 16 04.2 -0.9
      comp=Z,8.8nm,1.0s,mb4.6
KURK  Kurchatov        69.64  40  P     P      08 16 05.0  0.0
      comp=Z,5.0nm,0.9s,mb4.4
ZAA0  Zalesovo Array   70.42  35 eP     P      08 16 09.2 -0.5
ZAA0  Zalesovo Array   70.42  35 eP     P      08 16 09.2 -0.5
ZALV  Zalesovo Beam    70.42  35  P     P      08 16 08.9 -0.8
ZALV                                pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
ZALV  Zalesovo Beam    70.42  35  P     P      08 16 08.8 -0.9
      comp=Z,4.0nm,0.8s,mb4.4,baz=308,slow=7.3,SNR=16
AML   Almayashu        72.39  49 eP     P      08 16 23.1 +1.2
      comp=Z,3.9nm,0.6s,mb4.5
AML   Almayashu        72.39  49 eP     P      08 16 23.0 +1.1
      comp=Z,3.9nm,0.6s,mb4.5
AAK   Ala-Archa        72.54  49⇑eP     P      08 16 24.9 +2.2
AAK                                 pmax   pmax
      comp=Z,5.0nm,1.7s,mb4.2
AAK   Ala-Archa        72.54  49  P     P      08 16 22.7 -0.1
      comp=Z,0.6nm,0.3s,mb4.0,baz=351,slow=4.1,SNR=5.3
AAK   Ala-Archa        72.54  49  P     P      08 16 22.7  0.0
UCH   Uchtor           72.81  49 eP     P      08 16 25.7 +1.3
      comp=Z,4.8nm,0.9s,mb4.4
UCH   Uchtor           72.81  49 eP     P      08 16 25.7 +1.4
      comp=Z,4.8nm,0.9s,mb4.4
MKAR  Makanchi Array   74.05  42  P     P      08 16 31.1 -0.5
MKAR                                pmax   pmax
      comp=Z,3.0nm,0.8s
MKAR  Makanchi Array   74.05  42  P     P      08 16 31.1 -0.5
      comp=Z,3.4nm,0.8s,mb4.3,baz=316,slow=6.0,SNR=33
KSH   Kashi            75.39  50⇑iP     P      08 16 41.1 +1.6
KSH                              ePcP   PcP    08 16 54.1 +1.4
KSH                              ePP    PP     08 19 32.0 +4.2
KSH                              eS     S      08 26 16.9 -2.4
KSH                              eSKS          08 26 42.8
KSH                              eScS   ScS    08 26 47.9 -4.8
KSH                              eSS    SS     08 31 10.0 +1.4
KSH                                 pmax   pmax
      comp=Z,8.0nm,0.5s,mb4.9
KSH                                 pmax   pmax
      comp=Z,54nm,3.8s
KSH                               LR    LR
      comp=N,240nm,5.2s
KSH                               LR    LR
      comp=E,230nm,4.9s
KSH                               LR    LR
      comp=Z,410nm,5.2s
YAK   Yakutsk          76.55  10 eP     P      08 16 44.4 -1.3
YAK                                 pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.8
YAK                                 pmax   pmax
      comp=N,4.0nm,1.3s
YAK                                 pmax   pmax
      comp=E,3.0nm,1.1s
YAK   Yakutsk          76.55  10 eP     P      08 16 44.4 -1.3
      comp=E,4.0nm,1.3s,mb4.2
SEY   Seymchan         77.03 359⇑eP     P      08 16 48.2 -0.2
SEY   Seymchan         77.03 359 eP     P      08 16 48.2 -0.2
BOD   Bodaibo          77.48  19 eP     P      08 16 49.8 -1.2
BOD                                 pmax   pmax
      comp=Z,9.0nm,1.2s,mb4.6
BOD   Bodaibo          77.48  19 eP     P      08 16 49.8 -1.2
      comp=Z,9.0nm,1.2s,mb4.6
MOY   Mondy            78.67  29 eP     P      08 16 58.4 +0.7
MOY   Mondy            78.67  29 eP     P      08 16 58.4 +0.7
WMQ   Urumqi           78.85  41 eP     P      08 16 58.5 -0.4
WMQ                               pP    pP     08 17 06.0 +3.8
WMQ                                 pmax   pmax
      comp=Z,9.0nm,1.2s,mb4.6
TLY   Talaya           79.62  28 eP     P      08 17 03.1 +0.2
TLY                                 pmax   pmax
      comp=Z,7.0nm,1.6s,mb4.3
TLY   Talaya           79.62  28 eP     P      08 17 02.8 -0.1
      comp=Z,1.7nm,0.6s,mb4.2
TLY   Talaya           79.62  28 eP     P      08 17 03.1 +0.2
      comp=Z,7.0nm,1.6s,mb4.3
ZAK   Zakamensk        80.56  28 eP     P      08 17 07.4 -0.6
ZAK                                 pmax   pmax
      comp=Z,4.0nm,1.2s,mb4.2
ZAK   Zakamensk        80.56  28 eP     P      08 17 07.4 -0.6
      comp=Z,4.0nm,1.2s,mb4.2
SONM  Songino Array    83.81  28  P     P      08 17 24.4 -0.7
SONM                                pmax   pmax
      comp=Z,2.0nm,0.9s
SONM  Songino Array    83.81  28  P     P      08 17 24.4 -0.7
      comp=Z,2.1nm,0.9s,mb4.3,baz=320,slow=6.3,SNR=8.2
SONM  Songino Array    83.81  28  P     P      08 17 24.4 -0.7
      comp=Z,2.0nm,0.9s,mb4.2
GTA   Gaotai           88.06  37 eP     P      08 17 46.6 +0.3
GTA                               pP    pP     08 17 50.9 +1.3
GTA                               sP    sP     08 17 53.4 +2.6
GTA                                 pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.8
HABR  Khabarovsk       90.47  10 eP     P      08 17 56.5 -0.9
HABR                             e             08 21 27.7
HABR                             eS     SKSac  08 28 26.3 -2.5
HABR                             e             08 28 52.2
HABR                              SS    SS     08 34 46.1 -4.8
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HABR				*e*SSS		08 38 21.4	
HABR				MLR	MLR		
	comp=Z,48nm,19.0s,MS4.0						
HABR	**Khabarovsk**	**90.47**	**10**	*e*P	**P**	**08 17 56.5**	**-0.9**
HHC	**Hu-ho-hao-te**	**91.71**	**29**	*e*P	**P**	**08 18 02.8**	**-0.5**
HHC				sP	sP	08 18 10.3	+2.5
HHC				PP	PP	08 21 40.6	-0.3
HHC				SKS		08 28 32.0	
HHC				S	S	08 28 56.9	-7.0
HHC				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.9						
HHC				pmax	pmax		
	comp=Z,160nm,5.0s						
HHC				LR	LR		
	comp=N,180nm,14.3s,MS4.8						
HHC				LR	LR		
	comp=E,180nm,16.7s,MS4.8						
HHC				LR	LR		
	comp=Z,100nm,15.5s,MS4.4						
LZH	**Lanzhou**	**92.61**	**36**	*e*P	**P**	**08 18 06.5**	**-1.1**
LZH				pP	pP	08 18 11.0	+0.1
LZH				sP	sP	08 18 14.3	+2.2
LZH				pmax	pmax		
	comp=Z,19nm,1.4s,mb5.3						
LZH				pmax	pmax		
	comp=Z,87nm,4.3s						
NJ2	**Nanjing**	**102.18**	**27**	*e*P	Pdif	08 18 50.3	-0.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
QSPA	**South Pole Qui**	**130.25**	**180**	PKP	PKPdf	08 24 06.5	+1.9
	comp=Z,6.7nm,1.1s,baz=182,slow=1.0,SNR=9.7						
QSPA	**South Pole Qui**	**130.25**	**180**	*e*PKPdf	PKPdf	08 24 05.8	+1.1
QSPA	**South Pole Qui**	**130.25**	**180**	*e*PKIKP	PKPdf	08 24 05.8	+1.2
WRA	**Warramunga Arr**	**155.33**	**39**	PKP2	PKPab	08 25 13.5	-1.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	**Warramunga Arr**	**155.33**	**39**	PKPab	PKPab	08 25 13.5	-1.3
	comp=Z,0.7nm,0.9s,baz=350,slow=3.2,SNR=5.6						
ASAR	**Alice Springs**	**158.20**	**45**	PKP2	PKPab	08 25 26.5	-0.5
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	**Alice Springs**	**158.20**	**45**	PKPab	PKPab	08 25 26.5	-0.5
	comp=Z,1.3nm,0.8s,baz=325,slow=4.1,SNR=8.3						

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*ISCJB **23** 08:06:22.0±0.2, 41°.07N±0°.02×114°.85W±0°.02, h10^{km}, Error ellipse: s-maj=2.6km s-min=2.1km az=172.2*

*IDC **23** 08:06:21.5±0.9, 41°.17N×114°.98W, h0^{km}, mb2.6/1, mb1 3.1/3, mb1mx3.0/21, mbtmp2.6/3, ML2.9/2, MS2.6/1, Ms1 2.6/1, ms1mx2.4/9, Error ellipse: s-maj=14.3km s-min=4.9km az=132.0*

*NEIC **23** 08:06:22.4, 41°.11N×114°.89W, h8^{km}, ML2.5, After REN.*

ISC 23 08:06:21.8±0.4**, 41°.09N**±0°.02×**114°.87W**±0°.02**, h3**^{km}±3^{km}**, n69, σ0^{s}.95**/105**, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.27**	**208**	P	**Pg**	**08 06 28.3**	**+1.3**
	baz=0.3,SNR=393						
N12A	**Clover Valley,**	**0.27**	**208**	*e*Pg	**Pg**	**08 06 28.0**	**+1.0**
ELK	**Elko**	**0.45**	**219**	Pg	**Pg**	**08 06 31.1**	**+0.7**
	28nm,0.3s,baz=22,slow=14,SNR=118						
ELK				Lg		08 06 36.7	
	69nm,0.3s,baz=291,slow=21,SNR=84						
ELK	**Elko**	**0.45**	**219**	*e*Pg	**Pg**	**08 06 30.8**	**+0.4**
ELK				*e*Sg	**Sg**	**08 06 36.8**	**+0.7**
N13A	**Wendover, West**	**0.56**	**115**	*e*Pg	**Pg**	**08 06 33.4**	**+0.9**
M13A	**Montello**	**0.60**	**63**	P	**Pg**	**08 06 33.9**	**+0.7**
	baz=0.5,SNR=209						
M13A	**Montello**	**0.60**	**63**	*e*Pg	**Pg**	**08 06 33.5**	**+0.2**
M13A				*e*Sg	**Sg**	**08 06 41.6**	**+0.6**
N11A	**Elko Archery C**	**0.71**	**248**	P	**Pg**	**08 06 36.1**	**+0.7**
	baz=0.8,SNR=35						
M11A	**Holland Ranch,**	**0.77**	**296**	P	**Pg**	**08 06 36.3**	**-0.3**
	baz=0.9,SNR=235						
O12A	**Currie**	**0.83**	**173**	P	**Pg**	**08 06 38.6**	**+0.9**
	baz=0.7,SNR=377						
L12A	**House Creek Ra**	**1.06**	**354**	P	**Pg**	**08 06 41.8**	**-0.3**
	baz=1.2,SNR=61						
O11A	**Cowboy Ranch,**	**1.13**	**212**	P	**Pg**	**08 06 44.0**	**+0.6**
	baz=1.1,SNR=268						
O13A	**Hicks Ranch, I**	**1.17**	**144**	P	**Pg**	**08 06 44.7**	**+0.4**
	baz=1.0,SNR=118						
M14A	**Sheep Mountain**	**1.22**	**70**	P	**Pg**	**08 06 44.7**	**-0.5**
	baz=1.1,SNR=406						
N10A	**Dunphy**	**1.30**	**254**	S	**Sg**	**08 07 04.1**	**+0.7**
	baz=1.4,SNR=8.2						
N14A	**Grayback Hills**	**1.30**	**100**	P	**Pg**	**08 06 46.0**	**-0.7**
	baz=1.1,SNR=149						
M10A	**I.L. Ranch, Tu**	**1.33**	**289**	P	**Pg**	**08 06 46.1**	**-1.2**
	baz=1.5,SNR=346						
BGU	**Big Grassy Mou**	**1.40**	**96**	*e*Pn	**Pn**	**08 06 47.5**	**-0.8**
BGU				*e*Sg	**Sg**	**08 07 07.7**	**+0.9**
O10A	**Cortez Mining,**	**1.47**	**238**	P	**Pn**	**08 06 48.8**	**-0.4**
	baz=1.5,SNR=53						
K12A	**Draper Farm, C**	**1.54**	**359**	P	**Pn**	**08 06 48.9**	**-1.3**
	baz=1.7,SNR=110						
L14A	**Malta**	**1.54**	**52**	P	**Pn**	**08 06 49.9**	**-0.4**
	baz=1.5,SNR=86						
L10A	**Juniper Basin**	**1.55**	**310**	P	**Pn**	**08 06 49.5**	**-0.8**
	baz=1.7,SNR=688						
K13A	**Stover Farm, H**	**1.66**	**20**	P	**Pn**	**08 06 51.5**	**-0.3**
	baz=1.7,SNR=72						
P11A	**Circle Ranch,**	**1.68**	**204**	P	**Pn**	**08 06 52.0**	**-0.1**
	baz=1.6,SNR=16						
HVU	**Hansel Valley**	**1.72**	**66**	*e*Pn	**Pn**	**08 06 52.4**	**-0.3**
HVU				*e*Sg	**Sb**	**08 07 15.2**	**-0.9**
P13A	**Bates Ranch, G**	**1.76**	**158**	P	**Pn**	**08 06 52.5**	**-0.7**
	baz=1.6,SNR=118						
N15A	**Stansbury Isla**	**1.79**	**96**	P	**Pn**	**08 06 53.3**	**-0.3**
	baz=1.6,SNR=168						
DUG	**Dugway**	**1.80**	**119**	P	**Pn**	**08 06 53.0**	**-0.8**
	baz=1.6,SNR=254						
DUG	**Dugway**	**1.80**	**119**	*e*Pn	**Pn**	**08 06 53.1**	**-0.7**
DUG				*e*Sg	**Sb**	**08 07 17.4**	**-1.0**
SPUT	**South Promonto**	**1.84**	**82**	*e*Pn	**Pn**	**08 06 54.7**	**+0.4**
SPUT				*e*Sg	**Sb**	**08 07 19.2**	**-0.4**
K11A	**Parker Ranch,**	**1.89**	**333**	P	**Pn**	**08 06 55.0**	**0.0**
	baz=2.0,SNR=210						
BMN	**Battle Mountai**	**1.90**	**251**	*e*Pn	**Pn**	**08 06 55.2**	**0.0**
BMN				*e*Sg	**Sb**	**08 07 20.6**	**-0.8**
P10A	**Eureka**	**1.91**	**220**	P	**Pn**	**08 06 55.4**	**+0.1**
	baz=1.9,SNR=13						
K14A	**Jones Ranch, D**	**1.93**	**41**	P	**Pn**	**08 06 55.3**	**-0.2**
	baz=1.9,SNR=78						
P14A	**Drum Mountains**	**2.04**	**137**	P	**Pn**	**08 06 56.5**	**-0.5**
	baz=1.9,SNR=44						
Q12A	**Willow Creek R**	**2.05**	**179**	P	**Pn**	**08 06 57.0**	**-0.2**
	baz=1.9,SNR=23						
L15A	**Malad City**	**2.08**	**63**	P	**Pn**	**08 06 57.5**	**0.0**
	baz=2.0,SNR=48						
NOQ	**North Oquirrh**	**2.13**	**101**	*e*Pn	**Pn**	**08 06 60.0**	**+1.7**
NOQ				*e*Sg	**Sg**	**08 07 33.0**	**+2.7**
Q13A	**Wheeler Ranch,**	**2.23**	**163**	P	**Pn**	**08 06 59.5**	**-0.2**
	baz=2.1,SNR=19						
P09A	**Austin**	**2.32**	**229**	P	**Pn**	**08 07 00.9**	**0.0**
	baz=2.4,SNR=6.2						
NLU	**North Lily Min**	**2.41**	**117**	*e*Pn	**Pn**	**08 07 01.0**	**-1.2**
NLU				*e*Pg	**Pg**	**08 07 05.3**	**-2.7**
NLU				*e*Sg	**Sg**	**08 07 38.8**	**-0.5**
Q14A	**Sevier Lake (B**	**2.43**	**149**	P	**Pn**	**08 07 01.8**	**-0.6**
	baz=2.3,SNR=20						
HLID	**Hailey**	**2.49**	**8**	*e*Pn	**Pn**	**08 07 03.5**	**+0.2**
HLID				*e*Sg	**Sb**	**08 07 36.6**	**-1.8**
P15A	**Leamington**	**2.50**	**127**	P	**Pn**	**08 07 02.7**	**-0.6**
	baz=2.3,SNR=29						
MPU	**Maple Canyon**	**2.69**	**112**	*e*Pn	**Pn**	**08 07 07.3**	**+1.3**
MPU				*e*Pg	**Pg**	**08 07 13.6**	**+0.2**
MPU				*e*Sg	**Sg**	**08 07 48.9**	**+0.7**
R11A	**Troy Canyon, C**	**2.79**	**192**	P	**Pn**	**08 07 07.3**	**-0.1**
	baz=2.7,SNR=30						
DAU	**Daniels Canyon**	**2.83**	**103**	*e*Pn	**Pn**	**08 07 08.6**	**+0.7**
DAU				*e*Pg	**Pg**	**08 07 16.3**	**+0.3**
DAU				*e*Sg	**Sg**	**08 07 52.9**	**+0.2**
Q15A	**Fillmore**	**2.83**	**137**	P	**Pn**	**08 07 07.8**	**-0.1**
	baz=2.7,SNR=8.1						
WVOR	**Wild Horse Val**	**3.12**	**297**	*e*Pn	**Pn**	**08 07 14.7**	**+2.8**
WVOR				*e*Sg	**Sb**	**08 07 56.9**	**+0.5**
MSU	**Marysvale**	**3.31**	**140**	*e*Pn	**Pn**	**08 07 14.5**	**+0.1**
MSU				*e*Pg	**Pg**	**08 07 24.1**	**-1.1**
MSU				*e*Sg	**Sg**	**08 08 12.5**	**+4.4**
TMUT	**Trail Mountain**	**3.33**	**121**	*e*Pg	**Pg**	**08 07 23.6**	**-2.0**
RRI2	**Red Ridge**	**3.47**	**48**	*e*Pn	**Pn**	**08 07 17.9**	**+1.3**
RRI2				*e*Sg	**Sb**	**08 08 08.2**	**+1.7**
DCID1	**Drake Creek**	**3.70**	**46**	*e*Pg	**Pg**	**08 07 27.3**	**-5.5**
DCID1				*e*Sg	**Sg**	**08 08 13.1**	**-7.7**
CCUT	**Cedar City**	**3.72**	**161**	*e*Pn	**Pn**	**08 07 20.4**	**+0.2**
CCUT				*e*Pg	**Pg**	**08 07 32.9**	**-0.3**
CCUT				*e*Sg	**Sg**	**08 08 20.4**	**-1.1**
REDW	**Red Top Meadow**	**3.75**	**51**	*e*Pn	**Pn**	**08 07 22.8**	**+2.2**
REDW				*e*Sg	**Sg**	**08 08 16.2**	**-6.0**
NVAR	**Mina Array Bea**	**3.75**	**226**	Pn	**Pn**	**08 07 20.4**	**-0.1**
	0.5nm,0.3s,baz=40,slow=13,SNR=17						
NVAR				Pg	**Pg**	**08 07 29.2**	**-4.4**
	1.6nm,0.3s,baz=36,slow=15,SNR=18						
NVAR				Sn	**Sn**	**08 08 04.2**	**-1.0**
	1.6nm,0.3s,baz=45,slow=17,SNR=3.3						
NVAR				Lg		08 08 17.1	
	1.7nm,0.3s,baz=67,slow=11,SNR=4.8						
NVAR	**Mina Array Bea**	**3.75**	**226**	Pn	**Pn**	**08 07 20.4**	**-0.1**
NVAR				Pg	**Pg**	**08 07 29.2**	**-4.4**
NVAR				Sn	**Sn**	**08 08 04.2**	**-1.0**
NVAR				Lg		08 08 17.1	
TPAW	**Teton Pass**	**3.77**	**49**	*e*Pn	**Pn**	**08 07 21.8**	**+1.0**
TPAW				*e*Pg	**Pg**	**08 07 27.5**	**-6.5**
TPAW				*e*Sg	**Sg**	**08 08 17.0**	**-5.9**
SNOW	**Snow King Moun**	**3.87**	**51**	*e*Pn	**Pn**	**08 07 26.6**	**+4.4**
SRU	**San Rafael**	**3.88**	**119**	*e*Pn	**Pn**	**08 07 25.8**	**+3.5**
SRU				*e*Pg	**Pg**	**08 07 34.5**	**-1.6**
SRU				*e*Sg	**Sg**	**08 08 21.2**	**-5.1**
MCMT	**McKenzie Canyo**	**4.02**	**21**	*e*Pn	**Pn**	**08 07 26.0**	**+1.7**
MCMT				*e*Pg	**Pg**	**08 07 33.1**	**-5.7**
MCMT				*e*Sg	**Sg**	**08 08 29.0**	**-1.8**
IMW	**Indian Meadow**	**4.04**	**45**	*e*Pn	**Pn**	**08 07 24.6**	**+0.1**
IMW				*e*Sg	**Sg**	**08 08 30.5**	**-1.0**
LOHW	**Long Hollow**	**4.04**	**50**	*e*Pn	**Pn**	**08 07 25.4**	**+0.8**
LOHW				*e*Pg	**Pg**	**08 07 31.9**	**-7.4**
MOOW	**Moose Ponds**	**4.05**	**48**	*e*Pn	**Pn**	**08 07 25.1**	**+0.5**
MOD	**Modoc**	**4.16**	**283**	*e*Pn	**Pn**	**08 07 30.6**	**+4.4**
BMO	**Blue Mountains**	**4.16**	**335**	Pn	**Pn**	**08 07 26.9**	**+0.7**
BMO				*e*Sg	**Sb**	**08 08 25.9**	**-0.5**
PDAR	**Pinedale Array**	**4.30**	**65**	Pn	**Pn**	**08 07 30.4**	**+2.3**
	0.1nm,0.3s,baz=241,slow=11,SNR=6.5						
PDAR				Pg	**Pg**	**08 07 39.5**	**-4.8**
	0.4nm,0.3s,baz=237,slow=14,SNR=15						
PDAR				Lg		08 08 35.3	
	0.5nm,0.3s,baz=218,slow=26,SNR=5.6						
YBH	**Yreka Blue Hor**	**5.93**	**279**	LR	LR	08 09 52.2	
	comp=Z,57nm,19.6s,baz=200,slow=36						
YKA	**Yellowknife Ar**	**21.43**	**0**	P	**P**	**08 11 10.5**	**-0.3**
	0.3nm,0.9s,baz=179,slow=10,SNR=5.6						

IDC 23 08:06:30.5±4.7**, 2°.60S**×**99°.90E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.5**/21**, mbtmp3.5**/4**, Error ellipse: s-maj=194.5km s-min=25.6km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**37.77**	**120**	P	P	08 13 49.1	+0.4
	0.3nm,0.3s,baz=287,slow=8.1,SNR=3.5						
ASAR	**Alice Springs**	**38.98**	**125**	P	P	08 13 58.4	-0.4
	0.4nm,0.5s,baz=300,slow=7.4,SNR=4.1						
SONM	**Songino Array**	**50.55**	**6**	P	P	08 15 30.6	-0.1
	0.5nm,0.6s,baz=171,slow=12,SNR=3.3						
MKAR	**Makanchi Array**	**51.58**	**345**	P	P	08 15 38.5	+0.1
	0.6nm,0.6s,baz=152,slow=7.1,SNR=9.5						

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*ISCJB **23** 08:07:42.4±4.9, 55°.9S±0°.2×28°.2W±0°.3, h56^{km}±47^{km}, mb4.4/9, Error ellipse: s-maj=32.6km s-min=20.5km az=143.0*

*IDC **23** 08:07:50.0±1.9, 55°.90S×28°.38W, h111^{km}±14^{km}, mb4.1/6, mb1 4.2/6, mb1mx3.9/16, mbtmp4.1/6, MS4.2/1, Ms1 4.2/1, ms1mx3.5/14, Error ellipse: s-maj=24.1km s-min=16.9km az=75.0*

*NEIC **23** 08:07:51.9±5.7, 55°.93S×28°.38W, h129^{km}±49^{km}, mb4.4/4, Error ellipse: s-maj=25.8km s-min=15.5km az=56.0*

ISC 23 08:07:43.7±4.5**, 55°.9S**±0°.2×**28°.2W**±0°.3**, h51**^{km}±44^{km}**, n31, σ0^{s}.92**/15**, mb4.4**/9**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA3	**Neumayer Olymp**	**17.35**	**160**	*e*P	**Pn**	**08 11 41.3**	**-0.5**
VNA2	**Neumayer--Watz**	**17.57**	**157**	*e*P	**Pn**	**08 11 44.6**	**+0.1**
	baz=317,slow=13						
VNA2				*e*		08 11 52.1	
QSPA	**South Pole Qui**	**34.38**	**180**	P	**P**	**08 14 25.1**	**0.0**
	4.6nm,0.6s,mb4.6,baz=3.2,slow=13,SNR=68						
QSPA				PcP	PcP	08 16 57.7	-1.9
	0.9nm,0.4s,baz=245,slow=2.2,SNR=6.8						
QSPA				ScP	ScP	08 20 32.3	-7.8
	1.4nm,0.9s,baz=238,slow=3.7,SNR=3.2						
QSPA	**South Pole Qui**	**34.38**	**180**	*e*P	**P**	**08 14 24.8**	**-0.4**
	4.6nm,0.6s,mb4.6						
QSPA				PcP	PcP	08 16 57.7	-1.9
QSPA				ScP	ScP	08 20 32.3	-7.8
CPUP	**Villa Florida**	**36.27**	**312**	P	**P**	**08 14 42.0**	**+0.1**
	3.4nm,0.7s,mb4.4,baz=132,slow=7.7,SNR=20						
CPUP				PcP	PcP	08 17 03.9	-2.0
	0.7nm,0.5s,baz=101,slow=1.9,SNR=5.2						
CPUP				LR	LR	08 28 31.1	
	comp=Z,326nm,19.1s,baz=139,slow=34						
CPUP	**Villa Florida**	**36.27**	**312**	P	**P**	**08 14 42.0**	**+0.1**
CPUP				PcP	PcP	08 17 03.9	-2.0
CPUP				LR	LR	08 28 31.1	
CFAA	**Coronel Fontan**	**36.98**	**294**	PcP	PcP	08 17 06.5	-1.5
	0.3nm,0.5s,baz=162,slow=1.6,SNR=5.1						
LVC	**Limon Verde**	**44.73**	**301**	*e*P	**P**	**08 15 53.1**	**+1.3**
	7.2nm,0.6s,mb4.7						
VNDA	**Vanda**	**46.72**	**183**	P	**P**	**08 16 07.2**	**+0.3**
	3.5nm,0.8s,mb4.3,baz=172,slow=9.2,SNR=6.3						
VNDA				PcP	PcP	08 17 38.3	-1.1
	5.0nm,1.1s,baz=67,slow=2.9,SNR=2.2						
OTAV	**Otavalo**	**69.09**	**305**	*e*P	**P**	**08 18 45.2**	**+1.0**
	4.2nm,1.3s,mb4.2						
PCRV	**Puerto La Cruz**	**72.46**	**322**	P	**P**	**08 19 04.1**	**-0.5**
	5.7nm,0.5s,mb4.8,baz=124,slow=13,SNR=5.5						
TORD	**Torodi Ar. Bea**	**73.18**	**30**	P	**P**	**08 19 07.7**	**-1.1**
	1.5nm,0.8s,mb4.0,baz=197,slow=6.2,SNR=12						
TORD	**Torodi Ar. Bea**	**73.18**	**30**	P	**P**	**08 19 07.7**	**-1.1**
SDV	**Santo Domingo**	**73.49**	**316**	*e*P	**P**	**08 19 09.5**	**-1.2**
	4.4nm,0.8s,mb4.4						
KMBO	**Kilima Mbogo**	**75.50**	**70**	P	**P**	**08 19 24.4**	**+1.9**
	80nm,0.4s,baz=247,slow=0.0,SNR=9.2						
CMIG	**Matias Romero**	**91.61**	**299**	P	**P**	**08 20 44.0**	**-0.9**
	1.5nm,0.7s,mb4.4,baz=162,slow=3.2,SNR=4.9						
PDAR	**Pinedale Array**	**119.77**	**303**	PKP	PKPdf	08 26 24.4	-2.7
	0.3nm,0.4s,baz=116,slow=4.1,SNR=5.4						
ARCES	**ARCESS Array B**	**130.99**	**22**	PKP	PKPdf	08 26 44.9	-2.8
	5.2nm,0.9s,baz=204,slow=2.7,SNR=7.4						
ARCES	**ARCESS Array B**	**130.99**	**22**	PKP	PKPdf	08 26 44.9	-2.8
YKA	**Yellowknife Ar**	**135.66**	**318**	PKP	PKPdf	08 26 53.3	-3.4
	1.2nm,0.6s,baz=130,slow=2.3,SNR=32						
YKA				SKPbc	SKPbc	08 30 15.8	-7.7
	0.4nm,0.7s,baz=133,slow=3.9,SNR=9.4						
YKA	**Yellowknife Ar**	**135.66**	**318**	PKP	PKPdf	08 26 53.3	-3.4
YKA				SKPbc	SKPbc	08 30 15.8	-7.7
MKAR	**Makanchi Array**	**137.36**	**72**	PKP	PKPdf	08 26 59.9	-0.5
	0.1nm,0.5s,baz=267,slow=1.1,SNR=3.3						
MKAR				SKPbc	SKPbc	08 30 20.8	-8.4
	0.2nm,0.8s,baz=239,slow=4.3,SNR=5.0						
ZALV	**Zalesovo Beam**	**142.80**	**64**	PKP	PKPdf	08 27 09.7	-0.3
	0.5nm,0.3s,baz=266,slow=4.3,SNR=2.5						
INK	**Inuvik**	**145.31**	**321**	PKPbc	PKPbc	08 27 12.5	-1.4
	4.9nm,0.5s,baz=84,slow=3.3,SNR=71						
INK				SKPbc	SKPbc	08 30 42.1	-6.9
	0.7nm,0.8s,baz=78,slow=2.2,SNR=3.0						
DAWY	**Dawson**	**146.26**	**312**	*e*PKPdf	PKPdf	08 27 14.9	-0.8
KDAK	**Kodiak Island**	**150.24**	**297**	PKPbc	PKPbc	08 27 27.5	0.0
	17nm,0.4s,baz=264,slow=1.2,SNR=60						
KDAK	**Kodiak Island**	**150.24**	**297**	PKPbc	PKPbc	08 27 27.5	-0.1
BPAW	**Bear Paw Mtn.**	**151.19**	**310**	*e*PKPbc	PKPbc	08 27 27.7	-1.9
SONM	**Songino Array**	**151.28**	**87**	PKPbc	PKPbc	08 27 31.0	+0.7
	0.6nm,0.3s,baz=228,slow=4.6,SNR=4.4						
PPLA	**Purkeypile**	**151.48**	**307**	*e*PKPbc	PKPbc	08 27 28.5	-1.8
IMA2	**Indian Mountai**	**152.59**	**314**	*e*PKPbc	PKPbc	08 27 31.5	-1.3

DJA 23 08:13:01, 9°.56S×**116°.31E, h20**^{km}**, MLv3.7**/4**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KHKI	**Kahang-Kahang**	**1.38**	**330**	P	Pn	08 13 24.7	-0.4
DNP	**Denpasar**	**1.40**	**309**	P	Pn	08 13 24.9	-0.5
DNP				S	Sn	08 13 43.4	+0.2
SRBI	**Singaraja**	**1.82**	**323**	P	Pn	08 13 31.4	+0.2
ABJI	**Asem Bagus**	**2.70**	**310**	P	Pn	08 13 43.7	+0.4

IDC 23 08:15:24.6±3.5**, 0°.52N**×**97°.35E, h0**^{km}**, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.5**/22**, mbtmp3.7**/4**, ML3.4**/1**, Error ellipse: s-maj=133.4km s-min=29.2km az=58.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.75**	**35**	Pn	Pn	08 16 13.3	+3.3
	1.6nm,0.3s,baz=309,slow=18,SNR=6.8						
CMAR	**Chiang Mai Arr**	**17.89**	**5**	P	Pn	08 19 36.1	+1.1
	0.1nm,0.3s,baz=198,slow=11,SNR=4.1						
WRA	**Warramunga Arr**	**41.55**	**121**	P	P	08 23 14.1	-0.1
	0.6nm,0.7s,baz=303,slow=8.9,SNR=5.0						
MKAR	**Makanchi Array**	**47.93**	**346**	P	P	08 24 04.5	-0.2
	0.4nm,0.6s,baz=150,slow=7.9,SNR=5.1						
ZALV	**Zalesovo Beam**	**54.25**	**351**	P	P	08 24 51.9	-0.2
	0.3nm,0.3s,baz=172,slow=5.5,SNR=4.1						

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*CSEM **23** 08:35:35.3, 40°.57N×29°.55W, h10^{km}, ML3.0, After PDA*

PDA 23 08:35:35.3±0.6**, 40°.57N**×**29°.55W, h10**^{km}**, MD3.6, ML3.0, Error ellipse: s-maj=13.9km s-min=3.6km az=73.0, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCED	**Cedros**	**2.04**	**161**	*e*P	Pn	08 36 05.0	-4.7
PCED				*e*S	Sn	08 36 27.6	-7.6
PCED				A		08 36 29.7	
	25nm,0.2s						
PCED	**Cedros**	**2.04**	**161**	*e*P	Pn	08 36 05.0	-4.7
PCED				*e*S	Sn	08 36 27.6	-7.6
CALA	**Caldeira**	**2.09**	**161**	*e*P	Pn	08 36 06.0	-4.3
CALA				*e*S	Sn	08 36 28.6	-7.7
CALA	**Caldeira**	**2.09**	**161**	*e*P	Pn	08 36 06.0	-4.3
CALA				*e*S	Sn	08 36 28.6	-7.7
ROSA	**Rosais**	**2.10**	**151**	*e*P	Pn	08 36 05.8	-4.7
ROSA				*e*S	Sn	08 36 29.2	-7.5
ROSA	**Rosais**	**2.10**	**151**	*e*P	Pn	08 36 05.8	-4.7
ROSA				*e*S	Sn	08 36 29.2	-7.5
HOR	**Horta**	**2.16**	**160**	*e*P	Pn	08 36 06.8	-4.5
HOR				*e*S	Sn	08 36 30.2	-7.8
HOR	**Horta**	**2.16**	**160**	*e*P	Pn	08 36 06.8	-4.5
HOR				*e*S	Sn	08 36 30.2	-7.8
PMAN	**Manadas**	**2.24**	**149**	*e*P	Pn	08 36 07.5	-4.9
PMAN				*e*S	Sn	08 36 32.2	-7.8
PMAN				A		08 36 33.3	
	17nm,0.2s						
PMAN	**Manadas**	**2.24**	**149**	*e*P	Pn	08 36 07.5	-4.9
PMAN				*e*S	Sn	08 36 32.2	-7.8
PICO	**Pico**	**2.24**	**157**	*e*P	Pn	08 36 08.2	-4.2
PICO				*e*S	Sn	08 36 32.3	-7.7
PICO	**Pico**	**2.24**	**157**	*e*P	Pn	08 36 08.2	-4.2
PICO				*e*S	Sn	08 36 32.3	-7.7

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*IDC **23** 08:38:55.8±1.0, 41°.23N×115°.02W, h0^{km}, mb2.7/1, mb1 3.2/3, mb1mx3.2/21, mbtmp2.8/3, ML3.0/2, Error ellipse: s-maj=13.7km s-min=5.9km az=129.0*

*ISCJB **23** 08:38:56.4±0.2, 41°.11N±0°.02×114°.85W±0°.02, h10^{km}, Error ellipse: s-maj=2.9km s-min=2.5km az=163.8*

*NEIC **23** 08:38:56.7, 41°.17N×114°.91W, h7^{km}, ML2.8, After REN.*

ISC 23 08:38:56.8±0.2**, 41°.14N**±0°.02×**114°.89W**±0°.02**, h10**^{km}**, n64, σ1^{s}.12**/98**, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	**0.31**	**202**	P	**Pg**	**08 39 03.1**	**+0.1**
	baz=0.3,SNR=479						
N12A	**Clover Valley,**	**0.31**	**202**	*e*Pg	**Pg**	**08 39 03.2**	**+0.2**
N12A				*e*Sg	**Sg**	**08 39 07.5**	**+0.4**
ELK	**Elko**	**0.48**	**214**	Pg	**Pg**	**08 39 06.0**	**-0.1**
	18nm,0.3s,baz=19,slow=16,SNR=179						
ELK				Lg		08 39 12.7	
	57nm,0.3s,baz=122,slow=16,SNR=120						
ELK	**Elko**	**0.48**	**214**	*e*Pg	**Pg**	**08 39 05.8**	**-0.3**
ELK				*e*Sg	**Sg**	**08 39 11.7**	**-0.7**
M13A	**Montello**	**0.59**	**68**	*e*Pg	**Pg**	**08 39 08.2**	**0.0**
N13A	**Wendover, West**	**0.59**	**119**	P	**Pg**	**08 39 08.8**	**+0.5**
	baz=0.5,SNR=241						
N13A	**Wendover, West**	**0.59**	**119**	*e*Pg	**Pg**	**08 39 08.4**	**+0.1**
M11A	**Holland Ranch,**	**0.74**	**293**	P	**Pg**	**08 39 10.6**	**-0.5**
	baz=0.8,SNR=108						
O12A	**Currie**	**0.88**	**173**	P	**Pg**	**08 39 13.9**	**+0.2**
	baz=0.9,SNR=566						
L12A	**House Creek Ra**	**1.01**	**355**	P	**Pg**	**08 39 15.3**	**-0.9**
	baz=1.0,SNR=100						
O11A	**Cowboy Ranch,**	**1.17**	**210**	P	**Pb**	**08 39 19.2**	**+0.2**
	baz=1.2,SNR=362						
L13A	**Double Diamond**	**1.18**	**36**	P	**Pb**	**08 39 18.3**	**-1.0**
	baz=1.2,SNR=107						
L11A	**Cat Creek Ranc**	**1.21**	**328**	P	**Pn**	**08 39 18.6**	**-1.2**
	baz=1.3,SNR=204						
M14A	**Sheep Mountain**	**1.21**	**72**	P	**Pn**	**08 39 19.3**	**-0.5**
	baz=1.1,SNR=256						
O13A	**Hicks Ranch, I**	**1.22**	**145**	P	**Pn**	**08 39 20.3**	**+0.4**
	baz=1.2,SNR=203						
N10A	**Dunphy**	**1.30**	**252**	P	**Pn**	**08 39 20.7**	**-0.3**
	baz=1.4,SNR=18						
M10A	**I.L. Ranch, Tu**	**1.30**	**288**	P	**Pn**	**08 39 20.6**	**-0.4**
	baz=1.4,SNR=136						
N14A	**Grayback Hills**	**1.32**	**102**	P	**Pn**	**08 39 21.2**	**0.0**
	baz=1.2,SNR=161						
BGU	**Big Grassy Mou**	**1.42**	**98**	*e*Pn	**Pn**	**08 39 22.7**	**+0.1**
BGU				*e*Sg	**Sg**	**08 39 41.5**	**-1.0**
O10A	**Cortez Mining,**	**1.49**	**236**	P	**Pn**	**08 39 23.9**	**+0.2**
	baz=1.5,SNR=28						
K12A	**Draper Farm, C**	**1.49**	**360**	P	**Pn**	**08 39 22.7**	**-1.0**
	baz=1.5,SNR=57						
L10A	**Juniper Basin**	**1.51**	**309**	P	**Pn**	**08 39 23.5**	**-0.4**
	baz=1.6,SNR=234						
HVU	**Hansel Valley**	**1.71**	**67**	*e*Pn	**Pn**	**08 39 26.8**	**+0.1**
HVU				*e*Sg	**Sg**	**08 39 50.7**	**-1.1**
P11A	**Circle Ranch,**	**1.72**	**203**	P	**Pn**	**08 39 28.1**	**+1.3**
	baz=1.7,SNR=14						
P13A	**Bates Ranch, G**	**1.81**	**158**	P	**Pn**	**08 39 28.2**	**+0.1**
	baz=1.8,SNR=89						
DUG	**Dugway**	**1.84**	**120**	P	**Pn**	**08 39 28.3**	**-0.1**
	baz=1.8,SNR=146						
DUG	**Dugway**	**1.84**	**120**	*e*Pn	**Pn**	**08 39 28.3**	**-0.1**
DUG				*e*Sg	**Sg**	**08 39 56.2**	**+0.3**
SPUT	**South Promonto**	**1.85**	**84**	*e*Pn	**Pn**	**08 39 28.5**	**0.0**
SPUT				*e*Sg	**Sn**	**08 39 52.9**	**+1.0**
BMN	**Battle Mountai**	**1.91**	**249**	*e*Pn	**Pn**	**08 39 28.5**	**-0.9**
BMN				*e*Sg	**Sg**	**08 39 56.5**	**-1.7**
P10A	**Eureka**	**1.94**	**219**	P	**Pn**	**08 39 30.8**	**+1.0**
	baz=2.0,SNR=14						
M09A	**Marrel Ranch,**	**1.95**	**279**	P	**Pn**	**08 39 30.1**	**+0.1**
	baz=2.0,SNR=18						
O15A	**The Old Anders**	**2.03**	**114**	P	**Pn**	**08 39 31.3**	**+0.3**
	baz=1.9,SNR=30						
P14A	**Drum Mountains**	**2.08**	**138**	P	**Pn**	**08 39 32.1**	**+0.4**
	baz=2.0,SNR=27						
Q12A	**Willow Creek R**	**2.10**	**179**	P	**Pn**	**08 39 32.0**	**0.0**
	baz=2.1,SNR=32						
NOQ	**North Oquirrh**	**2.15**	**102**	*e*Pn	**Pn**	**08 39 34.6**	**+1.9**
Q13A	**Wheeler Ranch,**	**2.28**	**163**	P	**Pn**	**08 39 35.2**	**+0.7**
	baz=2.2,SNR=44						
HLID	**Hailey**	**2.44**	**8**	*e*Pn	**Pn**	**08 39 37.6**	**+0.9**
HLID				*e*Sg	**Sn**	**08 40 10.4**	**+3.8**
NLU	**North Lily Min**	**2.45**	**118**	*e*Pn	**Pn**	**08 39 34.3**	**-2.5**
NLU				*e*Pg	**Pg**	**08 39 41.3**	**-2.4**
NLU				*e*Sg	**Sg**	**08 40 14.9**	**-0.6**
Q14A	**Sevier Lake (B**	**2.48**	**150**	P	**Pn**	**08 39 37.5**	**+0.2**
	baz=2.4,SNR=22						
O08A	**Rochester Mine**	**2.63**	**252**	P	**Pn**	**08 39 38.9**	**-0.3**
	baz=2.7,SNR=7.0						
MPU	**Maple Canyon**	**2.72**	**113**	*e*Pg	**Pg**	**08 39 46.5**	**-2.4**
MPU				*e*Sg	**Sg**	**08 40 23.2**	**-1.0**
R11A	**Troy Canyon, C**	**2.84**	**191**	P	**Pn**	**08 39 42.9**	**+0.7**
	baz=2.8,SNR=56						
DAU	**Daniels Canyon**	**2.85**	**104**	*e*Pn	**Pn**	**08 39 45.3**	**+3.0**
DAU				*e*Pg	**Pg**	**08 39 51.7**	**+0.3**
DAU				*e*Sg	**Sg**	**08 40 25.2**	**-3.2**
WVOR	**Wild Horse Val**	**3.09**	**296**	*e*Pn	**Pn**	**08 39 49.3**	**+3.8**
WVOR				*e*Sg	**Sg**	**08 40 32.5**	**-3.4**
MSU	**Marysvale**	**3.35**	**141**	*e*Pn	**Pn**	**08 39 50.3**	**+1.0**
MSU				*e*Pg	**Pg**	**08 40 01.6**	**+0.6**
MSU				*e*Sg	**Sg**	**08 40 43.8**	**-0.7**
TMUT	**Trail Mountain**	**3.37**	**122**	*e*Pg	**Pg**	**08 39 57.8**	**-3.5**

TMUT				*e*Sg	Sg	08 40 44.1	-0.8
RRI2	Red Ridge	3.44	49	*e*Pn	Pn	08 39 52.9	+2.4
RRI2				*e*Sg	Sg	08 40 41.4	-6.0
ARUT	Antelope Range	3.53	161	*e*Pn	Pn	08 39 52.7	+1.1
ARUT				*e*Pg	Pg	08 40 04.4	-0.1
ARUT				*e*Sg	Sg	08 40 50.3	+0.1
DCID1	Drake Creek	3.68	47	*e*Pn	Pn	08 39 57.7	+4.1
REDW	Red Top Meadow	3.73	52	*e*Pn	Pn	08 39 57.4	+3.0
TPAW	Teton Pass	3.75	50	*e*Pn	Pn	08 39 56.9	+2.3
TPAW				*e*Sg	Sg	08 40 55.0	-2.0
CCUT	Cedar City	3.78	161	*e*Pn	Pn	08 39 56.2	+1.1
CCUT				*e*Pg	Pg	08 40 05.5	-3.6
CCUT				*e*Sg	Sg	08 40 57.0	-1.1
NVAR	Mina Array Bea	3.78	225	Pn	Pn	08 39 55.7	+0.6
	1.1nm,0.3s,baz=38,slow=12,SNR=33						
NVAR				Pg	Pg	08 40 02.4	-6.8
	1.7nm,0.3s,baz=35,slow=13,SNR=20						
NVAR				Sn	Sn	08 40 40.4	+0.9
	2.0nm,0.3s,baz=30,slow=20,SNR=4.3						
NVAR				Lg		08 40 51.8	
	1.8nm,0.3s,baz=38,slow=15,SNR=4.2						
NVAR	Mina Array Bea	3.78	225	Pn	Pn	08 39 55.7	+0.6
NVAR				Pg	Pg	08 40 02.4	-6.8
NVAR				Sn	Sn	08 40 40.4	+0.9
NVAR				Lg		08 40 51.8	
SNOW	Snow King Moun	3.84	52	*e*Pn	Pn	08 40 01.0	+5.0
MCMT	McKenzie Canyo	3.98	21	*e*Pg	Pg	08 40 04.8	-8.2
MCMT				*e*Sg	Sg	08 41 04.0	-0.4
IMW	Indian Meadow	4.01	45	Pn	Pn	08 40 01.6	+3.3
IMW				*e*Sg	Sg	08 41 00.4	-5.2
LOHW	Long Hollow	4.02	51	Pn	Pn	08 39 58.6	+0.2
LOHW				*e*Pg	Pg	08 40 04.8	-8.9
MOOW	Moose Ponds	4.02	48	Pn	Pn	08 39 59.7	+1.3
MOOW				*e*Pg	Pg	08 40 04.9	-8.9
BMO	Blue Mountains	4.11	335	*e*Pn	Pn	08 40 00.7	+1.1
BMO				*e*Pg	Pg	08 40 05.6	-10
BMO				*e*Sg	Sg	08 40 59.1	-10
MOD	Modoc	4.14	282	*e*Pn	Pn	08 39 59.2	-0.8
MOD				*e*Sg	Sg	08 41 08.0	-1.6
PDAR	Pinedale Array	4.29	66	Pn	Pn	08 40 05.3	+3.2
	0.1nm,0.3s,baz=240,slow=12,SNR=8.6						
PDAR				Lg		08 41 09.9	
	0.6nm,0.3s,baz=238,slow=28,SNR=8.8						
YMR	Madison River	4.55	38	Pn	Pn	08 40 07.8	+2.1
YKA	Yellowknife Ar	21.39	0	P	P	08 43 45.1	+0.9
	0.3nm,0.7s,baz=181,slow=9.9,SNR=13						

JMA 23 08:45:26.1±0.3**, 30°.30N×139°.08E, h443^{km}, M3.6, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	Haha-jima-NKT	4.56	143	*e*S	S	08 47 50.3	-0.7
BSO1	Boso 1	4.63	20	*e*S	S	08 47 53.5	+1.6
BSO3	Boso 3	4.65	15	*e*S	S	08 47 53.3	+1.0
BSO4	Boso 4	4.79	12	*e*S	S	08 47 55.2	+0.4
JHU	Hanno	5.54	2	P	P	08 46 55.6	+0.3
JHU				*e*S	S	08 48 06.7	-1.5
JRY	Ryogami san	5.70	359	P	P	08 46 58.4	+1.4
JWT	Wachi	5.85	329	P	P	08 46 59.8	+1.3
JGN	Niukaw	6.09	346	P	P	08 47 02.1	+1.2
JAG	Ashikaga	6.12	3	P	P	08 47 01.2	0.0
JNG	Nsakai	6.14	353	P	P	08 47 02.4	+0.9
MAT	Matsushiro	6.27	354	P	P	08 47 03.2	+0.4
MAT	Matsushiro	6.27	354	P	P	08 47 03.4	+0.6
JMK	Ichinoseki	8.81	11	P	P	08 47 33.0	+3.0

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*ISCJB **23** 09:00:10.3±0.5, 77°.06N±0°.04×19°.4E±0°.2, h10^{km}, mb3.7/6, MS4.0/2, Error ellipse: s-maj=8.2km s-min=4.0km az=153.5*

*CSEM **23** 09:00:11.9±0.3, 77°.03N×18°.38E, h5^{km}, ML3.9, Error ellipse: s-maj=18.2km s-min=5.4km az=66.0*

*MOS **23** 09:00:11.7±2.3, 76°.95N×18°.04E, h10^{km}, mb4.6/1, Error ellipse: s-maj=99.9km s-min=8.4km az=94.0*

*NEIC **23** 09:00:12.7±0.8, 77°.15N×19°.66E, h10^{km}, mb4.2/3, Error ellipse: s-maj=23.0km s-min=7.2km az=68.0*

*NAO **23** 09:00:12.1±0.8, 76°.96N×17°.88E, ML3.3*

*IDC **23** 09:00:13.0±0.7, 77°.11N×18°.33E, h0^{km}, mb3.7/5, mb1 3.9/8, mb1mx3.6/26, mbtmp3.8/8, ML3.7/3, MS3.8/4, Ms1 3.8/4, ms1mx3.3/41, Error ellipse: s-maj=36.2km s-min=7.9km az=71.0*

*BER **23** 09:00:16.0±2.6, 77°.18N×19°.35E, h15^{km}±17^{km}, MD3.6, ML3.9, ML3.3(NAO)*

ISC 23 09:00:11.0±1.1**, 77°.12N**±0°.04×**19°.4E**±0°.3**, h0^{km}**±8^{km}**, n47, σ1^{s}.12**/58**, mb3.7**/6**, MS4.0**/2**, 1D, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	0.87	264	*e*P	Pg	09 00 27.9	+0.3
HSP				*e*S	Sg	09 00 37.9	-1.0
SPA0	Spitsbergen Ar	1.24	330	Pg	Pg	09 00 35.9	+1.2
	baz=153,slow=22						
SPA0				Lg		09 00 52.0	
	baz=146,slow=28						
SPA0	Spitsbergen Ar	1.24	330	Pg	Pg	09 00 35.9	+1.1
	SNR=93						
SPA0				Lg		09 00 52.0	
	SNR=0.7						
SPITS	Spitsbergen Ar	1.24	330	Pn	Pn	09 00 36.0	+0.4
	baz=300,slow=20,SNR=1771						
SPITS				Sn	Sn	09 00 52.4	-0.5
	baz=310,slow=30,SNR=43						
SPITS	Spitsbergen Ar	1.24	330	Pn	Pn	09 00 36.0	+0.5
SPITS				Sn	Sn	09 00 52.4	-0.5
KBS	Kingsbay	2.38	323	Pn	Pn	09 00 51.5	+0.3
KBS				Pg	Pg	09 00 55.8	-0.8
KBS				Lg		09 01 24.7	
KBS	Kingsbay	2.38	323	*e*P	Pn	09 00 51.5	+0.3
KBS				*e*Pg	Pg	09 00 56.4	-0.2
KBS				*e*Sg	Sg	09 01 26.6	-0.8
KBS				AML	AML	09 01 37.4	
	comp=Z,1µm,0.1s						
KBS	Kingsbay	2.38	323	*e*Pn	Pn	09 00 51.2	0.0
KBS				*e*Sn	Sn	09 01 26.4	+5.4
KBS	Kingsbay	2.38	323	*e*Pn	Pn	09 00 51.2	0.0
KBS	Kingsbay	2.38	323	*e*Pg	Pg	09 00 56.4	-0.2
	SNR=91						
KBS				Lg		09 01 24.7	
KBS				*e*Sg	Sg	09 01 26.6	-0.9
	comp=Z,1µm,0.1s,SNR=91						
BJO	Bjornoya	2.63	181	*e*Pg	Pg	09 01 01.4	0.0
BJO				*e*Sg	Sg	09 01 36.6	+1.2
BJO				AML	AML	09 01 47.9	
	comp=Z,1µm,0.9s						
BJO	Bjornoya	2.63	181	*e*Pg	Pg	09 01 01.4	0.0
	SNR=91						
KEV	Kevo	7.71	160	*e*P	Pn	09 02 04.5	+0.2
KEV				pmax	pmax		
	comp=Z,16nm,0.6s						
KEV	Kevo	7.71	160	*e*p	Pn	09 02 04.5	+0.2
	comp=Z,16nm,0.6s						
KEV	Kevo	7.71	160	*e*P	Pn	09 02 04.5	+0.2
	comp=Z,16nm,0.6s						
ARA0	ARCESS Array S	7.82	164	Pn	Pn	09 02 06.0	+0.2
	baz=353,slow=14						
ARA0				Sn	Sn	09 03 28.2	-6.7
	baz=2.6,slow=22						
ARA0	ARCESS Array S	7.82	164	Pn	Pn	09 02 06.0	+0.2
	SNR=352						
ARCES	ARCESS Array B	7.82	164	P	Pn	09 02 06.4	+0.6
ARCES						09 03 27.8	
ARCES	ARCESS Array B	7.82	164	Pn	Pn	09 02 06.4	+0.6
	comp=Z,5.2nm,0.3s,baz=358,slow=10,SNR=74						
ARCES				Sn	Sn	09 03 27.8	-7.1
	comp=Z,5.1nm,0.3s,baz=351,slow=14,SNR=4.0						
ARCES				LR	LR	09 06 27.5	
	comp=Z,332nm,18.9s,baz=2.6,slow=48						
ARCES	ARCESS Array B	7.82	164	Pn	Pn	09 02 06.4	+0.6
APA0	Apatity Array	10.37	150	Pn	Pn	09 02 40.0	-0.7
	baz=341,slow=16						
APA0	Apatity Array	10.37	150	Pn	Pn	09 02 40.0	-0.6
	SNR=6.9						
APA	Apatity	10.45	149	⇓*i*P	Pn	09 02 40.6	-1.2
APA				pmax	pmax		
	comp=Z,33nm,0.9s						
APA	Apatity	10.45	149	*i* P	Pn	09 02 40.6	-1.2
	comp=Z,33nm,0.9s						
JOF	Joensuu	14.79	158	*e*p	Pn	09 03 34.3	-6.6
	comp=Z,12nm,0.7s						
SUMG	Summit	15.16	283	*e*Pn	Pn	09 03 48.5	+2.6
	comp=Z,12nm,1.0s						
SUMG				*e*Sn	Sn	09 06 28.7	-5.4
KAF	Kangasniemi	15.26	168	*e*P	Pn	09 03 44.8	-2.4
KAF				pmax	pmax		
	comp=Z,17nm,0.8s						
KAF	Kangasniemi	15.26	168	*e*p	Pn	09 03 44.8	-2.4
	comp=Z,17nm,0.8s						
FIA0	FINESS Array S	15.91	168	Pn	Pn	09 03 52.9	-3.0
	slow=14						
NOA	NORSAR Array B	16.39	194	Pn	Pn	09 04 02.0	0.0
	comp=Z,0.1nm,0.3s,baz=13,slow=15,SNR=2.7						
NOA	NORSAR Array B	16.39	194	Pn	Pn	09 04 02.0	0.0
HFS	Hagfors	17.18	190	P	Pn	09 04 11.9	-0.1
HFS	Hagfors	17.18	190	P	Pn	09 04 12.6	+0.6
	comp=Z,0.2nm,0.3s,baz=20,slow=14,SNR=4.5						
HFS				LR	LR	09 11 08.9	
	comp=Z,408nm,18.0s,baz=215,slow=38						
HFS	Hagfors	17.18	190	P	Pn	09 04 12.6	+0.6
NACGM	Naroch	22.48	169	*e*	P	09 05 10.0	-1.4
AKASG	Malin Array Be	26.80	166	P	P	09 05 54.2	+2.0
	comp=Z,1.3nm,0.6s,mb3.9,baz=355,slow=11,SNR=5.2						
AKASG	Malin Array Be	26.80	166	P	P	09 05 54.2	+2.0
INK	Inuvik	33.86	342	P	P	09 06 54.2	-0.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=2.2,slow=8.8,SNR=4.9						
INK	Inuvik	33.86	342	P	P	09 06 54.3	-0.1
YKA	Yellowknife Ar	37.74	327	P	P	09 07 28.5	+0.8
	comp=Z,0.9nm,1.0s,mb3.5,baz=9.4,slow=8.1,SNR=13						
YKA	Yellowknife Ar	37.74	327	P	P	09 07 28.5	+0.8
BRTR	Keskin Array B	38.00	162	P	P	09 07 33.6	+3.5
	comp=Z,1.4nm,0.8s,mb3.7,baz=12,slow=7.5,SNR=6.3						
MKAR	Makanchi Array	38.90	103	P	P	09 07 42.2	+4.6
	comp=Z,0.6nm,0.7s,mb3.3,baz=355,slow=7.7,SNR=7.1						
MKAR				LR	LR	09 26 10.2	
	comp=Z,119nm,18.7s,MS3.7,baz=332,slow=40						
MKAR	Makanchi Array	38.90	103	P	P	09 07 42.2	+4.6
MKAR				LR	LR	09 26 10.2	
MALT	Malatya	39.79	156	*e*P	P	09 07 49.4	+4.3
MALT				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
MALT	Malatya	39.79	156	*e*P	P	09 07 49.4	+4.2
	comp=Z,3.8nm,0.8s,mb4.1						
PDAR	Pinedale Array	56.25	316	LR	LR	09 31 58.6	
	comp=Z,187nm,20.5s,MS4.2,baz=345,slow=34						

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*BJI **23** 09:11:22.9, 51°.80N×177°.90E, h65^{km}, mB4.8/3, mb4.4/4, Ms4.4/3, Ms7 4.3/3*

*ISCJB **23** 09:11:23.4±0.9, 51°.8N±0°.1×177°.91E±0°.06, h81^{km}±8^{km}, mb3.8/14, Error ellipse: s-maj=18.6km s-min=6.6km az=1.8*

*NEIC **23** 09:11:25.0±0.5, 51°.77N×177°.86E, mb4.0/3, Error ellipse: s-maj=13.9km s-min=6.4km az=173.0*

*IDC **23** 09:11:25.0±5.1, 51°.83N×177°.83E, h83^{km}±47^{km}, mb3.4/11, mb1 3.7/13, mb1mx3.5/29, mbtmp3.5/13, ML3.9/2, Error ellipse: s-maj=27.8km s-min=14.6km az=161.0*

ISC 23 09:11:24.6±0.9**, 51°.8N**±0°.1×**177°.88E**±0°.07**, h78^{km}**±7^{km}**, n27, σ0^{s}.76**/32**, mb3.8**/14**, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMY	Shemya	2.51	293	P	Pn	09 12 03.0	-0.2
SMY				*e*Sn	Sn	09 12 32.6	-0.1
SMY				S	Sn	09 12 32.9	+0.2
ADK	Adak	3.37	86	P	Pn	09 12 14.1	-0.7
ADK				S	Sn	09 12 53.2	-0.5
GSTR	Great Sitkin T	3.76	83	*e*Pn	Pn	09 12 21.0	+0.9
SPIA	Saint Paul Isl	8.76	47	P	Pn	09 13 29.3	+1.1
PETK	Petropavlovsk-	12.38	284	P	Pn	09 14 17.6	0.0
	0.3nm,0.3s,baz=96,slow=18,SNR=8.6						
PETK				S	Sn	09 16 27.5	-5.9
	0.2nm,0.3s,baz=97,slow=33,SNR=5.7						
PETK	Petropavlovsk-	12.38	284	P	Pn	09 14 17.6	0.0
PETK				S	Sn	09 16 27.5	-5.9
KDAK	Kodiak Island	17.96	59	P	Pn	09 15 26.9	-1.7
	1.1nm,0.3s,baz=280,slow=14,SNR=11						
CHUM	Lake Minchumin	19.72	41	*e*P	Pn	09 15 48.9	-0.6
	6.6nm,0.9s						
KTH	Kantishna Hill	20.17	42	*e*P	P	09 15 53.3	+1.0
	7.7nm,1.2s						
EGAK	Eagle	24.62	42	*e*P	P	09 16 37.0	-0.1
	6.7nm,0.9s,mb4.1						
EGAK				*e*pP		09 16 55.1	
DAWY	Dawson	25.24	44	*e*P	P	09 16 43.1	+0.4
DAWY				*e*pP	pP	09 17 03.3	+2.6
INK	Inuvik	28.32	36	P	P	09 17 10.5	+0.1
	0.5nm,0.4s,mb3.4,baz=261,slow=8.3,SNR=10						
YKA	Yellowknife Ar	36.44	46	P	P	09 18 21.3	+0.1
	0.5nm,0.6s,mb3.6,baz=281,slow=8.0,SNR=11						
RES	Resolute Bay	40.22	24	P	P	09 18 52.2	-0.6
	0.6nm,0.7s,mb3.5,baz=280,slow=10,SNR=6.0						
YBH	Yreka Blue Hor	40.86	80	P	P	09 18 59.4	+1.0
	baz=6.9,slow=10						
SONM	Songino Array	44.60	295	P	P	09 19 29.2	+0.6
	0.4nm,0.5s,mb3.4,baz=75,slow=11,SNR=3.6						
NVAR	Mina Array Bea	45.54	81	P	P	09 19 37.1	+0.9
	0.8nm,0.6s,mb3.6,baz=296,slow=7.7,SNR=6.6						
PDAR	Pinedale Array	48.14	71	P	P	09 19 55.5	-0.8
	0.8nm,0.7s,mb3.7,baz=329,slow=3.9,SNR=8.4						
LZH	Lanzhou	53.28	284	*e*P	P	09 20 39.6	+4.5
LZH				pP	pP	09 20 51.3	-3.3
LZH				sP	sP	09 20 57.8	-5.6
LZH				pmax	pmax		
	comp=Z,68nm,5.2s						
LZH				LR	LR		
	comp=N,200nm,16.5s						
LZH				LR	LR		
	comp=Z,290nm,18.6s						
GTA	Gaotai	53.48	289	*e*P	P	09 20 41.5	+5.0
GTA				pP	pP	09 20 55.4	-0.7
GTA				sP	sP	09 21 02.5	-2.4
GTA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
FRB	Frobisher Bay	53.74	30	P	P	09 20 37.1	-0.9
	comp=Z,1.1nm,0.3s,mb4.3,baz=317,slow=9.3,SNR=7.9						
MKAR	Makanchi Array	58.14	306	P	P	09 21 08.8	-0.9
	comp=Z,0.3nm,0.6s,mb3.5,baz=51,slow=5.6,SNR=5.5						
MKAR	Makanchi Array	58.14	306	P	P	09 21 08.8	-0.9
GYA	Guiyang	58.23	273	*e*P	P	09 21 14.6	+4.0
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
SCHQ	Schefferville	60.94	37	P	P	09 21 29.7	+0.9
	comp=Z,1.7nm,1.0s,mb4.0,baz=293,slow=11,SNR=3.6						
WRA	Warramunga Arr	80.92	221	P	P	09 23 29.6	-0.4
	comp=Z,1.0nm,0.6s,mb3.8,baz=33,slow=6.0,SNR=8.3						
ASAR	Alice Springs	84.44	220	P	P	09 23 48.3	+0.1
	comp=Z,0.4nm,0.9s,mb3.2,baz=31,slow=6.5,SNR=5.9						

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*NEIC **23** 09:13:47.4, 36°.20N×21°.88E, h13^{km}, MD3.6(ATH), After ATH.*

*ATH **23** 09:13:47.4, 36°.20N×21°.88E, h13^{km}±5^{km}, MD3.6/7*

*CSEM **23** 09:13:50.2±0.8, 36°.27N×22°.09E, h2^{km}, MD3.6, Error ellipse: s-maj=21.1km s-min=9.7km az=50.0*

*THE **23** 09:13:50.6, 36°.04N×21°.71E, h31^{km}±42^{km}, ML3.3/1, Error ellipse: s-maj=42.8km s-min=2.3km az=264.0*

ISC 23 09:13:44.4±1.5**, 36°.15N**±0°.06×**21°.74E**±0°.09**, h10^{km}, n20, σ0^{s}.97**/28**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	1.04	8	*e*PG	Pg	09 14 05.3	+0.9
ITM				*e*SB	Sg	09 14 19.4	+1.4
ITM	Ithomi	1.04	8	*e*Pg	Pg	09 14 05.3	+0.9
ITM				*e*Sb	Sg	09 14 19.4	+1.4
KYTH	Kithira	1.05	82	*e*PN	Pg	09 14 06.0	+1.3
KYTH	Kithira	1.05	82	*e*Pn	Pg	09 14 06.0	+1.3
VLI	Veliai	1.12	59	*e*PB	Pg	09 14 06.3	+0.4
VLI				*e*SB	Sg	09 14 20.3	-0.2
VLI	Veliai	1.12	59	*e*Pb	Pg	09 14 06.3	+0.4
VLI				*e*Sb	Sg	09 14 20.3	-0.2
RLS	Riolos of Patr	1.92	353	*e*PG	Pg	09 14 22.1	+0.9
RLS	Riolos of Patr	1.92	353	*e*Pg	Pg	09 14 22.1	+0.9
LAKA	Lakka	2.10	5	P	Pg	09 14 24.5	-0.1
LAKA				S	Sg	09 14 50.5	-1.3
LAKA	Lakka	2.10	5	P	Pg	09 14 24.5	-0.1
LAKA				S	Sg	09 14 50.5	-1.3
VAM	Vamos	2.13	110	*e*PB	Pb	09 14 23.0	-0.1
VAM	Vamos	2.13	110	*e*Pb	Pb	09 14 23.0	-0.1
NAIG	Nisos Aigina	2.13	40	*e*PN	Pb	09 14 23.3	+0.2
NAIG	Nisos Aigina	2.13	40	*e*Pn	Pb	09 14 23.3	+0.2
KALE	Kalithea	2.26	8	P	Pg	09 14 27.4	-0.4
KALE				S	Sg	09 14 56.1	-1.0
KALE	Kalithea	2.26	8	P	Pg	09 14 27.4	-0.4
KALE				S	Sg	09 14 56.1	-1.0
EVR	Evrytania	2.77	1	*e*PB	Pb	09 14 33.5	-0.4
EVR	Evrytania	2.77	1	*e*Pb	Pb	09 14 33.5	-0.4
LAST	Lasithi	3.20	107	P	Pb	09 14 38.6	-2.7
LAST	Lasithi	3.20	107	P	Pb	09 14 38.6	-2.7

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*BJI **23** 09:17:18.4, 2°.40S×100°.40E, h35^{km}, mb4.5/2, Ms4.9/1, Ms7 4.7/1*

*NEIC **23** 09:17:21.4±0.6, 2°.38S×100°.38E, h35^{km}, mb4.8/12, Error ellipse: s-maj=23.2km s-min=7.8km az=52.0*

*ISCJB **23** 09:17:25.4±0.6, 2°.06S±0°.05×100°.63E±0°.06, h79^{km}±5^{km}, mb4.6/23, Error ellipse: s-maj=11.0km s-min=7.6km az=143.8*

*IDC **23** 09:17:25.4±4.2, 2°.03S×100°.72E, h65^{km}±36^{km}, mb3.9/9, mb1 4.0/10, mb1mx3.8/22, mbtmp3.9/10, ML3.6/1, MS3.2/6, Ms1 3.3/6, ms1mx3.0/40, Error ellipse: s-maj=53.7km s-min=14.1km az=54.0*

*DJA **23** 09:17:26, 1°.98S×100°.60E, h19^{km}, MLv4.5/4*

ISC 23 09:17:26.1±0.6**, 2°.12S**±0°.06×**100°.64E**±0°.06**, h69^{km}**±5^{km}**, n52, σ0^{s}.94**/47**, mb4.6**/23**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	0.90	224	P	Pn	09 17 42.8	-0.5
PDSI	Padang	1.21	352	P	Pn	09 17 47.0	-0.3
SDSI	Sungai Dareh	1.42	34	P	Pn	09 17 48.8	-1.2
PPI	Padang Panjang	1.67	352	P	Pn	09 17 52.1	-1.2
SISI	Saibi	1.73	297	P	Pn	09 17 53.7	-0.5
RGRI	Rengat	2.44	44	P	Pn	09 18 10.8	+7.1
KSI	Kapahiang	2.48	128	P	Pn	09 18 08.2	+4.0
MNAI	Manna	3.21	134	P	Pn	09 18 19.6	+5.4
MDSI	Maura Dua	4.25	124	P	Pn	09 18 31.4	+3.0
GSI	Gunungsitoli	4.57	318	P	Pn	09 18 33.7	+0.9
KGM	Kluang	4.90	33	P	Pn	09 18 36.9	-0.4
MYKOM	Kota Tinggi	5.04	40	P	Pn	09 18 38.4	-0.8
MYKOM	Kota Tinggi	5.04	40	P	Pn	09 18 38.1	-1.1
PSI	Prapat	5.17	341	P	Pn	09 18 39.4	-1.7
	2.2nm,0.3s,baz=167,slow=10,SNR=13						
PSI				LR	LR	09 21 05.4	
	comp=Z,348nm,18.7s,baz=149,slow=44						
FRIM	Kepong	5.41	11	P	Pn	09 18 45.1	+0.9
IPM	Ipoh	6.56	3	P	Pn	09 19 01.8	+1.7
KULM	Kulim	7.36	0	P	Pn	09 19 12.7	+1.8
KULM	Kulim	7.36	0	*e*Pn	Pn	09 19 10.3	-0.6
	27nm,1.0s						
KTGM	Kuala Trenggan	7.80	19	P	Pn	09 19 18.4	+1.4
KAPI	Kappang	19.29	99	P	Pn	09 21 47.7	+0.5
	1.5nm,0.3s,baz=302,slow=14,SNR=4.4						
KAPI				LR	LR	09 30 56.4	
	comp=Z,55nm,19.2s,baz=26,slow=42						
CMAR	Chiang Mai Arr	20.51	355	P	P	09 21 56.0	-2.7
	1.0nm,0.4s,baz=183,slow=14,SNR=6.5						
CMAR				LR	LR	09 29 22.2	
	comp=Z,101nm,19.6s,baz=136,slow=35						
DAV	Davao City (W)	26.51	70	LR	LR	09 33 52.4	
	comp=Z,10.0nm,20.1s,baz=78,slow=37						
FITZ	Fitzroy Crossi	29.22	125	LR	LR	09 34 12.5	
	comp=Z,46nm,19.4s,baz=244,slow=34						
ODAN	Odare	31.52	337	*e*P	P	09 23 42.2	+0.5
	9.8nm,0.5s,mb4.8						
TAPN	Taplejung	31.83	338	*e*P	P	09 23 45.1	+0.7
	38nm,0.9s,mb5.2						
RAMN	Ramite	31.91	336	*e*P	P	09 23 45.9	+0.8
	16nm,0.9s,mb4.7						
JIRN	Jiri	32.71	336	*e*P	P	09 23 52.8	+0.7
	26nm,0.8s,mb5.1						
GUN	Gumba	33.06	336	*e*P	P	09 23 55.9	+0.8
	22nm,0.4s,mb5.3						
GKN	Gorkha	33.67	334	*e*P	P	09 24 00.8	+0.3
	11nm,0.4s,mb5.0						
KOLN	Koldanda	33.94	332	*e*P	P	09 24 03.5	+0.7
	15nm,0.7s,mb4.9						
DANN	Dangsing	34.36	333	*e*P	P	09 24 06.9	+0.5
	16nm,0.5s,mb5.1						
WRA	Warramunga Arr	37.39	121	P	P	09 24 31.2	-1.3
	0.9nm,0.4s,mb4.0,baz=310,slow=8.7,SNR=10.0						
WRA				PcP	PcP	09 26 50.3	0.0
	0.2nm,0.5s,baz=302,slow=1.9,SNR=3.0						
WRAB	Tennant Creek	37.39	121	*e*P	P	09 24 31.9	-0.7
	1.3nm,0.5s,mb4.1						
ASAR	Alice Springs	38.67	126	P	P	09 24 43.0	-0.3
	2.9nm,0.5s,mb4.3,baz=303,slow=7.8,SNR=48						
KSH	Kashi	47.21	334	P	P	09 25 51.3	-0.8
KSH				*e*pP	pP	09 26 01.3	-8.2
KSH				*e*sP	sP	09 26 05.5	-12
KSH				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
KSH				LR	LR		
	comp=N,200nm,6.4s						
KSH				LR	LR		
	comp=E,210nm,4.6s						
KSH				LR	LR		
	comp=Z,260nm,6.4s						
STKA	Stephens Creek	48.60	132	P	P	09 26 03.2	+0.2
	comp=Z,1.1nm,0.5s,mb4.1,baz=268,slow=6.2,SNR=5.4						
STKA				LR	LR	09 47 00.8	
	comp=Z,105nm,18.1s,baz=25,slow=36						
STKA	Stephens Creek	48.60	132	P	P	09 26 03.2	+0.2
STKA				LR	LR	09 47 00.8	
SONM	Songino Array	50.00	5	P	P	09 26 13.1	-0.1
	comp=Z,1.3nm,0.4s,mb4.2,baz=188,slow=10,SNR=16						
TKM2	Tokmak 2	50.19	336	*e*P	P	09 26 15.5	+0.6
	comp=Z,7.7nm,0.8s,mb4.7						
AML	Almayashu	50.34	334	*e*P	P	09 26 16.9	+0.9
	comp=Z,7.7nm,0.9s,mb4.6						
EKS2	Erkin-Say	50.74	335	*e*P	P	09 26 19.7	+0.8
	comp=Z,5.7nm,0.6s,mb4.8						
MKAR	Makanchi Array	51.31	344	P	P	09 26 22.7	-0.5
	comp=Z,6.0nm,0.6s,mb4.8,baz=160,slow=8.5,SNR=112						
ZAA0	Zalesovo Array	57.40	349	*e*P	P	09 27 06.4	-0.8
ZALV	Zalesovo Beam	57.40	349	P	P	09 27 06.3	-0.9
	comp=Z,9.0nm,0.7s,mb4.9,baz=164,slow=6.0,SNR=31						
BRVK	Borovoye	60.58	340	*e*P	P	09 27 28.7	-0.6
	comp=Z,1.6nm,0.4s,mb4.4						
BRTR	Keskin Array B	73.87	312	P	P	09 28 53.4	-0.3
	comp=Z,1.0nm,0.7s,mb3.7,baz=133,slow=6.1,SNR=4.7						
TIXI	Tiksi	75.87	9	*e*P	P	09 29 03.8	-0.8
	comp=Z,2.0nm,0.5s,mb4.1						
ARCES	ARCESS Array B	86.80	340	P	P	09 30 02.2	-0.2
	comp=Z,2.8nm,0.8s,mb4.2,baz=102,slow=6.0,SNR=9.0						
ARCES	ARCESS Array B	86.80	340	P	P	09 30 02.2	-0.2
TXAR	Lajitas Array	144.40	38	PKP	PKPdf	09 36 54.0	-1.2
	comp=Z,1.6nm,0.8s,baz=255,slow=1.8						
CPUP	Villa Florida	144.60	216	PKP	PKPdf	09 36 55.1	-0.4
	comp=Z,0.3nm,0.4s,baz=97,slow=3.5,SNR=4.5						
JCT	Junction City	145.78	32	*e*PKPbc	PKPbc	09 36 57.9	-0.1

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*NEIC **23** 09:19:36.8, 15°.73N×94°.53W, h16^{km}, MD4.3(MEX), After MEX.*

MEX 23 09:19:36.6±0.5**, 15°.74N×94°.55W, h18^{km}**±24^{km}**, MD4.3, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		1.28	91	*i* P	Pn	09 19 55.9	-3.7
PCIG				*i* S	Sn	09 20 11.7	-4.6
CMIG	Matias Romero	1.38	347	*i* P	Pn	09 19 57.3	-3.7
CMIG				*i* S	Sn	09 20 14.0	-4.8
HUIG	Huatulco	1.50	271	*i* P	Pn	09 19 59.5	-3.1
HUIG				*i* S	Sn	09 20 17.2	-4.5
TGIG		1.72	53	*e*P	Pn	09 20 02.1	-3.5
TGIG				*i* S	Sn	09 20 23.2	-3.8
TUIG	Tuzandepetl	2.28	3	*i* P	Pn	09 20 10.5	-2.9
TUIG				*i* S	Sn	09 20 36.9	-4.2
THIG		2.35	110	*i* P	Pn	09 20 11.3	-3.0
THIG				*i* S	Sn	09 20 38.4	-4.4
CCIG	Comitan	2.38	77	*e*P	Pn	09 20 12.5	-2.3
CCIG				*i* S	Sn	09 20 39.8	-3.7
CCIG	Comitan	2.38	77	*e*P	Pn	09 20 12.5	-2.3
CCIG				*i* S	Sn	09 20 38.3	-5.2
VHO	Vista Hermosa	2.48	303	*i* P	Pn	09 20 15.4	-0.7
VHO				*i* S	Sn	09 20 43.4	-2.5
PNIG	Pinotepa	3.50	281	*i* P	Pn	09 20 27.8	-2.4
PNIG				*i* S	Sn	09 21 06.9	-4.2
PNIG	Pinotepa	3.50	281	*i* P	Pn	09 20 27.8	-2.4
PNIG				*i* S	Sn	09 21 05.7	-5.4
TPIG	Tehuac#an	3.79	315	*e*P	Pn	09 20 33.7	-0.4
TPIG				*i* S	Sn	09 21 14.8	-3.3
PPM	Popocatepetl	5.11	311	*i* P	Pn	09 20 51.5	-0.8
PPM				*i* S	Sn	09 21 49.4	-1.4
CAIG	El Cayaco	5.64	284	*i* P	Pn	09 20 58.0	-1.6

CAIG				*i* S	Sn	09 21 58.5	-5.5

NEIC 23 09:23:47.6, 41°.19N×127°.35W, h5^{km}, MD3.5(NCEDC), **After NCEDC., Off coast of northern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YBH	**Yreka Blue Hor**	**3.53**	**80**	*e*Pn	Pn	09 24 42.3	-0.7
WDC	**Whiskeytown Da**	**3.69**	**98**	*e*Pn	Pn	09 24 44.2	-1.1
WDC				*e*Sn	Sn	09 25 28.9	-0.4
MOD	**Modoc**	**5.33**	**80**	*e*Pn	Pn	09 25 07.0	-0.9
	16nm,1.0s						
WVOR	**Wild Horse Val**	**6.63**	**76**	*e*Pn	Pn	09 25 23.7	-1.9
	16nm,1.4s						
WVOR				*e*Sn	Sn	09 26 42.6	+1.1
ISA	**Isabella**	**8.88**	**126**	*e*Pn	Pn	09 25 58.9	+2.4
	14nm,1.3s						
ARUT	**Antelope Range**	**11.27**	**103**	Pn	Pn	09 26 31.6	+2.4
	8.2nm,1.2s						
PV04	**Paradox Valley**	**14.45**	**95**	*e*Pn	Pn	09 27 17.0	+4.2
PV01	**Paradox Valley**	**14.78**	**96**	*e*Pn	Pn	09 27 22.0	+4.8
	2μm,1.5s						
BNM	**Barren Site**	**17.82**	**107**	*e*Pn	Pn	09 27 60.0	+3.6
	20nm,1.7s						
FFC	**Flin Flon**	**21.57**	**43**	*e*P	P	09 28 37.3	-0.5
	11nm,1.4s						

IDC 23 09:51:13.7±3.0, 29°.11S×175°.88W, h109^{km}±22^{km}, mb3.4/4, mb1 3.8/5, mb1mx3.6/16, mbtmp3.5/5, Error ellipse: s-maj=38.3km s-min=29.9km az=174.0

ISCJB 23 09:51:14.2±2.0, 29°.1S±0°.2×176°.1W±0°.2, h123^{km}±15^{km}, mb3.6/5, Error ellipse: s-maj=33.2km s-min=27.7km az=139.4

NEIC 23 09:51:14.0±1.7, 28°.98S×176°.00W, h110^{km}±13^{km}, mb3.6/1, Error ellipse: s-maj=25.0km s-min=19.4km az=147.0

ISC 23 09:51:14.5±2.1**, 29°.0S**±0°.2×**176°.0W**±0°.2**, h114**^{km}±16^{km}**, n9, σ0^{s}.99**/9**, mb3.6**/5**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**1.71**	**262**	P	**Pn**	**09 51 43.2**	**-0.9**
	90nm,0.3s,baz=73,slow=23,SNR=4.3						
RAO				S	**Sn**	**09 52 07.3**	**+3.3**
	218nm,0.3s,baz=56,slow=23,SNR=9.7						
URZ	**Urewera**	**10.85**	**210**	P	**Pn**	**09 53 46.5**	**+0.1**
	0.2nm,0.3s,baz=153,slow=17,SNR=3.0						
URZ				S	**Sn**	**09 55 57.7**	**+12**
	0.8nm,0.3s,baz=199,slow=23,SNR=5.9						
ASAR	**Alice Springs**	**44.96**	**265**	P	**P**	**09 59 19.2**	**+0.8**
	0.9nm,0.8s,mb3.5,baz=113,slow=7.5,SNR=8.5						
ASAR				ScP	ScP	10 04 34.3	-5.5
	0.2nm,0.5s,baz=110,slow=4.0,SNR=4.3						
WRAB	**Tennant Creek**	**45.83**	**270**	*e*P	**P**	**09 59 24.6**	**-0.6**
	0.7nm,0.6s,mb3.6						
WRA	**Warramunga Arr**	**45.83**	**270**	P	**P**	**09 59 24.7**	**-0.6**
	0.8nm,0.8s,mb3.5,baz=107,slow=7.6,SNR=4.7						
NVAR	**Mina Array Bea**	**86.05**	**42**	P	**P**	**10 03 42.3**	**+0.1**
	0.3nm,0.5s,mb3.4,baz=222,slow=10,SNR=2.8						
PDAR	**Pinedale Array**	**93.94**	**43**	P	**P**	**10 04 19.6**	**+0.5**
	0.4nm,0.9s,mb3.7,baz=233,slow=4.2,SNR=2.4						
MKAR	**Makanchi Array**	**118.24**	**310**	PKP	PKPdf	10 09 47.9	-0.1
	0.3nm,0.8s,baz=124,slow=3.9,SNR=4.4						
TORD	**Torodi Ar. Bea**	**164.04**	**172**	PKPab	PKPab	10 11 56.8	-1.7
	0.7nm,1.1s,baz=185,slow=5.1,SNR=2.6						

ISCJB 23 10:08:30.4±1.9, 21°.98S±0°.09×178°.1W±0°.1, h320^{km}±20^{km}, mb3.6/10, Error ellipse: s-maj=20.8km s-min=12.1km az=32.6

NEIC 23 10:08:31.5±1.4, 21°.96S×178°.06W, h313^{km}±17^{km}, mb3.9/3, Error ellipse: s-maj=21.2km s-min=11.0km az=141.0

IDC 23 10:08:33.6±2.8, 21°.96S×178°.00W, h347^{km}±27^{km}, mb3.4/7, mb1 3.7/9, mb1mx3.6/18, mbtmp3.4/9, Error ellipse: s-maj=29.0km s-min=15.3km az=146.0

ISC 23 10:08:31.8±1.8**, 22°.07S**±0°.09×**178°.0W**±0°.1**, h325**^{km}±20^{km}**, n21, σ0^{s}.90**/17**, mb3.6**/10**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**10.02**	**37**	P	**Pn**	**10 10 49.6**	**-0.6**
	1.5nm,0.3s,baz=235,slow=16,SNR=3.9						
AFI				S	**S**	**10 12 32.1**	**-11**
	2.2nm,0.3s,baz=6.3,slow=18,SNR=4.3						
AFI	**Afiamalu**	**10.02**	**37**	P	**Pn**	**10 10 49.6**	**-0.6**
AFI				S	**S**	**10 12 32.1**	**-11**
URZ	**Urewera**	**16.69**	**194**	P	**P**	**10 12 07.1**	**+1.2**
	1.7nm,0.3s,baz=338,slow=4.1,SNR=11						
URZ				S	**S**	**10 15 02.6**	**-1.0**
	0.3nm,0.3s,baz=252,slow=20,SNR=3.4						
EIDS	**Eidsvold**	**28.50**	**257**	*e*P	**P**	**10 13 57.9**	**-0.4**
	22nm,1.3s,mb4.2						
CTAO	**Charters Tower**	**33.41**	**267**	*e*P	**P**	**10 14 41.9**	**+0.8**
	2.2nm,0.5s,mb3.6						
ASAR	**Alice Springs**	**44.22**	**258**	P	**P**	**10 16 10.3**	**+0.3**
	3.4nm,0.8s,mb3.5,baz=95,slow=8.7,SNR=34						
WRAB	**Tennant Creek**	**44.44**	**264**	*e*P	**P**	**10 16 11.2**	**-0.5**
	2.2nm,0.7s,mb3.4						
WRA	**Warramunga Arr**	**44.44**	**264**	P	**P**	**10 16 11.2**	**-0.6**
	1.1nm,0.3s,mb3.5,baz=95,slow=7.8,SNR=21						
NVAR	**Mina Array Bea**	**82.13**	**43**	P	**P**	**10 20 17.5**	**+0.8**
	0.9nm,0.7s,mb3.7,baz=227,slow=9.6,SNR=3.7						
NVAR	**Mina Array Bea**	**82.13**	**43**	P	**P**	**10 20 17.5**	**+0.8**
TXAR	**Lajitas Array**	**87.86**	**57**	P	**P**	**10 20 46.6**	**+1.4**
	0.5nm,0.8s,mb3.4,baz=220,slow=6.8,SNR=6.7						
PDAR	**Pinedale Array**	**90.07**	**43**	P	**P**	**10 20 54.8**	**-0.4**
	0.6nm,0.7s,mb3.6,baz=195,slow=1.8,SNR=6.0						
CMAR	**Chiang Mai Arr**	**90.67**	**290**	P	**P**	**10 20 59.2**	**+0.7**
	0.8nm,0.3s,mb4.1,baz=118,slow=3.1,SNR=7.0						
YKA	**Yellowknife Ar**	**97.91**	**25**	P	**P**	**10 21 28.7**	**-1.9**
	0.1nm,0.5s,mb3.3,baz=239,slow=4.7,SNR=3.0						
MKAR	**Makanchi Array**	**112.29**	**313**	PKiKP	PKiKP	10 26 26.0	-3.1
	0.1nm,0.6s,baz=100,slow=4.4,SNR=3.2						
ARCES	**ARCESS Array B**	**130.46**	**349**	PKP	PKPdf	10 27 01.3	-2.0
	5.9nm,1.0s,baz=0.0,slow=0.9,SNR=7.0						
ARCES	**ARCESS Array B**	**130.46**	**349**	PKP	PKPdf	10 27 01.3	-2.0
AKASG	**Malin Array Be**	**144.39**	**330**	PKP	PKPdf	10 27 25.8	-3.5
	0.4nm,0.3s,baz=41,slow=4.1,SNR=6.0						
BRTR	**Keskin Array B**	**147.90**	**310**	PKPbc	PKPbc	10 27 36.4	-2.7
GERES	**GERESS Array B**	**151.71**	**344**	PKPbc	PKPbc	10 27 46.1	-1.8
	0.3nm,0.4s,baz=29,slow=2.2,SNR=1.9						
TORD	**Torodi Ar. Bea**	**171.12**	**178**	PKP	PKPdf	10 28 00.2	-2.0
	0.4nm,0.8s,baz=340,slow=1.2,SNR=2.3						
TORD				PKPab	PKPab	10 29 23.8	+0.4
	0.3nm,0.9s,baz=157,slow=7.8,SNR=2.3						

ISCJB 23 10:34:50.8±0.5, 7°.39N±0°.06×73°.06W±0°.06, h154^{km}±6^{km}, mb3.9/4, Error ellipse: s-maj=13.0km s-min=5.4km az=41.2

NEIC 23 10:34:51.0±0.5, 7°.42N×73°.26W, Error ellipse: s-maj=14.5km s-min=9.2km az=130.0

FUNV 23 10:34:51.7, 7°.42N×73°.24W, h146^{km}, MW3.8

IDC 23 10:34:51.1±0.6, 7°.38N×73°.08W, h141^{km}±6^{km}, mb3.7/4, mb1 4.0/7, mb1mx3.5/20, mbtmp3.9/7, Error ellipse: s-maj=19.2km s-min=7.5km az=128.0

ISC 23 10:34:51.7±0.5**, 7°.39N**±0°.06×**73°.06W**±0°.07**, h148**^{km}±6^{km}**, n34, σ0^{s}.75**/39**, mb3.9**/4**, 10C, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	**Capacho**	**0.88**	**57**	⇑*i*P	**Pn**	**10 35 15.9**	**+0.6**
CAPV				*e*S	**Sn**	**10 35 33.6**	**+0.2**
VIGV	**El Vigia**	**2.22**	**49**	⇑*i*P	**Pn**	**10 35 30.0**	**+0.7**
VIGV				*e*S	**Sn**	**10 35 58.2**	**-0.1**
SOCV	**Socops**	**2.36**	**68**	⇑*i*P	**Pn**	**10 35 32.0**	**+0.9**
SOCV				*e*S	**Sn**	**10 36 01.4**	**0.0**
ROSC	**El Rosal**	**2.81**	**207**	P	**Pn**	**10 35 37.8**	**+1.1**
	59nm,0.3s,baz=66,slow=3.8,SNR=67						
ROSC				S	**Sn**	**10 36 11.2**	**-0.2**
	62nm,0.3s,baz=284,slow=23,SNR=12						
SDV	**Santo Domingo**	**2.83**	**58**	P	**Pn**	**10 35 37.7**	**+0.8**
	138nm,0.3s,baz=288,slow=5.7,SNR=1728						
SDV				S	**Sn**	**10 36 11.3**	**-0.4**
	93nm,0.3s,baz=44,slow=15,SNR=11						
VIRV	**Villa del Rosa**	**3.17**	**12**	⇑*i*P	**Pn**	**10 35 39.6**	**-1.5**
VIRV				*e*S	**Sn**	**10 36 15.2**	**-4.3**
ELOV	**Elorza**	**3.57**	**96**	⇑*e*P	**Pn**	**10 35 47.5**	**+1.1**
QARV	**Quebrada Arrib**	**3.76**	**42**	⇑*i*P	**Pn**	**10 35 49.3**	**+0.4**
CURV	**Curarigua**	**4.03**	**49**	⇑*i*P	**Pn**	**10 35 52.3**	**0.0**
SANV	**Sanarito**	**4.07**	**59**	⇑*i*P	**Pn**	**10 35 53.2**	**+0.3**
DABV	**Dabajuro**	**4.25**	**34**	*e*P	**Pn**	**10 35 55.2**	**-0.1**
SIQV	**Siquisique**	**4.57**	**45**	⇑*i*P	**Pn**	**10 35 59.2**	**-0.3**
TEPV	**Terepaima**	**4.61**	**56**	*e*P	**Pn**	**10 36 00.2**	**+0.3**
MAPV	**Macapo**	**5.16**	**62**	*e*P	**Pn**	**10 36 07.7**	**+0.4**
BAUV	**El Baul**	**5.21**	**72**	*e*P	**Pn**	**10 36 07.2**	**-0.7**
MONV	**Montecano**	**5.47**	**34**	*e*P	**Pn**	**10 36 10.3**	**-1.1**
TURV	**Turiamo**	**5.99**	**59**	*e*P	**Pn**	**10 36 18.3**	**0.0**
CAOV	**Caicara del Or**	**6.69**	**90**	*e*P	**Pn**	**10 36 26.9**	**-0.7**
BCIP	**Isla Barro Col**	**6.93**	**285**	*e*Pn	**Pn**	**10 36 26.7**	**-4.2**
MERV	**Las Mercedes**	**6.95**	**74**	*e*P	**Pn**	**10 36 30.5**	**-0.6**
CUPV	**Cœpira**	**7.67**	**69**	⇑*i*P	**Pn**	**10 36 39.8**	**-0.9**
PCRV	**Puerto La Cruz**	**8.78**	**71**	*e*P	**Pn**	**10 36 55.1**	**-0.4**
PCRV	**Puerto La Cruz**	**8.78**	**71**	P	**Pn**	**10 36 57.1**	**+1.6**
	8.1nm,0.3s,baz=216,slow=7.7,SNR=26						
PCRV				S	**Sn**	**10 38 29.7**	**-3.4**
	1.9nm,0.3s,baz=183,slow=19,SNR=3.2						
OTAV	**Otavalo**	**8.90**	**217**	*e*Pn	**Pn**	**10 36 55.8**	**-1.5**
	5.4nm,0.8s						
OTAV				*e*Sn	**Sn**	**10 38 36.1**	**-0.1**
SDDR	**Presa de Saban**	**11.66**	**8**	*e*Pn	**Pn**	**10 37 34.1**	**+0.5**
ATAH	**Atahualpa**	**15.25**	**201**	P	**Pn**	**10 38 24.8**	**+5.4**
	0.6nm,0.3s,baz=17,slow=13,SNR=4.4						
SCHQ	**Schefferville**	**47.58**	**5**	P	**P**	**10 43 12.9**	**+0.7**
	0.8nm,0.5s,mb3.6,baz=180,slow=10,SNR=5.9						
SCHQ				pP	pP	10 43 45.2	-0.6
	2.0nm,0.8s,baz=195,slow=9.3,SNR=2.2						
SCHQ	**Schefferville**	**47.58**	**5**	P	**P**	**10 43 12.9**	**+0.7**
SCHQ				pP	pP	10 43 45.2	-0.6
PLCA	**Paso Flores**	**47.93**	**177**	P	**P**	**10 43 14.8**	**-0.3**
	1.2nm,0.8s,mb3.6,baz=326,slow=4.2,SNR=4.0						
YKA	**Yellowknife Ar**	**62.76**	**340**	P	**P**	**10 45 01.2**	**+0.3**
	0.6nm,0.5s,mb3.7,baz=131,slow=6.6,SNR=20						
YKA				pP	pP	10 45 34.1	-2.1
	0.6nm,0.6s,baz=132,slow=7.1,SNR=5.3						
ARCES	**ARCESS Array B**	**86.13**	**20**	P	**P**	**10 47 16.3**	**+0.6**
	15nm,1.2s,mb4.6,baz=269,slow=5.0,SNR=2.9						
MKAR	**Makanchi Array**	**121.78**	**20**	PKP	PKPdf	10 53 28.3	0.0
	0.2nm,0.5s,baz=304,slow=3.1,SNR=3.2						
ASAR	**Alice Springs**	**149.48**	**235**	PKPbc	PKPbc	10 54 22.9	-1.4
	0.4nm,0.6s,baz=121,slow=2.8,SNR=9.4						
WRA	**Warramunga Arr**	**150.65**	**242**	PKPbc	PKPbc	10 54 27.2	0.0
	0.6nm,0.3s,baz=106,slow=2.8,SNR=9.6						
WRA				pPKPbc	pPKPbc	10 55 03.8	-2.6
	0.3nm,0.3s,baz=109,slow=2.4,SNR=1.7						

IDC 23 10:48:57.5±2.1, 40°.66N×29°.43W, h0^{km}, mb3.5/3, mb1 3.6/3, mb1mx3.4/23, mbtmp3.5/3, Error ellipse: s-maj=82.7km s-min=30.0km az=46.0

ISCJB 23 10:48:58.9±1.4, 40°.43N±0°.06×29°.1W±0°.2, h10^{km}, mb3.4/3, Error ellipse: s-maj=23.3km s-min=8.0km az=177.2

PDA 23 10:49:00.5±0.6, 40°.61N×29°.40W, h5^{km}, MD3.9, ML3.4, Error ellipse: s-maj=8.6km s-min=2.9km az=89.0

CSEM 23 10:49:00.5, 40°.61N×29°.40W, h5^{km}, ML3.4, After PDA

ISC 23 10:48:58.6±1.0**, 40°.40N**±0°.06×**29°.4W**±0°.2**, h10**^{km}**, n24, σ0^{s}.64**/36**, mb3.4**/3**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	**Cedros**	**1.85**	**162**	*e*P	**Pn**	**10 49 31.0**	**+0.6**
PCED				*e*S	**Sn**	**10 49 53.5**	**-0.3**
PCED				A		10 49 55.1	
	115nm,0.4s						
PCED	**Cedros**	**1.85**	**162**	*e*P	**Pn**	**10 49 31.0**	**+0.6**
PCED				*e*S	**Sn**	**10 49 53.5**	**-0.3**
CALA	**Caldeira**	**1.89**	**163**	*e*P	**Pn**	**10 49 31.9**	**+0.9**
CALA				*e*S	**Sn**	**10 49 54.7**	**-0.2**
CALA	**Caldeira**	**1.89**	**163**	*e*P	**Pn**	**10 49 31.9**	**+0.9**
CALA				*e*S	**Sn**	**10 49 54.7**	**-0.2**
ROSA	**Rosais**	**1.90**	**151**	*e*P	**Pn**	**10 49 31.2**	**+0.1**
ROSA				*e*S	**Sn**	**10 49 54.7**	**-0.4**
ROSA	**Rosais**	**1.90**	**151**	*e*P	**Pn**	**10 49 31.2**	**+0.1**
ROSA				*e*S	**Sn**	**10 49 54.7**	**-0.4**
HOR	**Horta**	**1.96**	**162**	*e*S	**Sn**	**10 49 56.6**	**0.0**
HOR	**Horta**	**1.96**	**162**	*e*S	**Sn**	**10 49 56.6**	**0.0**
PMAN	**Manadas**	**2.04**	**149**	*e*P	**Pn**	**10 49 32.8**	**-0.1**
PMAN				*e*S	**Sn**	**10 49 58.0**	**-0.4**
PMAN				A		10 49 59.3	
	46nm,0.4s						
PMAN	**Manadas**	**2.04**	**149**	*e*P	**Pn**	**10 49 32.8**	**-0.1**
PMAN				*e*S	**Sn**	**10 49 58.0**	**-0.4**
PICO	**Pico**	**2.04**	**158**	*e*P	**Pn**	**10 49 33.6**	**+0.6**
PICO				*e*S	**Sn**	**10 49 58.4**	**-0.1**
PICO	**Pico**	**2.04**	**158**	*e*P	**Pn**	**10 49 33.6**	**+0.6**
PICO				*e*S	**Sn**	**10 49 58.4**	**-0.1**
PID	**Ribeirinha**	**2.19**	**152**	*e*P	**Pn**	**10 49 35.7**	**+0.6**
PID				*e*S	**Sn**	**10 50 01.6**	**-0.7**
PID	**Ribeirinha**	**2.19**	**152**	*e*P	**Pn**	**10 49 35.7**	**+0.6**
PID				*e*S	**Sn**	**10 50 01.6**	**-0.7**
PSET	**Sete Cidades**	**3.85**	**131**	*e*P	**Pn**	**10 49 57.8**	**-0.1**
PSET	**Sete Cidades**	**3.85**	**131**	*e*P	**Pn**	**10 49 57.8**	**-0.1**
CMLA	**Cha da Macela**	**4.01**	**130**	*e*P	**Pn**	**10 50 00.1**	**0.0**
CMLA	**Cha da Macela**	**4.01**	**130**	*e*P	**Pn**	**10 50 00.1**	**0.0**
PSMA	**Santa Maria**	**4.77**	**134**	*e*P	**Pn**	**10 50 10.7**	**+0.2**
PSMN	**Pico do Norte,**	**4.80**	**133**	*e*P	**Pn**	**10 50 10.1**	**-0.8**
PSMN	**Pico do Norte,**	**4.80**	**133**	*e*P	**Pn**	**10 50 10.1**	**-0.8**
TORD	**Torodi Ar. Bea**	**38.47**	**126**	P	**P**	**10 56 22.4**	**+1.5**
	0.7nm,0.9s,mb3.4,baz=336,slow=6.6,SNR=3.6						
YKA	**Yellowknife Ar**	**53.03**	**325**	P	**P**	**10 58 13.8**	**-1.5**
	0.2nm,0.7s,mb3.2,baz=62,slow=8.3,SNR=4.3						
MKAR	**Makanchi Array**	**74.04**	**42**	P	**P**	**11 00 34.4**	**0.0**
	0.8nm,0.9s,mb3.6,baz=316,slow=6.0,SNR=6.6						

ECX 23 11:03:29.0±0.2, 32°.37N×115°.34W, h10^{km}, MD3.1, ML3.2

ISCJB 23 11:03:30.6±0.3, 32°.51N±0°.02×115°.33W±0°.03, h10^{km}, Error ellipse: s-maj=3.4km s-min=3.1km az=13.5

NEIC 23 11:03:31.4, 32°.43N×115°.32W, h6^{km}, ML3.1(PAS), After PAS.

ISC 23 11:03:31.1±0.3**, 32°.53N**±0°.02×**115°.32W**±0°.02**, h10**^{km}**, n32, σ1^{s}.27**/41**, 5C-8D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNR	**Schaffner Ranc**	**0.35**	**343**	⇓*i*P	**Pg**	**11 03 40.2**	**+2.2**
SGL	**Mount Signal**	**0.36**	**289**	⇑*i*P	**Pg**	**11 03 39.0**	**+0.7**
COA	**Coachella**	**0.37**	**26**	⇓*i*P	**Pg**	**11 03 40.5**	**+2.1**
COK	**Cook Ranch**	**0.47**	**313**	⇓*i*P	**Pg**	**11 03 41.4**	**+1.1**
YUH	**Yuha Desert**	**0.53**	**283**	⇑*i*P	**Pg**	**11 03 41.5**	**+0.2**
EMX	**El Mayor**	**0.54**	**173**	⇓*e*P	**Pg**	**11 03 43.3**	**+1.7**
EMX				*e*S	**Sg**	**11 03 50.2**	**+1.5**
EMX				⇓*e*		11 03 51.1	
	comp=E,730nm,0.3s						
SWSC	**Sam W. Stewart**	**0.58**	**316**	P	**Pg**	**11 03 42.9**	**+0.7**
	baz=0.7,SNR=52						
112A	**Yuma**	**0.62**	**89**	P	**Pg**	**11 03 43.2**	**+0.1**
	baz=0.6,SNR=485						
RMX	**La Rumorosa**	**0.65**	**277**	*e*P	**Pg**	**11 03 43.8**	**+0.2**
YMD	**Yuma Desert**	**0.65**	**87**	⇑*i*P	**Pg**	**11 03 43.7**	**0.0**
CRR	**Carrizo Plain**	**0.66**	**303**	⇑*i*P	**Pg**	**11 03 44.1**	**+0.4**
GLA	**Glamis**	**0.67**	**38**	P	**Pg**	**11 03 44.5**	**+0.6**
	baz=0.7,SNR=52						
GLA	**Glamis**	**0.67**	**38**	*e*Pg	**Pg**	**11 03 44.5**	**+0.5**
GLA				*e*Sg	**Sg**	**11 03 54.0**	**+1.3**
DVTC	**Desert V Tower**	**0.67**	**281**	P	**Pg**	**11 03 44.4**	**+0.3**
	baz=0.7,SNR=14						
RDX	**Rancho Dawling**	**0.80**	**222**	*e*P	**Pg**	**11 03 45.8**	**-0.6**
RDX				*e*S	**Sg**	**11 03 57.0**	**+0.1**
RDX				⇓*e*		11 03 58.6	
	comp=N,929nm,0.4s						
MONP	**Monument Peak**	**1.00**	**292**	P	**Pg**	**11 03 50.1**	**-0.2**
	baz=1.0,SNR=52						
ECBX	**El Chinero**	**1.08**	**168**	*e*P	**Pg**	**11 03 53.0**	**+1.2**
ECBX				*e*S	**Sg**	**11 04 06.5**	**+0.7**
ECBX				*e*		11 04 08.0	
	comp=E,616nm,0.3s						
ECBX				*e*		11 04 09.0	
	comp=N,567nm,0.6s						
BC3	**Big Chuckw Mtn**	**1.13**	**354**	P	**Pg**	**11 03 51.6**	**-1.2**
	baz=1.2,SNR=127						
BAR	**Barrett**	**1.15**	**278**	*e*Pg	**Pg**	**11 03 52.5**	**-0.7**
BAR				*e*Sg	**Sg**	**11 04 07.4**	**-0.8**
CBX	**Cerro Bola**	**1.16**	**260**	*e*PN	**Pg**	**11 03 52.5**	**-0.8**
113A	**Mohawk Valley,**	**1.33**	**79**	P	**Pn**	**11 03 54.0**	**-1.7**
	baz=1.3,SNR=190						
ECNX	**Esteban Cantu**	**1.39**	**232**	*e*PN	**Pn**	**11 03 53.6**	**-2.9**
PBX	**Punta Banda**	**1.43**	**237**	*e*PN	**Pn**	**11 03 55.9**	**-1.1**
PFO	**Pinyon Flat Ob**	**1.44**	**319**	P	**Pn**	**11 03 55.6**	**-1.6**
	baz=1.5,SNR=7.4						
PFO	**Pinyon Flat Ob**	**1.44**	**319**	⇓*i*Pn	**Pn**	**11 03 55.5**	**-1.7**
PFO				*e*Sg	**Sn**	**11 04 13.5**	**-2.6**
SPX	**San Pedro Mart**	**1.48**	**185**	*e*PN	**Pn**	**11 03 57.2**	**-0.6**
SPX				⇑*e*		11 04 20.6	
	comp=N,208nm,0.4s						
SPX				⇓*e*		11 04 25.0	
	comp=E,228nm,0.5s						
114A	**Black Gap (USA**	**2.07**	**83**	P	**Pn**	**11 04 04.6**	**-1.2**
	baz=2.1,SNR=22						
214A	**Organ Pipe Nat**	**2.20**	**104**	P	**Pn**	**11 04 05.2**	**-2.4**
	baz=2.2,SNR=57						
LDFC	**Landfair**	**2.55**	**4**	Pn	**Pn**	**11 04 13.8**	**+1.4**
LDFC				*e*Sg	**Sg**	**11 04 57.1**	**+4.1**
MWC	**Mount Wilson**	**2.85**	**307**	Pn	**Pn**	**11 04 19.0**	**+2.4**
TUC	**Tucson**	**3.84**	**92**	*e*Pn	**Pn**	**11 04 28.4**	**-1.8**
TUC				*e*Sg	**Sg**	**11 05 34.0**	**-0.4**
WUAZ	**Wupatki**	**4.43**	**47**	*e*Pn	**Pn**	**11 04 39.6**	**+1.4**
WUAZ				*e*Sg	**Sg**	**11 05 51.6**	**-1.7**

IDC 23 11:03:51.4±0.5, 40°.55N×29°.50W, h0^{km}, mb4.4/34, mb1 4.5/35, mb1mx4.5/39, mbtmp4.4/35, ML4.7/1, MS4.7/37, Ms1 4.7/37, ms1mx4.7/38, Error ellipse: s-maj=13.3km s-min=10.2km az=172.0

ISCJB 23 11:03:52.3±0.1, 40°.45N±0°.02×29°.44W±0°.02, h10^{km}, mb5.1/252, MS5.0/214, Error ellipse: s-maj=2.9km s-min=2.0km az=19.2

BJI 23 11:03:52.9, 40°.70N×29°.40W, h7^{km}, mB5.7/20, mb5.1/32, Ms5.3/21, Ms7 5.0/20

CSEM 23 11:03:54.2±0.1, 40°.44N×29°.39W, h12^{km}, mb5.2/99, Ms4.8, Mw5.3, Error ellipse: s-maj=5.3km s-min=2.9km az=9.0

NEIC 23 11:03:55.0±0.2, 40°.68N×29°.40W, h10^{km}, mb5.2/195, MS5.0/168, Error ellipse: s-maj=6.1km s-min=2.4km az=184.0

PDA 23 11:03:54.1±1.1, 40°.67N×29°.34W, h5^{km}, MD4.4, ML4.7, Error ellipse: s-maj=8.0km s-min=5.0km az=86.0

GCMT 23 11:03:55.0±0.1, 40°.73N×29°.26W, h12^{km}, MW5.3/107, Moment Tensor Solution. s51,c78; s107,c199; Duration: 1^{s}.1 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.28±.02; $M_{\theta\theta}$0.16±.02; $M_{\phi\phi}$1.12±.02; $M_{r\theta}$0.17±.06; $M_{\theta\phi}$0.25±.01; $M_{\phi r}$-0.16±.05; Best double couple: $M_0$1.25200×10^{17} NP1:ϕ_s202.00000°, δ43.00000°, λ-78.00000°. NP2:ϕ_s6.00000°, δ48.00000°, λ-101.00000°. Principal axes: T 1.1880, Plg3.0000°, Azm103.0000°; N 0.1310, Plg8.0000°, Azm13.0000°; P -1.3150, Plg81.0000°, Azm211.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

INMG 23 11:03:55.5, 40°.70N×29°.20W, h5^{km}, ML4.7

SZGRF 23 11:03:56.6, 40°.85N×29°.68W, h33^{km}, mb5.0, MS5.1, Azores Islands region

MOS 23 11:03:56.7±1.3, 40°.69N×29°.40W, h35^{km}, mb5.3/102, MS4.9/50, Error ellipse: s-maj=6.8km s-min=3.4km az=145.9

DJA 23 11:03:56, 40°.73N×29°.95W, h10^{km}, mb5.3/6

ISC 23 11:03:54.1±0.1**, 40°.40N**±0°.02×**29°.40W**±0°.02**, h10**^{km}**, (h14**^{km}±1.2^{km}**:pP-P), n1137, σ1^{s}.36**/1027**, mb5.1**/251**, MS5.0**/214**, 28C-24D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	**Cedros**	**1.85**	**163**	*e*P	**Pn**	**11 04 25.1**	**-0.8**
PCED				*e*S	**Sn**	**11 04 47.9**	**-1.5**
PCED				A		11 04 49.8	
	1μm,0.3s						
PCED	**Cedros**	**1.85**	**163**	*e*P	**Pn**	**11 04 25.1**	**-0.8**
PCED				*e*S	**Sn**	**11 04 47.9**	**-1.5**
CALA	**Caldeira**	**1.90**	**163**	*i* P	**Pn**	**11 04 26.4**	**-0.1**
CALA				*e*S	**Sn**	**11 04 49.4**	**-1.1**
ROSA	**Rosais**	**1.91**	**152**	*i* P	**Pn**	**11 04 25.1**	**-1.5**
ROSA				*i* S	**Sn**	**11 04 49.2**	**-1.5**
HOR	**Horta**	**1.97**	**162**	*e*P	**Pn**	**11 04 27.0**	**-0.5**
HOR				*e*S	**Sn**	**11 04 51.1**	**-1.1**
HOR	**Horta**	**1.97**	**162**	*e*P	**Pn**	**11 04 27.0**	**-0.5**
HOR				*e*S	**Sn**	**11 04 51.1**	**-1.1**
PMAN	**Manadas**	**2.04**	**150**	*i* P	**Pn**	**11 04 26.7**	**-1.8**
PMAN				*e*S	**Sn**	**11 04 52.2**	**-1.8**
PMAN				A		11 04 56.9	
	1μm,0.5s						
PICO	**Pico**	**2.05**	**158**	*e*P	**Pn**	**11 04 27.9**	**-0.7**
PICO				*e*S	**Sn**	**11 04 52.9**	**-1.2**
PICO	**Pico**	**2.05**	**158**	*e*P	**Pn**	**11 04 27.9**	**-0.7**
PICO				*e*S	**Sn**	**11 04 52.9**	**-1.2**
PID	**Ribeirinha**	**2.20**	**153**	*e*P	**Pn**	**11 04 29.5**	**-1.1**
PID				*e*S	**Sn**	**11 04 56.0**	**-1.8**
PID	**Ribeirinha**	**2.20**	**153**	*e*P	**Pn**	**11 04 29.5**	**-1.1**
PID				*e*S	**Sn**	**11 04 56.0**	**-1.8**
ADH	**Angra Heroismo**	**2.42**	**135**	*e*P	**Pn**	**11 04 31.3**	**-2.4**
ADH	**Angra Heroismo**	**2.42**	**135**	*e*P	**Pn**	**11 04 31.3**	**-2.4**
PDA	**Ponta Delgada**	**3.94**	**131**	*e*P	**Pn**	**11 04 52.4**	**-2.2**
PDA	**Ponta Delgada**	**3.94**	**131**	*e*P	**Pn**	**11 04 52.4**	**-2.2**
CMLA	**Cha da Macela**	**4.01**	**130**	Pn	**Pn**	**11 04 53.5**	**-2.0**
	4μm,0.6s,SNR=25						
CMLA	**Cha da Macela**	**4.01**	**130**	*e*P	**Pn**	**11 04 53.6**	**-1.9**
CMLA				*e*S	**Sn**	**11 05 38.5**	**-4.0**
CMLA				A		11 05 45.3	
	330nm,0.4s						
CMLA	**Cha da Macela**	**4.01**	**130**	*e*Pn	**Pn**	**11 04 53.8**	**-1.8**
CMLA				*e*Sn	**Sn**	**11 05 42.5**	**-0.1**
CMLA	**Cha da Macela**	**4.01**	**130**	*e*Pn	**Pn**	**11 04 53.8**	**-1.7**
CMLA				*e*Sn	**Sn**	**11 05 42.5**	**0.0**
PSMA	**Santa Maria**	**4.77**	**134**	*e*P	**Pn**	**11 05 04.6**	**-1.4**
PSMA				*e*S	**Sn**	**11 05 57.5**	**-3.9**
PSMA				A		11 06 00.1	
	147nm,0.5s						
PSMN	**Pico do Norte,**	**4.80**	**134**	*e*P	**Pn**	**11 05 04.0**	**-2.4**
PSMN				*e*S	**Sn**	**11 05 57.4**	**-4.7**
PSMN	**Pico do Norte,**	**4.80**	**134**	*e*P	**Pn**	**11 05 04.0**	**-2.4**
FUL	**Funchal**	**12.69**	**124**	*e*P	**Pn**	**11 06 56.2**	**+1.6**
FUL	**Funchal**	**12.69**	**124**	*e*P	**Pn**	**11 06 56.2**	**+1.6**
EHIG	**Higuera**	**15.19**	**138**	P	**Pn**	**11 07 31.6**	**+3.0**
	142nm,3.0s						
EHIG	**Higuera**	**15.19**	**138**	P	**Pn**	**11 07 31.5**	**+2.9**
	142nm,3.0s						
EMAZ	**Mazaricos**	**15.47**	**74**	P	**Pn**	**11 07 35.9**	**+3.7**
	734nm,3.8s						
EMAZ	**Mazaricos**	**15.47**	**74**	P	**Pn**	**11 07 35.9**	**+3.6**
	734nm,3.8s						
PMAFR	**Mafra**	**15.56**	**89**	*e*P	**Pn**	**11 07 34.6**	**+1.1**
	217nm,1.4s						
PMAFR				*e*LR	LR	11 11 10.9	
	7μm,20.0s						
PMAFR	**Mafra**	**15.56**	**89**	*e*P	**Pn**	**11 07 34.6**	**+1.1**
	217nm,1.4s						
STS	**Santiago**	**15.78**	**74**	P	**Pn**	**11 07 39.6**	**+3.3**
STS				pmax	pmax		
	comp=Z,110nm,1.4s						
STS	**Santiago**	**15.78**	**74**	P	**Pn**	**11 07 39.6**	**+3.3**
	comp=Z,110nm,1.4s						
STS	**Santiago**	**15.78**	**74**	P	**Pn**	**11 07 39.6**	**+3.3**
	comp=Z,110nm,1.4s						
EGOM	**La Gomera**	**15.81**	**137**	P	**Pn**	**11 07 40.0**	**+3.1**
	comp=Z,53nm,1.3s						
EGOM	**La Gomera**	**15.81**	**137**	P	**Pn**	**11 07 40.0**	**+3.2**
	comp=Z,53nm,1.3s						
CCAN	**Las Canadas**	**16.09**	**135**	P	**Pn**	**11 07 43.9**	**+3.6**
	comp=Z,48nm,1.0s						
CCAN	**Las Canadas**	**16.09**	**135**	P	**Pn**	**11 07 43.9**	**+3.6**
	comp=Z,48nm,1.0s						
PTOM	**Tomar**	**16.11**	**86**	*e*P	**Pn**	**11 07 38.9**	**-1.6**
	comp=Z,180nm,1.9s						
PTOM	**Tomar**	**16.11**	**86**	*e*P	**Pn**	**11 07 38.9**	**-1.6**
	comp=Z,180nm,1.9s						
ELOB	**Lobios**	**16.15**	**78**	P	**Pn**	**11 07 44.2**	**+3.2**
	comp=Z,504nm,2.3s						
ELOB	**Lobios**	**16.15**	**78**	P	**Pn**	**11 07 44.2**	**+3.2**
	comp=Z,504nm,2.3s						
PCAB	**Cabril**	**16.18**	**78**	*e*P	**Pn**	**11 07 43.9**	**+2.5**
	comp=Z,96nm,2.1s						
PCAB	**Cabril**	**16.18**	**78**	*e*P	**Pn**	**11 07 43.9**	**+2.5**
	comp=Z,96nm,2.1s						
PTEO	**Sao Teotonio**	**16.33**	**93**	*e*P	**Pn**	**11 07 43.7**	**+0.3**
	comp=Z,159nm,1.8s						
PVRL	**Vila Real**	**16.44**	**80**	*e*P	**Pn**	**11 07 43.5**	**-1.2**
	comp=Z,139nm,1.5s						
MORF	**Marmelete**	**16.46**	**94**	*e*P	**Pn**	**11 07 44.9**	**-0.1**
	comp=Z,122nm,1.4s						
MORF				*e*LR	LR	11 11 29.6	
	comp=Z,7μm,18.0s						
EVOP	**Sao Brissos**	**16.54**	**90**	*e*P	**Pn**	**11 07 46.2**	**+0.1**
EVOP	**Sao Brissos**	**16.54**	**90**	*e*P	**Pn**	**11 07 47.8**	**+1.7**
EVO	**Evora**	**16.62**	**90**	*e*P	**Pn**	**11 07 47.8**	**+0.7**
EVO				*e*MLR	MLR		
	comp=Z,10μm,20.8s						

EVO	Evora	16.62	90	*e*P	Pn	11 07 46.3	-0.8
	comp=Z,97nm,1.8s						
MTE	Manteigas	16.65	83	*e*P	Pn	11 07 49.0	+1.5
	comp=Z,190nm,1.7s						
MTE				*e*LR	LR	11 11 33.3	
	comp=Z,7µm,20.0s						
MTE	Manteigas	16.65	83	*e*Pn	Pn	11 07 47.7	+0.2
	comp=Z,138nm,1.1s						
MTE	Manteigas	16.65	83	*e*Pn	Pn	11 07 47.7	+0.2
	comp=Z,138nm,1.1s						
MTE	Manteigas	16.65	83	*e*P	Pn	11 07 49.0	+1.5
	comp=Z,190nm,1.7s						
EOSO	Osorio	16.78	133	P	Pn	11 07 51.9	+2.7
	comp=Z,198nm,1.5s						
EOSO	Osorio	16.78	133	P	Pn	11 07 51.9	+2.7
	comp=Z,198nm,1.5s						
ERUA	La Rua	16.82	76	P	Pn	11 07 52.1	+2.5
ERUA				pmax	pmax		
	comp=Z,13nm,0.9s						
ERUA	La Rua	16.82	76	P	Pn	11 07 52.1	+2.6
	comp=Z,13nm,0.9s						
ERUA	La Rua	16.82	76	P	Pn	11 07 52.1	+2.5
	comp=Z,13nm,0.9s						
EPON	Pontenova	16.83	73	P	Pn	11 07 52.5	+2.8
	comp=Z,214nm,1.7s						
EPON	Pontenova	16.83	73	P	Pn	11 07 52.5	+2.8
	comp=Z,214nm,1.7s						
PBEJ	Beja	16.86	91	*e*P	Pn	11 07 49.7	-0.4
PBEJ	Beja	16.86	91	*e*P	Pn	11 07 49.7	-0.4
PESTR	Estremoz	16.87	88	*e*P	Pn	11 07 52.3	+2.0
	comp=Z,72nm,2.2s						
PESTR				*e*LR	LR	11 11 38.9	
	comp=Z,6µm,20.0s						
PESTR	Estremoz	16.87	88	*e*P	Pn	11 07 52.3	+2.0
	comp=Z,72nm,2.2s						
PMRV	Marv??o	16.91	86	*e*P	Pn	11 07 53.0	+2.2
	comp=Z,128nm,1.7s						
PMRV				*e*LR	LR	11 11 42.6	
	comp=Z,7µm,20.0s						
PMRV	Marv??o	16.91	86	*e*P	Pn	11 07 53.0	+2.2
	comp=Z,128nm,1.7s						
MVO	Moncorvo	16.96	80	*e*P	Pn	11 07 53.1	+1.7
	comp=Z,143nm,1.4s						
MVO				*e*LR	LR	11 11 42.6	
	comp=Z,5µm,20.0s						
MVO	Moncorvo	16.96	80	*e*P	Pn	11 07 53.1	+1.7
	comp=Z,143nm,1.4s						
PBDV	Barranco-do-Ve	17.02	94	*e*P	Pn	11 07 52.7	+0.5
	comp=Z,233nm,1.8s						
PBDV				*e*LR	LR	11 11 46.4	
	comp=Z,6µm,18.0s						
PBDV	Barranco-do-Ve	17.02	94	*e*P	Pn	11 07 52.7	+0.5
	comp=Z,233nm,1.8s						
ECAL	Calabor	17.13	77	P	Pn	11 07 56.5	+2.9
	comp=Z,520nm,3.4s						
ECAL	Calabor	17.13	77	P	Pn	11 07 56.5	+3.0
	comp=Z,520nm,3.4s						
PVAQ	Vaqueiros	17.14	93	*e*P	Pn	11 07 53.8	+0.2
	comp=Z,134nm,1.8s						
PVAQ				*e*LR	LR	11 11 46.4	
	comp=Z,5µm,20.0s						
PVAQ	Vaqueiros	17.14	93	*e*P	Pn	11 07 53.8	+0.2
	comp=Z,134nm,1.8s						
EBAD	Badajoz	17.34	88	P	Pn	11 07 58.3	+2.2
	comp=Z,387nm,3.2s						
EBAD	Badajoz	17.34	88	P	Pn	11 07 58.3	+2.2
	comp=Z,387nm,3.2s						
PBAR	Barrancos	17.45	90	*e*P	Pn	11 07 58.9	+1.4
	comp=Z,60nm,0.9s						
PBAR				*e*LR	LR	11 11 55.7	
	comp=Z,7µm,20.0s						
PBAR	Barrancos	17.45	90	*e*P	Pn	11 07 58.9	+1.4
	comp=Z,60nm,0.9s						
EMIN	Mina Concepcio	17.84	91	P	Pn	11 08 05.2	+2.9
	comp=Z,184nm,2.4s						
EMIN	Mina Concepcio	17.84	91	P	Pn	11 08 05.2	+2.9
	comp=Z,184nm,2.4s						
ECAB	El Cabril	18.71	89	P	Pn	11 08 15.8	+2.8
	comp=Z,500nm,3.0s						
ECAB	El Cabril	18.71	89	P	Pn	11 08 15.9	+2.9
	comp=Z,500nm,3.0s						
ESPR	Espera	18.72	93	P	Pn	11 08 16.7	+3.6
	comp=Z,328nm,2.4s						
ESPR	Espera	18.72	93	P	Pn	11 08 16.7	+3.6
	comp=Z,328nm,2.4s						
GUD	Guadarrama	19.18	81	P	Pn	11 08 20.2	+1.5
GUD				pmax	pmax		
	comp=Z,22nm,1.0s						
GUD	Guadarrama	19.18	81	P	Pn	11 08 20.2	+1.5
	comp=Z,22nm,1.0s						
GUD	Guadarrama	19.18	81	P	Pn	11 08 20.2	+1.5
	comp=Z,22nm,1.0s						
PAB	San Pablo	19.21	84	*e*P	Pn	11 08 19.9	+0.9
PAB				pmax	pmax		
	comp=Z,102nm,1.4s						
PAB	San Pablo	19.21	84	*e*P	Pn	11 08 19.9	+0.9
	comp=Z,102nm,1.4s						
PAB	San Pablo	19.21	84	*e*P	Pn	11 08 19.9	+0.9
	comp=Z,102nm,1.4s						
EADA	Adamuz	19.33	89	P	Pn	11 08 21.2	+0.7
	comp=Z,660nm,3.3s						
EADA	Adamuz	19.33	89	P	Pn	11 08 21.2	+0.7
	comp=Z,660nm,3.3s						
ESDC	Sonseca Array	19.48	84	P	Pn	11 08 20.5	-1.7
	comp=Z,0.4nm,0.3s,baz=285,slow=9.1,SNR=20						
ESDC				LR	LR	11 14 51.7	
	comp=Z,4µm,18.0s,baz=285,slow=34						
ESDC	Sonseca Array	19.48	84	P	Pn	11 08 22.1	-0.1
	comp=Z,75nm,1.8s						
ESDC	Sonseca Array	19.48	84	P	Pn	11 08 22.1	-0.2
	comp=Z,75nm,1.8s						
ELAN	Lanestosa	19.54	73	P	Pn	11 08 22.1	-0.8
	comp=Z,1µm,3.5s						
ELAN	Lanestosa	19.54	73	P	Pn	11 08 22.1	-0.8
	comp=Z,1µm,3.5s						
ELUQ	Luque	19.73	90	P	Pn	11 08 28.2	+2.9
ELUQ				pmax	pmax		
	comp=Z,20nm,1.2s						
ELUQ	Luque	19.73	90	P	Pn	11 08 28.2	+2.9
	comp=Z,20nm,1.2s						
ELUQ	Luque	19.73	90	P	Pn	11 08 28.2	+2.9
	comp=Z,20nm,1.2s						
DCN	Croghan	19.80	42	*e*P	Pn	11 08 21.5	-4.5
ELOJ	Sierra Loja	19.93	91	P	Pn	11 08 28.5	+0.8
ELOJ				pmax	pmax		
	comp=Z,45nm,1.1s						
ELOJ	Sierra Loja	19.93	91	P	Pn	11 08 28.5	+0.8
	comp=Z,45nm,1.1s						
ELOJ	Sierra Loja	19.93	91	P	Pn	11 08 28.5	+0.8
	comp=Z,45nm,1.1s						
EBAN	Banos Encina	19.94	88	P	Pn	11 08 29.3	+1.6
EBAN				pmax	pmax		
	comp=Z,25nm,1.2s						
EBAN	Banos Encina	19.94	88	P	Pn	11 08 29.3	+1.5
	comp=Z,25nm,1.2s						
EBAN	Banos Encina	19.94	88	P	Pn	11 08 29.3	+1.6
	comp=Z,25nm,1.2s						
DLF	Lyons Farm	20.16	43	*e*P	P	11 08 26.7	-1.7
DLF	Lyons Farm	20.16	43	*e*P	P	11 08 26.7	-1.7
QUIF	Quistinic	20.20	59	*e*P	P	11 08 28.7	-0.1
	comp=Z,443nm,1.6s						
QUIF	Quistinic	20.20	59	*e*P	P	11 08 28.7	-0.1
QUIF				pmax	pmax		
	comp=Z,221nm,1.6s						
QUIF	Quistinic	20.20	59	*e*P	P	11 08 28.7	-0.1
	comp=Z,221nm,1.6s						
QUIF	Quistinic	20.20	59	*e*P	P	11 08 28.7	-0.1
	comp=Z,221nm,1.6s						
ROSF	Rostrenen	20.22	58	*e*P	P	11 08 29.9	+0.8
	comp=Z,316nm,1.6s						
ROSF	Rostrenen	20.22	58	*e*P	P	11 08 29.9	+0.8
ROSF				pmax	pmax		
	comp=Z,158nm,1.6s						
ROSF	Rostrenen	20.22	58	*e*P	P	11 08 29.9	+0.8
	comp=Z,158nm,1.6s						
ROSF	Rostrenen	20.22	58	*e*P	P	11 08 29.9	+0.8
	comp=Z,158nm,1.6s						
ERON	Agron	20.24	91	P	P	11 08 31.8	+2.5
	comp=Z,117nm,1.8s						
ERON	Agron	20.24	91	P	P	11 08 31.8	+2.5
	comp=Z,117nm,1.8s						
DMUB	Kingscourt	20.29	41	*e*P	P	11 08 26.8	-2.9
ECOG	Cogollos-Vega	20.34	90	P	P	11 08 33.0	+2.5
ECOG				pmax	pmax		
	comp=Z,12nm,0.6s						
ECOG	Cogollos-Vega	20.34	90	P	P	11 08 33.0	+2.5
	comp=Z,12nm,0.6s						
ECOG	Cogollos-Vega	20.34	90	P	P	11 08 33.0	+2.5
	comp=Z,12nm,0.6s						
EGUA	Guajares	20.48	92	P	P	11 08 34.2	+2.3
EGUA				pmax	pmax		
	comp=Z,180nm,0.9s						
EGUA	Guajares	20.48	92	P	P	11 08 34.2	+2.3
	comp=Z,180nm,0.9s						
EGUA	Guajares	20.48	92	P	P	11 08 34.2	+2.3
	comp=Z,180nm,0.9s						
EQES	Quesada	20.58	89	P	P	11 08 36.5	+3.4
	comp=Z,695nm,2.8s						
EQES	Quesada	20.58	89	P	P	11 08 36.5	+3.5
	comp=Z,695nm,2.8s						
SGMF	Saint Gilles	20.67	59	*e*P	P	11 08 33.8	-0.1
	comp=Z,69nm,0.8s						
SGMF	Saint Gilles	20.67	59	*e*P	P	11 08 33.8	-0.1
SGMF				pmax	pmax		
	comp=Z,35nm,0.8s						
SGMF	Saint Gilles	20.67	59	*e*P	P	11 08 33.8	-0.1
	comp=Z,34nm,0.8s						
SGMF	Saint Gilles	20.67	59	*e*P	P	11 08 33.8	-0.1
	comp=Z,34nm,0.8s						
ETOR	Torete	20.74	80	P	P	11 08 35.8	+1.0
ETOR				pmax	pmax		
	comp=Z,72nm,2.1s						
ETOR	Torete	20.74	80	P	P	11 08 35.8	+1.0
	comp=Z,72nm,2.1s						
ETOR	Torete	20.74	80	P	P	11 08 35.8	+1.0
	comp=Z,72nm,2.1s						
EVIA	Vianos	20.80	86	P	P	11 08 36.6	+1.1
EVIA				pmax	pmax		
	comp=Z,43nm,1.0s						
EVIA	Vianos	20.80	86	P	P	11 08 36.6	+1.2
	comp=Z,43nm,1.0s						
EVIA	Vianos	20.80	86	P	P	11 08 36.6	+1.1
	comp=Z,43nm,1.0s						
EHUE	Huescar	20.94	88	P	P	11 08 40.3	+3.4
EHUE				pmax	pmax		
	comp=Z,63nm,1.4s						
EHUE	Huescar	20.94	88	P	P	11 08 40.3	+3.3
	comp=Z,63nm,1.4s						
EHUE	Huescar	20.94	88	P	P	11 08 40.3	+3.4
	comp=Z,63nm,1.4s						
EALK	Alkurruntz	20.95	73	P	P	11 08 38.5	+1.5
	comp=Z,703nm,3.5s						
EALK	Alkurruntz	20.95	73	P	P	11 08 38.5	+1.5
	comp=Z,703nm,3.5s						
EBER	Berja	20.97	91	P	P	11 08 40.3	+3.0
	comp=Z,1µm,3.7s						
EBER	Berja	20.97	91	P	P	11 08 40.3	+3.0
	comp=Z,1µm,3.7s						
OSSF	Osses	21.12	73	*e*P	P	11 08 37.0	-1.9
OSSF	Osses	21.12	73	*e*P	P	11 08 37.0	-1.9
SJPF	Ste Jean	21.16	73	*e*P	P	11 08 39.3	+0.1
	comp=Z,153nm,1.1s,mb4.9						
SJPF	Ste Jean	21.16	73	*e*P	P	11 08 39.3	+0.1
SJPF				pmax	pmax		
	comp=Z,76nm,1.1s,mb4.9						
SJPF	Ste Jean	21.16	73	*e*P	P	11 08 39.3	+0.1
	comp=Z,76nm,1.1s,mb4.9						
SJPF	Ste Jean	21.16	73	*e*P	P	11 08 39.3	+0.1
	comp=Z,76nm,1.1s,mb4.9						
MDT	Midelt	21.25	103	P	P	11 08 41.0	+0.7
	comp=Z,22nm,0.9s,mb4.5,baz=284,slow=9.6,SNR=6.9						
MDT				S	S	11 12 35.8	-0.5
	comp=Z,4.7nm,0.9s,baz=236,slow=9.0,SNR=4.6						
MDT				LR	LR	11 15 09.2	
	comp=Z,4µm,21.2s,MS4.8,baz=288,slow=32						
MDT	Midelt	21.25	103	P	P	11 08 41.0	+0.7
MDT				S	S	11 12 35.8	-0.6
ETOB	Tobarra	21.53	86	P	P	11 08 43.9	+0.6
	comp=Z,373nm,2.0s,mb5.5						
ETOB	Tobarra	21.53	86	P	P	11 08 43.9	+0.6
	comp=Z,373nm,2.0s,mb5.5						
ATE	Arette	21.54	73	*e*P	P	11 08 43.4	0.0
ATE	Arette	21.54	73	*e*P	P	11 08 43.4	0.0
ETSF	Etsaut	21.65	74	*e*P	P	11 08 44.7	+0.1
ETSF	Etsaut	21.65	74	*e*P	P	11 08 44.7	+0.1
ECHE	Chera	21.77	83	P	P	11 08 46.4	+0.6
ECHE				pmax	pmax		
	comp=Z,88nm,1.4s,mb5.0						
ECHE	Chera	21.77	83	P	P	11 08 46.4	+0.6
	comp=Z,88nm,1.4s,mb5.0						
ECHE	Chera	21.77	83	P	P	11 08 46.4	+0.6
	comp=Z,88nm,1.4s,mb5.0						
REYF	Montagne du Re	21.77	73	*e*P	P	11 08 44.0	-1.8
REYF	Montagne du Re	21.77	73	*e*P	P	11 08 44.0	-1.8
GRR	Gorron	21.81	59	*e*P	P	11 08 45.0	-1.2
	comp=Z,152nm,1.0s,mb5.1						
GRR	Gorron	21.81	59	*e*P	P	11 08 45.0	-1.2
GRR				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.1						
GRR	Gorron	21.81	59	*e*P	P	11 08 45.0	-1.2
	comp=Z,76nm,1.0s,mb5.1						
GRR	Gorron	21.81	59	*e*P	P	11 08 45.0	-1.2
	comp=Z,76nm,1.0s,mb5.1						
ESAC	San Caprasio	21.82	77	P	P	11 08 46.4	+0.1
	comp=Z,445nm,1.8s,mb5.6						
ESAC	San Caprasio	21.82	77	P	P	11 08 46.4	0.0
	comp=Z,445nm,1.8s,mb5.6						
ZFT	Errachidia	21.82	105	*i* P	P	11 08 48.0	+1.6
EMUR	La Murta	21.96	88	P	P	11 08 50.4	+2.4
	comp=Z,982nm,3.0s						
EMUR	La Murta	21.96	88	P	P	11 08 50.4	+2.4
	comp=Z,982nm,3.0s						
EMOS	Mosqueruela	22.00	81	P	P	11 08 48.8	+0.5
	comp=Z,526nm,2.2s,mb5.6						
EMOS	Mosqueruela	22.00	81	P	P	11 08 48.8	+0.5
	comp=Z,526nm,2.2s,mb5.6						
MFF	Saint Martin d	22.03	64	*e*P	P	11 08 49.0	+0.4
	comp=Z,139nm,1.1s,mb5.0						
MFF	Saint Martin d	22.03	64	*e*P	P	11 08 49.0	+0.4
MFF				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.0						
MFF	Saint Martin d	22.03	64	*e*P	P	11 08 49.0	+0.4
	comp=Z,70nm,1.1s,mb5.0						
MFF	Saint Martin d	22.03	64	*e*P	P	11 08 49.0	+0.4
	comp=Z,70nm,1.1s,mb5.0						
VIEF	Viey	22.08	74	*e*P	P	11 08 51.8	+2.6
VIEF	Viey	22.08	74	*e*P	P	11 08 51.8	+2.6
LABF	Labassere	22.11	73	*e*P	P	11 08 50.3	+0.8
LABF	Labassere	22.11	73	*e*P	P	11 08 50.3	+0.8
FLN	La Foliniere	22.13	58	*e*P	P	11 08 49.9	+0.3
	comp=Z,118nm,1.0s,mb5.0						
FLN				*e*MLR	MLR		
	comp=Z,5µm,20.8s,MS4.6						
FLN	La Foliniere	22.13	58	*e*P	P	11 08 49.9	+0.3
FLN				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.0						
FLN				MLR	MLR		
	comp=Z,5µm,20.8s,MS4.9						
FLN	La Foliniere	22.13	58	*e*P	P	11 08 49.9	+0.3
	comp=Z,59nm,1.0s,mb5.0						
FLN				LR	LR		
	comp=Z,5µm,20.8s,MS4.9						
FLN	La Foliniere	22.13	58	*e*P	P	11 08 49.9	+0.3
	comp=Z,59nm,1.0s,mb5.0						
EBIE	Bielsa	22.18	74	P	P	11 08 51.8	+1.6
	comp=Z,408nm,2.5s,mb5.4						
EBIE	Bielsa	22.18	74	P	P	11 08 51.8	+1.5
	comp=Z,408nm,2.5s,mb5.4						
EPF	Esparros	22.30	73	*e*P	P	11 08 50.8	-0.8
	comp=Z,216nm,1.3s,mb5.1						
EPF	Esparros	22.30	73	*e*P	P	11 08 50.8	-0.8
EPF				pmax	pmax		
	comp=Z,108nm,1.3s,mb5.1						
EPF	Esparros	22.30	73	*e*P	P	11 08 50.8	-0.8
	comp=Z,108nm,1.3s,mb5.1						
EPF	Esparros	22.30	73	*e*P	P	11 08 50.8	-0.8
	comp=Z,108nm,1.3s,mb5.1						
RESF	Ens	22.32	74	*e*P	P	11 08 52.0	+0.3
RESF	Ens	22.32	74	*e*P	P	11 08 52.0	+0.3
LDF	La Druitiere	22.33	59	*e*P	P	11 08 51.6	-0.1
	comp=Z,190nm,1.0s,mb5.2						
LDF	La Druitiere	22.33	59	*e*P	P	11 08 51.6	-0.1
LDF				pmax	pmax		
	comp=Z,95nm,1.0s,mb5.2						
LDF	La Druitiere	22.33	59	*e*P	P	11 08 51.6	-0.1
	comp=Z,95nm,1.0s,mb5.2						
LDF	La Druitiere	22.33	59	*e*P	P	11 08 51.6	-0.1
	comp=Z,95nm,1.0s,mb5.2						
ERTA	Horta de San J	22.51	79	P	P	11 08 55.3	+1.5
	comp=Z,495nm,2.6s,mb5.5						
ERTA	Horta de San J	22.51	79	P	P	11 08 55.3	+1.5
	comp=Z,495nm,2.6s,mb5.5						
LFF	La Frestale	22.55	68	*e*P	P	11 08 52.9	-1.3
	comp=Z,152nm,1.0s,mb5.1						
LFF	La Frestale	22.55	68	*e*P	P	11 08 52.9	-1.3
LFF				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.1						
LFF	La Frestale	22.55	68	*e*P	P	11 08 52.9	-1.3
	comp=Z,76nm,1.0s,mb5.1						
LFF	La Frestale	22.55	68	*e*P	P	11 08 52.9	-1.3
	comp=Z,76nm,1.0s,mb5.1						
MELF	Melles	22.62	74	*e*P	P	11 08 52.9	-2.0
MELF	Melles	22.62	74	*e*P	P	11 08 52.9	-2.0
MLS	Moulis	22.86	74	*e*P	P	11 08 56.9	-0.6
MLS	Moulis	22.86	74	*e*P	P	11 08 56.9	-0.6
EKA	Eskdalemuir Ar	22.89	41	P	P	11 08 56.5	-1.1
	comp=Z,12nm,0.9s,mb4.3,baz=246,slow=8.1,SNR=9.5						
EKA	Eskdalemuir Ar	22.89	41	P	P	11 08 56.6	-1.1
SALF	Salau	22.95	74	*e*P	P	11 08 57.8	-0.6
SALF	Salau	22.95	74	*e*P	P	11 08 57.8	-0.6
EPOB	Poblet	23.02	78	P	P	11 08 59.0	-0.1
	comp=Z,233nm,2.3s,mb5.2						
EPOB	Poblet	23.02	78	P	P	11 08 59.0	-0.1
	comp=Z,233nm,2.3s,mb5.2						
RJF	Les Rejaudoux	23.11	68	*e*P	P	11 09 00.0	-0.1
	comp=Z,79nm,1.1s,mb4.8						
RJF				*e*MLR	MLR		
	comp=Z,4µm,21.0s,MS4.5						
RJF	Les Rejaudoux	23.11	68	*e*P	P	11 09 00.0	-0.1
RJF				pmax	pmax		
	comp=Z,40nm,1.1s,mb4.8						
RJF				MLR	MLR		
	comp=Z,4µm,21.0s,MS4.8						
RJF	Les Rejaudoux	23.11	68	*e*P	P	11 09 00.0	-0.1
	comp=Z,40nm,1.1s,mb4.8						
RJF				LR	LR		
	comp=Z,4µm,21.0s,MS4.8						
RJF	Les Rejaudoux	23.11	68	*e*P	P	11 09 00.0	-0.1
	comp=Z,40nm,1.1s,mb4.8						
CAF	Calviac	23.49	68	*e*P	P	11 09 02.7	-1.4
	comp=Z,132nm,1.2s,mb5.0						
CAF	Calviac	23.49	68	*e*P	P	11 09 02.7	-1.4
CAF				pmax	pmax		
	comp=Z,66nm,1.2s,mb4.9						
CAF	Calviac	23.49	68	*e*P	P	11 09 02.7	-1.4
	comp=Z,66nm,1.2s,mb4.9						
CAF	Calviac	23.49	68	*e*P	P	11 09 02.7	-1.4
	comp=Z,66nm,1.2s,mb5.0						
VALF	Valcebollere	23.59	75	*e*P	P	11 09 04.1	-1.0
VALF	Valcebollere	23.59	75	*e*P	P	11 09 04.1	-1.0
CARF	Carcanieres	23.62	74	*e*P	P	11 09 04.1	-1.3
CARF	Carcanieres	23.62	74	*e*P	P	11 09 04.1	-1.3
TCF	Toulx Ste Croi	23.63	65	*e*P	P	11 09 04.0	-1.4
	comp=Z,471nm,1.8s,mb5.3						
TCF	Toulx Ste Croi	23.63	65	*e*P	P	11 09 04.0	-1.4
TCF				pmax	pmax		
	comp=Z,236nm,1.8s,mb5.3						
TCF	Toulx Ste Croi	23.63	65	*e*P	P	11 09 04.0	-1.4
	comp=Z,236nm,1.8s,mb5.3						
TCF	Toulx Ste Croi	23.63	65	*e*P	P	11 09 04.0	-1.4
	comp=Z,236nm,1.8s,mb5.3						
EIBI	Ibiza	23.64	83	P	P	11 09 05.1	-0.4
	comp=Z,528nm,2.5s,mb5.5						
EIBI	Ibiza	23.64	83	P	P	11 09 05.1	-0.4
	comp=Z,528nm,2.5s,mb5.5						
MTLF	Montolieu	23.66	72	*e*P	P	11 09 04.5	-1.2
	comp=Z,119nm,1.1s,mb4.9						
MTLF	Montolieu	23.66	72	*e*P	P	11 09 04.5	-1.2
MTLF				pmax	pmax		
	comp=Z,60nm,1.1s,mb4.9						
MTLF	Montolieu	23.66	72	*e*P	P	11 09 04.5	-1.2
	comp=Z,60nm,1.1s,mb4.9						
MTLF	Montolieu	23.66	72	*e*P	P	11 09 04.5	-1.2
	comp=Z,60nm,1.1s,mb4.9						
VERF	Verneugheol	23.80	66	*e*P	P	11 09 06.7	-0.3
VERF	Verneugheol	23.80	66	*e*P	P	11 09 06.7	-0.3
FRNF	Fournols	23.85	67	*e*P	P	11 09 05.6	-1.8
FRNF	Fournols	23.85	67	*e*P	P	11 09 05.6	-1.8
HYF	Humbligny	23.99	63	*e*P	P	11 09 07.4	-1.3
HYF	Humbligny	23.99	63	*e*P	P	11 09 07.4	-1.3
BGF	Bois d’Agland	24.09	64	*e*P	P	11 09 07.8	-1.7
	comp=Z,186nm,0.9s,mb5.2						
BGF	Bois d’Agland	24.09	64	*e*P	P	11 09 07.8	-1.7
BGF				pmax	pmax		
	comp=Z,93nm,0.9s,mb5.2						
BGF	Bois d’Agland	24.09	64	*e*P	P	11 09 07.8	-1.7
	comp=Z,93nm,0.9s,mb5.2						
BGF	Bois d’Agland	24.09	64	*e*P	P	11 09 07.8	-1.7
	comp=Z,93nm,0.9s,mb5.2						
PYM	Petit Puy Mans	24.17	66	*e*P	P	11 09 09.0	-1.3
PYM	Petit Puy Mans	24.17	66	*e*P	P	11 09 09.0	-1.3
MENF	Mencas	24.18	55	*e*P	P	11 09 09.7	-0.6
MENF	Mencas	24.18	55	*e*P	P	11 09 09.7	-0.6
SJAF	Saint Jean de	24.22	74	*e*P	P	11 09 09.5	-1.3
SJAF	Saint Jean de	24.22	74	*e*P	P	11 09 09.5	-1.3
EJON	La Jonquera	24.23	75	P	P	11 09 10.6	-0.3
	comp=Z,169nm,1.4s,mb5.3						
EJON	La Jonquera	24.23	75	P	P	11 09 10.6	-0.3
	comp=Z,169nm,1.4s,mb5.3						
AGO	Saint Agoulin	24.26	66	*e*P	P	11 09 09.2	-2.0
AGO	Saint Agoulin	24.26	66	*e*P	P	11 09 09.2	-2.0
EANR	’Ain N’Sour	24.32	91	P	P	11 09 12.8	+1.0
EANR	’Ain N’Sour	24.32	91	P	P	11 09 12.8	+1.0
LBL	Lubilhac	24.33	68	*e*P	P	11 09 10.4	-1.4
LBL	Lubilhac	24.33	68	*e*P	P	11 09 10.4	-1.4
AVF	Avril sur Loir	24.45	64	*e*P	P	11 09 11.9	-0.9
	comp=Z,62nm,1.0s,mb4.7						
AVF	Avril sur Loir	24.45	64	*e*P	P	11 09 11.9	-0.9
AVF				pmax	pmax		
	comp=Z,31nm,1.0s,mb4.7						
AVF	Avril sur Loir	24.45	64	*e*P	P	11 09 11.9	-0.9
	comp=Z,31nm,1.0s,mb4.7						
AVF	Avril sur Loir	24.45	64	*e*P	P	11 09 11.9	-0.9
	comp=Z,31nm,1.0s,mb4.7						
ECHA	Ech Chlef	24.46	90	P	P	11 09 17.5	+4.4
EBNR	Beni Rached	24.54	90	P	P	11 09 18.5	+4.7
SSF	Saint Saulge	24.57	63	*e*P	P	11 09 12.7	-1.2
	comp=Z,140nm,1.2s,mb5.0						
SSF	Saint Saulge	24.57	63	*e*P	P	11 09 12.7	-1.2
SSF				pmax	pmax		
	comp=Z,70nm,1.3s,mb5.0						
SSF	Saint Saulge	24.57	63	*e*P	P	11 09 12.7	-1.2
	comp=Z,70nm,1.3s,mb5.0						
SSF	Saint Saulge	24.57	63	*e*P	P	11 09 12.7	-1.2
	comp=Z,70nm,1.2s,mb5.0						
ETOS	Mallorca	24.59	81	P	P	11 09 14.4	+0.2
	comp=Z,512nm,2.9s,mb5.5						
ETOS	Mallorca	24.59	81	P	P	11 09 14.4	+0.2
	comp=Z,512nm,2.9s,mb5.5						
PLDF	La Plantade	24.60	66	*e*P	P	11 09 14.0	-0.3
PLDF	La Plantade	24.60	66	*e*P	P	11 09 14.0	-0.3
COLF	Collangettes	24.65	67	*e*P	P	11 09 14.4	-0.3
COLF	Collangettes	24.65	67	*e*P	P	11 09 14.4	-0.3
ETRT	Tiaret	24.67	92	P	P	11 09 17.0	+2.0
ETRT	Tiaret	24.67	92	P	P	11 09 17.0	+2.0
SMF	Signal de Mont	24.77	64	*e*P	P	11 09 14.7	-1.1
	comp=Z,81nm,1.0s,mb4.9						
SMF	Signal de Mont	24.77	64	*e*P	P	11 09 14.7	-1.1
SMF				pmax	pmax		
	comp=Z,40nm,1.0s,mb4.9						
SMF	Signal de Mont	24.77	64	*e*P	P	11 09 14.7	-1.1
	comp=Z,40nm,1.0s,mb4.9						
SMF	Signal de Mont	24.77	64	*e*P	P	11 09 14.7	-1.1
	comp=Z,40nm,1.0s,mb4.9						
LASF	Ste Croix	24.80	70	*e*P	P	11 09 16.5	+0.4
	comp=Z,107nm,1.0s,mb5.0						
LASF	Ste Croix	24.80	70	*e*P	P	11 09 16.5	+0.4
	comp=Z,54nm,1.0s,mb5.0						
LOR	Lormes	24.82	63	*e*P	P	11 09 15.5	-0.7
	comp=Z,284nm,1.8s,mb5.2						
LOR				*e*MLR	MLR		
	comp=Z,4µm,21.2s,MS4.6						
LOR	Lormes	24.82	63	*e*P	P	11 09 15.5	-0.7
LOR				pmax	pmax		
	comp=Z,142nm,1.8s,mb5.2						
LOR				MLR	MLR		
	comp=Z,4µm,21.3s,MS4.9						
LOR	Lormes	24.82	63	*e*P	P	11 09 15.5	-0.7
	comp=Z,142nm,1.8s,mb5.2						
LOR				LR	LR		
	comp=Z,4µm,21.3s,MS4.9						
LOR	Lormes	24.82	63	*e*P	P	11 09 15.5	-0.7
	comp=Z,142nm,1.8s,mb5.2						
BORG	Borgarnes	24.83	8	LR	LR	11 16 10.5	
	comp=Z,3µm,20.7s,MS4.7,baz=169,slow=30						
SSB	Saint Sauveur	25.25	68	*e*P	P	11 09 20.2	+0.1
SSB				pmax	pmax		
	comp=Z,41nm,1.1s,mb4.9						
SSB				MLR	MLR		
	comp=Z,2µm,21.0s,MS4.6						
SSB	Saint Sauveur	25.25	68	*e*P	P	11 09 20.2	+0.1

	comp=Z,41nm,1.1s,mb4.9						
SSB				LR	LR		
	comp=Z,2µm,21.0s,MS4.6						
SSB	Saint Sauveur	25.25	68	*e*P	P	11 09 20.2	+0.1
	comp=Z,41nm,1.1s,mb4.9						
VIVF	Saint-Julien-l	25.35	69	*e*P	P	11 09 21.6	+0.5
	comp=Z,136nm,1.1s,mb5.1						
VIVF	Saint-Julien-l	25.35	69	*e*P	P	11 09 21.6	+0.5
VIVF				pmax	pmax		
	comp=Z,68nm,1.1s,mb5.1						
VIVF	Saint-Julien-l	25.35	69	*e*P	P	11 09 21.6	+0.5
	comp=Z,68nm,1.1s,mb5.1						
VIVF	Saint-Julien-l	25.35	69	*e*P	P	11 09 21.6	+0.5
	comp=Z,68nm,1.1s,mb5.1						
BAIF	Baives	25.37	56	*e*P	P	11 09 19.3	-1.9
	comp=Z,116nm,1.1s,mb5.0						
BAIF	Baives	25.37	56	*e*P	P	11 09 19.3	-1.9
BAIF				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.0						
BAIF	Baives	25.37	56	*e*P	P	11 09 19.3	-1.9
	comp=Z,58nm,1.1s,mb5.0						
BAIF	Baives	25.37	56	*e*P	P	11 09 19.3	-1.9
	comp=Z,58nm,1.1s,mb5.0						
SNF	Seneffe	25.50	55	P	P	11 09 21.9	-0.4
	comp=Z,52nm,1.6s,mb4.8						
SNF	Seneffe	25.50	55	P	P	11 09 21.9	-0.5
	comp=Z,52nm,1.6s,mb4.8						
UCC	Uccle	25.60	55	AP	pP	11 09 25.3	-1.0
DOU	Dourbes	25.62	56	P	P	11 09 21.3	-2.2
DOU				AP	pP	11 09 25.9	-0.7
	comp=Z,22nm,1.2s						
DOU	Dourbes	25.62	56	P	P	11 09 21.3	-2.2
	comp=Z,22nm,1.2s,mb4.6						
EMHD	Djebel Mahouad	25.66	89	P	P	11 09 29.0	+5.1
MEZF	Maizieres J'vi	25.72	60	*e*P	P	11 09 23.3	-1.1
	comp=Z,344nm,1.1s,mb5.5						
MEZF	Maizieres J'vi	25.72	60	*e*P	P	11 09 23.3	-1.1
	comp=Z,344nm,1.1s,mb5.8						
MEZF	Maizieres J'vi	25.72	60	*e*P	P	11 09 23.3	-1.1
	comp=Z,172nm,1.1s,mb5.5						
GIVF	Givet	25.77	56	*e*P	P	11 09 22.7	-2.1
	comp=Z,120nm,1.0s,mb5.1						
GIVF	Givet	25.77	56	*e*P	P	11 09 22.7	-2.1
GIVF				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.1						
GIVF	Givet	25.77	56	*e*P	P	11 09 22.7	-2.1
	comp=Z,60nm,1.0s,mb5.1						
GIVF	Givet	25.77	56	*e*P	P	11 09 22.7	-2.1
	comp=Z,60nm,1.0s,mb5.1						
OG05	Jujurieux	25.88	66	*e*P	P	11 09 27.1	+1.2
OG05	Jujurieux	25.88	66	*e*P	P	11 09 27.1	+1.2
SMRF	Simiane la Rot	26.04	71	*e*P	P	11 09 28.2	+0.8
	comp=Z,199nm,1.4s,mb5.2						
SMRF	Simiane la Rot	26.04	71	*e*P	P	11 09 28.2	+0.8
	comp=Z,199nm,1.4s,mb5.5						
SMRF	Simiane la Rot	26.04	71	*e*P	P	11 09 28.2	+0.8
	comp=Z,99nm,1.4s,mb5.2						
BCLA	Clavier	26.12	56	P	P	11 09 29.0	+1.0
	comp=Z,40nm,1.3s,mb4.8						
BCLA	Clavier	26.12	56	P	P	11 09 29.0	+1.0
	comp=Z,40nm,1.3s,mb4.8						
ORIF	Oris-en-Rattie	26.20	68	*e*P	P	11 09 30.8	+2.0
	comp=Z,242nm,1.6s,mb5.2						
ORIF				*e*MLR	MLR		
	comp=Z,3µm,22.2s,MS4.5						
ORIF	Oris-en-Rattie	26.20	68	*e*P	P	11 09 30.8	+2.0
ORIF				pmax	pmax		
	comp=Z,121nm,1.6s,mb5.2						
ORIF	Oris-en-Rattie	26.20	68	*e*P	P	11 09 30.8	+2.0
	comp=Z,121nm,1.6s,mb5.2						
ORIF	Oris-en-Rattie	26.20	68	*e*P	P	11 09 30.8	+2.0
	comp=Z,121nm,1.6s,mb5.2						
THEF	They Montfort	26.32	61	*e*P	P	11 09 30.0	+0.2
THEF	They Montfort	26.32	61	*e*P	P	11 09 30.0	+0.2
CABF	La Chapelle	26.32	65	*e*P	P	11 09 29.4	-0.5
	comp=Z,155nm,1.4s,mb5.0						
CABF	La Chapelle	26.32	65	*e*P	P	11 09 29.4	-0.5
CABF				pmax	pmax		
	comp=Z,77nm,1.4s,mb5.0						
CABF	La Chapelle	26.32	65	*e*P	P	11 09 29.4	-0.5
	comp=Z,77nm,1.4s,mb5.0						
CABF	La Chapelle	26.32	65	*e*P	P	11 09 29.4	-0.5
	comp=Z,77nm,1.4s,mb5.0						
BEBN	Eben Emael	26.42	55	P	P	11 09 30.7	0.0
BEBN				AP	pP	11 09 33.1	-0.7
	comp=Z,17nm,1.3s						
BEBN	Eben Emael	26.42	55	P	P	11 09 30.7	0.0
	comp=Z,17nm,1.3s,mb4.4						
HAU	Haudompre	26.55	61	*e*P	P	11 09 31.6	-0.3
	comp=Z,77nm,1.0s,mb4.9						
HAU				*e*MLR	MLR		
	comp=Z,4µm,19.0s,MS4.6						
HAU	Haudompre	26.55	61	*e*P	P	11 09 31.6	-0.3
HAU				pmax	pmax		
	comp=Z,39nm,1.0s,mb4.9						
HAU				MLR	MLR		
	comp=Z,4µm,19.0s,MS4.9						
HAU	Haudompre	26.55	61	*e*P	P	11 09 31.6	-0.3
	comp=Z,38nm,1.0s,mb4.9						
HAU				LR	LR		
	comp=Z,4µm,19.0s,MS4.9						
HAU	Haudompre	26.55	61	*e*P	P	11 09 31.6	-0.3
	comp=Z,38nm,1.0s,mb4.9						
WLF	Walferdange	26.56	58	P	P	11 09 29.1	-2.9
	comp=Z,40nm,1.7s,mb4.7						
WLF	Walferdange	26.56	58	*e*P	P	11 09 29.2	-2.8
WLF				pmax	pmax		
	comp=Z,36nm,0.9s,mb4.9						
WLF				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.0						
WLF	Walferdange	26.56	58	*e*P	P	11 09 29.2	-2.8
	comp=Z,36nm,0.9s,mb4.9						
WLF				LR	LR		
	comp=Z,4µm,19.0s,MS5.0						
WLF	Walferdange	26.56	58	*e*P	P	11 09 29.2	-2.8
	comp=Z,36nm,0.9s,mb4.9						
HGN	Heimansgroeve	26.57	55	*e*P	P	11 09 33.3	+1.2
	comp=Z,51nm,1.7s,mb4.8						
HGN	Heimansgroeve	26.57	55	*e*S	S	11 14 08.7	+2.2
MEM	Membach	26.60	56	P	P	11 09 32.2	-0.2
MEM				AP	pP	11 09 35.3	-0.1
	comp=Z,26nm,1.1s						
MEM	Membach	26.60	56	P	P	11 09 32.1	-0.2
	comp=Z,26nm,1.1s,mb4.7						
OG01	Vacheresse	26.73	65	*e*P	P	11 09 33.5	-0.1
OG01	Vacheresse	26.73	65	*e*P	P	11 09 33.5	-0.1
BNI	Bardonecchia	26.76	68	*e*P	P	11 09 34.8	+0.9
BNI				pmax	pmax		
	comp=Z,75nm,1.4s,mb5.0						
BNI				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.0						
BNI	Bardonecchia	26.76	68	*e*P	P	11 09 34.8	+0.9
	comp=Z,75nm,1.4s,mb5.0						
BNI				LR	LR		
	comp=Z,4µm,19.0s,MS5.0						
BNI	Bardonecchia	26.76	68	*e*P	P	11 09 34.8	+0.9
	comp=Z,75nm,1.4s,mb5.0						
LMR	La Mourre	26.78	72	*e*P	P	11 09 34.0	0.0
	comp=Z,244nm,1.7s,mb5.2						
LMR	La Mourre	26.78	72	*e*P	P	11 09 34.0	0.0
LMR				pmax	pmax		
	comp=Z,122nm,1.7s,mb5.2						
LMR	La Mourre	26.78	72	*e*P	P	11 09 34.0	0.0
	comp=Z,122nm,1.7s,mb5.2						
LMR	La Mourre	26.78	72	*e*P	P	11 09 34.0	0.0
	comp=Z,122nm,1.7s,mb5.2						
LPL	La Plagne	26.78	67	*e*P	P	11 09 34.9	+0.9
	comp=Z,91nm,1.4s,mb4.8						
LPL	La Plagne	26.78	67	*e*P	P	11 09 34.9	+0.9
LPL				pmax	pmax		
	comp=Z,46nm,1.4s,mb4.8						
LPL	La Plagne	26.78	67	*e*P	P	11 09 34.9	+0.9
	comp=Z,46nm,1.4s,mb4.8						
LPL	La Plagne	26.78	67	*e*P	P	11 09 34.9	+0.9
	comp=Z,46nm,1.4s,mb4.8						
LPG	La Plagne	26.80	67	*e*P	P	11 09 35.2	+1.0
	comp=Z,126nm,1.5s,mb4.9						
LPG	La Plagne	26.80	67	*e*P	P	11 09 35.2	+1.0
LPG				pmax	pmax		
	comp=Z,63nm,1.5s,mb4.9						
LPG	La Plagne	26.80	67	*e*P	P	11 09 35.2	+1.0
	comp=Z,63nm,1.5s,mb4.9						
LPG	La Plagne	26.80	67	*e*P	P	11 09 35.2	+1.0
	comp=Z,63nm,1.5s,mb4.9						
MBDF	Montbardon	26.85	69	*e*P	P	11 09 34.3	-0.3
MBDF	Montbardon	26.85	69	*e*P	P	11 09 34.3	-0.3
FRF	La Foret Royal	26.85	71	*e*P	P	11 09 33.5	-1.2
	comp=Z,130nm,1.4s,mb5.0						
FRF	La Foret Royal	26.85	71	*e*P	P	11 09 33.5	-1.2
FRF				pmax	pmax		
	comp=Z,65nm,1.4s,mb5.0						
FRF	La Foret Royal	26.85	71	*e*P	P	11 09 33.5	-1.2
	comp=Z,65nm,1.4s,mb5.0						
FRF	La Foret Royal	26.85	71	*e*P	P	11 09 33.5	-1.2
	comp=Z,65nm,1.4s,mb5.0						
HINF	Hinteralfeld	26.88	62	*e*P	P	11 09 34.9	0.0
	comp=Z,231nm,1.8s,mb5.1						
HINF	Hinteralfeld	26.88	62	*e*P	P	11 09 34.9	0.0
HINF				pmax	pmax		
	comp=Z,116nm,1.8s,mb5.1						
HINF	Hinteralfeld	26.88	62	*e*P	P	11 09 34.9	0.0
	comp=Z,116nm,1.8s,mb5.1						
HINF	Hinteralfeld	26.88	62	*e*P	P	11 09 34.9	0.0
	comp=Z,116nm,1.8s,mb5.1						
CALN	Calern	27.01	71	*e*P	P	11 09 40.5	+4.4
ECH	Echery	27.10	61	*e*P	P	11 09 35.2	-1.7
ECH	Echery	27.10	61	*e*P	P	11 09 34.4	-2.5
ECH				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.0						
ECH				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.8						
ECH	Echery	27.10	61	*e*P	P	11 09 34.4	-2.5
	comp=Z,40nm,0.9s,mb5.0						
ECH				LR	LR		
	comp=Z,3µm,20.0s,MS4.8						
ECH	Echery	27.10	61	*e*P	P	11 09 35.2	-1.7
RUP	Ruppelstein	27.15	58	*e*P	P	11 09 38.2	+0.9
RUP	Ruppelstein	27.15	58	*e*P	P	11 09 38.2	+0.9
MVIF	Mont Vial	27.18	70	*e*P	P	11 09 40.0	+2.3
MVIF	Mont Vial	27.18	70	*e*P	P	11 09 40.0	+2.3
CDF	Champ du Feu	27.19	61	*e*P	P	11 09 36.9	-0.8
	comp=Z,181nm,1.3s,mb5.1						
CDF	Champ du Feu	27.19	61	*e*P	P	11 09 36.9	-0.8
CDF				pmax	pmax		
	comp=Z,91nm,1.3s,mb5.2						
CDF	Champ du Feu	27.19	61	*e*P	P	11 09 36.9	-0.8
	comp=Z,91nm,1.3s,mb5.1						
CDF	Champ du Feu	27.19	61	*e*P	P	11 09 36.9	-0.8
	comp=Z,91nm,1.3s,mb5.1						
TOUF	Mont Tournerai	27.24	70	*e*P	P	11 09 40.5	+2.3
TOUF	Mont Tournerai	27.24	70	*e*P	P	11 09 40.5	+2.3
BBS	Basel-Blauen	27.31	63	*e*P	P	11 09 39.5	+0.8
BBS	Basel-Blauen	27.31	63	*e*P	P	11 09 39.5	+0.8
WTSB	Winterswijk	27.32	53	*e*P	P	11 09 41.8	+3.1
	comp=Z,76nm,2.2s,mb4.8						
LUCF	Luceram	27.32	70	*e*P	P	11 09 40.5	+1.6
LUCF	Luceram	27.32	70	*e*P	P	11 09 40.5	+1.6
AUTN	L'Aution	27.37	70	*e*P	P	11 09 41.8	+2.4
AUTN	L'Aution	27.37	70	*e*P	P	11 09 41.8	+2.4
SBF	Sospel	27.39	71	*e*P	P	11 09 39.7	+0.2
	comp=Z,202nm,1.7s,mb5.1						
SBF	Sospel	27.39	71	*e*P	P	11 09 39.7	+0.2
SBF				pmax	pmax		
	comp=Z,101nm,1.7s,mb5.1						
SBF	Sospel	27.39	71	*e*P	P	11 09 39.7	+0.2
	comp=Z,101nm,1.7s,mb5.1						
SBF	Sospel	27.39	71	*e*P	P	11 09 39.7	+0.2
	comp=Z,101nm,1.7s,mb5.1						
SAOF	Saorge	27.47	70	*e*P	P	11 09 42.3	+2.1
SAOF	Saorge	27.47	70	*e*P	P	11 09 42.3	+2.1
LANF	Langenberg	27.58	59	*e*P	P	11 09 40.6	-0.5
LANF	Langenberg	27.58	59	*e*P	P	11 09 40.6	-0.5
FELD	Feldberg im Sc	27.65	62	*e*P	P	11 09 43.0	+1.2
FELD	Feldberg im Sc	27.65	62	*e*P	P	11 09 43.0	+1.2
BFO	Black Forest	27.89	61	P	P	11 09 46.7	+2.8
	comp=Z,166nm,1.3s,mb5.5,SNR=7.9						
BFO	Black Forest	27.89	61	*e*P	P	11 09 45.1	+1.2
BFO				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.0						
BFO				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.8						
BFO	Black Forest	27.89	61	*e*P	P	11 09 45.1	+1.1
	comp=Z,48nm,1.3s,mb5.0						
BFO				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
BFO	Black Forest	27.89	61	*e*P	P	11 09 45.1	+1.2
	comp=Z,48nm,1.3s,mb5.0						
BBTS	Babate	28.00	153	LR	LR	11 18 55.3	
	comp=Z,1µm,18.5s,MS4.5,baz=351,slow=32						
SPAK	Spaichingen-Ko	28.18	61	*e*P	P	11 09 46.4	-0.2
SPAK	Spaichingen-Ko	28.18	61	*e*P	P	11 09 46.4	-0.2
TUE	Stuetta	28.57	65	*e*P	P	11 09 49.6	-0.4
	comp=Z,27nm,1.1s,mb4.9						
TUE				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
TUE	Stuetta	28.57	65	*e*P	P	11 09 49.6	-0.4
	comp=Z,27nm,1.1s,mb4.9						
SCHQ	Schefferville	28.66	313	P	P	11 09 48.2	-2.5
	comp=Z,2.0nm,0.6s,mb4.0,baz=108,slow=6.8,SNR=7.9						
SCHQ				LR	LR	11 19 18.6	
	comp=Z,2µm,20.1s,MS4.8,baz=108,slow=32						
SCHQ	Schefferville	28.66	313	P	P	11 09 48.2	-2.6
PGF	Pioggiola	28.69	73	*e*P	P	11 09 53.5	+2.3
	comp=Z,85nm,1.1s,mb5.1						
PGF	Pioggiola	28.69	73	*e*P	P	11 09 53.5	+2.3
PGF				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.1						
PGF	Pioggiola	28.69	73	*e*P	P	11 09 53.5	+2.3
	comp=Z,43nm,1.1s,mb5.1						
PGF	Pioggiola	28.69	73	*e*P	P	11 09 53.5	+2.3
	comp=Z,43nm,1.1s,mb5.1						
BOB	Bobbio (Coli)	28.75	68	P	P	11 09 53.0	+1.4
BOB	Bobbio (Coli)	28.75	68	P	P	11 09 53.0	+1.4
DAVOS	Davos	28.87	64	P	P	11 09 52.3	-0.4
DAVOS	Davos	28.87	64	P	P	11 09 52.3	-0.4
DAVOX	Davos/Dischmat	28.93	64	P	P	11 09 52.3	-0.9
	comp=Z,1.6nm,0.8s,mb3.8,baz=340,slow=20,SNR=2.6						
DAVOX				LR	LR	11 19 45.1	
	comp=Z,2µm,18.9s,MS4.8,baz=278,slow=33						
DAVOX	Davos/Dischmat	28.93	64	P	P	11 09 52.3	-0.9
SFJD	Kangerlussuaq	29.14	343	*i* P	P	11 09 53.1	-1.7
SFJD				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.4						
SFJD				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.5						
SFJD	Kangerlussuaq	29.14	343	*i* P	P	11 09 53.1	-1.7
	comp=Z,7.7nm,1.0s,mb4.4						
SFJD							
	comp=Z,1µm,19.0s						
SFJD	Kangerlussuaq	29.14	343	P	P	11 09 53.4	-1.4
	comp=Z,7.1nm,0.8s,mb4.5,baz=122,slow=7.4,SNR=5.3						
SFJD				LR	LR	11 18 46.8	
	comp=Z,1µm,19.7s,MS4.6,baz=131,slow=31						
SFJD	Kangerlussuaq	29.14	343	*i* P	P	11 09 53.1	-1.7
	comp=Z,7.7nm,1.0s,mb4.4						
BBSR	BB Station	29.37	265	PFAKE		11 10 10.0	+13
BBSR				LR	LR		
	comp=Z,3µm,21.0s,MS4.9						
NRDL	Niedersach Rie	29.41	52	*e*P	P	11 09 56.4	-1.0
	comp=Z,35nm,1.1s,mb5.0						
VLC	Villacollemand	29.48	69	PFAKE		11 10 10.0	+12
VLC				LR	LR		
	comp=Z,1µm,21.0s,MS4.6						
CLZ	Clausthal	29.49	54	*e*P	P	11 09 58.5	+0.4
CLZ				pmax	pmax		
	comp=Z,22nm,1.2s,mb4.8						
CLZ	Clausthal	29.49	54	*e*P	P	11 09 58.5	+0.4
	comp=Z,22nm,1.2s,mb4.8						
CLZ	Clausthal	29.49	54	*e*P	P	11 09 58.5	+0.4
	comp=Z,22nm,1.2s,mb4.8						
VSL	Villasalto	29.59	79	PFAKE		11 10 10.0	+11
VSL				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
BSEG	Bad Segeberg	29.77	50	*e*P	P	11 09 58.6	-2.0
	comp=Z,69nm,1.1s,mb5.3						
BSEG	Bad Segeberg	29.77	50	*e*P	P	11 09 58.6	-2.0
GRA1	Grafenberg Arr	29.85	58	*e*P	P	11 10 00.0	-1.3
	comp=Z,43nm,1.1s,mb5.1						
GRA1				LR	LR		
	comp=Z,5µm,18.5s,MS5.1						
GRA1	Grafenberg Arr	29.85	58	*e*P	P	11 10 00.0	-1.3
	comp=Z,43nm,1.1s,mb5.1						
GRF	Grafenberg Arr	29.85	58	*e*P	P	11 10 00.0	-1.3
GRF				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.1						
GRF				MLR	MLR		
	comp=Z,5µm,18.5s,MS5.1						
GRF	Grafenberg Arr	29.85	58	*e*P	P	11 10 00.0	-1.3
GRF				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.1						
GRF				MLR	MLR		
	comp=Z,5µm,18.5s,MS5.1						
GRF	Grafenberg Arr	29.85	58	*e*P	P	11 10 00.0	-1.3
	comp=Z,43nm,1.1s,mb5.1						
GRF				*e*L		11 20 33.4	
	comp=Z,5µm,18.5s						
GRF	Grafenberg Arr	29.85	58	*e*P	P	11 10 00.0	-1.3
	comp=Z,43nm,1.1s,mb5.1						
MOX	Moxa	30.15	56	*e*P	P	11 10 03.6	-0.4
	comp=Z,45nm,1.6s,mb5.0						
MOX							
	comp=Z,3µm,19.0s						
MOX	Moxa	30.15	56	*e*P	P	11 10 03.6	-0.4
MOX				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.0						
MOX				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.0						
MOX	Moxa	30.15	56	*e*P	P	11 10 03.6	-0.4
	comp=Z,45nm,1.6s,mb5.0						
CTI	Castel Tesino	30.19	65	P	P	11 10 07.6	+3.2
SCO	Scoresbysund	30.39	5	*i* P	P	11 10 04.6	-1.3
SCO				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
SCO				MLR	MLR		
	comp=Z,2µm,19.0s,MS4.7						
SCO	Scoresbysund	30.39	5	*i* P	P	11 10 04.6	-1.3
	comp=Z,4.8nm,1.1s,mb4.1						
SCO							
	comp=Z,2µm,19.0s						
SCO	Scoresbysund	30.39	5	*i* P	P	11 10 04.6	-1.3
	comp=Z,4.8nm,1.1s,mb4.1						
MANZ	Manzenberg	30.43	58	*e*P	P	11 10 04.3	-2.2
	comp=Z,18nm,1.0s,mb4.8						
ROTZ	Rotzenmuhle	30.49	58	*e*P	P	11 10 05.1	-1.9
	comp=Z,15nm,1.1s,mb4.6						
NKC	Novy Kostel	30.66	57	*e*P	P	11 10 08.6	+0.1
NKC				*e*pP	pP	11 10 10.9	-0.7
NKC				AMS	AMS	11 21 10.0	
	comp=Z,5µm,19.2s						
NKC	Novy Kostel	30.66	57	*e*P	P	11 10 08.6	+0.1
NKC				*e*pP	pP	11 10 10.9	-0.7
NKC	Novy Kostel	30.66	57	*e*P	P	11 10 08.6	+0.1
NKC				*e*pP	pP	11 10 10.9	-0.7
TANN	Tannenbergstha	30.68	57	*e*P	P	11 10 08.2	-0.5
	comp=Z,19nm,1.1s,mb4.8						
KEST	Kesra	30.69	86	P	P	11 10 09.2	+0.3
	comp=Z,1.3nm,0.8s,mb3.8,baz=212,slow=11,SNR=3.7						
KEST				LR	LR	11 21 26.0	
	comp=Z,1µm,20.2s,MS4.5,baz=344,slow=34						
WET	Wettzell	30.92	59	*e*P	P	11 10 09.4	-1.4
WET				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.0						
WET	Wettzell	30.92	59	*e*P	P	11 10 09.4	-1.4
	comp=Z,27nm,1.1s,mb5.0						
WET	Wettzell	30.92	59	*e*P	P	11 10 09.4	-1.4
	comp=Z,27nm,1.1s,mb5.0						
CLL	Collm	31.07	55	*e*P	P	11 10 14.0	+1.9
CLL				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.7						
CLL				MLR	MLR		
	comp=Z,2µm,23.7s,MS4.7						
CLL	Collm	31.07	55	*e*P	P	11 10 12.0	-0.1
CLL				*e*pP	pP	11 10 14.0	-1.2
CLL				*e*sP	sP	11 10 16.0	-0.4
	comp=Z,15nm,1.1s						
CLL				*e*SSS		11 17 18.0	
CLL	Collm	31.07	55	*e*P	P	11 10 14.0	+1.9
	comp=Z,15nm,1.1s,mb4.7						
CLL				LR	LR		
	comp=Z,2µm,23.7s,MS4.7						
CLL	Collm	31.07	55	*e*P	P	11 10 14.0	+1.9
	comp=Z,15nm,1.1s,mb4.7						
ASS	Assisi	31.26	71	P	P	11 10 17.7	+3.8
ASS				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
ASS	Assisi	31.26	71	P	P	11 10 17.7	+3.8
	comp=Z,16nm,0.9s,mb4.8						
ASS	Assisi	31.26	71	P	P	11 10 17.7	+3.8
	comp=Z,16nm,0.9s,mb4.8						
KBA	Koelnbreinsper	31.29	63	P	P	11 10 13.0	-1.0
	comp=Z,60nm,0.9s,mb5.4,SNR=35						
PTCC	Patocco-Chiusa	31.34	65	P	P	11 10 15.6	+1.0
PTCC	Patocco-Chiusa	31.34	65	P	P	11 10 15.6	+1.0
KHC	Kasperske Hory	31.38	59	*e*P	P	11 10 13.0	-1.8
KHC				*e*pP	pP	11 10 16.8	-1.1
KHC				AMS	AMS	11 20 30.0	
	comp=Z,2µm,21.5s						
KHC	Kasperske Hory	31.38	59	*e*P	P	11 10 13.0	-1.8
	comp=Z,2µm,21.5s						
KHC				*e*pP	pP	11 10 16.8	-1.1
LBNH	Lisbon	31.41	291	PFAKE		11 10 30.0	+15
LBNH				LR	LR		
	comp=Z,4µm,19.0s,MS5.1						
SNTG	Esanatoglia	31.44	71	P	P	11 10 18.1	+2.7
	comp=Z,33nm,1.0s,mb5.1						
SNTG	Esanatoglia	31.44	71	P	P	11 10 18.1	+2.7
	comp=Z,33nm,1.0s,mb5.1						
GERES	GERESS Array B	31.46	60	P	P	11 10 13.6	-2.0
	comp=Z,0.6nm,0.6s,baz=230,slow=19,SNR=3.9						
GERES				LR	LR	11 21 08.0	
	comp=Z,2µm,18.9s,MS4.8,baz=256,slow=33						
GERES	GERESS Array B	31.46	60	P	P	11 10 13.6	-2.0
CADS	Cadrg	31.62	65	*e*P	P	11 10 17.8	+0.8
CADS	Cadrg	31.62	65	*e*P	P	11 10 17.8	+0.8
NRCA	Norcia	31.64	71	P	P	11 10 16.8	-0.4
	comp=Z,22nm,0.9s,mb5.0						
NRCA	Norcia	31.64	71	P	P	11 10 16.8	-0.4
	comp=Z,22nm,0.9s,mb5.0						
BRG	Berggiesshubel	31.64	56	*i* P	P	11 10 20.6	+3.5
BRG				*e*		11 10 37.5	
BRG				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.5						
BRG				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.2						
BRG				MLR	MLR		
	comp=N,1µm,10.3s						
BRG				MLR	MLR		
	comp=E,1µm,22.8s						
BRG				MLR	MLR		
	comp=Z,2µm,16.6s						
BRG	Berggiesshubel	31.64	56	*i* P	P	11 10 20.6	+3.5
	comp=Z,19nm,1.4s,mb4.7						
BRG				*e*		11 10 37.5	
	comp=Z,8.2nm,1.2s						
BRG							
	comp=N,2µm,10.3s						
BRG							
	comp=E,2µm,22.8s						
BRG							
	comp=Z,3µm,16.6s						
BRG	Berggiesshubel	31.64	56	*i* P	P	11 10 20.6	+3.5
	comp=Z,11nm,1.4s,mb4.5						
BRG				*e*		11 10 37.5	
BRG				LR	LR		
	comp=Z,2µm,16.6s,MS4.8						
FIAM	Fiamignano	31.74	72	P	P	11 10 20.0	+1.9
	comp=Z,200nm,2.4s,mb5.5						
FIAM	Fiamignano	31.74	72	P	P	11 10 20.0	+1.9
	comp=Z,200nm,2.4s,mb5.5						
MOA	Molln	31.87	62⇑	*i*P	P	11 10 17.7	-1.5
	comp=Z,19nm,0.9s,mb4.9,SNR=6.0						
MOA	Molln	31.87	62	P	P	11 10 17.7	-1.5
	comp=Z,19nm,0.9s,mb4.9,SNR=6.0						
AQU	L'Aquila	31.93	72	P	P	11 10 21.2	+1.4
AQU				pmax	pmax		
	comp=Z,219nm,1.6s,mb5.7						
AQU	L'Aquila	31.93	72	P	P	11 10 21.2	+1.4
	comp=Z,219nm,1.6s,mb5.7						
AQU	L'Aquila	31.93	72	P	P	11 10 21.2	+1.4
	comp=Z,219nm,1.6s,mb5.7						
PRU	Pruhonice	32.00	58	*e*P	P	11 10 19.0	-1.3
PRU				*e*pP	pP	11 10 24.8	+1.4
PRU				AMS	AMS	11 22 20.0	
	comp=Z,4µm,13.8s						
PRU	Pruhonice	32.00	58	*e*P	P	11 10 19.0	-1.3
	comp=Z,4µm,13.8s						
PRU				pP	pP	11 10 24.8	+1.4
PVCC	Panska Ves	32.03	57	*e*P	P	11 10 22.3	+1.8
PVCC				AMS	AMS	11 22 20.0	
	comp=Z,6µm,18.5s						
PVCC	Panska Ves	32.03	57	*e*P	P	11 10 22.3	+1.8
	comp=Z,6µm,18.5s						
TERO	Teramo	32.03	72	P	P	11 10 20.7	0.0
TERO	Teramo	32.03	72	P	P	11 10 20.7	0.0
OBKA	Obir	32.16	64⇑	*i*P	P	11 10 19.9	-1.8
	comp=Z,37nm,0.8s,mb5.2,SNR=22						
OBKA	Obir	32.16	64	P	P	11 10 19.9	-1.8
	comp=Z,37nm,0.8s,mb5.2,SNR=22						
LJU	Ljubljana	32.19	65	*e*P	P	11 10 20.4	-1.5

LJU	Ljubljana	32.19	65	*e*P	P	11 10 20.5	-1.5
NB2	NORSAR Subarra	32.21	36	P	P	11 10 24.1	+2.1
	comp=Z,22nm,1.1s,mb4.9,baz=250,slow=9.3						
NB2	NORSAR Subarra	32.21	36	P	P	11 10 24.1	+2.1
	comp=Z,22nm,1.1s,mb4.9,SNR=1.3						
NOA	NORSAR Array B	32.21	36	P	P	11 10 20.6	-1.4
	comp=Z,3.9nm,0.9s,mb4.2,baz=0.2,slow=16,SNR=2.7						
NOA				LR	LR	11 21 30.3	
	comp=Z,906nm,19.3s,MS4.5,baz=250,slow=33						
NOA	NORSAR Array B	32.21	36	P	P	11 10 20.6	-1.4
SDI	San Donato	32.36	73	P	P	11 10 23.0	-0.6
SDI	San Donato	32.36	73	P	P	11 10 23.0	-0.6
JMIC	Jan Mayen	32.46	13	LR	LR	11 20 02.3	
	comp=Z,2µm,20.2s,MS4.7,baz=35,slow=30						
SUMG	Summit	32.56	355	*e*P	P	11 10 22.5	-2.5
SUMG	Summit	32.56	355	*e*P	P	11 10 22.5	-2.5
TREC	Trest	32.62	59	AMS	AMS	11 22 10.0	
	comp=Z,2µm,21.2s						
FRB	Frobisher Bay	32.68	329	P	P	11 10 23.3	-2.9
	comp=Z,10nm,1.1s,mb4.7,baz=110,slow=8.4,SNR=7.5						
FRB				LR	LR	11 20 11.0	
	comp=Z,809nm,19.3s,MS4.4,baz=92,slow=30						
FRB	Frobisher Bay	32.68	329	P	P	11 10 23.3	-2.9
FRB				LR	LR	11 20 11.0	
FRB	Frobisher Bay	32.68	329	P	P	11 10 23.3	-2.8
BOJS	Bojanci	32.75	66	*e*P	P	11 10 25.5	-1.5
BOJS	Bojanci	32.75	66	*e*P	P	11 10 25.5	-1.5
DOBS	Dobrina	32.83	65	*e*P	P	11 10 30.0	+2.4
DOBS	Dobrina	32.83	65	*e*P	P	11 10 30.0	+2.4
SGG	Gregorio Mates	32.85	74	P	P	11 10 25.2	-2.7
	comp=Z,123nm,2.3s,mb5.4						
SGG	Gregorio Mates	32.85	74	P	P	11 10 25.2	-2.7
	comp=Z,123nm,2.3s,mb5.4						
UPC	Upice	32.95	57	*e*P	P	11 10 28.5	-0.1
UPC				*e*pP	pP	11 10 31.6	-0.1
UPC	Upice	32.95	57	P	P	11 10 28.5	-0.1
UPC				pP	pP	11 10 31.6	-0.1
HFS	Hagfors	33.07	39	P	P	11 10 27.0	-2.5
	comp=Z,4.7nm,1.0s,mb4.4,baz=254,slow=21,SNR=2.7						
HFS	Hagfors	33.07	39	P	P	11 10 27.0	-2.5
NCB	Newcomb	33.09	291	PFAKE		11 10 40.0	+10
NCB				LR	LR		
	comp=Z,3µm,21.0s,MS4.9						
DPC	Dobruska-Polom	33.15	57	*e*P	P	11 10 30.3	-0.1
DPC				*e*pP	pP	11 10 33.0	-0.4
DPC				AMS	AMS	11 23 00.0	
	comp=Z,4µm,18.2s						
DPC	Dobruska-Polom	33.15	57	P	P	11 10 30.3	-0.1
DPC				pP	pP	11 10 33.0	-0.4
LONY	Lake Ozonia	33.24	292	PFAKE		11 10 40.0	+8.8
LONY				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
VRAC	Vranov	33.35	59	⇑*i*P	P	11 10 27.8	-4.3
VRAC	Vranov	33.35	59	P	P	11 10 31.4	-0.7
	comp=Z,6.1nm,0.7s,mb4.6,baz=79,slow=8.2,SNR=3.0						
VRAC	Vranov	33.35	59	P	P	11 10 31.4	-0.7
SOP	Sopron	33.42	62	*e*P	P	11 10 35.1	+2.3
MRLC	Muro Lucano	33.82	74	P	P	11 10 34.0	-2.3
	comp=Z,122nm,3.8s						
MRLC	Muro Lucano	33.82	74	P	P	11 10 34.0	-2.3
	comp=Z,122nm,3.8s						
MODS	Modra-Piesok	33.85	61	*e*P	P	11 10 35.5	-1.0
MODS	Modra-Piesok	33.85	61	*e*P	P	11 10 35.5	-1.0
MORC	Moravsky Berou	33.95	58	*e*P	P	11 10 35.2	-2.1
MORC				pmax	pmax		
	comp=Z,42nm,1.9s,mb5.0						
MORC	Moravsky Berou	33.95	58	*e*P	P	11 10 35.1	-2.2
	comp=Z,42nm,1.9s,mb5.0						
MORC	Moravsky Berou	33.95	58	*e*P	P	11 10 35.2	-2.1
	comp=Z,42nm,1.9s,mb5.0						
VAE	Valguarnera	33.95	81	P	P	11 10 38.8	+1.3
	comp=Z,4.6nm,0.3s,mb4.9,baz=93,slow=6.0,SNR=4.0						
VAE				LR	LR	11 24 23.5	
	comp=Z,3µm,18.6s,MS5.0,baz=162,slow=36						
VAE	Valguarnera	33.95	81	P	P	11 10 38.8	+1.3
CUC	Castrocucco	34.25	76	*e*P	P	11 10 38.7	-1.4
	comp=Z,32nm,0.9s,mb5.2						
CUC				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
CUC	Castrocucco	34.25	76	*e*P	P	11 10 38.7	-1.4
	comp=Z,32nm,0.9s,mb5.2						
TAM	Tamanrasset	34.26	110	*e*P	P	11 10 41.9	+1.6
TAM				*e*		11 12 00.0	
TAM				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
TAM				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.0						
TAM	Tamanrasset	34.26	110	*e*P	P	11 10 41.9	+1.6
	comp=Z,30nm,1.3s,mb5.1						
TAM				*e*PP	PP	11 11 60.0	+2.1
TAM				LR	LR		
	comp=Z,3µm,21.0s,MS5.0						
TAM	Tamanrasset	34.26	110	*e*P	P	11 10 41.9	+1.6
	comp=Z,30nm,1.3s,mb5.1						
TAM	Tamanrasset	34.26	110	*e*PP	PP	11 12 00.0	+2.1
OKC	Ostrava-Krasne	34.34	58	AMS	AMS	11 23 30.0	
	comp=Z,2µm,16.5s						
WDD	Wield Dalam	34.58	83	PFAKE		11 11 00.0	+17
WDD				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
BINY	Binghamton	34.71	289	PFAKE		11 11 00.0	+16
BINY				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
CEL	Celeste	34.81	79	*e*P	P	11 10 46.5	+1.5
	comp=Z,18nm,0.9s,mb5.0						
CEL				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
CEL	Celeste	34.81	79	*e*P	P	11 10 46.5	+1.5
	comp=Z,18nm,0.9s,mb5.0						
VYHS	Vyhne	34.88	60	*e*P	P	11 10 47.5	+2.1
VYHS	Vyhne	34.88	60	*e*P	P	11 10 47.5	+2.1
PKSM	Moragy	35.01	64	⇓*i*P	P	11 10 44.4	-2.1
PKSM	Moragy	35.01	64	⇓*i*P	P	11 10 44.4	-2.1
BUD	Budapest	35.10	62	*e*P	P	11 10 49.9	+2.5
TIP	Timpagrande	35.18	77	*e*P	P	11 10 46.6	-1.5
	comp=Z,20nm,1.1s,mb5.0						
TIP				LR	LR		
	comp=Z,4µm,21.0s,MS5.1						
TIP	Timpagrande	35.18	77	*e*P	P	11 10 46.6	-1.5
	comp=Z,20nm,1.1s,mb5.0						
OJC	Ojcow	35.38	57	*e*P	P	11 10 49.0	-0.7
OJC	Ojcow	35.38	57	*e*P	P	11 10 49.0	-0.7
PSZ	Piszkesteto	35.64	61	*e*P	P	11 10 50.4	-1.6
PSZ				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
PSZ				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.8						
PSZ	Piszkesteto	35.64	61	⇑*i*P	P	11 10 52.8	+0.8
PSZ	Piszkesteto	35.64	61	*e*P	P	11 10 52.7	+0.8
PSZ	Piszkesteto	35.64	61	*e*P	P	11 10 50.4	-1.6
	comp=Z,26nm,1.0s,mb5.1						
PSZ				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
PSZ	Piszkesteto	35.64	61	*e*P	P	11 10 52.7	+0.8
ANWB	Willy Bob	35.94	240	PFAKE		11 11 10.0	+15
ANWB				LR	LR		
	comp=Z,1µm,20.0s,MS4.6						
KECS	Kecovo	35.97	60	*e*P	P	11 10 56.6	+1.8
KECS				pmax	pmax		
	comp=Z,34nm,2.6s,mb4.8						
KECS	Kecovo	35.97	60	*e*P	P	11 10 56.6	+1.8
	comp=Z,34nm,2.6s,mb4.8						
STHS	Stebnicka Huta	36.37	58	*e*P	P	11 10 59.3	+1.1
STHS				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
STHS	Stebnicka Huta	36.37	58	*e*P	P	11 10 59.3	+1.1
	comp=Z,12nm,1.0s,mb4.8						
STHS	Stebnicka Huta	36.37	58	*e*P	P	11 10 59.3	+1.1
	comp=Z,12nm,1.0s,mb4.8						
SSPA	Standing Stone	36.48	287	*e*P	P	11 11 00.1	+0.9
	comp=Z,50nm,1.6s,mb5.2						
SSPA				LR	LR		
	comp=Z,3µm,21.0s,MS5.0						
SSPA	Standing Stone	36.48	287	*e*P	P	11 11 00.1	+0.8
	comp=Z,50nm,1.6s,mb5.2						
CRVS	Cervenica-Dubn	36.57	59	*e*P	P	11 10 59.7	-0.2
CRVS				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.0						
CRVS	Cervenica-Dubn	36.57	59	*e*P	P	11 10 59.7	-0.2
	comp=Z,25nm,1.1s,mb5.0						
CRVS	Cervenica-Dubn	36.57	59	*e*P	P	11 10 59.7	-0.2
	comp=Z,25nm,1.1s,mb5.0						
CBN	Corbin	36.83	283	PFAKE		11 11 10.0	+7.8
CBN				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
TIR	Tirane	36.86	72	PFAKE		11 11 10.0	+7.5
TIR				LR	LR		
	comp=Z,1µm,20.0s,MS4.6						
KOLS	Kolonicke sedl	37.10	59	*e*P	P	11 11 06.7	+2.3
KOLS	Kolonicke sedl	37.10	59	*e*P	P	11 11 06.7	+2.3
UZH	Uzhgorod	37.15	60	*e*P	P	11 11 02.2	-2.6
UZH				*i*		11 11 09.0	
UZH				*e*S	S	11 16 41.0	-10
BZS	Buzias	37.15	65	⇓*i*P	P	11 11 04.1	-0.8
BZS	Buzias	37.15	65	⇓P	P	11 11 04.1	-0.8
BZS	Buzias	37.15	65	⇓*i*P	P	11 11 04.1	-0.8
KWP	Kalwaria Pacla	37.30	58	PFAKE		11 11 20.0	+14
KWP				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
TRPA	Tarpa	37.37	60	⇓*i*P	P	11 11 07.2	+0.4
TRPA	Tarpa	37.37	60	⇓*i*P	P	11 11 07.2	+0.4
ERPA	Erie	37.62	290	PFAKE		11 11 20.0	+11
ERPA				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
FDF	Fort de France	37.68	236	PFAKE		11 11 20.0	+10
FDF				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
DRGR		37.69	62	⇓*i*P	P	11 11 07.7	-1.8
DRGR		37.69	62	⇓*i*P	P	11 11 07.7	-1.8
BBGH	Gun Hill	37.90	233	PFAKE		11 11 30.0	+19
BBGH				LR	LR		
	comp=Z,4µm,21.0s,MS5.2						
GZR	Gura Zlata	37.99	65	⇑*i*P	P	11 11 13.9	+1.9
GZR	Gura Zlata	37.99	65	⇑*i*P	P	11 11 13.9	+1.9
LVV	L'vov	38.13	57	*i*	P	11 11 09.0	-4.2
MCWV	Mont Chateau	38.20	286	*e*P	P	11 11 15.9	+2.1
	comp=Z,221nm,2.1s,mb5.5						
MCWV				LR	LR		
	comp=Z,4µm,21.0s,MS5.2						
MCWV	Mont Chateau	38.20	286	*e*P	P	11 11 15.9	+2.0
	comp=Z,221nm,2.1s,mb5.5						
CNNC	Cliffs of the	38.26	278	PFAKE		11 11 30.0	+16
CNNC				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
TOA0	Torodi Ar. Sit	38.47	126	*e*P	P	11 11 16.5	+0.2
TOA0	Torodi Ar. Sit	38.47	126	*e*P	P	11 11 16.5	+0.1
TORD	Torodi Ar. Bea	38.47	126	P	P	11 11 16.5	+0.2
	comp=Z,10.0nm,0.9s,mb4.5,baz=321,slow=5.2,SNR=30						
TORD				LR	LR	11 25 38.7	
	comp=Z,1µm,20.3s,MS4.8,baz=310,slow=34						
TORD	Torodi Ar. Bea	38.47	126	P	P	11 11 16.5	+0.2
TORD				LR	LR	11 25 38.7	
SJG	San Juan	38.61	246	PFAKE		11 11 30.0	+13
SJG				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
SJG	San Juan	38.61	246	P		11 11 30.0	+13
BUR08	Bucovina Ar. S	39.22	61	*e*P	P	11 11 21.8	-0.5
BUR08	Bucovina Ar. S	39.22	61	*e*P	P	11 11 21.8	-0.5
BURAR	Bucovina Array	39.23	61	⇓*i*P	P	11 11 22.0	-0.4
BURAR	Bucovina Array	39.23	61	⇓P	P	11 11 22.0	-0.4
BURAR	Bucovina Array	39.23	61	⇓*i*P	P	11 11 22.0	-0.4
BLA	Blacksburg	39.44	282	PFAKE		11 11 40.0	+16
BLA				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
KAF	Kangasniemi	39.46	38	*e*P	P	11 11 20.9	-3.2
KAF				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.0						
KAF	Kangasniemi	39.46	38	*e*p	P	11 11 20.9	-3.2
	comp=Z,30nm,0.9s,mb5.0						
VOIR		39.55	64	⇑*i*P	P	11 11 25.9	+0.8
VOIR		39.55	64	⇑P	P	11 11 25.9	+0.8
VOIR		39.55	64	⇑*i*P	P	11 11 25.9	+0.8
GRGR	Grenville	39.97	234	PFAKE		11 11 40.0	+11
GRGR				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
TIC	Toumodi	40.08	140	*e*P	P	11 11 30.6	+0.8
	comp=Z,146nm,1.1s,mb5.6						
DBIC	Dimbokro	40.14	140	P	P	11 11 30.9	+0.6
	comp=Z,5.5nm,0.9s,mb4.3,baz=322,slow=9.6,SNR=4.5						
DBIC				LR	LR	11 27 32.1	
	comp=Z,934nm,18.2s,MS4.7,baz=312,slow=35						
DBIC	Dimbokro	40.14	140	P	P	11 11 30.9	+0.6
MLR	Muntele Rosu	40.15	64	⇑*i*P	P	11 11 30.4	+0.3
MLR	Muntele Rosu	40.15	64	P	P	11 11 29.8	-0.3
	comp=Z,15nm,0.9s,mb4.7,baz=314,slow=12,SNR=6.4						
MLR	Muntele Rosu	40.15	64	⇑P	P	11 11 30.4	+0.3
MLR	Muntele Rosu	40.15	64	⇑*i*P	P	11 11 30.4	+0.3
AAM	Ann Arbor	40.19	291	PFAKE		11 11 40.0	+10
AAM				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
GLMI	Grayling	40.22	295	PFAKE		11 11 40.0	+9.4
GLMI				LR	LR		
	comp=Z,4µm,20.0s,MS5.3						
ACSO	Alum Creek Sta	40.32	288	*e*P	P	11 11 33.1	+1.6
	comp=Z,19nm,0.9s,mb4.8						
ACSO				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
ACSO	Alum Creek Sta	40.32	288	*e*P	P	11 11 33.1	+1.6
	comp=Z,19nm,0.9s,mb4.8						
LIC	Lamto	40.44	141	⇑*i*P	P	11 11 35.5	+2.7
	comp=Z,70nm,1.3s,mb4.9,baz=320						
LIC				*e*MLR	MLR		
	comp=Z,2µm,21.0s,MS4.6						
LIC	Lamto	40.44	141	*e*P	P	11 11 34.6	+1.8
	comp=Z,68nm,1.3s,mb5.2						
LIC	Lamto	40.44	141	⇑*i*P	P	11 11 35.5	+2.7
	comp=Z,35nm,1.3s,mb4.9						
LIC				LR	LR		
	comp=Z,850nm,21.0s,MS4.6						
KIC	Kosan Boka	40.46	140	*e*P	P	11 11 35.2	+2.2
	comp=Z,82nm,1.2s,mb5.3						
PLOR	Plostina	40.55	63	⇓*i*P	P	11 11 36.3	+2.9
VRI	Vrincioaia	40.60	63	⇑*i*P	P	11 11 37.2	+3.4
VRI	Vrincioaia	40.60	63	⇑P	P	11 11 37.2	+3.4
ARCES	ARCESS Array B	40.64	26	P	P	11 11 32.3	-1.5
	comp=Z,15nm,0.9s,mb4.6,baz=267,slow=14,SNR=8.1						
ARCES				LR	LR	11 24 49.1	
	comp=Z,1µm,21.8s,MS4.7,baz=255,slow=31						
ARCES	ARCESS Array B	40.64	26	P	P	11 11 32.3	-1.5
NHSC	New Hope	40.86	276	PFAKE		11 11 50.0	+14
NHSC				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
NHSC	New Hope	40.86	276	P		11 11 50.0	+14
KIEV	Kiev	41.31	55	*e*P	P	11 11 39.0	-0.6
KIEV				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.9						
KIEV				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.2						
KIEV	Kiev	41.31	55	*e*P	P	11 11 39.0	-0.5
	comp=Z,28nm,0.9s,mb4.9						
KIEV				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
KIEV	Kiev	41.31	55	*e*P	P	11 11 39.0	-0.6
	comp=Z,28nm,0.9s,mb4.9						
AKASG	Malin Array Be	41.32	55	P	P	11 11 37.2	-2.4
	comp=Z,6.1nm,0.8s,mb4.3,baz=274,slow=8.5,SNR=11						
AKASG				LR	LR	11 28 20.3	
	comp=Z,3µm,18.1s,MS5.2,baz=280,slow=36						
AKASG	Malin Array Be	41.32	55	P	P	11 11 37.2	-2.4
AKASG				LR	LR	11 28 20.3	
AKASG	Malin Array Be	41.32	55	P	P	11 11 37.2	-2.4
SDDR	Presa de Saban	41.69	252	*e*P	P	11 11 45.3	+2.2
	comp=Z,60nm,1.1s,mb5.1						
SDDR				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
SDDR	Presa de Saban	41.69	252	*e*P	P	11 11 45.3	+2.2
	comp=Z,60nm,1.1s,mb5.1						
KIS	Kishinev	41.76	61	*e*P	P	11 11 45.0	+1.7
KIS				*e*		11 11 57.0	
KIS				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.0						
KIS	Kishinev	41.76	61	*e*P	P	11 11 45.0	+1.7
JOF	Joensuu	41.84	37	*e*p	P	11 11 40.4	-3.4
	comp=Z,43nm,0.9s,mb5.1						
KBS	Kingsbay	41.90	11	PFAKE		11 11 50.0	+5.9
KBS				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
TIRR	Tirgusor	42.11	65	*e*P	P	11 11 43.7	-2.5
TIRR				pmax	pmax		
	comp=Z,69nm,0.9s,mb5.3						
TIRR	Tirgusor	42.11	65	⇑*i*P	P	11 11 44.0	-2.2
TIRR	Tirgusor	42.11	65	*e*P	P	11 11 43.6	-2.5
	comp=Z,69nm,0.9s,mb5.3						
TIRR	Tirgusor	42.11	65	⇑*i*P	P	11 11 44.0	-2.2
SPITS	Spitsbergen Ar	42.13	13	LR	LR	11 25 22.4	
	comp=Z,802nm,18.0s,MS4.7,baz=205,slow=31						
TKL	Tuckaleechee C	42.53	282	LR	LR	11 28 19.5	
	comp=Z,2µm,19.4s,MS5.0,baz=79,slow=35						
IDI	Anoyia	42.62	79	P	P	11 11 50.7	+0.3
	comp=Z,4.6nm,0.7s,mb4.3,baz=297,slow=9.1,SNR=5.3						
IDI				LR	LR	11 29 11.0	
	comp=Z,329nm,20.2s,MS4.2,baz=285,slow=36						
IDI	Anoyia	42.62	79	P	P	11 11 50.7	+0.2
APA	Apatity	43.10	30	⇓*i*P	P	11 11 57.4	+3.4
APA				pmax	pmax		
	comp=Z,54nm,1.2s,mb5.2						
GOGA	Godfrey	43.22	279	PFAKE		11 12 10.0	+15
GOGA				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
GOGA	Godfrey	43.22	279	P		11 12 10.0	+15
BLO	Bloomington	43.24	288	*e*P	P	11 11 56.5	+1.0
BLO				pmax	pmax		
	comp=Z,133nm,2.1s,mb5.3						
BLO	Bloomington	43.24	288	*e*P	P	11 11 56.5	+1.0
	comp=Z,133nm,2.1s,mb5.3						
BLO	Bloomington	43.24	288	*e*P	P	11 11 56.5	+1.0
	comp=Z,133nm,2.1s,mb5.3						
PCRV	Puerto La Cruz	43.33	236	LR	LR	11 26 04.1	
	comp=Z,1µm,21.9s,MS4.8,baz=57,slow=31						
WCI	Wyandotte Cave	43.42	286	PFAKE		11 12 10.0	+13
WCI				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
GTBY	Guantanamo Bay	43.91	256	PFAKE		11 12 10.0	+9.0
GTBY				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
EYMN	Ely	44.09	301	*e*P	P	11 12 01.2	-1.0
	comp=Z,25nm,1.1s,mb4.8						
EYMN				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
EYMN	Ely	44.09	301	*e*P	P	11 12 01.2	-1.0
	comp=Z,25nm,1.1s,mb4.8						
DWPF	Disney	44.14	271	PFAKE		11 12 20.0	+17
DWPF				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
DWPF	Disney	44.14	271	P		11 12 20.0	+17
SWET	Sewanee	44.32	282	*e*P	P	11 12 06.8	+2.6
SWET	Sewanee	44.32	282	*e*P	P	11 12 06.8	+2.6
OLIL	Olney	44.55	288	*e*P	P	11 12 07.2	+1.3
	comp=Z,265nm,2.6s,mb5.6						
OLIL	Olney	44.55	288	*e*P	P	11 12 07.2	+1.2
	comp=Z,265nm,2.6s,mb5.6						
JFWS	Jewell Farm	44.66	294	PFAKE		11 12 20.0	+13
JFWS				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
HDIL	Hopedale	44.76	291	PFAKE		11 12 20.0	+12
HDIL				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
OBN	Obninsk	45.00	48	⇓*e*P	P	11 12 09.3	-0.1
OBN				*i*		11 13 52.5	
OBN				*e*S	S	11 18 50.4	+2.8
OBN				pmax	pmax		
	comp=Z,106nm,2.0s,mb5.3						
OBN				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.1						
OBN	Obninsk	45.00	48	*e*P	P	11 12 09.2	-0.1
	comp=Z,14nm,0.5s,mb5.0						
OBN				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
OBN	Obninsk	45.00	48	*e*P	P	11 12 09.2	-0.2
	comp=Z,14nm,0.5s,mb5.0						
RES	Resolute Bay	45.04	340	*e*P	P	11 12 08.7	-0.8
RES				pmax	pmax		
	comp=Z,30nm,1.6s,mb4.9						
RES	Resolute Bay	45.04	340	P	P	11 12 07.5	-2.0
	comp=Z,1.7nm,0.7s,mb4.0,baz=120,slow=7.0,SNR=12						
RES				LR	LR	11 28 02.8	
	comp=Z,171nm,19.4s,baz=77,slow=32						
RES	Resolute Bay	45.04	340	*e*P	P	11 12 08.7	-0.8
	comp=Z,30nm,1.6s,mb4.9						
RES	Resolute Bay	45.04	340	*e*P	P	11 12 08.7	-0.8
	comp=Z,30nm,1.6s,mb4.9						
WVT	Waverly	45.36	284	PFAKE		11 12 20.0	+7.6
WVT				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
WVT	Waverly	45.36	284	P		11 12 20.0	+7.6
MOS	Moscow	45.49	47	*e*P	P	11 12 12.0	-1.2
MOS				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.3						
MOS				MLR	MLR		
	comp=E,2µm,17.0s						
SIUC	Southern Illin	45.75	287	*e*P	P	11 12 16.8	+1.2
	comp=E,150nm,2.0s,mb5.6						
SIUC	Southern Illin	45.75	287	*e*P	P	11 12 16.8	+1.3
	comp=E,150nm,2.0s,mb5.6						
ISP	Isparta	45.77	73	PFAKE		11 12 30.0	+14
ISP				LR	LR		
	comp=Z,727nm,19.0s,MS4.6						
ISP	Isparta	45.77	73	P		11 12 30.0	+14
KLMR	Klimovskoe	45.78	40	*e*P	P	11 12 13.7	-1.7
KLMR				*e*		11 13 56.5	
KLMR				pmax	pmax		
	comp=Z,89nm,1.6s,mb5.5						
PLAL	Pickwick Lake	46.01	283	*e*P	P	11 12 18.6	+0.9
PLAL				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
PLAL	Pickwick Lake	46.01	283	*e*P	P	11 12 18.6	+1.0
ULM	Lac du Bonnet	46.31	306	P	P	11 12 16.6	-3.2
	comp=Z,1.8nm,0.6s,mb4.2,baz=98,slow=4.8,SNR=2.6						
ULM				LR	LR	11 30 31.4	
	comp=Z,3µm,19.5s,MS5.3,baz=79,slow=35						
RCBR	Riachuelo	46.39	189	PFAKE		11 12 40.0	+19
RCBR				LR	LR		
	comp=Z,557nm,20.0s,MS4.5						
AGMN	Agassiz Refuge	46.82	303	*e*P	P	11 12 22.7	-1.1
	comp=Z,32nm,1.3s,mb5.1						
AGMN				*e*PcP	PcP	11 13 58.0	+1.2
AGMN				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
AGMN	Agassiz Refuge	46.82	303	*e*P	P	11 12 22.7	-1.1
	comp=Z,32nm,1.3s,mb5.1						
AGMN	Agassiz Refuge	46.82	303	*e*PcP	PcP	11 13 58.0	+1.3
BRAL	Brewton	47.02	277	PFAKE		11 12 40.0	+14
BRAL				LR	LR		
	comp=Z,1µm,21.0s,MS4.9						
BRAL	Brewton	47.02	277	P		11 12 40.0	+14
SCIA	State Center	47.06	294	P	P	11 12 27.7	+1.9
	comp=Z,291nm,2.3s,mb5.8						
SCIA				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
CCM	Cathedral Cave	47.09	288	*e*P	P	11 12 25.7	-0.4
CCM				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.2						
CCM				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.0						
CCM	Cathedral Cave	47.09	288	*e*P	P	11 12 25.6	-0.4
	comp=Z,60nm,1.7s,mb5.2						
CCM				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
CCM	Cathedral Cave	47.09	288	*e*P	P	11 12 25.6	-0.5
	comp=Z,60nm,1.7s,mb5.2						
OXF	Oxford	47.20	283	PFAKE		11 12 40.0	+13
OXF				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
OXF	Oxford	47.20	283	P		11 12 40.0	+13
BRTR	Keskin Array B	47.31	69	P	P	11 12 25.1	-2.7
BRTR						11 13 56.5	
BRTR	Keskin Array B	47.31	69	P	P	11 12 25.0	-2.8
	comp=Z,3.1nm,0.8s,mb4.3						
BRTR				PcP	PcP	11 13 56.5	-2.1
BRTR				LR	LR	11 33 06.2	
	comp=Z,286nm,19.2s,MS4.2,baz=73,slow=37						
BRTR	Keskin Array B	47.31	69	P	P	11 12 25.1	-2.8
BRTR				PcP	PcP	11 13 56.5	-2.1
BRTR				LR	LR	11 33 06.2	
VSR	Storozhevoye	47.36	53	*e*P	P	11 12 30.4	+2.4
VSR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
VSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VSR				pmax	pmax		
	comp=E,60nm,0.9s						
VORD	Divnogorie	47.50	53	*e*P	P	11 12 31.6	+2.5
VORD				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
VORD				pmax	pmax		
	comp=N,40nm,1.1s						
VORD				pmax	pmax		
	comp=E,190nm,1.0s						
SDV	Santo Domingo	48.20	241	*e*P	P	11 12 38.7	+3.8
	comp=E,21nm,1.1s,mb5.1						
SDV				LR	LR		
	comp=Z,259nm,22.0s,MS4.2						
PRGR	Permogore	48.59	38	⇓*i*P	P	11 12 34.9	-2.4
PRGR				pmax	pmax		
	comp=Z,85nm,1.3s,mb5.6						
ECSD	EROS Data Cent	48.76	297	*e*P	P	11 12 38.3	-0.7

	comp=Z,287nm,2.8s,mb5.8						
ECSD				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
ECSD	**EROS Data Cent**	48.76	297	*e*P	P	11 12 38.3	-0.6
	comp=Z,287nm,2.8s,mb5.8						
FFC	**Flin Flon**	48.81	313	P	P	11 12 38.4	-0.7
	comp=Z,94nm,0.9s,mb5.8,SNR=5.7						
FFC	**Flin Flon**	48.81	313	*e*P	P	11 12 38.8	-0.3
FFC				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
FFC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
FFC	**Flin Flon**	48.81	313	*e*P	P	11 12 38.8	-0.4
	comp=Z,19nm,1.0s,mb5.1						
FFC				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
FFC	**Flin Flon**	48.81	313	*e*P	P	11 12 38.8	-0.3
	comp=Z,19nm,1.0s,mb5.1						
VRHR	**Novokhopersk**	48.88	52	*e*P	P	11 12 43.2	+3.5
VRHR				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.5						
VRHR				pmax	pmax		
	comp=N,50nm,0.9s						
CSS	**Prodhromos**	49.03	75	PFAKE		11 12 50.0	+8.9
CSS				LR	LR		
	comp=Z,493nm,20.0s,MS4.5						
VBMS	**Vicksburg**	49.06	281	*e*P	P	11 12 40.7	-0.7
	comp=Z,258nm,2.2s,mb5.9						
VBMS				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
VBMS	**Vicksburg**	49.06	281	*e*P	P	11 12 40.7	-0.7
	comp=Z,258nm,2.2s,mb5.9						
SOC	**Sochi**	50.11	62	*e*P	P	11 12 53.4	+4.2
SOC				*e*PPP		11 15 37.5	
SOC				*e*S	S	11 20 02.6	+2.0
SOC				MLR	MLR		
	comp=Z,529nm,17.0s,MS4.6						
MIAR	**Mount Ida**	50.27	285	*e*P	P	11 12 50.3	-0.3
MIAR				pmax	pmax		
	comp=Z,106nm,1.6s,mb5.6						
MIAR				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.9						
MIAR	**Mount Ida**	50.27	285	*e*P	P	11 12 50.3	-0.3
	comp=Z,106nm,1.6s,mb5.6						
MIAR				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
MIAR	**Mount Ida**	50.27	285	*e*P	P	11 12 50.3	-0.3
	comp=Z,106nm,1.6s,mb5.6						
KSU1	**Kansas State U**	50.52	292	*e*P	P	11 12 51.7	-0.8
	comp=Z,27nm,0.9s,mb5.2						
KSU1				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
KSU1	**Kansas State U**	50.52	292	*e*P	P	11 12 51.7	-0.7
	comp=Z,27nm,0.9s,mb5.2						
MALT	**Malatya**	51.30	69	*e*P	P	11 12 58.3	0.0
MALT				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
MALT				MLR	MLR		
	comp=Z,631nm,22.0s,MS4.6						
MALT	**Malatya**	51.30	69⇑	*i*P	P	11 12 59.8	+1.5
MALT	**Malatya**	51.30	69	*e*P	P	11 12 58.2	0.0
	comp=Z,24nm,1.1s,mb5.0						
MALT				LR	LR		
	comp=Z,631nm,22.0s,MS4.6						
MALT	**Malatya**	51.30	69⇑	*i*P	P	11 12 59.8	+1.5
MMAI	**Mount Meron Ar**	51.45	76	LR	LR	11 34 55.3	
	comp=Z,246nm,21.9s,MS4.2,baz=355,slow=36						
KIV	**Kislovodsk**	51.96	61⇓	*e*P	P	11 13 03.7	+0.5
KIV				*i* S	S	11 20 23.8	-2.4
KIV				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.7						
KIV				MLR	MLR		
	comp=Z,600nm,20.0s,MS4.6						
KIV	**Kislovodsk**	51.96	61	PFAKE		11 13 20.0	+17
KIV				LR	LR		
	comp=Z,689nm,20.0s,MS4.7						
DGMT	**Dagmar**	52.03	305	*e*P	P	11 13 00.4	-3.2
	comp=Z,33nm,1.2s,mb5.1						
DGMT				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
CBKS	**Cedar Bluff**	52.86	293	PFAKE		11 13 20.0	+10
CBKS				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
YKA	**Yellowknife Ar**	53.02	325	P	P	11 13 08.6	-2.1
YKA						11 14 17.4	
YKA	**Yellowknife Ar**	53.02	325	P	P	11 13 08.5	-2.2
	comp=Z,3.0nm,0.7s,mb4.3,baz=68,slow=7.4,SNR=35						
YKA				PcP	PcP	11 14 17.4	-1.7
	comp=Z,1.2nm,0.8s,baz=73,slow=4.5,SNR=4.2						
YKA				LR	LR	11 33 08.7	
	comp=Z,649nm,19.5s,MS4.7,baz=145,slow=33						
YKA	**Yellowknife Ar**	53.02	325	P	P	11 13 08.6	-2.2
YKA				PcP	PcP	11 14 17.4	-1.8
YKA				LR	LR	11 33 08.7	
YKA	**Yellowknife Ar**	53.02	325	P	P	11 13 08.6	-2.1
YKA	**Yellowknife Ar**	53.02	325	PcP	PcP	11 14 17.4	-1.8
OGNE	**Ogallala**	53.55	296	PFAKE		11 13 30.0	+15
OGNE				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
RSSD	**Black Hills**	53.58	300	PFAKE		11 13 30.0	+15
RSSD				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
ROSC	**El Rosal**	53.63	241	LR	LR	11 32 53.2	
	comp=Z,1µm,21.5s,MS4.9,baz=269,slow=32						
TEIG	**Tepich**	53.66	266	PFAKE		11 13 30.0	+14
TEIG				LR	LR		
	comp=Z,991nm,20.0s,MS4.9						
TEIG	**Tepich**	53.66	266	P		11 13 30.0	+14
LAO	**LASA Array**	53.97	304	*e*P	P	11 13 18.1	+0.1
	comp=Z,80nm,1.4s,mb5.5						
LAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
LAO	**LASA Array**	53.97	304	*e*P	P	11 13 18.0	0.0
	comp=Z,80nm,1.4s,mb5.5						
WMOK	**Wichita Mounta**	54.00	288	*e*P	P	11 13 18.3	-0.1
WMOK				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
WMOK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
WMOK	**Wichita Mounta**	54.00	288	*e*P	P	11 13 18.3	-0.1
	comp=Z,18nm,1.1s,mb4.9						
WMOK				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
WMOK	**Wichita Mounta**	54.00	288	*e*P	P	11 13 18.3	-0.1
	comp=Z,18nm,1.1s,mb4.9						
HKT	**Hockley**	54.15	281	*e*P	P	11 13 20.9	+1.4
HKT				pmax	pmax		
	comp=Z,41nm,1.8s,mb5.1						
HKT				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
HKT	**Hockley**	54.15	281	*e*P	P	11 13 20.9	+1.4
	comp=Z,41nm,1.8s,mb5.1						
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
HKT	**Hockley**	54.15	281	*e*P	P	11 13 20.9	+1.4
	comp=Z,41nm,1.8s,mb5.1						
BCIP	**Isla Barro Col**	54.38	249	PFAKE		11 13 40.0	+19
BCIP				LR	LR		
	comp=Z,364nm,19.0s,MS4.5						
SOKR	**Solikamsk**	54.44	39*c*	*i*P	P	11 13 25.2	+4.0
SOKR				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,790nm,17.0s,MS4.8						
GNI	**Garni**	54.93	64	*e*P	P	11 13 25.9	+0.9
GNI				pmax	pmax		
	comp=Z,32nm,1.1s						
GNI				MLR	MLR		
	comp=Z,403nm,19.0s						
GNI	**Garni**	54.93	64	P	P	11 13 25.1	0.0
	comp=Z,4.9nm,0.4s,mb4.9,baz=0.5,slow=21,SNR=11						
GNI	**Garni**	54.93	64	*e*P	P	11 13 25.9	+0.8
	comp=Z,32nm,1.1s,mb5.3						
GNI				*e*PP	PP	11 15 18.3	-9.4
GNI				LR	LR		
	comp=Z,403nm,19.0s,MS4.5						
GNI	**Garni**	54.93	64	P	P	11 13 28.0	+2.9
	SNR=7.5						
GNI				P		11 13 28.0	
	SNR=7.5						
GNI	**Garni**	54.93	64	*e*P	P	11 13 25.9	+0.9
	comp=Z,32nm,1.1s,mb5.3						
EGMT	**Eagleton**	55.63	307	*e*P	P	11 13 29.0	-0.9
	comp=Z,28nm,1.0s,mb5.2						
EGMT				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
EGMT	**Eagleton**	55.63	307	*e*P	P	11 13 29.0	-1.0
	comp=Z,28nm,1.0s,mb5.2						
PHWY	**Pilot Hill**	55.72	298	*e*P	P	11 13 30.6	-0.1
	comp=Z,27nm,1.5s,mb5.0						
PHWY	**Pilot Hill**	55.72	298	*e*P	P	11 13 30.6	-0.1
	comp=Z,27nm,1.5s,mb5.0						
AMTX	**Amarillo**	56.03	289	*e*P	P	11 13 33.3	+0.3
	comp=Z,38nm,1.1s,mb5.3						
AMTX				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
AMTX	**Amarillo**	56.03	289	*e*P	P	11 13 33.3	+0.3
	comp=Z,38nm,1.1s,mb5.3						
ARU	**Arti**	56.50	42	P	P	11 13 34.8	-1.2
	comp=Z,386nm,1.0s,mb6.4,SNR=7.2						
ARU	**Arti**	56.50	42*d*	*i*P	P	11 13 35.3	-0.7
ARU				S	S	11 21 26.0	-1.1
ARU				SS	SS	11 25 07.7	-6.0
ARU				pmax	pmax		
	comp=Z,93nm,2.5s,mb5.4						
ARU	**Arti**	56.50	42	*e*P	P	11 13 34.6	-1.4
	comp=Z,73nm,1.0s,mb5.7						
ARU				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
ARU	**Arti**	56.50	42	*e*P	P	11 13 34.6	-1.4
	comp=Z,73nm,1.0s,mb5.7						
ISCO	**Idaho Springs**	56.51	296	*e*P	P	11 13 37.4	+1.1
ISCO				pmax	pmax		
	comp=Z,25nm,1.6s,mb5.0						
ISCO				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
ISCO	**Idaho Springs**	56.51	296	*e*P	P	11 13 37.4	+1.1
	comp=Z,26nm,1.6s,mb5.0						
ISCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
ISCO	**Idaho Springs**	56.51	296	*e*P	P	11 13 37.4	+1.1
	comp=Z,26nm,1.6s,mb5.0						
GCMT	**Greycliff**	56.52	304	*e*P	P	11 13 35.2	-1.1
	comp=Z,28nm,1.5s,mb5.1						
GCMT	**Greycliff**	56.52	304	*e*P	P	11 13 35.2	-1.1
	comp=Z,28nm,1.5s,mb5.1						
RLMT	**Red Lodge**	56.56	303	*e*P	P	11 13 37.7	+1.1
	comp=Z,37nm,1.5s,mb5.2						
RLMT				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
RLMT	**Red Lodge**	56.56	303	*e*P	P	11 13 37.7	+1.1
	comp=Z,37nm,1.5s,mb5.2						
TGUH	**Tegucigalpa,Un**	56.63	260	*e*P	P	11 13 42.2	+4.7
	comp=Z,35nm,1.1s,mb5.3						
TGUH				LR	LR		
	comp=Z,992nm,22.0s,MS4.9						
RWWY	**Rawlins**	56.73	299	*e*P	P	11 13 40.0	+2.1
	comp=Z,83nm,1.9s,mb5.4						
RWWY	**Rawlins**	56.73	299	*e*P	P	11 13 40.0	+2.1
	comp=Z,83nm,1.9s,mb5.4						
JCT	**Junction City**	56.84	284	*e*P	P	11 13 38.3	-0.5
JCT				pmax	pmax		
	comp=Z,54nm,1.5s,mb5.4						
JCT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
JCT	**Junction City**	56.84	284	*e*P	P	11 13 38.3	-0.5
	comp=Z,54nm,1.5s,mb5.4						
JCT				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
JCT	**Junction City**	56.84	284	*e*P	P	11 13 38.3	-0.5
	comp=Z,54nm,1.5s,mb5.4						
KVTX	**Kingsville**	56.93	280	PFAKE		11 13 50.0	+10
KVTX				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
KVTX	**Kingsville**	56.93	280	P		11 13 50.0	+10
JTS	**JuntasAbangare**	57.34	255	PFAKE		11 14 00.0	+17
JTS				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
SDCO	**Great Sand Dun**	57.38	294	*e*P	P	11 13 43.0	+0.4
	comp=Z,69nm,2.3s,mb5.3						
SDCO				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
SDCO	**Great Sand Dun**	57.38	294	*e*P	P	11 13 43.0	+0.4
	comp=Z,69nm,2.3s,mb5.3						
SVE	**Sverdlovsk**	57.38	41	*e*P	P	11 13 42.9	+0.6
SVE				*e*S	S	11 21 35.6	-3.1
SVE				pmax	pmax		
	comp=Z,58nm,1.6s,mb5.4						
HRY	**Holter Researc**	57.47	306	*e*P	P	11 13 42.1	-1.0
HRY	**Holter Researc**	57.47	306	*e*P	P	11 13 42.1	-1.0
LKWY	**Lake**	57.52	303	*e*P	P	11 13 46.4	+2.9
LKWY				pmax	pmax		
	comp=Z,59nm,2.0s,mb5.3						
LKWY				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.7						
LKWY	**Lake**	57.52	303	*e*P	P	11 13 46.4	+2.9
	comp=Z,58nm,2.0s,mb5.3						
LKWY				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
WALA	**Waterton Lakes**	57.70	309	*e*P	P	11 13 43.6	-1.0
	comp=Z,1.7nm,1.3s,mb3.9						
WALA	**Waterton Lakes**	57.70	309	*e*P	P	11 13 43.6	-1.0
	comp=Z,1.7nm,1.3s,mb3.9						
BW06	**Boulder Array**	57.79	301	*e*P	P	11 13 44.0	-1.4
	comp=Z,16nm,1.3s,mb4.9						
BW06				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
BW06	**Boulder Array**	57.79	301	*e*P	P	11 13 44.0	-1.4
	comp=Z,16nm,1.3s,mb4.9						
PDAR	**Pinedale Array**	57.79	301	P	P	11 13 44.0	-1.4
	comp=Z,3.4nm,0.9s,mb4.4,baz=64,slow=7.2,SNR=18						
PDAR				LR	LR	11 37 27.9	
	comp=Z,2µm,21.4s,MS5.2,baz=102,slow=35						
PDAR	**Pinedale Array**	57.79	301	P	P	11 13 44.0	-1.4
BOZ	**Bozeman (W)**	57.82	305	*e*P	P	11 13 44.7	-0.8
BOZ				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
BOZ				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
BOZ	**Bozeman (W)**	57.82	305	*e*P	P	11 13 44.7	-0.8
	comp=Z,14nm,1.3s,mb4.8						
BOZ				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
BOZ	**Bozeman (W)**	57.82	305	*e*P	P	11 13 44.7	-0.8
	comp=Z,14nm,1.3s,mb4.8						
YMR	**Madison River**	57.84	304	*e*P	P	11 13 46.8	+1.1
	comp=Z,68nm,1.6s,mb5.4						
YMR				*e*PcP	PcP	11 14 40.5	+2.3
YMR	**Madison River**	57.84	304	*e*P	P	11 13 46.8	+1.1
	comp=Z,68nm,1.6s,mb5.4						
YFT	**Old Faithful**	57.85	303	*e*P	P	11 13 49.1	+3.3
	comp=Z,23nm,1.2s,mb5.1						
INK	**Inuvik**	57.99	335	*e*P	P	11 13 44.4	-2.0
INK				pmax	pmax		
	comp=Z,101nm,2.4s						
INK	**Inuvik**	57.99	335	*e*P	P	11 13 44.4	-2.0
	comp=Z,101nm,2.4s,mb5.4						
INK	**Inuvik**	57.99	335	*e*P	P	11 13 44.4	-2.0
	comp=Z,101nm,2.4s,mb5.4						
LOHW	**Long Hollow**	58.09	302	*e*P	P	11 13 47.1	-0.3
	comp=Z,20nm,1.4s,mb5.0						
LOHW	**Long Hollow**	58.09	302	*e*P	P	11 13 47.2	-0.2
	comp=Z,20nm,1.4s,mb5.0						
MOOW	**Moose Ponds**	58.12	302	*e*P	P	11 13 48.0	+0.3
	comp=Z,28nm,1.6s,mb5.0						
MOOW	**Moose Ponds**	58.12	302	*e*P	P	11 13 48.0	+0.4
	comp=Z,28nm,1.6s,mb5.0						
IMW	**Indian Meadow**	58.17	303	*e*P	P	11 13 47.5	-0.5
	comp=Z,10nm,1.0s,mb4.8						
IMW	**Indian Meadow**	58.17	303	*e*P	P	11 13 47.5	-0.5
	comp=Z,10nm,1.0s,mb4.8						
LRM	**Limekiln Ridge**	58.25	305	*e*P	P	11 13 49.3	+0.7
LRM	**Limekiln Ridge**	58.25	305	*e*P	P	11 13 49.3	+0.7
SNOW	**Snow King Moun**	58.25	302	*e*P	P	11 13 49.1	+0.5
	comp=Z,41nm,1.5s,mb5.2						
SNOW	**Snow King Moun**	58.25	302	*e*P	P	11 13 49.1	+0.5
	comp=Z,41nm,1.5s,mb5.2						
CHMT	**Chamberlain Mo**	58.26	307	*e*P	P	11 13 49.3	+0.7
CHMT	**Chamberlain Mo**	58.26	307	*e*P	P	11 13 49.3	+0.7
SLMT	**Seeley Lake**	58.26	307	*e*P	P	11 13 47.8	-0.8
SLMT	**Seeley Lake**	58.26	307	*e*P	P	11 13 47.8	-0.8
YBMT	**Yellow Bay**	58.29	308	*e*P	P	11 13 48.2	-0.5
YBMT	**Yellow Bay**	58.29	308	*e*P	P	11 13 48.2	-0.6
REDW	**Red Top Meadow**	58.36	302	*e*P	P	11 13 48.8	-0.6
	comp=Z,47nm,1.4s,mb5.3						
REDW	**Red Top Meadow**	58.36	302	*e*P	P	11 13 48.8	-0.6
	comp=Z,47nm,1.4s,mb5.3						
TPAW	**Teton Pass**	58.37	302	*e*P	P	11 13 49.8	+0.3
	comp=Z,39nm,1.6s,mb5.2						
TPAW	**Teton Pass**	58.37	302	*e*P	P	11 13 49.8	+0.4
	comp=Z,39nm,1.6s,mb5.2						
SWMT	**Swartz Lake**	58.44	308	*e*P	P	11 13 49.0	-0.9
SWMT	**Swartz Lake**	58.44	308	*e*P	P	11 13 49.0	-0.8
DCID1	**Drake Creek**	58.47	302	*e*P	P	11 13 51.1	+1.0
	comp=Z,28nm,1.4s,mb5.1						
DCID1	**Drake Creek**	58.47	302	*e*P	P	11 13 51.1	+1.0
	comp=Z,28nm,1.4s,mb5.1						
JTMT	**Jette**	58.51	308	*e*P	P	11 13 51.3	+1.0
JTMT	**Jette**	58.51	308	*e*P	P	11 13 51.3	+1.0
DLMT	**Dillon**	58.55	305	*e*P	P	11 13 50.5	-0.1
	comp=Z,20nm,1.2s,mb5.0						
DLMT	**Dillon**	58.55	305	*e*P	P	11 13 50.5	-0.2
	comp=Z,20nm,1.2s,mb5.0						
RRI2	**Red Ridge**	58.67	302	*e*P	P	11 13 50.9	-0.7
	comp=Z,16nm,1.2s,mb4.9						
RRI2	**Red Ridge**	58.67	302	*e*P	P	11 13 50.9	-0.6
	comp=Z,16nm,1.2s,mb4.9						
MSO	**Missoula**	58.72	307	PFAKE		11 14 00.0	+8.2
MSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
BSMT	**Bassoo Peak**	58.76	308	*e*P	P	11 13 53.0	+0.9
BSMT	**Bassoo Peak**	58.76	308	*e*P	P	11 13 53.0	+0.9
AKTK	**Aktyubinsk**	58.78	48	P	P	11 13 51.1	-1.0
AKTK	**Aktyubinsk**	58.78	48	P	P	11 13 51.1	-1.1
AKTO	**Aktyubinsk**	58.78	48	P	P	11 13 50.2	-2.0
AKTO				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
AKTO	**Aktyubinsk**	58.78	48	P	P	11 13 51.1	-1.0
	comp=Z,9.6nm,0.8s,mb4.9,baz=293,slow=7.4,SNR=20						
AHID	**Auburn Hatcher**	58.80	302	PFAKE		11 14 00.0	+7.6
AHID				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
MCMT	**McKenzie Canyo**	58.96	304	*e*P	P	11 13 53.7	+0.2
	comp=Z,4.6nm,1.5s,mb4.3						
MCMT	**McKenzie Canyo**	58.96	304	*e*P	P	11 13 53.7	+0.2
	comp=Z,4.6nm,1.5s,mb4.3						
ANMO	**Albuquerque**	59.42	292	PFAKE		11 14 10.0	+13
ANMO				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
PV04	**Paradox Valley**	59.43	296	*e*P	P	11 13 58.7	+1.9
PV04	**Paradox Valley**	59.43	296	*e*P	P	11 13 58.7	+1.9
MVCO	**Mesa Verde**	59.73	295	*e*P	P	11 13 59.8	+0.8
	comp=Z,69nm,1.7s,mb5.4						
MVCO				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
MVCO	**Mesa Verde**	59.73	295	*e*P	P	11 13 59.8	+0.9
	comp=Z,69nm,1.7s,mb5.4						
OTAV	**Otavalo**	59.79	241	*e*P	P	11 14 02.5	+2.8
OTAV				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
OTAV	**Otavalo**	59.79	241	*e*P	P	11 14 02.5	+2.9
LPM	**Los Pinos Moun**	59.87	291	*e*P	P	11 14 02.5	+2.5
LPM	**Los Pinos Moun**	59.87	291	*e*P	P	11 14 02.5	+2.6
BNM	**Barren Site**	59.95	291	*e*P	P	11 14 00.9	+0.4
	comp=Z,26nm,1.7s,mb5.0						
BNM	**Barren Site**	59.95	291	*e*P	P	11 14 00.9	+0.4
	comp=Z,26nm,1.7s,mb5.0						
NEW	**Newport**	59.96	310	*e*P	P	11 13 59.2	-1.1
NEW				MLR	MLR		
	comp=Z,2µm,22.0s						
NEW	**Newport**	59.96	310	*e*P	P	11 13 59.2	-1.1
DAU	**Daniels Canyon**	60.03	299	*e*P	P	11 14 01.3	+0.3
DAU	**Daniels Canyon**	60.03	299	*e*P	P	11 14 01.3	+0.3
JLU	**Jordanelle**	60.07	300	*e*P	P	11 14 03.2	+2.0
	comp=Z,51nm,1.9s,mb5.2						
JLU	**Jordanelle**	60.07	300	*e*P	P	11 14 03.2	+2.0
	comp=Z,51nm,1.9s,mb5.2						
SRU	**San Rafael**	60.18	298	*e*P	P	11 14 03.2	+1.2
SRU				pmax	pmax		
	comp=Z,30nm,1.8s,mb5.0						
SRU	**San Rafael**	60.18	298	*e*P	P	11 14 03.2	+1.2
	comp=Z,30nm,1.8s,mb5.0						
SRU	**San Rafael**	60.18	298	*e*P	P	11 14 03.2	+1.2
	comp=Z,30nm,1.8s,mb5.0						
LAZ	**Ladron**	60.18	291	*e*P	P	11 14 02.5	+0.4
	comp=Z,17nm,1.7s,mb4.8						
LAZ	**Ladron**	60.18	291	*e*P	P	11 14 02.5	+0.4
	comp=Z,17nm,1.7s,mb4.8						
TXAR	**Lajitas Array**	60.30	285	LR	LR	11 41 05.3	
	comp=Z,1µm,18.3s,MS5.1,baz=355,slow=37						
HVU	**Hansel Valley**	60.36	301	*e*P	P	11 14 04.7	+1.5
HVU				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
HVU	**Hansel Valley**	60.36	301	*e*P	P	11 14 04.7	+1.5
	comp=Z,1.9nm,1.2s,mb4.0						
HVU	**Hansel Valley**	60.36	301	*e*P	P	11 14 04.7	+1.5
	comp=Z,1.9nm,1.2s,mb4.0						
SPUT	**South Promonto**	60.38	301	*e*P	P	11 14 05.0	+1.6
	comp=Z,43nm,1.6s,mb5.2						
SPUT	**South Promonto**	60.38	301	*e*P	P	11 14 05.0	+1.6
	comp=Z,43nm,1.6s,mb5.2						
AB31	**Akbulak array**	60.43	49	P	P	11 14 02.8	-0.8
AB31				pmax	pmax		
	comp=Z,2µm,0.1s						
MPU	**Maple Canyon**	60.48	299	*e*P	P	11 14 04.6	+0.6
	comp=Z,18nm,1.4s,mb4.9						
MPU	**Maple Canyon**	60.48	299	*e*P	P	11 14 04.6	+0.6
	comp=Z,18nm,1.4s,mb4.9						
TMUT	**Trail Mountain**	60.55	298	*e*P	P	11 14 04.9	+0.4
	comp=Z,55nm,1.5s,mb5.5						
TMUT	**Trail Mountain**	60.55	298	*e*P	P	11 14 04.9	+0.4
	comp=Z,55nm,1.5s,mb5.5						
HLID	**Hailey**	60.55	304	*e*P	P	11 14 04.9	+0.4
HLID				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
HLID	**Hailey**	60.55	304	*e*P	P	11 14 04.9	+0.4
BGU	**Big Grassy Mou**	60.95	301	*e*P	P	11 14 06.4	-0.8
	comp=Z,30nm,1.6s,mb5.2						
BGU	**Big Grassy Mou**	60.95	301	*e*P	P	11 14 06.4	-0.9
	comp=Z,30nm,1.6s,mb5.2						
DUG	**Dugway**	61.17	300	*e*P	P	11 14 08.5	-0.3
DUG				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.2						
DUG				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
DUG	**Dugway**	61.17	300	*e*P	P	11 14 08.5	-0.3
	comp=Z,25nm,1.2s,mb5.2						
DUG				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
DUG	**Dugway**	61.17	300	*e*P	P	11 14 08.5	-0.3
	comp=Z,25nm,1.2s,mb5.2						
M13A	**Montello**	61.48	301	*e*P	P	11 14 10.4	-0.5
	comp=Z,13nm,1.1s,mb5.0						
M13A	**Montello**	61.48	301	*e*P	P	11 14 10.4	-0.4
	comp=Z,13nm,1.1s,mb5.0						
MSU	**Marysvale**	61.59	298	*e*P	P	11 14 11.9	+0.3
MSU	**Marysvale**	61.59	298	*e*P	P	11 14 11.9	+0.3
MVU	**Marysvale**	61.62	298	PFAKE		11 14 20.0	+8.2
MVU				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
DLBC	**Dease Lake**	61.64	324	*e*P	P	11 14 11.3	-0.3
DLBC	**Dease Lake**	61.64	324	*e*P	P	11 14 11.3	-0.3
BMO	**Blue Mountains**	61.73	306	*e*P	P	11 14 11.5	-0.9
BMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
BMO	**Blue Mountains**	61.73	306	*e*P	P	11 14 11.5	-0.9
N13A	**Wendover, West**	61.76	301	*e*P	P	11 14 12.3	-0.4
	comp=Z,17nm,1.0s,mb5.1						
N13A	**Wendover, West**	61.76	301	*e*P	P	11 14 12.3	-0.4
	comp=Z,17nm,1.0s,mb5.1						
LNOR	**Lincton Mounta**	61.81	308	*e*P	P	11 14 14.1	+1.1
LNOR	**Lincton Mounta**	61.81	308	*e*P	P	11 14 14.1	+1.1
DAWY	**Dawson**	62.28	332	*e*P	P	11 14 14.7	-1.2
DAWY	**Dawson**	62.28	332	*e*P	P	11 14 14.7	-1.2
HAWA	**Hanford**	62.30	309	PFAKE		11 14 30.0	+14
HAWA				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
N12A	**Clover Valley,**	62.30	301	*e*P	P	11 14 17.3	+0.9
	comp=Z,25nm,1.4s,mb5.2						
N12A	**Clover Valley,**	62.30	301	*e*P	P	11 14 17.3	+0.9
	comp=Z,25nm,1.4s,mb5.2						
EGAK	**Eagle**	62.48	333	*e*P	P	11 14 17.6	+0.5
	comp=Z,104nm,2.9s,mb5.5						
EGAK				LR	LR		
	comp=Z,630nm,19.0s,MS4.8						
EGAK	**Eagle**	62.48	333	*e*P	P	11 14 17.6	+0.5
	comp=Z,104nm,2.9s,mb5.5						
ELK	**Elko**	62.49	301	*e*P	P	11 14 17.5	-0.1
ELK				MLR	MLR		
	comp=Z,1µm,21.0s						
ELK	**Elko**	62.49	301	*e*P	P	11 14 17.5	-0.1
WUAZ	**Wupatki**	62.59	294	*e*P	P	11 14 19.9	+1.6
	comp=Z,81nm,1.9s,mb5.5						
WUAZ				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
WUAZ	**Wupatki**	62.59	294	*e*P	P	11 14 19.9	+1.5
	comp=Z,81nm,1.9s,mb5.5						
CCUT	**Cedar City**	62.89	297	*e*P	P	11 14 19.9	-0.5
	comp=Z,14nm,1.1s,mb5.0						
CCUT	**Cedar City**	62.89	297	*e*P	P	11 14 19.9	-0.5

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     comp=Z,14nm,1.1s,mb5.0
SKAG Skagway          63.38 327 eP      P         11 14 27.3 +4.1
     comp=Z,55nm,1.9s,mb5.4
HYT  Haines Junctio   63.48 329 eP      P         11 14 25.1 +1.3
HYT  Haines Junctio   63.48 329 eP      P         11 14 25.1 +1.3
WVOR Wild Horse Val   63.79 304 eP      P         11 14 26.4 +0.1
WVOR                             pmax   pmax
     comp=Z,87nm,1.8s,mb5.5
WVOR                             MLR    MLR
     comp=Z,3µm,20.0s,MS5.4
WVOR Wild Horse Val   63.79 304 eP      P         11 14 26.4 +0.1
     comp=Z,87nm,1.8s,mb5.5
WVOR                             LR     LR
     comp=Z,3µm,20.0s,MS5.4
WVOR Wild Horse Val   63.79 304 eP      P         11 14 26.4 +0.1
     comp=Z,87nm,1.8s,mb5.5
TUC  Tucson           63.87 291 eP      P         11 14 29.7 +2.7
TUC                              MLR    MLR
     comp=Z,2µm,20.0s,MS5.3
TUC  Tucson           63.87 291 eP      P         11 14 29.7 +2.7
BMN  Battle Mountai   63.94 302  PFAKE            11 14 40.0  +13
BMN                              LR     LR
     comp=Z,1µm,19.0s,MS5.1
BRVK Borovoye         64.08  41  P      P         11 14 28.7 +0.8
     comp=Z,191nm,1.1s,mb6.0,SNR=12
BRVK Borovoye         64.08  41 eP      P         11 14 26.4 -1.5
BRVK                             LR     LR
     comp=Z,1µm,20.0s,MS5.2
BRVK Borovoye         64.08  41 ⇓P      P         11 14 28.6 +0.7
     SNR=14
BRVK                            ⇓P                11 14 28.6
     SNR=14
BRVK Borovoye         64.08  41  P      P         11 14 28.6 +0.7
     SNR=14
BVAR Borovoye Array   64.15  41  P      P         11 14 27.3 -1.0
     comp=Z,6.4nm,0.9s,mb4.6,baz=310,slow=5.6,SNR=16
BVAR                             PP     PP        11 16 50.1 +1.1
     comp=Z,2.9nm,0.9s,baz=297,slow=7.6,SNR=4.8
BVAR Borovoye Array   64.15  41  P      P         11 14 27.3 -1.1
BVAR Borovoye Array   64.15  41  PP     PP        11 16 50.0 +1.0
NLWA Neilton Lookou   64.32 311  PFAKE            11 14 40.0  +10
NLWA                             LR     LR
     comp=Z,3µm,19.0s,MS5.5
COLA College          64.63 335  PFAKE            11 14 40.0 +8.7
COLA                             LR     LR
     comp=Z,521nm,19.0s,MS4.7
SHPR Sheep Range      64.66 297 eP      P         11 14 32.6 +0.5
SHPR Sheep Range      64.66 297 eP      P         11 14 32.6 +0.5
MOD  Modoc            65.12 305 eP      P         11 14 35.0  0.0
MOD                              LR     LR
     comp=Z,3µm,21.0s,MS5.4
MOD  Modoc            65.12 305 eP      P         11 14 35.0  0.0
COR  Corvallis        65.51 308  PFAKE            11 14 50.0  +13
COR                              LR     LR
     comp=Z,1µm,21.0s,MS5.0
IMA2 Indian Mountai   65.54 338 eP      P         11 14 37.8 +0.5
IMA2 Indian Mountai   65.54 338 eP      P         11 14 37.8 +0.5
NVAR Mina Array Bea   65.72 301  P      P         11 14 37.8 -1.2
     comp=Z,1.1nm,0.8s,mb4.0,baz=59,slow=5.5,SNR=6.7
NVAR Mina Array Bea   65.72 301  P      P         11 14 37.8 -1.1
PAHR Pah Rah Range    65.73 302 eP      P         11 14 40.8 +1.9
     comp=Z,69nm,2.1s,mb5.3
PAHR Pah Rah Range    65.73 302 eP      P         11 14 40.8 +1.9
     comp=Z,69nm,2.1s,mb5.3
MCK  McKinley         65.75 335 eP      P         11 14 37.6 -1.0
MCK  McKinley         65.75 335 eP      P         11 14 37.6 -1.0
SPB  Sao Paulo        65.84 198  PFAKE            11 14 50.0  +10
SPB                              LR     LR
     comp=Z,503nm,20.0s,MS4.7
BPAW Bear Paw Mtn.    66.15 336 eP      P         11 14 39.4 -1.8
     comp=Z,35nm,1.5s,mb5.2
BPAW Bear Paw Mtn.    66.15 336 eP      P         11 14 39.4 -1.8
     comp=Z,35nm,1.5s,mb5.2
TRF  Thorofare Moun   66.38 335 eP      P         11 14 41.2 -1.5
     comp=Z,75nm,1.6s,mb5.5
TRF  Thorofare Moun   66.38 335 eP      P         11 14 41.2 -1.5
     comp=Z,75nm,1.6s,mb5.5
HUMO Hull Mountain    66.39 306  PFAKE            11 15 00.0  +17
HUMO                             LR     LR
     comp=Z,2µm,22.0s,MS5.3
DAC  Darwin (Calif)   66.43 298  PFAKE            11 15 00.0  +16
DAC                              LR     LR
     comp=Z,1µm,19.0s,MS5.2
GSC  Goldstone        66.44 297 eP      P         11 14 44.3 +0.7
GSC                              pmax   pmax
     comp=Z,109nm,2.3s,mb5.5
GSC  Goldstone        66.44 297 eP      P         11 14 44.3 +0.8
     comp=Z,109nm,2.3s,mb5.5
GSC  Goldstone        66.44 297 eP      P         11 14 44.3 +0.7
     comp=Z,109nm,2.3s,mb5.5
KTH  Kantishna Hill   66.51 335 eP      P         11 14 40.7 -2.9
     comp=Z,41nm,1.5s,mb5.2
CHUM Lake Minchumin   66.72 336 eP      P         11 14 44.4 -0.4
     comp=Z,46nm,1.6s,mb5.3
CHUM Lake Minchumin   66.72 336 eP      P         11 14 44.4 -0.4
     comp=Z,46nm,1.6s,mb5.3
YBH  Yreka Blue Hor   66.72 306  PFAKE            11 15 00.0  +15
YBH                              LR     LR
     comp=Z,2µm,22.0s,MS5.2
PFO  Pinyon Flat Ob   67.14 295  PFAKE            11 15 00.0  +12
PFO                              LR     LR
     comp=Z,2µm,19.0s,MS5.4
TIXI Tiksi            67.19   7⇑iP      P         11 14 46.5 -1.2
TIXI                             pmax   pmax
     comp=Z,32nm,1.3s,mb5.2
TIXI Tiksi            67.19   7 eP      P         11 14 46.8 -1.0
TIXI                             LR     LR
     comp=Z,209nm,19.0s,MS4.4
TIXI Tiksi            67.19   7 eP      P         11 14 46.8 -0.9
WDC  Whiskeytown Da   67.26 304  PFAKE            11 15 00.0  +11
WDC                              LR     LR
     comp=Z,2µm,20.0s,MS5.4
PMR  Palmer           67.30 333 eP      P         11 14 48.2 -0.4
PMR                              pmax   pmax
     comp=Z,57nm,1.6s,mb5.3
PMR  Palmer           67.30 333 eP      P         11 14 48.2 -0.4
     comp=Z,56nm,1.6s,mb5.3
PMR  Palmer           67.30 333 eP      P         11 14 48.2 -0.4
     comp=Z,56nm,1.6s,mb5.3
CMB  Columbia Colle   67.31 301 eP      P         11 14 49.0  0.0
CMB                              MLR    MLR
     comp=Z,436nm,19.0s,MS4.7
CMB  Columbia Colle   67.31 301 eP      P         11 14 49.0  0.0
ISA  Isabella         67.37 298 eP      P         11 14 52.1 +2.6
ISA                              pmax   pmax
     comp=Z,38nm,1.7s,mb5.2
ISA  Isabella         67.37 298 eP      P         11 14 52.1 +2.6
     comp=Z,38nm,1.7s,mb5.2
ISA  Isabella         67.37 298 eP      P         11 14 52.1 +2.6
     comp=Z,38nm,1.7s,mb5.2
RC01 Rabbit Creek A   67.86 333 eP      P         11 14 52.3 +0.2
     comp=Z,56nm,1.5s,mb5.4
RC01 Rabbit Creek A   67.86 333 eP      P         11 14 52.3 +0.2
     comp=Z,56nm,1.5s,mb5.4
MBAR Mbarara          68.07 111⇑iP      P         11 14 59.2 +5.0
MBAR Mbarara          68.07 111  PFAKE            11 15 10.0  +16
MBAR                             LR     LR
     comp=Z,790nm,20.0s,MS4.9
NNA  Nana             68.15 231  PFAKE            11 15 10.0  +15
NNA                              LR     LR
     comp=Z,657nm,20.0s,MS4.9
HOPS Hopland          68.50 303  PFAKE            11 15 10.0  +13
HOPS                             LR     LR
     comp=Z,3µm,20.0s,MS5.6
TTA  Tatalina         68.55 337 eP      P         11 15 00.0 +3.6
PAYG Puerto Ayora     68.65 250  PFAKE            11 15 10.0  +12
PAYG                             LR     LR
     comp=Z,526nm,19.0s,MS4.8
SAO  San Andreas Ge   68.72 301  PFAKE            11 15 10.0  +12
SAO                              LR     LR
     comp=Z,1µm,19.0s,MS5.2
MCCM Marconi Confer   68.86 302  PFAKE            11 15 10.0  +11
MCCM                             LR     LR
     comp=Z,1µm,20.0s,MS5.2
NVS  Novosibirsk      69.11  35 i P     P         11 14 59.0 -1.0
NVS                              pmax   pmax
     comp=Z,58nm,1.1s,mb5.4
NVS                              pmax   pmax
     comp=N,22nm,1.6s
NVS                              pmax   pmax
     comp=E,19nm,1.6s
RSO  Redoubt South    69.34 334 eP      P         11 15 02.4 +1.0
RSO  Redoubt South    69.34 334 eP      P         11 15 02.4 +1.0
KURK Kurchatov        69.63  40  P      P         11 15 03.1 -0.2
     comp=E,296nm,1.0s,mb6.2,SNR=11
KURK Kurchatov        69.63  40  P      P         11 15 01.7 -1.6
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     comp=E,8.8nm,0.9s,mb4.7,baz=311,slow=6.4,SNR=28
KURK Kurchatov        69.63  40 eP      P         11 15 02.1 -1.2
KURK                             LR     LR
     comp=Z,1µm,19.0s,MS5.1
KURK Kurchatov        69.63  40 ⇑P      P         11 15 04.0 +0.7
     SNR=19
KURK                            ⇑P                11 15 04.0
     SNR=19
KURK Kurchatov        69.63  40  P      P         11 15 04.0 +0.7
     SNR=19
SVW2 Sparrevohn       69.80 335 eP      P         11 15 04.5 +0.3
SVW2 Sparrevohn       69.80 335 eP      P         11 15 04.5 +0.3
KK31 Karatay Array    69.92  50 i P     P         11 15 05.4 +0.1
KK31                             pmax   pmax
     comp=Z,27nm,1.1s,mb5.1
ZALV Zalesovo Beam    70.39  35  P      P         11 15 06.2 -1.8
ZALV                                              11 17 47.3
ZALV Zalesovo Beam    70.39  35  P      P         11 15 06.2 -1.8
     comp=Z,29nm,0.9s,mb5.2,baz=309,slow=7.1,SNR=17
ZALV                             PP     PP        11 17 47.2 +4.0
     comp=Z,2.2nm,0.8s,baz=301,slow=9.9,SNR=3.9
ZALV                             LR     LR        11 45 28.8
     comp=Z,321nm,21.6s,MS4.5,baz=293,slow=36
BILL Bilibino         71.24 354⇑eP      P         11 15 13.3 +0.4
BILL                            e                 11 17 48.3
BILL                            eSS     SS        11 29 04.4 +2.1
BILL                             pmax   pmax
     comp=Z,18nm,1.8s,mb4.7
BILL Bilibino         71.24 354 eP      P         11 15 13.1 +0.3
     comp=Z,27nm,1.7s,mb4.9
BILL                             LR     LR
     comp=Z,900nm,20.0s,MS5.0
BILL Bilibino         71.24 354 eP      P         11 15 13.1 +0.2
     comp=Z,27nm,1.7s,mb4.9
CPUP Villa Florida    71.29 206  P      P         11 15 13.7  0.0
     comp=Z,4.1nm,0.8s,mb4.4,baz=357,slow=3.8,SNR=10
CPUP                             LR     LR        11 43 57.6
     comp=Z,280nm,19.8s,MS4.5,baz=5.0,slow=34
CPUP Villa Florida    71.29 206  P      P         11 15 13.7  0.0
CPUP                             LR     LR        11 43 57.6
CPUP Villa Florida    71.29 206  P      P         11 15 13.6 -0.1
EKS2 Erkin-Say        72.09  49  P      P         11 15 20.4 +1.9
     SNR=23
EKS2 Erkin-Say        72.09  49 eP      P         11 15 18.2 -0.3
     comp=Z,43nm,1.0s,mb5.3
EKS2                             LR     LR
     comp=Z,2µm,22.0s,MS5.2
EKS2 Erkin-Say        72.09  49 eP      P         11 15 18.2 -0.3
     comp=Z,43nm,1.0s,mb5.3
AML  Almayashu        72.38  49  P      P         11 15 20.1  0.0
     SNR=12
AML  Almayashu        72.38  49 eP      P         11 15 20.1 -0.1
     comp=Z,40nm,0.9s,mb5.3
AML                              LR     LR
     comp=Z,1µm,19.0s,MS5.1
AML  Almayashu        72.38  49 eP      P         11 15 20.1 -0.1
     comp=Z,40nm,0.9s,mb5.3
CHMS Chumysh          72.44  48  P      P         11 15 24.8 +4.3
     SNR=8.0
FRU  Bishkek          72.47  48 eP      P         11 15 20.5 -0.2
FRU                              pmax   pmax
     comp=Z,80nm,2.1s,mb5.3
AAK  Ala-Archa        72.52  49⇑eP      P         11 15 21.6 +0.6
AAK                              pmax   pmax
     comp=Z,12nm,2.5s,mb4.4
AAK  Ala-Archa        72.52  49  P      P         11 15 20.1 -1.0
     comp=Z,2.9nm,0.8s,mb4.3,baz=203,slow=4.5,SNR=7.2
AAK                              PP     PP        11 18 04.6 +2.8
     comp=Z,0.6nm,0.5s,baz=287,slow=6.4,SNR=4.8
AAK  Ala-Archa        72.52  49 eP      P         11 15 20.5 -0.5
AAK                              LR     LR
     comp=Z,1µm,22.0s,MS5.2
AAK  Ala-Archa        72.52  49 ⇓P      P         11 15 23.1 +2.0
     SNR=6.8
AAK                             ⇓P                11 15 23.1
     SNR=6.8
AAK  Ala-Archa        72.52  49 eP      P         11 15 20.5 -0.5
LVC  Limon Verde      72.69 218 eP      P         11 15 25.7 +3.6
LVC                              LR     LR
     comp=Z,914nm,21.0s,MS5.0
KBK  Karagaybulak     72.77  48  P      P         11 15 24.9 +2.4
     SNR=6.5
UCH  Uchtor           72.79  49  P      P         11 15 23.5 +0.9
     SNR=22
UCH  Uchtor           72.79  49 eP      P         11 15 23.4 +0.7
     comp=Z,33nm,1.0s,mb5.2
UCH                              LR     LR
     comp=Z,1µm,20.0s,MS5.1
UCH  Uchtor           72.79  49 eP      P         11 15 23.4 +0.8
     comp=Z,33nm,1.0s,mb5.2
TKM2 Tokmak 2         72.97  48 eP      P         11 15 23.4 -0.3
TKM2                             pmax   pmax
     comp=Z,26nm,1.1s,mb5.1
TKM2                             MLR    MLR
     comp=Z,1µm,19.0s,MS5.2
TKM2 Tokmak 2         72.97  48  P      P         11 15 28.4 +4.7
     SNR=6.9
TKM2 Tokmak 2         72.97  48 eP      P         11 15 23.4 -0.3
     comp=Z,26nm,1.1s,mb5.1
TKM2                             LR     LR
     comp=Z,1µm,19.0s,MS5.2
TKM2 Tokmak 2         72.97  48 eP      P         11 15 23.4 -0.3
     comp=Z,26nm,1.1s,mb5.1
KMBO Kilima Mbogo     73.15 106  P      P         11 15 24.4 -0.7
     comp=Z,26nm,0.5s,mb5.5,baz=346,slow=0.2,SNR=3.3
KMBO Kilima Mbogo     73.15 106  P      P         11 15 24.4 -0.7
KMBO                             LR     LR
     comp=Z,1.0nm,21.0s
KMBO Kilima Mbogo     73.15 106  P      P         11 15 24.4 -0.7
KZA  Kyzart           73.31  49  P      P         11 15 31.2 +5.5
     SNR=6.2
MK31 Makanchi Array   74.03  42 i P     P         11 15 27.8 -2.0
MK31                             pmax   pmax
     comp=Z,34nm,1.0s,mb5.2
MKAR Makanchi Array   74.03  42  P      P         11 15 28.2 -1.6
     comp=Z,6.1nm,0.9s,mb4.5,baz=324,slow=6.0,SNR=27
MKAR                             LR     LR        11 48 35.2
     comp=Z,1µm,19.0s,MS5.2,baz=303,slow=36
KSH  Kashi            75.37  50  P      P         11 15 38.0 +0.2
KSH                             epP     pP        11 15 42.4 +1.3
KSH                             esP     sP        11 15 45.0 +2.7
KSH                             ePcP    PcP       11 15 52.0 +1.0
KSH                             ePP     PP        11 18 28.3 +2.2
KSH                             eS      S         11 25 13.6 -3.9
KSH                             esS     sS        11 25 22.1 -0.8
KSH                             eSKS              11 25 41.5
KSH                             eScS    ScS       11 25 46.4 -4.6
KSH                             eSS     SS        11 30 05.0 -1.7
KSH                              pmax   pmax
     comp=Z,6.0nm,0.6s,mb4.7
KSH                              LR     LR
     comp=N,950nm,15.4s,MS5.4
KSH                              LR     LR
     comp=E,1µm,16.1s,MS5.4
KSH                              LR     LR
     comp=Z,410nm,10.0s
YAK  Yakutsk          76.52  10 eP      P         11 15 41.5 -2.4
YAK                             e*PP    pP        11 15 47.3 +0.1
YAK                             e                 11 15 53.6
YAK                             e                 11 18 35.4
YAK                             eS      S         11 25 23.8 -5.6
YAK                             e                 11 25 48.4
YAK                             eSS     SS        11 30 20.5 -2.3
YAK                              pmax   pmax
     comp=Z,28nm,1.0s,mb5.2
YAK                              pmax   pmax
     comp=N,15nm,1.4s
YAK                              pmax   pmax
     comp=E,7.0nm,1.3s
YAK                              pmax   pmax
     comp=Z,14nm,1.5s,mb4.7
YAK                              pmax   pmax
     comp=N,37nm,2.4s
YAK                              pmax   pmax
     comp=E,28nm,2.0s
YAK                              smax
     comp=N,17nm,1.4s
YAK                              smax
     comp=E,31nm,1.7s
YAK                              MLR    MLR
     comp=Z,130nm,15.0s,MS4.4
YAK                              MLR    MLR
     comp=N,214nm,21.0s
YAK                              MLR    MLR
     comp=E,81nm,18.0s
YAK  Yakutsk          76.52  10 eP      P         11 15 44.8 +0.9
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YAK                              LR     LR
     comp=Z,172nm,20.0s,MS4.4
YAK  Yakutsk          76.52  10 eP      P         11 15 44.8 +0.9
LSZ  Lusaka           76.94 123 eP      P         11 15 48.2 +1.3
LSZ                              MLR    MLR
     comp=Z,1µm,19.0s,MS5.3
LSZ  Lusaka           76.94 123 eP      P         11 15 48.2 +1.3
SEY  Seymchan         77.00 359⇑eP      P         11 15 47.1 +0.5
BOD  Bodaibo          77.45  19 eP      P         11 15 47.1 -2.1
BOD                              pmax   pmax
     comp=Z,45nm,1.2s,mb5.3
NIL  Nilore           77.50  56  PFAKE            11 16 00.0  +10
NIL                              LR     LR
     comp=Z,2µm,19.0s,MS5.4
MOY  Mondy            78.64  29 eP      P         11 15 57.0 +1.0
MOY                              pmax   pmax
     comp=Z,61nm,2.8s,mb5.0
WMQ  Urumqi           78.83  41 eP      P         11 15 58.4 +1.3
WMQ                              pP     pP        11 16 03.0 +2.6
WMQ                              sP     sP        11 16 08.0 +6.4
WMQ                              PP     PP        11 18 58.0 +3.0
WMQ                             eS      S         11 25 53.0 -2.0
WMQ                              SKS              11 26 07.0
WMQ                              pmax   pmax
     comp=Z,23nm,0.9s,mb5.1
WMQ                              pmax   pmax
     comp=Z,220nm,4.6s
WMQ                              LR     LR
     comp=N,2µm,14.5s,MS5.7
WMQ                              LR     LR
     comp=E,1µm,11.8s,MS5.7
WMQ                              LR     LR
     comp=Z,2µm,19.8s
LCO  Las Campanas     78.99 216 eP      P         11 16 01.8 +3.8
LCO                              LR     LR
     comp=Z,889nm,21.0s,MS5.1
IRK  Irkutsk          79.35  27 eP      P         11 15 59.4 -0.4
IRK                              pmax   pmax
     comp=Z,50nm,1.8s,mb5.1
TLY  Talaya           79.59  28  P      P         11 16 02.6 +1.5
     comp=Z,90nm,1.1s,mb5.6,SNR=7.1
TLY  Talaya           79.59  28 eP      P         11 15 59.8 -1.3
TLY                              pmax   pmax
     comp=Z,17nm,1.0s,mb4.9
TLY                              MLR    MLR
     comp=Z,251nm,17.0s,MS4.6
TLY  Talaya           79.59  28 eP      P         11 16 01.8 +0.7
     comp=Z,20nm,1.1s,mb5.0
TLY                              LR     LR
     comp=Z,375nm,20.0s,MS4.7
TLY  Talaya           79.59  28 ⇓P      P         11 16 01.9 +0.8
     SNR=11
TLY                             ⇓P                11 16 01.9
     SNR=11
TLY  Talaya           79.59  28 eP      P         11 16 01.8 +0.7
     comp=Z,20nm,1.1s,mb5.0
ZAK  Zakamensk        80.53  28 eP      P         11 16 04.3 -1.9
ZAK                              pmax   pmax
     comp=Z,17nm,1.2s,mb4.8
CLNS Chul’man         80.72  14 eP      P         11 16 07.6 +0.5
CLNS                             pmax   pmax
     comp=Z,23nm,1.1s,mb5.0
CLNS                             pmax   pmax
     comp=N,5.0nm,1.1s
CLNS                             pmax   pmax
     comp=E,9.0nm,1.3s
SONM Songino Array    83.79  28  P      P         11 16 22.0 -1.4
SONM                                              11 19 39.6
SONM Songino Array    83.79  28  P      P         11 16 22.0 -1.4
     comp=E,3.7nm,1.0s,mb4.5,baz=317,slow=5.5,SNR=20
SONM                             PP     PP        11 19 39.6 +4.0
     comp=E,1.7nm,1.0s,baz=318,slow=8.0,SNR=4.6
SONM                             LR     LR        11 56 42.6
     comp=E,400nm,18.9s,MS4.8,baz=187,slow=38
SONM Songino Array    83.79  28  P      P         11 16 22.0 -1.4
ULN  Ulaanbaatar      84.00  28 eP      P         11 16 23.7 -0.7
ULN                              pmax   pmax
     comp=Z,41nm,1.4s,mb5.4
ULN                              MLR    MLR
     comp=Z,436nm,21.0s,MS4.8
ULN  Ulaanbaatar      84.00  28 eP      P         11 16 23.7 -0.7
     comp=Z,41nm,1.4s,mb5.4
ULN                              LR     LR
     comp=Z,436nm,21.0s,MS4.8
ULN  Ulaanbaatar      84.00  28 eP      P         11 16 23.7 -0.7
     comp=Z,41nm,1.4s,mb5.4
BOSA Boshof           85.37 134  LR     LR        11 53 57.0
     comp=Z,954nm,18.2s,MS5.2,baz=318,slow=35
SUR  Sutherland       86.02 139  PFAKE            11 16 50.0  +15
SUR                              LR     LR
     comp=Z,510nm,20.0s,MS4.9
HIA  Hailar           86.65  20  PFAKE            11 16 50.0  +12
HIA                              LR     LR
     comp=Z,450nm,20.0s,MS4.9
PETK Petropavlovsk-   86.66 356  LR     LR        11 55 21.4
     comp=Z,356nm,18.0s,MS4.8,baz=9.5,slow=36
PET  Petropavlovsk    86.69 355 eP      P         11 16 36.1 -1.7
PET                             eS      S         11 27 05.5 -9.3
PET                              pmax   pmax
     comp=Z,17nm,1.3s,mb5.1
PET  Petropavlovsk    86.69 355  PFAKE            11 16 50.0  +12
PET                              LR     LR
     comp=Z,579nm,19.0s,MS5.0
DANN Dangsing         87.69  54 eP      P         11 16 42.4 -0.7
     comp=Z,158nm,1.0s,mb6.2
DANN Dangsing         87.69  54 eP      P         11 16 42.4 -0.7
     comp=Z,158nm,1.0s,mb6.2
POO  Poona            87.83  68 ex      x         11 16 44.0
KOLN Koldanda         88.01  55 eP      P         11 16 44.0 -0.6
     comp=Z,40nm,1.2s,mb5.5
KOLN Koldanda         88.01  55 eP      P         11 16 44.0 -0.6
     comp=Z,40nm,1.2s,mb5.5
GTA  Gaotai           88.04  37 eP      P         11 16 43.4 -1.2
GTA                              pP     pP        11 16 47.8 -0.1
GTA                              sP     sP        11 16 50.3 +1.2
GTA                              PP     PP        11 20 09.9 -0.4
GTA                              SKS              11 27 07.9
GTA                              S      S         11 27 22.3 -6.0
GTA                              pmax   pmax
     comp=Z,9.0nm,1.6s,mb4.8
GTA                              pmax   pmax
     comp=Z,260nm,4.5s
GTA                              LR     LR
     comp=N,610nm,16.4s,MS5.2
GTA                              LR     LR
     comp=E,510nm,17.5s,MS5.2
GTA                              LR     LR
     comp=Z,820nm,20.2s,MS5.1
GKN  Gorkha           88.48  54 eP      P         11 16 46.5 -0.4
     comp=Z,54nm,1.0s,mb5.7
GKN  Gorkha           88.48  54 eP      P         11 16 46.5 -0.4
     comp=Z,54nm,1.0s,mb5.7
PLCA Paso Flores      89.01 210  P      P         11 16 48.0 -0.8
     comp=Z,1.0nm,0.7s,mb4.3,baz=159,slow=3.5,SNR=2.8
PLCA                             LR     LR        11 55 31.7
     comp=Z,321nm,20.2s,MS4.7,baz=22,slow=35
KKN  Kakani           89.03  54 eP      P         11 16 49.8 +0.3
     comp=Z,60nm,1.3s,mb5.8
KKN  Kakani           89.03  54 eP      P         11 16 49.8 +0.3
KKN                              pmax   pmax
     comp=Z,60nm,1.3s,mb5.8
KKN  Kakani           89.03  54 eP      P         11 16 49.8 +0.3
     comp=Z,60nm,1.3s,mb5.8
DMN  Daman            89.06  54 eP      P         11 16 49.7 +0.1
     comp=Z,87nm,1.4s,mb5.9
DMN  Daman            89.06  54 eP      P         11 16 49.7 +0.1
     comp=Z,87nm,1.4s,mb5.9
MSEY Mahe Island      89.11  97  PFAKE            11 17 00.0  +10
MSEY                             LR     LR
     comp=Z,741nm,21.0s,MS5.1
PKI  Pulchoki         89.27  54 eP      P         11 16 50.9 +0.3
PKI  Pulchoki         89.27  54 eP      P         11 16 50.9 +0.3
GUN  Gumba            89.31  53 eP      P         11 16 51.3 +0.5
     comp=Z,99nm,1.2s,mb6.0
GUN  Gumba            89.31  53 eP      P         11 16 51.3 +0.5
     comp=Z,99nm,1.2s,mb6.0
HABR Khabarovsk       90.44  10 eP      P         11 16 56.8 +1.1
HABR                                              11 20 27.4
HABR                            ePPP              11 22 23.0
HABR                             S      S         11 27 23.9  -27
HABR                            e                 11 27 50.3
HABR                            eSSS              11 37 22.2
HABR                             MLR    MLR
     comp=Z,154nm,17.0s,MS4.5
TAPN Taplejung        90.83  52 eP      P         11 16 58.4 +0.5
     comp=Z,21nm,0.9s,mb5.5
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TAPN	**Taplejung**	**90.83**	**52**	*e*P	**P**	**11 16 58.4**	**+0.5**
	comp=Z,21nm,0.9s,mb5.5						
LSA	**Lhasa**	**91.12**	**49**	PFAKE		11 17 10.0	+11
LSA				LR	LR		
	comp=Z,589nm,20.0s,MS5.0						
HHC	**Hu-ho-hao-te**	**91.68**	**29**	*e*P	**P**	**11 16 59.1**	**-2.5**
HHC				pP	pP	11 17 03.8	-1.1
HHC				PP	PP	11 20 36.8	-2.3
HHC				SKS		11 27 29.0	
HHC				S	S	11 27 52.4	-10
HHC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
HHC				pmax	pmax		
	comp=Z,180nm,4.2s						
HHC				LR	LR		
	comp=N,380nm,13.3s,MS5.1						
HHC				LR	LR		
	comp=E,360nm,16.9s,MS5.1						
HHC				LR	LR		
	comp=Z,430nm,13.7s,MS5.0						
HYB	**Hyderabad**	**91.87**	**65**	*i* P	**P**	**11 17 03.0**	**+0.1**
HYB	**Hyderabad**	**91.87**	**65**	*e*P	**P**	**11 17 06.0**	**+3.1**
HYB	**Hyderabad**	**91.87**	**65**	*e*P	**P**	**11 17 06.0**	**+3.1**
ABPO	**Ambohimpanom**	**92.41**	**113**	PFAKE		11 17 20.0	+15
ABPO				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
LZH	**Lanzhou**	**92.59**	**36**	*e*P	**P**	**11 17 07.0**	**+1.1**
LZH				pP	pP	11 17 11.8	+2.6
LZH				sP	sP	11 17 14.1	+3.7
LZH				SKS		11 27 37.5	
LZH				*e*S	S	11 28 06.0	-4.4
LZH				sS	sS	11 28 13.8	-2.1
LZH				*e*SS	SS	11 34 18.0	-2.7
LZH				pmax	pmax		
	comp=Z,21nm,1.5s,mb5.3						
LZH				pmax	pmax		
	comp=Z,100nm,9.1s						
LZH				LR	LR		
	comp=E,520nm,16.5s						
LZH				LR	LR		
	comp=Z,750nm,19.7s,MS5.2						
CN2	**Changchun**	**93.17**	**18**	*e*P	**P**	**11 17 07.4**	**-1.0**
MDJ	**Mudanjiang**	**93.28**	**15**	P	**P**	**11 17 06.6**	**-2.3**
MDJ				pmax	pmax		
	comp=Z,13nm,1.5s,mb5.1						
MDJ				pmax	pmax		
	comp=Z,150nm,4.2s						
MDJ	**Mudanjiang**	**93.28**	**15**	PFAKE		11 17 20.0	+11
MDJ				LR	LR		
	comp=Z,388nm,20.0s,MS4.9						
BJI	**Beijing**	**94.01**	**26**	P	**P**	**11 17 15.8**	**+3.5**
BJI				S	S	11 28 15.4	-7.3
BJI				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.5						
BJI				LR	LR		
	comp=N,650nm,17.5s,MS5.2						
BJI				LR	LR		
	comp=E,240nm,17.5s,MS5.2						
BJI				LR	LR		
	comp=Z,350nm,20.4s,MS4.8						
BJT	**Baijiatuau**	**94.03**	**26**	PFAKE		11 17 20.0	+7.6
BJT				LR	LR		
	comp=Z,543nm,19.0s,MS5.0						
SHL	**Shillong**	**94.65**	**51**	*e*PKP	**P**	**11 17 21.0**	**+5.4**
EFI	**East Falkland**	**95.04**	**197**	PFAKE		11 17 30.0	+14
EFI				LR	LR		
	comp=Z,315nm,20.0s,MS4.8						
XAN	**Xi'an**	**96.54**	**34**	P	**P**	**11 17 22.5**	**-1.5**
XAN				pP	pP	11 17 25.8	-1.6
XAN				PP	PP	11 21 14.1	-3.1
XAN				S	S	11 28 40.4	-4.6
XAN				SS	SS	11 35 11.6	-5.3
XAN				pmax	pmax		
	comp=Z,5.0nm,1.9s,mb4.6						
XAN				LR	LR		
	comp=N,190nm,23.7s,MS4.7						
XAN				LR	LR		
	comp=E,220nm,23.7s,MS4.7						
XAN				LR	LR		
	comp=Z,330nm,24.1s,MS4.7						
CD2	**Chengdu**	**96.83**	**39**	P	**P**	**11 17 25.4**	**0.0**
CD2				pP	pP	11 17 30.0	+1.2
CD2				sP	sP	11 17 32.4	+2.5
CD2				PP	PP	11 21 21.0	+1.4
CD2				SKS		11 28 00.1	
CD2				S	S	11 28 41.5	-6.1
CD2				SS	SS	11 35 16.8	-4.5
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.5						
CD2				pmax	pmax		
	comp=Z,70nm,4.8s						
CD2				LR	LR		
	comp=N,300nm,12.8s						
CD2				LR	LR		
	comp=Z,360nm,12.6s,MS5.0						
KSRS	**Korea Array**	**99.78**	**18**	P	Pdif	11 17 35.1	-3.3
	comp=Z,2.2nm,0.9s,baz=54,slow=14,SNR=2.8						
KSRS				LR	LR	12 08 10.8	
	comp=Z,197nm,19.3s,MS4.6,baz=332,slow=39						
KMI	**Kunming**	**101.06**	**43**	P	Pdif	11 17 46.0	+1.8
KMI				pmax	pmax		
	comp=Z,7.0nm,1.2s						
GYA	**Guiyang**	**101.94**	**39**	P	Pdif	11 17 48.0	-0.1
GYA				PP	PP	11 22 01.3	+2.7
GYA				SKS		11 28 26.3	
GYA				S	Sdif	11 29 23.4	-7.0
GYA				SS	SS	11 36 28.3	-4.6
GYA				pmax	pmax		
	comp=Z,30nm,1.0s						
GYA				pmax	pmax		
	comp=Z,130nm,5.2s						
GYA				LR	LR		
	comp=N,530nm,24.2s,MS5.1						
GYA				LR	LR		
	comp=E,490nm,22.3s,MS5.1						
GYA				LR	LR		
	comp=Z,570nm,20.9s,MS5.1						
NJ2	**Nanjing**	**102.15**	**27**	*e*P	Pdif	11 17 45.8	-3.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CHTO	**Chiang Mai**	**104.00**	**50**	PFAKE		11 18 10.0	+13
CHTO				LR	LR		
	comp=Z,438nm,20.0s,MS5.0						
CMAR	**Chiang Mai Arr**	**104.27**	**50**	PP	PP	11 22 16.6	+0.3
	comp=Z,0.5nm,0.4s,baz=321,slow=7.7,SNR=4.4						
QIZ	**Qiongzhong**	**109.76**	**41**	PFAKE		11 22 40.0	+14
QIZ				LR	LR		
	comp=Z,316nm,20.0s,MS4.9						
TAOE	**Nuku Hiva Isla**	**111.47**	**277**	*e*LR	LR	11 55 47.1	
	comp=Z,1µm,22.8s						
KULM	**Kulim**	**115.48**	**58**	PFAKE		11 22 50.0	+13
KULM				LR	LR		
	comp=Z,341nm,19.0s,MS5.0						
KKM	**Kota Kinabalu**	**124.00**	**43**	PFAKE		11 23 10.0	+17
KKM				LR	LR		
	comp=Z,308nm,21.0s,MS4.9						
PPT	**Papeete**	**124.04**	**276**	*e*LR	LR	12 01 24.8	
	comp=Z,563nm,27.0s						
KSM	**Kuching**	**124.46**	**52**	PFAKE		11 23 10.0	+16
KSM				LR	LR		
	comp=Z,284nm,22.0s,MS4.9						
KAPI	**Kappang**	**135.17**	**46**	PFAKE		11 23 30.0	+16
KAPI				LR	LR		
	comp=Z,191nm,21.0s,MS4.8						
FUNA	**Funafuti**	**139.31**	**313**	PFAKE		11 23 30.0	+8.1
FUNA				LR	LR		
	comp=Z,8µm,19.0s,MS6.5						
VNDA	**Vanda**	**142.48**	**184**	PKP	PKPdf	11 23 25.9	+0.2
	comp=Z,5.5nm,1.0s,baz=185,slow=13,SNR=2.0						
VNDA	**Vanda**	**142.48**	**184**	PKP	PKPdf	11 23 25.9	+0.2
VNDA	**Vanda**	**142.48**	**184**	PKIKP	PKPdf	11 23 25.9	+0.2
KAKA	**Kakadu**	**148.13**	**35**	*e*P	PKPbc	11 23 42.5	+2.0
	comp=Z,67nm,1.9s						
KAKA	**Kakadu**	**148.13**	**35**	*e*PKPdf	PKPdf	11 23 37.6	+0.3
FITZ	**Fitzroy Crossi**	**149.08**	**51**	*e*P	PKPab	11 23 47.7	+0.7
	comp=Z,19nm,1.0s						
FITZ	**Fitzroy Crossi**	**149.08**	**51**	PKP	PKPdf	11 23 36.0	-2.7
	comp=Z,1.6nm,0.7s,baz=293,slow=7.1,SNR=2.3						
FITZ				PKPbc	PKPbc	11 23 41.4	-1.5
	comp=Z,2.5nm,0.8s,baz=18,slow=3.2,SNR=2.8						
FITZ	**Fitzroy Crossi**	**149.08**	**51**	PKP	PKPdf	11 23 36.0	-2.7
FITZ				*e*PKPdf	PKPdf	11 23 41.0	+2.3
FITZ				PKPbc	PKPbc	11 23 41.4	-1.5
FITZ	**Fitzroy Crossi**	**149.08**	**51**	*e*PKIKP	PKPdf	11 23 41.0	+2.3
BLDU	**Ballidu**	**150.89**	**81**	*e*P	PKPbc	11 23 48.4	+1.5
	comp=Z,7.6nm,1.0s						
MUN	**Mundaring**	**151.14**	**84**	*e*P	PKPab	11 23 51.7	-3.6
WRAB	**Tennant Creek**	**155.31**	**39**	PFAKE		11 24 00.0	+12
WRAB				LR	LR		
	comp=Z,299nm,20.0s,MS5.1						
WRA	**Warramunga Arr**	**155.31**	**39**	PKPab	PKPab	11 24 11.6	-1.4
	comp=Z,4.6nm,0.9s,baz=337,slow=3.9,SNR=11						
ASAR	**Alice Springs**	**158.18**	**45**	PKP	PKPdf	11 23 47.6	-3.9
	comp=Z,1.6nm,1.2s,baz=241,slow=2.6,SNR=3.1						
ASAR				PKPab	PKPab	11 24 22.7	-2.6
	comp=Z,1.4nm,0.8s,baz=261,slow=2.2,SNR=5.7						
ASAR	**Alice Springs**	**158.18**	**45**	PKPab	PKPab	11 24 22.7	-2.6
CTAO	**Charters Tower**	**159.41**	**12**	PFAKE		11 24 00.0	+6.9
CTAO				LR	LR		
	comp=Z,564nm,19.0s,MS5.4						
STKA	**Stephens Creek**	**168.81**	**43**	*e*P	PKPab	11 25 13.0	+1.2
	comp=Z,4.2nm,1.0s						

IDC ***23*** *11:08:34.3±2.1, 20°.81S×169°.33E, h0^{km}, mb4.0/5, mb1 4.2/5, mb1mx4.0/15, mbtmp4.0/5, MS3.4/5, Ms1 3.4/5, ms1mx3.1/21, Error ellipse: s-maj=88.3km s-min=28.1km az=149.0*

NEIC ***23*** *11:08:43.1±7.6, 20°.82S×168°.85E, h35^{km}±41^{km}, mb4.4/2, Error ellipse: s-maj=76.1km s-min=54.5km az=78.0*

ISC 23 11:08:40.7±1.7**, 20°.8S**±0°.3×**169°.2E**±0°.2**, h35^{km}, n23, σ1^{s}19**/18**, mb4.2**/8**, MS3.4**/3**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**2.85**	**244**	*e*P	**Pn**	**11 09 21.5**	**-2.2**
DZM	**Mont Dzumac**	**2.85**	**244**	*e*Pn	**Pn**	**11 09 22.0**	**-1.7**
DZM				*e*Sn	**Sn**	**11 09 57.7**	**+0.9**
NOUC	**Port Laguerre**	**2.98**	**245**	*e*P	**Pn**	**11 09 23.6**	**-1.9**
NOUC				*e*S	**Sn**	**11 10 00.1**	**+0.1**
URZ	**Urewera**	**18.66**	**160**	LR	LR	11 18 13.4	
	comp=Z,43nm,19.4s,baz=94,slow=31						
AFI	**Afiamalu**	**19.40**	**72**	LR	LR	11 19 02.4	
	comp=Z,183nm,19.2s,baz=249,slow=33						
RMQ	**Roma**	**19.55**	**249**	*e*P	**Pn**	**11 13 08.6**	**+1.7**
	12nm,0.8s						
CTA	**Charters Tower**	**21.52**	**268**	*e*P	**P**	**11 13 27.8**	**+1.0**
	6.0nm,1.0s,mb4.0						
CTA	**Charters Tower**	**21.52**	**268**	P	**P**	**11 13 26.1**	**-0.7**
	3.1nm,0.7s,mb3.8,baz=92,slow=14,SNR=5.9						
CTA				LR	LR	11 21 02.6	
	comp=Z,66nm,20.6s,MS3.0,baz=62,slow=35						
CTAO	**Charters Tower**	**21.52**	**268**	*e*P	**P**	**11 13 26.5**	**-0.3**
	10nm,1.0s,mb4.2						
CMSA	**Cobar Meteorol**	**23.59**	**238**	*e*P	**P**	**11 13 49.5**	**+1.1**
MTSU	**Mount Surprise**	**23.61**	**272**	*e*P	**P**	**11 13 50.0**	**+1.3**
	9.2nm,1.1s,mb4.1						
STKA	**Stephens Creek**	**27.00**	**240**	*e*P	**P**	**11 14 20.2**	**+0.8**
	2.3nm,0.6s,mb3.9						
STKA	**Stephens Creek**	**27.00**	**240**	P	**P**	**11 14 20.1**	**+0.7**
	1.5nm,0.5s,mb3.8,baz=84,slow=12,SNR=8.3						
WRAB	**Tennant Creek**	**32.65**	**265**	*e*P	**P**	**11 15 08.4**	**-1.2**
	10nm,1.3s,mb4.6						
WRA	**Warramunga Arr**	**32.66**	**265**	P	**P**	**11 15 08.0**	**-1.7**
	0.8nm,0.5s,mb3.9,baz=90,slow=8.4,SNR=5.5						
WRA				LR	LR	11 28 38.1	
	comp=Z,102nm,18.7s,MS3.5,baz=130,slow=37						
ASAR	**Alice Springs**	**32.74**	**258**	P	**P**	**11 15 09.7**	**-0.7**
	2.8nm,0.8s,mb4.2,baz=87,slow=9.2,SNR=30						
FITZ	**Fitzroy Crossi**	**41.08**	**266**	*e*P	**P**	**11 16 21.3**	**0.0**
	8.1nm,0.7s,mb4.5						
FITZ	**Fitzroy Crossi**	**41.08**	**266**	LR	LR	11 34 19.3	
	comp=Z,67nm,18.4s,MS3.5,baz=149,slow=38						
CMAR	**Chiang Mai Arr**	**79.13**	**295**	P	**P**	**11 20 43.2**	**+1.1**
	1.5nm,0.7s,mb4.0,baz=120,slow=4.1,SNR=4.0						
ARCES	**ARCESS Array B**	**126.60**	**345**	PKP	PKPdf	11 27 37.8	-1.6
	4.3nm,0.9s,baz=104,slow=3.1,SNR=3.9						
EKA	**Eskdalemuir Ar**	**145.08**	**352**	PKPbc	PKPbc	11 28 11.8	-1.7
	3.6nm,0.5s,baz=347,slow=1.5,SNR=8.8						
GERES	**GERESS Array B**	**145.87**	**331**	PKPbc	PKPbc	11 28 15.3	-0.9
	3.4nm,1.0s,baz=17,slow=1.8,SNR=7.1						
DAVOX	**Davos/Dischmat**	**149.13**	**332**	PKPbc	PKPbc	11 28 24.2	-1.0
	2.0nm,0.5s,baz=160,slow=4.5,SNR=5.1						

BJI ***23*** *11:09:41.1, 40°.19N×30°.40W, h18^{km}, mB5.4/8, mb5.1/19, Ms5.4/10, Ms7 5.0/10*

ISCJB ***23*** *11:09:44.3±0.2, 40°.43N±0°.02×29°.51W±0°.04, h10^{km}, mb4.5/96, MS4.9/7, Error ellipse: s-maj=4.4km s-min=2.9km az=154.2*

IDC ***23*** *11:09:45.1±0.6, 40°.68N×29°.39W, h0^{km}, mb4.1/22, mb1 4.2/23, mb1mx4.1/34, mbtmp4.1/23, ML4.6/1, Error ellipse: s-maj=17.5km s-min=12.2km az=174.0*

MOS ***23*** *11:09:46.4±1.4, 40°.46N×29°.47W, h23^{km}, mb4.8/54, Error ellipse: s-maj=9.6km s-min=4.7km az=146.6*

NEIC ***23*** *11:09:46.7±0.4, 40°.55N×29°.46W, h10^{km}, mb4.6/73, Error ellipse: s-maj=12.1km s-min=4.6km az=189.0*

CSEM ***23*** *11:09:48.0±0.4, 40°.39N×29°.54W, h30^{km}, mb4.6/39, Ms4.0, Error ellipse: s-maj=12.2km s-min=6.0km az=85.0*

INMG ***23*** *11:09:48.0, 40°.60N×29°.30W, h5^{km}, ML4.0*

PDA ***23*** *11:09:48.5±1.0, 40°.64N×29°.18W, h5^{km}, MD4.1, ML4.0, Error ellipse: s-maj=8.4km s-min=5.1km az=88.0*

SZGRF ***23*** *11:09:54.0, 40°.88N×29°.68W, h33^{km}, mb4.7, Azores Islands region*

ISC 23 11:09:46.1±0.2**, 40°.39N**±0°.02×**29°.49W**±0°.04**, h10^{km}, (h14^{km}**±1.1^{km}**:pP-P), n332, σ1^{s}22**/345**, mb4.5**/96**, MS4.9**/7**, 5C-1D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	**Cedros**	**1.86**	**161**	*e*P	**Pn**	**11 10 18.9**	**+1.0**
PCED				*e*S	**Sn**	**11 10 41.3**	**-0.1**
PCED				A		11 10 42.5	
	603nm,0.4s						
PCED	**Cedros**	**1.86**	**161**	*e*P	**Pn**	**11 10 18.9**	**+1.0**
PCED				*e*S	**Sn**	**11 10 41.3**	**-0.1**
CALA	**Caldeira**	**1.90**	**161**	*e*P	**Pn**	**11 10 19.7**	**+1.2**
CALA				*e*S	**Sn**	**11 10 42.5**	**0.0**
CALA	**Caldeira**	**1.90**	**161**	*e*P	**Pn**	**11 10 19.7**	**+1.2**
CALA				*e*S	**Sn**	**11 10 42.5**	**0.0**
ROSA	**Rosais**	**1.92**	**150**	*i* P	**Pn**	**11 10 18.6**	**-0.2**
ROSA				*e*S	**Sn**	**11 10 41.7**	**-1.4**
HOR	**Horta**	**1.97**	**160**	*e*P	**Pn**	**11 10 20.5**	**+1.0**
HOR				*e*S	**Sn**	**11 10 44.0**	**-0.3**
HOR	**Horta**	**1.97**	**160**	*e*P	**Pn**	**11 10 20.5**	**+1.0**
HOR				*e*S	**Sn**	**11 10 44.0**	**-0.3**
PICO	**Pico**	**2.06**	**156**	*e*P	**Pn**	**11 10 21.6**	**+1.0**
PICO				*e*S	**Sn**	**11 10 45.8**	**-0.5**
PICO	**Pico**	**2.06**	**156**	*e*P	**Pn**	**11 10 21.6**	**+1.0**
PICO				*e*S	**Sn**	**11 10 45.8**	**-0.5**
PMAN	**Manadas**	**2.06**	**148**	*e*P	**Pn**	**11 10 20.1**	**-0.6**
PMAN				*e*S	**Sn**	**11 10 44.9**	**-1.5**
PMAN				A		11 10 46.7	
	179nm,0.3s						
PMAN	**Manadas**	**2.06**	**148**	*e*P	**Pn**	**11 10 20.1**	**-0.6**
PMAN				*e*S	**Sn**	**11 10 44.9**	**-1.5**
PID	**Ribeirinha**	**2.21**	**151**	*i* P	**Pn**	**11 10 23.1**	**+0.3**
PID				*e*S	**Sn**	**11 10 49.3**	**-0.9**
CMLA	**Cha da Macela**	**4.05**	**129**	*e*P	**Pn**	**11 10 47.0**	**-1.0**
CMLA				*e*S	**Sn**	**11 11 30.1**	**-5.3**
CMLA				A		11 11 32.3	
	33nm,0.3s						
CMLA	**Cha da Macela**	**4.05**	**129**	*e*Pn	**Pn**	**11 10 47.1**	**-0.9**
CMLA				*e*Sn	**Sn**	**11 11 35.3**	**-0.1**
CMLA	**Cha da Macela**	**4.05**	**129**	*e*Pn	**Pn**	**11 10 47.1**	**-0.9**
CMLA				*e*Sn	**Sn**	**11 11 35.3**	**-0.1**
PSMA	**Santa Maria**	**4.80**	**133**	*e*P	**Pn**	**11 10 57.3**	**-1.1**
PSMA				*e*S	**Sn**	**11 11 48.9**	**-5.2**
PSMA				A		11 11 51.0	
	21nm,0.3s						
PSMN	**Pico do Norte,**	**4.83**	**133**	*e*P	**Pn**	**11 10 57.3**	**-1.5**
PSMN	**Pico do Norte,**	**4.83**	**133**	*e*P	**Pn**	**11 10 57.3**	**-1.5**
STS	**Santiago**	**15.85**	**74**	P	**Pn**	**11 13 28.1**	**-1.0**
STS				pmax	pmax		
	comp=Z,9.0nm,1.0s						
STS	**Santiago**	**15.85**	**74**	P	**Pn**	**11 13 28.1**	**-1.0**
	comp=Z,9.3nm,1.0s						
ELOB	**Lobios**	**16.21**	**78**	P	**Pn**	**11 13 34.8**	**+1.0**
	comp=Z,35nm,1.0s						
ELOB	**Lobios**	**16.21**	**78**	P	**Pn**	**11 13 34.8**	**+1.0**
	comp=Z,35nm,1.0s						
PCAB	**Cabril**	**16.24**	**78**	*e*P	**Pn**	**11 13 35.9**	**+1.7**
	comp=Z,47nm,2.0s						
PCAB	**Cabril**	**16.24**	**78**	*e*P	**Pn**	**11 13 35.9**	**+1.7**
	comp=Z,47nm,2.0s						
PTEO	**Sao Teotonio**	**16.39**	**93**	*e*P	**Pn**	**11 13 35.5**	**-0.6**
	comp=Z,97nm,1.2s						
PVRL	**Vila Real**	**16.50**	**80**	*e*P	**Pn**	**11 13 38.7**	**+1.2**
	comp=Z,45nm,1.6s						
PVRL	**Vila Real**	**16.50**	**80**	*e*P	**Pn**	**11 13 38.7**	**+1.2**
	comp=Z,45nm,1.6s						
EVOP	**Sao Brissos**	**16.60**	**90**	*e*P	**Pn**	**11 13 39.4**	**+0.6**
EVO	**Evora**	**16.68**	**89**	*e*P	**Pn**	**11 13 39.4**	**-0.5**
EVO				*e*MLR	MLR		
	comp=Z,2µm,21.2s						
MTE	**Manteigas**	**16.71**	**83**	*e*P	**Pn**	**11 13 42.3**	**+2.1**
	comp=Z,52nm,1.4s						
MTE	**Manteigas**	**16.71**	**83**	*e*Pn	**Pn**	**11 13 47.7**	**+7.5**
	comp=Z,29nm,1.0s						
MTE	**Manteigas**	**16.71**	**83**	*e*P	**Pn**	**11 13 42.3**	**+2.1**
	comp=Z,52nm,1.4s						
PMRV	**Marv??o**	**16.98**	**86**	*e*P	**Pn**	**11 13 45.3**	**+1.8**
	comp=Z,52nm,1.5s						
PMRV	**Marv??o**	**16.98**	**86**	*e*P	**Pn**	**11 13 45.3**	**+1.8**
	comp=Z,52nm,1.5s						
MVO	**Moncorvo**	**17.02**	**80**	*e*P	**Pn**	**11 13 46.1**	**+2.0**
	comp=Z,39nm,1.1s						
MVO	**Moncorvo**	**17.02**	**80**	*e*P	**Pn**	**11 13 46.1**	**+2.0**
	comp=Z,39nm,1.1s						
PBDV	**Barranco-do-Ve**	**17.08**	**94**	*e*P	**Pn**	**11 13 46.3**	**+1.4**
	comp=Z,101nm,1.4s						
PBDV	**Barranco-do-Ve**	**17.08**	**94**	*e*P	**Pn**	**11 13 46.3**	**+1.4**
	comp=Z,101nm,1.4s						
PBRG	**Braganca**	**17.20**	**78**	*e*P	**Pn**	**11 13 45.3**	**-1.0**
	comp=Z,20nm,0.9s						
PBRG	**Braganca**	**17.20**	**78**	*e*P	**Pn**	**11 13 45.3**	**-1.0**
	comp=Z,20nm,0.9s						
ESPR	**Espera**	**18.78**	**93**	P	**Pn**	**11 14 07.2**	**+1.4**
	comp=Z,468nm,2.7s						
ESPR	**Espera**	**18.78**	**93**	P	**Pn**	**11 14 07.2**	**+1.4**
	comp=Z,468nm,2.7s						
GUD	**Guadarrama**	**19.25**	**81**	P	**Pn**	**11 14 10.3**	**-1.1**
GUD				pmax	pmax		
	comp=Z,5.0nm,1.1s						
GUD	**Guadarrama**	**19.25**	**81**	P	**Pn**	**11 14 10.3**	**-1.1**
	comp=Z,4.5nm,1.1s						
GUD	**Guadarrama**	**19.25**	**81**	P	**Pn**	**11 14 10.3**	**-1.1**
	comp=Z,4.5nm,1.1s						
ESDC	**Sonseca Array**	**19.54**	**84**	P	**Pn**	**11 14 13.7**	**-1.2**
	comp=Z,0.4nm,0.3s,baz=291,slow=10.0,SNR=7.3						
ESDC	**Sonseca Array**	**19.54**	**84**	P	**Pn**	**11 14 14.3**	**-0.6**
	comp=Z,6.9nm,1.0s						
ESDC	**Sonseca Array**	**19.54**	**84**	P	**Pn**	**11 14 14.3**	**-0.6**
	comp=Z,6.9nm,1.0s						
ELOJ	**Sierra Loja**	**20.00**	**91**	P	**Pn**	**11 14 18.5**	**-1.9**
ELOJ				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ELOJ	**Sierra Loja**	**20.00**	**91**	P	**Pn**	**11 14 18.5**	**-1.8**
	comp=Z,9.1nm,1.0s						
ELOJ	**Sierra Loja**	**20.00**	**91**	P	**Pn**	**11 14 18.5**	**-1.9**
	comp=Z,9.1nm,1.0s						
EBAN	**Banos Encina**	**20.00**	**88**	P	**Pn**	**11 14 17.6**	**-2.8**
EBAN				pmax	pmax		
	comp=Z,11nm,1.0s						
EBAN	**Banos Encina**	**20.00**	**88**	P	**Pn**	**11 14 17.6**	**-2.8**
	comp=Z,11nm,1.0s						
EBAN	**Banos Encina**	**20.00**	**88**	P	**Pn**	**11 14 17.6**	**-2.8**
	comp=Z,11nm,1.0s						
QUIF	**Quistinic**	**20.26**	**59**	*e*P	**P**	**11 14 22.8**	**+1.3**
	comp=Z,59nm,1.1s						
QUIF	**Quistinic**	**20.26**	**59**	*e*P	**P**	**11 14 22.8**	**+1.3**
QUIF				pmax	pmax		
	comp=Z,29nm,1.1s						
QUIF	**Quistinic**	**20.26**	**59**	*e*P	**P**	**11 14 22.8**	**+1.3**
	comp=Z,29nm,1.1s						
QUIF	**Quistinic**	**20.26**	**59**	*e*P	**P**	**11 14 22.8**	**+1.3**
	comp=Z,29nm,1.1s						
ROSF	**Rostrenen**	**20.28**	**58**	*e*P	**P**	**11 14 23.1**	**+1.4**
	comp=Z,48nm,1.1s						
ROSF	**Rostrenen**	**20.28**	**58**	*e*P	**P**	**11 14 23.1**	**+1.4**
ROSF				pmax	pmax		
	comp=Z,24nm,1.1s						
ROSF	**Rostrenen**	**20.28**	**58**	*e*P	**P**	**11 14 23.1**	**+1.4**
	comp=Z,24nm,1.1s						
ROSF	**Rostrenen**	**20.28**	**58**	*e*P	**P**	**11 14 23.1**	**+1.4**
	comp=Z,24nm,1.1s						
ECOG	**Cogollos-Vega**	**20.41**	**90**	P	**P**	**11 14 24.6**	**+1.5**
ECOG				pmax	pmax		
	comp=Z,13nm,1.2s						
ECOG	**Cogollos-Vega**	**20.41**	**90**	P	**P**	**11 14 24.6**	**+1.5**
	comp=Z,13nm,1.2s						
ECOG	**Cogollos-Vega**	**20.41**	**90**	P	**P**	**11 14 24.6**	**+1.5**
	comp=Z,13nm,1.2s						
SGMF	**Saint Gilles**	**20.73**	**59**	*e*P	**P**	**11 14 27.7**	**+1.2**
	comp=Z,28nm,0.9s						
SGMF	**Saint Gilles**	**20.73**	**59**	*e*P	**P**	**11 14 27.7**	**+1.2**
SGMF				pmax	pmax		
	comp=Z,14nm,0.9s						
SGMF	**Saint Gilles**	**20.73**	**59**	*e*P	**P**	**11 14 27.7**	**+1.2**
	comp=Z,14nm,0.9s						
SGMF	**Saint Gilles**	**20.73**	**59**	*e*P	**P**	**11 14 27.7**	**+1.2**
	comp=Z,14nm,0.9s						
ETOR	**Torete**	**20.80**	**80**	P	**P**	**11 14 28.1**	**+0.7**
ETOR				pmax	pmax		
	comp=Z,11nm,1.0s						
ETOR	**Torete**	**20.80**	**80**	P	**P**	**11 14 28.1**	**+0.7**
	comp=Z,11nm,1.0s						
ETOR	**Torete**	**20.80**	**80**	P	**P**	**11 14 28.1**	**+0.7**
	comp=Z,11nm,1.0s						
EVIA	**Vianos**	**20.86**	**86**	P	**P**	**11 14 28.5**	**+0.4**
EVIA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
EVIA	**Vianos**	**20.86**	**86**	P	**P**	**11 14 28.5**	**+0.4**
	comp=Z,8.0nm,0.9s						
EVIA	**Vianos**	**20.86**	**86**	P	**P**	**11 14 28.5**	**+0.4**
	comp=Z,8.0nm,0.9s						
EHUE	**Huescar**	**21.00**	**88**	P	**P**	**11 14 30.7**	**+1.2**
EHUE				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
EHUE	**Huescar**	**21.00**	**88**	P	**P**	**11 14 30.7**	**+1.2**
	comp=Z,5.4nm,0.6s,mb4.0						
EHUE	**Huescar**	**21.00**	**88**	P	**P**	**11 14 30.7**	**+1.2**
	comp=Z,5.4nm,0.6s,mb4.0						
SJPF	**Ste Jean**	**21.22**	**73**	*e*P	**P**	**11 14 30.8**	**-1.1**
	comp=Z,31nm,1.0s,mb4.3						
SJPF	**Ste Jean**	**21.22**	**73**	*e*P	**P**	**11 14 30.8**	**-1.1**
SJPF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.3						
SJPF	**Ste Jean**	**21.22**	**73**	*e*P	**P**	**11 14 30.8**	**-1.1**
	comp=Z,16nm,1.0s,mb4.3						
SJPF	**Ste Jean**	**21.22**	**73**	*e*P	**P**	**11 14 30.8**	**-1.1**
	comp=Z,16nm,1.0s,mb4.3						
MDT	**Midelt**	**21.30**	**103**	P	**P**	**11 14 27.2**	**-5.6**
	comp=Z,3.3nm,0.8s,mb3.7,baz=249,slow=9.3,SNR=3.6						
ETOB	**Tobarra**	**21.59**	**86**	P	**P**	**11 14 36.9**	**+1.0**
	comp=Z,36nm,1.3s,mb4.6						
ETOB	**Tobarra**	**21.59**	**86**	P	**P**	**11 14 36.9**	**+1.0**
	comp=Z,36nm,1.3s,mb4.6						
ETSF	**Etsaut**	**21.72**	**74**	*e*P	**P**	**11 14 38.3**	**+1.1**
	comp=Z,63nm,1.5s,mb4.5						
ETSF	**Etsaut**	**21.72**	**74**	*e*P	**P**	**11 14 38.3**	**+1.1**
ETSF				pmax	pmax		
	comp=Z,32nm,1.5s,mb4.5						
ETSF	**Etsaut**	**21.72**	**74**	*e*P	**P**	**11 14 38.3**	**+1.1**
	comp=Z,32nm,1.5s,mb4.5						
ETSF	**Etsaut**	**21.72**	**74**	*e*P	**P**	**11 14 38.3**	**+1.1**
	comp=Z,32nm,1.5s,mb4.5						
ECHE	**Chera**	**21.83**	**83**	P	**P**	**11 14 39.2**	**+0.8**
ECHE				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ECHE	**Chera**	**21.83**	**83**	P	**P**	**11 14 39.2**	**+0.8**
	comp=Z,1.3nm,0.8s						
ECHE	**Chera**	**21.83**	**83**	P	**P**	**11 14 39.2**	**+0.8**
	comp=Z,1.3nm,0.8s						
GRR	**Gorron**	**21.87**	**59**	*e*P	**P**	**11 14 38.1**	**-0.7**
	comp=Z,35nm,0.9s,mb4.5						
GRR	**Gorron**	**21.87**	**59**	*e*P	**P**	**11 14 38.1**	**-0.7**
GRR				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.5						
GRR	**Gorron**	**21.87**	**59**	*e*P	**P**	**11 14 38.1**	**-0.7**
	comp=Z,18nm,0.9s,mb4.5						
GRR	**Gorron**	**21.87**	**59**	*e*P	**P**	**11 14 38.1**	**-0.7**
	comp=Z,18nm,0.9s,mb4.5						
ESAC	**San Caprasio**	**21.88**	**77**	P	**P**	**11 14 40.7**	**+1.7**
	comp=Z,44nm,1.0s,mb4.8						
ESAC	**San Caprasio**	**21.88**	**77**	P	**P**	**11 14 40.7**	**+1.7**
	comp=Z,44nm,1.0s,mb4.8						
EMOS	**Mosqueruela**	**22.07**	**81**	P	**P**	**11 14 42.6**	**+1.6**
	comp=Z,53nm,1.8s,mb4.7						
EMOS	**Mosqueruela**	**22.07**	**81**	P	**P**	**11 14 42.6**	**+1.6**
	comp=Z,53nm,1.8s,mb4.7						
MFF	**Saint Martin d**	**22.09**	**64**	*e*P	**P**	**11 14 41.9**	**+0.7**
	comp=Z,109nm,1.5s,mb4.8						
MFF	**Saint Martin d**	**22.09**	**64**	*e*P	**P**	**11 14 41.9**	**+0.7**

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MFF                              pmax  pmax
      comp=Z,55nm,1.5s,mb4.8
MFF   Saint Martin d   22.09  64 eP    P     11 14 41.9 +0.7
      comp=Z,54nm,1.5s,mb4.8
MFF   Saint Martin d   22.09  64 eP    P     11 14 41.9 +0.7
      comp=Z,54nm,1.5s,mb4.8
FLN   La Foliniere     22.19  58 eP    P     11 14 42.0 -0.2
      comp=Z,17nm,0.7s,mb4.3
FLN   La Foliniere     22.19  58 eP    P     11 14 42.0 -0.2
FLN                              pmax  pmax
      comp=Z,8.0nm,0.7s,mb4.3
FLN   La Foliniere     22.19  58 eP    P     11 14 42.0 -0.2
      comp=Z,8.4nm,0.7s,mb4.3
FLN   La Foliniere     22.19  58 eP    P     11 14 42.0 -0.2
      comp=Z,8.4nm,0.7s,mb4.3
EBIE  Bielsa           22.25  74  P    P     11 14 44.1 +1.3
      comp=Z,16nm,1.1s,mb4.3
EBIE  Bielsa           22.25  74  P    P     11 14 44.1 +1.2
      comp=Z,16nm,1.1s,mb4.3
EPF   Esparros         22.37  73 eP    P     11 14 44.2  0.0
      comp=Z,45nm,1.1s,mb4.5
EPF   Esparros         22.37  73 eP    P     11 14 44.2  0.0
EPF                              pmax  pmax
      comp=Z,23nm,1.1s,mb4.5
EPF   Esparros         22.37  73 eP    P     11 14 44.2  0.0
      comp=Z,22nm,1.1s,mb4.5
EPF   Esparros         22.37  73 eP    P     11 14 44.2  0.0
      comp=Z,22nm,1.1s,mb4.5
LDF   La Druitiere     22.39  59 eP    P     11 14 44.9 +0.6
      comp=Z,58nm,1.2s,mb4.6
LDF   La Druitiere     22.39  59 eP    P     11 14 44.9 +0.6
LDF                              pmax  pmax
      comp=Z,29nm,1.2s,mb4.6
LDF   La Druitiere     22.39  59 eP    P     11 14 44.9 +0.6
      comp=Z,29nm,1.2s,mb4.6
LDF   La Druitiere     22.39  59 eP    P     11 14 44.9 +0.6
      comp=Z,29nm,1.2s,mb4.6
ERTA  Horta de San J   22.58  79  P    P     11 14 49.0 +2.6
      comp=Z,36nm,1.4s,mb4.6
LFF   La Frestale      22.62  68 eP    P     11 14 45.1 -1.7
      comp=Z,30nm,0.9s,mb4.4
LFF   La Frestale      22.62  68 eP    P     11 14 45.1 -1.7
LFF                              pmax  pmax
      comp=Z,15nm,0.9s,mb4.4
LFF   La Frestale      22.62  68 eP    P     11 14 45.1 -1.7
      comp=Z,15nm,0.9s,mb4.4
LFF   La Frestale      22.62  68 eP    P     11 14 45.1 -1.7
      comp=Z,15nm,0.9s,mb4.4
EKA   Eskdalemuir Ar   22.95  41  P    P     11 14 47.0 -3.2
EKA                              pmax  pmax
      comp=Z,3.0nm,0.8s
EKA   Eskdalemuir Ar   22.95  41  P    P     11 14 47.0 -3.1
      comp=Z,2.7nm,0.8s,mb3.7,baz=31,slow=22,SNR=2.8
EPOB  Poblet           23.08  78  P    P     11 14 52.0 +0.3
      comp=Z,34nm,1.1s,mb4.7
EPOB  Poblet           23.08  78  P    P     11 14 52.0 +0.3
      comp=Z,34nm,1.1s,mb4.7
RJF   Les Rejaudoux    23.17  67 eP    P     11 14 53.6 +0.9
      comp=Z,20nm,1.0s,mb4.2
RJF   Les Rejaudoux    23.17  67 eP    P     11 14 53.6 +0.9
RJF                              pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.2
RJF   Les Rejaudoux    23.17  67 eP    P     11 14 53.6 +0.9
      comp=Z,10nm,1.0s,mb4.2
RJF   Les Rejaudoux    23.17  67 eP    P     11 14 53.6 +0.9
      comp=Z,10nm,1.0s,mb4.2
CAF   Calviac          23.56  68 eP    P     11 14 54.3 -2.4
      comp=Z,34nm,1.1s,mb4.4
CAF   Calviac          23.56  68 eP    P     11 14 54.3 -2.4
CAF                              pmax  pmax
      comp=Z,17nm,1.1s,mb4.4
CAF   Calviac          23.56  68 eP    P     11 14 54.3 -2.4
      comp=Z,17nm,1.1s,mb4.4
CAF   Calviac          23.56  68 eP    P     11 14 54.3 -2.4
      comp=Z,17nm,1.1s,mb4.4
TCF   Toulx Ste Croi   23.69  65 eP    P     11 14 57.3 -0.6
      comp=Z,72nm,1.3s,mb4.6
TCF   Toulx Ste Croi   23.69  65 eP    P     11 14 57.3 -0.6
TCF                              pmax  pmax
      comp=Z,36nm,1.3s,mb4.6
TCF   Toulx Ste Croi   23.69  65 eP    P     11 14 57.3 -0.6
      comp=Z,36nm,1.3s,mb4.6
TCF   Toulx Ste Croi   23.69  65 eP    P     11 14 57.3 -0.6
      comp=Z,36nm,1.3s,mb4.6
MTLF  Montolieu        23.72  72 eP    P     11 14 57.0 -1.2
      comp=Z,46nm,1.1s,mb4.5
MTLF  Montolieu        23.72  72 eP    P     11 14 57.0 -1.2
MTLF                             pmax  pmax
      comp=Z,23nm,1.1s,mb4.5
MTLF  Montolieu        23.72  72 eP    P     11 14 57.0 -1.2
      comp=Z,23nm,1.1s,mb4.5
MTLF  Montolieu        23.72  72 eP    P     11 14 57.0 -1.2
      comp=Z,23nm,1.1s,mb4.5
BGF   Bois d'Agland    24.15  64 eP    P     11 15 00.9 -1.2
      comp=Z,54nm,1.0s,mb4.6
BGF   Bois d'Agland    24.15  64 eP    P     11 15 00.9 -1.2
BGF                              pmax  pmax
      comp=Z,27nm,1.0s,mb4.6
BGF   Bois d'Agland    24.15  64 eP    P     11 15 00.9 -1.2
      comp=Z,27nm,1.0s,mb4.6
BGF   Bois d'Agland    24.15  64 eP    P     11 15 00.9 -1.2
      comp=Z,27nm,1.0s,mb4.6
EJON  La Jonquera      24.29  74  P    P     11 15 04.5 +1.1
      comp=Z,24nm,1.2s,mb4.5
EJON  La Jonquera      24.29  74  P    P     11 15 04.5 +1.1
      comp=Z,24nm,1.2s,mb4.5
AVF   Avril sur Loir   24.51  64 eP    P     11 15 03.5 -1.8
      comp=Z,37nm,1.3s,mb4.5
AVF   Avril sur Loir   24.51  64 eP    P     11 15 03.5 -1.8
AVF                              pmax  pmax
      comp=Z,19nm,1.3s,mb4.5
AVF   Avril sur Loir   24.51  64 eP    P     11 15 03.5 -1.8
      comp=Z,18nm,1.3s,mb4.5
AVF   Avril sur Loir   24.51  64 eP    P     11 15 03.5 -1.8
      comp=Z,18nm,1.3s,mb4.5
SSF   Saint Saulge     24.63  63 eP    P     11 15 06.0 -0.4
      comp=Z,31nm,1.1s,mb4.5
SSF   Saint Saulge     24.63  63 eP    P     11 15 06.0 -0.4
SSF                              pmax  pmax
      comp=Z,15nm,1.1s,mb4.4
SSF   Saint Saulge     24.63  63 eP    P     11 15 06.0 -0.4
      comp=Z,15nm,1.1s,mb4.5
SSF   Saint Saulge     24.63  63 eP    P     11 15 06.0 -0.4
      comp=Z,15nm,1.1s,mb4.5
SMF   Signal de Mont   24.84  64 eP    P     11 15 08.4 +0.1
      comp=Z,41nm,1.1s,mb4.6
SMF   Signal de Mont   24.84  64 eP    P     11 15 08.4 +0.1
SMF                              pmax  pmax
      comp=Z,21nm,1.1s,mb4.6
SMF   Signal de Mont   24.84  64 eP    P     11 15 08.4 +0.1
      comp=Z,21nm,1.1s,mb4.6
SMF   Signal de Mont   24.84  64 eP    P     11 15 08.4 +0.1
      comp=Z,21nm,1.1s,mb4.6
LASF  Ste Croix        24.86  70 eP    P     11 15 08.2 -0.4
      comp=Z,44nm,1.1s,mb4.6
LASF  Ste Croix        24.86  70 eP    P     11 15 08.2 -0.4
      comp=Z,22nm,1.1s,mb4.6
LOR   Lormes           24.88  63 eP    P     11 15 07.2 -1.6
      comp=Z,39nm,1.3s,mb4.5
LOR   Lormes           24.88  63 eP    P     11 15 07.2 -1.6
LOR                              pmax  pmax
      comp=Z,20nm,1.3s,mb4.5
LOR   Lormes           24.88  63 eP    P     11 15 07.2 -1.6
      comp=Z,20nm,1.3s,mb4.5
LOR   Lormes           24.88  63 eP    P     11 15 07.2 -1.6
      comp=Z,20nm,1.3s,mb4.5
VIVF  Saint-Julien-l   25.41  69 eP    P     11 15 14.9 +1.3
      comp=Z,57nm,1.3s,mb4.7
VIVF  Saint-Julien-l   25.41  69 eP    P     11 15 14.9 +1.3
VIVF                             pmax  pmax
      comp=Z,28nm,1.3s,mb4.6
VIVF  Saint-Julien-l   25.41  69 eP    P     11 15 14.9 +1.3
      comp=Z,28nm,1.3s,mb4.6
VIVF  Saint-Julien-l   25.41  69 eP    P     11 15 14.9 +1.3
      comp=Z,28nm,1.3s,mb4.7
BAIF  Baives           25.43  56 eP    P     11 15 12.4 -1.3
      comp=Z,73nm,1.3s,mb4.8
BAIF  Baives           25.43  56 eP    P     11 15 12.4 -1.3
BAIF                             pmax  pmax
      comp=Z,37nm,1.3s,mb4.8
BAIF  Baives           25.43  56 eP    P     11 15 12.4 -1.3
      comp=Z,36nm,1.3s,mb4.8
BAIF  Baives           25.43  56 eP    P     11 15 12.4 -1.3
      comp=Z,36nm,1.3s,mb4.8
SNF   Seneffe          25.56  55  AP   pP    11 15 17.0 -0.9
      comp=Z,12nm,1.4s
DOU   Dourbes          25.68  56  P    P     11 15 15.9 -0.1
DOU                               AP   pP    11 15 18.8 -0.2
MEZF  Maizieres J'vi   25.78  60 eP    P     11 15 16.3 -0.6
      comp=Z,87nm,1.1s,mb4.9
MEZF  Maizieres J'vi   25.78  60 eP    P     11 15 16.3 -0.6
      comp=Z,87nm,1.1s,mb5.2
MEZF  Maizieres J'vi   25.78  60 eP    P     11 15 16.3 -0.6
      comp=Z,43nm,1.1s,mb4.9
GIVF  Givet            25.83  56 eP    P     11 15 16.5 -0.8
      comp=Z,47nm,1.0s,mb4.7
GIVF  Givet            25.83  56 eP    P     11 15 16.5 -0.8
GIVF                             pmax  pmax
      comp=Z,24nm,1.0s,mb4.7
GIVF  Givet            25.83  56 eP    P     11 15 16.5 -0.8
      comp=Z,24nm,1.0s,mb4.7
GIVF  Givet            25.83  56 eP    P     11 15 16.5 -0.8
      comp=Z,24nm,1.0s,mb4.7
SMRF  Simiane la Rot   26.11  70 eP    P     11 15 20.9 +1.0
      comp=Z,38nm,1.1s,mb4.6
SMRF  Simiane la Rot   26.11  70 eP    P     11 15 20.9 +1.0
      comp=Z,38nm,1.0s,mb4.9
SMRF  Simiane la Rot   26.11  70 eP    P     11 15 20.9 +1.0
      comp=Z,19nm,1.1s,mb4.6
BCLA  Clavier          26.18  56  P    P     11 15 20.9 +0.3
ORIF  Oris-en-Rattie   26.27  68 eP    P     11 15 23.8 +2.5
      comp=Z,32nm,1.1s,mb4.5
ORIF  Oris-en-Rattie   26.27  68 eP    P     11 15 23.8 +2.5
ORIF                             pmax  pmax
      comp=Z,16nm,1.1s,mb4.5
ORIF  Oris-en-Rattie   26.27  68 eP    P     11 15 23.8 +2.5
      comp=Z,16nm,1.1s,mb4.5
CABF  La Chapelle      26.38  64 eP    P     11 15 21.1 -1.3
      comp=Z,43nm,1.2s,mb4.5
CABF  La Chapelle      26.38  64 eP    P     11 15 21.1 -1.3
CABF                             pmax  pmax
      comp=Z,21nm,1.2s,mb4.5
CABF  La Chapelle      26.38  64 eP    P     11 15 21.1 -1.3
      comp=Z,22nm,1.2s,mb4.5
CABF  La Chapelle      26.38  64 eP    P     11 15 21.1 -1.3
      comp=Z,22nm,1.2s,mb4.5
WLF   Walferdange      26.62  58  AP   pP    11 15 27.9 +0.4
MEM   Membach          26.66  56  P    P     11 15 25.7 +0.9
MEM                               XP   sP    11 15 30.4 +1.3
BNI   Bardonecchia     26.83  68 eP    P     11 15 26.6 +0.2
BNI                              pmax  pmax
      comp=Z,39nm,1.6s,mb4.7
BNI   Bardonecchia     26.83  68 eP    P     11 15 26.6 +0.2
      comp=Z,39nm,1.6s,mb4.7
BNI   Bardonecchia     26.83  68 eP    P     11 15 26.6 +0.2
      comp=Z,39nm,1.6s,mb4.7
LMR   La Mourre        26.84  72 eP    P     11 15 27.3 +0.8
      comp=Z,24nm,1.1s,mb4.3
LMR   La Mourre        26.84  72 eP    P     11 15 27.3 +0.8
LMR                              pmax  pmax
      comp=Z,12nm,1.1s,mb4.3
LMR   La Mourre        26.84  72 eP    P     11 15 27.3 +0.8
      comp=Z,12nm,1.1s,mb4.3
LMR   La Mourre        26.84  72 eP    P     11 15 27.3 +0.8
      comp=Z,12nm,1.1s,mb4.3
LPL   La Plagne        26.84  67 eP    P     11 15 28.3 +1.8
LPL   La Plagne        26.84  67 eP    P     11 15 28.3 +1.8
LPG   La Plagne        26.86  67 eP    P     11 15 28.2 +1.5
      comp=Z,48nm,1.5s,mb4.5
LPG   La Plagne        26.86  67 eP    P     11 15 28.2 +1.5
LPG                              pmax  pmax
      comp=Z,24nm,1.5s,mb4.5
LPG   La Plagne        26.86  67 eP    P     11 15 28.2 +1.5
      comp=Z,24nm,1.5s,mb4.5
LPG   La Plagne        26.86  67 eP    P     11 15 28.2 +1.5
      comp=Z,24nm,1.5s,mb4.5
MBDF  Montbardon       26.91  69 eP    P     11 15 27.4 +0.3
      comp=Z,15nm,1.1s,mb4.1
MBDF  Montbardon       26.91  69 eP    P     11 15 27.4 +0.3
MBDF                             pmax  pmax
      comp=Z,7.0nm,1.1s,mb4.1
MBDF  Montbardon       26.91  69 eP    P     11 15 27.4 +0.3
      comp=Z,7.4nm,1.1s,mb4.1
MBDF  Montbardon       26.91  69 eP    P     11 15 27.4 +0.3
      comp=Z,7.4nm,1.1s,mb4.1
FRF   La Foret Royal   26.92  71 eP    P     11 15 26.4 -0.8
      comp=Z,49nm,1.3s,mb4.6
FRF   La Foret Royal   26.92  71 eP    P     11 15 26.4 -0.8
FRF                              pmax  pmax
      comp=Z,24nm,1.3s,mb4.6
FRF   La Foret Royal   26.92  71 eP    P     11 15 26.4 -0.8
      comp=Z,24nm,1.3s,mb4.6
FRF   La Foret Royal   26.92  71 eP    P     11 15 26.4 -0.8
      comp=Z,24nm,1.3s,mb4.6
HINF  Hinteralfeld     26.94  62 eP    P     11 15 27.9 +0.5
HINF  Hinteralfeld     26.94  62 eP    P     11 15 27.9 +0.5
CDF   Champ du Feu     27.25  61 eP    P     11 15 29.0 -1.2
      comp=Z,61nm,1.5s,mb4.6
CDF   Champ du Feu     27.25  61 eP    P     11 15 29.0 -1.2
CDF                              pmax  pmax
      comp=Z,31nm,1.5s,mb4.6
CDF   Champ du Feu     27.25  61 eP    P     11 15 29.0 -1.2
      comp=Z,31nm,1.5s,mb4.6
CDF   Champ du Feu     27.25  61 eP    P     11 15 29.0 -1.2
      comp=Z,31nm,1.5s,mb4.6
BFO   Black Forest     27.95  61 eP    P     11 15 35.6 -0.8
BFO                              pmax  pmax
      comp=Z,15nm,1.3s,mb4.5
BFO   Black Forest     27.95  61 eP    P     11 15 35.6 -0.9
      comp=Z,15nm,1.3s,mb4.5
BFO   Black Forest     27.95  61 eP    P     11 15 35.6 -0.8
      comp=Z,15nm,1.3s,mb4.5
SCHQ  Schefferville    28.63 313  P    P     11 15 41.7 -0.7
      comp=Z,1.9nm,1.0s,mb3.8,baz=128,slow=12,SNR=3.7
SCHQ  Schefferville    28.63 313  P    P     11 15 41.7 -0.7
PGF   Pioggiola        28.75  73 eP    P     11 15 47.1 +3.4
      comp=Z,12nm,0.9s,mb4.3
PGF   Pioggiola        28.75  73 eP    P     11 15 47.1 +3.4
PGF                              pmax  pmax
      comp=Z,6.0nm,0.9s,mb4.3
PGF   Pioggiola        28.75  73 eP    P     11 15 47.1 +3.4
      comp=Z,6.0nm,0.9s,mb4.3
GRA1  Grafenberg Arr   29.91  58 eP    P     11 15 57.2 +3.4
      comp=Z,12nm,1.1s,mb4.5
GRF   Grafenberg Arr   29.91  58 eP    P     11 15 57.2 +3.4
GRF                              pmax  pmax
      comp=Z,12nm,1.1s,mb4.5
GRF   Grafenberg Arr   29.91  58 eP    P     11 15 57.2 +3.4
GRF                              pmax  pmax
      comp=Z,12nm,1.1s,mb4.5
GRF   Grafenberg Arr   29.91  58 eP    P     11 15 57.2 +3.4
      comp=Z,12nm,1.1s,mb4.5
NKC   Novy Kostel      30.72  57 eP    P     11 16 04.3 +3.3
CLL   Collm            31.13  55 esP   sP    11 16 08.0 -0.9
KHC   Kasperske Hory   31.44  59 eP    P     11 16 05.0 -2.3
KHC                              ex    x     11 16 10.3
KHC                              ex    x     11 16 18.3
KHC   Kasperske Hory   31.44  59 eP    P     11 16 10.3 +3.0
KHC                              e           11 16 18.3
PRU   Pruhonice        32.06  58 eP    P     11 16 15.4 +2.6
FRB   Frobisher Bay    32.66 329  P    P     11 16 16.3 -1.6
      comp=Z,1.7nm,0.8s,mb4.0,baz=117,slow=8.6,SNR=3.2
FRB   Frobisher Bay    32.66 329  P    P     11 16 16.3 -1.6
FRB   Frobisher Bay    32.66 329  P    P     11 16 16.3 -1.6
UPC   Upice            33.01  57 eP    P     11 16 22.6 +1.5
UPC   Upice            33.01  57  P    P     11 16 22.6 +1.5
DPC   Dobruska-Polom   33.21  57 eP    P     11 16 26.4 +3.6
CUC   Castrocucco      34.32  76 eP    P     11 16 31.5 -1.1
      comp=Z,17nm,1.0s,mb4.9
VYHS  Vyhne            34.94  60 eP    P     11 16 40.4 +2.5
OJC   Ojcow            35.44  57 eP    P     11 16 41.8 -0.4
KECS  Kecovo           36.03  60 eP    P     11 16 46.1 -1.2
CRVS  Cervenica-Dubn   36.63  59 eP    P     11 16 52.1 -0.3
CRVS                             pmax  pmax
      comp=Z,112nm,3.2s
CRVS  Cervenica-Dubn   36.63  59 eP    P     11 16 52.1 -0.3
      comp=Z,112nm,3.2s
TORD  Torodi Ar. Bea   38.51 126  P    P     11 17 09.8 +1.2
      comp=Z,8.0nm,1.0s,mb4.4,baz=321,slow=7.5,SNR=13
DBIC  Dimbokro         40.17 140  P    P     11 17 24.4 +2.0
      comp=Z,1.9nm,0.8s,mb3.9,baz=306,slow=16,SNR=2.7
DBIC  Dimbokro         40.17 140  P    P     11 17 24.4 +2.0
ARCES ARCESS Array B   40.68  26  P    P     11 17 24.3 -1.9
      comp=Z,5.0nm,1.0s,mb4.1,baz=255,slow=7.0,SNR=4.7
AKASG Malin Array Be   41.38  55  P    P     11 17 30.0 -2.1
      comp=Z,1.8nm,0.5s,mb4.0,baz=278,slow=8.3,SNR=3.9
TIRR  Tirgusor         42.17  65 eP    P     11 17 36.6 -2.0
TIRR                             pmax  pmax
      comp=Z,21nm,0.9s,mb4.8
TIRR  Tirgusor         42.17  65 eP    P     11 17 36.6 -2.0
      comp=Z,21nm,0.9s,mb4.8
IDI   Anoyia           42.68  79  P    P     11 17 43.3 +0.4
      comp=Z,5.1nm,0.7s,mb4.4,baz=281,slow=12,SNR=4.3
EYMN  Ely              44.05 301 eP    P     11 17 55.6 +1.8
      comp=Z,97nm,2.3s,mb5.1
RES   Resolute Bay     45.03 340  P    P     11 18 01.0 -0.4
      comp=Z,1.4nm,0.8s,mb3.8,baz=117,slow=8.7,SNR=3.9
OBN   Obninsk          45.06  48⇑eP    P     11 18 00.3 -1.5
OBN                              e           11 19 42.7
OBN                              eS    S     11 24 36.8 -3.6
OBN                              pmax  pmax
      comp=Z,41nm,1.8s,mb5.0
KLMR  Klimovskoe       45.83  40 eP    P     11 18 11.0 +3.2
KLMR                             pmax  pmax
      comp=Z,13nm,1.3s,mb4.7
FVM   French Village   46.47 288 eP    P     11 18 15.8 +2.6
FVM                              pmax  pmax
      comp=Z,8.0nm,0.7s,mb4.8
FVM   French Village   46.47 288 eP    P     11 18 15.8 +2.6
      comp=Z,7.9nm,0.7s,mb4.8
BRTR  Keskin Array B   47.38  69  P    P     11 18 20.1 -0.1
      comp=Z,4.0nm,1.0s,mb4.3
PRGR  Permogore        48.64  38  P    P     11 18 27.0 -2.7
PRGR                             pmax  pmax
      comp=Z,24nm,1.2s,mb5.1
ECSD  EROS Data Cent   48.72 297 eP    P     11 18 30.0 -0.5
      comp=Z,113nm,2.8s,mb5.4
FFC   Flin Flon        48.77 313 i P   P     11 18 32.0 +1.2
MALT  Malatya          51.36  69 eP    P     11 18 54.3 +3.6
MALT                             pmax  pmax
      comp=Z,13nm,1.5s,mb4.6
MALT  Malatya          51.36  69 eP    P     11 18 54.3 +3.6
      comp=Z,13nm,1.5s,mb4.6
KIV   Kislovodsk       52.02  61⇑eP    P     11 18 55.3 -0.3
KIV                              e           11 20 50.1
KIV                              eS    S     11 26 13.6 -5.4
KIV                              pmax  pmax
      comp=Z,6.0nm,1.3s,mb4.4
KIV                              MLR   MLR
      comp=Z,300nm,16.0s,MS4.4
YKA   Yellowknife Ar   53.00 325  P    P     11 19 01.9 -0.6
      comp=Z,1.4nm,0.8s,mb3.9,baz=68,slow=7.4,SNR=17
YKA                              PcP   PcP   11 20 10.7 -0.4
      comp=Z,0.7nm,0.8s,baz=72,slow=4.1,SNR=7.1
YKA   Yellowknife Ar   53.00 325  P    P     11 19 01.9 -0.6
YKA                              PcP   PcP   11 20 10.7 -0.4
GNI   Garni            54.99  64 i P   P     11 19 17.7 +0.3
GNI                              pmax  pmax
      comp=Z,18nm,1.4s
GNI   Garni            54.99  64  P    P     11 19 17.0 -0.4
      comp=Z,1.3nm,0.3s,mb4.4,baz=146,slow=19,SNR=2.3
GNI   Garni            54.99  64 eP    P     11 19 17.4 -0.1
      comp=Z,5.5nm,0.8s,mb4.6
ARU   Arti             56.56  42d iP   P     11 19 27.9 -0.5
ARU                              S     S     11 27 18.4 -1.3
ARU                              SS    SS    11 31 09.5 +3.0
ARU                              pmax  pmax
      comp=Z,22nm,1.7s,mb4.9
WALA  Waterton Lakes   57.66 309 eP    P     11 19 36.6 +0.3
      comp=Z,2.9nm,2.3s,mb3.9
BW06  Boulder Array    57.75 301 eP    P     11 19 38.9 +1.9
      comp=Z,25nm,2.3s,mb4.8
PDAR  Pinedale Array   57.75 301  P    P     11 19 37.0  0.0
      comp=Z,1.6nm,0.9s,mb4.0,baz=65,slow=8.4,SNR=11
INK   Inuvik           57.98 335 eP    P     11 19 37.1 -1.1
INK                              pmax  pmax
      comp=Z,51nm,2.5s
INK   Inuvik           57.98 335 eP    P     11 19 37.1 -1.1
      comp=Z,51nm,2.5s,mb5.1
CHMT  Chamberlain Mo   58.22 307 eP    P     11 19 40.6 +0.4
SLMT  Seeley Lake      58.22 307 eP    P     11 19 40.6 +0.4
      comp=Z,6.1nm,1.1s,mb4.5
YBMT  Yellow Bay       58.25 308 eP    P     11 19 40.7 +0.3
      comp=Z,2.0nm,0.8s,mb4.2
SWMT  Swartz Lake      58.40 308 eP    P     11 19 41.7 +0.2
AKTK  Aktyubinsk       58.84  48  P    P     11 19 44.2 -0.3
AKTO  Aktyubinsk       58.84  48  P    P     11 19 44.2 -0.3
AKTO                             pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.5
AKTO  Aktyubinsk       58.84  48  P    P     11 19 44.2 -0.3
      comp=Z,4.4nm,0.8s,mb4.5,baz=296,slow=7.0,SNR=11
NEW   Newport          59.92 310 eP    P     11 19 52.5 +0.5
NEW                              pmax  pmax
      comp=Z,11nm,1.1s
NEW   Newport          59.92 310 eP    P     11 19 52.5 +0.5
      comp=Z,11nm,1.1s,mb4.8
TXAR  Lajitas Array    60.24 285  P    P     11 19 55.5 +1.0
      comp=Z,1.0nm,0.8s,mb3.9,baz=76,slow=7.5,SNR=13
MSU   Marysvale        61.55 298 eP    P     11 20 05.1 +1.8
DAWY  Dawson           62.27 332 eP    P     11 20 07.6 -0.1
BRVK  Borovoye         64.13  41 eP    P     11 20 19.2 -1.0
BRVK                             pmax  pmax
      comp=Z,10.0nm,1.2s,mb4.7
BRVK  Borovoye         64.13  41 eP    P     11 20 19.2 -1.0
      comp=Z,9.6nm,1.2s,mb4.7
BVAR  Borovoye Array   64.20  41  P    P     11 20 20.4 -0.3
      comp=Z,1.3nm,0.5s,mb4.2,baz=296,slow=6.7,SNR=7.6
IMA2  Indian Mountai   65.53 338 eP    P     11 20 29.2 +0.1
NVAR  Mina Array Bea   65.68 300  P    P     11 20 31.0 +0.4
      comp=Z,0.4nm,0.7s,mb3.5,baz=57,slow=3.3,SNR=3.6
MCK   McKinley         65.74 335 eP    P     11 20 30.2 -0.3
MCK                              pmax  pmax
      comp=Z,60nm,2.4s,mb5.2
MCK   McKinley         65.74 335 eP    P     11 20 30.2 -0.3
      comp=Z,60nm,2.4s,mb5.2
TIXI  Tiksi            67.21   7⇑eP    P     11 20 40.0 +0.2
TIXI                             pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.7
TIXI  Tiksi            67.21   7 eP    P     11 20 39.7 -0.2
      comp=Z,6.2nm,0.8s,mb4.7
NVS   Novosibirsk      69.16  35 i P   P     11 20 51.9 -0.4
NVS                              pmax  pmax
      comp=Z,20nm,1.7s,mb4.8
NVS                              pmax  pmax
      comp=N,13nm,2.3s
NVS                              pmax  pmax
      comp=E,12nm,2.1s
KURK  Kurchatov        69.68  40  P    P     11 20 55.1 -0.5
KURK                             pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.4
KURK  Kurchatov        69.68  40  P    P     11 20 55.1 -0.4
      comp=Z,4.3nm,0.8s,mb4.4,baz=312,slow=6.3,SNR=11
KURK  Kurchatov        69.68  40 eP    P     11 20 54.7 -0.9
      comp=Z,8.8nm,1.1s,mb4.6
ZALV  Zalesovo Beam    70.44  35  P    P     11 20 59.2 -1.0
      comp=Z,3.5nm,0.8s,mb4.3,baz=308,slow=7.3,SNR=11
ZALV  Zalesovo Beam    70.44  35  P    P     11 20 59.2 -1.0
BILL  Bilibino         71.25 354⇑eP    P     11 21 05.7 +0.8
BILL                             e           11 23 43.4
BILL                             eS    S     11 30 17.4 -4.3
BILL                             pmax  pmax
      comp=Z,6.0nm,1.8s,mb4.2
AAK   Ala-Archa        72.58  49  P    P     11 21 11.0 -2.3
      comp=Z,0.4nm,0.3s,mb3.8,baz=7.3,slow=20,SNR=2.1
MKAR  Makanchi Array   74.08  42  P    P     11 21 21.2 -0.8
      comp=Z,2.5nm,0.8s,mb4.2,baz=318,slow=5.7,SNR=18
KSH   Kashi            75.43  50  P    P     11 21 31.1 +1.0
KSH                              epP   pP    11 21 35.6 +2.3
KSH                              esP   sP    11 21 38.3 +3.8
KSH                              ePcP  PcP   11 21 45.1 +1.9
KSH                              ePP   PP    11 24 21.8 +3.3
KSH                              eS    S     11 31 08.8 -1.3
KSH                              eSKS        11 31 35.4
KSH                              eScS  ScS   11 31 39.8 -3.6
KSH                              pmax  pmax
      comp=Z,12nm,0.7s,mb4.9
KSH                              pmax  pmax
      comp=Z,290nm,3.1s
KSH                              LR    LR
      comp=N,290nm,6.0s
KSH                              LR    LR
      comp=E,260nm,5.4s
KSH                              LR    LR
      comp=Z,220nm,6.7s
YAK   Yakutsk          76.55  10 eP    P     11 21 34.4 -1.6
YAK                              e           11 21 39.7
YAK                              e           11 24 26.1
YAK                              eS    S     11 31 19.0 -2.6
YAK                              e           11 31 45.9
YAK                              eSS   SS    11 36 10.3 -4.9
YAK                              pmax  pmax
      comp=Z,11nm,0.9s,mb4.8
YAK                              pmax  pmax
      comp=N,5.0nm,1.2s
YAK                              pmax  pmax
      comp=E,3.0nm,1.2s
YAK                              pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.8
YAK                              pmax  pmax
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	comp=N,125nm,4.3s						
YAK				pmax	pmax		
	comp=E,16nm,1.6s						
YAK				smax			
	comp=N,53nm,3.1s						
YAK				smax			
	comp=E,26nm,3.5s						
SEY	**Seymchan**	**77.02**	**359**	⇑*e*P	**P**	**11 21 37.9**	**-0.7**
WMQ	**Urumqi**	**78.89**	**41**	*e*P	**P**	**11 21 49.6**	**+0.2**
WMQ				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
TLY	**Talaya**	**79.63**	**28**	*e*P	**P**	**11 21 43.5**	**-10**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
TLY				MLR	MLR		
	comp=Z,232nm,14.0s,MS4.7						
SONM	**Songino Array**	**83.83**	**28**	P	**P**	**11 22 13.4**	**-2.1**
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM	**Songino Array**	**83.83**	**28**	P	**P**	**11 22 13.4**	**-2.1**
	comp=Z,2.1nm,0.9s,mb4.3,baz=329,slow=6.1,SNR=7.7						
SONM	**Songino Array**	**83.83**	**28**	P	**P**	**11 22 13.4**	**-2.1**
	comp=Z,2.0nm,0.9s,mb4.2						
GTA	**Gaotai**	**88.09**	**37**	*e*P	**P**	**11 22 33.1**	**-3.7**
GTA				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb4.3						
HHC	**Hu-ho-hao-te**	**91.72**	**28**	*e*P	**P**	**11 22 52.3**	**-1.4**
HHC				sP	sP	11 22 59.3	+1.0
HHC				PP	PP	11 26 31.8	+0.4
HHC				SKS		11 33 22.6	
HHC				*e*S	S	11 33 47.3	-7.1
HHC				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
HHC				pmax	pmax		
	comp=Z,94nm,5.0s						
HHC				LR	LR		
	comp=N,730nm,14.3s,MS5.4						
HHC				LR	LR		
	comp=E,650nm,15.2s,MS5.4						
HHC				LR	LR		
	comp=Z,750nm,15.9s,MS5.2						
LZH	**Lanzhou**	**92.64**	**36**	*e*P	**P**	**11 22 57.0**	**-1.1**
LZH				pP	pP	11 23 01.8	+0.4
LZH				sP	sP	11 23 04.3	+1.7
LZH				pmax	pmax		
	comp=Z,16nm,1.4s,mb5.3						
LZH				pmax	pmax		
	comp=Z,65nm,4.8s						
LZH				LR	LR		
	comp=N,250nm,17.0s						
LZH				LR	LR		
	comp=Z,310nm,19.6s,MS4.8						
CN2	**Changchun**	**93.20**	**18**	*e*P	**P**	**11 22 57.4**	**-3.1**
BJI	**Beijing**	**94.05**	**26**	P	**P**	**11 23 01.6**	**-2.9**
BJI				S	S	11 34 13.8	-1.2
BJI				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.1						
BJI				LR	LR		
	comp=N,650nm,16.6s,MS5.2						
BJI				LR	LR		
	comp=E,210nm,17.0s,MS5.2						
BJI				LR	LR		
	comp=Z,350nm,20.8s,MS4.8						
CD2	**Chengdu**	**96.88**	**39**	P	**P**	**11 23 17.0**	**-0.6**
CD2				pP	pP	11 23 21.0	+0.1
CD2				sP	sP	11 23 23.0	+0.9
CD2				PP	PP	11 27 13.6	+1.6
CD2				SKS		11 33 52.0	
CD2				S	S	11 34 34.3	-5.7
CD2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.4						
CD2				pmax	pmax		
	comp=Z,40nm,5.2s						
CD2				LR	LR		
	comp=N,400nm,13.1s						
CD2				LR	LR		
	comp=Z,370nm,12.2s,MS5.1						
KMI	**Kunming**	**101.12**	**43**	P	Pdif	11 23 37.8	+1.4
KMI				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GYA	**Guiyang**	**101.99**	**39**	P	Pdif	11 23 39.4	-0.9
GYA				PP	PP	11 27 51.6	+0.7
GYA				SKS		11 34 16.8	
GYA				S	Sdif	11 35 15.3	-7.4
GYA				pmax	pmax		
	comp=Z,20nm,1.0s						
GYA				pmax	pmax		
	comp=Z,110nm,5.4s						
GYA				LR	LR		
	comp=N,510nm,20.2s,MS5.2						
GYA				LR	LR		
	comp=E,460nm,20.3s,MS5.2						
GYA				LR	LR		
	comp=Z,480nm,20.9s,MS5.0						
NJ2	**Nanjing**	**102.19**	**27**	*e*P	Pdif	11 23 42.1	+0.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.9s						

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*IDC **23** 11:17:03.5±1.5, 40°.39N×29°.65W, h0^{km}, mb3.9/9, mb1 3.9/10, mb1mx3.7/26, mbtmp3.8/10, ML4.8/1, Error ellipse: s-maj=43.8km s-min=22.3km az=19.0*
*PDA **23** 11:17:09.0±1.2, 40°.64N×29°.11W, h5^{km}, MD4.0, ML3.5, Error ellipse: s-maj=13.1km s-min=8.1km az=89.0*
*CSEM **23** 11:17:09.0, 40°.64N×29°.11W, h5^{km}, ML3.5, After PDA*
ISC 23 11:17:07.2±2.8**, 40°.43N**±0°.05×**29°.4W**±0°.2**, h19**^{km}±18^{km}**, n26, σ0^{s}.89**/33**, mb3.8**/9**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	**Cedros**	**1.88**	**163**	*e*P	**Pn**	**11 17 39.2**	**+0.9**
PCED				*e*S	**Sn**	**11 18 01.7**	**+0.2**
PCED				A		11 18 04.9	
	101nm,0.4s						
PCED	**Cedros**	**1.88**	**163**	*e*P	**Pn**	**11 17 39.2**	**+0.9**
PCED				*e*S	**Sn**	**11 18 01.7**	**+0.2**
CALA	**Caldeira**	**1.93**	**164**	*e*P	**Pn**	**11 17 40.0**	**+1.0**
CALA				*e*S	**Sn**	**11 18 02.7**	**+0.1**
CALA	**Caldeira**	**1.93**	**164**	*e*P	**Pn**	**11 17 40.0**	**+1.0**
CALA				*e*S	**Sn**	**11 18 02.7**	**+0.1**
ROSA	**Rosais**	**1.93**	**152**	*e*P	**Pn**	**11 17 38.9**	**-0.1**
ROSA	**Rosais**	**1.93**	**152**	*e*P	**Pn**	**11 17 38.9**	**-0.1**
PMAN	**Manadas**	**2.06**	**150**	*e*P	**Pn**	**11 17 40.4**	**-0.4**
PMAN				*e*S	**Sn**	**11 18 05.0**	**-1.0**
PMAN				A		11 18 05.8	
	56nm,0.4s						
PMAN	**Manadas**	**2.06**	**150**	*e*P	**Pn**	**11 17 40.4**	**-0.4**
PMAN				*e*S	**Sn**	**11 18 05.0**	**-1.0**
PICO	**Pico**	**2.07**	**158**	*e*P	**Pn**	**11 17 41.4**	**+0.4**
PICO	**Pico**	**2.07**	**158**	*e*P	**Pn**	**11 17 41.4**	**+0.4**
PID	**Ribeirinha**	**2.22**	**153**	*e*P	**Pn**	**11 17 43.4**	**+0.4**
PID	**Ribeirinha**	**2.22**	**153**	*e*P	**Pn**	**11 17 43.4**	**+0.4**
CMLA	**Cha da Macela**	**4.02**	**130**	*e*P	**Pn**	**11 18 14.1**	**+6.3**
PSMA	**Santa Maria**	**4.79**	**134**	*e*P	**Pn**	**11 18 18.1**	**-0.2**
PSMA				*e*S	**Sn**	**11 19 08.3**	**-4.9**
PSMA				A		11 19 09.4	
	24nm,0.2s						
PSMN	**Pico do Norte,**	**4.81**	**134**	*e*P	**Pn**	**11 18 17.4**	**-1.3**
PSMN	**Pico do Norte,**	**4.81**	**134**	*e*P	**Pn**	**11 18 17.4**	**-1.3**
ESDC	**Sonseca Array**	**19.47**	**84**	P	**Pn**	**11 21 32.1**	**-2.0**
	0.6nm,0.3s,baz=245,slow=6.5,SNR=4.0						
TORD	**Torodi Ar. Bea**	**38.48**	**126**	P	**P**	**11 24 28.8**	**+0.6**
	1.9nm,1.2s,mb3.7,baz=335,slow=6.1,SNR=4.9						
BRTR	**Keskin Array B**	**47.30**	**69**	P	**P**	**11 25 40.9**	**+1.5**
	0.3nm,0.3s,mb3.7						
YKA	**Yellowknife Ar**	**53.01**	**325**	P	**P**	**11 26 21.4**	**-0.9**
	1.2nm,1.0s,mb3.8,baz=70,slow=7.2,SNR=6.6						
PDAR	**Pinedale Array**	**57.79**	**301**	P	**P**	**11 26 55.0**	**-2.0**
	0.3nm,0.9s,mb3.3,baz=126,slow=34,SNR=3.4						
AKTO	**Aktyubinsk**	**58.75**	**48**	P	**P**	**11 27 04.1**	**+0.4**
	1.9nm,0.8s,mb4.2,baz=261,slow=20,SNR=4.3						
BVAR	**Borovoye Array**	**64.12**	**41**	P	**P**	**11 27 40.5**	**+0.6**
	0.8nm,0.5s,mb4.0,baz=297,slow=6.5,SNR=4.7						
ZALV	**Zalesovo Beam**	**70.36**	**35**	P	**P**	**11 28 19.6**	**+0.1**
	1.0nm,0.6s,mb3.9,baz=296,slow=7.9,SNR=4.8						
MKAR	**Makanchi Array**	**74.00**	**42**	P	**P**	**11 28 41.8**	**+0.5**
	1.0nm,0.9s,mb3.8,baz=311,slow=6.1,SNR=7.1						
SONM	**Songino Array**	**83.76**	**28**	P	**P**	**11 29 35.7**	**+0.8**
	0.8nm,0.8s,mb3.9,baz=308,slow=6.0,SNR=4.1						

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*MOS **23** 11:19:11.1±3.2, 55°.71N×110°.44E, h10^{km}, mb4.2/1, Error ellipse: s-maj=17.8km s-min=10.5km az=61.3*
BYKL 23 11:19:10.3±0.3**, 55°.83N**×**110°.57E, h13**^{km}±3^{km}**, 7C-5D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMO	**Kumora**	**0.36**	**81**	⇓*i*Pg	Pg	11 19 17.1	-0.4
KMO				*i* Sg	Sg	11 19 22.0	-0.4
KMO				Pmax			
	208nm,0.1s						
KMO				Smax			
	1μm,0.3s						
NIZ	**Nizh Angarsk**	**0.58**	**265**	⇑*i*PG	Pg	11 19 22.2	+0.5
NIZ				*e*		11 19 31.1	
NIZ				pmax	pmax		
	comp=Z,66nm,0.2s						
NIZ				smax			
	comp=N,338nm,0.4s						
NIZ	**Nizh Angarsk**	**0.58**	**265**	*e*Pg	Pg	11 19 21.8	+0.1
NIZ				*e*Sg	Sg	11 19 30.1	+0.7
NIZ				Pmax			
	comp=N,54nm,0.2s						
NIZ				Smax			
	comp=N,330nm,0.3s						
YOA	**Uoyan**	**0.72**	**64**	⇑*i*PG	Pg	11 19 23.8	-0.4
YOA				*i*		11 19 34.5	
YOA				pmax	pmax		
	comp=Z,251nm,0.2s						
YOA				smax			
	comp=N,1μm,0.3s						
YOA	**Uoyan**	**0.72**	**64**	⇑*i*Pg	Pg	11 19 23.7	-0.5
YOA				*e*Sg	Sg	11 19 34.5	+0.9
YOA				Pmax			
	comp=N,222nm,0.2s						
YOA				Smax			
	comp=N,1μm,0.3s						
YLYR	**Ulyunkhan**	**1.01**	**160**	⇑*i*PG	Pg	11 19 28.7	-1.1
YLYR				*e*		11 19 42.2	
YLYR				pmax	pmax		
	comp=Z,181nm,0.2s						
YLYR				smax			
	comp=N,495nm,0.3s						
YLYR	**Ulyunkhan**	**1.01**	**160**	⇓*i*Pg	Pg	11 19 28.7	-1.1
	comp=N,204nm,0.6s						
YLYR				⇑*i*Pg	Pg	11 19 28.7	-1.1
	comp=N,54nm,0.6s						
YLYR				⇑*i*Pg	Pg	11 19 28.7	-1.1
	comp=N,189nm,0.6s						
YLYR				*e*Sg	Sg	11 19 42.8	-0.2
YLYR				Pmax			
	comp=N,254nm,0.3s						
YLYR				Smax			
	comp=N,436nm,0.2s						
SVKR	**Severomuysk**	**1.71**	**79**	*e*PN	Pn	11 19 40.7	+1.0
SVKR				*e*		11 20 04.0	
SVKR				pmax	pmax		
	comp=Z,181nm,0.9s						
SVKR				smax			
	comp=N,1μm,0.6s						
SVKR	**Severomuysk**	**1.71**	**79**	*e*Pg	Pg	11 19 41.1	-1.9
SVKR				*e*Sg	Sg	11 20 04.3	-0.8
SVKR				*e*Sb	Sb	11 20 05.4	+2.7
SVKR				Pmax			
	comp=N,179nm,0.3s						
SVKR				max			
	comp=N,1μm,0.6s						
UKT	**Uakit**	**1.77**	**100**	*e*PN	Pn	11 19 41.5	+1.0
UKT				*e*		11 20 04.8	
UKT				pmax	pmax		
	comp=Z,71nm,0.2s						
UKT				smax			
	comp=N,273nm,0.4s						
UKT	**Uakit**	**1.77**	**100**	⇓*i*Pg	Pg	11 19 41.7	-2.4
UKT				*e*Sg	Sg	11 20 04.8	-2.2
UKT				Pmax			
	comp=N,95nm,0.7s						
UKT				Smax			
	comp=N,274nm,0.4s						
SYVR	**Suvo**	**2.20**	**189**	*e*PN	Pg	11 19 49.3	-3.2
SYVR				*e*		11 20 19.1	
SYVR				pmax	pmax		
	comp=Z,130nm,0.3s						
SYVR				smax			
	comp=E,197nm,0.3s						
SYVR	**Suvo**	**2.20**	**189**	*e*Pn	Pn	11 19 47.4	+0.9
SYVR				⇓*i*Pg	Pg	11 19 49.4	-3.1
	comp=E,51nm,0.4s						
SYVR				⇓*i*Pg	Pg	11 19 49.4	-3.1
	comp=E,14nm,0.4s						
SYVR				⇑*i*Pg	Pg	11 19 49.4	-3.1
	comp=E,40nm,0.4s						
SYVR				*e*Sg	Sg	11 20 19.3	-1.7
SYVR				Pmax			
	comp=E,127nm,0.2s						
SYVR				Smax			
	comp=E,191nm,0.4s						
BOD	**Bodaibo**	**2.75**	**42**	*e*PN	Pn	11 19 59.2	+5.2
BOD				*e*		11 20 33.7	
BOD				pmax	pmax		
	comp=Z,46nm,0.3s						
BOD				smax			
	comp=N,237nm,0.5s						
BOD	**Bodaibo**	**2.75**	**42**	*e*Pn	Pn	11 19 55.2	+1.2
BOD				*e*Pg	Pg	11 19 58.8	-4.1
BOD				*e*Sn	Sn	11 20 28.7	+1.8
BOD				*e*Sg	Sg	11 20 34.6	-3.8
BOD				Pmax			
	comp=N,45nm,0.3s						
BOD				Smax			
	comp=N,237nm,0.5s						
MXMB	**Maximikha**	**2.78**	**203**	*e*Pn	Pn	11 19 55.2	+0.7
MXMB				*e*Pg	Pg	11 20 00.0	-3.6
MXMB				*e*Sg	Sg	11 20 37.5	-2.1
MXMB				Pmax			
	comp=N,58nm,0.4s						
MXMB				Smax			
	comp=N,232nm,0.6s						
OGRR	**Ongureny**	**2.79**	**219**	*e*PN	Pn	11 19 55.9	+1.3
OGRR				*e*		11 20 00.8	
OGRR				*e*		11 20 36.4	
OGRR				pmax	pmax		
	comp=Z,28nm,0.4s						
OGRR				smax			
	comp=E,147nm,0.3s						
OGRR	**Ongureny**	**2.79**	**219**	*e*Pn	Pn	11 19 55.9	+1.3
OGRR				*e*Pg	Pg	11 20 00.1	-3.6
OGRR				*e*Sn	Sn	11 20 30.7	+2.7
OGRR				*e*Sg	Sg	11 20 36.5	-3.3
OGRR				Pmax			
	comp=E,25nm,0.2s						
OGRR				Smax			
	comp=E,149nm,0.3s						
NLYR	**Nelyaty**	**2.95**	**75**	*e*Pn	Pn	11 19 57.4	+0.7
NLYR				*e*Pg	Pg	11 20 03.0	-3.7
NLYR				*e*Sn	Sn	11 20 33.6	+1.7
NLYR				*e*Sg	Sg	11 20 41.8	-3.1
NLYR				Pmax			
	comp=E,28nm,0.9s						
NLYR				Smax			
	comp=E,156nm,1.2s						
TRG	**Tyrgan**	**3.95**	**221**	*e*Pn	Pn	11 20 11.3	+0.8
TRG				*e*Pg	Pg	11 20 20.4	-5.4
TRG				*e*Sn	Sn	11 20 57.2	+0.6
TRG				*e*Sg	Sg	11 21 11.9	-5.0
TRG				Pmax			
	comp=E,10.0nm,0.3s						
TRG				Smax			
	comp=E,62nm,0.4s						
TRTB	**Turuntaevo**	**4.00**	**207**	*e*Pn	Pn	11 20 12.1	+0.9
TRTB				*e*Pg	Pg	11 20 21.6	-5.3
TRTB				*e*Sn	Sn	11 20 57.7	-0.2
TRTB				*e*Sg	Sg	11 21 13.7	-5.0
TRTB				Pmax			
	comp=E,16nm,0.6s						
TRTB				Smax			
	comp=E,43nm,0.7s						
UUDB	**Ulan-Yde**	**4.33**	**205**	*e*Pg	Pg	11 20 27.8	-5.3
UUDB				*e*Sg	Sg	11 21 25.2	-3.9
UUDB				Pmax			
	comp=E,20nm,0.5s						
UUDB				Smax			
	comp=E,51nm,0.9s						
CRS	**Chara**	**4.41**	**73**	*e*PN	Pg	11 20 29.3	-5.5
CRS				*e*		11 21 26.8	
CRS				pmax	pmax		
	comp=Z,31nm,1.1s						
CRS				smax			
	comp=E,78nm,1.3s						
CRS	**Chara**	**4.41**	**73**	*e*Pn	Pn	11 20 17.5	+0.6
CRS				*e*Pg	Pg	11 20 29.4	-5.4
CRS				*e*Sg	Sg	11 21 27.0	-4.9
CRS				Pmax			
	comp=E,31nm,1.1s						
CRS				Smax			
	comp=E,78nm,1.3s						
HRMR	**Khuramsha**	**4.72**	**208**	*e*Pn	Pn	11 20 21.8	+0.6
HRMR				*e*Pg	Pg	11 20 34.3	-6.4
HRMR				*e*Sg	Sg	11 21 35.6	-6.3
HRMR				Pmax			
	comp=E,23nm,0.4s						
HRMR				Smax			
	comp=E,144nm,0.5s						
TUP	**Tupik**	**5.57**	**101**	*e*Pn	Pn	11 20 32.9	+0.2
TUP				*e*Sn	Sn	11 21 33.6	-2.8
TUP				*e*Sg	Sg	11 22 03.0	-5.8
TUP				Smax			
	comp=E,39nm,0.7s						
TLY	**Talaya**	**5.84**	**228**	*e*Pg	Pg	11 20 54.0	-8.1
TLY				*e*Sn	Sn	11 21 41.7	-1.6
TLY				*e*Sg	Sg	11 22 10.1	-7.6
TLY				Pmax			
	comp=E,5.0nm,0.6s						
TLY				Smax			
	comp=E,43nm,1.7s						
ARS	**Arshan**	**6.21**	**234**	*e*Pn	Pn	11 20 42.4	+0.9
ARS				*e*Sn	Sn	11 21 50.9	-1.3
ARS				*e*Sg	Sg	11 22 23.2	-6.2
ARS				max			
	comp=E,5.0nm,0.2s						
ARS				Smax			
	comp=E,107nm,0.8s						
ZAK	**Zakamensk**	**7.00**	**222**	*e*PN	Pn	11 20 50.9	-1.5
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.5s						
ZAK	**Zakamensk**	**7.00**	**222**	*e*Sg	Sg	11 22 46.9	-7.8
ZAK				Smax			
	comp=Z,20nm,1.7s						
MOY	**Mondy**	**7.04**	**238**	*e*PN	Pn	11 20 56.1	+3.1
MOY				*e*		11 21 18.8	
MOY				*e*S	Sn	11 22 12.8	0.0
MOY				*e*		11 22 49.5	
MOY				pmax	pmax		
	comp=Z,6.0nm,0.4s						
MOY				smax			
	comp=E,41nm,1.0s						
MOY	**Mondy**	**7.04**	**238**	*e*Pn	Pn	11 20 54.9	+1.9
MOY				*e*Sn	Sn	11 22 13.1	+0.3
MOY				*e*Sg	Sg	11 22 49.0	-7.1
MOY				Smax			
	comp=E,44nm,1.7s						
ORL	**Orlik**	**7.12**	**247**	*e*PN	Pn	11 20 56.0	+2.0
ORL				*e*S	Sn	11 22 14.3	-0.4
ORL				*e*S	Sg	11 22 52.1	-6.5
ORL				smax			
	comp=N,26nm,0.6s						
ORL	**Orlik**	**7.12**	**247**	*e*Pn	Pn	11 20 55.3	+1.3
ORL				*e*Sn	Sn	11 22 14.9	+0.2
ORL				*e*Sg	Sg	11 22 53.0	-5.6
ORL				Smax			
	comp=N,30nm,0.8s						

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*ISCJB **23** 11:22:43.6±1.2, 6°.07S±0°.05×129°.88E±0°.09, h183^{km}±12^{km}, mb3.9/6, Error ellipse: s-maj=14.5km s-min=8.6km az=0.5*
*IDC **23** 11:22:43.7±7.6, 5°.96S×129°.86E, h173^{km}±81^{km}, mb3.4/5, mb1 3.7/8, mb1mx3.5/18, mbtmp3.6/8, Error ellipse: s-maj=47.6km s-min=22.8km az=42.0*
*NEIC **23** 11:22:45.4±2.3, 6°.04S×129°.81E, h190^{km}±25^{km}, mb4.8/4, Error ellipse: s-maj=18.5km s-min=13.6km az=202.0*
ISC 23 11:22:45.0±1.2**, 6°.09S**±0°.06×**129°.9E**±0°.1**, h182**^{km}±12^{km}**, n21, σ1^{s}.14**/31**, mb3.9**/6**, 2C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLE	**Tual**	**2.87**	**81**	⇑*e*P	**Pn**	**11 23 36.5**	**+4.4**
TLE				*e*S	**Sn**	**11 24 06.5**	**-2.3**
TLE	**Tual**	**2.87**	**81**	⇑*e*P	**Pn**	**11 23 33.0**	**+0.9**
TLE				*e*S	**Sn**	**11 24 02.0**	**-6.8**
KAKA	**Kakadu**	**7.04**	**159**	*e*P	**Pn**	**11 24 28.1**	**+2.4**
	6.2nm,0.2s						
KAKA				*e*S	**Sn**	**11 25 43.5**	**-1.8**
KAKA	**Kakadu**	**7.04**	**159**	*e*Pn	**Pn**	**11 24 27.8**	**+2.2**
	39nm,0.4s						
KAKA				*e*Sn	**Sn**	**11 25 43.6**	**-1.7**
FITZ	**Fitzroy Crossi**	**12.64**	**199**	*e*P	**Pn**	**11 25 38.1**	**-0.4**
	13nm,0.6s						
FITZ				*e*S	**Sn**	**11 27 53.4**	**-5.7**
FITZ	**Fitzroy Crossi**	**12.64**	**199**	P	**Pn**	**11 25 38.0**	**-0.5**
	1.5nm,0.3s,baz=21,slow=10,SNR=27						
FITZ				S	**Sn**	**11 27 54.4**	**-4.7**
	3.6nm,0.3s,baz=90,slow=15,SNR=7.6						
WRAB	**Tennant Creek**	**14.43**	**163**	*e*Pn	**Pn**	**11 26 01.0**	**+0.1**
WRAB				*e*Sn	**Sn**	**11 28 34.5**	**-7.3**
WRA	**Warramunga Arr**	**14.43**	**163**	P	**Pn**	**11 26 01.3**	**+0.3**
	1.2nm,0.3s,baz=342,slow=13,SNR=11						
WRA				S	**Sn**	**11 28 36.0**	**-5.9**
	0.9nm,0.3s,baz=338,slow=24,SNR=5.3						
COEN	**Coen**	**15.23**	**122**	*e*Pn	**Pn**	**11 26 11.7**	**+0.9**
	71nm,0.6s						
COEN				*e*Sn	**Sn**	**11 28 50.6**	**-11**
ASAR	**Alice Springs**	**17.89**	**168**	P	**Pn**	**11 26 43.4**	**+0.7**
	2.0nm,0.3s,baz=352,slow=12,SNR=68						
ASAR				S	**S**	**11 29 55.4**	**-1.5**
	0.3nm,0.3s,baz=351,slow=22,SNR=22						
MBWA	**Marble Bar**	**17.92**	**212**	*e*Pn	**Pn**	**11 26 43.1**	**0.0**
	12nm,0.6s						
CTA	**Charters Tower**	**21.12**	**133**	*e*P	**P**	**11 27 17.4**	**+1.8**
	3.5nm,1.0s,mb3.6						
CTA	**Charters Tower**	**21.12**	**133**	P	**P**	**11 27 16.4**	**+0.8**
	3.0nm,0.6s,mb3.8,baz=322,slow=14,SNR=5.1						
CTAO	**Charters Tower**	**21.12**	**133**	*e*P	**P**	**11 27 16.7**	**+1.1**
	5.2nm,1.0s,mb3.8						
FORT	**Forrest**	**24.62**	**184**	*e*P	**P**	**11 27 49.9**	**+1.4**
	8.1nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**27.89**	**158**	*e*P	**P**	**11 28 17.4**	**-0.5**
	4.4nm,1.1s,mb4.1						
STKA	**Stephens Creek**	**27.89**	**158**	P	**P**	**11 28 18.4**	**+0.6**
	2.5nm,0.9s,mb4.0,baz=338,slow=13,SNR=4.7						
STKA	**Stephens Creek**	**27.89**	**158**	P	**P**	**11 28 18.4**	**+0.6**
CMAR	**Chiang Mai Arr**	**39.07**	**309**	P	**P**	**11 29 54.6**	**+0.1**
	0.6nm,0.5s,mb3.5,baz=128,slow=7.6,SNR=3.2						
PETK	**Petropavlovsk-**	**63.50**	**18**	P	**P**	**11 32 54.8**	**-0.6**
	1.3nm,0.7s,mb3.9,baz=211,slow=2.7,SNR=3.9						
MKAR	**Makanchi Array**	**67.41**	**327**	P	**P**	**11 33 19.0**	**-1.7**
	0.4nm,0.5s,mb3.5,baz=116,slow=8.1,SNR=7.0						

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*ISCJB **23** 11:56:08.3±0.2, 40°.41N±0°.02×29°.41W±0°.03, h10^{km}, mb4.8/117, MS4.2/42, Error ellipse: s-maj=3.9km s-min=2.8km az=150.9*
*IDC **23** 11:56:08.1±0.6, 40°.58N×29°.41W, h0^{km}, mb4.0/16, mb1 4.1/17, mb1mx4.0/27, mbtmp4.0/17, ML4.4/1, MS4.2/29, Ms1 4.2/29, ms1mx4.1/34, Error ellipse: s-maj=16.8km s-min=12.9km az=178.0*
*BJI **23** 11:56:09.5, 41°.10N×29°.64W, h10^{km}, mB5.6/16, mb5.0/21, Ms5.3/16, Ms7 4.9/16*
*CSEM **23** 11:56:09.7±0.1, 40°.39N×29°.40W, h10^{km}, mb5.0/82, Ms3.9, Mw4.9, Error ellipse: s-maj=4.8km s-min=3.8km az=32.0*
*GCMT **23** 11:56:10.7±0.3, 40°.90N×29°.15W, h12^{km}, MW4.9/62, Moment Tensor Solution. s11,c11; s62,c89; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.23±.09; M$_{\theta\theta}$0.58±.11; M$_{\phi\phi}$1.64±.08; M$_{r\theta}$0.94±.42; M$_{\theta\phi}$0.59±.07; M$_{\phi r}$-1.76±.42; Best double couple: M$_0$2.78700×10^{16} NP1:φ$_s$215.00000°, δ30.00000°, λ-52.00000°. NP2: φ$_s$354.00000°, δ67.00000°, λ-109.00000°. Principal axes: T 2.3490, Plg19.0000°, Azm98.0000°; N 0.8710, Plg18.0000°, Azm2.0000°; P -3.2260, Plg63.0000°, Azm232.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*INMG **23** 11:56:10.6, 40°.60N×29°.40W, h5^{km}, ML4.0*
*NEIC **23** 11:56:10.7±0.3, 40°.55N×29°.39W, h10^{km}, mb4.9/95, Error ellipse: s-maj=8.3km s-min=3.3km az=185.0*
*PDA **23** 11:56:11.8±1.2, 40°.61N×29°.23W, h5^{km}, MD4.0, ML3.8, Error ellipse: s-maj=12.1km s-min=5.3km az=90.0*
*MOS **23** 11:56:11.4±0.9, 40°.61N×29°.42W, h27^{km}, mb5.1/62, MS4.1/8, Error ellipse: s-maj=10.7km s-min=4.7km az=147.0*

SZGRF ***23*** *11:56:14.5, 40°.87N×29°.49W, h33^{km}, mb4.9, MS4.3,*
Azores Islands region

ISC 23 11:56:10.0±0.2, **40°.37N**±0°.02×**29°.39W**±0°.03, **h10**^{km},
(h15^{km}±1.6^{km}**:pP-P), n459,** σ**1^{s}.07**/448, **mb4.8**/117,
MS4.2/42, **7C-3D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	Cedros	1.81	163	eP	Pn	11 56 41.9	+0.7
PCED				eS	Sn	11 57 04.0	-0.3
PCED				A		11 57 05.0	
	505nm,0.3s						
PCED	Cedros	1.81	163	eP	Pn	11 56 41.9	+0.7
PCED				eS	Sn	11 57 04.0	-0.3
CALA	Caldeira	1.86	163	eP	Pn	11 56 42.7	+0.8
CALA				eS	Sn	11 57 04.9	-0.5
CALA	Caldeira	1.86	163	eP	Pn	11 56 42.7	+0.8
CALA				eS	Sn	11 57 04.9	-0.5
ROSA	Rosais	1.87	151	eP	Pn	11 56 41.9	-0.1
ROSA				eS	Sn	11 57 04.8	-0.8
ROSA	Rosais	1.87	151	eP	Pn	11 56 41.9	-0.1
ROSA				eS	Sn	11 57 04.8	-0.8
HOR	Horta	1.93	162	eP	Pn	11 56 43.4	+0.6
HOR				eS	Sn	11 57 06.3	-0.8
HOR	Horta	1.93	162	eP	Pn	11 56 43.4	+0.6
HOR				eS	Sn	11 57 06.3	-0.8
PMAN	Manadas	2.00	149	eP	Pn	11 56 43.2	-0.6
PMAN				eS	Sn	11 57 08.1	-0.8
PMAN				A		11 57 13.4	
	243nm,0.5s						
PMAN	Manadas	2.00	149	eP	Pn	11 56 43.2	-0.6
PMAN				eS	Sn	11 57 08.1	-0.8
PICO	Pico	2.01	158	eP	Pn	11 56 44.4	+0.5
PICO				eS	Sn	11 57 08.8	-0.2
PICO	Pico	2.01	158	eP	Pn	11 56 44.4	+0.5
PICO				eS	Sn	11 57 08.8	-0.2
PID	Ribeirinha	2.16	152	eP	Pn	11 56 46.2	+0.2
PID				eS	Sn	11 57 12.2	-0.6
PID	Ribeirinha	2.16	152	eP	Pn	11 56 46.2	+0.2
PID				eS	Sn	11 57 12.2	-0.6
ADH	Angra Heroismo	2.39	135	eP	Pn	11 56 47.8	-1.3
ADH				eS	Sn	11 57 15.3	-3.1
ADH				A		11 57 15.9	
	60nm,0.2s						
ADH	Angra Heroismo	2.39	135	eP	Pn	11 56 47.8	-1.3
ADH				eS	Sn	11 57 15.3	-3.1
PDA	Ponta Delgada	3.91	131	eP	Pn	11 57 08.9	-1.1
PDA	Ponta Delgada	3.91	131	eP	Pn	11 57 08.9	-1.1
CMLA	Cha da Macela	3.98	130	Pn	Pn	11 57 10.5	-0.5
	1µm,0.8s,SNR=6.0						
CMLA	Cha da Macela	3.98	130	eP	Pn	11 57 10.5	-0.5
CMLA	Cha da Macela	3.98	130	ePn	Pn	11 57 10.5	-0.5
CMLA	Cha da Macela	3.98	130	eP	Pn	11 57 10.5	-0.5
PSMA	Santa Maria	4.74	134	eP	Pn	11 57 21.0	-0.4
PSMN	Pico do Norte,	4.77	133	eP	Pn	11 57 20.6	-1.2
PSMN	Pico do Norte,	4.77	133	eP	Pn	11 57 20.6	-1.2
PTEO	Sao Teotonio	16.32	93	eP	Pn	11 59 59.8	+0.6
	118nm,1.1s						
PTEO	Sao Teotonio	16.32	93	eP	Pn	11 59 59.8	+0.6
	118nm,1.1s						
PVRL	Vila Real	16.43	80	eP	Pn	12 00 09.3	+8.7
	89nm,1.6s						
MORF	Marmelete	16.44	94	eLR	LR	12 03 59.2	
	1µm,20.0s						
EVOP	Sao Brissos	16.53	90	eP	Pn	12 00 04.1	+2.3
EVO	Evora	16.61	89	eP	Pn	12 00 04.1	+1.2
EVO				eMLR	MLR		
	comp=Z,1µm,19.8s						
MTE	Manteigas	16.65	83	eP	Pn	12 00 07.1	+3.8
	comp=Z,82nm,2.2s						
MTE				eLR	LR	12 04 02.0	
	comp=Z,1µm,18.0s						
MTE	Manteigas	16.65	83	eP	Pn	12 00 07.1	+3.8
	comp=Z,82nm,2.2s						
EPON	Pontenova	16.83	73	P	Pn	12 00 04.7	-0.9
	comp=Z,86nm,1.6s						
PESTR	Estremoz	16.86	88	eLR	LR	12 04 07.1	
	comp=Z,973nm,20.0s						
PMRV	Marv??o	16.91	86	eLR	LR	12 04 10.6	
	comp=Z,1µm,18.0s						
PBDV	Barranco-do-Ve	17.01	94	eLR	LR	12 04 02.0	
	comp=Z,1µm,20.0s						
PVAQ	Vaqueiros	17.13	93	eLR	LR	12 04 07.6	
	comp=Z,859nm,20.0s						
PBAR	Barrancos	17.44	90	eLR	LR	12 04 22.3	
	comp=Z,1µm,20.0s						
ESPR	Espera	18.71	93	P	Pn	12 00 30.2	+1.4
	comp=Z,35nm,1.3s						
ESPR	Espera	18.71	93	P	Pn	12 00 30.2	+1.4
	comp=Z,35nm,1.3s						
GUD	Guadarrama	19.18	81	P	Pn	12 00 34.0	-0.5
GUD				pmax	pmax		
	comp=Z,19nm,1.5s						
GUD	Guadarrama	19.18	81	P	Pn	12 00 34.0	-0.6
	comp=Z,19nm,1.5s						
GUD	Guadarrama	19.18	81	P	Pn	12 00 34.0	-0.5
	comp=Z,19nm,1.5s						
PAB	San Pablo	19.20	84	eP	Pn	12 00 34.4	-0.4
PAB				pmax	pmax		
	comp=Z,43nm,1.4s						
PAB	San Pablo	19.20	84	eP	Pn	12 00 34.4	-0.5
	comp=Z,43nm,1.4s						
PAB	San Pablo	19.20	84	eP	Pn	12 00 34.4	-0.4
	comp=Z,43nm,1.4s						
ESDC	Sonseca Array	19.47	84	P	Pn	12 00 35.9	-2.2
	comp=Z,0.2nm,0.3s,baz=296,slow=38,SNR=2.9						
ESDC				LR	LR	12 06 58.3	
	comp=Z,689nm,18.4s,baz=270,slow=33						
ESDC	Sonseca Array	19.47	84	P	Pn	12 00 37.3	-0.8
	comp=Z,22nm,2.1s						
ESDC	Sonseca Array	19.47	84	P	Pn	12 00 37.3	-0.8
	comp=Z,22nm,2.1s						
ELOJ	Sierra Loja	19.92	91	P	Pn	12 00 43.3	-0.1
ELOJ				pmax	pmax		
	comp=Z,53nm,1.5s						
ELOJ	Sierra Loja	19.92	91	P	Pn	12 00 43.3	-0.2
	comp=Z,53nm,1.5s						
ELOJ	Sierra Loja	19.92	91	P	Pn	12 00 43.3	-0.1
	comp=Z,53nm,1.5s						
QUIF	Quistinic	20.21	59	eP	P	12 00 45.3	+0.5
	comp=Z,407nm,1.8s						
QUIF	Quistinic	20.21	59	eP	P	12 00 45.3	+0.5
QUIF				pmax	pmax		
	comp=Z,204nm,1.8s						
QUIF	Quistinic	20.21	59	eP	P	12 00 45.3	+0.5
	comp=Z,204nm,1.8s						
QUIF	Quistinic	20.21	59	eP	P	12 00 45.3	+0.5
	comp=Z,204nm,1.8s						
ROSF	Rostrenen	20.23	58	eP	P	12 00 46.9	+1.8
	comp=Z,273nm,1.6s						
ROSF	Rostrenen	20.23	58	eP	P	12 00 46.9	+1.8
ROSF				pmax	pmax		
	comp=Z,136nm,1.6s						
ROSF	Rostrenen	20.23	58	eP	P	12 00 46.9	+1.8
	comp=Z,136nm,1.6s						
ROSF	Rostrenen	20.23	58	eP	P	12 00 46.9	+1.8
	comp=Z,136nm,1.6s						
ECOG	Cogollos-Vega	20.33	90	P	P	12 00 48.2	+1.9
ECOG				pmax	pmax		
	comp=Z,11nm,0.8s						
ECOG	Cogollos-Vega	20.33	90	P	P	12 00 48.2	+1.9
	comp=Z,11nm,0.8s						
ECOG	Cogollos-Vega	20.33	90	P	P	12 00 48.2	+1.9
	comp=Z,11nm,0.8s						
EGUA	Guajares	20.47	92	P	P	12 00 49.6	+1.9
EGUA				pmax	pmax		
	comp=Z,118nm,1.1s						
EGUA	Guajares	20.47	92	P	P	12 00 49.6	+1.9
	comp=Z,118nm,1.1s						
EGUA	Guajares	20.47	92	P	P	12 00 49.6	+1.9
	comp=Z,118nm,1.1s						
EQES	Quesada	20.57	89	P	P	12 00 49.4	+0.6
	comp=Z,130nm,2.2s						
EQES	Quesada	20.57	89	P	P	12 00 49.4	+0.6
	comp=Z,130nm,2.2s						
SGMF	Saint Gilles	20.68	59	eP	P	12 00 50.8	+0.9
	comp=Z,151nm,1.6s						
SGMF	Saint Gilles	20.68	59	eP	P	12 00 50.8	+0.9
SGMF				pmax	pmax		
	comp=Z,76nm,1.6s						
SGMF	Saint Gilles	20.68	59	eP	P	12 00 50.8	+0.9
	comp=Z,76nm,1.6s						
SGMF	Saint Gilles	20.68	59	eP	P	12 00 50.8	+0.9
	comp=Z,76nm,1.6s						
ETOR	Torete	20.74	80	P	P	12 00 51.2	+0.6
ETOR				pmax	pmax		
	comp=Z,30nm,1.7s						
ETOR	Torete	20.74	80	P	P	12 00 51.2	+0.6
	comp=Z,30nm,1.7s						
ETOR	Torete	20.74	80	P	P	12 00 51.2	+0.6
	comp=Z,30nm,1.7s						
EVIA	Vianos	20.80	86	P	P	12 00 52.6	+1.3
EVIA				pmax	pmax		
	comp=Z,22nm,1.8s						
EVIA	Vianos	20.80	86	P	P	12 00 52.6	+1.4
	comp=Z,22nm,1.8s						
EVIA	Vianos	20.80	86	P	P	12 00 52.6	+1.3
	comp=Z,22nm,1.8s						
EHUE	Huescar	20.93	88	P	P	12 00 53.7	+1.0
EHUE				pmax	pmax		
	comp=Z,26nm,1.5s						
EHUE	Huescar	20.93	88	P	P	12 00 53.7	+0.9
	comp=Z,26nm,1.5s						
EHUE	Huescar	20.93	88	P	P	12 00 53.7	+1.0
	comp=Z,26nm,1.5s						
SJPF	Ste Jean	21.16	73	eP	P	12 00 56.2	+1.1
	comp=Z,158nm,1.6s,mb4.8						
SJPF	Ste Jean	21.16	73	eP	P	12 00 56.2	+1.1
SJPF				pmax	pmax		
	comp=Z,79nm,1.6s,mb4.8						
SJPF	Ste Jean	21.16	73	eP	P	12 00 56.2	+1.1
	comp=Z,79nm,1.6s,mb4.8						
SJPF	Ste Jean	21.16	73	eP	P	12 00 56.2	+1.1
	comp=Z,79nm,1.6s,mb4.8						
MDT	Midelt	21.23	103	P	P	12 00 57.0	+1.1
	comp=Z,2.0nm,0.8s,mb3.5,baz=327,slow=9.2,SNR=2.9						
MDT				LR	LR	12 07 25.0	
	comp=Z,628nm,21.1s,MS4.0,baz=330,slow=32						
MDT	Midelt	21.23	103	P	P	12 00 57.0	+1.1
MDT				LR	LR	12 07 24.9	
MDT	Midelt	21.23	103	P	P	12 00 57.0	+1.0
ETOB	Tobarra	21.52	86	P	P	12 00 57.4	-1.7
	comp=Z,62nm,1.9s,mb4.7						
ETOB	Tobarra	21.52	86	P	P	12 00 57.4	-1.7
	comp=Z,62nm,1.9s,mb4.7						
ETSF	Etsaut	21.66	74	eP	P	12 01 01.8	+1.3
	comp=Z,113nm,1.7s,mb4.7						
ETSF	Etsaut	21.66	74	eP	P	12 01 01.8	+1.3
ETSF				pmax	pmax		
	comp=Z,57nm,1.7s,mb4.7						
ETSF	Etsaut	21.66	74	eP	P	12 01 01.8	+1.3
	comp=Z,57nm,1.7s,mb4.7						
ETSF	Etsaut	21.66	74	eP	P	12 01 01.8	+1.3
	comp=Z,57nm,1.7s,mb4.7						
ECHE	Chera	21.76	83	P	P	12 01 02.2	+0.6
ECHE				pmax	pmax		
	comp=Z,46nm,1.9s,mb4.6						
ECHE	Chera	21.76	83	P	P	12 01 02.2	+0.6
	comp=Z,46nm,1.9s,mb4.6						
ECHE	Chera	21.76	83	P	P	12 01 02.2	+0.6
	comp=Z,46nm,1.9s,mb4.6						
ZFT	Errachidia	21.80	105	iP	P	12 01 03.0	+0.9
ESAC	San Caprasio	21.82	77	P	P	12 01 01.9	-0.3
	comp=Z,37nm,1.0s,mb4.8						
ESAC	San Caprasio	21.82	77	P	P	12 01 01.9	-0.3
	comp=Z,37nm,1.0s,mb4.8						
GRR	Gorron	21.82	59	eP	P	12 01 01.7	-0.5
	comp=Z,364nm,1.9s,mb5.2						
GRR	Gorron	21.82	59	eP	P	12 01 01.7	-0.5
GRR				pmax	pmax		
	comp=Z,182nm,1.9s,mb5.2						
GRR	Gorron	21.82	59	eP	P	12 01 01.7	-0.5
	comp=Z,182nm,1.9s,mb5.2						
GRR	Gorron	21.82	59	eP	P	12 01 01.7	-0.5
	comp=Z,182nm,1.9s,mb5.2						
EMOS	Mosqueruela	22.00	81	P	P	12 01 03.9	-0.3
	comp=Z,74nm,1.9s,mb4.8						
EMOS	Mosqueruela	22.00	81	P	P	12 01 03.9	-0.3
	comp=Z,74nm,1.9s,mb4.8						
MFF	Saint Martin d	22.04	64	eP	P	12 01 05.8	+1.3
	comp=Z,198nm,1.6s,mb5.0						
MFF	Saint Martin d	22.04	64	eP	P	12 01 05.8	+1.3
MFF				pmax	pmax		
	comp=Z,99nm,1.6s,mb5.0						
MFF	Saint Martin d	22.04	64	eP	P	12 01 05.8	+1.3
	comp=Z,99nm,1.6s,mb5.0						
MFF	Saint Martin d	22.04	64	eP	P	12 01 05.8	+1.3
	comp=Z,99nm,1.6s,mb5.0						
FLN	La Foliniere	22.14	58	eP	P	12 01 06.4	+0.8
FLN				eMLR	MLR		
	comp=Z,900nm,20.0s,MS3.9						
FLN	La Foliniere	22.14	58	eP	P	12 01 06.4	+0.8
FLN				LR	LR		
	comp=Z,900nm,20.0s,MS4.2						
FLN	La Foliniere	22.14	58	eP	P	12 01 06.4	+0.8
EBIE	Bielsa	22.18	74	P	P	12 01 05.8	-0.3
	comp=Z,58nm,2.2s,mb4.6						
EBIE	Bielsa	22.18	74	P	P	12 01 05.8	-0.3
	comp=Z,58nm,2.2s,mb4.6						
EPF	Esparros	22.31	73	eP	P	12 01 08.5	+1.1
	comp=Z,165nm,1.6s,mb4.9						
EPF	Esparros	22.31	73	eP	P	12 01 08.5	+1.1
EPF				pmax	pmax		
	comp=Z,83nm,1.6s,mb4.9						
EPF	Esparros	22.31	73	eP	P	12 01 08.5	+1.1
	comp=Z,83nm,1.6s,mb4.9						
EPF	Esparros	22.31	73	eP	P	12 01 08.5	+1.1
	comp=Z,83nm,1.6s,mb4.9						
LDF	La Druitiere	22.34	59	eP	P	12 01 08.5	+0.8
	comp=Z,61nm,1.2s,mb4.6						
LDF	La Druitiere	22.34	59	eP	P	12 01 08.5	+0.8
LDF				pmax	pmax		
	comp=Z,31nm,1.2s,mb4.6						
LDF	La Druitiere	22.34	59	eP	P	12 01 08.5	+0.8
	comp=Z,31nm,1.2s,mb4.6						
LDF	La Druitiere	22.34	59	eP	P	12 01 08.5	+0.8
	comp=Z,31nm,1.2s,mb4.6						
ERTA	Horta de San J	22.51	79	P	P	12 01 09.4	-0.3
	comp=Z,168nm,1.9s,mb5.2						
ERTA	Horta de San J	22.51	79	P	P	12 01 09.4	-0.2
	comp=Z,168nm,1.9s,mb5.2						
LFF	La Frestale	22.56	68	eP	P	12 01 09.1	-1.0
	comp=Z,257nm,1.9s,mb5.0						
LFF	La Frestale	22.56	68	eP	P	12 01 09.1	-1.0
LFF				pmax	pmax		
	comp=Z,128nm,1.9s,mb5.0						
LFF	La Frestale	22.56	68	eP	P	12 01 09.1	-1.0
	comp=Z,128nm,1.9s,mb5.0						
LFF	La Frestale	22.56	68	eP	P	12 01 09.1	-1.0
	comp=Z,128nm,1.9s,mb5.0						
EPOB	Poblet	23.01	78	P	P	12 01 14.2	-0.8
	comp=Z,91nm,1.7s,mb4.9						
EPOB	Poblet	23.01	78	P	P	12 01 14.2	-0.8
	comp=Z,91nm,1.7s,mb4.9						
RJF	Les Rejaudoux	23.11	67	eP	P	12 01 16.9	+0.9
	comp=Z,132nm,1.7s,mb4.8						
RJF				eMLR	MLR		
	comp=Z,651nm,19.2s,MS3.8						
RJF	Les Rejaudoux	23.11	67	eP	P	12 01 16.9	+0.9
RJF				pmax	pmax		
	comp=Z,66nm,1.7s,mb4.8						
RJF				MLR	MLR		
	comp=Z,650nm,19.3s,MS4.1						
RJF	Les Rejaudoux	23.11	67	eP	P	12 01 16.9	+0.9
	comp=Z,66nm,1.7s,mb4.8						
RJF				LR	LR		
	comp=Z,650nm,19.3s,MS4.1						
RJF	Les Rejaudoux	23.11	67	eP	P	12 01 16.9	+0.9
	comp=Z,66nm,1.7s,mb4.8						
CAF	Calviac	23.50	68	eP	P	12 01 19.2	-0.8
	comp=Z,110nm,1.6s,mb4.7						
CAF	Calviac	23.50	68	eP	P	12 01 19.2	-0.8
CAF				pmax	pmax		
	comp=Z,55nm,1.6s,mb4.7						
CAF	Calviac	23.50	68	eP	P	12 01 19.2	-0.8
	comp=Z,55nm,1.6s,mb4.7						
CAF	Calviac	23.50	68	eP	P	12 01 19.2	-0.8
	comp=Z,55nm,1.6s,mb4.7						
EIBI	Ibiza	23.63	83	P	P	12 01 21.2	-0.1
	comp=Z,170nm,2.1s,mb5.1						
EIBI	Ibiza	23.63	83	P	P	12 01 21.2	-0.2
	comp=Z,170nm,2.1s,mb5.1						
TCF	Toulx Ste Croi	23.64	65	eP	P	12 01 20.7	-0.6
	comp=Z,398nm,1.9s,mb5.2						
TCF	Toulx Ste Croi	23.64	65	eP	P	12 01 20.7	-0.6
TCF				pmax	pmax		
	comp=Z,199nm,1.9s,mb5.2						
TCF	Toulx Ste Croi	23.64	65	eP	P	12 01 20.7	-0.6
	comp=Z,199nm,1.9s,mb5.2						
TCF	Toulx Ste Croi	23.64	65	eP	P	12 01 20.7	-0.6
	comp=Z,199nm,1.9s,mb5.2						
MTLF	Montolieu	23.66	72	eP	P	12 01 21.4	-0.2
	comp=Z,188nm,1.8s,mb4.9						
MTLF	Montolieu	23.66	72	eP	P	12 01 21.4	-0.2
MTLF				pmax	pmax		
	comp=Z,94nm,1.8s,mb4.9						
MTLF	Montolieu	23.66	72	eP	P	12 01 21.4	-0.2
	comp=Z,94nm,1.8s,mb4.9						
MTLF	Montolieu	23.66	72	eP	P	12 01 21.4	-0.2
	comp=Z,94nm,1.8s,mb4.9						
BGF	Bois d'Agland	24.09	64	eP	P	12 01 24.7	-0.8
	comp=Z,62nm,1.1s,mb4.7						
BGF	Bois d'Agland	24.09	64	eP	P	12 01 24.7	-0.8
BGF				pmax	pmax		
	comp=Z,31nm,1.1s,mb4.7						
BGF	Bois d'Agland	24.09	64	eP	P	12 01 24.7	-0.8
	comp=Z,31nm,1.1s,mb4.7						
BGF	Bois d'Agland	24.09	64	eP	P	12 01 24.7	-0.8
	comp=Z,31nm,1.1s,mb4.7						
EJON	La Jonquera	24.23	74	P	P	12 01 25.7	-1.1
	comp=Z,52nm,2.0s,mb4.6						
EJON	La Jonquera	24.23	74	P	P	12 01 25.7	-1.1
	comp=Z,52nm,2.0s,mb4.6						
AVF	Avril sur Loir	24.45	64	eP	P	12 01 28.7	-0.1
	comp=Z,176nm,1.8s,mb4.9						
AVF	Avril sur Loir	24.45	64	eP	P	12 01 28.7	-0.1
AVF				pmax	pmax		
	comp=Z,88nm,1.8s,mb4.9						
AVF	Avril sur Loir	24.45	64	eP	P	12 01 28.7	-0.1
	comp=Z,88nm,1.8s,mb4.9						
AVF	Avril sur Loir	24.45	64	eP	P	12 01 28.7	-0.1
	comp=Z,88nm,1.8s,mb4.9						
SSF	Saint Saulge	24.57	63	eP	P	12 01 29.1	-0.8
	comp=Z,86nm,1.4s,mb4.8						
SSF	Saint Saulge	24.57	63	eP	P	12 01 29.1	-0.8
SSF				pmax	pmax		
	comp=Z,43nm,1.4s,mb4.8						
SSF	Saint Saulge	24.57	63	eP	P	12 01 29.1	-0.8
	comp=Z,43nm,1.4s,mb4.8						
SSF	Saint Saulge	24.57	63	eP	P	12 01 29.1	-0.8
	comp=Z,43nm,1.4s,mb4.8						
ETOS	Mallorca	24.59	81	P	P	12 01 29.8	-0.3
	comp=Z,77nm,2.2s,mb4.8						
ETOS	Mallorca	24.59	81	P	P	12 01 29.8	-0.3
	comp=Z,77nm,2.2s,mb4.8						
SMF	Signal de Mont	24.78	64	eP	P	12 01 31.5	-0.3
	comp=Z,174nm,1.8s,mb5.0						
SMF	Signal de Mont	24.78	64	eP	P	12 01 31.5	-0.3
SMF				pmax	pmax		
	comp=Z,87nm,1.8s,mb5.0						
SMF	Signal de Mont	24.78	64	eP	P	12 01 31.5	-0.3
	comp=Z,87nm,1.8s,mb5.0						
SMF	Signal de Mont	24.78	64	eP	P	12 01 31.5	-0.3
	comp=Z,87nm,1.8s,mb5.0						
LASF	Ste Croix	24.80	70	eP	P	12 01 34.1	+2.1
	comp=Z,215nm,1.8s,mb5.1						
LOR	Lormes	24.83	63	eP	P	12 01 31.0	-1.2
	comp=Z,171nm,1.8s,mb5.0						
LOR				eMLR	MLR		
	comp=Z,746nm,20.2s,MS3.9						
LOR	Lormes	24.83	63	eP	P	12 01 31.0	-1.2
LOR				pmax	pmax		
	comp=Z,86nm,1.8s,mb5.0						
LOR				MLR	MLR		
	comp=Z,750nm,20.3s,MS4.2						
LOR	Lormes	24.83	63	eP	P	12 01 31.0	-1.2
	comp=Z,86nm,1.8s,mb5.0						
LOR				LR	LR		
	comp=Z,750nm,20.3s,MS4.2						
LOR	Lormes	24.83	63	eP	P	12 01 31.0	-1.2
	comp=Z,86nm,1.8s,mb5.0						
BORG	Borgarnes	24.87	8	LR	LR	12 08 24.1	
	comp=Z,767nm,19.9s,MS4.2,baz=150,slow=30						
SSB	Saint Sauveur	25.25	68	eP	P	12 01 37.6	+1.5
SSB				pmax	pmax		
	comp=Z,52nm,1.8s,mb4.8						
SSB	Saint Sauveur	25.25	68	eP	P	12 01 37.6	+1.5
	comp=Z,52nm,1.8s,mb4.8						
SSB	Saint Sauveur	25.25	68	eP	P	12 01 37.6	+1.5
	comp=Z,52nm,1.8s,mb4.8						
VIVF	Saint-Julien-l	25.35	68	eP	P	12 01 38.4	+1.4
	comp=Z,180nm,1.7s,mb5.0						
VIVF	Saint-Julien-l	25.35	68	eP	P	12 01 38.4	+1.4
VIVF				pmax	pmax		
	comp=Z,90nm,1.7s,mb5.0						
VIVF	Saint-Julien-l	25.35	68	eP	P	12 01 38.4	+1.4
	comp=Z,90nm,1.7s,mb5.0						
VIVF	Saint-Julien-l	25.35	68	eP	P	12 01 38.4	+1.4
	comp=Z,90nm,1.7s,mb5.0						
BAIF	Baives	25.39	56	eP	P	12 01 36.1	-1.1
	comp=Z,126nm,1.6s,mb4.9						
BAIF	Baives	25.39	56	eP	P	12 01 36.1	-1.1
BAIF				pmax	pmax		
	comp=Z,63nm,1.6s,mb4.9						
BAIF	Baives	25.39	56	eP	P	12 01 36.1	-1.1
	comp=Z,63nm,1.6s,mb4.9						
BAIF	Baives	25.39	56	eP	P	12 01 36.1	-1.1
	comp=Z,63nm,1.6s,mb4.9						
SNF	Seneffe	25.51	55	P	P	12 01 37.9	-0.5
	comp=Z,30nm,1.9s,mb4.5						
SNF	Seneffe	25.51	55	P	P	12 01 37.8	-0.6
	comp=Z,30nm,1.9s,mb4.5						
UCC	Uccle	25.61	55	P	P	12 01 39.4	+0.1
UCC	Uccle	25.61	55	P	P	12 01 39.3	0.0
DOU	Dourbes	25.64	56	P	P	12 01 38.7	-0.8
DOU	Dourbes	25.64	56	P	P	12 01 38.7	-0.8
MEZF	Maizieres J'vi	25.73	60	eP	P	12 01 39.8	-0.6
	comp=Z,287nm,1.6s,mb5.3						
MEZF	Maizieres J'vi	25.73	60	eP	P	12 01 39.8	-0.6
	comp=Z,287nm,1.6s,mb5.5						
MEZF	Maizieres J'vi	25.73	60	eP	P	12 01 39.8	-0.6
	comp=Z,144nm,1.6s,mb5.3						
GIVF	Givet	25.78	56	eP	P	12 01 40.1	-0.7
	comp=Z,176nm,1.6s,mb5.0						
GIVF	Givet	25.78	56	eP	P	12 01 40.1	-0.7
GIVF				pmax	pmax		
	comp=Z,88nm,1.6s,mb5.0						
GIVF	Givet	25.78	56	eP	P	12 01 40.1	-0.7
	comp=Z,88nm,1.6s,mb5.0						
GIVF	Givet	25.78	56	eP	P	12 01 40.1	-0.7
	comp=Z,88nm,1.6s,mb5.0						
SMRF	Simiane la Rot	26.05	70	eP	P	12 01 43.9	+0.6
	comp=Z,101nm,1.5s,mb4.8						
SMRF	Simiane la Rot	26.05	70	eP	P	12 01 43.9	+0.6
	comp=Z,101nm,1.5s,mb5.1						
SMRF	Simiane la Rot	26.05	70	eP	P	12 01 43.9	+0.6
	comp=Z,51nm,1.5s,mb4.8						
BCLA	Clavier	26.14	56	P	P	12 01 43.1	-0.9
	comp=Z,28nm,2.2s,mb4.4						
BCLA	Clavier	26.14	56	P	P	12 01 43.1	-0.9
	comp=Z,28nm,2.2s,mb4.4						
ORIF	Oris-en-Rattie	26.21	68	eP	P	12 01 47.5	+2.8
ORIF				eMLR	MLR		
	comp=Z,392nm,21.0s,MS3.6						
CABF	La Chapelle	26.33	64	eP	P	12 01 46.0	+0.2
	comp=Z,260nm,1.9s,mb5.1						
CABF	La Chapelle	26.33	64	eP	P	12 01 46.0	+0.2
CABF				pmax	pmax		
	comp=Z,130nm,1.9s,mb5.1						
CABF	La Chapelle	26.33	64	eP	P	12 01 46.0	+0.2
	comp=Z,130nm,1.9s,mb5.1						
CABF	La Chapelle	26.33	64	eP	P	12 01 46.0	+0.2
	comp=Z,130nm,1.9s,mb5.1						
HAU	Haudompre	26.56	61	eP	P	12 01 48.4	+0.6
	comp=Z,158nm,1.7s,mb5.0						
HAU				eMLR	MLR		
	comp=Z,624nm,17.2s,MS3.9						
HAU	Haudompre	26.56	61	eP	P	12 01 48.4	+0.6
HAU				pmax	pmax		
	comp=Z,79nm,1.7s,mb5.0						
HAU				MLR	MLR		
	comp=Z,620nm,17.3s,MS4.2						
HAU	Haudompre	26.56	61	eP	P	12 01 48.4	+0.6
	comp=Z,79nm,1.7s,mb5.0						
HAU				LR	LR		
	comp=Z,620nm,17.3s,MS4.2						
HAU	Haudompre	26.56	61	eP	P	12 01 48.4	+0.6
	comp=Z,79nm,1.7s,mb5.0						
WLF	Walferdange	26.58	58	P	P	12 01 47.2	-0.8
	comp=Z,23nm,1.8s,mb4.4						
WLF	Walferdange	26.58	58	eP	P	12 01 47.4	-0.6
WLF				pmax	pmax		
	comp=Z,209nm,2.2s,mb5.3						
WLF	Walferdange	26.58	58	eP	P	12 01 47.4	-0.6
	comp=Z,209nm,2.2s,mb5.3						
WLF	Walferdange	26.58	58	eP	P	12 01 47.4	-0.6
	comp=Z,209nm,2.2s,mb5.3						
BNI	Bardonecchia	26.77	68	eP	P	12 01 51.1	+1.3
BNI				pmax	pmax		

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      comp=Z,151nm,1.9s,mb5.2
BNI   Bardonecchia      26.77  68 eP      P       12 01 51.1 +1.3
      comp=Z,151nm,1.9s,mb5.2
BNI   Bardonecchia      26.77  68 eP      P       12 01 51.1 +1.3
      comp=Z,151nm,1.9s,mb5.2
LMR   La Mourre         26.78  72 eP      P       12 01 51.0 +1.1
      comp=Z,187nm,1.9s,mb5.0
LMR   La Mourre         26.78  72 eP      P       12 01 51.0 +1.1
LMR                                pmax   pmax
      comp=Z,93nm,1.9s,mb5.0
LMR   La Mourre         26.78  72 eP      P       12 01 51.0 +1.1
      comp=Z,93nm,1.9s,mb5.0
LMR   La Mourre         26.78  72 eP      P       12 01 51.0 +1.1
      comp=Z,93nm,1.9s,mb5.0
LPL   La Plagne         26.79  67 eP      P       12 01 50.7 +0.7
LPL   La Plagne         26.79  67 eP      P       12 01 50.7 +0.7
LPG   La Plagne         26.80  67 eP      P       12 01 50.6 +0.5
      comp=Z,115nm,1.8s,mb4.8
LPG   La Plagne         26.80  67 eP      P       12 01 50.6 +0.5
LPG                                pmax   pmax
      comp=Z,57nm,1.8s,mb4.8
LPG   La Plagne         26.80  67 eP      P       12 01 50.6 +0.5
      comp=Z,57nm,1.8s,mb4.8
LPG   La Plagne         26.80  67 eP      P       12 01 50.6 +0.5
      comp=Z,57nm,1.8s,mb4.8
MBDF  Montbardon        26.85  69 eP      P       12 01 51.2 +0.6
      comp=Z,76nm,1.8s,mb4.6
MBDF  Montbardon        26.85  69 eP      P       12 01 51.2 +0.6
MBDF                               pmax   pmax
      comp=Z,38nm,1.8s,mb4.6
MBDF  Montbardon        26.85  69 eP      P       12 01 51.2 +0.6
      comp=Z,38nm,1.8s,mb4.6
MBDF  Montbardon        26.85  69 eP      P       12 01 51.2 +0.6
      comp=Z,38nm,1.8s,mb4.6
FRF   La Foret Royal    26.86  71 eP      P       12 01 50.7 +0.1
      comp=Z,82nm,1.4s,mb4.8
FRF   La Foret Royal    26.86  71 eP      P       12 01 50.7 +0.1
FRF                                pmax   pmax
      comp=Z,41nm,1.4s,mb4.8
FRF   La Foret Royal    26.86  71 eP      P       12 01 50.7 +0.1
      comp=Z,41nm,1.4s,mb4.8
FRF   La Foret Royal    26.86  71 eP      P       12 01 50.7 +0.1
      comp=Z,41nm,1.4s,mb4.8
HINF  Hinteralfeld      26.89  62 eP      P       12 01 51.4 +0.6
      comp=Z,176nm,1.9s,mb5.0
HINF  Hinteralfeld      26.89  62 eP      P       12 01 51.4 +0.6
HINF                               pmax   pmax
      comp=Z,88nm,1.9s,mb5.0
HINF  Hinteralfeld      26.89  62 eP      P       12 01 51.4 +0.6
      comp=Z,88nm,1.9s,mb5.0
HINF  Hinteralfeld      26.89  62 eP      P       12 01 51.4 +0.6
      comp=Z,88nm,1.9s,mb5.0
ECH   Echery            27.11  61 eP      P       12 01 51.6 -1.2
ECH                                pmax   pmax
      comp=Z,50nm,1.5s,mb4.8
ECH   Echery            27.11  61 eP      P       12 01 51.6 -1.2
      comp=Z,50nm,1.5s,mb4.8
ECH   Echery            27.11  61 eP      P       12 01 51.6 -1.2
      comp=Z,50nm,1.5s,mb4.8
CDF   Champ du Feu      27.20  61 eP      P       12 01 53.0 -0.6
      comp=Z,128nm,1.6s,mb4.9
CDF   Champ du Feu      27.20  61 eP      P       12 01 53.0 -0.6
CDF                                pmax   pmax
      comp=Z,64nm,1.6s,mb4.9
CDF   Champ du Feu      27.20  61 eP      P       12 01 53.0 -0.6
      comp=Z,64nm,1.6s,mb4.9
CDF   Champ du Feu      27.20  61 eP      P       12 01 53.0 -0.6
      comp=Z,64nm,1.6s,mb4.9
SBF   Sospel            27.39  70 eP      P       12 01 56.6 +1.2
SBF   Sospel            27.39  70 eP      P       12 01 56.6 +1.2
BFO   Black Forest      27.90  61 eP      P       12 01 58.8 -1.1
BFO                                pmax   pmax
      comp=Z,33nm,1.4s,mb4.8
BFO   Black Forest      27.90  61 eP      P       12 01 58.8 -1.0
      comp=Z,33nm,1.4s,mb4.8
BFO   Black Forest      27.90  61 eP      P       12 01 58.8 -1.1
      comp=Z,33nm,1.4s,mb4.8
BBTS  Babate            27.97 153 LR      LR      12 11 20.2
      comp=Z,321nm,18.8s,MS3.9,baz=7.0,slow=32
TUE   Stuetta           28.58  65 eP      P       12 02 06.7 +0.7
      comp=Z,103nm,2.3s,mb5.2
TUE   Stuetta           28.58  65 eP      P       12 02 06.7 +0.7
      comp=Z,103nm,2.3s,mb5.2
PGF   Pioggiola         28.69  73 eP      P       12 02 10.4 +3.3
      comp=Z,101nm,1.7s,mb5.0
PGF   Pioggiola         28.69  73 eP      P       12 02 10.4 +3.3
PGF                                pmax   pmax
      comp=Z,50nm,1.7s,mb5.0
PGF   Pioggiola         28.69  73 eP      P       12 02 10.4 +3.3
      comp=Z,50nm,1.7s,mb5.0
SCHQ  Schefferville     28.70 313 P       P       12 02 03.8 -3.1
      comp=Z,1.0nm,0.8s,mb3.6,baz=208,slow=15,SNR=2.8
SCHQ                              LR      LR      12 11 53.4
      comp=Z,468nm,18.6s,MS4.1,baz=288,slow=33
DAVOX Davos/Dischmat    28.94  64 LR      LR      12 11 59.2
      comp=Z,330nm,18.1s,MS4.0,baz=259,slow=33
SFJD  Kangerlussuaq     29.18 343 LR      LR      12 11 02.8
      comp=Z,320nm,20.7s,MS3.9,baz=123,slow=31
GRA1  Grafenberg Arr    29.86  58 eP      P       12 02 16.7 -0.6
      comp=Z,28nm,1.5s,mb4.8
GRA1                              LR      LR
      comp=Z,700nm,18.1s,MS4.3
GRA1  Grafenberg Arr    29.86  58 eP      P       12 02 16.7 -0.6
      comp=Z,28nm,1.5s,mb4.8
GRF   Grafenberg Arr    29.86  58 eP      P       12 02 16.7 -0.6
GRF                                pmax   pmax
      comp=Z,28nm,1.5s,mb4.8
GRF                               MLR     MLR
      comp=Z,700nm,18.1s,MS4.3
GRF   Grafenberg Arr    29.86  58 eP      P       12 02 16.7 -0.6
GRF                                pmax   pmax
      comp=Z,28nm,1.5s,mb4.8
GRF                               MLR     MLR
      comp=Z,700nm,18.1s,MS4.3
GRF   Grafenberg Arr    29.86  58 eP      P       12 02 16.7 -0.6
      comp=Z,28nm,1.5s,mb4.8
GRF                               eL              12 14 37.6
      comp=Z,722nm,18.1s
GRF   Grafenberg Arr    29.86  58 eP      P       12 02 16.7 -0.6
      comp=Z,28nm,1.5s,mb4.8
NKC   Novy Kostel       30.67  57 eP      P       12 02 28.1 +3.6
NKC                               epP     pP      12 02 32.1 +4.5
KEST  Kesra             30.68  86 P       P       12 02 23.4 -1.3
      comp=Z,0.7nm,0.8s,mb3.5,baz=308,slow=11,SNR=2.9
KEST                              LR      LR      12 13 41.8
      comp=Z,182nm,19.8s,MS3.7,baz=328,slow=34
CLL   Collm             31.09  55 esP     P       12 02 31.0 +2.9
CLL                               ePP     PP      12 03 27.0  -11
CLL                               LmV             12 15 00.0
      comp=Z,400nm,20.4s
CLL   Collm             31.09  55 eP      P       12 02 31.0 +2.9
CLL                               e               12 02 37.0
CLL                               LR      LR
      comp=Z,400nm,20.4s,MS4.1
KHC   Kasperske Hory    31.39  59 eP      P       12 02 29.7 -1.1
KHC                               epP     pP      12 02 34.4 +0.5
KHC   Kasperske Hory    31.39  59 eP      P       12 02 29.7 -1.1
GERES GERESS Array B    31.47  60 LR      LR      12 13 21.8
      comp=Z,337nm,18.1s,MS4.1,baz=294,slow=33
PRU   Pruhonice         32.02  58 eP      P       12 02 36.4 +0.1
PRU                               ex      x       12 02 45.7
PRU   Pruhonice         32.02  58 P       P       12 02 36.4 +0.1
NOA   NORSAR Array B    32.23  36 LR      LR      12 13 15.2
      comp=Z,345nm,21.8s,MS4.0,baz=280,slow=32
JMIC  Jan Mayen         32.49  13 LR      LR      12 12 26.1
      comp=Z,450nm,21.1s,MS4.1,baz=20,slow=30
UPC   Upice             32.96  57 eP      P       12 02 44.9 +0.3
UPC   Upice             32.96  57 P       P       12 02 44.9 +0.3
DPC   Dobruska-Polom    33.16  57 eP      P       12 02 47.0 +0.7
DPC   Dobruska-Polom    33.16  57 P       P       12 02 47.0 +0.7
TAM   Tamanrasset       34.24 110 eP      P       12 02 58.9 +2.9
TAM                                pmax   pmax
      comp=Z,9.0nm,1.2s,mb4.6
TAM   Tamanrasset       34.24 110 eP      P       12 02 58.9 +2.9
      comp=Z,9.0nm,1.2s,mb4.6
CUC   Castrocucco       34.26  76 eP      P       12 02 55.5 -0.5
      comp=Z,23nm,1.3s,mb4.9
OJC   Ojcow             35.39  57 eP      P       12 03 05.1 -0.6
OJC   Ojcow             35.39  57 eP      P       12 03 05.1 -0.6
PSZ   Piszkesteto       35.65  61 eP      P       12 03 07.8 -0.1
PSZ                                pmax   pmax
      comp=Z,24nm,1.4s,mb4.9
PSZ   Piszkesteto       35.65  61 eP      P       12 03 07.8 -0.1
      comp=Z,24nm,1.4s,mb4.9
UZH   Uzhgorod          37.16  60 eP      P       12 03 19.2 -1.6
LVV   L'vov             38.15  57 eP      P       12 03 19.2  -10
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TORD  Torodi Ar. Bea    38.44 126 P       P       12 03 33.2 +1.3
      comp=Z,13nm,1.1s,mb4.6,baz=319,slow=7.1,SNR=19
TORD                              LR      LR      12 17 53.6
      comp=Z,225nm,18.4s,MS4.0,baz=310,slow=34
TORD  Torodi Ar. Bea    38.44 126 P       P       12 03 33.2 +1.2
TORD                              LR      LR      12 17 53.6
BUR08 Bucovina Ar. S    39.23  61 eP      P       12 03 38.9 +0.6
DBIC  Dimbokro          40.10 140 P       P       12 03 48.1 +2.3
      comp=Z,3.6nm,0.9s,mb4.1,baz=270,slow=5.5,SNR=4.6
DBIC                              LR      LR      12 20 14.2
      comp=Z,250nm,18.7s,MS4.1,baz=319,slow=36
ARCES ARCESS Array B    40.67  26 LR      LR      12 17 55.6
      comp=Z,325nm,18.9s,MS4.2,baz=93,slow=32
LHS   Liberty Hill      40.78 279 eP      P       12 03 55.5 +4.2
KIEV  Kiev              41.32  55 eP      P       12 03 54.6 -0.9
KIEV                               pmax   pmax
      comp=Z,54nm,1.8s,mb4.9
KIEV  Kiev              41.32  55 eP      P       12 03 54.6 -0.9
      comp=Z,54nm,1.8s,mb4.9
AKASG Malin Array Be    41.33  55 P       P       12 03 52.4 -3.2
      comp=Z,0.5nm,0.3s,mb3.6,baz=275,slow=8.8,SNR=11
AKASG                             LR      LR      12 20 09.3
      comp=Z,458nm,20.3s,MS4.3,baz=320,slow=35
KIS   Kishinev          41.77  61 eP      sP      12 04 10.0 +6.4
KIS                               e               12 04 18.0
KIS   Kishinev          41.77  61 eUNK    sP      12 04 10.0 +6.4
EYMN  Ely               44.12 301 eP      P       12 04 18.5 +0.2
      comp=Z,28nm,1.5s,mb4.8
OBN   Obninsk           45.02  48⇓eP      P       12 04 24.3 -1.1
OBN                               e               12 06 09.2
OBN                               eS      S       12 10 59.7 -4.1
OBN                                pmax   pmax
      comp=Z,37nm,1.7s,mb4.9
OBN   Obninsk           45.02  48 eP      P       12 04 24.3 -1.1
      comp=Z,37nm,1.7s,mb4.9
RES   Resolute Bay      45.08 340 P       P       12 04 24.3 -1.4
      comp=Z,1.1nm,0.9s,mb3.7,baz=148,slow=8.9,SNR=4.2
RES   Resolute Bay      45.08 340 P       P       12 04 24.3 -1.4
RES   Resolute Bay      45.08 340 P       P       12 04 24.3 -1.3
MOS   Moscow            45.51  47 eP      P       12 04 34.6 +5.3
KLMR  Klimovskoe        45.80  40 eP      P       12 04 29.4 -2.1
KLMR                               pmax   pmax
      comp=Z,37nm,1.7s,mb5.0
KLMR  Klimovskoe        45.80  40 eP      P       12 04 29.4 -2.1
      comp=Z,37nm,1.7s,mb5.0
ULM   Lac du Bonnet     46.34 306 P       P       12 04 33.9 -2.0
      comp=Z,0.7nm,0.5s,mb3.9,baz=100,slow=6.8,SNR=2.3
ULM                               LR      LR      12 23 05.6
      comp=Z,673nm,18.2s,MS4.6,baz=294,slow=35
ULM   Lac du Bonnet     46.34 306 P       P       12 04 33.9 -2.0
ULM                               LR      LR      12 23 05.6
ULM   Lac du Bonnet     46.34 306 P       P       12 04 33.9 -2.0
AGMN  Agassiz Refuge    46.85 303 eP      P       12 04 40.1 +0.2
      comp=Z,15nm,1.3s,mb4.8
AGMN  Agassiz Refuge    46.85 303 eP      P       12 04 40.1 +0.2
      comp=Z,15nm,1.3s,mb4.8
BRTR  Keskin Array B    47.32  69 P       P       12 04 43.1 -0.6
      comp=Z,0.8nm,0.7s,mb3.8
BRTR                              LR      LR      12 24 52.1
      comp=Z,64nm,18.8s,MS3.6,baz=54,slow=36
BRTR  Keskin Array B    47.32  69 P       P       12 04 43.1 -0.6
PRGR  Permogore         48.61  38 eP      P       12 04 50.6 -2.8
PRGR                               pmax   pmax
      comp=Z,48nm,1.4s,mb5.3
PRGR  Permogore         48.61  38 eP      P       12 04 50.6 -2.8
      comp=Z,48nm,1.4s,mb5.3
ECSD  EROS Data Cent    48.79 297 eP      P       12 04 55.1 +0.1
      comp=Z,153nm,2.8s,mb5.5
ECSD  EROS Data Cent    48.79 297 eP      P       12 04 55.1 +0.1
      comp=Z,153nm,2.8s,mb5.5
FFC   Flin Flon         48.84 313 eP      P       12 04 54.8 -0.5
FFC                                pmax   pmax
      comp=Z,25nm,1.6s,mb5.0
FFC   Flin Flon         48.84 313 eP      P       12 04 54.8 -0.5
      comp=Z,25nm,1.6s,mb5.0
FFC   Flin Flon         48.84 313 eP      P       12 04 54.8 -0.5
      comp=Z,25nm,1.6s,mb5.0
MIAR  Mount Ida         50.30 285 eP      P       12 05 03.4 -3.2
MIAR                               pmax   pmax
      comp=Z,15nm,1.1s,mb4.9
MIAR  Mount Ida         50.30 285 eP      P       12 05 03.4 -3.3
      comp=Z,15nm,1.1s,mb4.9
MALT  Malatya           51.30  69 eP      P       12 05 14.5 +0.3
MALT                               pmax   pmax
      comp=Z,23nm,1.7s,mb4.8
MALT  Malatya           51.30  69 eP      P       12 05 14.5 +0.3
      comp=Z,23nm,1.7s,mb4.8
MALT  Malatya           51.30  69 eP      P       12 05 14.5 +0.3
      comp=Z,23nm,1.7s,mb4.8
KIV   Kislovodsk        51.97  61⇑eP      P       12 05 19.1  0.0
KIV                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.5
KIV                               MLR     MLR
      comp=Z,100nm,17.0s,MS3.9
KIV   Kislovodsk        51.97  61 eP      P       12 05 19.1  0.0
      comp=Z,100nm,17.0s
YKA   Yellowknife Ar    53.06 325 P       P       12 05 25.2 -1.6
      comp=Z,1.4nm,0.8s,mb4.0,baz=69,slow=7.0,SNR=16
YKA                               LR      LR      12 25 23.3
      comp=Z,203nm,19.1s,MS4.2,baz=135,slow=33
YKA   Yellowknife Ar    53.06 325 P       P       12 05 25.2 -1.6
YKA                               LR      LR      12 25 23.3
YKA   Yellowknife Ar    53.06 325 P       P       12 05 25.2 -1.7
      comp=Z,1.0nm,0.8s,mb3.8
ROSC  El Rosal          53.62 241 LR      LR      12 25 60.0
      comp=Z,190nm,18.9s,MS4.2,baz=24,slow=33
LAO   LASA Array        54.00 304 eP      P       12 05 34.2 +0.2
      comp=Z,23nm,1.3s,mb5.0
LAO   LASA Array        54.00 304 eP      P       12 05 34.2 +0.2
      comp=Z,23nm,1.3s,mb5.0
GNI   Garni             54.94  64⇑eP      P       12 05 42.3 +1.3
GNI                                pmax   pmax
      comp=Z,43nm,2.5s
GNI   Garni             54.94  64 eP      P       12 05 42.4 +1.5
      comp=Z,29nm,1.4s,mb5.1
GNI   Garni             54.94  64 eP      P       12 05 42.3 +1.3
      comp=Z,43nm,2.5s,mb5.0
EGMT  Eagleton          55.67 307 eP      P       12 05 43.1 -3.0
      comp=Z,17nm,1.3s,mb4.9
ARU   Arti              56.53  42c iP     P       12 05 52.5 +0.4
ARU                               e               12 07 54.8
ARU                               S       S       12 13 40.7 -2.5
ARU                               SS      SS      12 17 29.5 -0.4
ARU                                pmax   pmax
      comp=Z,41nm,1.7s,mb5.2
ARU   Arti              56.53  42 eP      P       12 05 52.1  0.0
      comp=Z,106nm,1.9s,mb5.5
ARU   Arti              56.53  42 eP      P       12 05 52.1  0.0
      comp=Z,106nm,1.9s,mb5.5
GCMT  Greycliff         56.55 304 eP      P       12 05 52.7 +0.3
      comp=Z,13nm,1.5s,mb4.8
GCMT  Greycliff         56.55 304 eP      P       12 05 52.7 +0.3
      comp=Z,13nm,1.5s,mb4.8
RLMT  Red Lodge         56.59 303 eP      P       12 05 53.0 +0.3
      comp=Z,17nm,1.6s,mb4.8
RLMT  Red Lodge         56.59 303 eP      P       12 05 53.0 +0.3
      comp=Z,17nm,1.6s,mb4.8
JCT   Junction City     56.86 284 eP      P       12 05 55.6 +0.8
JCT                                pmax   pmax
      comp=Z,14nm,1.3s,mb4.8
JCT   Junction City     56.86 284 eP      P       12 05 55.5 +0.7
      comp=Z,14nm,1.3s,mb4.8
JCT   Junction City     56.86 284 eP      P       12 05 55.5 +0.7
      comp=Z,14nm,1.3s,mb4.8
SVE   Sverdlovsk        57.41  41⇑eP      P       12 05 57.8 -0.5
SVE                                pmax   pmax
      comp=Z,34nm,1.6s,mb5.1
SVE   Sverdlovsk        57.41  41 eP      P       12 05 57.8 -0.5
      comp=Z,34nm,1.6s,mb5.1
HRY   Holter Researc    57.50 306 eP      P       12 05 59.8 +0.7
      comp=Z,4.4nm,1.1s,mb4.4
HRY   Holter Researc    57.50 306 eP      P       12 05 59.8 +0.7
      comp=Z,4.4nm,1.1s,mb4.4
PDAR  Pinedale Array    57.82 301 P       P       12 06 01.8 +0.3
      comp=Z,2.6nm,1.1s,mb4.2,baz=69,slow=8.1,SNR=9.2
PDAR                              LR      LR      12 30 13.8
      comp=Z,321nm,19.6s,MS4.4,baz=85,slow=36
PDAR  Pinedale Array    57.82 301 P       P       12 06 01.8 +0.3
IMW   Indian Meadow     58.20 303 eP      P       12 06 04.7 +0.5
      comp=Z,3.1nm,0.8s,mb4.4
IMW   Indian Meadow     58.20 303 eP      P       12 06 04.7 +0.6
      comp=Z,3.1nm,0.8s,mb4.4
CHMT  Chamberlain Mo    58.28 307 eP      P       12 06 05.1 +0.4
CHMT  Chamberlain Mo    58.28 307 eP      P       12 06 05.1 +0.5
SLMT  Seeley Lake       58.28 307 eP      P       12 06 05.2 +0.6
      comp=Z,19nm,1.6s,mb4.9
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SLMT  Seeley Lake       58.28 307 eP      P       12 06 05.2 +0.6
      comp=Z,19nm,1.6s,mb4.9
REDW  Red Top Meadow    58.39 302 eP      P       12 06 05.6 +0.1
      comp=Z,27nm,1.5s,mb5.0
REDW  Red Top Meadow    58.39 302 eP      P       12 06 05.6 +0.2
      comp=Z,27nm,1.5s,mb5.0
SWMT  Swartz Lake       58.47 308 eP      P       12 06 06.2 +0.3
SWMT  Swartz Lake       58.47 308 eP      P       12 06 06.2 +0.3
RRI2  Red Ridge         58.70 302 eP      P       12 06 07.9 +0.3
      comp=Z,70nm,2.6s,mb5.2
AKTO  Aktyubinsk        58.80  48 LR      LR      12 30 59.3
      comp=Z,159nm,19.8s,MS4.1,baz=307,slow=36
PV04  Paradox Valley    59.45 296 eP      P       12 06 14.0 +1.1
PV04  Paradox Valley    59.45 296 eP      P       12 06 14.0 +1.1
OTAV  Otavalo           59.78 241 eP      P       12 06 18.7 +3.3
      comp=Z,20nm,1.6s,mb4.9
NEW   Newport           59.99 310 eP      P       12 06 15.8 -0.6
NEW                                pmax   pmax
      comp=Z,22nm,1.4s
NEW   Newport           59.99 310 eP      P       12 06 15.8 -0.6
      comp=Z,22nm,1.4s,mb5.0
NEW   Newport           59.99 310 eP      P       12 06 15.8 -0.6
      comp=Z,22nm,1.4s,mb5.0
DAU   Daniels Canyon    60.06 299 eP      P       12 06 18.6 +1.6
DAU   Daniels Canyon    60.06 299 eP      P       12 06 18.6 +1.6
LAZ   Ladron            60.20 291 eP      P       12 06 19.8 +1.7
      comp=Z,7.6nm,1.6s,mb4.5
LAZ   Ladron            60.20 291 eP      P       12 06 19.8 +1.7
      comp=Z,7.6nm,1.6s,mb4.5
TXAR  Lajitas Array     60.31 285 P       P       12 06 19.7 +0.8
      comp=Z,2.4nm,0.7s,mb4.3,baz=74,slow=6.7,SNR=15
TXAR                              LR      LR      12 33 20.5
      comp=Z,274nm,18.7s,MS4.4,baz=5.0,slow=37
TXAR  Lajitas Array     60.31 285 P       P       12 06 19.7 +0.7
MSU   Marysvale         61.62 298 eP      P       12 06 28.4 +0.7
MSU   Marysvale         61.62 298 eP      P       12 06 28.4 +0.7
CCUT  Cedar City        62.92 297 eP      P       12 06 37.6 +1.2
      comp=Z,3.3nm,1.2s,mb4.3
CCUT  Cedar City        62.92 297 eP      P       12 06 37.6 +1.2
      comp=Z,3.3nm,1.2s,mb4.3
BRVK  Borovoye          64.10  41 eP      P       12 06 43.5 -0.4
BRVK                               pmax   pmax
      comp=Z,30nm,1.5s,mb5.1
BRVK  Borovoye          64.10  41 eP      P       12 06 43.5 -0.4
      comp=Z,30nm,1.5s,mb5.1
BRVK  Borovoye          64.10  41 eP      P       12 06 43.5 -0.4
      comp=Z,30nm,1.5s,mb5.1
IMA2  Indian Mountai    65.58 338 eP      P       12 06 53.6 +0.2
IMA2  Indian Mountai    65.58 338 eP      P       12 06 53.6 +0.2
BPAW  Bear Paw Mtn.     66.19 336 eP      P       12 06 57.7 +0.3
      comp=Z,26nm,1.6s,mb5.0
BPAW  Bear Paw Mtn.     66.19 336 eP      P       12 06 57.7 +0.4
      comp=Z,26nm,1.6s,mb5.0
TRF   Thorofare Moun    66.42 335 eP      P       12 06 58.6 -0.2
      comp=Z,69nm,1.8s,mb5.4
TRF   Thorofare Moun    66.42 335 eP      P       12 06 58.6 -0.2
      comp=Z,69nm,1.8s,mb5.4
TIXI  Tiksi             67.23   7⇑eP      P       12 07 03.6 -0.2
TIXI                               pmax   pmax
      comp=Z,14nm,1.3s,mb4.8
TIXI  Tiksi             67.23   7 eP      P       12 07 02.9 -1.0
      comp=Z,13nm,1.2s,mb4.8
TIXI  Tiksi             67.23   7 eP      P       12 07 03.6 -0.2
      comp=Z,14nm,1.3s,mb4.8
NVS   Novosibirsk       69.13  35⇓iP      P       12 07 14.1 -2.0
NVS                                pmax   pmax
      comp=Z,38nm,1.8s,mb5.0
NVS                                pmax   pmax
      comp=N,15nm,1.9s
NVS                                pmax   pmax
      comp=E,13nm,1.9s
NVS   Novosibirsk       69.13  35 i P     P       12 07 14.1 -2.0
      comp=E,38nm,1.8s,mb5.0
KURK  Kurchatov         69.65  40 P       P       12 07 18.7 -0.6
      comp=E,66nm,1.0s,mb5.5,SNR=6.3
KURK  Kurchatov         69.65  40 eP      P       12 07 18.5 -0.8
KURK                               pmax   pmax
      comp=Z,17nm,1.1s,mb4.9
KURK  Kurchatov         69.65  40 eP      P       12 07 18.5 -0.9
      comp=Z,16nm,1.1s,mb4.9
KURK  Kurchatov         69.65  40 eP      P       12 07 18.5 -0.8
      comp=Z,16nm,1.1s,mb4.9
ZAA0  Zalesovo Array    70.42  35 eP      P       12 07 22.9 -1.1
ZAA0  Zalesovo Array    70.42  35 eP      P       12 07 22.9 -1.1
ZALV  Zalesovo Beam     70.42  35 P       P       12 07 23.6 -0.4
      comp=Z,5.3nm,1.0s,mb4.4,baz=299,slow=7.6,SNR=12
ZALV                              LR      LR      12 41 37.0
      comp=Z,83nm,18.8s,MS4.0,baz=325,slow=39
CPUP  Villa Florida     71.26 206 P       P       12 07 30.5 +1.2
      comp=Z,0.9nm,0.6s,mb3.9,baz=343,slow=3.3,SNR=5.1
CPUP                              LR      LR      12 36 30.4
      comp=Z,85nm,19.1s,MS4.0,baz=293,slow=34
CPUP  Villa Florida     71.26 206 P       P       12 07 30.5 +1.2
BILL  Bilibino          71.28 354⇓eP      P       12 07 28.7 -0.3
BILL                              e               12 10 04.4
BILL                              eS      S       12 16 39.5 -6.5
BILL                               pmax   pmax
      comp=Z,12nm,2.1s,mb4.5
BILL  Bilibino          71.28 354 eP      P       12 07 28.7 -0.3
      comp=Z,12nm,2.1s,mb4.5
AML   Almayashu         72.39  49 eP      P       12 07 36.3 +0.2
      comp=Z,9.9nm,1.0s,mb4.7
AML   Almayashu         72.39  49 eP      P       12 07 36.3 +0.2
      comp=Z,9.9nm,1.0s,mb4.7
FRU   Bishkek           72.48  48 eP      P       12 07 38.0 +1.3
FRU   Bishkek           72.48  48 eP      P       12 07 38.0 +1.3
AAK   Ala-Archa         72.54  49⇑eP      P       12 07 39.1 +2.1
AAK                                pmax   pmax
      comp=Z,7.0nm,1.7s,mb4.3
AAK   Ala-Archa         72.54  49 eP      P       12 07 38.5 +1.5
AAK   Ala-Archa         72.54  49 eP      P       12 07 38.5 +1.5
MKAR  Makanchi Array    74.05  42 P       P       12 07 44.9 -1.0
      comp=Z,2.1nm,0.8s,mb4.2,baz=318,slow=4.7,SNR=26
MKAR                              LR      LR      12 41 09.7
      comp=Z,160nm,19.0s,MS4.3,baz=325,slow=37
KSH   Kashi             75.39  50 P       P       12 07 54.6 +0.9
KSH                               epP     pP      12 07 59.1 +2.1
KSH                               esP     sP      12 08 02.1 +3.9
KSH                               ePcP    PcP     12 08 09.0 +2.1
KSH                               ePP     PP      12 10 45.1 +3.0
KSH                               eS      S       12 17 31.9 -1.7
KSH                               esS     sS      12 17 39.9 +0.9
KSH                               eSKS            12 17 59.3
KSH                               eScS    ScS     12 18 03.1 -3.9
KSH                               eSS     SS      12 22 22.9  0.0
KSH                                pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.6
KSH                                pmax   pmax
      comp=Z,380nm,6.6s
KSH                                LR     LR
      comp=N,310nm,11.2s
KSH                                LR     LR
      comp=E,350nm,5.7s
KSH                                LR     LR
      comp=Z,330nm,5.8s
YAK   Yakutsk           76.56  10 eP      P       12 07 57.7 -2.3
YAK                               e               12 08 04.2
YAK                               eS      S       12 17 40.4 -5.3
YAK                               e               12 18 09.0
YAK                                pmax   pmax
      comp=Z,16nm,1.2s,mb4.8
YAK                                pmax   pmax
      comp=N,10.0nm,1.5s
YAK                                pmax   pmax
      comp=E,5.0nm,1.5s
YAK                                pmax   pmax
      comp=Z,14nm,1.0s,mb4.8
YAK                                pmax   pmax
      comp=N,14nm,1.5s
YAK                                pmax   pmax
      comp=E,26nm,1.7s
YAK                                smax
      comp=N,194nm,4.7s
YAK                                smax
      comp=E,29nm,3.7s
YAK                                MLR    MLR
      comp=N,41nm,10.0s
YAK                                MLR    MLR
      comp=E,50nm,9.0s
YAK   Yakutsk           76.56  10 eP      P       12 07 57.7 -2.3
      comp=E,10.0nm,1.5s,mb4.5
SEY   Seymchan          77.04 359⇑eP      P       12 08 03.7 +1.0
SEY   Seymchan          77.04 359 eP      P       12 08 03.7 +1.0
BOD   Bodaibo           77.48  19 eP      P       12 08 02.6 -2.7
BOD                                pmax   pmax
      comp=Z,19nm,1.5s,mb4.8
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BOD	Bodaibo	77.48	19	*e*P	P	12 08 02.6	-2.7
	comp=Z,19nm,1.5s,mb4.8						
MOY	Mondy	78.67	29	*e*P	P	12 08 11.3	-0.7
WMQ	Urumqi	78.86	41	*e*P	P	12 08 13.4	+0.3
WMQ				pP	pP	12 08 23.0	+6.6
WMQ				PP	PP	12 11 14.0	+3.0
WMQ				*e*S	S	12 18 09.0	-2.1
WMQ				sS	sS	12 18 20.0	+3.4
WMQ				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,180nm,8.2s						
WMQ				LR	LR		
	comp=N,220nm,21.0s,MS4.8						
WMQ				LR	LR		
	comp=E,440nm,18.6s,MS4.8						
WMQ				LR	LR		
	comp=Z,320nm,19.0s,MS4.7						
TLY	Talaya	79.62	28	*e*P	P	12 08 16.5	-0.7
TLY				pmax	pmax		
	comp=Z,14nm,1.9s,mb4.6						
TLY	Talaya	79.62	28	*e*P	P	12 08 17.4	+0.3
TLY	Talaya	79.62	28	*e*P	P	12 08 17.4	+0.2
ZAK	Zakamensk	80.56	29	*e*P	P	12 08 19.7	-2.6
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.2						
SONM	Songino Array	83.82	28	P	P	12 08 38.4	-1.0
	comp=Z,3.3nm,1.1s,mb4.4,baz=326,slow=6.1,SNR=11						
SONM				LR	LR	12 47 28.5	
	comp=Z,109nm,18.1s,MS4.3,baz=301,slow=37						
SONM	Songino Array	83.82	28	P	P	12 08 38.4	-1.0
ULN	Ulaanbaatar	84.03	28	*e*P	P	12 08 40.4	-0.1
ULN	Ulaanbaatar	84.03	28	*e*P	P	12 08 40.4	-0.1
BOSA	Boshof	85.33	134	LR	LR	12 45 07.5	
	comp=Z,323nm,19.6s,MS4.7,baz=320,slow=34						
PETK	Petropavlovsk-	86.70	356	LR	LR	12 46 27.2	
	comp=Z,100nm,18.3s,MS4.2,baz=168,slow=35						
GTA	Gaotai	88.07	37	*e*P	P	12 09 00.4	-0.2
GTA				pP	pP	12 09 04.3	+0.4
GTA				sP	sP	12 09 07.1	+2.0
GTA				PP	PP	12 12 26.8	+0.4
GTA				SKS		12 19 24.6	
GTA				S	S	12 19 40.3	-4.1
GTA				SS	SS	12 25 24.9	-6.2
GTA				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.6						
GTA				pmax	pmax		
	comp=Z,240nm,5.7s						
GTA				LR	LR		
	comp=N,220nm,15.8s,MS4.9						
GTA				LR	LR		
	comp=E,250nm,15.5s,MS4.9						
GTA				LR	LR		
	comp=Z,170nm,16.1s,MS4.5						
PLCA	Paso Flores	88.98	210	LR	LR	12 50 03.4	
	comp=Z,42nm,18.4s,MS3.9,baz=288,slow=36						
HHC	Hu-ho-hao-te	91.71	29	*e*P	P	12 09 17.3	-0.3
HHC				sP	sP	12 09 24.3	+2.2
HHC				PP	PP	12 12 56.8	+1.6
HHC				SKS		12 19 45.1	
HHC				S	S	12 20 12.5	-5.7
HHC				sS	sS	12 20 20.3	-3.4
HHC				SS	SS	12 26 20.3	-3.3
HHC				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.3						
HHC				pmax	pmax		
	comp=Z,210nm,4.3s						
HHC				LR	LR		
	comp=N,190nm,16.6s,MS4.9						
HHC				LR	LR		
	comp=E,260nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,170nm,14.3s,MS4.6						
HYB	Hyderabad	91.88	65	*i* P	P	12 09 22.0	+3.2
HYB	Hyderabad	91.88	65	*e*P	P	12 09 22.0	+3.2
HYB	Hyderabad	91.88	65	*e*P	P	12 09 22.0	+3.2
LZH	Lanzhou	92.62	36	*e*P	P	12 09 21.5	-0.4
LZH				pP	pP	12 09 26.3	+1.1
LZH				sP	sP	12 09 28.6	+2.2
LZH				*e*PP	PP	12 13 04.6	+2.0
LZH				SKS		12 19 52.4	
LZH				*e*S	S	12 20 21.3	-5.2
LZH				sS	sS	12 20 29.1	-2.9
LZH				*e*SS	SS	12 26 34.5	-2.4
LZH				pmax	pmax		
	comp=Z,15nm,1.5s,mb5.2						
LZH				pmax	pmax		
	comp=Z,85nm,9.3s						
LZH				LR	LR		
	comp=E,330nm,17.0s						
LZH				LR	LR		
	comp=Z,460nm,19.8s,MS4.9						
CN2	Changchun	93.20	18	*e*P	P	12 09 22.4	-2.0
XAN	Xi’an	96.57	34	P	P	12 09 38.8	-1.2
XAN				pP	pP	12 09 42.3	-1.1
XAN				sP	sP	12 09 43.6	-1.0
XAN				PP	PP	12 13 31.5	-1.8
XAN				S	S	12 20 58.0	-3.1
XAN				sS	sS	12 21 03.8	-2.8
XAN				SS	SS	12 27 30.9	-2.3
XAN				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.7						
XAN				pmax	pmax		
	comp=Z,160nm,9.4s						
XAN				LR	LR		
	comp=N,120nm,20.3s,MS4.6						
XAN				LR	LR		
	comp=E,170nm,21.6s,MS4.6						
XAN				LR	LR		
	comp=Z,170nm,22.5s,MS4.5						
CD2	Chengdu	96.86	39	P	P	12 09 41.0	-0.4
CD2				pP	pP	12 09 45.8	+1.1
CD2				sP	sP	12 09 47.0	+1.1
CD2				PP	PP	12 13 37.6	+1.9
CD2				SKS		12 20 16.0	
CD2				S	S	12 20 58.3	-5.3
CD2				sS	sS	12 21 05.9	-3.3
CD2				SS	SS	12 27 35.4	-2.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.5						
CD2				pmax	pmax		
	comp=Z,110nm,4.8s						
CD2				LR	LR		
	comp=N,300nm,4.8s						
CD2				LR	LR		
	comp=Z,330nm,7.7s						
KMI	Kunming	101.08	43	P	Pdif	12 10 01.1	+0.9
KMI				pmax	pmax		
	comp=Z,14nm,1.3s						
GYA	Guiyang	101.96	39	P	Pdif	12 10 03.6	-0.5
GYA				PP	PP	12 14 16.8	+2.2
GYA				SKS		12 20 41.6	
GYA				S	Sdif	12 21 46.5	+0.1
GYA				SS	SS	12 28 46.3	-2.8
GYA				pmax	pmax		
	comp=Z,20nm,1.0s						
GYA				pmax	pmax		
	comp=Z,120nm,5.0s						
GYA				LR	LR		
	comp=N,480nm,20.2s,MS5.1						
GYA				LR	LR		
	comp=E,450nm,21.3s,MS5.1						
GYA				LR	LR		
	comp=Z,470nm,20.9s,MS5.0						
NJ2	Nanjing	102.18	27	*e*P	Pdif	12 10 06.8	+1.8
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
QSPA	South Pole Qui	130.25	180	PKP	PKPdf	12 15 20.1	+1.2
	comp=Z,6.7nm,1.1s,baz=286,slow=3.9,SNR=5.9						
QSPA	South Pole Qui	130.25	180	*e*PKPdf	PKPdf	12 15 21.8	+2.9
QSPA	South Pole Qui	130.25	180	*e*PKIKP	PKPdf	12 15 21.8	+2.9
ASAR	Alice Springs	158.20	45	PKP2	PKPab	12 16 39.1	-2.2
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	Alice Springs	158.20	45	PKPab	PKPab	12 16 39.1	-2.2
	comp=Z,0.9nm,0.9s,baz=324,slow=5.3,SNR=4.5						

CASC 23 11:58:09.3±1.4, 7°.44N×82°.85W, h16km±5km, MD4.0, 1D, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	Cerro Adams	1.25	345	*e*P	Pn	11 58 30.7	-1.4
BRU2	Volcan	1.36	7	⇓*i*P	Pn	11 58 33.3	-0.3
BRU2				*e*S	Sn	11 58 52.1	+0.9
BAR1		1.85	346	*e*P	Pn	11 58 40.2	-0.2
BAR1				*e*S	Sn	11 59 03.2	-0.3
CNI	Changuinola	1.99	9	*e*P	Pn	11 58 42.6	+0.2
CNI				*e*S	Sn	11 59 07.5	+0.5
BUS	Buena Vista	2.29	337	*e*P	Pn	11 58 47.1	+0.8
BUS				*e*S	Sn	11 59 16.8	+2.6
LCR2	La Lucha 2	2.56	334	*e*P	Pn	11 58 50.6	+0.5
LCR2				*e*S	Sn	11 59 21.8	+0.8
PRS1	Puriscal	2.92	330	*e*P	Pn	11 58 53.5	-1.5
BCIP	Isla Barro Col	3.44	60	*e*P	Pn	11 59 02.8	+0.6
BCIP				*e*S	Sn	11 59 42.5	-0.1
UPIG		3.62	65	*e*P	Pn	11 59 04.2	-0.6
UPIG				*e*S	Sn	11 59 48.4	+1.2

ISCJB ***23*** *11:58:50.2±0.4, 40°.37N±0°.03×29°.52W±0°.07, h10km, mb4.4/60, MS3.9/7, Error ellipse: s-maj=7.3km s-min=3.6km az=167.7*

CSEM ***23*** *11:58:50.8±0.3, 40°.33N×29°.62W, h10km, mb4.7/45, Ms3.7, Error ellipse: s-maj=12.3km s-min=6.3km az=77.0*

IDC ***23*** *11:58:50.9±0.7, 40°.59N×29°.36W, h0km, mb3.9/11, mb1 4.0/12, mb1mx3.9/25, mbtmp3.9/12, ML4.5/1, Error ellipse: s-maj=22.8km s-min=14.8km az=163.0*

NEIC ***23*** *11:58:51.6±0.7, 40°.33N×29°.54W, h10km, mb4.7/40, Error ellipse: s-maj=16.1km s-min=10.0km az=190.0*

INMG ***23*** *11:58:52.0, 40°.60N×29°.50W, h5km, ML3.8*

PDA ***23*** *11:58:53.6±1.2, 40°.62N×29°.25W, h5km, MD4.0, ML3.7, Error ellipse: s-maj=12.3km s-min=6.3km az=92.0*

MOS ***23*** *11:58:55.7±1.2, 40°.65N×29°.45W, h39km, mb4.7/42, Error ellipse: s-maj=13.1km s-min=5.7km az=142.2*

ISC 23 11:58:51.7±0.4, 40°.32N±0°.03×29°.51W±0°.07, h10km, n246, σ1s.30/254, mb4.4/60, MS3.9/7, 3C-1D, Azores Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	Cedros	1.81	159	*e*P	Pn	11 59 24.2	+1.3
PCED				*e*S	Sn	11 59 46.0	+0.2
PCED				A		11 59 47.9	
	274nm,0.3s						
PCED	Cedros	1.81	159	*e*P	Pn	11 59 24.2	+1.3
PCED				*e*S	Sn	11 59 46.0	+0.2
CALA	Caldeira	1.85	160	*e*P	Pn	11 59 24.7	+1.2
CALA				*e*S	Sn	11 59 47.1	+0.2
CALA	Caldeira	1.85	160	*e*P	Pn	11 59 24.7	+1.2
CALA				*e*S	Sn	11 59 47.1	+0.2
ROSA	Rosais	1.88	148	*e*P	Pn	11 59 23.7	-0.2
ROSA				*e*S	Sn	11 59 46.8	-0.9
ROSA	Rosais	1.88	148	*e*P	Pn	11 59 23.7	-0.2
ROSA				*e*S	Sn	11 59 46.8	-0.9
PICO	Pico	2.01	155	*e*P	Pn	11 59 26.6	+1.0
PICO				*e*S	Sn	11 59 51.2	+0.4
PICO	Pico	2.01	155	*e*P	Pn	11 59 26.6	+1.0
PICO				*e*S	Sn	11 59 51.2	+0.4
PMAN	Manadas	2.02	146	*e*P	Pn	11 59 25.4	-0.4
PMAN				*e*S	Sn	11 59 50.2	-0.8
PMAN				A		11 59 52.0	
	86nm,0.2s						
PMAN	Manadas	2.02	146	*e*P	Pn	11 59 25.4	-0.4
PMAN				*e*S	Sn	11 59 50.2	-0.8
PID	Ribeirinha	2.17	150	*e*P	Pn	11 59 28.4	+0.5
PID	Ribeirinha	2.17	150	*e*P	Pn	11 59 28.4	+0.5
ADH	Angra Heroismo	2.43	133	*e*P	Pn	11 59 30.1	-1.3
ADH	Angra Heroismo	2.43	133	*e*P	Pn	11 59 30.1	-1.3
PDA	Ponta Delgada	3.95	129	*e*P	Pn	11 59 50.9	-1.5
PDA	Ponta Delgada	3.95	129	*e*P	Pn	11 59 50.9	-1.5
CMLA	Cha da Macela	4.02	128	*e*P	Pn	11 59 52.3	-1.1
CMLA				*e*S	Sn	12 00 36.0	-4.5
CMLA				A		12 00 40.6	
	27nm,0.5s						
CMLA	Cha da Macela	4.02	128	*i* P	Pn	11 59 58.4	+5.0
CMLA	Cha da Macela	4.02	128	*e*Pn	Pn	11 59 52.4	-1.0
CMLA	Cha da Macela	4.02	128	*e*Pn	Pn	11 59 52.4	-1.0
PSMA	Santa Maria	4.78	133	*e*P	Pn	12 00 03.1	-0.6
PSMN	Pico do Norte,	4.81	132	*e*P	Pn	12 00 02.5	-1.7
PSMN	Pico do Norte,	4.81	132	*e*P	Pn	12 00 02.5	-1.7
PVRL	Vila Real	16.53	80	*e*P	Pn	12 02 50.8	+7.2
	26nm,1.4s						
PVRL	Vila Real	16.53	80	*e*P	Pn	12 02 50.8	+7.2
	26nm,1.4s						
EVOP	Sao Brissos	16.62	89	*e*P	Pn	12 02 47.5	+2.7
	36nm,1.3s						
EVO	Evora	16.71	89	*e*P	Pn	12 02 47.5	+1.7
	73nm,1.3s						
EVO				*e*MLR	MLR		
	comp=Z,1μm,22.0s						
MTE	Manteigas	16.75	83	*e*P	Pn	12 02 53.3	+7.0
	comp=Z,53nm,1.5s						
MTE	Manteigas	16.75	83	*e*P	Pn	12 02 53.3	+7.0
	comp=Z,53nm,1.5s						
PMRV	Marv??o	17.00	86	*e*P	Pn	12 02 55.7	+6.1
	comp=Z,56nm,1.6s						
PMRV	Marv??o	17.00	86	*e*P	Pn	12 02 55.7	+6.1
	comp=Z,56nm,1.6s						
ESDC	Sonseca Array	19.57	84	P	Pn	12 03 19.0	-2.0
	comp=Z,0.3nm,0.3s,baz=295,slow=12,SNR=4.6						
ESDC	Sonseca Array	19.57	84	P	Pn	12 03 19.0	-2.0
ESDC	Sonseca Array	19.57	84	P	Pn	12 03 19.0	-2.0
QUIF	Quistinic	20.31	59	*e*P	P	12 03 28.7	+1.0
	comp=Z,115nm,1.4s						
QUIF	Quistinic	20.31	59	*e*P	P	12 03 28.7	+1.0
QUIF				pmax	pmax		
	comp=Z,58nm,1.4s						
QUIF	Quistinic	20.31	59	*e*P	P	12 03 28.7	+1.0
	comp=Z,58nm,1.4s						
QUIF	Quistinic	20.31	59	*e*P	P	12 03 28.7	+1.0
	comp=Z,58nm,1.4s						
ROSF	Rostrenen	20.34	58	*e*P	P	12 03 29.9	+1.9
	comp=Z,233nm,1.8s						
ROSF	Rostrenen	20.34	58	*e*P	P	12 03 29.9	+1.9
ROSF				pmax	pmax		
	comp=Z,116nm,1.8s						
ROSF	Rostrenen	20.34	58	*e*P	P	12 03 29.9	+1.9
	comp=Z,116nm,1.8s						
ROSF	Rostrenen	20.34	58	*e*P	P	12 03 29.9	+1.9
	comp=Z,116nm,1.8s						
SGMF	Saint Gilles	20.79	59	*e*P	P	12 03 33.8	+1.0
	comp=Z,127nm,1.5s						
SGMF	Saint Gilles	20.79	59	*e*P	P	12 03 33.8	+1.0
SGMF				pmax	pmax		
	comp=Z,63nm,1.5s						
SGMF	Saint Gilles	20.79	59	*e*P	P	12 03 33.8	+1.0
	comp=Z,63nm,1.5s						
SGMF	Saint Gilles	20.79	59	*e*P	P	12 03 33.8	+1.0
	comp=Z,63nm,1.5s						
SJPF	Ste Jean	21.26	73	*e*P	P	12 03 39.2	+1.2
	comp=Z,65nm,1.3s,mb4.5						
SJPF	Ste Jean	21.26	73	*e*P	P	12 03 39.2	+1.2
SJPF				pmax	pmax		
	comp=Z,32nm,1.3s,mb4.5						
SJPF	Ste Jean	21.26	73	*e*P	P	12 03 39.2	+1.2
	comp=Z,32nm,1.3s,mb4.5						
SJPF	Ste Jean	21.26	73	*e*P	P	12 03 39.2	+1.2
	comp=Z,32nm,1.3s,mb4.5						
MDT	Midelt	21.31	103	P	P	12 03 36.4	-2.2
	comp=Z,4.9nm,0.8s,mb3.9,baz=266,slow=9.9,SNR=4.4						
MDT	Midelt	21.31	103	P	P	12 03 36.4	-2.2
ETSF	Etsaut	21.76	74	*e*P	P	12 03 44.5	+1.2
	comp=Z,32nm,1.4s,mb4.3						
ETSF	Etsaut	21.76	74	*e*P	P	12 03 44.5	+1.2
ETSF				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.3						
ETSF	Etsaut	21.76	74	*e*P	P	12 03 44.5	+1.2
	comp=Z,16nm,1.4s,mb4.2						
ETSF	Etsaut	21.76	74	*e*P	P	12 03 44.5	+1.2
	comp=Z,16nm,1.4s,mb4.3						
GRR	Gorron	21.92	59	*e*P	P	12 03 45.4	+0.4
	comp=Z,95nm,1.3s,mb4.8						
GRR	Gorron	21.92	59	*e*P	P	12 03 45.4	+0.4
GRR				pmax	pmax		
	comp=Z,47nm,1.3s,mb4.8						
GRR	Gorron	21.92	59	*e*P	P	12 03 45.4	+0.4
	comp=Z,47nm,1.3s,mb4.8						
GRR	Gorron	21.92	59	*e*P	P	12 03 45.4	+0.4
	comp=Z,47nm,1.3s,mb4.8						
MFF	Saint Martin d	22.14	64	*e*P	P	12 03 48.9	+1.5
	comp=Z,52nm,1.4s,mb4.5						
MFF	Saint Martin d	22.14	64	*e*P	P	12 03 48.9	+1.5
MFF				pmax	pmax		
	comp=Z,26nm,1.4s,mb4.5						
MFF	Saint Martin d	22.14	64	*e*P	P	12 03 48.9	+1.5
	comp=Z,26nm,1.4s,mb4.5						
MFF	Saint Martin d	22.14	64	*e*P	P	12 03 48.9	+1.5
	comp=Z,26nm,1.4s,mb4.5						
FLN	La Foliniere	22.24	58	*e*P	P	12 03 49.6	+1.2
	comp=Z,29nm,1.1s,mb4.3						
FLN				*e*MLR	MLR		
	comp=Z,398nm,19.8s,MS3.5						
FLN	La Foliniere	22.24	58	*e*P	P	12 03 49.6	+1.2
FLN				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.3						
FLN				MLR	MLR		
	comp=Z,400nm,19.8s,MS3.8						
FLN	La Foliniere	22.24	58	*e*P	P	12 03 49.6	+1.2
	comp=Z,14nm,1.1s,mb4.3						
FLN				LR	LR		
	comp=Z,400nm,19.8s,MS3.8						
FLN	La Foliniere	22.24	58	*e*P	P	12 03 49.6	+1.2
	comp=Z,14nm,1.1s,mb4.3						
EPF	Esparros	22.41	73	*e*P	P	12 03 51.0	+0.7
	comp=Z,42nm,1.2s,mb4.4						
EPF	Esparros	22.41	73	*e*P	P	12 03 51.0	+0.7
EPF				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.4						
EPF	Esparros	22.41	73	*e*P	P	12 03 51.0	+0.7
	comp=Z,21nm,1.2s,mb4.4						
EPF	Esparros	22.41	73	*e*P	P	12 03 51.0	+0.7
	comp=Z,21nm,1.2s,mb4.4						
LDF	La Druitiere	22.44	59	*e*P	P	12 03 50.6	0.0
	comp=Z,25nm,0.9s,mb4.3						
LDF	La Druitiere	22.44	59	*e*P	P	12 03 50.6	0.0
LDF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.4						
LDF	La Druitiere	22.44	59	*e*P	P	12 03 50.6	0.0
	comp=Z,13nm,0.9s,mb4.3						
LDF	La Druitiere	22.44	59	*e*P	P	12 03 50.6	0.0
	comp=Z,13nm,0.9s,mb4.3						
LFF	La Frestale	22.66	68	*e*P	P	12 03 51.0	-2.0
	comp=Z,28nm,0.9s,mb4.4						
LFF	La Frestale	22.66	68	*e*P	P	12 03 51.0	-2.0
LFF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.4						
LFF	La Frestale	22.66	68	*e*P	P	12 03 51.0	-2.0
	comp=Z,14nm,0.9s,mb4.4						
LFF	La Frestale	22.66	68	*e*P	P	12 03 51.0	-2.0
	comp=Z,14nm,0.9s,mb4.4						
RJF	Les Rejaudoux	23.22	67	*e*P	P	12 03 59.8	+1.0
RJF				*e*MLR	MLR		
	comp=Z,476nm,18.8s,MS3.7						
RJF	Les Rejaudoux	23.22	67	*e*P	P	12 03 59.8	+1.0
RJF				LR	LR		
	comp=Z,480nm,18.8s,MS4.0						
RJF	Les Rejaudoux	23.22	67	*e*P	P	12 03 59.8	+1.0
CAF	Calviac	23.60	68	*e*P	P	12 04 00.5	-2.3
	comp=Z,26nm,1.1s,mb4.3						
CAF	Calviac	23.60	68	*e*P	P	12 04 00.5	-2.3
CAF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.3						
CAF	Calviac	23.60	68	*e*P	P	12 04 00.5	-2.3
	comp=Z,13nm,1.1s,mb4.3						
CAF	Calviac	23.60	68	*e*P	P	12 04 00.5	-2.3
	comp=Z,13nm,1.1s,mb4.3						
TCF	Toulx Ste Croi	23.74	65	*e*P	P	12 04 03.6	-0.4
	comp=Z,131nm,1.7s,mb4.8						
TCF	Toulx Ste Croi	23.74	65	*e*P	P	12 04 03.6	-0.4
TCF				pmax	pmax		
	comp=Z,66nm,1.7s,mb4.8						
TCF	Toulx Ste Croi	23.74	65	*e*P	P	12 04 03.6	-0.4
	comp=Z,66nm,1.7s,mb4.8						
TCF	Toulx Ste Croi	23.74	65	*e*P	P	12 04 03.6	-0.4
	comp=Z,66nm,1.7s,mb4.8						
MTLF	Montolieu	23.76	72	*e*P	P	12 04 03.1	-1.2
	comp=Z,56nm,1.5s,mb4.5						
MTLF	Montolieu	23.76	72	*e*P	P	12 04 03.1	-1.2
MTLF				pmax	pmax		
	comp=Z,28nm,1.5s,mb4.5						
MTLF	Montolieu	23.76	72	*e*P	P	12 04 03.1	-1.2
	comp=Z,28nm,1.5s,mb4.5						
MTLF	Montolieu	23.76	72	*e*P	P	12 04 03.1	-1.2
	comp=Z,28nm,1.5s,mb4.5						
BGF	Bois d’Agland	24.20	64	*e*P	P	12 04 07.7	-0.5
	comp=Z,51nm,1.0s,mb4.6						
BGF	Bois d’Agland	24.20	64	*e*P	P	12 04 07.7	-0.5
BGF				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.6						
BGF	Bois d’Agland	24.20	64	*e*P	P	12 04 07.7	-0.5
	comp=Z,26nm,1.0s,mb4.6						
BGF	Bois d’Agland	24.20	64	*e*P	P	12 04 07.7	-0.5
	comp=Z,26nm,1.0s,mb4.6						
AVF	Avril sur Loir	24.56	64	*e*P	P	12 04 11.2	-0.3
	comp=Z,28nm,1.2s,mb4.4						
AVF	Avril sur Loir	24.56	64	*e*P	P	12 04 11.2	-0.3
AVF				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.4						
AVF	Avril sur Loir	24.56	64	*e*P	P	12 04 11.2	-0.3
	comp=Z,14nm,1.2s,mb4.4						
AVF	Avril sur Loir	24.56	64	*e*P	P	12 04 11.2	-0.3
	comp=Z,14nm,1.2s,mb4.4						
SSF	Saint Saulge	24.68	63	*e*P	P	12 04 12.4	-0.2
	comp=Z,36nm,1.2s,mb4.5						
SSF	Saint Saulge	24.68	63	*e*P	P	12 04 12.4	-0.2
SSF				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.5						
SSF	Saint Saulge	24.68	63	*e*P	P	12 04 12.4	-0.2
	comp=Z,18nm,1.2s,mb4.5						
SSF	Saint Saulge	24.68	63	*e*P	P	12 04 12.4	-0.2
	comp=Z,18nm,1.2s,mb4.5						
SMF	Signal de Mont	24.88	64	*e*P	P	12 04 13.5	-1.0
	comp=Z,66nm,1.4s,mb4.7						
SMF	Signal de Mont	24.88	64	*e*P	P	12 04 13.5	-1.0
SMF				pmax	pmax		
	comp=Z,33nm,1.4s,mb4.7						
SMF	Signal de Mont	24.88	64	*e*P	P	12 04 13.5	-1.0
	comp=Z,33nm,1.4s,mb4.7						
SMF	Signal de Mont	24.88	64	*e*P	P	12 04 13.5	-1.0
	comp=Z,33nm,1.4s,mb4.7						
LASF	Ste Croix	24.91	70	*e*P	P	12 04 16.2	+1.5
	comp=Z,150nm,1.9s,mb4.9						
LASF	Ste Croix	24.91	70	*e*P	P	12 04 16.2	+1.5
	comp=Z,75nm,1.9s,mb4.9						
BORG	Borgarnes	24.92	8	*i* P	P	12 04 13.7	-0.9
BORG	Borgarnes	24.92	8	*i* P	P	12 04 13.7	-0.9
LOR	Lormes	24.93	63	*e*P	P	12 04 14.7	-0.2
LOR				*e*MLR	MLR		
	comp=Z,364nm,18.6s,MS3.6						
LOR	Lormes	24.93	63	*e*P	P	12 04 14.7	-0.2
LOR				LR	LR		
	comp=Z,360nm,18.6s,MS3.9						
LOR	Lormes	24.93	63	*e*P	P	12 04 14.7	-0.2
VIVF	Saint-Julien-l	25.46	68	*e*P	P	12 04 20.8	+1.1
	comp=Z,89nm,1.6s,mb4.8						
VIVF	Saint-Julien-l	25.46	68	*e*P	P	12 04 20.8	+1.1
VIVF				pmax	pmax		
	comp=Z,45nm,1.5s,mb4.8						
VIVF	Saint-Julien-l	25.46	68	*e*P	P	12 04 20.8	+1.1
	comp=Z,44nm,1.5s,mb4.8						
VIVF	Saint-Julien-l	25.46	68	*e*P	P	12 04 20.8	+1.1
	comp=Z,44nm,1.6s,mb4.8						
BAIF	Baives	25.49	56	*e*P	P	12 04 18.5	-1.4
	comp=Z,107nm,1.6s,mb4.8						
BAIF	Baives	25.49	56	*e*P	P	12 04 18.5	-1.4
BAIF				pmax	pmax		
	comp=Z,53nm,1.6s,mb4.8						
BAIF	Baives	25.49	56	*e*P	P	12 04 18.5	-1.4
	comp=Z,54nm,1.6s,mb4.8						
BAIF	Baives	25.49	56	*e*P	P	12 04 18.5	-1.4
	comp=Z,54nm,1.6s,mb4.8						
SNF	Seneffe	25.61	55	P	P	12 04 19.9	-1.1
	comp=Z,17nm,1.6s,mb4.3						
DOU	Dourbes	25.74	56	P	P	12 04 24.9	+2.7
MEZF	Maizieres J’vi	25.83	60	*e*P	P	12 04 23.5	+0.4
	comp=Z,75nm,1.1s,mb4.8						
MEZF	Maizieres J’vi	25.83	60	*e*P	P	12 04 23.5	+0.4
	comp=Z,75nm,1.1s,mb5.1						
MEZF	Maizieres J’vi	25.83	60	*e*P	P	12 04 23.5	+0.4
	comp=Z,38nm,1.1s,mb4.8						
GIVF	Givet	25.89	56	*e*P	P	12 04 22.0	-1.5
	comp=Z,22nm,0.8s,mb4.4						
GIVF	Givet	25.89	56	*e*P	P	12 04 22.0	-1.5
GIVF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.4						
GIVF	Givet	25.89	56	*e*P	P	12 04 22.0	-1.5
	comp=Z,11nm,0.8s,mb4.4						
GIVF	Givet	25.89	56	*e*P	P	12 04 22.0	-1.5
	comp=Z,11nm,0.8s,mb4.4						
SMRF	Simiane la Rot	26.15	70	*e*P	P	12 04 28.0	+2.0
	comp=Z,45nm,1.3s,mb4.6						
SMRF	Simiane la Rot	26.15	70	*e*P	P	12 04 28.0	+2.0

	comp=Z,45nm,1.3s,mb4.8						
SMRF	Simiane la Rot	26.15	70	*e*P	P	12 04 28.0	+2.0
	comp=Z,23nm,1.3s,mb4.6						
BCLA	Clavier	26.24	56	P	P	12 04 24.9	-1.8
	comp=Z,11nm,1.2s,mb4.3						
BCLA	Clavier	26.24	56	P	P	12 04 24.9	-1.8
	comp=Z,11nm,1.2s,mb4.3						
ORIF	Oris-en-Rattie	26.31	68	*e*P	P	12 04 29.6	+2.2
	comp=Z,92nm,1.7s,mb4.7						
ORIF				*e*MLR	MLR		
	comp=Z,357nm,18.0s,MS3.6						
ORIF	Oris-en-Rattie	26.31	68	*e*P	P	12 04 29.6	+2.2
ORIF				pmax	pmax		
	comp=Z,46nm,1.7s,mb4.7						
ORIF	Oris-en-Rattie	26.31	68	*e*P	P	12 04 29.6	+2.2
	comp=Z,46nm,1.7s,mb4.7						
ORIF	Oris-en-Rattie	26.31	68	*e*P	P	12 04 29.6	+2.2
	comp=Z,46nm,1.7s,mb4.7						
HAU	Haudompre	26.66	61	*e*P	P	12 04 31.2	+0.7
	comp=Z,31nm,1.1s,mb4.5						
HAU				*e*MLR	MLR		
	comp=Z,506nm,22.5s,MS3.7						
HAU	Haudompre	26.66	61	*e*P	P	12 04 31.2	+0.7
HAU				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.5						
HAU				MLR	MLR		
	comp=Z,510nm,22.5s,MS4.0						
HAU	Haudompre	26.66	61	*e*P	P	12 04 31.2	+0.7
	comp=Z,16nm,1.1s,mb4.5						
HAU				LR	LR		
	comp=Z,510nm,22.5s,MS4.0						
HAU	Haudompre	26.66	61	*e*P	P	12 04 31.2	+0.7
	comp=Z,16nm,1.1s,mb4.5						
WLF	Walferdange	26.68	58	P	P	12 04 31.4	+0.7
WLF	Walferdange	26.68	58	P	P	12 04 31.3	+0.6
BNI	Bardonecchia	26.87	68	*e*P	P	12 04 32.4	-0.1
BNI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
BNI	Bardonecchia	26.87	68	*e*P	P	12 04 32.4	-0.1
	comp=Z,7.2nm,1.0s,mb4.2						
BNI	Bardonecchia	26.87	68	*e*P	P	12 04 32.4	-0.1
	comp=Z,7.2nm,1.0s,mb4.2						
LMR	La Mourre	26.88	72	*e*P	P	12 04 34.3	+1.7
	comp=Z,22nm,1.1s,mb4.3						
LMR	La Mourre	26.88	72	*e*P	P	12 04 34.3	+1.7
LMR				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.3						
LMR	La Mourre	26.88	72	*e*P	P	12 04 34.3	+1.7
	comp=Z,11nm,1.1s,mb4.3						
LMR	La Mourre	26.88	72	*e*P	P	12 04 34.3	+1.7
	comp=Z,11nm,1.1s,mb4.3						
LPL	La Plagne	26.89	67	*e*P	P	12 04 34.8	+2.1
LPL	La Plagne	26.89	67	*e*P	P	12 04 34.8	+2.1
MBDF	Montbardon	26.95	69	*e*P	P	12 04 34.1	+0.9
MBDF	Montbardon	26.95	69	*e*P	P	12 04 34.1	+0.9
FRF	La Foret Royal	26.96	71	*e*P	P	12 04 33.3	0.0
	comp=Z,37nm,1.3s,mb4.5						
FRF	La Foret Royal	26.96	71	*e*P	P	12 04 33.3	0.0
FRF				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.4						
FRF	La Foret Royal	26.96	71	*e*P	P	12 04 33.3	0.0
	comp=Z,18nm,1.3s,mb4.5						
FRF	La Foret Royal	26.96	71	*e*P	P	12 04 33.3	0.0
	comp=Z,18nm,1.3s,mb4.5						
HINF	Hinteralfeld	26.99	62	*e*P	P	12 04 34.8	+1.3
HINF	Hinteralfeld	26.99	62	*e*P	P	12 04 34.8	+1.3
ECH	Echery	27.21	61	*e*P	P	12 04 33.2	-2.3
ECH				pmax	pmax		
	comp=Z,45nm,1.6s,mb4.8						
ECH	Echery	27.21	61	*e*P	P	12 04 33.2	-2.3
	comp=Z,45nm,1.6s,mb4.8						
ECH	Echery	27.21	61	*e*P	P	12 04 33.2	-2.3
	comp=Z,45nm,1.6s,mb4.8						
CDF	Champ du Feu	27.30	60	*e*P	P	12 04 38.3	+2.0
	comp=Z,72nm,1.5s,mb4.7						
CDF	Champ du Feu	27.30	60	*e*P	P	12 04 38.3	+2.0
CDF				pmax	pmax		
	comp=Z,36nm,1.5s,mb4.7						
CDF	Champ du Feu	27.30	60	*e*P	P	12 04 38.3	+2.0
	comp=Z,36nm,1.5s,mb4.7						
CDF	Champ du Feu	27.30	60	*e*P	P	12 04 38.3	+2.0
	comp=Z,36nm,1.5s,mb4.7						
SBF	Sospel	27.50	70	*e*P	P	12 04 39.2	+1.1
	comp=Z,24nm,1.0s,mb4.4						
SBF	Sospel	27.50	70	*e*P	P	12 04 39.2	+1.1
SBF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.4						
SBF	Sospel	27.50	70	*e*P	P	12 04 39.2	+1.1
	comp=Z,12nm,1.0s,mb4.4						
SBF	Sospel	27.50	70	*e*P	P	12 04 39.2	+1.1
	comp=Z,12nm,1.0s,mb4.4						
BFO	Black Forest	28.00	61	*e*P	P	12 04 45.0	+2.4
BFO				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.4						
BFO	Black Forest	28.00	61	*e*P	P	12 04 45.0	+2.4
	comp=Z,14nm,1.2s,mb4.5						
GERES	GERESS Array B	31.57	60	P	P	12 05 12.8	-1.4
	comp=Z,0.2nm,0.4s,baz=269,slow=5.6,SNR=1.9						
GERES	GERESS Array B	31.57	60	P	P	12 05 12.8	-1.4
CUC	Castrocucco	34.36	76	*e*P	P	12 05 38.9	+0.2
	comp=Z,2.6nm,0.6s,mb4.3						
CUC	Castrocucco	34.36	76	*e*P	P	12 05 38.9	+0.3
	comp=Z,2.6nm,0.6s,mb4.3						
TORD	Torodi Ar. Bea	38.49	126	P	P	12 06 15.3	+1.1
	comp=Z,2.8nm,0.9s,mb4.0,baz=319,slow=7.7,SNR=7.8						
TORD	Torodi Ar. Bea	38.49	126	P	P	12 06 15.3	+1.1
ARCES	ARCESS Array B	40.75	26	P	P	12 06 30.1	-2.3
	comp=Z,3.6nm,1.0s,mb4.0,baz=288,slow=9.0,SNR=2.8						
ARCES	ARCESS Array B	40.75	26	P	P	12 06 30.1	-2.3
AKASG	Malin Array Be	41.43	55	P	P	12 06 35.9	-2.3
	comp=Z,0.8nm,0.5s,mb3.6,baz=277,slow=8.7,SNR=3.4						
AKASG	Malin Array Be	41.43	55	P	P	12 06 35.9	-2.3
KIS	Kishinev	41.87	61	*e*UNK		12 05 36.0	
RES	Resolute Bay	45.09	340	P	P	12 07 07.0	-0.5
	comp=Z,1.0nm,0.7s,mb3.7,baz=111,slow=9.4,SNR=4.2						
RES	Resolute Bay	45.09	340	P	P	12 07 07.0	-0.5
RES	Resolute Bay	45.09	340	P	P	12 07 07.0	-0.5
OBN	Obninsk	45.12	48⇓	*e*P	P	12 07 06.2	-1.7
OBN				*e*		12 08 46.3	
OBN				*e*S	S	12 13 43.9	-3.0
OBN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.6						
OBN				MLR	MLR		
	comp=Z,300nm,15.0s,MS4.3						
OBN	Obninsk	45.12	48	*e*P	P	12 07 06.2	-1.7
	comp=Z,11nm,1.0s,mb4.6						
OBN	Obninsk	45.12	48	*e*PcP	PcP	12 08 46.3	-2.0
	comp=Z,300nm,15.0s						
KLMR	Klimovskoe	45.90	40	*e*P	P	12 07 15.9	+1.9
KLMR				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
KLMR	Klimovskoe	45.90	40	*e*P	P	12 07 15.9	+1.9
	comp=Z,16nm,1.4s,mb4.8						
BRTR	Keskin Array B	47.42	69	P	P	12 07 26.5	+0.2
	comp=Z,2.3nm,0.9s,mb4.1						
BRTR	Keskin Array B	47.42	69	P	P	12 07 26.5	+0.2
PRGR	Permogore	48.70	38	P	P	12 07 33.3	-2.6
PRGR				pmax	pmax		
	comp=Z,68nm,1.2s,mb5.5						
PRGR	Permogore	48.70	38	P	P	12 07 33.3	-2.6
	comp=Z,68nm,1.2s,mb5.5						
ECSD	EROS Data Cent	48.73	297	*e*P	P	12 07 36.5	+0.2
	comp=Z,6.0nm,1.0s,mb4.6						
ECSD	EROS Data Cent	48.73	297	*e*P	P	12 07 36.5	+0.2
	comp=Z,6.0nm,1.0s,mb4.6						
FFC	Flin Flon	48.80	313	*i* P	P	12 07 38.8	+2.1
KIV	Kislovodsk	52.08	61⇑	*e*P	P	12 07 59.9	-1.7
KIV				*e*		12 09 56.5	
KIV				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
KIV				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.9						
KIV	Kislovodsk	52.08	61	*e*P	P	12 07 59.9	-1.7
	comp=Z,6.0nm,1.2s,mb4.4						
YKA	Yellowknife Ar	53.04	325	P	P	12 08 08.0	-0.5
	comp=Z,0.7nm,0.7s,mb3.7,baz=69,slow=7.3,SNR=6.3						
YKA	Yellowknife Ar	53.04	325	P	P	12 08 08.0	-0.5
ARU	Arti	56.62	42*c*	*i*P	P	12 08 33.2	-1.3
ARU				*e*		12 10 37.7	
ARU				S	S	12 16 22.9	-3.3
ARU				SS	SS	12 20 05.0	-8.1
ARU				pmax	pmax		
	comp=Z,19nm,1.7s,mb4.8						
ARU	Arti	56.62	42	*e*P	P	12 08 33.6	-0.9
	comp=Z,31nm,1.5s,mb5.1						
ARU	Arti	56.62	42	*e*P	P	12 08 33.6	-0.9
	comp=Z,31nm,1.5s,mb5.1						
PDAR	Pinedale Array	57.76	301	P	P	12 08 43.1	+0.3
	comp=Z,0.9nm,0.9s,mb3.8,baz=72,slow=9.5,SNR=4.9						
TXAR	Lajitas Array	60.23	285	P	P	12 09 02.0	+1.8
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	60.23	285	P	P	12 09 02.0	+1.9
	comp=Z,1.1nm,0.6s,mb4.0,baz=79,slow=6.7,SNR=12						
BRVK	Borovoye	64.19	41	*e*P	P	12 09 25.9	-0.4
BRVK				pmax	pmax		
	comp=Z,22nm,1.8s,mb4.9						
BRVK	Borovoye	64.19	41	*e*P	P	12 09 25.9	-0.4
	comp=Z,22nm,1.8s,mb4.9						
BRVK	Borovoye	64.19	41	*e*P	P	12 09 25.9	-0.4
	comp=Z,22nm,1.8s,mb4.9						
TIXI	Tiksi	67.28	7	*e*P	P	12 09 45.4	-0.5
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
TIXI	Tiksi	67.28	7	*e*P	P	12 09 45.4	-0.6
	comp=Z,5.3nm,1.0s,mb4.5						
TIXI	Tiksi	67.28	7	*e*P	P	12 09 45.4	-0.5
	comp=Z,5.2nm,1.0s,mb4.5						
ZAA0	Zalesovo Array	70.51	35	*e*P	P	12 10 02.4	-3.9
ZALV	Zalesovo Beam	70.51	35	P	P	12 10 02.0	-4.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=348,slow=14,SNR=4.2						
AML	Almayashu	72.49	49	*e*P	P	12 10 19.2	+0.7
	comp=Z,17nm,1.3s,mb4.8						
AML	Almayashu	72.49	49	*e*P	P	12 10 19.2	+0.7
	comp=Z,17nm,1.3s,mb4.8						
AAK	Ala-Archa	72.64	49⇑	*e*P	P	12 10 20.1	+0.7
AAK				pmax	pmax		
	comp=Z,7.0nm,1.6s,mb4.3						
AAK	Ala-Archa	72.64	49	*e*P	P	12 10 18.0	-1.3
	comp=Z,24nm,1.6s,mb4.9						
AAK	Ala-Archa	72.64	49	*e*P	P	12 10 18.0	-1.4
	comp=Z,24nm,1.6s,mb4.9						
MKAR	Makanchi Array	74.14	42	P	P	12 10 27.4	-0.7
	comp=Z,1.9nm,0.8s,mb4.1,baz=316,slow=5.7,SNR=15						
MKAR	Makanchi Array	74.14	42	P	P	12 10 27.4	-0.7
KSH	Kashi	75.49	50	P	P	12 10 37.1	+1.0
KSH				*e*pP	pP	12 10 41.6	+2.2
KSH				*e*sP	sP	12 10 44.3	+3.7
KSH				*e*PcP	PcP	12 10 51.0	+1.9
KSH				*e*PP	PP	12 13 27.3	+2.6
KSH				*e*S	S	12 20 13.8	-2.6
KSH				*e*sS	sS	12 20 22.1	+0.3
KSH				*e*SKS		12 20 41.3	
KSH				*e*ScS	ScS	12 20 46.4	-3.1
KSH				*e*SS	SS	12 25 06.0	-0.1
KSH				pmax	pmax		
	comp=Z,170nm,3.7s						
KSH				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
KSH				LR	LR		
	comp=N,430nm,9.6s						
KSH				LR	LR		
	comp=E,260nm,3.7s						
KSH				LR	LR		
	comp=Z,230nm,7.3s						
BOD	Bodaibo	77.56	19	*e*P	P	12 10 45.8	-1.6
BOD				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.2						
BOD	Bodaibo	77.56	19	*e*P	P	12 10 45.8	-1.6
	comp=Z,6.0nm,1.7s,mb4.2						
TLY	Talaya	79.70	27	*e*P	P	12 10 59.2	-0.2
TLY				pmax	pmax		
	comp=Z,6.0nm,1.9s,mb4.2						
TLY	Talaya	79.70	27	*e*P	P	12 10 59.2	-0.2
	comp=Z,6.0nm,1.9s,mb4.2						
ZAK	Zakamensk	80.64	28	*e*P	P	12 11 02.9	-1.6
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.8s,mb3.9						
ZAK	Zakamensk	80.64	28	*e*P	P	12 11 02.9	-1.6
	comp=Z,3.0nm,1.8s,mb3.9						
SONM	Songino Array	83.90	28	P	P	12 11 20.8	-0.8
	comp=Z,1.1nm,0.8s,mb4.0,baz=328,slow=5.6,SNR=5.6						
SONM	Songino Array	83.90	28	P	P	12 11 20.8	-0.8
ULN	Ulaanbaatar	84.11	28	*e*P	P	12 11 22.3	-0.3
ULN				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.5						
ULN	Ulaanbaatar	84.11	28	*e*P	P	12 11 22.3	-0.4
	comp=Z,4.9nm,1.3s,mb4.5						
ULN	Ulaanbaatar	84.11	28	*e*P	P	12 11 22.3	-0.3
	comp=Z,4.8nm,1.3s,mb4.5						
QSPA	South Pole Qui	130.21	180	PKP	PKPdf	12 18 02.3	+1.7
	comp=Z,4.6nm,1.1s,baz=160,slow=1.7,SNR=3.6						
QSPA	South Pole Qui	130.21	180	PKIKP	PKPdf	12 18 02.3	+1.7
ASAR	Alice Springs	158.30	45	PKPab	PKPab	12 19 22.3	-1.2
	comp=Z,0.3nm,0.9s,baz=336,slow=4.4,SNR=4.4						

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*ISCJB **23** 12:28:57.6±3.9, 21°.13S±0°.09×175°.67W±0°.10, h17^{km}±29^{km}, mb4.4/15, Error ellipse: s-maj=19.1km s-min=10.6km az=137.3*

*IDC **23** 12:29:01.9±3.6, 21°.17S×175°.70W, h40^{km}±32^{km}, mb4.1/11, mb1 4.3/14, mb1mx4.2/22, mbtmp4.2/14, ML4.6/2, Error ellipse: s-maj=29.9km s-min=15.1km az=144.0*

*NEIC **23** 12:29:02.2±1.4, 21°.17S×175°.64W, h45^{km}±13^{km}, mb4.3/3, Error ellipse: s-maj=13.6km s-min=8.8km az=136.0*

ISC 23 12:29:01.6±3.9**, 21°.15S**±0°.09×**175°.63W**±0°.10**, h34**^{km}±29^{km}**, n37, σ0^{s}.88**/37**, mb4.4**/15**, 3C, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	8.08	28	Pn	Pn	12 30 57.4	+0.9
	3.1nm,0.3s,baz=41,slow=21,SNR=6.1						
AFI				Sn	Sn	12 32 20.5	-6.2
	4.1nm,0.3s,baz=54,slow=19,SNR=3.5						
AFI	Afiamalu	8.08	28	*e*Pn	Pn	12 30 57.5	+0.9
AFI				Sn	Sn	12 32 20.5	-6.2
AFI				*e*Sn	Sn	12 32 25.1	-1.7
RAR	Rarotonga	14.79	93	Pn	Pn	12 32 27.9	-0.5
	1.8nm,0.3s,baz=270,slow=12,SNR=3.6						
RAR				Sn	Sn	12 34 57.8	-13
	2.9nm,0.3s,baz=112,slow=16,SNR=3.8						
RAR				T		12 47 13.1	
	32nm,0.3s,baz=349,slow=24,SNR=9.6						
RAR	Rarotonga	14.79	93	Pn	Pn	12 32 27.9	-0.5
RAR				Sn	Sn	12 34 57.9	-13
DZM	Mont Dzumac	16.70	264	*e*Pn	Pn	12 33 02.4	+9.3
	22nm,0.9s						
URZ	Urewera	18.17	199	P	Pn	12 33 10.3	-0.9
	3.1nm,0.3s,baz=322,slow=9.5,SNR=17						
URZ				S	Sn	12 36 18.0	-15
	0.9nm,0.3s,baz=290,slow=19,SNR=5.2						
URZ	Urewera	18.17	199	*e*P	Pn	12 33 10.7	-0.5
URZ				S	Sn	12 36 18.0	-15
RPZ	Rata Peaks	25.09	203	P	P	12 34 22.2	-0.8
	25nm,0.9s,mb4.7,baz=335,slow=17,SNR=4.3						
ARMA	Armidale	30.81	246	*e*P	P	12 35 16.1	+1.8
CNB	Canberra Magne	33.73	238	*e*P	P	12 35 41.4	+1.5
CTA	Charters Tower	35.64	265⇑	*i*P	P	12 35 57.3	+0.7
	2.5nm,0.6s,mb4.3						
CTA	Charters Tower	35.64	265	P	P	12 35 56.2	-0.3
	3.3nm,0.5s,mb4.5,baz=92,slow=9.4,SNR=8.7						
CTA	Charters Tower	35.64	265	P	P	12 35 56.2	-0.3
CTAO	Charters Tower	35.64	265	*e*P	P	12 35 57.4	+0.9
	3.3nm,0.6s,mb4.4						
TOO	Toolangi	37.33	235	*e*P	P	12 36 10.6	-0.2
STKA	Stephens Creek	39.52	245⇑	*i*P	P	12 36 29.0	-0.3
	3.2nm,0.7s,mb4.2						
STKA	Stephens Creek	39.52	245	P	P	12 36 28.7	-0.6
	3.6nm,0.6s,mb4.3,baz=81,slow=9.6,SNR=9.7						
ASAR	Alice Springs	46.54	257	P	P	12 37 25.3	-0.9
	5.7nm,0.7s,mb4.6,baz=92,slow=8.1,SNR=47						
WRA	Warramunga Arr	46.71	262	P	P	12 37 26.1	-1.5
	1.6nm,0.6s,mb4.1,baz=98,slow=5.0,SNR=10.0						
KAKA	Kakadu	50.21	271	*e*P	P	12 37 54.4	-0.2
	3.4nm,0.3s,mb4.8						
FORT	Forrest	51.08	247	*e*P	P	12 38 00.8	-0.2
	23nm,0.7s,mb5.2						
FITZ	Fitzroy Crossi	55.14	262	*e*P	P	12 38 32.2	+1.1
	6.2nm,1.2s,mb4.5						
QSPA	South Pole Qui	68.93	180	*e*P	P	12 40 03.4	+0.7
	1.9nm,0.7s,mb4.1						
MJAR	Matsushiro Arr	72.06	322	P	P	12 40 21.4	-1.0
	1.8nm,0.7s,mb4.1,baz=156,slow=3.3,SNR=3.9						
PETK	Petropavlovsk-	77.48	344	P	P	12 40 53.1	-0.2
	3.8nm,0.9s,mb4.3,baz=126,slow=8.7,SNR=6.3						
NVAR	Mina Array Bea	79.99	42	P	P	12 41 08.4	+1.0
	3.5nm,1.0s,mb4.2,baz=221,slow=9.1,SNR=16						
TXAR	Lajitas Array	85.55	56	P	P	12 41 37.2	+0.7
	1.3nm,0.9s,mb4.2,baz=209,slow=9.2,SNR=11						
PDAR	Pinedale Array	87.92	42	P	P	12 41 47.8	0.0
	0.7nm,0.8s,mb3.9,baz=257,slow=4.0,SNR=6.7						
YKA	Yellowknife Ar	96.18	24	P	P	12 42 24.9	-0.6
	0.6nm,0.9s,mb4.0,baz=240,slow=4.5,SNR=13						
YKA	Yellowknife Ar	96.18	24	P	P	12 42 24.9	-0.7
ARCES	ARCESS Array B	129.94	350	PKP	PKPdf	12 48 05.5	-1.4
	1.4nm,0.7s,baz=344,slow=2.9,SNR=3.6						
AKASG	Malin Array Be	144.63	333	PKP	PKPdf	12 48 31.3	-3.1
	1.4nm,0.4s,baz=32,slow=3.3,SNR=6.3						
EKA	Eskdalemuir Ar	145.40	8	PKPbc	PKPbc	12 48 34.7	-0.9
	0.5nm,0.4s,baz=337,slow=3.1,SNR=3.4						
BRTR	Keskin Array B	148.91	313	PKPbc	PKPbc	12 48 45.2	-0.8
CLL	Collm	149.15	349	*e*PKPbc	PKPbc	12 48 46.0	-0.2
CLL				*e*PKPab	PKPab	12 48 50.0	-0.6
KHC	Kasperske Hory	151.12	347⇑	*e*PKP	PKPbc	12 48 50.5	-0.6
GERES	GERESS Array B	151.37	347	PKPbc	PKPbc	12 48 51.2	-0.5
	0.8nm,0.9s,baz=3.8,slow=2.9,SNR=2.6						

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*INMG **23** 12:35:26.0, 40°.70N×29°.10W, h5^{km}, ML4.3*

*IDC **23** 12:35:29.7±0.4, 40°.67N×29°.41W, h0^{km}, mb4.5/30, mb1 4.6/31, mb1mx4.6/35, mbtmp4.5/31, MS4.5/40, Ms1 4.5/40, ms1mx4.5/42, Error ellipse: s-maj=13.3km s-min=9.7km az=168.0*

*ISCJB **23** 12:35:30.0±0.1, 40°.60N±0°.02×29°.32W±0°.01, h10^{km}, mb5.0/263, MS4.7/193, Error ellipse: s-maj=3.6km s-min=1.6km az=4.7*

*CSEM **23** 12:35:30.1±0.1, 40°.57N×29°.34W, h2^{km}, mb5.2/99, Ms4.4, Mw5.1, Error ellipse: s-maj=4.4km s-min=2.1km az=5.0*

*BJI **23** 12:35:30.5, 41°.26N×29°.93W, h10^{km}, mB5.6/19, mb5.2/28, Ms5.3/18, Ms7 5.0/19*

*NEIC **23** 12:35:31.9±0.1, 40°.68N×29°.34W, h10^{km}, mb5.2/209, MS4.7/146, Error ellipse: s-maj=5.1km s-min=1.7km az=181.0*

*SZGRF **23** 12:35:31.2, 40°.65N×29°.93W, h33^{km}, mb5.1, MS4.8, Azores Islands region*

*GCMT **23** 12:35:32.0±0.2, 40°.73N×29°.24W, h12^{km}, MW5.1/92, Moment Tensor Solution. s29,c38; s92,c155; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-5.13±.11; M$_{\theta\theta}$0.61±.12; M$_{\phi\phi}$4.52±.10; M$_{r\theta}$-0.16±.45; M$_{\theta\phi}$1.12±.10; M$_{\phi r}$-1.30±.36; Best double couple: M$_0$5.14300×10^{16} NP1:φ$_s$197.00000°, δ38.00000°, λ-87.00000°. NP2: φ$_s$13.00000°, δ52.00000°, λ-92.00000°. Principal axes: T 4.9840, Plg7.0000°, Azm105.0000°; N 0.3170, Plg2.0000°, Azm14.0000°; P -5.3020, Plg82.0000°, Azm271.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*PDA **23** 12:35:32.1±1.1, 40°.69N×29°.28W, h5^{km}, MD3.9, ML4.2 Error ellipse: s-maj=14.2km s-min=5.0km az=94.0*

*MOS **23** 12:35:34.1±0.9, 40°.68N×29°.34W, h39^{km}, mb5.3/115, MS4.6/56, Error ellipse: s-maj=6.2km s-min=3.3km az=147.3*

ISC 23 12:35:32.4±0.1**, 40°.69N**±0°.03×**29°.29W**±0°.01**, h10**^{km}**, (h14**^{km}±.6^{km}**:pP-P), n1306, σ0^{s}.97**/1219**, mb5.0**/262**, MS4.7**/193**, 30C-17D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCED	Cedros	2.10	167	*e*P	Pn	12 36 03.1	-4.5
PCED				*e*S	Sn	12 36 26.5	-7.3
PCED				A		12 36 30.6	
	515nm,0.4s						
PCED	Cedros	2.10	167	*e*P	Pn	12 36 03.1	-4.5
PCED				*e*S	Sn	12 36 26.5	-7.3
ROSA	Rosais	2.12	157	*e*P	Pn	12 36 03.0	-4.9
ROSA				*e*S	Sn	12 36 26.9	-7.4
ROSA	Rosais	2.12	157	*e*P	Pn	12 36 03.0	-4.9
ROSA				*e*S	Sn	12 36 26.9	-7.4
CALA	Caldeira	2.15	168	*e*P	Pn	12 36 04.2	-4.0
CALA				*e*S	Sn	12 36 27.6	-7.4
CALA	Caldeira	2.15	168	*e*P	Pn	12 36 04.2	-4.0
CALA				*e*S	Sn	12 36 27.6	-7.4
HOR	Horta	2.22	167	*e*P	Pn	12 36 04.9	-4.2
HOR				*e*S	Sn	12 36 29.1	-7.5
HOR	Horta	2.22	167	*e*P	Pn	12 36 04.9	-4.2
HOR				*e*S	Sn	12 36 29.1	-7.5
PMAN	Manadas	2.25	155	*e*P	Pn	12 36 04.7	-4.9
PMAN				*e*S	Sn	12 36 30.2	-7.2
PMAN				A		12 36 34.8	
	365nm,0.4s						
PMAN	Manadas	2.25	155	*e*P	Pn	12 36 04.7	-4.9
PMAN				*e*S	Sn	12 36 30.2	-7.2
PICO	Pico	2.28	163	*e*P	Pn	12 36 06.2	-3.9
PICO				*e*S	Sn	12 36 31.4	-6.8
PICO	Pico	2.28	163	*e*P	Pn	12 36 06.2	-3.9
PICO				*e*S	Sn	12 36 31.4	-6.8
PID	Ribeirinha	2.42	158	*e*P	Pn	12 36 07.5	-4.4
PID	Ribeirinha	2.42	158	*e*P	Pn	12 36 07.5	-4.4
ADH	Angra Heroismo	2.57	141	*e*P	Pn	12 36 09.5	-4.6
ADH	Angra Heroismo	2.57	141	*e*P	Pn	12 36 09.5	-4.6
PDA	Ponta Delgada	4.07	135	*e*P	Pn	12 36 30.7	-3.9
PDA	Ponta Delgada	4.07	135	*e*P	Pn	12 36 30.7	-3.9
CMLA	Cha da Macela	4.13	134	Pn	Pn	12 36 32.7	-2.7
	3μm,0.5s,SNR=8.4						
CMLA	Cha da Macela	4.13	134	*e*P	Pn	12 36 31.5	-3.9
CMLA	Cha da Macela	4.13	134	*e*Pn	Pn	12 36 31.4	-4.0
CMLA				*e*Sn	Sn	12 37 23.2	-0.6
CMLA	Cha da Macela	4.13	134	*e*Pn	Pn	12 36 31.4	-4.0
CMLA				*e*Sn	Sn	12 37 23.2	-0.6
PSMA	Santa Maria	4.91	137	*e*P	Pn	12 36 42.3	-3.9
PSMN	Pico do Norte,	4.94	137	*e*P	Pn	12 36 41.8	-4.8
PSMN	Pico do Norte,	4.94	137	*e*P	Pn	12 36 41.8	-4.8
EMAZ	Mazaricos	15.31	75	P	Pn	12 39 11.5	+3.1
	160nm,1.7s						
EMAZ	Mazaricos	15.31	75	P	Pn	12 39 11.5	+3.1
	160nm,1.7s						
PMAFR	Mafra	15.47	90	*e*P	Pn	12 39 12.6	+2.1
	194nm,2.2s						
PMAFR				*e*LR	LR	12 42 45.2	
	3μm,18.0s						
PMAFR	Mafra	15.47	90	*e*P	Pn	12 39 12.6	+2.1
	194nm,2.2s						
STS	Santiago	15.62	75	P	Pn	12 39 15.9	+3.4
STS				pmax	pmax		
	comp=Z,76nm,1.2s						
STS	Santiago	15.62	75	P	Pn	12 39 15.9	+3.4
	comp=Z,76nm,1.2s						
STS	Santiago	15.62	75	P	Pn	12 39 15.9	+3.4
	comp=Z,76nm,1.2s						
PTOM	Tomar	16.00	87	*e*P	Pn	12 39 19.7	+2.3
	comp=Z,150nm,1.7s						
PTOM	Tomar	16.00	87	*e*P	Pn	12 39 19.7	+2.3
	comp=Z,150nm,1.7s						
ELOB	Lobios	16.00	79	P	Pn	12 39 17.7	+0.3
	comp=Z,60nm,1.4s						
ELOB	Lobios	16.00	79	P	Pn	12 39 17.7	+0.3
	comp=Z,60nm,1.4s						
PTEO	Sao Teotonio	16.26	94	*e*P	Pn	12 39 23.4	+2.6
	comp=Z,168nm,1.3s						
PTEO	Sao Teotonio	16.26	94	*e*P	Pn	12 39 23.4	+2.6
	comp=Z,168nm,1.3s						
PVRL	Vila Real	16.30	81	*e*P	Pn	12 39 24.8	+3.6
	comp=Z,94nm,2.5s						
PVRL	Vila Real	16.30	81	*e*P	Pn	12 39 24.8	+3.6
	comp=Z,94nm,2.5s						
MORF	Marmelete	16.39	95	*e*P	Pn	12 39 25.5	+3.1
	comp=Z,149nm,1.7s						
MORF				*e*LR	LR	12 43 16.2	
	comp=Z,3μm,18.0s						
MORF	Marmelete	16.39	95	*e*P	Pn	12 39 25.5	+3.1
	comp=Z,149nm,1.7s						
EVOP	Sao Brissos	16.45	91	*e*P	Pn	12 39 23.9	+0.7
EVOP	Sao Brissos	16.45	91	*e*P	Pn	12 39 24.5	+1.3
	comp=Z,124nm,1.6s						
MTE	Manteigas	16.53	84	*e*P	Pn	12 39 27.1	+2.9
	comp=Z,245nm,1.8s						
MTE				*e*LR	LR	12 43 12.9	
	comp=Z,3μm,20.0s						
MTE	Manteigas	16.53	84	*e*P	Pn	12 39 26.6	+2.4
	comp=Z,268nm,1.7s						
MTE	Manteigas	16.53	84	*e*P	Pn	12 39 26.6	+2.4
	comp=Z,268nm,1.7s						
EVO	Evora	16.53	91	*e*P	Pn	12 39 24.5	+0.3
	comp=Z,248nm,1.6s						
EVO				*e*MLR	MLR		
	comp=Z,3μm,19.8s						
EVO	Evora	16.53	91	*e*P	Pn	12 39 26.4	+2.2
	comp=Z,96nm,1.1s						
EVO	Evora	16.53	91	*e*P	Pn	12 39 26.4	+2.2
	comp=Z,96nm,1.1s						
EPON	Pontenova	16.66	74	P	Pn	12 39 28.5	+2.7
	comp=Z,195nm,1.6s						

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EPON  Pontenova       16.66  74  P     Pn     12 39 28.5 +2.7
      comp=Z,195nm,1.6s
ERUA  La Rua          16.66  77  P     Pn     12 39 28.9 +3.0
ERUA                             pmax  pmax
      comp=Z,78nm,1.5s
ERUA  La Rua          16.66  77  P     Pn     12 39 28.9 +3.0
      comp=Z,78nm,1.5s
ERUA  La Rua          16.66  77  P     Pn     12 39 28.9 +3.0
      comp=Z,78nm,1.5s
PBEJ  Beja            16.77  92  eP    Pn     12 39 30.6 +3.3
      comp=Z,52nm,1.7s
PBEJ  Beja            16.77  92  eP    Pn     12 39 30.6 +3.3
      comp=Z,52nm,1.7s
PESTR Estremoz        16.77  89  eP    Pn     12 39 30.1 +2.8
      comp=Z,63nm,1.3s
PESTR                            eLR   LR     12 43 20.2
      comp=Z,2µm,20.0s
PESTR Estremoz        16.77  89  eP    Pn     12 39 30.1 +2.8
      comp=Z,63nm,1.3s
PMRV  Marv??o         16.81  87  eP    Pn     12 39 30.2 +2.5
      comp=Z,148nm,1.6s
PMRV                             eLR   LR     12 43 20.2
      comp=Z,3µm,20.0s
PMRV  Marv??o         16.81  87  eP    Pn     12 39 30.2 +2.5
      comp=Z,148nm,1.6s
PBDV  Barranco-do-Ve  16.95  95  eLR   LR     12 43 26.8
      comp=Z,3µm,18.0s
ECAL  Calabor         16.98  78  P     Pn     12 39 32.0 +2.1
      comp=Z,99nm,2.0s
ECAL  Calabor         16.98  78  P     Pn     12 39 32.0 +2.1
      comp=Z,99nm,2.0s
PBRG  Braganca        16.99  79  eP    Pn     12 39 33.1 +3.1
      comp=Z,58nm,1.6s
PBRG  Braganca        16.99  79  eP    Pn     12 39 33.1 +3.1
      comp=Z,58nm,1.6s
PVAQ  Vaqueiros       17.07  94  eP    Pn     12 39 33.1 +2.1
      comp=Z,165nm,1.6s
PVAQ                             eLR   LR     12 43 29.2
      comp=Z,2µm,20.0s
PVAQ  Vaqueiros       17.07  94  eP    Pn     12 39 33.1 +2.1
      comp=Z,165nm,1.6s
EBAD  Badajoz         17.24  89  P     Pn     12 39 34.2 +1.1
      comp=Z,91nm,2.2s
EBAD  Badajoz         17.24  89  P     Pn     12 39 34.2 +1.1
      comp=Z,91nm,2.2s
PBAR  Barrancos       17.36  91  eP    Pn     12 39 35.5 +0.8
      comp=Z,45nm,1.8s
PBAR                             eLR   LR     12 43 38.9
      comp=Z,3µm,20.0s
PBAR  Barrancos       17.36  91  eP    Pn     12 39 35.5 +0.8
      comp=Z,45nm,1.8s
EMIN  Mina Concepcio  17.75  92  P     Pn     12 39 43.3 +3.8
      comp=Z,50nm,1.3s
EMIN  Mina Concepcio  17.75  92  P     Pn     12 39 43.3 +3.8
      comp=Z,50nm,1.3s
ECAB  El Cabril       18.62  90  P     Pn     12 39 49.4 -0.8
      comp=Z,88nm,1.7s
ECAB  El Cabril       18.62  90  P     Pn     12 39 49.4 -0.8
      comp=Z,88nm,1.7s
ESPR  Espera          18.65  94  P     Pn     12 39 52.3 +1.9
      comp=Z,76nm,1.1s
ESPR  Espera          18.65  94  P     Pn     12 39 52.3 +1.8
      comp=Z,76nm,1.1s
GUD   Guadarrama      19.05  82  P     Pn     12 39 55.4  0.0
GUD                              pmax  pmax
      comp=Z,31nm,1.1s
GUD   Guadarrama      19.05  82  P     Pn     12 39 55.4  0.0
      comp=Z,31nm,1.1s
GUD   Guadarrama      19.05  82  P     Pn     12 39 55.4  0.0
      comp=Z,31nm,1.1s
PAB   San Pablo       19.09  85  eP    Pn     12 39 53.3 -2.6
PAB                              pmax  pmax
      comp=Z,77nm,1.5s
PAB   San Pablo       19.09  85  eP    Pn     12 39 53.3 -2.5
      comp=Z,77nm,1.5s
PAB   San Pablo       19.09  85  eP    Pn     12 39 53.3 -2.6
      comp=Z,77nm,1.5s
EADA  Adamuz          19.24  89  P     Pn     12 39 58.7 +1.1
      comp=Z,46nm,1.5s
EADA  Adamuz          19.24  89  P     Pn     12 39 58.7 +1.1
      comp=Z,46nm,1.5s
ESDC  Sonseca Array   19.36  85  P     Pn     12 39 57.8 -1.3
      baz=288,slow=9.9,SNR=14
ESDC                             LR    LR     12 46 28.6
      comp=Z,2µm,18.1s,baz=285,slow=34
ESDC  Sonseca Array   19.36  85  P     Pn     12 39 58.0 -1.1
      comp=Z,42nm,1.8s
ESDC  Sonseca Array   19.36  85  P     Pn     12 39 58.0 -1.1
      comp=Z,42nm,1.8s
ELAN  Lanestosa       19.37  74  P     Pn     12 39 58.6 -0.5
      comp=Z,62nm,1.2s
ELAN  Lanestosa       19.37  74  P     Pn     12 39 58.6 -0.6
      comp=Z,62nm,1.2s
DCN   Croghan         19.53  42  eP    Pn     12 40 00.3 -0.7
ELUQ  Luque           19.64  91  P     Pn     12 40 00.6 -1.9
ELUQ                             pmax  pmax
      comp=Z,56nm,1.4s
ELUQ  Luque           19.64  91  P     Pn     12 40 00.6 -1.8
      comp=Z,56nm,1.4s
ELUQ  Luque           19.64  91  P     Pn     12 40 00.6 -1.9
      comp=Z,56nm,1.4s
EBAN  Banos Encina    19.84  89  P     Pn     12 40 04.1 -0.7
EBAN                             pmax  pmax
      comp=Z,17nm,1.0s
EBAN  Banos Encina    19.84  89  P     Pn     12 40 04.1 -0.7
      comp=Z,17nm,1.0s
EBAN  Banos Encina    19.84  89  P     Pn     12 40 04.1 -0.7
      comp=Z,17nm,1.0s
ELOJ  Sierra Loja     19.85  92  P     Pn     12 40 04.2 -0.8
ELOJ                             pmax  pmax
      comp=Z,13nm,1.8s
ELOJ  Sierra Loja     19.85  92  P     Pn     12 40 04.2 -0.7
      comp=Z,13nm,1.8s
ELOJ  Sierra Loja     19.85  92  P     Pn     12 40 04.2 -0.8
      comp=Z,13nm,1.8s
DLF   Lyons Farm      19.89  43  eP    Pn     12 40 01.8 -3.5
QUIF  Quistinic       19.98  60  eP    Pn     12 40 06.4  0.0
      comp=Z,433nm,1.8s
QUIF  Quistinic       19.98  60  eP    Pn     12 40 06.4  0.0
QUIF                             pmax  pmax
      comp=Z,216nm,1.8s
QUIF  Quistinic       19.98  60  eP    Pn     12 40 06.4  0.0
      comp=Z,216nm,1.8s
QUIF  Quistinic       19.98  60  eP    Pn     12 40 06.4  0.0
      comp=Z,216nm,1.8s
ROSF  Rostrenen       20.00  59  eP    P      12 40 06.9 +2.0
      comp=Z,343nm,1.7s
ROSF  Rostrenen       20.00  59  eP    P      12 40 06.9 +2.0
ROSF                             pmax  pmax
      comp=Z,171nm,1.7s
ROSF  Rostrenen       20.00  59  eP    P      12 40 06.9 +2.0
      comp=Z,171nm,1.7s
ROSF  Rostrenen       20.00  59  eP    P      12 40 06.9 +2.0
      comp=Z,171nm,1.7s
DMUB  Kingscourt      20.01  41  eP    P      12 40 04.5 -0.5
ECRI  Cripan          20.07  76  P     P      12 40 09.5 +3.7
ECRI                             pmax  pmax
      comp=Z,65nm,1.6s
ECRI  Cripan          20.07  76  P     P      12 40 09.5 +3.7
      comp=Z,65nm,1.6s
ECRI  Cripan          20.07  76  P     P      12 40 09.5 +3.7
      comp=Z,65nm,1.6s
ERON  Agron           20.16  92  P     P      12 40 08.6 +1.9
      comp=Z,69nm,1.7s
ERON  Agron           20.16  92  P     P      12 40 08.6 +1.9
      comp=Z,69nm,1.7s
ECOG  Cogollos-Vega   20.26  91  P     P      12 40 08.1 +0.3
ECOG                             pmax  pmax
      comp=Z,48nm,1.5s
ECOG  Cogollos-Vega   20.26  91  P     P      12 40 08.1 +0.3
      comp=Z,48nm,1.5s
ECOG  Cogollos-Vega   20.26  91  P     P      12 40 08.1 +0.3
      comp=Z,48nm,1.5s
EGUA  Guajares        20.40  93  P     P      12 40 10.6 +1.3
EGUA                             pmax  pmax
      comp=Z,169nm,1.1s
EGUA  Guajares        20.40  93  P     P      12 40 10.6 +1.3
      comp=Z,169nm,1.1s
EGUA  Guajares        20.40  93  P     P      12 40 10.6 +1.3
      comp=Z,169nm,1.1s
EQES  Quesada         20.48  90  P     P      12 40 10.7 +0.4
      comp=Z,154nm,2.0s
EQES  Quesada         20.48  90  P     P      12 40 10.7 +0.5
      comp=Z,154nm,2.0s
ETOR  Torete          20.60  81  P     P      12 40 11.0 -0.5
ETOR                             pmax  pmax
      comp=Z,41nm,1.5s
ETOR  Torete          20.60  81  P     P      12 40 11.0 -0.5
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      comp=Z,41nm,1.5s
ETOR  Torete          20.60  81  P     P      12 40 11.0 -0.5
      comp=Z,41nm,1.5s
EVIA  Vianos          20.70  87  P     P      12 40 13.2 +0.7
EVIA                             pmax  pmax
      comp=Z,59nm,1.2s
EVIA  Vianos          20.70  87  P     P      12 40 13.2 +0.6
      comp=Z,59nm,1.2s
EVIA  Vianos          20.70  87  P     P      12 40 13.2 +0.7
      comp=Z,59nm,1.2s
ELIZ  Elizondo        20.77  74  P     P      12 40 12.1 -1.2
ELIZ                             pmax  pmax
      comp=Z,37nm,1.2s
ELIZ  Elizondo        20.77  74  P     P      12 40 12.1 -1.2
      comp=Z,37nm,1.2s
ELIZ  Elizondo        20.77  74  P     P      12 40 12.1 -1.2
      comp=Z,37nm,1.2s
EALK  Alkurruntz      20.78  74  P     P      12 40 12.3 -1.1
      comp=Z,113nm,1.7s
EALK  Alkurruntz      20.78  74  P     P      12 40 12.3 -1.1
      comp=Z,113nm,1.7s
EHUE  Huescar         20.84  89  P     P      12 40 14.2 +0.1
EHUE                             pmax  pmax
      comp=Z,29nm,1.1s
EHUE  Huescar         20.84  89  P     P      12 40 14.2  0.0
      comp=Z,29nm,1.1s
EHUE  Huescar         20.84  89  P     P      12 40 14.2 +0.1
      comp=Z,29nm,1.1s
OSSF  Osses           20.96  74  eP    P      12 40 14.9 -0.4
OSSF  Osses           20.96  74  eP    P      12 40 14.9 -0.4
SJPF  Ste Jean        20.99  74  eP    P      12 40 15.0 -0.7
      comp=Z,245nm,1.6s
SJPF  Ste Jean        20.99  74  eP    P      12 40 15.0 -0.7
SJPF                             pmax  pmax
      comp=Z,123nm,1.6s
SJPF  Ste Jean        20.99  74  eP    P      12 40 15.0 -0.7
      comp=Z,123nm,1.6s
SJPF  Ste Jean        20.99  74  eP    P      12 40 15.0 -0.7
      comp=Z,123nm,1.6s
MDT   Midelt          21.23 104  P     P      12 40 18.6 +0.3
      comp=Z,13nm,0.9s,mb4.2,baz=324,slow=13,SNR=7.3
MDT                              LR    LR     12 46 46.1
      comp=Z,2µm,21.3s,MS4.4,baz=307,slow=32
MDT   Midelt          21.23 104  P     P      12 40 18.6 +0.3
ATE   Arette          21.38  74  eP    P      12 40 19.3 -0.5
ATE   Arette          21.38  74  eP    P      12 40 19.3 -0.5
ETOB  Tobarra         21.42  86  P     P      12 40 19.7 -0.7
      comp=Z,142nm,2.0s,mb5.0
ETOB  Tobarra         21.42  86  P     P      12 40 19.7 -0.6
      comp=Z,142nm,2.0s,mb5.0
ETSF  Etsaut          21.49  75  eP    P      12 40 21.2 +0.1
      comp=Z,131nm,1.6s,mb4.7
ETSF  Etsaut          21.49  75  eP    P      12 40 21.2 +0.1
ETSF                             pmax  pmax
      comp=Z,66nm,1.6s,mb4.7
ETSF  Etsaut          21.49  75  eP    P      12 40 21.2 +0.1
      comp=Z,66nm,1.6s,mb4.7
ETSF  Etsaut          21.49  75  eP    P      12 40 21.2 +0.1
      comp=Z,66nm,1.6s,mb4.7
GRR   Gorron          21.59  60  eP    P      12 40 22.8 +0.7
      comp=Z,482nm,1.7s,mb5.3
GRR   Gorron          21.59  60  eP    P      12 40 22.8 +0.7
GRR                              pmax  pmax
      comp=Z,241nm,1.7s,mb5.3
GRR   Gorron          21.59  60  eP    P      12 40 22.8 +0.7
      comp=Z,241nm,1.7s,mb5.3
GRR   Gorron          21.59  60  eP    P      12 40 22.8 +0.7
      comp=Z,241nm,1.7s,mb5.3
ECHE  Chera           21.64  84  P     P      12 40 22.9 +0.1
ECHE                             pmax  pmax
      comp=Z,80nm,1.5s,mb4.9
ECHE  Chera           21.64  84  P     P      12 40 22.9 +0.1
      comp=Z,80nm,1.5s,mb4.9
ECHE  Chera           21.64  84  P     P      12 40 22.9 +0.1
      comp=Z,80nm,1.5s,mb4.9
ESAC  San Caprasio    21.67  78  P     P      12 40 22.8 -0.2
      comp=Z,211nm,1.7s,mb5.3
ESAC  San Caprasio    21.67  78  P     P      12 40 22.8 -0.2
      comp=Z,211nm,1.7s,mb5.3
MFF   Saint Martin d  21.83  65  eP    P      12 40 26.6 +2.0
      comp=Z,240nm,1.7s,mb5.1
MFF   Saint Martin d  21.83  65  eP    P      12 40 26.6 +2.0
MFF                              pmax  pmax
      comp=Z,120nm,1.7s,mb5.0
MFF   Saint Martin d  21.83  65  eP    P      12 40 26.6 +2.0
      comp=Z,120nm,1.7s,mb5.0
MFF   Saint Martin d  21.83  65  eP    P      12 40 26.6 +2.0
      comp=Z,120nm,1.7s,mb5.1
EMUR  La Murta        21.86  88  P     P      12 40 27.1 +2.0
      comp=Z,89nm,1.8s,mb4.9
EMUR  La Murta        21.86  88  P     P      12 40 27.1 +2.0
      comp=Z,89nm,1.8s,mb4.9
EMOS  Mosqueruela     21.87  81  P     P      12 40 23.4 -1.7
      comp=Z,132nm,1.6s,mb5.1
EMOS  Mosqueruela     21.87  81  P     P      12 40 23.4 -1.7
      comp=Z,132nm,1.6s,mb5.1
FLN   La Foliniere    21.90  59  eP    P      12 40 27.3 +1.9
      comp=Z,315nm,1.6s,mb5.2
FLN                              eMLR  MLR
      comp=Z,2µm,21.0s,MS4.3
FLN   La Foliniere    21.90  59  eP    P      12 40 27.3 +1.9
FLN                              pmax  pmax
      comp=Z,157nm,1.6s,mb5.2
FLN                              MLR   MLR
      comp=Z,2µm,21.0s,MS4.6
FLN   La Foliniere    21.90  59  eP    P      12 40 27.3 +1.9
      comp=Z,157nm,1.6s,mb5.2
FLN                              LR    LR
      comp=Z,2µm,21.0s,MS4.6
FLN   La Foliniere    21.90  59  eP    P      12 40 27.3 +1.9
      comp=Z,157nm,1.6s,mb5.2
LABF  Labassere       21.94  74  eP    P      12 40 25.8 -0.1
LABF  Labassere       21.94  74  eP    P      12 40 25.8 -0.1
EBIE  Bielsa          22.02  75  P     P      12 40 26.6 -0.2
      comp=Z,82nm,1.9s,mb4.8
EBIE  Bielsa          22.02  75  P     P      12 40 26.6 -0.2
      comp=Z,82nm,1.9s,mb4.8
LDF   La Druitiere    22.10  59  eP    P      12 40 27.6  0.0
      comp=Z,325nm,1.7s,mb5.2
LDF   La Druitiere    22.10  59  eP    P      12 40 27.6  0.0
LDF                              pmax  pmax
      comp=Z,162nm,1.7s,mb5.2
LDF   La Druitiere    22.10  59  eP    P      12 40 27.6  0.0
      comp=Z,162nm,1.7s,mb5.2
LDF   La Druitiere    22.10  59  eP    P      12 40 27.6  0.0
      comp=Z,162nm,1.7s,mb5.2
EPF   Esparros        22.14  74  eP    P      12 40 28.7 +0.7
EPF   Esparros        22.14  74  eP    P      12 40 28.7 +0.7
RESF  Ens             22.16  75  eP    P      12 40 28.1 -0.1
RESF  Ens             22.16  75  eP    P      12 40 28.1 -0.1
LFF   La Frestale     22.37  69  eP    P      12 40 29.6 -0.8
      comp=Z,293nm,1.6s,mb5.2
LFF   La Frestale     22.37  69  eP    P      12 40 29.6 -0.8
LFF                              pmax  pmax
      comp=Z,147nm,1.6s,mb5.2
LFF   La Frestale     22.37  69  eP    P      12 40 29.6 -0.8
      comp=Z,146nm,1.6s,mb5.2
LFF   La Frestale     22.37  69  eP    P      12 40 29.6 -0.8
      comp=Z,146nm,1.6s,mb5.2
ERTA  Horta de San J  22.37  80  P     P      12 40 29.2 -1.3
      comp=Z,135nm,1.6s,mb5.1
ERTA  Horta de San J  22.37  80  P     P      12 40 29.2 -1.3
      comp=Z,135nm,1.6s,mb5.1
MELF  Melles          22.46  74  eP    P      12 40 31.2 -0.2
MELF  Melles          22.46  74  eP    P      12 40 31.2 -0.2
EKA   Eskdalemuir Ar  22.62  41  P     P      12 40 33.0  0.0
      comp=Z,11nm,1.0s,mb4.2,baz=217,slow=9.1,SNR=7.1
EKA   Eskdalemuir Ar  22.62  41  P     P      12 40 33.0  0.0
MLS   Moulis          22.70  74  eP    P      12 40 33.7 -0.3
MLS   Moulis          22.70  74  eP    P      12 40 33.7 -0.3
SALF  Salau           22.78  75  eP    P      12 40 34.9  0.0
SALF  Salau           22.78  75  eP    P      12 40 34.9  0.0
EPOB  Poblet          22.87  78  P     P      12 40 33.4 -2.4
      comp=Z,74nm,1.3s,mb5.0
EPOB  Poblet          22.87  78  P     P      12 40 33.4 -2.4
      comp=Z,74nm,1.3s,mb5.0
RJF   Les Rejaudoux   22.92  68  eP    P      12 40 36.5 +0.2
      comp=Z,160nm,1.6s,mb4.9
RJF                              eMLR  MLR
      comp=Z,1µm,22.0s,MS4.1
RJF   Les Rejaudoux   22.92  68  eP    P      12 40 36.5 +0.2
RJF                              pmax  pmax
      comp=Z,80nm,1.6s,mb4.9
RJF                              MLR   MLR
      comp=Z,1µm,22.0s,MS4.4
RJF   Les Rejaudoux   22.92  68  eP    P      12 40 36.5 +0.2
      comp=Z,80nm,1.6s,mb4.9
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RJF                              LR    LR
      comp=Z,1µm,22.0s,MS4.4
RJF   Les Rejaudoux   22.92  68  eP    P      12 40 36.5 +0.2
      comp=Z,80nm,1.6s,mb4.9
EMIR  Miracle         23.12  77  P     P      12 40 38.8 +0.4
      comp=Z,47nm,1.3s,mb4.8
EMIR  Miracle         23.12  77  P     P      12 40 38.8 +0.3
      comp=Z,47nm,1.3s,mb4.8
CAF   Calviac         23.31  69  eP    P      12 40 38.8 -1.6
      comp=Z,119nm,1.4s,mb4.8
CAF   Calviac         23.31  69  eP    P      12 40 38.8 -1.6
CAF                              pmax  pmax
      comp=Z,60nm,1.4s,mb4.8
CAF   Calviac         23.31  69  eP    P      12 40 38.8 -1.6
      comp=Z,60nm,1.4s,mb4.8
CAF   Calviac         23.31  69  eP    P      12 40 38.8 -1.6
      comp=Z,60nm,1.4s,mb4.8
VALF  Valcebollere    23.43  75  eP    P      12 40 41.5 -0.2
VALF  Valcebollere    23.43  75  eP    P      12 40 41.5 -0.2
TCF   Toulx Ste Croi  23.43  66  eP    P      12 40 41.1 -0.6
      comp=Z,316nm,1.6s,mb5.2
TCF   Toulx Ste Croi  23.43  66  eP    P      12 40 41.1 -0.6
TCF                              pmax  pmax
      comp=Z,158nm,1.6s,mb5.2
TCF   Toulx Ste Croi  23.43  66  eP    P      12 40 41.1 -0.6
      comp=Z,158nm,1.6s,mb5.2
TCF   Toulx Ste Croi  23.43  66  eP    P      12 40 41.1 -0.6
      comp=Z,158nm,1.6s,mb5.2
MTLF  Montolieu       23.49  73  eP    P      12 40 40.3 -2.0
      comp=Z,127nm,1.5s,mb4.8
MTLF  Montolieu       23.49  73  eP    P      12 40 40.3 -2.0
MTLF                             pmax  pmax
      comp=Z,64nm,1.5s,mb4.8
MTLF  Montolieu       23.49  73  eP    P      12 40 40.3 -2.0
      comp=Z,64nm,1.5s,mb4.8
MTLF  Montolieu       23.49  73  eP    P      12 40 40.3 -2.0
      comp=Z,64nm,1.5s,mb4.8
ODJA  Bouhanifia      23.51  94  P     P      12 40 43.5 +0.9
EIBI  Ibiza           23.52  84  P     P      12 40 41.2 -1.5
      comp=Z,140nm,1.6s,mb5.1
EIBI  Ibiza           23.52  84  P     P      12 40 41.2 -1.4
      comp=Z,140nm,1.6s,mb5.1
VERF  Verneugheol     23.61  67  eP    P      12 40 42.7 -0.7
VERF  Verneugheol     23.61  67  eP    P      12 40 42.7 -0.7
FRNF  Fournols        23.66  68  eP    P      12 40 43.2 -0.7
FRNF  Fournols        23.66  68  eP    P      12 40 43.2 -0.7
OJBR  Djebel Berber   23.80  93  P     P      12 40 47.5 +2.2
OJBR  Djebel Berber   23.80  93  P     P      12 40 47.5 +2.2
OKGL  Djebel Kef Gue  23.86  92  P     P      12 40 46.0 +0.2
OKGL  Djebel Kef Gue  23.86  92  P     P      12 40 46.0 +0.2
BGF   Bois d’Agland   23.88  65  eP    P      12 40 44.8 -1.1
      comp=Z,245nm,1.6s,mb5.1
BGF   Bois d’Agland   23.88  65  eP    P      12 40 44.8 -1.1
BGF                              pmax  pmax
      comp=Z,123nm,1.5s,mb5.1
BGF   Bois d’Agland   23.88  65  eP    P      12 40 44.8 -1.1
      comp=Z,122nm,1.5s,mb5.1
BGF   Bois d’Agland   23.88  65  eP    P      12 40 44.8 -1.1
      comp=Z,122nm,1.6s,mb5.1
PYM   Petit Puy Mans  23.97  67  eP    P      12 40 46.5 -0.3
PYM   Petit Puy Mans  23.97  67  eP    P      12 40 46.5 -0.3
SJAF  Saint Jean de   24.05  75  eP    P      12 40 47.0 -0.6
SJAF  Saint Jean de   24.05  75  eP    P      12 40 47.0 -0.6
AGO   Saint Agoulin   24.06  66  eP    P      12 40 47.6  0.0
AGO   Saint Agoulin   24.06  66  eP    P      12 40 47.6  0.0
EJON  La Jonquera     24.06  75  P     P      12 40 45.3 -2.3
      comp=Z,79nm,1.6s,mb4.9
EJON  La Jonquera     24.06  75  P     P      12 40 45.3 -2.3
      comp=Z,79nm,1.6s,mb4.9
OJGS  Djebel Guires   24.13  93  P     P      12 40 52.0 +3.7
OJGS  Djebel Guires   24.13  93  P     P      12 40 52.0 +3.7
LBL   Lubilhac        24.14  68  eP    P      12 40 48.8 +0.5
LBL   Lubilhac        24.14  68  eP    P      12 40 48.8 +0.5
AVF   Avril sur Loir  24.24  65  eP    P      12 40 48.9 -0.3
      comp=Z,117nm,1.5s,mb4.8
AVF   Avril sur Loir  24.24  65  eP    P      12 40 48.9 -0.3
AVF                              pmax  pmax
      comp=Z,58nm,1.5s,mb4.8
AVF   Avril sur Loir  24.24  65  eP    P      12 40 48.9 -0.3
      comp=Z,58nm,1.5s,mb4.8
AVF   Avril sur Loir  24.24  65  eP    P      12 40 48.9 -0.3
      comp=Z,58nm,1.5s,mb4.8
SSF   Saint Saulge    24.36  64  eP    P      12 40 50.3  0.0
      comp=Z,166nm,1.4s,mb5.0
SSF   Saint Saulge    24.36  64  eP    P      12 40 50.3  0.0
SSF                              pmax  pmax
      comp=Z,83nm,1.4s,mb5.0
SSF   Saint Saulge    24.36  64  eP    P      12 40 50.3  0.0
      comp=Z,83nm,1.4s,mb5.0
SSF   Saint Saulge    24.36  64  eP    P      12 40 50.3  0.0
      comp=Z,83nm,1.4s,mb5.0
PLDF  La Plantade     24.40  67  eP    P      12 40 50.2 -0.5
PLDF  La Plantade     24.40  67  eP    P      12 40 50.2 -0.5
ETOS  Mallorca        24.46  82  P     P      12 40 49.8 -1.4
      comp=Z,51nm,1.6s,mb4.7
ETOS  Mallorca        24.46  82  P     P      12 40 49.8 -1.5
      comp=Z,51nm,1.6s,mb4.7
BORG  Borgarnes       24.54   8  LR    LR     12 47 43.4
      comp=Z,2µm,18.4s,MS4.5,baz=318,slow=30
SMF   Signal de Mont  24.57  65  eP    P      12 40 52.1 -0.1
      comp=Z,102nm,1.2s,mb4.9
SMF   Signal de Mont  24.57  65  eP    P      12 40 52.1 -0.1
SMF                              pmax  pmax
      comp=Z,51nm,1.2s,mb4.9
SMF   Signal de Mont  24.57  65  eP    P      12 40 52.1 -0.1
      comp=Z,51nm,1.2s,mb4.9
SMF   Signal de Mont  24.57  65  eP    P      12 40 52.1 -0.1
      comp=Z,51nm,1.2s,mb4.9
LOR   Lormes          24.61  63  eP    P      12 40 52.3 -0.3
      comp=Z,110nm,1.5s,mb4.9
LOR                              eMLR  MLR
      comp=Z,2µm,20.0s,MS4.2
LOR   Lormes          24.61  63  eP    P      12 40 52.3 -0.3
LOR                              pmax  pmax
      comp=Z,55nm,1.5s,mb4.9
LOR                              MLR   MLR
      comp=Z,2µm,20.0s,MS4.5
LOR   Lormes          24.61  63  eP    P      12 40 52.3 -0.3
      comp=Z,55nm,1.5s,mb4.9
LOR                              LR    LR
      comp=Z,2µm,20.0s,MS4.5
LOR   Lormes          24.61  63  eP    P      12 40 52.3 -0.3
      comp=Z,55nm,1.5s,mb4.9
LASF  Ste Croix       24.62  71  eP    P      12 40 52.7  0.0
      comp=Z,124nm,1.3s,mb5.0
LASF  Ste Croix       24.62  71  eP    P      12 40 52.7  0.0
      comp=Z,62nm,1.3s,mb5.0
SSB   Saint Sauveur   25.05  68  eP    P      12 40 56.8 +0.2
SSB                              pmax  pmax
      comp=Z,23nm,1.2s,mb4.6
SSB                              MLR   MLR
      comp=Z,1µm,19.0s,MS4.3
SSB   Saint Sauveur   25.05  68  eP    P      12 40 56.8 +0.2
      comp=Z,23nm,1.2s,mb4.6
SSB                              LR    LR
      comp=Z,1µm,19.0s,MS4.3
SSB   Saint Sauveur   25.05  68  eP    P      12 40 56.8 +0.2
      comp=Z,23nm,1.2s,mb4.6
BAIF  Baives          25.14  57  eP    P      12 40 56.3 -1.1
      comp=Z,127nm,1.3s,mb5.0
BAIF  Baives          25.14  57  eP    P      12 40 56.3 -1.1
BAIF                             pmax  pmax
      comp=Z,64nm,1.3s,mb5.0
BAIF  Baives          25.14  57  eP    P      12 40 56.3 -1.1
      comp=Z,64nm,1.3s,mb5.0
BAIF  Baives          25.14  57  eP    P      12 40 56.3 -1.1
      comp=Z,64nm,1.3s,mb5.0
VIVF  Saint-Julien-l  25.16  69  eP    P      12 40 58.3 +0.7
      comp=Z,156nm,1.5s,mb5.0
VIVF  Saint-Julien-l  25.16  69  eP    P      12 40 58.3 +0.7
VIVF                             pmax  pmax
      comp=Z,78nm,1.5s,mb5.0
VIVF  Saint-Julien-l  25.16  69  eP    P      12 40 58.3 +0.7
      comp=Z,78nm,1.5s,mb5.0
VIVF  Saint-Julien-l  25.16  69  eP    P      12 40 58.3 +0.7
      comp=Z,78nm,1.5s,mb5.0
SNF   Seneffe         25.26  56  P     P      12 40 58.8 +0.3
      comp=Z,38nm,1.4s,mb4.7
UCC   Uccle           25.36  55  P     P      12 40 59.0 -0.4
DOU   Dourbes         25.39  57  P     P      12 40 59.4 -0.3
      comp=Z,20nm,1.4s,mb4.5
MEZF  Maizieres J’vi  25.50  61  eP    P      12 41 00.7  0.0
      comp=Z,369nm,1.5s,mb5.4
MEZF  Maizieres J’vi  25.50  61  eP    P      12 41 00.7  0.0
      comp=Z,369nm,1.5s,mb5.7
MEZF  Maizieres J’vi  25.50  61  eP    P      12 41 00.7  0.0
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	comp=Z,184nm,1.5s,mb5.4						
GIVF	Givet	25.54	57	*e*P	P	12 41 00.3	-0.7
	comp=Z,208nm,1.5s,mb5.1						
GIVF	Givet	25.54	57	*e*P	P	12 41 00.3	-0.7
GIVF				pmax	pmax		
	comp=Z,104nm,1.5s,mb5.1						
GIVF	Givet	25.54	57	*e*P	P	12 41 00.3	-0.7
	comp=Z,104nm,1.5s,mb5.1						
GIVF	Givet	25.54	57	*e*P	P	12 41 00.3	-0.7
	comp=Z,104nm,1.5s,mb5.1						
OCF	Saint Nazaire	25.62	70	*e*P	P	12 41 03.2	+1.4
OCF	Saint Nazaire	25.62	70	*e*P	P	12 41 03.2	+1.4
OG26	St.-Nazaire-De	25.62	70	*e*P	P	12 41 03.2	+1.4
OG26	St.-Nazaire-De	25.62	70	*e*P	P	12 41 03.2	+1.4
OG05	Jujurieux	25.68	66	*e*P	P	12 41 02.0	-0.3
OG05	Jujurieux	25.68	66	*e*P	P	12 41 02.0	-0.3
SMRF	Simiane la Rot	25.86	71	*e*P	P	12 41 05.1	+1.1
	comp=Z,134nm,1.4s,mb5.0						
SMRF	Simiane la Rot	25.86	71	*e*P	P	12 41 05.1	+1.1
	comp=Z,134nm,1.4s,mb5.3						
SMRF	Simiane la Rot	25.86	71	*e*P	P	12 41 05.1	+1.1
	comp=Z,67nm,1.4s,mb5.0						
BCLA	Clavier	25.89	56	P	P	12 41 02.9	-1.3
	comp=Z,45nm,1.9s,mb4.7						
ORIF	Oris-en-Rattie	26.02	69	*e*P	P	12 41 06.8	+1.4
	comp=Z,163nm,1.6s,mb5.0						
ORIF				*e*MLR	MLR		
	comp=Z,1µm,22.8s,MS4.1						
ORIF	Oris-en-Rattie	26.02	69	*e*P	P	12 41 06.8	+1.4
ORIF				pmax	pmax		
	comp=Z,81nm,1.6s,mb5.0						
ORIF	Oris-en-Rattie	26.02	69	*e*P	P	12 41 06.8	+1.4
	comp=Z,81nm,1.6s,mb5.0						
ORIF	Oris-en-Rattie	26.02	69	*e*P	P	12 41 06.8	+1.4
	comp=Z,81nm,1.6s,mb5.0						
THEF	They Montfort	26.10	61	*e*P	P	12 41 05.3	-0.8
THEF	They Montfort	26.10	61	*e*P	P	12 41 05.3	-0.8
CABF	La Chapelle	26.12	65	*e*P	P	12 41 06.5	+0.2
	comp=Z,279nm,1.6s,mb5.2						
CABF	La Chapelle	26.12	65	*e*P	P	12 41 06.5	+0.2
CABF				pmax	pmax		
	comp=Z,139nm,1.6s,mb5.2						
CABF	La Chapelle	26.12	65	*e*P	P	12 41 06.5	+0.2
	comp=Z,139nm,1.6s,mb5.2						
CABF	La Chapelle	26.12	65	*e*P	P	12 41 06.5	+0.2
	comp=Z,139nm,1.6s,mb5.2						
BEBN	Eben Emael	26.18	56	P	P	12 41 07.9	+1.0
HAU	Haudompre	26.33	62	*e*P	P	12 41 07.9	-0.3
	comp=Z,180nm,1.5s,mb5.1						
HAU				*e*MLR	MLR		
	comp=Z,2µm,21.8s,MS4.2						
HAU	Haudompre	26.33	62	*e*P	P	12 41 07.9	-0.3
HAU				pmax	pmax		
	comp=Z,90nm,1.5s,mb5.1						
HAU				MLR	MLR		
	comp=Z,2µm,21.8s,MS4.5						
HAU	Haudompre	26.33	62	*e*P	P	12 41 07.9	-0.3
	comp=Z,90nm,1.5s,mb5.1						
HAU				LR	LR		
	comp=Z,2µm,21.8s,MS4.5						
HAU	Haudompre	26.33	62	*e*P	P	12 41 07.9	-0.3
	comp=Z,90nm,1.5s,mb5.1						
WLF	Walferdange	26.34	58	P	P	12 41 08.1	-0.1
	comp=Z,54nm,1.8s,mb4.8						
WLF	Walferdange	26.34	58	*e*P	P	12 41 07.7	-0.5
WLF				pmax	pmax		
	comp=Z,155nm,1.7s,mb5.3						
WLF				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.6						
WLF	Walferdange	26.34	58	*e*P	P	12 41 07.7	-0.5
	comp=Z,155nm,1.7s,mb5.3						
WLF				LR	LR		
	comp=Z,2µm,20.0s,MS4.6						
WLF	Walferdange	26.34	58	P	P	12 41 08.0	-0.2
	comp=Z,54nm,1.8s,mb4.8						
MEM	Membach	26.36	56	P	P	12 41 10.1	+1.6
	comp=Z,17nm,1.8s,mb4.3						
BNI	Bardonecchia	26.57	69	*e*P	P	12 41 10.5	+0.1
BNI				pmax	pmax		
	comp=Z,43nm,1.4s,mb4.8						
BNI				MLR	MLR		
	comp=Z,2µm,21.0s,MS4.6						
BNI	Bardonecchia	26.57	69	*e*P	P	12 41 10.5	+0.1
	comp=Z,43nm,1.4s,mb4.8						
BNI				LR	LR		
	comp=Z,2µm,21.0s,MS4.6						
BNI	Bardonecchia	26.57	69	*e*P	P	12 41 10.5	+0.1
	comp=Z,43nm,1.4s,mb4.8						
LPL	La Plagne	26.59	67	*e*P	P	12 41 12.0	+1.5
	comp=Z,53nm,1.3s,mb4.6						
LPL	La Plagne	26.59	67	*e*P	P	12 41 12.0	+1.5
LPL				pmax	pmax		
	comp=Z,27nm,1.3s,mb4.6						
LPL	La Plagne	26.59	67	*e*P	P	12 41 12.0	+1.5
	comp=Z,27nm,1.3s,mb4.6						
LPL	La Plagne	26.59	67	*e*P	P	12 41 12.0	+1.5
	comp=Z,27nm,1.3s,mb4.6						
LMR	La Mourre	26.60	72	*e*P	P	12 41 11.2	+0.5
	comp=Z,116nm,1.6s,mb4.9						
LMR	La Mourre	26.60	72	*e*P	P	12 41 11.2	+0.5
LMR				pmax	pmax		
	comp=Z,58nm,1.6s,mb4.9						
LMR	La Mourre	26.60	72	*e*P	P	12 41 11.2	+0.5
	comp=Z,58nm,1.6s,mb4.9						
LMR	La Mourre	26.60	72	*e*P	P	12 41 11.2	+0.5
	comp=Z,58nm,1.6s,mb4.9						
LPG	La Plagne	26.60	68	*e*P	P	12 41 12.5	+1.8
LPG	La Plagne	26.60	68	*e*P	P	12 41 12.5	+1.8
LOMF	Lomont	26.63	63	*e*P	P	12 41 12.0	+1.1
LOMF	Lomont	26.63	63	*e*P	P	12 41 12.0	+1.1
MBDF	Montbardon	26.66	69	*e*P	P	12 41 11.4	+0.2
	comp=Z,43nm,1.3s,mb4.5						
MBDF	Montbardon	26.66	69	*e*P	P	12 41 11.4	+0.2
MBDF				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.5						
MBDF	Montbardon	26.66	69	*e*P	P	12 41 11.4	+0.2
	comp=Z,22nm,1.3s,mb4.5						
MBDF	Montbardon	26.66	69	*e*P	P	12 41 11.4	+0.2
	comp=Z,22nm,1.3s,mb4.5						
HINF	Hinteralfeld	26.66	62	*e*P	P	12 41 11.1	-0.1
	comp=Z,122nm,1.6s,mb4.9						
HINF	Hinteralfeld	26.66	62	*e*P	P	12 41 11.1	-0.1
HINF				pmax	pmax		
	comp=Z,61nm,1.6s,mb4.9						
HINF	Hinteralfeld	26.66	62	*e*P	P	12 41 11.1	-0.1
	comp=Z,61nm,1.6s,mb4.9						
HINF	Hinteralfeld	26.66	62	*e*P	P	12 41 11.1	-0.1
	comp=Z,61nm,1.6s,mb4.9						
FRF	La Foret Royal	26.68	72	*e*P	P	12 41 10.6	-0.8
	comp=Z,65nm,1.3s,mb4.7						
FRF	La Foret Royal	26.68	72	*e*P	P	12 41 10.6	-0.8
FRF				pmax	pmax		
	comp=Z,32nm,1.3s,mb4.7						
FRF	La Foret Royal	26.68	72	*e*P	P	12 41 10.6	-0.8
	comp=Z,32nm,1.3s,mb4.7						
FRF	La Foret Royal	26.68	72	*e*P	P	12 41 10.6	-0.8
	comp=Z,32nm,1.3s,mb4.7						
CALN	Calern	26.83	71	*e*P	P	12 41 13.9	+1.2
CALN	Calern	26.83	71	*e*P	P	12 41 13.9	+1.2
MOF	Molkenrain	26.85	62	*e*P	P	12 41 15.9	+3.0
MOF	Molkenrain	26.85	62	*e*P	P	12 41 15.9	+3.0
ECH	Echery	26.88	61	*e*P	P	12 41 10.9	-2.3
ECH	Echery	26.88	61	*e*P	P	12 41 13.0	-0.2
ECH				pmax	pmax		
	comp=Z,47nm,1.4s,mb4.8						
ECH				MLR	MLR		
	comp=Z,2µm,22.0s,MS4.5						
ECH	Echery	26.88	61	*e*P	P	12 41 13.0	-0.1
	comp=Z,47nm,1.4s,mb4.8						
ECH				LR	LR		
	comp=Z,2µm,22.0s,MS4.5						
ECH	Echery	26.88	61	*e*P	P	12 41 10.9	-2.3
RUP	Ruppelstein	26.93	58	*e*P	P	12 41 13.7	+0.2
RUP	Ruppelstein	26.93	58	*e*P	P	12 41 13.7	+0.2
CDF	Champ du Feu	26.97	61	*e*P	P	12 41 13.2	-0.8
	comp=Z,173nm,1.5s,mb5.1						
CDF	Champ du Feu	26.97	61	*e*P	P	12 41 13.2	-0.8
CDF				pmax	pmax		
	comp=Z,87nm,1.5s,mb5.1						
CDF	Champ du Feu	26.97	61	*e*P	P	12 41 13.2	-0.8
	comp=Z,87nm,1.5s,mb5.1						
CDF	Champ du Feu	26.97	61	*e*P	P	12 41 13.2	-0.8
	comp=Z,87nm,1.5s,mb5.1						
MVIF	Mont Vial	27.01	71	*e*P	P	12 41 15.2	+0.9
MVIF	Mont Vial	27.01	71	*e*P	P	12 41 15.2	+0.9
TOUF	Mont Tournerai	27.06	71	*e*P	P	12 41 15.6	+0.8
TOUF	Mont Tournerai	27.06	71	*e*P	P	12 41 15.6	+0.8
BBS	Basel-Blauen	27.10	63	*e*P	P	12 41 16.1	+1.0
BBS	Basel-Blauen	27.10	63	*e*P	P	12 41 16.1	+1.0
LUCF	Luceram	27.14	71	*e*P	P	12 41 16.2	+0.6
LUCF	Luceram	27.14	71	*e*P	P	12 41 16.2	+0.6
LIBD	Limburg	27.18	62	*e*P	P	12 41 17.4	+1.6
LIBD	Limburg	27.18	62	*e*P	P	12 41 17.4	+1.6
AUTN	L’Aution	27.19	71	*e*P	P	12 41 17.0	+1.0
AUTN	L’Aution	27.19	71	*e*P	P	12 41 17.0	+1.0
SBF	Sospel	27.21	71	*e*P	P	12 41 16.4	+0.2
	comp=Z,86nm,1.4s,mb4.8						
SBF	Sospel	27.21	71	*e*P	P	12 41 16.4	+0.2
SBF				pmax	pmax		
	comp=Z,43nm,1.4s,mb4.8						
SBF	Sospel	27.21	71	*e*P	P	12 41 16.4	+0.2
	comp=Z,43nm,1.4s,mb4.8						
SBF	Sospel	27.21	71	*e*P	P	12 41 16.4	+0.2
	comp=Z,43nm,1.4s,mb4.8						
SAOF	Saorge	27.29	71	*e*P	P	12 41 18.0	+1.2
SAOF	Saorge	27.29	71	*e*P	P	12 41 18.0	+1.2
LANF	Langenberg	27.35	60	*e*P	P	12 41 17.4	0.0
LANF	Langenberg	27.35	60	*e*P	P	12 41 17.4	0.0
FELD	Feldberg im Sc	27.44	62	*e*P	P	12 41 17.2	-1.0
FELD	Feldberg im Sc	27.44	62	*e*P	P	12 41 17.2	-1.0
BFO	Black Forest	27.67	61	P	P	12 41 24.2	+4.0
	comp=Z,170nm,1.2s,mb5.5,SNR=6.7						
BFO	Black Forest	27.67	61	*e*P	P	12 41 20.4	+0.2
BFO				pmax	pmax		
	comp=Z,52nm,1.3s,mb5.0						
BFO				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.5						
BFO	Black Forest	27.67	61	*e*P	P	12 41 20.4	+0.2
	comp=Z,52nm,1.3s,mb5.0						
BFO				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
BFO	Black Forest	27.67	61	*e*P	P	12 41 20.4	+0.2
	comp=Z,52nm,1.3s,mb5.0						
IBBN	Ibbenburen	27.72	53	*e*P	P	12 41 20.7	+0.1
	comp=Z,120nm,1.8s,mb5.2						
SPAK	Spaichingen-Ko	27.97	62	*e*P	P	12 41 22.6	-0.3
SPAK	Spaichingen-Ko	27.97	62	*e*P	P	12 41 22.6	-0.3
BBTS	Babate	28.21	153	LR	LR	12 50 52.4	
	comp=Z,565nm,18.5s,MS4.2,baz=350,slow=33						
TUE	Stuetta	28.37	65	*e*P	P	12 41 27.2	+0.7
	comp=Z,18nm,1.3s,mb4.5						
TUE				LR	LR		
	comp=Z,1µm,21.0s,MS4.4						
TUE	Stuetta	28.37	65	*e*P	P	12 41 27.2	+0.7
	comp=Z,18nm,1.3s,mb4.5						
PGF	Pioggiola	28.52	73	*e*P	P	12 41 27.8	-0.1
	comp=Z,63nm,1.3s,mb4.9						
PGF	Pioggiola	28.52	73	*e*P	P	12 41 27.8	-0.1
PGF				pmax	pmax		
	comp=Z,31nm,1.3s,mb4.9						
PGF	Pioggiola	28.52	73	*e*P	P	12 41 27.8	-0.1
	comp=Z,32nm,1.3s,mb4.9						
PGF	Pioggiola	28.52	73	*e*P	P	12 41 27.8	-0.1
	comp=Z,32nm,1.3s,mb4.9						
SCHQ	Schefferville	28.54	312	P	P	12 41 25.8	-2.1
	comp=Z,2.7nm,0.8s,mb4.0,baz=103,slow=9.0,SNR=7.9						
SCHQ				LR	LR	12 50 54.3	
	comp=Z,1µm,19.7s,MS4.5,baz=101,slow=32						
SCHQ	Schefferville	28.54	312	P	P	12 41 25.8	-2.1
SCHQ				LR	LR	12 50 54.3	
SCHQ	Schefferville	28.54	312	P	P	12 41 25.8	-2.1
DAVOS	Davos	28.66	64	P	P	12 41 29.8	+0.7
DAVOX	Davos/Dischmat	28.72	65	P	P	12 41 29.8	+0.2
	comp=Z,0.8nm,0.4s,mb3.8,baz=277,slow=12,SNR=2.3						
DAVOX				LR	LR	12 51 11.4	
	comp=Z,894nm,20.5s,MS4.4,baz=258,slow=33						
DAVOX	Davos/Dischmat	28.72	65	P	P	12 41 29.8	+0.2
SFJD	Kangerlussuaq	28.89	343	*e*P	P	12 41 30.9	0.0
SFJD				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
SFJD				MLR	MLR		
	comp=Z,720nm,22.0s,MS4.2						
SFJD	Kangerlussuaq	28.89	343	*i* P	P	12 41 30.9	0.0
	comp=Z,8.5nm,1.1s,mb4.4						
SFJD	Kangerlussuaq	28.89	343	P	P	12 41 30.1	-0.8
	comp=Z,10nm,1.0s,mb4.5,baz=147,slow=13,SNR=5.8						
SFJD				LR	LR	12 50 31.1	
	comp=Z,758nm,18.3s,MS4.3,baz=131,slow=31						
SFJD	Kangerlussuaq	28.89	343	*e*P	P	12 41 30.9	0.0
	comp=Z,8.5nm,1.1s,mb4.4						
SFJD				LR	LR		
	comp=Z,720nm,22.0s,MS4.2						
SFJD	Kangerlussuaq	28.89	343	*e*P	P	12 41 31.0	+0.1
	comp=Z,8.5nm,1.1s,mb4.4,SNR=26						
UBBA	Unterbreizbach	28.91	56	*e*P	P	12 41 31.6	+0.4
	comp=Z,46nm,2.0s,mb4.9						
VLC	Villacollemand	29.29	70	PFAKE		12 41 50.0	+15
VLC				LR	LR		
	comp=Z,832nm,21.0s,MS4.3						
FETA	Feichten	29.30	64⇑	*i*P	P	12 41 34.4	-0.3
	comp=Z,21nm,1.5s,mb4.7						
VSL	Villasalto	29.45	80	PFAKE		12 41 50.0	+14
VSL				LR	LR		
	comp=Z,994nm,20.0s,MS4.4						
BBSR	BB Station	29.48	265	PFAKE		12 41 50.0	+13
BBSR				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
BBSR	BB Station	29.48	265	P		12 41 50.0	+13
BSEG	Bad Segeberg	29.52	50	*e*P	P	12 41 36.7	+0.1
	comp=Z,90nm,1.5s,mb5.3						
BSEG	Bad Segeberg	29.52	50	*e*P	P	12 41 36.7	+0.1
GRA1	Grafenberg Arr	29.62	59	*e*P	P	12 41 37.0	-0.6
	comp=Z,105nm,1.8s,mb5.3						
GRA1				LR	LR		
	comp=Z,2µm,18.0s,MS4.8						
GRA1	Grafenberg Arr	29.62	59	*e*P	P	12 41 37.0	-0.6
	comp=Z,105nm,1.8s,mb5.3						
GRF	Grafenberg Arr	29.62	59	*e*P	P	12 41 37.0	-0.6
GRF				pmax	pmax		
	comp=Z,105nm,1.8s,mb5.3						
GRF				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.8						
GRF	Grafenberg Arr	29.62	59	*e*P	P	12 41 37.0	-0.6
GRF				pmax	pmax		
	comp=Z,105nm,1.8s,mb5.3						
GRF				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.8						
GRF	Grafenberg Arr	29.62	59	*e*P	P	12 41 37.0	-0.6
	comp=Z,105nm,1.8s,mb5.3						
GRF				*e*L		12 52 19.3	
	comp=Z,2µm,18.0s						
GRF	Grafenberg Arr	29.62	59	*e*P	P	12 41 37.0	-0.6
	comp=Z,105nm,1.8s,mb5.3						
WTTA	Wattenberg	29.91	63⇑	*i*P	P	12 41 40.7	+0.6
	comp=Z,20nm,1.4s,mb4.7						
MOX	Moxa	29.92	57	*e*P	P	12 41 40.5	+0.3
	comp=Z,40nm,1.6s,mb4.9						
MOX							
	comp=Z,1µm,20.0s						
MOX	Moxa	29.92	57	*e*P	P	12 41 40.5	+0.3
MOX				pmax	pmax		
	comp=Z,40nm,1.6s,mb4.9						
MOX				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.6						
MOX	Moxa	29.92	57	*e*P	P	12 41 40.3	+0.1
	comp=Z,52nm,1.6s,mb5.0						
MOX	Moxa	29.92	57	*e*P	P	12 41 40.5	+0.3
	comp=Z,40nm,1.6s,mb4.9						
SCO	Scoresbysund	30.11	5	*i* P	P	12 41 42.5	+0.9
SCO				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.1						
SCO	Scoresbysund	30.11	5	*i* P	P	12 41 42.5	+0.9
	comp=Z,5.1nm,1.2s,mb4.1						
SCO	Scoresbysund	30.11	5	*i* P	P	12 41 42.5	+0.9
	comp=Z,5.1nm,1.2s,mb4.1						
WERD	Werda	30.35	57	*e*P	P	12 41 43.3	-0.7
	comp=Z,27nm,1.4s,mb4.8						
GUNZ	Gunzen	30.36	57	*e*P	P	12 41 44.5	+0.4
	comp=Z,36nm,1.6s,mb4.8						
NKC	Novy Kostel	30.43	58	*e*P	P	12 41 44.9	+0.2
NKC				AMS	AMS	12 53 00.0	
	comp=Z,2µm,15.3s						
NKC	Novy Kostel	30.43	58	P	P	12 41 44.9	+0.2
TANN	Tannenbergstha	30.45	57	*e*P	P	12 41 45.0	+0.1
	comp=Z,11nm,1.2s,mb4.5						
KEST	Kesra	30.58	87	P	P	12 41 47.0	+0.7
	comp=Z,1.6nm,0.9s,mb3.8,baz=262,slow=7.1,SNR=6.4						
KEST				LR	LR	12 53 12.6	
	comp=Z,454nm,18.6s,MS4.2,baz=237,slow=35						
RJOB	Jochberg	30.67	62	*e*P	P	12 41 46.3	-0.6
	comp=Z,25nm,1.6s,mb4.8						
WET	Wettzell	30.69	60	*e*P	P	12 41 46.4	-0.7
WET				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.8						
WET	Wettzell	30.69	60	*e*P	P	12 41 46.4	-0.7
	comp=Z,19nm,1.3s,mb4.8						
WET	Wettzell	30.69	60	*e*P	P	12 41 46.4	-0.7
	comp=Z,19nm,1.3s,mb4.8						
CLL	Collm	30.84	55	*i* P	P	12 41 48.1	-0.2
CLL				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.5						
CLL				MLR	MLR		
	comp=Z,800nm,22.8s,MS4.3						
CLL	Collm	30.84	55	*e*P	P	12 41 48.4	+0.1
	comp=Z,8.0nm,1.0s,mb4.5						
CLL	Collm	30.84	55	*i* P	P	12 41 48.1	-0.2
	comp=Z,13nm,1.5s,mb4.5						
CLL				*e*SSS		12 48 54.0	
CLL	Collm	30.84	55	*i* P	P	12 41 48.1	-0.2
	comp=Z,13nm,1.5s,mb4.5						
CLL				LR	LR		
	comp=Z,800nm,22.8s,MS4.3						
CLL	Collm	30.84	55	*i* P	P	12 41 48.1	-0.2
	comp=Z,13nm,1.5s,mb4.5						
FBE	Freiberg	31.04	56	*e*P	P	12 41 50.4	+0.3
	comp=Z,43nm,1.5s,mb5.1						
KBA	Koelnbreinsper	31.08	64	*i* P	P	12 41 50.6	+0.1
	comp=Z,74nm,1.4s,mb5.3,SNR=16						
KHC	Kasperske Hory	31.15	60	*e*P	P	12 41 50.8	-0.3
KHC				*e*pP	pP	12 41 54.6	+0.4
KHC	Kasperske Hory	31.15	60	P	P	12 41 50.8	-0.3
GEC2	GERESS Array S	31.24	60	*e*P	P	12 41 51.2	-0.7
GEC2				pmax	pmax		
	comp=Z,105nm,2.7s,mb5.2						
GEC2	GERESS Array S	31.24	60	*e*P	P	12 41 51.2	-0.7
	comp=Z,105nm,2.7s,mb5.2						
GEC2	GERESS Array S	31.24	60	*e*P	P	12 41 51.2	-0.7
	comp=Z,105nm,2.7s,mb5.2						
GERES	GERESS Array B	31.24	60	P	P	12 41 51.3	-0.6
	comp=Z,0.8nm,0.8s,mb3.6,baz=273,slow=7.9,SNR=4.8						
GERES				LR	LR	12 53 14.2	
	comp=Z,749nm,18.7s,MS4.4,baz=278,slow=34						
GERES	GERESS Array B	31.24	60	P	P	12 41 51.3	-0.6
LBNH	Lisbon	31.40	291	PFAKE		12 42 00.0	+6.7
LBNH				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
BRG	Berggiesshubel	31.41	56	*e*P	P	12 41 53.5	+0.2
BRG				*e*		12 48 46.2	
BRG				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.3						
BRG				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
BRG				MLR	MLR		
	comp=N,498nm,19.1s,MS4.5						
BRG				MLR	MLR		
	comp=E,803nm,21.3s,MS4.5						
BRG				MLR	MLR		
	comp=Z,2µm,22.7s,MS4.6						
BRG	Berggiesshubel	31.41	56	*e*P	P	12 41 53.5	+0.2
	comp=Z,12nm,1.4s,mb4.5						
BRG				*e*		12 48 46.2	
	comp=Z,3.7nm,0.6s						
BRG							
	comp=N,832nm,19.1s						
BRG							
	comp=E,1µm,21.3s						
BRG							
	comp=Z,3µm,22.7s						
BRG	Berggiesshubel	31.41	56	*e*P	P	12 41 53.5	+0.2
	comp=Z,7.3nm,1.4s,mb4.3						
BRG				*e*		12 48 46.2	
BRG				LR	LR		
	comp=Z,2µm,22.7s,MS4.6						
BRG	Berggiesshubel	31.41	56	*e*P	P	12 41 53.5	+0.2
CADS	Cadrg	31.42	65	*e*P	P	12 41 53.0	-0.5
CADS	Cadrg	31.42	65	P	P	12 41 53.0	-0.5
PRU	Pruhonice	31.78	58	*e*P	P	12 41 56.4	-0.2
PRU				*e*pP	pP	12 42 00.7	+1.1
PRU				AMS	AMS	12 54 00.0	
	comp=Z,2µm,17.0s						
PRU	Pruhonice	31.78	58	P	P	12 41 56.4	-0.2
PVCC	Panska Ves	31.80	57	*e*P	P	12 41 56.6	-0.2
PVCC				AMS	AMS	12 53 50.0	
	comp=Z,2µm,18.2s						
PVCC	Panska Ves	31.80	57	P	P	12 41 56.6	-0.2
NB2	NORSAR Subarra	31.93	37	P	P	12 41 57.5	-0.3
	comp=Z,21nm,1.2s,mb4.8,baz=250,slow=9.3						
NB2	NORSAR Subarra	31.93	37	P	P	12 41 57.5	-0.3
	comp=Z,21nm,1.2s,mb4.8,SNR=5.3						
NOA	NORSAR Array B	31.93	37	P	P	12 41 57.8	+0.1
	comp=Z,4.9nm,0.9s,mb4.3,baz=250,slow=9.6,SNR=5.2						
NOA				LR	LR	12 52 22.4	
	comp=Z,646nm,20.5s,MS4.3,baz=255,slow=32						
NOA				PKPPKP		13 15 42.6	
	comp=Z,1.2nm,0.8s,baz=77,slow=3.6,SNR=3.4						
NOA	NORSAR Array B	31.93	37	P	P	12 41 57.8	+0.1
NOA				LR	LR	12 52 22.4	
NOA	NORSAR Array B	31.93	37	P	P	12 41 57.8	0.0
OBKA	Obir	31.95	65⇑	*i*P	P	12 41 57.3	-0.9
	comp=Z,25nm,1.4s,mb4.8,SNR=7.4						
LJU	Ljubljana	31.99	66	*e*P	P	12 41 58.2	-0.3
LJU	Ljubljana	31.99	66	*e*P	P	12 41 58.2	-0.3
JMIC	Jan Mayen	32.16	13	LR	LR	12 51 55.4	
	comp=Z,855nm,18.8s,MS4.5,baz=261,slow=31						
SOKA	Soboth	32.27	64⇑	*i*P	P	12 41 59.7	-1.2
	comp=Z,11nm,1.4s,mb4.5						
SUMG	Summit	32.28	355	*e*P	P	12 42 00.1	-0.7
	comp=Z,50nm,1.6s,mb5.1						
SUMG	Summit	32.28	355	*e*P	P	12 42 01.6	+0.8
	comp=Z,5.0nm,0.9s,mb4.3,SNR=25						
FRB	Frobisher Bay	32.49	328	P	P	12 42 01.6	-1.1
	comp=Z,12nm,1.0s,mb4.7,baz=112,slow=8.6,SNR=14						
FRB				LR	LR	12 51 47.0	
	comp=Z,434nm,18.8s,MS4.2,baz=295,slow=30						
FRB	Frobisher Bay	32.49	328	P	P	12 42 01.5	-1.2
ARSA	Arzberg	32.55	63⇑	*i*P	P	12 41 59.9	-3.5
	comp=Z,20nm,1.5s,mb4.8,SNR=7.0						
BOJS	Bojanci	32.55	66	*e*P	P	12 42 03.4	-0.1
BOJS	Bojanci	32.55	66	*e*P	P	12 42 03.4	-0.1
UPC	Upice	32.72	57	*e*P	P	12 42 04.5	-0.3
UPC				*e*pP	pP	12 42 07.9	0.0
UPC	Upice	32.72	57	*e*P	P	12 42 04.5	-0.3
KSP	Ksiaz	32.90	56	*e*P	P	12 42 07.3	+0.9
KSP	Ksiaz	32.90	56	*e*P	P	12 42 07.3	+0.9
DPC	Dobruska-Polom	32.92	57	*e*P	P	12 42 07.0	+0.4
DPC				AMS	AMS	12 54 10.0	
	comp=Z,2µm,20.5s						
DPC	Dobruska-Polom	32.92	57	P	P	12 42 07.0	+0.4
NCB	Newcomb	33.08	291	PFAKE		12 42 20.0	+12
NCB				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
LONY	Lake Ozonia	33.22	292	PFAKE		12 42 20.0	+11
LONY				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
ZST	Bratislava	33.53	61	*e*P	P	12 42 11.3	-0.7
ZST				pmax	pmax		
	comp=Z,825nm,5.2s						
ZST	Bratislava	33.53	61	*e*P	P	12 42 11.3	-0.7
	comp=Z,825nm,5.2s						
ZST	Bratislava	33.53	61	*e*P	P	12 42 11.3	-0.7
	comp=Z,825nm,5.2s						
MODS	Modra-Piesok	33.63	61	*e*P	P	12 42 11.8	-1.1
MODS				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
MODS	Modra-Piesok	33.63	61	*e*P	P	12 42 11.8	-1.1
	comp=Z,11nm,1.4s,mb4.6						
MODS	Modra-Piesok	33.63	61	*e*P	P	12 42 11.8	-1.1
	comp=Z,11nm,1.4s,mb4.6						
MORC	Moravsky Berou	33.72	58	*e*P	P	12 42 13.5	-0.1
MORC				pmax	pmax		
	comp=Z,40nm,1.7s,mb5.1						
MORC	Moravsky Berou	33.72	58	*e*P	P	12 42 13.5	-0.1
	comp=Z,40nm,1.7s,mb5.1						
MORC	Moravsky Berou	33.72	58	*e*P	P	12 42 13.7	+0.1
VAE	Valguarnera	33.81	81	LR	LR	12 56 17.9	
	comp=Z,2µm,18.1s,MS4.9,baz=160,slow=37						
CUC	Castrocucco	34.10	76	*e*P	P	12 42 16.0	-1.0
	comp=Z,63nm,1.3s,mb5.4						
CUC				LR	LR		
	comp=Z,1µm,19.0s,MS4.6						
CUC	Castrocucco	34.10	76	*e*P	P	12 42 16.0	-1.0
	comp=Z,63nm,1.3s,mb5.4						
OKC	Ostrava-Krasne	34.11	58	*e*P	P	12 42 17.7	+0.7
OKC	Ostrava-Krasne	34.11	58	P	P	12 42 17.7	+0.7
TAM	Tamanrasset	34.28	111	*e*P	P	12 42 19.7	+1.0
TAM				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.1						
TAM				MLR	MLR		

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      comp=Z,1µm,20.0s,MS4.6
TAM   Tamanrasset      34.28 111  eP      P       12 42 19.7 +1.0
      comp=Z,36nm,1.6s,mb5.1
TAM                                LR      LR
      comp=Z,1µm,20.0s,MS4.6
TAM   Tamanrasset      34.28 111  eP      P       12 42 19.7 +1.0
      comp=Z,36nm,1.6s,mb5.1
WDD   Wield Dalam      34.46  84   PFAKE          12 42 30.0  +10
WDD                                LR      LR
      comp=Z,1µm,21.0s,MS4.7
WDD   Wield Dalam      34.46  84   P              12 42 30.0  +10
VYHS  Vyhne            34.66  61  eP      P       12 42 19.4 -2.3
VYHS  Vyhne            34.66  61  eP      P       12 42 19.4 -2.3
CEL   Celeste          34.67  79   PFAKE          12 42 30.0 +8.0
CEL                                LR      LR
      comp=Z,940nm,21.0s,MS4.5
CEL   Celeste          34.67  79   P              12 42 30.0 +8.0
BINY  Binghamton       34.70 288   PFAKE          12 42 30.0 +7.8
BINY                               LR      LR
      comp=Z,1µm,19.0s,MS4.6
BINY  Binghamton       34.70 288   P              12 42 30.0 +7.8
PKSM  Moragy           34.80  65⇓iP       P       12 42 22.1 -0.9
PKSM  Moragy           34.80  65 ⇓P       P       12 42 22.1 -0.9
PKSM  Moragy           34.80  65⇓iP       P       12 42 22.1 -0.9
BUD   Budapest         34.89  62⇑eP       P       12 42 23.8  0.0
TIP   Timpagrande      35.03  77  eP      P       12 42 24.5 -0.6
      comp=Z,25nm,1.1s,mb5.1
TIP                               ePcP    PcP     12 44 52.6 -4.3
TIP                                LR      LR
      comp=Z,2µm,19.0s,MS4.8
TIP   Timpagrande      35.03  77  eP      P       12 42 24.5 -0.6
      comp=Z,25nm,1.1s,mb5.1
OJC   Ojcow            35.15  57  eP      P       12 42 26.1 +0.1
OJC   Ojcow            35.15  57  eP      P       12 42 26.1 +0.1
PSZ   Piszkesteto      35.42  61  eP      P       12 42 28.5 +0.2
PSZ                                pmax    pmax
      comp=Z,27nm,1.4s,mb5.0
PSZ   Piszkesteto      35.42  61⇑eP       P       12 42 28.8 +0.5
PSZ   Piszkesteto      35.42  61  eP      P       12 42 28.5 +0.1
      comp=Z,28nm,1.4s,mb5.0
PSZ   Piszkesteto      35.42  61⇑eP       P       12 42 28.8 +0.5
KECS  Kecovo           35.75  60  eP      P       12 42 25.0 -6.1
KECS                               pmax    pmax
      comp=Z,4.0nm,1.1s,mb4.3
STHS  Stebnicka Huta   36.15  59  eP      P       12 42 35.5 +0.9
STHS  Stebnicka Huta   36.15  59  eP      P       12 42 35.5 +0.9
ANWB  Willy Bob        36.16 240   PFAKE          12 42 50.0  +15
ANWB                               LR      LR
      comp=Z,629nm,20.0s,MS4.4
ANWB  Willy Bob        36.16 240   P              12 42 50.0  +15
CRVS  Cervenica-Dubn   36.34  60  eP      P       12 42 36.7 +0.5
CRVS                               pmax    pmax
      comp=Z,32nm,1.4s,mb5.1
CRVS  Cervenica-Dubn   36.34  60  eP      P       12 42 36.7 +0.5
      comp=Z,32nm,1.4s,mb5.1
CRVS  Cervenica-Dubn   36.34  60  eP      P       12 42 36.7 +0.5
      comp=Z,32nm,1.4s,mb5.1
SADO  Sadowa           36.39 293   LR      LR     12 56 45.2
      comp=Z,2µm,18.9s,MS4.9,baz=145,slow=35
SSPA  Standing Stone   36.49 286  eP      P       12 42 37.5 -0.1
      comp=Z,33nm,1.2s,mb5.1
SSPA                               LR      LR
      comp=Z,1µm,20.0s,MS4.7
SSPA  Standing Stone   36.49 286  eP      P       12 42 37.5 -0.1
      comp=Z,33nm,1.2s,mb5.1
TIR   Tirane           36.69  72   PFAKE          12 42 50.0  +11
TIR                                LR      LR
      comp=Z,568nm,21.0s,MS4.3
TIR   Tirane           36.69  72   P              12 42 50.0  +11
CBN   Corbin           36.85 282   PFAKE          12 42 50.0 +9.3
CBN                                LR      LR
      comp=Z,944nm,19.0s,MS4.6
CBN   Corbin           36.85 282   P              12 42 50.0 +9.3
KOLS  Kolonicke sedl   36.87  59  eP      P       12 42 42.3 +1.6
KOLS                               pmax    pmax
      comp=Z,567nm,4.7s
KOLS  Kolonicke sedl   36.87  59  eP      P       12 42 42.3 +1.6
      comp=Z,567nm,4.7s
KOLS  Kolonicke sedl   36.87  59  eP      P       12 42 42.3 +1.6
      comp=Z,567nm,4.7s
UZH   Uzhgorod         36.92  60  eP      P       12 42 38.0 -3.2
UZH                               i               12 42 50.8
UZH                               eS      S       12 48 19.0 -6.9
BZS   Buzias           36.95  65⇓iP       P       12 42 40.9 -0.5
BZS   Buzias           36.95  65 ⇓P       P       12 42 40.9 -0.5
BZS   Buzias           36.95  65⇓iP       P       12 42 40.9 -0.5
KWP   Kalwaria Pacla   37.08  58   PFAKE          12 42 50.0 +7.6
KWP                                LR      LR
      comp=Z,1µm,20.0s,MS4.7
ERPA  Erie             37.60 289   PFAKE          12 43 00.0  +13
ERPA                               LR      LR
      comp=Z,896nm,21.0s,MS4.5
GZR   Gura Zlata       37.79  65⇑iP       P       12 42 48.8 +0.2
GZR   Gura Zlata       37.79  65 ⇑P       P       12 42 48.8 +0.3
GZR   Gura Zlata       37.79  65⇑iP       P       12 42 48.8 +0.2
FDF   Fort de France   37.91 236   PFAKE          12 43 00.0  +10
FDF                                LR      LR
      comp=Z,764nm,20.0s,MS4.5
BBGH  Gun Hill         38.14 233   PFAKE          12 43 00.0 +8.2
BBGH                               LR      LR
      comp=Z,2µm,21.0s,MS4.8
MCWV  Mont Chateau     38.21 285  eP      P       12 42 50.6 -1.6
      comp=Z,222nm,2.0s,mb5.5
MCWV                               LR      LR
      comp=Z,2µm,21.0s,MS4.9
MCWV  Mont Chateau     38.21 285  eP      P       12 42 50.6 -1.6
      comp=Z,222nm,2.0s,mb5.5
CNNC  Cliffs of the    38.31 278   PFAKE          12 43 00.0 +6.9
CNNC                               LR      LR
      comp=Z,914nm,21.0s,MS4.6
CNNC  Cliffs of the    38.31 278   P              12 43 00.0 +6.9
TOA0  Torodi Ar. Sit   38.57 126  eP      P       12 42 54.1 -1.2
TOA0  Torodi Ar. Sit   38.57 126  eP      P       12 42 54.1 -1.3
TORD  Torodi Ar. Bea   38.57 126   P      P       12 42 53.8 -1.6
      comp=Z,16nm,1.1s,mb4.7,baz=318,slow=5.6,SNR=39
TORD                               LR      LR     12 57 16.3
      comp=Z,533nm,21.0s,MS4.3,baz=320,slow=34
SJG   San Juan         38.80 246   PFAKE          12 43 10.0  +13
SJG                                LR      LR
      comp=Z,912nm,21.0s,MS4.6
MPEP  Malo Peshtene    38.94  68  i P     P       12 42 58.7 +0.5
VOIR                   39.35  64⇑iP       P       12 43 01.7 +0.1
VOIR                   39.35  64 ⇑P       P       12 43 01.7 +0.1
VOIR                   39.35  64⇑iP       P       12 43 01.7 +0.1
MMB   Musomiste        39.41  71  eP      P       12 43 03.9 +1.7
BLA   Blacksburg       39.47 282   PFAKE          12 43 10.0 +7.3
BLA                                LR      LR
      comp=Z,923nm,19.0s,MS4.6
BLA   Blacksburg       39.47 282   P              12 43 10.0 +7.3
MLR   Muntele Rosu     39.95  64⇓iP       P       12 43 07.3 +0.7
MLR   Muntele Rosu     39.95  64 ⇓P       P       12 43 07.3 +0.6
MLR   Muntele Rosu     39.95  64⇓iP       P       12 43 07.3 +0.7
AAM   Ann Arbor        40.17 291   PFAKE          12 43 20.0  +11
AAM                                LR      LR
      comp=Z,572nm,20.0s,MS4.4
GLMI  Grayling         40.18 295  eP      P       12 43 09.0 +0.5
      comp=Z,55nm,1.0s,mb5.2
GLMI                               LR      LR
      comp=Z,2µm,20.0s,MS4.9
GLMI  Grayling         40.18 295  eP      P       12 43 09.0 +0.4
      comp=Z,55nm,1.0s,mb5.2
TIC   Toumodi          40.24 141  eP      P       12 43 08.3 -1.1
      comp=Z,100nm,1.2s,mb5.4
DBIC  Dimbokro         40.30 141   P      P       12 43 09.9  0.0
      comp=Z,11nm,1.0s,mb4.5,baz=325,slow=6.3,SNR=8.5
DBIC                               LR      LR     12 58 34.2
      comp=Z,432nm,18.0s,MS4.3,baz=314,slow=34
DBIC  Dimbokro         40.30 141   P      P       12 43 09.9 +0.1
ACSO  Alum Creek Sta   40.32 288  eP      P       12 43 09.2 -0.6
      comp=Z,211nm,2.1s,mb5.5
ACSO                               LR      LR
      comp=Z,1µm,19.0s,MS4.7
ACSO  Alum Creek Sta   40.32 288  eP      P       12 43 09.2 -0.6
      comp=Z,211nm,2.1s,mb5.5
ARCES ARCESS Array B   40.35  26   P      P       12 43 09.5 -0.2
      comp=Z,7.7nm,1.0s,mb4.4,baz=273,slow=8.1,SNR=5.8
ARCES                              LR      LR     12 56 01.6
      comp=Z,569nm,19.9s,MS4.4,baz=256,slow=30
ARCES ARCESS Array B   40.35  26   P      P       12 43 09.5 -0.2
KDZ   Kurdzhali        40.60  70  i P     P       12 43 12.2 +0.1
LIC   Lamto            40.60 141  eP      P       12 43 09.9 -2.5
      comp=Z,71nm,2.1s,mb4.9
KIC   Kosan Boka       40.62 141  eP      P       12 43 11.0 -1.5
      comp=Z,211nm,1.8s,mb5.5
NHSC  New Hope         40.92 276   PFAKE          12 43 30.0  +15
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NHSC                               LR      LR
      comp=Z,1µm,20.0s,MS4.7
NHSC  New Hope         40.92 276   P              12 43 30.0  +15
KIEV  Kiev             41.07  56  eP      P       12 43 15.0 -0.9
KIEV                               pmax    pmax
      comp=Z,89nm,1.9s,mb5.1
KIEV                               MLR     MLR
      comp=Z,1µm,20.0s,MS4.7
KIEV  Kiev             41.07  56  eP      P       12 43 15.0 -0.8
      comp=Z,88nm,1.9s,mb5.1
KIEV                               LR      LR
      comp=Z,1µm,20.0s,MS4.7
KIEV  Kiev             41.07  56  eP      P       12 43 15.0 -0.9
      comp=Z,88nm,1.9s,mb5.1
AKASG Malin Array Be   41.08  56   P      P       12 43 14.7 -1.3
      comp=Z,8.9nm,1.0s,mb4.3,baz=275,slow=8.4,SNR=15
AKASG                              LR      LR     13 00 05.8
      comp=Z,1µm,18.5s,MS4.7,baz=280,slow=36
AKASG Malin Array Be   41.08  56   P      P       12 43 14.7 -1.3
AKASG                              LR      LR     13 00 05.8
AKASG Malin Array Be   41.08  56   P      P       12 43 14.7 -1.2
SPITS Spitsbergen Ar   41.84  13   LR      LR     12 56 01.6
      comp=Z,345nm,19.0s,MS4.2,baz=235,slow=29
SDDR  Presa de Saban   41.87 252  eP      P       12 43 22.8  0.0
      comp=Z,88nm,1.2s,mb5.3
SDDR                               LR      LR
      comp=Z,578nm,20.0s,MS4.5
SDDR  Presa de Saban   41.87 252  eP      P       12 43 22.8 +0.1
      comp=Z,88nm,1.2s,mb5.3
TIRR  Tirgusor         41.90  65  eP      P       12 43 21.5 -1.3
TIRR                               pmax    pmax
      comp=Z,38nm,1.3s,mb4.9
TIRR  Tirgusor         41.90  65⇑iP       P       12 43 21.2 -1.6
TIRR  Tirgusor         41.90  65  eP      P       12 43 21.5 -1.3
      comp=Z,38nm,1.3s,mb4.9
TIRR  Tirgusor         41.90  65  eP      P       12 43 21.5 -1.3
      comp=Z,38nm,1.3s,mb4.9
TKL   Tuckaleechee C   42.56 281   LR      LR     12 59 55.8
      comp=Z,832nm,19.1s,MS4.6,baz=74,slow=34
APA   Apatity          42.81  30⇓eP       P       12 43 34.4 +4.5
APA                                pmax    pmax
      comp=Z,13nm,1.0s,mb4.6
APA                                MLR     MLR
      comp=Z,2µm,12.0s,MS5.3
CPCT  Cooper Cave      43.20 282  eP      P       12 43 33.3 -0.1
CPCT                              ePcP    PcP     12 45 22.1 -0.6
CPCT  Cooper Cave      43.20 282  eP      P       12 43 33.3 -0.1
BLO   Bloomington      43.25 287  eP      P       12 43 33.6 -0.2
BLO                                pmax    pmax
      comp=Z,289nm,2.3s,mb5.6
BLO   Bloomington      43.25 287  eP      P       12 43 33.6 -0.1
      comp=Z,289nm,2.3s,mb5.6
BLO   Bloomington      43.25 287  eP      P       12 43 33.6 -0.2
      comp=Z,289nm,2.3s,mb5.6
GOGA  Godfrey          43.27 278  eP      P       12 43 38.1 +4.1
GOGA                               pmax    pmax
      comp=Z,159nm,2.1s,mb5.4
GOGA                               MLR     MLR
      comp=Z,731nm,19.0s,MS4.6
GOGA  Godfrey          43.27 278  eP      P       12 43 38.1 +4.1
      comp=Z,159nm,2.1s,mb5.4
GOGA                               LR      LR
      comp=Z,731nm,19.0s,MS4.6
GOGA  Godfrey          43.27 278  eP      P       12 43 38.1 +4.1
      comp=Z,159nm,2.1s,mb5.4
WCI   Wyandotte Cave   43.42 286  eP      P       12 43 34.9 -0.3
WCI                                pmax    pmax
      comp=Z,25nm,1.1s,mb4.9
WCI                                MLR     MLR
      comp=Z,1µm,20.0s,MS4.7
WCI   Wyandotte Cave   43.42 286  eP      P       12 43 34.9 -0.3
      comp=Z,25nm,1.1s,mb4.8
WCI                                LR      LR
      comp=Z,1µm,20.0s,MS4.7
WCI   Wyandotte Cave   43.42 286  eP      P       12 43 34.9 -0.3
      comp=Z,25nm,1.1s,mb4.8
PCRV  Puerto La Cruz   43.56 236   LR      LR     12 57 41.2
      comp=Z,508nm,21.8s,MS4.4,baz=59,slow=31
FCC   Fort Churchill   43.70 317  eP      P       12 43 36.3 -0.8
FCC                                pmax    pmax
      comp=Z,1.0nm,1.3s
FCC   Fort Churchill   43.70 317  eP      P       12 43 36.3 -0.8
      comp=Z,1.4nm,1.3s
FCC   Fort Churchill   43.70 317  eP      P       12 43 36.3 -0.8
      comp=Z,1.4nm,1.3s,mb3.5
EYMN  Ely              44.02 301  eP      P       12 43 38.7 -1.1
EYMN                               LR      LR
      comp=Z,1µm,19.0s,MS4.8
EYMN  Ely              44.02 301  eP      P       12 43 38.7 -1.2
GTBY  Guantanamo Bay   44.06 256   PFAKE          12 43 50.0 +9.5
GTBY                               LR      LR
      comp=Z,665nm,22.0s,MS4.5
GTBY  Guantanamo Bay   44.06 256   P              12 43 50.0 +9.5
DWPF  Disney           44.23 270   PFAKE          12 43 50.0 +8.2
DWPF                               LR      LR
      comp=Z,531nm,20.0s,MS4.5
DWPF  Disney           44.23 270   P              12 43 50.0 +8.2
SWET  Sewanee          44.35 282  eP      P       12 43 42.3 -0.4
SWET  Sewanee          44.35 282  eP      P       12 43 42.3 -0.4
OLIL  Olney            44.55 287  eP      P       12 43 44.2 -0.1
      comp=Z,52nm,1.1s,mb5.3
OLIL  Olney            44.55 287  eP      P       12 43 44.2  0.0
      comp=Z,52nm,1.1s,mb5.3
JFWS  Jewell Farm      44.62 294  eP      P       12 43 44.8  0.0
JFWS                               MLR     MLR
      comp=Z,1µm,20.0s,MS4.8
JFWS  Jewell Farm      44.62 294  eP      P       12 43 44.8  0.0
OBN   Obninsk          44.74  48⇑eP       P       12 43 45.6  0.0
OBN                               e               12 45 25.6
OBN                               eS      S       12 50 18.0 -4.2
OBN                                pmax    pmax
      comp=Z,73nm,1.7s,mb5.2
OBN                                MLR     MLR
      comp=Z,700nm,20.0s,MS4.6
HDIL  Hopedale         44.75 290  eP      P       12 43 45.5 -0.3
      comp=Z,96nm,1.6s,mb5.4
HDIL                               LR      LR
      comp=Z,713nm,21.0s,MS4.6
HDIL  Hopedale         44.75 290  eP      P       12 43 45.5 -0.3
      comp=Z,96nm,1.6s,mb5.4
RES   Resolute Bay     44.81 340   P      P       12 43 44.9 -0.9
RES                                               12 45 26.6
RES   Resolute Bay     44.81 340   P      P       12 43 44.9 -0.9
      comp=Z,4.2nm,1.0s,mb4.2,baz=84,slow=7.5,SNR=11
RES                                PcP     PcP    12 45 26.6 -1.0
      comp=Z,3.8nm,1.0s,baz=142,slow=2.0,SNR=4.6
RES                                LR      LR     12 58 44.7
      comp=Z,205nm,21.5s,MS4.0,baz=221,slow=31
RES   Resolute Bay     44.81 340   P      P       12 43 44.9 -0.9
RES                                PcP     PcP    12 45 26.6 -1.0
RES                                LR      LR     12 58 44.7
RES   Resolute Bay     44.81 340   P      P       12 43 44.9 -0.9
RES   Resolute Bay     44.81 340   PcP     PcP    12 45 26.5 -1.0
MOS   Moscow           45.23  47  eP      P       12 43 48.3 -1.1
MOS                                MLR     MLR
      comp=Z,2µm,17.0s,MS5.0
WVT   Waverly          45.37 284  eP      P       12 43 50.6 -0.2
WVT                               e               12 45 30.4
WVT                                pmax    pmax
      comp=Z,11nm,0.9s,mb4.7
WVT                                MLR     MLR
      comp=Z,602nm,22.0s,MS4.5
WVT   Waverly          45.37 284  eP      P       12 43 50.6 -0.2
      comp=Z,11nm,0.9s,mb4.7
WVT                               ePcP    PcP     12 45 30.4 +0.2
WVT                                LR      LR
      comp=Z,602nm,22.0s,MS4.5
WVT   Waverly          45.37 284  eP      P       12 43 50.6 -0.2
      comp=Z,11nm,0.9s,mb4.7
KLMR  Klimovskoe       45.50  40  eP      P       12 43 49.8 -1.7
KLMR                               pmax    pmax
      comp=Z,52nm,1.5s,mb5.2
ISP   Isparta          45.60  73   PFAKE          12 44 00.0 +7.4
ISP                                LR      LR
      comp=Z,374nm,19.0s,MS4.3
ISP   Isparta          45.60  73   P              12 44 00.0 +7.4
SIUC  Southern Illin   45.75 287  eP      P       12 43 53.7 -0.1
      comp=Z,108nm,1.5s,mb5.6
SIUC  Southern Illin   45.75 287  eP      P       12 43 53.7 -0.1
      comp=Z,108nm,1.5s,mb5.6
PLAL  Pickwick Lake    46.04 283  eP      P       12 43 55.6 -0.5
      comp=Z,14nm,1.0s,mb4.8
PLAL                               LR      LR
      comp=Z,670nm,21.0s,MS4.6
PLAL  Pickwick Lake    46.04 283  eP      P       12 43 55.6 -0.5
      comp=Z,14nm,1.0s,mb4.8
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ULM   Lac du Bonnet    46.22 305   P      P       12 43 55.8 -1.6
      comp=Z,2.3nm,0.5s,mb4.3,baz=47,slow=6.1,SNR=4.9
ULM                                LR      LR     13 02 16.9
      comp=Z,2µm,19.0s,MS5.0,baz=68,slow=35
ULM   Lac du Bonnet    46.22 305   P      P       12 43 55.8 -1.5
FVM   French Village   46.53 288  eP      P       12 43 58.5 -1.4
FVM                               e               12 45 32.6
FVM                                pmax    pmax
      comp=Z,31nm,1.0s,mb5.2
FVM   French Village   46.53 288  eP      P       12 43 58.5 -1.4
      comp=Z,31nm,1.0s,mb5.2
FVM                               ePcP    PcP     12 45 32.6 -1.5
FVM   French Village   46.53 288  eP      P       12 43 58.5 -1.4
      comp=Z,31nm,1.0s,mb5.2
HALT  Halls            46.58 284  eP      P       12 43 59.9 -0.5
HALT  Halls            46.58 284  eP      P       12 43 59.9 -0.4
RCBR  Riachuelo        46.68 189  eP      P       12 44 02.3 +1.1
      comp=Z,63nm,1.5s,mb5.3
RCBR                               LR      LR
      comp=Z,397nm,21.0s,MS4.3
AGMN  Agassiz Refuge   46.74 303  eP      P       12 44 00.1 -1.4
      comp=Z,56nm,1.4s,mb5.3
AGMN                               LR      LR
      comp=Z,1µm,19.0s,MS4.8
AGMN  Agassiz Refuge   46.74 303  eP      P       12 44 00.1 -1.4
      comp=Z,56nm,1.4s,mb5.3
SCIA  State Center     47.03 294  eP      P       12 44 03.7 -0.1
      comp=Z,207nm,1.9s,mb5.7
SCIA                              ePcP    PcP     12 45 36.1 +0.3
SCIA                               LR      LR
      comp=Z,1µm,20.0s,MS4.8
SCIA  State Center     47.03 294  eP      P       12 44 03.7 -0.1
      comp=Z,207nm,1.9s,mb5.7
GNAR  Gosnell          47.05 285  eP      P       12 44 03.3 -0.8
      comp=Z,183nm,0.6s,mb6.2
GNAR  Gosnell          47.05 285  eP      P       12 44 03.3 -0.8
      comp=Z,183nm,0.6s,mb6.2
BRAL  Brewton          47.07 277   PFAKE          12 44 20.0  +16
BRAL                               LR      LR
      comp=Z,879nm,22.0s,MS4.7
BRAL  Brewton          47.07 277   P              12 44 20.0  +16
CCM   Cathedral Cave   47.09 288  eP      P       12 44 02.8 -1.5
CCM                               e               12 45 36.8
CCM                                pmax    pmax
      comp=Z,17nm,1.1s,mb4.9
CCM                                MLR     MLR
      comp=Z,860nm,20.0s,MS4.7
CCM   Cathedral Cave   47.09 288  eP      P       12 44 02.8 -1.5
      comp=Z,17nm,1.1s,mb4.9
CCM                               ePcP    PcP     12 45 36.8 +0.7
CCM                                LR      LR
      comp=Z,860nm,20.0s,MS4.7
CCM   Cathedral Cave   47.09 288  eP      P       12 44 02.8 -1.5
      comp=Z,17nm,1.1s,mb4.9
VSR   Storozhevoye     47.11  53  eP      P       12 44 02.2 -2.1
VSR                                pmax    pmax
      comp=Z,20nm,1.2s,mb4.9
VSR                                pmax    pmax
      comp=N,9.0nm,0.8s
VSR                                pmax    pmax
      comp=E,10.0nm,1.2s
BRTR  Keskin Array B   47.13  70   P      P       12 44 04.7 +0.1
      comp=E,6.0nm,1.0s,mb4.5
BRTR  Keskin Array B   47.13  70   P      P       12 44 04.7 +0.1
OXF   Oxford           47.23 283  eP      P       12 44 04.2 -1.3
OXF                                pmax    pmax
      comp=Z,87nm,1.0s,mb5.6
OXF                                MLR     MLR
      comp=Z,662nm,19.0s,MS4.6
OXF   Oxford           47.23 283  eP      P       12 44 04.2 -1.2
      comp=Z,87nm,1.0s,mb5.6
OXF                                LR      LR
      comp=Z,662nm,19.0s,MS4.6
OXF   Oxford           47.23 283  eP      P       12 44 04.2 -1.3
      comp=Z,87nm,1.0s,mb5.6
VORD  Divnogorie       47.26  53  eP      P       12 44 04.1 -1.3
VORD                               pmax    pmax
      comp=Z,50nm,1.2s,mb5.3
VORD                               pmax    pmax
      comp=N,10.0nm,0.6s
VORD                               pmax    pmax
      comp=E,60nm,1.2s
PRGR  Permogore        48.31  38⇓iP       P       12 44 13.8 +0.4
PRGR                               pmax    pmax
      comp=Z,85nm,1.1s,mb5.7
SDV   Santo Domingo    48.41 241  eP      P       12 44 15.1 +0.3
      comp=Z,12nm,1.0s,mb4.9
SDV                               ePcP    PcP     12 45 41.0 -0.2
SDV   Santo Domingo    48.41 241  eP      P       12 44 15.1 +0.3
      comp=Z,12nm,1.0s,mb4.9
VRHR  Novokhopersk     48.64  53  eP      P       12 44 14.8 -1.3
VRHR                               pmax    pmax
      comp=Z,70nm,1.4s,mb5.5
VRHR                               pmax    pmax
      comp=N,50nm,0.9s
FFC   Flin Flon        48.69 312   P      P       12 44 15.5 -0.9
      comp=N,133nm,1.1s,mb5.9,SNR=11
FFC   Flin Flon        48.69 312  eP      P       12 44 15.5 -0.9
FFC                                pmax    pmax
      comp=Z,21nm,1.1s,mb5.1
FFC                                MLR     MLR
      comp=Z,949nm,19.0s,MS4.8
FFC   Flin Flon        48.69 312  eP      P       12 44 15.4 -1.0
      comp=Z,21nm,1.1s,mb5.1
FFC                                LR      LR
      comp=Z,949nm,19.0s,MS4.8
FFC   Flin Flon        48.69 312  eP      P       12 44 15.4 -1.0
      comp=Z,21nm,1.1s,mb5.1
ECSD  EROS Data Cent   48.71 297  eP      P       12 44 15.3 -1.5
      comp=Z,34nm,1.0s,mb5.3
ECSD                               LR      LR
      comp=Z,2µm,20.0s,MS5.0
ECSD  EROS Data Cent   48.71 297  eP      P       12 44 15.3 -1.5
      comp=Z,34nm,1.0s,mb5.3
CSS   Prodhromos       48.87  76   PFAKE          12 44 30.0  +12
CSS                                LR      LR
      comp=Z,272nm,21.0s,MS4.2
VBMS  Vicksburg        49.10 281   PFAKE          12 44 30.0  +10
VBMS                               LR      LR
      comp=Z,873nm,20.0s,MS4.8
VBMS  Vicksburg        49.10 281   P              12 44 30.0  +10
UALR  University of    49.28 284  eP      P       12 44 25.5 +4.2
      comp=Z,192nm,2.3s,mb5.7
SOC   Sochi            49.90  62  eP      P       12 44 27.4 +1.5
SOC                               e               12 46 28.2
SOC                               eS      S       12 51 32.2 -3.6
SOC                                MLR     MLR
      comp=Z,192nm,8.0s
MIAR  Mount Ida        50.29 285  eP      P       12 44 28.1 -0.9
MIAR                              e               12 45 47.9
MIAR                               pmax    pmax
      comp=Z,126nm,1.5s,mb5.7
MIAR                               MLR     MLR
      comp=Z,625nm,19.0s,MS4.6
MIAR  Mount Ida        50.29 285  eP      P       12 44 28.1 -0.9
      comp=Z,126nm,1.5s,mb5.7
MIAR                              ePcP    PcP     12 45 47.9 +0.1
MIAR                               LR      LR
      comp=Z,625nm,19.0s,MS4.6
MIAR  Mount Ida        50.29 285  eP      P       12 44 28.1 -0.9
      comp=Z,126nm,1.5s,mb5.7
KSU1  Kansas State U   50.50 292  eP      P       12 44 29.3 -1.3
      comp=Z,14nm,0.7s,mb5.0
KSU1                               LR      LR
      comp=Z,943nm,21.0s,MS4.8
KSU1  Kansas State U   50.50 292  eP      P       12 44 29.3 -1.2
      comp=Z,14nm,0.7s,mb5.0
MALT  Malatya          51.11  69  eP      P       12 44 34.9 -0.2
MALT                               pmax    pmax
      comp=Z,28nm,1.4s,mb5.0
MALT                               MLR     MLR
      comp=Z,279nm,20.0s,MS4.3
MALT  Malatya          51.11  69⇑iP       P       12 44 35.5 +0.4
MALT  Malatya          51.11  69  eP      P       12 44 34.9 -0.2
      comp=Z,28nm,1.4s,mb5.0
MALT                               LR      LR
      comp=Z,279nm,20.0s,MS4.3
MALT  Malatya          51.11  69⇑iP       P       12 44 35.5 +0.4
KIV   Kislovodsk       51.75  61⇑eP       P       12 44 40.8 +1.0
KIV                               e               12 46 37.1
KIV                               i S     S       12 52 01.2 -0.2
KIV                               eSS     SS      12 55 29.5 -8.0
KIV                                pmax    pmax
      comp=Z,10.0nm,1.2s,mb4.6
KIV                                MLR     MLR
      comp=Z,200nm,15.0s,MS4.3
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KIV	**Kislovodsk**	**51.75**	**61**	PFAKE		12 44 50.0	+10
KIV				LR	LR		
	comp=Z,390nm,20.0s,MS4.4						
DGMT	**Dagmar**	**51.94**	**305**	*e*P	**P**	**12 44 41.8**	**+0.6**
	comp=Z,60nm,1.1s,mb5.4						
DGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
DGMT	**Dagmar**	**51.94**	**305**	*e*P	**P**	**12 44 41.8**	**+0.6**
	comp=Z,60nm,1.1s,mb5.4						
CBKS	**Cedar Bluff**	**52.83**	**292**	*e*P	**P**	**12 44 45.1**	**-2.8**
CBKS				MLR	MLR		
	comp=Z,954nm,21.0s,MS4.8						
CBKS	**Cedar Bluff**	**52.83**	**292**	*e*P	**P**	**12 44 45.1**	**-2.8**
YKA	**Yellowknife Ar**	**52.85**	**325**	P	**P**	**12 44 45.9**	**-1.8**
YKA						12 45 55.5	
YKA	**Yellowknife Ar**	**52.85**	**325**	P	**P**	**12 44 45.9**	**-1.8**
	comp=Z,9.3nm,1.0s,mb4.7,baz=70,slow=7.0,SNR=38						
YKA				PcP	PcP	12 45 55.5	-1.2
	comp=Z,4.1nm,1.0s,baz=64,slow=4.0,SNR=5.7						
YKA				LR	LR	13 04 44.8	
	comp=Z,301nm,20.0s,MS4.3,baz=100,slow=33						
YKA	**Yellowknife Ar**	**52.85**	**325**	P	**P**	**12 44 45.9**	**-1.8**
YKA				PcP	PcP	12 45 55.5	-1.2
YKA				LR	LR	13 04 44.8	
YKA	**Yellowknife Ar**	**52.85**	**325**	P	**P**	**12 44 45.9**	**-1.8**
YKA	**Yellowknife Ar**	**52.85**	**325**	PcP	PcP	12 45 55.5	-1.3
OGNE	**Ogallala**	**53.50**	**296**	*e*P	**P**	**12 44 51.6**	**-1.3**
	comp=Z,64nm,1.2s,mb5.4						
OGNE				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
OGNE	**Ogallala**	**53.50**	**296**	*e*P	**P**	**12 44 51.6**	**-1.2**
	comp=Z,64nm,1.2s,mb5.4						
RSSD	**Black Hills**	**53.52**	**300**	PFAKE		12 45 00.0	+7.1
RSSD				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
TEIG	**Tepich**	**53.77**	**266**	PFAKE		12 45 10.0	+15
TEIG				LR	LR		
	comp=Z,574nm,22.0s,MS4.6						
TEIG	**Tepich**	**53.77**	**266**	P		12 45 10.0	+15
ROSC	**El Rosal**	**53.84**	**241**	P	**P**	**12 44 56.1**	**+0.5**
	comp=Z,3.8nm,0.4s,mb4.7,baz=101,slow=23,SNR=5.6						
ROSC				LR	LR	13 04 40.8	
	comp=Z,437nm,21.6s,MS4.5,baz=23,slow=33						
ROSC	**El Rosal**	**53.84**	**241**	P	**P**	**12 44 56.1**	**+0.5**
LAO	**LASA Array**	**53.89**	**304**	*e*P	**P**	**12 44 55.3**	**-0.3**
	comp=Z,66nm,1.2s,mb5.4						
LAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
LAO	**LASA Array**	**53.89**	**304**	*e*P	**P**	**12 44 55.3**	**-0.3**
	comp=Z,66nm,1.2s,mb5.4						
WMOK	**Wichita Mounta**	**54.00**	**288**	*e*P	**P**	**12 44 55.4**	**-1.2**
WMOK				*e*		12 46 02.9	
WMOK				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
WMOK	**Wichita Mounta**	**54.00**	**288**	*e*P	**P**	**12 44 55.4**	**-1.3**
	comp=Z,28nm,1.1s,mb5.1						
WMOK				*e*PcP	PcP	12 46 02.9	+1.2
WMOK	**Wichita Mounta**	**54.00**	**288**	*e*P	**P**	**12 44 55.3**	**-1.3**
	comp=Z,28nm,1.1s,mb5.1						
SOKR	**Solikamsk**	**54.16**	**39**	⇓*i*P	**P**	**12 44 58.5**	**+1.1**
SOKR				pmax	pmax		
	comp=Z,80nm,1.6s,mb5.4						
HKT	**Hockley**	**54.18**	**281**	*e*P	**P**	**12 44 57.7**	**-0.3**
HKT				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.2						
HKT				MLR	MLR		
	comp=Z,707nm,21.0s,MS4.7						
HKT	**Hockley**	**54.18**	**281**	*e*P	**P**	**12 44 57.7**	**-0.3**
	comp=Z,50nm,1.6s,mb5.2						
HKT				LR	LR		
	comp=Z,707nm,21.0s,MS4.7						
HKT	**Hockley**	**54.18**	**281**	*e*P	**P**	**12 44 57.7**	**-0.3**
	comp=Z,50nm,1.6s,mb5.2						
BCIP	**Isla Barro Col**	**54.56**	**249**	PFAKE		12 45 10.0	+9.1
BCIP				LR	LR		
	comp=Z,266nm,20.0s,MS4.3						
GNI	**Garni**	**54.73**	**65**	⇑*e*P	**P**	**12 45 03.5**	**+1.7**
GNI				pmax	pmax		
	comp=Z,45nm,1.7s						
GNI	**Garni**	**54.73**	**65**	LR	LR	13 11 21.2	
	comp=Z,175nm,18.9s,MS4.2,baz=290,slow=39						
GNI	**Garni**	**54.73**	**65**	*e*P	**P**	**12 45 03.1**	**+1.3**
	comp=Z,110nm,1.8s,mb5.6						
GNI				LR	LR		
	comp=Z,183nm,19.0s,MS4.2						
GNI	**Garni**	**54.73**	**65**	P	**P**	**12 45 03.7**	**+1.9**
	SNR=8.5						
GNI				P		12 45 03.7	
	SNR=8.5						
GNI	**Garni**	**54.73**	**65**	P	**P**	**12 45 03.7**	**+1.9**
	SNR=8.5						
A18A	**Metzger Ranch,**	**55.23**	**308**	P	**P**	**12 45 05.2**	**-0.1**
	baz=55,SNR=14						
MAK	**Makhachkala**	**55.35**	**60**	P	**P**	**12 45 04.3**	**-2.0**
MAK				*e*S	**S**	**12 52 42.9**	**-7.5**
MAK				*e*		12 54 49.8	
MAK				pmax	pmax		
	comp=Z,32nm,0.3s,mb5.8						
MAK				MLR	MLR		
	comp=Z,315nm,8.0s						
B18A	**Beardsley Farm**	**55.40**	**307**	P	**P**	**12 45 06.5**	**-0.1**
	baz=55,SNR=13						
EDM	**Edmonton**	**55.52**	**313**	*e*P	**P**	**12 45 06.2**	**-1.1**
EDM	**Edmonton**	**55.52**	**313**	*e*P	**P**	**12 45 06.2**	**-1.1**
EGMT	**Eagleton**	**55.54**	**307**	P	**P**	**12 45 07.7**	**+0.1**
	baz=55,SNR=18						
EGMT	**Eagleton**	**55.54**	**307**	*e*P	**P**	**12 45 06.3**	**-1.3**
	comp=Z,52nm,1.2s,mb5.4						
EGMT				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
EGMT	**Eagleton**	**55.54**	**307**	*e*P	**P**	**12 45 06.3**	**-1.2**
	comp=Z,52nm,1.2s,mb5.4						
PHWY	**Pilot Hill**	**55.67**	**298**	*e*P	**P**	**12 45 08.2**	**-0.3**
	comp=Z,9.0nm,1.0s,mb4.8						
PHWY	**Pilot Hill**	**55.67**	**298**	*e*P	**P**	**12 45 08.2**	**-0.4**
	comp=Z,9.0nm,1.0s,mb4.8						
A17A	**Triple J Farms**	**55.73**	**308**	P	**P**	**12 45 09.0**	**+0.1**
	baz=56,SNR=18						
D18A	**Linhart Farms,**	**55.92**	**306**	P	**P**	**12 45 10.4**	**+0.2**
	baz=56,SNR=14						
AMTX	**Amarillo**	**56.03**	**289**	*e*P	**P**	**12 45 10.2**	**-1.0**
	comp=Z,67nm,1.2s,mb5.5						
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
AMTX	**Amarillo**	**56.03**	**289**	*e*P	**P**	**12 45 10.2**	**-1.0**
	comp=Z,67nm,1.2s,mb5.5						
B17A	**L&G Farms, Che**	**56.06**	**307**	P	**P**	**12 45 11.2**	**-0.1**
	baz=56,SNR=24						
ARU	**Arti**	**56.23**	**42**	P	**P**	**12 45 11.5**	**-0.8**
	comp=Z,270nm,1.0s,mb6.2,SNR=9.9						
ARU	**Arti**	**56.23**	**42**	*d* *i*P	**P**	**12 45 11.6**	**-0.7**
ARU				S	**S**	**12 53 02.3**	**+0.6**
ARU				pmax	pmax		
	comp=Z,79nm,1.7s,mb5.5						
ARU	**Arti**	**56.23**	**42**	*e*P	**P**	**12 45 11.8**	**-0.5**
	comp=Z,59nm,1.1s,mb5.5						
ARU	**Arti**	**56.23**	**42**	*e*P	**P**	**12 45 11.8**	**-0.5**
	comp=Z,59nm,1.1s,mb5.5						
ARU				S	**S**	**12 53 02.3**	**+0.6**
E18A	**Harlowton**	**56.26**	**305**	P	**P**	**12 45 12.9**	**+0.2**
	baz=56,SNR=15						
A16A	**West Butte Ran**	**56.26**	**308**	P	**P**	**12 45 12.8**	**+0.1**
	baz=56,SNR=14						
C17A	**Wharram Farm,**	**56.32**	**307**	P	**P**	**12 45 12.0**	**-1.1**
	baz=56,SNR=16						
M22A	**Cedar Creek Ra**	**56.39**	**298**	P	**P**	**12 45 14.5**	**+0.7**
	baz=56,SNR=10						
F18A	**Big Timber**	**56.42**	**304**	P	**P**	**12 45 14.1**	**+0.2**
	baz=56,SNR=17						
GCMT	**Greycliff**	**56.44**	**304**	*e*P	**P**	**12 45 14.1**	**+0.1**
	comp=Z,43nm,1.4s,mb5.3						
GCMT	**Greycliff**	**56.44**	**304**	*e*P	**P**	**12 45 14.1**	**+0.1**
	comp=Z,43nm,1.4s,mb5.3						
ISCO	**Idaho Springs**	**56.46**	**296**	*e*P	**P**	**12 45 14.4**	**+0.1**
ISCO				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.1						
ISCO				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
ISCO	**Idaho Springs**	**56.46**	**296**	*e*P	**P**	**12 45 14.4**	**+0.1**
	comp=Z,30nm,1.5s,mb5.1						
ISCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
ISCO	**Idaho Springs**	**56.46**	**296**	*e*P	**P**	**12 45 14.4**	**+0.1**
	comp=Z,30nm,1.5s,mb5.1						
RLMT	**Red Lodge**	**56.48**	**303**	P	**P**	**12 45 14.8**	**+0.5**
	baz=56,SNR=12						
RLMT	**Red Lodge**	**56.48**	**303**	*e*P	**P**	**12 45 13.7**	**-0.6**
	comp=Z,33nm,1.3s,mb5.2						
RLMT				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
RLMT	**Red Lodge**	**56.48**	**303**	*e*P	**P**	**12 45 13.7**	**-0.6**
	comp=Z,33nm,1.3s,mb5.2						
D17A	**Six Diamond Ra**	**56.48**	**306**	P	**P**	**12 45 13.9**	**-0.4**
	baz=56,SNR=25						
N22A	**Wattenberg Ran**	**56.57**	**298**	P	**P**	**12 45 15.8**	**+0.8**
	baz=56,SNR=12						
L21A	**Rawlins**	**56.65**	**299**	P	**P**	**12 45 15.8**	**+0.3**
	baz=56,SNR=20						
RWWY	**Rawlins**	**56.67**	**299**	*e*P	**P**	**12 45 16.1**	**+0.3**
	comp=Z,74nm,1.8s,mb5.4						
RWWY	**Rawlins**	**56.67**	**299**	*e*P	**P**	**12 45 16.0**	**+0.3**
	comp=Z,74nm,1.8s,mb5.4						
TGUH	**Tegucigalpa,Un**	**56.77**	**260**	*e*P	**P**	**12 45 18.0**	**+1.2**
	comp=Z,75nm,1.4s,mb5.5						
TGUH				LR	LR		
	comp=Z,498nm,21.0s,MS4.6						
TGUH	**Tegucigalpa,Un**	**56.77**	**260**	*e*P	**P**	**12 45 18.0**	**+1.2**
	comp=Z,75nm,1.4s,mb5.5						
M21A	**Separation Pea**	**56.81**	**299**	P	**P**	**12 45 17.0**	**+0.3**
	baz=57,SNR=12						
C16A	**Fuhringer Ranc**	**56.85**	**307**	P	**P**	**12 45 17.1**	**+0.2**
	baz=57,SNR=36						
JCT	**Junction City**	**56.86**	**284**	*e*P	**P**	**12 45 16.4**	**-0.8**
JCT				pmax	pmax		
	comp=Z,65nm,1.3s,mb5.5						
JCT				MLR	MLR		
	comp=Z,808nm,21.0s,MS4.8						
JCT	**Junction City**	**56.86**	**284**	*e*P	**P**	**12 45 16.4**	**-0.8**
	comp=Z,65nm,1.3s,mb5.5						
JCT				LR	LR		
	comp=Z,808nm,21.0s,MS4.8						
JCT	**Junction City**	**56.86**	**284**	*e*P	**P**	**12 45 16.4**	**-0.8**
	comp=Z,65nm,1.3s,mb5.5						
E17A	**Martinsdale**	**56.89**	**305**	P	**P**	**12 45 17.1**	**-0.1**
	baz=57,SNR=13						
A15A	**Johnson Ranch,**	**56.93**	**309**	P	**P**	**12 45 17.2**	**-0.2**
	baz=57,SNR=16						
KVTX	**Kingsville**	**56.97**	**280**	PFAKE		12 45 30.0	+12
KVTX				LR	LR		
	comp=Z,812nm,19.0s,MS4.8						
KVTX	**Kingsville**	**56.97**	**280**	P		12 45 30.0	+12
K20A	**Yellowstone Ra**	**56.98**	**300**	P	**P**	**12 45 18.6**	**+0.7**
	baz=57,SNR=7.8						
F17A	**Fitzpatrick Pl**	**57.01**	**305**	P	**P**	**12 45 18.5**	**+0.5**
	baz=57,SNR=26						
D16A	**Dana Ranch, Ca**	**57.06**	**306**	P	**P**	**12 45 18.4**	**0.0**
	baz=57,SNR=21						
SVE	**Sverdlovsk**	**57.11**	**41**	⇓*e*P	**P**	**12 45 17.9**	**-0.7**
SVE				*e*S	**S**	**12 53 06.2**	**-7.1**
SVE				*e*SSS		12 59 19.1	
SVE				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.4						
B15A	**Bradely Ranch,**	**57.12**	**308**	P	**P**	**12 45 18.2**	**-0.6**
	baz=57,SNR=22						
K19A	**Absolon Red Bu**	**57.23**	**301**	P	**P**	**12 45 19.0**	**-0.7**
	baz=57,SNR=21						
L20A	**Wamsutter**	**57.28**	**300**	P	**P**	**12 45 20.6**	**+0.5**
	baz=57,SNR=14						
N21A	**Black Mountain**	**57.31**	**298**	P	**P**	**12 45 20.8**	**+0.5**
	baz=57,SNR=21						
A14A	**Double T Ranch**	**57.34**	**309**	P	**P**	**12 45 20.4**	**+0.1**
	baz=57,SNR=26						
SDCO	**Great Sand Dun**	**57.35**	**294**	*e*P	**P**	**12 45 19.9**	**-0.7**
	comp=Z,9.8nm,1.1s,mb4.8						
SDCO				*e*PcP	PcP	12 46 15.1	+0.5
SDCO				LR	LR		
	comp=Z,900nm,22.0s,MS4.8						
SDCO	**Great Sand Dun**	**57.35**	**294**	*e*P	**P**	**12 45 19.9**	**-0.7**
	comp=Z,9.8nm,1.1s,mb4.8						
HRY	**Holter Researc**	**57.38**	**306**	*e*P	**P**	**12 45 19.2**	**-1.5**
HRY	**Holter Researc**	**57.38**	**306**	*e*P	**P**	**12 45 19.2**	**-1.4**
C15A	**Salmond Ranch,**	**57.38**	**307**	P	**P**	**12 45 20.6**	**0.0**
	baz=57,SNR=20						
M20A	**Sweetwater, Wa**	**57.41**	**299**	P	**P**	**12 45 21.8**	**+0.8**
	baz=57,SNR=25						
LKWY	**Lake**	**57.45**	**303**	*e*P	**P**	**12 45 22.4**	**+1.2**
LKWY				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
LKWY				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
LKWY	**Lake**	**57.45**	**303**	*e*P	**P**	**12 45 22.4**	**+1.3**
	comp=Z,16nm,1.0s,mb5.0						
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
LKWY	**Lake**	**57.45**	**303**	*e*P	**P**	**12 45 22.4**	**+1.2**
	comp=Z,16nm,1.0s,mb5.0						
I18A	**Diamond G Ranc**	**57.47**	**302**	P	**P**	**12 45 21.5**	**+0.2**
	baz=57,SNR=7.5						
JTS	**JuntasAbangare**	**57.50**	**254**	PFAKE		12 45 30.0	+8.1
JTS				LR	LR		
	comp=Z,602nm,22.0s,MS4.7						
YNR	**Norris Junctio**	**57.55**	**303**	*e*P	**P**	**12 45 28.0**	**+6.1**
WALA	**Waterton Lakes**	**57.59**	**309**	*e*P	**P**	**12 45 20.9**	**-1.2**
	comp=Z,1.6nm,1.1s,mb4.0						
WALA	**Waterton Lakes**	**57.59**	**309**	*e*P	**P**	**12 45 20.9**	**-1.2**
	comp=Z,1.6nm,1.1s,mb4.0						
D15A	**Lincoln**	**57.65**	**306**	P	**P**	**12 45 22.8**	**+0.2**
	baz=57,SNR=19						
F16A	**Kennard Place,**	**57.67**	**305**	P	**P**	**12 45 22.1**	**-0.6**
	baz=57,SNR=9.1						
PDAR	**Pinedale Array**	**57.73**	**301**	P	**P**	**12 45 21.2**	**-2.0**
	comp=Z,12nm,1.0s,mb4.8,baz=69,slow=8.1,SNR=28						
PDAR				LR	LR	13 09 14.3	
	comp=Z,805nm,20.6s,MS4.8,baz=102,slow=35						
PDAR				PKP2bc		13 15 24.0	
	comp=Z,0.6nm,0.9s,baz=204,slow=4.0,SNR=4.3						
PDAR	**Pinedale Array**	**57.73**	**301**	P	**P**	**12 45 21.2**	**-2.0**
PDAR				LR	LR	13 09 14.3	
PDAR				⇑*e*		13 15 24.0	
PDAR	**Pinedale Array**	**57.73**	**301**	P	**P**	**12 45 21.2**	**-2.0**
BW06	**Boulder Array**	**57.73**	**301**	P	**P**	**12 45 22.2**	**-0.9**
	baz=58,SNR=20						
BW06	**Boulder Array**	**57.73**	**301**	PFAKE		12 45 40.0	+17
BW06				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
BOZ	**Bozeman (W)**	**57.73**	**305**	*e*P	**P**	**12 45 22.6**	**-0.6**
BOZ				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
BOZ				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
BOZ	**Bozeman (W)**	**57.73**	**305**	P	**P**	**12 45 23.4**	**+0.2**
	baz=58,SNR=17						
BOZ	**Bozeman (W)**	**57.73**	**305**	*e*P	**P**	**12 45 22.6**	**-0.5**
	comp=Z,18nm,1.2s,mb5.0						
BOZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
BOZ	**Bozeman (W)**	**57.73**	**305**	*e*P	**P**	**12 45 22.6**	**-0.6**
	comp=Z,18nm,1.2s,mb5.0						
YMR	**Madison River**	**57.76**	**303**	*e*P	**P**	**12 45 24.1**	**+0.7**
	comp=Z,91nm,1.6s,mb5.6						
YMR	**Madison River**	**57.76**	**303**	*e*P	**P**	**12 45 24.1**	**+0.7**
	comp=Z,91nm,1.6s,mb5.6						
INK	**Inuvik**	**57.77**	**335**	*e*P	**P**	**12 45 21.0**	**-2.1**
INK				pmax	pmax		
	comp=Z,15nm,1.3s						
INK	**Inuvik**	**57.77**	**335**	*e*P	**P**	**12 45 21.0**	**-2.1**
	comp=Z,15nm,1.3s,mb4.8						
INK	**Inuvik**	**57.77**	**335**	*e*P	**P**	**12 45 21.0**	**-2.1**
	comp=Z,15nm,1.3s,mb4.8						
YFT	**Old Faithful**	**57.78**	**303**	*e*P	**P**	**12 45 24.9**	**+1.5**
	comp=Z,30nm,1.2s,mb5.2						
YFT	**Old Faithful**	**57.78**	**303**	*e*P	**P**	**12 45 25.0**	**+1.5**
	comp=Z,30nm,1.2s,mb5.2						
Q22A	**Crested Butte,**	**57.79**	**296**	P	**P**	**12 45 23.2**	**-0.5**
	baz=58,SNR=23						
J18A	**Kendall Valley**	**57.82**	**302**	P	**P**	**12 45 23.1**	**-0.7**
	baz=58,SNR=19						
I17A	**Pilgrim Ck.**	**57.85**	**302**	P	**P**	**12 45 24.8**	**+0.7**
	baz=58,SNR=9.4						
L19A	**Farson**	**57.90**	**300**	P	**P**	**12 45 24.1**	**-0.4**
	baz=58,SNR=16						
H16A	**Russell Place,**	**57.92**	**304**	P	**P**	**12 45 24.9**	**+0.4**
	baz=58,SNR=12						
QLMT	**Earthquake Lak**	**57.98**	**304**	*e*P	**P**	**12 45 26.0**	**+1.1**
QLMT	**Earthquake Lak**	**57.98**	**304**	*e*P	**P**	**12 45 26.0**	**+1.1**
R22A	**Saguache, Gunn**	**57.99**	**295**	P	**P**	**12 45 26.6**	**+1.5**
	baz=58,SNR=18						
E15A	**Deer Lodge**	**58.01**	**306**	P	**P**	**12 45 24.6**	**-0.5**
	baz=58,SNR=15						
MOOW	**Moose Ponds**	**58.04**	**302**	*e*P	**P**	**12 45 25.4**	**+0.1**
MOOW	**Moose Ponds**	**58.04**	**302**	*e*P	**P**	**12 45 25.4**	**0.0**
O20A	**White River Ci**	**58.09**	**298**	P	**P**	**12 45 26.4**	**+0.6**
	baz=58,SNR=12						
IMW	**Indian Meadow**	**58.10**	**303**	*e*P	**P**	**12 45 24.8**	**-1.0**
	comp=Z,20nm,1.1s,mb5.1						
IMW	**Indian Meadow**	**58.10**	**303**	*e*P	**P**	**12 45 24.8**	**-0.9**
	comp=Z,20nm,1.1s,mb5.1						
K18A	**Toltan Ranch,**	**58.10**	**301**	P	**P**	**12 45 25.6**	**-0.2**
	baz=58,SNR=9.5						
SLMT	**Seeley Lake**	**58.16**	**307**	*e*P	**P**	**12 45 25.4**	**-0.8**
SLMT	**Seeley Lake**	**58.16**	**307**	*e*P	**P**	**12 45 25.4**	**-0.7**
CHMT	**Chamberlain Mo**	**58.16**	**307**	*e*P	**P**	**12 45 25.4**	**-0.8**
CHMT	**Chamberlain Mo**	**58.16**	**307**	*e*P	**P**	**12 45 25.4**	**-0.7**
LRM	**Limekiln Ridge**	**58.16**	**305**	*e*P	**P**	**12 45 25.4**	**-0.8**
LRM	**Limekiln Ridge**	**58.16**	**305**	*e*P	**P**	**12 45 25.4**	**-0.8**
SNOW	**Snow King Moun**	**58.18**	**302**	*e*P	**P**	**12 45 26.2**	**-0.1**
	comp=Z,31nm,1.1s,mb5.2						
SNOW				*e*PP	PP	12 47 27.5	-7.4
SNOW	**Snow King Moun**	**58.18**	**302**	*e*P	**P**	**12 45 26.2**	**-0.1**
	comp=Z,31nm,1.1s,mb5.2						
F15A	**Butte**	**58.18**	**305**	P	**P**	**12 45 26.0**	**-0.3**
	baz=58,SNR=11						
YBMT	**Yellow Bay**	**58.19**	**308**	*e*P	**P**	**12 45 25.5**	**-0.8**
YBMT	**Yellow Bay**	**58.19**	**308**	*e*P	**P**	**12 45 25.5**	**-0.8**
J17A	**Brown Place, J**	**58.20**	**302**	P	**P**	**12 45 26.9**	**+0.4**
	baz=58,SNR=18						
B13A	**Whitefish**	**58.23**	**309**	P	**P**	**12 45 26.3**	**-0.3**
	baz=58,SNR=11						
D14A	**Greenough**	**58.24**	**307**	P	**P**	**12 45 26.4**	**-0.2**
	baz=58,SNR=14						
REDW	**Red Top Meadow**	**58.29**	**302**	*e*P	**P**	**12 45 27.2**	**+0.1**
	comp=Z,65nm,1.3s,mb5.5						
REDW	**Red Top Meadow**	**58.29**	**302**	*e*P	**P**	**12 45 27.2**	**+0.1**
	comp=Z,65nm,1.3s,mb5.5						
TPAW	**Teton Pass**	**58.29**	**302**	*e*P	**P**	**12 45 27.3**	**+0.2**
	comp=Z,19nm,1.1s,mb5.0						
TPAW	**Teton Pass**	**58.29**	**302**	*e*P	**P**	**12 45 27.3**	**+0.2**
	comp=Z,19nm,1.1s,mb5.0						
SWMT	**Swartz Lake**	**58.34**	**308**	*e*P	**P**	**12 45 26.6**	**-0.8**
SWMT	**Swartz Lake**	**58.34**	**308**	*e*P	**P**	**12 45 26.6**	**-0.8**
DCID1	**Drake Creek**	**58.40**	**302**	*e*P	**P**	**12 45 27.9**	**+0.1**
	comp=Z,34nm,1.3s,mb5.2						
DCID1				*e*PcP	PcP	12 46 17.9	-0.7
DCID1	**Drake Creek**	**58.40**	**302**	*e*P	**P**	**12 45 27.9**	**+0.1**
	comp=Z,34nm,1.3s,mb5.2						
JTMT	**Jette**	**58.40**	**308**	*e*P	**P**	**12 45 27.4**	**-0.4**
JTMT	**Jette**	**58.40**	**308**	*e*P	**P**	**12 45 27.5**	**-0.3**
L18A	**Fontenelle, Gr**	**58.43**	**300**	P	**P**	**12 45 28.1**	**0.0**
	baz=58,SNR=7.5						
DLMT	**Dillon**	**58.47**	**305**	*e*P	**P**	**12 45 27.3**	**-1.0**
	comp=Z,30nm,1.2s,mb5.2						
DLMT				*e*PP	PP	12 47 36.4	-1.0
DLMT	**Dillon**	**58.47**	**305**	*e*P	**P**	**12 45 27.3**	**-1.0**
	comp=Z,30nm,1.2s,mb5.2						
G15A	**Dillon**	**58.49**	**305**	P	**P**	**12 45 28.3**	**-0.2**
	baz=58,SNR=20						
AKTK	**Aktyubinsk**	**58.52**	**49**	P	**P**	**12 45 28.1**	**-0.6**
AKTK				LR	LR	13 12 34.3	
AKTK	**Aktyubinsk**	**58.52**	**49**	P	**P**	**12 45 28.0**	**-0.6**
AKTO	**Aktyubinsk**	**58.52**	**49**	P	**P**	**12 45 27.6**	**-1.0**
AKTO				pmax	pmax		
	comp=Z,13nm,2.0s,mb4.6						
AKTO	**Aktyubinsk**	**58.52**	**49**	P	**P**	**12 45 28.1**	**-0.6**
	comp=Z,10nm,0.9s,mb4.8,baz=298,slow=8.4,SNR=18						
AKTO				LR	LR	13 12 34.3	
	comp=Z,476nm,18.9s,MS4.6,baz=300,slow=38						
E14A	**Clinton**	**58.53**	**306**	P	**P**	**12 45 29.6**	**+0.8**
	baz=58,SNR=8.8						
RRI2	**Red Ridge**	**58.60**	**302**	*e*P	**P**	**12 45 28.1**	**-1.1**
	comp=Z,15nm,1.0s,mb5.0						
RRI2	**Red Ridge**	**58.60**	**302**	*e*P	**P**	**12 45 28.1**	**-1.2**
	comp=Z,15nm,1.0s,mb5.0						
O19A	**Miners Draw (B**	**58.60**	**298**	P	**P**	**12 45 29.7**	**+0.4**
	baz=58,SNR=6.8						
C13A	**Hot Springs**	**58.61**	**308**	P	**P**	**12 45 29.1**	**-0.2**
	baz=58,SNR=14						
MSO	**Missoula**	**58.62**	**307**	*e*P	**P**	**12 45 28.8**	**-0.5**
	comp=Z,17nm,1.1s,mb5.0						
MSO				LR	LR		
	comp=Z,912nm,21.0s,MS4.9						
MSO	**Missoula**	**58.62**	**307**	*e*P	**P**	**12 45 28.8**	**-0.5**
	comp=Z,17nm,1.1s,mb5.0						
K17A	**Gardner Place,**	**58.62**	**301**	P	**P**	**12 45 29.3**	**-0.1**
	baz=58,SNR=12						
BSMT	**Bassoo Peak**	**58.66**	**308**	*e*P	**P**	**12 45 29.4**	**-0.1**
BSMT	**Bassoo Peak**	**58.66**	**308**	*e*P	**P**	**12 45 29.4**	**-0.2**
T22A	**Edith**	**58.68**	**294**	P	**P**	**12 45 31.4**	**+1.5**
	baz=58,SNR=16						
M18A	**Lyman**	**58.69**	**300**	P	**P**	**12 45 30.2**	**+0.3**
	baz=58,SNR=7.9						
Q20A	**Ridgley Place,**	**58.69**	**296**	P	**P**	**12 45 30.8**	**+0.8**
	baz=58,SNR=17						
AHID	**Auburn Hatcher**	**58.73**	**301**	*e*P	**P**	**12 45 30.1**	**-0.1**
AHID				LR	LR		
	comp=Z,959nm,19.0s,MS4.9						
AHID	**Auburn Hatcher**	**58.73**	**301**	*e*P	**P**	**12 45 30.0**	**-0.2**
D13A	**Huson**	**58.81**	**307**	P	**P**	**12 45 29.5**	**-1.2**
	baz=59,SNR=21						
J16A	**Bone**	**58.82**	**302**	P	**P**	**12 45 30.9**	**0.0**
	baz=59,SNR=15						
P19A	**Cripple Cowboy**	**58.83**	**297**	P	**P**	**12 45 31.0**	**+0.1**
	baz=59,SNR=18						
B12A	**Libby**	**58.85**	**309**	P	**P**	**12 45 31.1**	**+0.2**
	baz=59,SNR=10						
MCMT	**McKenzie Canyo**	**58.87**	**304**	*e*P	**P**	**12 45 31.2**	**0.0**
	comp=Z,3.1nm,1.0s,mb4.3						
MCMT	**McKenzie Canyo**	**58.87**	**304**	*e*P	**P**	**12 45 31.2**	**0.0**
	comp=Z,3.1nm,1.0s,mb4.3						
I15A	**Monteview**	**59.03**	**303**	P	**P**	**12 45 33.5**	**+1.2**
	baz=59,SNR=9.8						
G14A	**Jackson**	**59.06**	**305**	P	**P**	**12 45 33.0**	**+0.6**
	baz=59,SNR=13						
M17A	**Scullys Gap (B**	**59.06**	**300**	P	**P**	**12 45 31.5**	**-1.0**
	baz=59,SNR=16						
A11A	**Hall Mountain,**	**59.08**	**310**	P	**P**	**12 45 32.7**	**+0.2**
	baz=59,SNR=30						
R20A	**Redvale**	**59.12**	**296**	P	**P**	**12 45 33.7**	**+0.7**
	baz=59,SNR=9.1						
C12B	**Naegeli Ranch,**	**59.13**	**308**	P	**P**	**12 45 32.9**	**0.0**
	baz=59,SNR=13						
O18A	**Roosevelt**	**59.21**	**298**	P	**P**	**12 45 33.9**	**+0.4**
	baz=59,SNR=6.6						
PV01	**Paradox Valley**	**59.28**	**296**	*e*P	**P**	**12 45 34.2**	**+0.1**
	comp=Z,2µm,1.7s						
PV01	**Paradox Valley**	**59.28**	**296**	*e*P	**P**	**12 45 34.2**	**+0.1**
	comp=Z,2µm,1.7s						
J15A	**Blackfoot**	**59.29**	**303**	P	**P**	**12 45 34.8**	**+0.7**
	baz=59,SNR=12						
L16A	**Fish Haven**	**59.30**	**301**	P	**P**	**12 45 34.0**	**-0.2**
	baz=59,SNR=14						
GDL2	**Guadalupe Moun**	**59.31**	**288**	*e*P	**P**	**12 45 34.6**	**+0.2**
GDL2	**Guadalupe Moun**	**59.31**	**288**	*e*P	**P**	**12 45 34.6**	**+0.2**
F13A	**Darby**	**59.34**	**306**	P	**P**	**12 45 33.9**	**-0.5**
	baz=59,SNR=13						
PV04	**Paradox Valley**	**59.38**	**296**	*e*P	**P**	**12 45 35.3**	**+0.6**
PV04	**Paradox Valley**	**59.38**	**296**	*e*P	**P**	**12 45 35.3**	**+0.5**
ANMO	**Albuquerque**	**59.40**	**291**	*e*P	**P**	**12 45 34.6**	**-0.4**
ANMO				pmax	pmax		
	comp=Z,40nm,1.1s						
ANMO				MLR	MLR		
	comp=Z,807nm,22.0s						
ANMO	**Albuquerque**	**59.40**	**291**	*e*P	**P**	**12 45 34.6**	**-0.4**
	comp=Z,40nm,1.1s,mb5.4						
ANMO				LR	LR		
	comp=Z,807nm,22.0s,MS4.8						
ANMO	**Albuquerque**	**59.40**	**291**	*e*P	**P**	**12 45 34.6**	**-0.4**
	comp=Z,40nm,1.1s,mb5.4						
G13A	**Cobalt**	**59.61**	**305**	P	**P**	**12 45 36.2**	**-0.1**
	baz=59,SNR=13						
R19A	**Curley Farm, L**	**59.67**	**296**	P	**P**	**12 45 37.7**	**+0.9**
	baz=60,SNR=27						
P18A	**Preston Nutter**	**59.68**	**298**	P	**P**	**12 45 37.2**	**+0.3**
	baz=60,SNR=9.2						
MVCO	**Mesa Verde**	**59.69**	**295**	*e*P	**P**	**12 45 37.0**	**0.0**
	comp=Z,123nm,0.6s,mb6.1						
MVCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
MVCO	**Mesa Verde**	**59.69**	**295**	*e*P	**P**	**12 45 37.0**	**+0.1**
	comp=Z,123nm,0.6s,mb6.1						
O17A	**Robinson Place**	**59.73**	**299**	P	**P**	**12 45 37.5**	**+0.3**
	baz=60,SNR=9.0						
M16A	**Huntsville**	**59.77**	**300**	P	**P**	**12 45 37.0**	**-0.4**
	baz=60,SNR=16						
NEW	**Newport**	**59.85**	**309**	*e*P	**P**	**12 45 36.3**	**-1.5**
NEW				pmax	pmax		
	comp=Z,42nm,1.2s						
NEW				MLR	MLR		
	comp=Z,1µm,21.0s						
NEW	**Newport**	**59.85**	**309**	*e*P	**P**	**12 45 36.2**	**-1.6**
	comp=Z,42nm,1.2s,mb5.3						
NEW				LR	LR		

	comp=Z,1µm,21.0s,MS5.0						
NEW	**Newport**	**59.85**	**309**	*e*P	**P**	**12 45 36.2**	**-1.6**
	comp=Z,42nm,1.2s,mb5.3						
LPM	**Los Pinos Moun**	**59.85**	**291**	*e*P	**P**	**12 45 39.2**	**+1.2**
LPM	**Los Pinos Moun**	**59.85**	**291**	*e*P	**P**	**12 45 39.2**	**+1.1**
N16A	**Rees Ranch, Co**	**59.86**	**300**	P	**P**	**12 45 38.4**	**+0.4**
	baz=60,SNR=8.3						
S19A	**Harvey Farm, M**	**59.86**	**296**	P	**P**	**12 45 38.5**	**+0.4**
	baz=60,SNR=20						
Q18A	**Rafter H Ranch**	**59.87**	**297**	P	**P**	**12 45 38.3**	**+0.2**
	baz=60,SNR=13						
H13A	**Challis**	**59.88**	**305**	P	**P**	**12 45 38.8**	**+0.7**
	baz=60,SNR=9.2						
BNM	**Barren Site**	**59.93**	**291**	*e*P	**P**	**12 45 38.3**	**-0.3**
	comp=Z,27nm,1.2s,mb5.2						
BNM	**Barren Site**	**59.93**	**291**	*e*P	**P**	**12 45 38.3**	**-0.3**
	comp=Z,27nm,1.2s,mb5.2						
L15A	**Malad City**	**59.93**	**301**	P	**P**	**12 45 38.5**	**-0.1**
	baz=60,SNR=13						
DAU	**Daniels Canyon**	**59.97**	**299**	*e*P	**P**	**12 45 38.7**	**-0.1**
DAU	**Daniels Canyon**	**59.97**	**299**	*e*P	**P**	**12 45 38.7**	**-0.1**
JLU	**Jordanelle**	**60.01**	**299**	*e*P	**P**	**12 45 39.3**	**+0.2**
JLU	**Jordanelle**	**60.01**	**299**	*e*P	**P**	**12 45 39.3**	**+0.3**
OTAV	**Otavalo**	**60.01**	**241**	*e*P	**P**	**12 45 39.6**	**+0.3**
	comp=Z,42nm,1.5s,mb5.2						
OTAV				*e*PP	PP	12 47 55.8	+4.0
OTAV				LR	LR		
	comp=Z,523nm,22.0s,MS4.6						
OTAV	**Otavalo**	**60.01**	**241**	*e*P	**P**	**12 45 39.6**	**+0.3**
	comp=Z,42nm,1.5s,mb5.2						
J14A	**Carey**	**60.02**	**303**	P	**P**	**12 45 39.4**	**+0.3**
	baz=60,SNR=7.7						
R18A	**Canyonlands Na**	**60.06**	**297**	P	**P**	**12 45 38.9**	**-0.5**
	baz=60,SNR=16						
I13A	**Wildhorse Cree**	**60.11**	**304**	P	**P**	**12 45 40.6**	**+0.9**
	baz=60,SNR=14						
SRU	**San Rafael**	**60.12**	**298**	P	**P**	**12 45 40.7**	**+0.8**
	baz=60,SNR=6.9						
SRU	**San Rafael**	**60.12**	**298**	*e*P	**P**	**12 45 39.7**	**-0.1**
SRU	**San Rafael**	**60.12**	**298**	*e*P	**P**	**12 45 39.7**	**-0.2**
W21A	**San Fidel**	**60.16**	**292**	P	**P**	**12 45 41.9**	**+1.7**
	baz=60,SNR=7.0						
LENM	**Lemitar**	**60.17**	**291**	*e*P	**P**	**12 45 41.7**	**+1.4**
LENM	**Lemitar**	**60.17**	**291**	*e*P	**P**	**12 45 41.7**	**+1.4**
AB31	**Akbulak array**	**60.18**	**49**	P	**P**	**12 45 38.6**	**-1.5**
AB31				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.1						
E11A	**Bogner Ranch,**	**60.22**	**307**	P	**P**	**12 45 38.8**	**-1.7**
	baz=60,SNR=28						
M15A	**Larsen Ranch,**	**60.24**	**301**	P	**P**	**12 45 40.6**	**0.0**
	baz=60,SNR=43						
T19A	**Beclabito**	**60.25**	**295**	P	**P**	**12 45 40.5**	**-0.2**
	baz=60,SNR=21						
HVU	**Hansel Valley**	**60.30**	**301**	*e*P	**P**	**12 45 39.5**	**-1.5**
HVU				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.2						
HVU	**Hansel Valley**	**60.30**	**301**	*e*P	**P**	**12 45 39.5**	**-1.5**
	comp=Z,28nm,1.1s,mb5.2						
HVU	**Hansel Valley**	**60.30**	**301**	*e*P	**P**	**12 45 39.5**	**-1.5**
	comp=Z,28nm,1.1s,mb5.2						
TXAR	**Lajitas Array**	**60.31**	**285**	P	**P**	**12 45 39.7**	**-1.6**
	comp=Z,15nm,1.0s,mb5.0,baz=74,slow=6.7,SNR=42						
TXAR				LR	LR	13 12 15.2	
	comp=Z,532nm,18.1s,MS4.7,baz=5.0,slow=37						
TXAR	**Lajitas Array**	**60.31**	**285**	P	**P**	**12 45 39.7**	**-1.6**
TXAR				LR	LR	13 12 15.2	
TXAR	**Lajitas Array**	**60.31**	**285**	P	**P**	**12 45 39.7**	**-1.6**
SPUT	**South Promonto**	**60.31**	**301**	*e*P	**P**	**12 45 41.1**	**0.0**
	comp=Z,33nm,1.2s,mb5.2						
SPUT	**South Promonto**	**60.31**	**301**	*e*P	**P**	**12 45 41.1**	**-0.1**
	comp=Z,33nm,1.2s,mb5.2						
A09A	**Danville**	**60.35**	**311**	P	**P**	**12 45 41.2**	**-0.1**
	baz=60,SNR=12						
B09A	**Rice**	**60.37**	**310**	P	**P**	**12 45 41.1**	**-0.3**
	baz=60,SNR=12						
J13A	**Cove Ranch, Pi**	**60.40**	**303**	P	**P**	**12 45 42.4**	**+0.7**
	baz=60,SNR=10						
F11A	**Grangeville**	**60.41**	**307**	P	**P**	**12 45 41.6**	**-0.2**
	baz=60,SNR=9.5						
MPU	**Maple Canyon**	**60.42**	**299**	*e*P	**P**	**12 45 42.1**	**+0.3**
MPU	**Maple Canyon**	**60.42**	**299**	*e*P	**P**	**12 45 42.1**	**+0.2**
NOQ	**North Oquirrh**	**60.42**	**300**	*e*P	**P**	**12 45 41.9**	**0.0**
	comp=Z,43nm,1.1s,mb5.4						
NOQ	**North Oquirrh**	**60.42**	**300**	*e*P	**P**	**12 45 41.9**	**0.0**
	comp=Z,43nm,1.1s,mb5.4						
HLID	**Hailey**	**60.47**	**304**	P	**P**	**12 45 43.0**	**+0.8**
	baz=60,SNR=14						
HLID	**Hailey**	**60.47**	**304**	*e*P	**P**	**12 45 41.9**	**-0.3**
	comp=Z,17nm,1.2s,mb5.0						
HLID				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
HLID	**Hailey**	**60.47**	**304**	*e*P	**P**	**12 45 41.9**	**-0.3**
	comp=Z,17nm,1.2s,mb5.0						
S18A	**Hurst Farm, Bl**	**60.48**	**296**	P	**P**	**12 45 43.2**	**+0.9**
	baz=60,SNR=40						
TMUT	**Trail Mountain**	**60.49**	**298**	*e*P	**P**	**12 45 42.2**	**-0.2**
	comp=Z,31nm,1.0s,mb5.3						
TMUT	**Trail Mountain**	**60.49**	**298**	*e*P	**P**	**12 45 42.2**	**-0.2**
	comp=Z,31nm,1.0s,mb5.3						
R17A	**Hanksville Air**	**60.60**	**297**	P	**P**	**12 45 43.4**	**+0.3**
	baz=60,SNR=18						
Q16A	**Castle Valley**	**60.66**	**298**	P	**P**	**12 45 43.3**	**-0.2**
	baz=60,SNR=10						
T18A	**Mexican Hat**	**60.68**	**295**	P	**P**	**12 45 44.3**	**+0.6**
	baz=60,SNR=8.3						
NLU	**North Lily Min**	**60.74**	**299**	*e*P	**P**	**12 45 44.2**	**+0.1**
	comp=Z,21nm,1.4s,mb5.1						
NLU	**North Lily Min**	**60.74**	**299**	*e*P	**P**	**12 45 44.2**	**+0.1**
	comp=Z,21nm,1.4s,mb5.1						
W20A	**Ramah**	**60.75**	**293**	P	**P**	**12 45 44.7**	**+0.5**
	baz=61,SNR=7.4						
M14A	**Sheep Mountain**	**60.80**	**301**	P	**P**	**12 45 44.4**	**-0.1**
	baz=61,SNR=13						
I12A	**Atlanta**	**60.81**	**304**	P	**P**	**12 45 45.5**	**+1.0**
	baz=61,SNR=21						
BGU	**Big Grassy Mou**	**60.89**	**300**	*e*P	**P**	**12 45 44.4**	**-0.6**
	comp=Z,36nm,1.4s,mb5.3						
BGU	**Big Grassy Mou**	**60.89**	**300**	*e*P	**P**	**12 45 44.4**	**-0.7**
	comp=Z,36nm,1.4s,mb5.3						
L13A	**Double Diamond**	**60.90**	**302**	P	**P**	**12 45 45.5**	**+0.3**
	baz=61,SNR=15						
H11A	**Donnelly**	**60.91**	**305**	P	**P**	**12 45 44.2**	**-0.9**
	baz=61,SNR=33						
N14A	**Grayback Hills**	**61.03**	**300**	P	**P**	**12 45 45.5**	**-0.5**
	baz=61,SNR=14						
U18A	**Rough Rock, Ch**	**61.04**	**295**	P	**P**	**12 45 46.9**	**+0.8**
	baz=61,SNR=20						
J12A	**Stokes Ranch,**	**61.06**	**304**	P	**P**	**12 45 47.1**	**+0.9**
	baz=61,SNR=23						
DUG	**Dugway**	**61.11**	**300**	*e*P	**P**	**12 45 45.7**	**-0.9**
DUG				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.4						
DUG				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
DUG	**Dugway**	**61.11**	**300**	P	**P**	**12 45 45.9**	**-0.7**
	baz=61,SNR=21						
DUG	**Dugway**	**61.11**	**300**	*e*P	**P**	**12 45 45.7**	**-0.9**
	comp=Z,35nm,1.2s,mb5.4						
DUG				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
DUG	**Dugway**	**61.11**	**300**	*e*P	**P**	**12 45 45.7**	**-0.9**
	comp=Z,35nm,1.2s,mb5.4						
R16A	**Teasdale**	**61.19**	**297**	P	**P**	**12 45 47.9**	**+0.7**
	baz=61,SNR=8.6						
K12A	**Draper Farm, C**	**61.24**	**303**	P	**P**	**12 45 48.4**	**+1.0**
	baz=61,SNR=8.3						
G10A	**Bishop Farm, J**	**61.30**	**306**	P	**P**	**12 45 46.0**	**-1.7**
	baz=61,SNR=9.9						
A07A	**Ashnola River,**	**61.35**	**311**	P	**P**	**12 45 48.1**	**0.0**
	baz=61,SNR=21						
M13A	**Montello**	**61.41**	**301**	P	**P**	**12 45 49.0**	**+0.4**
	baz=61,SNR=16						
Q15A	**Fillmore**	**61.43**	**298**	P	**P**	**12 45 49.5**	**+0.8**
	baz=61,SNR=17						
DLBC	**Dease Lake**	**61.46**	**324**	*e*P	**P**	**12 45 48.9**	**+0.2**
DLBC	**Dease Lake**	**61.46**	**324**	*e*P	**P**	**12 45 48.9**	**+0.2**
U17A	**Shonto**	**61.49**	**295**	P	**P**	**12 45 50.4**	**+1.1**
	baz=61,SNR=12						
MSU	**Marysvale**	**61.54**	**298**	*e*P	**P**	**12 45 49.1**	**-0.4**
MSU	**Marysvale**	**61.54**	**298**	*e*P	**P**	**12 45 49.1**	**-0.4**
L12A	**House Creek Ra**	**61.56**	**302**	P	**P**	**12 45 50.7**	**+1.1**
	baz=61,SNR=24						
MVU	**Marysvale**	**61.57**	**298**	PFAKE		12 46 00.0	+10
MVU				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
P14A	**Drum Mountains**	**61.59**	**299**	P	**P**	**12 45 50.0**	**+0.2**
	baz=61,SNR=10						
BMO	**Blue Mountains**	**61.63**	**306**	*e*P	**P**	**12 45 48.4**	**-1.7**
	comp=Z,14nm,1.2s,mb5.0						
BMO				LR	LR		
	comp=Z,932nm,20.0s,MS4.9						
BMO	**Blue Mountains**	**61.63**	**306**	*e*P	**P**	**12 45 48.4**	**-1.6**
	comp=Z,14nm,1.2s,mb5.0						
N13A	**Wendover, West**	**61.69**	**301**	*e*P	**P**	**12 45 51.0**	**+0.5**
	comp=Z,43nm,1.1s,mb5.5						
N13A	**Wendover, West**	**61.69**	**301**	*e*P	**P**	**12 45 51.0**	**+0.5**
	comp=Z,43nm,1.1s,mb5.5						
LNOR	**Lincton Mounta**	**61.71**	**308**	*e*P	**P**	**12 45 49.6**	**-1.0**
LNOR	**Lincton Mounta**	**61.71**	**308**	*e*P	**P**	**12 45 49.6**	**-1.0**
R15A	**Junction**	**61.76**	**297**	P	**P**	**12 45 52.2**	**+1.2**
	baz=62,SNR=12						
C07A	**Waterville**	**61.85**	**310**	P	**P**	**12 45 50.0**	**-1.4**
	baz=62,SNR=6.0						
Y19A	**Nutrioso**	**61.89**	**292**	P	**P**	**12 45 53.9**	**+2.0**
	baz=62,SNR=19						
O13A	**Hicks Ranch, I**	**61.91**	**300**	P	**P**	**12 45 53.4**	**+1.4**
	baz=62,SNR=9.4						
L11A	**Cat Creek Ranc**	**62.02**	**303**	P	**P**	**12 45 53.8**	**+1.1**
	baz=62,SNR=12						
YPT	**Yellepit**	**62.03**	**308**	P	**P**	**12 45 52.2**	**-0.5**
YPT	**Yellepit**	**62.03**	**308**	P	**P**	**12 45 52.2**	**-0.5**
Q14A	**Sevier Lake (B**	**62.03**	**299**	P	**P**	**12 45 53.5**	**+0.6**
	baz=62,SNR=9.0						
ETW	**Entiat**	**62.05**	**310**	*e*P	**P**	**12 45 54.9**	**+2.1**
ETW	**Entiat**	**62.05**	**310**	*e*P	**P**	**12 45 54.9**	**+2.1**
U16A	**Tuba City**	**62.05**	**295**	P	**P**	**12 45 53.9**	**+0.9**
	baz=62,SNR=19						
DAWY	**Dawson**	**62.08**	**332**	*e*P	**P**	**12 45 52.3**	**-0.4**
DAWY	**Dawson**	**62.08**	**332**	*e*P	**P**	**12 45 52.3**	**-0.4**
X18A	**Snowflake**	**62.08**	**293**	P	**P**	**12 45 54.5**	**+1.3**
	baz=62,SNR=8.0						
S15A	**Panguitch**	**62.10**	**297**	P	**P**	**12 45 54.1**	**+0.8**
	baz=62,SNR=8.5						
HAWA	**Hanford**	**62.20**	**309**	*e*P	**P**	**12 45 53.2**	**-0.6**
HAWA				LR	LR		
	comp=Z,875nm,19.0s,MS4.9						
HAWA	**Hanford**	**62.20**	**309**	*e*P	**P**	**12 45 53.2**	**-0.6**
MDW	**Midway**	**62.22**	**309**	P	**P**	**12 45 53.7**	**-0.3**
MDW	**Midway**	**62.22**	**309**	P	**P**	**12 45 53.7**	**-0.3**
N12A	**Clover Valley,**	**62.23**	**301**	P	**P**	**12 45 55.6**	**+1.5**
	baz=62,SNR=6.4						
N12A	**Clover Valley,**	**62.23**	**301**	*e*P	**P**	**12 45 54.1**	**0.0**
	comp=Z,32nm,1.3s,mb5.3						
N12A	**Clover Valley,**	**62.23**	**301**	*e*P	**P**	**12 45 54.1**	**-0.1**
	comp=Z,32nm,1.3s,mb5.3						
EGAK	**Eagle**	**62.27**	**333**	*e*P	**P**	**12 45 53.5**	**-0.4**
	comp=Z,37nm,1.7s,mb5.2						
EGAK				LR	LR		
	comp=Z,250nm,19.0s,MS4.4						
EGAK	**Eagle**	**62.27**	**333**	*e*P	**P**	**12 45 53.5**	**-0.5**
	comp=Z,37nm,1.7s,mb5.2						
P13A	**Bates Ranch, G**	**62.28**	**299**	P	**P**	**12 45 55.0**	**+0.5**
	baz=62,SNR=17						
I09A	**Lost Marbles R**	**62.35**	**305**	P	**P**	**12 45 54.4**	**-0.4**
	baz=62,SNR=20						
ELK	**Elko**	**62.42**	**301**	*e*P	**P**	**12 45 54.9**	**-0.5**
ELK				pmax	pmax		
	comp=Z,42nm,1.3s						
ELK				MLR	MLR		
	comp=Z,1µm,20.0s						
ELK	**Elko**	**62.42**	**301**	*e*P	**P**	**12 45 54.9**	**-0.5**
	comp=Z,42nm,1.3s,mb5.4						
ELK				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
ELK	**Elko**	**62.42**	**301**	*e*P	**P**	**12 45 54.9**	**-0.5**
	comp=Z,42nm,1.3s,mb5.4						
M11A	**Holland Ranch,**	**62.42**	**302**	P	**P**	**12 45 56.8**	**+1.4**
	baz=62,SNR=21						
TBM	**Table Mountain**	**62.43**	**310**	P	**P**	**12 45 53.8**	**-1.6**
TBM	**Table Mountain**	**62.43**	**310**	P	**P**	**12 45 53.8**	**-1.5**
T15A	**Red Dirt Ranch**	**62.45**	**296**	P	**P**	**12 45 55.5**	**-0.2**
	baz=62,SNR=11						
Q13A	**Wheeler Ranch,**	**62.55**	**299**	P	**P**	**12 45 56.4**	**+0.1**
	baz=62,SNR=9.6						
WUAZ	**Wupatki**	**62.55**	**294**	P	**P**	**12 45 57.6**	**+1.3**
	baz=62,SNR=5.9						
WUAZ	**Wupatki**	**62.55**	**294**	*e*P	**P**	**12 45 56.6**	**+0.3**
	comp=Z,69nm,1.6s,mb5.5						
WUAZ				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
WUAZ	**Wupatki**	**62.55**	**294**	*e*P	**P**	**12 45 56.6**	**+0.2**
	comp=Z,69nm,1.6s,mb5.5						
S14A	**Cedar City**	**62.60**	**297**	P	**P**	**12 45 57.8**	**+1.1**
	baz=62,SNR=13						
J09A	**Fry Pan Ranch,**	**62.68**	**305**	P	**P**	**12 45 58.4**	**+1.3**
	baz=62,SNR=17						
F07A	**Phinny Hill Vi**	**62.69**	**308**	P	**P**	**12 45 57.9**	**+0.8**
	baz=62,SNR=8.4						
N11A	**Elko Archery C**	**62.71**	**302**	P	**P**	**12 45 58.4**	**+1.0**
	baz=62,SNR=8.3						
ARUT	**Antelope Range**	**62.77**	**298**	*e*P	**P**	**12 45 58.5**	**+0.7**
ARUT				pmax	pmax		
	comp=Z,82nm,1.7s,mb5.6						
ARUT	**Antelope Range**	**62.77**	**298**	*e*P	**P**	**12 45 58.5**	**+0.7**
	comp=Z,82nm,1.7s,mb5.6						
ARUT	**Antelope Range**	**62.77**	**298**	*e*P	**P**	**12 45 58.5**	**+0.7**
	comp=Z,82nm,1.7s,mb5.6						
CCUT	**Cedar City**	**62.84**	**297**	*e*P	**P**	**12 45 57.8**	**-0.4**
	comp=Z,38nm,1.3s,mb5.4						
CCUT	**Cedar City**	**62.84**	**297**	*e*P	**P**	**12 45 57.8**	**-0.5**
	comp=Z,38nm,1.3s,mb5.4						
I08A	**Drewsey**	**62.89**	**306**	P	**P**	**12 45 58.9**	**+0.4**
	baz=63,SNR=8.7						
V15A	**Kaibab Nationa**	**62.94**	**295**	P	**P**	**12 45 59.2**	**+0.3**
	baz=63,SNR=13						
K09A	**Rome**	**63.00**	**304**	P	**P**	**12 46 00.2**	**+1.0**
	baz=63,SNR=21						
O11A	**Cowboy Ranch,**	**63.01**	**301**	P	**P**	**12 46 00.2**	**+0.8**
	baz=63,SNR=7.9						
118A	**Homack Ranch,**	**63.10**	**291**	P	**P**	**12 46 01.4**	**+1.4**
	baz=63,SNR=8.8						
J08A	**Circle Bar Ran**	**63.12**	**305**	P	**P**	**12 45 59.9**	**-0.1**
	baz=63,SNR=45						
Y17A	**Roosevelt**	**63.15**	**292**	P	**P**	**12 46 01.9**	**+1.5**
	baz=63,SNR=10						
S13A	**Holt Ranch, En**	**63.16**	**298**	P	**P**	**12 46 01.9**	**+1.5**
	baz=63,SNR=11						
X16A	**Lo Mia Camp, P**	**63.18**	**293**	P	**P**	**12 46 02.0**	**+1.4**
	baz=63,SNR=7.4						
SKAG	**Skagway**	**63.19**	**327**	*e*P	**P**	**12 46 00.6**	**+0.4**
	comp=Z,56nm,2.0s,mb5.3						
SKAG	**Skagway**	**63.19**	**327**	*e*P	**P**	**12 46 00.6**	**+0.4**
	comp=Z,56nm,2.0s,mb5.3						
R12A	**Pony Springs,**	**63.27**	**299**	P	**P**	**12 46 01.6**	**+0.5**
	baz=63,SNR=7.7						
HYT	**Haines Junctio**	**63.28**	**329**	*e*P	**P**	**12 46 01.7**	**+0.9**
HYT	**Haines Junctio**	**63.28**	**329**	*e*P	**P**	**12 46 01.7**	**+0.9**
319A	**Douglas**	**63.29**	**289**	P	**P**	**12 46 03.0**	**+1.6**
	baz=63,SNR=8.8						
L09A	**Wilkinson Ranc**	**63.31**	**304**	P	**P**	**12 46 01.4**	**0.0**
	baz=63,SNR=24						
U14A	**Mt Trumbull**	**63.31**	**296**	P	**P**	**12 46 01.4**	**0.0**
	baz=63,SNR=7.7						
K08A	**Mann Creek Ran**	**63.46**	**305**	P	**P**	**12 46 03.4**	**+1.1**
	baz=63,SNR=11						
T13A	**Saint George**	**63.49**	**297**	P	**P**	**12 46 03.6**	**+1.1**
	baz=63,SNR=18						
M09A	**Marrel Ranch,**	**63.49**	**303**	P	**P**	**12 46 03.5**	**+1.0**
	baz=63,SNR=10						
Y16A	**Circle Bar Ran**	**63.50**	**293**	P	**P**	**12 46 03.8**	**+1.1**
	baz=63,SNR=5.8						
COLD	**Coldfoot**	**63.51**	**338**	*e*P	**P**	**12 46 00.7**	**-1.5**
	comp=Z,16nm,1.2s,mb4.9						
COLD	**Coldfoot**	**63.51**	**338**	*e*P	**P**	**12 46 00.7**	**-1.5**
	comp=Z,16nm,1.2s,mb4.9						
L08A	**Fields**	**63.65**	**304**	P	**P**	**12 46 04.8**	**+1.2**
	baz=63,SNR=12						
V14A	**Boquillas Ranc**	**63.68**	**295**	P	**P**	**12 46 05.2**	**+1.4**
	baz=64,SNR=11						
X15A	**Humboldt**	**63.70**	**294**	P	**P**	**12 46 05.2**	**+1.2**
	baz=64,SNR=9.9						
WVOR	**Wild Horse Val**	**63.71**	**304**	*e*P	**P**	**12 46 03.8**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.4						
WVOR				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
WVOR	**Wild Horse Val**	**63.71**	**304**	*e*P	**P**	**12 46 03.8**	**-0.2**
	comp=Z,54nm,1.4s,mb5.4						
WVOR				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
WVOR	**Wild Horse Val**	**63.71**	**304**	*e*P	**P**	**12 46 03.8**	**-0.1**
	comp=Z,54nm,1.4s,mb5.4						
BRVK	**Borovoye**	**63.80**	**42**	P	**P**	**12 46 04.3**	**-0.1**
	comp=Z,145nm,1.2s,mb5.9,SNR=8.6						
BRVK	**Borovoye**	**63.80**	**42**	*e*P	**P**	**12 46 04.2**	**-0.2**
BRVK				*e*		12 48 25.7	
BRVK				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,689nm,20.0s,MS4.8						
BRVK	**Borovoye**	**63.80**	**42**	*e*P	**P**	**12 46 04.2**	**-0.2**
	comp=Z,35nm,1.1s,mb5.3						
BRVK				*e*PP	PP	12 48 25.7	+1.5
BRVK				LR	LR		
	comp=Z,689nm,20.0s,MS4.8						
BRVK	**Borovoye**	**63.80**	**42**	⇓P	**P**	**12 46 05.5**	**+1.1**
	SNR=14						
BRVK				⇓P		12 46 05.5	
	SNR=14						
BRVK	**Borovoye**	**63.80**	**42**	P	**P**	**12 46 05.5**	**+1.1**
	SNR=14						
BRVK	**Borovoye**	**63.80**	**42**	*e*PP	PP	12 48 25.7	+1.5
VIPM	**Ingram Point**	**63.83**	**307**	P	**P**	**12 46 04.6**	**-0.1**
VIPM	**Ingram Point**	**63.83**	**307**	P	**P**	**12 46 04.6**	**-0.1**
N09A	**Rock Creek Ran**	**63.84**	**302**	P	**P**	**12 46 06.2**	**+1.4**
	baz=64,SNR=9.8						
U13A	**Pakoon Wash**	**63.85**	**297**	P	**P**	**12 46 05.5**	**+0.5**
	baz=64,SNR=14						
TUC	**Tucson**	**63.86**	**291**	*e*P	**P**	**12 46 05.6**	**+0.5**
TUC				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.8						
TUC				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
TUC	**Tucson**	**63.86**	**291**	*e*P	**P**	**12 46 05.6**	**+0.5**
	comp=Z,12nm,1.3s,mb4.8						
TUC				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
TUC	**Tucson**	**63.86**	**291**	*e*P	**P**	**12 46 05.6**	**+0.5**
	comp=Z,12nm,1.3s,mb4.8						
BMN	**Battle Mountai**	**63.87**	**302**	PFAKE		12 46 20.0	+15
BMN				LR	LR		
	comp=Z,545nm,21.0s,MS4.7						
BVAR	**Borovoye Array**	**63.87**	**42**	P	**P**	**12 46 04.5**	**-0.3**
	comp=Z,8.2nm,0.9s,mb4.8,baz=305,slow=5.2,SNR=27						
BVAR				LR	LR	13 13 23.9	
	comp=Z,547nm,18.7s,MS4.8,baz=116,slow=36						
BVAR	**Borovoye Array**	**63.87**	**42**	P	**P**	**12 46 04.5**	**-0.3**
W14A	**Seligman**	**63.89**	**295**	P	**P**	**12 46 05.8**	**+0.5**
	baz=64,SNR=11						
K07A	**Rock Creek Ran**	**63.95**	**305**	P	**P**	**12 46 06.3**	**+0.8**
	baz=64,SNR=9.0						
O09A	**Fish Creek Ran**	**63.99**	**302**	P	**P**	**12 46 06.6**	**+0.8**
	baz=64,SNR=8.8						
Y15A	**Casa Rosa Ranc**	**64.05**	**293**	P	**P**	**12 46 08.0**	**+1.6**
	baz=64,SNR=8.7						
X14A	**Yava**	**64.16**	**294**	P	**P**	**12 46 08.7**	**+1.7**
	baz=64,SNR=6.0						
NLWA	**Neilton Lookou**	**64.20**	**311**	PFAKE		12 46 20.0	+13
NLWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
T11A	**Corn Creek, Al**	**64.26**	**298**	P	**P**	**12 46 08.6**	**+1.0**
	baz=64,SNR=13						
MENT	**Mentasta**	**64.30**	**332**	*e*P	**P**	**12 46 06.8**	**-0.7**
MENT	**Mentasta**	**64.30**	**332**	*e*P	**P**	**12 46 06.8**	**-0.7**
VOSK	**Vostochnaya**	**64.34**	**42**	P	**P**	**12 46 06.0**	**-1.9**
VOSK				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
L07A	**Adell**	**64.37**	**304**	P	**P**	**12 46 09.8**	**+1.5**
	baz=64,SNR=9.9						
S11A	**Rachel**	**64.39**	**299**	P	**P**	**12 46 08.8**	**+0.3**
	baz=64,SNR=10						
COLA	**College**	**64.41**	**335**	*e*P	**P**	**12 46 08.1**	**0.0**
COLA				pmax	pmax		
	comp=Z,44nm,1.8s,mb5.2						
COLA				MLR	MLR		
	comp=Z,315nm,20.0s,MS4.5						
COLA	**College**	**64.41**	**335**	*e*P	**P**	**12 46 08.1**	**-0.1**
	comp=Z,44nm,1.8s,mb5.2						
COLA				LR	LR		
	comp=Z,315nm,20.0s,MS4.5						
COLA	**College**	**64.41**	**335**	*e*P	**P**	**12 46 08.1**	**0.0**
	comp=Z,44nm,1.8s,mb5.2						
216A	**Three Points,**	**64.50**	**291**	P	**P**	**12 46 11.5**	**+2.2**
	baz=64,SNR=10						
W13A	**Hualapai Mount**	**64.51**	**295**	P	**P**	**12 46 10.5**	**+1.2**
	baz=64,SNR=10						
O08A	**Rochester Mine**	**64.55**	**302**	P	**P**	**12 46 09.9**	**+0.4**
	baz=64,SNR=8.6						
M07A	**Soldier Meadow**	**64.60**	**304**	P	**P**	**12 46 10.8**	**+1.0**
	baz=64,SNR=9.7						
X13A	**Yucca**	**64.75**	**295**	P	**P**	**12 46 12.1**	**+1.2**
	baz=64,SNR=8.4						
N07B	**Gerlach**	**64.81**	**303**	P	**P**	**12 46 12.6**	**+1.4**
	baz=65,SNR=14						
V12A	**Nelson**	**64.83**	**296**	P	**P**	**12 46 12.1**	**+0.7**
	baz=65,SNR=7.4						
K05A	**Summer Lake**	**64.96**	**306**	P	**P**	**12 46 13.1**	**+1.0**
	baz=65,SNR=11						
MOD	**Modoc**	**65.04**	**305**	*e*P	**P**	**12 46 11.8**	**-0.8**
	comp=Z,32nm,1.3s,mb5.2						
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
MOD	**Modoc**	**65.04**	**305**	*e*P	**P**	**12 46 11.8**	**-0.9**
	comp=Z,32nm,1.3s,mb5.2						
O07A	**Toulon**	**65.08**	**302**	P	**P**	**12 46 13.3**	**+0.4**
	baz=65,SNR=9.5						
V11A	**Goodsprings**	**65.16**	**297**	P	**P**	**12 46 14.4**	**+0.8**
	baz=65,SNR=7.4						
IMA2	**Indian Mountai**	**65.31**	**338**	*e*P	**P**	**12 46 13.3**	**-0.7**
IMA2	**Indian Mountai**	**65.31**	**338**	*e*P	**P**	**12 46 13.3**	**-0.7**
LDFC	**Landfair**	**65.36**	**296**	*e*P	**P**	**12 46 12.9**	**-1.9**
	comp=Z,57nm,1.3s,mb5.4						
LDFC	**Landfair**	**65.36**	**296**	*e*P	**P**	**12 46 12.9**	**-2.0**
	comp=Z,57nm,1.3s,mb5.4						
N06A	**Buffalo Meadow**	**65.37**	**303**	P	**P**	**12 46 15.7**	**+0.8**
	baz=65,SNR=16						
MCK	**McKinley**	**65.53**	**335**	*e*P	**P**	**12 46 15.0**	**-0.5**
MCK				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.4						
MCK	**McKinley**	**65.53**	**335**	*e*P	**P**	**12 46 15.0**	**-0.5**
	comp=Z,70nm,1.6s,mb5.4						
MCK	**McKinley**	**65.53**	**335**	*e*P	**P**	**12 46 15.0**	**-0.5**
	comp=Z,70nm,1.6s,mb5.4						
NVAR	**Mina Array Bea**	**65.66**	**300**	P	**P**	**12 46 15.3**	**-1.4**
	comp=Z,3.4nm,1.1s,mb4.3,baz=54,slow=4.6,SNR=9.0						
NVAR	**Mina Array Bea**	**65.66**	**300**	P	**P**	**12 46 15.3**	**-1.4**
NVAR	**Mina Array Bea**	**65.66**	**300**	P	**P**	**12 46 15.3**	**-1.4**
FURC	**Furnace Creek,**	**65.78**	**298**	P	**P**	**12 46 18.9**	**+1.4**
	baz=66,SNR=7.3						
GRAC	**Grapevine Rang**	**65.83**	**299**	P	**P**	**12 46 18.8**	**+1.0**
	baz=66,SNR=9.7						
BPAW	**Bear Paw Mtn.**	**65.92**	**336**	*e*P	**P**	**12 46 16.8**	**-1.2**
	comp=Z,47nm,1.7s,mb5.2						
BPAW	**Bear Paw Mtn.**	**65.92**	**336**	*e*P	**P**	**12 46 16.8**	**-1.2**
	comp=Z,47nm,1.7s,mb5.2						
SPB	**Sao Paulo**	**66.14**	**198**	PFAKE		12 46 30.0	+10
SPB				LR	LR		
	comp=Z,294nm,21.0s,MS4.5						
TRF	**Thorofare Moun**	**66.16**	**335**	*e*P	**P**	**12 46 18.6**	**-0.9**
	comp=Z,67nm,1.6s,mb5.4						
TRF	**Thorofare Moun**	**66.16**	**335**	*e*P	**P**	**12 46 18.6**	**-0.9**
	comp=Z,67nm,1.6s,mb5.4						
LBCM	**Butte Creek Ri**	**66.28**	**304**	P	**P**	**12 46 21.4**	**+0.6**
LBCM	**Butte Creek Ri**	**66.28**	**304**	P	**P**	**12 46 21.4**	**+0.7**
HUMO	**Hull Mountain**	**66.29**	**306**	PFAKE		12 46 30.0	+9.3
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
KTH	**Kantishna Hill**	**66.29**	**335**	*e*P	**P**	**12 46 19.0**	**-1.3**
	comp=Z,29nm,1.3s,mb5.2						
KTH				*e*PcP	PcP	12 46 50.0	-0.3
KTH	**Kantishna Hill**	**66.29**	**335**	*e*P	**P**	**12 46 19.0**	**-1.4**
	comp=Z,29nm,1.3s,mb5.2						
DAC	**Darwin (Calif)**	**66.38**	**298**	PFAKE		12 46 30.0	+8.6
DAC				LR	LR		
	comp=Z,640nm,20.0s,MS4.8						
GSC	**Goldstone**	**66.39**	**297**	*e*P	**P**	**12 46 21.9**	**+0.4**
GSC				pmax	pmax		
	comp=Z,79nm,1.8s,mb5.4						
GSC	**Goldstone**	**66.39**	**297**	*e*P	**P**	**12 46 21.9**	**+0.4**
	comp=Z,79nm,1.8s,mb5.4						
GSC	**Goldstone**	**66.39**	**297**	*e*P	**P**	**12 46 21.9**	**+0.4**
	comp=Z,79nm,1.8s,mb5.4						
CHUM	**Lake Minchumin**	**66.49**	**336**	*e*P	**P**	**12 46 21.7**	**+0.1**
	comp=Z,54nm,1.7s,mb5.3						
CHUM	**Lake Minchumin**	**66.49**	**336**	*e*P	**P**	**12 46 21.7**	**+0.1**
	comp=Z,54nm,1.7s,mb5.3						
YBH	**Yreka Blue Hor**	**66.63**	**306**	PFAKE		12 46 30.0	+7.1
YBH				LR	LR		
	comp=Z,729nm,19.0s,MS4.9						
TIXI	**Tiksi**	**66.90**	**7**	⇑*e*P	**P**	**12 46 23.8**	**-0.3**
TIXI				pmax	pmax		

```
      comp=Z,27nm,1.2s,mb5.2
TIXI  Tiksi            66.90   7 eP      P        12 46 24.0 -0.2
      comp=Z,31nm,1.3s,mb5.2
TIXI                              LR     LR
      comp=Z,159nm,21.0s,MS4.2
TIXI  Tiksi            66.90   7 eP      P        12 46 24.0 -0.1
      comp=Z,31nm,1.3s,mb5.2
PMR   Palmer           67.09 333 eP      P        12 46 25.5  0.0
PMR                               pmax   pmax
      comp=Z,66nm,1.5s,mb5.4
PMR   Palmer           67.09 333 eP      P        12 46 25.5  0.0
      comp=Z,66nm,1.5s,mb5.5
PMR   Palmer           67.09 333 eP      P        12 46 25.5  0.0
      comp=Z,66nm,1.5s,mb5.5
PFO   Pinyon Flat Ob   67.10 295 i P     P        12 46 28.1 +2.0
PFO   Pinyon Flat Ob   67.10 295  PFAKE           12 46 40.0  +14
PFO                               LR     LR
      comp=Z,1µm,19.0s,MS5.1
WDC   Whiskeytown Da   67.18 304  PFAKE           12 46 40.0  +14
WDC                               LR     LR
      comp=Z,1µm,22.0s,MS5.1
CMB   Columbia Colle   67.24 301 eP      P        12 46 26.0 -0.9
CMB                               pmax   pmax
      comp=Z,27nm,1.4s,mb5.1
CMB   Columbia Colle   67.24 301 eP      P        12 46 26.0 -0.8
      comp=Z,27nm,1.4s,mb5.1
CMB   Columbia Colle   67.24 301 eP      P        12 46 26.0 -0.9
      comp=Z,27nm,1.4s,mb5.1
RC01  Rabbit Creek A   67.65 333  P      P        12 46 27.7 -1.4
      comp=Z,45nm,1.5s,mb5.3
RC01  Rabbit Creek A   67.65 333  P      P        12 46 27.7 -1.3
      comp=Z,45nm,1.5s,mb5.3
MBAR  Mbarara          68.09 111  PFAKE           12 46 40.0 +7.5
MBAR                              LR     LR
      comp=Z,887nm,20.0s,MS5.0
LPIG  La Paz           68.15 283  P      P        12 46 31.8 -1.0
      comp=Z,20nm,0.3s,mb5.6,baz=87,slow=7.2,SNR=4.8
LPIG  La Paz           68.15 283  P      P        12 46 31.8 -1.0
HOPS  Hopland          68.42 303  PFAKE           12 46 50.0  +16
HOPS                              LR     LR
      comp=Z,1µm,19.0s,MS5.2
NVS   Novosibirsk      68.82  35⇑iP      P        12 46 35.9 -0.6
NVS                              e                12 49 07.0
NVS                               pmax   pmax
      comp=N,16nm,1.7s
NVS                               pmax   pmax
      comp=Z,52nm,1.7s,mb5.2
NVS                               pmax   pmax
      comp=E,17nm,1.5s
TNA   Tin City         69.33 343 eP      P        12 46 38.7 -0.8
      comp=E,51nm,1.9s,mb5.1
TNA   Tin City         69.33 343 eP      P        12 46 38.7 -0.7
      comp=E,51nm,1.9s,mb5.1
KURK  Kurchatov        69.35  40 eP      P        12 46 39.2 -0.7
KURK                              pmax   pmax
      comp=Z,31nm,1.0s,mb5.2
KURK                              MLR    MLR
      comp=Z,471nm,20.0s,MS4.7
KURK  Kurchatov        69.35  40  P      P        12 46 39.2 -0.7
      comp=Z,23nm,1.0s,mb5.1,baz=312,slow=6.4,SNR=38
KURK                              PKP2bc          13 14 48.4
      comp=Z,0.1nm,0.3s,baz=103,slow=2.0,SNR=3.9
KURK                              LR     LR       13 16 49.7
      comp=Z,366nm,20.0s,MS4.6,baz=305,slow=36
KURK  Kurchatov        69.35  40 eP      P        12 46 39.2 -0.6
      comp=Z,30nm,1.0s,mb5.2
KURK                              LR     LR
      comp=Z,471nm,20.0s,MS4.7
KURK  Kurchatov        69.35  40 ⇑P      P        12 46 40.4 +0.5
      SNR=13
KURK                             ⇑P               12 46 40.4
      SNR=13
KURK  Kurchatov        69.35  40  P      P        12 46 40.4 +0.5
      SNR=13
SVW2  Sparrevohn       69.58 335 eP      P        12 46 40.4 -0.7
SVW2  Sparrevohn       69.58 335 eP      P        12 46 40.4 -0.7
KK31  Karatay Array    69.67  50 i P     P        12 46 41.5 -0.5
KK31                              pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.8
ZAA0  Zalesovo Array   70.11  35 eP      P        12 46 43.9 -0.6
ZAA0                             ePP     PP       12 49 17.8 -1.2
ZAA0  Zalesovo Array   70.11  35 eP      P        12 46 43.9 -0.6
ZALV  Zalesovo Beam    70.11  35  P      P        12 46 43.8 -0.7
ZALV                                              12 49 18.2
ZALV  Zalesovo Beam    70.11  35  P      P        12 46 43.8 -0.6
      comp=Z,13nm,1.0s,mb4.8,baz=312,slow=7.1,SNR=35
ZALV                              PP     PP       12 49 18.2 -0.8
      comp=Z,0.4nm,0.4s,baz=319,slow=8.6,SNR=4.4
ZALV                              LR     LR       13 16 31.1
      comp=Z,215nm,18.1s,MS4.4,baz=72,slow=35
BILL  Bilibino         70.97 354⇓eP      P        12 46 50.0 +0.5
BILL                             i                12 49 23.1
BILL                             eS      S        12 55 58.2 -6.6
BILL                              pmax   pmax
      comp=Z,26nm,1.9s,mb4.8
BILL  Bilibino         70.97 354 eP      P        12 46 49.6 +0.1
      comp=Z,45nm,1.9s,mb5.1
BILL                              LR     LR
      comp=Z,451nm,20.0s,MS4.7
BILL  Bilibino         70.97 354 eP      P        12 46 49.6 +0.1
      comp=Z,45nm,1.9s,mb5.1
CPUP  Villa Florida    71.59 206  P      P        12 46 52.0 -1.7
      comp=Z,2.1nm,0.8s,mb4.1,baz=8.4,slow=7.4,SNR=6.5
CPUP                              LR     LR       13 16 15.0
      comp=Z,84nm,21.7s,MS4.0,baz=3.1,slow=34
CPUP  Villa Florida    71.59 206  P      P        12 46 52.0 -1.7
EKS2  Erkin-Say        71.84  49  P      P        12 46 55.7 +0.5
      SNR=16
EKS2  Erkin-Say        71.84  49 eP      P        12 46 55.5 +0.3
      comp=Z,36nm,1.2s,mb5.2
EKS2                             ePP     PP       12 49 34.8 +0.6
EKS2                              LR     LR
      comp=Z,758nm,19.0s,MS5.0
EKS2  Erkin-Say        71.84  49 eP      P        12 46 55.5 +0.3
      comp=Z,36nm,1.2s,mb5.2
EKS2  Erkin-Say        71.84  49 ePP     PP       12 49 34.8 +0.6
AML   Almayashu        72.12  50  P      P        12 46 57.0 +0.1
      SNR=19
AML   Almayashu        72.12  50 eP      P        12 46 57.0 +0.1
      comp=Z,23nm,0.9s,mb5.1
AML                               LR     LR
      comp=Z,460nm,19.0s,MS4.8
AML   Almayashu        72.12  50 eP      P        12 46 57.0 +0.1
      comp=Z,23nm,0.9s,mb5.1
FRU   Bishkek          72.21  49 eP      P        12 46 58.0 +0.6
AAK   Ala-Archa        72.27  49⇑eP      P        12 46 59.5 +1.7
AAK                               pmax   pmax
      comp=Z,12nm,1.7s,mb4.5
AAK   Ala-Archa        72.27  49  P      P        12 46 58.0 +0.3
      SNR=6.5
AAK   Ala-Archa        72.27  49  P      P        12 46 58.3 +0.5
      comp=Z,1.7nm,0.7s,mb4.1,baz=270,slow=5.1,SNR=14
AAK                               PP     PP       12 49 39.6 +1.7
      comp=Z,0.3nm,0.3s,baz=342,slow=10,SNR=5.0
AAK   Ala-Archa        72.27  49 eP      P        12 46 59.4 +1.7
      comp=Z,24nm,1.5s,mb4.9
AAK                               LR     LR
      comp=Z,577nm,20.0s,MS4.8
AAK   Ala-Archa        72.27  49 ⇑P      P        12 46 59.3 +1.6
      SNR=10.0
AAK                              ⇑P               12 46 59.3
      SNR=10.0
AAK   Ala-Archa        72.27  49  P      P        12 46 59.3 +1.5
      SNR=10.0
KBK   Karagaybulak     72.51  49  P      P        12 46 56.0 -3.2
      SNR=6.0
UCH   Uchtor           72.53  49  P      P        12 47 00.1 +0.7
      SNR=17
UCH   Uchtor           72.53  49 eP      P        12 46 59.9 +0.5
      comp=Z,16nm,1.0s,mb4.9
UCH                              ePP     PP       12 49 45.7 +5.6
UCH                               LR     LR
      comp=Z,576nm,21.0s,MS4.8
UCH   Uchtor           72.53  49 eP      P        12 46 59.9 +0.5
      comp=Z,16nm,1.0s,mb4.9
TKM2  Tokmak 2         72.71  48 eP      P        12 47 00.8 +0.4
TKM2                             e                12 49 39.8
TKM2                              pmax   pmax
      comp=Z,18nm,1.1s,mb4.9
TKM2                              MLR    MLR
      comp=Z,648nm,22.0s,MS4.9
TKM2  Tokmak 2         72.71  48  P      P        12 47 02.2 +1.8
      SNR=8.8
TKM2  Tokmak 2         72.71  48 eP      P        12 47 00.8 +0.4
      comp=Z,18nm,1.1s,mb4.9
TKM2                             ePP     PP       12 49 39.8 -1.9
TKM2                              LR     LR
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      comp=Z,648nm,22.0s,MS4.9
TKM2  Tokmak 2         72.71  48 eP      P        12 47 00.8 +0.4
      comp=Z,18nm,1.1s,mb4.9
TKM2  Tokmak 2         72.71  48 ePP     PP       12 49 39.8 -1.8
LVC   Limon Verde      72.97 218 eP      P        12 47 02.1 +0.2
      comp=Z,82nm,2.0s,mb5.3
LVC                               LR     LR
      comp=Z,262nm,21.0s,MS4.5
LVC   Limon Verde      72.97 218 eP      P        12 47 02.1 +0.1
      comp=Z,82nm,2.0s,mb5.3
KZA   Kyzart           73.05  49  P      P        12 47 04.4 +2.0
      SNR=6.2
MK31  Makanchi Array   73.76  42 i P     P        12 47 05.5 -1.0
MK31                              pmax   pmax
      comp=Z,36nm,1.3s,mb5.1
MKAR  Makanchi Array   73.76  42  P      P        12 47 05.5 -0.9
      comp=Z,8.3nm,1.0s,mb4.6,baz=313,slow=4.5,SNR=50
MKAR                              LR     LR       13 18 58.8
      comp=Z,496nm,19.4s,MS4.8,baz=305,slow=35
KBL   Kabul            74.00  58 eP      P        12 47 08.7 +0.5
KBL                               pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.7
KBL   Kabul            74.00  58 eP      P        12 47 08.7 +0.6
      comp=Z,10.0nm,1.1s,mb4.7
KBL   Kabul            74.00  58 eP      P        12 47 08.7 +0.5
      comp=Z,10.0nm,1.1s,mb4.7
KSH   Kashi            75.12  51  P      P        12 47 15.1 +0.5
KSH                              epP     pP       12 47 19.8 +1.9
KSH                              esP     sP       12 47 22.1 +3.0
KSH                              ePcP    PcP      12 47 29.3 +1.1
KSH                              ePP     PP       12 50 04.9 +2.7
KSH                              eS      S        12 56 50.8 -2.2
KSH                              esS     sS       12 56 59.4 +1.0
KSH                              eSKS             12 57 18.5
KSH                              eScS    ScS      12 57 23.5 -3.7
KSH                              eSS     SS       13 01 41.9 +0.7
KSH                               pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
KSH                               pmax   pmax
      comp=Z,410nm,4.4s
KSH                               LR     LR
      comp=N,390nm,6.2s
KSH                               LR     LR
      comp=E,620nm,11.6s
KSH                               LR     LR
      comp=Z,780nm,7.2s
YAK   Yakutsk          76.23  10 eP      P        12 47 19.4 -1.1
YAK                              e                12 47 29.9
YAK                              eS      S        12 57 03.1 -1.3
YAK                              e                12 57 36.1
YAK                              eSS     SS       13 01 50.5 -6.1
YAK                               pmax   pmax
      comp=Z,42nm,1.2s,mb5.2
YAK                               pmax   pmax
      comp=N,20nm,1.4s
YAK                               pmax   pmax
      comp=E,12nm,1.4s
YAK                               pmax   pmax
      comp=Z,6.0nm,1.1s,mb4.4
YAK                               pmax   pmax
      comp=N,3.0nm,1.5s
YAK                               pmax   pmax
      comp=E,22nm,1.8s
YAK                               smax
      comp=N,127nm,4.2s
YAK                               smax
      comp=E,44nm,4.2s
YAK   Yakutsk          76.23  10 eP      P        12 47 19.8 -0.7
      comp=E,46nm,1.0s,mb5.4
YAK                               LR     LR
      comp=Z,149nm,19.0s,MS4.3
YAK   Yakutsk          76.23  10 eP      P        12 47 19.8 -0.7
      comp=Z,46nm,1.0s,mb5.4
SEY   Seymchan         76.72 359⇑eP      P        12 47 22.4 -0.8
LSZ   Lusaka           77.02 123 eP      P        12 47 26.3 +0.7
LSZ                               pmax   pmax
      comp=Z,34nm,1.5s,mb5.1
LSZ                               MLR    MLR
      comp=Z,725nm,20.0s,MS5.0
LSZ   Lusaka           77.02 123  LR     LR       13 22 18.0
      comp=Z,779nm,18.7s,MS5.0,baz=344,slow=36
LSZ   Lusaka           77.02 123 eP      P        12 47 26.3 +0.7
      comp=Z,34nm,1.5s,mb5.1
LSZ                               LR     LR
      comp=Z,725nm,20.0s,MS5.0
LSZ   Lusaka           77.02 123 eP      P        12 47 26.3 +0.7
      comp=Z,34nm,1.5s,mb5.1
BOD   Bodaibo          77.15  19 eP      P        12 47 24.1 -1.7
BOD                               pmax   pmax
      comp=Z,32nm,1.5s,mb5.0
NIL   Nilore           77.26  57  PFAKE           12 47 40.0  +13
NIL                               LR     LR
      comp=Z,109nm,20.0s,MS4.2
MOY   Mondy            78.35  29 eP      P        12 47 33.2 +0.6
MOY                               pmax   pmax
      comp=Z,50nm,1.7s,mb5.2
WMQ   Urumqi           78.56  41⇑iP      P        12 47 34.8 +0.9
WMQ                               pP     pP       12 47 39.5 +2.3
WMQ                               sP     sP       12 47 42.0 +3.6
WMQ                               PP     PP       12 50 34.0 +3.1
WMQ                              eS      S        12 57 29.6 -0.7
WMQ                               pmax   pmax
      comp=Z,16nm,1.5s,mb4.7
WMQ                               pmax   pmax
      comp=Z,200nm,7.2s
WMQ                               LR     LR
      comp=N,630nm,19.0s,MS5.1
WMQ                               LR     LR
      comp=E,670nm,21.5s,MS5.1
WMQ                               LR     LR
      comp=Z,830nm,20.8s,MS5.0
IRK   Irkutsk          79.05  27 eP      P        12 47 36.1 -0.3
IRK                               pmax   pmax
      comp=Z,45nm,1.8s,mb5.1
LCO   Las Campanas     79.27 216 eP      P        12 47 38.0 +0.2
      comp=Z,52nm,1.4s,mb5.3
LCO   Las Campanas     79.27 216 eP      P        12 47 38.0 +0.2
      comp=Z,52nm,1.4s,mb5.3
TLY   Talaya           79.30  28 eP      P        12 47 37.5 -0.3
TLY                               pmax   pmax
      comp=Z,23nm,1.5s,mb4.9
TLY                               MLR    MLR
      comp=Z,165nm,15.0s,MS4.5
TLY   Talaya           79.30  28  PFAKE           12 47 50.0  +12
TLY                               LR     LR
      comp=Z,191nm,20.0s,MS4.4
TLY   Talaya           79.30  28  P      P        12 47 38.6 +0.9
      SNR=9.0
TLY                               P               12 47 38.6
      SNR=9.0
TLY   Talaya           79.30  28  P      P        12 47 38.6 +0.8
      SNR=9.0
ZAK   Zakamensk        80.24  29 eP      P        12 47 42.5 -0.4
ZAK                               pmax   pmax
      comp=Z,11nm,1.3s,mb4.6
CLNS  Chul'man         80.43  14 eP      P        12 47 44.1 +0.3
CLNS                              pmax   pmax
      comp=Z,22nm,1.3s,mb4.9
CLNS                              pmax   pmax
      comp=N,6.0nm,1.3s
CLNS                              pmax   pmax
      comp=E,6.0nm,1.3s
NDI   New Delhi        83.09  58 ex      x        12 47 58.0
SONM  Songino Array    83.49  28  P      P        12 47 59.7 -0.4
SONM                                              12 51 14.9
SONM  Songino Array    83.49  28  P      P        12 47 59.7 -0.4
      comp=E,10.0nm,1.0s,mb4.8,baz=325,slow=5.8,SNR=27
SONM                              PP     PP       12 51 14.9 +3.4
      comp=E,0.8nm,0.9s,baz=316,slow=6.0,SNR=5.2
SONM                              LR     LR       13 23 06.0
      comp=E,163nm,19.5s,MS4.4,baz=308,slow=34
SONM  Songino Array    83.49  28  P      P        12 47 59.7 -0.4
SONM  Songino Array    83.49  28  PP     PP       12 51 14.9 +3.4
ULN   Ulaanbaatar      83.70  28 eP      P        12 48 01.1 -0.1
ULN                               pmax   pmax
      comp=Z,40nm,1.4s,mb5.4
ULN                               MLR    MLR
      comp=Z,201nm,19.0s,MS4.5
ULN   Ulaanbaatar      83.70  28 eP      P        12 48 01.1 -0.1
      comp=Z,40nm,1.4s,mb5.4
ULN                               LR     LR
      comp=Z,201nm,19.0s,MS4.5
ULN   Ulaanbaatar      83.70  28  P      P        12 48 02.3 +1.1
      SNR=15
ULN                               P               12 48 02.3
      SNR=15
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ULN   Ulaanbaatar      83.70  28  P      P        12 48 02.3 +1.1
      SNR=15
BOSA  Boshof           85.50 134  LR     LR       13 26 01.5
      comp=Z,483nm,18.3s,MS4.9,baz=318,slow=35
HIA   Hailar           86.36  20  PFAKE           12 48 30.0  +16
HIA                               LR     LR
      comp=Z,401nm,19.0s,MS4.8
PETK  Petropavlovsk-   86.39 356  LR     LR       13 27 55.2
      comp=Z,160nm,18.2s,MS4.5,baz=12,slow=36
PET   Petropavlovsk    86.41 355 eP      P        12 48 11.8 -2.9
PET                              eS      S        12 58 40.1  -10
PET                               pmax   pmax
      comp=Z,24nm,1.5s,mb5.2
PET                               MLR    MLR
      comp=Z,300nm,16.0s,MS4.8
POO   Poona            87.64  68 ex      x        12 48 07.0
GTA   Gaotai           87.76  37 eP      P        12 48 21.3 -0.2
GTA                               pP     pP       12 48 25.3 +0.5
GTA                               sP     sP       12 48 27.9 +1.9
GTA                               PP     PP       12 51 47.0 +0.7
GTA                               SKS             12 58 46.8
GTA                               S      S        12 59 01.3 -2.5
GTA                               sS     sS       12 59 07.3 -2.1
GTA                               SS     SS       13 04 51.3 +2.3
GTA                               pmax   pmax
      comp=Z,11nm,1.3s,mb4.9
GTA                               pmax   pmax
      comp=Z,120nm,3.9s
GTA                               LR     LR
      comp=N,200nm,20.2s,MS4.7
GTA                               LR     LR
      comp=E,250nm,19.0s,MS4.7
GTA                               LR     LR
      comp=Z,280nm,19.0s,MS4.7
MSEY  Mahe Island      89.05  97  PFAKE           12 48 40.0  +12
MSEY                              LR     LR
      comp=Z,431nm,21.0s,MS4.8
PLCA  Paso Flores      89.30 210  P      P        12 48 27.6 -0.8
      comp=Z,3.6nm,1.1s,mb4.6,baz=24,slow=4.8,SNR=4.2
PLCA                              LR     LR       13 27 30.6
      comp=Z,169nm,21.4s,MS4.4,baz=10,slow=35
PLCA  Paso Flores      89.30 210  P      P        12 48 27.5 -0.9
HABR  Khabarovsk       90.14  10 eP      P        12 48 30.8 -1.7
HABR                             e                12 52 03.6
HABR                             ePPP             12 54 00.1
HABR                             eS      SKSac    12 59 01.0 -2.5
HABR                             e                12 59 27.4
HABR                              SS     SS       13 05 22.8 -0.1
HABR                             eSSS             13 08 59.2
HABR                              MLR    MLR
      comp=Z,111nm,19.0s,MS4.3
LSA   Lhasa            90.86  49 eP      P        12 48 37.6 +1.4
LSA                               pmax   pmax
      comp=Z,1.0nm,0.5s,mb4.4
LSA                               MLR    MLR
      comp=Z,300nm,21.0s,MS4.7
LSA   Lhasa            90.86  49 eP      P        12 48 37.6 +1.4
      comp=Z,1.4nm,0.5s,mb4.5
LSA                               LR     LR
      comp=Z,300nm,21.0s,MS4.7
LSA   Lhasa            90.86  49 eP      P        12 48 37.6 +1.4
      comp=Z,1.4nm,0.5s,mb4.5
HHC   Hu-ho-hao-te     91.39  29 eP      P        12 48 37.0 -1.5
HHC                               sP     sP       12 48 44.0 +1.0
HHC                               PP     PP       12 52 15.4 +0.3
HHC                               SKS             12 59 06.0
HHC                              eS      S        12 59 31.4 -6.2
HHC                               SS     SS       13 05 40.0 -1.3
HHC                               pmax   pmax
      comp=Z,11nm,0.9s,mb5.2
HHC                               pmax   pmax
      comp=Z,110nm,4.6s
HHC                               LR     LR
      comp=N,180nm,13.4s,MS4.9
HHC                               LR     LR
      comp=E,240nm,12.2s,MS4.9
HHC                               LR     LR
      comp=Z,170nm,15.9s,MS4.6
HYB   Hyderabad        91.67  65 i P     P        12 48 40.0 -0.2
HYB   Hyderabad        91.67  65 eP      P        12 48 40.0 -0.2
HYB   Hyderabad        91.67  65 eP      P        12 48 40.0 -0.2
YSS   Yuzh-Sakhalins   92.45   5 eP      P        12 48 42.6 -0.7
CN2   Changchun        92.87  18 eP      P        12 48 43.4 -1.8
MDJ   Mudanjiang       92.98  15  P      P        12 48 43.8 -2.0
MDJ                               pmax   pmax
      comp=Z,10.0nm,1.5s,mb5.0
MDJ                               pmax   pmax
      comp=Z,320nm,3.7s
MDJ   Mudanjiang       92.98  15  PFAKE           12 49 00.0  +14
MDJ                               LR     LR
      comp=Z,378nm,21.0s,MS4.8
BJI   Beijing          93.71  26  P      P        12 48 49.3 +0.1
BJI                               SS     SS       13 06 10.3 -4.3
BJI                               pmax   pmax
      comp=Z,13nm,0.8s,mb5.4
BJI                               LR     LR
      comp=N,360nm,15.1s,MS5.1
BJI                               LR     LR
      comp=E,290nm,14.7s,MS5.1
BJI                               LR     LR
      comp=Z,160nm,27.6s
BJT   Baijiatuau       93.73  26  PFAKE           12 49 00.0  +11
BJT                               LR     LR
      comp=Z,280nm,20.0s,MS4.7
SHL   Shillong         94.40  51 ePKP    P        12 48 54.0 +1.4
SHL                               ES              12 52 42.5
XAN   Xi'an            96.26  34  P      P        12 48 58.8 -2.2
XAN                               pP     pP       12 49 02.1 -2.2
XAN                               PP     PP       12 52 50.8 -2.5
XAN                               S      S        13 00 17.0 -3.7
XAN                               sS     sS       13 00 22.8 -3.5
XAN                               SS     SS       13 06 48.6 -2.5
XAN                               pmax   pmax
      comp=Z,4.0nm,1.6s,mb4.6
XAN                               pmax   pmax
      comp=Z,58nm,5.2s
XAN                               LR     LR
      comp=N,200nm,21.4s,MS4.7
XAN                               LR     LR
      comp=E,170nm,20.5s,MS4.7
XAN                               LR     LR
      comp=Z,320nm,23.5s,MS4.7
CD2   Chengdu          96.56  39  P      P        12 49 02.4  0.0
CD2                               pP     pP       12 49 07.0 +1.3
CD2                               sP     sP       12 49 08.4 +1.5
CD2                               PP     PP       12 52 58.0 +2.3
CD2                               SKS             12 59 37.1
CD2                               S      S        13 00 18.5 -4.9
CD2                               sS     sS       13 00 26.1 -2.9
CD2                               SS     SS       13 06 53.8 -1.8
CD2                               pmax   pmax
      comp=Z,20nm,0.6s,mb5.7
CD2                               pmax   pmax
      comp=Z,180nm,5.2s
CD2                               LR     LR
      comp=N,510nm,10.7s
CD2                               LR     LR
      comp=Z,350nm,14.3s,MS5.0
KSRS  Korea Array      99.48  18  LR     LR       13 33 18.5
      comp=Z,120nm,18.4s,MS4.4,baz=107,slow=35
KMI   Kunming         100.80  43  P      Pdif     12 49 24.0 +2.7
KMI                               pmax   pmax
      comp=Z,8.0nm,1.4s
GYA   Guiyang         101.66  40  P      Pdif     12 49 24.3 -0.8
GYA                               PP     PP       12 53 36.4 +1.6
GYA                               SKS             13 00 02.3
GYA                               S      Sdif     13 01 01.0 -5.3
GYA                               SS     SS       13 08 05.1 -2.2
GYA                               pmax   pmax
      comp=Z,30nm,1.0s
GYA                               pmax   pmax
      comp=Z,130nm,5.6s
GYA                               LR     LR
      comp=N,560nm,22.2s,MS5.2
GYA                               LR     LR
      comp=E,480nm,21.3s,MS5.2
GYA                               LR     LR
      comp=Z,540nm,22.9s,MS5.0
CHTO  Chiang Mai      103.74  50  PFAKE           12 49 50.0  +16
CHTO                              LR     LR
      comp=Z,220nm,22.0s,MS4.7
CMAR  Chiang Mai Arr  104.02  50  PKiKP  PKiKP    12 53 52.6 -0.7
      comp=Z,0.5nm,0.3s,baz=319,slow=5.2,SNR=3.5
TAOE  Nuku Hiva Isla  111.53 277 eLR     LR       13 27 27.8
      comp=Z,966nm,24.8s
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KULM	Kulim	115.25	58	PFAKE		12 54 30.0	+15
KULM				LR	LR		
	comp=Z,293nm,19.0s,MS4.9						
KKM	Kota Kinabalu	123.73	43	PFAKE		12 54 40.0	+9.1
KKM				LR	LR		
	comp=Z,149nm,19.0s,MS4.7						
PPT	Papeete	124.11	276	*e*LR	LR	13 33 12.5	
	comp=Z,241nm,25.2s						
KSM	Kuching	124.21	52	PFAKE		12 54 40.0	+8.2
KSM				LR	LR		
	comp=Z,121nm,20.0s,MS4.6						
QSPA	South Pole Qui	130.57	180	*e*PKPdf	PKPdf	12 54 41.5	-0.3
QSPA				LR	LR		
	comp=Z,208nm,19.0s,MS4.8						
QSPA	South Pole Qui	130.57	180	*e*PKIKP	PKPdf	12 54 41.5	-0.3
KAPI	Kappang	134.91	46	PFAKE		12 55 00.0	+7.9
KAPI				LR	LR		
	comp=Z,100nm,21.0s,MS4.5						
FITZ	Fitzroy Crossi	148.83	51	*e*PKPdf	PKPdf	12 55 16.0	-0.6
FITZ				*e*PKPbc	PKPbc	12 55 20.4	-0.1
FITZ				*e*PKPab	PKPab	12 55 23.8	-0.5
FITZ	Fitzroy Crossi	148.83	51	*e*PKIKP	PKPdf	12 55 16.0	-0.5
WRA	Warramunga Arr	155.03	39	PKPab	PKPab	12 55 48.2	-1.8
	comp=Z,2.8nm,1.0s,baz=342,slow=4.4,SNR=5.6						
ASAR	Alice Springs	157.92	45	PKP	PKPdf	12 55 26.1	-3.4
	comp=Z,1.3nm,1.1s,baz=2.9,slow=2.5,SNR=4.9						
ASAR				PKPab	PKPab	12 56 01.4	-1.0
	comp=Z,4.0nm,1.0s,baz=333,slow=4.0,SNR=12						
ASAR				PP	PP	12 59 45.2	+3.6
	comp=Z,0.5nm,0.9s,baz=321,slow=4.0,SNR=4.5						
ASAR	Alice Springs	157.92	45	PKIKP	PKPdf	12 55 26.1	-3.4
ASAR	Alice Springs	157.92	45	PKPab	PKPab	12 56 01.4	-1.0
CTAO	Charters Tower	159.12	12	PFAKE		12 55 40.0	+9.0
CTAO				LR	LR		
	comp=Z,219nm,19.0s,MS5.0						

CSEM ***23*** *12:37:28.2, 40°.66N×28°.99W, h5^{km}, ML3.8, After PDA*

PDA 23 12:37:28.2±1.0**, 40°.66N×28°.99W, h5^{km}, MD3.8, ML3.8, Error ellipse: s-maj=12.2km s-min=4.5km az=97.0, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSA	Rosais	2.02	163	*e*P	Pn	12 37 58.4	-4.5
ROSA				*e*S	Sn	12 38 20.7	-7.8
ROSA	Rosais	2.02	163	*e*P	Pn	12 37 58.4	-4.5
ROSA				*e*S	Sn	12 38 20.7	-7.8
PCED	Cedros	2.04	174	*e*P	Pn	12 37 58.8	-4.4
PCED				*e*S	Sn	12 38 20.6	-8.4
PCED				A		12 38 21.4	
	281nm,0.1s						
PCED	Cedros	2.04	174	*e*P	Pn	12 37 58.8	-4.4
PCED				*e*S	Sn	12 38 20.6	-8.4
CALA	Caldeira	2.09	174	*e*P	Pn	12 37 59.5	-4.3
CALA				*e*S	Sn	12 38 21.9	-8.3
CALA	Caldeira	2.09	174	*e*P	Pn	12 37 59.5	-4.3
CALA				*e*S	Sn	12 38 21.9	-8.3
PMAN	Manadas	2.14	161	*e*P	Pn	12 37 59.6	-4.9
PMAN				*e*S	Sn	12 38 23.6	-7.9
PMAN				A		12 38 25.4	
	94nm,0.3s						
PMAN	Manadas	2.14	161	*e*P	Pn	12 37 59.6	-4.9
PMAN				*e*S	Sn	12 38 23.6	-7.9
HOR	Horta	2.15	172	*e*P	Pn	12 38 00.1	-4.6
HOR				*e*S	Sn	12 38 23.6	-8.1
HOR	Horta	2.15	172	*e*P	Pn	12 38 00.1	-4.6
HOR				*e*S	Sn	12 38 23.6	-8.1
PICO	Pico	2.20	168	*e*P	Pn	12 38 00.7	-4.7
PICO				*e*S	Sn	12 38 25.5	-7.4
PICO	Pico	2.20	168	*e*P	Pn	12 38 00.7	-4.7
PICO				*e*S	Sn	12 38 25.5	-7.4
PID	Ribeirinha	2.31	163	*e*P	Pn	12 38 01.9	-5.0
PID				*e*S	Sn	12 38 28.3	-7.5
PID	Ribeirinha	2.31	163	*e*P	Pn	12 38 01.9	-5.0
PID				*e*S	Sn	12 38 28.3	-7.5
ADH	Angra Heroismo	2.42	145	*e*P	Pn	12 38 03.3	-5.1
ADH	Angra Heroismo	2.42	145	*e*P	Pn	12 38 03.3	-5.1
PDA	Ponta Delgada	3.89	137	*e*P	Pn	12 38 24.1	-4.5
PDA	Ponta Delgada	3.89	137	*e*P	Pn	12 38 24.1	-4.5
CMLA	Cha da Macela	3.95	136	*e*P	Pn	12 38 25.2	-4.2
CMLA	Cha da Macela	3.95	136	*e*P	Pn	12 38 25.2	-4.2
PSMA	Santa Maria	4.74	139	*e*P	Pn	12 38 36.0	-4.3
PSMN	Pico do Norte,	4.77	139	*e*P	Pn	12 38 36.0	-4.6
PSMN	Pico do Norte,	4.77	139	*e*P	Pn	12 38 36.0	-4.6

IDC 23 12:40:09.9±62.0**, 13°.22S×168°.29E, h0^{km}, mb4.0**/3**, mb1 4.2**/3**, mb1mx3.8**/16**, mbtmp4.0**/3**, Error ellipse: s-maj=1050.0km s-min=119.0km az=64.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	30.73	228	P	P	12 46 26.8	0.0
	2.6nm,0.4s,baz=34,slow=9.7,SNR=5.3						
WRA	Warramunga Arr	33.17	254	P	P	12 46 49.0	+0.5
	0.5nm,0.4s,baz=85,slow=8.9,SNR=3.0						
ASAR	Alice Springs	34.15	247	P	P	12 46 56.6	-0.4
	0.5nm,0.3s,baz=74,slow=9.5,SNR=10						

BJI ***23*** *12:41:31.8, 40°.50N×29°.40W, h10^{km}, mB5.4/6, mb4.6/9, Ms5.3/8, Ms7 4.9/8*

ISCJB ***23*** *12:41:32.9±0.3, 40°.48N±0°.03×29°.50W±0°.05, h10^{km}, mb4.3/57, MS4.8/5, Error ellipse: s-maj=5.5km s-min=3.4km az=161.5*

IDC ***23*** *12:41:33.4±0.7, 40°.66N×29°.42W, h0^{km}, mb4.0/14, mb1 4.1/15, mb1mx3.9/30, mbtmp3.9/15, ML4.4/1, Error ellipse: s-maj=22.1km s-min=14.2km az=165.0*

NEIC ***23*** *12:41:34.8±0.5, 40°.49N×29°.44W, h10^{km}, mb4.5/36, Error ellipse: s-maj=13.5km s-min=5.3km az=187.0*

MOS ***23*** *12:41:35.6±1.0, 40°.39N×29°.50W, h32^{km}, mb4.6/29, Error ellipse: s-maj=12.0km s-min=6.6km az=143.7*

INMG ***23*** *12:41:36.0, 40°.70N×29°.20W, h5^{km}, ML3.7*

PDA ***23*** *12:41:36.1±1.2, 40°.71N×29°.32W, h5^{km}, MD3.9, ML3.8, Error ellipse: s-maj=9.3km s-min=6.3km az=86.0*

CSEM ***23*** *12:41:37.3±0.1, 40°.43N×29°.40W, h30^{km}, mb4.5/35, Ms3.6, Error ellipse: s-maj=6.0km s-min=4.2km az=59.0*

ISC 23 12:41:34.6±0.3**, 40°.43N**±0°.03×**29°.44W**±0°.05**, h10^{km}, (h15^{km}**±.8^{km}**:pP-P), n221,** σ1^{s}**14**/230**, mb4.3**/57**, MS4.8**/5**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	Cedros	1.89	162	*e*P	Pn	12 42 07.7	+0.8
PCED				*e*S	Sn	12 42 31.0	+0.3
PCED				A		12 42 34.6	
	182nm,0.3s						
PCED	Cedros	1.89	162	*e*P	Pn	12 42 07.7	+0.8
PCED				*e*S	Sn	12 42 31.0	+0.3
CALA	Caldeira	1.93	163	*e*P	Pn	12 42 08.8	+1.3
CALA				*e*S	Sn	12 42 32.6	+0.8
CALA	Caldeira	1.93	163	*e*P	Pn	12 42 08.8	+1.3
CALA				*e*S	Sn	12 42 32.6	+0.8
ROSA	Rosais	1.94	151	*e*P	Pn	12 42 07.5	-0.2
ROSA	Rosais	1.94	151	*e*P	Pn	12 42 07.5	-0.2
HOR	Horta	2.00	162	*e*P	Pn	12 42 09.0	+0.5
HOR				*e*S	Sn	12 42 33.8	+0.3
HOR	Horta	2.00	162	*e*P	Pn	12 42 09.0	+0.5
HOR				*e*S	Sn	12 42 33.8	+0.3
PMAN	Manadas	2.08	149	*e*P	Pn	12 42 09.3	-0.2
PMAN				*e*S	Sn	12 42 34.8	-0.6
PMAN				A		12 42 38.7	
	133nm,0.4s						
PMAN	Manadas	2.08	149	*e*P	Pn	12 42 09.3	-0.2
PMAN				*e*S	Sn	12 42 34.8	-0.6
PICO	Pico	2.08	158	*e*P	Pn	12 42 10.7	+1.1
PICO				*e*P		12 42 11.0	
PICO				*e*S	Sn	12 42 35.7	+0.2
PICO	Pico	2.08	158	*e*P	Pn	12 42 10.7	+1.1
PICO				*e*S	Sn	12 42 35.7	+0.2
PID	Ribeirinha	2.23	152	*e*P	Pn	12 42 12.2	+0.6
PID	Ribeirinha	2.23	152	*e*P	Pn	12 42 12.2	+0.6
PDA	Ponta Delgada	3.98	131	*e*P	Pn	12 42 34.7	-0.9
PDA	Ponta Delgada	3.98	131	*e*P	Pn	12 42 34.7	-0.9
CMLA	Cha da Macela	4.04	130	*e*P	Pn	12 42 36.0	-0.6
CMLA				*e*S	Sn	12 43 20.5	-3.4
CMLA				A		12 43 23.1	
	46nm,0.6s						
CMLA	Cha da Macela	4.04	130	*e*Pn	Pn	12 42 35.7	-0.8
CMLA	Cha da Macela	4.04	130	*e*Pn	Pn	12 42 35.7	-0.9
CMLA	Cha da Macela	4.04	130	*e*P	Pn	12 42 36.0	-0.6
CMLA				*e*S	Sn	12 43 20.5	-3.4
PSMA	Santa Maria	4.81	134	*e*P	Pn	12 42 47.2	+0.1
PSMA				*e*S	Sn	12 43 40.2	-2.6
PSMA				A		12 43 44.3	
	20nm,0.4s						
PSMN	Pico do Norte,	4.84	134	*e*P	Pn	12 42 46.4	-1.0
PSMN				*e*S	Sn	12 43 40.4	-3.1
PSMN	Pico do Norte,	4.84	134	*e*P	Pn	12 42 46.4	-1.0
PSMN				*e*S	Sn	12 43 40.4	-3.1
FUL	Funchal	12.73	124	*e*P	Pn	12 44 35.0	-0.6
FUL	Funchal	12.73	124	*e*P	Pn	12 44 35.0	-0.6
PVRL	Vila Real	16.45	80	*e*P	Pn	12 45 28.9	+3.4
PVRL	Vila Real	16.45	80	*e*P	Pn	12 45 28.9	+3.4
EVOP	Sao Brissos	16.56	90	*e*P	Pn	12 45 28.8	+1.9
EVO	Evora	16.65	90	*e*P	Pn	12 45 28.8	+0.8
EVO				*e*MLR	MLR		
	comp=Z,520nm,17.0s						
EVO	Evora	16.65	90	*e*P	Pn	12 45 27.1	-0.9
	comp=Z,58nm,1.8s						
EVO	Evora	16.65	90	*e*P	Pn	12 45 27.1	-0.9
	comp=Z,58nm,1.8s						
MTE	Manteigas	16.67	83	*e*P	Pn	12 45 31.4	+3.1
	comp=Z,42nm,1.4s						
MTE	Manteigas	16.67	83	*e*P	Pn	12 45 31.4	+3.1
	comp=Z,42nm,1.4s						
ESDC	Sonseca Array	19.50	84	P	Pn	12 46 02.0	-1.0
	comp=Z,0.2nm,0.3s,baz=288,slow=8.7,SNR=6.6						
QUIF	Quistinic	20.21	60	*e*P	P	12 46 10.1	+0.7
	comp=Z,113nm,1.7s						
QUIF	Quistinic	20.21	60	*e*P	P	12 46 10.1	+0.7
QUIF				pmax	pmax		
	comp=Z,56nm,1.7s						
QUIF	Quistinic	20.21	60	*e*P	P	12 46 10.1	+0.7
	comp=Z,56nm,1.7s						
QUIF	Quistinic	20.21	60	*e*P	P	12 46 10.1	+0.7
	comp=Z,56nm,1.7s						
SJPF	Ste Jean	21.17	73	*e*P	P	12 46 20.4	+0.5
	comp=Z,13nm,1.0s,mb3.9						
SJPF	Ste Jean	21.17	73	*e*P	P	12 46 20.4	+0.5
SJPF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.0						
SJPF	Ste Jean	21.17	73	*e*P	P	12 46 20.4	+0.5
	comp=Z,6.7nm,1.0s,mb3.9						
SJPF	Ste Jean	21.17	73	*e*P	P	12 46 20.4	+0.5
	comp=Z,6.7nm,1.0s,mb3.9						
ETSF	Etsaut	21.67	74	*e*P	P	12 46 25.7	+0.4
ETSF	Etsaut	21.67	74	*e*P	P	12 46 25.7	+0.4
GRR	Gorron	21.82	59	*e*P	P	12 46 26.5	-0.3
GRR	Gorron	21.82	59	*e*P	P	12 46 26.5	-0.3
MFF	Saint Martin d	22.04	64	*e*P	P	12 46 30.6	+1.4
	comp=Z,48nm,1.3s,mb4.5						
MFF	Saint Martin d	22.04	64	*e*P	P	12 46 30.6	+1.4
MFF				pmax	pmax		
	comp=Z,24nm,1.3s,mb4.5						
MFF	Saint Martin d	22.04	64	*e*P	P	12 46 30.6	+1.4
	comp=Z,24nm,1.3s,mb4.5						
MFF	Saint Martin d	22.04	64	*e*P	P	12 46 30.6	+1.4
	comp=Z,24nm,1.3s,mb4.5						
FLN	La Foliniere	22.13	58	*e*P	P	12 46 31.3	+1.1
	comp=Z,42nm,1.2s,mb4.5						
FLN	La Foliniere	22.13	58	*e*P	P	12 46 31.3	+1.1
FLN				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.4						
FLN	La Foliniere	22.13	58	*e*P	P	12 46 31.3	+1.1
	comp=Z,21nm,1.2s,mb4.5						
FLN	La Foliniere	22.13	58	*e*P	P	12 46 31.3	+1.1
	comp=Z,21nm,1.2s,mb4.5						
EPF	Esparros	22.32	74	*e*P	P	12 46 32.4	+0.2
	comp=Z,47nm,1.4s,mb4.4						
EPF	Esparros	22.32	74	*e*P	P	12 46 32.4	+0.2
EPF				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.4						
EPF	Esparros	22.32	74	*e*P	P	12 46 32.4	+0.2
	comp=Z,23nm,1.4s,mb4.4						
EPF	Esparros	22.32	74	*e*P	P	12 46 32.4	+0.2
	comp=Z,23nm,1.4s,mb4.4						
LDF	La Druitiere	22.34	59	*e*P	P	12 46 33.6	+1.3
	comp=Z,55nm,1.3s,mb4.5						
LDF	La Druitiere	22.34	59	*e*P	P	12 46 33.6	+1.3
LDF				pmax	pmax		
	comp=Z,27nm,1.3s,mb4.5						
LDF	La Druitiere	22.34	59	*e*P	P	12 46 33.6	+1.3
	comp=Z,27nm,1.3s,mb4.5						
LDF	La Druitiere	22.34	59	*e*P	P	12 46 33.6	+1.3
	comp=Z,27nm,1.3s,mb4.5						
LFF	La Frestale	22.57	68	*e*P	P	12 46 34.4	-0.4
	comp=Z,61nm,1.2s,mb4.6						
LFF	La Frestale	22.57	68	*e*P	P	12 46 34.4	-0.4
LFF				pmax	pmax		
	comp=Z,31nm,1.2s,mb4.6						
LFF	La Frestale	22.57	68	*e*P	P	12 46 34.4	-0.4
	comp=Z,31nm,1.2s,mb4.6						
LFF	La Frestale	22.57	68	*e*P	P	12 46 34.4	-0.4
	comp=Z,31nm,1.2s,mb4.6						
RJF	Les Rejaudoux	23.12	68	*e*P	P	12 46 41.6	+0.9
	comp=Z,25nm,1.3s,mb4.2						
RJF	Les Rejaudoux	23.12	68	*e*P	P	12 46 41.6	+0.9
RJF				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.2						
RJF	Les Rejaudoux	23.12	68	*e*P	P	12 46 41.6	+0.9
	comp=Z,13nm,1.3s,mb4.2						
RJF	Les Rejaudoux	23.12	68	*e*P	P	12 46 41.6	+0.9
	comp=Z,13nm,1.3s,mb4.2						
CAF	Calviac	23.51	69	*e*P	P	12 46 43.6	-1.2
	comp=Z,21nm,1.2s,mb4.2						
CAF	Calviac	23.51	69	*e*P	P	12 46 43.6	-1.2
CAF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.1						
CAF	Calviac	23.51	69	*e*P	P	12 46 43.6	-1.2
	comp=Z,10nm,1.2s,mb4.1						
CAF	Calviac	23.51	69	*e*P	P	12 46 43.6	-1.2
	comp=Z,10nm,1.2s,mb4.2						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	12 46 46.6	+0.6
	comp=Z,38nm,1.3s,mb4.4						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	12 46 46.6	+0.6
TCF				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.4						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	12 46 46.6	+0.6
	comp=Z,19nm,1.3s,mb4.4						
TCF	Toulx Ste Croi	23.64	65	*e*P	P	12 46 46.6	+0.6
	comp=Z,19nm,1.3s,mb4.3						
MTLF	Montolieu	23.67	72	*e*P	P	12 46 46.8	+0.5
	comp=Z,29nm,1.2s,mb4.3						
MTLF	Montolieu	23.67	72	*e*P	P	12 46 46.8	+0.5
MTLF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.3						
MTLF	Montolieu	23.67	72	*e*P	P	12 46 46.8	+0.5
	comp=Z,15nm,1.2s,mb4.3						
MTLF	Montolieu	23.67	72	*e*P	P	12 46 46.8	+0.5
	comp=Z,15nm,1.2s,mb4.3						
AVF	Avril sur Loir	24.45	64	*e*P	P	12 46 53.1	-0.4
AVF	Avril sur Loir	24.45	64	*e*P	P	12 46 53.1	-0.4
SSF	Saint Saulge	24.58	63	*e*P	P	12 46 54.4	-0.1
	comp=Z,32nm,1.5s,mb4.3						
SSF	Saint Saulge	24.58	63	*e*P	P	12 46 54.4	-0.1
SSF				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.3						
SSF	Saint Saulge	24.58	63	*e*P	P	12 46 54.4	-0.1
	comp=Z,16nm,1.5s,mb4.3						
SSF	Saint Saulge	24.58	63	*e*P	P	12 46 54.4	-0.1
	comp=Z,16nm,1.5s,mb4.3						
SMF	Signal de Mont	24.78	64	*e*P	P	12 46 56.2	-0.2
	comp=Z,23nm,1.1s,mb4.3						
SMF	Signal de Mont	24.78	64	*e*P	P	12 46 56.2	-0.2
SMF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.3						
SMF	Signal de Mont	24.78	64	*e*P	P	12 46 56.2	-0.2
	comp=Z,11nm,1.1s,mb4.3						
SMF	Signal de Mont	24.78	64	*e*P	P	12 46 56.2	-0.2
	comp=Z,11nm,1.1s,mb4.3						
LASF	Ste Croix	24.81	71	*e*P	P	12 46 56.6	-0.1
	comp=Z,19nm,1.1s,mb4.2						
LASF	Ste Croix	24.81	71	*e*P	P	12 46 56.6	-0.1
	comp=Z,9.4nm,1.1s,mb4.2						
LOR	Lormes	24.83	63	*e*P	P	12 46 56.5	-0.4
LOR	Lormes	24.83	63	*e*P	P	12 46 56.5	-0.4
VIVF	Saint-Julien-l	25.36	69	*e*P	P	12 47 02.7	+1.0
	comp=Z,28nm,1.3s,mb4.3						
VIVF	Saint-Julien-l	25.36	69	*e*P	P	12 47 02.7	+1.0
VIVF				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.3						
VIVF	Saint-Julien-l	25.36	69	*e*P	P	12 47 02.7	+1.0
	comp=Z,14nm,1.3s,mb4.3						
VIVF	Saint-Julien-l	25.36	69	*e*P	P	12 47 02.7	+1.0
	comp=Z,14nm,1.3s,mb4.3						
BAIF	Baives	25.38	56	*e*P	P	12 47 00.8	-1.0
	comp=Z,19nm,1.1s,mb4.2						
BAIF	Baives	25.38	56	*e*P	P	12 47 00.8	-1.0
BAIF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.3						
BAIF	Baives	25.38	56	*e*P	P	12 47 00.8	-1.0
	comp=Z,9.6nm,1.1s,mb4.2						
BAIF	Baives	25.38	56	*e*P	P	12 47 00.8	-1.0
	comp=Z,9.6nm,1.1s,mb4.2						
DOU	Dourbes	25.63	56	P	P	12 47 03.6	-0.5
MEZF	Maizieres J'vi	25.73	60	*e*P	P	12 47 04.1	-0.9
	comp=Z,121nm,1.5s,mb4.9						
MEZF	Maizieres J'vi	25.73	60	*e*P	P	12 47 04.1	-0.9
	comp=Z,121nm,1.5s,mb5.2						
MEZF	Maizieres J'vi	25.73	60	*e*P	P	12 47 04.1	-0.9
	comp=Z,60nm,1.5s,mb4.9						
SMRF	Simiane la Rot	26.06	71	*e*P	P	12 47 10.4	+2.4
SMRF	Simiane la Rot	26.06	71	*e*P	P	12 47 10.4	+2.4
BCLA	Clavier	26.13	56	P	P	12 47 09.6	+1.0
ORIF	Oris-en-Rattie	26.22	68	*e*P	P	12 47 12.5	+3.0
WLF	Walferdange	26.57	58	P	P	12 47 14.4	+1.8
WLF	Walferdange	26.57	58	*e*P	P	12 47 13.1	+0.5
WLF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.5						
WLF	Walferdange	26.57	58	*e*P	P	12 47 13.1	+0.5
	comp=Z,14nm,1.0s,mb4.5						
BNI	Bardonecchia	26.78	68	*e*P	P	12 47 14.2	-0.3
BNI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.9						
BNI	Bardonecchia	26.78	68	*e*P	P	12 47 14.2	-0.3
	comp=Z,4.4nm,1.0s,mb3.9						
LMR	La Mourre	26.79	72	*e*P	P	12 47 15.3	+0.6
LMR	La Mourre	26.79	72	*e*P	P	12 47 15.3	+0.6
FRF	La Foret Royal	26.87	71	*e*P	P	12 47 15.1	-0.2
	comp=Z,20nm,1.2s,mb4.2						
FRF	La Foret Royal	26.87	71	*e*P	P	12 47 15.1	-0.2
FRF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.2						
FRF	La Foret Royal	26.87	71	*e*P	P	12 47 15.1	-0.2
	comp=Z,10nm,1.2s,mb4.2						
FRF	La Foret Royal	26.87	71	*e*P	P	12 47 15.1	-0.2
	comp=Z,10nm,1.2s,mb4.2						
HINF	Hinteralfeld	26.89	62	*e*P	P	12 47 16.2	+0.7
HINF	Hinteralfeld	26.89	62	*e*P	P	12 47 16.2	+0.7
CDF	Champ du Feu	27.20	61	*e*P	P	12 47 18.3	0.0
	comp=Z,47nm,1.6s,mb4.5						
CDF	Champ du Feu	27.20	61	*e*P	P	12 47 18.3	0.0
CDF				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.5						
CDF	Champ du Feu	27.20	61	*e*P	P	12 47 18.3	0.0
	comp=Z,23nm,1.6s,mb4.5						
CDF	Champ du Feu	27.20	61	*e*P	P	12 47 18.3	0.0
	comp=Z,23nm,1.6s,mb4.5						
SBF	Sospel	27.41	71	*e*P	P	12 47 21.3	+1.1
SBF	Sospel	27.41	71	*e*P	P	12 47 21.3	+1.1
BFO	Black Forest	27.89	61	P	P	12 47 27.0	+2.5
BFO				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.2						
BFO	Black Forest	27.89	61	P	P	12 47 27.0	+2.5
	comp=Z,5.6nm,1.0s,mb4.2						
PGF	Pioggiola	28.71	73	*e*P	P	12 47 35.2	+3.4
VLC	Villacollemand	29.49	69	*e*P	P	12 47 32.3	-6.4
	comp=Z,16nm,1.0s,mb4.7						
FRB	Frobisher Bay	32.65	329	P	P	12 48 04.2	-2.1
	comp=Z,3.1nm,1.0s,mb4.2,baz=123,slow=9.7,SNR=3.2						
FRB	Frobisher Bay	32.65	329	P	P	12 48 04.2	-2.1
CUC	Castrocucco	34.27	76	*e*P	P	12 48 19.4	-1.4
	comp=Z,2.3nm,0.5s,mb4.4						
CUC	Castrocucco	34.27	76	*e*P	P	12 48 19.4	-1.4
	comp=Z,2.3nm,0.5s,mb4.4						
TORD	Torodi Ar. Bea	38.51	126	P	P	12 48 58.3	+1.1
	comp=Z,3.0nm,1.0s,mb4.0,baz=317,slow=6.7,SNR=5.6						
KIEV	Kiev	41.31	55	*e*P	P	12 49 19.6	-0.5
KIEV				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.2						
KIEV	Kiev	41.31	55	*e*P	P	12 49 19.6	-0.5
	comp=Z,6.8nm,1.1s,mb4.2						
KIEV	Kiev	41.31	55	*e*P	P	12 49 19.6	-0.5
	comp=Z,6.8nm,1.1s,mb4.2						
AKASG	Malin Array Be	41.32	55	P	P	12 49 17.9	-2.2
	comp=Z,0.6nm,0.4s,mb3.6,baz=273,slow=8.3,SNR=3.6						
AKASG	Malin Array Be	41.32	55	P	P	12 49 18.0	-2.2
RES	Resolute Bay	45.01	340	P	P	12 49 49.1	-0.6
	comp=Z,0.6nm,0.7s,mb3.6,baz=135,slow=10.0,SNR=3.7						
RES	Resolute Bay	45.01	340	P	P	12 49 49.1	-0.6
BRTR	Keskin Array B	47.33	69	P	P	12 50 09.0	+0.6
	comp=Z,2.1nm,0.8s,mb4.1						
BRTR	Keskin Array B	47.33	69	P	P	12 50 09.0	+0.6
FFC	Flin Flon	48.77	313	*i* P	P	12 50 20.4	+1.0
FFC	Flin Flon	48.77	313	*i* P	P	12 50 20.4	+1.0
YKA	Yellowknife Ar	52.99	325	P	P	12 50 50.1	-0.9
	comp=Z,1.6nm,0.9s,mb4.0,baz=69,slow=7.1,SNR=9.2						
YKA				PcP	PcP	12 51 59.0	-0.6
	comp=Z,0.5nm,0.8s,baz=69,slow=3.7,SNR=4.6						
YKA	Yellowknife Ar	52.99	325	P	P	12 50 50.1	-0.9
YKA				PcP	PcP	12 51 59.0	-0.6
YKA	Yellowknife Ar	52.99	325	P	P	12 50 50.1	-0.9
YKA	Yellowknife Ar	52.99	325	PcP	PcP	12 51 59.0	-0.6
GNI	Garni	54.94	64	*i* P	P	12 51 05.7	+0.1
GNI				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GNI	Garni	54.94	64	*i* P	P	12 51 05.7	+0.1
	comp=Z,3.0nm,0.5s,mb4.6						
GCMT	Greycliff	56.48	304	*e*P	P	12 51 17.4	+0.8
	comp=Z,8.9nm,1.4s,mb4.6						
GCMT	Greycliff	56.48	304	*e*P	P	12 51 17.4	+0.8
	comp=Z,8.9nm,1.4s,mb4.6						
PDAR	Pinedale Array	57.76	301	P	P	12 51 25.4	-0.3
	comp=Z,1.6nm,1.0s,mb4.0,baz=69,slow=8.1,SNR=8.2						
PDAR	Pinedale Array	57.76	301	P	P	12 51 25.4	-0.3
BW06	Boulder Array	57.76	301	*e*P	P	12 51 27.8	+2.1
	comp=Z,65nm,3.0s						
BW06	Boulder Array	57.76	301	*e*P	P	12 51 27.8	+2.1
	comp=Z,65nm,3.0s						
INK	Inuvik	57.95	335	*e*P	P	12 51 25.3	-1.3
INK				pmax	pmax		
	comp=Z,2.0nm,1.4s						
INK	Inuvik	57.95	335	*e*P	P	12 51 25.3	-1.3
	comp=Z,1.7nm,1.4s,mb3.9						
INK	Inuvik	57.95	335	*e*P	P	12 51 25.3	-1.3
	comp=Z,1.7nm,1.4s,mb3.9						
REDW	Red Top Meadow	58.33	302	*e*P	P	12 51 30.4	+0.8
	comp=Z,22nm,1.8s,mb4.9						
REDW	Red Top Meadow	58.33	302	*e*P	P	12 51 30.4	+0.7
	comp=Z,22nm,1.8s,mb4.9						
TPAW	Teton Pass	58.33	302	*e*P	P	12 51 31.0	+1.3
	comp=Z,9.2nm,1.3s,mb4.7						
TPAW	Teton Pass	58.33	302	*e*P	P	12 51 31.0	+1.3
	comp=Z,9.2nm,1.3s,mb4.7						
AKTK	Aktyubinsk	58.78	48	P	P	12 51 32.7	0.0
AKTK	Aktyubinsk	58.78	48	P	P	12 51 32.7	0.0
	comp=Z,2.0nm,0.7s,mb4.3						
AKTO	Aktyubinsk	58.78	48	P	P	12 51 32.7	0.0
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
AKTO	Aktyubinsk	58.78	48	P	P	12 51 32.7	0.0
	comp=Z,1.7nm,0.7s,mb4.2,baz=319,slow=6.0,SNR=5.6						
NEW	Newport	59.92	310	*e*P	P	12 51 40.5	-0.1
NEW				pmax	pmax		
	comp=Z,8.0nm,1.1s						
NEW	Newport	59.92	310	*e*P	P	12 51 40.5	-0.1
	comp=Z,8.1nm,1.1s,mb4.7						
NEW	Newport	59.92	310	*e*P	P	12 51 40.5	-0.1
	comp=Z,8.1nm,1.1s,mb4.7						
TXAR	Lajitas Array	60.27	285	P	P	12 51 43.8	+0.5
	comp=Z,1.5nm,0.8s,mb4.0,baz=73,slow=6.1,SNR=13						
TXAR	Lajitas Array	60.27	285	P	P	12 51 43.8	+0.5
TMUT	Trail Mountain	60.51	298	*e*P	P	12 51 42.4	-2.4
	comp=Z,2.9nm,0.8s,mb4.5						
DUG	Dugway	61.14	300	*e*P	P	12 51 50.4	+1.3
DUG				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.4						
DUG	Dugway	61.14	300	*e*P	P	12 51 50.4	+1.3
	comp=Z,21nm,0.6s,mb5.5						
DUG	Dugway	61.14	300	*e*P	P	12 51 50.4	+1.3
	comp=Z,21nm,0.6s,mb5.5						
CCUT	Cedar City	62.86	297	*e*P	P	12 52 02.0	+1.4
	comp=Z,58nm,2.4s,mb5.3						
CCUT	Cedar City	62.86	297	*e*P	P	12 52 02.0	+1.3
	comp=Z,58nm,2.4s,mb5.3						
BVAR	Borovoye Array	64.14	41	P	P	12 52 08.7	-0.1
	comp=Z,0.7nm,0.6s,mb3.9,baz=270,slow=5.9,SNR=4.1						
BVAR	Borovoye Array	64.14	41	P	P	12 52 08.7	-0.2
IMA2	Indian Mountai	65.51	338	*e*P	P	12 52 17.4	-0.2

IMA2	Indian Mountai	65.51	338	*e*P	P	12 52 17.4	-0.2
TIXI	Tiksi	67.17	7	*i* P	P	12 52 28.0	-0.1
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.5						
TIXI	Tiksi	67.17	7	*e*P	P	12 52 27.7	-0.4
	comp=Z,80nm,3.0s						
TIXI	Tiksi	67.17	7	*e*P	P	12 52 27.7	-0.4
	comp=Z,80nm,3.0s						
KURK	Kurchatov	69.62	40	*e*P	P	12 52 43.1	-0.7
KURK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
KURK	Kurchatov	69.62	40	P	P	12 52 43.1	-0.7
	comp=Z,2.4nm,0.9s,mb4.1,baz=311,slow=6.4,SNR=10.0						
KURK	Kurchatov	69.62	40	*e*P	P	12 52 43.1	-0.7
	comp=Z,5.4nm,1.0s,mb4.4						
KURK	Kurchatov	69.62	40	*e*P	P	12 52 43.1	-0.7
	comp=Z,5.3nm,1.0s,mb4.4						
ZALV	Zalesovo Beam	70.39	35	P	P	12 52 47.5	-0.9
	comp=Z,2.3nm,0.9s,mb4.1,baz=302,slow=8.5,SNR=6.8						
MKAR	Makanchi Array	74.03	42	P	P	12 53 10.0	-0.3
	comp=Z,1.4nm,0.8s,mb3.9,baz=318,slow=6.0,SNR=14						
MKAR	Makanchi Array	74.03	42	P	P	12 53 10.0	-0.3
KSH	Kashi	75.37	50	P	P	12 53 19.8	+1.5
KSH				*e*pP	pP	12 53 25.1	+3.5
KSH				*e*sP	sP	12 53 27.1	+4.3
KSH				*e*PcP	PcP	12 53 33.3	+1.8
KSH				*e*PP	PP	12 56 11.1	+4.5
KSH				*e*S	S	13 02 59.0	+1.0
KSH				*e*sS	sS	13 03 07.1	+3.6
KSH				*e*SKS		13 03 24.3	
KSH				*e*ScS	ScS	13 03 29.8	-1.7
KSH				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
KSH				pmax	pmax		
	comp=Z,230nm,3.0s						
KSH				LR	LR		
	comp=N,170nm,4.3s						
KSH				LR	LR		
	comp=E,310nm,8.2s						
KSH				LR	LR		
	comp=Z,320nm,5.9s						
YAK	Yakutsk	76.50	10	*e*P	P	12 53 23.0	-1.3
YAK				*e*		12 53 36.0	
YAK				*e*		12 56 17.3	
YAK				*e*S	S	13 03 07.4	-2.3
YAK				*e*		13 03 25.1	
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
YAK				pmax	pmax		
	comp=N,1.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,1.0nm,0.6s						
YAK				pmax	pmax		
	comp=Z,199nm,6.1s						
YAK				pmax	pmax		
	comp=N,71nm,4.1s						
YAK				smax			
	comp=N,170nm,5.8s						
YAK				smax			
	comp=E,241nm,6.2s						
YAK				MLR	MLR		
	comp=Z,96nm,13.0s,MS4.3						
YAK				MLR	MLR		
	comp=N,143nm,16.0s						
YAK	Yakutsk	76.50	10	*e*P	P	12 53 23.0	-1.3
	comp=N,1.0nm,0.9s,mb3.8						
YAK	Yakutsk	76.50	10	*e*PcP	PcP	12 53 36.0	+0.1
SEY	Seymchan	76.97	359	*i* P	P	12 53 28.6	+1.6
SEY	Seymchan	76.97	359	*i* P	P	12 53 28.6	+1.6
BOD	Bodaibo	77.43	19	*e*P	P	12 53 28.2	-1.4
BOD				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
BOD	Bodaibo	77.43	19	*e*P	P	12 53 28.2	-1.4
	comp=Z,6.0nm,1.1s,mb4.4						
LCO	Las Campanas	79.00	216	*e*P	P	12 53 36.4	-2.2
	comp=Z,10nm,1.2s,mb4.6						
ZAK	Zakamensk	80.52	28	*e*P	P	12 53 46.1	-0.6
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
ZAK	Zakamensk	80.52	28	*e*P	P	12 53 46.1	-0.6
	comp=Z,2.0nm,1.4s,mb3.9						
SONM	Songino Array	83.77	28	P	P	12 54 03.1	-0.7
	comp=Z,1.5nm,0.9s,mb4.1,baz=318,slow=2.5,SNR=8.9						
SONM	Songino Array	83.77	28	P	P	12 54 03.1	-0.7
GTA	Gaotai	88.03	37	*e*P	P	12 54 22.5	-2.6
GTA				pP	pP	12 54 26.3	-2.1
GTA				sP	sP	12 54 29.3	-0.3
GTA				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.2						
HHC	Hu-ho-hao-te	91.67	29	*e*P	P	12 54 39.8	-2.3
HHC				pP	pP	12 54 44.3	-1.1
HHC				PP	PP	12 58 19.8	+0.2
HHC				*e*S	S	13 05 35.8	-6.6
HHC				SS	SS	13 11 43.3	-4.4
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb5.2						
HHC				pmax	pmax		
	comp=Z,130nm,7.1s						
HHC				LR	LR		
	comp=N,460nm,14.3s,MS5.1						
HHC				LR	LR		
	comp=E,320nm,16.3s,MS5.1						
HHC				LR	LR		
	comp=Z,360nm,15.7s,MS4.9						
LZH	Lanzhou	92.58	36	*e*P	P	12 54 45.0	-1.4
LZH				pP	pP	12 54 49.8	+0.1
LZH				sP	sP	12 54 52.1	+1.2
LZH				*e*PP	PP	12 58 27.9	+1.0
LZH				pmax	pmax		
	comp=Z,15nm,1.5s,mb5.2						
LZH				pmax	pmax		
	comp=Z,79nm,5.7s						
LZH				LR	LR		
	comp=N,260nm,17.3s						
LZH				LR	LR		
	comp=Z,320nm,19.4s,MS4.8						
CN2	Changchun	93.15	18	*e*P	P	12 54 45.4	-3.4
CD2	Chengdu	96.83	39	P	P	12 55 04.3	-1.6
CD2				pP	pP	12 55 09.0	-0.2
CD2				sP	sP	12 55 11.3	+0.9
CD2				PP	PP	12 59 01.3	+1.2
CD2				SKS		13 05 39.3	
CD2				S	S	13 06 21.6	-6.4
CD2				sS	sS	13 06 29.5	-4.1
CD2				SS	SS	13 12 59.4	-2.4
CD2				LR	LR		
	comp=N,310nm,8.3s						
CD2				LR	LR		
	comp=Z,260nm,12.0s,MS4.9						
KMI	Kunming	101.06	43	P	Pdif	12 55 25.5	+0.8
KMI				pmax	pmax		
	comp=Z,5.0nm,1.1s						
GYA	Guiyang	101.94	39	P	Pdif	12 55 27.8	-0.8
GYA				PP	PP	12 59 42.1	+3.0
GYA				SKS		13 06 06.3	
GYA				S	Sdif	13 07 05.3	-5.5
GYA				SS	SS	13 14 12.0	-1.3
GYA				LR	LR		
	comp=N,490nm,20.2s,MS5.2						
GYA				LR	LR		
	comp=E,470nm,20.3s,MS5.2						
GYA				LR	LR		
	comp=Z,440nm,20.9s,MS5.0						
ASAR	Alice Springs	158.18	45	PKP2	PKPab	13 02 04.5	-1.3
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	Alice Springs	158.18	45	PKPab	PKPab	13 02 04.5	-1.3
	comp=Z,0.5nm,0.9s,baz=332,slow=4.2,SNR=5.4						

IDC 23 12:50:26.4±4.8**, 28°.59N×66°.02E, h0km, mb3.5**/6**,**
mb1 3.6/6**, mb1mx3.4**/27**, mbtmp3.5**/6**, Error ellipse:**
s-maj=95.2km s-min=69.1km az=159.0, Pakistan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	22.20	31	P	P	12 55 23.5	-0.7
	0.5nm,0.6s,baz=212,slow=10.0,SNR=7.9						
KURK	Kurchatov	24.07	20	P	P	12 55 41.5	-1.8
	0.6nm,0.9s,baz=212,slow=8.8,SNR=3.5						
BVAR	Borovoye Array	24.63	6	P	P	12 55 49.3	+0.9
	1.0nm,0.5s,baz=182,slow=10,SNR=5.7						
ZALV	Zalesovo Beam	28.83	23	P	P	12 56 26.6	+0.4
	0.4nm,0.4s,baz=224,slow=8.0,SNR=2.3						
SONM	Songino Array	36.57	47	P	P	12 57 34.7	+0.8
	1.2nm,1.2s,baz=242,slow=6.2,SNR=3.4						
YKA	Yellowknife Ar	89.24	0	P	P	13 03 23.5	-0.5
	0.1nm,0.4s,baz=351,slow=4.8,SNR=4.4						

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*IDC **23** 13:07:22.5±1.9, 2°.48S×99°.90E, h0km, mb4.2/9,*
mb1 4.2/10, mb1mx4.0/23, mbtmp4.1/10, ML3.0/1, Error
ellipse: s-maj=70.6km s-min=15.8km az=59.0
*ISCJB **23** 13:07:25.1±1.5, 2°.4S±0°.2×99°.9E±0°.3, h33km, mb4.4/10,*
Error ellipse: s-maj=55.9km s-min=11.1km az=149.0
*NEIC **23** 13:07:28.2±1.2, 2°.30S×100°.14E, h35km, mb4.6/3, Error*
ellipse: s-maj=52.6km s-min=7.9km az=58.0
ISC 23 13:07:27.6±1.5**, 2°.5S**±0°.2×**100°.0E**±0°.3**, h35km, n17,**
σ0s.54/15**, mb4.4**/10**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.32	349	Pn	Pn	13 08 40.9	-3.7
	0.5nm,0.3s,baz=181,slow=14,SNR=3.1						
CMAR	Chiang Mai Arr	20.80	357	P	P	13 12 05.5	-0.4
	1.7nm,0.6s,baz=188,slow=9.6,SNR=11						
WRA	Warramunga Arr	37.81	120	P	P	13 14 41.0	0.0
	3.2nm,0.5s,mb4.3,baz=304,slow=9.0,SNR=15						
WRAB	Tennant Creek	37.82	120	*e*P	P	13 14 40.7	-0.3
	5.3nm,0.6s,mb4.5						
ASAR	Alice Springs	39.03	126	P	P	13 14 51.5	+0.3
	2.6nm,0.6s,mb4.2,baz=301,slow=8.0,SNR=29						
KSRS	Korea Array	47.43	30	P	P	13 15 59.1	+0.3
	3.3nm,0.9s,mb4.3,baz=214,slow=8.5,SNR=6.5						
CTAO	Charters Tower	48.46	115	*e*P	P	13 16 06.9	-0.1
	14nm,1.5s,mb4.8						
STKA	Stephens Creek	48.89	131	P	P	13 16 10.0	-0.2
	1.8nm,0.4s,mb4.5,baz=299,slow=7.7,SNR=4.1						
SONM	Songino Array	50.40	6	P	P	13 16 22.2	+0.9
	2.1nm,0.6s,mb4.3,baz=189,slow=9.6,SNR=18						
MKAR	Makanchi Array	51.45	345	P	P	13 16 29.9	+0.7
	3.1nm,0.6s,mb4.4,baz=148,slow=8.2,SNR=46						
MKAR	Makanchi Array	51.45	345	P	P	13 16 29.9	+0.7
KURK	Kurchatov	56.02	344	P	P	13 17 02.4	-0.3
	1.8nm,0.8s,mb4.1,baz=170,slow=6.2,SNR=8.5						
KURK	Kurchatov	56.02	344	*e*P	P	13 17 03.1	+0.4
	7.0nm,1.3s,mb4.5						
ZAA0	Zalesovo Array	57.60	349	*e*P	P	13 17 13.3	-0.5
ZALV	Zalesovo Beam	57.60	349	P	P	13 17 13.7	-0.1
	5.0nm,0.9s,mb4.5,baz=179,slow=5.9,SNR=14						
TXAR	Lajitas Array	145.09	38	PKPbc	PKPbc	13 27 02.8	+1.2
	3.6nm,0.7s,baz=270,slow=0.9,SNR=52						
JCT	Junction City	146.43	32	*e*PKPab	PKPab	13 27 06.1	-0.4

IDC 23 13:21:50.4±4.1**, 6°.36S×149°.97E, h0km, mb3.3**/3**,**
mb1 3.7/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, Error ellipse:**
s-maj=135.1km s-min=51.7km az=119.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.32	227	P	P	13 26 28.1	-0.1
	1.2nm,0.7s,baz=51,slow=11,SNR=6.4						
ASAR	Alice Springs	23.12	220	P	P	13 26 57.6	-0.7
	0.2nm,0.6s,baz=55,slow=8.9,SNR=4.5						
FITZ	Fitzroy Crossi	26.45	242	P	P	13 27 29.8	+0.6
	1.2nm,0.6s,baz=79,slow=13,SNR=3.1						
TORD	Torodi Ar. Bea	148.04	285	PKPbc	PKPbc	13 41 38.5	-0.5
	0.3nm,0.4s,baz=77,slow=2.4,SNR=3.7						

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*DMN **23** 13:39:15.2±0.6, 28°.00N×90°.84E, h10km, Ml4.5/6, Error*
ellipse: s-maj=20.2km s-min=10.9km az=174.0
*IDC **23** 13:39:15.7±1.6, 27°.67N×90°.31E, h0km, mb3.6/7,*
mb1 3.8/8, mb1mx3.6/24, mbtmp3.6/8, ML3.7/1, Error
ellipse: s-maj=68.0km s-min=20.0km az=64.0
*NEIC **23** 13:39:21.6±0.7, 27°.58N×90°.36E, h35km, mb3.9/2, Error*
ellipse: s-maj=13.2km s-min=9.1km az=175.0
*MOS **23** 13:39:21.2±1.7, 27°.44N×90°.22E, h65km, mb3.9/3, Error*
ellipse: s-maj=15.7km s-min=11.5km az=98.5
ISC 23 13:39:19.4±0.8**, 27°.69N**±0°.03×**90°.47E**±0°.04**, h19km**±7km**,**
n37, σ1s.15/49**, mb3.6**/9**, 1C, Bhutan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLGI	Shiliguri	2.08	242	*e*PKP	Pn	13 39 55.5	+2.3
LSA	Lhasa	2.09	16	Pg	Pg	13 39 59.3	-0.3
LSA				Sg	Sg	13 40 28.9	+2.1
LSA	Lhasa	2.09	16⇑	*i*Pn	Pg	13 39 59.5	0.0
LSA				*e*Sn	Sg	13 40 28.0	+1.2
SHL	Shillong	2.46	149	*e*x	Pg	13 40 03.0	-3.6
SHL				*e*S	Sg	13 40 39.0	+0.4
TAPN	Taplejung	2.48	263	*e*Pn	Pn	13 39 59.8	+1.1
TAPN				*e*Sn	Sn	13 40 31.0	+2.6
	1000nm,0.6s						
ODAN	Odare	2.87	254	*e*Pn	Pn	13 40 04.2	+0.1
ODAN				*e*Sn	Sn	13 40 41.9	+3.9
	1µm,0.6s						
SHBG	Sahibganj	3.52	226	*e*PKP	Pn	13 40 06.0	-7.1
SHBG				*e*S	Sn	13 40 54.7	+0.5
RAMN	Ramite	3.52	259	*e*Pn	Pn	13 40 13.2	+0.1
JIRN	Jiri	3.80	271	*e*Pn	Pn	13 40 17.4	+0.5
JIRN				*e*Sn	Sn	13 41 02.7	+1.6
	167nm,0.3s						
AGT	Agartala	3.85	169	*e*x	Pg	13 40 33.0	-0.2
GUN	Gumba	4.08	274	*e*Pn	Pn	13 40 20.7	0.0
IMP	Imphal	4.25	132	*e*x	Pg	13 40 37.0	-3.7
IMP				*e*S	Sn	13 41 19.0	+6.9
PKI	Pulchoki	4.49	270	*e*Pn	Pn	13 40 26.5	0.0
PKIN	Phulchoki	4.50	270	*e*Pn	Pn	13 40 26.0	-0.6
KKN	Kakani	4.60	272	*e*Pn	Pn	13 40 27.6	-0.4
KKN				*e*Sn	Sn	13 41 22.0	+1.1
DMN	Daman	4.76	270	*e*Pn	Pn	13 40 30.0	-0.1
DMN				*e*Sn	Sn	13 41 25.2	+0.4
	174nm,0.6s						
GKN	Gorkha	5.18	275	*e*Pn	Pn	13 40 34.5	-1.3
GKN				*e*Sn	Sn	13 41 33.4	-1.7
	112nm,0.3s						
DANN	Dangsing	5.97	278	*e*Pn	Pn	13 40 45.5	-1.3
KOLN	Koldanda	6.09	272	*e*Pn	Pn	13 40 46.7	-1.7
KOLN				*e*Sn	Sn	13 41 55.5	-2.1
	45nm,0.3s						
AGRA	Agra	11.14	271	*e*x	Sn	13 44 07.6	+6.0
AGRA				AML	AML	13 45 08.8	
	comp=N,138nm,0.6s						
AGRA				AML	AML	13 45 09.1	
	comp=E,131nm,0.5s						
KLP	Kalpa	11.30	293	*e*S	Sn	13 43 55.3	-10
KLP				AML	AML	13 44 16.7	
	comp=E,15nm,0.6s						
KLP				AML	AML	13 44 18.8	
	comp=N,9.5nm,0.6s						
CMAR	Chiang Mai Arr	12.04	138	Pn	Pn	13 42 10.4	+0.3
	comp=N,0.1nm,0.3s,baz=312,slow=12,SNR=7.2						
KUDL	Kundal	12.38	275	*e*S	Sn	13 44 19.0	-13
KHET	Khetri	12.98	275	*e*S	Sn	13 44 34.4	-12
KHET				AML	AML	13 44 40.1	
	comp=E,8.0nm,0.1s						
KHET				AML	AML	13 44 40.7	
	comp=N,7.0nm,0.1s						
MKAR	Makanchi Array	20.13	343	P	P	13 43 51.6	-0.6
	comp=N,1.6nm,0.8s,baz=157,slow=10,SNR=20						
PALK	Pallekele	22.32	206	*e*P	P	13 44 09.4	-6.5
PALK				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.3						
PALK	Pallekele	22.32	206	*e*P	P	13 44 09.4	-6.6
	comp=Z,15nm,1.3s,mb4.3						
SONM	Songino Array	23.64	27	P	P	13 44 29.6	+0.2
	comp=Z,0.8nm,0.8s,mb3.2,baz=205,slow=9.9,SNR=5.2						
ZAK	Zakamensk	24.68	20	*e*P	P	13 44 40.7	+1.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.4						
KURK	Kurchatov	24.70	342	P	P	13 44 38.2	-0.9
KURK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.4						
KURK	Kurchatov	24.70	342	P	P	13 44 37.9	-1.3
	comp=Z,0.4nm,0.3s,mb3.5,baz=154,slow=8.8,SNR=3.6						
KURK	Kurchatov	24.70	342	P	P	13 44 38.2	-0.9
	comp=Z,1.3nm,0.9s,mb3.5						
ZALV	Zalesovo Beam	26.56	353	P	P	13 44 59.3	+3.3
	comp=Z,0.4nm,0.4s,mb3.3,baz=178,slow=12,SNR=2.5						
ARCES	ARCESS Array B	55.62	337	P	P	13 48 52.6	-1.0
	comp=Z,4.1nm,1.1s,mb4.4,baz=93,slow=7.2,SNR=2.7						
WRA	Warramunga Arr	63.59	133	P	P	13 49 49.0	-0.1
	comp=Z,0.4nm,0.4s,mb3.8,baz=327,slow=6.7,SNR=3.5						
ASAR	Alice Springs	66.05	136	P	P	13 50 05.3	+0.2
	comp=Z,0.3nm,0.9s,mb3.3,baz=317,slow=6.1,SNR=4.9						
YKA	Yellowknife Ar	87.91	11	P	P	13 52 06.3	-1.2
	comp=Z,0.2nm,0.6s,mb3.5,baz=332,slow=5.6,SNR=4.1						

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*DDA **23** 13:46:37.8, 38°.76N×40°.23E, h7km±3km, Md3.1*
*ISCJB **23** 13:46:39.5±0.7, 38°.75N±0°.03×40°.31E±0°.04, h3km±7km,*
Error ellipse: s-maj=5.4km s-min=4.6km az=3.9
*CSEM **23** 13:46:39.3±0.3, 38°.81N×40°.22E, h5km, MD3.1, Error*
ellipse: s-maj=9.0km s-min=6.4km az=117.0
*ISK **23** 13:46:39.0, 38°.83N×40°.23E, h5km, MD3.0*
ISC 23 13:46:40.3±0.7**, 38°.76N**±0°.03×**40°.32E**±0°.04**, h8km**±6km**,**
n21, σ1s.15/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DIYA	Diyarbakir	0.85	191	*i* P	Pg	13 46 56.6	0.0
DIYA				*i* S	Sg	13 47 09.4	+1.8
DIYA	Diyarbakir	0.85	191	*i* P	Pg	13 46 56.6	0.0
DIYA				*i* S	Sg	13 47 09.4	+1.8
EZC	Erzincan	1.06	339	*e*PN	Pg	13 47 01.9	+1.1
EZC				*e*SN	Sg	13 47 18.6	+4.1
ELZG	Elazig	1.08	256	*i* P	Pg	13 46 59.3	-1.7
ELZG				*i* S	Sg	13 47 15.6	+0.6
ELZG	Elazig	1.08	256	*i* P	Pg	13 46 59.3	-1.7
BEST	Besiri	1.14	139	*i* P	Pg	13 47 01.0	-1.2
BEST				*i* S	Sg	13 47 17.4	+0.3
KOPT	Kop Dagi	1.27	6	*i* P	Pn	13 47 01.6	-2.7
KOPT				*i* S	Sb	13 47 20.6	-0.3
KOPT	Kop Dagi	1.27	6	*i* P	Pn	13 47 01.6	-2.7
KOPT				*i* S	Sb	13 47 20.6	-0.3
EZM	Erzurum	1.40	35	*e*PN	Pn	13 47 06.3	+0.1
EZM				*e*SN	Sn	13 47 26.2	+1.3
ERZM	Erzurum	1.41	35	*i* P	Pn	13 47 04.9	-1.4
ERZM				*i* S	Sb	13 47 25.3	+0.4
ERZM	Erzurum	1.41	35	*i* P	Pn	13 47 04.9	-1.3
ERZM				*i* S	Sb	13 47 25.3	+0.4
MARD	Mardin	1.49	166	*i* P	Pn	13 47 06.7	-0.6
MARD				*i* S	Sn	13 47 26.6	-0.3
TATV	Tatvan	1.55	99	*i* P	Pn	13 47 07.5	-0.6
TATV	Tatvan	1.55	99	*i* P	Pn	13 47 07.6	-0.6
HOMI	Horasan	1.78	43	*i* P	Pn	13 47 12.6	+1.2
GUMT	Gumushane	1.82	339	*e*PN	Pn	13 47 11.2	-0.7
GUMT	Gumushane	1.82	339	*e*Pn	Pn	13 47 11.2	-0.7
AKCD	Akcadag	1.93	257	*i* P	Pn	13 47 11.8	-1.6
AKCD				*e*S	Sn	13 47 39.5	+1.5
AKCD	Akcadag	1.93	257	*i* P	Pn	13 47 11.8	-1.7
AGRB	Hanur-Agry	2.23	68	*e*PN	Pn	13 47 19.0	+1.4
AGRB	Hanur-Agry	2.23	68	*e*Pn	Pn	13 47 19.0	+1.4

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*BJI **23** 13:49:48.5, 0°.06N×98°.68E, h52km, mb4.4/4*
*ISCJB **23** 13:49:50.9±0.6, 0°.45N±0°.06×98°.31E±0°.06, h42km,*
mb4.1/17, Error ellipse: s-maj=11.5km s-min=6.0km
az=135.6
*NEIC **23** 13:49:51.6±0.6, 0°.39N×98°.58E, h35km, mb4.2/2, Error*
ellipse: s-maj=16.2km s-min=9.1km az=55.0
*IDC **23** 13:49:52.1±1.0, 0°.38N×98°.47E, h38km±5km, mb3.8/13,*
mb1 3.9/15, mb1mx3.8/26, mbtmp3.8/15, ML4.2/2, MS3.2/1,
Ms1 3.4/1, ms1mx2.3/33, Error ellipse: s-maj=34.0km
s-min=13.3km az=57.0
*DJA **23** 13:49:55, 0°.57N×98°.47E, h47km, MLv4.2/5*
ISC 23 13:49:53.4±0.5**, 0°.49N**±0°.06×**98°.36E**±0°.06**, h44km,**
h44km±2.6km**:pP-P, n37, σ1s.06**/38**, mb4.1**/17**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	Saibi	1.95	158	P	Pn	13 50 26.9	+2.9
PPI	Padang Panjang	2.25	115	P	Pn	13 50 28.8	+0.7
PPI				S	Sn	13 50 55.8	+1.2
PSI	Prapat	2.36	14	Pn	Pn	13 50 28.7	-1.0
	27nm,0.3s,baz=193,slow=2.2,SNR=74						
PDSI	Padang	2.52	124	P	Pn	13 50 32.5	+0.6
IPM	Ipoh	4.78	34	P	Pn	13 51 04.9	+2.1
IPM	Ipoh	4.78	34	P	Pn	13 51 03.7	+0.8
KGM	Kluang	5.19	73	P	Pn	13 51 08.4	-0.1
KULM	Kulim	5.29	26	P	Pn	13 51 10.5	+0.6
KULM	Kulim	5.29	26	*e*Pn	Pn	13 51 10.1	+0.1
	28nm,0.8s						
MYKOM	Kota Tinggi	5.64	77	P	Pn	13 51 14.4	-0.4
MYKOM	Kota Tinggi	5.64	77	P	Pn	13 51 13.7	-1.0
	19nm,0.7s,0.1nm						
BSI	Banda Aceh	5.84	328	P	Pn	13 51 18.1	+0.7
KTGM	Kuala Trenggan	6.77	45	P	Pn	13 51 31.2	+1.0
MDSI	Maura Dua	7.63	130	P	Pn	13 51 42.6	+0.5
KSM	Kuching	11.99	85	*e*Pn	Pn	13 52 34.7	-7.1
	16nm,1.3s						
CMAR	Chiang Mai Arr	17.86	2	P	Pn	13 53 58.4	-0.4
	0.6nm,0.3s,baz=193,slow=11,SNR=17						
CMAR				LR	LR	14 01 41.9	
	comp=Z,76nm,19.6s,baz=50,slow=40						
XAN	Xi’an	34.81	15	P	P	13 56 39.3	-0.8
XAN				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
GTA	Gaotai	38.76	2	*e*P	P	13 57 13.6	0.0
GTA				pP	pP	13 57 27.9	+2.4
GTA				sP	sP	13 57 36.9	+6.2
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.1						
WRA	Warramunga Arr	40.68	122	P	P	13 57 27.8	-2.1
	comp=Z,0.4nm,0.4s,mb3.4,baz=302,slow=9.3,SNR=3.5						
WRA				pP	pP	13 57 38.8	-3.1
	comp=Z,0.8nm,0.4s,baz=302,slow=9.1,SNR=5.0						
WRAB	Tennant Creek	40.68	122	*e*P	P	13 57 27.5	-2.4
	comp=Z,1.9nm,0.7s,mb3.8						
ASAR	Alice Springs	42.05	127	P	P	13 57 39.0	-2.0
	comp=Z,0.4nm,0.6s,mb3.2,baz=300,slow=8.5,SNR=4.5						
ASAR				pP	pP	13 57 49.4	-3.7
	comp=Z,0.3nm,0.3s,baz=299,slow=7.6,SNR=3.6						
KSRS	Korea Array	45.79	33	P	P	13 58 09.5	-1.4
	comp=Z,2.8nm,0.8s,mb4.2,baz=215,slow=8.6,SNR=5.9						
AML	Almayashu	47.03	335	*e*P	P	13 58 21.7	+1.2
	comp=Z,3.1nm,0.8s,mb4.3						
AAK	Ala-Archa	47.11	336	P	P	13 58 22.0	+0.9
	comp=Z,1.0nm,0.6s,mb3.9,baz=120,slow=8.2,SNR=5.5						
SONM	Songino Array	47.67	7	P	P	13 58 25.9	+0.6
	comp=Z,1.3nm,0.5s,mb4.3,baz=190,slow=9.3,SNR=17						
SONM				pP	pP	13 58 37.1	-0.5
	comp=Z,2.5nm,0.8s,baz=187,slow=9.7,SNR=8.9						
SONM				PcP	PcP	13 59 54.7	+0.4
	comp=Z,1.0nm,0.9s,baz=177,slow=4.6,SNR=3.7						
MKAR	Makanchi Array	48.21	345	P	P	13 58 30.2	+0.6
	comp=Z,5.9nm,0.7s,mb4.7,baz=159,slow=8.4,SNR=33						
MKAR	Makanchi Array	48.21	345	P	P	13 58 30.2	+0.6
STKA	Stephens Creek	52.02	132	P	P	13 58 57.2	-1.6
	comp=Z,1.6nm,0.8s,mb4.0,baz=315,slow=13,SNR=2.3						
STKA	Stephens Creek	52.02	132	P	P	13 58 57.2	-1.6
KURK	Kurchatov	52.78	344	P	P	13 59 03.6	-0.4
	comp=Z,2.2nm,0.7s,mb4.2,baz=167,slow=7.2,SNR=5.2						
ZAA0	Zalesovo Array	54.44	350	*e*P	P	13 59 15.4	-0.7
ZALV	Zalesovo Beam	54.44	350	P	P	13 59 15.8	-0.3
	comp=Z,2.1nm,0.4s,mb4.5,baz=176,slow=5.9,SNR=17						
ZALV				pP	pP	13 59 27.8	-0.8
	comp=Z,3.4nm,0.4s,baz=162,slow=7.0,SNR=9.3						
BVAR	Borovoye Array	57.30	340	P	P	13 59 36.2	-0.4
	comp=Z,1.2nm,0.4s,mb4.3,baz=147,slow=8.9,SNR=6.9						
BVAR				pP	pP	13 59 48.4	-0.7
	comp=Z,2.8nm,0.6s,baz=148,slow=8.5,SNR=7.3						
BRTR	Keskin Array B	70.44	312	P	P	14 01 03.6	+0.2
	comp=Z,1.3nm,0.8s,mb3.9						
ARCES	ARCESS Array B	83.59	340	P	P	14 02 16.7	0.0
	comp=Z,4.1nm,0.9s,mb4.5,baz=102,slow=7.5,SNR=4.9						
ARCES	ARCESS Array B	83.59	340	P	P	14 02 16.7	0.0
GERES	GERESS Array B	86.11	319	P	P	14 02 30.9	+1.1
	comp=Z,0.2nm,0.3s,mb3.8,baz=40,slow=6.4,SNR=2.9						

MAN 23 13:51:20, 9°.41N×125°.73E, h11km, mb4.2, ML3.0, MS2.8,
1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	0.44	327	*e*P	Pg	13 51 29.1	+0.4
SCPH				*e*S	Sg	13 51 50.8	+16
BUTP	Butuan	0.45	194	*e*P	Pg	13 51 30.1	+1.2
MSLP	Maasin	1.12	310	*e*P	Pb	13 51 40.8	-0.6
CGP	Cagayan de Oro	1.40	227⇑	*e*P	Pn	13 51 46.6	+1.1
CGP				*e*S	Sn	13 52 04.2	+0.3
BUKP	Musuan	1.66	204	*e*P	Pn	13 51 47.3	-1.8
PAGZ	Pagadian	2.79	236	*e*P	Pn	13 52 06.9	+2.2
GUIM	Jordan	3.32	292	*e*P	Pn	13 52 12.9	+0.9

IDC 23 14:20:28.6±5.1,**6°.23S**×**129°.02E,h325**^{km}±57^{km}**,mb3.1**/1, **mb1 3.2**/3**,mb1mx2.9**/16**,mbtmp3.0**/3**,Error ellipse: s-maj=109.1km s-min=14.6km az=71.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	14.58	160	P	P	14 23 39.7	-0.2
	0.2nm,0.3s,baz=340,slow=12,SNR=5.1						
WRA				S	S	14 26 21.0	+2.5
	0.2nm,0.3s,baz=337,slow=22,SNR=6.4						
ASAR	**Alice Springs**	17.96	165	P	P	14 24 17.2	+0.6
	0.8nm,0.3s,baz=345,slow=12,SNR=60						
ASAR				S	S	14 27 26.1	+0.5
	0.2nm,0.3s,baz=345,slow=19,SNR=8.5						
MKAR	**Makanchi Array**	67.06	327	P	P	14 30 47.6	0.0
	0.3nm,0.4s,baz=122,slow=8.0,SNR=12						

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*IDC **23** 14:22:46.9±1.1, 11°.75N×87°.15W, h0^{km}, mb4.1/8, mb1 4.3/11, mb1mx4.0/23, mbtmp4.1/11, ML3.6/3, MS3.3/6, Ms1 3.3/6, ms1mx3.1/27, Error ellipse: s-maj=36.8km s-min=15.0km az=40.0*

*ISCJB **23** 14:22:50.0±0.5, 11°.37N±0°.04×87°.35W±0°.04, h53^{km}±6^{km}, mb4.1/12, MS3.3/4, Error ellipse: s-maj=8.6km s-min=3.8km az=41.6*

*CASC **23** 14:22:50.5±1.8, 11°.42N×87°.32W, h27^{km}±13^{km}, MD4.2, ML2.6, mb4.3(NEIC)*

*NEIC **23** 14:22:50.6±0.5, 11°.43N×87°.32W, h35^{km}, mb4.3/4, Error ellipse: s-maj=13.0km s-min=8.7km az=52.0*

ISC 23 14:22:51.6±0.5**,11°.42N**±0°.04×**87°.30W**±0°.04**,h49**^{km}±6^{km}**, n69,**σ**1^{s}.01**/69**,mb4.1**/12**,MS3.3**/4**,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	**Copaltepe**	1.02	42	*e*P	Pn	14 23 09.3	-0.3
COPN				*e*S	Sn	14 23 25.1	+2.2
CRUN	**El Crucero**	1.12	60	*e*P	Pn	14 23 11.1	+0.1
CSAN		1.14	48	*e*P	Pn	14 23 10.5	-0.7
MIRN	**Miramar**	1.16	30	*e*P	Pn	14 23 11.2	-0.3
TICN	**Ticuantepe**	1.21	60	*e*P	Pn	14 23 11.7	-0.4
CNGN	**Cerro Negro**	1.22	29	*e*P	Pn	14 23 11.8	-0.5
MOMN	**Momotombo**	1.23	37	*e*P	Pn	14 23 12.3	0.0
TISN	**Laguna Tiscapa**	1.24	54	*e*P	Pn	14 23 11.7	-0.7
MGAN	**Managua**	1.26	55	*e*P	Pn	14 23 11.9	-0.8
MGAN				AML	AML	14 23 39.2	
	comp=E,90nm,0.5s						
CRIN	**San Cristobal**	1.29	11	*e*P	Pn	14 23 13.0	-0.2
APON	**Apoyo**	1.30	68	*i* P	Pn	14 23 13.0	-0.3
WILN	**Americas 2**	1.31	56	*e*P	Pn	14 23 12.8	-0.7
SSN	**San Juan del S**	1.42	95	*e*P	Pn	14 23 13.8	-1.1
HUEN		1.43	50	*e*P	Pn	14 23 14.6	-0.5
CONN	**Concepcion**	1.65	85	*e*P	Pn	14 23 17.2	-0.9
BOAB	**BOACO BROADBAN**	1.90	57	*e*P	Pn	14 23 20.3	-1.2
CNCH	**Conchagua**	1.92	344	*e*P	Pn	14 23 21.4	-0.4
CNCH				*e*S	Sn	14 23 46.2	+1.5
GBS3	**Finca Las Imˆ¡**	1.92	109	*i* P	Pn	14 23 20.3	-1.5
GB1A	**Borinquen Arri**	1.96	108	*i* S	Sn	14 23 46.7	+1.0
VCR	**Vista de Mar**	2.08	128	*e*P	Pn	14 23 29.0	+5.0
VSM	**San Miguel**	2.21	335	*e*P	Pn	14 23 24.9	-0.9
CAHU	**Cacacuatique**	2.50	339	*e*P	Pn	14 23 30.1	+0.3
JTS	**JuntasAbangare**	2.56	116	Pn	Pn	14 23 30.4	-0.2
	comp=E,3.5nm,0.3s,baz=323,slow=15,SNR=10						
JTS				Pg	Pn	14 23 34.7	+4.0
	comp=E,11nm,0.3s,baz=298,slow=18,SNR=25						
JTS				Sn	Sn	14 24 00.4	-0.2
	comp=E,19nm,0.3s,baz=249,slow=19,SNR=6.5						
JTS				LR	LR	14 24 11.4	
	comp=E,247nm,19.1s,baz=120,slow=33						
TGUH	**Tegucigalpa,Un**	2.62	1	*e*Pn	Pn	14 23 31.6	+0.2
TGUH	**Tegucigalpa,Un**	2.62	1	*e*P	Pn	14 23 31.6	+0.2
SNVI	**San Vicente**	2.65	326	*e*P	Pn	14 23 30.7	-1.0
SNVI				*e*S	Sn	14 24 03.8	+1.2
JCR	**Jicaral**	2.66	126	*e*P	Pn	14 23 31.3	-0.6
FORC	**Fortuna**	2.75	110	*e*P	Pn	14 23 39.0	+5.8
LFRS	**El Faro**	2.78	322	*e*P	Pn	14 23 33.1	-0.5
CGA2	**Cerro Gallo 2**	3.12	116	*e*P	Pn	14 23 39.7	+1.5
PRS1	**Puriscal**	3.27	116	*e*P	Pn	14 23 41.5	+1.3
SBLS	**San Blas**	3.31	317	*e*P	Pn	14 23 41.0	+0.2
SNJE	**San Jose**	3.31	317	*e*P	Pn	14 23 41.0	+0.1
RTR	**El Retiro**	3.36	317	*e*P	Pn	14 23 41.1	-0.5
LAJ	**Bijagual**	3.49	116	*e*P	Pn	14 23 40.0	-3.3
RBDL	**Robledal**	3.55	319	*e*P	Pn	14 23 44.4	+0.3
RBDL				*e*S	Sn	14 24 26.5	+1.6
LCR2	**La Lucha 2**	3.64	117	*e*P	Pn	14 23 46.8	+1.4
URSC	**Urasca**	3.80	114	*e*P	Pn	14 23 50.2	+2.5
BUS	**Buena Vista**	3.94	118	*e*P	Pn	14 23 51.3	+1.7
BAR1		4.48	119	*e*P	Pn	14 23 57.6	+0.7
ACR	**Cerro Adams**	4.91	124	*e*P	Pn	14 24 03.9	+1.0
TEIG	**Tepich**	8.80	354	LR	LR	14 29 00.2	
	comp=E,193nm,18.1s,baz=186,slow=44						
CMIG	**Matias Romero**	9.26	308	Pn	Pn	14 25 01.6	-1.0
	comp=E,1.4nm,0.3s,baz=138,slow=9.7,SNR=8.6						
PAYG	**Puerto Ayora**	12.38	194	*e*Pn	Pn	14 25 43.5	-1.7
	comp=E,52nm,1.6s						
SDV	**Santo Domingo**	16.60	97	Pn	Pn	14 26 41.6	+0.6
	comp=E,0.3nm,0.3s,baz=238,slow=6.9,SNR=8.8						
SDV	**Santo Domingo**	16.60	97	*e*Pn	Pn	14 26 40.2	-0.8
SDV				Pn	Pn	14 26 41.6	+0.6
ATAH	**Atahualpa**	20.33	154	LR	LR	14 34 21.3	
	comp=E,126nm,20.3s,MS3.3,baz=168,slow=34						
GOGA	**Godfrey**	22.17	9	*e*Pn	P	14 27 44.6	+1.2
	comp=E,7.5nm,0.6s,mb4.3						
PCRV	**Puerto La Cruz**	22.30	91	P	P	14 27 45.1	+0.1
	comp=E,13nm,0.7s,mb4.5,baz=248,slow=19,SNR=2.8						
TXAR	**Lajitas Array**	23.46	322	P	P	14 27 58.6	+1.7
	comp=E,1.9nm,0.5s,mb3.8,baz=139,slow=9.0,SNR=37						
MIAR	**Mount Ida**	23.72	347	*e*P	P	14 27 58.8	-0.3
	comp=E,6.7nm,0.7s,mb4.2						
CPCT	**Cooper Cave**	24.05	6	*e*P	P	14 28 02.3	+0.1
TKL	**Tuckaleechee C**	24.34	7	P	P	14 28 05.3	+0.5
	comp=E,11nm,0.8s,mb4.3,baz=185,slow=9.5,SNR=10						
TKL				LR	LR	14 38 19.0	
	comp=E,24nm,18.1s,MS2.7,baz=315,slow=39						
TKL	**Tuckaleechee C**	24.34	7	*e*P	P	14 28 05.1	+0.3
ECSD	**EROS Data Cent**	33.19	348	*e*P	P	14 29 22.8	-0.8
	comp=E,3.9nm,0.6s,mb4.5						
PDAR	**Pinedale Array**	36.74	332	P	P	14 29 53.2	-1.0
	comp=E,1.3nm,0.6s,mb3.9,baz=123,slow=11,SNR=15						
PDAR				PcP	PcP	14 32 18.5	+2.6
	comp=E,0.3nm,0.7s,baz=145,slow=3.3,SNR=2.9						
TPAW	**Teton Pass**	37.95	332	*e*P	P	14 30 05.5	+1.1
	comp=E,3.1nm,0.5s,mb4.3						
NVAR	**Mina Array Bea**	38.57	320	P	P	14 30 11.1	+1.3
	comp=E,0.4nm,0.6s,mb3.3,baz=143,slow=7.7,SNR=3.5						
NVAR				PcP	PcP	14 32 24.6	+3.0
	comp=E,0.4nm,0.7s,baz=148,slow=3.9,SNR=2.7						
NVAR	**Mina Array Bea**	38.57	320	P	P	14 30 11.1	+1.3
NVAR				PcP	PcP	14 32 24.6	+3.0
ULM	**Lac du Bonnet**	39.35	351	P	P	14 30 14.4	-1.7
	comp=E,3.4nm,0.5s,mb4.3,baz=172,slow=9.3,SNR=8.4						
SCHQ	**Schefferville**	46.22	16	P	P	14 31 10.0	-1.6
	comp=E,1.3nm,0.4s,mb4.2,baz=228,slow=5.8,SNR=9.6						
SCHQ				LR	LR	14 52 08.0	
	comp=E,97nm,18.1s,MS3.8,baz=116,slow=38						
SCHQ	**Schefferville**	46.22	16	P	P	14 31 10.0	-1.6
SCHQ				LR	LR	14 52 08.1	
YKA	**Yellowknife Ar**	54.64	345	P	P	14 32 14.9	-0.2
	comp=E,1.2nm,0.7s,mb4.0,baz=138,slow=7.7,SNR=33						
YKA				PcP	PcP	14 33 18.9	+1.5
	comp=E,0.1nm,0.6s,baz=138,slow=4.5,SNR=5.1						
YKA				LR	LR	14 55 57.5	
	comp=E,34nm,21.1s,MS3.4,baz=45,slow=37						
YKA	**Yellowknife Ar**	54.64	345	P	P	14 32 14.9	-0.2
YKA				PcP	PcP	14 33 18.9	+1.5
YKA				LR	LR	14 55 57.5	
SONM	**Songino Array**	119.76	349	PKP	PKPdf	14 41 37.6	+1.1
	comp=E,0.2nm,0.4s,baz=48,slow=2.1,SNR=2.6						
KSRS	**Korea Array**	121.22	328	PKP	PKPdf	14 41 41.6	+2.1
	comp=E,0.7nm,0.5s,baz=350,slow=1.8,SNR=3.7						
MKAR	**Makanchi Array**	121.31	8	PKP	PKPdf	14 41 40.1	+0.6
	comp=E,0.2nm,0.7s,baz=325,slow=2.2,SNR=4.9						
WRA	**Warramunga Arr**	139.12	253	PKP	PKPdf	14 42 16.5	+2.6
	comp=E,0.7nm,0.7s,baz=86,slow=1.2,SNR=2.1						
CMAR	**Chiang Mai Arr**	149.68	348	PKPbc	PKPbc	14 42 38.9	+2.0
	comp=E,2.1nm,0.7s,baz=346,slow=3.8,SNR=16						

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*ISCJB **23** 14:28:59.6±0.4, 49°.32N±0°.02×6°.79E±0°.04, h0^{km}, Error ellipse: s-maj=3.5km s-min=3.0km az=168.7*

*CSEM **23** 14:29:00.4±0.2, 49°.35N×6°.80E, h1^{km}, ML2.3/11, Error ellipse: s-maj=3.4km s-min=3.0km az=78.0*

*BGR **23** 14:29:01.4±0.4, 49°.37N×6°.81E, h1^{km}, ML1.9/3, Error ellipse: s-maj=8.9km s-min=5.6km az=34.0*

*LDG **23** 14:29:01.1±0.1, 49°.37N×6°.94E, h1^{km}, Md2.5/3, Ml2.4/14, Error ellipse: s-maj=2.7km s-min=1.7km az=93.0, Suspected Mining induced.*

ISC 23 14:29:00.4±0.4**,49°.34N**±0°.02×**6°.79E**±0°.04**,h0**^{km}**,n41,** σ**0^{s}.87**/77**,Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLF	**Walferdange**	0.52	308	P	Pg	14 29 11.8	+1.4
WLF	**Walferdange**	0.52	308	*e*Pg	Pg	14 29 11.3	+0.9
	SNR=2.8						
WLF				*e*Sg	Sg	14 29 17.6	+0.4
	SNR=3.0						
WLF	**Walferdange**	0.52	308	Pg	Pg	14 29 11.3	+0.8
	SNR=2.8						
WLF				Sg	Sg	14 29 17.6	+0.4
	SNR=3.0						
CDF	**Champ du Feu**	0.98	161	*e*Pg	Pg	14 29 19.8	+0.5
CDF				*e*Sg	Sg	14 29 32.7	+0.7
	8.3nm,0.2s						
CDF	**Champ du Feu**	0.98	161	*e*Pg	Pg	14 29 19.8	+0.5
CDF				*e*Sg	Sg	14 29 32.7	+0.7
	4.2nm,0.2s						
RFYF	**Reffroy**	1.12	231	*e*Pg	Pg	14 29 23.8	+2.0
	baz=50						
RFYF				*e*Sg	Sg	14 29 40.1	+3.8
	12nm,0.3s						
RFYF	**Reffroy**	1.12	231	*e*Pg	Pg	14 29 23.8	+2.0
	baz=50						
RFYF				*e*Sg	Sg	14 29 40.1	+3.8
	5.9nm,0.3s						
MEM	**Membach**	1.36	339	P	Pg	14 29 26.5	-0.1
MEM	**Membach**	1.36	339	P	Pg	14 29 26.5	-0.1
HAU	**Haudompre**	1.37	192	*e*Pn	Pn	14 29 26.5	-0.2
HAU				*e*Sn	Sn	14 29 44.8	-0.7
	8.0nm,0.3s						
HAU	**Haudompre**	1.37	192	*e*Pn	Pn	14 29 26.5	-0.2
HAU				*e*Sn	Sn	14 29 44.8	-0.7
	4.0nm,0.3s						
TNS	**Taunus Mts**	1.39	50	*e*Pg	Pg	14 29 25.7	-1.4
	SNR=3.7						
TNS				*e*Sg	Sg	14 29 45.2	+0.1
	SNR=1.6						
TNS	**Taunus Mts**	1.39	50	Pg	Pg	14 29 25.7	-1.4
	SNR=3.7						
TNS				Sg	Sg	14 29 45.2	+0.1
	SNR=1.6						
MEZF	**Maizieres J'vi**	1.42	234	*e*Pn	Pn	14 29 27.8	+0.4
	baz=58						
MEZF				*e*Sn	Sn	14 29 47.0	+0.2
	4.6nm,0.3s						
MEZF	**Maizieres J'vi**	1.42	234	*e*Pn	Pn	14 29 27.8	+0.4
	baz=58						
MEZF				*e*Sn	Sn	14 29 47.0	+0.2
	2.3nm,0.3s						
BFO	**Black Forest**	1.44	134	*e*Pg	Pg	14 29 29.4	+1.5
	SNR=2.2						
BFO				*e*Sg	Sg	14 29 46.2	-0.3
	SNR=2.9						
BFO	**Black Forest**	1.44	134	Pg	Pg	14 29 29.4	+1.5
	SNR=2.2						
BFO				Sg	Sg	14 29 46.2	-0.3
	SNR=2.9						
BCLA	**Clavier**	1.44	319	P	Pn	14 29 28.6	+0.9
BCLA	**Clavier**	1.44	319	P	Pn	14 29 28.6	+0.8
GIVF	**Givet**	1.48	302	*e*Pn	Pn	14 29 28.2	-0.1
GIVF				*e*Sn	Sn	14 29 48.2	-0.2
	9.4nm,0.4s						
GIVF	**Givet**	1.48	302	*e*Pn	Pn	14 29 28.2	-0.1
GIVF				*e*Sn	Sn	14 29 48.2	-0.2
	4.7nm,0.4s						
HINF	**Hinteralfeld**	1.53	178	*e*Pg	Pg	14 29 30.2	+0.6
HINF				*e*Sg	Sg	14 29 50.3	+0.9
	14nm,0.3s						
HINF	**Hinteralfeld**	1.53	178	*e*Pg	Pg	14 29 30.2	+0.6
HINF				*e*Sg	Sg	14 29 50.3	+0.9
	7.2nm,0.3s						
DOU	**Dourbes**	1.61	299	P	Pn	14 29 30.0	-0.1
DOU	**Dourbes**	1.61	299	P	Pn	14 29 29.9	-0.1
SFTF	**Sexfontaines**	1.62	226	*e*Pn	Pn	14 29 30.5	+0.3
SFTF				*e*Sn	Sn	14 29 51.5	-0.2
	8.1nm,0.3s,baz=41						
SFTF	**Sexfontaines**	1.62	226	*e*Pn	Pn	14 29 30.5	+0.3
SFTF				*e*Sn	Sn	14 29 51.5	-0.2
	4.1nm,0.3s,baz=41						
BAIF	**Baives**	1.82	294	*e*Pn	Pn	14 29 33.1	+0.1
BAIF				*e*Sn	Sn	14 29 56.5	-0.2
	2.8nm,0.4s						
BAIF	**Baives**	1.82	294	*e*Pn	Pn	14 29 33.1	+0.1
BAIF				*e*Sn	Sn	14 29 56.5	-0.2
	1.4nm,0.4s						
CABF	**La Chapelle**	2.77	190	*e*Pn	Pn	14 29 45.7	-0.3
CABF				*e*Sn	Sn	14 30 18.7	-1.4
	8.8nm,0.7s						
CABF	**La Chapelle**	2.77	190	*e*Pn	Pn	14 29 45.7	-0.3
CABF				*e*Sn	Sn	14 30 18.7	-1.4
	4.4nm,0.7s						
LOR	**Lormes**	2.85	224	*e*Pn	Pn	14 29 46.2	-0.9
	baz=51						
LOR				*e*Sn	Sn	14 30 20.9	-1.1
LOR				*e*Sg	Sg	14 30 33.2	+1.3
	3.1nm,0.4s,baz=50						
LOR	**Lormes**	2.85	224	*e*Pn	Pn	14 29 46.2	-0.9
	baz=51						
LOR				*e*Sn	Sn	14 30 20.9	-1.1
LOR				*e*Sg	Sg	14 30 33.2	+1.3
	1.5nm,0.4s,baz=50						
SSF	**Saint Saulge**	3.16	225	*e*Pn	Pn	14 29 50.4	-1.0
SSF				*e*Sn	Sn	14 30 28.4	-1.4
SSF				*e*Sg	Sg	14 30 43.5	+1.5
	2.7nm,0.5s						
SSF	**Saint Saulge**	3.16	225	*e*Pn	Pn	14 29 50.4	-1.0
SSF				*e*Sn	Sn	14 30 28.4	-1.4
SSF				*e*Sg	Sg	14 30 43.5	+1.5
	1.4nm,0.5s						
SMF	**Signal de Mont**	3.34	217	*e*Pn	Pn	14 29 53.6	-0.3
	2.3nm,0.2s						
SMF				*e*Sn	Sn	14 30 32.9	-1.4
SMF	**Signal de Mont**	3.34	217	*e*Pn	Pn	14 29 53.6	-0.3
	1.1nm,0.2s						
SMF				*e*Sn	Sn	14 30 32.9	-1.4
AVF	**Avril sur Loir**	3.44	223	*e*Pn	Pn	14 29 54.8	-0.3
AVF				*e*Sn	Sn	14 30 35.4	-1.1
	4.4nm,0.7s						
AVF	**Avril sur Loir**	3.44	223	*e*Pn	Pn	14 29 54.8	-0.3
AVF				*e*Sn	Sn	14 30 35.4	-1.1
	2.2nm,0.7s						
GEC2	**GERESS Array S**	4.57	94	*e*Pn	Pn	14 30 11.0	+0.3
	SNR=3.0						
GEC2	**GERESS Array S**	4.57	94	Pn	Pn	14 30 11.0	+0.3
	SNR=3.0						

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*NEIC **23** 14:33:34.5±0.8, 6°.14S×129°.61E, h35^{km}, mb4.3/3, Error ellipse: s-maj=21.6km s-min=11.6km az=70.0*

*IDC **23** 14:33:47.9±12.0, 6°.94S×129°.14E, h130^{km}±122^{km}, mb3.4/2, mb1 3.6/5, mb1mx3.3/17, mbtmp3.5/5, ML3.7/3, Error ellipse: s-maj=131.8km s-min=34.1km az=53.0*

ISC 23 14:33:44.6±3.9**,7°.1S**±0°.1×**129°.2E**±0°.1**,h101**^{km}±38^{km}**,n12,** σ**1^{s}.12**/17**,mb3.5**/2**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	11.47	197	P	Pn	14 36 29.7	+4.4
	0.3nm,0.3s,baz=29,slow=8.2,SNR=4.2						
FITZ				S	Sn	14 38 31.6	+0.1
	0.3nm,0.3s,baz=315,slow=17,SNR=4.2						
FITZ	**Fitzroy Crossi**	11.47	197	*e*Pn	Pn	14 36 29.8	+4.5
FITZ				*e*Sn	Sn	14 38 30.5	-1.0
WRAB	**Tennant Creek**	13.68	159	*e*Pn	Pn	14 36 55.4	+1.0
	3.2nm,0.4s						
WRAB				*e*Sn	Sn	14 39 24.1	-1.0
WRA	**Warramunga Arr**	13.69	159	P	Pn	14 36 57.9	+3.4
	0.2nm,0.3s,baz=332,slow=13,SNR=4.5						
WRA				S	Sn	14 39 25.0	-0.2
	0.4nm,0.3s,baz=333,slow=23,SNR=5.2						
COEN	**Coen**	15.30	118	Pn	Pn	14 37 10.2	-5.0
	6.2nm,0.5s						
ASAR	**Alice Springs**	17.07	165	P	Pn	14 37 42.0	+5.0
	1.4nm,0.3s,baz=340,slow=9.8,SNR=128						
ASAR				S	S	14 40 47.6	+0.1
	0.1nm,0.3s,baz=351,slow=22,SNR=4.2						
CTAO	**Charters Tower**	20.96	130	P	P	14 38 18.3	-1.2
	15nm,1.8s						
STKA	**Stephens Creek**	27.21	157	P	P	14 39 20.7	+1.7
	2.5nm,0.9s,mb3.7,baz=315,slow=8.6,SNR=2.8						
STKA	**Stephens Creek**	27.21	157	P	P	14 39 20.7	+1.7
MK31	**Makanchi Array**	67.90	327	*e*P	P	14 44 27.1	-5.2
MKAR	**Makanchi Array**	67.90	327	P	P	14 44 31.3	-0.9
	0.3nm,0.6s,mb3.3,baz=121,slow=7.6,SNR=6.4						
MKAR	**Makanchi Array**	67.90	327	P	P	14 44 31.3	-0.9

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*JMA **23** 14:38:36.6±0.4, 43°.94N×148°.02E, h0^{km}, M3.7*

*ISCJB **23** 14:38:37.1±1.9, 44°.2N±0°.2×148°.3E±0°.2, h77^{km}±19^{km}, mb3.2/3, Error ellipse: s-maj=30.8km s-min=19.2km az=154.0*

*IDC **23** 14:38:40.2±5.4, 44°.33N×148°.23E, h87^{km}±49^{km}, mb2.9/3, mb1 3.1/4, mb1mx2.9/22, mbtmp3.0/4, ML3.1/1, Error ellipse: s-maj=48.0km s-min=33.4km az=116.0*

ISC 23 14:38:38.6±1.9**,44°.2N**±0°.2×**148°.3E**±0°.2**,h71**^{km}±19^{km}**,n11,** σ**1^{s}.19**/15**,mb3.2**/3**,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	1.98	247	P	Pn	14 39 08.7	-1.2
NEM2				*e*S	Sn	14 39 31.6	-2.1
JRA	**Rausu**	2.27	266	P	Pn	14 39 13.7	-0.1
JNK	**Nakash**	2.62	259	P	Pn	14 39 18.2	-0.3
JNK				*e*S	Sn	14 39 48.8	-0.4
JAK	**Akkeshi**	2.83	247	P	Pn	14 39 20.8	-0.6
JAK				*e*S	Sn	14 39 53.0	-1.3
JAR	**Ashorobuto**	3.36	257	P	Pn	14 39 29.5	+0.9
JAR				*e*S	Sn	14 40 09.3	+2.0
JCH	**Churui**	3.88	248	P	Pn	14 39 37.4	+1.7
ASAJ	**Asahikawa**	4.07	271	P	Pn	14 39 39.9	+1.6
	1.0nm,0.3s,baz=67,slow=18,SNR=5.3						
JNBK	**Urakawa-nobuka**	4.43	247	P	Pn	14 39 44.0	+0.8
MKAR	**Makanchi Array**	45.10	298	P	P	14 46 46.6	-0.8
	0.3nm,0.8s,mb3.1,baz=77,slow=6.2,SNR=4.2						
YKA	**Yellowknife Ar**	55.03	34	P	P	14 48 01.1	-1.2
	0.2nm,0.6s,mb3.3,baz=299,slow=7.2,SNR=4.2						
ASAR	**Alice Springs**	68.75	194	P	P	14 49 35.8	+1.1
	0.3nm,0.8s,mb3.2,baz=12,slow=6.3,SNR=4.1						

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*IDC **23** 14:49:08.8±1.6, 27°.51N×88°.08E, h0^{km}, mb3.7/6, mb1 3.8/7, mb1mx3.6/24, mbtmp3.7/7, MS3.6/1, Ms1 3.6/1, ms1mx2.6/37, Error ellipse: s-maj=64.3km s-min=21.1km az=65.0*

*ISCJB **23** 14:49:13.8±1.1, 27°.46N±0°.07×87°.84E±0°.05, h60^{km}±13^{km}, mb3.6/6, Error ellipse: s-maj=11.7km s-min=6.7km az=174.8*

*NEIC **23** 14:49:13.6±0.9, 27°.48N×87°.91E, h35^{km}, Error ellipse: s-maj=20.5km s-min=13.3km az=62.0*

*NDI **23** 14:49:20.7±2.1, 27°.49N×87°.83E, h10^{km}, ML3.6*

ISC 23 14:49:15.9±1.0**,27°.47N**±0°.07×**87°.89E**±0°.05**,h60**^{km}±12^{km}**, n20,** σ**0^{s}.99**/23**,mb3.6**/6**,Nepal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLGI	**Shiliguri**	0.89	148	*e*x	Pn	14 49 24.0	-8.5
SHBG	**Sahibganj**	2.25	185	*e*PKP	Pn	14 49 42.5	-8.2
SHBG				*e*S	Sn	14 50 11.0	-6.3
LSA	**Lhasa**	3.63	51	Pg	Pn	14 50 11.5	+2.0
LSA				Sg	Sn	14 50 53.3	+2.2
LSA				smax			
	comp=E,40nm,0.7s						
LSA	**Lhasa**	3.63	51	*e*Pn	Pn	14 50 07.9	-1.7
LSA				*e*Sn	Sn	14 50 50.2	-0.9
SHL	**Shillong**	4.04	117	*e*x	x	14 50 29.0	
SHL				*e*S	Sn	14 51 09.0	+7.7
BOK	**Bokaro**	4.08	207	*e*x	Pn	14 50 15.2	-0.5
BOK				*e*x	x	14 57 14.6	
AGT	**Agartala**	4.68	139	*e*x	Sn	14 51 28.0	+11
JOSI	**Joshimath**	7.92	295	*e*PKP	Pn	14 51 15.8	+7.4
JOSI				*e*S	Sn	14 52 38.1	+1.6
JOSI				AML	AML	14 52 58.5	
	comp=E,30nm,0.6s						
JOSI				AML	AML	14 52 58.8	
	comp=N,28nm,0.2s						
AGRA	**Agra**	8.85	271	*e*S	Sn	14 52 59.1	-0.2
AGRA				AML	AML	14 54 07.4	
	comp=N,101nm,0.8s						
AGRA				AML	AML	14 54 10.3	
	comp=E,82nm,0.6s						
KLP	**Kalpa**	9.33	298	*e*S	Sn	14 53 11.2	+0.2
KLP				AML	AML	14 53 32.8	
	comp=E,9.9nm,0.9s						
KLP				AML	AML	14 53 33.0	
	comp=N,17nm,0.8s						
SONA	**Sohna**	9.60	277	*e*S	Sn	14 53 17.1	-0.6
SONA				AML	AML	14 53 38.6	
	comp=N,10.0nm,0.1s						
SONA				AML	AML	14 53 38.8	
	comp=E,15nm,0.2s						
MKAR	**Makanchi Array**	19.79	349	P	Pn	14 53 41.5	-1.6
	comp=E,0.3nm,0.3s,baz=168,slow=9.6,SNR=31						
KURK	**Kurchatov**	24.27	346	P	P	14 54 26.7	-0.5
	comp=E,1.3nm,0.6s,mb3.5,baz=162,slow=9.1,SNR=9.6						
KURK	**Kurchatov**	24.27	346	P	P	14 54 26.7	-0.5
SONM	**Songino Array**	24.94	30	P	P	14 54 32.6	-0.8
	comp=E,0.7nm,0.4s,mb3.5,baz=216,slow=11,SNR=10						
ZALV	**Zalesovo Beam**	26.55	356	P	P	14 54 47.8	-0.1
	comp=E,0.4nm,0.3s,mb3.4,baz=169,slow=8.3,SNR=5.2						
AKTO	**Aktyubinsk**	32.28	323	LR	LR	15 10 54.9	
	comp=E,104nm,21.7s,baz=296,slow=40						
ARCES	**ARCESS Array B**	54.95	338	P	P	14 58 41.0	+0.7
	comp=E,3.5nm,0.9s,mb4.4,baz=105,slow=7.0,SNR=7.2						
WRA	**Warramunga Arr**	65.14	131	P	P	14 59 51.2	+0.6
	comp=E,0.2nm,0.3s,mb3.6,baz=325,slow=6.6,SNR=3.4						
ASAR	**Alice Springs**	67.50	134	P	P	15 00 06.5	+0.8
	comp=E,0.3nm,0.7s,mb3.4,baz=312,slow=6.1,SNR=4.0						

DJA 23 15:04:48,0°.19S×**100°.17E,h10**^{km}**,MLv3.9**/4**,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPI	**Padang Panjang**	0.35	139	P	Pg	15 04 54.3	-0.6
PPI				S	Sg	15 05 02.2	+2.6
PDSI	**Padang**	0.77	158	P	Pg	15 05 02.1	-0.9
PDSI				S	Sg	15 05 13.4	+0.3
SDSI	**Sungai Dareh**	1.46	120	P	Pn	15 05 13.9	-0.5
SDSI				S	Sn	15 05 34.8	+1.2
SISI	**Saibi**	1.56	224	P	Pn	15 05 14.3	-1.6
SISI				S	Sn	15 05 37.3	+1.1
GSI	**Gunungsitoli**	2.99	300	P	Pn	15 05 36.4	+0.9
MYKOM	**Kota Tinggi**	4.17	62	P	Pn	15 05 51.2	-0.6
IPM	**Ipoh**	4.72	10	P	Pn	15 05 59.9	+0.6

MAN 23 15:07:47,6°.93N×**126°.03E,h41**^{km}**,mb4.7,ML3.5,MS3.5, 1C-1D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	0.23	87	*e*P	Pn	15 07 56.4	+1.7
MATI				*e*S	Sn	15 08 03.2	+3.3
DMPH	**Davao City--Mi**	0.54	286	⇓*i*P	Pn	15 08 00.1	+1.8
DMPH				*i* S	Sn	15 08 09.5	+3.2
BUKP	**Musuan**	1.34	315	*e*P	Pn	15 08 10.8	+1.5
BUKP				*e*S	Sn	15 08 27.0	+1.1
GSPH	**General Santos**	1.36	232	⇑*i*P	Pn	15 08 07.0	-2.6
GSPH				*i* S	Sn	15 08 22.3	-4.1

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*CSEM **23** 15:26:31.3, 36°.26N×21°.72E, h10^{km}, MD3.5, After ATH*

*NEIC **23** 15:26:31.3, 36°.26N×21°.72E, h10^{km}, MD3.5(ATH), After ATH.*

ATH 23 15:26:31.3,36°.26N×**21°.72E,h10**^{km}±2^{km}**,MD3.5**/8**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.63	2	*e*PG	Pg	15 26 43.3	-0.3
PYL				*e*SB	Sb	15 26 52.7	-0.7
PYL	**PYLOS**	0.63	2	*e*Pg	Pg	15 26 43.3	-0.3
PYL				*e*Sb	Sb	15 26 52.7	-0.7
ITM	**Ithomi**	0.93	10	*e*PG	Pg	15 26 48.9	-0.4
ITM				*e*SB	Sb	15 27 02.6	+0.6
ITM	**Ithomi**	0.93	10	*e*Pg	Pg	15 26 48.9	-0.4
ITM				*e*Sb	Sb	15 27 02.6	+0.6
KYTH	**Kithira**	1.06	89	*e*PB	Pb	15 26 51.5	-0.3

KYTH	Kithira	1.06	89	*e*Pb	Pb	15 26 51.5	-0.3
VLI	Veliai	1.08	65	*e*PN	Pn	15 26 52.1	-0.4
VLI				*e*SB	Sb	15 27 07.0	+0.7
VLI	Veliai	1.08	65	*e*Pn	Pn	15 26 52.1	-0.4
VLI				*e*Sb	Sb	15 27 07.0	+0.7
VLX	Vlachokerasia	1.23	25	*e*PN	Pn	15 26 53.8	-0.7
VLX				*e*SB	Sb	15 27 11.0	+0.5
VLX	Vlachokerasia	1.23	25	*e*Pn	Pn	15 26 53.8	-0.7
VLX				*e*Sb	Sb	15 27 11.0	+0.5
GUR	Goura	1.75	16	*e*PN	Pn	15 27 03.6	+2.0
GUR	Goura	1.75	16	*e*Pn	Pn	15 27 03.6	+2.0
RLS	Riolos of Patr	1.81	354	*e*PN	Pn	15 27 04.3	+1.8
RLS	Riolos of Patr	1.81	354	*e*Pn	Pn	15 27 04.3	+1.8
LTK	Loutraki	2.02	29	*e*PN	Pn	15 27 07.9	+2.5
LTK	Loutraki	2.02	29	*e*Pn	Pn	15 27 07.9	+2.5
EVR	Evrytania	2.65	1	*e*PN	Pn	15 27 17.0	+2.9
EVR	Evrytania	2.65	1	*e*Pn	Pn	15 27 17.0	+2.9

ZUR ***23*** *15:30:51.3, 49°.49N×6°.56E, h-5^{km}±13^{km}, ML3.5/26*
ISCJB ***23*** *15:30:53.2±0.1, 49°.371N±0°.007×6°.74E±0°.01, h0^{km}, mb4.2/4, Error ellipse: s-maj=1.1km s-min=1.1km az=3.4*
CSEM ***23*** *15:30:54.8±0.1, 49°.37N×6°.76E, h2^{km}, ML3.8, ML4.6/33, Error ellipse: s-maj=1.4km s-min=1.3km az=119.0*
MOS ***23*** *15:30:54.0±0.9, 49°.40N×6°.72E, h10^{km}, mb4.4/3, Error ellipse: s-maj=4.8km s-min=2.9km az=84.8*
IDC ***23*** *15:30:55.4±1.1, 49°.28N×6°.62E, h0^{km}, mb3.8/2, mb1 4.0/8, mb1mx3.7/25, mbtmp3.9/8, ML4.3/6, MS2.9/1, Ms1 2.9/1, ms1mx2.5/55, Error ellipse: s-maj=14.8km s-min=12.1km az=42.0*
UCC ***23*** *15:30:55.9±0.6, 49°.37N×6°.86E, h1^{km}±2^{km}, ML3.7*
BNS ***23*** *15:30:55.8±1.2, 49°.36N×6°.83E, h1^{km}±9^{km}, ML3.8*
PRU ***23*** *15:30:56.2, 49°.39N×6°.91E, h0^{km}, M4.5*
STR ***23*** *15:30:56.0±0.1, 49°.37N×6°.81E, h1^{km}, Ml4.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
BGS ***23*** *15:30:56.1±2.5, 49°.27N×6°.75E, h15^{km}, ML4.6*
BGR ***23*** *15:30:56.1±0.2, 49°.39N×6°.86E, h1^{km}, ML4.2/17, Error ellipse: s-maj=3.3km s-min=2.2km az=93.0*
LDG ***23*** *15:30:56.2±0.1, 49°.36N×6°.85E, h2^{km}, Md4.3/5, Ml4.7/40, Error ellipse: s-maj=1.0km s-min=0.9km az=111.0*
NEIC ***23*** *15:30:56.2, 49°.36N×6°.85E, h2^{km}, mb4.5/3, ML4.2(SZGRF), ML4.7(LDG), After LDG.*
ISC 23 15:30:54.7±0.1, **49°.361N**±0°.007×**6°.74E**±0°.01, **h0^{km}, n607, σ1^{s}.24**/1014, **mb4.2**/4, **59C-38D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUP	Ruppelstein	0.40	31	Pg	Pg	15 31 03.1	+0.8
RUP				Sg	Sg	15 31 08.9	+1.4
RUP	Ruppelstein	0.40	31	Pg	Pg	15 31 03.1	+0.8
RUP				Sg	Sg	15 31 08.9	+1.4
WLF	Walferdange	0.49	309	P	Pg	15 31 06.7	+2.6
WLF				S	Sg	15 31 13.8	+3.4
	comp=N,300nm,0.4s						
WLF	Walferdange	0.49	309	*e*Pg	Pg	15 31 06.6	+2.6
	SNR=695						
WLF				*e*Sg	Sg	15 31 13.4	+3.0
	SNR=6.8						
WLF	Walferdange	0.49	309	*e*P	Pg	15 31 06.2	+2.2
WLF				*e*S	Sg	15 31 13.3	+2.9
WLF	Walferdange	0.49	309	Pg	Pg	15 31 06.6	+2.6
	SNR=695						
WLF				*e*S	Sg	15 31 13.3	+2.9
ABH	Alteburg	0.74	45	Pg	Pg	15 31 08.9	+0.1
ABH	Alteburg	0.74	45	Pg	Pg	15 31 08.9	+0.1
LANF	Langenberg	0.80	118	Pg	Pg	15 31 10.0	+0.1
LANF				Sg	Sg	15 31 21.3	+1.1
LANF	Langenberg	0.80	118	Pg	Pg	15 31 10.0	+0.1
LANF				Sg	Sg	15 31 21.3	+1.1
KTD	Kalmit	0.88	92	Pg	Pg	15 31 12.4	+0.9
KTD	Kalmit	0.88	92	Pg	Pg	15 31 12.4	+0.9
BGG	Burgeitz	0.93	24	⇑*e*Pg	Pg	15 31 12.6	+0.1
BGG				*e*Sg	Sg	15 31 26.1	+1.6
	comp=N,1µm,0.5s						
BGG	Burgeitz	0.93	24	Pg	Pg	15 31 12.6	+0.1
BGG				Sg	Sg	15 31 26.1	+1.6
	comp=N,1µm,0.5s						
HILG	Hillesheim	0.93	358	⇓*e*Pg	Pg	15 31 13.9	+1.4
HILG				*e*Sg	Sg	15 31 26.4	+1.8
	comp=N,3µm,0.7s						
HILG	Hillesheim	0.93	358	Pg	Pg	15 31 13.9	+1.4
HILG				Sg	Sg	15 31 26.4	+1.8
	comp=N,3µm,0.7s						
CDF	Champ du Feu	1.01	159	*e*Pn	Pn	15 31 15.5	-0.6
	SNR=1.0						
CDF				*e*Sg	Sg	15 31 27.7	+0.5
	comp=N,3µm,0.5s,SNR=1.0						
CDF				*e*Sn	Sn	15 31 29.4	-1.6
	SNR=1.0						
CDF	Champ du Feu	1.01	159	*e*Pg	Pg	15 31 14.6	+0.5
CDF				*e*Pn	Pn	15 31 15.5	-0.6
CDF				*e*Sg	Sg	15 31 27.7	+0.5
CDF				*e*Sn	Sn	15 31 29.4	-1.6
CDF	Champ du Feu	1.01	159	*e*Pg	Pg	15 31 14.6	+0.5
CDF	Champ du Feu	1.01	159	*e*Pn	Pn	15 31 15.5	-0.6
	SNR=1.0						
CDF				*e*Sg	Sg	15 31 27.7	+0.5
	comp=N,2µm,0.5s,SNR=1.0						
CDF				*e*Sn	Sn	15 31 29.4	-1.6
	SNR=1.0						
STR	Strasbourg	1.03	139	*e*Pg	Pg	15 31 16.1	+1.7
	SNR=16						
STR	Strasbourg	1.03	139	*e*Pg	Pg	15 31 15.8	+1.5
	SNR=9.1						
STR				*e*Sg	Sg	15 31 29.6	+1.9
	SNR=4.6						
STR	Strasbourg	1.03	139	Pg	Pg	15 31 16.1	+1.7
	SNR=16						
RFYF	Reffroy	1.11	229	*e*Pg	Pg	15 31 18.6	+2.7
	baz=50						
RFYF				*e*Sg	Sg	15 31 33.2	+2.9
	comp=N,7µm,0.4s,baz=40						
RFYF	Reffroy	1.11	229	*e*Pg	Pg	15 31 18.6	+2.7
	baz=50						
RFYF				*e*Sg	Sg	15 31 33.2	+2.9
	comp=N,3µm,0.4s,baz=40						
ECH	Echery	1.18	166	⇓*i*Pn	Pn	15 31 17.9	-0.4
ECH				*e*Sg	Sg	15 31 33.9	+1.4
	SNR=7.2						
ECH	Echery	1.18	166	Pg	Pg	15 31 18.5	+1.3
ECH				Sg	Sg	15 31 34.7	+2.2
ECH	Echery	1.18	166	*e*P	Pg	15 31 17.4	+0.2
ECH				*e*S	Sg	15 31 33.6	+1.1
ECH	Echery	1.18	166	Pn	Pn	15 31 17.9	-0.5
ECH	Echery	1.18	166	Pg	Pg	15 31 18.5	+1.3
ECH				Sg	Sg	15 31 33.9	+1.4
	SNR=7.2						
STB	Steinbach	1.24	3	⇑*e*Pg	Pg	15 31 18.6	+0.2
STB				*e*Sg	Sg	15 31 35.7	+1.4
	comp=N,1µm,0.7s						
STB	Steinbach	1.24	3	Pg	Pg	15 31 18.6	+0.3
STB				Sg	Sg	15 31 35.7	+1.3
	comp=N,1µm,0.7s						
THEF	They Montfort	1.24	204	⇓*e*Pn	Pn	15 31 19.5	+0.3
THEF				*e*Sg	Sg	15 31 36.3	+1.9
	SNR=3.1						
THEF	They Montfort	1.24	204	Pg	Pg	15 31 19.5	+1.1
THEF				Sg	Sg	15 31 37.3	+2.8
THEF	They Montfort	1.24	204	Pg	Pg	15 31 19.5	+1.1
THEF				Sg	Sg	15 31 36.3	+1.8
	SNR=3.1						
KOE	Koeppel	1.24	31	*e*Pg	Pg	15 31 17.9	-0.6
KOE	Koeppel	1.24	31	Pg	Pg	15 31 17.9	-0.6
SWS	Schriesheim-Wi	1.28	84	⇓*e*Pn	Pn	15 31 18.3	-1.5
SWS				Sg	Sg	15 31 35.8	-0.1
SWS	Schriesheim-Wi	1.28	84	Pn	Pn	15 31 18.3	-1.5
SWS				Sg	Sg	15 31 35.8	-0.1
KLL	Kalltalsperre	1.32	348	⇑*e*Pg	Pg	15 31 20.0	+0.1
KLL				*e*Sg	Sg	15 31 37.2	+0.3
	comp=N,816nm,0.6s						
KLL	Kalltalsperre	1.32	348	Pg	Pg	15 31 20.0	+0.1
KLL				Sg	Sg	15 31 37.2	+0.2
	comp=N,816nm,0.6s						
MEM	Membach	1.34	339	⇑P	Pg	15 31 20.6	+0.3
MEM				S	Sg	15 31 39.6	+2.1
	comp=E,2µm,0.7s						
MEM	Membach	1.34	339	P	Pg	15 31 20.5	+0.2
MEM				S	Sg	15 31 39.6	+2.0
	comp=E,2µm,0.7s						
LIBD	Limburg	1.34	154	Pg	Pg	15 31 21.1	+0.8
LIBD				Sg	Sg	15 31 39.6	+2.0
LIBD	Limburg	1.34	154	Pn	Pn	15 31 20.0	-0.6
LIBD	Limburg	1.34	154	Pg	Pg	15 31 21.1	+0.8
LIBD				Sg	Sg	15 31 39.6	+2.0
DREG	Dreilaegerbach	1.34	346	*e*Pg	Pg	15 31 20.4	0.0
DREG				*e*Sg	Sg	15 31 38.0	+0.2
	comp=E,2µm,0.7s						
DREG	Dreilaegerbach	1.34	346	Pg	Pg	15 31 20.5	+0.1
DREG				Sg	Sg	15 31 38.0	+0.2
	comp=E,2µm,0.7s						
TOD	Tromm	1.37	79	Pg	Pg	15 31 20.4	-0.5
TOD				Sg	Sg	15 31 38.4	-0.2
TOD	Tromm	1.37	79	P	Pg	15 31 19.5	-1.4
TOD	Tromm	1.37	79	Pg	Pg	15 31 20.4	-0.5
TOD				Sg	Sg	15 31 38.4	-0.2
HAU	Haudompre	1.38	191	*e*Pg	Pg	15 31 22.4	+1.3
HAU				*e*Sn	Sn	15 31 38.3	-1.8
	SNR=1.0						
HAU				*e*Sg	Sg	15 31 40.3	+1.3
	comp=E,3µm,0.4s,SNR=1.0						
HAU	Haudompre	1.38	191	*e*P	Pn	15 31 21.1	0.0
HAU				*e*		15 31 38.3	
HAU	Haudompre	1.38	191	*e*Pn	Pn	15 31 21.1	0.0
HAU				*e*Pg	Pg	15 31 22.4	+1.3
HAU				*e*Sn	Sn	15 31 38.3	-1.8
HAU				*e*Sg	Sg	15 31 40.3	+1.3
HAU	Haudompre	1.38	191	*e*Pn	Pn	15 31 21.1	0.0
	SNR=1.0						
HAU	Haudompre	1.38	191	*e*Pg	Pg	15 31 22.4	+1.3
HAU				*e*Sn	Sn	15 31 38.3	-1.8
	SNR=1.0						
HAU				*e*Sg	Sg	15 31 40.3	+1.3
	comp=E,1µm,0.4s,SNR=1.0						
TNS	Taunus Mts	1.40	51	⇑*e*Pn	Pn	15 31 20.1	-1.3
TNS				Pg	Pg	15 31 22.1	+0.6
TNS				Sg	Sg	15 31 39.7	0.0
TNS	Taunus Mts	1.40	51	*e*Pn	Pn	15 31 20.1	-1.3
TNS				*e*Pg	Pg	15 31 21.8	+0.3
TNS				*e*Sg	Sg	15 31 39.7	0.0
TNS	Taunus Mts	1.40	51	Pn	Pn	15 31 20.1	-1.3
TNS	Taunus Mts	1.40	51	*e*Pg	Pg	15 31 21.8	+0.3
TNS				Sg	Sg	15 31 39.7	0.0
MEZF	Maizieres J'vi	1.41	233	*e*Pn	Pn	15 31 22.7	+1.2
	baz=52						
MEZF				*e*Sn	Sn	15 31 40.7	0.0
MEZF				*e*Sg	Sg	15 31 43.2	+3.4
	comp=E,3µm,0.4s,baz=59,SNR=1.0						
MEZF	Maizieres J'vi	1.41	233	*e*Pn	Pn	15 31 22.7	+1.2
	baz=52						
MEZF				*e*Sn	Sn	15 31 40.7	0.0
MEZF				*e*Sg	Sg	15 31 43.2	+3.4
	comp=E,2µm,0.4s,baz=59,SNR=1.0						
BCLA	Clavier	1.41	319	⇑P	Pn	15 31 22.2	+0.6
BCLA				S	Sg	15 31 40.3	+0.4
	comp=E,1µm,0.6s						
BCLA	Clavier	1.41	319	P	Pn	15 31 22.1	+0.5
BCLA				S	Sg	15 31 40.3	+0.4
	comp=E,1µm,0.6s						
GIVF	Givet	1.45	302	*e*Pg	Pg	15 31 24.4	+2.0
GIVF				*e*Sn	Sn	15 31 41.4	-0.4
GIVF				*e*Sg	Sg	15 31 43.8	+2.6
	comp=E,4µm,0.4s,SNR=1.0						
GIVF	Givet	1.45	302	*e*P	Pn	15 31 23.1	+1.0
GIVF				*e*		15 31 41.4	
GIVF	Givet	1.45	302	*e*Pn	Pn	15 31 23.1	+1.0
GIVF				*e*Pg	Pg	15 31 24.4	+2.0
GIVF				*e*Sn	Sn	15 31 41.4	-0.4
GIVF				*e*Sg	Sg	15 31 43.8	+2.6
GIVF	Givet	1.45	302	*e*Pn	Pn	15 31 23.1	+1.0
	SNR=1.0						
GIVF	Givet	1.45	302	*e*Pg	Pg	15 31 24.4	+2.0
GIVF				*e*Sn	Sn	15 31 41.4	-0.4
GIVF				*e*Sg	Sg	15 31 43.8	+2.6
	comp=E,2µm,0.4s,SNR=1.0						
BFO	Black Forest	1.47	134	⇓*e*Pn	Pn	15 31 21.5	-0.9
BFO				*e*Pg	Pg	15 31 23.7	+0.8
BFO				*e*Sg	Sg	15 31 40.5	-1.4
	SNR=2.2						
BFO	Black Forest	1.47	134	*e*P	Pg	15 31 23.7	+0.9
BFO				*e*		15 31 42.1	
BFO	Black Forest	1.47	134	*e*Pn	Pn	15 31 21.6	-0.8
BFO				*e*Pg	Pg	15 31 23.7	+0.9
BFO				*e*Sg	Sg	15 31 42.1	+0.2
BFO	Black Forest	1.47	134	*e*Pn	Pn	15 31 21.6	-0.8
BFO	Black Forest	1.47	134	Pg	Pg	15 31 23.7	+0.9
BFO				Sg	Sg	15 31 40.5	-1.4
	SNR=2.2						
BFO				*e*S	Sg	15 31 42.1	+0.2
HGN	Heimansgroeve	1.50	340	*e*Pn	Pn	15 31 23.0	+0.2
HGN	Heimansgroeve	1.50	340	*e*Pg	Pg	15 31 25.3	+1.9
	comp=E,1µm,0.7s,baz=160						
HGN				*e*Sg	Sg	15 31 44.0	+1.3
HGN	Heimansgroeve	1.50	340	*e*Rg		15 32 03.2	
HGN	Heimansgroeve	1.50	340	*e*Pn	Pn	15 31 23.0	+0.2
HGN	Heimansgroeve	1.50	340	*e*Pg	Pg	15 31 25.3	+1.9
	comp=E,1µm,0.7s						
HGN				*e*Sg	Sg	15 31 44.0	+1.2
LBG	Lerchenberg	1.52	117	⇓*e*Pn	Pn	15 31 21.9	-1.1
LBG				Sg	Sg	15 31 42.7	-0.8
LBG	Lerchenberg	1.52	117	Pn	Pn	15 31 22.0	-1.1
LBG				Sg	Sg	15 31 42.7	-0.8
MOF	Molkenrain	1.53	170	⇓*e*Pn	Pn	15 31 22.7	-0.5
MOF				⇑*i*Pg	Pg	15 31 25.2	+1.2
MOF	Molkenrain	1.53	170	Pg	Pg	15 31 25.2	+1.2
MOF				Sg	Sg	15 31 45.3	+1.4
MOF	Molkenrain	1.53	170	Pn	Pn	15 31 22.7	-0.5
MOF	Molkenrain	1.53	170	Pg	Pg	15 31 25.2	+1.2
MOF				Sg	Sg	15 31 45.3	+1.4
FBB	Freiburg im Br	1.55	151	P	Pn	15 31 25.1	+1.7
FBB	Freiburg im Br	1.55	151	P	Pn	15 31 25.1	+1.7
HINF	Hinteralfeld	1.55	177	*e*Pg	Pg	15 31 25.1	+0.8
HINF				*e*Sn	Sn	15 31 42.4	-1.8
HINF				*e*Sg	Sg	15 31 45.1	+0.8
	comp=E,2µm,0.5s,SNR=1.0						
HINF	Hinteralfeld	1.55	177	*e*P	Pn	15 31 22.8	-0.6
HINF				*e*		15 31 42.4	
HINF	Hinteralfeld	1.55	177	*e*Pn	Pn	15 31 22.8	-0.6
HINF				*e*Pg	Pg	15 31 25.1	+0.8
HINF				*e*Sn	Sn	15 31 42.4	-1.8
HINF				*e*Sg	Sg	15 31 45.1	+0.8
HINF	Hinteralfeld	1.55	177	*e*Pn	Pn	15 31 22.8	-0.6
	SNR=1.0						
HINF	Hinteralfeld	1.55	177	*e*Pg	Pg	15 31 25.1	+0.8
HINF				*e*Sn	Sn	15 31 42.4	-1.8
HINF				*e*Sg	Sg	15 31 45.1	+0.8
	comp=E,1µm,0.5s,SNR=1.0						
DOU	Dourbes	1.57	299	⇑P	Pn	15 31 24.9	+1.1
DOU				S	Sn	15 31 46.9	+2.0
	comp=N,1µm,0.6s						
DOU	Dourbes	1.57	299	P	Pn	15 31 24.8	+1.0
DOU				S	Sn	15 31 46.9	+2.0
	comp=N,1µm,0.6s						
BEBN	Eben Emael	1.59	335	⇑P	Pn	15 31 24.5	+0.5
BEBN	Eben Emael	1.59	335	P	Pn	15 31 24.5	+0.4
KIZ	Kirchzarten	1.61	151	⇓*e*Pn	Pn	15 31 23.2	-1.0
KIZ				Sg	Sg	15 31 46.1	-0.2
KIZ	Kirchzarten	1.61	151	Pn	Pn	15 31 23.2	-1.1
KIZ				Sg	Sg	15 31 46.1	-0.2
SFTF	Sexfontaines	1.61	225	*e*Pn	Pn	15 31 25.0	+0.6
	baz=50						
SFTF				*e*Sn	Sn	15 31 45.4	-0.4
SFTF				*e*Sg	Sg	15 31 49.2	+2.7
	comp=N,2µm,0.4s						
SFTF	Sexfontaines	1.61	225	*e*Pn	Pn	15 31 25.0	+0.6
	baz=50						
SFTF				*e*Sn	Sn	15 31 45.4	-0.4
SFTF				*e*Sg	Sg	15 31 49.2	+2.7
	comp=N,824nm,0.4s						
BNS	Bensberg	1.63	10	*e*Pg	Pg	15 31 23.8	-2.0
BNS				*e*Sg	Sg	15 31 45.4	-1.5
	comp=N,2µm,0.6s						
BNS	Bensberg	1.63	10	Pg	Pg	15 31 23.8	-2.1
BNS				Sg	Sg	15 31 45.4	-1.6
	comp=N,2µm,0.6s						
HOBG	Hohbusch	1.67	13	*e*Pg	Pg	15 31 24.2	-2.4
HOBG				*e*Sg	Sg	15 31 43.7	-4.6
	comp=N,2µm,0.6s						
HOBG	Hohbusch	1.67	13	Pg	Pg	15 31 24.2	-2.4
FELD	Feldberg im Sc	1.71	150	⇓*e*Pn	Pn	15 31 24.8	-0.8
FELD				⇑*e*Pg	Pg	15 31 27.9	+0.6
FELD				*e*Sg	Sg	15 31 49.6	+0.2
	SNR=3.7						
FELD	Feldberg im Sc	1.71	150	Pg	Pg	15 31 27.7	+0.4
FELD	Feldberg im Sc	1.71	150	Pn	Pn	15 31 24.8	-0.8
STU	Stuttgart	1.72	109	*e*Pn	Pn	15 31 24.9	-0.9
	SNR=4.2						
STU				*e*Pg	Pg	15 31 27.2	-0.3
	SNR=16						
STU				*e*Sn	Sn	15 31 44.6	-3.8
	SNR=3.7						
STU	Stuttgart	1.72	109	*e*Pn	Pn	15 31 24.5	-1.3
STU				*e*Sn	Sn	15 31 46.7	-1.7
STU	Stuttgart	1.72	109	*e*P	Pn	15 31 24.5	-1.3
STU	Stuttgart	1.72	109	Pn	Pn	15 31 24.9	-0.9
	SNR=4.2						
STU	Stuttgart	1.72	109	Pg	Pg	15 31 27.2	-0.4
	SNR=16						
STU				*e*Sn	Sn	15 31 46.7	-1.7
TUBL	Tuebingen-Lenn	1.76	118	Pn	Pn	15 31 26.5	+0.1
TUBL	Tuebingen-Lenn	1.76	118	Pn	Pn	15 31 26.5	+0.2
BAIF	Baives	1.79	294	*e*Pg	Pg	15 31 30.7	+1.8
BAIF				*e*Sn	Sn	15 31 49.7	-0.4
BAIF				*e*Sg	Sg	15 31 54.4	+2.4
	comp=N,2µm,0.4s,SNR=1.0						
BAIF	Baives	1.79	294	*e*P	Pn	15 31 27.8	+1.1
BAIF				*e*		15 31 49.7	
BAIF	Baives	1.79	294	*e*Pn	Pn	15 31 27.8	+1.1
BAIF				*e*Pg	Pg	15 31 30.7	+1.8
BAIF				*e*Sn	Sn	15 31 49.7	-0.4
BAIF				*e*Sg	Sg	15 31 54.4	+2.4
BAIF	Baives	1.79	294	*e*Pn	Pn	15 31 27.8	+1.1
	SNR=1.0						
BAIF	Baives	1.79	294	*e*Pg	Pg	15 31 30.7	+1.8
BAIF				*e*Sn	Sn	15 31 49.7	-0.4
BAIF				*e*Sg	Sg	15 31 54.4	+2.4
	comp=N,911nm,0.4s,SNR=1.0						
SPAK	Spaichingen-Ko	1.85	132	Pn	Pn	15 31 26.4	-1.1
SPAK				*e*Pg	Pg	15 31 30.4	+0.3
	SNR=63						
SPAK	Spaichingen-Ko	1.85	132	Pg	Pg	15 31 30.1	0.0
SPAK				Sg	Sg	15 31 56.1	+2.1
SPAK	Spaichingen-Ko	1.85	132	Pn	Pn	15 31 26.4	-1.2
SPAK	Spaichingen-Ko	1.85	132	Pg	Pg	15 31 30.4	+0.3
	SNR=63						
SPAK				Sg	Sg	15 31 56.1	+2.1
SIND	Sindeldorf	1.87	89	⇓*i*Pn	Pn	15 31 26.6	-1.3
SIND	Sindeldorf	1.87	89	Pn	Pn	15 31 26.6	-1.3
BUCH	Bad Urach	1.95	117	⇓*e*Pn	Pn	15 31 28.1	-0.9
BUCH	Bad Urach	1.95	117	Pn	Pn	15 31 28.1	-0.9
SNF	Seneffe	1.96	307	⇑P	Pn	15 31 31.4	+2.3
SNF				S	Sn	15 31 57.2	+2.8
	comp=Z,615nm,0.6s						
SNF	Seneffe	1.96	307	P	Pn	15 31 31.4	+2.3
SNF				S	Sn	15 31 57.2	+2.8
	comp=Z,615nm,0.6s						
BBS	Basel-Blauen	1.97	165	⇓*e*Pn	Pn	15 31 29.0	-0.2
BBS				*e*Pg	Pg	15 31 33.2	+0.9
	SNR=14						
BBS	Basel-Blauen	1.97	165	Pn	Pn	15 31 29.0	-0.2
SLE	Schleitheim	1.98	143	⇑*i*P	Pn	15 31 28.4	-0.9
	comp=Z,124nm,0.4s						
SLE	Schleitheim	1.98	143	⇑*i*P	Pn	15 31 28.4	-0.9
	comp=Z,124nm,0.4s						
BOURR	Bourrignon	2.00	170	*e*P	Pn	15 31 29.1	-0.5
	comp=Z,7µm,0.9s						
BOURR	Bourrignon	2.00	170	*e*P	Pn	15 31 29.1	-0.5
	comp=Z,7µm,0.9s						
LAUG	Laupendahl	2.00	4	*e*Pg	Pg	15 31 29.1	-3.8
LAUG				*e*Sg	Sg	15 31 53.5	-5.3
	comp=Z,783nm,0.7s						
LOMF	Lomont	2.01	178	Pg	Pg	15 31 33.6	+0.4
LOMF				Sg	Sg	15 32 01.9	+2.6
LOMF	Lomont	2.01	178	Pn	Pn	15 31 29.7	-0.1
LOMF	Lomont	2.01	178	Pg	Pg	15 31 33.6	+0.4
LOMF				Sg	Sg	15 32 01.9	+2.6
GUT	Gutenstein	2.03	129	⇓*e*Pn	Pn	15 31 29.5	-0.7
GUT	Gutenstein	2.03	129	Pn	Pn	15 31 29.5	-0.6
SULZ	Cheisacher	2.05	153	⇑*i*P	Pn	15 31 29.7	-0.6
	comp=Z,284nm,0.4s						
SULZ	Cheisacher	2.05	153	⇑*i*P	Pn	15 31 29.7	-0.6
	comp=Z,284nm,0.4s						
UCC	Uccle	2.10	314	⇑P	Pn	15 31 31.8	+0.7
UCC				S	Sn	15 32 02.7	+4.8
UCC	Uccle	2.10	314	P	Pn	15 31 31.8	+0.7
BUG	Bochum--Univer	2.11	9	*e*Pn	Pn	15 31 31.1	0.0
	SNR=8.1						
BUG				*e*Pg	Pg	15 31 34.6	-0.5
	SNR=14						
BUG				*e*Sg	Sg	15 32 01.6	-0.8
	SNR=4.2						
BUG	Bochum--Univer	2.11	9	*e*Pn	Pn	15 31 31.2	0.0
BUG				*e*Sg	Sg	15 32 01.8	-0.6
BUG	Bochum--Univer	2.11	9	*e*P	Pn	15 31 31.2	0.0
BUG				*e*S	Sg	15 32 01.8	-0.6
BUG				*e*Sg	Sg	15 32 01.8	-0.6
BALST	Balsthal	2.12	162	*e*P	Pn	15 31 30.5	-0.9
	comp=Z,6µm,1.6s						
BALST	Balsthal	2.12	162	*e*P	Pn	15 31 30.5	-0.9
	comp=Z,6µm,1.6s						
FLACH	Flaach	2.16	145	*e*P	Pn	15 31 31.2	-0.7
	comp=Z,1µm,0.7s						
FLACH	Flaach	2.16	145	*e*P	Pn	15 31 31.2	-0.7
	comp=Z,1µm,0.7s						
SISB	Singen-Schiene	2.23	138	Pn	Pn	15 31 33.8	+0.9
SISB	Singen-Schiene	2.23	138	Pn	Pn	15 31 33.8	+0.9
ZUR	Degenried	2.34	148	*e*P	Pn	15 31 35.0	+0.7
	comp=Z,94nm,0.4s						
ZUR	Degenried	2.34	148	*e*P	Pn	15 31 35.0	+0.7
	comp=Z,94nm,0.4s						
HDH	Heidenheim-Cha	2.41	107	⇓*e*Pn	Pn	15 31 34.5	-0.8
HDH	Heidenheim-Cha	2.41	107	Pn	Pn	15 31 34.5	-0.8
BRANT	Les Verrieres	2.43	184	⇑*i*P	Pn	15 31 35.5	-0.1
	comp=Z,71nm,0.4s						
BRANT	Les Verrieres	2.43	184	⇑*i*P	Pn	15 31 35.5	-0.1
	comp=Z,71nm,0.4s						
UBBA	Unterbreizbach	2.56	54	*e*Pn	Pn	15 31 36.8	-0.5
	SNR=3.6						
UBBA				*e*Pg	Pg	15 31 43.2	-0.4
	SNR=3.7						
UBBA				*e*Sg	Sg	15 32 17.5	+0.8
	SNR=3.3						
UBBA	Unterbreizbach	2.56	54	Pn	Pn	15 31 36.8	-0.5
	SNR=3.6						
TORNY	Torny/Romont	2.59	177	*e*P	Pn	15 31 37.7	-0.1
	comp=Z,71nm,0.4s						
TORNY	Torny/Romont	2.59	177	*e*P	Pn	15 31 37.7	-0.1
	comp=Z,71nm,0.4s						
WTSB	Winterswijk	2.61	1	*e*Pn	Pn	15 31 38.7	+0.7
WTSB	Winterswijk	2.61	1	*e*Pg	Pg	15 31 44.3	-0.3
	comp=Z,813nm,1.0s,baz=190						
WTSB				*e*Sg	Sg	15 32 16.7	-1.7
WTSB	Winterswijk	2.61	1	*e*Pn	Pn	15 31 38.7	+0.7
WTSB	Winterswijk	2.61	1	*e*Pg	Pg	15 31 44.3	-0.3
	comp=Z,813nm,1.0s						
WTSB				*e*Sg	Sg	15 32 16.7	-1.7
NORI	Noerdlinger Ri	2.63	103	⇓*i*Pn	Pn	15 31 37.7	-0.7
NORI	Noerdlinger Ri	2.63	103	Pn	Pn	15 31 37.7	-0.7
MUO	Muotathal	2.71	151	⇑*i*P	Pn	15 31 39.9	+0.5
	comp=Z,48nm,0.4s						
MUO	Muotathal	2.71	151	⇑*i*P	Pn	15 31 39.9	+0.5
	comp=Z,48nm,0.4s						
BNALP	Bannalp	2.74	155	⇑*i*P	Pn	15 31 40.0	+0.2
	comp=Z,45nm,0.4s						
BNALP	Bannalp	2.74	155	⇑*i*P	Pn	15 31 40.0	+0.2
	comp=Z,45nm,0.4s						
WIMIS	Wimmis	2.76	167	*e*P	Pn	15 31 40.1	0.0
	comp=Z,2µm,1.2s						
WIMIS	Wimmis	2.76	167	*e*P	Pn	15 31 40.1	0.0
	comp=Z,2µm,1.2s						
LIENZ	Kamor/St.Gall	2.77	137	⇑*e*P	Pn	15 31 40.6	+0.4
	comp=Z,49nm,0.4s						
LIENZ	Kamor/St.Gall	2.77	137	⇑*e*P	Pn	15 31 40.6	+0.4
	comp=Z,49nm,0.4s						
HASLI	Hasliberg/Brie	2.77	160	⇑*e*P	Pn	15 31 40.3	0.0
	comp=Z,49nm,0.4s						
HASLI	Hasliberg/Brie	2.77	160	⇑*e*P	Pn	15 31 40.3	0.0
	comp=Z,49nm,0.4s						
CABF	La Chapelle	2.79	189	*e*Pg	Pg	15 31 48.6	+0.6
CABF				*e*Sn	Sn	15 32 12.4	-2.4
CABF				*e*Sg	Sg	15 32 24.2	+0.1
	comp=Z,1µm,0.6s,SNR=1.0						
CABF	La Chapelle	2.79	189	*e*P	Pn	15 31 40.7	+0.2
CABF				*e*		15 32 12.4	
CABF	La Chapelle	2.79	189	*e*Pn	Pn	15 31 40.7	+0.2
CABF				*e*Pg	Pg	15 31 48.6	+0.6
CABF				*e*Sn	Sn	15 32 12.4	-2.4
CABF				*e*Sg	Sg	15 32 24.2	+0.1
CABF	La Chapelle	2.79	189	*e*Pn	Pn	15 31 40.7	+0.2
	SNR=1.0						

CABF	La Chapelle	2.79	189	ePg	Pg	15 31 48.6	+0.6
CABF				eSn	Sn	15 32 12.4	-2.4
CABF				eSg	Sg	15 32 24.2	+0.1
	comp=Z,636nm,0.6s,SNR=1.0						
UBR	Ueberruh	2.80	126	P	Pn	15 31 41.4	+0.7
UBR	Ueberruh	2.80	126	P	Pn	15 31 41.4	+0.8
LOR	Lormes	2.84	224	ePn	Pn	15 31 41.3	+0.1
	baz=49,SNR=1.0						
LOR				eSn	Sn	15 32 14.9	-1.3
	baz=45						
LOR				eSg	Sg	15 32 27.0	+1.0
	comp=Z,1µm,0.4s,baz=44,SNR=1.0						
LOR	Lormes	2.84	224	eP	Pn	15 31 41.3	+0.1
LOR				e		15 32 14.9	
LOR	Lormes	2.84	224	ePn	Pn	15 31 41.3	+0.1
	baz=49,SNR=1.0						
LOR				eSn	Sn	15 32 14.9	-1.3
	baz=45						
LOR				eSg	Sg	15 32 27.0	+1.0
	comp=Z,605nm,0.4s,baz=44,SNR=1.0						
GIMEL	St. Georges /	2.85	187	⇑eP	Pn	15 31 41.2	-0.1
	comp=Z,54nm,0.4s						
GIMEL	St. Georges /	2.85	187	⇑eP	Pn	15 31 41.2	-0.1
	comp=Z,54nm,0.4s						
PLONS	Plons/SG	2.91	142	⇑eP	Pn	15 31 42.5	+0.3
	comp=Z,41nm,0.4s						
GRA1	Grafenberg Arr	2.94	82	Sg	Sg	15 32 28.8	-0.2
GRF	Grafenberg Arr	2.94	82	eSg	Sg	15 32 28.8	-0.2
LLS	Linth-Limmern	2.94	148	eP	Pn	15 31 43.0	+0.4
	comp=Z,455nm,1.3s						
DAVA	Damuels	2.95	134	⇑ePn	Pn	15 31 43.4	+0.7
	SNR=27						
DAVA				⇑iSg	Sg	15 32 31.8	+2.4
	comp=Z,291nm,0.5s						
DAVA	Damuels	2.95	134	Pn	Pn	15 31 43.4	+0.7
	SNR=27						
IBBN	Ibbenburen	3.02	12	ePn	Pn	15 31 43.5	-0.2
	SNR=4.9						
IBBN				ePg	Pg	15 31 52.0	-0.5
	SNR=5.4						
IBBN				eSg	Sg	15 32 31.1	-0.5
	SNR=4.7						
IBBN	Ibbenburen	3.02	12	ePn	Pn	15 31 43.5	-0.2
IBBN				ePg	Pg	15 31 51.9	-0.6
IBBN				eSg	Sg	15 32 31.0	-0.6
IBBN	Ibbenburen	3.02	12	Pn	Pn	15 31 43.5	-0.2
	SNR=4.9						
SENIN	Lac Senin/Sane	3.02	173	eP	Pn	15 31 44.0	+0.3
	comp=Z,41nm,0.4s						
SENIN	Lac Senin/Sane	3.02	173	eP	Pn	15 31 44.0	+0.3
	comp=Z,41nm,0.4s						
AIGLE	Aigle	3.02	177	⇑eP	Pn	15 31 43.7	0.0
	comp=Z,25nm,0.4s						
AIGLE	Aigle	3.02	177	⇑eP	Pn	15 31 43.7	0.0
	comp=Z,25nm,0.4s						
OG01	Vacheresse	3.03	181	Pn	Pn	15 31 44.2	+0.3
OG01	Vacheresse	3.03	181	Pn	Pn	15 31 44.2	+0.3
LKBD	Leukerbad	3.04	168	⇓eP	Pn	15 31 44.5	+0.6
	comp=Z,44nm,0.4s						
LKBD	Leukerbad	3.04	168	⇓eP	Pn	15 31 44.5	+0.6
	comp=Z,44nm,0.4s						
LKBD2	Leukerbad 2	3.05	168	⇓eP	Pn	15 31 44.8	+0.7
	comp=Z,33nm,0.4s						
LKBD2	Leukerbad 2	3.05	168	⇓eP	Pn	15 31 44.8	+0.7
	comp=Z,33nm,0.4s						
OBER	Oberstdorf	3.07	128	⇓ePn	Pn	15 31 45.2	+0.8
OBER	Oberstdorf	3.07	128	Pn	Pn	15 31 45.2	+0.8
GRYON	Gryon	3.12	175	⇑eP	Pn	15 31 44.8	-0.3
	comp=Z,156nm,0.5s						
GRYON	Gryon	3.12	175	⇑eP	Pn	15 31 44.8	-0.3
	comp=Z,156nm,0.5s						
SSF	Saint Saulge	3.16	224	ePn	Pn	15 31 45.8	+0.2
	SNR=1.0						
SSF				eSn	Sn	15 32 22.3	-1.6
SSF				eSg	Sg	15 32 37.3	+1.2
	comp=Z,1µm,0.5s,SNR=1.0						
SSF	Saint Saulge	3.16	224	eP	Pn	15 31 45.8	+0.2
SSF				e		15 32 22.3	
SSF	Saint Saulge	3.16	224	ePn	Pn	15 31 45.8	+0.2
	SNR=1.0						
SSF				eSn	Sn	15 32 22.3	-1.6
SSF				eSg	Sg	15 32 37.3	+1.2
	comp=Z,631nm,0.5s,SNR=1.0						
FUSIO	Fusio	3.18	155	⇑eP	Pn	15 31 46.3	+0.4
	comp=Z,68nm,0.4s						
FUSIO	Fusio	3.18	155	⇑eP	Pn	15 31 46.3	+0.4
	comp=Z,68nm,0.4s						
SALAN	Lac Salanfe	3.22	177	⇑eP	Pn	15 31 46.7	+0.2
	comp=Z,89nm,0.5s						
SALAN	Lac Salanfe	3.22	177	⇑eP	Pn	15 31 46.7	+0.2
	comp=Z,89nm,0.5s						
FUR	Furstenfeldbru	3.23	110	ePn	Pn	15 31 47.6	+1.1
	SNR=2.8						
FUR				ePg	Pg	15 31 56.8	+0.2
	SNR=2.3						
FUR				eSg	Sg	15 32 35.9	-2.5
	SNR=2.1						
FUR	Furstenfeldbru	3.23	110	ePn	Pn	15 31 47.6	+1.0
FUR	Furstenfeldbru	3.23	110	Pn	Pn	15 31 47.6	+1.0
	SNR=2.8						
DAVOS	Davos	3.25	140	P	Pn	15 31 49.9	+3.1
DAVOS						15 32 26.9	
DAVOS	Davos	3.25	140	P	Pn	15 31 49.9	+3.1
RETA	Reutte	3.27	123	⇑iPn	Pn	15 31 47.6	+0.5
	SNR=32						
RETA				⇓iSn	Sn	15 32 27.3	+0.7
RETA	Reutte	3.27	123	Pn	Pn	15 31 47.6	+0.5
	SNR=32						
EMV	Vieux Emosson	3.30	178	⇑eP	Pn	15 31 47.6	+0.1
	comp=Z,30nm,0.4s						
EMV	Vieux Emosson	3.30	178	⇑eP	Pn	15 31 47.6	+0.1
	comp=Z,30nm,0.4s						
DIX	Grande Dixence	3.31	172	eP	Pn	15 31 48.6	+0.9
	comp=Z,48nm,0.4s						
DIX	Grande Dixence	3.31	172	eP	Pn	15 31 48.6	+0.9
	comp=Z,48nm,0.4s						
DAVOX	Davos/Dischmat	3.33	140	⇑iP	Pn	15 31 49.1	+1.2
	comp=Z,74nm,0.4s						
DAVOX	Davos/Dischmat	3.33	140	Pn	Pn	15 31 49.9	+1.9
	comp=Z,17nm,0.3s,baz=317,slow=13,SNR=206						
DAVOX				Sn	Sn	15 32 26.9	-1.3
	comp=Z,16nm,0.3s,baz=335,slow=19,SNR=3.7						
DAVOX				Lg		15 32 41.3	
	comp=Z,31nm,0.3s,baz=343,slow=16,SNR=10						
DAVOX	Davos/Dischmat	3.33	140	⇑iP	Pn	15 31 49.1	+1.2
	comp=Z,74nm,0.4s						
DAVOX				Sn	Sn	15 32 26.9	-1.3
SMF	Signal de Mont	3.34	217	ePg	Pg	15 31 59.4	+0.7
	SNR=1.0						
SMF				eSn	Sn	15 32 26.3	-2.2
SMF				eSg	Sg	15 32 42.5	+0.5
	comp=Z,1µm,0.6s,SNR=1.0						
SMF	Signal de Mont	3.34	217	eP	Pn	15 31 47.8	-0.3
SMF				e		15 32 26.3	
SMF	Signal de Mont	3.34	217	ePn	Pn	15 31 47.8	-0.3
SMF				ePg	Pg	15 31 59.4	+0.7
SMF				eSn	Sn	15 32 26.3	-2.2
SMF				eSg	Sg	15 32 42.5	+0.5
SMF	Signal de Mont	3.34	217	ePn	Pn	15 31 47.8	-0.3
	SNR=1.0						
SMF	Signal de Mont	3.34	217	ePg	Pg	15 31 59.4	+0.7
	SNR=1.0						
SMF				eSn	Sn	15 32 26.3	-2.2
SMF				eSg	Sg	15 32 42.5	+0.5
	comp=Z,611nm,0.6s,SNR=1.0						
TUE	Stuetta	3.38	148	ePn	Pn	15 31 50.1	+1.5
TUE				eSn	Sn	15 32 31.3	+1.9
TUE	Stuetta	3.38	148	ePn	Pn	15 31 50.1	+1.5
TUE				eSn	Sn	15 32 31.3	+1.9
CLZ	Clausthal	3.39	42	ePn	Pn	15 31 47.8	-1.0
	SNR=14						
CLZ				ePg	Pg	15 31 57.7	-1.9
	SNR=2.6						
CLZ				eSg	Sg	15 32 40.8	-2.8
	SNR=3.1						
CLZ	Clausthal	3.39	42	ePn	Pn	15 31 47.8	-1.0
CLZ				eSg	Sg	15 32 41.7	-1.9
CLZ	Clausthal	3.39	42	Pn	Pn	15 31 47.8	-1.0
	SNR=14						
CLZ	Clausthal	3.39	42	Pg	Pg	15 31 57.7	-2.0
	SNR=2.6						
CLZ				eSg	Sg	15 32 41.7	-1.9
MOX	Moxa	3.40	66	ePN	Pn	15 31 48.0	-0.9
MOX				ePG	Pg	15 31 59.1	-0.6
MOX				i SG	Sg	15 32 41.6	-2.1
MOX	Moxa	3.40	66	ePn	Pn	15 31 48.7	-0.2
	SNR=13						
MOX				ePg	Pg	15 31 56.6	-3.1
	SNR=3.4						
MOX				eSg	Sg	15 32 40.3	-3.5
	SNR=2.9						
MOX	Moxa	3.40	66	Pn	Pn	15 31 48.7	-0.2
	SNR=13						
AVF	Avril sur Loir	3.43	223	ePn	Pn	15 31 49.0	-0.3
	SNR=1.0						
AVF				eSn	Sn	15 32 28.6	-2.1
AVF				eSg	Sg	15 32 45.5	+0.6
	comp=Z,904nm,0.7s,SNR=1.0						
AVF	Avril sur Loir	3.43	223	eP	Pn	15 31 49.0	-0.3
AVF				e		15 32 28.6	
AVF	Avril sur Loir	3.43	223	ePn	Pn	15 31 49.0	-0.3
	SNR=1.0						
AVF				eSn	Sn	15 32 28.6	-2.1
AVF				eSg	Sg	15 32 45.5	+0.6
	comp=Z,452nm,0.7s,SNR=1.0						
HYF	Humbligny	3.45	234	ePn	Pn	15 31 50.2	+0.7
HYF				eSn	Sn	15 32 29.7	-1.3
HYF				eSg	Sg	15 32 45.8	+0.5
HYF	Humbligny	3.45	234	ePn	Pn	15 31 50.2	+0.7
HYF				eSn	Sn	15 32 29.7	-1.3
HYF				eSg	Sg	15 32 45.8	+0.5
WIT	Witteveen	3.46	359	ePg	Pg	15 32 02.7	+1.8
	comp=Z,2µm,1.1s						
WIT	Witteveen	3.46	359	eS	Sg	15 32 50.7	+5.1
WIT	Witteveen	3.46	359	ePg	Pg	15 32 02.7	+1.8
	comp=Z,2µm,1.1s						
MOTA	Moosalm	3.54	123	⇓iPn	Pn	15 31 51.1	+0.3
	SNR=35						
MOTA				⇑iSg	Sg	15 32 50.7	+2.4
	comp=Z,164nm,0.6s						
MOTA	Moosalm	3.54	123	Pn	Pn	15 31 51.1	+0.3
	SNR=35						
MOTA				Sg	Sg	15 32 50.7	+2.4
	comp=Z,164nm,0.6s						
MANZ	Manzenberg	3.54	78	ePn	Pn	15 31 50.7	-0.1
MANZ	Manzenberg	3.54	78	Pn	Pn	15 31 50.7	-0.1
FETA	Feichten	3.55	130	⇑iPn	Pn	15 31 52.3	+1.4
	SNR=136						
FETA				⇓iSn	Sn	15 32 34.0	+0.4
FETA	Feichten	3.55	130	Pn	Pn	15 31 52.3	+1.4
	SNR=136						
FETA				Sn	Sn	15 32 34.0	+0.4
ROTZ	Rotzenmuhle	3.58	81	ePn	Pn	15 31 52.3	+0.9
ROTZ				ePg	Pg	15 32 02.9	-0.3
ROTZ	Rotzenmuhle	3.58	81	Pn	Pn	15 31 52.3	+0.9
RSL	Roselend	3.68	181	Pn	Pn	15 31 53.0	+0.3
RSL	Roselend	3.68	181	Pn	Pn	15 31 53.0	+0.3
NEUB	Neuenburg	3.72	58	ePn	Pn	15 31 52.8	-0.5
	SNR=2.5						
NEUB				ePg	Pg	15 32 04.2	-1.8
	SNR=4.3						
NEUB	Neuenburg	3.72	58	Pn	Pn	15 31 52.8	-0.5
	SNR=2.5						
ASSE	Asse, Remlinge	3.73	41	ePn	Pn	15 31 52.5	-0.9
	SNR=7.4						
ASSE				ePg	Pg	15 32 04.5	-1.6
	SNR=2.0						
ASSE				eSg	Sg	15 32 53.5	-0.9
	SNR=1.9						
ASSE	Asse, Remlinge	3.73	41	Pn	Pn	15 31 52.5	-0.9
	SNR=7.4						
GUNZ	Gunzen	3.75	72	ePn	Pn	15 31 53.1	-0.7
	SNR=6.9						
GUNZ				ePg	Pg	15 32 02.9	-3.6
	SNR=4.4						
GUNZ				eSg	Sg	15 32 54.2	-1.0
	SNR=2.7						
GUNZ	Gunzen	3.75	72	Pn	Pn	15 31 53.1	-0.7
	SNR=6.9						
GUNZ				Sg	Sg	15 32 54.2	-1.0
	SNR=2.7						
VAI	Varese	3.75	158	P	Pn	15 31 54.9	+1.1
VAI	Varese	3.75	158	Pn	Pn	15 31 54.9	+1.1
WERD	Werda	3.76	71	ePn	Pn	15 31 53.6	-0.3
	SNR=9.3						
WERD				ePg	Pg	15 32 04.7	-1.9
	SNR=4.0						
WERD				eSg	Sg	15 32 52.1	-3.2
	SNR=4.1						
WERD	Werda	3.76	71	Pn	Pn	15 31 53.6	-0.2
	SNR=9.3						
WERN	Wernitzgruen	3.76	74	ePn	Pn	15 31 54.6	+0.7
WERN	Wernitzgruen	3.76	74	Pn	Pn	15 31 54.6	+0.7
BRMO	Bormio	3.78	138	Pn	Pn	15 31 55.9	+1.8
BRMO	Bormio	3.78	138	Pn	Pn	15 31 55.9	+1.8
NRDL	Niedersach Rie	3.79	33	ePn	Pn	15 31 54.0	-0.3
	SNR=2.2						
NRDL				ePg	Pg	15 32 05.5	-1.8
	SNR=3.7						
NRDL				eSg	Sg	15 32 49.9	-6.4
	SNR=2.1						
NRDL	Niedersach Rie	3.79	33	Pn	Pn	15 31 54.0	-0.3
	SNR=2.2						
NKC	Novy Kostel	3.80	75	eP	Pn	15 31 54.3	-0.1
NKC				e		15 32 38.1	
NKC	Novy Kostel	3.80	75	ePN	Pn	15 31 54.3	-0.1
NKC				ex	x	15 32 05.7	
NKC				eSN	Sn	15 32 38.1	-1.6
NKC				eSG	Sg	15 32 51.5	-5.1
	comp=Z,365nm,0.8s						
NKC	Novy Kostel	3.80	75	Pn	Pn	15 31 54.3	-0.1
NKC				Sn	Sn	15 32 38.1	-1.6
NKC				Sg	Sg	15 32 51.5	-5.1
	comp=Z,365nm,0.8s						
WATA	Walderalm	3.81	120	⇑iPn	Pn	15 31 54.8	+0.3
	SNR=13						
WATA				⇓iSn	Sn	15 32 40.2	+0.2
WATA				⇓iSg	Sg	15 32 59.4	+2.5
	comp=Z,53nm,0.4s						
WATA	Walderalm	3.81	120	Pn	Pn	15 31 54.8	+0.3
	SNR=13						
WATA				Sn	Sn	15 32 40.2	+0.2
WATA				Sg	Sg	15 32 59.4	+2.5
	comp=Z,53nm,0.4s						
ORO	Oropa	3.83	167	P	Pn	15 31 56.4	+1.6
ORO	Oropa	3.83	167	Pn	Pn	15 31 56.4	+1.6
BGF	Bois d'Agland	3.84	224	ePg	Pg	15 32 08.3	+0.2
BGF				eSn	Sn	15 32 39.0	-1.6
BGF				eSg	Sg	15 32 57.7	-0.1
	comp=Z,3µm,0.4s						
BGF	Bois d'Agland	3.84	224	eP	Pn	15 31 54.7	-0.2
BGF				e		15 32 39.0	
BGF	Bois d'Agland	3.84	224	ePn	Pn	15 31 54.7	-0.2
BGF				ePg	Pg	15 32 08.3	+0.2
BGF				eSn	Sn	15 32 39.0	-1.6
BGF				eSg	Sg	15 32 57.7	-0.1
BGF	Bois d'Agland	3.84	224	ePn	Pn	15 31 54.7	-0.2
	SNR=1.0						
BGF	Bois d'Agland	3.84	224	ePg	Pg	15 32 08.3	+0.2
BGF				eSn	Sn	15 32 39.0	-1.6
BGF				eSg	Sg	15 32 57.7	-0.1
	comp=Z,1µm,0.4s						
TANN	Tannenbergstha	3.85	72	ePn	Pn	15 31 54.5	-0.5
	SNR=12						
TANN				ePg	Pg	15 32 06.5	-1.8
	SNR=3.5						
TANN				eSg	Sg	15 32 55.6	-2.6
	SNR=5.0						
TANN	Tannenbergstha	3.85	72	Pn	Pn	15 31 54.5	-0.5
	SNR=12						
LPL	La Plagne	3.85	180	ePg	Pg	15 32 07.2	-1.2
LPL				eSn	Sn	15 32 37.0	-3.9
	SNR=1.0						
LPL				eSg	Sg	15 32 57.1	-1.1
	comp=Z,219nm,0.7s,SNR=1.0						
LPL	La Plagne	3.85	180	eP	Pn	15 31 55.6	+0.6
LPL				e		15 32 37.0	
LPL	La Plagne	3.85	180	ePn	Pn	15 31 55.6	+0.6
LPL				ePg	Pg	15 32 07.2	-1.2
LPL				eSn	Sn	15 32 37.0	-3.9
LPL				eSg	Sg	15 32 57.1	-1.1
LPL	La Plagne	3.85	180	ePn	Pn	15 31 55.6	+0.6
	SNR=1.0						
LPL	La Plagne	3.85	180	ePg	Pg	15 32 07.2	-1.2
LPL				eSn	Sn	15 32 37.0	-3.9
	SNR=1.0						
LPL				eSg	Sg	15 32 57.1	-1.1
	comp=Z,110nm,0.7s,SNR=1.0						
LPG	La Plagne	3.87	180	ePg	Pg	15 32 08.1	-0.6
LPG				eSn	Sn	15 32 37.4	-4.0
LPG				eSg	Sg	15 32 57.5	-1.3
	comp=Z,272nm,0.6s,SNR=1.0						
LPG	La Plagne	3.87	180	eP	Pn	15 31 56.2	+0.9
LPG				e		15 32 37.4	
LPG	La Plagne	3.87	180	ePn	Pn	15 31 56.2	+0.9
LPG				ePg	Pg	15 32 08.1	-0.6
LPG				eSn	Sn	15 32 37.4	-4.0
LPG				eSg	Sg	15 32 57.5	-1.3
LPG	La Plagne	3.87	180	ePn	Pn	15 31 56.2	+0.9
	SNR=1.0						
LPG	La Plagne	3.87	180	ePg	Pg	15 32 08.1	-0.6
LPG				eSn	Sn	15 32 37.4	-4.0
LPG				eSg	Sg	15 32 57.5	-1.3
	comp=Z,136nm,0.6s,SNR=1.0						
WTTA	Wattenberg	3.88	121	⇓iPn	Pn	15 31 56.1	+0.6
	SNR=19						
WTTA				⇓iSg	Sg	15 33 01.7	+2.4
	comp=Z,202nm,0.9s						
WTTA	Wattenberg	3.88	121	Pn	Pn	15 31 56.1	+0.6
	SNR=19						
WTTA				Sg	Sg	15 33 01.7	+2.4
	comp=Z,202nm,0.9s						
TRAV	Traversella	3.91	170	Pn	Pn	15 31 57.5	+1.6
TRAV	Traversella	3.91	170	Pn	Pn	15 31 57.5	+1.6
LSD	Lago del Serru	3.91	176	P	Pn	15 31 57.2	+1.3
LSD	Lago del Serru	3.91	176	Pn	Pn	15 31 57.2	+1.3
PLDF	La Plantade	4.00	213	Pn	Pn	15 31 57.3	+0.2
PLDF	La Plantade	4.00	213	Pn	Pn	15 31 57.3	+0.2
WET	Wettzell	4.03	91	ePn	Pn	15 31 57.5	0.0
	SNR=36						
WET	Wettzell	4.03	91	ePn	Pn	15 31 57.5	0.0
WET	Wettzell	4.03	91	Pn	Pn	15 31 57.5	0.0
	SNR=36						
AGO	Saint Agoulin	4.11	218	Pn	Pn	15 31 59.0	+0.3
AGO	Saint Agoulin	4.11	218	Pn	Pn	15 31 59.0	+0.3
APPI	Appiano	4.17	132	Pn	Pn	15 32 01.7	+2.2
APPI	Appiano	4.17	132	Pn	Pn	15 32 01.7	+2.2
MABI	Malga Bissina	4.17	141	Pn	Pn	15 32 01.9	+2.4
MABI	Malga Bissina	4.17	141	Pn	Pn	15 32 01.9	+2.4
GRN	Grenoble	4.18	190	Pn	Pn	15 31 59.8	+0.2
GRN	Grenoble	4.18	190	Pn	Pn	15 31 59.8	+0.2
GDM	Grand'Maison	4.18	186	Pn	Pn	15 31 59.6	0.0
GDM	Grand'Maison	4.18	186	Pn	Pn	15 31 59.6	0.0
RSP	Reno Superiore	4.23	175	P	Pn	15 32 01.9	+1.6
RSP	Reno Superiore	4.23	175	Pn	Pn	15 32 01.9	+1.6
BNI	Bardonecchia	4.31	181	ePn	Pn	15 32 01.8	+0.4
BNI				eSn	Sn	15 32 54.2	+1.8
BNI	Bardonecchia	4.31	181	ePn	Pn	15 32 01.8	+0.4
BNI				eSn	Sn	15 32 54.2	+1.8
TCF	Toulx Ste Croi	4.33	226	ePg	Pg	15 32 17.2	-0.4
TCF				eSn	Sn	15 32 50.3	-2.6
TCF				eSg	Sg	15 33 13.2	-0.6
	comp=Z,946nm,0.7s						
TCF	Toulx Ste Croi	4.33	226	eP	Pn	15 32 01.7	0.0
TCF				e		15 32 50.3	
TCF	Toulx Ste Croi	4.33	226	ePn	Pn	15 32 01.7	0.0
TCF				ePg	Pg	15 32 17.2	-0.4
TCF				eSn	Sn	15 32 50.3	-2.6
TCF				eSg	Sg	15 33 13.2	-0.6
TCF	Toulx Ste Croi	4.33	226	ePn	Pn	15 32 01.7	0.0
	SNR=1.0						
TCF	Toulx Ste Croi	4.33	226	ePg	Pg	15 32 17.2	-0.4
TCF				eSn	Sn	15 32 50.3	-2.6
TCF				eSg	Sg	15 33 13.2	-0.6
	comp=Z,473nm,0.7s						
RJOB	Jochberg	4.34	110	ePn	Pn	15 32 03.1	+1.3
RJOB	Jochberg	4.34	110	Pn	Pn	15 32 03.1	+1.3
SSB	Saint Sauveur	4.35	201	Pn	Pn	15 32 01.8	-0.1
SSB	Saint Sauveur	4.35	201	eP	Pn	15 32 01.0	-0.9
SSB				Sn	Sn	15 32 55.4	+2.1
SSB	Saint Sauveur	4.35	201	Pn	Pn	15 32 01.8	-0.1
SSB				Sn	Sn	15 32 55.4	+2.1
PYM	Petit Puy Mans	4.41	216	Pn	Pn	15 32 02.5	-0.3
PYM	Petit Puy Mans	4.41	216	Pn	Pn	15 32 02.5	-0.3
CLL	Collm	4.46	62	ePn	Pn	15 32 03.2	-0.3
CLL				ePg	Pg	15 32 16.0	-4.1
CLL				eSg	Sg	15 33 15.8	-2.0
CLL	Collm	4.46	62	ePn	Pn	15 32 03.0	-0.4
CLL				ePg	Pg	15 32 16.0	-4.1
CLL				i		15 32 22.4	
CLL				e		15 33 04.0	
CLL				eSg	Sg	15 33 14.0	-3.8
	comp=Z,190nm,1.0s						
CLL	Collm	4.46	62	ePn	Pn	15 32 03.0	-0.4
CLL				ePg	Pg	15 32 16.0	-4.1
CLL				i		15 32 22.4	
CLL				eSg	Sg	15 33 14.0	-3.8
CLL	Collm	4.46	62	Pn	Pn	15 32 03.2	-0.2
CLL				Sg	Sg	15 33 15.8	-2.0
ORIF	Oris-en-Rattie	4.48	188	ePg	Pg	15 32 18.8	-1.7
ORIF				eSn	Sn	15 32 51.9	-4.7
ORIF				eSg	Sg	15 33 17.1	-1.5
	comp=Z,499nm,0.6s,SNR=1.0						
ORIF	Oris-en-Rattie	4.48	188	eP	Pn	15 32 03.6	-0.2
ORIF				e		15 32 51.9	
ORIF	Oris-en-Rattie	4.48	188	ePn	Pn	15 32 03.6	-0.2
ORIF				ePg	Pg	15 32 18.8	-1.7
ORIF				eSn	Sn	15 32 51.9	-4.7
ORIF				eSg	Sg	15 33 17.1	-1.5
ORIF	Oris-en-Rattie	4.48	188	ePn	Pn	15 32 03.6	-0.2
	SNR=1.0						
ORIF	Oris-en-Rattie	4.48	188	ePg	Pg	15 32 18.8	-1.7
ORIF				eSn	Sn	15 32 51.9	-4.7
ORIF				eSg	Sg	15 33 17.1	-1.5
	comp=Z,250nm,0.6s,SNR=1.0						
KHC	Kasperske Hory	4.49	90	eP	Pn	15 32 03.8	0.0
KHC				e		15 32 53.2	
KHC	Kasperske Hory	4.49	90	ePN	Pn	15 32 03.8	0.0
KHC				eSN	Sn	15 32 53.2	-3.4
KHC				eSG	Sg	15 33 16.1	-2.6
	comp=Z,228nm,1.4s						
KHC				ex	x	15 33 26.0	
KHC				ex	x	15 33 38.0	
KHC	Kasperske Hory	4.49	90	Pn	Pn	15 32 03.8	0.0
KHC				Sn	Sn	15 32 53.2	-3.4
KHC				Sg	Sg	15 33 16.1	-2.6
	comp=Z,228nm,1.4s						
FBE	Freiberg	4.53	67	ePn	Pn	15 32 04.7	+0.3
FBE	Freiberg	4.53	67	Pn	Pn	15 32 04.7	+0.3
LDF	La Druitiere	4.58	263	ePg	Pg	15 32 22.9	+0.4
	SNR=1.0						
LDF				eSn	Sn	15 32 56.7	-2.4
LDF				eSg	Sg	15 33 22.8	+0.9
	comp=Z,515nm,0.5s						
LDF	La Druitiere	4.58	263	eP	Pn	15 32 05.7	+0.5
LDF				e		15 32 56.7	
LDF	La Druitiere	4.58	263	ePn	Pn	15 32 05.7	+0.5
LDF				ePg	Pg	15 32 22.9	+0.4
LDF				eSn	Sn	15 32 56.7	-2.4
LDF				eSg	Sg	15 33 22.8	+0.9
LDF	La Druitiere	4.58	263	ePn	Pn	15 32 05.7	+0.5
	SNR=1.0						
LDF	La Druitiere	4.58	263	ePg	Pg	15 32 22.9	+0.4
	SNR=1.0						
LDF				eSn	Sn	15 32 56.7	-2.4
LDF				eSg	Sg	15 33 22.8	+0.9
	comp=Z,258nm,0.5s						
GEC2	GERESS Array S	4.60	94	ePn	Pn	15 32 05.5	+0.1
	SNR=191						
GEC2				eSn	Sn	15 32 55.0	-4.5
	SNR=3.1						
GEC2	GERESS Array S	4.60	94	ePn	Pn	15 32 05.4	0.0
GEC2				eSn	Sn	15 32 56.9	-2.6
GEC2	GERESS Array S	4.60	94	ePn	Pn	15 32 05.4	0.0
GEC2				eSn	Sn	15 32 56.9	-2.6
GERES	GERESS Array B	4.60	94	P	Pn	15 32 05.6	+0.2
GERES						15 32 55.9	
GERES	GERESS Array B	4.60	94	Pn	Pn	15 32 05.6	+0.2
	comp=Z,40nm,0.3s,baz=280,slow=13,SNR=765						
GERES				Sn	Sn	15 32 55.9	-3.6
	comp=Z,10nm,0.3s,baz=280,slow=23,SNR=6.2						
GERES				Lg		15 33 22.3	
	comp=Z,3.1nm,0.3s,baz=292,slow=28,SNR=3.1						
GERES	GERESS Array B	4.60	94	Pn	Pn	15 32 05.6	+0.2
GERES				Sn	Sn	15 32 55.9	-3.6
VERF	Verneugheol	4.62	220	Pn	Pn	15 32 05.0	-0.7
VERF	Verneugheol	4.62	220	Pn	Pn	15 32 05.0	-0.7
MBDF	Montbardon	4.64	180	ePg	Pg	15 32 22.6	-0.9
	SNR=1.0						
MBDF				eSn	Sn	15 32 55.5	-4.9
MBDF				eSg	Sg	15 33 22.7	-0.8
	comp=Z,209nm,0.8s,SNR=1.0						
MBDF	Montbardon	4.64	180	eP	Pn	15 32 06.5	+0.6

MBDF				e		15 32 55.5	
MBDF	Montbardon	4.64	180	ePn	Pn	15 32 06.5	+0.6
MBDF				ePg	Pg	15 32 22.6	-0.9
MBDF				eSn	Sn	15 32 55.5	-4.9
MBDF				eSg	Sg	15 33 22.7	-0.8
MBDF	Montbardon	4.64	180	ePn	Pn	15 32 06.5	+0.6
	SNR=1.0						
MBDF	Montbardon	4.64	180	ePg	Pg	15 32 22.6	-0.9
	SNR=1.0						
MBDF				eSn	Sn	15 32 55.5	-4.9
MBDF				eSg	Sg	15 33 22.7	-0.8
	comp=Z,105nm,0.8s,SNR=1.0						
ABTA	Abfaltersbach	4.67	122	⇑iPn	Pn	15 32 07.5	+1.1
	SNR=38						
ABTA				⇑iSn	Sn	15 33 01.7	+0.5
ABTA				⇓iSg	Sg	15 33 28.3	+3.7
	comp=Z,68nm,0.8s						
ABTA	Abfaltersbach	4.67	122	Pn	Pn	15 32 07.5	+1.1
	SNR=38						
ABTA				Sn	Sn	15 33 01.7	+0.5
ABTA				Sg	Sg	15 33 28.3	+3.7
	comp=Z,68nm,0.8s						
CTI	Castel Tesino	4.69	133	P	Pn	15 32 08.6	+2.0
CTI	Castel Tesino	4.69	133	Pn	Pn	15 32 08.6	+2.0
VIVF	Saint-Julien-l	4.72	198	ePg	Pg	15 32 23.4	-1.7
VIVF				eSn	Sn	15 32 58.8	-3.7
VIVF				eSg	Sg	15 33 23.9	-2.4
	comp=Z,492nm,0.7s						
VIVF	Saint-Julien-l	4.72	198	eP	Pn	15 32 05.9	-1.2
VIVF				e		15 32 58.8	
VIVF	Saint-Julien-l	4.72	198	ePn	Pn	15 32 05.9	-1.2
VIVF				ePg	Pg	15 32 23.4	-1.7
VIVF				eSn	Sn	15 32 58.8	-3.7
VIVF				eSg	Sg	15 33 23.9	-2.4
VIVF	Saint-Julien-l	4.72	198	ePn	Pn	15 32 05.9	-1.2
	SNR=1.0						
VIVF	Saint-Julien-l	4.72	198	ePg	Pg	15 32 23.4	-1.7
VIVF				eSn	Sn	15 32 58.8	-3.7
VIVF				eSg	Sg	15 33 23.9	-2.4
	comp=Z,246nm,0.7s						
LBL	Lubilhac	4.76	211	Pn	Pn	15 32 07.7	0.0
LBL	Lubilhac	4.76	211	Pn	Pn	15 32 07.7	0.0
FLN	La Foliniere	4.79	266	ePn	Pn	15 32 08.7	+0.8
	baz=85,SNR=1.0						
FLN	La Foliniere	4.79	266	ePg	Pg	15 32 25.7	-0.6
	baz=83						
FLN				eSn	Sn	15 33 01.4	-2.7
	SNR=1.0						
FLN				eSg	Sg	15 33 28.1	-0.3
	comp=Z,501nm,0.5s,baz=82,SNR=1.0						
FLN	La Foliniere	4.79	266	eP	Pn	15 32 08.7	+0.8
FLN				e		15 33 01.4	
FLN	La Foliniere	4.79	266	ePn	Pn	15 32 08.7	+0.8
FLN				ePg	Pg	15 32 25.7	-0.6
FLN				eSn	Sn	15 33 01.4	-2.7
FLN				eSg	Sg	15 33 28.1	-0.3
FLN	La Foliniere	4.79	266	ePn	Pn	15 32 08.7	+0.8
	baz=85,SNR=1.0						
FLN	La Foliniere	4.79	266	ePg	Pg	15 32 25.7	-0.6
	baz=83						
FLN				eSn	Sn	15 33 01.4	-2.7
	SNR=1.0						
FLN				eSg	Sg	15 33 28.1	-0.3
	comp=Z,251nm,0.5s,baz=82,SNR=1.0						
PZZ	Stroppo	4.86	177	P	Pn	15 32 10.5	+1.5
PZZ	Stroppo	4.86	177	Pn	Pn	15 32 10.5	+1.5
DOI	San Damiano	4.87	176	P	Pn	15 32 10.0	+0.9
DOI	San Damiano	4.87	176	Pn	Pn	15 32 10.0	+0.9
BRG	Berggiesshubel	4.88	69	ePn	Pn	15 32 09.1	0.0
	SNR=2.6						
BRG				ePg	Pg	15 32 24.2	-3.8
	SNR=2.7						
BRG				eSg	Sg	15 33 28.9	-2.2
BRG	Berggiesshubel	4.88	69	PN	Pn	15 32 09.1	0.0
BRG				PG	Pg	15 32 25.3	-2.7
BRG				SG	Sg	15 33 29.5	-1.7
	comp=Z,139nm,0.9s						
BRG	Berggiesshubel	4.88	69	Pn	Pn	15 32 09.1	0.0
	SNR=2.6						
BRG	Berggiesshubel	4.88	69	Pg	Pg	15 32 25.3	-2.7
BRG				Sg	Sg	15 33 28.9	-2.3
SURF	Saint Ours	4.88	179	Pn	Pn	15 32 10.4	+1.1
SURF	Saint Ours	4.88	179	Pn	Pn	15 32 10.4	+1.1
FRNF	Fournols	4.88	217	Pn	Pn	15 32 08.5	-0.8
FRNF	Fournols	4.88	217	Pn	Pn	15 32 08.5	-0.8
KBA	Koelnbreinsper	4.97	115	⇑iPn	Pn	15 32 11.8	+1.3
	SNR=48						
KBA				⇓iSn	Sn	15 33 08.6	0.0
KBA	Koelnbreinsper	4.97	115	Pn	Pn	15 32 11.8	+1.3
	SNR=48						
KBA				Sn	Sn	15 33 08.6	0.0
PRU	Pruhonice	5.10	80	ePN	Pn	15 32 12.4	+0.1
PRU				ePG	Pg	15 32 31.5	-0.9
PRU				eSG	Sg	15 33 34.8	-3.7
	comp=Z,448nm,1.5s						
PRU	Pruhonice	5.10	80	ePn	Pn	15 32 12.4	+0.1
	comp=Z,448nm,1.5s						
PRU				e		15 32 31.5	
PRU				eSg	Sg	15 33 34.8	-3.7
PRU	Pruhonice	5.10	80	Pn	Pn	15 32 12.4	+0.1
PRU				Sg	Sg	15 33 34.8	-3.7
	comp=Z,448nm,1.5s						
GRR	Gorron	5.11	262	ePg	Pg	15 32 32.0	-0.5
GRR				eSn	Sn	15 33 08.1	-3.9
	SNR=1.0						
GRR				eSg	Sg	15 33 38.2	-0.5
	comp=Z,577nm,0.7s,SNR=1.0						
GRR	Gorron	5.11	262	eP	Pn	15 32 12.9	+0.5
GRR				e		15 33 08.1	
GRR	Gorron	5.11	262	ePn	Pn	15 32 12.9	+0.5
GRR				ePg	Pg	15 32 32.0	-0.5
GRR				eSn	Sn	15 33 08.1	-3.9
GRR				eSg	Sg	15 33 38.2	-0.5
GRR	Gorron	5.11	262	ePn	Pn	15 32 12.9	+0.5
	SNR=1.0						
GRR	Gorron	5.11	262	ePg	Pg	15 32 32.0	-0.5
GRR				eSn	Sn	15 33 08.1	-3.9
	SNR=1.0						
GRR				eSg	Sg	15 33 38.2	-0.5
	comp=Z,289nm,0.7s,SNR=1.0						
PVCC	Panska Ves	5.19	74	eSG	Sg	15 33 37.4	-3.8
	comp=Z,429nm,1.0s						
PVCC	Panska Ves	5.19	74	Sg	Sg	15 33 37.4	-3.8
	comp=Z,429nm,1.0s						
MOA	Molln	5.22	104	⇑iPn	Pn	15 32 14.2	+0.3
	SNR=26						
MOA				⇓iSn	Sn	15 33 13.6	-1.0
MOA				⇓iSg	Sg	15 33 44.9	+2.8
	comp=Z,37nm,0.5s						
MOA	Molln	5.22	104	Pn	Pn	15 32 14.2	+0.4
	SNR=26						
MOA				Sn	Sn	15 33 13.6	-1.0
MOA				Sg	Sg	15 33 44.9	+2.8
	comp=Z,37nm,0.5s						
SC2M	Scurtabo	5.32	158	Pn	Pn	15 32 17.6	+2.4
	comp=Z,80nm,0.8s						
SC2M	Scurtabo	5.32	158	Pn	Pn	15 32 17.6	+2.4
	comp=Z,80nm,0.8s						
PTCC	Patocco-Chiusa	5.34	121	Pn	Pn	15 32 18.0	+2.4
PTCC	Patocco-Chiusa	5.34	121	Pn	Pn	15 32 18.0	+2.4
MYKA	Terra Mystica	5.38	118	⇑iPn	Pn	15 32 16.8	+0.8
MYKA				⇑iSn	Sn	15 33 19.1	+0.5
MYKA	Terra Mystica	5.38	118	Pn	Pn	15 32 16.8	+0.7
MYKA				Sn	Sn	15 33 19.1	+0.5
MFF	Saint Martin d	5.38	242	ePg	Pg	15 32 36.7	-1.1
MFF				eSn	Sn	15 33 15.5	-3.3
MFF				eSg	Sg	15 33 45.1	-2.5
	comp=Z,449nm,0.6s,SNR=1.0						
MFF	Saint Martin d	5.38	242	eP	Pn	15 32 16.6	+0.4
MFF				e		15 33 15.5	
MFF	Saint Martin d	5.38	242	ePn	Pn	15 32 16.6	+0.4
MFF				ePg	Pg	15 32 36.7	-1.1
MFF				eSn	Sn	15 33 15.5	-3.3
MFF				eSg	Sg	15 33 45.1	-2.5
MFF	Saint Martin d	5.38	242	ePn	Pn	15 32 16.6	+0.4
	SNR=1.0						
RJF	Les Rejaudoux	5.39	223	ePg	Pg	15 32 37.1	-0.8
RJF				eSn	Sn	15 33 16.2	-2.8
RJF				eSg	Sg	15 33 45.2	-2.6
	comp=Z,296nm,0.5s,SNR=1.0						
RJF	Les Rejaudoux	5.39	223	eP	Pn	15 32 15.9	-0.4
RJF				e		15 33 16.2	
RJF	Les Rejaudoux	5.39	223	ePn	Pn	15 32 15.9	-0.4
RJF				ePg	Pg	15 32 37.1	-0.8
RJF				eSn	Sn	15 33 16.2	-2.8
RJF				eSg	Sg	15 33 45.2	-2.6
RJF	Les Rejaudoux	5.39	223	ePn	Pn	15 32 15.9	-0.4
RUE	Ruedersdorf	5.44	52	ePn	Pn	15 32 15.4	-1.5
	comp=Z,57nm,1.0s						
RUE				eSg	Sg	15 33 53.2	+4.0
RUE	Ruedersdorf	5.44	52	ePn	Pn	15 32 15.4	-1.5
	comp=Z,57nm,1.0s						
SMRF	Simiane la Rot	5.45	189	ePg	Pg	15 32 36.1	-2.9
SMRF				eSn	Sn	15 33 16.2	-4.1
SMRF				eSg	Sg	15 33 46.2	-3.3
	comp=Z,205nm,0.9s						
SMRF	Simiane la Rot	5.45	189	ePn	Pn	15 32 16.6	-0.4
SMRF				ePg	Pg	15 32 36.1	-2.9
SMRF				eSn	Sn	15 33 16.2	-4.1
SMRF				eSg	Sg	15 33 46.2	-3.3
SMRF	Simiane la Rot	5.45	189	ePn	Pn	15 32 16.6	-0.4
CAF	Calviac	5.46	217	ePn	Pn	15 32 16.7	-0.6
	SNR=1.0						
CAF				eSn	Sn	15 33 17.1	-3.7
	SNR=1.0						
CAF				eSg	Sg	15 33 48.7	-1.4
	comp=Z,304nm,0.5s,SNR=1.0						
CAF	Calviac	5.46	217	eP	Pn	15 32 16.7	-0.6
CAF				e		15 33 17.1	
CAF	Calviac	5.46	217	ePn	Pn	15 32 16.7	-0.6
	SNR=1.0						
IMI	Imperia	5.51	171	Pn	Pn	15 32 19.6	+1.7
IMI	Imperia	5.51	171	Pn	Pn	15 32 19.6	+1.7
SBF	Sospel	5.52	175	ePg	Pg	15 32 37.1	-3.3
	SNR=1.0						
SBF				eSn	Sn	15 33 18.1	-4.1
	SNR=1.0						
SBF				eSg	Sg	15 33 49.5	-2.4
	comp=Z,108nm,0.6s,SNR=1.0						
SBF	Sospel	5.52	175	eP	Pn	15 32 18.3	+0.3
SBF				e		15 33 18.1	
SBF	Sospel	5.52	175	ePn	Pn	15 32 18.3	+0.3
SBF				ePg	Pg	15 32 37.1	-3.3
SBF				eSn	Sn	15 33 18.1	-4.1
SBF				eSg	Sg	15 33 49.5	-2.4
SBF	Sospel	5.52	175	ePn	Pn	15 32 18.3	+0.3
	SNR=1.0						
LASF	Ste Croix	5.65	202	ePg	Pg	15 32 40.8	-2.0
LASF				eSn	Sn	15 33 20.7	-4.6
LASF				eSg	Sg	15 33 52.5	-3.4
	comp=Z,548nm,0.9s						
LASF	Ste Croix	5.65	202	ePn	Pn	15 32 19.4	-0.4
LASF				ePg	Pg	15 32 40.8	-2.0
LASF				eSn	Sn	15 33 20.7	-4.6
LASF				eSg	Sg	15 33 52.5	-3.4
LASF	Ste Croix	5.65	202	ePn	Pn	15 32 19.4	-0.4
GORS	Gorjuse	5.75	119	i Pn	Pn	15 32 23.8	+2.6
GORS	Gorjuse	5.75	119	i Pn	Pn	15 32 23.8	+2.6
FRF	La Foret Royal	5.80	181	ePg	Pg	15 32 43.6	-2.2
	SNR=1.0						
FRF				eSn	Sn	15 33 23.9	-5.2
FRF				eSg	Sg	15 33 56.9	-4.1
	comp=Z,171nm,0.9s						
FRF	La Foret Royal	5.80	181	eP	Pn	15 32 21.8	-0.1
FRF				e		15 33 23.9	
FRF	La Foret Royal	5.80	181	ePn	Pn	15 32 21.8	-0.1
FRF				ePg	Pg	15 32 43.6	-2.2
FRF				eSn	Sn	15 33 23.9	-5.2
FRF				eSg	Sg	15 33 56.9	-4.1
FRF	La Foret Royal	5.80	181	ePn	Pn	15 32 21.8	-0.1
	SNR=1.0						
JSA	Saint Aubin	5.84	272	eP	Pn	15 32 22.5	+0.2
JSA				eS	Sn	15 33 24.0	-5.9
JSA				AML	AML	15 34 13.4	
	comp=N,241nm,0.6s						
JSA				AML	AML	15 34 17.8	
	comp=E,161nm,0.6s						
JSA	Saint Aubin	5.84	272	eP	Pn	15 32 22.5	+0.1
VOY	Vojsko	5.87	122	ePn	Pn	15 32 24.8	+2.0
VOY				e		15 32 27.6	
VOY				e(Sn)	Sn	15 33 31.2	+0.6
VOY				e		15 34 03.5	
VOY	Vojsko	5.87	122	ePn	Pn	15 32 24.8	+2.0
SWN1	Swindon	5.87	295	eP	Pn	15 32 24.2	+1.5
SWN1				eS	Sn	15 33 26.9	-3.7
SWN1				AML	AML	15 34 16.0	
	comp=N,374nm,0.6s						
SWN1				AML	AML	15 34 41.8	
	comp=E,387nm,0.7s						
SWN1	Swindon	5.87	295	eP	Pn	15 32 24.2	+1.4
BDI	Bagni Di Lucca	5.93	152	P	Pn	15 32 26.6	+3.0
BDI				pmax	pmax		
	comp=Z,26nm,0.6s						
BDI	Bagni Di Lucca	5.93	152	Pn	Pn	15 32 26.6	+3.0
	comp=Z,26nm,0.6s						
LFF	La Frestale	6.03	225	ePg	Pg	15 32 48.4	-1.7
LFF				eSn	Sn	15 33 30.6	-4.0
LFF				eSg	Sg	15 34 06.2	-1.9
	comp=Z,115nm,0.4s,SNR=1.0						
LFF	La Frestale	6.03	225	eP	Pn	15 32 24.1	-0.9
LFF				e		15 33 30.6	
LFF	La Frestale	6.03	225	ePn	Pn	15 32 24.1	-0.9
LFF				ePg	Pg	15 32 48.4	-1.7
LFF				eSn	Sn	15 33 30.6	-4.0
LFF				eSg	Sg	15 34 06.2	-1.9
LFF	La Frestale	6.03	225	ePn	Pn	15 32 24.1	-0.9
LMR	La Mourre	6.03	182	ePg	Pg	15 32 47.0	-3.2
LMR				eSn	Sn	15 33 30.0	-4.7
LMR				eSg	Sg	15 34 04.2	-4.1
	comp=Z,52nm,0.7s						
LMR	La Mourre	6.03	182	eP	Pn	15 32 24.3	-0.7
LMR				e		15 33 30.0	
LMR	La Mourre	6.03	182	ePn	Pn	15 32 24.3	-0.7
LMR				ePg	Pg	15 32 47.0	-3.2
LMR				eSn	Sn	15 33 30.0	-4.7
LMR				eSg	Sg	15 34 04.2	-4.1
LMR	La Mourre	6.03	182	ePn	Pn	15 32 24.3	-0.7
	SNR=1.0						
CWF	Charnwood Fore	6.10	307	eP	Pn	15 32 26.9	+0.9
CWF				eS	Sn	15 33 33.2	-3.2
CWF				AML	AML	15 34 11.6	
	comp=E,41nm,0.7s						
CWF				AML	AML	15 34 24.5	
	comp=N,75nm,0.7s						
CWF	Charnwood Fore	6.10	307	eP	Pn	15 32 26.9	+1.0
SOKA	Soboth	6.18	113	⇑iPn	Pn	15 32 27.5	+0.5
SOKA				⇓iSn	Sn	15 33 38.3	0.0
SOKA	Soboth	6.18	113	Pn	Pn	15 32 27.5	+0.5
SOKA				Sn	Sn	15 33 38.3	0.0
CSNA	Conrad Observa	6.21	100	⇑iPn	Pn	15 32 27.6	+0.1
CSNA				⇓iSg	Sg	15 34 18.4	+4.4
	comp=N,54nm,0.6s						
CSNA	Conrad Observa	6.21	100	Pn	Pn	15 32 27.6	+0.1
CONA	Conrad Observa	6.21	100	⇑iPn	Pn	15 32 27.5	0.0
	SNR=13						
CONA				⇑iSg	Sg	15 34 18.3	+4.2
	comp=N,46nm,0.5s						
CONA	Conrad Observa	6.21	100	Pn	Pn	15 32 27.5	0.0
	SNR=13						
PII	Pisa	6.21	154	P	Pn	15 32 30.0	+2.4
PII				pmax	pmax		
	comp=Z,6.0nm,0.3s						
PII	Pisa	6.21	154	Pn	Pn	15 32 30.0	+2.4
	comp=Z,5.6nm,0.3s						
PII	Pisa	6.21	154	Pn	Pn	15 32 30.0	+2.4
	comp=Z,5.6nm,0.3s						
ARSA	Arzberg	6.23	107	⇑iPn	Pn	15 32 28.4	+0.7
	SNR=11						
ARSA				⇑iSn	Sn	15 33 38.4	-1.2
ARSA				⇓iSg	Sg	15 34 17.1	+2.5
	comp=Z,31nm,0.7s						
ARSA	Arzberg	6.23	107	Pn	Pn	15 32 28.4	+0.7
	SNR=11						
ARSA				Sn	Sn	15 33 38.4	-1.2
ARSA				Sg	Sg	15 34 17.1	+2.5
	comp=Z,31nm,0.7s						
DPC	Dobruska-Polom	6.28	77	eSG	Sg	15 34 11.2	-4.9
	comp=Z,195nm,1.2s						
KSP	Ksiaz	6.32	73	ePn	Pn	15 32 31.2	+2.2
KSP				eSg	Sg	15 34 14.2	-3.4
KSP	Ksiaz	6.32	73	ePn	Pn	15 32 31.2	+2.2
VMG	Vicchio	6.33	147	Pn	Pn	15 32 30.8	+1.6
	comp=Z,11nm,0.6s						
VMG	Vicchio	6.33	147	Pn	Pn	15 32 30.8	+1.6
	comp=Z,11nm,0.6s						
VRAC	Vranov	6.44	87	Pn	Pn	15 32 30.6	0.0
	comp=Z,0.8nm,0.3s,baz=249,slow=12,SNR=5.4						
VRAC				Lg		15 34 17.7	
	comp=Z,1.8nm,0.3s,baz=190,slow=22,SNR=9.6						
VRAC	Vranov	6.44	87	ePn	Pn	15 32 30.5	-0.2
KBI1	Birley Grange	6.49	310	eP	Pn	15 32 32.4	+1.2
KBI1	Birley Grange	6.49	310	eP	Pn	15 32 32.4	+1.2
SFI	Santa Sofia	6.49	145	P	Pn	15 32 33.3	+1.9
SFI				pmax	pmax		
	comp=Z,47nm,1.1s						
SFI	Santa Sofia	6.49	145	Pn	Pn	15 32 33.3	+1.9
	comp=Z,47nm,1.1s						
SFI	Santa Sofia	6.49	145	Pn	Pn	15 32 33.3	+1.9
	comp=Z,47nm,1.1s						
KWE	Weaver Farm	6.52	307	eP	Pn	15 32 32.7	+1.0
KWE	Weaver Farm	6.52	307	eP	Pn	15 32 32.7	+1.0
ROSF	Rostrenen	6.69	265	ePn	Pn	15 32 34.1	0.0
	SNR=1.0						
ROSF				eSn	Sn	15 33 45.7	-5.2
ROSF				eSg	Sg	15 34 26.9	-2.5
	comp=Z,401nm,0.8s,SNR=1.0						
ROSF	Rostrenen	6.69	265	eP	Pn	15 32 34.1	0.0
ROSF				e		15 33 45.7	
ROSF	Rostrenen	6.69	265	ePn	Pn	15 32 34.1	0.0
	SNR=1.0						
RSM	Repubblica di	6.70	142	P	Pn	15 32 39.5	+5.2
QUIF	Quistinic	6.72	261	ePg	Pg	15 33 02.6	-0.8
	SNR=1.0						
QUIF				eSn	Sn	15 33 45.9	-5.9
QUIF				eSg	Sg	15 34 28.3	-2.2
	comp=Z,502nm,0.9s,SNR=1.0						
QUIF	Quistinic	6.72	261	eP	Pn	15 32 34.4	-0.1
QUIF				e		15 33 45.9	
QUIF	Quistinic	6.72	261	ePn	Pn	15 32 34.4	-0.1
QUIF				ePg	Pg	15 33 02.6	-0.8
QUIF				eSn	Sn	15 33 45.9	-5.9
QUIF				eSg	Sg	15 34 28.3	-2.2
QUIF	Quistinic	6.72	261	ePn	Pn	15 32 34.4	-0.1
	SNR=1.0						
MCH1	Michaelchurch	6.73	297	eP	Pn	15 32 35.2	+0.6
MCH1				eS	Sn	15 33 47.0	-4.9
MCH1				AML	AML	15 33 51.4	
	comp=N,100nm,0.5s						
MCH1				AML	AML	15 33 52.4	
	comp=E,97nm,0.5s						
MCH1	Michaelchurch	6.73	297	eP	Pn	15 32 35.2	+0.6
SOP	Sopron	6.73	101	⇓ePn	Pn	15 32 34.7	0.0
SOP	Sopron	6.73	101	⇓eP	Pn	15 32 34.7	0.0
STNC	Stoke	6.75	307	AML	AML	15 34 30.3	
	comp=N,134nm,0.7s						
STNC				AML	AML	15 34 57.3	
	comp=E,209nm,0.6s						
STNC	Stoke	6.75	307	AML	AML	15 34 30.3	
	comp=E,134nm,0.7s						
STNC				AML	AML	15 34 57.3	
	comp=E,209nm,0.6s						
CRE	Caprese Michel	6.77	146	P	Pn	15 32 37.2	+2.0
CRE				pmax	pmax		
	comp=Z,566nm,5.8s						
CRE	Caprese Michel	6.77	146	Pn	Pn	15 32 37.2	+2.0
	comp=Z,566nm,5.8s						
CRE	Caprese Michel	6.77	146	Pn	Pn	15 32 37.2	+2.0
	comp=Z,566nm,5.8s						
MTLF	Montolieu	6.79	209	ePg	Pg	15 33 02.2	-2.4
MTLF				eSn	Sn	15 33 48.2	-5.1
MTLF				eSg	Sg	15 34 29.3	-3.2
	comp=Z,341nm,0.9s						
MTLF	Montolieu	6.79	209	eP	Pn	15 32 34.7	-0.7
MTLF				e		15 33 48.2	
MTLF	Montolieu	6.79	209	ePn	Pn	15 32 34.7	-0.7
MTLF				ePg	Pg	15 33 02.2	-2.4
MTLF				eSn	Sn	15 33 48.2	-5.1
MTLF				eSg	Sg	15 34 29.3	-3.2
MTLF	Montolieu	6.79	209	ePn	Pn	15 32 34.7	-0.7
	SNR=1.0						
HPK	Haverah Park	6.95	315	AML	AML	15 34 59.5	
	comp=N,150nm,0.7s						
HPK				AML	AML	15 35 05.7	
	comp=E,139nm,0.6s						
HPK	Haverah Park	6.95	315	AML	AML	15 34 59.5	
	comp=E,150nm,0.7s						
HPK				AML	AML	15 35 05.7	
	comp=E,139nm,0.6s						
ZST	Bratislava	6.95	96	ePN	Pn	15 32 37.5	-0.1
ZST				eSG	Sg	15 34 34.7	-2.9
ZST	Bratislava	6.95	96	ePn	Pn	15 32 37.6	0.0
ZST				eSg	Sg	15 34 34.7	-2.9
ZST	Bratislava	6.95	96	ePn	Pn	15 32 37.6	0.0
BADI	Badiali	6.98	145	Pn	Pn	15 32 40.7	+2.7
	comp=E,28nm,0.7s						
DYA	Yadsworthy	6.98	283	eP	Pn	15 32 38.6	+0.6
DYA				eS	Sn	15 33 51.7	-6.3
DYA				AML	AML	15 34 00.4	
	comp=E,73nm,0.5s						
DYA				AML	AML	15 34 55.1	
	comp=N,121nm,0.5s						
DYA	Yadsworthy	6.98	283	eP	Pn	15 32 38.6	+0.6
PGF	Pioggiola	6.99	166	ePn	Pn	15 32 37.6	-0.7
	SNR=1.0						
PGF				eSn	Sn	15 33 51.3	-7.1
	comp=N,21nm,1.0s						
PGF	Pioggiola	6.99	166	ePn	Pn	15 32 37.6	-0.7
	SNR=1.0						
MODS	Modra-Piesok	7.02	94	ePN	Pn	15 32 38.0	-0.6
MODS				eSG	Sg	15 34 34.0	-6.0
MODS	Modra-Piesok	7.02	94	ePn	Pn	15 32 38.0	-0.6
FSSB	Fossombrone	7.03	141	Pn	Pn	15 32 40.1	+1.3
	comp=N,5.9nm,0.4s						
FSSB	Fossombrone	7.03	141	Pn	Pn	15 32 40.1	+1.3
	comp=N,5.9nm,0.4s						
MORC	Moravsky Berou	7.04	83	eP	Pn	15 32 37.9	-1.0
MORC				e		15 33 58.5	
MORC				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MORC	Moravsky Berou	7.04	83	ePn	Pn	15 32 37.9	-0.9
	comp=Z,7.8nm,0.8s						
MORC				eSn	Sn	15 33 58.5	-1.0
MORC	Moravsky Berou	7.04	83	ePn	Pn	15 32 37.9	-1.0
	comp=Z,7.8nm,0.8s						
MORC				eSn	Sn	15 33 58.5	-1.0
SMOL	Smolenice	7.09	93	ePN	Pn	15 32 39.8	+0.2
SMOL				eSG	Sg	15 34 41.3	-1.0
SMOL	Smolenice	7.09	93	ePn	Pn	15 32 39.9	+0.3
SMOL				eSg	Sg	15 34 41.3	-1.0
SMOL	Smolenice	7.09	93	ePn	Pn	15 32 39.9	+0.3
SMOL				eSg	Sg	15 34 41.3	-1.0
HTL	Hartland	7.39	287	eP	Pn	15 32 43.3	-0.4
HTL				eS	Sn	15 34 02.4	-5.8
HTL				AML	AML	15 34 07.3	
	comp=E,67nm,0.5s						
HTL				AML	AML	15 35 10.9	
	comp=N,116nm,0.6s						
HTL	Hartland	7.39	287	eP	Pn	15 32 43.3	-0.4
SALF	Salau	7.65	212	Pn	Pn	15 32 46.5	-0.7
SALF	Salau	7.65	212	Pn	Pn	15 32 46.5	-0.7
KOLL	Kolacno	7.72	91	ePN	Pn	15 32 47.4	-0.8
KOLL	Kolacno	7.72	91	ePn	Pn	15 32 47.4	-0.8
EPF	Esparros	7.73	217	ePn	Pn	15 32 47.5	-0.9
	SNR=1.0						
EPF				eSn	Sn	15 34 10.6	-6.0
EPF				eSg	Sg	15 35 01.5	-1.3
	comp=N,242nm,0.9s						
EPF	Esparros	7.73	217	eP	Pn	15 32 47.5	-0.9
EPF				e		15 34 10.6	
EPF	Esparros	7.73	217	ePn	Pn	15 32 47.5	-0.9
	SNR=1.0						
EPF				eSg	Sg	15 35 01.5	-1.3
	comp=N,121nm,0.9s						
VYHS	Vyhne	8.02	92	ePN	Pn	15 32 51.9	-0.4
VYHS				e		15 35 10.9	
VYHS	Vyhne	8.02	92	ePn	Pn	15 32 51.9	-0.4
VYHS				eSg	Sg	15 35 10.9	-1.0
ETSF	Etsaut	8.21	221	ePn	Pn	15 32 54.2	-0.8
	SNR=1.0						
ETSF				eSn	Sn	15 34 19.7	-8.7
ETSF				eSg	Sg	15 35 15.7	-2.5
	comp=N,181nm,0.7s,SNR=1.0						
ETSF	Etsaut	8.21	221	ePn	Pn	15 32 54.2	-0.8
	SNR=1.0						
SJPF	Ste Jean	8.34	224	ePn	Pn	15 32 56.1	-0.6
SJPF				eSn	Sn	15 34 25.7	-5.7
SJPF				eSg	Sg	15 35 19.0	-3.2
	comp=N,78nm,0.6s						
SJPF	Ste Jean	8.34	224	eP	Pn	15 32 56.1	-0.6
SJPF				e		15 34 25.7	
SJPF	Ste Jean	8.34	224	ePn	Pn	15 32 56.1	-0.6
ECK	Cauldkaine Hil	8.40	318	eP	Pn	15 32 57.8	+0.3

ECK	Cauldkaine Hil	8.40	318	eP	Pn	15 32 57.8	+0.3
EKA	Eskdalemuir Ar	8.51	318	Pn	Pn	15 32 58.7	-0.3
	baz=137,slow=14,SNR=36						
EKA	Eskdalemuir Ar	8.51	318	Pn	Pn	15 32 58.7	-0.3
ESK	Eskdalemuir	8.52	318	eP	Pn	15 32 59.4	+0.3
ESK				AML	AML	15 34 54.0	
	comp=N,22nm,0.6s						
ESK				AML	AML	15 35 11.3	
	comp=E,19nm,0.6s						
ESK	Eskdalemuir	8.52	318	eP	Pn	15 32 58.9	-0.2
ESK				e		15 34 38.7	
ESK				pmax	pmax		
	comp=Z,12nm,0.6s						
ESK	Eskdalemuir	8.52	318	ePn	Pn	15 32 58.9	-0.2
	comp=Z,12nm,0.6s						
ESK				eSn	Sn	15 34 38.7	+2.8
ESK	Eskdalemuir	8.52	318	ePn	Pn	15 32 58.9	-0.2
	comp=Z,12nm,0.6s						
ESY	Stoneypath	8.68	323	eP	Pn	15 33 01.7	+0.3
ESY	Stoneypath	8.68	323	eP	Pn	15 33 01.7	+0.3
PSZ	Piszkesteto	8.83	94	eP	Pn	15 33 02.8	-0.6
PSZ				pmax	pmax		
	comp=Z,18nm,0.9s						
PSZ	Piszkesteto	8.83	94	⇓ePn	Pn	15 33 03.6	+0.2
PSZ	Piszkesteto	8.83	94	ePn	Pn	15 33 02.8	-0.7
	comp=Z,18nm,0.9s						
PSZ				eS	Sg	15 35 24.1	-14
PSZ	Piszkesteto	8.83	94	eP	Pn	15 33 02.8	-0.6
	comp=Z,18nm,0.9s						
EAU	Auchinoon	8.97	320	eP	Pn	15 33 05.6	+0.3
EAU	Auchinoon	8.97	320	eP	Pn	15 33 05.6	+0.3
DLF	Lyons Farm	9.19	300	eP	Pn	15 33 08.2	-0.2
DLF	Lyons Farm	9.19	300	eP	Pn	15 33 08.2	-0.2
STHS	Stebnicka Huta	9.46	84	eSG	Sx	15 35 58.3	
DMUB	Kingscourt	9.62	303	eP	Pn	15 33 13.9	-0.4
DMUB	Kingscourt	9.62	303	eP	Pn	15 33 13.9	-0.4
DCN	Croghan	9.63	300	eP	Pn	15 33 14.4	0.0
DCN	Croghan	9.63	300	eP	Pn	15 33 14.4	0.0
UZH	Uzhgorod	10.25	88	eP	Pn	15 33 20.4	-2.5
UZH				eS	Sn	15 35 14.2	-4.2
UZH	Uzhgorod	10.25	88	eP	Pn	15 33 20.4	-2.5
HFS	Hagfors	11.51	18	Pn	Pn	15 33 38.1	-1.9
	comp=Z,0.3nm,0.3s,baz=204,slow=14,SNR=6.9						
HFS				Sn	Sn	15 35 43.6	-5.6
	comp=Z,0.3nm,0.3s,baz=186,slow=26,SNR=4.1						
HFS	Hagfors	11.51	18	P	Pn	15 33 38.1	-1.9
NOA	NORSAR Array B	11.98	11	Pn	Pn	15 33 43.2	-3.2
	comp=Z,0.2nm,0.3s,baz=192,slow=11,SNR=2.8						
NOA				Sn	Sn	15 35 49.1	-12
	comp=Z,0.3nm,0.3s,baz=101,slow=7.1,SNR=3.4						
ESDC	Sonseca Array	12.32	222	Pn	Pn	15 33 51.3	+0.1
	comp=Z,0.5nm,0.3s,baz=39,slow=14,SNR=7.0						
ESDC				Sn	Sn	15 36 00.6	-8.6
	comp=Z,0.9nm,0.3s,baz=40,slow=24,SNR=5.3						
ESDC	Sonseca Array	12.32	222	Pn	Pn	15 33 51.3	+0.1
BUR08	Bucovina Ar. S	12.37	91	ePn	Pn	15 33 51.0	-0.8
BUR08	Bucovina Ar. S	12.37	91	ePn	Pn	15 33 51.0	-0.8
OBN	Obninsk	19.06	61	⇓eP	Pn	15 35 16.3	-2.6
OBN				eS	Sn	15 38 43.3	-9.4
OBN				pmax	pmax		
	comp=Z,24nm,1.2s						
OBN				MLR	MLR		
	comp=Z,100nm,10.0s						
OBN	Obninsk	19.06	61	P	Pn	15 35 16.5	-2.4
	comp=Z,11nm,0.5s						
OBN	Obninsk	19.06	61	P	Pn	15 35 16.5	-2.4
	comp=Z,11nm,0.5s						
BRTR	Keskin Array B	21.36	107	LR	LR	15 45 31.1	
	comp=Z,32nm,18.8s,baz=309,slow=41						
ARE0	ARCESS Array S	22.17	17	P	P	15 35 52.7	+0.9
ARE0	ARCESS Array S	22.17	17	P	P	15 35 52.7	+0.9
ARU	Arti	31.39	57	eP	P	15 37 18.1	+1.3
ARU				pmax	pmax		
	comp=Z,15nm,1.8s,mb4.6						
ARU	Arti	31.39	57	eP	P	15 37 18.1	+1.3
	comp=Z,15nm,1.8s,mb4.6						
ARU	Arti	31.39	57	eP	P	15 37 18.1	+1.3
	comp=Z,15nm,1.8s,mb4.6						
TORD	Torodi Ar. Bea	36.35	188	P	P	15 38 00.3	0.0
	comp=Z,0.9nm,0.7s,mb3.7,baz=2.0,slow=9.0,SNR=6.2						
YKA	Yellowknife Ar	59.19	333	P	P	15 40 57.1	+0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	59.19	333	P	P	15 40 57.1	+0.3
	comp=Z,0.6nm,0.7s,mb3.7,baz=46,slow=6.7,SNR=11						
YKA	Yellowknife Ar	59.19	333	P	P	15 40 57.1	+0.3
	comp=Z,1.0nm,0.7s,mb4.0						
ULN	Ulaanbaatar	61.28	49	eP	P	15 41 13.6	+2.2
ULN				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
ULN	Ulaanbaatar	61.28	49	eP	P	15 41 13.6	+2.2
	comp=Z,1.5nm,0.4s,mb4.5						
ULN	Ulaanbaatar	61.28	49	eP	P	15 41 13.6	+2.2
	comp=Z,1.5nm,0.4s,mb4.5						
MSEY	Mahe Island	68.37	126	i P	P	15 41 58.4	+0.4
MSEY	Mahe Island	68.37	126	i P	P	15 41 58.4	+0.4

IDC 23 15:54:24.0±4.4**, 3°.10S×100°.84E, h0km, mb3.4**/4**, mb1 3.6**/4**, mb1mx3.4**/21**, mbtmp3.4**/4**, Error ellipse: s-maj=181.2km s-min=23.7km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	36.72	120	P	P	16 01 32.3	-0.9
	0.2nm,0.3s,baz=307,slow=8.7,SNR=2.9						
ASAR	Alice Springs	37.93	126	P	P	16 01 44.2	+0.7
	0.2nm,0.4s,baz=300,slow=7.8,SNR=19						
SONM	Songino Array	50.96	5	P	P	16 03 28.3	+1.0
	0.5nm,0.7s,baz=205,slow=6.2,SNR=4.3						
MKAR	Makanchi Array	52.31	344	P	P	16 03 36.8	-0.6
	0.2nm,0.5s,baz=162,slow=8.9,SNR=6.2						

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*BJI **23** 15:57:17.0, 57°.30S×23°.40W, h10km, mB6.6/26, Ms6.9/50, Ms7 6.7/40*

*ISCJB **23** 15:57:18.4±1.5, 57°.23S±0°.03×23°.49W±0°.05, h5km±8km, mb6.2/110, MS6.7/242, Error ellipse: s-maj=5.5km s-min=4.8km az=25.4*

*IDC **23** 15:57:18.6±0.3, 57°.08S×23°.75W, h0km, mb5.9/19, mb1 5.9/19, mb1mx5.9/19, mbtmp5.9/19, MS6.6/19, Ms1 6.6/19, ms1mx6.6/19, Error ellipse: s-maj=10.8km s-min=9.3km az=130.0*

*GCMT **23** 15:57:19.8±0.1, 57°.12S×23°.13W, h12km, MW6.8/116, Moment Tensor Solution. s116,c280; s116,c464; Duration: 5s.8 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.97±.01; $M_{\theta\theta}$-0.88±.01; $M_{\phi\phi}$1.85±.01; $M_{r\theta}$-0.30±.02; $M_{\theta\phi}$-0.69±.01; $M_{\phi r}$0.42±.02; Best double couple: $M_0$1.66300×10^{19} NP1:ϕ_s25.00000°, δ53.00000°, λ-29.00000°. NP2:ϕ_s134.00000°, δ67.00000°, λ-139.00000°. Principal axes: T 2.0890, Plg9.0000°, Azm256.0000°; N -0.8540, Plg44.0000°, Azm157.0000°; P -1.2360, Plg45.0000°, Azm355.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IGIL **23** 15:57:19.9, 57°.07S×23°.40W, h10km, MS6.8*

*NEIC **23** 15:57:20.5±0.1, 57°.34S×23°.43W, h14km, mb6.2/72, ME6.9, MS6.7/203, MW6.7, Error ellipse: s-maj=6.4km s-min=5.5km az=195.0 Broadband fault plane solution: P waves. NP1:ϕ_s38.00000°, δ52.00000°, λ-19.00000°. NP2:ϕ_s140.00000°, δ75.00000°, λ-140.00000°. Principal axes: T Plg15.0000°, Azm264.0000°; N Plg0.0000°, Azm0.0000°; P Plg38.0000°, Azm6.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*MOS **23** 15:57:22.2±1.0, 57°.18S×23°.35W, h27km, mb6.5/34, MS6.6/81 Error ellipse: s-maj=17.9km s-min=8.5km az=90.5*

*DJA **23** 15:57:24, 57°.01S×23°.62W, h37km, Mw7.2/8*

ISC 23 15:57:19.2±1.7**, 57°.22S**±0°.03×**23°.50W**±0°.05**, h0km**±10km**, n1408, σ1s.29**/348**, mb6.3**/108**, MS6.7**/242**, 236C-253D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	14.97	160	ePn	Pn	16 00 52.9	+1.2
VNA3	Neumayer Olymp	15.23	163	ePn	Pn	16 00 55.3	+0.1
VNA3				eS	Sn	16 03 35.5	-8.9
VNA2	Neumayer--Watz	15.36	160	ePn	Pn	16 00 57.1	+0.2
	baz=326,slow=16						
VNA2				eS	Sn	16 03 39.4	-8.0
MAIT	Maitri	20.13	146	i S	S	16 05 35.0	-5.8
NVL	N'lazarevskaya	20.16	146	d iP	P	16 01 58.1	+3.5
NVL				i S	S	16 05 43.3	+2.0
NVL				pmax	pmax		
	comp=Z,2µm,1.3s						
NVL				MLR	MLR		
	comp=N,66µm,16.0s,MS6.3						
NVL				MLR	MLR		
	comp=E,75µm,16.0s,MS6.3						
NVL				MLR	MLR		
	comp=Z,109µm,16.0s,MS6.3						
EFI	East Falkland	20.69	271	⇑iP	P	16 01 59.1	-1.4
EFI				eS	S	16 05 44.4	-7.7
EFI				pmax	pmax		
	comp=Z,3µm,1.0s						
EFI				MLR	MLR		
	comp=Z,316µm,22.0s,MS6.6						
EFI	East Falkland	20.69	271	⇑iP	P	16 01 59.1	-1.4
	comp=Z,3µm,1.0s						
EFI				eS	S	16 05 44.4	-7.8
EFI				LR	LR		
	comp=Z,316µm,22.0s,MS6.6						
PMSA	Palmer Station	20.73	232	P	P	16 02 01.2	+0.5
	comp=Z,363nm,0.8s,baz=77,slow=9.5,SNR=53						
PMSA				S	S	16 05 53.6	+0.9
	comp=Z,44nm,1.0s,baz=336,slow=20,SNR=2.2						
PMSA	Palmer Station	20.73	232	⇑iP	P	16 02 01.1	+0.4
	comp=Z,2µm,0.9s						
PMSA				LR	LR		
	comp=Z,402µm,22.0s,MS6.8						
USHA	Ushuaia	24.88	256	P	P	16 02 42.5	-0.7
	comp=Z,194nm,0.7s,mb5.9,baz=89,slow=9.9,SNR=24						
USHA				S	S	16 07 02.3	-4.5
	comp=Z,32nm,0.9s,baz=315,slow=18,SNR=3.4						
USHA				LR	LR	16 10 18.9	
	comp=Z,246µm,19.8s,MS6.7,baz=71,slow=32						
SYO	Syowa Base	29.37	139	⇓iP	P	16 03 22.5	-0.9
SYO	Syowa Base	29.37	139	⇑iP	P	16 03 28.6	+5.2
COYC	Coyhaique	31.78	270	eP	P	16 03 44.9	-0.1
COYC				i Pg	P	16 03 45.2	+0.3
LPA	La Plata	32.14	299	⇑eP	P	16 03 47.4	-0.7
	comp=Z,2µm,0.9s,mb7.0						
LPA				esP	sP	16 03 53.5	+5.4
LPA				eS	S	16 08 58.0	-3.4
LPA				esS	sS	16 09 06.0	+4.6
LPA							
	comp=Z,150µm,21.0s						
QSPA	South Pole Qui	33.02	180	P3KPbc		16 35 11.4	
	comp=Z,7.2nm,0.9s,baz=356,slow=2.2,SNR=13						
QSPA	South Pole Qui	33.02	180	eP	P	16 03 56.6	+1.2
	comp=Z,0.4nm,0.6s						
QSPA				LR	LR		
	comp=Z,94µm,19.0s,MS6.5						
PLCA	Paso Flores	34.20	278	P	P	16 04 03.9	-2.2
PLCA				S	S	16 09 25.6	-7.7
PLCA	Paso Flores	34.20	278	P	P	16 04 03.9	-2.2
	comp=Z,72nm,0.8s,mb5.7,baz=143,slow=8.1,SNR=111						
PLCA				S	S	16 09 25.6	-7.7
	comp=Z,6.4nm,1.0s,baz=227,slow=18,SNR=1.6						
PLCA				LR	LR	16 17 10.8	
	comp=Z,202µm,21.8s,MS6.8,baz=127,slow=35						
PLCA				P3KPbc		16 35 07.2	
	comp=Z,3.3nm,1.0s,baz=66,slow=0.2,SNR=6.0						
PLCA	Paso Flores	34.20	278	P	P	16 04 03.9	-2.2
PLCA				S	S	16 09 25.6	-7.7
PLCA				LR	LR	16 17 10.8	
PLCA				e		16 35 07.2	
ELIM	Elim	36.76	71	⇓iP	P	16 04 26.9	-1.2
CER	Ceres	37.50	69	P	P	16 04 34.8	+0.4
CER	Ceres	37.50	69	⇓iP	P	16 04 32.6	-1.8
CER				eP		16 04 33.4	
CER				AMb	AMB	16 05 00.6	
	comp=Z,115nm,1.7s,mb5.3						
SPB	Sao Paulo	37.81	323	eP	P	16 04 37.5	+0.4
	comp=Z,3µm,1.8s,mb6.7						
SPB				LR	LR		
	comp=Z,97µm,20.0s,MS6.6						
MAW	Mawson	37.98	142	P	P	16 04 38.6	+0.5
MAW						16 06 53.4	
MAW				S	S	16 10 24.2	-6.4
MAW	Mawson	37.98	142	eP	P	16 04 38.3	+0.2
	comp=Z,605nm,1.5s,mb6.1						
MAW				eS	S	16 10 25.8	-4.8
MAW	Mawson	37.98	142	P	P	16 04 38.6	+0.5
	comp=Z,455nm,1.1s,mb6.1,baz=237,slow=8.0,SNR=25						
MAW				PcP	PcP	16 06 53.4	-0.2
	comp=Z,82nm,0.9s,baz=226,slow=4.2,SNR=2.8						
MAW				S	S	16 10 24.2	-6.4
	comp=Z,12nm,0.8s,baz=202,slow=19,SNR=1.9						
MAW				LR	LR	16 19 27.1	
	comp=Z,64µm,18.2s,MS6.5,baz=253,slow=35						
SUR	Sutherland	39.05	70	S	S	16 10 47.0	-0.6
	comp=Z,5.1nm,0.8s,baz=105,slow=20,SNR=1.7						
SUR				LR	LR	16 16 41.1	
	comp=Z,132µm,20.1s,MS6.8,baz=220,slow=30						
SUR	Sutherland	39.05	70	eP	P	16 04 46.9	-0.6
	comp=Z,1µm,1.8s,mb6.2						
SUR				LR	LR		
	comp=Z,138µm,21.0s,MS6.8						
SUR	Sutherland	39.05	70	P	P	16 04 48.8	+1.3
	SNR=13						
SUR				P		16 04 48.8	
	SNR=13						
SUR	Sutherland	39.05	70	⇓iP	P	16 04 47.9	+0.3
SUR				AMb	AMB	16 05 21.3	
	comp=Z,384nm,1.9s,mb5.7						
CPUP	Villa Florida	39.13	308	P	P	16 04 47.0	-1.2
CPUP						16 06 18.2	
CPUP				S	S	16 10 45.2	-3.6
CPUP	Villa Florida	39.13	308	P	P	16 04 47.0	-1.2
	comp=Z,94nm,0.6s,mb5.6,baz=133,slow=7.4,SNR=161						
CPUP				PP	PP	16 06 18.2	+0.5
	comp=Z,53nm,0.8s,baz=139,slow=12,SNR=1.0						
CPUP				S	S	16 10 45.2	-3.5
	comp=Z,16nm,1.1s,baz=139,slow=20,SNR=1.8						
CPUP				LR	LR	16 19 32.6	
	comp=Z,42µm,19.7s,MS6.3,baz=138,slow=34						
CPUP	Villa Florida	39.13	308	P	P	16 04 47.0	-1.2
CPUP				PP	PP	16 06 18.2	+0.5
CPUP				S	S	16 10 45.2	-3.5
CPUP				LR	LR	16 19 32.6	
CVNA	Calvinia	39.24	68	P	P	16 04 49.3	+0.2
CVNA	Calvinia	39.24	68	⇓iP	P	16 04 49.7	+0.6
CVNA				AMb	AMB	16 05 06.0	
	comp=Z,669nm,1.3s,mb6.1						
FCH	Farellones	39.59	287	eP	P	16 04 50.8	-1.2
PEL	Peldehue	39.93	287	eP	P	16 04 53.0	-1.8
GRM	Grahamstown	41.29	76	P	P	16 05 05.0	-1.0
GRM	Grahamstown	41.29	76	⇓iP	P	16 05 03.7	-2.3
GRM				AMb	AMB	16 05 18.3	
	comp=Z,391nm,1.9s,mb5.8						
CMCH	Combarbala	41.65	288	eP	P	16 05 07.6	-1.4
PKA	Prieska	42.22	69	⇓iP	P	16 05 11.8	-1.9
PKA				AMb	AMB	16 05 25.6	
	comp=Z,129nm,1.7s,mb5.4						
UPI	Upington	42.53	67	⇓iP	P	16 05 13.8	-2.4
UPI				AMb	AMB	16 05 18.2	
	comp=Z,573nm,1.2s,mb6.2						
HVD	Gariep Dam	42.88	73	⇓iP	P	16 05 18.3	-0.8
LCO	Las Campanas	43.23	290	eP	P	16 05 20.2	-1.7
	comp=Z,337nm,1.1s,mb6.0						
LCO				LR	LR		
	comp=Z,90µm,20.0s,MS6.7						
SHEL	Horse Pasture	43.31	25	eP	P	16 05 19.6	-3.0
SHEL				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.5						
SHEL				MLR	MLR		
	comp=Z,54µm,19.0s,MS6.5						
SHEL	Horse Pasture	43.31	25	eP	P	16 05 19.6	-3.0
	comp=Z,1µm,1.3s,mb6.5						
SHEL				LR	LR		
	comp=Z,54µm,19.0s,MS6.5						
BOSA	Boshof	44.35	71	eP	P	16 05 29.8	-1.1
BOSA				eS	S	16 12 02.5	-3.5
BOSA				pmax	pmax		
	comp=Z,375nm,1.0s,mb6.1						
BOSA				MLR	MLR		
	comp=Z,113µm,21.0s,MS6.8						
BOSA	Boshof	44.35	71	P	P	16 05 29.2	-1.8
	comp=Z,244nm,0.8s,mb6.0,baz=213,slow=7.8,SNR=146						
BOSA				PcP	PcP	16 07 16.9	+1.9
	comp=Z,88nm,0.9s,baz=187,slow=4.5,SNR=2.6						
BOSA				S	S	16 11 59.0	-7.1
	comp=Z,4.5nm,0.9s,baz=258,slow=9.3,SNR=1.9						
BOSA				LR	LR	16 19 43.8	
	comp=Z,132µm,21.9s,MS6.8,baz=213,slow=30						
BOSA				PKPPKP		16 37 13.0	
	comp=Z,4.2nm,1.0s,baz=104,slow=6.3,SNR=3.7						
BOSA	Boshof	44.35	71	eP	P	16 05 29.8	-1.2
	comp=Z,375nm,1.0s,mb6.1						
BOSA				eS	S	16 12 02.5	-3.5
BOSA				LR	LR		
	comp=Z,113µm,21.0s,MS6.8						
KSD	Kokstad	44.99	77	⇓iP	P	16 05 35.8	-0.2
KSD				AMb	AMB	16 05 56.4	
	comp=Z,1µm,1.6s,mb6.6						
SBA	Scott Base	45.03	183	eP	P	16 05 38.4	+2.6
SBA				pmax	pmax		
	comp=Z,1µm,1.5s,mb6.6						
SBA				MLR	MLR		
	comp=Z,30µm,20.0s,MS6.2						
SBA	Scott Base	45.03	183	eP	P	16 05 38.4	+2.6
	comp=Z,1µm,1.5s,mb6.6						
SBA				LR	LR		
	comp=Z,30µm,20.0s,MS6.2						
VNDA	Vanda	45.48	182	P	P	16 05 38.9	-0.4
VNDA				S	S	16 12 22.3	+1.0
VNDA	Vanda	45.48	182	P	P	16 05 38.9	-0.4
	comp=Z,261nm,1.2s,mb6.0,baz=190,slow=7.2,SNR=37						
VNDA				S	S	16 12 22.3	+0.9
	comp=Z,15nm,1.1s,baz=118,slow=17,SNR=1.6						
VNDA				LR	LR	16 23 24.5	
	comp=Z,39µm,20.6s,MS6.3,baz=180,slow=34						
VNDA	Vanda	45.48	182	P	P	16 05 38.9	-0.4
VNDA				S	S	16 12 22.3	+0.9
VNDA				LR	LR	16 23 24.5	
SEK	Senekal	45.81	73	⇓iP	P	16 05 42.0	-0.6
PRYS	Parys	46.80	72	⇓iP	P	16 05 49.3	-1.0
PRYS				AMb	AMB	16 05 51.7	
	comp=Z,802nm,1.2s,mb6.7						
KSR	Koster	47.44	70	⇓iP	P	16 05 53.6	-1.7
KSR				AMb	AMB	16 05 56.9	
	comp=Z,364nm,1.2s,mb6.4						
LBTB	Lobatse	47.47	69	S	S	16 12 42.6	-8.3
	comp=Z,4.9nm,1.0s,baz=217,slow=20,SNR=1.5						
LBTB				LR	LR	16 23 32.7	
	comp=Z,84µm,18.0s,MS6.8,baz=214,slow=33						
LVC	Limon Verde	47.65	297	eP	P	16 05 57.2	+0.2
	comp=Z,1µm,1.0s,mb7.0						
LVC				LR	LR		
	comp=Z,40µm,19.0s,MS6.4						
ERPM	east rand prop	47.73	72	⇑iP	P	16 05 57.0	-0.6
ERPM				AMb	AMB	16 05 59.8	
	comp=Z,730nm,1.3s,mb6.7						
MIR	Mirnyy	47.79	151	κ iP	P	16 05 58.0	+0.4
MIR				i		16 07 52.0	
MIR				i SS	ScS	16 15 50.0	-1.5
MIR				i SSS	SS	16 16 22.0	-0.2
MIR				pmax	pmax		
	comp=Z,5µm,1.5s,mb7.4						
MIR				pmax	pmax		
	comp=Z,12µm,3.0s						
SLR	Silverton	48.25	72	⇓iP	P	16 05 59.8	-1.8
SLR				AMb	AMB	16 06 19.4	
	comp=Z,924nm,1.4s,mb6.7						
POGA	Pongola	48.67	76	P	P	16 06 04.1	-0.7
POGA	Pongola	48.67	76	⇓iP	P	16 06 04.0	-0.8
POGA				AMb	AMB	16 06 08.8	
	comp=Z,472nm,1.0s,mb6.5						
MOPA	Mopani	51.68	73	⇓iP	P	16 06 25.6	-2.1
MOPA				AMb	AMB	16 06 28.8	
	comp=Z,532nm,1.3s,mb6.3						
MSNA	Messina	51.94	71	P	P	16 06 27.9	-1.7
MSNA	Messina	51.94	71	⇓iP	P	16 06 27.5	-2.1
MSNA				AMb	AMB	16 06 42.8	
	comp=Z,636nm,1.2s,mb6.4						
RCBR	Riachuelo	52.18	344	eP	P	16 06 30.4	-1.0
	comp=Z,1µm,1.8s,mb6.5						
RCBR				LR	LR		
	comp=Z,40µm,19.0s,MS6.5						
PAF	Port-aux-Franc	52.28	124	eP	P	16 06 33.3	+1.4
PAF				pmax	pmax		
	comp=Z,788nm,1.3s,mb6.5						
PAF				MLR	MLR		
	comp=Z,32µm,21.0s,MS6.3						
PAF	Port-aux-Franc	52.28	124	eP	P	16 06 33.3	+1.4
	comp=Z,788nm,1.3s,mb6.5						
PAF				LR	LR		
	comp=Z,32µm,21.0s,MS6.3						
ARE	Arequipa	54.15	298	⇓iP	P	16 06 46.0	0.0
DRV	Dumont d'Urvil	55.81	172	P	P	16 06 56.0	-1.4
DRV				S	S	16 14 46.0	+1.1
DRV				SS	SS	16 18 34.0	+4.6
LSZ	Lusaka	56.97	65	eP	P	16 07 05.0	-1.3
LSZ				pmax	pmax		
	comp=Z,229nm,1.1s,mb6.1						
LSZ				MLR	MLR		
	comp=Z,55µm,20.0s,MS6.7						
LSZ	Lusaka	56.97	65	S	S	16 14 56.9	-4.4
	comp=Z,8.1nm,1.1s,baz=301,slow=6.0,SNR=2.9						
LSZ	Lusaka	56.97	65	eP	P	16 07 05.0	-1.3
	comp=Z,229nm,1.1s,mb6.1						
LSZ				LR	LR		
	comp=Z,55µm,20.0s,MS6.7						
LSZ	Lusaka	56.97	65	⇑P	P	16 07 06.1	-0.2
	SNR=75						
LSZ				⇑P		16 07 06.1	
	SNR=75						
LSZ	Lusaka	56.97	65	⇓iP	P	16 07 03.8	-2.4
LSZ				AMb	AMB	16 07 12.7	
	comp=Z,4µm,1.8s,mb7.2						
NNA	Nana	60.60	296	eP	P	16 07 31.3	-0.3
NNA				LR	LR		
	comp=Z,57µm,22.0s,MS6.7						
ABPO	Ambohimpanom	63.79	85	eP	P	16 07 53.6	+0.7
ABPO				pmax	pmax		
	comp=Z,113nm,0.6s,mb6.3						
ABPO				MLR	MLR		
	comp=Z,59µm,22.0s,MS6.7						
ABPO	Ambohimpanom	63.79	85	eP	P	16 07 53.6	+0.7
	comp=Z,113nm,0.6s,mb6.3						
ABPO				LR	LR		
	comp=Z,59µm,22.0s,MS6.7						
LIC	Lamto	65.00	20	⇓iP	P	16 07 59.2	-1.6
	comp=Z,487nm,0.8s,mb6.5,baz=206						
LIC	Lamto	65.00	20	eP	P	16 07 58.8	-2.0
	comp=Z,731nm,0.8s,mb6.9						
LIC	Lamto	65.00	20	⇓iP	P	16 07 59.2	-1.6
	comp=Z,244nm,0.8s,mb6.5						
KIC	Kosan Boka	65.19	21	eP	P	16 07 59.9	-2.1
	comp=Z,1µm,0.9s,mb7.2						
TIC	Toumodi	65.42	20	eP	P	16 08 01.3	-2.2
	comp=Z,1µm,0.8s,mb7.2						
RPN	Rapa Nui	65.43	258	eP	P	16 08 03.2	-0.4
RPN				pmax	pmax		
	comp=Z,467nm,1.3s,mb6.6						
RPN				MLR	MLR		
	comp=Z,30µm,19.0s,MS6.5						
RPN	Rapa Nui	65.43	258	eP	P	16 08 03.2	-0.4
	comp=Z,467nm,1.3s,mb6.6						
RPN				LR	LR		
	comp=Z,30µm,19.0s,MS6.5						
DBIC	Dimbokro	65.47	20	P	P	16 08 02.2	-1.7
DBIC				S	S	16 16 46.9	-2.6
DBIC				pmax	pmax		
	comp=Z,211nm,0.8s						
DBIC				smax			
	comp=N,6.0nm,1.0s						
DBIC				MLR	MLR		
	comp=Z,32µm,18.4s						
DBIC	Dimbokro	65.47	20	P	P	16 08 02.2	-1.7
	comp=Z,211nm,0.8s,mb6.4,baz=170,slow=7.3,SNR=166						
DBIC				S	S	16 16 46.9	-2.6
	comp=Z,5.6nm,1.0s,baz=0.8,slow=17,SNR=2.2						
DBIC				LR	LR	16 31 30.4	
	comp=Z,32µm,18.4s,MS6.6,baz=173,slow=31						
DBIC				PKPPKP		16 36 46.0	
	comp=Z,19nm,1.1s,baz=351,slow=1.2,SNR=10						
DBIC	Dimbokro	65.47	20	eP	P	16 08 01.9	-1.9
	comp=Z,293nm,0.9s,mb6.5						
DBIC				LR	LR		
	comp=Z,33µm,19.0s,MS6.5						
RER	Riviere de l'E	66.68	93	eP	P	16 08 11.8	+0.1
	comp=Z,744nm,1.0s,mb6.9						
RER				LR	LR		
	comp=Z,36µm,21.0s,MS6.6						
MBAR	Mbarara	70.94	59	i P	P	16 08 38.5	+0.3
MBAR	Mbarara	70.94	59	⇓iP	P	16 08 39.0	+0.8
MBAR				AMb	AMB	16 08 42.1	
	comp=Z,386nm,1.8s,mb6.2						

BBTS	Babate	71.85	7	P	P	16 08 43.2	-0.4
	comp=Z,109nm,0.8s,mb6.0,baz=165,slow=3.4,SNR=17						
BBTS				PP	PP	16 11 17.3	-6.0
	comp=Z,29nm,0.9s,baz=315,slow=4.3,SNR=2.6						
BBTS				S	S	16 18 02.3	-2.7
	comp=Z,15nm,0.5s,baz=347,slow=3.0,SNR=2.0						
BBTS				LR	LR	16 35 03.8	
	comp=Z,66µm,18.2s,MS6.9,baz=187,slow=32						
OTAV	Otavalo	72.00	301	eP	P	16 08 45.4	+0.7
OTAV				LR	LR		
	comp=Z,32µm,22.0s,MS6.5						
TOA0	Torodi Ar. Sit	73.15	26	⇓iP	P	16 08 50.1	-1.2
TORD	Torodi Ar. Bea	73.15	26	P	P	16 08 50.0	-1.3
	comp=Z,796nm,0.8s,mb6.9,baz=194,slow=5.7,SNR=1400						
TORD				S	S	16 18 18.1	-1.9
	comp=Z,4.0nm,1.1s,baz=237,slow=4.5,SNR=3.2						
TORD				PKKPbc	PKKPbc	16 28 31.7	+3.3
	comp=Z,1.3nm,0.9s,baz=344,slow=3.1,SNR=3.7						
TORD				PKPPKP		16 36 29.6	
	comp=Z,6.3nm,1.2s,baz=352,slow=2.8,SNR=7.2						
TORD				LR	LR	16 36 54.7	
	comp=Z,25µm,18.3s,MS6.5,baz=220,slow=32						
KMBO	Kilima Mbogo	73.61	65	P	P	16 08 56.0	+1.7
	comp=Z,26nm,0.6s,mb5.5,baz=359,slow=0.9,SNR=13						
KMBO				S	S	16 18 38.4	+13
	comp=Z,18nm,0.4s,baz=236,slow=0.3,SNR=2.0						
KMBO				LR	LR	16 37 38.5	
	comp=Z,30µm,21.1s,MS6.5,baz=209,slow=33						
TPP	Pointe-a-Pierr	74.17	321	e	P	16 09 02.2	+4.8
TBH	Brigand Hill	74.19	321	e	P	16 09 00.5	+3.0
ROSC	El Rosal	74.23	307	P	P	16 08 57.2	-0.6
	comp=Z,100nm,0.8s,mb5.9,baz=122,slow=2.0,SNR=25						
ROSC				S	S	16 18 30.4	-2.0
	comp=Z,4.7nm,0.3s,baz=90,slow=20,SNR=3.2						
ROSC				LR	LR	16 40 47.8	
	comp=Z,38µm,20.4s,MS6.7,baz=183,slow=35						
TRN	Trinidad (W)	74.46	321	e	P	16 09 01.3	+2.2
TCE	Chacachacare	74.63	321	e	P	16 09 02.0	+2.0
BOT	Bacolet	74.71	322	e	P	16 09 02.5	+1.9
TPR	Prospect	74.75	322	e	P	16 09 02.7	+2.0
GRGR	Grenville	75.93	321	eP	P	16 09 07.0	-0.5
	comp=Z,1µm,1.0s,mb7.0						
GRGR				LR	LR		
	comp=Z,33µm,20.0s,MS6.6						
GRW	Mount Saint Ca	75.96	321	e	P	16 09 07.8	+0.1
GRHS	Sauteurs	76.01	322	e	P	16 09 10.3	+2.3
GRSS	Sisters	76.07	322	e	P	16 09 07.8	-0.5
GRCU	Cariacou	76.18	322	e	P	16 09 09.9	+1.0
BBGH	Gun Hill	76.19	324	PFAKE		16 09 20.0	+11
BBGH				LR	LR		
	comp=Z,61µm,22.0s,MS6.9						
SDV	Santo Domingo	76.30	312	eP	P	16 09 08.5	-1.1
SDV				LR	LR		
	comp=Z,25µm,19.0s,MS6.5						
SSV	Crater Summit	76.89	322	e	P	16 09 15.3	+2.4
PAYG	Puerto Ayora	77.04	289	eP	P	16 09 14.6	+0.6
	comp=Z,464nm,1.3s,mb6.5						
PAYG				LR	LR		
	comp=Z,25µm,21.0s,MS6.5						
SLB	Belfond	77.31	323	e	P	16 09 18.0	+2.7
ODZ	Otahua Downs	77.42	190	eP	P	16 09 13.7	-2.0
	comp=Z,420nm,1.4s,mb6.4						
PTCN	Pitcairn Islan	77.72	243	PFAKE		16 09 30.0	+12
PTCN				LR	LR		
	comp=Z,27µm,22.0s,MS6.5						
BIM	Bigot	77.96	323	eP	P	16 09 18.9	0.0
FDF	Fort de France	78.19	323	eP	P	16 09 20.1	-0.1
FDF				pmax	pmax		
	comp=Z,1µm,1.3s,mb7.0						
FDF				MLR	MLR		
	comp=Z,17µm,20.0s,MS6.4						
FDF	Fort de France	78.19	323	eP	P	16 09 20.9	+0.6
FDF	Fort de France	78.19	323	eP	P	16 09 20.1	-0.1
	comp=Z,1µm,1.3s,mb7.0						
FDF				LR	LR		
	comp=Z,17µm,20.0s,MS6.4						
RPZ	Rata Peaks	78.69	191	eP	P	16 09 23.4	+0.6
	comp=Z,313nm,1.1s,mb6.2						
DSHT	Scott's Head	78.71	323	e	P	16 09 24.9	+1.8
DSTT	Stowe	78.72	323	e	P	16 09 24.2	+1.1
DFBT	Forest Bistro	78.73	323	e	P	16 09 23.8	+0.6
MDN	Morne-Daniel	78.82	323	e	P	16 09 27.2	+3.5
KHZ	Kahutara	79.70	193	eP	P	16 09 26.8	-1.6
	comp=Z,500nm,1.5s,mb6.2						
TAU	Tasmania Unive	79.94	173	eP	P	16 09 30.0	+0.4
TAU				LR	LR		
	comp=Z,59µm,20.0s,MS6.9						
MSEY	Mahe Island	80.12	83	P	P	16 09 31.3	+0.3
	comp=Z,788nm,1.0s,mb6.6,SNR=16						
MSEY	Mahe Island	80.12	83	eP	P	16 09 30.5	-0.5
MSEY				pmax	pmax		
	comp=Z,226nm,1.2s,mb6.0						
MSEY				MLR	MLR		
	comp=Z,55µm,22.0s,MS6.9						
MSEY	Mahe Island	80.12	83	eP	P	16 09 30.5	-0.5
	comp=Z,226nm,1.2s,mb6.0						
MSEY				LR	LR		
	comp=Z,55µm,22.0s,MS6.9						
MSEY	Mahe Island	80.12	83	P	P	16 09 31.4	+0.4
	SNR=11						
MSEY				P		16 09 31.4	
	SNR=11						
MOO	Moorlands	80.40	173	eP	P	16 09 34.5	+2.4
MOO				eS	S	16 19 35.9	-2.9
BCIP	Isla Barro Col	80.51	304	eP	P	16 09 33.2	+0.3
BCIP				LR	LR		
	comp=Z,28µm,21.0s,MS6.6						
BPA	Boggy Peak	80.58	323	e	S	16 19 41.5	+0.4
SNZO	South Karori	80.64	194	eP	P	16 09 33.5	+0.1
SNZO				LR	LR		
	comp=Z,27µm,20.0s,MS6.6						
ANWB	Willy Bob	81.14	323	eP	P	16 09 35.8	-0.4
ANWB				LR	LR		
	comp=Z,22µm,22.0s,MS6.5						
BRU2	Volcan	81.49	301	eP	P	16 09 37.8	-0.4
ACR	Cerro Adams	81.59	300	eP	P	16 09 39.1	+0.4
RKT	Rikitea	81.70	240	eP	P	16 09 40.4	+1.0
	comp=Z,447nm,1.3s,mb6.4						
RKT				eS	S	16 19 50.1	-2.9
	comp=Z,29µm,34.0s						
RKT				eLQ		16 31 47.5	
	comp=Z,53µm,36.5s						
RKT				eLR	LR	16 35 15.0	
	comp=Z,150µm,33.5s,baz=151						
BAR1		82.17	301	eP	P	16 09 42.0	+0.2
CDVI	St. Croix	82.22	321	eP	P	16 09 45.5	+3.6
BUS	Buena Vista	82.66	300	eP	P	16 09 45.0	+0.7
LIO	Limon	82.71	301	eP	P	16 09 48.8	+4.2
MTP	Monte Pirata	82.81	320	eP	P	16 09 43.3	-1.7
	comp=Z,504nm,1.4s,mb6.6						
URSC	Urasca	82.91	300	eP	P	16 09 45.8	+0.1
LCR2	La Lucha 2	82.94	300	eP	P	16 09 46.0	+0.2
HUMP	Col San Antoni	82.96	320	eP	P	16 09 44.8	-0.9
FURI	Furi	83.00	62	eP	P	16 09 48.3	+2.2
FURI				S	S	16 20 15.6	+9.4
SJG	San Juan	83.04	320	eP	P	16 09 44.6	-1.5
SJG				MLR	MLR		
	comp=Z,44µm,20.0s						
CBYP	Canovanas	83.08	320	eP	P	16 09 44.7	-1.7
	comp=Z,303nm,1.1s,mb6.4						
LAJ	Bijagual	83.10	300	eP	P	16 09 47.6	+1.0
OBIP	Obispado Ponce	83.13	319	eP	P	16 09 45.2	-1.4
CELP	Cerrillos	83.15	319	eP	P	16 09 45.3	-1.5
CRPR	Cabo Rojo, PR	83.28	319	eP	P	16 09 45.7	-1.7
URZ	Urewera	83.30	196	eP	P	16 09 46.2	-1.3
	comp=Z,645nm,1.4s,mb6.7						
TAM	Tamanrasset	83.35	27	⇓iP	P	16 09 48.4	+0.7
TAM				pmax	pmax		
	comp=Z,191nm,1.0s,mb6.3						
TAM				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.5						
TAM	Tamanrasset	83.35	27	⇓iP	P	16 09 48.4	+0.7
	comp=Z,191nm,1.0s,mb6.3						
TAM				LR	LR		
	comp=Z,22µm,19.0s,MS6.5						
CGA2	Cerro Gallo 2	83.39	300	eP	P	16 09 49.4	+1.3
LRS	Lares	83.45	319	eP	P	16 09 49.0	+0.7
AOPR	Arecibo Observ	83.47	319	eP	P	16 09 48.2	-0.2
MPR	Mayaguez	83.48	319	eP	P	16 09 47.8	-0.7
JCR	Jicaral	83.55	299	eP	P	16 09 49.7	+0.8
JTS	JuntasAbangare	83.86	300	eP	P	16 09 50.7	+0.2
JTS				LR	LR		
	comp=Z,29µm,22.0s,MS6.6						
JTS	JuntasAbangare	83.86	300	eP	P	16 09 49.9	-0.7
FORC	Fortuna	83.88	300	eP	P	16 09 51.8	+1.1
VCR	Vista de Mar	84.04	299	eP	P	16 09 51.7	+0.2
NWAO	Narrogin (SRO)	84.28	148	eP	P	16 09 50.7	-1.9
NWAO				pmax	pmax		
	comp=Z,148nm,0.8s						
NWAO				MLR	MLR		
	comp=Z,13µm,19.0s						
NWAO	Narrogin (SRO)	84.28	148	eP	P	16 09 50.7	-1.8
	comp=Z,148nm,0.8s,mb6.3						
NWAO				LR	LR		
	comp=Z,13µm,19.0s,MS6.3						
NWAO	Narrogin (SRO)	84.28	148	P	P	16 09 52.4	-0.2
	SNR=22						
NWAO				P		16 09 52.4	
	SNR=22						
CHIE	El Hierro	84.74	5	P	P	16 09 55.3	+0.6
	comp=Z,513nm,2.3s,mb6.3						
MUN	Mundaring	84.86	147	eP	P	16 09 55.1	-0.4
MUN				ePP	PP	16 13 06.1	-4.9
MUN				eS	S	16 20 24.0	-0.8
TOO	Toolangi	85.11	171	eP	P	16 09 56.3	-0.4
TOO				ePP	PP	16 13 15.9	+3.1
TOO				eS	S	16 20 24.8	-2.3
SSN	San Juan del S	85.17	299	eP	P	16 09 56.9	-0.3
EGOM	La Gomera	85.21	6	P	P	16 09 56.4	-0.7
	comp=Z,3µm,4.4s						
EOSO	Osorio	85.22	7	P	P	16 09 57.6	+0.5
	comp=Z,2µm,3.0s						
CCAN	Las Canadas	85.31	6	P	P	16 09 58.5	+1.0
	comp=Z,165nm,1.5s,mb6.0						
DESE	Dese	85.38	61	eP	P	16 10 01.5	+3.3
DESE				S	SKSac	16 20 18.4	-6.0
EBAJ	Bajamar	85.64	6	P	P	16 09 58.9	-0.2
	comp=Z,721nm,2.4s,mb6.4						
CFTV	Fuerteventura	85.67	8	P	P	16 09 59.3	0.0
	comp=Z,267nm,2.8s,mb5.9						
SDDR	Presa de Saban	85.72	315	eP	P	16 09 59.2	-0.6
SDDR				LR	LR		
	comp=Z,30µm,21.0s,MS6.7						
WILN	Americas 2	86.08	299	eP	P	16 10 00.1	-1.6
BOAB	BOACO BROADBAN	86.08	300	eP	P	16 09 59.8	-1.9
MGAN	Managua	86.09	299	eP	P	16 10 02.0	+0.3
CSAN		86.21	299	eP	P	16 10 02.2	-0.1
HUEN		86.22	300	eP	P	16 10 03.1	+0.8
COPN	Copaltepe	86.28	299	eP	P	16 10 00.8	-1.9
EFAM	Famara	86.42	9	P	P	16 10 02.8	-0.2
	comp=Z,148nm,0.9s,mb6.1						
CNGN	Cerro Negro	86.61	299	eP	P	16 10 01.5	-2.7
OUZ	Omahuta	86.78	194	eP	P	16 10 03.4	-1.6
	comp=Z,619nm,1.4s,mb6.7						
PCJ	Portland Cotta	86.96	310	⇑iP	P	16 10 06.9	+1.0
HOJ	Hope	87.02	310	⇑iP	P	16 10 07.9	+1.7
GWJ	Greenwich	87.08	310	⇑iP	P	16 10 07.5	+1.1
STH	Stony Hill	87.11	310	⇑iP	P	16 10 07.8	+1.2
MCJ	Malvern	87.34	309	⇑iP	P	16 10 09.3	+1.5
MTDJ	Mount Denham	87.55	310	eP	P	16 10 10.7	+1.9
MTDJ				LR	LR		
	comp=Z,51µm,22.0s,MS6.9						
CAN	Canberra	87.60	174	eP	P	16 10 06.9	-2.1
CAN				pmax	pmax		
	comp=Z,550nm,1.6s,mb6.6						
CAN				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.6						
CAN	Canberra	87.60	174	eP	P	16 10 06.9	-2.1
	comp=Z,550nm,1.6s,mb6.6						
CAN				LR	LR		
	comp=Z,23µm,20.0s,MS6.6						
CNB	Canberra Magne	87.62	174	eP	P	16 10 08.6	-0.5
CNB				eS	S	16 20 45.3	-6.3
CNCH	Conchagua	87.83	299	eP	P	16 10 08.9	-1.3
NEJ	Negril	87.90	309	⇑iP	P	16 10 11.7	+1.3
MASC	Masc	87.95	313	eP	P	16 10 10.9	+0.3
GRTK	Grand Turk	87.97	316	PFAKE		16 10 20.0	+9.3
GRTK				LR	LR		
	comp=Z,29µm,20.0s,MS6.7						
GTBY	Guantanamo Bay	88.08	312	eP	P	16 10 11.4	+0.2
GTBY				LR	LR		
	comp=Z,54µm,22.0s,MS6.9						
BLLM	Bellamira	88.16	298	eP	P	16 10 10.4	-1.3
TGUH	Tegucigalpa,Un	88.24	299	eP	P	16 10 11.8	-0.3
TGUH				LR	LR		
	comp=Z,18µm,21.0s,MS6.5						
TGUH	Tegucigalpa,Un	88.24	299	eP	P	16 10 11.4	-0.7
RCC	Rio Carpintero	88.37	312	⇓iP	P	16 10 12.0	-0.6
CAHU	Cacacuatique	88.44	298	eP	P	16 10 11.8	-1.3
MOAC	Moa	88.68	313	eP	P	16 10 15.3	+1.3
LFRS	El Faro	88.72	298	eP	P	16 10 13.1	-1.3
LMGC	Las Mercedes	88.97	311	eP	P	16 10 16.6	+1.2
FORT	Forrest	89.11	156	eP	P	16 10 16.2	0.0
	comp=Z,388nm,0.7s,mb6.7						
FORT				eS	SKSac	16 20 45.3	-1.8
FORT	Forrest	89.11	156	eP	P	16 10 15.8	-0.4
	comp=Z,549nm,0.9s,mb6.8						
SBLS	San Blas	89.17	297	eP	P	16 10 14.9	-1.6
HLGC	Holguin	89.33	312	eP	P	16 10 18.9	+1.8
TRBA	At Turbah	89.38	64	⇓eP	P	16 10 20.0	+2.5
RBDL	Robledal	89.44	297	eP	P	16 10 16.8	-0.9
PMAR	Madeira	89.77	6	eP	P	16 10 20.3	+1.4
	comp=Z,296nm,1.6s,mb6.3						
PMPS	Porto Santo	90.13	6	eP	P	16 10 21.8	+1.2
	comp=Z,500nm,1.5s,mb6.5						
CCCC	Cccc	90.30	311	eP	P	16 10 19.4	-2.2
STKA	Stephens Creek	90.36	167	ePP	PP	16 13 56.4	+1.3
STKA				eSKS	SKSac	16 20 52.1	-2.3
STKA				ePKKP	PKKPbc	16 27 45.9	-1.9
STKA	Stephens Creek	90.36	167	P	P	16 10 21.9	-0.1
	comp=Z,198nm,1.1s,mb6.2,baz=164,slow=4.5,SNR=32						
STKA				PP	PP	16 13 56.9	+1.8
	comp=Z,64nm,1.2s,baz=174,slow=8.1,SNR=5.3						
STKA				PKKPbc	PKKPbc	16 27 45.9	-1.9
	comp=Z,7.1nm,1.0s,baz=0.5,slow=3.7,SNR=4.1						
STKA				LR	LR	16 47 37.9	
	comp=Z,54µm,21.6s,MS7.0,baz=186,slow=33						
STKA	Stephens Creek	90.36	167	P	P	16 10 21.9	-0.1
STKA				PP	PP	16 13 56.9	+1.8
STKA				PKKPbc	PKKPbc	16 27 45.9	-1.9
STKA				LR	LR	16 47 37.9	
DHBB	Dhamar BB	90.66	64	⇓eP	P	16 10 26.4	+3.0
MDT	Midelt	91.10	16	P	P	16 10 26.4	+1.3
	comp=Z,97nm,0.8s,mb6.2,baz=203,slow=3.4,SNR=46						
MDT				PP	PP	16 14 03.3	+1.1
	comp=Z,22nm,1.2s,baz=141,slow=14,SNR=2.9						
RAO	Raoul Island	91.19	202	LR	LR	16 45 41.6	
	comp=Z,13µm,21.6s,MS6.3,baz=172,slow=32						
RAO	Raoul Island	91.19	202	PFAKE		16 10 30.0	+4.1
RAO				LR	LR		
	comp=Z,16µm,22.0s,MS6.4						
RTC	Rabat Centre	91.94	14	PFAKE		16 10 40.0	+11
RTC				LR	LR		
	comp=Z,33µm,20.0s,MS6.8						
MGV	Manicaragua	92.03	309	eP	P	16 10 29.7	0.0
MEH	Mehetia	92.17	232	eP	P	16 10 31.3	+0.7
	comp=Z,665nm,1.3s,mb6.8						
CCIG	Comitan	92.49	296	i P	P	16 10 29.1	-2.9
ARMA	Armidale	92.61	176	eP	P	16 10 31.2	-1.3
ARMA				ePP	PP	16 14 03.3	-10
ARMA				eS	S	16 21 28.4	-9.5
ARMA	Armidale	92.61	176	eP	P	16 10 31.1	-1.4
	comp=Z,388nm,1.9s,mb6.5						
ARMA				ePP	PP	16 14 02.6	-10
TVO	Taravao	92.76	231	eP	P	16 10 34.6	+1.3
	comp=Z,2µm,1.3s,mb7.3						
TIAR	Tiarei	93.00	231	eP	P	16 10 35.5	+1.1
	comp=Z,323nm,1.0s,mb6.7						
PAE	Paea	93.00	231	eP	P	16 10 35.4	+0.9
	comp=Z,242nm,1.4s,mb6.4						
PPT	Papeete	93.08	231	eP	P	16 10 36.0	+1.2
	comp=Z,294nm,1.6s,mb6.5						
PPT				eS	S	16 21 38.3	-4.1
	comp=Z,28µm,25.2s						
PPT				eLQ		16 36 34.1	
	comp=Z,25µm,27.2s						
PPT				eLR	LR	16 40 30.1	
	comp=Z,270µm,28.2s,baz=155						
PPT	Papeete	93.08	231	P	P	16 10 35.9	+1.1
	comp=Z,92nm,1.0s,mb6.2,baz=129,slow=5.0,SNR=9.7						
PPT				LR	LR	16 43 05.1	
	comp=Z,73µm,21.2s,MS7.1,baz=103,slow=30						
RAR	Rarotonga	93.72	220	eP	P	16 10 35.1	-2.6
RAR				pmax	pmax		
	comp=Z,186nm,1.4s						
RAR				MLR	MLR		
	comp=Z,18µm,19.0s						
RAR	Rarotonga	93.72	220	LR	LR	16 46 38.9	
	comp=Z,17µm,19.6s,MS6.5,baz=335,slow=32						
RAR	Rarotonga	93.72	220	eP	P	16 10 35.1	-2.6
	comp=Z,186nm,1.4s,mb6.2						
RAR				LR	LR		
	comp=Z,18µm,19.0s,MS6.5						
PSMA	Santa Maria	93.87	359	eP	P	16 10 39.1	+1.4
	comp=Z,358nm,1.2s,mb6.6						
PSMN	Pico do Norte,	93.87	359	eP	P	16 10 37.0	-0.8
SOR	Soroa	93.93	307	eP	P	16 10 38.5	+0.1
OLHC	Oulhaca	93.99	18	P	P	16 10 35.0	-3.4
HUIG	Huatulco	94.02	293	i P	P	16 10 38.9	-0.1
TEIG	Tepich	94.05	302	PFAKE		16 10 50.0	+11
TEIG				LR	LR		
	comp=Z,18µm,21.0s,MS6.5						
TEIG	Tepich	94.05	302	eP	P	16 10 38.4	-0.7
ODZI	Dziouia	94.06	18	P	P	16 10 37.0	-1.7
ODJA	Bouhanifia	94.28	19	P	P	16 10 43.0	+3.3
VAH	Vaihoa	94.33	233	eP	P	16 10 41.4	+0.8
	comp=Z,461nm,1.3s,mb6.7						
SFS	San Fernando	94.47	14	PFAKE		16 10 50.0	+9.5
SFS				LR	LR		
	comp=Z,71µm,19.0s,MS7.2						
CMIG	Matias Romero	94.53	295	P	P	16 10 40.0	-1.3
	comp=Z,31nm,1.0s,mb5.7,baz=151,slow=3.8						
CMIG				PP	PP	16 14 26.8	-2.5
	comp=Z,17nm,1.2s,baz=71,slow=9.7,SNR=3.5						
CMIG				PKKPbc	PKKPbc	16 27 40.1	+2.4
	comp=Z,6.0nm,0.8s,baz=27,slow=6.8,SNR=7.2						
CMIG	Matias Romero	94.53	295	P	P	16 10 40.0	-1.3
CMIG				PP	PP	16 14 26.8	-2.5
CMIG				PKKPbc	PKKPbc	16 27 40.1	+2.4
EJIF	Jimena Fronter	94.55	14	P	P	16 10 41.8	+0.9
EJIF				pmax	pmax		
	comp=Z,233nm,1.6s,mb6.4						
EJIF	Jimena Fronter	94.55	14	P	P	16 10 41.8	+0.9
	comp=Z,233nm,1.6s,mb6.4						
ETRT	Tiaret	94.61	20	P	P	16 10 41.8	+0.6
OJGS	Djebel Guires	94.62	20	P	P	16 10 36.0	-5.2
CMLA	Cha da Macela	94.64	358	eP	P	16 10 42.2	+0.9
	comp=Z,212nm,1.4s,mb6.4						
CMLA				eS	SKSac	16 21 26.2	+9.0
CMLA				eSS	SS	16 28 09.5	-10
CMLA	Cha da Macela	94.64	358	eP	P	16 10 42.7	+1.4
CMLA				pmax	pmax		
	comp=Z,116nm,1.0s,mb6.3						
CMLA				MLR	MLR		
	comp=Z,18µm,19.0s,MS6.6						
CMLA	Cha da Macela	94.64	358	eP	P	16 10 42.7	+1.5
	comp=Z,116nm,1.0s,mb6.3						
CMLA				LR	LR		
	comp=Z,18µm,19.0s,MS6.6						
PMOR	Pomariorio Ree	94.65	233	eP	P	16 10 43.0	+0.9
	comp=Z,380nm,1.3s,mb6.7						
ESPR	Espera	94.91	14	P	P	16 10 45.1	+2.5
	comp=Z,422nm,2.4s,mb6.5						
MORF	Marmelete	95.00	12	eP	P	16 10 45.0	+2.1
	comp=Z,297nm,1.3s,mb6.6						
MORF				eSKS	SKSac	16 21 22.0	+2.9
MORF				eSS	SS	16 28 30.2	+6.0
MORF				eLQ		16 35 51.9	
MORF				eLR	LR	16 42 20.8	
	comp=Z,33µm,18.0s						
MORF	Marmelete	95.00	12	eP	P	16 10 41.6	-1.3
MORF				eS	SKSac	16 21 15.4	-3.7
PBDV	Barranco-do-Ve	95.02	12	eP	P	16 10 47.1	+4.1
	comp=Z,254nm,1.5s,mb6.4						
PBDV				eSKS	SKSac	16 21 23.7	+4.4
PBDV				eSS	SS	16 28 30.5	+6.0
PBDV				eLQ		16 35 45.6	
PBDV				eLR	LR	16 42 37.5	
TUIG	Tuzandepetl	95.11	295	i P	P	16 10 45.9	+2.0
EANR	'Ain N'Sour	95.11	20	P	P	16 10 42.4	-1.1
OKGL	Djebel Kef Gue	95.12	19	P	P	16 10 37.0	-6.5
PVAQ	Vaqueiros	95.20	13	eP	P	16 10 46.7	+2.8
PVAQ				eSKS	SKSac	16 21 22.4	+2.2
PVAQ				eSS	SS	16 28 32.3	+5.2
PVAQ				eLQ		16 35 55.5	
PVAQ				eLR	LR	16 42 48.5	
	comp=Z,26µm,20.0s						
PTEO	Sao Teotonio	95.23	12	eP	P	16 10 45.4	+1.4
	comp=Z,233nm,1.2s,mb6.5						
COCO	West Island	95.31	122	i P	P	16 10 46.6	+1.5
COCO	West Island	95.31	122	PFAKE		16 10 50.0	+4.9
COCO				LR	LR		
	comp=Z,15µm,22.0s,MS6.4						
ERON	Agron	95.34	16	P	P	16 10 44.8	+0.2
ECHA	Ech Chlef	95.36	20	P	P	16 10 42.8	-1.8
EBER	Berja	95.36	16	P	P	16 10 47.9	+3.3
	comp=Z,705nm,3.2s						
VHO	Vista Hermosa	95.44	293	i P	P	16 10 44.0	-1.4
EBNR	Beni Rached	95.53	20	P	P	16 10 43.5	-1.9
ENIJ	Nijar	95.54	17	P	P	16 10 46.2	+0.8
PNIG	Pinotepa	95.56	292	i P	P	16 10 43.9	-2.1
PMAN	Manadas	95.57	356	eP	P	16 10 44.3	-1.2
	comp=Z,317nm,1.2s,mb6.7						
ECOG	Cogollos-Vega	95.63	16	P	P	16 10 47.2	+1.4
ECOG				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.6						
ECOG	Cogollos-Vega	95.63	16	P	P	16 10 47.2	+1.4
	comp=Z,22nm,1.1s,mb5.6						
ATAF	Djebel Tarf	95.66	22	P	P	16 10 48.0	+2.0
EMIN	Mina Concepcio	95.69	13	P	P	16 10 47.5	+1.4
	comp=Z,234nm,2.7s,mb6.2						
EMHD	Djebel Mahouad	95.71	21	P	P	16 10 44.2	-2.0
AKET	Djebel Ketaf	95.75	22	P	P	16 10 48.5	+2.1
ADJB	Djebel Djouab	95.77	22	P	P	16 10 47.2	+0.7
BBSR	BB Station	95.78	326	PFAKE		16 11 00.0	+13
BBSR				LR	LR		
	comp=Z,34µm,22.0s,MS6.8						
PBEJ	Beja	95.80	12	eP	P	16 10 48.1	+1.5
	comp=Z,118nm,2.0s,mb6.1						
ELUQ	Luque	95.81	15	P	P	16 10 46.6	0.0
ELUQ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.3						
ELUQ	Luque	95.81	15	P	P	16 10 46.5	-0.1
	comp=Z,8.5nm,0.8s,mb5.3						
PBAR	Barrancos	96.05	13	eP	P	16 10 48.0	+0.3
	comp=Z,103nm,2.1s,mb6.0						
PBAR				eSKS	SKSac	16 21 29.0	+4.3
PBAR				eSS	SS	16 28 45.4	+6.4
PBAR				eLR	LR	16 36 11.5	
PBAR				eLR	LR	16 43 22.9	
MBWA	Marble Bar	96.06	146	PFAKE		16 11 00.0	+12
MBWA				LR	LR		
	comp=Z,26µm,19.0s,MS6.7						
SET	Setif	96.21	23	P	P	16 10 51.0	+2.5
EQES	Quesada	96.22	16	P	P	16 10 49.7	+1.2
EVOP	Sao Brissos	96.27	12	eP	P	16 10 47.7	-1.0
EVOP				eS	SKSac	16 21 23.7	-2.1
EVOP				AMS	AMS	16 48 39.8	
	comp=Z,36µm,20.3s,MS6.8						
EVOP	Sao Brissos	96.27	12	eP	P	16 10 47.7	-1.0
EVOP				eS	SKSac	16 21 23.7	-2.1
EVO	Evora	96.28	12	eP	P	16 10 48.5	-0.3
	comp=Z,81nm,0.8s,mb6.0						
EVO	Evora	96.28	12	eP	P	16 10 49.7	+0.9
	comp=Z,141nm,1.9s,mb6.2						
EHUE	Huescar	96.31	17	P	P	16 10 48.4	-0.5
ABA	Alger-Bouzarea	96.31	21	P	P	16 10 46.9	-2.0
EBAN	Banos Encina	96.47	16	P	P	16 10 49.7	+0.1
EBAN				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.5						
EBAN	Banos Encina	96.47	16	P	P	16 10 49.7	+0.1
	comp=Z,12nm,0.8s,mb5.5						
TAOE	Nuku Hiva Isla	96.47	243	ePP	PP	16 14 43.5	-0.3
	comp=Z,9µm,27.1s						
TAOE				eSKSac	SKSac	16 21 23.5	-4.9
	comp=Z,41µm,28.4s						
TAOE				eSP	SP	16 23 26.8	-4.7
	comp=Z,30µm,25.9s						
TAOE				eSS	SS	16 28 43.1	-1.3
	comp=Z,56µm,28.2s						
TAOE				eLQ		16 38 06.3	
	comp=Z,90µm,31.3s						
TAOE				eLR	LR	16 42 07.0	
	comp=Z,194µm,35.5s,baz=170						
PMAFR	Mafra	96.56	11	eP	P	16 10 50.4	+0.4
PMAFR				eSKS	SKSac	16 21 31.6	+4.3
PMAFR				eSS	SS	16 28 45.1	-1.2
PMAFR				eLQ		16 36 26.6	
PMAFR				eLR	LR	16 42 59.8	
	comp=Z,33µm,18.0s						
PMAFR				-MS		16 48 39.8	
EBAD	Badajoz	96.62	13	P	P	16 10 50.1	-0.2
	comp=Z,18nm,0.8s,mb5.8						
DFRA	Djebel Bou Aff	96.65	23	P	P	16 10 51.0	+0.5

PESTR	**Estremoz**	**96.66**	**12**	*e*P	**P**	**16 10 53.0**	**+2.5**
	comp=Z,166nm,2.0s,mb6.3						
PESTR				*e*SKS	SKSac	16 21 33.0	+5.2
PESTR				*e*SS	SS	16 28 55.8	+8.1
PESTR				*e*LQ		16 36 33.8	
PESTR				*e*LR	LR	16 42 56.0	
KEST	**Kesra**	**96.66**	**26**	P	**P**	**16 10 50.9**	**+0.3**
	comp=Z,12nm,0.9s,mb5.5,baz=121,slow=2.2,SNR=16						
KEST				PP	PP	16 14 41.8	-3.8
	comp=Z,2.4nm,0.9s,baz=156,slow=18,SNR=3.3						
KEST				LR	LR	16 51 40.8	
	comp=Z,13µm,18.3s,MS6.5,baz=145,slow=34						
CKFL	**Kef-Lekhel**	**96.69**	**24**	P	**P**	**16 10 52.0**	**+1.3**
ABSA	**Djebel Ababsia**	**96.74**	**25**	P	**P**	**16 10 51.0**	**+0.1**
CMAH	**Djebel Manchou**	**97.07**	**25**	P	**P**	**16 10 53.0**	**+0.6**
EVIA	**Vianos**	**97.13**	**16**	P	**P**	**16 10 53.2**	**+0.6**
EVIA				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.6						
EVIA	**Vianos**	**97.13**	**16**	P	**P**	**16 10 53.2**	**+0.6**
	comp=Z,11nm,0.7s,mb5.6						
CAIG	**El Cayaco**	**97.20**	**290**	*i* P	**P**	**16 10 49.1**	**-4.4**
ASAR	**Alice Springs**	**97.21**	**159**	P	**P**	**16 10 52.5**	**-1.1**
	comp=Z,47nm,1.1s,mb6.0,baz=195,slow=4.4,SNR=49						
ASAR				PP	PP	16 14 41.5	-7.3
	comp=Z,14nm,1.0s,baz=199,slow=5.0,SNR=4.0						
ASAR				PKKPbc	PKKPbc	16 27 30.6	+0.7
	comp=Z,7.6nm,0.6s,baz=11,slow=2.4,SNR=24						
ASAR				PKPPKP		16 35 40.5	
	comp=Z,6.0nm,0.9s,baz=13,slow=1.9,SNR=14						
PMRV	**Marv??o**	**97.24**	**13**	*e*P	**P**	**16 10 53.2**	**+0.1**
	comp=Z,92nm,1.4s,mb6.2						
PMRV				*e*SKS		16 21 38.1	
PMRV				*e*SS	SS	16 28 58.4	+2.5
PMRV				*e*LQ		16 36 21.6	
PMRV				*e*LR	LR	16 43 53.6	
	comp=Z,39µm,20.0s						
PTOM	**Tomar**	**97.31**	**12**	*e*P	**P**	**16 10 54.7**	**+1.3**
	comp=Z,103nm,2.0s,mb6.1						
LVIG	**Laguna Verde**	**97.53**	**295**	*i* P	**P**	**16 10 54.1**	**-0.8**
EIDS	**Eidsvold**	**97.61**	**175**	*e*P	**P**	**16 10 52.8**	**-2.5**
	comp=Z,92nm,1.3s,mb6.3						
PCBR	**Castelo Branco**	**97.64**	**12**	*e*P	**P**	**16 10 56.6**	**+1.7**
	comp=Z,50nm,2.0s,mb5.9						
PAB	**San Pablo**	**97.75**	**15**	*e*P	**P**	**16 10 50.2**	**-5.2**
PAB				*e*		16 14 49.7	
PAB				pmax	pmax		
	comp=Z,29nm,1.0s,mb6.0						
PAB				MLR	MLR		
	comp=Z,26µm,19.0s,MS6.7						
PAB	**San Pablo**	**97.75**	**15**	*e*P	**P**	**16 10 50.2**	**-5.2**
	comp=Z,29nm,1.0s,mb6.0						
PAB				*e*PP	PP	16 14 49.7	-4.2
PAB				LR	LR		
	comp=Z,26µm,19.0s,MS6.7						
ESDC	**Sonseca Array**	**97.93**	**15**	P	**P**	**16 10 55.5**	**-0.7**
	comp=Z,6.0nm,0.8s,mb5.4,baz=187,slow=4.5,SNR=20						
ESDC				PP	PP	16 14 50.5	-4.8
	comp=Z,0.8nm,0.3s,baz=184,slow=8.3,SNR=9.8						
ESDC				LR	LR	16 53 21.1	
	comp=Z,21µm,18.9s,MS6.7,baz=205,slow=34						
ESDC	**Sonseca Array**	**97.93**	**15**	P	**P**	**16 10 54.6**	**-1.6**
DWPF	**Disney**	**97.94**	**311**	PFAKE		16 11 10.0	+13
DWPF				LR	LR		
	comp=Z,50µm,21.0s,MS7.0						
PPM	**Popocatepetl**	**98.07**	**293**	*i* P	**P**	**16 10 58.3**	**+1.0**
WDD	**Wield Dalam**	**98.13**	**30**	PFAKE		16 11 10.0	+13
WDD				LR	LR		
	comp=Z,16µm,20.0s,MS6.5						
MTE	**Manteigas**	**98.18**	**12**	*e*P	**P**	**16 10 58.5**	**+1.2**
	comp=Z,88nm,1.5s,mb6.3						
MTE				*e*SKS		16 21 36.0	
MTE				*e*SS	SS	16 29 11.2	+2.1
MTE				*e*LQ		16 36 52.4	
MTE				*e*LR	LR	16 43 45.0	
	comp=Z,44µm,20.0s						
MTE	**Manteigas**	**98.18**	**12**	PFAKE		16 11 10.0	+13
MTE				LR	LR		
	comp=Z,43µm,20.0s,MS6.9						
WHFO	**Wadi Hawf**	**98.19**	**70**	P	**P**	**16 10 58.9**	**+1.0**
	SNR=6.4						
ZIIG	**Zihuatanejo**	**98.28**	**290**	*i* P	**P**	**16 10 57.7**	**-0.6**
ECHE	**Chera**	**98.30**	**17**	P	**P**	**16 11 00.7**	**+2.8**
ECHE				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.7						
ECHE	**Chera**	**98.30**	**17**	P	**P**	**16 11 00.7**	**+2.9**
	comp=Z,11nm,0.7s,mb5.7						
PTO	**Porto**	**98.79**	**11**	*e*P	**P**	**16 11 01.2**	**+1.2**
	comp=Z,78nm,1.3s,mb6.3						
PVRL	**Vila Real**	**99.03**	**12**	*e*P	**P**	**16 11 01.6**	**+0.5**
	comp=Z,59nm,2.0s,mb6.0						
ETOR	**Torete**	**99.33**	**16**	P	**P**	**16 11 05.2**	**+2.8**
PCAB	**Cabril**	**99.42**	**12**	*e*P	**P**	**16 11 04.2**	**+1.4**
EIL	**Elat**	**99.53**	**49**	P	**P**	**16 11 04.3**	**+0.7**
	comp=Z,10nm,0.9s,mb5.5,baz=297,slow=2.7,SNR=8.9						
EIL				PP	PP	16 15 06.1	-1.6
	comp=Z,7.2nm,1.0s,baz=39,slow=4.2,SNR=3.7						
VAE	**Valguarnera**	**99.61**	**30**	P		16 11 09.9	
	comp=Z,11nm,0.7s,baz=72,slow=14,SNR=3.6						
VAE				PP	PP	16 15 09.5	+1.3
	comp=Z,6.9nm,0.4s,baz=49,slow=20,SNR=2.6						
ERTA	**Horta de San J**	**99.85**	**18**	P	Pdif	16 11 11.4	+5.8
	comp=Z,11nm,0.9s						
VSL	**Villasalto**	**100.26**	**25**	*e*Pdif	Pdif	16 11 04.4	-3.0
	comp=Z,25nm,1.0s						
VSL				LR	LR		
	comp=Z,22µm,19.0s,MS6.7						
EPOB	**Poblet**	**100.36**	**19**	P	Pdif	16 11 12.3	+4.5
DZM	**Mont Dzumac**	**100.57**	**189**	*e*Pdif	Pdif	16 11 08.6	-0.3
	comp=Z,82nm,1.4s						
VAM	**Vamos**	**100.66**	**38**	*e*P	PP	16 15 27.0	+11
FITZ	**Fitzroy Crossi**	**100.66**	**150**	*e*PDIF	Pdif	16 11 11.0	+1.8
	comp=Z,15nm,0.8s						
FITZ				*e*PP	PP	16 15 01.0	-14
FITZ				*e*SKS		16 21 48.7	
FITZ				*e*PKKP	PKKPbc	16 27 01.6	-19
FITZ				*e*SS	SS	16 29 47.8	+5.6
FITZ	**Fitzroy Crossi**	**100.66**	**150**	*e*Pdif	Pdif	16 11 08.8	-0.4
	comp=Z,46nm,1.5s						
FITZ				*e*PP	PP	16 15 01.1	-14
CEL	**Celeste**	**100.75**	**31**	*e*Pdif	Pdif	16 11 09.7	+0.2
	comp=Z,23nm,0.9s						
CEL				LR	LR		
	comp=Z,19µm,20.0s,MS6.6						
IDI	**Anoyia**	**100.78**	**39**	*e*P	PP	16 15 15.4	-1.8
IDI	**Anoyia**	**100.78**	**39**	P	Pdif	16 11 08.9	-0.8
	comp=Z,5.9nm,0.7s,baz=220,slow=8.0,SNR=6.8						
IDI				PP	PP	16 15 12.9	-4.3
	comp=Z,7.1nm,0.9s,baz=304,slow=19,SNR=4.3						
WRA	**Warramunga Arr**	**100.92**	**159**	P	Pdif	16 11 09.4	-1.0
	comp=Z,8.4nm,0.6s,baz=193,slow=4.1,SNR=77						
WRA				PP	PP	16 15 10.0	-7.1
	comp=Z,8.2nm,1.0s,baz=190,slow=6.6,SNR=4.5						
WRA				PKKP	PKKPbc	16 27 21.0	+1.3
	comp=Z,14nm,0.8s,baz=0.1,slow=3.0,SNR=26						
WRA				PKPPKP		16 35 37.3	
	comp=Z,2.3nm,0.8s,baz=358,slow=1.9,SNR=6.9						
WRAB	**Tennant Creek**	**100.93**	**159**	*e*P	Pdif	16 11 03.6	-6.8
WRAB				pmax	pmax		
	comp=Z,181nm,2.0s						
WRAB				MLR	MLR		
	comp=Z,16µm,21.0s,MS6.5						
WRAB	**Tennant Creek**	**100.93**	**159**	*e*Pdif	Pdif	16 11 03.6	-6.8
	comp=Z,181nm,2.0s						
WRAB				LR	LR		
	comp=Z,16µm,21.0s,MS6.5						
NPS	**Neapolis**	**101.00**	**39**	*e*P	PP	16 15 15.1	-3.7
PYL	**PYLOS**	**101.22**	**35**	*e*P	PP	16 15 17.3	-3.1
VLI	**Veliai**	**101.44**	**36**	*e*P	PP	16 15 18.3	-3.8
ITM	**Ithomi**	**101.54**	**36**	*e*P	PP	16 15 21.6	-1.3
ETSF	**Etsaut**	**101.60**	**17**	*e*P	Pdif	16 11 12.5	-0.8
	comp=Z,40nm,0.9s						
ETSF	**Etsaut**	**101.60**	**17**	*e*P	Pdif	16 11 12.5	-0.8
ETSF				pmax	pmax		
	comp=Z,20nm,0.9s						
ETSF	**Etsaut**	**101.60**	**17**	*e*P	Pdif	16 11 12.5	-0.8
	comp=Z,20nm,0.9s						
SJPF	**Ste Jean**	**101.70**	**16**	*e*P	Pdif	16 11 12.6	-1.2
ELIZ	**Elizondo**	**101.70**	**16**	P	Pdif	16 11 18.1	+4.3
REYF	**Montagne du Re**	**101.79**	**17**	*e*P	Pdif	16 11 20.0	+5.8
KARP	**Karpathos**	**101.80**	**40**	*e*P	PP	16 15 22.4	-2.4
LABF	**Labassere**	**101.84**	**17**	*e*P	Pdif	16 11 19.2	+4.8
TIP	**Timpagrande**	**101.85**	**31**	*e*Pdif	Pdif	16 11 12.1	-2.3
	comp=Z,39nm,1.1s						
TIP				LR	LR		
	comp=Z,15µm,20.0s,MS6.5						
NHSC	**New Hope**	**101.85**	**314**	PFAKE		16 11 20.0	+5.5
NHSC				LR	LR		
	comp=Z,18µm,20.0s,MS6.6						
VLX	**Vlachokerasia**	**101.86**	**36**	*e*P	PP	16 15 24.2	-1.0
VLS	**Valsamata**	**102.04**	**34**	*e*P	PP	16 15 24.0	-2.6
RLS	**Riolos of Patr**	**102.20**	**35**	*e*P	PP	16 15 25.5	-2.3
CUC	**Castrocucco**	**102.35**	**30**	PFAKE		16 11 30.0	+13
CUC				LR	LR		
	comp=Z,12µm,19.0s,MS6.5						
GUR	**Goura**	**102.36**	**36**	*e*P	PP	16 15 24.8	-4.2
MTLF	**Montolieu**	**102.49**	**19**	*e*P	Pdif	16 11 15.6	-1.7
	comp=Z,22nm,1.0s						
MTLF	**Montolieu**	**102.49**	**19**	*e*P	Pdif	16 11 15.6	-1.7
MTLF				pmax	pmax		
	comp=Z,11nm,1.0s						
MTLF	**Montolieu**	**102.49**	**19**	*e*P	Pdif	16 11 15.6	-1.7
	comp=Z,11nm,1.0s						
CTA	**Charters Tower**	**102.51**	**170**	*e*PDIF	Pdif	16 11 16.7	-0.7
	comp=Z,21nm,1.2s						
CTA				*e*PP	PP	16 15 23.9	-5.2
CTA				*e*SKS		16 21 57.9	
CTA				*e*SDIF	Sdif	16 23 00.0	-3.0
CTA				*e*PS	PS	16 24 37.3	+2.0
CTA				*e*PKKP	PKKPbc	16 27 17.4	+2.3
CTAO	**Charters Tower**	**102.51**	**170**	*e*P	Pdif	16 11 16.0	-1.4
CTAO				*e*		16 15 30.6	
CTAO				pmax	pmax		
	comp=Z,84nm,1.4s						
CTAO				MLR	MLR		
	comp=Z,48µm,20.0s,MS7.0						
CTAO	**Charters Tower**	**102.51**	**170**	*e*Pdif	Pdif	16 11 16.0	-1.4
	comp=Z,84nm,1.4s						
CTAO				*e*		16 15 30.6	
CTAO				LR	LR		
	comp=Z,48µm,20.0s,MS7.0						
ASF	**Jabal al Asfar**	**102.52**	**49**	P	Pdif	16 11 17.7	+0.2
	comp=Z,1.1nm,0.6s,baz=190,slow=18,SNR=1.6						
ASF				PP	PP	16 15 21.6	-8.7
	comp=Z,4.4nm,1.0s,baz=233,slow=3.2,SNR=3.8						
LTK	**Loutraki**	**102.64**	**36**	*e*P	PP	16 15 26.2	-4.9
MMAI	**Mount Meron Ar**	**102.65**	**48**	P	Pdif	16 11 24.1	+6.0
	comp=Z,6.0nm,1.0s,baz=259,slow=12,SNR=5.3						
MMAI				PP	PP	16 15 27.0	-4.3
	comp=Z,4.2nm,0.9s,baz=224,slow=12,SNR=4.0						
VLY	**Voula,Athens**	**102.75**	**37**	*e*P	PP	16 15 27.6	-4.4
TRD	**Trivandrum**	**102.77**	**94**⇓	*e*PKP	Pdif	16 11 19.0	+0.4
TRD				*e*x	x	16 15 35.0	
ATH	**Athens Observa**	**102.83**	**37**	*e*P	PP	16 15 28.7	-3.9
BRAL	**Brewton**	**102.84**	**308**	PFAKE		16 11 30.0	+11
BRAL				LR	LR		
	comp=Z,25µm,21.0s,MS6.7						
CNNC	**Cliffs of the**	**102.87**	**317**	PFAKE		16 11 30.0	+11
CNNC				LR	LR		
	comp=Z,19µm,20.0s,MS6.6						
PTL	**Penteli**	**102.95**	**37**	*e*P	PP	16 15 29.8	-3.7
EVR	**Evrytania**	**103.09**	**35**	*e*P	PP	16 15 29.7	-4.8
ZAIG	**Zacatecas**	**103.16**	**291**	*e*P	Pdif	16 11 22.5	+2.2
KEK	**Kerkira**	**103.22**	**33**	*e*P	PP	16 15 34.1	-1.3
LKR	**Lokris**	**103.22**	**36**	*e*P	PP	16 15 31.4	-4.1
AGG	**Agios Georgios**	**103.35**	**35**	*e*P	PP	16 15 32.9	-3.6
GOGA	**Godfrey**	**103.42**	**312**	PFAKE		16 11 30.0	+8.5
GOGA				LR	LR		
	comp=Z,30µm,22.0s,MS6.8						
JAN	**Janina**	**103.48**	**34**	*e*P	PP	16 15 36.9	-0.5
BHL	**Bhannes**	**103.53**	**47**	*e*P	Pdif	16 11 16.1	-5.8
CSS	**Prodhromos**	**103.55**	**45**	PFAKE		16 11 30.0	+8.0
CSS				LR	LR		
	comp=Z,13µm,19.0s,MS6.5						
VILF	**Villemus**	**103.64**	**21**	*e*P	Pdif	16 11 29.7	+7.3
THL	**Klokotos Trika**	**103.75**	**35**	*e*P	PP	16 15 35.6	-3.8
LFF	**La Frestale**	**103.79**	**17**	*e*P	Pdif	16 11 22.1	-1.0
	comp=Z,41nm,0.9s						
LFF	**La Frestale**	**103.79**	**17**	*e*P	Pdif	16 11 22.1	-1.0
LFF				pmax	pmax		
	comp=Z,20nm,0.9s						
LFF	**La Frestale**	**103.79**	**17**	*e*P	Pdif	16 11 22.1	-1.0
	comp=Z,20nm,0.9s						
CHOS	**Chios island**	**103.98**	**38**	*e*P	PP	16 15 37.2	-4.0
SBF	**Sospel**	**104.00**	**23**	*e*P	Pdif	16 11 22.4	-1.6
	comp=Z,49nm,1.1s						
SBF	**Sospel**	**104.00**	**23**	*e*P	Pdif	16 11 22.4	-1.6
SBF				pmax	pmax		
	comp=Z,25nm,1.1s						
SBF	**Sospel**	**104.00**	**23**	*e*P	Pdif	16 11 22.4	-1.6
	comp=Z,25nm,1.1s						
CAF	**Calviac**	**104.00**	**18**	*e*P	Pdif	16 11 22.1	-1.9
	comp=Z,28nm,1.1s						
CAF	**Calviac**	**104.00**	**18**	*e*P	Pdif	16 11 22.1	-1.9
CAF				pmax	pmax		
	comp=Z,14nm,1.1s						
CAF	**Calviac**	**104.00**	**18**	*e*P	Pdif	16 11 22.1	-1.9
	comp=Z,14nm,1.1s						
LUCF	**Luceram**	**104.01**	**22**	*e*P	Pdif	16 11 26.1	+2.0
SAOF	**Saorge**	**104.14**	**23**	*e*P	Pdif	16 11 29.0	+4.3
KZN	**Kozani**	**104.36**	**34**	*e*P	PP	16 15 42.3	-1.6
LIT	**Litokhoron**	**104.39**	**35**	*e*P	PP	16 15 39.7	-4.5
VIVF	**Saint-Julien-l**	**104.41**	**20**	*e*P	Pdif	16 11 24.7	-1.1
AFI	**Afiamalu**	**104.41**	**212**	PFAKE		16 11 30.0	+4.1
AFI				LR	LR		
	comp=Z,11µm,19.0s,MS6.4						
LBL	**Lubilhac**	**104.51**	**19**	*e*P	Pdif	16 11 32.0	+5.7
NAY	**Al-Naaiem**	**104.54**	**58**	*e*P	Pdif	16 11 27.8	+1.3
NAY				AMb	AMB	16 11 40.7	
	comp=Z,14nm,1.1s						
KBD	**Kabd**	**104.69**	**59**	*e*P	Pdif	16 11 28.3	+1.2
ORIF	**Oris-en-Rattie**	**104.70**	**21**	*e*P	Pdif	16 11 25.9	-1.2
	comp=Z,31nm,0.9s						
ORIF	**Oris-en-Rattie**	**104.70**	**21**	*e*P	Pdif	16 11 25.9	-1.2
ORIF				pmax	pmax		
	comp=Z,16nm,0.9s						
ORIF	**Oris-en-Rattie**	**104.70**	**21**	*e*P	Pdif	16 11 25.9	-1.2
	comp=Z,16nm,0.9s						
TIR	**Tirane**	**104.74**	**32**	PFAKE		16 11 40.0	+13
TIR				LR	LR		
	comp=Z,15µm,19.0s,MS6.6						
SSB	**Saint Sauveur**	**104.79**	**20**	PFAKE		16 11 40.0	+12
SSB				LR	LR		
	comp=Z,21µm,19.0s,MS6.7						
PRK	**Paraskevi**	**104.83**	**38**	*e*P	PP	16 15 42.4	-5.1
KVTX	**Kingsville**	**104.84**	**298**	PFAKE		16 11 40.0	+12
KVTX				LR	LR		
	comp=Z,10µm,19.0s,MS6.4						
VLC	**Villacollemand**	**104.92**	**25**	PFAKE		16 15 50.0	+8.0
VLC				LR	LR		
	comp=Z,37µm,20.0s,MS6.9						
PLG	**Polygyros**	**104.94**	**35**	*e*P	PP	16 15 45.4	-2.8
BNI	**Bardonecchia**	**104.98**	**22**	PFAKE		16 15 50.0	+7.9
BNI				LR	LR		
	comp=Z,55µm,19.0s,MS7.1						
ISP	**Isparta**	**105.05**	**42**	PFAKE		16 15 50.0	+7.5
ISP				LR	LR		
	comp=Z,8µm,22.0s,MS6.2						
MIB	**Mutribah**	**105.06**	**58**	*e*P	Pdif	16 11 30.2	+1.5
MIB				AMb	AMB	16 11 38.6	
	comp=Z,30nm,1.0s						
LIA	**Limnos Island**	**105.06**	**37**	*e*P	PP	16 15 44.4	-4.8
MNGI	**Mangalore**	**105.28**	**90**	*e*PKP	Pdif	16 11 28.9	-0.9
MNGI				*i* S	Sdif	16 22 07.8	-78
MNGI				*e*x	x	16 47 20.4	
	comp=Z,2µm,21.8s						
SOH	**Sokhos**	**105.31**	**35**	*e*P	PP	16 15 48.2	-2.8
CBN	**Corbin**	**105.32**	**319**	PFAKE		16 15 50.0	+7.0
CBN				LR	LR		
	comp=Z,19µm,21.0s,MS6.6						
TCF	**Toulx Ste Croi**	**105.35**	**18**	*e*P	Pdif	16 11 29.2	-0.8
	comp=Z,26nm,1.2s						
TCF	**Toulx Ste Croi**	**105.35**	**18**	*e*P	Pdif	16 11 29.2	-0.8
TCF				pmax	pmax		
	comp=Z,13nm,1.2s						
TCF	**Toulx Ste Croi**	**105.35**	**18**	*e*P	Pdif	16 11 29.2	-0.8
	comp=Z,13nm,1.2s						
VBMS	**Vicksburg**	**105.38**	**306**	PFAKE		16 15 50.0	+6.7
VBMS				LR	LR		
	comp=Z,17µm,21.0s,MS6.6						
LPG	**La Plagne**	**105.43**	**22**	*e*P	Pdif	16 11 29.4	-1.0
	comp=Z,47nm,0.9s						
LPG	**La Plagne**	**105.43**	**22**	*e*P	Pdif	16 11 29.4	-1.0
LPG				pmax	pmax		
	comp=Z,24nm,0.9s						
LPG	**La Plagne**	**105.43**	**22**	*e*P	Pdif	16 11 29.4	-1.0
	comp=Z,24nm,0.9s						
LPL	**La Plagne**	**105.44**	**22**	*e*P	Pdif	16 11 29.3	-1.1
	comp=Z,45nm,1.0s						
LPL	**La Plagne**	**105.44**	**22**	*e*P	Pdif	16 11 29.3	-1.1
LPL				pmax	pmax		
	comp=Z,23nm,1.0s						
LPL	**La Plagne**	**105.44**	**22**	*e*P	Pdif	16 11 29.3	-1.1
	comp=Z,23nm,1.0s						
TKL	**Tuckaleechee C**	**105.50**	**313**	PP	PP	16 15 43.1	-9.4
	comp=Z,11nm,0.8s,baz=144,slow=7.8,SNR=4.4						
TKL				PKKPbc	PKKPbc	16 27 09.7	+2.9
	comp=Z,9.4nm,0.8s,baz=173,slow=3.1,SNR=7.8						
TKL				PKKP	PKKPbc	16 27 21.0	+14
	comp=Z,9.3nm,0.9s,baz=45,slow=1.4,SNR=5.2						
TKL	**Tuckaleechee C**	**105.50**	**313**	*e*PKPdf	PKiKP	16 15 42.2	-1.2
BLA	**Blacksburg**	**105.56**	**316**	PFAKE		16 15 50.0	+6.5
BLA				LR	LR		
	comp=Z,19µm,21.0s,MS6.6						
CPCT	**Cooper Cave**	**105.62**	**312**	*e*PKPdf	PKiKP	16 15 38.2	-5.4
BGF	**Bois d'Agland**	**105.72**	**19**	*e*P	Pdif	16 11 30.3	-1.4
HKT	**Hockley**	**105.87**	**301**	*e*PKPdf	PKiKP	16 15 44.0	-0.3
HKT				LR	LR		
	comp=Z,10µm,19.0s,MS6.4						
NVR	**Nevrokopi**	**105.95**	**35**	*e*P	PP	16 15 52.0	-3.8
MMB	**Musomiste**	**106.13**	**35**	*e*P	PP	16 15 53.2	-3.8
ALN	**Alexandroupoli**	**106.24**	**37**	*e*P	PP	16 15 53.8	-4.1
RDO	**Rodhopi**	**106.30**	**36**	*e*P	PP	16 15 53.3	-5.0
SSF	**Saint Saulge**	**106.32**	**19**	*e*P	Pdif	16 11 33.0	-1.4
	comp=Z,27nm,1.1s						
SSF	**Saint Saulge**	**106.32**	**19**	*e*P	Pdif	16 11 33.0	-1.4
SSF				pmax	pmax		
	comp=Z,13nm,1.1s						
SSF	**Saint Saulge**	**106.32**	**19**	*e*P	Pdif	16 11 33.0	-1.4
	comp=Z,13nm,1.1s						
LOR	**Lormes**	**106.58**	**19**	*e*P	Pdif	16 11 34.0	-1.5
	comp=Z,21nm,1.1s						
LOR	**Lormes**	**106.58**	**19**	*e*P	Pdif	16 11 34.0	-1.5
LOR				pmax	pmax		
	comp=Z,11nm,1.1s						
LOR	**Lormes**	**106.58**	**19**	*e*P	Pdif	16 11 34.0	-1.5
	comp=Z,11nm,1.1s						
PLAL	**Pickwick Lake**	**106.69**	**309**	*e*PKPdf	PP	16 15 43.9	-17
PLAL				LR	LR		
	comp=Z,53µm,21.0s,MS7.1						
KDZ	**Kurdzhali**	**106.72**	**36**	*e*P	PP	16 15 55.0	-6.4
OXF	**Oxford**	**106.85**	**308**	PFAKE		16 16 00.0	+14
OXF				LR	LR		
	comp=Z,18µm,21.0s,MS6.6						
VTS	**Vitosha**	**106.88**	**34**	*e*P	PP	16 15 58.7	-3.9
TUE	**Stuetta**	**106.89**	**23**	PFAKE		16 15 50.0	+4.4
TUE				LR	LR		
	comp=Z,27µm,19.0s,MS6.8						
PLD	**Plovdiv**	**106.90**	**35**	*e*P	PP	16 15 59.0	-3.7
DAVOX	**Davos/Dischmat**	**107.30**	**23**	Pdiff	Pdif	16 11 38.8	+0.1
	comp=Z,1.1nm,0.6s,baz=175,slow=23,SNR=3.4						
DAVOX				PKiKP	PKiKP	16 15 45.8	-0.5
	comp=Z,8.9nm,0.8s,baz=169,slow=5.2,SNR=6.2						
DAVOX				PKKPbc	PKKPbc	16 27 05.1	+3.5
	comp=Z,5.9nm,0.9s,baz=199,slow=3.1,SNR=4.3						
DAVOX				PKKP	PKKPbc	16 27 14.1	+12
	comp=Z,4.4nm,0.7s,baz=177,slow=18,SNR=5.3						
DAVOS	**Davos**	**107.34**	**23**	P	Pdif	16 11 38.8	-0.1
BOJS	**Bojanci**	**107.35**	**27**	*e*PKiKP	PKiKP	16 15 47.2	+0.7
BOJS				*e*PP	PP	16 16 02.5	-3.4
BOJS				*e*SKSac	SKSac	16 22 22.9	+4.5
BOJS				*e*		16 23 52.1	
BOJS				*e*PS	PS	16 25 31.2	+5.0
BOJS				*e*		16 26 22.8	
BOJS				*e*PKKPbc	PKKPbc	16 27 04.5	+3.0
BOJS				*e*SS	SS	16 31 13.6	-2.0
BOJS				*e*		16 41 42.7	
BOJS	**Bojanci**	**107.35**	**27**	*e*PKPdf	PKiKP	16 15 47.2	+0.7
BOJS				*e*PP	PP	16 16 02.5	-3.4
BOJS				*e*SKSac	SKSac	16 22 22.9	+4.5
BOJS				*e*		16 23 52.1	
BOJS				*e*PS	PS	16 25 31.2	+5.0
BOJS				*e*		16 26 22.8	
BOJS				*e*PKKPbc	PKKPbc	16 27 04.5	+3.0
BOJS				*e*SS	SS	16 31 13.6	-2.0
BOJS				*e*		16 41 42.7	
JAVS	**Javornik**	**107.42**	**27**	*e*Pdiff	Pdif	16 11 42.0	+2.8
JAVS				*e*		16 15 02.2	
JAVS				*e*		16 15 32.5	
JAVS				*e*PKiKP	PKiKP	16 15 46.0	-0.6
JAVS				*e*		16 16 28.1	
MCWV	**Mont Chateau**	**107.50**	**318**	PFAKE		16 16 00.0	+13
MCWV				LR	LR		
	comp=Z,22µm,21.0s,MS6.7						
VOY	**Vojsko**	**107.51**	**26**	*e*PKiKP	PKiKP	16 15 48.3	+1.5
VOY				*e*PP	PP	16 16 02.9	-4.2
VOY				*e*		16 16 30.6	
VOY				*e*		16 16 31.2	
VOY	**Vojsko**	**107.51**	**26**	*e*PKPdf	PKiKP	16 15 48.3	+1.5
VOY				*e*PP	PP	16 16 02.9	-4.2
VOY				*e*		16 16 30.6	
VOY				*e*		16 16 31.2	
WVT	**Waverly**	**107.57**	**310**	PFAKE		16 16 00.0	+13
WVT				LR	LR		
	comp=Z,49µm,21.0s,MS7.0						
SSPA	**Standing Stone**	**107.66**	**320**	PFAKE		16 16 00.0	+13
SSPA				LR	LR		
	comp=Z,23µm,21.0s,MS6.7						
LJU	**Ljubljana**	**107.68**	**27**	*i* PKiKP	PKiKP	16 15 48.2	+1.2
LJU				*e*PP	PP	16 16 05.2	-3.2
LJU				*i* SKSac	SKSac	16 22 19.8	0.0
LJU				*e*		16 23 53.5	
LJU				*e*PS	PS	16 25 33.5	+3.9
LJU				*e*SKKP		16 30 42.4	
LJU				*e*SS	SS	16 31 14.2	-5.8
LJU				*e*		16 35 22.7	
LJU				*e*		16 38 35.1	
LJU				*e*		16 41 52.0	
LJU	**Ljubljana**	**107.68**	**27**	*i* PKPdf	PKiKP	16 15 48.2	+1.2
LJU				*e*PP	PP	16 16 05.2	-3.2
LJU				*i* SKSac	SKSac	16 22 19.8	0.0
LJU				*e*		16 23 53.5	
LJU				*e*PS	PS	16 25 33.5	+3.9
LJU				*e*SKKP		16 30 42.4	
LJU				*e*SS	SS	16 31 14.2	-5.8
LJU				*e*		16 35 22.7	
LJU				*e*		16 38 35.1	
LJU				*e*		16 41 52.0	
HAU	**Haudompre**	**107.75**	**21**	*e*P	Pdif	16 11 39.8	-0.9
BRTR	**Keskin Array B**	**107.85**	**43**	Pdiff	Pdif	16 11 45.8	+4.7
BRTR				PKiKP	PKiKP	16 15 47.1	-0.5
MEZF	**Maizieres J'vi**	**107.99**	**20**	*e*P	Pdif	16 11 41.1	-0.7
ECH	**Echery**	**108.11**	**21**	PFAKE		16 16 00.0	+12
ECH				LR	LR		
	comp=Z,16µm,22.0s,MS6.5						
JCT	**Junction City**	**108.20**	**298**	*e*P	Pdif	16 11 42.6	-0.1
JCT				pmax	pmax		
	comp=Z,41nm,1.2s						
JCT				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.2						
JCT	**Junction City**	**108.20**	**298**	*e*Pdif	Pdif	16 11 42.6	-0.1
	comp=Z,41nm,1.2s						
JCT				LR	LR		
	comp=Z,8µm,21.0s,MS6.2						
COEN	**Coen**	**108.23**	**166**	*e*PKPdf	PKiKP	16 15 48.6	-0.6
BINY	**Binghamton**	**108.39**	**322**	PFAKE		16 16 00.0	+11
BINY				LR	LR		
	comp=Z,18µm,21.0s,MS6.6						
SOKA	**Soboth**	**108.39**	**27**⇑	*i*pPdiff		16 11 49.4	
	comp=Z,7.7nm,1.0s						
SOKA			⇓	*i*PKiKP	PKiKP	16 15 50.3	+1.9
	comp=Z,14nm,1.0s						
BFO	**Black Forest**	**108.45**	**22**	PFAKE		16 16 00.0	+12
BFO				LR	LR		
	comp=Z,41µm,19.0s,MS7.0						
MALT	**Malatya**	**108.46**	**47**	PFAKE		16 16 00.0	+11
MALT				LR	LR		
	comp=Z,15µm,19.0s,MS6.6						
KAD	**Karad**	**108.52**	**87**	*e*PKP	Pdif	16 11 42.0	-2.1
KAD				AMS	AMS	16 52 49.6	
	comp=Z,17µm,18.4s,MS6.7						
MIAR	**Mount Ida**	**108.70**	**305**	PFAKE		16 16 00.0	+11
MIAR				LR	LR		
	comp=Z,13µm,22.0s,MS6.5						
WCI	**Wyandotte Cave**	**108.74**	**312**	*e*PKPdf	PKiKP	16 15 48.3	-1.0
WCI				LR	LR		
	comp=Z,23µm,20.0s,MS6.8						
PKSM	**Moragy**	**108.89**	**30**⇓	*i*P	Pdif	16 11 47.2	+1.4
LBNH	**Lisbon**	**108.90**	**325**	PFAKE		16 16 00.0	+11
LBNH				LR	LR		
	comp=Z,29µm,22.0s,MS6.8						
ARSA	**Arzberg**	**109.05**	**27**⇑	*i*pPdiff		16 11 52.0	
	comp=Z,7.4nm,1.0s						
ARSA			⇑	*i*PKiKP	PKiKP	16 15 48.2	-1.4
	comp=Z,14nm,1.1s						

BOM	**Bombay**	**109.07**	**85**	*e*x	PP	16 16 08.2	-10
BOM				*e*x	x	16 16 20.9	
	comp=Z,855nm,10.2s						
BOM				*e*x	x	16 22 19.9	
TXAR	**Lajitas Array**	**109.14**	**294**	PKiKP	PKiKP	16 15 50.1	-0.3
	comp=Z,5.4nm,0.8s,baz=174,slow=4.2,SNR=9.7						
TXAR				PKKP	PKKPdf	16 27 11.4	+0.5
	comp=Z,8.0nm,0.9s,baz=300,slow=2.7,SNR=8.1						
BZS	**Buzias**	**109.17**	**32**	⇓*i*P	Pdif	16 11 53.6	+6.6
BZS	**Buzias**	**109.17**	**32**	⇓*i*P	PKiKP	16 15 48.9	-1.0
BZS	**Buzias**	**109.17**	**32**	⇓P	PKiKP	16 15 48.9	-1.0
ACSO	**Alum Creek Sta**	**109.17**	**316**	*e*Pdif	Pdif	16 11 46.8	-0.2
ACSO				LR	LR		
	comp=Z,16µm,21.0s,MS6.5						
MOA	**Molln**	**109.30**	**26**	⇑*i*pPdiff		16 11 53.3	
	comp=Z,7.0nm,0.8s						
MOA				⇑*i*PKiKP	PKiKP	16 15 50.2	+0.1
	comp=Z,18nm,1.3s						
WLF	**Walferdange**	**109.31**	**20**	P	PKiKP	16 15 50.4	+0.4
WLF	**Walferdange**	**109.31**	**20**	PFAKE		16 16 00.0	+10
WLF				LR	LR		
	comp=Z,21µm,19.0s,MS6.7						
POO	**Poona**	**109.33**	**86**	*e*PKP	Pdif	16 11 45.5	-2.2
NCB	**Newcomb**	**109.39**	**324**	PFAKE		16 16 00.0	+10
NCB				LR	LR		
	comp=Z,24µm,20.0s,MS6.8						
PSI	**Prapat**	**109.39**	**117**	⇑*e*P	PKiKP	16 15 49.8	-1.6
PSI	**Prapat**	**109.39**	**117**	⇑*e*P	PKKPbc	16 26 55.1	+1.1
PSI	**Prapat**	**109.39**	**117**	PKKPbc	PKKPbc	16 26 57.0	+2.9
	comp=Z,11nm,0.8s,baz=287,slow=4.8,SNR=8.1						
PSI				PKKP	PKKPbc	16 27 08.9	+15
	comp=Z,16nm,0.7s,baz=25,slow=4.4,SNR=10						
DOU	**Dourbes**	**109.44**	**19**	P	PKiKP	16 15 48.6	-1.6
SIUC	**Southern Illin**	**109.50**	**310**	*e*PKPdf	PKiKP	16 15 45.1	-5.6
ERPA	**Erie**	**109.71**	**319**	PFAKE		16 16 00.0	+9.0
ERPA				LR	LR		
	comp=Z,21µm,20.0s,MS6.7						
SOP	**Sopron**	**109.71**	**28**	⇑*e*PPS	PKKPdf	16 27 09.2	-1.5
BCLA	**Clavier**	**109.88**	**19**	P	PKiKP	16 15 50.7	-0.4
UCC	**Uccle**	**110.08**	**18**	P	PKiKP	16 15 57.7	+6.3
LONY	**Lake Ozonia**	**110.08**	**324**	PFAKE		16 16 00.0	+8.4
LONY				LR	LR		
	comp=Z,23µm,21.0s,MS6.7						
GEC2	**GERESS Array S**	**110.10**	**25**	*e*PKIKP	PKiKP	16 15 48.9	-2.6
GERES	**GERESS Array B**	**110.10**	**25**	Pdiff	Pdif	16 11 55.3	+4.1
	comp=Z,1.8nm,0.9s,baz=174,slow=3.8,SNR=6.2						
GERES				PKiKP	PKiKP	16 15 52.0	+0.5
	comp=Z,7.0nm,0.8s,baz=300,slow=0.8,SNR=12						
GERES				PKKPbc	PKKPbc	16 26 55.6	+2.9
	comp=Z,1.0nm,0.7s,baz=52,slow=6.4,SNR=3.2						
GERES				PKKP	PKKPbc	16 27 07.7	+15
	comp=Z,2.3nm,1.0s,baz=127,slow=0.7,SNR=4.2						
BUD	**Budapest**	**110.16**	**29**	⇑*e*PPS	PKKPdf	16 27 07.2	-2.6
MEM	**Membach**	**110.19**	**20**	P	PKiKP	16 15 52.4	+0.8
TIRR	**Tirgusor**	**110.21**	**37**	*e*PKIKP	PKiKP	16 15 50.1	-1.8
FVM	**French Village**	**110.23**	**309**	*e*PKIKP	PKiKP	16 15 50.8	-1.3
MLR	**Muntele Rosu**	**110.34**	**35**	P	Pdif	16 11 56.9	+4.7
MLR				*i*		16 15 50.5	
MLR						16 26 52.9	
MLR						16 27 06.9	
MLR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MLR				pmax	pmax		
	comp=Z,11nm,0.9s						
MLR	**Muntele Rosu**	**110.34**	**35**	Pdiff	Pdif	16 11 56.9	+4.7
	comp=Z,4.2nm,0.8s,baz=170,slow=14,SNR=7.0						
MLR				PKiKP	PKiKP	16 15 50.5	-1.6
	comp=Z,11nm,0.9s,baz=169,slow=5.1,SNR=5.5						
MLR				PKKPbc	PKKPbc	16 26 52.9	+1.0
	comp=Z,3.0nm,0.8s,baz=135,slow=8.6,SNR=3.2						
MLR				PKKP	PKKPbc	16 27 06.9	+15
	comp=Z,8.7nm,1.1s,baz=139,slow=4.5,SNR=4.7						
KHC	**Kasperske Hory**	**110.34**	**25**	*e*P	Pdif	16 12 00.4	+8.2
KHC				*e*		16 15 50.8	
KHC				*e*		16 16 01.5	
KHC				*e*		16 26 54.4	
KHC				*e*		16 27 04.5	
KHC				*e*		16 31 51.4	
KHC				MLR	MLR		
	comp=Z,21µm,17.5s,MS6.8						
KHC	**Kasperske Hory**	**110.34**	**25**	*e*PDIFF	Pdif	16 12 00.4	+8.2
KHC				*e*pPKP		16 12 07.4	
KHC				*e*x	x	16 15 17.4	
KHC				*e*PKP	PKiKP	16 15 50.8	-1.2
KHC				*e*pPKP		16 16 01.5	
KHC				*e*x	x	16 24 15.3	
KHC				*e*SP	SP	16 25 55.3	-1.2
KHC				*e*PKKP	PKKPbc	16 26 54.4	+2.5
KHC				*e*x	x	16 27 04.5	
KHC				*e*SS	SS	16 31 51.4	-4.5
KHC				AMS	AMS	17 00 10.0	
	comp=Z,21µm,17.5s						
KHC	**Kasperske Hory**	**110.34**	**25**	*e*PKP	PKiKP	16 15 50.8	-1.2
KHC				*e*		16 16 01.5	
KHC				*e*		16 24 15.3	
KHC				*e*		16 25 55.3	
KHC				*e*PKKP	PKKPbc	16 26 54.4	+2.5
KHC				*e*		16 27 04.5	
KHC				*e*		16 31 51.4	
KHC				LR	LR		
	comp=Z,21µm,17.5s,MS6.8						
GRF	**Grafenberg Arr**	**110.35**	**23**	*e*P	Pdif	16 12 00.6	+8.3
GRF				*e*		16 16 25.8	
GRF				*e*SP	SP	16 26 02.1	+5.6
GRF				*e*SS	SS	16 31 56.0	+0.1
GRF				*e*SSS		16 36 07.5	
GRF				MLR	MLR		
	comp=Z,24µm,18.3s,MS6.8						
GRF	**Grafenberg Arr**	**110.35**	**23**	*e*Pdiff	Pdif	16 12 00.6	+8.3
GRF				*e*PP	PP	16 16 25.8	-1.9
GRF				*e*Sdiff	Sdif	16 24 18.4	+10
GRF				*e*SP	SP	16 26 02.1	+5.6
GRF				*e*SS	SS	16 31 56.0	+0.1
GRF				*e*SSS		16 36 07.5	
GRF				*e*L		17 00 43.4	
	comp=Z,24µm,18.3s						
MODS	**Modra-Piesok**	**110.53**	**28**	PDIF	Pdif	16 11 54.7	+1.6
MODS	**Modra-Piesok**	**110.53**	**28**	*e*PKP	PKiKP	16 15 57.3	+5.0
MODS	**Modra-Piesok**	**110.53**	**28**	⇑*e*SKSp	PKKPbc	16 26 58.5	+7.2
MODS	**Modra-Piesok**	**110.53**	**28**	*e*Pdif	Pdif	16 11 54.7	+1.6
MODS				*e*P		16 15 57.4	
CCM	**Cathedral Cave**	**110.64**	**309**	*e*PKIKP	PKiKP	16 15 52.7	-0.2
CCM				MLR	MLR		
	comp=Z,42µm,21.0s,MS7.0						
PSZ	**Piszkesteto**	**110.79**	**30**	⇑*e*SPP	PKKPab	16 27 02.5	+4.4
PSZ	**Piszkesteto**	**110.79**	**30**	PFAKE		16 16 00.0	+7.1
PSZ				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
KGM	**Kluang**	**110.80**	**121**	P	PKiKP	16 15 52.9	-1.1
MYKOM	**Kota Tinggi**	**110.85**	**122**	P	PKiKP	16 15 52.9	-1.2
BHJ	**Bhuj**	**110.91**	**79**	*e*PKP	PKiKP	16 15 51.2	-2.7
BHJ				AMS	AMS	16 52 03.8	
	comp=Z,17µm,19.4s,MS6.6						
TREC	**Trest**	**110.94**	**26**	*e*PKP	PKiKP	16 15 50.0	-3.1
TREC				*e*PKKP	PKKPbc	16 26 52.8	+2.9
TREC				*e*SS	SS	16 32 01.8	-2.1
TREC				AMS	AMS	17 03 30.0	
	comp=Z,22µm,15.2s						
HYB	**Hyderabad**	**110.98**	**90**	*i* PKP	Pdif	16 11 53.0	-2.1
HYB				*e*		16 15 52.0	
HYB				*e*		16 22 34.0	
HYB	**Hyderabad**	**110.98**	**90**	*e*P	Pdif	16 11 54.0	-1.1
HYB				*e*		16 15 52.0	
HYB				*e*		16 22 34.0	
KOLL	**Kolacno**	**111.01**	**28**	*e*PKP	PKiKP	16 15 52.7	-0.5
KOLL	**Kolacno**	**111.01**	**28**	⇑*e*SKSp	PKKPbc	16 26 55.1	+5.4
VYHS	**Vyhne**	**111.04**	**29**	PDIF	Pdif	16 12 00.1	+4.8
VYHS	**Vyhne**	**111.04**	**29**	*e*PKP	PKiKP	16 15 52.3	-1.0
VYHS				*e*PP	PP	16 16 35.5	+2.7
VYHS	**Vyhne**	**111.04**	**29**	⇑*e*SKSp	PKKPbc	16 26 54.8	+5.2
VYHS	**Vyhne**	**111.04**	**29**	*e*Pdif	Pdif	16 12 00.1	+4.8
VYHS				*e*P		16 15 52.3	
VYHS				*e*PP	PP	16 16 35.5	+2.7
FRIM	**Kepong**	**111.07**	**119**	P	PKiKP	16 15 53.9	-0.7
NKC	**Novy Kostel**	**111.12**	**24**	*e*PKIKP	PKiKP	16 15 53.4	0.0
NKC				*e*		16 16 39.7	
NKC				*e*		16 32 06.7	
NKC	**Novy Kostel**	**111.12**	**24**	*e*PDIFF	Pdif	16 12 06.9	+11
NKC				*e*x	x	16 12 20.8	
NKC				*e*PKP	PKiKP	16 15 53.4	0.0
NKC				*e*PP	PP	16 16 39.7	+6.4
NKC				*e*x	x	16 24 26.0	
NKC				*e*SP	SP	16 26 05.9	+2.2
NKC				PKKP	PKKPbc	16 26 51.3	+1.9
NKC				*e*SS	SS	16 32 06.7	+0.4
NKC				AMS	AMS	16 59 00.0	
	comp=Z,27µm,19.1s						
NKC	**Novy Kostel**	**111.12**	**24**	*e*PKP	PKiKP	16 15 53.4	0.0
NKC				*e*		16 16 39.7	
NKC				*e*		16 24 26.0	
NKC				PKKP	PKKPbc	16 26 51.3	+1.9
NKC				*e*		16 32 06.7	
KAPI	**Kappang**	**111.18**	**140**	PKKPbc	PKKPbc	16 26 49.0	+0.7
	comp=Z,14nm,0.7s,baz=168,slow=2.9,SNR=6.7						
KAPI				PKKP	PKKPbc	16 27 03.0	+15
	comp=Z,26nm,0.9s,baz=315,slow=1.7,SNR=7.7						
KAPI	**Kappang**	**111.18**	**140**	*e*PKPdf	PKiKP	16 15 52.8	-2.0
KAPI				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
AAM	**Ann Arbor**	**111.21**	**316**	PFAKE		16 16 00.0	+6.1
AAM				LR	LR		
	comp=Z,24µm,21.0s,MS6.8						
VRAC	**Vranov**	**111.23**	**27**	P	Pdif	16 12 03.1	+6.9
VRAC				*i*		16 15 53.7	
VRAC						16 27 03.9	
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VRAC				pmax	pmax		
	comp=Z,15nm,0.8s						
VRAC	**Vranov**	**111.23**	**27**	⇓*i*P	PKiKP	16 15 53.3	-0.3
VRAC	**Vranov**	**111.23**	**27**	Pdiff	Pdif	16 12 03.1	+6.9
	comp=Z,3.2nm,0.9s,baz=140,slow=1.4,SNR=3.8						
VRAC				PKiKP	PKiKP	16 15 53.7	+0.1
	comp=Z,15nm,0.8s,baz=176,slow=2.8,SNR=11						
VRAC				PP	PP	16 16 29.6	-4.5
	comp=Z,9.2nm,0.8s,baz=216,slow=6.1,SNR=2.2						
VRAC				PKKPbc	PKKPbc	16 26 52.6	+3.6
	comp=Z,1.3nm,0.5s,baz=271,slow=8.2,SNR=3.8						
VRAC				PKKP	PKKPab	16 27 03.9	+7.8
	comp=Z,8.4nm,0.9s,baz=50,slow=3.4,SNR=8.8						
VRAC	**Vranov**	**111.23**	**27**	⇓P	PKiKP	16 15 53.3	-0.3
MOX	**Moxa**	**111.33**	**23**	*e*PKP	PKiKP	16 15 54.6	+0.8
	comp=Z,26nm,1.4s						
MOX				*e*PP	PP	16 16 34.0	-0.8
MOX				*e*SP	SP	16 26 14.0	+8.5
MOX				*e*PKKP	PKKPbc	16 26 51.7	+3.0
MOX				*e*SS	SS	16 31 58.0	-11
MOX							
	comp=Z,18µm,20.0s						
MOX	**Moxa**	**111.33**	**23**	*e*PKIKP	PKiKP	16 15 54.6	+0.8
MOX				*e*		16 16 34.0	
MOX				MLR	MLR		
	comp=Z,18µm,20.0s,MS6.7						
PRU	**Pruhonice**	**111.37**	**25**	*e*PDIFF	Pdif	16 12 05.8	+9.0
PRU				*e*x	x	16 12 15.5	
PRU				*e*PKP	PKiKP	16 15 53.6	-0.3
PRU				*e*x	x	16 24 21.9	
PRU				*e*SP	SP	16 26 02.8	-3.1
PRU				PKKP	PKKPbc	16 26 49.1	+0.5
PRU				*e*SS	SS	16 32 07.9	-1.7
PRU				AMS	AMS	16 58 40.0	
	comp=Z,22µm,19.6s						
PRU	**Pruhonice**	**111.37**	**25**	*e*PKP	PKiKP	16 15 53.6	-0.3
PRU				*e*		16 24 21.9	
PRU				PKKP	PKKPbc	16 26 49.1	+0.5
PRU				*e*		16 32 07.9	
PRU				LR	LR		
	comp=Z,22µm,19.6s,MS6.8						
SADO	**Sadowa**	**111.73**	**321**	PKiKP	PKiKP	16 15 54.0	-0.7
	comp=Z,7.5nm,0.9s,baz=202,slow=5.4,SNR=5.3						
SADO				PP	PP	16 16 29.5	-8.3
	comp=Z,9.7nm,0.9s,baz=271,slow=2.6,SNR=4.2						
SADO				PKKPbc	PKKPbc	16 26 49.9	+2.6
	comp=Z,12nm,0.7s,baz=334,slow=4.6,SNR=10						
SADO				PKKP	PKKPab	16 27 00.7	+6.4
	comp=Z,11nm,1.0s,baz=1.3,slow=5.5,SNR=4.1						
IPM	**Ipoh**	**111.87**	**118**	P	PKiKP	16 15 55.4	-0.7
PVCC	**Panska Ves**	**111.88**	**25**	*e*PKIKP	PKiKP	16 15 53.1	-1.7
PVCC				*e*		16 26 10.2	
PVCC				*e*		16 32 15.5	
PVCC				MLR	MLR		
	comp=Z,27µm,18.9s,MS6.9						
PVCC	**Panska Ves**	**111.88**	**25**	*e*PKP	PKiKP	16 15 53.1	-1.7
PVCC				*e*SP	SP	16 26 10.2	-0.4
PVCC				*e*PKKP	PKKPbc	16 26 48.6	+1.7
PVCC				*e*SS	SS	16 32 15.5	-0.9
PVCC				AMS	AMS	16 59 10.0	
	comp=Z,27µm,18.9s						
FUNA	**Funafuti**	**111.89**	**204**	PFAKE		16 16 00.0	+3.9
FUNA				LR	LR		
	comp=Z,21µm,22.0s,MS6.7						
MORC	**Moravsky Berou**	**111.90**	**27**	⇓*i*P	PKiKP	16 15 54.1	-0.8
MORC	**Moravsky Berou**	**111.90**	**27**	⇓P	PKiKP	16 15 54.1	-0.8
HDIL	**Hopedale**	**111.93**	**311**	*e*PKPdf	PKiKP	16 15 52.2	-3.1
HDIL				LR	LR		
	comp=Z,16µm,21.0s,MS6.6						
BURAR	**Bucovina Array**	**112.03**	**33**	⇓*i*P	PKiKP	16 15 54.8	-0.4
BURAR	**Bucovina Array**	**112.03**	**33**	⇓P	PKiKP	16 15 54.8	-0.4
BRG	**Berggiesshubel**	**112.06**	**25**	*e*PKIKP	PKiKP	16 15 53.8	-1.4
BRG				*i*		16 16 00.0	
BRG				*i*		16 32 26.0	
BRG				pmax	pmax		
	comp=Z,11nm,1.5s						
BRG				MLR	MLR		
	comp=N,7µm,17.4s,MS6.5						
BRG				MLR	MLR		
	comp=E,8µm,19.0s,MS6.5						
BRG				MLR	MLR		
	comp=Z,14µm,18.5s,MS6.6						
BRG	**Berggiesshubel**	**112.06**	**25**	*e*PKP	PKiKP	16 15 53.8	-1.4
	comp=Z,18nm,1.5s						
BRG				*i*		16 16 00.0	
	comp=Z,15nm,1.0s						
BRG				*i*		16 24 36.0	
BRG				*i*		16 26 21.0	
BRG				*i*		16 26 39.0	
BRG				*e*		16 26 51.2	
	comp=Z,16nm,1.2s						
BRG				*i*		16 27 40.0	
BRG				*i*		16 32 26.0	
BRG							
	comp=N,12µm,17.4s						
BRG							
	comp=E,13µm,19.0s						
BRG							
	comp=Z,24µm,18.5s						
BRG	**Berggiesshubel**	**112.06**	**25**	*e*PKP	PKiKP	16 15 53.8	-1.4
BRG				*i*		16 16 00.0	
BRG				*i*		16 24 36.0	
BRG				*i*		16 26 21.0	
BRG				*i*		16 26 39.0	
BRG				*e*		16 26 51.2	
BRG				*i*		16 27 40.0	
BRG				*i*		16 32 26.0	
BRG				LR	LR		
	comp=Z,14µm,18.5s,MS6.6						
UZH	**Uzhgorod**	**112.10**	**31**	*e*P	Pdif	16 12 13.4	+13
UZH				*i*		16 15 53.4	
UZH				MLR	MLR		
	comp=N,4µm,18.0s,MS6.4						
UZH				MLR	MLR		
	comp=E,8µm,18.0s,MS6.4						
UZH				MLR	MLR		
	comp=Z,5µm,18.0s,MS6.2						
OKC	**Ostrava-Krasne**	**112.10**	**28**	*e*PKIKP	PKiKP	16 15 54.3	-1.0
OKC				*e*		16 16 37.7	
OKC				*e*		16 32 20.6	
OKC	**Ostrava-Krasne**	**112.10**	**28**	*e*PKP	PKiKP	16 15 54.3	-1.0
OKC				*e*PP	PP	16 16 37.7	-2.6
OKC				*e*PS	PS	16 26 20.7	+8.2
OKC				*e*PKKP	PKKPbc	16 26 55.8	+10
OKC				*e*SS	SS	16 32 20.6	+1.2
OKC				AMS	AMS	17 05 00.0	
	comp=Z,13µm,17.6s						
OKC	**Ostrava-Krasne**	**112.10**	**28**	*e*PKP	PKiKP	16 15 54.3	-1.0
OKC				*e*		16 16 37.7	
OKC				*e*		16 26 20.7	
OKC				*e*PKKP	PKKPab	16 26 55.8	+3.6
OKC				*e*		16 32 20.6	
CRVS	**Cervenica-Dubn**	**112.12**	**30**	PDIF	Pdif	16 12 08.7	+8.6
CRVS	**Cervenica-Dubn**	**112.12**	**30**	*e*PKP	PKiKP	16 15 52.8	-2.5
CRVS				*e*		16 26 59.5	
DPC	**Dobruska-Polom**	**112.13**	**26**	*e*PKIKP	PKiKP	16 15 55.6	+0.3
DPC				*e*		16 16 43.3	
DPC				*e*		16 26 18.6	
DPC				*e*		16 32 19.1	
DPC				MLR	MLR		
	comp=Z,22µm,18.3s,MS6.8						
DPC	**Dobruska-Polom**	**112.13**	**26**	*e*PDIFF	Pdif	16 12 08.8	+8.6
DPC				*e*pPKP		16 12 17.0	
DPC				*e*PKP	PKiKP	16 15 55.6	+0.3
DPC				*e*x	x	16 16 33.2	
DPC				*e*PP	PP	16 16 43.3	+2.8
DPC				*e*PS	PS	16 26 18.6	+5.9
DPC				*e*PKKP	PKKPbc	16 26 48.2	+2.1
DPC				*e*SS	SS	16 32 19.1	-0.6
DPC				AMS	AMS	17 01 40.0	
	comp=Z,22µm,18.3s						
DPC	**Dobruska-Polom**	**112.13**	**26**	*e*PKP	PKiKP	16 15 55.6	+0.3
DPC				*e*		16 16 33.2	
DPC				*e*		16 16 43.3	
DPC				*e*		16 26 18.6	
DPC				*e*PKKP	PKKPbc	16 26 48.2	+2.1
DPC				*e*		16 32 19.1	
DPC				LR	LR		
	comp=Z,22µm,18.3s,MS6.8						
UPC	**Upice**	**112.20**	**26**	*e*P	Pdif	16 12 09.1	+8.6
UPC				*e*		16 16 43.7	
UPC	**Upice**	**112.20**	**26**	*e*PDIFF	Pdif	16 12 09.1	+8.6
UPC				*e*x	x	16 12 18.5	
UPC				*e*PKP	PKiKP	16 16 01.8	+6.4
UPC				*e*PP	PP	16 16 43.7	+2.7
UPC				*e*PKKP	PKKPbc	16 26 47.1	+1.3
UPC	**Upice**	**112.20**	**26**	*e*PKP	PKiKP	16 16 01.8	+6.4
UPC				*e*		16 16 43.7	
UPC				*e*PKKP	PKKPbc	16 26 47.1	+1.3
CLL	**Collm**	**112.26**	**24**	*e*P	Pdif	16 12 03.0	+2.3
CLL				*i*		16 15 56.4	
CLL				pmax	pmax		
	comp=Z,18nm,1.0s						
CLL				MLR	MLR		
	comp=Z,16µm,20.8s,MS6.6						
CLL	**Collm**	**112.26**	**24**	*e*pPdif	Pdif	16 12 03.0	+2.3
CLL				*e*		16 12 26.0	
CLL				*i* PKiKP	PKiKP	16 15 56.4	+0.9
	comp=Z,18nm,1.0s						
CLL				*e*		16 16 21.0	
CLL				*e*Sdif	Sdif	16 24 31.0	+6.7
CLL				*e*		16 25 23.0	
CLL				*e*PS	PS	16 26 17.0	+3.1
CLL				*e*PKKPbc	PKKPbc	16 26 45.0	-0.6
CLL				*e*PKKPab	PKKPab	16 26 56.0	+4.6
CLL				*e*pPKKPab		16 27 00.0	
	comp=Z,13nm,0.8s						
CLL				*e*PKKPdf	PKKPdf	16 27 05.0	-1.0
CLL				*e*PPS		16 27 24.0	
CLL				*e*sPcPP		16 30 58.0	
CLL				*e*SS	SS	16 32 19.0	-2.4
CLL				*e*SSS		16 36 30.0	
CLL				*e*(SSSS)		16 39 30.0	
CLL				Lm		16 59 00.0	
	comp=N,12µm,19.4s						
CLL				Lm		16 59 00.0	
	comp=E,10µm,20.4s						
CLL				Lm		16 59 00.0	
	comp=Z,16µm,20.8s						
CLL	**Collm**	**112.26**	**24**	*e*Pdif	Pdif	16 12 03.0	+2.3
CLL				*i* PKP	PKiKP	16 15 56.4	+0.9
CLL				*e*Sdif	Sdif	16 24 33.0	+8.7
CLL				*e*PKKP	PKKPbc	16 26 45.0	-0.6
CLL				LR	LR		
	comp=Z,16µm,20.8s,MS6.6						
NIE	**Niedzica**	**112.28**	**29**	*e*PX	PKKPab	16 26 54.9	+3.4
KULM	**Kulim**	**112.39**	**117**	P	PKiKP	16 15 56.1	-1.0
KULM	**Kulim**	**112.39**	**117**	*e*PKPdf	PKiKP	16 15 54.4	-2.7
KULM				LR	LR		
	comp=Z,26µm,20.0s,MS6.8						
STHS	**Stebnicka Huta**	**112.53**	**30**	*e*PKP	PKiKP	16 15 55.6	-0.5
STHS				*e*PP	PP	16 16 41.3	-2.1
STHS	**Stebnicka Huta**	**112.53**	**30**	*e*P	PKKPdf	16 26 56.2	-9.2
KSP	**Ksiaz**	**112.58**	**26**	*e*P	PKiKP	16 15 57.5	+1.4
KSP	**Ksiaz**	**112.58**	**26**	*i* PKIKP	PKiKP	16 15 56.7	+0.6
KSP				*e*PS	PS	16 26 21.0	+4.2
KSP				*e*SS	SS	16 32 21.0	-4.7
KSP				MLR	MLR		
	comp=Z,40µm,19.4s,MS7.0						
KSP	**Ksiaz**	**112.58**	**26**	*e*Pdif	Pdif	16 11 59.0	-3.2
KSP				*e*PKPdf	PKiKP	16 15 56.7	+0.6
KSP				*e*PP	PP	16 16 38.5	-5.2
KSP				*e*Sdif	Sdif	16 24 24.5	-2.5
KSP				*e*PS	PS	16 26 21.0	+4.2
KSP				*e*SS	SS	16 32 21.0	-4.7
KSP				LR	LR		
	comp=Z,40µm,19.4s,MS7.0						
SIM	**Simferopol’**	**112.58**	**41**	P	Pdif	16 12 14.0	+12
SIM				*i*		16 15 55.0	
SIM				*e*		16 16 52.0	
SIM				*e*PS	PS	16 26 18.0	+1.0
SIM				pmax	pmax		
	comp=Z,700nm,18.0s						
SIM				pmax	pmax		
	comp=Z,2µm,22.0s						
KIS	**Kishinev**	**112.59**	**36**	*e*P	Pdif	16 12 06.0	+3.8
KIS				*e*		16 15 57.0	
KIS				*e*		16 16 03.0	
KIS				*e*		16 16 46.0	
KIS				*e*		16 22 42.0	
KIS				*e*PS	PS	16 26 18.0	+0.9
KIS				*e*SS	SS	16 32 22.0	-4.0
KIS				MLR	MLR		
	comp=E,8µm,19.0s,MS6.4						
KIS				MLR	MLR		
	comp=Z,11µm,19.0s,MS6.5						
KIS				MLR	MLR		
	comp=N,6µm,18.0s,MS6.4						
KIS				MLR	MLR		
	comp=Z,11µm,19.0s						
KIS	**Kishinev**	**112.59**	**36**	*e*PKP	PKiKP	16 15 57.0	+0.7
KIS	**Kishinev**	**112.59**	**36**	*e*PP	PP	16 16 46.0	+2.1
KIS				*e*SKS	SKSac	16 22 42.0	+1.8
KIS				*e*SKKS	SKKSac	16 23 40.0	-6.0
KIS				*e*S	Sdif	16 24 34.0	+6.9
KIS	**Kishinev**	**112.59**	**36**	*e*PPS	PKKPdf	16 27 16.0	+11
KIS				*e*SS	SS	16 32 22.0	-4.0
KIS				LRM		17 04 30.0	
	comp=Z,6µm,18.0s						
GNI	**Garni**	**112.60**	**50**	*i* PKIKP	PKiKP	16 15 56.6	0.0
GNI				MLR	MLR		
	comp=Z,13µm,19.0s						
AMTX	**Amarillo**	**112.71**	**299**	*e*PKPdf	PKiKP	16 15 54.5	-2.5
AMTX				LR	LR		
	comp=Z,12µm,20.0s,MS6.5						
OJC	**Ojcow**	**112.88**	**29**	*e*PKiKP	PKiKP	16 15 56.2	-0.5
OJC				*e*SP	SP	16 26 19.3	-0.4
OJC				*e*SS	SS	16 32 30.9	+1.2
OJC				L		16 59 29.6	
	comp=Z,18nm,21.9s						
OJC	**Ojcow**	**112.88**	**29**	*e*PX	PKKPab	16 26 53.4	+4.6
KWP	**Kalwaria Pacla**	**113.12**	**31**	*e*P	PKiKP	16 15 56.8	-0.5
KWP	**Kalwaria Pacla**	**113.12**	**31**	*e*PKPdf	PKiKP	16 15 53.4	-3.8
KWP				*e*P		16 15 56.8	
KWP				LR	LR		
	comp=Z,33µm,19.0s,MS6.9						
KDI	**Kendari**	**113.14**	**143**	⇓*e*P	PKiKP	16 15 57.9	-0.6
KDI				*e*S	PS	16 26 25.3	+3.2
ESK	**Eskdalemuir**	**113.38**	**12**	PFAKE		16 16 10.0	+12
ESK				LR	LR		
	comp=Z,29µm,19.0s,MS6.9						
EKA	**Eskdalemuir Ar**	**113.40**	**12**	PKiKP	PKiKP	16 15 56.5	-1.1
	comp=Z,7.3nm,0.9s,baz=246,slow=1.4,SNR=7.8						
KSM	**Kuching**	**113.44**	**128**	P	PKiKP	16 15 57.9	-1.2
KSM	**Kuching**	**113.44**	**128**	*e*PKPdf	PKiKP	16 15 57.5	-1.6
KSM				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
SOC	**Sochi**	**113.47**	**45**	*i* PKIKP	PKiKP	16 15 59.5	+1.4
SOC				*e*		16 16 51.4	
SOC				*i* PS	PS	16 26 26.1	+0.9
SOC				*e*SS	SS	16 32 35.9	-1.9
SOC				*e*SSS		16 36 47.9	
SOC				pmax	pmax		
	comp=Z,42nm,0.9s						
SOC				MLR	MLR		
	comp=Z,5µm,15.0s,MS6.3						
HNR	**Honiara**	**113.52**	**184**	PFAKE		16 16 10.0	+11
HNR				LR	LR		
	comp=Z,12µm,20.0s,MS6.5						
122A	**Conniff Cattle**	**113.53**	**294**	⇓P	PKiKP	16 15 58.8	+0.2
	baz=114						
319A	**Douglas**	**113.61**	**291**	⇑P	PKiKP	16 15 58.5	-0.3
	baz=114						

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KTGM  Kuala Trenggan  113.62 119  P       PKiKP   16 15 58.4 -1.0
ANN   Anapa           113.65  43 i PKIKP  PKiKP   16 15 58.0 -0.4
ANN                              eSP      SP      16 26 26.6 -0.5
ANN                              eSS      SS      16 32 33.3 -6.7
ANN                              eSSS             16 36 55.9
ANN                               pmax    pmax
      comp=Z,233nm,2.0s
ANN                               pmax    pmax
      comp=Z,935nm,7.1s
ANN                               MLR     MLR
      comp=N,6µm,20.0s,MS6.2
ANN                               MLR     MLR
      comp=E,2µm,20.0s,MS6.2
ANN                               MLR     MLR
      comp=Z,4µm,20.0s,MS6.0
LVV   L'vov           113.67  31 eP       Pdif    16 12 13.4 +6.4
LVV                               MLR     MLR
      comp=N,4µm,18.0s,MS6.4
LVV                               MLR     MLR
      comp=E,8µm,18.0s,MS6.4
LVV                               MLR     MLR
      comp=Z,5µm,18.0s,MS6.2
GLMI  Grayling        113.74 317  PFAKE           16 16 10.0  +11
GLMI                              LR      LR
      comp=Z,17µm,20.0s,MS6.6
VIS   Vishakhapatnam  113.83  94 ePKP     PKiKP   16 15 57.8 -1.8
VIS                               AMS     AMS     16 53 28.0
      comp=Z,17µm,27.6s,MS6.5
KSU1  Kansas State U  113.83 306 ePKPdf   PKiKP   16 15 57.8 -1.2
KSU1                              LR      LR
      comp=Z,25µm,20.0s,MS6.8
GOR   Gori            113.88  49  P       PKiKP   16 15 59.0 +0.1
MTA   Mtatsminda      113.91  50  P       PKiKP   16 15 55.9 -3.1
MTA   Mtatsminda      113.91  50  P       PP      16 16 44.6 -8.8
TBLG  Delisi          113.92  50  P       PKiKP   16 15 58.2 -0.9
TBLG  Delisi          113.92  50  P       PP      16 16 56.2 +2.7
318A  Bisbee          114.02 291 ⇓P       PKiKP   16 15 58.8 -0.8
      baz=114
219A  White Tail Can  114.10 292 ⇓P       PKiKP   16 15 58.5 -1.2
      baz=114
ONI   Oni             114.10  48  P       PKiKP   16 15 55.8 -3.5
ONI   Oni             114.10  48  P       PP      16 16 49.5 -5.2
120A  U Bar Ranch, L  114.22 293 ⇑P       PKiKP   16 15 59.8 -0.1
      baz=114
JFWS  Jewell Farm     114.30 312 ePKIKP   PKiKP   16 15 59.5 -0.2
JFWS                              MLR     MLR
      comp=Z,23µm,22.0s,MS6.7
218A  Dragoon         114.48 291 ⇑P       PKiKP   16 16 00.2 -0.2
      baz=115
BNM   Barren Site     114.51 295 ePKPdf   PKiKP   16 15 58.0 -2.4
SCIA  State Center    114.68 310  PFAKE           16 16 10.0  +10
SCIA                              LR      LR
      comp=Z,42µm,22.0s,MS7.0
217A  Green Valley    114.71 291 ⇑P       PKiKP   16 16 00.6 -0.3
      baz=115
119A  Ashpeak Ranch,  114.73 292 ⇑P       PKiKP   16 16 00.6 -0.3
      baz=115
KIV   Kislovodsk      114.95  47⇓iPKIKP   PKiKP   16 15 59.3 -1.6
KIV                              i                16 17 00.1
KIV                              e                16 22 50.2
KIV                              eSS      SS      16 33 09.6  +12
KIV                               pmax    pmax
      comp=Z,33nm,1.2s
KIV                               MLR     MLR
      comp=Z,18µm,17.0s,MS6.7
KIV   Kislovodsk      114.95  47⇑ePKP     PKiKP   16 15 59.4 -1.5
KIV                               LR      LR
      comp=Z,10µm,19.0s,MS6.4
118A  Homack Ranch,   114.97 292 ⇑P       PKiKP   16 16 00.3 -1.1
      baz=115
118A                             ⇓PP      PP      16 17 00.8 -0.2
      baz=115
CBKS  Cedar Bluff     115.00 303  PFAKE           16 16 10.0 +8.8
CBKS                              LR      LR
      comp=Z,12µm,22.0s,MS6.5
GKP   Gorka Klasztor  115.05  26 eP       PKiKP   16 16 00.7 -0.1
ANMO  Albuquerque     115.07 296  PKP     PKiKP   16 15 59.6 -1.9
      comp=Z,11nm,0.9s,baz=171,slow=6.0,SNR=18
ANMO                              PP      PP      16 16 52.1  -10
      comp=Z,16nm,1.1s,baz=133,slow=8.2,SNR=4.4
ANMO  Albuquerque     115.07 296  PKP     PKiKP   16 15 59.6 -1.9
ANMO                              PP      PP      16 16 52.1  -10
ANMO                              LR      LR
      comp=Z,19µm,22.0s,MS6.7
BHPL  Bhopal          115.09  86 ePKP     PKiKP   16 16 00.1 -1.8
TUC   Tucson          115.12 291 ePKIKP   PKiKP   16 16 01.2 -0.5
TUC                               MLR     MLR
      comp=Z,20µm,21.0s,MS6.7
SBUM  Sibu            115.13 130  P       PKiKP   16 16 01.4 -0.9
Z19A  T-Link Ranch,   115.14 293 ⇓P       PKiKP   16 16 01.7 +0.1
      baz=115
216A  Three Points,   115.22 290 ⇑P       PKiKP   16 16 02.0 +0.1
      baz=116
117A  Oracle          115.31 291 ⇓P       PKPdf   16 16 02.2 +0.2
      baz=116
Z18A  Geronimo        115.36 292 ⇓P       PKPdf   16 16 01.9 -0.1
      baz=116
Y19A  Nutrioso        115.66 293 ⇓P       PKPdf   16 16 02.4 -0.2
      baz=116
Z17A  San Carlos Hig  115.75 292 ⇓P       PKPdf   16 16 02.8  0.0
      baz=116
116A  Eloy            115.79 290 ⇑P       PKPdf   16 16 03.1 +0.1
      baz=116
W21A  San Fidel       115.79 295 ⇓P       PKPdf   16 16 03.1 +0.2
      baz=116
KIEV  Kiev            115.97  34 ePKIKP   PKPdf   16 16 00.9 -1.8
KIEV                              MLR     MLR
      comp=Z,8µm,21.0s,MS6.3
AKASG Malin Array Be  115.98  34  PKP     PKPdf   16 16 01.1 -1.5
      comp=Z,16nm,0.7s,baz=242,slow=2.0,SNR=31
AKASG                             PP      PP      16 17 02.2 -5.7
      comp=Z,5.4nm,0.8s,baz=209,slow=7.5,SNR=6.8
AKASG                             PKKPab  PKKPab  16 26 36.9 +1.5
      comp=Z,3.5nm,0.9s,baz=34,slow=4.2,SNR=8.6
AKASG                             SKKP            16 30 37.3
      comp=Z,3.9nm,1.0s,baz=28,slow=5.4,SNR=4.1
AKASG Malin Array Be  115.98  34  PKP     PKPdf   16 16 01.1 -1.5
AKASG                             PP      PP      16 17 02.2 -5.7
AKASG                             PKKPab  PKKPab  16 26 36.9 +1.5
AKASG                             SKKP            16 30 37.3
MAK   Makhachkala     116.09  51 eP       Pdif    16 12 19.0 +1.2
MAK                              e                16 16 03.8
MAK                              e                16 17 05.9
MAK                              ePPP             16 19 44.8
MAK                              i                16 23 13.7
MAK                              eSP      SP      16 26 43.8 -5.7
MAK                              i PS     PS      16 26 50.7 +1.6
MAK                              eSSS             16 37 26.0
MAK                               pmax    pmax
      comp=Z,78nm,0.7s
115A  Sonoran Desert  116.17 290 ⇓P       PKPdf   16 16 03.4 -0.2
      baz=116
BTM   Bintulu         116.17 130  P       PKPdf   16 16 03.0 -1.3
AJM   Ajmer           116.18  81 ePKP     PKPdf   16 16 02.0 -1.9
AJM                              ePKP             16 16 03.2
W20A  Ramah           116.22 294 ⇑P       PKPdf   16 16 03.7 +0.1
      baz=116
BSD   Bornholm Skovb  116.23  23 i P      PP      16 17 07.1 -2.4
      comp=Z,33nm,1.0s
BSD                              i S      SP      16 26 57.2 +7.1
BSD
      comp=Z,15µm,18.0s
COP   Copenhagen      116.24  22 i P      PP      16 17 05.7 -3.9
      comp=Z,31nm,0.9s
COP
      comp=Z,15µm,18.0s
Y17A  Roosevelt       116.25 292 ⇓P       PKPdf   16 16 03.8  0.0
      baz=116
Z16A  Peralta Trail,  116.27 291 ⇓P       PKPdf   16 16 03.8  0.0
      baz=116
MUD   Monsted U'grnd  116.34  20 i P      PKPdf   16 16 03.2  0.0
MUD   Monsted U'grnd  116.34  20 i P      PP      16 17 05.7 -4.5
      comp=Z,15nm,1.0s
MUD                              i S      PKKPdf  16 27 05.1 +6.8
MUD
      comp=Z,20µm,19.0s
JBP   Jabalpur        116.42  88⇓iP       PKPdf   16 16 02.7 -1.8
JBP                              ex       x       16 26 57.2
JBP                              ex       x       16 56 46.4
      comp=Z,23µm,19.2s
X18A  Snowflake       116.46 293 ⇑P       PKPdf   16 16 04.4 +0.2
      baz=117
COWI  Conover         116.52 315 ePKPdf   PKPdf   16 16 01.7 -2.2
COWI                              LR      LR
      comp=Z,24µm,21.0s,MS6.8
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114A  Black Gap (USA  116.54 290 ⇑P       PKPdf   16 16 03.4 -1.0
      baz=117
Y16A  Circle Bar Ran  116.72 291 ⇑P       PKPdf   16 16 04.5 -0.2
      baz=117
X17A  Forest Lakes    116.74 292 ⇑P       PKPdf   16 16 04.7  0.0
      baz=117
W18A  Petrified Fore  116.82 294 ⇓P       PKPdf   16 16 04.3 -0.5
      baz=117
SDCO  Great Sand Dun  116.84 298 ePKPdf   PKPdf   16 16 04.5 -0.3
SDCO                              LR      LR
      comp=Z,15µm,21.0s,MS6.6
T22A  Edith           116.93 297 ⇑P       PKPdf   16 16 04.7 -0.2
      baz=117
V19A  Window Rock     116.95 294 ⇓P       PKPdf   16 16 04.8 -0.3
      baz=117
113A  Mohawk Valley,  117.01 289 ⇑P       PKPdf   16 16 05.0 -0.2
      baz=117
Z14A  Wintersburg     117.06 290 ⇑P       PKPdf   16 16 04.8 -0.6
      baz=117
SCHQ  Schefferville   117.10 334  PKP     PKPdf   16 16 03.2 -1.5
      comp=Z,28nm,0.8s,baz=164,slow=2.0,SNR=33
SCHQ                              PKKPab  PKKPab  16 26 35.3 +5.1
      comp=Z,11nm,0.8s,baz=337,slow=4.5,SNR=8.2
SCHQ  Schefferville   117.10 334  PKP     PKPdf   16 16 03.2 -1.5
SCHQ                              PKKPab  PKKPab  16 26 35.3 +5.1
X16A  Lo Mia Camp, P  117.13 292 ⇑P       PKPdf   16 16 05.5  0.0
      baz=117
X16A                             ⇑PP      PP      16 17 16.2 +0.2
      baz=117
SUW   Suwalki         117.20  29 eP       PKPdf   16 16 03.7 -1.2
Y15A  Casa Rosa Ranc  117.21 291 ⇑P       PKPdf   16 16 05.2 -0.4
      baz=118
V18A  Ganado          117.39 294 ⇑P       PKPdf   16 16 06.0 +0.1
      baz=118
Y14A  Wickenburg      117.54 290 ⇓P       PKPdf   16 16 05.9 -0.4
      baz=118
X15A  Humboldt        117.58 291 ⇓P       PKPdf   16 16 06.0 -0.4
      baz=118
ECSD  EROS Data Cent  117.61 308 ePKPdf   PKPdf   16 15 59.0 -7.1
ECSD                              LR      LR
      comp=Z,44µm,22.0s,MS7.0
W16A  Flagstaff       117.70 292 ⇑P       PKPdf   16 16 06.7 +0.2
      baz=118
OGNE  Ogallala        117.77 303 ePKPdf   PKPdf   16 16 05.5 -1.0
OGNE                              LR      LR
      comp=Z,17µm,22.0s,MS6.6
GLA   Glamis          117.78 288 ⇓P       PKPdf   16 16 06.3 -0.4
      baz=118
GLA   Glamis          117.78 288 ePKPdf   PKPdf   16 16 05.9 -0.8
T19A  Beclabito       117.82 295 ⇓P       PKPdf   16 16 06.3 -0.5
      baz=118
R22A  Saguache, Gunn  117.83 298 ⇓P       PKPdf   16 16 07.0 +0.3
      baz=118
Y13A  Salome          117.86 290 ⇓P       PKPdf   16 16 04.3 -2.6
      baz=118
MVCO  Mesa Verde      117.87 296 ⇓P       PKPdf   16 16 06.5 -0.3
      baz=118
MVCO  Mesa Verde      117.87 296 ePKPdf   PKPdf   16 16 06.1 -0.7
MVCO                             ePP      PP      16 17 22.0 +0.8
MVCO                              LR      LR
      comp=Z,32µm,19.0s,MS7.0
X14A  Yava            117.90 291 ⇓P       PKPdf   16 16 06.2 -0.7
      baz=118
U18A  Rough Rock, Ch  117.92 294 ⇑P       PKPdf   16 16 06.4 -0.5
      baz=118
WUAZ  Wupatki         117.96 293 ⇑P       PKPdf   16 16 05.8 -1.2
      baz=118
WUAZ  Wupatki         117.96 293 ePdif    Pdif    16 12 22.1 -4.0
WUAZ                             ePKPdf   PKPdf   16 16 05.9 -1.1
DVTC  Desert V Tower  118.13 287 ⇑P       PKPdf   16 16 06.4 -1.0
      baz=118
W15A  Williams        118.14 292 ⇑P       PKPdf   16 16 07.4  0.0
      baz=118
Y12C  Blythe          118.17 289 ⇑P       PKPdf   16 16 07.3 -0.2
      baz=118
SWSC  Sam W. Stewart  118.19 288 ⇑P       PKPdf   16 16 07.5 -0.1
      baz=118
U16A  Tuba City       118.33 293 ⇓P       PKPdf   16 16 07.8 +0.1
      baz=119
Q22A  Crested Butte,  118.40 298 ⇓P       PKPdf   16 16 06.8 -0.9
      baz=119
PDMCI Parker Dam,Lak  118.41 290 ⇓P       PKPdf   16 16 07.7 -0.2
      baz=119
BAR   Barrett         118.44 287 ePKPdf   PKPdf   16 16 07.2 -0.8
U17A  Shonto          118.45 294 ⇓P       PKPdf   16 16 07.8 -0.1
      baz=119
MONP  Monument Peak   118.48 287 ⇓P       PKPdf   16 16 07.7 -0.4
      baz=119
X13A  Yucca           118.48 290 ⇓P       PKPdf   16 16 07.8 -0.2
      baz=119
T18A  Mexican Hat     118.48 295 ⇑P       PKPdf   16 16 07.9 -0.1
      baz=119
ISCO  Idaho Springs   118.52 300 ePKIKP   PKPdf   16 16 06.1 -1.8
ISCO                              MLR     MLR
      comp=Z,10µm,19.0s,MS6.5
BC3   Big Chuckw Mtn  118.58 288 ⇓P       PKPdf   16 16 08.0 -0.2
      baz=119
R20A  Redvale         118.58 297 ⇓P       PKPdf   16 16 07.2 -1.0
      baz=119
W14A  Seligman        118.58 291 ⇓P       PKPdf   16 16 08.2  0.0
      baz=119
V15A  Kaibab Nationa  118.60 292 ⇓P       PKPdf   16 16 07.7 -0.5
      baz=119
S19A  Harvey Farm, M  118.60 296 ⇑P       PKPdf   16 16 04.8 -3.4
      baz=119
PV01  Paradox Valley  118.63 296 ePKPdf   PKPdf   16 16 06.9 -1.3
Q21A  Lamborn Mesa,   118.70 298 ⇓P       PKPdf   16 16 07.6 -0.7
      baz=119
BLS5  Blasjo          118.70  17 eP       PKPdf   16 16 08.9 +1.2
IRM   Iron Mountain   118.81 289 ⇓P       PKPdf   16 16 07.4 -1.3
      baz=119
109C  Camp Elliot, M  118.83 287 ⇓P       PKPdf   16 16 08.0 -0.8
      baz=119
W13A  Hualapai Mount  118.90 291 ⇑P       PKPdf   16 16 07.9 -0.9
      baz=119
MNK   Minsk           118.90  31⇑iPKIKP   PKPdf   16 16 05.0 -3.2
MNK                              eSS      SS      16 33 45.0 -3.5
MNK                               pmax    pmax
      comp=Z,340nm,1.0s
MNK                               MLR     MLR
      comp=N,21µm,18.0s,MS7.1
MNK                               MLR     MLR
      comp=Z,59µm,18.0s,MS7.3
MNK                               MLR     MLR
      comp=E,34µm,16.0s,MS7.1
MICGM Minsk           118.92  31⇑iPKP     PKPdf   16 16 05.0 -3.2
V14A  Boquillas Ranc  118.92 291 ⇓P       PKPdf   16 16 09.3 +0.4
      baz=119
EYMN  Ely             118.95 315 ePKPdf   PKPdf   16 16 06.4 -2.1
EYMN                              LR      LR
      comp=Z,17µm,21.0s,MS6.7
NACGM Naroch          118.96  31 ePKP     PKPdf   16 16 04.0 -4.3
S18A  Hurst Farm, Bl  118.98 295 ⇑P       PKPdf   16 16 08.5 -0.4
      baz=119
PV04  Paradox Valley  118.99 296 ePKPdf   PKPdf   16 16 08.2 -0.7
NEE2  Needles Airpor  119.02 290 ⇓P       PKPdf   16 16 08.5 -0.6
      baz=119
PFO   Pinyon Flat Ob  119.06 288 ⇑P       PKPdf   16 16 09.1 -0.1
      baz=119
PFO   Pinyon Flat Ob  119.06 288 ePKPdf   PKPdf   16 16 08.5 -0.7
PFO                              ePP      PP      16 17 32.5 +3.1
PFO                               LR      LR
      comp=Z,31µm,21.0s,MS6.9
R19A  Curley Farm, L  119.09 296 ⇑P       PKPdf   16 16 09.0  0.0
      baz=119
TSM   Tawau           119.09 135  P       PKPdf   16 16 08.9 -1.1
ALBI  Allahabad       119.13  88 ex       PKPdf   16 16 06.0 -3.6
BELC  Belle Mtn.      119.13 288 ⇑P       PKPdf   16 16 08.9 -0.4
      baz=119
Q20A  Ridgley Place,  119.14 297 ⇑P       PKPdf   16 16 09.0 -0.2
      baz=120
T16A  Glen Canyon Da  119.17 294 ⇓P       PKPdf   16 16 09.2 -0.1
      baz=120
P21A  Newcastle       119.18 298 ⇓P       PKPdf   16 16 09.2  0.0
      baz=120
ODD1  Odda            119.19  17 eP       PKPdf   16 16 08.2 -0.4
NDI   New Delhi       119.31  82 ePKP     PKPdf   16 16 07.0 -2.8
NDI                              ex       x       16 26 26.0
S17A  Black Ridge (B  119.33 295 ⇓P       PKPdf   16 16 09.0 -0.6
      baz=120
KONO  Kongsberg       119.44  19 ePP      PP      16 17 31.0 -0.7
KONO                              AMS     AMS     17 06 09.5
      comp=Z,15µm,14.4s,MS6.8
KONO  Kongsberg       119.44  19⇑iPKIKP   PKPdf   16 16 10.6 +1.6
KONO  Kongsberg       119.44  19  PFAKE           16 16 20.0  +11
KONO                              LR      LR
      comp=Z,18µm,19.0s,MS6.7
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MURC  Murrieta        119.44 287 ⇓P       PKPdf   16 16 09.1 -0.8
      baz=120
BER   Bergen          119.44  16 ePP      PP      16 17 33.0 +1.3
R18A  Canyonlands Na  119.47 296 ⇓P       PKPdf   16 16 09.2 -0.6
      baz=120
LDFC  Landfair        119.51 290 ePKPdf   PKPdf   16 16 09.3 -0.7
LDFC                             ePP      PP      16 17 32.4 -0.2
VORD  Divnogorie      119.52  40 ePKIKP   PKPdf   16 16 07.7 -1.8
VORD                              pmax    pmax
      comp=Z,50nm,1.0s
VORD                              pmax    pmax
      comp=N,10.0nm,0.6s
VORD                              pmax    pmax
      comp=E,8.0nm,0.6s
V13A  Grand Canyon W  119.54 291 ⇓P       PKPdf   16 16 09.9 -0.2
      baz=120
GMRC  Granite Mounta  119.56 289 ⇓P       PKPdf   16 16 10.1  0.0
      baz=120
KBL   Kabul           119.57  71 ePKIKP   PKPdf   16 16 09.1 -1.1
U14A  Mt Trumbull     119.57 292 ⇑P       PKPdf   16 16 10.1  0.0
      baz=120
Q19A  Hogan Spring (  119.61 297 ⇓P       PKPdf   16 16 09.7 -0.4
      baz=120
P20A  De Beque        119.61 298 ⇑P       PKPdf   16 16 09.3 -0.7
      baz=120
T15A  Red Dirt Ranch  119.64 293 ⇑P       PKPdf   16 16 09.6 -0.6
      baz=120
SCI   San Clemente I  119.66 286 ⇓P       PKPdf   16 16 10.1 -0.3
      baz=120
VSR   Storozhevoye    119.69  40 ePKIKP   PKPdf   16 16 08.2 -1.6
VSR                               pmax    pmax
      comp=Z,40nm,1.2s
VSR                               pmax    pmax
      comp=N,10.0nm,0.9s
VSR                               pmax    pmax
      comp=E,9.0nm,1.0s
N22A  Wattenberg Ran  119.70 300 ⇓P       PKPdf   16 16 09.9 -0.3
      baz=120
O21A  Pagoda          119.73 299 ⇑P       PKPdf   16 16 09.9 -0.3
      baz=120
BBRC  Big Bear Sol-O  119.81 288 ⇓P       PKPdf   16 16 11.3 +0.7
      baz=120
V12A  Nelson          119.88 290 ⇓P       PKPdf   16 16 10.7  0.0
      baz=120
R17A  Hanksville Air  119.90 295 ⇓P       PKPdf   16 16 10.2 -0.4
      baz=120
CIS   Catalina Islan  119.91 286 ⇓P       PKPdf   16 16 10.4 -0.4
      baz=120
HEC   Hector,Ludlow   119.94 289 ⇑P       PKPdf   16 16 10.8  0.0
      baz=120
U13A  Pakoon Wash     119.97 291 ⇑P       PKPdf   16 16 10.5 -0.3
      baz=120
P19A  Cripple Cowboy  120.00 297 ⇓P       PKPdf   16 16 10.2 -0.6
      baz=120
T14A  Hurricane       120.02 292 ⇑P       PKPdf   16 16 10.1 -0.8
      baz=120
KKM   Kota Kinabalu   120.03 132  PFAKE           16 16 20.0 +8.3
KKM                               LR      LR
      comp=Z,8µm,21.0s,MS6.3
O20A  White River Ci  120.03 298 ⇓P       PKPdf   16 16 10.1 -0.7
      baz=120
SDKM  Sandakan        120.06 133  P       PKPdf   16 16 10.8 -1.0
VOR   Voronezh        120.13  40 ePKIKP   PKPdf   16 16 09.0 -1.6
VOR                               pmax    pmax
      comp=Z,160nm,1.6s
BOK   Bokaro          120.14  92 ePKP     PKPdf   16 16 09.1 -2.5
S15A  Panguitch       120.14 293 ⇑P       PKPdf   16 16 10.9 -0.3
      baz=120
MYLDM Lahad Datu      120.14 135  P       PKPdf   16 16 12.1 +0.2
Q18A  Rafter H Ranch  120.15 296 ⇓P       PKPdf   16 16 10.5 -0.6
      baz=120
BFSC  Mount Baldy St  120.17 287 ⇑P       PKPdf   16 16 10.5 -0.8
      baz=120
R16A  Teasdale        120.17 295 ⇓P       PKPdf   16 16 11.1 -0.1
      baz=120
N21A  Black Mountain  120.18 299 ⇓P       PKPdf   16 16 10.4 -0.7
      baz=120
TUQ   Turquoise Moun  120.21 289 ⇓P       PKPdf   16 16 10.8 -0.6
      baz=120
M22A  Cedar Creek Ra  120.24 300 ⇑P       PKPdf   16 16 10.9 -0.3
      baz=121
V11A  Goodsprings     120.27 290 ⇓P       PKPdf   16 16 11.5  0.0
      baz=120
U12A  Valley of Fire  120.27 291 ⇓P       PKPdf   16 16 11.5  0.0
      baz=121
HYA   Hoyanger        120.32  16 eP       PKPdf   16 16 11.8 +1.1
HYA                               AMb     AMB     16 16 17.7
      comp=Z,192nm,3.8s
SRU   San Rafael      120.34 296 ⇑P       PKPdf   16 16 10.0 -1.5
      baz=121
SRU   San Rafael      120.34 296 ePKPdf   PKPdf   16 16 09.9 -1.6
MWC   Mount Wilson    120.37 287 ePKIKP   PKPdf   16 16 10.6 -1.1
MWC                              e                16 17 38.1
SNCC  San Nicolas Is  120.38 285 ⇓P       PKPdf   16 16 10.4 -1.4
      baz=121
SNCC  San Nicolas Is  120.38 285 ePKPdf   PKPdf   16 16 10.2 -1.5
T13A  Saint George    120.41 292 ⇑P       PKPdf   16 16 10.8 -0.8
      baz=121
CAL   Calcutta        120.45  95 ex       PP      16 17 37.5 -1.5
CAL                              ex       SKSac   16 23 16.6 +5.9
VRHR  Novokhopersk    120.46  42 ePKIKP   PKPdf   16 16 09.5 -1.8
VRHR                              pmax    pmax
      comp=Z,20nm,0.5s
VRHR                              pmax    pmax
      comp=N,10.0nm,0.4s
R15A  Junction        120.51 294 ⇓P       PKPdf   16 16 11.4 -0.4
      baz=121
Q16A  Castle Valley   120.51 295 ⇑P       PKPdf   16 16 10.8 -1.0
      baz=121
CCUT  Cedar City      120.54 293 ePKPdf   PKPdf   16 16 11.2 -0.7
GSC   Goldstone       120.56 289 ⇓P       PKPdf   16 16 12.0  0.0
      baz=121
GSC   Goldstone       120.56 289 ePKPdf   PKPdf   16 16 11.7 -0.3
FOO   Floro           120.56  15 eP       PKPdf   16 16 09.7 -1.4
FOO                               AMS     AMS     17 03 07.4
      comp=Z,26µm,18.5s,MS6.9
O19A  Miners Draw (B  120.58 298 ⇑P       PKPdf   16 16 10.8 -1.1
      baz=121
N20A  Spence Gulch,   120.59 299 ⇑P       PKPdf   16 16 10.1 -1.8
      baz=121
T12A  Moapa           120.59 291 ⇓P       PKPdf   16 16 12.1 +0.1
      baz=121
S14A  Cedar City      120.61 293 ⇓P       PKPdf   16 16 12.5 +0.5
      baz=121
P18A  Preston Nutter  120.61 296 ⇑P       PKPdf   16 16 11.8 -0.2
      baz=121
U11A  Corn Creek      120.69 290 ⇓P       PKPdf   16 16 12.8 +0.6
      baz=121
MSU   Marysvale       120.70 294 ePKIKP   PKPdf   16 16 11.8 -0.4
MVU   Marysvale       120.71 294  PFAKE           16 16 20.0 +7.8
MVU                               LR      LR
      comp=Z,16µm,19.0s,MS6.7
P17A  Butcher Ranch,  120.73 296 ⇓P       PKPdf   16 16 12.5 +0.3
      baz=121
SHOC  Shoshone        120.75 289 ⇓P       PKPdf   16 16 12.4  0.0
      baz=121
RWWY  Rawlins         120.75 300 ePKPdf   PKPdf   16 16 11.1 -1.1
M21A  Separation Pea  120.76 300 ⇑P       PKPdf   16 16 11.5 -0.7
      baz=121
ARUT  Antelope Range  120.77 293 ePKIKP   PKPdf   16 16 11.9 -0.4
S13A  Holt Ranch, En  120.82 292 ⇑P       PKPdf   16 16 12.2 -0.3
      baz=121
TMUT  Trail Mountain  120.82 295 ePKPdf   PKPdf   16 16 11.8 -0.6
EDW2  Edwards Air Fo  120.84 287 ⇓P       PKPdf   16 16 12.2 -0.4
      baz=121
R14A  James Farms, M  120.95 293 ⇑P       PKPdf   16 16 13.3 +0.7
      baz=121
AGMN  Agassiz Refuge  120.97 312 ePKPdf   PKPdf   16 16 09.7 -2.6
AGMN                              LR      LR
      comp=Z,24µm,21.0s,MS6.8
O18A  Roosevelt       120.99 297 ⇑P       PKPdf   16 16 13.0 +0.4
      baz=121
BSC   Santa Cruz Isl  121.02 285 ⇑P       PKPdf   16 16 12.5 -0.4
      baz=121
OSI   Osito Adit      121.02 287 ⇓P       PKPdf   16 16 13.1 +0.1
      baz=121
OSI   Osito Adit      121.02 287 ePKPdf   PKPdf   16 16 12.9  0.0
BHK   Bhakra          121.02  79 ex       x       16 16 01.1
NB2   NORSAR Subarra121.02    19  PKPdf   PKPdf   16 16 10.9 -1.1
      comp=Z,46nm,0.8s,baz=202,slow=1.9
NB2   NORSAR Subarra121.02    19  PKPdf   PKPdf   16 16 10.9 -1.1
      baz=202,slow=1.9
NOA   NORSAR Array B 121.02   19  PKP     PKPdf   16 16 10.6 -1.4
      comp=Z,49nm,1.0s,baz=193,slow=1.8,SNR=44
NOA                               PKKPbc  PKKPbc  16 26 16.6 +1.9
      comp=Z,7.0nm,0.7s,baz=22,slow=2.9,SNR=12
NST   Nakhon Sawan    121.03 111  P       PKPdf   16 16 12.0 -1.5
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	comp=Z,100nm,0.9s						
L21A	**Rawlins**	**121.04**	**300**	⇑P	PKPdf	16 16 12.1	-0.7
	baz=121						
M20A	**Sweetwater, Wa**	**121.06**	**299**	⇑P	PKPdf	16 16 12.1	-0.7
	baz=121						
KDM	**Kudat**	**121.07**	**132**	P	PKPdf	16 16 12.4	-1.3
LRMC	**Laurel Mountai**	**121.15**	**288**	⇓P	PKPdf	16 16 12.4	-0.8
	baz=121						
Q15A	**Fillmore**	**121.17**	**294**	⇑P	PKPdf	16 16 13.2	+0.1
	baz=122						
U10A	**Ash Meadows, A**	**121.17**	**290**	⇑P	PKPdf	16 16 13.7	+0.6
	baz=122						
RSSD	**Black Hills**	**121.18**	**304**	*e*PKIKP	PKPdf	16 16 11.3	-1.6
RSSD				MLR	MLR		
	comp=Z,24µm,19.0s,MS6.9						
T11A	**Corn Creek, Al**	**121.24**	**291**	⇑P	PKPdf	16 16 13.7	+0.4
	baz=122						
O17A	**Robinson Place**	**121.29**	**296**	⇓P	PKPdf	16 16 13.1	-0.2
	baz=122						
P16A	**Fountain Green**	**121.29**	**295**	⇑P	PKPdf	16 16 13.4	+0.2
	baz=122						
R13A	**O'Grain Ranch,**	**121.33**	**293**	⇓P	PKPdf	16 16 13.5	0.0
	baz=122						
S12A	**Delamar Landin**	**121.34**	**292**	⇓P	PKPdf	16 16 14.0	+0.6
	baz=122						
THN	**Thein Dam**	**121.44**	**78**	*e*PKP	PKPdf	16 16 11.7	-2.1
THN				*e*x	x	16 26 13.4	
FURC	**Furnace Creek,**	**121.48**	**289**	⇑P	PKPdf	16 16 14.1	+0.4
	baz=122						
MPMC	**Manual Prospec**	**121.49**	**289**	⇑P	PKPdf	16 16 14.3	+0.5
	baz=122						
L20A	**Wamsutter**	**121.53**	**299**	⇑P	PKPdf	16 16 13.5	-0.1
	baz=122						
M19A	**Rock Springs**	**121.53**	**299**	⇑P	PKPdf	16 16 13.4	-0.3
	baz=122						
LGTI	**Lohaghat**	**121.55**	**84**	*e*PKP	PKPdf	16 16 13.1	-1.0
P15A	**Leamington**	**121.56**	**295**	⇑P	PKPdf	16 16 13.9	+0.1
	baz=122						
MPU	**Maple Canyon**	**121.59**	**296**	*e*PKPdf	PKPdf	16 16 13.5	-0.3
MPU				*e*PP	PP	16 17 48.1	+1.3
DOMB	**Dombas**	**121.60**	**17**	*e*P	PKPdf	16 16 12.8	-0.4
Q14A	**Sevier Lake (B**	**121.61**	**294**	⇑P	PKPdf	16 16 13.7	-0.2
	baz=122						
PTH	**Pithoragarh**	**121.61**	**84**	*e*PKP	PKPdf	16 16 12.4	-1.8
PTH				*e*x	x	16 18 26.8	
BORG	**Borgarnes**	**121.66**	**1**	PKP	PKPdf	16 16 11.5	-1.6
	comp=Z,89nm,0.9s,baz=156,slow=4.3,SNR=13						
BORG	**Borgarnes**	**121.66**	**1**	PKP	PKPdf	16 16 11.5	-1.6
BORG				LR	LR		
	comp=Z,38µm,19.0s,MS7.1						
ISA	**Isabella**	**121.70**	**288**	⇑P	PKPdf	16 16 14.4	+0.2
	baz=122						
ISA	**Isabella**	**121.70**	**288**	*e*PKPdf	PKPdf	16 16 14.5	+0.3
DAC	**Darwin (Calif)**	**121.71**	**289**	PFAKE		16 16 20.0	+5.8
DAC				LR	LR		
	comp=Z,11µm,21.0s,MS6.5						
NLU	**North Lily Min**	**121.76**	**295**	*e*PKPdf	PKPdf	16 16 13.9	-0.2
R12A	**Pony Springs,**	**121.77**	**292**	⇑P	PKPdf	16 16 14.5	+0.3
	baz=122						
BDT	**Bhumibol Dam**	**121.77**	**109**	⇑P	PKPdf	16 16 13.5	-1.4
	comp=Z,91nm,1.0s						
S11A	**Rachel**	**121.82**	**291**	⇑P	PKPdf	16 16 15.0	+0.6
	baz=122						
MOL	**Molde**	**121.86**	**16**	AMS	AMS	17 03 00.7	
	comp=Z,23µm,21.1s,MS6.8						
N17A	**Moffit Pass**	**121.91**	**297**	⇑P	PKPdf	16 16 14.1	-0.3
	baz=122						
M18A	**Lyman**	**121.91**	**298**	⇓P	PKPdf	16 16 13.3	-1.1
	baz=122						
Q13A	**Wheeler Ranch,**	**121.95**	**293**	⇑P	PKPdf	16 16 14.6	0.0
	baz=122						
P14A	**Drum Mountains**	**121.97**	**294**	⇓P	PKPdf	16 16 14.5	-0.1
	baz=122						
P14A				⇓PP	PP	16 17 49.6	+0.3
	baz=122						
KOLN	**Koldanda**	**122.05**	**88**	*e*P	PKPdf	16 16 13.3	-1.8
	comp=Z,584nm,0.9s						
OBN	**Obninsk**	**122.06**	**36**	⇑*i*PKIKP	PKPdf	16 16 12.4	-1.8
OBN				*i*		16 17 52.0	
OBN				*i* SS	SS	16 34 19.2	-10
OBN				pmax	pmax		
	comp=Z,100nm,1.3s						
OBN				MLR	MLR		
	comp=Z,15µm,18.0s,MS6.7						
OBN	**Obninsk**	**122.06**	**36**	⇑*e*PKP	PKPdf	16 16 12.4	-1.8
OBN				LR	LR		
	comp=Z,15µm,18.0s,MS6.7						
VSU	**Vasula**	**122.07**	**28**	*i* PKIKP	PKPdf	16 16 12.7	-1.4
L19A	**Farson**	**122.09**	**299**	⇑P	PKPdf	16 16 14.1	-0.7
	baz=122						
CWC	**Cottonwood Cre**	**122.09**	**288**	⇑P	PKPdf	16 16 15.3	+0.4
	baz=122						
VES	**Vestal, Richgr**	**122.15**	**287**	⇓P	PKPdf	16 16 13.0	-2.0
	baz=122						
GRAC	**Grapevine Rang**	**122.15**	**289**	⇑P	PKPdf	16 16 15.0	-0.1
	baz=122						
N16A	**Rees Ranch, Co**	**122.16**	**296**	⇑P	PKPdf	16 16 14.7	-0.2
	baz=122						
O15A	**The Old Anders**	**122.20**	**295**	⇑P	PKPdf	16 16 14.9	-0.1
	baz=122						
SMMC	**Simmler**	**122.22**	**286**	⇓P	PKPdf	16 16 15.5	+0.3
	baz=122						
M17A	**Scullys Gap (B**	**122.23**	**297**	⇑P	PKPdf	16 16 14.0	-1.0
	baz=122						
R11A	**Troy Canyon, C**	**122.28**	**292**	⇓P	PKPdf	16 16 14.9	-0.3
	baz=123						
L18A	**Fontenelle, Gr**	**122.28**	**298**	⇓P	PKPdf	16 16 14.2	-0.9
	baz=123						
DUG	**Dugway**	**122.30**	**295**	⇑P	PKPdf	16 16 15.4	+0.2
	baz=123						
DUG	**Dugway**	**122.30**	**295**	*e*PKPdf	PKPdf	16 16 14.6	-0.6
DUG				LR	LR		
	comp=Z,19µm,21.0s,MS6.7						
NOQ	**North Oquirrh**	**122.31**	**296**	*e*PKPdf	PKPdf	16 16 14.7	-0.5
P13A	**Bates Ranch, G**	**122.33**	**294**	⇑P	PKPdf	16 16 13.9	-1.3
	baz=123						
K19A	**Absolon Red Bu**	**122.40**	**300**	⇑P	PKPdf	16 16 14.1	-1.2
	baz=123						
Q12A	**Willow Creek R**	**122.42**	**293**	⇓P	PKPdf	16 16 15.4	-0.1
	baz=123						
S10A	**Tonopah Range,**	**122.46**	**291**	⇑P	PKPdf	16 16 15.3	-0.3
	baz=123						
ULM	**Lac du Bonnet**	**122.52**	**313**	PKP	PKPdf	16 16 13.2	-2.1
	comp=Z,35nm,0.7s,baz=120,slow=1.1,SNR=29						
ULM				PP	PP	16 17 54.8	+1.9
	comp=Z,71nm,1.1s,baz=132,slow=7.2,SNR=6.3						
ULM				PKKPbc	PKKPbc	16 26 09.6	+0.9
	comp=Z,16nm,0.7s,baz=320,slow=3.9,SNR=12						
M16A	**Huntsville**	**122.58**	**297**	⇑P	PKPdf	16 16 15.2	-0.5
	baz=123						
DANN	**Dangsing**	**122.59**	**87**	*e*P	PKPdf	16 16 14.5	-1.7
	comp=Z,595nm,0.8s						
R10A	**Warm Springs**	**122.59**	**291**	⇓P	PKPdf	16 16 16.6	+0.8
	baz=123						
S09A	**Goldfield**	**122.63**	**290**	⇑P	PKPdf	16 16 16.5	+0.6
	baz=123						
TIN	**Tinemaha**	**122.64**	**289**	⇑P	PKPdf	16 16 15.6	-0.3
	baz=123						
N15A	**Stansbury Isla**	**122.69**	**296**	⇑P	PKPdf	16 16 16.0	+0.1
	baz=123						
Q11A	**Duckwater**	**122.69**	**292**	⇑P	PKPdf	16 16 15.6	-0.4
	baz=123						
BW06	**Boulder Array**	**122.69**	**299**	⇓P	PKPdf	16 16 14.3	-1.6
	baz=123						
BW06				⇓PP	PP	16 17 53.9	-0.3
	baz=123						
BW06	**Boulder Array**	**122.69**	**299**	*e*PKPdf	PKPdf	16 16 13.9	-2.0
BW06				LR	LR		
	comp=Z,17µm,22.0s,MS6.7						
PDAR	**Pinedale Array**	**122.69**	**299**	PKhKP		16 16 08.2	
	comp=Z,2.3nm,0.8s,baz=138,slow=3.1,SNR=4.3						
PDAR				PKP	PKPdf	16 16 14.1	-1.8
	comp=Z,15nm,0.8s,baz=136,slow=3.1,SNR=35						
PDAR				PP	PP	16 17 56.4	+2.1
	comp=Z,46nm,1.2s,baz=122,slow=5.4,SNR=5.9						
PDAR				SKP		16 19 50.7	
	comp=Z,4.8nm,0.9s,baz=132,slow=2.7,SNR=3.9						
PDAR				PKKPbc	PKKPbc	16 26 10.7	+2.8
	comp=Z,2.6nm,0.8s,baz=75,slow=0.7,SNR=7.4						
PDAR				SKKPbc		16 29 44.1	
	comp=Z,2.4nm,0.9s,baz=253,slow=5.3,SNR=4.1						
DMN	**Daman**	**122.74**	**89**	*e*P	PKPdf	16 16 14.8	-1.7
	comp=Z,458nm,0.9s						
CMAR	**Chiang Mai Arr**	**122.75**	**108**	PKP	PKPdf	16 16 15.8	-1.0
	comp=Z,178nm,0.9s,baz=234,slow=3.4,SNR=102						
CMAR				PKKPab	PKKPab	16 26 10.3	+0.5
	comp=Z,9.7nm,0.8s,baz=9.7,slow=3.4,SNR=24						
CMAR				SKKPbc		16 29 30.9	
	comp=Z,4.0nm,1.1s,baz=10,slow=4.3,SNR=4.3						
TARA	**Tarawa**	**122.77**	**200**	PFAKE		16 16 30.0	+13
TARA				LR	LR		
	comp=Z,11µm,22.0s,MS6.5						
GKN	**Gorkha**	**122.80**	**88**	*e*P	PKPdf	16 16 14.6	-2.0
	comp=Z,593nm,0.9s						
L17A	**Cokeville**	**122.81**	**298**	⇑P	PKPdf	16 16 15.1	-1.1
	baz=123						
K18A	**Toltan Ranch,**	**122.83**	**299**	⇑P	PKPdf	16 16 14.4	-1.8
	baz=123						
O13A	**Hicks Ranch, I**	**122.83**	**294**	⇑P	PKPdf	16 16 16.4	+0.1
	baz=123						
PKI	**Pulchoki**	**122.88**	**89**	*e*P	PKPdf	16 16 15.0	-1.7
	comp=Z,540nm,0.9s						
MOS	**Moscow**	**122.92**	**36**	*e*PKIKP	PKPdf	16 16 12.8	-3.1
MOS				*e*		16 16 24.7	
MOS				*e*PS	PS	16 27 44.8	-5.4
MOS				pmax	pmax		
	comp=Z,162nm,0.9s						
MOS				MLR	MLR		
	comp=E,13µm,19.0s,MS6.8						
MOS				MLR	MLR		
	comp=Z,12µm,19.0s,MS6.6						
MOS				MLR	MLR		
	comp=N,14µm,18.0s,MS6.8						
R09A	**Tonopah**	**122.95**	**291**	⇓P	PKPdf	16 16 16.1	-0.4
	baz=123						
KKTK	**Khon Kaen**	**122.95**	**113**	⇑P	PKPdf	16 16 16.0	-1.2
	comp=N,2µm,0.7s						
BGU	**Big Grassy Mou**	**122.97**	**295**	*e*PKPdf	PKPdf	16 16 16.4	-0.1
SPUT	**South Promonto**	**122.97**	**296**	*e*PKPdf	PKPdf	16 16 15.8	-0.7
KKN	**Kakani**	**122.98**	**89**	*e*P	PKPdf	16 16 15.2	-1.7
	comp=N,317nm,0.9s						
N14A	**Grayback Hills**	**122.99**	**295**	⇑P	PKPdf	16 16 16.6	+0.1
	baz=123						
L16A	**Fish Haven**	**123.02**	**297**	⇓P	PKPdf	16 16 16.2	-0.3
	baz=123						
RAMN	**Ramite**	**123.03**	**91**	*e*P	PKPdf	16 16 16.0	-1.0
	comp=N,725nm,1.0s						
Q10A	**Clear Creek Ra**	**123.05**	**291**	⇑P	PKPdf	16 16 16.1	-0.6
	baz=123						
CHG	**Chiang Mai**	**123.05**	**108**	⇓P	PKPdf	16 16 16.2	-1.1
	comp=N,92nm,1.0s						
CHTO	**Chiang Mai**	**123.05**	**108**	*e*PKIKP	PKPdf	16 16 15.8	-1.5
CHTO				MLR	MLR		
	comp=Z,19µm,22.0s,MS6.7						
CHTO	**Chiang Mai**	**123.05**	**108**	P	PKPdf	16 16 16.4	-0.9
	SNR=32						
CHTO				P		16 16 16.4	
	SNR=32						
M15A	**Larsen Ranch,**	**123.09**	**296**	⇑P	PKPdf	16 16 16.3	-0.4
	baz=123						
AGT	**Agartala**	**123.11**	**97**	*e*x	PKPdf	16 16 13.0	-4.3
AGT				*e*x		16 16 46.0	
BATP	**Bataraza**	**123.17**	**132**	*e*P	PKPdf	16 16 16.8	-0.9
J18A	**Kendall Valley**	**123.25**	**299**	⇑P	PKPdf	16 16 15.9	-1.0
	baz=124						
O12A	**Currie**	**123.32**	**294**	⇓P	PKPdf	16 16 17.7	+0.5
	baz=124						
K17A	**Gardner Place,**	**123.33**	**298**	⇓P	PKPdf	16 16 15.7	-1.4
	baz=124						
JIRN	**Jiri**	**123.37**	**90**	*e*P	PKPdf	16 16 16.5	-1.2
	comp=Z,692nm,0.7s						
MLAC	**Mammoth Lakes**	**123.39**	**289**	⇑P	PKPdf	16 16 17.8	+0.4
	baz=124						
ODAN	**Odare**	**123.39**	**92**	*e*P	PKPdf	16 16 16.7	-1.0
	comp=Z,494nm,0.9s						
GUN	**Gumba**	**123.40**	**90**	*e*P	PKPdf	16 16 16.3	-1.4
	comp=Z,729nm,0.9s						
AHID	**Auburn Hatcher**	**123.43**	**298**	*e*PKPdf	PKPdf	16 16 16.7	-0.6
AHID				LR	LR		
	comp=Z,19µm,22.0s,MS6.7						
Q09A	**Carvers**	**123.46**	**291**	⇓P	PKPdf	16 16 17.2	-0.3
	baz=124						
L15A	**Malad City**	**123.47**	**297**	⇑P	PKPdf	16 16 15.8	-1.6
	baz=124						
N13A	**Wendover, West**	**123.49**	**295**	⇑P	PKPdf	16 16 17.4	0.0
	baz=124						
N13A	**Wendover, West**	**123.49**	**295**	*e*PKPdf	PKPdf	16 16 17.5	0.0
I18A	**Diamond G Ranc**	**123.53**	**300**	⇑P	PKPdf	16 16 17.1	-0.4
	baz=124						
R08A	**Mina**	**123.56**	**290**	⇑P	PKPdf	16 16 17.5	-0.2
	baz=124						
M14A	**Sheep Mountain**	**123.56**	**296**	⇑P	PKPdf	16 16 17.0	-0.5
	baz=124						
O11A	**Cowboy Ranch,**	**123.67**	**293**	⇓P	PKPdf	16 16 17.8	0.0
	baz=124						
P10A	**Eureka**	**123.69**	**292**	⇓P	PKPdf	16 16 17.8	-0.1
	baz=124						
J17A	**Brown Place, J**	**123.70**	**299**	⇓P	PKPdf	16 16 16.7	-1.0
	baz=124						
K16A	**Soda Springs**	**123.71**	**298**	⇑P	PKPdf	16 16 18.1	+0.2
	baz=124						
NVAR	**Mina Array Bea**	**123.72**	**290**	PKP	PKPdf	16 16 18.3	+0.3
	comp=Z,35nm,0.7s,baz=144,slow=1.9,SNR=51						
NVAR				PP	PP	16 18 01.6	+0.4
	comp=Z,5.5nm,0.9s,baz=98,slow=6.5,SNR=2.1						
NVAR				PKKPbc	PKKPbc	16 26 06.7	+2.9
	comp=Z,7.7nm,0.9s,baz=306,slow=2.5,SNR=11						
NVAR				SKKPbc		16 29 47.0	
	comp=Z,3.7nm,1.1s,baz=330,slow=1.3,SNR=2.5						
REDW	**Red Top Meadow**	**123.76**	**299**	*e*PKPdf	PKPdf	16 16 17.4	-0.5
REDW				*e*PP	PP	16 18 02.6	+1.2
SNOW	**Snow King Moun**	**123.79**	**299**	*e*PKPdf	PKPdf	16 16 17.4	-0.5
LOHW	**Long Hollow**	**123.83**	**299**	*e*PKPdf	PKPdf	16 16 17.6	-0.4
M13A	**Montello**	**123.86**	**295**	⇓P	PKPdf	16 16 18.4	+0.2
	baz=124						
M13A	**Montello**	**123.86**	**295**	*e*PKPdf	PKPdf	16 16 18.1	0.0
M13A				*e*PP	PP	16 18 06.2	+4.0
Q08A	**Gabbs**	**123.86**	**290**	⇑P	PKPdf	16 16 17.6	-0.6
	baz=124						
N12A	**Clover Valley,**	**123.91**	**294**	⇑P	PKPdf	16 16 17.9	-0.3
	baz=124						
N12A	**Clover Valley,**	**123.91**	**294**	*e*PKPdf	PKPdf	16 16 17.9	-0.4
L14A	**Malta**	**123.91**	**296**	⇓P	PKPdf	16 16 17.4	-0.8
	baz=124						
ELK	**Elko**	**123.92**	**294**	*e*PKIKP	PKPdf	16 16 17.6	-0.7
ELK				MLR	MLR		
	comp=Z,21µm,19.0s						
TAPN	**Taplejung**	**123.95**	**91**	*e*P	PKPdf	16 16 17.5	-1.3
	comp=Z,313nm,1.0s						
RRI2	**Red Ridge**	**123.97**	**298**	*e*PKPdf	PKPdf	16 16 17.1	-1.2
P09A	**Austin**	**123.98**	**291**	⇓P	PKPdf	16 16 18.2	-0.3
	baz=124						
MOOW	**Moose Ponds**	**124.00**	**299**	*e*PKPdf	PKPdf	16 16 17.9	-0.4
I17A	**Pilgrim Ck.**	**124.05**	**299**	⇓P	PKPdf	16 16 18.9	+0.5
	baz=124						
K15A	**Arbon**	**124.06**	**297**	⇑P	PKPdf	16 16 17.5	-1.0
	baz=124						
J16A	**Bone**	**124.06**	**298**	⇓P	PKPdf	16 16 18.1	-0.4
	baz=124						
SAO	**San Andreas Ge**	**124.09**	**286**	*e*PKIKP	PKPdf	16 16 18.8	+0.1
SAO				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.5						
DCID1	**Drake Creek**	**124.10**	**299**	*e*PKPdf	PKPdf	16 16 18.5	0.0
LAO	**LASA Array**	**124.14**	**304**	*e*PKPdf	PKPdf	16 16 17.4	-1.1
LAO				LR	LR		
	comp=Z,30µm,21.0s,MS6.9						
PUL	**Pulkovo**	**124.14**	**30**	⇑*e*PKIKP	PKPdf	16 16 17.7	-0.4
IMW	**Indian Meadow**	**124.21**	**299**	*e*PKPdf	PKPdf	16 16 18.4	-0.3
O10A	**Cortez Mining,**	**124.21**	**293**	⇑P	PKPdf	16 16 18.8	-0.1
	baz=124						
K14A	**Jones Ranch, D**	**124.27**	**297**	⇑P	PKPdf	16 16 18.9	0.0
	baz=125						
L13A	**Double Diamond**	**124.30**	**296**	⇑P	PKPdf	16 16 19.3	+0.3
	baz=125						
RLMT	**Red Lodge**	**124.34**	**301**	⇑P	PKPdf	16 16 18.5	-0.4
	baz=125						
RLMT	**Red Lodge**	**124.34**	**301**	*e*PKPdf	PKPdf	16 16 17.9	-1.1
RLMT				LR	LR		
	comp=Z,17µm,20.0s,MS6.7						
R06C	**Coleville**	**124.38**	**289**	⇓P	PKPdf	16 16 19.9	+0.7
	baz=125						
NSS	**Namsos**	**124.41**	**18**	AMS	AMS	17 12 00.1	
	comp=Z,24µm,19.2s,MS6.9						
H17A	**Grant Village**	**124.41**	**300**	⇑P	PKPdf	16 16 19.6	+0.5
	baz=125						
I16A	**Newdale**	**124.45**	**299**	⇑P	PKPdf	16 16 17.8	-1.4
	baz=125						
DAV	**Davao City (W)**	**124.45**	**142**	PFAKE		16 16 30.0	+10
DAV				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
DAV	**Davao City (W)**	**124.45**	**142**	P	PKPdf	16 16 18.6	-1.6
	SNR=7.4						
DAV				P		16 16 18.6	
	SNR=7.4						
LKWY	**Lake**	**124.46**	**300**	*e*PKIKP	PKPdf	16 16 18.8	-0.4
LKWY				MLR	MLR		
	comp=Z,33µm,19.0s,MS7.0						
O09A	**Fish Creek Ran**	**124.47**	**292**	⇓P	PKPdf	16 16 19.6	+0.3
	baz=125						
CMB	**Columbia Colle**	**124.50**	**288**	*e*PKIKP	PKPdf	16 16 19.2	-0.3
CMB				MLR	MLR		
	comp=Z,17µm,22.0s,MS6.7						
N10A	**Dunphy**	**124.54**	**293**	⇑P	PKPdf	16 16 19.8	+0.4
	baz=125						
J15A	**Blackfoot**	**124.55**	**298**	⇓P	PKPdf	16 16 20.4	+1.0
	baz=125						
P08A	**Dixie Valley**	**124.56**	**291**	⇑P	PKPdf	16 16 19.7	+0.1
	baz=125						
YFT	**Old Faithful**	**124.58**	**300**	*e*PKPdf	PKPdf	16 16 19.9	+0.5
DGMT	**Dagmar**	**124.59**	**307**	⇑P	PKPdf	16 16 17.9	-1.4
	baz=125						
DGMT				⇑PP	PP	16 18 07.5	+0.6
	baz=125						
DGMT	**Dagmar**	**124.59**	**307**	*e*PKPdf	PKPdf	16 16 18.0	-1.3
DGMT				LR	LR		
	comp=Z,33µm,21.0s,MS7.0						
G18A	**Lazy EL Ranch,**	**124.63**	**301**	⇑P	PKPdf	16 16 18.9	-0.6
	baz=125						
BMN	**Battle Mountai**	**124.68**	**292**	*e*PKIKP	PKPdf	16 16 19.7	-0.1
BMN				MLR	MLR		
	comp=Z,14µm,21.0s,MS6.6						
YNR	**Norris Junctio**	**124.70**	**300**	*e*PKPdf	PKPdf	16 16 19.8	+0.2
M11A	**Holland Ranch,**	**124.72**	**294**	⇓P	PKPdf	16 16 20.4	+0.6
	baz=125						
K13A	**Stover Farm, H**	**124.79**	**296**	⇑P	PKPdf	16 16 20.6	+0.8
	baz=125						
YMR	**Madison River**	**124.80**	**300**	*e*PKPdf	PKPdf	16 16 19.9	+0.1
SHL	**Shillong**	**124.80**	**96**	*e*PKP	PKPdf	16 16 18.3	-2.2
SHL				*e*S	SKSac	16 23 24.0	-1.0
P07A	**Fallon**	**124.86**	**290**	⇓P	PKPdf	16 16 21.0	+0.9
	baz=125						
L12A	**House Creek Ra**	**124.87**	**295**	⇓P	PKPdf	16 16 20.8	+0.8
	baz=125						
H16A	**Russell Place,**	**124.96**	**300**	⇓P	PKPdf	16 16 19.0	-1.2
	baz=125						
H16A				⇓PP	PP	16 18 11.8	+2.4
	baz=125						
J14A	**Carey**	**125.01**	**297**	⇑P	PKPdf	16 16 21.2	+0.9
	baz=125						
J14A				⇑PP	PP	16 18 10.5	+0.6
	baz=125						
I15A	**Monteview**	**125.02**	**298**	⇓P	PKPdf	16 16 20.2	-0.1
	baz=125						
GCMT	**Greycliff**	**125.03**	**302**	*e*PKPdf	PKPdf	16 16 20.1	-0.1
O08A	**Rochester Mine**	**125.05**	**291**	⇑P	PKPdf	16 16 21.3	+0.8
	baz=125						
WCN	**Washoe City**	**125.12**	**289**	⇑P	PKPdf	16 16 20.9	+0.2
	baz=125						
KAF	**Kangasniemi**	**125.14**	**26**	*e*p	PKPdf	16 16 17.5	-2.4
	comp=Z,223nm,0.8s						
F18A	**Big Timber**	**125.14**	**302**	⇓P	PKPdf	16 16 19.9	-0.6
	baz=126						
F18A				⇑PP	PP	16 18 08.7	-1.9
	baz=126						
N09A	**Rock Creek Ran**	**125.15**	**292**	⇓P	PKPdf	16 16 21.3	+0.7
	baz=125						
M10A	**I.L. Ranch, Tu**	**125.16**	**293**	⇓P	PKPdf	16 16 20.7	+0.1
	baz=126						
K12A	**Draper Farm, C**	**125.18**	**296**	⇓P	PKPdf	16 16 20.5	-0.2
	baz=126						
K12A				⇓PP	PP	16 18 11.5	+0.6
	baz=126						
G17A	**Pierce Place,**	**125.18**	**300**	⇑P	PKPdf	16 16 20.5	-0.1
	baz=126						
L11A	**Cat Creek Ranc**	**125.25**	**295**	⇑P	PKPdf	16 16 20.6	-0.2
	baz=126						
IMP	**Imphal**	**125.28**	**99**	*e*PKP	PKPdf	16 16 20.0	-1.4
O07A	**Toulon**	**125.32**	**291**	⇑P	PKPdf	16 16 21.6	+0.6
	baz=126						
J13A	**Cove Ranch, Pi**	**125.39**	**297**	⇑P	PKPdf	16 16 21.4	+0.4
	baz=126						
J13A				⇑PP	PP	16 18 13.2	+0.8
	baz=126						
N08A	**GE Springer Mi**	**125.40**	**292**	⇑P	PKPdf	16 16 20.7	-0.4
	baz=126						
I14A	**Mackay**	**125.43**	**298**	⇓P	PKPdf	16 16 21.3	+0.2
	baz=126						
P06A	**Stead Airport,**	**125.48**	**290**	⇑P	PKPdf	16 16 22.1	+0.8
	baz=126						
L10A	**Juniper Basin**	**125.53**	**294**	⇓P	PKPdf	16 16 21.5	+0.1
	baz=126						
M09A	**Marrel Ranch,**	**125.54**	**293**	⇓P	PKPdf	16 16 21.7	+0.3
	baz=126						
SFJD	**Kangerlussuaq**	**125.54**	**347**	*i* P	PKPdf	16 16 19.2	-1.4
	comp=Z,75nm,0.9s						
SFJD				*i*		16 18 10.9	
SFJD							
	comp=Z,40µm,19.0s						
SFJD	**Kangerlussuaq**	**125.54**	**347**	PKP	PKPdf	16 16 19.5	-1.1
	comp=Z,68nm,0.8s,baz=134,slow=1.6,SNR=25						
H15A	**Lima**	**125.56**	**299**	⇓P	PKPdf	16 16 21.8	+0.5
	baz=126						
F17A	**Fitzpatrick Pl**	**125.58**	**301**	⇓P	PKPdf	16 16 21.8	+0.5
	baz=126						
G16A	**Moss Hill, Enn**	**125.61**	**300**	⇑P	PKPdf	16 16 21.2	-0.1
	baz=126						
HLID	**Hailey**	**125.63**	**297**	⇓P	PKPdf	16 16 21.2	-0.2
	baz=126						
HLID	**Hailey**	**125.63**	**297**	*e*PKPdf	PKPdf	16 16 21.2	-0.3
HLID				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
E18A	**Harlowton**	**125.73**	**302**	⇑P	PKPdf	16 16 21.3	-0.2
	baz=126						
E18A				⇓PP	PP	16 18 12.6	-2.0
	baz=126						
J12A	**Stokes Ranch,**	**125.73**	**296**	⇓P	PKPdf	16 16 21.7	0.0
	baz=126						
I13A	**Wildhorse Cree**	**125.75**	**297**	⇑P	PKPdf	16 16 21.4	-0.3
	baz=126						
O06A	**Flanigan**	**125.80**	**290**	⇓P	PKPdf	16 16 22.2	+0.3
	baz=126						
MCMT	**McKenzie Canyo**	**125.81**	**299**	*e*PKPdf	PKPdf	16 16 22.2	+0.5
N07B	**Gerlach**	**125.83**	**291**	⇓P	PKPdf	16 16 22.2	+0.3
	baz=126						
K11A	**Parker Ranch,**	**125.83**	**295**	⇑P	PKPdf	16 16 22.4	+0.6
	baz=126						
BOZ	**Bozeman (W)**	**125.84**	**300**	⇑P	PKPdf	16 16 20.8	-1.0
	baz=126						
BOZ				⇓PP	PP	16 18 13.5	-1.8
	baz=126						
BOZ	**Bozeman (W)**	**125.84**	**300**	*e*PKPdf	PKPdf	16 16 20.9	-0.9
BOZ				*e*PP	PP	16 18 13.2	-2.1
BOZ				LR	LR		
	comp=Z,15µm,19.0s,MS6.7						
MCCM	**Marconi Confer**	**125.87**	**286**	PFAKE		16 16 30.0	+7.9
MCCM				LR	LR		
	comp=Z,11µm,22.0s,MS6.5						
G15A	**Dillon**	**125.89**	**299**	⇓P	PKPdf	16 16 21.0	-0.9
	baz=126						
F16A	**Kennard Place,**	**125.94**	**300**	⇓P	PKPdf	16 16 22.3	+0.3
	baz=126						
F16A				⇑PP	PP	16 18 13.2	-2.8
	baz=126						
ENPP	**El Nido**	**126.00**	**133**	*e*P	PKPdf	16 16 22.9	-0.2
M08A	**Happy Creek Ra**	**126.02**	**292**	⇑P	PKPdf	16 16 22.1	-0.2
	baz=126						
E17A	**Martinsdale**	**126.09**	**301**	⇓P	PKPdf	16 16 22.4	+0.2
	baz=126						
E17A				⇑PP	PP	16 18 13.6	-3.3
	baz=126						
L09A	**Wilkinson Ranc**	**126.09**	**293**	⇓P	PKPdf	16 16 22.4	0.0
	baz=126						
DLMT	**Dillon**	**126.09**	**299**	*e*PKPdf	PKPdf	16 16 20.3	-2.0
D18A	**Linhart Farms,**	**126.14**	**303**	⇑P	PKPdf	16 16 20.9	-1.5
	baz=126						
I12A	**Atlanta**	**126.15**	**296**	⇓P	PKPdf	16 16 22.2	-0.2
	baz=126						
MFID	**Camas Ranch**	**126.21**	**296**	⇑P	PKPdf	16 16 22.7	+0.1
	baz=126						
N06A	**Buffalo Meadow**	**126.24**	**291**	⇑P	PKPdf	16 16 22.8	+0.1
	baz=126						
K10A	**MacKenzie Ranc**	**126.25**	**294**	⇑P	PKPdf	16 16 22.7	0.0
	baz=126						
H13A	**Challis**	**126.29**	**298**	⇑P	PKPdf	16 16 23.0	+0.3
	baz=127						
TBP	**Tagbilaran**	**126.30**	**139**	⇓*e*P	PKPdf	16 16 22.7	-1.0
CUYO	**Cuyo Island**	**126.30**	**135**	*e*P	PKPdf	16 16 23.5	-0.2
MOR8	**Moi Rana**	**126.33**	**18**	*e*P	PKPdf	16 16 23.5	+1.4
LRM	**Limekiln Ridge**	**126.36**	**300**	*e*Pdif	Pdif	16 12 58.5	-5.0
LRM				*e*PKPdf	PKPdf	16 16 21.7	-1.1
M07A	**Soldier Meadow**	**126.38**	**292**	⇑P	PKPdf	16 16 22.5	-0.5

	baz=127						
AB31	**Akbulak array**	**126.39**	**54**	PKIKP	PKPdf	16 16 21.1	-1.6
AB31				pmax	pmax		
	comp=Z,92nm,0.9s						
F15A	**Butte**	**126.39**	**300**	⇑P	PKPdf	16 16 22.8	-0.1
	baz=127						
G14A	**Jackson**	**126.41**	**299**	⇓P	PKPdf	16 16 22.8	-0.1
	baz=127						
AKTO	**Aktyubinsk**	**126.43**	**52**	PKKPbc		16 25 59.4	
	comp=Z,3.2nm,0.6s,baz=32,slow=3.9,SNR=8.9						
AKTO				SKKPbc		16 29 33.3	
	comp=Z,16nm,1.2s,baz=47,slow=7.3,SNR=4.4						
D17A	**Six Diamond Ra**	**126.52**	**302**	⇑P	PKPdf	16 16 22.5	-0.6
	baz=127						
E16A	**East Helena**	**126.52**	**301**	⇑P	PKPdf	16 16 23.2	+0.1
	baz=127						
L08A	**Fields**	**126.55**	**293**	⇓P	PKPdf	16 16 23.8	+0.5
	baz=127						
H12A	**Diamond D Ranc**	**126.57**	**297**	⇓P	PKPdf	16 16 22.4	-0.9
	baz=127						
HOPS	**Hopland**	**126.61**	**287**	*e*PKPdf	PKPdf	16 16 24.0	+0.5
HOPS				LR	LR		
	comp=Z,14µm,22.0s,MS6.6						
K09A	**Rome**	**126.62**	**294**	⇑P	PKPdf	16 16 22.9	-0.5
	baz=127						
I11A	**Placerville**	**126.64**	**296**	⇓P	PKPdf	16 16 22.5	-0.9
	baz=127						
G13A	**Cobalt**	**126.67**	**298**	⇑P	PKPdf	16 16 23.1	-0.3
	baz=127						
G13A				⇓PP	PP	16 18 22.7	+1.8
	baz=127						
J10A	**Berg Farm, Mel**	**126.68**	**295**	⇓P	PKPdf	16 16 22.2	-1.3
	baz=127						
GUIM	**Jordan**	**126.69**	**137**	*e*P	PKPdf	16 16 22.6	-1.8
HRY	**Holter Researc**	**126.72**	**301**	*e*PKPdf	PKPdf	16 16 22.9	-0.6
EGMT	**Eagleton**	**126.73**	**303**	⇓P	PKPdf	16 16 22.7	-0.7
	baz=127						
EGMT	**Eagleton**	**126.73**	**303**	*e*PKPdf	PKPdf	16 16 22.5	-0.9
EGMT				*e*PP	PP	16 18 17.0	-4.2
EGMT				LR	LR		
	comp=Z,29µm,22.0s,MS6.9						
F14A	**Wisdom**	**126.79**	**299**	⇓P	PKPdf	16 16 23.0	-0.6
	baz=127						
KK31	**Karatay Array**	**126.81**	**66**	*i* PKIKP	PKPdf	16 16 22.0	-1.7
KK31				pmax	pmax		
	comp=Z,196nm,1.1s						
D16A	**Dana Ranch, Ca**	**126.83**	**301**	⇑P	PKPdf	16 16 23.2	-0.4
	baz=127						
WVOR	**Wild Horse Val**	**126.88**	**293**	*e*PKIKP	PKPdf	16 16 23.5	-0.4
WVOR				MLR	MLR		
	comp=Z,19µm,22.0s,MS6.7						
E15A	**Deer Lodge**	**126.89**	**300**	⇑P	PKPdf	16 16 22.1	-1.7
	baz=127						
C17A	**Wharram Farm,**	**126.91**	**302**	⇓P	PKPdf	16 16 22.7	-1.1
	baz=127						
C17A				⇑PP	PP	16 18 23.0	+0.6
	baz=127						
L07A	**Adell**	**126.93**	**292**	⇓P	PKPdf	16 16 24.3	+0.3
	baz=127						
KSH	**Kashi**	**126.94**	**73**	PKP	PKPdf	16 16 22.3	-1.8
KSH				PP	PP	16 18 17.8	-4.9
KSH				*e*PKS		16 19 58.1	
KSH				*e*SKS	SKSdf	16 23 29.0	-7.7
KSH				AMB	AMB		
	comp=Z,4µm,6.9s						
KSH				LR	LR		
	comp=N,8µm,15.4s,MS6.9						
KSH				LR	LR		
	comp=E,16µm,15.3s,MS6.9						
KSH				LR	LR		
	comp=Z,15µm,15.6s,MS6.8						
B18A	**Beardsley Farm**	**127.01**	**304**	⇓P	PKPdf	16 16 22.9	-1.1
	baz=127						
B18A				⇓PP	PP	16 18 22.8	-0.3
	baz=127						
K08A	**Mann Creek Ran**	**127.02**	**293**	⇑P	PKPdf	16 16 24.4	+0.2
	baz=127						
JOF	**Joensuu**	**127.06**	**28**	*e*p	PKPdf	16 16 21.2	-2.4
	comp=Z,226nm,0.9s						
MSLP	**Maasin**	**127.06**	**140**	*e*P	PKPdf	16 16 22.7	-2.4
LBCM	**Butte Creek Ri**	**127.08**	**290**	P	PKPdf	16 16 24.7	+0.4
J09A	**Fry Pan Ranch,**	**127.11**	**294**	⇓P	PKPdf	16 16 24.7	+0.4
	baz=127						
I10A	**Payette**	**127.18**	**295**	⇑P	PKPdf	16 16 24.3	-0.1
	baz=128						
G12A	**Big Creek, Yel**	**127.22**	**297**	⇓P	PKPdf	16 16 23.7	-0.8
	baz=128						
F13A	**Darby**	**127.23**	**299**	⇓P	PKPdf	16 16 23.2	-1.2
	baz=128						
H11A	**Donnelly**	**127.25**	**296**	⇑P	PKPdf	16 16 24.2	-0.3
	baz=128						
D15A	**Lincoln**	**127.29**	**301**	⇓P	PKPdf	16 16 23.8	-0.8
	baz=128						
E14A	**Clinton**	**127.29**	**300**	⇓P	PKPdf	16 16 24.3	-0.2
	baz=128						
MOD	**Modoc**	**127.33**	**291**	*e*PKPdf	PKPdf	16 16 23.7	-1.0
MOD				*e*PP	PP	16 18 20.7	-4.5
MOD				LR	LR		
	comp=Z,14µm,19.0s,MS6.7						
K07A	**Rock Creek Ran**	**127.38**	**293**	⇓P	PKPdf	16 16 24.2	-0.6
	baz=128						
B17A	**L&G Farms, Che**	**127.40**	**303**	⇓P	PKPdf	16 16 22.7	-2.0
	baz=128						
SCO	**Scoresbysund**	**127.41**	**1**	*i* P	PKPdf	16 16 23.8	-0.2
	comp=Z,44nm,0.8s						
SCO							
	comp=Z,28µm,18.0s						
A18A	**Metzger Ranch,**	**127.43**	**304**	⇑P	PKPdf	16 16 23.1	-1.6
	baz=128						
A18A				⇓PP	PP	16 18 25.4	-0.4
	baz=128						
J08A	**Circle Bar Ran**	**127.48**	**294**	⇓P	PKPdf	16 16 23.7	-1.3
	baz=128						
C16A	**Fuhringer Ranc**	**127.48**	**302**	⇑P	PKPdf	16 16 23.4	-1.5
	baz=128						
WDC	**Whiskeytown Da**	**127.50**	**289**	*e*PKIKP	PKPdf	16 16 24.7	-0.5
WDC				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.4						
H10A	**Noah’s Angus R**	**127.52**	**296**	⇑P	PKPdf	16 16 23.7	-1.3
	baz=128						
I09A	**Lost Marbles R**	**127.56**	**295**	⇑P	PKPdf	16 16 25.0	-0.1
	baz=128						
E13A	**Victor**	**127.64**	**299**	⇓P	PKPdf	16 16 24.4	-0.8
	baz=128						
F12A	**Elk City**	**127.65**	**298**	⇓P	PKPdf	16 16 24.4	-0.9
	baz=128						
F12A				⇑PP	PP	16 18 25.8	-1.5
	baz=128						
KLMR	**Klimovskoe**	**127.65**	**33**	⇓*i*PKIKP	PKPdf	16 16 23.5	-1.3
KLMR				*i*		16 18 24.5	
KLMR				pmax	pmax		
	comp=Z,484nm,1.5s						
LSA	**Lhasa**	**127.66**	**93**	PKP	PKPdf	16 16 23.4	-2.4
LSA	**Lhasa**	**127.66**	**93**	*e*PKPdf	PKPdf	16 16 25.4	-0.4
LSA				LR	LR		
	comp=Z,14µm,20.0s,MS6.7						
AML	**Almayashu**	**127.70**	**69**	P	PKPdf	16 16 25.0	-0.4
	SNR=47						
AML	**Almayashu**	**127.70**	**69**	*e*PKPdf	PKPdf	16 16 24.8	-0.6
AML				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
D14A	**Greenough**	**127.78**	**300**	⇑P	PKPdf	16 16 24.5	-1.0
	baz=128						
MSO	**Missoula**	**127.80**	**300**	*e*PKPdf	PKPdf	16 16 25.0	-0.5
MSO				LR	LR		
	comp=Z,17µm,19.0s,MS6.7						
SJMP	**San Jose**	**127.81**	**134**	*e*P	PKPdf	16 16 25.8	-0.7
A17A	**Triple J Farms**	**127.83**	**304**	⇓P	PKPdf	16 16 24.6	-0.9
	baz=128						
C15A	**Salmond Ranch,**	**127.86**	**301**	⇓P	PKPdf	16 16 24.3	-1.3
	baz=128						
C15A				⇓PP	PP	16 18 29.4	+0.7
	baz=128						
SLMT	**Seeley Lake**	**127.89**	**300**	*e*PKPdf	PKPdf	16 16 24.3	-1.4
J07A	**Hines**	**127.91**	**293**	⇑P	PKPdf	16 16 24.7	-1.1
	baz=128						
B16A	**M & M Farms, S**	**127.91**	**302**	⇑P	PKPdf	16 16 24.6	-1.1
	baz=128						
I08A	**Drewsey**	**127.93**	**294**	⇑P	PKPdf	16 16 25.0	-0.9
	baz=128						
BMO	**Blue Mountains**	**127.99**	**296**	PFAKE		16 16 40.0	+14
BMO				LR	LR		
	comp=Z,19µm,22.0s,MS6.7						
H09A	**Durkee**	**128.03**	**295**	⇑P	PKPdf	16 16 25.9	-0.1
	baz=128						
EKS2	**Erkin-Say**	**128.13**	**68**	P	PKPdf	16 16 26.1	-0.1
	SNR=96						
EKS2	**Erkin-Say**	**128.13**	**68**	*e*PKPdf	PKPdf	16 16 23.8	-2.5
EKS2				LR	LR		
	comp=Z,13µm,22.0s,MS6.6						
F11A	**Grangeville**	**128.18**	**297**	⇓P	PKPdf	16 16 25.4	-0.8
	baz=128						
UCH	**Uchtor**	**128.18**	**69**	P	PKPdf	16 16 26.9	+0.5
	SNR=49						
UCH	**Uchtor**	**128.18**	**69**	*e*PKPdf	PKPdf	16 16 24.2	-2.2
UCH				*e*SKPdf	SKPdf	16 20 09.0	+6.4
UCH				LR	LR		
	comp=Z,13µm,20.0s,MS6.6						
G10A	**Bishop Farm, J**	**128.21**	**296**	⇓P	PKPdf	16 16 25.8	-0.5
	baz=128						
B15A	**Bradely Ranch,**	**128.23**	**302**	⇓P	PKPdf	16 16 23.2	-3.1
	baz=129						
K05A	**Summer Lake**	**128.23**	**292**	⇓P	PKPdf	16 16 26.8	+0.4
	baz=128						
K05A				⇑PP	PP	16 18 32.2	+1.0
	baz=128						
D13A	**Huson**	**128.24**	**300**	⇓P	PKPdf	16 16 25.2	-1.2
	baz=129						
D13A				⇑PP	PP	16 18 32.0	+0.8
	baz=129						
J06A	**Christmas Vall**	**128.24**	**292**	⇑P	PKPdf	16 16 25.9	-0.6
	baz=128						
KHU	**Kahuku**	**128.29**	**243**	*e*PKIKP	PKPdf	16 16 27.2	-0.1
HOG	**Hogback Mounta**	**128.29**	**291**	P	PKPdf	16 16 27.2	+0.6
SWMT	**Swartz Lake**	**128.32**	**300**	*e*PKPdf	PKPdf	16 16 25.2	-1.3
FFC	**Flin Flon**	**128.35**	**314**	*i* PKIKP	PKPdf	16 16 25.2	-1.1
FFC	**Flin Flon**	**128.35**	**314**	*e*PKPdf	PKPdf	16 16 21.8	-4.4
FFC				LR	LR		
	comp=Z,22µm,20.0s,MS6.8						
JMIC	**Jan Mayen**	**128.36**	**6**	AMS	AMS	17 04 03.5	
	comp=Z,16µm,19.8s,MS6.7						
H08A	**Prairie City**	**128.42**	**295**	⇓P	PKPdf	16 16 26.4	-0.3
	baz=129						
H08A				⇑PP	PP	16 18 32.1	-0.3
	baz=129						
YBH	**Yreka Blue Hor**	**128.43**	**289**	PKP	PKPdf	16 16 26.7	-0.2
	comp=Z,24nm,0.7s,baz=68,slow=2.0,SNR=22						
YBH	**Yreka Blue Hor**	**128.43**	**289**	PKP	PKPdf	16 16 26.7	-0.2
YBH				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
KZA	**Kyzart**	**128.45**	**70**	P	PKPdf	16 16 27.2	+0.3
	SNR=36						
FCC	**Fort Churchill**	**128.46**	**321**	*e*PKIKP	PKPdf	16 16 24.3	-2.1
FCC				*e*		16 18 32.4	
AAK	**Ala-Archa**	**128.47**	**69**	P	PKPdf	16 16 26.4	-0.5
	SNR=44						
AAK	**Ala-Archa**	**128.47**	**69**	*i* PKP	PKPdf	16 16 25.8	-1.1
AAK				*e*PKPdf	PKPdf	16 16 26.0	-0.9
AAK				LR	LR		
	comp=Z,18µm,22.0s,MS6.7						
AAK	**Ala-Archa**	**128.47**	**69**	P	PKPdf	16 16 26.7	-0.3
	SNR=46						
AAK				P		16 16 26.7	
	SNR=46						
I07A	**Izee**	**128.51**	**294**	⇓P	PKPdf	16 16 27.3	+0.4
	baz=129						
G09A	**Cove**	**128.53**	**296**	⇓P	PKPdf	16 16 24.6	-2.4
	baz=129						
E11A	**Bogner Ranch,**	**128.54**	**298**	⇓P	PKPdf	16 16 25.4	-1.6
	baz=129						
YBMT	**Yellow Bay**	**128.58**	**301**	*e*PKPdf	PKPdf	16 16 25.5	-1.5
JTMT	**Jette**	**128.62**	**300**	*e*PKPdf	PKPdf	16 16 26.2	-0.8
LUBP	**Lubang**	**128.63**	**133**	*e*P	PKPdf	16 16 29.0	+0.9
FRU	**Bishkek**	**128.68**	**69**	κ*e*P	Pdif	16 13 19.0	+5.3
FRU				*i*		16 16 26.0	
FRU				pmax	pmax		
	comp=Z,400nm,2.0s						
POHA	**Pohakuloa**	**128.68**	**244**	PFAKE		16 16 40.0	+12
POHA				LR	LR		
	comp=Z,17µm,20.0s,MS6.7						
QIZ	**Qiongzhong**	**128.69**	**118**	PKP	PKPdf	16 16 25.9	-2.2
QIZ				PP	PP	16 18 35.1	+1.1
QIZ				SKS	SKSdf	16 23 32.8	-8.0
QIZ				SKKS	SKKSac	16 25 23.8	-8.7
QIZ				SS	SS	16 35 50.0	-2.3
QIZ				LR	LR		
	comp=N,9µm,26.4s,MS6.4						
QIZ				LR	LR		
	comp=E,7µm,24.9s,MS6.4						
QIZ				LR	LR		
	comp=Z,24µm,28.4s,MS6.7						
QIZ	**Qiongzhong**	**128.69**	**118**	*e*PKPdf	PKPdf	16 16 25.9	-2.2
QIZ				LR	LR		
	comp=Z,18µm,19.0s,MS6.8						
C13A	**Hot Springs**	**128.71**	**300**	⇑P	PKPdf	16 16 25.9	-1.3
	baz=129						
KBK	**Karagaybulak**	**128.72**	**69**	P	PKPdf	16 16 27.2	-0.1
	SNR=28						
F10A	**Beach Ranch, E**	**128.76**	**297**	⇓P	PKPdf	16 16 26.3	-1.0
	baz=129						
I06A	**Prineville**	**128.77**	**293**	⇑P	PKPdf	16 16 26.2	-1.3
	baz=129						
I06A				⇑PP	PP	16 18 31.8	-2.9
	baz=129						
A15A	**Johnson Ranch,**	**128.79**	**302**	⇑P	PKPdf	16 16 26.2	-1.1
	baz=129						
CHMS	**Chumysh**	**128.86**	**69**	P	PKPdf	16 16 26.3	-1.3
	SNR=27						
H07A	**Lands Inn, Kim**	**128.91**	**294**	⇓P	PKPdf	16 16 26.4	-1.3
	baz=129						
USP	**Ospenovka**	**128.93**	**68**	P	PKPdf	16 16 26.7	-1.1
	SNR=37						
BSMT	**Bassoo Peak**	**128.94**	**300**	*e*PKPdf	PKPdf	16 16 26.3	-1.3
BSMT				*e*PP	PP	16 18 31.1	-4.6
E10A	**Myers Farm, Un**	**129.07**	**297**	⇑P	PKPdf	16 16 27.1	-0.8
	baz=129						
D11A	**Klaveano Farm,**	**129.10**	**298**	⇓P	PKPdf	16 16 26.2	-1.7
	baz=129						
A14A	**Double T Ranch**	**129.10**	**302**	⇑P	PKPdf	16 16 26.3	-1.6
	baz=129						
B13A	**Whitefish**	**129.16**	**301**	⇓P	PKPdf	16 16 27.5	-0.6
	baz=130						
B13A				⇑PP	PP	16 18 36.5	-0.7
	baz=130						
HUMO	**Hull Mountain**	**129.19**	**290**	*e*PKPdf	PKPdf	16 16 26.3	-2.0
HUMO				LR	LR		
	comp=Z,13µm,21.0s,MS6.6						
TKM2	**Tokmak 2**	**129.24**	**69**	P	PKPdf	16 16 27.0	-1.4
	SNR=21						
TKM2	**Tokmak 2**	**129.24**	**69**	*e*PKPdf	PKPdf	16 16 26.7	-1.7
TKM2				LR	LR		
	comp=Z,13µm,22.0s,MS6.6						
BBOR	**Butler Butte**	**129.25**	**290**	P	PKPdf	16 16 28.0	-0.4
VIPM	**Ingram Point**	**129.38**	**293**	PKIKP	PKPdf	16 16 28.8	+0.2
F08A	**Pendleton**	**129.39**	**296**	⇑P	PKPdf	16 16 27.7	-0.9
	baz=130						
WALA	**Waterton Lakes**	**129.39**	**302**	*e*PKPdf	PKPdf	16 16 27.5	-0.9
H06A	**Lindquist Farm**	**129.40**	**294**	⇓P	PKPdf	16 16 29.0	+0.4
	baz=130						
G07A	**Ruggs Ranch, H**	**129.45**	**295**	⇓P	PKPdf	16 16 29.1	+0.4
	baz=130						
A13A	**Flathead Natio**	**129.53**	**301**	⇓P	PKPdf	16 16 26.5	-2.2
	baz=130						
D10A	**Wagner Farm, O**	**129.55**	**298**	⇑P	PKPdf	16 16 27.3	-1.5
	baz=130						
E09A	**Wood Farm, Sta**	**129.59**	**297**	⇓P	PKPdf	16 16 28.1	-0.8
	baz=130						
B12A	**Libby**	**129.75**	**300**	⇑P	PKPdf	16 16 27.3	-1.9
	baz=130						
VTHM	**Trough**	**129.83**	**294**	P	PKPdf	16 16 29.4	0.0
IRO	**Indian Ridge**	**129.84**	**292**	P	PKPdf	16 16 29.3	-0.2
G06A	**Carlson Farm,**	**129.91**	**294**	⇓P	PKPdf	16 16 29.4	-0.2
	baz=130						
G06A				⇑PP	PP	16 18 42.3	+0.2
	baz=130						
SUMG	**Summit**	**129.93**	**354**	*e*PKPdf	PKPdf	16 16 27.8	-1.0
PVCP	**Virac**	**130.00**	**137**	*e*P	PKPdf	16 16 29.9	-0.8
E08A	**Dider Farm, El**	**130.02**	**296**	⇓P	PKPdf	16 16 28.9	-0.8
	baz=130						
F07A	**Phinny Hill Vi**	**130.02**	**295**	⇓P	PKPdf	16 16 29.6	-0.1
	baz=130						
D09A	**Jones Farm, Ri**	**130.06**	**297**	⇓P	PKPdf	16 16 28.2	-1.6
	baz=130						
B11A	**Sandpoint**	**130.10**	**300**	⇑PP	PP	16 18 41.7	-1.6
	baz=130						
C10A	**Spilker Farm,**	**130.11**	**298**	⇓P	PKPdf	16 16 29.2	-0.6
	baz=130						
A12A	**Yaak River Ran**	**130.11**	**300**	⇑P	PKPdf	16 16 28.7	-1.1
	baz=130						
A12A				⇓PP	PP	16 18 42.2	-1.2
	baz=130						
PRW	**Prosser**	**130.13**	**295**	P	PKPdf	16 16 30.3	+0.4
PRGR	**Permogore**	**130.14**	**36**	*e*PKIKP	PKPdf	16 16 28.2	-1.3
PRGR				pmax	pmax		
	comp=Z,951nm,1.3s						
HAWA	**Hanford**	**130.18**	**296**	*e*PKPdf	PKPdf	16 16 27.7	-2.3
HAWA				LR	LR		
	comp=Z,17µm,20.0s,MS6.8						
TRO	**Tromso**	**130.20**	**18**	*e*P	PKPdf	16 16 28.5	-0.9
TRO				AMS	AMS	17 11 47.3	
	comp=Z,21µm,16.3s,MS6.9						
KMI	**Kunming**	**130.23**	**107**	Pdif	Pdif	16 13 18.3	-2.3
KMI				PKPab	PKPdf	16 16 30.3	-0.5
KMI				PP	PP	16 18 45.0	+0.9
KMI				PKS		16 20 05.4	
KMI				SKS	SKSdf	16 23 36.9	-6.5
KMI				SKKS	SKKSac	16 25 33.1	-8.7
KMI				S	Sdif	16 26 42.9	-11
KMI				SS	SS	16 36 03.3	-8.1
KMI				AMB	AMB		
	comp=Z,3µm,11.7s						
KMI				LR	LR		
	comp=N,7µm,24.6s,MS6.5						
KMI				LR	LR		
	comp=E,9µm,26.4s,MS6.5						
KMI				LR	LR		
	comp=Z,19µm,31.9s						
WRD	**Warden**	**130.28**	**296**	P	PKPdf	16 16 31.4	+1.1
H04A	**Detroit Lake**	**130.29**	**292**	⇓P	PKPdf	16 16 29.8	-0.6
	baz=131						
GBL	**Gable Mountain**	**130.29**	**296**	PKIKP	PKPdf	16 16 30.5	+0.3
NEW	**Newport**	**130.33**	**299**	*e*PKIKP	PKPdf	16 16 27.4	-2.9
NEW				MLR	MLR		
	comp=Z,24µm,19.0s						
D08A	**Wollman Farm,**	**130.35**	**297**	⇑P	PKPdf	16 16 30.4	+0.1
	baz=131						
F06A	**Goldendale**	**130.35**	**294**	⇑P	PKPdf	16 16 30.4	0.0
	baz=131						
MDW	**Midway**	**130.45**	**296**	PKIKP	PKPdf	16 16 30.8	+0.3
E07A	**Sunnyside**	**130.46**	**296**	⇑P	PKPdf	16 16 30.8	+0.2
	baz=131						
A11A	**Hall Mountain,**	**130.46**	**300**	⇑P	PKPdf	16 16 29.5	-0.9
	baz=131						
A11A				⇓PP	PP	16 18 44.7	-0.9
	baz=131						
HOOD	**Mount Hood Mea**	**130.47**	**293**	*e*PKPdf	PKPdf	16 16 29.9	-0.7
HOOD				*e*		16 18 53.4	
OD2	**Odessa Site #2**	**130.48**	**297**	P	PKPdf	16 16 30.2	-0.4
MXC	**Moxie City**	**130.68**	**295**	P	PKPdf	16 16 31.4	+0.4
COR	**Corvallis**	**130.78**	**292**	*e*PKIKP	PKPdf	16 16 30.8	-0.5
COR				MLR	MLR		
	comp=Z,12µm,22.0s,MS6.5						
BOLP	**Bolinao**	**130.88**	**131**	*e*P	PKPdf	16 16 33.4	+1.1
EPH	**Ephrata**	**130.89**	**297**	P	PKPdf	16 16 31.5	+0.2
C08A	**Higginbotham F**	**130.92**	**297**	⇓P	PKPdf	16 16 30.6	-0.8
	baz=131						
B09A	**Rice**	**130.94**	**298**	⇓PP	PP	16 18 47.9	-0.8
	baz=131						
D07A	**Quincy**	**130.96**	**296**	⇑P	PKPdf	16 16 31.2	-0.3
	baz=131						
ARU	**Arti**	**131.00**	**47**	*i* PKIKP	PKPdf	16 16 30.3	-1.0
ARU						16 18 45.4	
ARU	**Arti**	**131.00**	**47**	⇑*e*PKP	PKPdf	16 16 30.3	-1.0
ARU				LR	LR		
	comp=Z,16µm,21.0s,MS6.7						
E06A	**Yakima**	**131.00**	**295**	⇑P	PKPdf	16 16 31.6	0.0
	baz=131						
A10A	**Northport**	**131.04**	**299**	⇓P	PKPdf	16 16 30.6	-1.0
	baz=131						
F04A	**Amboy**	**131.28**	**293**	⇓P	PKPdf	16 16 31.6	-0.5
	baz=132						
ARCES	**ARCESS Array B**	**131.30**	**21**	PKIKP	PKPdf	16 16 30.5	-1.0
ARCES						16 18 48.2	
ARCES	**ARCESS Array B**	**131.30**	**21**	PKhKP		16 16 12.7	
	comp=Z,6.3nm,0.8s,baz=238,slow=2.3,SNR=6.4						
ARCES				PKP	PKPdf	16 16 30.5	-0.9
	comp=Z,44nm,0.8s,baz=223,slow=2.0,SNR=42						
ARCES				PP	PP	16 18 48.2	-2.5
	comp=Z,24nm,0.8s,baz=206,slow=6.0,SNR=3.9						
KIP	**Kipapa**	**131.30**	**242**	PFAKE		16 16 40.0	+7.0
KIP				LR	LR		
	comp=Z,19µm,21.0s,MS6.8						
C07A	**Waterville**	**131.35**	**297**	⇓P	PKPdf	16 16 29.4	-2.8
	baz=132						
C07A				⇑PP	PP	16 18 51.0	-0.4
	baz=132						
APA	**Apatity**	**131.37**	**25**	⇑*i*PKIKP	PKPdf	16 16 29.4	-2.2
APA				*i*		16 16 36.6	
APA				*e*		16 18 55.0	
APA				pmax	pmax		
	comp=Z,190nm,1.4s						
APA				pmax	pmax		
	comp=Z,34µm,5.0s						
APA				MLR	MLR		
	comp=Z,32µm,18.0s,MS7.1						
D06A	**Cle Elum**	**131.38**	**296**	⇑P	PKPdf	16 16 32.2	-0.1
	baz=132						
HEBO	**Mount Hebo**	**131.45**	**292**	*e*PKPdf	PKPdf	16 16 25.0	-7.5
B08A	**Colville Reser**	**131.46**	**298**	⇑P	PKPdf	16 16 32.0	-0.4
	baz=132						
A09A	**Danville**	**131.53**	**299**	⇓P	PKPdf	16 16 31.7	-0.8
	baz=132						
LON	**Longmire**	**131.55**	**295**	*e*PKIKP	PKPdf	16 16 31.9	-0.7
NLW	**Nelson Butte**	**131.75**	**297**	P	PKPdf	16 16 32.5	-0.5
KEV	**Kevo**	**131.78**	**21**	*e*p	PKPdf	16 16 30.7	-1.7
	comp=Z,52nm,0.8s						
KEV	**Kevo**	**131.78**	**21**	*e*P	PKPdf	16 16 30.7	-1.7
KEV				LR	LR		
	comp=Z,19µm,19.0s,MS6.8						
F03A	**Seaside**	**131.85**	**293**	⇓P	PKPdf	16 16 32.9	-0.4
	baz=132						
B07A	**Winthrop**	**131.91**	**297**	⇓P	PKPdf	16 16 32.4	-0.8
	baz=132						
C06A	**Tall Timber Ra**	**131.91**	**296**	⇓P	PKPdf	16 16 32.4	-0.8
	baz=132						
LVZ	**Lovozero**	**131.92**	**26**	⇑*i*PKIKP	PKPdf	16 16 33.7	+1.0
LVZ				pmax	pmax		
	comp=Z,161nm,1.0s						
LVZ	**Lovozero**	**131.92**	**26**	⇑*e*PKP	PKPdf	16 16 33.8	+1.1
LVZ				LR	LR		
	comp=Z,30µm,19.0s,MS7.0						
D05A	**Enumclaw**	**131.94**	**295**	⇓P	PKPdf	16 16 33.2	-0.1
	baz=132						
SVE	**Sverdlovsk**	**132.10**	**47**	⇓*i*PKIKP	PKPdf	16 16 33.3	0.0
SVE				*e*		16 18 54.9	
SVE				pmax	pmax		
	comp=Z,267nm,1.3s						
E03A	**Lebam**	**132.28**	**293**	⇑P	PKPdf	16 16 34.2	+0.2
	baz=133						
D04A	**Dobbs Creek Ra**	**132.29**	**294**	⇓P	PKPdf	16 16 34.8	+0.8
	baz=133						
ABRA	**Dolores**	**132.35**	**131**	*e*P	PKPdf	16 16 35.6	+0.6
A07A	**Ashnola River,**	**132.44**	**298**	⇓PP	PP	16 18 58.4	-0.1
	baz=133						
SOKR	**Solikamsk**	**132.50**	**43**	*d* *i*PKIKP	PKPdf	16 16 33.3	-0.7
SOKR				SSS		16 41 35.3	
SOKR				pmax	pmax		
	comp=Z,100nm,1.0s						
B06A	**Marblemount**	**132.61**	**297**	⇓P	PKPdf	16 16 33.4	-1.2
	baz=133						
GNW	**Green Mountain**	**132.62**	**295**	*e*PKPdf	PKPdf	16 16 32.9	-1.7
A06A	**Chilliwack**	**133.00**	**297**	⇓P	PKPdf	16 16 35.0	-0.3
	baz=133						
NLWA	**Neilton Lookou**	**133.01**	**294**	⇑PP	PP	16 18 59.2	-3.0
	baz=133						
NLWA	**Neilton Lookou**	**133.01**	**294**	*e*PKPdf	PKPdf	16 16 35.2	-0.1
NLWA				LR	LR		
	comp=Z,18µm,20.0s,MS6.8						
GYA	**Guiyang**	**133.34**	**110**	PKP	PKPdf	16 16 36.9	+0.2
GYA				PKS		16 20 12.3	
GYA				SKKS	SKKSac	16 25 56.8	-4.1
GYA				SS	SS	16 36 49.3	-0.1
GYA				AMB	AMB		
	comp=Z,9µm,8.2s						
GYA				LR	LR		
	comp=N,27µm,24.2s,MS7.0						
GYA				LR	LR		
	comp=E,22µm,22.3s,MS7.0						
GYA				LR	LR		
	comp=Z,26µm,23.9s,MS6.9						
HKC	**Hong Kong Obse**	**133.56**	**121**	P	PKPdf	16 16 38.0	+0.8
PGC	**Sidney**	**133.66**	**295**	*e*PKPdf	PKPdf	16 16 35.5	-1.1
BRVK	**Borovoye**	**133.69**	**56**	*i* PKIKP	PKPdf	16 16 35.5	-0.9
BRVK				MLR	MLR		
	comp=Z,21µm,22.0s,MS6.8						
BRVK	**Borovoye**	**133.69**	**56**	P	PKPdf	16 16 36.5	0.0
	SNR=23						
BRVK				P		16 16 36.5	
	SNR=23						

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BVAR  Borovoye Array   133.71  56  SKKPbc             16 29 08.0
      comp=Z,3.9nm,0.8s,baz=45,slow=6.3,SNR=4.2
DAG   Danmarks Havn    133.77   2⇓iP       PKPdf      16 16 31.9  -4.1
      comp=Z,50nm,1.0s
DAG
      comp=Z,21μm,18.0s
VOSK  Vostochnaya      133.78  57  PKIKP   PKPdf      16 16 29.9  -6.7
VOSK                               pmax    pmax
      comp=Z,1μm,3.0s
GZH   Guangzhou        133.84 119  PKP     PKPdf      16 16 38.6  +0.9
GZH                                PP      PP         16 19 02.3  -4.9
GZH                                SS      SS         16 36 51.9  -3.2
GZH                                LR      LR
      comp=N,13μm,18.1s,MS6.9
GZH                                LR      LR
      comp=E,15μm,18.1s,MS6.9
GZH                                LR      LR
      comp=Z,28μm,18.4s,MS7.0
BJO   Bjornoya         134.49  15 eP       PKPdf      16 16 41.0  +3.7
BJO                               ePP      PP         16 19 10.2  -0.8
BJO                                AMS     AMS        17 09 00.3
      comp=Z,8μm,15.0s,MS6.5
MK31  Makanchi Array   135.35  70 i PKHKP             16 16 27.2
MK31                               pmax    pmax
      comp=Z,82nm,1.0s
MKAR  Makanchi Array   135.35  70  PKHKP              16 16 26.4
MKAR                                                  16 16 38.3
MKAR                                                  16 19 17.3
MKAR                               pmax    pmax
      comp=Z,10.0nm,1.0s
MKAR                               pmax    pmax
      comp=Z,48nm,1.0s
MKAR                               pmax    pmax
      comp=Z,5.0nm,0.9s
MKAR  Makanchi Array   135.35  70  PKhKP              16 16 26.4
      comp=Z,10.0nm,1.0s,baz=238,slow=3.9,SNR=18
MKAR                               PKP     PKPdf      16 16 38.2  -1.5
      comp=Z,48nm,1.0s,baz=239,slow=2.1,SNR=20
MKAR                               PP      PP         16 19 17.3  +0.3
      comp=Z,5.0nm,0.8s,baz=220,slow=3.8,SNR=3.0
MKAR                               PKKP               16 26 22.7
      comp=Z,1.5nm,0.7s,baz=6.7,slow=1.1,SNR=4.6
MKAR                               SKKPbc             16 28 53.0
      comp=Z,6.2nm,1.0s,baz=42,slow=5.6,SNR=4.8
MKAR  Makanchi Array   135.35  70  PKP                16 16 26.4
MKAR                               PKP     PKPdf      16 16 38.2  -1.5
MKAR                               PP      PP         16 19 17.3  +0.3
MKAR                               PKKP               16 26 22.7
MKAR                               SKKPbc             16 28 53.0
CD2   Chengdu          135.40 103  PKP     PKPdf      16 16 38.5  -1.9
CD2                                PP      PP         16 19 14.8  -2.5
CD2                                PKS                16 20 11.3
CD2                                SKS     SKSdf      16 23 44.1  -8.3
CD2                                SKKS    SKKSac     16 26 09.3  -3.9
CD2                                SS      SS         16 37 14.1  -0.1
CD2                                LR      LR
      comp=N,8μm,22.6s
CD2                                LR      LR
      comp=Z,15μm,22.6s,MS6.7
GUMO  Guam             135.56 164  PKP     PKPdf      16 16 40.8  -0.4
      comp=Z,118nm,0.8s,baz=256,slow=4.2,SNR=4.1
GUMO  Guam             135.56 164  PKP     PKPdf      16 16 40.8  -0.4
GUMO                               LR      LR
      comp=Z,7μm,20.0s,MS6.4
KURK  Kurchatov        136.08  64  PKhKP              16 16 29.2
      comp=Z,4.9nm,0.8s,baz=232,slow=3.8,SNR=13
KURK                               PKP     PKPdf      16 16 39.0  -2.0
      comp=Z,46nm,0.9s,baz=235,slow=2.9,SNR=30
KURK                               PP      PP         16 19 19.3  -2.2
      comp=Z,7.4nm,0.9s,baz=236,slow=5.9,SNR=3.6
KURK                               SKPbc   SKPbc      16 20 12.3  -1.4
      comp=Z,16nm,1.1s,baz=239,slow=2.8,SNR=3.6
KURK                               SKKPbc             16 28 53.1
      comp=Z,16nm,1.1s,baz=56,slow=6.0,SNR=5.9
KURK  Kurchatov        136.08  64  PKP     PKPdf      16 16 39.0  -2.0
KURK                               PP      PP         16 19 19.3  -2.2
KURK                               SKPbc   SKPbc      16 20 12.3  -1.4
KURK                               SKKPbc             16 28 53.1
KURK                               LR      LR
      comp=Z,9μm,19.0s,MS6.5
WMQ   Urumqi           136.16  77 ePKP     PKPdf      16 16 34.4  -7.0
WMQ                                PP      PP         16 19 19.0  -3.2
WMQ                                PKS                16 20 09.0
WMQ                                AMB     AMB
      comp=Z,5μm,11.0s
WMQ                                LR      LR
      comp=N,32μm,25.7s
WMQ                                LR      LR
      comp=E,26μm,20.0s
WMQ                                LR      LR
      comp=Z,31μm,28.2s,MS6.9
TPUB  Ta-pu            137.33 127 ePKPdf   PKPdf      16 16 40.9  -3.3
KBS   Kingsbay         137.53  10 eP       PKPdf      16 16 40.8  -2.2
KBS                                AMb     AMB        16 16 55.3
      comp=Z,150nm,1.7s
KBS                                AMS     AMS        17 13 23.4
      comp=Z,17μm,19.5s,MS6.8
KBS   Kingsbay         137.53  10 i PKP    PKPdf      16 16 41.5  -1.5
KBS                                LR      LR
      comp=Z,15μm,20.0s,MS6.7
YULB  Yu-li            137.70 128 ePKPdf   PKPdf      16 16 37.9  -7.0
YULB                              eSKPbc   SKPbc      16 20 17.6  -1.9
QZH   Quanzhou         137.86 124 i PKPbc             16 16 36.6
QZH                                PP      PP         16 19 31.8  -0.7
QZH                                SS      SS         16 37 47.3  +4.1
QZH                                AMB     AMB
      comp=Z,4μm,9.2s
QZH                                LR      LR
      comp=N,14μm,16.2s,MS6.8
QZH                                LR      LR
      comp=E,7μm,15.0s,MS6.8
QZH                                LR      LR
      comp=Z,29μm,25.7s
SSLB  Suanglung        137.90 127 ePKPdf   PKPdf      16 16 39.5  -5.8
BBB   Bella Bella      138.22 297  PKP     PKPdf      16 16 44.4  -0.6
      comp=Z,41nm,0.9s,baz=307,slow=1.8,SNR=8.9
BBB                                PP      PP         16 19 29.1  -5.8
      comp=Z,15nm,1.0s,baz=353,slow=4.1,SNR=3.1
YKA   Yellowknife Ar   138.42 316  PKHKP              16 16 36.7
YKA                                                   16 16 44.2
YKA                                                   16 19 36.5
YKA   Yellowknife Ar   138.42 316  PKhKP              16 16 36.7
      comp=Z,20nm,0.8s,baz=119,slow=3.0,SNR=45
YKA                                PKP     PKPdf      16 16 44.2  -0.8
      comp=Z,157nm,0.8s,baz=127,slow=2.2,SNR=54
YKA                                PP      PP         16 19 36.5  +0.6
      comp=Z,29nm,0.9s,baz=122,slow=6.6,SNR=11
YKA                                PKKP               16 26 16.1
      comp=Z,3.5nm,0.7s,baz=314,slow=2.0,SNR=8.0
YKA   Yellowknife Ar   138.42 316  PKP                16 16 36.7
YKA                                PKP     PKPdf      16 16 44.2  -0.8
YKA                                PP      PP         16 19 36.5  +0.5
YKA                                PKKP               16 26 16.1
NACB  Ninganchiao      138.52 128 ePKPdf   PKPdf      16 16 43.7  -2.7
YHNB  Yeheng           138.86 127 ePKPdf   PKPdf      16 16 46.6  -0.4
YHNB                               LR      LR
      comp=Z,12μm,19.0s,MS6.6
YOJ   Yonaguni jima    139.37 129  P       PKPdf      16 16 49.5  +1.5
LZH   Lanzhou          139.41  98  PKP                16 16 37.3
LZH                                pPKP    pPKPdf     16 16 48.1  +0.4
LZH                                sPKP               16 16 51.8
LZH                                PP      PP         16 19 36.5  -5.8
LZH                                PKS                16 20 11.0
LZH                                SKS     SKSdf      16 23 42.3   -17
LZH                                SKKS    SKKSac     16 26 22.4   -14
LZH                                SS      SS         16 37 50.5   -11
LZH                                AMB     AMB
      comp=Z,12μm,8.2s
LZH                                LR      LR
      comp=E,19μm,18.0s
LZH                                LR      LR
      comp=Z,43μm,20.5s,MS7.2
GTA   Gaotai           139.65  91  PKPbc              16 16 38.8
GTA                                sPKP               16 16 52.3
GTA                                PP      PP         16 19 37.3  -6.5
GTA                                PKS                16 20 13.8
GTA                                SKKS    SKKSac     16 26 22.5   -16
GTA                                SS      SS         16 37 49.8   -15
GTA                                AMB     AMB
      comp=Z,4μm,13.1s
GTA                                LR      LR
      comp=N,9μm,26.8s
GTA                                LR      LR
      comp=E,8μm,20.8s
GTA                                LR      LR
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      comp=Z,23μm,32.4s
RES   Resolute Bay     139.71 337  PKhKP              16 16 37.5
      comp=Z,28nm,0.9s,baz=141,slow=4.6,SNR=32
RES                                PP      PP         16 19 29.1   -15
      comp=Z,7.5nm,0.8s,baz=313,slow=19,SNR=2.2
WHN   Wuhan            140.56 114 ⇑PKP                16 16 37.6
WHN                                pPKP    pPKPdf     16 16 44.8  -5.1
WHN                                PP      PP         16 19 47.5  -1.7
WHN                                PKS                16 20 25.8
WHN                                SS      SS         16 38 06.1  -9.0
WHN                                LR      LR
      comp=N,16μm,19.7s
WHN                                LR      LR
      comp=E,3μm,13.4s
WHN                                LR      LR
      comp=Z,41μm,26.5s
XAN   Xi'an            140.56 105  PKPbc              16 16 40.3
XAN                                sPKP               16 16 55.0
XAN                                PP      PP         16 19 48.1  -1.2
XAN                                PKS                16 20 14.8
XAN                                SKS     SKSdf      16 23 44.8   -16
XAN                                SKKS    SKKSac     16 26 30.6   -13
XAN                                SS      SS         16 38 10.0  -5.3
XAN                                AMB     AMB
      comp=Z,4μm,20.3s
XAN                                LR      LR
      comp=N,7μm,29.7s
XAN                                LR      LR
      comp=E,8μm,24.3s
XAN                                LR      LR
      comp=Z,14μm,24.3s
NVS   Novosibirsk      140.81  61 i PKHKP             16 16 43.2
NVS                                pmax    pmax
      comp=N,62nm,1.4s
NVS                                pmax    pmax
      comp=Z,16nm,1.4s
NVS                                pmax    pmax
      comp=E,90nm,1.7s
ZAA0  Zalesovo Array   141.07  63 ePKPdf              16 16 40.7
ZALV  Zalesovo Beam    141.07  63  PKhKP              16 16 41.4
      comp=E,32nm,0.8s,baz=242,slow=3.2,SNR=34
ZALV                               PP      PP         16 19 55.6  +3.2
      comp=E,11nm,0.8s,baz=306,slow=5.0,SNR=3.6
WAKE  Wake Island      141.37 195  PFAKE              16 17 00.0  +8.3
WAKE                               LR      LR
      comp=Z,10μm,21.0s,MS6.5
CRAG  Craig            142.54 298 eP       PKPdf      16 16 52.6   0.0
DLBC  Dease Lake       142.66 304  PKhKP              16 16 48.6
      comp=Z,60nm,1.0s,baz=121,slow=3.1,SNR=55
WRAK  Wrangell Islan   142.68 300 ePKPdf   PKPdf      16 16 48.7  -4.1
WRAK                               LR      LR
      comp=Z,82nm,19.0s
JOW   Kunigami         143.61 135  P       PKPdf      16 16 52.4  -3.1
JOW   Kunigami         143.61 135  PKP     PKPdf      16 16 52.8  -2.7
      comp=Z,548nm,1.2s,baz=173,slow=2.1,SNR=8.3
JMZ   Minamidaito 2    143.78 139  P       PKPdf      16 16 54.1  -1.7
NJ2   Nanjing          143.99 118 ePKP     PKPdf      16 16 53.5  -2.5
NJ2                                SKS     SKSdf      16 24 01.0  -5.4
NJ2                                SKKS    SKKSac     16 27 03.0  -0.5
NJ2                                AMB     AMB
      comp=Z,3μm,10.2s
NJ2                                LR      LR
      comp=N,22μm,24.5s
NJ2                                LR      LR
      comp=E,42μm,29.9s
NJ2                                LR      LR
      comp=Z,26μm,32.6s
SSE   Sheshan          144.29 122  PKP     PKPdf      16 16 53.8  -2.7
SSE                                PP      PP         16 20 13.6  +1.8
SSE                                SS      SS         16 38 54.6  -3.7
SSE                                AMB     AMB
      comp=Z,720nm,7.5s
SSE                                LR      LR
      comp=N,9μm,19.0s,MS6.9
SSE                                LR      LR
      comp=E,19μm,19.0s,MS6.9
SSE                                LR      LR
      comp=Z,16μm,15.4s,MS6.9
SIT   Sitka            144.42 299 ePKIKP   PKPdf      16 16 54.1  -1.8
JAM   Amami Oshima     145.54 135  P       PKPdf      16 16 58.7  -0.1
SKAG  Skagway          145.56 303 eP       PKPdf      16 16 56.9  -0.9
MIDW  Midway           145.65 224 ePKPdf   PKPdf      16 16 58.9  -0.1
MIDW                               LR      LR
      comp=Z,13μm,19.0s,MS6.7
BTO   Baotou           146.02  99 ePKPbc   PKPdf      16 16 57.5  -1.7
TIA   Tai'an           146.47 112  PKPbc   PKPdf      16 16 56.8  -3.3
TIA                                LR      LR
      comp=N,2μm,17.0s
HHC   Hu-ho-hao-te     147.02 100 ePKPbc   PKPdf      16 16 59.8  -1.1
HHC                                PKPab   PKPab      16 17 05.8  +1.3
HHC                                PP      PP         16 20 31.9  +3.7
HHC                                PKS                16 20 33.8
HHC                                SKS     SKSdf      16 24 02.9  -7.5
HHC                                SKKS    SKKSac     16 27 16.9  -3.5
HHC                                SS      SS         16 39 29.1  -0.6
HHC                                AMB     AMB
      comp=Z,3μm,9.8s
HHC                                LR      LR
      comp=N,10μm,21.4s,MS6.6
HHC                                LR      LR
      comp=E,5μm,20.2s,MS6.6
HHC                                LR      LR
      comp=Z,11μm,21.6s,MS6.6
PNL   Peninsula        147.52 302 ePKPdf   PKPdf      16 16 58.6  -2.5
INK   Inuvik           148.02 319  PKHKP   PKPdf      16 16 58.4  -3.3
INK                                                   16 17 04.0
INK   Inuvik           148.02 319  PKP     PKPdf      16 16 58.4  -3.3
      comp=Z,69nm,1.2s,baz=83,slow=2.0,SNR=26
INK                                PKPbc   PKPbc      16 17 04.0  -0.8
      comp=Z,256nm,0.7s,baz=80,slow=2.6,SNR=99
INK                                PKKP               16 25 54.0
      comp=Z,8.3nm,1.1s,baz=331,slow=1.5,SNR=3.7
INK   Inuvik           148.02 319  PKP     PKPdf      16 16 58.4  -3.3
INK                                PKPbc   PKPbc      16 17 04.0  -0.8
INK                                PKKP               16 25 54.0
MOY   Mondy            148.03  76 ePKIKP   PKPdf      16 17 00.9  -1.3
MOY                                pmax    pmax
      comp=Z,1μm,3.1s
CBIJ  Chichi jima      148.22 155  P       PKPbc      16 17 06.5  -0.1
CBIJ  Chichi jima      148.22 155  PKPbc   PKPbc      16 17 05.4  -1.2
      comp=Z,539nm,0.7s,baz=298,slow=7.2,SNR=12
ZAK   Zakamensk        148.55  79⇓iPKIKP   PKPdf      16 17 01.8  -1.3
ZAK                                pmax    pmax
      comp=Z,504nm,1.2s
JSU   Suzuyama         148.63 134  P       PKPdf      16 17 04.5  +0.6
SONM  Songino Array    148.78  86  PKIKP   PKPdf      16 17 02.6  -0.9
SONM                                                  16 17 07.0
SONM  Songino Array    148.78  86  PKP     PKPdf      16 17 02.6  -0.9
      comp=Z,72nm,0.9s,baz=229,slow=0.7,SNR=90
SONM                               PKPbc   PKPbc      16 17 07.0  -0.4
      comp=Z,268nm,1.0s,baz=230,slow=2.4,SNR=101
SONM                               SKKPbc             16 28 20.5
      comp=Z,14nm,1.2s,baz=82,slow=1.8,SNR=4.4
BJT   Baijiatuau       148.86 106 ePKIKP   PKPdf      16 17 02.7  -1.2
BJT                               e                   16 17 07.5
BJT                                MLR     MLR
      comp=Z,17μm,19.0s
BJI   Beijing          148.88 106  PKPbc   PKPdf      16 17 03.1  -0.9
BJI                                PP      PP         16 20 36.5  -2.5
BJI                                LR      LR
      comp=N,8μm,24.9s,MS6.5
BJI                                LR      LR
      comp=E,6μm,20.9s,MS6.5
JFU   Fukue jima 2     148.95 130  P       PKPbc      16 17 07.1  -1.2
DAWY  Dawson           149.10 310 ePKPdf   PKPdf      16 16 59.6  -3.9
DAWY                              ePKPbc   PKPbc      16 17 06.5  -1.2
ULN   Ulaanbaatar      149.15  86 ePKHKP   PKPdf      16 17 02.2  -1.9
ULN                               e                   16 17 07.7
ULN                                MLR     MLR
      comp=Z,20μm,20.0s,MS6.9
ULN   Ulaanbaatar      149.15  86  P       PKPdf      16 17 02.9  -1.2
      SNR=205
ULN                                P                  16 17 02.9
      SNR=205
TLY   Talaya           149.44  77 ePKIKP   PKPdf      16 17 02.8  -1.7
TLY                               e                   16 17 14.0
TLY                               e                   16 20 43.7
TLY                               e                   16 45 27.8
TLY                                pmax    pmax
      comp=Z,594nm,1.3s
TLY   Talaya           149.44  77 ePKPdf   PKPdf      16 17 03.1  -1.4
TLY                               ePKPbc   PKPbc      16 17 08.7  -0.2
TLY                                LR      LR
      comp=Z,14μm,20.0s,MS6.8
TLY   Talaya           149.44  77  P       PKPdf      16 17 03.1  -1.3
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      SNR=167
TLY                                P                  16 17 03.1
      SNR=167
EGAK  Eagle            150.04 311 ePKPdf   PKPdf      16 17 00.8  -4.2
EGAK                              ePKPbc   PKPbc      16 17 06.1  -3.9
EGAK                               LR      LR
      comp=Z,24μm,21.0s,MS7.0
IRK   Irkutsk          150.07  77 ePKIKP   PKPdf      16 17 03.3  -2.1
IRK                                pmax    pmax
      comp=Z,984nm,2.1s
JNU   Nakatsue         150.22 133  P       PKPdf      16 17 10.1  +3.8
MENT  Mentasta         150.62 306 eP       PKPdf      16 17 04.2  -1.8
MID   Middleton Isla   150.69 299 ePKIKP   PKPbc      16 17 10.5  -1.2
DL2   Dalian           150.82 114  PKPbc   PKPdf      16 17 05.4  -1.7
DL2                                PKPab   PKPab      16 17 18.5  -1.4
DL2                                PP      PP         16 20 48.5  -1.6
DL2                                SS      SS         16 40 05.6  -6.4
DL2                                AMB     AMB
      comp=Z,2μm,10.4s
DL2                                LR      LR
      comp=N,5μm,18.0s,MS6.4
DL2                                LR      LR
      comp=E,4μm,18.6s,MS6.4
DL2                                LR      LR
      comp=Z,7μm,19.6s,MS6.4
JTU   Tsushima         150.83 129  P       PKPbc      16 17 12.6  -0.3
PAX   Paxson           151.40 306 ePKIKP   PKPbc      16 17 12.0  -1.3
JMN   Monobe           151.91 137  P       PKPbc      16 17 14.9  -0.5
INCN  Inchon           152.09 122 ePKPdf   PKPdf      16 17 08.3  -0.7
INCN                              ePKPbc   PKPbc      16 17 14.6  -1.1
INCN                               LR      LR
      comp=Z,23μm,21.0s,MS7.0
INCN  Inchon           152.09 122 ⇑P       PKPdf      16 17 08.5  -0.6
      SNR=8.3
INCN                              ⇑P                  16 17 08.5
      SNR=8.3
JWZ   Kozaga           152.39 140  P       PKPbc      16 17 15.9  -0.6
SEW   Seward           152.40 299 ePKPdf   PKPdf      16 17 05.0  -3.8
SEW                               ePKPbc   PKPbc      16 17 14.2  -1.4
KSRS  Korea Array      152.66 124  PKIKP   PKPdf      16 17 08.3  -1.6
KSRS                                                  16 17 16.4
KSRS                                                  16 20 57.4
KSRS                               pmax    pmax
      comp=Z,21nm,1.0s
KSRS                               pmax    pmax
      comp=Z,9.0nm,1.2s
KSRS  Korea Array      152.66 124  PKP     PKPdf      16 17 08.3  -1.6
      comp=Z,21nm,1.0s,baz=229,slow=1.0,SNR=22
KSRS                               PKPbc   PKPbc      16 17 16.4  -0.5
      comp=Z,66nm,0.8s,baz=186,slow=2.2,SNR=30
KSRS                               PP      PP         16 20 57.4  -3.1
      comp=Z,8.5nm,1.2s,baz=231,slow=6.1,SNR=2.4
PMR   Palmer           152.68 302 eP       PKPdf      16 17 05.3  -3.8
PMR                               eP                  16 17 05.5
JHS   Saijyo           152.75 135  P       PKPbc      16 17 16.4  -0.8
RC01  Rabbit Creek A   152.83 301 ePKPdf   PKPdf      16 17 05.5  -3.8
RC01                              ePKPbc   PKPbc      16 17 11.8  -4.7
COLA  College          152.85 309 ePKIKP   PKPdf      16 17 04.0  -5.3
COLA                              e                   16 17 15.5
COLA                               MLR     MLR
      comp=Z,18μm,20.0s,MS6.9
FIB   Fire Island      153.05 301 ePKIKP   PKPbc      16 17 16.5  -0.5
JAD   Aida             153.10 136  P       PKPbc      16 17 17.1  -0.9
MCK   McKinley         153.10 307 ePKIKP   PKPdf      16 17 05.2  -4.5
MCK                               e                   16 17 16.3
KDAK  Kodiak Island    153.16 293  PKP     PKPdf      16 17 08.4  -1.5
      comp=Z,18nm,0.8s,baz=108,slow=8.0,SNR=6.6
KDAK                               PKPbc   PKPbc      16 17 18.2  +0.8
      comp=Z,143nm,0.8s,baz=88,slow=7.0,SNR=7.7
KDAK  Kodiak Island    153.16 293  PKP     PKPdf      16 17 08.4  -1.5
KDAK                               PKPbc   PKPbc      16 17 18.2  +0.8
KDAK                               LR      LR
      comp=Z,17μm,20.0s,MS6.8
OHAK  Old Harbor       153.31 291 eP       PKPdf      16 17 14.6  +4.4
JIE   Ise              153.52 141  P       PKPbc      16 17 19.1  +0.2
TRF   Thorofare Moun   153.64 306 ePKPdf   PKPdf      16 17 05.6  -4.8
TRF                               ePKPbc   PKPbc      16 17 19.0  +0.8
JWT   Wachi            153.86 138  P       PKPbc      16 17 19.5  -0.1
KTH   Kantishna Hill   153.94 306 ePKPdf   PKPdf      16 17 06.5  -4.3
KTH                               ePKPbc   PKPbc      16 17 17.7  -1.1
SNY   Shenyang         154.00 112 ⇓PKPbc   PKPdf      16 17 09.9  -1.8
SNY                                SS      SS         16 40 47.3  +0.3
SNY                                AMB     AMB
      comp=Z,3μm,8.7s
SNY                                LR      LR
      comp=N,8μm,21.0s,MS6.6
SNY                                LR      LR
      comp=E,6μm,25.8s,MS6.6
SNY                                LR      LR
      comp=Z,8μm,23.4s,MS6.5
BPAW  Bear Paw Mtn.    154.06 307 ePKPdf   PKPdf      16 17 06.3  -4.7
BPAW                              ePKPbc   PKPbc      16 17 16.8  -2.3
COLD  Coldfoot         154.09 314 ePKPdf   PKPdf      16 17 06.6  -4.4
PPLA  Purkeypile       154.38 304 ePKPdf   PKPdf      16 17 06.2  -5.3
PPLA                              ePKPbc   PKPbc      16 17 14.6  -5.2
CHUM  Lake Minchumin   154.60 306 ePKPdf   PKPdf      16 17 06.7  -5.1
CHUM                              ePKPbc   PKPbc      16 17 19.1  -1.1
JGF   Kuroka           154.84 141  P       PKPdf      16 17 17.1  +4.0
CIT   Chita            154.93  83 ePKIKP   PKPdf      16 17 10.6  -2.0
CIT                                pmax    pmax
      comp=Z,587nm,2.8s
JOD2  Odawara 2        155.10 144  P       PKPdf      16 17 10.4  -3.0
IMA2  Indian Mountai   155.41 312 eP       PKPdf      16 17 08.5  -4.3
SVW2  Sparrevohn       155.58 299 eP       PKPdf      16 17 08.7  -4.5
CHGN  Chignik          155.61 287 ePKPdf   PKPdf      16 17 09.7  -3.7
JRY   Ryogami san      155.73 143  P       PKPdf      16 17 13.7  -0.6
MAJO  Matsushiro       155.98 142 ePKIKP   PKPdf      16 17 14.1  -0.5
MAJO                              e                   16 17 23.8
MAJO                               MLR     MLR
      comp=Z,8μm,22.0s,MS6.5
MAT   Matsushiro       155.98 142  PKP     PKPdf      16 17 12.5  -2.1
MAT   Matsushiro       155.98 142  P       PKPdf      16 17 10.5  -4.1
MJAR  Matsushiro Arr   155.98 142  PKP     PKPdf      16 17 13.5  -1.1
      comp=Z,13nm,1.1s,baz=218,slow=2.5,SNR=9.6
MJAR                               PKPab   PKPab      16 17 42.0  +0.3
      comp=Z,75nm,0.8s,baz=201,slow=3.4,SNR=15
MJAR                               PP      PP         16 21 15.6  -3.3
      comp=Z,8.1nm,1.1s,baz=190,slow=4.8,SNR=3.8
TTA   Tatalina         156.11 304 ePKIKP   PKPdf      16 17 10.6  -3.3
SDPT  Sand Point       156.34 284 ePKPdf   PKPdf      16 17 10.9  -3.5
CN2   Changchun        156.38 111 ePKP     PKPdf      16 17 12.8  -2.1
CN2                                SKS     SKSdf      16 24 14.0  -7.8
CN2                                AMB     AMB
      comp=Z,5μm,10.0s
CN2                                LR      LR
      comp=N,8μm,20.0s,MS6.7
CN2                                LR      LR
      comp=E,9μm,20.0s,MS6.7
CN2                                LR      LR
      comp=Z,12μm,21.0s,MS6.7
HIA   Hailar           156.85  94 ePKIKP   PKPdf      16 17 13.4  -1.9
HIA                                MLR     MLR
      comp=Z,26μm,20.0s
BOD   Bodaibo          157.44  70 ePKIKP   PKPdf      16 17 12.8  -2.9
BOD                                pmax    pmax
      comp=Z,104nm,1.2s
JMM   Marumori         158.02 145  P       PKPdf      16 17 16.2  -0.9
MDJ   Mudanjiang       159.03 115  PKP     PKPdf      16 17 16.4  -1.7
MDJ                                pPKP    pPKPdf     16 17 20.4  +2.3
MDJ                                sPKP               16 17 21.8
MDJ                                PKS                16 20 51.3
MDJ                                PP      PP         16 21 35.5  -0.6
MDJ                                SS      SS         16 41 41.9  +0.8
MDJ                                AMB     AMB
      comp=Z,4μm,9.5s
MDJ                                LR      LR
      comp=N,8μm,18.4s,MS6.7
MDJ                                LR      LR
      comp=E,8μm,19.9s,MS6.7
MDJ   Mudanjiang       159.03 115  PFAKE              16 17 30.0   +12
MDJ                                LR      LR
      comp=Z,18μm,20.0s,MS6.9
JOM   Ohasama          159.65 144  P       PKPdf      16 17 19.2  +0.2
JTM   Tenmabayashi     160.76 142  P       PKPdf      16 17 18.7  -1.5
JOT   Ohata            161.29 141  P       PKPdf      16 17 18.9  -1.9
TIXI  Tiksi            161.54  28 ePKIKP   PKPdf      16 17 15.3  -4.8
TIXI                               MLR     MLR
      comp=Z,15μm,19.0s
ERM   Erimo            162.55 145  PFAKE              16 17 30.0  +8.0
ERM                                LR      LR
      comp=Z,15μm,21.0s
JEW   Eniwo            162.72 140  P       PKPdf      16 17 27.7  +5.5
NRGR  Nerungri         162.73  78 ePKIKP   PKPdf      16 17 20.2  -1.5
NRGR                                                  16 21 54.9
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Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
CLNS	**Chul'man**	**162.87**	**78**	*e*PKIKP	PKPdf	16 17 19.6	-2.2
CLNS				pmax	pmax		
	comp=Z,112nm,1.1s						
CLNS				pmax	pmax		
	comp=N,38nm,1.3s						
CLNS				pmax	pmax		
	comp=E,19nm,1.0s						
KLR	**Kul'dur**	**163.24**	**108**	*e*PKIKP	PKPdf	16 17 13.8	-8.6
KLR				*e*		16 35 24.5	
KLR				pmax	pmax		
	comp=Z,260nm,1.8s						
ADK	**Adak**	**163.61**	**262**	PFAKE		16 17 30.0	+7.3
ADK				LR	LR		
	comp=Z,16μm,20.0s						
ASAJ	**Asahikawa**	**164.24**	**140**	P	PKPdf	16 17 24.9	+1.4
ASAJ	**Asahikawa**	**164.24**	**140**	PKP	PKPdf	16 17 24.2	+0.7
	comp=Z,23nm,0.8s,baz=197,slow=9.2,SNR=6.1						
ASAJ				PKPab	PKPab	16 18 17.9	+0.4
	comp=Z,44nm,1.0s,baz=250,slow=22,SNR=5.0						
HABR	**Khabarovsk**	**164.42**	**115***d*	*i*PKIKP	PKPdf	16 17 22.1	-1.4
HABR				*e*		16 17 33.2	
HABR				*e*		16 18 17.4	
HABR				*e*		16 22 04.3	
HABR						16 24 24.0	
HABR				PPP		16 25 53.9	
HABR				SS	SS	16 42 35.6	-1.7
HABR				*e*SSS		16 49 00.0	
HABR				pmax	pmax		
	comp=Z,177nm,1.5s						
HABR				pmax	pmax		
	comp=E,63nm,1.6s						
HABR				pmax	pmax		
	comp=N,77nm,3.2s						
HABR				pmax	pmax		
	comp=Z,225nm,1.4s						
HABR				pmax	pmax		
	comp=N,59nm,1.5s						
HABR				pmax	pmax		
	comp=E,124nm,1.4s						
YUK	**Yuzh-Kuril'sk**	**165.20**	**149**	*e*PKIKP	PKPdf	16 17 20.0	-4.4
YUK				*e*		16 18 17.6	
YAK	**Yakutsk**	**165.67**	**59**	*i* PKIKP	PKPdf	16 17 20.1	-4.1
YAK				*e*		16 22 10.2	
YAK				pmax	pmax		
	comp=Z,53nm,1.1s						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,2μm,4.9s						
YAK				pmax	pmax		
	comp=N,198nm,2.0s						
YAK				pmax	pmax		
	comp=E,680nm,4.6s						
YAK	**Yakutsk**	**165.67**	**59**	*e*PKPdf	PKPdf	16 17 20.6	-3.6
YSS	**Yuzh-Sakhalins**	**166.72**	**135**κ	*i*PKIKP	PKPdf	16 17 24.0	-1.5
YSS				*e*		16 22 15.0	
YSS				*e*SS	SS	16 43 04.0	+3.7
YSS				pmax	pmax		
	comp=Z,140nm,1.1s						
YSS				pmax	pmax		
	comp=Z,4μm,11.0s						
YSS	**Yuzh-Sakhalins**	**166.72**	**135**	*e*PKPdf	PKPdf	16 17 24.3	-1.2
BILL	**Bilibino**	**168.27**	**342**⇑	*e*PKIKP	PKPdf	16 17 21.0	-5.0
BILL				*i*		16 18 34.8	
BILL				*i*		16 22 25.0	
BILL				*i* SS	SS	16 43 19.2	+3.8
BILL				pmax	pmax		
	comp=Z,52nm,1.3s						
BILL	**Bilibino**	**168.27**	**342**	*e*PKPdf	PKPdf	16 17 20.2	-5.8
BILL				LR	LR		
	comp=Z,26μm,21.0s						
SKR	**Severo-Kuril's**	**173.44**	**178**⇓	*i*PKIKP	PKPdf	16 17 27.0	-2.2
SKR				*e*		16 22 55.0	
SKR				pmax	pmax		
	comp=N,30nm,1.0s						
SKR				pmax	pmax		
	comp=E,30nm,1.0s						
SKR				pmax	pmax		
	comp=Z,100nm,1.0s						
SKR				pmax	pmax		
	comp=E,2μm,18.0s						
SKR				pmax	pmax		
	comp=Z,7μm,18.0s						
SKR				pmax	pmax		
	comp=N,2μm,12.0s						
SKR				pmax	pmax		
	comp=Z,7μm,14.0s						
SKR				pmax	pmax		
	comp=N,2μm,12.0s						
SKR				pmax	pmax		
	comp=E,3μm,12.0s						
PET	**Petropavlovsk**	**175.61**	**197**	*i* PKIKP	PKPdf	16 17 27.7	-2.1
PET				*e*		16 23 01.1	
PET				*e*SS	SS	16 44 18.8	-8.4
PET				*e*SSS		16 51 21.3	
PET	**Petropavlovsk**	**175.61**	**197**	*e*PKPdf	PKPdf	16 17 26.2	-3.6
PET				LR	LR		
	comp=Z,33μm,22.0s						
PEA0B	**Petropavlovsk-**	**175.82**	**190**	*e*PKPdf	PKPdf	16 17 27.9	-1.9
PETK	**Petropavlovsk-**	**175.82**	**190**	PKIKP	PKPdf	16 17 28.1	-1.8
PETK						16 19 07.6	
PETK						16 22 58.2	
PETK	**Petropavlovsk-**	**175.82**	**190**	PKP	PKPdf	16 17 28.1	-1.8
	comp=Z,52nm,0.9s,baz=103,slow=3.4,SNR=29						
PETK				PKPab	PKPab	16 19 07.5	-0.9
	comp=Z,53nm,1.0s,baz=119,slow=2.2,SNR=7.2						
PETK				PP	PP	16 22 58.2	-3.2
	comp=Z,4.9nm,0.9s,baz=251,slow=4.4,SNR=4.3						
PETK				SKKPbc		16 26 13.0	
	comp=Z,21nm,1.0s,baz=64,slow=3.4,SNR=7.0						
PETK	**Petropavlovsk-**	**175.82**	**190**	PKP	PKPdf	16 17 28.1	-1.8
PETK				PKPab	PKPab	16 19 07.5	-0.9
PETK				PP	PP	16 22 58.2	-3.2
PETK				SKKPbc		16 26 13.0	

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*ISK **23** 15:57:31.5, 37°.35N×28°.24E, h5^{km}, MD2.9*
*ISCJB **23** 15:57:33.7±0.5, 37°.27N±0°.04×28°.21E±0°.03, h10^{km}, Error ellipse: s-maj=5.6km s-min=3.5km az=27.0*
*CSEM **23** 15:57:33.6±0.2, 37°.27N×28°.22E, h15^{km}, MD2.9, Error ellipse: s-maj=6.1km s-min=4.6km az=18.0*
*DDA **23** 15:57:34.0, 37°.22N×28°.20E, h7^{km}±1^{km}, Md3.0*
ISC 23 15:57:34.0±0.5**, 37°.26N**±0°.04×**28°.20E**±0°.04**, h19**^{km}±7^{km}**, n26, σ0^{s}.87**/37**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	**Yerkesik**	**0.14**	**151**	*e*PG	**Pg**	**15 57 36.6**	**-1.7**
YER	**Yerkesik**	**0.14**	**151**	*e*Pg	**Pg**	**15 57 36.6**	**-1.6**
MLSB	**Milas**	**0.34**	**276**	*e*PG	**Pg**	**15 57 40.4**	**-0.8**
MLSB				*e*SG	**Sg**	**15 57 46.1**	**0.0**
MLSB	**Milas**	**0.34**	**276**	*e*Pg	**Pg**	**15 57 40.4**	**-0.8**
MLSB				*e*Sg	**Sg**	**15 57 46.1**	**0.0**
AYDN	**Tasoluk**	**0.47**	**328**	*i* P	**Pg**	**15 57 44.2**	**+0.6**
AYDN				*i* S	**Sg**	**15 57 51.5**	**+1.3**
AYDN	**Tasoluk**	**0.47**	**328**	*i* P	**Pg**	**15 57 44.2**	**+0.6**
AYDN				*i* S	**Sg**	**15 57 51.5**	**+1.4**
TURN	**Turunc**	**0.51**	**140**	*i* P	**Pg**	**15 57 43.3**	**-0.9**
TURN				*i* S	**Sg**	**15 57 50.6**	**-0.4**
TURN	**Turunc**	**0.51**	**140**	*i* P	**Pg**	**15 57 43.3**	**-0.9**
TURN				*i* S	**Sg**	**15 57 50.7**	**-0.4**
DALT	**Dalyan (Mudla)**	**0.60**	**144**	*e*PG	**Pg**	**15 57 45.8**	**-0.2**
DALT				*e*SG	**Sg**	**15 57 55.9**	**+1.8**
DALT	**Dalyan (Mudla)**	**0.60**	**144**	*e*Pg	**Pg**	**15 57 45.8**	**-0.2**
BDRM	**Kayabasi**	**0.63**	**252**	*i* P	**Pg**	**15 57 46.6**	**+0.1**
BDRM				*i* S	**Sg**	**15 57 55.3**	**+0.4**
BDRM	**Kayabasi**	**0.63**	**252**	*i* P	**Pg**	**15 57 46.6**	**+0.1**
BDRM				*i* S	**Sg**	**15 57 55.3**	**+0.4**
DAT	**Datca**	**0.72**	**223**	*e*PG	**Pg**	**15 57 48.0**	**-0.3**
DAT	**Datca**	**0.72**	**223**	*e*Pg	**Pg**	**15 57 48.0**	**-0.2**
BODT	**Bodrum**	**0.73**	**255**	*e*PG	**Pg**	**15 57 48.3**	**-0.1**
BODT	**Bodrum**	**0.73**	**255**	*e*Pg	**Pg**	**15 57 48.3**	**-0.1**
GOLH	**Golhisar**	**1.09**	**91**	*i* P	**Pg**	**15 57 54.9**	**-0.2**
GOLH				*i* S	**Sg**	**15 58 16.2**	**+6.7**
GOLH	**Golhisar**	**1.09**	**91**	*i* P	**Pb**	**15 57 54.9**	**+0.7**
KULA	**Kula-Manisa**	**1.31**	**16**	*e*PN	**Pn**	**15 57 55.7**	**-1.6**
KULA	**Kula-Manisa**	**1.31**	**16**	*e*Pn	**Pn**	**15 57 55.7**	**-1.5**
ELL	**Elmali**	**1.46**	**110**	*e*PN	**Pn**	**15 58 00.4**	**+1.1**
ELL	**Elmali**	**1.46**	**110**	*e*Pn	**Pn**	**15 58 00.4**	**+1.0**
KHL	**Karahalli**	**1.50**	**44**	*e*PN	**Pn**	**15 57 59.2**	**-0.6**
KHL	**Karahalli**	**1.50**	**44**	*e*Pn	**Pn**	**15 57 59.2**	**-0.6**
AKAS	**Kas**	**1.53**	**132**	*i* P	**Pg**	**15 58 04.2**	**+0.8**
AKAS				*i* S	**Sg**	**15 58 30.7**	**+7.4**
AKAS	**Kas**	**1.53**	**132**	*i* P	**Pg**	**15 58 04.2**	**+0.8**

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*KRSC **23** 16:05:04.4±2.1, 49°.07N×157°.19E, h5^{km}±5^{km}, ML4.9*
*MOS **23** 16:05:05.5±1.4, 49°.19N×156°.11E, h45^{km}, mb4.9/9, Error ellipse: s-maj=10.1km s-min=5.2km az=73.9*
*ISCJB **23** 16:05:06.5±0.7, 49°.16N±0°.04×156°.19E±0°.05, h56^{km}±5^{km}, mb4.7/58, MS4.9/5, Error ellipse: s-maj=8.1km s-min=4.2km az=143.8*
*NEIC **23** 16:05:08.8±0.9, 49°.20N×156°.10E, h60^{km}±8^{km}, mb4.9/28, Error ellipse: s-maj=10.7km s-min=5.2km az=150.0*
*BJI **23** 16:05:09.6, 49°.33N×155°.65E, h59^{km}, mB5.1/19, mb4.5/33, Ms5.1/16, Ms7 5.0/16*
*IDC **23** 16:05:09.1±2.6, 49°.21N×156°.10E, h57^{km}±23^{km}, mb4.2/25, mb1 4.4/28, mb1mx4.3/36, mbtmp4.2/28, ML4.3/3, MS3.6/1, Ms1 3.6/1, ms1mx3.1/40, Error ellipse: s-maj=18.9km s-min=10.2km az=160.0*
ISC 23 16:05:09.3±0.6**, 49°.25N**±0°.04×**156°.08E**±0°.05**, h62**^{km}±4^{km}**, h63**^{km}±2.0^{km}**:pP-P, n145, σ1^{s}.11**/158**, mb4.7**/58**, 10C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.44**	**1**α	*i*PN	**Pn**	**16 05 33.4**	**+0.2**
SKR				*i* S	**Sn**	**16 05 52.4**	**+1.3**
SKR				pmax	pmax		
	comp=Z,160nm,0.5s						
SKR				pmax	pmax		
	comp=N,80μm,0.5s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,1μm,1.5s						
SKR				pmax	pmax		
	comp=N,1μm,2.0s						
SKR				smax			
	comp=N,6μm,2.0s						
SKR				smax			
	comp=E,5μm,1.0s						
SKR				smax			
	comp=N,4μm,0.4s						
SKR				smax			
	comp=E,3μm,0.4s						
MIPR	**Malaya Ipel'ka**	**3.06**	**8**	*e*P	**Pn**	**16 05 55.9**	**+0.7**
MIPR				*i* S	**Sn**	**16 06 33.5**	**+2.9**
GRL	**Gorelyy**	**3.54**	**20**	*e*P	**Pn**	**16 06 02.1**	**+0.3**
GRL				*i* S	**Sn**	**16 06 44.2**	**+1.9**
RUS	**Russkaya**	**3.54**	**25**	*e*P	**Pn**	**16 06 00.2**	**-1.6**
RUS				*i* S	**Sn**	**16 06 41.0**	**-1.4**
PEA0B	**Petropavlovsk-**	**4.00**	**14**	*e*Pn	**Pn**	**16 06 08.6**	**+0.6**
PETK	**Petropavlovsk-**	**4.00**	**14**	P	**Pn**	**16 06 08.9**	**+0.9**
	comp=E,12nm,0.3s,baz=169,slow=14,SNR=419						
PETK				LR	LR	16 08 08.6	
	comp=E,704nm,20.1s,baz=206,slow=44						
PET	**Petropavlovsk**	**4.11**	**22**	*e*P	**Pn**	**16 06 09.1**	**-0.5**
PET				*i* S	**Sn**	**16 06 56.4**	**0.0**
PET	**Petropavlovsk**	**4.11**	**22**	*e*Pn	**Pn**	**16 06 08.8**	**-0.8**
PET				*e*Sn	**Sn**	**16 06 57.5**	**+1.1**
AVH	**Avacha**	**4.36**	**22**	*e*P	**Pn**	**16 06 13.5**	**+0.6**
NLC	**Nalytchevo**	**4.43**	**26**	*e*P	**Pn**	**16 06 11.6**	**-2.3**
NLC				*i* S	**Sn**	**16 07 00.8**	**-3.4**
SPN	**Mys Shipunski**	**4.58**	**31**	*e*P	**Pn**	**16 06 14.5**	**-1.5**
SPN				*i* S	**Sn**	**16 07 05.4**	**-2.5**
GNL	**Ganaly**	**4.60**	**14**	*e*P	**Pn**	**16 06 17.6**	**+1.3**
MKZ	**Mys Kozlova**	**6.36**	**31**	*e*P	**Pn**	**16 06 37.9**	**-2.4**
MKZ				*i* S	**Sn**	**16 07 46.8**	**-4.6**
KUR	**Kuril'sk**	**6.88**	**237**	*e*PN	**Pn**	**16 06 42.5**	**-5.0**
KUR				pmax	pmax		
	comp=Z,150nm,6.0s						
KUR				pmax	pmax		
	comp=N,70nm,0.6s						
ZLN	**Zelenaya**	**7.36**	**21**	*e*P	**Pn**	**16 06 54.7**	**+0.7**
CIRR	**Tsirk**	**7.44**	**21**	*e*P	**Pn**	**16 06 56.1**	**+1.0**
KRSR	**Krestovskiy**	**7.49**	**20**	*e*P	**Pn**	**16 06 56.4**	**+0.6**
KLY	**Klyuchi**	**7.60**	**20**	*e*P	**Pn**	**16 06 58.2**	**+1.0**
BDR	**Baidarnaya**	**7.96**	**21**	*e*P	**Pn**	**16 07 02.2**	**+0.1**
SRKR	**Sorokina**	**8.03**	**21**	*e*P	**Pn**	**16 07 03.0**	**-0.1**
SMKR	**Semkarok**	**8.03**	**22**	*e*P	**Pn**	**16 07 03.5**	**+0.3**
KBTR	**Krutoberegovo**	**8.08**	**28**	*e*P	**Pn**	**16 07 02.1**	**-1.7**
KBTR				*i* S	**Sn**	**16 08 28.0**	**-5.5**
YSS	**Yuzh-Sakhalins**	**9.21**	**261**⇑	*i*PN	**Pn**	**16 07 21.9**	**+2.6**
YSS				pmax	pmax		
	comp=Z,50nm,0.5s						
YSS	**Yuzh-Sakhalins**	**9.21**	**261**	*e*Pn	**Pn**	**16 07 21.3**	**+2.0**
ASAJ	**Asahikawa**	**10.59**	**246**	PN	**Pn**	**16 07 38.2**	**+0.1**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ	**Asahikawa**	**10.59**	**246**	P	**Pn**	**16 07 38.1**	**0.0**
	comp=Z,6.4nm,0.3s,baz=55,slow=15,SNR=34						
ERM	**Erimo**	**11.57**	**236**	*e*PN	**Pn**	**16 07 50.0**	**-1.6**
SEY	**Seymchan**	**13.87**	**353**⇑	*e*P	**Pn**	**16 08 22.3**	**-0.3**
KLR	**Kul'dur**	**15.88**	**279**	*e*P	**Pn**	**16 08 50.6**	**+1.9**
MAJO	**Matsushiro**	**18.18**	**232**	*e*P	**Pn**	**16 09 13.6**	**-3.7**
MAJO				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MAJO	**Matsushiro**	**18.18**	**232**	*e*P	**Pn**	**16 09 13.6**	**-3.7**
	comp=Z,10.0nm,0.8s						
MAT	**Matsushiro**	**18.18**	**232**	P	**Pn**	**16 09 17.9**	**+0.6**
MJAR	**Matsushiro Arr**	**18.18**	**232**	P	**Pn**	**16 09 18.1**	**+0.7**
	comp=Z,0.4nm,0.3s,baz=30,slow=7.6,SNR=6.6						
MDJ	**Mudanjiang**	**18.63**	**266**	P	**Pn**	**16 09 20.4**	**-2.2**
MDJ				pP	pP	16 09 34.1	-0.7
MDJ				sP	sP	16 09 40.9	-1.7
MDJ				pmax	pmax		
	comp=Z,9.0nm,1.1s						
MDJ				pmax	pmax		
	comp=Z,200nm,3.6s						
MDJ				LR	LR		
	comp=N,630nm,5.8s						
MDJ				LR	LR		
	comp=E,450nm,5.8s						
MDJ				LR	LR		
	comp=Z,6μm,12.7s						
YAK	**Yakutsk**	**19.46**	**321***c*	*i*P	**Pn**	**16 09 30.4**	**-2.0**
YAK				*e*S	**S**	**16 13 07.0**	**0.0**
YAK				pmax	pmax		
	comp=Z,51nm,0.9s						
YAK				pmax	pmax		
	comp=N,11nm,1.4s						
YAK				pmax	pmax		
	comp=E,30nm,1.5s						
YAK				pmax	pmax		
	comp=Z,21nm,1.0s						
YAK				pmax	pmax		
	comp=N,13nm,1.0s						
YAK				pmax	pmax		
	comp=E,18nm,1.2s						
YAK				smax			
	comp=N,120nm,2.1s						
YAK				smax			
	comp=E,77nm,2.3s						
YAK	**Yakutsk**	**19.46**	**321**	*e*P	**Pn**	**16 09 30.6**	**-1.8**
	comp=E,75nm,0.7s						
BILL	**Bilibino**	**19.53**	**11**⇑	*e*P	**Pn**	**16 09 30.8**	**-2.3**
BILL				*e*S	**S**	**16 13 05.1**	**-3.1**
BILL				pmax	pmax		
	comp=Z,20nm,1.1s						
BILL				MLR	MLR		
	comp=Z,3μm,17.0s						
BILL	**Bilibino**	**19.53**	**11**	*e*P	**Pn**	**16 09 30.3**	**-2.8**
	comp=Z,22nm,1.0s						
CLNS	**Chul'man**	**20.09**	**304**	*e*P	pP	16 09 54.8	+4.1
CLNS				pmax	pmax		
	comp=Z,21nm,1.1s						
CLNS				pmax	pmax		
	comp=N,15nm,1.0s						
CLNS				pmax	pmax		
	comp=E,15nm,1.4s						
CN2	**Changchun**	**21.68**	**267**	*e*P	**P**	**16 09 53.5**	**-1.2**
GAMB	**Gambell**	**22.63**	**38**	*e*P	**P**	**16 10 01.9**	**-2.7**
	comp=E,12nm,0.9s,mb4.3						
KSRS	**Korea Array**	**23.48**	**250**	P	**P**	**16 10 14.3**	**+0.9**
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
KSRS	**Korea Array**	**23.48**	**250**	P	**P**	**16 10 14.3**	**+0.9**
	comp=Z,2.7nm,0.6s,mb3.9,baz=47,slow=10,SNR=9.9						
TNA	**Tin City**	**24.84**	**36**	*e*P	**P**	**16 10 26.1**	**+0.6**
	comp=Z,25nm,0.9s,mb4.8						
TIXI	**Tiksi**	**25.70**	**340**⇑	*i*P	**P**	**16 10 31.9**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.7						
TIXI	**Tiksi**	**25.70**	**340**	*e*P	**P**	**16 10 32.1**	**-1.2**
	comp=Z,20nm,0.6s,mb4.8						
BOD	**Bodaibo**	**26.05**	**305**	*e*P	**P**	**16 10 35.9**	**-0.6**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.7						
SVW2	**Sparrevohn**	**29.32**	**48**	*e*P	**P**	**16 11 04.7**	**-1.0**
IMA2	**Indian Mountai**	**30.61**	**38**	*e*P	**P**	**16 11 16.6**	**-0.4**
KDAK	**Kodiak Island**	**31.00**	**54**	*i* P	**P**	**16 11 20.1**	**-0.4**
KDAK	**Kodiak Island**	**31.00**	**54**	P	**P**	**16 11 20.0**	**-0.6**
	comp=Z,4.6nm,0.7s,mb4.4,baz=260,slow=6.1,SNR=4.3						
BPAW	**Bear Paw Mtn.**	**31.56**	**42**	*e*P	**P**	**16 11 25.2**	**-0.2**
	comp=Z,5.4nm,0.9s,mb4.4						
KTH	**Kantishna Hill**	**31.57**	**43**	*e*P	**P**	**16 11 25.2**	**-0.3**
	comp=Z,40nm,1.7s,mb5.0						
COLD	**Coldfoot**	**32.14**	**36**	*e*P	**P**	**16 11 30.3**	**-0.1**
	comp=Z,4.8nm,0.7s,mb4.4						
COLD				*e*	pP	16 11 46.2	+0.6
SONM	**Songino Array**	**32.45**	**287**	P	**P**	**16 11 32.8**	**-0.6**
	comp=Z,0.3nm,0.4s,baz=64,slow=7.4,SNR=4.9						
SONM				PcP	PcP	16 14 19.2	+0.1
	comp=Z,1.1nm,0.9s,baz=90,slow=1.3,SNR=5.9						
MCK	**McKinley**	**32.46**	**43**	*e*P	**P**	**16 11 31.7**	**-1.6**
MCK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
MCK	**McKinley**	**32.46**	**43**	*e*P	**P**	**16 11 31.7**	**-1.6**
	comp=Z,11nm,0.9s,mb4.7						
NJ2	**Nanjing**	**32.65**	**252**	*e*P	**P**	**16 11 39.8**	**+4.5**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
TLY	**Talaya**	**32.88**	**295**	*e*P	**P**	**16 11 36.9**	**-0.2**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
TLY	**Talaya**	**32.88**	**295**	*e*P	**P**	**16 11 36.5**	**-0.6**
	comp=Z,4.4nm,0.7s,mb4.5						
COLA	**College**	**32.94**	**41**	*e*P	**P**	**16 11 37.2**	**-0.3**
COLA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
COLA	**College**	**32.94**	**41**	*e*P	**P**	**16 11 37.2**	**-0.3**
	comp=Z,15nm,0.8s,mb5.0						
ZAK	**Zakamensk**	**33.50**	**292**	*e*P	**P**	**16 11 41.6**	**-0.9**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
EGAK	**Eagle**	**35.80**	**41**	*e*P	**P**	**16 12 01.6**	**-0.6**
	comp=Z,13nm,0.7s,mb5.0						
DAWY	**Dawson**	**36.65**	**42**	*e*P	**P**	**16 12 09.3**	**0.0**
XAN	**Xi'an**	**37.73**	**264**	P	**P**	**16 12 17.8**	**-1.2**
XAN				pP	pP	16 12 32.8	-1.5
XAN				sP	sP	16 12 40.1	-1.4
XAN				PP	PP	16 13 44.5	-1.5
XAN				S	**S**	**16 18 03.6**	**-1.2**
XAN				sS	sS	16 18 29.8	-1.1
XAN				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
XAN				pmax	pmax		
	comp=Z,100nm,9.0s						
XAN				LR	LR		
	comp=N,980nm,12.9s						
XAN				LR	LR		
	comp=E,1μm,12.0s						
XAN				LR	LR		
	comp=Z,1μm,11.6s						
HYT	**Haines Junctio**	**38.10**	**47**	*e*P	**P**	**16 12 22.4**	**+0.7**
INK	**Inuvik**	**38.47**	**34**	*e*P	**P**	**16 12 25.8**	**+1.1**
INK				pmax	pmax		
	comp=Z,16nm,0.8s						
INK	**Inuvik**	**38.47**	**34**	P	**P**	**16 12 25.8**	**+1.1**
	comp=Z,18nm,0.7s,mb4.9,baz=294,slow=7.0,SNR=101						
INK				PcP	PcP	16 14 36.7	+0.2
	comp=Z,3.1nm,0.7s,baz=273,slow=2.3,SNR=5.5						
INK	**Inuvik**	**38.47**	**34**	*e*P	**P**	**16 12 25.8**	**+1.0**
	comp=Z,16nm,0.8s,mb4.8						
LZH	**Lanzhou**	**39.83**	**271**	*e*P	**P**	**16 12 37.0**	**+0.6**
LZH				pP	pP	16 12 52.5	+0.6
LZH				sP	sP	16 12 59.6	+0.6
LZH				PP	PP	16 14 13.3	+4.5
LZH				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.7						
LZH				pmax	pmax		
	comp=Z,98nm,7.2s						
LZH				LR	LR		
	comp=N,470nm,13.5s						
LZH				LR	LR		
	comp=Z,690nm,17.3s						
GTA	**Gaotai**	**40.58**	**278**	*e*P	**P**	**16 12 42.8**	**+0.2**
GTA				pP	pP	16 12 59.8	+1.7
GTA				sP	sP	16 13 06.4	+1.2
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
DLBC	**Dease Lake**	**42.43**	**48**	P	**P**	**16 12 59.3**	**+1.7**
	comp=Z,2.6nm,0.8s,mb3.9,baz=281,slow=11,SNR=7.1						
ZALV	**Zalesovo Beam**	**42.80**	**305**	P	**P**	**16 12 59.6**	**-0.9**
	comp=Z,1.5nm,0.5s,mb4.0,baz=69,slow=8.1,SNR=7.8						
ZALV				PcP	PcP	16 14 50.8	+0.1
	comp=Z,0.8nm,0.5s,baz=76,slow=6.3,SNR=4.7						
CD2	**Chengdu**	**43.09**	**265**	P	**P**	**16 13 03.6**	**+0.4**
CD2				pP	pP	16 13 19.0	+0.2
CD2				sP	sP	16 13 26.3	+0.4
CD2				PP	PP	16 14 46.6	+2.5
CD2				S	**S**	**16 19 24.3**	**-0.3**
CD2				sS	sS	16 19 50.6	-0.5
CD2				SS	SS	16 22 31.1	-7.6
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
CD2				pmax	pmax		
	comp=Z,240nm,5.9s						
CD2				LR	LR		
	comp=N,380nm,14.3s						
CD2				LR	LR		
	comp=Z,320nm,12.0s						
GYA	**Guiyang**	**44.20**	**258**	P	**P**	**16 13 11.3**	**-0.9**
GYA				pP	pP	16 13 27.9	0.0
GYA				sP	sP	16 13 35.3	+0.4
GYA				PcP	PcP	16 14 56.8	+0.9
GYA				ScP	ScP	16 18 41.8	-0.5
GYA				S	**S**	**16 19 40.0**	**-1.0**
GYA				sS	sS	16 20 07.3	-0.2
GYA				SS	SS	16 22 50.4	-10
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,130nm,4.8s						
GYA				LR	LR		
	comp=N,860nm,16.2s						
GYA				LR	LR		
	comp=E,780nm,15.3s						
GYA				LR	LR		
	comp=Z,640nm,16.9s						
WMQ	**Urumqi**	**45.90**	**290**	*e*P	**P**	**16 13 28.0**	**+2.5**
WMQ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
MKAR	**Makanchi Array**	**47.58**	**297**	P	**P**	**16 13 38.4**	**-0.2**
MKAR					PcP	16 15 09.4	+2.0
MKAR	**Makanchi Array**	**47.58**	**297**	P	**P**	**16 13 38.4**	**-0.2**
	comp=Z,3.1nm,0.7s,mb4.4,baz=60,slow=7.2,SNR=38						
MKAR				PcP	PcP	16 15 09.3	+1.9
	comp=Z,0.4nm,0.4s,baz=59,slow=3.0,SNR=4.2						
MKAR				PcP	PcP	16 15 09.3	+1.9
MKAR	**Makanchi Array**	**47.58**	**297**	P	**P**	**16 13 38.4**	**-0.2**
KMI	**Kunming**	**47.66**	**260**	P	**P**	**16 13 40.5**	**+1.1**
KMI				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.5						
KURK	**Kurchatov**	**47.66**	**303**	P	**P**	**16 13 38.0**	**-1.1**
	comp=Z,63nm,0.6s,mb5.8,SNR=7.3						
KURK	**Kurchatov**	**47.66**	**303**	P	**P**	**16 13 39.5**	**+0.4**
KURK					PcP	16 15 08.2	+0.6
KURK				MLR	MLR		
	comp=Z,9μm,19.0s						
KURK	**Kurchatov**	**47.66**	**303**	P	**P**	**16 13 39.5**	**+0.4**
	comp=Z,4.6nm,0.5s,mb4.8,baz=66,slow=8.5,SNR=65						
KURK				PcP	PcP	16 15 08.2	+0.5
	comp=Z,1.0nm,0.6s,baz=77,slow=2.2,SNR=3.4						
KURK				PcP	PcP	16 15 08.2	+0.5
KURK	**Kurchatov**	**47.66**	**303**	P	**P**	**16 13 39.5**	**+0.4**
YKA	**Yellowknife Ar**	**47.73**	**39**	P	**P**	**16 13 39.8**	**+0.3**
	comp=Z,6.0nm,0.8s,mb4.7,baz=297,slow=7.6,SNR=71						
YKA				PcP	PcP	16 15 08.2	+0.6
	comp=Z,1.6nm,0.9s,baz=303,slow=3.2,SNR=7.8						
YKA	**Yellowknife Ar**	**47.73**	**39**	P	**P**	**16 13 39.8**	**+0.3**
YKA				PcP	PcP	16 15 08.2	+0.6
RES	**Resolute Bay**	**47.82**	**20**	P	**P**	**16 13 40.9**	**+0.9**
RES						16 15 08.1	
RES				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
RES				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						

RES	**Resolute Bay**	**47.82**	**20**	P	**P**	**16 13 40.9**	**+0.8**
	comp=Z,9.3nm,1.0s,mb4.8,baz=323,slow=8.7,SNR=21						
RES				PcP	PcP	16 15 08.1	+0.3
	comp=Z,1.4nm,0.7s,baz=315,slow=2.9,SNR=2.1						
RES	**Resolute Bay**	**47.82**	**20**	*e*P	**P**	**16 13 41.6**	**+1.6**
	comp=Z,12nm,1.1s,mb4.8						
LSA	**Lhasa**	**52.13**	**273**	*e*P	**P**	**16 14 13.3**	**+0.1**
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
LSA	**Lhasa**	**52.13**	**273**	*e*P	**P**	**16 14 13.3**	**0.0**
	comp=Z,3.3nm,0.6s,mb4.4						
EDM	**Edmonton**	**53.16**	**49**	*e*P	**P**	**16 14 20.3**	**-0.2**
TKM2	**Tokmak 2**	**53.69**	**296**	*e*P	**P**	**16 14 25.2**	**+0.6**
TKM2				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
TKM2	**Tokmak 2**	**53.69**	**296**	*e*P	**P**	**16 14 25.2**	**+0.6**
	comp=Z,1.0nm,0.6s,mb3.9						
ARU	**Arti**	**54.52**	**317**	P	**P**	**16 14 30.1**	**-0.3**
ARU	**Arti**	**54.52**	**317**	*e*P	**P**	**16 14 29.9**	**-0.5**
	comp=Z,7.7nm,0.4s,mb5.1						
CHTO	**Chiang Mai**	**54.62**	**257**	*e*P	**P**	**16 14 29.6**	**-2.1**
CHTO				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.7						
CHTO	**Chiang Mai**	**54.62**	**257**	*e*P	**P**	**16 14 29.6**	**-2.1**
	comp=Z,88nm,1.0s,mb5.7						
YBH	**Yreka Blue Hor**	**54.84**	**65**	P	**P**	**16 14 33.4**	**+0.5**
	comp=Z,2.7nm,0.9s,mb4.3,baz=325,slow=3.0,SNR=6.6						
CMAR	**Chiang Mai Arr**	**54.89**	**257**	P	**P**	**16 14 34.5**	**+0.9**
	comp=Z,3.3nm,0.8s,mb4.4,baz=32,slow=7.2,SNR=21						
CMAR				pP	pP	16 14 48.5	-1.2
	comp=Z,4.0nm,0.7s,baz=34,slow=7.4,SNR=13						
KSH	**Kashi**	**55.54**	**292**	*e*P	**P**	**16 14 42.8**	**+4.7**
KSH				*e*pP	pP	16 14 57.3	+3.1
KSH				*e*sP	sP	16 15 05.1	+3.9
KSH				*e*PcP	PcP	16 15 40.1	+2.9
KSH				*e*PP	PP	16 16 48.0	+5.7
KSH				*e*ScP	ScP	16 19 34.1	+3.5
KSH				*e*PcS	PcS	16 19 40.0	+2.6
KSH				*e*S	**S**	**16 22 22.9**	**+4.2**
KSH				*e*ScS	ScS	16 24 23.0	+1.6
KSH				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
KSH				pmax	pmax		
	comp=Z,160nm,3.0s						
KSH				LR	LR		
	comp=N,750nm,6.3s						
KSH				LR	LR		
	comp=E,960nm,7.0s						
KSH				LR	LR		
	comp=Z,550nm,4.7s						
ARCES	**ARCESS Array B**	**56.14**	**341**	P	**P**	**16 14 40.9**	**-0.9**
	comp=Z,2.3nm,0.7s,mb4.3,baz=29,slow=7.0,SNR=5.7						
ARCES				PcP	PcP	16 15 39.8	+0.7
	comp=Z,2.8nm,0.7s,baz=46,slow=5.2,SNR=6.8						
ARCES	**ARCESS Array B**	**56.14**	**341**	P	**P**	**16 14 40.9**	**-0.9**
ARCES				PcP	PcP	16 15 39.8	+0.7
FFC	**Flin Flon**	**57.55**	**42**	*i* P	**P**	**16 14 53.1**	**+1.1**
SUMG	**Summit**	**58.05**	**5**	*e*P	**P**	**16 14 56.3**	**+1.0**
	comp=Z,766nm,1.9s						
FCC	**Fort Churchill**	**58.08**	**35**	*e*P	**P**	**16 14 55.8**	**+0.1**
FCC				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.1						
FCC	**Fort Churchill**	**58.08**	**35**	*e*P	**P**	**16 14 55.8**	**+0.1**
	comp=Z,3.3nm,1.4s,mb4.2						
MCMT	**McKenzie Canyo**	**58.53**	**57**	*e*P	**P**	**16 14 57.6**	**-1.5**
QLMT	**Earthquake Lak**	**59.30**	**56**	*e*P	**P**	**16 15 05.4**	**+1.0**
NVAR	**Mina Array Bea**	**59.54**	**65**	P	**P**	**16 15 06.5**	**+0.4**
	comp=Z,3.1nm,0.7s,mb4.5,baz=298,slow=7.6,SNR=8.2						
ELK	**Elko**	**59.83**	**61**	P	**P**	**16 15 08.1**	**0.0**
	comp=Z,1.4nm,0.6s,mb4.2,baz=270,slow=13,SNR=4.1						
LKWY	**Lake**	**60.03**	**55**	*e*P	**P**	**16 15 10.5**	**+1.1**
LKWY				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.4						
LKWY	**Lake**	**60.03**	**55**	*e*P	**P**	**16 15 10.5**	**+1.1**
	comp=Z,36nm,0.9s,mb5.4						
RRI2	**Red Ridge**	**60.33**	**57**	*e*P	**P**	**16 15 12.0**	**+0.5**
TPAW	**Teton Pass**	**60.44**	**57**	*e*P	**P**	**16 15 12.1**	**-0.1**
	comp=Z,17nm,1.5s,mb4.9						
BW06	**Boulder Array**	**61.68**	**57**	*e*P	**P**	**16 15 21.2**	**+0.5**
	comp=Z,28nm,0.9s,mb5.4						
PDAR	**Pinedale Array**	**61.68**	**57**	P	**P**	**16 15 21.1**	**+0.4**
	comp=Z,4.5nm,0.8s,mb4.6,baz=313,slow=1.9,SNR=14						
SFJD	**Kangerlussuaq**	**62.32**	**12**	P	**P**	**16 15 24.5**	**-0.1**
SFJD				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
SFJD	**Kangerlussuaq**	**62.32**	**12**	P	**P**	**16 15 24.5**	**0.0**
	comp=Z,9.6nm,0.7s,mb5.0,baz=342,slow=4.4,SNR=4.6						
SFJD	**Kangerlussuaq**	**62.32**	**12**	*e*P	**P**	**16 15 24.4**	**-0.2**
	comp=Z,26nm,1.2s,mb5.2						
ULM	**Lac du Bonnet**	**63.33**	**43**	P	**P**	**16 15 31.1**	**-0.4**
	comp=Z,1.6nm,0.5s,mb4.4,baz=326,slow=2.4,SNR=3.8						
RSSD	**Black Hills**	**63.70**	**52**	*e*P	**P**	**16 15 33.8**	**-0.3**
RSSD				pmax	pmax		
	comp=Z,51nm,0.8s,mb5.6						
RSSD	**Black Hills**	**63.70**	**52**	*e*P	**P**	**16 15 33.8**	**-0.3**
	comp=Z,51nm,0.8s,mb5.6						
PV04	**Paradox Valley**	**65.03**	**60**	*e*P	**P**	**16 15 43.1**	**+0.3**
ISCO	**Idaho Springs**	**65.88**	**57**	*e*P	**P**	**16 15 49.3**	**+1.0**
ISCO				pmax	pmax		
	comp=Z,99nm,1.5s,mb5.6						
ISCO	**Idaho Springs**	**65.88**	**57**	*e*P	**P**	**16 15 49.3**	**+1.0**
	comp=Z,99nm,1.5s,mb5.6						
NOA	**NORSAR Array B**	**66.48**	**342**	P	**P**	**16 15 51.3**	**-0.5**
	comp=Z,2.1nm,0.6s,mb4.4,baz=25,slow=6.5,SNR=10						
HYB	**Hyderabad**	**68.91**	**272**	*i* P	**P**	**16 16 06.5**	**-1.2**
HYB	**Hyderabad**	**68.91**	**272**	*e*P	**P**	**16 16 04.0**	**-3.7**
AKASG	**Malin Array Be**	**70.55**	**327**	P	**P**	**16 16 17.6**	**+0.2**
	comp=Z,5.3nm,0.5s,mb4.7,baz=32,slow=5.9,SNR=8.6						
KWP	**Kalwaria Pacla**	**73.67**	**330**	*e*P	**P**	**16 16 34.8**	**-1.2**
KWP				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
KWP	**Kalwaria Pacla**	**73.67**	**330**	*e*P	**P**	**16 16 34.8**	**-1.2**
	comp=Z,34nm,0.9s,mb5.3						
EKA	**Eskdalemuir Ar**	**74.35**	**348**	P	**P**	**16 16 41.2**	**+1.4**
	comp=Z,5.0nm,0.6s,mb4.6,baz=21,slow=5.2,SNR=14						
CLL	**Collm**	**74.98**	**337**	⇑*i*P	**P**	**16 16 43.4**	**-0.2**
CLL				*i* *PP	pP	16 17 01.0	+0.6
CLL				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
CLL	**Collm**	**74.98**	**337**	⇑*i*P	**P**	**16 16 43.4**	**-0.2**
	comp=Z,27nm,0.9s,mb5.2						
CLL				*i* pP	pP	16 17 01.0	+0.6
CLL				*e*PP	PP	16 19 23.0	-8.2
CLL	**Collm**	**74.98**	**337**	⇑*i*P	**P**	**16 16 43.4**	**-0.2**
	comp=Z,27nm,0.9s,mb5.2						
CLL				*i* pP	pP	16 17 01.0	+0.6
ASAR	**Alice Springs**	**75.23**	**201**	P	**P**	**16 16 44.2**	**-1.0**
	comp=Z,4.6nm,1.0s,mb4.4,baz=14,slow=4.9,SNR=4.1						
VRAC	**Vranov**	**75.82**	**334**	P	**P**	**16 16 50.5**	**+2.1**
	comp=Z,30nm,1.0s,mb5.2,baz=54,slow=5.2,SNR=6.2						
MLR	**Muntele Rosu**	**76.13**	**326**	P	**P**	**16 16 51.4**	**+1.2**
	comp=Z,6.4nm,0.5s,mb4.8,baz=344,slow=7.4,SNR=9.1						
LHS	**Liberty Hill**	**82.54**	**44**	*e*P	**P**	**16 17 27.1**	**+1.8**
MMAI	**Mount Meron Ar**	**82.61**	**313**	P	**P**	**16 17 27.0**	**+1.3**
	comp=Z,3.1nm,0.5s,mb4.6,baz=41,slow=7.7,SNR=10.0						
EIL	**Elat**	**85.58**	**312**	P	**P**	**16 17 41.9**	**+1.0**
	comp=Z,5.3nm,0.7s,mb4.9,baz=24,slow=11,SNR=4.1						
CPUP	**Villa Florida**	**145.50**	**61**	PKPbc	PKPbc	16 24 39.2	-1.2
	comp=Z,1.2nm,0.5s,baz=290,slow=3.5,SNR=8.9						
PLCA	**Paso Flores**	**146.40**	**93**	PKPbc	PKPbc	16 24 41.6	-1.1
	comp=Z,1.1nm,0.7s,baz=176,slow=12,SNR=4.6						

IDC 23 16:13:27.1±3.6**,57°.19S**×**23°.94W,h0^{km},mb4.1**/1**,
mb1 4.1**/1**,mb1mx3.7**/14**,mbtmp4.1**/1**,Error ellipse:
s-maj=197.4km s-min=93.7km az=97.0,South
Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	**73.22**	**26**	P	P	16 24 59.8	+0.1
	1.3nm,0.7s,baz=198,slow=4.6,SNR=4.9						
YKA	**Yellowknife Ar**	**138.23**	**316**	PKP	PKPdf	16 32 52.1	-0.5
	0.2nm,0.6s,baz=115,slow=1.2,SNR=3.6						
SONM	**Songino Array**	**149.01**	**86**	PKPbc	PKPbc	16 33 15.6	-0.3
	0.3nm,0.5s,baz=228,slow=3.7,SNR=4.1						

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*NEIC **23** 16:13:57.9, 18°.07N×100°.68W, h59^{km}, MD3.9(MEX), After
MEX.*

MEX 23 16:13:57.8±0.4**,18°.09N**×**100°.69W,h59^{km}**±13^{km}**,MD3.9,
Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	**0.88**	**237**	*i* P	Pn	16 14 12.7	-1.5
ZIIG				*i* S	Sn	16 14 24.5	-1.9
MEIG	**Mezcala**	**1.03**	**99**	*e*P	Pn	16 14 14.9	-1.2
MEIG				*i* S	Sn	16 14 28.0	-1.9
CAIG	**El Cayaco**	**1.11**	**159**	*e*P	Pn	16 14 15.5	-1.7
CAIG				*i* S	Sn	16 14 29.9	-1.8
ACX	**Acapulco**	**1.42**	**149**	*i* P	Pn	16 14 20.3	-1.1
UTMO	**Huajuapan**	**2.76**	**95**	*e*P	Pn	16 14 38.6	-1.0
UTMO				*i* S	Sn	16 15 09.7	-2.0
PNIG	**Pinotepa**	**2.97**	**124**	*i* P	Pn	16 14 42.3	-0.2
PNIG				*i* S	Sn	16 15 13.8	-3.2

IDC 23 16:21:24.8±2.7**,57°.14S**×**23°.55W,h0^{km},mb4.0**/2**,
mb1 4.2**/2**,mb1mx3.9**/14**,mbtmp4.0**/2**,Error ellipse:
s-maj=96.5km s-min=46.6km az=14.0,South Sandwich
Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPUP	**Villa Florida**	**39.06**	**308**	P	P	16 28 53.0	-0.1
	1.6nm,0.6s,baz=161,slow=11,SNR=4.9						
TORD	**Torodi Ar. Bea**	**73.08**	**26**	P	P	16 32 56.6	+0.1
	1.3nm,0.9s,baz=201,slow=6.3,SNR=5.2						
YKA	**Yellowknife Ar**	**138.34**	**316**	PKP	PKPdf	16 40 50.3	0.0
	0.2nm,0.7s,baz=123,slow=2.6,SNR=3.2						
SONM	**Songino Array**	**148.79**	**86**	PKPbc	PKPbc	16 41 12.6	-0.4
	1.4nm,0.9s,baz=242,slow=2.8,SNR=3.1						

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*BJI **23** 17:00:41.6, 37°.32N×71°.94E, h152^{km}, mb4.7/3*

*ISCJB **23** 17:00:41.2±0.4, 37°.14N±0°.02×71°.97E±0°.05, h158^{km}±5^{km},
mb3.7/13, Error ellipse: s-maj=6.7km s-min=4.0km
az=172.9*

*MOS **23** 17:00:42.0±1.1, 37°.14N×71°.88E, h162^{km}, mb4.2/1, Error
ellipse: s-maj=13.6km s-min=8.4km az=87.4*

*NEIC **23** 17:00:42.2±0.7, 37°.08N×71°.96E, h156^{km}±8^{km}, mb4.6/13,
Error ellipse: s-maj=9.0km s-min=5.6km az=63.0*

*IDC **23** 17:00:43.2±3.1, 37°.19N×71°.81E, h155^{km}±27^{km}, mb3.4/11,
mb1 3.5/15, mb1mx3.4/27, mbtmp3.4/15, Error ellipse:
s-maj=23.8km s-min=15.5km az=178.0*

*NNC **23** 17:00:50.1±3.2, 37°.78N×71°.91E, h211^{km}±28^{km}, mb2.9,
mpv3.9, Error ellipse: s-maj=29.5km s-min=14.8km az=7.0*

ISC 23 17:00:42.2±0.4**,37°.13N**±0°.03×**71°.99E**±0°.05**,h151^{km}**±5^{km}**,
n78,**σ**1^{s}.24**/92**,mb3.7**/13**,4C-6D,Afghanistan-Tajikistan
border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	**Cherat**	**3.30**	**181**	⇓P	**Pn**	**17 01 35.0**	**+1.5**
CEP				S	**Sn**	**17 02 04.0**	**-9.1**
KBL	**Kabul**	**3.52**	**224**	*e*Pn	**Pn**	**17 01 37.0**	**+0.6**
KBL				*e*Sn	**Sn**	**17 02 16.7**	**-1.5**
KSH	**Kashi**	**3.93**	**52**	P	**Pn**	**17 01 39.4**	**-2.1**
KSH				S	**Sn**	**17 02 19.4**	**-8.3**
KSH				smax			
	comp=N,2μm,0.4s						
KSH				smax			
	comp=E,1μm,0.3s						
AML	**Almayashu**	**5.16**	**14**	P	**Pn**	**17 01 59.2**	**+1.6**
	SNR=170						
AML	**Almayashu**	**5.16**	**14**	*e*Pn	**Pn**	**17 01 59.1**	**+1.4**
	comp=E,244nm,0.4s						
AML				*e*Sn	**Sn**	**17 02 55.4**	**-1.3**
UCH	**Uchtor**	**5.45**	**20**	P	**Pn**	**17 02 03.4**	**+1.9**
	SNR=75						
UCH	**Uchtor**	**5.45**	**20**	*e*Pn	**Pn**	**17 02 03.0**	**+1.5**
	comp=E,52nm,0.4s						
UCH				*e*Sn	**Sn**	**17 03 00.3**	**-3.1**
KZA	**Kyzart**	**5.54**	**26**	P	**Pn**	**17 02 04.1**	**+1.4**
	SNR=32						
THN	**Thein Dam**	**5.60**	**146**	*e*PKP	**Pn**	**17 02 03.9**	**+0.3**
THN				*e*x	x	17 03 05.5	
EKS2	**Erkin-Say**	**5.69**	**13**	P	**Pn**	**17 02 06.3**	**+1.6**
	SNR=22						
EKS2	**Erkin-Say**	**5.69**	**13**	*e*Pn	**Pn**	**17 02 06.1**	**+1.4**
	comp=E,13nm,0.5s						
EKS2				*e*Sn	**Sn**	**17 03 07.0**	**-2.2**
AAK	**Ala-Archa**	**5.82**	**19**	P	**Pn**	**17 02 08.2**	**+1.8**
	comp=E,0.2nm,0.3s,baz=175,slow=5.9,SNR=107						
AAK				S	**Sn**	**17 03 12.4**	**+0.1**
	comp=E,0.1nm,0.3s,baz=127,slow=22,SNR=14						
AAK	**Ala-Archa**	**5.82**	**19**	*e*Pn	**Pn**	**17 02 07.9**	**+1.4**
AAK				S	**Sn**	**17 03 12.4**	**+0.1**
KBK	**Karagaybulak**	**5.97**	**21**	P	**Pn**	**17 02 10.4**	**+2.0**
	SNR=14						
ULHL	**Ulahol**	**6.07**	**31**	P	**Pn**	**17 02 11.1**	**+1.4**
	SNR=20						
KK31	**Karatay Array**	**6.07**	**350**	P	**Pn**	**17 02 10.4**	**+0.7**
	comp=E,4.3nm,0.2s,baz=170,slow=15,SNR=140						
KK31				S	**Sn**	**17 03 14.4**	**-3.9**
	comp=E,53nm,0.3s,baz=170,slow=22,SNR=26						
CHMS	**Chumysh**	**6.23**	**19**	P	**Pn**	**17 02 13.2**	**+1.4**
	SNR=17						
TKM2	**Tokmak 2**	**6.41**	**24**	⇓P	**Pn**	**17 02 15.3**	**+1.0**
	comp=E,7.2nm,0.7s,baz=170,slow=15						
TKM2				⇓S	**Sn**	**17 03 23.8**	**-2.5**
	comp=E,6.0nm,0.5s,baz=170,slow=15						
TKM2	**Tokmak 2**	**6.41**	**24**	*e*PN	**Pn**	**17 02 15.4**	**+1.1**
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
TKM2	**Tokmak 2**	**6.41**	**24**	P	**Pn**	**17 02 15.6**	**+1.3**
	SNR=11						
TKM2	**Tokmak 2**	**6.41**	**24**	*e*Pn	**Pn**	**17 02 15.4**	**+1.2**
	comp=Z,9.6nm,0.6s						
USP	**Ospenovka**	**6.42**	**17**	P	**Pn**	**17 02 15.1**	**+0.6**
	SNR=8.7						
KLP	**Kalpa**	**7.61**	**135**	*e*PKP	**Pn**	**17 02 30.9**	**+0.5**
KLP				*e*S	**Sn**	**17 03 49.9**	**-5.5**
KLP				AML	AML	17 03 58.3	
	comp=N,284nm,0.7s						
KLP				AML	AML	17 03 58.6	
	comp=E,266nm,0.4s						
JOSI	**Joshimath**	**9.09**	**134**	*e*PKP	**Pn**	**17 02 49.1**	**-1.0**
JOSI				*e*S	**Sn**	**17 04 25.9**	**-5.0**
JOSI				AML	AML	17 04 30.7	
	comp=E,266nm,0.6s						
JOSI				AML	AML	17 04 31.5	
	comp=N,293nm,0.6s						
KHET	**Khetri**	**9.59**	**159**	*e*S	**Sn**	**17 04 34.6**	**-8.4**
AYAN	**Aya Nagar**	**9.64**	**152**	*e*S	**Sn**	**17 04 35.1**	**-9.3**
KUDL	**Kundal**	**9.73**	**156**	*e*PKP	**Pn**	**17 02 58.5**	**-0.1**
KUDL				*e*S	**Sn**	**17 04 37.3**	**-9.1**
SONA	**Sohna**	**9.84**	**153**	*e*S	**Sn**	**17 04 38.8**	**-10**
MK31	**Makanchi Array**	**12.31**	**35**	P	**Pn**	**17 03 32.6**	**+0.3**
	comp=N,1.2nm,0.4s,baz=170,slow=15,SNR=68						
MKAR	**Makanchi Array**	**12.31**	**35**	P	**Pn**	**17 03 33.2**	**+0.8**
	comp=N,0.2nm,0.3s,baz=221,slow=14,SNR=18						
DANN	**Dangsing**	**13.21**	**128**	*e*P	**Pn**	**17 03 43.3**	**-0.8**
	comp=N,11nm,0.3s						
KOLN	**Koldanda**	**13.52**	**130**	*e*P	**Pn**	**17 03 46.8**	**-1.2**
	comp=N,8.9nm,0.3s						
GKN	**Gorkha**	**14.01**	**127**	*e*P	**Pn**	**17 03 53.2**	**-1.0**
	comp=N,24nm,0.3s						
KURBB	**Kurchatov Arra**	**14.28**	**17**	⇓P	**Pn**	**17 03 55.0**	**-2.3**
	comp=N,2.1nm,0.6s,baz=170,slow=15						
KURK	**Kurchatov**	**14.38**	**17**	⇑P	**Pn**	**17 03 55.5**	**-3.1**
	comp=N,14nm,0.9s,baz=170,slow=15						
KURK	**Kurchatov**	**14.38**	**17**	P	**Pn**	**17 03 55.1**	**-3.5**
	comp=N,0.5nm,0.3s,baz=203,slow=11,SNR=31						
KKN	**Kakani**	**14.57**	**126**	*e*P	**Pn**	**17 04 00.3**	**-0.9**
	comp=N,9.0nm,0.3s						
KKN	**Kakani**	**14.57**	**126**	*e*P	**Pn**	**17 04 00.3**	**-0.9**
KKN				pmax	pmax		
	comp=Z,9.0nm,0.3s						
DMN	**Daman**	**14.58**	**127**	*e*P	**Pn**	**17 04 00.6**	**-0.7**
	comp=Z,12nm,0.3s						
PKI	**Pulchoki**	**14.80**	**126**	*e*P	**Pn**	**17 04 03.8**	**-0.3**
	comp=Z,7.4nm,0.3s						
PKI	**Pulchoki**	**14.80**	**126**	*e*P	**Pn**	**17 04 03.8**	**-0.3**
PKI				pmax	pmax		
	comp=Z,7.0nm,0.3s						
GUN	**Gumba**	**14.88**	**124**	*e*P	**Pn**	**17 04 04.2**	**-0.8**
	comp=Z,9.7nm,0.3s						
AB09	**Akbulak array**	**14.96**	**328**	⇓P	**Pn**	**17 04 04.9**	**-1.0**
	comp=Z,1.7nm,0.4s,baz=170,slow=15						
AB09				⇑S	**Sn**	**17 06 42.0**	**-10**
	comp=Z,3.7nm,0.5s,baz=170,slow=15						
JIRN	**Jiri**	**15.25**	**124**	*e*P	**Pn**	**17 04 09.6**	**-0.1**
	comp=Z,36nm,0.4s						
VOSK	**Vostochnaya**	**15.61**	**358**	⇑P	**Pn**	**17 04 12.1**	**-1.7**
	comp=Z,3.5nm,0.9s,baz=170,slow=15						
BVA0	**Borovoye Array**	**15.93**	**356**	⇑P	**Pn**	**17 04 16.8**	**-1.0**
	comp=Z,0.3nm,0.6s,baz=170,slow=15						
BVAR	**Borovoye Array**	**15.93**	**356**	P	**Pn**	**17 04 17.2**	**-0.6**
	comp=Z,0.6nm,0.3s,baz=164,slow=13,SNR=14						
BVAR				S	**S**	**17 07 07.6**	**-7.5**
	comp=Z,0.2nm,0.3s,baz=168,slow=22,SNR=4.1						
BRVK	**Borovoye**	**15.97**	**356**	*e*P	**Pn**	**17 04 17.7**	**-0.6**
RAMN	**Ramite**	**16.00**	**125**	*e*P	**Pn**	**17 04 18.7**	**-0.1**
	comp=Z,28nm,0.6s						
TAPN	**Taplejung**	**16.47**	**122**	*e*P	**Pn**	**17 04 24.8**	**+0.2**
	comp=Z,13nm,0.3s						
ODAN	**Odare**	**16.58**	**124**	*e*P	**Pn**	**17 04 26.2**	**+0.3**
	comp=Z,16nm,0.6s						
LSA	**Lhasa**	**17.61**	**109**	P	**Pn**	**17 04 41.6**	**+3.3**
LSA	**Lhasa**	**17.61**	**109**	*e*P	**Pn**	**17 04 41.5**	**+3.2**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LSA	**Lhasa**	**17.61**	**109**	*e*Pn	**Pn**	**17 04 41.5**	**+3.2**
	comp=Z,3.8nm,0.6s						
ZAA0	**Zalesovo Array**	**19.01**	**24**	*e*Pn	**Pn**	**17 04 52.6**	**-2.0**
ZALV	**Zalesovo Beam**	**19.01**	**24**	P	**P**	**17 04 52.7**	**+0.6**
	comp=Z,2.8nm,0.3s,baz=222,slow=10,SNR=114						
ZALV	**Zalesovo Beam**	**19.01**	**24**	P	**P**	**17 04 52.7**	**+0.6**
NVS	**Novosibirsk**	**19.31**	**20**	⇓*i*P	**P**	**17 04 55.9**	**+0.5**
NVS				pmax	pmax		
	comp=Z,15nm,1.0s						
NVS				pmax	pmax		
	comp=N,8.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,4.0nm,0.7s						
ARU	**Arti**	**21.31**	**339**	P	**P**	**17 05 16.5**	**-0.2**
ARU	**Arti**	**21.31**	**339**	P	**P**	**17 05 16.5**	**-0.2**
GTA	**Gaotai**	**21.93**	**75**	*e*PP		17 05 26.4	
GTA				pP	pP	17 06 00.1	+10
GTA				sP	sP	17 06 13.3	+3.9
GTA				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
SONM	**Songino Array**	**27.32**	**56**	P	**P**	**17 06 14.7**	**+2.0**
	comp=Z,1.4nm,0.6s,mb3.8,baz=270,slow=8.9,SNR=12						
ULN	**Ulaanbaatar**	**27.76**	**56**	*e*P	**P**	**17 06 18.1**	**+1.5**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
ULN	**Ulaanbaatar**	**27.76**	**56**	*e*P	**P**	**17 06 18.1**	**+1.5**
	comp=Z,1.8nm,0.6s,mb4.0						
BRTR	**Keskin Array B**	**30.01**	**287**	P	**P**	**17 06 37.6**	**+1.0**
	comp=Z,1.0nm,0.7s,mb3.7,baz=118,slow=10,SNR=9.0						
CMAR	**Chiang Mai Arr**	**30.08**	**121**	P	**P**	**17 06 40.3**	**+2.9**
	comp=Z,0.3nm,0.7s,mb3.2,baz=315,slow=10,SNR=3.8						
CSS	**Prodhromos**	**31.19**	**278**	P	**P**	**17 06 48.9**	**+1.8**
AKASG	**Malin Array Be**	**33.18**	**308**	P	**P**	**17 07 04.4**	**+0.2**
	comp=Z,0.6nm,0.4s,mb3.7,baz=101,slow=11,SNR=4.1						
ARCES	**ARCESS Array B**	**40.87**	**337**	P	**P**	**17 08 09.4**	**+0.6**
	comp=Z,2.6nm,0.9s,mb3.9,baz=111,slow=8.9,SNR=8.1						
NOA	**NORSAR Array B**	**44.36**	**323**	P	**P**	**17 08 37.0**	**0.0**
	comp=Z,1.0nm,0.6s,mb3.6,baz=96,slow=7.6,SNR=2.6						
KEST	**Kesra**	**49.59**	**288**	P	**P**	**17 09 17.6**	**-0.4**
	comp=Z,0.7nm,0.6s,mb3.4,baz=90,slow=2.0,SNR=3.7						
ESDC	**Sonseca Array**	**57.87**	**298**	P	**P**	**17 10 17.6**	**-0.4**
	comp=Z,0.5nm,0.4s,mb3.7,baz=62,slow=7.1,SNR=4.2						
TORD	**Torodi Ar. Bea**	**66.53**	**269**	P	**P**	**17 11 13.8**	**-2.3**
	comp=Z,0.7nm,0.5s,mb3.8,baz=50,slow=5.6,SNR=46						
TORD	**Torodi Ar. Bea**	**66.53**	**269**	P	**P**	**17 11 13.8**	**-2.3**
INK	**Inuvik**	**73.15**	**10**	P	**P**	**17 11 55.5**	**-0.2**
	comp=Z,0.4nm,0.5s,mb3.4,baz=316,slow=3.8,SNR=2.9						
INK	**Inuvik**	**73.15**	**10**	P	**P**	**17 11 55.5**	**-0.2**
YKA	**Yellowknife Ar**	**80.58**	**3**	P	**P**	**17 12 37.2**	**-0.1**
	comp=Z,0.5nm,0.6s,mb3.3,baz=348,slow=5.4,SNR=14						
YKA				pP	pP	17 13 20.7	+5.9
	comp=Z,0.3nm,0.7s,baz=347,slow=5.3,SNR=3.1						
YKA	**Yellowknife Ar**	**80.58**	**3**	P	**P**	**17 12 37.2**	**-0.1**
YKA				pP	pP	17 13 20.7	+5.9

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*ISCJB **23** 17:00:55.9±1.0, 26°.31S±0°.06×68°.9W±0°.1, h110^{km}±16^{km},
Error ellipse: s-maj=21.7km s-min=10.6km az=2.8*

*NEIC **23** 17:00:56.3±0.9, 26°.25S×68°.66W, h100^{km}±12^{km}, Error
ellipse: s-maj=28.7km s-min=10.3km az=100.0*

*IDC **23** 17:00:56.7±1.9, 26°.28S×68°.55W, h95^{km}±19^{km}, mb3.7/1,
mb1 3.8/5, mb1mx3.5/18, mbtmp3.7/5, Error ellipse:
s-maj=59.2km s-min=15.5km az=92.0*

ISC 23 17:00:57.2±0.9**,26°.30S**±0°.07×**68°.9W**±0°.1**,h107^{km}**±14^{km}**,
n13,**σ**0^{s}.70**/17**,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	**Las Campanas**	**3.15**	**210**	*e*Pn	**Pn**	**17 01 45.2**	**+0.2**
LCO				*e*Sn	**Sn**	**17 02 16.7**	**-5.3**
LVC	**Limon Verde**	**3.67**	**360**	P	**Pn**	**17 01 51.8**	**-0.3**
	36nm,0.3s,baz=184,slow=8.3,SNR=117						
LVC				S	**Sn**	**17 02 26.1**	**-8.5**
	48nm,0.3s,baz=196,slow=9.7,SNR=4.6						
LVC	**Limon Verde**	**3.67**	**360**	*e*Pn	**Pn**	**17 01 51.6**	**-0.5**
LVC				*e*Sn	**Sn**	**17 02 25.7**	**-8.9**
LVC				S	**Sn**	**17 02 26.1**	**-8.5**
CFAA	**Coronel Fontan**	**5.32**	**174**	P	**Pn**	**17 02 15.6**	**+1.3**
	1.7nm,0.3s,baz=350,slow=13,SNR=125						
CFAA				S	**Sn**	**17 03 13.3**	**-1.0**
	2.3nm,0.3s,baz=11,slow=12,SNR=17						
CFAA	**Coronel Fontan**	**5.32**	**174**	P	**Pn**	**17 02 15.6**	**+1.3**
CFAA				S	**Sn**	**17 03 13.3**	**-1.0**
CPUP	**Villa Florida**	**10.37**	**93**	P	**Pn**	**17 03 23.4**	**+0.5**
	0.5nm,0.3s,baz=257,slow=14,SNR=6.5						
SIV	**San Ignacio**	**12.57**	**37**	P	**Pn**	**17 03 48.2**	**-4.2**
	1.0nm,0.3s,baz=251,slow=11,SNR=20						
PLCA	**Paso Flores**	**14.46**	**185**	P	**Pn**	**17 04 16.9**	**+0.2**
	0.1nm,0.3s,baz=4.5,slow=13,SNR=4.1						
PLCA	**Paso Flores**	**14.46**	**185**	*e*Pn	**Pn**	**17 04 16.2**	**-0.5**
	3.4nm,0.9s						
MTDJ	**Mount Denham**	**45.05**	**348**	*e*P	**P**	**17 09 02.8**	**+0.4**
TORD	**Torodi Ar. Bea**	**78.98**	**69**	P	**P**	**17 12 49.4**	**-0.3**
	0.8nm,0.6s,baz=244,slow=3.7,SNR=4.1						
ZALV	**Zalesovo Beam**	**146.22**	**28**	PKPbc	PKPbc	17 20 24.2	-0.5
	0.7nm,0.6s,baz=323,slow=4.7,SNR=4.5						
MKAR	**Makanchi Array**	**149.37**	**41**	PKPbc	PKPbc	17 20 33.3	-0.1
	0.6nm,0.5s,baz=306,slow=2.6,SNR=15						

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*BJI **23** 17:11:29.7, 51°.10N×179°.30W, h25^{km}, mb4.4/5, Ms4.5/1,
Ms7 4.4/1*

*IDC **23** 17:11:30.9±1.4, 51°.67N×179°.23W, h0^{km}, mb3.7/11,
mb1 4.0/12, mb1mx3.8/26, mbtmp3.8/12, ML3.8/1, Error
ellipse: s-maj=45.0km s-min=17.2km az=180.0*

*NEIC **23** 17:11:32.1, 51°.11N×179°.31W, h26^{km}, mb3.9/1,
ML3.9(AEIC), After AEIC.*

*ISCJB **23** 17:11:35.1±1.1, 51°.5N±0°.1×179°.22W±0°.08, h50^{km}±9^{km},
mb4.1/19, Error ellipse: s-maj=21.8km s-min=7.8km
az=169.9*

ISC 23 17:11:36.8±1.1**,51°.7N**±0°.1×**179°.26W**±0°.09**,h39^{km}**±10^{km}**,
n37,**σ**1^{s}.01**/42**,mb4.1**/19**,Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	**Adak**	**1.61**	**82**	P	**Pn**	**17 12 01.5**	**-1.1**
ADK				S	**Sn**	**17 12 23.5**	**+1.3**
GSTR	**Great Sitkin T**	**2.02**	**77**	*e*Pn	**Pn**	**17 12 08.4**	**0.0**
ATKA	**Atka Island**	**3.17**	**79**	P	**Pn**	**17 12 22.9**	**-1.2**
ATKA				S	**Sn**	**17 13 04.0**	**+3.3**
SMY	**Shemya**	**4.22**	**287**	P	**Pn**	**17 12 38.5**	**+0.1**
NIKO	**Nikolski**	**6.50**	**75**	P	**Pn**	**17 13 09.6**	**-0.2**
SPIA	**Saint Paul Isl**	**7.59**	**40**	P	**Pn**	**17 13 29.9**	**+5.1**
UNV	**Unalaska Valle**	**8.03**	**69**	P	**Pn**	**17 13 32.2**	**+1.4**
SDPT	**Sand Point**	**11.75**	**65**	*e*P	**Pn**	**17 14 21.3**	**-0.4**
	172nm,1.5s						
GAMB	**Gambell**	**12.75**	**15**	*e*Pn	**Pn**	**17 14 41.4**	**+6.1**
	3.8nm,0.3s						
PETK	**Petropavlovsk-**	**14.13**	**285**	Pn	**Pn**	**17 15 01.0**	**+6.9**
	0.1nm,0.3s,baz=93,slow=14,SNR=5.1						
KDAK	**Kodiak Island**	**16.49**	**58**	Pn	**Pn**	**17 15 23.8**	**-1.2**
	0.4nm,0.3s,baz=10,slow=22,SNR=8.5						
KDAK				Sn	**Sn**	**17 18 26.0**	**-0.6**
	0.1nm,0.3s,baz=240,slow=20,SNR=2.5						
KDAK	**Kodiak Island**	**16.49**	**58**	Pn	**Pn**	**17 15 23.8**	**-1.2**
KDAK				Sn	**Sn**	**17 18 26.0**	**-0.7**
KTH	**Kantishna Hill**	**19.06**	**41**	*e*Pn	**Pn**	**17 15 57.2**	**+0.7**
	6.0nm,0.9s						
IMA2	**Indian Mountai**	**19.33**	**32**	*e*Pn	**Pn**	**17 16 00.5**	**+0.9**
INK	**Inuvik**	**27.36**	**35**	P	**P**	**17 17 17.0**	**-0.8**
	0.3nm,0.5s,mb3.1,baz=235,slow=9.9,SNR=3.4						
YKA	**Yellowknife Ar**	**35.22**	**47**	P	**P**	**17 18 26.0**	**-0.8**
	0.8nm,0.7s,mb3.8,baz=282,slow=8.0,SNR=11						
NVAR	**Mina Array Bea**	**43.80**	**83**	P	**P**	**17 19 39.6**	**+1.1**
	0.3nm,0.7s,mb3.2,baz=291,slow=11,SNR=2.4						
SONM	**Songino Array**	**46.25**	**296**	P	**P**	**17 19 59.2**	**+1.4**
	0.6nm,0.6s,mb3.7,baz=62,slow=7.2,SNR=5.0						
PDAR	**Pinedale Array**	**46.48**	**72**	P	**P**	**17 19 58.5**	**-1.3**
	1.9nm,0.6s,mb4.2,baz=300,slow=3.6,SNR=20						
NJ2	**Nanjing**	**48.52**	**271**	*e*P	**P**	**17 20 12.8**	**-2.9**

LZH	**Lanzhou**	**55.02**	**286**	*e*P	**P**	**17 21 01.5**	**-2.7**
LZH				LR	LR		
	comp=N,220nm,16.8s						
LZH				LR	LR		
	comp=Z,310nm,19.0s						
GTA	**Gaotai**	**55.19**	**291**	*e*P	**P**	**17 21 06.0**	**+0.7**
GTA				pP	pP	17 21 10.8	-5.9
GTA				sP	sP	17 21 13.1	-8.1
GTA				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
ARCES	**ARCESS Array B**	**57.73**	**350**	P	**P**	**17 21 23.4**	**+0.5**
	comp=Z,1.0nm,0.6s,mb4.0,baz=25,slow=7.4,SNR=5.6						
ARCES	**ARCESS Array B**	**57.73**	**350**	P	**P**	**17 21 23.4**	**+0.5**
TXAR	**Lajitas Array**	**58.89**	**81**	P	**P**	**17 21 31.9**	**+0.3**
	comp=Z,0.6nm,0.8s,mb3.7,baz=299,slow=3.7,SNR=5.2						
MKAR	**Makanchi Array**	**59.61**	**308**	P	**P**	**17 21 36.9**	**+0.5**
	comp=Z,0.3nm,0.4s,mb3.7,baz=54,slow=5.8,SNR=12						
GYA	**Guiyang**	**60.01**	**276**	P	**P**	**17 21 34.8**	**-4.6**
GYA				PP	PP	17 23 49.0	-2.8
GYA				ScP	ScP	17 26 20.4	-2.4
GYA				S	**S**	**17 29 43.6**	**-5.5**
KAF	**Kangasniemi**	**64.74**	**347**	*e*p	**P**	**17 22 09.5**	**-0.9**
	comp=Z,6.1nm,0.8s,mb4.7						
KSH	**Kashi**	**68.08**	**306**	*e*P	**P**	**17 22 37.0**	**+4.8**
KSH				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
CMAR	**Chiang Mai Arr**	**70.70**	**275**	P	**P**	**17 22 48.0**	**-0.6**
	comp=Z,0.6nm,1.0s,mb3.5,baz=14,slow=7.9,SNR=4.6						
GUN	**Gumba**	**71.47**	**292**	*e*P	**P**	**17 22 54.1**	**+0.9**
	comp=Z,8.7nm,0.4s,mb5.1						
RAMN	**Ramite**	**71.78**	**290**	*e*P	**P**	**17 22 55.4**	**+0.3**
	comp=Z,4.9nm,0.4s,mb4.8						
KKN	**Kakani**	**71.91**	**292**	*e*P	**P**	**17 22 56.5**	**+0.6**
	comp=Z,5.7nm,0.5s,mb4.7						
PKI	**Pulchoki**	**72.00**	**292**	*e*P	**P**	**17 22 57.3**	**+0.9**
	comp=Z,5.1nm,0.5s,mb4.7						
GKN	**Gorkha**	**72.12**	**293**	*e*P	**P**	**17 22 57.6**	**+0.5**
	comp=Z,4.8nm,0.5s,mb4.7						
AKASG	**Malin Array Be**	**75.16**	**342**	P	**P**	**17 23 13.9**	**-0.7**
	comp=Z,0.6nm,0.4s,mb3.9,baz=19,slow=7.0,SNR=4.8						
BRTR	**Keskin Array B**	**84.54**	**335**	P	**P**	**17 24 05.6**	**+0.1**
	comp=Z,0.7nm,0.7s,mb3.9,baz=29,slow=3.3,SNR=4.6						

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*NEIC **23** 17:23:16.1, 42°.40N×19°.78E, h0^{km}, ML2.9(PDG), After PDG.*
*THE **23** 17:23:16.7, 42°.37N×19°.62E, h8^{km}±4^{km}, Error ellipse: s-maj=10.0km s-min=1.1km az=257.0*
*PDG **23** 17:23:16.1±0.2, 42°.40N×19°.78E, h0^{km}±11^{km}, MD3.0/6, ML2.9/8, Error ellipse: s-maj=0.5km s-min=0.7km az=0.0*
*CSEM **23** 17:23:16.0±0.1, 42°.41N×19°.77E, h2^{km}, ML2.9/8, Error ellipse: s-maj=2.1km s-min=2.0km az=72.0*
*ISCJB **23** 17:23:16.2±0.2, 42°.42N±0°.01×19°.79E±0°.02, h10^{km}, Error ellipse: s-maj=2.2km s-min=1.9km az=150.0*
*BEO **23** 17:23:17.4±0.4, 42°.41N×19°.78E, h4^{km}±3^{km}, ML2.7/14*
ISC 23 17:23:16.5±0.3**, 42°.40N**±0°.02×**19°.79E**±0°.02**, h0**^{km}±3^{km}**, n80,** σ**1^{s}.08**/136**, 30C-10D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVY	**Plav**	**0.24**	**34**	⇑*i*Pg	**Pg**	**17 23 20.5**	**-0.5**
PVY				*e*Sg	**Sg**	**17 23 24.4**	**+0.3**
PVY	**Plav**	**0.24**	**34**	⇑*i*Pg	**Pg**	**17 23 20.5**	**-0.5**
PVY				*e*Sg	**Sg**	**17 23 24.4**	**+0.3**
PDG	**Podgorica**	**0.40**	**274**	⇑*i*Pg	**Pg**	**17 23 22.9**	**-1.1**
PDG				*e*Sg	**Sg**	**17 23 29.1**	**0.0**
TTG	**Podgorica**	**0.40**	**274**	⇑*i*Pg	**Pg**	**17 23 22.9**	**-1.1**
TTG				*e*Sg	**Sg**	**17 23 29.1**	**0.0**
TTG	**Podgorica**	**0.40**	**274**	⇑*i*Pg	**Pg**	**17 23 22.9**	**-1.1**
TTG				*e*Sg	**Sg**	**17 23 29.1**	**0.0**
BEY	**Berane**	**0.48**	**9**	⇑*i*Pg	**Pg**	**17 23 25.2**	**-0.4**
BEY				*e*Sg	**Sg**	**17 23 32.8**	**+1.0**
IVA	**Berane**	**0.48**	**9**	⇑*i*Pg	**Pg**	**17 23 25.2**	**-0.4**
IVA				*e*Sg	**Sg**	**17 23 32.8**	**+1.0**
IVA	**Berane**	**0.48**	**9**	⇑*i*Pg	**Pg**	**17 23 25.2**	**-0.4**
IVA				*e*Sg	**Sg**	**17 23 32.8**	**+1.0**
ULC	**Ulcinj**	**0.59**	**223**	⇑*i*Pg	**Pg**	**17 23 27.1**	**-0.7**
ULC				*e*Sg	**Sg**	**17 23 36.3**	**+0.8**
ULC	**Ulcinj**	**0.59**	**223**	⇑*i*Pg	**Pg**	**17 23 27.1**	**-0.7**
ULC				*e*Sg	**Sg**	**17 23 36.3**	**+0.8**
BUM	**Brajici-Budva**	**0.67**	**262**	⇑*i*Pg	**Pg**	**17 23 27.6**	**-1.7**
BUM				*e*Sg	**Sg**	**17 23 39.1**	**+1.1**
BUM	**Brajici-Budva**	**0.67**	**262**	⇑*i*Pg	**Pg**	**17 23 27.6**	**-1.7**
BUM				*e*Sg	**Sg**	**17 23 39.1**	**+1.1**
NKY	**Niksic**	**0.72**	**305**	⇓*i*Pg	**Pg**	**17 23 28.9**	**-1.3**
NKY				*e*Sg	**Sg**	**17 23 40.6**	**+1.1**
NKY	**Niksic**	**0.72**	**305**	⇓*i*Pg	**Pg**	**17 23 28.9**	**-1.3**
NKY				*e*Sg	**Sg**	**17 23 40.6**	**+1.1**
SJES	**Sjenica**	**0.87**	**9**	⇑*i*Pg	**Pg**	**17 23 32.1**	**-1.1**
SJES				*e*Sg	**Sg**	**17 23 44.5**	**0.0**
SJES	**Sjenica**	**0.87**	**9**	⇑*i*Pg	**Pg**	**17 23 32.1**	**-1.1**
SJES				*e*Sg	**Sg**	**17 23 44.5**	**0.0**
HCY	**Herceg Novi**	**0.96**	**273**	⇑*i*Pg	**Pg**	**17 23 33.6**	**-1.2**
HCY				*e*Sg	**Sg**	**17 23 49.1**	**+1.8**
HCY	**Herceg Novi**	**0.96**	**273**	⇑*i*Pg	**Pg**	**17 23 33.6**	**-1.2**
PLE	**Pljevlja**	**0.97**	**343**	⇑*i*Pg	**Pg**	**17 23 34.6**	**-0.6**
PLE				*e*Sg	**Sg**	**17 23 49.1**	**+1.3**
PLE	**Pljevlja**	**0.97**	**343**	⇑*i*Pg	**Pg**	**17 23 34.6**	**-0.6**
PLE				*e*Sg	**Sg**	**17 23 49.1**	**+1.3**
UPM	**Unac-Piva**	**1.03**	**321**	⇑*i*Pg	**Pg**	**17 23 35.6**	**-0.7**
UPM				*e*Sg	**Sg**	**17 23 51.6**	**+2.0**
UPM	**Unac-Piva**	**1.03**	**321**	⇑*i*Pg	**Pg**	**17 23 35.6**	**-0.7**
BRY	**Bratogost**	**1.05**	**299**	*e*Pg	**Pg**	**17 23 35.3**	**-1.3**
BRY				*e*Sg	**Sg**	**17 23 52.0**	**+1.9**
BRY	**Bratogost**	**1.05**	**299**	*e*Pg	**Pg**	**17 23 35.3**	**-1.3**
TIR	**Tirane**	**1.05**	**177**	P	**Pg**	**17 23 35.6**	**-1.0**
TIR				S	**Sg**	**17 23 51.6**	**+1.3**
TIR	**Tirane**	**1.05**	**177**	*i* Pg	**Pg**	**17 23 36.3**	**-0.3**
TIR				*e*Sg	**Sg**	**17 23 51.6**	**+1.3**
TIR	**Tirane**	**1.05**	**177**	*i* Pg	**Pg**	**17 23 36.3**	**-0.3**
TIR				*e*Sg	**Sg**	**17 23 51.6**	**+1.3**
SKO	**Skopje**	**1.30**	**109**	*i* Pg	**Pg**	**17 23 40.9**	**-0.4**
SKO				*e*Sg	**Sg**	**17 23 59.4**	**+1.3**
SKO	**Skopje**	**1.30**	**109**	*i* Pn	**Pn**	**17 23 41.0**	**-0.8**
SKO				*e*Sn	**Sn**	**17 24 00.9**	**+1.1**
SKO	**Skopje**	**1.30**	**109**	*i* Pg	**Pg**	**17 23 40.9**	**-0.4**
SKO				*e*Sg	**Sg**	**17 23 59.4**	**+1.3**
SKO				*e*Sn	**Sn**	**17 24 00.9**	**+1.1**
BBLS	**Lazići**	**1.49**	**349**	*e*Pn	**Pn**	**17 23 43.2**	**-1.3**
BBLS				*e*Sg	**Sg**	**17 24 05.2**	**+0.8**
OHR	**Ohrid**	**1.49**	**149**	P	**Pn**	**17 23 44.3**	**-0.2**
OHR				S	**Sg**	**17 24 04.6**	**+0.2**
OHR	**Ohrid**	**1.49**	**149**	*i* Pn	**Pn**	**17 23 44.2**	**-0.3**
OHR				*e*Sg	**Sg**	**17 24 05.6**	**+1.2**
OHR	**Ohrid**	**1.49**	**149**	*i* Pn	**Pn**	**17 23 44.5**	**0.0**
OHR				*e*Sn	**Sn**	**17 24 06.0**	**+1.3**
OHR	**Ohrid**	**1.49**	**149**	*i* Pn	**Pn**	**17 23 44.2**	**-0.3**
OHR				S	**Sg**	**17 24 04.6**	**+0.2**
OHR				*e*Sg	**Sg**	**17 24 05.6**	**+1.2**
OHR				*e*Sn	**Sn**	**17 24 05.9**	**+1.3**
KRUS	**Krusevo**	**1.50**	**133**	*i* Pn	**Pn**	**17 23 43.9**	**-0.6**
KRUS				*e*Sn	**Sn**	**17 24 05.2**	**+0.4**
KRUS	**Krusevo**	**1.50**	**133**	*i* Pn	**Pn**	**17 23 43.9**	**-0.7**
KRUS				*e*Sn	**Sn**	**17 24 05.2**	**+0.4**
BARS	**Barje**	**1.55**	**74**	⇑*i*Pn	**Pn**	**17 23 44.3**	**-1.0**
BARS	**Barje**	**1.55**	**74**	⇑*i*Pn	**Pn**	**17 23 45.6**	**+0.3**
BARS				*e*Sg	**Sg**	**17 24 05.8**	**-0.5**
BARS	**Barje**	**1.55**	**74**	⇑*i*Pn	**Pn**	**17 23 44.3**	**-1.0**
BARS				*e*Sg	**Sg**	**17 24 05.8**	**-0.5**
STON	**Ston**	**1.61**	**288**	*e*Pn	**Pn**	**17 23 45.5**	**-0.6**
STON				Sn	**Sn**	**17 24 11.7**	**+4.0**
STON	**Ston**	**1.61**	**288**	*e*Pn	**Pn**	**17 23 45.5**	**-0.7**
GRUS	**Gruza**	**1.63**	**24**	*e*Pn	**Pn**	**17 23 45.4**	**-1.1**
GRUS				*e*Sg	**Sg**	**17 24 09.6**	**+0.6**
GRUS	**Gruza**	**1.63**	**24**	*e*Pn	**Pn**	**17 23 45.4**	**-1.1**
DIVS	**Divibare**	**1.70**	**5**	P	**Pn**	**17 23 46.6**	**-0.8**
DIVS	**Divibare**	**1.70**	**5**	⇑*i*Pn	**Pn**	**17 23 46.6**	**-0.8**
DIVS				*e*Sg	**Sg**	**17 24 12.0**	**+0.8**
DIVS	**Divibare**	**1.70**	**5**	⇑*i*Pn	**Pn**	**17 23 46.6**	**-0.8**
DIVS				*e*Sg	**Sg**	**17 24 12.0**	**+0.8**
BIA	**Bitola**	**1.79**	**140**	P	**Pn**	**17 23 48.2**	**-0.4**
BIA				S	**Sn**	**17 24 12.9**	**+0.8**
BIA	**Bitola**	**1.79**	**140**	*e*Pn	**Pn**	**17 23 48.3**	**-0.3**
BIA				*e*Sg	**Sg**	**17 24 14.9**	**+0.8**
BIA	**Bitola**	**1.79**	**140**	*i* Pn	**Pn**	**17 23 49.9**	**+1.2**
BIA	**Bitola**	**1.79**	**140**	*e*Pn	**Pn**	**17 23 48.3**	**-0.3**
BIA				S	**Sn**	**17 24 12.9**	**+0.8**
BIA				*e*Sg	**Sg**	**17 24 14.9**	**+0.8**
TRUS	**Trudelj**	**1.88**	**14**	*i* Pg	**Pg**	**17 23 50.6**	**-1.8**
TRUS	**Trudelj**	**1.88**	**14**	*i* Pg	**Pg**	**17 23 50.6**	**-1.8**
FNA	**Florina**	**2.00**	**143**	P	**Pn**	**17 23 50.9**	**-0.6**
FNA				S	**Sn**	**17 24 17.7**	**+0.4**
FNA	**Florina**	**2.00**	**143**	P	**Pn**	**17 23 50.9**	**-0.6**
FNA				S	**Sn**	**17 24 17.7**	**+0.4**
BOLS	**Boljevac**	**2.13**	**47**	⇑*i*Pn	**Pg**	**17 23 56.3**	**-1.0**
BOLS	**Boljevac**	**2.13**	**47**	⇑*i*Pn	**Pg**	**17 23 56.3**	**-1.0**
SVIS	**Svilajnac**	**2.13**	**29**	⇑*i*Pn	**Pg**	**17 23 56.6**	**-0.8**
ZAPS	**Zavoj**	**2.27**	**66**	⇑*i*Pn	**Pn**	**17 23 54.7**	**-0.4**
ZAPS	**Zavoj**	**2.27**	**66**	⇑*i*Pn	**Pn**	**17 23 54.7**	**-0.4**
VAY	**Valandovo**	**2.34**	**117**	*e*Pn	**Pn**	**17 23 58.7**	**+2.6**
VAY	**Valandovo**	**2.34**	**117**	*e*Pn	**Pn**	**17 23 58.7**	**+2.6**
PE1	**Pezze di Greco**	**2.39**	**229**	*e*Pn	**Pn**	**17 23 56.6**	**-0.2**
PE1				*e*Sn	**Sn**	**17 24 25.5**	**-1.2**
GRG	**Griva**	**2.43**	**126**	P	**Pn**	**17 23 57.6**	**+0.2**
GRG	**Griva**	**2.43**	**126**	P	**Pn**	**17 23 57.6**	**+0.2**
BAI	**Bari**	**2.53**	**240**	*e*Pn	**Pn**	**17 23 57.8**	**-1.0**
BAI				*e*Sn	**Sn**	**17 24 29.2**	**-1.1**
SG1	**Sgolgore (BA)**	**2.81**	**237**	*e*Pn	**Pn**	**17 24 01.4**	**-1.2**
SG1				*e*Sn	**Sn**	**17 24 36.4**	**-0.7**
BZS	**Buzias**	**3.48**	**22**	⇓*i*P	**Pn**	**17 24 11.1**	**-0.6**
BZS	**Buzias**	**3.48**	**22**	⇓P	**Pn**	**17 24 11.1**	**-0.6**
GZR	**Gura Zlata**	**3.69**	**35**	⇓*i*P	**Pn**	**17 24 14.9**	**+0.2**
GZR	**Gura Zlata**	**3.69**	**35**	⇓P	**Pn**	**17 24 14.9**	**+0.2**
GZR	**Gura Zlata**	**3.69**	**35**	⇓P	**Pn**	**17 24 14.9**	**+0.2**
PKSM	**Moragy**	**3.90**	**348**	⇓*i*P	**Pn**	**17 24 16.7**	**-0.9**
PKSM	**Moragy**	**3.90**	**348**	⇓P	**Pn**	**17 24 16.7**	**-0.9**
PKSM	**Moragy**	**3.90**	**348**	⇓P	**Pn**	**17 24 16.7**	**-0.9**
NVLJ	**Novalja**	**4.18**	**303**	*e*Pn	**Pn**	**17 24 22.9**	**+1.4**
NVLJ				Sn	**Sn**	**17 25 14.3**	**+3.3**
NVLJ	**Novalja**	**4.18**	**303**	*e*Pn	**Pn**	**17 24 22.8**	**+1.3**
NVLJ				Sn	**Sn**	**17 25 14.2**	**+3.2**
JAVS	**Javornik**	**5.40**	**312**	*e*Pn	**Pn**	**17 24 40.3**	**+2.1**
JAVS				*e*Sn	**Sn**	**17 25 44.7**	**+3.7**
JAVS	**Javornik**	**5.40**	**312**	*e*Pn	**Pn**	**17 24 40.3**	**+2.1**
VOY	**Vojsko**	**5.58**	**313**	*e*(Pn)	**Pn**	**17 24 42.8**	**+2.1**
VOY				*e*(Sn)	**Sn**	**17 25 51.1**	**+5.6**

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*NEIC **23** 17:26:31.6±3.3, 7°.04S×155°.76E, h62^{km}±39^{km}, mb4.3/2, Error ellipse: s-maj=33.7km s-min=14.0km az=128.0*
*ISCJB **23** 17:26:36.6±4.1, 7°.1S±0°.2×155°.7E±0°.2, h120^{km}±47^{km}, mb3.9/11, Error ellipse: s-maj=37.5km s-min=15.3km az=142.4*
*IDC **23** 17:26:36.7±3.8, 7°.06S×155°.61E, h102^{km}±42^{km}, mb3.7/9, mb1 3.8/11, mb1mx3.7/19, mbtmp3.7/11, Error ellipse: s-maj=30.5km s-min=16.7km az=136.0*
ISC 23 17:26:37.5±3.9**, 7°.1S**±0°.2×**155°.6E**±0°.2**, h111**^{km}±45^{km}**, n19,** σ**0^{s}.77**/19**, mb3.9**/11**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**4.88**	**119**	P	**Pn**	**17 27 47.3**	**-1.4**
	5.0nm,0.3s,baz=219,slow=22,SNR=7.0						
HNR				S	**Sn**	**17 28 44.4**	**+0.2**
	5.7nm,0.3s,baz=81,slow=19,SNR=2.9						
HNR	**Honiara**	**4.88**	**119**	*e*Pn	**Pn**	**17 27 40.9**	**-7.8**
HNR				S	**Sn**	**17 28 44.4**	**+0.2**
CTA	**Charters Tower**	**15.84**	**214**	P	**Pn**	**17 30 15.6**	**+1.2**
	0.1nm,0.3s,baz=34,slow=16,SNR=3.6						
WRAB	**Tennant Creek**	**24.30**	**236**	*e*P	**P**	**17 31 44.6**	**-0.3**
	12nm,1.0s,mb4.2						
WRA	**Warramunga Arr**	**24.32**	**236**	P	**P**	**17 31 45.3**	**+0.2**
	7.1nm,0.9s,mb4.0,baz=62,slow=9.7,SNR=21						
ASAR	**Alice Springs**	**26.62**	**229**	P	**P**	**17 32 05.2**	**-0.6**
	1.3nm,0.7s,mb3.6,baz=58,slow=9.9,SNR=19						
ASAR				PcP	PcP	17 35 27.5	+0.2
	0.2nm,0.8s,baz=63,slow=3.1,SNR=4.2						
STKA	**Stephens Creek**	**27.97**	**206**	P	**P**	**17 32 18.2**	**+0.5**
	1.7nm,0.8s,mb3.6,baz=31,slow=7.6,SNR=3.0						
FITZ	**Fitzroy Crossi**	**31.22**	**247**	P	**P**	**17 32 45.1**	**-1.6**
	6.7nm,0.7s,mb4.5,baz=104,slow=7.8,SNR=11						
KULM	**Kulim**	**56.23**	**281**	P	**P**	**17 36 02.3**	**-4.4**
PETK	**Petropavlovsk-**	**59.95**	**1**	P	**P**	**17 36 32.6**	**+0.7**
	1.4nm,0.9s,mb4.0,baz=173,slow=8.4,SNR=3.3						
CMAR	**Chiang Mai Arr**	**61.38**	**295**	P	**P**	**17 36 43.1**	**+0.8**
	1.6nm,0.7s,mb4.2,baz=123,slow=5.5,SNR=21						
CHTO	**Chiang Mai**	**61.50**	**296**	P	**P**	**17 36 43.3**	**+0.2**
	1.3nm,0.7s,mb4.1						
SONM	**Songino Array**	**69.72**	**327**	P	**P**	**17 37 35.8**	**+0.4**
	0.7nm,0.5s,mb3.7,baz=144,slow=5.4,SNR=7.2						
MKAR	**Makanchi Array**	**83.86**	**319**	P	**P**	**17 38 54.7**	**-0.2**
	0.6nm,0.8s,mb3.5,baz=114,slow=4.3,SNR=6.2						
MKAR	**Makanchi Array**	**83.86**	**319**	P	**P**	**17 38 54.7**	**-0.2**
ZALV	**Zalesovo Beam**	**84.58**	**326**	P	**P**	**17 38 57.4**	**-0.9**
	0.7nm,0.6s,mb3.8,baz=144,slow=6.4,SNR=3.4						
ZALV	**Zalesovo Beam**	**84.58**	**326**	P	**P**	**17 38 57.4**	**-0.9**
TORD	**Torodi Ar. Bea**	**153.66**	**285**	PKPbc	PKPbc	17 46 24.3	-0.1
	0.5nm,0.7s,baz=63,slow=1.7,SNR=3.8						
TORD				PKPab	PKPab	17 46 37.5	0.0
	0.7nm,0.6s,baz=66,slow=3.8,SNR=5.5						
TORD	**Torodi Ar. Bea**	**153.66**	**285**	PKPbc	PKPbc	17 46 24.3	-0.1
TORD				PKPab	PKPab	17 46 37.5	0.0

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*CSEM **23** 17:32:05.2, 36°.28N×21°.63E, h5^{km}, MD3.6, After ATH*
*NEIC **23** 17:32:05.2, 36°.28N×21°.63E, h5^{km}, MD3.6(ATH), After ATH.*
ATH 23 17:32:05.2, 36°.28N×21°.63E, h5^{km}±5^{km}**, MD3.6**/12**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.62**	**8**	*e*PB	Pb	17 32 17.9	-0.6
PYL				*e*SB	Sg	17 32 27.1	+1.9
PYL	**PYLOS**	**0.62**	**8**	*e*Pb	Pb	17 32 17.9	-0.6
PYL				*e*Sb	Sg	17 32 27.1	+1.9
ITM	**Ithomi**	**0.93**	**15**	*e*PN	Pn	17 32 23.5	-1.4
ITM				*e*SB	Sb	17 32 36.1	-0.3
ITM	**Ithomi**	**0.93**	**15**	*e*Pn	Pn	17 32 23.5	-1.4
ITM				*e*Sb	Sb	17 32 36.1	-0.3
KYTH	**Kithira**	**1.14**	**90**	*e*PB	Pb	17 32 27.0	-0.3
KYTH	**Kithira**	**1.14**	**90**	*e*Pb	Pb	17 32 27.0	-0.3
VLI	**Veliai**	**1.14**	**67**	*e*PG	Pg	17 32 26.4	-0.7
VLI				*e*SB	Sb	17 32 43.6	+1.1
VLI	**Veliai**	**1.14**	**67**	*e*Pg	Pg	17 32 26.4	-0.7
VLI				*e*Sb	Sb	17 32 43.6	+1.1
VLX	**Vlachokerasia**	**1.24**	**29**	*e*PG	Pg	17 32 28.4	-0.6
VLX				*e*SB	Sb	17 32 45.9	+0.4
VLX	**Vlachokerasia**	**1.24**	**29**	*e*Pg	Pg	17 32 28.4	-0.6
VLX				*e*Sb	Sb	17 32 45.9	+0.4
GUR	**Goura**	**1.75**	**19**	*e*PG	Pg	17 32 37.8	-0.9
GUR	**Goura**	**1.75**	**19**	*e*Pg	Pg	17 32 37.8	-0.9
RLS	**Riolos of Patr**	**1.78**	**356**	*e*PG	Pg	17 32 38.5	-0.8
RLS	**Riolos of Patr**	**1.78**	**356**	*e*Pg	Pg	17 32 38.5	-0.8
LTK	**Loutraki**	**2.04**	**31**	*e*PN	Pn	17 32 42.5	+2.3
LTK	**Loutraki**	**2.04**	**31**	*e*Pn	Pn	17 32 42.5	+2.3
VLS	**Valsamata**	**2.07**	**337**	*e*PN	Pn	17 32 44.0	+3.4
VLS	**Valsamata**	**2.07**	**337**	*e*Pn	Pn	17 32 44.0	+3.4
VAM	**Vamos**	**2.26**	**112**	*e*PG	Pg	17 32 47.0	-1.6
VAM	**Vamos**	**2.26**	**112**	*e*Pg	Pg	17 32 47.0	-1.6
VLY	**Voula,Athens**	**2.34**	**47**	*e*PN	Pn	17 32 46.3	+2.0
VLY	**Voula,Athens**	**2.34**	**47**	*e*Pn	Pn	17 32 46.3	+2.0
PTL	**Penteli**	**2.51**	**45**	*e*PN	Pn	17 32 49.2	+2.6
PTL	**Penteli**	**2.51**	**45**	*e*Pn	Pn	17 32 49.2	+2.6
EVR	**Evrytania**	**2.64**	**3**	*e*PN	Pn	17 32 51.5	+3.1
EVR	**Evrytania**	**2.64**	**3**	*e*Pn	Pn	17 32 51.5	+3.1

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*NEIC **23** 17:39:52.6, 30°.28S×70°.29W, h89^{km}, MD4.0(GUC), After GUC.*
GUC 23 17:39:52.6±0.4**, 30°.28S×70°.29W, h89**^{km}±8^{km}**, MD4.0, ML4.1, 11C-1D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	**0.85**	**247**	⇑*i*P	Pn	17 40 10.9	+0.3
OVCH				*i* S	Sn	17 40 24.3	+0.4
OVCH	**Ovalle**	**0.85**	**247**	⇑*i*P	Pn	17 40 10.9	+0.3
OVCH				*i* S	Sn	17 40 24.3	+0.4
OVCH				AML	AML	17 40 25.9	
	comp=N,7µm,0.6s						
CMCH	**Combarbala**	**1.08**	**214**	⇑*i*P	Pn	17 40 13.4	+0.3
CMCH				*i* S	Sn	17 40 29.4	+0.9
CMCH	**Combarbala**	**1.08**	**214**	⇑*i*P	Pn	17 40 13.4	+0.3
CMCH				*i* S	Sn	17 40 29.4	+0.9
CMCH				AML	AML	17 40 31.2	
	comp=E,9µm,0.7s						
LCO	**Las Campanas**	**1.32**	**344**	*e*Pn	Pn	17 40 16.5	+0.4
LCO				*e*Sn	Sn	17 40 34.2	+0.5
CHNG	**Los Chungos**	**1.90**	**213**	⇓*i*P	Pn	17 40 23.7	+0.3
CHNG				*i* S	Sn	17 40 47.4	+0.5
PEL	**Peldehue**	**2.87**	**187**	*e*P	Pn	17 40 37.1	+0.7
PEL				*i* S	Sn	17 41 10.6	+0.6
PEL				AML	AML	17 41 20.8	
	comp=E,492nm,0.4s						
CPCH	**Copiapo**	**2.92**	**359**	⇑*i*P	Pn	17 40 37.4	+0.4
CPCH				*i* S	Sn	17 41 11.7	+0.6
CPCH	**Copiapo**	**2.92**	**359**	⇑*i*P	Pn	17 40 37.4	+0.4
CPCH				*i* S	Sn	17 41 11.7	+0.6
FCH	**Farellones**	**3.03**	**180**	⇑*i*P	Pn	17 40 41.5	+3.0
FCH				*i* S	Sn	17 41 17.5	+3.6
FCH				AML	AML	17 41 29.9	
	comp=E,432nm,0.3s						
ANTU	**Antumapu**	**3.29**	**185**	AML	AML	17 41 31.5	
	comp=N,362nm,0.5s						
PCH	**Pirque**	**3.33**	**183**	⇑*i*P	Pn	17 40 43.4	+0.8
PCH				*i* S	Sn	17 41 21.9	+0.8
PCH	**Pirque**	**3.33**	**183**	⇑*i*P	Pn	17 40 43.4	+0.8
PCH				*i* S	Sn	17 41 21.9	+0.8
TACH	**Talagante**	**3.40**	**189**	⇑*i*P	Pn	17 40 43.0	-0.5
TACH				*i* S	Sn	17 41 22.4	-0.5
TACH	**Talagante**	**3.40**	**189**	⇑*i*P	Pn	17 40 43.0	-0.5
TACH				*i* S	Sn	17 41 22.4	-0.5

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*ISCJB **23** 17:58:22.5±0.4, 57°.12S±0°.06×23°.5W±0°.1, h10^{km}, mb4.9/21, Error ellipse: s-maj=10.1km s-min=8.5km az=158.8*
*IDC **23** 17:58:22.9±0.5, 57°.06S×23°.57W, h0^{km}, mb4.8/12, mb1 4.8/12, mb1mx4.7/18, mbtmp4.8/12, Error ellipse: s-maj=18.4km s-min=15.7km az=147.0*
*NEIC **23** 17:58:24.1±0.2, 57°.03S×23°.53W, h10^{km}, mb5.0/11, Error ellipse: s-maj=9.3km s-min=7.5km az=174.0*
*BJI **23** 17:58:25.1, 57°.00S×23°.50W, h10^{km}, mB5.8/4*
*MOS **23** 17:58:26.7±1.1, 56°.99S×23°.79W, h33^{km}, mb5.1/6, Error ellipse: s-maj=29.5km s-min=20.8km az=92.3*
ISC 23 17:58:24.4±0.4**, 57°.14S**±0°.06×**23°.5W**±0°.1**, h10**^{km}**, n85,** σ**0^{s}.99**/44**, mb4.9**/21**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	**Neumayer Olymp**	**15.31**	**163**	*e*P	**Pn**	**18 01 59.8**	**-0.4**
VNA3				*e*S	**Sn**	**18 04 35.4**	**-14**
VNA2	**Neumayer--Watz**	**15.44**	**160**	*e*P	**Pn**	**18 02 01.7**	**-0.1**
	baz=323,slow=15						
VNA2				*e*S	**Sn**	**18 04 40.2**	**-12**
MAIT	**Maitri**	**20.20**	**146**	*e*P	**P**	**18 02 57.0**	**-1.8**
MAIT				*e*S	**S**	**18 06 54.1**	**+9.0**
NVL	**N'lazarevskaya**	**20.23**	**146**	P	**P**	**18 02 58.4**	**-0.7**
NVL				pmax	pmax		
	comp=Z,15nm,1.2s						
EFI	**East Falkland**	**20.68**	**271**	*e*P	**P**	**18 03 03.5**	**-0.7**
EFI				pmax	pmax		
	comp=Z,134nm,1.1s						
EFI	**East Falkland**	**20.68**	**271**	*e*P	**P**	**18 03 03.5**	**-0.8**
	comp=Z,134nm,1.1s						
PMSA	**Palmer Station**	**20.77**	**232**	P	**P**	**18 03 05.5**	**+0.5**
	comp=Z,61nm,0.7s,baz=77,slow=11,SNR=10						
USHA	**Ushuaia**	**24.89**	**256**	P	**P**	**18 03 47.7**	**+0.7**
	comp=Z,16nm,0.7s,mb4.7,baz=115,slow=12,SNR=9.4						
QSPA	**South Pole Qui**	**33.10**	**180**	P	**P**	**18 05 01.2**	**+1.4**
	comp=Z,7.9nm,0.8s,mb4.7,baz=217,slow=6.0,SNR=18						
QSPA	**South Pole Qui**	**33.10**	**180**	*e*P	**P**	**18 05 01.0**	**+1.2**
	comp=Z,20nm,1.2s,mb4.9						
PLCA	**Paso Flores**	**34.18**	**278**	P	**P**	**18 05 07.7**	**-1.9**
	comp=Z,5.4nm,0.8s,mb4.5,baz=142,slow=8.6,SNR=17						
PLCA	**Paso Flores**	**34.18**	**278**	P	**P**	**18 05 07.7**	**-1.9**
SUR	**Sutherland**	**39.03**	**70**	P	**P**	**18 05 52.0**	**+1.0**
	comp=Z,3.1nm,0.5s,mb4.3,baz=194,slow=8.3,SNR=7.0						
CPUP	**Villa Florida**	**39.08**	**308**	P	**P**	**18 05 52.0**	**+0.6**
	comp=Z,9.5nm,0.8s,mb4.6,baz=137,slow=7.7,SNR=23						
CPUP	**Villa Florida**	**39.08**	**308**	P	**P**	**18 05 52.0**	**+0.5**
BOSA	**Boshof**	**44.33**	**71**	*e*P	**P**	**18 06 34.4**	**0.0**
BOSA				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.9						
BOSA	**Boshof**	**44.33**	**71**	P	**P**	**18 06 34.6**	**+0.2**
	comp=Z,15nm,0.7s,mb4.8,baz=210,slow=7.5,SNR=31						
BOSA	**Boshof**	**44.33**	**71**	*e*P	**P**	**18 06 34.4**	**0.0**
	comp=Z,16nm,0.7s,mb4.8						
VNDA	**Vanda**	**45.56**	**182**	P	**P**	**18 06 45.6**	**+2.0**
	comp=Z,2.8nm,0.8s,mb4.3,baz=165,slow=6.4,SNR=4.5						
LVC	**Limon Verde**	**47.61**	**297**	*e*P	**P**	**18 07 00.7**	**+0.4**
	comp=Z,17nm,0.9s,mb5.1						
RCBR	**Riachuelo**	**52.10**	**344**	P	**P**	**18 07 33.5**	**-1.0**
	comp=Z,14nm,1.1s,mb4.8						
LSZ	**Lusaka**	**56.93**	**65**	*e*P	**P**	**18 08 09.6**	**0.0**
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
LSZ	**Lusaka**	**56.93**	**65**	*e*P	**P**	**18 08 09.6**	**-0.1**
	comp=Z,4.5nm,0.6s,mb4.7						
LIC	**Lamto**	**64.93**	**20**	*e*P	**P**	**18 09 03.8**	**-0.1**
	comp=Z,34nm,0.8s,mb5.4						
KIC	**Kosan Boka**	**65.12**	**21**	*e*P	**P**	**18 09 04.8**	**-0.3**
	comp=Z,268nm,1.6s,mb6.0						
TIC	**Toumodi**	**65.34**	**20**	*e*P	**P**	**18 09 06.4**	**-0.2**
	comp=Z,85nm,0.9s,mb5.8						
DBIC	**Dimbokro**	**65.40**	**20**	*e*P	**P**	**18 09 06.4**	**-0.6**
DBIC				pmax	pmax		
	comp=Z,14nm,0.9s						
DBIC	**Dimbokro**	**65.40**	**20**	P	**P**	**18 09 06.8**	**-0.2**
	comp=Z,12nm,0.8s,mb5.0,baz=149,slow=5.9,SNR=13						
DBIC	**Dimbokro**	**65.40**	**20**	*e*P	**P**	**18 09 06.4**	**-0.6**
	comp=Z,14nm,0.9s,mb5.0						
OTAV	**Otavalo**	**71.96**	**301**	*e*P	**P**	**18 09 51.1**	**+3.1**
	comp=Z,11nm,1.1s,mb4.7						
TORD	**Torodi Ar. Bea**	**73.08**	**26**	P	**P**	**18 09 54.6**	**+0.1**
	comp=Z,32nm,0.8s,mb5.3,baz=194,slow=6.4,SNR=203						
SDV	**Santo Domingo**	**76.24**	**312**	*e*P	**P**	**18 10 13.1**	**+0.2**
	comp=Z,10nm,0.8s,mb4.8						
TAM	**Tamanrasset**	**83.28**	**27**	*e*P	**P**	**18 10 52.9**	**+2.0**
TAM				*e*		18 11 02.9	
TAM				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.8						
TAM	**Tamanrasset**	**83.28**	**27**	*e*P	**P**	**18 10 52.9**	**+2.0**
	comp=Z,14nm,1.4s,mb4.8						
TAM				*e*		18 11 02.9	
JTS	**JuntasAbangare**	**83.82**	**300**	P	**P**	**18 10 52.0**	**-1.9**
NWAO	**Narrogin (SRO)**	**84.34**	**148**	*e*P	**P**	**18 10 56.2**	**-0.2**
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NWAO	**Narrogin (SRO)**	**84.34**	**148**	*e*P	**P**	**18 10 56.2**	**-0.3**
	comp=Z,6.1nm,0.7s,mb4.8						
STKA	**Stephens Creek**	**90.44**	**167**	P	**P**	**18 11 25.7**	**-0.2**
	comp=Z,6.2nm,1.0s,mb4.9,baz=165,slow=2.3,SNR=5.7						
STKA	**Stephens Creek**	**90.44**	**167**	P	**P**	**18 11 25.7**	**-0.2**
ASAR	**Alice Springs**	**97.29**	**159**	P	**P**	**18 11 57.7**	**+0.2**
ASAR						18 15 53.0	
ASAR	**Alice Springs**	**97.29**	**159**	P	**P**	**18 11 57.6**	**+0.2**
	comp=Z,1.4nm,0.8s,mb4.4,baz=180,slow=4.2,SNR=11						
ASAR				PP	PP	18 15 53.0	0.0
	comp=Z,0.6nm,0.8s,baz=203,slow=7.7,SNR=4.6						
ASAR				PKKPbc	PKKPbc	18 28 34.9	+1.6
	comp=Z,0.4nm,0.7s,baz=26,slow=2.4,SNR=6.4						
WRA	**Warramunga Arr**	**101.00**	**159**	P	Pdif	18 12 16.1	+1.9
	comp=Z,0.3nm,0.5s,baz=201,slow=4.5,SNR=3.1						
NB2	**NORSAR Subarra**	**120.95**	**19**	PKPdf	PKPdf	18 17 15.0	-0.4
	comp=Z,3.8nm,1.2s,baz=202,slow=1.9						
NOA	**NORSAR Array B**	**120.95**	**19**	PKP	PKPdf	18 17 13.8	-1.5
	comp=Z,1.7nm,0.8s,baz=110,slow=4.1,SNR=3.8						
KOLN	**Koldanda**	**122.05**	**88**	*e*P	PKPdf	18 17 18.1	-0.5
	comp=Z,28nm,0.8s						
ULM	**Lac du Bonnet**	**122.46**	**314**	PKP	PKPdf	18 17 17.1	-1.5
	comp=Z,1.5nm,0.5s,baz=112,slow=2.6,SNR=3.4						
DANN	**Dangsing**	**122.59**	**87**	*e*P	PKPdf	18 17 19.5	-0.1
	comp=Z,35nm,0.7s						
PDAR	**Pinedale Array**	**122.65**	**299**	PKP	PKPdf	18 17 18.8	-0.5
	comp=Z,0.7nm,0.6s,baz=142,slow=6.0,SNR=6.6						
DMN	**Daman**	**122.74**	**89**	*e*P	PKPdf	18 17 19.7	-0.3
	comp=Z,22nm,0.9s						
CMAR	**Chiang Mai Arr**	**122.78**	**108**	PKP	PKPdf	18 17 20.3	0.0
	comp=Z,4.5nm,0.8s,baz=232,slow=3.8,SNR=35						
GKN	**Gorkha**	**122.80**	**88**	*e*P	PKPdf	18 17 19.3	-0.8
	comp=Z,26nm,0.9s						
PKI	**Pulchoki**	**122.88**	**89**	*e*P	PKPdf	18 17 19.8	-0.4
	comp=Z,14nm,0.7s						
KKN	**Kakani**	**122.98**	**89**	*e*P	PKPdf	18 17 19.7	-0.7
	comp=Z,12nm,0.6s						
RAMN	**Ramite**	**123.04**	**91**	*e*P	PKPdf	18 17 20.7	+0.2
	comp=Z,29nm,0.7s						
ODAN	**Odare**	**123.40**	**92**	*e*P	PKPdf	18 17 21.3	+0.1
	comp=Z,22nm,0.8s						
GUN	**Gumba**	**123.40**	**89**	*e*P	PKPdf	18 17 20.9	-0.3
	comp=Z,24nm,0.8s						

NVAR	Mina Array Bea	123.69	290	PKP	PKPdf	18 17 22.6	+1.2
	comp=Z,0.4nm,0.5s,baz=158,slow=3.4,SNR=5.6						
TAPN	Taplejung	123.96	91	eP	PKPdf	18 17 22.3	0.0
	comp=Z,8.1nm,0.8s						
SHL	Shillong	124.82	96	ePKP	PKPdf	18 17 25.0	+1.0
KAF	Kangasniemi	125.06	26	ep	PKPdf	18 17 22.1	-1.2
	comp=Z,5.1nm,0.7s						
KSH	Kashi	126.92	73	PKP	PKPdf	18 17 27.5	-0.1
KSH				esPKP		18 17 39.3	
KSH				AMB	AMB		
	comp=Z,410nm,4.4s						
JOF	Joensuu	126.99	28	ep	PKPdf	18 17 25.9	-1.0
	comp=Z,10nm,0.8s						
LSA	Lhasa	127.67	93	PKP	PKPdf	18 17 30.4	+1.1
LSA	Lhasa	127.67	93	ePKPdf	PKPdf	18 17 30.5	+1.2
TKM2	Tokmak 2	129.21	69	ePKIKP	PKPdf	18 17 31.5	-0.3
ARCES	ARCESS Array B	131.23	21	PKP	PKPdf	18 17 34.9	+0.1
	comp=Z,2.6nm,0.5s,baz=216,slow=1.3,SNR=23						
MK31	Makanchi Array	135.32	70	ePKIKP	PKPdf	18 17 42.0	-1.2
MKAR	Makanchi Array	135.32	70	PKhKP		18 17 35.9	
	comp=Z,0.4nm,0.6s,baz=281,slow=0.8,SNR=5.0						
MKAR				PKP	PKPdf	18 17 42.4	-0.8
	comp=Z,1.8nm,0.9s,baz=238,slow=1.3,SNR=10						
MKAR	Makanchi Array	135.32	70	PKP		18 17 35.9	
MKAR				PKP	PKPdf	18 17 42.4	-0.8
YKA	Yellowknife Ar	138.36	316	PKhKP		18 17 38.3	
	comp=Z,0.4nm,0.7s,baz=116,slow=2.4,SNR=8.6						
YKA				PKP	PKPdf	18 17 48.2	-0.1
	comp=Z,3.2nm,0.7s,baz=125,slow=2.3,SNR=40						
YKA				PP	PP	18 20 38.8	-0.3
	comp=Z,0.6nm,0.9s,baz=133,slow=6.2,SNR=6.1						
YKA	Yellowknife Ar	138.36	316	PKP		18 17 38.3	
YKA				PKP	PKPdf	18 17 48.2	-0.1
YKA				PP	PP	18 20 38.8	-0.4
LZH	Lanzhou	139.42	98	ePKP	PKPdf	18 17 53.0	+1.8
LZH				AMB	AMB		
	comp=Z,59nm,4.3s						
ZALV	Zalesovo Beam	141.03	63	PKhKP		18 17 47.2	
	comp=Z,1.5nm,0.5s,baz=264,slow=3.8,SNR=8.8						
ZALV				PKP	PKPdf	18 17 55.5	+2.1
	comp=Z,1.4nm,0.7s,baz=264,slow=1.5,SNR=6.2						
BTO	Baotou	146.03	99	ePKPbc	PKPbc	18 18 03.3	-0.3
MOY	Mondy	148.02	76	ePKIKP	PKPdf	18 18 05.1	-0.5
ZAK	Zakamensk	148.54	79	ePKIKP	PKPdf	18 18 05.8	-0.7
ZAK				pmax	pmax		
	comp=Z,14nm,1.0s						
SONM	Songino Array	148.77	86	PKPbc	PKPbc	18 18 10.4	-0.4
	comp=Z,15nm,0.8s,baz=220,slow=2.6,SNR=24						
ULN	Ulaanbaatar	149.15	86	ePKP2	PKPbc	18 18 11.2	-0.6
TLY	Talaya	149.43	77	ePKPbc	PKPbc	18 18 12.8	+0.4
TLY				e		18 18 22.9	
MENT	Mentasta	150.57	306	ePKPbc	PKPbc	18 18 15.4	+0.6
KSRS	Korea Array	152.71	124	PKPbc	PKPbc	18 18 20.4	-0.1
	comp=Z,2.8nm,0.8s,baz=179,slow=1.8,SNR=5.8						
KSRS				PKPab	PKPab	18 18 30.9	-0.5
	comp=Z,4.1nm,1.0s,baz=212,slow=7.8,SNR=4.5						
MCK	McKinley	153.05	307	ePKIKP	PKPbc	18 18 20.5	+0.1
MJAR	Matsushiro Arr	156.04	142	PKPab	PKPab	18 18 44.7	-0.8
	comp=Z,4.3nm,1.1s,baz=186,slow=5.3,SNR=4.8						
MJAR	Matsushiro Arr	156.04	142	PKPab	PKPab	18 18 44.7	-0.8
YAK	Yakutsk	165.63	59	ePKP2	PKPab	18 19 26.0	-0.7
YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s						

CASC 23 18:05:16.8±1.1, 9°.32N×82°.71W, h6^{km}±6^{km}, MD3.6, 1C, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNI	Changuinola	0.22	62	eP	Pg	18 05 21.8	+0.7
CNI				eS	Sg	18 05 25.0	+1.0
BAR1		0.60	263	⇑eP	Pg	18 05 29.0	+0.7
BAR1				eS	Sg	18 05 38.0	+1.9
ACR	Cerro Adams	0.80	214	eP	Pg	18 05 31.8	-0.3
ACR				eS	Sg	18 05 43.4	+0.9
BUS	Buena Vista	1.06	283	eP	Pg	18 05 37.0	-0.1
BUS				eS	Sg	18 05 52.3	+1.4
URSC	Urasca	1.17	296	eP	Pg	18 05 38.3	-1.0
URSC				eS	Sg	18 05 55.0	+0.4
LCR2	La Lucha 2	1.34	289	eP	Pn	18 05 24.2	-18
LCR2				eS	Sb	18 05 59.8	0.0
PRS1	Puriscal	1.71	293	eP	Pn	18 05 47.5	+0.4
PRS1				eS	Sn	18 06 11.6	+2.2

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*ISCJB **23** 18:07:31.7±0.3, 43°.18N±0°.02×18°.93E±0°.03, h11^{km}±3^{km}, Error ellipse: s-maj=3.9km s-min=2.9km az=39.4*
*CSEM **23** 18:07:31.8±0.1, 43°.19N×18°.91E, h8^{km}, ML2.4/8, Error ellipse: s-maj=2.4km s-min=1.6km az=114.0*
*BEO **23** 18:07:31.9±1.5, 43°.14N×18°.89E, h11^{km}±6^{km}, ML2.6/6*
*PDG **23** 18:07:32.7±0.2, 43°.16N×18°.96E, h6^{km}±1^{km}, MD2.5/4, ML2.4/8, Error ellipse: s-maj=0.4km s-min=0.7km az=0.0*

ISC 23 18:07:32.5±0.3, 43°.18N±0°.02×18°.93E±0°.03, h9^{km}±3^{km}, n46, σ0^{s}90/75, 8C-26D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UPM	Unac-Piva	0.02	329	⇑iPg	Pg	18 07 34.0	-0.1
UPM				eSg	Sg	18 07 35.4	+0.1
UPM	Unac-Piva	0.02	329	⇑iPg	Pg	18 07 34.0	-0.1
UPM				eSg	Sg	18 07 35.4	+0.1
PLE	Pljevlja	0.37	67	⇓iPg	Pg	18 07 39.4	-0.4
PLE				eSg	Sg	18 07 45.7	+1.0
PLE	Pljevlja	0.37	67	⇓iPg	Pg	18 07 39.4	-0.4
PLE				eSg	Sg	18 07 45.7	+1.0
NKY	Niksic	0.38	172	⇓iPg	Pg	18 07 39.1	-0.7
NKY				eSg	Sg	18 07 44.8	0.0
NKY	Niksic	0.38	172	⇓iPg	Pg	18 07 39.1	-0.7
NKY				eSg	Sg	18 07 44.8	0.0
BRY	Bratogost	0.40	225	⇓iPg	Pg	18 07 39.5	-0.8
BRY				eSg	Sg	18 07 45.8	+0.3
BRY	Bratogost	0.40	225	⇓iPg	Pg	18 07 39.5	-0.8
BRY				eSg	Sg	18 07 45.8	+0.3
BBLS	Lazići	0.77	27	⇓iPg	Pg	18 07 46.8	-0.4
BBLS				eSg	Sg	18 07 58.7	+1.5
BBLS	Lazići	0.77	27	⇓iPg	Pg	18 07 46.8	-0.4
BBLS				eSg	Sg	18 07 58.7	+1.5
SJES	Sjenica	0.77	84	i Pg	Pg	18 07 46.3	-1.0
SJES				eSg	Sg	18 07 57.0	-0.3
BEY	Berane	0.78	113	⇑iPg	Pg	18 07 46.7	-0.8
BEY				eSg	Sg	18 07 58.2	+0.6
IVA	Berane	0.78	113	⇑iPg	Pg	18 07 46.7	-0.8
IVA				eSg	Sg	18 07 58.2	+0.6
PDG	Podgorica	0.79	162	⇓iPg	Pg	18 07 46.5	-1.3
PDG				eSg	Sg	18 07 58.5	+0.4
TTG	Podgorica	0.79	162	⇓iPg	Pg	18 07 46.5	-1.3
TTG				eSg	Sg	18 07 58.5	+0.4
HCY	Herceg Novi	0.80	203	⇓iPg	Pg	18 07 47.6	-0.3
HCY				eSg	Sg	18 07 59.9	+1.6
HCY	Herceg Novi	0.80	203	⇓iPg	Pg	18 07 47.6	-0.3
HCY				eSg	Sg	18 07 59.9	+1.6
BUM	Brajici-Budva	0.88	181	⇓iPg	Pg	18 07 48.5	-1.0
BUM				eSg	Sg	18 08 02.0	+1.1
BUM	Brajici-Budva	0.88	181	⇓iPg	Pg	18 07 48.5	-1.0
BUM				eSg	Sg	18 08 02.0	+1.1
STON	Ston	0.95	251	ePg	Pg	18 07 49.2	-1.6
STON				Sg	Sg	18 08 03.6	+0.5
STON	Ston	0.95	251	ePg	Pg	18 07 49.2	-1.6
STON				Sg	Sg	18 08 03.6	+0.5
PVY	Plav	0.97	127	⇓iPg	Pg	18 07 49.9	-1.2
PVY				eSg	Sg	18 08 04.5	+0.8
PVY	Plav	0.97	127	⇓iPg	Pg	18 07 49.9	-1.2
PVY				eSg	Sg	18 08 04.5	+0.8
DIVS	Divibare	1.20	40	⇓iPg	Pg	18 07 54.6	-0.9
DIVS				eSg	Sg	18 08 12.2	+1.2
DIVS	Divibare	1.20	40	⇓iPg	Pg	18 07 54.6	-0.9
DIVS				eSg	Sg	18 08 12.2	+1.2
ULC	Ulcinj	1.24	169	⇑iPg	Pg	18 07 55.7	-0.6
ULC				eSg	Sg	18 08 14.3	+1.8
ULC	Ulcinj	1.24	169	⇑iPg	Pg	18 07 55.7	-0.6
ULC				eSg	Sg	18 08 14.3	+1.8
GRUS	Gruza	1.48	61	i Pn	Pn	18 07 58.8	-0.5
GRUS	Gruza	1.48	61	ePn	Sg	18 08 20.8	+0.7
GRUS	Gruza	1.48	61	i Pn	Pn	18 07 58.8	-0.5
TRUS	Trudelj	1.49	45	⇓iPn	Pn	18 07 58.4	-1.1
TRUS	Trudelj	1.49	45	⇓iPn	Pn	18 07 58.4	-1.1
BARS	Barje	2.15	99	⇑iPn	Pn	18 08 09.0	+0.5
BARS	Barje	2.15	99	⇑iPn	Pn	18 08 09.0	+0.5
BOLS	Boljevac	2.29	73	ePn	Pn	18 08 10.5	0.0
BOLS	Boljevac	2.29	73	ePn	Pn	18 08 10.5	0.0
PKSM	Moragy	3.03	356	⇓iP	Pn	18 08 20.2	-0.4
PKSM	Moragy	3.03	356	⇓iP	Pn	18 08 20.2	-0.4
BZS	Buzias	3.10	37	⇓iP	Pn	18 08 21.2	-0.4
BZS	Buzias	3.10	37	⇓iP	Pn	18 08 21.2	-0.4
NVLJ	Novalja	3.24	297	ePn	Pn	18 08 22.4	-1.0
NVLJ				Sn	Sn	18 09 03.8	+1.7
NVLJ	Novalja	3.24	297	ePn	Pn	18 08 22.4	-1.0
NVLJ				Sn	Sn	18 09 03.8	+1.7
GZR	Gura Zlata	3.54	50	⇓iP	Pn	18 08 27.5	-0.1
GZR	Gura Zlata	3.54	50	⇓iP	Pn	18 08 27.5	-0.1
CRES	Cresnjev	3.62	318	i Pn	Pn	18 08 30.2	+1.5
CRES	Cresnjev	3.62	318	Pn	Pn	18 08 30.2	+1.5

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*IDC **23** 18:14:11.2±0.6, 23°.08N×121°.60E, h0^{km}, mb4.0/14, mb1 4.2/15, mb1mx4.1/23, mbtmp4.1/15, ML3.8/1, Error ellipse: s-maj=21.3km s-min=15.0km az=69.0*
*NEIC **23** 18:14:12.9±1.1, 23°.05N×121°.49E, h10^{km}±6^{km}, mb4.3/10, ML4.7(TAP), Error ellipse: s-maj=9.0km s-min=7.0km az=109.0*
NEIC Recorded [3 TAP] in Hua-lien and T'ai-tung; [1 TAP] in Kao-hsiung.
*ISCJB **23** 18:14:14.1±0.3, 23°.02N±0°.02×121°.42E±0°.02, h22^{km}±2^{km}, mb4.1/24, Error ellipse: s-maj=2.9km s-min=2.2km az=135.5*
*TAP **23** 18:14:15.1, 23°.09N×121°.30E, h14^{km}, ML4.6, B*
*JMA **23** 18:14:15.3±0.2, 22°.95N×121°.44E, h51^{km}, M4.2*
*BJI **23** 18:14:20.1, 23°.34N×120°.89E, h10^{km}, mB4.8/1, mb4.3/9, ML4.1/6*

ISC 23 18:14:14.1±0.3, 23°.04N±0°.01×121°.40E±0°.01, h13^{km}±1^{km}, n129, σ1^{s}10/183, mb4.0/24, 21C-11D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHKT	Chengkung	0.06	329	⇓iP	Pg	18 14 18.4	+1.6
	baz=84						
CHKT				eS	Sg	18 14 20.6	+1.9
	baz=84						
TWF1	Yuli	0.32	343	⇑iP	Pg	18 14 21.1	+0.4
	baz=345						
TWF1				eS	Sg	18 14 25.4	+0.2
	baz=345						
YULB	Yu-li	0.36	345	ePg	Pg	18 14 21.2	-0.2
YULB				eSg	Sg	18 14 26.0	-0.3
TTN	Taitung	0.37	219	⇑P	Pg	18 14 23.3	+1.7
	baz=194						
TTN				eS	Sg	18 14 30.2	+3.6
	baz=194						
TWG	Pinlang	0.38	234	ePg	Pg	18 14 21.9	+0.2
TWG				eSg	Sg	18 14 27.7	+0.9
TWG	Pinlang	0.38	234	⇓iP	Pg	18 14 22.4	+0.7
	baz=230						
TWG				eS	Sg	18 14 27.7	+0.9
	baz=230						
ELDTW	Lidau	0.38	292	⇑iP	Pg	18 14 21.2	-0.6
	baz=290						
ELDTW				S	Sg	18 14 25.4	-1.6
	baz=290						
EHY	Hungye	0.47	351	⇑iP	Pg	18 14 23.4	0.0
	baz=350						
EHY				S	Sg	18 14 29.9	+0.3
	baz=350						
STYT	Tauyuan	0.60	281	⇑iP	Pg	18 14 25.4	-0.6
	baz=283						
STYT				S	Sg	18 14 32.5	-1.5
	baz=283						
YUS	Yu-Shan	0.61	317	⇑iP	Pg	18 14 25.8	-0.2
	baz=320						
YUS				eS	Sg	18 14 32.5	-1.5
	baz=320						
ECL	Taimali	0.61	223	⇓iP	Pg	18 14 25.8	-0.2
	baz=216						
TEGC	Jichi Village	0.67	11	eP	Pg	18 14 28.2	+0.9
	baz=30						
TEGC				eS	Sg	18 14 39.3	+3.1
	baz=30						
ALS	Alishan	0.72	310	⇑iP	Pg	18 14 27.9	-0.2
	baz=312						
ALS				eS	Sg	18 14 35.7	-1.9
	baz=312						
WTP	Ta-pu	0.75	286	⇑iP	Pg	18 14 28.5	-0.2
	baz=283						
WTP				eS	Sg	18 14 37.9	-0.8
	baz=283						
SGST	Jiashian	0.76	273	⇑iP	Pg	18 14 28.8	+0.1
	baz=269						
SGST				eS	Sg	18 14 38.2	-0.5
	baz=269						
TPUB	Ta-pu	0.76	290	ePg	Pg	18 14 27.9	-0.8
TPUB				eSg	Sg	18 14 38.0	-0.7
ESL	Shilin	0.77	2	⇓P	Pg	18 14 27.9	-1.1
	baz=359						
ESL				eS	Sg	18 14 39.4	+0.2
	baz=359						
SSD	Sandimen	0.77	247	⇓iP	Pg	18 14 28.3	-0.8
	baz=237						
SSD				S	Sg	18 14 37.1	-2.0
	baz=237						
CHN4	Tsaushan	0.80	292	⇑iP	Pg	18 14 29.6	-0.1
	baz=298						
CHN4				eS	Sg	18 14 40.1	-0.2
	baz=298						
CHN1	Nanshi	0.82	280	⇑iP	Pg	18 14 30.1	+0.1
	baz=277						
CHN1				S	Sg	18 14 40.8	+0.1
	baz=277						
TAW	Tawu	0.83	214	⇓P	Pg	18 14 29.6	-0.6
	baz=218						
TAW				eS	Sg	18 14 39.9	-1.1
	baz=218						
ESF	Shoufeng Towns	0.83	7	eP	Pg	18 14 31.0	+0.8
	baz=358						
EAST	Anshuo	0.83	218	⇓eP	Pg	18 14 28.5	-1.8
	baz=216						
SSLB	Suanglung	0.85	331	ePg	Pg	18 14 29.4	-1.2
SSLB				eSg	Sg	18 14 39.2	-2.5
TWK	Hsinying	0.87	285	⇑P	Pg	18 14 30.7	-0.2
	baz=283						
TWK				eS	Sg	18 14 42.1	-0.2
	baz=283						
SGLT	Jiouru	0.90	249	eP	Pg	18 14 32.5	+1.0
	baz=245						
TWM1	Shoushan	0.93	257	⇓eP	Pb	18 14 33.1	+1.0
	baz=254						
HWA	Hwalien	0.95	11	eP	Pb	18 14 32.1	-0.3
	baz=2.0						
HWA				eS	Sg	18 14 46.5	+1.7
	baz=2.0						
SMLT	Sun Moon Lake	0.95	331	⇑iP	Pb	18 14 32.0	-0.5
	baz=340						
SMLT				eS	Sb	18 14 43.7	-1.3
	baz=340						
CHN3	Shinhua	0.95	272	⇓P	Pb	18 14 33.7	+1.2
	baz=281						
CHN3				eS	Sb	18 14 47.8	+2.7
	baz=281						
CHN2	Minshiung	0.98	300	⇑P	Pb	18 14 33.4	+0.4
	baz=301						
CHN2				eS	Sb	18 14 46.5	+0.7
	baz=301						
SCZT	Fangliau	0.98	227	⇓iP	Pb	18 14 32.6	-0.4
	baz=219						
TYC	Yuchr	0.99	330	P	Pb	18 14 32.6	-0.5
	baz=336						
TYC				eS	Sb	18 14 47.5	+1.3
	baz=336						
WGK	Gukeng	1.00	310	⇑iP	Pb	18 14 33.7	+0.4
	baz=325						
WGK				eS	Sb	18 14 47.0	+0.5
	baz=325						
CHY	Chiayi	1.01	297	⇑P	Pb	18 14 33.2	-0.2
	baz=296						
CHY				eS	Sb	18 14 46.9	+0.3
	baz=296						
LAY	Lan-yu	1.01	172	eP	Pb	18 14 32.8	-0.6
	baz=163						
TWD	Chiawan	1.05	10	eP	Pb	18 14 32.5	-1.6
	baz=2.0						
TWD				eS	Sb	18 14 49.0	+1.3
	baz=2.0						
WNT	Mingjian	1.06	322	⇑iP	Pb	18 14 34.8	+0.5
	baz=324						
WNT				S	Sb	18 14 48.6	+0.5
	baz=324						
TAI1	Yung-k'ang	1.08	270	⇓P	Pb	18 14 35.7	+1.0
	baz=268						
TAI1				S	Sb	18 14 50.5	+1.8
	baz=268						
WHF	Hehuan Shan	1.10	354	eP	Pb	18 14 33.9	-1.2
	baz=357						
WHF				eS	Sb	18 14 48.7	-0.7
	baz=357						
KAU	Kaohsiung	1.11	245	eP	Pb	18 14 36.8	+1.5
	baz=246						
SCLT	Jiali	1.12	277	eP	Pb	18 14 35.7	+0.4
	baz=285						
SCLT				eS	Sb	18 14 51.5	+1.8
	baz=285						
CHN8	Yiju	1.14	286	⇑P	Pb	18 14 35.7	+0.1
	baz=284						
CHN8				S	Sb	18 14 50.7	+0.4
	baz=284						
NACB	Ninganchiao	1.14	9	ePn	Pn	18 14 33.4	-2.4
NACB				eSn	Sn	18 14 49.4	-1.8
TWP	Hsiaoliuchiu	1.18	234	eP	Pn	18 14 38.7	+2.3
	baz=221						
HEN	Hengchun	1.20	211	eP	Pn	18 14 37.3	+0.7
	baz=214						
TWT	Tachien	1.22	350	eP	Pn	18 14 36.4	-0.5
	baz=346						
TWK1	Hengchun	1.23	207	eP	Pn	18 14 36.4	-0.6
	baz=210						
TSEB	Hengchuen, Pin	1.23	202	eP	Pn	18 14 35.7	-1.3
	baz=196						
WSF	Szhu	1.23	299	⇑iP	Pn	18 14 37.2	+0.2
	baz=300						
WSF				eS	Sb	18 14 53.1	0.0
	baz=300						
TCU	Taichung	1.28	329	eP	Pn	18 14 38.4	+0.6
	baz=331						
TCU				eS	Sb	18 14 56.2	+1.6
	baz=331						
WTCT	Ta-ch'eng	1.31	309	P	Pn	18 14 38.3	+0.2
	baz=310						
WTCT				eS	Sb	18 14 54.6	-0.8
	baz=310						
NNS	Nan Shan	1.39	359	eP	Pn	18 14 38.5	-0.7
	baz=7.0						
ENA	Nanau	1.41	13	eP	Pn	18 14 40.3	+0.8
	baz=357						
TWQ1	Liyutan	1.42	336	⇑iP	Pn	18 14 41.1	+1.5
	baz=338						
TWQ1				eS	Sn	18 14 59.9	+1.7
	baz=338						
ENTT	Nioudou	1.60	5	eP	Pn	18 14 41.1	-0.9
	baz=11						
TWC	Suao	1.61	15	eP	Pn	18 14 41.5	-0.8
	baz=356						
YHNB	Yeheng	1.62	359	ePn	Pn	18 14 42.1	-0.2
NSTT	Nanjuang	1.62	347	eP	Pn	18 14 42.9	+0.5
	baz=352						
NSK	Sanguang	1.62	359	⇑P	Pn	18 14 42.4	-0.1
	baz=4.0						
TWE	Neicheng	1.69	8	eP	Pn	18 14 43.1	-0.2
ILA	Ilan	1.74	10	eP	Pn	18 14 45.8	+1.7
	baz=1.0						
PNG	Penghu	1.77	287	eP	Pn	18 14 44.1	-0.4
	baz=289						
PNG				eS	Sn	18 15 05.2	-1.8
	baz=289						
HSN	Hsinchu	1.79	347	eP	Pn	18 14 49.0	+4.2
	baz=341						
NCU	National Centr	1.93	354	eP	Pn	18 14 49.0	+2.4
	baz=337						
TWA	Mucha	1.94	5	eP	Pn	18 14 46.7	0.0
	baz=6.0						
TAP1	Taipei	1.99	3	eP	Pn	18 14 49.5	+2.0
	baz=6.0						
TWB1	Santiao Chiao	2.03	15	eP	Pn	18 14 48.3	+0.3
	baz=355						
YOJ	Yonaguni jima	2.04	46	P	Pn	18 14 48.8	+0.6
YOJ				eS	Sn	18 15 13.5	0.0
YOJ	Yonaguni jima	2.04	46	eP	Pn	18 14 48.7	+0.5
	baz=44						
YOJ				eS	Sn	18 15 13.6	+0.1
	baz=44						
NWF	Wu-fen Shan	2.05	10	eP	Pn	18 14 47.4	-0.9
	baz=358						
TWS1	Kuangyinshan	2.05	0	eP	Pn	18 14 49.2	+1.0
	baz=3.0						
TWY	Chenhua	2.23	5	eP	Pn	18 14 53.6	+2.9
	baz=5.0						
HATJ	Hateruma jima	2.42	65	P	Pn	18 14 53.7	+0.3
HATJ				eS	Sn	18 15 21.9	-1.1
IRIF	Iriomote-Funau	2.49	58	P	Pn	18 14 54.9	+0.5
IRIF				eS	Sn	18 15 25.1	+0.5
PCYT	Pengchaiyu	2.65	13	eP	Pn	18 14 57.5	+1.0
	baz=357						
JKRS	Kuro-shima	2.67	63	P	Pn	18 14 57.5	+0.7
JKRS				eS	Sn	18 15 28.9	-0.1
JIJ	Ishigaki jima	2.83	62	P	Pn	18 14 59.7	+0.6
JIJ				eS	Sn	18 15 31.8	-1.3
KNM	Kinmen	3.04	297	eP	Pn	18 15 02.6	+0.6
	baz=295						
QZH	Quanzhou	3.19	307	Pn	Pn	18 15 04.9	+0.9
QZH				Sn	Sn	18 15 40.0	-1.9
QZH				smax			
	comp=N,1μm,0.6s						
QZH				smax			
	comp=E,840nm,0.6s						
JTJ	Tarama	3.42	62	P	Pn	18 15 07.4	+0.3
JTJ				eS	Sn	18 15 47.3	-0.1
JMJ	Miyako jima 2	3.97	63	P	Pn	18 15 15.8	+1.1
JMJ				eS	Sn	18 16 00.5	-0.7
JMJ	Miyako jima 2	3.97	63	eP	Pn	18 15 14.3	-0.5
	baz=76						
JOGS	Gusukube	4.04	64	P	Pn	18 15 16.7	+1.0
JOGS				eS	Sn	18 16 03.1	+0.2
JKE	Kume jima 2	5.89	55	P	Pn	18 15 42.3	+1.3
JOW	Kunigami	7.29	57	Pn	Pn	18 15 58.7	-1.6
	comp=E,4.2nm,0.3s,baz=148,slow=16,SNR=7.2						
JOW				Sn	Sn	18 17 20.2	-2.7
	comp=E,1.9nm,0.3s,baz=114,slow=19,SNR=2.2						
NJ2	Nanjing	9.25	346	eP	Pn	18 16 32.8	+5.6
NJ2				S	Sn	18 18 08.3	-2.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
NJ2				smax			
	comp=N,100nm,1.0s						
NJ2				smax			
	comp=E,60nm,0.8s						
WHN	Wuhan	9.77	321	eP	Pn	18 16 34.8	+0.5
WHN				S	Sn	18 18 18.8	-5.1
QIZ	Qiongzhong	11.51	252	ePn	Pn	18 16 58.1	0.0
QIZ				eSn	Sn	18 18 50.4	-16
KSRS	Korea Array	15.42	20	Pn	Pn	18 17 54.3	+3.0
	comp=E,0.3nm,0.3s,baz=195,slow=12,SNR=6.7						
BJT	Baijiatuau	17.49	347	ePn	Pn	18 18 10.6	-7.2
	comp=E,31nm,0.6s						
BJI	Beijing	17.51	347	P	Pn	18 18 11.5	-6.5
BJI				pmax	pmax		
	comp=Z,48nm,0.7s						
CD2	Chengdu	17.56	300	P	Pn	18 18 22.0	+3.4
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
MAJO	Matsushiro	19.80	43	eP	Pn	18 18 44.6	-1.2
	comp=Z,8.0nm,0.9s						
LZH	Lanzhou	20.01	314	eP	P	18 18 51.0	+4.4
LZH				pP		18 18 56.0	
LZH				sP	sP	18 18 59.3	+7.3
LZH				pmax	pmax		
	comp=Z,19nm,1.4s						
LZH				pmax	pmax		
	comp=Z,86nm,4.3s						
CMAR	Chiang Mai Arr	21.48	262	P	P	18 19 04.7	+2.0
	comp=Z,2.6nm,0.8s,mb3.6,baz=61,slow=8.5,SNR=21						
CMAR				PcP	PcP	18 23 05.5	-0.1
	comp=Z,0.5nm,0.7s,baz=321,slow=0.7,SNR=4.8						
GTA	Gaotai	24.54	317	eP	P	18 19 38.3	+4.9
GTA				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.7						
ULN	Ulaanbaatar	27.29	339	P	P	18 19 57.4	-0.9
	comp=Z,6.5nm,1.3s,mb4.0						
ASAJ	Asahikawa	27.30	35	P	P	18 19 55.7	-2.7
	comp=Z,9.2nm,0.8s,mb4.4,baz=260,slow=32,SNR=9.1						
SONM	Songino Array	27.49	338	P	P	18 20 00.2	+0.2
	comp=Z,0.8nm,0.8s,mb3.3,baz=162,slow=9.8,SNR=3.7						
LSA	Lhasa	27.85	290	P	P	18 20 07.0	+3.5
LSA	Lhasa	27.85	290	eP	P	18 20 06.1	+2.6
	comp=Z,5.4nm,0.6s,mb4.3						
MKAR	Makanchi Array	39.30	317	P	P	18 21 43.3	+0.6
	comp=Z,1.5nm,0.6s,mb3.9,baz=108,slow=10,SNR=20						

MKAR				PcP	PcP	18 23 50.6	-0.6
	comp=Z,0.6nm,0.6s,baz=97,slow=5.8,SNR=5.6						
ZALV	**Zalesovo Beam**	**41.31**	**328**	P	**P**	**18 21 58.8**	**-0.4**
	comp=Z,3.9nm,0.7s,mb4.2,baz=111,slow=8.1,SNR=14						
KSH	**Kashi**	**41.69**	**304**	*e*P	**P**	**18 22 06.1**	**+3.5**
COEN	**Coen**	**42.51**	**148**	*e*P	**P**	**18 22 09.9**	**+0.5**
KURK	**Kurchatov**	**43.09**	**321**	*e*P	**P**	**18 22 12.6**	**-1.2**
	comp=Z,1.8nm,0.6s,mb4.0						
UCH	**Uchtor**	**43.27**	**308**	P	**P**	**18 22 15.7**	**+0.4**
	comp=Z,3.5nm,1.1s,mb4.0						
AML	**Almayashu**	**43.85**	**307**	*e*P	**P**	**18 22 19.6**	**-0.4**
	comp=Z,2.9nm,0.9s,mb4.0						
WRAB	**Tennant Creek**	**44.55**	**163**	P	**P**	**18 22 24.1**	**-1.6**
	comp=Z,11nm,1.4s,mb4.5						
WRA	**Warramunga Arr**	**44.55**	**163**	P	**P**	**18 22 23.5**	**-2.3**
	comp=Z,1.5nm,0.6s,mb4.0,baz=344,slow=8.6,SNR=8.7						
MTSU	**Mount Surprise**	**46.65**	**149**	*e*P	**P**	**18 22 43.1**	**+0.6**
	comp=Z,8.9nm,0.7s,mb4.8						
ASAR	**Alice Springs**	**47.99**	**165**	P	**P**	**18 22 52.4**	**-0.5**
	comp=Z,0.7nm,0.4s,mb4.0,baz=339,slow=6.8,SNR=26						
ASAR				PcP	PcP	18 24 19.8	-1.1
	comp=Z,0.3nm,0.4s,baz=340,slow=3.5,SNR=4.2						
CTAO	**Charters Tower**	**49.25**	**149**	P	**P**	**18 23 01.9**	**-0.7**
	comp=Z,5.0nm,0.9s,mb4.5						
BILL	**Bilibino**	**52.69**	**19**	P	**P**	**18 23 24.4**	**-3.4**
	comp=Z,1.8nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**57.93**	**160**	*e*P	**P**	**18 24 05.9**	**-0.1**
	comp=Z,3.5nm,1.2s,mb4.3						
STKA	**Stephens Creek**	**57.93**	**160**	P	**P**	**18 24 05.5**	**-0.6**
	comp=Z,2.8nm,0.8s,mb4.4,baz=297,slow=5.2,SNR=5.7						
STKA	**Stephens Creek**	**57.93**	**160**	P	**P**	**18 24 05.5**	**-0.6**
CMSA	**Cobar Meteorol**	**59.05**	**156**	*e*P	**P**	**18 24 14.6**	**+0.7**
ARMA	**Armidale**	**60.56**	**150**	*e*P	**P**	**18 24 25.9**	**+1.6**
ARCES	**ARCESS Array B**	**70.67**	**338**	P	**P**	**18 25 27.5**	**-1.6**
	comp=Z,4.9nm,1.1s,mb4.4,baz=40,slow=8.5,SNR=3.7						
ARCES	**ARCESS Array B**	**70.67**	**338**	P	**P**	**18 25 27.5**	**-1.6**
AKASG	**Malin Array Be**	**73.85**	**319**	P	**P**	**18 25 47.6**	**-0.9**
	comp=Z,0.3nm,0.4s,mb3.6,baz=58,slow=5.7,SNR=2.8						
BRTR	**Keskin Array B**	**74.01**	**307**	P	**P**	**18 25 49.7**	**+0.1**
	comp=Z,0.9nm,0.9s,mb3.7,baz=96,slow=3.8,SNR=2.8						
NB2	**NORSAR Subarra**	**79.32**	**332**	P	**P**	**18 26 17.7**	**-1.5**
	comp=Z,1.9nm,0.6s,mb4.2,baz=61,slow=5.6						
NOA	**NORSAR Array B**	**79.32**	**332**	P	**P**	**18 26 18.1**	**-1.1**
	comp=Z,1.7nm,0.6s,mb4.2,baz=58,slow=5.6,SNR=5.9						
GERES	**GERESS Array B**	**83.85**	**321**	P	**P**	**18 26 43.5**	**+0.1**
	comp=Z,1.3nm,0.7s,mb4.1,baz=64,slow=6.1,SNR=9.4						
YKA	**Yellowknife Ar**	**83.94**	**23**	P	**P**	**18 26 43.2**	**-0.4**
	comp=Z,0.3nm,0.7s,mb3.5,baz=314,slow=4.7,SNR=7.2						
SDV	**Santo Domingo**	**146.15**	**22**	*e*PKPbc	PKPbc	18 33 52.8	-2.1

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*ISCJB **23** 18:31:39.9±0.8, 36°.0S±0°.1×100°.8W±0°.1, h10^{km}, mb4.5/27, MS5.0/11, Error ellipse: s-maj=19.6km s-min=11.0km az=32.7*

*IDC **23** 18:31:39.7±0.7, 36°.11S×100°.88W, h0^{km}, mb4.3/12, mb1 4.5/13, mb1mx4.4/21, mbtmp4.3/13, ML4.9/1, MS4.9/12, Ms1 4.9/12, ms1mx4.6/27, Error ellipse: s-maj=20.9km s-min=18.5km az=57.0*

*NEIC **23** 18:31:41.4±0.5, 36°.09S×100°.72W, h10^{km}, mb4.7/16, Error ellipse: s-maj=15.5km s-min=10.1km az=218.0*

ISC 23 18:31:41.8±0.8**, 36°.1S**±0°.1×**100°.7W**±0°.1**, h10^{km}, n51, σ0^{s}.84**/34**, mb4.5**/27**, MS5.0**/11**, Southeast of Easter Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPN	**Rapa Nui**	**11.54**	**318**	Pn	**Pn**	**18 34 27.1**	**+0.6**
	8.1nm,0.3s,baz=151,slow=12,SNR=2.9						
RPN				LR	LR	18 37 37.0	
	comp=Z,5µm,20.4s,baz=70,slow=31						
RPN				T		18 46 11.4	
	47nm,0.3s,baz=241,slow=13,SNR=5.1						
RPN	**Rapa Nui**	**11.54**	**318**	Pn	**Pn**	**18 34 27.1**	**+0.6**
RPN				LR	LR	18 37 37.0	
PLCA	**Paso Flores**	**24.04**	**110**	P	**P**	**18 36 58.0**	**+1.1**
	2.3nm,0.6s,mb3.8,baz=281,slow=8.6,SNR=10						
PLCA	**Paso Flores**	**24.04**	**110**	*e*Pn	**P**	**18 36 56.5**	**-0.4**
LCO	**Las Campanas**	**26.20**	**83**	*e*Pn	**P**	**18 37 17.1**	**+0.5**
	37nm,1.1s,mb4.8						
CFAA	**Coronel Fontan**	**27.27**	**90**	P	**P**	**18 37 26.1**	**-0.1**
	0.4nm,0.6s,baz=251,slow=7.6,SNR=6.7						
USHA	**Ushuaia**	**29.03**	**140**	LR	LR	18 46 35.1	
	comp=Z,3µm,20.0s,MS4.9,baz=263,slow=31						
LVC	**Limon Verde**	**30.65**	**73**	P	**P**	**18 37 56.6**	**+0.3**
	2.3nm,0.5s,mb4.2,baz=231,slow=8.2,SNR=3.2						
LVC				LR	LR	18 47 06.5	
	comp=Z,2µm,20.9s,MS4.7,baz=274,slow=30						
LVC	**Limon Verde**	**30.65**	**73**	*e*P	**P**	**18 37 56.3**	**0.0**
	7.5nm,0.9s,mb4.5						
LVC				LR	LR	18 47 06.5	
NNA	**Nana**	**32.23**	**48**	PP	PP	18 39 21.8	-1.4
	11nm,0.3s,baz=227,slow=14,SNR=7.2						
NNA				LR	LR	18 48 32.3	
	comp=Z,2µm,18.5s,MS4.9,baz=278,slow=31						
ATAH	**Atahualpa**	**35.42**	**41**	P	**P**	**18 38 38.0**	**0.0**
	9.8nm,0.8s,mb4.8,baz=154,slow=5.4,SNR=8.6						
PAYG	**Puerto Ayora**	**36.52**	**18**	P	**P**	**18 38 41.5**	**-5.9**
	21nm,1.0s,mb4.9						
SIV	**San Ignacio**	**40.49**	**71**	P	**P**	**18 39 20.8**	**-0.1**
	3.0nm,0.9s,mb4.0,baz=239,slow=9.5,SNR=8.8						
OTAV	**Otavalo**	**41.63**	**35**	*e*P	**P**	**18 39 30.1**	**-0.2**
	15nm,1.4s,mb4.4						
ROSC	**El Rosal**	**47.63**	**37**	P	**P**	**18 40 19.5**	**+1.4**
	4.9nm,0.4s,mb4.9,baz=115,slow=14,SNR=5.4						
ROSC				LR	LR	18 56 41.9	
	comp=Z,992nm,19.1s,MS4.8,baz=194,slow=32						
JTS	**JuntasAbangare**	**48.44**	**21**	P	**P**	**18 40 20.3**	**-4.1**
	9.8nm,1.1s,mb4.8						
SDV	**Santo Domingo**	**52.93**	**38**	*e*P	**P**	**18 40 56.5**	**-1.8**
	5.8nm,0.8s,mb4.6						
CMIG	**Matias Romero**	**53.15**	**7**	P	**P**	**18 40 59.5**	**-0.3**
	1.5nm,0.3s,mb4.4,baz=45,slow=16,SNR=5.7						
QSPA	**South Pole Qui**	**54.15**	**180**	P	**P**	**18 41 06.5**	**0.0**
	3.7nm,0.7s,mb4.4,baz=114,slow=5.0,SNR=18						
SDDR	**Presa de Saban**	**61.43**	**32**	*e*P	**P**	**18 41 59.1**	**+0.8**
	16nm,0.9s,mb5.1						
URZ	**Urewera**	**63.37**	**241**	LR	LR	19 01 57.6	
	comp=Z,1µm,21.4s,MS5.0,baz=64,slow=29						
RPZ	**Rata Peaks**	**65.05**	**233**	LR	LR	19 03 30.8	
	comp=Z,1µm,19.3s,MS5.1,baz=94,slow=29						
TXAR	**Lajitas Array**	**65.11**	**357**	P	**P**	**18 42 22.3**	**-0.2**
	0.9nm,0.8s,mb3.8,baz=177,slow=7.1,SNR=6.0						
AFI	**Afiamalu**	**66.71**	**269**	LR	LR	19 02 50.3	
	comp=Z,490nm,19.9s,MS4.7,baz=265,slow=28						
WMOK	**Wichita Mounta**	**70.46**	**2**	*e*P	**P**	**18 43 00.3**	**+4.2**
	2.5nm,0.9s,mb4.1						
MIAR	**Mount Ida**	**70.56**	**6**	*e*P	**P**	**18 42 57.7**	**+1.0**
	4.9nm,1.0s,mb4.4						
ISA	**Isabella**	**73.25**	**345**	*e*P	**P**	**18 43 14.2**	**+1.3**
	6.4nm,1.3s,mb4.4						
SDCO	**Great Sand Dun**	**73.57**	**356**	*e*P	**P**	**18 43 14.3**	**-0.4**
	3.8nm,1.2s,mb4.2						
CCUT	**Cedar City**	**74.18**	**350**	*e*P	**P**	**18 43 19.3**	**+1.0**
	5.7nm,0.8s,mb4.5						
CCM	**Cathedral Cave**	**74.27**	**8**	*e*P	**P**	**18 43 18.3**	**-0.5**
	11nm,0.8s,mb4.8						
NVAR	**Mina Array Bea**	**75.89**	**346**	P	**P**	**18 43 29.3**	**+1.2**
	2.8nm,0.8s,mb4.2,baz=175,slow=7.3,SNR=7.9						
CMB	**Columbia Colle**	**75.94**	**344**	*e*P	**P**	**18 43 27.0**	**-1.5**
	6.6nm,0.8s,mb4.6						
ACSO	**Alum Creek Sta**	**77.66**	**14**	P	**P**	**18 43 37.8**	**-0.3**
	9.4nm,0.8s,mb4.8						
PDAR	**Pinedale Array**	**78.87**	**353**	P	**P**	**18 43 44.9**	**+0.2**
	2.2nm,0.7s,mb4.2,baz=160,slow=6.0,SNR=9.4						
RSSD	**Black Hills**	**79.86**	**358**	*e*P	**P**	**18 43 49.3**	**-0.8**
HLID	**Hailey**	**80.22**	**350**	*e*P	**P**	**18 43 52.3**	**+0.2**
	11nm,1.0s,mb4.8						
RLMT	**Red Lodge**	**81.18**	**354**	*e*P	**P**	**18 43 57.0**	**-0.1**
ULM	**Lac du Bonnet**	**86.05**	**3**	P	**P**	**18 44 21.4**	**-0.6**
	1.3nm,0.6s,mb4.4,baz=246,slow=5.3,SNR=3.0						
STKA	**Stephens Creek**	**90.70**	**229**	LR	LR	19 18 04.4	
	comp=Z,654nm,18.2s,MS5.1,baz=195,slow=31						
SCHQ	**Schefferville**	**95.10**	**19**	LR	LR	19 23 32.7	
	comp=Z,716nm,19.9s,MS5.1,baz=348,slow=33						
CTA	**Charters Tower**	**95.61**	**240**	LR	LR	19 20 32.9	
	comp=Z,582nm,20.5s,MS5.0,baz=173,slow=31						
DBIC	**Dimbokro**	**98.62**	**88**	LR	LR	19 25 53.4	
	comp=Z,537nm,20.3s,MS5.0,baz=209,slow=33						
YKA	**Yellowknife Ar**	**98.85**	**354**	P	**P**	**18 45 19.3**	**-1.9**
	0.2nm,0.7s,mb3.8,baz=164,slow=4.6,SNR=4.4						
TORD	**Torodi Ar. Bea**	**107.58**	**86**	PP	PP	18 50 28.9	-0.6
	0.7nm,0.9s,baz=240,slow=8.0,SNR=3.8						
GERES	**GERESS Array B**	**131.40**	**53**	PKP	PKPdf	18 50 55.1	+1.2
	0.3nm,0.6s,baz=327,slow=7.0,SNR=2.9						
MMAI	**Mount Meron Ar**	**143.95**	**82**	PKP	PKPdf	18 51 16.1	-1.3
	1.2nm,0.6s,baz=330,slow=4.8,SNR=3.9						
BRTR	**Keskin Array B**	**144.09**	**70**	PKP	PKPdf	18 51 15.2	-2.2
	1.2nm,0.8s,baz=216,slow=3.8,SNR=6.3						
ASF	**Jabal al Asfar**	**144.90**	**84**	PKPbc	PKPdf	18 51 19.5	+0.4
	6.5nm,0.9s,baz=187,slow=1.3,SNR=7.5						
GNI	**Garni**	**152.62**	**71**	PKPbc	PKPbc	18 51 39.9	+1.6
	3.2nm,0.7s,baz=323,slow=7.7,SNR=4.4						
CMAR	**Chiang Mai Arr**	**155.32**	**230**	PKP	PKPdf	18 51 36.1	+0.4
	0.3nm,0.9s,baz=149,slow=0.5,SNR=3.9						
CMAR				PKPab	PKPab	18 51 57.9	-3.0
	1.3nm,0.9s,baz=155,slow=2.8,SNR=7.6						
SONM	**Songino Array**	**156.78**	**309**	PKP	PKPdf	18 51 35.0	-1.8
	0.1nm,0.3s,baz=116,slow=3.4,SNR=2.7						
SONM				PKPab	PKPab	18 52 04.1	-2.4
	0.7nm,0.8s,baz=93,slow=2.8,SNR=3.4						

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*NEIC **23** 18:32:24.5±0.4, 50°.33N×19°.04E, h5^{km}, MG3.1(WAR), Error ellipse: s-maj=6.7km s-min=4.2km az=196.0*

*CSEM **23** 18:32:24.5±0.2, 50°.29N×19°.02E, h2^{km}, ML2.5/4, Error ellipse: s-maj=5.4km s-min=2.7km az=16.0*

*IDC **23** 18:32:25.1±1.3, 50°.04N×19°.17E, h0^{km}, mb3.4/3, mb1 3.6/8, mb1mx3.4/23, mbtmp3.5/8, ML3.2/5, Error ellipse: s-maj=23.0km s-min=8.8km az=139.0*

*PRU **23** 18:32:26.4, 50°.19N×18°.93E, h0^{km}*

*VIE **23** 18:32:30.2±0.6, 49°.75N×18°.78E, h0^{km}, mb2.5/2, ML2.5/4, Error ellipse: s-maj=3.6km s-min=3.1km az=35.0 39 km ESE of Ostrava Suspected Mining induced.*

WAR 23 18:32:25.1, 50°.21N×19°.07E, ML3.1, 12C-1D, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.47**	**89**	*e*Pg	Pg	18 32 34.7	+0.6
OJC				*e*Sg	Sg	18 32 41.4	+1.3
OJC	**Ojcow**	**0.47**	**89**	*e*Pg	Pg	18 32 34.7	+0.6
OJC				*e*Sg	Sg	18 32 41.4	+1.3
RAC	**Raciborz**	**0.58**	**258**	*e*Pg	Pg	18 32 36.3	+0.2
RAC				*e*Sg	Sg	18 32 44.2	+0.6
RAC	**Raciborz**	**0.58**	**258**	*e*Pg	Pg	18 32 36.3	+0.2
RAC				*e*Sg	Sg	18 32 44.2	+0.6
OKC	**Ostrava-Krasne**	**0.70**	**238**	*e*PG	Pg	18 32 38.8	+0.3
OKC				*e*SG	Sg	18 32 44.0	-3.6
	comp=Z,96nm,0.6s						
OKC	**Ostrava-Krasne**	**0.70**	**238**	Pg	Pg	18 32 38.8	+0.3
OKC				Sg	Sg	18 32 44.0	-3.6
	comp=Z,96nm,0.6s						
MORC	**Moravsky Berou**	**1.08**	**247**	⇑*i*P	Pg	18 32 45.2	-0.5
MORC	**Moravsky Berou**	**1.08**	**247**	*e*Pg	Pg	18 32 44.6	-1.1
MORC				*e*Sg	Sg	18 32 58.7	-1.0
MORC	**Moravsky Berou**	**1.08**	**247**	*e*Pg	Pg	18 32 44.6	-1.1
MORC				*e*Sg	Sg	18 32 58.7	-0.9
MORC				S	Sg	18 32 59.6	0.0
NIE	**Niedzica**	**1.13**	**134**	*e*Pg	Pg	18 32 47.1	+0.4
NIE				*e*Sg	Sg	18 33 04.0	+2.6
NIE	**Niedzica**	**1.13**	**134**	*e*Pg	Pg	18 32 47.1	+0.4
NIE				*e*Sg	Sg	18 33 04.0	+2.6
STHS	**Stebnicka Huta**	**1.62**	**119**	*e*PN	Pn	18 32 55.6	+0.8
STHS				*e*SN	Sg	18 33 19.5	+2.5
STHS	**Stebnicka Huta**	**1.62**	**119**	*e*Pn	Pn	18 32 55.6	+0.8
STHS				*e*Pn	Pn	18 32 56.3	+1.5
STHS				*e*Sn	Sg	18 33 19.5	+2.5
STHS				*e*Sn	Sg	18 33 19.9	+2.9
STHS	**Stebnicka Huta**	**1.62**	**119**	*e*Pn	Pn	18 32 55.6	+0.8
STHS				*e*Sn	Sg	18 33 19.5	+2.5
KOLL	**Kolacno**	**1.69**	**195**	*e*PN	Pn	18 32 57.6	+1.8
KOLL				*e*SN	Sn	18 33 19.2	+1.1
KOLL	**Kolacno**	**1.69**	**195**	*e*Pn	Pn	18 32 57.6	+1.8
KOLL				*e*Sn	Sn	18 33 19.2	+1.1
VYHS	**Vyhne**	**1.72**	**185**	*e*PN	Pn	18 32 55.7	-0.6
VYHS				*e*SN	Sn	18 33 18.0	-1.0
VYHS	**Vyhne**	**1.72**	**185**	*e*Pn	Pn	18 32 55.7	-0.6
VYHS				*e*Sn	Sn	18 33 18.0	-1.0
DPC	**Dobruska-Polom**	**1.77**	**276**	*e*PG	Pn	18 32 56.2	-0.7
DPC				*e*SG	Sn	18 33 20.3	+0.2
	comp=Z,81nm,0.7s						
DPC	**Dobruska-Polom**	**1.77**	**276**	Pg	Pn	18 32 56.2	-0.7
DPC				Sg	Sn	18 33 20.3	+0.2
	comp=Z,81nm,0.7s						
VRAC	**Vranov**	**1.84**	**242**	⇑*i*P	Pn	18 32 58.4	+0.5
VRAC	**Vranov**	**1.84**	**242**	S	Sn	18 33 22.1	+0.2
VRAC	**Vranov**	**1.84**	**242**	Pg	Pg	18 32 58.4	-1.9
	comp=Z,12nm,0.3s,baz=61,slow=15,SNR=21						
VRAC				Lg		18 33 22.3	
	comp=Z,10nm,0.3s,baz=143,slow=19,SNR=14						
VRAC	**Vranov**	**1.84**	**242**	*e*Pn	Pn	18 32 57.8	-0.1
VRAC	**Vranov**	**1.84**	**242**	Pg	Pn	18 32 58.4	+0.5
VRAC				*e*Sg	Sn	18 33 20.9	-1.0
KSP	**Ksiaz**	**1.88**	**291**	*e*Pn	Pn	18 33 00.3	+1.8
KSP				*e*Sg	Sg	18 33 26.2	+0.7
KSP	**Ksiaz**	**1.88**	**291**	*e*Pn	Pn	18 32 58.0	-0.5
KSP				*e*Pg	Pg	18 33 00.1	-1.0
KSP				*e*Sg	Sg	18 33 24.7	-0.8
KSP	**Ksiaz**	**1.88**	**291**	*e*Pn	Pn	18 32 58.0	-0.5
KECS	**Kecovo**	**1.96**	**151**	*e*PN	Pn	18 32 59.9	+0.3
KECS				*e*SN	Sn	18 33 25.9	+1.1
CRVS	**Cervenica-Dubn**	**2.04**	**129**	*e*PN	Pn	18 33 00.6	0.0
CRVS				*e*SN	Sg	18 33 30.5	+0.1
CRVS	**Cervenica-Dubn**	**2.04**	**129**	*e*Pn	Pn	18 33 00.6	0.0
CRVS				*e*Sn	Sg	18 33 30.5	+0.1
PSZ	**Piszkesteto**	**2.36**	**166**	*e*Pn	Pn	18 33 04.5	-0.5
PSZ	**Piszkesteto**	**2.36**	**166**	*e*Pn	Pn	18 33 04.5	-0.5
KWP	**Kalwaria Pacla**	**2.42**	**102**	*e*P	Pn	18 33 05.9	0.0
KWP				*e*Sg	Sg	18 33 44.3	+1.4
KWP	**Kalwaria Pacla**	**2.42**	**102**	*e*P	Pn	18 33 05.9	0.0
KWP				*e*Sg	Sg	18 33 44.3	+1.4
KOLS	**Kolonicke sedl**	**2.45**	**120**	*e*PN	Pn	18 33 08.5	+2.3
KOLS				*e*SN	Sn	18 33 40.4	+3.6
KOLS	**Kolonicke sedl**	**2.45**	**120**	*e*Pn	Pn	18 33 08.5	+2.3
KOLS				*e*Sn	Sn	18 33 40.4	+3.6
PVCC	**Panska Ves**	**2.90**	**278**	*e*PN	Pn	18 33 11.7	-0.7
PVCC				*e*SG	Sg	18 33 55.0	-3.2
	comp=Z,48nm,0.6s						
PVCC	**Panska Ves**	**2.90**	**278**	Pn	Pn	18 33 11.7	-0.7
PVCC				Sg	Sg	18 33 55.0	-3.2
	comp=Z,48nm,0.6s						
PRU	**Pruhonice**	**2.92**	**267**	*e*PN	Pn	18 33 11.3	-1.5
PRU				*e*PG	Pg	18 33 16.9	-4.2
PRU				*e*SG	Sg	18 33 55.5	-3.5
	comp=Z,23nm,0.6s						
PRU	**Pruhonice**	**2.92**	**267**	Pn	Pn	18 33 11.3	-1.5
CONA	**Conrad Observa**	**3.11**	**224**	⇓*i*Pn	Pn	18 33 14.4	-1.0
CONA	**Conrad Observa**	**3.11**	**224**	Pn	Pn	18 33 14.4	-0.9
BRG	**Berggiesshubel**	**3.34**	**283**	Pg	Pg	18 33 27.1	-1.9
BRG				Sg	Sg	18 34 11.7	-0.5
BRG	**Berggiesshubel**	**3.34**	**283**	Pg	Pg	18 33 27.1	-1.9
BRG				Sg	Sg	18 34 11.7	-0.5
BRG				SG	Sg	18 34 11.7	-0.5
	comp=Z,21nm,0.7s						
BRG	**Berggiesshubel**	**3.34**	**283**	PG	Pg	18 33 27.1	-1.9
KHC	**Kasperske Hory**	**3.73**	**255**	*e*PN	Pn	18 33 23.1	-0.7
KHC				*e*PG	Pg	18 33 30.3	-6.2
KHC				*e*SN	Sn	18 34 04.0	-4.4
KHC				*e*x	x	18 34 09.5	
KHC				*e*SG	Sg	18 34 20.3	-4.4
	comp=Z,57nm,1.2s						
KHC	**Kasperske Hory**	**3.73**	**255**	Pn	Pn	18 33 23.1	-0.7
KHC				Sn	Sn	18 34 04.0	-4.4
KHC				Sg	Sg	18 34 20.3	-4.4
	comp=Z,57nm,1.2s						
GERES	**GERESS Array B**	**3.75**	**251**	Pn	Pn	18 33 24.5	+0.3
	comp=Z,0.4nm,0.3s,baz=70,slow=15,SNR=5.8						
GERES				Pg	Pg	18 33 34.2	-2.8
	comp=Z,1.1nm,0.3s,baz=61,slow=16,SNR=7.2						
GERES				Lg		18 34 25.2	
	comp=Z,2.8nm,0.3s,baz=56,slow=31,SNR=10.0						
GERES	**GERESS Array B**	**3.75**	**251**	Pn	Pn	18 33 24.5	+0.3
MOA	**Molln**	**3.94**	**235**	⇑*i*Pg	Pg	18 33 37.6	-3.0
MOA				⇑*i*Sg	Sg	18 34 27.1	-4.6
	comp=Z,19nm,0.9s						
MOA	**Molln**	**3.94**	**235**	Pg	Pg	18 33 37.6	-3.1
CLL	**Collm**	**4.00**	**288**	*e*Pg	Pg	18 33 41.0	-0.8
CLL				*e*Sg	Sg	18 34 33.0	-0.7
	comp=Z,18nm,0.8s						
CLL	**Collm**	**4.00**	**288**	*e*Pg	Pg	18 33 41.0	-0.8
CLL				*e*Sg	Sg	18 34 33.0	-0.7
PKSM	**Moragy**	**4.01**	**184**	⇑*i*P	Pn	18 33 28.0	+0.3
PKSM	**Moragy**	**4.01**	**184**	⇑*i*P	Pn	18 33 28.0	+0.3
NKC	**Novy Kostel**	**4.25**	**273**	*e*SG	Sg	18 34 38.5	-3.1
NKC	**Novy Kostel**	**4.25**	**273**	Sg	Sg	18 34 38.5	-3.1
MOX	**Moxa**	**4.79**	**278**	*e*SG	Sg	18 35 00.7	+2.0
BUR08	**Bucovina Ar. S**	**4.79**	**120**	*e*Pn	Pn	18 33 39.0	+0.6
BUR08	**Bucovina Ar. S**	**4.79**	**120**	*e*Pn	Pn	18 33 39.0	+0.6
BURAR	**Bucovina Array**	**4.81**	**120**	⇑*i*P	Pn	18 33 39.3	+0.5
BURAR	**Bucovina Array**	**4.81**	**120**	⇑*i*P	Pn	18 33 39.3	+0.5
BZS	**Buzias**	**4.91**	**159**	⇑*i*P	Pn	18 33 40.4	+0.4
BZS	**Buzias**	**4.91**	**159**	⇑*i*P	Pn	18 33 40.4	+0.4
GZR	**Gura Zlata**	**5.43**	**151**	⇑*i*P	Pn	18 33 48.2	+1.0
GZR	**Gura Zlata**	**5.43**	**151**	⇑*i*P	Pn	18 33 48.2	+1.0
AKASG	**Malin Array Be**	**6.50**	**82**	Lg		18 35 46.8	
	comp=Z,0.8nm,0.3s,baz=262,slow=25,SNR=4.4						
DAVOX	**Davos/Dischmat**	**7.00**	**244**	Pn	Pn	18 34 09.2	+0.3
	comp=Z,0.6nm,0.3s,baz=108,slow=11,SNR=5.9						
DAVOX				Lg		18 36 11.6	
	comp=Z,0.4nm,0.3s,baz=211,slow=21,SNR=5.4						
DAVOX	**Davos/Dischmat**	**7.00**	**244**	Pn	Pn	18 34 09.2	+0.4
BFO	**Black Forest**	**7.28**	**259**	*e*Pn	Pn	18 34 12.8	+0.3
BFO				*e*Sg	Sg	18 36 14.3	-4.3
BFO	**Black Forest**	**7.28**	**259**	*e*Pn	Pn	18 34 12.8	+0.3
WLF	**Walferdange**	**8.35**	**271**	*e*Pn	Pn	18 34 27.4	0.0
WLF	**Walferdange**	**8.35**	**271**	*e*Pn	Pn	18 34 27.4	+0.1
HFS	**Hagfors**	**10.40**	**345**	Pn	Pn	18 34 52.2	-3.2
	comp=Z,0.2nm,0.3s,baz=162,slow=15,SNR=7.9						
HFS	**Hagfors**	**10.40**	**345**	Pn	Pn	18 34 52.2	-3.2
NOA	**NORSAR Array B**	**11.71**	**341**	Pn	Pn	18 35 09.6	-3.7
	comp=Z,0.2nm,0.3s,baz=149,slow=13,SNR=3.1						
NOA	**NORSAR Array B**	**11.71**	**341**	Pn	Pn	18 35 09.6	-3.7
ARCES	**ARCESS Array B**	**19.63**	**7**	Pn	Pn	18 36 51.4	-4.7
	comp=Z,0.2nm,0.3s,baz=191,slow=12,SNR=5.3						
ARCES	**ARCESS Array B**	**19.63**	**7**	Pn	Pn	18 36 51.4	-4.7
TORD	**Torodi Ar. Bea**	**39.60**	**207**	P	P	18 39 57.3	-0.9
	comp=Z,0.4nm,0.8s,baz=18,slow=8.1,SNR=2.7						
TORD	**Torodi Ar. Bea**	**39.60**	**207**	P	P	18 39 57.3	-0.9
SONM	**Songino Array**	**54.10**	**56**	P	P	18 41 52.1	+0.8
	comp=Z,0.9nm,0.8s,baz=316,slow=8.3,SNR=7.2						
YKA	**Yellowknife Ar**	**61.79**	**338**	P	P	18 42 46.8	+1.7
	comp=Z,0.1nm,0.4s,baz=31,slow=5.9,SNR=3.7						

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*IDC **23** 18:34:53.5±3.9, 37°.22S×177°.80E, h52^{km}±31^{km}, mb4.2/9, mb1 4.3/9, mb1mx4.2/16, mbtmp4.1/9, Error ellipse: s-maj=33.3km s-min=16.8km az=49.0*

*ISCJB **23** 18:34:55.9±0.6, 37°.55S±0°.05×177°.65E±0°.07, h84^{km}±3^{km}, mb4.4/12, Error ellipse: s-maj=9.5km s-min=7.0km az=148.8*

*NEIC **23** 18:34:56.2, 37°.34S×177°.77E, h57^{km}, mb4.4/2, ML5.0(WEL), After WEL.*

NEIC Felt in the Bay of Plenty region.

ISC 23 18:34:55.6±0.5**, 37°.49S**±0°.04×**177°.79E**±0°.06**, h70^{km}**±3^{km}**, n97, σ1^{s}.52**/87**, mb4.4**/12**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**0.42**	**100**	P	**Pn**	**18 35 06.0**	**-1.7**
MXZ				S	**Sn**	**18 35 16.5**	**-0.1**
WIZ	**White Island**	**0.48**	**265**	P	**Pn**	**18 35 07.4**	**-0.8**
WIZ				S	**Sn**	**18 35 16.3**	**-1.2**
PUZ	**Puketiti**	**0.69**	**148**	P	**Pn**	**18 35 11.6**	**+1.1**
PUZ				S	**Sn**	**18 35 25.8**	**+4.4**
MWZ	**Matawai**	**0.87**	**194**	P	**Pn**	**18 35 13.2**	**+0.7**
MWZ				S	**Sn**	**18 35 26.9**	**+1.9**
URZ	**Urewera**	**0.94**	**215**	P	**Pn**	**18 35 14.5**	**+1.1**
	357nm,0.3s,baz=18,slow=2.7,SNR=2073						
URZ				S	**Sn**	**18 35 28.4**	**+1.9**
	2µm,0.3s,baz=336,slow=20,SNR=138						
URZ	**Urewera**	**0.94**	**215**	P	**Pn**	**18 35 14.2**	**+0.8**
URZ				*e*Sg	**Sn**	**18 35 26.8**	**+0.3**
MARZ	**Manawahe**	**1.01**	**240**	P	**Pn**	**18 35 14.9**	**+0.6**
MARZ				S	**Sn**	**18 35 28.9**	**+0.8**
LIRZ	**Lichensteins R**	**1.23**	**245**	P	**Pn**	**18 35 18.1**	**+1.1**
TGRZ	**Tauranga**	**1.24**	**258**	P	**Pn**	**18 35 17.5**	**+0.4**
KARZ	**Kaharoa**	**1.33**	**246**	P	**Pn**	**18 35 19.4**	**+1.0**
UTU	**Utuhina**	**1.44**	**241**	P	**Pn**	**18 35 21.5**	**+1.7**
KNZ	**Kokohu**	**1.53**	**183**	P	**Pn**	**18 35 22.6**	**+1.6**
KUZ	**Kuaotunu**	**1.81**	**294**	P	**Pn**	**18 35 23.2**	**-1.5**
TOZ	**Tahuroa Road**	**1.83**	**262**	P	**Pn**	**18 35 25.1**	**+0.1**
WHTZ	**Whakaora**	**1.86**	**230**	P	**Pn**	**18 35 28.1**	**+2.7**
HATZ	**Hinemaiaia**	**1.94**	**223**	P	**Pn**	**18 35 28.1**	**+1.7**
BKZ	**Black Stump Fm**	**1.96**	**211**	P	**Pn**	**18 35 28.7**	**+2.0**
WATZ	**Wairara**	**2.03**	**232**	P	**Pn**	**18 35 29.6**	**+2.0**
RATZ	**Rangitukua**	**2.10**	**228**	P	**Pn**	**18 35 31.1**	**+2.5**
RITZ	**Rihia Road**	**2.13**	**225**	P	**Pn**	**18 35 31.6**	**+2.7**
TWVZ	**Taurewa**	**2.43**	**229**	P	**Pn**	**18 35 35.7**	**+2.6**
TUVZ	**Tukino**	**2.44**	**223**	P	**Pn**	**18 35 35.7**	**+2.5**
MOVZ	**Moawhango**	**2.50**	**219**	P	**Pn**	**18 35 35.8**	**+1.9**
HIZ	**Hauiti**	**2.53**	**245**	P	**Pn**	**18 35 36.1**	**+1.7**
VRZ	**Vera Road**	**2.89**	**235**	P	**Pn**	**18 35 42.4**	**+3.1**
TSZ	**Takapari Road**	**2.94**	**209**	P	**Pn**	**18 35 40.4**	**+0.5**
WAZ	**Wanganui**	**3.15**	**223**	P	**Pn**	**18 35 45.5**	**+2.6**
WCZ	**Waipu Caves**	**3.17**	**298**	P	**Pn**	**18 35 42.3**	**-0.8**
BFZ	**Birch Farm**	**3.41**	**200**	P	**Pn**	**18 35 45.9**	**-0.4**
MRZ	**Mangatainoka R**	**3.60**	**208**	P	**Pn**	**18 35 48.5**	**-0.5**
KIW	**Kapiti Island**	**4.04**	**213**	P	**Pn**	**18 35 54.6**	**-0.4**
OUZ	**Omahuta**	**4.07**	**303**	P	**Pn**	**18 35 55.0**	**-0.4**
MTW	**Mount Morrison**	**4.07**	**205**	P	**Pn**	**18 35 54.3**	**-1.1**
CAW	**Cannon Point**	**4.18**	**209**	P	**Pn**	**18 35 56.0**	**-0.9**
PAWZ	**Paruwai Farm**	**4.30**	**204**	P	**Pn**	**18 35 57.0**	**-1.5**
MSWZ	**Moikau Station**	**4.39**	**206**	P	**Pn**	**18 35 58.2**	**-1.5**
MRW	**Makara Radio**	**4.44**	**212**	P	**Pn**	**18 35 59.4**	**-1.0**
WEL	**Wellington**	**4.46**	**211**	P	**Pn**	**18 35 59.6**	**-1.0**
SNZO	**South Karori**	**4.50**	**211**	P	**Pn**	**18 35 59.9**	**-1.4**
BHW	**Baring Head**	**4.52**	**209**	P	**Pn**	**18 35 59.8**	**-1.7**
NNZ	**Nelson**	**5.05**	**221**	P	**Pn**	**18 36 07.7**	**-1.1**
BSWZ	**Blackbirch Sta**	**5.19**	**214**	P	**Pn**	**18 36 09.0**	**-1.7**
QRZ	**Quartz Range**	**5.27**	**229**	P	**Pn**	**18 36 11.3**	**-0.5**
THZ	**Tophouse**	**5.69**	**220**	P	**Pn**	**18 36 15.9**	**-1.7**
KHZ	**Kahutara**	**5.91**	**212**	P	**Pn**	**18 36 18.2**	**-2.2**
DSZ	**Denniston Nort**	**6.28**	**226**	P	**Pn**	**18 36 23.6**	**-1.9**
LTZ	**Lake Taylor**	**6.77**	**217**	P	**Pn**	**18 36 29.4**	**-2.8**
CRLZ	**Canterbury Las**	**7.24**	**211**	P	**Pn**	**18 36 35.8**	**-2.9**
MQZ	**McQueen's Vall**	**7.34**	**211**	P	**Pn**	**18 36 36.5**	**-3.5**
RPZ	**Rata Peaks**	**8.05**	**217**	P	**Pn**	**18 36 47.7**	**-2.1**
	8.7nm,0.3s,baz=24,slow=2.2,SNR=16						
RPZ				S	**Sn**	**18 38 14.9**	**-4.4**
	8.4nm,0.3s,baz=350,slow=19,SNR=11						
RPZ	**Rata Peaks**	**8.05**	**217**	P	**Pn**	**18 36 47.3**	**-2.5**
FOZ	**Fox Glacier**	**8.65**	**223**	P	**Pn**	**18 36 53.8**	**-4.1**
LBZ	**Lake Benmore**	**8.97**	**217**	P	**Pn**	**18 36 59.7**	**-2.6**
ODZ	**Otahua Downs**	**9.27**	**213**	P	**Pn**	**18 37 02.9**	**-3.4**
JCZ	**Jackson Bay**	**9.49**	**223**	P	**Pn**	**18 37 05.6**	**-3.8**
WKZ	**Wanaka**	**9.87**	**219**	P	**Pn**	**18 37 11.5**	**-3.1**
EAZ	**Earnscleugh**	**10.02**	**217**	P	**Pn**	**18 37 13.2**	**-3.4**
TUZ	**Tuapeka**	**10.42**	**213**	P	**Pn**	**18 37 18.9**	**-3.2**
STKA	**Stephens Creek**	**30.16**	**270**	*e*P	**P**	**18 41 01.1**	**+2.1**
	4.4nm,1.0s,mb4.0						
STKA	**Stephens Creek**	**30.16**	**270**	P	**P**	**18 40 59.1**	**+0.2**
	1.8nm,0.6s,mb3.9,baz=108,slow=13,SNR=5.8						
CTA	**Charters Tower**	**32.42**	**294**	*e*P	**P**	**18 41 20.7**	**+1.7**
	3.6nm,0.6s,mb4.3						
CTA	**Charters Tower**	**32.42**	**294**	P	**P**	**18 41 19.1**	**+0.2**
	4.4nm,0.6s,mb4.4,baz=125,slow=9.6,SNR=15						
CTAO	**Charters Tower**	**32.42**	**294**	*e*P	**P**	**18 41 20.4**	**+1.4**
	2.2nm,0.4s,mb4.2						
ASAR	**Alice Springs**	**39.87**	**277**	P	**P**	**18 42 22.6**	**+0.1**
	4.1nm,0.5s,mb4.5,baz=126,slow=8.2,SNR=93						
ASAR				PcP	PcP	18 44 25.6	-1.5
	1.9nm,0.5s,baz=120,slow=3.7,SNR=10						
FORT	**Forrest**	**41.31**	**264**	*e*P	**P**	**18 42 34.4**	**0.0**
	9.0nm,0.5s,mb4.9						
WRAB	**Tennant Creek**	**41.51**	**283**	*e*P	**P**	**18 42 35.9**	**-0.2**
	5.7nm,0.6s,mb4.5						
WRA	**Warramunga Arr**	**41.52**	**283**	P	**P**	**18 42 35.9**	**-0.2**
	4.0nm,0.5s,mb4.4,baz=123,slow=7.0,SNR=59						
WRA				PcP	PcP	18 44 31.3	-1.2
	0.9nm,0.8s,baz=118,slow=3.0,SNR=4.4						
NWAO	**Narrogin (SRO)**	**48.95**	**256**	P	**P**	**18 43 34.1**	**-0.7**
FITZ	**Fitzroy Crossi**	**49.35**	**278**	*e*P	**P**	**18 43 38.7**	**+0.6**
	3.9nm,0.8s,mb4.4						
MUN	**Mundaring**	**50.12**	**257**	*e*P	**P**	**18 43 43.5**	**-0.3**
QSPA	**South Pole Qui**	**52.64**	**180**	P	**P**	**18 44 05.7**	**+3.8**
	2.5nm,0.4s,mb4.6,baz=18,slow=1.4,SNR=19						
VNA3	**Neumayer Olymp**	**71.44**	**177**	*e*	**P**	**18 46 09.8**	**+1.9**
VNA3				*e*		18 46 14.0	
VNA2	**Neumayer--Watz**	**71.83**	**178**	*e*	**P**	**18 46 12.6**	**+2.4**
VNA2				*e*		18 46 16.5	
PLCA	**Paso Flores**	**80.17**	**134**	P	**P**	**18 47 00.8**	**+2.6**
	2.4nm,0.7s,mb4.1,baz=237,slow=5.4,SNR=9.7						
PLCA	**Paso Flores**	**80.17**	**134**	P	**P**	**18 47 00.8**	**+2.6**
KSRS	**Korea Array**	**87.65**	**322**	P	**P**	**18 47 36.3**	**+0.3**
	1.2nm,0.7s,mb4.1,baz=145,slow=6.3,SNR=4.2						
PETK	**Petropavlovsk-**	**91.90**	**348**	P	**P**	**18 47 53.9**	**-1.6**
	2.2nm,0.8s,mb4.4,baz=113,slow=7.5,SNR=4.6						
PETK	**Petropavlovsk-**	**91.90**	**348**	P	**P**	**18 47 53.9**	**-1.6**
CMAR	**Chiang Mai Arr**	**92.56**	**291**	P	**P**	**18 47 59.7**	**+0.3**

	1.4nm,0.8s,mb4.4,baz=149,slow=3.3,SNR=13						
YKA	Yellowknife Ar	113.33	28	PKiKP	PKiKP	18 53 22.8	-1.4
	0.2nm,0.6s,baz=258,slow=1.5,SNR=6.8						
YKA	Yellowknife Ar	113.33	28	PKPdf	PKiKP	18 53 22.8	-1.4
MKAR	Makanchi Array	119.52	308	PKP	PKPdf	18 53 34.2	-2.5
	0.3nm,0.6s,baz=87,slow=4.9,SNR=3.0						
KURK	Kurchatov	123.25	311	PKP	PKPdf	18 53 41.2	-2.6
	0.2nm,0.3s,baz=96,slow=1.8,SNR=3.6						
KURK	Kurchatov	123.25	311	PKP	PKPdf	18 53 41.2	-2.6
ARCES	ARCESS Array B	144.58	344	PKP	PKPdf	18 54 20.1	-2.7
	3.2nm,0.5s,baz=47,slow=2.7,SNR=23						
JOF	Joensuu	147.39	332	*e*p	PKPdf	18 54 27.8	0.0
	8.5nm,0.7s						
EIL	Elat	148.23	267	PKPbc	PKPbc	18 54 33.6	-0.1
	3.6nm,0.6s,baz=116,slow=5.4,SNR=5.2						
LIC	Lamto	148.78	175	*e*PKP1	PKPbc	18 54 33.5	-2.1
	42nm,1.2s						
KIC	Kosan Boka	148.93	175	*e*PKP1	PKPbc	18 54 38.1	+2.1
	37nm,1.0s						
MMAI	Mount Meron Ar	149.10	273	PKPbc	PKPbc	18 54 35.6	-0.2
	2.2nm,0.5s,baz=78,slow=7.8,SNR=14						
TIC	Toumodi	149.19	175	*e*PKP1	PKPbc	18 54 36.7	+0.1
	9.9nm,0.2s						
DBIC	Dimbokro	149.23	175	PKPbc	PKPbc	18 54 36.1	-0.5
	5.9nm,1.1s,baz=105,slow=2.8,SNR=4.6						
KAF	Kangasniemi	149.71	334	*e*p	PKPdf	18 54 33.9	+2.3
	7.0nm,0.8s						
BRTR	Keskin Array B	152.01	286	PKPbc	PKPbc	18 54 41.8	-0.7
AKASG	Malin Array Be	154.06	311	PKPbc	PKPbc	18 54 45.2	-1.4
	0.4nm,0.4s,baz=57,slow=3.4,SNR=3.5						
AKASG				PKPab	PKPab	18 54 59.0	-1.5
	3.1nm,0.6s,baz=57,slow=4.2,SNR=12						
TORD	Torodi Ar. Bea	155.51	189	PKP	PKPdf	18 54 41.9	+0.3
	1.1nm,0.9s,baz=89,slow=1.0,SNR=5.8						
TORD				PKPab	PKPab	18 55 08.1	+0.6
	1.3nm,0.5s,baz=170,slow=3.3,SNR=12						
TORD	Torodi Ar. Bea	155.51	189	PKP	PKPdf	18 54 41.9	+0.3
TORD				PKPab	PKPab	18 55 08.1	+0.6

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*CSEM **23** 18:39:28.9±0.2, 39°.17N×40°.36E, h2^{km}, MD3.1, Error ellipse: s-maj=5.2km s-min=3.7km az=121.0*
*ISK **23** 18:39:28.9, 39°.14N×40°.38E, h8^{km}, MD3.1*
*DDA **23** 18:39:30.6, 39°.08N×40°.14E, h27^{km}, Md3.1*
ISC 23 18:39:31.0±1.3, **39°.14N**±0°.07×**40°.44E**±0°.06, **h18**^{km}±14^{km}, **n16**, σ**0.^{s}96**/23, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZC	Erzincan	0.77	322	*e*PG	Pg	18 39 47.7	+1.6
EZC				*e*SG	Sg	18 40 03.3	+6.9
EZM	Erzurum	1.05	43	*e*PN	Pg	18 39 50.2	-1.1
EZM				*e*SN	Sg	18 40 05.4	+0.5
DIYA	Diyarbakir	1.24	192	*i* P	Pn	18 39 52.6	-0.9
DIYA				*i* S	Sb	18 40 10.3	+0.8
DIYA	Diyarbakir	1.24	192	*i* P	Pn	18 39 52.6	-0.8
DIYA				*i* S	Sb	18 40 10.3	+0.8
ELZG	Elazig	1.30	241	*i* P	Pn	18 39 52.2	-2.1
ELZG				*i* S	Sn	18 40 11.9	+0.6
ELZG	Elazig	1.30	241	*i* P	Pn	18 39 52.2	-2.1
BEST	Besiri	1.41	152	*i* P	Pn	18 39 54.3	-1.4
BEST				*i* S	Sn	18 40 14.3	+0.4
MALT	Malatya	1.78	243	*e*PN	Pn	18 40 00.6	-0.2
MALT	Malatya	1.78	243	*e*Pn	Pn	18 40 00.6	-0.2
MARD	Mardin	1.84	171	*i* P	Pn	18 40 01.6	-0.2
MARD				*i* S	Sn	18 40 25.8	+1.2
AGRB	Hanur-Agry	2.03	77	*e*PN	Pn	18 40 05.0	+0.7
AGRB	Hanur-Agry	2.03	77	*e*Pn	Pn	18 40 05.0	+0.8
URFA	Urfa	2.12	217	*e*PN	Pn	18 40 05.1	-0.4
URFA	Urfa	2.12	217	*e*Pn	Pn	18 40 05.1	-0.4
SVSK	Karacayir	2.77	287	*e*PN	Pn	18 40 14.4	0.0
SVSK	Karacayir	2.77	287	*e*Pn	Pn	18 40 14.4	0.0

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*IDC **23** 18:48:16.9±0.6, 45°.76N×153°.64E, h0^{km}, mb4.0/15, mb1 4.3/18, mb1mx4.1/26, mbtmp4.0/18, ML3.5/3, Error ellipse: s-maj=18.8km s-min=15.1km az=141.0*
*NEIC **23** 18:48:17.9±4.2, 45°.77N×153°.63E, h7^{km}±25^{km}, mb4.2/10, Error ellipse: s-maj=12.9km s-min=6.3km az=155.0*
*MOS **23** 18:48:20.4±1.7, 45°.91N×153°.40E, h26^{km}, mb4.3/9, Error ellipse: s-maj=12.6km s-min=9.3km az=72.7*
*BJI **23** 18:48:22.1, 45°.69N×153°.22E, h23^{km}, mB5.1/7, mb4.6/12, Ms4.7/1, Ms7 4.5/1*
ISC 23 18:48:18.3±2.9, **45°.80N**±0°.08×**153°.62E**±0°.09, **h6**^{km}±17^{km}, **n73**, σ**1.^{s}00**/69, **mb4.2**/31, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	5.17	18	*e*PN	Pn	18 49 37.5	+1.4
SKR				pmax	pmax		
	comp=N,40nm,0.5s						
SKR				pmax	pmax		
	comp=E,50nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
YSS	Yuzh-Sakhalins	7.61	283	*e*PN	Pn	18 50 09.0	-0.6
PEA0B	Petropavlovsk-	7.78	18	*e*Pn	Pn	18 50 11.5	-0.5
PETK	Petropavlovsk-	7.78	18	Pn	Pn	18 50 11.1	-0.9
	comp=Z,1.7nm,0.3s,baz=172,slow=11,SNR=51						
PET	Petropavlovsk	7.94	23	*e*Pn	Pn	18 50 06.3	-7.8
PET				*e*Sn	Sn	18 51 36.1	-8.1
ASAJ	Asahikawa	8.00	262	PN	Pn	18 50 13.4	-1.6
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.00	262	Pn	Pn	18 50 13.4	-1.6
	comp=Z,0.7nm,0.3s,baz=92,slow=10,SNR=2.4						
ERM	Erimo	8.45	247	*i* PN	Pn	18 50 24.8	+3.6
MJAR	Matsushiro Arr	14.82	237	Pn	Pn	18 51 46.2	-2.1
	comp=Z,0.1nm,0.3s,baz=3.5,slow=13,SNR=3.4						
MAJO	Matsushiro	14.82	237	*e*P	Pn	18 51 54.9	+6.6
MAJO				pmax	pmax		
	comp=Z,25nm,0.8s						
MAJO	Matsushiro	14.82	237	*e*Pn	Pn	18 51 54.9	+6.6
	comp=Z,25nm,0.8s						
MDJ	Mudanjiang	16.97	275	*e*Pn	Pn	18 52 15.4	-0.8
	comp=Z,14nm,0.9s						
KSRS	Korea Array	20.88	256	*e*P	P	18 53 04.2	+3.2
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KSRS	Korea Array	20.88	256	P	P	18 53 03.8	+2.8
	comp=Z,3.5nm,0.8s,baz=62,slow=9.2,SNR=5.8						
BILL	Bilibino	23.25	12	*e*P	P	18 53 26.8	+0.7
BILL				*i* S	S	18 57 35.1	-3.0
BILL				pmax	pmax		
	comp=Z,6.0nm,1.2s						
BILL				MLR	MLR		
	comp=Z,400nm,18.0s						
BILL	Bilibino	23.25	12	*e*P	P	18 53 25.4	-0.6
	comp=Z,2.9nm,0.4s,mb4.1						
SONM	Songino Array	32.00	291	*e*P	P	18 54 47.3	+2.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	32.00	291	P	P	18 54 46.0	+0.9
	comp=Z,0.7nm,0.7s,mb3.6,baz=82,slow=7.6,SNR=4.1						
ZAK	Zakamensk	33.41	296	*e*P	P	18 54 56.1	-1.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
IMA2	Indian Mountai	34.38	35	*e*P	P	18 55 06.1	+0.5
IMA2				*e*		18 55 17.9	
COLA	College	36.67	38	*e*P	P	18 55 26.0	+0.6
COLA				*e*		18 55 37.5	
COLA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
COLA	College	36.67	38	*e*P	P	18 55 26.0	+0.6
	comp=Z,3.8nm,0.8s,mb4.3						
COLA				*e*		18 55 37.5	
LZH	Lanzhou	38.29	273	*e*P	P	18 55 41.3	+1.9
LZH				pP	pP	18 55 53.0	+12
LZH				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.6						
LZH				pmax	pmax		
	comp=Z,87nm,4.3s						
GTA	Gaotai	39.48	280	*e*P	P	18 55 51.1	+1.7
GTA				pP	pP	18 56 03.3	+12
GTA				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
EGAK	Eagle	39.53	38	*e*P	P	18 55 48.9	-0.6
	comp=Z,10nm,1.0s,mb4.5						
EGAK				*e*		18 56 00.8	
INK	Inuvik	42.27	32	P	P	18 56 12.4	+0.4
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
INK	Inuvik	42.27	32	P	P	18 56 12.4	+0.4
	comp=Z,2.5nm,0.6s,mb4.0,baz=272,slow=7.3,SNR=10						
INK	Inuvik	42.27	32	*e*P	P	18 56 12.0	-0.1
INK				*e*		18 56 24.1	
DLBC	Dease Lake	46.01	45	*e*P	P	18 56 43.4	+1.3
MKAR	Makanchi Array	47.70	298	P	P	18 56 55.5	0.0
	comp=Z,1.0nm,0.7s,mb3.9,baz=66,slow=7.5,SNR=14						
KURK	Kurchatov	48.19	305	*e*P	P	18 56 58.0	-1.2
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
KURK	Kurchatov	48.19	305	P	P	18 56 59.1	-0.1
	comp=Z,1.3nm,0.6s,mb4.1,baz=71,slow=8.4,SNR=4.8						
KURK	Kurchatov	48.19	305	*e*P	P	18 56 58.0	-1.2
	comp=Z,3.1nm,0.9s,mb4.3						
LSA	Lhasa	50.69	274	*e*P	P	18 57 20.4	+1.8
LSA				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
LSA	Lhasa	50.69	274	*e*P	P	18 57 20.4	+1.8
	comp=Z,2.7nm,0.9s,mb4.2						
YKA	Yellowknife Ar	51.48	36	P	P	18 57 24.4	+0.3
	comp=Z,1.2nm,0.6s,mb4.0,baz=294,slow=7.1,SNR=19						
RES	Resolute Bay	51.63	18	*e*P	P	18 57 25.3	+0.2
RES				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
RES	Resolute Bay	51.63	18	*e*P	P	18 57 25.3	+0.3
	comp=Z,2.4nm,0.8s,mb4.2						
TKM2	Tokmak 2	53.74	297	P	P	18 57 41.0	-0.1
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
TKM2	Tokmak 2	53.74	297	P	P	18 57 41.0	-0.1
	comp=Z,2.7nm,0.8s,mb4.2						
AAK	Ala-Archa	54.58	297	P	P	18 57 47.4	+0.1
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
AAK	Ala-Archa	54.58	297	P	P	18 57 47.4	+0.2
	comp=Z,1.7nm,0.7s,mb4.2						
EKS2	Erkin-Say	55.01	298	*e*P	P	18 57 48.7	-1.7
	comp=Z,2.3nm,0.8s,mb4.3						
ARU	Arti	55.96	318	P	P	18 57 56.3	-0.6
ARU	Arti	55.96	318	P	P	18 57 56.3	-0.6
WALA	Waterton Lakes	58.78	50	P	P	18 58 15.2	-1.7
NVAR	Mina Array Bea	62.56	62	P	P	18 58 43.1	+0.1
	comp=Z,0.7nm,0.4s,mb4.1,baz=296,slow=7.2,SNR=4.3						
PDAR	Pinedale Array	65.02	54	P	P	18 58 58.3	-0.8
	comp=Z,1.4nm,0.8s,mb4.0,baz=321,slow=2.1,SNR=10						
WRA	Warramunga Arr	67.73	200	P	P	18 59 15.4	-1.1
	comp=Z,3.7nm,1.0s,mb4.3,baz=16,slow=6.6,SNR=4.4						
NB2	NORSAR Subarra	69.25	341	P	P	18 59 26.3	+0.7
	comp=Z,2.0nm,0.8s,mb4.1,baz=31,slow=6.5						
NOA	NORSAR Array B	69.25	341	P	P	18 59 25.9	+0.3
	comp=Z,1.2nm,0.8s,mb3.9,baz=27,slow=6.5,SNR=3.3						
ASAR	Alice Springs	71.42	199	P	P	18 59 39.5	+0.3
	comp=Z,2.8nm,0.8s,mb4.2,baz=11,slow=5.4,SNR=8.0						
AKASG	Malin Array Be	72.54	327	P	P	18 59 45.8	0.0
	comp=Z,2.8nm,0.6s,mb4.4,baz=32,slow=5.9,SNR=8.5						
CLL	Collm	77.48	336	*e*P	P	19 00 15.0	+0.7
TXAR	Lajitas Array	77.65	61	P	P	19 00 15.2	-0.5
	comp=Z,1.9nm,0.7s,mb4.2,baz=294,slow=4.2,SNR=17						
STKA	Stephens Creek	78.07	190	P	P	19 00 17.6	0.0
	comp=Z,1.0nm,0.4s,mb4.1,baz=354,slow=6.2,SNR=5.7						
KHC	Kasperske Hory	79.25	335	*e*P	P	19 00 24.5	+0.4
KHC				*e*x	x	19 00 37.0	
BRTR	Keskin Array B	79.33	317	P	P	19 00 23.8	-0.9
	comp=Z,1.0nm,0.8s,mb3.8						
GERES	GERESS Array B	79.47	334	P	P	19 00 25.0	-0.4
	comp=Z,0.6nm,0.6s,mb3.7,baz=27,slow=4.5,SNR=4.8						
BAIF	Baives	80.90	341	*e*P	P	19 00 33.1	0.0
	comp=Z,9.4nm,0.9s,mb4.4						
CDF	Champ du Feu	81.67	338	*e*P	P	19 00 37.3	+0.1
	comp=Z,17nm,1.2s,mb4.5						
LOR	Lormes	83.59	340	*e*P	P	19 00 47.0	-0.2
	comp=Z,7.2nm,1.0s,mb4.5						
AVF	Avril sur Loir	84.16	340	*e*P	P	19 00 50.1	0.0
SMF	Signal de Mont	84.18	340	*e*P	P	19 00 50.4	+0.2
LPL	La Plagne	84.49	337	*e*P	P	19 00 52.8	+1.0
LPG	La Plagne	84.50	337	*e*P	P	19 00 52.9	+1.0
	comp=Z,18nm,1.3s,mb4.8						
VIVF	Saint-Julien-l	85.64	338	*e*P	P	19 00 57.3	-0.3
	comp=Z,8.8nm,1.1s,mb4.6						
QSPA	South Pole Qui	135.53	180	PKP	PKPdf	19 07 37.0	-0.7
	comp=Z,0.8nm,0.9s,baz=314,slow=14,SNR=6.3						
CFAA	Coronel Fontan	144.81	81	PKP	PKPdf	19 07 53.7	-2.2
	comp=Z,0.7nm,0.7s,baz=281,slow=3.6,SNR=15						
CFAA	Coronel Fontan	144.81	81	PKP	PKPdf	19 07 53.7	-2.3
PLCA	Paso Flores	147.75	97	PKPbc	PKPbc	19 08 02.7	-0.8
	comp=Z,1.5nm,0.7s,baz=14,slow=2.1,SNR=7.4						
PLCA	Paso Flores	147.75	97	PKPbc	PKPbc	19 08 02.7	-0.8
CPUP	Villa Florida	148.61	62	PKPbc	PKPbc	19 08 04.7	-1.5
	comp=Z,0.3nm,0.3s,baz=180,slow=9.1,SNR=3.5						

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*ISCJB **23** 18:49:06.9±1.1, 8°.00S±0°.08×122°.91E±0°.09, h184^{km}±12^{km}, mb4.5/19, Error ellipse: s-maj=19.1km s-min=6.4km az=138.9*
*NEIC **23** 18:49:08.7±1.0, 8°.16S×122°.66E, h184^{km}±10^{km}, mb4.6/10, Error ellipse: s-maj=25.9km s-min=6.2km az=56.0*
*IDC **23** 18:49:08.2±2.0, 8°.15S×122°.63E, h173^{km}±20^{km}, mb3.7/7, mb1 3.8/11, mb1mx3.7/21, mbtmp3.7/11, Error ellipse: s-maj=39.2km s-min=8.8km az=62.0*
ISC 23 18:49:07.4±1.0, **7°.99S**±0°.09×**122°.9E**±0°.1, **h168**^{km}±12^{km}, **n36**, σ**0.^{s}97**/41, **mb4.5**/19, **Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	4.32	313	P	Pn	18 50 13.3	+1.1
	2.0nm,0.3s,baz=144,slow=9.2,SNR=16						
FITZ	Fitzroy Crossi	10.39	166	*e*P	Pn	18 51 31.0	-1.3
	18nm,0.8s						
FITZ				*e*S	Sn	18 53 21.8	-5.9
FITZ	Fitzroy Crossi	10.39	166	P	Pn	18 51 30.9	-1.4
	0.7nm,0.3s,baz=4.8,slow=10,SNR=14						
FITZ				S	Sn	18 53 22.3	-5.4
	3.2nm,0.3s,baz=179,slow=9.1,SNR=11						
KAKA	Kakadu	10.47	117	*e*P	Pn	18 51 34.4	+1.0
	9.5nm,0.3s						
KAKA				*e*S	Sn	18 53 26.7	-3.0
WRA	Warramunga Arr	16.24	138	P	Pn	18 52 46.6	+0.5
	0.4nm,0.3s,baz=315,slow=12,SNR=5.0						
WRA				S	S	18 55 42.4	-4.3
	1.4nm,0.3s,baz=318,slow=25,SNR=12						
WRAB	Tennant Creek	16.24	138	*e*P	Pn	18 52 46.5	+0.3
	6.2nm,0.6s						
WRAB				*e*Sn	Sn	18 55 38.7	-9.1
ASAR	Alice Springs	18.81	147	P	P	18 53 15.7	+1.4
	1.1nm,0.3s,baz=328,slow=12,SNR=88						
ASAR				S	S	18 56 42.3	+2.8
	0.4nm,0.3s,baz=312,slow=20,SNR=8.2						
FORT	Forrest	23.18	169	*e*P	P	18 53 59.3	+0.2
	23nm,0.8s,mb4.7						
MUN	Mundaring	24.67	194	*e*P	P	18 54 12.7	0.0
NWAO	Narrogin (SRO)	25.37	191	P	P	18 54 17.7	-1.3
	12nm,1.0s,mb4.4,baz=0.0,slow=5.1,SNR=13						
KULM	Kulim	25.83	300	*e*P	P	18 54 26.8	+3.3
	10nm,0.7s,mb4.6						
STKA	Stephens Creek	29.45	146	P	P	18 54 56.1	+0.8
	1.1nm,0.4s,mb4.0,baz=328,slow=10,SNR=12						
CMAR	Chiang Mai Arr	35.36	318	P	P	18 55 48.1	+1.1
	0.3nm,0.6s,mb3.1,baz=146,slow=7.5,SNR=3.8						
ODAN	Odare	48.85	316	*e*P	P	18 57 35.9	-0.2
	3.8nm,0.3s,mb4.4						
ODAN	Odare	48.85	316	*e*P	P	18 57 35.9	-0.2
	3.8nm,0.3s,mb4.5						
TAPN	Taplejung	48.95	317	*e*P	P	18 57 36.6	-0.2
	9.8nm,0.6s,mb4.6						
TAPN	Taplejung	48.95	317	*e*P	P	18 57 36.6	-0.2
	9.8nm,0.6s,mb4.6						
RAMN	Ramite	49.45	316	*e*P	P	18 57 40.6	0.0
	23nm,0.6s,mb5.0						
RAMN	Ramite	49.45	316	*e*P	P	18 57 40.6	0.0
	23nm,0.6s,mb5.0						
GUN	Gumba	50.55	316	*e*P	P	18 57 49.2	+0.3
	24nm,0.7s,mb5.0						
PKI	Pulchoki	50.66	316	*e*P	P	18 57 49.3	-0.5
	13nm,0.3s,mb5.1						
PKI	Pulchoki	50.66	316	*e*P	P	18 57 49.3	-0.5
	13nm,0.3s,mb5.0						
KKN	Kakani	50.89	316	*e*P	P	18 57 50.7	-0.7
	15nm,0.7s,mb4.7						
KKN	Kakani	50.89	316	*e*P	P	18 57 50.7	-0.7
	15nm,0.7s,mb4.7						
DMN	Daman	50.90	315	*e*P	P	18 57 50.8	-0.7
	6.5nm,0.5s,mb4.5						
DMN	Daman	50.90	315	*e*P	P	18 57 50.8	-0.7
	6.5nm,0.5s,mb4.5						
GKN	Gorkha	51.47	316	*e*P	P	18 57 54.8	-0.9
	12nm,0.3s,mb5.0						
GKN	Gorkha	51.47	316	*e*P	P	18 57 54.8	-0.9
	12nm,0.3s,mb5.0						
KOLN	Koldanda	52.05	315	*e*P	P	18 57 59.1	-1.0
	2.2nm,0.2s,mb4.4						
KOLN	Koldanda	52.05	315	*e*P	P	18 57 59.1	-1.0
	2.2nm,0.2s,mb4.4						
DANN	Dangsing	52.29	315	*e*P	P	18 58 01.4	-0.4
	31nm,0.5s,mb5.2						
SONM	Songino Array	57.47	347	P	P	18 58 38.6	0.0
	0.5nm,0.5s,mb3.6,baz=170,slow=8.8,SNR=3.3						
MKAR	Makanchi Array	65.41	331	P	P	18 59 32.9	+0.9
	2.9nm,0.6s,mb4.3,baz=134,slow=8.0,SNR=29						
ZALV	Zalesovo Beam	69.55	337	P	P	18 59 57.9	+0.1
	2.8nm,0.6s,mb4.2,baz=140,slow=4.9,SNR=12						
KURK	Kurchatov	69.88	332	P	P	18 59 59.5	-0.3
	1.8nm,0.4s,mb4.1,baz=140,slow=5.5,SNR=9.4						
TORD	Torodi Ar. Bea	122.09	280	PKP	PKPdf	19 07 40.7	-2.3
	0.5nm,0.8s,baz=78,slow=1.7,SNR=3.1						

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*ISCJB **23** 18:49:13.7±1.4, 19°.1S±0°.1×169°.4E±0°.1, h288^{km}±12^{km}, mb4.1/8, Error ellipse: s-maj=21.2km s-min=18.0km az=169.9*
*NEIC **23** 18:49:13.2±1.5, 19°.07S×169°.51E, h276^{km}±13^{km}, mb4.4/3, Error ellipse: s-maj=16.8km s-min=15.1km az=67.0*
*IDC **23** 18:49:15.2±4.5, 19°.14S×169°.45E, h295^{km}±46^{km}, mb3.7/8, mb1 3.9/9, mb1mx3.7/18, mbtmp3.8/9, Error ellipse: s-maj=22.9km s-min=19.8km az=13.0*
ISC 23 18:49:14.1±1.5, **19°.1S**±0°.1×**169°.5E**±0°.1, **h279**^{km}±13^{km}, **n24**, σ**0.^{s}92**/20, **mb4.1**/8, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	4.12	223	*e*Pn	Pn	18 50 19.4	-1.1
DZM				*e*		18 50 29.8	
NOUC	Port Laguerre	4.23	224	*e*P	Pn	18 50 22.7	+0.9
HNR	Honiara	13.30	315	P	Pn	18 52 13.6	+0.6
	5.6nm,0.3s,baz=231,slow=3.2,SNR=8.9						
HNR	Honiara	13.30	315	*e*Pn	Pn	18 52 12.6	-0.4
HNR				P		18 52 13.6	
EIDS	Eidsvold	18.14	246	*e*Pn	P	18 53 07.5	+1.1
	16nm,1.3s						
ARMA	Armidale	19.73	232	*e*P	P	18 53 24.7	+1.4
URZ	Urewera	20.24	162	P	P	18 53 28.2	-0.4
	7.6nm,0.5s,baz=339,slow=8.6,SNR=4.3						
CTA	Charters Tower	21.90	263	*e*P	P	18 53 45.8	+0.9
	3.4nm,0.6s,mb3.9						
CTA	Charters Tower	21.90	263	P	P	18 53 44.5	-0.4
	4.4nm,0.7s,mb3.9,baz=87,slow=12,SNR=12						
CTAO	Charters Tower	21.90	263	*e*P	P	18 53 45.5	+0.6
	2.9nm,0.6s,mb3.8						
STKA	Stephens Creek	28.12	238	*e*P	P	18 54 41.2	+0.5
	4.2nm,0.6s,mb4.0						
STKA	Stephens Creek	28.12	238	P	P	18 54 41.0	+0.3
	3.6nm,0.7s,mb3.9,baz=36,slow=5.4,SNR=12						
STKA	Stephens Creek	28.12	238	P	P	18 54 41.0	+0.3
WRAB	Tennant Creek	33.09	263	*e*P	P	18 55 22.5	-1.8
WRA	Warramunga Arr	33.10	263	P	P	18 55 22.8	-1.6
	1.9nm,0.6s,mb3.8,baz=96,slow=8.2,SNR=7.6						
ASAR	Alice Springs	33.39	256	P	P	18 55 26.4	-0.4
	13nm,0.5s,mb4.7,baz=83,slow=9.1,SNR=75						
KSM	Kuching	61.56	283	*e*P	P	18 59 02.1	-0.4
	68nm,1.5s,mb5.1						
PETK	Petropavlovsk-	72.60	353	P	P	19 00 11.2	+0.4
	5.0nm,0.8s,mb4.2,baz=131,slow=4.8,SNR=11						
CMAR	Chiang Mai Arr	78.64	294	P	P	19 00 46.6	+0.9
	0.5nm,0.8s,mb3.3,baz=99,slow=2.9,SNR=3.4						
NVAR	Mina Array Bea	88.52	48	P	P	19 01 35.3	+0.1
	0.5nm,0.5s,mb3.6,baz=232,slow=4.4,SNR=5.2						
YKA	Yellowknife Ar	100.42	27	P	Pdif	19 02 28.6	-0.7
	0.1nm,0.7s,baz=253,slow=4.7,SNR=5.7						
YKA	Yellowknife Ar	100.42	27	P	Pdif	19 02 28.6	-0.7
ARCES	ARCESS Array B	124.97	345	PKP	PKPdf	19 07 38.1	-2.1
	2.0nm,0.8s,baz=36,slow=3.1,SNR=5.4						
GERES	GERESS Array B	144.45	332	PKP	PKPdf	19 08 15.6	-1.3
	0.8nm,0.5s,baz=33,slow=4.2,SNR=8.3						

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*BJI **23** 18:52:31.8, 2°.66S×100°.19E, h23^{km}, mB5.4/9, mb4.8/22, Ms5.3/2, Ms7 5.0/2*
*IDC **23** 18:52:31.7±1.0, 2°.36S×100°.13E, h0^{km}, mb4.5/15, mb1 4.6/16, mb1mx4.4/25, mbtmp4.5/16, ML3.7/2, MS4.2/2, Ms1 4.4/2, ms1mx3.5/28, Error ellipse: s-maj=34.5km s-min=13.5km az=58.0*
*DJA **23** 18:52:34, 2°.53S×99°.80E, h17^{km}, MLv4.5/6*
*ISCJB **23** 18:52:34.5±0.7, 2°.55S±0°.05×99°.81E±0°.07, h43^{km}±6^{km}, mb4.7/39, MS4.3/3, Error ellipse: s-maj=12.6km s-min=7.0km az=150.8*
*MOS **23** 18:52:35.9±1.1, 2°.19S×100°.24E, h34^{km}, mb4.9/15, Error ellipse: s-maj=15.5km s-min=7.8km az=98.3*
*NEIC **23** 18:52:37.0±0.4, 2°.33S×100°.10E, h35^{km}, mb4.8/18, Error ellipse: s-maj=14.6km s-min=6.1km az=58.0*
ISC 23 18:52:34.9±1.0, **2°.53S**±0°.05×**99°.82E**±0°.06, **h28**^{km}±7^{km}, **h29**^{km}±1.8^{km}**:pP-P**, **n89**, σ**1.^{s}21**/84, **mb4.7**/39, **MS4.3**/3, **1C-2D**, **Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	0.30	140	P	Pb	18 52 41.9	-0.3
SISI	Saibi	1.40	329	P	Pn	18 52 59.1	+0.5
PDSI	Padang	1.73	22	P	Pn	18 53 03.3	+0.1
PPI	Padang Panjang	2.14	16	P	Pn	18 53 09.6	+0.8
SDSI	Sungai Dareh	2.26	45	P	Pn	18 53 11.7	+1.2
KSI	Kapahiang	2.99	112	P	Pn	18 53 21.0	+0.5
RGRI	Rengat	3.32	49	P	Pn	18 53 26.3	+1.2
GSI	Gunungsitoli	4.42	330	P	Pn	18 53 40.2	0.0
MDSI	Maura Dua	4.77	114	P	Pn	18 53 46.4	+1.4
PSI	Prapat	5.37	350	Pn	Pn	18 53 50.2	-3.1
	0.6nm,0.3s,baz=187,slow=12,SNR=4.7						
PSI	Prapat	5.37	350	Pn	Pn	18 53 50.2	-3.1
IPM	Ipoh	7.07	10	P	Pn	18 54 16.8	+0.2
COCO	West Island	10.04	197	P	Pn	18 54 56.5	-0.9
KAPI	Kappang	20.05	98	P	P	18 57 03.1	-3.0
	1.1nm,0.3s,baz=240,slow=16,SNR=5.0						
KAPI	Kappang	20.05	98	*e*P	P	18 57 06.1	0.0
	37nm,1.0s						
CMAR	Chiang Mai Arr	20.87	358	P	P	18 57 13.6	-1.4
	7.8nm,1.0s,baz=186,slow=10.0,SNR=39						
CMAR				LR	LR	19 05 43.6	
	comp=Z,262nm,21.4s,MS3.6,baz=25,slow=38						
CHTO	Chiang Mai	21.23	358	*e*P	P	18 57 17.7	-1.1
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
CHTO	Chiang Mai	21.23	358	*e*P	P	18 57 17.7	-1.0
	comp=Z,4.4nm,0.8s,mb3.8						
SHL	Shillong	28.97	345	*e*PKP	P	18 58 33.0	+0.8
LSA	Lhasa	33.10	346	P	P	18 59 09.9	+1.3
LSA	Lhasa	33.10	346	*e*P	P	18 59 10.3	+1.7
LSA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
LSA	Lhasa	33.10	346	*e*P	P	18 59 10.3	+1.7
	comp=Z,8.4nm,1.0s,mb4.6						
XAN	Xi'an	37.37	13	P	P	18 59 43.9	-1.4
XAN				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.8						
XAN				pmax	pmax		
	comp=Z,300nm,9.5s						
WRA	Warramunga Arr	37.89	120	P	P	18 59 49.0	-0.9
	comp=Z,10nm,0.7s,mb4.7,baz=300,slow=9.1,SNR=20						
WRAB	Tennant Creek	37.89	120	*e*P	P	18 59 50.1	+0.1
WRAB				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.7						
WRAB	Tennant Creek	37.89	120	*e*P	P	18 59 50.1	+0.1
	comp=Z,11nm,0.7s,mb4.7						
LZH	Lanzhou	38.60	5	*e*P	P	18 59 56.1	+0.4
LZH				pP	pP	19 00 05.5	+1.5
LZH				sP	sP	19 00 09.6	+2.2
LZH				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.7						
LZH				pmax	pmax		
	comp=Z,100nm,5.0s						
NJ2	Nanjing	38.85	26	*e*P	P	18 59 59.4	+1.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
ASAR	Alice Springs	39.09	125	P	P	18 59 59.6	-0.4
	comp=Z,6.1nm,0.8s,mb4.4,baz=300,slow=7.5,SNR=17						
GTA	Gaotai	41.73	360	*e*P	P	19 00 22.3	+0.7
GTA				pP	pP	19 00 27.5	-2.5
GTA				sP	sP	19 00 31.0	-2.3
GTA				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.3						
BJT	Baijiatuau	44.92	18	*e*P	P	19 00 47.0	-0.3
BJT				pmax	pmax		
	comp=Z,27nm,1.0s						
BJT	Baijiatuau	44.92	18	*e*P	P	19 00 47.0	-0.4

	comp=Z,27nm,1.0s,mb5.0						
KSH	**Kashi**	**47.23**	**335**	*e*P	**P**	**19 01 11.5**	**+6.0**
KSH				*e*PcP	PcP	19 02 39.0	+2.4
KSH				*e*PP	PP	19 03 02.6	+5.8
KSH				*e*ScP	ScP	19 06 28.3	-0.6
KSH				*e*PcS	PcS	19 06 33.5	+1.8
KSH				*e*S	**S**	**19 08 05.3**	**+8.4**
KSH				*e*ScS	ScS	19 10 58.8	+0.9
KSH				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
KSH				pmax	pmax		
	comp=Z,67nm,3.3s						
KSH				LR	LR		
	comp=N,150nm,5.8s						
KSH				LR	LR		
	comp=E,580nm,6.8s						
KSH				LR	LR		
	comp=Z,540nm,7.8s						
WMQ	**Urumqi**	**47.41**	**348**	P	**P**	**19 01 08.8**	**+2.0**
WMQ				pP	pP	19 01 17.0	+1.7
WMQ				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
WMQ				pmax	pmax		
	comp=Z,320nm,6.2s						
KSRS	**Korea Array**	**47.57**	**31**	P	**P**	**19 01 06.6**	**-1.6**
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
KSRS	**Korea Array**	**47.57**	**31**	P	**P**	**19 01 06.6**	**-1.6**
	comp=Z,6.3nm,0.9s,mb4.7,baz=225,slow=9.3,SNR=9.8						
CTA	**Charters Tower**	**48.54**	**115**	*e*P	**P**	**19 01 15.5**	**-0.6**
	comp=Z,5.8nm,0.9s,mb4.6						
CTA	**Charters Tower**	**48.54**	**115**	P	**P**	**19 01 15.7**	**-0.3**
	comp=Z,8.2nm,0.9s,mb4.8,baz=298,slow=8.8,SNR=9.6						
CTAO	**Charters Tower**	**48.54**	**115**	*e*P	**P**	**19 01 15.5**	**-0.6**
CTAO				*e*	pP	19 01 24.1	-0.4
CTAO				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
CTAO	**Charters Tower**	**48.54**	**115**	*e*P	**P**	**19 01 15.5**	**-0.6**
	comp=Z,8.9nm,1.3s,mb4.6						
CTAO				*e*	pP	19 01 24.1	-0.4
STKA	**Stephens Creek**	**48.94**	**131**	*e*P	**P**	**19 01 19.5**	**+0.6**
	comp=Z,5.0nm,0.8s,mb4.6						
STKA	**Stephens Creek**	**48.94**	**131**	P	**P**	**19 01 19.6**	**+0.7**
	comp=Z,5.8nm,0.7s,mb4.7,baz=293,slow=5.9,SNR=12						
UCH	**Uchtor**	**50.10**	**336**	*e*P	**P**	**19 01 29.4**	**+1.8**
	comp=Z,8.3nm,1.3s,mb4.6						
TKM2	**Tokmak 2**	**50.24**	**337**	*e*P	**P**	**19 01 29.7**	**+1.1**
TKM2				*e*	pP	19 01 36.9	-0.2
TKM2				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
TKM2	**Tokmak 2**	**50.24**	**337**	*e*P	**P**	**19 01 29.7**	**+1.0**
	comp=Z,11nm,1.0s,mb4.8						
TKM2				*e*	pP	19 01 36.9	-0.3
AAK	**Ala-Archa**	**50.44**	**336**	*i* P	**P**	**19 01 29.2**	**-0.9**
SONM	**Songino Array**	**50.49**	**6**	P	**P**	**19 01 30.6**	**+0.2**
	comp=Z,13nm,0.9s,mb5.0,baz=186,slow=7.9,SNR=70						
ULN	**Ulaanbaatar**	**50.59**	**6**	*e*P	**P**	**19 01 32.1**	**+1.0**
ULN				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**50.59**	**6**	*e*P	**P**	**19 01 32.1**	**+1.0**
	comp=Z,14nm,1.0s,mb4.8						
EKS2	**Erkin-Say**	**50.76**	**335**	*e*P	**P**	**19 01 34.1**	**+1.5**
	comp=Z,12nm,0.9s,mb4.8						
EKS2				*e*	pP	19 01 40.8	-0.3
MKAR	**Makanchi Array**	**51.49**	**345**	P	**P**	**19 01 38.9**	**+1.0**
	comp=Z,11nm,0.7s,mb4.9,baz=149,slow=8.1,SNR=83						
ZAK	**Zakamensk**	**52.79**	**3**	*e*P	**P**	**19 01 45.3**	**-2.2**
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
MJAR	**Matsushiro Arr**	**52.80**	**39**	P	**P**	**19 01 46.5**	**-1.3**
	comp=Z,5.9nm,1.1s,mb4.4,baz=208,slow=7.3,SNR=4.3						
MDJ	**Mudanjiang**	**53.94**	**26**	P	**P**	**19 01 53.9**	**-2.3**
	comp=Z,38nm,1.4s,mb5.1						
TLY	**Talaya**	**54.10**	**3**	*e*P	**P**	**19 01 58.6**	**+1.4**
TLY				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
TLY	**Talaya**	**54.10**	**3**	*e*P	**P**	**19 01 55.4**	**-1.7**
	comp=Z,6.1nm,1.1s,mb4.4						
HIA	**Hailar**	**54.40**	**16**	*e*P	**P**	**19 01 59.4**	**0.0**
HIA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
HIA	**Hailar**	**54.40**	**16**	*e*P	**P**	**19 01 59.4**	**0.0**
	comp=Z,5.3nm,0.8s,mb4.5						
KURK	**Kurchatov**	**56.06**	**344**	P	**P**	**19 02 11.3**	**0.0**
	comp=Z,7.3nm,0.9s,mb4.7,baz=161,slow=6.7,SNR=7.5						
KURK	**Kurchatov**	**56.06**	**344**	P	**P**	**19 02 11.3**	**0.0**
KURK				*e*	pP	19 02 20.3	+0.4
ZAA0	**Zalesovo Array**	**57.65**	**350**	*e*P	**P**	**19 02 22.6**	**0.0**
ZALV	**Zalesovo Beam**	**57.65**	**350**	P	**P**	**19 02 23.0**	**+0.5**
	comp=Z,8.7nm,0.7s,mb4.9,baz=174,slow=5.7,SNR=35						
TAU	**Tasmania Unive**	**58.29**	**140**	P	**P**	**19 02 30.3**	**+3.0**
TAU				pmax	pmax		
	comp=Z,108nm,1.4s,mb5.7						
TAU	**Tasmania Unive**	**58.29**	**140**	P	**P**	**19 02 30.3**	**+3.0**
	comp=Z,108nm,1.4s,mb5.7						
KLR	**Kul'dur**	**58.49**	**24**	*e*P	**P**	**19 02 24.2**	**-4.3**
KLR				pmax	pmax		
	comp=Z,57nm,1.6s,mb5.3						
NVS	**Novosibirsk**	**58.80**	**349**	*e*P	**P**	**19 02 29.3**	**-1.2**
HABR	**Khabarovsk**	**59.32**	**27**	*e*P	**P**	**19 02 33.0**	**-1.3**
HABR				*e**PP	pP	19 02 43.2	+0.3
HABR				*e*		19 03 19.3	
HABR				*e*		19 04 45.1	
HABR				S	**S**	**19 10 42.4**	**+1.5**
HABR				*e*		19 12 20.4	
HABR				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.2						
HABR				pmax	pmax		
	comp=E,38nm,2.1s						
HABR				pmax	pmax		
	comp=N,16nm,1.6s						
HABR				MLR	MLR		
	comp=Z,220nm,16.0s,MS4.4						
YSS	**Yuzh-Sakhalins**	**62.03**	**32**	P	**P**	**19 02 51.8**	**-1.0**
YSS				pmax	pmax		
	comp=Z,45nm,1.4s,mb5.4						
YSS	**Yuzh-Sakhalins**	**62.03**	**32**	P	**P**	**19 02 51.8**	**-1.0**
	comp=Z,45nm,1.4s,mb5.4						
ARU	**Arti**	**67.62**	**337**	*d i*P	**P**	**19 03 27.2**	**-1.8**
ARU				*e*		19 05 55.4	
ARU				S	S	19 12 23.9	-0.2
ARU				pmax	pmax		
	comp=Z,11nm,2.3s,mb4.5						
ARU	**Arti**	**67.62**	**337**	P	**P**	**19 03 27.7**	**-1.3**
	comp=Z,6.3nm,1.0s,mb4.6						
YAK	**Yakutsk**	**68.30**	**15**	*e*P	**P**	**19 03 32.1**	**-1.1**
YAK				*e*	pP	19 03 41.2	-0.8
YAK				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=N,9.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.3s						
YAK	**Yakutsk**	**68.30**	**15**	*e*P	**P**	**19 03 32.4**	**-0.7**
	comp=E,17nm,0.8s,mb5.1						
PETK	**Petropavlovsk-**	**73.43**	**32**	P	**P**	**19 04 02.5**	**-2.1**
	comp=E,4.3nm,1.0s,mb4.3,baz=261,slow=8.6,SNR=3.8						
SEY	**Seymchan**	**76.19**	**22**	⇓*i*P	**P**	**19 04 20.7**	**+0.4**
TIXI	**Tiksi**	**76.41**	**9**	⇑*i*P	**P**	**19 04 20.1**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
TIXI	**Tiksi**	**76.41**	**9**	*e*P	**P**	**19 04 20.5**	**-0.9**
	comp=Z,3.6nm,0.7s,mb4.4						
ARCES	**ARCESS Array B**	**86.91**	**340**	P	**P**	**19 05 18.4**	**+1.6**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES				MLR	MLR		
	comp=Z,417nm,20.2s						
ARCES	**ARCESS Array B**	**86.91**	**340**	P	**P**	**19 05 18.4**	**+1.6**
	comp=Z,1.7nm,0.7s,mb4.4,baz=99,slow=6.3,SNR=4.3						
ARCES				LR	LR	19 45 39.4	
	comp=Z,417nm,20.2s,MS4.8,baz=298,slow=37						
QSPA	**South Pole Qui**	**87.44**	**180**	P	**P**	**19 05 20.8**	**+1.5**
	comp=Z,1.9nm,1.1s,mb4.2,baz=152,slow=0.6,SNR=2.8						
GERES	**GERESS Array B**	**89.32**	**319**	P	**P**	**19 05 30.0**	**+1.2**
	comp=Z,0.5nm,0.9s,mb3.8,baz=94,slow=5.2,SNR=3.6						
CLL	**Collm**	**89.96**	**321**	*e*P	**P**	**19 05 29.0**	**-2.7**
TXAR	**Lajitas Array**	**145.23**	**38**	PKP	PKPdf	19 12 11.4	+0.6
	comp=Z,10nm,0.7s,baz=296,slow=0.9,SNR=97						
MIAR	**Mount Ida**	**145.79**	**20**	*e*PKIKP	PKPdf	19 12 12.3	+0.7
WVT	**Waverly**	**145.83**	**11**	*e*PKIKP	PKPdf	19 12 11.7	+0.1
JCT	**Junction City**	**146.57**	**32**	*e*PKPbc	PKPbc	19 12 15.0	+0.6
JCT				*e*		19 12 23.6	
PLAL	**Pickwick Lake**	**146.89**	**12**	*e*PKPdf	PKPdf	19 12 13.7	+0.3
OXF	**Oxford**	**147.04**	**14**	*e*PKP2	PKPab	19 12 15.2	-1.9
LVC	**Limon Verde**	**152.69**	**203**	*e*PKPdf	PKPdf	19 12 25.7	+2.8

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*ISCJB **23** 19:03:45.7±0.5, 57°.15S±0°.09×23°.6W±0°.2, h10^{km}, mb3.9/10, Error ellipse: s-maj=14.9km s-min=10.6km az=138.2*

*IDC **23** 19:03:46.1±0.7, 57°.14S×23°.53W, h0^{km}, mb4.0/10, mb1 4.1/10, mb1mx4.0/19, mbtmp4.0/10, Error ellipse: s-maj=26.3km s-min=18.4km az=16.0*

*NEIC **23** 19:03:47.4±0.4, 57°.16S×23°.57W, h10^{km}, mb4.9/1, Error ellipse: s-maj=14.9km s-min=9.6km az=186.0*

ISC 23 19:03:47.6±0.5**, 57°.16S**±0°.09×**23°.6W**±0°.2**, h10**^{km}**, n23, σ0^{s}.77**/18**, mb3.9**/10**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	**Neumayer Olymp**	**15.30**	**163**	*e*PKPdf	**Pn**	**19 07 23.3**	**0.0**
VNA3				*e*S	**Sn**	**19 09 59.0**	**-14**
VNA2	**Neumayer--Watz**	**15.43**	**160**	*e*PKPdf	**Pn**	**19 07 24.9**	**0.0**
	baz=322,slow=14						
EFI	**East Falkland**	**20.64**	**271**	P	**P**	**19 08 25.8**	**-1.2**
	60nm,1.0s						
QSPA	**South Pole Qui**	**33.09**	**180**	P	**P**	**19 10 24.4**	**+1.6**
	1.6nm,0.9s,mb4.0,baz=231,slow=3.2,SNR=8.7						
PLCA	**Paso Flores**	**34.15**	**278**	P	**P**	**19 10 32.5**	**0.0**
	1.1nm,0.9s,mb3.8,baz=126,slow=12,SNR=3.1						
PLCA	**Paso Flores**	**34.15**	**278**	P	**P**	**19 10 32.5**	**0.0**
CPUP	**Villa Florida**	**39.06**	**308**	P	**P**	**19 11 14.6**	**+0.2**
	1.0nm,0.6s,mb3.8,baz=96,slow=10,SNR=6.0						
CFAA	**Coronel Fontan**	**39.83**	**291**	P	**P**	**19 11 20.4**	**-0.4**
	0.2nm,0.4s,mb3.2,baz=149,slow=5.2,SNR=6.2						
BOSA	**Boshof**	**44.37**	**71**	P	**P**	**19 11 57.1**	**-0.8**
	2.0nm,0.8s,mb3.9,baz=219,slow=8.0,SNR=3.1						
LBTB	**Lobatse**	**47.49**	**69**	P	**P**	**19 12 22.3**	**-0.2**
	1.8nm,0.7s,mb4.1,baz=245,slow=8.1,SNR=3.5						
LBTB	**Lobatse**	**47.49**	**69**	P	**P**	**19 12 22.3**	**-0.2**
LVC	**Limon Verde**	**47.58**	**297**	P	**P**	**19 12 24.4**	**+1.1**
	4.1nm,0.7s,mb4.6,baz=123,slow=4.7,SNR=6.0						
LVC	**Limon Verde**	**47.58**	**297**	P	**P**	**19 12 24.4**	**+1.1**
SIV	**San Ignacio**	**49.81**	**310**	P	**P**	**19 12 40.5**	**0.0**
	0.7nm,0.6s,mb3.9,baz=250,slow=15,SNR=5.1						
TOA0	**Torodi Ar. Sit**	**73.12**	**26**	*e*P	**P**	**19 15 18.6**	**+0.7**
TORD	**Torodi Ar. Bea**	**73.12**	**26**	P	**P**	**19 15 18.4**	**+0.4**
	4.0nm,0.7s,mb4.4,baz=195,slow=6.3,SNR=28						
ASAR	**Alice Springs**	**97.28**	**159**	P	**P**	**19 17 19.3**	**-1.3**
	0.3nm,0.7s,mb3.8,baz=191,slow=4.9,SNR=4.4						
PDAR	**Pinedale Array**	**122.63**	**299**	PKP	PKPdf	19 22 42.4	0.0
	0.2nm,0.4s,baz=186,slow=2.7,SNR=2.6						
CMAR	**Chiang Mai Arr**	**122.81**	**108**	PKP	PKPdf	19 22 43.9	+0.3
	0.8nm,0.7s,baz=231,slow=4.1,SNR=7.5						
ARCES	**ARCESS Array B**	**131.26**	**21**	PKP	PKPdf	19 22 58.4	+0.3
	1.5nm,0.6s,baz=224,slow=2.3,SNR=18						
MKAR	**Makanchi Array**	**135.37**	**70**	PKP	PKPdf	19 23 05.2	-1.2
	0.3nm,0.7s,baz=275,slow=2.8,SNR=3.0						
YKA	**Yellowknife Ar**	**138.35**	**316**	PKP	PKPdf	19 23 11.8	+0.3
	0.7nm,0.7s,baz=127,slow=2.5,SNR=13						
SONM	**Songino Array**	**148.81**	**86**	PKPbc	PKPbc	19 23 34.5	+0.4
	2.0nm,0.6s,baz=229,slow=3.0,SNR=16						

IDC 23 19:06:59.9±3.6**, 6°.62S**×**127°.50E, h428**^{km}±46^{km}**, mb2.8**/2**, mb1 3.1**/4**, mb1mx2.8**/16**, mbtmp2.9**/4**, Error ellipse: s-maj=109.0km s-min=16.1km az=67.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.81**	**154**	P	P	19 10 09.1	-0.5
	0.7nm,0.3s,baz=332,slow=11,SNR=26						
WRA				S	S	19 12 43.6	-2.8
	0.1nm,0.3s,baz=332,slow=18,SNR=4.1						
ASAR	**Alice Springs**	**18.03**	**161**	P	P	19 10 43.6	0.0
	0.4nm,0.3s,baz=336,slow=10,SNR=36						
ASAR				S	S	19 13 48.7	+0.4
	0.1nm,0.3s,baz=346,slow=22,SNR=4.3						
STKA	**Stephens Creek**	**28.36**	**154**	P	P	19 12 17.6	+0.3
	0.6nm,0.3s,baz=323,slow=9.4,SNR=4.5						
MKAR	**Makanchi Array**	**66.57**	**328**	P	P	19 17 06.0	+0.1
	0.2nm,0.5s,baz=131,slow=6.5,SNR=6.1						

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*ISCJB **23** 19:17:15.6±0.5, 39°.42N±0°.02×26°.31E±0°.03, h3^{km}±4^{km}, Error ellipse: s-maj=4.0km s-min=3.1km az=164.1*

*CSEM **23** 19:17:15.7±0.1, 39°.41N×26°.31E, h2^{km}, ML2.8/5, Error ellipse: s-maj=2.7km s-min=2.4km az=66.0*

*DDA **23** 19:17:15.9, 39°.42N×26°.32E, h17^{km}, Md2.7*

*THE **23** 19:17:16.8, 39°.38N×26°.23E, h7^{km}±2^{km}, ML2.8/5, Error ellipse: s-maj=2.8km s-min=0.7km az=212.0*

*ISK **23** 19:17:16.1, 39°.48N×26°.30E, h7^{km}, MD3.0*

ISC 23 19:17:16.0±0.4**, 39°.42N**±0°.02×**26°.31E**±0°.03**, h3**^{km}±5^{km}**, n46, σ0^{s}.62**/71**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	**Paraskevi**	**0.17**	**190**	P	**Pg**	**19 17 19.3**	**0.0**
PRK				S	**Sg**	**19 17 22.3**	**+0.7**
PRK	**Paraskevi**	**0.17**	**190**	P	**Pg**	**19 17 19.3**	**0.0**
PRK				S	**Sg**	**19 17 22.3**	**+0.7**
AYVA	**Ayvalik**	**0.31**	**110**	*i* P	**Pg**	**19 17 22.0**	**0.0**
AYVA				*i* S	**Sg**	**19 17 26.9**	**+0.9**
AYVA	**Ayvalik**	**0.31**	**110**	*i* P	**Pg**	**19 17 22.0**	**0.0**
AYVA				*i* S	**Sg**	**19 17 26.9**	**+0.8**
SIGR	**SIGRI**	**0.41**	**240**	P	**Pg**	**19 17 23.8**	**0.0**
SIGR				S	**Sg**	**19 17 29.1**	**0.0**
SIGR	**SIGRI**	**0.41**	**240**	P	**Pg**	**19 17 23.8**	**0.0**
SIGR				S	**Sg**	**19 17 29.1**	**0.0**
EZN	**Ezine**	**0.41**	**2**	*e*PG	**Pg**	**19 17 23.6**	**-0.2**
EZN				*e*SG	**Sg**	**19 17 29.0**	**-0.2**
EZN	**Ezine**	**0.41**	**2**	*e*Pg	**Pg**	**19 17 23.6**	**-0.2**
EZN				*e*Sg	**Sg**	**19 17 29.0**	**-0.2**
BOZC	**Bozcaada**	**0.47**	**335**	*i* P	**Pg**	**19 17 25.1**	**+0.1**
BOZC				*i* S	**Sg**	**19 17 31.8**	**+0.7**
GADA	**Gvkgeada**	**0.84**	**338**	*e*PG	**Pg**	**19 17 31.4**	**-0.6**
GADA				*e*SG	**Sg**	**19 17 42.8**	**-0.1**
GADA	**Gvkgeada**	**0.84**	**338**	*e*Pg	**Pg**	**19 17 31.4**	**-0.6**
GADA				*e*Sg	**Sg**	**19 17 42.8**	**-0.1**
LIA	**Limnos Island**	**0.99**	**299**	P	**Pg**	**19 17 34.7**	**-0.3**
LIA				S	**Sg**	**19 17 48.2**	**+0.3**
LIA	**Limnos Island**	**0.99**	**299**	P	**Pg**	**19 17 34.7**	**-0.3**
LIA				S	**Sg**	**19 17 48.2**	**+0.3**
LPK	**Lapseki**	**1.02**	**20**	*e*PG	**Pg**	**19 17 34.5**	**-0.9**
LPK	**Lapseki**	**1.02**	**20**	*e*Pg	**Pg**	**19 17 34.5**	**-0.9**
CHOS	**Chios island**	**1.05**	**191**	P	**Pg**	**19 17 35.5**	**-0.5**
CHOS				S	**Sg**	**19 17 49.5**	**-0.1**
CHOS	**Chios island**	**1.05**	**191**	P	**Pg**	**19 17 35.5**	**-0.5**
CHOS				S	**Sg**	**19 17 49.5**	**-0.1**
BALY	**Balya**	**1.06**	**72**	*i* P	**Pg**	**19 17 36.1**	**-0.2**
BALY				*i* S	**Sg**	**19 17 51.1**	**+1.1**
BALY	**Balya**	**1.06**	**72**	*i* P	**Pg**	**19 17 36.1**	**-0.2**
BALY				*i* S	**Sg**	**19 17 51.2**	**+1.1**
URLA	**Izmir**	**1.08**	**168**	*i* P	**Pg**	**19 17 35.8**	**-0.8**
URLA				*i* S	**Sg**	**19 17 50.8**	**+0.2**
URLA	**Izmir**	**1.08**	**168**	*i* P	**Pg**	**19 17 35.8**	**-0.8**
URLA				*i* S	**Sg**	**19 17 50.8**	**+0.2**
LOS	**Limnos**	**1.08**	**299**	P	**Pg**	**19 17 37.0**	**+0.3**
LOS	**Limnos**	**1.08**	**299**	P	**Pg**	**19 17 37.0**	**+0.3**
BALB	**Balikesir**	**1.23**	**79**	*e*PN	**Pn**	**19 17 40.1**	**+0.1**
BALB	**Balikesir**	**1.23**	**79**	*e*Pn	**Pn**	**19 17 40.2**	**+0.1**
AKHS	**Akhisar**	**1.29**	**114**	*i* P	**Pg**	**19 17 39.6**	**-1.0**
AKHS				*i* S	**Sg**	**19 17 57.1**	**-0.2**
AKHS	**Akhisar**	**1.29**	**114**	*i* P	**Pg**	**19 17 39.6**	**-1.0**
AKHS				*i* S	**Sg**	**19 17 57.1**	**-0.2**
ENEZ	**Enez**	**1.32**	**355**	*e*PN	**Pn**	**19 17 40.8**	**-0.5**
ENEZ	**Enez**	**1.32**	**355**	*e*Pn	**Pn**	**19 17 40.8**	**-0.5**
ALN	**Alexandroupoli**	**1.49**	**352**	P	**Pn**	**19 17 43.5**	**-0.1**
ALN				S	**Sn**	**19 18 04.2**	**+0.6**
ALN	**Alexandroupoli**	**1.49**	**352**	P	**Pn**	**19 17 43.5**	**-0.1**
ALN				S	**Sn**	**19 18 04.2**	**+0.6**
EDC	**Edincik**	**1.51**	**52**	*e*PN	**Pn**	**19 17 43.7**	**-0.2**
EDC	**Edincik**	**1.51**	**52**	*e*Pn	**Pn**	**19 17 43.7**	**-0.2**
BNT	**Bandirma**	**1.55**	**52**	*e*PN	**Pn**	**19 17 44.1**	**-0.3**
DURS	**Dursunbey**	**1.68**	**83**	*i* P	**Pn**	**19 17 44.8**	**-1.5**
DURS				*i* S	**Sn**	**19 18 07.4**	**-0.9**
DURS	**Dursunbey**	**1.68**	**83**	*i* P	**Pn**	**19 17 44.8**	**-1.4**
DURS				*i* S	**Sn**	**19 18 07.4**	**-0.9**
CRLT	**Corlu**	**2.03**	**32**	*e*PN	**Pn**	**19 17 51.0**	**0.0**
CRLT	**Corlu**	**2.03**	**32**	*e*Pn	**Pn**	**19 17 51.0**	**0.0**
KULA	**Kula-Manisa**	**2.04**	**115**	*e*PN	**Pn**	**19 17 52.5**	**+1.4**
KULA	**Kula-Manisa**	**2.04**	**115**	*e*Pn	**Pn**	**19 17 52.5**	**+1.4**
EDRB	**Edirne**	**2.45**	**8**	*e*PN	**Pn**	**19 17 57.0**	**+0.2**
EDRB	**Edirne**	**2.45**	**8**	*e*Pn	**Pn**	**19 17 57.0**	**+0.2**
CTKS	**Kestanelik-??a**	**2.48**	**42**	*e*PN	**Pn**	**19 17 57.5**	**+0.4**
CTKS	**Kestanelik-??a**	**2.48**	**42**	*e*Pn	**Pn**	**19 17 57.5**	**+0.4**
YLV	**Yalova**	**2.62**	**63**	*e*PN	**Pn**	**19 18 00.6**	**+1.5**
YLV	**Yalova**	**2.62**	**63**	*e*Pn	**Pn**	**19 18 00.6**	**+1.5**

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*NEIC **23** 19:32:29.3, 36°.32N×21°.77E, h14^{km}, MD3.6(ATH), After ATH.*

*CSEM **23** 19:32:29.3, 36°.32N×21°.77E, h14^{km}, MD3.6, After ATH*

ATH 23 19:32:29.3, 36°.32N×**21°.77E, h14**^{km}±2^{km}**, MD3.6**/8**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.57**	**358**	*e*PB	Pb	19 32 39.8	-1.4
PYL				*e*SB	Sb	19 32 49.3	+0.1
PYL	**PYLOS**	**0.57**	**358**	*e*Pb	Pb	19 32 39.8	-1.4
PYL				*e*Sb	Sb	19 32 49.3	+0.1
ITM	**Ithomi**	**0.87**	**8**	*e*PG	Pg	19 32 45.5	-0.6
ITM				*e*SB	Sb	19 32 58.3	+0.7
ITM	**Ithomi**	**0.87**	**8**	*e*Pg	Pg	19 32 45.5	-0.6
ITM				*e*Sb	Sb	19 32 58.3	+0.7
VLI	**Veliai**	**1.02**	**67**	*e*PB	Pb	19 32 48.9	+0.2
VLI				*e*SB	Sb	19 33 02.7	+0.7
VLI	**Veliai**	**1.02**	**67**	*e*Pb	Pb	19 32 48.9	+0.2
VLI				*e*Sb	Sb	19 33 02.7	+0.7
KYTH	**Kithira**	**1.02**	**92**	*e*PN	Pn	19 32 48.8	-0.4
KYTH	**Kithira**	**1.02**	**92**	*e*Pn	Pn	19 32 48.8	-0.4
VLX	**Vlachokerasia**	**1.16**	**25**	*e*PG	Pg	19 32 50.8	-0.8
VLX	**Vlachokerasia**	**1.16**	**25**	*e*Pg	Pg	19 32 50.8	-0.8
DID	**Didima**	**1.67**	**44**	*e*PG	Pg	19 33 00.3	-1.0
DID	**Didima**	**1.67**	**44**	*e*Pg	Pg	19 33 00.3	-1.0
GUR	**Goura**	**1.68**	**16**	*e*PB	Pb	19 33 00.1	+0.2
GUR	**Goura**	**1.68**	**16**	*e*Pb	Pb	19 33 00.1	+0.2
RLS	**Riolos of Patr**	**1.75**	**352**	*e*PN	Pn	19 33 01.1	+1.9
RLS	**Riolos of Patr**	**1.75**	**352**	*e*Pn	Pn	19 33 01.1	+1.9
LTK	**Loutraki**	**1.95**	**29**	*e*PN	Pn	19 33 04.5	+2.5
LTK	**Loutraki**	**1.95**	**29**	*e*Pn	Pn	19 33 04.5	+2.5
EVR	**Evrytania**	**2.59**	**1**	*e*PB	Pb	19 33 13.0	-2.5
EVR	**Evrytania**	**2.59**	**1**	*e*Pb	Pb	19 33 13.0	-2.5

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*ISCJB **23** 19:52:02.4±1.1, 44°.43N±0°.05×46°.50E±0°.06, h8^{km}±6^{km}, Error ellipse: s-maj=8.2km s-min=6.6km az=14.1*

*CSEM **23** 19:52:07.8±1.3, 43°.97N×46°.32E, h20^{km}, mb4.3, Error ellipse: s-maj=26.7km s-min=9.7km az=19.0*

*MOS **23** 19:52:10.5±1.1, 43°.91N×46°.17E, h21^{km}, mb4.3/1, Error ellipse: s-maj=11.9km s-min=9.4km az=45.5*

ISC 23 19:52:03.5±1.1**, 44°.44N**±0°.05×**46°.46E**±0°.05**, h9**^{km}±5^{km}**, n35, σ1^{s}.01**/58**, 5C-3D, Ukraine - Moldova - Southwestern Russia region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRKR	**Terskaya**	**1.44**	**241**	⇑*i*PG	**Pn**	**19 52 30.2**	**+0.5**
TRKR				*i* S	**Sg**	**19 52 50.1**	**+0.5**
TRKR	**Terskaya**	**1.44**	**241**	*i* Pg	**Pn**	**19 52 30.2**	**+0.5**
TRKR				*i* Sg	**Sg**	**19 52 50.1**	**+0.5**
DBC	**Dubki**	**1.44**	**169**	⇓*i*PG	**Pn**	**19 52 27.0**	**-2.8**
DBC				*i* S	**Sn**	**19 52 47.8**	**-1.0**
DBC				pmax	pmax		
	comp=Z,485nm,0.1s						
DBC	**Dubki**	**1.44**	**169**	*i* Pg	**Pn**	**19 52 27.0**	**-2.8**
	comp=Z,485nm,0.1s						
DBC				*i* Sg	**Sn**	**19 52 47.8**	**-1.0**
KRNR	**Karanay**	**1.64**	**168**	*e*PG	**Pn**	**19 52 31.2**	**-1.3**
KRNR				*e*S	**Sg**	**19 52 56.8**	**+0.5**
KRNR				pmax	pmax		
	comp=Z,57nm,0.2s						
KRNR	**Karanay**	**1.64**	**168**	*e*Pg	**Pn**	**19 52 31.2**	**-1.3**
	comp=Z,57nm,0.2s						
MAK	**Makhachkala**	**1.66**	**152**	*e*PG	**Pg**	**19 52 36.7**	**+1.4**
MAK				*e*		19 53 00.3	
MAK				pmax	pmax		
	comp=Z,67nm,0.3s						
MAK				smax			
	comp=E,574nm,0.5s						
MAK				smax			
	comp=N,713nm,0.6s						
MAK	**Makhachkala**	**1.66**	**152**	*e*Pg	**Pg**	**19 52 36.7**	**+1.4**
	comp=N,67nm,0.3s						
PRTR	**Priterechnaya**	**1.71**	**247**	⇓*i*PG	**Pn**	**19 52 34.3**	**+0.8**
PRTR				*i* S	**Sg**	**19 52 57.4**	**-1.1**
PRTR	**Priterechnaya**	**1.71**	**247**	*i* Pg	**Pn**	**19 52 34.3**	**+0.8**
PRTR				*i* Sg	**Sg**	**19 52 57.4**	**-1.1**
UNCR	**Uncukul**	**1.74**	**172**	*e*PG	**Pn**	**19 52 33.8**	**-0.1**
UNCR				*i* S	**Sg**	**19 53 00.3**	**+0.9**
UNCR				pmax	pmax		
	comp=Z,64nm,0.3s						
UNCR	**Uncukul**	**1.74**	**172**	*e*Pg	**Pn**	**19 52 33.8**	**-0.1**
	comp=Z,64nm,0.3s						
SNJR	**Sundja**	**1.82**	**222**	*e*PG	**Pn**	**19 52 34.3**	**-0.6**
SNJR				*e*S	**Sn**	**19 52 57.5**	**-0.5**
SNJR	**Sundja**	**1.82**	**222**	*e*Pg	**Pn**	**19 52 34.3**	**-0.6**
SNJR				*e*Sg	**Sn**	**19 52 57.5**	**-0.5**
VLKR	**Vladikavkaz**	**1.90**	**223**	*e*PG	**Pn**	**19 52 35.5**	**-0.5**
VLKR				*e*S	**Sn**	**19 52 59.6**	**-0.5**
VLKR	**Vladikavkaz**	**1.90**	**223**	*e*Pg	**Pn**	**19 52 35.5**	**-0.5**
VLKR				*e*Sg	**Sn**	**19 52 59.6**	**-0.5**
ARNR	**Ardon**	**2.01**	**232**	*e*PG	**Pn**	**19 52 37.7**	**+0.1**
ARNR				*e*S	**Sn**	**19 53 03.2**	**+0.3**
ARNR	**Ardon**	**2.01**	**232**	*e*Pg	**Pn**	**19 52 37.7**	**+0.1**
ARNR				*e*Sg	**Sn**	**19 53 03.2**	**+0.3**
KORR	**Kora**	**2.20**	**233**	⇓*i*PN	**Pn**	**19 52 40.2**	**+0.1**
KORR				*e*S	**Sn**	**19 53 07.9**	**+0.5**
KORR	**Kora**	**2.20**	**233**	*i* Pn	**Pn**	**19 52 40.2**	**+0.1**
KORR				*e*Sg	**Sn**	**19 53 07.9**	**+0.5**
LSNR	**Lesken**	**2.24**	**240**	*e*PN	**Pn**	**19 52 41.3**	**+0.6**
LSNR				*e*S	**Sn**	**19 53 09.6**	**+1.1**
LSNR	**Lesken**	**2.24**	**240**	*e*Pn	**Pn**	**19 52 41.3**	**+0.6**
LSNR				*e*Sg	**Sn**	**19 53 09.6**	**+1.1**
ZEI	**Tsey**	**2.50**	**229**	*e*PN	**Pn**	**19 52 44.0**	**-0.3**
ZEI				*e*S	**Sn**	**19 53 14.4**	**-0.5**
ZEI	**Tsey**	**2.50**	**229**	*e*Pn	**Pn**	**19 52 44.0**	**-0.3**
ZEI				*e*Sg	**Sn**	**19 53 14.4**	**-0.5**
DIGR	**Digorskoe uzhe**	**2.59**	**235**	⇑*i*PN	**Pn**	**19 52 45.4**	**-0.2**
DIGR				*e*S	**Sn**	**19 53 17.3**	**+0.1**
DIGR	**Digorskoe uzhe**	**2.59**	**235**	*i* Pn	**Pn**	**19 52 45.4**	**-0.2**
DIGR				*e*Sb	**Sn**	**19 53 17.3**	**+0.1**
KIV	**Kislovodsk**	**2.76**	**261**	*ce*PN	**Pn**	**19 52 50.9**	**+3.1**
KIV				*e*		19 52 57.8	
KIV				pmax	pmax		
	comp=Z,5.0nm,0.4s						
KIV	**Kislovodsk**	**2.76**	**261**	*e*Pn	**Pn**	**19 52 50.9**	**+3.1**
	comp=Z,5.0nm,0.4s						
ONI	**Oni**	**2.87**	**231**	P	**Pg**	**19 52 55.9**	**-2.6**
TBLG	**Delisi**	**2.98**	**206**	P	**Pn**	**19 52 55.6**	**+4.6**
GOR	**Gori**	**2.99**	**216**	P	**Pg**	**19 52 60.0**	**-0.8**
MTA	**Mtatsminda**	**3.00**	**205**	P	**Pn**	**19 52 54.2**	**+3.0**
GNI	**Garni**	**4.47**	**197**	*e*PG	**Pg**	**19 53 36.7**	**+7.6**
AB09	**Akbulak array**	**10.40**	**58**	⇑Pn	**Pn**	**19 54 32.2**	**-0.5**
	comp=Z,0.6nm,0.6s,baz=244,slow=12						
AB09				⇑Sn	**Sn**	**19 56 23.6**	**-5.7**
	comp=Z,0.8nm,0.6s,baz=247,slow=21						
AB09	**Akbulak array**	**10.40**	**58**	Pn	**Pn**	**19 54 32.2**	**-0.5**
	comp=Z,0.6nm,0.6s						

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*ISCJB **23** 19:54:29.0±0.2, 39°.78N±0°.01×3°.51W±0°.01, h0^{km}±1^{km}, Error ellipse: s-maj=1.9km s-min=1.4km az=142.5*

*CSEM **23** 19:54:31.6±0.1, 39°.74N×3°.48W, h5^{km}, ML3.9/46, Error ellipse: s-maj=1.8km s-min=1.4km az=136.0*

*NEIC **23** 19:54:33.4, 39°.72N×3°.45W, h0^{km}, ML3.7(LDG), ML3.8(STR), MN3.5(MDD), After MDD.*

NEIC Felt [V] in the Tembleque area.

*LDG **23** 19:54:33.9±0.1, 39°.72N×3°.46W, h5^{km}, Ml3.7/34, Error ellipse: s-maj=1.3km s-min=0.9km az=123.0*

*SFS **23** 19:54:33.0, 39°.71N×3°.48W, h0^{km}, ML3.5*

*INMG **23** 19:54:34.6±1.3, 39°.74N×3°.50W, h11^{km}±2^{km}, MD3.6, ML3.7, Error ellipse: s-maj=1.7km s-min=1.1km az=113.0*

*IGIL **23** 19:54:34.4, 39°.71N×3°.48W, h0^{km}, ML3.4*

*MDD **23** 19:54:34.1±0.2, 39°.71N×3°.47W, h10^{km}, mbLg3.8/38, Error ellipse: s-maj=1.9km s-min=1.5km az=103.0, PRIMO*

MDD EMS: V INTENSIDAD MIMA.

*STR **23** 19:54:55.2±0.6, 40°.80N×2°.06W, h10^{km}, Ml3.8, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 23 19:54:31.4±0.2**, 39°.74N**±0°.01×**3°.50W**±0°.01**, h5**^{km}±1^{km}**, n338, σ1^{s}.15**/606**, 6C-2D, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESDC	**Sonseca Array**	**0.36**	**260**	⇓Pg	**Pg**	**19 54 40.8**	**+2.4**
	815nm,0.2s,baz=84,slow=19,SNR=5107						
ESDC				Lg		19 54 45.8	
	1µm,0.5s,baz=86,slow=32,SNR=7.9						

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ESDC  Sonseca Array        0.36 260   Pg     Pg    19 54 40.9 +2.4
ESDC                                  Lg           19 54 45.8
ESDC  Sonseca Array        0.36 260   Pg     Pg    19 54 40.8 +2.4
      814nm,0.2s,SNR=1000
PAB   San Pablo            0.68 254  ePg     Pg    19 54 46.9 +2.4
PAB                                  eSg     Sg    19 54 55.7 +2.4
PAB   San Pablo            0.68 254  ePg     Pg    19 54 46.9 +2.4
PAB                                  eSg     Sg    19 54 55.7 +2.3
GUD   Guadarrama           1.03 331  ⥣Pg     Pg    19 54 53.5 +2.2
      120nm,0.2s,SNR=18
GUD                                   Lg           19 55 06.9
      104nm,0.2s,SNR=7.9
GUD   Guadarrama           1.03 331   Pg     Pg    19 54 53.1 +1.9
GUD                                   Lg           19 55 06.9
GUD   Guadarrama           1.03 331   Pg     Pg    19 54 53.1 +1.9
EVIA  Vianos               1.34 144  ⥣Pg     Pg    19 54 56.9 -0.3
      15nm,0.1s,SNR=18
EVIA  Vianos               1.34 144   Pg     Pg    19 54 56.8 -0.4
EVIA                                  Lg           19 55 13.3
EVIA  Vianos               1.34 144   Pg     Pg    19 54 56.9 -0.3
      15nm,0.1s,SNR=18
EVIA                                  Lg           19 55 13.3
ETOR  Torete               1.55  45  ⥣Pn     Pn    19 55 00.7 +1.1
      60nm,0.2s,SNR=18
ETOR                                  Pg     Pg    19 55 02.0 +0.9
      377nm,0.2s,SNR=7.9
ETOR                                  Sn     Sn    19 55 19.4 -0.7
      1µm,0.4s,SNR=7.9
ETOR                                  Lg           19 55 22.4
      2µm,0.3s,SNR=7.9
ETOR  Torete               1.55  45   Pg     Pg    19 55 01.9 +0.8
ETOR                                  Lg           19 55 21.6
ETOR  Torete               1.55  45   Pn     Pn    19 55 00.7 +1.1
      60nm,0.2s,SNR=18
ETOR  Torete               1.55  45   Pg     Pg    19 55 02.0 +0.9
      377nm,0.2s,SNR=7.9
ETOR                                  Sn     Sn    19 55 19.4 -0.7
      1µm,0.4s,SNR=7.9
ETOR                                  Lg           19 55 21.6
EBAN  Banos Encina         1.59 188  ⥣Pn     Pn    19 55 00.6 +0.4
      2.9nm,0.2s,SNR=18
EBAN                                  Pg     Pg    19 55 02.8 +1.0
      312nm,0.3s,SNR=7.9
EBAN                                  Lg           19 55 22.8
      378nm,0.4s,SNR=22
EBAN  Banos Encina         1.59 188   Pn     Pn    19 55 00.6 +0.4
      2.9nm,0.2s,SNR=18
EADA  Adamuz               1.78 208  ⥣Pn     Pn    19 55 03.6 +0.7
      68nm,0.1s,SNR=18
EADA                                  Pg     Pg    19 55 06.2 +0.7
      2.8nm,0.2s,SNR=7.9
EADA                                  Sn     Sn    19 55 25.7 -0.2
      76nm,0.7s,SNR=7.9
EADA                                  Lg           19 55 29.1
      776nm,0.3s,SNR=5.0
EADA  Adamuz               1.78 208   Pn     Pn    19 55 03.6 +0.8
EADA                                  Lg           19 55 29.8
EADA  Adamuz               1.78 208   Pn     Pn    19 55 03.6 +0.8
      68nm,0.1s,SNR=18
ETOB  Tobarra              1.87 125   Pn     Pn    19 55 04.2 +0.1
      8.2nm,0.2s,SNR=65
ETOB                                  Pg     Pg    19 55 07.5 +0.3
      42nm,0.2s,SNR=10
ETOB                                  Sn     Sn    19 55 26.3 -1.8
      90nm,0.3s,SNR=5.8
ETOB                                  Lg           19 55 30.5
      2µm,0.7s,SNR=57
ETOB  Tobarra              1.87 125   Pn     Pn    19 55 04.5 +0.4
ETOB                                  Lg           19 55 30.8
ETOB  Tobarra              1.87 125   Pn     Pn    19 55 04.2 +0.1
      8.2nm,0.2s,SNR=65
ECHE  Chera                1.96  94   Pn     Pn    19 55 06.1 +0.8
      3.8nm,0.2s,SNR=76
ECHE                                  Pg     Pg    19 55 09.6 +0.6
      60nm,0.2s,SNR=14
ECHE                                  Sn     Sn    19 55 30.8 +0.4
      119nm,0.4s,SNR=7.0
ECHE                                  Lg           19 55 35.2
      110nm,0.4s,SNR=9.5
ECHE  Chera                1.96  94   Pn     Pn    19 55 06.1 +0.8
      3.8nm,0.2s,SNR=76
EQES  Quesada              1.96 170   Pn     Pn    19 55 05.7 +0.3
      2.0nm,0.1s,SNR=141
EQES                                  Pg     Pg    19 55 09.0 -0.1
      53nm,0.1s,SNR=5.8
EQES                                  Lg           19 55 34.6
      279nm,0.4s,SNR=7.9
EQES  Quesada              1.96 170   Pn     Pn    19 55 06.2 +0.9
EQES                                  Lg           19 55 34.6
EQES  Quesada              1.96 170   Pn     Pn    19 55 05.7 +0.3
      2.0nm,0.1s,SNR=141
EQES  Quesada              1.96 170   Pg     Pg    19 55 09.0  0.0
      53nm,0.1s,SNR=5.8
EPLA  Plasencia            2.01 280   Sn     Sn    19 55 32.0 +0.5
      66nm,0.1s,SNR=7.9
EPLA                                  Lg           19 55 37.1
      1µm,0.4s,SNR=7.9
EPLA  Plasencia            2.01 280   Sn     Sn    19 55 32.0 +0.5
      66nm,0.1s,SNR=7.9
EHUE  Huescar              2.05 159   Pn     Pn    19 55 06.8 +0.2
      1.4nm,0.1s,SNR=7.9
EHUE                                  Pg     Pg    19 55 10.2 -0.5
      36nm,0.1s,SNR=7.9
EHUE                                  Sn     Sn    19 55 32.4 -0.1
      18nm,0.1s,SNR=7.9
EHUE                                  Lg           19 55 36.5
      62nm,0.1s,SNR=7.9
EHUE  Huescar              2.05 159   Pn     Pn    19 55 06.8 +0.2
EHUE                                  Lg           19 55 36.8
EHUE  Huescar              2.05 159   Pn     Pn    19 55 06.8 +0.3
      1.4nm,0.1s,SNR=7.9
ECAB  El Cabril            2.23 223   Pn     Pn    19 55 10.6 +1.5
      13nm,0.1s,SNR=53
ECAB                                  Pg     Pg    19 55 15.0 +0.7
      70nm,0.3s,SNR=7.5
ECAB                                  Sn     Sn    19 55 36.1 -1.0
      30nm,0.1s,SNR=8.4
ECAB                                  Lg           19 55 44.4
      818nm,0.4s,SNR=21
ECAB  El Cabril            2.23 223   Pn     Pn    19 55 11.1 +1.9
ECAB                                  Lg           19 55 43.6
ECAB  El Cabril            2.23 223   Pn     Pn    19 55 10.6 +1.5
      13nm,0.1s,SNR=53
ECAB  El Cabril            2.23 223   Pg     Pg    19 55 15.0 +0.7
      70nm,0.3s,SNR=7.5
ECAB                                  Sn     Sn    19 55 36.1 -1.0
      30nm,0.1s,SNR=8.4
ECAB                                  Lg           19 55 43.6
ELUQ  Luque                2.26 196   Pn     Pn    19 55 10.5 +1.1
      3.4nm,0.2s,SNR=7.9
ELUQ                                  Pg     Pg    19 55 15.3 +0.6
      55nm,0.3s,SNR=7.9
ELUQ                                  Sn     Sn    19 55 36.2 -1.4
      43nm,0.3s,SNR=7.9
ELUQ                                  Lg           19 55 44.7
      148nm,0.2s,SNR=7.9
ELUQ  Luque                2.26 196   Pn     Pn    19 55 11.6 +2.2
ELUQ                                  Lg           19 55 44.2
ELUQ  Luque                2.26 196   Pn     Pn    19 55 10.5 +1.1
      3.4nm,0.2s,SNR=7.9
EMOS  Mosqueruela          2.41  74   Pn     Pn    19 55 13.3 +1.8
      27nm,0.4s,SNR=46
EMOS                                  Pg     Pg    19 55 18.3 +0.7
      180nm,0.6s,SNR=7.9
EMOS                                  Lg           19 55 49.9
      23nm,0.2s,SNR=7.9
EMOS  Mosqueruela          2.41  74   Pn     Pn    19 55 13.3 +1.8
EMOS                                  Pg     Pg    19 55 19.6 +2.0
EMOS                                  Lg           19 55 48.5
EMOS  Mosqueruela          2.41  74   Pn     Pn    19 55 13.3 +1.8
      27nm,0.4s,SNR=46
ECOG  Cogollos-Vega        2.46 181   Pn     Pn    19 55 13.5 +1.4
      2.6nm,0.1s,SNR=7.9
ECOG                                  Pg     Pg    19 55 18.4 -0.2
      38nm,0.3s,SNR=9.0
ECOG                                  Sn     Sn    19 55 40.4 -2.2
      28nm,0.3s,SNR=5.1
ECOG                                  Lg           19 55 51.9
      161nm,0.4s,SNR=7.9
ECOG  Cogollos-Vega        2.46 181   Pn     Pn    19 55 13.8 +1.6
ECOG                                  Lg           19 55 49.7
ECOG  Cogollos-Vega        2.46 181   Pn     Pn    19 55 13.5 +1.3
      2.6nm,0.1s,SNR=7.9
ECOG  Cogollos-Vega        2.46 181   Pg     Pg    19 55 18.4 -0.1
      38nm,0.3s,SNR=9.0
ECOG                                  Sn     Sn    19 55 40.4 -2.2
      28nm,0.3s,SNR=5.1
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ECOG                                  Lg           19 55 49.7
EQUE  Quentar              2.53 179   Pn     Pn    19 55 14.3 +1.2
      1.3nm,0.2s,SNR=24
EQUE                                  Pg     Pg    19 55 19.4 -0.5
      68nm,0.2s,SNR=6.2
EQUE                                  Sn     Sn    19 55 43.3 -1.1
      36nm,0.3s,SNR=5.1
EQUE                                  Lg           19 55 53.8
      284nm,0.6s,SNR=7.9
EQUE  Quentar              2.53 179   Pn     Pn    19 55 14.3 +1.1
      1.3nm,0.2s,SNR=24
ELOJ  Sierra Loja          2.64 191   Pn     Pn    19 55 15.4 +0.8
      4.1nm,0.3s,SNR=7.9
ELOJ                                  Pg     Pg    19 55 21.6 -0.4
      42nm,0.4s,SNR=47
ELOJ                                  Lg           19 55 56.7
      88nm,0.6s,SNR=13
ELOJ  Sierra Loja          2.64 191   Pn     Pn    19 55 16.1 +1.4
ELOJ  Sierra Loja          2.64 191   Pn     Pn    19 55 15.4 +0.8
      4.1nm,0.3s,SNR=7.9
ERON  Agron                2.73 185   Pn     Pn    19 55 17.6 +1.7
      2.5nm,0.3s,SNR=7.9
ERON                                  Pg     Pg    19 55 23.9 +0.2
      57nm,0.3s,SNR=7.9
ERON                                  Lg           19 56 00.0
      39nm,0.3s,SNR=7.9
ERON  Agron                2.73 185   Pg     Pg    19 55 26.0 +2.3
ERON                                  Lg           19 56 01.7
ERON  Agron                2.73 185   Pn     Pn    19 55 17.6 +1.7
      2.5nm,0.3s,SNR=7.9
ERON  Agron                2.73 185   Pg     Pg    19 55 23.9 +0.2
      57nm,0.3s,SNR=7.9
ERON                                  Lg           19 56 01.7
EBEN  Beniarda             2.75 111   Pn     Pn    19 55 16.5 +0.4
      8.6nm,0.5s,SNR=22
EBEN                                  Pg     Pg    19 55 23.7 -0.4
      41nm,0.8s,SNR=21
EBEN                                  Lg           19 55 59.6
      22nm,0.2s,SNR=9.9
EBEN  Beniarda             2.75 111   Pn     Pn    19 55 16.5 +0.3
      8.6nm,0.5s,SNR=22
EBER  Berja                2.88 170   Pn     Pn    19 55 19.4 +1.5
      7.0nm,0.3s,SNR=11
EBER                                  Pg     Pg    19 55 26.2 -0.4
      100nm,0.5s,SNR=7.9
EBER                                  Lg           19 56 05.6
      165nm,0.4s,SNR=7.9
EBER  Berja                2.88 170   Pn     Pn    19 55 20.6 +2.6
EBER                                  Pg     Pg    19 55 28.0 +1.4
EBER                                  Lg           19 56 08.4
EBER  Berja                2.88 170   Pn     Pn    19 55 19.4 +1.5
      7.0nm,0.3s,SNR=11
EBER  Berja                2.88 170   Pg     Pg    19 55 28.0 +1.4
EBAD  Badajoz              2.90 251  ⥥Pn     Pn    19 55 19.2 +0.9
      16nm,0.1s,SNR=18
EBAD                                  Pg     Pg    19 55 26.1 -0.8
      37nm,0.2s,SNR=7.9
EBAD                                  Sn     Sn    19 55 53.7 +0.3
      51nm,0.4s,SNR=7.9
EBAD                                  Lg           19 56 05.7
      410nm,0.2s,SNR=71
EBAD  Badajoz              2.90 251   Pn     Pn    19 55 19.2 +0.9
EBAD                                  Pg     Pg    19 55 26.1 -0.8
EBAD                                  Lg           19 56 02.4
EBAD  Badajoz              2.90 251   Pn     Pn    19 55 19.2 +1.0
      16nm,0.1s,SNR=18
EGUA  Guajares             2.90 181   Pg     Pg    19 55 26.6 -0.4
      84nm,0.4s,SNR=7.9
EGUA                                  Lg           19 56 05.6
      350nm,0.6s,SNR=7.9
EGUA  Guajares             2.90 181   Pg     Pg    19 55 26.6 -0.4
EGUA                                  Lg           19 56 08.2
EGUA  Guajares             2.90 181   Pg     Pg    19 55 26.6 -0.4
      84nm,0.4s,SNR=7.9
EGUA                                  Lg           19 56 08.2
CART  Cartagena            2.91 137  ⥣Pg     Pg    19 55 26.9 -0.3
CART                                  Sn     Sn    19 55 56.4 +2.8
CART  Cartagena            2.91 137  ePn     Pn    19 55 26.6 +8.3
CART                                 eSn     Sn    19 55 58.5 +4.9
CART  Cartagena            2.91 137  eS      Sn    19 55 56.4 +2.7
ENIJ  Nijar                2.94 159   Pg     Pg    19 55 27.6 -0.3
      66nm,0.5s,SNR=7.9
ENIJ                                  Lg           19 56 07.4
      79nm,0.4s,SNR=7.9
ENIJ  Nijar                2.94 159   Pg     Pg    19 55 27.6 -0.3
ENIJ                                  Lg           19 56 08.3
ENIJ  Nijar                2.94 159   Pg     Pg    19 55 27.6 -0.3
      66nm,0.5s,SNR=7.9
ENIJ                                  Lg           19 56 08.3
ECRI  Cripan               2.96  14   Pn     Pn    19 55 20.8 +1.7
      7.7nm,0.2s,SNR=7.9
ECRI                                  Pg     Pg    19 55 28.6 +0.4
      56nm,0.2s,SNR=7.9
ECRI                                  Lg           19 56 09.1
      115nm,0.3s,SNR=7.9
ECRI  Cripan               2.96  14   Pn     Pn    19 55 20.8 +1.7
ECRI                                  Pg     Pg    19 55 29.8 +1.6
ECRI                                  Lg           19 56 09.1
ECRI  Cripan               2.96  14   Pn     Pn    19 55 20.8 +1.7
      7.7nm,0.2s,SNR=7.9
PMRV  Marv??o              3.02 265  ePn     Pn    19 55 21.2 +1.3
PMRV  Marv??o              3.02 265  ePg     Pg    19 55 28.0 -1.3
PMRV                                 eSg     Sg    19 56 07.3 -1.2
PMRV                                  A            19 56 14.0
      246nm,0.4s
PMRV  Marv??o              3.02 265   Pn     Pn    19 55 21.2 +1.3
PMRV                                  Pg     Pg    19 55 28.0 -1.3
PMRV                                  Lg           19 56 07.3
      123nm,0.4s
PMRV  Marv??o              3.02 265  ePg     Pg    19 55 28.0 -1.3
PMRV                                 eSg     Sg    19 56 07.3 -1.2
      246nm,0.4s
ESAC  San Caprasio         3.04  48   Pn     Pn    19 55 21.2 +1.0
      32nm,0.3s,SNR=12
ESAC                                  Pg     Pg    19 55 29.2 -0.4
      88nm,0.2s,SNR=12
ESAC                                  Sn     Sn    19 55 57.1 +0.2
      200nm,0.3s,SNR=5.8
ESAC                                  Lg           19 56 10.0
      2µm,0.3s,SNR=221
ESAC  San Caprasio         3.04  48   Pn     Pn    19 55 21.2 +1.0
      32nm,0.3s,SNR=12
EMAL  Malaga-Limoner       3.06 194   Pg     Pg    19 55 30.1  0.0
EMAL                                  Sn     Sn    19 55 51.2 -6.2
PCBR  Castelo Branco       3.06 273  ePn     Pn    19 55 21.5 +1.0
PCBR  Castelo Branco       3.06 273  ePg     Pg    19 55 28.3 -1.9
PCBR                                 eSn     Sn    19 55 57.5 -0.1
PCBR                                 eSg     Sg    19 56 08.5 -1.4
PCBR                                  A            19 56 13.4
      171nm,0.3s
PCBR  Castelo Branco       3.06 273   Pn     Pn    19 55 21.5 +1.0
PCBR                                  Pg     Pg    19 55 28.3 -1.9
PCBR                                  Sn     Sn    19 55 57.5 -0.1
PCBR                                  Lg           19 56 08.5
      85nm,0.3s
PCBR  Castelo Branco       3.06 273  ePn     Pn    19 55 21.5 +1.0
PCBR  Castelo Branco       3.06 273  ePg     Pg    19 55 28.3 -1.9
PCBR                                 eSn     Sn    19 55 57.5 -0.1
PCBR                                 eSg     Sg    19 56 08.5 -1.4
      171nm,0.3s
EMIN  Mina Concepcio       3.17 233   Pn     Pn    19 55 23.4 +1.5
      1.5nm,0.1s,SNR=43
EMIN                                  Pg     Pg    19 55 32.3 +0.3
      8.8nm,0.2s,SNR=12
EMIN                                  Sn     Sn    19 55 58.4 -1.6
      29nm,0.4s,SNR=5.5
EMIN                                  Lg           19 56 13.3
      276nm,0.6s,SNR=13
EMIN  Mina Concepcio       3.17 233   Pn     Pn    19 55 23.5 +1.6
EMIN                                  Lg           19 56 15.7
EMIN  Mina Concepcio       3.17 233   Pn     Pn    19 55 23.4 +1.5
      1.5nm,0.1s,SNR=43
EMIN  Mina Concepcio       3.17 233   Pg     Pg    19 55 32.3 +0.2
      8.8nm,0.2s,SNR=12
EMIN                                  Sn     Sn    19 55 58.4 -1.6
      29nm,0.4s,SNR=5.5
EMIN                                  Lg           19 56 15.6
PBAR  Barrancos            3.17 242  ePn     Pn    19 55 23.5 +1.5
PBAR  Barrancos            3.17 242  ePg     Pg    19 55 31.4 -0.8
PBAR                                 eSn     Sn    19 55 59.9 -0.2
PBAR                                 eSg     Sg    19 56 10.9 -2.3
PBAR                                  A            19 56 20.7
      337nm,0.5s
PBAR  Barrancos            3.17 242   Pn     Pn    19 55 23.5 +1.5
PBAR                                  Pg     Pg    19 55 31.4 -0.8
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PBAR                                  Sn     Sn    19 55 59.9 -0.2
PBAR                                  Lg           19 56 10.9
      337nm,0.5s
PBAR  Barrancos            3.17 242  ePn     Pn    19 55 23.5 +1.5
PBAR                                 eSn     Sn    19 55 59.9 -0.2
PBAR                                 eSg     Sg    19 56 10.9 -2.3
      337nm,0.5s
MTE   Manteigas            3.17 283  ePn     Pn    19 55 23.5 +1.5
MTE   Manteigas            3.17 283  ePg     Pg    19 55 33.0 +0.8
MTE                                  eSn     Sn    19 55 59.4 -0.8
MTE                                  eSg     Sg    19 56 12.8 -0.5
MTE                                   A            19 56 17.3
      245nm,0.4s
MTE   Manteigas            3.17 283  ePn     Pn    19 55 23.4 +1.4
MTE                                  ePg     Pg    19 55 33.0 +0.8
MTE                                  eSg     Sg    19 56 11.3 -2.0
MTE   Manteigas            3.17 283  ePn     Pn    19 55 23.4 +1.4
MTE   Manteigas            3.17 283  ePg     Pg    19 55 33.0 +0.8
MTE                                  eSn     Sn    19 55 59.4 -0.8
MTE                                  eSg     Sg    19 56 12.8 -0.5
      245nm,0.4s
ERTA  Horta de San J       3.17  66   Pn     Pn    19 55 22.9 +0.9
      3.8nm,0.1s,SNR=22
ERTA                                  Pg     Pg    19 55 32.2  0.0
      49nm,0.6s,SNR=12
ERTA                                  Sn     Sn    19 55 59.9 -0.3
      18nm,0.6s,SNR=7.9
ERTA                                  Lg           19 56 13.1
      232nm,0.6s,SNR=9.3
ERTA  Horta de San J       3.17  66   Pn     Pn    19 55 22.9 +0.9
ERTA                                  Sn     Sn    19 55 59.9 -0.3
ERTA                                  Lg           19 56 14.3
ERTA  Horta de San J       3.17  66   Pn     Pn    19 55 22.9 +0.9
      3.8nm,0.1s,SNR=22
LIJA  Lijar                3.20 208   Pg     Pn    19 55 27.0 +4.6
LIJA                                  Lg           19 56 14.5
LIJA  Lijar                3.20 208  eP      Pn    19 55 27.0 +4.6
PBRG  Braganca             3.21 311  ePn     Pn    19 55 24.4 +1.9
PBRG                                 eSn     Sn    19 56 02.3 +1.1
PBRG                                 eSg     Sg    19 56 14.7 +0.1
PBRG                                  A            19 56 18.6
      232nm,0.4s
PBRG  Braganca             3.21 311   Pn     Pn    19 55 24.4 +1.9
PBRG                                  Sn     Sn    19 56 02.3 +1.1
PBRG                                  Lg           19 56 14.7
      116nm,0.4s
PBRG  Braganca             3.21 311  ePn     Pn    19 55 24.4 +1.9
PBRG                                 eSn     Sn    19 56 02.3 +1.1
PBRG                                 eSg     Sg    19 56 14.7 +0.1
      232nm,0.4s
PESTR Estremoz             3.29 256  ePn     Pn    19 55 24.7 +1.1
PESTR Estremoz             3.29 256  ePg     Pg    19 55 33.7 -0.8
PESTR                                eSg     Sg    19 56 14.9 -2.2
PESTR                                 A            19 56 24.6
      270nm,0.5s
PESTR Estremoz             3.29 256   Pn     Pn    19 55 24.7 +1.1
PESTR                                 Pg     Pg    19 55 33.7 -0.8
PESTR                                 Lg           19 56 14.9
      135nm,0.5s
PESTR Estremoz             3.29 256  ePg     Pg    19 55 33.7 -0.8
PESTR                                eSg     Sg    19 56 14.9 -2.2
      270nm,0.5s
ECAL  Calabor              3.30 313   Pn     Pn    19 55 25.4 +1.7
      8.0nm,0.3s,SNR=31
ECAL                                  Pg     Pg    19 55 34.5 -0.1
      28nm,0.2s,SNR=7.9
ECAL                                  Sn     Sn    19 56 04.1 +0.9
      59nm,0.3s,SNR=20
ECAL                                  Lg           19 56 19.2
      478nm,0.5s,SNR=8.7
ECAL  Calabor              3.30 313   Pn     Pn    19 55 25.4 +1.7
ECAL                                  Pg     Pg    19 55 35.9 +1.4
ECAL                                  Lg           19 56 19.2
ECAL  Calabor              3.30 313   Pn     Pn    19 55 25.4 +1.7
      8.0nm,0.3s,SNR=31
ECAL  Calabor              3.30 313   Pg     Pg    19 55 35.9 +1.3
ECAL                                  Sn     Sn    19 56 04.1 +0.8
      59nm,0.3s,SNR=20
EARA  Aranguren            3.36  25   Pn     Pn    19 55 25.6 +1.0
      2.8nm,0.1s,SNR=4.8
EARA                                  Pg     Pg    19 55 36.5 +0.7
      32nm,0.3s,SNR=7.9
EARA                                  Sn     Sn    19 56 05.2 +0.4
      35nm,0.3s,SNR=7.9
EARA                                  Lg           19 56 21.3
      334nm,0.6s,SNR=9.8
EARA  Aranguren            3.36  25   Pn     Pn    19 55 25.6 +1.0
      2.8nm,0.1s,SNR=4.8
IUNC  Unciti               3.37  26   Pn     Pn    19 55 25.9 +1.2
      3.4nm,0.1s,SNR=7.9
IUNC                                  Pg     Pg    19 55 36.2 +0.2
      19nm,0.2s,SNR=7.9
IUNC                                  Sn     Sn    19 56 04.5 -0.7
      97nm,0.3s,SNR=5.6
IUNC                                  Lg           19 56 21.9
      107nm,0.3s,SNR=7.9
IUNC  Unciti               3.37  26   Pn     Pn    19 55 25.9 +1.2
      3.4nm,0.1s,SNR=7.9
ESPR  Espera               3.41 214   Pn     Pn    19 55 27.6 +2.3
      2.3nm,0.2s,SNR=9.9
ESPR                                  Pg     Pg    19 55 36.2 -0.6
      4.8nm,0.2s,SNR=9.1
ESPR                                  Sn     Sn    19 56 05.2 -0.9
      16nm,0.4s,SNR=6.5
ESPR                                  Lg           19 56 22.6
      211nm,0.4s,SNR=7.9
ESPR  Espera               3.41 214   Pn     Pn    19 55 28.6 +3.3
ESPR                                  Lg           19 56 24.3
ESPR  Espera               3.41 214   Pn     Pn    19 55 28.6 +3.3
ESPR  Espera               3.41 214   Pg     Pg    19 55 36.2 -0.6
      4.8nm,0.2s,SNR=9.1
ESPR                                  Sn     Sn    19 56 05.2 -0.9
      16nm,0.4s,SNR=6.5
ESPR                                  Lg           19 56 24.3
IZUN  Zunzarren            3.48  26   Lg           19 56 26.9
      SNR=7.9
ELAN  Lanestosa            3.49   1   Pn     Pn    19 55 26.6 +0.3
      4.0nm,0.2s,SNR=25
ELAN                                  Pg     Pg    19 55 38.6 +0.3
      73nm,0.3s,SNR=7.9
ELAN                                  Sn     Sn    19 56 07.9 -0.1
      58nm,0.3s,SNR=5.0
ELAN                                  Lg           19 56 25.8
      95nm,0.3s,SNR=7.9
ELAN  Lanestosa            3.49   1   Pn     Pn    19 55 26.7 +0.4
ELAN                                  Pg     Pg    19 55 38.6 +0.3
ELAN                                  Lg           19 56 25.2
ELAN  Lanestosa            3.49   1   Pn     Pn    19 55 26.6 +0.2
      4.0nm,0.2s,SNR=25
GIBL  Gibalbin             3.49 215   Lg           19 56 26.1
REAL  Reales               3.52 203   Lg           19 56 24.5
IUSE  Utxeti               3.53  24   Pn     Pn    19 55 28.0 +1.1
      2.1nm,0.2s,SNR=7.9
IUSE                                  Pg     Pg    19 55 38.7 -0.3
      20nm,0.2s,SNR=7.9
IUSE                                  Sn     Sn    19 56 08.7 -0.3
      15nm,0.4s,SNR=4.8
IUSE                                  Lg           19 56 25.9
      83nm,0.4s,SNR=7.9
IUSE  Utxeti               3.53  24   Pn     Pn    19 55 28.0 +1.1
      2.1nm,0.2s,SNR=7.9
PVRL  Vila Real            3.56 297  ePn     Pn    19 55 28.8 +1.5
PVRL                                 eSn     Sn    19 56 09.9 +0.1
PVRL                                 eSg     Sg    19 56 27.1 +1.3
PVRL                                  A            19 56 30.9
      150nm,0.5s
PVRL  Vila Real            3.56 297   Pn     Pn    19 55 28.8 +1.5
PVRL                                  Sn     Sn    19 56 09.9 +0.1
PVRL                                  Lg           19 56 27.1
      75nm,0.5s
PVRL  Vila Real            3.56 297  ePn     Pn    19 55 28.8 +1.5
PVRL                                 eSn     Sn    19 56 09.9 +0.1
PVRL                                 eSg     Sg    19 56 27.1 +1.3
      150nm,0.5s
EJIF  Jimena Fronter       3.63 206   Pn     Pn    19 55 30.3 +2.0
      2.6nm,0.2s,SNR=7.9
EJIF                                  Pg     Pg    19 55 40.4 -0.6
      9.7nm,0.5s,SNR=7.9
EJIF                                  Sn     Sn    19 56 09.4 -2.2
      17nm,0.4s,SNR=7.9
EJIF                                  Lg           19 56 28.5
      142nm,0.7s,SNR=7.9
EJIF  Jimena Fronter       3.63 206   Pn     Pn    19 55 30.3 +2.0
      2.6nm,0.2s,SNR=7.9
EVO   Evora                3.71 252  ePn     Pn    19 55 30.9 +1.5
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EVO	**Evora**	**3.71**	**252**	*e*Pg	**Pg**	**19 55 42.9**	**+0.4**
EVO				*e*Sn	**Sn**	**19 56 13.0**	**-0.5**
EVO				*e*Sg	**Sg**	**19 56 32.3**	**+1.7**
	545nm,0.4s						
EVO	**Evora**	**3.71**	**252**	*e*Pn	**Pn**	**19 55 30.1**	**+0.7**
EVO	**Evora**	**3.71**	**252**	*e*Pg	**Pg**	**19 55 41.7**	**-0.8**
EVO				*e*Sn	**Sn**	**19 56 13.5**	**0.0**
EVO				*e*Sg	**Sg**	**19 56 28.8**	**-1.8**
EVO				A		19 56 34.3	
	151nm,0.3s						
EVO	**Evora**	**3.71**	**252**	Pn	**Pn**	**19 55 30.1**	**+0.7**
EVO				Pg	**Pg**	**19 55 41.7**	**-0.8**
EVO				Sn	**Sn**	**19 56 13.5**	**0.0**
EVO				Lg		19 56 28.8	
	151nm,0.3s						
EVO	**Evora**	**3.71**	**252**	*e*Pg	**Pg**	**19 55 41.7**	**-0.8**
EVO				*e*Sn	**Sn**	**19 56 13.5**	**0.0**
EVO				*e*Sg	**Sg**	**19 56 28.8**	**-1.8**
	151nm,0.3s						
ELIZ	**Elizondo**	**3.73**	**23**	Pn	**Pn**	**19 55 31.0**	**+1.3**
	10nm,0.3s,SNR=34						
ELIZ				Pg	**Pg**	**19 55 42.1**	**-0.8**
	43nm,0.5s,SNR=9.2						
ELIZ				Sn	**Sn**	**19 56 11.3**	**-2.7**
	22nm,0.3s,SNR=8.6						
ELIZ				Lg		19 56 32.7	
	89nm,0.6s,SNR=6.7						
ELIZ	**Elizondo**	**3.73**	**23**	Pn	**Pn**	**19 55 31.0**	**+1.3**
ELIZ				Lg		19 56 35.5	
ELIZ	**Elizondo**	**3.73**	**23**	Pn	**Pn**	**19 55 31.0**	**+1.3**
	10nm,0.3s,SNR=34						
ELIZ	**Elizondo**	**3.73**	**23**	Pg	**Pg**	**19 55 42.1**	**-0.8**
	43nm,0.5s,SNR=9.2						
ELIZ				Sn	**Sn**	**19 56 11.3**	**-2.6**
	22nm,0.3s,SNR=8.6						
ELIZ				Lg		19 56 35.5	
ERIP	**Rio Piedras**	**3.77**	**232**	Pn	**Pn**	**19 55 31.2**	**+0.9**
	9.5nm,0.3s,SNR=7.9						
ERIP				Pg	**Pg**	**19 55 42.0**	**-1.8**
	12nm,0.4s,SNR=7.9						
ERIP				Sn	**Sn**	**19 56 13.8**	**-1.2**
	27nm,0.5s,SNR=7.9						
ERIP				Lg		19 56 32.4	
	309nm,0.7s,SNR=7.9						
ERIP	**Rio Piedras**	**3.77**	**232**	Pn	**Pn**	**19 55 31.2**	**+0.9**
	9.5nm,0.3s,SNR=7.9						
ERIP				Sn	**Sn**	**19 56 13.8**	**-1.2**
	27nm,0.5s,SNR=7.9						
SJPF	**Ste Jean**	**3.78**	**26**	*e*Pn	**Pn**	**19 55 31.5**	**+1.1**
	SNR=1.0						
SJPF				*e*Sn	**Sn**	**19 56 13.0**	**-2.2**
	SNR=1.0						
SJPF				*e*Sg	**Sg**	**19 56 33.1**	**+0.2**
	168nm,0.5s,SNR=1.0						
SJPF	**Ste Jean**	**3.78**	**26**	Pn	**Pn**	**19 55 31.5**	**+1.1**
SJPF				Sn	**Sn**	**19 56 13.0**	**-2.2**
SJPF				Lg		19 56 33.1	
	84nm,0.5s						
SJPF	**Ste Jean**	**3.78**	**26**	*e*Pn	**Pn**	**19 55 31.5**	**+1.1**
	SNR=1.0						
SJPF				*e*Sn	**Sn**	**19 56 13.0**	**-2.2**
	SNR=1.0						
SJPF				*e*Sg	**Sg**	**19 56 33.1**	**+0.2**
	84nm,0.5s,SNR=1.0						
EARI	**Arriondas**	**3.78**	**341**	Pn	**Pn**	**19 55 32.1**	**+1.7**
	1.7nm,0.2s,SNR=12						
EARI				Pg	**Pg**	**19 55 44.6**	**+0.7**
	31nm,0.3s,SNR=7.9						
EARI				Sn	**Sn**	**19 56 14.4**	**-0.9**
	108nm,0.4s,SNR=6.3						
EARI				Lg		19 56 33.9	
	142nm,0.4s,SNR=7.9						
EARI	**Arriondas**	**3.78**	**341**	Pn	**Pn**	**19 55 30.4**	**0.0**
EARI				Pg	**Pg**	**19 55 44.5**	**+0.6**
EARI				Lg		19 56 33.9	
EARI	**Arriondas**	**3.78**	**341**	Pn	**Pn**	**19 55 30.4**	**0.0**
EALK	**Alkurruntz**	**3.79**	**23**	Pn	**Pn**	**19 55 31.9**	**+1.4**
	26nm,0.4s,SNR=7.9						
EALK				Pg	**Pg**	**19 55 43.5**	**-0.5**
	76nm,0.6s,SNR=7.9						
EALK				Sn	**Sn**	**19 56 14.8**	**-0.5**
	108nm,0.6s,SNR=7.9						
EALK				Lg		19 56 33.4	
	265nm,0.4s,SNR=7.9						
EALK	**Alkurruntz**	**3.79**	**23**	Pn	**Pn**	**19 55 31.9**	**+1.4**
EALK				Sn	**Sn**	**19 56 17.1**	**+1.7**
EALK	**Alkurruntz**	**3.79**	**23**	Pn	**Pn**	**19 55 31.9**	**+1.5**
	26nm,0.4s,SNR=7.9						
PTOM	**Tomar**	**3.79**	**270**	*e*Pn	**Pn**	**19 55 31.7**	**+1.2**
PTOM				*e*Sg	**Sg**	**19 56 30.2**	**-3.0**
PTOM				A		19 56 36.0	
	185nm,0.8s						
PTOM	**Tomar**	**3.79**	**270**	Pn	**Pn**	**19 55 31.7**	**+1.2**
PTOM				Lg		19 56 30.2	
	93nm,0.8s						
PTOM	**Tomar**	**3.79**	**270**	*e*Pn	**Pn**	**19 55 31.7**	**+1.2**
PTOM				*e*Sg	**Sg**	**19 56 30.2**	**-3.0**
	185nm,0.8s						
EVOP	**Sao Brissos**	**3.79**	**253**	*e*Pg	**Pg**	**19 55 42.9**	**-1.2**
EVOP				*e*Sn	**Sn**	**19 56 13.0**	**-2.5**
EVOP				*e*Sg	**Sg**	**19 56 32.3**	**-0.9**
	273nm,0.4s						
PBEJ	**Beja**	**3.81**	**245**	*e*Pn	**Pn**	**19 55 32.2**	**+1.4**
PBEJ	**Beja**	**3.81**	**245**	*e*Pg	**Pg**	**19 55 43.9**	**-0.6**
PBEJ				*e*Sn	**Sn**	**19 56 15.6**	**-0.4**
PBEJ				*e*Sg	**Sg**	**19 56 31.7**	**-2.1**
PBEJ				A		19 56 39.0	
	170nm,0.5s						
PBEJ	**Beja**	**3.81**	**245**	Pn	**Pn**	**19 55 32.2**	**+1.4**
PBEJ				Pg	**Pg**	**19 55 43.9**	**-0.6**
PBEJ				Sn	**Sn**	**19 56 15.6**	**-0.4**
PBEJ				Lg		19 56 31.7	
	85nm,0.5s						
PBEJ	**Beja**	**3.81**	**245**	*e*Pg	**Pg**	**19 55 43.9**	**-0.6**
PBEJ				*e*Sn	**Sn**	**19 56 15.6**	**-0.4**
PBEJ				*e*Sg	**Sg**	**19 56 31.7**	**-2.1**
	170nm,0.5s						
EGRO	**El Granado**	**3.82**	**236**	Pn	**Pn**	**19 55 31.9**	**+1.0**
	27nm,0.3s,SNR=23						
EGRO				Pg	**Pg**	**19 55 43.7**	**-0.8**
	13nm,0.3s,SNR=4.9						
EGRO				Sn	**Sn**	**19 56 13.9**	**-2.2**
	11nm,0.7s,SNR=7.9						
EGRO				Lg		19 56 33.2	
	291nm,0.6s,SNR=9.9						
EGRO	**El Granado**	**3.82**	**236**	Pn	**Pn**	**19 55 31.9**	**+1.0**
EGRO				Sn	**Sn**	**19 56 14.9**	**-1.2**
EGRO				Lg		19 56 33.2	
EGRO	**El Granado**	**3.82**	**236**	Pn	**Pn**	**19 55 31.9**	**+1.0**
	27nm,0.3s,SNR=23						
EGRO	**El Granado**	**3.82**	**236**	Pg	**Pg**	**19 55 43.7**	**-0.9**
	13nm,0.3s,SNR=4.9						
EGRO				Sn	**Sn**	**19 56 14.9**	**-1.2**
EIBI	**Ibiza**	**3.82**	**99**	Pn	**Pn**	**19 55 31.1**	**+0.2**
	1.7nm,0.1s,SNR=10						
EIBI				Pg	**Pg**	**19 55 44.1**	**-0.5**
	5.9nm,0.3s,SNR=7.9						
EIBI				Sn	**Sn**	**19 56 14.0**	**-2.3**
	15nm,0.9s,SNR=7.9						
EIBI	**Ibiza**	**3.82**	**99**	Pn	**Pn**	**19 55 31.1**	**+0.2**
	1.7nm,0.1s,SNR=10						
EIBI	**Ibiza**	**3.82**	**99**	Pg	**Pg**	**19 55 44.1**	**-0.6**
	5.9nm,0.3s,SNR=7.9						
EIBI				Sn	**Sn**	**19 56 14.0**	**-2.2**
	15nm,0.9s,SNR=7.9						
ERUA	**La Rua**	**3.82**	**315**	Pn	**Pn**	**19 55 33.0**	**+2.1**
	3.9nm,0.1s,SNR=7.9						
ERUA				Pg	**Pg**	**19 55 44.5**	**-0.2**
	13nm,0.2s,SNR=7.9						
ERUA				Sn	**Sn**	**19 56 16.5**	**+0.3**
	1.4nm,0.6s,SNR=7.9						
ERUA				Lg		19 56 36.5	
	94nm,0.3s,SNR=7.9						
ERUA	**La Rua**	**3.82**	**315**	Pn	**Pn**	**19 55 33.0**	**+2.1**
ERUA				Sn	**Sn**	**19 56 16.3**	**+0.1**
ERUA				Lg		19 56 34.0	
ERUA	**La Rua**	**3.82**	**315**	Pn	**Pn**	**19 55 33.0**	**+2.1**
	3.9nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**3.84**	**64**	Pn	**Pn**	**19 55 31.6**	**+0.4**
	4.2nm,0.2s,SNR=21						
EPOB				Pg	**Pg**	**19 55 44.6**	**-0.5**
	9.7nm,0.4s,SNR=9.4						
EPOB				Sn	**Sn**	**19 56 14.9**	**-1.9**
	27nm,0.6s,SNR=7.9						
EPOB				Lg		19 56 32.0	
	55nm,0.3s,SNR=7.7						
EPOB	**Poblet**	**3.84**	**64**	Pn	**Pn**	**19 55 31.6**	**+0.4**
EPOB				Sn	**Sn**	**19 56 14.9**	**-1.9**
EPOB				Lg		19 56 35.2	
EPOB	**Poblet**	**3.84**	**64**	Pn	**Pn**	**19 55 31.6**	**+0.4**
	4.2nm,0.2s,SNR=21						
ETSF	**Etsaut**	**3.86**	**34**	*e*Pn	**Pn**	**19 55 32.7**	**+1.3**
	SNR=1.0						
ETSF				*e*Sn	**Sn**	**19 56 14.8**	**-2.3**
ETSF				*e*Sg	**Sg**	**19 56 35.3**	**0.0**
	68nm,0.3s,SNR=1.0						
ETSF	**Etsaut**	**3.86**	**34**	Pn	**Pn**	**19 55 32.7**	**+1.3**
ETSF				Sn	**Sn**	**19 56 14.8**	**-2.3**
ETSF				Lg		19 56 35.3	
	34nm,0.3s						
ETSF	**Etsaut**	**3.86**	**34**	*e*Pn	**Pn**	**19 55 32.7**	**+1.3**
	SNR=1.0						
ETSF				*e*Sn	**Sn**	**19 56 14.8**	**-2.3**
ETSF				*e*Sg	**Sg**	**19 56 35.3**	**0.0**
	34nm,0.3s,SNR=1.0						
OSSF	**Osses**	**3.90**	**25**	Pn	**Pn**	**19 55 33.0**	**+1.1**
OSSF				Sg	**Sn**	**19 56 17.6**	**-0.4**
OSSF	**Osses**	**3.90**	**25**	Pn	**Pn**	**19 55 33.0**	**+1.1**
CNIL	**Conil**	**3.92**	**212**	Lg		19 56 40.5	
PCAB	**Cabril**	**3.96**	**301**	*e*Pn	**Pn**	**19 55 34.7**	**+1.8**
PCAB	**Cabril**	**3.96**	**301**	*e*Pg	**Pg**	**19 55 42.6**	**-4.7**
PCAB				*e*Sn	**Sn**	**19 56 19.9**	**+0.2**
PCAB				*e*Sg	**Sg**	**19 56 38.5**	**-0.2**
PCAB				A		19 56 42.9	
	153nm,0.4s						
PCAB	**Cabril**	**3.96**	**301**	Pn	**Pn**	**19 55 34.7**	**+1.8**
PCAB				Pg	**Pg**	**19 55 42.6**	**-4.7**
PCAB				Sn	**Sn**	**19 56 19.9**	**+0.2**
PCAB				Lg		19 56 38.5	
	77nm,0.4s						
PCAB	**Cabril**	**3.96**	**301**	*e*Pn	**Pn**	**19 55 34.7**	**+1.8**
PCAB				*e*Sn	**Sn**	**19 56 19.9**	**+0.2**
PCAB				*e*Sg	**Sg**	**19 56 38.5**	**-0.2**
	153nm,0.4s						
ALMR	**Almeirim**	**3.97**	**263**	*e*P	**Pn**	**19 55 34.6**	**+1.6**
ALMR				AML	AML	19 55 35.1	
	comp=Z,78nm,0.3s						
ALMR				*e*S	**Sn**	**19 56 19.3**	**-0.7**
ALMR				*e*S	**Sn**	**19 56 19.6**	**-0.3**
ALMR	**Almeirim**	**3.97**	**263**	*e*P	**Pn**	**19 55 34.6**	**+1.6**
ALMR				A		19 55 35.1	
	comp=Z,78nm,0.3s						
ALMR				*e*S	**Sn**	**19 56 19.3**	**-0.6**
ALMR	**Almeirim**	**3.97**	**263**	*e*P	**Pn**	**19 55 34.6**	**+1.6**
	comp=Z,78nm,0.3s						
ALMR				*e*S	**Sn**	**19 56 19.3**	**-0.6**
EBIE	**Bielsa**	**4.03**	**42**	Pn	**Pn**	**19 55 34.9**	**+1.2**
	comp=Z,13nm,0.3s,SNR=61						
EBIE				Pg	**Pg**	**19 55 47.2**	**-1.4**
	comp=Z,16nm,0.4s,SNR=8.1						
EBIE				Sn	**Sn**	**19 56 20.1**	**-1.2**
	comp=Z,10nm,0.4s,SNR=7.9						
EBIE				Lg		19 56 42.3	
	comp=Z,86nm,0.6s,SNR=5.6						
EBIE	**Bielsa**	**4.03**	**42**	Pn	**Pn**	**19 55 34.9**	**+1.1**
	comp=Z,13nm,0.3s,SNR=61						
PVAQ	**Vaqueiros**	**4.04**	**236**	*e*Pn	**Pn**	**19 55 34.9**	**+0.9**
PVAQ				*e*Sn	**Sn**	**19 56 21.4**	**-0.3**
PVAQ				*e*Sg	**Sg**	**19 56 38.5**	**-2.8**
PVAQ				A		19 56 41.6	
	comp=Z,160nm,0.5s						
PVAQ	**Vaqueiros**	**4.04**	**236**	Pn	**Pn**	**19 55 34.9**	**+0.9**
PVAQ				Sn	**Sn**	**19 56 21.4**	**-0.3**
PVAQ				Lg		19 56 38.5	
	comp=Z,160nm,0.5s						
PVAQ	**Vaqueiros**	**4.04**	**236**	*e*Pn	**Pn**	**19 55 34.9**	**+0.9**
PVAQ				*e*Sn	**Sn**	**19 56 21.4**	**-0.3**
PVAQ				*e*Sg	**Sg**	**19 56 38.5**	**-2.8**
	comp=Z,160nm,0.5s						
ELOB	**Lobios**	**4.06**	**303**	Pn	**Pn**	**19 55 35.9**	**+1.7**
	comp=Z,13nm,0.1s,SNR=63						
ELOB				Sn	**Sn**	**19 56 21.1**	**-1.0**
	comp=Z,20nm,0.7s,SNR=7.9						
ELOB				Lg		19 56 42.3	
	comp=Z,221nm,0.3s,SNR=14						
ELOB	**Lobios**	**4.06**	**303**	Pn	**Pn**	**19 55 35.9**	**+1.7**
ELOB				Sn	**Sn**	**19 56 22.7**	**+0.6**
ELOB				Lg		19 56 42.3	
ELOB	**Lobios**	**4.06**	**303**	Pn	**Pn**	**19 55 35.9**	**+1.7**
	comp=Z,13nm,0.1s,SNR=63						
ELOB				Sn	**Sn**	**19 56 21.1**	**-1.0**
	comp=Z,20nm,0.7s,SNR=7.9						
REYF	**Montagne du Re**	**4.07**	**34**	Pn	**Pn**	**19 55 35.5**	**+1.2**
REYF				Sg	**Sn**	**19 56 21.1**	**-1.2**
REYF	**Montagne du Re**	**4.07**	**34**	Pn	**Pn**	**19 55 35.5**	**+1.2**
VIEF	**Viey**	**4.11**	**39**	Pn	**Pn**	**19 55 35.8**	**+0.9**
VIEF	**Viey**	**4.11**	**39**	Pn	**Pn**	**19 55 35.8**	**+0.9**
PTO	**Porto**	**4.14**	**291**	*e*Pn	**Pn**	**19 55 36.8**	**+1.6**
PTO				*e*Sn	**Sn**	**19 56 23.3**	**-0.7**
PTO				*e*Sg	**Sg**	**19 56 42.6**	**-1.6**
PTO	**Porto**	**4.14**	**291**	*e*Pn	**Pn**	**19 55 36.8**	**+1.6**
PTO				*e*Sn	**Sn**	**19 56 23.3**	**-0.7**
PTO				*e*Sg	**Sg**	**19 56 42.6**	**-1.6**
RESF	**Ens**	**4.22**	**42**	Pn	**Pn**	**19 55 37.0**	**+0.7**
RESF	**Ens**	**4.22**	**42**	Pn	**Pn**	**19 55 37.1**	**+0.8**
RESF				Sg	**Sn**	**19 56 22.6**	**-3.3**
RESF	**Ens**	**4.22**	**42**	Pn	**Pn**	**19 55 37.1**	**+0.8**
RESF				Sg	**Sn**	**19 56 22.6**	**-3.3**
RESF	**Ens**	**4.22**	**42**	Pn	**Pn**	**19 55 37.0**	**+0.7**
PBDV	**Barranco-do-Ve**	**4.28**	**236**	*e*Pn	**Pn**	**19 55 38.3**	**+1.1**
PBDV				*e*Sn	**Sn**	**19 56 26.4**	**-1.0**
PBDV				*e*Sg	**Sg**	**19 56 46.3**	**-2.5**
PBDV				A		19 56 55.9	
	comp=Z,169nm,0.6s						
PBDV	**Barranco-do-Ve**	**4.28**	**236**	Pn	**Pn**	**19 55 38.3**	**+1.1**
PBDV				Sn	**Sn**	**19 56 26.4**	**-1.0**
PBDV				Lg		19 56 46.3	
	comp=Z,169nm,0.6s						
EPF	**Esparros**	**4.38**	**40**	*e*Pn	**Pn**	**19 55 39.3**	**+0.7**
	SNR=1.0						
EPF				*e*Sn	**Sn**	**19 56 26.8**	**-3.1**
	SNR=1.0						
EPF				*e*Sg	**Sg**	**19 56 51.9**	**-0.1**
	comp=Z,125nm,0.4s						
EPF	**Esparros**	**4.38**	**40**	Pn	**Pn**	**19 55 39.3**	**+0.7**
EPF				Sn	**Sn**	**19 56 26.8**	**-3.1**
EPF				Lg		19 56 51.9	
	comp=Z,62nm,0.4s						
EPF	**Esparros**	**4.38**	**40**	*e*Pn	**Pn**	**19 55 39.3**	**+0.7**
	SNR=1.0						
EPF				*e*Sn	**Sn**	**19 56 26.8**	**-3.1**
	SNR=1.0						
EPF				*e*Sg	**Sg**	**19 56 51.9**	**-0.1**
	comp=Z,62nm,0.4s						
EMIR	**Miracle**	**4.39**	**59**	Pn	**Pn**	**19 55 40.7**	**+2.0**
	comp=Z,6.0nm,0.1s,SNR=7.9						
EMIR				Pg	**Pg**	**19 55 54.0**	**-1.5**
	comp=Z,11nm,0.5s,SNR=7.9						
EMIR				Sn	**Sn**	**19 56 28.0**	**-2.2**
	comp=Z,38nm,0.8s,SNR=7.9						
EMIR				Lg		19 56 49.1	
	comp=Z,426nm,0.8s,SNR=7.9						
EMIR	**Miracle**	**4.39**	**59**	Pn	**Pn**	**19 55 40.7**	**+2.0**
	comp=Z,6.0nm,0.1s,SNR=7.9						
MELF	**Melles**	**4.48**	**44**	Pn	**Pn**	**19 55 41.1**	**+1.1**
MELF				Sg	**Sn**	**19 56 30.9**	**-1.6**
MELF	**Melles**	**4.48**	**44**	Pn	**Pn**	**19 55 41.1**	**+1.1**
EPON	**Pontenova**	**4.51**	**324**	Pn	**Pn**	**19 55 41.5**	**+1.1**
	comp=Z,3.1nm,0.2s,SNR=7.9						
EPON				Pg	**Pg**	**19 55 56.8**	**-1.0**
	comp=Z,6.3nm,0.2s,SNR=7.9						
EPON				Sn	**Sn**	**19 56 32.0**	**-1.2**
	comp=Z,49nm,0.6s,SNR=7.9						
EPON				Lg		19 56 56.3	
	comp=Z,114nm,0.2s,SNR=7.9						
EPON	**Pontenova**	**4.51**	**324**	Pn	**Pn**	**19 55 41.5**	**+1.1**
	comp=Z,3.1nm,0.2s,SNR=7.9						
PMAFR	**Mafra**	**4.55**	**262**	*e*Pn	**Pn**	**19 55 42.3**	**+1.4**
PMAFR				*e*Sn	**Sn**	**19 56 32.8**	**-1.4**
PMAFR				*e*Sg	**Sg**	**19 56 56.2**	**-1.3**
PMAFR				A		19 57 10.5	
	comp=Z,82nm,0.5s						
PMAFR	**Mafra**	**4.55**	**262**	Pn	**Pn**	**19 55 42.3**	**+1.4**
PMAFR				Sn	**Sn**	**19 56 32.8**	**-1.4**
PMAFR				Lg		19 56 56.2	
	comp=Z,82nm,0.5s						
PMAFR	**Mafra**	**4.55**	**262**	*e*Pn	**Pn**	**19 55 42.3**	**+1.4**
PMAFR				*e*Sn	**Sn**	**19 56 32.8**	**-1.4**
PMAFR				*e*Sg	**Sg**	**19 56 56.2**	**-1.3**
	comp=Z,82nm,0.5s						
EZAM	**Zamans**	**4.61**	**303**	Pn	**Pn**	**19 55 43.6**	**+1.8**
	comp=Z,5.4nm,0.2s,SNR=7.9						
EZAM				Pg	**Pg**	**19 55 58.3**	**-1.4**
	comp=Z,12nm,0.3s,SNR=7.9						
EZAM				Sn	**Sn**	**19 56 34.7**	**-1.0**
	comp=Z,23nm,1.1s,SNR=7.9						
EZAM				Lg		19 56 58.9	
	comp=Z,122nm,0.4s,SNR=7.9						
EZAM	**Zamans**	**4.61**	**303**	Pn	**Pn**	**19 55 43.6**	**+1.8**
EZAM				Sn	**Sn**	**19 56 36.1**	**+0.4**
EZAM				Lg		19 56 59.1	
EZAM	**Zamans**	**4.61**	**303**	Pn	**Pn**	**19 55 43.6**	**+1.8**
	comp=Z,5.4nm,0.2s,SNR=7.9						
PTEO	**Sao Teotonio**	**4.64**	**243**	*e*Pn	**Pn**	**19 55 43.3**	**+1.1**
PTEO				*e*Sn	**Sn**	**19 56 35.6**	**-0.8**
PTEO				*e*Sg	**Sg**	**19 57 00.0**	**-0.4**
PTEO				A		19 57 13.7	
	comp=Z,113nm,0.5s						
PTEO	**Sao Teotonio**	**4.64**	**243**	Pn	**Pn**	**19 55 43.3**	**+1.1**
PTEO				Sn	**Sn**	**19 56 35.6**	**-0.8**
PTEO				Lg		19 57 00.0	
	comp=Z,56nm,0.5s						
PTEO	**Sao Teotonio**	**4.64**	**243**	*e*Pn	**Pn**	**19 55 43.3**	**+1.1**
PTEO				*e*Sn	**Sn**	**19 56 35.6**	**-0.8**
PTEO				*e*Sg	**Sg**	**19 57 00.0**	**-0.4**
	comp=Z,113nm,0.5s						
SALF	**Salau**	**4.65**	**48**	Pn	**Pn**	**19 55 43.3**	**+1.0**
SALF	**Salau**	**4.65**	**48**	Pn	**Pn**	**19 55 43.3**	**+1.0**
MORF	**Marmelete**	**4.71**	**241**	*e*Pn	**Pn**	**19 55 44.4**	**+1.2**
MORF				*e*Sn	**Sn**	**19 56 37.4**	**-0.8**
MORF				A		19 57 09.5	
	comp=Z,44nm,0.6s						
MORF	**Marmelete**	**4.71**	**241**	Pn	**Pn**	**19 55 44.4**	**+1.2**
MORF				Sn	**Sn**	**19 56 37.4**	**-0.8**
	comp=Z,44nm,0.6s						
MORF	**Marmelete**	**4.71**	**241**	*e*Pn	**Pn**	**19 55 44.4**	**+1.2**
MORF				*e*Sn	**Sn**	**19 56 37.4**	**-0.8**
	comp=Z,44nm,0.6s						
ETOS	**Mallorca**	**4.87**	**88**	Pn	**Pn**	**19 55 45.3**	**0.0**
	comp=Z,6.8nm,0.4s,SNR=31						
ETOS	**Mallorca**	**4.87**	**88**	Pn	**Pn**	**19 55 45.3**	**0.0**
	comp=Z,6.8nm,0.4s,SNR=31						
STS	**Santiago**	**4.93**	**311**	Pn	**Pn**	**19 55 47.9**	**+1.7**
	comp=Z,5.6nm,0.2s,SNR=6.8						
STS				Pg	**Pg**	**19 56 05.8**	**-0.2**
	comp=Z,7.4nm,0.2s,SNR=5.6						
STS				Sn	**Sn**	**19 56 43.1**	**-0.6**
	comp=Z,62nm,1.2s,SNR=7.9						
STS				Lg		19 57 10.3	
	comp=Z,36nm,0.3s,SNR=5.5						
STS	**Santiago**	**4.93**	**311**	Pn	**Pn**	**19 55 47.9**	**+1.7**
STS				Sn	**Sn**	**19 56 44.5**	**+0.8**
STS				Lg		19 57 10.3	
STS	**Santiago**	**4.93**	**311**	Pn	**Pn**	**19 55 47.9**	**+1.7**
	comp=Z,5.6nm,0.2s,SNR=6.8						
EMAZ	**Mazaricos**	**5.22**	**310**	Pn	**Pn**	**19 55 52.0**	**+1.9**
	comp=Z,6.4nm,0.3s,SNR=6.8						
EMAZ				Sn	**Sn**	**19 56 48.8**	**-1.9**
	comp=Z,52nm,1.1s,SNR=7.9						
EMAZ				Lg		19 57 20.1	
	comp=Z,96nm,0.5s,SNR=4.5						
EMAZ	**Mazaricos**	**5.22**	**310**	Pn	**Pn**	**19 55 52.0**	**+1.9**
EMAZ				Sn	**Sn**	**19 56 50.1**	**-0.6**
EMAZ				Lg		19 57 20.2	
EMAZ	**Mazaricos**	**5.22**	**310**	Pn	**Pn**	**19 55 52.0**	**+1.9**
	comp=Z,6.4nm,0.3s,SNR=6.8						
EMAZ				Sn	**Sn**	**19 56 50.1**	**-0.6**
EJON	**La Jonquera**	**5.54**	**59**	Pn	**Pn**	**19 55 54.6**	**+0.2**
	comp=Z,0.5nm,0.1s,SNR=7.9						
EJON				Pg	**Pg**	**19 56 14.7**	**-2.7**
	comp=Z,1.8nm,0.2s,SNR=7.9						
EJON				Lg		19 57 27.0	
	comp=Z,31nm,0.5s,SNR=7.9						
EJON	**La Jonquera**	**5.54**	**59**	Pn	**Pn**	**19 55 54.6**	**+0.1**
	comp=Z,0.5nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	**5.60**	**48**	*e*Pn	**Pn**	**19 55 54.9**	**-0.5**
	SNR=1.0						
MTLF				*e*Sg	**Sg**	**19 57 28.7**	**-2.5**
	comp=Z,63nm,0.7s,SNR=1.0						
MTLF	**Montolieu**	**5.60**	**48**	Pn	**Pn**	**19 55 54.9**	**-0.5**
MTLF				Lg		19 57 28.7	
	comp=Z,31nm,0.7s						
MTLF	**Montolieu**	**5.60**	**48**	*e*Pn	**Pn**	**19 55 54.9**	**-0.5**
	SNR=1.0						
LFF	**La Frestale**	**6.07**	**30**	*e*Pn	**Pn**	**19 56 02.2**	**+0.4**
	SNR=1.0						
LFF				*e*Sn	**Sn**	**19 57 07.5**	**-4.2**
	comp=Z,30nm,0.4s						
LFF	**La Frestale**	**6.07**	**30**	Pn	**Pn**	**19 56 02.2**	**+0.4**
LFF				Sn	**Sn**	**19 57 07.5**	**-4.2**
	comp=Z,15nm,0.4s						
LFF	**La Frestale**	**6.07**	**30**	*e*Pn	**Pn**	**19 56 02.2**	**+0.4**
	SNR=1.0						
CAF	**Calviac**	**6.62**	**37**	*e*Pn	**Pn**	**19 56 08.6**	**-0.8**
	SNR=1.0						
CAF				*e*Sn	**Sn**	**19 57 20.8**	**-4.4**
	comp=Z,18nm,0.4s,SNR=1.0						
CAF	**Calviac**	**6.62**	**37**	Pn	**Pn**	**19 56 08.6**	**-0.8**
CAF				Sn	**Sn**	**19 57 20.8**	**-4.4**
	comp=Z,9.1nm,0.4s						
CAF	**Calviac**	**6.62**	**37**	*e*Pn	**Pn**	**19 56 08.6**	**-0.8**
	SNR=1.0						
RJF	**Les Rejaudoux**	**6.68**	**32**	*e*Pn	**Pn**	**19 56 10.3**	**+0.1**
	SNR=1.0						
RJF				*e*Sn	**Sn**	**19 57 22.2**	**-4.5**
	comp=Z,14nm,0.3s,SNR=1.0						
RJF	**Les Rejaudoux**	**6.68**	**32**	Pn	**Pn**	**19 56 10.3**	**+0.1**
RJF				Sn	**Sn**	**19 57 22.2**	**-4.5**
	comp=Z,6.8nm,0.3s						
RJF	**Les Rejaudoux**	**6.68**	**32**	*e*Pn	**Pn**	**19 56 10.3**	**+0.1**
	SNR=1.0						
LASF	**Ste Croix**	**6.99**	**49**	*e*Pn	**Pn**	**19 56 14.0**	**-0.5**
LASF				*e*Sg	**Sg**	**19 58 12.8**	**-3.1**
	comp=Z,38nm,0.6s,SNR=1.0						
LASF	**Ste Croix**	**6.99**	**49**	Pn	**Pn**	**19 56 14.0**	**-0.5**
LASF				Lg		19 58 12.8	
	comp=Z,19nm,0.6s						
LASF	**Ste Croix**	**6.99**	**49**	*e*Pn	**Pn**	**19 56 14.0**	**-0.5**
MFF	**Saint Martin d**	**7.28**	**19**	*e*Pn	**Pn**	**19 56 18.4**	**-0.1**
	SNR=1.0						
MFF				*e*Sn	**Sn**	**19 57 36.6**	**-4.9**
	comp=Z,15nm,0.6s,SNR=1.0						
MFF	**Saint Martin d**	**7.28**	**19**	Pn	**Pn**	**19 56 18.4**	**-0.1**
MFF				Sn	**Sn**	**19 57 36.6**	**-4.9**
	comp=Z,7.4nm,0.6s						
MFF	**Saint Martin d**	**7.28**	**19**	*e*Pn	**Pn**	**19 56 18.4**	**-0.1**
	SNR=1.0						
TCF	**Toulx Ste Croi**	**7.77**	**31**	*e*Pn	**Pn**	**19 56 24.7**	**-0.4**
	SNR=1.0						
TCF				*e*Sn	**Sn**	**19 57 47.5**	**-5.9**
	comp=Z,13nm,0.5s,SNR=1.0						
TCF	**Toulx Ste Croi**	**7.77**	**31**	Pn	**Pn**	**19 56 24.7**	**-0.4**
TCF				Sn	**Sn**	**19 57 47.5**	**-5.9**
	comp=Z,6.3nm,0.5s						
TCF	**Toulx Ste Croi**	**7.77**	**31**	*e*Pn	**Pn**	**19 56 24.7**	**-0.4**
	SNR=1.0						
VIVF	**Saint-Julien-l**	**7.93**	**47**	*e*Pn	**Pn**	**19 56 26.8**	**-0.5**
VIVF				*e*Sg	**Sg**	**19 58 42.1**	**-3.7**
	comp=Z,9.1nm,0.5s						
VIVF	**Saint-Julien-l**	**7.93**	**47**	Pn	**Pn**	**19 56 26.8**	**-0.5**
VIVF				Lg		19 58 42.1	
	comp=Z,4.6nm,0.5s						
VIVF	**Saint-Julien-l**	**7.93**	**47**	*e*Pn	**Pn**	**19 56 26.8**	**-0.5**
SMRF	**Simiane la Rot**	**7.99**	**55**	*e*Pn	**Pn**	**19 56 28.1**	**0.0**
SMRF				*e*Sn	**Sn**	**19 57 52.8**	**-6.0**
	comp=Z,5.7nm,0.7s						
SMRF	**Simiane la Rot**	**7.99**	**55**	Pn	**Pn**	**19 56 28.1**	**0.0**
SMRF				Sn	**Sn**	**19 57 52.8**	**-6.0**
	comp=Z,5.7nm,0.7s						
SMRF	**Simiane la Rot**	**7.99**	**55**	*e*Pn	**Pn**	**19 56 28.1**	**0.0**
SSB	**Saint Sauveur**	**8.12**	**44**	*e*Pn	**Pn**	**19 56 30.9**	**+1.0**
SSB	**Saint Sauveur**	**8.12**	**44**	*e*Pn	**Pn**	**19 56 31.0**	**+1.1**
QUIF	**Quistinic**	**8.18**	**2**	*e*Pn	**Pn**	**19 56 30.7**	**0.0**
	SNR=1.0						
QUIF				*e*Sn	**Sn**	**19 57 57.1**	**-6.4**
	comp=Z,19nm,0.7s						
QUIF	**Quistinic**	**8.18**	**2**	Pn	**Pn**	**19 56 30.7**	**0.0**
QUIF				Sn	**Sn**	**19 57 57.1**	**-6.4**
	comp=Z,9.5nm,0.7s						
QUIF	**Quistinic**	**8.18**	**2**	*e*Pn	**Pn**	**19 56 30.7**	**0.0**
	SNR=1.0						
BGF	**Bois d'Agland**	**8.24**	**32**	*e*Pn	**Pn**	**19 56 30.9**	**-0.7**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**19 57 58.7**	**-6.4**
	comp=Z,26nm,0.5s,SNR=1.0						
BGF	**Bois d'Agland**	**8.24**	**32**	Pn	**Pn**	**19 56 30.9**	**-0.7**

BGF				Sn	Sn	19 57 58.7	-6.4
	comp=Z,13nm,0.5s						
BGF	Bois d’Agland	8.24	32	*e*Pn	Pn	19 56 30.9	-0.7
	SNR=1.0						
LMR	La Mourre	8.32	61	*e*Pn	Pn	19 56 32.0	-0.7
LMR				*e*Sn	Sn	19 58 01.0	-6.1
	comp=Z,7.7nm,0.8s						
LMR	La Mourre	8.32	61	Pn	Pn	19 56 32.0	-0.7
LMR				Sn	Sn	19 58 01.0	-6.1
	comp=Z,3.8nm,0.8s						
LMR	La Mourre	8.32	61	*e*Pn	Pn	19 56 32.0	-0.7
FRF	La Foret Royal	8.50	60	*e*Pn	Pn	19 56 34.8	-0.4
FRF				*e*Sn	Sn	19 58 05.3	-6.2
	comp=Z,3.8nm,0.5s						
FRF	La Foret Royal	8.50	60	Pn	Pn	19 56 34.8	-0.4
FRF				Sn	Sn	19 58 05.3	-6.2
	comp=Z,1.9nm,0.5s						
FRF	La Foret Royal	8.50	60	*e*Pn	Pn	19 56 34.8	-0.4
ROSF	Rostrenen	8.60	1	*e*Pn	Pn	19 56 35.2	-1.3
ROSF				*e*Sn	Sn	19 58 08.4	-5.4
	comp=Z,19nm,0.6s,SNR=1.0						
ROSF	Rostrenen	8.60	1	Pn	Pn	19 56 35.2	-1.3
ROSF				Sn	Sn	19 58 08.4	-5.4
	comp=Z,9.7nm,0.6s						
ROSF	Rostrenen	8.60	1	*e*Pn	Pn	19 56 35.2	-1.3
AVF	Avril sur Loir	8.64	33	*e*Pn	Pn	19 56 35.4	-1.6
AVF				*e*Sn	Sn	19 58 09.0	-5.8
	comp=Z,5.5nm,0.6s						
AVF	Avril sur Loir	8.64	33	Pn	Pn	19 56 35.4	-1.6
AVF				Sn	Sn	19 58 09.0	-5.8
	comp=Z,2.8nm,0.6s						
AVF	Avril sur Loir	8.64	33	*e*Pn	Pn	19 56 35.4	-1.6
ORIF	Oris-en-Rattie	8.66	50	*e*Pn	Pn	19 56 37.1	-0.3
ORIF				*e*Sn	Sn	19 58 09.3	-6.1
	comp=Z,2.1nm,0.5s						
ORIF	Oris-en-Rattie	8.66	50	Pn	Pn	19 56 37.1	-0.3
ORIF				Sn	Sn	19 58 09.3	-6.1
	comp=Z,1.1nm,0.5s						
ORIF	Oris-en-Rattie	8.66	50	*e*Pn	Pn	19 56 37.1	-0.3
SMF	Signal de Mont	8.74	35	*e*Pn	Pn	19 56 37.3	-1.1
SMF				*e*Sn	Sn	19 58 11.4	-5.8
	comp=Z,3.0nm,0.3s						
SMF	Signal de Mont	8.74	35	Pn	Pn	19 56 37.3	-1.1
SMF				Sn	Sn	19 58 11.4	-5.8
	comp=Z,1.5nm,0.3s						
SMF	Signal de Mont	8.74	35	*e*Pn	Pn	19 56 37.3	-1.1
HYF	Humbligny	8.75	29	*e*Pn	Pn	19 56 37.9	-0.6
HYF				*e*Sn	Sn	19 58 11.3	-6.2
HYF	Humbligny	8.75	29	*e*Pn	Pn	19 56 37.9	-0.6
GRR	Gorron	8.85	12	*e*Pn	Pn	19 56 39.2	-0.8
GRR				*e*Sn	Sn	19 58 12.0	-8.1
	comp=Z,14nm,0.5s,SNR=1.0						
GRR	Gorron	8.85	12	Pn	Pn	19 56 39.2	-0.8
GRR				Sn	Sn	19 58 12.0	-8.1
	comp=Z,7.2nm,0.5s						
GRR	Gorron	8.85	12	*e*Pn	Pn	19 56 39.2	-0.8
SSF	Saint Saulge	8.92	33	*e*Pn	Pn	19 56 39.8	-1.1
SSF				*e*Sn	Sn	19 58 15.6	-6.0
	comp=Z,6.8nm,0.5s						
SSF	Saint Saulge	8.92	33	Pn	Pn	19 56 39.8	-1.1
SSF				Sn	Sn	19 58 15.6	-6.0
	comp=Z,3.4nm,0.5s						
SSF	Saint Saulge	8.92	33	*e*Pn	Pn	19 56 39.8	-1.1
SBF	Sospel	9.15	60	*e*Pn	Pn	19 56 43.6	-0.4
SBF				*e*Sn	Sn	19 58 20.5	-6.8
	comp=Z,4.2nm,0.5s						
SBF	Sospel	9.15	60	Pn	Pn	19 56 43.6	-0.4
SBF				Sn	Sn	19 58 20.5	-6.8
	comp=Z,2.1nm,0.5s						
SBF	Sospel	9.15	60	*e*Pn	Pn	19 56 43.6	-0.4
LDF	La Druitiere	9.18	14	*e*Pn	Pn	19 56 43.9	-0.5
LDF				*e*Sn	Sn	19 58 21.8	-6.2
	comp=Z,7.3nm,0.5s						
LDF	La Druitiere	9.18	14	*e*Pn	Pn	19 56 43.9	-0.5
LOR	Lormes	9.23	33	*e*Pn	Pn	19 56 44.7	-0.4
	baz=222						
LOR				*e*Sn	Sn	19 58 22.9	-6.4
	comp=Z,5.6nm,0.7s						
LOR	Lormes	9.23	33	Pn	Pn	19 56 44.7	-0.4
LOR				Sn	Sn	19 58 22.9	-6.4
	comp=Z,2.8nm,0.7s						
LOR	Lormes	9.23	33	*e*Pn	Pn	19 56 44.7	-0.4
	baz=222						
FLN	La Foliniere	9.28	12	*e*Pn	Pn	19 56 44.8	-1.0
	baz=198						
FLN				*e*Sn	Sn	19 58 22.7	-7.8
	comp=Z,6.6nm,0.5s						
FLN	La Foliniere	9.28	12	Pn	Pn	19 56 44.8	-1.0
FLN				Sn	Sn	19 58 22.7	-7.8
	comp=Z,3.3nm,0.5s						
FLN	La Foliniere	9.28	12	*e*Pn	Pn	19 56 44.8	-1.0
	baz=198						
LPL	La Plagne	9.49	49	*e*Pn	Pn	19 56 48.3	-0.5
LPL				*e*Sn	Sn	19 58 29.6	-6.2
	comp=Z,1.0nm,0.4s						
LPL	La Plagne	9.49	49	Pn	Pn	19 56 48.3	-0.5
LPL				Sn	Sn	19 58 29.6	-6.2
	comp=Z,0.5nm,0.4s						
LPL	La Plagne	9.49	49	*e*Pn	Pn	19 56 48.3	-0.5
LPG	La Plagne	9.50	49	*e*Pn	Pn	19 56 48.9	+0.1
LPG				*e*Sn	Sn	19 58 29.7	-6.2
	comp=Z,1.0nm,0.4s						
LPG	La Plagne	9.50	49	Pn	Pn	19 56 48.9	+0.1
LPG				Sn	Sn	19 58 29.7	-6.2
	comp=Z,0.0nm,0.4s						
LPG	La Plagne	9.50	49	*e*Pn	Pn	19 56 48.9	+0.1
CABF	La Chapelle	9.80	42	*e*Pn	Pn	19 56 52.4	-0.6
CABF				*e*Sn	Sn	19 58 36.5	-6.9
	comp=Z,1.7nm,0.5s						
CABF	La Chapelle	9.80	42	Pn	Pn	19 56 52.4	-0.6
CABF				Sn	Sn	19 58 36.5	-6.9
	comp=Z,0.9nm,0.5s						
CABF	La Chapelle	9.80	42	*e*Pn	Pn	19 56 52.4	-0.6
PGF	Pioggiola	9.84	69	*e*Pn	Pn	19 56 53.3	-0.2
PGF				*e*Sn	Sn	19 58 37.4	-6.9
	comp=Z,1.4nm,0.4s						
PGF	Pioggiola	9.84	69	Pn	Pn	19 56 53.3	-0.2
PGF				Sn	Sn	19 58 37.4	-6.9
	comp=Z,0.7nm,0.4s						
PGF	Pioggiola	9.84	69	*e*Pn	Pn	19 56 53.3	-0.2
MEZF	Maizieres J’vi	10.70	32	*e*Pn	Pn	19 57 04.5	-0.7
MEZF				*e*Sn	Sn	19 58 58.0	-7.3
	comp=Z,12nm,1.0s						
MEZF	Maizieres J’vi	10.70	32	Pn	Pn	19 57 04.5	-0.7
MEZF				Sn	Sn	19 58 58.0	-7.3
	comp=Z,12nm,1.0s						
MEZF	Maizieres J’vi	10.70	32	*e*Pn	Pn	19 57 04.5	-0.7
BAIF	Baives	11.67	25	*e*Pn	Pn	19 57 17.9	-0.6
BAIF				*e*Sn	Sn	19 59 21.3	-7.8
	comp=Z,2.8nm,0.5s						
BAIF	Baives	11.67	25	Pn	Pn	19 57 17.9	-0.6
BAIF				Sn	Sn	19 59 21.3	-7.8
	comp=Z,1.4nm,0.5s						
BAIF	Baives	11.67	25	*e*Pn	Pn	19 57 17.9	-0.6

*IDC **23** 20:10:19.8±1.2, 32°.55S×178°.61W, h0^{km}, mb4.1/4, mb1 4.3/5, mb1mx4.0/18, mbtmp4.1/5, ML3.6/1, Error ellipse: s-maj=36.9km s-min=27.9km az=47.0*
*ISCJB **23** 20:10:23.1±5.4, 32°.9S±0°.2×178°.6W±0°.2, h38^{km}±44^{km}, mb4.1/4, Error ellipse: s-maj=36.5km s-min=26.7km az=145.6*
*NEIC **23** 20:10:24.8±0.7, 32°.75S×178°.57W, h35^{km}, mb4.3/1, Error ellipse: s-maj=19.7km s-min=17.7km az=61.0*
ISC 23 20:10:25.0±5.1**, 32°.9S**±0°.2×**178°.5W**±0°.3**, h43**^{km}±41^{km}**, n15, σ0^{s}.42**/9**, mb4.1**/4**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	6.46	212	Pn	Pn	20 11 57.5	0.0
	1.1nm,0.3s,baz=76,slow=8.9,SNR=11						
URZ				Sn	Sn	20 13 10.0	0.0
	1.8nm,0.3s,baz=288,slow=24,SNR=6.0						
CTA	Charters Tower	33.85	283	P	P	20 17 03.6	+0.1
	2.0nm,0.5s,mb4.3,baz=110,slow=8.0,SNR=6.4						
CTAO	Charters Tower	33.85	283	*e*P	P	20 17 04.4	+0.9
	2.3nm,0.6s,mb4.3						
ASAR	Alice Springs	42.61	270	P	P	20 18 17.4	+0.3
	2.8nm,0.7s,mb4.1,baz=108,slow=7.4,SNR=39						
WRAB	Tennant Creek	43.82	275	*e*P	P	20 18 26.8	-0.2
WRA	Warramunga Arr	43.82	275	P	P	20 18 26.3	-0.7
	2.6nm,0.6s,mb4.2,baz=113,slow=7.9,SNR=21						
QSPA	South Pole Qui	57.26	180	P	P	20 20 11.9	+4.4
	0.9nm,0.9s,mb3.8,baz=16,slow=5.1,SNR=3.8						
PMSA	Palmer Station	70.21	156	P	P	20 21 32.9	0.0
MKAR	Makanchi Array	119.00	309	PKP	PKPdf	20 29 08.7	+0.2
	0.2nm,0.5s,baz=117,slow=1.8,SNR=6.1						
ZALV	Zalesovo Beam	119.57	318	PKP	PKPdf	20 29 09.7	+0.3
	0.4nm,0.3s,baz=108,slow=4.7,SNR=2.7						
JOF	Joensuu	144.53	337	*e*p	PKPdf	20 29 55.0	-0.8
	3.9nm,0.9s						
KAF	Kangasniemi	146.70	339	*e*p	PKPdf	20 30 01.0	+1.4
	2.5nm,0.5s						
NOA	NORSAR Array B	151.10	350	PKPbc	PKPbc	20 30 14.0	+1.4
	2.9nm,1.1s,baz=15,slow=4.1,SNR=3.4						
BRTR	Keskin Array B	153.30	294	PKPbc	PKPbc	20 30 18.6	+0.3
TORD	Torodi Ar. Bea	160.38	181	PKPab	PKPab	20 31 03.2	+2.1
	0.5nm,0.6s,baz=178,slow=3.6,SNR=6.4						

*ISCJB **23** 20:36:54.4±0.7, 33°.29N±0°.03×35°.43E±0°.05, h15^{km}±7^{km}, Error ellipse: s-maj=8.0km s-min=4.3km az=31.9*
*GII **23** 20:36:54.2±0.4, 33°.27N×35°.43E, h4^{km}, Md2.0/8*
*CSEM **23** 20:36:55.6, 33°.30N×35°.45E, h8^{km}, ML2.6*
*GRAL **23** 20:36:55.6±0.3, 33°.30N×35°.45E, h9^{km}±7^{km}, MD2.6*
ISC 23 20:36:54.7±0.8**, 33°.31N**±0°.03×**35°.43E**±0°.05**, h14**^{km}±8^{km}**, n16, σ0^{s}.59**/25**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.20	335	*e*P	Pg	20 36 59.6	+0.3
MATL	Matirih	0.20	335	*e*P	Pg	20 36 59.6	+0.3
KSDI	Kefar Szold	0.22	120	Pg	Pg	20 36 59.1	-0.5
KSDI				Sg	Sg	20 37 03.4	+0.4
MMA0B	Mount Meron ar	0.29	184	Pg	Pg	20 37 00.1	-0.7
MMA0B				Sg	Sg	20 37 05.1	+0.2
MMC6	Mount Meron ar	0.29	186	Pg	Pg	20 37 00.2	-0.7
HNTI	Hanita	0.31	224	Pg	Pg	20 37 00.8	-0.3
HNTI				Sg	Sg	20 37 05.6	+0.2
RCY	Rachaya	0.37	61	*e*P	Pg	20 37 02.5	+0.2
RCY				*e*S	Sg	20 37 07.8	+0.5
RCY	Rachaya	0.37	61	*e*P	Pg	20 37 02.5	+0.3
RCY				*e*S	Sg	20 37 07.8	+0.5
BLGI	Bet Lehem HaGe	0.60	199	Pg	Pg	20 37 06.4	-0.1
BHL	Bhannes	0.62	17	*e*P	Pg	20 37 07.0	0.0
BHL	Bhannes	0.62	17	*e*P	Pg	20 37 07.0	+0.1
OFRI	‘Ofer	0.78	209	Pg	Pg	20 37 09.5	-0.3
OFRI				Sg	Sg	20 37 21.4	+1.4
MMLI	Mount Malkishu	0.86	180	Pg	Pg	20 37 10.8	-0.7
MMLI				Sg	Sg	20 37 23.0	+0.2
HMDT	Nahal Hemdat	1.05	176	Pg	Pg	20 37 13.9	-1.1
HMDT				Sg	Sg	20 37 29.3	+0.5
SLTI	Sal’it	1.11	197	Pg	Pg	20 37 15.3	-0.8
SLTI				Sg	Sg	20 37 31.2	+0.6
DSI	Dead Sea	1.73	181	Pn	Pn	20 37 25.0	+0.7

*NEIC **23** 21:51:33.6, 32°.44N×115°.29W, h6^{km}, ML3.7(PAS), ML3.9(ECX), After PAS.*
NEIC Felt at Mexicali.
ECX 23 21:51:32.2±0.2**, 32°.41N**×**115°.37W, h10**^{km}**, MD3.7, ML3.9, 8C-7D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.06	85	⇓*e*P	Pg	21 51 36.2	+2.0
CPBX				*e*S	Sg	21 51 38.7	+3.0
CPBX				*e*		21 51 40.2	
	comp=N,142µm,0.7s						
CPBX	Cerro Prieto	0.06	85	⇓*e*P	Pg	21 51 36.2	+2.0
CPBX				*e*S	Sg	21 51 38.8	+3.1
SGL	Mount Signal	0.38	308	⇑*i*P	Pg	21 51 41.4	+1.7
EMX	El Mayor	0.44	166	⇓*e*P	Pg	21 51 48.8	+8.1
EMX				*e*S	Sg	21 51 56.3	+10
EMX				⇓*e*		21 51 59.9	
	comp=E,5µm,0.9s						
EMX				⇑*e*		21 52 01.7	
	comp=N,6µm,0.8s						
SNR	Schaffner Ranc	0.45	353	⇓*i*P	Pg	21 51 42.3	+1.3
YUH	Yuha Desert	0.52	297	⇑*i*P	Pg	21 51 44.0	+1.6
COK	Cook Ranch	0.53	325	⇑*i*P	Pg	21 51 43.9	+1.3
RMX	La Rumorosa	0.63	288	⇓*e*P	Pg	21 51 46.5	+2.1
RDX	Rancho Dawling	0.69	226	*e*P	Pg	21 51 48.6	+3.1
RDX				*e*S	Sg	21 51 59.4	+4.9
RDX				*e*		21 52 01.0	
	comp=N,4µm,0.5s						
RDX	Rancho Dawling	0.69	226	⇑*e*P	Pg	21 51 48.7	+3.2
RDX				*e*S	Sg	21 51 59.2	+4.8
CRR	Carrizo Plain	0.69	313	*e*P	Pg	21 51 46.5	+0.9
YMD	Yuma Desert	0.71	78	*e*P	Pg	21 51 45.0	-0.9
GLA	Glamis	0.79	36	*e*Pg	Pg	21 51 46.8	-0.5
GLA				*e*Sg	Sg	21 51 56.0	-1.6
ECBX	El Chinero	0.98	164	*e*P	Pg	21 51 57.0	+6.0
ECBX				*e*S	Sg	21 52 10.9	+7.2
CBX	Cerro Bola	1.10	265	⇑*e*PN	Pn	21 51 54.7	+1.1
BAR	Barrett	1.13	284	*e*Pg	Pg	21 51 54.5	+0.5
BAR				*e*Sg	Sg	21 52 10.4	+1.8
ECNX	Esteban Cantu	1.29	234	⇑*e*PN	Pn	21 51 58.6	+2.4
ECNX				*e*PN	Pn	21 51 56.8	+0.6
PBX	Punta Banda	1.33	240	*e*Pn	Pn	21 51 59.2	+2.4
PBX				*e*S	Sb	21 52 18.8	+4.5
SPX	San Pedro Mart	1.37	183	*e*PN	Pn	21 52 01.1	+3.8
SPX				⇓*e*		21 52 29.4	
	comp=E,1µm,0.7s						
SPX				⇑*e*		21 52 38.4	
	comp=N,996nm,0.9s						
PFO	Pinyon Flat Ob	1.50	323	*e*Pn	Pn	21 51 58.0	-1.1
PFO				*e*Sn	Sn	21 52 16.5	-2.3
LDFC	Landfair	2.67	5	*e*Pn	Pn	21 52 19.3	+4.1
MWC	Mount Wilson	2.88	309	*e*Pn	Pn	21 52 21.1	+2.9
PASC	Pasadena Art C	2.94	307	*e*Pn	Pn	21 52 19.4	+0.5
GSC	Goldstone	3.12	338	Pn	Pn	21 52 26.7	+5.3
OSI	Osito Adit	3.56	309	*e*Pn	Pn	21 52 28.8	+1.4
TUC	Tucson	3.88	90	*e*Pn	Pn	21 52 33.3	+1.4
ISA	Isabella	4.14	322	*e*Pn	Pn	21 52 34.4	-1.1
WUAZ	Wupatki	4.54	46	Pn	Pn	21 52 39.1	-1.9
CCUT	Cedar City	5.38	17	*e*Pn	Pn	21 52 54.7	+2.2
	comp=N,48nm,0.8s						
MSU	Marysvale	6.62	22	*e*Pn	Pn	21 53 07.5	-2.0
SRU	San Rafael	7.76	29	*e*Pn	Pn	21 53 26.7	+1.6
BW06	Boulder Array	11.31	22	*e*Pn	Pn	21 54 12.5	-1.3
RRI2	Red Ridge	11.37	15	*e*Pn	Pn	21 54 15.2	+0.5
LOHW	Long Hollow	11.79	17	*e*Pn	Pn	21 54 25.0	+4.6
IMW	Indian Meadow	11.98	16	*e*Pn	Pn	21 54 21.7	-1.3

*CSEM **23** 21:53:37.8±0.3, 39°.24N×33°.05E, h2^{km}, MD3.1, Error ellipse: s-maj=8.1km s-min=6.2km az=36.0*
*ISK **23** 21:53:37.7, 39°.26N×33°.04E, h5^{km}, MD3.1*
*ISCJB **23** 21:53:38.8±0.5, 39°.31N±0°.04×33°.11E±0°.04, h10^{km}, Error ellipse: s-maj=5.7km s-min=4.7km az=29.0*
*DDA **23** 21:53:39.3, 39°.45N×33°.16E, h25^{km}, Md3.2*
ISC 23 21:53:38.4±0.8**, 39°.29N**±0°.04×**33°.12E**±0°.05**, h2**^{km}±8^{km}**, n27, σ1^{s}.03**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOD	Lodumlu	0.66	336	*e*PG	Pg	21 53 51.1	-0.1
LOD				*e*SG	Sg	21 54 00.8	+1.0
LOD	Lodumlu	0.66	336	*e*Pg	Pg	21 53 51.1	0.0
LOD				*e*Sg	Sg	21 54 00.8	+1.1
CDAG	Cicekdag	1.03	70	*i* P	Pg	21 53 56.7	-1.4
CDAG				*i* S	Sg	21 54 10.4	-1.1
CDAG	Cicekdag	1.03	70	*i* P	Pg	21 53 56.7	-1.5
CDAG				*i* S	Sg	21 54 10.4	-1.1
KDHN	Kadinhani	1.09	226	*i* P	Pg	21 54 01.5	+2.1
KDHN				*i* S	Sg	21 54 18.8	+5.3
KDHN	Kadinhani	1.09	226	*i* P	Pg	21 54 01.5	+2.1
SULT	Sultanhani-AKS	1.13	164	*e*PN	Pg	21 53 59.6	-0.4
SULT	Sultanhani-AKS	1.13	164	*e*Pn	Pg	21 53 59.6	-0.5
SVRH	Sivrihisar-ESK	1.25	278	*e*PN	Pn	21 54 00.9	-2.0
SVRH	Sivrihisar-ESK	1.25	278	*e*Pn	Pn	21 54 00.9	-2.0
CANT	Cankiri	1.37	16	*e*PN	Pn	21 54 04.6	0.0
AVNT	Avonos	1.45	110	*i* P	Pn	21 54 05.4	-0.2
AVNT				*i* S	Sb	21 54 25.6	+0.7
AVNT	Avonos	1.45	110	*i* P	Pn	21 54 05.4	-0.2
AVNT				*i* S	Sb	21 54 25.6	+0.7
KONT	Konya--Tatoy	1.46	204	*e*PN	Pn	21 54 04.8	-1.0
KONT	Konya--Tatoy	1.46	204	*e*Pn	Pn	21 54 04.8	-1.1
NIG	Nigde	1.66	135	*e*PN	Pn	21 54 08.6	+0.1
NIG	Nigde	1.66	135	*e*Pn	Pn	21 54 08.6	+0.1
YOZ	Yozgat	1.74	78	*e*PN	Pn	21 54 10.4	+0.7
YOZ	Yozgat	1.74	78	*e*Pn	Pn	21 54 10.4	+0.7
ESKT	Eskisehir	1.77	278	*e*PN	Pn	21 54 09.2	-0.9
ESKT	Eskisehir	1.77	278	*e*Pn	Pn	21 54 09.2	-0.9
SAFT	Safranbolu	1.98	351	*e*PN	Pn	21 54 13.1	+0.1
SAFT	Safranbolu	1.98	351	*e*Pn	Pn	21 54 13.1	+0.1
BNN	Bunyan	2.17	101	*e*PN	Pn	21 54 16.5	+1.0
BNN	Bunyan	2.17	101	*e*Pn	Pn	21 54 16.5	+0.9
SVSK	Karacayir	3.06	77	*e*PN	Pn	21 54 29.4	+1.5
SVSK	Karacayir	3.06	77	*e*Pn	Pn	21 54 29.4	+1.5

*BJI **23** 22:01:48.6, 52°.50N×173°.40E, h43^{km}, mB5.1/18, mb4.7/32, Ms4.9/15, Ms7 4.6/14*
*MOS **23** 22:01:49.6±0.9, 52°.43N×173°.30E, h34^{km}, mb4.7/33, Error ellipse: s-maj=8.8km s-min=5.2km az=108.0*
*ISCJB **23** 22:01:50.3±0.3, 52°.45N±0°.05×173°.38E±0°.03, h40^{km}, mb4.6/98, MS4.0/8, Error ellipse: s-maj=6.7km s-min=2.9km az=175.7*
*IDC **23** 22:01:51.5±1.6, 52°.51N×173°.41E, h34^{km}±9^{km}, mb4.1/27, mb1 4.2/29, mb1mx4.2/34, mbtmp4.1/29, ML4.4/1, MS3.9/2, Ms1 3.9/2, ms1mx3.1/46, Error ellipse: s-maj=19.8km s-min=11.1km az=159.0*
*NEIC **23** 22:01:51.7±0.6, 52°.53N×173°.41E, h34^{km}±3^{km}, mb4.6/49, ML4.5(AEIC), Error ellipse: s-maj=6.9km s-min=3.0km az=172.0*
*KRSC **23** 22:01:51.9±2.7, 52°.13N×172°.49E, h23^{km}±27^{km}, ML4.7*
ISC 23 22:01:52.5±0.5**, 52°.56N**±0°.05×**173°.39E**±0°.03**, h38**^{km}±3^{km}**, h42**^{km}±2.0^{km}**:pP-P, n253, σ0^{s}.92**/277**, mb4.5**/98**, MS4.0**/8**, 18C-12D, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FX1	Attu Island--F	0.35	338	Pg	Pn	22 02 01.2	-0.1
	baz=163,slow=14						
FX1				Lg		22 02 08.5	
	7µm,0.3s,baz=162,slow=20,SNR=33						
SMY	Shemya	0.47	68	P	Pn	22 02 01.5	-1.2
SMY				*e*Pn	Pn	22 02 02.0	-0.8
SMY				*e*Sn	Sn	22 02 09.6	-0.3
SMY				S	Sn	22 02 10.3	+0.4
ADK	Adak	6.14	92	P	Pn	22 03 20.7	+0.1
ADK				S	Sn	22 04 32.0	+2.5
ADK	Adak	6.14	92	*e*Pn	Pn	22 03 18.8	-1.8
ADK				S	Sn	22 04 32.1	+2.6
KBTR	Krutoberegovo	7.17	305	*e*P	Pn	22 03 36.3	+1.6
KBTR				*i* S	Sn	22 04 52.3	-2.5
MKZ	Mys Kozlova	7.23	291	*e*P	Pn	22 03 35.8	+0.3
MKZ				*i* S	Sn	22 04 52.7	-3.5
ATKA	Atka Island	7.61	88	P	Pn	22 03 41.7	+1.0
ATKA				S	Sn	22 05 05.8	+0.2
SMKR	Semkarok	8.01	305	*e*P	Pn	22 03 49.4	+3.2
SPN	Mys Shipunski	8.12	279	*e*P	Pn	22 03 46.8	-0.8
SPN				*i* S	Sn	22 05 10.4	-7.6
ZLN	Zelenaya	8.14	300	*e*P	Pn	22 03 50.8	+2.9
ZLN				*i* S	Sn	22 05 19.2	+0.7
SRKR	Sorokina	8.19	305	*e*P	Pn	22 03 51.9	+3.2
CIRR	Tsirk	8.20	301	*e*P	Pn	22 03 51.2	+2.4
KLY	Klyuchi	8.32	302	*e*P	Pn	22 03 50.7	+0.3
KRSR	Krestovskiy	8.33	301	*e*P	Pn	22 03 52.6	+2.0
NLC	Nalytchevo	8.52	280	*e*P	Pn	22 03 52.7	-0.5
NLC				*i* S	Sn	22 05 20.9	-7.1
AVH	Avacha	8.88	280	*e*P	Pn	22 03 57.7	-0.5
AVH				*i* S	Sn	22 05 29.7	-7.2
PET	Petropavlovsk	8.95	279	*e*P	Pn	22 03 58.3	-0.7
PET				*i* S	Sn	22 05 30.5	-7.8
PET	Petropavlovsk	8.95	279	*e*Pn	Pn	22 03 58.4	-0.6
PET				*e*Sn	Sn	22 05 32.8	-5.6
RUS	Russkaya	9.08	275	*e*P	Pn	22 03 59.9	-0.9
RUS				*i* S	Sn	22 05 33.3	-8.3
GNL	Ganaly	9.36	283	*e*P	Pn	22 04 05.5	+0.9
PETK	Petropavlovsk-	9.52	280	Pn	Pn	22 04 07.5	+0.7
	3.8nm,0.3s,baz=88,slow=18,SNR=23						
PETK				Sn	Sn	22 05 47.9	-4.4
	1.4nm,0.3s,baz=86,slow=18,SNR=5.0						
PETK	Petropavlovsk-	9.52	280	Pn	Pn	22 04 07.5	+0.7
PETK				Sn	Sn	22 05 47.9	-4.4
SPIA	Saint Paul Isl	10.50	57	P	Pn	22 04 19.0	-1.2
NIKO	Nikolski	10.77	81	*e*Pn	Pn	22 04 23.3	-0.7
SKR	Severo-Kuril’s	10.90	267	*e*P	Pn	22 04 24.4	-1.4
SKR				pmax	pmax		
	comp=Z,110nm,1.0s						
UNV	Unalaska Valle	12.13	76	*e*Pn	Pn	22 04 42.8	+0.3
GAMB	Gambell	13.68	29	*e*Pn	Pn	22 05 01.8	-1.9
	comp=Z,5.0nm,0.6s						
SEY	Seymchan	15.21	321	*i* P	Pn	22 05 24.9	+0.8
BILL	Bilibino	15.91	350	⇑*e*P	Pn	22 05 34.9	+1.7
BILL				*e*S	S	22 08 30.1	-11
BILL				pmax	pmax		
	comp=Z,8.0nm,1.0s						
BILL				MLR	MLR		
	comp=Z,100nm,15.0s						
BILL	Bilibino	15.91	350	*e*P	Pn	22 05 32.2	-1.0
	comp=Z,12nm,0.8s						
TNA	Tin City	16.10	29	*e*P	Pn	22 05 35.3	-0.3
	comp=Z,0.5nm,0.6s						
SVW2	Sparrevohn	18.85	51	*e*P	Pn	22 06 08.8	-0.8
OHAK	Old Harbor	19.60	63	*e*P	Pn	22 06 15.0	-3.6
	comp=Z,3.0nm,0.5s						
KDAK	Kodiak Island	19.98	61	P	Pn	22 06 21.6	-1.5
KDAK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KDAK	Kodiak Island	19.98	61	P	Pn	22 06 21.6	-1.6
	comp=Z,2.1nm,0.3s,baz=98,slow=10,SNR=17						
KDAK	Kodiak Island	19.98	61	*e*P	Pn	22 06 19.9	-3.3
	comp=Z,5.9nm,0.7s						
PPLA	Purkeypile	20.82	47	*e*P	P	22 06 31.6	+1.3
	comp=Z,39nm,1.4s						
IMA2	Indian Mountai	21.23	38	*e*P	P	22 06 32.9	-1.8
KTH	Kantishna Hill	21.54	45	*e*P	P	22 06 37.2	-0.8
	comp=Z,6.7nm,0.9s,mb4.1						
RC01	Rabbit Creek A	21.64	52	*e*P	P	22 06 39.1	0.0
	comp=Z,42nm,2.3s,mb4.5						
BPAW	Bear Paw Mtn.	21.65	44	*e*P	P	22 06 40.1	+0.9
	comp=Z,7.0nm,1.0s,mb4.0						
TRF	Thorofare Moun	21.79	46	*e*P	P	22 06 41.1	+0.5
	comp=Z,4µm,1.2s						
MCK	McKinley	22.44	45	*e*P	P	22 06 48.3	+0.7
MCK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
MCK	McKinley	22.44	45	*e*P	P	22 06 48.3	+0.7
	comp=Z,7.9nm,0.8s,mb4.2						
COLD	Coldfoot	22.96	36	*e*P	P	22 06 51.9	-1.1
	comp=Z,2.4nm,0.8s,mb3.7						
COLA	College	23.16	43	*e*P	P	22 06 54.4	-0.8
COLA				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.0						
COLA	College	23.16	43	*e*P	P	22 06 54.4	-0.8
	comp=Z,3.3nm,0.5s,mb4.0						
HABR	Khabarovsk	24.52	276	*e*P	P	22 07 05.2	-2.8
HABR				*e**PP		22 07 17.7	
HABR				*e*		22 07 37.2	
HABR						22 10 42.3	
HABR				*e*SS		22 12 10.2	
HABR				MLR	MLR		
	comp=Z,96nm,14.0s,MS3.4						
MENT	Mentasta	24.65	48	*e*P	P	22 07 09.0	-0.1
YAK	Yakutsk	24.97	310	*e*P	P	22 07 10.9	-1.1
YAK				*e**PP		22 07 20.6	
YAK				*e*		22 07 45.5	
YAK				*e*S	S	22 11 30.6	-2.2
YAK				pmax	pmax		
	comp=Z,64nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,12nm,1.1s						
YAK				pmax	pmax		
	comp=E,40nm,1.2s						
YAK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.3						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,27nm,1.3s						
YAK				smax			
	comp=N,65nm,4.6s						
YAK				smax			
	comp=E,101nm,4.6s						
YAK				MLR	MLR		
	comp=Z,181nm,23.0s,MS3.5						
YAK				MLR	MLR		
	comp=E,68nm,15.0s						
YAK	Yakutsk	24.97	310	*e*P	P	22 07 11.6	-0.3
	comp=E,78nm,1.0s,mb5.2						
EGAK	Eagle	25.96	44	*e*P	P	22 07 20.3	-0.6
	comp=E,63nm,2.5s,mb4.7						
DAWY	Dawson	26.67	46	*e*P	P	22 07 26.7	-0.6

TIXI	Tiksi	27.24	331	⇑eP	P	22 07 33.1	+0.7
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.0						
TIXI	Tiksi	27.24	331	eP	P	22 07 33.0	+0.6
	comp=Z,5.0nm,0.9s,mb4.0						
TIXI				ePcP	PcP	22 10 50.8	-0.4
HYT	Haines Junctio	27.60	53	eP	P	22 07 36.4	+0.7
INK	Inuvik	29.37	37	PcP	PcP	22 10 55.9	-0.6
	comp=Z,1.1nm,0.4s,baz=282,slow=4.6,SNR=6.1						
MJAR	Matsushiro Arr	29.38	251	P	P	22 07 51.3	-0.4
	comp=Z,0.9nm,0.5s,mb3.8,baz=56,slow=9.0,SNR=3.9						
KSRS	Korea Array	34.88	263	P	P	22 08 40.3	+0.4
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
KSRS				MLR	MLR		
	comp=Z,78nm,19.1s,MS3.5						
KSRS	Korea Array	34.88	263	P	P	22 08 40.3	+0.4
	comp=Z,1.5nm,0.7s,mb4.0,baz=64,slow=8.3,SNR=3.9						
KSRS				LR	LR	22 21 41.0	
	comp=Z,78nm,19.1s,MS3.5,baz=219,slow=34						
YKA	Yellowknife Ar	37.91	46	P	P	22 09 05.4	-0.1
YKA						22 11 20.2	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA	Yellowknife Ar	37.91	46	P	P	22 09 05.4	0.0
	comp=Z,1.1nm,0.4s,mb3.9,baz=288,slow=8.2,SNR=18						
YKA				PcP	PcP	22 11 20.2	-0.5
	comp=Z,0.4nm,0.5s,baz=292,slow=3.3,SNR=4.9						
YKA	Yellowknife Ar	37.91	46	P	P	22 09 05.5	0.0
YKA				PcP	PcP	22 11 20.2	-0.5
RES	Resolute Bay	40.66	24	P	P	22 09 28.4	+0.1
	comp=Z,0.6nm,0.5s,mb3.5,baz=318,slow=6.6,SNR=4.3						
RES				PcP	PcP	22 11 28.6	-0.6
	comp=Z,1.1nm,0.8s,baz=275,slow=1.0,SNR=5.8						
TLY	Talaya	41.29	298	eP	P	22 09 33.7	0.0
TLY				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
TLY				MLR	MLR		
	comp=Z,155nm,19.0s,MS3.9						
ULN	Ulaanbaatar	41.36	291	eP	P	22 09 34.6	+0.2
ULN				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.0						
ULN	Ulaanbaatar	41.36	291	eP	P	22 09 34.6	+0.2
	comp=Z,4.6nm,1.3s,mb4.0						
SONM	Songino Array	41.75	291	P	P	22 09 37.8	+0.2
	comp=Z,2.8nm,0.7s,mb4.0,baz=60,slow=8.1,SNR=27						
SONM				PcP	PcP	22 11 32.9	-0.4
	comp=Z,0.4nm,0.5s,baz=58,slow=3.6,SNR=4.1						
ZAK	Zakamensk	42.15	296	eP	P	22 09 40.4	-0.4
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb3.7						
HAWA	Hanford	42.59	70	eP	P	22 09 45.4	+1.0
	comp=Z,56nm,2.0s,mb4.9						
HHC	Hu-ho-hao-te	42.72	280	eP	P	22 09 46.3	+0.8
HHC				pP	pP	22 09 55.8	-0.6
HHC				sP	sP	22 10 00.3	-0.7
HHC				PP	PP	22 11 27.9	+3.1
HHC				PcS	PcS	22 15 30.5	+1.8
HHC				eS	S	22 16 05.9	-0.3
HHC				sS	sS	22 16 21.8	-2.5
HHC				SS	SS	22 19 07.8	-10
HHC				ScS	ScS	22 19 42.9	-0.2
HHC				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
HHC				pmax	pmax		
	comp=Z,220nm,6.4s						
HHC				LR	LR		
	comp=N,280nm,13.9s,MS4.4						
HHC				LR	LR		
	comp=E,210nm,13.1s,MS4.4						
HHC				LR	LR		
	comp=Z,180nm,14.3s,MS4.1						
WALA	Waterton Lakes	44.28	64	eP	P	22 09 58.2	+0.3
	comp=Z,0.2nm,0.9s						
FCC	Fort Churchill	48.56	44	eP	P	22 10 31.5	+0.1
ZALV	Zalesovo Beam	49.62	309	P	P	22 10 38.5	-1.1
	comp=Z,1.3nm,0.4s,mb4.3,baz=45,slow=7.7,SNR=7.3						
ZALV				PcP	PcP	22 12 00.2	-0.3
	comp=Z,0.9nm,0.6s,baz=48,slow=2.1,SNR=3.3						
ZALV	Zalesovo Beam	49.62	309	P	P	22 10 38.5	-1.1
ZALV				PcP	PcP	22 12 00.2	-0.3
NVS	Novosibirsk	49.83	311	i P	P	22 10 39.8	-1.3
NVS				pmax	pmax		
	comp=N,4.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
LZH	Lanzhou	50.41	280	eP	P	22 10 46.8	+1.0
LZH				pP	pP	22 10 59.3	+2.3
LZH				sP	sP	22 11 04.5	+3.0
LZH				ePP	PP	22 12 43.8	+2.4
LZH				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.9						
LZH				pmax	pmax		
	comp=Z,78nm,6.3s						
LZH				LR	LR		
	comp=N,230nm,15.8s						
LZH				LR	LR		
	comp=Z,310nm,18.1s,MS4.4						
PDAR	Pinedale Array	50.47	69	P	P	22 10 46.0	-0.2
	comp=Z,0.6nm,0.7s,mb3.8,baz=300,slow=3.5,SNR=5.1						
GTA	Gaotai	50.61	286	P	P	22 10 47.8	+0.5
GTA				pP	pP	22 10 59.8	+1.4
GTA				sP	sP	22 11 04.9	+2.0
GTA				S	S	22 17 57.8	-1.3
GTA				sS	sS	22 18 20.9	+3.4
GTA				SS	SS	22 21 28.0	-5.1
GTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GTA				pmax	pmax		
	comp=Z,150nm,4.5s						
GTA				LR	LR		
	comp=N,230nm,18.7s,MS4.4						
GTA				LR	LR		
	comp=E,270nm,20.5s,MS4.4						
GTA				LR	LR		
	comp=Z,220nm,15.8s,MS4.3						
ULM	Lac du Bonnet	52.98	54	P	P	22 11 03.9	-0.8
	comp=Z,2.2nm,0.3s,mb4.5,baz=309,slow=7.7,SNR=7.2						
ULM	Lac du Bonnet	52.98	54	P	P	22 11 03.9	-0.8
CD2	Chengdu	54.02	275	P	P	22 11 13.0	+0.3
CD2				pP	pP	22 11 25.6	+1.7
CD2				sP	sP	22 11 31.0	+2.6
CD2				PP	PP	22 13 16.0	+1.9
CD2				S	S	22 18 43.3	-2.6
CD2				sS	sS	22 19 04.6	+0.1
CD2				SS	SS	22 22 24.3	-2.9
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,130nm,7.4s						
CD2				LR	LR		
	comp=N,550nm,6.4s						
CD2				LR	LR		
	comp=Z,430nm,6.9s						
FRB	Frobisher Bay	54.44	29	P	P	22 11 14.6	-0.7
	comp=Z,3.3nm,0.5s,mb4.5,baz=317,slow=8.8,SNR=13						
WMQ	Urumqi	54.58	298	⇑iP	P	22 11 16.8	+0.3
WMQ				pP	pP	22 11 27.0	-0.8
WMQ				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
WMQ				pmax	pmax		
	comp=Z,120nm,5.6s						
KURK	Kurchatov	54.62	309	P	P	22 11 15.3	-1.4
KURK				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.5						
KURK	Kurchatov	54.62	309	eP	P	22 11 16.4	-0.4
	comp=Z,31nm,0.8s,mb5.4						
MK31	Makanchi Array	55.43	303	eP	P	22 11 21.7	-1.0
MK31				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.8						
MKAR	Makanchi Array	55.43	303	P	P	22 11 21.8	-0.9
	comp=Z,4.7nm,0.3s,mb4.9,baz=54,slow=6.7,SNR=186						
MKAR	Makanchi Array	55.43	303	P	P	22 11 21.8	-0.9
GYA	Guiyang	55.44	269	P	P	22 11 25.0	+2.0
GYA				pP	pP	22 11 36.5	+2.2
GYA				sP	sP	22 11 42.0	+3.3
GYA				PP	PP	22 13 30.0	+3.1
GYA				ScP	ScP	22 16 18.3	-0.1
GYA				PcS	PcS	22 16 23.8	+0.7
GYA				S	S	22 19 02.4	-2.7
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
ARCES	ARCESS Array B	55.98	347	P	P	22 11 25.9	-0.4
	comp=Z,1.4nm,0.4s,mb4.3,baz=35,slow=8.6,SNR=14						
VOSK	Vostochnaya	56.71	315	P	P	22 11 30.5	-1.2
VOSK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BVA2	Borovoye Array	56.76	315	P	P	22 11 31.4	-0.7
BVA2				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
BRVK	Borovoye	56.78	315	eP	P	22 11 32.2	0.0
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
BRVK	Borovoye	56.78	315	eP	P	22 11 32.2	0.0
	comp=Z,5.5nm,0.7s,mb4.7						
KMI	Kunming	58.81	271	P	P	22 11 47.9	+1.0
KMI				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.5						
PRGR	Permogore	58.85	334	eP	P	22 11 43.5	-3.1
PRGR				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.6						
ARU	Arti	58.93	324	d iP	P	22 11 46.8	-0.4
ARU				S	S	22 19 51.1	+0.9
ARU				SS	SS	22 23 45.6	+2.3
ARU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
JOF	Joensuu	61.07	341	ep	P	22 12 00.9	-0.9
	comp=Z,11nm,0.5s,mb5.2						
KLMR	Klimovskoe	61.09	336	eP	P	22 12 02.0	0.0
KLMR				pmax	pmax		
	comp=Z,21nm,1.6s,mb5.0						
USP	Ospenovka	61.84	305	P	P	22 12 07.7	+0.4
	SNR=14						
SCHQ	Schefferville	61.94	35	P	P	22 12 07.7	-0.1
	comp=Z,13nm,0.7s,mb5.2,baz=337,slow=6.5,SNR=38						
KBK	Karagaybulak	62.06	304	P	P	22 12 09.2	+0.5
	SNR=5.7						
AAK	Ala-Archa	62.30	305	⇑eP	P	22 12 10.2	-0.2
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
AAK	Ala-Archa	62.30	305	P	P	22 12 10.8	+0.3
	SNR=7.8						
AAK	Ala-Archa	62.30	305	eP	P	22 12 10.6	+0.2
	comp=Z,8.3nm,0.9s,mb4.9						
LSA	Lhasa	62.47	284	eP	P	22 12 13.1	+1.3
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.6						
LSA	Lhasa	62.47	284	eP	P	22 12 13.1	+1.3
	comp=Z,2.7nm,0.6s,mb4.5						
EKS2	Erkin-Say	62.64	305	P	P	22 12 13.2	+0.5
	SNR=11						
EKS2	Erkin-Say	62.64	305	eP	P	22 12 13.1	+0.4
	comp=Z,8.9nm,0.8s,mb5.0						
KAF	Kangasniemi	62.74	343	eP	P	22 12 12.2	-0.9
KAF				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb5.0						
KAF	Kangasniemi	62.74	343	ep	P	22 12 12.2	-0.9
	comp=Z,4.9nm,0.4s,mb5.0						
AML	Almayashu	63.08	305	P	P	22 12 16.7	+1.1
	SNR=7.3						
AML	Almayashu	63.08	305	eP	P	22 12 16.5	+0.9
	comp=Z,5.4nm,0.7s,mb4.8						
TXAR	Lajitas Array	63.16	76	P	P	22 12 16.4	0.0
	comp=Z,0.9nm,0.5s,mb4.2,baz=306,slow=4.2,SNR=13						
KSH	Kashi	63.84	301	⇑iP	P	22 12 24.4	+3.8
KSH				epP	pP	22 12 36.9	+4.8
KSH				esP	sP	22 12 42.4	+5.9
KSH				ePcP	PcP	22 12 59.0	+2.8
KSH				eScP		22 16 56.3	
KSH				ePcS		22 17 01.3	
KSH				eS	S	22 20 55.3	+2.4
KSH				esS	sS	22 21 17.3	+5.5
KSH				eScS	ScS	22 22 10.5	-0.5
KSH				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
KSH				pmax	pmax		
	comp=Z,85nm,4.0s						
KSH				LR	LR		
	comp=N,110nm,5.3s						
KSH				LR	LR		
	comp=E,140nm,4.5s						
KSH				LR	LR		
	comp=Z,130nm,4.5s						
KK31	Karatay Array	63.92	307	P	P	22 12 20.3	-0.9
KK31				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
SADO	Sadowa	64.83	49	P	P	22 12 25.7	-1.4
	comp=Z,2.5nm,0.4s,mb4.6,baz=344,slow=6.3,SNR=6.8						
CHTO	Chiang Mai	65.86	270	eP	P	22 12 33.8	-0.3
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
CHTO	Chiang Mai	65.86	270	eP	P	22 12 33.8	-0.3
	comp=Z,2.8nm,0.8s,mb4.3						
NB2	NORSAR Subarra	65.86	351	P	P	22 12 33.3	-0.2
	comp=Z,2.6nm,0.5s,mb4.5,baz=12,slow=6.5						
NOA	NORSAR Array B	65.86	351	P	P	22 12 33.1	-0.4
	comp=Z,5.9nm,0.7s,mb4.7,baz=12,slow=6.4,SNR=19						
CMAR	Chiang Mai Arr	66.13	269	P	P	22 12 35.5	-0.3
	comp=Z,3.4nm,0.6s,mb4.6,baz=25,slow=7.0,SNR=20						
TAPN	Taplejung	66.24	284	eP	P	22 12 35.6	-0.9
	comp=Z,17nm,0.8s,mb5.1						
HFS	Hagfors	66.48	349	P	P	22 12 37.0	-0.5
	comp=Z,3.3nm,0.4s,mb4.7,baz=15,slow=7.0,SNR=36						
HFS				LR	LR	22 43 04.8	
	comp=Z,228nm,18.9s,MS4.4,baz=286,slow=37						
ODAN	Odare	66.80	284	eP	P	22 12 39.4	-0.6
	comp=Z,2.5nm,0.4s,mb4.6						
GUN	Gumba	66.91	286	eP	P	22 12 40.8	+0.1
	comp=Z,16nm,0.5s,mb5.3						
JIRN	Jiri	66.91	286	eP	P	22 12 40.7	0.0
	comp=Z,48nm,0.8s,mb5.6						
RAMN	Ramite	67.20	285	eP	P	22 12 41.9	-0.6
	comp=Z,28nm,0.5s,mb5.5						
KKN	Kakani	67.35	286	eP	P	22 12 43.3	-0.2
	comp=Z,12nm,0.5s,mb5.2						
KKN	Kakani	67.35	286	eP	P	22 12 43.3	-0.2
KKN				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.2						
PKI	Pulchoki	67.43	286	eP	P	22 12 44.0	0.0
	comp=Z,16nm,0.6s,mb5.2						
PKI	Pulchoki	67.43	286	eP	P	22 12 44.0	0.0
PKI				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.2						
GKN	Gorkha	67.56	287	eP	P	22 12 44.6	-0.2
	comp=Z,8.4nm,0.5s,mb5.0						
DMN	Daman	67.58	286	eP	P	22 12 45.0	0.0
	comp=Z,9.6nm,0.6s,mb5.0						
DANN	Dangsing	67.81	288	eP	P	22 12 46.9	+0.5
KOLN	Koldanda	68.34	288	eP	P	22 12 49.3	-0.4
	comp=Z,10.0nm,0.8s,mb4.9						
EKA	Eskdalemuir Ar	72.44	358	P	P	22 13 14.5	+0.2
	comp=Z,4.0nm,0.6s,mb4.5,baz=9.6,slow=5.1,SNR=14						
AKASG	Malin Array Be	72.76	337	P	P	22 13 16.0	-0.3
	comp=Z,4.6nm,0.6s,mb4.6,baz=24,slow=5.9,SNR=12						
OJC	Ojcow	75.19	343	eP	P	22 13 31.4	+0.9
KWP	Kalwaria Pacla	75.20	341	eP	P	22 13 32.0	+1.5
KWP	Kalwaria Pacla	75.20	341	⇓iP	P	22 13 32.0	+1.5
KWP	Kalwaria Pacla	75.20	341	eP	P	22 13 32.0	+1.5
BUR08	Bucovina Ar. S	76.55	338	eP	P	22 13 39.3	+1.0
BURAR	Bucovina Array	76.58	338	⇑iP	P	22 13 39.2	+0.8
BURAR	Bucovina Array	76.58	338	⇑P	P	22 13 39.2	+0.8
VRAC	Vranov	76.62	345	P	P	22 13 39.9	+1.3
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.5s						
VRAC	Vranov	76.62	345	⇑iP	P	22 13 40.2	+1.6
VRAC	Vranov	76.62	345	P	P	22 13 39.9	+1.2
	comp=Z,2.8nm,0.5s,mb4.4,baz=2.9,slow=10,SNR=5.2						
TRPA	Tarpa	76.66	340	⇑iP	P	22 13 40.1	+1.2
GIVF	Givet	77.26	352	eP	P	22 13 43.1	+0.8
BAIF	Baives	77.35	353	eP	P	22 13 42.7	-0.1
PSZ	Piszkesteto	77.38	342	⇑iP	P	22 13 45.4	+2.4
PSZ	Piszkesteto	77.38	342	⇑P	P	22 13 45.4	+2.4
GNI	Garni	77.50	322	⇑eP	P	22 13 44.4	+0.6
GNI				pmax	pmax		
	comp=Z,10.0nm,2.5s						
GERES	GERESS Array B	77.51	346	P	P	22 13 43.6	-0.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=22,slow=4.3,SNR=8.6						
DRGR		77.90	340	⇓iP	P	22 13 46.7	+0.8
DRGR		77.90	340	⇓P	P	22 13 46.7	+0.9
VOIR		78.67	338	⇓iP	P	22 13 51.5	+1.3
VOIR		78.67	338	⇓P	P	22 13 51.5	+1.4
CDF	Champ du Feu	78.72	351	eP	P	22 13 50.3	-0.1
	comp=Z,5.5nm,0.8s,mb4.2						
CDF	Champ du Feu	78.72	351	eP	P	22 13 50.3	-0.1
CDF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
CDF	Champ du Feu	78.72	351	eP	P	22 13 50.3	-0.1
	comp=Z,2.8nm,0.8s,mb4.2						
TIRR	Tirgusor	78.77	335	⇑iP	P	22 13 51.0	+0.3
TIRR	Tirgusor	78.77	335	⇑P	P	22 13 51.0	+0.3
MEZF	Maizieres J'vi	78.83	352	eP	P	22 13 51.1	+0.1
FLN	La Foliniere	78.93	356	eP	P	22 13 50.4	-1.1
	comp=Z,5.9nm,0.6s,mb4.4						
FLN	La Foliniere	78.93	356	eP	P	22 13 50.4	-1.1
FLN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
FLN	La Foliniere	78.93	356	eP	P	22 13 50.4	-1.1
	comp=Z,3.0nm,0.6s,mb4.4						
LDF	La Druitiere	79.08	356	eP	P	22 13 51.9	-0.4
	comp=Z,16nm,1.0s,mb4.6						
LDF	La Druitiere	79.08	356	eP	P	22 13 51.9	-0.4
LDF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
LDF	La Druitiere	79.08	356	eP	P	22 13 51.9	-0.4
	comp=Z,7.8nm,1.0s,mb4.6						
HAU	Haudompre	79.21	351	eP	P	22 13 53.0	-0.1
GZR	Gura Zlata	79.22	339	⇓iP	P	22 13 53.9	+0.7
GZR	Gura Zlata	79.22	339	⇓P	P	22 13 53.9	+0.8
BZS	Buzias	79.25	340	⇓iP	P	22 13 53.7	+0.4
BZS	Buzias	79.25	340	⇓P	P	22 13 53.7	+0.4
PKSM	Moragy	79.26	342	⇑iP	P	22 13 53.6	+0.2
PKSM	Moragy	79.26	342	⇑P	P	22 13 53.6	+0.2
KBA	Koelnbreinsper	79.29	346	⇑iP	P	22 13 54.9	+1.4
	comp=Z,8.8nm,0.8s,mb4.7						
GRR	Gorron	79.32	356	eP	P	22 13 53.4	-0.2
	comp=Z,7.4nm,0.5s,mb4.5						
GRR	Gorron	79.32	356	eP	P	22 13 53.4	-0.2
GRR				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
GRR	Gorron	79.32	356	eP	P	22 13 53.4	-0.2
	comp=Z,3.7nm,0.5s,mb4.6						
HINF	Hinteralfeld	79.35	351	eP	P	22 13 54.1	+0.3
SOKA	Soboth	79.42	345	⇑iP	P	22 13 55.2	+1.0
	comp=Z,9.4nm,1.2s,mb4.6						
GROS	Grobnik	79.56	345	i P	P	22 13 55.8	+0.8
WRA	Warramunga Arr	79.77	217	P	P	22 13 55.1	-1.2
	comp=Z,0.5nm,0.8s,mb3.5,baz=29,slow=6.0,SNR=6.1						
DAVOS	Davos	79.99	349	P	P	22 13 57.4	+0.1
DAVOX	Davos/Dischmat	80.04	349	P	P	22 13 57.4	-0.2
	comp=Z,1.9nm,0.8s,mb4.1,baz=353,slow=17,SNR=2.7						
LOR	Lormes	80.15	353	eP	P	22 13 58.0	-0.2
	comp=Z,5.7nm,0.7s,mb4.3						
LOR	Lormes	80.15	353	eP	P	22 13 58.0	-0.2
LOR				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
LOR	Lormes	80.15	353	eP	P	22 13 58.0	-0.2
	comp=Z,2.8nm,0.7s,mb4.3						
SSF	Saint Saulge	80.39	353	eP	P	22 13 59.3	-0.2
BOJS	Bojanci	80.53	345	i P	P	22 14 00.8	+0.6
CABF	La Chapelle	80.62	351	eP	P	22 14 00.8	+0.1
AVF	Avril sur Loir	80.67	353	eP	P	22 14 00.8	-0.2
	comp=Z,18nm,1.1s,mb4.6						
AVF	Avril sur Loir	80.67	353	eP	P	22 14 00.8	-0.2
AVF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
AVF	Avril sur Loir	80.67	353	eP	P	22 14 00.8	-0.2
	comp=Z,8.9nm,1.1s,mb4.6						
SMF	Signal de Mont	80.77	353	eP	P	22 14 01.4	-0.1
BGF	Bois d'Agland	80.94	353	eP	P	22 14 02.3	-0.1
	comp=Z,8.0nm,0.9s,mb4.4						
BGF	Bois d'Agland	80.94	353	eP	P	22 14 02.3	-0.1
BGF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
BGF	Bois d'Agland	80.94	353	eP	P	22 14 02.3	-0.1
	comp=Z,4.0nm,0.9s,mb4.3						
MFF	Saint Martin d	81.07	355	eP	P	22 14 03.0	-0.1
	comp=Z,4.1nm,0.6s,mb4.2						
MFF	Saint Martin d	81.07	355	eP	P	22 14 03.0	-0.1
MFF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
MFF	Saint Martin d	81.07	355	eP	P	22 14 03.0	-0.1
	comp=Z,2.0nm,0.6s,mb4.2						
TCF	Toulx Ste Croi	81.25	354	eP	P	22 14 04.0	-0.1
	comp=Z,5.2nm,0.9s,mb4.2						
TCF	Toulx Ste Croi	81.25	354	eP	P	22 14 04.0	-0.1
TCF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
TCF	Toulx Ste Croi	81.25	354	eP	P	22 14 04.0	-0.1
	comp=Z,2.6nm,0.9s,mb4.2						
MALT	Malatya	81.40	326	⇓iP	P	22 14 07.7	+2.7
MALT	Malatya	81.40	326	⇓P	P	22 14 07.7	+2.6
LPL	La Plagne	81.64	351	eP	P	22 14 06.6	+0.5
LPG	La Plagne	81.65	351	eP	P	22 14 07.0	+0.8
BRTR	Keskin Array B	81.68	330	P	P	22 14 07.0	+0.6
	comp=Z,3.3nm,0.5s,mb4.6,baz=40,slow=3.2,SNR=19						
RJF	Les Rejaudoux	82.27	354	eP	P	22 14 09.3	-0.2
ORIF	Oris-en-Rattie	82.31	351	eP	P	22 14 10.7	+1.0
	comp=Z,24nm,1.4s,mb4.6						
ORIF	Oris-en-Rattie	82.31	351	eP	P	22 14 10.7	+1.0
ORIF				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.6						
ORIF	Oris-en-Rattie	82.31	351	eP	P	22 14 10.7	+1.0
	comp=Z,12nm,1.4s,mb4.6						
MBDF	Montbardon	82.42	350	eP	P	22 14 11.2	+1.0
	comp=Z,6.0nm,0.7s,mb4.3						
MBDF	Montbardon	82.42	350	eP	P	22 14 11.2	+1.0
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
MBDF	Montbardon	82.42	350	eP	P	22 14 11.2	+1.0
	comp=Z,3.0nm,0.7s,mb4.3						
VIVF	Saint-Julien-l	82.48	352	eP	P	22 14 10.4	-0.2
CAF	Calviac	82.61	354	eP	P	22 14 11.7	+0.4
	comp=Z,12nm,1.1s,mb4.5						
CAF	Calviac	82.61	354	eP	P	22 14 11.7	+0.4
CAF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
CAF	Calviac	82.61	354	eP	P	22 14 11.7	+0.4
	comp=Z,6.0nm,1.1s,mb4.5						
LFF	La Frestale	82.68	355	eP	P	22 14 11.2	-0.4
SBF	Sospel	83.20	350	eP	P	22 14 14.4	+0.1
	comp=Z,7.9nm,0.7s,mb4.5						
SBF	Sospel	83.20	350	eP	P	22 14 14.4	+0.1
SBF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
SBF	Sospel	83.20	350	eP	P	22 14 14.4	+0.1
	comp=Z,4.0nm,0.7s,mb4.6						
SMRF	Simiane la Rot	83.28	351	eP	P	22 14 14.2	-0.5
LASF	Ste Croix	83.33	352	eP	P	22 14 14.8	-0.2
ASAR	Alice Springs	83.34	216	P	P	22 14 14.5	-0.6
	comp=Z,0.5nm,0.7s,mb3.7,baz=21,slow=4.9,SNR=6.0						
FRF	La Foret Royal	83.58	350	eP	P	22 14 15.8	-0.5
LMR	La Mourre	83.82	350	eP	P	22 14 16.9	-0.6
	comp=Z,8.1nm,1.0s,mb4.5						
LMR	La Mourre	83.82	350	eP	P	22 14 16.9	-0.6
LMR				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
LMR	La Mourre	83.82	350	eP	P	22 14 16.9	-0.6
	comp=Z,4.1nm,1.0s,mb4.5						
MTLF	Montolieu	84.18	354	eP	P	22 14 18.9	-0.5
PGF	Pioggiola	84.32	348	eP	P	22 14 20.5	+0.4
	comp=Z,12nm,1.0s,mb4.7						
PGF	Pioggiola	84.32	348	eP	P	22 14 20.5	+0.4
PGF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
PGF	Pioggiola	84.32	348	eP	P	22 14 20.5	+0.4
	comp=Z,5.9nm,1.0s,mb4.7						
SJPF	Ste Jean	84.60	356	eP	P	22 14 22.3	+0.8
	comp=Z,5.4nm,0.8s,mb4.5						
SJPF	Ste Jean	84.60	356	eP	P	22 14 22.3	+0.8
SJPF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
SJPF	Ste Jean	84.60	356	eP	P	22 14 22.3	+0.8
	comp=Z,2.7nm,0.8s,mb4.4						
EPF	Esparros	84.60	355	eP	P	22 14 21.1	-0.4
	comp=Z,3.8nm,0.8s,mb4.3						
EPF	Esparros	84.60	355	eP	P	22 14 21.1	-0.4
EPF				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
EPF	Esparros	84.60	355	eP	P	22 14 21.1	-0.4
	comp=Z,1.9nm,0.8s,mb4.3						
ETSF	Etsaut	84.78	356	eP	P	22 14 23.0	+0.6
	comp=Z,9.6nm,0.8s,mb4.7						
ETSF	Etsaut	84.78	356	eP	P	22 14 23.0	+0.6
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
ETSF	Etsaut	84.78	356	eP	P	22 14 23.0	+0.6
	comp=Z,4.8nm,0.8s,mb4.7						
MIB	Mutribah	85.45	315	eP	P	22 14 25.3	-0.7
MIB				AMb	AMB	22 14 26.3	
	comp=Z,16nm,0.9s,mb5.2						
NAY	Al-Naaiem	85.97	315	eP	P	22 14 27.6	-1.0
NAY				AMb	AMB	22 14 28.3	
	comp=Z,8.5nm,1.0s,mb5.0						
RDF	Al-Radifah	86.12	315	eP	P	22 14 28.4	-0.9
RDF				AMb	AMB	22 14 29.3	

	comp=Z,24nm,1.2s,mb5.3						
MMAI	Mount Meron Ar	87.23	326	P	P	22 14 34.8	+0.1
	comp=Z,0.5nm,0.4s,mb4.1,baz=6.9,slow=4.8,SNR=5.3						
KEST	Kesra	90.99	347	P	P	22 14 52.0	-0.3
	comp=Z,0.8nm,0.8s,mb4.1,baz=25,slow=12,SNR=4.8						

IDC 23 22:03:21.1±3.8**, 5°.56S×152°.26E, h0^{km}, mb3.6**/2**, mb1 3.9**/2**, mb1mx3.5**/16**, mbtmp3.6**/2**, Error ellipse: s-maj=172.2km s-min=48.0km az=120.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.54	229	P	P	22 08 23.7	+0.8
	1.1nm,0.6s,baz=53,slow=9.9,SNR=5.2						
ASAR	Alice Springs	25.23	223	P	P	22 08 48.2	-0.7
	1.1nm,0.7s,baz=54,slow=9.0,SNR=12						
TORD	Torodi Ar. Bea	150.02	287	PKPbc	PKPbc	22 23 14.7	-0.1
	0.3nm,0.4s,baz=80,slow=1.6,SNR=10.0						

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*NEIC **23** 22:16:05.6, 17°.14N×99°.92W, h10^{km}, MD3.8(MEX), After MEX.*

MEX 23 22:16:05.9±1.1**, 17°.10N×99°.90W, h20^{km}**±43^{km}**, MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.24	185	*i* P	Pb	22 16 10.3	-1.3
ACX				*i* S	Sb	22 16 14.8	-0.6
CAIG	El Cayaco	0.36	261	*i* P	Pb	22 16 11.8	-1.8
CAIG				*i* S	Sb	22 16 18.0	-0.8
MEIG	Mezcala	0.86	18	*i* P	Pb	22 16 18.6	-3.5
MEIG				*i* S	Sb	22 16 30.4	-2.8
PLIG	Platanillo	1.33	16	*e*P	Pn	22 16 26.5	-2.9
PLIG				*i* S	Sn	22 16 43.3	-3.3
ZIIG	Zihuatanejo	1.58	289	*e*P	Pn	22 16 30.3	-2.4
ZIIG				*i* S	Sn	22 16 50.0	-2.6
PNIG	Pinotepa	1.84	112	*i* P	Pn	22 16 34.4	-1.9
PNIG				*i* S	Sn	22 16 55.5	-3.5
PNIG	Pinotepa	1.84	112	*i* P	Pn	22 16 34.4	-1.9
PNIG				*i* S	Sn	22 16 58.6	-0.4
UTMO	Huajuapan	2.12	70	*e*P	Pn	22 16 37.2	-3.1
UTMO				*i* S	Sn	22 17 04.5	-1.6

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*NEIC **23** 22:28:31.9, 17°.69N×100°.21W, h70^{km}, MD4.3(MEX), After MEX.*

MEX 23 22:28:31.8±0.9**, 17°.70N×100°.21W, h69^{km}**±9^{km}**, MD4.3, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	Mezcala	0.60	68	*e*P	Pn	22 28 44.1	-1.5
MEIG				*i* S	Sn	22 28 53.8	-2.0
CAIG	El Cayaco	0.65	185	*i* P	Pn	22 28 44.6	-1.5
CAIG				*i* S	Sn	22 28 54.9	-1.8
ACX	Acapulco	0.88	161	*e*P	Pn	22 28 47.8	-0.9
ACX				*i* S	Sn	22 29 00.2	-1.1
ACX	Acapulco	0.88	161	*i* P	Pn	22 28 47.7	-1.1
ACX				*i* S	Sn	22 29 01.5	+0.2
PLIG	Platanillo	0.96	44	*i* P	Pn	22 28 49.2	-0.6
PLIG				*i* S	Sn	22 29 02.5	-0.6
ZIIG	Zihuatanejo	1.20	266	*i* P	Pn	22 28 51.4	-1.4
ZIIG				*i* S	Sn	22 29 07.0	-1.6
YAIG	Yautepec	1.58	43	*i* P	Pn	22 28 56.6	-1.2
YAIG				*i* S	Sn	22 29 17.1	-0.4
CHVM	Chichinautzin	1.71	36	*i* P	Pn	22 28 59.0	-0.5
CHVM				*i* S	Sn	22 29 19.5	-1.0
SZVM	Salazar	1.79	26	*i* P	Pn	22 28 57.2	-3.4
SZVM				*i* S	Sn	22 29 20.4	-2.1
UNM	Universidad Na	1.89	31	*i* P	Pn	22 29 00.3	-1.6
UNM				*i* S	Sn	22 29 23.9	-0.9
PPM	Popocatepetl	2.02	48	*i* P	Pn	22 29 03.3	-0.5
PPM				*i* P		22 29 03.3	
PPM				*i* S	Sn	22 29 23.8	-4.3
PPM				*i* S	Sn	22 29 27.3	-0.8
PPM	Popocatepetl	2.02	48	*i* P	Pn	22 29 03.3	-0.4
PPM				*i* S	Sn	22 29 28.3	+0.2
MOIG	Morelia	2.17	335	*e*P	Pn	22 29 04.8	-0.9
MOIG				*e*S	Sn	22 29 30.8	-1.0
MOIG	Morelia	2.17	335	*e*P	Pn	22 29 05.8	+0.1
MOIG				*e*S	Sn	22 29 30.8	-1.0
UTMO	Huajuapan	2.29	86	*e*P	Pn	22 29 07.7	+0.3
UTMO				*i* S	Sn	22 29 33.2	-1.5
PNIG	Pinotepa	2.38	123	*e*P	Pn	22 29 06.8	-1.8
PNIG				*i* S	Sn	22 29 34.0	-2.8
TPIG	Tehuac#an	2.80	75	*e*P	Pn	22 29 14.5	+0.2
TPIG				*i* S	Sn	22 29 44.8	-2.1
DEIG	Demacu	2.81	23	*e*P	Pn	22 29 13.0	-1.5
DEIG				*i* S	Sn	22 29 48.9	+1.7
MMIG	Aquila	3.04	282	*e*P	Pn	22 29 16.4	-1.1
MMIG				*i* S	Sn	22 29 50.9	-2.0
VHO	Vista Hermosa	3.38	100	*i* P	Pn	22 29 20.3	-1.9
VHO				*i* S	Sn	22 29 59.3	-1.8
EZ5V		3.67	299	*e*P	Pn	22 29 26.4	+0.2
EZ5V				*i* S	Sn	22 30 09.4	+1.2
R15V		3.87	293	*e*P	Pn	22 29 29.0	+0.1
R15V				*i* S	Sn	22 30 12.6	-0.5
HUIG	Huatulco	4.37	115	*i* P	Pn	22 29 36.2	+0.4
HUIG				*i* S	Sn	22 30 24.8	-0.7
CMIG	Matias Romero	5.12	96	*e*P	Pn	22 29 44.8	-1.1
CMIG				*i* S	Sn	22 30 42.6	-1.2

IDC 23 22:42:08.8±4.4**, 1°.16S×134°.44E, h0^{km}, mb3.0**/2**, mb1 3.3**/3**, mb1mx3.2**/16**, mbtmp3.1**/3**, ML3.7**/1**, Error ellipse: s-maj=224.2km s-min=30.8km az=77.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.66	180	P	Pn	22 46 28.4	-0.3
	0.2nm,0.3s,baz=0.8,slow=13,SNR=3.3						
ASAR	Alice Springs	22.37	181	P	P	22 47 09.3	+0.7
	0.3nm,0.7s,baz=5.7,slow=10,SNR=3.6						
MKAR	Makanchi Array	65.99	324	P	P	22 52 56.8	-0.3
	0.1nm,0.5s,baz=139,slow=6.8,SNR=2.0						

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*ISCJB **23** 22:49:32.0±0.6, 39°.14N±0°.03×26°.14E±0°.04, h10^{km}±7^{km}, Error ellipse: s-maj=5.3km s-min=4.7km az=167.9*

*CSEM **23** 22:49:32.0±0.2, 39°.15N×26°.16E, h8^{km}, ML1.8/3, Error ellipse: s-maj=4.5km s-min=4.2km az=70.0*

*DDA **23** 22:49:32.4, 39°.14N×26°.17E, h7^{km}, Md2.7*

*THE **23** 22:49:32.4, 39°.14N×26°.15E, h4^{km}±3^{km}, ML1.8/3, Error ellipse: s-maj=3.5km s-min=0.5km az=65.0*

ISC 23 22:49:32.4±0.6**, 39°.14N**±0°.03×**26°.16E**±0°.04**, h12^{km}**±6^{km}**, n15, σ0^{s}.68**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	Paraskevi	0.14	41	P	Pg	22 49 35.3	-0.4
PRK				S	Sg	22 49 37.9	-0.2
PRK	Paraskevi	0.14	41	P	Pg	22 49 35.3	-0.4
PRK				S	Sg	22 49 37.9	-0.2
SIGR	SIGRI	0.24	286	P	Pg	22 49 37.2	-0.3
SIGR				S	Sg	22 49 40.9	-0.1
SIGR	SIGRI	0.24	286	P	Pg	22 49 37.2	-0.3
SIGR				S	Sg	22 49 40.9	-0.1
AYVA	Ayvalik	0.45	68	*i* P	Pg	22 49 36.8	-4.4
AYVA				*i* S	Sg	22 49 47.6	+0.4
AYVA	Ayvalik	0.45	68	*i* P	Pg	22 49 36.8	-4.4
AYVA				*i* S	Sg	22 49 47.6	+0.5
BOZC	Bozcaada	0.70	353	*i* P	Pg	22 49 45.2	-0.9
BOZC				*i* S	Sg	22 49 56.3	+1.0
CHOS	Chios island	0.76	186	P	Pg	22 49 46.5	-0.6
CHOS				S	Sg	22 49 58.1	+1.0
CHOS	Chios island	0.76	186	P	Pg	22 49 46.5	-0.6
CHOS				S	Sg	22 49 58.1	+1.0
URLA	Izmir	0.85	156	*i* P	Pg	22 49 43.6	-5.3
URLA				*i* S	Sg	22 50 00.2	+0.2
URLA	Izmir	0.85	156	*i* P	Pg	22 49 43.6	-5.3
URLA				*i* S	Sg	22 50 00.2	+0.1
LIA	Limnos Island	1.06	315	P	Pg	22 49 52.1	-0.8
LIA				S	Sg	22 50 07.9	+1.1
LIA	Limnos Island	1.06	315	P	Pg	22 49 52.1	-0.8
LIA				S	Sg	22 50 07.9	+1.1
BALY	Balya	1.28	62	*i* P	Pn	22 49 55.5	-0.6
BALY				*i* S	Sb	22 50 13.2	+0.3
BALY	Balya	1.28	62	*i* P	Pn	22 49 55.5	-0.6
BALY				*i* S	Sb	22 50 13.2	+0.4

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*IDC **23** 22:56:39.0±1.1, 41°.26N×114°.83W, h0^{km}, mb2.7/1, mb1 3.3/3, mb1mx3.1/21, mbtmp2.8/3, ML3.2/2, MS3.1/1, Ms1 3.1/1, ms1mx2.5/10, Error ellipse: s-maj=24.9km s-min=5.4km az=133.0*

*ISCJB **23** 22:56:39.5±0.7, 41°.22N±0°.03×114°.84W±0°.03, h3^{km}±6^{km}, Error ellipse: s-maj=5.7km s-min=4.0km az=156.7*

*NEIC **23** 22:56:39.2, 41°.27N×114°.85W, h4^{km}, ML3.0, After REN.*

ISC 23 22:56:40.4±0.8**, 41°.21N**±0°.03×**114°.83W**±0°.04**, h3^{km}**±6^{km}**, n35, σ1^{s}.00**/42**, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.39	204	*e*Pg	Pg	22 56 48.1	+0.3
N12A				*e*Sg	Sg	22 56 53.4	+0.5
M13A	Montello	0.52	73	*e*Pg	Pg	22 56 49.3	-1.1
M13A				*e*Sg	Sg	22 56 56.8	-0.4
ELK	Elko	0.56	214	Pg	Pg	22 56 50.9	-0.2
	23nm,0.3s,baz=19,slow=16,SNR=234						
ELK				Lg		22 56 58.6	
	92nm,0.3s,baz=15,slow=20,SNR=75						
ELK	Elko	0.56	214	*e*Pg	Pg	22 56 50.6	-0.4
ELK				*e*Sg	Sg	22 56 58.4	+0.2
N13A	Wendover, West	0.59	126	*e*Pg	Pg	22 56 51.8	+0.1
N13A				*e*Sg	Sg	22 57 00.1	+0.8
BGU	Big Grassy Mou	1.39	101	*e*Pn	Pn	22 57 05.1	-1.6
BGU				*e*Sg	Sg	22 57 25.5	+0.5
HVU	Hansel Valley	1.65	69	*e*Pn	Pn	22 57 08.2	-2.0
HVU				*e*Sg	Sn	22 57 31.2	-0.7
SPUT	South Promonto	1.80	86	*e*Pn	Pn	22 57 10.7	-1.6
SPUT				*e*Sg	Sn	22 57 36.4	+0.8
DUG	Dugway	1.84	123	*e*Pn	Pn	22 57 11.1	-1.7
BMN	Battle Mountai	1.98	248	*e*Pn	Pn	22 57 13.1	-1.7
NOQ	North Oquirrh	2.12	104	*e*Pn	Pn	22 57 17.3	+0.5
HLID	Hailey	2.37	7	*e*Pn	Pn	22 57 18.8	-1.4
HLID				*e*Sg	Sn	22 57 51.3	+1.5
NLU	North Lily Min	2.44	120	*e*Pn	Pn	22 57 21.3	+0.2
MPU	Maple Canyon	2.71	115	*e*Pn	Pn	22 57 25.4	+0.6
DAU	Daniels Canyon	2.83	105	*e*Pn	Pn	22 57 27.6	+1.2
WVOR	Wild Horse Val	3.10	295	*e*Pn	Pn	22 57 31.3	+1.1
TMUT	Trail Mountain	3.36	123	Pn	Pn	22 57 34.7	+0.9
RRI2	Red Ridge	3.37	49	*e*Pn	Pn	22 57 33.0	-0.9
MSU	Marysvale	3.38	142	*e*Pn	Pn	22 57 33.8	-0.3
ARUT	Antelope Range	3.58	162	*e*Pn	Pn	22 57 36.6	-0.2
REDW	Red Top Meadow	3.65	53	*e*Pn	Pn	22 57 39.3	+1.5
TPAW	Teton Pass	3.67	50	*e*Pn	Pn	22 57 37.5	-0.5
SNOW	Snow King Moun	3.77	52	*e*Pn	Pn	22 57 40.9	+1.6
CCUT	Cedar City	3.82	162	*e*Pn	Pn	22 57 39.9	-0.3
NVAR	Mina Array Bea	3.85	225	Pn	Pn	22 57 39.4	-1.2
	1.0nm,0.3s,baz=53,slow=14,SNR=8.1						
NVAR				Lg		22 58 40.8	
	5.1nm,0.3s,baz=59,slow=32,SNR=4.8						
MCMT	McKenzie Canyo	3.90	21	*e*Pn	Pn	22 57 41.2	0.0
SRU	San Rafael	3.91	121	*e*Pn	Pn	22 57 41.8	+0.5
IMW	Indian Meadow	3.93	46	*e*Pn	Pn	22 57 41.2	-0.5
LOHW	Long Hollow	3.94	51	*e*Pn	Pn	22 57 41.6	-0.2
MOOW	Moose Ponds	3.95	49	*e*Pn	Pn	22 57 43.4	+1.6
BMO	Blue Mountains	4.07	334	*e*Pn	Pn	22 57 43.7	+0.2
MOD	Modoc	4.17	281	*e*Pn	Pn	22 57 46.4	+1.6
PDAR	Pinedale Array	4.23	67	Pn	Pn	22 57 46.7	+1.0
	0.2nm,0.3s,baz=234,slow=12,SNR=14						
PDAR				Lg		22 58 50.4	
	1.9nm,0.3s,baz=240,slow=29,SNR=13						
PFO	Pinyon Flat Ob	7.69	190	LR	LR	23 01 01.4	
	comp=Z,120nm,18.6s,baz=178,slow=34						
YKA	Yellowknife Ar	21.32	0	P	P	23 01 27.1	-1.0
	0.1nm,0.4s,baz=181,slow=9.9,SNR=2.3						

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*IDC **23** 23:07:33.9±0.7, 39°.56N×20°.20E, h0^{km}, mb4.1/15, mb1 4.1/21, mb1mx4.1/31, mbtmp4.0/21, ML3.9/3, MS3.3/1, Ms1 3.3/1, ms1mx2.5/48, Error ellipse: s-maj=14.1km s-min=12.3km az=48.0*

*PDG **23** 23:07:34.4±0.7, 39°.52N×19°.96E, h3^{km}±2^{km}, ML3.8/10, Error ellipse: s-maj=1.0km s-min=1.3km az=0.0*

*CSEM **23** 23:07:34.9±0.1, 39°.47N×19°.99E, h2^{km}, mb4.2/6, Error ellipse: s-maj=3.2km s-min=2.1km az=41.0*

*NEIC **23** 23:07:35.4, 39°.44N×20°.05E, h11^{km}, mb3.9/1, ML3.8(ATH), After ATH.*

*ATH **23** 23:07:35.3, 39°.44N×20°.06E, h12^{km}±1^{km}, MD3.9/22, ML3.8*

*ISCJB **23** 23:07:36.3±0.4, 39°.51N±0°.02×19°.99E±0°.02, h20^{km}±4^{km}, mb4.1/18, Error ellipse: s-maj=2.9km s-min=2.0km az=38.7*

*THE **23** 23:07:36.5, 39°.45N×20°.10E, h1^{km}±2^{km}, ML4.3/14, Error ellipse: s-maj=2.6km s-min=1.0km az=287.0*

*MOS **23** 23:07:38.0±1.2, 39°.55N×20°.03E, h43^{km}, mb4.3/6, Error ellipse: s-maj=5.7km s-min=3.8km az=97.7*

ISC 23 23:07:36.4±0.5**, 39°.50N**±0°.02×**20°.02E**±0°.02**, h9^{km}**±3^{km}**, n386, σ1^{s}.22**/464**, mb4.1**/18**, 36C-31D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.24	81	P	Pg	23 07 39.4	-1.9
IGT				S	Sg	23 07 43.3	-1.3
IGT	Igoumenitsa	0.24	81	P	Pg	23 07 39.4	-1.9
IGT				S	Sg	23 07 43.3	-1.3
KEK	Kerkira	0.28	322	*e*PB	Pg	23 07 42.1	+0.2
KEK				*e*SB	Sg	23 07 47.1	+1.5
KEK	Kerkira	0.28	322	*e*Pb	Pg	23 07 42.1	+0.2
JAN	Janina	0.66	76	*e*PB	Pg	23 07 47.2	-2.0
JAN				*e*SB	Sg	23 07 56.9	-0.9
JAN	Janina	0.66	76	*e*Pb	Pg	23 07 47.2	-2.0
JAN				*e*Sb	Sg	23 07 56.9	-0.9
MEV	Metsovon	0.98	72	P	Pg	23 07 53.7	-1.5
MEV	Metsovon	0.98	72	P	Pg	23 07 53.7	-1.5
SCTE	Santa Cesarea	1.33	296	*e*Pb	Pb	23 08 01.1	-0.4
VLS	Valsamata	1.39	161	P	Pn	23 08 00.5	-1.5
VLS				S	Sb	23 08 20.2	-0.2
VLS	Valsamata	1.39	161	*e*PG	Pn	23 08 00.3	-1.7
VLS				*e*SB	Sb	23 08 19.6	-0.8
VLS	Valsamata	1.39	161	*e*Pg	Pn	23 08 00.3	-1.7
VLS	Valsamata	1.39	161	P	Pn	23 08 00.5	-1.5
VLS				*e*Sb	Sb	23 08 19.6	-0.8
VLS				S	Sb	23 08 20.2	-0.2
EVR	Evrytania	1.50	112	*e*PB	Pn	23 08 02.9	-0.6
EVR	Evrytania	1.50	112	*e*Pb	Pn	23 08 02.9	-0.6
THL	Klokotos Trika	1.54	87	P	Pn	23 08 03.3	-0.8
THL				S	Sn	23 08 24.9	+0.7
THL	Klokotos Trika	1.54	87	*e*PB	Pb	23 08 04.4	-0.7
THL	Klokotos Trika	1.54	87	P	Pn	23 08 03.3	-0.8
THL	Klokotos Trika	1.54	87	*e*Pb	Pb	23 08 04.4	-0.7
THL				S	Sn	23 08 24.9	+0.7
KZN	Kozani	1.57	58	*e*Pg	Pn	23 08 04.7	+0.3
KZN				P		23 08 08.3	
KZN	Kozani	1.57	58	*e*Pg	Pn	23 08 04.7	+0.3
FNA	Florina	1.65	39	P	Pn	23 08 05.8	+0.2
FNA	Florina	1.65	39	P	Pn	23 08 05.8	+0.2
OHR	Ohrid	1.72	20	*i* Pn	Pn	23 08 08.1	+1.6
OHR	Ohrid	1.72	20	*i* Pn	Pn	23 08 08.1	+1.6
EFP	Efpalio	1.82	125	*e*PG	Pn	23 08 08.1	+0.3
EFP				*e*SN	Sn	23 08 31.1	+0.1
EFP	Efpalio	1.82	125	*e*Pg	Pn	23 08 08.1	+0.3
EFP				*e*Sn	Sn	23 08 31.1	+0.1
BIA	Bitola	1.82	33	P	Pn	23 08 08.8	+0.9
BIA	Bitola	1.82	33	*i* Pn	Pn	23 08 09.8	+1.9
BIA	Bitola	1.82	33	P	Pn	23 08 08.8	+0.9
BIA	Bitola	1.82	33	*i* Pn	Pn	23 08 09.7	+1.8
RLS	Riolos of Patr	1.83	141	*e*PG	Pn	23 08 08.3	+0.3
RLS	Riolos of Patr	1.83	141	*e*Pg	Pn	23 08 08.3	+0.3
TIR	Tirane	1.85	356	P	Pn	23 08 09.1	+0.8
TIR	Tirane	1.85	356	*e*PN	Pn	23 08 10.0	+1.7
TIR	Tirane	1.85	356	P	Pn	23 08 09.1	+0.8
TIR	Tirane	1.85	356	*e*Pn	Pn	23 08 10.0	+1.7
AGG	Agios Georgios	1.85	104	P	Pn	23 08 08.1	-0.2
AGG				S	Sn	23 08 32.1	+0.2
AGG	Agios Georgios	1.85	104	*e*PG	Pn	23 08 09.7	+1.4
AGG				*e*SN	Sn	23 08 32.7	+0.8
AGG	Agios Georgios	1.85	104	P	Pn	23 08 08.1	-0.2
AGG	Agios Georgios	1.85	104	*e*Pg	Pn	23 08 09.7	+1.4
AGG				S	Sn	23 08 32.1	+0.2
AGG				*e*Sn	Sn	23 08 32.7	+0.8
TRIZ	Trizonia	1.96	125	P	Pn	23 08 10.2	+0.4
TRIZ	Trizonia	1.96	125	P	Pn	23 08 10.2	+0.4
LAKA	Lakka	1.98	129	P	Pn	23 08 10.1	+0.1
LAKA	Lakka	1.98	129	P	Pn	23 08 10.1	+0.1
KALE	Kalithea	1.99	123	P	Pn	23 08 10.6	+0.4
KALE	Kalithea	1.99	123	P	Pn	23 08 10.6	+0.4
LIT	Litokhoron	2.00	72	P	Pn	23 08 10.7	+0.4
LIT				S	Sn	23 08 36.0	+0.6
LIT	Litokhoron	2.00	72	*e*PN	Pn	23 08 10.8	+0.5
LIT				*e*SN	Sn	23 08 37.6	+2.2
LIT	Litokhoron	2.00	72	*e*Pn	Pn	23 08 10.8	+0.5
LIT				S	Sn	23 08 36.0	+0.6
LIT				*e*Sn	Sn	23 08 37.6	+2.2
KRUS	Krusevo	2.09	26	*i* Pn	Pn	23 08 12.3	+0.7
KRUS	Krusevo	2.09	26	*i* Pn	Pn	23 08 12.3	+0.7
GRG	Griva	2.33	51	P	Pn	23 08 15.4	+0.5
GRG	Griva	2.33	51	P	Pn	23 08 15.4	+0.5
TAR1	Taranto	2.34	297	*e*Pn	Pn	23 08 16.5	+1.5
PE1	Pezze di Greco	2.38	304	*e*Pn	Pn	23 08 18.3	+2.7
GUR	Goura	2.39	130	*e*PN	Pn	23 08 16.4	+0.7
GUR				*e*SN	Sn	23 08 45.9	+0.7
GUR	Goura	2.39	130	*e*Pn	Pn	23 08 16.4	+0.7
GUR				*e*Sn	Sn	23 08 45.9	+0.7
XOR	Xorichti	2.46	92	P	Pn	23 08 16.7	0.0
XOR	Xorichti	2.46	92	P	Pn	23 08 16.7	0.0
LKR	Lokris	2.47	109	P	Pn	23 08 16.6	-0.2
LKR	Lokris	2.47	109	*e*PN	Pn	23 08 17.4	+0.6
LKR	Lokris	2.47	109	P	Pn	23 08 16.6	-0.2
LKR	Lokris	2.47	109	*e*Pn	Pn	23 08 17.4	+0.6
THE	Thessaloniki	2.53	62	P	Pn	23 08 18.3	+0.7
THE	Thessaloniki	2.53	62	P	Pn	23 08 18.3	+0.7
ULC	Ulcinj	2.53	347	⇑*i*Pn	Pn	23 08 17.2	-0.5
ULC				*e*Sn	Sn	23 08 50.8	+2.2
ULC	Ulcinj	2.53	347	⇑*i*Pn	Pn	23 08 17.2	-0.5
ULC				*e*Sn	Sn	23 08 50.8	+2.2
TIP	Timpagrande	2.55	264	P	Pn	23 08 17.9	0.0
TIP	Timpagrande	2.55	264	P	Pn	23 08 17.9	0.0
HORT	Hortiatis	2.61	64	P	Pn	23 08 19.0	+0.3
HORT	Hortiatis	2.61	64	P	Pn	23 08 19.0	+0.3
VAY	Valandovo	2.67	46	P	Pn	23 08 19.4	-0.1
VAY	Valandovo	2.67	46	*e*Pn	Pn	23 08 19.8	+0.2
VAY	Valandovo	2.67	46	P	Pn	23 08 19.4	-0.1
VAY	Valandovo	2.67	46	*e*Pn	Pn	23 08 19.7	+0.2
SKO	Skopje	2.70	23	P	Pn	23 08 21.7	+1.8
SKO	Skopje	2.70	23	*i* Pn	Pn	23 08 21.4	+1.5
SKO				*e*Sn	Sg	23 09 08.6	+5.5
SKO	Skopje	2.70	23	*i* Pn	Pn	23 08 21.4	+1.5
SKO	Skopje	2.70	23	P	Pn	23 08 21.7	+1.8
LTK	Loutraki	2.73	122	P	Pn	23 08 19.2	-1.2
LTK	Loutraki	2.73	122	*e*PN	Pn	23 08 20.6	+0.2
LTK				*e*SN	Sn	23 08 54.5	+0.9
LTK	Loutraki	2.73	122	P	Pn	23 08 19.2	-1.2
LTK	Loutraki	2.73	122	*e*Pb	Pn	23 08 20.6	+0.2
LTK				*e*Sn	Sn	23 08 54.5	+0.9
ITM	Ithomi	2.76	146	*e*PN	Pn	23 08 21.3	+0.6
ITM	Ithomi	2.76	146	*e*Pn	Pn	23 08 21.3	+0.6
KNT	Kendrikon	2.76	52	P	Pn	23 08 21.4	+0.6
KNT	Kendrikon	2.76	52	P	Pn	23 08 21.4	+0.6
PLG	Polygyros	2.77	71	P	Pn	23 08 20.8	-0.2
PLG	Polygyros	2.77	71	*e*PN	Pn	23 08 20.6	-0.4
PLG	Polygyros	2.77	71	*e*Pn	Pn	23 08 20.6	-0.4
ORI	Oriolo Calabro	2.81	283	P	Pn	23 08 24.5	+3.0
ORI	Oriolo Calabro	2.81	283	Pn	Pn	23 08 24.5	+3.0
VLX	Vlachokerasia	2.82	138	*e*PB	Pn	23 08 22.4	+0.8
VLX	Vlachokerasia	2.82	138	*e*Pn	Pn	23 08 22.4	+0.8
PAIG	Paliouri	2.85	80	P	Pn	23 08 21.7	-0.4
PAIG	Paliouri	2.85	80	P	Pn	23 08 21.7	-0.4
SOH	Sokhos	2.88	62	*e*PN	Pn	23 08 23.3	+0.9
SOH	Sokhos	2.88	62	*e*Pn	Pn	23 08 23.3	+0.9
GRI	Girifalco	2.88	258	P	Pn	23 08 23.7	+1.3
GRI	Girifalco	2.88	258	Pn	Pn	23 08 23.7	+1.3
SG1	Sgolgore (BA)	2.89	299	*e*Pn	Pn	23 08 23.1	+0.5
BAI	Bari	2.89	305	*e*Pn	Pn	23 08 23.5	+0.9
BUM	Brajici-Budva	2.93	343	⇓*i*Pn	Pn	23 08 22.8	-0.3
BUM				*e*Sn	Sn	23 08 59.8	+1.4
BUM	Brajici-Budva	2.93	343	⇓*i*Pn	Pn	23 08 22.8	-0.3
BUM				*e*Sn	Sn	23 08 59.8	+1.4
PYL	PYLOS	2.93	152	*e*PN	Pn	23 08 22.7	-0.4
PYL	PYLOS	2.93	152	*e*Pn	Pn	23 08 22.7	-0.4
PDG	Podgorica	2.99	349	⇑*i*Pn	Pn	23 08 23.5	-0.4
PDG				*e*Sn	Sn	23 09 00.8	+1.0
TTG	Podgorica	2.99	349	⇑*i*Pn	Pn	23 08 23.5	-0.4
TTG				*e*Sn	Sn	23 09 00.8	+1.0
TTG	Podgorica	2.99	349	⇑*i*Pn	Pn	23 08 23.5	-0.4
TTG				*e*Sn	Sn	23 09 00.8	+1.0
AOS	Alonnisos	3.01	95	P	Pn	23 08 23.6	-0.6
AOS	Alonnisos	3.01	95	P	Pn	23 08 23.6	-0.6
PVY	Plav	3.10	359	⇑*i*Pn	Pn	23 08 25.8	+0.4
PVY				*e*Sn	Sn	23 09 04.4	+1.9
PVY	Plav	3.10	359	⇑*i*Pn	Pn	23 08 25.8	+0.4
PVY				*e*Sn	Sn	23 09 04.4	+1.9
OUR	Ouranopolis	3.16	73	P	Pn	23 08 26.7	+0.4
OUR	Ouranopolis	3.16	73	P	Pn	23 08 26.7	+0.4
HCY	Herceg Novi	3.17	339	⇓*i*Pn	Pn	23 08 25.2	-1.2
HCY				*e*Sn	Sn	23 09 05.3	+1.1
HCY	Herceg Novi	3.17	339	⇓*i*Pn	Pn	23 08 25.2	-1.2
HCY				*e*Sn	Sn	23 09 05.3	+1.1
SRS	Serrai	3.17	58	P	Pn	23 08 26.8	+0.3
SRS	Serrai	3.17	58	P	Pn	23 08 26.8	+0.3
PTRP	Pietrapertosa	3.21	290	Pn	Pn	23 08 29.1	+2.1
PTRP	Pietrapertosa	3.21	290	Pn	Pn	23 08 29.1	+2.1
DID	Didima	3.21	127	P	Pn	23 08 26.4	-0.6
DID	Didima	3.21	127	*e*PN	Pn	23 08 26.7	-0.3
DID	Didima	3.21	127	*e*Pn	Pn	23 08 26.7	-0.3
ATH	Athens Observa	3.27	117	*e*PN	Pn	23 08 27.9	+0.1
ATH	Athens Observa	3.27	117	*e*Pn	Pn	23 08 27.9	+0.1
CUC	Castrocucco	3.28	280	*e*Pn	Pn	23 08 29.9	+2.0
CUC	Castrocucco	3.28	280	*e*Pn	Pn	23 08 29.9	+2.0
ATHU	Athens Univers	3.32	116	P	Pn	23 08 28.0	-0.4
ATHU	Athens Univers	3.32	116	P	Pn	23 08 28.0	-0.4
KKB	Krupnik	3.32	44	*i* P	Pn	23 08 29.5	+1.0
PTL	Penteli	3.33	114	*e*PB	Pn	23 08 29.7	+1.0
PTL	Penteli	3.33	114	*e*Pn	Pn	23 08 29.7	+1.0
BEY	Berane	3.37	358	⇑*i*Pn	Pn	23 08 29.8	+0.6
BEY				*e*Sn	Sn	23 09 10.3	+0.9
IVA	Berane	3.37	358	⇑*i*Pn	Pn	23 08 29.8	+0.6
IVA				*e*Sn	Sn	23 09 10.3	+0.9
IVA	Berane	3.37	358	⇑*i*Pn	Pn	23 08 29.8	+0.6
IVA				*e*Sn	Sn	23 09 10.3	+0.9
VLY	Voula,Athens	3.38	118	*e*PN	Pn	23 08 30.4	+1.1
VLY	Voula,Athens	3.38	118	*e*Pn	Pn	23 08 30.4	+1.1
ACER	Acerenza	3.38	294	Pn	Pn	23 08 30.4	+1.1
ACER	Acerenza	3.38	294	Pn	Pn	23 08 30.4	+1.1
NKY	Niksic	3.40	347	⇓*i*Pn	Pn	23 08 29.8	+0.2
NKY				*e*Sn	Sn	23 09 10.7	+0.6
NKY	Niksic	3.40	347	⇓*i*Pn	Pn	23 08 29.8	+0.2
NKY				*e*Sn	Sn	23 09 10.7	+0.6
SOI	Samo	3.41	247	P	Pn	23 08 28.6	-1.1
SOI	Samo	3.41	247	Pn	Pn	23 08 28.6	-1.1
CEL	Celeste	3.45	250	P	Pn	23 08 29.9	-0.4
CEL	Celeste	3.45	250	P	Pn	23 08 29.9	-0.4
NVR	Nevrokopi	3.47	57	*e*PN	Pn	23 08 31.9	+1.4
NVR	Nevrokopi	3.47	57	*e*Pn	Pn	23 08 31.9	+1.4
MGR	Morigerati	3.50	282	Pn	Pn	23 08 32.2	+1.2
MGR	Morigerati	3.50	282	Pn	Pn	23 08 32.2	+1.2
MMB	Musomiste	3.51	52	*i* P	Pn	23 08 30.8	-0.4
BRY	Bratogost	3.58	342	⇑*i*Pn	Pn	23 08 31.2	-0.8
BRY				*e*Sn	Sn	23 09 15.1	+0.7
BRY	Bratogost	3.58	342	⇑*i*Pn	Pn	23 08 31.2	-0.8
BRY				*e*Sn	Sn	23 09 15.1	+0.7
SCLL	Scilla	3.58	251	Pn	Pn	23 08 31.3	-0.8
SCLL	Scilla	3.58	251	Pn	Pn	23 08 31.3	-0.8
VLI	Veliai	3.60	139	*e*PN	Pn	23 08 33.5	+1.1
VLI	Veliai	3.60	139	*e*Pn	Pn	23 08 33.5	+1.1
MRLC	Muro Lucano	3.69	291	Pn	Pn	23 08 35.2	+1.6
MRLC	Muro Lucano	3.69	291	Pn	Pn	23 08 35.2	+1.6
MTTG	Motta San Giov	3.70	248	Pn	Pn	23 08 33.2	-0.5
MTTG	Motta San Giov	3.70	248	Pn	Pn	23 08 33.2	-0.5
UPM	Unac-Piva	3.80	348	⇑*i*Pn	Pn	23 08 35.4	+0.4
UPM				*e*Sn	Sn	23 09 20.6	+0.8
UPM	Unac-Piva	3.80	348	⇑*i*Pn	Pn	23 08 35.4	+0.4
UPM				*e*Sn	Sn	23 09 20.6	+0.8
STON	Ston	3.80	333	*e*Pn	Pn	23 08 34.0	-1.1
STON				Sn	Sn	23 09 17.3	-2.6
STON	Ston	3.80	333	*e*Pn	Pn	23 08 34.0	-1.1
STON				Sn	Sn	23 09 17.3	-2.6
MS1	Monte Sant'Ang	3.81	307	*e*Pn	Pn	23 08 36.4	+1.2
PLE	Pljevlja	3.86	353	⇓*i*Pn	Pn	23 08 36.0	+0.1
PLE				*e*Sn	Sn	23 09 21.9	+0.6
PLE	Pljevlja	3.86	353	⇓*i*Pn	Pn	23 08 36.0	+0.1
PLE				*e*Sn	Sn	23 09 21.9	+0.6

VTS	**Vitosha**	**3.92**	**37**	P	**Pn**	**23 08 38.4**	**+1.7**
VTS	**Vitosha**	**3.92**	**37**	*i* P	**Pn**	**23 08 38.5**	**+1.8**
VTS	**Vitosha**	**3.92**	**37**	P	**Pn**	**23 08 38.4**	**+1.7**
LOS	**Limnos**	**3.93**	**82**	P	**Pn**	**23 08 37.0**	**+0.2**
LOS	**Limnos**	**3.93**	**82**	P	**Pn**	**23 08 37.0**	**+0.2**
KYTH	**Kithira**	**4.00**	**142**	*e*PN	**Pn**	**23 08 38.7**	**+0.9**
KYTH	**Kithira**	**4.00**	**142**	*e*Pn	**Pn**	**23 08 38.7**	**+0.9**
LIA	**Limnos Island**	**4.00**	**83**	P	**Pn**	**23 08 38.0**	**+0.1**
LIA	**Limnos Island**	**4.00**	**83**	*e*PN	**Pn**	**23 08 38.4**	**+0.5**
LIA	**Limnos Island**	**4.00**	**83**	P	**Pn**	**23 08 32.2**	**-5.7**
LIA				*e*Pn	**Pn**	**23 08 38.4**	**+0.5**
LIA	**Limnos Island**	**4.00**	**83**	*e*Pn	**Pn**	**23 08 38.4**	**+0.5**
RGNG	**Rignano Grg**	**4.02**	**304**	Pn	**Pn**	**23 08 38.6**	**+0.5**
RGNG	**Rignano Grg**	**4.02**	**304**	Pn	**Pn**	**23 08 38.6**	**+0.5**
FG5	**Orsara di Pugl**	**4.04**	**298**	P	**Pn**	**23 08 40.3**	**+1.9**
FG5	**Orsara di Pugl**	**4.04**	**298**	Pn	**Pn**	**23 08 40.3**	**+1.9**
NISS		**4.16**	**20**	*e*Pn	**Pn**	**23 08 39.5**	**-0.6**
MRB1	**Monte Rocchett**	**4.19**	**294**	Pn	**Pn**	**23 08 42.7**	**+2.3**
MRB1	**Monte Rocchett**	**4.19**	**294**	Pn	**Pn**	**23 08 42.7**	**+2.3**
RZN	**Rozhen**	**4.19**	**57**	*i* P	**Pn**	**23 08 40.9**	**+0.4**
FG2	**Serracapriola**	**4.36**	**304**	Pn	**Pn**	**23 08 43.3**	**+0.6**
FG2	**Serracapriola**	**4.36**	**304**	Pn	**Pn**	**23 08 43.3**	**+0.6**
AGST	**Augusta-Monte**	**4.38**	**241**	Pn	**Pn**	**23 08 39.7**	**-3.4**
AGST	**Augusta-Monte**	**4.38**	**241**	Pn	**Pn**	**23 08 39.7**	**-3.4**
BBLS	**Lazići**	**4.39**	**354**	⇑*i*Pn	**Pn**	**23 08 43.3**	**+0.1**
GRUS	**Gruza**	**4.42**	**7**	*e*Pn	**Pn**	**23 08 44.0**	**+0.4**
RDO	**Rodhopi**	**4.53**	**67**	*e*PN	**Pn**	**23 08 45.4**	**+0.3**
RDO	**Rodhopi**	**4.53**	**67**	*e*Pn	**Pn**	**23 08 45.4**	**+0.3**
SIGR	**SIGRI**	**4.53**	**92**	P	**Pn**	**23 08 45.9**	**+0.7**
SIGR	**SIGRI**	**4.53**	**92**	P	**Pn**	**23 08 45.9**	**+0.7**
BOLS	**Boljevac**	**4.56**	**18**	⇑*i*Pn	**Pn**	**23 08 44.9**	**-0.7**
DIVS	**Divibare**	**4.60**	**360**	P	**Pn**	**23 08 45.6**	**-0.4**
DIVS	**Divibare**	**4.60**	**360**	⇓*i*Pn	**Pn**	**23 08 45.6**	**-0.4**
HAVL	**Avola**	**4.61**	**238**	Pn	**Pn**	**23 08 42.8**	**-3.5**
HAVL	**Avola**	**4.61**	**238**	Pn	**Pn**	**23 08 42.8**	**-3.5**
KDZ	**Kurdzhali**	**4.64**	**61**	*i* P	**Pn**	**23 08 45.0**	**-1.6**
TRUS	**Trudelj**	**4.73**	**3**	*e*Pn	**Pn**	**23 08 44.6**	**-3.3**
ALN	**Alexandroupoli**	**4.82**	**71**	P	**Pn**	**23 08 49.5**	**+0.4**
ALN	**Alexandroupoli**	**4.82**	**71**	*e*PN	**Pn**	**23 08 51.5**	**+2.4**
ALN	**Alexandroupoli**	**4.82**	**71**	P	**Pn**	**23 08 49.5**	**+0.4**
ALN	**Alexandroupoli**	**4.82**	**71**	*e*Pn	**Pn**	**23 08 51.5**	**+2.4**
CHOS	**Chios island**	**4.83**	**101**	P	**Pn**	**23 08 49.8**	**+0.5**
CHOS	**Chios island**	**4.83**	**101**	P	**Pn**	**23 08 49.8**	**+0.5**
VAE	**Valguarnera**	**4.84**	**247**	Pn	**Pn**	**23 08 54.8**	**+5.4**
	2.2nm,0.3s,baz=323,slow=15,SNR=3.8						
VAE				Sn	**Sn**	**23 09 49.2**	**+3.6**
	3.0nm,0.3s,baz=259,slow=18,SNR=4.4						
PRK	**Paraskevi**	**4.85**	**91**	P	**Pn**	**23 08 50.5**	**+1.0**
PRK	**Paraskevi**	**4.85**	**91**	P	**Pn**	**23 08 50.5**	**+1.0**
KARN	**Karanos**	**5.13**	**142**	P	**Pn**	**23 08 53.2**	**-0.2**
KARN	**Karanos**	**5.13**	**142**	P	**Pn**	**23 08 53.2**	**-0.2**
WDD	**Wield Dalam**	**5.67**	**232**	*e*Pn	**Pn**	**23 08 59.9**	**-0.9**
	48nm,0.6s						
WDD				*e*Sn	**Sn**	**23 10 03.9**	**-2.0**
WDD	**Wield Dalam**	**5.67**	**232**	*e*Pn	**Pn**	**23 08 59.8**	**-1.0**
	48nm,0.6s						
WDD				*e*Sn	**Sn**	**23 10 03.9**	**-2.1**
IDI	**Anoyia**	**5.72**	**136**	Pn	**Pn**	**23 08 58.9**	**-2.5**
	2.0nm,0.3s,baz=311,slow=15,SNR=22						
IDI				Sn	**Sn**	**23 10 02.0**	**-5.1**
	3.4nm,0.3s,baz=288,slow=24,SNR=6.8						
IDI	**Anoyia**	**5.72**	**136**	Pn	**Pn**	**23 08 58.9**	**-2.5**
SIVA	**Sivas**	**5.88**	**138**	P	**Pn**	**23 09 03.4**	**-0.3**
SIVA	**Sivas**	**5.88**	**138**	P	**Pn**	**23 09 07.8**	**+4.1**
SIVA	**Sivas**	**5.88**	**138**	P	**Pn**	**23 09 03.4**	**-0.3**
LAST	**Lasithi**	**6.13**	**133**	P	**Pn**	**23 09 05.9**	**-1.3**
LAST	**Lasithi**	**6.13**	**133**	P	**Pn**	**23 09 05.9**	**-1.3**
BZS	**Buzias**	**6.23**	**10**	⇓*i*P	**Pn**	**23 09 08.1**	**-0.3**
BZS	**Buzias**	**6.23**	**10**	⇓P	**Pn**	**23 09 08.1**	**-0.4**
BZS	**Buzias**	**6.23**	**10**	P	**Pn**	**23 09 08.1**	**-0.3**
GZR	**Gura Zlata**	**6.24**	**18**	⇑*i*P	**Pn**	**23 09 09.2**	**+0.7**
GZR	**Gura Zlata**	**6.24**	**18**	⇑P	**Pn**	**23 09 09.2**	**+0.7**
GZR	**Gura Zlata**	**6.24**	**18**	P	**Pn**	**23 09 09.2**	**+0.7**
NVLJ	**Novalja**	**6.35**	**325**	*e*Pn	**Pn**	**23 09 09.8**	**-0.3**
NVLJ				Sn	**Sn**	**23 10 20.3**	**-2.4**
NVLJ	**Novalja**	**6.35**	**325**	*e*Pn	**Pn**	**23 09 09.8**	**-0.3**
NVLJ				Sn	**Sn**	**23 10 20.3**	**-2.4**
PKSM	**Moragy**	**6.79**	**352**	⇓*i*P	**Pn**	**23 09 14.7**	**-1.4**
PKSM	**Moragy**	**6.79**	**352**	⇓P	**Pn**	**23 09 14.7**	**-1.4**
PKSM	**Moragy**	**6.79**	**352**	P	**Pn**	**23 09 14.7**	**-1.4**
VOIR		**7.00**	**30**	⇓*i*P	**Pn**	**23 09 21.0**	**+1.9**
VOIR		**7.00**	**30**	⇓*i*P	**Pn**	**23 09 21.0**	**+1.9**
MLR	**Muntele Rosu**	**7.42**	**34**	P	**Pn**	**23 09 26.2**	**+1.4**
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR	**Muntele Rosu**	**7.42**	**34**	⇓*i*P	**Pn**	**23 09 27.4**	**+2.6**
MLR	**Muntele Rosu**	**7.42**	**34**	Pn	**Pn**	**23 09 26.2**	**+1.5**
	comp=Z,0.8nm,0.3s,baz=120,slow=20,SNR=4.1						
MLR	**Muntele Rosu**	**7.42**	**34**	⇓P	**Pn**	**23 09 27.4**	**+2.7**
MLR	**Muntele Rosu**	**7.42**	**34**	P	**Pn**	**23 09 26.2**	**+1.4**
	comp=Z,1.0nm,0.3s						
DRGR		**7.55**	**14**	⇓*i*P	**Pn**	**23 09 27.7**	**+1.1**
DRGR		**7.55**	**14**	⇓P	**Pn**	**23 09 27.7**	**+1.1**
DRGR		**7.55**	**14**	P	**Pn**	**23 09 27.7**	**+1.1**
VOY	**Vojsko**	**7.93**	**327**	⇓*e*Pn	**Pn**	**23 09 31.0**	**-0.8**
VOY				*e*Sn	**Sn**	**23 10 58.5**	**-3.1**
VOY	**Vojsko**	**7.93**	**327**	⇓*e*Pn	**Pn**	**23 09 31.0**	**-0.8**
PERS	**Pernice**	**7.99**	**335**	*e*Pn	**Pn**	**23 09 31.3**	**-1.3**
PERS				*e*Sn	**Sn**	**23 10 57.8**	**-5.2**
PERS	**Pernice**	**7.99**	**335**	*e*Pn	**Pn**	**23 09 31.3**	**-1.2**
SOKA	**Soboth**	**8.05**	**335**	⇑*i*Pn	**Pn**	**23 09 31.4**	**-2.1**
SOKA				⇑*i*Sn	**Sn**	**23 11 01.1**	**-3.5**
SOKA	**Soboth**	**8.05**	**335**	Pn	**Pn**	**23 09 31.4**	**-2.0**
VRI	**Vrincioaia**	**8.05**	**36**	⇓*i*P	**Pn**	**23 09 36.2**	**+2.7**
VRI	**Vrincioaia**	**8.05**	**36**	⇓P	**Pn**	**23 09 36.2**	**+2.7**
OBKA	**Obir**	**8.07**	**332**	⇑*i*Pn	**Pn**	**23 09 32.6**	**-1.2**
	SNR=37						
OBKA				⇓*i*Sn	**Sn**	**23 11 03.8**	**-1.3**
OBKA	**Obir**	**8.07**	**332**	Pn	**Pn**	**23 09 32.6**	**-1.1**
	SNR=37						
OBKA				Sn	**Sn**	**23 11 03.8**	**-1.3**
ARSA	**Arzberg**	**8.41**	**339**	*i* Pn	**Pn**	**23 09 37.3**	**-1.1**
	SNR=21						
ARSA	**Arzberg**	**8.41**	**339**	Pn	**Pn**	**23 09 37.3**	**-1.1**
	SNR=21						
PSZ	**Piszkesteto**	**8.42**	**359**	*e*P	**Pn**	**23 09 38.1**	**-0.4**
PSZ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
PSZ	**Piszkesteto**	**8.42**	**359**	*e*	**Pn**	**23 09 33.6**	**-4.9**
PSZ	**Piszkesteto**	**8.42**	**359**	*e*Pn	**Pn**	**23 09 38.1**	**-0.4**
	comp=Z,8.2nm,0.8s						
PSZ	**Piszkesteto**	**8.42**	**359**	*e*Pn	**Pn**	**23 09 38.1**	**-0.4**
	comp=Z,8.2nm,0.8s						
PGF	**Pioggiola**	**8.87**	**294**	*e*P	**Pn**	**23 09 50.0**	**+5.3**
	comp=Z,7.3nm,0.6s						
PGF	**Pioggiola**	**8.87**	**294**	*e*P	**Pn**	**23 09 50.0**	**+5.3**
PGF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
PGF	**Pioggiola**	**8.87**	**294**	*e*P	**Pn**	**23 09 50.0**	**+5.3**
	comp=Z,3.7nm,0.6s						
BURAR	**Bucovina Array**	**8.95**	**23**	⇑*i*P	**Pn**	**23 09 47.5**	**+1.8**
BURAR	**Bucovina Array**	**8.95**	**23**	⇑P	**Pn**	**23 09 47.5**	**+1.8**
BURAR	**Bucovina Array**	**8.95**	**23**	⇑P	**Pn**	**23 09 47.5**	**+1.8**
BUR08	**Bucovina Ar. S**	**8.97**	**23**	*e*Pn	**Pn**	**23 09 47.9**	**+1.9**
BUR08	**Bucovina Ar. S**	**8.97**	**23**	*e*Pn	**Pn**	**23 09 47.9**	**+1.9**
KECS	**Kecovo**	**8.99**	**2**	*e*PN	**Pn**	**23 09 50.3**	**+4.0**
KBA	**Koelnbreinsper**	**9.00**	**329**	⇓*i*Pn	**Pn**	**23 09 45.9**	**-0.6**
	SNR=9.8						
KBA				⇑*i*Sn	**Sn**	**23 11 22.9**	**-5.1**
KBA	**Koelnbreinsper**	**9.00**	**329**	Pn	**Pn**	**23 09 45.9**	**-0.6**
	SNR=9.8						
VYHS	**Vyhne**	**9.04**	**355**	*e*PN	**Pn**	**23 09 47.6**	**+0.7**
VYHS	**Vyhne**	**9.04**	**355**	*e*Pn	**Pn**	**23 09 47.6**	**+0.7**
ABTA	**Abfaltersbach**	**9.09**	**325**	⇑*i*Pn	**Pn**	**23 09 46.6**	**-1.0**
	SNR=12						
ABTA				⇑*i*Sn	**Sn**	**23 11 24.1**	**-5.9**
ABTA	**Abfaltersbach**	**9.09**	**325**	Pn	**Pn**	**23 09 46.6**	**-1.0**
	SNR=12						
KEST	**Kesra**	**9.26**	**249**	Pn	**Pn**	**23 09 52.3**	**+2.1**
	comp=Z,0.1nm,0.3s,baz=312,slow=4.8,SNR=6.0						
KEST				Sn	**Sn**	**23 11 37.6**	**+3.2**
	comp=Z,0.1nm,0.3s,baz=246,slow=20,SNR=3.4						
MOA	**Molln**	**9.33**	**335**	⇑*i*Pn	**Pn**	**23 09 49.7**	**-1.2**
	SNR=35						
MOA				⇑*i*Sn	**Sn**	**23 11 33.5**	**-2.5**
MOA	**Molln**	**9.33**	**335**	Pn	**Pn**	**23 09 49.7**	**-1.3**
	SNR=35						
WTTA	**Wattenberg**	**9.87**	**325**	⇓*i*Pn	**Pn**	**23 09 57.1**	**-1.2**
WTTA				⇑*i*Sn	**Sn**	**23 11 43.4**	**-5.8**
WTTA	**Wattenberg**	**9.87**	**325**	Pn	**Pn**	**23 09 57.1**	**-1.3**
WATA	**Walderalm**	**9.95**	**325**	⇑*i*Pn	**Pn**	**23 09 58.9**	**-0.6**
	SNR=15						
WATA				⇓*i*Sn	**Sn**	**23 11 50.0**	**-1.2**
WATA	**Walderalm**	**9.95**	**325**	Pn	**Pn**	**23 09 58.9**	**-0.6**
	SNR=15						
WATA				Sn	**Sn**	**23 11 50.0**	**-1.2**
MOTA	**Moosalm**	**10.17**	**323**	⇑*i*Pn	**Pn**	**23 10 02.7**	**+0.2**
	SNR=24						
MOTA				⇑*i*Sn	**Sn**	**23 11 54.5**	**-2.2**
MOTA	**Moosalm**	**10.17**	**323**	Pn	**Pn**	**23 10 02.7**	**+0.2**
	SNR=24						
MOTA				Sn	**Sn**	**23 11 54.5**	**-2.1**
DAVOX	**Davos/Dischmat**	**10.38**	**318**	Pn	**Pn**	**23 10 08.4**	**+3.0**
	baz=136,slow=18						
DAVOX				Sn	**Sn**	**23 12 00.1**	**-1.6**
	comp=Z,0.3nm,0.3s,baz=312,slow=20,SNR=4.2						
DAVOX				LR	LR	23 14 43.8	
	comp=Z,161nm,19.7s,baz=63,slow=41						
DAVOX	**Davos/Dischmat**	**10.38**	**318**	Sn	**Sn**	**23 12 00.2**	**-1.6**
GEC2	**GERESS Array S**	**10.38**	**336**	*e*P	**Pn**	**23 10 04.7**	**-0.7**
GEC2				pmax	pmax		
	comp=Z,1µm,0.5s						
GEC2	**GERESS Array S**	**10.38**	**336**	*e*Pn	**Pn**	**23 10 04.7**	**-0.7**
	comp=Z,1µm,0.5s						
GEC2	**GERESS Array S**	**10.38**	**336**	*e*P	**Pn**	**23 10 04.7**	**-0.7**
	comp=Z,1µm,0.5s						
GERES	**GERESS Array B**	**10.38**	**336**	Pn	**Pn**	**23 10 03.9**	**-1.5**
	comp=Z,2.4nm,0.3s,baz=160,slow=14,SNR=51						
GERES				Sn	**Sn**	**23 12 00.1**	**-1.7**
	comp=Z,0.4nm,0.3s,baz=155,slow=24,SNR=4.0						
GERES	**GERESS Array B**	**10.38**	**336**	P	**Pn**	**23 10 03.9**	**-1.5**
GERES				S	**Sn**	**23 12 00.1**	**-1.7**
RETA	**Reutte**	**10.44**	**323**	⇑*i*Pn	**Pn**	**23 10 05.2**	**-0.9**
RETA				⇓*i*Sn	**Sn**	**23 12 01.3**	**-1.7**
RETA	**Reutte**	**10.44**	**323**	Pn	**Pn**	**23 10 05.2**	**-0.9**
RETA				Sn	**Sn**	**23 12 01.3**	**-1.8**
DAVOS	**Davos**	**10.46**	**318**	P	**Pn**	**23 10 08.4**	**+1.9**
DAVOS						23 12 00.2	
DAVOS	**Davos**	**10.46**	**318**	P	**Pn**	**23 10 08.4**	**+1.9**
TUE	**Stuetta**	**10.47**	**315**	*e*Pn	**Pn**	**23 10 07.0**	**+0.4**
	comp=Z,4.4nm,0.6s						
TUE	**Stuetta**	**10.47**	**315**	*e*Pn	**Pn**	**23 10 07.0**	**+0.4**
	comp=Z,4.4nm,0.6s						
BRTR	**Keskin Array B**	**10.51**	**84**	Pn	**Pn**	**23 10 09.6**	**+2.4**
	comp=Z,0.2nm,0.3s,baz=270,slow=12,SNR=6.5						
BRTR	**Keskin Array B**	**10.51**	**84**	P	**Pn**	**23 10 09.6**	**+2.4**
KHC	**Kasperske Hory**	**10.68**	**337**	*e*P	**Pn**	**23 10 07.9**	**-1.5**
KHC				*e*x	x	23 10 24.0	
KHC				*e*S	**Sn**	**23 12 03.2**	**-5.8**
KHC	**Kasperske Hory**	**10.68**	**337**	*e*P	**Pn**	**23 10 07.9**	**-1.5**
MBDF	**Montbardon**	**11.14**	**302**	*e*P	**Pn**	**23 10 20.0**	**+4.2**
	comp=Z,5.2nm,0.7s						
MBDF	**Montbardon**	**11.14**	**302**	*e*P	**Pn**	**23 10 20.0**	**+4.2**
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MBDF	**Montbardon**	**11.14**	**302**	*e*P	**Pn**	**23 10 20.0**	**+4.2**
	comp=Z,2.6nm,0.7s						
PRU	**Pruhonice**	**11.19**	**341**	*e*P	**Pn**	**23 10 17.3**	**+0.9**
PRU	**Pruhonice**	**11.19**	**341**	*e*P	**Pn**	**23 10 17.3**	**+0.9**
LPG	**La Plagne**	**11.48**	**306**	*e*P	**Pn**	**23 10 23.1**	**+2.7**
	comp=Z,10nm,0.8s						
LPG	**La Plagne**	**11.48**	**306**	*e*P	**Pn**	**23 10 23.1**	**+2.7**
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
LPG	**La Plagne**	**11.48**	**306**	*e*P	**Pn**	**23 10 23.1**	**+2.7**
	comp=Z,5.1nm,0.8s						
LPL	**La Plagne**	**11.50**	**306**	*e*P	**Pn**	**23 10 23.1**	**+2.4**
	comp=Z,7.4nm,0.7s						
LPL	**La Plagne**	**11.50**	**306**	*e*P	**Pn**	**23 10 23.1**	**+2.4**
LPL				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LPL	**La Plagne**	**11.50**	**306**	*e*P	**Pn**	**23 10 23.1**	**+2.4**
	comp=Z,3.7nm,0.7s						
CABF	**La Chapelle**	**12.42**	**309**	*e*P	**Pn**	**23 10 33.2**	**0.0**
CABF	**La Chapelle**	**12.42**	**309**	*e*P	**Pn**	**23 10 33.2**	**0.0**
MOX	**Moxa**	**12.62**	**335**	*e*P	**Pn**	**23 10 35.0**	**-1.0**
MOX	**Moxa**	**12.62**	**335**	*e*P	**Pn**	**23 10 35.0**	**-1.0**
HINF	**Hinteralfeld**	**12.64**	**315**	*e*P	**Pn**	**23 10 35.7**	**-0.5**
HINF	**Hinteralfeld**	**12.64**	**315**	*e*P	**Pn**	**23 10 35.7**	**-0.5**
CDF	**Champ du Feu**	**12.78**	**318**	*e*P	**Pn**	**23 10 38.9**	**+0.7**
CDF	**Champ du Feu**	**12.78**	**318**	*e*P	**Pn**	**23 10 38.9**	**+0.7**
AKASG	**Malin Array Be**	**12.94**	**27**	Pn	**Pn**	**23 10 40.3**	**0.0**
	comp=Z,0.4nm,0.3s,baz=214,slow=12,SNR=4.0						
AKASG	**Malin Array Be**	**12.94**	**27**	P	**Pn**	**23 10 40.3**	**0.0**
HAU	**Haudompre**	**13.02**	**315**	*e*P	**Pn**	**23 10 40.8**	**-0.7**
HAU	**Haudompre**	**13.02**	**315**	*e*P	**Pn**	**23 10 40.8**	**-0.7**
SMF	**Signal de Mont**	**13.80**	**306**	*e*P	**Pn**	**23 10 51.7**	**-0.4**
SMF	**Signal de Mont**	**13.80**	**306**	*e*P	**Pn**	**23 10 51.7**	**-0.4**
MMAI	**Mount Meron Ar**	**13.99**	**113**	Pn	**Pn**	**23 10 53.9**	**-0.8**
	comp=Z,0.5nm,0.3s,baz=310,slow=12,SNR=5.4						
LOR	**Lormes**	**14.07**	**309**	*e*P	**Pn**	**23 10 55.9**	**+0.1**
LOR	**Lormes**	**14.07**	**309**	*e*P	**Pn**	**23 10 55.9**	**+0.1**
SSF	**Saint Saulge**	**14.19**	**308**	*e*P	**Pn**	**23 10 59.2**	**+1.8**
SSF	**Saint Saulge**	**14.19**	**308**	*e*P	**Pn**	**23 10 59.2**	**+1.8**
MALT	**Malatya**	**14.39**	**89**	⇓*i*P	**Pn**	**23 11 06.9**	**+6.8**
MALT	**Malatya**	**14.39**	**89**	P	**Pn**	**23 11 06.9**	**+6.8**
EIL	**Elat**	**15.71**	**124**	Pn	**Pn**	**23 11 16.3**	**-1.5**
	comp=Z,0.2nm,0.3s,baz=350,slow=15,SNR=4.7						
NACGM	**Naroch**	**16.07**	**14**	*e*	**Pn**	**23 11 19.0**	**-3.3**
KIV	**Kislovodsk**	**17.48**	**68**	⇓*e*P	**Pn**	**23 11 40.4**	**+0.1**
KIV				*e*S	**Sn**	**23 14 47.6**	**-7.3**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.2s						
KIV	**Kislovodsk**	**17.48**	**68**	*e*P	**Pn**	**23 11 40.4**	**+0.1**
	comp=Z,8.0nm,1.2s						
ESDC	**Sonseca Array**	**18.48**	**278**	P	**Pn**	**23 11 53.8**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=74,slow=11,SNR=11						
ESDC	**Sonseca Array**	**18.48**	**278**	P	**Pn**	**23 11 53.8**	**+1.2**
GNI	**Garni**	**18.99**	**80**	P	**Pn**	**23 11 57.9**	**-0.9**
	comp=Z,0.5nm,0.3s,baz=339,slow=3.8,SNR=7.8						
GNI	**Garni**	**18.99**	**80**	P	**Pn**	**23 11 57.9**	**-0.9**
OBN	**Obninsk**	**19.16**	**30**	⇓*e*P	**Pn**	**23 11 56.6**	**-4.1**
OBN				*e*S	**Sn**	**23 15 21.5**	**-14**
OBN				pmax	pmax		
	comp=Z,14nm,0.7s						
TAM	**Tamanrasset**	**20.72**	**221**	*e*P	**P**	**23 12 18.0**	**+0.9**
TAM				pmax	pmax		
	comp=Z,8.0nm,1.2s						
TAM	**Tamanrasset**	**20.72**	**221**	*e*P	**P**	**23 12 18.0**	**+0.9**
	comp=Z,7.6nm,1.2s						
TAM	**Tamanrasset**	**20.72**	**221**	*e*P	**P**	**23 12 18.0**	**+0.9**
	comp=Z,7.6nm,1.2s						
HFS	**Hagfors**	**21.04**	**351**	P	**P**	**23 12 18.8**	**-1.5**
	comp=Z,12nm,0.8s,mb4.3,baz=163,slow=11,SNR=22						
HFS	**Hagfors**	**21.04**	**351**	P	**P**	**23 12 18.8**	**-1.5**
EKA	**Eskdalemuir Ar**	**22.13**	**323**	P	**P**	**23 12 31.6**	**-0.4**
	comp=Z,4.0nm,0.8s,mb3.9,baz=119,slow=7.6,SNR=11						
EKA	**Eskdalemuir Ar**	**22.13**	**323**	P	**P**	**23 12 31.6**	**-0.4**
NB2	**NORSAR Subarra**	**22.25**	**349**	P	**P**	**23 12 31.5**	**-1.7**
	comp=Z,8.4nm,0.9s,mb4.2,baz=165,slow=11						
NOA	**NORSAR Array B**	**22.25**	**349**	*e*P	**P**	**23 12 32.1**	**-1.1**
NOA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
NOA	**NORSAR Array B**	**22.25**	**349**	P	**P**	**23 12 32.0**	**-1.2**
	comp=Z,4.5nm,0.8s,mb4.0,baz=166,slow=11,SNR=12						
NOA	**NORSAR Array B**	**22.25**	**349**	*e*P	**P**	**23 12 32.1**	**-1.1**
	comp=Z,5.0nm,0.8s,mb4.0						
JOF	**Joensuu**	**24.42**	**13**	*e*p	**P**	**23 12 52.5**	**-2.4**
	comp=Z,5.5nm,0.8s,mb4.0						
KLMR	**Klimovskoe**	**24.57**	**23**	*e*P	**P**	**23 12 54.7**	**-1.6**
KLMR				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.4						
KLMR	**Klimovskoe**	**24.57**	**23**	*e*P	**P**	**23 12 54.7**	**-1.6**
	comp=Z,15nm,1.3s,mb4.4						
ARCES	**ARCESS Array B**	**30.24**	**4**	P	**P**	**23 13 44.6**	**-2.4**
	comp=Z,1.7nm,0.7s,mb3.9,baz=186,slow=10,SNR=5.7						
TORD	**Torodi Ar. Bea**	**30.83**	**217**	P	**P**	**23 13 52.1**	**-0.7**
	comp=Z,6.3nm,0.8s,mb4.5,baz=31,slow=8.4,SNR=44						
SVE	**Sverdlovsk**	**31.56**	**43**	⇑*e*P	**P**	**23 13 57.5**	**-1.4**
SVE				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.0						
SVE	**Sverdlovsk**	**31.56**	**43**	*e*P	**P**	**23 13 57.5**	**-1.4**
	comp=Z,25nm,1.0s,mb5.0						
BVAR	**Borovoye Array**	**36.59**	**51**	P	**P**	**23 14 40.4**	**-2.1**
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BVAR	**Borovoye Array**	**36.59**	**51**	P	**P**	**23 14 40.4**	**-2.0**
	comp=Z,1.4nm,0.9s,mb3.8,baz=316,slow=4.1,SNR=5.4						
BVAR	**Borovoye Array**	**36.59**	**51**	P	**P**	**23 14 40.4**	**-2.1**
	comp=Z,1.0nm,0.9s,mb3.6						
DBIC	**Dimbokro**	**39.61**	**221**	P	**P**	**23 15 08.1**	**-0.2**
	comp=Z,1.9nm,0.7s,mb3.9,baz=17,slow=11,SNR=2.7						
DBIC	**Dimbokro**	**39.61**	**221**	P	**P**	**23 15 08.1**	**-0.3**
KURK	**Kurchatov**	**41.82**	**54**	P	**P**	**23 15 23.8**	**-2.4**
KURK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.5						
KURK	**Kurchatov**	**41.82**	**54**	P	**P**	**23 15 23.8**	**-2.5**
	comp=Z,1.2nm,0.7s,mb3.6,baz=288,slow=9.2,SNR=11						
MKAR	**Makanchi Array**	**44.96**	**59**	P	**P**	**23 15 49.2**	**-2.4**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	**Makanchi Array**	**44.96**	**59**	P	**P**	**23 15 49.2**	**-2.4**
	comp=Z,2.2nm,0.6s,mb4.2,baz=276,slow=7.5,SNR=42						
ZALV	**Zalesovo Beam**	**45.11**	**49**	P	**P**	**23 15 50.6**	**-2.1**
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
ZALV	**Zalesovo Beam**	**45.11**	**49**	P	**P**	**23 15 50.6**	**-2.1**
	comp=Z,3.4nm,0.5s,mb4.4,baz=281,slow=9.0,SNR=16						
ZALV	**Zalesovo Beam**	**45.11**	**49**	P	**P**	**23 15 50.6**	**-2.1**
	comp=Z,3.0nm,0.5s,mb4.4						
SCHQ	**Schefferville**	**57.23**	**317**	P	**P**	**23 17 23.2**	**-0.5**
	comp=Z,1.4nm,0.5s,mb4.2,baz=33,slow=8.3,SNR=4.8						
SCHQ	**Schefferville**	**57.23**	**317**	P	**P**	**23 17 23.2**	**-0.5**
SONM	**Songino Array**	**59.93**	**51**	*e*P	**P**	**23 17 41.1**	**-1.5**
SONM				pmax	pmax		
	comp=Z,1.0nm,1.0s						
SONM	**Songino Array**	**59.93**	**51**	P	**P**	**23 17 41.0**	**-1.6**
	comp=Z,1.3nm,1.0s,mb3.9,baz=293,slow=5.5,SNR=9.7						
SONM	**Songino Array**	**59.93**	**51**	*e*P	**P**	**23 17 41.1**	**-1.5**
	comp=Z,1.0nm,1.0s,mb3.8						
CMAR	**Chiang Mai Arr**	**70.09**	**82**	P	**P**	**23 18 45.5**	**-3.7**
	comp=Z,0.4nm,0.3s,mb3.8,baz=307,slow=6.3,SNR=3.4						
SEY	**Seymchan**	**71.05**	**21**	⇑*e*P	**P**	**23 18 52.4**	**-1.9**
SEY	**Seymchan**	**71.05**	**21**	*e*P	**P**	**23 18 52.4**	**-1.9**
YKA	**Yellowknife Ar**	**72.02**	**340**	P	**P**	**23 18 59.6**	**-0.6**
	comp=Z,0.4nm,0.6s,mb3.5,baz=37,slow=5.4,SNR=7.8						
YKA	**Yellowknife Ar**	**72.02**	**340**	P	**P**	**23 18 59.6**	**-0.5**
ULM	**Lac du Bonnet**	**74.41**	**323**	P	**P**	**23 19 15.3**	**+0.8**
	comp=Z,1.1nm,0.5s,mb4.0,baz=62,slow=7.3,SNR=3.1						
ASAR	**Alice Springs**	**122.69**	**95**	PKP	PKPdf	23 26 30.4	-2.3
	comp=Z,0.3nm,0.7s,baz=325,slow=1.2,SNR=4.6						

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*IDC **23** 23:13:28.9±3.5, 3.°64S×144.°29E, h0^{km}, mb4.0/3, mb1 4.3/4, mb1mx3.9/16, mbtmp4.0/4, ML4.1/1, MS3.1/2, Ms1 3.1/2, ms1mx2.6/28, Error ellipse: s-maj=97.6km s-min=29.7km az=99.0*

*ISCJB **23** 23:13:39.1±5.8, 4.°1S±0.°3×144.°9E±0.°4, h125^{km}±60^{km}, mb3.9/4, Error ellipse: s-maj=66.7km s-min=41.1km az=9.4*

*NEIC **23** 23:13:39.8±4.2, 4.°05S×144.°93E, h118^{km}±46^{km}, mb4.0/2, Error ellipse: s-maj=53.6km s-min=27.3km az=102.0*

ISC 23 23:13:39.6±5.4**, 4.°0S**±0.°3×**144.°9E**±0.°5**, h115**^{km}±59^{km}**, n10, σ0.s47**/9**, mb3.9**/4**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	**Coen**	**10.00**	**190**	*e*Pn	**Pn**	**23 16 00.2**	**-0.1**
HNR	**Honiara**	**15.85**	**110**	LR	LR	23 22 15.5	
	comp=Z,64nm,18.5s,baz=340,slow=32						
WRAB	**Tennant Creek**	**18.86**	**212**	*e*P	**P**	**23 17 50.9**	**0.0**
	2.3nm,0.4s						
WB2	**Warramunga Arr**	**18.86**	**212**	*e*P	**P**	**23 17 50.8**	**-0.2**
WRA	**Warramunga Arr**	**18.87**	**212**	P	**P**	**23 17 50.9**	**-0.1**
	0.6nm,0.3s,baz=32,slow=11,SNR=12						
ASAR	**Alice Springs**	**22.22**	**208**	P	**P**	**23 18 27.8**	**+0.9**
	3.5nm,0.6s,mb3.9,baz=32,slow=9.8,SNR=45						
FITZ	**Fitzroy Crossi**	**23.48**	**232**	P	**P**	**23 18 38.2**	**-0.9**
	13nm,0.6s,mb4.4,baz=45,slow=11,SNR=29						
FITZ				LR	LR	23 27 41.9	
	comp=Z,61nm,21.6s,baz=30,slow=37						
FITZ	**Fitzroy Crossi**	**23.48**	**232**	P	**P**	**23 18 38.2**	**-0.9**
FITZ				*e*P		23 18 38.2	
KAPI	**Kappang**	**25.11**	**267**	P	**P**	**23 18 54.4**	**+0.4**
	2.9nm,0.4s,mb4.1						
MKAR	**Makanchi Array**	**74.68**	**321**	P	**P**	**23 25 06.5**	**-0.1**
	0.3nm,0.8s,mb3.1,baz=99,slow=6.9,SNR=5.0						

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*IDC **23** 23:30:40.7±8.3, 34.°74S×179.°30E, h76^{km}±60^{km}, mb4.0/3, mb1 4.3/4, mb1mx3.9/16, mbtmp4.1/4, ML4.4/1, Error ellipse: s-maj=63.5km s-min=24.6km az=53.0*

*NEIC **23** 23:30:47.2, 35.°46S×179.°34E, h188^{km}, mb4.4/2, After WEL.*

ISC 23 23:30:45.7±2.4**, 34.°9S**±0.°1×**178.°9E**±0.°2**, h93**^{km}±19^{km}**, n25, σ1.s21**/26**, mb4.4**/5**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.65**	**190**	P	**Pn**	**23 31 27.6**	**+1.0**
MXZ				S	**Sn**	**23 31 59.7**	**+1.7**
PUZ	**Puketiti**	**3.16**	**189**	P	**Pn**	**23 31 33.6**	**+0.2**
PUZ				S	**Sn**	**23 32 09.4**	**-0.8**
MWZ	**Matawai**	**3.55**	**197**	P	**Pn**	**23 31 39.5**	**+0.9**
URZ	**Urewera**	**3.60**	**203**	P	**Pn**	**23 31 40.5**	**+1.2**
	28nm,0.3s,baz=18,slow=1.5,SNR=66						
URZ				S	**Sn**	**23 32 22.8**	**+2.1**
	58nm,0.3s,baz=260,slow=18,SNR=12						
URZ	**Urewera**	**3.60**	**203**	*e*Pn	**Pn**	**23 31 40.4**	**+1.2**
URZ				*e*Sn	**Sn**	**23 32 20.7**	**0.0**
KNZ	**Kokohu**	**4.18**	**193**	P	**Pn**	**23 31 46.4**	**-0.7**
BKZ	**Black Stump Fm**	**4.62**	**204**	P	**Pn**	**23 31 52.7**	**-0.4**
HIZ	**Hauiti**	**4.80**	**221**	P	**Pn**	**23 32 01.4**	**+5.9**
WNVZ	**Wahianoa**	**5.09**	**210**	P	**Pn**	**23 32 00.3**	**+0.8**
MOVZ	**Moawhango**	**5.10**	**208**	P	**Pn**	**23 31 58.6**	**-1.0**
TSZ	**Takapari Road**	**5.60**	**203**	P	**Pn**	**23 32 04.3**	**-2.1**
WAZ	**Wanganui**	**5.71**	**212**	P	**Pn**	**23 32 08.3**	**+0.4**
MRZ	**Mangatainoka R**	**6.27**	**204**	P	**Pn**	**23 32 12.0**	**-3.5**
KIW	**Kapiti Island**	**6.68**	**207**	P	**Pn**	**23 32 17.7**	**-3.4**
MTW	**Mount Morrison**	**6.75**	**202**	P	**Pn**	**23 32 18.1**	**-3.9**
MSWZ	**Moikau Station**	**7.06**	**203**	P	**Pn**	**23 32 22.7**	**-3.5**
SNZO	**South Karori**	**7.15**	**206**	*e*Pn	**Pn**	**23 32 26.1**	**-1.3**
SNZO				*e*Sn	Sx	23 33 42.7	
COEN	**Coen**	**38.33**	**294**	*e*P	**P**	**23 37 59.7**	**+2.2**
	8.6nm,0.4s,mb4.9						
ASAR	**Alice Springs**	**40.48**	**274**	P	**P**	**23 38 15.3**	**-0.1**
	4.3nm,0.4s,mb4.6,baz=114,slow=7.9,SNR=155						
WRAB	**Tennant Creek**	**41.89**	**279**	*e*P	**P**	**23 38 26.4**	**-0.6**
	2.8nm,0.5s,mb4.2						
WRA	**Warramunga Arr**	**41.90**	**279**	P	**P**	**23 38 26.9**	**-0.1**
	2.8nm,0.4s,mb4.4,baz=118,slow=7.7,SNR=21						
QSPA	**South Pole Qui**	**55.18**	**180**	P	**P**	**23 40 08.0**	**0.0**
	1.1nm,0.7s,mb4.0,baz=169,slow=22,SNR=13						
JOF	**Joensuu**	**145.51**	**334**	*e*p	PKPdf	23 50 07.8	-4.1
	1.3nm,0.3s						
BRTR	**Keskin Array B**	**152.05**	**290**	PKPbc	PKPdf	23 50 25.4	+2.2
	0.3nm,0.4s,baz=142,slow=2.6,SNR=5.0						
TORD	**Torodi Ar. Bea**	**158.15**	**187**	PKPab	PKPab	23 51 02.6	-3.5
	0.2nm,0.5s,baz=185,slow=2.9,SNR=5.8						

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*ISCJB **23** 23:46:21.7±0.5, 22.°76S±0.°05×67.°95W±0.°07, h108^{km}±8^{km}, mb4.3/4, Error ellipse: s-maj=10.3km s-min=7.5km az=18.1*

*NEIC **23** 23:46:22.9±0.9, 22.°83S×67.°99W, h108^{km}±9^{km}, mb4.2/2, MD3.9(GUC), Error ellipse: s-maj=14.8km s-min=12.4km az=125.0*

*IDC **23** 23:46:22.3±1.0, 22.°92S×67.°91W, h99^{km}±10^{km}, mb4.0/4, mb1 4.2/5, mb1mx3.8/16, mbtmp4.2/5, MS3.1/1, Ms1 3.1/1, ms1mx2.3/20, Error ellipse: s-maj=19.1km s-min=17.8km az=95.0*

*GUC **23** 23:46:24.2±0.7, 22.°70S×68.°24W, h117^{km}±5^{km}, MD3.9, ML4.1*

ISC 23 23:46:23.1±0.5**, 22.°72S**±0.°05×**67.°98W**±0.°06**, h104**^{km}±7^{km}**, n29, σ0.s91**/37**, mb4.3**/4**, 6C-1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**0.86**	**277**	P	**Pn**	**23 46 44.1**	**+1.6**
	2µm,0.3s,baz=103,slow=5.5						
LVC				S	**Sn**	**23 46 58.2**	**+1.1**
	782nm,0.3s,baz=70,slow=7.6,SNR=8.2						
LVC	**Limon Verde**	**0.86**	**277**	P	**Pn**	**23 46 44.1**	**+1.6**
LVC				S	**Sn**	**23 46 58.2**	**+1.1**
LVC	**Limon Verde**	**0.86**	**277**	⇑*i*P	**Pn**	**23 46 43.4**	**+0.9**
LVC				*i* S	**Sn**	**23 46 58.2**	**+1.2**
LVC				AML	AML	23 46 59.4	
	comp=E,6µm,0.5s						
PB04	**Plate Boundary**	**1.46**	**288**	⇑*i*P	**Pn**	**23 46 56.0**	**+6.8**
PB04				*i* S	**Sn**	**23 47 20.5**	**+12**
PB04				AML	AML	23 47 26.0	
	comp=N,3µm,0.6s						
PECH	**Pedro de Valdi**	**1.57**	**274**	⇑*i*P	**Pn**	**23 46 50.7**	**+0.3**
PECH				*i* S	**Sn**	**23 47 10.5**	**-0.7**
MACH	**Maria Elena**	**1.72**	**287**	⇑*i*P	**Pn**	**23 46 52.7**	**+0.3**
MACH				*i* S	**Sn**	**23 47 13.8**	**-0.8**
TOCH	**Tocopilla**	**2.15**	**286**	⇓*i*P	**Pn**	**23 46 57.3**	**-0.5**
TOCH				⇑*i*S	**Sn**	**23 47 22.0**	**-2.3**

TOCH				AML	AML	23 47 29.1	
	comp=E,2µm,0.2s						
PB01	**Plate Boundary**	**2.18**	**320**	⇑iP	**Pn**	**23 46 59.2**	**+1.0**
PB01				iS	**Sn**	**23 47 25.4**	**+0.4**
PB01				AML	AML	23 47 28.4	
	comp=E,1µm,0.5s						
LCO	**Las Campanas**	**6.72**	**201**	ePn	**Pn**	**23 47 55.6**	**-3.6**
	comp=E,27nm,0.6s						
LCO				eSn	**Sn**	**23 49 15.1**	**+0.7**
CFAA	**Coronel Fontan**	**8.85**	**181**	P	**Pn**	**23 48 26.1**	**-2.1**
	comp=E,0.1nm,0.3s,baz=353,slow=12,SNR=9.1						
CFAA				S	**Sn**	**23 49 58.2**	**-7.9**
	comp=E,0.1nm,0.3s,baz=210,slow=16,SNR=2.5						
CFAA	**Coronel Fontan**	**8.85**	**181**	P	**Pn**	**23 48 26.1**	**-2.1**
CFAA				S	**Sn**	**23 49 58.2**	**-7.9**
SIV	**San Ignacio**	**9.34**	**45**	P	**Pn**	**23 48 34.7**	**-0.3**
	comp=E,18nm,0.3s,baz=237,slow=11,SNR=294						
SIV				S	**Sn**	**23 50 17.7**	**-0.5**
	comp=E,1.6nm,0.3s,baz=189,slow=19,SNR=3.3						
SIV				LR	LR	23 53 05.1	
	comp=E,109nm,19.2s,baz=329,slow=43						
CPUP	**Villa Florida**	**10.34**	**112**	P	**Pn**	**23 48 49.2**	**+0.7**
	comp=E,0.4nm,0.3s,baz=265,slow=10,SNR=9.2						
CPUP	**Villa Florida**	**10.34**	**112**	P	**Pn**	**23 48 49.2**	**+0.7**
PLCA	**Paso Flores**	**18.09**	**186**	P	**P**	**23 50 27.5**	**+0.9**
	comp=E,0.1nm,0.3s,baz=8.0,slow=11,SNR=3.4						
SPB	**Sao Paulo**	**18.92**	**97**	eP	**P**	**23 50 34.9**	**-0.9**
	comp=E,31nm,1.1s						
RCBR	**Riachuelo**	**35.21**	**66**	eP	**P**	**23 53 07.5**	**0.0**
	comp=E,1.0nm,0.5s,mb3.9						
LIC	**Lamto**	**67.91**	**73**	eP	**P**	**23 57 10.7**	**-0.4**
	comp=E,29nm,0.8s						
TIC	**Toumodi**	**68.11**	**72**	eP	**P**	**23 57 12.1**	**-0.2**
	comp=E,11nm,0.2s						
KIC	**Kosan Boka**	**68.23**	**73**	eP	**P**	**23 57 13.1**	**+0.1**
	comp=E,62nm,0.7s						
DBIC	**Dimbokro**	**68.27**	**73**	P	**P**	**23 57 13.4**	**+0.2**
	comp=E,10.0nm,0.6s,mb4.8,baz=219,slow=7.9,SNR=20						
PDAR	**Pinedale Array**	**75.59**	**330**	P	**P**	**23 57 57.8**	**+1.4**
	comp=E,0.1nm,0.3s,baz=103,slow=6.6,SNR=2.6						
TORD	**Torodi Ar. Bea**	**76.96**	**70**	P	**P**	**23 58 04.9**	**+0.1**
	comp=E,5.4nm,0.4s,mb4.6,baz=257,slow=5.6,SNR=70						
YKA	**Yellowknife Ar**	**92.62**	**340**	P	**P**	**23 59 22.3**	**-0.1**
	comp=E,0.3nm,0.6s,mb3.8,baz=136,slow=4.4,SNR=7.6						
YKA	**Yellowknife Ar**	**92.62**	**340**	P	**P**	**23 59 22.3**	**-0.1**
ASAR	**Alice Springs**	**129.22**	**206**	PKP	PKPdf	00 05 18.9	-0.9
	comp=E,0.5nm,0.9s,baz=127,slow=2.3,SNR=4.1						
ZALV	**Zalesovo Beam**	**142.67**	**26**	PKP	PKPdf	00 05 41.0	-2.8
	comp=E,0.5nm,0.4s,baz=318,slow=1.9,SNR=2.7						
MKAR	**Makanchi Array**	**146.09**	**38**	PKPbc	PKPbc	00 05 50.3	-0.6
	comp=E,1.5nm,0.8s,baz=307,slow=3.3,SNR=15						
SONM	**Songino Array**	**154.54**	**9**	PKPab	PKPab	00 06 27.1	+0.8
	comp=E,0.3nm,0.5s,baz=334,slow=4.2,SNR=3.5						

GUC 24 00:45:59.6±0.6, 31°.38S×69°.15W, h150^{km}, MD3.5, ML3.6, 2C, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	**Combarbala**	**1.60**	**277**	⇑iP	Pn	00 46 30.5	+0.3
CMCH				iS	Sn	00 46 54.6	+1.1
CMCH				AML	AML	00 46 56.8	
	comp=E,2µm,0.7s						
CHNG	**Los Chungos**	**2.06**	**255**	eP	Pn	00 46 35.6	+0.2
CHNG				iS	Sn	00 47 02.9	-0.1
FCH	**Farellones**	**2.17**	**206**	⇑iP	Pn	00 46 37.7	+1.1
FCH				iS	Sn	00 47 07.2	+2.0
FCH				AML	AML	00 47 16.5	
	comp=E,82nm,0.5s						
PEL	**Peldehue**	**2.19**	**216**	iP	Pn	00 46 37.6	+0.8
PEL				iS	Sn	00 47 06.2	+0.6
PEL				AML	AML	00 47 07.2	
	comp=N,288nm,0.3s						
PCH	**Pirque**	**2.51**	**207**	iS	Sn	00 47 13.3	+0.6

*IDC **24** 01:08:04.8±6.6, 36°.40N×70°.79E, h180^{km}±64^{km}, mb3.2/4, mb1 3.2/7, mb1mx2.9/26, mbtmp3.0/7, Error ellipse: s-maj=53.7km s-min=28.7km az=3.0*

*ISCJB **24** 01:08:06.1±0.5, 36°.60N±0°.03×70°.66E±0°.07, h201^{km}±7^{km}, mb3.3/3, Error ellipse: s-maj=9.4km s-min=5.3km az=178.1*

*NEIC **24** 01:08:07.1±0.7, 36°.61N×70°.61E, h206^{km}±9^{km}, mb3.7/4, Error ellipse: s-maj=12.2km s-min=6.8km az=77.0*

*NNC **24** 01:08:14.5±3.2, 37°.13N×70°.77E, h219^{km}±27^{km}, mb2.6, mpv3.6, Error ellipse: s-maj=35.5km s-min=19.9km az=43.0*

ISC 24 01:08:06.9±0.5, 36°.63N±0°.03×70°.62E±0°.07, h194^{km}±7^{km}, n37, σ1^{s}.25/45, mb3.3/3, 5C-2D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.44**	**212**	ePn	**Pn**	**01 08 50.4**	**+0.6**
KBL				eSn	**Sn**	**01 09 22.2**	**-1.0**
KSH	**Kashi**	**5.12**	**54**	⇑iPn	**Pn**	**01 09 17.8**	**-4.7**
KSH				Sn	**Sn**	**01 10 10.5**	**-12**
KSH				smax			
	comp=N,60nm,0.4s						
KSH				smax			
	comp=E,68nm,0.2s						
THN	**Thein Dam**	**5.93**	**133**	ePKP	**Pn**	**01 09 29.0**	**-4.2**
THN				eS	**Sn**	**01 10 33.1**	**-8.2**
AML	**Almayashu**	**5.99**	**22**	P	**Pn**	**01 09 34.8**	**+1.0**
	SNR=35						
AML	**Almayashu**	**5.99**	**22**	ePn	**Pn**	**01 09 34.6**	**+0.8**
	comp=E,22nm,0.4s						
AML				eSn	**Sn**	**01 10 40.9**	**-1.6**
UCH	**Uchtor**	**6.35**	**27**	P	**Pn**	**01 09 39.4**	**+0.9**
	SNR=7.5						
UCH	**Uchtor**	**6.35**	**27**	ePn	**Pn**	**01 09 39.0**	**+0.5**
	comp=E,5.2nm,0.6s						
UCH				eSn	**Sn**	**01 10 48.5**	**-2.5**
KK31	**Karatay Array**	**6.47**	**359**	⇑P	**Pn**	**01 09 41.9**	**+1.9**
	comp=E,2.0nm,0.3s,baz=179,slow=13,SNR=92						
KK31				⇓S	**Sn**	**01 10 51.4**	**-2.4**
	comp=E,12nm,0.3s,baz=176,slow=15,SNR=21						
EKS2	**Erkin-Say**	**6.50**	**21**	P	**Pn**	**01 09 41.5**	**+1.1**
	SNR=20						
EKS2	**Erkin-Say**	**6.50**	**21**	ePn	**Pn**	**01 09 41.1**	**+0.7**
AAK	**Ala-Archa**	**6.70**	**25**	P	**Pn**	**01 09 44.1**	**+1.1**
	SNR=5.6						
AAK	**Ala-Archa**	**6.70**	**25**	P	**Pn**	**01 09 44.0**	**+1.0**
	comp=E,0.0nm,0.3s,baz=166,slow=5.5,SNR=19						
AAK				S	**Sn**	**01 10 58.9**	**-0.4**
	comp=E,0.0nm,0.3s,baz=322,slow=22,SNR=20						
KBK	**Karagaybulak**	**6.89**	**28**	P	**Pn**	**01 09 46.8**	**+1.4**
	SNR=5.2						
TKM2	**Tokmak 2**	**7.36**	**30**	ePn	**Pn**	**01 09 52.1**	**+0.5**
MK31	**Makanchi Array**	**13.37**	**37**	⇓P	**Pn**	**01 11 09.5**	**+0.5**
	comp=E,1.1nm,0.9s,baz=220,slow=12,SNR=5.1						
MKAR	**Makanchi Array**	**13.37**	**37**	P	**Pn**	**01 11 10.0**	**+1.0**
	comp=E,0.1nm,0.3s,baz=229,slow=13,SNR=5.6						
DANN	**Dangsing**	**13.82**	**123**	eP	**Pn**	**01 11 17.2**	**+2.5**
	comp=E,12nm,0.4s						
KOLN	**Koldanda**	**14.09**	**125**	eP	**Pn**	**01 11 18.4**	**+0.3**
	comp=E,3.7nm,0.2s						
GKN	**Gorkha**	**14.63**	**122**	eP	**Pn**	**01 11 25.6**	**+0.8**
	comp=E,11nm,0.4s						
AB01	**Akbulak array**	**14.82**	**332**	⇑P	**Pn**	**01 11 27.8**	**+0.8**
	comp=E,1.7nm,0.8s						
AB01				⇑S	**Sn**	**01 14 10.0**	**-2.5**
DMN	**Daman**	**15.20**	**122**	eP	**Pn**	**01 11 31.9**	**+0.1**
	comp=E,18nm,0.8s						
KKN	**Kakani**	**15.21**	**121**	eP	**Pn**	**01 11 32.2**	**+0.4**
	comp=E,10nm,0.4s						
KURK	**Kurchatov**	**15.21**	**20**	P	**Pn**	**01 11 32.7**	**+1.0**
	comp=E,0.1nm,0.3s,baz=209,slow=13,SNR=7.4						
KURK	**Kurchatov**	**15.21**	**20**	eP	**Pn**	**01 11 30.4**	**-1.3**
	comp=E,0.7nm,0.4s						
PKIN	**Phulchoki**	**15.42**	**122**	eP	**Pn**	**01 11 34.0**	**-0.4**
	comp=E,9.2nm,0.5s						
PKI	**Pulchoki**	**15.43**	**122**	eP	**Pn**	**01 11 34.6**	**0.0**
	comp=E,18nm,0.7s						
GUN	**Gumba**	**15.55**	**120**	eP	**Pn**	**01 11 36.7**	**+0.7**
	comp=E,5.8nm,0.3s						
JIRN	**Jiri**	**15.92**	**120**	eP	**Pn**	**01 11 40.5**	**0.0**
	comp=E,11nm,0.3s						
VOSK	**Vostochnaya**	**16.10**	**1**	⇑P	**Pn**	**01 11 43.4**	**+1.1**
	comp=E,0.3nm,0.2s						
BRVK	**Borovoye**	**16.43**	**359**	eP	**Pn**	**01 11 46.0**	**-0.3**
	comp=E,1.6nm,0.7s						
RAMN	**Ramite**	**16.64**	**121**	eP	**Pn**	**01 11 46.1**	**-3.1**
	comp=E,13nm,0.6s						
TAPN	**Taplejung**	**17.18**	**118**	eP	**Pn**	**01 11 53.3**	**-2.2**
	comp=E,4.8nm,0.5s						
ODAN	**Odare**	**17.25**	**120**	eP	**Pn**	**01 11 52.4**	**-4.0**
	comp=E,7.5nm,0.7s						
ZALV	**Zalesovo Beam**	**19.93**	**25**	P	**P**	**01 12 24.4**	**+0.8**
	comp=E,1.1nm,0.3s,baz=216,slow=12,SNR=6.4						
TORD	**Torodi Ar. Bea**	**65.41**	**268**	P	**P**	**01 18 29.2**	**+0.2**
	comp=E,0.3nm,0.5s,mb3.2,baz=47,slow=5.3,SNR=6.1						
WRA	**Warramunga Arr**	**82.32**	**122**	P	**P**	**01 20 05.2**	**-1.6**
	comp=E,0.4nm,0.6s,mb3.2,baz=332,slow=4.8,SNR=3.0						
ASAR	**Alice Springs**	**84.58**	**125**	P	**P**	**01 20 16.4**	**-1.9**
	comp=E,0.2nm,0.3s,mb3.4,baz=306,slow=5.0,SNR=5.4						

*CSEM **24** 01:33:36.0, 39°.68N×26°.21E, h7^{km}, MD2.5*

DDA 24 01:33:36.0, 39°.68N×26°.21E, h7^{km}±1^{km}, Md2.5, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	**Bozcaada**	**0.20**	**324**	iP	Pg	01 33 39.4	-0.7
BOZC				iS	Sg	01 33 43.7	+0.9
AYVA	**Ayvalik**	**0.53**	**134**	eP	Pg	01 33 46.6	+0.5
AYVA				eS	Sg	01 33 54.0	+1.1
AYVA	**Ayvalik**	**0.53**	**134**	eP	Pg	01 33 46.6	+0.5
AYVA				eS	Sg	01 33 54.0	+1.0
BALY	**Balya**	**1.09**	**86**	eP	Pg	01 33 56.8	-0.1
BALY				iS	Sg	01 34 13.7	+2.6
BALY	**Balya**	**1.09**	**86**	eP	Pg	01 33 56.8	-0.1
BALY				iS	Sg	01 34 13.6	+2.5

CASC 24 01:45:36.0±2.2, 11°.55N×86°.18W, h113^{km}±9^{km}, MD3.7, ML3.3, 1C-1D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APON	**Apoyo**	**0.39**	**17**	eP	Pn	01 45 53.1	+0.6
SSN	**San Juan del S**	**0.40**	**127**	eP	Pn	01 45 52.9	+0.3
CRUN	**El Crucero**	**0.45**	**345**	eP	Pn	01 45 53.4	+0.6
TICN	**Ticuantepe**	**0.49**	**354**	eP	Pn	01 45 53.1	0.0
CONN	**Concepcion**	**0.55**	**88**	eP	Pn	01 45 54.1	+0.7
TISN	**Laguna Tiscapa**	**0.60**	**352**	eP	Pn	01 45 53.3	-0.6
MGAN	**Managua**	**0.60**	**354**	eP	Pn	01 45 53.7	-0.2
MGAN				eS	Sn	01 46 08.3	+1.0
WILN	**Americas 2**	**0.61**	**359**	eP	Pn	01 45 53.7	-0.3
WILN				eS	Sn	01 46 08.4	+1.0
WILN				AML	AML	01 46 09.4	
	comp=E,586nm,0.6s						
XAVN	**Gruta Xavier**	**0.62**	**347**	eP	Pn	01 45 55.6	+1.6
CSAN		**0.68**	**340**	eP	Pn	01 45 54.2	-0.3
COPN	**Copaltepe**	**0.75**	**328**	eP	Pn	01 45 54.4	-0.7
HUEN		**0.79**	**1**	eP	Pn	01 45 55.0	-0.4
MOMN	**Momotombo**	**0.93**	**338**	eP	Pn	01 45 56.6	-0.1
MIRN	**Miramar**	**1.03**	**330**	eP	Pn	01 45 57.4	-0.3
BOAB	**BOACO BROADBAN**	**1.03**	**29**	⇓iP	Pn	01 45 57.3	-0.5
BOAB				eS	Sn	01 46 14.0	-0.2
GBS3	**Finca Las Imˆ¡**	**1.04**	**137**	iP	Pn	01 45 58.1	+0.3
GBS3				iS	Sn	01 46 14.6	+0.2
GB1A	**Borinquen Arri**	**1.05**	**133**	iP	Pn	01 45 58.2	+0.2
GPS1	**Guardaparques**	**1.12**	**133**	iP	Pn	01 45 59.2	+0.5
GPS3	**Bodega del ICE**	**1.12**	**134**	iP	Pn	01 45 59.1	+0.4
GPS3				iS	Sn	01 46 17.0	+1.1
GPS2	**Hotel Rincˆ‡n**	**1.13**	**134**	iP	Pn	01 45 59.5	+0.6
GPS2				iS	Sn	01 46 16.9	+0.8
PTEN	**Parque Tenorio**	**1.43**	**125**	iS	Sn	01 46 25.4	+3.3
VCR	**Vista de Mar**	**1.51**	**159**	⇑eP	Pn	01 46 03.5	+0.4
VCR				eS	Sn	01 46 23.4	-0.3
JCR	**Jicaral**	**1.99**	**148**	eP	Pn	01 46 09.5	+0.5
JCR				eS	Sn	01 46 33.6	-0.6
CGA2	**Cerro Gallo 2**	**2.27**	**132**	eP	Pn	01 46 13.7	+1.1
CGA2				eS	Sn	01 46 40.9	+0.3
PRS1	**Puriscal**	**2.41**	**130**	eP	Pn	01 46 16.1	+1.8
LAJ	**Bijagual**	**2.62**	**129**	eP	Pn	01 46 16.4	-0.7
LAJ				eS	Sn	01 46 42.2	-6.6
LCR2	**La Lucha 2**	**2.79**	**130**	eP	Pn	01 46 20.0	+0.6
BAR1		**3.63**	**129**	eP	Pn	01 46 32.5	+1.9
BAR1				eS	Sn	01 47 13.1	+0.4

DJA 24 02:20:56, 2°.60S×99°.83E, h18^{km}, MLv3.6/4, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	**0.24**	**132**	P	Pg	02 21 02.8	+1.2
SISI	**Saibi**	**1.47**	**330**	P	Pn	02 21 22.2	+0.6
SISI				S	Sn	02 21 39.9	-0.4
PDSI	**Padang**	**1.79**	**21**	P	Pn	02 21 26.4	+0.3
PPI	**Padang Panjang**	**2.20**	**15**	P	Pn	02 21 32.0	+0.3
SDSI	**Sungai Dareh**	**2.30**	**44**	P	Pn	02 21 34.0	+0.9
MNAI	**Manna**	**3.58**	**119**	P	Pn	02 21 51.1	+0.5

JMA 24 02:45:03.2±0.4, 45°.95N×143°.09E, h342^{km}±3^{km}, M3.7, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JWK2	**Keihoku**	**1.05**	**233**	P	Pn	02 45 48.5	+0.2
JWK2				eS	S	02 46 23.9	-0.5
JSE	**Soyaes**	**1.05**	**200**	P	Pn	02 45 48.2	-0.1
JRR	**Rishiri**	**1.49**	**238**	P	Pn	02 45 50.4	-0.1
JSS	**Shosan**	**1.78**	**210**	P	Pn	02 45 52.6	+0.3
JTKR	**Abashiri--Toko**	**2.06**	**163**	P	Pn	02 45 54.8	+0.6
JKK2	**Kamakawa 2**	**2.09**	**187**	P	Pn	02 45 55.1	+0.6
JHR	**Hokuryu**	**2.41**	**204**	P	Pn	02 45 57.4	+0.5
JRA	**Rausu**	**2.48**	**144**	P	Pn	02 45 58.1	+0.7
JAR	**Ashorobuto**	**2.70**	**169**	P	Pn	02 46 00.1	+0.8
JFR	**Furan**	**2.81**	**187**	P	Pn	02 46 00.8	+0.5
JAK	**Akkeshi**	**3.17**	**158**	P	Pn	02 46 03.6	+0.1
JAK				eS	S	02 46 50.2	-1.8
JEW	**Eniwo**	**3.32**	**201**	P	Pn	02 46 06.0	+1.0
JCH	**Churui**	**3.34**	**177**	P	Pn	02 46 04.1	-1.1
JCH				eS	S	02 46 50.8	-4.2
JNBK	**Urakawa-nobuka**	**3.68**	**184**	P	Pn	02 46 08.5	0.0
JKB	**Kayabe**	**4.32**	**201**	P	Pn	02 46 14.7	-0.5
JOT	**Ohata**	**4.80**	**199**	P	Pn	02 46 19.4	-0.9
JOT				eS	S	02 47 18.1	-4.4

CASC 24 02:52:25.9±1.7, 13°.79N×91°.28W, h22^{km}±8^{km}, MD3.5, 1C-1D, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	**0.63**	**327**	⇓eP	Pb	02 52 37.9	-0.2
FUG	**Fuego 3**	**0.78**	**33**	eP	Pb	02 52 40.9	+0.1
FG6		**0.86**	**27**	eP	Pb	02 52 41.8	-0.3
FG6				eS	Sb	02 52 53.0	-0.2
PCG	**Pacaya**	**0.89**	**47**	eP	Pb	02 52 43.5	+0.8
IXG	**Ixpaco**	**0.89**	**65**	eP	Pb	02 52 42.6	-0.1
TP2	**Tecpan 2**	**1.02**	**14**	⇑eP	Pb	02 52 44.3	-0.6
TP2				eS	Sb	02 52 59.2	+1.3
NBG	**Las Nubes**	**1.21**	**49**	eP	Pn	02 52 48.8	+1.3
NBG				eS	Sn	02 53 08.2	+5.0
RBDL	**Robledal**	**1.58**	**78**	eP	Pn	02 52 52.6	-0.1
RBDL				eS	Sn	02 53 14.9	+2.4
RTR	**El Retiro**	**1.59**	**86**	eP	Pn	02 52 53.1	+0.3
RTR				eS	Sn	02 53 15.2	+2.4
SBLS	**San Blas**	**1.61**	**88**	eP	Pn	02 52 52.8	-0.3
SBLS				eS	Sn	02 53 14.3	+1.1
SNJE	**San Jose**	**1.63**	**87**	eP	Pn	02 52 53.1	-0.3
SNJE				eS	Sn	02 53 14.8	+1.1
BOQS	**Boqueron**	**1.95**	**91**	eP	Pn	02 52 58.0	+0.3
BOQS				eS	Sn	02 53 23.2	+1.7
MRL	**Marmol**	**2.00**	**50**	eP	Pn	02 53 01.3	+2.9
LFRS	**El Faro**	**2.17**	**94**	eP	Pn	02 53 00.8	+0.1
LFRS				eS	Sn	02 53 28.1	+1.2
LBRS	**Las Brisas**	**2.18**	**91**	eP	Pn	02 53 01.5	+0.6

IDC 24 03:00:22.0±18.0, 21°.80S×67°.35W, h0^{km}, mb3.6/2, mb1 3.8/2, mb1mx3.5/14, mbtmp3.6/2, Error ellipse: s-maj=754.8km s-min=61.3km az=18.0, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	**76.09**	**70**	P	P	03 12 12.0	-0.1
	0.2nm,0.3s,baz=254,slow=5.7,SNR=14						
YKA	**Yellowknife Ar**	**91.95**	**340**	P	P	03 13 31.7	-0.3
	0.2nm,0.6s,baz=131,slow=4.2,SNR=6.1						
MKAR	**Makanchi Array**	**145.01**	**37**	PKPbc	PKPbc	03 20 00.6	0.0
	0.3nm,0.5s,baz=326,slow=3.6,SNR=6.2						

DJA 24 03:02:27, 1°.17S×124°.27E, h11^{km}, MLv3.8/5, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**1.76**	**351**	P	Pn	03 02 57.4	0.0
KMSI				S	Sn	03 03 20.6	+0.8
APSI	**Ampana**	**2.63**	**276**	P	Pn	03 03 10.2	+0.7
APSI				S	Sn	03 03 43.7	+2.3
MNI	**Manado**	**2.66**	**12**	P	Pn	03 03 11.2	+1.4
KDI	**Kendari**	**3.22**	**211**	P	Pn	03 03 18.0	+0.4
LBMI	**Labuha**	**3.27**	**81**	P	Pn	03 03 19.0	+0.7

*IDC **24** 03:11:14.1±2.1, 6°.65S×155°.04E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.7/16, mbtmp3.6/4, MS4.4/1, Ms1 4.4/1, ms1mx3.1/20, Error ellipse: s-maj=104.1km s-min=31.0km az=128.0*

*ISCJB **24** 03:11:31.7±2.0, 7°.0S±0°.4×154°.9E±0°.5, h150^{km}, mb3.6/5, Error ellipse: s-maj=90.9km s-min=21.4km az=38.5*

*NEIC **24** 03:11:32.5±1.4, 6°.99S×154°.98E, h150^{km}, mb3.9/1, Error ellipse: s-maj=77.2km s-min=18.4km az=129.0*

ISC 24 03:11:32.9±2.0, 7°.0S±0°.4×154°.9E±0°.5, h150^{km}, n10, σ0^{s}.25/6, mb3.6/5, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	**Tennant Creek**	**23.75**	**235**	eP	**P**	**03 16 31.5**	**-0.1**
	4.0nm,1.0s,mb3.9						
WRA	**Warramunga Arr**	**23.76**	**235**	P	**P**	**03 16 31.5**	**-0.2**
	1.8nm,0.8s,mb3.7,baz=58,slow=9.8,SNR=6.5						
ASAR	**Alice Springs**	**26.12**	**228**	P	**P**	**03 16 53.4**	**+0.3**
	0.4nm,0.5s,mb3.3,baz=61,slow=10,SNR=4.8						
URZ	**Urewera**	**37.07**	**150**	LR	LR	03 30 23.2	
	comp=Z,556nm,21.5s,baz=187,slow=31						
MKAR	**Makanchi Array**	**83.33**	**319**	P	**P**	**03 23 43.1**	**+0.1**
	0.8nm,0.5s,mb3.7,baz=108,slow=6.8,SNR=3.6						
YKA	**Yellowknife Ar**	**96.36**	**28**	P	**P**	**03 24 44.2**	**-0.1**
	0.1nm,0.5s,mb3.4,baz=264,slow=3.9,SNR=4.3						
YKA	**Yellowknife Ar**	**96.36**	**28**	P	**P**	**03 24 44.2**	**-0.1**
NOA	**NORSAR Array B**	**119.65**	**341**	PKP	PKPdf	03 30 03.1	-1.6
	1.6nm,0.8s,baz=25,slow=3.9,SNR=3.8						
TORD	**Torodi Ar. Bea**	**152.94**	**285**	PKPbc	PKPbc	03 31 14.6	+1.1
	0.9nm,1.0s,baz=87,slow=2.4,SNR=7.1						
TORD				PKPab	PKPab	03 31 24.4	-0.8
	0.5nm,0.9s,baz=89,slow=3.3,SNR=4.2						
TORD	**Torodi Ar. Bea**	**152.94**	**285**	PKPbc	PKPbc	03 31 14.6	+1.1
TORD				PKPab	PKPab	03 31 24.4	-0.8

*ISCJB **24** 03:23:50.0±0.7, 77°.50N±0°.04×18°.9E±0°.2, h0^{km}, Error ellipse: s-maj=8.3km s-min=5.3km az=151.5*

*CSEM **24** 03:23:52.5±0.3, 77°.53N×18°.22E, h2^{km}, ML3.8, Error ellipse: s-maj=13.2km s-min=4.1km az=63.0, Suspected Mining explosion.*

*NAO **24** 03:23:52.8±2.2, 77°.54N×18°.39E, h9^{km}±23^{km}, ML3.4*

*BER **24** 03:23:56.7±3.4, 77°.57N×17°.99E, h22^{km}±16^{km}, ML3.8, ML3.4(NAO)*

*IDC **24** 03:24:01.8±3.1, 77°.16N×21°.86E, h0^{km}, mb3.2/1, mb1 3.7/3, mb1mx3.2/23, mbtmp3.5/3, ML3.7/2, MS3.4/1, Ms1 3.3/1, ms1mx2.9/17, Error ellipse: s-maj=49.9km s-min=25.8km az=108.0*

*UPP **24** 03:24:25.5, 75°.48N×21°.47E, h0^{km}, ML2.1, Suspected Mining explosion.*

ISC 24 03:23:52.5±0.5, 77°.53N±0°.03×18°.3E±0°.2, h0^{km}, n35, σ1^{s}.03/47, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPA0	**Spitsbergen Ar**	**0.76**	**329**	Pg	**Pg**	**03 24 08.2**	**+1.1**
	baz=144,slow=22						
SPA0				Lg		03 24 18.1	
	baz=155,slow=56						
SPA0	**Spitsbergen Ar**	**0.76**	**329**	Pg	**Pg**	**03 24 08.2**	**+1.1**
	baz=144,slow=20,SNR=102						
SPA0				Lg		03 24 18.1	
	baz=155,slow=41,SNR=6.7						
HSP	**Hornsund**	**0.80**	**230**	eP	**Pg**	**03 24 08.8**	**+1.0**
HSP				eS	**Sg**	**03 24 18.7**	**+0.7**
HOPEN	**Hopen**	**1.84**	**121**	eP	**Pn**	**03 24 25.5**	**+0.2**
HOPEN				eS	**Sn**	**03 24 50.0**	**+0.7**
HOPEN				AML	AML	03 24 56.6	
	comp=Z,1µm,0.5s						
HOPEN	**Hopen**	**1.84**	**121**	eP	**Pn**	**03 24 25.5**	**+0.2**
	SNR=55						
HOPEN				eS	**Sn**	**03 24 50.0**	**+0.8**
	comp=Z,1µm,0.5s,SNR=55						
KBS	**Kingsbay**	**1.91**	**320**	Pn	**Pn**	**03 24 25.9**	**-0.3**
KBS				Pg	**Pg**	**03 24 28.6**	**-0.5**
KBS				Lg		03 24 52.2	
KBS	**Kingsbay**	**1.91**	**320**	eP	**Pn**	**03 24 25.9**	**-0.3**
KBS				ePg	**Pg**	**03 24 28.3**	**-0.7**
KBS				eSg	**Sg**	**03 24 52.4**	**-1.3**
KBS				AML	AML	03 25 01.9	
	comp=Z,2µm,0.5s						
KBS	**Kingsbay**	**1.91**	**320**	Pn	**Pn**	**03 24 25.9**	**-0.3**
KBS	**Kingsbay**	**1.91**	**320**	ePg	**Pg**	**03 24 28.3**	**-0.7**
	SNR=93						
KBS				Lg		03 24 52.2	
KBS				eSg	**Sg**	**03 24 52.4**	**-1.3**
	comp=Z,2µm,0.5s,SNR=93						
BJO	**Bjornoya**	**3.05**	**175**	eP	**Pn**	**03 24 42.7**	**+0.7**
BJO				ePg	**Pg**	**03 24 50.1**	**-0.9**
BJO				eSg	**Sg**	**03 25 29.2**	**-1.2**
BJO				AML	AML	03 25 34.6	
	comp=Z,656nm,0.6s						
BJO	**Bjornoya**	**3.05**	**175**	eP	**Pn**	**03 24 42.7**	**+0.8**
	SNR=55						
TRO	**Tromso**	**7.95**	**178**	ePn	**Pn**	**03 25 49.5**	**+0.4**
TRO				eSn	**Sn**	**03 27 15.0**	**-4.5**
TRO	**Tromso**	**7.95**	**178**	ePn	**Pn**	**03 25 49.5**	**+0.5**
	SNR=55						
KEV	**Kevo**	**8.18**	**158**	ep	**Pn**	**03 25 50.6**	**-1.7**
	comp=Z,4.0nm,0.3s						
ARA0	**ARCESS Array S**	**8.29**	**162**	Pn	**Pn**	**03 25 53.0**	**-0.7**
	baz=358,slow=14						
ARA0				Sn	**Sn**	**03 27 18.9**	**-9.0**
	baz=357,slow=18						
ARA0	**ARCESS Array S**	**8.29**	**162**	Pn	**Pn**	**03 25 53.0**	**-0.7**
	baz=358,slow=12,SNR=5.9						
ARCES	**ARCESS Array B**	**8.29**	**162**	Pn	**Pn**	**03 25 53.6**	**-0.2**
	comp=Z,1.8nm,0.3s,baz=349,slow=10,SNR=17						
ARCES				Sn	**Sn**	**03 27 20.3**	**-7.6**
	comp=Z,4.7nm,0.3s,baz=357,slow=18,SNR=4.0						
ARCES				Lg		03 28 14.0	
	comp=Z,2.8nm,0.3s,baz=354,slow=26,SNR=2.5						
KTK1	**Kautokeino**	**8.68**	**168**	ePn	**Pn**	**03 25 58.5**	**-0.6**
KTK1				eSn	**Sn**	**03 27 30.2**	**-7.3**
KTK1	**Kautokeino**	**8.68**	**168**	ePn	**Pn**	**03 25 58.5**	**-0.6**
	SNR=55						
LANU	**Lannavaara**	**9.60**	**172**	P	**Pn**	**03 26 12.5**	**+0.9**
MASU	**Masugnsbyn**	**10.19**	**172**	P	**Pn**	**03 26 20.3**	**+0.6**
DUNU	**Dundret**	**10.49**	**175**	P	**Pn**	**03 26 26.1**	**+2.3**
PAJU	**Pajala**	**10.66**	**170**	P	**Pn**	**03 26 26.0**	**-0.2**
APA0	**Apatity Array**	**10.85**	**149**	Pn	**Pn**	**03 26 26.6**	**-2.1**
	baz=358,slow=7.9						
APA0	**Apatity Array**	**10.85**	**149**	Pn	**Pn**	**03 26 26.6**	**-2.2**
	baz=358,slow=7.5,SNR=0.4						
ERTU	**Ertsjaerv**	**11.10**	**172**	P	**Pn**	**03 26 32.2**	**0.0**
KALU	**Kalix**	**11.84**	**170**	P	**Pn**	**03 26 42.3**	**+0.1**
SJUU	**Sjulsmark**	**12.13**	**173**	P	**Pn**	**03 26 45.9**	**-0.4**
JOF	**Joensuu**	**15.26**	**157**	ep	**Pn**	**03 27 24.6**	**-4.3**
	comp=Z,1.1nm,0.3s						
KAF	**Kangasniemi**	**15.71**	**166**	ep	**Pn**	**03 27 29.6**	**-5.2**
	comp=Z,1.0nm,0.3s						
FIA0	**FINESS Array S**	**16.37**	**167**	Pn	**Pn**	**03 27 35.9**	**-7.4**
	baz=10.0,slow=28						
FIA0	**FINESS Array S**	**16.37**	**167**	Pn	**Pn**	**03 27 35.8**	**-7.4**
	baz=10.0,slow=24,SNR=3.5						
NOA	**NORSAR Array B**	**16.73**	**192**	Pn	**Pn**	**03 27 52.6**	**+4.7**
	comp=Z,0.1nm,0.3s,baz=5.6,slow=12,SNR=2.5						
SCHQ	**Schefferville**	**36.20**	**283**	LR	LR	03 47 44.9	
	comp=Z,61nm,21.4s,baz=106,slow=38						
MKAR	**Makanchi Array**	**39.23**	**102**	P	**P**	**03 31 24.3**	**+2.3**
	comp=Z,0.2nm,0.5s,baz=1.1,slow=5.7,SNR=4.7						

CASC 24 03:25:13.0±2.2, 13°.01N×88°.76W, h6^{km}±44^{km}, MD4.6, ML3.8, mb5.1(NEIC), 1C, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

CRIN	San Cristobal	1.69	100	eP	Pn	03 25 43.6	+0.5
CRIN				eS	Sn	03 26 06.8	+1.6
CRIN				AML	AML	03 26 18.5	
	comp=N,3μm,0.4s						
TELN	Telica	1.92	102	eP	Pn	03 25 46.4	0.0
CNGN	Cerro Negro	2.07	104	eP	Pn	03 25 47.4	-1.0
CNGN				eS	Sn	03 26 15.8	+1.3
CNGN				AML	AML	03 26 21.1	
	comp=E,485nm,0.4s						
MIRN	Miramar	2.08	106	eP	Pn	03 25 47.7	-0.7
MOMN	Momotombo	2.25	105	eP	Pn	03 25 50.2	-0.6
COPN	Copaltepe	2.27	111	eP	Pn	03 25 49.3	-1.8
CSAN		2.42	109	eP	Pn	03 25 52.4	-0.8
XAVN	Gruta Xavier	2.52	109	eP	Pn	03 25 53.7	-0.9
TISN	Laguna Tiscapa	2.58	109	eP	Pn	03 25 54.3	-1.0
MGAN	Managua	2.60	109	eP	Pn	03 25 54.6	-1.0
MGAN				eS	Sn	03 26 27.2	-0.4
MGAN				AML	AML	03 26 28.8	
	comp=E,438nm,0.6s						
HUEN		2.61	104	eP	Pn	03 25 55.0	-0.8
TICN	Ticuantepe	2.65	111	eP	Pn	03 25 55.7	-0.7
BOAB	BOACO BROADBAN	3.07	100	eP	Pn	03 26 01.3	-0.8
SSN	San Juan del S	3.31	121	eP	Pn	03 26 04.4	-1.0
VCR	Vista de Mar	4.19	133	eP	Pn	03 26 17.7	+0.1
JTS	JuntasAbangare	4.60	126	eP	Pn	03 26 21.4	-1.8
JCR	Jicaral	4.76	131	eP	Pn	03 26 25.3	0.0
CGA2	Cerro Gallo 2	5.15	125	eP	Pn	03 26 32.3	+1.6
LAJ	Bijagual	5.52	124	eP	Pn	03 26 32.7	-3.0
LCR2	La Lucha 2	5.68	124	eP	Pn	03 26 39.7	+1.7
URSC	Urasca	5.81	122	eP	Pn	03 26 43.1	+3.2
BUS	Buena Vista	5.99	124	⇑eP	Pn	03 26 44.1	+1.9
BAR1		6.52	124	eP	Pn	03 26 50.8	+1.1
ACR	Cerro Adams	6.99	128	eP	Pn	03 26 57.4	+1.3

ATH ***24*** *03:32:12.3, 36°.01N×21°.70E, h13^{km}±3^{km}, MD3.9/18, ML3.4*

NEIC ***24*** *03:32:12.3, 36°.01N×21°.70E, h13^{km}, ML3.1(ATH), After ATH.*

IDC ***24*** *03:32:12.1±1.5, 35°.79N×22°.32E, h0^{km}, mb3.5/3, mb1 3.6/3, mb1mx3.4/21, mbtmp3.5/3, Error ellipse: s-maj=57.0km s-min=26.2km az=151.0*

HLW ***24*** *03:32:13.1, 36°.43N×22°.13E, h33^{km}, Mb4.2*

CSEM ***24*** *03:32:13.5±0.2, 36°.07N×21°.69E, h2^{km}, ML3.4, Error ellipse: s-maj=5.7km s-min=4.4km az=19.0*

THE ***24*** *03:32:15.8, 36°.21N×21°.81E, h0^{km}±57^{km}, ML3.8/3, Error ellipse: s-maj=57.5km s-min=2.7km az=289.0*

ISC 24 03:32:14.6±0.9**, 36°.08N**±0°.03×**21°.70E**±0°.03**, h10**^{km}±6^{km}**, n124,** σ1^{s}**20**/148**, mb3.7**/2**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	1.10	79	ePB	Pg	03 32 34.5	-1.2
KYTH	Kithira	1.10	79	ePb	Pg	03 32 34.5	-1.2
ITM	Ithomi	1.11	9	ePN	Pg	03 32 34.2	-1.8
ITM				eSB	Sg	03 32 50.0	-0.4
ITM	Ithomi	1.11	9	ePn	Pg	03 32 34.2	-1.8
ITM				eSb	Sg	03 32 50.0	-0.4
VLI	Veliai	1.18	57	ePG	Pn	03 32 35.3	-1.8
VLI				eSB	Sn	03 32 52.2	-1.1
VLI	Veliai	1.18	57	ePg	Pn	03 32 35.3	-1.8
VLI				eSb	Sn	03 32 52.2	-1.1
VLX	Vlachokerasia	1.40	23	ePG	Pn	03 32 38.9	-1.2
VLX				eSB	Sn	03 33 00.0	+1.4
VLX	Vlachokerasia	1.40	23	ePg	Pn	03 32 38.9	-1.2
VLX				eSb	Sn	03 33 00.0	+1.4
DID	Didima	1.88	40	P	Pn	03 32 46.7	-0.1
DID	Didima	1.88	40	ePN	Pn	03 32 46.6	-0.2
DID	Didima	1.88	40	ePn	Pn	03 32 46.6	-0.2
GUR	Goura	1.92	15	ePN	Pn	03 32 48.4	+1.1
GUR	Goura	1.92	15	ePn	Pn	03 32 48.4	+1.1
KARN	Karanos	1.93	110	P	Pn	03 32 48.0	+0.6
KARN	Karanos	1.93	110	P	Pn	03 32 48.0	+0.6
RLS	Riolos of Patr	1.98	355	ePN	Pn	03 32 48.6	+0.4
RLS	Riolos of Patr	1.98	355	ePn	Pn	03 32 48.6	+0.4
VAM	Vamos	2.14	108	ePB	Pn	03 32 49.0	-1.3
LAKA	Lakka	2.17	6	P	Pn	03 32 51.8	+1.1
LAKA	Lakka	2.17	6	P	Pn	03 32 51.8	+1.1
LTK	Loutraki	2.19	27	P	Pn	03 32 50.5	-0.5
LTK	Loutraki	2.19	27	ePN	Pn	03 32 51.3	+0.3
LTK	Loutraki	2.19	27	P	Pn	03 32 50.5	-0.5
LTK	Loutraki	2.19	27	ePn	Pn	03 32 51.3	+0.3
NAIG	Nisos Aigina	2.20	40	ePN	Pn	03 32 52.0	+0.8
NAIG	Nisos Aigina	2.20	40	ePn	Pn	03 32 52.0	+0.8
VLS	Valsamata	2.27	337	ePN	Pn	03 32 52.8	+0.6
VLS	Valsamata	2.27	337	ePn	Pn	03 32 52.8	+0.6
TRIZ	Trizonia	2.30	7	P	Pn	03 32 53.7	+1.2
TRIZ	Trizonia	2.30	7	P	Pn	03 32 53.7	+1.2
KALE	Kalithea	2.33	8	P	Pn	03 32 53.5	+0.5
KALE	Kalithea	2.33	8	P	Pn	03 32 53.5	+0.5
EFP	Efpalio	2.35	4	ePN	Pn	03 32 54.6	+1.4
EFP	Efpalio	2.35	4	ePn	Pn	03 32 54.6	+1.4
VLY	Voula,Athens	2.44	43	ePN	Pn	03 32 55.1	+0.7
VLY	Voula,Athens	2.44	43	ePn	Pn	03 32 55.1	+0.7
ATH	Athens Observa	2.48	40	ePN	Pn	03 32 55.8	+0.8
ATH	Athens Observa	2.48	40	ePn	Pn	03 32 55.8	+0.8
PTL	Penteli	2.62	41	ePN	Pn	03 32 56.5	-0.4
PTL	Penteli	2.62	41	ePn	Pn	03 32 56.5	-0.4
IDI	Anoyia	2.71	106	P	Pn	03 32 59.5	+1.3
IDI	Anoyia	2.71	106	P	Pn	03 32 59.5	+1.3
SIVA	Sivas	2.75	112	P	Pn	03 33 00.8	+2.1
SIVA	Sivas	2.75	112	P	Pn	03 33 00.8	+2.1
LKR	Lokris	2.77	22	P	Pn	03 32 58.0	-0.9
LKR	Lokris	2.77	22	ePB	Pn	03 33 00.0	+1.1
LKR	Lokris	2.77	22	P	Pn	03 32 58.0	-0.9
EVR	Evrytania	2.83	2	ePB	Pn	03 33 02.0	+2.2
AGG	Agios Georgios	2.98	9	P	Pn	03 33 02.1	+0.3
AGG	Agios Georgios	2.98	9	ePB	Pn	03 33 03.5	+1.7
AGG				eSN	Sn	03 33 40.1	+2.5
AGG	Agios Georgios	2.98	9	P	Pn	03 33 02.1	+0.3
AGG				eSn	Sn	03 33 40.1	+2.5
THL	Klokotos Trika	3.49	4	P	Pn	03 33 09.2	+0.4
THL	Klokotos Trika	3.49	4	P	Pn	03 33 09.2	+0.4
JAN	Janina	3.63	350	ePN	Pn	03 33 11.2	+0.4
JAN	Janina	3.63	350	ePn	Pn	03 33 11.2	+0.4
MEV	Metsovon	3.72	354	P	Pn	03 33 13.5	+1.5
MEV	Metsovon	3.72	354	P	Pn	03 33 13.5	+1.5
KEK	Kerkira	3.93	338	ePN	Pn	03 33 15.0	+0.1
KEK	Kerkira	3.93	338	ePn	Pn	03 33 15.0	+0.1
LIT	Litokhoron	4.06	9	P	Pn	03 33 17.8	+1.1
LIT	Litokhoron	4.06	9	P	Pn	03 33 17.8	+1.1
PAIG	Paliouri	4.15	22	P	Pn	03 33 17.8	-0.1
PAIG	Paliouri	4.15	22	P	Pn	03 33 17.8	-0.1
KZN	Kozani	4.22	1	P	Pn	03 33 20.9	+2.0
KZN	Kozani	4.22	1	P	Pn	03 33 20.9	+2.0
KARP	Karpathos	4.47	95	P	Pn	03 33 23.0	+0.7
KARP	Karpathos	4.47	95	P	Pn	03 33 23.0	+0.7
PLG	Polygyros	4.50	17	P	Pn	03 33 24.4	+1.6
PLG	Polygyros	4.50	17	P	Pn	03 33 24.4	+1.6
FNA	Florina	4.70	357	P	Pn	03 33 25.5	0.0
FNA	Florina	4.70	357	P	Pn	03 33 25.5	0.0
GRG	Griva	4.90	6	P	Pn	03 33 27.9	-0.3
GRG	Griva	4.90	6	P	Pn	03 33 27.9	-0.3
SOI	Samo	4.93	295	Pn	Pn	03 33 28.4	-0.3
SOI				Sn	Sn	03 34 24.5	-1.3
SOI	Samo	4.93	295	Pn	Pn	03 33 28.4	-0.3
SOI				Sn	Sn	03 34 24.5	-1.3
BIA	Bitola	4.94	357	P	Pn	03 33 28.7	-0.1
BIA	Bitola	4.94	357	ePn	Pn	03 33 28.1	-0.6
BIA				eSn	Sn	03 34 24.4	-1.6
BIA	Bitola	4.94	357	ePn	Pn	03 33 28.1	-0.7
BIA				eSn	Sn	03 34 24.3	-1.7
TIP	Timpagrande	5.00	310	P	Pn	03 33 30.2	+0.6
TIP	Timpagrande	5.00	310	P	Pn	03 33 30.2	+0.6
OHR	Ohrid	5.07	352	ePn	Pn	03 33 29.4	-1.3
OHR				eSn	Sn	03 34 27.1	-2.2
OHR	Ohrid	5.07	352	ePn	Pn	03 33 29.3	-1.3
OHR				eSn	Sn	03 34 27.0	-2.2
CEL	Celeste	5.12	297	Pn	Pn	03 33 31.3	0.0
CEL				Sn	Sn	03 34 26.1	-4.4
CEL	Celeste	5.12	297	Pn	Pn	03 33 31.3	0.0
CEL				Sn	Sn	03 34 26.1	-4.4
KNT	Kendrikon	5.16	10	P	Pn	03 33 32.0	+0.2
KNT	Kendrikon	5.16	10	P	Pn	03 33 32.0	+0.2
MTTG	Motta San Giov	5.17	294	Pn	Pn	03 33 31.8	-0.2
	86nm,0.6s						
MTTG	Motta San Giov	5.17	294	Pn	Pn	03 33 31.8	-0.2
	86nm,0.6s						
VAY	Valandovo	5.28	7	ePn	Pn	03 33 32.9	-0.5
VAY				eSn	Sn	03 34 30.5	-3.8
VAY	Valandovo	5.28	7	ePn	Pn	03 33 32.9	-0.5
VAY				eSn	Sn	03 34 30.4	-3.8
KRUS	Krusevo	5.29	356	ePn	Pn	03 33 32.9	-0.7
KRUS				eSn	Sn	03 34 32.5	-2.2
KRUS	Krusevo	5.29	356	ePn	Pn	03 33 32.9	-0.7
KRUS				eSn	Sn	03 34 32.4	-2.2
HAVL	Avola	5.37	281	Pn	Pn	03 33 34.4	-0.3
	101nm,0.5s						
HAVL	Avola	5.37	281	Pn	Pn	03 33 34.4	-0.3
	101nm,0.5s						
SSY	Sortino	5.44	283	Pn	Pn	03 33 38.1	+2.4
	89nm,0.5s						
TAR1	Taranto	5.64	323	ePn	Pn	03 33 37.6	-0.7
LTRZ	Laterza	5.92	321	Pn	Pn	03 33 41.3	-1.0
LTRZ	Laterza	5.92	321	Pn	Pn	03 33 41.3	-1.0
CUC	Castrocucco	6.07	312	ePn	Pn	03 33 44.3	0.0
	9.6nm,0.6s						
CUC				eSn	Sn	03 34 48.6	-5.2
CUC	Castrocucco	6.07	312	ePn	Pn	03 33 44.3	0.0
	9.6nm,0.6s						
PTRP	Pietrapertosa	6.27	317	Pn	Pn	03 33 48.6	+1.5
PTRP	Pietrapertosa	6.27	317	Pn	Pn	03 33 48.6	+1.5
MRLC	Muro Lucano	6.75	316	Pn	Pn	03 33 55.2	+1.5
MRLC	Muro Lucano	6.75	316	Pn	Pn	03 33 55.2	+1.5
FG5	Orsara di Pugl	7.23	318	Pn	Pn	03 34 00.6	+0.4
FG5	Orsara di Pugl	7.23	318	Pn	Pn	03 34 00.6	+0.4
RGNG	Rignano Grg	7.34	321	Pn	Pn	03 34 00.2	-1.6
RGNG	Rignano Grg	7.34	321	Pn	Pn	03 34 00.2	-1.6
STON	Ston	7.45	337	ePn	Pn	03 34 00.4	-2.9
STON				Sn	Sn	03 35 19.1	-8.7
SWA2		7.51	154	P	Pn	03 34 03.6	-0.6
SWA2				S	Sn	03 35 24.1	-5.4
FG2	Serracapriola	7.66	320	Pn	Pn	03 34 05.9	-0.2
FG2	Serracapriola	7.66	320	Pn	Pn	03 34 05.9	-0.2
NRCA	Norcia	9.46	318	Pn	Pn	03 34 32.1	+1.3
NRCA	Norcia	9.46	318	Pn	Pn	03 34 32.1	+1.3
AWBH		9.85	140	P	Pn	03 34 34.5	-1.7
AWBH		9.85	140	P	Pn	03 34 34.5	-1.7
NVLJ	Novalja	9.95	331	ePn	Pn	03 34 36.0	-1.5
NVLJ				Sn	Sn	03 36 19.2	-10
NVLJ	Novalja	9.95	331	ePn	Pn	03 34 36.0	-1.5
HFRF	Wahat Farafira	10.53	146	P	Pn	03 34 43.8	-1.8
HFRF	Wahat Farafira	10.53	146	P	Pn	03 34 43.8	-1.8
ESDC	Sonseca Array	20.55	288	P	P	03 36 58.3	+5.1
	0.3nm,0.5s,baz=90,slow=9.7,SNR=4.3						
TORD	Torodi Ar. Bea	29.07	223	P	P	03 38 15.5	+0.3
	1.4nm,0.7s,mb3.8,baz=34,slow=8.8,SNR=13						
TORD	Torodi Ar. Bea	29.07	223	P	P	03 38 15.5	+0.3
MKAR	Makanchi Array	45.63	57	P	P	03 40 31.9	-3.0
	0.3nm,0.3s,mb3.6,baz=271,slow=7.7,SNR=16						

NEIC ***24*** *04:14:00.1, 15°.42N×60°.29W, h146^{km}, MD3.8(TRN), After TRN.*

TRN 24 04:14:04.0, 15°.16N×60°.92W, h158^{km}**, MD3.7, M2.9**(FDF)**, 3C-3D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FDF	Fort de France	0.48	208	⇑iP	Pn	04 14 26.9	+0.7
FDF				⇑eS	Sn	04 14 43.7	+0.5
FDF	Fort de France	0.48	208	ePn	Pn	04 14 26.7	+0.5
MVM	Montagne Vaucl	0.61	178	⇓eP	Pn	04 14 27.7	+0.9
BIM	Bigot	0.66	193	eP	Pn	04 14 27.8	+0.6
BIM				eS	Sn	04 14 46.4	+1.6
TBG	Guadaloupe-3	0.98	314	eP	Pn	04 14 29.7	+0.4
DOG	Dongo Capester	1.10	322	eP	Pn	04 14 31.2	+0.9
PHG	Guadaloupe-2	1.10	320	eP	Pn	04 14 31.5	+1.2
HMG	Houelmont	1.11	317	eP	Pn	04 14 31.3	+0.8
SCG	Saint Claude	1.13	319	⇓iP	Pn	04 14 31.6	+0.9
SCG				⇓eS	Sn	04 14 51.5	+0.4
SLW	Petit Monier	1.14	181	eP	Pn	04 14 30.8	0.0
DEG	La Desirade	1.15	353	eP	Pn	04 14 32.5	+1.7
DEG				eS	Sn	04 14 53.2	+1.7
LZG	Guadaloupe-1	1.28	320	⇑iP	Pn	04 14 32.7	+0.8
SLB	Belfond	1.33	185	eP	Pn	04 14 34.3	+1.8
SLB				eS	Sn	04 14 56.4	+1.9
SLB	Belfond	1.33	185	eP	Pn	04 14 34.3	+1.8
SLB				eS	Sn	04 14 57.5	+3.0
SEG	Port Louis	1.36	335	eP	Pn	04 14 34.0	+1.3
MCLT	Moule a Chique	1.45	181	eP	Pn	04 14 34.1	+0.4
MCLT				eS	Sn	04 14 56.8	+0.4
MCLT	Moule a Chique	1.45	181	eP	Pn	04 14 33.6	0.0
MCLT				eS	Sn	04 14 58.4	+2.0
SSV	Crater Summit	1.85	188	eP	Pn	04 14 39.2	+1.3
SSV				eS	Sn	04 15 03.8	-0.2
SSV	Crater Summit	1.85	188	eP	Pn	04 14 39.2	+1.3
SSV				eS	Sn	04 15 11.8	+7.8
SVV	Soufriere Volc	1.86	189	eP	Pn	04 14 39.5	+1.4
SVV				eS	Sn	04 15 05.2	+0.9
SVV	Soufriere Volc	1.86	189	eP	Pn	04 14 39.5	+1.4
SVV				eS	Sn	04 15 11.5	+7.2
SVB	Belmont	1.91	190	eP	Pn	04 14 39.6	+1.0
SVB				eS	Sn	04 15 07.0	+1.8
SVB	Belmont	1.91	190	eP	Pn	04 14 39.6	+1.0
SVB				eS	Sn	04 15 09.7	+4.5
SKI	Saint Kitts	2.78	321	eS	Sn	04 15 24.5	+0.8
GRGR	Grenville	3.10	193	ePn	Pn	04 14 51.3	-1.6

BJI ***24*** *04:36:19.6, 4°.59S×101°.80E, h34^{km}, mB5.3/35, mb5.4/56, Ms4.9/44, Ms7 4.7/43*

ISCJB ***24*** *04:36:27.9±0.1, 3°.71S±0°.03×101°.79E±0°.02, h39^{km}, mb5.5/210, MS4.4/51, Error ellipse: s-maj=4.0km s-min=2.5km az=29.2*

MOS ***24*** *04:36:28.6±0.9, 3°.57S×102°.03E, h47^{km}, mb5.7/72, MS4.4/10, Error ellipse: s-maj=9.1km s-min=4.2km az=118.2*

NEIC ***24*** *04:36:29.2±0.6, 3°.74S×101°.99E, h44^{km}±5^{km}, mb5.4/88, Error ellipse: s-maj=4.9km s-min=3.0km az=46.0*

NEIC Felt [IV] at Bengkulu and Mukomuko; [III] at Kapahiang, Lais and Manna.

GCMT ***24*** *04:36:29.2±0.2, 4°.00S×101°.74E, h62^{km}±1^{km}, MW5.2/71, Moment Tensor Solution. s66,c99; s71,c116; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}6.13±.21; $M_{\theta\theta}$-4.50±.17; $M_{\phi\phi}$-1.63±.20; $M_{r\theta}$3.04±.13; $M_{\theta\phi}$4.07±.13; $M_{\phi r}$-1.49±.15; Best double couple: $M_0$7.56200×10^{16} NP1:ϕ_s311.00000°, δ32.00000°, λ99.00000°. NP2: ϕ_s120.00000°, δ58.00000°, λ84.00000°. Principal axes: T 6.9600, Plg76.0000°, Azm13.0000°; N 1.2040, Plg5.0000°, Azm123.0000°; P -8.1640, Plg13.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***24*** *04:36:30.1±0.5, 3°.62S×101°.93E, h50^{km}±3^{km}, mb5.1/30, mb1 5.1/32, mb1mx5.1/34, mbtmp5.1/32, MS4.3/29, Ms1 4.3/29, ms1mx4.2/34 Error ellipse: s-maj=13.0km s-min=8.1km az=61.0*

DJA ***24*** *04:36:32, 3°.81S×101°.74E, h55^{km}, mb5.6/39*

ISC 24 04:36:29.8±0.1**, 3°.74S**±0°.03×**101°.77E**±0°.02**, h41**^{km}**, h41**^{km}±2.2^{km}**:pP-P, n728,** σ1^{s}**06**/637**, mb5.5**/210**, MS4.4**/51**, 104C-30D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSI	Kapahiang	0.83	84	P	Pn	04 36 45.8	+0.8
MNAI	Manna	1.34	118	P	Pn	04 36 51.9	-0.1
LHSI	Lahat	1.75	93	P	Pn	04 37 00.1	+2.4
PPSI	Pulau Pagai	2.00	299	P	Pn	04 37 05.1	+3.9
MDSI	Maura Dua	2.52	107	P	Pn	04 37 09.5	+1.3
SDSI	Sungai Dareh	2.81	353	P	Pn	04 37 15.6	+3.4
PDSI	Padang	3.10	335	P	Pn	04 37 18.9	+2.7
PMBI	Palembang	3.11	75	P	Pn	04 37 16.7	+0.4
KASI	Kota Agung	3.25	123	P	Pn	04 37 19.9	+1.6
RGRI	Rengat	3.41	10	P	Pn	04 37 23.8	+3.2
PPI	Padang Panjang	3.54	337	P	Pn	04 37 25.3	+3.1
SISI	Saibi	3.59	312	P	Pn	04 37 26.1	+3.1
RBSI	Rajabasa	4.48	118	P	Pn	04 37 37.2	+2.0
SBJI	Serang	4.95	119	P	Pn	04 37 46.2	+4.5
TNG	Tangerang	5.43	117	P	Pn	04 37 51.7	+3.4
	5μm,0.7s,15nm						
DBJI	Dramaga	5.70	120	P	Pn	04 37 54.0	+2.1
CBJI	Citeko	5.72	118	P	Pn	04 37 57.6	+5.3
MYKOM	Kota Tinggi	5.87	21	P	Pn	04 37 58.0	+3.6
MYKOM	Kota Tinggi	5.87	21	P	Pn	04 37 57.2	+2.8
	1μm,1.1s,3.7nm						
KGM	Kluang	5.92	15	P	Pn	04 37 58.6	+3.6
TPI	Tanjungpandan	5.96	81	P	Pn	04 37 56.2	+0.7
	177nm,0.8s,2.3nm						
GSI	Gunungsitoli	6.53	320	P	Pn	04 38 05.8	+2.4
	568nm,0.7s,10μm5.0nm						
LEM	Lembang	6.58	118	P	Pn	04 38 06.7	+2.6
	739nm,0.9s,2.3nm						
FRIM	Kepong	6.93	359	P	Pn	04 38 13.1	+4.2
PSI	Prapat	7.09	336	P	Pn	04 38 11.3	+0.2
PSI				S	Sn	04 39 38.6	+8.2
PSI	Prapat	7.09	336	P	Pn	04 38 11.2	+0.2
	8.2nm,0.3s,baz=161,slow=10,SNR=46						
PSI				S	Sn	04 39 38.5	+8.1
	baz=107,slow=17,SNR=2.7						
PSI				LR	LR	04 41 27.6	
	comp=Z,4μm,20.4s,baz=142,slow=43						
XMIS	Christmas Isla	7.73	150	ePn	Pn	04 38 13.9	-6.0
XMIS				eSn	Sn	04 39 35.4	-11
XMIS	Christmas Isla	7.73	150	P	Pn	04 38 19.1	-0.7
TSI	Tuntungan	7.87	336	eP	Pn	04 38 25.0	+3.2
IPM	Ipoh	8.20	355	P	Pn	04 38 31.3	+5.1
IPM	Ipoh	8.20	355	P	Pn	04 38 30.0	+3.7
	279nm,0.8s,2μm						
KULM	Kulim	9.04	353	ePn	Pn	04 38 39.0	+1.2
	137nm,0.8s						
KULM	Kulim	9.04	353	P	Pn	04 38 40.5	+2.7
	216nm,1.0s,2μm						
SMRI	Semarang	9.24	111	P	Pn	04 38 44.0	+3.4
	493nm,0.8s						
COCO	West Island	9.71	210	Pn	Pn	04 38 46.5	-0.6
	7μm,0.5s,SNR=21						
COCO	West Island	9.71	210	i P	Pn	04 38 46.8	-0.3
COCO	West Island	9.71	210	ePn	Pn	04 38 46.1	-1.0
COCO	West Island	9.71	210	P	Pn	04 38 46.8	-0.3
	1μm,0.8s						
KSM	Kuching	9.98	59	P	Pn	04 38 52.9	+2.1
KSM	Kuching	9.98	59	ePn	Pn	04 38 51.4	+0.7
	76nm,0.8s						
KSM	Kuching	9.98	59	P	Pn	04 38 52.4	+1.6
	122nm,0.9s						
SJI	Sawahan	10.71	112	P	Pn	04 39 01.7	+0.9
	582nm,0.7s,5μm						
PWJI	Pagerwojo	10.85	114	P	Pn	04 39 03.0	+0.3
	157nm,1.1s						
SNG	Songkhla	10.90	354	P	Pn	04 39 05.0	+1.6
	860nm,1.0s						
BSI	Banda Aceh	11.22	325	P	Pn	04 39 07.6	-0.1
	224nm,1.0s,2μm						
TRT	Tretes	11.51	110	⇑eP	Pn	04 39 12.0	+0.3
SBUM	Sibu	12.12	60	P	Pn	04 39 23.4	+3.3
	78nm,1.5s,1μm						
PLKI	Palangkaraya	12.25	83	P	Pn	04 39 25.5	+3.6
	562nm,0.8s						
KMMI	Kalianget	12.58	106	P	Pn	04 39 28.1	+1.7
ABJI	Asem Bagus	13.04	109	P	Pn	04 39 34.2	+1.6
	1μm,0.8s,8μm						
BBKI	Banjar Baru	13.05	89	P	Pn	04 39 36.8	+4.0
	561nm,1.0s						
SRBI	Singaraja	14.05	109	P	Pn	04 39 45.8	-0.6
	204nm,0.7s						
KKM	Kota Kinabalu	17.39	56	P	Pn	04 40 32.2	+2.6
KKM	Kota Kinabalu	17.39	56	ePn	Pn	04 40 31.5	+1.9
	146nm,1.0s						
KKM	Kota Kinabalu	17.39	56	P	Pn	04 40 33.2	+3.6
	142nm,1.0s,2μm						
MKS	Makassar	17.71	95	⇓eP	Pn	04 40 34.9	+1.4
TSM	Tawau	17.96	64	P	Pn	04 40 38.4	+1.8
KAPI	Kappang	17.98	95	P	Pn	04 40 35.5	-1.3
	976nm,1.2s,SNR=15						
KAPI	Kappang	17.98	95	P	Pn	04 40 35.1	-1.7
	7.8nm,0.3s,baz=270,slow=9.8,SNR=27						
KAPI				LR	LR	04 48 01.0	
	comp=Z,1μm,19.1s,baz=286,slow=39						
KAPI	Kappang	17.98	95	⇑iP	Pn	04 40 35.0	-1.8
	249nm,1.2s						
SDKM	Sandakan	18.01	59	P	Pn	04 40 39.6	+2.5
TTSI	Tana Toraja	18.03	88	P	Pn	04 40 39.0	+1.5
PCI	Palu	18.27	82	P	Pn	04 40 41.9	+1.5
	348nm,1.0s,4μm						
BNSI	Bone	18.30	93	P	Pn	04 40 43.3	+2.5
	293nm,1.1s,3μm						
UBT	Ubonrachathani	19.13	10	⇑P	Pn	04 40 50.4	-0.3
NST	Nakhon Sawan	19.35	355	P	Pn	04 40 52.0	-1.4
APSI	Ampana	20.06	82	P	P	04 41 00.1	+0.3
	664nm,1.0s,5μm						
BATP	Bataraza	20.26	52	eP	P	04 41 02.4	+0.4
KDI	Kendari	20.81	91	⇑eP	P	04 41 07.9	0.0
KDI				eS	S	04 44 58.3	+0.3
KDI	Kendari	20.81	91	P	P	04 41 08.2	+0.3
	294nm,1.1s						
BDT	Bhumibol Dam	21.03	353	P	P	04 41 09.0	-1.1
	20nm,1.0s,mb4.4						
PPR	Puerto Princes	21.58	51	eP	P	04 41 18.4	+2.2
CM31	Chiang Mai Arr	22.23	353	eP	P	04 41 23.0	0.0
	86nm,0.9s,mb5.2						
CMAR	Chiang Mai Arr	22.23	353	P	P	04 41 21.5	-1.5
CMAR						04 45 17.9	
CMAR	Chiang Mai Arr	22.23	353	P	P	04 41 21.5	-1.5
	52nm,0.7s,mb5.1,baz=187,slow=8.0,SNR=81						
CMAR				PcP	PcP	04 45 17.9	-0.7
	7.6nm,0.7s,baz=211,slow=3.1,SNR=9.7						
CMAR				LR	LR	04 50 29.5	
	comp=Z,725nm,18.8s,MS4.1,baz=176,slow=38						
CHTO	Chiang Mai	22.58	353	eP	P	04 41 25.0	-1.8
CHTO				e		04 45 18.9	
CHTO				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.0						
CHTO	Chiang Mai	22.58	353	eP	P	04 41 25.0	-1.7
	comp=Z,46nm,0.8s,mb5.0						
CHTO				ePcP	PcP	04 45 18.9	-0.4
CHTO	Chiang Mai	22.58	353	P	P	04 41 25.4	-1.3
	SNR=16						
CHTO				P		04 41 25.4	
	SNR=16						
CHTO	Chiang Mai	22.58	353	P	P	04 41 25.8	-1.0
	comp=Z,75nm,0.9s,mb5.1						
KMSI	Cibinong	22.61	80	P	P	04 41 28.1	+0.9
	comp=Z,540nm,0.9s,mb6.0						
CHRT	Chiangrai	23.54	355	⇑P	P	04 41 35.0	-1.6
	comp=Z,395nm,0.6s,mb6.0						
PALK	Pallekele	23.70	297	eP	P	04 41 39.9	+1.8
PALK				pmax	pmax		
	comp=Z,27nm,0.9s,mb4.7						
PALK	Pallekele	23.70	297	eP	P	04 41 39.9	+1.7
	comp=Z,27nm,0.9s,mb4.7						
PALK	Pallekele	23.70	297	P	P	04 41 42.0	+3.9
	comp=Z,22nm,1.1s,mb4.5						
QIZ	Qiongzhong	23.98	19	P	P	04 41 42.0	+1.4
QIZ				S	S	04 46 05.9	+11
QIZ				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.3						
QIZ				pmax	pmax		
	comp=Z,450nm,4.3s						
QIZ				LR	LR		
	comp=E,610nm,26.5s						
QIZ				LR	LR		
	comp=Z,810nm,33.1s						
QIZ	Qiongzhong	23.98	19	eP	P	04 41 40.8	+0.2
	comp=Z,323nm,1.4s,mb5.6						
CUYO	Cuyo Island	24.02	53	eP	P	04 41 41.5	+0.4
BUSP	Coron	24.09	49	eP	P	04 41 41.9	+0.2
MBWA	Marble Bar	24.60	136	eP	P	04 41 45.2	-1.0
	comp=Z,25nm,0.6s,mb4.9						
MBWA	Marble Bar	24.60	136	P	P	04 41 48.0	+1.7
	comp=Z,50nm,0.8s,mb5.1						
SJMP	San Jose	25.08	50	eP	P	04 41 50.9	+0.2
LUBP	Lubang	25.25	46	eP	P	04 41 52.0	-0.3
NLAI	Namlea	25.29	90	P	P	04 41 52.9	+0.2
	comp=Z,110nm,0.9s,mb5.4						
OTRP	Odiongan	25.71	51	eP	P	04 41 56.4	-0.1
RCP	Roxas	25.81	54	⇑eP	P	04 41 57.5	+0.1
LBMI	Labuha	25.89	84	P	P	04 41 59.3	+1.1
	comp=Z,320nm,0.8s,comp=Z,2μm,mb5.9						
BUKP	Musuan	25.95	64	eP	P	04 41 58.1	-0.6
TGY	Tagaytay City	25.99	47	P	P	04 41 57.6	-1.4
	comp=Z,405nm,0.8s,mb6.0,baz=199,slow=6.4,SNR=12						
DAV	Davao City (W)	26.08	66	P	P	04 41 57.7	-2.2
	comp=Z,80nm,0.3s,mb5.7,baz=1.8,slow=11,SNR=2.5						
DAV				LR	LR	04 53 14.1	
	comp=Z,421nm,18.6s,MS4.0,baz=272,slow=39						
DAV	Davao City (W)	26.08	66	P	P	04 42 03.3	+3.5
	SNR=6.0						
DAV				P		04 42 03.3	
	SNR=6.0						
AAI	Ambon	26.37	91	P	P	04 42 05.7	+3.2
	comp=Z,121nm,0.8s,mb5.5						
SCZP	Santa Cruz	26.43	42	eP	P	04 42 02.2	-0.6
FITZ	Fitzroy Crossi	27.39	123	eP	P	04 42 10.1	-1.4

	comp=Z,97nm,0.8s,mb5.4						
FITZ	**Fitzroy Crossi**	**27.39**	**123**	P	**P**	**04 42 10.1**	**-1.5**
	comp=Z,26nm,0.9s,mb4.8,baz=290,slow=5.0,SNR=33						
FITZ				LR	LR	04 54 17.1	
	comp=Z,321nm,19.6s,MS3.9,baz=296,slow=39						
FITZ	**Fitzroy Crossi**	**27.39**	**123**	*e*P	**P**	**04 42 09.9**	**-1.6**
	comp=Z,60nm,0.8s,mb5.2						
FITZ	**Fitzroy Crossi**	**27.39**	**123**	P	**P**	**04 42 09.7**	**-1.8**
	comp=Z,168nm,0.8s,mb5.6						
VIS	**Vishakhapatnam**	**28.03**	**320**	*e*PKP	**P**	**04 42 19.0**	**+1.8**
VIS				AMb	AMB	04 42 20.3	
	comp=Z,43nm,0.8s,mb5.1						
BWNR	**Bhubaneshwar**	**28.57**	**327**	*e*x	x	04 42 15.7	
KMI	**Kunming**	**28.70**	**2**	P	**P**	**04 42 24.1**	**+0.9**
KMI				pP	pP	04 42 33.4	-1.1
KMI				sP	sP	04 42 37.4	-2.0
KMI				PP	PP	04 43 18.9	-10
KMI				S	**S**	**04 47 12.1**	**+2.5**
KMI				sS	sS	04 47 28.4	0.0
KMI				pmax	pmax		
	comp=Z,79nm,0.9s,mb5.4						
KMI				LR	LR		
	comp=N,600nm,21.2s,MS4.4						
KMI				LR	LR		
	comp=E,620nm,17.3s,MS4.4						
KMI				LR	LR		
	comp=Z,880nm,20.2s,MS4.4						
SWI	**Sorong**	**29.60**	**85**	P	**P**	**04 42 29.3**	**-2.1**
	comp=Z,127nm,0.9s,mb5.6						
GYA	**Guiyang**	**30.39**	**9**	⇑*i*P	**P**	**04 42 40.3**	**+2.2**
GYA				pP	pP	04 42 50.0	+0.6
GYA				sP	sP	04 42 55.9	+1.5
GYA				PP	PP	04 43 41.5	-5.8
GYA				S	**S**	**04 47 40.0**	**+4.0**
GYA				sS	sS	04 47 56.3	+1.4
GYA				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.1						
GYA				pmax	pmax		
	comp=Z,160nm,4.5s						
GYA				LR	LR		
	comp=N,5µm,16.0s,MS5.3						
GYA				LR	LR		
	comp=E,3µm,15.6s,MS5.3						
GYA				LR	LR		
	comp=Z,5µm,16.3s,MS5.2						
SHL	**Shillong**	**30.67**	**342**	*e*x	**P**	**04 42 38.1**	**-2.5**
SHL				*e*x	x	04 47 35.5	
HYB	**Hyderabad**	**31.09**	**313**	*i* P	**P**	**04 42 44.0**	**-0.4**
HYB	**Hyderabad**	**31.09**	**313**	*e*P	**P**	**04 42 44.0**	**-0.4**
MUN	**Mundaring**	**31.20**	**156**	*e*P	**P**	**04 42 46.4**	**+1.2**
BOK	**Bokaro**	**31.44**	**331**	*e*PKP	**P**	**04 42 49.0**	**+1.6**
BOK				AMb	AMB	04 42 50.6	
	comp=Z,233nm,0.8s,mb6.1						
MNGI	**Mangalore**	**31.48**	**302**	*e*PKP	**P**	**04 42 46.9**	**-0.9**
KAKA	**Kakadu**	**31.61**	**108**	*e*P	**P**	**04 42 44.9**	**-4.1**
	comp=Z,28nm,0.6s,mb5.3						
KAKA	**Kakadu**	**31.61**	**108**	*e*P	**P**	**04 42 44.7**	**-4.3**
	comp=Z,65nm,0.5s,mb5.7						
KAKA	**Kakadu**	**31.61**	**108**	P	**P**	**04 42 46.1**	**-2.9**
	comp=Z,63nm,0.6s,comp=Z,606nm,mb5.7						
NWAO	**Narrogin (SRO)**	**32.45**	**155**	P	**P**	**04 42 55.5**	**-0.7**
	comp=Z,15nm,1.0s,mb4.8,baz=325,slow=12,SNR=5.1						
NWAO				LR	LR	04 54 41.5	
	comp=Z,906nm,21.0s,MS4.4,baz=338,slow=34						
YULB	**Yu-li**	**33.01**	**34**	*e*P	**P**	**04 42 59.8**	**-1.4**
	comp=Z,44nm,0.8s,mb5.4						
SSLB	**Suanglung**	**33.14**	**33**	*e*P	**P**	**04 43 01.4**	**-0.9**
	comp=Z,29nm,0.7s,mb5.3						
ODAN	**Odare**	**33.44**	**336**	*e*P	**P**	**04 43 05.6**	**+0.7**
	comp=Z,420nm,0.8s,mb6.4						
TAPN	**Taplejung**	**33.75**	**337**	*e*P	**P**	**04 43 08.8**	**+1.2**
	comp=Z,798nm,0.9s,mb6.7						
NACB	**Ninganchiao**	**33.80**	**34**	*e*P	**P**	**04 43 06.6**	**-1.5**
	comp=Z,51nm,0.9s,mb5.5						
RAMN	**Ramite**	**33.85**	**335**	*e*P	**P**	**04 43 09.5**	**+1.1**
	comp=Z,139nm,0.7s,mb6.0						
YHNB	**Yeheng**	**34.07**	**33**	*e*P	**P**	**04 43 08.1**	**-2.3**
	comp=Z,51nm,0.8s,mb5.5						
KAD	**Karad**	**34.33**	**308**	*e*PKP	**P**	**04 43 14.2**	**+1.4**
KAD				AMb	AMB	04 43 15.5	
	comp=Z,39nm,0.9s,mb5.3						
CD2	**Chengdu**	**34.51**	**3**	P	**P**	**04 43 13.1**	**-1.0**
CD2				pP	pP	04 43 22.3	-3.2
CD2				sP	sP	04 43 26.8	-3.6
CD2				PP	PP	04 44 31.0	-1.9
CD2				S	**S**	**04 48 40.6**	**+0.6**
CD2				sS	sS	04 48 57.6	-1.4
CD2				pmax	pmax		
	comp=Z,170nm,0.7s,mb6.1						
CD2				pmax	pmax		
	comp=Z,210nm,5.5s						
CD2				LR	LR		
	comp=N,1µm,17.8s						
CD2				LR	LR		
	comp=Z,2µm,21.4s,MS4.7						
JIRN	**Jiri**	**34.64**	**335**	*e*P	**P**	**04 43 16.5**	**+1.2**
	comp=Z,526nm,0.9s,mb6.5						
LSA	**Lhasa**	**34.77**	**344**	P	**P**	**04 43 16.5**	**+0.1**
LSA	**Lhasa**	**34.77**	**344**	*e*P	**P**	**04 43 16.6**	**+0.2**
LSA				*e*		04 45 49.2	
LSA				pmax	pmax		
	comp=Z,112nm,1.1s,mb5.7						
LSA	**Lhasa**	**34.77**	**344**	*e*P	**P**	**04 43 16.6**	**+0.2**
	comp=Z,112nm,1.1s,mb5.7						
LSA				*e*PcP	PcP	04 45 49.2	-0.2
ALBI	**Allahabad**	**34.77**	**327**	*e*x	x	04 43 12.0	
PKI	**Pulchoki**	**34.90**	**334**	*e*P	**P**	**04 43 18.2**	**+0.7**
	comp=Z,37nm,0.6s,mb5.5						
PKI	**Pulchoki**	**34.90**	**334**	*e*P	**P**	**04 43 18.2**	**+0.7**
PKI				pmax	pmax		
	comp=Z,37nm,0.6s,mb5.5						
PKIN	**Phulchoki**	**34.91**	**334**	*e*P	**P**	**04 43 17.9**	**+0.3**
	comp=Z,50nm,0.6s,mb5.6						
GUN	**Gumba**	**34.99**	**335**	*e*P	**P**	**04 43 19.4**	**+1.1**
	comp=Z,464nm,0.7s,mb6.5						
DMN	**Daman**	**35.06**	**334**	*e*P	**P**	**04 43 19.7**	**+0.7**
	comp=Z,173nm,1.0s,mb5.9						
KKN	**Kakani**	**35.14**	**334**	*e*P	**P**	**04 43 20.4**	**+0.7**
	comp=Z,54nm,0.4s,mb5.8						
KKN	**Kakani**	**35.14**	**334**	*e*P	**P**	**04 43 20.4**	**+0.7**
KKN				pmax	pmax		
	comp=Z,54nm,0.4s,mb5.8						
POO	**Poona**	**35.30**	**310**	*e*PKP	**P**	**04 43 20.0**	**-1.1**
POO				*e*PKP		04 43 22.0	
POO				AMb	AMB	04 43 23.9	
	comp=Z,37nm,0.7s,mb5.4						
WRA	**Warramunga Arr**	**35.60**	**120**	P	**P**	**04 43 21.9**	**-1.8**
WRA						04 45 50.2	
WRA				S	**S**	**04 48 50.4**	**-6.8**
WRA	**Warramunga Arr**	**35.60**	**120**	P	**P**	**04 43 21.9**	**-1.9**
	comp=Z,24nm,0.4s,mb5.5,baz=302,slow=9.0,SNR=232						
WRA				PcP	PcP	04 45 50.2	-1.8
	comp=Z,10nm,0.7s,baz=301,slow=2.5,SNR=5.5						
WRA				S	**S**	**04 48 50.4**	**-6.8**
	comp=Z,15nm,1.1s,baz=295,slow=16,SNR=10						
WRA				LR	LR	05 00 07.1	
	comp=Z,189nm,20.0s,MS3.9,baz=340,slow=40						
WRAB	**Tennant Creek**	**35.61**	**120**	P	**P**	**04 43 22.0**	**-1.8**
	comp=Z,421nm,0.5s,mb6.6						
WRAB	**Tennant Creek**	**35.61**	**120**	*e*P	**P**	**04 43 22.0**	**-1.8**
WRAB				*e*		04 45 50.6	
WRAB				*e*S	**S**	**04 48 47.8**	**-10**
WRAB				pmax	pmax		
	comp=Z,43nm,0.7s,mb5.5						
WRAB	**Tennant Creek**	**35.61**	**120**	*e*P	**P**	**04 43 22.0**	**-1.8**
	comp=Z,43nm,0.7s,mb5.5						
WRAB				*e*PcP	PcP	04 45 50.6	-1.5
WRAB				*e*S	**S**	**04 48 47.8**	**-10**
WRAB	**Tennant Creek**	**35.61**	**120**	P	**P**	**04 43 22.5**	**-1.3**
	comp=Z,64nm,0.7s,mb5.6						
GKN	**Gorkha**	**35.61**	**333**	*e*P	**P**	**04 43 24.4**	**+0.7**
	comp=Z,221nm,0.7s,mb6.2						
WB2	**Warramunga Arr**	**35.61**	**120**	*e*P	**P**	**04 43 21.6**	**-2.3**
WB2				*e*PcP	PcP	04 45 50.8	-1.3
WB2				*e*S	**S**	**04 48 48.5**	**-8.9**
BHPL	**Bhopal**	**35.82**	**320**	*e*PKP	**P**	**04 43 26.7**	**+1.2**
BHPL				AMb	AMB	04 43 27.9	
	comp=Z,44nm,1.1s,mb5.3						
KOLN	**Koldanda**	**35.89**	**332**	*e*P	**P**	**04 43 27.1**	**+1.0**
	comp=Z,101nm,0.6s,mb5.9						
WHN	**Wuhan**	**36.15**	**19**	⇓P	**P**	**04 43 28.4**	**+0.2**
WHN				PcP	PcP	04 45 52.9	-0.5
WHN				*e*S	**S**	**04 49 05.0**	**-0.3**
WHN				pmax	pmax		
	comp=Z,81nm,0.9s,mb5.7						
WHN				LR	LR		
	comp=Z,1µm,18.4s,MS4.8						
DANN	**Dangsing**	**36.30**	**333**	*e*P	**P**	**04 43 30.6**	**+1.0**
	comp=Z,398nm,0.5s,mb6.6						
FORT	**Forrest**	**36.59**	**140**	*e*P	**P**	**04 43 31.8**	**-0.2**
	comp=Z,55nm,0.7s,mb5.5						
FORT	**Forrest**	**36.59**	**140**	*e*P	**P**	**04 43 30.6**	**-1.4**
	comp=Z,54nm,0.7s,mb5.5						
ASAR	**Alice Springs**	**36.81**	**126**	P	**P**	**04 43 32.9**	**-1.1**
	comp=Z,26nm,0.5s,mb5.3,baz=298,slow=8.4,SNR=279						
ASAR				PcP	PcP	04 45 54.7	-0.9
	comp=Z,8.7nm,0.7s,baz=311,slow=2.5,SNR=8.2						
ASAR				S	**S**	**04 49 09.5**	**-6.2**
	comp=Z,14nm,1.0s,baz=299,slow=16,SNR=18						
SMPI	**Sarmi**	**36.94**	**88**	P	**P**	**04 43 32.5**	**-2.8**
	comp=Z,81nm,1.1s,mb5.5						
XAN	**Xi'an**	**38.17**	**10**	P	**P**	**04 43 44.3**	**-1.1**
XAN				pP	pP	04 43 54.5	-2.4
XAN				sP	sP	04 43 58.0	-3.8
XAN				PP	PP	04 45 14.8	+1.5
XAN				S	**S**	**04 49 34.1**	**-1.9**
XAN				pmax	pmax		
	comp=Z,87nm,0.7s,mb5.6						
XAN				pmax	pmax		
	comp=Z,99nm,5.1s						
XAN				LR	LR		
	comp=N,480nm,14.4s,MS4.5						
XAN				LR	LR		
	comp=E,350nm,16.2s,MS4.5						
XAN				LR	LR		
	comp=Z,860nm,15.6s,MS4.7						
LGTI	**Lohaghat**	**38.92**	**329**	*e*PKP	**P**	**04 43 53.1**	**+1.4**
SSE	**Sheshan**	**39.28**	**27**	P	**P**	**04 43 55.9**	**+1.2**
SSE				pP	pP	04 44 07.1	+0.9
SSE				S	**S**	**04 49 55.9**	**+3.1**
SSE				sS	sS	04 50 14.4	+2.5
SSE				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.3						
SSE				pmax	pmax		
	comp=Z,210nm,5.7s						
SSE				LR	LR		
	comp=N,380nm,15.7s,MS4.4						
SSE				LR	LR		
	comp=E,140nm,15.7s,MS4.4						
SSE				LR	LR		
	comp=Z,430nm,16.6s,MS4.4						
LZH	**Lanzhou**	**39.66**	**3**	⇑P	**P**	**04 43 57.8**	**0.0**
LZH				pP	pP	04 44 07.5	-1.8
LZH				sP	sP	04 44 11.6	-2.7
LZH				PP	PP	04 45 34.8	+5.2
LZH				PcP	PcP	04 46 02.8	-1.3
LZH				S	**S**	**04 50 00.6**	**+2.2**
LZH				sS	sS	04 50 17.3	-0.2
LZH				ScS	ScS	04 53 59.0	-3.4
LZH				pmax	pmax		
	comp=Z,92nm,1.3s,mb5.3						
LZH				pmax	pmax		
	comp=Z,310nm,6.2s						
LZH				LR	LR		
	comp=N,930nm,13.2s						
LZH				LR	LR		
	comp=Z,1µm,16.3s,MS4.8						
JOW	**Kunigami**	**39.75**	**39**	LR	LR	04 59 48.0	
	comp=Z,319nm,18.1s,MS4.2,baz=144,slow=35						
AJM	**Ajmer**	**39.88**	**320**	*e*PKP	**P**	**04 44 00.0**	**+0.2**
AJM				*e*PKP		04 44 00.7	
AJM				AMb	AMB	04 44 02.3	
	comp=Z,46nm,0.7s,mb5.3						
NDI	**New Delhi**	**39.95**	**325**	*e*PKP	**P**	**04 44 00.0**	**-0.3**
NDI				*e*x	x	04 50 02.0	
BHJ	**Bhuj**	**41.24**	**312**	*e*x	**P**	**04 44 17.6**	**+6.5**
COEN	**Coen**	**42.09**	**107**	*e*P	**P**	**04 44 14.8**	**-3.4**
	comp=Z,77nm,0.7s,mb5.4						
COEN				*e*PcP	PcP	04 46 11.4	-1.1
BHK	**Bhakra**	**42.49**	**327**	*e*PKP	**P**	**04 44 19.8**	**-1.3**
GTA	**Gaotai**	**42.97**	**358**	⇑P	**P**	**04 44 25.0**	**+0.1**
GTA				pP	pP	04 44 34.9	-1.6
GTA				sP	sP	04 44 38.9	-2.5
GTA				PP	PP	04 46 07.9	+2.6
GTA				PcP	PcP	04 46 14.5	-0.4
GTA				S	**S**	**04 50 49.3**	**+1.9**
GTA				sS	sS	04 51 05.4	-1.3
GTA				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.2						
GTA				pmax	pmax		
	comp=Z,190nm,4.8s						
GTA				LR	LR		
	comp=N,680nm,18.0s,MS4.6						
GTA				LR	LR		
	comp=E,350nm,18.0s,MS4.6						
GTA				LR	LR		
	comp=Z,1µm,20.7s,MS4.7						
THN	**Thein Dam**	**43.65**	**327**	*e*PKP	**P**	**04 44 28.8**	**-1.7**
HHC	**Hu-ho-hao-te**	**45.27**	**10**	⇑*i*P	**P**	**04 44 43.5**	**+0.2**
HHC				pP	pP	04 44 53.4	-1.6
HHC				sP	sP	04 44 57.5	-2.4
HHC				PP	PP	04 46 29.9	+0.1
HHC				PcS	PcS	04 50 15.8	-0.7
HHC				*e*S	**S**	**04 51 21.1**	**+0.3**
HHC				sS	sS	04 51 37.9	-2.3
HHC				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.4						
HHC				pmax	pmax		
	comp=Z,270nm,5.0s						
HHC				LR	LR		
	comp=N,560nm,14.9s,MS4.7						
HHC				LR	LR		
	comp=E,310nm,15.2s,MS4.7						
HHC				LR	LR		
	comp=Z,680nm,16.8s,MS4.7						
BJT	**Baijiatuau**	**45.51**	**16**	*e*P	**P**	**04 44 44.7**	**-0.5**
BJT				pmax	pmax		
	comp=Z,124nm,0.6s						
BJT	**Baijiatuau**	**45.51**	**16**	*e*P	**P**	**04 44 44.7**	**-0.6**
	comp=Z,124nm,0.6s,mb6.0						
BJI	**Beijing**	**45.53**	**16**	P	**P**	**04 44 44.9**	**-0.5**
BJI				PP	PP	04 46 32.6	0.0
BJI				S	**S**	**04 51 27.8**	**+3.2**
BJI				pmax	pmax		
	comp=Z,130nm,0.7s,mb6.0						
BJI				LR	LR		
	comp=N,320nm,26.4s,MS4.4						
BJI				LR	LR		
	comp=E,460nm,23.2s,MS4.4						
BJI				LR	LR		
	comp=Z,340nm,32.0s						
CTA	**Charters Tower**	**46.27**	**114**	*e*P	**P**	**04 44 50.2**	**-1.4**
	comp=Z,90nm,0.9s,mb5.7						
CTA	**Charters Tower**	**46.27**	**114**	LR	LR	05 06 32.2	
	comp=Z,239nm,19.2s,MS4.2,baz=270,slow=39						
CTAO	**Charters Tower**	**46.27**	**114**	⇑*i*P	**P**	**04 44 50.0**	**-1.6**
CTAO				pmax	pmax		
	comp=Z,113nm,0.8s,mb5.8						
CTAO	**Charters Tower**	**46.27**	**114**	⇑*i*P	**P**	**04 44 50.0**	**-1.6**
	comp=Z,113nm,0.8s,mb5.8						
CTAO	**Charters Tower**	**46.27**	**114**	P	**P**	**04 44 50.1**	**-1.5**
	comp=Z,170nm,1.0s,mb6.0						
STKA	**Stephens Creek**	**46.68**	**132**	⇑*i*P	**P**	**04 44 54.2**	**-0.5**
	comp=Z,98nm,0.6s,mb5.9						
STKA				*e*S	**S**	**04 51 36.7**	**-4.8**
STKA	**Stephens Creek**	**46.68**	**132**	P	**P**	**04 44 54.4**	**-0.3**
	comp=Z,122nm,0.7s,mb6.0,baz=305,slow=7.8,SNR=266						
STKA				S	**S**	**04 51 37.3**	**-4.2**
	comp=Z,5.0nm,1.0s,baz=330,slow=20,SNR=4.1						
STKA				LR	LR	05 04 30.1	
	comp=Z,479nm,20.9s,MS4.4,baz=284,slow=36						
KSRS	**Korea Array**	**47.65**	**28**	P	**P**	**04 45 01.2**	**-0.9**
KSRS				*PP	pP	04 45 14.7	+0.9
KSRS						04 46 29.9	
KSRS				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.5						
KSRS				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.2						
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
KSRS				MLR	MLR		
	comp=Z,253nm,19.7s,MS4.2						
KSRS	**Korea Array**	**47.65**	**28**	P	**P**	**04 45 01.2**	**-0.9**
	comp=Z,42nm,0.9s,mb5.5,baz=214,slow=8.2,SNR=75						
KSRS				pP	pP	04 45 14.7	+0.9
	comp=Z,30nm,1.2s,baz=230,slow=5.3,SNR=3.1						
KSRS				PcP	PcP	04 46 29.9	-1.3
	comp=Z,6.1nm,0.8s,baz=222,slow=3.1,SNR=5.0						
KSRS				LR	LR	05 05 14.2	
	comp=Z,253nm,19.7s,MS4.2,baz=223,slow=36						
WMQ	**Urumqi**	**49.01**	**347**	⇑*i*P	**P**	**04 45 13.0**	**+0.6**
WMQ				pP	pP	04 45 23.0	-1.2
WMQ				sP	sP	04 45 27.0	-2.0
WMQ				PcP	PcP	04 46 36.5	+0.6
WMQ				*e*S	**S**	**04 52 15.0**	**+1.0**
WMQ				sS	sS	04 52 31.0	-2.5
WMQ				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.4						
WMQ				pmax	pmax		
	comp=Z,320nm,3.7s						
WMQ				LR	LR		
	comp=N,470nm,25.2s,MS4.5						
WMQ				LR	LR		
	comp=E,380nm,20.6s,MS4.5						
WMQ				LR	LR		
	comp=Z,500nm,19.5s,MS4.5						
KSH	**Kashi**	**49.16**	**334**	⇑*i*P	**P**	**04 45 12.5**	**-1.1**
KSH				*e*pP	pP	04 45 25.1	-0.3
KSH				*e*sP	sP	04 45 30.0	-0.3
KSH				*e*PcP	PcP	04 46 36.5	-0.1
KSH				*e*PP	PP	04 47 06.3	-1.5
KSH				*e*ScP	ScP	04 50 27.1	-1.5
KSH				*e*PcS	PcS	04 50 32.3	-0.6
KSH				S	**S**	**04 52 12.0**	**-4.2**
KSH				sS	sS	04 52 32.5	-3.3
KSH				*e*ScS	ScS	04 54 58.3	-4.1
KSH				pmax	pmax		
	comp=Z,71nm,0.7s,mb5.8						
KSH				pmax	pmax		
	comp=Z,560nm,4.6s						
KSH				LR	LR		
	comp=N,620nm,8.6s						
KSH				LR	LR		
	comp=E,910nm,6.0s						
KSH				LR	LR		
	comp=Z,920nm,6.5s						
SNY	**Shenyang**	**49.50**	**21**	⇑P	**P**	**04 45 14.4**	**-1.8**
SNY				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
ULHL	**Ulahol**	**51.30**	**336**	P	**P**	**04 45 30.0**	**+0.2**
	SNR=7.5						
SONM	**Songino Array**	**51.52**	**4**	P	**P**	**04 45 31.6**	**+0.3**
SONM				*PP	pP	04 45 43.4	+0.2
SONM				*SP	sP	04 45 49.9	+1.9
SONM						04 46 44.5	
SONM	**Songino Array**	**51.52**	**4**	P	**P**	**04 45 31.6**	**+0.3**
	comp=Z,128nm,0.7s,mb6.0,baz=184,slow=9.1,SNR=890						
SONM				pP	pP	04 45 43.4	+0.3
	comp=Z,22nm,0.7s,baz=178,slow=11,SNR=5.6						
SONM				sP	sP	04 45 49.9	+1.9
	comp=Z,26nm,0.7s,baz=187,slow=9.2,SNR=4.2						
SONM				PcP	PcP	04 46 44.5	-0.5
	comp=Z,17nm,0.6s,baz=192,slow=3.9,SNR=7.9						
SONM				LR	LR	05 09 44.6	
	comp=Z,348nm,19.4s,MS4.4,baz=26,slow=39						
KZA	**Kyzart**	**51.57**	**335**	P	**P**	**04 45 32.8**	**+0.9**
	SNR=27						
ULN	**Ulaanbaatar**	**51.59**	**5**	⇑*i*P	**P**	**04 45 32.1**	**+0.2**
ULN				*e*		04 46 44.5	
ULN				pmax	pmax		
	comp=Z,82nm,0.9s,mb5.7						
ULN	**Ulaanbaatar**	**51.59**	**5**	⇑*i*P	**P**	**04 45 32.1**	**+0.2**
	comp=Z,82nm,0.9s,mb5.7						
ULN				*e*PcP	PcP	04 46 44.5	-0.9
ULN	**Ulaanbaatar**	**51.59**	**5**	⇑P	**P**	**04 45 32.2**	**+0.3**
	SNR=26						
ULN				⇑P		04 45 32.2	
	SNR=26						
ULN	**Ulaanbaatar**	**51.59**	**5**	P	**P**	**04 45 32.1**	**+0.2**
	comp=Z,100nm,1.3s,comp=Z,735nm,mb5.6						
CN2	**Changchun**	**51.90**	**22**	⇑*i*P	**P**	**04 45 32.8**	**-1.5**
CN2				*e*pP	pP	04 45 47.6	+1.5
CN2				*e*PcP	PcP	04 46 45.0	-1.6
CN2				*e*S	**S**	**04 52 52.8**	**-1.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,500nm,18.0s,MS4.8						
CN2				LR	LR		
	comp=E,600nm,18.0s,MS4.8						
CN2				LR	LR		
	comp=Z,500nm,20.0s,MS4.5						
EIDS	**Eidsvold**	**51.97**	**119**	*e*P	**P**	**04 45 33.6**	**-1.6**
	comp=Z,86nm,1.4s,mb5.5						
UCH	**Uchtor**	**52.01**	**334**	P	**P**	**04 45 35.9**	**+0.8**
	SNR=28						
UCH	**Uchtor**	**52.01**	**334**	⇑*i*P	**P**	**04 45 35.6**	**+0.5**
	comp=Z,24nm,0.7s,mb5.2						
TKM2	**Tokmak 2**	**52.12**	**336**	P	**P**	**04 45 35.7**	**-0.2**
TKM2				pmax	pmax		
	comp=Z,60nm,0.6s,mb5.7						
TKM2	**Tokmak 2**	**52.12**	**336**	P	**P**	**04 45 36.2**	**+0.3**
	SNR=100						
TKM2	**Tokmak 2**	**52.12**	**336**	⇑*i*P	**P**	**04 45 36.1**	**+0.2**
	comp=Z,90nm,0.7s,mb5.8						
KBK	**Karagaybulak**	**52.17**	**335**	P	**P**	**04 45 37.2**	**+0.9**
	SNR=20						
TOO	**Toolangi**	**52.24**	**136**	*e*P	**P**	**04 45 38.0**	**+1.0**
AML	**Almayashu**	**52.29**	**334**	P	**P**	**04 45 38.0**	**+0.8**
	SNR=9.6						
AML	**Almayashu**	**52.29**	**334**	⇑*i*P	**P**	**04 45 37.7**	**+0.5**
	comp=Z,76nm,0.7s,mb5.7						
AML				*e*PcP	PcP	04 46 48.2	+0.1
AML				LR	LR		
	comp=Z,368nm,21.0s,MS4.4						
AAK	**Ala-Archa**	**52.35**	**335**	P	**P**	**04 45 38.7**	**+1.1**
	comp=Z,222nm,0.7s,mb6.2,SNR=22						
AAK	**Ala-Archa**	**52.35**	**335**	P	**P**	**04 45 38.1**	**+0.5**
AAK						04 46 48.6	
AAK				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
AAK				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
AAK	**Ala-Archa**	**52.35**	**335**	P	**P**	**04 45 38.1**	**+0.5**
	comp=Z,23nm,0.7s,mb5.2,baz=144,slow=6.0,SNR=50						
AAK				PcP	PcP	04 46 48.5	+0.3
	comp=Z,18nm,0.7s,baz=171,slow=4.4,SNR=4.8						
AAK	**Ala-Archa**	**52.35**	**335**	⇑*i*P	**P**	**04 45 37.8**	**+0.2**
	comp=Z,31nm,0.8s,mb5.3						
AAK				*e*PcP	PcP	04 46 48.7	+0.4
AAK	**Ala-Archa**	**52.35**	**335**	⇓P	**P**	**04 45 38.2**	**+0.6**
	SNR=11						
AAK				⇓P		04 45 38.2	
	SNR=11						
AAK	**Ala-Archa**	**52.35**	**335**	P	**P**	**04 45 38.0**	**+0.4**
FRU	**Bishkek**	**52.46**	**335**	*e*P	**P**	**04 45 38.4**	**0.0**
FRU				*i*		04 45 53.0	
FRU				pmax	pmax		
	comp=Z,176nm,2.5s,mb5.5						
CHMS	**Chumysh**	**52.54**	**335**	P	**P**	**04 45 38.8**	**-0.2**
	SNR=19						
MAJO	**Matsushiro**	**52.55**	**37**	*e*P	**P**	**04 45 36.3**	**-2.9**
MAJO				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
MAJO	**Matsushiro**	**52.55**	**37**	*e*P	**P**	**04 45 36.3**	**-2.9**
	comp=Z,34nm,1.0s,mb5.2						
MAT	**Matsushiro**	**52.55**	**37**	P	**P**	**04 45 36.1**	**-3.1**
MJAR	**Matsushiro Arr**	**52.55**	**37**	P	**P**	**04 45 36.7**	**-2.5**
MJAR						04 46 48.0	
MJAR	**Matsushiro Arr**	**52.55**	**37**	P	**P**	**04 45 36.7**	**-2.5**
	comp=Z,26nm,0.9s,mb5.1,baz=219,slow=7.6,SNR=33						
MJAR				PcP	PcP	04 46 48.0	-1.2
	comp=Z,8.4nm,0.8s,baz=212,slow=4.6,SNR=4.8						
MJAR				LR	LR	05 10 16.9	
	comp=Z,132nm,19.1s,MS4.0,baz=325,slow=39						
EKS2	**Erkin-Say**	**52.68**	**334**	P	**P**	**04 45 40.7**	**+0.6**
	SNR=102						
EKS2	**Erkin-Say**	**52.68**	**334**	⇑*i*P	**P**	**04 45 40.4**	**+0.3**
	comp=Z,112nm,0.8s,mb5.8						
USP	**Ospenovka**	**52.86**	**335**	P	**P**	**04 45 41.3**	**-0.1**
	SNR=35						
MK31	**Makanchi Array**	**53.18**	**343**	*i* P	**P**	**04 45 42.8**	**-0.8**
MK31				pmax	pmax		
	comp=Z,78nm,0.6s,mb5.8						
MK31	**Makanchi Array**	**53.18**	**343**	⇑*i*P	**P**	**04 45 43.1**	**-0.5**
MKAR	**Makanchi Array**	**53.18**	**343**	P	**P**	**04 45 43.2**	**-0.4**
MKAR				*PP	pP	04 45 54.9	-0.6
MKAR				*SP	sP	04 46 01.9	+1.5
MKAR				S	**S**	**04 53 09.1**	**-2.4**
MKAR	**Makanchi Array**	**53.18**	**343**	P	**P**	**04 45 43.2**	**-0.5**
	comp=Z,132nm,0.7s,mb6.0,baz=149,slow=8.1,SNR=1095						
MKAR				pP	pP	04 45 54.9	-0.7
	comp=Z,25nm,0.6s,baz=152,slow=7.9,SNR=6.7						
MKAR				sP	sP	04 46 01.9	+1.6
	comp=Z,42nm,0.7s,baz=141,slow=7.9,SNR=5.0						

MKAR				S	**S**	**04 53 09.1**	**-2.4**
	comp=Z,0.7nm,0.8s,baz=155,slow=14,SNR=3.3						
MKAR				LR	LR	05 12 18.3	
	comp=Z,163nm,21.3s,MS4.0,baz=157,slow=40						
MKAR	**Makanchi Array**	**53.18**	**343**	P	**P**	**04 45 43.2**	**-0.5**
MKAR				pP	pP	04 45 54.9	-0.7
MKAR				sP	sP	04 46 01.9	+1.5
MKAR				S	**S**	**04 53 09.1**	**-2.4**
MKAR				LR	LR	05 12 18.3	
CAN	**Canberra**	**53.74**	**132**	*e*P	**P**	**04 45 47.7**	**-0.4**
CAN				pmax	pmax		
	comp=Z,98nm,1.1s,mb5.7						
CAN	**Canberra**	**53.74**	**132**	*e*P	**P**	**04 45 47.7**	**-0.4**
	comp=Z,98nm,1.1s,mb5.7						
ZAK	**Zakamensk**	**53.92**	**1**⇓	*i*P	**P**	**04 45 48.5**	**-0.5**
ZAK				*e*		04 46 50.6	
ZAK				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
ARMA	**Armidale**	**53.96**	**125**⇑	*i*P	**P**	**04 45 50.4**	**+0.6**
ARMA	**Armidale**	**53.96**	**125**⇑	*i*P	**P**	**04 45 50.4**	**+0.6**
	comp=Z,57nm,0.9s,mb5.5						
CNB	**Canberra Magne**	**54.01**	**132**	*e*P	**P**	**04 45 49.7**	**-0.4**
MDJ	**Mudanjiang**	**54.20**	**24**	P	**P**	**04 45 49.9**	**-1.3**
MDJ				pP	pP	04 45 59.4	-3.7
MDJ				sP	sP	04 46 02.6	-5.3
MDJ				PcP	PcP	04 46 47.1	-8.2
MDJ				ScP	ScP	04 50 44.8	-5.5
MDJ				PcS	PcS	04 50 48.8	-5.7
MDJ				S	**S**	**04 53 30.4**	**+5.0**
MDJ				ScS	ScS	04 55 36.0	-1.1
MDJ				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.4						
MDJ				pmax	pmax		
	comp=Z,300nm,7.5s						
MDJ				LR	LR		
	comp=N,260nm,38.3s						
MDJ				LR	LR		
	comp=E,160nm,31.5s						
MDJ				LR	LR		
	comp=Z,390nm,30.0s						
MDJ	**Mudanjiang**	**54.20**	**24**	*e*P	**P**	**04 45 50.1**	**-1.0**
	comp=Z,35nm,0.8s,mb5.3						
MDJ				LR	LR		
	comp=Z,467nm,20.0s,MS4.5						
KK31	**Karatay Array**	**54.50**	**332**	*e*P	**P**	**04 45 52.3**	**-1.1**
KK31				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
KK31	**Karatay Array**	**54.50**	**332**⇑	*e*P	**P**	**04 45 52.4**	**-1.0**
RIV	**Riverview**	**54.79**	**129**	*e*P	**P**	**04 45 56.0**	**+0.3**
HIA	**Hailar**	**55.05**	**14**⇑	*i*P	**P**	**04 45 55.9**	**-1.4**
HIA				pmax	pmax		
	comp=Z,48nm,1.0s						
HIA	**Hailar**	**55.05**	**14**⇑	*i*P	**P**	**04 45 55.9**	**-1.3**
	comp=Z,48nm,1.0s,mb5.5						
MOY	**Mondy**	**55.20**	**359**	*e*P	**P**	**04 45 58.3**	**0.0**
MOY				pmax	pmax		
	comp=Z,46nm,1.8s,mb5.2						
TLY	**Talaya**	**55.23**	**1**	P	**P**	**04 45 58.4**	**-0.1**
	comp=Z,307nm,0.8s,mb6.4,SNR=19						
TLY	**Talaya**	**55.23**	**1**	*e*P	**P**	**04 45 58.9**	**+0.4**
TLY				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.5						
TLY				MLR	MLR		
	comp=Z,264nm,17.0s,MS4.4						
TLY	**Talaya**	**55.23**	**1**⇑	*i*P	**P**	**04 45 58.5**	**0.0**
	comp=Z,38nm,0.8s,mb5.5						
TLY	**Talaya**	**55.23**	**1**	⇓P	**P**	**04 45 59.1**	**+0.6**
	SNR=15						
TLY				⇓P		04 45 59.1	
	SNR=15						
OPO	**Ambohidratompo**	**55.31**	**250**	P	**P**	**04 46 01.7**	**+2.0**
	comp=Z,3.5nm,0.9s,mb4.4,baz=117,slow=4.5,SNR=2.9						
IRK	**Irkutsk**	**55.81**	**2**	*e*P	**P**	**04 46 01.7**	**-1.0**
IRK				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.5						
IPAY	**Payeh**	**56.47**	**319**	*e*P	**P**	**04 46 06.8**	**-0.9**
KURK	**Kurchatov**	**57.77**	**343**	P	**P**	**04 46 15.9**	**-0.7**
	comp=Z,838nm,0.7s						
KURK	**Kurchatov**	**57.77**	**343**	P	**P**	**04 46 15.4**	**-1.2**
KURK				*PP	pP	04 46 28.3	-0.3
KURK						04 47 08.3	
KURK				S	**S**	**04 54 08.5**	**-4.2**
KURK				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.8						
KURK				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.5						
KURK				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
KURK				smax			
	comp=N,3.0nm,1.0s						
KURK	**Kurchatov**	**57.77**	**343**	P	**P**	**04 46 15.4**	**-1.2**
	comp=N,84nm,0.9s,mb5.8,baz=161,slow=7.0,SNR=269						
KURK				pP	pP	04 46 28.3	-0.3
	comp=N,37nm,0.8s,baz=163,slow=7.1,SNR=7.4						
KURK				PcP	PcP	04 47 08.2	-0.7
	comp=N,20nm,0.7s,baz=153,slow=3.0,SNR=4.4						
KURK				S	**S**	**04 54 08.4**	**-4.2**
	comp=N,3.1nm,0.9s,baz=136,slow=16,SNR=8.7						
KURK	**Kurchatov**	**57.77**	**343**⇑	*i*P	**P**	**04 46 15.7**	**-0.9**
	comp=N,118nm,0.9s,mb5.9						
KURK				*e*S	**S**	**04 54 08.8**	**-3.9**
KURK	**Kurchatov**	**57.77**	**343**	P	**P**	**04 46 16.2**	**-0.4**
	SNR=36						
KURK				P		04 46 16.2	
	SNR=36						
ABKT	**Ailbek**	**57.90**	**320**	P	**P**	**04 46 17.1**	**-0.7**
	comp=N,340nm,1.0s,mb6.3,SNR=14						
HNR	**Honiara**	**58.02**	**99**	LR	LR	05 11 14.5	
	comp=N,184nm,21.0s,MS4.2,baz=292,slow=36						
KLR	**Kul'dur**	**58.82**	**23**⇓	*i*P	**P**	**04 46 19.0**	**-5.0**
KLR				*e*		04 46 36.2	
KLR				pmax	pmax		
	comp=E,80nm,1.6s						
KLR				pmax	pmax		
	comp=Z,200nm,1.6s,mb5.9						
ZAA0	**Zalesovo Array**	**59.20**	**348**⇑	*i*P	**P**	**04 46 25.4**	**-1.1**
ZALV	**Zalesovo Beam**	**59.20**	**348**	P	**P**	**04 46 25.7**	**-0.8**
ZALV				*PP	pP	04 46 37.5	-1.1
ZALV				S	**S**	**04 54 26.8**	**-4.4**
ZALV	**Zalesovo Beam**	**59.20**	**348**	P	**P**	**04 46 25.6**	**-0.9**
	comp=Z,252nm,0.7s,mb6.4,baz=160,slow=4.7,SNR=620						
ZALV				pP	pP	04 46 37.5	-1.1
	comp=Z,64nm,0.7s,baz=158,slow=4.8,SNR=7.6						
ZALV				S	**S**	**04 54 26.8**	**-4.4**
	comp=Z,0.9nm,0.3s,baz=170,slow=8.8,SNR=4.2						
ZALV				LR	LR	05 15 19.0	
	comp=Z,306nm,19.2s,MS4.4,baz=153,slow=39						
HABR	**Khabarovsk**	**59.55**	**25**	*e*P	**P**	**04 46 26.1**	**-2.9**
HABR				*e*		04 47 13.0	
HABR				*e*		04 48 37.2	
HABR				*e*		04 56 13.4	
HABR				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.6						
HABR				pmax	pmax		
	comp=N,24nm,1.8s						
HABR				pmax	pmax		
	comp=E,37nm,1.3s						
HABR				MLR	MLR		
	comp=Z,238nm,19.0s,MS4.3						
ISFB	**Sefidab**	**60.03**	**313**	*e*P	**P**	**04 46 32.7**	**0.0**
NVS	**Novosibirsk**	**60.36**	**348**⇑	*i*P	**P**	**04 46 32.8**	**-1.7**
NVS				*i* *PP	pP	04 46 46.4	-0.2
NVS				*e*S	**S**	**04 54 39.8**	**-6.3**
NVS				*e*SS	SS	04 58 42.3	-2.2
NVS				pmax	pmax		
	comp=N,55nm,1.0s						
NVS				pmax	pmax		
	comp=E,46nm,1.0s						
NVS				pmax	pmax		
	comp=Z,86nm,1.0s,mb5.7						
NVS				smax			
	comp=N,44nm,2.1s						
NVS				smax			
	comp=E,39nm,2.4s						
RDF	**Al-Radifah**	**61.29**	**306**	*e*P	**P**	**04 46 41.8**	**+0.4**
RDF				AMb	AMB	04 46 43.2	
	comp=Z,110nm,1.7s,mb5.7						
NAY	**Al-Naaiem**	**61.66**	**306**	*e*P	**P**	**04 46 44.1**	**+0.3**
NAY				AMb	AMB	04 46 45.5	
	comp=Z,56nm,1.0s,mb5.6						
MIB	**Mutribah**	**61.80**	**307**	*e*P	**P**	**04 46 45.4**	**+0.6**
MIB				AMb	AMB	04 46 46.7	
	comp=Z,162nm,1.1s,mb6.1						
VOSK	**Vostochnaya**	**61.96**	**339**	P	**P**	**04 46 43.6**	**-1.8**
VOSK				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.7						
YSS	**Yuzh-Sakhalins**	**62.04**	**31**α	*i*P	**P**	**04 46 44.9**	**-1.1**
YSS				*e*		04 47 02.9	
YSS				pmax	pmax		
	comp=N,50nm,0.9s						
YSS				pmax	pmax		
	comp=E,50nm,0.9s						
YSS				pmax	pmax		
	comp=Z,200nm,0.9s,mb6.2						
YSS	**Yuzh-Sakhalins**	**62.04**	**31**⇑	*i*P	**P**	**04 46 44.8**	**-1.2**
BOD	**Bodaibo**	**62.15**	**7**	*e*P	**P**	**04 46 45.3**	**-1.2**
BOD				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.7						
BVA0	**Borovoye Array**	**62.42**	**339**	P	**P**	**04 46 46.9**	**-1.5**
BVA0				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
BRVK	**Borovoye**	**62.48**	**339**	P	**P**	**04 46 47.6**	**-1.2**
	comp=Z,319nm,0.9s,mb6.5,SNR=27						
BRVK	**Borovoye**	**62.48**	**339**⇑	*i*P	**P**	**04 46 47.5**	**-1.3**
BRVK				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.7						
BRVK	**Borovoye**	**62.48**	**339**⇑	*i*P	**P**	**04 46 47.5**	**-1.3**
	comp=Z,44nm,0.8s,mb5.7						
BRVK	**Borovoye**	**62.48**	**339**	P	**P**	**04 46 48.0**	**-0.8**
	SNR=13						
BRVK				P		04 46 48.0	
	SNR=13						
CLNS	**Chul'man**	**63.24**	**14**	*e*P	**P**	**04 46 52.6**	**-1.2**
CLNS				*e**PP	pP	04 47 01.8	-4.1
CLNS				*e*		04 47 29.4	
CLNS				*e*		04 49 10.3	
CLNS				*e*PPP		04 50 38.2	
CLNS				*e*S	**S**	**04 55 21.3**	**-1.1**
CLNS				*e*SS	SS	04 59 28.4	-1.1
CLNS				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.7						
CLNS				pmax	pmax		
	comp=N,32nm,1.0s						
CLNS				pmax	pmax		
	comp=E,23nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
CLNS				pmax	pmax		
	comp=N,6.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.7s						
CLNS				smax			
	comp=N,69nm,11.5s						
CLNS				smax			
	comp=E,153nm,11.8s						
CLNS				MLR	MLR		
	comp=Z,327nm,15.0s,MS4.6						
CLNS				MLR	MLR		
	comp=N,183nm,16.0s,MS4.6						
CLNS				MLR	MLR		
	comp=E,198nm,13.0s,MS4.6						
AB31	**Akbulak array**	**64.00**	**331**	P	**P**	**04 46 57.6**	**-1.4**
AB31				pmax	pmax		
	comp=Z,111nm,0.8s,mb5.9						
KMBO	**Kilima Mbogo**	**64.50**	**271**	LR	LR	05 13 26.9	
	comp=Z,141nm,19.1s,MS4.2,baz=276,slow=34						
DZM	**Mont Dzumac**	**65.16**	**112**	*e*P	**P**	**04 47 05.6**	**-1.6**
	comp=Z,46nm,1.3s,mb5.3						
HAKT	**HAKKARI**	**67.65**	**313**	*i* P	sP	04 47 43.1	+3.4
GNI	**Garni**	**67.99**	**316**⇑	*i*P	**P**	**04 47 25.5**	**+0.6**
GNI				pmax	pmax		
	comp=Z,29nm,0.8s						
GNI	**Garni**	**67.99**	**316**⇑	*i*P	**P**	**04 47 25.5**	**+0.6**
	comp=Z,29nm,0.8s,mb5.4						
GNI	**Garni**	**67.99**	**316**	⇓P	**P**	**04 47 25.9**	**+1.0**
	SNR=8.3						
GNI				⇓P		04 47 25.9	
	SNR=8.3						
MTA	**Mtatsminda**	**68.63**	**318**	P	**P**	**04 47 29.9**	**+1.1**
TBLG	**Delisi**	**68.68**	**318**	P	**P**	**04 47 29.9**	**+0.8**
SVE	**Sverdlovsk**	**68.95**	**337**⇓	*e*P	**P**	**04 47 29.8**	**-0.7**
SVE				pmax	pmax		
	comp=Z,133nm,1.1s,mb5.8						
YAK	**Yakutsk**	**68.98**	**14**⇑	*i*P	**P**	**04 47 28.4**	**-2.2**
YAK				pmax	pmax		
	comp=Z,293nm,0.8s,mb6.3						
YAK	**Yakutsk**	**68.98**	**14**⇑	*i*P	**P**	**04 47 28.4**	**-2.2**
	comp=Z,293nm,0.8s,mb6.3						
MAW	**Mawson**	**69.06**	**195**	LR	LR	05 12 15.1	
	comp=Z,615nm,19.5s,MS4.8,baz=73,slow=31						
GOR	**Gori**	**69.22**	**318**	P	**P**	**04 47 33.7**	**+1.3**
ARU	**Arti**	**69.50**	**336**	P	**P**	**04 47 33.4**	**-0.5**
	comp=Z,340nm,0.6s,mb6.5,SNR=6.3						
ARU	**Arti**	**69.50**	**336***d*	*i*P	**P**	**04 47 32.7**	**-1.2**
ARU				*e*		04 50 07.9	
ARU				S	S	04 56 38.5	+0.1
ARU				SS	SS	05 01 03.7	-2.9
ARU				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
ARU	**Arti**	**69.50**	**336**⇑	*i*P	**P**	**04 47 32.8**	**-1.0**
	comp=Z,67nm,1.1s,mb5.5						
BEST	**Besiri**	**69.56**	**313**	*i* P	**P**	**04 47 35.2**	**+0.5**
MARD	**Mardin**	**69.71**	**312**	*i* P	**P**	**04 47 35.6**	**0.0**
ONI	**Oni**	**69.91**	**318**	P	**P**	**04 47 37.6**	**+0.8**
HOMI	**Horasan**	**69.93**	**315**	*i* P	**P**	**04 47 38.0**	**+1.1**
KOPT	**Kop Dagi**	**70.92**	**315**	*i* P	**P**	**04 47 43.8**	**+0.8**
KIV	**Kislovodsk**	**71.00**	**319**	P	**P**	**04 47 43.6**	**+0.2**
	comp=Z,446nm,1.0s,mb6.3,SNR=13						
KIV	**Kislovodsk**	**71.00**	**319**α	*i*P	**P**	**04 47 43.6**	**+0.2**
KIV				*SP	sP	04 47 59.0	-1.4
KIV						04 48 04.0	
KIV				*e*S	S	04 56 57.1	+0.6
KIV				*e*PS		04 57 22.5	
KIV				pmax	pmax		
	comp=Z,84nm,1.0s,mb5.6						
KIV	**Kislovodsk**	**71.00**	**319**⇑	*i*P	**P**	**04 47 43.2**	**-0.1**
	comp=Z,75nm,0.9s,mb5.6						
KIV	**Kislovodsk**	**71.00**	**319**	P	**P**	**04 47 43.8**	**+0.4**
	SNR=12						
KIV				P		04 47 43.8	
	SNR=12						
SKR	**Severo-Kuril's**	**71.33**	**33**	*e*P	**P**	**04 47 44.4**	**-0.8**
SKR				pmax	pmax		
	comp=Z,240nm,0.8s,mb6.2						
ELZG	**Elazig**	**71.46**	**313**	*i* P	**P**	**04 47 46.9**	**+0.6**
ATAB	**Bozova**	**71.61**	**311**	*i* P	**P**	**04 47 48.3**	**+1.1**
MALT	**Malatya**	**71.81**	**312**⇑	*i*P	**P**	**04 47 48.9**	**+0.6**
MALT				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
MALT				MLR	MLR		
	comp=Z,105nm,21.0s,MS4.1						
MALT	**Malatya**	**71.81**	**312**⇓	*i*P	**P**	**04 47 49.1**	**+0.8**
MALT	**Malatya**	**71.81**	**312**⇑	*i*P	**P**	**04 47 48.9**	**+0.6**
	comp=Z,36nm,1.1s,mb5.2						
MALT				LR	LR		
	comp=Z,105nm,21.0s,MS4.1						
GZT	**Gaziantep**	**72.13**	**311**	*i* P	**P**	**04 47 51.2**	**+0.9**
AKCD	**Akcadag**	**72.17**	**312**	*i* P	**P**	**04 47 51.1**	**+0.5**
RPZ	**Rata Peaks**	**72.51**	**135**	P	**P**	**04 47 51.1**	**-1.4**
	comp=Z,24nm,0.6s,mb5.3,baz=304,slow=6.7,SNR=10						
RPZ				LR	LR	05 18 21.1	
	comp=Z,363nm,18.7s,MS4.7,baz=58,slow=35						
SOC	**Sochi**	**72.82**	**318***c*	*i*P	**P**	**04 47 53.5**	**-0.8**
SOC				*e**SP	sP	04 48 06.2	-5.1
SOC				*e*	pP	04 48 08.3	+1.7
SOC				*e*		04 50 42.6	
SOC				*e*S	S	04 57 17.6	+0.2
SOC				*e*		04 57 56.2	
SOC				*e*SS	SS	05 01 55.9	-2.3
SOC				pmax	pmax		
	comp=Z,91nm,0.8s,mb5.8						
SOC				MLR	MLR		
	comp=Z,296nm,15.0s,MS4.7						
SOC	**Sochi**	**72.82**	**318**	*i* P	**P**	**04 47 54.3**	**0.0**
GRSN	**GIRESUNGRSN**	**72.83**	**315**	*i* P	**P**	**04 47 54.2**	**-0.2**
LSZ	**Lusaka**	**73.19**	**255**	*e*P	**P**	**04 47 57.9**	**+0.9**
LSZ				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
LSZ				MLR	MLR		
	comp=Z,472nm,21.0s,MS4.8						
LSZ	**Lusaka**	**73.19**	**255**	P	**P**	**04 47 58.0**	**+1.0**
	comp=Z,2.4nm,0.8s,mb4.2,baz=100,slow=5.6,SNR=5.9						
LSZ	**Lusaka**	**73.19**	**255**	*e*P	**P**	**04 47 57.9**	**+0.9**
	comp=Z,5.9nm,0.9s,mb4.5						
LSZ				LR	LR		
	comp=Z,472nm,21.0s,MS4.8						
PEA0B	**Petropavlovsk-**	**73.42**	**31**	*e*P	**P**	**04 47 55.9**	**-1.7**
PETK	**Petropavlovsk-**	**73.42**	**31**	P	**P**	**04 47 55.9**	**-1.7**
PETK				*PP	pP	04 48 11.3	+1.4
PETK	**Petropavlovsk-**	**73.42**	**31**	P	**P**	**04 47 55.9**	**-1.7**
	comp=Z,38nm,0.7s,mb5.5,baz=258,slow=9.3,SNR=77						
PETK				pP	pP	04 48 11.3	+1.4
	comp=Z,10nm,0.7s,baz=186,slow=2.8,SNR=3.8						
PETK				LR	LR	05 20 08.3	
	comp=Z,124nm,20.2s,MS4.2,baz=250,slow=36						
PETK	**Petropavlovsk-**	**73.42**	**31**	P	**P**	**04 47 55.9**	**-1.7**
PETK				pP	pP	04 48 11.3	+1.4
PETK				LR	LR	05 20 08.3	
PET	**Petropavlovsk**	**73.88**	**32**⇑	*i*P	**P**	**04 47 58.7**	**-1.6**
PET				pmax	pmax		
	comp=Z,235nm,0.7s,mb6.2						
PET				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.2						
PET	**Petropavlovsk**	**73.88**	**32**⇑	*i*P	**P**	**04 47 58.5**	**-1.8**
	comp=Z,119nm,0.6s,mb6.0						
TOKA	**Tokat**	**73.91**	**314**	*i* P	**P**	**04 48 01.2**	**+0.5**
AVNT	**Avonos**	**74.61**	**312**	*i* P	**P**	**04 48 04.5**	**-0.4**
CSS	**Prodhromos**	**74.67**	**308**	P	**P**	**04 48 06.2**	**+0.9**
VRHR	**Novokhopersk**	**74.75**	**325**	*e*P	**P**	**04 48 04.5**	**-0.9**
VRHR				pmax	pmax		
	comp=Z,150nm,0.8s,mb6.0						
VRHR				pmax	pmax		
	comp=N,30nm,0.7s						
ANN	**Anapa**	**74.80**	**318**	*e*P	**P**	**04 48 02.1**	**-3.7**
ANN				pmax	pmax		
	comp=Z,110nm,1.8s,mb5.5						
CDAG	**Cicekdag**	**75.22**	**312**	*i* P	**P**	**04 48 07.7**	**-0.7**
BOYT	**Boyabat**	**75.39**	**314**	*i* P	**P**	**04 48 09.4**	**0.0**
BRTR	**Keskin Array B**	**75.79**	**312**	P	**P**	**04 48 11.2**	**-0.5**
	comp=Z,36nm,0.8s,mb5.4,baz=136,slow=7.3,SNR=171						
BRTR				LR	LR	05 20 40.1	
	comp=Z,68nm,21.6s,MS3.9,baz=104,slow=35						
VORD	**Divnogorie**	**76.03**	**325**	*e*P	**P**	**04 48 11.1**	**-1.6**
VORD				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
VORD				pmax	pmax		
	comp=N,20nm,0.5s						
VORD				pmax	pmax		
	comp=E,50nm,0.6s						
URZ	**Urewera**	**76.19**	**128**	P	**P**	**04 48 13.0**	**-1.0**
	comp=E,7.9nm,0.5s,mb4.9,baz=253,slow=7.4,SNR=8.2						
URZ				PKKP	PKKPbc	05 07 14.8	-15
	comp=E,13nm,0.9s,baz=64,slow=3.9,SNR=3.6						
URZ				LR	LR	05 17 55.3	
	comp=E,321nm,21.4s,MS4.6,baz=92,slow=33						
URZ	**Urewera**	**76.19**	**128**	P	**P**	**04 48 13.0**	**-1.0**
URZ				PKKP	PKKPbc	05 07 14.8	-15
URZ				LR	LR	05 17 55.3	
VSR	**Storozhevoye**	**76.20**	**325**	*e*P	**P**	**04 48 12.6**	**-1.1**
VSR				pmax	pmax		
	comp=N,30nm,0.8s						
VSR				pmax	pmax		
	comp=Z,110nm,0.8s,mb5.8						
VSR				pmax	pmax		
	comp=E,80nm,0.9s						
BOSA	**Boshof**	**76.38**	**242**	P	**P**	**04 48 16.0**	**+0.7**
	comp=E,3.9nm,0.8s,mb4.4,baz=92,slow=5.5,SNR=12						
BOSA				LR	LR	05 16 19.0	
	comp=E,370nm,18.6s,MS4.7,baz=141,slow=31						
BOSA	**Boshof**	**76.38**	**242**	P	**P**	**04 48 16.0**	**+0.7**
BOSA				LR	LR	05 16 19.0	
BALT	**Daday**	**76.51**	**314**	*i* P	**P**	**04 48 15.9**	**+0.2**
SEY	**Seymchan**	**76.58**	**21**⇑	*e*P	**P**	**04 48 14.7**	**-0.9**
KDHN	**Kadinhani**	**76.58**	**311**	*i* P	**P**	**04 48 15.1**	**-1.1**
SYO	**Syowa Base**	**76.81**	**199**⇑	*e*P	**P**	**04 48 17.6**	**+0.8**
SYO	**Syowa Base**	**76.81**	**199**⇑	*e*PcP	PcP	04 48 26.0	-1.9
SYO	**Syowa Base**	**76.81**	**199**⇓	*e*sP	sP	04 48 31.6	-2.4
SIM	**Simferopol'**	**77.06**	**318***c*	*i*P	**P**	**04 48 18.7**	**-0.1**
SIM				pmax	pmax		
	comp=Z,79nm,0.7s,mb5.8						
TIXI	**Tiksi**	**77.29**	**9**⇑	*i*P	**P**	**04 48 16.9**	**-2.6**
TIXI				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.4						
TIXI	**Tiksi**	**77.29**	**9**⇑	*i*P	**P**	**04 48 16.9**	**-2.6**
	comp=Z,52nm,1.1s,mb5.4						
ISP	**Isparta**	**77.63**	**310**	*e*P	**P**	**04 48 22.3**	**+0.2**
ESKT	**Eskisehir**	**77.80**	**312**	*i* P	**P**	**04 48 22.7**	**-0.3**
AKAS	**Kas**	**77.93**	**308**	*i* P	**P**	**04 48 22.6**	**-1.2**
PRGR	**Permogore**	**77.96**	**336**⇑	*i*P	**P**	**04 48 22.9**	**-0.5**
PRGR				S	S	04 58 19.0	+5.4
PRGR				pmax	pmax		
	comp=Z,163nm,0.9s,mb6.0						
GOLH	**Golhisar**	**78.21**	**309**	*i* P	**P**	**04 48 24.6**	**-0.7**
KHAL	**Karahalli**	**78.53**	**310**	*i* P	**P**	**04 48 25.9**	**-1.2**
TURN	**Turunc**	**78.87**	**309**	*i* P	**P**	**04 48 30.6**	**+1.6**
MOS	**Moscow**	**78.89**	**329**	*e*P	**P**	**04 48 26.2**	**-2.4**
MOS				*e*	pP	04 48 36.2	-4.9
MOS				pmax	pmax		
	comp=Z,136nm,1.2s,mb5.8						
OBN	**Obninsk**	**79.19**	**328**	P	**P**	**04 48 30.6**	**+0.3**
	comp=Z,608nm,1.0s,mb6.5,SNR=5.4						
OBN	**Obninsk**	**79.19**	**328**α	*e*P	**P**	**04 48 30.2**	**-0.1**
OBN						04 48 38.0	
OBN				*e**SP	sP	04 48 45.6	-1.9
OBN				*e*		04 51 29.4	
OBN				*i*		04 58 23.3	
OBN				*e*		04 58 47.0	
OBN				*e*PS		04 59 09.6	
OBN				pmax	pmax		
	comp=Z,138nm,1.2s,mb5.8						
OBN	**Obninsk**	**79.19**	**328**⇑	*i*P	**P**	**04 48 29.7**	**-0.6**
	comp=Z,76nm,0.9s,mb5.6						
ULDT	**Uludag**	**79.23**	**312**	*i* P	**P**	**04 48 31.1**	**+0.2**
AYDN	**Tasoluk**	**79.61**	**309**	*i* P	**P**	**04 48 33.8**	**+0.8**
BDRM	**Kayabasi**	**79.81**	**309**	*i* P	**P**	**04 48 32.9**	**-1.2**
GCAM	**G?zelcaml?**	**80.12**	**309**	*i* P	**P**	**04 48 36.2**	**+0.5**
VNDA	**Vanda**	**80.13**	**169**	P	**P**	**04 48 35.0**	**-0.1**
	comp=Z,7.1nm,1.2s,mb4.5,baz=311,slow=6.3,SNR=4.1						
VNDA				LR	LR	05 19 05.4	
	comp=Z,103nm,18.4s,MS4.2,baz=310,slow=32						
VNDA	**Vanda**	**80.13**	**169**	*e*P	**P**	**04 48 34.0**	**-1.1**
	comp=Z,6.5nm,0.9s,mb4.6						
VNDA				LR	LR		
	comp=Z,108nm,19.0s,MS4.2						
KLMR	**Klimovskoe**	**80.15**	**334**⇑	*i*P	**P**	**04 48 35.0**	**-0.4**
KLMR				*e*		04 51 42.3	
KLMR				pmax	pmax		
	comp=Z,157nm,1.7s,mb5.7						
BALY	**Balya**	**80.27**	**311**	*i* P	**P**	**04 48 36.8**	**+0.2**
TLCR		**80.73**	**317**⇓	*i*P	**P**	**04 48 38.9**	**+0.1**
TLCR		**80.73**	**317**	⇓P	**P**	**04 48 38.9**	**+0.1**
TIRR	**Tirgusor**	**80.82**	**316**⇑	*i*P	**P**	**04 48 38.9**	**-0.5**
TIRR				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
TIRR	**Tirgusor**	**80.82**	**316**⇑	*i*P	**P**	**04 48 39.2**	**-0.2**
TIRR	**Tirgusor**	**80.82**	**316**⇑	*i*P	**P**	**04 48 38.9**	**-0.4**
	comp=Z,29nm,0.9s,mb5.2						
AYVA	**Ayvalik**	**80.88**	**311**	*i* P	**P**	**04 48 39.8**	**0.0**
LAST	**Lasithi**	**80.98**	**306**	P	**P**	**04 48 41.4**	**+0.9**
CHOS	**Chios island**	**81.17**	**310**	P	**P**	**04 48 42.3**	**+0.9**
KIS	**Kishinev**	**81.19**	**319**	*e*P	**P**	**04 48 41.0**	**-0.3**
HARR	**Harsova**	**81.21**	**316**⇓	*i*P	**P**	**04 48 41.8**	**+0.4**
HARR	**Harsova**	**81.21**	**316**	P	**P**	**04 48 42.0**	**+0.5**
SIVA	**Sivas**	**81.50**	**306**	P	**P**	**04 48 44.2**	**+1.0**
ALN	**Alexandroupoli**	**81.70**	**312**	P	**P**	**04 48 44.1**	**0.0**
AKASG	**Malin Array Be**	**81.93**	**322**	P	**P**	**04 48 44.2**	**-0.9**
AKASG						04 51 52.0	
AKASG	**Malin Array Be**	**81.93**	**322**	P	**P**	**04 48 44.2**	**-0.9**
	comp=Z,19nm,0.6s,mb5.2,baz=88,slow=4.8,SNR=48						
AKASG				PP	PP	04 51 52.0	-1.1
	comp=Z,4.8nm,0.8s,baz=82,slow=6.8,SNR=5.6						
AKASG				LR	LR	05 30 12.0	
	comp=Z,92nm,18.3s,MS4.2,baz=65,slow=39						
AKASG	**Malin Array Be**	**81.93**	**322**	P	**P**	**04 48 44.2**	**-0.9**
AKASG				PP	PP	04 51 52.0	-1.1
AKASG				LR	LR	05 30 12.0	
KIEV	**Kiev**	**81.94**	**322**	*e*P	**P**	**04 48 43.9**	**-1.2**
KIEV				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
KIEV	**Kiev**	**81.94**	**322**	*e*P	**P**	**04 48 43.9**	**-1.2**
	comp=Z,16nm,0.6s,mb5.1						
VAM	**Vamos**	**82.06**	**306**	*e*P	**P**	**04 48 47.0**	**+0.9**
LIA	**Limnos Island**	**82.14**	**311**	P	**P**	**04 48 46.5**	**0.0**
KARN	**Karanos**	**82.28**	**306**	P	**P**	**04 48 48.3**	**+1.0**
VRI	**Vrincioaia**	**82.32**	**317**⇓	*i*P	**P**	**04 48 47.9**	**+0.7**
VRI	**Vrincioaia**	**82.32**	**317**⇑	*i*P	**P**	**04 48 48.3**	**+1.1**
VRI	**Vrincioaia**	**82.32**	**317**	P	**P**	**04 48 47.9**	**+0.7**
KDZ	**Kurdzhali**	**82.32**	**313**	*i* P	**P**	**04 48 47.3**	**-0.1**
PLOR	**Plostina**	**82.37**	**317**	P	**P**	**04 48 48.1**	**+0.6**
MLR	**Muntele Rosu**	**82.77**	**317**⇑	*i*P	**P**	**04 48 50.2**	**+0.6**
MLR	**Muntele Rosu**	**82.77**	**317**	P	**P**	**04 48 50.3**	**+0.8**
RZN	**Rozhen**	**82.84**	**313**	*i* P	**P**	**04 48 50.3**	**+0.2**
KYTH	**Kithira**	**83.14**	**307**	*e*P	**P**	**04 48 51.6**	**-0.1**
DID	**Didima**	**83.19**	**308**	P	**P**	**04 48 51.2**	**-0.8**
VLI	**Veliai**	**83.29**	**307**	*e*P	**P**	**04 48 52.0**	**-0.5**

VOIR		83.37	316⇑	iP	P	04 48 52.4	-0.3
VOIR		83.37	316	P	P	04 48 52.6	-0.1
PGB	Panagyurishte	83.41	313	i P	P	04 48 52.9	-0.1
PLG	Polygyros	83.54	311	P	P	04 48 53.5	-0.2
BUR02	Bucovina Ar. S	83.72	319	P	P	04 48 55.3	+0.9
BURAR	Bucovina Array	83.72	319⇑	iP	P	04 48 55.5	+1.0
BUR08	Bucovina Ar. S	83.74	319⇑	iP	P	04 48 55.4	+0.9
MICGM	Minsk	83.75	326⇑	eP	P	04 48 52.0	-2.4
MNK	Minsk	83.77	326⇑	eP	P	04 48 52.0	-2.6
MNK				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.2						
PUL	Pulkovo	83.98	331⇑	eP	P	04 48 55.7	+0.2
KKB	Krupnik	84.08	313	i P	P	04 48 56.9	+0.5
VTS	Vitosha	84.12	313	P	P	04 48 56.9	+0.3
VTS	Vitosha	84.12	313	i P	P	04 48 56.5	-0.1
ITM	Ithomi	84.17	308	eP	P	04 48 58.9	+1.9
BILL	Bilibino	84.17	20α	iP	P	04 48 54.6	-1.7
BILL				*SP	sP	04 49 10.0	-3.5
BILL				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.3						
BILL	Bilibino	84.17	20⇑	iP	P	04 48 54.4	-1.9
	comp=Z,17nm,0.9s,mb5.2						
KALE	Kalithea	84.19	309	P	P	04 48 56.8	-0.3
LIT	Litokhoron	84.21	311	P	P	04 48 56.7	-0.4
TRIZ	Trizonia	84.24	309	P	P	04 48 57.0	-0.3
PYL	PYLOS	84.27	307	eP	P	04 48 56.3	-1.2
LAKA	Lakka	84.30	309	P	P	04 48 57.7	+0.1
GRG	Griva	84.42	312	P	P	04 48 57.8	-0.4
NACGM	Naroch	84.47	326	e	P	04 48 55.0	-3.1
THL	Klokotos Trika	84.48	310	P	P	04 48 52.1	-6.4
JOF	Joensuu	84.53	334	ep	P	04 48 56.5	-1.8
	comp=Z,29nm,0.7s,mb5.5						
EVR	Evrytania	84.54	309	eP	P	04 48 50.0	-8.8
BMR	Baia Mare	84.87	318⇑	iP	P	04 49 01.7	+1.4
BMR	Baia Mare	84.87	318	P	P	04 49 01.4	+1.2
GZR	Gura Zlata	84.93	316⇑	iP	P	04 49 00.8	+0.1
GZR	Gura Zlata	84.93	316	P	P	04 49 01.0	+0.4
LVV	L'vov	84.95	321⇓	iP	P	04 49 05.0	+4.3
LVV				e		04 49 22.3	
LVV				i		04 52 19.7	
LVZ	Lovozero	85.01	340	P	P	04 48 59.8	-0.8
	comp=Z,310nm,0.8s,mb6.5,SNR=7.0						
LVZ	Lovozero	85.01	340⇑	eP	P	04 48 59.1	-1.5
DRGR		85.23	317⇓	iP	P	04 49 02.8	+0.7
DRGR		85.23	317	P	P	04 49 02.8	+0.6
APA	Apatity	85.33	339	eP	P	04 49 00.0	-2.2
APA				pmax	pmax		
	comp=Z,54nm,1.2s,mb5.5						
TRPA	Tarpa	85.59	319⇑	iP	P	04 49 04.2	+0.3
KWP	Kalwaria Pacla	85.76	320	eP	P	04 49 05.0	+0.4
KWP	Kalwaria Pacla	85.76	320⇑	iP	P	04 49 05.2	+0.5
KWP	Kalwaria Pacla	85.76	320	eP	P	04 49 05.1	+0.4
BZS	Buzias	85.77	316⇓	iP	P	04 49 05.0	+0.1
BZS	Buzias	85.77	316	P	P	04 49 05.0	+0.2
UZH	Uzhgorod	85.84	319⇓	iP	P	04 49 05.0	-0.1
UZH				e		04 49 22.3	
UZH				i		04 52 25.5	
KOLS	Kolonicke sedl	85.91	319	eP	P	04 49 06.3	+0.9
KOLS				pmax	pmax		
	comp=Z,65nm,0.9s,mb5.9						
KOLS	Kolonicke sedl	85.91	319	eP	P	04 49 06.3	+0.9
	comp=Z,65nm,0.9s,mb5.9						
QSPA	South Pole Qui	86.23	180	P	P	04 49 06.8	+0.3
	comp=Z,8.0nm,1.1s,mb4.9,baz=284,slow=1.8,SNR=19						
QSPA				LR	LR	05 22 00.0	
	comp=Z,261nm,21.6s,MS4.6,baz=331,slow=32						
SUW	Suwalki	86.31	325	eP	P	04 49 06.9	-0.4
SUW	Suwalki	86.31	325	eP	P	04 49 06.9	-0.4
CRVS	Cervenica-Dubn	86.43	319	eP	P	04 49 08.1	+0.1
KAF	Kangasniemi	86.52	333	eP	P	04 49 06.1	-2.1
KAF				pmax	pmax		
	comp=Z,48nm,0.6s,mb5.9						
KAF	Kangasniemi	86.52	333	ep	P	04 49 06.1	-2.1
	comp=Z,48nm,0.6s,mb5.9						
STHS	Stebnicka Huta	86.66	320	eP	P	04 49 09.8	+0.7
STHS				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.5						
STHS	Stebnicka Huta	86.66	320	eP	P	04 49 09.8	+0.7
	comp=Z,26nm,0.8s,mb5.5						
DIVS	Divibare	86.68	314	P	P	04 49 09.8	+0.5
KECS	Kecovo	87.00	319	eP	P	04 49 11.0	+0.2
KECS				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.1						
KECS	Kecovo	87.00	319	eP	P	04 49 10.9	+0.1
KECS	Kecovo	87.00	319	eP	P	04 49 11.0	+0.2
	comp=Z,11nm,0.9s,mb5.1						
NIE	Niedzica	87.26	320	eP	P	04 49 12.7	+0.7
PSZ	Piszkesteto	87.31	318	eP	P	04 49 11.9	-0.4
PSZ				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.2						
PSZ	Piszkesteto	87.31	318⇑	iP	P	04 49 12.7	+0.4
PSZ	Piszkesteto	87.31	318	eP	P	04 49 11.9	-0.4
	comp=Z,13nm,0.8s,mb5.2						
OJC	Ojcow	87.71	320	eP	P	04 49 14.4	+0.2
VYHS	Vyhne	88.09	319	eP	P	04 49 15.8	-0.2
VYHS				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.0						
VYHS	Vyhne	88.09	319	eP	P	04 49 15.8	-0.2
	comp=Z,11nm,1.2s,mb5.0						
KEV	Kevo	88.25	340	eP	P	04 49 13.7	-2.6
KEV				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.6						
KEV	Kevo	88.25	340	ep	P	04 49 13.7	-2.6
	comp=Z,30nm,0.8s,mb5.6						
TIP	Timpagrande	88.47	309	eP	P	04 49 18.9	+0.9
	comp=Z,27nm,1.0s,mb5.4						
ARCES	ARCESS Array B	88.70	340	P	P	04 49 17.9	-0.5
ARCES				*SP	sP	04 49 36.7	+0.9
ARCES	ARCESS Array B	88.70	340	P	P	04 49 17.9	-0.5
	comp=Z,43nm,0.8s,mb5.8,baz=100,slow=5.0,SNR=60						
ARCES				sP	sP	04 49 36.7	+1.0
	comp=Z,15nm,0.8s,baz=101,slow=6.3,SNR=4.1						
ARCES				LR	LR	05 31 56.7	
	comp=Z,354nm,18.7s,MS4.8,baz=280,slow=38						
ARCES	ARCESS Array B	88.70	340	P	P	04 49 17.9	-0.5
ARCES				sP	sP	04 49 36.7	+1.0
ARCES				LR	LR	05 31 56.7	
ARE0	ARCESS Array S	88.70	340	eP	P	04 49 17.9	-0.5
OKC	Ostrava-Krasne	88.71	320⇑	iP	P	04 49 19.4	+0.5
ORI	Oriolo Calabro	88.80	310	P	P	04 49 21.3	+1.7
ORI				pmax	pmax		
	comp=Z,106nm,0.8s,mb6.2						
ORI	Oriolo Calabro	88.80	310	P	P	04 49 21.3	+1.7
	comp=Z,106nm,0.8s,mb6.2						
SOI	Samo	88.90	308	P	P	04 49 21.2	+1.1
CEL	Celeste	89.05	308⇑	iP	P	04 49 21.9	+1.1
	comp=Z,81nm,1.1s,mb6.0						
MORC	Moravsky Berou	89.09	320	eP	P	04 49 20.7	0.0
MORC				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.6						
MORC	Moravsky Berou	89.09	320⇓	iP	P	04 49 21.2	+0.5
MORC	Moravsky Berou	89.09	320	eP	P	04 49 20.7	0.0
	comp=Z,27nm,0.8s,mb5.6						
MODS	Modra-Piesok	89.10	318	eP	P	04 49 21.3	+0.5
MODS				pmax	pmax		
	comp=Z,16nm,1.3s,mb5.2						
MODS	Modra-Piesok	89.10	318	eP	P	04 49 21.3	+0.5
	comp=Z,16nm,1.3s,mb5.2						
PTRP	Pietrapertosa	89.14	311	P	P	04 49 22.7	+1.5
MTTG	Motta San Giov	89.18	308	P	P	04 49 23.0	+1.6
ACER	Acerenza	89.25	311	P	P	04 49 22.8	+1.1
	comp=Z,86nm,0.8s,mb6.1						
CUC	Castrocucco	89.27	310⇑	iP	P	04 49 21.5	-0.3
	comp=Z,31nm,0.8s,mb5.7						
SOP	Sopron	89.51	318⇑	eP	P	04 49 22.9	+0.2
RGNG	Rignano Grg	89.60	312	P	P	04 49 23.6	+0.3
VRAC	Vranov	89.66	319⇓	iP	P	04 49 24.0	+0.6
VRAC	Vranov	89.66	319	P	P	04 49 23.8	+0.4
GKP	Gorka Klasztor	89.69	323	eP	P	04 49 23.2	-0.3
WDD	Wield Dalam	89.93	306	eP	P	04 49 25.3	+0.3
	comp=Z,54nm,0.6s,mb6.1						
FG2	Serracapriola	89.93	312	P	P	04 49 25.6	+0.7
	comp=Z,102nm,0.6s,mb6.3						
DPC	Dobruska-Polom	89.94	320⇑	iP	P	04 49 25.6	+0.9
CONA	Conrad Observa	90.00	318	i P	P	04 49 25.1	+0.1
	comp=Z,12nm,0.9s,mb5.2,SNR=12						
CSNA	Conrad Observa	90.00	318⇓	iP	P	04 49 25.0	0.0
	comp=Z,11nm,0.9s,mb5.2						
KSP	Ksiaz	90.01	321	eP	P	04 49 25.8	+0.8
KSP	Ksiaz	90.01	321	eP	P	04 49 25.8	+0.8
ARSA	Arzberg	90.16	317	i PcP	P	04 49 26.2	+0.4
	comp=Z,23nm,0.8s,mb5.5,SNR=31						
BOJS	Bojanci	90.19	315	i P	P	04 49 26.5	+0.5
TREC	Trest	90.38	319⇑	iP	P	04 49 27.1	+0.4
PERS	Pernice	90.39	317	i P	P	04 49 27.4	+0.5
SOKA	Soboth	90.45	317⇑	iPcP	P	04 49 27.6	+0.5
	comp=Z,40nm,0.9s,mb5.8						
VISS	Visnje	90.51	316	i P	P	04 49 27.9	+0.4
LJU	Ljubljana	90.74	316	eP	P	04 49 24.0	-4.5
LJU				e		04 49 49.5	
OBKA	Obir	90.77	316⇑	iPcP	P	04 49 29.2	+0.6
	comp=Z,14nm,0.7s,mb5.4						
PRU	Pruhonice	91.05	320⇑	iP	P	04 49 30.0	+0.1
JAVS	Javornik	91.06	316	i P	P	04 49 29.9	-0.1
MOA	Molln	91.06	318⇑	iP	P	04 49 29.9	0.0
	comp=Z,10.0nm,0.8s,mb5.2,SNR=14						
PVCC	Panska Ves	91.07	320⇑	iP	P	04 49 30.7	+0.7
PTQR	Pietraquaria	91.26	312	P	P	04 49 31.2	+0.2
	comp=Z,18nm,0.6s,mb5.6						
AQU	L'Aquila	91.28	312	P	P	04 49 31.8	+0.7
MYKA	Terra Mystica	91.40	316⇑	iPcP	P	04 49 31.8	+0.2
	comp=Z,9.0nm,0.7s,mb5.2						
BRG	Berggiesshubel	91.50	321	i P	P	04 49 32.2	+0.3
BRG				e		04 49 52.6	
BRG				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.3						
BRG				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.1						
BRG	Berggiesshubel	91.50	321	eP	P	04 49 32.4	+0.5
	comp=Z,22nm,0.9s,mb5.5						
BRG	Berggiesshubel	91.50	321	i P	P	04 49 32.2	+0.3
	comp=Z,22nm,0.9s,mb5.5						
BRG				e		04 49 52.6	
	comp=Z,18nm,1.2s						
GEC2	GERESS Array S	91.51	319	eP	P	04 49 32.4	+0.4
GEC2				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.4						
GEC2	GERESS Array S	91.51	319	eP	P	04 49 32.4	+0.4
	comp=Z,18nm,0.9s,mb5.4						
GERES	GERESS Array B	91.51	319	P	P	04 49 32.1	+0.1
	comp=Z,8.9nm,0.8s,mb5.1,baz=93,slow=5.3,SNR=78						
GERES				PP	PP	04 53 12.7	+2.3
	comp=Z,0.6nm,0.6s,baz=98,slow=6.0,SNR=3.7						
GERES				PKKP	PKKPbc	05 06 50.2	-4.0
	comp=Z,0.3nm,0.7s,baz=0.0,slow=4.0,SNR=3.5						
PTCC	Patocco-Chiusa	91.58	316	P	P	04 49 32.4	0.0
KHC	Kasperske Hory	91.61	319⇑	iP	P	04 49 32.6	+0.1
KHC				ex	x	04 49 36.5	
KBA	Koelnbreinsper	91.63	317⇓	iP	P	04 49 32.2	-0.4
	comp=Z,10nm,1.0s,mb5.1,SNR=9.2						
GAMB	Gambell	91.79	26	eP	P	04 49 31.0	-1.9
	comp=Z,9.4nm,0.9s,mb5.1						
FSSB	Fossombrone	91.82	313	P	P	04 49 34.4	+0.8
FBE	Freiberg	91.87	321	eP	P	04 49 34.0	+0.4
	comp=Z,16nm,0.9s,mb5.3						
RJOB	Jochberg	92.05	318	eP	P	04 49 34.1	-0.4
	comp=Z,19nm,0.9s,mb5.4						
WET	Wettzell	92.07	319	eP	P	04 49 34.4	-0.2
WET				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.4						
WET	Wettzell	92.07	319	eP	P	04 49 34.4	-0.2
	comp=Z,18nm,0.9s,mb5.4						
CLL	Collm	92.11	321⇓	iP	P	04 49 34.9	+0.1
CLL				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.1						
CLL	Collm	92.11	321	eP	P	04 49 34.7	-0.1
	comp=Z,11nm,1.1s,mb5.1						
CLL	Collm	92.11	321⇓	iP	P	04 49 34.9	+0.1
	comp=Z,11nm,1.1s,mb5.1						
CLL	Collm	92.11	321⇓	iP	P	04 49 34.9	+0.1
	comp=Z,11nm,1.1s,mb5.1						
ABTA	Abfaltersbach	92.18	317⇑	iP	P	04 49 34.8	-0.4
	comp=Z,9.8nm,1.0s,mb5.1,SNR=12						
HFS	Hagfors	92.25	330	P	P	04 49 34.7	-0.5
	comp=Z,29nm,0.8s,mb5.7,baz=116,slow=3.4,SNR=25						
HFS				sP	sP	04 49 53.4	+0.9
	comp=Z,8.4nm,0.8s,baz=97,slow=7.6,SNR=2.9						
HFS				PP	PP	04 53 14.8	-1.1
	comp=Z,5.5nm,0.7s,baz=134,slow=11,SNR=3.8						
NKC	Novy Kostel	92.41	320⇑	eP	P	04 49 36.8	+0.6
TANN	Tannenbergstha	92.41	320	eP	P	04 49 36.3	+0.2
	comp=Z,8.0nm,1.0s,mb5.0						
WERN	Wernitzgruen	92.46	320	eP	P	04 49 36.5	+0.1
	comp=Z,8.0nm,0.8s,mb5.1						
GUNZ	Gunzen	92.49	320	eP	P	04 49 36.9	+0.4
	comp=Z,10.0nm,0.8s,mb5.2						
WERD	Werda	92.51	320	eP	P	04 49 36.8	+0.2
	comp=Z,10.0nm,0.9s,mb5.2						
ROTZ	Rotzenmuhle	92.54	320	eP	P	04 49 37.2	+0.4
	comp=Z,9.0nm,0.9s,mb5.2						
MANZ	Manzenberg	92.61	320	eP	P	04 49 37.7	+0.6
	comp=Z,19nm,1.0s,mb5.5						
SPITS	Spitsbergen Ar	92.69	348	P	P	04 49 35.1	-1.8
	comp=Z,12nm,0.7s,mb5.4,baz=179,slow=7.8,SNR=18						
CTI	Castel Tesino	92.75	316	P	P	04 49 38.4	+0.6
WTTA	Wattenberg	92.81	317⇓	iP	P	04 49 37.6	-0.4
	comp=Z,26nm,0.9s,mb5.6,SNR=18						
WATA	Walderalm	92.85	317⇑	iP	P	04 49 36.8	-1.5
	comp=Z,7.5nm,0.5s,mb5.4,SNR=8.9						
NEUB	Neuenburg	92.88	321	eP	P	04 49 38.4	+0.1
	comp=Z,24nm,0.9s,mb5.6						
MOX	Moxa	92.96	320	eP	P	04 49 38.6	-0.1
	comp=Z,9.0nm,0.9s,mb5.2						
FUR	Furstenfeldbru	93.08	318	eP	P	04 49 39.4	+0.1
FUR				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.4						
FUR	Furstenfeldbru	93.08	318	eP	P	04 49 39.4	+0.1
	comp=Z,14nm,0.8s,mb5.4						
MOTA	Moosalm	93.17	317⇑	iP	P	04 49 39.4	-0.3
	comp=Z,18nm,0.8s,mb5.5,SNR=15						
GRA1	Grafenberg Arr	93.18	319	eP	P	04 49 40.0	+0.3
	comp=Z,20nm,0.9s,mb5.5						
GRF	Grafenberg Arr	93.18	319	eP	P	04 49 40.0	+0.3
GRF				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.5						
GRF	Grafenberg Arr	93.18	319	eP	P	04 49 40.0	+0.3
GRF				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.5						
GRF	Grafenberg Arr	93.18	319	eP	P	04 49 40.0	+0.3
	comp=Z,20nm,0.9s,mb5.5						
RETA	Reutte	93.41	317	i P	P	04 49 40.6	-0.2
	comp=Z,16nm,0.8s,mb5.5,SNR=26						
FETA	Feichten	93.42	317⇑	iPcP	PcP	04 49 41.1	-0.4
	comp=Z,14nm,0.9s,SNR=13						
NB2	NORSAR Subarra	93.51	331	P	P	04 49 40.1	-0.9
	comp=Z,17nm,0.9s,mb5.5,baz=93,slow=4.6						
NOA	NORSAR Array B	93.51	331	P	P	04 49 39.6	-1.4
NOA						04 53 26.5	
NOA	NORSAR Array B	93.51	331	P	P	04 49 39.6	-1.4
	comp=Z,9.4nm,0.8s,mb5.2,baz=93,slow=4.6,SNR=17						
NOA				PP	PP	04 53 26.5	+0.8
	comp=Z,2.3nm,0.9s,baz=96,slow=7.2,SNR=3.7						
NOA				LR	LR	05 35 32.7	
	comp=Z,183nm,19.6s,MS4.5,baz=180,slow=38						
NOA	NORSAR Array B	93.51	331	P	P	04 49 39.6	-1.4
NOA				PP	PP	04 53 26.5	+0.8
NOA				LR	LR	05 35 32.7	
CLZ	Clausthal	93.78	322	eP	P	04 49 42.4	0.0
CLZ				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.4						
CLZ	Clausthal	93.78	322	eP	P	04 49 42.4	0.0
	comp=Z,14nm,0.9s,mb5.4						
BSEG	Bad Segeberg	93.85	324	eP	P	04 49 42.8	+0.1
	comp=Z,15nm,0.9s,mb5.4						
NRDL	Niedersach Rie	93.95	322	eP	P	04 49 43.4	+0.2
	comp=Z,14nm,1.0s,mb5.3						
DAVA	Damuels	94.00	317⇑	iPcP	PcP	04 49 43.8	-0.2
	comp=Z,19nm,0.8s						
KEST	Kesra	94.13	305	P	P	04 49 45.4	+1.0
	comp=Z,6.5nm,0.9s,mb5.1,baz=40,slow=1.5,SNR=29						
KEST				LR	LR	05 34 11.2	
	comp=Z,34nm,18.2s,MS3.9,baz=239,slow=37						
PGF	Pioggiola	94.55	312	eP	P	04 49 46.2	0.0
	comp=Z,18nm,1.1s,mb5.1						
PGF	Pioggiola	94.55	312	eP	P	04 49 46.2	0.0
PGF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
PGF	Pioggiola	94.55	312	eP	P	04 49 46.2	0.0
	comp=Z,9.1nm,1.1s,mb5.1						
TNS	Taunus Mts	94.98	320	eP	P	04 49 48.2	+0.2
TNS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.7						
TNS	Taunus Mts	94.98	320	eP	P	04 49 48.2	+0.2
	comp=Z,30nm,0.9s,mb5.7						
BFO	Black Forest	95.06	318	eP	P	04 49 48.0	-0.4
BFO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.1						
BFO	Black Forest	95.06	318	eP	P	04 49 48.0	-0.4
	comp=Z,6.0nm,0.8s,mb5.1						
IBBN	Ibbenburen	95.39	322	eP	P	04 49 49.7	-0.1
	comp=Z,15nm,1.0s,mb5.4						
SBF	Sospel	95.69	314	eP	P	04 49 51.0	-0.4
	comp=Z,13nm,0.7s,mb5.2						
SBF	Sospel	95.69	314	eP	P	04 49 51.0	-0.4
SBF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.2						
SBF	Sospel	95.69	314	eP	P	04 49 51.0	-0.4
	comp=Z,6.5nm,0.7s,mb5.2						
CDF	Champ du Feu	95.76	318	eP	P	04 49 51.0	-0.6
	comp=Z,8.5nm,0.9s,mb4.9						
CDF	Champ du Feu	95.76	318	eP	P	04 49 51.0	-0.6
CDF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
CDF	Champ du Feu	95.76	318	eP	P	04 49 51.0	-0.6
	comp=Z,4.3nm,0.9s,mb4.9						
MBDF	Montbardon	96.16	314	eP	P	04 49 52.6	-0.9
LPG	La Plagne	96.17	315	eP	P	04 49 53.4	-0.1
	comp=Z,14nm,0.9s,mb5.1						
LPG	La Plagne	96.17	315	eP	P	04 49 53.4	-0.1
LPG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.1						
LPG	La Plagne	96.17	315	eP	P	04 49 53.4	-0.1
	comp=Z,7.0nm,0.9s,mb5.1						
LPL	La Plagne	96.18	315	eP	P	04 49 53.4	-0.2
	comp=Z,15nm,0.8s,mb5.2						
LPL	La Plagne	96.18	315	eP	P	04 49 53.4	-0.2
LPL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.2						
LPL	La Plagne	96.18	315	eP	P	04 49 53.4	-0.2
	comp=Z,7.6nm,0.8s,mb5.2						
BNI	Bardonecchia	96.22	315	eP	P	04 49 53.2	-0.6
BNI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.8						
BNI	Bardonecchia	96.22	315	eP	P	04 49 53.2	-0.6
	comp=Z,3.0nm,0.7s,mb4.8						
FRF	La Foret Royal	96.27	313	eP	P	04 49 53.7	-0.3
	comp=Z,12nm,0.9s,mb5.0						
FRF	La Foret Royal	96.27	313	eP	P	04 49 53.7	-0.3
FRF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb5.0						
FRF	La Foret Royal	96.27	313	eP	P	04 49 53.7	-0.3
	comp=Z,5.8nm,0.9s,mb5.0						
LMR	La Mourre	96.37	313	eP	P	04 49 54.2	-0.3
HAU	Haudompre	96.39	318	eP	P	04 49 53.8	-0.7
	comp=Z,19nm,0.8s,mb5.3						
HAU				eMLR	MLR		
	comp=Z,201nm,17.0s,MS4.4						
HAU	Haudompre	96.39	318	eP	P	04 49 53.8	-0.7
HAU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.2						
HAU				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.7						
HAU	Haudompre	96.39	318	eP	P	04 49 53.8	-0.7
	comp=Z,9.4nm,0.8s,mb5.3						
HAU				LR	LR		
	comp=Z,200nm,17.0s,MS4.7						
CABF	La Chapelle	96.60	316	eP	P	04 49 55.4	-0.1
ORIF	Oris-en-Rattie	96.79	315	eP	P	04 49 56.3	-0.1
	comp=Z,5.8nm,0.8s,mb4.8						
ORIF				eMLR	MLR		
	comp=Z,194nm,21.8s,MS4.2						
ORIF	Oris-en-Rattie	96.79	315	eP	P	04 49 56.3	-0.1
ORIF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
ORIF	Oris-en-Rattie	96.79	315	eP	P	04 49 56.3	-0.1
	comp=Z,2.9nm,0.8s,mb4.8						
SMRF	Simiane la Rot	97.04	314	eP	P	04 49 57.7	+0.2
MEZF	Maizieres J'vi	97.24	318	eP	P	04 49 57.9	-0.4
	comp=Z,16nm,0.9s,mb5.1						
MEZF	Maizieres J'vi	97.24	318	eP	P	04 49 57.9	-0.4
	comp=Z,16nm,0.9s,mb5.4						
GIVF	Givet	97.31	320	eP	P	04 49 58.1	-0.5
DOU	Dourbes	97.46	320	P	P	04 49 59.1	-0.1
VIVF	Saint-Julien-l	97.65	315	eP	P	04 49 59.8	-0.5
BAIF	Baives	97.71	320	eP	P	04 50 00.1	-0.3
	comp=Z,16nm,0.9s,mb5.2						
BAIF	Baives	97.71	320	eP	P	04 50 00.1	-0.3
BAIF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
BAIF	Baives	97.71	320	eP	P	04 50 00.1	-0.3
	comp=Z,8.0nm,0.9s,mb5.2						
LOR	Lormes	98.10	317	eP	P	04 50 01.7	-0.5
	comp=Z,24nm,1.1s,mb5.3						
LOR				eMLR	MLR		
	comp=Z,186nm,17.0s,MS4.3						
LOR	Lormes	98.10	317	eP	P	04 50 01.7	-0.5
LOR				pmax	pmax		
	comp=Z,12nm,1.1s,mb5.3						
LOR				MLR	MLR		
	comp=Z,190nm,17.0s,MS4.7						
LOR	Lormes	98.10	317	eP	P	04 50 01.7	-0.5
	comp=Z,12nm,1.1s,mb5.3						
LOR				LR	LR		
	comp=Z,190nm,17.0s,MS4.7						
SMF	Signal de Mont	98.15	316	eP	P	04 50 02.0	-0.4
SSF	Saint Saulge	98.35	317	eP	P	04 50 02.8	-0.5
BGF	Bois d'Agland	98.84	316	eP	P	04 50 04.4	-1.1
IMA2	Indian Mountai	99.29	24	eP	P	04 50 05.9	-1.2
MTLF	Montolieu	99.50	313	eP	P	04 50 08.4	-0.2
TORD	Torodi Ar. Bea	100.64	283	P	Pdif	04 50 14.3	+1.0
	comp=Z,1.3nm,1.0s,baz=90,slow=5.6,SNR=5.7						
TORD				PKiKP	PKiKP	04 54 39.8	-0.8
	comp=Z,0.9nm,0.7s,baz=78,slow=1.4,SNR=9.5						
TORD				PKKPbc	PKKPbc	05 06 28.0	-0.4
	comp=Z,1.0nm,0.6s,baz=308,slow=3.1,SNR=20						
LDF	La Druitiere	100.66	319	eP	Pdif	04 50 13.0	-0.4
FLN	La Foliniere	100.87	319	eP	Pdif	04 50 13.8	-0.6
MCK	McKinley	101.81	25	eP	Pdif	04 50 16.5	-2.1
ESDC	Sonseca Array	104.48	310	PP	PP	04 54 50.8	+0.8
	comp=Z,0.5nm,0.8s,baz=75,slow=8.4,SNR=4.4						
INK	Inuvik	105.75	19	Pdiff	Pdif	04 50 33.8	-2.3
	comp=Z,1.6nm,0.8s,baz=300,slow=4.8,SNR=7.5						
INK				PKiKP	PKiKP	04 54 46.5	-1.9
	comp=Z,1.3nm,0.6s,baz=321,slow=3.5,SNR=7.2						
INK	Inuvik	105.75	19	Pdif	Pdif	04 50 33.8	-2.3
INK				ePKP	PKiKP	04 54 46.8	-1.6
RES	Resolute Bay	108.45	5	Pdiff	Pdif	04 50 47.0	-1.1
	comp=Z,1.3nm,0.8s,baz=329,slow=5.9,SNR=4.8						
RES				PKiKP	PKiKP	04 54 51.8	-1.5
	comp=Z,1.7nm,0.7s,baz=319,slow=3.9,SNR=13						
RES				PP	PP	04 55 21.4	+3.4
	comp=Z,1.4nm,0.8s,baz=358,slow=7.2,SNR=3.6						
RES	Resolute Bay	108.45	5	Pdif	Pdif	04 50 47.0	-1.1
RES				ePKP	PKiKP	04 54 52.0	-1.3
DLBC	Dease Lake	112.32	27	PKiKP	PKiKP	04 54 60.0	-1.0
	comp=Z,1.6nm,0.7s,baz=286,slow=11,SNR=5.3						
YKA	Yellowknife Ar	115.49	18	PKIKP	PKPdf	04 55 04.4	-2.6
YKA						04 56 04.3	
YKA						05 05 44.8	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	Yellowknife Ar	115.49	18	PKP	PKPdf	04 55 04.4	-2.5
	comp=Z,0.8nm,0.6s,baz=332,slow=2.2,SNR=22						
YKA				PP	PP	04 56 04.3	-4.2
	comp=Z,1.5nm,0.9s,baz=328,slow=7.0,SNR=8.5						
YKA				PKKPab	PKKPab	05 05 44.8	-1.4
	comp=Z,0.2nm,0.8s,baz=131,slow=4.5,SNR=5.7						
FCC	Fort Churchill	123.75	10	ePKPdf	PKPdf	04 55 21.0	-2.0
FCC				ePP	PP	04 56 58.0	-7.2
NEW	Newport	124.55	31	ePKIKP	PKPdf	04 55 23.5	-1.3
YBH	Yreka Blue Hor	125.16	40	PKP	PKPdf	04 55 25.3	-0.9
	comp=Z,1.4nm,0.6s,baz=355,slow=9.6,SNR=4.9						
FFC	Flin Flon	125.64	17	i PKIKP	PKPdf	04 55 25.4	-1.3
FFC	Flin Flon	125.64	17	ePKPdf	PKPdf	04 55 24.8	-1.8
BSMT	Bassoo Peak	126.00	30	ePKPdf	PKPdf	04 55 26.1	-1.5
MOD	Modoc	126.59	39	ePKPdf	PKPdf	04 55 28.3	-0.6
SWMT	Swartz Lake	126.62	30	ePKPdf	PKPdf	04 55 27.2	-1.6
SLMT	Seeley Lake	127.06	30	ePKPdf	PKPdf	04 55 28.3	-1.3
MSO	Missoula	127.12	30	ePKPdf	PKPdf	04 55 28.4	-1.4
WVOR	Wild Horse Val	127.31	37	ePKIKP	PKPdf	04 55 30.1	-0.2
SCHQ	Schefferville	128.23	352	PKP	PKPdf	04 55 30.6	-1.0
	comp=Z,4.7nm,0.7s,baz=54,slow=3.0,SNR=13						
SCHQ				PP	PP	04 57 39.3	+4.4
	comp=Z,2.5nm,0.7s,baz=327,slow=8.2,SNR=4.1						
EGMT	Eagleton	128.25	27	ePKPdf	PKPdf	04 55 31.1	-0.8
DLMT	Dillon	128.81	31	ePKPdf	PKPdf	04 55 32.8	-0.2
MCMT	McKenzie Canyo	129.04	31	ePKPdf	PKPdf	04 55 33.4	-0.1
HLID	Hailey	129.05	34	ePKPdf	PKPdf	04 55 32.6	-1.0
BOZ	Bozeman (W)	129.09	30	ePKIKP	PKPdf	04 55 32.8	-0.8
NVAR	Mina Array Bea	129.78	41	PKP	PKPdf	04 55 34.9	-0.2
	comp=Z,4.3nm,0.7s,baz=315,slow=0.3,SNR=6.4						
NVAR	Mina Array Bea	129.78	41	PKP	PKPdf	04 55 34.9	-0.2
YMR	Madison River	130.12	30	ePKPdf	PKPdf	04 55 35.4	-0.1
ELK	Elko	130.36	37	ePKIKP	PKPdf	04 55 34.9	-1.2

LKWY	Lake	130.47	30	*e*PKIKP	PKPdf	04 55 37.6	+1.4
IMW	Indian Meadow	130.68	31	*e*PKPdf	PKPdf	04 55 37.1	+0.5
LAO	LASA Array	130.81	25	*e*PKPdf	PKPdf	04 55 35.8	-1.0
LAO				*e*SKP		04 58 54.5	
RRI2	Red Ridge	130.86	32	*e*PKPdf	PKPdf	04 55 36.7	-0.3
TPAW	Teton Pass	130.95	31	*e*PKPdf	PKPdf	04 55 36.7	-0.5
LOHW	Long Hollow	131.05	31	*e*PKPdf	PKPdf	04 55 36.8	-0.5
SNOW	Snow King Moun	131.07	31	*e*PKPdf	PKPdf	04 55 37.2	-0.2
REDW	Red Top Meadow	131.09	31	*e*PKPdf	PKPdf	04 55 36.9	-0.5
HVU	Hansel Valley	131.13	34	*e*PKPdf	PKPdf	04 55 36.8	-0.8
HVU				*e*SKPbc	SKPbc	04 58 54.9	-4.1
HVU				*e*SKPdf	SKPdf	04 59 03.0	-6.7
ULM	Lac du Bonnet	131.31	15	PKP	PKPdf	04 55 35.9	-1.8
	comp=Z,10nm,0.6s,baz=350,slow=3.2,SNR=24						
ULM				SKPbc	SKPbc	04 58 54.0	-5.4
	comp=Z,3.4nm,0.8s,baz=310,slow=5.5,SNR=4.4						
DUG	Dugway	132.14	36	*e*PKIKP	PKPdf	04 55 39.2	-0.3
BW06	Boulder Array	132.19	31	*e*PKPdf	PKPdf	04 55 38.3	-1.2
PDAR	Pinedale Array	132.19	31	PKP	PKPdf	04 55 38.4	-1.2
	comp=Z,2.8nm,0.5s,baz=208,slow=1.3,SNR=26						
PDAR				SKPbc	SKPbc	04 58 59.1	-3.7
	comp=Z,1.5nm,0.8s,baz=343,slow=1.5,SNR=5.8						
PDAR				SKP		04 59 06.4	
	comp=Z,3.4nm,0.8s,baz=346,slow=1.9,SNR=10						
RSSD	Black Hills	133.79	26	*e*PKPdf	PKPdf	04 55 41.2	-1.2
RSSD				*e*SKPbc	SKPbc	04 59 04.9	-3.3
RWWY	Rawlins	134.17	30	*e*PKPdf	PKPdf	04 55 42.4	-0.9
EYMN	Ely	134.50	12	*e*PKPdf	PKPdf	04 55 42.0	-1.8
EYMN				*e*PP	PP	04 58 10.8	-4.6
EYMN				*e*SKPbc	SKPbc	04 59 05.9	-4.6
PLCA	Paso Flores	135.19	188	PKIKP	PKPdf	04 55 43.5	-1.8
PLCA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
PLCA	Paso Flores	135.19	188	PKP	PKPdf	04 55 43.5	-1.8
	comp=Z,2.6nm,1.0s,baz=113,slow=7.0,SNR=4.6						
PLCA	Paso Flores	135.19	188	*e*PKPdf	PKPdf	04 55 44.5	-0.7
PV04	Paradox Valley	135.60	35	*e*PKPdf	PKPdf	04 55 44.7	-1.4
PV04				*e*SKPbc	SKPbc	04 59 12.4	-1.9
PV01	Paradox Valley	135.97	35	*e*PKPdf	PKPdf	04 55 45.6	-1.2
PV01				*e*SKPbc	SKPbc	04 59 12.8	-2.6
WUAZ	Wupatki	135.98	40	*e*PKPdf	PKPdf	04 55 46.8	-0.1
ECSD	EROS Data Cent	136.98	20	*e*PKPpre		04 55 43.0	
ECSD				*e*PKPdf	PKPdf	04 55 48.1	-0.4
SDCO	Great Sand Dun	137.96	33	*e*PKPdf	PKPdf	04 55 49.5	-0.9
TUC	Tucson	138.31	43	*e*PKPdf	PKPdf	04 55 50.4	-0.9
TUC				*e*SKPbc	SKPbc	04 59 19.7	-2.8
TUC				*e*SKPab		04 59 26.5	
SADO	Sadowa	139.13	1	PKP	PKPdf	04 55 50.5	-1.9
	comp=Z,10.0nm,0.8s,baz=28,slow=2.0,SNR=7.7						
SADO				PP	PP	04 58 42.1	-2.1
	comp=Z,4.2nm,0.8s,baz=360,slow=7.7,SNR=3.0						
SADO				SKPbc	SKPbc	04 59 19.8	-4.7
	comp=Z,3.5nm,0.8s,baz=28,slow=2.3,SNR=3.6						
SADO	Sadowa	139.13	1	PKP	PKPdf	04 55 50.5	-1.9
SADO				PP	PP	04 58 42.1	-2.1
SADO				SKPbc	SKPbc	04 59 19.8	-4.7
ANMO	Albuquerque	139.39	37	PKIKP		04 55 47.0	
ANMO				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ANMO				pmax	pmax		
	comp=N,2.0nm,0.8s						
ANMO	Albuquerque	139.39	37	PKhKP		04 55 47.0	
	comp=N,4.0nm,0.8s,baz=322,slow=3.0,SNR=21						
ANMO				SKPbc	SKPbc	04 59 22.3	-3.2
	comp=N,1.7nm,0.8s,baz=314,slow=4.9,SNR=3.6						
ANMO	Albuquerque	139.39	37	*e*PKPpre		04 55 46.3	
JFWS	Jewell Farm	139.55	14	*e*PKIKP	PKPdf	04 55 50.9	-2.3
BNM	Barren Site	139.84	38	*e*PKPpre		04 55 47.1	
BNM				*e*PKPdf	PKPdf	04 55 53.5	-0.5
KSU1	Kansas State U	141.04	23	*e*PKPpre		04 55 49.1	
KSU1				*e*PKPdf	PKPdf	04 55 54.3	-1.7
HDIL	Hopedale	142.01	14	*e*PKPpre		04 55 50.5	
SSPA	Standing Stone	143.27	360	*e*PKPpre		04 55 54.6	
ACSO	Alum Creek Sta	143.42	6	*e*PKPpre		04 55 55.6	
ACSO				*e*PKPdf	PKPdf	04 55 58.4	-1.8
WMOK	Wichita Mounta	143.73	29	*e*PKIKP	PKPdf	04 55 56.4	-4.6
WMOK				*e*		04 59 11.5	
CCM	Cathedral Cave	143.83	18	*e*PKIKP	PKPdf	04 55 56.6	-4.4
CPUP	Villa Florida	143.91	213	PKIKP	PKPdf	04 55 59.4	-2.1
CPUP				pmax	pmax		
	comp=Z,7.0nm,0.7s						
CPUP	Villa Florida	143.91	213	PKP	PKPdf	04 55 59.4	-2.1
	comp=Z,7.4nm,0.7s,baz=122,slow=2.2,SNR=38						
CPUP	Villa Florida	143.91	213	*e*PKPdf	PKPdf	04 55 59.7	-1.9
BLO	Bloomington	143.93	11	*e*PKIKP	PKPdf	04 55 57.1	-4.1
OLIL	Olney	144.03	13	*e*PKPpre		04 55 57.5	
FVM	French Village	144.14	17	*e*PKIKP	PKPdf	04 55 57.4	-4.2
MCWV	Mont Chateau	144.21	2	*e*PKPdf	PKPdf	04 55 58.5	-3.2
SIUC	Southern Illin	144.72	15	*e*PKPdf	PKPdf	04 55 59.6	-3.0
USIN	University of	144.86	13	*e*PKPdf	PKPdf	04 56 00.2	-2.7
WCI	Wyandotte Cave	144.89	11	*e*PKIKP	PKPdf	04 56 00.4	-2.5
TXAR	Lajitas Array	144.93	41	PKP	PKPdf	04 56 01.9	-1.3
	comp=Z,82nm,0.7s,baz=248,slow=0.9,SNR=556						
PARMO	Parma	145.56	16	*e*PKPbc	PKPbc	04 56 03.0	-1.2
CBN	Corbin	145.69	359	*e*PKPbc	PKPbc	04 56 03.5	-1.0
GLAT	Glass	146.06	16	*e*PKPbc	PKPbc	04 56 04.6	-1.1
UTMT	University of	146.11	15	*e*PKPbc	PKPbc	04 56 04.6	-1.3
GNAR	Gosnell	146.13	17	*e*PKPbc	PKPbc	04 56 05.2	-0.8
MIAR	Mount Ida	146.19	23	*e*PKP2	PKPbc	04 56 04.5	-1.7
HBAR	Harrisburg	146.32	18	*e*PKPbc	PKPbc	04 56 05.5	-1.0
HALT	Halls	146.38	16	*e*PKPbc	PKPbc	04 56 05.7	-1.1
UALR	University of	146.45	21	*e*PKPbc	PKPbc	04 56 06.8	-0.2
JCT	Junction City	146.50	35	*e*PKP2	PKPdf	04 56 05.3	-0.6
WVT	Waverly	146.57	14	*e*PKP2	PKPdf	04 56 05.1	-0.7
ELN	Prospectdale	146.59	4	*e*PKPbc	PKPdf	04 56 05.5	-0.3
BLA	Blacksburg	146.63	3	*e*PKP2	PKPdf	04 56 05.1	-0.8
LCO	Las Campanas	146.65	192	*e*PKPbc	PKPbc	04 56 06.9	-0.9
TZTN	Tazewell	146.99	8	*e*PKPbc	PKPdf	04 56 05.6	-0.9
PLAL	Pickwick Lake	147.60	15	*e*PKPdf	PKPdf	04 56 05.5	-2.1
PLAL				*e*PKPbc	PKPbc	04 56 08.0	-2.3
OXF	Oxford	147.67	17	*e*PKIKP	PKPdf	04 56 06.1	-1.6
OXF				*e*		04 56 08.6	
TKL	Tuckaleechee C	147.83	8	PKPbc	PKPbc	04 56 09.1	-1.8
	comp=Z,53nm,0.7s,baz=297,slow=2.3,SNR=93						
TKL	Tuckaleechee C	147.83	8	*e*PKPdf	PKPdf	04 56 06.1	-1.8
TKL				*e*PKPbc	PKPbc	04 56 09.1	-1.7
SWET	Sewanee	147.88	12	*e*PKPbc	PKPdf	04 56 06.2	-1.8
CPCT	Cooper Cave	147.91	10	*e*PKPdf	PKPdf	04 56 07.0	-1.1
CPCT				*e*PKPbc	PKPbc	04 56 09.8	-1.3
NATX	Nacogdoches	148.13	27	*e*PKPbc	PKPbc	04 56 11.1	-0.7
CNNC	Cliffs of the	148.65	359	*e*PKPbc	PKPbc	04 56 11.8	-1.2
HKT	Hockley	149.06	31	*e*PKIKP	PKPdf	04 56 09.1	-1.0
HKT				*e*		04 56 13.6	
VBMS	Vicksburg	149.41	21	*e*PKPbc	PKPbc	04 56 14.4	-0.6
JSC	Jenkinsville	149.48	5	*e*PKP2	PKPbc	04 56 14.0	-1.1
GOGA	Godfrey	150.08	9	*e*PKPbc	PKPbc	04 56 14.5	-2.1
GOGA				*e*PKPab	PKPab	04 56 20.9	-1.5
NHSC	New Hope	150.73	3	*e*PKPbc	PKPbc	04 56 17.4	-0.8
BRAL	Brewton	151.62	16	*e*PKPbc	PKPbc	04 56 19.9	-0.4
LVC	Limon Verde	152.27	199	*e*PKPdf	PKPdf	04 56 15.9	+0.6
LVC				*e*PKPbc	PKPbc	04 56 22.7	+0.6
NNA	Nana	164.32	185	*e*PKPdf	PKPdf	04 56 29.4	-0.6
TGUH	Tegucigalpa,Un	166.41	40	*e*PKPdf	PKPdf	04 56 30.3	-1.4
TGUH				*e*PKPab	PKPab	04 57 32.7	-0.6
SDV	Santo Domingo	170.88	304	*e*PKPab	PKPab	04 57 52.6	-0.6
OTAV	Otavalo	176.52	176	*e*PKPdf	PKPdf	04 56 36.0	-0.7

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*ISCJB **24** 04:53:02.2±1.7, 6°.9S±0°.2×155°.0E±0°.3, h33^{km}, mb3.8/8, Error ellipse: s-maj=56.8km s-min=17.1km az=32.9*

*NEIC **24** 04:53:03.1±1.7, 7°.12S×155°.16E, h35^{km}, mb3.9/1, Error ellipse: s-maj=61.9km s-min=20.7km az=122.0*

*IDC **24** 04:53:18.3±9.9, 7°.26S×154°.91E, h170^{km}±89^{km}, mb3.4/7, mb1 3.6/7, mb1mx3.5/16, mbtmp3.4/7, MS2.7/1, Ms1 2.7/1, ms1mx2.3/18, Error ellipse: s-maj=52.7km s-min=25.5km az=118.0*

ISC 24 04:53:03.7±1.7, **7°.1S**±0°.2×**155°.1E**±0°.3, **h35**^{km}**, n12, σ1^s.24**/9, **mb3.8**/8, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	5.37	116	LR	LR	04 55 40.5	
	comp=Z,78nm,21.0s,baz=317,slow=26						
WRAB	Tennant Creek	23.82	235	*e*P	P	04 58 14.1	+0.4
	2.6nm,0.6s,mb3.8						
WRA	Warramunga Arr	23.84	235	P	P	04 58 13.5	-0.3
	2.6nm,0.8s,mb3.7,baz=58,slow=9.6,SNR=9.5						
ASAR	Alice Springs	26.18	229	P	P	04 58 35.8	+0.7
	0.6nm,0.7s,mb3.2,baz=55,slow=8.7,SNR=5.6						
PETK	Petropavlovsk-	59.98	2	P	P	05 03 07.8	+1.3
	3.3nm,0.7s,mb4.5,baz=163,slow=7.7,SNR=3.0						
CMAR	Chiang Mai Arr	60.88	296	P	P	05 03 12.2	-1.1
	0.9nm,0.4s,mb4.2,baz=108,slow=5.8,SNR=4.2						
SONM	Songino Array	69.43	327	P	P	05 04 10.5	+2.2
	0.2nm,0.5s,mb3.4,baz=147,slow=3.5,SNR=3.5						
MKAR	Makanchi Array	83.50	319	P	P	05 05 26.1	-1.9
	0.9nm,0.5s,mb4.2,baz=94,slow=8.8,SNR=3.9						
YKA	Yellowknife Ar	96.36	28	P	P	05 06 27.7	-0.9
	0.1nm,0.5s,mb3.5,baz=264,slow=4.6,SNR=4.9						
YKA	Yellowknife Ar	96.36	28	P	P	05 06 27.7	-1.0
TORD	Torodi Ar. Bea	153.11	285	PKPbc	PKPbc	05 12 57.2	-1.6
	0.7nm,0.9s,baz=87,slow=2.0,SNR=5.5						
TORD				PKPab	PKPab	05 13 07.8	-2.5
	0.4nm,0.5s,baz=60,slow=3.6,SNR=4.5						
TORD	Torodi Ar. Bea	153.11	285	PKPbc	PKPbc	05 12 57.2	-1.6
TORD				PKPab	PKPab	05 13 07.8	-2.6

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*IDC **24** 04:57:33.3±0.6, 11°.78N×143°.39E, h0^{km}, mb4.3/14, mb1 4.5/15, mb1mx4.3/24, mbtmp4.3/15, ML4.6/1, MS3.7/4, Ms1 3.7/4, ms1mx3.2/33, Error ellipse: s-maj=22.9km s-min=13.4km az=95.0*

*NEIC **24** 04:57:35.9±4.1, 11°.80N×143°.36E, h17^{km}±25^{km}, mb4.7/21, Error ellipse: s-maj=9.5km s-min=5.5km az=96.0*

*ISCJB **24** 04:57:36.8±1.5, 11°.79N±0°.05×143°.28E±0°.07, h36^{km}±13^{km}, mb4.5/39, MS3.9/4, Error ellipse: s-maj=12.2km s-min=8.1km az=7.9*

*MOS **24** 04:57:36.5±1.0, 11°.77N×143°.32E, h35^{km}, mb4.6/24, Error ellipse: s-maj=15.2km s-min=7.8km az=94.9*

*BJI **24** 04:57:40.6, 12°.54N×142°.90E, h17^{km}, mB5.3/2, mb4.8/5*

ISC 24 04:57:38.9±1.4, **11°.80N**±0°.05×**143°.34E**±0°.08, **h39**^{km}±13^{km}, **n86, σ0^s.87**/85, **mb4.5**/39, **MS3.9**/4, **2C, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	2.32	40	Pn	Pn	04 58 14.0	-0.7
	141nm,0.3s,baz=177,slow=7.7,SNR=42						
GUMO				Sn	Sn	04 58 42.7	+0.7
	134nm,0.3s,baz=190,slow=21,SNR=12						
GUMO				LR	LR	04 58 44.8	
	comp=Z,411nm,21.6s,baz=152,slow=31						
GUMO	Guam	2.32	40	*e*Pn	Pn	04 58 13.5	-1.2
GUMO				*e*Sn	Sn	04 58 43.3	+1.3
CBIJ	Chichi jima	15.25	356	LR	LR	05 05 36.4	
	comp=Z,429nm,20.6s,baz=283,slow=32						
MJAR	Matsushiro Arr	25.06	350	P	P	05 02 58.1	-1.6
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MJAR	Matsushiro Arr	25.06	350	P	P	05 02 58.1	-1.6
	comp=Z,3.0nm,0.6s,mb4.0,baz=171,slow=11,SNR=9.0						
MAJO	Matsushiro	25.06	350	*e*P	P	05 02 58.6	-1.1
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.5						
MAJO	Matsushiro	25.06	350	*e*P	P	05 02 58.6	-1.1
	comp=Z,6.7nm,0.4s,mb4.5						
MAT	Matsushiro	25.06	350	P	P	05 02 58.2	-1.5
COEN	Coen	25.59	180	*e*P	P	05 03 04.3	-0.3
	comp=Z,104nm,1.1s,mb5.3						
KSRS	Korea Array	29.05	334	P	P	05 03 37.2	+1.7
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
KSRS	Korea Array	29.05	334	P	P	05 03 37.2	+1.8
	comp=Z,1.0nm,0.7s,mb3.7,baz=147,slow=11,SNR=3.4						
NJ2	Nanjing	30.23	316	*e*P	P	05 03 45.4	-0.7
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.1						
CTA	Charters Tower	31.82	175	P	P	05 03 59.3	-0.8
CTA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
CTA	Charters Tower	31.82	175	P	P	05 03 59.2	-0.9
	comp=Z,3.9nm,1.0s,mb4.2,baz=3.4,slow=11,SNR=4.0						
CTAO	Charters Tower	31.82	175	*e*P	P	05 03 59.2	-0.9
CTAO				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.3						
CTAO	Charters Tower	31.82	175	*e*P	P	05 03 59.2	-0.9
	comp=Z,5.4nm,1.0s,mb4.3						
WRAB	Tennant Creek	32.75	196	*e*P	P	05 04 08.2	-0.1
WRAB				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
WRAB	Tennant Creek	32.75	196	*e*P	P	05 04 08.2	-0.1
	comp=Z,9.3nm,1.0s,mb4.7						
WRA	Warramunga Arr	32.76	196	P	P	05 04 08.2	-0.2
WRA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
WRA				MLR	MLR		
	comp=Z,165nm,19.4s						
WRA	Warramunga Arr	32.76	196	P	P	05 04 08.2	-0.2
	comp=Z,4.6nm,0.6s,mb4.6,baz=20,slow=9.8,SNR=31						
WRA				LR	LR	05 18 14.0	
	comp=Z,164nm,19.4s,MS3.7,baz=30,slow=38						
ASAR	Alice Springs	36.44	195	P	P	05 04 40.2	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	36.44	195	P	P	05 04 40.2	+0.1
	comp=Z,1.2nm,0.5s,mb4.1,baz=25,slow=11,SNR=32						
HABR	Khabarovsk	37.21	351	*e*P	P	05 04 45.6	-0.8
HABR				*e**PP	pP	05 05 00.6	+3.3
HABR				*e*		05 06 11.3	
HABR				*e*		05 07 03.9	
HABR				*e*S	S	05 10 29.0	-1.6
HABR				*e*SSS		05 13 27.8	
HABR						05 14 53.6	
HABR				MLR	MLR		
	comp=Z,82nm,17.0s,MS3.6						
DZM	Mont Dzumac	40.58	146	*e*P	P	05 05 15.9	+0.9
	comp=Z,8.4nm,0.7s,mb4.5						
LZH	Lanzhou	43.01	311	*e*P	P	05 05 35.0	+0.2
LZH				pP	pP	05 05 39.0	-6.8
LZH				sP	sP	05 05 43.3	-7.1
LZH				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.7						
LZH				pmax	pmax		
	comp=Z,87nm,4.3s						
CMAR	Chiang Mai Arr	43.28	284	P	P	05 05 38.4	+1.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR	Chiang Mai Arr	43.28	284	P	P	05 05 38.4	+1.2
	comp=Z,1.0nm,0.5s,mb3.8,baz=81,slow=5.6,SNR=7.7						
STKA	Stephens Creek	43.46	182	P	P	05 05 37.6	-0.7
	comp=Z,1.1nm,0.5s,mb3.9,baz=344,slow=10,SNR=3.4						
ULN	Ulaanbaatar	47.02	327	*e*P	P	05 06 07.4	+1.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
ULN	Ulaanbaatar	47.02	327	*e*P	P	05 06 07.4	+0.9
	comp=Z,2.0nm,0.8s,mb4.1						
GTA	Gaotai	47.27	313	*e*P	P	05 06 10.4	+1.9
GTA				pP	pP	05 06 14.8	-4.9
GTA				sP	sP	05 06 17.4	-6.9
GTA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
SONM	Songino Array	47.36	327	P	P	05 06 09.5	+0.4
SONM						05 07 40.2	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	47.36	327	P	P	05 06 09.5	+0.5
	comp=Z,1.7nm,0.5s,mb4.2,baz=147,slow=7.4,SNR=15						
SONM				PcP	PcP	05 07 40.2	+0.8
	comp=Z,1.0nm,0.8s,baz=139,slow=4.6,SNR=4.3						
ZAK	Zakamensk	50.51	328	*e*P	P	05 06 33.3	+0.1
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
BOD	Bodaibo	51.06	340	*e*P	P	05 06 36.3	-0.9
YAK	Yakutsk	51.11	352	*i* P	P	05 06 37.9	+0.4
BILL	Bilibino	58.17	10	P	P	05 07 29.0	+0.4
BILL				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.0						
TIXI	Tiksi	60.46	355⇑	*e*P	P	05 07 43.7	-0.6
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
TIXI	Tiksi	60.46	355	*e*P	P	05 07 43.5	-0.8
	comp=Z,1.8nm,0.6s,mb4.3						
MK31	Makanchi Array	61.75	317	*e*P	P	05 07 53.9	+0.4
MKAR	Makanchi Array	61.75	317	P	P	05 07 54.2	+0.7
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MKAR	Makanchi Array	61.75	317	P	P	05 07 54.2	+0.7
	comp=Z,2.7nm,0.9s,mb4.4,baz=94,slow=8.6,SNR=18						
ZALV	Zalesovo Beam	62.21	325	P	P	05 07 56.2	-0.3
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.7						
ZALV	Zalesovo Beam	62.21	325	P	P	05 07 56.2	-0.3
	comp=Z,2.6nm,0.5s,mb4.6,baz=126,slow=8.7,SNR=8.9						
ZALV	Zalesovo Beam	62.21	325	P	P	05 07 56.2	-0.3
NVS	Novosibirsk	63.38	326	*e*P	P	05 08 00.2	-4.1
KURK	Kurchatov	64.99	321	*e*P	P	05 08 15.1	+0.2
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
KURK	Kurchatov	64.99	321	*e*P	P	05 08 15.1	+0.2
	comp=Z,10nm,0.8s,mb4.9						
RC01	Rabbit Creek A	68.65	29	*e*P	P	05 08 37.8	-0.2
	comp=Z,3.6nm,0.6s,mb4.5						
KTH	Kantishna Hill	68.79	26	*e*P	P	05 08 39.0	+0.2
	comp=Z,15nm,1.3s,mb4.8						
BPAW	Bear Paw Mtn.	68.92	25	*e*P	P	05 08 39.7	0.0
	comp=Z,5.1nm,0.7s,mb4.6						
MCK	McKinley	69.69	26	*e*P	P	05 08 43.9	-0.5
MCK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
MCK	McKinley	69.69	26	*e*P	P	05 08 43.9	-0.5
	comp=Z,3.2nm,0.7s,mb4.4						
COLD	Coldfoot	70.16	22	*e*P	P	05 08 46.9	-0.3
	comp=Z,16nm,0.9s,mb5.0						
COLA	College	70.44	25	*e*P	P	05 08 48.5	-0.5
COLA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
COLA	College	70.44	25	*e*P	P	05 08 48.5	-0.5
	comp=Z,3.2nm,0.7s,mb4.4						
BRVK	Borovoye	70.47	322	*e*P	P	05 08 50.1	+0.7
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.8						
BRVK	Borovoye	70.47	322	*e*P	P	05 08 50.1	+0.7
	comp=Z,4.5nm,0.3s,mb4.9						
MENT	Mentasta	71.82	27	*e*P	P	05 08 58.0	+0.6
DAWY	Dawson	73.90	27	*e*P	P	05 09 10.8	+1.1
INK	Inuvik	76.58	22	*e*P	P	05 09 25.1	+0.1
INK				pmax	pmax		
	comp=Z,7.0nm,1.0s						
INK	Inuvik	76.58	22	P	P	05 09 24.9	-0.1
	comp=Z,5.0nm,0.9s,mb4.5,baz=270,slow=5.5,SNR=16						
INK	Inuvik	76.58	22	*e*P	P	05 09 25.1	+0.1
	comp=Z,6.8nm,1.0s,mb4.5						
PRGR	Permogore	83.35	332	*e*P	P	05 10 01.5	-0.2
PRGR				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.5						
YKA	Yellowknife Ar	85.12	27	P	P	05 10 11.0	+0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	85.12	27	P	P	05 10 11.0	+0.3
	comp=Z,1.3nm,0.7s,mb4.2,baz=286,slow=5.1,SNR=24						
YKA				LR	LR	05 44 30.5	
	comp=Z,115nm,20.6s,MS4.2,baz=220,slow=33						
RES	Resolute Bay	86.62	13	*e*P	P	05 10 18.3	+0.4
RES				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.8						
RES	Resolute Bay	86.62	13	*e*P	P	05 10 18.3	+0.4
	comp=Z,6.9nm,1.1s,mb4.8						
NEW	Newport	87.55	41	*e*P	P	05 10 22.2	-0.8
NEW				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NEW	Newport	87.55	41	*e*P	P	05 10 22.2	-0.8
	comp=Z,4.8nm,0.9s,mb4.7						
WVOR	Wild Horse Val	87.97	47	*e*P	P	05 10 26.4	+1.3
WVOR				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
WVOR	Wild Horse Val	87.97	47	*e*P	P	05 10 26.4	+1.3
	comp=Z,3.1nm,0.9s,mb4.5						
ARCES	ARCESS Array B	88.31	342	P	P	05 10 26.3	+0.2
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES	ARCESS Array B	88.31	342	P	P	05 10 26.3	+0.1
	comp=Z,3.3nm,0.7s,mb4.7,baz=69,slow=6.7,SNR=16						
ARCES	ARCESS Array B	88.31	342	P	P	05 10 26.3	+0.1
BSMT	Bassoo Peak	89.17	41	*e*P	P	05 10 29.6	-1.0
	comp=Z,3.6nm,1.0s,mb4.7						
NVAR	Mina Array Bea	89.20	51	P	P	05 10 32.9	+1.9
	comp=Z,3.9nm,0.7s,mb4.8,baz=263,slow=5.4,SNR=6.4						
NVAR	Mina Array Bea	89.20	51	P	P	05 10 32.9	+1.9
OBN	Obninsk	89.77	327⇑	*e*P	P	05 10 33.2	-0.1
OBN				*e*		05 10 51.9	
OBN				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.2						
ANN	Anapa	92.77	317	*e*P	P	05 10 44.5	-2.9
ANN				pmax	pmax		
	comp=Z,136nm,2.0s						
FFC	Flin Flon	94.11	32	*e*P	P	05 10 53.9	+0.5
FFC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
FFC	Flin Flon	94.11	32	*e*P	P	05 10 53.9	+0.5
	comp=Z,3.5nm,0.9s,mb4.8						
FCC	Fort Churchill	95.82	26	*e*P	P	05 11 00.3	-0.7
	comp=Z,0.1nm,1.2s						
DBIC	Dimbokro	143.43	299	PKIKP	PKPdf	05 17 09.2	-1.2
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.9s						
DBIC	Dimbokro	143.43	299	PKP	PKPdf	05 17 09.2	-1.3
	comp=Z,2.2nm,0.9s,baz=72,slow=4.3,SNR=3.5						
DBIC	Dimbokro	143.43	299	*e*PKPdf	PKPdf	05 17 09.6	-0.8

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*CSEM **24** 05:18:33.9, 36°.34N×21°.79E, h7^{km}, MD3.6, After ATH*

*NEIC **24** 05:18:33.9, 36°.34N×21°.79E, h7^{km}, MD3.6(ATH), After ATH.*

*ATH **24** 05:18:33.9, 36°.34N×21°.79E, h7^{km}±3^{km}, MD3.6/9*

ISC 24 05:18:32.7±1.9, **36°.29N**±0°.08×**21°.72E**±0°.10, **h10**^{km}±7^{km}, **n18, σ0^s.93**/28, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.60	2	*e*PB	Pg	05 18 44.3	-0.1
PYL				*e*SB	Sg	05 18 53.0	+0.6
PYL	PYLOS	0.60	2	*e*Pb	Pg	05 18 44.3	-0.1
PYL				*e*Sb	Sg	05 18 53.0	+0.6
ITM	Ithomi	0.90	11	*e*PB	Pg	05 18 50.2	+0.1
ITM				*e*SB	Sg	05 19 01.7	-0.2
ITM	Ithomi	0.90	11	*e*Pb	Pg	05 18 50.2	+0.1
ITM				*e*Sb	Sg	05 19 01.7	-0.2
KYTH	Kithira	1.06	90	*e*PG	Pg	05 18 52.7	-0.5
KYTH	Kithira	1.06	90	*e*Pg	Pg	05 18 52.7	-0.5
VLI	Veliai	1.07	66	*e*PN	Pg	05 18 53.5	+0.2
VLI				*e*SB	Sg	05 19 07.1	-0.1
VLI	Veliai	1.07	66	*e*Pn	Pg	05 18 53.5	+0.2
VLI				*e*Sb	Sg	05 19 07.1	-0.1
VLX	Vlachokerasia	1.20	26	*e*PG	Pn	05 18 54.6	-1.0
VLX				*e*SB	Sn	05 19 10.2	-1.8
VLX	Vlachokerasia	1.20	26	*e*Pg	Pn	05 18 54.6	-1.0
VLX				*e*Sb	Sn	05 19 10.2	-1.8
GUR	Goura	1.72	17	*e*PB	Pb	05 19 05.1	+0.7
GUR	Goura	1.72	17	*e*Pb	Pb	05 19 05.1	+0.7
DID	Didima	1.72	45	*e*PB	Pb	05 19 04.6	+0.2
DID				*e*SB	Sb	05 19 27.1	+1.0
DID	Didima	1.72	45	*e*Pb	Pb	05 19 04.6	+0.2
DID				*e*Sb	Sb	05 19 27.1	+1.0
LTK	Loutraki	2.00	30	*e*PG	Pg	05 19 09.8	-1.2
LTK	Loutraki	2.00	30	*e*Pg	Pg	05 19 09.8	-1.2
VLY	Voula,Athens	2.28	46	*e*PN	Pn	05 19 12.8	+2.4
VLY	Voula,Athens	2.28	46	*e*Pn	Pn	05 19 12.8	+2.4

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*BJI **24** 05:32:07.0, 38°.80N×122°.80W, h5^{km}, mB5.2/4, mb4.6/7, Ms4.6/2, Ms7 4.5/4*

*ISCJB **24** 05:32:10.7±0.8, 38°.80N±0°.04×122°.82W±0°.07, h15^{km}±7^{km}, mb4.3/4, MS3.9/2, Error ellipse: s-maj=9.4km s-min=6.2km az=152.2*

*NEIC **24** 05:32:10.0, 38°.82N×122°.81W, h2^{km}, MW4.0(BRK), After NCEDC.*

NEIC Felt [IV] at Middletown, [III] at Healdsburg and [II] at Cloverdale, Geyserville and Kelseyville. Also felt at Calistoga, Clearlake, Pope Valley, Rohnert Park, Saint Helena, Santa Rosa and Suisun City.

*IDC **24** 05:32:12.2±1.8, 38°.85N×122°.64W, h0^{km}, mb3.8/1, mb1 4.2/5, mb1mx3.7/22, mbtmp3.8/5, ML3.4/5, MS3.5/1, Ms1 3.5/1, ms1mx2.9/13, Error ellipse: s-maj=25.9km s-min=11.5km az=26.0*

ISC 24 05:32:11.7±0.9, **38°.79N**±0°.04×**122°.86W**±0°.07, **h13**^{km}±7^{km}, **n33, σ1^s.39**/34, **mb4.3**/4, **MS3.9**/2, **Northern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOPS	Hopland	0.26	322	*e*Pg	Pg	05 32 15.9	-1.3
MCCM	Marconi Confer	0.64	181	*e*Pg	Pg	05 32 24.0	-0.1
MCCM				*e*Sg	Sg	05 32 34.6	+2.0
WDC	Whiskeytown Da	1.81	8	*e*Pn	Pn	05 32 42.1	-0.4
CMB	Columbia Colle	2.08	110	*e*Pn	Pn	05 32 44.6	-1.7
CMB				*e*Sn	Sn	05 33 12.7	+0.5

SAO	San Andreas Ge	2.31	151	ePn	Pn	05 32 48.1	-1.3
YBH	Yreka Blue Hor	2.94	2	Pn	Pn	05 33 00.8	+2.6
	0.9nm,0.3s,baz=208,slow=7.2,SNR=11						
YBH	Yreka Blue Hor	2.94	2	ePn	Pn	05 33 00.5	+2.3
NVAR	Mina Array Bea	3.59	94	Pn	Pn	05 33 07.0	+0.1
	1.4nm,0.3s,baz=267,slow=16,SNR=13						
NVAR				Pg	Pg	05 33 14.6	-5.8
	5.9nm,0.3s,baz=270,slow=16,SNR=47						
NVAR				Lg		05 34 00.5	
	1.8nm,0.3s,baz=282,slow=34,SNR=2.1						
MOD	Modoc	3.68	31	ePn	Pn	05 33 08.7	+0.5
HUMO	Hull Mountain	3.82	359	Pn	Pn	05 33 11.3	+1.1
BMN	Battle Mountai	4.66	68	ePn	Pn	05 33 26.9	+5.2
ISA	Isabella	4.69	130	ePn	Pn	05 33 22.9	+0.9
WVOR	Wild Horse Val	4.86	40	ePn	Pn	05 33 24.6	+0.1
ELK	Elko	6.19	69	Pn	Pn	05 33 41.3	-1.4
	0.9nm,0.3s,baz=300,slow=20,SNR=8.7						
ELK				Lg		05 35 21.4	
	0.1nm,0.3s,baz=302,slow=19,SNR=4.0						
LDFC	Landfair	7.23	118	ePn	Pn	05 33 53.3	-3.7
	13nm,1.2s						
PFO	Pinyon Flat Ob	7.31	133	ePn	Pn	05 33 57.1	-1.1
	18nm,1.2s						
ARUT	Antelope Range	7.48	95	Pn	Pn	05 34 01.4	+1.0
	29nm,1.3s						
DUG	Dugway	7.90	77	ePn	Pn	05 34 05.8	-0.4
	8.0nm,1.0s						
BAR	Barrett	7.90	139	ePn	Pn	05 34 04.1	-2.1
	3.3nm,0.3s						
SRU	San Rafael	9.62	84	Pn	Pn	05 34 31.1	+1.3
	6.4nm,0.9s						
PDAR	Pinedale Array	10.84	64	Pn	Pn	05 34 50.8	+4.3
	0.0nm,0.3s,baz=255,slow=13,SNR=20						
TXAR	Lajitas Array	18.46	115	P	Pn	05 36 29.7	+2.5
	0.0nm,0.3s,baz=290,slow=8.6,SNR=23						
DLBC	Dease Lake	20.21	349	LR	LR	05 44 05.1	
	comp=Z,129nm,19.5s,MS3.3,baz=340,slow=35						
ULM	Lac du Bonnet	22.27	50	P	P	05 37 06.3	-1.9
	2.6nm,0.7s,mb3.8,baz=263,slow=13,SNR=4.8						
YKA	Yellowknife Ar	24.27	9	P	P	05 37 30.9	+2.7
	0.1nm,0.5s,baz=197,slow=9.5,SNR=3.2						
MDJ	Mudanjiang	74.43	315	P	P	05 43 48.5	-0.8
MDJ				pmax	pmax		
	comp=Z,170nm,3.7s						
CN2	Changchun	77.22	316	eP	P	05 44 06.3	+1.0
SONM	Songino Array	83.26	329	P	P	05 44 40.6	+2.8
	comp=Z,0.5nm,0.7s,mb3.7,baz=31,slow=1.6,SNR=4.2						
HHC	Hu-ho-hao-te	86.47	322	eP	P	05 44 53.3	-0.8
HHC				pP	pP	05 44 56.8	-1.6
HHC				PP	PP	05 48 14.3	-0.5
HHC				SKS		05 55 15.6	
HHC				S	S	05 55 25.3	-4.6
HHC				SS	SS	06 01 06.8	-2.0
HHC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.0						
HHC				LR	LR		
	comp=Z,190nm,18.2s,MS4.5						
GTA	Gaotai	92.91	328	eP	P	05 45 21.5	-2.9
GTA				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.5						
LZH	Lanzhou	93.92	324	eP	P	05 45 28.1	-1.0
LZH				pP	pP	05 45 31.3	-2.1
LZH				sP	sP	05 45 32.8	-2.1
LZH				ePP	PP	05 49 16.3	+2.3
LZH				pmax	pmax		
	comp=Z,15nm,1.5s						
LZH				pmax	pmax		
	comp=Z,95nm,5.7s						
LZH				LR	LR		
	comp=N,130nm,17.2s						
LZH				LR	LR		
	comp=Z,190nm,20.0s						
CD2	Chengdu	98.19	321	P	P	05 45 49.0	+0.4
GYA	Guiyang	100.27	316	eP	Pdif	05 45 57.8	+0.1

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*ISCJB **24** 05:34:46.2±1.6, 35°.01N±0°.03×45°.78E±0°.10, h15km±9km, Error ellipse: s-maj=14.0km s-min=4.7km az=164.7*

*CSEM **24** 05:34:47.5, 34°.26N×44°.58E, h33km, ML3.1*

*KISR **24** 05:34:47.5±1.1, 34°.26N×44°.58E, h34km±999km, ML3.1*

*TEH **24** 05:34:48.2, 35°.14N×45°.95E, h6km*

ISC 24 05:34:47.4±1.8**, 35°.03N**±0°.04×**45°.8E**±0°.1**, h10**km±10km**, n19, σ1ˢ.08**/28**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGHG	Ghaleghazi	0.95	137	ePg	Pg	05 35 05.2	-0.5
ILIN	Lien	0.97	96	eSg	Pg	05 35 15.0	+8.8
ILIN				e	Sg	05 35 19.4	+0.5
	comp=Z,11µm,0.1s						
IVIS	Veis	1.01	119	eSg	Sg	05 35 18.6	-1.4
IVIS				ePg	Pg	05 35 04.5	-2.3
IVIS				e		05 35 21.3	
	comp=Z,13µm,0.1s						
IKOM	Komasi	1.66	120	e	Sg	05 35 43.7	+2.9
	comp=Z,7µm,0.1s						
IAZR	Azarshahr	2.65	3	ePn	Pn	05 35 30.1	-0.2
IAZR				e		05 35 36.0	
	comp=Z,2µm,0.1s						
IAZR				eSg	Sn	05 36 07.0	+4.5
IBST	Bostanabad	2.82	18	ePn	Pn	05 35 32.2	-0.3
IBST				e		05 35 34.9	
	comp=Z,903nm,0.2s						
ISRB	Sarab	3.18	28	ePn	Pn	05 35 36.2	-1.3
ISRB				e		05 35 43.8	
	comp=Z,613nm,0.3s						
ISHB	Shabestar	3.25	358	ePn	Pn	05 35 38.4	-0.1
ISHB				e		05 35 51.2	
	comp=Z,905nm,0.2s						
IRAZ	Razeghan	3.42	82	ePn	Pn	05 35 40.2	-0.5
IRAZ				e		05 36 40.6	
	comp=Z,320nm,0.3s						
IHRS	Heris	3.44	17	e	Sg	05 36 41.0	+3.1
	comp=N,435nm,0.2s						
IMRD	Marand	3.68	359	ePn	Pn	05 35 43.5	-0.9
IMRD				e		05 36 38.8	
	comp=Z,721nm,0.1s						
IPIR	Pirpir	4.85	117	ePn	Pn	05 36 00.7	+0.2
IPIR				e		05 37 03.7	
	comp=Z,194nm,0.2s						
IKLH	Kolahrood	5.10	108	ePn	Pn	05 36 04.4	+0.6
IKLH				e		05 37 08.9	
	comp=Z,122nm,0.1s						
MIB	Mutribah	5.37	165	eP	Pn	05 36 09.1	+1.4
MIB				eS	Sn	05 37 10.0	+0.5
MIB				AML	AML	05 37 11.4	
	comp=Z,7.0nm,0.3s						
MIB	Mutribah	5.37	165	eP	Pn	05 36 09.1	+1.5
MIB				eS	Sn	05 37 10.0	+0.5
	comp=Z,7.0nm,0.3s						
NAY	Al-Naaiem	5.89	167	eP	Pn	05 36 15.7	+0.9
NAY				eS	Sn	05 37 21.8	-0.5
NAY				AML	AML	05 37 24.2	
	comp=Z,9.4nm,0.4s						
NAY	Al-Naaiem	5.89	167	eP	Pn	05 36 15.6	+0.8
NAY				eS	Sn	05 37 21.8	-0.5
RDF	Al-Radifah	6.26	166	eP	Pn	05 36 20.8	+0.9
RDF				eS	Sn	05 37 30.9	-0.7
RDF				AML	AML	05 37 32.5	
	comp=Z,12nm,0.3s						
RDF	Al-Radifah	6.26	166	eP	Pn	05 36 20.8	+0.9
RDF				eS	Sn	05 37 30.9	-0.6
	comp=Z,13nm,0.3s						

DJA 24 05:54:35, 8°.94S×107°.73E, h20km, MLv4.3/8, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEM	Lembang	2.10	357	P	Pn	05 55 09.2	+0.1
XMIS	Christmas Isla	2.56	233	P	Pn	05 55 15.5	+0.2
DBJI	Dramaga	2.56	338	P	Pn	05 55 15.6	+0.2
CBJI	Citeko	2.65	341	P	Pn	05 55 16.8	+0.2
UGM	Wanagama	2.95	70	P	Pn	05 55 19.8	-0.9
SBJI	Serang	3.22	330	P	Pn	05 55 24.8	+0.3
SMRI	Semarang	3.28	55	P	Pn	05 55 25.6	+0.4
PWJI	Pagerwojo	4.13	78	P	Pn	05 55 36.8	-0.2
KASI	Kota Agung	4.67	316	P	Pn	05 55 44.5	+0.1
MDSI	Maura Dua	5.66	321	P	Pn	05 55 57.2	-0.8
	10nm,0.8s						
GMJI	Gumukmas	5.69	84	P	Pn	05 55 58.4	0.0
	51nm,1.7s						
MNAI	Manna	6.57	314	P	Pn	05 56 10.0	-0.6
	135nm,1.2s,0.9nm						
SRBI	Singaraja	7.45	84	P	Pn	05 56 22.8	+0.2

CASC 24 06:07:55.5±1.9**, 10°.63N×87°.00W, h54**km±79km**, MD3.7, ML2.9, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSN	San Juan del S	1.31	59	eP	Pn	06 08 17.4	-0.1
SSN				AML	AML	06 08 38.6	
	comp=Z,615nm,0.3s						
GBS3	Finca Las Imˆ¡	1.53	84	i P	Pn	06 08 20.1	-0.4
GBS3				i S	Sn	06 08 40.2	+1.0
APON	Apoyo	1.58	35	eP	Pn	06 08 21.7	+0.6
GB1A	Borinquen Arri	1.59	83	i P	Pn	06 08 21.0	-0.2
COPN	Copaltepe	1.60	15	eP	Pn	06 08 21.4	0.0
GPS3	Bodega del ICE	1.61	85	i P	Pn	06 08 21.5	-0.1
GPS2	Hotel Rincˆ‡n	1.63	85	i S	Sn	06 08 42.8	+1.2
GPS1	Guardaparques	1.63	85	i S	Sn	06 08 42.5	+0.7
CONN	Concepcion	1.64	55	eP	Pn	06 08 22.9	+0.9
CSAN		1.65	20	eP	Pn	06 08 22.0	-0.1
XAVN	Gruta Xavier	1.65	24	eP	Pn	06 08 22.2	+0.1
TISN	Laguna Tiscapa	1.67	25	eP	Pn	06 08 21.4	-1.0
MGAN	Managua	1.68	26	eP	Pn	06 08 23.2	+0.6
MGAN				eS	Sn	06 08 44.0	+1.0
MGAN				AML	AML	06 08 47.2	
	comp=N,36nm,0.3s						
LIM1	Limonal	1.72	87	i P	Pn	06 08 23.1	0.0
LIM1				i S	Sn	06 08 45.2	+1.3
WILN	Americas 2	1.72	28	eP	Pn	06 08 22.8	-0.3
MIRN	Miramar	1.83	9	eP	Pn	06 08 24.4	-0.2
MOMN	Momotombo	1.83	14	eP	Pn	06 08 24.8	+0.2
HUEN		1.89	25	eP	Pn	06 08 25.6	+0.3
JCR	Jicaral	2.01	112	eP	Pn	06 08 27.4	+0.3
JTS	JuntasAbangare	2.04	99	eP	Pn	06 08 27.2	-0.3
JTS				eS	Sn	06 08 53.8	+2.0
CRIN	San Cristobal	2.06	359	eP	Pn	06 08 27.8	0.0
BOAB	BOACO BROADBAN	2.23	36	eP	Pn	06 08 29.6	-0.5
CGA2	Cerro Gallo 2	2.57	103	eP	Pn	06 08 35.8	+1.2
CGA2				eS	Sn	06 09 05.0	+0.2
PRS1	Puriscal	2.72	103	eP	Pn	06 08 39.4	+2.6
LAJ	Bijagual	2.93	105	eP	Pn	06 08 35.8	-3.9
LAJ				eS	Sn	06 09 04.3	-9.4
LCR2	La Lucha 2	3.08	106	eP	Pn	06 08 43.2	+1.6
BUS	Buena Vista	3.37	108	eP	Pn	06 08 47.3	+1.7
BUS				eS	Sn	06 09 26.5	+2.1
TGUH	Tegucigalpa,Un	3.42	356	eP	Pn	06 08 46.8	+0.4
TGUH				eS	Sn	06 09 25.8	+0.1
BAR1		3.89	110	eP	Pn	06 08 54.0	+1.3
BAR1				eS	Sn	06 09 37.0	-0.1

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*CSEM **24** 06:53:29.8, 36°.16N×21°.50E, h5km, MD3.6, After ATH*

ATH 24 06:53:29.8, 36°.16N×21°.50E, h5km±1km**, MD3.6**/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.76	15	ePB	Pb	06 53 44.7	-0.8
PYL				eSB	Sb	06 53 54.6	-1.6
PYL	PYLOS	0.76	15	ePb	Pb	06 53 44.7	-0.8
PYL				eSb	Sb	06 53 54.6	-1.6
ITM	Ithomi	1.07	19	ePN	Pn	06 53 50.2	-1.3
ITM				eSB	Sb	06 54 05.2	0.0
ITM	Ithomi	1.07	19	ePn	Pn	06 53 50.2	-1.3
ITM				eSb	Sb	06 54 05.2	0.0
KYTH	Kithira	1.25	84	ePG	Pg	06 53 53.2	-0.5
KYTH	Kithira	1.25	84	ePg	Pg	06 53 53.2	-0.5
VLI	Veliai	1.29	64	ePB	Pb	06 53 54.2	-0.3
VLI				eSB	Sb	06 54 12.1	+0.8
VLI	Veliai	1.29	64	ePb	Pb	06 53 54.2	-0.3
VLI				eSb	Sb	06 54 12.1	+0.8
VLX	Vlachokerasia	1.40	30	ePG	Pg	06 53 55.6	-1.0
VLX				eSB	Sb	06 54 14.7	+0.1
VLX	Vlachokerasia	1.40	30	ePg	Pg	06 53 55.6	-1.0
VLX				eSb	Sb	06 54 14.7	+0.1
GUR	Goura	1.90	21	ePN	Pn	06 54 04.9	+2.1
GUR				eSN	Sn	06 54 30.3	+3.2
GUR	Goura	1.90	21	ePn	Pn	06 54 04.9	+2.1
GUR				eSn	Sn	06 54 30.3	+3.2
DID	Didima	1.94	46	ePG	Pg	06 54 05.8	-1.1
DID	Didima	1.94	46	ePg	Pg	06 54 05.8	-1.1
LTK	Loutraki	2.20	32	ePN	Pn	06 54 09.7	+2.7
LTK	Loutraki	2.20	32	ePn	Pn	06 54 09.7	+2.7
EFP	Efpalio	2.29	8	ePN	Pn	06 54 09.9	+1.7
EFP	Efpalio	2.29	8	ePn	Pn	06 54 09.9	+1.7

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*ECX **24** 07:00:43.8±0.3, 32°.39N×115°.31W, h5km, MD2.7, ML2.8*

*ISCJB **24** 07:00:45.6±0.4, 32°.48N±0°.03×115°.30W±0°.03, h10km±3km, Error ellipse: s-maj=5.8km s-min=3.4km az=167.0*

ISC 24 07:00:45.9±0.4**, 32°.47N**±0°.03×**115°.31W**±0°.02**, h13**km±3km**, n29, σ0ˢ.62**/39**, 15C-13D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.05	179	eP	Pg	07 00 47.6	-0.8
CPBX				eS	Sg	07 00 49.2	-1.1
CPBX				⇓e		07 00 49.7	
	comp=N,31µm,0.2s						
SGL	Mount Signal	0.40	297	⇑iP	Pg	07 00 54.4	+0.5
COA	Coachella	0.42	21	⇓iP	Pg	07 00 55.6	+1.3
EMX	El Mayor	0.48	174	⇓eP	Pg	07 01 03.5	+8.0
EMX				eS	Sg	07 01 10.8	+8.8
EMX				⇑e		07 01 11.8	
	comp=N,497nm,0.5s						
COK	Cook Ranch	0.52	317	⇑iP	Pg	07 00 56.8	+0.7
YUH	Yuha Desert	0.55	289	⇑iP	Pg	07 00 56.8	+0.1
112A	Yuma	0.62	84	⇑P	Pg	07 00 58.0	+0.1
	baz=0.6						
112A				⇑S	Sg	07 01 06.9	+0.8
	baz=0.6						
SWSC	Sam W. Stewart	0.62	319	⇓P	Pg	07 00 58.1	0.0
	baz=0.7						
YMD	Yuma Desert	0.65	82	⇑iP	Pg	07 00 58.3	-0.2
CRR	Carrizo Plain	0.70	307	eP	Pg	07 00 59.6	+0.1
DVTC	Desert V Tower	0.70	286	⇓P	Pg	07 00 59.3	-0.1
	baz=0.7						
GLA	Glamis	0.71	35	⇓P	Pg	07 00 59.5	-0.1
	baz=0.8						
GLA				⇑S	Sg	07 01 09.4	+0.5
	baz=0.8						
RDX	Rancho Dawling	0.77	226	eP	Pg	07 01 00.6	-0.2
RDX				eS	Sg	07 01 11.6	+0.8
RDX				e		07 01 11.8	
	comp=N,303nm,0.3s						
ECBX	El Chinero	1.02	168	eP	Pb	07 01 13.2	+7.8
ECBX				eS	Sb	07 01 27.2	+8.5
MONP	Monument Peak	1.03	294	⇓P	Pb	07 01 04.8	-0.7
	baz=1.1						
CBX	Cerro Bola	1.16	263	ePN	Pn	07 01 08.0	+0.2
113A	Mohawk Valley,	1.33	77	⇓Pn	Pn	07 01 09.4	-0.8
	baz=1.3						
113A				⇑S	Sb	07 01 27.3	-0.4
	baz=1.3						
ECNX	Esteban Cantu	1.36	234	ePN	Pn	07 01 11.2	+0.6
ECNX				ePN	Pn	07 01 09.5	-1.1
PBX	Punta Banda	1.41	239	ePN	Pn	07 01 11.8	+0.6
SPX	San Pedro Mart	1.43	185	ePN	Pn	07 01 12.8	+1.3
Y12C	Blythe	1.43	27	⇓Pb	Pb	07 01 12.1	-0.4
	baz=1.5						
PFO	Pinyon Flat Ob	1.49	320	⇑Pn	Pn	07 01 11.6	-0.8
	baz=1.5						
Z13A	Yuma Proving G	1.57	62	⇓Pb	Pb	07 01 14.2	-0.6
	baz=1.6						
109C	Camp Elliot, M	1.57	286	⇓Pn	Pn	07 01 12.7	-0.8
	baz=1.6						
109C				⇑Pb	Pb	07 01 14.3	-0.6
	baz=1.6						
109C				⇑Sb	Sb	07 01 35.1	+0.5
	baz=1.6						
IRM	Iron Mountain	1.69	4	⇑Pg	Pg	07 01 18.3	-0.1
	baz=1.7						
114A	Black Gap (USA	2.06	82	⇓Sb	Sb	07 01 49.6	+0.8
	baz=2.1						
Z14A	Wintersburg	2.17	65	⇓Sn	Sn	07 01 48.2	-0.4
	baz=2.2						
X14A	Yava	2.84	45	⇑Pg	Pg	07 01 40.0	-0.3
	baz=2.9						
116A	Eloy	3.04	87	⇑Pg	Pg	07 01 44.6	+0.3
	baz=3.0						

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*ISCJB **24** 07:06:19.3±0.6, 33°.33N±0°.03×35°.41E±0°.05, h12km±7km, Error ellipse: s-maj=7.8km s-min=4.4km az=29.6*

*GII **24** 07:06:19.4±0.7, 33°.28N×35°.42E, h1km±2km, Md2.0/7*

*CSEM **24** 07:06:20.4, 33°.33N×35°.43E, h0km, ML3.0, After GRAL*

*GRAL **24** 07:06:20.4±0.3, 33°.33N×35°.43E, h0km±105km, MD3.0*

ISC 24 07:06:19.6±0.7**, 33°.35N**±0°.03×**35°.41E**±0°.05**, h11**km±10km**, n19, σ0ˢ.49**/27**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	334	eP	Pg	07 06 23.7	+0.4
MATL	Matirih	0.16	334	eP	Pg	07 06 23.7	+0.5
KSDI	Kefar Szold	0.26	127	Pg	Pg	07 06 24.6	-0.4
KSDI				Sg	Sg	07 06 29.0	+0.4
HNTI	Hanita	0.33	217	Pg	Pg	07 06 26.1	-0.1
HNTI				Sg	Sg	07 06 31.3	+0.6
MMA0	Mount Meron ar	0.33	181	Pg	Pg	07 06 25.6	-0.7
MMA0				Sg	Sg	07 06 31.0	+0.3
MMA2	Mount Meron ar	0.33	181	Pg	Pg	07 06 25.8	-0.5
RCY	Rachaya	0.37	68	eP	Pg	07 06 27.2	+0.3
RCY				eS	Sg	07 06 32.2	+0.3
RCY	Rachaya	0.37	68	eP	Pg	07 06 27.2	+0.2
RCY				eS	Sg	07 06 32.2	+0.3
KSHT	Keshet	0.50	137	Pg	Pg	07 06 29.2	-0.1
BHL	Bhannes	0.59	20	eP	Pg	07 06 31.3	+0.2
BHL	Bhannes	0.59	20	eP	Pg	07 06 31.3	+0.2
BLGI	Bet Lehem HaGe	0.64	197	Pg	Pg	07 06 31.8	-0.3
OFRI	‘Ofer	0.81	206	Pg	Pg	07 06 35.3	+0.1
MMLI	Mount Malkishu	0.91	179	Pg	Pg	07 06 36.3	-0.8
MMLI				Sg	Sg	07 06 49.1	+0.1
HWQ	Hawqa	1.03	26	eP	Pg	07 06 39.1	-0.3
HWQ	Hawqa	1.03	26	eP	Pg	07 06 39.2	-0.3
HMDT	Nahal Hemdat	1.10	175	Pg	Pg	07 06 39.7	-1.0
HMDT				Sg	Sg	07 06 55.7	+0.7
SLTI	Sal’it	1.15	196	Pg	Pg	07 06 41.3	-0.4
SLTI				Sg	Sg	07 06 57.2	+0.6
DSI	Dead Sea	1.77	181	Pn	Pn	07 06 50.9	+0.7

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*NEIC **24** 07:19:00.8, 38°.72N×21°.25E, h16km, MD3.2(ATH), After ATH.*

*ATH **24** 07:19:00.8, 38°.72N×21°.25E, h16km±2km, MD3.2/6*

*ISCJB **24** 07:19:01.1±0.6, 38°.70N±0°.03×21°.28E±0°.04, h1km±6km, Error ellipse: s-maj=4.8km s-min=4.3km az=163.1*

*CSEM **24** 07:19:01.6±0.3, 38°.68N×21°.30E, h18km±1km, MD3.2, Error ellipse: s-maj=8.0km s-min=6.3km az=49.0*

*THE **24** 07:19:01.8, 38°.68N×21°.28E, h2km±27km, ML2.8/2, Error ellipse: s-maj=27.9km s-min=0.5km az=0.0*

ISC 24 07:19:01.9±0.5**, 38°.70N**±0°.03×**21°.28E**±0°.04**, h7**km±6km**, n34, σ0ˢ.81**/53**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EVR	Evrytania	0.47	62	ePB	Pg	07 19 11.0	+0.1
EVR	Evrytania	0.47	62	ePb	Pg	07 19 11.0	+0.1
EFP	Efpalio	0.56	119	ePN	Pg	07 19 12.1	-0.5
EFP				eSN	Sg	07 19 21.1	+1.2
EFP	Efpalio	0.56	119	ePn	Pg	07 19 12.1	-0.5
RLS	Riolos of Patr	0.66	167	ePB	Pg	07 19 13.8	-0.6
RLS				eSN	Sg	07 19 23.6	+0.6
RLS	Riolos of Patr	0.66	167	ePb	Pg	07 19 13.8	-0.6
TRIZ	Trizonia	0.70	118	P	Pg	07 19 14.5	-0.9
TRIZ				S	Sg	07 19 25.4	+0.9
TRIZ	Trizonia	0.70	118	P	Pg	07 19 14.5	-0.9
TRIZ				S	Sg	07 19 25.4	+0.9
LAKA	Lakka	0.71	130	P	Pg	07 19 15.5	0.0
LAKA				S	Sg	07 19 25.4	+0.6
LAKA	Lakka	0.71	130	P	Pg	07 19 15.5	0.0
LAKA				S	Sg	07 19 25.4	+0.6
KALE	Kalithea	0.74	114	P	Pg	07 19 15.4	-0.6
KALE	Kalithea	0.74	114	P	Pg	07 19 15.4	-0.6
VLS	Valsamata	0.75	227	P	Pg	07 19 15.2	-1.1
VLS				S	Sg	07 19 26.8	+0.7
VLS	Valsamata	0.75	227	ePN	Pg	07 19 15.2	-1.1
VLS				eSN	Sg	07 19 26.7	+0.6
VLS	Valsamata	0.75	227	ePn	Pg	07 19 15.2	-1.1
VLS				eSn	Sg	07 19 26.7	+0.6
AGG	Agios Georgios	0.88	68	P	Pg	07 19 18.2	-0.6
AGG				S	Sg	07 19 31.2	+1.0
AGG	Agios Georgios	0.88	68	ePN	Pg	07 19 18.1	-0.7
AGG				eSN	Sg	07 19 30.2	0.0
AGG	Agios Georgios	0.88	68	ePn	Pg	07 19 18.1	-0.7
AGG				eSn	Sg	07 19 30.2	0.0
THL	Klokotos Trika	1.04	33	P	Pg	07 19 21.0	-0.8
THL				S	Sg	07 19 37.1	+1.9
THL	Klokotos Trika	1.04	33	ePN	Pg	07 19 21.1	-0.7
THL				eSN	Sg	07 19 34.0	-1.2
THL	Klokotos Trika	1.04	33	ePn	Pg	07 19 21.1	-0.7
THL				eSn	Sg	07 19 34.0	-1.2
THL				S	Sg	07 19 37.1	+1.9
MEV	Metsovon	1.09	358	P	Pg	07 19 22.7	0.0
MEV	Metsovon	1.09	358	P	Pg	07 19 22.7	0.0
IGT	Igoumenitsa	1.11	319	P	Pg	07 19 22.8	-0.5
IGT				S	Sg	07 19 39.1	+1.4
IGT	Igoumenitsa	1.11	319	P	Pg	07 19 22.8	-0.5
IGT				S	Sg	07 19 39.1	+1.4
GUR	Goura	1.13	132	ePN	Pg	07 19 22.1	-1.4
GUR				eSN	Sn	07 19 38.9	-0.9
GUR	Goura	1.13	132	ePn	Pg	07 19 22.1	-1.4
LKR	Lokris	1.34	91	ePN	Pn	07 19 26.6	-0.4
LKR	Lokris	1.34	91	ePn	Pn	07 19 26.6	-0.4
LTK	Loutraki	1.48	116	ePN	Pn	07 19 29.8	+0.8
ITM	Ithomi	1.60	161	ePN	Pn	07 19 30.7	+0.2
PYL	PYLOS	1.83	168	ePN	Pn	07 19 33.8	0.0
PYL	PYLOS	1.83	168	ePn	Pn	07 19 33.8	0.0
DID	Didima	1.95	127	ePN	Pn	07 19 36.5	+1.2

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*IDC **24** 07:24:35.2±1.1, 2°.20S×120°.57E, h0km, mb3.7/4, mb1 3.9/5, mb1mx3.7/18, mbtmp3.7/5, ML3.2/1, MS3.3/4, Ms1 3.3/4, ms1mx2.9/30, Error ellipse: s-maj=45.8km s-min=19.1km az=74.0*

*DJA **24** 07:24:37, 1°.96S×120°.00E, h60km, MLv4.5/4*

*NEIC **24** 07:24:38.8±0.8, 2°.25S×120°.52E, h25km, mb4.1/1, Error ellipse: s-maj=26.9km s-min=12.5km az=72.0*

*ISCJB **24** 07:24:39.1±0.9, 2°.19S±0°.07×120°.5E±0°.1, h44km±11km, mb3.8/5, MS3.3/2, Error ellipse: s-maj=18.4km s-min=8.4km az=27.9*

ISC 24 07:24:40.4±0.9**, 2°.24S**±0°.07×**120°.48E**±0°.10**, h37**km±12km**, n14, σ1ˢ.09**/14**, mb3.8**/5**, MS3.3**/2**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TTSI	Tana Toraja	1.03	219	P	Pn	07 24 57.1	-1.4
TTSI				S	Sn	07 25 12.0	+0.3
APSI	Ampana	1.77	42	P	Pn	07 25 07.7	-0.8
APSI				S	Sn	07 25 32.5	+2.7
BNSI	Bone	2.18	190	P	Pn	07 25 14.7	+0.5
BNSI				S	Sn	07 25 44.8	+4.8
KAPI	Kappang	2.85	195	Pn	Pn	07 25 22.6	-0.8
	3.2nm,0.3s,baz=21,slow=9.3,SNR=18						
KAPI				Sn	Sn	07 25 59.6	+3.1
	3.5nm,0.3s,baz=190,slow=19,SNR=9.4						
KAPI				LR	LR	07 26 39.0	
	comp=Z,390nm,19.9s,baz=158,slow=42						
KBKI	Kotabaru	4.43	256	P	Px	07 25 35.9	
KMSI	Cibinong	4.48	51	P	Pn	07 25 45.8	-0.1
MYLDM	Lahad Datu	7.63	345	P	Px	07 26 20.8	
FITZ	Fitzroy Crossi	16.56	163	LR	LR	07 35 15.5	
	comp=Z,81nm,18.7s,baz=294,slow=39						
WRA	Warramunga Arr	22.20	143	P	P	07 29 32.6	-1.2
	4.4nm,0.7s,mb4.0,baz=323,slow=11,SNR=20						
WRA				LR	LR	07 39 28.9	
	comp=Z,53nm,18.8s,MS3.0,baz=180,slow=40						
WRAB	Tennant Creek	22.20	143	eP	P	07 29 33.0	-0.7
	6.2nm,0.8s,mb4.1						
ASAR	Alice Springs	24.95	150	P	P	07 30 01.2	+0.8
	2.2nm,0.8s,mb3.7,baz=326,slow=7.6,SNR=21						
ASAR				PcP	PcP	07 33 35.5	+0.1
	0.2nm,0.6s,baz=355,slow=1.7,SNR=3.1						
STKA	Stephens Creek	35.57	148	LR	LR	07 45 29.5	
	comp=Z,133nm,21.9s,MS3.7,baz=204,slow=35						
SONM	Songino Array	51.37	348	P	P	07 33 41.2	-0.1
	0.6nm,0.7s,mb3.6,baz=169,slow=5.7,SNR=5.4						
MKAR	Makanchi Array	59.24	330	P	P	07 34 38.6	+0.6
	0.4nm,0.6s,mb3.6,baz=134,slow=8.4,SNR=5.1						

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*NEIC **24** 07:58:44.6, 32°.59S×71°.62W, h51km, MD3.7(GUC), After GUC.*

GUC 24 07:58:44.6±0.6, 32.°59S×71.°62W, h51^{km}±5^{km}, MD3.7, ML3.8, 14C-10D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IHA	Instituto Hidr	0.43	183	⇑iP	Pn	07 58 55.3	+0.1
IHA				iS	Sn	07 59 03.5	+0.7
IHA	Instituto Hidr	0.43	183	⇑iP	Pn	07 58 55.3	+0.1
IHA				iS	Sn	07 59 03.5	+0.7
CHNG	Los Chungos	0.71	8	⇓iP	Pn	07 58 58.8	+0.2
CHNG				iS	Sn	07 59 09.2	+0.5
JACH	Jahuel	0.87	96	⇑iP	Pn	07 59 01.5	+0.9
JACH				iS	Sn	07 59 13.9	+1.6
JACH	Jahuel	0.87	96	⇑iP	Pn	07 59 01.5	+0.9
JACH				iS	Sn	07 59 13.9	+1.6
PEL	Peldehue	0.96	125	⇓iP	Pn	07 59 02.6	+0.8
PEL				iS	Sn	07 59 15.7	+1.3
PEL				AML	AML	07 59 17.5	
	comp=N,5μm,0.2s						
TACH	Talagante	1.20	152	⇓iP	Pn	07 59 05.7	+0.6
TACH				iS	Sn	07 59 21.3	+1.0
TACH	Talagante	1.20	152	⇓iP	Pn	07 59 05.7	+0.6
TACH				iS	Sn	07 59 21.3	+1.0
FSR	Penalolen	1.27	134	⇑iP	Pn	07 59 06.7	+0.6
FSR				iS	Sn	07 59 23.3	+1.3
FSR	Penalolen	1.27	134	⇑iP	Pn	07 59 06.7	+0.6
FSR				iS	Sn	07 59 23.3	+1.3
ANTU	Antumapu	1.28	140	⇑iP	Pn	07 59 06.9	+0.8
ANTU				iS	Sn	07 59 23.6	+1.5
ANTU	Antumapu	1.28	140	⇑iP	Pn	07 59 06.9	+0.8
ANTU				iS	Sn	07 59 23.6	+1.5
ANTU				AML	AML	07 59 24.6	
	comp=E,3μm,0.5s						
FCH	Farellones	1.33	124	AML	AML	07 59 27.9	
	comp=N,2μm,0.3s						
PCH	Pirque	1.38	138	⇓iP	Pn	07 59 08.2	+0.7
PCH				iS	Sn	07 59 25.9	+1.2
PCH	Pirque	1.38	138	⇓iP	Pn	07 59 08.2	+0.7
PCH				iS	Sn	07 59 25.9	+1.2
SJCH	San Jose de Ma	1.49	135	⇓iP	Pn	07 59 09.8	+0.8
SJCH				iS	Sn	07 59 28.7	+1.4
SJCH	San Jose de Ma	1.49	135	⇓iP	Pn	07 59 09.8	+0.8
SJCH				iS	Sn	07 59 28.7	+1.4
SJCH				AML	AML	07 59 30.0	
	comp=E,766nm,0.7s						
CMCH	Combarbala	1.51	20	AML	AML	07 59 29.8	
	comp=N,5μm,0.3s						
CHCH	Chadas Angostu	1.56	149	⇓iP	Pn	07 59 10.6	+0.6
CHCH				iS	Sn	07 59 30.1	+1.1
CHCH	Chadas Angostu	1.56	149	⇓iP	Pn	07 59 10.6	+0.6
CHCH				iS	Sn	07 59 30.1	+1.1
YECH	El Yeso	1.67	130	⇑iP	Pn	07 59 12.9	+1.5
YECH				iS	Sn	07 59 33.9	+2.1
YECH				AML	AML	07 59 44.5	
	comp=N,882nm,0.5s						
CACH	El Canelo	1.74	151	⇑iP	Pn	07 59 13.7	+1.3
CACH				iS	Sn	07 59 35.6	+2.2
CACH	El Canelo	1.74	151	⇑iP	Pn	07 59 13.7	+1.3
CACH				iS	Sn	07 59 35.6	+2.2
OVCH	Ovalle	2.01	10	⇑iP	Pn	07 59 16.5	+0.4
OVCH				iS	Sn	07 59 40.9	+0.9
OVCH	Ovalle	2.01	10	⇑iP	Pn	07 59 16.5	+0.4
OVCH				iS	Sn	07 59 40.9	+0.9
OVCH				AML	AML	07 59 42.6	
	comp=N,1μm,0.3s						
LCO	Las Campanas	3.65	13	⇑iPn	Pn	07 59 38.8	+0.2
LCO				eSn	Sn	08 00 20.0	-0.5

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*CSEM **24** 08:01:51.4, 40.°68N×29.°28W, h5^{km}, ML3.3, After PDA*

PDA 24 08:01:51.4±1.1, 40.°68N×29.°28W, h5^{km}, MD3.8, ML3.3, Error ellipse: s-maj=10.8km s-min=5.9km az=91.0, Azores Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROSA	Rosais	2.12	157	eS	Sn	08 02 46.2	-7.8
ROSA	Rosais	2.12	157	eS	Sn	08 02 46.2	-7.8
CALA	Caldeira	2.14	168	eP	Pn	08 02 23.3	-4.5
CALA				eS	Sn	08 02 46.9	-7.8
CALA	Caldeira	2.14	168	eP	Pn	08 02 23.3	-4.5
CALA				eS	Sn	08 02 46.9	-7.8
HOR	Horta	2.21	167	eS	Sn	08 02 48.3	-8.0
HOR	Horta	2.21	167	eS	Sn	08 02 48.3	-8.0
PMAN	Manadas	2.24	155	eP	Pn	08 02 23.9	-5.2
PMAN				eS	Sn	08 02 48.8	-8.3
PMAN				A		08 02 51.5	
	22nm,0.2s						
PMAN	Manadas	2.24	155	eP	Pn	08 02 23.9	-5.2
PMAN				eS	Sn	08 02 48.8	-8.3
PICO	Pico	2.27	163	eP	Pn	08 02 25.3	-4.3
PICO				eS	Sn	08 02 50.4	-7.5
PICO	Pico	2.27	163	eP	Pn	08 02 25.3	-4.3
PICO				eS	Sn	08 02 50.4	-7.5
ADH	Angra Heroismo	2.56	141	eP	Pn	08 02 28.8	-4.8
ADH				eS	Sn	08 02 57.5	-7.6
ADH				A		08 02 59.6	
	9.5nm,0.1s						
ADH	Angra Heroismo	2.56	141	eP	Pn	08 02 28.8	-4.8
ADH				eS	Sn	08 02 57.5	-7.6
CMLA	Cha da Macela	4.12	134	eP	Pn	08 02 50.9	-4.1
CMLA				eS	Sn	08 03 34.8	-8.7
CMLA				A		08 03 35.0	
	21nm,0.3s						
CMLA	Cha da Macela	4.12	134	eP	Pn	08 02 50.9	-4.1
CMLA				eS	Sn	08 03 34.8	-8.7
PSMA	Santa Maria	4.90	137	eP	Pn	08 03 01.9	-3.8
PSMN	Pico do Norte,	4.93	137	eP	Pn	08 03 01.2	-4.9
PSMN	Pico do Norte,	4.93	137	eP	Pn	08 03 01.2	-4.9

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*BJI **24** 08:53:32.9, 2.°86S×99.°92E, h35^{km}, mB5.4/38, mb5.3/64, Ms5.3/56, Ms7 5.1/52*

*ISCJB **24** 08:53:36.7±0.2, 2.°31S±0.°03×99.°88E±0.°03, h30^{km}, mb5.3/133, MS5.0/133, Error ellipse: s-maj=4.4km s-min=2.9km az=39.6*

*NEIC **24** 08:53:38.0±0.2, 2.°34S×99.°95E, mb5.4/65, MS5.1/100, Error ellipse: s-maj=5.3km s-min=3.8km az=224.0*

NEIC Felt [III] at Padang, Sumatra and [II] in the Kepulauan Mentawai. Also felt at Citeureup, Java.

*DJA **24** 08:53:37, 2.°44S×99.°70E, h27^{km}, mb5.2/24*

*MOS **24** 08:53:38.4±1.0, 2.°15S×100.°10E, h41^{km}, mb5.6/54, MS4.9/16, Error ellipse: s-maj=10.3km s-min=4.8km az=114.4*

*GCMT **24** 08:53:38.0±0.3, 2.°74S×99.°60E, h40^{km}±1^{km}, MW5.2/65, Moment Tensor Solution. s55,c76; s65,c97; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.38±.28; $M_{\theta\theta}$-4.50±.17; $M_{\phi\phi}$-0.88±.24; $M_{r\theta}$3.91±.20; $M_{\theta\phi}$3.98±.14; $M_{\phi r}$-2.69±.26; Best double couple: $M_0$7.82600×10^{16} NP1:ϕ_s301.00000°, δ26.00000°, λ87.00000°. NP2: ϕ_s124.00000°, δ64.00000°, λ91.00000°. Principal axes: T 6.9860, Plg71.0000°, Azm37.0000°; N 1.6770, Plg1.0000°, Azm303.0000°; P -8.6660, Plg19.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **24** 08:53:39.0±2.9, 2.°36S×99.°92E, h37^{km}±23^{km}, mb4.7/17, mb1 4.8/19, mb1mx4.7/23, mbtmp4.7/19, ML4.3/2, MS4.8/20, Ms1 4.8/20, ms1mx4.6/34 Error ellipse: s-maj=19.4km s-min=10.5km az=46.0*

*TEH **24** 08:53:40.0, 2.°32S×99.°98E, h42^{km}*

*SZGRF **24** 08:53:52.9, 2.°24N×100.°75E, h30^{km}, mb5.2, Northern Sumatera, Indonesia*

ISC 24 08:53:38.8±0.2, **2.°33S**±0.°03×**99.°84E**±0.°02, **h32^{km}, h32^{km}**±.8^{km}**:pP-P, n489,** σ1^{s}**08**/390, **mb5.3**/133, **MS5.0**/133, **43C-19D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.46	159	P	Pb	08 53 47.4	-1.3
SISI	Saibi	1.25	323	P	Pn	08 53 59.7	-0.4
PDSI	Padang	1.54	24	P	Pn	08 54 06.1	+2.0
SDSI	Sungai Dareh	2.11	49	P	Pn	08 54 16.2	+4.3
RGRI	Rengat	3.18	52	P	Pn	08 54 28.5	+1.9
MNAI	Manna	3.70	123	P	Pn	08 54 35.0	+1.1
GSI	Gunungsitoli	4.26	328	P	Pn	08 54 42.1	+0.5
MDSI	Maura Dua	4.83	116	P	Pn	08 54 49.8	+0.5
PMBI	Palembang	4.96	97	P	Pn	08 54 52.8	+1.7
	521nm,1.1s,7.5nm						
DSRI	Dabo	5.08	69	P	Pn	08 54 53.4	+0.6
PSI	Prapat	5.18	350	Pn	Pn	08 54 52.6	-1.6
	3.5nm,0.3s,baz=162,slow=10.0,SNR=24						
PSI				LR	LR	08 57 33.7	
	comp=Z,20μm,18.0s,baz=160,slow=46						
KGM	Kluang	5.54	39	P	Pn	08 55 01.2	+2.0
KASI	Kota Agung	5.62	124	P	Pn	08 55 00.2	0.0
	896nm,0.8s						
MYKOM	Kota Tinggi	5.73	44	P	Pn	08 55 03.8	+2.1
MYKOM	Kota Tinggi	5.73	44	P	Pn	08 55 02.5	+0.8
	603nm,0.8s,5.2nm						
FRIM	Kepong	5.81	18	P	Pn	08 55 04.8	+1.9
TSI	Tuntungan	5.93	348	⇓eP	Pn	08 55 11.5	+7.0
RBSI	Rajabasa	6.84	121	P	Pn	08 55 18.3	+1.3
	419nm,1.1s						
IPM	Ipoh	6.87	10	P	Pn	08 55 19.4	+2.0
IPM	Ipoh	6.87	10	P	Pn	08 55 19.3	+1.9
	162nm,1.3s,3μm2.1nm						
SBJI	Serang	7.31	121	P	Pn	08 55 24.2	+0.7
	257nm,1.6s,1.9nm						
KULM	Kulim	7.62	6	ePn	Pn	08 55 27.6	-0.1
	157nm,0.9s						
KULM	Kulim	7.62	6	P	Pn	08 55 27.7	+0.1
	219nm,1.0s,2μm0.7nm						
DBJI	Dramaga	8.06	122	P	Pn	08 55 34.2	+0.4
CBJI	Citeko	8.08	120	P	Pn	08 55 35.5	+1.5
LEM	Lembang	8.94	120	⇑eP	Pn	08 55 46.5	+0.6
SNG	Songkhla	9.48	5	P	Pn	08 55 53.0	-0.2
	400nm,0.8s						
XMIS	Christmas Isla	9.94	145	eP	Pn	08 55 51.3	-8.2
XMIS				eS	Sn	08 57 31.3	-19
COCO	West Island	10.24	197	eP	Pn	08 56 04.3	+0.7
KSM	Kuching	11.13	70	P	Pn	08 56 19.1	+3.3
KSM	Kuching	11.13	70	ePn	Pn	08 56 14.9	-0.9
	15nm,0.6s						
KSM	Kuching	11.13	70	P	Pn	08 56 16.9	+1.1
	26nm,1.7s,775nm						
UGM	Wanagama	11.99	118	P	Pn	08 56 28.6	+0.9
	190nm,1.8s						
SJI	Sawahan	13.03	115	P	Pn	08 56 41.5	-0.4
	117nm,0.8s						
PWJI	Pagerwojo	13.18	116	P	Pn	08 56 44.1	+0.2
	85nm,0.9s						
SBUM	Sibu	13.26	69	P	Pn	08 56 46.1	+1.2
	97nm,2.2s						
BBKI	Banjar Baru	15.02	95	P	Pn	08 57 14.9	+5.9
ABJI	Asem Bagus	15.32	111	P	Pn	08 57 16.2	+3.3
SRBI	Singaraja	16.33	111	P	Pn	08 57 34.7	+8.8
KBKI	Kotabaru	16.33	94	P	Pn	08 57 27.8	+1.8
	79nm,1.9s						
NST	Nakhon Sawan	17.89	1	P	Pn	08 57 43.0	-2.4
KKM	Kota Kinabalu	18.35	63	eP	Pn	08 57 50.9	0.0
	18nm,0.7s						
BDT	Bhumibol Dam	19.47	358	P	Pn	08 58 02.0	-2.5
TTSI	Tana Toraja	19.97	92	P	Pn	08 58 08.3	-2.2
	91nm,1.3s,2μm						
KAPI	Kappang	20.05	98	P	P	08 58 08.5	-1.0
	975nm,1.1s,SNR=6.0						
KAPI	Kappang	20.05	98	P	P	08 58 07.6	-1.8
	2.2nm,0.3s,baz=316,slow=7.0,SNR=8.2						
MYLDM	Lahad Datu	20.08	68	P	P	08 58 10.9	+1.1
	148nm,1.4s						
BNSI	Bone	20.33	96	P	P	08 58 13.2	+0.6
	188nm,1.2s						
CMAR	Chiang Mai Arr	20.68	358	P	P	08 58 14.7	-1.5
	43nm,1.0s,baz=187,slow=9.5,SNR=126						
CMAR				LR	LR	09 06 40.7	
	comp=Z,4μm,19.6s,MS4.7,baz=190,slow=38						
CMAR	Chiang Mai Arr	20.68	358	P	P	08 58 14.7	-1.5
CMAR				LR	LR	09 06 40.7	
CHTO	Chiang Mai	21.03	358	eP	P	08 58 19.1	-1.0
CHTO				pmax	pmax		
	comp=Z,75nm,1.4s,mb4.8						
CHTO				MLR	MLR		
	comp=Z,3μm,20.0s,MS4.7						
CHTO	Chiang Mai	21.03	358	eP	P	08 58 19.1	-0.9
	comp=Z,75nm,1.4s,mb4.8						
CHTO				LR	LR		
	comp=Z,3μm,20.0s,MS4.7						
CHTO	Chiang Mai	21.03	358	P	P	08 58 19.6	-0.5
	SNR=17						
CHTO				P		08 58 19.6	
	SNR=17						
CHTO	Chiang Mai	21.03	358	P	P	08 58 19.0	-1.1
	comp=Z,46nm,1.4s,mb4.6						
PALK	Pallekele	21.35	297	P	P	08 58 27.2	+3.6
PALK				pmax	pmax		
	comp=Z,78nm,0.9s,mb5.0						
PALK	Pallekele	21.35	297	P	P	08 58 27.2	+3.6
	comp=Z,78nm,0.9s,mb5.0						
PALK				eScP	ScP	09 06 00.1	-1.9
APSI	Ampana	21.84	87	P	P	08 58 30.0	+1.1
	comp=Z,205nm,1.2s,comp=Z,3μm,mb5.4						
CHRT	Chiangrai	22.07	360	⇑P	P	08 58 30.0	-1.2
	comp=Z,305nm,0.8s,mb5.8						
KDI	Kendari	22.80	95	⇑eP	P	08 58 37.5	-1.6
KDI				eS	S	09 02 40.5	-6.1
QIZ	Qiongzhong	23.40	24	P	P	08 58 44.6	-0.7
QIZ				S	S	09 02 50.9	-5.2
QIZ				pmax	pmax		
	comp=Z,36nm,1.2s,mb4.7						
QIZ				pmax	pmax		
	comp=Z,560nm,7.6s						
QIZ				LR	LR		
	comp=N,2μm,14.2s						
QIZ				LR	LR		
	comp=Z,3μm,16.1s,MS4.8						
TRD	Trivandrum	25.23	296	⇑ex	P	08 59 06.0	+3.9
TRD				eS	S	09 03 27.0	+1.2
VIS	Vishakhapatnam	25.73	321	ePKP	P	08 59 06.9	+0.3
DAV	Davao City (W)	27.33	70	P	P	08 59 21.3	+0.2
	comp=Z,117nm,0.3s,mb5.9,baz=33,slow=6.0,SNR=3.7						
DAV				LR	LR	09 11 28.9	
	comp=Z,2μm,19.7s,MS4.6,baz=332,slow=39						
AGT	Agartala	27.37	343	ex	P	08 59 19.0	-2.3
KMI	Kunming	27.44	6	P	P	08 59 22.8	+0.9
KMI				pP	pP	08 59 32.1	+1.0
KMI				sP	sP	08 59 36.3	+1.3
KMI				S	S	09 04 03.8	+3.4
KMI				sS	sS	09 04 20.1	+4.4
KMI				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.3						
KMI				LR	LR		
	comp=N,2μm,17.8s,MS5.0						
KMI				LR	LR		
	comp=E,3μm,16.2s,MS5.0						
KMI				LR	LR		
	comp=Z,2μm,18.1s,MS4.8						
IMP	Imphal	27.56	348	ePKP	P	08 59 23.0	0.0
TNTI	Ternate	27.69	84	P	P	08 59 23.8	-0.6
	comp=Z,103nm,1.7s,mb5.2						
DGAR	Diego Garcia	27.74	259	PFAKE		08 59 40.0	+15
DGAR				LR	LR		
	comp=Z,2μm,21.0s,MS4.7						
SHL	Shillong	28.79	345	⇑iP	P	08 59 34.3	+0.4
SHL				ex	x	09 04 20.5	
MNGI	Mangalore	29.11	302	ex	P	08 59 32.6	-4.3
MNGI				ix	x	09 00 06.6	
BOK	Bokaro	29.31	333	ePKP	P	08 59 38.4	-0.2
BOK				AMb	AMB	08 59 43.1	
	comp=Z,46nm,1.0s,mb5.2						
GYA	Guiyang	29.37	13	⇑iP	P	08 59 41.3	+2.2
GYA				pP	pP	08 59 50.0	+1.6
GYA				sP	sP	08 59 54.3	+2.1
GYA				PP	PP	09 00 37.8	-8.1
GYA				S	S	09 04 32.0	+1.1
GYA				sS	sS	09 04 47.5	+1.4
GYA				SS	SS	09 06 05.3	-31
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,230nm,4.6s						
GYA				LR	LR		
	comp=N,8μm,16.4s,MS5.5						
GYA				LR	LR		
	comp=E,6μm,15.2s,MS5.5						
GYA				LR	LR		
	comp=Z,7μm,16.0s,MS5.3						
FITZ	Fitzroy Crossi	29.76	123	eP	P	08 59 40.8	-1.9
	comp=Z,29nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	29.76	123	P	P	08 59 41.6	-1.0
	comp=Z,6.7nm,0.8s,mb4.4,baz=298,slow=4.5,SNR=7.5						
FITZ	Fitzroy Crossi	29.76	123	eP	P	08 59 41.8	-0.9
	comp=Z,22nm,0.8s,mb4.9						
FITZ	Fitzroy Crossi	29.76	123	P	P	08 59 41.9	-0.8
	comp=Z,60nm,0.9s,mb5.3						
ODAN	Odare	31.41	338	eP	P	08 59 58.2	+1.0
	comp=Z,135nm,1.0s,mb5.7						
TAPN	Taplejung	31.74	339	eP	P	09 00 01.5	+1.4
	comp=Z,119nm,0.9s,mb5.7						
RAMN	Ramite	31.79	337	eP	P	09 00 01.9	+1.4
	comp=Z,40nm,0.7s,mb5.4						
KAD	Karad	31.96	309	ePKP	P	09 00 02.6	+0.5
KAD				AMb	AMB	09 00 06.6	
	comp=Z,28nm,0.4s,mb5.5						
JIRN	Jiri	32.59	337	eP	P	09 00 08.8	+1.3
	comp=Z,79nm,0.7s,mb5.7						
PKI	Pulchoki	32.82	336	eP	P	09 00 10.2	+0.7
	comp=Z,28nm,0.8s,mb5.2						
PKI	Pulchoki	32.82	336	eP	P	09 00 10.2	+0.7
PKI				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
PKIN	Phulchoki	32.83	336	eP	P	09 00 10.0	+0.4
	comp=Z,49nm,1.2s,mb5.3						
LSA	Lhasa	32.92	346	P	P	09 00 12.0	+1.7
LSA				S	S	09 05 25.4	-0.9
LSA				sS	sS	09 05 45.3	+3.7
LSA				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
LSA				LR	LR		
	comp=N,1μm,24.6s,MS4.6						
LSA				LR	LR		
	comp=E,1μm,27.9s,MS4.6						
LSA				LR	LR		
	comp=Z,2μm,25.2s,MS4.6						
LSA	Lhasa	32.92	346	PFAKE		09 00 20.0	+10
LSA				LR	LR		
	comp=Z,1μm,20.0s,MS4.5						
POO	Poona	32.93	310	ePKP	P	09 00 11.5	+0.9
POO				AMb	AMB	09 00 22.6	
	comp=Z,39nm,0.8s,mb5.4						
GUN	Gumba	32.93	337	eP	P	09 00 11.6	+1.1
	comp=Z,74nm,0.6s,mb5.8						
DMN	Daman	32.98	336	eP	P	09 00 11.2	+0.3
	comp=Z,31nm,0.7s,mb5.4						
YULB	Yu-li	33.02	38	P	P	09 00 08.8	-2.5
	comp=Z,16nm,0.9s,mb5.0						
KKN	Kakani	33.07	336	eP	P	09 00 12.3	+0.6
	comp=Z,104nm,1.0s,mb5.7						
KKN	Kakani	33.07	336	eP	P	09 00 12.3	+0.6
KKN				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.7						
CD2	Chengdu	33.27	6	P	P	09 00 13.1	-0.3
CD2				pP	pP	09 00 25.0	+2.3
CD2				sP	sP	09 00 30.5	+4.0
CD2				PP	PP	09 01 26.0	-3.1
CD2				S	S	09 05 30.1	-1.6
CD2				sS	sS	09 05 50.3	+3.3
CD2				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
CD2				pmax	pmax		
	comp=Z,700nm,9.0s						
CD2				LR	LR		
	comp=N,4μm,17.8s						
CD2				LR	LR		
	comp=Z,3μm,16.6s,MS5.1						
MUN	Mundaring	33.27	154	eP	pP	09 00 27.7	+5.0
BHPL	Bhopal	33.52	321	ePKP	P	09 00 14.0	-1.7
BHPL				AMb	AMB	09 00 35.9	
	comp=Z,42nm,0.8s,mb5.4						
GKN	Gorkha	33.52	335	eP	P	09 00 16.4	+0.8
	comp=Z,225nm,1.3s,mb5.9						
KOLN	Koldanda	33.77	334	eP	P	09 00 18.5	+0.7
	comp=Z,70nm,0.9s,mb5.6						
NACB	Ninganchiao	33.78	37	eP	P	09 00 19.2	+1.3
	comp=Z,34nm,0.9s,mb5.3						
NACB				epP	pP	09 00 31.6	+4.3
YHNB	Yeheng	34.02	37	eP	P	09 00 18.3	-1.7
	comp=Z,70nm,1.3s,mb5.4						
YHNB				LR	LR		
	comp=Z,2μm,20.0s,MS4.8						
DANN	Dangsing	34.20	334	eP	P	09 00 22.3	+0.8
	comp=Z,178nm,1.1s,mb5.9						
NWAO	Narrogin (SRO)	34.53	154	eP	P	09 00 24.3	-0.1
NWAO				pmax	pmax		
	comp=Z,72nm,2.0s						
NWAO	Narrogin (SRO)	34.53	154	P	P	09 00 24.0	-0.4
	comp=Z,7.1nm,0.7s,mb4.7,baz=336,slow=11,SNR=4.6						
NWAO				LR	LR	09 13 26.7	
	comp=Z,2μm,20.7s,MS4.9,baz=331,slow=34						
NWAO	Narrogin (SRO)	34.53	154	eP	P	09 00 24.3	-0.1
	comp=Z,72nm,2.0s,mb5.2						
WHN	Wuhan	35.50	22	⇓P	P	09 00 32.9	+0.2
WHN				pP	pP	09 00 41.4	-0.7
WHN				pmax	pmax		
	comp=Z,260nm,1.6s,mb5.9						
WHN				LR	LR		
	comp=N,6μm,12.3s,MS5.6						
WHN				LR	LR		
	comp=E,5μm,16.7s,MS5.6						
WHN				LR	LR		
	comp=Z,11μm,16.4s,MS5.7						
LGTI	Lohaghat	36.75	331	ePKP	P	09 00 44.5	+1.0
XAN	Xi’an	37.17	13	P	P	09 00 45.8	-1.2
XAN				pP	pP	09 00 55.5	-0.8
XAN				sP	sP	09 00 59.4	-0.8
XAN				PP	PP	09 02 12.3	+0.1
XAN				S	S	09 06 36.9	+5.2
XAN				sS	sS	09 06 50.8	+3.7
XAN				SS	SS	09 09 11.3	-4.1
XAN				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.4						
XAN				pmax	pmax		
	comp=Z,270nm,7.6s						
XAN				LR	LR		
	comp=N,3μm,14.1s,MS5.4						
XAN				LR	LR		
	comp=E,3μm,17.0s,MS5.4						
XAN				LR	LR		
	comp=Z,6μm,15.1s,MS5.5						
AJM	Ajmer	37.59	321	ePKP	P	09 00 51.3	+0.7
AJM				AMb	AMB	09 01 09.7	
	comp=Z,51nm,1.0s,mb5.2						
NDI	New Delhi	37.72	326	ePKP	P	09 00 50.0	-1.7
WRA	Warramunga Arr	37.96	120	P	P	09 00 52.1	-1.8
	comp=Z,26nm,0.6s,mb5.1,baz=303,slow=9.1,SNR=116						
WRA				PcP	PcP	09 03 08.7	-0.8
	comp=Z,3.1nm,0.9s,baz=312,slow=2.5,SNR=2.9						
WRA				S	S	09 06 39.0	-5.1
	comp=Z,3.1nm,0.9s,baz=296,slow=16,SNR=5.3						
WRAB	Tennant Creek	37.97	120	P	P	09 00 52.3	-1.6
	comp=Z,315nm,0.6s,mb6.2,SNR=16						
WRAB	Tennant Creek	37.97	120	eP	P	09 00 52.1	-1.8
WRAB				e*PP	pP	09 01 02.0	-1.3
WRAB				pmax	pmax		
	comp=Z,91nm,1.4s,mb5.3						
WRAB				MLR	MLR		
	comp=Z,1μm,21.0s,MS4.8						
WRAB	Tennant Creek	37.97	120	eP	P	09 00 52.1	-1.9
	comp=Z,91nm,1.4s,mb5.3						
WRAB				epP	pP	09 01 01.9	-1.4
WRAB				LR	LR		
	comp=Z,1μm,21.0s,MS4.8						
WRAB	Tennant Creek	37.97	120	P	P	09 00 53.1	-0.8
	comp=Z,45nm,1.5s,mb5.0						
LZH	Lanzhou	38.40	5	⇑P	P	09 00 56.8	-0.5
LZH				pP	pP	09 01 06.6	-0.1
LZH				sP	sP	09 01 10.5	-0.1
LZH				PP	PP	09 02 29.8	+4.2
LZH				PcP	PcP	09 03 10.5	+0.1
LZH				S	S	09 06 51.4	+1.2
LZH				sS	sS	09 07 06.8	+1.1
LZH				SS	SS	09 09 32.3	-7.8
LZH				ScS	ScS	09 11 04.3	-1.9
LZH				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.5						
LZH				pmax	pmax		
	comp=Z,420nm,6.2s						
LZH				LR	LR		
	comp=N,2μm,14.1s						
LZH				LR	LR		
	comp=Z,3μm,15.7s,MS5.2						
NJ2	Nanjing	38.66	26	eP	P	09 00 59.8	+0.2
NJ2				pP	pP	09 01 08.6	-0.4
NJ2				sP	sP	09 01 12.4	-0.4
NJ2				PP	PP	09 02 36.0	+7.5
NJ2				S	S	09 07 01.0	+6.7
NJ2				sS	sS	09 07 15.5	+5.7
NJ2				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.4						
NJ2				pmax	pmax		
	comp=Z,210nm,4.2s						

NJ2				LR	LR		
	comp=N,1µm,14.4s,MS5.1						
NJ2				LR	LR		
	comp=E,2µm,17.3s,MS5.1						
NJ2				LR	LR		
	comp=Z,3µm,13.0s,MS5.2						
BHJ	**Bhuj**	**38.88**	**313**	*e*PKP	**P**	**09 01 03.1**	**+1.5**
BHJ				AMb	AMB	09 01 12.6	
	comp=Z,49nm,0.9s,mb5.2						
FORT	**Forrest**	**38.89**	**140**	*e*P	**P**	**09 01 09.8**	**+8.3**
	comp=Z,29nm,0.6s,mb5.2						
FORT	**Forrest**	**38.89**	**140**	P	**P**	**09 01 01.4**	**-0.1**
	comp=Z,32nm,0.6s,mb5.2						
FORT				*e*pP	pP	09 01 09.9	-1.0
SSE	**Sheshan**	**38.96**	**30**	P	**P**	**09 01 02.6**	**+0.5**
SSE				sP	sP	09 01 15.3	0.0
SSE				S	**S**	**09 06 59.3**	**+0.5**
SSE				sS	sS	09 07 15.0	+0.7
SSE				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.3						
SSE				pmax	pmax		
	comp=Z,240nm,4.4s						
SSE				LR	LR		
	comp=N,1µm,16.1s,MS5.0						
SSE				LR	LR		
	comp=E,1µm,16.1s,MS5.0						
SSE				LR	LR		
	comp=Z,2µm,11.4s,MS5.2						
ASAR	**Alice Springs**	**39.19**	**126**	P	**P**	**09 01 03.0**	**-1.2**
	comp=Z,9.3nm,0.5s,mb4.8,baz=300,slow=7.8,SNR=168						
ASAR				S	**S**	**09 07 00.1**	**-2.3**
	comp=Z,4.2nm,0.7s,baz=296,slow=14,SNR=17						
THN	**Thein Dam**	**41.45**	**329**	*e*PKP	**P**	**09 01 20.6**	**-2.1**
GTA	**Gaotai**	**41.54**	**360**	⇑P	**P**	**09 01 23.8**	**+0.5**
GTA				pP	pP	09 01 33.5	+0.7
GTA				sP	sP	09 01 37.5	+0.9
GTA				PP	PP	09 03 03.8	+4.1
GTA				PcP	PcP	09 03 20.9	+0.5
GTA				S	**S**	**09 07 37.0**	**-0.1**
GTA				sS	sS	09 07 54.1	+1.5
GTA				SS	SS	09 10 38.1	-4.6
GTA				pmax	pmax		
	comp=Z,49nm,1.5s,mb4.9						
GTA				pmax	pmax		
	comp=Z,510nm,7.8s						
GTA				LR	LR		
	comp=N,2µm,16.8s,MS5.3						
GTA				LR	LR		
	comp=E,2µm,16.8s,MS5.3						
GTA				LR	LR		
	comp=Z,2µm,16.2s,MS5.1						
BTO	**Baotou**	**43.73**	**11**	*e*P	**P**	**09 01 40.8**	**-0.3**
HHC	**Hu-ho-hao-te**	**44.29**	**13**	⇑P	**P**	**09 01 46.3**	**+0.7**
HHC				pP	pP	09 01 56.0	+0.9
HHC				sP	sP	09 02 00.5	+1.6
HHC				PP	PP	09 03 30.1	+0.8
HHC				PcS	PcS	09 07 21.6	-1.1
HHC				*e*S	**S**	**09 08 17.5**	**+0.1**
HHC				sS	sS	09 08 34.5	+1.4
HHC				SS	SS	09 11 28.5	-8.2
HHC				ScS	ScS	09 11 39.3	-2.4
HHC				pmax	pmax		
	comp=Z,36nm,1.5s,mb4.9						
HHC				pmax	pmax		
	comp=Z,430nm,5.9s						
HHC				LR	LR		
	comp=N,3µm,16.2s,MS5.3						
HHC				LR	LR		
	comp=E,1µm,14.2s,MS5.3						
HHC				LR	LR		
	comp=Z,2µm,14.4s,MS5.3						
MSEY	**Mahe Island**	**44.33**	**266**	PFAKE		09 02 00.0	+14
MSEY				LR	LR		
	comp=Z,852nm,19.0s,MS4.7						
BJI	**Beijing**	**44.75**	**18**	P	**P**	**09 01 49.4**	**+0.1**
BJI				PP	PP	09 03 35.1	+0.9
BJI				PcS	PcS	09 07 21.9	-2.7
BJI				S	**S**	**09 08 18.3**	**-5.8**
BJI				pmax	pmax		
	comp=Z,99nm,1.2s,mb5.5						
BJI				LR	LR		
	comp=N,3µm,16.3s,MS5.2						
BJI				LR	LR		
	comp=E,870nm,19.2s,MS5.2						
BJI				LR	LR		
	comp=Z,2µm,16.3s,MS5.1						
DL2	**Dalian**	**45.68**	**24**	P	**P**	**09 01 56.1**	**-0.6**
DL2				*e*S	**S**	**09 08 34.0**	**-3.7**
DL2				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
DL2				pmax	pmax		
	comp=Z,280nm,3.1s						
DL2				LR	LR		
	comp=N,880nm,20.4s						
DL2				LR	LR		
	comp=E,730nm,14.1s						
DL2				LR	LR		
	comp=Z,790nm,17.6s,MS4.7						
KSH	**Kashi**	**47.06**	**335**	P	**P**	**09 02 06.5**	**-1.0**
KSH				*e*pP	pP	09 02 18.3	+1.2
KSH				*e*sP	sP	09 02 23.6	+2.7
KSH				*e*PcP	PcP	09 03 38.6	-0.7
KSH				*e*PP	PP	09 03 57.0	-1.6
KSH				*e*ScP	ScP	09 07 27.3	-3.7
KSH				*e*PcS	PcS	09 07 32.8	-1.5
KSH				S	**S**	**09 08 53.1**	**-4.4**
KSH				*e*sS	sS	09 09 15.1	+1.9
KSH				*e*ScS	ScS	09 11 54.1	-5.6
KSH				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
KSH				LR	LR		
	comp=N,970nm,7.6s						
KSH				LR	LR		
	comp=E,1µm,13.6s						
KSH				LR	LR		
	comp=Z,1µm,6.9s						
WMQ	**Urumqi**	**47.22**	**348**	⇑*i*P	**P**	**09 02 09.5**	**+0.8**
WMQ				pP	pP	09 02 21.0	+2.7
WMQ				sP	sP	09 02 26.0	+3.9
WMQ				PcP	PcP	09 03 41.0	+1.3
WMQ				S	**S**	**09 08 59.0**	**-0.6**
WMQ				sS	sS	09 09 20.0	+4.7
WMQ				ScS	ScS	09 11 57.0	-3.5
WMQ				SS	SS	09 12 20.0	-7.4
WMQ				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
WMQ				pmax	pmax		
	comp=Z,290nm,3.6s						
WMQ				LR	LR		
	comp=N,1µm,20.0s,MS5.1						
WMQ				LR	LR		
	comp=E,2µm,19.8s,MS5.1						
WMQ				LR	LR		
	comp=Z,1µm,21.8s,MS4.9						
KSRS	**Korea Array**	**47.38**	**31**	P	**P**	**09 02 09.6**	**-0.5**
	comp=Z,33nm,0.9s,mb5.2,baz=223,slow=8.7,SNR=54						
KSRS				LR	LR	09 22 16.1	
	comp=Z,621nm,20.1s,MS4.6,baz=225,slow=36						
CTA	**Charters Tower**	**48.60**	**115**	⇑*i*P	**P**	**09 02 18.2**	**-1.6**
	comp=Z,0.4nm,0.3s,mb3.9						
CTA	**Charters Tower**	**48.60**	**115**	*e*P	**P**	**09 02 18.4**	**-1.4**
	comp=Z,22nm,1.0s,mb5.1						
CTAO	**Charters Tower**	**48.60**	**115**	*e*P	**P**	**09 02 18.6**	**-1.2**
CTAO				e*PP	pP	09 02 27.8	-1.6
CTAO				pmax	pmax		
	comp=Z,87nm,1.4s,mb5.6						
CTAO	**Charters Tower**	**48.60**	**115**	*e*P	**P**	**09 02 18.6**	**-1.2**
	comp=Z,87nm,1.4s,mb5.6						
CTAO				*e*pP	pP	09 02 27.8	-1.6
CTAO	**Charters Tower**	**48.60**	**115**	P	**P**	**09 02 19.2**	**-0.6**
	comp=Z,49nm,1.2s,mb5.4						
SNY	**Shenyang**	**48.95**	**24**	⇑P	**P**	**09 02 20.1**	**-2.0**
SNY				pmax	pmax		
	comp=Z,38nm,2.0s,mb5.1						
SNY				pmax	pmax		
	comp=Z,290nm,5.5s						
SNY				LR	LR		
	comp=N,990nm,15.0s,MS5.2						
SNY				LR	LR		
	comp=E,1µm,16.5s,MS5.2						
SNY				LR	LR		
	comp=Z,2µm,15.3s,MS5.2						
STKA	**Stephens Creek**	**49.05**	**131**	⇑*i*P	**P**	**09 02 22.6**	**-0.5**
	comp=Z,2.0nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**49.05**	**131**	*e*P	**P**	**09 02 22.7**	**-0.4**
	comp=Z,16nm,0.6s,mb5.2						
STKA	**Stephens Creek**	**49.05**	**131**	P	**P**	**09 02 22.7**	**-0.3**
	comp=Z,8.2nm,0.5s,mb5.0,baz=309,slow=7.3,SNR=10.0						
STKA				LR	LR	09 24 33.0	
	comp=Z,2µm,20.9s,MS5.0,baz=298,slow=38						
ULHL	**Ulahol**	**49.25**	**337**	P	**P**	**09 02 25.5**	**+1.1**
	SNR=11						
KZA	**Kyzart**	**49.50**	**336**	P	**P**	**09 02 27.6**	**+1.3**
	SNR=9.9						
UCH	**Uchtor**	**49.93**	**335**	P	**P**	**09 02 30.9**	**+1.4**
	SNR=16						
UCH	**Uchtor**	**49.93**	**335**	*e*P	**P**	**09 02 30.7**	**+1.1**
	comp=Z,47nm,1.3s,mb5.3						
UCH				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
TKM2	**Tokmak 2**	**50.07**	**337**	P	**P**	**09 02 31.0**	**+0.4**
TKM2				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.5						
TKM2	**Tokmak 2**	**50.07**	**337**	P	**P**	**09 02 31.7**	**+1.0**
	SNR=32						
TKM2	**Tokmak 2**	**50.07**	**337**	*e*P	**P**	**09 02 31.5**	**+0.9**
	comp=Z,52nm,0.8s,mb5.6						
TKM2				LR	LR		
	comp=Z,994nm,22.0s,MS4.8						
KBK	**Karagaybulak**	**50.11**	**336**	P	**P**	**09 02 32.3**	**+1.4**
	SNR=12						
AML	**Almayashu**	**50.20**	**335**	P	**P**	**09 02 32.8**	**+1.2**
	SNR=19						
AML	**Almayashu**	**50.20**	**335**	*e*P	**P**	**09 02 32.6**	**+1.0**
	comp=Z,36nm,0.6s,mb5.6						
AML				*e*PcP	PcP	09 03 49.5	-1.1
AML				LR	LR		
	comp=Z,637nm,20.0s,MS4.6						
AAK	**Ala-Archa**	**50.28**	**336**	P	**P**	**09 02 33.6**	**+1.4**
	comp=Z,115nm,1.4s,mb5.7,SNR=7.9						
AAK	**Ala-Archa**	**50.28**	**336**	*e*P	**P**	**09 02 32.7**	**+0.5**
AAK				e*PP	pP	09 02 44.3	+2.5
AAK				pmax	pmax		
	comp=Z,131nm,1.8s,mb5.7						
AAK				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.0						
AAK	**Ala-Archa**	**50.28**	**336**	P	**P**	**09 02 33.2**	**+1.0**
	SNR=9.1						
AAK	**Ala-Archa**	**50.28**	**336**	LR	LR	09 26 53.2	
	comp=Z,1µm,21.6s,MS4.9,baz=128,slow=40						
AAK	**Ala-Archa**	**50.28**	**336**	*e*P	**P**	**09 02 32.7**	**+0.5**
	comp=Z,131nm,1.8s,mb5.7						
AAK				*e*pP	pP	09 02 44.3	+2.5
AAK				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
AAK	**Ala-Archa**	**50.28**	**336**	P	**P**	**09 02 33.8**	**+1.6**
	SNR=20						
AAK				P		09 02 33.8	
	SNR=20						
AAK	**Ala-Archa**	**50.28**	**336**	P	**P**	**09 02 32.8**	**+0.6**
	comp=Z,7.8nm,2.2s,mb4.3						
SONM	**Songino Array**	**50.29**	**6**	P	**P**	**09 02 33.0**	**+0.9**
	comp=Z,85nm,0.8s,mb5.8,baz=187,slow=8.5,SNR=346						
ULN	**Ulaanbaatar**	**50.39**	**6**	*e*P	**P**	**09 02 33.6**	**+0.7**
	comp=Z,82nm,0.9s,mb5.8						
ULN	**Ulaanbaatar**	**50.39**	**6**	P	**P**	**09 02 34.0**	**+1.1**
	SNR=31						
ULN				P		09 02 34.0	
	SNR=31						
ULN	**Ulaanbaatar**	**50.39**	**6**	P	**P**	**09 02 33.4**	**+0.5**
CHMS	**Chumysh**	**50.48**	**336**	P	**P**	**09 02 34.3**	**+0.6**
	SNR=9.4						
EKS2	**Erkin-Say**	**50.60**	**335**	P	**P**	**09 02 35.9**	**+1.3**
	SNR=29						
EKS2	**Erkin-Say**	**50.60**	**335**	*e*P	**P**	**09 02 35.8**	**+1.1**
	comp=Z,48nm,0.6s,mb5.6						
EKS2				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
USP	**Ospenovka**	**50.80**	**336**	P	**P**	**09 02 36.8**	**+0.7**
	SNR=44						
MK31	**Makanchi Array**	**51.30**	**345**	*i* P	**P**	**09 02 39.9**	**0.0**
MK31				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.5						
MK31	**Makanchi Array**	**51.30**	**345**	*i* P	**P**	**09 02 39.0**	**-0.9**
MKAR	**Makanchi Array**	**51.30**	**345**	P	**P**	**09 02 40.3**	**+0.4**
	comp=Z,29nm,0.7s,mb5.3,baz=146,slow=8.1,SNR=430						
MKAR				LR	LR	09 28 15.7	
	comp=Z,472nm,19.9s,MS4.5,baz=163,slow=40						
CN2	**Changchun**	**51.35**	**24**	⇑*i*P	**P**	**09 02 39.5**	**-0.8**
CN2				*e*pP	pP	09 02 53.0	+3.1
CN2				*e*S	**S**	**09 09 55.1**	**-2.4**
CN2				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.5						
CN2				LR	LR		
	comp=N,1µm,17.0s,MS5.2						
CN2				LR	LR		
	comp=E,1µm,17.0s,MS5.2						
CN2				LR	LR		
	comp=Z,1µm,18.0s,MS5.0						
KK31	**Karatay Array**	**52.38**	**333**	*i* P	**P**	**09 02 47.2**	**-0.7**
KK31				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
KK31	**Karatay Array**	**52.38**	**333**	*i* P	**P**	**09 02 47.3**	**-0.6**
ZAK	**Zakamensk**	**52.59**	**3**	⇓*i*P	**P**	**09 02 49.2**	**-0.2**
ZAK				*e*		09 03 55.8	
ZAK				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.8						
MAJO	**Matsushiro**	**52.63**	**39**	*e*P	**P**	**09 02 48.6**	**-1.4**
MAJO				pmax	pmax		
	comp=Z,455nm,2.6s,mb5.9						
MAJO	**Matsushiro**	**52.63**	**39**	*e*P	**P**	**09 02 48.6**	**-1.4**
	comp=Z,454nm,2.6s,mb5.9						
MAT	**Matsushiro**	**52.63**	**39**	P	**P**	**09 02 48.2**	**-1.8**
MJAR	**Matsushiro Arr**	**52.63**	**39**	P	**P**	**09 02 48.7**	**-1.3**
	comp=Z,33nm,1.1s,mb5.2,baz=223,slow=7.5,SNR=24						
MDJ	**Mudanjiang**	**53.76**	**26**	P	**P**	**09 02 57.9**	**-0.2**
MDJ				pP	pP	09 03 06.4	-1.3
MDJ				sP	sP	09 03 11.5	0.0
MDJ				PcP	PcP	09 04 05.1	+1.3
MDJ				PP	PP	09 04 57.1	-2.2
MDJ				ScP	ScP	09 07 58.3	-1.3
MDJ				PcS	PcS	09 08 04.4	+1.6
MDJ				S	**S**	**09 10 31.6**	**+1.2**
MDJ				ScS	ScS	09 12 45.4	+0.2
MDJ				SS	SS	09 14 12.6	+0.9
MDJ				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
MDJ				pmax	pmax		
	comp=Z,310nm,4.6s						
MDJ				LR	LR		
	comp=N,1µm,21.1s,MS5.1						
MDJ				LR	LR		
	comp=E,1µm,17.4s,MS5.1						
MDJ				LR	LR		
	comp=Z,1µm,22.2s,MS5.0						
MDJ	**Mudanjiang**	**53.76**	**26**	PFAKE		09 03 10.0	+12
MDJ				LR	LR		
	comp=Z,1µm,21.0s,MS4.9						
MOY	**Mondy**	**53.80**	**1**	*e*P	**P**	**09 02 58.2**	**-0.1**
MOY				pmax	pmax		
	comp=Z,59nm,2.7s,mb5.0						
TLY	**Talaya**	**53.91**	**3**	P	**P**	**09 02 59.1**	**+0.1**
	comp=Z,144nm,1.0s,mb5.9,SNR=5.2						
TLY	**Talaya**	**53.91**	**3**	*e*P	**P**	**09 02 59.9**	**+0.9**
TLY				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
TLY				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.0						
TLY	**Talaya**	**53.91**	**3**	*e*P	**P**	**09 02 59.8**	**+0.8**
	comp=Z,81nm,1.5s,mb5.4						
TLY				*e*pP	pP	09 03 11.5	+2.8
TLY				LR	LR		
	comp=Z,641nm,19.0s,MS4.7						
TLY	**Talaya**	**53.91**	**3**	P	**P**	**09 03 00.3**	**+1.3**
	SNR=15						
TLY				P		09 03 00.3	
	SNR=15						
OPO	**Ambohidratompo**	**54.00**	**249**	P	**P**	**09 02 60.0**	**-0.4**
	comp=Z,4.8nm,0.9s,mb4.4,baz=87,slow=7.2,SNR=4.4						
HIA	**Hailar**	**54.20**	**16**	PFAKE		09 03 10.0	+8.8
HIA				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
EIDS	**Eidsvold**	**54.33**	**120**	*e*P	**P**	**09 03 01.5**	**-1.1**
	comp=Z,63nm,1.5s,mb5.3						
IRK	**Irkutsk**	**54.50**	**3**	*e*P	**P**	**09 03 03.5**	**+0.1**
IRK				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.6						
ISRV	**Sarvestan**	**54.69**	**309**	*e*P	**P**	**09 03 03.4**	**-1.8**
IMOK	**Mouk**	**54.85**	**308**	*e*P	sP	09 03 21.5	+1.7
IPAR	**Pars**	**54.95**	**309**	*e*P	**P**	**09 03 06.7**	**-0.3**
KURK	**Kurchatov**	**55.88**	**344**	P	**P**	**09 03 13.1**	**-0.2**
	comp=Z,400nm,1.1s,mb6.4,SNR=30						
KURK	**Kurchatov**	**55.88**	**344**	*e*P	**P**	**09 03 13.4**	**+0.1**
KURK				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.7						
KURK				MLR	MLR		
	comp=Z,811nm,21.0s,MS4.8						
KURK	**Kurchatov**	**55.88**	**344**	LR	LR	09 32 37.2	
	comp=Z,520nm,18.3s,MS4.7,baz=165,slow=42						
KURK	**Kurchatov**	**55.88**	**344**	*e*P	**P**	**09 03 13.4**	**+0.1**
	comp=Z,90nm,1.1s,mb5.7						
KURK				*e*ScP	ScP	09 07 50.9	-18
KURK				LR	LR		
	comp=Z,811nm,21.0s,MS4.8						
KURK	**Kurchatov**	**55.88**	**344**	P	**P**	**09 03 13.9**	**+0.6**
	SNR=22						
KURK				P		09 03 13.9	
	SNR=22						
CAN	**Canberra**	**56.11**	**132**	PFAKE		09 03 30.0	+15
CAN				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
ARMA	**Armidale**	**56.34**	**125**	*e*P	**P**	**09 03 09.9**	**-7.1**
ARMA	**Armidale**	**56.34**	**125**	*e*P	**P**	**09 03 11.3**	**-5.7**
ZALV	**Zalesovo Beam**	**57.46**	**350**	P	**P**	**09 03 24.4**	**-0.1**
	comp=Z,56nm,0.9s,mb5.6,baz=165,slow=6.2,SNR=108						
ZALV	**Zalesovo Beam**	**57.46**	**350**	P	**P**	**09 03 24.4**	**-0.1**
ISHM	**Shahmirzad**	**57.66**	**316**	*e*P	**P**	**09 03 24.6**	**-1.6**
ISFB	**Sefidab**	**57.68**	**314**	*e*P	**P**	**09 03 25.4**	**-1.0**
KLR	**Kul’dur**	**58.30**	**24**	⇓*i*P	**P**	**09 03 26.3**	**-4.2**
KLR				*e*S	**S**	**09 11 18.0**	**-13**
KLR				pmax	pmax		
	comp=E,80nm,1.6s						
KLR				pmax	pmax		
	comp=Z,240nm,1.6s,mb6.0						
NVS	**Novosibirsk**	**58.61**	**349**	⇑*i*P	**P**	**09 03 31.4**	**-1.1**
NVS				*i*		09 05 41.3	
NVS				*i* S	**S**	**09 11 33.0**	**-1.4**
NVS				pmax	pmax		
	comp=Z,64nm,1.5s,mb5.4						
NVS				pmax	pmax		
	comp=N,62nm,1.6s						
NVS				pmax	pmax		
	comp=E,40nm,1.6s						
NVS				smax			
	comp=N,48nm,2.3s						
NVS				smax			
	comp=E,36nm,3.1s						
HABR	**Khabarovsk**	**59.13**	**27**	*d i*P	**P**	**09 03 33.0**	**-3.3**
HABR				e*PP	pP	09 03 46.7	+0.6
HABR				*e*		09 04 21.2	
HABR				*e*S	**S**	**09 11 35.9**	**-5.5**
HABR				*e*		09 13 18.4	
HABR				SS	SS	09 15 31.7	-4.5
HABR				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.5						
HABR				pmax	pmax		
	comp=E,63nm,1.6s						
HABR				pmax	pmax		
	comp=N,16nm,1.1s						
HABR				MLR	MLR		
	comp=Z,733nm,20.0s,MS4.8						
VOSK	**Vostochnaya**	**59.99**	**340**	P	**P**	**09 03 40.8**	**-1.3**
VOSK				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
HNR	**Honiara**	**60.14**	**99**	*e*P	**P**	**09 03 43.7**	**-0.2**
HNR				e*PP	pP	09 03 52.7	-1.0
HNR				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.8						
HNR				MLR	MLR		
	comp=Z,927nm,21.0s,MS4.9						
HNR	**Honiara**	**60.14**	**99**	LR	LR	09 35 41.6	
	comp=Z,212nm,18.2s,MS4.3,baz=53,slow=42						
HNR	**Honiara**	**60.14**	**99**	*e*P	**P**	**09 03 43.7**	**-0.2**
	comp=Z,110nm,1.0s,mb5.8						
HNR				*e*pP	pP	09 03 52.7	-1.0
HNR				LR	LR		
	comp=Z,927nm,21.0s,MS4.9						
BVA0	**Borovoye Array**	**60.44**	**340**	P	**P**	**09 03 43.9**	**-1.3**
BVA0				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
BVAR	**Borovoye Array**	**60.44**	**340**	LR	LR	09 32 01.9	
	comp=Z,683nm,21.2s,MS4.8,baz=264,slow=38						
BRVK	**Borovoye**	**60.50**	**340**	P	**P**	**09 03 45.2**	**-0.4**
	comp=Z,153nm,0.5s,mb6.4,SNR=5.5						
BRVK	**Borovoye**	**60.50**	**340**	*e*P	**P**	**09 03 44.1**	**-1.5**
BRVK				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.4						
BRVK				MLR	MLR		
	comp=Z,580nm,19.0s,MS4.7						
BRVK	**Borovoye**	**60.50**	**340**	*e*P	**P**	**09 03 44.1**	**-1.5**
	comp=Z,42nm,1.2s,mb5.5						
BRVK				LR	LR		
	comp=Z,580nm,19.0s,MS4.7						
BRVK	**Borovoye**	**60.50**	**340**	P	**P**	**09 03 44.7**	**-1.0**
	SNR=10.0						
BRVK				P		09 03 44.7	
	SNR=10.0						
BOD	**Bodaibo**	**61.03**	**9**	*e*P	**P**	**09 03 48.8**	**-0.3**
BOD				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.5						
YSS	**Yuzh-Sakhalins**	**61.85**	**32**	α*e*P	**P**	**09 03 54.0**	**-0.9**
YSS				*e*		09 04 10.0	
YSS				pmax	pmax		
	comp=Z,150nm,1.2s,mb6.0						
YSS				pmax	pmax		
	comp=N,40nm,1.1s						
YSS	**Yuzh-Sakhalins**	**61.85**	**32**	*e*P	**P**	**09 03 54.7**	**-0.2**
	comp=N,185nm,1.3s,mb6.0						
AB31	**Akbulak array**	**61.85**	**332**	P	**P**	**09 03 54.0**	**-0.9**
AB31				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.6						
NRGR	**Nerungri**	**62.17**	**15**	*e*P	**P**	**09 03 55.0**	**-1.8**
NRGR				S	**S**	**09 12 25.0**	**+5.0**
NRGR				smax			
	comp=N,37nm,0.8s						
CLNS	**Chul’man**	**62.37**	**15**	*e*P	**P**	**09 03 57.0**	**-1.2**
CLNS				e*PP	pP	09 04 05.4	-2.6
CLNS				*e*		09 04 35.9	
CLNS				*e*		09 06 12.4	
CLNS				*e*S	**S**	**09 12 20.1**	**-2.5**
CLNS				*e*		09 13 48.3	
CLNS				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.2						
CLNS				pmax	pmax		
	comp=N,16nm,1.2s						
CLNS				pmax	pmax		
	comp=E,20nm,1.5s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=N,6.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.6s						
CLNS				smax			
	comp=N,101nm,13.3s						
CLNS				smax			
	comp=E,159nm,13.3s						
CLNS				MLR	MLR		
	comp=Z,1µm,13.0s,MS5.2						
CLNS				MLR	MLR		
	comp=N,845nm,13.0s,MS5.1						
CLNS				MLR	MLR		
	comp=E,481nm,14.0s,MS5.1						
IHRS	**Heris**	**63.24**	**315**	*e*P	**P**	**09 04 02.9**	**-1.5**
AKTO	**Aktyubinsk**	**63.57**	**332**	LR	LR	09 35 03.5	
	comp=E,629nm,20.3s,MS4.8,baz=347,slow=39						
IMRD	**Marand**	**64.36**	**315**	*e*P	**P**	**09 04 11.7**	**0.0**
GNI	**Garni**	**65.66**	**316**	⇓*i*P	**P**	**09 04 20.6**	**+0.5**
GNI				MLR	MLR		
	comp=Z,274nm,19.0s						
MTA	**Mtatsminda**	**66.30**	**318**	P	**P**	**09 04 25.1**	**+0.8**
TBLG	**Delisi**	**66.36**	**318**	*e*P	**P**	**09 04 25.4**	**+0.8**
TBLG	**Delisi**	**66.36**	**318**	P	**P**	**09 04 25.4**	**+0.8**
GOR	**Gori**	**66.89**	**318**	P	**P**	**09 04 26.2**	**-1.8**
SVE	**Sverdlovsk**	**66.93**	**338**	⇓*e*P	**P**	**09 04 27.6**	**-0.3**
SVE				*e*		09 06 55.6	
SVE				*e*S	S	09 13 20.5	+1.8
SVE				pmax	pmax		
	comp=Z,84nm,1.1s,mb5.7						
ARU	**Arti**	**67.45**	**337**	*c i*P	**P**	**09 04 30.5**	**-0.7**
ARU				S	S	09 13 24.1	-0.9
ARU				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.2						
ARU	**Arti**	**67.45**	**337**	*e*P	**P**	**09 04 30.2**	**-1.0**
	comp=Z,7.3nm,0.8s,mb4.8						
ONI	**Oni**	**67.59**	**318**	P	**P**	**09 04 33.2**	**+0.8**
YAK	**Yakutsk**	**68.10**	**15**	*c i*P	**P**	**09 04 34.1**	**-1.1**

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YAK                               e*PP     pP       09 04 41.5  -3.7
YAK                               e                 09 04 57.3
YAK                               e                 09 07 01.8
YAK                               eS       S        09 13 28.7  -3.9
YAK                               e                 09 14 25.2
YAK                               eSSS              09 20 53.9
YAK                                pmax    pmax
      comp=Z,81nm,0.9s,mb5.8
YAK                                pmax    pmax
      comp=N,25nm,1.1s
YAK                                pmax    pmax
      comp=E,21nm,1.2s
YAK                                pmax    pmax
      comp=Z,24nm,1.4s,mb5.0
YAK                                smax
      comp=N,225nm,4.9s
YAK                                smax
      comp=E,40nm,2.0s
YAK                                MLR     MLR
      comp=Z,1µm,16.0s,MS5.3
YAK                                MLR     MLR
      comp=N,973nm,19.0s,MS5.1
YAK                                MLR     MLR
      comp=E,499nm,19.0s,MS5.1
YAK   Yakutsk           68.10  15 eP       P        09 04 33.9  -1.3
      comp=E,86nm,0.9s,mb5.8
YAK                                LR      LR
      comp=Z,921nm,20.0s,MS5.0
KIV   Kislovodsk        68.69 319αeP       P        09 04 39.2  -0.1
KIV                               e*PP     pP       09 04 48.3  -0.9
KIV                               e                 09 07 14.5
KIV                                pmax    pmax
      comp=Z,58nm,1.7s,mb5.2
KIV   Kislovodsk        68.69 319 eP       P        09 04 39.4  +0.1
      comp=Z,43nm,1.2s,mb5.3
KIV                                LR      LR
      comp=Z,457nm,19.0s,MS4.7
KIV   Kislovodsk        68.69 319  P       P        09 04 40.2  +0.9
      SNR=5.6
KIV                                P                09 04 40.2
      SNR=5.6
MBAR  Mbarara           69.10 270⇑iP       P        09 04 44.2  +1.7
MBAR  Mbarara           69.10 270  PFAKE            09 05 00.0   +18
MBAR                               LR      LR
      comp=Z,334nm,22.0s,MS4.5
MALT  Malatya           69.44 312 eP       P        09 04 44.6  +0.5
MALT                               pmax    pmax
      comp=Z,13nm,1.1s,mb4.8
MALT                               MLR     MLR
      comp=Z,354nm,21.0s,MS4.6
MALT  Malatya           69.44 312⇑iP       P        09 04 44.9  +0.8
MALT  Malatya           69.44 312 eP       P        09 04 44.6  +0.5
      comp=Z,13nm,1.1s,mb4.8
MALT                               LR      LR
      comp=Z,354nm,21.0s,MS4.6
MAW   Mawson            69.92 194  LR      LR       09 28 27.0
      comp=Z,860nm,21.0s,MS5.0,baz=30,slow=30
SOKR  Solikamsk         70.31 338⇓iP       P        09 04 49.4  +0.4
SOKR                               pmax    pmax
      comp=Z,60nm,1.3s,mb5.4
SOC   Sochi             70.50 318 eP       P        09 04 48.3  -2.1
SOC                               eS       S        09 13 54.4  -7.2
SOC                               e*SS     sS       09 14 21.3  +3.3
SOC                               e                 09 14 48.2
SOC                               eSS      SS       09 18 29.1  -4.2
SOC                                pmax    pmax
      comp=Z,54nm,1.3s,mb5.3
LSZ   Lusaka            71.69 255 eP       P        09 04 58.7  +0.4
LSZ                                pmax    pmax
      comp=Z,11nm,1.5s,mb4.6
LSZ                                MLR     MLR
      comp=Z,617nm,20.0s,MS4.9
LSZ   Lusaka            71.69 255 eP       P        09 04 58.7  +0.4
      comp=Z,11nm,1.5s,mb4.6
LSZ                                LR      LR
      comp=Z,617nm,20.0s,MS4.9
CSS   Prodhromos        72.30 308  PFAKE            09 05 10.0  +8.5
CSS                                LR      LR
      comp=Z,555nm,19.0s,MS4.8
ANN   Anapa             72.48 319 eP       P        09 04 59.7  -2.7
ANN                                pmax    pmax
      comp=Z,103nm,1.7s,mb5.5
VRHR  Novokhopersk      72.51 326 eP       P        09 05 01.3  -1.1
VRHR                              e*PP     pP       09 05 10.7  -1.7
VRHR                               pmax    pmax
      comp=Z,50nm,0.9s,mb5.4
VRHR                               pmax    pmax
      comp=N,30nm,0.5s
PETK  Petropavlovsk-    73.25  32  P       P        09 05 05.3  -1.5
      comp=N,6.3nm,0.8s,mb4.6,baz=321,slow=0.4,SNR=9.9
BRTR  Keskin Array B    73.43 313  P       P        09 05 07.0  -1.1
      comp=N,5.9nm,0.8s,mb4.5,baz=131,slow=6.7,SNR=24
PET   Petropavlovsk     73.72  33 eP       P        09 05 07.4  -2.1
PET                               eS       S        09 14 31.6  -6.6
PET                                pmax    pmax
      comp=Z,46nm,0.9s,mb5.4
PET                                pmax    pmax
      comp=Z,200nm,9.7s
PET   Petropavlovsk     73.72  33 eP       P        09 05 08.1  -1.5
      comp=Z,27nm,0.8s,mb5.2
VSR   Storozhevoye      73.96 325 eP       P        09 05 09.9  -1.1
VSR                               e*PP     pP       09 05 18.7  -2.3
VSR                                pmax    pmax
      comp=Z,50nm,0.8s,mb5.5
VSR                                pmax    pmax
      comp=N,10.0nm,1.0s
VSR                                pmax    pmax
      comp=E,40nm,0.8s
VOR   Voronezh          74.16 326 eP       P        09 05 12.0  -0.1
VOR                                pmax    pmax
      comp=Z,140nm,1.6s,mb5.6
LBTB  Lobatse           74.74 245  PFAKE            09 05 30.0   +14
LBTB                               LR      LR
      comp=Z,1µm,19.0s,MS5.2
RPZ   Rata Peaks        74.86 135  LR      LR       09 35 35.1
      comp=Z,1µm,19.9s,MS5.2,baz=292,slow=34
ISP   Isparta           75.26 310  PFAKE            09 05 30.0   +11
ISP                                LR      LR
      comp=Z,353nm,19.0s,MS4.7
BOSA  Boshof            75.36 241  LR      LR       09 34 02.1
      comp=Z,783nm,18.2s,MS5.0,baz=114,slow=32
PRGR  Permogore         75.91 336⇓iP       P        09 05 22.1  +0.1
PRGR                               pmax    pmax
      comp=Z,99nm,0.8s,mb5.8
SEY   Seymchan          75.99  22⇑eP       P        09 05 22.3  -0.2
TIXI  Tiksi             76.21   9⇑eP       P        09 05 22.0  -1.6
TIXI                              i *PP    pP       09 05 38.2  +4.6
TIXI                               pmax    pmax
      comp=Z,80nm,1.7s,mb5.4
TIXI  Tiksi             76.21   9 eP       P        09 05 22.3  -1.3
      comp=Z,96nm,1.3s,mb5.6
TIXI                               LR      LR
      comp=Z,1µm,20.0s,MS5.3
MOS   Moscow            76.70 329 eP       P        09 05 23.7  -2.9
MOS                               e                 09 05 35.6
MOS                               eS       S        09 15 04.7  -6.5
MOS                                pmax    pmax
      comp=Z,152nm,1.8s,mb5.6
MOS                                pmax    pmax
      comp=Z,300nm,2.3s,mb5.8
OBN   Obninsk           76.99 328⇑iP       P        09 05 28.5  +0.2
OBN                               e        pP       09 05 37.6  -0.8
OBN                               e                 09 05 42.2
OBN                                                 09 08 22.0
OBN                                pmax    pmax
      comp=Z,116nm,1.7s,mb5.5
OBN                                MLR     MLR
      comp=Z,500nm,15.0s,MS5.0
OBN   Obninsk           76.99 328 eP       P        09 05 28.5  +0.2
      comp=Z,118nm,1.5s,mb5.6
OBN                               e        pP       09 05 37.6  -0.8
SNZO  South Karori      77.11 132  PFAKE            09 05 40.0   +11
SNZO                               LR      LR
      comp=Z,1µm,21.0s,MS5.2
KLMR  Klimovskoe        78.06 334 eP       P        09 05 32.3  -1.8
KLMR                               pmax    pmax
      comp=Z,45nm,1.4s,mb5.2
TIRR  Tirgusor          78.48 316 eP       P        09 05 36.6  -0.3
TIRR                               pmax    pmax
      comp=Z,16nm,1.0s,mb4.9
TIRR  Tirgusor          78.48 316⇑iP       P        09 05 36.8  -0.1
TIRR  Tirgusor          78.48 316 eP       P        09 05 36.6  -0.3
      comp=Z,16nm,1.0s,mb4.9
HARR  Harsova           78.88 316⇑iP       P        09 05 39.1  +0.1
HARR  Harsova           78.88 316 ⇑P       P        09 05 39.1  +0.1
KIS   Kishinev          78.88 319 eP       P        09 05 38.0  -1.0
KIS                               e                 09 05 50.0
FUNA  Funafuti          79.13  98  PFAKE            09 05 50.0  +8.9
FUNA                               LR      LR
      comp=Z,6µm,19.0s,MS6.0
SUR   Sutherland        79.49 238  PFAKE            09 05 50.0  +7.3
SUR                                LR      LR
      comp=Z,1µm,20.0s,MS5.3
AKASG Malin Array Be    79.65 322  P       P        09 05 41.7  -1.4
      comp=Z,0.6nm,0.4s,mb3.8,baz=82,slow=5.6,SNR=12
AKASG Malin Array Be    79.65 322  P       P        09 05 41.7  -1.4
VRI   Vrincioaia        79.99 317⇑iP       P        09 05 45.8  +0.8
VRI   Vrincioaia        79.99 317 ⇑P       P        09 05 45.8  +0.7
MLR   Muntele Rosu      80.43 317⇑iP       P        09 05 48.2  +0.7
MLR   Muntele Rosu      80.43 317 ⇑P       P        09 05 48.1  +0.7
BURAR Bucovina Array    81.40 319⇑iP       P        09 05 53.7  +1.1
BURAR Bucovina Array    81.40 319 ⇑P       P        09 05 53.7  +1.1
MICGM Minsk             81.51 326 e        P        09 05 49.0  -4.0
MNK   Minsk             81.54 326 eP       P        09 05 49.0  -4.1
PUL   Pulkovo           81.84 331⇑iP       P        09 05 54.3  -0.3
VNDA  Vanda             81.87 169  LR      LR       09 40 44.4
      comp=Z,376nm,18.1s,MS4.8,baz=314,slow=34
NACGM Naroch            82.23 326 e        P        09 05 53.0  -3.8
JOF   Joensuu           82.45 335 ep       P        09 05 56.6  -1.1
      comp=Z,5.0nm,0.7s,mb4.5
LVV   L'vov             82.66 321 eP       P        09 05 55.2  -3.9
LVV                               e        pP       09 06 03.2  -6.0
LVV                               i                 09 06 12.4
DRGR                    82.90 318⇓iP       P        09 06 01.3  +0.8
DRGR                    82.90 318 ⇓P       P        09 06 01.2  +0.8
VSU   Vasula            83.21 330⇓iP       P        09 06 02.1  +0.3
BZS   Buzias            83.44 316⇑iP       P        09 06 03.1  -0.1
BZS   Buzias            83.44 316 ⇑P       P        09 06 03.1  -0.2
KWP   Kalwaria Pacla    83.46 320⇑iP       P        09 06 03.3   0.0
KWP   Kalwaria Pacla    83.46 320 ⇑P       P        09 06 03.4  +0.1
BILL  Bilibino          83.52  20κiP       P        09 06 03.1  -0.1
BILL                              e        pP       09 06 13.1  -0.2
BILL                              e                 09 06 16.9
BILL                                                09 09 15.0
BILL                              e                 09 11 15.7
BILL                              e                 09 16 19.1
BILL                               pmax    pmax
      comp=Z,21nm,1.5s,mb5.0
BILL  Bilibino          83.52  20 eP       P        09 06 02.7  -0.5
      comp=Z,56nm,1.9s,mb5.4
BILL                               LR      LR
      comp=Z,762nm,20.0s,MS5.1
UZH   Uzhgorod          83.53 319 e        P        09 06 03.2  -0.5
UZH                               i        pP       09 06 12.4  -1.4
KOLS  Kolonicke sedl    83.60 320 eP       P        09 06 04.5  +0.5
KOLS                               pmax    pmax
      comp=Z,24nm,1.1s,mb5.2
KOLS  Kolonicke sedl    83.60 320 eP       P        09 06 04.5  +0.5
      comp=Z,24nm,1.1s,mb5.2
TIR   Tirane            84.01 312  PFAKE            09 06 20.0   +14
TIR                                LR      LR
      comp=Z,368nm,19.0s,MS4.8
SUW   Suwalki           84.06 325 eP       P        09 06 05.8  -0.5
SUW                               e*PP     pP       09 06 15.5  -0.9
SUW                                pmax    pmax
      comp=Z,104nm,1.2s,mb5.8
SUW   Suwalki           84.06 325 eP       P        09 06 05.8  -0.5
      comp=Z,104nm,1.2s,mb5.8
SUW                               epP      pP       09 06 15.5  -1.0
CRVS  Cervenica-Dubn    84.12 319 eP       P        09 06 08.3  +1.6
STHS  Stebnicka Huta    84.35 320 eP       P        09 06 08.7  +0.9
STHS                               pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.8
STHS  Stebnicka Huta    84.35 320 eP       P        09 06 08.7  +0.9
      comp=Z,8.4nm,1.0s,mb4.8
KAF   Kangasniemi       84.41 333 eP       P        09 06 05.5  -2.3
KAF                                pmax    pmax
      comp=Z,11nm,0.8s,mb5.0
KAF   Kangasniemi       84.41 333 ep       P        09 06 05.5  -2.3
      comp=Z,10nm,0.8s,mb5.0
KECS  Kecovo            84.69 319 eP       P        09 06 09.6  +0.1
KECS                               pmax    pmax
      comp=Z,4.0nm,1.1s,mb4.5
KECS  Kecovo            84.69 319 eP       P        09 06 09.6  +0.1
      comp=Z,3.9nm,1.1s,mb4.5
NIE   Niedzica          84.95 320 eP       P        09 06 12.0  +1.1
PSZ   Piszkesteto       84.99 318 eP       P        09 06 11.5  +0.4
PSZ                                pmax    pmax
      comp=Z,63nm,1.7s,mb5.5
PSZ   Piszkesteto       84.99 318⇓iP       P        09 06 11.6  +0.5
PSZ   Piszkesteto       84.99 318⇓eP       P        09 06 11.7  +0.6
PSZ   Piszkesteto       84.99 318⇓eP       P        09 06 11.7  +0.6
PSZ   Piszkesteto       84.99 318 eP       P        09 06 11.5  +0.4
      comp=Z,63nm,1.7s,mb5.5
OJC   Ojcow             85.41 321 eP       P        09 06 13.5  +0.4
PKSM  Moragy            85.58 317⇑iP       P        09 06 14.1   0.0
PKSM  Moragy            85.58 317 ⇑P       P        09 06 14.1   0.0
VYHS  Vyhne             85.77 319 eP       P        09 06 14.9  -0.1
TIP   Timpagrande       86.10 309  PFAKE            09 06 30.0   +13
TIP                                LR      LR
      comp=Z,396nm,19.0s,MS4.8
OKC   Ostrava-Krasne    86.41 320 eP       P        09 06 18.5  +0.4
OKC                               epP      pP       09 06 26.3  -2.0
CEL   Celeste           86.67 308 eP       P        09 06 20.4  +0.8
      comp=Z,61nm,1.6s,mb5.6
CEL                                LR      LR
      comp=Z,274nm,19.0s,MS4.7
ARCES ARCESS Array B    86.73 340  P       P        09 06 19.6  +0.3
      comp=Z,8.2nm,0.8s,mb5.0,baz=96,slow=4.9,SNR=11
ARCES                              LR      LR       09 49 08.7
      comp=Z,596nm,18.3s,MS5.0,baz=236,slow=38
MORC  Moravsky Berou    86.79 320 eP       P        09 06 20.2  +0.2
MORC                              e*PP     pP       09 06 29.5  -0.6
MORC                               pmax    pmax
      comp=Z,52nm,2.1s,mb5.4
MORC  Moravsky Berou    86.79 320⇑iP       P        09 06 20.5  +0.5
MORC  Moravsky Berou    86.79 320 eP       P        09 06 20.2  +0.3
      comp=Z,52nm,2.1s,mb5.4
MORC                              epP      pP       09 06 29.5  -0.6
CUC   Castrocucco       86.90 310  PFAKE            09 06 30.0  +9.2
CUC                                LR      LR
      comp=Z,453nm,19.0s,MS4.9
SOP   Sopron            87.18 318⇓eP       P        09 06 21.0  -0.9
SOP   Sopron            87.18 318⇓eP       P        09 06 21.0  -0.9
WDD   Wield Dalam       87.56 306  PFAKE            09 06 40.0   +16
WDD                                LR      LR
      comp=Z,299nm,19.0s,MS4.7
QSPA  South Pole Qui    87.63 180  LR      LR       09 42 23.1
      comp=Z,867nm,19.1s,MS5.2,baz=321,slow=33
QSPA  South Pole Qui    87.63 180 eP       P        09 06 24.0  +0.5
      comp=Z,16nm,1.3s,mb5.1
QSPA                              epP      pP       09 06 33.1  -0.6
QSPA                               LR      LR
      comp=Z,884nm,19.0s,MS5.2
DPC   Dobruska-Polom    87.64 320 eP       P        09 06 25.1  +1.0
DPC                               epP      pP       09 06 32.6  -1.7
KSP   Ksiaz             87.71 321 eP       P        09 06 25.2  +0.8
KSP                               e*PP     pP       09 06 33.8  -0.8
BOJS  Bojanci           87.85 316 i P      P        09 06 25.6  +0.4
UPC   Upice             87.85 321 eP       P        09 06 26.0  +0.9
UPC                               epP      pP       09 06 33.9  -1.4
PERS  Pernice           88.05 317 i P      P        09 06 26.8  +0.7
VISS  Visnje            88.17 316 i P      P        09 06 27.1  +0.4
JAVS  Javornik          88.71 316 i P      P        09 06 29.7  +0.4
PRU   Pruhonice         88.74 320 eP       P        09 06 29.8  +0.5
PRU                               epP      pP       09 06 38.4  -1.1
PVCC  Panska Ves        88.77 320 eP       P        09 06 30.5  +1.1
PVCC                              epP      pP       09 06 38.9  -0.7
GEC2  GERESS Array S    89.19 319 eP       P        09 06 32.1  +0.7
GEC2                               pmax    pmax
      comp=Z,46nm,1.7s,mb5.5
GEC2  GERESS Array S    89.19 319 eP       P        09 06 32.1  +0.7
      comp=Z,46nm,1.7s,mb5.5
GEC2  GERESS Array S    89.19 319 eP       P        09 06 32.1  +0.7
      comp=Z,46nm,1.7s,mb5.5
GERES GERESS Array B    89.19 319  P       P        09 06 31.9  +0.5
      comp=Z,5.4nm,1.1s,mb4.8,baz=103,slow=4.2,SNR=26
BRG   Berggiesshubel    89.20 321 eP       P        09 06 31.9  +0.5
BRG                               e        pP       09 06 41.1  -0.5
BRG                                pmax    pmax
      comp=Z,13nm,1.2s,mb5.1
BRG                                pmax    pmax
      comp=Z,24nm,1.6s,mb5.3
BRG                                pmax    pmax
      comp=Z,12nm,1.2s,mb5.1
BRG   Berggiesshubel    89.20 321 eP       P        09 06 32.1  +0.7
      comp=Z,22nm,1.2s,mb5.4
BRG   Berggiesshubel    89.20 321 eP       P        09 06 31.9  +0.5
      comp=Z,21nm,1.2s,mb5.3
BRG                               e        pP       09 06 41.1  -0.5
      comp=Z,39nm,1.6s
BRG                               i                 09 07 08.8
      comp=Z,21nm,1.2s
BRG   Berggiesshubel    89.20 321 eP       P        09 06 31.9  +0.5
      comp=Z,13nm,1.2s,mb5.1
BRG                               e        pP       09 06 41.1  -0.5
BRG                               i                 09 07 08.8
KHC   Kasperske Hory    89.30 319 eP       P        09 06 32.4  +0.5
KHC                               epP      pP       09 06 41.1  -1.0
KHC   Kasperske Hory    89.30 319 eP       P        09 06 32.4  +0.5
KHC                               epP      pP       09 06 41.1  -1.0
WET   Wettzell          89.76 319 eP       P        09 06 34.5  +0.4
WET                                pmax    pmax
      comp=Z,41nm,1.8s,mb5.5
WET   Wettzell          89.76 319 eP       P        09 06 34.5  +0.4
      comp=Z,41nm,1.8s,mb5.5
WET   Wettzell          89.76 319 eP       P        09 06 34.5  +0.4
      comp=Z,41nm,1.8s,mb5.5
CLL   Collm             89.82 321 eP       P        09 06 34.0  -0.3
CLL                               e*PP     pP       09 06 44.0  -0.5
CLL                                pmax    pmax
      comp=Z,10.0nm,1.1s,mb5.1
CLL   Collm             89.82 321 eP       P        09 06 34.8  +0.5
      comp=Z,10.0nm,1.1s,mb5.1
CLL   Collm             89.82 321 eP       P        09 06 34.0  -0.3
      comp=Z,10.0nm,1.1s,mb5.1
CLL                               epP      pP       09 06 44.0  -0.5
CLL                               e                 09 07 12.0
CLL   Collm             89.82 321 eP       P        09 06 34.0  -0.3
      comp=Z,10.0nm,1.1s,mb5.1
CLL                               epP      pP       09 06 44.0  -0.5
NKC   Novy Kostel       90.10 320 eP       P        09 06 36.4  +0.7
NKC                               epP      pP       09 06 44.8  -1.1
ROTZ  Rotzenmuhle       90.23 320 eP       P        09 06 37.3  +1.0
      comp=Z,26nm,1.6s,mb5.3
MOX   Moxa              90.66 320 eP       P        09 06 39.8  +1.6
      comp=Z,28nm,1.7s,mb5.3
MOX   Moxa              90.66 320 eP       P        09 06 39.8  +1.6
MOX                                pmax    pmax
      comp=Z,28nm,1.7s,mb5.3
MOX   Moxa              90.66 320 eP       P        09 06 38.0  -0.2
      comp=Z,32nm,1.8s,mb5.3
GRA1  Grafenberg Arr    90.87 320 eP       P        09 06 40.0  +0.8
      comp=Z,21nm,1.2s,mb5.3
GRA1                              epP      pP       09 06 48.9  -0.6
GRF   Grafenberg Arr    90.87 320 eP       P        09 06 40.0  +0.8
GRF                               e*PP     pP       09 06 48.9  -0.6
GRF                                pmax    pmax
      comp=Z,21nm,1.2s,mb5.3
GRF   Grafenberg Arr    90.87 320 eP       P        09 06 40.0  +0.8
GRF                               e*PP     pP       09 06 48.9  -0.6
GRF                                pmax    pmax
      comp=Z,21nm,1.2s,mb5.3
GRF   Grafenberg Arr    90.87 320 eP       P        09 06 40.0  +0.8
      comp=Z,21nm,1.2s,mb5.3
GRF                               epP      pP       09 06 48.9  -0.6
GRF   Grafenberg Arr    90.87 320 eP       P        09 06 40.0  +0.8
      comp=Z,21nm,1.2s,mb5.3
GRF                               epP      pP       09 06 48.9  -0.6
VLC   Villacollemand    91.22 314  PFAKE            09 06 50.0  +9.0
VLC                                LR      LR
      comp=Z,379nm,19.0s,MS4.8
NOA   NORSAR Array B    91.36 331  LR      LR       09 53 11.7
      comp=Z,344nm,18.9s,MS4.8,baz=80,slow=39
CLZ   Clausthal         91.49 322 eP       P        09 06 42.6  +0.5
CLZ                                pmax    pmax
      comp=Z,20nm,1.5s,mb5.2
CLZ   Clausthal         91.49 322 eP       P        09 06 42.6  +0.5
      comp=Z,20nm,1.5s,mb5.2
CLZ   Clausthal         91.49 322 eP       P        09 06 42.6  +0.5
      comp=Z,20nm,1.5s,mb5.2
KEST  Kesra             91.75 306  P       P        09 06 45.3  +1.6
      comp=Z,4.1nm,0.9s,mb4.7,baz=308,slow=1.8,SNR=12
KEST                               LR      LR       09 48 40.4
      comp=Z,147nm,19.4s,MS4.4,baz=322,slow=36
KBS   Kingsbay          91.87 349  PFAKE            09 06 50.0  +6.7
KBS                                LR      LR
      comp=Z,807nm,20.0s,MS5.2
TNS   Taunus Mts        92.67 320 eP       P        09 06 48.2  +0.6
TNS                                pmax    pmax
      comp=Z,23nm,1.2s,mb5.5
TNS   Taunus Mts        92.67 320 eP       P        09 06 48.2  +0.6
      comp=Z,23nm,1.2s,mb5.5
TNS   Taunus Mts        92.67 320 eP       P        09 06 48.2  +0.6
      comp=Z,23nm,1.2s,mb5.5
BFO   Black Forest      92.73 318 eP       P        09 06 47.0  -0.9
BFO                                pmax    pmax
      comp=Z,38nm,2.2s,mb5.4
BFO   Black Forest      92.73 318 eP       P        09 06 47.0  -0.9
      comp=Z,38nm,2.2s,mb5.4
BFO   Black Forest      92.73 318 eP       P        09 06 47.0  -0.9
      comp=Z,38nm,2.2s,mb5.4
CDF   Champ du Feu      93.44 318 eP       P        09 06 50.4  -0.8
      comp=Z,29nm,1.5s,mb5.2
CDF   Champ du Feu      93.44 318 eP       P        09 06 50.4  -0.8
CDF                                pmax    pmax
      comp=Z,15nm,1.5s,mb5.2
CDF   Champ du Feu      93.44 318 eP       P        09 06 50.4  -0.8
      comp=Z,15nm,1.5s,mb5.2
MBDF  Montbardon        93.81 314 eP       P        09 06 52.7  -0.3
      comp=Z,6.4nm,0.9s,mb4.7
MBDF  Montbardon        93.81 314 eP       P        09 06 52.7  -0.3
MBDF                               pmax    pmax
      comp=Z,3.0nm,0.9s,mb4.7
MBDF  Montbardon        93.81 314 eP       P        09 06 52.7  -0.3
      comp=Z,3.2nm,0.9s,mb4.8
LPG   La Plagne         93.82 315 eP       P        09 06 52.1  -0.9
ORIF  Oris-en-Rattie    94.44 315 eP       P        09 06 55.2  -0.7
TAM   Tamanrasset       94.88 293  PFAKE            09 07 10.0   +12
TAM                                LR      LR
      comp=Z,341nm,19.0s,MS4.8
IMA2  Indian Mountai    98.77  23 eP       P        09 07 14.8  -0.2
MCK   McKinley         101.37  25 eP       Pdif     09 07 25.5  -1.3
COLA  College          101.45  24  PFAKE            09 07 40.0   +13
COLA                               LR      LR
      comp=Z,307nm,19.0s,MS4.8
EGAK  Eagle            104.13  23  PFAKE            09 07 50.0   +11
EGAK                               LR      LR
      comp=Z,712nm,22.0s,MS5.2
SFS   San Fernando     104.28 307  PFAKE            09 07 50.0   +10
SFS                                LR      LR
      comp=Z,605nm,21.0s,MS5.1
DBIC  Dimbokro         104.86 276  PFAKE            09 07 50.0  +7.7
DBIC                               LR      LR
      comp=Z,340nm,19.0s,MS4.9
RTC   Rabat Centre     105.13 304  PFAKE            09 12 10.0   +11
RTC                                LR      LR
      comp=Z,235nm,19.0s,MS4.8
PPT   Papeete          108.84 109 eSP      SP       09 21 18.3   -37
      comp=Z,434nm,34.8s
PPT                               eLR      LR       09 44 14.9
      comp=Z,438nm,25.5s
YKA   Yellowknife Ar   114.73  17  PKP     PKiKP    09 12 15.0  -0.8
      comp=Z,0.4nm,1.0s,baz=324,slow=1.9,SNR=6.0
YKA                                PKKPab  PKKPab   09 23 02.5  +2.5
      comp=Z,0.2nm,0.9s,baz=160,slow=2.4,SNR=4.5
YKA   Yellowknife Ar   114.73  17  PKP     PKiKP    09 12 15.0  -0.8
YKA                                PKKPab  PKKPab   09 23 02.5  +2.5
EDM   Edmonton         122.35  23 ePKIKP   PKPdf    09 12 29.8  -0.9
EDM                               e                 09 14 06.5
FFC   Flin Flon        124.82  15 i PKIKP  PKPdf    09 12 35.3  -0.1
FFC   Flin Flon        124.82  15  PFAKE            09 12 50.0   +15
FFC                                LR      LR
      comp=Z,524nm,20.0s,MS5.2
SWMT  Swartz Lake      126.33  28 ePKPdf   PKPdf    09 12 38.7  +0.2
SWMT                              epPKPdf  pPKPdf   09 12 47.8  -1.2
BMO   Blue Mountains   126.51  32  PFAKE            09 12 50.0   +11
BMO                                LR      LR
      comp=Z,355nm,19.0s,MS5.1
MSO   Missoula         126.84  28  PFAKE            09 12 50.0   +10
MSO                                LR      LR
      comp=Z,386nm,19.0s,MS5.1
WVOR  Wild Horse Val   127.32  35  PFAKE            09 12 50.0  +9.4
WVOR                               LR      LR
      comp=Z,490nm,19.0s,MS5.2
EGMT  Eagleton         127.82  25 ePKPdf   PKPdf    09 12 40.9  -0.4
EGMT                              epPKPdf  pPKPdf   09 12 50.8  -1.1
BOZ   Bozeman (W)      128.80  28  PFAKE            09 12 50.0  +6.7
BOZ                                LR      LR
      comp=Z,405nm,20.0s,MS5.1
HLID  Hailey           128.91  32  PFAKE            09 13 00.0   +16
HLID                               LR      LR
      comp=Z,390nm,20.0s,MS5.1
BMN   Battle Mountai   129.40  37  PFAKE            09 13 00.0   +15
BMN                                LR      LR
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	comp=Z,600nm,19.0s,MS5.3						
DGMT	**Dagmar**	**129.60**	**21**	PFAKE		09 13 00.0	+15
DGMT				LR	LR		
	comp=Z,481nm,19.0s,MS5.2						
LKWY	**Lake**	**130.19**	**28**	PFAKE		09 13 00.0	+14
LKWY				LR	LR		
	comp=Z,732nm,19.0s,MS5.4						
RLMT	**Red Lodge**	**130.29**	**27**	PFAKE		09 13 00.0	+14
RLMT				LR	LR		
	comp=Z,269nm,22.0s,MS4.9						
LAO	**LASA Array**	**130.33**	**23**	PFAKE		09 13 00.0	+14
LAO				LR	LR		
	comp=Z,427nm,21.0s,MS5.1						
ELK	**Elko**	**130.36**	**35**	PFAKE		09 13 00.0	+14
ELK				LR	LR		
	comp=Z,383nm,20.0s,MS5.1						
ULM	**Lac du Bonnet**	**130.43**	**13**	PKP	PKPdf	09 12 46.2	0.0
	comp=Z,0.8nm,0.3s,baz=56,slow=3.6,SNR=3.2						
ULM	**Lac du Bonnet**	**130.43**	**13**	PKP	PKPdf	09 12 46.2	0.0
AHID	**Auburn Hatcher**	**131.18**	**30**	PFAKE		09 13 00.0	+12
AHID				LR	LR		
	comp=Z,588nm,19.0s,MS5.3						
DAC	**Darwin (Calif)**	**131.68**	**41**	PFAKE		09 13 00.0	+11
DAC				LR	LR		
	comp=Z,424nm,19.0s,MS5.2						
BW06	**Boulder Array**	**131.94**	**29**	PFAKE		09 13 00.0	+11
BW06				LR	LR		
	comp=Z,142nm,20.0s,MS4.7						
PDAR	**Pinedale Array**	**131.94**	**29**	PKP	PKPdf	09 12 50.0	+0.6
	comp=Z,0.6nm,0.8s,baz=146,slow=0.5,SNR=4.2						
DUG	**Dugway**	**132.10**	**34**	PFAKE		09 13 00.0	+10
DUG				LR	LR		
	comp=Z,476nm,19.0s,MS5.2						
AGMN	**Agassiz Refuge**	**132.25**	**14**	PFAKE		09 13 00.0	+10
AGMN				LR	LR		
	comp=Z,648nm,20.0s,MS5.3						
MVU	**Marysvale**	**133.59**	**35**	PFAKE		09 13 00.0	+7.4
MVU				LR	LR		
	comp=Z,621nm,19.0s,MS5.3						
RCBR	**Riachuelo**	**135.06**	**259**	PFAKE		09 13 10.0	+14
RCBR				LR	LR		
	comp=Z,472nm,21.0s,MS5.2						
ISCO	**Idaho Springs**	**136.12**	**29**	PFAKE		09 13 10.0	+13
ISCO				LR	LR		
	comp=Z,303nm,19.0s,MS5.0						
ECSD	**EROS Data Cent**	**136.26**	**17**	*e*PKPdf	PKPdf	09 12 56.8	-0.6
ECSD				LR	LR		
	comp=Z,393nm,20.0s,MS5.1						
GLMI	**Grayling**	**137.50**	**5**	PFAKE		09 13 10.0	+10
GLMI				LR	LR		
	comp=Z,367nm,21.0s,MS5.1						
LONY	**Lake Ozonia**	**137.60**	**354**	PFAKE		09 13 10.0	+10
LONY				LR	LR		
	comp=Z,380nm,19.0s,MS5.2						
LBNH	**Lisbon**	**137.64**	**351**	PFAKE		09 13 10.0	+10
LBNH				LR	LR		
	comp=Z,292nm,19.0s,MS5.0						
SDCO	**Great Sand Dun**	**137.77**	**30**	PFAKE		09 13 10.0	+10
SDCO				LR	LR		
	comp=Z,357nm,20.0s,MS5.1						
TUC	**Tucson**	**138.56**	**41**	PFAKE		09 13 10.0	+8.0
TUC				LR	LR		
	comp=Z,384nm,20.0s,MS5.1						
JFWS	**Jewell Farm**	**138.60**	**11**	PFAKE		09 13 10.0	+8.2
JFWS				LR	LR		
	comp=Z,531nm,20.0s,MS5.3						
SCIA	**State Center**	**138.89**	**15**	PFAKE		09 13 10.0	+7.7
SCIA				LR	LR		
	comp=Z,557nm,20.0s,MS5.3						
SPB	**Sao Paulo**	**139.03**	**229**	PFAKE		09 13 10.0	+6.9
SPB				LR	LR		
	comp=Z,403nm,19.0s,MS5.2						
ANMO	**Albuquerque**	**139.37**	**34**	PFAKE		09 13 20.0	+17
ANMO				LR	LR		
	comp=Z,448nm,20.0s,MS5.2						
CBKS	**Cedar Bluff**	**139.53**	**24**	PFAKE		09 13 20.0	+16
CBKS				LR	LR		
	comp=Z,735nm,20.0s,MS5.4						
AAM	**Ann Arbor**	**140.09**	**4**	PFAKE		09 13 20.0	+16
AAM				LR	LR		
	comp=Z,440nm,20.0s,MS5.2						
ERPA	**Erie**	**140.39**	**360**	PFAKE		09 13 20.0	+15
ERPA				LR	LR		
	comp=Z,532nm,20.0s,MS5.3						
HDIL	**Hopedale**	**141.06**	**11**	PFAKE		09 13 20.0	+14
HDIL				LR	LR		
	comp=Z,453nm,19.0s,MS5.2						
SSPA	**Standing Stone**	**141.82**	**357**	PFAKE		09 13 20.0	+12
SSPA				LR	LR		
	comp=Z,582nm,21.0s,MS5.3						
AMTX	**Amarillo**	**141.92**	**29**	PFAKE		09 13 20.0	+12
AMTX				LR	LR		
	comp=Z,739nm,20.0s,MS5.4						
ACSO	**Alum Creek Sta**	**142.19**	**4**	PFAKE		09 13 20.0	+12
ACSO				LR	LR		
	comp=Z,712nm,21.0s,MS5.4						
MCWV	**Mont Chateau**	**142.85**	**360**	PFAKE		09 13 20.0	+10
MCWV				LR	LR		
	comp=Z,794nm,19.0s,MS5.5						
CCM	**Cathedral Cave**	**143.02**	**15**	PFAKE		09 13 20.0	+10
CCM				LR	LR		
	comp=Z,483nm,21.0s,MS5.2						
WCI	**Wyandotte Cave**	**143.84**	**8**	PFAKE		09 13 20.0	+8.7
WCI				LR	LR		
	comp=Z,454nm,19.0s,MS5.3						
CPUP	**Villa Florida**	**143.96**	**216**	PKP	PKPdf	09 13 09.5	-2.4
	comp=Z,1.9nm,0.8s,baz=101,slow=4.0,SNR=7.0						
CBN	**Corbin**	**144.21**	**356**	PFAKE		09 13 20.0	+8.0
CBN				LR	LR		
	comp=Z,353nm,21.0s,MS5.1						
PARMO	**Parma**	**144.71**	**13**	*e*PKPdf	PKPdf	09 13 11.2	-1.7
PARMO				*e*pPKPdf	pPKPdf	09 13 21.0	-2.4
TXAR	**Lajitas Array**	**145.06**	**37**	PKP	PKPdf	09 13 13.6	-0.1
	comp=Z,33nm,0.8s,baz=266,slow=0.8,SNR=319						
GLAT	**Glass**	**145.19**	**13**	*e*PKPbc	PKPbc	09 13 13.2	-0.1
GLAT				*e*pPKPdf	pPKPdf	09 13 23.5	-0.8
UTMT	**University of**	**145.22**	**12**	*e*PKPbc	PKPbc	09 13 13.0	-0.4
ELN	**Prospectdale**	**145.27**	**1**	*e*PKPbc	PKPbc	09 13 12.3	-1.2
ELN				*e*pPKPdf	pPKPdf	09 13 22.4	-2.0
BLA	**Blacksburg**	**145.29**	**0**	PFAKE		09 13 30.0	+16
BLA				LR	LR		
	comp=Z,696nm,22.0s,MS5.4						
GNAR	**Gosnell**	**145.31**	**14**	*e*PKPbc	PKPbc	09 13 13.6	-0.1
GNAR				*e*pPKPdf	pPKPdf	09 13 24.0	-0.5
HALT	**Halls**	**145.52**	**13**	*e*PKPbc	PKPbc	09 13 13.7	-0.7
MIAR	**Mount Ida**	**145.60**	**20**	*e*PKIKP	PKPdf	09 13 14.4	-0.1
MIAR				MLR	MLR		
	comp=Z,365nm,19.0s,MS5.2						
WVT	**Waverly**	**145.63**	**11**	*e*PKIKP	PKPdf	09 13 14.0	-0.5
WVT				*e*		09 13 24.1	
UALR	**University of**	**145.79**	**18**	*e*PKPbc	PKPbc	09 13 16.5	+1.2
TZTN	**Tazewell**	**145.81**	**5**	*e*PKPbc	PKPbc	09 13 14.8	-0.5
TZTN				*e*pPKPdf	pPKPdf	09 13 24.8	-0.6
MET	**Memphis--Engin**	**146.13**	**14**	*e*PKPbc	PKPbc	09 13 16.1	-0.2
MET				*e*pPKPdf	pPKPdf	09 13 25.9	0.0
JCT	**Junction City**	**146.39**	**32**	*e*PKPdf	PKPdf	09 13 15.5	-0.4
JCT				*e*PKPbc	PKPbc	09 13 17.3	+0.1
JCT				*e*pPKPdf	pPKPdf	09 13 26.5	+0.1
JCT				LR	LR		
	comp=Z,406nm,22.0s,MS5.2						
PLAL	**Pickwick Lake**	**146.69**	**12**	*e*PKPbc	PKPbc	09 13 16.8	-1.2
PLAL				LR	LR		
	comp=Z,587nm,21.0s,MS5.3						
CPCT	**Cooper Cave**	**146.80**	**7**	*e*PKPbc	PKPbc	09 13 17.5	-0.8
OXF	**Oxford**	**146.84**	**14**	*e*PKP2	PKPab	09 13 17.5	-2.1
OXF				MLR	MLR		
	comp=Z,535nm,20.0s,MS5.3						
SWET	**Sewanee**	**146.85**	**9**	*e*PKPbc	PKPbc	09 13 17.2	-1.1
CNNC	**Cliffs of the**	**147.19**	**357**	PFAKE		09 13 30.0	+13
CNNC				LR	LR		
	comp=Z,643nm,21.0s,MS5.4						
NATX	**Nacogdoches**	**147.69**	**24**	*e*PKPbc	PKPbc	09 13 21.1	+0.3
NATX				LR	LR		
	comp=Z,414nm,22.0s,MS5.2						
JSC	**Jenkinsville**	**148.20**	**2**	*e*PKP2	PKPab	09 13 21.6	-3.4
VBMS	**Vicksburg**	**148.72**	**17**	*e*PKPbc	PKPbc	09 13 23.6	+0.1
VBMS				LR	LR		
	comp=Z,460nm,19.0s,MS5.3						
HKT	**Hockley**	**148.76**	**27**	*e*PKP2	PKPab	09 13 24.3	-3.1
GOGA	**Godfrey**	**148.93**	**5**	*e*PKIKP	PKPdf	09 13 19.4	-0.7
GOGA				*e*		09 13 23.6	
GOGA				*e*		09 13 27.6	
GOGA				MLR	MLR		
	comp=Z,450nm,19.0s,MS5.3						
NHSC	**New Hope**	**149.39**	**0**	PFAKE		09 13 30.0	+9.2
NHSC				LR	LR		
	comp=Z,624nm,22.0s,MS5.4						
KVTX	**Kingsville**	**149.73**	**32**	PFAKE		09 13 30.0	+8.5
KVTX				LR	LR		
	comp=Z,250nm,19.0s,MS5.0						
DWPF	**Disney**	**154.34**	**3**	PFAKE		09 13 40.0	+12
DWPF				LR	LR		
	comp=Z,432nm,22.0s,MS5.2						
SJG	**San Juan**	**159.15**	**320**	PFAKE		09 13 50.0	+15
SJG				LR	LR		
	comp=Z,510nm,21.0s,MS5.3						
TEIG	**Tepich**	**160.53**	**23**	PFAKE		09 13 50.0	+14
TEIG				LR	LR		
	comp=Z,395nm,19.0s						
SDDR	**Presa de Saban**	**161.31**	**333**	PFAKE		09 13 50.0	+13
SDDR				LR	LR		
	comp=Z,413nm,19.0s						
TGUH	**Tegucigalpa,Un**	**166.40**	**31**	*e*PKPdf	PKPdf	09 13 37.3	-4.6
TGUH				*e*PKPab	PKPab	09 14 43.1	-0.2
TGUH				LR	LR		
	comp=Z,239nm,21.0s						
SDV	**Santo Domingo**	**168.50**	**305**	PFAKE		09 13 50.0	+6.5
SDV				LR	LR		
	comp=Z,242nm,19.0s						
JTS	**JuntasAbangare**	**170.77**	**31**	PFAKE		09 14 00.0	+15
JTS				LR	LR		
	comp=Z,313nm,20.0s						
BCIP	**Isla Barro Col**	**173.20**	**357**	PFAKE		09 14 00.0	+14
BCIP				LR	LR		
	comp=Z,422nm,20.0s						
OTAV	**Otavalo**	**177.31**	**219**	*e*PKPdf	PKPdf	09 13 47.0	-0.2
OTAV				*e*pPKPdf	pPKPdf	09 13 57.0	-0.8
OTAV				LR	LR		
	comp=Z,348nm,20.0s						

*CSEM **24** 09:05:12.9±0.1, 76°.98N×18°.68E, h12^{km}, ML3.5, Error ellipse: s-maj=6.1km s-min=2.4km az=60.0*

*NAO **24** 09:05:14.2±2.3, 77°.08N×19°.39E, h22^{km}±29^{km}, ML3.0*

*BER **24** 09:05:16.8±3.3, 77°.08N×19°.17E, h15^{km}±19^{km}, MD2.4, ML3.5, ML3.0(NAO)*

ISC 24 09:05:13.4±0.7, **77°.00N**±0°.04×**18°.9E**±0°.2, **h17**^{km}±7^{km}, **n18**, σ**1^{s}.00**/27, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	**Hornsund**	**0.75**	**272**	*e*P	**Pg**	**09 05 29.1**	**+1.0**
HSP				*e*S	**Sg**	**09 05 38.6**	**+0.6**
SPA0	**Spitsbergen Ar**	**1.30**	**337**	Pg	**Pn**	**09 05 37.8**	**+1.1**
	baz=150,slow=22						
SPA0				Lg		09 05 54.7	
	baz=146,slow=28						
SPA0	**Spitsbergen Ar**	**1.30**	**337**	Pg	**Pn**	**09 05 37.8**	**+1.1**
	baz=150,slow=20,SNR=95						
SPA0				Lg		09 05 54.7	
	baz=146,slow=25,SNR=8.1						
HOPEN	**Hopen**	**1.50**	**106**	*e*P	**Pn**	**09 05 40.5**	**+1.1**
HOPEN				*e*Sg	**Sg**	**09 06 01.8**	**+0.1**
HOPEN				AML	AML	09 06 04.2	
	comp=Z,937nm,0.3s						
HOPEN	**Hopen**	**1.50**	**106**	*e*P	**Pn**	**09 05 40.5**	**+1.0**
	SNR=62						
HOPEN				*e*Sg	**Sg**	**09 06 01.8**	**+0.1**
	comp=Z,937nm,0.3s,SNR=94						
KBS	**Kingsbay**	**2.42**	**326**	Pn	**Pn**	**09 05 52.7**	**+0.7**
KBS				Pg	**Pg**	**09 05 58.7**	**-1.0**
KBS				Lg		09 06 30.7	
KBS	**Kingsbay**	**2.42**	**326**	*e*P	**Pn**	**09 05 52.9**	**+0.8**
KBS				*e*Pg	**Pg**	**09 05 58.8**	**-1.0**
KBS				*e*Sg	**Sg**	**09 06 29.3**	**-1.7**
KBS				AML	AML	09 06 37.4	
	comp=Z,629nm,0.4s						
KBS	**Kingsbay**	**2.42**	**326**	Pn	**Pn**	**09 05 52.7**	**+0.6**
KBS	**Kingsbay**	**2.42**	**326**	Pg	**Pg**	**09 05 58.7**	**-1.0**
KBS				Lg		09 06 30.7	
BJO	**Bjornoya**	**2.51**	**178**	*e*Pg	**Pg**	**09 06 01.4**	**-0.2**
BJO				*e*Sg	**Sg**	**09 06 34.0**	**0.0**
BJO				AML	AML	09 06 40.2	
	comp=Z,330nm,0.3s						
KEV	**Kevo**	**7.64**	**158**	*e*p	**Pn**	**09 07 04.1**	**+0.4**
	comp=Z,1.2nm,0.3s						
KEV	**Kevo**	**7.64**	**158**	*e*P	**Pn**	**09 07 04.1**	**+0.4**
	comp=Z,1.2nm,0.3s						
ARA0	**ARCESS Array S**	**7.74**	**162**	Pn	**Pn**	**09 07 05.5**	**+0.4**
	baz=354,slow=12						
ARA0				Sn	**Sn**	**09 08 25.0**	**-7.1**
	baz=3.0,slow=18						
ARA0	**ARCESS Array S**	**7.74**	**162**	Pn	**Pn**	**09 07 05.5**	**+0.4**
	baz=354,slow=12,SNR=4.3						
KTK1	**Kautokeino**	**8.13**	**169**	*e*Pn	**Pn**	**09 07 14.6**	**+4.1**
KTK1				*e*Sn	**Sn**	**09 08 40.4**	**-1.4**
APA0	**Apatity Array**	**10.32**	**149**	Pn	**Pn**	**09 07 40.4**	**0.0**
	baz=333,slow=9.3						
APA0	**Apatity Array**	**10.32**	**149**	Pn	**Pn**	**09 07 40.4**	**0.0**
	baz=333,slow=8.7,SNR=4.1						
FIA0	**FINESS Array S**	**15.82**	**167**	Pn	**Pn**	**09 08 52.0**	**-3.0**

NEIC 24 09:23:33.8, 35°.93S×178°.99E, h104^{km}**, MG4.3**(WEL), **After WEL., Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**1.72**	**198**	P	Pn	09 24 02.9	-0.1
PUZ	**Puketiti**	**2.22**	**195**	P	Pn	09 24 10.2	+0.9
MWZ	**Matawai**	**2.67**	**206**	P	Pn	09 24 15.8	+0.6
KUZ	**Kuaotunu**	**2.76**	**252**	P	Pn	09 24 16.0	-0.4
MARZ	**Manawahe**	**2.77**	**221**	P	Pn	09 24 16.4	-0.1
URZ	**Urewera**	**2.77**	**212**	P	Pn	09 24 16.4	-0.1
TGRZ	**Tauranga**	**2.83**	**230**	P	Pn	09 24 17.5	+0.1
LIRZ	**Lichensteins R**	**2.94**	**224**	P	Pn	09 24 19.6	+0.8
KARZ	**Kaharoa**	**3.03**	**226**	P	Pn	09 24 20.5	+0.5
KNZ	**Kokohu**	**3.26**	**198**	P	Pn	09 24 22.0	-1.0
BKZ	**Black Stump Fm**	**3.79**	**211**	P	Pn	09 24 29.2	-1.0
RITZ	**Rihia Road**	**3.93**	**218**	P	Pn	09 24 34.3	+2.2
WTVZ	**West Tongariro**	**4.17**	**219**	P	Pn	09 24 38.3	+3.0
HIZ	**Hauiti**	**4.19**	**231**	P	Pn	09 24 37.8	+2.3
TUVZ	**Tukino**	**4.26**	**217**	P	Pn	09 24 38.7	+2.3
MOVZ	**Moawhango**	**4.32**	**216**	P	Pn	09 24 36.3	-1.0
WNVZ	**Wahianoa**	**4.33**	**217**	P	Pn	09 24 37.7	+0.3
TSZ	**Takapari Road**	**4.77**	**209**	P	Pn	09 24 40.4	-2.9
WAZ	**Wanganui**	**4.96**	**218**	P	Pn	09 24 46.4	+0.4
BFZ	**Birch Farm**	**5.21**	**204**	P	Pn	09 24 46.0	-3.3
MRZ	**Mangatainoka R**	**5.43**	**209**	P	Pn	09 24 49.1	-3.2
KIW	**Kapiti Island**	**5.88**	**212**	P	Pn	09 24 54.4	-3.9
MTW	**Mount Morrison**	**5.89**	**207**	P	Pn	09 24 54.1	-4.5
CAW	**Cannon Point**	**6.01**	**210**	P	Pn	09 24 57.1	-3.1
TCW	**Tory Channel**	**6.44**	**214**	P	Pn	09 25 01.3	-4.7
NNZ	**Nelson**	**6.87**	**218**	P	Pn	09 25 07.8	-4.0
BSWZ	**Blackbirch Sta**	**7.02**	**213**	*e*P	Pn	09 25 10.7	-3.2
KHZ	**Kahutara**	**7.74**	**211**	P	Pn	09 25 19.4	-4.2

SKHL 24 09:25:35.6±0.4, **55°.28N×122°.72E, h24**^{km}±3^{km}, **mb4.0**/7, **1C-2D, Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TUP	**Tupik**	**1.81**	**243**	⇓*i*Pn	Pn	09 26 07.4	+2.1
TUP				⇑*e*Pg	Pn	09 26 09.1	+3.8
TUP				AMB	AMB	09 26 09.5	
	68nm,0.5s						
TUP				*e*Sn	Sn	09 26 28.7	+1.2
TUP				*i* Sg	Sn	09 26 32.2	+4.7
TUP				A		09 26 32.8	
	500nm,0.5s						
CLNS	**Chul’man**	**1.98**	**37**	*e*Pg	Pn	09 26 13.6	+6.1
CLNS				AMB	AMB	09 26 21.8	
	69nm,0.4s						
CLNS				*e*Sg	Sn	09 26 40.4	+8.8
CLNS				A		09 26 40.9	
	700nm,0.5s						
KROS	**Kirovskiy**	**2.60**	**107**	*e*Pn	Pn	09 26 15.6	-0.5
KROS				⇓*i*Pg	Pn	09 26 21.2	+5.1
KROS				AMB	AMB	09 26 22.9	
	9.0nm,0.3s						
KROS				AMB	AMB	09 26 22.9	
	16nm,0.3s						
KROS				pPg		09 26 26.8	
KROS				*i* Sn	Sn	09 26 46.4	-0.4
KROS				*i* Sg	Sn	09 26 55.0	+8.2
KROS				A		09 26 58.0	
	170nm,0.5s						
KROS				A		09 26 58.0	
	77nm,0.5s						
KROS				A		09 26 58.0	
	39nm,0.5s						
CRS	**Chara**	**2.98**	**305**	*e*Pn	Pn	09 26 24.1	+2.9
CRS				*e*Pg	Pn	09 26 29.1	+7.9
CRS				AMB	AMB	09 26 32.3	
	39nm,0.8s						
CRS				*e*Sn	Sn	09 26 58.6	+2.5
CRS				*e*Sg	Sn	09 27 08.0	+12
CRS				A		09 27 12.7	
	247nm,0.8s						
ZEA	**Zeya**	**3.06**	**118**	*e*Pn	Pn	09 26 23.2	+0.8
ZEA				*e*Pg	Pn	09 26 32.1	+10
ZEA				AMB	AMB	09 26 33.1	
	25nm,0.3s						
ZEA				pPg		09 26 38.3	
ZEA				*e*Sg	Sn	09 27 11.5	+13
ZEA				A		09 27 14.1	
	68nm,0.5s						
ZEA				A		09 27 14.1	
	170nm,0.5s						
ZEA				A		09 27 14.1	
	53nm,0.5s						
BMKR	**Bomnak**	**3.57**	**97**	*e*Pn	Pn	09 26 29.4	0.0
BMKR				*e*Pg	Pn	09 26 39.0	+10
BMKR				AMB	AMB	09 26 40.3	
	10.0nm,0.5s						
BMKR				pPg		09 26 43.8	
BMKR				sPg		09 26 51.9	
BMKR				*e*Sn	Sn	09 27 09.0	-1.8
BMKR				*e*Sg	Sn	09 27 25.0	+14
BMKR				A		09 27 32.5	
	142nm,0.5s						
BMKR				A		09 27 32.5	
	55nm,0.5s						
BMKR				A		09 27 32.5	
	45nm,0.5s						
UKT	**Uakit**	**5.19**	**276**	*e*Pn	Pn	09 26 54.2	+2.6
UKT				*e*Pg	Pn	09 27 09.2	+18
UKT				AMB	AMB	09 27 10.2	
	9.0nm,0.5s						
UKT				*e*Sg	Sn	09 28 16.9	+26
UKT				A		09 28 19.9	
	77nm,0.9s						
BOD	**Bodaibo**	**5.45**	**301**	*e*Pg	Pn	09 27 13.5	+18
BOD				*e*Sn	Sn	09 27 57.5	+0.4
BOD				*e*Sg	Sn	09 28 22.6	+26
CIT	**Chita**	**6.35**	**243**	*e*Sg	Sn	09 28 50.7	+31
EKMR	**Ekimchan**	**6.40**	**106**	*e*Pn	Pn	09 27 08.4	+0.1
EKMR				pPn		09 27 17.0	
EKMR				*e*Sg	Sn	09 28 56.0	+36
EKMR				A		09 29 11.0	
	15nm,0.5s						

*IDC **24** 10:13:10.3±1.6, 35°.76S×178°.34E, h0^{km}, mb4.2/4, mb1 4.3/5, mb1mx4.1/15, mbtmp4.1/5, ML3.3/1, MS3.6/1, Ms1 3.6/1, ms1mx2.8/19, Error ellipse: s-maj=38.3km s-min=25.5km az=47.0*

*ISCJB **24** 10:13:11.9±3.7, 35°.71S±0°.09×178°.3E±0°.2, h20^{km}±27^{km}, mb4.1/4, Error ellipse: s-maj=23.0km s-min=14.5km az=160.3*

*NEIC **24** 10:13:11.0, 35°.51S×178°.51E, h100^{km}, MG4.2(WEL), After WEL.*

ISC 24 10:13:12.5±3.9, **35°.73S**±0°.09×**178°.3E**±0°.2, **h13**^{km}±26^{km}, **n14**, σ**0^{s}.77**/13, **mb4.1**/4, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	**Puketiti**	**2.34**	**181**	P	**Pn**	**10 13 50.8**	**+0.2**
MWZ	**Matawai**	**2.67**	**193**	P	**Pn**	**10 13 54.3**	**-0.9**
URZ	**Urewera**	**2.70**	**200**	Pn	**Pn**	**10 13 54.2**	**-1.4**
	4.9nm,0.3s,baz=13,slow=5.1,SNR=15						
URZ				Sn	**Sn**	**10 14 27.7**	**-0.3**
	7.9nm,0.3s,baz=149,slow=23,SNR=5.8						
URZ	**Urewera**	**2.70**	**200**	P	**Pn**	**10 13 55.0**	**-0.5**
WCZ	**Waipu Caves**	**3.22**	**265**	P	**Pn**	**10 14 02.0**	**-0.7**
KNZ	**Kokohu**	**3.32**	**188**	P	**Pn**	**10 14 03.9**	**-0.2**
BKZ	**Black Stump Fm**	**3.72**	**202**	P	**Pn**	**10 14 11.1**	**+1.5**
HIZ	**Hauiti**	**3.91**	**224**	P	**Pn**	**10 14 13.0**	**+0.8**
STKA	**Stephens Creek**	**30.62**	**267**	LR	LR	10 30 16.2	
	comp=Z,120nm,19.6s,baz=26,slow=34						
ASAR	**Alice Springs**	**40.08**	**275**	P	**P**	**10 20 48.0**	**+0.2**
	2.5nm,0.8s,mb4.0,baz=118,slow=7.8,SNR=23						
WRA	**Warramunga Arr**	**41.57**	**280**	P	**P**	**10 21 00.1**	**0.0**
	1.1nm,0.6s,mb3.7,baz=120,slow=7.5,SNR=5.7						
QSPA	**South Pole Qui**	**54.39**	**180**	P	**P**	**10 22 39.6**	**+1.1**
	6.4nm,0.9s,mb4.5,baz=49,slow=3.3,SNR=18						
PLCA	**Paso Flores**	**81.09**	**134**	P	**P**	**10 25 26.7**	**-0.7**
	1.8nm,0.8s,mb4.0,baz=180,slow=6.1,SNR=4.7						
TORD	**Torodi Ar. Bea**	**157.31**	**189**	PKPab	PKPab	10 33 39.0	-0.6
	1.1nm,1.0s,baz=166,slow=1.8,SNR=3.9						

*IDC **24** 10:22:12.8±0.9, 13°.66N×91°.17W, h0^{km}, mb4.0/9, mb1 4.2/11, mb1mx4.0/22, mbtmp4.0/11, ML4.1/2, MS3.7/1, Ms1 3.7/1, ms1mx3.0/36, Error ellipse: s-maj=34.1km s-min=16.7km az=59.0*

*ISCJB **24** 10:22:18.6±0.8, 13°.46N±0°.06×91°.33W±0°.05, h59^{km}±7^{km}, mb4.1/20, Error ellipse: s-maj=12.5km s-min=4.8km az=33.1*

*CASC **24** 10:22:18.5±1.5, 13°.47N×91°.35W, h53^{km}±37^{km}, MD4.0, ML3.9, mb4.3(NEIC)*

*NEIC **24** 10:22:20.4±1.4, 13°.68N×91°.21W, h58^{km}±12^{km}, mb4.3/14, Error ellipse: s-maj=18.4km s-min=9.0km az=47.0*

ISC 24 10:22:19.8±0.8, **13°.53N**±0°.06×**91°.33W**±0°.05, **h48**^{km}±7^{km}, **n104**, σ**1^{s}.12**/112, **mb4.1**/20, **26C-18D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSG	**Pto de San Jos**	**0.67**	**51**	⇑*e*P	**Pn**	**10 22 33.5**	**+0.4**
JAT	**Jato**	**0.84**	**339**	⇓*i*P	**Pn**	**10 22 34.6**	**-0.7**
FUG	**Fuego 3**	**1.03**	**27**	⇓*e*P	**Pn**	**10 22 37.4**	**-0.5**
PCG	**Pacaya**	**1.11**	**39**	*e*P	**Pn**	**10 22 39.1**	**+0.1**
FG6		**1.12**	**23**	*e*P	**Pn**	**10 22 38.6**	**-0.4**
TP2	**Tecpan 2**	**1.28**	**14**	⇓*i*P	**Pn**	**10 22 41.7**	**+0.4**
NBG	**Las Nubes**	**1.42**	**42**	*e*P	**Pn**	**10 22 44.2**	**+1.0**
RTR	**El Retiro**	**1.68**	**77**	*e*P	**Pn**	**10 22 46.1**	**-0.6**
SBLS	**San Blas**	**1.69**	**79**	*e*P	**Pn**	**10 22 46.0**	**-0.9**
SBLS				*e*S	**Sn**	**10 23 08.9**	**+1.6**
RBDL	**Robledal**	**1.70**	**70**	*e*P	**Pn**	**10 22 46.8**	**-0.3**
SNJE	**San Jose**	**1.71**	**78**	*e*P	**Pn**	**10 22 46.5**	**-0.7**
BOQS	**Boqueron**	**2.01**	**84**	⇑*e*P	**Pn**	**10 22 50.5**	**-0.7**
BOQS				*e*S	**Sn**	**10 23 16.8**	**+1.7**
SNET	**Serv Nac Est T**	**2.05**	**85**	*e*P	**Pn**	**10 22 51.3**	**-0.5**
SNET				*e*S	**Sn**	**10 23 17.1**	**+0.9**
MTO2	**Montecristo 2**	**2.10**	**65**	⇓*e*P	**Pn**	**10 22 52.4**	**-0.1**
MRL	**Marmol**	**2.21**	**46**	⇓*e*P	**Pn**	**10 22 55.7**	**+1.8**
LFRS	**El Faro**	**2.21**	**87**	*e*P	**Pn**	**10 22 53.5**	**-0.5**
LFRS				*e*S	**Sn**	**10 23 21.5**	**+1.3**
LBRS	**Las Brisas**	**2.24**	**84**	⇓*e*P	**Pn**	**10 22 54.0**	**-0.3**
SNVI	**San Vicente**	**2.43**	**88**	*e*P	**Pn**	**10 22 57.0**	**0.0**
SNVI				*e*S	**Sn**	**10 23 26.6**	**+1.2**
VSM	**San Miguel**	**2.98**	**92**	*e*P	**Pn**	**10 23 03.7**	**-0.9**
VSM				*e*S	**Sn**	**10 23 40.0**	**+1.0**
BLLM	**Bellamira**	**3.01**	**91**	*e*P	**Pn**	**10 23 03.8**	**-1.2**
BLLM				*e*S	**Sn**	**10 23 39.3**	**-0.5**
CAHU	**Cacacuatique**	**3.04**	**85**	*e*P	**Pn**	**10 23 05.3**	**-0.1**
CNCH	**Conchagua**	**3.41**	**94**	*e*P	**Pn**	**10 23 10.4**	**-0.1**
CNCH				*e*S	**Sn**	**10 23 49.9**	**+0.1**
TGUH	**Tegucigalpa,Un**	**3.98**	**82**	*e*Pn	**Pn**	**10 23 18.0**	**-0.3**
TGUH	**Tegucigalpa,Un**	**3.98**	**82**	*e*P	**Pn**	**10 23 18.0**	**-0.3**
TGUH				AML	AML	10 24 05.7	
	comp=N,369nm,0.8s						
TGUH				AML	AML	10 24 08.4	
	comp=E,272nm,0.5s						
CRIN	**San Cristobal**	**4.25**	**101**	*e*P	**Pn**	**10 23 22.1**	**0.0**
CRIN				AML	AML	10 24 30.8	
	comp=N,623nm,0.6s						
CNGN	**Cerro Negro**	**4.63**	**102**	*e*P	**Pn**	**10 23 26.1**	**-1.1**
CNGN				*e*P		10 23 26.3	
CNGN				*e*S	**Sn**	**10 24 20.2**	**+0.5**
CMIG	**Matias Romero**	**4.93**	**316**	Pn	**Pn**	**10 23 29.1**	**-2.2**
	comp=N,1.7nm,0.3s,baz=125,slow=10,SNR=30						
CMIG				Sn	**Sn**	**10 24 22.3**	**-4.8**
	comp=N,4.4nm,0.3s,baz=88,slow=14,SNR=3.9						
MGAN	**Managua**	**5.15**	**105**	*e*P	**Pn**	**10 23 33.9**	**-0.4**
BOAB	**BOACO BROADBAN**	**5.63**	**100**	*e*P	**Pn**	**10 23 39.5**	**-1.4**
JTS	**JuntasAbangare**	**7.02**	**117**	Pn	**Pn**	**10 24 00.9**	**+0.8**

	comp=N,4.4nm,0.3s,baz=306,slow=17,SNR=36						
JTS				Sn	Sn	10 25 14.3	-4.4
	baz=53,slow=20,SNR=1.4						
JTS	JuntasAbangare	7.02	117	*e*Pn	Pn	10 24 00.4	+0.3
JTS				Sn	Sn	10 25 14.3	-4.4
JTS	JuntasAbangare	7.02	117	*e*P	Pn	10 24 00.9	+0.8
TEIG	Tepich	7.28	23	Pn	Pn	10 24 03.2	-0.3
	comp=N,16nm,0.3s,baz=165,slow=1.8,SNR=90						
TEIG	Tepich	7.28	23	*e*P	Pn	10 24 04.0	+0.5
BRU2	Volcan	9.70	118	*e*P	Pn	10 24 38.5	+1.8
TXAR	Lajitas Array	19.45	326	Pn	Pn	10 26 43.5	-0.5
	comp=N,0.4nm,0.3s,baz=153,slow=11,SNR=36						
SDV	Santo Domingo	20.82	101	P	P	10 26 55.6	-1.9
	comp=N,4.4nm,0.6s,baz=317,slow=10,SNR=10						
SDV	Santo Domingo	20.82	101	*e*P	P	10 26 55.7	-1.7
	comp=N,4.3nm,0.6s						
MIAR	Mount Ida	21.02	355	*e*P	P	10 26 58.7	-0.8
	comp=N,2.1nm,0.6s,mb3.6						
UALR	University of	21.18	358	*e*P	P	10 27 00.0	-1.1
	comp=N,6.4nm,0.6s,mb4.1						
TKL	Tuckaleechee C	23.06	16	P	P	10 27 20.2	-1.0
	comp=N,5.4nm,0.6s,mb4.2,baz=181,slow=12,SNR=19						
TKL	Tuckaleechee C	23.06	16	*e*P	P	10 27 19.6	-1.6
AMTX	Amarillo	23.23	338	*e*P	P	10 27 20.6	-2.4
	comp=N,10nm,0.8s,mb4.3						
122A	Conniff Cattle	23.86	326	⇓P	P	10 27 27.9	-0.9
	baz=24						
220A	Playas Peak, P	24.15	322	⇑P	P	10 27 32.8	+1.3
	baz=24						
121A	Cookes Peak, D	24.17	324	⇓P	P	10 27 31.8	+0.1
	baz=24						
319A	Douglas	24.24	320	⇓P	P	10 27 34.9	+2.6
	baz=24						
CCM	Cathedral Cave	24.43	0	*e*P	P	10 27 31.2	-2.7
	comp=N,9.0nm,0.6s,mb4.4						
219A	White Tail Can	24.66	321	⇓P	P	10 27 37.5	+1.4
	baz=25						
120A	U Bar Ranch, L	24.67	323	⇑P	P	10 27 36.5	+0.3
	baz=25						
318A	Bisbee	24.73	319	⇑P	P	10 27 38.3	+1.6
	baz=25						
218A	Dragoon	25.12	320	⇑P	P	10 27 41.8	+1.5
	baz=25						
ANMO	Albuquerque	25.34	330	P	P	10 27 42.5	+0.2
	comp=N,1.3nm,0.7s,mb3.6,baz=150,slow=13,SNR=5.7						
ANMO	Albuquerque	25.34	330	P	P	10 27 42.5	+0.2
217A	Green Valley	25.48	319	⇓P	P	10 27 45.8	+2.2
	baz=26						
TUC	Tucson	25.81	320	*e*P	P	10 27 48.9	+2.3
	comp=N,1.9nm,0.8s,mb3.7						
Y19A	Nutrioso	26.05	324	⇑P	P	10 27 50.8	+2.1
	baz=26						
W20A	Ramah	26.51	327	⇓P	P	10 27 52.1	-0.8
	baz=26,SNR=5.4						
ACSO	Alum Creek Sta	27.59	14	*e*P	P	10 28 00.0	-2.5
	comp=N,7.8nm,0.5s,mb4.6						
X16A	Lo Mia Camp, P	27.65	322	⇑P	P	10 28 04.4	+1.4
	baz=28						
MVCO	Mesa Verde	28.13	330	⇑P	P	10 28 07.4	+0.1
	baz=28						
U16A	Tuba City	28.69	325	⇑P	P	10 28 12.7	+0.3
	baz=29						
V14A	Boquillas Ranc	29.47	322	⇑P	P	10 28 20.3	+1.0
	baz=30						
T13A	Saint George	30.89	323	⇑P	P	10 28 33.9	+2.1
	baz=31						
N20A	Spence Gulch,	30.97	335	⇑P	P	10 28 32.1	-0.4
	baz=31						
PDAR	Pinedale Array	33.12	335	P	P	10 28 50.4	-0.8
	comp=N,0.3nm,0.5s,mb3.5,baz=122,slow=8.6,SNR=3.5						
PDAR				PcP	PcP	10 31 34.5	+0.8
	comp=N,0.2nm,0.5s,baz=151,slow=2.1,SNR=3.6						
PDAR	Pinedale Array	33.12	335	P	P	10 28 50.4	-0.9
PDAR				PcP	PcP	10 31 34.5	+0.8
L16A	Fish Haven	33.32	332	⇑P	P	10 28 53.0	-0.1
	baz=33						
M13A	Montello	34.13	329	*e*P	P	10 29 01.0	+0.9
	comp=N,5.0nm,1.0s,mb4.4						
REDW	Red Top Meadow	34.15	334	*e*P	P	10 29 00.1	-0.2
	comp=N,2.8nm,0.7s,mb4.3						
MCMT	McKenzie Canyo	36.18	334	*e*P	P	10 29 18.6	+0.9
	comp=N,2.4nm,0.8s,mb4.2						
I12A	Atlanta	36.42	331	⇑P	P	10 29 20.2	+0.5
	baz=36,SNR=5.8						
H13A	Challis	36.59	332	⇓P	P	10 29 21.8	+0.6
	baz=37,SNR=7.0						
ULM	Lac du Bonnet	36.81	355	P	P	10 29 19.8	-3.2
	comp=N,0.8nm,0.4s,mb4.0,baz=193,slow=10.0,SNR=4.8						
I11A	Placerville	36.90	330	⇑P	P	10 29 24.6	+0.7
	baz=37,SNR=11						
K09A	Rome	36.94	327	⇑P	P	10 29 25.7	+1.5
	baz=37,SNR=9.4						
K08A	Mann Creek Ran	37.36	326	⇑P	P	10 29 28.8	+1.0
	baz=37,SNR=8.2						
J09A	Fry Pan Ranch,	37.40	328	⇑P	P	10 29 29.3	+1.1
	baz=37,SNR=7.7						
G12A	Big Creek, Yel	37.52	332	⇑P	P	10 29 29.2	+0.1
	baz=38						
H11A	Donnelly	37.52	331	⇓P	P	10 29 28.8	-0.3
	baz=38						
F13A	Darby	37.58	333	⇑P	P	10 29 29.1	-0.5
	baz=38						
K07A	Rock Creek Ran	37.75	326	⇓P	P	10 29 31.8	+0.7
	baz=38,SNR=5.3						
J08A	Circle Bar Ran	37.79	327	⇓P	P	10 29 32.4	+1.0
	baz=38,SNR=12						
I09A	Lost Marbles R	37.84	328	⇓P	P	10 29 32.4	+0.6
	baz=38,SNR=10.0						
F12A	Elk City	37.96	333	⇑P	P	10 29 32.8	0.0
	baz=38,SNR=8.7						
E13A	Victor	38.03	334	⇑P	P	10 29 32.4	-1.0
	baz=38,SNR=5.6						
G10A	Bishop Farm, J	38.48	330	⇑P	P	10 29 37.3	+0.1
	baz=38						
D13A	Huson	38.66	335	⇑P	P	10 29 38.1	-0.6
	baz=39						
E11A	Bogner Ranch,	38.85	332	⇓P	P	10 29 39.3	-1.0
	baz=39						
F10A	Beach Ranch, E	39.03	331	⇑P	P	10 29 41.1	-0.7
	baz=39,SNR=8.2						
SIV	San Ignacio	41.90	133	P	P	10 30 05.2	-0.6
	comp=N,1.0nm,0.6s,mb3.6,baz=309,slow=14,SNR=7.2						
FCC	Fort Churchill	45.20	358	*e*P	P	10 30 29.1	-2.7
	comp=N,0.1nm,0.6s						
SCHQ	Schefferville	45.44	20	P	P	10 30 30.9	-2.9
	comp=N,4.1nm,0.8s,mb4.3,baz=199,slow=5.0,SNR=10						
SCHQ	Schefferville	45.44	20	*e*P	P	10 30 30.6	-3.3
	comp=N,4.5nm,0.8s,mb4.3						
CPUP	Villa Florida	51.60	140	LR	LR	10 55 03.8	
	comp=N,81nm,20.9s,baz=347,slow=38						
YKA	Yellowknife Ar	51.63	346	P	P	10 31 19.4	-1.9
	comp=N,1.9nm,0.6s,mb4.2,baz=149,slow=7.7,SNR=37						
YKA				PcP	PcP	10 32 33.2	-1.2
	comp=N,0.3nm,0.6s,baz=151,slow=3.9,SNR=7.1						
YKA	Yellowknife Ar	51.63	346	P	P	10 31 19.4	-1.9
YKA				PcP	PcP	10 32 33.2	-1.2
PLCA	Paso Flores	57.32	161	P	P	10 32 02.2	-0.6
	comp=N,1.3nm,0.9s,mb3.9,baz=32,slow=14,SNR=3.1						
INK	Inuvik	61.07	343	*e*P	P	10 32 26.9	-1.5
	comp=N,2.3nm,0.8s,mb4.4						
RES	Resolute Bay	61.18	359	*e*P	P	10 32 25.9	-3.3
	comp=N,1.7nm,0.7s,mb4.3						
TRF	Thorofare Moun	64.34	335	*e*P	P	10 32 49.2	-1.1
	comp=N,4.5nm,0.5s,mb4.8						
MKAR	Makanchi Array	119.69	5	PKP	PKPdf	10 41 04.0	-0.7
	comp=N,0.1nm,0.4s,baz=321,slow=3.2,SNR=2.8						
ASAR	Alice Springs	136.12	250	PKP	PKPdf	10 41 38.6	+2.1
	comp=N,0.3nm,0.8s,baz=103,slow=1.8,SNR=3.5						
CMAR	Chiang Mai Arr	146.64	342	PKPbc	PKPbc	10 41 57.1	0.0
	comp=N,2.2nm,0.7s,baz=345,slow=4.8,SNR=14						

ISCJB ***24*** *10:25:05.9±0.8, 37°.21N±0°.06×28°.16E±0°.07, h12km±8km, Error ellipse: s-maj=13.5km s-min=4.5km az=38.6*
DDA ***24*** *10:25:05.2, 37°.20N×28°.18E, h7km±2km, Md2.7*
CSEM ***24*** *10:25:06.1±0.1, 37°.19N×28°.16E, h10km, MD2.6, Error ellipse: s-maj=6.2km s-min=2.5km az=35.0*
ISK ***24*** *10:25:06.0, 37°.14N×28°.13E, h7km, MD2.6*
ISC 24 10:25:06.0±0.8**, 37°.20N**±0°.07×**28°.18E**±0°.07**, h13**km±7km**, n14, σ0s.78**/23**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.11	127	*e*PG	Pg	10 25 08.8	-0.2
YER				*e*SG	Sg	10 25 11.9	+0.7
YER	Yerkesik	0.11	127	*e*Pg	Pg	10 25 08.8	-0.2
YER				*e*Sg	Sg	10 25 11.9	+0.7
MLSB	Milas	0.33	287	*e*PG	Pg	10 25 13.0	+0.3
MLSB				*e*SG	Sg	10 25 17.9	+0.5
MLSB	Milas	0.33	287	*e*Pg	Pg	10 25 13.0	+0.2
MLSB				*e*Sg	Sg	10 25 17.9	+0.6
TURN	Turunc	0.47	133	*i* P	Pg	10 25 13.2	-2.1
TURN				*i* S	Sg	10 25 21.5	-0.1
TURN	Turunc	0.47	133	*i* P	Pg	10 25 13.1	-2.2
TURN				*i* S	Sg	10 25 21.5	-0.1
AYDN	Tasoluk	0.52	333	*i* P	Pg	10 25 16.2	0.0
AYDN				*i* S	Sg	10 25 22.8	-0.3
AYDN	Tasoluk	0.52	333	*i* P	Pg	10 25 16.2	0.0
AYDN				*i* S	Sg	10 25 22.8	-0.3
DALT	Dalyan (Mudla)	0.56	139	*e*PG	Pg	10 25 17.5	+0.4
DALT	Dalyan (Mudla)	0.56	139	*e*Pg	Pg	10 25 17.5	+0.5
BODT	Bodrum	0.71	259	*e*PG	Pg	10 25 19.0	-0.7
BODT	Bodrum	0.71	259	*e*Pg	Pg	10 25 19.0	-0.7
AKAS	Kas	1.50	130	*i* P	Pn	10 25 33.5	+1.0
AKAS				*i* S	Sg	10 25 58.6	+4.4
AKAS	Kas	1.50	130	*i* P	Pn	10 25 33.5	+0.9

ISCJB ***24*** *10:48:39.3±0.5, 76°.92N±0°.04×18°.8E±0°.2, h10km, Error ellipse: s-maj=7.9km s-min=4.4km az=149.7*
CSEM ***24*** *10:48:40.1±0.4, 76°.86N×18°.53E, h2km, ML3.6, Error ellipse: s-maj=18.6km s-min=7.0km az=59.0*
IDC ***24*** *10:48:41.4±1.0, 76°.84N×18°.35E, h0km, mb3.5/1, mb1 3.7/2, mb1mx3.2/21, mbtmp3.6/2, ML3.4/1, Error ellipse: s-maj=52.9km s-min=6.8km az=71.0*
NAO ***24*** *10:48:42.4±1.9, 77°.04N×19°.55E, h16km±19km, ML3.4*
BER ***24*** *10:48:45.4±2.8, 77°.03N×19°.27E, h22km±13km, MD2.6, ML3.6, ML3.4(NAO)*
ISC 24 10:48:41.4±0.5**, 76°.96N**±0°.04×**19°.0E**±0°.2**, h10**km**, n27, σ1s.08**/36**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	0.79	275	*e*P	Pg	10 48 57.8	+1.2
HSP				*e*S	Sg	10 49 08.2	+1.4
SPA0	Spitsbergen Ar	1.35	336	Pg	Pg	10 49 06.9	-0.3
	baz=148,slow=22						
SPA0				Lg		10 49 24.7	
	baz=142,slow=37						
SPA0	Spitsbergen Ar	1.35	336	Pg	Pg	10 49 06.9	-0.4
	SNR=95						
SPA0				Lg		10 49 24.7	
	SNR=8.3						
SPITS	Spitsbergen Ar	1.35	336	Pg	Pg	10 49 07.4	+0.2
	baz=283,slow=20,SNR=1653						
SPITS				Lg		10 49 25.5	
	baz=309,slow=32,SNR=12						
HOPEN	Hopen	1.46	105	*e*P	Pn	10 49 08.3	+0.6
HOPEN				*e*Sg	Sg	10 49 28.9	+0.8
HOPEN				AML	AML	10 49 32.8	
	comp=Z,2μm,0.2s						
HOPEN	Hopen	1.46	105	*e*P	Pn	10 49 08.3	+0.6
	SNR=55						
HOPEN				*e*Sg	Sg	10 49 28.9	+0.8
	comp=Z,2μm,0.2s,SNR=95						
KBS	Kingsbay	2.47	326	Pn	Pn	10 49 21.8	+0.2
KBS				Pg	Pg	10 49 27.8	-0.9
KBS				Lg		10 49 59.6	
KBS	Kingsbay	2.47	326	*e*P	Pn	10 49 22.0	+0.4
KBS				*e*Pg	Pg	10 49 28.0	-0.7
KBS				*e*Sg	Sg	10 49 59.6	-1.0
KBS				AML	AML	10 50 07.2	
	comp=Z,597nm,0.3s						
KBS	Kingsbay	2.47	326	Pn	Pn	10 49 21.8	+0.2
KBS	Kingsbay	2.47	326	*e*Pg	Pg	10 49 28.0	-0.7
	SNR=93						
KBS				*e*Sg	Sg	10 49 59.6	-1.0
	comp=Z,597nm,0.3s,SNR=93						
BJO	Bjornoya	2.47	179	*e*Pg	Pg	10 49 28.7	+0.1
BJO				*e*Sg	Sg	10 50 00.7	+0.1
KEV	Kevo	7.59	159	*e*p	Pn	10 50 32.4	+0.6
	comp=Z,1.2nm,0.3s						
KEV	Kevo	7.59	159	*e*P	Pn	10 50 32.4	+0.6
	comp=Z,1.2nm,0.3s						
ARA0	ARCESS Array S	7.69	163	Pn	Pn	10 50 33.8	+0.6
	baz=351,slow=14						
ARA0				Sn	Sn	10 51 54.0	-6.2
	baz=1.6,slow=22						
ARA0	ARCESS Array S	7.69	163	Pn	Pn	10 50 33.8	+0.6
	SNR=126						
ARCES	ARCESS Array B	7.69	163	Pn	Pn	10 50 33.6	+0.4
	comp=Z,0.8nm,0.3s,baz=354,slow=12,SNR=39						
ARCES				Sn	Sn	10 51 54.2	-6.0
	comp=Z,5.7nm,0.3s,baz=360,slow=18,SNR=12						
KTK1	Kautokeino	8.09	169	*e*Sn	Sn	10 52 05.7	-4.2
KTK1	Kautokeino	8.09	169	*e*Sn	Sn	10 52 05.7	-4.2
	SNR=55						
APA0	Apatity Array	10.27	149	Pn	Pn	10 51 07.7	-0.8
	baz=336,slow=16						
APA0	Apatity Array	10.27	149	Pn	Pn	10 51 07.7	-0.8
	SNR=0.3						
JOF	Joensuu	14.66	157	*e*p	Pn	10 52 03.4	-5.1
	comp=Z,0.3nm,0.3s						
KAF	Kangasniemi	15.12	167	*e*p	Pn	10 52 13.7	-0.9
	comp=Z,0.5nm,0.3s						
FIA0	FINESS Array S	15.77	167	Pn	Pn	10 52 20.5	-2.7
	baz=356,slow=14						
FIA0	FINESS Array S	15.77	167	Pn	Pn	10 52 20.5	-2.6
CABF	La Chapelle	30.91	197	*e*P	P	10 54 54.0	-3.6
MKAR	Makanchi Array	38.94	102	P	P	10 56 09.8	+2.9
	comp=Z,0.5nm,0.7s,baz=339,slow=7.3,SNR=8.9						
ASAR	Alice Springs	118.44	71	PKP	PKPdf	11 07 28.9	+0.6
	comp=Z,0.2nm,0.5s,baz=345,slow=1.9,SNR=5.0						

CSEM ***24*** *10:51:18.5±0.3, 36°.15N×21°.67E, h0km, mb4.6/12, Error ellipse: s-maj=5.9km s-min=5.5km az=6.0*
ISCJB ***24*** *10:51:18.4±0.3, 36°.26N±0°.02×21°.60E±0°.03, h10km, mb4.5/28, Error ellipse: s-maj=3.0km s-min=2.9km az=135.8*
THE ***24*** *10:51:21.5, 36°.27N×21°.69E, h0km±3km, ML4.4/5, Error ellipse: s-maj=6.7km s-min=2.0km az=233.0*
MOS ***24*** *10:51:21.8±1.3, 36°.20N×21°.58E, h50km, mb4.3/11, Error ellipse: s-maj=10.8km s-min=5.6km az=92.7*
NEIC ***24*** *10:51:21.9, 36°.36N×21°.68E, h5km, ML3.8(ATH), After ATH.*
ATH ***24*** *10:51:22.1, 36°.36N×21°.70E, h5km±1km, MD3.8/25, ML3.8*
IDC ***24*** *10:51:24.1±2.2, 36°.35N×21°.85E, h40km±19km, mb3.8/13, mb1 3.8/19, mb1mx3.8/29, mbtmp3.8/19, ML3.4/5, MS2.8/2, Ms1 2.8/2, ms1mx2.5/44, Error ellipse: s-maj=20.3km s-min=13.7km az=7.0*
PDG ***24*** *10:51:26.1±0.7, 36°.62N×21°.59E, h18km±2km, ML4.1/10, Error ellipse: s-maj=4.3km s-min=2.8km az=90.0*
ISC 24 10:51:20.6±0.6**, 36°.29N**±0°.02×**21°.65E**±0°.03**, h12**km±3km**, n223, σ1s.53**/273**, mb4.5**/28**, 14C-12D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.61	7	P	Pg	10 51 32.6	+0.1
PYL	PYLOS	0.61	7	*e*PG	Pg	10 51 32.3	-0.2
PYL				*e*SB	Sg	10 51 39.7	-0.8
PYL	PYLOS	0.61	7	*e*Pb	Pg	10 51 32.3	-0.2
PYL				*e*Sb	Sg	10 51 39.7	-0.8
ITM	Ithomi	0.91	14	*e*PB	Pg	10 51 38.2	-0.1
ITM				*e*SB	Sg	10 51 49.7	-0.5
ITM	Ithomi	0.91	14	*e*Pb	Pg	10 51 38.2	-0.1
ITM				*e*Sb	Sg	10 51 49.7	-0.5
KYTH	Kithira	1.12	90	*e*PB	Pg	10 51 42.5	+0.4
KYTH	Kithira	1.12	90	*e*Pb	Pg	10 51 42.5	+0.4
VLI	Veliai	1.12	67	*e*PB	Pg	10 51 42.3	+0.1
VLI				*e*SB	Sg	10 51 56.8	+0.1
VLI	Veliai	1.12	67	*e*Pb	Pg	10 51 42.3	+0.1
VLI				*e*Sb	Sg	10 51 56.8	+0.1
VLX	Vlachokerasia	1.23	28	*e*PG	Pg	10 51 43.2	-1.0
VLX				*e*SB	Sg	10 52 00.2	+0.1
VLX	Vlachokerasia	1.23	28	*e*Pg	Pg	10 51 43.2	-1.0
VLX				*e*Sb	Sg	10 52 00.2	+0.1
GUR	Goura	1.73	18	*e*PB	Pb	10 51 53.5	+1.2
GUR				*e*SB	Sb	10 52 15.8	+1.7
GUR	Goura	1.73	18	*e*Pb	Pb	10 51 53.5	+1.2
GUR				*e*Sb	Sb	10 52 15.8	+1.7
DID	Didima	1.76	46	P	Pn	10 51 52.2	+1.4
DID	Didima	1.76	46	*e*PB	Pb	10 51 54.0	+1.3
DID				*e*SB	Sb	10 52 16.3	+1.6
DID	Didima	1.76	46	P	Pn	10 51 52.2	+1.4
DID				*e*Sb	Sb	10 52 16.3	+1.6
RLS	Riolos of Patr	1.77	355	*e*PG	Pg	10 51 53.7	-0.9
RLS				*e*SN	Sg	10 52 17.5	-0.1
RLS	Riolos of Patr	1.77	355	*e*Pg	Pg	10 51 53.7	-0.9
RLS				*e*Sn	Sg	10 52 17.5	-0.1
LAKA	Lakka	1.96	7	P	Pg	10 51 56.6	-1.7
LAKA				S	Sg	10 52 22.5	-1.3
LAKA	Lakka	1.96	7	P	Pg	10 51 56.6	-1.7
LAKA				S	Sg	10 52 22.5	-1.3
LTK	Loutraki	2.02	31	P	Pn	10 51 56.4	+1.9
LTK	Loutraki	2.02	31	*e*PG	Pg	10 51 58.4	-1.0
LTK	Loutraki	2.02	31	P	Pn	10 51 56.4	+1.9
LTK	Loutraki	2.02	31	*e*Pg	Pg	10 51 58.4	-1.0
KARN	Karanos	2.04	115	P	Pn	10 51 55.2	+0.4
KARN	Karanos	2.04	115	P	Pn	10 51 55.2	+0.4
VLS	Valsamata	2.07	336	P	Pn	10 51 57.3	+2.2
VLS	Valsamata	2.07	336	*e*PN	Pg	10 51 58.2	-2.0
VLS				*e*SN	Sg	10 52 25.6	-1.4
VLS	Valsamata	2.07	336	P	Pn	10 51 57.3	+2.2
VLS	Valsamata	2.07	336	*e*Pn	Pg	10 51 58.2	-2.0
VLS				*e*Sn	Sg	10 52 25.6	-1.4
NAIG	Nisos Aigina	2.08	45	*e*PG	Pg	10 51 59.3	-1.1
NAIG	Nisos Aigina	2.08	45	*e*Pg	Pg	10 51 59.3	-1.1
TRIZ	Trizonia	2.10	9	P	Pn	10 51 58.1	+2.6
TRIZ	Trizonia	2.10	9	P	Pn	10 51 58.1	+2.6
KALE	Kalithea	2.13	10	P	Pn	10 51 58.9	+2.9
KALE				S	Sn	10 52 25.5	+3.1
KALE	Kalithea	2.13	10	P	Pn	10 51 58.9	+2.9
KALE				S	Sn	10 52 25.5	+3.1
EFP	Efpalio	2.14	5	*e*PG	Pg	10 52 00.2	-1.5
EFP	Efpalio	2.14	5	*e*Pg	Pg	10 52 00.2	-1.5
VLY	Voula,Athens	2.31	47	*e*PN	Pn	10 52 02.3	+3.8
ATH	Athens Observa	2.35	44	*e*PN	Pn	10 52 02.5	+3.5
PTL	Penteli	2.49	45	*e*PN	Pn	10 52 04.0	+3.1
LKR	Lokris	2.59	24	P	Pn	10 52 04.4	+2.1
LKR	Lokris	2.59	24	*e*PN	Pn	10 52 05.3	+3.0
LKR	Lokris	2.59	24	P	Pn	10 52 04.4	+2.1
LKR	Lokris	2.59	24	*e*Pn	Pn	10 52 05.3	+3.0
AGG	Agios Georgios	2.78	11	P	Pn	10 52 07.5	+2.6
AGG	Agios Georgios	2.78	11	*e*PB	Pb	10 52 07.7	-2.5
AGG	Agios Georgios	2.78	11	P	Pn	10 52 07.5	+2.6
IDI	Anoyia	2.81	110	Pn	Pn	10 52 06.0	+0.6
	2.2nm,0.3s,baz=280,slow=13,SNR=12						
IDI				Sn	Sn	10 52 41.7	+2.4
	12nm,0.3s,baz=281,slow=19,SNR=5.1						
IDI	Anoyia	2.81	110	*e*Pn	Pn	10 52 10.0	+4.6
IDI				Sn	Sn	10 52 41.6	+2.4
IDI	Anoyia	2.81	110	Sn	Sn	10 52 41.7	+2.5
THL	Klokotos Trika	3.28	5	P	Pn	10 52 13.9	+2.1
THL	Klokotos Trika	3.28	5	*e*PB	Pb	10 52 16.0	-2.7
THL	Klokotos Trika	3.28	5	P	Pn	10 52 13.9	+2.1
XOR	Xorichti	3.30	21	P	Pn	10 52 14.7	+2.6
XOR	Xorichti	3.30	21	P	Pn	10 52 14.7	+2.6
LAST	Lasithi	3.31	109	P	Pn	10 52 14.2	+2.0
LAST	Lasithi	3.31	109	P	Pn	10 52 14.2	+2.0
IGT	Igoumenitsa	3.40	343	P	Pn	10 52 14.7	+1.3
IGT	Igoumenitsa	3.40	343	P	Pn	10 52 14.7	+1.3
JAN	Janina	3.42	350	*e*PN	Pn	10 52 17.1	+3.4
JAN	Janina	3.42	350	*e*Pn	Pn	10 52 17.1	+3.4
MEV	Metsovon	3.50	355	P	Pn	10 52 17.9	+3.0
MEV	Metsovon	3.50	355	P	Pn	10 52 17.9	+3.0
KEK	Kerkira	3.72	337	*e*PN	Pn	10 52 22.7	+4.9
LIT	Litokhoron	3.86	10	P	Pn	10 52 22.7	+2.9
LIT	Litokhoron	3.86	10	P	Pn	10 52 22.7	+2.9
PAIG	Paliouri	3.97	23	P	Pn	10 52 22.7	+1.5
PAIG	Paliouri	3.97	23	P	Pn	10 52 22.7	+1.5
KZN	Kozani	4.01	1	*e*PN	Pn	10 52 25.3	+3.5
KZN	Kozani	4.01	1	*e*Pn	Pn	10 52 25.3	+3.5
PLG	Polygyros	4.31	19	P	Pn	10 52 28.5	+2.5
PLG	Polygyros	4.31	19	*e*PN	Pn	10 52 28.8	+2.8
PLG	Polygyros	4.31	19	P	Pn	10 52 28.5	+2.5
PLG	Polygyros	4.31	19	*e*Pn	Pn	10 52 28.8	+2.8
HORT	Hortiatis	4.45	14	P	Pn	10 52 30.1	+2.3
HORT	Hortiatis	4.45	14	P	Pn	10 52 30.1	+2.3
KARP	Karpathos	4.53	98	*e*PN	Pn	10 52 34.5	+5.5
LTBQ	Tobruq	4.62	155	*i* P	Pn	10 52 31.6	+1.3
	SNR=23						
LTBQ				*e*S	Sn	10 53 22.4	-1.5
	SNR=23						
SOH	Sokhos	4.72	16	P	Pn	10 52 34.4	+2.9
SOH	Sokhos	4.72	16	*e*PN	Pn	10 52 35.2	+3.7
SOH	Sokhos	4.72	16	P	Pn	10 52 34.4	+2.9
BIA	Bitola	4.73	357	*e*Pn	Pn	10 52 33.1	+1.4
BIA				*e*Sn	Sn	10 53 26.8	+0.4
BIA	Bitola	4.73	357	*e*Pn	Pn	10 52 33.1	+1.4
BIA				*e*Sn	Sn	10 53 26.7	+0.3
SOI	Samo	4.81	293	Pn	Pn	10 52 33.3	+0.5
SOI				Sn	Sn	10 53 28.6	+0.1
SOI	Samo	4.81	293	Pn	Pn	10 52 33.3	+0.5
SOI				Sn	Sn	10 53 28.6	+0.1
TIP	Timpagrande	4.83	308	*e*Pn	Pn	10 52 34.1	+1.0
TIP	Timpagrande	4.83	308	*e*Pn	Pn	10 52 34.1	+1.0
OHR	Ohrid	4.86	352	*e*Pn	Pn	10 52 35.5	+2.0
OHR				*e*Sn	Sn	10 53 29.8	+0.2
OHR	Ohrid	4.86	352	*e*Pn	Pn	10 52 35.4	+1.9
OHR				*e*Sn	Sn	10 53 29.7	+0.1
KNT	Kendrikon	4.96	11	P	Pn	10 52 36.8	+1.9
KNT	Kendrikon	4.96	11	P	Pn	10 52 36.8	+1.9
CEL	Celeste	5.00	295	*e*Pn	Pn	10 52 35.7	+0.4
CEL	Celeste	5.00	295	*e*Pn	Pn	10 52 35.7	+0.3
SRS	Serrai	5.05	17	P	Pn	10 52 38.5	+2.4
SRS	Serrai	5.05	17	P	Pn	10 52 38.5	+2.4
VAY	Valandovo	5.07	8	*e*Pn	Pn	10 52 37.9	+1.5
VAY				*e*Sn	Sn	10 53 33.8	-1.1
VAY	Valandovo	5.07	8	*e*Pn	Pn	10 52 37.9	+1.5
VAY				*e*Sn	Sn	10 53 33.8	-1.1
KRUS	Krusevo	5.08	357	*e*Pn	Pn	10 52 35.3	-1.2
KRUS				*e*Sn	Sn	10 53 35.4	+0.3
KRUS	Krusevo	5.08	357	*e*Pn	Pn	10 52 35.2	-1.3
KRUS				*e*Sn	Sn	10 53 35.3	+0.2
HAVL	Avola	5.29	279	Pn	Pn	10 52 39.9	+0.4
HAVL	Avola	5.29	279	Pn	Pn	10 52 39.9	+0.4
MMB	Musomiste	5.53	16	*i* P	Pn	10 52 44.5	+1.8
HVZN	Vizzini	5.64	281	Pn	Pn	10 52 45.5	+1.2
HVZN	Vizzini	5.64	281	Pn	Pn	10 52 45.5	+1.2
LTRZ	Laterza	5.74	320	Pn	Pn	10 52 45.6	0.0
LTRZ	Laterza	5.74	320	Pn	Pn	10 52 45.6	0.0
CUC	Castrocucco	5.90	311	*e*Pn	Pn	10 52 49.7	+1.9
	28nm,0.6s						
CUC	Castrocucco	5.90	311	*e*Pn	Pn	10 52 49.7	+1.9
	28nm,0.6s						
VAE	Valguarnera	5.92	284	Pn	Pn	10 52 51.7	+3.6
	1.3nm,0.3s,baz=214,slow=3.6,SNR=4.4						
VAE				Sn	Sn	10 53 56.6	+0.7
	3.8nm,0.3s,baz=254,slow=4.3,SNR=3.8						
VAE				LR	LR	10 54 28.3	
	comp=Z,91nm,21.9s,baz=299,slow=30						
VAE	Valguarnera	5.92	284	Pn	Pn	10 52 51.7	+3.6
VAE				Sn	Sn	10 53 56.6	+0.7
VAE	Valguarnera	5.92	284	Sn	Sn	10 53 56.6	+0.7
ULC	Ulcinj	5.96	342	⇑*i*Pn	Pn	10 52 48.3	-0.4
ULC				*e*Sn	Sn	10 53 52.5	-4.4
ULC	Ulcinj	5.96	342	⇑*i*Pn	Pn	10 52 48.3	-0.4
MGR	Morigerati	6.15	310	Pn	Pn	10 52 51.8	+0.6
MGR	Morigerati	6.15	310	Pn	Pn	10 52 51.8	+0.6
BUM	Brajici-Budva	6.37	341	⇓*i*Pn	Pn	10 52 53.8	-0.4
BUM				*e*Sn	Sn	10 54 04.6	-2.2
BUM	Brajici-Budva	6.37	341	⇓*i*Pn	Pn	10 52 53.8	-0.4
PDG	Podgorica	6.41	344	⇓*i*Pn	Pn	10 52 54.7	0.0
TTG	Podgorica	6.41	344	⇓*i*Pn	Pn	10 52 54.7	0.0
TTG				*e*Sn	Sn	10 54 04.7	-3.0
TTG	Podgorica	6.41	344	⇓*i*Pn	Pn	10 52 54.7	0.0
VTS	Vitosha	6.41	10	*i* P	Pn	10 52 58.0	+3.3
PVY	Plav	6.43	349	⇑*i*Pn	Pn	10 52 56.3	+1.3
PVY				*e*Sn	Sn	10 54 08.5	+0.2
PVY	Plav	6.43	349	⇑*i*Pn	Pn	10 52 56.3	+1.3
HCY	Herceg Novi	6.62	339	⇑*i*Pn	Pn	10 52 57.8	+0.2
HCY				*e*Sn	Sn	10 54 08.1	-4.8
HCY	Herceg Novi	6.62	339	⇑*i*Pn	Pn	10 52 57.8	+0.2
BEY	Berane	6.71	349	⇓*i*Pn	Pn	10 53 00.4	+1.5
IVA	Berane	6.71	349	⇓*i*Pn	Pn	10 53 00.4	+1.5
IVA				*e*Sn	Sn	10 54 14.4	-0.8
IVA	Berane	6.71	349	⇓*i*Pn	Pn	10 53 00.4	+1.5
NKY	Niksic	6.83	343	⇑*i*Pn	Pn	10 53 01.8	+1.3
NKY				*e*Sn	Sn	10 54 15.1	-3.0
NKY	Niksic	6.83	343	⇑*i*Pn	Pn	10 53 01.8	+1.3
BRY	Bratogost	7.02	341	⇑*i*Pn	Pn	10 53 05.2	+2.0
BRY				*e*Sn	Sn	10 54 19.2	-3.7
BRY	Bratogost	7.02	341	⇑*i*Pn	Pn	10 53 05.2	+2.0
UPM	Unac-Piva	7.22	344	⇑*i*Pn	Pn	10 53 08.0	+2.1
UPM				*e*Sn	Sn	10 54 24.3	-3.4
UPM	Unac-Piva	7.22	344	⇑*i*Pn	Pn	10 53 08.0	+2.1

PLE	**Pljevlja**	7.24	347	⇓iPn	Pn	10 53 07.7	+1.5
PLE				eSn	Sn	10 54 25.4	-2.9
PLE	**Pljevlja**	7.24	347	⇓iPn	Pn	10 53 07.7	+1.5
STON	**Ston**	7.25	336	ePn	Pn	10 53 04.6	-1.6
STON				Sn	Sn	10 54 23.1	-5.3
LSHF	**Shwairf**	8.83	227	i P	Pn	10 53 27.6	-0.5
	SNR=22						
KEST	**Kesra**	9.99	270	LR	LR	10 57 44.4	
	comp=Z,57nm,18.8s,baz=10,slow=38						
BRTR	**Keskin Array B**	10.06	66	Pn	Pn	10 53 45.1	+0.3
	0.1nm,0.3s,baz=248,slow=13,SNR=6.4						
BRTR	**Keskin Array B**	10.06	66	P	Pn	10 53 45.1	+0.3
BOJS	**Bojanci**	10.40	334	i Pn	Pn	10 53 48.6	-0.8
BOJS				i Sn	Sn	10 55 41.2	-4.6
BOJS	**Bojanci**	10.40	334	i Pn	Pn	10 53 48.6	-0.8
VISS	**Visnje**	10.80	334	i Pn	Pn	10 53 56.4	+1.5
VISS				eSn	Sn	10 55 48.7	-7.0
VISS	**Visnje**	10.80	334	i Pn	Pn	10 53 56.4	+1.4
JAVS	**Javornik**	11.17	332	i Pn	Pn	10 54 01.5	+1.5
JAVS				i Sn	Sn	10 55 56.5	-8.2
JAVS	**Javornik**	11.17	332	i Pn	Pn	10 54 01.5	+1.6
VOY	**Vojsko**	11.35	331	ePn	Pn	10 54 03.2	+0.8
VOY				eSn	Sn	10 56 01.5	-7.6
VOY	**Vojsko**	11.35	331	ePn	Pn	10 54 03.2	+0.8
PERS	**Pernice**	11.44	337	i Pn	Pn	10 54 02.2	-1.4
PERS				eSn	Sn	10 56 06.2	-5.0
SOKA	**Soboth**	11.50	337	⇑iPn	Pn	10 54 02.3	-2.2
SOKA				⇓iSn	Sn	10 56 05.6	-7.2
OBKA	**Obir**	11.51	335	⇓iPn	Pn	10 54 03.1	-1.6
OBKA				⇑iSn	Sn	10 56 08.4	-4.7
FRF	**La Foret Royal**	13.60	307	eP	Pn	10 54 26.5	-6.8
	15nm,1.0s						
FRF	**La Foret Royal**	13.60	307	eP	Pn	10 54 26.5	-6.8
FRF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
FRF	**La Foret Royal**	13.60	307	eP	Pn	10 54 26.5	-6.8
	comp=Z,7.3nm,1.0s						
GERES	**GERESS Array B**	13.84	338	Pn	Pn	10 54 36.7	+0.3
	comp=Z,0.2nm,0.3s,baz=153,slow=13,SNR=5.9						
MBDF	**Montbardon**	14.10	311	eP	Pn	10 54 38.0	-2.0
	comp=Z,5.0nm,0.8s						
MBDF	**Montbardon**	14.10	311	eP	Pn	10 54 38.0	-2.0
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MBDF	**Montbardon**	14.10	311	eP	Pn	10 54 38.0	-2.0
	comp=Z,2.5nm,0.8s						
KHC	**Kasperske Hory**	14.13	338	eP	Pn	10 54 34.0	-6.4
KHC				ex	x	10 54 50.5	
AKASG	**Malin Array Be**	15.40	18	Pn	Pn	10 54 54.8	-2.8
	comp=Z,0.2nm,0.3s,baz=210,slow=12,SNR=3.1						
GNI	**Garni**	18.53	71	P	Pn	10 55 37.2	+0.1
	baz=320,slow=22,SNR=4.4						
GNI	**Garni**	18.53	71	P	Pn	10 55 37.2	+0.1
ESDC	**Sonseca Array**	20.45	287	P	P	10 56 00.2	+2.3
	comp=Z,0.8nm,0.8s,baz=76,slow=8.4,SNR=4.1						
EVO	**Evora**	23.63	284	eP	P	10 56 29.0	-2.7
	comp=Z,129nm,1.9s,mb4.7						
HFS	**Hagfors**	24.41	350	P	P	10 56 38.1	-0.4
HFS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
HFS	**Hagfors**	24.41	350	P	P	10 56 38.1	-0.4
	comp=Z,1.9nm,0.5s,mb3.8,baz=160,slow=9.5,SNR=5.8						
HFS	**Hagfors**	24.41	350	P	P	10 56 38.1	-0.4
	comp=Z,2.0nm,0.5s,mb3.8						
EKA	**Eskdalemuir Ar**	25.49	326	P	P	10 56 49.5	+1.0
EKA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
EKA	**Eskdalemuir Ar**	25.49	326	P	P	10 56 49.5	+1.0
	comp=Z,5.1nm,1.1s,mb4.0,baz=128,slow=9.6,SNR=3.7						
EKA	**Eskdalemuir Ar**	25.49	326	P	P	10 56 49.5	+1.0
	comp=Z,5.0nm,1.1s,mb4.0						
TORD	**Torodi Ar. Bea**	29.20	223	P	P	10 57 22.3	+0.2
	comp=Z,0.8nm,0.7s,mb3.5,baz=30,slow=8.7,SNR=5.6						
AKTO	**Aktyubinsk**	29.65	50	P	P	10 57 23.8	-1.9
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
AKTO	**Aktyubinsk**	29.65	50	P	P	10 57 23.8	-1.9
	comp=Z,1.6nm,0.6s,mb3.9,baz=235,slow=6.3,SNR=5.3						
ARCES	**ARCESS Array B**	33.37	2	P	P	10 57 57.6	-0.7
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	**ARCESS Array B**	33.37	2	P	P	10 57 57.6	-0.6
	comp=Z,2.2nm,0.8s,mb4.2,baz=198,slow=7.6,SNR=4.0						
ARCES	**ARCESS Array B**	33.37	2	P	P	10 57 57.6	-0.7
	comp=Z,2.0nm,0.8s,mb4.1						
LIC	**Lamto**	38.63	226	eP	P	10 58 43.8	-0.1
	comp=Z,43nm,1.2s,mb4.7						
NVS	**Novosibirsk**	45.32	46	i P	P	10 59 37.0	-1.1
NVS	**Novosibirsk**	45.32	46	i P	P	10 59 37.0	-1.1
MKAR	**Makanchi Array**	45.54	57	P	P	10 59 37.9	-2.1
MKAR						11 01 17.6	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MKAR	**Makanchi Array**	45.54	57	P	P	10 59 37.9	-2.1
	comp=Z,2.0nm,0.5s,mb4.3,baz=272,slow=7.1,SNR=26						
MKAR				PcP	PcP	11 01 17.6	-0.9
	comp=Z,0.4nm,0.6s,baz=276,slow=5.6,SNR=2.5						
ZALV	**Zalesovo Beam**	46.30	47	P	P	10 59 43.6	-2.3
ZALV				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
ZALV	**Zalesovo Beam**	46.30	47	P	P	10 59 43.6	-2.2
	comp=Z,3.5nm,0.5s,mb4.5,baz=271,slow=8.7,SNR=14						
DANN	**Dangsing**	52.30	80	eP	P	11 00 30.5	-1.6
	comp=Z,56nm,0.7s,mb5.6						
DANN	**Dangsing**	52.30	80	eP	P	11 00 30.5	-1.6
	comp=Z,56nm,0.7s,mb5.6						
KOLN	**Koldanda**	52.42	81	eP	P	11 00 31.2	-1.9
	comp=Z,13nm,0.8s,mb4.9						
KOLN	**Koldanda**	52.42	81	eP	P	11 00 31.2	-1.9
	comp=Z,13nm,0.8s,mb4.9						
GKN	**Gorkha**	53.15	80	eP	P	11 00 36.2	-2.2
	comp=Z,27nm,0.6s,mb5.3						
DMN	**Daman**	53.70	80	eP	P	11 00 40.9	-1.5
	comp=Z,30nm,0.6s,mb5.4						
DMN	**Daman**	53.70	80	eP	P	11 00 40.9	-1.5
	comp=Z,30nm,0.6s,mb5.4						
KKN	**Kakani**	53.75	80	eP	P	11 00 41.3	-1.6
	comp=Z,20nm,0.6s,mb5.2						
KKN	**Kakani**	53.75	80	eP	P	11 00 41.3	-1.6
KKN				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
KKN	**Kakani**	53.75	80	eP	P	11 00 41.3	-1.6
	comp=Z,20nm,0.6s,mb5.2						
PKIN	**Phulchoki**	53.94	80	eP	P	11 00 42.3	-1.9
	comp=Z,9.1nm,0.6s,mb4.8						
PKI	**Pulchoki**	53.95	80	eP	P	11 00 42.8	-1.5
	comp=Z,29nm,0.9s,mb5.2						
PKI	**Pulchoki**	53.95	80	eP	P	11 00 42.8	-1.5
PKI				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
PKI	**Pulchoki**	53.95	80	eP	P	11 00 42.8	-1.5
	comp=Z,29nm,0.9s,mb5.2						
GUN	**Gumba**	54.18	79	eP	P	11 00 44.3	-1.6
	comp=Z,41nm,1.0s,mb5.3						
JIRN	**Jiri**	54.53	80	eP	P	11 00 46.8	-1.7
	comp=Z,13nm,0.5s,mb5.2						
RAMN	**Ramite**	55.18	80	eP	P	11 00 51.4	-1.8
	comp=Z,19nm,0.8s,mb5.2						
ODAN	**Odare**	55.85	80	eP	P	11 00 56.8	-1.2
	comp=Z,6.5nm,0.6s,mb4.8						
TAPN	**Taplejung**	55.88	79	eP	P	11 00 56.5	-1.8
	comp=Z,11nm,0.8s,mb4.9						
ZAK	**Zakamensk**	58.13	48	eP	P	11 01 12.7	-1.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
ZAK	**Zakamensk**	58.13	48	eP	P	11 01 12.7	-1.1
	comp=Z,2.0nm,1.0s,mb4.1						
FRB	**Frobisher Bay**	58.23	328	P	P	11 01 14.8	+0.5
FRB				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FRB	**Frobisher Bay**	58.23	328	P	P	11 01 14.8	+0.5
	comp=Z,0.8nm,0.7s,mb3.9,baz=59,slow=5.9,SNR=2.8						
FRB	**Frobisher Bay**	58.23	328	P	P	11 01 14.8	+0.5
	comp=Z,1.0nm,0.7s,mb4.0						
SCHQ	**Schefferville**	60.46	318	P	P	11 01 30.0	+0.1
	comp=Z,1.0nm,0.7s,mb4.0,baz=57,slow=10,SNR=4.1						
SONM	**Songino Array**	60.97	50	P	P	11 01 32.0	-1.5
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM	**Songino Array**	60.97	50	P	P	11 01 32.0	-1.5
	comp=Z,1.9nm,0.9s,mb4.2,baz=283,slow=7.8,SNR=12						
SONM	**Songino Array**	60.97	50	P	P	11 01 32.0	-1.5
	comp=Z,2.0nm,0.9s,mb4.2						
CMAR	**Chiang Mai Arr**	69.26	82	P	P	11 02 25.8	-2.0
	comp=Z,0.4nm,0.5s,mb3.6,baz=299,slow=5.5,SNR=4.5						
CMAR	**Chiang Mai Arr**	69.26	82	P	P	11 02 25.8	-2.0
YKA	**Yellowknife Ar**	75.47	341	P	P	11 03 03.8	-0.3
YKA	**Yellowknife Ar**	75.47	341	P	P	11 03 03.8	-0.3
	comp=Z,0.4nm,0.6s,mb3.5,baz=35,slow=5.7,SNR=9.9						
YKA	**Yellowknife Ar**	75.47	341	P	P	11 03 03.8	-0.3
KSRS	**Korea Array**	79.82	51	P	P	11 03 27.6	-1.3
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
KSRS	**Korea Array**	79.82	51	P	P	11 03 27.6	-1.3
	comp=Z,1.9nm,0.5s,mb4.3,baz=308,slow=4.5,SNR=14						
KSRS	**Korea Array**	79.82	51	P	P	11 03 27.6	-1.3
	comp=Z,2.0nm,0.5s,mb4.3						
ASAR	**Alice Springs**	121.05	98	PKIKP	PKPdf	11 10 12.1	-1.2
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	121.05	98	PKP	PKPdf	11 10 12.1	-1.2
	comp=Z,0.5nm,0.7s,baz=314,slow=2.0,SNR=8.4						

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*TAP **24** 11:04:52.0, 24°.84N×122°.91E, h100^{km}±1^{km}, ML3.1, C*

*ISCJB **24** 11:04:53.8±0.9, 24°.77N±0°.07×122°.77E±0°.03, h105^{km}±8^{km}, Error ellipse: s-maj=11.3km s-min=4.1km az=176.9*

*JMA **24** 11:04:53.4±0.4, 24°.92N×122°.73E, h97^{km}*

ISC 24 11:04:54.4±0.9**, 24°.77N**±0°.07×**122°.77E**±0°.03**, h104**^{km}±9^{km}**, n26, σ0^{s}.94**/42**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TWB1	**Santiao Chiao**	0.75	289	eP	Pn	11 05 09.1	-3.6
	baz=278						
TWC	**Suao**	0.85	260	eP	Pn	11 05 12.3	-1.3
	baz=254						
TWC				eS	Sn	11 05 27.6	-0.6
	baz=254						
IRIF	**Iriomote-Funau**	0.97	116	P	Pn	11 05 14.6	-0.3
IRIF				eS	Sn	11 05 31.1	+0.8
TWE	**Neicheng**	1.00	268	eP	Pn	11 05 15.1	-0.1
	baz=264						
TWE				S	Sn	11 05 31.0	+0.1
	baz=264						
TWA	**Mucha**	1.10	281	eP	Pn	11 05 15.8	-0.5
	baz=277						
ENTT	**Nioudou**	1.10	264	eP	Pn	11 05 16.4	+0.2
	baz=265						
ENTT				eS	Sn	11 05 34.2	+1.5
	baz=265						
JKRS	**Kuro-shima**	1.25	115	P	Pn	11 05 18.0	+0.1
JKRS				eS	Sn	11 05 36.2	+0.6
TWS1	**Kuangyinshan**	1.27	285	eP	Pn	11 05 17.6	-0.5
	baz=272						
NSK	**Sanguang**	1.29	266	eP	Pn	11 05 18.1	-0.2
	baz=254						
NSK				eS	Sn	11 05 36.4	-0.1
	baz=254						
JIJ	**Ishigaki jima**	1.31	108	P	Pn	11 05 18.3	-0.3
JIJ				S	Sn	11 05 36.6	-0.4
NNS	**Nan Shan**	1.31	256	eP	Pn	11 05 18.6	0.0
	baz=246						
NNS				eS	Sn	11 05 36.6	-0.4
	baz=246						
WHF	**Hehuan Shan**	1.51	246	eP	Pn	11 05 21.3	+0.4
	baz=245						
WHF				eS	Sn	11 05 41.1	-0.1
	baz=245						
ESL	**Shilin**	1.55	232	eP	Pn	11 05 19.0	-2.4
	baz=233						
NSTT	**Nanjuang**	1.62	266	eS	Sn	11 05 43.0	-0.5
	baz=255						
JTJ	**Tarama**	1.76	94	P	Pn	11 05 24.1	0.0
JTJ				eS	Sn	11 05 47.1	+0.4
EHY	**Hungye**	1.82	227	eP	Pn	11 05 23.5	-1.4
	baz=234						
EHY				eS	Sn	11 05 46.7	-1.5
	baz=234						
TWQ1	**Liyutan**	1.87	257	eP	Pn	11 05 27.2	+1.8
	baz=256						
SMLT	**Sun Moon Lake**	1.92	243	P	Pn	11 05 27.1	+0.9
	baz=237						
SMLT				eS	Sn	11 05 52.7	+2.4
	baz=237						
TYC	**Yuchr**	1.95	244	P	Pn	11 05 27.0	+0.5
	baz=244						
TYC				eS	Sn	11 05 52.0	+1.0
	baz=244						
TWF1	**Yuli**	1.95	224	eP	Pn	11 05 24.7	-1.8
	baz=233						
YUS	**Yu-Shan**	2.09	233	eP	Pn	11 05 29.0	+0.6
	baz=228						
YUS				eS	Sn	11 05 55.0	+0.7
	baz=228						
ALS	**Alishan**	2.19	236	eP	Pn	11 05 30.4	+0.8
	baz=230						
ALS				eS	Sn	11 05 56.9	+0.4
	baz=230						
ELDTW	**Lidau**	2.25	226	P	Pn	11 05 29.6	-0.7
	baz=227						
ELDTW				eS	Sn	11 05 56.4	-1.5
	baz=227						
STYT	**Tauyuan**	2.44	229	eP	Pn	11 05 32.8	-0.1
	baz=224						
CHN1	**Nanshi**	2.59	233	eP	Pn	11 05 35.4	+0.6
	baz=233						
SGST	**Jiashian**	2.61	230	eP	Pn	11 05 36.3	+1.2
	baz=231						

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*NEIC **24** 11:10:18.7, 36°.35N×21°.78E, h5^{km}, MD3.6(ATH), After ATH.*

*CSEM **24** 11:10:18.7, 36°.35N×21°.78E, h5^{km}, MD3.6, After ATH*

ATH 24 11:10:18.7, 36°.35N×21°.78E, h5^{km}±4^{km}**, MD3.6**/12**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.55	357	ePG	Pg	11 10 28.9	-0.3
PYL				eSB	Sg	11 10 37.4	+1.1
PYL	**PYLOS**	0.55	357	ePg	Pg	11 10 28.9	-0.3
PYL				eSb	Sg	11 10 37.4	+1.1
ITM	**Ithomi**	0.84	8	ePG	Pg	11 10 34.5	-0.3
ITM				eSB	Sb	11 10 47.4	+0.1
ITM	**Ithomi**	0.84	8	ePg	Pg	11 10 34.5	-0.3
ITM				eSb	Sb	11 10 47.4	+0.1
VLI	**Veliai**	1.00	68	ePG	Pg	11 10 37.8	-0.1
VLI				eSB	Sb	11 10 52.7	+0.7
VLI	**Veliai**	1.00	68	ePg	Pg	11 10 37.8	-0.1
VLI				eSb	Sb	11 10 52.7	+0.7
KYTH	**Kithira**	1.02	94	ePG	Pg	11 10 37.7	-0.5
KYTH	**Kithira**	1.02	94	ePg	Pg	11 10 37.7	-0.5
VLX	**Vlachokerasia**	1.13	25	ePG	Pg	11 10 39.5	-0.8
VLX				eSB	Sb	11 10 55.7	+0.1
VLX	**Vlachokerasia**	1.13	25	ePg	Pg	11 10 39.5	-0.8
VLX				eSb	Sb	11 10 55.7	+0.1
DID	**Didima**	1.64	45	ePB	Pb	11 10 50.1	+0.7
DID	**Didima**	1.64	45	ePb	Pb	11 10 50.1	+0.7
GUR	**Goura**	1.65	16	ePG	Pg	11 10 49.0	-1.3
GUR	**Goura**	1.65	16	ePg	Pg	11 10 49.0	-1.3
RLS	**Riolos of Patr**	1.72	352	ePN	Pn	11 10 52.0	+2.7
RLS	**Riolos of Patr**	1.72	352	ePn	Pn	11 10 52.0	+2.7
LTK	**Loutraki**	1.92	29	ePN	Pn	11 10 55.6	+3.6
LTK	**Loutraki**	1.92	29	ePn	Pn	11 10 55.6	+3.6
EFP	**Efpalio**	2.08	3	ePG	Pg	11 10 57.9	-0.6
EFP	**Efpalio**	2.08	3	ePg	Pg	11 10 57.9	-0.6
VAM	**Vamos**	2.18	115	ePG	Pg	11 10 59.5	-1.0
VAM	**Vamos**	2.18	115	ePg	Pg	11 10 59.5	-1.0
EVR	**Evrytania**	2.56	0	ePB	Pb	11 11 02.8	-2.3
EVR	**Evrytania**	2.56	0	ePb	Pb	11 11 02.8	-2.3

IDC 24 11:44:45.4±36.0**, 17°.12S**×**174°.64E, h0**^{km}**, mb4.0**/4**, mb1 4.1**/4**, mb1mx3.8**/16**, mbtmp4.0**/4**, Error ellipse: s-maj=629.1km s-min=132.0km az=69.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	27.05	259	P	P	11 50 29.9	+0.2
	1.2nm,0.7s,baz=85,slow=12,SNR=3.1						
STKA	**Stephens Creek**	33.31	238	P	P	11 51 25.8	+0.7
	0.9nm,0.5s,baz=90,slow=11,SNR=4.4						
WRA	**Warramunga Arr**	38.26	259	P	P	11 52 06.9	-0.7
	0.6nm,0.5s,baz=96,slow=8.4,SNR=3.2						
ASAR	**Alice Springs**	38.64	253	P	P	11 52 10.7	-0.1
	3.9nm,0.6s,baz=83,slow=9.0,SNR=69						

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*IDC **24** 11:56:17.4±0.8, 0°.46S×122°.29E, h0^{km}, mb3.9/7, mb1 4.1/8, mb1mx4.0/19, mbtmp4.0/8, ML4.5/1, MS3.5/1, Ms1 3.5/1, ms1mx2.5/27, Error ellipse: s-maj=37.9km s-min=16.5km az=70.0*

*MOS **24** 11:56:20.9±1.0, 0°.38S×122°.41E, h33^{km}, mb4.2/9, Error ellipse: s-maj=39.4km s-min=12.3km az=113.3*

*ISCJB **24** 11:56:21.1±0.4, 0°.64S±0°.04×122°.09E±0°.04, h33^{km}, mb4.1/14, Error ellipse: s-maj=6.0km s-min=5.6km az=151.5*

*NEIC **24** 11:56:22.1±0.6, 0°.55S×122°.16E, h35^{km}, mb4.4/5, Error ellipse: s-maj=23.2km s-min=11.0km az=76.0*

*DJA **24** 11:56:22, 0°.74S×122°.10E, h15^{km}, mb4.9/10*

ISC 24 11:56:23.5±0.4**, 0°.67S**±0°.04×**122°.09E**±0°.04**, h35**^{km}**, n48, σ1^{s}.20**/50**, mb4.1**/14**, 2C-3D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APSI	**Ampana**	0.50	242	P	Pn	11 56 31.2	-3.0
KMSI	**Cibinong**	2.26	57	P	Pn	11 57 01.7	+3.3
PCI	**Palu**	2.27	264	P	Pn	11 56 58.5	0.0
TTSI	**Tana Toraja**	3.27	224	P	Pn	11 57 13.3	+1.0
KDI	**Kendari**	3.31	171	⇑eP	Pn	11 57 12.6	-0.2
KDI				eS	Pn	11 57 12.6	-0.2
KDI	**Kendari**	3.31	171	P	Pn	11 57 12.4	-0.4
MNI	**Manado**	3.46	53	⇓eP	Pn	11 57 14.0	-0.9
MNI	**Manado**	3.46	53	P	Pn	11 57 14.3	-0.6
BNSI	**Bone**	4.20	208	P	Pn	11 57 26.2	+1.1
KAPI	**Kappang**	4.91	208	Pn	Pn	11 57 34.3	-0.5
	17nm,0.3s,baz=33,slow=7.1,SNR=81						
KAPI				Sn	Sn	11 58 30.0	-0.4
	baz=225,slow=19,SNR=3.2						
KAPI				LR	LR	11 59 52.9	
	comp=Z,471nm,19.4s,baz=244,slow=42						
KAPI	**Kappang**	4.91	208	ePn	Pn	11 57 33.8	-1.0
	130nm,0.7s						
LBMI	**Labuha**	5.41	90	P	Pn	11 57 40.6	-1.1
	238nm,0.8s,1.1nm						
TNTI	**Ternate**	5.47	75	P	Pn	11 57 44.2	+1.7
	83nm,1.0s						
NLAI	**Namlea**	5.62	117	P	Pn	11 57 45.3	+0.7
	132nm,0.8s,3μm1.1nm						
KBKI	**Kotabaru**	6.47	246	P	Pn	11 57 56.6	+0.3
	50nm,0.7s,0.2nm						
AAI	**Ambon**	6.79	116	P	Pn	11 58 00.9	+0.2
	104nm,0.7s,1μm						
MYLDM	**Lahad Datu**	6.83	328	P	Pn	11 58 03.1	+1.8
	105nm,0.8s						
KKM	**Kota Kinabalu**	8.88	319	ePn	Pn	11 58 31.2	+1.8
KKM	**Kota Kinabalu**	8.88	319	P	Pn	11 58 31.4	+1.9
	24nm,1.6s						
SWI	**Sorong**	9.17	91	P	Pn	11 58 34.4	+1.0
	36nm,0.8s						
SBUM	**Sibu**	10.35	287	P	Pn	11 58 50.7	+1.2
WRAB	**Tennant Creek**	22.59	149	eP	P	12 01 20.9	-0.2
WRAB				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.1						
WRAB	**Tennant Creek**	22.59	149	eP	P	12 01 20.9	-0.2
	comp=Z,6.2nm,0.8s,mb4.1						
WRA	**Warramunga Arr**	22.59	149	P	P	12 01 20.8	-0.3
WRA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
WRA	**Warramunga Arr**	22.59	149	P	P	12 01 20.8	-0.3
	comp=Z,4.3nm,0.6s,mb4.1,baz=332,slow=10,SNR=18						
ASAR	**Alice Springs**	25.57	154	P	P	12 01 50.0	+0.7
ASAR						12 05 19.2	
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	**Alice Springs**	25.57	154	P	P	12 01 50.0	+0.6
	comp=Z,0.8nm,0.5s,mb3.5,baz=345,slow=15,SNR=31						
ASAR				PcP	PcP	12 05 19.2	-0.9
	comp=Z,0.4nm,0.7s,baz=343,slow=1.5,SNR=4.7						
CMAR	**Chiang Mai Arr**	29.65	311	P	P	12 02 26.5	+0.5
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	**Chiang Mai Arr**	29.65	311	P	P	12 02 26.5	+0.5
	comp=Z,0.7nm,0.7s,mb3.5,baz=128,slow=7.0,SNR=4.7						
WHN	**Wuhan**	31.91	347	P	P	12 02 40.6	-5.1
MJAR	**Matsushiro Arr**	39.94	20	P	P	12 03 50.6	-3.8
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MJAR	**Matsushiro Arr**	39.94	20	P	P	12 03 50.6	-3.8
	comp=Z,2.9nm,0.8s,mb4.0,baz=198,slow=10,SNR=6.0						
ULN	**Ulaanbaatar**	50.09	347	eP	P	12 05 13.5	-1.4
ULN				e	pP	12 05 25.4	0.0
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
ULN	**Ulaanbaatar**	50.09	347	eP	P	12 05 13.5	-1.4
	comp=Z,3.1nm,0.6s,mb4.5						
ULN				e	pP	12 05 25.4	0.0
SONM	**Songino Array**	50.21	346	P	P	12 05 14.5	-1.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	**Songino Array**	50.21	346	P	P	12 05 14.5	-1.4
	comp=Z,1.2nm,0.6s,mb4.1,baz=164,slow=7.1,SNR=12						
MKAR	**Makanchi Array**	58.71	329	P	P	12 06 16.5	-1.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	58.71	329	P	P	12 06 16.4	-1.2
	comp=Z,0.6nm,0.6s,mb3.8,baz=124,slow=8.9,SNR=11						
AAK	**Ala-Archa**	60.68	321	⇓iP	P	12 06 31.8	+0.5
AAK				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb3.8						
ZALV	**Zalesovo Beam**	62.55	336	P	P	12 06 41.5	-2.2
	comp=Z,0.4nm,0.3s,mb4.0,baz=145,slow=8.8,SNR=2.9						
ZALV	**Zalesovo Beam**	62.55	336	P	P	12 06 41.5	-2.2
YAK	**Yakutsk**	62.80	4	eP	P	12 06 44.5	-0.7
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
YAK				pmax	pmax		
	comp=N,2.0nm,1.0s						
KURK	**Kurchatov**	63.11	331	eP	P	12 06 48.7	+1.2
KURK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
KURK	**Kurchatov**	63.11	331	eP	P	12 06 48.7	+1.2
	comp=Z,5.8nm,0.9s,mb4.7						
TIXI	**Tiksi**	72.33	2	⇑iP	P	12 07 41.9	-3.3
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.2						
TIXI	**Tiksi**	72.33	2	eP	P	12 07 41.4	-3.9
	comp=Z,1.0nm,0.3s,mb4.2						
ARU	**Arti**	76.24	329	d iP	P	12 08 07.4	-0.8
ARU				e		12 10 55.2	
ARU				S	S	12 17 50.8	+0.7
ARU				SS	SS	12 22 40.4	-3.9
ARU				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.5						
ARU	**Arti**	76.24	329	eP	P	12 08 05.5	-2.7
	comp=Z,3.5nm,0.5s,mb4.5						

TAP 24 12:04:35.0, 24°.44N×121°.93E, h30^{km}**, ML3.5, 7C-5D, C, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ENA	**Nanau**	0.17	267	⇓iP	Pb	12 04 41.2	+0.3
	baz=267						
ENA				S	Sb	12 04 45.5	+0.6
	baz=267						
TWC	**Suao**	0.19	336	⇓iP	Pb	12 04 41.5	+0.4
	baz=336						
TWC				i S	Sb	12 04 45.5	+0.3
	baz=336						
EHP	**Heping Village**	0.21	234	eP	Pb	12 04 41.9	+0.6
	baz=234						
ILA	**Ilan**	0.37	333	eP	Pb	12 04 44.3	+0.9
	baz=328						
ILA				eS	Sb	12 04 50.4	+1.3
	baz=328						
TWE	**Neicheng**	0.37	320	⇓iP	Pb	12 04 44.0	+0.6
	baz=319						
TWE				i S	Sb	12 04 50.0	+0.8
	baz=319						
ENTT	**Nioudou**	0.39	301	⇓iP	Pb	12 04 44.3	+0.6
	baz=304						
ENTT				S	Sb	12 04 50.7	+1.1
	baz=304						
TWD	**Chiawan**	0.47	221	i P	Pb	12 04 45.3	+0.4
	baz=229						
TWD				S	Sb	12 04 53.5	+1.8
	baz=229						
NNS	**Nan Shan**	0.51	270	⇑iP	Pb	12 04 46.3	+0.7
	baz=270						

NNS				S	Sb	12 04 54.1	+1.3
	baz=270						
HWA	**Hwalien**	0.55	213	eP	Pb	12 04 46.7	+0.5
	baz=213						
TWB1	**Santiao Chiao**	0.57	5	eP	Pb	12 04 47.1	+0.5
	baz=359						
TWB1				eS	Sb	12 04 55.6	+1.1
	baz=359						
NSK	**Sanguang**	0.57	295	⇑iP	Pb	12 04 47.3	+0.7
	baz=294						
NSK				S	Sb	12 04 55.7	+1.1
	baz=294						
TWA	**Mucha**	0.63	330	eP	Pb	12 04 48.4	+0.9
	baz=324						
TWA				eS	Sb	12 04 57.5	+1.5
	baz=324						
NWF	**Wu-fen Shan**	0.65	348	⇓iP	Pb	12 04 48.8	+0.9
	baz=347						
NWF				S	Sb	12 04 57.8	+1.2
	baz=347						
WHF	**Hehuan Shan**	0.67	245	⇑iP	Pb	12 04 49.1	+0.8
	baz=244						
WHF				S	Sb	12 04 59.1	+1.8
	baz=244						
TAP1	**Taipei**	0.70	328	eP	Pb	12 04 49.7	+0.9
	baz=327						
TAP1				eS	Sb	12 05 00.2	+1.9
	baz=327						
TWT	**Tachien**	0.71	255	eP	Pb	12 04 49.9	+1.0
	baz=255						
TWT				eS	Sb	12 05 00.4	+2.0
	baz=255						
ESL	**Shilin**	0.77	216	⇑P	Pn	12 04 49.3	-0.5
	baz=229						
TWS1	**Kuangyinshan**	0.81	325	eP	Pn	12 04 51.4	+1.0
	baz=334						
TWS1				eS	Sb	12 05 03.6	+2.4
	baz=334						
NCU	**National Centr**	0.86	308	eP	Pn	12 04 53.0	+1.9
	baz=295						
NCU				eS	Sb	12 05 05.5	+2.9
	baz=295						
NSTT	**Nanjuang**	0.87	283	⇑iP	Pn	12 04 52.9	+1.7
	baz=282						
NSTT				eS	Sn	12 05 04.8	+2.0
	baz=282						
TWY	**Chenhua**	0.89	340	eP	Pn	12 04 52.7	+1.3
	baz=340						
HSN	**Hsinchu**	0.95	293	eP	Pn	12 04 52.9	+0.6
	baz=306						
HSN				eS	Sn	12 05 06.9	+2.1
	baz=306						
TWQ1	**Liyutan**	1.06	265	eP	Pn	12 04 56.2	+2.4
	baz=265						
TWQ1				eS	Sn	12 05 11.5	+4.0
	baz=265						
EHY	**Hungye**	1.08	211	eP	Pn	12 04 53.6	-0.5
	baz=211						
SMLT	**Sun Moon Lake**	1.09	240	⇑P	Pn	12 04 55.5	+1.3
	baz=240						
SMLT				eS	Sn	12 05 11.7	+3.4
	baz=240						
TYC	**Yuchr**	1.11	242	⇑P	Pn	12 04 55.9	+1.3
	baz=241						
TYC				eS	Sn	12 05 13.3	+4.4
	baz=241						
TCU	**Taichung**	1.18	256	eP	Pn	12 04 57.6	+2.1
	baz=245						
TWF1	**Yuli**	1.23	208	eP	Pn	12 04 55.7	-0.4
	baz=220						
WNT	**Mingjian**	1.27	244	eP	Pn	12 04 58.6	+1.9
	baz=230						
WNT				eS	Sn	12 05 17.0	+4.3
	baz=230						
YUS	**Yu-Shan**	1.30	224	eP	Pn	12 04 58.6	+1.4
	baz=213						
YUS				eS	Sn	12 05 17.3	+3.8
	baz=213						
ALS	**Alishan**	1.38	228	eP	Pn	12 05 00.1	+1.9
	baz=218						
ALS				eS	Sn	12 05 18.5	+3.0
	baz=218						
WGK	**Gukeng**	1.46	239	eP	Pn	12 05 01.9	+2.6
	baz=239						
WGK				eS	Sn	12 05 22.4	+5.1
	baz=239						
ELDTW	**Lidau**	1.50	214	eP	Pn	12 05 00.6	+0.7
	baz=205						
CHN2	**Minshiung**	1.61	236	eP	Pn	12 05 04.5	+3.1
	baz=236						
CHN2				eS	Sn	12 05 27.2	+6.1
	baz=236						
CHN4	**Tsaushan**	1.63	229	eP	Pn	12 05 04.7	+3.0
	baz=229						
CHN4				eS	Sn	12 05 27.2	+5.5
	baz=229						
STYT	**Tauyuan**	1.66	221	eP	Pn	12 05 03.8	+1.7
	baz=221						
STYT				eS	Sn	12 05 27.1	+4.7
	baz=221						
CHY	**Chiayi**	1.67	236	eP	Pn	12 05 04.5	+2.4
	baz=225						
WTP	**Ta-pu**	1.69	226	eP	Pn	12 05 04.8	+2.3
	baz=226						
WTP				eS	Sn	12 05 28.2	+5.1
	baz=226						
WSF	**Szhu**	1.75	243	eP	Pn	12 05 04.8	+1.4
	baz=242						
TWK	**Hsinying**	1.76	229	eP	Pn	12 05 05.4	+1.9
	baz=229						
TWK				eS	Sn	12 05 30.0	+5.1
	baz=229						
CHN1	**Nanshi**	1.79	226	eP	Pn	12 05 06.5	+2.6
	baz=226						
CHN1				eS	Sn	12 05 30.8	+5.2
	baz=226						
TWG	**Pinlang**	1.79	206	eP	Pn	12 05 05.3	+1.4
	baz=208						
SGST	**Jiashian**	1.83	223	P	Pn	12 05 07.1	+2.7
	baz=223						
SGST				eS	Sn	12 05 31.6	+5.0
	baz=223						
ECL	**Taimali**	2.04	206	eP	Pn	12 05 08.2	+0.9
	baz=198						
SSD	**Sandimen**	2.06	216	eP	Pn	12 05 09.8	+2.2
	baz=208						
SSD				eS	Sn	12 05 37.8	+5.5
	baz=208						
SCZT	**Fangliau**	2.38	211	eP	Pn	12 05 14.7	+2.6
	baz=200						

IDC ***24*** *12:10:45.5±0.9, 2°.52S×99°.89E, h0^{km}, mb4.4/14, mb1 4.5/15, mb1mx4.4/23, mbtmp4.4/15, ML3.5/1, Error ellipse: s-maj=36.2km s-min=13.9km az=56.0*

BJI ***24*** *12:10:46.0, 3°.04S×100°.14E, h39^{km}, mB5.4/16, mb4.7/22, Ms4.9/8, Ms7 4.5/9*

MOS ***24*** *12:10:49.9±0.9, 2°.31S×100°.19E, h38^{km}, mb4.8/21, Error ellipse: s-maj=17.3km s-min=8.5km az=103.8*

DJA ***24*** *12:10:50, 2°.55S×99°.79E, h33^{km}, MLv4.6/4*

NEIC ***24*** *12:10:50.2±0.4, 2°.54S×99°.98E, h35^{km}, mb4.7/11, Error ellipse: s-maj=13.3km s-min=6.7km az=64.0*

ISCJB ***24*** *12:10:50.2±0.7, 2°.48S±0°.05×99°.90E±0°.06, h51^{km}±5^{km}, mb4.5/35, MS4.2/3, Error ellipse: s-maj=10.7km s-min=6.8km az=140.8*

ISC 24 12:10:50.7±0.7**, 2°.56S**±0°.05×**99°.85E**±0°.05**, h40**^{km}±5^{km}**,
h34**^{km}±2.7^{km}**:pP-P, n101, σ1^{s}13**/98**, mb4.5**/35**, MS4.2**/3**,
4C-1D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	0.26	142	P	Pn	12 10 59.2	+0.7
SISI	**Saibi**	1.44	328	P	Pn	12 11 13.8	-0.5
PDSI	**Padang**	1.75	21	P	Pn	12 11 18.0	-0.5
PPI	**Padang Panjang**	2.16	15	P	Pn	12 11 23.8	-0.4
SDSI	**Sungai Dareh**	2.26	44	P	Pn	12 11 26.3	+0.7
KSI	**Kapahiang**	2.95	112	P	Pn	12 11 35.7	+0.7
RGRI	**Rengat**	3.31	49	P	Pn	12 11 41.0	+0.9
MNAI	**Manna**	3.58	120	P	Pn	12 11 44.6	+0.9
GSI	**Gunungsitoli**	4.46	329	P	Pn	12 11 55.1	-0.7
PSI	**Prapat**	5.40	350	⇑eP	Pn	12 12 05.9	-2.9
PSI	**Prapat**	5.40	350	P	Pn	12 12 06.6	-2.2
PSI				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PSI	**Prapat**	5.40	350	Pn	Pn	12 12 06.6	-2.2
	comp=Z,1.7nm,0.3s,baz=58,slow=0.7,SNR=5.0						
KGM	**Kluang**	5.72	37	P	Pn	12 12 14.1	+0.9
MYKOM	**Kota Tinggi**	5.89	43	P	Pn	12 12 16.2	+0.7
MYKOM	**Kota Tinggi**	5.89	43	P	Pn	12 12 15.5	0.0
	comp=Z,63nm,0.9s						
FRIM	**Kepong**	6.03	17	P	Pn	12 12 17.7	+0.4
IPM	**Ipoh**	7.09	10	P	Pn	12 12 32.0	0.0
IPM	**Ipoh**	7.09	10	P	Pn	12 12 32.3	+0.3
KULM	**Kulim**	7.84	6	P	Pn	12 12 41.2	-1.0
KULM	**Kulim**	7.84	6	ePn	Pn	12 12 41.1	-1.1
	comp=Z,9.4nm,0.7s						
KTGM	**Kuala Trenggan**	8.49	23	P	Pn	12 12 52.4	+1.2
COCO	**West Island**	10.02	197	eP	Pn	12 13 10.0	-2.2
SBUM	**Sibu**	13.33	68	P	Pn	12 13 59.7	+2.3
KKM	**Kota Kinabalu**	18.44	62	P	Pn	12 15 03.9	+0.4
SDKM	**Sandakan**	19.14	65	P	Pn	12 15 09.6	-2.3
TSM	**Tawau**	19.25	69	P	Pn	12 15 11.2	-2.0
KDM	**Kudat**	19.39	61	P	Pn	12 15 14.4	-0.5
KAPI	**Kappang**	20.01	98	Pn	P	12 15 18.2	-2.0
	comp=Z,0.7nm,0.3s,baz=104,slow=4.2,SNR=2.9						
MYLDM	**Lahad Datu**	20.16	68	P	P	12 15 22.4	+0.6
CMAR	**Chiang Mai Arr**	20.90	358	P	P	12 15 28.3	-1.5
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR	**Chiang Mai Arr**	20.90	358	P	P	12 15 28.2	-1.6
	comp=Z,2.2nm,0.3s,baz=187,slow=10,SNR=30						
CHTO	**Chiang Mai**	21.26	358	eP	P	12 15 31.5	-2.1
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
CHTO	**Chiang Mai**	21.26	358	eP	P	12 15 31.5	-2.1
	comp=Z,4.4nm,0.8s,mb3.8						
KMI	**Kunming**	27.66	6	P	P	12 16 39.3	+4.4
KMI				pP	pP	12 16 46.9	+1.1
KMI				sP	sP	12 16 51.3	+0.7
KMI				S	S	12 21 18.0	+3.7
KMI				sS	sS	12 21 34.9	+2.4
KMI				SS		12 22 38.3	
KMI				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.2						
KMI				pmax	pmax		
	comp=Z,58nm,3.5s						
KMI				LR	LR		
	comp=N,280nm,21.3s,MS4.0						
KMI				LR	LR		
	comp=E,260nm,20.1s,MS4.0						
KMI				LR	LR		
	comp=Z,240nm,22.4s,MS3.7						
SHL	**Shillong**	29.00	345	ePKP	P	12 16 55.5	+8.6
WHN	**Wuhan**	35.71	22	P	P	12 17 52.9	+7.4
XAN	**Xi'an**	37.39	12	P	P	12 17 58.3	-1.5
XAN				pP	pP	12 18 07.6	-3.3
XAN				sP	sP	12 18 10.9	-4.8
XAN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
XAN				pmax	pmax		
	comp=Z,64nm,5.5s						
WRA	**Warramunga Arr**	37.84	120	P	P	12 18 03.7	-0.2
WRA						12 20 20.5	
WRA				pmax	pmax		
	comp=Z,14nm,0.6s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	37.84	120	P	P	12 18 03.7	-0.2
	comp=Z,14nm,0.6s,mb4.8,baz=303,slow=9.1,SNR=75						
WRA				PcP	PcP	12 20 20.5	+0.6
	comp=Z,0.6nm,0.6s,baz=277,slow=7.6,SNR=4.9						
WRAB	**Tennant Creek**	37.85	120	eP	P	12 18 03.0	-0.9
WRAB				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.8						
WRAB	**Tennant Creek**	37.85	120	eP	P	12 18 03.0	-0.9
	comp=Z,12nm,0.6s,mb4.8						
LZH	**Lanzhou**	38.63	5	eP	P	12 18 11.5	+1.3
LZH				pP	pP	12 18 21.3	0.0
LZH				sP	sP	12 18 25.5	-0.6
LZH				ePP	PP	12 19 45.6	+6.4
LZH				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.7						
LZH				pmax	pmax		
	comp=Z,89nm,4.7s						
LZH				LR	LR		
	comp=N,410nm,13.3s						
LZH				LR	LR		
	comp=Z,610nm,17.4s,MS4.5						
ASAR	**Alice Springs**	39.05	125	P	P	12 18 14.2	+0.2
ASAR						12 20 24.6	
ASAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	39.05	125	P	P	12 18 14.2	+0.2
	comp=Z,4.0nm,0.5s,mb4.4,baz=301,slow=7.2,SNR=63						
ASAR				PcP	PcP	12 20 24.6	+1.0
	comp=Z,0.7nm,0.7s,baz=276,slow=2.3,SNR=4.5						
GTA	**Gaotai**	41.76	360	eP	P	12 18 36.9	+0.8
GTA				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
HHC	**Hu-ho-hao-te**	44.51	13	eP	P	12 18 52.1	-6.2
HHC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
HHC				pmax	pmax		
	comp=Z,160nm,5.2s						
KSH	**Kashi**	47.27	335	P	P	12 19 26.9	+6.8
KSH				epP	pP	12 19 39.1	+7.6
KSH				ePcP	PcP	12 20 53.8	+3.0
KSH				eScP	ScP	12 24 43.1	+1.2
KSH				ePcS	PcS	12 24 48.4	+2.4
KSH				eS	S	12 26 21.8	+11
KSH				eScS	ScS	12 29 12.9	+1.8
KSH				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
KSH				pmax	pmax		
	comp=Z,340nm,4.8s						
KSH				LR	LR		
	comp=N,330nm,5.7s						
KSH				LR	LR		
	comp=E,440nm,8.0s						
KSH				LR	LR		
	comp=Z,250nm,5.9s						
WMQ	**Urumqi**	47.44	348	P	P	12 19 23.3	+1.9
WMQ				pP	pP	12 19 33.0	+0.2
WMQ				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
WMQ				pmax	pmax		
	comp=Z,190nm,6.0s						
WMQ				LR	LR		
	comp=Z,270nm,16.0s,MS4.3						
KSRS	**Korea Array**	47.58	30	P	P	12 19 22.5	0.0
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
KSRS	**Korea Array**	47.58	30	P	P	12 19 22.4	-0.1
	comp=Z,6.4nm,0.9s,mb4.7,baz=227,slow=8.3,SNR=12						
CTA	**Charters Tower**	48.50	115	P	P	12 19 29.7	-0.3
CTA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CTA	**Charters Tower**	48.50	115	eP	P	12 19 29.5	-0.5
	comp=Z,4.5nm,0.8s,mb4.5						
CTA	**Charters Tower**	48.50	115	P	P	12 19 29.7	-0.3
	comp=Z,6.5nm,0.8s,mb4.7,baz=297,slow=12,SNR=6.8						
CTA	**Charters Tower**	48.50	115	P	P	12 19 29.7	-0.3
CTAO	**Charters Tower**	48.50	115	eP	P	12 19 28.9	-1.1
CTAO				e*PP	pP	12 19 38.1	-3.3
CTAO				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
CTAO	**Charters Tower**	48.50	115	eP	P	12 19 28.9	-1.1
	comp=Z,6.5nm,1.0s,mb4.6						
CTAO				epP	pP	12 19 38.1	-3.3
STKA	**Stephens Creek**	48.89	131	eP	P	12 19 34.1	+1.3
	comp=Z,4.3nm,0.6s,mb4.7						
STKA	**Stephens Creek**	48.89	131	P	P	12 19 34.0	+1.2
	comp=Z,5.8nm,0.6s,mb4.8,baz=308,slow=7.5,SNR=11						
TKM2	**Tokmak 2**	50.28	337	eP	P	12 19 43.9	+0.7
TKM2				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
TKM2	**Tokmak 2**	50.28	337	eP	P	12 19 43.9	+0.7
	comp=Z,10nm,0.8s,mb4.9						
AML	**Almayashu**	50.40	335	eP	P	12 19 45.1	+1.0
	comp=Z,3.3nm,0.6s,mb4.5						
AAK	**Ala-Archa**	50.48	336	⇑iP	P	12 19 45.0	+0.3
AAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.9						
AAK	**Ala-Archa**	50.48	336	eP	P	12 19 45.8	+1.1
	comp=Z,2.1nm,0.8s,mb4.2						
SONM	**Songino Array**	50.51	6	P	P	12 19 45.8	+1.0
SONM						12 21 03.4	
SONM				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	50.51	6	P	P	12 19 45.8	+1.0
	comp=Z,9.8nm,0.8s,mb4.8,baz=186,slow=8.7,SNR=83						
SONM				PcP	PcP	12 21 03.4	+1.1
	comp=Z,1.3nm,0.5s,baz=195,slow=4.0,SNR=6.1						
ULN	**Ulaanbaatar**	50.61	6	eP	P	12 19 46.0	+0.4
ULN				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ULN	**Ulaanbaatar**	50.61	6	eP	P	12 19 46.0	+0.5
	comp=Z,8.7nm,0.8s,mb4.7						
EKS2	**Erkin-Say**	50.80	335	eP	P	12 19 48.2	+1.1
	comp=Z,6.7nm,0.5s,mb4.8						
MKAR	**Makanchi Array**	51.52	345	P	P	12 19 53.1	+0.7
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MKAR	**Makanchi Array**	51.52	345	P	P	12 19 53.1	+0.7
	comp=Z,7.2nm,0.6s,mb4.8,baz=147,slow=8.2,SNR=101						
CN2	**Changchun**	51.55	24	eP	P	12 19 51.4	-1.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ZAK	**Zakamensk**	52.82	3	eP	P	12 20 02.6	+0.6
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.1						
TLY	**Talaya**	54.13	3	eP	P	12 20 11.3	-0.3
TLY				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
KURK	**Kurchatov**	56.10	344	eP	P	12 20 26.2	+0.4
KURK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
KURK	**Kurchatov**	56.10	344	eP	P	12 20 26.2	+0.3
	comp=Z,8.9nm,0.9s,mb4.8						
ZAA0	**Zalesovo Array**	57.69	350	eP	P	12 20 37.3	+0.3
ZALV	**Zalesovo Beam**	57.69	350	P	P	12 20 37.2	+0.2
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.8						
ZALV	**Zalesovo Beam**	57.69	350	P	P	12 20 37.2	+0.2
	comp=Z,3.2nm,0.3s,mb4.8,baz=164,slow=6.0,SNR=23						
ZALV	**Zalesovo Beam**	57.69	350	P	P	12 20 37.2	+0.2
NVS	**Novosibirsk**	58.83	349	eP	P	12 20 42.9	-2.1
BOD	**Bodaibo**	61.25	9	eP	P	12 21 01.8	+0.3
BOD				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
GNI	**Garni**	65.82	316	⇑iP	P	12 21 34.6	+2.5
GNI				pmax	pmax		
	comp=Z,17nm,2.5s						
YAK	**Yakutsk**	68.32	15	eP	P	12 21 46.5	-1.0
YAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
YAK				pmax	pmax		
	comp=N,4.0nm,0.9s						
YAK	**Yakutsk**	68.32	15	eP	P	12 21 46.8	-0.7
	comp=N,9.0nm,0.6s,mb5.0						
PETK	**Petropavlovsk-**	73.43	32	P	P	12 22 18.1	-0.6
PETK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
PETK	**Petropavlovsk-**	73.43	32	P	P	12 22 18.1	-0.7
	comp=Z,4.9nm,0.9s,mb4.5,baz=255,slow=2.0,SNR=5.0						
BRTR	**Keskin Array B**	73.59	313	P	P	12 22 21.1	+1.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	73.59	313	P	P	12 22 21.1	+1.1
	comp=Z,0.6nm,0.8s,mb3.6,baz=72,slow=4.7,SNR=2.8						
SEY	**Seymchan**	76.20	22	⇓iP	P	12 22 33.5	-1.0
TIXI	**Tiksi**	76.43	9	⇑iP	P	12 22 34.7	-1.0
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TIXI	**Tiksi**	76.43	9	eP	P	12 22 34.8	-0.9
	comp=Z,4.5nm,0.6s,mb4.6						
BILL	**Bilibino**	83.73	20	iP	P	12 23 13.1	-2.0
BILL				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.5						
ARCES	**ARCESS Array B**	86.94	340	P	P	12 23 32.1	+0.9
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	**ARCESS Array B**	86.94	340	P	P	12 23 32.1	+0.9
	comp=Z,2.6nm,0.8s,mb4.5,baz=104,slow=5.1,SNR=8.3						
GERES	**GERESS Array B**	89.37	319	P	P	12 23 44.5	+1.4
	comp=Z,0.4nm,0.6s,mb3.9,baz=83,slow=8.0,SNR=3.3						
KEST	**Kesra**	91.89	306	P	P	12 23 54.6	-0.5
	comp=Z,0.7nm,0.6s,mb4.2,baz=226,slow=2.5,SNR=4.0						
TXAR	**Lajitas Array**	145.24	38	PKIKP	PKPdf	12 30 25.8	+1.0
TXAR				pmax	pmax		
	comp=Z,11nm,0.6s						
TXAR	**Lajitas Array**	145.24	38	PKPbc	PKPbc	12 30 25.8	+1.3
	comp=Z,11nm,0.6s,baz=209,slow=1.2,SNR=215						
MIAR	**Mount Ida**	145.81	20	ePKIKP	PKPdf	12 30 26.1	+0.4
TZTN	**Tazewell**	146.04	5	ePKPdf	PKPdf	12 30 26.6	+0.7
JCT	**Junction City**	146.57	32	ePKP2	PKPab	12 30 29.1	-0.5

IDC ***24*** *12:16:38.6±2.5, 8°.06S×105°.58E, h0^{km}, mb4.0/8, mb1 4.2/8, mb1mx4.0/21, mbtmp4.1/8, MS3.5/2, Ms1 3.5/2, ms1mx2.9/27, Error ellipse: s-maj=115.3km s-min=16.2km az=52.0*

DJA ***24*** *12:16:41, 8°.15S×105°.54E, h10^{km}, mb5.1/5*

ISCJB ***24*** *12:16:41.3±1.8, 8°.19S±0°.06×105°.59E±0°.06, h30^{km}±13^{km}, mb4.4/24, MS3.8/4, Error ellipse: s-maj=12.3km s-min=6.7km az=140.4*

BJI ***24*** *12:16:41.6, 8°.20S×105°.60E, h35^{km}, mB5.2/8, mb4.5/10, Ms4.5/4, Ms7 4.2/4*

NEIC ***24*** *12:16:43.7±0.3, 8°.17S×105°.57E, h35^{km}, mb4.6/12, Error ellipse: s-maj=12.4km s-min=5.1km az=57.0*

MOS ***24*** *12:16:46.4±1.7, 7°.16S×106°.71E, h33^{km}, mb4.3/10, Error ellipse: s-maj=30.3km s-min=15.1km az=115.6*

ISC 24 12:16:42.0±2.4**, 8°.17S**±0°.06×**105°.56E**±0°.06**, h20**^{km}±15^{km}**,
h37**^{km}±2.4^{km}**:pP-P, n59, σ0^{s}93**/56**, mb4.4**/24**, MS3.8**/4**,
1C-1D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBJI	**Dramaga**	1.99	36	P	Pn	12 17 13.0	-1.6
SBJI	**Serang**	2.12	15	P	Pn	12 17 15.3	-1.0
XMIS	**Christmas Isla**	2.30	178	ePn	Pn	12 17 17.8	-1.0
XMIS	**Christmas Isla**	2.30	178	P	Pn	12 17 18.1	-0.7
RBSI	**Rajabasa**	2.32	4	P	Pn	12 17 18.8	-0.3
LEM	**Lembang**	2.44	57	P	Pn	12 17 20.7	0.0
KASI	**Kota Agung**	2.84	338	P	Pn	12 17 26.3	+0.1
MDSI	**Maura Dua**	3.91	339	P	Pn	12 17 41.0	0.0
KSI	**Kapahiang**	5.38	326	P	Pn	12 18 01.8	+0.7
	417nm,0.7s						
TPI	**Tanjungpandan**	5.77	21	⇓eP	Pn	12 18 12.5	+6.0
TPI				eS	Sn	12 19 22.5	+10
SJI	**Sawahan**	6.16	86	P	Pn	12 18 12.8	+0.9
	66nm,0.9s,3μm						
PWJI	**Pagerwojo**	6.18	89	P	Pn	12 18 12.7	+0.5
	73nm,1.0s						
ABJI	**Asem Bagus**	8.60	88	P	Pn	12 18 47.6	+2.2
	156nm,0.5s						
SRBI	**Singaraja**	9.55	90	P	Pn	12 18 58.5	0.0
KKM	**Kota Kinabalu**	17.67	37	eP	Pn	12 20 46.6	-0.5
	7.6nm,0.4s						
MBWA	**Marble Bar**	18.81	135	eP	Pn	12 21 00.7	-0.4
	15nm,0.9s						
FITZ	**Fitzroy Crossi**	21.88	119	eP	P	12 21 34.1	+0.3
	23nm,0.9s,mb4.6						
FITZ	**Fitzroy Crossi**	21.88	119	P	P	12 21 33.5	-0.4
	8.8nm,1.0s,mb4.2,baz=299,slow=9.3,SNR=7.7						
FITZ				LR	LR	12 29 14.2	
	comp=Z,63nm,21.9s,MS3.0,baz=314,slow=34						
FITZ	**Fitzroy Crossi**	21.88	119	eP	P	12 21 33.9	+0.1
	5.5nm,0.8s,mb4.0						
FITZ				e		12 21 46.1	
CMAR	**Chiang Mai Arr**	27.25	346	P	P	12 22 23.9	-1.2
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR	**Chiang Mai Arr**	27.25	346	P	P	12 22 23.9	-1.2
	comp=Z,1.0nm,0.5s,mb3.6,baz=180,slow=8.1,SNR=8.4						
WRA	**Warramunga Arr**	30.21	116	P	P	12 22 51.1	-0.3
WRA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
WRA	**Warramunga Arr**	30.21	116	P	P	12 22 51.1	-0.4
	comp=Z,4.9nm,1.0s,mb4.2,baz=287,slow=10,SNR=9.8						
WRAB	**Tennant Creek**	30.21	116	eP	P	12 22 51.2	-0.3
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
WRAB	**Tennant Creek**	30.21	116	eP	P	12 22 51.2	-0.3
	comp=Z,3.5nm,0.8s,mb4.1						
ASAR	**Alice Springs**	31.21	123	P	P	12 23 00.3	0.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	31.21	123	P	P	12 23 00.3	0.0
	comp=Z,0.6nm,0.8s,mb3.5,baz=301,slow=8.1,SNR=5.1						
ODAN	**Odare**	39.03	334	eP	P	12 24 07.8	+0.3

TAPN	Taplejung	39.32	335	eP	P	12 24 10.0	+0.1
	comp=Z,7.5nm,0.5s,mb4.6						
RAMN	Ramite	39.46	333	eP	P	12 24 12.1	+1.0
	comp=Z,10nm,0.5s,mb4.8						
JIRN	Jiri	40.25	333	eP	P	12 24 18.0	+0.3
	comp=Z,12nm,0.5s,mb4.9						
PKIN	Phulchoki	40.55	332	eP	P	12 24 20.4	+0.3
	comp=Z,4.5nm,0.4s,mb4.5						
GUN	Gumba	40.61	333	eP	P	12 24 20.4	-0.2
	comp=Z,10nm,0.4s,mb4.9						
DMN	Daman	40.71	332	eP	P	12 24 22.1	+0.6
STKA	Stephens Creek	40.95	130	P	P	12 24 23.9	+0.5
	comp=Z,2.6nm,0.6s,mb4.1,baz=310,slow=8.1,SNR=5.3						
STKA				LR	LR	12 40 15.6	
	comp=Z,110nm,18.3s,MS3.8,baz=356,slow=35						
GKN	Gorkha	41.26	331	eP	P	12 24 26.1	+0.1
	comp=Z,18nm,0.5s,mb5.0						
KOLN	Koldanda	41.57	330	eP	P	12 24 29.1	+0.5
	comp=Z,34nm,0.7s,mb5.1						
DANN	Dangsing	41.97	331	eP	P	12 24 32.3	+0.5
	comp=Z,28nm,0.5s,mb5.1						
LZH	Lanzhou	44.05	358	eP	P	12 24 50.6	+2.1
LZH				pP	pP	12 25 00.8	+6.0
LZH				sP	sP	12 25 04.8	+7.6
LZH				ePP	PP	12 26 35.0	+3.5
LZH				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						
LZH				pmax	pmax		
	comp=Z,67nm,5.3s						
LZH				LR	LR		
	comp=N,150nm,14.3s						
LZH				LR	LR		
	comp=Z,200nm,17.8s,MS4.1						
GTA	Gaotai	47.64	354	eP	P	12 25 19.9	+3.1
GTA				pP	pP	12 25 32.0	+8.9
GTA				sP	sP	12 25 37.0	+11
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
HHC	Hu-ho-hao-te	49.09	6	eP	P	12 25 29.3	+1.3
HHC				pP	pP	12 25 38.9	+4.6
HHC				sP	sP	12 25 43.4	+6.7
HHC				PcS	PcS	12 30 46.3	-1.4
HHC				eS	S	12 32 32.3	+0.4
HHC				sS	sS	12 32 49.9	+7.6
HHC				ScS	ScS	12 35 15.4	-3.8
HHC				SS	SS	12 36 00.3	-3.2
HHC				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
HHC				pmax	pmax		
	comp=Z,210nm,5.6s						
HHC				LR	LR		
	comp=N,310nm,17.1s,MS4.5						
HHC				LR	LR		
	comp=E,240nm,16.7s,MS4.5						
HHC				LR	LR		
	comp=Z,180nm,14.3s,MS4.2						
WMQ	Urumqi	54.23	344	eP	P	12 26 07.0	+0.7
SONM	Songino Array	55.77	1	P	P	12 26 16.5	-0.9
SONM						12 27 15.6	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	55.77	1	P	P	12 26 16.5	-0.9
	comp=Z,1.1nm,0.8s,mb4.0,baz=180,slow=10,SNR=8.1						
SONM				PcP	PcP	12 27 15.6	-0.8
	comp=Z,0.5nm,0.5s,baz=182,slow=5.1,SNR=3.2						
ULN	Ulaanbaatar	55.81	1	eP	P	12 26 16.9	-0.8
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
ULN	Ulaanbaatar	55.81	1	eP	P	12 26 16.9	-0.8
	comp=Z,1.3nm,0.6s,mb4.1						
MKAR	Makanchi Array	58.52	341	P	P	12 26 36.2	-0.7
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	58.52	341	P	P	12 26 36.1	-0.7
	comp=Z,1.6nm,0.7s,mb4.2,baz=156,slow=8.4,SNR=27						
KURK	Kurchatov	63.12	341	eP	P	12 27 07.9	-0.3
KURK				e		12 27 19.1	
KURK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.5						
KURK	Kurchatov	63.12	341	eP	P	12 27 07.9	-0.3
	comp=Z,4.9nm,1.3s,mb4.5						
KURK				e		12 27 19.1	
ZALV	Zalesovo Beam	64.32	347	P	P	12 27 14.7	-1.3
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
ZALV	Zalesovo Beam	64.32	347	P	P	12 27 14.7	-1.3
	comp=Z,1.0nm,0.4s,mb4.2,baz=140,slow=7.2,SNR=7.0						
YAK	Yakutsk	72.45	12	iP	P	12 28 04.4	-2.3
YAK				pmax	pmax		
	comp=Z,28nm,2.5s,mb4.8						
TIXI	Tiksi	81.14	7⇑	iP	P	12 28 52.4	-3.2
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.2						
YKA	Yellowknife Ar	118.44	20	PKP	PKPdf	12 35 27.2	-0.7
	comp=Z,0.2nm,0.7s,baz=333,slow=1.7,SNR=5.8						
TXAR	Lajitas Array	145.41	49	PKIKP	PKPdf	12 36 19.5	+0.2
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TXAR	Lajitas Array	145.41	49	PKPbc	PKPbc	12 36 19.5	+0.3
	comp=Z,1.7nm,0.7s,baz=282,slow=1.0,SNR=23						
JCT	Junction City	147.51	44	ePKP2	PKPbc	12 36 25.3	-0.1
WVT	Waverly	149.60	22	ePKP2	PKPbc	12 36 29.8	-0.8

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*SKO **24** 12:21:40.7, 40°.19N×21°.87E, h0^{km}, M1.8, ML2.2*
*ISCJB **24** 12:21:41.9±0.7, 40°.31N±0°.04×21°.85E±0°.07, h10^{km}, Error ellipse: s-maj=7.7km s-min=5.3km az=158.4*
*CSEM **24** 12:21:41.7±0.4, 40°.37N×21°.90E, h10^{km}, ML2.2, Error ellipse: s-maj=10.0km s-min=7.3km az=69.0*
*THE **24** 12:21:41.4, 40°.44N×21°.87E, h7^{km}±17^{km}, ML2.5/4, Error ellipse: s-maj=17.8km s-min=0.8km az=358.0*
ISC 24 12:21:41.8±0.7, **40°.36N**±0°.05×**21°.87E**±0°.07, **h2**^{km}±7^{km}, **n20**, σ**1^{s}.27**/30, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.54	118	P	Pg	12 21 52.5	+0.4
LIT	Litokhoron	0.54	118	P	Pg	12 21 52.5	+0.4
FNA	Florina	0.57	319	P	Pg	12 21 50.9	-1.8
FNA	Florina	0.57	319	P	Pg	12 21 50.9	-1.8
GRG	Griva	0.72	34	P	Pg	12 21 53.9	-1.7
GRG	Griva	0.72	34	P	Pg	12 21 53.9	-1.7
MEV	Metsovon	0.76	221	P	Pg	12 21 57.0	+0.7
MEV	Metsovon	0.76	221	P	Pg	12 21 57.0	+0.7
BIA	Bitola	0.78	328	ePg	Pg	12 21 57.5	+0.8
BIA				eSg	Sg	12 22 10.0	+3.1
BIA				eLg		12 22 10.5	
	comp=E,8.4nm,0.3s						
BIA				eLg		12 22 11.2	
	comp=N,6.7nm,0.2s						
BIA	Bitola	0.78	328	ePg	Pg	12 21 57.5	+0.7
BIA				eSg	Sg	12 22 10.0	+3.1
THL	Klokotos Trika	0.80	172	P	Pg	12 21 57.7	+0.6
THL	Klokotos Trika	0.80	172	P	Pg	12 21 57.7	+0.6
VAY	Valandovo	1.10	29	ePg	Pn	12 22 02.6	-1.5
VAY				eSg	Sn	12 22 20.6	+0.7
VAY				eLg		12 22 20.8	
	comp=N,65nm,1.0s						
VAY				eLg		12 22 20.9	
	comp=E,41nm,0.9s						
VAY	Valandovo	1.10	29	ePg	Pn	12 22 02.6	-1.5
VAY				eSg	Sn	12 22 20.5	+0.6
OHR	Ohrid	1.11	313	ePg	Pn	12 22 02.7	-1.6
OHR				eSg	Sn	12 22 19.8	-0.4
OHR				eLg		12 22 21.2	
	comp=N,32nm,0.6s						
OHR				eLg		12 22 21.5	
	comp=E,29nm,0.6s						
OHR	Ohrid	1.11	313	ePg	Pn	12 22 02.6	-1.7
OHR				eSg	Sn	12 22 19.7	-0.4
KRUS	Krusevo	1.11	335	ePg	Pn	12 22 03.5	-0.9
KRUS				eSg	Sn	12 22 20.7	+0.4
KRUS				eLg		12 22 20.9	
	comp=N,5.4nm,0.5s						
KRUS				eLg		12 22 21.7	
	comp=E,9.7nm,0.8s						
KRUS	Krusevo	1.11	335	ePg	Pn	12 22 03.4	-1.0
KRUS				eSg	Sn	12 22 20.6	+0.3
STIP	Stip	1.36	10	ePg	Pn	12 22 08.5	+0.8
STIP				eSg	Sn	12 22 29.1	+2.8
STIP	Stip	1.36	10	ePg	Pn	12 22 08.4	+0.7
STIP				eSg	Sn	12 22 29.0	+2.8

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*CSEM **24** 12:52:06.4±0.5, 37°.35N×20°.76E, h2^{km}, ML2.6/1, Error ellipse: s-maj=10.3km s-min=5.4km az=62.0*
*ISCJB **24** 12:52:07.2±1.7, 37°.42N±0°.07×20°.70E±0°.09, h10^{km}, Error ellipse: s-maj=13.7km s-min=5.5km az=137.6*
*THE **24** 12:52:08.5, 37°.40N×20°.91E, h2^{km}±2^{km}, ML2.6/1, Error ellipse: s-maj=2.8km s-min=1.5km az=74.0*
*NEIC **24** 12:52:10.5, 37°.56N×20°.83E, h5^{km}, MD3.3(ATH), After ATH.*
*ATH **24** 12:52:10.5, 37°.56N×20°.83E, h5^{km}, MD3.3/4*
ISC 24 12:52:07.5±1.7, **37°.41N**±0°.07×**20°.70E**±0°.10, **h10**^{km}, **n27**, σ**1^{s}.20**/35, **Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.77	354	P	Pg	12 52 23.5	+1.2
VLS	Valsamata	0.77	354	ePB	Pg	12 52 23.4	+1.1
VLS				eSB	Sg	12 52 32.4	+0.1
VLS	Valsamata	0.77	354	ePb	Pg	12 52 23.4	+1.1
VLS				eSb	Sg	12 52 32.4	+0.1
RLS	Riolos of Patr	0.89	43	ePG	Pg	12 52 23.8	-0.8
RLS	Riolos of Patr	0.89	43	ePg	Pg	12 52 23.8	-0.8
PYL	PYLOS	0.98	121	P	Pg	12 52 23.9	-2.4
PYL	PYLOS	0.98	121	ePN	Pg	12 52 23.8	-2.5
PYL				eSN	Sg	12 52 32.7	-6.4
PYL	PYLOS	0.98	121	P	Pg	12 52 23.9	-2.4
PYL	PYLOS	0.98	121	ePn	Pg	12 52 23.8	-2.5
PYL				eSn	Sg	12 52 32.7	-6.4
ITM	Ithomi	1.01	103	ePN	Pg	12 52 29.4	+2.5
ITM				eSN	Sg	12 52 42.3	+2.3
ITM	Ithomi	1.01	103	ePn	Pg	12 52 29.4	+2.5
ITM				eSn	Sg	12 52 42.3	+2.3
LAKA	Lakka	1.31	50	P	Pn	12 52 31.2	-0.6
LAKA				S	Sb	12 52 47.8	-1.2
LAKA	Lakka	1.31	50	P	Pn	12 52 31.2	-0.6
LAKA				S	Sb	12 52 47.8	-1.2
VLX	Vlachokerasia	1.34	91	ePN	Pg	12 52 34.3	+1.1
VLX				eSN	Sg	12 52 50.8	+0.2
VLX	Vlachokerasia	1.34	91	ePn	Pg	12 52 34.3	+1.1
VLX				eSn	Sg	12 52 50.8	+0.2
TRIZ	Trizonia	1.45	48	P	Pn	12 52 33.3	-0.4
TRIZ	Trizonia	1.45	48	P	Pn	12 52 33.3	-0.4
KALE	Kalithea	1.50	49	P	Pn	12 52 34.3	-0.2
KALE	Kalithea	1.50	49	P	Pn	12 52 34.3	-0.2
EVR	Evrytania	1.74	30	ePB	Pb	12 52 40.5	+1.0
EVR	Evrytania	1.74	30	ePb	Pb	12 52 40.5	+1.0
VLI	Veliai	1.92	110	ePN	Pn	12 52 33.1	-7.1
VLI	Veliai	1.92	110	ePn	Pn	12 52 33.1	-7.1
AGG	Agios Georgios	2.06	38	ePN	Pg	12 52 46.6	-0.3
AGG	Agios Georgios	2.06	38	ePn	Pg	12 52 46.6	-0.3
KYTH	Kithira	2.19	120	ePN	Px	12 52 33.2	
KYTH	Kithira	2.19	120	ePn	Px	12 52 33.2	

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*IDC **24** 13:04:03.5±1.1, 36°.53N×23°.61E, h0^{km}, mb3.9/4, mb1 3.8/5, mb1mx3.6/23, mbtmp3.8/5, ML3.7/1, Error ellipse: s-maj=40.5km s-min=20.8km az=136.0*
*ISCJB **24** 13:04:04.9±0.4, 36°.96N±0°.02×22°.83E±0°.03, h10^{km}±3^{km}, mb3.8/4, Error ellipse: s-maj=4.5km s-min=3.7km az=150.8*
*NEIC **24** 13:04:05.1, 36°.97N×22°.85E, h16^{km}, ML3.4(ATH), After ATH.*
*ATH **24** 13:04:05.1, 36°.97N×22°.85E, h16^{km}±1^{km}, MD3.6/22, ML3.4*
*THE **24** 13:04:05.6, 36°.97N×22°.87E, h7^{km}±1^{km}, ML3.9/4, Error ellipse: s-maj=1.8km s-min=1.3km az=214.0*
*CSEM **24** 13:04:06.3±0.2, 36°.99N×22°.90E, h15^{km}, ML3.4, Error ellipse: s-maj=6.4km s-min=5.3km az=54.0*
*SKO **24** 13:04:22.5, 38°.29N×23°.03E, h0^{km}*
ISC 24 13:04:05.7±0.5, **36°.98N**±0°.02×**22°.86E**±0°.03, **h9**^{km}±3^{km}, **n102**, σ**1^{s}.00**/116, **mb3.8**/4, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLI	Veliai	0.27	167	ePB	Pg	13 04 10.9	-0.1
VLI				eSB	Sg	13 04 15.0	+0.4
VLI	Veliai	0.27	167	ePb	Pg	13 04 10.9	-0.1
VLI				eSb	Sg	13 04 15.0	+0.4
VLX	Vlachokerasia	0.55	315	ePN	Pg	13 04 16.3	0.0
VLX				eSN	Sg	13 04 23.6	+0.1
VLX	Vlachokerasia	0.55	315	ePn	Pg	13 04 16.3	0.0
KYTH	Kithira	0.71	169	ePN	Pg	13 04 19.1	-0.3
ITM	Ithomi	0.78	285	ePN	Pg	13 04 20.2	-0.4
ITM				eSN	Sg	13 04 30.0	-0.7
PYL	PYLOS	0.90	265	ePN	Pg	13 04 22.4	-0.6
PYL				eSN	Sg	13 04 34.0	-0.7
PYL	PYLOS	0.90	265	ePn	Pg	13 04 22.4	-0.6
NAIG	Nisos Aigina	0.92	32	ePN	Pg	13 04 23.2	-0.2
NAIG	Nisos Aigina	0.92	32	ePn	Pg	13 04 23.2	-0.2
GUR	Goura	1.04	337	ePN	Pg	13 04 24.6	-1.1
GUR	Goura	1.04	337	ePn	Pg	13 04 24.6	-1.1
LTK	Loutraki	1.04	5	P	Pg	13 04 25.3	-0.5
LTK				S	Sg	13 04 40.8	+1.5
LTK	Loutraki	1.04	5	ePN	Pg	13 04 25.9	+0.1
LTK	Loutraki	1.04	5	ePn	Pg	13 04 25.9	+0.1
LTK				S	Sg	13 04 40.8	+1.5
VLY	Voula,Athens	1.14	40	ePN	Pn	13 04 27.1	-0.8
VLY	Voula,Athens	1.14	40	ePn	Pn	13 04 27.1	-0.8
ATH	Athens Observa	1.20	34	ePN	Pn	13 04 28.4	-0.3
ATH	Athens Observa	1.20	34	ePn	Pn	13 04 28.4	-0.3
ATHU	Athens Univers	1.23	36	P	Pn	13 04 28.2	-0.8
ATHU				S	Sb	13 04 46.1	+1.1
ATHU	Athens Univers	1.23	36	P	Pn	13 04 28.2	-0.8
ATHU				S	Sb	13 04 46.1	+1.1
PTL	Penteli	1.33	36	ePN	Pn	13 04 29.7	-0.8
PTL	Penteli	1.33	36	ePn	Pn	13 04 29.7	-0.8
LAKA	Lakka	1.44	331	P	Pn	13 04 31.5	-0.5
LAKA				S	Sn	13 04 51.1	+0.1
LAKA	Lakka	1.44	331	P	Pn	13 04 31.5	-0.5
LAKA				S	Sn	13 04 51.1	+0.1
TRIZ	Trizonia	1.52	336	P	Pn	13 04 32.8	-0.2
TRIZ	Trizonia	1.52	336	P	Pn	13 04 32.8	-0.2
KALE	Kalithea	1.52	338	P	Pn	13 04 32.7	-0.4
KALE				S	Sn	13 04 53.9	+0.9
KALE	Kalithea	1.52	338	P	Pn	13 04 32.7	-0.4
KALE				S	Sn	13 04 53.9	+0.9
RLS	Riolos of Patr	1.55	315	ePN	Pn	13 04 34.0	+0.6
RLS	Riolos of Patr	1.55	315	ePn	Pn	13 04 34.0	+0.6
LKR	Lokris	1.67	4	P	Pn	13 04 34.7	-0.4
LKR	Lokris	1.67	4	ePN	Pn	13 04 35.3	+0.2
LKR	Lokris	1.67	4	P	Pn	13 04 34.7	-0.4
LKR	Lokris	1.67	4	ePn	Pn	13 04 35.3	+0.2
AGG	Agios Georgios	2.08	349	P	Pn	13 04 40.8	0.0
AGG	Agios Georgios	2.08	349	ePB	Pn	13 04 41.2	+0.4
AGG	Agios Georgios	2.08	349	P	Pn	13 04 40.8	0.0
THR4	Thira Island,	2.10	104	P	Pn	13 04 41.1	+0.1
THR4	Thira Island,	2.10	104	P	Pn	13 04 41.1	+0.1
VLS	Valsamata	2.17	304	ePn	Pn	13 04 43.8	+1.9
VLS				P		13 04 48.1	
VLS	Valsamata	2.17	304	ePn	Pn	13 04 43.8	+1.9
AOS	Alonnisos	2.33	20	P	Pn	13 04 43.4	-0.8
AOS	Alonnisos	2.33	20	P	Pn	13 04 43.4	-0.8
XOR	Xorichti	2.40	6	P	Pn	13 04 44.7	-0.4
XOR	Xorichti	2.40	6	P	Pn	13 04 44.7	-0.4
THL	Klokotos Trika	2.67	346	P	Pn	13 04 48.2	-0.6
THL	Klokotos Trika	2.67	346	ePN	Pn	13 04 49.9	+1.1
THL	Klokotos Trika	2.67	346	P	Pn	13 04 48.2	-0.6
THL	Klokotos Trika	2.67	346	ePn	Pn	13 04 49.9	+1.1
LAST	Lasithi	2.79	130	P	Pn	13 04 51.0	+0.5
LAST	Lasithi	2.79	130	P	Pn	13 04 51.0	+0.5
NPS	Neapolis	2.81	127	ePN	Pn	13 04 51.4	+0.6
NPS	Neapolis	2.81	127	ePn	Pn	13 04 51.4	+0.6
PAIG	Paliouri	3.01	12	P	Pn	13 04 52.8	-0.8
PAIG	Paliouri	3.01	12	P	Pn	13 04 52.8	-0.8
LIT	Litokhoron	3.13	355	P	Pn	13 04 55.6	+0.4
LIT	Litokhoron	3.13	355	P	Pn	13 04 55.6	+0.4
PLG	Polygyros	3.42	7	P	Pn	13 04 58.6	-0.6
PLG	Polygyros	3.42	7	ePN	Pn	13 04 59.0	-0.2
PLG	Polygyros	3.42	7	ePn	Pn	13 04 59.0	-0.2
KZN	Kozani	3.43	346	ePN	Pn	13 05 01.0	+1.7
KZN	Kozani	3.43	346	ePn	Pn	13 05 01.0	+1.7
OUR	Ouranopolis	3.46	14	P	Pn	13 04 59.3	-0.5
OUR	Ouranopolis	3.46	14	P	Pn	13 04 59.3	-0.5
KEK	Kerkira	3.64	320	ePN	Pn	13 05 03.5	+1.3
KEK	Kerkira	3.64	320	ePn	Pn	13 05 03.5	+1.3
KARP	Karpathos	3.76	111	ePN	Pn	13 05 05.1	+1.3
KARP	Karpathos	3.76	111	ePn	Pn	13 05 05.1	+1.3
SOH	Sokhos	3.86	6	ePN	Pn	13 05 06.6	+1.4
SOH	Sokhos	3.86	6	ePn	Pn	13 05 06.6	+1.4
ARG	Arkhangelos	4.30	99	P	Pn	13 05 16.2	+4.9
VAY	Valandovo	4.34	357	ePn	Pn	13 05 11.6	-0.3
VAY				eSg	Sn	13 05 59.4	-3.1
VAY	Valandovo	4.34	357	ePn	Pn	13 05 11.5	-0.3
KRUS	Krusevo	4.56	345	ePn	Pn	13 05 15.9	+1.1
KRUS	Krusevo	4.56	345	ePn	Pn	13 05 15.9	+1.1
TIR	Tirane	4.95	333	P	Pn	13 05 26.5	+6.4
TIP	Timpagrande	5.29	296	eP	Pn	13 05 26.4	+1.4
	10nm,0.7s						
TIP	Timpagrande	5.29	296	eP	Pn	13 05 26.4	+1.5
	10nm,0.7s						
CEL	Celeste	5.68	285	eP	Pn	13 05 30.5	+0.3
	9.5nm,0.4s						
CEL	Celeste	5.68	285	eP	Pn	13 05 30.5	+0.3
	9.5nm,0.4s						
SG1	Sgolgore (BA)	6.17	311	ePn	Pn	13 05 39.2	+2.2
SG1				eSn	Sn	13 06 45.2	-2.5
CUC	Castrocucco	6.29	301	eP	Pn	13 05 40.5	+1.8
	12nm,0.4s						
CUC	Castrocucco	6.29	301	eP	Pn	13 05 40.5	+1.9
	12nm,0.4s						
STON	Ston	7.10	328	ePn	Pn	13 05 48.3	-1.3
STON				Sn	Sn	13 07 05.0	-5.4
STON	Ston	7.10	328	ePn	Pn	13 05 48.3	-1.4
BBLS	Lazići	7.37	340	ePn	Pn	13 05 53.3	-0.1
NVLJ	Novalja	9.70	324	Sn	Sn	13 08 07.4	-7.0
GERES	GERESS Array B	13.61	333	Pn	Pn	13 07 27.9	+9.0
	0.1nm,0.3s,baz=152,slow=5.9,SNR=3.8						
TORD	Torodi Ar. Bea	30.37	224	P	P	13 10 18.1	+0.1
	0.7nm,0.6s,mb3.6,baz=31,slow=9.2,SNR=6.0						
DBIC	Dimbokro	39.35	227	P	P	13 11 35.9	+0.3
	1.3nm,0.5s,mb3.9,baz=34,slow=8.4,SNR=3.8						
DBIC	Dimbokro	39.35	227	P	P	13 11 35.8	+0.3
TIC	Toumodi	39.47	227	eP	P	13 11 35.8	-0.7
	45nm,1.1s						
KIC	Kosan Boka	39.53	226	eP	P	13 11 37.3	+0.2
	36nm,1.2s						
LIC	Lamto	39.81	227	eP	P	13 11 39.2	-0.2
	66nm,1.9s						
MK31	Makanchi Array	44.35	58	eP	P	13 12 13.0	-3.1
MKAR	Makanchi Array	44.35	58	P	P	13 12 13.3	-2.8
	0.5nm,0.5s,mb3.5,baz=272,slow=7.6,SNR=12						
MKAR	Makanchi Array	44.35	58	P	P	13 12 13.4	-2.7
ZALV	Zalesovo Beam	45.12	47	P	P	13 12 19.9	-2.2
	1.2nm,0.4s,mb4.0,baz=292,slow=9.4,SNR=5.3						
ZALV	Zalesovo Beam	45.12	47	P	P	13 12 19.9	-2.2
ASAR	Alice Springs	120.18	98	PKP	PKPdf	13 22 55.0	-2.3
	0.1nm,0.3s,baz=313,slow=1.7,SNR=4.3						
ASAR	Alice Springs	120.18	98	PKIKP	PKPdf	13 22 55.0	-2.3

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*ISCJB **24** 13:07:17.2±1.1, 15°.6S±0°.1×167°.3E±0°.2, h150^{km}, mb3.7/8, Error ellipse: s-maj=30.7km s-min=16.6km az=10.4*
*NEIC **24** 13:07:18.6±4.5, 15°.79S×168°.05E, h186^{km}±47^{km}, mb4.3/2, Error ellipse: s-maj=53.2km s-min=29.0km az=164.0*
*IDC **24** 13:07:39.6±13.0, 15°.74S×167°.00E, h345^{km}±118^{km}, mb3.2/8, mb1 3.4/8, mb1mx3.3/18, mbtmp3.2/8, Error ellipse: s-maj=70.6km s-min=45.8km az=89.0*
ISC 24 13:07:18.2±1.1, **15°.6S**±0°.1×**167°.4E**±0°.2, **h150**^{km}, **n12**, σ**0^{s}.94**/11, **mb3.7**/8, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.52	188	eP	Pn	13 08 51.1	-0.8
	27nm,0.6s						
CTA	Charters Tower	20.63	254	P	P	13 11 50.8	+4.8
	1.5nm,0.6s,baz=76,slow=12,SNR=4.7						
CTAO	Charters Tower	20.63	254	eP	P	13 11 51.0	+5.0
STKA	Stephens Creek	28.56	231	P	P	13 13 01.4	+1.4
	3.0nm,0.6s,mb4.2,baz=45,slow=11,SNR=10						
WRA	Warramunga Arr	31.76	257	P	P	13 13 28.0	-0.4
	0.8nm,0.7s,mb3.6,baz=86,slow=8.4,SNR=3.5						
ASAR	Alice Springs	32.51	250	P	P	13 13 35.2	+0.4
	2.1nm,0.6s,mb4.0,baz=80,slow=8.7,SNR=82						
ASAR				PcP	PcP	13 16 16.4	-1.9
	0.4nm,0.7s,baz=90,slow=3.0,SNR=5.0						
CMAR	Chiang Mai Arr	75.42	294	P	P	13 18 46.5	+0.5
	0.4nm,0.6s,mb3.2,baz=146,slow=4.9,SNR=4.4						
ULN	Ulaanbaatar	82.90	324	eP	P	13 19 25.6	-0.4
	1.0nm,0.4s,mb3.9						
SONM	Songino Array	83.25	324	P	P	13 19 27.0	-0.8
	0.3nm,0.3s,mb3.5,baz=165,slow=5.6,SNR=6.4						
MKAR	Makanchi Array	97.91	316	P	P	13 20 35.5	-1.3
	0.2nm,0.6s,mb3.7,baz=78,slow=7.2,SNR=2.9						
YKA	Yellowknife Ar	98.23	27	P	P	13 20 39.4	+1.5
	0.1nm,0.5s,mb3.5,baz=277,slow=3.7,SNR=3.3						
ARCES	ARCESS Array B	121.10	345	PKP	PKPdf	13 25 50.1	-2.3
	2.7nm,0.9s,baz=33,slow=2.2,SNR=3.6						

IDC 24 13:12:24.7±17.0, **17°.56S**×**178°.75W**, **h631**^{km}±234^{km}, **mb3.0**/6, **mb1 3.2**/6, **mb1mx3.0**/18, **mbtmp3.0**/6, **Error ellipse: s-maj=107.9km s-min=74.5km az=149.0**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	33.19	260	P	P	13 18 12.2	+0.3
	2.0nm,0.6s,baz=95,slow=8.8,SNR=5.2						
STKA	Stephens Creek	38.52	241	P	P	13 18 55.3	-0.2
	2.1nm,0.9s,baz=101,slow=5.2,SNR=4.8						
WRA	Warramunga Arr	44.38	259	P	P	13 19 41.7	+0.1
	0.9nm,0.4s,baz=95,slow=7.2,SNR=8.4						
ASAR	Alice Springs	44.58	254	P	P	13 19 43.1	+0.1
	4.6nm,0.6s,baz=88,slow=8.4,SNR=120						
TXAR	Lajitas Array	86.08	58	P	P	13 24 02.0	+1.4
	0.3nm,0.7s,baz=212,slow=4.4,SNR=4.1						
PDAR	Pinedale Array	87.32	44	P	P	13 24 05.2	-0.9
	0.3nm,0.6s,baz=208,slow=2.9,SNR=3.7						

CASC 24 13:49:20.4±1.6, **13°.23N**×**89°.26W**, **h54**^{km}±11^{km}, **MD3.9**, **2C-6D**, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LFRS	El Faro	0.44	26⇑	eP	Pn	13 49 31.4	+0.1
LFRS				eS	Sn	13 49 40.6	+1.5
SNET	Serv Nac Est T	0.46	3	eP	Pn	13 49 31.4	-0.2
SNET				eS	Sn	13 49 40.8	+1.3
BOQS	Boqueron	0.51	358⇑	iP	Pn	13 49 32.4	+0.4
BOQS				eS	Sn	13 49 42.5	+2.0
LFU	La Fuente	0.54	15	eP	Pn	13 49 32.9	+0.4
LBRS	Las Brisas	0.55	22⇓	eP	Pn	13 49 33.0	+0.4
SNVI	San Vicente	0.56	47	eP	Pn	13 49 32.7	0.0
SNVI				eS	Sn	13 49 42.8	+1.3
SBLS	San Blas	0.70	330⇓	eP	Pn	13 49 34.5	0.0
SNJE	San Jose	0.72	332⇓	eP	Pn	13 49 34.6	0.0
SNJE				eS	Sn	13 49 45.9	+0.9
RTR	El Retiro	0.77	331⇓	eP	Pn	13 49 35.4	+0.2
RTR				eS	Sn	13 49 47.4	+1.4
RBDL	Robledal	0.97	335⇓	eP	Pn	13 49 38.0	0.0
RBDL				eS	Sn	13 49 50.9	+0.1
VSM	San Miguel	0.98	78	eP	Pn	13 49 38.4	+0.4
BLLM	Bellamira	1.02	78	eP	Pn	13 49 38.6	+0.1
BLLM				eS	Sn	13 49 53.4	+1.6
CAHU	Cacacuatique	1.16	62	eP	Pn	13 49 40.3	-0.1
MTO2	Montecristo 2	1.17	355	eP	Pn	13 49 40.7	+0.1
MTO2				eS	Sn	13 49 56.5	+0.9
CNCH	Conchagua	1.39	88	eP	Pn	13 49 43.2	-0.2
CNCH				eS	Sn	13 50 02.8	+2.0
NBG	Las Nubes	1.72	322	eP	Pn	13 49 49.6	+1.6
MRL	Marmol	1.88	347⇓	eP	Pn	13 49 51.8	+1.6
FUG	Fuego 3	1.96	309	eP	Pn	13 49 52.9	+1.6
FUG				eS	Sn	13 50 17.1	+2.4
FG6		2.06	310	eP	Pn	13 49 53.8	+1.2
COPN	Copaltepe	2.80	111	eP	Pn	13 50 02.1	-0.7

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*IDC **24** 14:00:05.1±2.0, 8°.47N×103°.36W, h0^{km}, mb3.6/4, mb1 4.0/5, mb1mx3.8/18, mbtmp3.7/5, ML3.6/1, MS3.4/10, Ms1 3.4/10, ms1mx3.3/34, Error ellipse: s-maj=48.0km s-min=35.8km az=43.0*
*NEIC **24** 14:00:06.9±1.3, 8°.49N×103°.36W, h10^{km}, mb4.2/5, Error ellipse: s-maj=26.8km s-min=18.3km az=49.0*
ISC 24 14:00:12.9±1.8, **8°.7N**±0°.2×**103°.1W**±0°.2, **h35**^{km}, **n19**, σ**1^{s}.10**/11, **mb4.0**/8, **MS3.3**/7, **Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	11.57	43	Pn	Pn	14 02 54.5	-1.2
	0.4nm,0.3s,baz=221,slow=13,SNR=5.4						

CMIG				LR	LR	14 05 55.0	
	comp=Z,60nm,19.6s,baz=210,slow=29						
LPIG	La Paz	16.76	337	LR	LR	14 09 06.4	
	comp=Z,135nm,20.3s,baz=180,slow=32						
TEIG	Tepich	18.36	50	LR	LR	14 10 56.5	
	comp=Z,198nm,20.8s,baz=271,slow=35						
TXAR	Lajitas Array	20.51	359	P	P	14 04 49.5	+1.3
	1.7nm,0.8s,baz=180,slow=12,SNR=20						
TXAR				LR	LR	14 12 21.1	
	comp=Z,219nm,21.0s,MS3.5,baz=180,slow=36						
JCT	Junction City	21.87	8	*e*P	P	14 05 04.7	+1.9
	8.7nm,1.0s,mb4.1						
OTAV	Otavalo	25.99	108	*e*P	P	14 05 43.3	+0.5
	5.4nm,1.1s,mb4.0						
ROSC	El Rosal	28.85	96	LR	LR	14 16 13.0	
	comp=Z,30nm,20.1s,MS2.9,baz=209,slow=33						
ATAH	Atahualpa	29.19	122	LR	LR	14 15 34.6	
	comp=Z,111nm,20.0s,MS3.5,baz=249,slow=32						
SDV	Santo Domingo	32.12	87	P	P	14 06 37.4	+0.1
	1.5nm,0.7s,mb3.9,baz=231,slow=14,SNR=1.9						
SDV				LR	LR	14 17 11.5	
	comp=Z,49nm,19.0s,MS3.2,baz=293,slow=32						
HDIL	Hopedale	34.01	19	*e*P	P	14 06 54.0	+0.5
	8.2nm,0.7s,mb4.8						
BW06	Boulder Array	34.38	352	*e*P	P	14 06 56.4	-0.2
	1.7nm,0.8s,mb4.0						
PDAR	Pinedale Array	34.38	352	P	P	14 06 56.4	-0.3
	1.6nm,0.8s,mb4.0,baz=163,slow=7.1,SNR=12						
AGMN	Agassiz Refuge	39.92	8	*e*P	P	14 07 42.9	-0.7
	5.7nm,0.8s,mb4.3						
LVC	Limon Verde	45.75	133	LR	LR	14 23 09.7	
	comp=Z,55nm,18.8s,MS3.5,baz=287,slow=30						
CFAA	Coronel Fontan	52.17	142	LR	LR	14 26 51.7	
	comp=Z,5.4nm,18.4s,MS2.6,baz=351,slow=31						
YKA	Yellowknife Ar	54.32	353	P	P	14 09 33.2	-2.4
	0.2nm,0.6s,mb3.2,baz=163,slow=7.5,SNR=4.6						
YKA				LR	LR	14 32 06.0	
	comp=Z,102nm,19.7s,MS3.9,baz=345,slow=35						
YKA	Yellowknife Ar	54.32	353	P	P	14 09 33.2	-2.4
YKA				LR	LR	14 32 06.0	
MKAR	Makanchi Array	124.53	355	PKP	PKPdf	14 19 07.1	-1.6
	0.4nm,0.8s,baz=304,slow=2.6,SNR=2.7						
CMAR	Chiang Mai Arr	145.30	321	PKPbc	PKPbc	14 19 44.5	-3.3
	0.2nm,0.3s,baz=41,slow=1.8,SNR=3.0						

ISCJB ***24*** *14:13:32.5±0.3, 32°72N±0°02×115°90W±0°02, h11^{km}±2^{km}, Error ellipse: s-maj=2.9km s-min=2.4km az=177.9*
NEIC ***24*** *14:13:33.9, 32°66N×115°96W, h14^{km}, ML3.5(PAS), ML3.7(ECX), After PAS.*
ECX ***24*** *14:13:34.6±0.8, 32°70N×115°95W, h7^{km}, MD3.5, ML3.7*
ISC 24 14:13:33.0±0.2**, 32°71N**±0°02×**115°93W**±0°02**, h16**^{km}±2^{km}**, n60, σ0^{s}88**/89**, 28C-38D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUH	Yuha Desert	0.06	178	⇓*i*P	Pg	14 13 35.7	-0.3
YUH	Yuha Desert	0.06	178	⇓*e*P	Pg	14 13 35.8	-0.3
DVTC	Desert V Tower	0.16	251	⇓P	Pg	14 13 36.9	-0.1
	baz=0.1,SNR=1000						
DVTC				⇓S	Sg	14 13 39.6	-0.3
	baz=0.1						
DVTC	Desert V Tower	0.16	251	⇑*e*P	Pg	14 13 37.4	+0.4
RMX	La Rumorosa	0.17	231	⇓*i*P	Pg	14 13 37.4	+0.2
RMX				*e*S	Sg	14 13 39.4	-0.7
WESC	Westside Schoo	0.17	73	⇑*e*P	Pg	14 13 38.3	+1.0
SGL	Mount Signal	0.18	109	⇑*i*P	Pg	14 13 37.9	+0.5
CRR	Carrizo Plain	0.18	348	⇓*i*P	Pg	14 13 38.2	+0.7
COK	Cook Ranch	0.22	50	⇑*i*P	Pg	14 13 39.3	+1.3
SWSC	Sam W. Stewart	0.26	25	⇑P	Pg	14 13 38.6	0.0
	baz=0.3						
SWSC				⇑S	Sg	14 13 43.1	+0.6
	baz=0.3						
MONP	Monument Peak	0.45	294	⇓P	Pg	14 13 42.0	-0.1
	baz=0.5,SNR=559						
MONP				⇓S	Sg	14 13 48.5	+0.2
	baz=0.5						
CPBX	Cerro Prieto	0.60	119	⇓*e*P	Pg	14 13 45.5	+0.7
CPBX				*e*S	Sg	14 13 54.0	+1.2
CPBX	Cerro Prieto	0.60	119	⇓*e*P	Pg	14 13 45.5	+0.7
CPBX				*e*S	Sg	14 13 55.1	+2.3
BAR	Barrett	0.63	268	⇑*i*Pg	Pg	14 13 45.4	+0.1
BAR				*e*Sg	Sg	14 13 53.4	-0.3
COA	Coachella	0.69	77	⇓*i*P	Pg	14 13 47.1	+0.5
CBX	Cerro Bola	0.74	238	⇑*i*P	Pg	14 13 47.4	0.0
CBX				*e*S	Sg	14 13 57.0	-0.2
CBX				⇑*e*		14 13 58.1	
	comp=N,5µm,0.4s						
RDX	Rancho Dawling	0.78	181	⇓*i*P	Pb	14 13 47.8	-0.3
RDX				*e*S	Sb	14 13 58.0	-0.3
RDX				⇑*e*		14 13 58.4	
	comp=N,2µm,0.2s						
EMX	El Mayor	0.92	141	⇓*e*P	Pb	14 14 00.6	+10
EMX				*e*S	Sb	14 14 13.2	+11
GLA	Glamis	0.99	69	⇓P	Pb	14 13 51.2	-0.4
	baz=1.0,SNR=389						
GLA	Glamis	0.99	69	⇓*i*P	Pb	14 13 51.4	-0.2
GLA	Glamis	0.99	69	*e*Pg	Pg	14 13 51.3	-0.8
GLA				*e*Sg	Sg	14 14 05.0	0.0
PFO	Pinyon Flat Ob	1.00	334	⇓P	Pb	14 13 51.7	-0.2
	baz=1.0,SNR=465						
PFO	Pinyon Flat Ob	1.00	334	*e*Pg	Pg	14 13 51.4	-0.9
PFO				*e*Pn	Pn	14 13 52.8	+0.5
PFO				*e*Sg	Sg	14 14 06.1	+0.6
109C	Camp Elliot, M	1.01	281	⇓Pg	Pg	14 13 51.9	-0.6
	baz=1.0,SNR=687						
109C				⇑S	Sb	14 14 04.6	-0.4
	baz=1.0						
BC3	Big Chuckw Mtn	1.02	23	⇑P	Pb	14 13 52.1	-0.1
	baz=1.1,SNR=11						
BC3				⇑S	Sb	14 14 05.0	-0.4
	baz=1.1						
112A	Yuma	1.15	98	⇑P	Pn	14 13 53.4	-0.9
	baz=1.2,SNR=144						
112A				⇑S	Sb	14 14 07.9	-1.1
	baz=1.2						
PBX	Punta Banda	1.18	215	⇑*e*P	Pn	14 13 55.0	+0.3
PBX				*e*S	Sb	14 14 10.4	+0.6
PBX				⇑*e*		14 14 10.8	
	comp=N,2µm,0.2s						
ECNX	Esteban Cantu	1.19	209	⇑*e*P	Pn	14 13 55.1	+0.2
ECNX				⇑*e*P		14 13 52.7	
ECNX				*e*S	Sb	14 14 06.2	-4.1
ECNX				*e*S	Sb	14 14 10.5	+0.2
ECNX				*e*		14 14 12.8	
	comp=E,2µm,0.2s						
ECNX				⇑*e*		14 14 15.7	
	comp=N,2µm,0.4s						
BELC	Belle Mtn.	1.29	357	⇓Pb	Pb	14 13 56.2	-0.6
	baz=1.3,SNR=5.9						
BELC				⇓Pg	Pg	14 13 57.6	-0.2
	baz=1.3						
BELC				⇓S	Sb	14 14 12.0	-1.1
	baz=1.3						
MURC	Murrieta	1.39	310	⇓Pn	Pn	14 13 56.8	-0.8
	baz=1.4,SNR=76						
MURC				⇓Pg	Pg	14 13 59.2	-0.5
	baz=1.4						
MURC				⇓Sb	Sb	14 14 16.7	+0.7
	baz=1.4						
ECBX	El Chinero	1.44	149	*e*PN	Pn	14 14 07.6	+9.3
ECBX				*e*S	Sn	14 14 25.2	+8.4
Y12C	Blythe	1.57	48	⇓P	Pn	14 13 59.9	-0.2
	baz=1.6,SNR=47						
IRM	Iron Mountain	1.59	24	⇓Pb	Pb	14 14 01.4	-0.4
	baz=1.6,SNR=22						
SPX	San Pedro Mart	1.71	167	*e*PN	Pn	14 14 04.8	+2.8
SPX				*e*		14 14 28.7	
	comp=E,625nm,0.4s						
SPX				*e*		14 14 29.1	
	comp=N,461nm,0.2s						
BBRC	Big Bear Sol-O	1.76	332	⇓Pn	Pn	14 14 02.2	-0.5
	baz=1.8						
BBRC				⇓Pg	Pg	14 14 06.7	-0.1
	baz=1.8						
113A	Mohawk Valley,	1.82	88	⇓Pn	Pn	14 14 03.3	-0.3
	baz=1.8,SNR=135						
Z13A	Yuma Proving G	1.97	75	⇑Pn	Pn	14 14 05.1	-0.4
	baz=2.0						
Y13A	Salome	2.07	57	⇑Pn	Pn	14 14 06.4	-0.6
	baz=2.1,SNR=7.3						
GMRC	Granite Mounta	2.08	6	⇑Pg	Pg	14 14 12.8	0.0
	baz=2.1						
BFSC	Mount Baldy St	2.10	317	⇑Sb	Sb	14 14 37.6	+1.1
	baz=2.1						
CIS	Catalina Islan	2.19	289	⇓Pb	Pb	14 14 11.5	-0.7
	baz=2.2,SNR=45						
FMP	Fort Macarthur	2.22	297	⇓Sb	Sb	14 14 41.1	+1.2
	baz=2.2						
SCI	San Clemente I	2.22	278	⇑Pb	Pb	14 14 11.9	-0.8
	baz=2.2,SNR=8.5						
MWC	Mount Wilson	2.34	311	*e*Pg	Pg	14 14 15.7	-2.1
MWC				*e*Sg	Sg	14 14 45.5	-2.6
RRX	Edison Barstow	2.34	338	⇑Pg	Pg	14 14 17.2	-0.7
	baz=2.4						
LDFC	Landfair	2.46	16	*e*Pg	Pg	14 14 20.7	+0.6
DECC	Green Verdugo	2.53	308	⇓Sb	Sb	14 14 50.7	+1.9
	baz=2.5						
114A	Black Gap (USA	2.56	88	⇑Pn	Pn	14 14 13.3	-0.5
	baz=2.6,SNR=18						
GSC	Goldstone	2.69	344	*e*Pg	Pg	14 14 23.6	-0.9
EDW2	Edwards Air Fo	2.77	322	⇑Sb	Sb	14 14 57.6	+2.0
	baz=2.8						
X14A	Yava	3.08	54	⇓Pn	Pn	14 14 20.7	-0.2
	baz=3.1,SNR=52						
115A	Sonoran Desert	3.12	89	⇓Pn	Pn	14 14 21.3	-0.1
	baz=3.1,SNR=15						
Y15A	Casa Rosa Ranc	3.25	67	⇓Pn	Pn	14 14 23.7	+0.4
	baz=3.3,SNR=26						
BSC	Santa Cruz Isl	3.36	293	⇓Sb	Sb	14 15 13.7	+1.1
	baz=3.3						
ARVC	Arvin	3.41	316	⇓Sb	Sb	14 15 16.2	+2.0
	baz=3.4						
ISA	Isabella	3.62	325	*e*Pg	Pg	14 14 38.5	-3.9
ISA				*e*Sg	Sg	14 15 25.4	-4.0
U10A	Ash Meadows, A	3.72	355	⇓Pg	Pg	14 14 43.6	-0.5
	baz=3.8						
TUC	Tucson	4.36	94	Pn	Pn	14 14 36.7	-1.8
TUC				*e*Pg	Pg	14 14 56.9	+0.4
Y17A	Roosevelt	4.37	76	⇓Pn	Pn	14 14 38.0	-0.6
	baz=4.4,SNR=32						
WUAZ	Wupatki	4.70	52	*e*Pn	Pn	14 14 45.1	+2.0
WUAZ				*e*Pg	Pg	14 15 04.1	+1.2

ISCJB ***24*** *14:17:00.6±0.7, 76°95N±0°04×18°8E±0°2, h6^{km}±7^{km}, mb3.6/2, Error ellipse: s-maj=8.6km s-min=5.1km az=143.4*
CSEM ***24*** *14:17:02.2±0.2, 76°98N×18°74E, h5^{km}, ML3.2, Error ellipse: s-maj=6.3km s-min=3.2km az=58.0*
NAO ***24*** *14:17:02.1±1.0, 76°92N×18°97E, ML3.2*
BER ***24*** *14:17:06.3±3.4, 77°02N×19°18E, h15^{km}±30^{km}, MD2.5, ML3.2, ML3.2(NAO)*
IDC ***24*** *14:17:11.6±5.2, 76°53N×23°61E, h0^{km}, mb3.6/2, mb1 3.6/3, mb1mx3.2/23, mbtmp3.6/3, ML2.9/1, Error ellipse: s-maj=91.2km s-min=20.1km az=110.0*
ISC 24 14:17:02.8±0.6**, 76°98N**±0°04×**19°0E**±0°2**, h8**^{km}±7^{km}**, n18, σ0^{s}89**/28**, mb3.6**/2**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	0.78	274	*e*P	Pg	14 17 18.8	+1.1
HSP				*e*S	Sg	14 17 28.6	+0.9
SPA0	Spitsbergen Ar	1.33	336	Pg	Pg	14 17 27.9	-0.3
	baz=149,slow=16						
SPA0				Lg		14 17 45.8	
	baz=153,slow=28						
SPA0	Spitsbergen Ar	1.33	336	Pg	Pg	14 17 27.9	-0.3
	SNR=131						
SPA0				Lg		14 17 45.8	
	SNR=9.3						
HOPEN	Hopen	1.47	106	*e*P	Pn	14 17 29.4	-0.1
HOPEN				*e*Pg	Pg	14 17 31.9	+1.0
HOPEN				*e*Sg	Sg	14 17 50.1	+0.2
HOPEN				AML	AML	14 17 53.5	
	comp=Z,674nm,0.3s						
HOPEN	Hopen	1.47	106	*e*P	Pn	14 17 29.5	0.0
	SNR=134						
KBS	Kingsbay	2.45	326	Pn	Pn	14 17 42.8	-0.1
KBS				Pg	Pg	14 17 47.9	-1.7
KBS				Lg		14 18 18.7	
KBS	Kingsbay	2.45	326	*e*P	Pn	14 17 42.7	-0.2
KBS				*e*Pg	Pg	14 17 48.8	-0.7
KBS				*e*Sg	Sg	14 18 20.9	-0.4
KBS				AML	AML	14 18 24.0	
	comp=Z,343nm,0.2s						
KBS	Kingsbay	2.45	326	Pn	Pn	14 17 42.8	-0.1
KBS	Kingsbay	2.45	326	Pg	Pg	14 17 47.9	-1.7
KBS				Lg		14 18 18.7	
BJO	Bjornoya	2.49	179	*e*Pg	Pg	14 17 50.1	-0.3
BJO				*e*Sg	Sg	14 18 21.5	-1.2
BJO				AML	AML	14 18 24.6	
	comp=Z,210nm,0.4s						
BJO	Bjornoya	2.49	179	*e*Pg	Pg	14 17 50.1	-0.3
	SNR=111						
BJO				*e*Sg	Sg	14 18 21.5	-1.2
	comp=Z,210nm,0.4s,SNR=111						
KEV	Kevo	7.61	158	*e*p	Pn	14 18 54.3	+0.6
	comp=Z,0.8nm,0.3s						
KEV	Kevo	7.61	158	*e*P	Pn	14 18 54.3	+0.6
	comp=Z,0.8nm,0.3s						
ARA0	ARCESS Array S	7.71	163	Pn	Pn	14 18 55.0	-0.2
	baz=358,slow=12						
ARA0				Sn	Sn	14 20 14.5	-8.1
	baz=2.2,slow=22						
ARA0	ARCESS Array S	7.71	163	Pn	Pn	14 18 55.0	-0.2
	SNR=6.3						
ARCES	ARCESS Array B	7.71	163	Pn	Pn	14 18 54.9	-0.3
	comp=Z,0.3nm,0.3s,baz=352,slow=13,SNR=6.4						
ARCES				Sn	Sn	14 20 14.3	-8.2
	comp=Z,3.4nm,0.3s,baz=2.0,slow=19,SNR=13						
ZALV	Zalesovo Beam	32.81	96	P	P	14 23 34.6	-1.4
	comp=Z,0.6nm,0.4s,mb3.9,baz=315,slow=6.3,SNR=3.6						
MKAR	Makanchi Array	38.96	102	P	P	14 24 30.6	+1.9
	comp=Z,0.5nm,0.8s,mb3.3,baz=352,slow=7.4,SNR=6.0						

IDC 24 14:32:07.0±2.6**, 29°00S**×**178°87W, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.8**/14**, mbtmp3.8**/3**, Error ellipse: s-maj=157.3km s-min=14.7km az=10.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	0.87	107	Pn	Pn	14 32 25.9	-0.5
	160nm,0.3s,baz=70,slow=16,SNR=8.9						
RAO				Sn	Sg	14 32 41.8	+7.0
	626nm,0.3s,baz=105,slow=22,SNR=11						
STKA	Stephens Creek	34.08	255	P	P	14 38 53.3	+0.1
	1.9nm,0.7s,baz=104,slow=10.0,SNR=8.1						
ASAR	Alice Springs	42.44	266	P	P	14 40 03.4	-0.3
	0.3nm,0.4s,baz=106,slow=7.4,SNR=16						
WRA	Warramunga Arr	43.30	271	P	P	14 40 11.1	+0.3
	0.8nm,0.4s,baz=110,slow=7.8,SNR=3.7						

BJI ***24*** *14:40:25.9, 2°81S×99°94E, h27^{km}, mB5.3/29, mb5.1/52, Ms5.7/28, Ms7 5.4/27*
IDC ***24*** *14:40:26.3±0.5, 2°48S×99°87E, h0^{km}, mb4.8/21, mb1 4.9/23, mb1mx4.8/29, mbtmp4.8/23, ML4.3/2, MS3.3/1, Ms1 3.3/1, ms1mx3.2/38, Error ellipse: s-maj=20.9km s-min=11.8km az=54.0*
ISCJB ***24*** *14:40:29.0±0.3, 2°48S±0°03×99°86E±0°03, h28^{km}, mb5.1/88, MS5.5/10, Error ellipse: s-maj=5.7km s-min=4.0km az=43.2*
DJA ***24*** *14:40:29, 2°63S×99°69E, h27^{km}, mb5.1/4*
NEIC ***24*** *14:40:29.9±2.2, 2°47S×99°96E, h23^{km}±14^{km}, mb5.3/36, Error ellipse: s-maj=9.5km s-min=4.3km az=224.0*
NEIC Felt in Singapore.
MOS ***24*** *14:40:31.3±1.0, 2°25S×100°09E, h40^{km}, mb5.4/32, Error ellipse: s-maj=12.9km s-min=5.7km az=106.7*
SZGRF ***24*** *14:40:49.5, 1°97N×99°42E, h28^{km}, mb4.8, Northern Sumatera, Indonesia*
ISC 24 14:40:30.9±0.3**, 2°52S**±0°03×**99°86E**±0°03**, h29**^{km}**, h29**^{km}±.6^{km}**:pP-P, n228, σ0^{s}97**/213**, mb5.1**/88**, MS5.5**/10**, 12C-11D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.28	149	P	Pb	14 40 38.1	+0.1
SISI	Saibi	1.42	327	P	Pn	14 40 54.0	-0.7
PDSI	Padang	1.71	20	P	Pn	14 41 01.1	+2.4
PPI	Padang Panjang	2.12	15	P	Pn	14 41 04.7	+0.3
SDSI	Sungai Dareh	2.22	45	P	Pn	14 41 07.2	+1.4
KSI	Kapahiang	2.95	112	P	Pn	14 41 16.6	+0.8
RGRI	Rengat	3.28	49	P	Pn	14 41 21.6	+1.2
MNAI	Manna	3.59	121	P	Pn	14 41 24.6	0.0
GSI	Gunungsitoli	4.43	329	P	Pn	14 41 34.6	-1.7
MDSI	Maura Dua	4.73	114	P	Pn	14 41 41.5	+1.2
PSI	Prapat	5.37	350	⇓*e*P	Pn	14 41 46.8	-2.3
PSI	Prapat	5.37	350	Pn	Pn	14 41 45.8	-3.3
	2.5nm,0.3s,baz=155,slow=7.0,SNR=11						
PSI				LR	LR	14 43 01.0	
	comp=Z,328nm,21.8s,baz=56,slow=30						
KASI	Kota Agung	5.50	123	P	Pn	14 41 50.7	-0.2
	339nm,0.8s						
KGM	Kluang	5.68	37	P	Pn	14 41 54.5	+1.2
MYKOM	Kota Tinggi	5.85	43	P	Pn	14 41 57.6	+1.9
MYKOM	Kota Tinggi	5.85	43	P	Pn	14 41 56.7	+1.0
	290nm,0.9s						
FRIM	Kepong	5.98	17	P	Pn	14 41 58.8	+1.2
IPM	Ipoh	7.05	9	P	Pn	14 42 13.4	+1.2
IPM	Ipoh	7.05	9	P	Pn	14 42 13.3	+1.1
	96nm,0.8s						
TPI	Tanjungpandan	7.79	92	⇓*e*P	Pn	14 42 25.5	+3.2
TPI				*e*S	Sn	14 43 28.0	-22
TPI	Tanjungpandan	7.79	92	P	Pn	14 42 23.5	+1.2
KULM	Kulim	7.80	6	P	Pn	14 42 22.4	-0.1
KULM	Kulim	7.80	6	*e*Pn	Pn	14 42 21.3	-1.2
	53nm,0.8s						
KTGM	Kuala Trenggan	8.45	23	P	Pn	14 42 33.2	+1.7
KTGM	Kuala Trenggan	8.45	23	P	Pn	14 42 33.3	+1.8
SNG	Songkhla	9.66	4	P	Pn	14 42 47.0	-1.1
	1µm,1.0s						
SBUM	Sibu	13.30	68	P	Pn	14 43 40.9	+3.0
KKM	Kota Kinabalu	18.41	62	P	Pn	14 44 44.7	+0.5
KKM	Kota Kinabalu	18.41	62	*e*P	Pn	14 44 44.0	-0.2
	65nm,0.9s						
TSM	Tawau	19.23	69	P	Pn	14 44 53.8	-0.3
KDM	Kudat	19.36	61	P	Pn	14 44 55.3	-0.4
KAPI	Kappang	20.00	98	P	Pn	14 45 00.6	-2.6
	439nm,1.2s,SNR=6.2						
KAPI	Kappang	20.00	98	P	Pn	14 44 58.9	-4.3
	2.9nm,0.3s,baz=286,slow=12,SNR=13						
CMAR	Chiang Mai Arr	20.87	358	P	P	14 45 08.3	-2.4
	25nm,0.9s,baz=186,slow=9.6,SNR=121						
CHTO	Chiang Mai	21.22	358	*e*P	P	14 45 12.6	-1.9
CHTO				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.5						
CHTO	Chiang Mai	21.22	358	*e*P	P	14 45 12.6	-1.9
	comp=Z,20nm,0.8s,mb4.5						
CHRT	Chiangrai	22.25	360	⇑P	P	14 45 24.0	-1.6
	comp=Z,210nm,0.8s,mb5.6						
KDI	Kendari	22.76	94	⇓*e*P	P	14 45 30.7	-0.4
KDI				*e*S	S	14 49 35.6	-3.0
QIZ	Qiongzhong	23.56	24	P	P	14 45 37.0	-2.2
QIZ				*e*S	S	14 49 42.6	-8.8
QIZ				pmax	pmax		
	comp=Z,31nm,1.1s,mb4.7						
KMI	Kunming	27.62	6	P	P	14 46 16.8	+0.8
KMI				pP	pP	14 46 26.0	+1.5
KMI				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.6						
GYA	Guiyang	29.55	12	⇑*i*P	P	14 46 35.4	+2.2
GYA				pP	pP	14 46 42.1	+0.4
GYA				sP	sP	14 46 46.8	+1.5
GYA				PP	PP	14 47 32.1	-8.1
GYA				S	S	14 51 27.8	+1.5
GYA				sS	sS	14 51 40.0	-0.4
GYA				SS	SS	14 53 02.3	-30
GYA				ScP	ScP	14 53 19.8	+1.8
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,220nm,4.9s						
GYA				LR	LR		
	comp=N,5µm,16.9s,MS5.3						
GYA				LR	LR		
	comp=E,3µm,15.6s,MS5.3						
GYA				LR	LR		
	comp=Z,6µm,16.2s,MS5.3						
FITZ	Fitzroy Crossi	29.64	123	*e*P	P	14 46 33.8	-0.3
	comp=Z,18nm,0.8s,mb4.9						
FITZ	Fitzroy Crossi	29.64	123	P	P	14 46 33.7	-0.4
	comp=Z,10.0nm,0.8s,mb4.6,baz=285,slow=6.2,SNR=11						
FITZ	Fitzroy Crossi	29.64	123	*e*P	P	14 46 33.6	-0.5
	comp=Z,13nm,0.9s,mb4.7						
ODAN	Odare	31.59	338	*e*P	P	14 46 51.9	+0.7
	comp=Z,45nm,0.7s,mb5.4						
TAPN	Taplejung	31.93	339	*e*P	P	14 46 55.3	+1.2
	comp=Z,150nm,0.9s,mb5.8						
RAMN	Ramite	31.97	337	*e*P	P	14 46 55.8	+1.2
	comp=Z,43nm,0.8s,mb5.3						
JIRN	Jiri	32.77	337	*e*P	P	14 47 02.6	+1.1
	comp=Z,86nm,0.8s,mb5.7						
PKI	Pulchoki	33.00	336	*e*P	P	14 47 03.8	+0.3
	comp=Z,7.9nm,0.5s,mb4.9						
PKI	Pulchoki	33.00	336	*e*P	P	14 47 04.1	+0.6
PKI				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
PKI	Pulchoki	33.00	336	*e*P	P	14 47 04.1	+0.6
	comp=Z,9.1nm,0.6s,mb4.9						
PKIN	Phulchoki	33.01	336	*e*P	P	14 47 04.1	+0.5
	comp=Z,9.1nm,0.6s,mb4.9						
LSA	Lhasa	33.11	346	P	P	14 47 05.8	+1.4
LSA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
LSA	Lhasa	33.11	346	*e*P	P	14 47 04.9	+0.5
LSA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.2						
LSA	Lhasa	33.11	346	*e*P	P	14 47 04.9	+0.5
	comp=Z,28nm,0.9s,mb5.2						
GUN	Gumba	33.11	337	*e*P	P	14 47 05.2	+0.7
	comp=Z,89nm,0.7s,mb5.8						
DMN	Daman	33.16	336	*e*P	P	14 47 05.2	+0.3
	comp=Z,36nm,0.9s,mb5.3						
KKN	Kakani	33.25	336	*e*P	P	14 47 06.1	+0.4
	comp=Z,48nm,0.8s,mb5.5						
KKN	Kakani	33.25	336	*e*P	P	14 47 06.1	+0.4
KKN				pmax	pmax		
	comp=Z,48nm,0.8s,mb5.5						
CD2	Chengdu	33.45	6	P	P	14 47 06.6	-0.8
CD2				pP	pP	14 47 14.0	-2.0
CD2				sP	sP	14 47 17.3	-2.3
CD2				PP	PP	14 48 19.4	-4.1
CD2				S	S	14 52 26.6	-0.6
CD2				sS	sS	14 52 38.8	-2.6
CD2				SS	SS	14 54 31.6	-21
CD2				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
CD2				pmax	pmax		
	comp=Z,240nm,5.9s						
CD2				LR	LR		
	comp=N,4µm,16.9s						
CD2				LR	LR		
	comp=Z,3µm,15.3s,MS5.2						
GKN	Gorkha	33.70	335	*e*P	P	14 47 09.9	+0.3
	comp=Z,15nm,0.4s,mb5.3						
KOLN	Koldanda	33.94	334	*e*P	P	14 47 12.3	+0.5
	comp=Z,42nm,1.0s,mb5.3						
DANN	Dangsing	34.38	334	*e*P	P	14 47 16.0	+0.5
	comp=Z,38nm,0.5s,mb5.6						
WHN	Wuhan	35.67	22	⇑P	P	14 47 26.0	-0.6
WHN				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.4						
XAN	Xi’an	37.35	12	P	P	14 47 39.6	-1.4
XAN				pP	pP	14 47 50.6	+1.0
XAN				sP	sP	14 47 54.5	+1.4
XAN				PP	PP	14 49 07.4	+0.8
XAN				S	S	14 53 28.5	+1.4
XAN				sS	sS	14 53 43.6	+2.3
XAN				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.4						
XAN				pmax	pmax		
	comp=Z,180nm,9.8s						
XAN				LR	LR		
	comp=N,5µm,19.8s,MS5.6						
XAN				LR	LR		
	comp=E,7µm,18.9s,MS5.6						
XAN				LR	LR		
	comp=Z,8µm,19.6s,MS5.5						
WRA	Warramunga Arr	37.85	120	P	P	14 47 45.3	-0.1
	comp=Z,56nm,0.7s,mb5.4,baz=298,slow=9.5,SNR=129						
WRA				PcP	PcP	14 50 02.1	+0.5
	comp=Z,3.3nm,0.8s,baz=303,slow=2.3,SNR=5.3						
WRAB	Tennant Creek	37.86	120	P	P	14 47 44.9	-0.6
	comp=Z,551nm,0.5s,SNR=8.4						
WRAB	Tennant Creek	37.86	120	*e*P	P	14 47 44.3	-1.2
WRAB				pmax	pmax		
	comp=Z,48nm,0.6s,mb5.4						
WRAB	Tennant Creek	37.86	120	*e*P	P	14 47 44.3	-1.1

	comp=Z,48nm,0.6s,mb5.4						
LZH	**Lanzhou**	**38.59**	**5**	*e*P	**P**	**14 47 51.3**	**0.0**
LZH				pP	pP	14 48 01.1	+1.1
LZH				sP	sP	14 48 05.0	+1.5
LZH				PP	PP	14 49 24.3	+4.2
LZH				*e*S	**S**	**14 53 45.5**	**-0.2**
LZH				sS	sS	14 54 01.3	+1.3
LZH				SS	SS	14 56 26.8	-10
LZH				pmax	pmax		
	comp=Z,69nm,1.3s,mb5.2						
LZH				pmax	pmax		
	comp=Z,220nm,5.0s						
LZH				LR	LR		
	comp=E,900nm,13.2s						
LZH				LR	LR		
	comp=Z,1µm,17.5s,MS4.8						
NJ2	**Nanjing**	**38.82**	**26**	*e*P	**P**	**14 47 53.5**	**+0.1**
NJ2				pP	pP	14 48 03.8	+1.8
NJ2				sP	sP	14 48 06.9	+1.3
NJ2				PP	PP	14 49 28.3	+5.6
NJ2				S	**S**	**14 53 47.5**	**-1.9**
NJ2				sS	sS	14 54 05.0	+1.3
NJ2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
NJ2				pmax	pmax		
	comp=Z,480nm,4.4s						
NJ2				LR	LR		
	comp=N,24µm,31.0s						
NJ2				LR	LR		
	comp=E,12µm,23.4s						
NJ2				LR	LR		
	comp=Z,12µm,29.9s,MS5.5						
ASAR	**Alice Springs**	**39.06**	**125**	P	**P**	**14 47 55.3**	**-0.2**
	comp=Z,17nm,0.5s,mb5.0,baz=302,slow=7.4,SNR=118						
ASAR				PcP	PcP	14 50 06.2	+0.8
	comp=Z,3.1nm,0.8s,baz=296,slow=2.3,SNR=5.2						
GTA	**Gaotai**	**41.73**	**360**	⇑P	**P**	**14 48 17.6**	**+0.3**
GTA				pP	pP	14 48 25.0	-1.0
GTA				sP	sP	14 48 28.4	-1.2
GTA				PP	PP	14 49 57.6	+3.4
GTA				PcP	PcP	14 50 14.6	+1.1
GTA				S	**S**	**14 54 33.4**	**+0.9**
GTA				sS	sS	14 54 45.8	-1.1
GTA				SS	SS	14 57 34.3	-4.7
GTA				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.7						
GTA				pmax	pmax		
	comp=Z,210nm,4.8s						
GTA				LR	LR		
	comp=N,7µm,18.3s,MS5.7						
GTA				LR	LR		
	comp=E,8µm,21.6s,MS5.7						
GTA				LR	LR		
	comp=Z,7µm,18.3s,MS5.6						
HHC	**Hu-ho-hao-te**	**44.47**	**13**	*e*P	**P**	**14 48 39.8**	**+0.3**
HHC				pP	pP	14 48 49.6	+1.4
HHC				sP	sP	14 48 54.3	+2.5
HHC				PP	PP	14 50 24.3	+0.7
HHC				PcS	PcS	14 54 14.9	-1.0
HHC				*e*S	**S**	**14 55 11.8**	**-0.9**
HHC				sS	sS	14 55 27.9	+0.7
HHC				SS	SS	14 58 22.3	-10
HHC				ScS	ScS	14 58 33.3	-2.3
HHC				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.0						
HHC				pmax	pmax		
	comp=Z,290nm,5.4s						
HHC				LR	LR		
	comp=N,1µm,16.5s,MS5.1						
HHC				LR	LR		
	comp=E,2µm,18.7s,MS5.1						
HHC				LR	LR		
	comp=Z,950nm,22.6s,MS4.7						
BJT	**Baijiatuau**	**44.90**	**18**	*e*P	**P**	**14 48 43.0**	**+0.1**
BJT				pmax	pmax		
	comp=Z,64nm,0.8s						
BJT	**Baijiatuau**	**44.90**	**18**	*e*P	**P**	**14 48 43.0**	**+0.1**
	comp=Z,64nm,0.8s,mb5.5						
BJI	**Beijing**	**44.92**	**18**	P	**P**	**14 48 43.1**	**0.0**
BJI				pmax	pmax		
	comp=Z,99nm,1.9s,mb5.3						
DL2	**Dalian**	**45.84**	**24**	P	**P**	**14 48 50.4**	**-0.1**
DL2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
KSH	**Kashi**	**47.24**	**335**	P	**P**	**14 49 00.6**	**-0.8**
KSH				*e*pP	pP	14 49 08.1	-2.1
KSH				*e*sP	sP	14 49 11.3	-2.4
KSH				*e*PcP	PcP	14 50 33.1	+0.7
KSH				*e*PP	PP	14 50 50.8	-1.9
KSH				*e*ScP	ScP	14 54 23.8	-0.8
KSH				*e*PcS	PcS	14 54 26.6	-0.9
KSH				*e*S	**S**	**14 55 49.8**	**-2.9**
KSH				*e*ScS	ScS	14 58 50.8	-2.8
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
KSH				pmax	pmax		
	comp=Z,340nm,3.6s						
KSH				LR	LR		
	comp=N,2µm,6.4s						
KSH				LR	LR		
	comp=E,2µm,5.3s						
KSH				LR	LR		
	comp=Z,3µm,9.1s						
WMQ	**Urumqi**	**47.41**	**348**	P	**P**	**14 49 03.8**	**+1.2**
WMQ				pP	pP	14 49 12.0	+0.5
WMQ				sP	sP	14 49 17.0	+2.0
WMQ				PcP	PcP	14 50 34.0	+1.1
WMQ				*e*S	**S**	**14 55 55.0**	**0.0**
WMQ				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.4						
WMQ				pmax	pmax		
	comp=Z,190nm,4.4s						
WMQ				LR	LR		
	comp=N,5µm,19.4s						
WMQ				LR	LR		
	comp=E,12µm,26.8s						
WMQ				LR	LR		
	comp=Z,4µm,22.8s,MS5.4						
KSRS	**Korea Array**	**47.53**	**30**	P	**P**	**14 49 03.2**	**-0.5**
	comp=Z,25nm,0.8s,mb5.3,baz=223,slow=8.3,SNR=70						
KSRS				PcP	PcP	14 50 33.5	-0.1
	comp=Z,2.8nm,0.9s,baz=252,slow=3.2,SNR=4.2						
CTA	**Charters Tower**	**48.50**	**115**	*e*P	**P**	**14 49 11.1**	**-0.4**
	comp=Z,24nm,0.9s,mb5.2						
CTAO	**Charters Tower**	**48.50**	**115**	*e*P	**P**	**14 49 10.8**	**-0.7**
CTAO				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
CTAO	**Charters Tower**	**48.50**	**115**	*e*P	**P**	**14 49 10.8**	**-0.7**
	comp=Z,40nm,1.0s,mb5.4						
STKA	**Stephens Creek**	**48.91**	**131**	*e*P	**P**	**14 49 15.3**	**+0.8**
	comp=Z,9.2nm,0.4s,mb5.2						
STKA	**Stephens Creek**	**48.91**	**131**	P	**P**	**14 49 15.1**	**+0.6**
	comp=Z,11nm,0.4s,mb5.2,baz=299,slow=7.4,SNR=38						
STKA	**Stephens Creek**	**48.91**	**131**	P	**P**	**14 49 15.1**	**+0.6**
ULHL	**Ulahol**	**49.43**	**337**	P	**P**	**14 49 19.0**	**+0.8**
	SNR=7.1						
KZA	**Kyzart**	**49.68**	**336**	P	**P**	**14 49 21.4**	**+1.2**
	SNR=8.7						
UCH	**Uchtor**	**50.11**	**336**	P	**P**	**14 49 24.1**	**+0.7**
	SNR=12						
UCH	**Uchtor**	**50.11**	**336**	*e*P	**P**	**14 49 23.9**	**+0.4**
	comp=Z,1µm,1.0s						
UCH				*e*	pP	14 49 31.5	-0.8
TKM2	**Tokmak 2**	**50.25**	**337**	*e*P	**P**	**14 49 24.7**	**+0.2**
TKM2				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.6						
TKM2	**Tokmak 2**	**50.25**	**337**	P	**P**	**14 49 25.2**	**+0.8**
	SNR=28						
TKM2	**Tokmak 2**	**50.25**	**337**	*e*P	**P**	**14 49 24.6**	**+0.2**
	comp=Z,47nm,0.8s,mb5.6						
KBK	**Karagaybulak**	**50.29**	**336**	P	**P**	**14 49 26.1**	**+1.3**
	SNR=15						
AML	**Almayashu**	**50.38**	**335**	P	**P**	**14 49 26.5**	**+1.0**
	SNR=18						
AML	**Almayashu**	**50.38**	**335**	*e*P	**P**	**14 49 26.2**	**+0.8**
	comp=Z,145nm,0.7s,mb6.1						
AML				*e*	pP	14 49 33.6	-0.7
AAK	**Ala-Archa**	**50.45**	**336**	*e*P	**P**	**14 49 26.3**	**+0.3**
AAK				*e*	pP	14 49 34.1	-0.8
AAK				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
AAK	**Ala-Archa**	**50.45**	**336**	P	**P**	**14 49 34.5**	**+8.5**
	SNR=5.3						
AAK	**Ala-Archa**	**50.45**	**336**	P	**P**	**14 49 27.0**	**+0.9**
	comp=Z,2.7nm,0.6s,mb4.5,baz=142,slow=5.3,SNR=12						
AAK	**Ala-Archa**	**50.45**	**336**	*e*P	**P**	**14 49 26.2**	**+0.2**
	comp=Z,12nm,0.8s,mb5.0						
AAK				*e*	pP	14 49 34.1	-0.8
SONM	**Songino Array**	**50.47**	**6**	P	**P**	**14 49 26.6**	**+0.6**
	comp=Z,60nm,0.8s,mb5.7,baz=186,slow=8.7,SNR=294						
SONM				PcP	PcP	14 50 44.2	+0.3
	comp=Z,9.0nm,1.0s,baz=188,slow=3.5,SNR=4.6						
ULN	**Ulaanbaatar**	**50.57**	**6**	*e*P	**P**	**14 49 26.3**	**-0.5**
ULN				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.5						
ULN	**Ulaanbaatar**	**50.57**	**6**	*e*P	**P**	**14 49 26.3**	**-0.5**
	comp=Z,55nm,0.9s,mb5.5						
FRU	**Bishkek**	**50.57**	**336**	*e*P	**P**	**14 49 27.8**	**+0.9**
CHMS	**Chumysh**	**50.66**	**336**	P	**P**	**14 49 27.9**	**+0.4**
	SNR=7.8						
EKS2	**Erkin-Say**	**50.77**	**335**	P	**P**	**14 49 29.5**	**+1.0**
	SNR=31						
EKS2	**Erkin-Say**	**50.77**	**335**	*e*P	**P**	**14 49 29.3**	**+0.9**
	comp=Z,36nm,0.7s,mb5.4						
EKS2				*e*	pP	14 49 36.8	-0.5
USP	**Ospenovka**	**50.98**	**336**	P	**P**	**14 49 30.4**	**+0.5**
	SNR=26						
MKAR	**Makanchi Array**	**51.49**	**345**	P	**P**	**14 49 34.0**	**+0.3**
	comp=Z,26nm,0.7s,mb5.3,baz=148,slow=8.2,SNR=367						
CN2	**Changchun**	**51.52**	**24**	⇑*i*P	**P**	**14 49 33.0**	**-1.0**
CN2				*e*pP	pP	14 49 40.1	-2.8
CN2				PcP	PcP	14 50 47.1	-0.8
CN2				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.5						
MAT	**Matsushiro**	**52.76**	**39**	P	**P**	**14 49 41.9**	**-1.5**
MJAR	**Matsushiro Arr**	**52.76**	**39**	P	**P**	**14 49 42.3**	**-1.1**
	comp=Z,20nm,1.1s,mb5.0,baz=219,slow=7.8,SNR=18						
ZAK	**Zakamensk**	**52.78**	**3**	*e*P	**P**	**14 49 43.7**	**+0.5**
ZAK				*e*		14 50 52.8	
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
MDJ	**Mudanjiang**	**53.91**	**26**	P	**P**	**14 49 51.6**	**-0.1**
MDJ				pP	pP	14 49 57.4	-3.2
MDJ				sP	sP	14 50 00.8	-3.3
MDJ				PP	PP	14 51 50.9	-2.3
MDJ				ScP	ScP	14 54 53.6	+0.5
MDJ				PcS	PcS	14 54 56.1	+0.1
MDJ				S	**S**	**14 57 25.1**	**-0.1**
MDJ				SS	SS	15 01 09.9	+3.0
MDJ				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
MDJ				pmax	pmax		
	comp=Z,240nm,4.9s						
MDJ				LR	LR		
	comp=N,36µm,22.3s						
MDJ				LR	LR		
	comp=E,24µm,16.1s						
MDJ				LR	LR		
	comp=Z,32µm,21.2s,MS6.3						
MDJ	**Mudanjiang**	**53.91**	**26**	*e*P	**P**	**14 49 51.8**	**+0.1**
	comp=Z,29nm,1.0s,mb5.2						
MOY	**Mondy**	**53.99**	**1**	*e*P	**P**	**14 49 52.6**	**+0.5**
TLY	**Talaya**	**54.09**	**3**	P	**P**	**14 49 53.0**	**+0.1**
	comp=Z,70nm,0.9s,mb5.6,SNR=9.0						
TLY	**Talaya**	**54.09**	**3**	*e*P	**P**	**14 49 53.4**	**+0.5**
TLY				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
EIDS	**Eidsvold**	**54.22**	**120**	*e*P	**P**	**14 49 54.3**	**0.0**
	comp=Z,7.9nm,0.7s,mb4.8						
HIA	**Hailar**	**54.38**	**16**	*e*P	**P**	**14 49 54.2**	**-0.8**
HIA				pmax	pmax		
	comp=Z,30nm,1.0s						
HIA	**Hailar**	**54.38**	**16**	*e*P	**P**	**14 49 54.2**	**-0.7**
	comp=Z,30nm,1.0s,mb5.2						
IRK	**Irkutsk**	**54.69**	**3**	*e*P	**P**	**14 49 55.0**	**-2.2**
IRK				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.1						
KURK	**Kurchatov**	**56.07**	**344**	P	**P**	**14 50 07.9**	**+0.8**
	comp=Z,207nm,0.9s,mb6.2,SNR=26						
KURK	**Kurchatov**	**56.07**	**344**	*e*P	**P**	**14 50 06.8**	**-0.3**
KURK				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.4						
KURK	**Kurchatov**	**56.07**	**344**	P	**P**	**14 50 06.5**	**-0.7**
	comp=Z,17nm,0.9s,mb5.1,baz=157,slow=7.2,SNR=7.5						
KURK	**Kurchatov**	**56.07**	**344**	*e*P	**P**	**14 50 06.8**	**-0.3**
	comp=Z,34nm,0.9s,mb5.4						
ZALV	**Zalesovo Beam**	**57.65**	**350**	P	**P**	**14 50 18.1**	**-0.2**
	comp=Z,44nm,0.8s,mb5.5,baz=164,slow=6.0,SNR=84						
KLR	**Kul'dur**	**58.46**	**24**	*e*P	**P**	**14 50 19.8**	**-4.3**
KLR				pmax	pmax		
	comp=Z,85nm,1.6s,mb5.5						
NVS	**Novosibirsk**	**58.80**	**349**	⇑*i*P	**P**	**14 50 25.1**	**-1.2**
NVS				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
NVS				pmax	pmax		
	comp=N,14nm,1.3s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.0s						
HABR	**Khabarovsk**	**59.29**	**26**	P	**P**	**14 50 26.8**	**-3.0**
HABR				*e**PP	pP	14 50 36.4	-2.5
HABR				*e*		14 51 14.5	
HABR				*e*		14 52 37.4	
HABR				S	**S**	**14 58 32.4**	**-3.8**
HABR				*e*		15 00 13.5	
HABR				*e*SS	SS	15 02 27.8	-3.5
HABR				pmax	pmax		
	comp=N,18nm,1.6s						
HABR				pmax	pmax		
	comp=E,17nm,1.4s						
HABR				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
BVAR	**Borovoye Array**	**60.62**	**340**	P	**P**	**14 50 37.6**	**-1.3**
	comp=Z,5.9nm,0.7s,mb4.8,baz=145,slow=9.0,SNR=2.1						
BRVK	**Borovoye**	**60.69**	**340**	*e*P	**P**	**14 50 38.4**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.2						
BRVK	**Borovoye**	**60.69**	**340**	*e*P	**P**	**14 50 38.4**	**-1.0**
	comp=Z,16nm,0.8s,mb5.2						
BRVK				*e*		14 50 44.7	
BOD	**Bodaibo**	**61.21**	**9**	*e*P	**P**	**14 50 42.4**	**-0.4**
BOD				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.2						
YSS	**Yuzh-Sakhalins**	**61.99**	**32**	*e*P	**P**	**14 50 48.0**	**-0.3**
YSS				*e*	pP	14 50 56.5	-0.9
YSS				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.8						
YSS	**Yuzh-Sakhalins**	**61.99**	**32**	*e*P	**P**	**14 50 48.1**	**-0.2**
	comp=Z,41nm,0.9s,mb5.6						
YSS				*e*	pP	14 50 56.8	-0.6
CLNS	**Chul'man**	**62.55**	**15**	*e*P	**P**	**14 50 51.0**	**-0.8**
CLNS				*e**PP	pP	14 51 00.2	-0.7
CLNS				*e*		14 51 29.6	
CLNS				*e*		14 53 07.4	
CLNS				*e*PPP		14 54 34.1	
CLNS				*e*S	**S**	**14 59 16.0**	**-1.5**
CLNS				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.3						
CLNS				pmax	pmax		
	comp=N,10.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
CLNS				pmax	pmax		
	comp=N,7.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
CLNS				smax			
	comp=N,145nm,12.0s						
CLNS				smax			
	comp=E,207nm,15.1s						
CLNS				MLR	MLR		
	comp=Z,13µm,24.0s,MS6.0						
CLNS				MLR	MLR		
	comp=N,11µm,18.0s						
CLNS				MLR	MLR		
	comp=E,13µm,15.0s						
GNI	**Garni**	**65.81**	**316**	⇑*i*P	**P**	**14 51 14.3**	**+0.7**
GNI				pmax	pmax		
	comp=Z,11nm,1.7s						
SVE	**Sverdlovsk**	**67.11**	**338**	*e*P	**P**	**14 51 21.4**	**-0.2**
SVE				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.4						
ARU	**Arti**	**67.63**	**337**	*d* *i*P	**P**	**14 51 23.9**	**-0.9**
ARU				S	S	15 00 19.1	-0.8
ARU				SS	SS	15 04 37.5	-3.7
ARU				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
YAK	**Yakutsk**	**68.28**	**15**	*e*P	**P**	**14 51 27.4**	**-1.4**
YAK				pmax	pmax		
	comp=Z,90nm,0.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,26nm,1.1s						
YAK				pmax	pmax		
	comp=E,20nm,1.2s						
YAK	**Yakutsk**	**68.28**	**15**	*e*P	**P**	**14 51 27.5**	**-1.3**
	comp=E,86nm,0.8s,mb5.8						
KIV	**Kislovodsk**	**68.85**	**319**	P	**P**	**14 51 34.0**	**+1.2**
KIV				*e**PP	pP	14 51 42.5	+0.6
KIV				*e**SP	sP	14 51 48.1	+2.7
KIV				pmax	pmax		
	comp=Z,16nm,1.7s,mb4.7						
SOKR	**Solikamsk**	**70.50**	**338**	⇑*i*P	**P**	**14 51 43.4**	**+0.8**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
LSZ	**Lusaka**	**71.67**	**255**	P	**P**	**14 51 50.0**	**-0.5**
	comp=Z,3.9nm,1.0s,mb4.3,baz=50,slow=9.1,SNR=4.1						
VRHR	**Novokhopersk**	**72.68**	**326**	*e*P	**P**	**14 52 03.1**	**+7.2**
VRHR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.9s						
PETK	**Petropavlovsk-**	**73.39**	**32**	P	**P**	**14 51 59.3**	**-0.8**
	comp=N,10nm,0.8s,mb4.8,baz=114,slow=0.4,SNR=15						
BRTR	**Keskin Array B**	**73.57**	**313**	P	**P**	**14 52 00.8**	**-0.7**
	comp=N,1.7nm,0.6s,mb4.1,baz=134,slow=7.2,SNR=7.6						
PET	**Petropavlovsk**	**73.86**	**33**	*e*P	**P**	**14 52 01.9**	**-1.0**
PET				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.5						
PET	**Petropavlovsk**	**73.86**	**33**	*e*P	**P**	**14 52 02.2**	**-0.7**
	comp=Z,55nm,0.9s,mb5.5						
VORD	**Divnogorie**	**73.95**	**325**	*e*P	**P**	**14 52 01.6**	**-1.8**
VORD				*e**PP	pP	14 52 11.1	-1.5
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VORD				pmax	pmax		
	comp=N,10.0nm,1.3s						
VORD				pmax	pmax		
	comp=E,10.0nm,1.0s						
VSR	**Storozhevoye**	**74.12**	**325**	*e*P	**P**	**14 52 03.5**	**-0.9**
VSR				*e**PP	pP	14 52 12.9	-0.8
VSR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
VSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,20nm,1.0s						
PRGR	**Permogore**	**76.09**	**336**	*e*P	**P**	**14 52 14.4**	**-1.1**
PRGR				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.4						
SEY	**Seymchan**	**76.16**	**22**	⇓*i*P	**P**	**14 52 15.8**	**-0.1**
TIXI	**Tiksi**	**76.39**	**9**	*c* *i*P	**P**	**14 52 15.5**	**-1.6**
TIXI				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.1						
TIXI	**Tiksi**	**76.39**	**9**	*e*P	**P**	**14 52 15.6**	**-1.5**
	comp=Z,29nm,0.9s,mb5.2						
OBN	**Obninsk**	**77.16**	**328**	P	**P**	**14 52 21.0**	**-0.8**
OBN				*i* *PP	pP	14 52 30.7	-0.3
OBN				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.2						
KLMR	**Klimovskoe**	**78.24**	**334**	*e*P	**P**	**14 52 26.8**	**-0.8**
KLMR				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.0						
TIRR	**Tirgusor**	**78.63**	**316**	⇓*i*P	**P**	**14 52 30.0**	**-0.2**
TIRR	**Tirgusor**	**78.63**	**316**	*e*P	**P**	**14 52 30.0**	**-0.1**
TIRR				*e*	pP	14 52 38.3	-1.2
AKASG	**Malin Array Be**	**79.81**	**322**	P	**P**	**14 52 35.4**	**-1.0**
	comp=Z,0.3nm,0.3s,baz=98,slow=3.6,SNR=4.6						
AKASG	**Malin Array Be**	**79.81**	**322**	P	**P**	**14 52 35.4**	**-1.1**
VRI	**Vrincioaia**	**80.14**	**317**	⇑*i*P	**P**	**14 52 39.2**	**+0.8**
MLR	**Muntele Rosu**	**80.58**	**317**	⇓*i*P	**P**	**14 52 41.6**	**+0.8**
MLR	**Muntele Rosu**	**80.58**	**317**	⇓P	**P**	**14 52 41.6**	**+0.9**
JOF	**Joensuu**	**82.63**	**335**	*e*p	**P**	**14 52 50.2**	**-1.0**
	comp=Z,3.9nm,0.7s,mb4.5						
DRGR		**83.06**	**318**	⇓*i*P	**P**	**14 52 54.4**	**+0.6**
DRGR		**83.06**	**318**	⇓P	**P**	**14 52 54.4**	**+0.6**
BILL	**Bilibino**	**83.69**	**20**	⇓*e*P	**P**	**14 52 55.7**	**-0.9**
BILL				*PP	pP	14 53 05.0	-0.9
BILL						14 56 06.0	
BILL				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.7						
KOLS	**Kolonicke sedl**	**83.76**	**320**	*e*P	**P**	**14 52 57.8**	**+0.5**
KOLS	**Kolonicke sedl**	**83.76**	**320**	*e*P	**P**	**14 52 57.9**	**+0.6**
SUW	**Suwalki**	**84.23**	**325**	*e*P	**P**	**14 52 59.6**	**0.0**
STHS	**Stebnicka Huta**	**84.51**	**320**	*e*P	**P**	**14 53 01.1**	**0.0**
STHS				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.6						
STHS	**Stebnicka Huta**	**84.51**	**320**	*e*P	**P**	**14 53 01.1**	**0.0**
	comp=Z,4.8nm,1.1s,mb4.5						
KAF	**Kangasniemi**	**84.58**	**333**	*e*P	**P**	**14 53 00.1**	**-1.1**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
KAF	**Kangasniemi**	**84.58**	**333**	*e*p	**P**	**14 53 00.1**	**-1.1**
	comp=Z,6.9nm,0.8s,mb4.8						
KECS	**Kecovo**	**84.84**	**319**	*e*P	**P**	**14 53 02.6**	**-0.2**
VYHS	**Vyhne**	**85.93**	**319**	*e*P	**P**	**14 53 07.6**	**-0.7**
ARCES	**ARCESS Array B**	**86.91**	**340**	P	**P**	**14 53 12.9**	**+0.2**
	comp=Z,6.3nm,0.7s,mb4.9,baz=108,slow=4.0,SNR=11						
MORC	**Moravsky Berou**	**86.95**	**320**	⇑*i*P	**P**	**14 53 13.6**	**+0.4**
MORC	**Moravsky Berou**	**86.95**	**320**	⇑P	**P**	**14 53 13.6**	**+0.4**
QSPA	**South Pole Qui**	**87.44**	**180**	P	**P**	**14 53 16.1**	**+1.0**
	comp=Z,1.8nm,0.7s,mb4.4,baz=230,slow=3.9,SNR=18						
QSPA	**South Pole Qui**	**87.44**	**180**	P	**P**	**14 53 16.1**	**+1.0**
DPC	**Dobruska-Polom**	**87.80**	**320**	*e*P	**P**	**14 53 18.1**	**+0.8**
DPC				*e*pP	pP	14 53 27.5	+0.8
BOJS	**Bojanci**	**88.00**	**316**	*i* P	**P**	**14 53 18.8**	**+0.4**
BOJS				*i*	pP	14 53 28.4	+0.6
UPC	**Upice**	**88.01**	**321**	*e*P	**P**	**14 53 19.3**	**+1.0**
UPC				*e*pP	pP	14 53 27.5	-0.2
VISS	**Visnje**	**88.32**	**316**	*i* P	**P**	**14 53 20.5**	**+0.6**
VISS				*i*	pP	14 53 28.5	-0.8
JAVS	**Javornik**	**88.86**	**316**	*i* P	**P**	**14 53 22.9**	**+0.4**
JAVS				*i*	pP	14 53 31.8	-0.1
PRU	**Pruhonice**	**88.90**	**320**	*e*P	**P**	**14 53 23.4**	**+0.9**
PRU				*e*pP	pP	14 53 32.3	+0.3
GERES	**GERESS Array B**	**89.35**	**319**	P	**P**	**14 53 25.0**	**+0.4**
	comp=Z,1.3nm,0.8s,mb4.3,baz=106,slow=4.3,SNR=11						
BRG	**Berggiesshubel**	**89.36**	**321**	*e*P	pP	14 53 34.9	+0.8
BRG				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.7						
BRG	**Berggiesshubel**	**89.36**	**321**	*e*P	pP	14 53 34.9	+0.8
	comp=Z,9.4nm,1.7s						
KHC	**Kasperske Hory**	**89.45**	**319**	*e*P	**P**	**14 53 25.3**	**+0.1**
KHC				*e*pP	pP	14 53 34.6	0.0
CLL	**Collm**	**89.98**	**321**	*e*P	**P**	**14 53 28.0**	**+0.4**
CLL				*e*(pP)	pP	14 53 37.0	0.0
GRA1	**Grafenberg Arr**	**91.02**	**320**	*e*P	**P**	**14 53 33.4**	**+0.9**
	comp=Z,14nm,1.9s,mb5.0						
GRA1				*e*pP	pP	14 53 41.5	-0.4
GRF	**Grafenberg Arr**	**91.02**	**320**	*e*P	**P**	**14 53 33.4**	**+0.9**
GRF				*e**PP	pP	14 53 41.5	-0.4
GRF				pmax	pmax		
	comp=Z,14nm,1.9s,mb5.0						
GRF	**Grafenberg Arr**	**91.02**	**320**	*e*P	**P**	**14 53 33.4**	**+0.9**
GRF				*e**PP	pP	14 53 41.5	-0.4
GRF				pmax	pmax		
	comp=Z,14nm,1.9s,mb5.0						
GRF	**Grafenberg Arr**	**91.02**	**320**	*e*P	**P**	**14 53 33.4**	**+0.9**
	comp=Z,14nm,1.9s,mb5.0						
GRF				*e*pP	pP	14 53 41.5	-0.4
GRF	**Grafenberg Arr**	**91.02**	**320**	*e*P	**P**	**14 53 33.4**	**+0.9**
	comp=Z,14nm,1.9s,mb5.0						
GRF				*e*pP	pP	14 53 41.5	-0.4
KEST	**Kesra**	**91.88**	**306**	P	**P**	**14 53 37.6**	**+0.8**
	comp=Z,1.2nm,0.8s,mb4.3,baz=320,slow=2.4,SNR=4.4						
YKA	**Yellowknife Ar**	**114.91**	**17**	PKP	PKiKP	14 59 06.8	-1.8
	comp=Z,0.2nm,0.8s,baz=313,slow=1.9,SNR=5.0						
YKA	**Yellowknife Ar**	**114.91**	**17**	PKP	PKiKP	14 59 06.8	-1.8
SCHQ	**Schefferville**	**126.74**	**350**	PKP	PKPdf	14 59 31.3	-0.3
	comp=Z,1.9nm,0.7s,baz=49,slow=1.0,SNR=6.1						
NVAR	**Mina Array Bea**	**130.09**	**39**	PKP	PKPdf	14 59 39.1	+0.6
	comp=Z,0.9nm,0.8s,baz=289,slow=2.3,SNR=4.0						
ULM	**Lac du Bonnet**	**130.60**	**13**	PKP	PKPdf	14 59 38.7	-0.4
	comp=Z,1.7nm,0.6s,baz=58,slow=0.1,SNR=4.0						
WMOK	**Wichita Mounta**	**143.55**	**26**	*e*PKIKP	PKPdf	15 00 00.4	-3.0
CPUP	**Villa Florida**	**143.82**	**216**	PKP	PKPdf	15 00 02.2	-1.9
	comp=Z,0.3nm,0.4s,baz=136,slow=5.1,SNR=5.8						
CPUP	**Villa Florida**	**143.82**	**216**	PKP	PKPdf	15 00 02.2	-1.9
TXAR	**Lajitas Array**	**145.20**	**38**	PKPbc	PKPbc	15 00 06.8	+0.8
	comp=Z,48nm,0.7s,baz=286,slow=0.9,SNR=622						
TXAR	**Lajitas Array**	**145.20**	**38**	PKPbc	PKPbc	15 00 06.8	+0.8
ELN	**Prospectdale**	**145.46**	**1**	*e*PKP	PKPdf	15 00 05.5	-1.2
BLA	**Blacksburg**	**145.48**	**0**	*e*PKIKP	PKPdf	15 00 05.7	-1.0
GNAR	**Gosnell**	**145.49**	**14**	*e*PKP	PKPdf	15 00 06.6	-0.2
GNAR				*e*		15 00 15.6	

HALT	Halls	145.70	13	ePKP	PKPdf	15 00 06.7	-0.5
HBAR	Harrisburg	145.71	15	ePKP	PKPdf	15 00 07.3	+0.1
MIAR	Mount Ida	145.77	20	ePKIKP	PKPdf	15 00 07.5	+0.2
MIAR				e		15 00 15.8	
WVT	Waverly	145.81	11	ePKIKP	PKPdf	15 00 07.1	-0.2
WVT				e		15 00 15.7	
UALR	University of	145.96	18	ePKPbc	PKPbc	15 00 09.3	+1.1
UALR				e		15 00 18.8	
TZTN	Tazewell	146.00	5	ePKP	PKPdf	15 00 07.7	+0.1
JCT	Junction City	146.53	32	ePKPdf	PKPdf	15 00 09.4	+0.7
JCT				ePKPbc	PKPbc	15 00 10.4	+0.2
JCT				e		15 00 18.6	
PLAL	Pickwick Lake	146.87	12	ePKPbc	PKPbc	15 00 09.7	-1.2
CPCT	Cooper Cave	146.99	7	ePKPbc	PKPbc	15 00 10.6	-0.7
OXF	Oxford	147.02	14	ePKP2	PKPbc	15 00 10.3	-1.1
SWET	Sewanee	147.03	9	ePKPbc	PKPbc	15 00 10.1	-1.3
NATX	Nacogdoches	147.86	24	ePKPbc	PKPbc	15 00 13.8	0.0
JSC	Jenkinsville	148.38	2	ePKP2	PKPbc	15 00 14.8	-0.3
HKT	Hockley	148.92	27	ePKP2	PKPbc	15 00 15.8	-0.8

BJI ***24*** *14:46:18.3,2°.78S×99°.80E,h36^{km},mB6.5/40,mb5.9/63,Ms6.7/78,Ms7 6.6/63*

SZGRF ***24*** *14:46:19.7,3°.71S×99°.54E,h33^{km},mb6.0,MS6.2, Southwest of Sumatera, Indonesia*

ISCJB ***24*** *14:46:20.9±0.6,2°.39S±0°.02×99°.94E±0°.02,h29^{km}±4^{km}, mb5.9/290,MS6.4/223,Error ellipse: s-maj=3.6km s-min=2.6km az=21.1*

MOS ***24*** *14:46:20.1±1.1,2°.29S×100°.00E,h22^{km},mb6.2/108, MS6.3/78,Error ellipse: s-maj=7.2km s-min=3.5km az=121.1*

NEIC ***24*** *14:46:21.5±0.1,2°.41S×99°.93E,h22^{km},mb6.0/150,ME6.0, MS6.4/169,MW6.2,MW6.2,Error ellipse: s-maj=4.8km s-min=3.3km az=212.0,Moment Tensor Solution. s70 Moment tensor: Scale 10^{18}Nm; M$_{rr}$1.61; M$_{\theta\theta}$-1.02; M$_{\phi\phi}$-0.59; M$_{r\theta}$2.02; M$_{\theta\phi}$0.15; M$_{\phi r}$-1.26; Best double couple: M$_0$2.80000×10^{18} NP1:ϕ_s120.00000°,δ75.00000°, λ93.00000°. NP2:ϕ_s290.00000°,δ15.00000°,λ80.00000°. Principal axes: T 3.0100, Plg59.0000°, Azm33.0000°; N -0.5700, Plg2.0000°, Azm299.0000°; P -2.4400, Plg30.0000°, Azm208.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s300.00000°,δ10.00000°, λ90.00000°. NP2:ϕ_s120.00000°,δ80.00000°,λ90.00000°. Principal axes: T Plg55.0000°, Azm30.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm210.0000°; Two events about two seconds apart. Depth from synthetics of broadband displacement seismograms based on first event. Energy computed from BB mechanism.*

NEIC Felt [III] at Padang and [II] at Bengkulu, Sumatra. Also felt [II] in Singapore.

IDC ***24*** *14:46:21.1±2.0,2°.49S×99°.97E,h22^{km}±12^{km},mb5.4/41, mb1 5.4/43,mb1mx5.4/44,mbtmp5.4/43,ML5.0/2,MS6.3/23, Ms1 6.3/23,ms1mx6.1/37 Error ellipse: s-maj=11.0km s-min=8.1km az=48.0*

GCMT ***24*** *14:46:21.5±0.1,2°.63S×99°.73E,h15^{km},MW6.5/102, Moment Tensor Solution. s102,c195; s96,c237; Duration: 3^{s}8 Moment tensor: Scale 10^{18}Nm; M$_{rr}$1.28±.02; M$_{\theta\theta}$-0.71±.01; M$_{\phi\phi}$-0.57±.02; M$_{r\theta}$5.54±.07; M$_{\theta\phi}$0.80±.01; M$_{\phi r}$-3.86±.07; Best double couple: M$_0$6.88900×10^{18} NP1:ϕ_s322.00000°,δ6.00000°, λ107.00000°. NP2:ϕ_s125.00000°,δ84.00000°,λ88.00000°. Principal axes: T 6.8200, Plg51.0000°, Azm33.0000°; N 0.1360, Plg2.0000°, Azm125.0000°; P -6.9580, Plg39.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=125s.*

DJA ***24*** *14:46:22,2°.50S×99°.82E,h28^{km},Mw6.4/33*

IGIL ***24*** *14:46:24.5,2°.35S×99°.97E,h35^{km},MS6.0*

ISC 24 14:46:23.5±0.6**,2°.42S**±0°.02×**99°.92E**±0°.02**,h35**^{km}±4^{km}**, h27**^{km}±1.4^{km}**:pP-P,n1541,**σ**1^{s}12**/1087**,mb5.9**/288**, MS6.4**/223**,214C-184D,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.35	166	P		14 46 30.2	
SISI	Saibi	1.37	323	P	Pn	14 46 48.1	+1.9
PDSI	Padang	1.59	20	P	Pn	14 46 49.3	0.0
PPI	Padang Panjang	2.01	14	P	Pn	14 46 55.9	+0.9
SDSI	Sungai Dareh	2.11	45	P	Pn	14 46 58.1	+1.7
KSI	Kapahiang	2.93	115	P	Pn	14 47 08.1	+0.4
RGRI	Rengat	3.17	50	P	Pn	14 47 12.7	+1.7
MNAI	Manna	3.59	123	P	Pn	14 47 16.8	+0.1
GSI	Gunungsitoli	4.38	328	P	Pn	14 47 25.5	-2.2
MDSI	Maura Dua	4.71	116	P	Pn	14 47 33.2	+1.0
PMBI	Palembang	4.87	96	P	Pn	14 47 36.2	+1.9
PSI	Prapat	5.29	349	⇑eP	Pn	14 47 37.8	-2.3
PSI	Prapat	5.29	349	Pn	Pn	14 47 37.2	-2.8
	22nm,0.3s,baz=162,slow=11,SNR=26						
KASI	Kota Agung	5.50	124	P	Pn	14 47 42.3	-0.8
	4µm,0.9s,31nm						
KGM	Kluang	5.56	38	P	Pn	14 47 46.1	+2.2
MYKOM	Kota Tinggi	5.74	43	P	Pn	14 47 48.7	+2.4
MYKOM	Kota Tinggi	5.74	43	P	Pn	14 47 48.0	+1.7
	3µm,1.4s,39nm						
FRIM	Kepong	5.87	17	P	Pn	14 47 49.6	+1.4
TSI	Tuntungan	6.04	347	⇓eP	Pn	14 47 48.5	-1.9
RBSI	Rajabasa	6.72	121	P	Pn	14 48 01.4	+1.6
IPM	Ipoh	6.95	9	P	Pn	14 48 04.6	+1.8
IPM	Ipoh	6.95	9	P	Pn	14 48 04.5	+1.6
	1µm,1.3s,23nm						
SBJI	Serang	7.20	121	P	Pn	14 48 06.3	0.0
	3µm,1.3s,11nm						
TNG	Tangerang	7.67	119	P	Pn	14 48 14.2	+1.4
	9µm,1.1s,33nm						
KULM	Kulim	7.70	5	P	Pn	14 48 13.6	+0.4
KULM	Kulim	7.70	5	ePn	Pn	14 48 12.5	-0.7
TPI	Tanjungpandan	7.73	93	⇓eP	Pn	14 48 15.5	+1.9
TPI				eS	Sn	14 49 22.0	-18
TPI	Tanjungpandan	7.73	93	P	Pn	14 48 16.2	+2.5
	349nm,1.4s,7.9nm						
DBJI	Dramaga	7.95	121	P	Pn	14 48 16.1	-0.5
CBJI	Citeko	7.96	120	P	Pn	14 48 20.0	+3.1
KTGM	Kuala Trenggan	8.34	23	P	Pn	14 48 24.2	+2.2
LEM	Lembang	8.83	120	P	Pn	14 48 30.2	+1.5
	2µm,1.9s						
BSI	Banda Aceh	9.12	330	P	Pn	14 48 30.7	-2.1
	762nm,1.0s						
XMIS	Christmas Isla	9.82	145	eP	Pn	14 48 35.7	-6.6
XMIS	Christmas Isla	9.82	145	ePn	Pn	14 48 35.6	-6.7
	161nm,0.6s						
COCO	West Island	10.17	197	Pn	Pn	14 48 43.9	-3.3
	8µm,1.3s,SNR=9.8						
COCO	West Island	10.17	197	eP	Pn	14 48 41.4	-5.8
COCO				pmax	pmax		
	comp=Z,1µm,1.0s						
COCO	West Island	10.17	197	ePn	Pn	14 48 41.4	-5.8
	comp=Z,1µm,1.0s						
COCO	West Island	10.17	197	P	Pn	14 48 43.0	-4.2
	comp=Z,1µm,1.2s						
KSM	Kuching	11.08	70	P	Pn	14 49 02.6	+2.9
KSM	Kuching	11.08	70	ePn	Pn	14 49 00.9	+1.3
	comp=Z,212nm,0.9s						
KSM	Kuching	11.08	70	P	Pn	14 49 02.3	+2.7
	comp=Z,303nm,1.4s						
SMRI	Semarang	11.44	114	P	Pn	14 49 05.7	+1.1
	comp=Z,1µm,0.9s						
YOGI	Yogyakarta	11.63	118	⇑eP	Pn	14 49 03.7	-3.5
YOGI				eS	Sn	14 51 11.0	-4.9
UGM	Wanagama	11.88	118	P	Pn	14 49 10.7	+0.2
	comp=Z,884nm,1.3s						
NGJI	Ngawi	12.50	114	P	Pn	14 49 21.1	+2.1
SJI	Sawahan	12.92	115	P	Pn	14 49 23.6	-1.2
	comp=Z,872nm,0.7s						
PWJI	Pagerwojo	13.07	116	P	Pn	14 49 25.5	-1.3
	comp=Z,485nm,1.1s						
SBUM	Sibu	13.21	69	P	Pn	14 49 32.1	+3.3
SBUM	Sibu	13.21	69	P	Pn	14 49 32.0	+3.2
	comp=Z,626nm,1.3s						
TRT	Tretes	13.70	113	⇑eP	Pn	14 49 33.5	-2.0
PLKI	Palangkaraya	14.01	89	P	Pn	14 49 46.3	+6.6
BTM	Bintulu	14.29	67	P	Pn	14 49 45.9	+2.4
GMJI	Gumukmas	14.66	114	P	Pn	14 49 46.8	-1.7
KMMI	Kalianget	14.73	109	P	Pn	14 49 49.2	-0.3
BBKI	Banjar Baru	14.93	94	P	Pn	14 49 53.1	+0.9
	comp=Z,1µm,1.5s						
ABJI	Asem Bagus	15.22	111	P	Pn	14 49 55.1	-0.8
	comp=Z,945nm,1.1s						
NBBI	Negara	15.77	113	P	Pn	14 50 05.5	+2.3
SRBI	Singaraja	16.23	111	P	Pn	14 50 08.0	-1.0
	comp=Z,689nm,1.1s,comp=Z,9µm						
KBKI	Kotabaru	16.25	93	P	Pn	14 50 09.1	-0.2
	comp=Z,833nm,1.5s						
KHKI	Kahang-Kahang	16.69	111	⇓eP	Pn	14 50 13.9	-0.9
KHKI	Kahang-Kahang	16.69	111	P	Pn	14 50 14.6	-0.2
	comp=Z,392nm,0.8s						
NST	Nakhon Sawan	17.98	1	P	Pn	14 50 27.0	-3.9
	comp=Z,83nm,1.0s						
UBT	Ubonrachathani	18.27	16	⇓P	Pn	14 50 33.9	-0.4
KKM	Kota Kinabalu	18.32	63	P	Pn	14 50 35.8	+0.8
KKM	Kota Kinabalu	18.32	63	eP	Pn	14 50 34.5	-0.5
	comp=Z,826nm,1.3s						
KKM	Kota Kinabalu	18.32	63	P	Pn	14 50 35.4	+0.4
	comp=Z,603nm,1.6s						
SDKM	Sandakan	19.02	65	P	Pn	14 50 43.3	-0.2
TSM	Tawau	19.14	70	P	Pn	14 50 44.8	-0.1
KDM	Kudat	19.26	61	P	Pn	14 50 46.4	-0.1
BDT	Bhumibol Dam	19.56	357	P	Pn	14 50 46.5	-3.5
	comp=Z,93nm,1.0s						
TTSI	Tana Toraja	19.88	92	P	Pn	14 50 53.2	-0.7
KAPI	Kappang	19.95	98	P	Pn	14 50 51.7	-3.0
	comp=Z,7µm,1.2s,SNR=46						
KAPI	Kappang	19.95	98	Pn	Pn	14 50 51.2	-3.5
	comp=Z,11nm,0.3s,baz=285,slow=8.9,SNR=41						
KAPI	Kappang	19.95	98	eP	Pn	14 50 51.4	-3.3
	comp=Z,2µm,1.1s						
KAPI	Kappang	19.95	98	P	Pn	14 50 51.4	-3.3
	comp=Z,648nm,1.1s,comp=Z,7µm						
PCI	Palu	19.96	86	P	Pn	14 50 53.9	-0.9
	comp=Z,2µm,1.4s						
MYLDM	Lahad Datu	20.04	68	P	P	14 50 55.2	+1.5
MYLDM	Lahad Datu	20.04	68	P	P	14 50 55.1	+1.4
	comp=Z,1µm,1.4s						
BNSI	Bone	20.24	96	P	P	14 50 56.2	+0.2
	comp=Z,2µm,1.4s						
CMAR	Chiang Mai Arr	20.77	357	P	P	14 50 59.8	-1.9
	comp=Z,144nm,1.1s,baz=186,slow=9.7,SNR=170						
CMAR				LR	LR	14 59 32.2	
	comp=Z,120µm,20.3s,MS6.3,baz=188,slow=38						
BATP	Bataraza	21.02	58	eP	P	14 51 04.5	+0.1
CHTO	Chiang Mai	21.13	357	eP	P	14 51 02.6	-2.8
CHTO				pmax	pmax		
	comp=Z,604nm,1.4s,mb5.7						
CHTO				MLR	MLR		
	comp=Z,107µm,20.0s,MS6.2						
CHTO	Chiang Mai	21.13	357	eP	P	14 51 02.6	-2.8
	comp=Z,604nm,1.4s,mb5.7						
CHTO				LR	LR		
	comp=Z,107µm,20.0s,MS6.2						
CHTO	Chiang Mai	21.13	357	P	P	14 51 03.5	-1.9
	comp=Z,345nm,1.6s,mb5.4						
PALK	Pallekele	21.46	297	P	P	14 51 14.5	+5.3
	comp=Z,521nm,1.2s,mb5.7,SNR=13						
PALK	Pallekele	21.46	297	iP	P	14 51 11.1	+1.9
PALK	Pallekele	21.46	297	P	P	14 51 14.4	+5.3
	SNR=26						
PALK				P		14 51 14.4	
	SNR=26						
PALK	Pallekele	21.46	297	P	P	14 51 13.0	+3.8
WSI	Waingapu	21.49	110	P	P	14 51 10.7	+1.3
	comp=Z,1µm,0.9s,mb6.3						
APSI	Ampana	21.77	86	P	P	14 51 13.9	+1.4
	comp=Z,3µm,1.6s,mb6.4						
CHRT	Chiangrai	22.16	360	⇑P	P	14 51 15.0	-1.5
	comp=Z,2µm,1.1s,mb6.5						
PPR	Puerto Princes	22.31	57	⇑eP	P	14 51 17.9	-0.3
KDI	Kendari	22.71	94	⇑eP	P	14 51 21.1	-1.4
KDI				eS	S	14 55 25.8	-3.4
KDI	Kendari	22.71	94	P	P	14 51 22.0	-0.5
	comp=Z,416nm,1.8s,mb5.6						
QIZ	Qiongzhong	23.44	24	P	P	14 51 27.8	-2.2
QIZ				S	S	14 55 33.8	-7.1
QIZ				pmax	pmax		
	comp=Z,240nm,1.1s,mb5.5						
QIZ				LR	LR		
	comp=N,55µm,19.1s,MS6.3						
QIZ				LR	LR		
	comp=E,82µm,16.9s,MS6.3						
QIZ				LR	LR		
	comp=Z,74µm,17.2s,MS6.2						
QIZ	Qiongzhong	23.44	24	eP	P	14 51 28.5	-1.6
	comp=Z,320nm,1.1s,mb5.7						
ENPP	El Nido	23.66	55	eP	P	14 51 31.6	-0.5
ZMPH	Zamboanga City	23.98	67	⇑eP	P	14 51 34.9	-0.2
KMSI	Cibinong	24.23	83	P	P	14 51 36.9	-0.5
	comp=Z,3µm,1.3s,mb6.5						
BUSP	Coron	24.73	54	eP	P	14 51 41.8	-0.1
CUYO	Cuyo Island	24.79	57	eP	P	14 51 43.0	+0.6
MNI	Manado	25.21	81	⇓eP	P	14 51 45.0	-1.2
MNI	Manado	25.21	81	P	P	14 51 46.2	0.0
	comp=Z,2µm,1.0s,mb6.5						
PAGZ	Pagadian	25.53	66	eP	P	14 51 49.7	+0.6
SJMP	San Jose	25.73	54	eP	P	14 51 51.0	+0.1
LUBP	Lubang	25.77	51	eP	P	14 51 52.2	+0.9
VIS	Vishakhapatnam	25.85	321	ePKP	P	14 51 51.9	-0.1
VIS				AMb	AMB	14 52 07.6	
	comp=Z,323nm,1.1s,mb5.8						
VIS				ex	x	14 56 23.1	
GUIM	Jordan	26.02	60	eP	P	14 51 53.8	+0.3
CTBH	Cotabato--PC H	26.09	68	eP	P	14 51 53.8	-0.5
BWNR	Bhubaneshwar	26.49	329	ePKP	P	14 51 48.6	-9.1
BWNR				eS	S	14 56 21.3	-8.3
TGY	Tagaytay City	26.52	51	P	P	14 51 58.5	+0.3
	comp=Z,192nm,0.4s,mb6.0,baz=195,slow=6.7,SNR=6.6						
RCP	Roxas	26.61	58	⇑eP	P	14 51 59.1	+0.2
TBP	Tagbilaran	26.71	63	eP	P	14 51 58.7	-1.1
SCZP	Santa Cruz	26.79	47	eP	P	14 52 01.1	+0.6
KCP	Kidapawan	26.81	69	⇓eP	P	14 52 04.4	+3.6
MBWA	Marble Bar	26.82	135	eP	P	14 52 02.0	+1.3
	comp=Z,222nm,0.8s,mb5.7						
MBWA	Marble Bar	26.82	135	P	P	14 52 02.7	+2.0
	comp=Z,133nm,1.2s,mb5.3						
LLP	Lapu-Lapu	27.08	62	⇑eP	P	14 52 01.9	-1.2
BUKP	Musuan	27.08	68	eP	P	14 52 03.4	+0.2
NLAI	Namlea	27.16	92	P	P	14 52 04.0	+0.1
	comp=Z,245nm,1.2s,comp=Z,4µm,mb5.6						
CAL	Calcutta	27.27	336	ex	P	14 52 10.6	+5.8
CAL				ex	x	14 56 57.3	
DAV	Davao City (W)	27.29	70	P	P	14 52 04.9	-0.2
	comp=Z,548nm,1.1s,mb6.0,baz=140,slow=1.1,SNR=22						
DAV				LR	LR	15 04 07.7	
	comp=Z,73µm,21.1s,MS6.2,baz=55,slow=39						
DAV	Davao City (W)	27.29	70	⇑eP	P	14 52 03.4	-1.7
DAV	Davao City (W)	27.29	70	eP	P	14 52 05.8	+0.7
	comp=Z,792nm,1.0s,mb6.2						
DAV				LR	LR		
	comp=Z,74µm,21.0s,MS6.2						
DAV	Davao City (W)	27.29	70	P	P	14 52 06.1	+1.1
	comp=Z,758nm,1.1s,mb6.1						
KMI	Kunming	27.52	6	P	P	14 52 07.3	+0.4
KMI				pP	pP	14 52 15.9	-1.1
KMI				sP	sP	14 52 19.4	-1.8
KMI				PP		14 52 55.4	
KMI				PcP	PcP	14 55 25.9	+1.2
KMI				S	S	14 56 44.6	-1.1
KMI				sS	sS	14 56 59.3	-3.1
KMI				ScP	ScP	14 59 02.3	-0.5
KMI				ScS	ScS	15 02 52.6	-2.1
KMI				pmax	pmax		
	comp=Z,130nm,1.1s,mb5.5						
KMI				LR	LR		
	comp=N,71µm,18.5s,MS6.5						
KMI				LR	LR		
	comp=E,79µm,17.7s,MS6.5						
KMI				LR	LR		
	comp=Z,79µm,18.1s,MS6.3						
TNTI	Ternate	27.62	84	P	P	14 52 05.4	-2.7
LBMI	Labuha	27.62	87	P	P	14 52 07.3	-0.8
	comp=Z,1µm,1.4s,mb6.3						
TNE	Ternate	27.62	84	⇓eP	P	14 52 02.0	-6.1
IMP	Imphal	27.66	348	ePKP	P	14 52 09.0	+0.8
POLP	Polilio Island	27.67	51	eP	P	14 52 11.8	+3.4
MSLP	Maasin	27.79	63	eP	P	14 52 08.8	-0.7
DGAR	Diego Garcia	27.80	259	PFAKE		14 52 20.0	+10
DGAR				LR	LR		
	comp=Z,46µm,20.0s,MS6.1						
OCLP	Ormoc	27.97	61	eP	P	14 52 11.0	-0.2
BALP	Baler	28.00	49	eP	P	14 52 14.8	+3.3
HKC	Hong Kong Obse	28.24	29	⇑iP	P	14 52 14.0	+0.5
HKC				S	S	14 56 56.0	-1.2
AAI	Ambon	28.26	93	P	P	14 52 13.3	-0.5
	comp=Z,158nm,1.2s,comp=Z,4µm,mb5.5						
GZH	Guangzhou	28.53	27	P	P	14 52 21.4	+5.4
GZH				LR	LR		
	comp=N,87µm,13.8s,MS6.6						
GZH				LR	LR		
	comp=E,49µm,13.7s,MS6.6						
GZH				LR	LR		
	comp=Z,135µm,14.3s,MS6.7						
ABRA	Dolores	28.60	45	eP	P	14 52 17.2	+0.6
PVCP	Virac	28.83	56	eP	P	14 52 18.6	-0.2
HYB	Hyderabad	28.86	314	iP	P	14 52 20.0	+1.0
HYB				eS	S	14 57 06.0	-1.1
HYB				LR	LR	15 05 00.0	
	comp=Z,44nm,20.0s						
HYB	Hyderabad	28.86	314	eP	P	14 52 20.0	+1.0
HYB				eS	S	14 57 06.0	-1.1
SHL	Shillong	28.89	345	ePKP	P	14 52 19.3	+0.1
SHL				AMb	AMB	14 52 31.3	
	comp=Z,815nm,1.6s,mb6.2						
SHL				eS	S	14 57 09.6	+2.2
CAUP	Cauayan	28.94	48	eP	P	14 52 19.2	-0.5
MNGI	Mangalore	29.22	302	ePKP	P	14 52 21.8	-0.5
MNGI				eS	S	14 57 14.4	+1.6
BOK	Bokaro	29.42	333	ePKP	P	14 52 24.1	+0.1
BOK				AMb	AMB	14 52 32.2	
	comp=Z,431nm,1.7s,mb5.9						
BOK				eS	S	14 57 16.8	+1.0
GYA	Guiyang	29.44	12	⇑iP	P	14 52 22.3	-1.8
GYA				pP	pP	14 52 31.6	-2.5
GYA				sP	sP	14 52 35.8	-2.6
GYA				PP	PP	14 53 20.4	-11
GYA				S	S	14 57 20.0	+4.0
GYA				sS	sS	14 57 36.3	+3.7
GYA				SS	SS	14 58 53.0	-29
GYA				pmax	pmax		
	comp=Z,930nm,0.8s,mb6.6						
GYA				pmax	pmax		
	comp=Z,13µm,5.9s						
GYA				LR	LR		
	comp=N,133µm,15.9s,MS6.7						
GYA				LR	LR		
	comp=E,75µm,15.6s,MS6.7						
GYA				LR	LR		
	comp=Z,113µm,15.2s,MS6.6						
FITZ	Fitzroy Crossi	29.64	123	eP	P	14 52 24.4	-1.6
	comp=Z,176nm,0.9s,mb5.8						
FITZ				eS	S	14 57 13.9	-5.5
FITZ	Fitzroy Crossi	29.64	123	P	P	14 52 24.4	-1.5
	comp=Z,60nm,0.9s,mb5.3,baz=302,slow=7.5,SNR=23						
FITZ	Fitzroy Crossi	29.64	123	eP	P	14 52 24.4	-1.6
	comp=Z,441nm,1.4s,mb6.0						
FITZ	Fitzroy Crossi	29.64	123	P	P	14 52 25.3	-0.7
	comp=Z,377nm,1.3s,mb6.0						
SHBG	Sahibganj	29.94	337	ex	P	14 52 25.6	-2.9
LATR	Latur	30.95	313	ex	P	14 52 32.5	-5.0
ODAN	Odare	31.53	338	eP	P	14 52 43.0	+0.5
	comp=Z,1µm,1.1s,mb6.7						
TAPN	Taplejung	31.86	339	eP	P	14 52 46.4	+1.0
	comp=Z,2µm,1.1s,mb6.9						
RAMN	Ramite	31.91	337	eP	P	14 52 46.8	+1.0
	comp=Z,585nm,1.2s,mb6.3						
JBP	Jabalpur	32.01	324	⇑ePKP	P	14 52 46.7	-0.1
JBP				ex	x	14 53 15.5	
	comp=Z,308nm,1.5s						
JBP				eS	S	14 57 59.2	+2.8
KAD	Karad	32.08	309	ePKP	P	14 52 48.4	+1.0
KAD				AMb	AMB	14 53 01.9	
	comp=Z,283nm,1.2s,mb6.0						
KAD				ex	x	14 58 03.3	
TWG	Pinlang	32.48	38	eP	P	14 52 51.5	+0.6
	comp=Z,338nm,1.4s,mb6.0						
TPUB	Ta-pu	32.57	37	eP	P	14 52 51.2	-0.5
	comp=Z,1µm,1.5s,mb6.5						
QZH	Quanzhou	32.68	33	⇑iP	P	14 52 53.8	+1.1
QZH				S	S	14 58 08.4	+1.6
QZH				pmax	pmax		
	comp=Z,6µm,4.5s						
QZH				LR	LR		
	comp=N,88µm,14.4s,MS6.7						
QZH				LR	LR		
	comp=E,78µm,15.1s,MS6.7						
QZH				LR	LR		
	comp=Z,154µm,16.6s,MS6.8						
ALBI	Allahabad	32.69	329	ePKP	P	14 52 52.0	-0.7
JIRN	Jiri	32.70	337	eP	P	14 52 53.6	+0.8
	comp=Z,591nm,0.8s,mb6.6						
PKI	Pulchoki	32.94	336	eP	P	14 52 55.1	+0.3
	comp=Z,96nm,0.8s,mb5.8						
PKI	Pulchoki	32.94	336	eP	P	14 52 55.1	+0.3
PKI				pmax	pmax		
	comp=Z,96nm,0.8s,mb5.8						
PKIN	Phulchoki	32.95	336	eP	P	14 52 55.0	+0.1
	comp=Z,141nm,1.1s,mb5.8						
LSA	Lhasa	33.03	346	P	P	14 52 56.6	+1.0
LSA				pP	pP	14 53 10.1	+4.4
LSA				S	S	14 58 09.6	-2.4
LSA				LR	LR		
	comp=N,31µm,25.5s,MS6.1						
LSA				LR	LR		
	comp=E,43µm,28.4s,MS6.1						
LSA				LR	LR		
	comp=Z,53µm,21.9s						
LSA	Lhasa	33.03	346	eP	P	14 52 56.3	+0.7
LSA				eS	S	14 58 14.6	+2.6
LSA				pmax	pmax		
	comp=Z,530nm,1.1s,mb6.4						
LSA				MLR	MLR		
	comp=Z,33µm,20.0s,MS6.0						
LSA	Lhasa	33.03	346	eP	P	14 52 56.3	+0.7
	comp=Z,530nm,1.1s,mb6.4						
LSA				eS	S	14 58 14.6	+2.6
LSA				LR	LR		
	comp=Z,33µm,20.0s,MS6.0						
YULB	Yu-li	33.04	38	eP	P	14 52 56.1	+0.3
	comp=Z,283nm,1.3s,mb6.0						
POO	Poona	33.05	310	ePKP	P	14 52 56.5	+0.6
POO				AMb	AMB	14 53 10.9	
	comp=Z,367nm,1.6s,mb6.1						
POO				ex	x	14 58 19.9	
GUN	Gumba	33.05	337	eP	P	14 52 56.5	+0.7
	comp=Z,346nm,0.5s,mb6.5						
DMN	Daman	33.09	335	eP	P	14 52 56.5	+0.3
	comp=Z,463nm,1.0s,mb6.3						
SSLB	Suanglung	33.13	37	eP	P	14 52 56.7	+0.1
	comp=Z,617nm,1.4s,mb6.3						
MUN	Mundaring	33.16	154	eP	P	14 52 58.5	+1.8
MUN				eS	S	14 58 22.4	+8.4
KKN	Kakani	33.18	336	eP	P	14 52 57.3	+0.3
	comp=Z,913nm,1.1s,mb6.6						
KKN	Kakani	33.18	336	eP	P	14 52 57.3	+0.3
KKN				pmax	pmax		
	comp=Z,913nm,1.1s,mb6.6						
CD2	Chengdu	33.35	6	P	P	14 52 56.6	-1.8
CD2				pP	pP	14 53 06.1	-2.4
CD2				sP	sP	14 53 09.0	-3.7
CD2				PP	PP	14 54 10.8	-3.5
CD2				S	S	14 58 15.3	-1.7
CD2				SS	SS	15 00 19.3	-23
CD2				pmax	pmax		
	comp=Z,360nm,1.3s,mb6.1						
CD2				pmax	pmax		
	comp=Z,5µm,6.3s						
CD2				LR	LR		
	comp=N,102µm,17.8s						
CD2				LR	LR		
	comp=Z,101µm,18.4s,MS6.6						
BHPL	Bhopal	33.64	321	ePKP	P	14 53 01.4	+0.4
GKN	Gorkha	33.64	335	eP	P	14 53 01.1	+0.2
	comp=Z,984nm,1.2s,mb6.6						
KAKA	Kakadu	33.77	109	eP	P	14 52 59.3	-3.0
	comp=Z,71nm,0.6s,mb5.8						
KAKA	Kakadu	33.77	109	eP	P	14 52 59.0	-3.3
	comp=Z,214nm,0.6s,mb6.2						
KAKA	Kakadu	33.77	109	P	P	14 52 59.7	-2.6
	comp=Z,187nm,0.6s,comp=Z,1µm,mb6.2						
NACB	Ninganchiao	33.81	37	eP	P	14 53 02.8	+0.3
	comp=Z,261nm,1.0s,mb6.1						
KOLN	Koldanda	33.88	333	eP	P	14 53 03.5	+0.4
	comp=Z,770nm,1.2s,mb6.5						
YHNB	Yeheng	34.05	36	eP	P	14 53 03.5	-1.1
	comp=Z,560nm,1.4s,mb6.3						
YHNB				LR	LR		
	comp=Z,51µm,20.0s,MS6.2						
BOM	Bombay	34.06	310	ePKP	P	14 52 55.5	-9.3
BOM				ex	x	14 53 07.6	
	comp=Z,511nm,1.8s						
BOM				eS	S	14 58 14.6	-14

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DANN Dangsing           34.31 334 eP      P      14 53 07.1 +0.3
     comp=Z,893nm,1.1s,mb6.6
NWAO Narrogin (SRO)     34.42 154  P      P      14 53 06.6 -1.1
NWAO                               pmax   pmax
     comp=Z,48nm,0.9s
NWAO                               MLR    MLR
     comp=Z,92µm,21.1s
NWAO Narrogin (SRO)     34.42 154  P      P      14 53 06.6 -1.1
     comp=Z,48nm,0.9s,mb5.4,baz=318,slow=9.0,SNR=14
NWAO                               LR     LR     15 06 10.1
     comp=Z,92µm,21.1s,MS6.5,baz=327,slow=35
NWAO Narrogin (SRO)     34.42 154 eP      P      14 53 06.8 -0.9
     comp=Z,163nm,1.2s,mb5.8
NWAO Narrogin (SRO)     34.42 154  P      P      14 53 08.1 +0.4
     SNR=6.5
NWAO                               P             14 53 08.1
     SNR=6.5
WHN  Wuhan              35.55  22 ⇑P      P      14 53 17.3 -0.2
WHN                                sP     sP     14 53 32.8 +0.9
WHN                                S      S      14 58 46.3 -4.8
WHN                                pmax   pmax
     comp=Z,600nm,1.3s,mb6.4
WHN                                LR     LR
     comp=N,244µm,16.4s,MS7.2
WHN                                LR     LR
     comp=E,177µm,14.4s,MS7.2
WHN                                LR     LR
     comp=Z,351µm,15.9s,MS7.2
BAKI Biak               36.19  89  P      P      14 53 22.2 -1.0
     comp=Z,207nm,1.4s,mb5.9
LGTI Lohaghat           36.87 331 ePKP    P      14 53 29.1 +0.3
LGTI                              ex      x      14 59 46.5
PTH  Pithoragarh        36.97 331 ePKP    P      14 53 29.0 -0.6
PTH                               ex      x      14 59 18.0
XAN  Xi'an              37.24  12  P      P      14 53 30.4 -1.5
XAN                                pP     pP     14 53 40.5 -1.6
XAN                                sP     sP     14 53 44.3 -2.0
XAN                                PP     PP     14 55 01.1 +3.8
XAN                                S      S      14 59 18.6 +1.8
XAN                                sS     sS     14 59 35.0 +1.4
XAN                                SS     SS     15 01 55.0 -6.0
XAN                                pmax   pmax
     comp=Z,230nm,1.4s,mb5.8
XAN                                LR     LR
     comp=N,84µm,13.7s,MS6.9
XAN                                LR     LR
     comp=E,130µm,17.5s,MS6.9
XAN                                LR     LR
     comp=Z,169µm,15.2s,MS7.0
AJM  Ajmer              37.71 321 ePKP    P      14 53 35.3 -0.6
NDI  New Delhi          37.84 326 ex      P      14 53 34.0 -3.0
NDI                               ex      x      14 59 22.0
WRA  Warramunga Arr     37.85 120  P      P      14 53 35.8 -1.4
WRA                                S      S      14 59 21.8 -4.6
WRA  Warramunga Arr     37.85 120  P      P      14 53 35.8 -1.4
     comp=Z,164nm,0.6s,mb5.9,baz=299,slow=9.5,SNR=186
WRA                                S      S      14 59 21.8 -4.6
     comp=Z,29nm,1.0s,baz=294,slow=16,SNR=5.5
WRA                                LR     LR     15 11 16.9
     comp=Z,49µm,21.4s,MS6.3,baz=290,slow=40
WRAB Tennant Creek      37.85 120  P      P      14 53 36.0 -1.3
     comp=Z,2µm,0.5s,mb7.1
WRAB Tennant Creek      37.85 120 eP      P      14 53 35.8 -1.5
WRAB                               LR     LR
     comp=Z,58µm,21.0s,MS6.4
WRAB Tennant Creek      37.85 120  P      P      14 53 36.6 -0.7
     comp=Z,369nm,0.9s,mb6.1
LZH  Lanzhou            38.48   5 ⇑P      P      14 53 42.3  0.0
LZH                                pP     pP     14 53 52.1 -0.4
LZH                                sP     sP     14 53 55.9 -0.9
LZH                                PP     PP     14 55 15.0 +4.1
LZH                                PcP    PcP    14 55 55.1 +0.2
LZH                                S      S      14 59 36.0 +0.5
LZH                                ScP    ScP    14 59 39.5 -1.0
LZH                                PcS    PcS    14 59 42.3 -1.8
LZH                                sS     sS     14 59 52.5 +0.1
LZH                                SS     SS     15 02 17.8 -8.2
LZH                                ScS    ScS    15 03 49.1 -1.5
LZH                                pmax   pmax
     comp=Z,690nm,1.3s,mb6.2
LZH                                pmax   pmax
     comp=Z,5µm,4.7s
LZH                                LR     LR
     comp=N,79µm,14.7s
LZH                                LR     LR
     comp=Z,83µm,16.9s,MS6.6
NJ2  Nanjing            38.71  26 eP      P      14 53 44.3  0.0
NJ2                                pP     pP     14 53 55.5 +1.0
NJ2                                sP     sP     14 53 59.0 +0.3
NJ2                                S      S      14 59 39.0  0.0
NJ2                                sS     sS     14 59 58.0 +2.1
NJ2                                pmax   pmax
     comp=Z,230nm,1.2s,mb5.8
NJ2                                LR     LR
     comp=N,51µm,14.2s,MS6.7
NJ2                                LR     LR
     comp=E,58µm,16.0s,MS6.7
NJ2                                LR     LR
     comp=Z,84µm,14.2s,MS6.7
SMPI Sarmi              38.76  90  P      P      14 53 43.1 -1.9
     comp=Z,167nm,1.4s,mb5.6
FORT Forrest            38.77 140 eP      P      14 53 45.5 +0.7
     comp=Z,101nm,0.8s,mb5.6
FORT Forrest            38.77 140 eP      P      14 53 45.1 +0.2
     comp=Z,6µm,2.0s,mb6.9
BHJ  Bhuj               39.00 313 ePKP    P      14 53 47.1 +0.2
BHJ                                AMb    AMB    14 54 05.9
     comp=Z,414nm,1.5s,mb5.9
SSE  Sheshan            39.00  30  P      P      14 53 47.3 +0.6
SSE                                pP     pP     14 53 58.3 +1.3
SSE                                sP     sP     14 54 01.8 +0.6
SSE                                PP     PP     14 55 16.4 -0.2
SSE                                S      S      14 59 44.6 +1.2
SSE                                sS     sS     15 00 04.0 +3.7
SSE                                pmax   pmax
     comp=Z,270nm,1.0s,mb5.9
SSE                                pmax   pmax
     comp=Z,4µm,10.2s
SSE                                LR     LR
     comp=N,44µm,16.1s,MS6.6
SSE                                LR     LR
     comp=E,50µm,16.1s,MS6.6
SSE                                LR     LR
     comp=Z,69µm,9.2s
ASAR Alice Springs      39.07 126  P      P      14 53 46.4 -1.1
     comp=Z,62nm,0.7s,mb5.5,baz=299,slow=7.8,SNR=168
ASAR                               S      S      14 59 43.4 -1.4
     comp=Z,37nm,1.0s,baz=298,slow=16,SNR=16
JOW  Kunigami           39.93  41  P      P      14 53 54.5 -0.1
     comp=Z,54nm,0.9s,mb5.3,baz=256,slow=3.6,SNR=11
JOW                                LR     LR     15 10 26.7
     comp=Z,15µm,21.2s,MS5.8,baz=235,slow=36
SDNR Sundarnagar        40.18 329 ePKP    P      14 53 56.6 +0.1
SDNR                              ex      x      15 00 22.6
BHK  Bhakra             40.40 328 ePKP    P      14 53 58.0 -0.4
DLH  Dalhousie          41.52 329 ePKP    P      14 54 10.0 +2.4
THN  Thein Dam          41.57 328 ePKP    P      14 54 05.9 -2.1
THN                               ex      x      15 01 01.2
GTA  Gaotai             41.63 360⇑iP      P      14 54 08.5 +0.1
GTA                                pP     pP     14 54 18.4 -0.3
GTA                                sP     sP     14 54 22.3 -0.5
GTA                                PP     PP     14 55 49.3 +4.2
GTA                                PcP    PcP    14 56 05.5 +0.6
GTA                                ScP    ScP    14 59 50.9 -1.8
GTA                                PcS    PcS    14 59 55.8 -0.5
GTA                                S      S      15 00 22.5 +0.1
GTA                                sS     sS     15 00 38.8 -0.6
GTA                                SS     SS     15 03 23.0 -5.6
GTA                                ScS    ScS    15 04 07.8 -1.3
GTA                                pmax   pmax
     comp=Z,210nm,1.6s,mb5.5
GTA                                pmax   pmax
     comp=Z,5µm,6.3s
GTA                                LR     LR
     comp=N,49µm,17.4s,MS6.7
GTA                                LR     LR
     comp=E,71µm,16.8s,MS6.7
GTA                                LR     LR
     comp=Z,51µm,19.2s,MS6.4
TIA  Tai'an             41.65  21 ⇑P      P      14 54 08.0 -0.6
TIA                                PP     PP     14 55 53.0 +7.6
TIA                                pmax   pmax
     comp=Z,100nm,0.8s,mb5.5
TIA                                pmax   pmax
     comp=Z,2µm,8.0s
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TIA                                LR     LR
     comp=N,101µm,15.0s
BTO  Baotou             43.81  11 eP      P      14 54 25.4 -0.6
BTO                                S      S      15 01 04.3 +10
COEN Coen               44.23 108 eP      P      14 54 26.9 -2.9
     comp=N,334nm,1.1s,mb6.0
COEN Coen               44.23 108  P      P      14 54 27.6 -2.2
     comp=N,144nm,1.7s,mb5.4
HHC  Hu-ho-hao-te       44.36  13 ⇑P      P      14 54 31.3 +0.9
HHC                                pP     pP     14 54 40.8  0.0
HHC                                sP     sP     14 54 45.3 +0.3
HHC                                PP     PP     14 56 17.0 +2.6
HHC                                PcS    PcS    15 00 06.8 -0.4
HHC                               eS      S      15 01 02.4 -0.1
HHC                                sS     sS     15 01 19.9 +0.4
HHC                                SS     SS     15 04 13.5 -8.6
HHC                                ScS    ScS    15 04 24.3 -1.7
HHC                                pmax   pmax
     comp=Z,140nm,1.6s,mb5.4
HHC                                pmax   pmax
     comp=Z,6µm,3.6s
HHC                                LR     LR
     comp=N,86µm,14.5s,MS6.8
HHC                                LR     LR
     comp=E,22µm,16.5s,MS6.8
HHC                                LR     LR
     comp=Z,70µm,16.4s,MS6.7
MSEY Mahe Island        44.41 266 eP      P      14 54 32.7 +1.4
MSEY                               pmax   pmax
     comp=Z,17nm,0.8s,mb4.8
MSEY                               MLR    MLR
     comp=Z,22µm,21.0s,MS6.0
MSEY Mahe Island        44.41 266 eP      P      14 54 32.6 +1.3
     comp=Z,17nm,0.8s,mb4.8
MSEY                               LR     LR
     comp=Z,22µm,21.0s,MS6.0
BJT  Baijiatuau         44.78  18 eP      P      14 54 33.1 -0.8
BJT                                pmax   pmax
     comp=Z,629nm,1.1s
BJT  Baijiatuau         44.78  18 eP      P      14 54 33.1 -0.7
     comp=Z,629nm,1.1s,mb6.4
BJI  Beijing            44.81  18  P      P      14 54 34.1 +0.1
BJI                                PP     PP     14 56 20.8 +1.6
BJI                                PcS    PcS    15 00 10.4 +1.3
BJI                                S      S      15 01 14.1 +5.1
BJI                                pmax   pmax
     comp=Z,400nm,1.3s,mb6.1
BJI                                pmax   pmax
     comp=Z,8µm,4.1s
BJI                                LR     LR
     comp=N,84µm,18.2s,MS6.7
BJI                                LR     LR
     comp=E,29µm,20.3s,MS6.7
BJI                                LR     LR
     comp=Z,66µm,17.2s,MS6.6
QUE  Quetta             45.19 318 eS      S      15 01 06.0 -8.9
DL2  Dalian             45.73  24  P      P      14 54 40.8 -0.6
DL2                                S      S      15 01 24.3 +1.9
DL2                                pmax   pmax
     comp=Z,160nm,1.4s,mb5.8
DL2                                pmax   pmax
     comp=Z,2µm,3.0s
DL2                                LR     LR
     comp=N,17µm,19.8s,MS6.2
DL2                                LR     LR
     comp=E,17µm,15.0s,MS6.2
DL2                                LR     LR
     comp=Z,18µm,20.2s
INCN Inchon             46.80  29 eP      P      14 54 48.5 -1.3
     comp=Z,131nm,0.9s,mb5.9
INCN                               LR     LR
     comp=Z,30µm,20.0s,MS6.2
INCN Inchon             46.80  29  P      P      14 54 49.1 -0.8
     SNR=7.0
INCN                               P             14 54 49.1
     SNR=7.0
KBL  Kabul              46.83 324 eP      P      14 54 49.0 -1.1
KBL                                pmax   pmax
     comp=Z,176nm,1.2s,mb5.9
KBL  Kabul              46.83 324 eP      P      14 54 49.0 -1.1
     comp=Z,176nm,1.2s,mb5.9
RER  Riviere de l'E     46.85 243  PFAKE         14 55 00.0 +9.5
RER                                LR     LR
     comp=Z,21µm,20.0s,MS6.1
KSH  Kashi              47.18 335  P      P      14 54 51.3 -1.5
KSH                                pP     pP     14 55 00.9 -2.3
KSH                               esP     sP     14 55 05.1 -2.2
KSH                               ePcP    PcP    14 56 23.4 -0.6
KSH                                PP     PP     14 56 41.3 -2.7
KSH                               eScP    ScP    15 00 14.1 -1.3
KSH                               ePcS    PcS    15 00 18.1 -0.9
KSH                                S      S      15 01 38.0 -5.2
KSH                                pmax   pmax
     comp=Z,80nm,1.3s,mb5.5
KSH                                pmax   pmax
     comp=Z,4µm,3.9s
KSH                                LR     LR
     comp=N,25µm,13.8s,MS6.4
KSH                                LR     LR
     comp=E,18µm,14.4s,MS6.4
KSH                                LR     LR
     comp=Z,23µm,14.2s,MS6.3
GUMO Guam               47.33  69 eP      P      14 54 51.2 -3.1
GUMO                               pmax   pmax
     comp=Z,259nm,1.3s,mb6.0
GUMO                               MLR    MLR
     comp=Z,19µm,22.0s,MS6.0
GUMO Guam               47.33  69 eP      P      14 54 51.2 -3.1
     comp=Z,259nm,1.3s,mb6.0
GUMO                               LR     LR
     comp=Z,19µm,22.0s,MS6.0
WMQ  Urumqi             47.33 348⇑iP      P      14 54 54.8 +1.0
WMQ                                pP     pP     14 55 04.0 -0.2
WMQ                                sP     sP     14 55 08.0 -0.4
WMQ                                PP     PP     14 56 47.0 +1.7
WMQ                                S      S      15 01 47.0 +1.9
WMQ                                sS     sS     15 02 05.0 +2.7
WMQ                                ScS    ScS    15 04 45.0 -0.1
WMQ                                pmax   pmax
     comp=Z,970nm,1.3s,mb6.6
WMQ                                pmax   pmax
     comp=Z,9µm,3.9s
WMQ                                LR     LR
     comp=N,47µm,19.4s,MS6.6
WMQ                                LR     LR
     comp=E,41µm,19.5s,MS6.6
WMQ                                LR     LR
     comp=Z,52µm,26.0s
KSRS Korea Array        47.42  30  P      P      14 54 54.3 -0.4
KSRS                               pmax   pmax
     comp=Z,161nm,0.9s,mb6.0
KSRS Korea Array        47.42  30  P      P      14 54 54.2 -0.4
     comp=Z,161nm,0.9s,mb5.9,baz=224,slow=8.3,SNR=156
JMDO Jabal Madar        47.67 303 ⇓P      P      14 54 59.4 +2.5
     SNR=7.5
SMDO Samad              48.02 304 ⇑P      P      14 55 01.4 +1.9
     SNR=11
BIDO Bidbid             48.16 305 ⇓P      P      14 55 01.9 +1.3
     SNR=17
CTA  Charters Tower     48.49 115 eP      P      14 55 02.0 -1.3
     comp=Z,206nm,1.0s,mb6.1
CTA                               eS      S      15 02 00.1 -2.3
CTA  Charters Tower     48.49 115  LR     LR     15 17 45.3
     comp=Z,45µm,21.5s,MS6.4,baz=289,slow=39
CTAO Charters Tower     48.49 115 eP      P      14 55 01.7 -1.6
CTAO                               pmax   pmax
     comp=Z,444nm,1.1s,mb6.4
CTAO Charters Tower     48.49 115 eP      P      14 55 01.7 -1.5
     comp=Z,444nm,1.1s,mb6.4
CTAO Charters Tower     48.49 115  P      P      14 55 02.4 -0.9
     comp=Z,356nm,1.3s,comp=Z,4µm,mb6.2
BSY  Bisya              48.59 303 ⇑P      P      14 55 05.5 +1.6
     SNR=37
HOQ  Hoqain             48.86 304 ⇓P      P      14 55 07.9 +1.9
     SNR=22
STKA Stephens Creek     48.93 131 eP      P      14 55 05.8 -0.6
     comp=Z,148nm,0.9s,mb6.0
STKA                              eS      S      15 02 07.6 -0.6
STKA Stephens Creek     48.93 131  P      P      14 55 06.5 +0.1
     comp=Z,93nm,0.7s,mb5.9,baz=302,slow=7.4,SNR=130
STKA                               LR     LR     15 17 05.9
     comp=Z,88µm,21.4s,MS6.7,baz=295,slow=38
SNY  Shenyang           49.00  23 ⇑P      P      14 55 05.5 -1.3
SNY                                PP     PP     14 57 04.8 +4.2
SNY                                S      S      15 02 14.8 +6.0
SNY                                SS     SS     15 05 37.4 -2.9
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SNY                                pmax   pmax
     comp=Z,140nm,2.1s,mb5.6
SNY                                pmax   pmax
     comp=Z,5µm,12.0s
SNY                                LR     LR
     comp=N,38µm,16.2s,MS6.6
SNY                                LR     LR
     comp=E,39µm,16.2s,MS6.6
SNY                                LR     LR
     comp=Z,46µm,15.5s,MS6.6
RBK  Rabkut             49.22 296 ⇑P      P      14 55 10.0 +1.1
     SNR=14
ULHL Ulahol             49.36 337  P      P      14 55 10.1 +0.5
     SNR=47
ARQ  Araqi              49.41 304 ⇑P      P      14 55 11.7 +1.5
     SNR=11
KZA  Kyzart             49.62 336  P      P      14 55 07.4 -4.1
     SNR=5.6
WHFO Wadi Hawf          49.75 296 ⇓P      P      14 55 14.0 +1.1
     SNR=17
AAA  Alma-Ata           49.97 338 i P     P      14 55 15.2 +1.0
ABTO Aybut              49.99 295 ⇑P      P      14 55 16.5 +1.7
     SNR=11
UCH  Uchtor             50.05 335  P      P      14 55 15.6 +0.9
     SNR=61
UCH  Uchtor             50.05 335 eP      P      14 55 15.4 +0.6
UCH                                LR     LR
     comp=Z,31µm,22.0s,MS6.3
TKM2 Tokmak 2           50.19 337 eP      P      14 55 16.1 +0.3
TKM2                               pmax   pmax
     comp=Z,558nm,0.7s,mb6.7
TKM2                               MLR    MLR
     comp=Z,32µm,20.0s,MS6.3
TKM2 Tokmak 2           50.19 337  P      P      14 55 16.3 +0.5
     SNR=188
TKM2 Tokmak 2           50.19 337 eP      P      14 55 16.1 +0.3
     comp=Z,558nm,0.7s,mb6.7
TKM2                               LR     LR
     comp=Z,32µm,20.0s,MS6.3
KBK  Karagaybulak       50.23 336  P      P      14 55 17.0 +0.9
     SNR=104
AML  Almayashu          50.31 335 eP      P      14 55 16.7 -0.1
     comp=Z,933nm,1.4s,mb6.6
AML                                LR     LR
     comp=Z,18µm,20.0s,MS6.1
SONM Songino Array      50.37   6  P      P      14 55 17.6 +0.5
     comp=Z,375nm,0.9s,mb6.4,baz=188,slow=7.1,SNR=328
HATD Hatta, Dubai       50.37 305 ⇓P      P      14 55 18.6 +1.0
     SNR=24
AAK  Ala-Archa          50.39 336⇑eP      P      14 55 17.7 +0.3
AAK                                pmax   pmax
     comp=Z,122nm,1.7s,mb5.7
AAK                                MLR    MLR
     comp=Z,24µm,21.0s,MS6.2
AAK  Ala-Archa          50.39 336  P      P      14 55 18.0 +0.6
     SNR=35
AAK  Ala-Archa          50.39 336  P      P      14 55 18.2 +0.8
     comp=Z,41nm,0.7s,mb5.5,baz=144,slow=2.9,SNR=49
AAK                                LR     LR     15 18 09.8
     comp=Z,18µm,21.5s,MS6.0,baz=251,slow=38
AAK  Ala-Archa          50.39 336 eP      P      14 55 17.8 +0.4
AAK                                LR     LR
     comp=Z,43µm,20.0s,MS6.5
AAK  Ala-Archa          50.39 336  P      P      14 55 18.2 +0.8
     SNR=206
AAK                                P             14 55 18.2
     SNR=206
AAK  Ala-Archa          50.39 336  P      P      14 55 18.3 +0.9
     comp=Z,60nm,2.2s,comp=Z,1µm,mb5.2
ULN  Ulaanbaatar        50.47   6 eP      P      14 55 18.3 +0.5
ULN                                pmax   pmax
     comp=Z,617nm,1.1s,mb6.5
ULN  Ulaanbaatar        50.47   6 eP      P      14 55 18.3 +0.5
     comp=Z,618nm,1.1s,mb6.5
ULN  Ulaanbaatar        50.47   6  P      P      14 55 18.6 +0.8
     SNR=216
ULN                                P             14 55 18.6
     SNR=216
ULN  Ulaanbaatar        50.47   6  P      P      14 55 18.3 +0.5
     comp=Z,545nm,1.1s,comp=Z,7µm,mb6.5
FRU  Bishkek            50.51 336⇑iP      P      14 55 18.0 -0.2
FRU                               i              14 55 23.0
FRU                               eS      S      15 02 35.0 +5.1
FRU                                pmax   pmax
     comp=Z,840nm,2.5s,mb6.2
FRU                                smax
     comp=E,9µm,8.0s
FRU                                MLR    MLR
     comp=Z,41µm,20.0s,MS6.4
CHMS Chumysh            50.59 336  P      P      14 55 18.9  0.0
     SNR=43
EKS2 Erkin-Say          50.71 335  P      P      14 55 20.4 +0.6
     SNR=150
EKS2 Erkin-Say          50.71 335 eP      P      14 55 20.2 +0.4
     comp=Z,392nm,0.9s,mb6.3
EKS2                               LR     LR
     comp=Z,24µm,21.0s,MS6.2
FAQ  Al Faqa, Dubai     50.78 305 ⇑P      P      14 55 20.2 -0.4
     SNR=18
NAZ  Nazwa, Dubai       50.83 305 ⇓P      P      14 55 23.6 +2.6
     SNR=15
USP  Ospenovka          50.92 336  P      P      14 55 21.4 +0.1
     SNR=197
CN2  Changchun          51.40  24⇑iP      P      14 55 24.1 -0.8
CN2                               epP     pP     14 55 34.9 -0.6
CN2                                PcP    PcP    14 56 41.1 +1.9
CN2                               ePP     PP     14 57 22.5 +0.1
CN2                               eS      S      15 02 41.0 -1.2
CN2                                pmax   pmax
     comp=Z,20nm,1.2s,mb4.9
CN2                                pmax   pmax
     comp=Z,200nm,3.0s
CN2                                LR     LR
     comp=N,46µm,17.0s,MS6.7
CN2                                LR     LR
     comp=E,31µm,17.0s,MS6.7
CN2                                LR     LR
     comp=Z,42µm,18.0s,MS6.5
MK31 Makanchi Array     51.41 345 i P     P      14 55 24.8 -0.2
MKAR Makanchi Array     51.41 345  P      P      14 55 25.0  0.0
MKAR                               S      S      15 02 45.8 +3.5
MKAR Makanchi Array     51.41 345  P      P      14 55 24.9  0.0
     comp=Z,136nm,0.8s,mb5.9,baz=150,slow=7.7,SNR=282
MKAR                               S      S      15 02 45.8 +3.5
     comp=Z,16nm,1.2s,baz=172,slow=9.2,SNR=5.9
MKAR                               LR     LR     15 21 53.1
     comp=Z,19µm,18.7s,MS6.2,baz=162,slow=41
MKAR                               PKPPKP        15 25 57.3
     comp=Z,0.7nm,0.9s,baz=180,slow=0.7,SNR=4.1
KK31 Karatay Array      52.49 333 i P     P      14 55 32.3 -0.8
MAJO Matsushiro         52.65  39 eP      P      14 55 32.7 -1.7
MAJO                               pmax   pmax
     comp=Z,256nm,1.3s,mb6.0
MAJO                               MLR    MLR
     comp=Z,20µm,20.0s,MS6.2
MAJO Matsushiro         52.65  39 eP      P      14 55 32.7 -1.7
     comp=Z,256nm,1.3s,mb6.0
MAJO                               LR     LR
     comp=Z,20µm,20.0s,MS6.2
MAT  Matsushiro         52.65  39  P      P      14 55 33.1 -1.3
MAT                                S      S      15 03 05.0 +5.4
MJAR Matsushiro Arr     52.65  39  P      P      14 55 33.1 -1.3
     comp=Z,162nm,1.1s,mb5.9,baz=222,slow=7.4,SNR=85
ZAK  Zakamensk          52.68   3⇑iP      P      14 55 34.3  0.0
ZAK                                pmax   pmax
     comp=Z,87nm,1.3s,mb5.5
MUKL Al Mukalla         53.12 290 eP      P      14 55 42.3 +4.1
PAF  Port-aux-Franc     53.18 204  PFAKE         14 55 50.0  +12
PAF                                LR     LR
     comp=Z,40µm,20.0s,MS6.5
MDJ  Mudanjiang         53.80  26  P      P      14 55 42.6 -0.1
MDJ                                pP     pP     14 55 48.6 -4.6
MDJ                                PcP    PcP    14 56 48.5 +0.3
MDJ                                PP     PP     14 57 43.5 -0.6
MDJ                                PcS    PcS    15 00 49.5 +2.2
MDJ                                S      S      15 03 18.4 +3.4
MDJ                                ScS    ScS    15 05 30.0 +0.6
MDJ                                SS     SS     15 06 52.6 -3.8
MDJ                                pmax   pmax
     comp=Z,130nm,1.1s,mb5.8
MDJ                                LR     LR
     comp=N,39µm,20.3s
MDJ                                LR     LR
     comp=E,57µm,14.9s
MDJ                                LR     LR
     comp=Z,50µm,20.0s,MS6.6
MDJ  Mudanjiang         53.80  26 eP      P      14 55 42.3 -0.4
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	comp=Z,164nm,1.0s,mb5.9						
MDJ				LR	LR		
	comp=Z,54µm,21.0s,MS6.6						
MOY	**Mondy**	53.89	1	*e*P	P	14 55 42.9	-0.3
MOY				pmax	pmax		
	comp=Z,521nm,3.9s						
TLY	**Talaya**	53.99	3	P	P	14 55 44.5	+0.6
	comp=Z,840nm,1.0s,mb6.6,SNR=54						
TLY	**Talaya**	53.99	3	*e*P	P	14 55 44.3	+0.4
TLY				pmax	pmax		
	comp=Z,172nm,1.0s,mb5.9						
TLY				MLR	MLR		
	comp=Z,23µm,19.0s,MS6.3						
TLY	**Talaya**	53.99	3	*e*P	P	14 55 44.2	+0.3
	comp=Z,172nm,1.0s,mb5.9						
TLY				LR	LR		
	comp=Z,23µm,19.0s,MS6.3						
TLY	**Talaya**	53.99	3	P	P	14 55 44.8	+0.9
	SNR=106						
TLY				P		14 55 44.8	
	SNR=106						
OPO	**Ambohidratompo**	54.05	249	P	P	14 55 45.4	+0.5
	comp=Z,24nm,0.9s,mb5.1,baz=66,slow=5.5,SNR=13						
EIDS	**Eidsvold**	54.21	120	*e*P	P	14 55 46.0	-0.1
	comp=Z,177nm,1.0s,mb6.0						
HIA	**Hailar**	54.27	16	*e*P	P	14 55 45.5	-0.5
HIA				pmax	pmax		
	comp=Z,194nm,1.1s						
HIA				MLR	MLR		
	comp=Z,50µm,19.0s						
HIA	**Hailar**	54.27	16	*e*P	P	14 55 45.5	-0.5
	comp=Z,194nm,1.1s,mb6.0						
HIA				LR	LR		
	comp=Z,50µm,19.0s,MS6.6						
TOO	**Toolangi**	54.46	136	*e*P	P	14 55 49.6	+1.9
TOO				*e*S	S	15 03 30.2	+6.0
IRK	**Irkutsk**	54.59	3	*i* P	P	14 55 48.2	-0.1
IRK				*e*S	S	15 03 28.2	+2.9
IRK				pmax	pmax		
	comp=Z,521nm,2.3s,mb6.2						
CIT	**Chita**	55.46	10	*e*P	P	14 55 55.5	+0.9
CIT				*e*		14 56 00.9	
CIT				*e*		14 56 49.8	
CIT				*e*S	S	15 03 40.6	+3.6
CIT				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
ABKT	**Ailbek**	55.72	320	P	P	14 55 56.2	-0.5
	comp=Z,967nm,0.8s,mb6.9,SNR=20						
CAN	**Canberra**	55.99	132	*e*P	P	14 55 59.7	+1.0
CAN				pmax	pmax		
	comp=Z,241nm,1.2s,mb6.1						
CAN				MLR	MLR		
	comp=Z,70µm,21.0s,MS6.7						
CAN	**Canberra**	55.99	132	*e*P	P	14 55 59.7	+1.0
	comp=Z,241nm,1.2s,mb6.1						
CAN				LR	LR		
	comp=Z,70µm,21.0s,MS6.7						
KURK	**Kurchatov**	55.99	344	P	P	14 55 58.0	-0.4
	comp=Z,2µm,1.2s,mb7.0						
KURK	**Kurchatov**	55.99	344	P	P	14 55 57.6	-0.8
KURK				S	S	15 03 44.2	+0.1
KURK				pmax	pmax		
	comp=Z,264nm,1.2s,mb6.1						
KURK				smax			
	comp=N,5.0nm,1.1s						
KURK	**Kurchatov**	55.99	344	P	P	14 55 57.5	-0.8
	comp=N,264nm,1.1s,mb6.2,baz=162,slow=7.3,SNR=82						
KURK				S	S	15 03 44.2	0.0
	comp=N,5.0nm,1.1s,baz=161,slow=12,SNR=2.7						
KURK	**Kurchatov**	55.99	344	*e*P	P	14 55 58.1	-0.3
KURK				LR	LR		
	comp=Z,23µm,19.0s,MS6.3						
ARMA	**Armidale**	56.22	125	*e*P	P	14 56 02.2	+1.7
ARMA				*e*S	S	15 03 52.5	+4.5
ARMA	**Armidale**	56.22	125	*e*P	P	14 56 02.0	+1.5
	comp=Z,219nm,1.3s,mb6.0						
CNB	**Canberra Magne**	56.26	132	*e*P	P	14 56 01.4	+0.7
CNB				*e*S	S	15 03 51.1	+2.8
BDHA	**Al Bayda’**	56.28	288	*e*P	P	14 56 05.2	+4.1
BDHA				AMb	AMB	14 56 08.2	
	comp=Z,126nm,1.6s,mb5.7						
RIV	**Riverview**	57.04	129	*e*P	P	14 56 05.6	-0.7
TRBA	**At Turbah**	57.51	287	*e*P	P	14 56 14.1	+4.3
DHBB	**Dhamar BB**	57.52	289	⇓*e*P	P	14 56 13.7	+3.8
DHBB				AMb	AMB	14 56 16.8	
	comp=Z,883nm,1.6s,mb6.5						
ZALV	**Zalesovo Beam**	57.57	349	P	P	14 56 09.1	-0.4
ZALV				S	S	15 04 08.7	+3.8
ZALV	**Zalesovo Beam**	57.57	349	P	P	14 56 09.1	-0.5
	comp=Z,156nm,0.7s,mb6.1,baz=164,slow=5.9,SNR=137						
ZALV				S	S	15 04 08.7	+3.8
	comp=Z,1.7nm,0.4s,baz=165,slow=6.0,SNR=4.1						
ZALV				PKP2bc		15 26 04.6	
	comp=Z,0.9nm,0.6s,baz=232,slow=1.7,SNR=3.7						
ZALV	**Zalesovo Beam**	57.57	349	P	P	14 56 09.1	-0.5
ZALV				S	S	15 04 08.7	+3.8
ZALV				⇑*e*		15 26 04.6	
UDYN	**Al ‘Udayn**	57.80	288	*e*P	P	14 56 16.2	+4.3
MOO	**Moorlands**	57.99	140	*e*P	pP	14 56 24.8	+1.4
MOO				*e*S	S	15 04 15.1	+4.2
TAU	**Tasmania Unive**	58.30	141	P	P	14 56 16.9	+1.9
TAU				pmax	pmax		
	comp=Z,119nm,1.4s,mb5.7						
TAU				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.3						
TAU	**Tasmania Unive**	58.30	141	P	P	14 56 16.9	+1.9
	comp=Z,119nm,1.4s,mb5.7						
TAU				LR	LR		
	comp=Z,23µm,20.0s,MS6.3						
KLR	**Kul’dur**	58.35	24	*e*P	P	14 56 11.1	-4.0
KLR				*e*S	S	15 04 17.5	+2.2
KLR				*e*SS	SS	15 08 07.5	-0.4
KLR				pmax	pmax		
	comp=Z,6µm,8.0s						
HAJJ	**Hajjah**	58.51	290	*e*P	P	14 56 21.3	+4.4
NVS	**Novosibirsk**	58.71	349	⇑*i*P	P	14 56 16.1	-1.4
NVS				*e*S	S	15 04 17.2	-2.6
NVS				pmax	pmax		
	comp=Z,420nm,1.5s,mb6.2						
NVS				pmax	pmax		
	comp=N,420nm,1.7s						
NVS				pmax	pmax		
	comp=E,196nm,1.4s						
NVS				smax			
	comp=N,345nm,2.1s						
NVS				smax			
	comp=E,280nm,2.0s						
ERM	**Erimo**	59.04	37	⇑*i*P	P	14 56 19.6	-0.5
ERM				pmax	pmax		
	comp=Z,225nm,1.7s,mb5.9						
ERM	**Erimo**	59.04	37	PFAKE		14 56 30.0	+10
ERM				LR	LR		
	comp=Z,19µm,19.0s,MS6.2						
HABR	**Khabarovsk**	59.17	26c	*i*P	P	14 56 20.3	-0.6
HABR				e*PP	pP	14 56 29.6	-1.9
HABR				*e*		14 57 08.1	
HABR				*e*		14 58 30.4	
HABR				*e*S	S	15 04 26.0	0.0
HABR				e*SS	sS	15 04 42.2	-1.4
HABR				*e*		15 06 06.8	
HABR				SS	SS	15 08 21.5	+0.6
HABR				pmax	pmax		
	comp=Z,262nm,1.2s,mb6.1						
HABR				pmax	pmax		
	comp=N,73nm,1.2s						
HABR				pmax	pmax		
	comp=E,157nm,1.4s						
HABR				pmax	pmax		
	comp=Z,2µm,4.0s						
HABR				MLR	MLR		
	comp=N,20µm,14.0s,MS6.6						
HABR				MLR	MLR		
	comp=E,30µm,16.0s,MS6.6						
HABR				MLR	MLR		
	comp=Z,31µm,22.0s						
ASAJ	**Asahikawa**	60.00	34	P	P	14 56 26.3	-0.4
ASAJ				pmax	pmax		
	comp=Z,122nm,1.0s						
ASAJ	**Asahikawa**	60.00	34	P	P	14 56 26.3	-0.4
	comp=Z,122nm,0.9s,mb5.9,baz=247,slow=14,SNR=26						
HNR	**Honiara**	60.04	99	*e*P	P	14 56 26.7	-0.8
HNR				pmax	pmax		
	comp=Z,858nm,1.1s,mb6.7						
HNR				MLR	MLR		
	comp=Z,16µm,21.0s,MS6.1						
HNR	**Honiara**	60.04	99	*e*P	P	14 56 26.6	-0.9
	comp=Z,858nm,1.1s,mb6.7						
HNR				LR	LR		
	comp=Z,16µm,21.0s,MS6.1						
VOSK	**Vostochnaya**	60.10	340	P	P	14 56 25.7	-1.5
VOSK				pmax	pmax		
	comp=Z,246nm,1.4s,mb6.0						
BVA0	**Borovoye Array**	60.55	340	P	P	14 56 27.9	-2.3
BVA0				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.2						
BVAR	**Borovoye Array**	60.55	340	P	P	14 56 29.0	-1.3
	comp=Z,30nm,0.6s,mb5.6,baz=145,slow=8.7,SNR=68						
BRVK	**Borovoye**	60.62	340	P	P	14 56 29.5	-1.2
	comp=Z,906nm,1.0s,mb6.9,SNR=42						
BRVK	**Borovoye**	60.62	340	*e*P	P	14 56 29.3	-1.4
BRVK				pmax	pmax		
	comp=Z,270nm,1.2s,mb6.2						
BRVK				MLR	MLR		
	comp=Z,19µm,20.0s,MS6.2						
BRVK	**Borovoye**	60.62	340	*e*P	P	14 56 29.3	-1.4
	comp=Z,270nm,1.2s,mb6.2						
BRVK				LR	LR		
	comp=Z,19µm,20.0s,MS6.2						
BOD	**Bodaibo**	61.11	9	⇓*i*P	P	14 56 33.4	-0.5
BOD				pmax	pmax		
	comp=Z,284nm,1.4s,mb6.2						
DESE	**Dese**	61.45	284	P	P	14 56 40.1	+3.1
DESE				S	S	15 05 06.9	+11
YSS	**Yuzh-Sakhalins**	61.88	32α	*i*P	P	14 56 38.9	-0.5
YSS				e*PP	pP	14 56 48.2	-1.9
YSS				*e*		14 57 26.2	
YSS				*e*		14 58 53.0	
YSS				*e*S	S	15 05 10.0	+9.3
YSS				*e*PS		15 05 22.0	
YSS				*e*		15 06 28.0	
YSS				pmax	pmax		
	comp=N,270nm,1.2s						
YSS				pmax	pmax		
	comp=Z,770nm,1.2s,mb6.7						
YSS				pmax	pmax		
	comp=E,260nm,1.4s						
YSS				pmax	pmax		
	comp=Z,4µm,6.0s						
YSS				pmax	pmax		
	comp=N,2µm,4.0s						
YSS				pmax	pmax		
	comp=E,2µm,4.0s						
YSS				pmax	pmax		
	comp=Z,2µm,8.0s						
YSS				pmax	pmax		
	comp=N,2µm,10.0s						
YSS				pmax	pmax		
	comp=E,1µm,10.0s						
YSS	**Yuzh-Sakhalins**	61.88	32	*e*P	P	14 56 39.1	-0.2
	comp=E,508nm,1.0s,mb6.6						
AB31	**Akbulak array**	61.97	332	P	P	14 56 38.5	-1.4
AB31				pmax	pmax		
	comp=Z,481nm,0.9s,mb6.6						
FURI	**Furi**	62.06	281	*e*P	P	14 56 44.2	+2.9
FURI				S	S	15 05 11.5	+7.3
FURI	**Furi**	62.06	281	*e*P	P	14 56 44.2	+2.9
FURI				S	S	15 05 11.5	+7.3
NRGR	**Nerungri**	62.23	15	*e*P	P	14 56 41.5	0.0
NRGR				S	S	15 05 03.0	-1.8
NRGR				smax			
	comp=N,95nm,0.9s						
CLNS	**Chul’man**	62.44	15	*e*P	P	14 56 42.6	-0.3
CLNS				e*PP	pP	14 56 52.4	-1.2
CLNS				*e*		14 57 19.0	
CLNS				*e*		14 58 58.7	
CLNS				*e*PPP		15 00 28.6	
CLNS				*e*S	S	15 05 11.3	+3.9
CLNS				pmax	pmax		
	comp=Z,192nm,1.1s,mb6.1						
CLNS				pmax	pmax		
	comp=N,100nm,1.1s						
CLNS				pmax	pmax		
	comp=E,70nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.4						
CLNS				pmax	pmax		
	comp=N,52nm,1.2s						
CLNS				pmax	pmax		
	comp=E,50nm,1.1s						
CLNS				smax			
	comp=N,3µm,12.9s						
CLNS				smax			
	comp=E,1µm,11.0s						
CLNS				MLR	MLR		
	comp=Z,38µm,15.0s,MS6.7						
CLNS				MLR	MLR		
	comp=N,28µm,15.0s,MS6.6						
CLNS				MLR	MLR		
	comp=E,26µm,18.0s,MS6.6						
KMBO	**Kilima Mbogo**	62.65	270	P	P	14 56 47.0	+1.8
	comp=E,25nm,0.7s,mb5.4,baz=55,slow=3.7,SNR=8.9						
KMBO				LR	LR	15 19 37.6	
	comp=E,19µm,20.2s,MS6.3,baz=85,slow=32						
KMBO	**Kilima Mbogo**	62.65	270	P	P	14 56 47.0	+1.8
KMBO				LR	LR	15 19 37.6	
AKTK	**Aktyubinsk**	63.69	332	P	P	14 56 50.0	-1.3
AKTK				LR	LR	15 27 53.7	
AKTO	**Aktyubinsk**	63.69	332	P	P	14 56 49.5	-1.8
AKTO				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.5						
AKTO	**Aktyubinsk**	63.69	332	P	P	14 56 50.0	-1.3
	comp=Z,224nm,1.2s,mb6.1,baz=133,slow=7.2,SNR=59						
AKTO				LR	LR	15 27 53.7	
	comp=Z,14µm,21.6s,MS6.1,baz=138,slow=39						
MIR	**Mirnyy**	64.19	183c	*i*P	P	14 57 04.0	+10
MIR				*i* S	S	15 05 34.0	+5.1
MIR				*i* SS	SS	15 09 48.0	+9.3
MAK	**Makhachkala**	65.24	320	*e*P	P	14 56 59.7	-2.0
MAK				*e*		14 57 30.7	
MAK				*e*PPP		15 01 07.1	
MAK				*e*S	S	15 05 40.7	-2.0
MAK				pmax	pmax		
	comp=Z,545nm,1.7s,mb6.3						
CUKT	**Cukurca**	65.36	313	*e*P	P	14 57 01.1	-1.5
GNI	**Garni**	65.78	316	*e*P	P	14 57 04.5	-0.7
GNI	**Garni**	65.78	316	⇑*e*P	P	14 57 05.1	-0.1
GNI				pmax	pmax		
	comp=Z,138nm,1.7s						
GNI				MLR	MLR		
	comp=Z,6µm,20.0s						
GNI	**Garni**	65.78	316	P	P	14 57 05.6	+0.5
	comp=Z,30nm,1.1s,mb5.2,baz=353,slow=3.6,SNR=11						
GNI	**Garni**	65.78	316	P	P	14 57 02.7	-2.5
GNI				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
GNI	**Garni**	65.78	316	P	P	14 57 06.1	+0.9
	SNR=40						
GNI				P		14 57 06.1	
	SNR=40						
VANB	**Van**	66.07	314	*e*P	P	14 57 08.5	+1.4
DYDN	**Diyadin**	66.25	315	*i* P	P	14 57 08.3	+0.1
MTA	**Mtatsminda**	66.42	318	P	P	14 57 08.8	-0.5
MTA				S	S	15 05 57.4	+0.2
TBLG	**Delisi**	66.48	318	*e*P	P	14 57 09.1	-0.6
TBLG				*e*S	S	15 05 58.0	+0.1
TBLG	**Delisi**	66.48	318	P	P	14 57 09.1	-0.6
TBLG				S	S	15 05 58.0	+0.2
AGRB	**Hanur-Agry**	66.75	315	*e*P	P	14 57 12.1	+0.6
TATV	**Tatvan**	66.84	314	*i* P	P	14 57 12.6	+0.6
GOR	**Gori**	67.01	318	P	P	14 57 13.5	+0.5
GOR				S	S	15 06 01.1	-3.2
SVE	**Sverdlovsk**	67.04	338	⇓*e*P	P	14 57 12.2	-0.7
SVE				*e*S	S	15 06 03.5	-0.6
SVE				pmax	pmax		
	comp=Z,536nm,1.5s,mb6.3						
SVE				MLR	MLR		
	comp=Z,15µm,21.0s,MS6.2						
KARS	**Kars**	67.11	316	*e*P	P	14 57 14.8	+1.0
NOUC	**Port Laguerre**	67.23	113	*e*P	P	14 57 14.6	-0.3
BEST	**Besiri**	67.32	313	*e*P	P	14 57 16.1	+1.0
DZM	**Mont Dzumac**	67.36	113	*e*P	P	14 57 16.1	+0.5
	comp=Z,363nm,1.5s,mb6.2						
MARD	**Mardin**	67.47	312	*i* P	P	14 57 14.5	-1.6
ARU	**Arti**	67.56	337	P	P	14 57 15.9	-0.3
	comp=Z,1µm,1.5s,mb6.7,SNR=32						
ARU	**Arti**	67.56	337d	*i*P	P	14 57 14.7	-1.5
ARU				*e*		14 57 40.4	
ARU				*e*		14 59 40.6	
ARU				*e*PPP		15 01 24.5	
ARU				*e*S	S	15 06 09.3	-1.1
ARU				SS	SS	15 10 28.3	-3.3
ARU				pmax	pmax		
	comp=Z,188nm,1.7s,mb5.8						
ARU				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.4						
ARU	**Arti**	67.56	337	*e*P	P	14 57 15.3	-0.9
	comp=Z,516nm,1.4s,mb6.4						
ARU				LR	LR		
	comp=Z,23µm,19.0s,MS6.4						
PLUM	**Mont Dore**	67.56	113	*e*P	P	14 57 17.2	+0.2
HOMI	**Horasan**	67.71	315	*i* P	P	14 57 17.3	-0.2
ONI	**Oni**	67.71	318	P	P	14 57 17.4	0.0
ONI				S	S	15 06 16.9	+4.2
ERZM	**Erzurum**	68.03	315	*i* P	P	14 57 19.7	+0.1
EZM	**Erzurum**	68.04	315	*e*P	P	14 57 23.5	+3.9
YAK	**Yakutsk**	68.17	15	*e*P	P	14 57 18.4	-1.5
YAK				pmax	pmax		
	comp=Z,967nm,1.0s,mb6.8						
YAK				MLR	MLR		
	comp=Z,38µm,19.0s,MS6.7						
YAK	**Yakutsk**	68.17	15	*e*P	P	14 57 18.4	-1.5
	comp=Z,967nm,1.0s,mb6.8						
YAK				LR	LR		
	comp=Z,38µm,19.0s,MS6.7						
DIYA	**Diyarbakir**	68.18	313	*i* P	P	14 57 20.4	-0.1
KOPT	**Kop Dagi**	68.69	315	*i* P	P	14 57 22.9	-0.8
ASF	**Jabal al Asfar**	68.77	306	P	P	14 57 25.4	+1.1
	comp=Z,19nm,0.9s,mb5.0,baz=352,slow=2.9,SNR=11						
ASF				LR	LR	15 28 26.5	
	comp=Z,23µm,18.3s,MS6.5,baz=114,slow=37						
KIV	**Kislovodsk**	68.81	319	P	P	14 57 24.8	+0.5
	comp=Z,1µm,1.3s,mb6.6,SNR=18						
KIV	**Kislovodsk**	68.81	319α	*i*P	P	14 57 23.9	-0.4
KIV				*i*		14 57 28.5	
KIV				i *PP	pP	14 57 32.9	-2.3
KIV				*i*		14 57 47.3	
KIV						14 59 54.0	
KIV				*i* S	S	15 06 25.4	-0.4
KIV				pmax	pmax		
	comp=Z,351nm,1.6s,mb6.0						
KIV	**Kislovodsk**	68.81	319	*e*P	P	14 57 24.4	0.0
	comp=Z,283nm,1.1s,mb6.1						
KIV				LR	LR		
	comp=Z,9µm,21.0s,MS6.0						
KIV	**Kislovodsk**	68.81	319	P	P	14 57 24.4	0.0
	SNR=43						
KIV				P		14 57 24.4	
	SNR=43						
URFA	**Urfa**	68.97	312	*e*P	P	14 57 25.7	+0.3
EZC	**Erzincan**	69.08	314	*e*P	P	14 57 28.4	+2.3
MBAR	**Mbarara**	69.18	270	P	P	14 57 27.0	-0.3
	comp=Z,101nm,0.8s,mb5.8,SNR=5.0						
MBAR	**Mbarara**	69.18	270	⇑*i*P	P	14 57 26.9	-0.4
MBAR	**Mbarara**	69.18	270	*e*P	P	14 57 27.4	+0.1
MBAR				AMb	AMB	14 57 46.4	
	comp=Z,174nm,1.6s,mb5.8						
ELZG	**Elazig**	69.22	313	*i* P	P	14 57 26.8	-0.2
MOPA	**Mopani**	69.36	246	*e*P	P	14 57 27.4	-0.8
MOPA				AMb	AMB	14 57 46.4	
	comp=Z,134nm,1.6s,mb5.6						
ATAB	**Bozova**	69.37	312	*e*P	P	14 57 28.0	+0.1
MALT	**Malatya**	69.56	312	*e*P	P	14 57 29.6	+0.5
MALT	**Malatya**	69.56	312	⇓*i*P	P	14 57 29.5	+0.4
MALT	**Malatya**	69.56	312	PFAKE		14 57 40.0	+11
MALT				LR	LR		
	comp=Z,14µm,20.0s,MS6.2						
MALT	**Malatya**	69.56	312	P	P	14 57 29.3	+0.2
	comp=Z,108nm,1.4s,comp=Z,3µm,mb5.6						
GUMT	**Gumushane**	69.58	315	*e*P	P	14 57 30.5	+1.4
POGA	**Pongola**	69.66	242	*e*P	P	14 57 29.9	-0.1
POGA				AMb	AMB	14 57 43.7	
	comp=Z,169nm,1.7s,mb5.7						
EIL	**Elat**	69.69	303	P	P	14 57 29.7	-0.4
	comp=Z,29nm,1.0s,mb5.2,baz=52,slow=6.4,SNR=6.8						
EIL				LR	LR	15 27 49.7	
	comp=Z,42µm,18.5s,MS6.7,baz=108,slow=36						
KEMA	**Kemaliye**	69.85	313	*i* P	P	14 57 30.1	-0.8
MAW	**Mawson**	69.86	194	LR	LR	15 21 21.3	
	comp=Z,25µm,21.8s,MS6.4,baz=32,slow=30						
GZT	**Gaziantep**	69.88	311	*i* P	P	14 57 31.0	-0.1
AKCD	**Akcadag**	69.93	312	*i* P	P	14 57 31.2	-0.2
DRV	**Dumont d’Urvil**	69.94	164	P	P	14 57 35.0	+4.1
DRV				S	S	15 06 42.0	+3.7
DRV				SS	SS	15 10 51.0	-17
DRV				R		15 17 00.0	
GAZ	**Gaziantep**	70.08	311	*e*P	P	14 57 33.8	+1.4
MMAI	**Mount Meron Ar**	70.22	306	P	P	14 57 34.1	+0.8
	comp=Z,14nm,0.7s,mb5.0,baz=96,slow=7.9,SNR=14						
BHL	**Bhannes**	70.28	307	*e*P	P	14 57 33.2	-0.4
ESPY	**Espiye-Giresun**	70.28	315	*e*P	P	14 57 31.0	-2.5
SOKR	**Solikamsk**	70.43	338c	*i*P	P	14 57 34.3	+0.3
SOKR				S	S	15 06 44.4	+0.2
SOKR				pmax	pmax		
	comp=Z,350nm,1.1s,mb6.2						
SOKR				MLR	MLR		
	comp=Z,20µm,21.0s,MS6.3						
KMRS	**Kahramanmaras**	70.43	311	*e*P	P	14 57 34.7	+0.2
MSNA	**Messina**	70.50	247	*e*P	P	14 57 34.7	-0.5
MSNA				AMb	AMB	14 57 53.9	
	comp=Z,114nm,1.8s,mb5.5						
COBT	**Iskenderun**	70.60	310	*i* P	P	14 57 36.1	+0.6
SOC	**Sochi**	70.62	318	*e*P	P	14 57 33.7	-1.8
SOC				e*PP	pP	14 57 42.2	-4.1
SOC				*e*		14 57 53.9	
SOC				*e*S	S	15 06 45.1	-1.9
SOC				*e*		15 07 33.3	
SOC				pmax	pmax		
	comp=Z,94nm,0.7s,mb5.8						
SOC				pmax	pmax		
	comp=Z,890nm,4.8s						
SOC				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.8						
SARI	**SarD1z-Kayseri**	70.97	312	*e*P	P	14 57 39.5	+1.8
SVSK	**Karacayir**	71.16	314	*e*P	P	14 57 39.0	+0.1
PINB	**Pinarbasi**	71.18	312	*i* P	P	14 57 38.1	-0.9
KOZT	**Kozan**	71.23	311	*e*P	P	14 57 36.1	-3.3
SKR	**Severo-Kuril’s**	71.26	34	*e*P	P	14 57 38.0	-1.2
SKR				*e*	pP	14 57 45.5	-4.6
SKR				*e*		14 57 59.0	
SKR				*e*		15 00 22.0	
SKR				*e*		15 07 36.0	
SKR				*e*PS		15 07 40.0	
SKR				pmax	pmax		
	comp=N,270nm,1.0s						
SKR				pmax	pmax		
	comp=E,110nm,1.0s						
SKR				pmax	pmax		
	comp=Z,670nm,1.0s,mb6.5						
SKR				pmax	pmax		
	comp=E,5µm,12.0s						
SKR				pmax	pmax		
	comp=Z,6µm,12.0s						
SKR				MLR	MLR		
	comp=N,15µm,18.0s						
SKR				MLR	MLR		
	comp=Z,18µm,18.0s,MS6.4						
BNN	**Bunyan**	71.65	312	*e*P	P	14 57 41.2	-0.6
TOKA	**Tokat**	71.67	314	*i* P	P	14 57 42.8	+0.9
KARA	**Karaisali**	71.75	310	*e*P	P	14 57 41.2	-1.2
LSZ	**Lusaka**	71.75	255	*e*P	P	14 57 42.4	-0.5
LSZ				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.5						
LSZ				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.4						
LSZ	**Lusaka**	71.75	255	P	P	14 57 42.4	-0.5
	comp=Z,35nm,1.1s,mb5.2,baz=101,slow=3.9,SNR=12						
LSZ	**Lusaka**	71.75	255	*e*P	P	14 57 42.4	-0.5
	comp=Z,73nm,1.2s,mb5.5						
LSZ				LR	LR		
	comp=Z,23µm,20.0s,MS6.4						
LSZ	**Lusaka**	71.75	255	P	P	14 57 43.0	+0.2
	SNR=21						
LSZ				P		14 57 43.0	
	SNR=21						
LSZ	**Lusaka**	71.75	255	*e*P	P	14 57 42.4	-0.5
LSZ				AMb	AMB	14 58 01.5	
	comp=Z,832nm,1.6s,mb6.4						
EREN	**Erenkoy**	71.92	309	*e*P	P	14 57 47.0	+3.5
KSD	**Kokstad**	72.01	239	*e*P	P	14 57 43.4	-0.8
KSD				AMb	AMB	14 58 03.2	
	comp=Z,442nm,1.7s,mb6.1						
MERS	**Mersin**	72.03	310	*e*P	P	14 57 46.0	+1.8
KVT	**Kavak**	72.24	315	*e*P	P	14 57 42.4	-2.9
LFK	**Lefkose**	72.35	308	*e*P	P	14 57 49.3	+3.2
AVNT	**Avonos**	72.36	312	*i* P	P	14 57 49.0	+2.9

CSS	Prodhromos	72.42	308	*e*P	P	14 57 46.7	+0.2
	comp=Z,245nm,1.0s,mb6.1						
CSS				LR	LR		
	comp=Z,17µm,19.0s,MS6.3						
SLR	Silverton	72.42	244	*e*P	P	14 57 46.6	-0.1
SLR				AMb	AMB	14 58 05.6	
	comp=Z,226nm,1.6s,mb5.8						
ERPM	east rand prop	72.52	243	*e*P	P	14 57 46.7	-0.7
ERPM				AMb	AMB	14 58 05.8	
	comp=Z,131nm,1.7s,mb5.6						
ANN	Anapa	72.60	319	*e*P	P	14 57 47.8	+0.4
ANN				*e*S	S	15 07 10.6	+0.8
ANN				pmax	pmax		
	comp=Z,2µm,14.0s						
ANN				MLR	MLR		
	comp=N,11µm,22.0s,MS6.1						
ANN				MLR	MLR		
	comp=E,3µm,22.0s,MS6.1						
ANN				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.8						
ANN	Anapa	72.60	319	*e*P	P	14 57 48.4	+1.0
VRHR	Novokhopersk	72.63	326	*e*P	P	14 57 46.4	-1.0
VRHR				*e**PP	pP	14 57 54.3	-4.0
VRHR				*e*S	S	15 07 10.0	0.0
VRHR				pmax	pmax		
	comp=Z,60nm,0.7s,mb5.6						
VRHR				pmax	pmax		
	comp=N,60nm,1.6s						
VRHR				smax			
	comp=N,3µm,5.9s						
VRHR				smax			
	comp=Z,580nm,4.4s						
LEF	Lefka	72.81	308	*e*P	P	14 57 48.7	-0.1
CDAG	Cicekdag	72.98	313	*i* P	P	14 57 48.2	-1.6
TARA	Tarawa	73.08	88	PFAKE		14 58 00.0	+9.1
TARA				LR	LR		
	comp=Z,9µm,22.0s,MS6.0						
BOYT	Boyabat	73.16	315	*e*P	P	14 57 52.0	+1.1
SULT	Sultanhani-AKS	73.19	311	*e*P	P	14 57 51.0	0.0
PETK	Petropavlovsk-	73.28	32	P	P	14 57 50.9	-0.3
	comp=Z,57nm,0.9s,mb5.5,baz=310,slow=1.3,SNR=40						
PETK	Petropavlovsk-	73.28	32	P	P	14 57 50.9	-0.3
SEK	Senekal	73.28	241	*e*P	P	14 57 52.2	+0.4
KAMT	Kaman	73.39	312	*e*P	P	14 57 50.5	-1.7
BRTR	Keskin Array B	73.55	313	P	P	14 57 51.0	-2.1
	comp=Z,10.0nm,0.6s,mb4.9,baz=124,slow=6.0,SNR=36						
BRTR				LR	LR	15 32 54.6	
	comp=Z,6µm,19.4s,MS5.9,baz=221,slow=38						
HDMB	Hadim	73.63	310	*e*P	P	14 57 51.0	-2.6
TOS	Tosya	73.67	314	*e*P	P	14 57 54.0	+0.2
KSR	Koster	73.68	244	*e*P	P	14 57 55.0	+0.8
KSR				AMb	AMB	14 58 24.4	
	comp=Z,31nm,1.5s,mb5.0						
PET	Petropavlovsk	73.75	33	*e*P	P	14 57 53.6	-0.4
PET				pmax	pmax		
	comp=Z,234nm,1.0s,mb6.1						
PET	Petropavlovsk	73.75	33	*e*P	P	14 57 53.6	-0.4
	comp=Z,234nm,1.0s,mb6.1						
CANT	Cankiri	73.83	313	*e*P	P	14 57 55.0	+0.3
ILGA	Ilgaz	73.90	314	*i* P	P	14 57 56.5	+1.4
VORD	Divnogorie	73.90	325	*e*P	P	14 57 53.1	-1.8
VORD				*e**PP	pP	14 58 01.7	-4.1
VORD				pmax	pmax		
	comp=N,30nm,0.7s						
VORD				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.3						
VORD				pmax	pmax		
	comp=E,50nm,0.9s						
ELDT	Eldivan	73.94	313	*i* P	P	14 57 55.6	+0.2
BZK	Bozkurt	73.97	315	*e*P	P	14 57 59.5	+3.9
KONT	Konya--Tatoy	73.99	311	*e*P	P	14 57 55.6	-0.1
VSR	Storozhevoye	74.08	325	*e*P	P	14 57 54.7	-1.3
VSR				*e**PP	pP	14 58 03.2	-3.7
VSR				*e*S	S	15 07 23.4	-2.9
VSR				pmax	pmax		
	comp=Z,60nm,0.7s,mb5.6						
VSR				pmax	pmax		
	comp=N,30nm,1.1s						
VSR				pmax	pmax		
	comp=E,60nm,1.1s						
VSR				smax			
	comp=E,3µm,8.1s						
VSR				smax			
	comp=Z,2µm,6.7s						
VSR				smax			
	comp=N,2µm,5.9s						
LOD	Lodumlu	74.24	313	*e*P	P	14 57 57.9	+0.8
VOR	Voronezh	74.28	326	*e*P	P	14 57 56.0	-1.1
VOR				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
BALT	Daday	74.28	314	*i* P	P	14 57 56.2	-1.2
KDHN	Kadinhani	74.34	311	*i* P	P	14 57 56.2	-1.5
RPZ	Rata Peaks	74.74	135	*e*P	P	14 58 00.6	+0.6
	comp=Z,236nm,1.1s,mb6.0						
LBTB	Lobatse	74.78	245	P	P	14 57 59.0	-1.6
	comp=Z,20nm,1.1s,mb5.0,baz=114,slow=6.8,SNR=5.2						
LBTB	Lobatse	74.78	245	P	P	14 57 59.0	-1.6
GRM	Grahamstown	74.83	236	*e*P	P	14 57 59.9	-0.8
GRM				AMb	AMB	14 58 23.1	
	comp=Z,166nm,1.5s,mb5.7						
SIM	Simferopol’	74.86	318	c *i*P	P	14 58 00.0	-0.6
SIM				*i* S	S	15 07 35.0	-0.3
SIM				*e*PS		15 08 17.0	
SIM				pmax	pmax		
	comp=Z,81nm,1.1s,mb5.6						
SIM				pmax	pmax		
	comp=Z,1µm,13.8s						
SVRH	Sivrihisar-ESK	75.04	312	*e*P	P	14 58 01.4	-0.4
BCK	Bucak	75.22	310	*e*P	P	14 58 04.3	+1.4
OUZ	Omahuta	75.28	126	*e*P	P	14 58 05.3	+2.0
	comp=Z,128nm,1.3s,mb5.7						
HVD	Gariep Dam	75.37	239	*e*P	P	14 58 05.3	+1.4
ISP	Isparta	75.38	310	*e*P	P	14 57 60.0	-3.8
ISP	Isparta	75.38	310	⇑*i*P	P	14 58 03.6	-0.2
ISP				pmax	pmax		
	comp=Z,151nm,1.6s,mb5.7						
ISP	Isparta	75.38	310	P	P	14 58 03.5	-0.3
ISP	Isparta	75.38	310	*e*P	P	14 58 00.9	-2.9
ISP	Isparta	75.38	310	⇑*i*P	P	14 58 02.6	-1.2
BOSA	Boshof	75.39	241	P	P	14 58 01.9	-2.2
	comp=Z,16nm,0.9s,mb5.0,baz=87,slow=7.4,SNR=13						
BOSA				LR	LR	15 27 32.4	
	comp=Z,28µm,18.4s,MS6.6,baz=85,slow=33						
SHUT	Suhut-Afyon	75.53	311	*e*P	P	14 58 06.0	+1.3
ESKT	Eskisehir	75.56	312	*e*P	P	14 58 04.8	0.0
ELL	Elmali	75.57	309	*e*P	P	14 58 05.4	+0.5
KDZE	Karadeniz Ereo	75.61	314	*e*P	P	14 58 03.1	-2.0
AKAS	Kas	75.68	308	*e*P	P	14 58 05.5	0.0
HENT	Hendek	75.87	313	*i* P	P	14 58 06.8	+0.2
GOLH	Golhisar	75.96	309	*i* P	P	14 58 07.8	+0.6
ALT	Altintas	75.99	311	*e*P	P	14 58 05.9	-1.4
PRGR	Permogore	76.02	336	⇑*i*P	P	14 58 06.4	-0.5
PRGR				*e*	pP	14 58 18.8	+0.9
PRGR				*e*S	S	15 07 46.1	-1.4
PRGR				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
SEY	Seymchan	76.05	22	⇑*e*P	P	14 58 06.8	-0.2
SEY	Seymchan	76.05	22	⇑*e*P	P	14 58 06.9	-0.1
TIXI	Tiksi	76.28	9	⇑*e*P	P	14 58 06.7	-1.6
TIXI				pmax	pmax		
	comp=Z,408nm,1.7s,mb6.1						
TIXI	Tiksi	76.28	9	⇑*e*P	P	14 58 06.8	-1.5
TIXI				LR	LR		
	comp=Z,46µm,20.0s,MS6.8						
KHAL	Karahalli	76.29	310	*i* P	P	14 58 12.4	+3.5
KHZ	Kahutara	76.30	133	*e*P	P	14 58 08.8	-0.2
	comp=Z,220nm,1.3s,mb5.9						
GDZ	Gediz	76.47	311	*i* P	P	14 58 13.5	+3.5
CAVI	Cavuskoy	76.48	312	*e*P	P	14 58 10.4	+0.3
DALT	Dalyan (Mudla)	76.56	309	*e*P	P	14 58 08.9	-1.7
TURN	Turunc	76.61	309	*e*P	P	14 58 12.6	+1.7
ADVT	Abdulvahap	76.62	312	*e*P	P	14 58 09.8	-1.0
MOS	Moscow	76.82	329	*e*P	P	14 58 09.6	-2.0
MOS				*i*	pP	14 58 18.8	-3.7
MOS				*e*		15 01 03.2	
MOS				*e*S	S	15 07 50.7	-5.8
MOS				pmax	pmax		
	comp=Z,548nm,1.5s,mb6.3						
MOS				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.5						
MOS				smax			
	comp=N,4µm,7.5s						
MOS	Moscow	76.82	329	*e*P	P	14 58 08.7	-2.9
ARG	Arkhangelos	76.84	308	*e*P	P	14 58 14.2	+2.0
YLV	Yalova	76.92	312	*e*P	P	14 58 11.6	-0.9
KULA	Kula-Manisa	76.95	310	*e*P	P	14 58 09.4	-3.3
SNZO	South Karori	76.98	132	*e*P	P	14 58 14.2	+1.3
	comp=N,269nm,1.4s,mb6.0						
SNZO				LR	LR		
	comp=Z,54µm,22.0s,MS6.8						
GEMT	Gemlik	77.03	312	*e*P	P	14 58 11.6	-1.5
OBN	Obninsk	77.11	328	P	P	14 58 12.8	-0.4
	comp=Z,2µm,1.5s,mb6.8,SNR=14						
OBN	Obninsk	77.11	328	α*e*P	P	14 58 12.7	-0.5
OBN				*i*		14 58 17.0	
OBN				*i* *PP	pP	14 58 21.1	-3.1
OBN				*i* *SP	sP	14 58 25.8	-2.5
OBN				*e*		15 01 05.4	
OBN				*e*PPP		15 02 56.8	
OBN				*i*		15 07 58.9	
OBN				*i*		15 08 16.0	
OBN				*i*		15 08 45.4	
OBN				pmax	pmax		
	comp=Z,664nm,1.8s,mb6.3						
OBN				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.0						
OBN	Obninsk	77.11	328	*e*P	P	14 58 12.6	-0.6
	comp=Z,1µm,1.5s,mb6.5						
OBN				LR	LR		
	comp=Z,10µm,21.0s,MS6.1						
ISK	Istanbul-Kandi	77.28	313	*e*P	P	14 58 14.0	-0.6
KLYT	Kilyos	77.34	313	*e*P	P	14 58 13.4	-1.5
DURS	Dursunbey	77.36	311	*e*P	P	14 58 15.0	0.0
AYDN	Tasoluk	77.36	309	*i* P	P	14 58 15.9	+0.8
DAT	Datca	77.38	308	*e*P	P	14 58 15.8	+0.6
SYO	Syowa Base	77.44	199	⇓*e*P	P	14 58 15.2	+0.3
SYO	Syowa Base	77.44	199	⇓*e*pP	pP	14 58 21.0	-4.8
SYO	Syowa Base	77.44	199	⇓*e*PcP	PcP	14 58 24.0	-1.2
KARP	Karpathos	77.46	307	*e*P	P	14 58 16.5	+0.9
BGKT	Bogazkoy	77.52	313	*e*P	P	14 58 16.4	+0.5
PKA	Prieska	77.65	240	*e*P	P	14 58 16.8	-0.1
PKA				AMb	AMB	14 58 29.8	
	comp=Z,43nm,1.7s,mb5.1						
AKHS	Akhisar	77.68	311	*e*P	P	14 58 18.2	+1.4
ELBA	Catalca	77.76	313	*i* P	P	14 58 18.2	+1.0
BALB	Balikesir	77.81	311	*e*P	P	14 58 19.3	+1.8
BNT	Bandirma	77.95	312	*e*P	P	14 58 22.4	+4.1
IZM	Izmir	78.00	310	*e*P	P	14 58 21.9	+3.3
BALY	Balya	78.03	311	*i* P	P	14 58 17.4	-1.3
ZKR	Zakros	78.13	306	*e*P	P	14 58 27.3	+7.9
SMG	Samos	78.17	309	*e*P	P	14 58 18.6	-1.0
KLMR	Klimovskoe	78.17	334	⇑*i*P	P	14 58 18.3	-0.8
KLMR				*e*		14 58 34.8	
KLMR				*e*S	S	15 08 08.6	-2.4
KLMR				pmax	pmax		
	comp=Z,517nm,1.6s,mb6.2						
URZ	Urewera	78.44	128	LR	LR	15 33 56.3	
	comp=Z,30µm,20.6s,MS6.6,baz=297,slow=36						
URZ	Urewera	78.44	128	*e*P	P	14 58 19.5	-1.6
	comp=Z,392nm,1.6s,mb6.1						
URLA	Izmir	78.50	310	*e*P	P	14 58 24.9	+3.6
TLCR		78.52	317	⇓*i*P	P	14 58 21.6	+0.3
TLCR		78.52	317	⇓P	P	14 58 21.6	+0.3
PSN	Preselentsi	78.57	315	*i* P	P	14 58 21.8	+0.2
SART	Tekirdag	78.57	312	*i* P	P	14 58 18.1	-3.7
TIRR	Tirgusor	78.60	316	*e*P	P	14 58 21.0	-0.8
TIRR				pmax	pmax		
	comp=Z,85nm,0.9s,mb5.7						
TIRR	Tirgusor	78.60	316	⇑*i*P	P	14 58 22.1	+0.3
TIRR	Tirgusor	78.60	316	*e*P	P	14 58 21.0	-0.8
	comp=Z,85nm,0.9s,mb5.7						
AYVA	Ayvalik	78.63	311	*i* P	P	14 58 25.5	+3.5
NPS	Neapolis	78.64	307	*e*P	P	14 58 21.6	-0.6
LAST	Lasithi	78.73	306	P	P	14 58 23.6	+0.9
LPK	Lapseki	78.81	312	*e*P	P	14 58 22.9	-0.1
UPI	Upington	78.88	242	*e*P	P	14 58 24.9	+1.1
UPI				AMb	AMB	14 58 50.8	
	comp=Z,100nm,1.7s,mb5.5						
CHOS	Chios island	78.92	310	P	P	14 58 27.6	+3.9
CHOS	Chios island	78.92	310	*e*P	P	14 58 20.1	-3.6
PRK	Paraskevi	78.94	311	*e*P	P	14 58 22.8	-0.9
HARR	Harsova	79.00	316	⇑*i*P	P	14 58 24.5	+0.6
HARR	Harsova	79.00	316	P	P	14 58 24.8	+0.8
KIS	Kishinev	79.00	319	c *i*P	P	14 58 23.0	-0.9
KIS				*e*		15 01 25.0	
KIS				*i* S	S	15 08 20.0	-0.4
KIS				*i* PS	ScS	15 08 58.0	+14
KIS				pmax	pmax		
	comp=Z,2.0nm,10.0s						
KIS				pmax	pmax		
	comp=Z,3µm,15.0s						
KIS	Kishinev	79.00	319	⇑*i*P	P	14 58 23.0	-0.9
	comp=Z,2µm,10.0s						
KIS	Kishinev	79.00	319	*e*PP	PP	15 01 25.0	+1.8
KIS	Kishinev	79.00	319	*i* PS		15 08 58.0	
KIS				LRM		15 41 32.0	
	comp=Z,12µm,19.0s						
EZN	Ezine	79.02	311	*e*P	P	14 58 22.1	-2.1
FUNA	Funafuti	79.04	98	*e*P	P	14 58 24.3	-0.5
	comp=Z,342nm,1.0s,mb6.2						
FUNA				LR	LR		
	comp=Z,9µm,20.0s,MS6.1						
IDI	Anoyia	79.23	306	*e*P	P	14 58 25.2	-0.2
IDI	Anoyia	79.23	306	P	P	14 58 25.2	-0.2
	comp=Z,20nm,0.7s,mb5.1,baz=76,slow=11,SNR=5.4						
BOZC	Bozcaada	79.23	311	*e*P	P	14 58 24.6	-0.7
SIVA	Sivas	79.24	306	*e*P	P	14 58 27.7	+2.2
ENEZ	Enez	79.34	312	*e*P	P	14 58 24.4	-1.6
JMB	Yambol	79.42	314	P	P	14 58 26.6	+0.3
GADA	Gvkgeada	79.42	311	*e*P	P	14 58 25.5	-0.8
ALN	Alexandroupoli	79.46	312	P	P	14 58 27.9	+1.3
ALN	Alexandroupoli	79.46	312	*e*P	P	14 58 25.3	-1.3
SUR	Sutherland	79.51	238	*e*P	P	14 58 28.1	+1.1
	comp=Z,239nm,1.6s,mb5.9						
SUR				LR	LR		
	comp=Z,31µm,20.0s,MS6.7						
SUR	Sutherland	79.51	238	*e*P	P	14 58 28.2	+1.2
SUR				AMb	AMB	14 58 49.2	
	comp=Z,152nm,1.6s,mb5.7						
AKASG	Malin Array Be	79.77	322	P	P	14 58 26.7	-1.4
	comp=Z,18nm,0.8s,mb5.1,baz=88,slow=5.1,SNR=36						
AKASG	Malin Array Be	79.77	322	P	P	14 58 26.7	-1.4
KIEV	Kiev	79.78	322	*e*P	P	14 58 26.6	-1.5
KIEV				pmax	pmax		
	comp=Z,125nm,1.3s,mb5.7						
KIEV				MLR	MLR		
	comp=Z,9µm,20.0s,MS6.1						
KIEV	Kiev	79.78	322	*e*P	P	14 58 26.6	-1.5
	comp=Z,125nm,1.3s,mb5.7						
KIEV				LR	LR		
	comp=Z,9µm,20.0s,MS6.1						
VAM	Vamos	79.80	306	*e*P	pP	14 58 41.2	+1.6
RDO	Rodhopi	79.89	312	*e*P	P	14 58 28.0	-0.9
LIA	Limnos Island	79.89	311	P	P	14 58 32.5	+3.5
LIA	Limnos Island	79.89	311	*e*P	P	14 58 27.8	-1.2
KARN	Karanos	80.03	306	*e*P	P	14 58 32.0	+2.2
SZH	Strazhica	80.06	315	*i* P	P	14 58 29.7	-0.1
KDZ	Kurdzhali	80.08	313	*i* P	P	14 58 30.9	+1.0
VRI	Vrincioaia	80.11	317	⇑*i*P	P	14 58 30.4	+0.4
VRI	Vrincioaia	80.11	317	P	P	14 58 30.5	+0.6
PLOR	Plostina	80.16	317	P	P	14 58 30.9	+0.7
PLOR	Plostina	80.16	317	⇑*i*P	P	14 58 31.0	+0.8
CVNA	Calvinia	80.35	239	*e*P	P	14 58 32.1	+0.5
CVNA				AMb	AMB	14 58 53.5	
	comp=Z,146nm,1.4s,mb5.7						
PTL	Penteli	80.55	309	*e*P	P	14 58 31.1	-1.4
ZIMR		80.55	315	⇓*i*P	P	14 58 31.8	-0.6
ZIMR		80.55	315	⇓P	P	14 58 31.8	-0.6
MLR	Muntele Rosu	80.55	317	P	P	14 58 32.5	+0.1
MLR				pmax	pmax		
	comp=Z,112nm,1.1s						
MLR	Muntele Rosu	80.55	317	⇑*i*P	P	14 58 32.6	+0.2
MLR	Muntele Rosu	80.55	317	P	P	14 58 32.5	+0.1
	comp=Z,112nm,1.1s,mb5.7,baz=68,slow=2.6,SNR=37						
MLR	Muntele Rosu	80.55	317	P	P	14 58 32.7	+0.3
VLY	Voula,Athens	80.56	309	*e*P	P	14 58 29.5	-3.1
RZN	Rozhen	80.61	313	*i* P	P	14 58 32.4	-0.3
ATH	Athens Observa	80.65	309	*e*P	P	14 58 34.5	+1.4
ATH	Athens Observa	80.65	309	P	P	14 58 33.6	+0.5
PLD	Plovdiv	80.70	313	P	P	14 58 31.9	-1.3
PLD	Plovdiv	80.70	313	*i* P	P	14 58 33.2	0.0
OUR	Ouranopolis	80.88	311	P	P	14 58 36.0	+1.7
PAIG	Paliouri	81.03	311	P	P	14 58 35.3	+0.2
VLI	Veliai	81.04	308	*e*P	P	14 58 31.4	-3.8
VOIR		81.16	317	⇑*i*P	P	14 58 36.0	+0.4
VOIR		81.16	317	P	P	14 58 35.8	+0.2
NVR	Nevrokopi	81.17	312	*e*P	P	14 58 34.5	-1.2
LTK	Loutraki	81.24	309	P	P	14 58 36.2	0.0
LTK	Loutraki	81.24	309	*e*P	P	14 58 35.0	-1.2
PLG	Polygyros	81.29	311	P	P	14 58 36.2	-0.2
PLG	Polygyros	81.29	311	*e*P	P	14 58 36.3	-0.1
MMB	Musomiste	81.31	313	*i* P	P	14 58 35.4	-1.1
SRS	Serrai	81.32	312	P	P	14 58 37.3	+0.7
LKR	Lokris	81.32	310	P	P	14 58 36.5	-0.1
LKR	Lokris	81.32	310	*e*P	P	14 58 35.3	-1.3
SOH	Sokhos	81.44	312	P	P	14 58 37.3	+0.1
SOH	Sokhos	81.44	312	*e*P	P	14 58 36.3	-0.9
BUR02	Bucovina Ar. S	81.52	319	P	P	14 58 39.4	+1.9
BURAR	Bucovina Array	81.53	319	⇑*i*P	P	14 58 38.3	+0.8
BURAR	Bucovina Array	81.53	319	⇑P	P	14 58 38.3	+0.8
VLX	Vlachokerasia	81.59	308	*e*P	P	14 58 39.1	+1.0
HORT	Hortiatis	81.59	311	P	P	14 58 38.8	+0.8
MICGM	Minsk	81.63	326	⇓*i*P	P	14 58 35.0	-2.9
MNK	Minsk	81.66	326	⇓*i*P	P	14 58 35.0	-3.0
MNK				*e*	pP	14 58 43.0	-6.1
MNK				*e*		15 01 46.0	
MNK				*e*PPP		15 03 34.0	
MNK				*e*S	S	15 08 42.0	-6.0
MNK				*e*SS	SS	15 14 00.0	-5.8
MNK				pmax	pmax		
	comp=E,400nm,20.0s						
MNK				pmax	pmax		
	comp=Z,214nm,1.2s,mb6.0						
MNK				pmax	pmax		
	comp=Z,6µm,10.0s						
MNK				smax			
	comp=N,11µm,7.0s						
MNK				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.5						
MNK				MLR	MLR		
	comp=E,17µm,18.0s						
THE	Thessaloniki	81.70	311	P	P	14 58 36.2	-2.4
GUR	Goura	81.71	309	*e*P	P	14 58 36.9	-1.8
VNDA	Vanda	81.76	169	P	P	14 58 38.1	-0.1
	comp=E,11nm,1.1s,mb4.7,baz=296,slow=4.9,SNR=5.6						
VNDA				PKPPKP		15 25 18.4	
	comp=E,3.4nm,1.1s,baz=250,slow=4.1,SNR=3.1						
VNDA				LR	LR	15 33 55.2	
	comp=E,16µm,18.6s,MS6.4,baz=314,slow=35						
KKB	Krupnik	81.84	313	*i* P	P	14 58 40.3	+1.0
KNT	Kendrikon	81.85	312	P	P	14 58 38.9	-0.4
VTS	Vitosha	81.88	313	P	P	14 58 39.0	-0.5
VTS	Vitosha	81.88	313	*e*P	P	14 58 38.3	-1.2
VTS	Vitosha	81.88	313	*i* P	P	14 58 39.7	+0.2
AGG	Agios Georgios	81.90	310	P	P	14 58 39.9	+0.2
AGG	Agios Georgios	81.90	310	*e*P	P	14 58 31.2	-8.5
ITM	Ithomi	81.91	308	*e*P	P	14 58 38.4	-1.4
KALE	Kalithea	81.94	309	P	P	14 58 40.7	+0.8
PUL	Pulkovo	81.95	331	⇑*i*P	P	14 58 40.5	+1.0
LIT	Litokhoron	81.96	311	P	P	14 58 40.6	+0.6
RAO	Raoul Island	81.98	119	LR	LR	15 35 09.6	
	comp=E,12µm,21.8s,MS6.2,baz=244,slow=36						
RAO	Raoul Island	81.98	119	PFAKE		14 58 50.0	+10
RAO				LR	LR		
	comp=Z,15µm,19.0s,MS6.4						
TRIZ	Trizonia	81.99	309	P	P	14 58 41.0	+0.8
PYL	PYLOS	82.01	308	P	P	14 58 41.1	+0.8
PYL	PYLOS	82.01	308	*e*P	P	14 58 38.9	-1.4
VAY	Valandovo	82.12	312	P	P	14 58 39.1	-1.7
VAY	Valandovo	82.12	312	*e*P	P	14 58 39.6	-1.2
GRG	Griva	82.18	312	P	P	14 58 41.8	+0.7
THL	Klokotos Trika	82.23	310	P	P	14 58 40.8	-0.6
THL	Klokotos Trika	82.23	310	*e*P	P	14 58 32.2	-9.2
EVR	Evrytania	82.28	310	*e*P	P	14 58 40.0	-1.7
NACGM	Naroch	82.35	326	*e*P	P	14 58 38.0	-3.7
RLS	Riolos of Patr	82.41	309	*e*P	P	14 58 40.8	-1.6
KZN	Kozani	82.54	311	*e*P	P	14 58 43.3	+0.3
JOF	Joensuu	82.56	335	*e*p	P	14 58 41.6	-1.0
	comp=Z,48nm,0.8s,mb5.6						
BMR	Baia Mare	82.67	319	⇑*i*P	P	14 58 44.5	+1.0
BMR	Baia Mare	82.67	319	P	P	14 58 44.5	+0.9
GZR	Gura Zlata	82.72	316	⇑*i*P	P	14 58 44.4	+0.6
GZR	Gura Zlata	82.72	316	P	P	14 58 44.0	+0.2
DEV	Deva	82.72	317	⇓*i*P	P	14 58 46.3	+2.5
DEV	Deva	82.72	317	⇓P	P	14 58 46.4	+2.5
LVV	L’vov	82.78	321	*e*P	P	14 58 43.0	-1.0
LVV				*e*S	S	15 08 59.0	-0.6
SBA	Scott Base	82.86	169	PFAKE		14 59 00.0	+16
SBA				LR	LR		
	comp=Z,11µm,20.0s,MS6.2						
MEV	Metsovon	82.87	310	P	P	14 58 44.5	-0.2
FNA	Florina	82.92	311	P	P	14 58 45.3	+0.3
BIA	Bitola	82.99	312	P	P	14 58 44.0	-1.3
DRGR		83.03	318	⇓*i*P	P	14 58 45.6	+0.2
DRGR		83.03	318	P	P	14 58 45.5	+0.2
SKO	Skopje	83.06	313	P	P	14 58 44.5	-1.2
KRUS	Krusevo	83.11	312	*e*P	P	14 58 44.8	-1.1
VLS	Valsamata	83.11	309	P	P	14 58 49.2	+3.2
VLS	Valsamata	83.11	309	*e*P	P	14 58 44.4	-1.6
JAN	Janina	83.14	310	*e*P	P	14 58 46.3	+0.2
LVZ	Lovozero	83.15	340	P	P	14 58 45.1	-0.5
	comp=Z,535nm,1.4s,mb6.4,SNR=11						
LVZ	Lovozero	83.15	340	⇓*i*P	P	14 58 46.9	+1.3
LVZ				MLR	MLR		
	comp=Z,24µm,22.0s,MS6.5						
VSU	Vasula	83.33	330	⇓*i*P	P	14 58 48.4	+1.7
VSU				pmax	pmax		
	comp=Z,271nm,1.7s,mb6.0						
VSU	Vasula	83.33	330	⇓*i*P	P	14 58 48.5	+1.8
TRPA	Tarpa	83.40	319	⇑*i*P	P	14 58 47.4	+0.1
OHR	Ohrid	83.40	312	*e*P	P	14 58 47.3	-0.2
APA	Apatity	83.45	339	⇑*i*P	P	14 58 46.3	-0.8
APA				*i*	pP	14 58 55.0	-3.2
APA				*i* S	S	15 09 09.0	+3.2
APA				*e*SS	SS	15 14 30.0	-1.9
APA				pmax	pmax		
	comp=Z,390nm,1.8s,mb6.1						
APA				pmax	pmax		
	comp=Z,5µm,19.0s						
APA				MLR	MLR		
	comp=Z,20µm,19.0s,MS6.5						
IGT	Igoumenitsa	83.51	310	P	P	14 58 49.3	+1.2
BZS	Buzias	83.56	316	⇓*i*P	P	14 58 47.9	-0.2
BZS	Buzias	83.56	316	P	P	14 58 47.9	-0.2
BILL	Bilibino	83.58	20	α*i*P	P	14 58 46.8	-1.0
BILL				*e*		14 58 51.9	
BILL				*e**PP	pP	14 58 55.5	-3.3
BILL				*i*		15 01 58.1	
BILL				*e*PPP		15 03 49.1	
BILL				*i*		15 09 06.5	
BILL				*i* PS		15 10 07.4	
BILL				*i* SSS		15 18 04.5	
BILL				pmax	pmax		
	comp=Z,94nm,1.7s,mb5.6						
BILL				pmax	pmax		
	comp=Z,1µm,2.9s,mb6.5						
BILL				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.6						
BILL	Bilibino	83.58	20	*e*P	P	14 58 46.4	-1.4
	comp=Z,477nm,2.1s,mb6.3						
BILL				LR	LR		
	comp=Z,24µm,20.0s,MS6.6						
KWP	Kalwaria Pacla	83.58	320	*e*P	P	14 58 49.2	+1.0
KWP				*e*pP	pP	14 58 56.7	-2.5
KWP				*e*PP	PP	15 02 01.4	+0.4
KWP				*e*S	S	15 09 09.8	+2.0
KWP				LMZ		15 42 11.1	
	comp=Z,10µm,22.5s						
KWP	Kalwaria Pacla	83.58	320	*e*P	P	14 58 49.2	+1.0
KWP				*e*pP	pP	14 58 56.7	-2.5
KWP				*e*PP	PP	15 02 01.4	+0.4
KWP				*e*S	S	15 09 09.8	+2.0
UZH	Uzhgorod	83.65	319	*e*P	P	14 58 48.7	+0.1
UZH				*e*		14 58 52.5	
UZH				*e*		15 02 01.0	
UZH				*e*PPP		15 04 00.0	
UZH				*e*		15 09 05.0	
UZH				*e*S	S	15 09 10.0	+1.4
UZH				*e*PS		15 10 05.0	
UZH				*e*SS	SS	15 14 44.0	+8.3
UZH				*e*SSS		15 18 09.0	
KOLS	Kolonicke sedl	83.72	320	*e*P	P	14 58 49.6	+0.7
KOLS				pmax	pmax		
	comp=Z,150nm,1.2s,mb6.0						
KOLS	Kolonicke sedl	83.72	320	*e*P	P	14 58 49.6	+0.7
	comp=Z,150nm,1.2s,mb6.0						
KEK	Kerkira	83.95	310	*e*P	P	14 58 49.0	-1.3
TIR	Tirane	84.13	312	P	P	14 58 52.8	+1.6
TIR	Tirane	84.13	312	*e*P	P	14 58 54.5	+3.3

SUW	**Suwalki**	**84.19**	**325**	*e*P	**P**	**14 58 50.9**	**-0.2**
SUW				*e*PcP	PcP	14 58 54.3	-0.6
SUW				*e*pP	pP	14 58 59.0	-3.2
SUW				*e*S	S	15 09 14.3	+0.6
SUW				*e*SKS		15 09 20.3	
SUW				LMZ		15 43 02.2	
	comp=Z,10μm,21.0s						
SUW	**Suwalki**	**84.19**	**325**	*e*P	**P**	**14 58 50.9**	**-0.2**
SUW				*e**PP	pP	14 58 59.0	-3.2
SUW				*e*S	S	15 09 14.3	+0.6
SUW	**Suwalki**	**84.19**	**325**	*e*P	**P**	**14 58 50.9**	**-0.2**
SUW				*e*PcP	PcP	14 58 54.3	-0.6
SUW				*e*pP	pP	14 58 59.0	-3.2
SUW				*e*S	S	15 09 14.3	+0.6
SUW				*e*SKS		15 09 20.3	
PVY	**Plav**	**84.24**	**313**	⇓*i*P	**P**	**14 58 48.9**	**-2.8**
PVY	**Plav**	**84.24**	**313**	⇓*i*P	**P**	**14 58 49.0**	**-2.7**
CRVS	**Cervenica-Dubn**	**84.24**	**319**	*e*P	**P**	**14 58 52.9**	**+1.3**
CRVS				pmax	pmax		
	comp=Z,86nm,1.6s,mb5.6						
CRVS	**Cervenica-Dubn**	**84.24**	**319**	*e*P	**P**	**14 58 52.9**	**+1.3**
	comp=Z,86nm,1.6s,mb5.6						
IVA	**Berane**	**84.33**	**313**	⇓*i*P	**P**	**14 58 49.9**	**-2.3**
IVA	**Berane**	**84.33**	**313**	⇓*i*P	**P**	**14 58 49.9**	**-2.2**
DIVS	**Divibare**	**84.45**	**315**	P	**P**	**14 58 51.3**	**-1.4**
STHS	**Stebnicka Huta**	**84.47**	**320**	*e*P	**P**	**14 58 53.7**	**+1.0**
KAF	**Kangasniemi**	**84.52**	**333**	*e*P	**P**	**14 58 52.1**	**-0.6**
KAF				pmax	pmax		
	comp=Z,46nm,0.7s,mb5.7						
KAF	**Kangasniemi**	**84.52**	**333**	*e*p	**P**	**14 58 52.1**	**-0.6**
	comp=Z,46nm,0.7s,mb5.7						
ULC	**Ulcinj**	**84.68**	**312**	⇓*i*P	**P**	**14 58 52.5**	**-1.4**
ULC	**Ulcinj**	**84.68**	**312**	⇓*i*P	**P**	**14 58 52.6**	**-1.4**
TTG	**Podgorica**	**84.73**	**313**	⇓*i*P	**P**	**14 58 52.0**	**-2.2**
TTG	**Podgorica**	**84.73**	**313**	⇓*i*P	**P**	**14 58 52.0**	**-2.2**
PLE	**Pljevlja**	**84.77**	**314**	⇓*i*P	**P**	**14 58 54.3**	**0.0**
PLE	**Pljevlja**	**84.77**	**314**	⇓*i*P	**P**	**14 58 54.3**	**0.0**
KECS	**Kecovo**	**84.81**	**319**	*e*P	**P**	**14 58 54.8**	**+0.4**
NKY	**Niksic**	**84.98**	**313**	⇓*i*P	**P**	**14 58 53.8**	**-1.6**
NKY	**Niksic**	**84.98**	**313**	⇓*i*P	**P**	**14 58 53.9**	**-1.5**
BUM	**Brajici-Budva**	**84.98**	**313**	⇓*i*P	**P**	**14 58 53.7**	**-1.8**
BUM	**Brajici-Budva**	**84.98**	**313**	⇓*i*P	**P**	**14 58 53.7**	**-1.7**
SCTE	**Santa Cesarea**	**85.01**	**310**	*e*P	**P**	**14 58 54.2**	**-1.5**
NIE	**Niedzica**	**85.08**	**320**	*e*P	**P**	**14 58 56.7**	**+1.0**
UPM	**Unac-Piva**	**85.10**	**314**	⇓*i*P	**P**	**14 58 54.6**	**-1.4**
UPM	**Unac-Piva**	**85.10**	**314**	⇓*i*P	**P**	**14 58 54.6**	**-1.4**
PSZ	**Piszkesteto**	**85.11**	**318**	*e*P	**P**	**14 58 56.1**	**+0.2**
PSZ				pmax	pmax		
	comp=Z,103nm,1.1s,mb5.9						
PSZ				MLR	MLR		
	comp=Z,4μm,19.0s,MS5.9						
PSZ	**Piszkesteto**	**85.11**	**318**	⇑*i*P	**P**	**14 58 56.4**	**+0.5**
PSZ	**Piszkesteto**	**85.11**	**318**	*e*P	**P**	**14 58 56.0**	**+0.1**
	comp=Z,103nm,1.1s,mb5.9						
PSZ				LR	LR		
	comp=Z,4μm,19.0s,MS5.9						
HCY	**Herceg Novi**	**85.30**	**313**	⇓*i*P	**P**	**14 58 53.7**	**-3.3**
HCY	**Herceg Novi**	**85.30**	**313**	⇓*i*P	**P**	**14 58 53.8**	**-3.2**
BRY	**Bratogost**	**85.32**	**313**	⇓*i*P	**P**	**14 58 53.9**	**-3.2**
BRY	**Bratogost**	**85.32**	**313**	⇓*i*P	**P**	**14 58 53.9**	**-3.2**
OJC	**Ojcow**	**85.53**	**321**	*e*P	**P**	**14 58 57.6**	**-0.4**
OJC				*e*PcP	PcP	14 59 02.1	+1.2
OJC				*e*sP	sP	14 59 13.3	+0.2
OJC				*e*S	S	15 09 28.7	+1.5
OJC				L		15 48 05.1	
	comp=Z,9.1nm,18.9s						
OJC	**Ojcow**	**85.53**	**321**	*e*P	**P**	**14 58 57.6**	**-0.4**
OJC				*e*		14 59 02.0	
OJC				*e*S	S	15 09 28.7	+1.5
OJC				MLR	MLR		
	comp=Z,9μm,18.9s,MS6.2						
OJC	**Ojcow**	**85.53**	**321**	*e*P	**P**	**14 58 57.6**	**-0.4**
OJC				*e*PcP	PcP	14 59 02.0	+1.1
OJC				*e*sP	sP	14 59 13.3	+0.2
OJC				*e*S	S	15 09 28.7	+1.5
OJC				LR	LR		
	comp=Z,9μm,18.9s,MS6.2						
BUD	**Budapest**	**85.62**	**318**	⇓*e*PcP	PcP	14 59 02.6	+1.2
PKSM	**Moragy**	**85.70**	**317**	⇑*i*P	**P**	**14 58 59.2**	**+0.2**
PKSM	**Moragy**	**85.70**	**317**	P	**P**	**14 58 58.5**	**-0.4**
VYHS	**Vyhne**	**85.89**	**319**	*e*P	**P**	**14 58 59.1**	**-0.8**
KOLL	**Kolacno**	**86.19**	**319**	*e*P	**P**	**14 59 01.7**	**+0.4**
TIP	**Timpagrande**	**86.22**	**309**	*e*P	**P**	**14 59 01.6**	**-0.1**
	comp=Z,182nm,1.3s,mb6.2						
TIP				LR	LR		
	comp=Z,11μm,20.0s,MS6.3						
KEV	**Kevo**	**86.40**	**341**	*e*P	**P**	**14 59 01.9**	**0.0**
KEV				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.6						
KEV	**Kevo**	**86.40**	**341**	*e*p	**P**	**14 59 01.9**	**0.0**
	comp=Z,29nm,0.7s,mb5.6						
OKC	**Ostrava-Krasne**	**86.53**	**320**	*e*P	**P**	**14 59 03.2**	**+0.2**
OKC				*e*pP	pP	14 59 07.5	-6.6
OKC				*e*S	S	15 09 36.6	-0.4
OKC				AMS	AMS	15 47 40.0	
	comp=Z,7μm,22.5s						
OKC	**Ostrava-Krasne**	**86.53**	**320**	*e*P	**P**	**14 59 03.2**	**+0.2**
OKC				*e*		14 59 07.5	
OKC				*e*SKS		15 09 36.6	
CEL	**Celeste**	**86.80**	**308**	*e*P	**P**	**14 59 04.6**	**+0.1**
CEL	**Celeste**	**86.80**	**308**	*e*P	**P**	**14 59 05.6**	**+1.1**
	comp=Z,269nm,1.3s,mb6.3						
CEL				LR	LR		
	comp=Z,4μm,20.0s,MS5.8						
ARCES	**ARCESS Array B**	**86.84**	**340**	P	**P**	**14 59 03.8**	**-0.2**
	comp=Z,32nm,0.8s,mb5.6,baz=95,slow=6.6,SNR=41						
ARCES				LR	LR	15 43 01.3	
	comp=Z,16μm,20.1s,MS6.4,baz=223,slow=39						
PTRP	**Pietrapertosa**	**86.89**	**311**	P	**P**	**14 59 05.7**	**+0.8**
MODS	**Modra-Piesok**	**86.91**	**319**	*e*P	**P**	**14 59 04.9**	**+0.1**
MORC	**Moravsky Berou**	**86.91**	**320**	*e*P	**P**	**14 59 03.9**	**-0.9**
MORC				pmax	pmax		
	comp=Z,150nm,1.4s,mb6.0						
MORC	**Moravsky Berou**	**86.91**	**320**	⇓*i*P	**P**	**14 59 04.7**	**-0.1**
MORC	**Moravsky Berou**	**86.91**	**320**	*e*P	**P**	**14 59 03.9**	**-0.9**
	comp=Z,150nm,1.4s,mb6.0						
ZST	**Bratislava**	**87.00**	**318**	*e*P	**P**	**14 59 05.8**	**+0.5**
CUC	**Castrocucco**	**87.02**	**310**	*e*P	**P**	**14 59 04.7**	**-0.9**
CUC	**Castrocucco**	**87.02**	**310**	*e*P	**P**	**14 59 05.2**	**-0.4**
	comp=Z,184nm,1.4s,mb6.1						
CUC				LR	LR		
	comp=Z,9μm,19.0s,MS6.2						
NVL	**N'lazarevskaya**	**87.10**	**199**	P	**P**	**14 59 11.5**	**+6.2**
NVL				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.7						
MAIT	**Maitri**	**87.13**	**199**	*e*P	**P**	**14 59 05.4**	**-0.1**
SOP	**Sopron**	**87.30**	**318**	⇑*e*PcP	PcP	14 59 07.8	-1.0
RGNG	**Rignano Grg**	**87.36**	**312**	P	**P**	**14 59 06.5**	**-0.7**
VRAC	**Vranov**	**87.47**	**319**	P	**P**	**14 59 08.4**	**+0.9**
VRAC				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VRAC	**Vranov**	**87.47**	**319**	⇑*i*P	**P**	**14 59 07.5**	**0.0**
VRAC	**Vranov**	**87.47**	**319**	P	**P**	**14 59 08.4**	**+0.9**
	comp=Z,9.6nm,1.0s,mb5.0,baz=130,slow=5.8,SNR=7.8						
VRAC	**Vranov**	**87.47**	**319**	P	**P**	**14 59 07.7**	**+0.1**
KTK1	**Kautokeino**	**87.50**	**339**	*e*P	**P**	**14 59 07.3**	**+0.1**
QSPA	**South Pole Qui**	**87.54**	**180**	PFAKE		14 59 20.0	+13
QSPA				LR	LR		
	comp=Z,28μm,20.0s,MS6.7						
GKP	**Gorka Klasztor**	**87.55**	**323**	*e*P	**P**	**14 59 08.2**	**+0.4**
GKP				*e*PcP	PcP	14 59 12.0	+2.2
GKP				*e*pP	pP	14 59 16.6	-2.3
GKP				*e*S	S	15 09 45.1	-1.6
GKP				LMZ		15 45 32.2	
	comp=Z,12μm,19.8s						
GKP	**Gorka Klasztor**	**87.55**	**323**	*e*P	**P**	**14 59 08.2**	**+0.4**
GKP				*e*PcP	PcP	14 59 12.0	+2.3
GKP				*e*pP	pP	14 59 16.6	-2.3
GKP				*e*S	S	15 09 45.1	-1.6
GKP				LR	LR		
	comp=Z,12μm,19.8s,MS6.3						
HMDC	**Modica**	**87.56**	**307**	P	**P**	**14 59 09.4**	**+1.1**
WDD	**Wield Dalam**	**87.67**	**306**	P	**P**	**14 59 09.6**	**+0.7**
	comp=Z,57nm,0.8s,mb5.8						
WDD				LR	LR		
	comp=Z,8μm,19.0s,MS6.1						
DPC	**Dobruska-Polom**	**87.76**	**320**	*e*P	**P**	**14 59 09.3**	**+0.4**
DPC				*e*pP	pP	14 59 13.9	-6.1
DPC				*e*S	S	15 09 53.4	+4.6
DPC				AMS	AMS	15 46 10.0	
	comp=Z,6μm,19.4s						
CONA	**Conrad Observa**	**87.80**	**318**	⇑*i*P	**P**	**14 59 08.5**	**-0.6**
	comp=Z,45nm,1.3s,mb5.5,SNR=12						
CSNA	**Conrad Observa**	**87.80**	**318**	⇑*i*P	**P**	**14 59 08.4**	**-0.7**
	comp=Z,40nm,1.3s,mb5.5						
ADK	**Adak**	**87.81**	**38**	*e*P	**P**	**14 59 09.2**	**+0.1**
ADK				pmax	pmax		
	comp=Z,358nm,1.4s,mb6.4						
ADK				MLR	MLR		
	comp=Z,6μm,19.0s,MS6.0						
ADK	**Adak**	**87.81**	**38**	*e*P	**P**	**14 59 09.2**	**+0.1**
	comp=Z,358nm,1.4s,mb6.4						
ADK				LR	LR		
	comp=Z,6μm,19.0s,MS6.0						
KSP	**Ksiaz**	**87.83**	**321**	*e*P	**P**	**14 59 10.2**	**+0.9**
KSP				*e*pP	pP	14 59 18.6	-1.7
KSP				*e*S	S	15 09 50.5	+1.0
KSP				LMZ		15 44 57.5	
	comp=Z,18μm,20.4s						
KSP	**Ksiaz**	**87.83**	**321**	*e*P	**P**	**14 59 10.0**	**+0.8**
KSP				*e*pP	pP	14 59 17.3	-3.1
KSP				*e*PP	PP	15 02 41.0	+5.6
KSP				*e*S	S	15 09 49.0	-0.5
KSP				LR	LR		
	comp=Z,21μm,20.4s,MS6.5						
VAE	**Valguarnera**	**87.89**	**307**	P	**P**	**14 59 10.0**	**+0.1**
	comp=Z,26nm,1.0s,mb5.4,baz=40,slow=8.0,SNR=5.4						
ARSA	**Arzberg**	**87.96**	**317**	*i* P	**P**	**14 59 10.0**	**+0.1**
	comp=Z,108nm,1.4s,mb5.9,SNR=42						
BOJS	**Bojanci**	**87.97**	**316**	*i* P	**P**	**14 59 09.8**	**-0.2**
UPC	**Upice**	**87.97**	**321**	*e*P	**P**	**14 59 10.4**	**+0.5**
UPC				*e*pP	pP	14 59 14.6	-6.5
PERS	**Pernice**	**88.17**	**317**	*e*P	**P**	**14 59 11.1**	**+0.1**
TREC	**Trest**	**88.19**	**319**	*e*P	**P**	**14 59 11.0**	**0.0**
TREC				*e*pP	pP	14 59 19.1	-3.0
TREC				*e*S	S	15 09 55.3	+2.4
TREC				AMS	AMS	15 44 50.0	
	comp=Z,6μm,20.8s						
CSLB	**Castelbuono**	**88.21**	**308**	P	**P**	**14 59 11.4**	**+0.1**
	comp=Z,126nm,1.0s,mb6.1						
SOKA	**Soboth**	**88.23**	**317**	⇑*i*P	**P**	**14 59 11.3**	**0.0**
	comp=Z,121nm,1.2s,mb6.0						
VISS	**Visnje**	**88.29**	**316**	*e*P	**P**	**14 59 11.4**	**-0.1**
MIDA	**Miranda**	**88.35**	**312**	P	**P**	**14 59 11.8**	**-0.1**
LJU	**Ljubljana**	**88.53**	**316**	*e*P	**P**	**14 59 12.5**	**-0.1**
RFI	**Roccamonfina**	**88.53**	**311**	P	**P**	**14 59 13.5**	**+0.7**
	comp=Z,250nm,2.4s,mb6.1						
OBKA	**Obir**	**88.55**	**316**	⇑*i*P	**P**	**14 59 12.9**	**+0.2**
	comp=Z,91nm,1.6s,mb5.9,SNR=19						
JAVS	**Javornik**	**88.83**	**316**	*e*P	**P**	**14 59 13.6**	**-0.6**
MOA	**Molln**	**88.86**	**318**	⇑*i*P	**P**	**14 59 13.2**	**-1.0**
	comp=Z,60nm,1.6s,mb5.7,SNR=10						
PRU	**Pruhonice**	**88.86**	**320**	*e*P	**P**	**14 59 14.7**	**+0.6**
PRU				*e*pP	pP	14 59 18.4	-6.9
PRU				*e*S	S	15 10 02.2	+2.9
PRU				AMS	AMS	15 47 40.0	
	comp=Z,7μm,17.1s						
PVCC	**Panska Ves**	**88.89**	**320**	*e*P	**P**	**14 59 14.8**	**+0.5**
PVCC				*e*pP	pP	14 59 18.9	-6.5
PVCC				*e*S	S	15 10 01.2	+1.6
PVCC				AMS	AMS	15 46 50.0	
	comp=Z,8μm,21.3s						
VOY	**Vojsko**	**88.97**	**316**	*e*P	**P**	**14 59 14.1**	**-0.6**
VOY				*e*	pP	14 59 22.6	-3.2
VOY				*e*		15 00 21.2	
VOY				*e*		15 00 36.6	
VOY				*e*		15 00 48.8	
BSD	**Bornholm Skovb**	**89.11**	**325**	*i* P	**P**	**14 59 19.2**	**+4.0**
	comp=Z,74nm,1.0s,mb6.0						
BSD				*i*		15 10 04.2	
BSD							
	comp=Z,9μm,18.0s						
BSD	**Bornholm Skovb**	**89.11**	**325**	*i* P	**P**	**14 59 19.2**	**+4.0**
	comp=Z,74nm,1.0s,mb6.0						
BSD				*i*		15 10 04.2	
TRO	**Tromso**	**89.12**	**340**	*e*P	**P**	**14 59 14.7**	**-0.2**
TRO				AMb	AMB	14 59 43.3	
	comp=Z,260nm,1.6s,mb6.3						
TRO				*e*SKS		15 09 47.0	
TRO				*e*SS	SS	15 15 57.5	+2.7
TRO				AMS	AMS	15 43 03.4	
	comp=Z,15μm,24.2s,MS6.3						
MYKA	**Terra Mystica**	**89.19**	**317**	⇑*i*P	**P**	**14 59 15.4**	**-0.4**
	comp=Z,114nm,1.5s,mb6.0						
CING	**Cingoli**	**89.26**	**313**	P	**P**	**14 59 16.7**	**+0.5**
GEC2	**GERESS Array S**	**89.31**	**319**	*e*P	**P**	**14 59 16.2**	**-0.1**
GEC2				*e*S	S	15 10 07.8	+4.2
GEC2				pmax	pmax		
	comp=Z,222nm,1.6s,mb6.2						
GEC2	**GERESS Array S**	**89.31**	**319**	*e*P	**P**	**14 59 16.2**	**-0.1**
	comp=Z,222nm,1.6s,mb6.2						
GEC2				*e*S	S	15 10 07.8	+4.2
GERES	**GERESS Array B**	**89.31**	**319**	P	**P**	**14 59 16.6**	**+0.3**
	comp=Z,22nm,0.9s,mb5.5,baz=90,slow=3.7,SNR=40						
BRG	**Berggiesshubel**	**89.32**	**321**	*i* P	**P**	**14 59 16.9**	**+0.6**
BRG				*i*	pP	14 59 25.0	-2.4
BRG						15 02 46.0	
BRG				S	S	15 10 05.0	+1.4
BRG				pmax	pmax		
	comp=Z,133nm,1.7s,mb6.0						
BRG				pmax	pmax		
	comp=Z,206nm,1.7s,mb6.2						
BRG				MLR	MLR		
	comp=N,3μm,20.6s,MS6.0						
BRG				MLR	MLR		
	comp=E,4μm,18.6s,MS6.0						
BRG				MLR	MLR		
	comp=Z,5μm,16.1s,MS6.0						
BRG	**Berggiesshubel**	**89.32**	**321**	*e*P	**P**	**14 59 16.8**	**+0.5**
	comp=Z,219nm,1.6s,mb6.2						
BRG				*e*S	S	15 10 07.9	+4.3
BRG	**Berggiesshubel**	**89.32**	**321**	*i* P	**P**	**14 59 16.9**	**+0.7**
	comp=Z,222nm,1.7s,mb6.2						
BRG				*i*	pP	14 59 25.0	-2.4
	comp=Z,344nm,1.7s						
BRG				PP	PP	15 02 46.0	-1.3
BRG				S	S	15 10 05.0	+1.4
BRG							
	comp=N,6μm,20.6s						
BRG							
	comp=E,6μm,18.6s						
BRG							
	comp=Z,9μm,16.1s						
BRG	**Berggiesshubel**	**89.32**	**321**	*i* P	**P**	**14 59 16.9**	**+0.7**
	comp=Z,133nm,1.7s,mb6.0						
BRG				*i*	pP	14 59 25.0	-2.4
BRG				PP	PP	15 02 46.0	-1.3
BRG				S	S	15 10 05.0	+1.4
BRG				LR	LR		
	comp=Z,5μm,16.1s,MS6.0						
CERT	**Cerreto**	**89.32**	**312**	P	**P**	**14 59 16.6**	**+0.1**
PTCC	**Patocco-Chiusa**	**89.37**	**316**	P	**P**	**14 59 16.3**	**-0.3**
ERC	**Erice**	**89.38**	**308**	P	**P**	**14 59 18.3**	**+1.5**
	comp=Z,300nm,1.0s,mb6.6						
KHC	**Kasperske Hory**	**89.42**	**319**	*e*P	**P**	**14 59 15.7**	**-1.1**
KHC				*e*		14 59 19.9	
KHC				*e*		14 59 30.0	
KHC				*e*		15 10 04.4	
KHC				MLR	MLR		
	comp=Z,8μm,19.5s,MS6.1						
KHC	**Kasperske Hory**	**89.42**	**319**	*e*P	**P**	**14 59 15.7**	**-1.1**
KHC				*e*pP	pP	14 59 19.9	-8.0
KHC				*e*sP	sP	14 59 30.0	-1.9
KHC				*e*x	x	14 59 38.0	
KHC				*e*x	x	14 59 55.0	
KHC				*e*S	S	15 10 04.4	-0.2
KHC				*e*x	x	15 10 26.5	
KHC				AMS	AMS	15 45 40.0	
	comp=Z,8μm,19.5s						
KBA	**Koelnbreinsper**	**89.42**	**317**	⇑*i*P	**P**	**14 59 16.2**	**-0.7**
	comp=Z,68nm,1.6s,mb5.7,SNR=14						
MTCE	**Montecelio**	**89.51**	**312**	P	**P**	**14 59 19.5**	**+2.1**
RUE	**Ruedersdorf**	**89.55**	**322**	*e*P	**P**	**14 59 18.0**	**+0.7**
	comp=Z,323nm,1.3s,mb6.5						
ASS	**Assisi**	**89.64**	**313**	P	**P**	**14 59 18.6**	**+0.7**
ASS				pmax	pmax		
	comp=Z,111nm,1.2s,mb6.1						
ASS	**Assisi**	**89.64**	**313**	P	**P**	**14 59 18.6**	**+0.7**
	comp=Z,111nm,1.2s,mb6.1						
MURB	**Monte Urbino**	**89.75**	**313**	P	**P**	**14 59 19.3**	**+0.9**
PTS	**Pantelleria**	**89.77**	**307**	P	**P**	**14 59 20.5**	**+1.8**
PTS				pmax	pmax		
	comp=Z,253nm,1.3s,mb6.4						
PTS	**Pantelleria**	**89.77**	**307**	P	**P**	**14 59 20.5**	**+1.8**
	comp=Z,252nm,1.3s,mb6.4						
RJOB	**Jochberg**	**89.84**	**318**	*e*P	**P**	**14 59 17.9**	**-0.9**
	comp=Z,66nm,1.4s,mb5.8						
RJOB				*e*S	S	15 10 09.9	+1.4
BJO	**Bjornoya**	**89.84**	**345**	*e*P	**P**	**14 59 19.5**	**+1.2**
BJO				AMS	AMS	15 46 14.7	
	comp=Z,12μm,15.6s,MS6.4						
WET	**Wettzell**	**89.88**	**319**	*e*P	**P**	**14 59 19.2**	**+0.3**
WET				*e*S	S	15 10 13.6	+4.8
WET				pmax	pmax		
	comp=Z,157nm,1.4s,mb6.2						
WET	**Wettzell**	**89.88**	**319**	*e*P	**P**	**14 59 19.2**	**+0.3**
	comp=Z,157nm,1.4s,mb6.2						
WET				*e*S	S	15 10 13.6	+4.8
CLL	**Collm**	**89.94**	**321**	*i* P	**P**	**14 59 19.4**	**+0.2**
CLL				*i*	pP	14 59 27.1	-3.2
CLL				*e*S	S	15 10 09.0	-0.3
CLL				pmax	pmax		
	comp=Z,114nm,1.5s,mb6.0						
CLL				MLR	MLR		
	comp=Z,8μm,19.1s,MS6.2						
CLL	**Collm**	**89.94**	**321**	*e*P	**P**	**14 59 19.0**	**-0.2**
	comp=Z,115nm,1.5s,mb6.0						
CLL				*e*S	S	15 10 12.7	+3.4
CLL	**Collm**	**89.94**	**321**	*i* P	**P**	**14 59 19.4**	**+0.2**
	comp=Z,114nm,1.5s,mb6.0						
CLL				*i* sP	sP	14 59 27.1	-7.2
CLL				*i*		15 00 01.7	
CLL				*e*SKKSac	SKKSac	15 09 59.0	-1.5
CLL				*e*S	S	15 10 09.0	-0.3
	comp=N,9μm,31.1s						
CLL				*e*S	S	15 10 09.0	-0.3
	comp=E,2μm,19.3s						
CLL				*e*PS	PS	15 11 12.0	-7.7
CLL				*e*PPS		15 11 44.0	
CLL				*e*SSSS		15 23 04.0	
CLL				LmV		15 49 00.0	
	comp=Z,8μm,19.1s						
CLL	**Collm**	**89.94**	**321**	*i* P	**P**	**14 59 19.4**	**+0.2**
	comp=Z,114nm,1.5s,mb6.0						
CLL				*i*	pP	14 59 27.1	-3.2
CLL				*e*S	S	15 10 09.0	-0.3
CLL				LR	LR		
	comp=Z,8μm,19.1s,MS6.2						
ABTA	**Abfaltersbach**	**89.97**	**317**	⇓*i*P	**P**	**14 59 18.3**	**-1.1**
	comp=Z,47nm,1.3s,mb5.7,SNR=18						
HFS	**Hagfors**	**90.20**	**330**	P	**P**	**14 59 20.8**	**+0.6**
	comp=Z,24nm,1.0s,mb5.5,baz=116,slow=3.4,SNR=14						
NKC	**Novy Kostel**	**90.22**	**320**	*e*P	**P**	**14 59 21.1**	**+0.6**
NKC				*e*pP	pP	14 59 25.4	-6.3
NKC				*e*S	S	15 10 16.7	+4.7
NKC				AMS	AMS	15 47 30.0	
	comp=Z,8μm,18.6s						
NKC	**Novy Kostel**	**90.22**	**320**	*e*P	**P**	**14 59 21.1**	**+0.6**
NKC				*e*		14 59 25.4	
NKC				*e*SKS		15 10 16.7	
TANN	**Tannenbergstha**	**90.23**	**320**	*e*P	**P**	**14 59 20.4**	**-0.1**
	comp=Z,100nm,1.5s,mb5.9						
TANN				*e*S	S	15 10 16.7	+4.7
ROTZ	**Rotzenmuhle**	**90.35**	**320**	*e*P	**P**	**14 59 21.5**	**+0.4**
	comp=Z,140nm,1.5s,mb6.1						
ROTZ				*e*S	S	15 10 18.3	+5.1
VMG	**Vicchio**	**90.50**	**314**	P	**P**	**14 59 24.0**	**+2.1**
	comp=Z,104nm,1.0s,mb6.1						
CTI	**Castel Tesino**	**90.53**	**316**	P	**P**	**14 59 22.3**	**+0.3**
COP	**Copenhagen**	**90.56**	**326**	*i* P	**P**	**14 59 23.6**	**+1.6**
COP				*i*		15 10 17.5	
COP							
	comp=Z,3μm,20.0s						
COP	**Copenhagen**	**90.56**	**326**	*e*P	**P**	**14 59 23.6**	**+1.6**
COP				*i*		15 10 17.5	
COP				LR	LR		
	comp=Z,3μm,20.0s,MS5.8						
WTTA	**Wattenberg**	**90.60**	**317**	⇑*i*P	**P**	**14 59 20.8**	**-1.5**
	comp=Z,96nm,1.1s,mb6.1,SNR=22						
SEI	**Scarperia**	**90.64**	**314**	P	**P**	**14 59 23.8**	**+1.2**
	comp=Z,270nm,0.9s,mb6.6						
WATA	**Walderalm**	**90.64**	**317**	⇓*i*P	**P**	**14 59 21.5**	**-1.0**
	comp=Z,30nm,0.7s,mb5.7,SNR=12						
MOX	**Moxa**	**90.78**	**320**	*e*P	**P**	**14 59 23.6**	**+0.5**
MOX				*e*	pP	14 59 31.5	-2.7
	comp=Z,161nm,1.9s						
MOX							
	comp=Z,7μm,22.0s						
MOX	**Moxa**	**90.78**	**320**	*e*P	**P**	**14 59 23.6**	**+0.5**
MOX				*e*	pP	14 59 31.5	-2.7
MOX				pmax	pmax		
	comp=Z,161nm,1.9s,mb6.0						
MOX				MLR	MLR		
	comp=Z,7μm,22.0s,MS6.1						
MOX	**Moxa**	**90.78**	**320**	*e*P	**P**	**14 59 23.3**	**+0.2**
	comp=Z,135nm,1.5s,mb6.0						
MOX				*e*S	S	15 10 20.7	+3.6
MOX	**Moxa**	**90.78**	**320**	*e*P	**P**	**14 59 23.6**	**+0.5**
	comp=Z,161nm,1.9s,mb6.0						
MOX				*e*	pP	14 59 31.5	-2.7
MOX				LR	LR		
	comp=Z,7μm,22.0s,MS6.1						
APPI	**Appiano**	**90.84**	**316**	P	**P**	**14 59 24.2**	**+0.7**
FUR	**Furstenfeldbru**	**90.88**	**318**	*e*P	**P**	**14 59 23.8**	**+0.2**
FUR				pmax	pmax		
	comp=Z,99nm,1.2s,mb6.0						
FUR	**Furstenfeldbru**	**90.88**	**318**	*e*P	**P**	**14 59 23.8**	**+0.2**
	comp=Z,99nm,1.2s,mb6.0						
MOTA	**Moosalm**	**90.96**	**317**	⇓*i*P	**P**	**14 59 23.2**	**-0.8**
	comp=Z,67nm,0.9s,mb6.0,SNR=34						
GRA1	**Grafenberg Arr**	**90.99**	**320**	*e*P	**P**	**14 59 24.3**	**+0.2**
	comp=Z,164nm,1.3s,mb6.2						
GRA1				*e*PP	PP	15 03 04.1	+3.5
GRA1				*e*S	S	15 10 24.6	+5.6
GRA1				LR	LR		
	comp=Z,8μm,19.6s,MS6.2						
GRF	**Grafenberg Arr**	**90.99**	**320**	*e*P	**P**	**14 59 24.3**	**+0.2**
GRF				*e*		15 03 04.1	
GRF				*e*S	S	15 10 24.6	+5.6
GRF				pmax	pmax		
	comp=Z,164nm,1.3s,mb6.2						
GRF				MLR	MLR		
	comp=Z,8μm,19.6s,MS6.2						
GRF	**Grafenberg Arr**	**90.99**	**320**	*e*P	**P**	**14 59 24.3**	**+0.2**
GRF				*e*		15 03 04.1	
GRF				*e*S	S	15 10 24.6	+5.6
GRF				pmax	pmax		
	comp=Z,164nm,1.3s,mb6.2						
GRF				MLR	MLR		
	comp=Z,8μm,19.6s,MS6.2						
GRF	**Grafenberg Arr**	**90.99**	**320**	*e*P	**P**	**14 59 24.3**	**+0.2**
	comp=Z,164nm,1.3s,mb6.2						
GRF				*e*PP	PP	15 03 04.1	+3.5
GRF				*e*S	S	15 10 24.6	+5.6
GRF				*e*L		15 49 06.9	
	comp=Z,8μm,19.6s						
SPITS	**Spitsbergen Ar**	**91.03**	**348**	P	**P**	**14 59 23.5**	**-0.2**
	comp=Z,43nm,0.9s,mb5.8,baz=352,slow=5.9,SNR=30						
RETA	**Reutte**	**91.20**	**317**	⇑*i*P	**P**	**14 59 25.0**	**-0.1**
	comp=Z,127nm,1.3s,mb6.1,SNR=39						
FETA	**Feichten**	**91.20**	**317**	*i* P	**P**	**14 59 25.1**	**0.0**
	comp=Z,78nm,1.2s,mb5.9,SNR=27						
PII	**Pisa**	**91.22**	**314**	P	**P**	**14 59 25.4**	**+0.1**
PII				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.9						
PII	**Pisa**	**91.22**	**314**	P	**P**	**14 59 25.4**	**+0.1**
	comp=Z,72nm,1.2s,mb5.9						
NSS	**Namsos**	**91.29**	**334**	AMS	AMS	15 47 38.4	
	comp=Z,14μm,20.5s,MS6.4						
VLC	**Villacollemand**	**91.34**	**314**	*e*P	**P**	**14 59 23.6**	**-2.2**
	comp=Z,90nm,1.2s,mb6.0						
VLC				LR	LR		
	comp=Z,8μm,22.0s,MS6.1						
GAMB	**Gambell**	**91.44**	**26**	*e*P	**P**	**14 59 25.0**	**-0.8**
	comp=Z,160nm,1.7s,mb6.1						
NB2	**NORSAR Subarra**	**91.47**	**331**	P	**P**	**14 59 26.3**	**+0.2**
	comp=Z,65nm,1.1s,mb5.9,baz=94,slow=4.6						
NOA	**NORSAR Array B**	**91.47**	**331**	P	**P**	**14 59 26.1**	**0.0**
NOA						15 03 03.7	
NOA	**NORSAR Array B**	**91.47**	**331**	P	**P**	**14 59 26.1**	**0.0**
	comp=Z,15nm,1.0s,mb5.3,baz=95,slow=5.0,SNR=10.0						
NOA				PP	PP	15 03 03.7	-0.4
	comp=Z,2.7nm,0.8s,baz=87,slow=8.0,SNR=3.4						
NOA				LR	LR	15 45 01.5	
	comp=Z,9μm,20.2s,MS6.2,baz=90,slow=38						
CLZ	**Clausthal**	**91.61**	**322**	*e*P	**P**	**14 59 27.1**	**+0.2**
CLZ				*e*S	S	15 10 27.9	+3.3
CLZ				pmax	pmax		
	comp=Z,156nm,1.6s,mb6.1						
CLZ	**Clausthal**	**91.61**	**322**	*e*P	**P**	**14 59 27.1**	**+0.2**
	comp=Z,156nm,1.6s,mb6.1						
CLZ				*e*S	S	15 10 27.9	+3.3
OSL	**Oslo**	**91.68**	**330**	*e*P	**P**	**14 59 29.5**	**+2.4**

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BSEG Bad Segeberg     91.71 324 eP     P      14 59 27.8 +0.5
     comp=Z,136nm,2.0s,mb5.9
DAVA Damuels          91.79 317 i PcP  PcP    14 59 28.4 -0.3
     comp=Z,154nm,1.0s,SNR=27
NRDL Niedersach Rie   91.79 322 eP     P      14 59 28.2 +0.5
     comp=Z,150nm,1.7s,mb6.0
KEST Kesra            91.87 306  P     P      14 59 29.6 +1.2
     comp=Z,28nm,1.0s,mb5.6,baz=353,slow=0.4,SNR=19
KEST                             LR    LR     15 41 17.9
     comp=Z,6µm,20.1s,MS6.0,baz=269,slow=36
KBS  Kingsbay         91.97 349 eP     P      14 59 34.3 +6.3
KBS                             ePP    PP     15 03 07.8 +0.1
KBS                             e             15 10 27.4
KBS                             eSS    SS     15 16 38.8 +3.1
KBS                              AMS   AMS    15 48 59.7
     comp=Z,22µm,20.6s,MS6.6
KBS  Kingsbay         91.97 349⇑eP     P      14 59 29.1 +1.0
KBS                              LR    LR
     comp=Z,25µm,19.0s,MS6.7
TUE  Stuetta          92.14 316 eP     P      14 59 29.2 -0.3
     comp=Z,62nm,1.1s,mb5.8
TUE                              LR    LR
     comp=Z,6µm,20.0s,MS6.1
OSPF L'Ospedale       92.14 311 eP     P      14 59 33.0 +3.4
KONO Kongsberg        92.24 329 ePP    PP     15 03 09.3 -0.9
KONO                            e             15 10 34.2
STU  Stuttgart        92.29 319 eP     P      14 59 30.0 -0.1
STU                              pmax  pmax
     comp=Z,173nm,1.5s,mb6.2
STU  Stuttgart        92.29 319 eP     P      14 59 31.5 +1.4
     comp=Z,119nm,1.6s,mb6.0
STU                             eS     S      15 10 34.2 +3.4
STU  Stuttgart        92.29 319 eP     P      14 59 30.0 -0.1
     comp=Z,173nm,1.5s,mb6.2
PGF  Pioggiola        92.30 312 eP     P      14 59 29.5 -0.8
     comp=Z,151nm,1.2s,mb5.9
PGF  Pioggiola        92.30 312 eP     P      14 59 29.5 -0.8
PGF                              pmax  pmax
     comp=Z,75nm,1.2s,mb5.9
PGF  Pioggiola        92.30 312 eP     P      14 59 29.5 -0.8
     comp=Z,75nm,1.2s,mb5.9
MUD  Monsted U'grnd   92.42 326 i P    sP     14 59 49.3 +3.6
MUD                             i             15 10 34.8
MUD
     comp=Z,7µm,19.0s
MUD  Monsted U'grnd   92.42 326 eP     sP     14 59 49.3 +3.6
MUD                             i             15 10 34.8
VAI  Varese           92.53 316  P     P      14 59 31.0 -0.3
VAI                              pmax  pmax
     comp=Z,51nm,1.1s,mb5.9
VAI  Varese           92.53 316  P     P      14 59 31.0 -0.3
     comp=Z,51nm,1.1s,mb5.9
SPAK Spaichingen-Ko   92.55 318 eP     P      14 59 32.2 +0.9
TOD  Tromm            92.56 319 eP     P      14 59 31.9 +0.6
TOD  Tromm            92.56 319 eP     P      14 59 31.9 +0.6
TNS  Taunus Mts       92.79 320 eP     P      14 59 32.7 +0.3
TNS                             eS     S      15 10 38.2 +3.0
TNS                              pmax  pmax
     comp=Z,125nm,1.1s,mb6.3
TNS  Taunus Mts       92.79 320 eP     P      14 59 32.7 +0.3
     comp=Z,125nm,1.1s,mb6.3
TNS                             eS     S      15 10 38.2 +3.0
BFO  Black Forest     92.86 318  P     P      14 59 34.1 +1.3
     comp=Z,179nm,1.2s,mb6.4,SNR=6.7
BFO  Black Forest     92.86 318 eP     P      14 59 32.4 -0.4
BFO                             eS     S      15 10 38.8 +2.9
BFO                              pmax  pmax
     comp=Z,64nm,1.6s,mb5.8
BFO  Black Forest     92.86 318 eP     P      14 59 32.4 -0.4
     comp=Z,64nm,1.6s,mb5.8
BFO                             eS     S      15 10 38.8 +2.9
FELD Feldberg im Sc   93.07 318 eP     P      14 59 33.9 +0.1
TNA  Tin City         93.08  25 eP     P      14 59 32.3 -1.1
     comp=Z,24nm,1.1s,mb5.5
LANF Langenberg       93.21 319 eP     P      14 59 35.0 +0.7
LANF Langenberg       93.21 319 eP     P      14 59 35.0 +0.7
LANF Langenberg       93.21 319 eP     P      14 59 35.0 +0.7
IBBN Ibbenburen       93.23 322 eP     P      14 59 34.1 -0.3
     comp=Z,98nm,1.6s,mb6.0
IBBN                            eS     S      15 10 42.1 +3.1
LIBD Limburg          93.34 318 eP     P      14 59 35.8 +0.8
LIBD Limburg          93.34 318 eP     P      14 59 35.8 +0.8
SAOF Saorge           93.38 314 eP     P      14 59 35.2 -0.1
ABSA Djebel Ababsia   93.39 306  P     P      14 59 38.2 +2.7
BBS  Basel-Blauen     93.41 317 eP     P      14 59 33.5 -1.8
CMAH Djebel Manchou   93.44 306  P     P      14 59 36.8 +1.1
SBF  Sospel           93.46 314 eP     P      14 59 34.5 -1.2
     comp=Z,169nm,1.2s,mb6.1
SBF  Sospel           93.46 314 eP     P      14 59 34.5 -1.2
SBF                              pmax  pmax
     comp=Z,84nm,1.2s,mb6.0
SBF  Sospel           93.46 314 eP     P      14 59 34.5 -1.2
     comp=Z,84nm,1.2s,mb6.0
AUTN L'Aution         93.47 314 eP     P      14 59 34.3 -1.4
LUCF Luceram          93.53 314 eP     P      14 59 36.5 +0.6
BUG  Bochum--Univer   93.54 321 eP     P      14 59 35.5 -0.3
     comp=Z,57nm,1.6s,mb5.8
BUG                             eS     S      15 10 45.5 +3.7
CDF  Champ du Feu     93.56 318 eP     P      14 59 34.9 -1.1
     comp=Z,160nm,1.6s,mb5.9
CDF  Champ du Feu     93.56 318 eP     P      14 59 34.9 -1.1
CDF                              pmax  pmax
     comp=Z,80nm,1.6s,mb5.9
CDF  Champ du Feu     93.56 318 eP     P      14 59 34.9 -1.1
     comp=Z,80nm,1.6s,mb5.9
TOUF Mont Tournerai   93.60 314 eP     P      14 59 36.8 +0.5
ECH  Echery           93.64 318 eP     P      14 59 35.0 -1.4
ECH  Echery           93.64 318 eP     P      14 59 36.8 +0.4
ECH                              pmax  pmax
     comp=Z,55nm,1.4s,mb5.8
ECH                              MLR   MLR
     comp=Z,6µm,21.0s,MS6.0
ECH  Echery           93.64 318 eP     P      14 59 36.8 +0.4
     comp=Z,56nm,1.4s,mb5.8
ECH                              LR    LR
     comp=Z,6µm,21.0s,MS6.0
MOF  Molkenrain       93.66 318 eP     P      14 59 36.1 -0.4
MVIF Mont Vial        93.67 314 eP     P      14 59 37.1 +0.5
RUP  Ruppelstein      93.69 319 eP     P      14 59 35.6 -1.0
RUP  Ruppelstein      93.69 319 eP     P      14 59 35.6 -1.0
HINF Hinteralfeld     93.85 318 eP     P      14 59 35.9 -1.4
     comp=Z,105nm,1.7s,mb5.7
HINF Hinteralfeld     93.85 318 eP     P      14 59 35.9 -1.4
HINF                             pmax  pmax
     comp=Z,52nm,1.7s,mb5.7
HINF Hinteralfeld     93.85 318 eP     P      14 59 35.9 -1.4
     comp=Z,52nm,1.7s,mb5.7
CALN Calern           93.86 314 eP     P      14 59 38.4 +0.9
LOMF Lomont           93.87 317 eP     P      14 59 34.1 -3.3
MBDF Montbardon       93.94 314 eP     P      14 59 37.8  0.0
     comp=Z,48nm,1.2s,mb5.5
MBDF Montbardon       93.94 314 eP     P      14 59 37.8  0.0
MBDF                             pmax  pmax
     comp=Z,24nm,1.3s,mb5.5
MBDF Montbardon       93.94 314 eP     P      14 59 37.8  0.0
     comp=Z,24nm,1.3s,mb5.5
LPG  La Plagne        93.94 315 eP     P      14 59 37.2 -0.6
     comp=Z,43nm,1.0s,mb5.5
LPG  La Plagne        93.94 315 eP     P      14 59 37.2 -0.6
LPG                              pmax  pmax
     comp=Z,22nm,1.0s,mb5.5
LPG  La Plagne        93.94 315 eP     P      14 59 37.2 -0.6
     comp=Z,22nm,1.0s,mb5.5
LPL  La Plagne        93.95 315 eP     P      14 59 36.9 -1.0
BNI  Bardonecchia     94.00 315 eP     P      14 59 41.1 +3.0
BNI                              pmax  pmax
     comp=Z,30nm,1.1s,mb5.6
BNI                              MLR   MLR
     comp=Z,7µm,20.0s,MS6.1
BNI  Bardonecchia     94.00 315 eP     P      14 59 41.1 +3.0
     comp=Z,30nm,1.1s,mb5.6
BNI                              LR    LR
     comp=Z,7µm,20.0s,MS6.1
CKFL Kef-Lekhel       94.01 306  P     P      14 59 38.7 +0.4
FRF  La Foret Royal   94.03 313 eP     P      14 59 37.2 -1.1
     comp=Z,171nm,1.6s,mb5.9
FRF  La Foret Royal   94.03 313 eP     P      14 59 37.2 -1.1
FRF                              pmax  pmax
     comp=Z,86nm,1.6s,mb5.9
FRF  La Foret Royal   94.03 313 eP     P      14 59 37.2 -1.1
     comp=Z,86nm,1.6s,mb5.9
LMR  La Mourre        94.14 313 eP     P      14 59 37.8 -1.0
     comp=Z,69nm,1.3s,mb5.6
LMR  La Mourre        94.14 313 eP     P      14 59 37.8 -1.0
LMR                              pmax  pmax
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     comp=Z,34nm,1.3s,mb5.6
LMR  La Mourre        94.14 313 eP     P      14 59 37.8 -1.0
     comp=Z,34nm,1.3s,mb5.6
HAU  Haudompre        94.18 318 eP     P      14 59 37.5 -1.4
     comp=Z,297nm,1.8s,mb6.1
HAU                             eMLR   MLR
     comp=Z,11µm,23.0s,MS6.0
HAU  Haudompre        94.18 318 eP     P      14 59 37.5 -1.4
HAU                              pmax  pmax
     comp=Z,149nm,1.8s,mb6.1
HAU                              MLR   MLR
     comp=Z,11µm,23.0s,MS6.2
HAU  Haudompre        94.18 318 eP     P      14 59 37.5 -1.4
     comp=Z,149nm,1.8s,mb6.1
HAU                              LR    LR
     comp=Z,11µm,23.0s,MS6.2
CASM Ain Smara        94.19 306  P     P      14 59 41.4 +2.2
WLF  Walferdange      94.28 319  P     P      14 59 39.6 +0.4
     comp=Z,38nm,2.1s,mb5.5
WLF  Walferdange      94.28 319  P     P      14 59 39.7 +0.4
WLF                              pmax  pmax
     comp=Z,37nm,1.1s,mb5.7
WLF                              MLR   MLR
     comp=Z,9µm,20.0s,MS6.2
WLF  Walferdange      94.28 319 eP     P      14 59 39.2 -0.1
     comp=Z,72nm,1.4s,mb5.9
WLF                             eS     S      15 10 49.4 +1.1
WLF  Walferdange      94.28 319  P     P      14 59 39.7 +0.4
     comp=Z,37nm,1.1s,mb5.7
WLF                              LR    LR
     comp=Z,9µm,20.0s,MS6.2
MEM  Membach          94.35 320  P     P      14 59 40.0 +0.5
     comp=Z,22nm,2.1s,mb5.2
CABF La Chapelle      94.39 316 eP     P      14 59 39.2 -0.6
     comp=Z,159nm,1.5s,mb5.9
CABF La Chapelle      94.39 316 eP     P      14 59 39.2 -0.6
CABF                             pmax  pmax
     comp=Z,79nm,1.5s,mb5.9
CABF La Chapelle      94.39 316 eP     P      14 59 39.2 -0.6
     comp=Z,79nm,1.5s,mb5.9
THEF They Montfort    94.42 318 eP     P      14 59 38.0 -2.0
THEF They Montfort    94.42 318 eP     P      14 59 38.0 -2.0
THEF They Montfort    94.42 318 eP     P      14 59 38.0 -2.0
TAVF Tavernes         94.46 313 eP     P      14 59 43.4 +3.1
ORIF Oris-en-Rattie   94.57 315 eP     P      14 59 39.8 -0.9
     comp=Z,193nm,1.8s,mb5.9
ORIF                            eMLR   MLR
     comp=Z,11µm,21.8s,MS6.0
ORIF Oris-en-Rattie   94.57 315 eP     P      14 59 39.8 -0.9
ORIF                             pmax  pmax
     comp=Z,96nm,1.8s,mb5.9
ORIF Oris-en-Rattie   94.57 315 eP     P      14 59 39.8 -0.9
     comp=Z,96nm,1.8s,mb5.9
DFRA Djebel Bou Aff   94.69 306  P     P      14 59 46.5 +5.0
VILF Villemus         94.71 314 eP     P      14 59 45.8 +4.4
SMRF Simiane la Rot   94.80 314 eP     P      14 59 41.4 -0.4
     comp=Z,66nm,1.2s,mb5.6
SMRF Simiane la Rot   94.80 314 eP     P      14 59 41.4 -0.4
     comp=Z,66nm,1.2s,mb5.9
BCLA Clavier          94.81 320  P     P      14 59 41.8 +0.1
     comp=Z,23nm,2.3s,mb5.2
TAM  Tamanrasset      94.99 293  P     P      14 59 44.4 +1.3
TAM                              pmax  pmax
     comp=Z,19nm,1.3s,mb5.4
TAM                              MLR   MLR
     comp=Z,10µm,20.0s,MS6.3
TAM  Tamanrasset      94.99 293  P     P      14 59 44.4 +1.3
     comp=Z,18nm,1.3s,mb5.3
TAM                              LR    LR
     comp=Z,10µm,20.0s,MS6.3
MEZF Maizieres J'vi   95.04 318 eP     P      14 59 41.7 -1.1
     comp=Z,156nm,1.4s,mb5.9
MEZF Maizieres J'vi   95.04 318 eP     P      14 59 41.7 -1.1
     comp=Z,156nm,1.4s,mb6.2
SET  Setif            95.07 306  P     P      14 59 38.0 -5.2
GIVF Givet            95.12 320 eP     P      14 59 41.9 -1.2
DOU  Dourbes          95.27 320  P     P      14 59 45.7 +1.9
     comp=Z,20nm,2.2s,mb5.2
VIVF Saint-Julien-l   95.43 315 eP     P      14 59 43.4 -1.2
     comp=Z,63nm,1.3s,mb5.6
VIVF Saint-Julien-l   95.43 315 eP     P      14 59 43.4 -1.2
VIVF                             pmax  pmax
     comp=Z,31nm,1.3s,mb5.6
VIVF Saint-Julien-l   95.43 315 eP     P      14 59 43.4 -1.2
     comp=Z,31nm,1.3s,mb5.6
SSB  Saint Sauveur    95.50 315 eP     P      14 59 44.1 -0.9
SSB                              pmax  pmax
     comp=Z,27nm,1.3s,mb5.5
SSB                              MLR   MLR
     comp=Z,5µm,20.0s,MS6.0
SSB  Saint Sauveur    95.50 315 eP     P      14 59 44.1 -0.8
     comp=Z,27nm,1.3s,mb5.5
SSB                              LR    LR
     comp=Z,5µm,20.0s,MS6.0
BAIF Baives           95.52 320 eP     P      14 59 44.0 -1.0
     comp=Z,85nm,1.3s,mb5.7
BAIF Baives           95.52 320 eP     P      14 59 44.0 -1.0
BAIF                             pmax  pmax
     comp=Z,42nm,1.3s,mb5.7
BAIF Baives           95.52 320 eP     P      14 59 44.0 -1.0
     comp=Z,42nm,1.3s,mb5.7
LOR  Lormes           95.89 317 eP     P      14 59 45.4 -1.3
     comp=Z,142nm,1.4s,mb5.9
LOR                             eMLR   MLR
     comp=Z,8µm,22.0s,MS5.9
LOR  Lormes           95.89 317 eP     P      14 59 45.4 -1.3
LOR                              pmax  pmax
     comp=Z,71nm,1.4s,mb5.9
LOR                              MLR   MLR
     comp=Z,8µm,22.0s,MS6.2
LOR  Lormes           95.89 317 eP     P      14 59 45.4 -1.3
     comp=Z,71nm,1.4s,mb5.9
LOR                              LR    LR
     comp=Z,8µm,22.0s,MS6.2
SMF  Signal de Mont   95.93 316 eP     P      14 59 45.5 -1.4
     comp=Z,56nm,1.1s,mb5.6
SMF  Signal de Mont   95.93 316 eP     P      14 59 45.5 -1.4
SMF                              pmax  pmax
     comp=Z,28nm,1.1s,mb5.6
SMF  Signal de Mont   95.93 316 eP     P      14 59 45.5 -1.4
     comp=Z,28nm,1.1s,mb5.6
LASF Ste Croix        96.04 314 eP     P      14 59 46.1 -1.4
     comp=Z,52nm,1.4s,mb5.5
SSF  Saint Saulge     96.14 317 eP     P      14 59 46.7 -1.1
     comp=Z,105nm,1.8s,mb5.7
SSF  Saint Saulge     96.14 317 eP     P      14 59 46.7 -1.1
SSF                              pmax  pmax
     comp=Z,52nm,1.8s,mb5.7
SSF  Saint Saulge     96.14 317 eP     P      14 59 46.7 -1.1
     comp=Z,52nm,1.8s,mb5.7
AVF  Avril sur Loir   96.26 317 eP     P      14 59 47.1 -1.3
     comp=Z,123nm,1.8s,mb5.7
AVF  Avril sur Loir   96.26 317 eP     P      14 59 47.1 -1.3
AVF                              pmax  pmax
     comp=Z,62nm,1.8s,mb5.7
AVF  Avril sur Loir   96.26 317 eP     P      14 59 47.1 -1.3
     comp=Z,62nm,1.8s,mb5.7
LBL  Lubilhac         96.42 315 eP     P      14 59 49.3 +0.1
AGO  Saint Agoulin    96.46 316 eP     P      14 59 52.8 +3.5
PYM  Petit Puy Mans   96.56 316 eP     P      14 59 53.7 +3.9
BGF  Bois d'Agland    96.62 316 eP     P      14 59 49.0 -1.0
     comp=Z,113nm,1.3s,mb5.8
BGF  Bois d'Agland    96.62 316 eP     P      14 59 49.0 -1.0
BGF                              pmax  pmax
     comp=Z,56nm,1.3s,mb5.8
BGF  Bois d'Agland    96.62 316 eP     P      14 59 49.0 -1.0
     comp=Z,56nm,1.3s,mb5.8
HYF  Humbligny        96.72 317 eP     P      14 59 49.6 -0.9
TCF  Toulx Ste Croi   97.08 316 eP     P      14 59 50.9 -1.2
     comp=Z,64nm,1.5s,mb5.5
TCF  Toulx Ste Croi   97.08 316 eP     P      14 59 50.9 -1.2
TCF                              pmax  pmax
     comp=Z,32nm,1.5s,mb5.5
TCF  Toulx Ste Croi   97.08 316 eP     P      14 59 50.9 -1.2
     comp=Z,32nm,1.5s,mb5.5
MTLF Montolieu        97.27 313 eP     P      14 59 52.0 -1.0
     comp=Z,24nm,1.0s,mb5.3
MTLF Montolieu        97.27 313 eP     P      14 59 52.0 -1.0
MTLF                             pmax  pmax
     comp=Z,12nm,1.0s,mb5.3
MTLF Montolieu        97.27 313 eP     P      14 59 52.0 -1.0
     comp=Z,12nm,1.0s,mb5.3
CAF  Calviac          97.27 315 eP     P      14 59 52.3 -0.7
     comp=Z,34nm,1.2s,mb5.3
CAF  Calviac          97.27 315 eP     P      14 59 52.3 -0.7
CAF                              pmax  pmax
     comp=Z,17nm,1.2s,mb5.3
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CAF  Calviac          97.27 315 eP     P      14 59 52.3 -0.7
     comp=Z,17nm,1.2s,mb5.3
RJF  Les Rejaudoux    97.63 315 eP     P      14 59 53.9 -0.7
     comp=Z,74nm,1.5s,mb5.7
RJF                             eMLR   MLR
     comp=Z,6µm,21.5s,MS5.8
RJF  Les Rejaudoux    97.63 315 eP     P      14 59 53.9 -0.7
RJF                              pmax  pmax
     comp=Z,37nm,1.5s,mb5.7
RJF                              MLR   MLR
     comp=Z,6µm,21.5s,MS6.1
RJF  Les Rejaudoux    97.63 315 eP     P      14 59 53.9 -0.7
     comp=Z,37nm,1.5s,mb5.7
RJF                              LR    LR
     comp=Z,6µm,21.5s,MS6.1
LFF  La Frestale      98.21 315 eP     P      14 59 56.6 -0.6
     comp=Z,191nm,1.9s,mb6.0
LFF  La Frestale      98.21 315 eP     P      14 59 56.6 -0.6
LFF                              pmax  pmax
     comp=Z,95nm,1.9s,mb6.0
LFF  La Frestale      98.21 315 eP     P      14 59 56.6 -0.6
     comp=Z,95nm,1.9s,mb6.0
LDF  La Druitiere     98.46 319 eP     P      14 59 57.0 -1.3
     comp=Z,53nm,1.2s,mb5.6
LDF  La Druitiere     98.46 319 eP     P      14 59 57.0 -1.3
LDF                              pmax  pmax
     comp=Z,26nm,1.2s,mb5.6
LDF  La Druitiere     98.46 319 eP     P      14 59 57.0 -1.3
     comp=Z,26nm,1.2s,mb5.6
TTA  Tatalina         98.54  27 eP     P      14 59 59.2 +0.9
TORD Torodi Ar. Bea   98.56 283  P     P      14 59 59.6 +0.2
     comp=Z,1.8nm,1.0s,mb4.5,baz=88,slow=3.4,SNR=6.9
TORD                             PP    PP     15 04 15.2  +15
     comp=Z,3.8nm,1.1s,baz=91,slow=5.5,SNR=8.7
TORD                             PKKPbc PKKPbc 15 16 29.6 +0.8
     comp=Z,1.4nm,0.9s,baz=303,slow=3.1,SNR=4.4
TORD                             LR    LR     15 42 28.4
     comp=Z,10µm,19.6s,MS6.3,baz=105,slow=34
EPF  Esparros         98.66 313 eP     P      14 59 57.5 -1.8
MFF  Saint Martin d   98.68 317 eP     P      14 59 58.0 -1.3
     comp=Z,135nm,1.8s,mb5.9
MFF  Saint Martin d   98.68 317 eP     P      14 59 58.0 -1.3
MFF                              pmax  pmax
     comp=Z,67nm,1.8s,mb5.9
MFF  Saint Martin d   98.68 317 eP     P      14 59 58.0 -1.3
     comp=Z,67nm,1.8s,mb5.9
FLN  La Foliniere     98.68 319 eP     P      14 59 57.5 -1.7
     comp=Z,99nm,1.5s,mb5.8
FLN                             eMLR   MLR
     comp=Z,14µm,21.8s,MS6.1
FLN  La Foliniere     98.68 319 eP     P      14 59 57.5 -1.7
FLN                              pmax  pmax
     comp=Z,50nm,1.5s,mb5.8
FLN                              MLR   MLR
     comp=Z,14µm,21.8s,MS6.4
FLN  La Foliniere     98.68 319 eP     P      14 59 57.5 -1.7
     comp=Z,50nm,1.5s,mb5.8
FLN                              LR    LR
     comp=Z,14µm,21.8s,MS6.4
DAG  Danmarks Havn    98.68 348⇓eP     P      14 59 57.5 -1.2
DAG                             i             15 03 55.8
DAG                              pmax  pmax
     comp=Z,28nm,1.2s,mb5.7
DAG                              MLR   MLR
     comp=Z,16µm,18.0s,MS6.6
DAG  Danmarks Havn    98.68 348⇓iP     P      14 59 57.5 -1.2
     comp=Z,28nm,1.2s,mb5.7
DAG                             i             15 03 55.8
DAG
     comp=Z,16µm,18.0s
DAG  Danmarks Havn    98.68 348⇓eP     P      14 59 57.5 -1.2
     comp=Z,28nm,1.2s,mb5.7
DAG                             i             15 03 55.8
DAG                              LR    LR
     comp=Z,16µm,18.0s,MS6.6
RAR  Rarotonga        98.72 112  PFAKE        15 00 10.0  +10
RAR                              LR    LR
     comp=Z,11µm,20.0s,MS6.4
IMA2 Indian Mountai   98.82  23 eP     P      15 00 00.0 +0.5
GRR  Gorron           98.97 318 eP     P      14 59 59.4 -1.2
     comp=Z,132nm,1.7s,mb5.9
GRR  Gorron           98.97 318 eP     P      14 59 59.4 -1.2
GRR                              pmax  pmax
     comp=Z,66nm,1.7s,mb5.9
GRR  Gorron           98.97 318 eP     P      14 59 59.4 -1.2
     comp=Z,66nm,1.7s,mb5.9
SVW2 Sparrevohn       99.10  28 eP     P      15 00 01.6 +0.8
ETSF Etsaut           99.33 313 eP     P      15 00 01.5 -0.8
ESK  Eskdalemuir      99.45 326  PFAKE        15 00 10.0 +7.5
ESK                              LR    LR
     comp=Z,7µm,20.0s,MS6.2
SJPF Ste Jean         99.79 313 eP     Pdif   15 00 03.6 -0.5
     comp=Z,36nm,1.3s
SJPF Ste Jean         99.79 313 eP     Pdif   15 00 03.6 -0.5
SJPF                             pmax  pmax
     comp=Z,18nm,1.3s,mb5.3
SJPF Ste Jean         99.79 313 eP     Pdif   15 00 03.6 -0.5
     comp=Z,18nm,1.3s
COLD Coldfoot         99.84  22 ePdif  Pdif   15 00 03.4 -0.9
     comp=Z,32nm,1.4s
CHUM Lake Minchumin   99.94  25 ePdif  Pdif   15 00 04.7  0.0
     comp=Z,26nm,1.0s
BPAW Bear Paw Mtn.   100.44  25 ePdif  Pdif   15 00 06.3 -0.7
     comp=Z,53nm,1.2s
ROSF Rostrenen       100.57 319 eP     Pdif   15 00 06.3 -1.2
     comp=Z,124nm,1.5s
ROSF Rostrenen       100.57 319 eP     Pdif   15 00 06.3 -1.2
ROSF                             pmax  pmax
     comp=Z,62nm,1.5s
ROSF Rostrenen       100.57 319 eP     Pdif   15 00 06.3 -1.2
     comp=Z,62nm,1.5s
TRF  Thorofare Moun  100.93  26 ePdif  Pdif   15 00 08.9 -0.2
     comp=Z,31nm,1.3s
KDAK Kodiak Island   101.32  31  PFAKE        15 00 20.0 +9.1
KDAK                             LR    LR
     comp=Z,17µm,20.0s,MS6.6
MCK  McKinley        101.42  25 eP     Pdif   15 00 10.8 -0.5
MCK                              pmax  pmax
     comp=Z,54nm,1.2s
MCK  McKinley        101.42  25 ePdif  Pdif   15 00 10.8 -0.5
     comp=Z,54nm,1.2s
COLA College         101.50  24 eP     Pdif   15 00 11.8 +0.1
COLA                             pmax  pmax
     comp=Z,26nm,1.6s
COLA                             MLR   MLR
     comp=Z,9µm,19.0s,MS6.3
COLA College         101.50  24 ePdif  Pdif   15 00 11.8 +0.1
     comp=Z,26nm,1.6s
COLA                             LR    LR
     comp=Z,9µm,19.0s,MS6.3
RC01 Rabbit Creek A  101.86  28 ePdif  Pdif   15 00 12.0 -1.3
     comp=Z,33nm,1.2s
ESDC Sonseca Array   102.23 310  P     Pdif   15 00 13.3 -1.6
     comp=Z,0.1nm,0.3s,baz=270,slow=10,SNR=4.0
ESDC                             PP    PP     15 04 42.1  +15
     comp=Z,3.9nm,1.1s,baz=72,slow=6.4,SNR=4.3
ESDC                             PKKPbc PKKPbc 15 16 22.1 +3.1
     comp=Z,1.0nm,0.9s,baz=276,slow=2.7,SNR=5.0
SCO  Scoresbysund    102.53 343 i P    PKiKP  15 04 33.2 -3.8
     comp=Z,9.1nm,1.3s
SCO
     comp=Z,9µm,21.0s
PAB  San Pablo       102.54 310  PFAKE        15 00 30.0  +14
PAB                              LR    LR
     comp=Z,6µm,19.0s,MS6.2
XMAS Kiritimati      102.70  88  PFAKE        15 00 30.0  +13
XMAS                             LR    LR
     comp=Z,7µm,22.0s,MS6.2
MDT  Midelt          103.52 303  PP    PP     15 04 45.4 +7.8
     comp=Z,5.0nm,1.1s,baz=71,slow=9.3,SNR=3.6
MENT Mentasta        103.90  25 ePdif  Pdif   15 00 22.7 +0.4
EGAK Eagle           104.18  23  PFAKE        15 00 30.0 +6.4
EGAK                             LR    LR
     comp=Z,14µm,21.0s,MS6.5
SHEL Horse Pasture   104.36 253  PFAKE        15 00 40.0  +16
SHEL                             LR    LR
     comp=Z,17µm,20.0s,MS6.6
SFS  San Fernando    104.39 307  PFAKE        15 00 40.0  +15
SFS                              LR    LR
     comp=Z,10µm,19.0s,MS6.4
POHA Pohakuloa       104.50  70  PFAKE        15 00 40.0  +15
POHA                             LR    LR
     comp=Z,6µm,21.0s,MS6.1
MTE  Manteigas       104.84 311 ePP    PP     15 04 53.6 +6.5
MTE                             eSKS          15 11 10.8
MTE                             eP            15 12 23.5
MTE                              A            15 54 08.7
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      comp=Z,5µm,18.3s
MTE   Manteigas       104.84 311   PFAKE               15 00 40.0  +13
MTE                                LR        LR
      comp=Z,5µm,21.0s,MS6.1
PMRV  Marv??o         104.89 310  ePP        PP        15 04 55.2 +7.8
PMRV                              eP                   15 12 20.7
PMRV                               A                   15 54 52.1
      comp=Z,4µm,18.6s
INK   Inuvik          105.08  18  eP         Pdif      15 00 26.9 -0.7
INK                                pmax      pmax
      comp=Z,13nm,1.1s
INK   Inuvik          105.08  18  ePdif      Pdif      15 00 26.9 -0.7
      comp=Z,13nm,1.1s
BORG  Borgarnes       105.09 338   PFAKE               15 04 50.0 +8.2
BORG                               LR        LR
      comp=Z,11µm,20.0s,MS6.4
PESTR Estremoz        105.13 310  ePP        PP        15 04 55.2 +6.0
PESTR                             eP                   15 12 25.4
PESTR                              A                   15 54 16.2
      comp=Z,5µm,17.2s
RTC   Rabat Centre    105.25 304   PFAKE               15 04 50.0 +7.0
RTC                                LR        LR
      comp=Z,7µm,19.0s,MS6.2
PVAQ  Vaqueiros       105.46 308  ePP        PP        15 04 58.0 +6.3
PVAQ                              eP                   15 12 25.5
PVAQ                               A                   15 48 36.0
      comp=Z,4µm,20.8s
EVO   Evora           105.51 309  eP         Pdif      15 00 29.8 +0.3
      comp=Z,83nm,1.7s
EVO                               eMLR       MLR
      comp=Z,9µm,21.2s,MS6.0
EVOP  Sao Brissos     105.59 309  ePP        PP        15 04 53.3 +0.6
EVOP                              eSS        SS        15 19 49.6 +1.1
EVOP                               AMS       AMS       15 54 08.1
      comp=Z,5µm,21.4s,MS6.0
PBDV  Barranco-do-Ve  105.65 308  ePP        PP        15 04 57.8 +4.6
PBDV                              eP                   15 12 26.7
PBDV                               A                   15 51 04.5
      comp=Z,6µm,19.8s
MORF  Marmelete       106.21 308  ePP        PP        15 05 02.8 +5.5
MORF                              eP                   15 12 37.2
MORF                               A                   15 51 21.6
      comp=Z,5µm,20.0s
PMAFR Mafra           106.41 310  ePP        PP        15 05 03.5 +4.8
PMAFR                             eP                   15 12 36.0
PMAFR                              A                   16 05 19.3
      comp=Z,4µm,19.5s
PPT   Papeete         108.73 109  ePdif      Pdif      15 00 44.3 +0.5
      comp=Z,478nm,26.2s
PPT   Papeete         108.73 109  ePP        PP        15 05 07.4 -9.0
      comp=Z,1µm,27.0s
PPT                               eSdif      SKKSac    15 12 30.7  +13
      comp=Z,9µm,25.8s
PPT   Papeete         108.73 109  ePS        PS        15 14 38.9 -3.7
      comp=Z,3µm,24.9s
PPT                               eSS        SS        15 20 17.6  -15
      comp=Z,5µm,26.0s
PPT                               eLR        LR        15 36 43.2
      comp=Z,19µm,23.8s
PMSA  Palmer Station  111.94 187   PFAKE               15 05 10.0  +15
PMSA                               LR        LR
      comp=Z,12µm,19.0s,MS6.5
SFJD  Kangerlussuaq   112.37 348  i P        PP        15 05 38.3 -2.4
      comp=Z,25nm,1.1s
SFJD                              i          Sdif      15 13 26.2 +6.0
SFJD                              i                    15 15 20.5
SFJD  Kangerlussuaq   112.37 348   PFAKE               15 05 10.0  +15
SFJD                               LR        LR
      comp=Z,18µm,21.0s,MS6.6
YKA   Yellowknife Ar  114.80  17   PKP       PKiKP     15 05 00.3 +0.2
      comp=Z,2.4nm,0.9s,baz=316,slow=2.0,SNR=16
YKA                                PP        PP        15 05 57.2 -0.8
      comp=Z,6.0nm,0.9s,baz=327,slow=6.8,SNR=5.9
YKA                                PKKPbc    PKKPbc    15 15 40.2 +0.4
      comp=Z,1.4nm,1.1s,baz=146,slow=3.2,SNR=6.1
YKA   Yellowknife Ar  114.80  17   PKP       PKiKP     15 05 00.3 +0.2
YKA                                PP        PP        15 05 57.2 -0.8
YKA                                PKKPbc    PKKPbc    15 15 40.2 +0.4
CMLA  Cha da Macela   119.00 312  i PKIKP    PKPdf     15 05 07.2 -1.8
CMLA  Cha da Macela   119.00 312   PFAKE               15 05 20.0  +11
CMLA                               LR        LR
      comp=Z,6µm,20.0s,MS6.2
TAOE  Nuku Hiva Isla  119.09 101  ePP        PP        15 06 20.8 -9.2
      comp=Z,4µm,25.7s
TAOE                              eSdiff     Sdif      15 14 13.1 -3.2
      comp=Z,10µm,28.1s
TAOE  Nuku Hiva Isla  119.09 101  ePS        PS        15 16 16.8 -1.8
      comp=Z,10µm,23.9s
TAOE                              eSS        SS        15 22 49.2 -0.1
      comp=Z,23µm,27.8s
TAOE                              eLR        LR        15 41 35.4
      comp=Z,48µm,23.2s
RKT   Rikitea         120.83 119  ePP        PP        15 06 38.0 -3.5
      comp=Z,874nm,26.5s
RKT                               eSdif      Sdif      15 14 28.5 -2.3
      comp=Z,3µm,28.2s
RKT   Rikitea         120.83 119  ePS        PS        15 16 31.6 -2.2
      comp=Z,3µm,26.8s
RKT                               eSS        SS        15 23 10.5 -0.4
      comp=Z,7µm,29.5s
RKT                               eLR        LR        15 42 28.2
      comp=Z,19µm,25.8s
A05A  Maple Falls     121.37  31  ⇓P         PKPdf     15 05 13.5 +0.3
      baz=121
NLWA  Neilton Lookou  121.39  33   PFAKE               15 05 20.0 +6.7
NLWA                               LR        LR
      comp=Z,7µm,22.0s,MS6.2
A06A  Chilliwack      121.62  31  ⇓P         PKPdf     15 05 13.0 -0.6
      baz=122
GNW   Green Mountain  121.86  33  ePKPdf     PKPdf     15 05 14.8 +0.6
A07A  Ashnola River,  122.20  30  ⇑P         PKPdf     15 05 14.7 -0.1
      baz=122
EDM   Edmonton        122.40  23  ePKIKP     PKPdf     15 05 14.5 -0.5
C06A  Tall Timber Ra  122.66  31  ⇓P         PKPdf     15 05 14.7 -1.0
      baz=122
B07A  Winthrop        122.72  31  ⇓P         PKPdf     15 05 14.8 -1.0
      baz=123
FCC   Fort Churchill  122.76   9  ePKIKP     PKPdf     15 05 15.0 -0.6
EFI   East Falkland   122.95 196   PFAKE               15 05 30.0  +14
EFI                                LR        LR
      comp=Z,6µm,21.0s,MS6.2
F04A  Amboy           123.06  34  ⇓P         PKPdf     15 05 15.5 -1.1
      baz=123
A09A  Danville        123.14  29  ⇓P         PKPdf     15 05 16.8 +0.2
      baz=123
D06A  Cle Elum        123.15  32  ⇑P         PKPdf     15 05 16.1 -0.6
      baz=123
B08A  Colville Reser  123.18  30  ⇑P         PKPdf     15 05 16.6 -0.1
      baz=123
C07A  Waterville      123.24  31  ⇑P         PKPdf     15 05 16.1 -0.7
      baz=123
WTV   Waterville      123.29  31   P         PKPdf     15 05 17.2 +0.2
COR   Corvallis       123.34  36   PFAKE               15 05 30.0  +13
COR                                LR        LR
      comp=Z,5µm,20.0s,MS6.2
E06A  Yakima          123.48  33  ⇓P         PKPdf     15 05 16.3 -1.1
      baz=123
D07A  Quincy          123.61  32  ⇑P         PKPdf     15 05 16.3 -1.3
      baz=124
A10A  Northport       123.64  29  ⇑P         PKPdf     15 05 16.0 -1.6
      baz=124
EPH   Ephrata         123.70  31   P         PKPdf     15 05 18.2 +0.5
C08A  Higginbotham F  123.70  31  ⇓P         PKPdf     15 05 16.1 -1.6
      baz=124
B09A  Rice            123.73  30  ⇑P         PKPdf     15 05 16.1 -1.7
      baz=124
HOOD  Mount Hood Mea  123.86  34  ePKPdf     PKPdf     15 05 18.8 +0.7
H04A  Detroit Lake    123.93  35  ⇓P         PKPdf     15 05 17.3 -0.9
      baz=124
F06A  Goldendale      124.07  33  ⇑P         PKPdf     15 05 17.8 -0.7
      baz=124
E07A  Sunnyside       124.07  32  ⇓P         PKPdf     15 05 18.2 -0.2
      baz=124
C09A  Chrisman Ranch  124.08  30  ⇓P         PKPdf     15 05 17.5 -1.0
      baz=124
G05A  Wamic           124.09  34  ⇑P         PKPdf     15 05 17.4 -1.2
      baz=124
OD2   Odessa Site #2  124.13  31   P         PKPdf     15 05 19.1 +0.6
D08A  Wollman Farm,   124.24  31  ⇓P         PKPdf     15 05 19.0 +0.2
      baz=124
IRO   Indian Ridge    124.29  36   P         PKPdf     15 05 19.5 +0.5
NEW   Newport         124.34  29  ePKIKP     PKPdf     15 05 19.0 +0.1
HAWA  Hanford         124.35  32  ePKPdf     PKPdf     15 05 19.3 +0.3
HAWA                               LR        LR
      comp=Z,7µm,19.0s,MS6.3
PTCN  Pitcairn Islan  124.37 123   PFAKE               15 05 30.0  +10
PTCN                               LR        LR
      comp=Z,16µm,20.0s,MS6.7
F07A  Phinny Hill Vi  124.45  33  ⇓P         PKPdf     15 05 17.7 -1.5
      baz=124
E08A  Dider Farm, El  124.54  32  ⇑P         PKPdf     15 05 18.1 -1.2
      baz=124
D09A  Jones Farm, Ri  124.56  31  ⇓P         PKPdf     15 05 18.2 -1.1
      baz=124
A12A  Yaak River Ran  124.57  28  ⇑P         PKPdf     15 05 18.0 -1.3
      baz=124
B11A  Sandpoint       124.59  29  ⇓P         PKPdf     15 05 17.7 -1.7
      baz=124
HUMO  Hull Mountain   124.67  38  ePKPdf     PKPdf     15 05 20.8 +1.1
HUMO                               LR        LR
      comp=Z,7µm,22.0s,MS6.3
FFC   Flin Flon       124.89  15  ePKIKP     PKPdf     15 05 19.5 -0.3
FFC                                MLR       MLR
      comp=Z,17µm,21.0s,MS6.7
B12A  Libby           124.93  28  ⇓P         PKPdf     15 05 18.4 -1.6
      baz=125
G07A  Ruggs Ranch, H  124.99  33  ⇑P         PKPdf     15 05 19.3 -0.9
      baz=125
E09A  Wood Farm, Sta  125.00  31  ⇑P         PKPdf     15 05 18.7 -1.6
      baz=125
D10A  Wagner Farm, O  125.09  30  ⇑P         PKPdf     15 05 19.6 -0.7
      baz=125
YBH   Yreka Blue Hor  125.31  38   PFAKE               15 05 30.0 +9.0
YBH                                LR        LR
      comp=Z,6µm,20.0s,MS6.2
G08A  Pilot Rock      125.36  33  ⇑P         PKPdf     15 05 20.2 -0.8
      baz=125
H07A  Lands Inn, Kim  125.47  34  ⇑P         PKPdf     15 05 21.2  0.0
      baz=125
B13A  Whitefish       125.52  28  ⇓P         PKPdf     15 05 21.0 -0.1
      baz=125
E10A  Myers Farm, Un  125.56  31  ⇓P         PKPdf     15 05 20.8 -0.5
      baz=125
A14A  Double T Ranch  125.56  26  ⇑P         PKPdf     15 05 20.4 -0.8
      baz=125
D11A  Klaveano Farm,  125.56  30  ⇑P         PKPdf     15 05 19.9 -1.4
      baz=125
BSMT  Bassoo Peak     125.75  28  ePKPdf     PKPdf     15 05 22.2 +0.5
I07A  Izee            125.83  34  ⇑P         PKPdf     15 05 21.2 -0.8
      baz=126
F10A  Beach Ranch, E  125.84  31  ⇑P         PKPdf     15 05 21.2 -0.7
      baz=126
K05A  Summer Lake     125.84  36  ⇑P         PKPdf     15 05 21.6 -0.4
      baz=126
A15A  Johnson Ranch,  125.86  26  ⇓P         PKPdf     15 05 20.8 -1.0
      baz=126
J06A  Christmas Vall  125.96  36  ⇓P         PKPdf     15 05 21.8 -0.4
      baz=126
C13A  Hot Springs     125.97  28  ⇓P         PKPdf     15 05 21.6 -0.5
      baz=126
G09A  Cove            126.01  32  ⇑P         PKPdf     15 05 20.4 -1.8
      baz=126
H08A  Prairie City    126.01  33  ⇓P         PKPdf     15 05 21.6 -0.7
      baz=126
WDC   Whiskeytown Da  126.06  40   PFAKE               15 05 30.0 +7.5
WDC                                LR        LR
      comp=Z,8µm,20.0s,MS6.4
JTMT  Jette           126.06  28  ePKPdf     PKPdf     15 05 21.9 -0.3
E11A  Bogner Ranch,   126.10  30  ⇑P         PKPdf     15 05 21.4 -1.0
      baz=126
G10A  Bishop Farm, J  126.35  32  ⇓P         PKPdf     15 05 22.0 -0.8
      baz=126
SWMT  Swartz Lake     126.37  28  ePKPdf     PKPdf     15 05 22.7 -0.2
J07A  Hines           126.38  35  ⇓P         PKPdf     15 05 21.7 -1.3
      baz=126
A16A  West Butte Ran  126.38  25  ⇓P         PKPdf     15 05 21.7 -1.1
      baz=126
B15A  Bradely Ranch,  126.43  26  ⇓P         PKPdf     15 05 22.0 -0.9
      baz=126
D13A  Huson           126.45  29  ⇑P         PKPdf     15 05 21.6 -1.4
      baz=126
F11A  Grangeville     126.45  31  ⇑P         PKPdf     15 05 21.7 -1.3
      baz=126
I08A  Drewsey         126.46  34  ⇓P         PKPdf     15 05 22.6 -0.5
      baz=126
H09A  Durkee          126.47  33  ⇑P         PKPdf     15 05 23.6 +0.5
      baz=126
BMO   Blue Mountains  126.54  32  ePKIKP     PKPdf     15 05 22.5 -0.7
BMO                                MLR       MLR
      comp=Z,7µm,20.0s,MS6.3
HOPS  Hopland         126.57  41   PFAKE               15 05 40.0  +17
HOPS                               LR        LR
      comp=Z,7µm,20.0s,MS6.3
SCHQ  Schefferville   126.65 350   PKP       PKPdf     15 05 22.6 -0.5
      comp=Z,8.9nm,0.8s,baz=33,slow=2.3,SNR=13
MOD   Modoc           126.69  37  ePKPdf     PKPdf     15 05 24.3 +0.7
B16A  M & M Farms, S  126.73  26  ⇑P         PKPdf     15 05 23.2 -0.3
      baz=127
A17A  Triple J Farms  126.76  25  ⇑P         PKPdf     15 05 23.5  0.0
      baz=127
SLMT  Seeley Lake     126.80  28  ePKPdf     PKPdf     15 05 23.4 -0.2
C15A  Salmond Ranch,  126.81  27  ⇑P         PKPdf     15 05 23.1 -0.6
      baz=127
K07A  Rock Creek Ran  126.83  36  ⇑P         PKPdf     15 05 23.5 -0.4
      baz=127
J08A  Circle Bar Ran  126.86  34  ⇓P         PKPdf     15 05 24.7 +0.8
      baz=127
MSO   Missoula        126.88  29  ePKPdf     PKPdf     15 05 23.6 -0.2
MSO                                LR        LR
      comp=Z,8µm,21.0s,MS6.4
D14A  Greenough       126.91  28  ⇑P         PKPdf     15 05 22.9 -1.0
      baz=127
F12A  Elk City        127.00  30  ⇑P         PKPdf     15 05 23.0 -1.1
      baz=127
H10A  Noah's Angus R  127.01  32  ⇓P         PKPdf     15 05 23.6 -0.5
      baz=127
E13A  Victor          127.04  29  ⇓P         PKPdf     15 05 21.8 -2.4
      baz=127
A18A  Metzger Ranch,  127.13  24  ⇑P         PKPdf     15 05 23.7 -0.6
      baz=127
MCCM  Marconi Confer  127.14  42   PFAKE               15 05 40.0  +15
MCCM                               LR        LR
      comp=Z,9µm,20.0s,MS6.4
CHMT  Chamberlain Mo  127.15  28  ePKPdf     PKPdf     15 05 24.1 -0.2
C16A  Fuhringer Ranc  127.18  26  ⇑P         PKPdf     15 05 23.7 -0.7
      baz=127
L07A  Adell           127.19  36  ⇑P         PKPdf     15 05 23.9 -0.7
      baz=127
B17A  L&G Farms, Che  127.22  25  ⇑P         PKPdf     15 05 23.0 -1.4
      baz=127
K08A  Mann Creek Ran  127.25  35  ⇓P         PKPdf     15 05 23.5 -1.1
      baz=127
J09A  Fry Pan Ranch,  127.27  34  ⇑P         PKPdf     15 05 22.7 -2.0
      baz=127
I10A  Payette         127.32  33  ⇓P         PKPdf     15 05 23.2 -1.5
      baz=127
H11A  Donnelly        127.33  32  ⇑P         PKPdf     15 05 23.6 -1.2
      baz=127
WVOR  Wild Horse Val  127.35  35  ePKIKP     PKPdf     15 05 25.9 +1.0
WVOR                               MLR       MLR
      comp=Z,9µm,21.0s,MS6.4
G12A  Big Creek, Yel  127.39  31  ⇓P         PKPdf     15 05 21.8 -3.1
      baz=127
D15A  Lincoln         127.39  28  ⇓P         PKPdf     15 05 24.3 -0.6
      baz=127
E14A  Clinton         127.39  29  ⇑P         PKPdf     15 05 23.9 -0.9
      baz=127
F13A  Darby           127.43  30  ⇑P         PKPdf     15 05 23.7 -1.2
      baz=127
B18A  Beardsley Farm  127.57  25  ⇓P         PKPdf     15 05 23.7 -1.4
      baz=127
N06A  Buffalo Meadow  127.65  38  ⇓P         PKPdf     15 05 23.5 -2.0
      baz=128
M07A  Soldier Meadow  127.67  37  ⇓P         PKPdf     15 05 24.1 -1.4
      baz=128
K09A  Rome            127.70  35  ⇑P         PKPdf     15 05 25.8 +0.2
      baz=128
C17A  Wharram Farm,   127.74  26  ⇓P         PKPdf     15 05 23.7 -1.7
      baz=128
J10A  Berg Farm, Mel  127.77  33  ⇑P         PKPdf     15 05 25.3 -0.3
      baz=128
E15A  Deer Lodge      127.79  28  ⇑P         PKPdf     15 05 25.1 -0.5
      baz=128
D16A  Dana Ranch, Ca  127.85  27  ⇑P         PKPdf     15 05 25.2 -0.5
      baz=128
EGMT  Eagleton        127.87  25  ⇑P         PKPdf     15 05 25.1 -0.5
      baz=128
EGMT  Eagleton        127.87  25  ePKPdf     PKPdf     15 05 26.1 +0.4
EGMT                               LR        LR
      comp=Z,9µm,21.0s,MS6.4
I11A  Placerville     127.89  32  ⇓P         PKPdf     15 05 26.0 +0.2
      baz=128
F14A  Wisdom          127.89  29  ⇓P         PKPdf     15 05 26.8 +1.0
      baz=128
HRY   Holter Researc  127.96  27  ePKPdf     PKPdf     15 05 25.5 -0.4
O06A  Flanigan        128.00  38  ⇑P         PKPdf     15 05 25.9 -0.3
      baz=128
H12A  Diamond D Ranc  128.03  31  ⇑P         PKPdf     15 05 26.1  0.0
      baz=128
M08A  Happy Creek Ra  128.11  36  ⇑P         PKPdf     15 05 26.5 +0.1
      baz=128
K10A  MacKenzie Ranc  128.13  34  ⇓P         PKPdf     15 05 27.7 +1.4
      baz=128
D17A  Six Diamond Ra  128.14  26  ⇑P         PKPdf     15 05 23.9 -2.3
      baz=128
N07B  Gerlach         128.16  37  ⇑P         PKPdf     15 05 26.6 +0.1
      baz=128
E16A  East Helena     128.16  27  ⇓P         PKPdf     15 05 26.0 -0.3
      baz=128
L09A  Wilkinson Ranc  128.17  35  ⇑P         PKPdf     15 05 27.3 +0.9
      baz=128
G14A  Jackson         128.25  30  ⇓P         PKPdf     15 05 26.1 -0.4
      baz=128
MFID  Camas Ranch     128.29  33  ⇑P         PKPdf     15 05 25.1 -1.6
      baz=128
LRM   Limekiln Ridge  128.32  29  ePKPdf     PKPdf     15 05 27.5 +0.9
H13A  Challis         128.33  31  ⇓P         PKPdf     15 05 26.4 -0.3
      baz=128
I12A  Atlanta         128.41  32  ⇓P         PKPdf     15 05 26.4 -0.4
      baz=128
D18A  Linhart Farms,  128.49  26  ⇓P         PKPdf     15 05 25.8 -1.1
      baz=128
E17A  Martinsdale     128.59  27  ⇓P         PKPdf     15 05 26.8 -0.3
      baz=128
DLMT  Dillon          128.59  29  ePKPdf     PKPdf     15 05 27.9 +0.7
K11A  Parker Ranch,   128.60  34  ⇓P         PKPdf     15 05 27.5 +0.3
      baz=128
N08A  GE Springer Mi  128.66  37  ⇓P         PKPdf     15 05 26.2 -1.2
      baz=128
M09A  Marrel Ranch,   128.67  36  ⇑P         PKPdf     15 05 27.6 +0.2
      baz=128
F16A  Kennard Place,  128.74  28  ⇓P         PKPdf     15 05 27.2 -0.2
      baz=129
G15A  Dillon          128.78  29  ⇓P         PKPdf     15 05 27.0 -0.5
      baz=129
J12A  Stokes Ranch,   128.79  33  ⇑P         PKPdf     15 05 28.0 +0.4
      baz=129
L10A  Juniper Basin   128.81  35  ⇑P         PKPdf     15 05 28.7 +1.0
      baz=129
SAO   San Andreas Ge  128.84  43   PFAKE               15 05 40.0  +12
SAO                                LR        LR
      comp=Z,6µm,20.0s,MS6.3
BOZ   Bozeman (W)     128.84  28  ⇓P         PKPdf     15 05 27.7  0.0
      baz=129
BOZ   Bozeman (W)     128.84  28  ePKPdf     PKPdf     15 05 27.9 +0.3
BOZ                                LR        LR
      comp=Z,9µm,20.0s,MS6.5
MCMT  McKenzie Canyo  128.85  30  ePKPdf     PKPdf     15 05 28.6 +1.0
CMB   Columbia Colle  128.86  41   PFAKE               15 05 40.0  +12
CMB                                LR        LR
      comp=Z,6µm,21.0s,MS6.3
E18A  Harlowton       128.93  26  ⇑P         PKPdf     15 05 25.4 -2.3
      baz=129
HLID  Hailey          128.94  32  ⇑P         PKPdf     15 05 27.9 +0.1
      baz=129
HLID  Hailey          128.94  32  ePKPdf     PKPdf     15 05 27.9  0.0
HLID                               LR        LR
      comp=Z,11µm,22.0s,MS6.5
O08A  Rochester Mine  128.95  37  ⇓P         PKPdf     15 05 27.9 -0.1
      baz=129
N09A  Rock Creek Ran  128.98  36  ⇑P         PKPdf     15 05 29.7 +1.7
      baz=129
G16A  Moss Hill, Enn  129.07  29  ⇓P         PKPdf     15 05 27.9 -0.1
      baz=129
F17A  Fitzpatrick Pl  129.10  27  ⇓P         PKPdf     15 05 27.5 -0.6
      baz=129
H15A  Lima            129.11  30  ⇓P         PKPdf     15 05 28.0 -0.2
      baz=129
M10A  I.L. Ranch, Tu  129.13  35  ⇓P         PKPdf     15 05 27.7 -0.6
      baz=129
L11A  Cat Creek Ranc  129.16  34  ⇑P         PKPdf     15 05 29.1 +0.8
      baz=129
J13A  Cove Ranch, Pi  129.19  32  ⇓P         PKPdf     15 05 29.9 +1.5
      baz=129
I14A  Mackay          129.19  31  ⇑P         PKPdf     15 05 27.3 -1.0
      baz=129
K12A  Draper Farm, C  129.31  33  ⇑P         PKPdf     15 05 28.7  0.0
      baz=129
BMN   Battle Mountai  129.43  37   PFAKE               15 05 40.0  +11
BMN                                LR        LR
      comp=Z,6µm,21.0s,MS6.3
G17A  Pierce Place,   129.50  28  ⇑P         PKPdf     15 05 28.0 -0.9
      baz=129
F18A  Big Timber      129.53  27  ⇓P         PKPdf     15 05 26.9 -2.0
      baz=129
J14A  Carey           129.58  31  ⇓P         PKPdf     15 05 29.6 +0.5
      baz=129
L12A  House Creek Ra  129.58  34  ⇓P         PKPdf     15 05 29.7 +0.5
      baz=129
M11A  Holland Ranch,  129.62  35  ⇓P         PKPdf     15 05 29.1 -0.1
      baz=130
I15A  Monteview       129.63  30  ⇑P         PKPdf     15 05 29.6 +0.5
      baz=130
GCMT  Greycliff       129.64  27  ePKPdf     PKPdf     15 05 29.1 -0.1
DGMT  Dagmar          129.66  21  ⇓P         PKPdf     15 05 29.7 +0.6
      baz=130
DGMT  Dagmar          129.66  21  ePKPdf     PKPdf     15 05 29.5 +0.5
DGMT                               LR        LR
      comp=Z,14µm,19.0s,MS6.7
H16A  Russell Place,  129.72  29  ⇑P         PKPdf     15 05 28.7 -0.6
      baz=130
K13A  Stover Farm, H  129.75  32  ⇓P         PKPdf     15 05 30.0 +0.5
      baz=130
YMR   Madison River   129.88  29  ePKPdf     PKPdf     15 05 31.1 +1.5
O10A  Cortez Mining,  129.94  36  ⇑P         PKPdf     15 05 31.4 +1.5
      baz=130
NVAR  Mina Array Bea  129.97  39   PKhKP               15 05 22.2
      comp=Z,0.7nm,0.8s,baz=278,slow=4.0,SNR=3.8
NVAR                               PKP       PKPdf     15 05 31.3 +1.3
      comp=Z,4.4nm,0.8s,baz=280,slow=2.1,SNR=12
NVAR                               PP        PP        15 07 41.9 +0.2
      comp=Z,6.7nm,1.0s,baz=288,slow=5.5,SNR=4.5
NVAR  Mina Array Bea  129.97  39   PKP                 15 05 22.2
NVAR                               PKP       PKPdf     15 05 31.3 +1.3
NVAR                               PP        PP        15 07 41.9 +0.2
YNR   Norris Junctio  129.99  28  ePKPdf     PKPdf     15 05 30.8 +1.0
G18A  Lazy EL Ranch,  130.05  27  ⇑P         PKPdf     15 05 29.9  0.0
      baz=130
J15A  Blackfoot       130.09  31  ⇓P         PKPdf     15 05 30.9 +0.9
      baz=130
YFT   Old Faithful    130.11  29  ePKPdf     PKPdf     15 05 31.8 +1.7
L13A  Double Diamond  130.21  33  ⇑P         PKPdf     15 05 31.0 +0.7
      baz=130
I16A  Newdale         130.22  30  ⇑P         PKPdf     15 05 30.9 +0.6
      baz=130
LKWY  Lake            130.23  28  ePKIKP     PKPdf     15 05 30.8 +0.5
LKWY                               MLR       MLR
      comp=Z,15µm,19.0s,MS6.7
K14A  Jones Ranch, D  130.30  32  ⇓P         PKPdf     15 05 29.1 -1.4
      baz=130
RLMT  Red Lodge       130.33  27  ⇑P         PKPdf     15 05 27.7 -2.7
      baz=130
RLMT  Red Lodge       130.33  27  ePKPdf     PKPdf     15 05 27.6 -2.9
RLMT                               LR        LR
      comp=Z,14µm,20.0s,MS6.7
LAO   LASA Array      130.38  23  ePKPdf     PKPdf     15 05 31.4 +0.9
LAO                                LR        LR
      comp=Z,11µm,22.0s,MS6.5
ELK   Elko            130.38  35  ePKIKP     PKPdf     15 05 30.9 +0.2
ELK                                MLR       MLR
      comp=Z,9µm,22.0s
P10A  Eureka          130.39  37  ⇑P         PKPdf     15 05 32.7 +2.0
      baz=130
N12A  Clover Valley,  130.43  35  ⇓P         PKPdf     15 05 30.7 -0.1
      baz=130
N12A  Clover Valley,  130.43  35  ePKPdf     PKPdf     15 05 31.3 +0.5
IMW   Indian Meadow   130.47  29  ePKPdf     PKPdf     15 05 31.7 +0.9
ULM   Lac du Bonnet   130.50  13   PKP       PKPdf     15 05 30.0 -0.6
      comp=Z,8.9nm,0.7s,baz=351,slow=4.7,SNR=10
ULM                                PP        PP        15 07 48.0 +3.9
      comp=Z,11nm,1.0s,baz=326,slow=11,SNR=3.6
O11A  Cowboy Ranch,   130.54  36  ⇓P         PKPdf     15 05 30.5 -0.5
      baz=130
K15A  Arbon           130.54  31  ⇓P         PKPdf     15 05 30.3 -0.6
      baz=130
DCID1 Drake Creek     130.57  30  ePKPdf     PKPdf     15 05 32.1 +1.1
M13A  Montello        130.58  34  ⇑P         PKPdf     15 05 30.3 -0.8
      baz=130
M13A  Montello        130.58  34  ePKPdf     PKPdf     15 05 31.9 +0.9
J16A  Bone            130.59  30  ⇓P         PKPdf     15 05 29.1 -2.0
      baz=130
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L14A	Malta	130.62	32	⇓P	PKPdf	15 05 31.9	+0.7
	baz=130						
MOOW	Moose Ponds	130.67	29	PKPdf	PKPdf	15 05 32.0	+0.8
RRI2	Red Ridge	130.68	30	*e*PKPdf	PKPdf	15 05 31.6	+0.4
TPAW	Teton Pass	130.76	30	*e*PKPdf	PKPdf	15 05 32.6	+1.2
LOHW	Long Hollow	130.84	29	*e*PKPdf	PKPdf	15 05 32.0	+0.6
R09A	Tonopah	130.86	39	⇑P	PKPdf	15 05 33.0	+1.3
	baz=131						
SNOW	Snow King Moun	130.88	29	*e*PKPdf	PKPdf	15 05 32.4	+0.9
N13A	Wendover, West	130.90	34	*e*PKPdf	PKPdf	15 05 33.0	+1.4
REDW	Red Top Meadow	130.91	30	*e*PKPdf	PKPdf	15 05 31.6	0.0
Q10A	Clear Creek Ra	130.92	38	⇓P	PKPdf	15 05 30.8	-1.0
	baz=131						
K16A	Soda Springs	130.92	31	⇑P	PKPdf	15 05 30.4	-1.2
	baz=131						
M14A	Sheep Mountain	130.93	33	⇓P	PKPdf	15 05 30.5	-1.2
	baz=131						
J17A	Brown Place, J	130.97	29	⇑P	PKPdf	15 05 32.2	+0.4
	baz=131						
O12A	Currie	130.98	35	⇓P	PKPdf	15 05 30.5	-1.4
	baz=131						
HVU	Hansel Valley	131.05	32	*e*PKIKP	PKPdf	15 05 32.7	+0.8
L15A	Malad City	131.10	32	⇑P	PKPdf	15 05 31.2	-0.8
	baz=131						
AHID	Auburn Hatcher	131.22	30	PFAKE		15 05 40.0	+7.8
AHID				LR	LR		
	comp=Z,13µm,20.0s,MS6.7						
R10A	Warm Springs	131.31	38	⇓P	PKPdf	15 05 32.4	-0.2
	baz=131						
S10A	Tonopah Range,	131.35	39	⇑P	PKPdf	15 05 32.5	-0.1
	baz=131						
J18A	Kendall Valley	131.43	29	⇑P	PKPdf	15 05 31.4	-1.2
	baz=131						
N14A	Grayback Hills	131.47	34	⇓P	PKPdf	15 05 32.7	-0.1
	baz=131						
BGU	Big Grassy Mou	131.50	33	*e*PKPdf	PKPdf	15 05 33.4	+0.6
L16A	Fish Haven	131.59	31	⇑P	PKPdf	15 05 31.4	-1.5
	baz=131						
DAC	Darwin (Calif)	131.69	41	PFAKE		15 05 50.0	+17
DAC				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
R11A	Troy Canyon, C	131.72	38	⇑P	PKPdf	15 05 33.4	+0.1
	baz=132						
K18A	Toltan Ranch,	131.84	30	⇑P	PKPdf	15 05 32.5	-0.9
	baz=132						
MPMC	Manual Prospec	131.88	41	⇓P	PKPdf	15 05 34.3	+0.6
	baz=132						
P13A	Bates Ranch, G	131.94	36	⇓P	PKPdf	15 05 32.1	-1.6
	baz=132						
BW06	Boulder Array	131.98	29	⇑P	PKPdf	15 05 30.0	-3.7
	baz=132						
BW06	Boulder Array	131.98	29	PFAKE		15 05 50.0	+16
BW06				LR	LR		
	comp=Z,7µm,22.0s,MS6.3						
PDAR	Pinedale Array	131.98	29	PKhKP		15 05 25.3	
	comp=Z,1.2nm,0.8s,baz=85,slow=1.6,SNR=5.9						
PDAR				PP	PP	15 07 57.3	+3.1
	comp=Z,7.4nm,1.0s,baz=304,slow=2.9,SNR=5.7						
M16A	Huntsville	131.99	32	⇓P	PKPdf	15 05 30.9	-2.9
	baz=132						
DUG	Dugway	132.13	34	⇓P	PKPdf	15 05 33.2	-0.8
	baz=132						
DUG	Dugway	132.13	34	*e*PKPdf	PKPdf	15 05 33.1	-0.9
DUG				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
NOQ	North Oquirrh	132.19	33	*e*PKPdf	PKPdf	15 05 34.2	0.0
Q13A	Wheeler Ranch,	132.27	36	⇓P	PKPdf	15 05 33.6	-0.8
	baz=132						
K19A	Absolon Red Bu	132.28	29	⇑P	PKPdf	15 05 31.6	-2.6
	baz=132						
AGMN	Agassiz Refuge	132.32	14	*e*PKPdf	PKPdf	15 05 33.5	-0.6
AGMN				LR	LR		
	comp=Z,18µm,22.0s,MS6.7						
R12A	Pony Springs,	132.32	37	⇓P	PKPdf	15 05 33.7	-0.8
	baz=132						
M17A	Scullys Gap (B	132.38	31	⇑P	PKPdf	15 05 31.5	-3.0
	baz=132						
U10A	Ash Meadows, A	132.43	40	⇓P	PKPdf	15 05 33.4	-1.3
	baz=132						
L19A	Farson	132.58	30	⇑P	PKPdf	15 05 34.7	-0.1
	baz=132						
S12A	Delamar Landin	132.63	38	⇓P	PKPdf	15 05 34.3	-0.8
	baz=132						
T11A	Corn Creek, Al	132.63	39	⇑P	PKPdf	15 05 33.8	-1.2
	baz=132						
K20A	Yellowstone Ra	132.65	28	⇑P	PKPdf	15 05 33.6	-1.4
	baz=132						
N17A	Moffit Pass	132.68	32	⇓P	PKPdf	15 05 33.6	-1.4
	baz=132						
Q14A	Sevier Lake (B	132.68	35	⇓P	PKPdf	15 05 33.7	-1.4
	baz=132						
NLU	North Lily Min	132.70	34	*e*PKPdf	PKPdf	15 05 36.5	+1.4
M18A	Lyman	132.72	31	⇑P	PKPdf	15 05 33.4	-1.7
	baz=133						
SHOC	Shoshone	132.77	41	⇑P	PKPdf	15 05 34.9	-0.4
	baz=133						
GSC	Goldstone	132.78	42	⇑P	PKPdf	15 05 34.1	-1.3
	baz=133						
GSC	Goldstone	132.78	42	*e*PKPdf	PKPdf	15 05 35.7	+0.3
O16A	Springville	132.84	33	⇑P	PKPdf	15 05 33.8	-1.6
	baz=133						
SCI	San Clemente I	132.86	46	⇓P	PKPdf	15 05 33.8	-1.8
	baz=133						
MPU	Maple Canyon	132.90	33	*e*PKPdf	PKPdf	15 05 35.6	+0.1
L20A	Wamsutter	133.15	29	⇑P	PKPdf	15 05 34.6	-1.3
	baz=133						
P16A	Fountain Green	133.17	34	⇓P	PKPdf	15 05 34.5	-1.5
	baz=133						
Q15A	Fillmore	133.19	35	⇑P	PKPdf	15 05 34.8	-1.3
	baz=133						
S13A	Holt Ranch, En	133.25	37	⇑P	PKPdf	15 05 34.7	-1.5
	baz=133						
O17A	Robinson Place	133.26	32	⇓P	PKPdf	15 05 36.6	+0.5
	baz=133						
V11A	Goodsprings	133.36	40	⇑P	PKPdf	15 05 34.7	-1.8
	baz=133						
HEC	Hector,Ludlow	133.37	42	⇑P	PKPdf	15 05 34.8	-1.7
	baz=133						
RSSD	Black Hills	133.37	24	PKHKP		15 05 27.2	
ARUT	Antelope Range	133.37	37	*e*PKIKP	PKPdf	15 05 37.0	+0.6
MURC	Murrieta	133.47	44	⇓P	PKPdf	15 05 35.5	-1.2
	baz=133						
EYMN	Ely	133.59	11	*e*PKPdf	PKPdf	15 05 36.4	-0.1
O18A	Roosevelt	133.60	32	⇑P	PKPdf	15 05 37.3	+0.5
	baz=134						
MVU	Marysvale	133.62	35	PFAKE		15 05 50.0	+13
MVU				LR	LR		
	comp=Z,9µm,21.0s,MS6.5						
TMUT	Trail Mountain	133.64	34	*e*PKPdf	PKPdf	15 05 34.8	-2.1
L21A	Rawlins	133.64	28	⇓P	PKPdf	15 05 37.2	+0.3
	baz=134						
P17A	Butcher Ranch,	133.77	33	⇓P	PKPdf	15 05 35.1	-2.0
	baz=134						
V12A	Nelson	133.80	40	⇑P	PKPdf	15 05 35.4	-1.9
	baz=134						
GMRC	Granite Mounta	133.84	42	⇓P	PKPdf	15 05 35.3	-2.1
	baz=134						
M21A	Separation Pea	133.92	29	⇑P	PKPdf	15 05 35.2	-2.2
	baz=134						
Q16A	Castle Valley	133.93	34	⇓P	PKPdf	15 05 35.6	-1.9
	baz=134						
P18A	Preston Nutter	133.93	33	⇓P	PKPdf	15 05 36.0	-1.5
	baz=134						
U13A	Pakoon Wash	133.94	39	⇑P	PKPdf	15 05 36.5	-1.0
	baz=134						
PFO	Pinyon Flat Ob	133.98	43	*e*PKIKP	PKPdf	15 05 41.1	+3.4
PFO				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.2						
LDFC	Landfair	134.03	41	PKPdf	PKPdf	15 05 39.3	+1.6
T14A	Hurricane	134.06	37	⇓P	PKPdf	15 05 39.0	+1.2
	baz=134						
N20A	Spence Gulch,	134.07	30	⇑P	PKPdf	15 05 38.7	+1.0
	baz=134						
SRU	San Rafael	134.15	33	⇑P	PKPdf	15 05 36.6	-1.3
	baz=134						
SRU	San Rafael	134.15	33	PKPdf	PKPdf	15 05 38.3	+0.4
BAR	Barrett	134.35	45	*e*PKPdf	PKPdf	15 05 37.4	-1.1
Q18A	Rafter H Ranch	134.37	33	⇓P	PKPdf	15 05 37.3	-1.0
	baz=134						
N21A	Black Mountain	134.50	29	⇓P	PKPdf	15 05 37.2	-1.3
	baz=134						
R17A	Hanksville Air	134.53	34	⇓P	PKPdf	15 05 36.9	-1.7
	baz=134						
IRM	Iron Mountain	134.55	42	⇓P	PKPdf	15 05 37.8	-1.0
	baz=134						
P19A	Cripple Cowboy	134.60	32	⇑P	PKPdf	15 05 37.1	-1.6
	baz=134						
O20A	White River Ci	134.61	31	⇑P	PKPdf	15 05 37.0	-1.7
	baz=134						
DVTC	Desert V Tower	134.76	44	⇑P	PKPdf	15 05 39.5	+0.3
	baz=135						
W13A	Hualapai Mount	134.81	40	⇓P	PKPdf	15 05 37.4	-1.8
	baz=135						
O21A	Pagoda	134.94	30	⇑P	PKPdf	15 05 37.9	-1.4
	baz=135						
Q19A	Hogan Spring (	134.94	32	⇓P	PKPdf	15 05 38.1	-1.3
	baz=135						
V14A	Boquillas Ranc	134.97	39	⇑P	PKPdf	15 05 38.0	-1.5
	baz=135						
N22A	Wattenberg Ran	134.98	28	⇓P	PKPdf	15 05 38.0	-1.4
	baz=135						
P20A	De Beque	135.00	31	⇑P	PKPdf	15 05 38.2	-1.2
	baz=135						
R18A	Canyonlands Na	135.01	34	⇑P	PKPdf	15 05 38.1	-1.4
	baz=135						
S17A	Black Ridge (B	135.02	35	⇑P	PKPdf	15 05 37.9	-1.7
	baz=135						
PHWY	Pilot Hill	135.05	27	*e*PKPdf	PKPdf	15 05 40.9	+1.4
T16A	Glen Canyon Da	135.06	36	⇑P	PKPdf	15 05 37.8	-1.8
	baz=135						
RCBR	Riachuelo	135.13	259	PFAKE		15 05 50.0	+10
RCBR				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
PDMCI	Parker Dam,Lak	135.13	41	⇑P	PKPdf	15 05 37.8	-2.0
	baz=135						
Y12C	Blythe	135.21	42	⇓P	PKPdf	15 05 38.0	-2.0
	baz=135						
W14A	Seligman	135.25	39	⇓P	PKPdf	15 05 38.3	-1.7
	baz=135						
GLA	Glamis	135.42	43	*e*PKIKP	PKPdf	15 05 42.1	+1.7
S18A	Hurst Farm, Bl	135.44	34	⇓P	PKPdf	15 05 38.6	-1.7
	baz=135						
Q20A	Ridgley Place,	135.46	32	⇑P	PKPdf	15 05 39.1	-1.3
	baz=135						
T17A	Navajo Res., N	135.46	36	⇓P	PKPdf	15 05 40.8	+0.4
	baz=135						
PV04	Paradox Valley	135.54	33	*e*PKPdf	PKPdf	15 05 41.0	+0.5
Y13A	Salome	135.63	41	⇓P	PKPdf	15 05 39.4	-1.4
	baz=136						
COWI	Conover	135.78	9	*e*PKPdf	PKPdf	15 05 41.2	+0.5
COWI				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
U17A	Shonto	135.82	36	⇓P	PKPdf	15 05 39.7	-1.3
	baz=136						
X14A	Yava	135.84	40	⇓P	PKPdf	15 05 39.4	-1.8
	baz=136						
U16A	Tuba City	135.85	37	⇓P	PKPdf	15 05 39.3	-1.8
	baz=136						
S19A	Harvey Farm, M	135.88	34	⇓P	PKPdf	15 05 38.7	-2.5
	baz=136						
T18A	Mexican Hat	135.90	35	⇑P	PKPdf	15 05 39.6	-1.6
	baz=136						
PV01	Paradox Valley	135.91	33	*e*PKPdf	PKPdf	15 05 42.1	+1.0
R20A	Redvale	135.98	33	⇓P	PKPdf	15 05 39.4	-2.0
	baz=136						
WUAZ	Wupatki	136.12	38	*e*PKPdf	PKPdf	15 05 43.1	+1.5
WUAZ				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
ISCO	Idaho Springs	136.16	29	PKIKP	PKPdf	15 05 41.9	+0.3
ISCO				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.4						
PLCA	Paso Flores	136.18	190	PKP	PKPdf	15 05 41.3	-0.3
	comp=Z,1.6nm,0.7s,baz=355,slow=7.1,SNR=6.5						
ECSD	EROS Data Cent	136.32	17	*e*PKPpre		15 05 36.7	
ECSD				LR	LR		
	comp=Z,9µm,19.0s,MS6.5						
U18A	Rough Rock, Ch	136.40	36	⇑P	PKPdf	15 05 42.8	+0.6
	baz=136						
Z14A	Wintersburg	136.49	41	⇑P	PKPdf	15 05 40.1	-2.3
	baz=136						
Y15A	Casa Rosa Ranc	136.53	40	⇓P	PKPdf	15 05 40.8	-1.6
	baz=136						
MVCO	Mesa Verde	136.62	34	PKPdf	PKPdf	15 05 43.7	+1.2
X16A	Lo Mia Camp, P	136.80	39	⇑P	PKPdf	15 05 43.3	+0.3
	baz=137						
R22A	Saguache, Gunn	136.80	31	⇓P	PKPdf	15 05 43.5	+0.7
	baz=137						
V18A	Ganado	136.85	36	⇑P	PKPdf	15 05 41.2	-1.8
	baz=137						
114A	Black Gap (USA	136.91	42	⇑P	PKPdf	15 05 43.4	+0.2
	baz=137						
Z16A	Peralta Trail,	137.50	40	⇑P	PKPdf	15 05 42.2	-2.1
	baz=137						
Z16A				⇑P		15 05 45.4	
	baz=137						
GLMI	Grayling	137.59	5	PFAKE		15 06 00.0	+16
GLMI				LR	LR		
	comp=Z,11µm,19.0s,MS6.6						
T22A	Edith	137.63	32	⇓P	PKPdf	15 05 37.7	-6.7
	baz=138						
Y17A	Roosevelt	137.64	39	⇑P	PKPdf	15 05 42.7	-1.9
	baz=138						
LONY	Lake Ozonia	137.70	354	PFAKE		15 06 00.0	+16
LONY				LR	LR		
	comp=Z,9µm,19.0s,MS6.5						
LBNH	Lisbon	137.74	351	PFAKE		15 06 00.0	+16
LBNH				LR	LR		
	comp=Z,15µm,20.0s,MS6.7						
116A	Eloy	137.81	41	⇑P	PKPdf	15 05 42.7	-2.2
	baz=138						
SDCO	Great Sand Dun	137.81	30	PFAKE		15 06 00.0	+15
SDCO				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
W20A	Ramah	138.10	36	⇑P	PKPdf	15 05 38.6	-6.8
	baz=138						
Z17A	San Carlos Hig	138.14	39	⇑P	PKPdf	15 05 39.9	-5.6
	baz=138						
NCB	Newcomb	138.31	354	*e*PKPdf	PKPdf	15 05 45.1	-0.3
NCB				LR	LR		
	comp=Z,9µm,21.0s,MS6.5						
117A	Oracle	138.43	40	⇓P	PKPdf	15 05 40.3	-5.7
	baz=138						
Y19A	Nutrioso	138.46	38	⇓P	PKPdf	15 05 40.4	-5.6
	baz=138						
TUC	Tucson	138.57	41	*e*PKHKP		15 05 39.0	
TUC				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.3						
JFWS	Jewell Farm	138.68	11	PKIKP	PKPdf	15 05 46.8	+0.7
JFWS				MLR	MLR		
	comp=Z,13µm,22.0s,MS6.6						
118A	Homack Ranch,	138.88	40	⇓P	PKPdf	15 05 40.1	-6.8
	baz=139						
217A	Green Valley	138.89	41	⇓P	PKPdf	15 05 40.8	-6.0
	baz=139						
SCIA	State Center	138.96	15	PKPdf	PKPdf	15 05 45.7	-1.0
SCIA				LR	LR		
	comp=Z,12µm,22.0s,MS6.6						
SPB	Sao Paulo	139.03	229	PFAKE		15 06 00.0	+13
SPB				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
W22A	Albuquerque	139.08	34	⇓P	PKPdf	15 05 43.9	-3.3
	baz=139						
119A	Ashpeak Ranch,	139.22	39	⇑P	PKPdf	15 05 43.4	-4.0
	baz=139						
218A	Dragoon	139.26	41	⇑P	PKPdf	15 05 43.3	-4.3
	baz=139						
RPN	Rapa Nui	139.27	138	PFAKE		15 06 00.0	+12
RPN				LR	LR		
	comp=Z,6µm,21.0s,MS6.3						
ANMO	Albuquerque	139.39	34	PFAKE		15 06 00.0	+12
ANMO				LR	LR		
	comp=Z,14µm,20.0s,MS6.7						
CBKS	Cedar Bluff	139.58	24	*e*PKIKP	PKPdf	15 05 43.0	-4.9
CBKS				MLR	MLR		
	comp=Z,13µm,19.0s,MS6.7						
318A	Bisbee	139.64	41	⇓P	PKPdf	15 05 41.6	-6.6
	baz=140						
219A	White Tail Can	139.76	40	⇑P	PKPdf	15 05 45.4	-3.1
	baz=140						
120A	U Bar Ranch, L	139.79	39	⇑P	PKPdf	15 05 42.6	-5.9
	baz=140						
BNM	Barren Site	139.88	35	*e*PKPpre		15 05 43.7	
319A	Douglas	140.15	41	⇑P	PKPdf	15 05 43.7	-5.5
	baz=140						
AAM	Ann Arbor	140.17	4	PFAKE		15 06 00.0	+11
AAM				LR	LR		
	comp=Z,12µm,21.0s,MS6.6						
BINY	Binghamton	140.23	355	*e*PKPdf	PKPdf	15 05 49.5	+0.5
BINY				LR	LR		
	comp=Z,11µm,19.0s,MS6.6						
ERPA	Erie	140.48	360	PFAKE		15 06 00.0	+11
ERPA				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
KSU1	Kansas State U	140.50	20	*e*PKPpre		15 05 45.3	
HDIL	Hopedale	141.14	11	*e*PKPpre		15 05 45.9	
HDIL				LR	LR		
	comp=Z,17µm,21.0s,MS6.8						
SSPA	Standing Stone	141.91	357	*e*PKPpre		15 05 48.0	
SSPA				LR	LR		
	comp=Z,13µm,21.0s,MS6.7						
AMTX	Amarillo	141.96	29	*e*PKPpre		15 05 49.6	
AMTX				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
ACSO	Alum Creek Sta	142.27	4	*e*PKPpre		15 05 47.0	
ACSO				LR	LR		
	comp=Z,19µm,22.0s,MS6.8						
MCWV	Mont Chateau	142.94	360	*e*PKPpre		15 05 49.9	
MCWV				LR	LR		
	comp=Z,18µm,21.0s,MS6.8						
BLO	Bloomington	142.96	8	*e*PKIKP	PKPdf	15 05 49.6	-4.4
CCM	Cathedral Cave	143.09	15	*e*PKIKP	PKPdf	15 05 49.5	-4.8
CCM				MLR	MLR		
	comp=Z,12µm,22.0s,MS6.6						
OLIL	Olney	143.13	10	*e*PKPpre		15 05 50.2	
FCH	Farellones	143.26	194	*e*P	PKPdf	15 05 50.9	-3.8
FVM	French Village	143.36	14	*e*PKIKP	PKPdf	15 05 50.5	-4.2
WMOK	Wichita Mounta	143.44	26	*e*PKIKP	PKPdf	15 05 50.5	-4.5
WMOK				MLR	MLR		
	comp=Z,11µm,21.0s,MS6.6						
SIUC	Southern Illin	143.89	12	*e*PKPpre		15 05 52.7	
WCI	Wyandotte Cave	143.91	8	*e*PKIKP	PKPdf	15 05 52.4	-3.3
WCI				MLR	MLR		
	comp=Z,16µm,19.0s,MS6.8						
CPUP	Villa Florida	143.94	216	PKP	PKPdf	15 05 53.2	-2.9
	comp=Z,8.9nm,0.9s,baz=127,slow=4.3,SNR=13						
CPUP	Villa Florida	143.94	216	PKP	PKPdf	15 05 53.2	-2.9
USIN	University of	143.95	10	*e*PKPpre		15 05 53.4	
CBN	Corbin	144.30	356	PKPdf	PKPdf	15 05 55.1	-1.3
CBN				LR	LR		
	comp=Z,11µm,20.0s,MS6.6						
PARMO	Parma	144.78	14	*e*PKP	PKPdf	15 05 55.8	-1.4
PVMO	Portageville	145.03	14	*e*PKP	PKPdf	15 05 56.7	-1.0
TXAR	Lajitas Array	145.08	38	PKPbc	PKPbc	15 05 57.8	+0.3
	comp=Z,250nm,0.8s,baz=210,slow=1.0,SNR=772						
GLAT	Glass	145.26	13	*e*PKP	PKPdf	15 05 57.5	-0.6
UTMT	University of	145.28	13	*e*PKP	PKPdf	15 05 57.5	-0.6
ELN	Prospectdale	145.36	1	*e*PKP	PKPdf	15 05 56.5	-1.8
GNAR	Gosnell	145.38	14	*e*PKP	PKPdf	15 05 57.8	-0.5
BLA	Blacksburg	145.38	0	*e*PKIKP	PKPdf	15 05 56.7	-1.6
BLA				MLR	MLR		
	comp=Z,16µm,22.0s,MS6.8						
CMCH	Combarbala	145.49	194	*e*P	PKPdf	15 05 58.9	+0.2
CMCH	Combarbala	145.49	194	*e*P	PKPdf	15 05 58.9	+0.2
HALT	Halls	145.59	13	*e*PKP	PKPdf	15 05 58.5	-0.2
HBAR	Harrisburg	145.60	15	*e*PKP	PKPdf	15 05 58.7	-0.1
MIAR	Mount Ida	145.66	20	*e*PKIKP	PKPdf	15 05 58.5	-0.3
MIAR				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.5						
WVT	Waverly	145.70	11	*e*PKIKP	PKPdf	15 05 58.1	-0.8
UALR	University of	145.85	18	*e*PKP	PKPdf	15 06 00.4	+1.3
TZTN	Tazewell	145.90	5	*e*PKP	PKPdf	15 05 58.8	-0.4
MET	Memphis--Engin	146.20	15	*e*PKPbc	PKPbc	15 06 00.6	-0.1
JCT	Junction City	146.42	32	*e*PKP2	PKPab	15 06 00.5	-1.9
JCT				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.5						
PLAL	Pickwick Lake	146.76	12	*e*PKPdf	PKPdf	15 05 58.8	-1.9
PLAL				LR	LR		
	comp=Z,13µm,22.0s,MS6.7						
CPCT	Cooper Cave	146.88	7	*e*PKP	PKPdf	15 06 01.0	+0.2
OXF	Oxford	146.91	14	*e*PKP2	PKPdf	15 06 00.8	-0.2
OXF				MLR	MLR		
	comp=Z,15µm,22.0s,MS6.7						
SWET	Sewanee	146.92	9	*e*PKPdf	PKPdf	15 05 58.6	-2.3
CNNC	Cliffs of the	147.29	357	*e*PKPbc	PKPbc	15 06 04.2	+0.3
CNNC				LR	LR		
	comp=Z,13µm,22.0s,MS6.7						
LCO	Las Campanas	147.48	195	*e*PKPdf	PKPdf	15 06 03.3	+1.2
LCO				LR	LR		
	comp=Z,8µm,19.0s,MS6.5						
NATX	Nacogdoches	147.74	24	*e*PKPbc	PKPbc	15 06 04.9	-0.3
NATX				LR	LR		
	comp=Z,11µm,20.0s,MS6.6						
JSC	Jenkinsville	148.29	2	*e*PKP2	PKPbc	15 06 05.8	-0.8
VBMS	Vicksburg	148.78	17	*e*PKPbc	PKPbc	15 06 08.2	+0.3
VBMS				LR	LR		
	comp=Z,13µm,22.0s,MS6.7						
HKT	Hockley	148.81	27	*e*PKIKP	PKPdf	15 06 04.9	+0.7
HKT				*e*		15 06 09.1	
GOGA	Godfrey	149.01	6	*e*PKP2	PKPbc	15 06 07.9	-0.6
GOGA				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.6						
NHSC	New Hope	149.48	0	*e*PKPbc	PKPbc	15 06 09.7	+0.1
NHSC				LR	LR		
	comp=Z,11µm,22.0s,MS6.6						
KVTX	Kingsville	149.76	33	*e*PKPbc	PKPbc	15 06 11.3	+0.8
KVTX				LR	LR		
	comp=Z,11µm,19.0s,MS6.7						
BRAL	Brewton	150.81	12	PKPdf	PKPdf	15 06 08.3	+0.9
BRAL				*e*PKPbc	PKPbc	15 06 13.3	+0.3
LVC	Limon Verde	152.83	203	*e*PKPbc	PKPbc	15 06 19.5	+1.7
LVC				LR	LR		
	comp=Z,7µm,20.0s,MS6.5						
DWPF	Disney	154.43	3	*e*PKPab	PKPab	15 06 36.1	+0.9
DWPF				LR	LR		
	comp=Z,13µm,20.0s,MS6.7						
ANWB	Willy Bob	156.51	311	PFAKE		15 06 30.0	+14
ANWB				LR	LR		
	comp=Z,6µm,21.0s,MS6.4						
FDF	Fort de France	157.67	304	PFAKE		15 06 30.0	+13
FDF				LR	LR		
	comp=Z,5µm,20.0s,MS6.4						
GRTK	Grand Turk	159.12	336	PFAKE		15 06 30.0	+11
GRTK				LR	LR		
	comp=Z,12µm,20.0s,MS6.7						
SJG	San Juan	159.27	320	PFAKE		15 06 30.0	+11
SJG				LR	LR		
	comp=Z,12µm,21.0s,MS6.7						
GRGR	Grenville	159.36	299	PFAKE		15 06 30.0	+11
GRGR				LR	LR		
	comp=Z,6µm,21.0s,MS6.4						
SOR	Soroa	159.56	8	*e*P	PKPdf	15 06 23.7	+4.3
CRPR	Cabo Rojo, PR	159.96	321	*e*PKPab	PKPab	15 06 59.0	-0.4
MGV	Manicaragua	160.43	360	*e*P	PKPdf	15 06 18.6	-1.8
TEIG	Tepich	160.58	24	PKPdf	PKPdf	15 06 21.1	+0.5
TEIG				LR	LR		
	comp=Z,11µm,20.0s						
MOAC	Moa	161.20	345	*e*P	PKPdf	15 06 21.9	+0.7
CCCC	Cccc	161.20	353	*e*P	PKPab	15 06 59.8	-4.8
HLGC	Holguin	161.23	348	*e*P	PKPab	15 06 59.0	-5.7
SDDR	Presa de Saban	161.43	333	PFAKE		15 06 30.0	+8.4
SDDR				LR	LR		
	comp=Z,12µm,21.0s						
MASC	Masc	161.46	342	*e*P	PKPdf	15 06 25.5	+3.9
GTBY	Guantanamo Bay	161.94	345	PFAKE		15 06 30.0	+7.9
GTBY				LR	LR		
	comp=Z,7µm,19.0s						
RCC	Rio Carpintero	162.02	347	*e*P	PKPdf	15 06 23.4	+1.2
LMGC	Las Mercedes	162.21	351	*e*P	PKPdf	15 06 25.4	+3.0
NNA	Nana	165.33	193	PFAKE		15 06 40.0	+15
NNA				LR	LR		
	comp=Z,8µm,22.0s						
TGUH	Tegucigalpa,Un	166.43	31	PFAKE		15 06 40.0	+14
TGUH				LR	LR		
	comp=Z,5µm,20.0s						
SDV	Santo Domingo	168.62	305	*e*PKPdf	PKPdf	15 06 28.7	+0.8
SDV				LR	LR		
	comp=Z,5µm,19.0s						
PAYG	Puerto Ayora	169.34	107	*e*PKPdf	PKPdf	15 06 29.1	+0.7
PAYG				LR	LR		
	comp=Z,7µm,21.0s						
JTS	JuntasAbangare	170.81	32	PFAKE		15 06 40.0	+11
JTS				LR	LR		
	comp=Z,10µm,22.0s						
BCIP	Isla Barro Col	173.30	358	PFAKE		15 06 40.0	+10
BCIP				LR	LR		
	comp=Z,10µm,20.0s						
ROSC	El Rosal	173.78	293	PKP	PKPdf	15 06 30.3	-0.2
	comp=Z,4.1nm,0.4s,baz=83,slow=20,SNR=6.2						
ROSC				PP	PP	15 11 59.8	+7.1
	comp=Z,3.7nm,0.3s,baz=89,slow=17,SNR=4.4						
OTAV	Otavalo	177.29	217	*e*PKPdf	PKPdf	15 06 31.5	+0.1
OTAV				LR	LR		
	comp=Z,10µm,21.0s						

ISCJB **24** *14:57:23.4±0.4, 40°.45N±0°.03×28°.91E±0°.03, h7*^{km}*±5*^{km}*,*
Error ellipse: s-maj=5.0km s-min=3.8km az=4.8

*CSEM **24** 14:57:23.6±0.1, 40°.45N×28°.93E, h12km, MD2.9, Error ellipse: s-maj=2.9km s-min=2.4km az=174.0*
*DDA **24** 14:57:23.8, 40°.37N×28°.93E, h7km±2km, Md2.7*
*ISK **24** 14:57:23.4, 40°.48N×28°.92E, h12km, MD2.9*
ISC 24 14:57:23.8±0.4**, 40°.45N**±0°.03×**28°.93E**±0°.03**, h14**km±4km**, n46, σ0ˢ72**/60**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GEMT	Gemlik	0.20	95	PG	Pg	14 57 28.8	+0.5
GEMT				eSG	Sg	14 57 31.7	+0.3
GEMT	Gemlik	0.20	95	i Pg	Pg	14 57 28.8	+0.5
GEMT				eSg	Sg	14 57 31.7	+0.3
YLV	Yalova	0.36	71	PG	Pg	14 57 31.2	+0.1
YLV				eSG	Sg	14 57 36.7	+0.7
YLV	Yalova	0.36	71	i Pg	Pg	14 57 31.2	+0.1
YLV				eSg	Sg	14 57 36.7	+0.7
KCT	Karacabey	0.47	247	PG	Pg	14 57 32.9	-0.3
KCT				eSG	Sg	14 57 40.3	+0.8
KCT	Karacabey	0.47	247	i Pg	Pg	14 57 32.9	-0.3
KCT				eSg	Sg	14 57 40.3	+0.8
ADVT	Abdulvahap	0.62	91	ePG	Pg	14 57 35.8	-0.1
ADVT	Abdulvahap	0.62	91	ePg	Pg	14 57 35.8	-0.1
ISK	Istanbul-Kandi	0.62	9	ePG	Pg	14 57 34.9	-1.1
ISK	Istanbul-Kandi	0.62	9	ePg	Pg	14 57 34.9	-1.1
HRT	Hereke	0.67	57	ePG	Pg	14 57 36.9	-0.1
HRT	Hereke	0.67	57	ePg	Pg	14 57 36.9	-0.1
BGKT	Bogazkoy	0.74	351	ePG	Pg	14 57 37.6	-0.6
BGKT	Bogazkoy	0.74	351	ePg	Pg	14 57 37.6	-0.6
CAVI	Cavuskoy	0.74	109	ePG	Pg	14 57 37.6	-0.7
CAVI	Cavuskoy	0.74	109	ePg	Pg	14 57 37.6	-0.6
BNT	Bandirma	0.78	263	ePG	Pg	14 57 38.8	-0.1
ELBA	Catalca	0.79	332	i P	Pg	14 57 40.4	+1.2
ELBA				i S	Sg	14 57 51.9	+2.4
ELBA	Catalca	0.79	332	i P	Pg	14 57 40.4	+1.2
ELBA				i S	Sg	14 57 51.9	+2.4
KLYT	Kilyos	0.81	6	ePG	Pg	14 57 39.1	-0.3
KLYT	Kilyos	0.81	6	ePg	Pg	14 57 39.1	-0.3
EDC	Edincik	0.82	263	ePG	Pg	14 57 39.8	+0.1
EDC	Edincik	0.82	263	ePg	Pg	14 57 39.8	+0.1
CTKS	Kestanelik-??a	0.85	338	ePG	Pg	14 57 39.8	-0.4
CTKS	Kestanelik-??a	0.85	338	ePg	Pg	14 57 39.8	-0.4
SILT	Sile	0.89	38	ePG	Pg	14 57 40.3	-0.7
SILT	Sile	0.89	38	ePg	Pg	14 57 40.3	-0.7
DURS	Dursunbey	0.92	202	eP	Pb	14 57 40.2	-1.3
DURS	Dursunbey	0.92	202	eP	Pb	14 57 40.2	-1.3
EYL	Eskiyayla	0.94	83	ePG	Pg	14 57 41.2	-0.9
SLVT	Silivri	0.95	325	ePG	Pg	14 57 41.4	-0.8
SLVT	Silivri	0.95	325	ePg	Pg	14 57 41.4	-0.8
CTYL	Yal??k??y-??at	1.13	335	ePN	Pn	14 57 45.2	-0.1
CTYL	Yal??k??y-??at	1.13	335	ePn	Pn	14 57 45.2	-0.1
BALB	Balikesir	1.14	225	ePN	Pn	14 57 46.1	+0.7
BALB	Balikesir	1.14	225	ePn	Pn	14 57 46.1	+0.7
TKR	Tekirdag	1.19	297	ePN	Pn	14 57 46.5	+0.4
TKR	Tekirdag	1.19	297	ePn	Pn	14 57 46.5	+0.5
BALY	Balya	1.23	235	i P	Pn	14 57 46.5	-0.1
BALY				i S	Sb	14 58 02.2	-0.3
BALY	Balya	1.23	235	i P	Pn	14 57 46.5	-0.1
BALY				i S	Sb	14 58 02.2	-0.4
BORA	Eskisehir	1.30	116	i P	Pn	14 57 47.8	+0.2
BORA				i S	Sb	14 58 05.5	+0.9
BORA	Eskisehir	1.30	116	i P	Pn	14 57 47.8	+0.2
BORA				i S	Sb	14 58 05.5	+0.9
GDZ	Gediz	1.43	162	eP	Pn	14 57 49.9	+0.5
GDZ				eS	Sn	14 58 08.3	+0.4
GDZ	Gediz	1.43	162	eP	Pn	14 57 49.8	+0.5
GDZ				eS	Sn	14 58 08.3	+0.4
ATHU	Athens Univers	4.70	240	P	Pn	14 58 33.6	-0.8
LAKA	Lakka	5.82	250	P	Pn	14 58 45.3	-4.4

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*BJI **24** 14:57:26.2, 3°.08S×99°.98E, h38km, mB5.8/21, mb5.4/47, Ms5.9/23, Ms7 5.6/23*
*IDC **24** 14:57:26.9±0.5, 2°.49S×99°.94E, h0km, mb5.0/27, mb1 5.0/29, mb1mx5.0/34, mbtmp5.0/29, ML4.4/2, MS5.4/1, Ms1 5.4/1, ms1mx4.4/34, Error ellipse: s-maj=17.3km s-min=11.0km az=46.0*
*NEIC **24** 14:57:30.6±2.1, 2°.52S×99°.98E, h24km±14km, mb5.4/25, Error ellipse: s-maj=7.8km s-min=4.1km az=220.0*
NEIC Felt in Singapore.
*ISCJB **24** 14:57:31.0±0.5, 2°.52S±0°.03×99°.94E±0°.03, h39km±4km, mb5.2/102, MS5.7/15, Error ellipse: s-maj=6.5km s-min=4.5km az=39.8*
*MOS **24** 14:57:32.2±1.0, 2°.33S×100°.06E, h45km, mb5.4/28, Error ellipse: s-maj=11.4km s-min=5.5km az=109.9*
*DJA **24** 14:57:32, 2°.47S×99°.93E, h20km, mb5.2/24*
ISC 24 14:57:31.6±0.8**, 2°.55S**±0°.03×**99°.88E**±0°.03**, h30**km±5km**, h32**km±1.0km**:pP-P, n278, σ1ˢ00**/264**, mb5.2**/102**, MS5.7**/15**, 22C-29D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.26	148	P	Pb	14 57 37.5	-1.0
SISI	Saibi	1.44	327	P	Pn	14 57 54.9	-0.8
PDSI	Padang	1.72	20	P	Pn	14 57 58.0	-1.6
PPI	Padang Panjang	2.14	14	P	Pn	14 58 05.7	+0.4
SDSI	Sungai Dareh	2.23	44	P	Pn	14 58 07.5	+1.0
KSI	Kapahiang	2.93	112	P	Pn	14 58 16.5	+0.4
RGRI	Rengat	3.29	48	P	Pn	14 58 22.2	+1.1
MNAI	Manna	3.56	120	P	Pn	14 58 24.9	0.0
GSI	Gunungsitoli	4.46	329	P	Pn	14 58 36.0	-1.2
PMBI	Palembang	4.91	95	P	Px	14 58 59.3	
PSI	Prapat	5.39	350	⇑eP	Pn	14 58 55.0	+4.9
PSI	Prapat	5.39	350	Pn	Pn	14 58 47.2	-2.9
	3.3nm,0.3s,baz=172,slow=9.4,SNR=5.2						
KASI	Kota Agung	5.48	123	P	Pn	14 58 50.5	-0.7
	387nm,0.7s,2.3nm						
KGM	Kluang	5.69	37	P	Pn	14 58 55.3	+1.2
MYKOM	Kota Tinggi	5.86	43	P	Pn	14 58 57.7	+1.3
MYKOM	Kota Tinggi	5.86	43	P	Pn	14 58 57.0	+0.5
	347nm,1.1s,1.9nm						
FRIM	Kepong	6.00	17	P	Pn	14 58 59.2	+0.8
IPM	Ipoh	7.07	9	P	Pn	14 59 14.6	+1.5
IPM	Ipoh	7.07	9	P	Pn	14 59 14.0	+0.9
	158nm,1.9s,1.3nm						
TPI	Tanjungpandan	7.77	92	⇓eP	Pn	14 59 24.0	+1.2
TPI				eS	Sn	15 00 50.0	+0.2
KULM	Kulim	7.82	6	P	Pn	14 59 23.4	0.0
KULM	Kulim	7.82	6	ePn	Pn	14 59 23.0	-0.4
KTGM	Kuala Trenggan	8.47	23	P	Pn	14 59 33.7	+1.4
LEM	Lembang	8.81	119	P	Pn	14 59 38.8	+1.8
	223nm,0.8s						
BSI	Banda Aceh	9.21	330	P	Pn	14 59 39.4	-3.0
	154nm,0.5s						
KSM	Kuching	11.17	69	P	Px	15 00 20.9	
SJI	Sawahan	12.91	114	P	Pn	15 00 32.0	-1.2
	191nm,0.7s						
SBUM	Sibu	13.30	68	P	Pn	15 00 41.9	+3.4
SBUM	Sibu	13.30	68	P	Pn	15 00 40.3	+1.8
	54nm,0.8s						
PLKI	Palangkaraya	14.06	89	P	Pn	15 00 57.6	+8.7
BTM	Bintulu	14.38	67	P	Pn	15 00 57.0	+3.7
ABJI	Asem Bagus	15.22	111	P	Pn	15 01 03.7	-0.8
	115nm,2.5s						
KBKI	Kotabaru	16.29	93	P	Pn	15 01 21.1	+2.8
	75nm,1.9s						
KKM	Kota Kinabalu	18.41	62	P	Pn	15 01 45.1	+0.3
KKM	Kota Kinabalu	18.41	62	eP	Pn	15 01 44.3	-0.5
KKM	Kota Kinabalu	18.41	62	P	Pn	15 01 44.7	-0.1
	132nm,0.9s						
SDKM	Sandakan	19.11	65	P	Pn	15 01 52.3	-1.0
TSM	Tawau	19.22	69	P	Pn	15 01 53.9	-0.7
KDM	Kudat	19.36	61	P	Pn	15 01 55.8	-0.4
KAPI	Kappang	19.98	98	P	Pn	15 01 59.6	-4.0
	3.7nm,0.3s,baz=254,slow=9.4,SNR=7.0						
KAPI	Kappang	19.98	98	P	Pn	15 01 59.6	-4.0
KAPI	Kappang	19.98	98	P	Pn	15 01 59.9	-3.8
	67nm,1.3s						
PCI	Palu	20.02	86	P	P	15 02 02.2	0.0
	150nm,1.3s						
MYLDM	Lahad Datu	20.12	68	P	P	15 02 03.4	0.0
MYLDM	Lahad Datu	20.12	68	P	P	15 02 04.0	+0.6
	172nm,1.0s						
CMAR	Chiang Mai Arr	20.89	358	P	P	15 02 09.2	-2.4
	39nm,1.0s,baz=185,slow=10,SNR=42						
CMAR				PcP	PcP	15 06 19.9	+0.6
	1.4nm,0.7s,baz=190,slow=2.6,SNR=4.2						
APSI	Ampana	21.82	86	P	P	15 02 23.0	+1.3
	242nm,1.3s,mb5.5						
KDI	Kendari	22.75	94	P	P	15 02 31.5	-0.1
	79nm,1.3s,mb5.0						
MNI	Manado	25.27	81	P	P	15 02 56.1	+0.6
	261nm,0.9s,mb5.8						
TGY	Tagaytay City	26.64	51	P	P	15 03 07.2	-0.7
	113nm,0.4s,mb5.8,baz=203,slow=15,SNR=3.8						
NLAI	Namlea	27.20	92	P	P	15 03 15.7	+2.7
	48nm,2.2s,mb4.6						
KMI	Kunming	27.64	6	P	P	15 03 18.0	+1.2
KMI				pmax	pmax		
	comp=Z,45nm,2.0s,mb4.8						
KMI				LR	LR		
	comp=Z,20μm,16.8s,MS5.8						
LBMI	Labuha	27.68	87	P	P	15 03 17.3	0.0
	comp=Z,115nm,1.4s,mb5.3						
TNTI	Ternate	27.68	84	P	P	15 03 17.9	+0.6
	comp=Z,64nm,1.5s,mb5.0						
SHL	Shillong	29.00	345	ePKP	P	15 03 29.2	+0.4
GYA	Guiyang	29.57	12	⇑iP	P	15 03 35.4	+1.5
GYA				pP	pP	15 03 42.8	+0.1
GYA				sP	sP	15 03 49.6	+3.2
GYA				PP	PP	15 04 33.0	-8.1
GYA				S	S	15 08 29.8	+2.7
GYA				sS	sS	15 08 42.1	+0.4
GYA				SS	SS	15 10 03.8	-30
GYA				ScP	ScP	15 10 16.6	-1.9
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,290nm,4.6s						
GYA				LR	LR		
	comp=N,6μm,16.0s,MS5.5						
GYA				LR	LR		
	comp=E,7μm,15.8s,MS5.5						
GYA				LR	LR		
	comp=Z,7μm,16.4s,MS5.4						
FITZ	Fitzroy Crossi	29.61	123	eP	P	15 03 34.5	+0.1
	comp=Z,22nm,0.9s,mb4.9						
FITZ	Fitzroy Crossi	29.61	123	P	P	15 03 34.4	-0.1
	comp=Z,10nm,0.8s,mb4.6,baz=271,slow=8.3,SNR=7.7						
FITZ	Fitzroy Crossi	29.61	123	P	P	15 03 36.8	+2.4
	comp=Z,56nm,1.6s,mb5.0						
ODAN	Odare	31.62	338	eP	P	15 03 53.0	+1.0
	comp=Z,63nm,0.8s,mb5.5						
TAPN	Taplejung	31.95	339	eP	P	15 03 56.3	+1.4
	comp=Z,107nm,0.8s,mb5.7						
RAMN	Ramite	32.00	337	eP	P	15 03 56.5	+1.1
	comp=Z,32nm,0.6s,mb5.3						
JIRN	Jiri	32.80	337	eP	P	15 04 01.4	-0.9
	comp=Z,90nm,0.8s,mb5.7						
PKI	Pulchoki	33.03	336	eP	P	15 04 09.6	+5.3
PKIN	Phulchoki	33.04	336	eP	P	15 04 09.6	+5.2
LSA	Lhasa	33.13	346	P	P	15 04 06.4	+1.2
LSA	Lhasa	33.13	346	eP	P	15 04 06.5	+1.2
GUN	Gumba	33.14	337	eP	P	15 04 05.8	+0.5
	comp=Z,83nm,0.5s,mb5.9						
KKN	Kakani	33.27	336	eP	P	15 04 11.3	+4.8
	comp=Z,64nm,0.9s,mb5.6						
KKN	Kakani	33.27	336	eP	P	15 04 11.3	+4.8
KKN				pmax	pmax		
	comp=Z,64nm,0.9s,mb5.5						
CD2	Chengdu	33.47	6	P	P	15 04 07.6	-0.6
CD2				pP	pP	15 04 17.3	+0.3
CD2				sP	sP	15 04 21.3	+0.6
CD2				PP	PP	15 05 20.6	-3.7
CD2				S	S	15 09 27.0	-1.0
CD2				pmax	pmax		
	comp=Z,70nm,0.6s,mb5.8						
CD2				pmax	pmax		
	comp=Z,12μm,14.9s						
CD2				LR	LR		
	comp=N,18μm,16.6s						
CD2				LR	LR		
	comp=Z,16μm,13.1s,MS5.9						
GKN	Gorkha	33.73	335	eP	P	15 04 15.2	+4.8
	comp=Z,76nm,1.1s,mb5.5						
KAKA	Kakadu	33.77	109	eP	P	15 04 07.9	-3.2
	comp=Z,11nm,0.4s,mb5.1						
KOLN	Koldanda	33.97	334	eP	P	15 04 13.1	+0.5
DANN	Dangsing	34.40	334	eP	P	15 04 20.2	+3.9
	comp=Z,44nm,0.5s,mb5.7						
WHN	Wuhan	35.69	22	⇓P	P	15 04 27.3	0.0
WHN				sP	sP	15 04 41.3	+1.4
WHN				pmax	pmax		
	comp=Z,100nm,1.3s,mb5.6						
LGTI	Lohaghat	36.95	331	ePKP	P	15 04 46.5	+8.3
XAN	Xi'an	37.37	12	P	P	15 04 40.3	-1.4
XAN				pP	pP	15 04 50.5	-0.1
XAN				sP	sP	15 04 53.3	-1.0
XAN				PP	PP	15 06 09.8	+2.4
XAN				S	S	15 10 32.3	+4.4
XAN				sS	sS	15 10 43.5	+0.9
XAN				pmax	pmax		
	comp=Z,76nm,0.9s,mb5.5						
XAN				pmax	pmax		
	comp=Z,4μm,11.5s						
XAN				LR	LR		
	comp=N,10μm,16.2s,MS5.8						
XAN				LR	LR		
	comp=E,11μm,20.3s,MS5.8						
XAN				LR	LR		
	comp=Z,15μm,17.1s,MS5.9						
WRA	Warramunga Arr	37.83	120	P	P	15 04 44.7	-1.1
	comp=Z,45nm,0.7s,mb5.3,baz=302,slow=9.0,SNR=79						
WRAB	Tennant Creek	37.83	120	P	P	15 04 45.2	-0.6
	comp=Z,499nm,0.7s,mb6.3,SNR=5.4						
WRAB	Tennant Creek	37.83	120	eP	P	15 04 44.5	-1.4
LZH	Lanzhou	38.61	5	⇑P	P	15 04 57.0	+4.9
LZH				pP	pP	15 05 06.8	+5.8
LZH				sP	sP	15 05 10.9	+6.2
LZH				PP	PP	15 06 30.3	+9.4
LZH				eS	S	15 10 52.1	+5.6
LZH				sS	sS	15 11 08.5	+7.2
LZH				SS	SS	15 13 32.4	-5.0
LZH				pmax	pmax		
	comp=Z,93nm,1.4s,mb5.3						
LZH				pmax	pmax		
	comp=Z,380nm,6.3s						
LZH				LR	LR		
	comp=N,2μm,13.5s						
LZH				LR	LR		
	comp=Z,3μm,17.0s,MS5.1						
FORT	Forrest	38.71	139	eP	P	15 04 59.1	+6.0
	comp=Z,16nm,0.6s,mb4.9						
NJ2	Nanjing	38.84	26	eP	P	15 04 53.8	-0.3
NJ2				pP	pP	15 05 03.6	+0.6
NJ2				sP	sP	15 05 07.3	+0.6
NJ2				PP	PP	15 06 28.8	+5.4
NJ2				S	S	15 10 44.0	-6.1
NJ2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
NJ2				pmax	pmax		
	comp=Z,610nm,6.0s						
NJ2				LR	LR		
	comp=N,28μm,16.0s,MS6.3						
NJ2				LR	LR		
	comp=E,22μm,16.1s,MS6.3						
NJ2				LR	LR		
	comp=Z,31μm,15.6s,MS6.2						
ASAR	Alice Springs	39.04	125	P	P	15 04 55.3	-0.6
	comp=Z,24nm,0.5s,mb5.2,baz=300,slow=7.5,SNR=52						
ASAR				PcP	PcP	15 07 05.8	+0.1
	comp=Z,4.7nm,0.8s,baz=305,slow=3.5,SNR=5.3						
GTA	Gaotai	41.75	360	⇑P	P	15 05 18.3	+0.2
GTA				pP	pP	15 05 26.9	-0.2
GTA				sP	sP	15 05 30.6	-0.1
GTA				PP	PP	15 06 58.8	+3.8
GTA				S	S	15 11 34.3	+0.9
GTA				SS	SS	15 14 35.4	-4.6
GTA				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.9						
GTA				pmax	pmax		
	comp=Z,5μm,4.8s						
GTA				LR	LR		
	comp=N,11μm,15.9s,MS6.0						
GTA				LR	LR		
	comp=E,14μm,16.2s,MS6.0						
GTA				LR	LR		
	comp=Z,11μm,15.3s,MS5.8						
HHC	Hu-ho-hao-te	44.49	13	eP	P	15 05 40.8	+0.6
HHC				pP	pP	15 05 50.5	+1.3
HHC				sP	sP	15 05 55.0	+2.1
HHC				PP	PP	15 07 25.1	+0.7
HHC				PcS	PcS	15 11 16.0	-0.6
HHC				eS	S	15 12 11.8	-1.7
HHC				sS	sS	15 12 29.0	+0.6
HHC				ScS	ScS	15 15 33.8	-2.4
HHC				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.9						
HHC				pmax	pmax		
	comp=Z,3μm,4.9s						
HHC				LR	LR		
	comp=N,9μm,16.3s,MS5.9						
HHC				LR	LR		
	comp=E,7μm,16.1s,MS5.9						
HHC				LR	LR		
	comp=Z,5μm,14.5s,MS5.5						
BJT	Baijiatuau	44.91	18	eP	P	15 05 43.5	-0.1
BJI	Beijing	44.94	18	P	P	15 05 43.6	-0.2
BJI				pmax	pmax		
	comp=Z,92nm,0.8s,mb5.7						
BJI				pmax	pmax		
	comp=Z,3μm,8.5s						
DL2	Dalian	45.86	24	P	P	15 05 50.9	-0.3
DL2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
KSH	Kashi	47.27	335	eP	P	15 06 01.1	-1.1
KSH				epP	pP	15 06 10.8	-0.5
KSH				esP	sP	15 06 14.4	-0.5
KSH				ePcP	PcP	15 07 33.3	+0.2
KSH				ePP	PP	15 07 51.0	-2.5
KSH				eScP	ScP	15 11 23.3	-1.8
KSH				ePcS	PcS	15 11 27.3	-0.9
KSH				eS	S	15 12 49.1	-4.5
KSH				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
KSH				pmax	pmax		
	comp=Z,1μm,6.6s						
KSH				LR	LR		
	comp=N,4μm,12.1s,MS5.9						
KSH				LR	LR		
	comp=E,6μm,11.5s,MS5.9						
KSH				LR	LR		
	comp=Z,5μm,13.4s,MS5.6						
GUMO	Guam	47.41	69	LR	LR	15 25 42.0	
	comp=Z,4μm,19.4s,MS5.4,baz=21,slow=36						
WMQ	Urumqi	47.44	348	⇓iP	P	15 06 05.1	+1.7
WMQ				pP	pP	15 06 15.0	+2.5
WMQ				sP	sP	15 06 19.0	+2.9
WMQ				PcP	PcP	15 07 36.0	+2.4
WMQ				eS	S	15 12 56.0	+0.2
WMQ				pmax	pmax		
	comp=Z,97nm,0.9s,mb5.7						
WMQ				pmax	pmax		
	comp=Z,460nm,7.2s						
WMQ				LR	LR		
	comp=N,7μm,22.8s,MS5.7						
WMQ				LR	LR		
	comp=E,6μm,19.4s,MS5.7						
WMQ				LR	LR		
	comp=Z,5μm,22.0s,MS5.5						
KSRS	Korea Array	47.55	30	P	P	15 06 03.7	-0.7
	comp=Z,25nm,0.8s,mb5.3,baz=224,slow=7.9,SNR=69						
CTA	Charters Tower	48.48	115	eP	P	15 06 10.9	-1.0
	comp=Z,33nm,0.9s,mb5.4						
CTA	Charters Tower	48.48	115	P	P	15 06 11.1	-0.9
	comp=Z,44nm,0.9s,mb5.5,baz=285,slow=9.3,SNR=23						
CTA	Charters Tower	48.48	115	P	P	15 06 11.1	-0.9
CTAO	Charters Tower	48.48	115	P	P	15 06 11.2	-0.7
	comp=Z,74nm,1.0s,mb5.7						
STKA	Stephens Creek	48.88	131	eP	P	15 06 15.0	+0.1
	comp=Z,24nm,0.6s,mb5.4						
STKA	Stephens Creek	48.88	131	P	P	15 06 15.1	+0.2
	comp=Z,31nm,0.7s,mb5.5,baz=301,slow=8.1,SNR=41						
ULHL	Ulahol	49.45	337	P	P	15 06 20.1	+1.1
	SNR=5.8						
UCH	Uchtor	50.14	336	eP	P	15 06 25.2	+1.0
	comp=Z,1μm,1.2s						
TKM2	Tokmak 2	50.28	337	eP	P	15 06 26.0	+0.7
TKM2				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.7						
TKM2	Tokmak 2	50.28	337	P	P	15 06 26.3	+1.1
	SNR=20						
TKM2	Tokmak 2	50.28	337	eP	P	15 06 26.0	+0.7
	comp=Z,60nm,0.8s,mb5.7						
KBK	Karagaybulak	50.32	336	P	P	15 06 26.8	+1.2
	SNR=14						
AML	Almayashu	50.40	335	P	P	15 06 27.5	+1.3
	SNR=14						
AML	Almayashu	50.40	335	eP	P	15 06 27.2	+1.0
	comp=Z,140nm,0.6s,mb6.2						
AAK	Ala-Archa	50.48	336	P	P	15 06 28.3	+1.5
	comp=Z,115nm,0.7s,mb6.0,SNR=5.1						
AAK	Ala-Archa	50.48	336	⇑eP	P	15 06 26.4	-0.4
AAK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
AAK	Ala-Archa	50.48	336	P	P	15 06 28.4	+1.6
	SNR=6.1						
AAK	Ala-Archa	50.48	336	P	P	15 06 27.9	+1.1
	comp=Z,9.4nm,0.7s,mb4.9,baz=145,slow=6.0,SNR=21						
AAK	Ala-Archa	50.48	336	eP	P	15 06 27.6	+0.8
AAK	Ala-Archa	50.48	336	P	P	15 06 28.1	+1.3
	comp=Z,5.7nm,1.4s,mb4.4						
SONM	Songino Array	50.49	6	P	P	15 06 27.4	+0.6
	comp=Z,56nm,0.9s,mb5.6,baz=186,slow=9.0,SNR=122						
SONM				PcP	PcP	15 07 44.7	+0.2
	comp=Z,8.0nm,0.7s,baz=186,slow=3.7,SNR=6.0						
ULN	Ulaanbaatar	50.59	6	eP	P	15 06 27.9	+0.4
ULN				e	pP	15 06 37.5	+0.8
ULN	Ulaanbaatar	50.59	6	P	P	15 06 28.1	+0.6
	comp=Z,67nm,1.0s,mb5.5						
CHMS	Chumysh	50.68	336	P	P	15 06 28.5	+0.2
	SNR=12						
EKS2	Erkin-Say	50.80	335	P	P	15 06 30.5	+1.3
	SNR=21						
EKS2	Erkin-Say	50.80	335	eP	P	15 06 30.2	+1.0
	comp=Z,55nm,0.7s,mb5.6						
USP	Ospenovka	51.01	336	P	P	15 06 31.4	+0.7
	SNR=30						
MK31	Makanchi Array	51.52	345	i P	P	15 06 34.5	0.0
MK31				pmax	pmax		
	comp=Z,48nm,0.6s,mb5.6						
MK31	Makanchi Array	51.52	345	⇑eP	P	15 06 34.6	+0.1
MKAR	Makanchi Array	51.52	345	P	P	15 06 34.9	+0.4
	comp=Z,65nm,0.6s,mb5.7,baz=152,slow=8.3,SNR=203						
CN2	Changchun	51.53	24	⇑iP	P	15 06 33.8	-0.9
CN2				epP	pP	15 06 43.3	-0.5
CN2				PcP	PcP	15 07 48.0	-0.5
CN2				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.5						
MAT	Matsushiro	52.77	39	P	P	15 06 42.2	-1.8
MJAR	Matsushiro Arr	52.77	39	P	P	15 06 42.8	-1.2
	comp=Z,11nm,0.7s,mb4.9,baz=214,slow=8.3,SNR=25						
ZAK	Zakamensk	52.80	3	eP	P	15 06 43.6	-0.4
ZAK				e		15 07 53.1	
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MDJ	Mudanjiang	53.93	26	P	P	15 06 50.3	-2.1
MDJ				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.2						
MDJ				pmax	pmax		
	comp=Z,1μm,11.8s						
MDJ	Mudanjiang	53.93	26	eP	P	15 06 51.9	-0.5
	comp=Z,36nm,1.0s,mb5.3						
OPO	Ambohidratompo	53.96	249	P	P	15 06 53.9	+0.8
	comp=Z,0.9nm,0.4s,baz=188,slow=7.1,SNR=2.7						
TLY	Talaya	54.12	3	eP	P	15 06 54.1	+0.5
TLY				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
TLY	Talaya	54.12	3	eP	P	15 06 54.2	+0.6
EIDS	Eidsvold	54.19	120	eP	P	15 06 53.9	-0.8
	comp=Z,11nm,0.6s,mb5.0						
HIA	Hailar	54.40	16	eP	P	15 06 55.3	-0.4
IRK	Irkutsk	54.71	3	eP	P	15 06 57.7	-0.2
IRK				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
CIT	Chita	55.59	10	eP	P	15 07 04.9	+0.7
KURK	Kurchatov	56.09	344	P	P	15 07 07.7	-0.2
	comp=Z,468nm,0.9s,mb6.5,SNR=11						
KURK	Kurchatov	56.09	344	P	P	15 07 07.5	-0.4
	comp=Z,35nm,0.8s,mb5.4,baz=164,slow=7.0,SNR=37						
ARMA	Armidale	56.19	125	eP	P	15 07 10.4	+1.4
CNB	Canberra Magne	56.21	132	eP	P	15 07 09.4	+0.3
ZALV	Zalesovo Beam	57.68	350	P	P	15 07 18.9	-0.2
	comp=Z,52nm,0.9s,mb5.6,baz=167,slow=6.9,SNR=35						
KLR	Kul'dur	58.48	24	eP	P	15 07 19.8	-5.0
KLR				pmax	pmax		
	comp=Z,120nm,1.4s,mb5.7						
NVS	Novosibirsk	58.82	349	eP	P	15 07 25.6	-1.4
NVS				pmax	pmax		
	comp=Z,62nm,1.9s,mb5.3						
NVS				pmax	pmax		

	comp=E,54nm,1.7s						
HABR	Khabarovsk	59.30	26	eP	P	15 07 27.2	-3.3
HABR				e*PP	pP	15 07 37.8	-2.0
HABR						15 08 15.1	
HABR				eS	S	15 15 32.6	-4.3
HABR				*SS	sS	15 15 50.4	-1.8
HABR				e		15 17 15.1	
HABR				eSS	SS	15 19 28.4	-3.7
HABR				pmax	pmax		
	comp=Z,51nm,1.5s,mb5.3						
HABR				pmax	pmax		
	comp=N,25nm,1.9s						
HABR				pmax	pmax		
	comp=E,40nm,1.5s						
HABR				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.5						
ASAJ	Asahikawa	60.13	34	P	P	15 07 35.0	-1.3
	comp=Z,19nm,0.8s,mb5.2,baz=251,slow=13,SNR=15						
VOSK	Vostochnaya	60.20	340	P	P	15 07 34.4	-2.2
VOSK				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.2						
BVA0	Borovoye Array	60.65	340	P	P	15 07 38.0	-1.7
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
BVAR	Borovoye Array	60.65	340	P	P	15 07 38.9	-0.7
	comp=Z,13nm,0.6s,mb5.2,baz=139,slow=9.4,SNR=37						
BRVK	Borovoye	60.71	340	P	P	15 07 39.6	-0.5
	comp=Z,115nm,0.6s,mb6.2,SNR=7.6						
BRVK	Borovoye	60.71	340	eP	P	15 07 39.2	-0.9
BOD	Bodaibo	61.23	9	eP	P	15 07 42.9	-0.6
BOD				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.5						
YSS	Yuzh-Sakhalins	62.01	32	⇑eP	P	15 07 48.0	-1.0
YSS				e		15 08 02.9	
YSS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.7						
YSS	Yuzh-Sakhalins	62.01	32	eP	P	15 07 48.2	-0.8
	comp=Z,63nm,1.0s,mb5.7						
AB31	Akbulak array	62.06	332	P	P	15 07 48.3	-1.0
AB31				pmax	pmax		
	comp=Z,58nm,0.7s,mb5.8						
AKTK	Aktyubinsk	63.77	332	P	P	15 07 59.9	-0.8
AKTO	Aktyubinsk	63.77	332	P	P	15 07 58.0	-2.7
AKTO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
AKTO	Aktyubinsk	63.77	332	P	P	15 07 59.9	-0.8
	comp=Z,16nm,0.9s,mb5.1,baz=131,slow=8.6,SNR=18						
SVE	Sverdlovsk	67.14	338	⇓eP	P	15 08 22.1	-0.2
SVE				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.5						
ARU	Arti	67.65	337	d iP	P	15 08 24.6	-1.0
ARU				e		15 10 50.2	
ARU				S	S	15 17 20.8	+0.1
ARU				SS	SS	15 21 41.5	-0.6
ARU				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.3						
ARU	Arti	67.65	337	⇑eP	P	15 08 24.6	-1.0
YAK	Yakutsk	68.30	15	c iP	P	15 08 28.1	-1.4
YAK				e*PP	pP	15 08 36.4	-2.5
YAK				e		15 08 53.8	
YAK				eS	S	15 17 22.1	-6.1
YAK				e		15 18 16.4	
YAK				pmax	pmax		
	comp=Z,94nm,0.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,34nm,1.0s						
YAK				pmax	pmax		
	comp=E,29nm,1.4s						
YAK				smax			
	comp=N,37nm,1.5s						
YAK				smax			
	comp=E,17nm,1.8s						
YAK				MLR	MLR		
	comp=Z,6µm,17.0s,MS5.9						
YAK				MLR	MLR		
	comp=E,5µm,14.0s						
YAK	Yakutsk	68.30	15	⇑eP	P	15 08 27.7	-1.8
KIV	Kislovodsk	68.87	319	P	P	15 08 34.0	+0.5
KIV				*SP	sP	15 08 48.0	+1.5
KIV				e		15 08 53.4	
KIV				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
KIV				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.8						
KIV	Kislovodsk	68.87	319	⇑iP	P	15 08 33.5	0.0
MBAR	Mbarara	69.13	270	⇑iP	P	15 08 36.2	+0.5
MALT	Malatya	69.61	313	eP	P	15 08 39.0	+0.8
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
MALT	Malatya	69.61	313	eP	P	15 08 39.0	+0.8
	comp=Z,2.7nm,0.9s,mb4.2						
MALT				e	pP	15 08 46.2	-1.5
ANN	Anapa	72.66	319	eP	P	15 08 54.5	-2.0
ANN				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
VRHR	Novokhopersk	72.71	326	eP	P	15 08 55.7	-1.0
VRHR				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
VRHR				pmax	pmax		
	comp=N,50nm,0.6s						
PETK	Petropavlovsk-	73.41	32	P	P	15 08 59.9	-0.9
	comp=N,11nm,0.7s,mb4.9,baz=217,slow=1.1,SNR=26						
BRTR	Keskin Array B	73.60	313	P	P	15 09 01.6	-0.5
	comp=N,4.7nm,0.7s,mb4.5,baz=134,slow=6.5,SNR=18						
PET	Petropavlovsk	73.88	33	eP	P	15 09 02.7	-0.8
PET				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.5						
PET	Petropavlovsk	73.88	33	eP	P	15 09 02.6	-0.9
	comp=Z,28nm,0.8s,mb5.2						
VSR	Storozhevoye	74.15	325	eP	P	15 09 04.3	-0.9
VSR				pmax	pmax		
	comp=N,20nm,0.7s						
VSR				pmax	pmax		
	comp=E,20nm,0.7s						
VSR				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.5						
BOSA	Boshof	75.29	241	P	P	15 09 12.7	+0.4
	comp=Z,2.7nm,0.7s,mb4.3,baz=92,slow=14,SNR=4.6						
PRGR	Permogore	76.11	336	eP	P	15 09 14.7	-1.5
PRGR				pmax	pmax		
	comp=Z,17nm,0.4s,mb5.3						
SEY	Seymchan	76.17	22	⇑eP	P	15 09 15.9	-0.7
SEY	Seymchan	76.17	22	⇑eP	P	15 09 15.0	-1.6
TIXI	Tiksi	76.41	9	⇑eP	P	15 09 16.4	-1.4
TIXI				pmax	pmax		
	comp=Z,51nm,1.7s,mb5.2						
TIXI	Tiksi	76.41	9	⇑eP	P	15 09 16.5	-1.3
OBN	Obninsk	77.19	328	⇓iP	P	15 09 22.5	0.0
OBN				e*PP	pP	15 09 31.5	-0.5
OBN				e*SP	sP	15 09 36.2	+0.7
OBN				i		15 09 41.5	
OBN				pmax	pmax		
	comp=Z,40nm,1.7s,mb5.1						
OBN				MLR	MLR		
	comp=Z,5µm,15.0s,MS6.0						
OBN	Obninsk	77.19	328	⇑eP	P	15 09 22.5	0.0
KLMR	Klimovskoe	78.26	334	eP	P	15 09 26.9	-1.4
KLMR				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
TLCR		78.57	317	⇓iP	P	15 09 30.2	-0.2
TLCR		78.57	317	⇓P	P	15 09 30.2	-0.2
TIRR	Tirgusor	78.66	316	⇓iP	P	15 09 31.0	+0.1
TIRR	Tirgusor	78.66	316	⇓P	P	15 09 31.0	+0.1
HARR	Harsova	79.05	316	⇓iP	P	15 09 33.3	+0.3
HARR	Harsova	79.05	316	⇓P	P	15 09 33.3	+0.3
AKASG	Malin Array Be	79.84	322	P	P	15 09 35.7	-1.4
	comp=Z,2.7nm,0.7s,mb4.3,baz=94,slow=4.4,SNR=7.8						
AKASG	Malin Array Be	79.84	322	P	P	15 09 35.7	-1.4
VRI	Vrincioaia	80.17	317	⇓iP	P	15 09 40.0	+0.9
VRI	Vrincioaia	80.17	317	⇓P	P	15 09 40.0	+1.0
PLOR	Plostina	80.21	317	⇓iP	P	15 09 41.3	+2.0
MLR	Muntele Rosu	80.61	317	⇓iP	P	15 09 42.3	+0.8
MLR	Muntele Rosu	80.61	317	P	P	15 09 42.0	+0.5
	comp=Z,9.8nm,0.9s,mb4.8,baz=118,slow=4.3,SNR=11						
MLR	Muntele Rosu	80.61	317	⇓P	P	15 09 42.2	+0.8
VOIR		81.21	317	⇓iP	P	15 09 44.9	+0.2
VOIR		81.21	317	⇓P	P	15 09 44.9	+0.2
BURAR	Bucovina Array	81.58	319	⇓iP	P	15 09 48.1	+1.5
BURAR	Bucovina Array	81.58	319	⇓P	P	15 09 48.1	+1.5
JOF	Joensuu	82.65	335	ep	P	15 09 51.1	-0.8
	comp=Z,6.1nm,0.6s,mb4.8						
GZR	Gura Zlata	82.77	316	⇓iP	P	15 09 51.9	-1.0
GZR	Gura Zlata	82.77	316	⇓P	P	15 09 51.9	-0.9
DRGR		83.08	318	⇓iP	P	15 09 55.3	+0.8
DRGR		83.08	318	⇓P	P	15 09 55.3	+0.8
TRPA	Tarpa	83.45	319	⇓iP	P	15 09 57.1	+0.8
APA	Apatity	83.55	339	⇑eP	P	15 09 56.4	0.0
APA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
BZS	Buzias	83.61	316	⇓iP	P	15 09 57.5	+0.3
BZS	Buzias	83.61	316	⇓P	P	15 09 57.5	+0.3
BILL	Bilibino	83.71	20	P	P	15 09 57.0	-0.2
BILL				*SP	sP	15 10 11.0	+0.6
BILL				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.6						
BILL	Bilibino	83.71	20	⇑iP	P	15 09 57.4	+0.2
KOLS	Kolonicke sedl	83.78	320	eP	P	15 09 57.9	-0.1
CRVS	Cervenica-Dubn	84.30	319	eP	P	15 10 00.1	-0.6
STHS	Stebnicka Huta	84.54	320	eP	P	15 10 02.6	+0.8
STHS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
STHS	Stebnicka Huta	84.54	320	eP	P	15 10 02.6	+0.8
	comp=Z,7.4nm,0.9s,mb4.8						
KAF	Kangasniemi	84.61	333	eP	P	15 10 01.4	-0.5
KAF				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb5.0						
KAF	Kangasniemi	84.61	333	ep	P	15 10 01.4	-0.5
	comp=Z,8.1nm,0.6s,mb5.0						
KECS	Kecovo	84.87	319	eP	P	15 10 03.2	-0.3
KECS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
KECS	Kecovo	84.87	319	eP	P	15 10 03.2	-0.3
	comp=Z,3.2nm,0.8s,mb4.5						
PSZ	Piszkesteto	85.17	318	⇓iP	P	15 10 05.7	+0.7
OJC	Ojcow	85.60	321	eP	P	15 10 06.1	-1.0
KEV	Kevo	86.50	341	eP	P	15 10 10.3	-0.9
KEV				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
KEV	Kevo	86.50	341	ep	P	15 10 10.3	-0.9
	comp=Z,6.6nm,0.7s,mb5.0						
ARCES	ARCESS Array B	86.94	340	P	P	15 10 13.7	+0.3
	comp=Z,5.8nm,0.6s,mb5.0,baz=121,slow=4.4,SNR=23						
MORC	Moravsky Berou	86.97	320	⇑iP	P	15 10 14.6	+0.7
MORC	Moravsky Berou	86.97	320	⇑P	P	15 10 14.6	+0.7
BOJS	Bojanci	88.02	316	i P	P	15 10 19.5	+0.4
PERS	Pernice	88.23	317	i P	P	15 10 20.8	+0.7
VISS	Visnje	88.34	316	i P	P	15 10 21.2	+0.6
VISS				i	pP	15 10 29.0	-1.2
VISS				i		15 10 40.2	
JAVS	Javornik	88.89	316	eP	P	15 10 23.6	+0.4
GERES	GERESS Array B	89.37	319	P	P	15 10 26.0	+0.7
	comp=Z,2.6nm,0.7s,mb4.7,baz=87,slow=4.2,SNR=15						
CLL	Collm	90.01	321	eP	P	15 10 29.0	+0.7
CLL				e		15 10 42.0	
CLL				e		15 10 52.0	
HFS	Hagfors	90.28	330	P	P	15 10 29.7	+0.4
	comp=Z,6.4nm,1.0s,mb4.9,baz=129,slow=6.3,SNR=4.4						
SPITS	Spitsbergen Ar	91.14	348	P	P	15 10 31.8	-1.2
	comp=Z,11nm,0.8s,mb5.3,baz=312,slow=9.1,SNR=7.7						
KEST	Kesra	91.90	306	P	P	15 10 38.9	+1.4
	comp=Z,2.8nm,0.9s,mb4.6,baz=319,slow=3.5,SNR=6.7						
PGF	Pioggiola	92.35	312	eP	P	15 10 40.1	+0.7
	comp=Z,18nm,1.1s,mb5.0						
PGF	Pioggiola	92.35	312	eP	P	15 10 40.1	+0.7
PGF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.0						
PGF	Pioggiola	92.35	312	eP	P	15 10 40.1	+0.7
	comp=Z,9.2nm,1.1s,mb5.0						
SBF	Sospel	93.51	314	eP	P	15 10 44.8	+0.1
MBDF	Montbardon	93.98	314	eP	P	15 10 47.4	+0.6
	comp=Z,8.0nm,0.9s,mb4.8						
MBDF	Montbardon	93.98	314	eP	P	15 10 47.4	+0.6
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
MBDF	Montbardon	93.98	314	eP	P	15 10 47.4	+0.6
	comp=Z,4.0nm,0.9s,mb4.8						
FRF	La Foret Royal	94.08	313	eP	P	15 10 47.5	+0.2
	comp=Z,25nm,1.2s,mb5.2						
FRF	La Foret Royal	94.08	313	eP	P	15 10 47.5	+0.2
FRF				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.2						
FRF	La Foret Royal	94.08	313	eP	P	15 10 47.5	+0.2
	comp=Z,12nm,1.2s,mb5.2						
SMRF	Simiane la Rot	94.85	314	eP	P	15 10 51.7	+0.9
	comp=Z,10nm,1.0s,mb4.9						
SMRF	Simiane la Rot	94.85	314	eP	P	15 10 51.7	+0.9
	comp=Z,10nm,1.0s,mb5.2						
BAIF	Baives	95.58	320	eP	P	15 10 54.9	+0.9
LASF	Ste Croix	96.09	314	eP	P	15 10 55.7	-0.8
	comp=Z,32nm,1.3s,mb5.3						
TCF	Toulx Ste Croi	97.13	316	eP	P	15 11 02.0	+0.8
FLN	La Foliniere	98.74	319	eP	P	15 11 08.2	-0.1
GRR	Gorron	99.03	318	eP	P	15 11 10.4	+0.8
	comp=Z,47nm,1.4s,mb5.5						
GRR	Gorron	99.03	318	eP	P	15 11 10.4	+0.8
GRR				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.5						
GRR	Gorron	99.03	318	eP	P	15 11 10.4	+0.8
	comp=Z,23nm,1.4s,mb5.5						
SCHQ	Schefferville	126.76	350	PKP	PKPdf	15 16 32.0	-0.2
	comp=Z,1.6nm,0.7s,baz=330,slow=3.8,SNR=4.2						
NVAR	Mina Array Bea	130.10	39	PKP	PKPdf	15 16 40.0	+1.0
	comp=Z,1.1nm,0.7s,baz=294,slow=1.5,SNR=5.7						
ULM	Lac du Bonnet	130.62	13	PKP	PKPdf	15 16 38.9	-0.8
	comp=Z,3.0nm,0.8s,baz=3.0,slow=2.1,SNR=4.6						
M13A	Montello	130.71	34	ePKPdf	PKPdf	15 16 41.3	+1.2
PDAR	Pinedale Array	132.11	29	PKP	PKPdf	15 16 42.6	-0.1
	comp=Z,0.9nm,0.7s,baz=250,slow=2.1,SNR=4.0						
WMOK	Wichita Mounta	143.57	26	ePKIKP	PKPdf	15 17 00.7	-3.3
CPUP	Villa Florida	143.81	216	PKP	PKPdf	15 17 04.4	-0.3
	comp=Z,1.8nm,0.8s,baz=353,slow=0.8,SNR=3.9						
TXAR	Lajitas Array	145.21	38	PKPbc	PKPbc	15 17 07.2	+0.6
	comp=Z,51nm,0.6s,baz=207,slow=1.2,SNR=384						
ELN	Prospectdale	145.48	1	ePKP	PKPdf	15 17 05.9	-1.4
BLA	Blacksburg	145.50	0	ePKIKP	PKPdf	15 17 05.8	-1.5
HBAR	Harrisburg	145.73	15	ePKP	PKPdf	15 17 07.8	+0.1
MIAR	Mount Ida	145.78	20	ePKIKP	PKPdf	15 17 08.0	+0.1
WVT	Waverly	145.83	11	ePKP2	PKPdf	15 17 07.7	-0.2
UALR	University of	145.98	18	ePKPbc	PKPbc	15 17 09.9	+1.1
TZTN	Tazewell	146.02	5	ePKP	PKPdf	15 17 08.2	-0.1
JCT	Junction City	146.55	32	ePKPdf	PKPdf	15 17 09.6	+0.3
JCT				ePKPbc	PKPbc	15 17 10.8	+0.1
PLAL	Pickwick Lake	146.89	12	ePKPdf	PKPdf	15 17 09.6	-0.2
CPCT	Cooper Cave	147.01	7	ePKPbc	PKPbc	15 17 11.2	-0.7
OXF	Oxford	147.04	14	ePKP2	PKPbc	15 17 11.5	-0.5
SWET	Sewanee	147.05	9	ePKPdf	PKPdf	15 17 10.4	+0.4
NATX	Nacogdoches	147.87	24	ePKPbc	PKPbc	15 17 14.4	0.0
JSC	Jenkinsville	148.41	2	ePKP2	PKPbc	15 17 14.9	-0.8

ISCJB ***24*** *15:24:01.3±1.7, 49°.5N±0°.1×98°.38E±0°.08, h10km, Error ellipse: s-maj=17.4km s-min=7.6km az=8.5*

IDC ***24*** *15:24:01.8±2.6, 49°.35N×98°.40E, h0km, mb1 3.3/1, mb1mx3.0/24, mbtmp3.3/1, ML3.2/1, Error ellipse: s-maj=60.8km s-min=17.4km az=14.0*

MOS ***24*** *15:24:05.9±3.3, 49°.12N×98°.32E, h10km, mb4.4/1, Error ellipse: s-maj=20.7km s-min=12.3km az=78.7*

ISC 24 15:24:04.1±1.6**, 49°.5N**±0°.1×**98°.34E**±0°.08**, h10km, n15, σ1s.37**/15**, 4D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOY	Mondy	2.76	37	ePN	Pg	15 24 58.0	+1.0
MOY				e		15 25 37.5	
MOY				pmax	pmax		
	comp=Z,68nm,0.2s						
MOY				smax			
	comp=E,464nm,0.5s						
ORL	Orlik	3.19	16	ePN	Pg	15 25 05.4	+0.2
ORL				e		15 25 51.6	
ORL				pmax	pmax		
	comp=Z,39nm,0.4s						
ORL				smax			
	comp=N,199nm,1.0s						
ZAK	Zakamensk	3.31	72	ePN	Pn	15 24 58.6	+2.6
ZAK				eS	Sg	15 25 51.0	+0.5
ZAK				pmax	pmax		
	comp=Z,77nm,0.5s						
ZAK				smax			
	comp=E,430nm,0.7s						
KZLR	Kyzyl	3.32	313	⇓iPN	Pg	15 25 06.5	-1.3
KZLR				i		15 25 13.1	
KZLR				e		15 25 43.3	
HVS	Khovu-Aksy	3.40	301	⇓ePN	Pn	15 25 02.2	+5.1
HVS				e		15 25 13.5	
HVS				e		15 25 44.4	
ARS	Arshan	3.56	45	ePN	Pg	15 25 12.5	+0.2
ARS				e		15 26 02.8	
ARS				pmax	pmax		
	comp=Z,147nm,0.8s						
ARS				smax			
	comp=E,799nm,0.9s						
TLY	Talaya	4.03	55	ePN	Pg	15 25 19.8	-1.5
TLY				e		15 26 14.8	
TLY				pmax	pmax		
	comp=Z,20nm,0.5s						
TLY				smax			
	comp=N,354nm,1.1s						
IRK	Irkutsk	4.66	51	ePN	Pg	15 25 31.1	-2.2
IRK				e		15 26 33.6	
IRK				pmax	pmax		
	comp=Z,49nm,0.2s						
IRK				smax			
	comp=N,705nm,0.7s						
SONM	Songino Array	5.59	104	PN	Pn	15 25 26.8	-0.4
SONM						15 26 55.4	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM				pmax	pmax		
	comp=Z,5.0nm,0.3s						
SONM	Songino Array	5.59	104	Pn	Pn	15 25 26.8	-0.4
	comp=Z,0.7nm,0.3s,baz=282,slow=14,SNR=17						
SONM				Pg	Pg	15 25 42.2	-8.9
	comp=Z,5.0nm,0.3s,baz=287,slow=18,SNR=42						
SONM				Lg		15 26 55.4	
	comp=Z,17nm,0.3s,baz=287,slow=31,SNR=14						
ORY	Orie	5.87	341	⇓ePN	Pg	15 25 51.3	-5.1
ORY				i		15 26 10.5	
ORY				e		15 26 49.6	
OGRR	Ongureny	7.11	51	eP	Pg	15 26 15.6	-4.6
OGRR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KRAR	Krasnoyarsk	7.33	335	d iP	Pn	15 25 53.1	+2.1
KRAR				e		15 27 20.7	
ZALV	Zalesovo Beam	9.50	303	Pg	Px	15 26 57.3	
	comp=Z,0.2nm,0.3s,baz=107,slow=14,SNR=2.5						
ZALV				Lg		15 29 04.8	
	comp=Z,0.3nm,0.3s,baz=120,slow=19,SNR=7.0						
MKAR	Makanchi Array	11.06	262	Pg	Px	15 27 25.1	
	comp=Z,0.1nm,0.3s,baz=76,slow=18,SNR=5.4						
MKAR				Lg		15 29 49.5	
	comp=Z,0.1nm,0.3s,baz=68,slow=24,SNR=5.8						

ISCJB ***24*** *15:43:24.1±0.4, 40°.66N±0°.05×18°.99E±0°.03, h2km, Error ellipse: s-maj=7.9km s-min=3.2km az=5.5*

CSEM ***24*** *15:43:24.4±0.2, 40°.68N×18°.98E, h2km, ML3.4/1*

SKO ***24*** *15:43:25.8, 40°.69N×19°.06E, h0km*

THE ***24*** *15:43:26.5, 40°.63N×18°.97E, h10km±15km, ML3.4/1, Error ellipse: s-maj=21.0km s-min=1.8km az=289.0*

ISC 24 15:43:24.7±0.4**, 40°.65N**±0°.05×**19°.00E**±0°.03**, h2km, n23, σ1s.14**/35**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEK	Kerkira	1.11	147	eP	Pg	15 43 44.8	-1.3
PE1	Pezze di Greco	1.21	278	ePg	Pg	15 43 47.0	-0.9
PE1				eSg	Sg	15 44 05.1	+1.5
TAR1	Taranto	1.31	265	ePg	Pg	15 43 47.9	-2.0
TAR1				eSg	Sg	15 44 06.5	-0.4
OHR	Ohrid	1.44	71	ePn	Pn	15 43 51.4	-0.4
OHR				eSg	Sg	15 44 10.6	-0.4
OHR	Ohrid	1.44	71	ePn	Pn	15 43 51.3	-0.5
OHR				eSg	Sg	15 44 10.6	-0.4
IGT	Igoumenitsa	1.51	137	P	Pn	15 43 52.6	-0.2
IGT				S	Sn	15 44 13.5	+0.5
IGT	Igoumenitsa	1.51	137	P	Pn	15 43 52.6	-0.2
IGT				S	Sn	15 44 13.5	+0.5
BAI	Bari	1.68	287	ePn	Pn	15 43 53.0	-2.0
BAI				eSn	Sn	15 44 18.8	+1.7
JAN	Janina	1.73	124	eP	Pn	15 43 55.5	-0.3
SG1	Sgolgore (BA)	1.78	277	ePn	Pn	15 43 56.6	+0.2
SG1				eSn	Sn	15 44 23.1	+3.5
BIA	Bitola	1.80	77	ePn	Pn	15 43 57.6	+0.8
BIA	Bitola	1.80	77	ePn	Pn	15 43 57.5	+0.7
FNA	Florina	1.81	85	P	Pn	15 43 57.4	+0.5
FNA				S	Sn	15 44 21.8	+1.4
FNA	Florina	1.81	85	P	Pn	15 43 57.4	+0.5
FNA				S	Sn	15 44 21.8	+1.4
KRUS	Krusevo	1.85	66	ePn	Pn	15 43 57.3	-0.1
KRUS				eSg	Sg	15 44 22.4	-1.7
KRUS	Krusevo	1.85	66	ePn	Pn	15 43 57.3	-0.1
KRUS				eSg	Sg	15 44 22.4	-1.7
MEV	Metsovon	1.91	116	P	Pn	15 43 59.2	+0.9
MEV	Metsovon	1.91	116	P	Pn	15 43 59.2	+0.9
KZN	Kozani	2.14	98	eP	Pn	15 44 04.7	+3.3
THL	Klokotos Trika	2.55	114	eP	Pn	15 44 07.9	+0.8
VLS	Valsamata	2.75	153	eP	Pn	15 44 06.3	-3.6
EVR	Evrytania	2.77	128	eP	Pn	15 44 10.0	-0.1
AGG	Agios Georgios	3.03	121	eP	Pn	15 44 13.8	+0.1

NNC 24 15:46:39.3±4.0**, 50°.18N×87°.76E, h12km**±21km**, mb3.8, mpv3.6, 6C-7D, Error ellipse: s-maj=28.8km s-min=17.5km az=75.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MK31	Makanchi Array	4.97	229	⇓Pn	Pn	15 47 55.0	+1.2
	2.1nm,0.3s,baz=60,slow=13,SNR=259						
MK31				⇑Sn	Sn	15 48 51.1	0.0
	5.5nm,0.5s,baz=65,slow=18,SNR=10						
MK31				⇓Lg		15 49 16.4	
	18nm,0.7s,baz=49,slow=25,SNR=4.4						
KURK	Kurchatov	5.86	279	⇓Pn	Pn	15 48 06.8	+0.8
	9.8nm,0.7s						
KURK				⇑Sn	Sn	15 49 14.7	+1.6
	5.5nm,0.8s						
KURK				⇓Lg		15 49 44.2	
	21nm,0.7s						
KURBB	Kurchatov Arra	5.92	278	⇑Pn	Pn	15 48 07.9	+1.2
	3.1nm,0.6s						
KURBB				⇓Sn	Sn	15 49 17.0	+2.6
	3.5nm,0.7s						
KURBB				⇑Lg		15 49 48.0	
	6.4nm,0.7s						
VOSK	Vostochnaya	10.78	290	⇑Pn	Pn	15 49 11.9	-1.5
	2.5nm,1.0s						
VOSK				⇑Sn	Sn	15 51 13.3	-0.4
	2.7nm,1.1s						
BVA0	Borovoye Array	11.17	291	⇓Pn	Pn	15 49 15.0	-3.7
	0.6nm,1.2s						
BVA0				⇓Sn	Sn	15 51 23.2	-0.2
	0.4nm,0.8s						

GUC 24 15:47:05.4±0.7**, 22°.91S×70°.26W, h35km**±2km**, MD3.6, ML3.0, 3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEN1	Los Morros	0.48	174	⇓iP	Pb	15 47 18.1	+2.3
CEN1				i S	Sb	15 47 27.4	+4.3
CEN1				AML	AML	15 47 27.7	
	comp=N,1µm,0.5s						
PECH	Pedro de Valdi	0.62	60	i P	Pn	15 47 17.9	+0.2
PECH				i S	Sn	15 47 26.7	+0.2
PECH				AML	AML	15 47 27.6	
	comp=E,1µm,0.2s						
MACH	Maria Elena	0.85	33	⇓iP	Pn	15 47 21.1	+0.3
MACH				i S	Sn	15 47 33.1	+1.1
PB04	Plate Boundary	0.96	48	⇓iP	Pn	15 47 17.8	-4.6
PB04				i S	Sn	15 47 26.5	-8.3
PB04				AML	AML	15 47 29.9	
	comp=E,802nm,0.1s						
PB01	Plate Boundary	1.99	21	i P	Pn	15 47 38.5	+1.9
PB01				i S	Sn	15 48 03.6	+3.3
PB01				AML	AML	15 48 07.1	
	comp=E,226nm,0.2s						
HMBC	Humberston	2.64	8	AML	AML	15 48 31.2	
	comp=E,126nm,0.5s						

ISCJB ***24*** *15:49:09.4±0.4, 6°.79N±0°.05×72°.91W±0°.04, h174km±3km, mb4.5/32, Error ellipse: s-maj=8.4km s-min=5.6km az=154.3*

NEIC ***24*** *15:49:09.7±0.7, 6°.75N×72°.98W, h162km±6km, mb4.7/22, Error ellipse: s-maj=9.0km s-min=7.5km az=142.0*

IDC ***24*** *15:49:09.7±0.6, 6°.77N×72°.95W, h161km±6km, mb4.0/12, mb1 4.1/17, mb1mx3.9/25, mbtmp4.1/17, Error ellipse: s-maj=12.8km s-min=7.5km az=137.0*

*FUNV **24** 15:49:10.4, 6°.83N×73°.14W, h167^{km}, MW4.6*

*BJI **24** 15:49:10.7, 6°.50N×72°.40W, h181^{km}, mB5.3/2*

ISC 24 15:49:10.5±0.4**, 6°.79N**±0°.05×**72°.92W**±0°.04**, h165**^{km}±3^{km}**, n252,** σ0^{s}.59/247**, mb4.5**/32**, 101C-59D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.23	29	⇑iP	Pn	15 49 39.0	+0.3
CAPV				eS	Sn	15 49 59.9	-0.5
ROSC	El Rosal	2.38	216	P	Pn	15 49 51.1	+0.1
	354nm,0.3s,baz=315,slow=3.1,SNR=495						
ROSC				S	Sn	15 50 21.1	-1.2
	304nm,0.3s,baz=78,slow=18,SNR=7.8						
SOCV	Socops	2.53	54	⇑eP	Pn	15 49 53.6	+0.9
SOCV				eS	Sn	15 50 25.6	+0.2
VIGV	El Vigia	2.55	37	⇑iP	Pn	15 49 53.5	+0.5
VIGV				eS	Sn	15 50 25.0	-1.0
SDV	Santo Domingo	3.08	47	P	Pn	15 50 00.4	+0.9
	344nm,0.3s,baz=237,slow=6.3,SNR=1883						
SDV				S	Sn	15 50 37.5	0.0
	122nm,0.3s,baz=77,slow=22,SNR=12						
SDV	Santo Domingo	3.08	47	ePn	Pn	15 50 00.3	+0.9
SDV				eS	Sn	15 50 36.4	-1.1
ELOV	Elorza	3.42	86	iP	Pn	15 50 05.1	+1.3
ELOV				eS	Sn	15 50 45.8	+0.7
VIRV	Villa del Rosa	3.73	8	eS	Sn	15 50 47.6	-4.6
QARV	Quebrada Arrib	4.14	35	⇑eP	Pn	15 50 13.2	+0.2
SANV	Sanarito	4.30	51	eP	Pn	15 50 15.0	0.0
CURV	Curarigua	4.34	42	⇑eP	Pn	15 50 15.3	-0.2
TEPV	Terepaima	4.85	49	eP	Pn	15 50 22.4	+0.2
SIQV	Siquisique	4.92	38	⇑eP	Pn	15 50 22.6	-0.5
SIQV				eS	Sn	15 51 16.2	-3.7
TURV	Turiamo	6.20	54	eP	Pn	15 50 39.6	-0.4
BCIP	Isla Barro Col	7.25	289	ePn	Pn	15 50 48.5	-5.4
OTAV	Otavalo	8.53	221	ePn	Pn	15 51 07.9	-3.0
	11nm,0.5s						
PCRV	Puerto La Cruz	8.86	67	P	Pn	15 51 15.4	+0.2
	5.0nm,0.3s,baz=204,slow=6.4,SNR=25						
SDDR	Presa de Saban	12.22	7	eP	Pn	15 52 01.0	+1.8
	24nm,0.9s						
MTDJ	Mount Denham	12.23	339	ePn	Pn	15 51 59.5	+0.2
	92nm,0.5s						
MTDJ				eS	Sn	15 54 02.0	-13
JTS	JuntasAbangare	12.40	287	P	Pn	15 52 01.9	+0.3
	0.8nm,0.3s,baz=129,slow=9.4,SNR=4.3						
CRPR	Cabo Rojo, PR	12.51	26	Pn	Pn	15 52 00.3	-2.5
GTBY	Guantanamo Bay	13.23	351	ePn	Pn	15 52 13.3	+1.1
	26nm,0.3s						
PAYG	Puerto Ayora	18.85	247	eP	P	15 53 18.4	+0.3
TEIG	Tepich	20.01	313	P	P	15 53 30.3	-0.3
	5.2nm,0.3s,baz=83,slow=0.7,SNR=20						
TEIG	Tepich	20.01	313	eP	P	15 53 30.3	-0.3
	23nm,0.5s						
JSC	Jenkinsville	28.42	345	eP	P	15 54 50.2	+0.6
CNNC	Cliffs of the	28.68	352	P	P	15 54 49.3	-2.7
	126nm,0.5s						
WVT	Waverly	32.24	337	eP	P	15 55 23.4	+0.2
	8.7nm,0.3s,mb5.0						
USIN	University of	33.80	339	eP	P	15 55 36.8	0.0
	11nm,0.4s,mb4.9						
WMOK	Wichita Mounta	36.62	323	eP	P	15 55 59.6	-1.4
TXAR	Lajitas Array	36.63	312	P	P	15 56 00.5	-0.6
	2.2nm,0.5s,mb4.1,baz=128,slow=9.2,SNR=54						
TXAR	Lajitas Array	36.63	312	P	P	15 56 00.5	-0.6
AMTX	Amarillo	38.51	321	eP	P	15 56 16.5	-0.2
	7.7nm,0.6s,mb4.5						
KSU1	Kansas State U	38.61	330	eP	P	15 56 16.3	-1.3
	6.1nm,0.6s,mb4.4						
324A	Moseley Ranch,	39.08	313	⇑P	P	15 56 21.1	-0.5
	baz=39						
JFWS	Jewell Farm	39.09	340	eP	P	15 56 20.9	-0.6
	24nm,0.6s,mb5.0						
SCIA	State Center	39.34	336	eP	P	15 56 22.7	-0.9
	16nm,0.4s,mb5.0						
220A	Playas Peak, P	41.54	312	⇑P	P	15 56 42.2	+0.4
	baz=42						
X22A	Bernardo	41.81	316	⇓P	P	15 56 44.6	+0.6
	baz=42						
LAZ	Ladron	41.84	316	eP	P	15 56 44.4	+0.2
	3.8nm,0.9s,mb4.0						
319A	Douglas	41.85	311	⇑P	P	15 56 44.9	+0.5
	baz=42						
120A	U Bar Ranch, L	41.94	312	⇑P	P	15 56 45.7	+0.7
	baz=42						
219A	White Tail Can	42.13	311	⇓P	P	15 56 46.8	+0.1
	baz=42						
Z20A	Nine Sixteen R	42.19	313	⇑P	P	15 56 47.3	+0.2
	baz=42						
ECSD	EROS Data Cent	42.26	334	eP	P	15 56 45.8	-1.7
	4.9nm,0.4s,mb4.5						
X21A	Alamocita Cree	42.31	315	⇑P	P	15 56 48.5	+0.5
	baz=42						
318A	Bisbee	42.42	310	P	P	15 56 49.3	+0.3
	baz=42,SNR=5.6						
Y20A	Horse Springs,	42.44	314	⇑P	P	15 56 50.0	+0.9
	baz=42						
218A	Dragoon	42.71	311	P	P	15 56 51.9	+0.6
	baz=43,SNR=6.7						
118A	Homack Ranch,	42.97	312	⇑P	P	15 56 53.6	+0.2
	baz=43						
Y19A	Nutrioso	43.09	314	⇓P	P	15 56 55.1	+0.7
	baz=43,SNR=8.1						
T22A	Edith	43.16	319	⇑P	P	15 56 55.7	+0.9
	baz=43						
W20A	Ramah	43.17	316	⇑P	P	15 56 55.3	+0.3
	baz=43						
217A	Green Valley	43.20	310	⇑P	P	15 56 54.9	-0.3
	baz=43						
117A	Oracle	43.51	311	⇑P	P	15 56 57.8	+0.1
	baz=44,SNR=5.2						
V20A	Brimhall	43.51	317	⇓P	P	15 56 57.6	-0.1
	baz=44						
Z17A	San Carlos Hig	43.65	312	⇑P	P	15 56 59.2	+0.3
	baz=44						
R22A	Saguache, Gunn	43.78	321	⇓P	P	15 57 00.7	+0.9
	baz=44						
U20A	Newcomb	43.86	317	⇓P	P	15 57 01.0	+0.5
	baz=44						
X18A	Snowflake	43.88	314	⇑P	P	15 57 01.2	+0.5
	baz=44						
EYMN	Ely	43.96	342	eP	P	15 57 00.2	-0.8
	17nm,0.6s,mb4.9						
116A	Eloy	44.23	311	⇓P	P	15 57 03.2	-0.3
	baz=44						
U19A	Dine' College,	44.28	317	⇑P	P	15 57 03.7	-0.1
	baz=44						
MVCO	Mesa Verde	44.31	318	⇓P	P	15 57 04.4	+0.4
	baz=44						
R21A	Cimarron	44.37	320	⇓P	P	15 57 05.5	+1.0
	baz=44						
X17A	Forest Lakes	44.40	313	⇑P	P	15 57 05.1	+0.4
	baz=44						
T19A	Beclabito	44.45	318	⇓P	P	15 57 05.6	+0.4
	baz=44						
Y16A	Circle Bar Ran	44.67	312	⇑P	P	15 57 06.7	-0.2
	baz=45						
R20A	Redvale	44.79	320	P	P	15 57 08.2	+0.4
	baz=45,SNR=7.9						
214A	Organ Pipe Nat	44.80	309	⇓P	P	15 57 08.4	+0.3
	baz=45						
PV01	Paradox Valley	44.88	319	eP	P	15 57 09.5	+0.9
	225nm,0.6s						
X16A	Lo Mia Camp, P	44.90	313	⇑P	P	15 57 09.0	+0.3
	baz=45,SNR=6.0						
P21A	Newcastle	44.99	322	⇓P	P	15 57 10.5	+1.1
	baz=45						
V17A	Tonalea, Kykot	45.03	315	⇓P	P	15 57 09.7	0.0
	baz=45						
Q20A	Ridgley Place,	45.18	320	⇓P	P	15 57 11.8	+0.9
	baz=45,SNR=6.8						
T18A	Mexican Hat	45.19	317	⇑P	P	15 57 10.9	-0.1
	baz=45						
114A	Black Gap (USA	45.20	310	⇑P	P	15 57 11.2	+0.1
	baz=45						
Y15A	Casa Rosa Ranc	45.33	312	⇑P	P	15 57 12.1	0.0
	baz=45,SNR=5.8						
R19A	Curley Farm, L	45.42	319	⇓P	P	15 57 12.7	-0.1
	baz=46						
O21A	Pagoda	45.42	322	⇑P	P	15 57 14.0	+1.2
	baz=46						
U17A	Shonto	45.44	316	⇑P	P	15 57 12.5	-0.4
	baz=46						
X15A	Humboldt	45.51	313	⇑P	P	15 57 13.9	+0.3
	baz=46						
Z14A	Wintersburg	45.52	311	⇑P	P	15 57 14.0	+0.3
	baz=46						
U16A	Tuba City	45.53	315	⇑P	P	15 57 14.4	+0.7
	baz=46,SNR=5.5						
P20A	De Beque	45.56	321	⇓P	P	15 57 14.6	+0.7
	baz=46						
S18A	Hurst Farm, Bl	45.57	318	⇑P	P	15 57 14.7	+0.8
	baz=46						
AGMN	Agassiz Refuge	45.73	339	eP	P	15 57 14.3	-0.7
	7.2nm,0.5s,mb4.6						
N21A	Black Mountain	45.79	323	⇓P	P	15 57 16.4	+0.8
	baz=46						
Q19A	Hogan Spring (	45.80	320	P	P	15 57 15.9	+0.1
	baz=46,SNR=9.3						
Y14A	Wickenburg	45.82	312	P	P	15 57 16.2	+0.2
	baz=46,SNR=5.1						
X14A	Yava	45.98	312	⇓P	P	15 57 17.3	+0.1
	baz=46						
Z13A	Yuma Proving G	45.98	310	⇑P	P	15 57 17.1	-0.2
	baz=46						
S17A	Black Ridge (B	46.08	317	⇑P	P	15 57 18.2	+0.2
	baz=46						
V15A	Kaibab Nationa	46.10	314	⇑P	P	15 57 19.3	+1.1
	baz=46,SNR=7.0						
T16A	Glen Canyon Da	46.22	316	⇑P	P	15 57 19.9	+0.9
	baz=46						
Y13A	Salome	46.38	311	⇑P	P	15 57 20.7	+0.4
	baz=46						
M20A	Sweetwater, Wa	46.63	323	⇑P	P	15 57 22.6	+0.3
	baz=47						
T15A	Red Dirt Ranch	46.84	316	⇓P	P	15 57 24.8	+0.9
	baz=47						
Q16A	Castle Valley	47.01	319	⇑P	P	15 57 25.2	-0.1
	baz=47						
P17A	Butcher Ranch,	47.04	320	⇓P	P	15 57 25.6	+0.2
	baz=47						
T14A	Hurricane	47.35	315	⇑P	P	15 57 28.7	+0.8
	baz=47						
ULM	Lac du Bonnet	47.38	340	P	P	15 57 26.8	-1.0
	12nm,0.5s,mb4.8,baz=144,slow=7.2,SNR=19						
O17A	Robinson Place	47.44	320	⇓P	P	15 57 28.9	+0.5
	baz=48,SNR=8.9						
K20A	Yellowstone Ra	47.45	325	⇓P	P	15 57 27.8	-0.7
	baz=48,SNR=5.4						
U13A	Pakoon Wash	47.66	314	⇓P	P	15 57 29.7	-0.5
	baz=48						
L19A	Farson	47.70	323	⇓P	P	15 57 30.6	+0.1
	baz=48						
K19A	Absolon Red Bu	47.84	324	⇑P	P	15 57 31.3	-0.3
	baz=48						
N17A	Moffit Pass	47.92	321	⇓P	P	15 57 32.1	-0.1
	baz=48						
O16A	Springville	47.93	320	⇓P	P	15 57 32.5	+0.3
	baz=48						
V12A	Nelson	47.98	313	⇓P	P	15 57 32.4	-0.4
	baz=48						
L18A	Fontenelle, Gr	48.00	323	⇑P	P	15 57 33.1	+0.3
	baz=48,SNR=12						
M17A	Scullys Gap (B	48.12	322	⇑P	P	15 57 33.1	-0.6
	baz=48,SNR=5.5						
SCHQ	Schefferville	48.16	5	P	P	15 57 34.0	+0.2
	5.2nm,0.5s,mb4.4,baz=194,slow=6.4,SNR=26						
BW06	Boulder Array	48.22	324	⇑P	P	15 57 34.0	-0.5
	baz=48,SNR=6.4						
PDAR	Pinedale Array	48.22	324	P	P	15 57 34.1	-0.3
	2.8nm,0.6s,mb4.0,baz=125,slow=9.0,SNR=27						
N16A	Rees Ranch, Co	48.27	321	⇑P	P	15 57 34.9	+0.1
	baz=48						
Q14A	Sevier Lake (B	48.45	318	⇑P	P	15 57 36.8	+0.6
	baz=48,SNR=5.6						
L17A	Cokeville	48.61	322	⇓P	P	15 57 37.1	-0.3
	baz=49,SNR=12						
M16A	Huntsville	48.63	321	⇑P	P	15 57 37.3	-0.3
	baz=49						
J18A	Kendall Valley	48.76	324	⇑P	P	15 57 38.3	-0.3
	baz=49,SNR=9.3						
L16A	Fish Haven	48.90	322	⇓P	P	15 57 39.2	-0.5
	baz=49,SNR=14						
I18A	Diamond G Ranc	48.94	325	⇑P	P	15 57 39.6	-0.4
	baz=49,SNR=5.3						
LAO	LASA Array	48.96	330	eP	P	15 57 39.4	-0.6
J17A	Brown Place, J	49.26	324	⇓P	P	15 57 42.2	-0.1
	baz=49,SNR=8.8						
DGMT	Dagmar	49.27	333	⇓P	P	15 57 42.6	+0.3
	baz=49,SNR=9.7						
DGMT	Dagmar	49.27	333	eP	P	15 57 42.5	+0.1
	33nm,0.6s,mb5.1						
REDW	Red Top Meadow	49.34	324	eP	P	15 57 42.9	-0.1
	13nm,0.9s,mb4.5						
TPAW	Teton Pass	49.47	324	eP	P	15 57 44.0	0.0
	7.7nm,0.8s,mb4.4						
L15A	Malad City	49.48	321	⇓P	P	15 57 43.5	-0.5
	baz=50,SNR=5.9						
RLMT	Red Lodge	49.52	327	⇓P	P	15 57 44.2	-0.1
	baz=50						
J16A	Bone	49.73	323	⇑P	P	15 57 46.1	+0.2
	baz=50,SNR=8.5						
G18A	Lazy EL Ranch,	49.80	327	⇓P	P	15 57 46.3	-0.1
	baz=50						
M14A	Sheep Mountain	49.81	320	⇓P	P	15 57 46.2	-0.4
	baz=50,SNR=7.6						
K15A	Arbon	49.95	322	⇑P	P	15 57 47.7	+0.1
	baz=50						
I16A	Newdale	50.01	324	⇑P	P	15 57 49.0	+1.0
	baz=50,SNR=6.1						
L14A	Malta	50.03	321	⇓P	P	15 57 47.9	-0.3
	baz=50						
O12A	Currie	50.07	318	⇑P	P	15 57 48.3	-0.3
	baz=50						
M13A	Montello	50.26	320	⇑P	P	15 57 49.7	-0.2
	baz=50						
M13A	Montello	50.26	320	eP	P	15 57 49.8	-0.1
	13nm,1.1s,mb4.5						
F18A	Big Timber	50.26	327	P	P	15 57 49.9	+0.1
	baz=50,SNR=8.8						
K14A	Jones Ranch, D	50.27	322	⇑P	P	15 57 49.5	-0.5
	baz=50						
J15A	Blackfoot	50.30	323	⇓P	P	15 57 49.9	-0.3
	baz=50						
H16A	Russell Place,	50.37	325	P	P	15 57 51.1	+0.5
	baz=50,SNR=6.1						
L13A	Double Diamond	50.50	321	⇓P	P	15 57 51.5	-0.2
	baz=50						
O11A	Cowboy Ranch,	50.61	318	⇑P	P	15 57 52.4	-0.1
	baz=51						
R09A	Tonopah	50.70	315	⇑P	P	15 57 52.9	-0.3
	baz=51						
F17A	Fitzpatrick Pl	50.77	327	⇑P	P	15 57 54.0	+0.3
	baz=51						
E18A	Harlowton	50.78	328	⇑P	P	15 57 53.9	+0.1
	baz=51,SNR=5.7						
J14A	Carey	50.91	322	⇑P	P	15 57 55.3	+0.5
	baz=51,SNR=12						
G16A	Moss Hill, Enn	51.00	325	⇑P	P	15 57 55.8	+0.4
	baz=51,SNR=7.7						
H15A	Lima	51.12	324	⇓P	P	15 57 57.4	+1.1
	baz=51,SNR=7.9						
BOZ	Bozeman (W)	51.15	326	⇑P	P	15 57 56.3	-0.2
	baz=51,SNR=5.5						
I14A	Mackay	51.21	323	⇓P	P	15 57 56.9	-0.1
	baz=51						
E17A	Martinsdale	51.23	327	⇑P	P	15 57 57.0	0.0
	baz=51,SNR=6.7						
M11A	Holland Ranch,	51.34	319	⇓P	P	15 57 58.2	+0.2
	baz=51						
J13A	Cove Ranch, Pi	51.35	322	⇑P	P	15 57 57.8	-0.2
	baz=51						
MCMT	McKenzie Canyo	51.36	324	eP	P	15 57 58.9	+0.8
	2.5nm,0.6s,mb4.0						
D17A	Six Diamond Ra	51.57	328	P	P	15 57 59.6	+0.1
	baz=52,SNR=5.9						
HLID	Hailey	51.59	322	⇓P	P	15 58 00.1	+0.3
	baz=52,SNR=7.0						
I13A	Wildhorse Cree	51.60	323	⇑P	P	15 58 00.4	+0.6
	baz=52,SNR=7.6						
EGMT	Eagleton	51.64	329	⇑P	P	15 58 00.2	+0.1
	baz=52						
EGMT	Eagleton	51.64	329	eP	P	15 58 00.1	0.0
	2.9nm,0.6s,mb4.1						
O09A	Fish Creek Ran	51.66	317	⇓P	P	15 58 00.2	-0.2
	baz=52						
L11A	Cat Creek Ranc	51.69	320	P	P	15 58 00.9	+0.3
	baz=52,SNR=8.4						
E16A	East Helena	51.72	327	⇓P	P	15 58 00.5	-0.2
	baz=52						
F15A	Butte	51.75	325	⇑P	P	15 58 01.3	+0.3
	baz=52						
J12A	Stokes Ranch,	51.84	321	⇓P	P	15 58 01.7	+0.1
	baz=52						
M10A	I.L. Ranch, Tu	51.88	319	⇑P	P	15 58 02.1	+0.1
	baz=52						
B18A	Beardsley Farm	51.89	329	P	P	15 58 02.3	+0.3
	baz=52,SNR=12						
C17A	Wharram Farm,	51.91	328	⇑P	P	15 58 02.1	0.0
	baz=52						
D16A	Dana Ranch, Ca	51.95	327	⇑P	P	15 58 02.7	+0.2
	baz=52						
H13A	Challis	52.04	323	⇓P	P	15 58 03.3	+0.1
	baz=52						
L10A	Juniper Basin	52.10	319	P	P	15 58 04.0	+0.3
	baz=52,SNR=8.5						
I12A	Atlanta	52.15	322	P	P	15 58 04.1	+0.2
	baz=52,SNR=8.9						
K11A	Parker Ranch,	52.17	320	⇑P	P	15 58 04.0	-0.2
	baz=52						
E15A	Deer Lodge	52.18	326	⇑P	P	15 58 04.3	+0.2
	baz=52						
A18A	Metzger Ranch,	52.27	330	⇑P	P	15 58 04.6	-0.1
	baz=52						
G13A	Cobalt	52.32	324	P	P	15 58 05.2	0.0
	baz=52,SNR=6.2						
MFID	Camas Ranch	52.38	321	⇑P	P	15 58 05.7	0.0
	baz=52,SNR=8.2						
H12A	Diamond D Ranc	52.39	323	P	P	15 58 05.8	0.0
	baz=52,SNR=6.7						
D15A	Lincoln	52.48	327	⇑P	P	15 58 06.2	-0.1
	baz=53						
N08A	GE Springer Mi	52.58	317	⇓P	P	15 58 06.6	-0.6
	baz=53						
E14A	Clinton	52.65	326	⇓P	P	15 58 07.7	+0.1
	baz=53,SNR=5.1						
K10A	MacKenzie Ranc	52.71	320	⇑P	P	15 58 08.0	-0.2
	baz=53						
F13A	Darby	52.77	324	⇑P	P	15 58 08.2	-0.3
	baz=53,SNR=6.1						
L09A	Wilkinson Ranc	52.85	319	⇑P	P	15 58 09.0	-0.2
	baz=53						
G12A	Big Creek, Yel	52.99	323	⇓P	P	15 58 09.9	-0.2
	baz=53						
D14A	Greenough	53.05	326	⇓P	P	15 58 10.1	-0.4
	baz=53						
M08A	Happy Creek Ra	53.05	318	⇑P	P	15 58 10.4	-0.2
	baz=53						
H11A	Donnelly	53.17	323	⇑P	P	15 58 10.6	-0.9
	baz=53						
A16A	West Butte Ran	53.17	329	⇑P	P	15 58 11.4	+0.1
	baz=53,SNR=5.8						
FFC	Flin Flon	53.19	339	eP	P	15 58 10.5	-0.8
	2.0nm,0.4s,mb4.2						
K09A	Rome	53.22	320	P	P	15 58 12.1	+0.3
	baz=53,SNR=9.2						
F12A	Elk City	53.29	324	⇑P	P	15 58 12.0	-0.3
	baz=53,SNR=5.5						
L08A	Fields	53.38	319	P	P	15 58 13.2	+0.2
	baz=53,SNR=16						
J09A	Fry Pan Ranch,	53.55	320	P	P	15 58 14.3	0.0
	baz=54,SNR=6.4						
M07A	Soldier Meadow	53.55	317	⇑P	P	15 58 14.0	-0.4
	baz=54						
D13A	Huson	53.59	326	⇑P	P	15 58 14.5	0.0
	baz=54						
C14A	Swan Lake	53.59	327	⇓P	P	15 58 14.6	+0.2
	baz=54						
K08A	Mann Creek Ran	53.73	319	⇑P	P	15 58 14.2	-1.4
	baz=54,SNR=7.0						
A15A	Johnson Ranch,	53.78	328	⇑P	P	15 58 15.4	-0.4
	baz=54						
F11A	Grangeville	53.89	324	⇑P	P	15 58 15.8	-0.9
	baz=54						
L07A	Adell	53.95	318	⇑P	P	15 58 17.2	0.0
	baz=54,SNR=5.5						
C13A	Hot Springs	53.99	326	⇓P	P	15 58 17.5	+0.2
	baz=54						
A14A	Double T Ranch	54.13	328	⇑P	P	15 58 17.9	-0.5
	baz=54						
G10A	Bishop Farm, J	54.15	323	⇑P	P	15 58 17.8	-0.8
	baz=54,SNR=6.2						
E11A	Bogner Ranch,	54.17	324	⇑P	P	15 58 17.9	-0.8
	baz=54,SNR=6.9						
BSMT	Bassoo Peak	54.20	326	eP	P	15 58 19.3	+0.4
FCC	Fort Churchill	54.35	347	eP	P	15 58 18.7	-1.0
	0.1nm,0.8s						
G09A	Cove	54.54	322	⇓P	P	15 58 20.9	-0.5
	baz=55						
F10A	Beach Ranch, E	54.57	323	⇓P	P	15 58 20.8	-0.8
	baz=55,SNR=7.1						
D11A	Klaveano Farm,	54.62	325	⇓P	P	15 58 21.2	-0.7
	baz=55,SNR=12						
H08A	Prairie City	54.71	321	⇓P	P	15 58 22.0	-0.6
	baz=55						
I07A	Izee	55.02	320	⇓P	P	15 58 24.5	-0.4
	baz=55						
D10A	Wagner Farm, O	55.17	324	⇓P	P	15 58 24.9	-1.0
	baz=55,SNR=5.3						
G08A	Pilot Rock	55.27	322	⇑P	P	15 58 26.4	-0.2
	baz=55,SNR=12						
A12A	Yaak River Ran	55.30	327	⇑P	P	15 58 27.0	+0.3
	baz=55,SNR=10						
I06A	Prineville	55.41	320	⇑P	P	15 58 27.6	0.0
	baz=55						
B11A	Sandpoint	55.41	326	⇑P	P	15 58 27.7	+0.1
	baz=56						
YBH	Yreka Blue Hor	56.10	316	P	P	15 58 30.8	-1.8
	2.3nm,0.5s,mb4.2,baz=84,slow=3.4,SNR=11						
D08A	Wollman Farm,	56.13	324	⇑P	P	15 58 32.6	-0.1
	baz=56						
C09A	Chrisman Ranch	56.14	325	⇑P	P	15 58 32.9	+0.1
	baz=56						
G06A	Carlson Farm,	56.28	321	⇑P	P	15 58 34.3	+0.5
	baz=56						
A10A	Northport	56.37	326	⇑P	P	15 58 33.6	-0.8
	baz=56						
B08A	Colville Reser	57.03	325	⇑P	P	15 58 38.4	-0.6
	baz=57						
A07A	Ashnola River,	57.98	325	⇓P	P	15 58 45.9	+0.2
	baz=58						
YKA	Yellowknife Ar	63.36	340	P	P	15 59 21.3	-0.5
	7.5nm,0.5s,mb4.8,baz=132,slow=6.7,SNR=232						
BBB	Bella Bella	63.80	326	P	P	15 59 25.1	+0.2
	5.4nm,0.8s,mb4.4						
TIC	Toumodi	67.38	86	eP	P	15 59 49.1	+0.5
	7.8nm,0.2s,mb5.2						
LIC	Lamto	67.40	86	eP	P	15 59 48.4	-0.3
	9.8nm,0.5s,mb4.9						
DLBC	Dease Lake	67.45	331	P	P	15 59 48.7	+0.6
	2.4nm,0.5s,mb4.3						
DLBC	Dease Lake	67.45	331	P	P	15 59 48.7	+0.6
DBIC	Dimbokro	67.54	86	P	P	15 59 49.6	0.0
	1.0nm,0.3s,mb4.0,baz=259,slow=9.1,SNR=11						
KIC	Kosan Boka	67.68	86	eP	P	15 59 50.3	-0.1
	9.5nm,0.3s,mb5.0						
RES	Resolute Bay	69.03	354	P	P	15 59 57.1	-0.6
TORD	Torodi Ar. Bea	73.55	78	P	P	16 00 25.2	-0.7
	0.4nm,0.3s,mb3.6,baz=285,slow=6.5,SNR=13						
NOA	NORSAR Array B	81.26	29	P	P	16 01 09.0	+1.1
	0.5nm,0.5s,mb3.4,baz=270,slow=5.1,SNR=2.6						
ARCES	ARCESS Array B	86.63	20	P	P	16 01 35.0	0.0
	4.5nm,0.9s,mb4.3,baz=278,slow=4.3,SNR=16						
ZALV	Zalesovo Beam	116.65	15	PKP	PKPdf	16 07 34.1	-0.8
	1.0nm,0.4s,baz=242,slow=4.0,SNR=4.1						
MKAR	Makanchi Array	122.28	20	PKP	PKPdf	16 07 45.6	-0.4
	0.5nm,0.3s,baz=312,slow=2.3,SNR=24						
SONM	Songino Array	125.61	1	PKP	PKPdf	16 07 52.5	+0.2
	0.4nm,0.5s,baz=328,slow=1.5,SNR=5.0						
WMQ	Urumqi	126.66	17	ePKP	PKPdf	16 07 53.0	-1.5
CN2	Changchun	126.97	343	ePKP	PKPdf	16 07 53.6	-1.5
HHC	Hu-ho-hao-te	132.42	355	ePKP	PKPdf	16 08 03.6	-1.9
HHC				PP	PP	16 10 31.8	+2.7
HHC				PKS		16 11 37.8	
HHC				SKS	SKSdf	16 14 56.8	-4.7
HHC				SKKS	SKKSac	16 17 06.3	-3.8
HHC				LR	LR		
	comp=N,530nm,14.2s						
HHC				LR	LR		
	comp=E,470nm,19.1s						
HHC				LR	LR		
	comp=Z,490nm,15.3s						
BJI	Beijing	132.66	351	PKP	PKPdf	16 08 06.3	+0.3
GTA	Gaotai	133.54	8	ePKP	PKPdf	16 08 09.3	+1.6
GTA				sPKP		16 09 09.1	
LZH	Lanzhou	137.25	4	ePKP	PKPdf	16 08 15.0	+0.3
LZH				sPKP		16 09 14.3	
LZH				LR	LR		
	comp=N,130nm,18.0s						
LZH				LR	LR		
	comp=Z,190nm,20.2s						
CD2	Chengdu	142.38	5	PKP	PKPdf	16 08 22.1	-2.0
GYA	Guiyang	146.95	1	ePKPbc	PKPbc	16 08 29.0	-5.3

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
GYA				PKPab	PKPab	16 08 36.9	+0.9
GYA				pPKP	pPKPdf	16 09 12.6	-3.1
GYA				PP	PP	16 12 01.0	+2.8
GYA				AMB	AMB		
	comp=Z,90nm,8.9s						
ASAR	Alice Springs	149.25	234	PKP	PKPdf	16 08 35.6	-0.3
	comp=Z,1.4nm,0.5s,baz=119,slow=3.6,SNR=17						
ASAR				PKPbc	PKPbc	16 08 39.4	-1.1
	comp=Z,1.4nm,0.5s,baz=119,slow=3.4,SNR=32						
WRA	Warramunga Arr	150.50	241	PKPbc	PKPbc	16 08 42.5	-1.0
	comp=Z,1.6nm,0.4s,baz=107,slow=2.7,SNR=12						
CMAR	Chiang Mai Arr	153.66	18	PKPbc	PKPbc	16 08 50.8	+0.1
	comp=Z,0.9nm,0.5s,baz=319,slow=3.0,SNR=6.9						

ISK ***24*** *15:57:45.9, 37°.30N×28°.31E, h6^{km}, MD2.7*
ISCJB ***24*** *15:57:47.5±0.6, 37°.24N±0°.05×28°.23E±0°.04, h10^{km}±9^{km}, Error ellipse: s-maj=8.6km s-min=4.0km az=29.9*
CSEM ***24*** *15:57:47.7±0.1, 37°.24N×28°.24E, h2^{km}, MD2.7, Error ellipse: s-maj=3.5km s-min=2.2km az=30.0*
DDA ***24*** *15:57:47.4, 37°.22N×28°.22E, h7^{km}±1^{km}, Md2.6*
ISC 24 15:57:47.9±0.8**, 37°.24N**±0°.05×**28°.24E**±0°.04**, h10**^{km}±11^{km}**, n20, σ0^s.64**/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.11	160	ePG	Pg	15 57 49.8	-0.7
YER				eSG	Sg	15 57 52.6	+0.2
YER	Yerkesik	0.11	160	ePg	Pg	15 57 49.8	-0.7
YER				eSg	Sg	15 57 52.6	+0.2
MLSB	Milas	0.37	279	ePG	Pg	15 57 54.5	-0.6
MLSB				eSG	Sg	15 58 01.1	+0.9
MLSB	Milas	0.37	279	ePg	Pg	15 57 54.5	-0.7
MLSB				eSg	Sg	15 58 01.1	+0.9
TURN	Turunc	0.47	141	eP	Pg	15 57 56.6	-0.3
TURN				eS	Sg	15 58 03.8	+0.7
TURN	Turunc	0.47	141	eP	Pg	15 57 56.6	-0.3
TURN				eS	Sg	15 58 03.8	+0.7
AYDN	Tasoluk	0.51	326	eP	Pg	15 57 57.7	-0.1
AYDN				eS	Sg	15 58 05.0	+0.4
AYDN	Tasoluk	0.51	326	eP	Pg	15 57 57.7	-0.1
AYDN				eS	Sg	15 58 04.9	+0.3
DALT	Dalyan (Mudla)	0.56	145	ePG	Pg	15 57 57.8	-1.0
DALT	Dalyan (Mudla)	0.56	145	ePg	Pg	15 57 57.8	-1.0
BDRM	Kayabasi	0.66	255	eP	Pg	15 58 00.0	-0.5
BDRM				eS	Sg	15 58 09.1	0.0
BDRM	Kayabasi	0.66	255	eP	Pg	15 58 00.0	-0.5
BDRM				eS	Sg	15 58 09.1	0.0
DAT	Datca	0.73	226	ePG	Pg	15 58 02.2	+0.2
DAT	Datca	0.73	226	ePg	Pg	15 58 02.2	+0.2
BODT	Bodrum	0.76	257	ePG	Pg	15 58 02.4	-0.1
BODT	Bodrum	0.76	257	ePg	Pg	15 58 02.4	-0.1
GOLH	Golhisar	1.06	90	eP	Pg	15 58 07.9	-0.3
GOLH				eS	Sg	15 58 28.3	+6.4
GOLH	Golhisar	1.06	90	eP	Pg	15 58 07.9	-0.3
AKAS	Kas	1.49	132	eP	Pg	15 58 17.6	+1.2
AKAS				eS	Sg	15 58 39.7	+4.1
AKAS	Kas	1.49	132	eP	Pg	15 58 17.6	+1.2
AKAS				eS	Sg	15 58 39.7	+4.1

IDC 24 16:12:50.5±4.4**, 2°.50S**×**99°.65E, h0**^{km}**, mb3.4**/3**, mb1 3.4**/3**, mb1mx3.3**/21**, mbtmp3.4**/3**, Error ellipse: s-maj=187.6km s-min=28.9km az=58.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	39.25	125	P	P	16 20 20.8	-0.3
	0.1nm,0.4s,baz=300,slow=7.8,SNR=7.8						
SONM	Songino Array	50.48	6	P	P	16 21 50.3	+0.2
	0.4nm,0.6s,baz=186,slow=8.1,SNR=5.1						
MKAR	Makanchi Array	51.41	345	P	P	16 21 56.9	-0.4
	0.4nm,0.6s,baz=159,slow=9.1,SNR=7.6						
TXAR	Lajitas Array	145.31	37	PKPbc	PKPbc	16 32 30.8	0.0
	0.7nm,0.9s,baz=354,slow=2.7,SNR=5.0						

CSEM ***24*** *16:26:50.8, 36°.22N×21°.78E, h11^{km}, MD3.7, After ATH*
NEIC ***24*** *16:26:50.8, 36°.22N×21°.78E, h11^{km}, MD3.7(ATH), After ATH.*
ATH ***24*** *16:26:50.8, 36°.22N×21°.78E, h11^{km}±2^{km}, MD3.7/7*
ISC 24 16:26:52.4±1.6**, 36°.26N**±0°.06×**21°.83E**±0°.08**, h4**^{km}±7^{km}**, n28, σ1^s.12**/38**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.64	354	ePG	Pg	16 27 03.7	-1.0
PYL				eSB	Sg	16 27 13.5	+0.6
PYL	PYLOS	0.64	354	ePg	Pg	16 27 03.7	-1.0
PYL				eSb	Sg	16 27 13.5	+0.6
ITM	Ithomi	0.92	5	ePB	Pg	16 27 09.2	-0.9
ITM				eSB	Sg	16 27 22.7	+0.7
ITM	Ithomi	0.92	5	ePb	Pg	16 27 09.2	-0.9
ITM				eSb	Sg	16 27 22.7	+0.7
KYTH	Kithira	0.98	88	ePB	Pg	16 27 10.1	-1.1
KYTH	Kithira	0.98	88	ePb	Pg	16 27 10.1	-1.1
VLI	Veliai	1.01	63	ePB	Pg	16 27 11.0	-0.7
VLI				eSB	Sg	16 27 25.6	+0.8
VLI	Veliai	1.01	63	ePb	Pg	16 27 11.0	-0.7
VLI				eSb	Sg	16 27 25.6	+0.8
VLX	Vlachokerasia	1.19	22	ePN	Pn	16 27 13.6	-2.3
VLX				eSB	Sb	16 27 31.6	+0.2
VLX	Vlachokerasia	1.19	22	ePn	Pn	16 27 13.6	-2.3
VLX				eSb	Sb	16 27 31.6	+0.2
GUR	Goura	1.72	14	ePN	Pn	16 27 23.1	-0.1
GUR	Goura	1.72	14	ePn	Pn	16 27 23.1	-0.1
RLS	Riolos of Patr	1.82	351	ePG	Pn	16 27 25.2	+0.7
RLS	Riolos of Patr	1.82	351	ePg	Pn	16 27 25.2	+0.7
LTK	Loutraki	1.98	27	ePG	Pn	16 27 28.8	+2.0
LTK	Loutraki	1.98	27	ePg	Pn	16 27 28.8	+2.0
VLS	Valsamata	2.15	333	ePN	Pn	16 27 29.3	+0.2
VLS	Valsamata	2.15	333	ePn	Pn	16 27 29.3	+0.2
LKR	Lokris	2.56	21	ePB	Pn	16 27 34.6	-0.2
LKR	Lokris	2.56	21	ePb	Pn	16 27 34.6	-0.2
EVR	Evrytania	2.65	360	ePN	Pn	16 27 38.0	+2.0
EVR	Evrytania	2.65	360	ePn	Pn	16 27 38.0	+2.0
AGG	Agios Georgios	2.79	8	ePB	Pn	16 27 39.4	+1.6
AGG	Agios Georgios	2.79	8	ePb	Pn	16 27 39.4	+1.6
THL	Klokotos Trika	3.30	3	ePN	Pn	16 27 45.1	+0.2
THL	Klokotos Trika	3.30	3	ePn	Pn	16 27 45.1	+0.2
BIA	Bitola	4.77	355	ePn	Pn	16 28 06.2	+1.1
BIA				eSg	Sn	16 28 59.2	-1.6
KRUS	Krusevo	5.12	355	ePn	Pn	16 28 09.2	-0.7
KRUS				eSg	Sn	16 29 08.0	-1.5

ISCJB ***24*** *16:35:56.7±0.3, 42°.48N±0°.02×19°.88E±0°.02, h10^{km}, Error ellipse: s-maj=2.6km s-min=2.3km az=41.1*
CSEM ***24*** *16:35:56.7±0.1, 42°.51N×19°.83E, h2^{km}, ML2.3/9, Error ellipse: s-maj=2.9km s-min=2.7km az=64.0*
PDG ***24*** *16:35:57.0±0.2, 42°.47N×19°.84E, h8^{km}±2^{km}, MD2.5/2, ML2.3/9, Error ellipse: s-maj=0.4km s-min=0.8km az=0.0*
SKO ***24*** *16:35:57.7, 42°.53N×19°.83E, h3^{km}*
BEO ***24*** *16:35:58.1±0.4, 42°.52N×19°.88E, h12^{km}±5^{km}, ML2.1/9*
ISC 24 16:35:57.6±0.3**, 42°.49N**±0°.02×**19°.87E**±0°.02**, h3**^{km}±5^{km}**, n48, σ1^s.17**/81**, 18C-10D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVY	Plav	0.13	36	⇓iPg	Pg	16 36 00.0	-0.1
PVY				eSg	Sg	16 36 02.9	+1.0
PVY	Plav	0.13	36	⇓iPg	Pg	16 36 00.0	-0.1
PVY				eSg	Sg	16 36 02.9	+1.0
BEY	Berane	0.38	3	⇑iPg	Pg	16 36 04.8	-0.2
IVA	Berane	0.38	3	⇑iPg	Pg	16 36 04.8	-0.2
IVA				eSg	Sg	16 36 10.9	+1.0
PDG	Podgorica	0.46	263	⇑iPg	Pg	16 36 04.8	-1.5
PDG				eSg	Sg	16 36 11.8	-0.4
TTG	Podgorica	0.46	263	⇑iPg	Pg	16 36 04.8	-1.5
TTG				eSg	Sg	16 36 11.8	-0.4
ULC	Ulcinj	0.70	222	⇑iPg	Pg	16 36 09.7	-1.3
ULC				eSg	Sg	16 36 20.2	+0.2
ULC	Ulcinj	0.70	222	⇑iPg	Pg	16 36 09.7	-1.3
ULC				eSg	Sg	16 36 20.2	+0.2
NKY	Niksic	0.72	297	⇑iPg	Pg	16 36 09.9	-1.5
NKY				eSg	Sg	16 36 21.5	+0.8
NKY	Niksic	0.72	297	⇑iPg	Pg	16 36 09.9	-1.5
BUM	Brajici-Budva	0.74	256	⇑iPg	Pg	16 36 10.0	-1.8
BUM				eSg	Sg	16 36 22.1	+0.6
BUM	Brajici-Budva	0.74	256	⇑iPg	Pg	16 36 10.0	-1.8
SJES	Sjenica	0.78	6	ePg	Pg	16 36 11.5	-1.0
SJES				i Sg	Sg	16 36 22.9	+0.4
SJES	Sjenica	0.78	6	ePg	Pg	16 36 11.5	-1.0
SJES				i Sg	Sg	16 36 22.9	+0.4
PLE	Pljevlja	0.91	338	⇑iPg	Pg	16 36 13.8	-1.2
PLE				eSg	Sg	16 36 28.4	+1.5
PLE	Pljevlja	0.91	338	⇑iPg	Pg	16 36 13.8	-1.2
UPM	Unac-Piva	1.00	316	⇓iPg	Pg	16 36 15.9	-0.9
UPM				eSg	Sg	16 36 31.5	+1.6
UPM	Unac-Piva	1.00	316	⇓iPg	Pg	16 36 15.9	-0.9
HCY	Herceg Novi	1.02	268	⇓iPg	Pg	16 36 15.8	-1.2
HCY				eSg	Sg	16 36 31.3	+1.1
HCY	Herceg Novi	1.02	268	⇓iPg	Pg	16 36 15.8	-1.2
BRY	Bratogost	1.06	293	⇑iPg	Pg	16 36 16.2	-1.7
BRY				eSg	Sg	16 36 33.0	+1.3
BRY	Bratogost	1.06	293	⇑iPg	Pg	16 36 16.2	-1.7
TIR	Tirane	1.14	180	ePg	Pg	16 36 19.4	0.0
TIR				eSg	Sg	16 36 34.8	+0.6
TIR	Tirane	1.14	180	ePg	Pg	16 36 19.4	0.0
TIR				eSg	Sg	16 36 34.8	+0.6
SKO	Skopje	1.27	113	ePg	Pn	16 36 20.5	-1.7
SKO				eSg	Sg	16 36 39.3	+0.8
SKO	Skopje	1.27	113	ePn	Pg	16 36 23.4	+1.4
SKO				eSg	Sg	16 36 40.7	+2.2
SKO	Skopje	1.27	113	ePg	Pn	16 36 20.5	-1.7
SKO	Skopje	1.27	113	ePn	Pg	16 36 23.3	+1.3
SKO				eSg	Sg	16 36 39.3	+0.8
BBLS	Lazići	1.42	346	⇓iPg	Pn	16 36 23.1	-1.1
BBLS				i Sg	Sg	16 36 42.8	-0.3
BBLS	Lazići	1.42	346	⇓iPg	Pn	16 36 23.1	-1.1
BARS	Barje	1.47	76	⇑iPg	Pg	16 36 24.9	-0.9
BARS				i Sg	Sg	16 36 44.7	-0.1
BARS	Barje	1.47	76	⇑iPg	Pg	16 36 24.9	-0.9
BARS				i Sg	Sg	16 36 44.7	-0.1
KRUS	Krusevo	1.52	137	ePn	Pn	16 36 25.6	0.0
KRUS				eSg	Sg	16 36 47.0	+0.6
KRUS	Krusevo	1.52	137	ePn	Pn	16 36 25.6	0.0
KRUS				eSg	Sg	16 36 47.0	+0.6
GRUS	Gruza	1.53	24	⇓iPg	Pn	16 36 24.5	-1.3
GRUS	Gruza	1.53	24	⇓iPg	Pn	16 36 24.5	-1.3
OHR	Ohrid	1.54	153	ePg	Pg	16 36 26.3	-0.8
OHR				i Sg	Sg	16 36 48.3	+1.2
OHR	Ohrid	1.54	153	ePn	Pg	16 36 27.0	-0.1
OHR				eSg	Sg	16 36 48.1	+1.1
OHR	Ohrid	1.54	153	ePg	Pg	16 36 26.3	-0.8
OHR	Ohrid	1.54	153	ePn	Pg	16 36 26.9	-0.2
OHR				eSg	Sg	16 36 48.1	+1.0
DIVS	Divibare	1.61	3	ePg	Pn	16 36 26.4	-0.5
DIVS				i Sg	Sg	16 36 48.3	-1.0
DIVS	Divibare	1.61	3	ePg	Pn	16 36 26.4	-0.5
DIVS				i Sg	Sg	16 36 48.3	-1.0
STON	Ston	1.65	284	ePn	Pn	16 36 27.1	-0.3
STON				Sn	Sg	16 36 53.1	+2.7
STON	Ston	1.65	284	ePn	Pn	16 36 27.0	-0.4
ZAPS	Zavoj	2.18	68	⇑iPg	Pn	16 36 36.3	+1.6
ZAPS	Zavoj	2.18	68	⇑iPg	Pn	16 36 36.3	+1.6
NVLJ	Novalja	4.18	301	ePn	Pn	16 37 04.6	+2.4
NVLJ				Sn	Sn	16 37 54.4	+2.7
NVLJ	Novalja	4.18	301	ePn	Pn	16 37 04.6	+2.3
NVLJ				Sn	Sn	16 37 54.3	+2.7

CSEM ***24*** *16:41:20.4, 36°.13N×21°.69E, h5^{km}, MD3.5, After ATH*
NEIC ***24*** *16:41:20.4, 36°.13N×21°.69E, h5^{km}, MD3.5(ATH), After ATH.*
ATH ***24*** *16:41:20.4, 36°.13N×21°.69E, h5^{km}±3^{km}, MD3.5/8*
ISC 24 16:41:22.4±2.0**, 36°.19N**±0°.09×**21°.9E**±0°.1**, h0**^{km}±8^{km}**, n18, σ1^s.17**/26**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.72	351	ePB	Pg	16 41 34.9	-1.3
PYL				eSB	Sg	16 41 46.0	+0.4
PYL	PYLOS	0.72	351	ePb	Pg	16 41 34.9	-1.3
PYL				eSb	Sg	16 41 46.0	+0.4
KYTH	Kithira	0.94	84	ePB	Pg	16 41 41.1	+0.6
KYTH	Kithira	0.94	84	ePb	Pg	16 41 41.1	+0.6
ITM	Ithomi	0.99	2	ePB	Pg	16 41 40.5	-1.0
ITM				eSB	Sg	16 41 55.2	+0.8
ITM	Ithomi	0.99	2	ePb	Pg	16 41 40.5	-1.0
ITM				eSb	Sg	16 41 55.2	+0.8
VLI	Veliai	1.00	58	ePB	Pn	16 41 42.7	-1.1
VLI				eSB	Sn	16 41 58.7	+0.1
VLI	Veliai	1.00	58	ePb	Pn	16 41 42.7	-1.1
VLI				eSb	Sn	16 41 58.7	+0.1
VLX	Vlachokerasia	1.25	19	ePN	Pn	16 41 45.1	-2.0
VLX				eSB	Sn	16 42 03.7	-0.9
VLX	Vlachokerasia	1.25	19	ePn	Pn	16 41 45.1	-2.0
VLX				eSb	Sn	16 42 03.7	-0.9
GUR	Goura	1.79	12	ePN	Pn	16 41 55.0	+0.5
GUR	Goura	1.79	12	ePn	Pn	16 41 55.0	+0.5
LTK	Loutraki	2.03	25	ePN	Pn	16 41 59.6	+1.7
LTK	Loutraki	2.03	25	ePn	Pn	16 41 59.6	+1.7
EVR	Evrytania	2.73	359	ePG	Pn	16 42 10.0	+2.6
EVR	Evrytania	2.73	359	ePg	Pn	16 42 10.0	+2.6
AGG	Agios Georgios	2.85	7	ePB	Pn	16 42 09.5	+0.3
AGG	Agios Georgios	2.85	7	ePb	Pn	16 42 09.5	+0.3

ISCJB ***24*** *16:51:11.9±0.6, 33°.33N±0°.03×35°.38E±0°.05, h14^{km}±5^{km}, Error ellipse: s-maj=7.0km s-min=4.3km az=26.1*
GII ***24*** *16:51:11.6±0.7, 33°.32N×35°.41E, h5^{km}±1^{km}, Md2.0/5*
CSEM ***24*** *16:51:12.3, 33°.29N×35°.38E, h13^{km}, ML2.9, After GRAL*
GRAL ***24*** *16:51:12.3±0.3, 33°.29N×35°.38E, h13^{km}±2^{km}, MD2.9*
ISC 24 16:51:12.1±0.7**, 33°.35N**±0°.03×**35°.38E**±0°.05**, h14**^{km}±5^{km}**, n19, σ0^s.60**/30**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.14	345	eP	Pg	16 51 16.5	+0.7
MATL	Matirih	0.14	345	eP	Pg	16 51 16.5	+0.6
KSDI	Kefar Szold	0.29	124	Pg	Pg	16 51 17.3	-0.8
KSDI				Sg	Sg	16 51 21.8	-0.4
HNTI	Hanita	0.32	212	Pg	Pg	16 51 18.7	0.0
HNTI				Sg	Sg	16 51 23.8	+0.7
MMA0	Mount Meron ar	0.34	176	Pg	Pg	16 51 18.4	-0.6
MMA0				Sg	Sg	16 51 24.1	+0.4
MMA4	Mount Meron ar	0.34	177	Pg	Pg	16 51 18.4	-0.6
MMB1	Mount Meron ar	0.34	175	Pg	Pg	16 51 18.3	-0.7
MMB1				Sg	Sg	16 51 24.5	+0.8
RCY	Rachaya	0.39	70	eP	Pg	16 51 20.4	+0.3
RCY				eS	Sg	16 51 26.4	+0.9
RCY	Rachaya	0.39	70	eP	Pg	16 51 20.4	+0.3
RCY				eS	Sg	16 51 26.4	+1.0
KSHT	Keshet	0.52	135	Pg	Pg	16 51 22.3	-0.1
KSHT				Sg	Sg	16 51 29.5	+0.2
BHL	Bhannes	0.60	23	eP	Pg	16 51 24.0	+0.1
BHL	Bhannes	0.60	23	eP	Pg	16 51 24.0	+0.1
OFRI	‘Ofer	0.80	204	Pg	Pg	16 51 26.8	-0.8
MMLI	Mount Malkishu	0.91	178	Pg	Pg	16 51 29.3	-0.5
MMLI				Sg	Sg	16 51 41.6	-0.1
HWQ	Hawqa	1.04	27	eP	Pb	16 51 31.3	-0.6
HWQ	Hawqa	1.04	27	eP	Pb	16 51 31.3	-0.6
HMDT	Nahal Hemdat	1.10	173	Pg	Pg	16 51 32.8	-0.6
HMDT				Sg	Sg	16 51 48.2	+0.4
SLTI	Sal’it	1.14	194	Pg	Pg	16 51 33.5	-0.7
SLTI				Sg	Sg	16 51 49.8	+0.7
DSI	Dead Sea	1.78	180	Pn	Pn	16 51 43.3	+0.9
DSI				Sn	Sn	16 52 05.1	+0.4

NNC 24 17:04:46.5±4.2**, 37°.22N**×**71°.27E, h191**^{km}±56^{km}**, mb2.6, mpv3.7, 3C-1D, Error ellipse: s-maj=58.7km s-min=21.7km az=38.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	5.90	355	⇓P	Pn	17 06 12.2	0.0
	2.9nm,0.3s,baz=174,slow=12,SNR=166						
KK31				S	Sn	17 07 20.5	+0.6
	4.7nm,0.5s,baz=189,slow=26,SNR=17						
THN	Thein Dam	6.02	141	ePKP	Pn	17 06 00.2	-14
THN				eS	Sn	17 07 19.2	-3.6
TKM2	Tokmak 2	6.59	29	⇑P	Pn	17 06 21.4	+0.3
	2.6nm,0.6s						
AB01	Akbulak array	14.56	329	⇑P	Pn	17 08 04.1	+0.6
	0.7nm,0.6s						
AKTO	Aktyubinsk	16.27	328	⇑P	Pn	17 08 23.2	-1.0
	0.8nm,1.2s						

NEIC 24 17:07:34.7±1.2**, 28°.23N**×**83°.68E, h35**^{km}**, mb3.7**/1**, Error ellipse: s-maj=18.0km s-min=13.9km az=50.0, Nepal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DANN	Dangsing	0.14	32	eP	Pn	17 07 42.2	+1.2
	9.2nm,0.3s						
DANN	Dangsing	0.14	32	eP	Pn	17 07 42.2	+1.2
KOLN	Koldanda	0.47	188	eP	Pn	17 07 44.7	-0.1
	3.2nm,0.2s						
KOLN	Koldanda	0.47	188	eP	Pn	17 07 44.7	-0.1
GKN	Gorkha	0.88	105	eP	Pn	17 07 51.7	+1.2
	5.6nm,0.3s						
GKN	Gorkha	0.88	105	eP	Pn	17 07 51.7	+1.2
DMN	Daman	1.41	116	eP	Pn	17 07 59.3	+1.5
	4.7nm,0.3s						
DMN	Daman	1.41	116	eP	Pn	17 07 59.3	+1.5
KKN	Kakani	1.48	107	eP	Pn	17 07 59.5	+0.7
	6.3nm,0.4s						
KKN	Kakani	1.48	107	eP	Pn	17 07 59.5	+0.7
PKIN	Phulchoki	1.66	113	eP	Pn	17 08 02.3	+1.1
	7.2nm,0.4s						
PKI	Pulchoki	1.67	113	eP	Pn	17 08 02.5	+1.1
	3.6nm,0.2s						
PKI	Pulchoki	1.67	113	eP	Pn	17 08 02.5	+1.1
GUN	Gumba	1.97	99	eP	Pn	17 08 04.4	-1.2
	4.1nm,0.3s						
GUN	Gumba	1.97	99	eP	Pn	17 08 04.4	-1.2
JIRN	Jiri	2.29	104	eP	Pn	17 08 08.3	-1.7
	16nm,0.4s						
JIRN	Jiri	2.29	104	eP	Pn	17 08 08.3	-1.7
TAPN	Taplejung	3.68	103	eP	Pn	17 08 23.0	-6.0
	6.1nm,0.3s						
TAPN	Taplejung	3.68	103	eP	Pn	17 08 23.0	-6.0
KURK	Kurchatov	22.78	352	P	P	17 12 33.6	-0.3
	3.8nm,1.4s						

ISCJB ***24*** *17:55:52.9±0.7, 10°.49N±0°.07×145°.9E±0°.1, h31^{km}, mb4.7/40, Error ellipse: s-maj=16.0km s-min=10.2km az=7.4*
MOS ***24*** *17:55:52.9±1.0, 10°.43N×145°.89E, h34^{km}, mb4.9/10, Error ellipse: s-maj=20.8km s-min=9.3km az=112.1*
IDC ***24*** *17:55:54.9±0.7, 10°.40N×145°.90E, h32^{km}±3^{km}, mb4.2/14, mb1 4.3/14, mb1mx4.2/22, mbtmp4.2/14, Error ellipse: s-maj=22.6km s-min=12.9km az=88.0*
NEIC ***24*** *17:55:55.2±0.5, 10°.45N×145°.91E, h35^{km}, mb5.0/19, Error ellipse: s-maj=13.6km s-min=9.5km az=105.0*
BJI ***24*** *17:55:55.7, 10°.90N×145°.60E, h17^{km}, mB5.0/8, mb4.7/13, Ms5.2/1*
ISC 24 17:55:55.0±0.7**, 10°.46N**±0°.08×**146°.0E**±0°.1**, h33**^{km}**, h33**^{km}±1.3^{km}**:pP-P, n63, σ0^s.88**/61**, mb4.7**/40**, 1C-2D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	3.29	341	Pn	Pn	17 56 41.9	-2.3
	54nm,0.3s,baz=162,slow=5.9,SNR=29						
GUMO				Sn	Sn	17 57 18.3	-3.9
	169nm,0.3s,baz=17,slow=22,SNR=10.0						
GUMO	Guam	3.29	341	Pn	Pn	17 56 41.9	-2.3
GUMO				Sn	Sn	17 57 18.3	-3.9
MJAR	Matsushiro Arr	26.90	346	P	P	18 01 31.6	-1.3
	4.0nm,0.5s,mb4.2,baz=162,slow=10,SNR=15						
MAJO	Matsushiro	26.90	346	eP	P	18 01 32.2	-0.8
MAJO				pmax	pmax		
	comp=Z,38nm,1.1s,mb4.8						
MAJO	Matsushiro	26.90	346	eP	P	18 01 32.2	-0.7
	comp=Z,38nm,1.1s,mb4.8						
MAT	Matsushiro	26.90	346	P	P	18 01 31.6	-1.4
KSRS	Korea Array	31.41	332	P	P	18 02 12.8	-0.2
	comp=Z,7.8nm,0.9s,mb4.5,baz=141,slow=9.5,SNR=20						
KSRS				pP	pP	18 02 23.1	+0.5
	comp=Z,2.7nm,0.9s,baz=144,slow=9.7,SNR=3.8						
KS15	Wonju Array Si	31.41	332	eP	P	18 02 13.6	+0.5
WRA	Warramunga Arr	32.30	201	P	P	18 02 19.4	-1.6
	comp=Z,0.9nm,0.5s,mb3.9,baz=30,slow=9.5,SNR=4.2						
WRA				pP	pP	18 02 30.2	-0.5
	comp=Z,0.8nm,0.4s,baz=31,slow=8.9,SNR=3.3						
WRA				PcP	PcP	18 05 07.4	-1.4
	comp=Z,0.3nm,0.3s,baz=169,slow=4.9,SNR=4.8						
ASAR	Alice Springs	35.91	199	P	P	18 02 51.4	-0.8
	comp=Z,1.0nm,0.5s,mb4.0,baz=28,slow=7.7,SNR=31						
ASAR				pP	pP	18 03 01.1	-0.9
	comp=Z,0.8nm,0.5s,baz=31,slow=7.7,SNR=5.9						
ASAR				PcP	PcP	18 05 19.0	0.0
	comp=Z,0.4nm,0.6s,baz=39,slow=1.9,SNR=5.6						
CN2	Changchun	37.68	335	eP	P	18 03 07.3	+0.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
STKA	Stephens Creek	42.30	186	P	P	18 03 40.6	-5.0
	comp=Z,0.8nm,0.5s,mb3.6,baz=0.8,slow=8.4,SNR=3.7						
STKA	Stephens Creek	42.30	186	eP	P	18 03 41.0	-4.6
	comp=Z,0.2nm,0.6s						
PETK	Petropavlovsk-	43.57	10	P	P	18 03 57.7	+2.0
	comp=Z,1.7nm,0.7s,mb3.9,baz=238,slow=8.3,SNR=2.8						
PETK	Petropavlovsk-	43.57	10	P	P	18 03 57.7	+2.0
HIA	Hailar	44.42	336	eP	P	18 04 02.8	+0.3
HIA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HIA	Hailar	44.42	336	eP	P	18 04 02.8	+0.3
	comp=Z,3.8nm,0.6s,mb4.3						
LZH	Lanzhou	45.84	311	eP	P	18 04 15.1	+1.1
LZH				pP	pP	18 04 27.0	+3.1
LZH				pmax	pmax		
	comp=Z,22nm,1.6s,mb4.8						
LZH				pmax	pmax		
	comp=Z,85nm,4.3s						
CMAR	Chiang Mai Arr	46.11	286	P	P	18 04 17.5	+1.1
	comp=Z,3.6nm,0.8s,mb4.4,baz=86,slow=5.9,SNR=30						
CMAR				pP	pP	18 04 26.9	+0.5
	comp=Z,3.7nm,0.9s,baz=88,slow=5.7,SNR=8.9						
ULN	Ulaanbaatar	49.56	326	eP	P	18 04 43.5	+0.9
ULN				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
ULN	Ulaanbaatar	49.56	326	eP	P	18 04 43.5	+0.8
	comp=Z,9.8nm,1.1s,mb4.8						
SONM	Songino Array	49.90	326	P	P	18 04 46.2	+0.9
	comp=Z,3.2nm,0.7s,mb4.4,baz=142,slow=7.0,SNR=13						
SONM				pP	pP	18 04 56.0	+0.7
	comp=Z,0.9nm,0.6s,baz=138,slow=5.5,SNR=2.6						
SONM				PcP	PcP	18 06 05.7	+0.4
	comp=Z,1.5nm,0.6s,baz=149,slow=3.2,SNR=5.3						
GTA	Gaotai	50.06	313	eP	P	18 04 47.4	+0.7
GTA				pP	pP	18 04 51.9	-4.8
GTA				sP	sP	18 04 54.5	-6.2
GTA				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
YAK	Yakutsk	52.83	350	eP	P	18 05 05.3	-1.7
YAK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
YAK	Yakutsk	52.83	350	eP	P	18 05 05.3	-1.6
	comp=Z,5.7nm,0.6s,mb4.7						
ZAK	Zakamensk	53.03	327	⇑iP	P	18 05 09.0	+0.4
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
BOD	Bodaibo	53.21	339	eP	P	18 05 09.2	-0.6
LSA	Lhasa	54.41	299	P	P	18 05 19.3	+0.2
LSA	Lhasa	54.41	299	eP	P	18 05 19.1	0.0
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
LSA	Lhasa	54.41	299	eP	P	18 05 19.1	0.0
	comp=Z,3.1nm,0.6s,mb4.4						
TAPN	Taplejung	57.13	296	eP	P	18 05 39.0	+0.3
	comp=Z,12nm,0.7s,mb5.0						
ODAN	Odare	57.37	295	eP	P	18 05 40.5	+0.1
	comp=Z,14nm,0.8s,mb5.1						
RAMN	Ramite	58.08	295	eP	P	18 05 45.5	+0.1
	comp=Z,21nm,0.9s,mb5.2						
JIRN	Jiri	58.50	296	eP	P	18 05 48.8	+0.5
	comp=Z,20nm,0.7s,mb5.2						
GUN	Gumba	58.80	296	eP	P	18 05 50.5	+0.1
	comp=Z,48nm,0.8s,mb5.6						
BILL	Bilibino	59.06	9	κeP	P	18 05 52.1	+0.6
BILL				e*PP	pP	18 06 01.7	0.0
BILL				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.6						
BILL	Bilibino	59.06	9	eP	P	18 05 50.9	-0.6
	comp=Z,10nm,1.2s,mb4.7						
PKI	Pulchoki	59.18	296	eP	P	18 05 52.9	-0.2
	comp=Z,11nm,0.6s,mb5.0						
PKI	Pulchoki	59.18	296	eP	P	18 05 53.1	0.0

PKI				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
PKI	Pulchoki	59.18	296	eP	P	18 05 53.1	0.0
	comp=Z,12nm,0.9s,mb4.9						
PKIN	Phulchoki	59.20	296	eP	P	18 05 53.1	-0.1
	comp=Z,12nm,0.9s,mb5.0						
KKN	Kakani	59.31	296	eP	P	18 05 53.6	-0.4
	comp=Z,18nm,0.7s,mb5.2						
KKN	Kakani	59.31	296	eP	P	18 05 53.6	-0.4
KKN				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
DMN	Daman	59.45	296	eP	P	18 05 54.7	-0.2
	comp=Z,19nm,0.8s,mb5.2						
GKN	Gorkha	59.90	296	eP	P	18 05 57.7	-0.3
	comp=Z,42nm,1.1s,mb5.4						
DANN	Dangsing	60.69	297	eP	P	18 06 03.7	+0.3
	comp=Z,43nm,0.6s,mb5.7						
KOLN	Koldanda	60.80	296	eP	P	18 06 04.0	-0.1
	comp=Z,20nm,0.8s,mb5.3						
TNA	Tin City	63.41	20	P	P	18 06 20.7	-0.2
	comp=Z,1.6nm,1.1s,mb4.1						
MKAR	Makanchi Array	64.48	317	P	P	18 06 28.9	+0.6
	comp=Z,2.6nm,0.7s,mb4.4,baz=90,slow=8.4,SNR=27						
MKAR				pP	pP	18 06 38.0	-0.6
	comp=Z,0.4nm,0.5s,baz=92,slow=7.3,SNR=3.7						
ZALV	Zalesovo Beam	64.78	325	P	P	18 06 29.9	-0.3
	comp=Z,2.5nm,0.6s,mb4.5,baz=103,slow=6.6,SNR=14						
KURK	Kurchatov	67.66	321	P	P	18 06 49.0	+0.3
	comp=Z,4.7nm,0.5s,mb4.8,baz=107,slow=6.0,SNR=31						
KURK				pP	pP	18 06 58.0	-1.0
	comp=Z,3.0nm,0.6s,baz=106,slow=6.0,SNR=9.1						
KSH	Kashi	68.00	308	eP	P	18 06 54.3	+3.2
KSH				epP	pP	18 07 03.6	+2.2
KSH				esP	sP	18 07 08.8	+3.5
KSH				eScS	ScS	18 16 44.1	-3.7
KSH				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
KSH				pmax	pmax		
	comp=Z,59nm,5.0s						
KSH				LR	LR		
	comp=N,170nm,5.2s						
KSH				LR	LR		
	comp=E,170nm,4.4s						
KSH				LR	LR		
	comp=Z,140nm,3.0s						
BVAR	Borovoye Array	73.04	322	P	P	18 07 21.9	+0.4
	comp=Z,6.5nm,0.7s,mb4.7,baz=106,slow=7.7,SNR=38						
BVAR				pP	pP	18 07 31.2	-0.8
	comp=Z,4.5nm,0.9s,baz=112,slow=7.4,SNR=7.1						
BRVK	Borovoye	73.11	322	eP	P	18 07 22.0	+0.1
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
BRVK	Borovoye	73.11	322	eP	P	18 07 22.0	+0.1
	comp=Z,6.6nm,0.8s,mb4.6						
AKTK	Aktyubinsk	80.72	320	P	P	18 08 03.9	-1.0
AKTO	Aktyubinsk	80.72	320	P	P	18 08 03.9	-1.0
	comp=Z,2.0nm,0.7s,mb4.2,baz=91,slow=6.9,SNR=12						
YKA	Yellowknife Ar	85.13	27	P	P	18 08 27.8	+0.3
	comp=Z,1.7nm,0.8s,mb4.2,baz=286,slow=5.3,SNR=24						
NVAR	Mina Array Bea	88.03	51	P	P	18 08 44.0	+1.8
	comp=Z,2.1nm,0.7s,mb4.5,baz=267,slow=4.8,SNR=11						
NVAR				pP	pP	18 08 53.5	+0.7
	comp=Z,1.0nm,0.6s,baz=257,slow=5.5,SNR=4.6						
DBIC	Dimbokro	146.33	299	PKPbc	PKPbc	18 15 33.4	0.0
	comp=Z,3.9nm,0.6s,baz=18,slow=2.6,SNR=12						
KIC	Kosan Boka	146.38	299	ePKP1	PKPbc	18 15 33.6	0.0
	comp=Z,15nm,0.7s						
TIC	Toumodi	146.48	299	ePKP1	PKPbc	18 15 33.6	-0.2
	comp=Z,5.4nm,0.2s						
LIC	Lamto	146.70	299	ePKP1	PKPbc	18 15 34.4	-0.1
	comp=Z,26nm,0.7s						

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*NEIC **24** 18:09:11.9, 30.°40S×71.°08W, h53^{km}, mb4.4/1, After GUC.*

GUC 24 18:09:11.9±0.4**, 30.°40S×71.°08W, h53^{km}**±3^{km}**, ML4.2, 2C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.23	206	⇑iP	Pn	18 09 20.9	+0.1
OVCH				i S	Sn	18 09 27.7	+0.6
OVCH	Ovalle	0.23	206	⇑iP	Pn	18 09 20.9	+0.1
OVCH				i S	Sn	18 09 27.7	+0.6
OVCH				AML	AML	18 09 27.9	
	comp=N,21µm,0.2s						
CMCH	Combarbala	0.77	175	⇓iP	Pn	18 09 27.1	+0.4
CMCH				i S	Sn	18 09 38.7	+1.2
CMCH	Combarbala	0.77	175	⇓iP	Pn	18 09 27.1	+0.4
CMCH				i S	Sn	18 09 38.7	+1.2
CMCH				AML	AML	18 09 41.7	
	comp=E,13µm,0.7s						
LCO	Las Campanas	1.43	14	ePn	Pn	18 09 36.4	+1.0
LCO				eSn	Sn	18 09 54.4	+1.3
CHNG	Los Chungos	1.52	194	eP	Pn	18 09 37.2	+0.5
CHNG				i S	Sn	18 09 56.2	+0.9
JACH	Jahuel	2.31	170	i P	Pn	18 09 50.2	+2.7
JACH				i S	Sn	18 10 18.0	+3.3
JACH	Jahuel	2.31	170	i P	Pn	18 09 50.2	+2.7
JACH				i S	Sn	18 10 18.0	+3.3
PEL	Peldehue	2.75	173	eP	Pn	18 09 54.5	+0.9
PEL				i S	Sn	18 10 26.5	+0.9
PEL				AML	AML	18 10 39.1	
	comp=E,860nm,0.2s						
CPCH	Copiapo	3.10	12	AML	AML	18 10 45.1	
	comp=N,2µm,0.1s						
YECH	El Yeso	3.36	166	AML	AML	18 10 59.5	
	comp=N,336nm,0.3s						
LVC	Limon Verde	8.00	15	ePn	Pn	18 11 12.9	+7.4
	comp=N,10nm,0.4s						
LVC				eSn	Sn	18 12 46.6	+12
MIAR	Mount Ida	67.99	340	eP	P	18 20 05.8	+0.4
	comp=N,1.7nm,0.4s						

IDC 24 18:40:44.8±2.6**, 11.°85S×166.°57E, h0^{km}, mb3.7**/3**, mb1 3.8**/4**, mb1mx3.6**/18**, mbtmp3.9**/4**, ML4.7**/1**, Error ellipse: s-maj=62.8km s-min=57.9km az=129.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.94	290	Pn	Pn	18 42 28.6	+0.8
	13nm,0.3s,baz=142,slow=7.9,SNR=6.8						
ASAR	Alice Springs	33.17	245	P	P	18 47 22.8	-0.6
	0.3nm,0.8s,baz=64,slow=9.8,SNR=5.4						
ASAR				PcP	PcP	18 50 06.8	+0.3
	0.2nm,0.9s,baz=72,slow=3.0,SNR=4.1						
CMAR	Chiang Mai Arr	73.17	294	P	P	18 52 18.6	+0.6
	0.5nm,0.6s,baz=128,slow=5.0,SNR=5.8						
MKAR	Makanchi Array	94.65	317	P	P	18 54 07.1	-0.7
	0.8nm,0.7s,baz=83,slow=6.2,SNR=10						

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*ISCJB **24** 19:04:21.6±0.4, 42.°95N±0.°04×143.°83E±0.°04, h95^{km}±3^{km}, mb3.3/7, Error ellipse: s-maj=6.3km s-min=4.2km az=149.2*

*MOS **24** 19:04:21.9±1.1, 42.°99N×143.°78E, h102^{km}, mb3.7/1, Error ellipse: s-maj=20.7km s-min=13.1km az=64.3*

*NEIC **24** 19:04:22.3, 42.°98N×143.°00E, h88^{km}, MG3.4(JMA), After JMA.*

*JMA **24** 19:04:22.7±0.1, 42.°98N×143.°79E, h88^{km}±1^{km}, M3.4 Broadband fault plane solution: P waves. NP1: ϕ_s21.00000°, δ15.00000°, λ-158.00000°. NP2: ϕ_s270.00000°, δ84.00000°, λ-76.00000°. Principal axes: T Plg38.0000°, Azm347.0000°; N Plg14.0000°, Azm88.0000°; P Plg49.0000°, Azm195.0000°;*

JMA Felt I J1.

*IDC **24** 19:04:22.5±1.6, 42.°97N×143.°89E, h89^{km}±13^{km}, mb3.1/7, mb1 3.4/10, mb1mx3.2/24, mbtmp3.2/10, MS3.3/1, Ms1 3.3/1, ms1mx2.9/14 Error ellipse: s-maj=19.0km s-min=14.8km az=100.0*

ISC 24 19:04:22.6±0.4**, 42.°95N**±0.°03×**143.°83E**±0.°04**, h89^{km}**±3^{km}**, n32, σ0.^{s}69**/48**, mb3.3**/7**, 3C-8D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOB	Onbets	0.05	176	⇓P	Pn	19 04 35.5	+0.4
JOB				eS	Sn	19 04 44.5	+0.2
JAR	Ashorobuto	0.35	353	⇓P	Pn	19 04 36.1	0.0
JAR				eS	Sn	19 04 45.9	-0.3
JCH	Churui	0.48	226	⇑P	Pn	19 04 37.1	0.0
JCH				eS	Sn	19 04 47.4	-0.4
JAK	Akkeshi	0.64	86	⇓P	Pn	19 04 38.4	0.0
JAK				eS	Sn	19 04 49.4	-0.7
JNK	Nakash	0.91	45	⇓P	Pn	19 04 41.0	-0.1
JNK				eS	Sn	19 04 55.0	0.0
JFR	Furan	0.93	284	P	Pn	19 04 41.1	-0.3
JFR				eS	Sn	19 04 55.1	-0.4
JTKR	Abashiri--Toko	1.02	3	⇓P	Pn	19 04 42.4	0.0
JTKR				eS	Sn	19 04 56.9	-0.4
JNBK	Urakawa-nobuka	1.04	230	⇑P	Pn	19 04 42.5	-0.2
JNBK				eS	Sn	19 04 57.2	-0.5
JEM	Erimo	1.06	208	P	Pn	19 04 43.0	+0.1
ERM	Erimo	1.06	208	ePN	Pn	19 04 44.4	+1.5
JBT2	Biratori 2	1.09	261	⇑P	Pn	19 04 43.2	0.0
JBT2				eS	Sn	19 04 58.5	-0.3
JMP	Maruseppu	1.11	342	⇓P	Pn	19 04 43.2	-0.3
JMP				eS	Sn	19 04 58.4	-0.7
JKK2	Kamakawa 2	1.21	320	⇓P	Pn	19 04 44.7	0.0
JKK2				eS	Sn	19 05 00.9	-0.4
JRA	Rausu	1.36	43	⇓P	Pn	19 04 47.1	+0.6
JRA				eS	Sn	19 05 05.8	+1.2
NEM2	Nemuro 2	1.46	73	P	Pn	19 04 47.4	-0.3
NEM2				eS	Sn	19 05 05.9	-0.9
ASAJ	Asahikawa	1.47	323	PN	Pn	19 04 48.3	+0.4
ASAJ				S	Sn	19 05 07.2	+0.2
ASAJ				pmax	pmax		
	comp=Z,17nm,0.3s						
ASAJ				smax			
	comp=N,21nm,0.3s						
ASAJ	Asahikawa	1.47	323	P	Pn	19 04 48.3	+0.4
	comp=N,17nm,0.3s,baz=187,slow=12,SNR=103						
ASAJ				S	Sn	19 05 07.2	+0.2
	comp=N,20nm,0.3s,baz=275,slow=18,SNR=16						
JHR	Hokuryu	1.73	298	P	Pn	19 04 52.2	+1.0
JEW	Eniwo	1.75	267	P	Pn	19 04 52.2	+0.7
JEW				eS	Sn	19 05 14.5	+1.0
YUK	Yuzh-Kuril'sk	1.83	53	PN	Pn	19 04 53.6	+1.1
YUK				i S	Sn	19 05 16.5	+1.2
YUK				smax			
	comp=E,1µm,0.4s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=N,5µm,1.0s						
YUK				smax			
	comp=E,5µm,2.0s						
MJAR	Matsushiro Arr	7.73	216	P	Pn	19 06 12.3	0.0
	comp=E,0.4nm,0.3s,baz=25,slow=13,SNR=5.4						
JHJ	Hachijo jima 2	10.32	199	P	Pn	19 06 46.6	-1.0
	comp=E,32nm,0.3s,baz=86,slow=19,SNR=2.7						
KSRS	Korea Array	13.34	251	P	Pn	19 07 27.2	-0.9
	comp=E,0.1nm,0.3s,baz=85,slow=27,SNR=2.7						
PETK	Petropavlovsk-	13.73	37	P	Pn	19 07 31.4	-1.9
	comp=E,0.2nm,0.3s,baz=210,slow=11,SNR=9.7						
JOW	Kunigami	20.47	223	LR	LR	19 17 14.2	
	comp=E,86nm,20.1s,baz=109,slow=38						
SONM	Songino Array	26.56	294	P	P	19 09 52.2	+0.2
	comp=E,0.2nm,0.5s,mb2.9,baz=91,slow=8.6,SNR=2.2						
ZALV	Zalesovo Beam	39.55	307	P	P	19 11 44.1	-0.4
	comp=E,0.4nm,0.4s,mb3.6,baz=79,slow=9.0,SNR=2.3						
MKAR	Makanchi Array	42.80	297	P	P	19 12 10.4	-0.9
	comp=E,0.4nm,0.4s,mb3.5,baz=80,slow=10,SNR=8.8						
CMAR	Chiang Mai Arr	44.98	251	P	P	19 12 30.0	+1.0
	comp=E,0.5nm,0.7s,mb3.3,baz=34,slow=6.9,SNR=3.8						
YKA	Yellowknife Ar	57.79	33	P	P	19 14 04.8	+0.7
	comp=E,0.3nm,0.7s,mb3.5,baz=305,slow=6.9,SNR=6.0						
ASAR	Alice Springs	66.91	190	P	P	19 15 06.0	+0.7
	comp=E,0.1nm,0.6s,mb2.9,baz=14,slow=7.8,SNR=4.0						
NVAR	Mina Array Bea	70.04	56	P	P	19 15 23.8	-1.1
	comp=E,0.6nm,0.3s,mb3.8,baz=311,slow=5.4,SNR=10.0						

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*ISCJB **24** 19:07:21.7±1.2, 31.°34N±0.°04×73.°78E±0.°09, h10^{km}, Error ellipse: s-maj=11.7km s-min=6.3km az=5.9*

*NDI **24** 19:07:23.9±2.5, 31.°36N×73.°77E, h10^{km}, ML3.3*

ISC 24 19:07:22.6±1.0**, 31.°34N**±0.°04×**73.°73E**±0.°09**, h10^{km}, n13, σ1.^{s}56**/20**, 2C, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMU	Jammu	1.69	36	ePKP	Pn	19 07 52.0	-0.2
JMU				ex	x	19 08 07.0	
THN	Thein Dam	2.01	57	ePKP	Pn	19 07 54.6	-2.0
THN				eS	Sn	19 08 18.7	-3.1
BHK	Bhakra	2.30	87	ePKP	Pn	19 08 02.4	+1.9
BHK				ex	x	19 08 25.4	
KHET	Khetri	3.72	150	ePKP	Pn	19 08 22.0	+1.9
KHET				eS	Sn	19 09 02.9	-1.2
KHET				AML	AML	19 09 25.4	
	comp=N,97nm,0.4s						
KHET				AML	AML	19 09 26.0	
	comp=E,93nm,0.1s						
KLP	Kalpa	3.87	86	ePKP	Pn	19 08 23.5	+1.4
KLP				eS	Sn	19 09 07.8	+0.2
KLP				AML	AML	19 09 24.4	
	comp=E,447nm,0.6s						
KLP				AML	AML	19 09 26.1	
	comp=N,342nm,0.0s						
KUDL	Kundal	3.99	142	ePKP	Pn	19 08 25.0	+1.2
KUDL				eS	Sn	19 09 08.9	-1.7
KUDL				AML	AML	19 09 11.6	
	comp=N,12nm,0.0s						
KUDL				AML	AML	19 09 21.5	
	comp=E,23nm,0.3s						
NDI	New Delhi	4.02	130	ex	x	19 08 08.0	
NDI				ex	x	19 09 24.0	
AYAN	Aya Nagar	4.10	133	ePKP	Pb	19 08 34.9	0.0
AYAN				eS	Sn	19 09 19.5	+6.2
SONA	Sohna	4.24	136	ePKP	Pn	19 08 29.0	+1.8
SONA				eS	Sn	19 09 15.1	-1.7
SONA				AML	AML	19 09 46.5	
	comp=N,78nm,0.6s						
SONA				AML	AML	19 09 46.5	
	comp=E,112nm,0.2s						
AJM	Ajmer	4.91	170	ePKP	Pn	19 08 38.0	+1.5
AJM				eS	Sn	19 09 31.2	-2.1
AJM				AML	AML	19 09 33.8	
	comp=N,44nm,0.1s						
AJM				AML	AML	19 09 34.1	
	comp=E,37nm,0.2s						
LGTI	Lohaghat	5.94	107	ex	Pb	19 09 07.9	+1.7
BHPL	Bhopal	8.71	157	eS	Sn	19 11 01.6	-5.3
BHPL				AML	AML	19 12 14.6	
	comp=N,9.5nm,0.3s						
BHPL				AML	AML	19 12 15.4	
	comp=E,22nm,0.6s						
KK31	Karatay Array	12.02	349	⇑P	Pn	19 10 12.2	-1.6
	comp=E,0.3nm,0.3s,baz=162,slow=12,SNR=16						
KK31				⇑S	Sn	19 12 18.3	-10
	comp=E,0.9nm,0.5s,baz=169,slow=24,SNR=5.0						

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*NEIC **24** 19:15:30.4, 15.°62N×99.°33W, h14^{km}, MD4.1(MEX), After MEX.*

MEX 24 19:15:30.4±1.2**, 15.°62N×99.°33W, h14^{km}**±27^{km}**, MD4.1, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	1.37	336	i P	Pn	19 15 50.7	-4.3
ACX				i S	Sn	19 16 07.0	-5.9
PNIG	Pinotepa	1.39	56	i P	Pn	19 15 51.8	-3.5
PNIG				i S	Sn	19 16 08.7	-4.8
CAIG	El Cayaco	1.69	328	eP	Pn	19 15 56.9	-2.5
CAIG				i S	Sn	19 16 17.4	-3.4
UTMO	Huajuapan	2.64	33	eP	Pn	19 16 08.5	-4.0
UTMO				i S	Sn	19 16 41.3	-3.1
PLIG	Platanillo	2.77	357	i P	Pn	19 16 12.3	-1.9
PLIG				i S	Sn	19 16 44.1	-3.4
ZIIG	Zihuatanejo	2.85	314	i P	Pn	19 16 12.6	-2.8
ZIIG				i S	Sn	19 16 46.1	-3.4
VHO	Vista Hermosa	2.88	59	i P	Pn	19 16 14.2	-1.7
VHO				i S	Sn	19 16 47.2	-3.2
HUIG	Huatulco	3.11	87	i P	Pn	19 16 17.3	-1.7
HUIG				i S	Sn	19 16 50.9	-4.9

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*MOS **24** 19:23:25.0±0.9, 3.°47S×153.°48E, h302^{km}, mb4.4/28, Error ellipse: s-maj=13.4km s-min=8.5km az=109.0*

*BJI **24** 19:23:27.8, 3.°19S×153.°99E, h335^{km}, mB4.8/11, mb4.4/24*

*ISCJB **24** 19:23:28.6±1.3, 3.°66S±0.°05×153.°62E±0.°08, h347^{km}±15^{km}, mb4.4/59, Error ellipse: s-maj=12.5km s-min=7.6km az=9.5*

*DJA **24** 19:23:29, 3.°55S×153.°58E, h324^{km}, mb4.7/9*

*NEIC **24** 19:23:30.6±1.1, 3.°65S×153.°68E, h358^{km}±12^{km}, mb4.8/29, Error ellipse: s-maj=8.7km s-min=7.0km az=99.0*

*IDC **24** 19:23:30.4±1.4, 3.°67S×153.°55E, h351^{km}±14^{km}, mb3.8/18, mb1 4.0/20, mb1mx4.0/24, mbtmp3.9/20, Error ellipse: s-maj=14.3km s-min=7.9km az=98.0*

ISC 24 19:23:30.2±1.2**, 3.°67S**±0.°05×**153.°63E**±0.°08**, h350^{km}**±14^{km}**, n130, σ0.^{s}77**/125**, mb4.4**/59**, 3C-7D, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	8.49	133	P	Pn	19 25 30.2	0.0
HNR				pmax	pmax		
	comp=Z,21nm,0.3s						
HNR	Honiara	8.49	133	P	Pn	19 25 30.2	0.0
	comp=Z,21nm,0.3s,baz=197,slow=3.3,SNR=8.8						
HNR	Honiara	8.49	133	ePn	Pn	19 25 29.8	-0.5
	comp=Z,202nm,1.1s						
COEN	Coen	14.53	225	ePn	Pn	19 26 42.1	+0.4
	comp=Z,57nm,0.7s						
CTA	Charters Tower	17.84	203	P	P	19 27 17.2	+1.7
CTA				pmax	pmax		
	comp=Z,12nm,0.3s						
CTA	Charters Tower	17.84	203	⇓iP	P	19 27 17.1	+1.6
	comp=Z,81nm,0.7s						
CTA	Charters Tower	17.84	203	P	P	19 27 17.2	+1.7
	comp=Z,12nm,0.3s,baz=27,slow=11,SNR=171						
CTAO	Charters Tower	17.84	203	⇓iP	P	19 27 17.0	+1.5
CTAO				pmax	pmax		
	comp=Z,84nm,0.6s						
CTAO	Charters Tower	17.84	203	⇓iP	P	19 27 17.0	+1.4
	comp=Z,84nm,0.6s						
EIDS	Eidsvold	21.72	186	eP	P	19 27 53.3	-0.6
	comp=Z,26nm,0.7s,mb4.6						
KAKA	Kakadu	22.80	246	eP	P	19 28 03.3	-0.6
	comp=Z,6.2nm,0.3s,mb4.3						
WRAB	Tennant Creek	24.80	228	eP	P	19 28 20.4	-1.5
WRAB				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb3.9						
WRAB	Tennant Creek	24.80	228	eP	P	19 28 20.4	-1.5
	comp=Z,6.3nm,0.8s,mb3.9						
WB2	Warramunga Arr	24.80	228	eP	P	19 28 21.1	-0.9
WRA	Warramunga Arr	24.81	228	P	P	19 28 21.4	-0.6
WRA				S	S	19 32 17.3	-1.2
WRA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
WRA				smax			
	comp=N,3.0nm,0.8s						
WRA				pmax	pmax		
	comp=N,4.0nm,0.8s						
WRA	Warramunga Arr	24.81	228	P	P	19 28 21.4	-0.6
	comp=N,2.0nm,0.4s,mb3.7,baz=52,slow=9.7,SNR=11						
WRA				S	S	19 32 17.3	-1.2
	comp=N,3.4nm,0.8s,baz=47,slow=14,SNR=10						
WRA				ScP	ScP	19 34 54.1	+0.9
	comp=N,3.9nm,0.8s,baz=52,slow=3.3,SNR=12						
ARMA	Armidale	26.68	184	eP	P	19 28 39.0	+0.6
ASAR	Alice Springs	27.54	222	P	P	19 28 46.0	-0.2
ASAR				S	S	19 32 59.8	-1.5
ASAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ASAR				smax			
	comp=N,3.0nm,1.0s						
ASAR				pmax	pmax		
	comp=N,1.0nm,0.6s						
ASAR	Alice Springs	27.54	222	P	P	19 28 46.0	-0.3
	comp=N,7.9nm,0.8s,mb4.0,baz=56,slow=8.9,SNR=113						
ASAR				S	S	19 32 59.8	-1.5
	comp=N,3.0nm,1.0s,baz=45,slow=15,SNR=11						
ASAR				ScP	ScP	19 35 02.8	+1.7
	comp=N,1.0nm,0.6s,baz=53,slow=2.5,SNR=5.4						
STKA	Stephens Creek	30.26	201	⇓iP	P	19 29 09.6	-0.4
	comp=N,3.9nm,0.9s,mb3.6						
STKA	Stephens Creek	30.26	201	P	P	19 29 09.7	-0.3
	comp=N,2.6nm,0.4s,mb3.8,baz=18,slow=8.5,SNR=29						
STKA	Stephens Creek	30.26	201	eP	P	19 29 09.2	-0.8
	comp=N,0.8nm,0.7s						
FITZ	Fitzroy Crossi	30.93	240	eP	P	19 29 15.3	-0.8
	comp=N,11nm,1.5s,mb3.9						
FITZ	Fitzroy Crossi	30.93	240	P	P	19 29 15.4	-0.7
	comp=N,2.1nm,0.7s,mb3.5,baz=29,slow=4.7,SNR=11						
CNB	Canberra Magne	31.74	187	eP	P	19 29 23.8	+1.0
TOO	Toolangi	34.56	191	eP	P	19 29 47.3	+0.3
FORT	Forrest	36.19	219	eP	P	19 30 00.6	-0.3
	comp=N,36nm,0.6s,mb4.8						
FORT	Forrest	36.19	219	eP	P	19 30 00.3	-0.6
	comp=N,42nm,0.6s,mb4.8						
KKM	Kota Kinabalu	38.59	284	eP	P	19 30 20.8	-0.3
	comp=N,21nm,0.9s,mb4.4						
URZ	Urewera	40.55	151	P	P	19 30 36.7	-0.1
	comp=N,5.3nm,0.3s,mb4.2,baz=235,slow=2.5,SNR=10						
NACB	Ninganchiao	41.69	313	eP	P	19 30 45.7	-0.4
MJAR	Matsushiro Arr	42.52	342	P	P	19 30 50.8	-1.7
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MJAR	Matsushiro Arr	42.52	342	P	P	19 30 50.8	-1.7
	comp=Z,1.2nm,0.4s,mb3.4,baz=172,slow=7.6,SNR=6.3						
RPZ	Rata Peaks	42.76	161	P	P	19 30 54.6	+0.3
	comp=Z,22nm,0.9s,mb4.3,baz=354,slow=17,SNR=4.9						
KSM	Kuching	43.60	276	eP	P	19 31 01.7	+0.1
	comp=Z,32nm,0.9s,mb4.4						
KSRS	Korea Array	47.38	332	P	P	19 31 30.2	-0.3
KSRS				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.1						
KSRS	Korea Array	47.38	332	P	P	19 31 30.1	-0.3
	comp=Z,7.5nm,0.7s,mb4.0,baz=148,slow=8.2,SNR=33						
INCN	Inchon	48.02	331	eP	P	19 31 34.8	-0.6
	comp=Z,46nm,0.8s,mb4.8						
WHN	Wuhan	50.63	315	P	P	19 31 55.8	+0.8
YSS	Yuzh-Sakhalins	51.31	350	eP	P	19 31 55.5	-4.2
YSS				pmax	pmax		
	comp=Z,23nm,2.5s,mb4.0						
CN2	Changchun	53.62	335	eP	P	19 32 15.8	-0.8
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.1						
KULM	Kulim	53.67	279	eP	P	19 32 16.9	-0.6
	comp=Z,7.9nm,0.6s,mb4.2						
HABR	Khabarovsk	54.40	345	eP	P	19 32 21.5	-0.6
HABR				e		19 33 20.9	
HABR				eS	S	19 39 51.0	+18
HABR				pmax	pmax		
	comp=N,10.0nm,1.0s						
HABR				pmax	pmax		
	comp=Z,31nm,1.2s,mb4.5						
HABR				pmax	pmax		
	comp=E,12nm,1.1s						
HABR				MLR	MLR		
	comp=Z,43nm,14.0s						
KLR	Kul'dur	56.01	343	eP	P	19 32 28.9	-4.5
KLR				pmax	pmax		
	comp=Z,36nm,1.4s,mb4.5						
XAN	Xi'an	56.39	315	P	P	19 32 35.9	-0.5
XAN				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.5						
XAN				pmax	pmax		
	comp=Z,63nm,4.0s						
PETK	Petropavlovsk-	56.67	3	P	P	19 32 37.9	-0.1
PETK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.0						
PETK	Petropavlovsk-	56.67	3	P	P	19 32 37.9	-0.1
	comp=Z,3.8nm,0.5s,mb4.0,baz=154,slow=6.6,SNR=24						
CMAR	Chiang Mai Arr	58.16	294	P	P	19 32 50.1	+1.1
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CMAR	Chiang Mai Arr	58.16	294	P	P	19 32 50.0	+1.1
	comp=Z,5.4nm,0.7s,mb4.0,baz=115,slow=5.2,SNR=53						
LZH	Lanzhou	61.01	315	⇑P	P	19 33 09.5	+1.6
LZH				pmax	pmax		
	comp=Z,23nm,1.3s,mb4.5						
LZH				pmax	pmax		
	comp=Z,110nm,5.0s						
GTA	Gaotai	65.40	317	eP	P	19 33 37.3	+0.9
GTA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.4						
ULN	Ulaanbaatar	65.49	327	eP	P	19 33 37.3	+0.5
ULN				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.5						
ULN	Ulaanbaatar	65.49	327	eP	P	19 33 37.3	+0.5
	comp=Z,12nm,0.9s,mb4.5						
SONM	Songino Array	65.82	327	P	P	19 33 39.3	+0.4
SONM						19 34 06.7	
SONM				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	65.82	327	P	P	19 33 39.3	+0.4
	comp=Z,3.0nm,0.4s,mb4.3,baz=138,slow=5.3,SNR=17						

SONM				PcP	PcP	19 34 06.7	-0.2
	comp=Z,1.2nm,0.5s,baz=152,slow=3.9,SNR=2.8						
SEY	Seymchan	66.42	359	⇑eP	P	19 33 42.1	-0.3
YAK	Yakutsk	68.04	348	eP	P	19 33 51.5	-1.0
YAK				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.8						
YAK				pmax	pmax		
	comp=N,7.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.4s						
YAK	Yakutsk	68.04	348	eP	P	19 33 51.9	-0.5
	comp=E,19nm,0.8s,mb4.9						
LSA	Lhasa	68.29	304	P	P	19 33 55.5	+0.8
LSA	Lhasa	68.29	304	eP	P	19 33 55.1	+0.4
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
LSA	Lhasa	68.29	304	eP	P	19 33 55.1	+0.4
	comp=Z,3.5nm,0.6s,mb4.3						
ZAK	Zakamensk	68.97	328	⇑iP	P	19 33 58.5	+0.1
ZAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
BOD	Bodaibo	69.04	339	eP	P	19 33 58.1	-0.6
BOD				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
TLY	Talaya	69.53	329	eP	P	19 34 01.7	-0.1
TLY				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
TLY	Talaya	69.53	329	eP	P	19 34 01.4	-0.4
	comp=Z,4.7nm,0.9s,mb4.2						
IRK	Irkutsk	69.54	330	eP	P	19 34 01.5	-0.3
IRK				pmax	pmax		
	comp=Z,24nm,2.9s,mb4.4						
TAPN	Taplejung	70.54	301	eP	P	19 34 09.1	+0.7
	comp=Z,20nm,0.8s,mb4.9						
ODAN	Odare	70.69	300	eP	P	19 34 10.2	+0.8
	comp=Z,43nm,0.7s,mb5.3						
MOY	Mondy	70.89	328	eP	P	19 34 10.5	+0.6
RAMN	Ramite	71.40	300	eP	P	19 34 14.2	+0.6
	comp=Z,8.9nm,0.4s,mb4.9						
JIRN	Jiri	71.93	300	eP	P	19 34 17.2	+0.5
	comp=Z,11nm,0.5s,mb4.9						
BILL	Bilibino	72.10	5	κeP	P	19 34 17.1	+0.3
BILL				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
GUN	Gumba	72.25	301	eP	P	19 34 19.3	+0.7
	comp=Z,28nm,0.7s,mb5.1						
PKI	Pulchoki	72.58	300	eP	P	19 34 20.9	+0.4
	comp=Z,10nm,0.6s,mb4.7						
PKI	Pulchoki	72.58	300	eP	P	19 34 20.9	+0.4
PKI				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
PKIN	Phulchoki	72.59	300	eP	P	19 34 20.7	+0.1
	comp=Z,7.8nm,0.5s,mb4.7						
KKN	Kakani	72.74	300	eP	P	19 34 21.9	+0.5
	comp=Z,20nm,0.7s,mb5.0						
KKN	Kakani	72.74	300	eP	P	19 34 21.9	+0.5
KKN				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
DMN	Daman	72.85	300	eP	P	19 34 22.6	+0.5
	comp=Z,25nm,0.7s,mb5.1						
GKN	Gorkha	73.34	300	eP	P	19 34 25.0	+0.1
	comp=Z,12nm,0.4s,mb5.0						
PALK	Pallekele	73.58	279	eP	P	19 34 26.5	-0.1
PALK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
PALK	Pallekele	73.58	279	eP	P	19 34 26.5	-0.1
	comp=Z,2.6nm,0.5s,mb4.2						
VNDA	Vanda	73.93	178	P	P	19 34 28.2	+0.9
VNDA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
VNDA	Vanda	73.93	178	P	P	19 34 28.2	+0.9
	comp=Z,5.9nm,0.9s,mb4.3,baz=320,slow=8.2,SNR=9.7						
DANN	Dangsing	74.18	301	eP	P	19 34 29.9	+0.2
	comp=Z,22nm,0.6s,mb5.1						
KOLN	Koldanda	74.19	300	eP	P	19 34 29.7	-0.1
	comp=Z,29nm,0.8s,mb5.0						
TIXI	Tiksi	76.89	352	⇓iP	P	19 34 43.3	-0.8
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.1						
MCK	McKinley	79.50	22	eP	P	19 34 57.0	-1.4
MCK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
MCK	McKinley	79.50	22	eP	P	19 34 57.0	-1.5
	comp=Z,9.7nm,0.9s,mb4.5						
MK31	Makanchi Array	80.03	319	eP	P	19 35 01.3	-0.3
MKAR	Makanchi Array	80.03	319	P	P	19 35 01.5	-0.1
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	Makanchi Array	80.03	319	P	P	19 35 01.5	-0.1
	comp=Z,2.9nm,0.7s,mb4.1,baz=98,slow=6.9,SNR=47						
MKAR	Makanchi Array	80.03	319	P	P	19 35 01.5	-0.1
ZAA0	Zalesovo Array	80.68	326	eP	P	19 35 03.8	-1.1
ZALV	Zalesovo Beam	80.68	326	P	P	19 35 04.0	-0.9
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
ZALV	Zalesovo Beam	80.68	326	P	P	19 35 04.0	-0.9
	comp=Z,3.3nm,0.5s,mb4.3,baz=103,slow=6.4,SNR=14						
ZALV	Zalesovo Beam	80.68	326	P	P	19 35 04.0	-0.9
NVS	Novosibirsk	81.85	327	eP	P	19 35 09.1	-1.8
KSH	Kashi	82.84	310	P	P	19 35 18.8	+2.4
KSH				eS	S	19 45 02.9	-2.0
KSH				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
KSH				pmax	pmax		
	comp=Z,250nm,6.6s						
KSH				LR	LR		
	comp=N,1μm,18.5s						
KSH				LR	LR		
	comp=E,450nm,10.8s						
KSH				LR	LR		
	comp=Z,500nm,6.5s						
KURK	Kurchatov	83.39	322	P	P	19 35 18.6	-0.3
KURK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
KURK	Kurchatov	83.39	322	P	P	19 35 18.6	-0.3
	comp=Z,2.6nm,0.5s,mb4.3,baz=107,slow=3.8,SNR=19						
TKM2	Tokmak 2	83.75	314	eP	P	19 35 21.0	+0.1
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.8						
TKM2	Tokmak 2	83.75	314	P	P	19 35 21.7	+0.8
	SNR=13						
TKM2	Tokmak 2	83.75	314	eP	P	19 35 21.0	+0.1
	comp=Z,7.8nm,0.5s,mb4.8						
KZA	Kyzart	83.85	313	P	P	19 35 22.9	+1.5
	SNR=7.8						
KBK	Karagaybulak	84.17	313	P	P	19 35 23.8	+0.8
	SNR=5.7						
CHMS	Chumysh	84.38	314	P	P	19 35 23.9	-0.2
	SNR=5.2						
AAK	Ala-Archa	84.50	313	P	P	19 35 25.1	+0.5
AAK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
AAK	Ala-Archa	84.50	313	P	P	19 35 25.2	+0.6
	SNR=6.2						
AAK	Ala-Archa	84.50	313	P	P	19 35 25.1	+0.5
	comp=Z,3.9nm,0.5s,mb4.5,baz=126,slow=7.1,SNR=19						
AAK	Ala-Archa	84.50	313	P	P	19 35 25.1	+0.5
USP	Ospenovka	84.60	314	P	P	19 35 25.7	+0.5
	SNR=6.7						
AML	Almayashu	85.00	313	P	P	19 35 28.2	+1.1
	SNR=7.6						
AML	Almayashu	85.00	313	eP	P	19 35 27.2	0.0
	comp=Z,4.2nm,0.6s,mb4.5						
EKS2	Erkin-Say	85.02	313	P	P	19 35 27.9	+0.7
	SNR=5.4						
BVAR	Borovoye Array	88.84	323	P	P	19 35 44.1	-1.1
BVAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
BVAR	Borovoye Array	88.84	323	P	P	19 35 44.1	-1.1
	comp=Z,3.1nm,0.6s,mb4.3,baz=105,slow=6.1,SNR=19						
YKA	Yellowknife Ar	94.04	28	P	P	19 36 09.4	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	94.04	28	P	P	19 36 09.4	+0.4
	comp=Z,0.7nm,0.6s,mb3.9,baz=271,slow=4.7,SNR=11						
YKA	Yellowknife Ar	94.04	28	P	P	19 36 09.4	+0.4
GERES	GERESS Array B	123.52	329	PKIKP	PKPdf	19 41 45.6	-0.9
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	123.52	329	PKP	PKPdf	19 41 45.6	-0.8
	comp=Z,0.5nm,0.6s,baz=74,slow=1.9,SNR=6.3						
GERES	GERESS Array B	123.52	329	PKP	PKPdf	19 41 45.6	-0.8
LVC	Limon Verde	130.93	124	eP	Pdif	19 38 52.5	-1.1
PHG	Guadaloupe-2	143.22	68	eP	Pdif	19 39 47.5	-0.7
TBG	Guadaloupe-3	143.26	68	eP	Pdif	19 39 44.4	-4.0
TAM	Tamanrasset	143.75	304	ePKIKP	PKPdf	19 42 23.4	-1.5
TORD	Torodi Ar. Bea	150.72	290	PKPbc	PKPbc	19 42 41.8	-0.7
	comp=Z,2.7nm,0.4s,baz=79,slow=1.7,SNR=95						
DBIC	Dimbokro	158.37	279	PKP2	PKPab	19 43 23.1	-0.6
DBIC				pmax	pmax		
	comp=Z,6.0nm,1.1s						
DBIC	Dimbokro	158.37	279	PKPab	PKPab	19 43 23.1	-0.7
	comp=Z,6.0nm,1.1s,baz=59,slow=5.3,SNR=4.0						

ISCJB **24** *19:29:07.7±1.8, 51°.80N±0°.05×167°.88W±0°.08, h9*^{km}*±11*^{km}*, mb4.1/36, Error ellipse: s-maj=9.9km s-min=6.3km az=140.1*

NEIC **24** *19:29:11.3, 51°.85N×167°.85W, h26*^{km}*, mb4.1/7, ML3.7(AEIC), After AEIC.*

IDC **24** *19:29:13.4±0.7, 51°.69N×167°.87W, h44*^{km}*±4*^{km}*, mb3.8/26, mb1 3.9/26, mb1mx3.9/33, mbtmp3.8/26, Error ellipse: s-maj=19.1km s-min=11.4km az=175.0*

ISC 24 19:29:10.5±2.1,**51°.84N**±0°.05×**167°.89W**±0°.08, **h15**^{km}±13^{km},**h44**^{km}±1.3^{km}**:pP-P,n74,**σ**0^{s}.81**/76,**mb4.1**/36, **Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKFG	Magazine Ridge	1.58	359	P	Pn	19 29 37.5	-0.4
OKFG				S	Sn	19 29 57.7	-0.3
UNV	Unalaska Valle	2.18	22	P	Pn	19 29 45.5	-0.7
UNV				S	Sn	19 30 12.0	-0.9
AKLV	Akutan Long Va	2.61	26	P	Pn	19 29 52.5	+0.5
AKLV				S	Sn	19 30 22.8	-0.6
AKUT	Akutan	2.63	28	P	Pn	19 29 52.1	-0.3
ATKA	Atka Island	3.92	278	P	Pn	19 30 09.3	-0.7
FALS	False Pass	4.04	40	P	Pn	19 30 11.7	0.0
ADK	Adak	5.45	274	P	Pn	19 30 31.0	-0.1
SPIA	Saint Paul Isl	5.53	347	P	Pn	19 30 33.5	+1.4
SDPT	Sand Point	5.64	49	P	Pn	19 30 33.6	-0.1
CHGN	Chignik	7.14	48	ePn	Pn	19 30 54.3	0.0
KDAK	Kodiak Island	10.64	50	P	Pn	19 31 41.5	-0.7
	1.8nm,0.3s,baz=136,slow=8.4,SNR=16						
KDAK	Kodiak Island	10.64	50	P	Pn	19 31 41.5	-0.7
BPAW	Bear Paw Mtn.	15.14	29	ePn	Pn	19 32 44.0	+0.5
	3.1nm,0.7s						
IMA2	Indian Mountai	15.97	21	ePn	Pn	19 32 57.6	+3.3
COLD	Coldfoot	17.73	23	eP	Pn	19 33 16.7	+0.3
	5.4nm,0.8s						
EGAK	Eagle	18.91	36	eP	Pn	19 33 30.2	-0.7
	3.6nm,0.8s						
DAWY	Dawson	19.24	40	eP	Pn	19 33 35.1	+0.2
BILL	Bilibino	20.50	332	eP	P	19 33 47.8	+0.2
	12nm,0.8s						
PETK	Petropavlovsk-	20.89	287	P	P	19 33 51.2	-0.6
	2.3nm,0.5s,baz=85,slow=16,SNR=18						
DLBC	Dease Lake	22.39	58	P	P	19 34 08.6	+0.8
	1.6nm,0.9s,mb3.5,baz=162,slow=20,SNR=4.5						
INK	Inuvik	23.30	32	P	P	19 34 16.4	-1.1
	3.7nm,0.5s,mb4.0,baz=239,slow=9.5,SNR=18						
INK				PcP	PcP	19 38 03.0	-0.9
	0.4nm,0.4s,baz=328,slow=5.5,SNR=4.4						
YKA	Yellowknife Ar	29.91	48	P	P	19 35 17.7	+0.5
	1.5nm,0.7s,mb3.8,baz=271,slow=7.8,SNR=37						
RES	Resolute Bay	36.46	25	P	P	19 36 14.6	+0.4
	0.5nm,0.5s,mb3.7,baz=250,slow=9.0,SNR=7.9						
NVAR	Mina Array Bea	36.74	91	P	P	19 36 17.7	+0.8
	2.4nm,0.8s,mb4.1,baz=290,slow=8.7,SNR=9.2						
PDAR	Pinedale Array	39.60	79	P	P	19 36 40.6	-0.4
	1.2nm,0.7s,mb3.7,baz=311,slow=4.0,SNR=10						
ULM	Lac du Bonnet	43.59	62	P	P	19 37 12.3	-1.3
	1.7nm,0.4s,mb4.1,baz=296,slow=7.8,SNR=5.3						
KSRS	Korea Array	46.38	278	P	P	19 37 36.5	+0.5
	1.3nm,0.9s,mb3.8,baz=248,slow=12,SNR=4.1						
FRB	Frobisher Bay	48.88	36	P	P	19 37 54.4	-0.7
	2.8nm,0.7s,mb4.4,baz=316,slow=9.3,SNR=6.5						
SPITS	Spitsbergen Ar	50.23	359	P	P	19 38 04.4	-0.7
	2.6nm,0.8s,mb4.3,baz=12,slow=10.0,SNR=5.5						
TXAR	Lajitas Array	51.84	90	P	P	19 38 17.1	-0.7
	1.2nm,0.6s,mb4.0,baz=302,slow=5.2,SNR=18						
ULN	Ulaanbaatar	51.99	302	eP	P	19 38 18.6	-0.2
	2.7nm,0.8s,mb4.2						
SONM	Songino Array	52.36	302	P	P	19 38 21.8	+0.3
	0.9nm,0.8s,mb3.8,baz=59,slow=8.8,SNR=4.0						
SONM				pP	pP	19 38 34.5	+8.4
	1.0nm,0.6s,baz=46,slow=7.1,SNR=4.1						
SONM				PcP	PcP	19 39 32.2	-0.1
	0.5nm,0.7s,baz=98,slow=2.0,SNR=2.6						
SCHQ	Schefferville	55.19	44	P	P	19 38 41.9	-0.2
	1.6nm,0.8s,mb4.1,baz=297,slow=10,SNR=5.9						
SCHQ	Schefferville	55.19	44	P	P	19 38 41.9	-0.2
KEV	Kevo	58.23	354	ep	P	19 39 00.9	-2.6
	21nm,1.2s,mb5.0						
ARCES	ARCESS Array B	58.55	355	P	P	19 39 06.8	+1.1
	5.7nm,1.1s,mb4.5,baz=7.4,slow=5.5,SNR=7.3						
KURK	Kurchatov	63.38	319	P	P	19 39 39.6	+0.8
	1.3nm,0.7s,mb4.2,baz=47,slow=7.0,SNR=7.3						
KURK				pP	pP	19 39 52.2	+8.7
	0.7nm,0.4s,baz=43,slow=7.5,SNR=7.8						
JOF	Joensuu	64.59	350	ep	P	19 39 46.5	0.0
BVAR	Borovoye Array	64.67	325	P	P	19 39 47.7	+0.6
	3.8nm,0.8s,mb4.5,baz=60,slow=7.5,SNR=13						
BVAR				pP	pP	19 40 00.5	+8.5
	3.3nm,0.6s,baz=49,slow=7.2,SNR=11						
BVAR				PcP	PcP	19 40 21.0	+0.1
	1.7nm,0.5s,baz=38,slow=3.8,SNR=4.6						
MKAR	Makanchi Array	64.83	314	P	P	19 39 47.5	-0.9
	0.5nm,0.6s,mb3.7,baz=47,slow=5.7,SNR=6.8						
MKAR				pP	pP	19 40 00.8	+7.6
	1.1nm,0.7s,baz=50,slow=7.0,SNR=8.4						
KAF	Kangasniemi	65.84	353	ep	P	19 39 54.0	-0.6
	2.4nm,0.6s,mb4.4						
GYA	Guiyang	66.94	284	eP	P	19 39 56.8	-5.5
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
AKTO	Aktyubinsk	70.93	331	P	P	19 40 25.8	-0.9
	comp=Z,1.6nm,0.7s,mb4.1,baz=6.8,slow=4.2,SNR=5.8						
AKTO				pP	pP	19 40 40.3	+8.9
	comp=Z,2.0nm,0.7s,baz=53,slow=7.0,SNR=4.5						
AKASG	Malin Array Be	76.81	349	P	P	19 41 00.2	-0.9
	comp=Z,0.9nm,0.5s,mb4.0,baz=12,slow=5.5,SNR=4.9						
AKASG				pP	pP	19 41 13.4	+7.4
	comp=Z,0.8nm,0.5s,baz=9.0,slow=5.2,SNR=2.9						
AKASG	Malin Array Be	76.81	349	P	P	19 41 00.2	-0.9
AKASG				pP	pP	19 41 13.4	+7.4
CMAR	Chiang Mai Arr	77.63	284	P	P	19 41 05.3	-0.9
	comp=Z,1.0nm,0.7s,mb3.8,baz=29,slow=6.4,SNR=9.5						
CMAR				pP	pP	19 41 17.6	+6.5
	comp=Z,0.3nm,0.5s,baz=30,slow=6.9,SNR=3.8						
LDF	La Druitiere	79.40	8	eP	P	19 41 15.7	+0.2
	comp=Z,3.8nm,0.5s,mb4.3						
GRR	Gorron	79.54	9	eP	P	19 41 17.2	+0.9
GERES	GERESS Array B	79.69	359	P	P	19 41 17.1	0.0
	comp=Z,0.5nm,0.7s,mb3.6,baz=15,slow=5.5,SNR=5.4						
GERES	GERESS Array B	79.69	359	P	P	19 41 17.1	0.0
CDF	Champ du Feu	80.05	3	eP	P	19 41 19.8	+0.8
SSF	Saint Saulge	81.20	6	eP	P	19 41 26.0	+0.7
	comp=Z,3.2nm,0.5s,mb4.2						
MFF	Saint Martin d	81.38	9	eP	P	19 41 26.8	+0.6
AVF	Avril sur Loir	81.47	6	eP	P	19 41 27.2	+0.6
	comp=Z,1.0nm,0.4s,mb3.8						
SMF	Signal de Mont	81.64	6	eP	P	19 41 28.2	+0.6
	comp=Z,1.2nm,0.4s,mb3.9						
BGF	Bois d'Agland	81.66	6	eP	P	19 41 28.1	+0.4
	comp=Z,3.8nm,0.5s,mb4.3						
CABF	La Chapelle	81.80	4	eP	P	19 41 29.6	+1.2
LFF	La Frestale	83.11	8	eP	P	19 41 36.0	+0.7
	comp=Z,6.5nm,0.6s,mb4.5						
LFF	La Frestale	83.11	8	eP	P	19 41 36.0	+0.7
	comp=Z,3.3nm,0.6s,mb4.5						
MBDF	Montbardon	83.71	4	eP	P	19 41 39.3	+0.9
SBF	Sospel	84.59	3	eP	P	19 41 43.7	+0.8
MTLF	Montolieu	84.81	7	eP	P	19 41 44.9	+0.9
MTLF	Montolieu	84.81	7	eP	P	19 41 44.9	+0.9
EPF	Esparros	84.96	9	eP	P	19 41 45.7	+0.9
	comp=Z,4.0nm,0.7s,mb4.4						
EPF	Esparros	84.96	9	eP	P	19 41 45.7	+0.9
	comp=Z,2.0nm,0.7s,mb4.4						
ETSF	Etsaut	85.01	9	eP	P	19 41 46.0	+1.0
ETSF	Etsaut	85.01	9	eP	P	19 41 46.0	+1.0
BRTR	Keskin Array B	86.90	344	P	P	19 41 54.3	-0.1
	comp=Z,0.6nm,0.7s,mb3.9,baz=24,slow=3.9,SNR=2.7						
BRTR	Keskin Array B	86.90	344	P	P	19 41 54.4	-0.1
WRA	Warramunga Arr	87.40	233	P	P	19 41 53.9	-3.0
	comp=Z,0.4nm,0.4s,mb4.0,baz=37,slow=5.6,SNR=3.2						
ESDC	Sonseca Array	87.79	12	P	P	19 41 57.5	-1.2
	comp=Z,0.9nm,0.8s,mb4.1,baz=6.2,slow=3.4,SNR=5.5						
ESDC	Sonseca Array	87.79	12	P	P	19 41 57.5	-1.2
ASAR	Alice Springs	90.76	231	P	P	19 42 11.4	-1.2
	comp=Z,0.9nm,0.7s,mb4.2,baz=33,slow=4.5,SNR=15						
ASAR				pP	pP	19 42 23.3	+5.7
	comp=Z,1.1nm,0.8s,baz=38,slow=5.5,SNR=6.9						
TORD	Torodi Ar. Bea	114.66	11	PKP	PKiKP	19 47 47.9	-2.4
	comp=Z,0.3nm,0.5s,baz=338,slow=2.4,SNR=4.7						

ISCJB **24** *19:38:44.0±0.7, 36°.55N±0°.09×71°.0E±0°.2, h198*^{km}*±9*^{km}*, mb3.7/2, Error ellipse: s-maj=26.8km s-min=7.2km az=27.8*

NEIC **24** *19:38:44.6±1.2, 36°.39N×71°.49E, h188*^{km}*±12*^{km}*, mb4.4/5, Error ellipse: s-maj=30.8km s-min=12.4km az=123.0*

IDC **24** *19:38:45.7±7.3, 36°.54N×71°.33E, h200*^{km}*±53*^{km}*, mb3.0/2, mb1 3.1/7, mb1mx2.9/27, mbtmp3.0/7, Error ellipse: s-maj=81.9km s-min=36.3km az=69.0*

BJI **24** *19:38:47.4, 37°.08N×71°.07E, h174*^{km}*, mb3.9/1*

ISC 24 19:38:44.9±0.7,**36°.54N**±0°.09×**71°.1E**±0°.2,**h192**^{km}±8^{km}, **n26,**σ**1^{s}.20**/33,**mb3.7**/2,**2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.59	220	⇓iPn	Pn	19 39 29.7	+0.3
KBL				eSn	Sn	19 40 02.9	-1.0
KSH	Kashi	4.88	51	P	Pn	19 39 55.1	-2.3
KSH				S	Sn	19 40 46.0	-8.5
KSH				smax			
	comp=N,75nm,0.3s						
KSH				smax			
	comp=E,59nm,0.3s						
AML	Almayashu	5.94	19	P	Pn	19 40 12.3	+1.2
	SNR=84						
AML	Almayashu	5.94	19	ePn	Pn	19 40 11.8	+0.8
	comp=E,48nm,0.5s						
AML				eSn	Sn	19 41 17.9	-1.3
UCH	Uchtor	6.27	24	P	Pn	19 40 16.9	+1.5
	SNR=26						
UCH	Uchtor	6.27	24	ePn	Pn	19 40 16.2	+0.8
	comp=E,15nm,0.4s						
UCH				eSn	Sn	19 41 25.2	-1.8
KZA	Kyzart	6.40	29	P	Pn	19 40 18.1	+1.0
	SNR=6.3						
EKS2	Erkin-Say	6.46	18	P	Pn	19 40 18.8	+1.0
	SNR=11						
EKS2	Erkin-Say	6.46	18	ePn	Pn	19 40 18.6	+0.8
	comp=E,7.2nm,0.4s						
KK31	Karatay Array	6.57	356	P	Pn	19 40 19.0	-0.3
	comp=E,1.2nm,0.3s,baz=186,slow=12,SNR=82						
KK31				⇓S	Sn	19 41 28.8	-5.2
	comp=E,6.3nm,0.3s,baz=188,slow=24,SNR=20						
AAK	Ala-Archa	6.63	22	P	Pn	19 40 21.5	+1.4
	SNR=8.0						
AAK	Ala-Archa	6.63	22	P	Pn	19 40 21.4	+1.3
	comp=E,0.0nm,0.3s,baz=174,slow=6.2,SNR=23						
AAK				S	Sn	19 41 33.8	-1.7
	comp=E,0.0nm,0.3s,baz=316,slow=22,SNR=15						
AAK	Ala-Archa	6.63	22	P	Pn	19 40 21.4	+1.3
AAK				S	Sn	19 41 33.8	-1.7
KBK	Karagaybulak	6.80	25	P	Pn	19 40 23.9	+1.6
	SNR=7.2						
ULHL	Ulahol	6.96	34	P	Pn	19 40 25.8	+1.5
	SNR=11						
USP	Ospenovka	7.21	20	P	Pn	19 40 28.9	+1.2
	SNR=5.1						
TKM2	Tokmak 2	7.26	27	P	Pn	19 40 29.6	+1.3
	SNR=20						
TKM2	Tokmak 2	7.26	27	ePn	Pn	19 40 28.9	+0.6
	comp=E,17nm,0.8s						
MKAR	Makanchi Array	13.22	36	P	Pn	19 41 45.2	0.0
	comp=E,0.2nm,0.3s,baz=220,slow=14,SNR=10						
KURK	Kurchatov	15.17	19	P	Pn	19 42 07.1	-2.2
	comp=E,0.1nm,0.3s,baz=199,slow=11,SNR=10						
KURK	Kurchatov	15.17	19	Pn	Pn	19 42 07.5	-1.8
	comp=E,0.9nm,0.7s						
BVAR	Borovoye Array	16.49	359	P	Pn	19 42 24.7	-0.5
	comp=E,0.5nm,0.3s,baz=162,slow=10,SNR=9.3						
ZALV	Zalesovo Beam	19.85	24	P	P	19 43 01.5	+0.6
	comp=E,0.6nm,0.3s,baz=220,slow=13,SNR=12						
CUC	Castrocucco	42.94	292	eP	P	19 46 30.4	+5.7
	comp=E,6.4nm,0.6s,mb4.2						
YKA	Yellowknife Ar	81.20	3	P	P	19 50 38.4	-0.3
	comp=E,0.1nm,0.3s,baz=351,slow=5.4,SNR=4.0						
ASAR	Alice Springs	84.23	125	P	P	19 50 53.7	-1.2
	comp=E,0.2nm,0.5s,mb3.1,baz=302,slow=4.3,SNR=4.2						

CSEM **24** *19:45:05.7, 36°.51N×21°.01E, h10*^{km}*, MD3.7, After ATH*

NEIC **24** *19:45:05.7, 36°.51N×21°.01E, h10*^{km}*, MD3.7(ATH), After ATH.*

ATH 24 19:45:05.7,36°.51N×**21°.01E,h10**^{km}±3^{km},**MD3.7**/14, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.70	57	ePG	Pg	19 45 18.9	-0.4
PYL				eSB	Sg	19 45 28.6	+0.1
PYL	PYLOS	0.70	57	ePg	Pg	19 45 18.9	-0.4
PYL				eSb	Sg	19 45 28.6	+0.1
ITM	Ithomi	0.99	47	ePN	Pg	19 45 24.9	+0.1
ITM				eSB	Sg	19 45 37.8	0.0
ITM	Ithomi	0.99	47	ePn	Pg	19 45 24.9	+0.1
ITM				eSb	Sg	19 45 37.8	0.0
VLX	Vlachokerasia	1.39	52	ePB	Pn	19 45 32.3	+1.1
VLX				eSB	Sn	19 45 51.5	+1.9
VLX	Vlachokerasia	1.39	52	ePb	Pn	19 45 32.3	+1.1
VLX				eSb	Sn	19 45 51.5	+1.9
VLI	Veliai	1.56	82	ePB	Pn	19 45 36.7	+3.2
VLI	Veliai	1.56	82	ePb	Pb	19 45 36.7	+2.0
RLS	Riolos of Patr	1.59	13	ePG	Pg	19 45 35.3	-0.9
RLS	Riolos of Patr	1.59	13	ePg	Pg	19 45 35.3	-0.9
KYTH	Kithira	1.65	97	ePB	Pb	19 45 37.0	+0.8
KYTH	Kithira	1.65	97	ePb	Pb	19 45 37.0	+0.8
VLS	Valsamata	1.70	349	ePG	Pn	19 45 37.2	+1.8
VLS				eSB	Sn	19 46 01.7	+4.6
VLS	Valsamata	1.70	349	ePg	Pn	19 45 37.2	+1.8
VLS				eSb	Sn	19 46 01.7	+4.6
GUR	Goura	1.78	36	ePN	Pn	19 45 37.8	+1.3
GUR	Goura	1.78	36	ePn	Pn	19 45 37.8	+1.3
DID	Didima	2.04	60	ePN	Pn	19 45 42.0	+1.9
DID	Didima	2.04	60	ePn	Pn	19 45 42.0	+1.9
EFP	Efpalio	2.04	20	ePG	Pg	19 45 43.2	-1.7
EFP	Efpalio	2.04	20	ePg	Pg	19 45 43.2	-1.7
LTK	Loutraki	2.17	45	ePN	Pn	19 45 43.9	+2.0
LTK	Loutraki	2.17	45	ePn	Pn	19 45 43.9	+2.0
NAIG	Nisos Aigina	2.34	57	ePN	Pn	19 45 46.2	+2.0
NAIG	Nisos Aigina	2.34	57	ePn	Pn	19 45 46.2	+2.0
EVR	Evrytania	2.48	15	ePN	Pn	19 45 49.0	+2.8
EVR	Evrytania	2.48	15	ePn	Pn	19 45 49.0	+2.8
VLY	Voula,Athens	2.60	58	ePB	Pb	19 45 49.0	-3.3
VLY	Voula,Athens	2.60	58	ePb	Pb	19 45 49.0	-3.3
LKR	Lokris	2.66	36	ePB	Pb	19 45 50.7	-2.7
LKR	Lokris	2.66	36	ePb	Pb	19 45 50.7	-2.7
AGG	Agios Georgios	2.72	22	ePN	Pn	19 45 52.9	+3.5
AGG	Agios Georgios	2.72	22	ePn	Pn	19 45 52.9	+3.5
PTL	Penteli	2.75	55	ePN	Pn	19 45 51.5	+1.7
PTL	Penteli	2.75	55	ePn	Pn	19 45 51.5	+1.7
THL	Klokotos Trika	3.15	14	ePN	Pn	19 45 58.0	+2.6
THL	Klokotos Trika	3.15	14	ePn	Pn	19 45 58.0	+2.6
KEK	Kerkira	3.34	344	ePN	Pn	19 46 00.4	+2.5
KEK	Kerkira	3.34	344	ePn	Pn	19 46 00.4	+2.5
LIT	Litokhoron	3.77	18	ePN	Pn	19 46 07.7	+3.9
LIT	Litokhoron	3.77	18	ePn	Pn	19 46 07.7	+3.9
SCTE	Santa Cesarea	4.08	331	ePN	Pn	19 46 10.1	+2.0
SCTE	Santa Cesarea	4.08	331	ePn	Pn	19 46 10.1	+2.0

IDC 24 20:17:30.8±16.0,**7°.17S**×**129°.09E,h224**^{km}±193^{km}, **mb2.8**/1,**mb1 3.0**/3,**mb1mx2.8**/16,**mbtmp2.8**/3,**ML3.5**/1, **Error ellipse: s-maj=143.3km s-min=77.9km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.69	159	P	Pn	20 20 36.3	+0.2
	0.3nm,0.3s,baz=341,slow=12,SNR=4.2						
WRA				S	S	20 22 56.1	-12
	0.2nm,0.3s,baz=344,slow=22,SNR=2.5						
ASAR	Alice Springs	17.05	165	P	P	20 21 14.8	0.0
	0.2nm,0.3s,baz=348,slow=9.8,SNR=26						
MKAR	Makanchi Array	67.87	327	P	P	20 28 05.1	+0.1
	0.1nm,0.4s,baz=120,slow=7.9,SNR=4.5						

*BJI **24** 20:24:59.9, 35°.71N×141°.64E, h38^{km}, mB5.0/30, mb4.6/43, Ms4.6/27, Ms7 4.2/29*

*ISCJB **24** 20:25:00.4±0.2, 35°.37N±0°.03×141°.30E±0°.04, h30^{km}, mb4.7/108, MS4.0/12, Error ellipse: s-maj=4.6km s-min=4.2km az=135.9*

*NEIC **24** 20:25:00.4, 35°.43N×141°.31E, h30^{km}, mb4.9/52, MW4.3(NIED), After JMA.*

NEIC Recorded [1 JMA] in Chiba.

*JMA **24** 20:25:00.4±0.1, 35°.43N×141°.31E, h30^{km}±1^{km}, M4.6*

JMA Felt I J1.

*NIED **24** 20:25:00, 35°.40N×141°.30E, h29^{km}, Mw4.4 Best double couple: M$_0$4.01000×10^{15} NP1:φ$_s$247.00000°, δ87.00000°, λ48.00000°. NP2:φ$_s$154.00000°, δ42.00000°, λ176.00000°.*

*IDC **24** 20:25:02.2±0.6, 35°.37N×141°.20E, h27^{km}±3^{km}, mb4.2/21, mb1 4.3/24, mb1mx4.3/28, mbtmp4.2/24, ML4.3/3, MS3.8/4, Ms1 3.8/4, ms1mx3.1/52, Error ellipse: s-maj=15.0km s-min=11.2km az=108.0*

*MOS **24** 20:25:02.7±1.0, 35°.43N×141°.14E, h44^{km}, mb5.1/46, Error ellipse: s-maj=10.8km s-min=5.0km az=122.9*

*SZGRF **24** 20:25:02.8, 35°.68N×141°.91E, h33^{km}, mb4.9, Near east coast of eastern Honshu, Japan*

ISC 24 20:25:02.5±0.2, **35°.38N**±0°.03×**141°.23E**±0°.04, **h31**^{km}, **h31**^{km}±.9^{km}**:pP-P, n255, σ0^s.97**/270, **mb4.7**/108, **MS4.0**/12, **14C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOJ	Chosi	0.45	317	⇑P	Pb	20 25 10.0	-2.1
CHOJ				eS	Sb	20 25 16.8	-1.9
BSO1	Boso 1	0.75	196	P	Pn	20 25 15.3	-1.6
KTR	Katsuura	0.78	253	P	Pn	20 25 16.1	-1.2
BSO3	Boso 3	0.82	226	P	Pn	20 25 16.9	-1.0
BSO4	Boso 4	0.82	242	P	Pn	20 25 17.0	-0.9
JCN	Nagara	0.84	273	P	Pn	20 25 17.9	-0.2
JYT	Yasato	1.20	316	P	Pn	20 25 21.6	-1.4
JHO	Hitachi	1.34	337	P	Pn	20 25 23.5	-1.6
JHJ	Hachijo jima 2	2.55	208	Pn	Pn	20 25 42.3	+0.7
	46nm,0.3s,baz=253,slow=16,SNR=10						
JHJ				Sn	Sn	20 26 11.2	-0.3
	102nm,0.3s,baz=287,slow=19,SNR=6.0						
MJAR	Matsushiro Arr	2.71	296	Pn	Pn	20 25 44.5	+0.7
	17nm,0.3s,baz=102,slow=7.1,SNR=138						
MJAR				LR	LR	20 26 54.6	
	comp=Z,2µm,18.1s,baz=135,slow=42						
MAJO	Matsushiro	2.71	296	eP	Pn	20 25 45.0	+1.1
MAT	Matsushiro	2.71	296	P	Pn	20 25 45.1	+1.2
MAT				S	Sn	20 26 18.0	+2.4
CBIJ	Chichi jima	8.29	174	Pn	Pn	20 26 58.8	-1.8
	44nm,0.3s,baz=287,slow=23,SNR=5.4						
CBIJ				Sn	Sn	20 28 29.6	-3.5
	14nm,0.3s,baz=294,slow=19,SNR=2.6						
ASAJ	Asahikawa	8.79	6	P	Pn	20 27 03.5	-3.8
ASAJ						20 28 40.4	
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	8.79	6	Pn	Pn	20 27 03.5	-3.9
	comp=Z,3.3nm,0.3s,baz=207,slow=12,SNR=21						
ASAJ				Sn	Sn	20 28 40.4	-4.9
	comp=Z,0.2nm,0.3s,baz=257,slow=19,SNR=1.9						
KSRS	Korea Array	10.92	285	Pn	Pn	20 27 40.2	+3.7
	comp=Z,0.3nm,0.3s,baz=102,slow=14,SNR=8.8						
KSRS				LR	LR	20 31 48.9	
	comp=Z,491nm,20.6s,baz=95,slow=37						
YSS	Yuzh-Sakhalins	11.62	5	eP	Pn	20 27 42.3	-3.8
MDJ	Mudanjiang	12.82	320	P	Pn	20 28 01.1	-1.4
MDJ				S	Sn	20 30 20.8	-3.2
MDJ				PcP	PcP	20 33 38.3	+1.7
MDJ				PcS	PcS	20 37 08.3	-2.5
MDJ				pmax	pmax		
	comp=Z,140nm,6.6s						
MDJ				LR	LR		
	comp=Z,210nm,20.7s						
MDJ	Mudanjiang	12.82	320	ePn	Pn	20 28 02.4	-0.1
	comp=Z,11nm,1.0s						
HABR	Khabarovsk	13.86	343	ceP	Pn	20 28 08.9	-7.8
HABR				MLR	MLR		
	comp=Z,224nm,15.0s						
CN2	Changchun	14.78	309	eP	Pn	20 28 31.0	+1.9
CN2				esP	sP	20 28 45.0	-2.0
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SNY	Shenyang	15.22	300	⇑P	Pn	20 28 37.3	+2.3
SNY				pmax	pmax		
	comp=Z,6.0nm,0.5s						
KLR	Kul’dur	15.50	336	eP	Pn	20 28 43.0	+4.4
SSE	Sheshan	17.30	261	P	Pn	20 29 04.0	+2.4
SSE				sP	sP	20 29 20.6	+5.5
SSE				S	Sn	20 32 13.6	+0.5
SSE				pmax	pmax		
	comp=Z,25nm,0.8s						
SSE				pmax	pmax		
	comp=Z,220nm,6.1s						
SSE				LR	LR		
	comp=N,180nm,16.2s						
SSE				LR	LR		
	comp=E,70nm,16.2s						
SSE				LR	LR		
	comp=Z,190nm,11.1s						
NJ2	Nanjing	18.90	266	eP	Pn	20 29 25.3	+4.1
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s						
BJI	Beijing	20.34	291	P	P	20 29 35.4	-0.6
BJI				S	S	20 33 21.4	-0.9
BJI				pmax	pmax		
	comp=Z,16nm,0.8s						
BJI				pmax	pmax		
	comp=Z,200nm,5.0s						
BJI				LR	LR		
	comp=N,200nm,19.8s,MS3.6						
BJI				LR	LR		
	comp=E,220nm,21.9s,MS3.6						
BJI				LR	LR		
	comp=Z,160nm,22.7s,MS3.3						
BJT	Baijiatuau	20.34	291	eP	P	20 29 34.4	-1.7
BJT				pmax	pmax		
	comp=Z,21nm,0.6s						
BJT	Baijiatuau	20.34	291	eP	P	20 29 34.4	-1.7
	comp=Z,21nm,0.6s						
PETK	Petropavlovsk-	21.20	28	P	P	20 29 46.2	+1.0
	comp=Z,5.7nm,0.9s,mb3.9,baz=205,slow=7.9,SNR=8.1						
GUMO	Guam	21.94	170	eP	P	20 29 59.6	+6.2
GUMO				pmax	pmax		
	comp=Z,189nm,1.1s,mb5.4						
GUMO	Guam	21.94	170	eP	P	20 29 59.6	+6.2
	comp=Z,189nm,1.1s,mb5.4						
WHN	Wuhan	23.03	266	P	P	20 30 11.1	+6.1
HHC	Hu-ho-hao-te	23.91	292	eP	P	20 30 12.3	-1.1
HHC				pP		20 30 21.4	
HHC				sP	sP	20 30 25.8	-0.5
HHC				PP		20 30 45.1	
HHC				PcP	PcP	20 33 58.8	+3.4
HHC				eS	S	20 34 20.3	-7.3
HHC				PcS	PcS	20 37 35.6	+0.7
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.3						
HHC				pmax	pmax		
	comp=Z,120nm,5.3s						
HHC				LR	LR		
	comp=N,220nm,14.1s,MS3.9						
HHC				LR	LR		
	comp=E,160nm,13.9s,MS3.9						
HHC				LR	LR		
	comp=Z,170nm,14.2s,MS3.7						
XAN	Xi’an	26.53	277	P	P	20 30 38.0	+0.7
XAN				pP	pP	20 30 47.8	+1.4
XAN				sP	sP	20 30 51.6	+1.4
XAN				S	S	20 35 11.5	+1.9
XAN				sS	sS	20 35 26.5	+1.9
XAN				ScP	ScP	20 37 41.1	+2.1
XAN				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.1						
XAN				pmax	pmax		
	comp=Z,65nm,4.3s						
XAN				LR	LR		
	comp=N,270nm,15.6s,MS4.0						
XAN				LR	LR		
	comp=E,220nm,17.4s,MS4.0						
XAN				LR	LR		
	comp=Z,310nm,17.6s,MS3.9						
YAK	Yakutsk	27.66	348	eP	P	20 30 45.6	-1.5
YAK				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.4s						
YAK	Yakutsk	27.66	348	eP	P	20 30 46.3	-0.8
	comp=E,27nm,0.7s,mb5.0						
ULN	Ulaanbaatar	28.20	307	eP	P	20 30 53.5	+1.4
ULN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.2						
ULN	Ulaanbaatar	28.20	307	eP	P	20 30 53.5	+1.5
	comp=Z,4.5nm,0.6s,mb4.3						
SEY	Seymchan	28.44	11	⇑eP	P	20 30 54.9	+0.8
SONM	Songino Array	28.62	307	P	P	20 30 55.6	-0.2
	comp=Z,3.8nm,0.7s,mb4.2,baz=107,slow=8.2,SNR=23						
SONM				LR	LR	20 42 37.2	
	comp=Z,130nm,20.3s,MS3.5,baz=90,slow=37						
BOD	Bodaibo	28.87	330	eP	P	20 30 56.4	-1.5
BOD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
LZH	Lanzhou	30.24	282	eP	P	20 31 14.5	+4.2
LZH				pP	pP	20 31 24.3	+4.9
LZH				sP	sP	20 31 28.5	+5.2
LZH				PP	PP	20 32 13.3	-5.5
LZH				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.7						
LZH				pmax	pmax		
	comp=Z,80nm,4.5s						
LZH				LR	LR		
	comp=N,450nm,12.7s						
LZH				LR	LR		
	comp=Z,660nm,16.2s,MS4.4						
GYA	Guiyang	30.83	263	⇑iP	P	20 31 18.6	+2.9
GYA				pP	pP	20 31 28.3	+3.5
GYA				sP	sP	20 31 34.6	+6.0
GYA				PP	PP	20 32 21.0	-4.5
GYA				S	S	20 36 17.9	+0.6
GYA				sS	sS	20 36 36.0	+3.6
GYA				ScP	ScP	20 37 54.3	+1.7
GYA				SS	SS	20 38 02.8	-27
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
GYA				pmax	pmax		
	comp=Z,110nm,4.6s						
GYA				LR	LR		
	comp=N,560nm,16.2s,MS4.4						
GYA				LR	LR		
	comp=E,480nm,15.5s,MS4.4						
GYA				LR	LR		
	comp=Z,440nm,16.0s,MS4.2						
ZAK	Zakamensk	31.21	311	eP	P	20 31 17.3	-1.4
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
TLY	Talaya	31.33	313	eP	P	20 31 20.0	+0.3
TLY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
TLY				MLR	MLR		
	comp=Z,182nm,15.0s,MS3.9						
TLY	Talaya	31.33	313	eP	P	20 31 20.1	+0.3
	comp=Z,4.4nm,0.8s,mb4.3						
CD2	Chengdu	31.57	273	P	P	20 31 26.0	+3.9
CD2				pP	pP	20 31 35.5	+4.3
CD2				sP	sP	20 31 38.5	+3.5
CD2				PP	PP	20 32 30.5	-3.1
CD2				S	S	20 36 30.8	+2.1
CD2				sS	sS	20 36 46.8	+3.0
CD2				SS	SS	20 38 20.0	-24
CD2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
CD2				pmax	pmax		
	comp=Z,270nm,5.1s						
CD2				LR	LR		
	comp=N,570nm,7.7s						
CD2				LR	LR		
	comp=Z,430nm,10.7s,MS4.4						
GTA	Gaotai	32.94	290	eP	P	20 31 34.8	+0.7
GTA				pP	pP	20 31 44.3	+1.1
GTA				sP	sP	20 31 48.3	+1.3
GTA				PP	PP	20 32 45.0	-3.7
GTA				S	S	20 36 48.9	-1.1
GTA				sS	sS	20 37 04.8	-0.3
GTA				SS	SS	20 38 48.5	-24
GTA				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
GTA				pmax	pmax		
	comp=Z,190nm,6.6s						
GTA				LR	LR		
	comp=N,210nm,16.5s,MS4.1						
GTA				LR	LR		
	comp=E,200nm,15.6s,MS4.1						
GTA				LR	LR		
	comp=Z,250nm,16.5s,MS4.0						
KMI	Kunming	34.59	264	P	P	20 31 54.8	+6.2
KMI				pmax	pmax		
	comp=Z,5.0nm,2.0s,mb4.1						
BILL	Bilibino	35.66	16	αeP	P	20 31 57.0	-0.2
BILL				*SP	sP	20 32 10.0	-0.2
BILL				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
BILL	Bilibino	35.66	16	eP	P	20 31 56.4	-0.8
	comp=Z,8.3nm,1.1s,mb4.6						
TIXI	Tiksi	36.92	354	⇑eP	P	20 32 07.0	-0.9
TIXI				pmax	pmax		
	comp=Z,24nm,2.5s,mb4.6						
TIXI	Tiksi	36.92	354	eP	P	20 32 07.4	-0.5
	comp=Z,7.5nm,0.7s,mb4.6						
CMAR	Chiang Mai Arr	40.96	257	P	P	20 32 42.8	+0.4
	comp=Z,0.7nm,0.7s,baz=42,slow=7.1,SNR=5.7						
WMQ	Urumqi	41.48	298	eP	P	20 32 47.3	+0.9
WMQ				pP	pP	20 32 57.0	+1.3
WMQ				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.7						
WMQ				pmax	pmax		
	comp=Z,280nm,5.0s						
WMQ				LR	LR		
	comp=Z,210nm,20.2s,MS4.0						
LSA	Lhasa	42.24	277	P	P	20 32 52.4	-0.4
LSA	Lhasa	42.24	277	eP	P	20 32 53.4	+0.6
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
LSA	Lhasa	42.24	277	eP	P	20 32 53.4	+0.6
	comp=Z,2.0nm,0.6s,mb3.9						
ZAA0	Zalesovo Array	42.94	314	eP	P	20 32 57.6	-0.5
ZALV	Zalesovo Beam	42.94	314	P	P	20 32 58.0	-0.1
	comp=Z,8.7nm,0.5s,mb4.7,baz=94,slow=7.1,SNR=46						
NVS	Novosibirsk	43.89	315	eP	P	20 33 03.7	-2.1
NVS				pmax	pmax		
	comp=E,17nm,1.1s						
NVS				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.7						
MK31	Makanchi Array	44.89	303	i P	P	20 33 13.8	-0.1
MK31				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.9						
MK31	Makanchi Array	44.89	303	eP	P	20 33 13.6	-0.3
MKAR	Makanchi Array	44.89	303	P	P	20 33 13.9	0.0
	comp=Z,12nm,0.6s,mb4.9,baz=89,slow=9.8,SNR=152						
TAPN	Taplejung	45.93	275	eP	P	20 33 22.2	-0.2
	comp=Z,9.6nm,0.9s,mb4.8						
ODAN	Odare	46.39	275	eP	P	20 33 26.3	+0.3
	comp=Z,9.7nm,0.5s,mb5.0						
KURK	Kurchatov	46.85	309	P	P	20 33 28.3	-1.0
KURK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
KURK	Kurchatov	46.85	309	eP	P	20 33 28.5	-0.8
RAMN	Ramite	46.99	276	eP	P	20 33 30.7	-0.1
	comp=Z,23nm,0.5s,mb5.4						
JIRN	Jiri	47.04	277	eP	P	20 33 31.2	+0.1
	comp=Z,14nm,0.7s,mb5.0						
GUN	Gumba	47.19	277	eP	P	20 33 32.6	+0.3
	comp=Z,16nm,0.8s,mb5.0						
PKI	Pulchoki	47.71	277	eP	P	20 33 35.9	-0.4
	comp=Z,8.8nm,0.7s,mb4.9						
PKI	Pulchoki	47.71	277	eP	P	20 33 36.2	-0.1
PKI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
PKI	Pulchoki	47.71	277	eP	P	20 33 36.2	-0.1
	comp=Z,5.2nm,0.6s,mb4.7						
PKIN	Phulchoki	47.72	277	eP	P	20 33 36.2	-0.2
	comp=Z,5.2nm,0.6s,mb4.7						
KKN	Kakani	47.73	277	eP	P	20 33 36.1	-0.3
	comp=Z,20nm,1.0s,mb5.1						
KKN	Kakani	47.73	277	eP	P	20 33 36.1	-0.3
KKN				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
GKN	Gorkha	48.16	278	eP	P	20 33 39.4	-0.4
	comp=Z,7.6nm,0.5s,mb5.0						
KDAK	Kodiak Island	48.44	41	i P	P	20 33 41.7	+0.2
KDAK	Kodiak Island	48.44	41	P	P	20 33 42.8	+1.3
	comp=Z,8.0nm,0.5s,mb5.0,baz=222,slow=7.3,SNR=16						
KAKA	Kakadu	48.54	191	eP	P	20 33 44.4	+1.7
	comp=Z,9.1nm,0.6s,mb5.0						
DANN	Dangsing	48.73	279	eP	P	20 33 44.4	+0.2
	comp=Z,45nm,0.7s,mb5.6						
KOLN	Koldanda	49.09	278	eP	P	20 33 46.7	-0.3
	comp=Z,5.6nm,0.6s,mb4.8						
TKM2	Tokmak 2	50.30	300	eP	P	20 33 56.7	+0.7
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
TKM2	Tokmak 2	50.30	300	P	P	20 33 57.0	+1.0
	SNR=13						
TKM2	Tokmak 2	50.30	300	eP	P	20 33 56.7	+0.7
	comp=Z,9.6nm,0.8s,mb4.9						
KZA	Kyzart	50.77	299	P	P	20 34 01.3	+1.8
	SNR=11						
KBK	Karagaybulak	50.83	299	P	P	20 34 00.8	+0.8
	SNR=20						
KSH	Kashi	50.96	295	P	P	20 34 05.1	+4.1
KSH				epP	pP	20 34 14.4	+3.9
KSH				esP	sP	20 34 19.3	+5.1
KSH				ePP	PP	20 36 02.1	+4.7
KSH				ePcS	PcS	20 39 17.9	+3.4
KSH				eS	S	20 41 17.3	+1.5
KSH				esS	sS	20 41 33.5	+2.1
KSH				eScS	ScS	20 43 49.9	+0.6
KSH				eSS	SS	20 44 49.3	-1.3
KSH				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
KSH				pmax	pmax		
	comp=Z,110nm,3.8s						
KSH				LR	LR		
	comp=N,100nm,3.5s						
KSH				LR	LR		
	comp=E,150nm,3.7s						
KSH				LR	LR		
	comp=Z,140nm,4.2s						
USP	Ospenovka	50.99	300	P	P	20 34 01.7	+0.5
	SNR=7.2						
AAK	Ala-Archa	51.16	299	⇑eP	P	20 34 02.1	-0.4
AAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
AAK	Ala-Archa	51.16	299	P	P	20 34 01.2	-1.3
	SNR=6.6						
AAK	Ala-Archa	51.16	299	eP	P	20 34 02.3	-0.1
UCH	Uchtor	51.26	299	P	P	20 34 04.7	+1.5
	SNR=7.5						
UCH	Uchtor	51.26	299	eP	P	20 34 04.0	+0.8
	comp=Z,3.6nm,0.8s,mb4.3						
VOSK	Vostochnaya	51.29	313	P	P	20 34 02.1	-1.1
VOSK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
BVA0	Borovoye Array	51.59	313	P	P	20 34 04.0	-1.5
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
BRVK	Borovoye	51.65	313	eP	P	20 34 05.9	0.0
EKS2	Erkin-Say	51.66	300	P	P	20 34 06.6	+0.3
	SNR=6.4						
AML	Almayashu	51.87	299	P	P	20 34 09.1	+1.3
	SNR=34						
AML	Almayashu	51.87	299	eP	P	20 34 08.3	+0.6
	comp=Z,24nm,0.7s,mb5.2						
KK31	Karatay Array	53.84	301	i P	P	20 34 22.3	0.0
KK31				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
FITZ	Fitzroy Crossi	55.20	198	eP	P	20 34 32.6	+0.3
	comp=Z,7.6nm,0.6s,mb4.9						
WRAB	Tennant Creek	55.39	188	eP	P	20 34 32.1	-1.5
WRAB				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.1						
WRAB	Tennant Creek	55.39	188	eP	P	20 34 32.1	-1.5
	comp=Z,24nm,1.1s,mb5.1						
WRA	Warramunga Arr	55.40	188	P	P	20 34 33.3	-0.4
	comp=Z,7.2nm,0.5s,mb4.9,baz=3.8,slow=7.6,SNR=19						
INK	Inuvik	55.93	27	P	P	20 34 37.6	+0.6
	comp=Z,1.8nm,0.7s,mb4.2,baz=296,slow=6.6,SNR=9.6						
INK				pP	pP	20 34 45.9	-0.8
	comp=Z,1.2nm,0.5s,baz=308,slow=11,SNR=5.3						
SVE	Sverdlovsk	56.30	319	⇓eP	P	20 34 40.3	+0.5
SVE				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
ARU	Arti	57.51	319	d iP	P	20 34 48.1	-0.3
ARU				S	S	20 42 40.4	-3.2
ARU				SS	SS	20 46 28.7	-4.4
ARU				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.3						
ARU	Arti	57.51	319	eP	P	20 34 48.4	0.0
HYB	Hyderabad	58.02	269	i P	P	20 34 50.0	-2.6
HYB	Hyderabad	58.02	269	eP	P	20 34 51.5	-1.1
AB31	Akbulak array	58.90	311	P	P	20 34 57.2	-1.1
AB31				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
ASAR	Alice Springs	59.13	188	P	P	20 35 00.1	+0.2
	comp=Z,0.9nm,0.5s,mb4.1,baz=9.6,slow=8.8,SNR=16						
ASAR				pP	pP	20 35 09.7	+0.1
	comp=Z,1.5nm,0.6s,baz=17,slow=14,SNR=6.8						
AKTO	Aktyubinsk	59.68	313	P	P	20 35 03.2	-0.4
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
MBWA	Marble Bar	59.81	203	eP	P	20 35 05.4	+0.7
PRGR	Permogore	62.08	327	eP	P	20 35 18.0	-1.7
PRGR				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.3						
RES	Resolute Bay	64.24	14	eP	P	20 35 33.9	0.0
KLMR	Klimovskoe	65.08	328	eP	P	20 35 39.0	-0.5
KLMR				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
YKA	Yellowknife Ar	65.32	30	P	P	20 35 41.1	0.0
YKA				*PP	pP	20 35 49.1	-1.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	65.32	30	P	P	20 35 41.1	+0.1
	comp=Z,0.8nm,0.8s,mb3.8,baz=299,slow=6.6,SNR=13						
YKA				pP	pP	20 35 49.1	-1.6
	comp=Z,1.0nm,0.7s,baz=300,slow=6.5,SNR=9.0						
ARCES	ARCESS Array B	65.50	340	P	P	20 35 42.2	+0.1
	comp=Z,3.7nm,0.7s,mb4.5,baz=46,slow=8.7,SNR=5.3						
STKA	Stephens Creek	66.90	180	eP	P	20 35 53.3	+1.9
	comp=Z,4.5nm,1.5s,mb4.3						
STKA	Stephens Creek	66.90	180	P	P	20 35 51.0	-0.4
	comp=Z,2.0nm,0.9s,mb4.2,baz=182,slow=16,SNR=4.1						
FORT	Forrest	66.96	192	eP	P	20 35 50.2	-1.7
	comp=Z,11nm,0.6s,mb5.1						
JOF	Joensuu	67.36	332	ep	P	20 35 53.0	-1.1
	comp=Z,4.8nm,0.5s,mb4.8						
OBN	Obninsk	69.34	324	P	P	20 36 07.0	+0.4
OBN				*PP	pP	20 36 17.0	+0.6
OBN				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
KAF	Kangasniemi	69.71	333	eP	P	20 36 07.7	-1.1
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
KAF	Kangasniemi	69.71	333	ep	P	20 36 07.7	-1.1
	comp=Z,4.1nm,0.5s,mb4.6						
VSU	Vasula	71.81	330	⇓iP	P	20 36 22.0	+0.4
VSU				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
KIV	Kislovodsk	71.88	311	⇑eP	P	20 36 22.9	+0.5
KIV				e*PP	pP	20 36 32.7	+0.5
KIV				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
KIV				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.1						
KIV	Kislovodsk	71.88	311	eP	P	20 36 22.0	-0.3
	comp=Z,31nm,1.1s,mb5.2						
SUMG	Summit	72.34	360	eP	P	20 36 25.3	+0.7
	comp=Z,9.9nm,1.0s,mb4.7						
GNI	Garni	72.58	307	⇑eP	P	20 36 27.6	+1.0
GNI				pmax	pmax		
	comp=Z,19nm,1.7s						
GNI	Garni	72.58	307	P	P	20 36 27.9	+1.3
	comp=Z,5.1nm,0.6s,mb4.7,baz=141,slow=11,SNR=8.1						
FFC	Flin Flon	75.18	32	i P	P	20 36 42.8	+1.3
LRM	Limekiln Ridge	75.44	44	eP	P	20 36 43.7	+0.5
	comp=Z,34nm,1.1s,mb5.2						
AKASG	Malin Array Be	75.52	322	P	P	20 36 43.2	-0.4
	comp=Z,7.0nm,0.5s,mb4.8,baz=45,slow=5.7,SNR=36						
AKBB	Malin Array Si	75.52	322	eP	P	20 36 43.1	-0.4
KIEV	Kiev	75.53	322	eP	P	20 36 42.8	-0.8
KIEV				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
KIEV	Kiev	75.53	322	eP	P	20 36 42.8	-0.8
	comp=Z,17nm,0.9s,mb5.0						

FCC	Fort Churchill	75.55	26	eP	P	20 36 43.1	-0.4
	comp=Z,0.1nm,1.0s						
NB2	NORSAR Subarra	75.66	337	P	P	20 36 44.4	+0.3
	comp=Z,2.5nm,0.7s,mb4.2,baz=40,slow=5.9						
NOA	NORSAR Array B	75.66	337	P	P	20 36 44.3	+0.2
NOA				*PP	pP	20 36 52.8	-1.2
NOA	NORSAR Array B	75.66	337	P	P	20 36 44.3	+0.1
	comp=Z,4.1nm,0.8s,mb4.4,baz=40,slow=5.7,SNR=7.4						
NOA				pP	pP	20 36 52.8	-1.3
	comp=Z,2.3nm,0.8s,baz=40,slow=5.7,SNR=3.5						
NOA				LR	LR	21 17 18.4	
	comp=Z,73nm,19.1s,MS4.0,baz=10.0,slow=42						
NVAR	Mina Array Bea	76.11	53	P	P	20 36 47.5	+0.4
	comp=Z,1.4nm,0.7s,mb4.0,baz=317,slow=5.6,SNR=4.4						
MIB	Mutribah	76.30	297	eP	P	20 36 47.7	-0.8
MIB				AMb	AMB	20 36 48.8	
	comp=Z,17nm,1.0s,mb4.9						
SIM	Simferopol’	76.41	316	eP	P	20 36 49.0	+0.3
SIM				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
RDF	Al-Radifah	76.62	296	eP	P	20 36 49.8	-0.5
RDF				AMb	AMB	20 36 51.3	
	comp=Z,44nm,1.1s,mb5.3						
NAY	Al-Naaiem	76.67	296	eP	P	20 36 49.5	-1.0
NAY				AMb	AMB	20 36 51.0	
	comp=Z,12nm,1.1s,mb4.8						
PDAR	Pinedale Array	78.94	45	P	P	20 37 03.6	+0.8
	comp=Z,1.0nm,0.6s,mb3.9,baz=278,slow=2.1,SNR=12						
PDAR				pP	pP	20 37 13.1	+0.2
	comp=Z,0.5nm,0.5s,baz=275,slow=2.2,SNR=5.9						
KWP	Kalwaria Pacla	79.39	324	eP	P	20 37 06.0	+0.8
KWP	Kalwaria Pacla	79.39	324	eP	P	20 37 06.0	+0.8
BUR08	Bucovina Ar. S	79.51	322	eP	P	20 37 06.2	+0.3
BRTR	Keskin Array B	79.84	312	P	P	20 37 08.7	+0.8
	comp=Z,3.5nm,0.7s,mb4.4,baz=109,slow=3.0,SNR=10						
KOLS	Kolonicke sedl	80.08	324	eP	P	20 37 07.5	-1.5
STHS	Stebnicka Huta	80.23	325	i P	P	20 37 10.6	+0.8
STHS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
STHS	Stebnicka Huta	80.23	325	i P	P	20 37 10.5	+0.7
STHS	Stebnicka Huta	80.23	325	i P	P	20 37 10.6	+0.8
	comp=Z,4.1nm,0.9s,mb4.4						
OJC	Ojcow	80.33	326	eP	P	20 37 10.9	+0.6
CRVS	Cervenica-Dubn	80.48	324	i P	P	20 37 11.9	+0.7
CRVS	Cervenica-Dubn	80.48	324	i P	P	20 37 11.9	+0.7
NIE	Niedzica	80.66	325	eP	P	20 37 13.0	+0.9
KECS	Kecovo	81.24	325	i P	P	20 37 16.5	+1.3
KECS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
KECS	Kecovo	81.24	325	i P	P	20 37 16.5	+1.3
	comp=Z,2.2nm,0.9s,mb4.1						
KECS	Kecovo	81.24	325	i P	P	20 37 16.5	+1.3
	comp=Z,2.2nm,0.9s,mb4.1						
KSP	Ksiaz	81.43	328	eP	P	20 37 16.9	+0.7
DPC	Dobruska-Polom	81.78	328	eP	P	20 37 19.1	+1.1
DPC				epP	pP	20 37 28.0	0.0
UPC	Upice	81.80	328	eP	P	20 37 18.9	+0.8
VYHS	Vyhne	82.00	325	i P	P	20 37 19.5	+0.3
KOLL	Kolacno	82.14	326	i P	P	20 37 21.0	+1.0
PVCC	Panska Ves	82.40	329	eP	P	20 37 22.2	+0.9
PVCC				epP	pP	20 37 29.4	-1.8
BRG	Berggiesshubel	82.40	329	eP	P	20 37 21.5	+0.2
BRG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BRG	Berggiesshubel	82.40	329	eP	P	20 37 21.8	+0.5
	comp=Z,5.0nm,0.7s,mb4.5						
BRG	Berggiesshubel	82.40	329	eP	P	20 37 21.5	+0.2
	comp=Z,4.7nm,0.7s,mb4.5						
CLL	Collm	82.46	330	⇑iP	P	20 37 21.7	+0.1
CLL				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	82.46	330	eP	P	20 37 21.7	+0.1
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	82.46	330	⇑iP	P	20 37 21.7	+0.1
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	82.46	330	⇑iP	P	20 37 21.7	+0.1
	comp=Z,11nm,1.0s,mb4.7						
SMOL	Smolenice	82.64	326	i P	P	20 37 23.8	+1.3
PRU	Pruhonice	82.82	329	eP	P	20 37 24.1	+0.7
TREC	Trest	82.93	328	eP	P	20 37 24.5	+0.5
CLZ	Clausthal	83.09	332	eP	P	20 37 25.5	+0.7
CLZ				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
CLZ	Clausthal	83.09	332	eP	P	20 37 25.5	+0.7
	comp=Z,9.0nm,1.2s,mb4.7						
MOX	Moxa	83.53	330	eP	P	20 37 27.5	+0.4
	comp=Z,16nm,1.6s,mb4.9						
KHC	Kasperske Hory	83.88	328	eP	P	20 37 29.4	+0.5
KHC				epP	pP	20 37 37.6	-1.3
ROTZ	Rotzenmuhle	83.97	330	eP	P	20 37 30.3	+0.9
	comp=Z,13nm,1.6s,mb4.8						
GEC2	GERESS Array S	84.04	328	eP	P	20 37 30.0	+0.2
GEC2				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.6						
GEC2	GERESS Array S	84.04	328	eP	P	20 37 30.0	+0.2
	comp=Z,5.0nm,1.1s,mb4.6						
GERES	GERESS Array B	84.04	328	P	P	20 37 29.8	+0.1
	comp=Z,2.8nm,0.7s,mb4.5,baz=35,slow=5.5,SNR=28						
WET	Wettzell	84.16	329	eP	P	20 37 31.1	+0.7
WET				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
WET	Wettzell	84.16	329	eP	P	20 37 31.1	+0.7
	comp=Z,4.0nm,0.9s,mb4.5						
GRA1	Grafenberg Arr	84.43	330	eP	P	20 37 32.5	+0.8
	comp=Z,14nm,0.8s,mb5.1						
GRF	Grafenberg Arr	84.43	330	eP	P	20 37 32.5	+0.8
GRF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
GRF	Grafenberg Arr	84.43	330	eP	P	20 37 32.5	+0.8
GRF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
GRF	Grafenberg Arr	84.43	330	eP	P	20 37 32.5	+0.8
	comp=Z,14nm,0.8s,mb5.1						
TNS	Taunus Mts	85.11	332	eP	P	20 37 35.5	+0.3
TNS				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.0						
TNS	Taunus Mts	85.11	332	eP	P	20 37 35.5	+0.3
	comp=Z,16nm,1.2s,mb5.0						
VAY	Valandovo	85.19	318	eP	P	20 37 35.3	-0.4
RJOB	Jochberg	85.28	328	eP	P	20 37 36.7	+0.7
	comp=Z,6.0nm,1.0s,mb4.7						
FUR	Furstenfeldbru	85.60	329	eP	P	20 37 38.0	+0.4
FUR				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.2						
FUR	Furstenfeldbru	85.60	329	eP	P	20 37 38.0	+0.4
	comp=Z,13nm,0.8s,mb5.2						
STU	Stuttgart	85.97	330	eP	P	20 37 39.9	+0.4
	comp=Z,11nm,0.8s,mb5.1						
BFO	Black Forest	86.67	331	eP	P	20 37 43.0	+0.1
BFO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
BFO	Black Forest	86.67	331	eP	P	20 37 43.0	+0.1
	comp=Z,9.0nm,0.9s,mb5.0						
BAIF	Baives	86.83	334	eP	P	20 37 43.8	+0.2
SCHQ	Schefferville	86.97	16	P	P	20 37 44.7	+0.5
	comp=Z,1.7nm,0.6s,mb4.5,baz=4.3,slow=5.8,SNR=8.3						
CDF	Champ du Feu	87.03	331	eP	P	20 37 43.8	-0.8
	comp=Z,12nm,0.9s,mb4.8						
CDF	Champ du Feu	87.03	331	eP	P	20 37 43.8	-0.8
CDF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
CDF	Champ du Feu	87.03	331	eP	P	20 37 43.8	-0.8
	comp=Z,6.2nm,0.9s,mb4.8						
HINF	Hinteralfeld	87.68	331	eP	P	20 37 46.7	-1.1
HAU	Haudompre	87.72	332	eP	P	20 37 47.6	-0.4
CABF	La Chapelle	88.96	331	eP	P	20 37 53.1	-0.8
SSF	Saint Saulge	89.59	333	eP	P	20 37 56.9	+0.1
LPL	La Plagne	89.59	330	eP	P	20 37 56.3	-0.6
	comp=Z,4.4nm,0.6s,mb4.6						
LPL	La Plagne	89.59	330	eP	P	20 37 56.3	-0.6
LPL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.6						
LPL	La Plagne	89.59	330	eP	P	20 37 56.3	-0.6
	comp=Z,2.2nm,0.6s,mb4.7						
LPG	La Plagne	89.60	330	eP	P	20 37 56.5	-0.4
	comp=Z,4.1nm,0.6s,mb4.7						
LPG	La Plagne	89.60	330	eP	P	20 37 56.5	-0.4
LPG				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.6						
LPG	La Plagne	89.60	330	eP	P	20 37 56.5	-0.4
	comp=Z,2.0nm,0.6s,mb4.6						
SMF	Signal de Mont	89.81	332	eP	P	20 37 57.9	+0.1
	comp=Z,4.4nm,0.7s,mb4.6						
SMF	Signal de Mont	89.81	332	eP	P	20 37 57.9	+0.1
SMF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.6						
SMF	Signal de Mont	89.81	332	eP	P	20 37 57.9	+0.1
	comp=Z,2.2nm,0.7s,mb4.6						
AVF	Avril sur Loir	89.87	333	eP	P	20 37 58.4	+0.3
	comp=Z,18nm,1.0s,mb5.1						
AVF	Avril sur Loir	89.87	333	eP	P	20 37 58.4	+0.3
AVF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
AVF	Avril sur Loir	89.87	333	eP	P	20 37 58.4	+0.3
	comp=Z,9.2nm,1.0s,mb5.1						
GRR	Gorron	90.01	336	eP	P	20 37 57.9	-0.9
MBDF	Montbardon	90.22	329	eP	P	20 37 59.1	-0.7
	comp=Z,3.2nm,0.5s,mb4.6						
MBDF	Montbardon	90.22	329	eP	P	20 37 59.1	-0.7
MBDF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.7						
MBDF	Montbardon	90.22	329	eP	P	20 37 59.1	-0.7
	comp=Z,1.6nm,0.5s,mb4.6						
ORIF	Oris-en-Rattie	90.43	330	eP	P	20 38 00.8	0.0
	comp=Z,4.4nm,0.6s,mb4.6						
ORIF	Oris-en-Rattie	90.43	330	eP	P	20 38 00.8	0.0
ORIF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.6						
ORIF	Oris-en-Rattie	90.43	330	eP	P	20 38 00.8	0.0
	comp=Z,2.2nm,0.6s,mb4.7						
SBF	Sospel	90.64	329	eP	P	20 38 00.3	-1.5
	comp=Z,16nm,0.7s,mb5.2						
SBF	Sospel	90.64	329	eP	P	20 38 00.3	-1.5
SBF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.2						
SBF	Sospel	90.64	329	eP	P	20 38 00.3	-1.5
	comp=Z,8.1nm,0.7s,mb5.2						
TCF	Toulx Ste Croi	90.72	333	eP	P	20 38 01.6	-0.5
VIVF	Saint-Julien-l	90.97	331	eP	P	20 38 02.6	-0.7
	comp=Z,5.0nm,0.7s,mb4.6						
VIVF	Saint-Julien-l	90.97	331	eP	P	20 38 02.6	-0.7
VIVF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.7						
VIVF	Saint-Julien-l	90.97	331	eP	P	20 38 02.6	-0.7
	comp=Z,2.5nm,0.7s,mb4.7						
PGF	Pioggiola	91.01	327	eP	P	20 38 02.1	-1.4
	comp=Z,9.9nm,1.0s,mb4.8						
PGF	Pioggiola	91.01	327	eP	P	20 38 02.1	-1.4
PGF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.8						
PGF	Pioggiola	91.01	327	eP	P	20 38 02.1	-1.4
	comp=Z,4.9nm,1.0s,mb4.8						
FRF	La Foret Royal	91.22	329	eP	P	20 38 03.1	-1.4
	comp=Z,6.0nm,0.7s,mb4.8						
FRF	La Foret Royal	91.22	329	eP	P	20 38 03.1	-1.4
FRF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.7						
FRF	La Foret Royal	91.22	329	eP	P	20 38 03.1	-1.4
	comp=Z,3.0nm,0.7s,mb4.7						
TXAR	Lajitas Array	91.25	52	P	P	20 38 06.3	+1.4
	comp=Z,0.7nm,0.9s,mb4.0,baz=314,slow=4.7,SNR=6.8						
LMR	La Mourre	91.46	329	eP	P	20 38 04.4	-1.2
	comp=Z,13nm,0.8s,mb5.0						
LMR	La Mourre	91.46	329	eP	P	20 38 04.4	-1.2
LMR				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb5.0						
LMR	La Mourre	91.46	329	eP	P	20 38 04.4	-1.2
	comp=Z,6.6nm,0.8s,mb5.0						
RJF	Les Rejaudoux	91.81	333	eP	P	20 38 06.9	-0.3
	comp=Z,12nm,1.0s,mb4.9						
RJF	Les Rejaudoux	91.81	333	eP	P	20 38 06.9	-0.3
RJF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
RJF	Les Rejaudoux	91.81	333	eP	P	20 38 06.9	-0.3
	comp=Z,5.8nm,1.0s,mb4.9						
CAF	Calviac	91.93	332	eP	P	20 38 07.8	+0.1
LFF	La Frestale	92.41	333	eP	P	20 38 09.8	-0.2

CSEM ***24*** *20:38:15.6, 36°.23N×21°.67E, h10^{km}, MD3.5, After ATH*
NEIC ***24*** *20:38:15.6, 36°.23N×21°.67E, h10^{km}, MD3.5(ATH), After ATH.*
ATH 24 20:38:15.6, 36°.23N×21°.67E, h10$^{km}\pm4^{km}$**, MD3.5**/12**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.67	5	ePB	Pb	20 38 28.8	-0.5
PYL				eSB	Sb	20 38 37.3	-1.3
PYL	PYLOS	0.67	5	ePb	Pb	20 38 28.8	-0.5
PYL				eSb	Sb	20 38 37.3	-1.3
ITM	Ithomi	0.97	12	ePB	Pb	20 38 34.4	-0.1
ITM				eSB	Sb	20 38 47.3	-0.1
ITM	Ithomi	0.97	12	ePb	Pb	20 38 34.4	-0.1
ITM				eSb	Sb	20 38 47.3	-0.1
KYTH	Kithira	1.11	87	ePN	Pn	20 38 36.5	-0.6
KYTH	Kithira	1.11	87	ePn	Pn	20 38 36.5	-0.6
VLI	Veliai	1.13	64	ePG	Pg	20 38 36.8	-0.5
VLI				eSB	Sb	20 38 53.3	+1.3
VLI	Veliai	1.13	64	ePg	Pg	20 38 36.8	-0.5
VLI				eSb	Sb	20 38 53.3	+1.3
VLX	Vlachokerasia	1.27	26	ePN	Pn	20 38 39.0	-0.4
VLX				eSB	Sb	20 38 57.4	+1.3
VLX	Vlachokerasia	1.27	26	ePn	Pn	20 38 39.0	-0.4
VLX				eSb	Sb	20 38 57.4	+1.3
GUR	Goura	1.79	17	ePN	Pn	20 38 48.7	+2.2
GUR	Goura	1.79	17	ePn	Pn	20 38 48.7	+2.2
DID	Didima	1.79	44	ePN	Pn	20 38 47.6	+1.1
DID	Didima	1.79	44	ePn	Pn	20 38 47.6	+1.1
RLS	Riolos of Patr	1.83	355	ePG	Pg	20 38 50.9	+0.2
RLS	Riolos of Patr	1.83	355	ePg	Pg	20 38 50.9	+0.2
LTK	Loutraki	2.07	30	ePN	Pn	20 38 52.6	+2.2
LTK	Loutraki	2.07	30	ePn	Pn	20 38 52.6	+2.2
VLS	Valsamata	2.13	336	ePN	Pn	20 38 54.2	+3.0
VLS	Valsamata	2.13	336	ePn	Pn	20 38 54.2	+3.0
EFP	Efpalio	2.20	5	ePG	Pg	20 38 56.3	-1.5
EFP	Efpalio	2.20	5	ePg	Pg	20 38 56.3	-1.5
AGG	Agios Georgios	2.84	10	ePB	Pb	20 39 04.7	-1.6
AGG	Agios Georgios	2.84	10	ePb	Pb	20 39 04.7	-1.6

NEIC ***24*** *20:47:59.8, 37°.12N×20°.40E, h18^{km}, MD3.8(ATH), After ATH.*
ATH ***24*** *20:47:59.8, 37°.12N×20°.40E, h18$^{km}\pm1^{km}$, MD3.8/17*
THE ***24*** *20:48:00.2, 37°.10N×20°.35E, h0$^{km}\pm5^{km}$, ML3.8/3, Error ellipse: s-maj=7.0km s-min=1.6km az=47.0*
CSEM ***24*** *20:48:02.0±0.3, 37°.14N×20°.40E, h20^{km}, MD3.8, Error ellipse: s-maj=9.5km s-min=4.2km az=26.0*
ISC 24 20:48:01.0±1.1**, 37°.16N**±0°.05×**20°.38E**±0°.04**, h12**$^{km}\pm6^{km}$**, n61, σ1^{s}.00**/77**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	1.03	9	P	Pg	20 48 20.4	-0.5
VLS	Valsamata	1.03	9	ePN	Pg	20 48 19.9	-1.0
VLS				eSN	Sg	20 48 34.9	+0.5
VLS	Valsamata	1.03	9	ePn	Pg	20 48 19.9	-1.0
VLS	Valsamata	1.03	9	P	Pg	20 48 20.4	-0.5
VLS				eSn	Sg	20 48 34.9	+0.5
PYL	PYLOS	1.12	103	P	Pg	20 48 21.3	-1.4
PYL	PYLOS	1.12	103	ePN	Pg	20 48 21.0	-1.7
PYL				eSN	Sg	20 48 35.4	-1.9
PYL	PYLOS	1.12	103	ePn	Pg	20 48 21.0	-1.7
PYL	PYLOS	1.12	103	P	Pg	20 48 21.3	-1.4
PYL				eSn	Sg	20 48 35.4	-1.9
ITM	Ithomi	1.24	88	ePN	Pn	20 48 22.9	-1.3
ITM				eSN	Sn	20 48 39.7	-1.1
ITM	Ithomi	1.24	88	ePn	Pn	20 48 22.9	-1.3
ITM				eSn	Sn	20 48 39.7	-1.1
RLS	Riolos of Patr	1.25	44	ePN	Pn	20 48 23.9	-0.4
RLS				eSN	Sn	20 48 41.4	+0.3
RLS	Riolos of Patr	1.25	44	ePn	Pn	20 48 23.9	-0.4
RLS				eSn	Sn	20 48 41.4	+0.3
LKD	Levkas	1.56	8	P	Pn	20 48 29.3	+0.7
LKD	Levkas	1.56	8	P	Pn	20 48 29.3	+0.7
VLX	Vlachokerasia	1.61	82	ePN	Pn	20 48 29.1	-0.2
VLX				eSN	Sn	20 48 50.5	+0.4
VLX	Vlachokerasia	1.61	82	ePn	Pn	20 48 29.1	-0.2
VLX				eSn	Sn	20 48 50.5	+0.4
LAKA	Lakka	1.67	49	P	Pn	20 48 30.7	+0.6
LAKA	Lakka	1.67	49	P	Pn	20 48 30.7	+0.6
GUR	Goura	1.75	63	ePN	Pn	20 48 30.7	-0.5
GUR	Goura	1.75	63	ePn	Pn	20 48 30.7	-0.5
EFP	Efpalio	1.75	43	ePN	Pn	20 48 32.0	+0.7
EFP	Efpalio	1.75	43	ePn	Pn	20 48 32.0	+0.7
TRIZ	Trizonia	1.81	48	P	Pn	20 48 32.8	+0.8
KALE	Kalithea	1.86	48	P	Pn	20 48 33.7	+0.9
EVR	Evrytania	2.09	32	ePN	Pn	20 48 37.0	+1.1
EVR	Evrytania	2.09	32	ePn	Pn	20 48 37.0	+1.1
VLI	Veliai	2.10	101	ePN	Pn	20 48 36.3	+0.3
VLI	Veliai	2.10	101	ePn	Pn	20 48 36.3	+0.3
LTK	Loutraki	2.23	66	ePB	Pn	20 48 37.3	-0.6
DID	Didima	2.31	80	ePB	Pn	20 48 38.4	-0.5
KYTH	Kithira	2.31	111	ePN	Pn	20 48 39.3	+0.4
KYTH	Kithira	2.31	111	ePn	Pn	20 48 39.3	+0.4
IGT	Igoumenitsa	2.37	359	P	Pn	20 48 40.4	+0.6
IGT	Igoumenitsa	2.37	359	P	Pn	20 48 40.4	+0.6
AGG	Agios Georgios	2.42	39	P	Pn	20 48 40.9	+0.5
AGG	Agios Georgios	2.42	39	ePN	Pn	20 48 41.0	+0.6
AGG	Agios Georgios	2.42	39	ePn	Pn	20 48 41.0	+0.6
LKR	Lokris	2.56	54	ePN	Pn	20 48 42.7	+0.4
LKR	Lokris	2.56	54	ePn	Pn	20 48 42.7	+0.4
MEV	Metsovon	2.71	14	P	Pn	20 48 45.9	+1.5
MEV	Metsovon	2.71	14	P	Pn	20 48 45.9	+1.5
THL	Klokotos Trika	2.73	28	ePN	Pn	20 48 45.3	+0.6
THL	Klokotos Trika	2.73	28	ePn	Pn	20 48 45.3	+0.6
VLY	Voula,Athens	2.81	75	ePN	Pn	20 48 46.5	+0.8
VLY	Voula,Athens	2.81	75	ePn	Pn	20 48 46.5	+0.8
PTL	Penteli	2.91	71	ePN	Pn	20 48 47.1	-0.1
PTL	Penteli	2.91	71	ePn	Pn	20 48 47.1	-0.1
CEL	Celeste	3.72	289	Pn	Pn	20 49 00.3	+2.0
CEL	Celeste	3.72	289	Pn	Pn	20 49 00.3	+2.0
TAR1	Taranto	4.14	325	ePn	Pn	20 49 04.9	+0.8
TAR1				eSn	Sn	20 49 50.3	-2.1
PE1	Pezze di Greco	4.31	329	ePn	Pn	20 49 06.3	-0.1
PE1				eSn	Sn	20 49 53.3	-3.2
LTRZ	Laterza	4.42	322	Pn	Pn	20 49 08.1	+0.2
LTRZ	Laterza	4.42	322	Pn	Pn	20 49 08.1	+0.2
SG1	Sgolgore (BA)	4.67	323	ePn	Pn	20 49 12.3	+1.0
SG1				eSn	Sn	20 50 01.7	-3.8
BAI	Bari	4.79	327	ePn	Pn	20 49 13.5	+0.5
BAI				eSn	Sn	20 50 06.5	-1.9
RGNG	Rignano Grg	5.84	322	Pn	Pn	20 49 28.1	+0.7
RGNG	Rignano Grg	5.84	322	Pn	Pn	20 49 28.1	+0.7
STON	Ston	6.07	341	ePn	Pn	20 49 28.7	-1.8
STON				Sn	Sn	20 50 32.4	-7.5
STON	Ston	6.07	341	ePn	Pn	20 49 28.7	-1.8
NVLJ	Novalja	8.49	332	ePn	Pn	20 50 03.5	-0.3
NVLJ				Sn	Sn	20 51 33.1	-6.4
NVLJ	Novalja	8.49	332	ePn	Pn	20 50 03.5	-0.3

NEIC ***24*** *20:53:16.7±2.7, 5°.17S×153°.84E, h35^{km}, mb3.9/1, Error ellipse: s-maj=127.0km s-min=33.5km az=126.0*
IDC 24 20:53:11.8±3.1**, 5°.17S×153°.85E, h0**^{km}**, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.5**/17**, mbtmp3.7**/3**, Error ellipse: s-maj=125.5km s-min=39.2km az=123.0, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	Tennant Creek	23.99	231	eP	P	20 58 28.5	+0.2
	3.4nm,0.9s						
WB2	Warramunga Arr	23.99	231	eP	P	20 58 27.2	-1.1
WRA	Warramunga Arr	24.00	231	P	P	20 58 28.7	+0.3
	0.6nm,0.7s,baz=54,slow=9.6,SNR=5.1						
ASAR	Alice Springs	26.60	224	P	P	20 58 52.0	0.0
	0.2nm,0.4s,baz=61,slow=9.6,SNR=6.2						
FITZ	Fitzroy Crossi	30.41	243	P	P	20 59 25.9	-0.2
	1.5nm,0.6s,baz=81,slow=10,SNR=3.8						
TORD	Torodi Ar. Bea	151.42	288	PKPbc	PKPbc	21 13 08.3	-0.5
	0.4nm,0.4s,baz=68,slow=2.1,SNR=16						
TORD				PKPab	PKPab	21 13 17.0	0.0
	0.4nm,0.6s,baz=84,slow=2.7,SNR=3.4						
TORD	Torodi Ar. Bea	151.42	288	PKPbc	PKPbc	21 13 08.3	-0.5
TORD				PKPab	PKPab	21 13 17.0	0.0

KNET ***24*** *21:02:11.2±0.4, 42°.50N×75°.43E, h23$^{km}\pm11^{km}$, ml2.5, Error ellipse: s-maj=4.0km s-min=1.9km az=23.0*
ISCJB ***24*** *21:02:12.5±2.1, 42°.53N±0°.04×75°.46E±0°.04, h15$^{km}\pm16^{km}$, Error ellipse: s-maj=7.4km s-min=4.8km az=4.4*
NNC ***24*** *21:02:12.5±0.7, 42°.59N×75°.38E, h6$^{km}\pm6^{km}$, mb3.2, mpv3.1, Error ellipse: s-maj=14.7km s-min=5.5km az=135.0*
ISC 24 21:02:12.4±0.6**, 42°.52N**±0°.04×**75°.44E**±0°.04**, h2**$^{km}\pm10^{km}$**, n13, σ0^{s}.70**/18**, 11C-9D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBK	Karagaybulak	0.39	291	P	Pg	21 02 20.4	+0.5
	85nm,0.1s,SNR=549						
KBK				⇑S	Sg	21 02 26.1	+1.2
	1µm,0.2s						
TKM2	Tokmak 2	0.42	16	⇑P	Pg	21 02 20.5	0.0
	72nm,0.2s						
TKM2				⇑S	Sg	21 02 26.3	+0.3
	67nm,0.2s						
TKM2	Tokmak 2	0.42	16	⇓P	Pg	21 02 20.4	-0.1
	230nm,0.1s,SNR=1388						
ULHL	Ulahol	0.65	114	⇑P	Pg	21 02 24.7	-0.2
	33nm,0.1s,SNR=240						
ULHL				⇑S	Sg	21 02 33.6	+0.2
	174nm,0.2s						
CHMS	Chumysh	0.70	314	⇓P	Pg	21 02 25.5	-0.3
	12nm,0.1s,SNR=25						
CHMS				⇑S	Sg	21 02 35.0	+0.1
	140nm,0.1s						
AAK	Ala-Archa	0.71	280	⇑P	Pg	21 02 25.8	-0.2
	20nm,0.2s,SNR=72						
AAK				⇑S	Sg	21 02 35.3	+0.2
	132nm,0.2s						
UCH	Uchtor	0.74	248	⇓P	Pg	21 02 26.4	-0.3
	14nm,0.1s,SNR=75						
UCH				⇓S	Sg	21 02 36.4	+0.1
	297nm,0.3s						
USP	Ospenovka	1.02	318	⇓P	Pg	21 02 31.1	-0.8
	16nm,0.1s,SNR=35						
USP				⇓S	Sg	21 02 44.8	-0.4
	104nm,0.2s						
KK31	Karatay Array	3.67	281	⇓Pg	Pg	21 03 19.6	-3.2
	1.0nm,0.3s,baz=104,slow=16,SNR=67						
KK31				⇓Lg		21 04 06.1	
	2.3nm,0.3s,baz=101,slow=25,SNR=8.4						
MK31	Makanchi Array	6.49	46	Pn	Pn	21 03 50.2	+1.3
	0.5nm,0.5s,baz=219,slow=14,SNR=22						
MK31				Sn	Sn	21 05 02.8	-0.7
	1.2nm,0.7s,baz=226,slow=22,SNR=6.5						
MK31				⇑Lg		21 05 37.5	
	3.4nm,0.9s,baz=231,slow=30,SNR=4.4						
KURBB	Kurchatov Arra	8.38	14	⇑Lg		21 06 36.7	
	1.0nm,0.8s						
KURK	Kurchatov	8.49	14	⇑Lg		21 06 38.9	
	7.5nm,1.0s						
VOSK	Vostochnaya	10.64	345	⇓Lg		21 07 44.5	
	2.5nm,0.9s						

NEIC ***24*** *21:23:08.7±2.6, 39°.75N×72°.27E, h5$^{km}\pm17^{km}$, mb4.4/28, Error ellipse: s-maj=6.5km s-min=4.2km az=58.0*
IDC ***24*** *21:23:08.5±0.6, 39°.84N×72°.25E, h0^{km}, mb4.1/19, mb1 4.2/24, mb1mx4.2/32, mbtmp4.1/24, ML3.9/5, MS3.5/4, Ms1 3.5/4, ms1mx3.0/28, Error ellipse: s-maj=11.9km s-min=10.8km az=144.0*
BJI ***24*** *21:23:11.7, 40°.01N×72°.35E, h16^{km}, mB4.7/5, mb4.1/9, ML4.2/6, Ms3.9/3, Ms7 3.6/2*
NNC ***24*** *21:23:11.5±2.6, 40°.06N×72°.19E, h0^{km}, mb4.5, mpv4.7, Error ellipse: s-maj=25.4km s-min=16.4km az=6.0*
MOS ***24*** *21:23:12.5±1.2, 40°.02N×72°.15E, h33^{km}, mb4.5/19, Error ellipse: s-maj=7.9km s-min=5.5km az=107.6*
ISC 24 21:23:08.8±1.3**, 39°.82N**±0°.02×**72°.20E**±0°.04**, h2**$^{km}\pm8^{km}$**, n166, σ1^{s}.36**/185**, mb4.2**/44**, MS3.6**/3**, 10C-11D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	2.57	26	P	Pn	21 23 53.6	+2.1
	SNR=178						
AML	Almayashu	2.57	26	ePn	Pn	21 23 53.4	+1.9
AML				eS	Sn	21 24 25.4	+2.0
KSH	Kashi	2.93	95	⇓iPn	Pn	21 23 57.3	+0.9
KSH				Sn	Sn	21 24 33.9	+1.7
KSH				smax			
	comp=N,3µm,0.7s						
KSH				smax			
	comp=E,2µm,0.6s						
UCH	Uchtor	2.98	35	P	Pn	21 23 59.1	+2.0
	SNR=48						
UCH	Uchtor	2.98	35	ePn	Pn	21 23 58.7	+1.7
UCH				eS	Sn	21 24 40.4	+7.1
EKS2	Erkin-Say	3.08	22	P	Pn	21 24 00.6	+2.1

	SNR=72						
EKS2	Erkin-Say	3.08	22	ePn	Pn	21 24 00.2	+1.7
EKS2				eS	Sn	21 24 38.2	+2.3
KZA	Kyzart	3.23	45	P	Pn	21 24 02.3	+1.8
	SNR=120						
AAK	Ala-Archa	3.30	31	P	Pn	21 24 06.0	+4.5
	SNR=114						
KBK	Karagaybulak	3.51	35	P	Pn	21 24 07.3	+2.9
	SNR=124						
KK31	Karatay Array	3.52	339	⇓Pn	Pn	21 24 06.0	+1.5
	comp=E,34nm,0.3s						
KK31				⇑Lg		21 24 57.3	
	comp=E,659nm,0.9s						
FRU	Bishkek	3.52	30	ePN	Pn	21 24 07.0	+2.5
FRU				eS	Sn	21 24 51.0	+4.3
FRU				pmax	pmax		
	comp=Z,370nm,2.5s						
FRU				smax			
	comp=E,2μm,2.5s						
CHMS	Chumysh	3.71	30	P	Pn	21 24 09.5	+2.4
	SNR=92						
USP	Ospenovka	3.85	26	P	Pn	21 24 11.2	+2.1
	SNR=34						
ULHL	Ulahol	3.90	50	P	Pn	21 24 11.0	+1.2
	SNR=31						
TKM2	Tokmak 2	4.02	38	⇓Pn	Pn	21 24 13.1	+1.8
	comp=E,231nm,0.6s						
TKM2				⇑Lg		21 25 13.0	
	comp=E,308nm,0.8s						
TKM2	Tokmak 2	4.02	38	P	Pn	21 24 13.6	+2.2
	SNR=45						
TKM2	Tokmak 2	4.02	38	ePn	Pn	21 24 13.1	+1.8
TKM2				ePg	Pg	21 24 25.9	+0.1
TKM2				eS	Sg	21 25 14.2	-3.7
KBL	Kabul	5.84	207	ePN	Pn	21 24 41.8	+5.4
KBL				e		21 25 53.8	
KBL				pmax	pmax		
	comp=Z,48nm,0.6s						
KBL	Kabul	5.84	207	ePn	Pn	21 24 41.8	+5.4
	comp=Z,48nm,0.6s						
KBL				eSn	Sn	21 25 53.8	+10
THN	Thein Dam	7.90	158	ePKP	Pn	21 25 08.1	+3.4
THN				eS	Sn	21 26 33.6	-1.1
SDNR	Sundarnagar	9.16	153	ePKP	Pn	21 25 26.6	+4.6
SDNR				ex	x	21 27 10.6	
KLP	Kalpa	9.62	147	ePKP	Pn	21 25 31.3	+3.0
KLP				eS	Sn	21 27 13.1	-3.9
KLP				AML	AML	21 27 32.3	
	comp=N,147nm,0.6s						
KLP				AML	AML	21 27 32.8	
	comp=E,200nm,0.5s						
MK31	Makanchi Array	10.13	43	⇓Pn	Pn	21 25 36.0	+0.8
	comp=E,5.1nm,0.6s,baz=227,slow=12,SNR=9.7						
MK31				⇓Lg		21 28 27.1	
	comp=E,10nm,0.7s,baz=228,slow=29,SNR=4.2						
MKAR	Makanchi Array	10.13	43	Pn	Pn	21 25 35.6	+0.4
	comp=E,0.2nm,0.3s,baz=231,slow=14,SNR=6.2						
MKAR				Lg		21 28 25.9	
	comp=E,0.8nm,0.3s,baz=241,slow=26,SNR=4.1						
KURBB	Kurchatov Arra	11.68	20	⇑Pn	Pn	21 25 54.5	-2.0
	comp=E,3.6nm,1.2s						
KURBB				⇓Lg		21 29 12.7	
	comp=E,15nm,1.4s						
KURK	Kurchatov	11.79	20	⇓Pn	Pn	21 25 56.0	-1.9
	comp=E,19nm,1.3s						
KURK				⇓Lg		21 29 14.7	
	comp=E,47nm,0.9s						
KURK	Kurchatov	11.79	20	eP	Pn	21 25 56.4	-1.5
KURK				e		21 28 07.0	
KURK				pmax	pmax		
	comp=Z,18nm,1.1s						
KURK	Kurchatov	11.79	20	Pn	Pn	21 25 54.6	-3.3
	comp=Z,0.4nm,0.3s,baz=216,slow=13,SNR=55						
KURK				Lg		21 29 14.8	
	comp=Z,0.3nm,0.3s,baz=212,slow=29,SNR=5.4						
KURK				LR	LR	21 30 39.9	
	comp=Z,162nm,21.3s,baz=230,slow=39						
KURK	Kurchatov	11.79	20	ePn	Pn	21 25 56.4	-1.6
	comp=Z,18nm,1.1s						
KURK				eSn	Sn	21 28 07.0	-3.1
NDI	New Delhi	11.86	158	eS	Sn	21 28 05.5	-6.3
KHET	Khetri	12.09	165	ex	Pn	21 26 01.4	-0.7
KHET				eS	Sn	21 28 10.0	-7.5
KHET				AML	AML	21 28 17.5	
	comp=E,71nm,0.2s						
KHET				AML	AML	21 28 17.7	
	comp=N,50nm,0.2s						
KUDL	Kundal	12.18	162	ePKP	Pn	21 26 04.0	+0.8
KUDL				eS	Sn	21 28 12.7	-6.9
SONA	Sohna	12.23	159	ePKP	Pn	21 26 05.6	+1.6
SONA				eS	Sn	21 28 13.8	-7.1
SONA				AML	AML	21 28 24.1	
	comp=E,32nm,0.3s						
SONA				AML	AML	21 28 26.8	
	comp=N,21nm,0.5s						
AB01	Akbulak array	12.84	321	⇑P	Pn	21 26 09.7	-2.6
	comp=N,10nm,0.7s						
VOSK	Vostochnaya	12.94	357	⇓Pn	Pn	21 26 11.0	-2.5
	comp=N,7.8nm,0.8s						
VOSK				⇑Lg		21 29 52.0	
	comp=N,63nm,1.8s						
BVA0	Borovoye Array	13.27	355	⇑Pn	Pn	21 26 15.6	-2.5
	comp=N,2.4nm,0.8s						
BVA0				⇑Sn	Sn	21 28 45.1	-1.0
	comp=N,1.6nm,0.7s						
BVA0				⇓Lg		21 30 04.6	
	comp=N,6.0nm,0.9s						
BVAR	Borovoye Array	13.27	355	P	Pn	21 26 16.0	-2.1
BVAR						21 28 39.4	
BVAR	Borovoye Array	13.27	355	Pn	Pn	21 26 16.0	-2.1
	comp=N,1.2nm,0.3s,baz=170,slow=13,SNR=36						
BVAR				Sn	Sn	21 28 39.4	-6.7
	comp=N,0.5nm,0.3s,baz=165,slow=22,SNR=3.9						
BVAR				Lg		21 30 10.8	
	comp=N,0.8nm,0.3s,baz=162,slow=28,SNR=4.2						
BVAR				LR	LR	21 31 59.4	
	comp=N,111nm,20.8s,baz=73,slow=40						
BRVK	Borovoye	13.31	355	eP	Pn	21 26 17.2	-1.4
BRVK				e		21 28 40.8	
BRVK				pmax	pmax		
	comp=Z,19nm,1.0s						
BRVK	Borovoye	13.31	355	ePn	Pn	21 26 17.2	-1.4
	comp=Z,20nm,1.0s						
BRVK				eSn	Sn	21 28 40.8	-6.3
AKTK	Aktyubinsk	14.56	321	Pn	Pn	21 26 33.5	-2.3
AKTK				Sn	Sn	21 29 10.5	-7.1
AKTO	Aktyubinsk	14.56	321	⇑P	Pn	21 26 33.4	-2.3
	comp=Z,2.1nm,0.5s						
AKTO	Aktyubinsk	14.56	321	Pn	Pn	21 26 33.5	-2.3
	comp=Z,1.0nm,0.3s,baz=134,slow=14,SNR=31						
AKTO				Sn	Sn	21 29 10.5	-7.1
	comp=Z,0.8nm,0.3s,baz=164,slow=18,SNR=4.6						
DANN	Dangsing	14.91	137	eP	Pn	21 26 39.5	-1.0
	comp=Z,36nm,0.5s						
KOLN	Koldanda	15.29	138	eP	Pn	21 26 44.8	-0.9
	comp=Z,19nm,0.6s						
GKN	Gorkha	15.65	135	eP	Pn	21 26 48.1	-2.3
	comp=Z,23nm,0.4s						
KKN	Kakani	16.17	134	eP	Pn	21 26 55.2	-2.0
	comp=Z,13nm,0.5s						
KKN	Kakani	16.17	134	eP	Pn	21 26 55.2	-2.0
KKN				pmax	pmax		
	comp=Z,13nm,0.5s						
DMN	Daman	16.22	135	eP	Pn	21 26 56.1	-1.7
	comp=Z,17nm,0.6s						
PKIN	Phulchoki	16.40	134	eP	Pn	21 26 58.2	-1.9
	comp=Z,14nm,0.6s						
PKI	Pulchoki	16.41	134	eP	Pn	21 26 58.3	-2.0
	comp=Z,13nm,0.5s						
PKI	Pulchoki	16.41	134	eP	Pn	21 26 58.3	-2.0
PKI				pmax	pmax		
	comp=Z,13nm,0.5s						
GUN	Gumba	16.41	132	eP	Pn	21 26 58.1	-2.2
	comp=Z,22nm,0.8s						
ZAA0	Zalesovo Array	16.52	27	ePn	Pn	21 27 00.1	-1.4
ZAA0				eSn	Sn	21 29 58.3	-6.9
ZALV	Zalesovo Beam	16.52	27	Pn	Pn	21 26 59.2	-2.2
	comp=Z,0.4nm,0.3s,baz=224,slow=12,SNR=14						
ZALV				Lg		21 31 54.8	
	comp=Z,0.2nm,0.3s,baz=195,slow=22,SNR=3.9						
ZALV				LR	LR	21 33 44.7	
	comp=Z,152nm,20.7s,baz=8.7,slow=39						
NVS	Novosibirsk	16.75	23	eP	Pn	21 27 06.5	+2.1
NVS				eS	Sn	21 30 06.5	-4.4
NVS				pmax	pmax		
	comp=Z,22nm,1.8s						
NVS				pmax	pmax		
	comp=N,18nm,1.6s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.0s						
NVS				smax			
	comp=N,27nm,1.8s						
JIRN	Jiri	16.78	132	eP	Pn	21 27 02.7	-2.3
	comp=N,17nm,0.4s						
RAMN	Ramite	17.56	133	eP	Pn	21 27 13.5	-1.2
	comp=N,31nm,0.7s						
TAPN	Taplejung	17.90	129	eP	Pn	21 27 17.3	-1.7
	comp=N,26nm,0.9s						
ODAN	Odare	18.08	131	eP	Pn	21 27 20.4	-0.8
	comp=N,19nm,0.7s						
LSA	Lhasa	18.53	117	P	Pn	21 27 30.3	+3.7
LSA	Lhasa	18.53	117	eP	Pn	21 27 31.0	+4.4
LSA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LSA	Lhasa	18.53	117	ePn	Pn	21 27 30.9	+4.3
	comp=Z,7.0nm,0.8s						
SVE	Sverdlovsk	18.63	340	⇑eP	Pn	21 27 26.4	-1.2
SVE				pmax	pmax		
	comp=Z,10.0nm,0.7s						
ARU	Arti	18.89	336	d iP	Pn	21 27 29.0	-1.8
ARU				S	Sn	21 30 53.4	-9.1
ARU				pmax	pmax		
	comp=Z,19nm,1.7s						
ARU	Arti	18.89	336	ePn	Pn	21 27 29.1	-1.7
	comp=Z,10nm,0.8s						
GNI	Garni	21.01	280	eP	P	21 27 56.2	+2.6
GNI				pmax	pmax		
	comp=Z,38nm,1.4s						
GNI	Garni	21.01	280	P	P	21 27 56.1	+2.5
	comp=Z,6.8nm,0.8s,mb4.0,baz=18,slow=4.7,SNR=8.5						
GNI	Garni	21.01	280	eP	P	21 27 56.2	+2.6
	comp=Z,38nm,1.4s,mb4.5						
GTA	Gaotai	21.25	82	P	P	21 27 57.3	+1.1
GTA				pP		21 28 04.4	
GTA				sP	sP	21 28 08.8	+12
GTA				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb3.9						
GTA				pmax	pmax		
	comp=Z,130nm,4.5s						
GTA				LR	LR		
	comp=N,140nm,16.8s,MS3.6						
GTA				LR	LR		
	comp=E,150nm,18.0s,MS3.6						
GTA				LR	LR		
	comp=Z,180nm,16.5s,MS3.5						
SHL	Shillong	21.76	125	ePKP	P	21 28 06.0	+4.2
KIV	Kislovodsk	22.30	290	P	P	21 28 09.0	+1.7
KIV				e*SP	sP	21 28 18.6	+10
KIV				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.2						
KIV				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.3						
KIV	Kislovodsk	22.30	290	eP	P	21 28 07.6	+0.2
	comp=Z,19nm,0.8s,mb4.6						
MIB	Mutribah	22.66	252	eP	P	21 28 13.1	+1.8
MIB				AMb	AMB	21 28 19.4	
	comp=Z,33nm,0.8s,mb4.8						
RDF	Al-Radifah	22.99	249	eP	P	21 28 16.4	+1.6
RDF				AMb	AMB	21 28 19.2	
	comp=Z,31nm,1.5s,mb4.5						
HYB	Hyderabad	23.00	164	i P	P	21 28 17.0	+2.1
HYB	Hyderabad	23.00	164	eP	P	21 28 21.0	+6.1
NAY	Al-Naaiem	23.03	250	eP	P	21 28 16.5	+1.3
NAY				AMb	AMB	21 28 19.5	
	comp=Z,18nm,1.0s,mb4.5						
ZAK	Zakamensk	24.18	54	eP	P	21 28 27.5	+1.2
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.9						
TLY	Talaya	24.74	51	i P	P	21 28 34.9	+3.5
TLY				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.5						
SONM	Songino Array	25.77	61	P	P	21 28 40.9	0.0
	comp=Z,0.9nm,0.7s,baz=266,slow=11,SNR=2.9						
MALT	Malatya	26.18	278	eP	P	21 28 47.1	+2.5
MALT				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb3.9						
MALT	Malatya	26.18	278	eP	P	21 28 47.1	+2.5
	comp=Z,5.1nm,1.2s,mb3.9						
ULN	Ulaanbaatar	26.22	61	eP	P	21 28 45.4	+0.5
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
ULN	Ulaanbaatar	26.22	61	eP	P	21 28 45.4	+0.5
	comp=Z,2.4nm,0.8s,mb3.8						
PRGR	Permogore	27.21	332	P	P	21 28 52.1	-1.5
PRGR				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.0						
OBN	Obninsk	28.15	315	P	P	21 29 04.0	+1.9
SIM	Simferopol’	28.41	293	eP	P	21 29 05.0	+0.4
SIM				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
KLMR	Klimovskoe	29.13	327	eP	P	21 29 09.5	-1.3
KLMR				pmax	pmax		
	comp=Z,13nm,1.7s,mb4.4						
BRTR	Keskin Array B	29.48	282	P	P	21 29 15.5	+1.3
	comp=Z,4.1nm,0.7s,mb4.3,baz=83,slow=7.6,SNR=21						
CMAR	Chiang Mai Arr	31.40	125	P	P	21 29 31.9	+0.6
	comp=Z,0.9nm,0.9s,mb3.6,baz=316,slow=8.8,SNR=7.4						
BOD	Bodaibo	32.22	42	eP	P	21 29 37.4	-0.7
BOD				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
ISP	Isparta	32.33	280	P	P	21 29 40.2	+0.9
TIRR	Tirgusor	32.50	293	P	P	21 29 40.4	-0.3
PUL	Pulkovo	32.83	321	i P	P	21 29 44.1	+0.7
PUL				pmax	pmax		
	comp=Z,69nm,0.6s						
JOF	Joensuu	33.53	327	ep	P	21 29 49.3	-0.2
	comp=Z,1.9nm,0.4s,mb4.4						
PSZ	Piszkesteto	37.93	300	P	P	21 30 28.6	+1.2
ARCES	ARCESS Array B	38.48	336	P	P	21 30 31.9	+0.1
	comp=Z,3.3nm,0.6s,mb4.2,baz=106,slow=8.9,SNR=24						
YAK	Yakutsk	40.74	38	eP	P	21 30 54.6	+3.9
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.5						
YAK	Yakutsk	40.74	38	eP	P	21 30 50.8	+0.1
HFS	Hagfors	41.10	320	P	P	21 30 53.3	-0.4
	comp=Z,4.2nm,0.5s,mb4.3,baz=109,slow=10,SNR=31						
GERES	GERESS Array B	41.87	302	P	P	21 31 01.4	+1.3
	comp=Z,0.8nm,0.5s,mb3.6,baz=64,slow=9.1,SNR=10						
CLL	Collm	41.92	306	e(sP)	sP	21 31 08.0	+6.6
TIP	Timpagrande	42.19	288	eP	P	21 31 03.9	+1.0
NB2	NORSAR Subarra	42.35	321	P	P	21 31 03.8	-0.1
	comp=Z,2.6nm,0.8s,mb3.9,baz=92,slow=8.6						
NOA	NORSAR Array B	42.35	321	P	P	21 31 03.4	-0.6
	comp=Z,2.8nm,0.7s,mb4.0,baz=92,slow=8.1,SNR=6.5						
TIXI	Tiksi	42.35	23	⇑eP	P	21 31 03.4	-0.4
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
TIXI	Tiksi	42.35	23	eP	P	21 31 03.1	-0.7
	comp=Z,2.6nm,0.6s,mb4.0						
CUC	Castrocucco	42.62	289	eP	P	21 31 08.6	+2.2
	comp=Z,7.3nm,0.8s,mb4.5						
DAVOX	Davos/Dischmat	44.83	300	P	P	21 31 24.2	+0.1
	comp=Z,3.2nm,0.5s,mb4.4,baz=106,slow=5.3,SNR=15						
DAVOS	Davos	44.87	300	P	P	21 31 24.2	-0.2
GIVF	Givet	47.25	306	eP	P	21 31 43.7	+0.6
LPG	La Plagne	47.27	299	eP	P	21 31 43.3	-0.1
	comp=Z,4.2nm,0.7s,mb4.2						
LPG	La Plagne	47.27	299	eP	P	21 31 43.3	-0.1
LPG				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
LPG	La Plagne	47.27	299	eP	P	21 31 43.3	-0.1
	comp=Z,2.1nm,0.7s,mb4.2						
LPL	La Plagne	47.28	299	eP	P	21 31 43.4	0.0
	comp=Z,3.5nm,0.4s,mb4.4						
LPL	La Plagne	47.28	299	eP	P	21 31 43.4	0.0
LPL				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
LPL	La Plagne	47.28	299	eP	P	21 31 43.4	0.0
	comp=Z,1.8nm,0.4s,mb4.3						
SBF	Sospel	47.31	297	eP	P	21 31 42.9	-0.8
	comp=Z,7.6nm,0.7s,mb4.5						
SBF	Sospel	47.31	297	eP	P	21 31 42.9	-0.8
SBF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
SBF	Sospel	47.31	297	eP	P	21 31 42.9	-0.8
	comp=Z,3.8nm,0.6s,mb4.5						
MBDF	Montbardon	47.49	298	eP	P	21 31 44.9	-0.2
	comp=Z,4.4nm,0.7s,mb4.2						
MBDF	Montbardon	47.49	298	eP	P	21 31 44.9	-0.2
MBDF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
MBDF	Montbardon	47.49	298	eP	P	21 31 44.9	-0.2
	comp=Z,2.2nm,0.7s,mb4.2						
BAIF	Baives	47.65	306	eP	P	21 31 46.2	0.0
FRF	La Foret Royal	47.95	297	eP	P	21 31 48.2	-0.5
	comp=Z,7.8nm,0.7s,mb4.5						
FRF	La Foret Royal	47.95	297	eP	P	21 31 48.2	-0.5
FRF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
FRF	La Foret Royal	47.95	297	eP	P	21 31 48.2	-0.5
	comp=Z,3.9nm,0.7s,mb4.5						
LMR	La Mourre	48.12	297	eP	P	21 31 49.5	-0.5
SMRF	Simiane la Rot	48.55	298	eP	P	21 31 53.0	-0.3
LOR	Lormes	48.65	303	eP	P	21 31 53.5	-0.5
VIVF	Saint-Julien-l	48.87	299	eP	P	21 31 55.5	-0.3
SSF	Saint Saulge	48.94	302	eP	P	21 31 56.0	-0.3
KEST	Kesra	48.95	286	P	P	21 31 56.9	+0.4
	comp=Z,0.7nm,0.7s,mb3.8,baz=216,slow=20,SNR=4.9						
AVF	Avril sur Loir	49.12	302	eP	P	21 31 57.0	-0.7
	comp=Z,5.8nm,0.8s,mb4.4						
AVF	Avril sur Loir	49.12	302	eP	P	21 31 57.0	-0.7
AVF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
AVF	Avril sur Loir	49.12	302	eP	P	21 31 57.0	-0.7
	comp=Z,2.9nm,0.8s,mb4.4						
BGF	Bois d’Agland	49.53	302	eP	P	21 32 00.6	-0.2
	comp=Z,4.6nm,0.6s,mb4.4						
BGF	Bois d’Agland	49.53	302	eP	P	21 32 00.6	-0.2
BGF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BGF	Bois d’Agland	49.53	302	eP	P	21 32 00.6	-0.2
	comp=Z,2.3nm,0.6s,mb4.4						
LASF	Ste Croix	49.68	299	eP	P	21 32 01.6	-0.4
TCF	Toulx Ste Croi	50.03	302	eP	P	21 32 04.2	-0.4
LDF	La Druitiere	50.78	305	eP	P	21 32 09.9	-0.3
	comp=Z,8.2nm,0.8s,mb4.4						
LDF	La Druitiere	50.78	305	eP	P	21 32 09.9	-0.3
LDF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LDF	La Druitiere	50.78	305	eP	P	21 32 09.9	-0.3
	comp=Z,4.1nm,0.8s,mb4.4						
GRR	Gorron	51.31	305	eP	P	21 32 13.7	-0.5
EPF	Esparros	52.44	298	eP	P	21 32 23.1	+0.3
ESDC	Sonseca Array	56.78	296	P	P	21 32 54.1	-0.2
	comp=Z,0.4nm,0.4s,mb3.8,baz=58,slow=7.9,SNR=8.8						
TORD	Torodi Ar. Bea	66.76	268	P	P	21 34 01.7	-0.2
	comp=Z,3.9nm,0.5s,mb4.7,baz=46,slow=5.5,SNR=124						
TORD	Torodi Ar. Bea	66.76	268	P	P	21 34 01.7	-0.2
INK	Inuvik	70.48	10	P	P	21 34 24.5	+0.2
INK				pmax	pmax		
	comp=Z,2.0nm,0.5s						
INK	Inuvik	70.48	10	P	P	21 34 24.5	+0.2
	comp=Z,2.0nm,0.5s,mb4.3,baz=360,slow=8.0,SNR=11						
INK	Inuvik	70.48	10	eP	P	21 34 24.4	+0.1
	comp=Z,3.3nm,0.7s,mb4.4						
DBIC	Dimbokro	75.82	267	P	P	21 34 56.4	-0.3
	comp=Z,6.3nm,1.1s,mb4.5,baz=300,slow=8.3,SNR=7.7						
YKA	Yellowknife Ar	77.89	3	P	P	21 35 07.0	-0.6
	comp=Z,0.5nm,0.5s,mb3.7,baz=351,slow=5.7,SNR=12						
YKA				LR	LR	22 14 48.9	
	comp=Z,65nm,19.6s,MS4.0,baz=85,slow=40						
YKA	Yellowknife Ar	77.89	3	P	P	21 35 07.0	-0.6
YKA				LR	LR	22 14 48.9	
SCHQ	Schefferville	79.41	337	P	P	21 35 15.6	-0.5
	comp=Z,1.1nm,0.7s,mb3.9,baz=0.0,slow=8.1,SNR=3.7						
BOSA	Boshof	80.88	221	P	P	21 35 24.2	-0.1
	comp=Z,2.7nm,0.7s,mb4.3,baz=116,slow=13,SNR=4.5						
WRA	Warramunga Arr	82.97	123	P	P	21 35 35.4	-0.1
	comp=Z,1.2nm,0.6s,mb4.1,baz=324,slow=5.0,SNR=7.4						
WRAB	Tennant Creek	82.97	123	eP	P	21 35 34.8	-0.7
WRAB				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
WRAB	Tennant Creek	82.97	123	eP	P	21 35 34.8	-0.8
	comp=Z,5.8nm,1.0s,mb4.6						
ASAR	Alice Springs	85.41	126	P	P	21 35 47.5	-0.4
	comp=Z,0.6nm,0.4s,mb4.0,baz=319,slow=4.8,SNR=12						
FFC	Flin Flon	85.70	357	i P	P	21 35 49.9	+1.0
PLCA	Paso Flores	151.70	256	PKPbc	PKPbc	21 43 05.5	+0.9
	comp=Z,1.2nm,0.8s,baz=329,slow=4.3,SNR=5.2						
PLCA	Paso Flores	151.70	256	PKPbc	PKPbc	21 43 05.5	+0.9

ISCJB **24** *21:36:17.5±0.7, 33.°36N±0.°03×35.°36E±0.°05, h10^{km}, Error ellipse: s-maj=5.8km s-min=3.7km az=18.3*

GII **24** *21:36:17.0±1.2, 33.°40N×35.°40E, h10^{km}±3^{km}, Md2.0/5*

CSEM **24** *21:36:18.7, 33.°31N×35.°41E, h12^{km}, ML2.8*

GRAL **24** *21:36:18.7±0.3, 33.°31N×35.°41E, h12^{km}±2^{km}, MD2.8*

ISC 24 21:36:17.7±1.2, **33.°37N**±0.°04×**35.°36E**±0.°05, **h14**^{km}±11^{km}, **n13**, σ**0^{s}78**/21, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.12	349	eP	Sg	21 36 22.6	-0.8
MATL	Matirih	0.12	349	eP	Sg	21 36 22.6	-0.8
KSDI	Kefar Szold	0.31	125	Pg	Pg	21 36 22.8	-1.3
KSDI				Sg	Sg	21 36 28.1	-0.3
HNTI	Hanita	0.33	208	Pg	Pg	21 36 25.0	+0.6
HNTI				Sg	Sg	21 36 30.3	+1.4
MMA0	Mount Meron ar	0.36	174	Pg	Pg	21 36 24.6	-0.3
MMA0				Sg	Sg	21 36 30.1	+0.3
RCY	Rachaya	0.40	74	eP	Pg	21 36 26.2	+0.4
RCY				eS	Sg	21 36 31.9	+0.7
RCY	Rachaya	0.40	74	eP	Pg	21 36 26.2	+0.4
RCY				eS	Sg	21 36 32.0	+0.8
KSHT	Keshet	0.55	135	Sg	Sg	21 36 36.1	+0.5
BHL	Bhannes	0.59	25	eP	Pg	21 36 30.1	+0.9
BHL	Bhannes	0.59	25	eP	Pg	21 36 30.1	+0.9
MMLI	Mount Malkishu	0.93	177	Pg	Pg	21 36 35.2	-0.5
MMLI				Sg	Sg	21 36 47.9	0.0
HMDT	Nahal Hemdat	1.12	173	Pg	Pg	21 36 38.6	-0.8
HMDT				Sg	Sg	21 36 54.1	+0.1
SLTI	Sal’it	1.16	193	Pg	Pg	21 36 38.5	-1.5
SLTI				Sg	Sg	21 36 55.7	+0.6

ISCJB **24** *22:20:50.6±1.4, 30.°36S±0.°03×69.°27W±0.°05, h11^{km}±9^{km}, mb3.6/2, Error ellipse: s-maj=7.7km s-min=5.0km az=176.3*

GUC **24** *22:20:51.5±0.4, 30.°48S×69.°42W, h0^{km}±4^{km}, MD4.2, ML4.2*

NEIC **24** *22:20:51.5, 30.°48S×69.°42W, h0^{km}, ML4.2(GUC), After GUC.*

IDC **24** *22:20:52.4±0.9, 30.°39S×69.°22W, h29^{km}±5^{km}, mb3.5/2, mb1 3.8/5, mb1mx3.6/18, mbtmp3.5/5, ML4.1/3, Error ellipse: s-maj=26.1km s-min=15.8km az=68.0*

ISC 24 22:20:50.9±1.7, **30.°35S**±0.°03×**69.°22W**±0.°05, **h9**^{km}±11^{km}, **n36**, σ**1^{s}21**/58, **mb3.6**/2, **8C-8D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFAA	Coronel Fontan	1.51	146	Pn	Pn	22 21 17.8	-0.4
	baz=340,slow=12						
CFAA				Sn	Sn	22 21 37.5	-0.5
	45nm,0.3s,baz=86,slow=19,SNR=39						
OVCH	Ovalle	1.73	261	⇓iP	Pn	22 21 19.5	-1.7
OVCH				i S	Sn	22 21 40.7	-2.7
OVCH	Ovalle	1.73	261	⇓iP	Pn	22 21 19.5	-1.7
OVCH				i S	Sn	22 21 40.7	-2.7
OVCH				AML	AML	22 21 44.4	
	comp=N,4μm,0.5s						
CMCH	Combarbala	1.74	241	⇑iP	Pn	22 21 19.3	-2.0
CMCH				i S	Sn	22 21 40.4	-3.3
CMCH	Combarbala	1.74	241	⇑iP	Pn	22 21 19.3	-2.0
CMCH				i S	Sn	22 21 40.4	-3.3
CMCH				AML	AML	22 21 41.2	
	comp=N,14μm,0.7s						
LCO	Las Campanas	1.85	316	ePn	Pn	22 21 24.2	+1.3
LCO				eSn	Sn	22 21 48.4	+2.0
CHNG	Los Chungos	2.48	231	⇓iP	Pn	22 21 30.9	-0.6
CHNG				i S	Sn	22 22 01.0	-1.0
CHNG				AML	AML	22 22 04.6	
	comp=E,991nm,0.5s						
JACH	Jahuel	2.61	206	⇓iP	Pn	22 21 34.5	+1.3
JACH				i S	Sn	22 22 06.6	+1.6
JACH	Jahuel	2.61	206	⇓iP	Pn	22 21 34.5	+1.3
JACH				i S	Sn	22 22 06.6	+1.6
ROCH	El Roble	3.03	210	⇑iP	Pn	22 21 39.6	+0.5
ROCH				i S	Sn	22 22 16.2	+0.8
ROCH	El Roble	3.03	210	⇑iP	Pn	22 21 39.6	+0.5
ROCH				i S	Sn	22 22 16.2	+0.8
PEL	Peldehue	3.06	204	⇓iP	Pn	22 21 39.7	+0.3
PEL				i S	Sn	22 22 16.3	+0.2
PEL				AML	AML	22 22 34.4	

	comp=E,949nm,0.6s						
FCH	**Farellones**	3.11	197	*e*P	Pn	22 21 41.5	+1.4
FCH				*i* S	Sn	22 22 19.4	+1.9
FCH				AML	AML	22 22 26.7	
	comp=E,384nm,0.3s						
CLCH	**Cerro Calan**	3.24	200	AML	AML	22 22 44.5	
	comp=N,783nm,0.5s						
IHA	**Instituto Hidr**	3.38	217	*i* P	Pn	22 21 43.5	-0.3
IHA				*i* S	Sn	22 22 23.2	-0.8
IHA	**Instituto Hidr**	3.38	217	*i* P	Pn	22 21 43.5	-0.3
IHA				*i* S	Sn	22 22 23.2	-0.8
ANTU	**Antumapu**	3.43	200	*i* S	Sn	22 22 25.6	+0.2
ANTU				AML	AML	22 22 26.6	
	comp=N,635nm,0.5s						
PCH	**Pirque**	3.44	198	⇑*i*P	Pn	22 21 45.4	+0.6
PCH				*i* S	Sn	22 22 26.1	+0.4
PCH	**Pirque**	3.44	198	⇑*i*P	Pn	22 21 45.4	+0.6
PCH				*i* S	Sn	22 22 26.1	+0.4
TACH	**Talagante**	3.61	203	*i* P	Pn	22 21 46.4	-0.6
TACH				*i* S	Sn	22 22 28.6	-1.1
TACH	**Talagante**	3.61	203	*i* P	Pn	22 21 46.4	-0.6
TACH				*i* S	Sn	22 22 28.6	-1.1
CHCH	**Chadas Angostu**	3.78	198	⇑*i*P	Pn	22 21 49.6	+0.3
CHCH				*i* S	Sn	22 22 33.9	0.0
CHCH	**Chadas Angostu**	3.78	198	⇑*i*P	Pn	22 21 49.6	+0.3
CHCH				*i* S	Sn	22 22 33.9	0.0
CACH	**El Canelo**	3.94	197	⇓*i*P	Pn	22 21 52.4	+0.9
CACH				*i* S	Sn	22 22 38.9	+1.0
CACH	**El Canelo**	3.94	197	⇓*i*P	Pn	22 21 52.4	+0.9
CACH				*i* S	Sn	22 22 38.9	+1.0
LVC	**Limon Verde**	7.71	2	Pn	Pn	22 22 44.6	+1.2
	comp=N,1.4nm,0.3s,baz=183,slow=9.5,SNR=11						
LVC				Sn	Sn	22 24 10.6	-0.2
	comp=N,0.8nm,0.3s,baz=227,slow=20,SNR=3.3						
LVC				Lg		22 25 02.7	
	comp=N,2.9nm,0.3s,baz=286,slow=17,SNR=3.2						
LVC	**Limon Verde**	7.71	2	*e*Pn	Pn	22 22 44.5	+1.2
LVC				*e*S	Sn	22 24 15.6	+4.8
PLCA	**Paso Flores**	10.42	186	Pn	Pn	22 23 19.1	-1.3
	comp=N,0.1nm,0.3s,baz=7.7,slow=7.8,SNR=2.3						
CPUP	**Villa Florida**	11.21	72	Pn	Pn	22 23 29.5	-1.9
	comp=N,1.2nm,0.3s,baz=236,slow=9.8,SNR=8.5						
CPUP				Lg		22 26 50.5	
	comp=N,0.8nm,0.3s,baz=316,slow=19,SNR=3.4						
CPUP	**Villa Florida**	11.21	72	Pn	Pn	22 23 29.5	-1.9
CPUP				Lg		22 26 50.5	
NNA	**Nana**	19.59	337	P	Pn	22 25 22.9	+2.2
TXAR	**Lajitas Array**	67.82	328	P	P	22 31 48.3	-1.1
	comp=N,0.4nm,0.6s,mb3.6,baz=154,slow=8.3,SNR=6.1						
TXAR				pP	pP	22 31 57.4	+5.2
	comp=N,0.3nm,0.7s,baz=152,slow=7.5,SNR=3.9						
TORD	**Torodi Ar. Bea**	80.69	69	P	P	22 33 03.2	-1.6
	comp=N,0.6nm,0.6s,mb3.7,baz=252,slow=5.8,SNR=14						
TORD				pP	pP	22 33 11.9	+4.3
	comp=N,0.9nm,0.5s,baz=253,slow=4.4,SNR=6.4						
TORD	**Torodi Ar. Bea**	80.69	69	P	P	22 33 03.2	-1.6
TORD				pP	pP	22 33 11.9	+4.3
ZALV	**Zalesovo Beam**	149.87	31	PKPbc	PKPbc	22 40 39.3	-1.7
	comp=N,1.4nm,0.4s,baz=331,slow=4.2,SNR=5.9						
ZALV				pPKPbc	pPKPbc	22 40 48.6	+4.6
	comp=N,1.0nm,0.5s,baz=287,slow=2.5,SNR=3.3						
MKAR	**Makanchi Array**	152.53	45	PKPbc	PKPbc	22 40 45.3	-2.1
	comp=N,0.3nm,0.5s,baz=310,slow=1.1,SNR=7.7						
MKAR				PKPab	PKPab	22 40 55.0	-2.8
	comp=N,0.6nm,0.6s,baz=303,slow=1.8,SNR=8.9						

IDC 24 22:25:50.1±7.8**, 10°.37N**×**92°.30E, $h0^{km}$, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.4**/22**, mbtmp3.6**/3**, Error ellipse: s-maj=402.5km s-min=28.5km az=60.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	37.28	349	P	P	22 33 03.7	0.0
	0.5nm,0.7s,baz=177,slow=8.4,SNR=5.4						
WRA	**Warramunga Arr**	51.18	126	P	P	22 34 55.0	-0.5
	1.0nm,0.6s,baz=306,slow=8.6,SNR=4.4						
ASAR	**Alice Springs**	52.90	130	P	P	22 35 08.7	+0.4
	0.5nm,0.5s,baz=304,slow=6.5,SNR=7.7						

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*NEIC **24** 22:29:07.3, 19°.17N×66°.66W, $h25^{km}$, MD3.4(RSPR), After RSPR.*

RSPR 24 22:29:07.3, 19°.17N×**66°.66W, $h25^{km}$**±31^{km}**, MD3.4**/9**, MD3.4**/9**, 4C-7D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGPR	**Aguadilla, PR**	0.82	211	*e*P	Pb	22 29 20.9	-2.0
AGPR				*e*S	Sb	22 29 32.8	-0.7
AOPR	**Arecibo Observ**	0.82	186	⇓*e*P	Pb	22 29 21.0	-1.9
AOPR				*e*S	Sb	22 29 32.4	-1.3
AGP	**Aguadilla**	0.89	211	*e*Pn	Pn	22 29 20.8	-3.3
LSP	**Las Mesas**	1.07	202	⇑*e*P	Pn	22 29 24.9	-1.7
LSP				*e*S	Sb	22 29 37.2	-3.4
CELP	**Cerrillos**	1.09	176	⇓*e*P	Pn	22 29 24.8	-2.2
CELP				*e*S	Sn	22 29 39.1	-2.2
OBIP	**Obispado Ponce**	1.12	177	⇓*e*P	Pn	22 29 25.5	-1.9
OBIP				*e*S	Sn	22 29 38.6	-3.5
SJG	**San Juan**	1.16	155	*e*S	Sn	22 29 40.4	-2.5
SJG	**San Juan**	1.16	155	⇑*e*P	Pn	22 29 26.3	-1.6
SJG				*e*S	Sn	22 29 41.8	-1.2
CBYP	**Canovanas**	1.18	139	⇓*e*P	Pn	22 29 26.1	-2.0
CBYP				*e*S	Sn	22 29 40.3	-3.0
GBPR	**Guanica, Bosqu**	1.21	190	*e*S	Sn	22 29 42.0	-2.1
CRPR	**Cabo Rojo, PR**	1.23	200	⇓*e*P	Pn	22 29 26.3	-2.6
CRPR				*e*S	Sn	22 29 41.3	-3.4
ICM	**Isla Caja Muer**	1.28	174	⇓*e*P	Pn	22 29 27.3	-2.2
ICM				*e*S	Sn	22 29 42.5	-3.4
HUMP	**Col San Antoni**	1.28	143	⇓*e*P	Pn	22 29 27.5	-2.1
HUMP				*e*S	Sn	22 29 42.7	-3.2
CPD	**Cerro la Pandu**	1.33	148	⇑*e*P	Pn	22 29 28.2	-2.1
CPD				*e*S	Sn	22 29 44.9	-2.3
MTP	**Monte Pirata**	1.50	135	⇑*e*P	Pn	22 29 30.0	-2.6
MTP				*e*S	Sn	22 29 48.4	-2.9
SDDR	**Presa de Saban**	4.38	268	Pn	Pn	22 30 13.0	+0.8

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*IDC **24** 22:38:26.9±0.9, 51°.28N×178°.81E, $h0^{km}$, mb4.0/16, mb1 4.1/17, mb1mx4.0/31, mbtmp4.0/17, Error ellipse: s-maj=28.5km s-min=14.7km az=177.0*

*MOS **24** 22:38:30.7±1.1, 51°.22N×178°.80E, $h40^{km}$, mb4.5/7, Error ellipse: s-maj=14.9km s-min=10.7km az=118.3*

*ISCJB **24** 22:38:31.8±1.1, 51°.34N±0°.09×178°.81E±0°.06, $h46^{km}$±9^{km}, mb4.3/33, Error ellipse: s-maj=14.3km s-min=5.8km az=178.8*

*NEIC **24** 22:38:33.4±0.8, 51°.29N×178°.78E, $h47^{km}$±6^{km}, mb4.5/18, Error ellipse: s-maj=10.1km s-min=4.8km az=172.0*

ISC 24 22:38:33.1±0.9**, 51°.26N**±0°.08×**178°.82E**±0°.06**, $h43^{km}$**±8^{km}**, n66, $\sigma 0^{s}88$**/67**, mb4.3**/33**, 1D, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	**Adak**	2.87	76	*e*Pn	Pn	22 39 16.0	-0.3
ADK				*e*Sn	Sn	22 39 49.3	-0.3
SMY	**Shemya**	3.27	299	*e*P	Pn	22 39 22.1	+0.4
SMY				*e*S	Sn	22 39 59.4	+0.1
UNV	**Unalaska Valle**	9.31	68	*e*Pn	Pn	22 40 47.2	+2.6
PET	**Petropavlovsk**	12.51	286	P	Pn	22 41 27.2	-1.1
PETK	**Petropavlovsk-**	13.09	286	Pn	Pn	22 41 35.6	-0.5
	baz=101,slow=13,SNR=2.9						
TNA	**Tin City**	15.87	20	*e*Pn	Pn	22 42 09.1	-4.1
	7.1nm,1.3s						
SVW2	**Sparrevohn**	17.20	45	Pn	Pn	22 42 26.0	-3.8
BILL	**Bilibino**	17.91	345	⇓*e*P	Pn	22 42 40.8	+2.2
BILL				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KTH	**Kantishna Hill**	20.18	41	*e*P	P	22 43 04.5	+0.9
	comp=Z,12nm,0.8s						
IMA2	**Indian Mountai**	20.34	33	*e*P	P	22 43 05.5	+0.2
COLA	**College**	21.93	39	*e*P	P	22 43 23.2	+0.8
MENT	**Mentasta**	23.08	45	P	P	22 43 34.1	-0.6
MIDW	**Midway**	23.20	171	*e*P	P	22 43 35.7	-0.4
EGAK	**Eagle**	24.62	41	*e*P	P	22 43 48.0	-1.0
	comp=Z,5.8nm,0.7s,mb4.2						
DAWY	**Dawson**	25.21	43	*e*P	P	22 43 54.6	+0.2
INK	**Inuvik**	28.41	35	P	P	22 44 22.9	-0.2
INK				pmax	pmax		
	comp=Z,3.0nm,0.8s						
INK	**Inuvik**	28.41	35	P	P	22 44 22.9	-0.2
	comp=Z,2.7nm,0.8s,mb3.9,baz=253,slow=9.1,SNR=9.0						
INK	**Inuvik**	28.41	35	*e*P	P	22 44 22.5	-0.6
	comp=Z,3.0nm,0.8s,mb4.0						
YKA	**Yellowknife Ar**	36.39	46	P	P	22 45 32.2	-0.6
	comp=Z,1.4nm,0.8s,mb4.0,baz=284,slow=8.3,SNR=11						
YKA				PcP	PcP	22 47 56.3	+0.2
	comp=Z,0.3nm,0.7s,baz=289,slow=3.4,SNR=5.9						
YKA	**Yellowknife Ar**	36.39	46	P	P	22 45 32.2	-0.6
YKA				PcP	PcP	22 47 56.4	+0.2
BOD	**Bodaibo**	36.84	306	*e*P	P	22 45 35.4	-1.3
BOD				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
INCN	**Inchon**	38.94	270	P	P	22 45 52.0	-2.6
RES	**Resolute Bay**	40.46	24	P	P	22 46 05.4	-1.5
RES				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.5						
RES	**Resolute Bay**	40.46	24	P	P	22 46 05.3	-1.5
	comp=Z,1.0nm,1.0s,mb3.5,baz=269,slow=5.8,SNR=4.9						
RES	**Resolute Bay**	40.46	24	*e*P	P	22 46 04.9	-2.0
ULN	**Ulaanbaatar**	44.97	295	*e*P	P	22 46 43.3	-0.4
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
ULN	**Ulaanbaatar**	44.97	295	*e*P	P	22 46 43.3	-0.4
	comp=Z,1.3nm,0.6s,mb3.9						
NVAR	**Mina Array Bea**	45.05	81	P	P	22 46 45.4	+0.9
	comp=Z,1.2nm,0.8s,mb3.8,baz=295,slow=8.2,SNR=4.4						
SONM	**Songino Array**	45.36	295	P	P	22 46 47.4	+0.7
	comp=Z,0.8nm,0.5s,mb3.8,baz=62,slow=10,SNR=3.9						
PDAR	**Pinedale Array**	47.76	71	P	P	22 47 05.5	-0.2
	comp=Z,1.3nm,0.7s,mb4.1,baz=298,slow=3.8,SNR=11						
ZALV	**Zalesovo Beam**	53.02	312	P	P	22 47 44.6	-0.6
	comp=Z,0.5nm,0.4s,mb3.8,baz=50,slow=7.2,SNR=2.9						
FRB	**Frobisher Bay**	53.90	31	P	P	22 47 50.4	-1.1
	comp=Z,0.6nm,0.3s,mb4.0,baz=24,slow=3.9,SNR=3.8						
GTA	**Gaotai**	54.22	290	*e*P	P	22 47 54.8	+0.6
GTA				pP	pP	22 48 01.9	-4.4
GTA				sP	sP	22 48 06.0	-5.2
GTA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
KURK	**Kurchatov**	58.01	312	P	P	22 48 21.4	+0.3
KURK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
KURK	**Kurchatov**	58.01	312	P	P	22 48 21.4	+0.3
	comp=Z,2.9nm,0.6s,mb4.5,baz=44,slow=6.8,SNR=7.2						
KURK	**Kurchatov**	58.01	312	*e*P	P	22 48 20.6	-0.4
	comp=Z,7.4nm,1.1s,mb4.6						
MK31	**Makanchi Array**	58.92	307	*e*P	P	22 48 26.6	-0.9
MKAR	**Makanchi Array**	58.92	307	P	P	22 48 26.9	-0.6
	comp=Z,1.0nm,0.7s,mb4.0,baz=52,slow=7.2,SNR=12						
BVAR	**Borovoye Array**	60.00	319	P	P	22 48 34.8	0.0
	comp=Z,3.5nm,0.6s,mb4.5,baz=48,slow=7.1,SNR=30						
BRVK	**Borovoye**	60.02	319	*e*P	P	22 48 34.1	-0.9
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BRVK	**Borovoye**	60.02	319	*e*P	P	22 48 34.1	-0.9
	comp=Z,2.4nm,0.6s,mb4.4						
TXAR	**Lajitas Array**	60.15	79	P	P	22 48 36.8	+0.6
	comp=Z,0.5nm,0.6s,mb3.7,baz=305,slow=4.3,SNR=7.8						
LSA	**Lhasa**	66.06	288	*e*P	P	22 49 16.9	+1.5
LSA				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
LSA	**Lhasa**	66.06	288	*e*P	P	22 49 16.9	+1.4
	comp=Z,1.3nm,0.8s,mb4.0						
UCH	**Uchtor**	66.07	308	P	P	22 49 15.4	+0.1
EKS2	**Erkin-Say**	66.11	309	*e*P	P	22 49 14.4	-1.1
	comp=Z,1.3nm,0.6s,mb4.1						
AML	**Almayashu**	66.55	308	*e*P	P	22 49 18.3	0.0
	comp=Z,1.1nm,0.6s,mb4.1						
AKTK	**Aktyubinsk**	66.90	323	P	P	22 49 20.9	+0.5
AKTO	**Aktyubinsk**	66.90	323	P	P	22 49 20.9	+0.5
	comp=Z,4.7nm,0.8s,mb4.6,baz=39,slow=6.4,SNR=19						
OBN	**Obninsk**	69.43	338	P	P	22 49 35.7	-0.5
CMAR	**Chiang Mai Arr**	69.54	274	P	P	22 49 37.8	+0.4
	comp=Z,0.6nm,0.3s,mb4.0,baz=33,slow=8.1,SNR=4.3						
TAPN	**Taplejung**	69.84	289	*e*P	P	22 49 39.7	+0.5
	comp=Z,8.4nm,0.8s,mb4.7						
GUN	**Gumba**	70.51	290	*e*P	P	22 49 43.8	+0.5
	comp=Z,25nm,1.0s,mb5.1						
JIRN	**Jiri**	70.51	290	*e*P	P	22 49 44.3	+1.0
	comp=Z,17nm,0.9s,mb5.0						
RAMN	**Ramite**	70.79	289	*e*P	P	22 49 45.5	+0.5
	comp=Z,12nm,0.6s,mb5.0						
KKN	**Kakani**	70.95	291	*e*P	P	22 49 47.0	+1.0
	comp=Z,9.6nm,0.7s,mb4.9						
KKN	**Kakani**	70.95	291	*e*P	P	22 49 47.0	+1.0
KKN				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
PKI	**Pulchoki**	71.04	290	*e*P	P	22 49 47.4	+0.9
	comp=Z,7.6nm,0.7s,mb4.7						
PKI	**Pulchoki**	71.04	290	*e*P	P	22 49 47.4	+0.9
PKI				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
PKIN	**Phulchoki**	71.04	290	*e*P	P	22 49 47.2	+0.7
	comp=Z,4.8nm,0.7s,mb4.5						
GKN	**Gorkha**	71.17	291	*e*P	P	22 49 47.6	+0.3
	comp=Z,17nm,1.1s,mb4.9						
DANN	**Dangsing**	71.42	292	*e*P	P	22 49 49.8	+1.0
KOLN	**Koldanda**	71.95	292	*e*P	P	22 49 52.1	+0.1
	comp=Z,6.0nm,0.8s,mb4.6						
AKASG	**Malin Array Be**	75.18	341	P	P	22 50 09.6	-1.0
	comp=Z,0.4nm,0.4s,mb3.7,baz=20,slow=6.4,SNR=3.1						
ASAR	**Alice Springs**	84.41	221	P	P	22 50 59.9	-0.8
	comp=Z,0.5nm,0.7s,mb3.8,baz=27,slow=4.4,SNR=5.4						
BOSA	**Boshof**	149.92	309	PKPbc	PKPbc	22 58 18.4	+0.1
	comp=Z,2.2nm,0.9s,baz=101,slow=2.3,SNR=4.3						

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*ISK **24** 22:48:41.6, 37°.32N×38°.59E, $h10^{km}$, MD3.6*

*ISCJB **24** 22:48:42.5±0.5, 37°.33N±0°.03×38°.59E±0°.03, $h10^{km}$, Error ellipse: s-maj=4.7km s-min=3.1km az=137.2*

*CSEM **24** 22:48:42.5±0.2, 37°.32N×38°.57E, $h8^{km}$, MD3.6, Error ellipse: s-maj=5.8km s-min=3.4km az=148.0*

*DDA **24** 22:48:42.5, 37°.34N×38°.57E, $h6^{km}$±1^{km}, Md3.4*

ISC 24 22:48:42.1±0.7**, 37°.28N**±0°.03×**38°.60E**±0°.04**, $h3^{km}$**±5^{km}**, n44, $\sigma 1^{s}05$**/63**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URFA	**Urfa**	0.24	47	*e*PG	Pg	22 48 46.5	-0.2
URFA				*e*SG	Sg	22 48 50.0	+0.2
URFA	**Urfa**	0.24	47	*e*Pg	Pg	22 48 46.5	-0.2
URFA				*e*Sg	Sg	22 48 50.1	+0.3
ATAB	**Bozova**	0.31	308	*i* P	Pg	22 48 48.1	0.0
ATAB				*i* S	Sg	22 48 52.1	0.0
ATAB	**Bozova**	0.31	308	*i* P	Pg	22 48 48.1	0.0
ATAB				*i* S	Sg	22 48 52.1	0.0
GZT	**Gaziantep**	0.83	275	*i* P	Pg	22 48 58.3	+0.3
GZT				*i* S	Sg	22 49 12.3	+3.5
MALT	**Malatya**	1.04	352	*e*PG	Pg	22 49 01.4	-0.7
MALT				*e*SG	Sg	22 49 15.9	+0.3
MALT	**Malatya**	1.04	352	*e*Pg	Pg	22 49 01.4	-0.7
MALT				*e*Sg	Sg	22 49 15.9	+0.3
MYA	**Malataya**	1.05	352	*e*PG	Pg	22 49 01.1	-1.2
MYA	**Malataya**	1.05	352	*e*Pg	Pg	22 49 01.1	-1.2
GAZ	**Gaziantep**	1.12	265	*e*PN	Pg	22 49 03.5	0.0
GAZ	**Gaziantep**	1.12	265	*e*Pn	Pg	22 49 03.5	0.0
AKCD	**Akcadag**	1.15	332	*i* P	Pg	22 49 03.3	-0.9
AKCD				*i* S	Sg	22 49 20.2	+1.1
AKCD	**Akcadag**	1.15	332	*i* P	Pg	22 49 03.3	-0.8
AKCD				*i* S	Sg	22 49 20.2	+1.2
ELZG	**Elazig**	1.25	14	*i* P	Pg	22 49 05.3	-0.8
ELZG				*i* S	Sg	22 49 23.3	+0.9
ELZG	**Elazig**	1.25	14	*i* P	Pg	22 49 05.3	-0.8
ELZG				*i* S	Sg	22 49 23.3	+0.9
KUZU	**Kuzuini**	1.32	248	*i* P	Pg	22 49 08.1	+0.6
KUZU				*i* S	Sg	22 49 26.4	+1.7
KUZU	**Kuzuini**	1.32	248	*i* P	Pg	22 49 08.1	+0.6
KUZU				*i* S	Sg	22 49 26.4	+1.7
DIYA	**Diyarbakir**	1.37	62	*i* P	Pn	22 49 08.2	+0.2
DIYA				*i* S	Sg	22 49 27.7	+1.7
DIYA	**Diyarbakir**	1.37	62	*i* P	Pn	22 49 08.2	+0.2
DIYA				*i* S	Sg	22 49 27.7	+1.7
KMRS	**Kahramanmaras**	1.38	280	*e*PN	Pn	22 49 06.3	-1.8
KMRS	**Kahramanmaras**	1.38	280	*e*Pn	Pn	22 49 06.3	-1.8
DIY	**Diyarbakir**	1.43	64	*e*PN	Pn	22 49 08.8	0.0
DIY	**Diyarbakir**	1.43	64	*e*Pn	Pn	22 49 08.8	-0.1
KEMA	**Kemaliye**	1.99	358	*i* P	Pn	22 49 16.4	-0.2
KEMA				*i* S	Sn	22 49 45.1	+3.2
KEMA	**Kemaliye**	1.99	358	*i* P	Pn	22 49 16.4	-0.2
KEMA				*i* S	Sn	22 49 45.1	+3.2
SARI	**SarD1z-Kayseri**	2.05	313	*e*PN	Pn	22 49 16.7	-0.8
SARI	**SarD1z-Kayseri**	2.05	313	*e*Pn	Pn	22 49 16.7	-0.8
KOZT	**Kozan**	2.22	276	*e*PN	Pn	22 49 19.8	0.0
KOZT	**Kozan**	2.22	276	*e*Pn	Pn	22 49 19.8	0.0
HTY	**Hatay**	2.29	240	*e*PN	Pn	22 49 20.6	-0.2
HTY	**Hatay**	2.29	240	*e*Pn	Pn	22 49 20.6	-0.2
EZC	**Erzincan**	2.64	21	*e*PN	Pn	22 49 23.9	-1.7
BNN	**Bunyan**	2.68	307	*e*PN	Pn	22 49 25.6	-0.6
BNN	**Bunyan**	2.68	307	*e*Pn	Pn	22 49 25.6	-0.5
SVSK	**Karacayir**	2.92	335	*e*PN	Pn	22 49 28.9	-0.4
SVSK	**Karacayir**	2.92	335	*e*Pn	Pn	22 49 28.9	-0.5
GUMT	**Gumushane**	3.25	12	*e*PN	Pn	22 49 33.8	-0.1
GUMT	**Gumushane**	3.25	12	*e*Pn	Pn	22 49 33.8	-0.1
MERS	**Mersin**	3.29	264	*e*PN	Pn	22 49 34.5	0.0
MERS	**Mersin**	3.29	264	*e*Pn	Pn	22 49 34.5	0.0
EZM	**Erzurum**	3.40	39	*e*PN	Pn	22 49 36.0	+0.1
FKH	**Fakeheh**	3.53	211	*e*P	Sn	22 50 22.6	+2.7
FKH				*e*S	Sg	22 50 30.1	-5.3
HWQ	**Hawqa**	3.69	217	*e*P	Sn	22 50 27.2	+3.1
HWQ				*e*S	Sg	22 50 37.8	-3.0
BHL	**Bhannes**	4.14	216	*e*P	Sn	22 50 34.7	-0.3

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*NEIC **24** 22:53:21.0, 36°.23N×10°.30W, $h0^{km}$, MN2.8(MDD), After MDD.*

*ISCJB **24** 22:53:21.6±0.7, 36°.15N±0°.03×9°.99W±0°.05, $h10^{km}$, Error ellipse: s-maj=5.7km s-min=4.3km az=158.6*

*MDD **24** 22:53:22.1±1.1, 36°.13N×10°.15W, $h0^{km}$, mbLg2.8/36, Error ellipse: s-maj=10.5km s-min=7.4km az=66.0, PRIMO*

*CSEM **24** 22:53:23.2±0.3, 36°.19N×10°.03W, $h10^{km}$, ML3.6/15, Error ellipse: s-maj=5.5km s-min=3.8km az=68.0*

*INMG **24** 22:53:23.6±1.0, 36°.05N×10°.14W, $h10^{km}$, ML2.6, Error ellipse: s-maj=4.8km s-min=2.8km az=82.0*

*IGIL **24** 22:53:24.2, 36°.10N×10°.04W, $h0^{km}$, ML2.4*

*CNRM **24** 22:53:29.6, 35°.50N×10°.00W, $h30^{km}$, MD3.5*

ISC 24 22:53:23.4±0.7**, 36°.20N**±0°.03×**10°.01W**±0°.04**, $h10^{km}$, n121, $\sigma 0^{s}96$**/221**, 3C, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	1.33	45	*i* P	Pn	22 53 48.9	+0.8
PFVI				*e*S	Sb	22 54 07.8	+2.2
PFVI				A		22 54 09.1	
	35nm,0.3s						
PFVI	**Vila Bisbo**	1.33	45	⇑P	Pn	22 53 48.9	+0.8
PFVI				S	Sb	22 54 07.8	+2.2
	18nm,0.3s						
MORF	**Marmelete**	1.56	44	*e*Pn	Pn	22 53 52.0	+0.9
MORF				*e*Sn	Sn	22 54 13.2	+1.9
MORF				A		22 54 18.3	
	52nm,0.2s						
MORF	**Marmelete**	1.56	44	P	Pn	22 53 52.0	+0.9
MORF				S	Sn	22 54 13.2	+1.9
	52nm,0.2s						
MORF	**Marmelete**	1.56	44	*e*Pn	Pn	22 53 52.0	+0.9
MORF				*e*Sn	Sn	22 54 13.2	+1.9
	52nm,0.2s						
PTEO	**Sao Teotonio**	1.70	37	*e*Pn	Pn	22 53 53.9	+0.8
PTEO				*e*Sn	Sn	22 54 16.7	+1.9
PTEO				A		22 54 19.5	
	24nm,0.2s						
PTEO	**Sao Teotonio**	1.70	37	P	Pn	22 53 53.9	+0.8
PTEO				S	Sn	22 54 16.7	+1.9
	12nm,0.2s						
PTEO	**Sao Teotonio**	1.70	37	*e*Pn	Pn	22 53 53.9	+0.8
PTEO				*e*Sn	Sn	22 54 16.7	+1.9
	24nm,0.2s						
PBDV	**Barranco-do-Ve**	1.97	57	*e*Pn	Pn	22 53 57.6	+0.8
PBDV				*e*Sn	Sn	22 54 22.7	+1.1
PBDV				A		22 54 27.6	
	14nm,0.4s						
PBDV	**Barranco-do-Ve**	1.97	57	P	Pn	22 53 57.6	+0.8
PBDV				S	Sn	22 54 22.7	+1.1
	14nm,0.4s						
PBDV	**Barranco-do-Ve**	1.97	57	*e*Pn	Pn	22 53 57.6	+0.8
PBDV				*e*Sn	Sn	22 54 22.7	+1.1
	14nm,0.4s						
PVAQ	**Vaqueiros**	2.20	56	*e*Pn	Pn	22 54 00.7	+0.7
PVAQ				*e*Sn	Sn	22 54 28.0	+0.8
PVAQ				A		22 54 30.8	
	30nm,0.3s						
PVAQ	**Vaqueiros**	2.20	56	P	Pn	22 54 00.7	+0.7
PVAQ				S	Sn	22 54 28.0	+0.8
	30nm,0.3s						
PVAQ	**Vaqueiros**	2.20	56	*e*Pn	Pn	22 54 00.7	+0.7
PVAQ				*e*Sn	Sn	22 54 28.0	+0.8
	30nm,0.3s						
EGRO	**El Granado**	2.43	56	P	Pn	22 54 03.7	+0.6
	6.8nm,0.2s,SNR=38						
EGRO				S	Sn	22 54 33.8	+0.9
	15nm,0.1s,SNR=7.9						
EGRO	**El Granado**	2.43	56	P	Pn	22 54 03.7	+0.6
	6.8nm,0.2s,SNR=38						
EGRO				S	Sn	22 54 33.8	+1.0
	15nm,0.1s,SNR=7.9						
ERIP	**Rio Piedras**	2.50	61	⇑P	Pn	22 54 04.9	+0.7
	17nm,0.1s,SNR=18						
ERIP				S	Sn	22 54 35.3	+0.6
	25nm,0.1s,SNR=7.9						
ERIP	**Rio Piedras**	2.50	61	P	Pn	22 54 04.9	+0.7
	17nm,0.1s,SNR=18						
ERIP				S	Sn	22 54 35.3	+0.6
	25nm,0.1s,SNR=7.9						
PBEJ	**Beja**	2.50	43	*e*Pn	Pn	22 54 04.8	+0.6
PBEJ				*e*Sn	Sn	22 54 35.8	+1.0
PBEJ				A		22 54 37.8	
	14nm,0.2s						
PBEJ	**Beja**	2.50	43	P	Pn	22 54 04.8	+0.6
PBEJ				S	Sn	22 54 35.8	+1.0
	6.8nm,0.2s						
PBEJ	**Beja**	2.50	43	*e*Pn	Pn	22 54 04.8	+0.6
PBEJ				*e*Sn	Sn	22 54 35.8	+1.0
	14nm,0.2s						
PMAFR	**Mafra**	2.81	12	*e*Pn	Pn	22 54 08.1	-0.3
PMAFR				*e*Sn	Sn	22 54 43.5	+1.1
PMAFR				A		22 54 47.0	
	35nm,0.5s						
PMAFR	**Mafra**	2.81	12	P	Pn	22 54 08.1	-0.3
PMAFR				S	Sn	22 54 43.5	+1.1
	17nm,0.5s						
PMAFR	**Mafra**	2.81	12	*e*Pn	Pn	22 54 08.1	-0.3
PMAFR				*e*Sn	Sn	22 54 43.5	+1.1
	35nm,0.5s						
EVO	**Evora**	2.82	34	*e*Pn	Pn	22 54 09.0	+0.4
EVO				*e*Sn	Sn	22 54 43.3	+0.7
EVO				A		22 54 44.5	
	40nm,0.1s						
EVO	**Evora**	2.82	34	P	Pn	22 54 09.0	+0.4
EVO				S	Sn	22 54 43.3	+0.7
	40nm,0.1s						
EVO	**Evora**	2.82	34	*e*Pn	Pn	22 54 09.0	+0.4
EVO				*e*Sn	Sn	22 54 43.3	+0.7
	40nm,0.1s						
EMIN	**Mina Concepcio**	3.10	59	P	Pn	22 54 12.6	+0.3
	1.7nm,0.2s,SNR=23						
EMIN				S	Sn	22 54 49.8	+0.4
	5.7nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	3.10	59	P	Pn	22 54 12.6	+0.3
EMIN				S	Sn	22 54 50.0	+0.6
EMIN	**Mina Concepcio**	3.10	59	P	Pn	22 54 12.6	+0.3
	1.7nm,0.2s,SNR=23						
EMIN				S	Sn	22 54 49.8	+0.4
	5.7nm,0.1s,SNR=7.9						
ALMR	**Almeirim**	3.17	21	*e*S	Sn	22 54 51.8	+0.7
ALMR				*e*S	Sn	22 54 51.8	+0.7
ALMR				AML	AML	22 54 52.5	
	comp=E,15nm,0.2s						
ALMR	**Almeirim**	3.17	21	*e*S	Sn	22 54 51.8	+0.7
PESTR	**Estremoz**	3.29	35	*e*Pn	Pn	22 54 15.1	+0.2
PESTR				*e*Sn	Sn	22 54 54.6	+0.5
PESTR				A		22 54 58.4	
	comp=E,7.2nm,0.4s						
PESTR	**Estremoz**	3.29	35	P	Pn	22 54 15.1	+0.2
PESTR				S	Sn	22 54 54.6	+0.5
	comp=E,3.6nm,0.4s						
PESTR	**Estremoz**	3.29	35	*e*Pn	Pn	22 54 15.1	+0.2
PESTR				*e*Sn	Sn	22 54 54.6	+0.5
	comp=E,7.2nm,0.4s						
ESPR	**Espera**	3.41	77	P	Pn	22 54 16.5	-0.2
	comp=E,33nm,0.2s,SNR=56						
ESPR				S	Sn	22 54 56.8	-0.3
	comp=E,23nm,0.2s,SNR=7.9						
ESPR	**Espera**	3.41	77	P	Pn	22 54 16.5	-0.2
	comp=E,33nm,0.2s,SNR=56						
ESPR				S	Sn	22 54 56.8	-0.3
	comp=E,23nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	3.49	42	P	Pn	22 54 18.1	+0.3
	comp=E,1.0nm,0.1s,SNR=7.9						

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EBAD                                S        Sn        22 54 59.9 +0.7
     comp=E,12nm,0.1s,SNR=7.9
EBAD  Badajoz            3.49  42   P        Pn        22 54 18.1 +0.3
     comp=E,1.0nm,0.1s,SNR=7.9
EBAD                                S        Sn        22 54 59.9 +0.7
     comp=E,12nm,0.1s,SNR=7.9
PTOM  Tomar              3.64  20  ePn       Pn        22 54 20.2 +0.4
PTOM                               eSn       Sn        22 55 03.0 +0.2
PTOM                                A                  22 55 06.1
     comp=E,15nm,0.2s
PTOM  Tomar              3.64  20   P        Pn        22 54 20.2 +0.4
PTOM                                S        Sn        22 55 03.0 +0.2
     comp=E,7.6nm,0.2s
PTOM  Tomar              3.64  20  ePn       Pn        22 54 20.2 +0.4
PTOM                               eSn       Sn        22 55 03.0 +0.2
     comp=E,15nm,0.2s
EJIF  Jimena Fronter     3.67  85   P        Pn        22 54 20.5 +0.2
     comp=E,1.6nm,0.2s,SNR=7.9
EJIF                                S        Sn        22 55 04.6 +0.9
     comp=E,2.1nm,0.2s,SNR=7.9
EJIF  Jimena Fronter     3.67  85   P        Pn        22 54 20.5 +0.2
EJIF                                S        Sn        22 55 06.6 +2.9
EJIF  Jimena Fronter     3.67  85   P        Pn        22 54 20.5 +0.2
     comp=E,1.6nm,0.2s,SNR=7.9
EJIF                                S        Sn        22 55 04.6 +0.9
     comp=E,2.1nm,0.2s,SNR=7.9
PMRV  Marv??o            3.83  32  ePn       Pn        22 54 22.9 +0.4
PMRV                               eSn       Sn        22 55 07.1 -0.5
PMRV                                A                  22 55 10.3
     comp=E,15nm,0.5s
PMRV  Marv??o            3.83  32   P        Pn        22 54 22.9 +0.4
PMRV                                S        Sn        22 55 07.1 -0.5
     comp=E,7.7nm,0.5s
PMRV  Marv??o            3.83  32  ePn       Pn        22 54 22.9 +0.4
PMRV                               eSn       Sn        22 55 07.1 -0.5
     comp=E,15nm,0.5s
ECAB  El Cabril          4.12  62   P        Pn        22 54 26.7 +0.3
     comp=E,0.4nm,0.1s,SNR=16
ECAB                                S        Sn        22 55 13.0 -1.6
     comp=E,9.1nm,0.2s,SNR=7.9
ECAB  El Cabril          4.12  62   P        Pn        22 54 26.6 +0.2
ECAB                                S        Sn        22 55 14.0 -0.6
ECAB  El Cabril          4.12  62   P        Pn        22 54 26.6 +0.2
ECAB                                S        Sn        22 55 14.0 -0.6
MTE   Manteigas          4.62  24  eSn       Sn        22 55 26.1 -0.9
MTE                                 A                  22 55 30.2
     comp=E,9.1nm,0.2s
MTE   Manteigas          4.62  24  eSn       Sn        22 55 26.1 -0.9
     comp=E,9.1nm,0.2s
CIA   Chichaoua          4.74 167   P        Pn        22 54 27.0 -7.9
CIA                                 S        Sn        22 55 14.0  -16
EADA  Adamuz             4.76  64 ⇑P        Pn        22 54 35.4 +0.2
     comp=E,3.6nm,0.1s,SNR=18
EADA                                S        Sn        22 55 28.2 -2.3
     comp=E,5.1nm,0.3s,SNR=7.9
EADA  Adamuz             4.76  64   P        Pn        22 54 35.4 +0.2
EADA                                S        Sn        22 55 30.3 -0.2
EADA  Adamuz             4.76  64   P        Pn        22 54 35.4 +0.2
     comp=E,3.6nm,0.1s,SNR=18
EADA                                S        Sn        22 55 30.3 -0.2
ELUQ  Luque              4.80  72   P        Pn        22 54 35.4 -0.3
     comp=E,1.8nm,0.2s,SNR=7.9
ELUQ                                S        Sn        22 55 31.6 +0.2
     comp=E,2.4nm,0.2s,SNR=7.9
ELUQ  Luque              4.80  72   P        Pn        22 54 35.4 -0.3
     comp=E,1.8nm,0.2s,SNR=7.9
ELUQ                                S        Sn        22 55 31.6 +0.2
     comp=E,2.4nm,0.2s,SNR=7.9
ELOJ  Sierra Loja        4.80  77   P        Pn        22 54 36.2 +0.5
     comp=E,0.7nm,0.2s,SNR=7.9
ELOJ                                S        Sn        22 55 31.8 +0.4
     comp=E,2.7nm,0.4s,SNR=7.9
ELOJ  Sierra Loja        4.80  77   P        Pn        22 54 36.8 +1.0
ELOJ                                S        Sn        22 55 31.8 +0.4
ELOJ  Sierra Loja        4.80  77   P        Pn        22 54 36.2 +0.4
     comp=E,0.7nm,0.2s,SNR=7.9
ELOJ                                S        Sn        22 55 31.8 +0.3
     comp=E,2.7nm,0.4s,SNR=7.9
PVIS  Viseu              4.81  20  ePn       Pn        22 54 35.7 -0.1
PVIS                               eSn       Sn        22 55 31.2 -0.4
PVIS                                A                  22 55 36.7
     comp=E,7.3nm,0.2s
PVIS  Viseu              4.81  20   P        Pn        22 54 35.7 -0.1
PVIS                                S        Sn        22 55 31.2 -0.4
     comp=E,3.7nm,0.2s
PVIS  Viseu              4.81  20  ePn       Pn        22 54 35.7 -0.1
PVIS                               eSn       Sn        22 55 31.2 -0.4
     comp=E,7.3nm,0.2s
MIF   Mishlifen          4.82 124   S        Sn        22 55 23.0 -8.8
KIB   El Ksiba           4.88 137   P        Pn        22 54 33.0 -3.9
KIB                                 S        Sn        22 55 21.0  -12
KIB   El Ksiba           4.88 137  i P       Pn        22 54 33.0 -3.9
CZD   Col de Zad         5.17 126   P        Pn        22 54 40.0 -0.8
CZD                                 S        Sn        22 55 29.0  -12
CZD   Col de Zad         5.17 126  eP        Pn        22 54 40.0 -0.8
TZK   Tazeka             5.21 112   P        Pn        22 54 43.0 +1.5
TZK                                 S        Sn        22 55 34.0 -7.6
TZK   Tazeka             5.21 112  eP        Pn        22 54 43.0 +1.5
EGUA  Guajares           5.23  81   P        Pn        22 54 41.9 +0.3
     comp=E,0.8nm,0.1s,SNR=7.9
EGUA                                S        Sn        22 55 41.7 -0.3
     comp=E,7.1nm,0.5s,SNR=7.9
EGUA  Guajares           5.23  81   P        Pn        22 54 41.6  0.0
EGUA                                S        Sn        22 55 41.7 -0.3
EGUA  Guajares           5.23  81   P        Pn        22 54 41.7 +0.1
EGUA                                S        Sn        22 55 41.7 -0.3
     comp=E,7.1nm,0.5s,SNR=7.9
ECOG  Cogollos-Vega      5.29  76   P        Pn        22 54 42.8 +0.4
     comp=E,1.0nm,0.1s,SNR=7.9
ECOG  Cogollos-Vega      5.29  76   P        Pn        22 54 42.8 +0.4
     comp=E,1.0nm,0.1s,SNR=7.9
EBAN  Banos Encina       5.34  67   P        Pn        22 54 42.7 -0.5
     comp=E,3.5nm,0.2s,SNR=7.4
EBAN                                S        Sn        22 55 40.8 -4.0
     comp=E,3.1nm,0.1s,SNR=7.9
EBAN  Banos Encina       5.34  67   P        Pn        22 54 42.7 -0.5
EBAN                                S        Sn        22 55 41.4 -3.4
EBAN  Banos Encina       5.34  67   P        Pn        22 54 42.7 -0.5
     comp=E,3.5nm,0.2s,SNR=7.4
EQUE  Quentar            5.37  77   P        Pn        22 54 44.4 +0.8
     comp=E,0.5nm,0.1s,SNR=5.0
EQUE                                S        Sn        22 55 45.6 +0.1
     comp=E,1.8nm,0.2s,SNR=7.9
EQUE  Quentar            5.37  77   P        Pn        22 54 44.4 +0.8
     comp=E,0.5nm,0.1s,SNR=5.0
EQUE                                S        Sn        22 55 45.6 +0.1
     comp=E,1.8nm,0.2s,SNR=7.9
PVRL  Vila Real          5.38  19  ePn       Pn        22 54 43.7  0.0
PVRL                               eSn       Sn        22 55 43.9 -1.7
PVRL                                A                  22 55 47.5
     comp=E,11nm,0.1s
PVRL  Vila Real          5.38  19   P        Pn        22 54 43.7  0.0
PVRL                                S        Sn        22 55 43.9 -1.7
     comp=E,5.5nm,0.1s
PVRL  Vila Real          5.38  19  ePn       Pn        22 54 43.7  0.0
PVRL                               eSn       Sn        22 55 43.9 -1.7
     comp=E,11nm,0.1s
PCAB  Cabril             5.72  15  eSn       Sn        22 55 52.6 -1.4
PCAB                                A                  22 55 57.6
     comp=E,5.1nm,0.3s
PCAB  Cabril             5.72  15   S        Sn        22 55 52.6 -1.4
     comp=E,2.6nm,0.3s
PCAB  Cabril             5.72  15  eSn       Sn        22 55 52.6 -1.4
     comp=E,5.1nm,0.3s
EBER  Berja              5.77  81   S        Sn        22 55 54.7 -0.8
     comp=E,1.6nm,0.3s,SNR=7.9
EBER  Berja              5.77  81   S        Sn        22 55 56.1 +0.7
     comp=E,1.6nm,0.3s,SNR=7.9
EQES  Quesada            5.78  72   P        Pn        22 54 48.7 -0.5
     comp=E,0.5nm,0.1s,SNR=9.9
EQES                                S        Sn        22 55 53.4 -2.2
     comp=E,1.2nm,0.1s,SNR=7.9
EQES  Quesada            5.78  72   P        Pn        22 54 48.8 -0.4
EQES                                S        Sn        22 55 54.9 -0.6
EQES  Quesada            5.78  72   P        Pn        22 54 48.8 -0.4
EQES                                S        Sn        22 55 54.9 -0.6
ELOB  Lobios             5.86  14   P        Pn        22 54 49.3 -1.0
     comp=E,0.4nm,0.2s,SNR=5.7
ELOB                                S        Sn        22 55 53.8 -3.7
     comp=E,4.2nm,0.3s,SNR=7.9
ELOB  Lobios             5.86  14   P        Pn        22 54 49.8 -0.6
ELOB                                S        Sn        22 55 53.8 -3.7
ELOB  Lobios             5.86  14   P        Pn        22 54 49.8 -0.5
ESDC  Sonseca Array      5.91  52   P        Pn        22 54 51.3 +0.4
     comp=E,0.6nm,0.2s,baz=237,slow=13,SNR=20
ESDC                                S        Sn        22 55 57.8 -0.8
     comp=E,3.5nm,0.3s,baz=239,slow=24,SNR=7.9
ESDC  Sonseca Array      5.91  52   P        Pn        22 54 51.3 +0.4
ESDC                                S        Sn        22 55 58.0 -0.6
ESDC  Sonseca Array      5.91  52   P        Pn        22 54 51.3 +0.4
     comp=E,0.6nm,0.2s,baz=237,slow=13,SNR=20
ESDC                                S        Sn        22 55 57.8 -0.8
     comp=E,3.5nm,0.3s,slow=24,SNR=7.9
EHUE  Huescar            6.15  73   P        Pn        22 54 53.7 -0.6
     comp=E,0.6nm,0.2s,SNR=7.9
EHUE                                S        Sn        22 56 02.8 -1.9
     comp=E,0.0nm,0.2s,SNR=7.9
EHUE  Huescar            6.15  73   P        Pn        22 54 53.7 -0.6
     comp=E,0.6nm,0.2s,SNR=7.9
EHUE                                S        Sn        22 56 02.8 -1.9
     SNR=7.9
PBRG  Braganca           6.15  23  eSn       Sn        22 56 02.8 -1.9
PBRG                                A                  22 56 06.1
     comp=E,4.1nm,0.3s
PBRG  Braganca           6.15  23   S        Sn        22 56 02.8 -1.9
     comp=E,2.0nm,0.3s
PBRG  Braganca           6.15  23  eSn       Sn        22 56 02.8 -1.9
     comp=E,4.1nm,0.3s
ZFT   Errachidia         6.26 130   P        Pn        22 54 55.0 -0.9
ZFT                                 S        Sn        22 55 57.0  -10
ZFT   Errachidia         6.26 130  eP        Pn        22 54 55.0 -0.9
ECAL  Calabor            6.28  23   P        Pn        22 54 56.1 +0.1
     comp=E,0.8nm,0.2s,SNR=7.9
ECAL                                S        Sn        22 56 06.1 -1.6
     comp=E,5.6nm,0.3s,SNR=7.9
ECAL  Calabor            6.28  23   P        Pn        22 54 55.8 -0.2
ECAL                                S        Sn        22 56 06.1 -1.6
ECAL  Calabor            6.28  23   P        Pn        22 54 55.8 -0.2
ECAL                                S        Sn        22 56 06.1 -1.6
     comp=E,5.6nm,0.3s,SNR=7.9
GUD   Guadarrama         6.39  44   P        Pn        22 54 57.7 +0.1
     comp=E,1.0nm,0.3s,SNR=7.9
GUD                                 S        Sn        22 56 09.3 -1.2
     comp=E,0.6nm,0.2s,SNR=7.9
GUD   Guadarrama         6.39  44   P        Pn        22 54 57.7 +0.1
GUD                                 S        Sn        22 56 09.3 -1.2
GUD   Guadarrama         6.39  44   P        Pn        22 54 57.7 +0.1
     comp=E,1.0nm,0.3s,SNR=7.9
GUD                                 S        Sn        22 56 09.3 -1.2
     comp=E,0.6nm,0.2s,SNR=7.9
EVIA  Vianos             6.45  66   P        Pn        22 54 58.0 -0.5
     comp=E,0.6nm,0.2s,SNR=7.9
EVIA                                S        Sn        22 56 09.9 -2.2
     comp=E,2.0nm,0.2s,SNR=7.9
EVIA  Vianos             6.45  66   P        Pn        22 54 58.0 -0.4
     comp=E,0.6nm,0.2s,SNR=7.9
EVIA                                S        Sn        22 56 09.9 -2.2
     comp=E,2.0nm,0.2s,SNR=7.9
EMAZ  Mazaricos          6.79   6   P        Pn        22 55 01.4 -1.7
     comp=E,0.9nm,0.2s,SNR=7.9
EMAZ                                S        Sn        22 56 15.4 -5.0
     comp=E,7.0nm,0.2s,SNR=7.9
EMAZ  Mazaricos          6.79   6   P        Pn        22 55 01.4 -1.7
     comp=E,0.9nm,0.2s,SNR=7.9
ETOB  Tobarra            7.16  68   P        Pn        22 55 07.6 -0.6
     comp=E,0.5nm,0.1s,SNR=15
ETOB                                S        Sn        22 56 27.2 -2.4
     comp=E,2.1nm,0.2s,SNR=7.9
ETOB  Tobarra            7.16  68   P        Pn        22 55 07.6 -0.6
ETOB                                S        Sn        22 56 27.2 -2.4
ETOB  Tobarra            7.16  68   P        Pn        22 55 07.6 -0.6
     comp=E,0.5nm,0.1s,SNR=15
ETOB                                S        Sn        22 56 27.2 -2.4
     comp=E,2.1nm,0.2s,SNR=7.9
ETOR  Torete             7.76  51   P        Pn        22 55 16.9 +0.5
     comp=E,3.9nm,0.2s,SNR=7.9
ETOR                                S        Sn        22 56 42.4 -1.8
     comp=E,5.6nm,0.3s,SNR=7.9
ETOR  Torete             7.76  51   P        Pn        22 55 16.9 +0.6
     comp=E,3.9nm,0.2s,SNR=7.9
ETOR                                S        Sn        22 56 42.4 -1.8
     comp=E,5.6nm,0.3s,SNR=7.9
```

ISCJB ***24*** *23:21:40.7±0.4, 31°.48S±0°.03×68°.98W±0°.05, h120km±5km, mb3.8/5, Error ellipse: s-maj=7.0km s-min=5.3km az=18.4*
NEIC ***24*** *23:21:41.2, 31°.58S×69°.16W, h150km, MG4.0(GUC), After GUC.*
IDC ***24*** *23:21:41.8±1.0, 31°.39S×68°.83W, h109km±7km, mb3.7/5, mb1 3.8/8, mb1mx3.7/18, mbtmp3.6/8, Error ellipse: s-maj=35.7km s-min=22.9km az=34.0*
GUC ***24*** *23:21:41.2±0.7, 31°.58S×69°.16W, h150km±15km, ML4.0*
ISC 24 23:21:41.8±0.4**, 31°.48S**±0°.03×**68°.98W**±0°.05**, h114**km±5km**, n37, σ0s.86**/54**, mb3.8**/5**, 3C-6D, San Juan Province**

```
Code  Station Name        Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
CFAA  Coronel Fontan     0.64 101   P        Pn        23 21 59.8 -0.3
     28nm,0.3s,baz=277,slow=5.7,SNR=4935
CFAA                                S        Sn        23 22 13.4 -0.4
     93nm,0.3s,baz=137,slow=19,SNR=170
CMCH  Combarbala         1.76 280⇓iP        Pn        23 22 12.6 +0.7
CMCH                               i S       Sn        23 22 36.7 +1.8
CMCH  Combarbala         1.76 280⇓iP        Pn        23 22 12.6 +0.7
CMCH                               i S       Sn        23 22 36.7 +1.8
CMCH                                AML      AML       23 22 43.0
     comp=E,4μm,0.7s
JACH  Jahuel             1.82 228  eP        Pn        23 22 12.8 +0.1
JACH                               i S       Sn        23 22 36.5 +0.3
JACH  Jahuel             1.82 228  eP        Pn        23 22 12.8 +0.1
JACH                               i S       Sn        23 22 36.5 +0.3
OVCH  Ovalle             2.10 294  eP        Pn        23 22 16.5 +0.3
OVCH                                S        Sn        23 22 42.8 +0.3
OVCH  Ovalle             2.10 294  eP        Pn        23 22 16.5 +0.3
OVCH                               i S       Sn        23 22 42.8 +0.3
OVCH                                AML      AML       23 22 45.2
     comp=N,856nm,0.2s
FCH   Farellones         2.15 211⇑eP        Pn        23 22 17.9 +1.0
FCH                                i S       Sn        23 22 45.1 +1.5
CHNG  Los Chungos        2.19 259⇓iP        Pn        23 22 16.7 -0.6
CHNG                               i S       Sn        23 22 43.8 -0.7
PEL   Peldehue           2.20 221⇓eP        Pn        23 22 17.1 -0.3
PEL                                i S       Sn        23 22 44.2 -0.6
PEL                                 AML      AML       23 22 48.4
     comp=N,857nm,0.6s
CLCH  Cerro Calan        2.32 214  eP        Pn        23 22 19.6 +0.6
CLCH                               i S       Sn        23 22 48.3 +0.8
CLCH  Cerro Calan        2.32 214  eP        Pn        23 22 19.6 +0.6
CLCH                               i S       Sn        23 22 48.3 +0.8
CLCH                                AML      AML       23 22 51.8
     comp=E,788nm,0.5s
PCH   Pirque             2.50 211  eP        Pn        23 22 21.5 +0.2
PCH                                i S       Sn        23 22 51.3 -0.3
PCH   Pirque             2.50 211  eP        Pn        23 22 21.5 +0.2
PCH                                i S       Sn        23 22 51.3 -0.3
ANTU  Antumapu           2.51 213  eP        Pn        23 22 20.7 -0.7
ANTU                               i S       Sn        23 22 51.3 -0.6
ANTU  Antumapu           2.51 213  eP        Pn        23 22 20.7 -0.7
ANTU                               i S       Sn        23 22 51.3 -0.6
ANTU                                AML      AML       23 22 54.5
     comp=N,448nm,0.6s
TACH  Talagante          2.73 217⇓iP        Pn        23 22 23.4 -0.9
TACH  Talagante          2.73 217⇓iP        Pn        23 22 23.4 -0.9
CHCH  Chadas Angostu     2.82 210  eP        Pn        23 22 25.1 -0.4
CHCH  Chadas Angostu     2.82 210  eP        Pn        23 22 25.1 -0.4
LCO   Las Campanas       2.88 328  ePn       Pn        23 22 27.2 +0.8
LCO                                eSn       Sn        23 22 58.5 -2.1
CACH  El Canelo          2.96 207⇑iP        Pn        23 22 27.6 +0.2
CACH  El Canelo          2.96 207⇑iP        Pn        23 22 27.6 +0.2
LVC   Limon Verde        8.84   0   P        Pn        23 23 46.1 -0.6
     comp=N,1.2nm,0.3s,baz=170,slow=7.8,SNR=15
LVC                                 S        Sn        23 25 18.7 -5.7
     comp=N,0.5nm,0.3s,baz=197,slow=20,SNR=2.9
LVC   Limon Verde        8.84   0  ePn       Pn        23 23 45.8 -0.9
LVC                                eS        Sn        23 25 24.2 -0.3
PLCA  Paso Flores        9.32 187  ePn       Pn        23 23 50.9 -2.2
CPUP  Villa Florida     11.42  66   P        Pn        23 24 17.6 -3.8
     comp=N,0.9nm,0.3s,baz=226,slow=15,SNR=7.6
CPUP  Villa Florida     11.42  66  ePn       Pn        23 24 17.2 -4.3
CPUP                               eSn       Sn        23 26 29.1 +1.9
SIV   San Ignacio       17.02  27   P        Pn        23 25 32.6 -0.4
     comp=N,0.1nm,0.3s,baz=227,slow=12,SNR=8.1
TKL   Tuckaleechee C    68.22 347   P        P         23 32 29.7 -0.2
     comp=N,3.0nm,0.8s,mb4.2,baz=28,slow=4.1,SNR=3.4
TXAR  Lajitas Array     68.89 328   P        P         23 32 35.3 +1.0
     comp=N,0.6nm,0.6s,mb3.6,baz=155,slow=8.6,SNR=8.8
DBIC  Dimbokro          71.91  70   P        P         23 32 52.9 -0.2
     comp=N,3.1nm,1.0s,mb4.1,baz=240,slow=8.1,SNR=4.1
TORD  Torodi Ar. Bea    80.91  69   P        P         23 33 43.8  0.0
     comp=N,0.9nm,0.6s,mb3.8,baz=235,slow=5.1,SNR=7.2
PDAR  Pinedale Array    82.75 331   P        P         23 33 53.0 +0.2
     comp=N,0.4nm,0.7s,mb3.4,baz=134,slow=5.2,SNR=3.2
ZALV  Zalesovo Beam    150.73  32   PKPbc    PKPbc     23 41 20.1  0.0
     comp=N,2.1nm,0.5s,baz=292,slow=3.2,SNR=11
MKAR  Makanchi Array   153.17  47   PKPbc    PKPbc     23 41 25.4 -0.4
     comp=N,0.3nm,0.6s,baz=296,slow=3.0,SNR=3.8
MKAR                                PKPab    PKPab     23 41 38.2 +0.2
     comp=N,0.5nm,0.7s,baz=303,slow=3.3,SNR=6.5
MKAR  Makanchi Array   153.17  47   PKPbc    PKPbc     23 41 25.4 -0.4
MKAR                                PKPab    PKPab     23 41 38.2 +0.1
```

NEIC ***24*** *23:58:02.2, 16°.90N×95°.08W, h106km, MD3.8(MEX), After MEX.*
MEX 24 23:58:02.0±0.8**, 16°.91N×95°.07W, h108**km±8km**, MD3.8, Oaxaca**

```
Code  Station Name        Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
CMIG  Matias Romero      0.26  44  i P       Pn        23 58 16.1 -1.2
CMIG                               i S       Sn        23 58 27.3 -1.5
TUIG  Tuzandepetl        1.28  29  i P       Pn        23 58 24.6 -1.6
TUIG                               i S       Sn        23 58 42.2 -2.2
HUIG  Huatulco           1.50 221  i P       Pn        23 58 26.8 -2.0
HUIG                               i S       Sn        23 58 47.2 -1.9
OXX   Oaxaca             1.59 277  i P       Pn        23 58 30.7 +1.0
OXX                                i S       Sn        23 58 51.8 +0.9
VHO   Vista Hermosa      1.60 276  eP        Pn        23 58 29.8 -0.1
VHO                                i S       Sn        23 58 49.4 -1.6
PCIG                     2.14 124  i P       Pn        23 58 36.0 -0.7
PCIG                               i S       Sn        23 59 01.8 -1.6
TPIG  Tehuac#an          2.65 305  i P       Pn        23 58 42.0 -1.3
TPIG                               i S       Sn        23 59 14.1 -1.0
UTMO  Huajuapan          2.76 290  i P       Pn        23 58 44.9 +0.1
UTMO                               i S       Sn        23 59 16.6 -1.2
```

ISCJB ***25*** *00:58:33.6±0.7, 26°.42S±0°.03×27°.57E±0°.03, h8km±5km, mb4.0/5, Error ellipse: s-maj=5.3km s-min=4.5km az=170.7*
PRE ***25*** *00:58:34.1±1.4, 26°.42S×27°.60E, h2km, ML3.8*
NEIC ***25*** *00:58:34.9±0.8, 26°.41S×27°.59E, h5km, Error ellipse: s-maj=20.0km s-min=9.5km az=117.0*
IDC ***25*** *00:58:34.3±1.1, 26°.46S×27°.50E, h0km, mb4.0/5, mb1 4.2/9, mb1mx3.9/26, mbtmp4.1/9, ML4.2/4, Error ellipse: s-maj=18.5km s-min=13.3km az=111.0*
ISC 25 00:58:34.3±0.7**, 26°.43S**±0°.03×**27°.58E**±0°.03**, h1**km±5km**, n32, σ1s.17**/50**, mb4.1**/5**, 3C-1D, South Africa**

```
Code  Station Name        Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
ERPM  east rand prop     0.60  82  eP        Pg        00 58 45.7 -0.2
ERPM                               eS        Sg        00 58 53.2 -0.5
ERPM                                AML      AML       00 58 56.0
     comp=Z,549nm,0.4s
KSR   Koster             0.84 313  eP        Pg        00 58 50.9 +0.4
KSR                                eS        Sg        00 59 01.8 +0.5
KSR                                 AML      AML       00 59 10.1
     comp=Z,635nm,0.4s
SLR   Silverton          0.94  43  eP        Pg        00 58 52.1 -0.3
SLR                                eS        Sg        00 59 04.4 -0.2
SLR                                 AML      AML       00 59 11.2
     comp=Z,445nm,0.4s
SEK   Senekal            1.88 179  eP        Pn        00 59 07.9 +0.3
SEK                                eS        Sn        00 59 32.7 +0.7
SEK                                 AML      AML       00 59 34.8
     comp=Z,839nm,0.5s
LBTB  Lobatse            2.28 308   Pn       Pn        00 59 14.2 +1.2
     comp=Z,48nm,0.3s,baz=145,slow=13,SNR=476
LBTB                                Pg       Pg        00 59 15.8 -2.2
     comp=Z,53nm,0.3s,baz=143,slow=16,SNR=466
LBTB                                Lg                 00 59 45.4
     comp=Z,196nm,0.3s,baz=39,slow=11,SNR=44
BOSA  Boshof             2.99 223   Pn       Pn        00 59 22.8  0.0
     comp=Z,19nm,0.3s,baz=48,slow=13,SNR=405
BOSA                                Pg       Pg        00 59 28.9 -2.8
     comp=Z,20nm,0.3s,baz=49,slow=17,SNR=35
BOSA                                Lg                 01 00 05.0
     comp=Z,42nm,0.3s,baz=314,slow=18,SNR=17
POGA  Pongola            3.72 105  eP        Pn        00 59 33.4 +0.5
POGA                               eS        Sn        01 00 17.5  0.0
POGA                                AML      AML       01 00 34.8
     comp=Z,261nm,0.6s
KSD   Kokstad            4.40 159  eP        Pn        00 59 42.8 +0.6
KSD                                eS        Sn        01 00 32.4 -1.7
KSD                                 AML      AML       01 00 53.8
     comp=Z,246nm,0.5s
HVD   Gariep Dam         4.54 203  eP        Pn        00 59 45.1 +0.9
HVD                                eS        Sn        01 00 37.0 -0.6
HVD                                 AML      AML       01 00 58.3
     comp=Z,59nm,0.3s
MSNA  Messina            4.64  29  eP        Pn        00 59 44.7 -0.9
MSNA                               eS        Sn        01 00 36.6 -3.5
MSNA                                AML      AML       01 01 10.5
     comp=Z,50nm,0.4s
PKA   Prieska            5.34 232  eP        Pn        00 59 56.0 +0.8
PKA                                eS        Sn        01 00 55.9 -1.4
PKA                                 AML      AML       01 01 25.0
     comp=Z,115nm,0.4s
UPI   Upington           5.94 250  eP        Pn        01 00 03.8 +0.4
UPI                                eS        Sn        01 01 09.4 -2.6
UPI                                 AML      AML       01 01 50.5
     comp=Z,63nm,0.5s
GRM   Grahamstown        6.92 187  eP        Pn        01 00 18.7 +1.9
GRM                                eS        Sn        01 01 33.3 -2.8
GRM                                 AML      AML       01 02 20.1
     comp=Z,28nm,0.5s
SUR   Sutherland         8.36 223   Pn       Pn        01 00 37.7 +1.1
     comp=Z,4.4nm,0.3s,baz=53,slow=15,SNR=46
SUR                                 Sn       Sn        01 02 05.6 -6.0
     comp=Z,2.3nm,0.3s,baz=339,slow=23,SNR=4.3
SUR                                 Lg                 01 02 55.6
     comp=Z,11nm,0.3s,baz=334,slow=22,SNR=7.9
SUR   Sutherland         8.36 223  ePn       Pn        01 00 37.5 +0.9
SUR                                eSn       Sn        01 02 08.4 -3.2
SUR                                eSg       Sg        01 02 55.2 -7.5
SUR   Sutherland         8.36 223  eP        Pn        01 00 37.5 +0.9
SUR                                eS        Sn        01 02 09.1 -2.5
CVNA  Calvinia           8.49 232  eP        Pn        01 00 39.7 +1.3
CVNA                               eS        Sn        01 02 10.8 -4.1
CVNA                                AML      AML       01 03 01.6
     comp=Z,87nm,0.5s
CER   Ceres              9.96 224  eP        Pn        01 01 00.8 +2.3
CER                                eS        Sn        01 02 46.3 -4.7
CER                                 AML      AML       01 03 56.9
     comp=Z,19nm,0.6s
LSZ   Lusaka            11.12   3   Pn       Pn        01 01 13.1 -1.4
     comp=Z,1.1nm,0.3s,baz=183,slow=13,SNR=17
LSZ                                 Sn       Sn        01 03 12.9 -6.5
     comp=Z,0.7nm,0.3s,baz=98,slow=18,SNR=4.3
LSZ                                 Lg                 01 04 20.4
     comp=Z,0.5nm,0.3s,baz=258,slow=18,SNR=3.3
LSZ   Lusaka            11.12   3  ePn       Pn        01 01 13.0 -1.4
LSZ                                eSn       Sn        01 03 12.7 -6.7
KMBO  Kilima Mbogo      26.83  22  eP        P         01 04 16.6 +0.3
     comp=Z,0.1nm,0.5s
DBIC  Dimbokro          45.52 312   P        P         01 06 54.6 -1.1
     comp=Z,2.5nm,0.9s,mb4.3,baz=160,slow=11,SNR=4.1
TORD  Torodi Ar. Bea    46.70 324   P        P         01 07 04.5 -0.5
     comp=Z,1.0nm,0.5s,mb4.2,baz=139,slow=6.3,SNR=22
VOIR                    71.56 358⇓iP        P         01 09 57.7 +0.9
MLR   Muntele Rosu      71.59 359⇑iP        P         01 09 57.8 +0.8
MLR   Muntele Rosu      71.59 359   P        P         01 09 57.8 +0.8
     comp=Z,1.2nm,0.5s,mb4.2,baz=257,slow=16,SNR=6.2
PLOR  Plostina          71.94 359⇑iP        P         01 10 00.1 +1.0
VRI   Vrincioaia        71.96 359⇑iP        P         01 10 00.2 +1.1
ESDC  Sonseca Array     72.05 335   P        P         01 10 00.3 +0.5
     comp=Z,0.7nm,0.5s,mb4.0,baz=155,slow=5.6,SNR=7.8
MKAR  Makanchi Array    88.04  34   P        P         01 11 26.1 +0.1
     comp=Z,0.3nm,0.6s,mb3.8,baz=230,slow=4.3,SNR=3.9
NVAR  Mina Array Bea   148.99 301   PKPbc    PKPbc     01 18 24.9 +0.8
     comp=Z,0.6nm,0.6s,baz=57,slow=5.5,SNR=4.0
NVAR  Mina Array Bea   148.99 301   PKPbc    PKPbc     01 18 24.9 +0.8
```

RSPR ***25*** *01:00:01.4, 18°.89N×64°.23W, h44km±1km*
ISC 25 01:00:00.3±2.9**, 19°.0N**±0°.3×**64°.3W**±0°.3**, h45**km±26km**, n8, σ0s.18**/12**, 5D, Virgin Islands**

```
Code  Station Name        Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
ABV   Anegada            0.22 187  eS        Sn        01 00 13.8  0.0
ABV   Anegada            0.22 187⇓eP        Pn        01 00 08.2 -0.1
```

ABV	Anegada	0.22	187⇓	eP	Pn	01 00 08.2	-0.1
ABV				eS	Sn	01 00 13.8	0.0
TBVI	Tortola	0.60	209⇓	eP	Pn	01 00 12.8	+0.1
TBVI				eS	Sn	01 00 21.2	-0.2
TBVI	Tortola	0.60	209⇓	eP	Pn	01 00 12.8	+0.1
TBVI				eS	Sn	01 00 21.2	-0.2
STVI	Saint Thomas	0.85	226	eS	Sn	01 00 27.7	+0.3
STVI	Saint Thomas	0.85	226	eS	Sn	01 00 27.7	+0.3
MTP	Monte Pirata	1.46	235⇓	eP	Pn	01 00 24.2	0.0
MTP				eS	Sn	01 00 41.8	-0.2

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*CSEM **25** 01:04:55.4, 27°.76N×34°.32E, h27^{km}, ML2.2, After SNSN*
*SGS **25** 01:04:55.4, 27°.76N×34°.32E, h27^{km}*
*GII **25** 01:04:57.1±1.2, 27°.64N×34°.86E, h1^{km}±232^{km}, Md2.5/2*
ISC 25 01:04:54.2±1.7, **27°.75N**±0°.05×**34°.5E**±0°.1, **h10^{km}, n15, σ1^{s}.18**/23, **Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSHS		0.60	23	P	Pg	01 05 06.8	+0.9
RSHS		0.60	23	P	Pg	01 05 06.8	+0.9
BDAS	Al Bad‘	0.85	36	P	Pg	01 05 10.7	+0.1
BDAS	Al Bad‘	0.85	36	P	Pg	01 05 10.7	+0.1
JLOS		1.30	41	P	Pn	01 05 17.8	-0.6
JLOS		1.30	41	P	Pn	01 05 17.8	-0.6
JLOS				S	Sb	01 05 34.8	-0.7
EIL	Elat	1.95	11	Pn	Pg	01 05 32.8	+1.1
EIL				Sn	Sg	01 06 01.1	+4.1
MBRI	Mt Berech	2.07	9	Pn	Pg	01 05 35.6	+1.7
MBRI				Sn	Sg	01 06 04.6	+3.9
HRFI	Mount Harif	2.33	11	Pn	Pg	01 05 38.2	-0.6
HRFI				Sn	Sg	01 06 09.9	+0.9
BIDS	Bi’r al Bayda’	2.33	112	P	Pn	01 05 33.0	+0.3
BIDS	Bi’r al Bayda’	2.33	112	P	Pn	01 05 33.0	+0.4
BIDS				S	Sn	01 06 01.1	-0.3
KRMI	Paran Flat	2.37	4	Pn	Pg	01 05 39.1	-0.5
KRMI				Sn	Sg	01 06 12.0	+1.6
PRNI	Paran	2.63	9	Pn	Pg	01 05 44.1	-0.5
PRNI				Sn	Sg	01 06 18.7	0.0
ZFRI	Zfri	2.85	11	Sn	Sg	01 06 23.7	-2.2
KZIT	Kziot	3.15	358	Pn	Pg	01 05 51.0	-3.6
KZIT				Sn	Sg	01 06 33.1	-2.3

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*CSEM **25** 01:09:20.3, 36°.17N×21°.66E, h4^{km}, MD3.5, After ATH*
*NEIC **25** 01:09:20.3, 36°.17N×21°.66E, h4^{km}, MD3.5(ATH), After ATH.*
ATH 25 01:09:20.3, 36°.17N×21°.66E, h4^{km}, MD3.5/9, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.73	5	ePG	Pg	01 09 33.6	-0.7
PYL	PYLOS	0.73	5	ePg	Pg	01 09 33.6	-0.7
ITM	Ithomi	1.03	12	ePB	Pg	01 09 39.4	-0.7
ITM				eSG	Sg	01 09 54.4	+1.0
ITM	Ithomi	1.03	12	ePb	Pg	01 09 39.4	-0.7
ITM				eSg	Sg	01 09 54.4	+1.0
KYTH	Kithira	1.12	84	ePB	Pg	01 09 41.6	-0.1
KYTH	Kithira	1.12	84	ePb	Pg	01 09 41.6	-0.1
VLI	Veliai	1.17	62	ePB	Pg	01 09 42.5	-0.2
VLI				eSB	Sg	01 09 58.2	+0.4
VLI	Veliai	1.17	62	ePb	Pg	01 09 42.5	-0.2
VLI				eSb	Sg	01 09 58.2	+0.4
VLX	Vlachokerasia	1.33	26	ePB	Pn	01 09 44.4	-1.2
VLX				eSB	Sn	01 10 04.2	+0.4
VLX	Vlachokerasia	1.33	26	ePb	Pn	01 09 44.4	-1.2
VLX				eSb	Sn	01 10 04.2	+0.4
GUR	Goura	1.85	17	ePG	Pn	01 09 54.2	+1.5
GUR	Goura	1.85	17	ePg	Pn	01 09 54.2	+1.5
RLS	Riolos of Patr	1.89	355	ePB	Pn	01 09 55.7	+2.4
RLS	Riolos of Patr	1.89	355	ePb	Pn	01 09 55.7	+2.4
VLS	Valsamata	2.18	337	ePN	Pn	01 09 59.5	+2.2
VLS	Valsamata	2.18	337	ePn	Pn	01 09 59.5	+2.2
EFP	Efpalio	2.26	5	ePN	Pn	01 10 01.3	+2.9
EFP	Efpalio	2.26	5	ePn	Pn	01 10 01.3	+2.9

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*ISCJB **25** 01:33:23.7±0.7, 36°.34N±0°.03×21°.79E±0°.04, h4^{km}±3^{km}, Error ellipse: s-maj=5.5km s-min=3.4km az=142.4*
*NEIC **25** 01:33:23.9, 36°.33N×21°.76E, h12^{km}, ML3.0(ATH), After ATH.*
*CSEM **25** 01:33:24.8±0.2, 36°.36N×21°.83E, h2^{km}, ML3.6/8, Error ellipse: s-maj=5.6km s-min=3.3km az=47.0*
*ATH **25** 01:33:24.0, 36°.33N×21°.77E, h12^{km}, MD3.7/23, ML3.0*
*THE **25** 01:33:27.1, 36°.38N×21°.88E, h15^{km}±2^{km}, ML3.6/8, Error ellipse: s-maj=2.7km s-min=0.8km az=230.0*
ISC 25 01:33:24.8±0.7, **36°.34N**±0°.03×**21°.81E**±0°.04, **h3^{km}**±3^{km}, **n111, σ0^{s}.82**/164, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.55	355	P	Pg	01 33 34.7	-0.7
PYL	PYLOS	0.55	355	ePG	Pg	01 33 34.6	-0.8
PYL				eSB	Sg	01 33 43.3	+0.7
PYL	PYLOS	0.55	355	ePg	Pg	01 33 34.6	-0.8
PYL				eSb	Sg	01 33 43.3	+0.7
ITM	Ithomi	0.84	7	ePB	Pg	01 33 40.4	-0.5
ITM				eSB	Sg	01 33 52.8	+1.0
ITM	Ithomi	0.84	7	ePb	Pg	01 33 40.4	-0.5
ITM				eSb	Sg	01 33 52.8	+1.0
VLI	Veliai	0.98	67	ePB	Pg	01 33 43.6	0.0
VLI				eSB	Sg	01 33 57.4	+1.0
VLI	Veliai	0.98	67	ePb	Pg	01 33 43.6	0.0
VLI				eSb	Sg	01 33 57.4	+1.0
KYTH	Kithira	0.99	93	ePN	Pg	01 33 43.8	0.0
KYTH	Kithira	0.99	93	ePn	Pg	01 33 43.8	0.0
VLX	Vlachokerasia	1.12	24	ePG	Pg	01 33 45.2	-1.1
VLX				eSB	Sg	01 34 00.8	-0.1
VLX	Vlachokerasia	1.12	24	ePg	Pg	01 33 45.2	-1.1
VLX				eSb	Sg	01 34 00.8	-0.1
DID	Didima	1.63	44	P	Pn	01 33 54.0	-0.4
DID				S	Sn	01 34 14.2	-1.7
DID	Didima	1.63	44	ePG	Pg	01 33 54.8	-1.2
DID				eSB	Sb	01 34 17.6	+1.1
DID	Didima	1.63	44	ePg	Pg	01 33 54.8	-1.2
DID				S	Sn	01 34 14.2	-1.7
DID				eSb	Sb	01 34 17.6	+1.1
GUR	Goura	1.65	15	ePG	Pg	01 33 54.9	-1.4
GUR				eSB	Sb	01 34 18.2	+1.3
GUR	Goura	1.65	15	ePg	Pg	01 33 54.9	-1.4
GUR				eSb	Sb	01 34 18.2	+1.3
RLS	Riolos of Patr	1.73	351	ePG	Pg	01 33 56.7	-1.3
RLS				eSN	Sn	01 34 19.6	+1.2
RLS	Riolos of Patr	1.73	351	ePg	Pg	01 33 56.7	-1.3
RLS				eSn	Sn	01 34 19.6	+1.2
LAKA	Lakka	1.90	4	P	Pn	01 33 58.0	-0.1
LAKA				S	Sn	01 34 22.5	0.0
LAKA	Lakka	1.90	4	P	Pn	01 33 58.0	-0.1
LAKA				S	Sn	01 34 22.5	0.0
LTK	Loutraki	1.92	29	P	Pn	01 33 58.4	+0.1
LTK				S	Sn	01 34 21.2	-1.7
LTK	Loutraki	1.92	29	ePN	Pn	01 33 58.9	+0.6
LTK				eSN	Sn	01 34 24.6	+1.7
LTK	Loutraki	1.92	29	ePn	Pn	01 33 58.9	+0.6
LTK				S	Sn	01 34 21.2	-1.7
LTK				eSn	Sn	01 34 24.6	+1.7
NAIG	Nisos Aigina	1.95	43	ePN	Pn	01 33 59.3	+0.5
NAIG	Nisos Aigina	1.95	43	ePn	Pn	01 33 59.3	+0.5
KARN	Karanos	1.95	118	P	Pn	01 33 59.1	+0.3
KARN				S	Sn	01 34 22.8	-1.1
KARN	Karanos	1.95	118	P	Pn	01 33 59.1	+0.3
KARN				S	Sn	01 34 22.8	-1.1
TRIZ	Trizonia	2.03	6	P	Pn	01 34 00.4	+0.5
TRIZ				S	Sn	01 34 25.2	-0.5
TRIZ	Trizonia	2.03	6	P	Pn	01 34 00.4	+0.5
TRIZ				S	Sn	01 34 25.2	-0.5
KALE	Kalithea	2.06	7	P	Pn	01 34 00.8	+0.5
KALE				S	Sn	01 34 25.7	-0.8
KALE	Kalithea	2.06	7	P	Pn	01 34 00.8	+0.5
KALE				S	Sn	01 34 25.7	-0.8
VLS	Valsamata	2.07	332	P	Pn	01 34 00.6	+0.1
VLS				S	Sn	01 34 26.8	0.0
VLS	Valsamata	2.07	332	ePN	Pn	01 34 00.6	+0.1
VLS				eSN	Sn	01 34 27.3	+0.5
VLS	Valsamata	2.07	332	ePn	Pn	01 34 00.6	+0.1
VLS				eSn	Sn	01 34 27.3	+0.5
EFP	Efpalio	2.08	2	ePN	Pn	01 34 01.7	+1.1
EFP	Efpalio	2.08	2	ePn	Pn	01 34 01.7	+1.1
VLY	Voula,Athens	2.19	46	ePN	Pn	01 34 03.1	+1.0
VLY	Voula,Athens	2.19	46	ePn	Pn	01 34 03.1	+1.0
ATH	Athens Observa	2.23	43	ePN	Pn	01 34 03.8	+1.2
ATH	Athens Observa	2.23	43	ePn	Pn	01 34 03.8	+1.2
ATHU	Athens Univers	2.26	44	P	Pn	01 34 02.8	-0.3
ATHU				S	Sn	01 34 30.5	-1.0
ATHU	Athens Univers	2.26	44	P	Pn	01 34 02.8	-0.3
ATHU				S	Sn	01 34 30.5	-1.0
PTL	Penteli	2.37	43	ePN	Pn	01 34 05.3	+0.8
PTL	Penteli	2.37	43	ePn	Pn	01 34 05.3	+0.8
LKR	Lokris	2.49	22	P	Pn	01 34 06.1	-0.1
LKR				S	Sn	01 34 36.1	-1.0
LKR	Lokris	2.49	22	ePN	Pn	01 34 07.5	+1.3
LKR	Lokris	2.49	22	P	Pn	01 34 06.1	-0.1
LKR	Lokris	2.49	22	ePn	Pn	01 34 07.5	+1.3
LKR				S	Sn	01 34 36.1	-1.0
LKD	Levkas	2.53	339	P	Pn	01 34 07.8	+1.0
LKD				S	Sn	01 34 38.3	+0.1
LKD	Levkas	2.53	339	P	Pn	01 34 07.8	+1.0
LKD				S	Sn	01 34 38.3	+0.1
AGG	Agios Georgios	2.71	9	P	Pn	01 34 08.9	-0.3
AGG				S	Sn	01 34 41.9	-0.5
AGG	Agios Georgios	2.71	9	ePN	Pn	01 34 10.2	+1.0
AGG	Agios Georgios	2.71	9	P	Pn	01 34 08.9	-0.3
AGG	Agios Georgios	2.71	9	ePn	Pn	01 34 10.2	+1.0
AGG				S	Sn	01 34 41.9	-0.5
IDI	Anoyia	2.72	112	ePn	Pn	01 34 08.4	-0.9
IDI	Anoyia	2.72	112	ePn	Pn	01 34 08.4	-0.9
SIVA	Sivas	2.78	118	P	Pn	01 34 10.7	+0.5
SIVA				S	Sn	01 34 44.5	+0.3
SIVA	Sivas	2.78	118	P	Pn	01 34 10.7	+0.5
SIVA				S	Sn	01 34 44.5	+0.3
XOR	Xorichti	3.21	20	P	Pn	01 34 16.3	+0.2
XOR				S	Sn	01 34 53.9	-1.0
XOR	Xorichti	3.21	20	P	Pn	01 34 16.3	+0.2
XOR				S	Sn	01 34 53.9	-1.0
LAST	Lasithi	3.21	110	P	Pn	01 34 15.5	-0.6
LAST				S	Sn	01 34 54.9	0.0
LAST	Lasithi	3.21	110	P	Pn	01 34 15.5	-0.6
LAST				S	Sn	01 34 54.9	0.0
THL	Klokotos Trika	3.22	3	P	Pn	01 34 16.4	+0.2
THL				S	Sn	01 34 54.1	-1.0
THL	Klokotos Trika	3.22	3	ePN	Pn	01 34 16.5	+0.3
THL	Klokotos Trika	3.22	3	ePn	Pn	01 34 16.5	+0.3
THL				S	Sn	01 34 54.1	-1.0
AOS	Alonnisos	3.27	30	P	Pn	01 34 16.7	-0.2
AOS	Alonnisos	3.27	30	P	Pn	01 34 16.7	-0.2
IGT	Igoumenitsa	3.39	340	P	Pn	01 34 18.0	-0.6
IGT				S	Sn	01 35 00.1	+0.8
IGT	Igoumenitsa	3.39	340	P	Pn	01 34 18.0	-0.6
IGT				S	Sn	01 35 00.1	+0.8
JAN	Janina	3.39	347	ePN	Pn	01 34 18.8	+0.2
JAN	Janina	3.39	347	ePn	Pn	01 34 18.8	+0.2
MEV	Metsovon	3.47	353	P	Pn	01 34 20.7	+1.1
MEV	Metsovon	3.47	353	P	Pn	01 34 20.7	+1.1
KEK	Kerkira	3.72	335	ePN	Pn	01 34 23.5	+0.4
KEK	Kerkira	3.72	335	ePn	Pn	01 34 23.5	+0.4
LIT	Litokhoron	3.79	8	P	Pn	01 34 24.2	+0.1
LIT				S	Sn	01 35 08.5	-0.7
LIT	Litokhoron	3.79	8	ePN	Pn	01 34 24.7	+0.6
LIT	Litokhoron	3.79	8	ePn	Pn	01 34 24.7	+0.6
LIT				S	Sn	01 35 08.5	-0.7
PAIG	Paliouri	3.87	22	P	Pn	01 34 24.7	-0.5
PAIG	Paliouri	3.87	22	P	Pn	01 34 24.7	-0.5
CHOS	Chios island	3.95	58	P	Pn	01 34 26.7	+0.4
CHOS	Chios island	3.95	58	P	Pn	01 34 26.7	+0.4
KZN	Kozani	3.96	360	ePN	Pn	01 34 26.7	+0.3
KZN	Kozani	3.96	360	ePn	Pn	01 34 26.7	+0.3
PLG	Polygyros	4.22	17	P	Pn	01 34 29.7	-0.3
PLG	Polygyros	4.22	17	ePN	Pn	01 34 30.7	+0.7
PLG	Polygyros	4.22	17	ePn	Pn	01 34 30.7	+0.7
HORT	Hortiatis	4.37	13	P	Pn	01 34 31.7	-0.3
HORT	Hortiatis	4.37	13	P	Pn	01 34 31.7	-0.3
KARP	Karpathos	4.42	99	ePN	Pn	01 34 33.9	+1.2
KARP	Karpathos	4.42	99	ePn	Pn	01 34 33.9	+1.2
FNA	Florina	4.45	356	P	Pn	01 34 32.4	-0.7
FNA				S	Sn	01 35 25.4	+0.1
FNA	Florina	4.45	356	P	Pn	01 34 32.4	-0.7
FNA				S	Sn	01 35 25.4	+0.1
GRG	Griva	4.63	6	P	Pn	01 34 35.0	-0.6
GRG	Griva	4.63	6	P	Pn	01 34 35.0	-0.6
SOH	Sokhos	4.63	15	P	Pn	01 34 36.2	+0.6
SOH	Sokhos	4.63	15	ePN	Pn	01 34 37.5	+1.9
SOH	Sokhos	4.63	15	P	Pn	01 34 36.2	+0.6
SOH	Sokhos	4.63	15	ePn	Pn	01 34 37.5	+1.9
BIA	Bitola	4.68	356	ePn	Pn	01 34 34.9	-1.4
BIA	Bitola	4.68	356	ePn	Pn	01 34 34.9	-1.4
KNT	Kendrikon	4.89	10	P	Pn	01 34 39.7	+0.6
KNT	Kendrikon	4.89	10	P	Pn	01 34 39.7	+0.6
TIP	Timpagrande	4.90	307	ePn	Pn	01 34 38.0	-1.4
TIP	Timpagrande	4.90	307	ePn	Pn	01 34 38.0	-1.3
SRS	Serrai	4.97	16	P	Pn	01 34 40.4	+0.2
SRS	Serrai	4.97	16	P	Pn	01 34 40.4	+0.2
CEL	Celeste	5.09	294	ePn	Pn	01 34 40.3	-1.6
CEL	Celeste	5.09	294	ePn	Pn	01 34 40.3	-1.6
CUC	Castrocucco	5.96	309	ePn	Pn	01 34 54.8	+0.9
CUC	Castrocucco	5.96	309	ePn	Pn	01 34 54.8	+0.9

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*NEIC **25** 01:40:11.5, 39°.69N×26°.04E, h31^{km}, MD3.0(ATH), After ATH.*
*ATH **25** 01:40:11.5, 39°.69N×26°.04E, h31^{km}±1^{km}, MD3.0/5*
*ISK **25** 01:40:11.9, 39°.76N×26°.08E, h12^{km}, MD2.8*
*CSEM **25** 01:40:11.8±0.2, 39°.72N×26°.08E, h19^{km}, MD2.8, Error ellipse: s-maj=6.3km s-min=4.2km az=89.0*
*ISCJB **25** 01:40:12.0±0.6, 39°.72N±0°.03×26°.11E±0°.05, h17^{km}±6^{km}, Error ellipse: s-maj=6.4km s-min=5.3km az=161.8*
*DDA **25** 01:40:12.3, 39°.73N×26°.15E, h7^{km}±2^{km}, Md2.8*
ISC 25 01:40:11.7±0.6, **39°.71N**±0°.03×**26°.11E**±0°.05, **h16^{km}**±4^{km}, **n21, σ0^{s}.62**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOZC	Bozcaada	0.14	342	i P	Pg	01 40 15.2	-0.3
BOZC				i S	Sg	01 40 18.1	0.0
EZN	Ezine	0.20	56	ePG	Pg	01 40 16.6	+0.1
EZN				eSG	Sg	01 40 20.1	+0.4
EZN	Ezine	0.20	56	ePg	Pg	01 40 16.6	+0.1
EZN				eSg	Sg	01 40 20.1	+0.3
PRK	Paraskevi	0.48	165	ePB	Pb	01 40 22.1	+0.3
PRK				eSB	Sb	01 40 29.3	+0.6
PRK	Paraskevi	0.48	165	ePb	Pb	01 40 22.1	+0.3
PRK				eSb	Sb	01 40 29.3	+0.6
GADA	Gvkgeada	0.50	341	ePG	Pg	01 40 21.3	-0.5
GADA				eSG	Sg	01 40 28.1	-0.5
GADA	Gvkgeada	0.50	341	ePg	Pg	01 40 21.3	-0.5
GADA				eSg	Sg	01 40 28.1	-0.5
LIA	Limnos Island	0.74	285	ePN	Pg	01 40 25.9	-0.2
LIA				eSN	Sg	01 40 35.7	-0.2
LIA	Limnos Island	0.74	285	ePn	Pg	01 40 25.9	-0.2
LIA				eSn	Sg	01 40 35.7	-0.2
LPK	Lapseki	0.83	37	ePG	Pg	01 40 27.7	-0.1
LPK				eSG	Sg	01 40 39.5	+0.7
LPK	Lapseki	0.83	37	ePg	Pg	01 40 27.7	-0.1
LPK				eSg	Sg	01 40 39.5	+0.7
ENEZ	Enez	1.02	2	ePG	Pg	01 40 31.6	+0.1
ENEZ	Enez	1.02	2	ePg	Pg	01 40 31.6	+0.1
BALY	Balya	1.17	88	i P	Sn	01 40 46.6	-2.3
BALY	Balya	1.17	88	i P	Sn	01 40 46.6	-2.3
ALN	Alexandroupoli	1.18	358	ePN	Pn	01 40 34.0	+0.4
ALN				eSN	Sn	01 40 49.8	+0.5
ALN	Alexandroupoli	1.18	358	ePn	Pn	01 40 34.0	+0.4
ALN				eSn	Sn	01 40 49.8	+0.5
CHOS	Chios island	1.32	182	ePN	Pn	01 40 35.3	-0.2
CHOS	Chios island	1.32	182	ePn	Pn	01 40 35.3	-0.2
RDO	Rodhopi	1.50	343	ePN	Pn	01 40 38.6	+0.7
RDO	Rodhopi	1.50	343	ePn	Pn	01 40 38.6	+0.7

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*BGS **25** 01:42:02.8±2.5, 52°.35N×34°.80W, h10^{km}, mb4.8*
*IDC **25** 01:42:05.1±0.5, 52°.78N×34°.44W, h0^{km}, mb4.1/24, mb1 4.2/27, mb1mx4.2/36, mbtmp4.1/27, ML3.4/3, MS3.8/24, Ms1 3.8/24, ms1mx3.6/47, Error ellipse: s-maj=15.9km s-min=10.0km az=11.0*
*MOS **25** 01:42:05.0±0.8, 52°.75N×34°.41W, h10^{km}, mb4.6/48, Error ellipse: s-maj=8.4km s-min=6.6km az=45.6*
*ISCJB **25** 01:42:05.8±0.3, 52°.76N±0°.05×34°.43W±0°.04, h14^{km}, mb4.4/95, MS3.8/28, Error ellipse: s-maj=7.0km s-min=3.5km az=9.9*
*CSEM **25** 01:42:06.7±0.1, 52°.75N×34°.42W, h10^{km}, mb4.6/46, Ms3.3, Error ellipse: s-maj=7.8km s-min=3.8km az=14.0*
*NEIC **25** 01:42:06.8±0.2, 52°.67N×34°.43W, h10^{km}, mb4.6/49, Error ellipse: s-maj=7.3km s-min=3.5km az=10.0*
*BJI **25** 01:42:09.6, 53°.67N×33°.96W, h10^{km}, mB5.1/12, mb4.6/17, Ms5.1/6, Ms7 4.9/6*
ISC 25 01:42:07.7±2.0, **52°.77N**±0°.05×**34°.40W**±0°.05, **h14^{km}**±12^{km}, **h15^{km}**±1.6^{km}**:pP-P, n342, σ0^{s}.98**/334, **mb4.4**/95, **MS3.8**/28, **9C-7D, Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	Borgarnes	13.75	24	eP	Pn	01 45 24.0	+2.0
BORG	Borgarnes	13.75	24	ePn	Pn	01 45 24.0	+2.0
DCN	Croghan	16.29	77	eP	Pn	01 45 56.4	+0.7
SFJD	Kangerlussuaq	16.34	337	eP	Pn	01 45 57.5	+1.2
SFJD				pmax	pmax		
	comp=Z,11nm,0.8s						
SFJD	Kangerlussuaq	16.34	337	i P	Pn	01 45 57.5	+1.2
	comp=Z,11nm,0.8s						
SFJD	Kangerlussuaq	16.34	337	Pn	Pn	01 45 54.6	-1.7
	comp=Z,0.1nm,0.3s,baz=17,slow=11,SNR=2.9						
SFJD	Kangerlussuaq	16.34	337	P	Pn	01 45 59.1	+2.8
	comp=Z,132nm,0.8s						
SFJD	Kangerlussuaq	16.34	337	P	Pn	01 45 59.1	+2.8
	comp=Z,132nm,0.8s						
DLF	Lyons Farm	16.74	77	eP	Pn	01 46 01.1	-0.3
DSB	Dublin	16.84	77	eP	Pn	01 46 05.1	+2.4
	comp=Z,22nm,1.2s						
DSB	Dublin	16.84	77	eP	Pn	01 46 05.1	+2.4
	comp=Z,22nm,1.2s						
KAR1	Arisaig	16.91	64	eP	Pn	01 46 04.8	+1.2
PGBU	Glenifferbraes	17.66	68	eP	Pn	01 46 12.3	-0.6
PGBU				AMb	AMB	01 46 13.2	
	comp=Z,114nm,1.9s						
EAB	Aberfoyle	17.73	67	eP	Pn	01 46 14.6	+0.8
WLF1	Llynfaes	18.00	76	eP	Pn	01 46 18.4	+1.3
WLF1				AMb	AMB	01 46 22.0	
	comp=Z,102nm,1.8s						
EBH	Black Hill	18.19	67	eP	Pn	01 46 20.4	+0.9
EAU	Auchinoon	18.24	68	eP	Pn	01 46 20.9	+0.8
EDI	Edinburgh	18.39	68	eP	Pn	01 46 22.0	+0.1
EDI				AMb	AMB	01 46 26.1	
	comp=Z,108nm,1.9s						
ESK	Eskdalemuir	18.42	70	eP	Pn	01 46 21.3	-1.0
ESK				AMb	AMB	01 46 25.3	
	comp=Z,58nm,1.4s						
ESK	Eskdalemuir	18.42	70	eP	Pn	01 46 23.9	+1.6
ESK				pmax	pmax		
	comp=Z,777nm,2.9s						
ESK	Eskdalemuir	18.42	70	eP	Pn	01 46 23.9	+1.6
	comp=Z,776nm,2.9s						
ESK	Eskdalemuir	18.42	70	eP	Pn	01 46 23.9	+1.6
	comp=Z,776nm,2.9s						
EKA	Eskdalemuir Ar	18.44	70	P	Pn	01 46 23.4	+0.8
	baz=277,slow=9.5,SNR=26						
EKA	Eskdalemuir Ar	18.44	70	P	Pn	01 46 23.4	+0.8
EBL	Broad Law	18.48	68	eP	Pn	01 46 22.5	-0.4
ECK	Cauldkaine Hil	18.48	70	eP	Pn	01 46 22.8	-0.2
SCO	Scoresbysund	18.66	13	i P	Pn	01 46 26.7	+1.6
SCO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SCO	Scoresbysund	18.66	13	i P	Pn	01 46 26.7	+1.6
	comp=Z,5.5nm,0.9s						
SCO	Scoresbysund	18.66	13	i P	Pn	01 46 26.7	+1.6
	comp=Z,5.5nm,0.9s						
ESY	Stoneypath	18.71	68	eP	Pn	01 46 25.0	-0.8
XAL	Allendale	19.03	71	eP	Pn	01 46 29.4	-0.3
MCH1	Michaelchurch	19.11	80	eP	Pn	01 46 28.4	-2.4
MCH1				AMb	AMB	01 46 37.2	
	comp=Z,73nm,1.5s						
SCHQ	Schefferville	19.18	289	P	Pn	01 46 28.6	-2.8
	comp=Z,0.2nm,0.3s,baz=94,slow=11,SNR=7.9						
SCHQ				LR	LR	01 52 54.7	
	comp=Z,304nm,19.2s,baz=90,slow=34						
SCHQ	Schefferville	19.18	289	P	Pn	01 46 28.6	-2.8
LHO	Holmfirth	19.45	75	eP	Pn	01 46 33.4	-1.3
KBI1	Birley Grange	19.70	75	eP	Pn	01 46 36.5	-1.2
SUMG	Summit	19.96	356	eP	Pn	01 46 40.0	-0.7
	comp=Z,51nm,1.5s						
SUMG	Summit	19.96	356	eP	Pn	01 46 40.0	-0.7
	comp=Z,51nm,1.5s						
ROSF	Rostrenen	20.18	90	eP	P	01 46 42.5	+1.0
ROSF	Rostrenen	20.18	90	eP	P	01 46 42.5	+1.0
QUIF	Quistinic	20.42	91	eP	P	01 46 44.3	+0.1
	comp=Z,28nm,1.0s						
QUIF	Quistinic	20.42	91	eP	P	01 46 44.3	+0.1
QUIF				pmax	pmax		
	comp=Z,14nm,1.0s						
QUIF	Quistinic	20.42	91	eP	P	01 46 44.3	+0.1
	comp=Z,14nm,1.0s						
QUIF	Quistinic	20.42	91	eP	P	01 46 44.3	+0.1
	comp=Z,14nm,1.0s						
FRB	Frobisher Bay	20.77	315	P	P	01 46 47.5	-0.3
FRB				pmax	pmax		
	comp=Z,14nm,1.0s						
FRB	Frobisher Bay	20.77	315	P	P	01 46 47.5	-0.3
	comp=Z,14nm,1.0s,baz=105,slow=11,SNR=28						
FRB	Frobisher Bay	20.77	315	P	P	01 46 47.5	-0.3
PCAB	Cabril	20.92	111	eP	P	01 46 50.6	+1.0
	comp=Z,31nm,1.7s						
PCAB	Cabril	20.92	111	eP	P	01 46 50.6	+1.0
	comp=Z,31nm,1.7s						
PVRL	Vila Real	21.39	112	eP	P	01 46 56.1	+1.5
	comp=Z,33nm,1.2s,mb4.5						
PVRL	Vila Real	21.39	112	eP	P	01 46 56.1	+1.5
	comp=Z,33nm,1.2s,mb4.5						
PBRG	Braganca	21.59	109	eP	P	01 46 57.3	+0.4
	comp=Z,26nm,1.4s,mb4.5						
PBRG	Braganca	21.59	109	eP	P	01 46 57.3	+0.4
	comp=Z,26nm,1.4s,mb4.5						
GRR	Gorron	21.62	88	eP	P	01 46 56.6	-0.5
	comp=Z,57nm,1.2s,mb4.6						
GRR	Gorron	21.62	88	eP	P	01 46 56.6	-0.5
GRR				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.6						
GRR	Gorron	21.62	88	eP	P	01 46 56.6	-0.5
	comp=Z,28nm,1.2s,mb4.6						
GRR	Gorron	21.62	88	eP	P	01 46 56.6	-0.5
	comp=Z,28nm,1.2s,mb4.6						
PVIS	Viseu	21.66	113	eP	P	01 46 57.9	+0.3
	comp=Z,30nm,1.8s,mb4.4						
PVIS	Viseu	21.66	113	eP	P	01 46 57.9	+0.3
	comp=Z,30nm,1.8s,mb4.4						
FLN	La Foliniere	21.70	87	eP	P	01 46 58.0	0.0
	comp=Z,31nm,0.9s						
FLN				eMLR	MLR		
	comp=Z,148nm,20.8s						
FLN	La Foliniere	21.70	87	eP	P	01 46 58.0	0.0
FLN				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.4						
FLN				MLR	MLR		
	comp=Z,150nm,20.8s,MS3.4						
FLN	La Foliniere	21.70	87	eP	P	01 46 58.0	0.0
	comp=Z,15nm,0.9s,mb4.4						
FLN				LR	LR		
	comp=Z,150nm,20.8s,MS3.4						
FLN	La Foliniere	21.70	87	eP	P	01 46 58.0	0.0
	comp=Z,15nm,0.9s,mb4.4						
LDF	La Druitiere	21.99	87	eP	P	01 47 01.0	0.0
	comp=Z,39nm,1.1s,mb4.4						
LDF	La Druitiere	21.99	87	eP	P	01 47 01.0	0.0
LDF				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.5						
LDF	La Druitiere	21.99	87	eP	P	01 47 01.0	0.0
	comp=Z,20nm,1.1s,mb4.5						
LDF	La Druitiere	21.99	87	eP	P	01 47 01.0	0.0
	comp=Z,20nm,1.1s,mb4.4						
MTE	Manteigas	22.07	113	eP	P	01 47 05.8	+3.8
	comp=Z,27nm,2.2s,mb4.3						
MTE				eS	S	01 51 09.6	+4.8
PTOM	Tomar	22.14	116	eP	P	01 47 02.6	-0.1
	comp=Z,54nm,1.9s,mb4.7						
PTOM	Tomar	22.14	116	eP	P	01 47 02.6	-0.1
	comp=Z,54nm,1.9s,mb4.7						
PMAFR	Mafra	22.14	119	eS	S	01 51 07.0	+0.8
PMAFR	Mafra	22.14	119	eS	S	01 51 07.0	+0.8
PMRV	Marv??o	22.83	115	eP	P	01 47 11.8	+1.8
	comp=Z,29nm,2.0s,mb4.4						
PMRV				eS	S	01 51 26.0	+7.1
PMRV	Marv??o	22.83	115	eP	P	01 47 11.8	+1.8
	comp=Z,29nm,2.0s,mb4.4						
MFF	Saint Martin d	22.85	92	eP	P	01 47 09.0	-1.2

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      comp=Z,48nm,1.4s,mb4.5
MFF   Saint Martin d   22.85  92 eP    P       01 47 09.0 -1.2
MFF                              pmax  pmax
      comp=Z,24nm,1.4s,mb4.4
MFF   Saint Martin d   22.85  92 eP    P       01 47 09.0 -1.2
      comp=Z,24nm,1.4s,mb4.4
MFF   Saint Martin d   22.85  92 eP    P       01 47 09.0 -1.2
      comp=Z,24nm,1.4s,mb4.5
PESTR Estremoz         23.12 116 eP    P       01 47 09.9 -3.2
      comp=Z,25nm,2.0s,mb4.3
PESTR                            eS    S       01 51 32.3 +8.7
PESTR Estremoz         23.12 116 eP    P       01 47 09.9 -3.2
      comp=Z,25nm,2.0s,mb4.3
PESTR                            eS    S       01 51 32.3 +8.7
UCC   Uccle            23.87  79 P     P       01 47 17.6 -2.8
SNF   Seneffe          23.92  80 P     P       01 47 20.8 -0.1
BAIF  Baives           24.04  81 eP    P       01 47 21.4 -0.6
      comp=Z,22nm,0.9s,mb4.3
BAIF  Baives           24.04  81 eP    P       01 47 21.4 -0.6
BAIF                             pmax  pmax
      comp=Z,11nm,0.9s,mb4.3
BAIF  Baives           24.04  81 eP    P       01 47 21.4 -0.6
      comp=Z,11nm,0.9s,mb4.3
BAIF  Baives           24.04  81 eP    P       01 47 21.4 -0.6
      comp=Z,11nm,0.9s,mb4.3
PVAQ  Vaqueiros        24.12 119 eS    S       01 51 44.3 +4.4
PVAQ  Vaqueiros        24.12 119 eS    S       01 51 44.3 +4.4
DOU   Dourbes          24.26  81 P     P       01 47 23.2 -0.8
      comp=Z,9.9nm,1.8s,mb3.9
TCF   Toulx Ste Croi   24.43  91 eP    P       01 47 24.9 -0.7
      comp=Z,9.9nm,0.7s,mb4.0
TCF   Toulx Ste Croi   24.43  91 eP    P       01 47 24.9 -0.7
TCF                              pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.0
TCF   Toulx Ste Croi   24.43  91 eP    P       01 47 24.9 -0.7
      comp=Z,4.9nm,0.7s,mb4.0
TCF   Toulx Ste Croi   24.43  91 eP    P       01 47 24.9 -0.7
      comp=Z,4.9nm,0.7s,mb4.0
PAB   San Pablo        24.45 111 eP    P       01 47 26.4 +0.6
PAB                              pmax  pmax
      comp=Z,1.0nm,0.5s,mb3.5
PAB   San Pablo        24.45 111 eP    P       01 47 26.4 +0.6
      comp=Z,0.8nm,0.5s,mb3.4
PAB   San Pablo        24.45 111 eP    P       01 47 26.4 +0.6
      comp=Z,0.8nm,0.5s,mb3.4
ETSF  Etsaut           24.56 100 eP    P       01 47 26.0 -0.8
      comp=Z,28nm,1.1s,mb4.4
ETSF  Etsaut           24.56 100 eP    P       01 47 26.0 -0.8
ETSF                             pmax  pmax
      comp=Z,14nm,1.1s,mb4.4
ETSF  Etsaut           24.56 100 eP    P       01 47 26.0 -0.8
      comp=Z,14nm,1.1s,mb4.4
ETSF  Etsaut           24.56 100 eP    P       01 47 26.0 -0.8
      comp=Z,14nm,1.1s,mb4.4
BCLA  Clavier          24.57  79 P     P       01 47 25.8 -0.9
ESDC  Sonseca Array    24.59 110 P     P       01 47 26.9 -0.2
      comp=Z,1.7nm,0.8s,mb3.6,baz=313,slow=8.6,SNR=12
ESDC                             LR    LR      01 55 49.0
      comp=Z,148nm,19.1s,MS3.5,baz=300,slow=34
ESDC  Sonseca Array    24.59 110 P     P       01 47 26.9 -0.1
BGF   Bois d’Agland    24.69  90 eP    P       01 47 27.2 -0.7
      comp=Z,29nm,0.8s,mb4.6
BGF   Bois d’Agland    24.69  90 eP    P       01 47 27.2 -0.7
BGF                              pmax  pmax
      comp=Z,15nm,0.8s,mb4.6
BGF   Bois d’Agland    24.69  90 eP    P       01 47 27.2 -0.7
      comp=Z,15nm,0.8s,mb4.6
BGF   Bois d’Agland    24.69  90 eP    P       01 47 27.2 -0.7
      comp=Z,15nm,0.8s,mb4.6
SSF   Saint Saulge     24.86  88 eP    P       01 47 28.5 -0.9
      comp=Z,23nm,1.0s,mb4.4
SSF   Saint Saulge     24.86  88 eP    P       01 47 28.5 -0.9
SSF                              pmax  pmax
      comp=Z,11nm,1.0s,mb4.3
SSF   Saint Saulge     24.86  88 eP    P       01 47 28.5 -0.9
      comp=Z,11nm,1.0s,mb4.4
SSF   Saint Saulge     24.86  88 eP    P       01 47 28.5 -0.9
      comp=Z,11nm,1.0s,mb4.4
AVF   Avril sur Loir   24.89  89 eP    P       01 47 28.8 -0.9
      comp=Z,15nm,0.9s,mb4.2
AVF   Avril sur Loir   24.89  89 eP    P       01 47 28.8 -0.9
AVF                              pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.2
AVF   Avril sur Loir   24.89  89 eP    P       01 47 28.8 -0.9
      comp=Z,7.4nm,0.9s,mb4.2
AVF   Avril sur Loir   24.89  89 eP    P       01 47 28.8 -0.9
      comp=Z,7.4nm,0.9s,mb4.2
MEM   Membach          24.92  79 P     P       01 47 29.9 -0.1
LOR   Lormes           24.98  87 eP    P       01 47 29.6 -0.9
      comp=Z,18nm,0.7s,mb4.4
LOR                              eMLR  MLR
      comp=Z,167nm,18.5s,MS3.3
LOR   Lormes           24.98  87 eP    P       01 47 29.6 -0.9
LOR                              pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.4
LOR                              MLR   MLR
      comp=Z,170nm,18.5s,MS3.6
LOR   Lormes           24.98  87 eP    P       01 47 29.6 -0.9
      comp=Z,8.9nm,0.7s,mb4.4
LOR                              LR    LR
      comp=Z,170nm,18.5s,MS3.6
LOR   Lormes           24.98  87 eP    P       01 47 29.6 -0.9
      comp=Z,8.9nm,0.7s,mb4.4
KONO  Kongsberg        25.02  57⇑eP    P       01 47 29.8 -1.0
CAF   Calviac          25.03  94 eP    P       01 47 30.4 -0.6
      comp=Z,9.9nm,0.8s,mb4.1
CAF   Calviac          25.03  94 eP    P       01 47 30.4 -0.6
CAF                              pmax  pmax
      comp=Z,5.0nm,0.8s,mb4.1
CAF   Calviac          25.03  94 eP    P       01 47 30.4 -0.6
      comp=Z,4.9nm,0.8s,mb4.1
CAF   Calviac          25.03  94 eP    P       01 47 30.4 -0.6
      comp=Z,4.9nm,0.8s,mb4.1
MEZF  Maizieres J’vi   25.16  84 eP    P       01 47 31.6 -0.6
      comp=Z,66nm,1.0s,mb4.8
MEZF  Maizieres J’vi   25.16  84 eP    P       01 47 31.6 -0.6
      comp=Z,66nm,1.0s,mb5.1
MEZF  Maizieres J’vi   25.16  84 eP    P       01 47 31.6 -0.6
      comp=Z,33nm,1.0s,mb4.8
SMF   Signal de Mont   25.25  89 eP    P       01 47 32.9 -0.1
      comp=Z,58nm,1.5s,mb4.6
SMF   Signal de Mont   25.25  89 eP    P       01 47 32.9 -0.1
SMF                              pmax  pmax
      comp=Z,29nm,1.5s,mb4.6
SMF   Signal de Mont   25.25  89 eP    P       01 47 32.9 -0.1
      comp=Z,29nm,1.5s,mb4.6
SMF   Signal de Mont   25.25  89 eP    P       01 47 32.9 -0.1
      comp=Z,29nm,1.5s,mb4.6
NB2   NORSAR Subarra   25.76  53 P     P       01 47 37.2 -0.3
      comp=Z,23nm,1.2s,mb4.6,baz=274,slow=9.3
NB2   NORSAR Subarra   25.76  53 P     P       01 47 37.2 -0.3
      comp=Z,23nm,1.2s,mb4.6,SNR=6.0
NOA   NORSAR Array B   25.76  53 P     P       01 47 37.1 -0.4
      comp=Z,6.8nm,1.0s,mb4.2,baz=274,slow=9.6,SNR=5.7
NOA                              LR    LR      01 55 21.9
      comp=Z,163nm,20.7s,MS3.5,baz=270,slow=31
NOA   NORSAR Array B   25.76  53 P     P       01 47 37.1 -0.4
MTLF  Montolieu        25.98  96 eP    P       01 47 39.1 -0.5
MTLF  Montolieu        25.98  96 eP    P       01 47 39.1 -0.5
HAU   Haudompre        26.16  84 eP    P       01 47 40.6 -0.6
      comp=Z,37nm,1.0s,mb4.5
HAU                              eMLR  MLR
      comp=Z,149nm,21.6s,MS3.2
HAU   Haudompre        26.16  84 eP    P       01 47 40.6 -0.6
HAU                              pmax  pmax
      comp=Z,19nm,1.0s,mb4.6
HAU                              MLR   MLR
      comp=Z,150nm,21.6s,MS3.5
HAU   Haudompre        26.16  84 eP    P       01 47 40.6 -0.6
      comp=Z,18nm,1.0s,mb4.6
HAU                              LR    LR
      comp=Z,150nm,21.6s,MS3.5
HAU   Haudompre        26.16  84 eP    P       01 47 40.6 -0.6
      comp=Z,18nm,1.0s,mb4.5
CDF   Champ du Feu     26.54  83 eP    P       01 47 45.0 +0.3
      comp=Z,18nm,1.1s,mb4.2
CDF   Champ du Feu     26.54  83 eP    P       01 47 45.0 +0.3
CDF                              pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.2
CDF   Champ du Feu     26.54  83 eP    P       01 47 45.0 +0.3
      comp=Z,8.8nm,1.1s,mb4.2
CDF   Champ du Feu     26.54  83 eP    P       01 47 45.0 +0.3
      comp=Z,8.8nm,1.1s,mb4.2
HINF  Hinteralfeld     26.54  84 eP    P       01 47 44.2 -0.5
      comp=Z,16nm,1.0s,mb4.2
HINF  Hinteralfeld     26.54  84 eP    P       01 47 44.2 -0.5
HINF                             pmax  pmax
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      comp=Z,8.0nm,1.0s,mb4.2
HINF  Hinteralfeld     26.54  84 eP    P       01 47 44.2 -0.5
      comp=Z,8.1nm,1.0s,mb4.2
HINF  Hinteralfeld     26.54  84 eP    P       01 47 44.2 -0.5
      comp=Z,8.1nm,1.0s,mb4.2
ECH   Echery           26.55  83 P     P       01 47 46.8 +2.0
ECH                              pmax  pmax
      comp=Z,15nm,1.5s,mb4.3
ECH   Echery           26.55  83 P     P       01 47 46.8 +2.0
      comp=Z,15nm,1.5s,mb4.3
ECH   Echery           26.55  83 P     P       01 47 46.8 +2.0
      comp=Z,15nm,1.5s,mb4.3
HFS   Hagfors          27.04  55 P     P       01 47 48.3 -0.8
HFS                              pmax  pmax
      comp=Z,3.0nm,0.9s
HFS                              MLR   MLR
      comp=Z,231nm,18.3s
HFS   Hagfors          27.04  55 P     P       01 47 48.3 -0.7
      comp=Z,3.0nm,0.9s,mb3.8,baz=246,slow=11,SNR=2.8
HFS                              LR    LR      01 58 29.0
      comp=Z,231nm,18.3s,MS3.8,baz=260,slow=36
HFS   Hagfors          27.04  55 P     P       01 47 48.3 -0.8
LPL   La Plagne        27.56  89 eP    P       01 47 54.4 +0.5
LPL   La Plagne        27.56  89 eP    P       01 47 54.4 +0.5
LPG   La Plagne        27.58  89 eP    P       01 47 54.5 +0.4
LPG   La Plagne        27.58  89 eP    P       01 47 54.5 +0.4
MOX   Moxa             28.23  76 eP    P       01 48 04.9 +5.1
      comp=Z,13nm,1.7s,mb4.3
MOX   Moxa             28.23  76 eP    P       01 48 04.9 +5.1
MOX                              pmax  pmax
      comp=Z,13nm,1.7s,mb4.3
LMR   La Mourre        28.58  93 eP    P       01 48 03.3 +0.3
      comp=Z,11nm,1.0s,mb4.3
LMR   La Mourre        28.58  93 eP    P       01 48 03.3 +0.3
LMR                              pmax  pmax
      comp=Z,6.0nm,1.0s,mb4.3
LMR   La Mourre        28.58  93 eP    P       01 48 03.3 +0.3
      comp=Z,5.7nm,1.0s,mb4.3
LMR   La Mourre        28.58  93 eP    P       01 48 03.3 +0.3
      comp=Z,5.7nm,1.0s,mb4.3
CLL   Collm            28.79  74 eP    P       01 48 05.0 +0.2
CLL                              e     pP      01 48 09.0 -0.1
CLL                              pmax  pmax
      comp=Z,6.0nm,0.9s,mb4.3
CLL   Collm            28.79  74 eP    P       01 48 05.0 +0.2
      comp=Z,6.0nm,0.9s,mb4.3
CLL                              esP   sP      01 48 09.0 -1.9
CLL                              i             01 48 14.6
CLL   Collm            28.79  74 eP    P       01 48 05.0 +0.2
      comp=Z,6.0nm,0.9s,mb4.3
CLL                              e     pP      01 48 09.0 -0.1
CLL   Collm            28.79  74 eP    P       01 48 05.0 +0.2
DAVOX Davos/Dischmat   28.85  84 P     P       01 48 04.8 -0.5
      comp=Z,2.1nm,0.8s,mb3.9,baz=328,slow=9.5
DAVOX                            LR    LR      01 58 52.4
      comp=Z,155nm,19.4s,MS3.6,baz=100,slow=35
DAVOX Davos/Dischmat   28.85  84 P     P       01 48 04.8 -0.5
MDT   Midelt           29.26 121 P     P       01 48 08.8 -0.2
      comp=Z,1.3nm,0.8s,mb3.7,baz=299,slow=12,SNR=3.1
MDT                              LR    LR      01 57 01.0
      comp=Z,86nm,19.4s,MS3.4,baz=186,slow=31
MDT   Midelt           29.26 121 P     P       01 48 08.8 -0.3
BRG   Berggiesshubel   29.50  74 eP    P       01 48 20.2 +9.1
BRG                              e             01 49 01.7
BRG                              pmax  pmax
      comp=Z,11nm,1.7s,mb4.3
BRG                              pmax  pmax
      comp=Z,9.0nm,1.6s,mb4.2
BRG   Berggiesshubel   29.50  74 eP    P       01 48 20.2 +9.2
      comp=Z,18nm,1.7s,mb4.5
BRG                              e             01 49 01.7
      comp=Z,15nm,1.6s
KHC   Kasperske Hory   30.00  77 eP    P       01 48 15.5  0.0
KHC   Kasperske Hory   30.00  77 eP    P       01 48 15.5  0.0
SADO  Sadowa           30.13 273 LR    LR      01 59 50.4
      comp=Z,177nm,19.4s,MS3.7,baz=86,slow=35
GERES GERESS Array B   30.20  78 P     P       01 48 17.4 +0.1
GERES                            pmax  pmax
      comp=Z,2.0nm,0.8s
GERES GERESS Array B   30.20  78 P     P       01 48 17.4 +0.1
      comp=Z,2.3nm,0.8s,mb4.0,baz=305,slow=9.3,SNR=16
GERES GERESS Array B   30.20  78 P     P       01 48 17.4 +0.1
ARCES ARCESS Array B   31.72  35 P     P       01 48 30.3 -0.2
ARCES                            pmax  pmax
      comp=Z,4.0nm,0.6s
ARCES ARCESS Array B   31.72  35 P     P       01 48 30.2 -0.2
      comp=Z,3.9nm,0.6s,mb4.4,baz=259,slow=7.4,SNR=20
ARCES ARCESS Array B   31.72  35 P     P       01 48 30.2 -0.3
OBKA  Obir             31.79  81⇓iP    P       01 48 31.2 -0.1
      comp=Z,3.5nm,0.7s,mb4.3
RES   Resolute Bay     32.31 334 P     P       01 48 35.9 +0.3
RES                              pmax  pmax
      comp=Z,2.0nm,0.8s,mb4.0
RES   Resolute Bay     32.31 334 P     P       01 48 35.9 +0.3
      comp=Z,2.0nm,0.8s,mb4.0,baz=99,slow=7.3,SNR=12
RES   Resolute Bay     32.31 334 P     P       01 48 35.9 +0.3
KAF   Kangasniemi      32.78  49 eP    P       01 48 38.7 -1.2
KAF                              pmax  pmax
      comp=Z,9.0nm,0.9s,mb4.7
KAF   Kangasniemi      32.78  49 ep    P       01 48 38.7 -1.2
      comp=Z,8.6nm,0.9s,mb4.7
KAF   Kangasniemi      32.78  49 eP    P       01 48 38.7 -1.2
      comp=Z,8.6nm,0.9s,mb4.7
FINES FINESS Array B   32.82  50 P     P       01 48 39.9 -0.3
      comp=Z,5.5nm,0.8s,mb4.5,baz=280,slow=8.3,SNR=9.5
FINES                            LR    LR      01 59 31.6
      comp=Z,254nm,21.7s,MS3.9,baz=48,slow=32
FINES FINESS Array B   32.82  50 P     P       01 48 39.9 -0.3
FCC   Fort Churchill   33.10 305 eP    P       01 48 42.3 -0.4
      comp=Z,0.1nm,0.6s
FCC   Fort Churchill   33.10 305 eP    P       01 48 42.3 -0.4
      comp=Z,0.1nm,0.6s
OJC   Ojcow            33.18  72 eP    P       01 48 43.7 +0.3
OJC   Ojcow            33.18  72 eP    P       01 48 43.7 +0.3
PKSM  Moragy           34.40  79⇓iP    P       01 48 52.8 -1.3
CRVS  Cervenica-Dubn   34.74  73 eP    P       01 48 56.2 -0.8
CRVS  Cervenica-Dubn   34.74  73 eP    P       01 48 56.2 -0.8
JOF   Joensuu          34.86  47 ep    P       01 48 56.5 -1.4
      comp=Z,5.2nm,0.9s,mb4.5
JOF   Joensuu          34.86  47 eP    P       01 48 56.5 -1.4
KEST  Kesra            35.03 101 P     P       01 48 60.0 +0.3
      comp=Z,2.0nm,0.9s,mb4.1,baz=277,slow=7.1,SNR=6.9
ACSO  Alum Creek Sta   35.04 269 eP    P       01 48 59.6 -0.1
      comp=Z,13nm,0.9s,mb4.9
ACSO  Alum Creek Sta   35.04 269 eP    P       01 48 59.6 -0.1
      comp=Z,13nm,0.9s,mb4.9
LVZ   Lovozero         35.18  38⇑iP    P       01 48 58.8 -1.8
LVZ                              pmax  pmax
      comp=Z,34nm,1.3s,mb5.1
KOLS  Kolonicke sedl   35.20  73 eP    P       01 49 10.3 +9.3
KOLS  Kolonicke sedl   35.20  73 e     P       01 49 10.3 +9.3
PUL   Pulkovo          35.28  52 i P   P       01 49 01.5 -0.1
PUL                              pmax  pmax
      comp=Z,39nm,0.7s,mb5.5
TRPA  Tarpa            35.74  74⇓iP    P       01 49 05.8 +0.2
BZS   Buzias           36.48  78⇑iP    P       01 49 11.7 -0.3
DRGR                   36.51  76⇑iP    P       01 49 12.8 +0.6
GZR   Gura Zlata       37.29  78⇑iP    P       01 49 18.8 -0.1
ULM   Lac du Bonnet    37.32 292 P     P       01 49 17.4 -1.7
      comp=Z,1.2nm,0.6s,mb3.9,baz=12,slow=7.8,SNR=2.8
ULM   Lac du Bonnet    37.32 292 P     P       01 49 17.4 -1.7
BUR08 Bucovina Ar. S   37.53  73 eP    P       01 49 22.4 +1.5
BUR08 Bucovina Ar. S   37.53  73 eP    P       01 49 22.4 +1.5
BURAR Bucovina Array   37.56  73⇑iP    P       01 49 21.9 +0.8
AKASG Malin Array Be   38.32  67 P     P       01 49 26.3 -1.2
AKASG                            pmax  pmax
      comp=Z,1.0nm,0.4s
AKASG Malin Array Be   38.32  67 P     P       01 49 26.3 -1.2
      comp=Z,0.8nm,0.4s,mb3.8,baz=300,slow=8.4,SNR=7.0
AKASG Malin Array Be   38.32  67 P     P       01 49 26.3 -1.2
TKL   Tuckaleechee C   38.45 264 LR    LR      02 04 21.7
      comp=Z,177nm,21.2s,MS3.9,baz=76,slow=35
VOIR                   38.61  76⇑iP    P       01 49 29.9 -0.1
FFC   Flin Flon        38.61 301 i P   P       01 49 30.2 +0.3
MLR   Muntele Rosu     39.11  76⇓iP    P       01 49 44.0 +10
KLMR  Klimovskoe       39.20  48 eP    P       01 49 33.4 -1.4
KLMR                             pmax  pmax
      comp=Z,26nm,1.3s,mb4.8
OBN   Obninsk          40.19  57d iP   P       01 49 42.8 -0.3
OBN                              pmax  pmax
      comp=Z,39nm,1.6s,mb4.9
SIUC  Southern Illin   40.41 271 eP    P       01 49 44.6 -0.5
      comp=Z,11nm,0.8s,mb4.7
SIUC  Southern Illin   40.41 271 eP    P       01 49 44.6 -0.5
      comp=Z,11nm,0.8s,mb4.7
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ECSD  EROS Data Cent   41.20 283 eP    P       01 49 52.0 +0.5
      comp=Z,36nm,2.0s,mb4.7
ECSD  EROS Data Cent   41.20 283 eP    P       01 49 52.0 +0.5
      comp=Z,36nm,2.0s,mb4.7
YKA   Yellowknife Ar   41.29 316 P     P       01 49 51.0 -1.0
YKA                              pmax  pmax
      comp=Z,1.0nm,0.9s
YKA   Yellowknife Ar   41.29 316 P     P       01 49 51.0 -1.0
      comp=Z,1.4nm,0.8s,mb3.6,baz=62,slow=8.6,SNR=18
YKA   Yellowknife Ar   41.29 316 P     P       01 49 51.0 -1.0
YKA   Yellowknife Ar   41.29 316 P     P       01 49 51.0 -1.0
CCM   Cathedral Cave   41.42 273 eP    P       01 49 53.4  0.0
CCM                              pmax  pmax
      comp=Z,5.0nm,0.9s,mb4.1
CCM   Cathedral Cave   41.42 273 eP    P       01 49 53.4 -0.1
      comp=Z,4.9nm,0.9s,mb4.1
CCM   Cathedral Cave   41.42 273 eP    P       01 49 53.4  0.0
      comp=Z,4.9nm,0.9s,mb4.1
VSR   Storozhevoye     43.48  61 eP    P       01 50 09.5 -0.6
VSR                              pmax  pmax
      comp=Z,10.0nm,0.6s,mb4.7
VSR                              pmax  pmax
      comp=N,7.0nm,1.0s
VSR                              pmax  pmax
      comp=E,8.0nm,0.6s
VORD  Divnogorie       43.69  61 eP    P       01 50 10.9 -0.8
VORD                             pmax  pmax
      comp=Z,20nm,0.9s,mb4.8
VORD                             pmax  pmax
      comp=N,40nm,0.7s
VORD                             pmax  pmax
      comp=E,20nm,0.8s
VRHR  Novokhopersk     44.85  60 eP    P       01 50 20.4 -0.6
VRHR                             pmax  pmax
      comp=Z,5.0nm,0.5s,mb4.6
VRHR                             pmax  pmax
      comp=N,10.0nm,0.7s
MIAR  Mount Ida        45.14 271 eP    P       01 50 23.1 -0.4
MIAR                             pmax  pmax
      comp=Z,8.0nm,1.1s,mb4.5
MIAR  Mount Ida        45.14 271 eP    P       01 50 23.1 -0.4
      comp=Z,8.4nm,1.1s,mb4.5
MIAR  Mount Ida        45.14 271 eP    P       01 50 23.1 -0.4
      comp=Z,8.4nm,1.1s,mb4.5
INK   Inuvik           45.45 329 P     P       01 50 24.7 -0.9
      comp=Z,2.5nm,0.8s,mb4.1,baz=46,slow=8.7,SNR=9.6
INK                              LR    LR      02 06 58.3
      comp=Z,95nm,21.8s,MS3.7,baz=315,slow=33
INK   Inuvik           45.45 329 P     P       01 50 24.7 -0.9
INK                              LR    LR      02 06 58.3
INK   Inuvik           45.45 329 P     P       01 50 24.7 -0.9
EGMT  Eagleton         46.23 296 eP    P       01 50 32.2 +0.3
      comp=Z,18nm,1.4s,mb4.8
EGMT  Eagleton         46.23 296 eP    P       01 50 32.2 +0.3
      comp=Z,18nm,1.4s,mb4.8
BRTR  Keskin Array B   47.09  78 P     P       01 50 39.0 +0.2
BRTR                             pmax  pmax
      comp=Z,4.0nm,0.8s
BRTR                             MLR   MLR
      comp=Z,56nm,18.3s
BRTR  Keskin Array B   47.09  78 P     P       01 50 39.0 +0.1
      comp=Z,3.5nm,0.8s,mb4.3,baz=314,slow=5.9,SNR=18
BRTR                             LR    LR      02 10 02.8
      comp=Z,56nm,18.3s,MS3.6,baz=104,slow=36
BRTR  Keskin Array B   47.09  78 P     P       01 50 39.0 +0.2
RLMT  Red Lodge        47.68 292 eP    P       01 50 44.1 +0.7
      comp=Z,80nm,2.8s,mb5.3
RLMT  Red Lodge        47.68 292 eP    P       01 50 44.1 +0.7
      comp=Z,80nm,2.8s,mb5.3
WALA  Waterton Lakes   47.86 299 eP    P       01 50 44.0 -0.6
      comp=Z,0.2nm,1.1s
WALA  Waterton Lakes   47.86 299 eP    P       01 50 44.0 -0.7
      comp=Z,0.2nm,1.1s
LKWY  Lake             48.66 293 eP    P       01 50 52.6 +1.7
LKWY                             pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.8
LKWY  Lake             48.66 293 eP    P       01 50 52.6 +1.7
      comp=Z,10nm,0.9s,mb4.9
LKWY  Lake             48.66 293 eP    P       01 50 52.6 +1.7
      comp=Z,10nm,0.9s,mb4.8
BOZ   Bozeman (W)      48.68 294 eP    P       01 50 51.2 +0.2
BOZ                              pmax  pmax
      comp=Z,46nm,3.0s
BOZ   Bozeman (W)      48.68 294 ePn   P       01 50 51.2 +0.2
      comp=Z,46nm,3.0s
BOZ   Bozeman (W)      48.68 294 ePn   P       01 50 51.2 +0.2
      comp=Z,46nm,3.0s
TORD  Torodi Ar. Bea   48.87 130 P     P       01 50 51.7 -1.1
      comp=Z,2.0nm,0.9s,mb4.2,baz=338,slow=6.9,SNR=18
TORD                             LR    LR      02 09 11.5
      comp=Z,89nm,19.0s,MS3.8,baz=325,slow=33
TORD  Torodi Ar. Bea   48.87 130 P     P       01 50 51.7 -1.1
TORD                             LR    LR      02 09 11.5
PDAR  Pinedale Array   49.31 290 P     P       01 50 54.9 -1.0
      comp=Z,1.0nm,0.6s,mb4.0,baz=66,slow=7.6,SNR=9.3
PDAR                             LR    LR      02 10 55.0
      comp=Z,148nm,18.4s,MS4.0,baz=244,slow=35
PDAR  Pinedale Array   49.31 290 P     P       01 50 54.9 -1.0
DAWY  Dawson           49.89 326 eP    P       01 50 60.0 -0.1
DAWY  Dawson           49.89 326 eP    P       01 51 00.0 -0.1
DLBC  Dease Lake       49.90 317 LR    LR      02 13 21.5
      comp=Z,116nm,19.6s,MS3.9,baz=94,slow=38
ARU   Arti             49.99  46d iP   P       01 51 01.1 +0.2
ARU                              e             01 52 52.9
ARU                              S     S       01 58 10.1 -0.6
ARU                              SS    SS      02 01 37.0 -6.0
ARU                              pmax  pmax
      comp=Z,13nm,1.7s,mb4.7
ARU   Arti             49.99  46 eP    P       01 51 01.3 +0.4
      comp=Z,13nm,1.4s,mb4.8
ARU   Arti             49.99  46 eP    P       01 51 01.3 +0.4
      comp=Z,13nm,1.4s,mb4.8
EGAK  Eagle            50.02 328 eP    P       01 51 01.1 +0.1
      comp=Z,9.4nm,1.2s,mb4.7
EGAK  Eagle            50.02 328 eP    P       01 51 01.1 +0.1
      comp=Z,9.4nm,1.2s,mb4.7
MALT  Malatya          50.84  76 eP    P       01 51 08.9 +1.3
MALT                             pmax  pmax
      comp=Z,4.0nm,1.4s,mb4.2
MALT  Malatya          50.84  76 eP    P       01 51 08.9 +1.3
      comp=Z,4.1nm,1.4s,mb4.2
MALT  Malatya          50.84  76 eP    P       01 51 08.9 +1.3
      comp=Z,4.1nm,1.4s,mb4.2
CTU   Camp Tracy       51.90 289 eP    P       01 51 18.2 +2.7
      comp=Z,8.2nm,1.2s,mb4.5
CTU   Camp Tracy       51.90 289 eP    P       01 51 18.2 +2.7
      comp=Z,8.2nm,1.2s,mb4.5
DBIC  Dimbokro         51.92 142 P     P       01 51 16.1 +0.2
      comp=Z,3.9nm,0.8s,mb4.4,baz=337,slow=7.7,SNR=3.0
DBIC                             LR    LR      02 09 51.6
      comp=Z,117nm,21.0s,MS3.9,baz=242,slow=32
DBIC  Dimbokro         51.92 142 P     P       01 51 16.1 +0.2
ANMO  Albuquerque      52.65 281 P     P       01 51 21.2 +0.1
ANMO                             pmax  pmax
      comp=Z,1.0nm,1.0s
ANMO                             MLR   MLR
      comp=Z,5.0nm,19.5s
ANMO  Albuquerque      52.65 281 P     P       01 51 21.2  0.0
      comp=Z,0.8nm,0.9s,mb3.6,baz=349,slow=5.2,SNR=2.6
ANMO                             LR    LR      02 14 29.9
      comp=Z,5.1nm,19.5s,baz=191,slow=37
ANMO  Albuquerque      52.65 281 P     P       01 51 21.2  0.0
ANMO                             LR    LR      02 14 29.9
ANMO  Albuquerque      52.65 281 P     P       01 51 21.2 +0.1
BBB   Bella Bella      53.01 310 LR    LR      02 12 32.8
      comp=Z,104nm,19.2s,MS3.9,baz=196,slow=34
MCK   McKinley         53.20 330 eP    P       01 51 24.8  0.0
MCK                              pmax  pmax
      comp=Z,13nm,1.1s,mb4.8
MCK   McKinley         53.20 330 eP    P       01 51 24.8  0.0
      comp=Z,13nm,1.1s,mb4.8
MCK   McKinley         53.20 330 eP    P       01 51 24.8  0.0
      comp=Z,13nm,1.1s,mb4.8
ELK   Elko             53.85 292 LR    LR      02 11 15.8
      comp=Z,130nm,21.3s,MS4.0,baz=60,slow=32
TXAR  Lajitas Array    54.90 274 P     P       01 51 38.1 +0.5
      comp=Z,0.4nm,0.6s,mb3.6,baz=59,slow=8.5,SNR=6.5
TXAR  Lajitas Array    54.90 274 P     P       01 51 38.2 +0.5
TIXI  Tiksi            55.32   6⇑eP    P       01 51 41.8 +1.7
TIXI                             pmax  pmax
      comp=Z,11nm,2.5s,mb4.4
TIXI  Tiksi            55.32   6 eP    P       01 51 42.0 +1.8
      comp=Z,5.5nm,0.9s,mb4.6
TIXI  Tiksi            55.32   6 eP    P       01 51 42.0 +1.9
      comp=Z,5.5nm,0.9s,mb4.6
BRVK  Borovoye         57.30  44 eP    P       01 51 55.0 +0.5
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BRVK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
BRVK	Borovoye	57.30	44	eP	P	01 51 55.0	+0.5
	comp=Z,6.8nm,1.1s,mb4.6						
BRVK	Borovoye	57.30	44	eP	P	01 51 55.0	+0.5
	comp=Z,6.8nm,1.1s,mb4.6						
BVAR	Borovoye Array	57.37	44	LR	LR	02 14 26.1	
	comp=Z,135nm,18.4s,MS4.1,baz=123,slow=34						
ROSC	El Rosal	57.92	229	P	P	01 52 00.0	+0.7
	comp=Z,17nm,0.6s,mb5.2,baz=98,slow=12,SNR=22						
ROSC				LR	LR	02 11 29.9	
	comp=Z,80nm,21.4s,MS3.8,baz=164,slow=30						
ROSC	El Rosal	57.92	229	P	P	01 52 00.0	+0.7
BILL	Bilibino	58.53	351	i P	P	01 52 02.9	0.0
BILL				pmax	pmax		
	comp=Z,12nm,2.5s,mb4.5						
CMIG	Matias Romero	58.78	257	LR	LR	02 17 18.4	
	comp=Z,73nm,21.5s,MS3.8,baz=184,slow=36						
NVS	Novosibirsk	61.00	36	eP	P	01 52 19.4	-0.7
ZALV	Zalesovo Beam	62.27	36	P	P	01 52 28.9	+0.2
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.2						
ZALV				MLR	MLR		
	comp=Z,45nm,19.1s,MS3.6						
ZALV	Zalesovo Beam	62.27	36	P	P	01 52 28.9	+0.2
	comp=Z,0.6nm,0.5s,mb4.0,baz=323,slow=9.3,SNR=2.8						
ZALV				LR	LR	02 20 18.4	
	comp=Z,45nm,19.1s,MS3.7,baz=34,slow=37						
KURK	Kurchatov	62.49	41	eP	P	01 52 30.4	+0.3
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
KURK	Kurchatov	62.49	41	LR	LR	02 17 34.3	
	comp=Z,56nm,20.4s,MS3.7,baz=320,slow=34						
KURK	Kurchatov	62.49	41	eP	P	01 52 30.4	+0.3
	comp=Z,2.3nm,0.6s,mb4.5						
KURK	Kurchatov	62.49	41	eP	P	01 52 30.4	+0.3
	comp=Z,2.2nm,0.6s,mb4.5						
SEY	Seymchan	64.52	357	⇑iP	P	01 52 43.1	-0.3
YAK	Yakutsk	64.86	8	i P	P	01 52 44.8	-0.8
YAK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
EKS2	Erkin-Say	66.65	50	eP	P	01 52 58.9	+1.4
	comp=Z,5.8nm,1.0s,mb4.6						
EKS2	Erkin-Say	66.65	50	eP	P	01 52 58.9	+1.4
	comp=Z,5.8nm,1.0s,mb4.6						
MKAR	Makanchi Array	67.08	42	P	P	01 53 00.2	+0.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR				MLR	MLR		
	comp=Z,54nm,18.0s						
MKAR	Makanchi Array	67.08	42	P	P	01 53 00.2	+0.1
	comp=Z,1.4nm,0.5s,mb4.3,baz=336,slow=4.7,SNR=32						
MKAR				LR	LR	02 23 44.3	
	comp=Z,54nm,18.0s,MS3.8,baz=354,slow=37						
MKAR	Makanchi Array	67.08	42	P	P	01 53 00.2	0.0
MKAR				LR	LR	02 23 44.3	
TKM2	Tokmak 2	67.28	48	eP	P	01 53 02.9	+1.4
TKM2				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
TKM2	Tokmak 2	67.28	48	eP	P	01 53 02.9	+1.4
	comp=Z,7.8nm,1.3s,mb4.6						
TKM2	Tokmak 2	67.28	48	eP	P	01 53 02.9	+1.4
	comp=Z,7.8nm,1.3s,mb4.6						
UCH	Uchtor	67.33	50	eP	P	01 53 03.7	+1.9
	comp=Z,4.3nm,1.0s,mb4.4						
UCH	Uchtor	67.33	50	eP	P	01 53 03.7	+1.9
	comp=Z,4.3nm,1.0s,mb4.4						
KSH	Kashi	70.14	50	P	P	01 53 21.8	+2.4
KSH				epP	pP	01 53 25.6	+1.6
KSH				esP	sP	01 53 28.0	+2.2
KSH				ePcP	PcP	01 53 42.0	+0.7
KSH				ePP	PP	01 55 59.5	+5.4
KSH				eS	S	02 02 32.9	+3.0
KSH				esS	sS	02 02 41.1	+3.5
KSH				eSKS		02 03 18.3	
KSH				eScS	ScS	02 03 20.4	-0.9
KSH				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
KSH				pmax	pmax		
	comp=Z,210nm,3.8s						
KSH				LR	LR		
	comp=N,190nm,5.4s						
KSH				LR	LR		
	comp=E,200nm,4.5s						
KSH				LR	LR		
	comp=Z,260nm,7.4s						
WMQ	Urumqi	71.68	40	eP	P	01 53 36.0	+7.3
WMQ				pP	pP	01 53 43.0	+10
WMQ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
WMQ				pmax	pmax		
	comp=Z,200nm,5.0s						
PETK	Petropavlovsk-	74.01	352	LR	LR	02 26 59.6	
	comp=Z,62nm,19.2s,MS3.9,baz=182,slow=36						
SONM	Songino Array	74.36	26	P	P	01 53 44.9	+0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,1.0s						
SONM	Songino Array	74.36	26	P	P	01 53 44.9	+0.4
	comp=Z,1.1nm,1.0s,mb3.8,baz=324,slow=7.3,SNR=7.9						
SONM	Songino Array	74.36	26	P	P	01 53 44.9	+0.5
HHC	Hu-ho-hao-te	82.22	25	eP	P	01 54 26.0	-2.0
HHC				pP	pP	01 54 30.8	-1.9
HHC				PP	PP	01 57 35.3	-0.2
HHC				S	S	02 04 37.5	-5.0
HHC				SKS		02 04 41.3	
HHC				sS	sS	02 04 45.8	-4.6
HHC				SS	SS	02 09 58.3	-2.6
HHC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
HHC				pmax	pmax		
	comp=Z,110nm,4.3s						
HHC				LR	LR		
	comp=N,230nm,16.5s,MS4.8						
HHC				LR	LR		
	comp=E,220nm,13.9s,MS4.8						
HHC				LR	LR		
	comp=Z,170nm,17.8s,MS4.5						
CN2	Changchun	82.26	15	eP	P	01 54 28.5	+0.3
BJI	Beijing	84.11	22	P	P	01 54 34.5	-3.3
BJI				S	S	02 05 00.6	-1.2
BJI				SS	SS	02 10 28.8	-0.2
BJI				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.5						
BJI				pmax	pmax		
	comp=Z,200nm,5.8s						
BJI				LR	LR		
	comp=N,220nm,28.2s,MS4.7						
BJI				LR	LR		
	comp=E,340nm,25.8s,MS4.7						
BJI				LR	LR		
	comp=Z,57nm,32.6s						
LZH	Lanzhou	84.34	33	eP	P	01 54 41.8	+2.7
LZH				pP	pP	01 54 45.1	+1.3
LZH				sP	sP	01 54 46.6	+1.1
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
LZH				pmax	pmax		
	comp=Z,63nm,5.0s						
ERM	Erimo	85.57	2	⇓iP	P	01 54 47.2	+2.0
XAN	Xi’an	87.83	30	P	P	01 54 56.0	-0.3
XAN				pP	pP	01 54 59.3	-1.8
XAN				sP	sP	01 55 00.6	-2.2
XAN				PP	PP	01 58 20.6	-0.7
XAN				S	S	02 05 37.8	-0.7
XAN				sS	sS	02 05 43.4	-2.9
XAN				pmax	pmax		
	comp=Z,2.0nm,2.2s,mb4.0						
XAN				pmax	pmax		
	comp=Z,53nm,4.1s						
CD2	Chengdu	89.03	35	P	P	01 55 02.4	+0.3
CD2				pP	pP	01 55 07.3	+0.5
CD2				sP	sP	01 55 09.3	+0.8
CD2				SKS		02 05 29.1	
CD2				S	S	02 05 48.4	-1.5
CD2				sS	sS	02 05 55.3	-2.5
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.4						
CD2				pmax	pmax		
	comp=Z,11nm,4.2s						
CD2				LR	LR		
	comp=N,120nm,8.3s						
CD2				LR	LR		
	comp=Z,180nm,7.5s						
KMI	Kunming	93.92	38	P	P	01 55 27.6	+2.8
KMI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
GYA	Guiyang	94.12	34	P	P	01 55 26.0	+0.3
GYA				PP	PP	01 59 14.3	+3.1
GYA				SKS		02 06 01.5	
GYA				S	S	02 06 32.6	-3.5
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.2						
GYA				pmax	pmax		
	comp=Z,80nm,5.3s						
QSPA	South Pole Qui	142.65	180	PKP	PKPdf	02 01 41.0	+2.6
	comp=Z,1.6nm,0.9s,baz=182,slow=9.6,SNR=3.4						
WRA	Warramunga Arr	146.09	19	PKP2	PKPbc	02 01 49.0	+2.0
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA	Warramunga Arr	146.09	19	PKPbc	PKPbc	02 01 49.0	+1.9
	comp=Z,5.0nm,0.7s,baz=339,slow=3.1,SNR=20						
ASAR	Alice Springs	149.61	22	PKPbc	PKPbc	02 01 55.5	-1.0
	comp=Z,0.4nm,0.6s,baz=6.5,slow=1.9,SNR=3.7						
ASAR				PKPab	PKPab	02 02 00.9	-0.6
	comp=Z,3.4nm,0.8s,baz=349,slow=2.4,SNR=11						

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*ECX **25** 01:59:13.5±0.3, 32°.39N×115°.36W, h7^{km}, MD3.7, ML3.9*

*NEIC **25** 01:59:14.2, 32°.42N×115°.35W, h10^{km}, ML3.6(PAS), ML3.7(ECX), After ECX.*

ISC 25 01:59:15.2±0.4**, 32°.45N**±0°.03×**115°.32W**±0°.02**, h13**^{km}±3^{km}**, n43, σ1^{s}08**/59**, 19C-21D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPBX	Cerro Prieto	0.03	158	⇓eP	Pg	01 59 14.2	-3.3
CPBX				eS	Sg	01 59 16.4	-2.8
CPBX	Cerro Prieto	0.03	158	⇓eP	Pg	01 59 14.2	-3.3
CPBX				eS	Sg	01 59 16.4	-2.8
SGL	Mount Signal	0.40	300	⇑iP	Pg	01 59 23.5	+0.4
SGL	Mount Signal	0.40	300	⇑eP	Pg	01 59 23.5	+0.4
SNR	Schaffner Ranc	0.42	346	⇓iP	Pg	01 59 24.6	+1.0
COA	Coachella	0.45	22	⇓iP	Pg	01 59 24.9	+0.9
WESC	Westside Schoo	0.47	312	⇑eP	Pg	01 59 25.1	+0.7
COK	Cook Ranch	0.53	319	⇑iP	Pg	01 59 26.0	+0.4
YUH	Yuha Desert	0.55	291	⇑iP	Pg	01 59 26.0	+0.1
YUH	Yuha Desert	0.55	291	⇑eP	Pg	01 59 26.0	+0.1
112A	Yuma	0.63	82	⇓P	Pg	01 59 27.8	+0.4
	baz=0.6,SNR=834						
112A				⇓S	Sg	01 59 36.9	+1.2
	baz=0.6						
SWSC	Sam W. Stewart	0.64	321	⇓P	Pg	01 59 27.3	-0.3
	baz=0.7,SNR=84						
SWSC				⇑S	Sg	01 59 36.3	+0.3
	baz=0.7						
RMX	La Rumorosa	0.66	284	⇓eP	Pg	01 59 28.5	+0.5
RMX				eS	Sg	01 59 37.4	+0.7
YMD	Yuma Desert	0.66	81	⇑iP	Pg	01 59 28.3	+0.2
DVTC	Desert V Tower	0.69	288	⇓P	Pg	01 59 28.8	+0.2
	baz=0.7,SNR=137						
DVTC				⇑S	Sg	01 59 38.1	+0.4
	baz=0.7						
CRR	Carrizo Plain	0.70	309	⇑iP	Pg	01 59 28.6	-0.2
GLA	Glamis	0.73	34	⇑P	Pg	01 59 29.1	-0.3
	baz=0.8,SNR=65						
GLA				⇓S	Sg	01 59 38.7	-0.3
	baz=0.8						
GLA	Glamis	0.73	34	ePg	Pg	01 59 29.1	-0.2
GLA				ePn	Sg	01 59 32.3	-6.6
GLA				eSg	Sg	01 59 39.1	+0.1
RDX	Rancho Dawling	0.74	226	⇑eP	Pg	01 59 30.5	+1.0
RDX				eS	Sg	01 59 40.5	+1.3
RDX				⇓e		01 59 43.5	
	comp=N,5µm,0.4s						
RDX	Rancho Dawling	0.74	226	⇑eP	Pg	01 59 30.5	+1.0
RDX				eS	Sg	01 59 40.5	+1.3
MONP	Monument Peak	1.03	296	⇓P	Pg	01 59 33.9	-1.1
	baz=1.0,SNR=29						
MONP				⇑S	Sg	01 59 47.7	-0.7
	baz=1.0						
CBX	Cerro Bola	1.15	264	⇑ePN	Pg	01 59 37.1	-0.1
CBX				eS	Sg	01 59 51.1	-1.1
BAR	Barrett	1.17	282	ePg	Pg	01 59 37.0	-0.7
BAR				eSg	Sg	01 59 52.3	-0.5
BC3	Big Chuckw Mtn	1.21	355	⇑P	Pn	01 59 36.1	-1.6
	baz=1.2,SNR=80						
ECNX	Esteban Cantu	1.34	234	ePN	Pn	01 59 40.3	+0.7
ECNX				ePN	Pn	01 59 38.8	-0.7
113A	Mohawk Valley,	1.35	76	⇓P	Pn	01 59 38.5	-1.1
	baz=1.3,SNR=35						
PBX	Punta Banda	1.39	240	ePN	Pn	01 59 40.8	+0.6
SPX	San Pedro Mart	1.41	185	ePN	Pn	01 59 42.0	+1.6
SPX				⇓e		02 00 08.9	
	comp=N,1µm,0.5s						
SPX				⇓e		02 00 09.8	
	comp=E,1µm,0.7s						
PFO	Pinyon Flat Ob	1.50	321	⇓P	Pn	01 59 40.1	-1.6
	baz=1.5,SNR=36						
PFO				⇓S	Sn	01 59 58.5	-2.6
	baz=1.5						
PFO	Pinyon Flat Ob	1.50	321	ePn	Pn	01 59 40.1	-1.6
109C	Camp Elliot, M	1.57	287	⇓P	Pn	01 59 42.0	-0.6
	baz=1.6,SNR=55						
114A	Black Gap (USA	2.08	81	⇓P	Pn	01 59 48.5	-1.1
	baz=2.1,SNR=11						
214A	Organ Pipe Nat	2.18	102	⇑P	Pn	01 59 49.7	-1.3
	baz=2.2,SNR=39						
LDFC	Landfair	2.63	4	ePn	Pn	02 00 00.3	+3.1
MWC	Mount Wilson	2.90	308	Pn	Pn	02 00 00.4	-0.5
GSC	Goldstone	3.10	337	Pn	Pn	02 00 06.3	+2.6
Y16A	Circle Bar Ran	3.52	65	⇓P	Pn	02 00 09.1	-0.4
	baz=3.5,SNR=12						
TUC	Tucson	3.84	91	ePn	Pn	02 00 14.4	+0.5
117A	Oracle	3.87	87	⇑P	Pn	02 00 13.7	-0.6
	baz=3.9,SNR=12						
Y17A	Roosevelt	3.96	70	⇓P	Pn	02 00 14.8	-0.7
	baz=4.0,SNR=15						
ISA	Isabella	4.14	322	ePn	Pn	02 00 20.2	+2.2
WUAZ	Wupatki	4.48	46	ePn	Pn	02 00 24.8	+2.1
318A	Bisbee	4.64	101	⇑P	Pn	02 00 24.6	-0.3
	baz=4.6,SNR=14						

NEIC 25 02:03:28.8, 37°.86S×176°.54E, h138^{km}**, MG3.9**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.60	132	ePg	Pn	02 03 49.0	-0.3
URZ				eSg	Sn	02 04 05.9	+1.0
MWZ	Matawai	0.91	122	P	Pn	02 03 51.4	-0.2
MWZ				S	Sn	02 04 09.9	+0.9
BKZ	Black Stump Fm	1.31	182	P	Pn	02 03 55.2	-0.2
BKZ				S	Sn	02 04 15.4	-0.3
PUZ	Puketiti	1.37	99	P	Pn	02 03 56.0	-0.1
MXZ	Matakaoa Point	1.43	79	P	Pn	02 03 56.7	0.0
KNZ	Kokohu	1.46	143	P	Pn	02 03 56.8	-0.2
TWVZ	Taurewa	1.49	215	P	Pn	02 03 57.4	+0.1
NGZ	Ngauruhoe	1.51	209	P	Pn	02 03 58.4	+0.9
TUVZ	Tukino	1.57	206	P	Pn	02 03 58.8	+0.6
MOVZ	Moawhango	1.66	202	P	Pn	02 03 59.0	-0.2
MRZ	Mangatainoka R	2.90	195	P	Pn	02 04 12.3	-2.0
KIW	Kapiti Island	3.25	202	P	Pn	02 04 16.6	-2.3
MTW	Mount Morrison	3.39	193	P	Pn	02 04 17.8	-2.9
CAW	Cannon Point	3.44	199	P	Pn	02 04 18.5	-2.8
MSWZ	Moikau Station	3.69	195	P	Pn	02 04 21.3	-3.3
SNZO	South Karori	3.73	202	ePn	Pn	02 04 22.5	-2.5
SNZO				eSn	Sn	02 05 03.5	-5.3
TCW	Tory Channel	3.78	207	P	Pn	02 04 22.8	-3.0
BSWZ	Blackbirch Sta	4.36	207	P	Pn	02 04 30.4	-3.1
KHZ	Kahutara	5.10	206	P	Pn	02 04 38.8	-4.5

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*IDC **25** 02:07:57.1±1.1, 10°.51S×108°.58E, h0^{km}, mb3.9/6, mb1 4.1/7, mb1mx3.9/20, mbtmp4.0/7, ML3.7/1, Error ellipse: s-maj=56.9km s-min=19.1km az=46.0*

*ISCJB **25** 02:07:58.9±0.6, 10°.63S±0°.08×108°.33E±0°.06, h33^{km}, mb3.9/7, Error ellipse: s-maj=11.7km s-min=8.0km az=172.5*

*NEIC **25** 02:08:02.6±1.1, 10°.46S×108°.66E, h35^{km}, mb3.9/2, Error ellipse: s-maj=59.4km s-min=13.9km az=41.0*

ISC 25 02:08:01.3±0.7**, 10°.57S**±0°.08×**108°.33E**±0°.07**, h35**^{km}**, n28, σ1^{s}23**/24**, mb3.9**/7**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XMIS	Christmas Isla	2.63	272	ePn	Pn	02 08 40.0	-1.2
XMIS				eSg	Sx	02 09 10.3	
XMIS	Christmas Isla	2.63	272	P	Pn	02 08 38.7	-2.6
	135nm,1.2s,1.8nm						
UGM	Wanagama	3.42	40	P	Pn	02 08 51.4	-0.7
	331nm,0.8s,2.1nm						
LEM	Lembang	3.79	349	P	Sn	02 09 36.3	-4.2
SMRI	Semarang	4.08	31	P	Pn	02 09 01.0	-0.2
PWJI	Pagerwojo	4.27	54	P	Pn	02 09 03.1	-0.7
	92nm,0.9s,0.8nm						
SJI	Sawahan	4.41	51	P	Pn	02 09 05.0	-0.8
	98nm,0.8s,1.7nm						
ABJI	Asem Bagus	6.45	65	P	Sn	02 10 51.7	+5.4
	90nm,0.7s						
ABJI	Asem Bagus	6.45	65	P	Pn	02 09 34.2	+0.4
	84nm,0.6s						
NBBI	Negara	6.58	71	P	Sn	02 10 57.9	+8.4
	163nm,0.7s						
SRBI	Singaraja	7.23	71	P	Sn	02 11 01.5	-4.0
	69nm,0.9s						
KHKI	Kahang-Kahang	7.51	74	P	Sn	02 11 05.5	-6.9
KHKI	Kahang-Kahang	7.51	74	P	Pn	02 09 50.3	+1.9
FITZ	Fitzroy Crossi	18.36	116	P	Pn	02 12 09.8	-3.4
	0.2nm,0.3s,baz=243,slow=11,SNR=5.1						
FITZ				S	Sx	02 15 18.2	
	0.4nm,0.3s,baz=230,slow=21,SNR=9.2						
FITZ	Fitzroy Crossi	18.36	116	eP	Pn	02 12 10.1	-3.2
	3.8nm,0.8s						
FITZ				S	Sx	02 15 18.2	
WRA	Warramunga Arr	26.73	113	P	P	02 13 35.6	-2.2
	2.5nm,0.7s,mb3.9,baz=286,slow=11,SNR=7.5						
WRAB	Tennant Creek	26.74	113	eP	P	02 13 37.8	0.0
	4.9nm,0.8s,mb4.1						
WB2	Warramunga Arr	26.75	113	eP	P	02 13 38.1	+0.3
ASAR	Alice Springs	27.63	121	P	P	02 13 45.9	+0.1
	1.4nm,0.7s,mb3.7,baz=299,slow=9.3,SNR=15						
STKA	Stephens Creek	37.33	130	P	P	02 15 10.8	+0.3
	1.4nm,0.7s,mb3.9,baz=316,slow=11,SNR=4.0						
SONM	Songino Array	58.17	358	P	P	02 17 52.7	+1.2
	0.5nm,0.6s,mb3.7,baz=174,slow=6.0,SNR=2.7						
MKAR	Makanchi Array	61.67	340	P	P	02 18 17.2	+1.6
	0.3nm,0.5s,mb3.7,baz=137,slow=8.3,SNR=3.8						
MKAR	Makanchi Array	61.67	340	P	P	02 18 17.2	+1.6
BRTR	Keskin Array B	85.17	312	P	P	02 20 35.8	+1.7
	1.1nm,0.7s,mb4.1,baz=142,slow=8.2,SNR=5.4						
YKA	Yellowknife Ar	119.72	21	PKP	PKPdf	02 26 48.2	+0.9
	0.4nm,0.7s,baz=325,slow=1.8,SNR=9.2						
YKA	Yellowknife Ar	119.72	21	PKP	PKPdf	02 26 48.2	+0.9
TXAR	Lajitas Array	144.78	53	PKP	PKPdf	02 27 36.3	+1.2
	0.7nm,0.8s,baz=263,slow=1.9,SNR=9.2						
SIV	San Ignacio	151.60	202	PKPbc	PKPbc	02 27 54.6	+1.7
	0.5nm,0.3s,baz=220,slow=4.2,SNR=5.1						

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*NEIC **25** 02:08:24.1±0.5, 2°.42S×100°.36E, h35^{km}, mb4.2/1, Error ellipse: s-maj=20.2km s-min=7.8km az=57.0*

*ISCJB **25** 02:08:25.3±0.5, 2°.32S±0°.04×100°.29E±0°.07, h63^{km}±5^{km}, mb4.0/12, Error ellipse: s-maj=11.2km s-min=7.3km az=176.4*

*DJA **25** 02:08:26, 2°.19S×100°.22E, h22^{km}, MLv4.4/7*

*IDC **25** 02:08:26.2±0.6, 2°.36S×100°.36E, h52^{km}±4^{km}, mb3.7/12, mb1 3.8/13, mb1mx3.7/25, mbtmp3.7/13, MS3.1/1, Ms1 3.1/1, ms1mx2.8/31, Error ellipse: s-maj=28.1km s-min=11.0km az=56.0*

ISC 25 02:08:26.4±0.5**, 2°.33S**±0°.04×**100°.30E**±0°.07**, h55**^{km}±5^{km}**, h54**^{km}±1.5^{km}**:pP-P, n33, σ0^{s}90**/34**, mb4.0**/12**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	0.52	215	P	Pn	02 08 36.6	-1.7
PPSI				S	Sn	02 08 47.8	+1.0
PPSI	Pulau Pagai	0.52	215	P	Pn	02 08 36.4	-1.9
PDSI	Padang	1.42	6	P	Pn	02 08 49.6	-0.4
PDSI				S	Sn	02 09 06.7	-1.0
PDSI	Padang	1.42	6	P	Pn	02 08 49.6	-0.4
	4µm,0.7s						
PDSI				S	Sn	02 09 07.6	-0.1
	4µm,0.7s						
PPI	Padang Panjang	1.87	3	P	Pn	02 08 56.7	+0.6
PPI				S	Sn	02 09 12.4	-6.1
PPI	Padang Panjang	1.87	3	P	Pn	02 08 55.6	-0.5
	1µm,0.8s,3.6nm						
PPI				S	Sn	02 09 12.5	-6.0
	1µm,0.8s,3.6nm						
KSI	Kapahiang	2.63	120	P	Pn	02 09 10.4	+3.9
KSI	Kapahiang	2.63	120	P	Pn	02 09 09.8	+3.3
RGRI	Rengat	2.83	46	P	Pn	02 09 10.1	+0.9
MDSI	Maura Dua	4.42	119	P	Pn	02 09 32.1	+1.1
GSI	Gunungsitoli	4.53	323	P	Pn	02 09 32.1	-0.4
PSI	Prapat	5.28	345	P	Pn	02 09 42.1	-0.8
	0.7nm,0.3s,baz=164,slow=15,SNR=3.2						
PSI				LR	LR	02 12 07.0	
	comp=Z,179nm,18.6s,baz=141,slow=42						
MYKOM	Kota Tinggi	5.42	41	P	Pn	02 09 45.3	+0.6
CMAR	Chiang Mai Arr	20.70	356	P	P	02 13 01.9	-0.4
	1.2nm,0.3s,baz=188,slow=8.8,SNR=5.8						
CMAR				pP		02 13 15.6	
	1.3nm,0.3s,baz=184,slow=10,SNR=1.9						
WRA	Warramunga Arr	37.56	120	P	P	02 15 34.5	-1.2
	2.1nm,0.5s,mb4.1,baz=296,slow=9.5,SNR=7.9						
WRA				pP	pP	02 15 48.5	-1.4
	1.2nm,0.4s,baz=296,slow=9.5,SNR=6.0						
WRAB	Tennant Creek	37.57	120	eP	P	02 15 34.6	-1.1
	1.3nm,0.3s,mb4.1						
WB2	Warramunga Arr	37.57	120	eP	P	02 15 34.7	-1.1
ASAR	Alice Springs	38.81	126	P	P	02 15 45.8	-0.4
	1.3nm,0.6s,mb3.8,baz=302,slow=8.0,SNR=12						
ASAR				pP	pP	02 15 59.6	-0.8
	4.2nm,0.8s,baz=302,slow=7.5,SNR=10.0						
STKA	Stephens Creek	48.70	132	P	P	02 17 05.2	-0.4
	2.0nm,0.7s,mb4.2,baz=335,slow=5.0,SNR=3.4						
STKA				pP	pP	02 17 20.0	-0.1
	3.9nm,0.8s,baz=316,slow=9.7,SNR=5.6						
STKA	Stephens Creek	48.70	132	P	P	02 17 05.2	-0.4
STKA				pP	pP	02 17 20.0	-0.1
SONM	Songino Array	50.24	5	P	P	02 17 18.5	+1.6
	0.9nm,0.6s,mb4.0,baz=189,slow=9.6,SNR=9.5						
SONM				pP	pP	02 17 31.0	-0.6
	0.7nm,0.5s,baz=189,slow=8.5,SNR=3.9						
MKAR	Makanchi Array	51.43	344	P	P	02 17 26.6	+0.7
	0.8nm,0.6s,mb3.8,baz=143,slow=8.4,SNR=12						
MKAR				pP	pP	02 17 40.9	+0.3
	1.9nm,0.6s,baz=148,slow=7.9,SNR=14						
MKAR	Makanchi Array	51.43	344	P	P	02 17 26.6	+0.7
MKAR				pP	pP	02 17 40.9	+0.3
KURK	Kurchatov	56.01	344	P	P	02 17 59.1	-0.2
	0.5nm,0.5s,mb3.8,baz=162,slow=6.9,SNR=3.4						
KURK				pP	pP	02 18 13.4	-0.8
	1.4nm,0.8s,baz=162,slow=7.1,SNR=7.1						
ZALV	Zalesovo Beam	57.55	349	P	P	02 18 10.6	+0.4
	0.9nm,0.5s,mb4.0,baz=187,slow=7.5,SNR=5.7						
ZALV				pP	pP	02 18 24.5	-0.6
	3.7nm,0.8s,baz=180,slow=5.3,SNR=7.2						
BVAR	Borovoye Array	60.60	340	P	P	02 18 31.1	-0.2
	0.6nm,0.5s,mb4.0,baz=144,slow=10,SNR=4.4						
BVAR				pP	pP	02 18 46.7	+0.3
	0.7nm,0.6s,baz=134,slow=11,SNR=3.8						
BRTR	Keskin Array B	73.77	312	P	P	02 19 55.0	0.0
	0.8nm,0.7s,mb3.8,baz=127,slow=5.4,SNR=5.7						
BRTR				pP	pP	02 20 10.2	-0.3
	1.2nm,0.8s,baz=119,slow=7.5,SNR=5.8						
BOSA	Boshof	75.76	241	P	P	02 20 08.2	+1.4
	1.8nm,0.7s,mb4.1,baz=106,slow=13,SNR=5.1						
ARCES	ARCESS Array B	86.89	340	P	P	02 21 05.5	+0.7
	5.1nm,1.0s,mb4.7,baz=87,slow=5.0,SNR=5.4						
ARCES				pP	pP	02 21 18.9	-1.8
	3.7nm,0.9s,baz=47,slow=2.1,SNR=2.1						
YKA	Yellowknife Ar	114.60	17	PKP	PKiKP	02 26 59.1	-1.0
	0.1nm,0.7s,baz=328,slow=2.2,SNR=3.5						
CPUP	Villa Florida	144.23	216	PKP	PKPdf	02 27 56.4	-0.6
	1.4nm,0.6s,baz=22,slow=3.2,SNR=5.7						
CFAA	Coronel Fontan	144.53	197	PKP	PKPdf	02 27 57.2	-0.2
	0.4nm,0.8s,baz=121,slow=2.3,SNR=6.2						
TXAR	Lajitas Array	144.78	38	PKP	PKPdf	02 27 57.8	-0.1
	1.3nm,0.6s,baz=207,slow=1.4,SNR=16						
TXAR				pPKP	pPKPdf	02 28 12.3	-2.1
	1.0nm,0.8s,baz=339,slow=1.4,SNR=5.5						

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*ISCJB **25** 02:13:38.4±0.5, 59°.35S±0°.08×23°.0W±0°.2, h10^{km}, mb4.2/12, MS3.9/5, Error ellipse: s-maj=14.2km s-min=9.9km az=142.1*

*IDC **25** 02:13:39.2±0.5, 59°.23S×23°.07W, h0^{km}, mb4.2/11, mb1 4.2/11, mb1mx4.2/20, mbtmp4.2/11, MS3.9/5,* *Ms1 3.8/5,ms1mx3.6/17,Error ellipse: s-maj=21.9km s-min=17.3km az=178.0*

*NEIC **25** 02:13:44.3±0.4,59°.21S×23°.08W,h35^{km},mb4.2/2,Error ellipse: s-maj=14.1km s-min=10.0km az=179.0*

ISC 25 02:13:40.4±0.5,**59°.31S**±0°.08×**23°.1W**±0°.2,**h10^{km},n31,σ0^{s}.79**/19,**mb4.2**/12,**MS3.9**/5,**South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	12.93	158	*e*P	Pn	02 16 43.8	-0.1
VNA3	Neumayer Olymp	13.17	161	*e*P	Pn	02 16 46.7	-0.5
VNA3				*e*S	Sn	02 18 58.8	-15
VNA2	Neumayer--Watz	13.32	157	*e*P	Pn	02 16 48.4	-0.8
	baz=325,slow=14						
VNA2				*e*S	Sn	02 19 00.6	-17
EFI	East Falkland	21.05	276	*e*P	P	02 18 23.9	-0.2
	9.6nm,0.6s,mb4.3						
USHA	Ushuaia	24.69	260	P	P	02 19 02.5	+1.4
	14nm,1.1s,mb4.4,baz=113,slow=3.8,SNR=2.8						
USHA				LR	LR	02 26 33.1	
	comp=Z,376nm,21.1s,MS3.9,baz=283,slow=31						
QSPA	South Pole Qui	30.93	180	P	P	02 19 59.3	+2.5
	2.9nm,0.8s,mb4.2,baz=221,slow=11,SNR=6.4						
QSPA	South Pole Qui	30.93	180	P	P	02 19 59.3	+2.5
PLCA	Paso Flores	34.78	281	P	P	02 20 29.4	-1.4
	2.1nm,0.7s,mb4.2,baz=150,slow=6.7,SNR=7.4						
PLCA				PcP	PcP	02 23 05.3	+1.4
	1.3nm,0.7s,baz=206,slow=7.2,SNR=3.2						
PLCA				LR	LR	02 34 35.6	
	comp=Z,96nm,19.5s,MS3.5,baz=321,slow=36						
PLCA	Paso Flores	34.78	281	*e*P	P	02 20 30.5	-0.3
	1.3nm,0.6s,mb4.0						
PLCA				PcP	PcP	02 23 05.3	+1.4
PLCA				LR	LR	02 34 35.6	
MAW	Mawson	36.21	140	LR	LR	02 35 05.9	
	comp=Z,144nm,18.6s,MS3.8,baz=12,slow=36						
CFAA	Coronel Fontan	40.88	292	P	P	02 21 21.5	-0.8
	0.3nm,0.7s,mb3.1,baz=151,slow=7.5,SNR=10						
BOSA	Boshof	44.85	69	P	P	02 21 54.5	0.0
	2.1nm,0.8s,mb4.0,baz=180,slow=10,SNR=3.5						
LBTB	Lobatse	48.05	66	P	P	02 22 19.9	+0.1
	3.7nm,0.9s,mb4.4,baz=213,slow=6.8,SNR=4.0						
SIV	San Ignacio	51.42	311	P	P	02 22 45.2	-0.2
	1.3nm,0.5s,mb4.1,baz=148,slow=5.6,SNR=9.1						
SIV				PcP	PcP	02 24 01.1	+1.3
	1.0nm,0.8s,baz=180,slow=7.1,SNR=3.8						
DBIC	Dimbokro	67.36	20	P	P	02 24 35.6	+0.1
	4.0nm,0.8s,mb4.5,baz=205,slow=11,SNR=4.0						
TORD	Torodi Ar. Bea	74.94	25	P	P	02 25 21.8	+0.4
	3.9nm,0.7s,mb4.5,baz=202,slow=6.4,SNR=55						
ROSC	El Rosal	75.67	307	LR	LR	02 58 25.2	
	comp=Z,60nm,18.6s,MS3.9,baz=146,slow=36						
STKA	Stephens Creek	88.26	167	P	P	02 26 32.1	+0.4
	1.2nm,0.7s,mb4.2,baz=158,slow=10,SNR=4.0						
STKA				LR	LR	03 01 16.3	
	comp=Z,96nm,19.5s,MS4.2,baz=207,slow=32						
ASAR	Alice Springs	95.17	159	P	P	02 27 03.5	-0.3
	0.7nm,0.7s,mb4.2,baz=183,slow=3.8,SNR=6.0						
CMAR	Chiang Mai Arr	121.88	109	PKP	PKPdf	02 32 33.0	-1.6
	1.3nm,0.3s,baz=234,slow=3.7,SNR=4.1						
PDAR	Pinedale Array	123.90	298	PKP	PKPdf	02 32 37.5	-0.1
	0.4nm,0.5s,baz=138,slow=5.2,SNR=5.6						
ULM	Lac du Bonnet	124.12	312	PKP	PKPdf	02 32 37.4	-0.4
	1.4nm,0.5s,baz=61,slow=2.6,SNR=4.0						
ULM	Lac du Bonnet	124.12	312	PKP	PKPdf	02 32 37.4	-0.4
NVAR	Mina Array Bea	124.63	288	PKP	PKPdf	02 32 40.9	+1.7
	0.7nm,0.7s,baz=116,slow=5.1,SNR=4.1						
ARCES	ARCESS Array B	133.17	21	PKP	PKPdf	02 32 54.4	-0.1
	3.6nm,0.9s,baz=222,slow=1.2,SNR=4.6						
MKAR	Makanchi Array	135.80	72	PKP	PKPdf	02 32 59.6	-0.4
	1.2nm,0.9s,baz=216,slow=2.1,SNR=6.9						
YKA	Yellowknife Ar	140.06	314	PKhKP		02 33 00.8	
	0.3nm,0.6s,baz=123,slow=3.6,SNR=6.0						
YKA				PKP	PKPdf	02 33 08.3	+0.9
	1.7nm,0.9s,baz=114,slow=2.5,SNR=6.0						
SONM	Songino Array	148.64	89	PKP	PKPdf	02 33 22.9	+0.2
	4.5nm,0.9s,baz=196,slow=1.8,SNR=7.3						
SONM				PKPbc	PKPbc	02 33 26.9	+0.4
	4.5nm,0.9s,baz=216,slow=2.7,SNR=25						
INK	Inuvik	149.72	316	PKPbc	PKPbc	02 33 28.9	+0.3
	9.8nm,0.8s,baz=80,slow=3.0,SNR=45						
INK	Inuvik	149.72	316	PKPbc	PKPbc	02 33 28.9	+0.3
KSRS	Korea Array	151.25	127	PKPbc	PKPbc	02 33 33.4	+0.2
	1.6nm,0.7s,baz=178,slow=2.9,SNR=6.2						

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*ISCJB **25** 02:43:21.8±0.5,41°.04N±0°.03×33°.44E±0°.04,h12^{km}±5^{km}, Error ellipse: s-maj=5.2km s-min=4.5km az=155.3*

*CSEM **25** 02:43:21.8±0.1,41°.05N×33°.48E,h12^{km},MD2.8,Error ellipse: s-maj=2.7km s-min=2.0km az=87.0*

*DDA **25** 02:43:21.9,41°.02N×33°.46E,h7^{km}±5^{km},Md2.8*

*ISK **25** 02:43:21.2,41°.04N×33°.46E,h14^{km},MD2.8*

ISC 25 02:43:22.3±0.5,**41°.04N**±0°.03×**33°.45E**±0°.04,**h12^{km}**±4^{km},**n25,σ0^{s}.84**/39,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILGA	Ilgaz	0.20	85	*i* P	Pg	02 43 26.4	-0.4
ILGA				*i* S	Sg	02 43 30.2	+0.4
ILGA	Ilgaz	0.20	85	*i* P	Pg	02 43 26.4	-0.4
ILGA				*i* S	Sg	02 43 30.2	+0.4
TOS	Tosya	0.44	90	*e*PG	Pg	02 43 29.4	-1.5
TOS				*e*SG	Sg	02 43 37.2	+0.4
TOS	Tosya	0.44	90	*e*Pg	Pg	02 43 29.4	-1.5
TOS				*e*Sg	Sg	02 43 37.2	+0.5
CANT	Cankiri	0.45	163	*e*PG	Pg	02 43 30.5	-0.6
CANT				*e*SG	Sg	02 43 37.5	+0.3
BALT	Daday	0.50	355	*i* P	Pg	02 43 32.1	0.0
BALT				*i* S	Sg	02 43 39.9	+1.1
BALT	Daday	0.50	355	*i* P	Pg	02 43 32.1	0.0
BALT				*i* S	Sg	02 43 39.9	+1.1
ELDT	Eldivan	0.55	182	*i* P	Pg	02 43 32.8	-0.1
ELDT				*i* S	Sg	02 43 41.1	+0.9
ELDT	Eldivan	0.55	182	*i* P	Pg	02 43 32.8	-0.1
ELDT				*i* S	Sg	02 43 41.1	+0.9
SAFT	Safranbolu	0.61	290	*e*PG	Pg	02 43 33.8	-0.4
SAFT				*e*SG	Sg	02 43 43.0	+0.7
SAFT	Safranbolu	0.61	290	*e*Pg	Pg	02 43 33.8	-0.4
SAFT				*e*Sg	Sg	02 43 43.0	+0.8
BZK	Bozkurt	1.01	24	*e*PG	Pg	02 43 41.0	-0.8
BZK	Bozkurt	1.01	24	*e*Pg	Pg	02 43 41.0	-0.9
BOYT	Boyabat	1.16	70	*i* P	Pb	02 43 43.6	-0.7
BOYT				*i* S	Sb	02 44 01.6	+2.3
BOYT	Boyabat	1.16	70	*i* P	Pb	02 43 43.6	-0.7
LOD	Lodumlu	1.26	205	*e*PN	Pn	02 43 44.5	-1.1
LOD	Lodumlu	1.26	205	*e*Pn	Pn	02 43 44.5	-1.1
CDAG	Cicekdag	1.58	153	*i* P	Pn	02 43 49.8	-0.2
CDAG				*i* S	Sn	02 44 11.2	+0.9
CDAG	Cicekdag	1.58	153	*i* P	Pn	02 43 49.8	-0.2
CDAG				*i* S	Sn	02 44 11.2	+0.9
KAMT	Kaman	1.68	173	*e*PN	Pn	02 43 51.7	+0.3
KAMT	Kaman	1.68	173	*e*Pn	Pn	02 43 51.7	+0.3
KVT	Kavak	1.97	88	*e*PN	Pn	02 43 54.3	-1.1
KVT	Kavak	1.97	88	*e*Pn	Pn	02 43 54.3	-1.1
SVRH	Sivrihisar-ESK	2.17	223	*e*PN	Pn	02 43 58.2	+0.1
SVRH	Sivrihisar-ESK	2.17	223	*e*Pn	Pn	02 43 58.2	+0.1

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*NEIC **25** 03:28:47.6±2.5,6°.25S×153°.24E,h35^{km},mb4.2/1,Error ellipse: s-maj=80.3km s-min=16.8km az=114.0*

IDC 25 03:28:45.4±3.3,**6°.29S×153°.44E,h24^{km}**±5^{km},**mb3.3**/5,**mb1 3.4**/5,**mb1mx3.4**/16,**mbtmp3.3**/5,**Error ellipse: s-maj=113.2km s-min=26.4km az=108.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.99	232	P	P	03 33 48.7	+0.1
	0.5nm,0.8s,baz=56,slow=10.0,SNR=2.0						
ASAR	Alice Springs	25.53	225	P	P	03 34 12.2	-0.2
	0.6nm,0.6s,baz=62,slow=8.6,SNR=6.6						
FITZ	Fitzroy Crossi	29.55	244	*e*P	P	03 34 47.0	-1.5
	5.0nm,0.9s						
SONM	Songino Array	67.91	328	P	P	03 39 42.4	+0.4
	0.2nm,0.6s,baz=104,slow=2.8,SNR=4.5						
SONM				pP	pP	03 39 49.7	+0.1
	0.4nm,0.5s,baz=133,slow=6.5,SNR=3.5						
MKAR	Makanchi Array	81.86	319	P	P	03 41 03.0	+0.2
	0.1nm,0.4s,baz=87,slow=5.9,SNR=3.4						
MKAR				pP	pP	03 41 11.6	+1.1
	0.2nm,0.4s,baz=100,slow=8.0,SNR=4.0						
MKAR	Makanchi Array	81.86	319	P	P	03 41 03.0	+0.2
MKAR				pP	pP	03 41 11.6	+1.1
ZALV	Zalesovo Beam	82.73	326	P	P	03 41 06.6	-0.5
	0.4nm,0.5s,baz=86,slow=10,SNR=2.9						
ZALV				pP	pP	03 41 14.4	-0.5
	0.5nm,0.5s,baz=126,slow=7.3,SNR=2.2						
TORD	Torodi Ar. Bea	151.35	286	PKPbc	PKPbc	03 48 38.5	+0.3
	0.6nm,0.7s,baz=78,slow=2.3,SNR=6.0						
TORD				pPKPbc	pPKPbc	03 48 45.7	-0.4
	0.2nm,0.6s,baz=90,slow=3.3,SNR=1.5						
TORD	Torodi Ar. Bea	151.35	286	PKPbc	PKPbc	03 48 38.5	+0.3
TORD				pPKPbc	pPKPbc	03 48 45.7	-0.4

IDC 25 03:33:22.5±7.4,**17°.67S×177°.62W,h0^{km},mb4.3**/4,**mb1 4.5**/4,**mb1mx3.9**/18,**mbtmp4.4**/4,**MS4.0**/2,**Ms1 4.0**/2,**ms1mx3.1**/31,**Error ellipse: s-maj=137.1km s-min=22.0km az=76.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	21.03	192	P	P	03 38 08.0	+0.2
	7.8nm,0.4s,baz=315,slow=5.5,SNR=11						
URZ				S	S	03 42 03.8	+0.9
	5.4nm,0.7s,baz=209,slow=19,SNR=2.8						
STKA	Stephens Creek	39.40	241	P	P	03 40 55.4	+1.1
	2.8nm,0.5s,baz=81,slow=9.0,SNR=9.3						
WRA	Warramunga Arr	45.41	259	P	P	03 41 42.7	-0.6
	0.5nm,0.3s,baz=96,slow=7.0,SNR=5.2						
ASAR	Alice Springs	45.58	254	P	P	03 41 44.0	-0.7
	6.7nm,0.5s,baz=87,slow=8.6,SNR=122						
NWAO	Narrogin (SRO)	59.99	242	LR	LR	04 08 34.2	
	comp=Z,85nm,21.4s,baz=184,slow=35						
DLBC	Dease Lake	85.32	23	LR	LR	04 20 42.9	
	comp=Z,92nm,18.2s,baz=323,slow=33						

PRE 25 04:06:26.4±1.6,**24°.93S×31°.47E,h5^{km},ML3.6,South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
POGA	Pongola	2.43	177	*e*P	Pn	04 07 06.1	-0.7
POGA				*e*S	Sn	04 07 37.6	+0.7
POGA				AML	AML	04 07 43.6	
	comp=Z,222nm,0.3s						
MSNA	Messina	2.90	332	*e*P	Pn	04 07 12.9	-0.3
MSNA				*e*S	Sn	04 07 45.9	-2.4
MSNA				AML	AML	04 08 00.8	
	comp=Z,128nm,0.4s						
SLR	Silverton	2.99	254	*e*P	Pn	04 07 16.0	+1.5
SLR				*e*S	Sn	04 07 50.9	+0.1
SLR				AML	AML	04 08 09.5	
	comp=Z,108nm,0.6s						
ERPM	east rand prop	3.23	244	*e*P	Pn	04 07 18.5	+0.6
ERPM				*e*S	Sn	04 07 55.8	-1.0
ERPM				AML	AML	04 08 19.6	
	comp=Z,44nm,0.3s						
KSR	Koster	4.24	257	*e*P	Pn	04 07 32.8	+1.3
KSR				*e*S	Sn	04 08 21.1	-0.4
KSR				AML	AML	04 08 52.4	
	comp=Z,80nm,0.8s						
SEK	Senekal	4.82	225	*e*P	Pn	04 07 40.3	+0.7
SEK				*e*S	Sn	04 08 35.0	-0.9
SEK				AML	AML	04 09 02.7	
	comp=Z,58nm,0.9s						
KSD	Kokstad	5.88	198	*e*P	Pn	04 07 54.0	-0.2
KSD				*e*S	Sn	04 08 59.7	-2.2
KSD				AML	AML	04 09 36.5	
	comp=Z,80nm,0.6s						
PKA	Prieska	9.07	237	*e*P	Pn	04 08 38.9	+0.9
PKA				*e*S	Sn	04 10 15.5	-5.0
PKA				AML	AML	04 10 20.2	
	comp=Z,5.6nm,0.4s						
UPI	Upington	9.76	247	*e*P	Pn	04 08 47.8	+0.4
UPI				*e*S	Sn	04 10 31.9	-5.5
UPI				AML	AML	04 10 46.1	
	comp=Z,3.6nm,0.4s						
SUR	Sutherland	11.94	229	*e*P	Pn	04 09 19.1	+1.9
SUR				*e*S	Sn	04 11 24.9	-6.0

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*THE **25** 05:08:52.2,37°.59N×20°.78E,h0^{km}±3^{km},ML2.8/2,Error ellipse: s-maj=4.6km s-min=1.2km az=208.0*

*ISCJB **25** 05:08:53.6±0.9,37°.66N±0°.03×20°.71E±0°.06,h10^{km},Error ellipse: s-maj=6.9km s-min=3.9km az=151.9*

*CSEM **25** 05:08:54.4±0.6,37°.72N×20°.73E,h15^{km},MD3.1,Error ellipse: s-maj=11.4km s-min=6.7km az=55.0*

*ATH **25** 05:08:54.6,37°.71N×20°.76E,h10^{km}±3^{km},MD3.1/9*

ISC 25 05:08:54.2±0.9,**37°.70N**±0°.03×**20°.75E**±0°.06,**h0^{km}**±6^{km},**n29,σ0^{s}.98**/53,**Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.49	345	P	Pg	05 09 03.9	+0.3
VLS				S	Sg	05 09 12.6	+2.6
VLS	Valsamata	0.49	345	*e*PG	Pg	05 09 03.9	+0.3
VLS				*e*SB	Sg	05 09 11.5	+1.5
VLS	Valsamata	0.49	345	*e*Pg	Pg	05 09 03.9	+0.3
VLS				*e*Sb	Sg	05 09 11.5	+1.5
VLS				S	Sg	05 09 12.6	+2.6
RLS	Riolos of Patr	0.67	58	*e*PB	Pg	05 09 06.5	-0.6
RLS				*e*SB	Sg	05 09 15.8	0.0
RLS	Riolos of Patr	0.67	58	*e*Pb	Pg	05 09 06.5	-0.6
RLS				*e*Sb	Sg	05 09 15.8	0.0
LKD	Levkas	1.01	356	P	Pg	05 09 12.8	-0.7
LKD				S	Sg	05 09 30.1	+3.5
LKD	Levkas	1.01	356	P	Pg	05 09 12.8	-0.7
LKD				S	Sg	05 09 30.1	+3.5
ITM	Ithomi	1.07	119	*e*PN	Pg	05 09 15.3	+0.5
ITM				*e*SB	Sg	05 09 29.5	+0.8
ITM	Ithomi	1.07	119	*e*Pn	Pg	05 09 15.3	+0.5
ITM				*e*Sb	Sg	05 09 29.5	+0.8
LAKA	Lakka	1.11	61	P	Pg	05 09 13.6	-1.9
LAKA				S	Sg	05 09 30.7	+0.8
LAKA	Lakka	1.11	61	P	Pg	05 09 13.6	-1.9
LAKA				S	Sg	05 09 30.7	+0.8
PYL	PYLOS	1.13	135	*e*PN	Pg	05 09 15.9	0.0
PYL				*e*SB	Sg	05 09 31.6	+1.1
PYL	PYLOS	1.13	135	*e*Pn	Pg	05 09 15.9	0.0
PYL				*e*Sb	Sg	05 09 31.6	+1.1
EFP	Efpalio	1.17	51	*e*PB	Pb	05 09 16.8	-0.4
EFP				*e*SB	Sb	05 09 32.8	-0.1
EFP	Efpalio	1.17	51	*e*Pb	Pb	05 09 16.8	-0.4
EFP				*e*Sb	Sb	05 09 32.8	-0.1
TRIZ	Trizonia	1.24	57	P	Pg	05 09 16.1	-1.9
TRIZ				S	Sg	05 09 34.7	+0.7
TRIZ	Trizonia	1.24	57	P	Pg	05 09 16.1	-1.9
TRIZ				S	Sg	05 09 34.7	+0.7
GUR	Goura	1.28	79	*e*PB	Pb	05 09 18.9	-0.3
GUR				*e*SB	Sb	05 09 36.3	0.0
GUR	Goura	1.28	79	*e*Pb	Pb	05 09 18.9	-0.3
GUR				*e*Sb	Sb	05 09 36.3	0.0
KALE	Kalithea	1.30	58	P	Pg	05 09 16.9	-2.2
KALE				S	Sg	05 09 36.8	+0.9
KALE	Kalithea	1.30	58	P	Pg	05 09 16.9	-2.2
KALE				S	Sg	05 09 36.8	+0.9
VLX	Vlachokerasia	1.34	104	*e*PB	Pb	05 09 20.1	-0.1
VLX	Vlachokerasia	1.34	104	*e*Pb	Pb	05 09 20.1	-0.1
LTK	Loutraki	1.79	79	*e*PG	Pg	05 09 27.6	-0.9
LTK	Loutraki	1.79	79	*e*Pg	Pg	05 09 27.6	-0.9
AGG	Agios Georgios	1.81	43	P	Pn	05 09 25.9	-0.7
AGG				S	Sn	05 09 50.8	+0.5
AGG	Agios Georgios	1.81	43	P	Pn	05 09 25.9	-0.7
AGG				S	Sn	05 09 50.8	+0.5
DID	Didima	1.99	95	*e*PN	Pn	05 09 29.9	+0.9
DID	Didima	1.99	95	*e*Pn	Pn	05 09 29.9	+0.9

MAN 25 05:12:47,7°.20N×124°.53E,h35^{km},mb4.3,ML3.2,MS3.0,2C,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTBH	Cotabato--PC H	0.28	274	⇑*i*P	Pn	05 12 56.9	+2.2
CTBH				*i* S	Sn	05 13 02.6	+2.6
BUKP	Musuan	0.86	38	*e*P	Pn	05 13 03.1	+0.5
CGP	Cagayan de Oro	1.26	8	⇑*i*P	Pn	05 13 07.3	-0.9
CGP				*i* S	Sn	05 13 25.1	+1.3
PAGZ	Pagadian	1.31	300	*e*P	Pn	05 13 09.3	+0.6
PAGZ				*e*S	Sn	05 13 25.5	+0.5

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*IDC **25** 05:30:37.1±0.9,42°.79S×82°.88W,h0^{km},mb4.3/11, mb1 4.3/13,mb1mx4.3/21,mbtmp4.3/13,ML3.2/3,MS4.6/19, Ms1 4.6/19,ms1mx4.5/29,Error ellipse: s-maj=24.1km s-min=21.1km az=95.0*

*ISCJB **25** 05:30:38.7±0.6,42°.76S±0°.09×82°.75W±0°.09,h10^{km}, mb4.4/14,MS4.7/16,Error ellipse: s-maj=12.7km s-min=8.9km az=10.4*

*NEIC **25** 05:30:39.8±0.6,42°.82S×82°.79W,h10^{km},mb4.8/5,Error ellipse: s-maj=14.8km s-min=13.7km az=69.0*

*GCMT **25** 05:30:39.8±0.2,43°.02S×83°.21W,h12^{km},MW5.3/90, Moment Tensor Solution. s68,c97; s90,c152; Duration: 1^{s}.1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.13±.02; M$_{\theta\theta}$0.38±.02; M$_{\phi\phi}$-0.25±.02; M$_{r\theta}$-0.26±.04; M$_{\theta\phi}$-1.04±.01; M$_{\phi r}$-0.01±.04; Best double couple: M$_0$1.11700×10^{17} NP1:φ$_s$352.00000°,δ77.00000°,λ-1.00000°. NP2: φ$_s$82.00000°,δ89.00000°,λ-167.00000°. Principal axes: T 1.1840, Plg9.0000°, Azm216.0000°; N -0.1340, Plg76.0000°, Azm86.0000°; P -1.0500, Plg10.0000°, Azm307.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 25 05:30:40.1±0.5,**42°.79S**±0°.08×**82°.87W**±0°.09,**h10^{km},n47,σ1^{s}.39**/36,**mb4.4**/14,**MS4.7**/16,**West Chile Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLCA	Paso Flores	9.43	82	Pn	Pn	05 32 55.4	-0.6
	0.1nm,0.3s,baz=283,slow=15,SNR=4.0						
PLCA				Sn	Sn	05 34 44.2	+2.2
	0.1nm,0.3s,baz=98,slow=21,SNR=2.6						
PLCA				LR	LR	05 35 59.7	
	comp=Z,3µm,19.6s,baz=254,slow=34						
PLCA	Paso Flores	9.43	82	Pn	Pn	05 32 55.4	-0.6
PLCA				Sn	Sn	05 34 44.2	+2.2
PLCA				LR	LR	05 35 59.7	
USHA	Ushuaia	15.31	147	Pn	Pn	05 34 16.3	+0.2
	0.1nm,0.3s,baz=244,slow=1.2,SNR=2.7						
USHA				LR	LR	05 39 12.3	
	comp=Z,2µm,21.7s,baz=295,slow=34						
CFAA	Coronel Fontan	16.12	51	Pn	Pn	05 34 26.4	-0.3
	0.0nm,0.3s,baz=221,slow=13,SNR=7.1						
CFAA				LR	LR	05 39 36.0	
	comp=Z,576nm,20.9s,baz=216,slow=33						
CFAA	Coronel Fontan	16.12	51	Pn	Pn	05 34 26.4	-0.3
CFAA				LR	LR	05 39 36.0	
LCO	Las Campanas	16.89	39	*e*Pn	Pn	05 34 39.2	+2.6
	106nm,1.8s						
LVC	Limon Verde	23.24	34	P	P	05 35 46.7	-0.9
	12nm,0.9s,mb4.3,baz=200,slow=9.7,SNR=13						
LVC				LR	LR	05 42 43.6	
	comp=Z,2µm,20.6s,MS4.6,baz=188,slow=31						
LVC	Limon Verde	23.24	34	*e*P	P	05 35 48.6	+1.0
	260nm,2.6s,mb5.2						
CPUP	Villa Florida	26.54	60	P	P	05 36 15.0	-3.0
	3.2nm,0.9s,mb3.9,baz=243,slow=14,SNR=4.4						
CPUP				LR	LR	05 46 44.7	
	comp=Z,4µm,18.5s,MS5.0,baz=214,slow=36						
RPN	Rapa Nui	26.58	297	LR	LR	05 43 40.3	
	comp=Z,3µm,21.6s,MS4.8,baz=124,slow=30						
NNA	Nana	31.13	11	P	P	05 36 57.2	-1.7
	3.6nm,0.4s,mb4.5,baz=211,slow=11,SNR=2.5						
NNA				LR	LR	05 46 05.9	
	comp=Z,1µm,20.1s,MS4.6,baz=185,slow=30						
SIV	San Ignacio	32.58	42	P	P	05 37 09.0	-2.6
	3.8nm,1.1s,mb4.2,baz=238,slow=13,SNR=8.7						
ATAH	Atahualpa	35.86	8	P	P	05 37 38.0	-2.1
	3.6nm,0.6s,mb4.5,baz=356,slow=13,SNR=2.3						
ATAH				LR	LR	05 48 39.3	
	comp=Z,794nm,20.0s,MS4.5,baz=350,slow=30						
OTAV	Otavalo	43.02	6	*e*P	P	05 38 38.3	-1.6
	6.8nm,1.1s,mb4.3						
RKT	Rikitea	47.12	277	*e*S	S	05 45 58.3	-6.4
	447nm,27.2s						
RKT				*e*LQ		05 50 23.3	
	1µm,28.0s						
RKT				*e*LR	LR	05 52 20.9	
	454nm,38.8s						
QSPA	South Pole Qui	47.45	180	P	P	05 39 12.2	-2.1
	3.1nm,1.1s,mb4.2,baz=148,slow=5.6,SNR=3.5						
QSPA	South Pole Qui	47.45	180	P	P	05 39 12.2	-2.1
ROSC	El Rosal	48.05	11	P	P	05 39 18.2	-1.4
	3.0nm,0.8s,mb4.4,baz=253,slow=20,SNR=3.2						
ROSC				LR	LR	05 57 54.9	
	comp=Z,1µm,18.3s,MS5.0,baz=190,slow=34						
JTS	JuntasAbangare	52.86	357	LR	LR	05 56 31.3	
	comp=Z,540nm,21.5s,MS4.6,baz=174,slow=29						
VNDA	Vanda	53.68	194	LR	LR	05 59 40.3	
	comp=Z,1µm,18.5s,MS5.1,baz=125,slow=32						
TAOE	Nuku Hiva Isla	60.22	287	*e*S	S	05 48 57.5	-5.0
	286nm,28.3s						
TAOE				*e*LR	LR	05 58 30.0	
	694nm,24.5s						
TEIG	Tepich	62.90	354	LR	LR	06 02 25.8	
	comp=Z,322nm,18.5s,MS4.5,baz=146,slow=30						
MAW	Mawson	66.92	166	LR	LR	06 09 19.3	
	comp=Z,323nm,18.4s,MS4.6,baz=22,slow=35						
LPIG	La Paz	71.21	334	LR	LR	06 05 36.5	
	comp=Z,180nm,20.3s,MS4.3,baz=351,slow=30						
TXAR	Lajitas Array	74.28	341	P	P	05 42 16.6	-0.7
	1.2nm,0.8s,mb3.9,baz=162,slow=7.3,SNR=10.0						
TXAR				LR	LR	06 09 18.3	
	comp=Z,382nm,18.9s,MS4.7,baz=355,slow=31						
TKL	Tuckaleechee C	78.08	359	LR	LR	06 11 19.9	
	comp=Z,239nm,20.5s,MS4.5,baz=303,slow=31						
CCM	Cathedral Cave	80.83	353	*e*P	P	05 42 53.7	0.0
	12nm,1.0s,mb4.8						
BOSA	Boshof	83.04	123	P	P	05 43 05.4	-0.5
	5.3nm,1.0s,mb4.5,baz=229,slow=8.1,SNR=5.1						
BOSA				LR	LR	06 14 19.6	
	comp=Z,288nm,19.9s,MS4.7,baz=191,slow=32						
NLU	North Lily Min	86.51	338	*e*P	P	05 43 26.7	+4.0
DUG	Dugway	86.94	337	*e*P	P	05 43 25.5	+0.6
ECSD	EROS Data Cent	87.02	350	*e*P	P	05 43 24.6	-0.5
HVU	Hansel Valley	88.40	338	*e*P	P	05 43 32.6	+0.8
M13A	Montello	88.40	337	*e*P	P	05 43 33.2	+1.4
	8.1nm,1.4s,mb4.8						
PDAR	Pinedale Array	88.49	341	P	P	05 43 32.1	0.0
	1.8nm,1.2s,mb4.2,baz=180,slow=4.4,SNR=7.9						
DZM	Mont Dzumac	89.33	240	*e*LR	LR	06 11 51.6	
	1µm,25.1s						
REDW	Red Top Meadow	89.37	340	*e*P	P	05 43 37.3	+1.0
TPAW	Teton Pass	89.51	340	*e*P	P	05 43 38.6	+1.6
LOHW	Long Hollow	89.54	340	*e*P	P	05 43 38.0	+0.8
DCID1	Drake Creek	89.67	340	*e*P	P	05 43 39.6	+1.8
IMW	Indian Meadow	89.89	340	*e*P	P	05 43 39.9	+1.1
DLMT	Dillon	91.68	340	*e*P	P	05 43 50.0	+2.9
ULM	Lac du Bonnet	93.35	352	P	P	05 43 54.2	-0.4
	1.4nm,0.6s,mb4.6,baz=116,slow=7.1,SNR=3.0						
STKA	Stephens Creek	95.23	217	LR	LR	06 16 58.2	
	comp=Z,633nm,19.8s,MS5.1,baz=305,slow=29						
SCHQ	Schefferville	98.21	9	LR	LR	06 25 32.0	
	comp=Z,210nm,21.1s,MS4.6,baz=72,slow=34						
KURK	Kurchatov	165.07	52	PKP	PKPdf	05 50 42.3	-1.5
	0.2nm,0.4s,baz=270,slow=1.7,SNR=4.2						
MKAR	Makanchi Array	168.72	64	PKPab	PKPab	05 52 00.0	+3.0
	0.5nm,0.8s,baz=276,slow=3.5,SNR=4.1						
SONM	Songino Array	171.75	311	PKPab	PKPab	05 52 07.0	-3.4
	0.1nm,0.3s,baz=64,slow=3.4,SNR=4.1						

IDC 25 05:31:18.1±2.7,**3°.54N×128°.45E,h0^{km},mb3.5**/4,**mb1 3.6**/4,**mb1mx3.4**/21,**mbtmp3.5**/4,**Error ellipse: s-maj=238.9km s-min=20.9km az=68.0,North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.04	166	P	P	05 36 34.4	-0.6
	0.5nm,0.4s,baz=346,slow=11,SNR=8.6						
ASAR	Alice Springs	27.56	169	P	P	05 37 07.8	+0.9
	0.1nm,0.3s,baz=184,slow=30,SNR=3.4						
MKAR	Makanchi Array	58.70	325	P	P	05 41 17.8	+0.3
	0.5nm,0.4s,baz=115,slow=8.0,SNR=16						
KURK	Kurchatov	62.83	327	P	P	05 41 45.2	-0.4
	0.7nm,0.5s,baz=125,slow=6.3,SNR=8.5						

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*THE **25** 05:37:13.8,38°.53N×26°.66E,h2^{km}±1^{km},ML3.7/5,Error ellipse: s-maj=2.4km s-min=1.1km az=130.0*

*CSEM **25** 05:37:14.7±0.1,38°.58N×26°.59E,h12^{km},MD3.1,Error ellipse: s-maj=2.4km s-min=1.8km az=68.0*

*ATH **25** 05:37:14.2,38°.50N×26°.21E,h10^{km},MD3.3/3*

*DDA **25** 05:37:14.7,38°.56N×26°.62E,h7^{km}±2^{km},Md3.1*

*ISK **25** 05:37:14.1,38°.60N×26°.58E,h15^{km},MD3.4*

*ISCJB **25** 05:37:15.3±0.3,38°.56N±0°.02×26°.58E±0°.03,h22^{km}±4^{km},*

Error ellipse: s-maj=4.9km s-min=3.2km az=147.4

ISC 25 05:37:15.2±0.4**,38°.56N**±0°.02×**26°.60E**±0°.03**,h16**^{km}±3^{km}**, n72,**σ**0^{s}.76**/100**,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URLA	Izmir	0.20	180	*i* P	Pg	05 37 19.2	-0.7
URLA				*i* S	Sg	05 37 23.7	+0.6
URLA	Izmir	0.20	180	*i* P	Pg	05 37 19.2	-0.7
URLA				*i* S	Sg	05 37 23.7	+0.7
CHOS	Chios island	0.46	248	P	Pg	05 37 24.1	-0.3
CHOS				S	Sg	05 37 30.6	0.0
CHOS	Chios island	0.46	248	P	Pg	05 37 24.1	-0.3
CHOS				S	Sg	05 37 30.6	0.0
IZM	Izmir	0.55	107	*e*PG	Pg	05 37 26.0	0.0
IZM				*e*SG	Sg	05 37 34.3	+0.9
PRK	Paraskevi	0.73	340	P	Pg	05 37 28.4	-1.0
PRK				S	Sg	05 37 40.8	+1.7
PRK	Paraskevi	0.73	340	*e*PB	Pg	05 37 28.5	-0.9
PRK	Paraskevi	0.73	340	*e*Pb	Pg	05 37 28.5	-0.9
PRK				S	Sg	05 37 40.8	+1.7
AYVA	Ayvalik	0.75	6	*i* P	Pg	05 37 29.2	-0.6
AYVA				*i* S	Sg	05 37 40.0	+0.3
AYVA	Ayvalik	0.75	6	*i* P	Pg	05 37 29.2	-0.6
AYVA				*i* S	Sg	05 37 40.0	+0.3
SIGR	SIGRI	0.87	319	P	Pg	05 37 31.2	-0.9
SIGR				S	Sg	05 37 45.2	+1.7
SIGR	SIGRI	0.87	319	P	Pg	05 37 31.2	-0.9
SIGR				S	Sg	05 37 45.2	+1.7
SMG	Samos	0.87	167	*e*PB	Pb	05 37 31.9	-0.1
SMG	Samos	0.87	167	*e*Pb	Pb	05 37 31.9	-0.1
GCAM	G?zelcaml?	1.00	149	*i* P	Pg	05 37 33.5	-1.0
GCAM				*i* S	Sg	05 37 47.9	+0.4
GCAM	G?zelcaml?	1.00	149	*i* P	Pg	05 37 33.5	-1.0
GCAM				*i* S	Sg	05 37 47.9	+0.4
AKHS	Akhisar	1.00	71	*i* P	Pg	05 37 33.8	-0.9
AKHS				*i* S	Sg	05 37 47.9	+0.1
AKHS	Akhisar	1.00	71	*i* P	Pg	05 37 33.8	-0.8
AKHS				*i* S	Sg	05 37 47.9	+0.1
EZN	Ezine	1.28	351	*e*PN	Pn	05 37 37.2	-1.3
EZN				*e*SN	Sn	05 37 54.4	-0.9
EZN	Ezine	1.28	351	*e*Pn	Pn	05 37 37.2	-1.3
EZN				*e*Sn	Sn	05 37 54.4	-0.9
BOZC	Bozcaada	1.35	342	*i* P	Pn	05 37 38.8	-0.6
BOZC				*i* S	Sn	05 37 56.3	-0.7
AYDN	Tasoluk	1.35	131	*i* P	Pn	05 37 39.5	0.0
AYDN				*i* S	Sn	05 37 57.2	+0.1
AYDN	Tasoluk	1.35	131	*i* P	Pn	05 37 39.5	0.0
AYDN				*i* S	Sn	05 37 57.2	+0.1
BALY	Balya	1.42	34	*i* P	Pn	05 37 39.7	-0.7
BALY				*i* S	Sn	05 38 02.1	+3.3
BALY	Balya	1.42	34	*i* P	Pn	05 37 39.7	-0.7
BALB	Balikesir	1.47	42	*e*PN	Pn	05 37 40.7	-0.3
BALB	Balikesir	1.47	42	*e*Pn	Pn	05 37 40.7	-0.4
MLSB	Milas	1.57	143	*e*PN	Pn	05 37 42.8	+0.4
MLSB	Milas	1.57	143	*e*Pn	Pn	05 37 42.8	+0.3
BODT	Bodrum	1.60	159	*e*PN	Pn	05 37 43.0	+0.1
BODT	Bodrum	1.60	159	*e*Pn	Pn	05 37 43.0	+0.1
KULA	Kula-Manisa	1.62	91	*e*PN	Pn	05 37 43.4	+0.3
KULA	Kula-Manisa	1.62	91	*e*Pn	Pn	05 37 43.4	+0.3
BDRM	Kayabasi	1.64	156	*i* P	Pn	05 37 43.5	+0.1
BDRM				*i* S	Sn	05 38 09.8	+5.7
BDRM	Kayabasi	1.64	156	*i* P	Pn	05 37 43.5	+0.1
GADA	Gvkgeada	1.71	342	*e*PN	Pn	05 37 43.7	-0.7
GADA	Gvkgeada	1.71	342	*e*Pn	Pn	05 37 43.7	-0.7
LIA	Limnos Island	1.73	321	P	Pn	05 37 44.5	-0.1
LIA				S	Sn	05 38 09.2	+2.8
LIA	Limnos Island	1.73	321	*e*PB	Pn	05 37 44.4	-0.2
LIA	Limnos Island	1.73	321	*e*Pb	Pn	05 37 44.4	-0.2
LIA				S	Sn	05 38 09.2	+2.8
DURS	Dursunbey	1.79	54	*i* P	Pn	05 37 46.5	+1.0
DURS				*i* S	Sn	05 38 09.0	+1.0
DURS	Dursunbey	1.79	54	*i* P	Pn	05 37 46.5	+1.0
DURS				*i* S	Sn	05 38 09.0	+1.0
LOS	Limnos	1.81	320	P	Pn	05 37 45.8	+0.1
LOS	Limnos	1.81	320	P	Pn	05 37 45.8	+0.1
LPK	Lapseki	1.81	4	*e*PN	Pn	05 37 45.3	-0.5
LPK	Lapseki	1.81	4	*e*Pn	Pn	05 37 45.3	-0.5
DST	Dursunbey	1.89	56	*e*PN	Pn	05 37 46.4	-0.5
YER	Yerkesik	1.95	136	*e*PN	Pn	05 37 48.1	+0.4
YER	Yerkesik	1.95	136	*e*Pn	Pn	05 37 48.1	+0.4
DAT	Datca	1.99	157	*e*PN	Pn	05 37 49.0	+0.8
DAT	Datca	1.99	157	*e*Pn	Pn	05 37 49.0	+0.8
EDC	Edincik	2.04	28	*e*PN	Pn	05 37 47.9	-0.9
EDC	Edincik	2.04	28	*e*Pn	Pn	05 37 47.9	-0.9
BNT	Bandirma	2.06	29	*e*PN	Pn	05 37 48.9	-0.3
KCT	Karacabey	2.18	38	*e*PN	Pn	05 37 50.8	-0.1
KCT	Karacabey	2.18	38	*e*Pn	Pn	05 37 50.8	-0.1
ENEZ	Enez	2.20	351	*e*PN	Pn	05 37 50.9	-0.2
ENEZ	Enez	2.20	351	*e*Pn	Pn	05 37 50.9	-0.2
KHL	Karahalli	2.31	95	*e*PN	Pn	05 37 52.2	-0.4
KHL	Karahalli	2.31	95	*e*Pn	Pn	05 37 52.2	-0.4
ALN	Alexandroupoli	2.37	350	P	Pn	05 37 53.3	-0.2
ALN				S	Sn	05 38 23.4	+1.2
ALN	Alexandroupoli	2.37	350	P	Pn	05 37 53.3	-0.2
ALN				S	Sn	05 38 23.4	+1.2
PAIG	Paliouri	2.64	302	P	Pn	05 37 57.9	+0.7
PAIG	Paliouri	2.64	302	P	Pn	05 37 57.9	+0.7
GEMT	Gemlik	2.74	46	*e*PN	Pn	05 37 58.9	+0.3
GEMT	Gemlik	2.74	46	*e*Pn	Pn	05 37 58.9	+0.3
ALT	Altintas	2.79	79	*e*PN	Pn	05 37 59.1	-0.1
ALT	Altintas	2.79	79	*e*Pn	Pn	05 37 59.1	-0.1
SLVT	Silivri	2.94	24	*e*PN	Pn	05 38 01.3	0.0
SLVT	Silivri	2.94	24	*e*Pn	Pn	05 38 01.3	0.0
CTKS	Kestanelik-??a	3.05	28	*e*PN	Pn	05 38 02.7	-0.1
CTKS	Kestanelik-??a	3.05	28	*e*Pn	Pn	05 38 02.7	-0.1

IDC 25 05:40:01.2±2.0**,8°.69S**×**127°.72E,h0**^{km}**,mb3.5**/1**, mb1 3.7**/4**,mb1mx3.6**/17**,mbtmp3.6**/4**,ML3.4**/3**,Error ellipse: s-maj=79.9km s-min=26.8km az=69.0,Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	9.57	192	Pn	Pn	05 42 19.6	-0.8
	0.3nm,0.3s,baz=5.3,slow=12,SNR=7.6						
FITZ				Sn	Sn	05 44 01.6	-7.2
	0.8nm,0.3s,baz=106,slow=18,SNR=7.7						
WRA	Warramunga Arr	12.89	151	Pn	Pn	05 43 07.3	+1.5
	0.2nm,0.3s,baz=325,slow=13,SNR=4.0						
WRA				Sn	Sn	05 45 28.6	-1.4
	0.3nm,0.3s,baz=333,slow=22,SNR=4.4						
ASAR	Alice Springs	16.02	159	Pn	Pn	05 43 48.6	+0.6
	0.1nm,0.3s,baz=326,slow=10,SNR=12						
ASAR				Sn	Sn	05 46 42.7	-3.8
	0.1nm,0.3s,baz=320,slow=23,SNR=4.7						
MKAR	Makanchi Array	68.43	328	P	P	05 51 05.0	+0.1
	0.3nm,0.5s,baz=116,slow=6.7,SNR=3.6						

IDC 25 05:44:50.6±43.0**,15°.62S**×**171°.99W,h0**^{km}**,mb4.5**/3**, mb1 4.7**/3**,mb1mx3.9**/18**,mbtmp4.5**/3**,Error ellipse: s-maj=831.6km s-min=180.6km az=79.0,Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	45.11	240	P	P	05 53 09.2	+0.4
	1.9nm,0.6s,baz=45,slow=7.1,SNR=4.8						
WRA	Warramunga Arr	51.12	257	P	P	05 53 55.1	-0.4
	1.5nm,0.3s,baz=95,slow=6.9,SNR=28						
ASAR	Alice Springs	51.34	252	P	P	05 53 57.1	0.0
	15nm,0.5s,baz=89,slow=8.3,SNR=243						

IDC 25 05:46:08.7±5.8**,23°.43N**×**109°.68W,h0**^{km}**,mb3.1**/1**, mb1 3.8**/4**,mb1mx3.6**/20**,mbtmp3.3**/4**,ML3.7**/3**,Error ellipse: s-maj=86.3km s-min=33.9km az=158.0,Baja California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	Lajitas Array	7.98	41	Pn	Pn	05 48 06.2	+0.2
	0.2nm,0.3s,baz=224,slow=14,SNR=12						
TXAR				Sn	Sn	05 49 28.7	-8.2
	0.2nm,0.3s,baz=261,slow=33,SNR=4.0						
TXAR				Lg		05 50 21.7	
	0.1nm,0.3s,baz=220,slow=29,SNR=5.6						
NVAR	Mina Array Bea	16.67	336	Pn	Pn	05 50 06.0	+2.3
	0.2nm,0.3s,baz=163,slow=14,SNR=12						
PDAR	Pinedale Array	19.29	0	P	Pn	05 50 34.1	-1.8
	0.0nm,0.3s,baz=170,slow=9.8,SNR=8.5						
YKA	Yellowknife Ar	39.19	356	P	P	05 53 39.1	+1.0
	0.2nm,0.8s,baz=173,slow=7.7,SNR=5.7						

*IDC **25** 05:49:06.4±0.8, 11°.28N×86°.44W, h0^{km}, mb3.9/12, mb1 4.1/13, mb1mx4.0/24, mbtmp3.9/13, ML3.9/1, MS4.4/4, Ms1 4.4/4, ms1mx3.5/27, Error ellipse: s-maj=31.2km s-min=12.7km az=49.0*

*ISCJB **25** 05:49:08.2±0.8, 10°.82N±0°.05×86°.76W±0°.06, h42^{km}±7^{km}, mb3.9/15, MS4.5/4, Error ellipse: s-maj=12.0km s-min=3.9km az=141.1*

*CASC **25** 05:49:08.9±2.3, 10°.83N×86°.74W, h36^{km}±999^{km}, MD4.3, ML4.1, mb4.2(NEIC)*

*NEIC **25** 05:49:11.1±0.8, 11°.12N×86°.59W, h35^{km}, mb4.2/4, Error ellipse: s-maj=21.3km s-min=9.1km az=223.0*

ISC 25 05:49:08.6±1.3**,10°.87N**±0°.04×**86°.72W**±0°.04**,h25**^{km}±10^{km}**, n63,**σ**1^{s}.09**/67**,mb3.9**/15**,MS4.5**/4**,1D,Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSN	San Juan del S	0.95	63	*e*P	Pb	05 49 26.2	-0.2
CRUN	El Crucero	1.18	20	*e*P	Pn	05 49 30.4	+0.8
APON	Apoyo	1.22	31	*e*P	Pn	05 49 30.5	+0.4
MASN	Masaya	1.24	27	*e*P	Pn	05 49 30.7	+0.3
GBS3	Finca Las Imˆ¡	1.24	94	*i* P	Pn	05 49 29.6	-0.8
GBS3				*i* S	Sn	05 49 46.9	+0.5
TICN	Ticuantepe	1.25	22	*e*P	Pn	05 49 30.5	0.0
CONN	Concepcion	1.27	57	*e*P	Pn	05 49 30.8	-0.1
GB1A	Borinquen Arri	1.30	92	*i* P	Pn	05 49 30.8	-0.4
VCR	Vista de Mar	1.30	125	*e*P	Pn	05 49 29.2	-2.0
COPN	Copaltepe	1.31	5	*e*P	Pn	05 49 30.9	-0.4
COPN				AML	AML	05 49 55.3	
	comp=Z,2µm,0.6s						
GPS3	Bodega del ICE	1.33	95	*i* P	Pn	05 49 30.9	-0.7
CSAN		1.34	12	*e*P	Pn	05 49 31.2	-0.5
CSAN				*e*S	Sn	05 49 49.1	+0.4
CSAN				AML	AML	05 49 53.7	
	comp=Z,10µm,0.3s						
TISN	Laguna Tiscapa	1.34	19	*e*P	Pn	05 49 31.9	+0.2
TISN				AML	AML	05 49 38.9	
	comp=Z,2µm,0.3s						
TISN				*e*S	Sn	05 49 50.5	+1.8
MGAN	Managua	1.35	20	*e*P	Pn	05 49 31.8	0.0
LIM1	Limonal	1.45	97	*i* P	Pn	05 49 32.8	-0.4
MOMN	Momotombo	1.54	6	*e*P	Pn	05 49 34.5	+0.1
HUEN		1.55	20	*e*P	Pn	05 49 34.5	-0.2
MIRN	Miramar	1.56	0	*e*P	Pn	05 49 34.4	-0.4
CNGN	Cerro Negro	1.62	1	*e*P	Pn	05 49 35.1	-0.5
JTS	JuntasAbangare	1.83	108	Pn	Pn	05 49 37.8	-0.7
	comp=Z,13nm,0.3s,baz=317,slow=20,SNR=143						
JTS				Sn	Sn	05 50 00.9	+0.1
	comp=Z,161nm,0.3s,baz=279,slow=22,SNR=12						
JTS	JuntasAbangare	1.83	108	*e*P	Pn	05 49 37.7	-0.7
CRIN	San Cristobal	1.85	350	*e*P	Pn	05 49 38.1	-0.6
BOAB	BOACO BROADBAN	1.88	33	*e*P	Pn	05 49 38.8	-0.4
JCR	Jicaral	1.88	123	*e*P	Pn	05 49 37.7	-1.5
FORC	Fortuna	2.05	101	*e*P	Pn	05 49 41.7	+0.1
CGA2	Cerro Gallo 2	2.37	111	*e*P	Pn	05 49 46.1	+0.1
CGA2				*e*S	Sn	05 50 13.1	-1.2
PRS1	Puriscal	2.53	110	*e*P	Pn	05 49 48.2	+0.1
LAJ	Bijagual	2.74	111	*e*P	Pn	05 49 47.4	-3.6
LCR2	La Lucha 2	2.90	113	*e*P	Pn	05 49 54.6	+1.5
LCR2				*e*S	Sn	05 50 29.1	+1.9
URSC	Urasca	3.07	109	⇓*e*P	Pn	05 49 58.2	+2.6
BUS	Buena Vista	3.19	114	*e*P	Pn	05 49 58.4	+1.2
BUS				*e*S	Sn	05 50 34.8	+0.2
TGUH	Tegucigalpa,Un	3.21	350	*e*Pn	Pn	05 49 57.7	+0.2
TGUH	Tegucigalpa,Un	3.21	350	*e*P	Pn	05 49 57.7	+0.2
BAR1		3.72	115	*e*P	Pn	05 50 05.1	+0.5
BAR1				*e*S	Sn	05 50 47.1	-0.6
ACR	Cerro Adams	4.13	122	*e*P	Pn	05 50 11.0	+0.8
ACR				*e*S	Sn	05 50 55.9	-2.0
CMIG	Matias Romero	10.05	309	Pn	Pn	05 51 32.2	+0.7
	comp=Z,0.9nm,0.3s,baz=137,slow=7.4,SNR=18						
CMIG	Matias Romero	10.05	309	Pn	Pn	05 51 32.2	+0.7
SDV	Santo Domingo	15.97	96	Pn	Pn	05 52 54.4	+2.6
	comp=Z,0.4nm,0.3s,baz=316,slow=5.6,SNR=14						
HKT	Hockley	20.80	337	*e*P	P	05 53 48.0	-0.1
	comp=Z,25nm,1.6s						
PCRV	Puerto La Cruz	21.72	90	P	P	05 53 58.5	+0.3
	comp=Z,9.3nm,0.6s,mb4.4,baz=193,slow=11,SNR=7.5						
TXAR	Lajitas Array	24.25	322	P	P	05 54 23.8	+0.1
	comp=Z,1.0nm,0.6s,mb3.4,baz=133,slow=10.0,SNR=17						
TXAR				PcP	PcP	05 58 06.8	+3.0
	comp=Z,0.7nm,0.8s,baz=145,slow=5.5,SNR=6.5						
TXAR	Lajitas Array	24.25	322	P	P	05 54 23.8	+0.1
TXAR				PcP	PcP	05 58 06.8	+3.0
CPCT	Cooper Cave	24.55	4	*e*P	P	05 54 25.8	-0.6
TKL	Tuckaleechee C	24.82	6	P	P	05 54 28.1	-0.7
	comp=Z,4.7nm,0.6s,mb4.2,baz=173,slow=9.3,SNR=15						
WMOK	Wichita Mounta	26.18	337	*e*P	P	05 54 42.9	+1.7
	comp=Z,4.1nm,0.7s,mb4.1						
ANMO	Albuquerque	29.96	326	P	P	05 55 16.1	+1.1
	comp=Z,0.6nm,0.6s,mb3.5,baz=29,slow=1.5,SNR=4.5						
BINY	Binghamton	32.59	15	*e*P	P	05 55 37.1	-1.0
	comp=Z,9.6nm,0.8s,mb4.8						
SIV	San Ignacio	36.83	136	P	P	05 56 18.5	+3.5
	comp=Z,2.8nm,0.7s,mb4.2,baz=323,slow=9.4,SNR=21						
PDAR	Pinedale Array	37.49	332	P	P	05 56 20.5	+0.1
	comp=Z,0.7nm,0.7s,mb3.6,baz=130,slow=8.4,SNR=5.4						
AGMN	Agassiz Refuge	38.09	350	*e*P	P	05 56 22.6	-2.6
	comp=Z,2.1nm,0.6s,mb4.0						
REDW	Red Top Meadow	38.56	331	*e*P	P	05 56 30.1	+0.8
NVAR	Mina Array Bea	39.36	320	P	P	05 56 37.6	+1.5
	comp=Z,0.3nm,0.4s,mb3.4,baz=104,slow=7.5,SNR=2.8						
NVAR				PcP	PcP	05 58 47.6	+3.3
	comp=Z,0.9nm,0.7s,baz=134,slow=4.4,SNR=5.1						
ULM	Lac du Bonnet	39.98	351	P	P	05 56 38.3	-2.8
	comp=Z,1.8nm,0.6s,mb4.0,baz=137,slow=5.9,SNR=3.2						
SCHQ	Schefferville	46.59	16	P	P	05 57 31.1	-3.2
	comp=Z,1.4nm,0.6s,mb4.1,baz=195,slow=4.0,SNR=7.4						
PLCA	Paso Flores	53.48	165	P	P	05 58 29.4	+2.6
	comp=Z,1.6nm,0.9s,mb4.0,baz=304,slow=7.7,SNR=4.3						
YKA	Yellowknife Ar	55.31	345	P	P	05 58 38.4	-1.5
	comp=Z,0.2nm,0.6s,mb3.3,baz=141,slow=7.3,SNR=8.1						
YKA				PcP	PcP	05 59 39.0	-1.3
	comp=Z,0.1nm,0.5s,baz=148,slow=3.8,SNR=5.7						
YKA	Yellowknife Ar	55.31	345	P	P	05 58 38.4	-1.5
YKA				PcP	PcP	05 59 39.0	-1.3
INK	Inuvik	64.92	343	P	P	05 59 43.9	-1.8
	comp=Z,1.3nm,1.0s,mb3.9,baz=137,slow=9.3,SNR=3.5						
ESDC	Sonseca Array	77.60	52	LR	LR	06 32 42.2	
	comp=Z,147nm,18.9s,MS4.3,baz=230,slow=34						
KEST	Kesra	88.59	54	LR	LR	06 36 03.2	
	comp=Z,249nm,21.7s,MS4.6,baz=14,slow=32						
GERES	GERESS Array B	88.66	41	LR	LR	06 37 39.9	
	comp=Z,258nm,21.1s,MS4.6,baz=43,slow=33						
AKASG	Malin Array Be	97.39	35	LR	LR	06 41 53.3	
	comp=Z,173nm,19.4s,MS4.5,baz=240,slow=33						
SONM	Songino Array	120.41	350	PKP	PKPdf	06 07 58.3	+0.3
	comp=Z,0.1nm,0.4s,baz=48,slow=2.1,SNR=2.3						

*ISCJB **25** 05:51:54.5±0.2, 41°.10N±0°.02×114°.88W±0°.02, h10^{km}, Error ellipse: s-maj=2.2km s-min=2.1km az=167.9*

*NEIC **25** 05:51:55.3, 41°.11N×114°.92W, h12^{km}, ML2.7, After REN.*

*IDC **25** 05:51:55.2±0.9, 41°.16N×115°.03W, h0^{km}, mb2.5/1, mb1 3.1/3, mb1mx3.0/22, mbtmp2.6/3, ML3.0/2, Error ellipse: s-maj=16.8km s-min=5.2km az=130.0*

ISC 25 05:51:54.4±0.3**,41°.13N**±0°.01×**114°.91W**±0°.02**,h3**^{km}±3^{km}**, n66,**σ**1^{s}.04**/112**,15C-21D,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.29	199	⇑P	Pg	05 52 00.8	+0.8
	baz=0.3,SNR=1000						
N12A				⇑S	Sg	05 52 05.2	+1.4
	baz=0.3						
N12A	Clover Valley,	0.29	199	*e*Pg	Pg	05 52 01.2	+1.2
N12A				*e*Sg	Sg	05 52 05.1	+1.3
ELK	Elko	0.46	213	Pg	Pg	05 52 03.9	+0.8
	19nm,0.3s,baz=22,slow=14,SNR=446						
ELK				Lg		05 52 09.4	
	129nm,0.3s,baz=39,slow=15,SNR=217						
N13A	Wendover, West	0.60	117	⇓P	Pg	05 52 07.0	+1.1
	baz=0.6,SNR=535						
N13A				⇑S	Sg	05 52 15.0	+1.3
	baz=0.6						
N13A	Wendover, West	0.60	117	*e*Pg	Pg	05 52 07.0	+1.1
N13A				*e*Sg	Sg	05 52 14.8	+1.1
M13A	Montello	0.61	68	P	Pg	05 52 07.1	+1.0
	baz=0.6,SNR=382						
M13A	Montello	0.61	68	*e*Pg	Pg	05 52 07.3	+1.3
M13A				*e*Sg	Sg	05 52 15.7	+1.8
N11A	Elko Archery C	0.70	244	⇑P	Pg	05 52 08.2	+0.5
	baz=0.7,SNR=222						
M11A	Holland Ranch,	0.73	295	⇓P	Pg	05 52 08.6	+0.3
	baz=0.7,SNR=108						
O12A	Currie	0.87	172	⇑P	Pg	05 52 11.8	+0.7
	baz=0.9,SNR=1000						
O12A				⇓S	Sg	05 52 23.2	+0.9
	baz=0.9						
L12A	House Creek Ra	1.02	356	⇓P	Pg	05 52 14.7	+0.8
	baz=1.0,SNR=116						
L12A				⇑S	Sg	05 52 28.4	+1.3
	baz=1.0						
O11A	Cowboy Ranch,	1.15	210	⇑P	Pg	05 52 16.5	+0.2
	baz=1.1						
O11A				⇓S	Sg	05 52 31.3	+0.1
	baz=1.1						
L13A	Double Diamond	1.20	37	P	Pg	05 52 17.6	+0.1
	baz=1.2,SNR=70						
L13A				⇑S	Sg	05 52 34.1	+1.1
	baz=1.2						
L11A	Cat Creek Ranc	1.21	329	⇓P	Pg	05 52 17.7	+0.1
	baz=1.2						
L11A				⇑S	Sg	05 52 34.3	+1.0
	baz=1.2						
O13A	Hicks Ranch, I	1.22	144	⇑P	Pg	05 52 17.8	0.0
	baz=1.2,SNR=457						
M14A	Sheep Mountain	1.24	72	P	Pg	05 52 18.1	0.0
	baz=1.2,SNR=381						
M14A				⇑S	Sg	05 52 34.7	+0.6
	baz=1.2						
N10A	Dunphy	1.28	252	⇑P	Pg	05 52 18.4	-0.4
	baz=1.3,SNR=38						
N14A	Grayback Hills	1.34	101	P	Pn	05 52 19.2	-0.6
	baz=1.3,SNR=348						
N14A				⇑S	Sg	05 52 37.8	+0.5
	baz=1.3						
BGU	Big Grassy Mou	1.44	98	*e*Pn	Pn	05 52 21.2	-0.1
BGU				*e*Sg	Sg	05 52 41.6	+1.0
O10A	Cortez Mining,	1.47	236	⇓Pb	Pb	05 52 21.6	-0.7
	baz=1.5,SNR=52						
O10A				⇓Sb	Sb	05 52 41.3	0.0
	baz=1.5						
L10A	Juniper Basin	1.50	310	Pb	Pb	05 52 22.5	-0.3
	baz=1.5,SNR=577						
K12A	Draper Farm, C	1.50	0	⇓P	Pn	05 52 22.0	-0.1
	baz=1.5,SNR=81						
K12A				⇓S	Sn	05 52 42.4	+0.1
	baz=1.5						
L14A	Malta	1.55	54	⇓Pb	Pb	05 52 23.1	-0.5
	baz=1.6,SNR=106						
K13A	Stover Farm, H	1.64	22	⇓Pb	Pb	05 52 24.8	-0.4
	baz=1.7,SNR=113						
HVU	Hansel Valley	1.73	67	*e*Pn	Pn	05 52 25.9	+0.6
HVU				*e*Sg	Sg	05 52 48.8	-1.3
P13A	Bates Ranch, G	1.81	157	⇓P	Pn	05 52 25.6	-0.7
	baz=1.8,SNR=179						
K11A	Parker Ranch,	1.84	333	⇓Pb	Pb	05 52 27.9	-0.7
	baz=1.9,SNR=193						
DUG	Dugway	1.85	120	P	Pn	05 52 26.3	-0.6
	baz=1.8,SNR=107						
DUG	Dugway	1.85	120	*e*Pn	Pn	05 52 26.6	-0.3
DUG				*e*Sg	Sg	05 52 53.4	-0.4
SPUT	South Promonto	1.87	84	*e*Pn	Pn	05 52 29.0	+1.8
SPUT				*e*Sg	Sg	05 52 52.9	-1.5
BMN	Battle Mountai	1.89	249	*e*Pn	Pn	05 52 27.3	-0.1
BMN				*e*Sg	Sg	05 52 54.5	-0.4
N09A	Rock Creek Ran	2.00	263	⇓P	Pn	05 52 28.4	-0.5
	baz=2.0,SNR=29						
P14A	Drum Mountains	2.09	137	P	Pn	05 52 29.8	-0.4
	baz=2.1,SNR=118						
Q12A	Willow Creek R	2.09	178	⇑P	Pn	05 52 30.0	-0.2
	baz=2.1,SNR=33						
NOQ	North Oquirrh	2.17	102	*e*Pn	Pn	05 52 34.1	+2.8
NOQ				*e*Sg	Sg	05 53 03.4	-0.7
K10A	MacKenzie Ranc	2.20	319	⇑Pb	Pb	05 52 34.1	-0.7
	baz=2.2,SNR=40						
L09A	Wilkinson Ranc	2.25	294	⇓Pb	Pb	05 52 34.8	-0.8
	baz=2.2,SNR=36						
Q13A	Wheeler Ranch,	2.28	162	⇓P	Pn	05 52 32.5	-0.2
	baz=2.3,SNR=37						
HLID	Hailey	2.46	8	P	Pn	05 52 37.2	+1.9
NLU	North Lily Min	2.46	118	*e*Pn	Pn	05 52 38.9	+3.6
NLU				*e*Sg	Sg	05 53 12.9	-0.5
N08A	GE Springer Mi	2.46	263	⇓P	Pn	05 52 34.9	-0.4
	baz=2.4						
Q14A	Sevier Lake (B	2.48	149	P	Pn	05 52 34.9	-0.7
	baz=2.5,SNR=33						
P15A	Leamington	2.54	127	⇓P	Pn	05 52 35.8	-0.6
	baz=2.5,SNR=20						
MPU	Maple Canyon	2.73	113	*e*Pn	Pn	05 52 38.7	-0.4
MPU				*e*Pg	Pg	05 52 47.4	+0.6
MPU				*e*Sg	Sg	05 53 17.1	-5.1
DAU	Daniels Canyon	2.87	103	*e*Pg	Pg	05 52 50.3	+1.0
Q15A	Fillmore	2.88	137	⇓P	Pn	05 52 40.6	-0.5
	baz=2.9,SNR=5.1						
WVOR	Wild Horse Val	3.07	296	*e*Pg	Pg	05 52 48.8	-4.5
WVOR				*e*Sg	Sg	05 53 30.3	-2.8
O07A	Toulon	3.17	254	⇓P	Pn	05 52 44.6	-0.5
	baz=3.1,SNR=6.7						
MSU	Marysvale	3.36	140	*e*Pn	Pn	05 52 48.0	+0.4
MSU				*e*Pg	Pg	05 52 58.2	-0.4
MSU				*e*Sg	Sg	05 53 43.7	+1.5
TMUT	Trail Mountain	3.38	122	*e*Pn	Pn	05 52 46.9	-1.0
TMUT				*e*Sg	Sg	05 53 42.1	-0.7
RRI2	Red Ridge	3.47	49	*e*Pn	Pn	05 52 50.1	+1.0
ARUT	Antelope Range	3.53	161	*e*Pn	Pn	05 52 50.7	+0.8
ARUT				*e*Pg	Pg	05 53 02.1	+0.1
ARUT				*e*Sg	Sg	05 53 45.6	-2.1
DCID1	Drake Creek	3.70	47	*e*Pn	Pn	05 52 51.1	-1.2
DCID1				*e*Sg	Sg	05 53 46.2	-7.0
REDW	Red Top Meadow	3.75	52	*e*Pn	Pn	05 52 55.4	+2.4
REDW				*e*Sg	Sg	05 54 00.2	+5.4
NVAR	Mina Array Bea	3.75	225	Pn	Pn	05 52 53.4	+0.3
	0.6nm,0.3s,baz=39,slow=12,SNR=14						
NVAR				Pg	Pg	05 53 01.9	-4.3
	1.7nm,0.3s,baz=30,slow=15,SNR=16						
NVAR				Lg		05 53 51.5	
	4.4nm,0.3s,baz=256,slow=34,SNR=5.4						
TPAW	Teton Pass	3.77	50	*e*Pn	Pn	05 52 53.6	+0.3
TPAW				*e*Pg	Pg	05 53 07.6	+1.1
TPAW				*e*Sg	Sg	05 53 52.2	-3.2
CCUT	Cedar City	3.77	161	*e*Pn	Pn	05 52 54.1	+0.8
CCUT				*e*Pg	Pg	05 53 06.2	-0.4
CCUT				*e*Sg	Sg	05 53 54.4	-1.1
SRU	San Rafael	3.92	120	*e*Pg	Pg	05 53 08.5	-1.0
SRU				*e*Sg	Sg	05 53 57.4	-2.9
MCMT	McKenzie Canyo	3.99	22	Pn	Pn	05 52 56.4	0.0
MCMT				*e*Pg	Pg	05 53 10.2	-0.7
MCMT				*e*Sg	Sg	05 53 58.9	-3.7
IMW	Indian Meadow	4.04	45	*e*Pn	Pn	05 52 59.8	+2.9
IMW				*e*Sg	Sg	05 54 00.7	-3.2
LOHW	Long Hollow	4.04	51	*e*Pn	Pn	05 52 57.1	+0.1
LOHW				*e*Pg	Pg	05 53 10.8	-1.1
BMO	Blue Mountains	4.11	336	*e*Pn	Pn	05 52 57.2	-0.8
BMO				*e*Pg	Pg	05 53 14.1	+0.9
BMO				*e*Sg	Sg	05 54 01.8	-4.7
PDAR	Pinedale Array	4.32	66	Pn	Pn	05 53 04.4	+3.6
	0.2nm,0.3s,baz=243,slow=12,SNR=9.2						
PDAR				Pg	Pg	05 53 14.4	-2.7
	0.3nm,0.3s,baz=238,slow=13,SNR=8.2						
PDAR				Lg		05 54 11.4	
	0.6nm,0.3s,baz=243,slow=30,SNR=6.9						
DLMT	Dillon	4.56	21	*e*Pg	Pg	05 53 18.1	-3.6
DLMT				*e*Sg	Sg	05 54 18.9	-1.7
MVCO	Mesa Verde	6.34	126	*e*Pg	Pg	05 53 54.9	-0.9
	7.6nm,0.9s						
MVCO				*e*Sg	Sg	05 55 13.3	-4.5
YKA	Yellowknife Ar	21.40	0	P	P	05 56 43.8	+1.0
	0.2nm,0.6s,baz=180,slow=10,SNR=7.1						

IDC 25 06:03:15.4±4.3**,4°.01S**×**142°.33E,h0**^{km}**,mb3.4**/3**, mb1 3.9**/4**,mb1mx3.6**/16**,mbtmp3.7**/4**,ML4.2**/1**,MS3.3**/1**, Ms1 3.3**/1**,ms1mx2.4**/17**,Error ellipse: s-maj=132.7km s-min=29.2km az=98.0,New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	17.65	206	P	Pn	06 07 23.5	+0.6
	0.9nm,0.3s,baz=23,slow=12,SNR=23						
ASAR	Alice Springs	21.17	202	P	P	06 08 02.0	-0.4
	0.8nm,0.7s,baz=30,slow=10.0,SNR=9.4						

FITZ	Fitzroy Crossi	21.52	228	P	P	06 08 06.4	+0.1
	5.3nm,0.8s,baz=33,slow=8.9,SNR=7.1						
FITZ				LR	LR	06 16 34.9	
	comp=Z,79nm,20.4s,baz=5.7,slow=37						
MKAR	Makanchi Array	73.03	322	P	P	06 14 47.4	+0.2
	0.1nm,0.5s,baz=97,slow=7.8,SNR=2.4						

IDC 25 06:07:29.9±1.6**, 6°.18S×129°.51E, h0^{km}, mb3.7**/3**, mb1 3.8**/5**, mb1mx3.6**/17**, mbtmp3.7**/5**, ML3.8**/2**, MS3.1**/2**, Ms1 3.1**/2**, ms1mx2.6**/30**, Error ellipse: s-maj=65.1km s-min=26.1km az=65.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	9.79	276	LR	LR	06 14 08.9	
	comp=Z,130nm,18.2s,baz=300,slow=41						
FITZ	Fitzroy Crossi	12.44	197	Pn	Pn	06 10 28.9	+0.6
	0.3nm,0.3s,baz=69,slow=19,SNR=4.3						
FITZ				Sn	Sn	06 12 43.9	-3.8
	0.4nm,0.3s,baz=87,slow=19,SNR=3.6						
WRA	Warramunga Arr	14.46	162	Pn	Pn	06 10 52.0	-4.0
	0.3nm,0.3s,baz=338,slow=13,SNR=4.9						
WRA				Sn	Sn	06 13 26.1	-11
	0.4nm,0.3s,baz=349,slow=22,SNR=5.1						
WRA				LR	LR	06 16 36.8	
	comp=Z,72nm,22.0s,baz=170,slow=38						
ASAR	Alice Springs	17.89	167	P	Pn	06 11 39.0	-1.4
	0.3nm,0.3s,baz=1.9,slow=11,SNR=13						
ASAR				S	Sn	06 14 51.2	-9.3
	0.1nm,0.3s,baz=0.3,slow=28,SNR=4.7						
CTA	Charters Tower	21.34	132	P	P	06 12 19.4	+0.6
	3.7nm,1.0s,baz=333,slow=9.0,SNR=2.6						
STKA	Stephens Creek	27.95	158	P	P	06 13 22.3	+0.1
	0.5nm,0.4s,baz=321,slow=11,SNR=2.8						
MKAR	Makanchi Array	67.28	327	P	P	06 18 26.5	+0.1
	0.5nm,0.6s,baz=121,slow=7.9,SNR=4.6						

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*ISCJB **25** 06:16:24.4±0.9, 36°.30N±0°.07×21°.68E±0°.05, h12^{km}±9^{km}, Error ellipse: s-maj=12.0km s-min=6.3km az=5.1*

*CSEM **25** 06:16:24.3±0.4, 36°.28N×21°.73E, h2^{km}, MD4.2, Error ellipse: s-maj=7.5km s-min=5.1km az=4.0*

*NEIC **25** 06:16:25.1, 36°.34N×21°.78E, h11^{km}, MD4.2(ATH), After ATH.*

*ATH **25** 06:16:25.1, 36°.34N×21°.78E, h11^{km}±2^{km}, MD3.6/6*

*THE **25** 06:16:28.0, 36°.27N×21°.75E, h31^{km}±38^{km}, ML3.9/7, Error ellipse: s-maj=38.2km s-min=1.4km az=147.0*

ISC 25 06:16:24.9±0.9**, 36°.32N**±0°.06×**21°.74E**±0°.05**, h3^{km}**±7^{km}**, n70, σ0^{s}.85**/106**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.57	1	*e*PB	Pg	06 16 35.8	0.0
PYL	PYLOS	0.57	1	*e*Pb	Pg	06 16 35.8	0.0
ITM	Ithomi	0.87	10	*e*PB	Pb	06 16 41.5	-1.1
ITM	Ithomi	0.87	10	*e*Pb	Pb	06 16 41.5	-1.1
VLI	Veliai	1.04	68	*e*PB	Pb	06 16 44.5	-1.1
VLI	Veliai	1.04	68	*e*Pb	Pb	06 16 44.5	-1.1
KYTH	Kithira	1.05	92	*e*PB	Pb	06 16 44.4	-1.3
KYTH	Kithira	1.05	92	*e*Pb	Pb	06 16 44.4	-1.3
VLX	Vlachokerasia	1.17	26	*e*PG	Pg	06 16 46.4	-0.8
VLX	Vlachokerasia	1.17	26	*e*Pg	Pg	06 16 46.4	-0.8
GUR	Goura	1.68	17	*e*PB	Pb	06 16 56.2	-0.3
GUR	Goura	1.68	17	*e*Pb	Pb	06 16 56.2	-0.3
DID	Didima	1.69	45	P	Pn	06 16 54.7	-0.5
DID				S	Sn	06 17 17.0	-0.4
DID	Didima	1.69	45	P	Pn	06 16 54.7	-0.5
DID				S	Sn	06 17 17.0	-0.4
LAKA	Lakka	1.92	6	P	Pn	06 16 59.2	+0.7
LAKA				S	Sn	06 17 22.6	-0.6
LAKA	Lakka	1.92	6	P	Pn	06 16 59.2	+0.7
LAKA				S	Sn	06 17 22.6	-0.6
LTK	Loutraki	1.96	30	P	Pn	06 16 59.5	+0.5
LTK				S	Sn	06 17 24.1	0.0
LTK	Loutraki	1.96	30	P	Pn	06 16 59.5	+0.5
LTK				S	Sn	06 17 24.1	0.0
TRIZ	Trizonia	2.06	7	P	Pn	06 17 01.3	+1.0
TRIZ				S	Sn	06 17 26.2	-0.3
TRIZ	Trizonia	2.06	7	P	Pn	06 17 01.3	+1.0
TRIZ				S	Sn	06 17 26.2	-0.3
VLS	Valsamata	2.06	334	P	Pn	06 17 00.4	0.0
VLS				S	Sn	06 17 26.3	-0.4
VLS	Valsamata	2.06	334	P	Pn	06 17 00.4	0.0
VLS				S	Sn	06 17 26.3	-0.4
KALE	Kalithea	2.09	9	P	Pn	06 17 01.7	+0.9
KALE				S	Sn	06 17 26.5	-0.8
KALE	Kalithea	2.09	9	P	Pn	06 17 01.7	+0.9
KALE				S	Sn	06 17 26.5	-0.8
ATHU	Athens Univers	2.32	44	P	Pn	06 17 04.3	+0.4
ATHU				S	Sn	06 17 31.5	-1.4
ATHU	Athens Univers	2.32	44	P	Pn	06 17 04.3	+0.4
ATHU				S	Sn	06 17 31.5	-1.4
LKD	Levkas	2.53	340	P	Pn	06 17 07.8	+0.9
LKD				S	Sn	06 17 38.5	+0.3
LKD	Levkas	2.53	340	P	Pn	06 17 07.8	+0.9
LKD				S	Sn	06 17 38.5	+0.3
LKR	Lokris	2.53	23	P	Pn	06 17 06.8	-0.1
LKR				S	Sn	06 17 38.3	+0.1
LKR	Lokris	2.53	23	P	Pn	06 17 06.8	-0.1
LKR				S	Sn	06 17 38.3	+0.1
AGG	Agios Georgios	2.73	10	P	Pn	06 17 10.9	+1.2
AGG				S	Sn	06 17 43.5	+0.3
AGG	Agios Georgios	2.73	10	P	Pn	06 17 10.9	+1.2
AGG				S	Sn	06 17 43.5	+0.3
THL	Klokotos Trika	3.24	4	P	Pn	06 17 17.5	+0.8
THL				S	Sn	06 17 55.5	-0.3
THL	Klokotos Trika	3.24	4	P	Pn	06 17 17.5	+0.8
THL				S	Sn	06 17 55.5	-0.3
XOR	Xorichti	3.25	20	P	Pn	06 17 17.3	+0.6
XOR				S	Sn	06 17 56.0	+0.1
XOR	Xorichti	3.25	20	P	Pn	06 17 17.3	+0.6
XOR				S	Sn	06 17 56.0	+0.1
AOS	Alonnisos	3.31	30	P	Pn	06 17 18.4	+0.8
AOS	Alonnisos	3.31	30	P	Pn	06 17 18.4	+0.8
MEV	Metsovon	3.48	354	P	Pn	06 17 21.4	+1.5
MEV	Metsovon	3.48	354	P	Pn	06 17 21.4	+1.5
LIT	Litokhoron	3.82	9	P	Pn	06 17 26.0	+1.4
LIT				S	Sn	06 18 10.7	+0.8
LIT	Litokhoron	3.82	9	P	Pn	06 17 26.0	+1.4
LIT				S	Sn	06 18 10.7	+0.8
CHOS	Chios island	4.01	58	P	Pn	06 17 27.6	+0.4
CHOS	Chios island	4.01	58	P	Pn	06 17 27.6	+0.4
PLG	Polygyros	4.26	18	P	Pn	06 17 31.6	+0.9
PLG	Polygyros	4.26	18	P	Pn	06 17 31.6	+0.9
HORT	Hortiatis	4.40	14	P	Pn	06 17 33.2	+0.6
HORT				S	Sn	06 18 25.4	+1.1
HORT	Hortiatis	4.40	14	P	Pn	06 17 33.2	+0.6
HORT				S	Sn	06 18 25.4	+1.1
FNA	Florina	4.46	356	P	Pn	06 17 33.6	+0.2
FNA				S	Sn	06 18 26.7	+0.9
FNA	Florina	4.46	356	P	Pn	06 17 33.6	+0.2
FNA				S	Sn	06 18 26.7	+0.9
GRG	Griva	4.66	6	P	Pn	06 17 36.8	+0.7
GRG	Griva	4.66	6	P	Pn	06 17 36.8	+0.7
BIA	Bitola	4.70	356	*e*Pn	Pn	06 17 36.2	-0.5
BIA				*e*Sg	Sn	06 18 29.8	-1.9
BIA	Bitola	4.70	356	*e*Pn	Pn	06 17 36.2	-0.5
BIA				*e*Sg	Sn	06 18 29.7	-2.0
OHR	Ohrid	4.84	352	*e*Pn	Pn	06 17 38.4	-0.1
OHR				*e*Sg	Sn	06 18 33.8	-1.2
OHR	Ohrid	4.84	352	*e*Pn	Pn	06 17 38.4	-0.1
OHR				*e*Sg	Sn	06 18 33.8	-1.3
SOI	Samo	4.86	293	Pn	Pn	06 17 37.7	-1.2
SOI	Samo	4.86	293	Pn	Pn	06 17 37.7	-1.2
TIP	Timpagrande	4.87	307	Pn	Pn	06 17 38.5	-0.5
TIP	Timpagrande	4.87	307	Pn	Pn	06 17 38.5	-0.5
KNT	Kendrikon	4.92	10	P	Pn	06 17 40.8	+1.2
KNT	Kendrikon	4.92	10	P	Pn	06 17 40.8	+1.2
VAY	Valandovo	5.03	7	*e*Pn	Pn	06 17 41.1	-0.1
VAY				*e*Sg	Sn	06 18 36.3	-3.6
VAY	Valandovo	5.03	7	*e*Pn	Pn	06 17 41.1	-0.1
VAY				*e*Sg	Sn	06 18 36.2	-3.7
KRUS	Krusevo	5.05	356	*e*Pn	Pn	06 17 40.8	-0.8
KRUS	Krusevo	5.05	356	*e*Pn	Pn	06 17 40.7	-0.8
LTRZ	Laterza	5.76	319	Pn	Pn	06 17 49.2	-2.0
LTRZ	Laterza	5.76	319	Pn	Pn	06 17 49.2	-2.0
PTRP	Pietrapertosa	6.12	315	Pn	Pn	06 17 55.7	-0.4
	70nm,1.7s						
PTRP	Pietrapertosa	6.12	315	Pn	Pn	06 17 55.7	-0.4
	70nm,1.7s						

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*IDC **25** 06:17:58.6±1.2, 5°.11N×92°.80E, h0^{km}, mb3.7/9, mb1 3.9/11, mb1mx3.7/26, mbtmp3.7/11, ML4.0/2, Error ellipse: s-maj=42.5km s-min=17.8km az=50.0*

*ISCJB **25** 06:18:01.3±4.7, 5°.2N±0°.2×92°.9E±0°.3, h33^{km}±40^{km}, mb3.8/9, Error ellipse: s-maj=49.9km s-min=15.5km az=151.5*

*NEIC **25** 06:18:03.9±0.7, 5°.17N×92°.91E, h35^{km}, Error ellipse: s-maj=19.4km s-min=9.6km az=50.0*

ISC 25 06:18:05.4±3.7**, 5°.2N**±0°.2×**93°.1E**±0°.2**, h47^{km}**±31^{km}**, n13, σ0^{s}.91**/14**, mb3.8**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	6.29	112	Pn	Pn	06 19 36.5	+0.8
	0.7nm,0.3s,baz=309,slow=16,SNR=5.2						
PSI				Sn	Sn	06 20 44.9	-1.5
	1.5nm,0.3s,baz=186,slow=13,SNR=6.3						
CMAR	Chiang Mai Arr	14.32	23	Pn	Pn	06 21 26.2	+0.7
	0.5nm,0.3s,baz=214,slow=14,SNR=9.2						
SHL	Shillong	20.25	357	*e*PKP	P	06 22 36.0	-0.9
AAK	Ala-Archa	40.73	339	P	P	06 25 42.5	+0.7
	0.6nm,0.4s,mb3.5,baz=161,slow=4.6,SNR=3.9						
MKAR	Makanchi Array	42.44	349	P	P	06 25 55.5	-0.1
	0.8nm,0.7s,mb3.5,baz=176,slow=7.4,SNR=4.9						
SONM	Songino Array	43.94	13	P	P	06 26 08.7	+0.9
	0.2nm,0.4s,mb3.2,baz=224,slow=4.0,SNR=2.5						
KURK	Kurchatov	46.92	347	P	P	06 26 30.8	-0.5
	5.1nm,1.3s,mb4.3,baz=172,slow=7.3,SNR=4.5						
WRA	Warramunga Arr	47.64	123	P	P	06 26 37.3	-0.1
	0.7nm,0.7s,mb3.8,baz=300,slow=8.7,SNR=3.8						
ZALV	Zalesovo Beam	49.03	354	P	P	06 26 47.5	0.0
	0.9nm,0.4s,mb4.1,baz=163,slow=7.7,SNR=5.4						
ZALV	Zalesovo Beam	49.03	354	P	P	06 26 47.5	0.0
ASAR	Alice Springs	49.08	128	P	P	06 26 50.4	+2.0
	0.1nm,0.3s,mb3.4,baz=321,slow=3.7,SNR=4.3						
BRTR	Keskin Array B	63.38	312	P	P	06 28 29.2	-1.0
	1.3nm,0.8s,mb4.1,baz=125,slow=6.0,SNR=7.1						
GERES	GERESS Array B	79.10	319	P	P	06 30 04.3	-0.7
	0.3nm,0.2s,mb3.8,baz=94,slow=8.0,SNR=5.5						

IDC 25 06:24:16.6±13.0**, 27°.31S×178°.10W, h0^{km}, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.7**/14**, mbtmp3.7**/3**, Error ellipse: s-maj=272.4km s-min=34.1km az=55.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.94	175	Pn	Pn	06 24 51.0	+0.1
	212nm,0.3s,baz=133,slow=1.3,SNR=12						
RAO				Sn	Sn	06 25 09.4	-6.6
	327nm,0.3s,baz=86,slow=22,SNR=11						
STKA	Stephens Creek	35.20	253	P	P	06 31 12.2	-0.4
	0.7nm,0.4s,baz=79,slow=10,SNR=3.8						
ASAR	Alice Springs	43.28	264	P	P	06 32 20.5	+0.3
	0.3nm,0.5s,baz=95,slow=7.5,SNR=4.2						
WRA	Warramunga Arr	43.98	269	P	P	06 32 25.8	-0.1
	0.6nm,0.5s,baz=109,slow=7.8,SNR=7.1						

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*IDC **25** 06:38:27.3±0.8, 11°.17N×86°.53W, h0^{km}, mb4.1/10, mb1 4.3/11, mb1mx4.1/23, mbtmp4.1/11, ML4.0/1, MS4.0/12, Ms1 3.9/12, ms1mx3.7/28, Error ellipse: s-maj=29.9km s-min=14.4km az=45.0*

*ISCJB **25** 06:38:30.0±0.5, 10°.87N±0°.04×86°.78W±0°.04, h41^{km}±4^{km}, mb4.4/38, MS4.0/10, Error ellipse: s-maj=9.3km s-min=3.4km az=39.4*

*CASC **25** 06:38:30.6±1.9, 10°.87N×86°.78W, h36^{km}±8^{km}, MD4.3, ML3.6, mb4.7(NEIC)*

*NEIC **25** 06:38:32.3±1.1, 11°.03N×86°.61W, h37^{km}±10^{km}, mb4.7/33, Error ellipse: s-maj=13.2km s-min=8.2km az=45.0*

ISC 25 06:38:31.6±1.3**, 10°.93N**±0°.04×**86°.71W**±0°.04**, h35^{km}**±10^{km}**, n116, σ0^{s}.92**/107**, mb4.4**/38**, MS4.0**/10**, 1D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSN	San Juan del S	0.92	66	*e*P	Pn	06 38 47.8	-0.2
CRUN	El Crucero	1.12	21	*e*P	Pn	06 38 52.1	+1.2
APON	Apoyo	1.17	33	*e*P	Pn	06 38 52.2	+0.7
MASN	Masaya	1.19	28	*e*P	Pn	06 38 51.6	-0.1
TICN	Ticuantepe	1.20	23	*e*P	Pn	06 38 52.3	+0.5
CONN	Concepcion	1.24	59	*e*P	Pn	06 38 52.8	+0.4
GBS3	Finca Las Imˆ¡	1.24	97	*i* P	Pn	06 38 51.5	-1.0
COPN	Copaltepe	1.25	5	*e*P	Pn	06 38 52.5	-0.1
CSAN		1.28	13	*e*P	Pn	06 38 52.9	-0.1
TISN	Laguna Tiscapa	1.28	20	*e*P	Pn	06 38 52.3	-0.8
MGAN	Managua	1.29	21	*e*P	Pn	06 38 53.4	+0.2
MGAN				AML	AML	06 39 01.8	
	comp=N,2µm,0.3s						
GB1A	Borinquen Arri	1.30	95	*i* P	Pn	06 38 52.6	-0.6
WILN	Americas 2	1.33	23	*e*P	Pn	06 38 53.7	0.0
VCR	Vista de Mar	1.33	127	*e*P	Pn	06 38 50.8	-2.8
GPS3	Bodega del ICE	1.33	97	*i* P	Pn	06 38 52.8	-1.0
LIM1	Limonal	1.45	99	*i* P	Pn	06 38 54.6	-0.7
HUEN		1.50	21	*e*P	Pn	06 38 56.1	+0.1
MIRN	Miramar	1.50	0	*e*P	Pn	06 38 56.0	-0.1
CNGN	Cerro Negro	1.56	1	*e*P	Pn	06 38 57.0	+0.2
PTEN	Parque Tenorio	1.71	97	*i* P	Pn	06 39 00.1	+1.3
CRIN	San Cristobal	1.79	349	*e*P	Pn	06 38 59.8	-0.2
BOAB	BOACO BROADBAN	1.83	34	*e*P	Pn	06 39 00.7	+0.1
JTS	JuntasAbangare	1.84	110	Pn	Pn	06 38 59.5	-1.3
	comp=N,14nm,0.3s,baz=309,slow=22,SNR=112						
JTS				Sn	Sn	06 39 23.6	+0.8
	comp=N,102nm,0.3s,baz=308,slow=17,SNR=10						
JTS	JuntasAbangare	1.84	110	*e*Pn	Pn	06 38 59.5	-1.3
JTS	JuntasAbangare	1.84	110	*e*P	Pn	06 39 00.8	+0.1
JCR	Jicaral	1.91	124	*e*P	Pn	06 38 59.3	-2.3
FORC	Fortuna	2.06	103	*e*P	Pn	06 39 03.7	0.0
CGA2	Cerro Gallo 2	2.39	112	*e*P	Pn	06 39 07.9	-0.4
PRS1	Puriscal	2.54	111	*e*P	Pn	06 39 11.8	+1.4
CNCH	Conchagua	2.58	335	*e*P	Pn	06 39 10.6	-0.2
LAJ	Bijagual	2.76	112	⇓*e*P	Pn	06 39 09.4	-4.0
BLLM	Bellamira	2.91	329	*e*P	Pn	06 39 14.4	-1.0
LCR2	La Lucha 2	2.92	114	*e*P	Pn	06 39 15.4	-0.1
VSM	San Miguel	2.92	329	*e*P	Pn	06 39 15.7	+0.2
URSC	Urasca	3.08	110	*e*P	Pn	06 39 19.9	+2.1
TGUH	Tegucigalpa,Un	3.16	350	*e*Pn	Pn	06 39 19.4	+0.6
TGUH	Tegucigalpa,Un	3.16	350	*e*P	Pn	06 39 19.2	+0.4
CAHU	Cacacuatique	3.18	333	*e*P	Pn	06 39 19.6	+0.4
BUS	Buena Vista	3.21	115	*e*P	Pn	06 39 20.3	+0.7
SNVI	San Vicente	3.38	322	*e*P	Pn	06 39 22.1	+0.2
SNVI				*e*S	Sn	06 40 00.5	-0.3
LFRS	El Faro	3.53	320	*e*P	Pn	06 39 22.8	-1.1
LBRS	Las Brisas	3.60	321	*e*P	Pn	06 39 24.5	-0.5
LBRS				*e*S	Sn	06 40 07.2	+0.8
SNET	Serv Nac Est T	3.68	318	*e*P	Pn	06 39 25.7	-0.4
SNET				*e*S	Sn	06 40 08.3	0.0
BAR1		3.75	116	*e*P	Pn	06 39 26.8	-0.1
BOQS	Boqueron	3.75	318	*e*P	Pn	06 39 26.6	-0.4
BOQS				*e*S	Sn	06 40 10.8	+0.8
SBLS	San Blas	4.06	316	*e*P	Pn	06 39 31.3	+0.1
RTR	El Retiro	4.11	316	*e*P	Pn	06 39 32.2	+0.2
ACR	Cerro Adams	4.16	123	*e*P	Pn	06 39 32.9	+0.2
RBDL	Robledal	4.29	318	*e*P	Pn	06 39 33.8	-0.7
BRU2	Volcan	4.50	118	*e*P	Pn	06 39 38.7	+1.5
TEIG	Tepich	9.37	351	Pn	Pn	06 40 44.1	-0.1
	comp=N,0.1nm,0.3s,baz=106,slow=21,SNR=2.1						
TEIG	Tepich	9.37	351	Pn	Pn	06 40 44.1	-0.1
CMIG	Matias Romero	10.02	309	Pn	Pn	06 40 53.9	+0.8
	comp=N,1.4nm,0.3s,baz=125,slow=11,SNR=22						
ROSC	El Rosal	13.66	115	LR	LR	06 47 15.9	
	comp=N,230nm,18.5s,baz=338,slow=39						
SDV	Santo Domingo	15.97	96	Pn	Pn	06 42 15.6	+1.8
	comp=N,0.5nm,0.3s,baz=333,slow=7.4,SNR=12						
SDV	Santo Domingo	15.97	96	*e*Pn	Pn	06 42 18.4	+4.6
	comp=N,16nm,1.1s						
ATAH	Atahualpa	19.64	155	LR	LR	06 49 41.7	
	comp=N,462nm,19.8s,baz=337,slow=34						
BRAL	Brewton	19.99	359	*e*P	Pn	06 43 04.2	+1.3
	comp=N,118nm,1.5s						
HKT	Hockley	20.75	337	*e*P	P	06 43 09.5	+0.2
	comp=N,106nm,1.8s						
VBMS	Vicksburg	21.48	351	*e*P	P	06 43 18.1	+0.9
	comp=N,52nm,0.6s,mb5.0						
PCRV	Puerto La Cruz	21.72	90	P	P	06 43 20.7	+0.8
	comp=N,12nm,0.6s,mb4.5,baz=180,slow=8.4,SNR=7.5						
NATX	Nacogdoches	21.99	342	*e*P	P	06 43 23.2	+0.5
	comp=N,27nm,0.8s,mb4.7						
GOGA	Godfrey	22.57	7	*e*P	P	06 43 29.6	+0.7
	comp=N,60nm,1.7s,mb4.8						
JCT	Junction City	22.95	330	*e*P	P	06 43 30.9	-1.9
	comp=N,13nm,1.2s,mb4.2						
JSC	Jenkinsville	23.77	11	*e*P	P	06 43 41.6	+0.6
PLAL	Pickwick Lake	23.98	357	*e*P	P	06 43 42.5	-0.3
	comp=N,13nm,1.0s,mb4.3						
SWET	Sewanee	24.19	2	*e*P	P	06 43 44.1	-0.6
TXAR	Lajitas Array	24.20	322	P	P	06 43 45.6	+0.6
	comp=N,5.4nm,0.9s,mb4.0,baz=136,slow=9.2,SNR=48						
TXAR				PcP	PcP	06 47 28.4	+3.2
	comp=N,1.2nm,1.0s,baz=151,slow=6.4,SNR=4.8						
TXAR				ScP	ScP	06 51 08.3	+7.0
	comp=N,0.4nm,0.8s,baz=134,slow=3.6,SNR=3.9						
MIAR	Mount Ida	24.33	346	*e*P	P	06 43 45.9	-0.2
	comp=N,15nm,1.1s,mb4.3						
CPCT	Cooper Cave	24.49	4	*e*P	P	06 43 47.7	+0.2
TKL	Tuckaleechee C	24.76	6	P	P	06 43 49.8	-0.2
	comp=N,9.8nm,0.9s,mb4.3,baz=162,slow=8.9,SNR=11						
WVT	Waverly	25.11	358	*e*P	P	06 43 53.8	+0.6
	comp=N,40nm,1.9s,mb4.6						
LPIG	La Paz	25.98	303	LR	LR	06 55 26.1	
	comp=N,266nm,18.7s,MS3.8,baz=260,slow=39						
WMOK	Wichita Mounta	26.13	337	*e*P	P	06 44 03.5	+1.1
	comp=N,34nm,1.2s,mb4.8						
WCI	Wyandotte Cave	27.19	1	*e*P	P	06 44 10.9	-1.0
	comp=N,16nm,1.1s,mb4.5						
CCM	Cathedral Cave	27.32	352	*e*P	P	06 44 10.8	-2.3
	comp=N,12nm,1.1s,mb4.3						
AMTX	Amarillo	27.47	333	*e*P	P	06 44 14.9	+0.4
	comp=N,11nm,0.8s,mb4.5						
ACSO	Alum Creek Sta	29.37	6	*e*P	P	06 44 30.7	-0.6
	comp=N,10nm,0.9s,mb4.6						
HDIL	Hopedale	29.60	356	*e*P	P	06 44 28.4	-5.0
	comp=N,32nm,1.4s,mb4.9						
ANMO	Albuquerque	29.92	326	P	P	06 44 37.2	+0.9
	comp=N,1.2nm,0.7s,mb3.7,baz=170,slow=10,SNR=6.6						
MVL	Millersville	30.38	16	*e*P	P	06 44 40.6	+0.3
	comp=N,13nm,1.0s,mb4.6						
SSPA	Standing Stone	30.60	13	*e*P	P	06 44 42.1	-0.1
	comp=N,19nm,1.2s,mb4.8						
ERPA	Erie	31.62	10	*e*P	P	06 44 50.4	-0.8
	comp=N,21nm,0.8s,mb5.0						
BINY	Binghamton	32.53	15	*e*P	P	06 44 58.9	-0.3
	comp=N,12nm,0.8s,mb4.9						
ECSD	EROS Data Cent	33.79	347	*e*P	P	06 45 08.3	-1.9
	comp=N,16nm,1.4s,mb4.8						
LONY	Lake Ozonia	35.16	15	*e*P	P	06 45 21.0	-1.0
	comp=N,212nm,3.0s						
SRU	San Rafael	35.18	327	*e*P	P	06 45 22.9	+0.6
	comp=N,8.8nm,1.2s,mb4.6						
MPU	Maple Canyon	36.42	327	*e*P	P	06 45 33.6	+0.7
	comp=N,15nm,1.3s,mb4.8						
DAU	Daniels Canyon	36.51	328	*e*P	P	06 45 35.1	+1.5
	comp=N,3.2nm,0.8s,mb4.2						
PDAR	Pinedale Array	37.45	332	P	P	06 45 40.9	-0.7
	comp=N,1.4nm,0.7s,mb3.9,baz=128,slow=12,SNR=12						
PDAR				ScP	ScP	06 51 50.3	+5.8
	comp=N,0.5nm,0.9s,baz=145,slow=5.4,SNR=4.2						
BW06	Boulder Array	37.45	332	*e*P	P	06 45 47.5	+6.0
	comp=N,23nm,2.1s,mb4.7						
AGMN	Agassiz Refuge	38.03	350	*e*P	P	06 45 44.5	-1.9
	comp=N,17nm,1.3s,mb4.6						
REDW	Red Top Meadow	38.51	331	*e*P	P	06 45 50.8	+0.2
	comp=N,25nm,1.5s,mb4.7						
SNOW	Snow King Moun	38.54	332	*e*P	P	06 45 51.2	+0.4
	comp=N,9.7nm,1.1s,mb4.5						
LOHW	Long Hollow	38.59	332	*e*P	P	06 45 52.5	+1.3
	comp=N,69nm,3.0s						
TPAW	Teton Pass	38.65	331	*e*P	P	06 45 55.3	+3.5
	comp=N,7.2nm,1.1s,mb4.3						
NVAR	Mina Array Bea	39.32	320	P	P	06 45 57.8	+0.4
	comp=N,0.8nm,0.7s,mb3.5,baz=128,slow=7.2,SNR=6.4						
NVAR				PcP	PcP	06 48 08.1	+2.4
	comp=N,1.0nm,0.7s,baz=138,slow=3.4,SNR=4.7						
ULM	Lac du Bonnet	39.93	351	P	P	06 46 00.1	-2.2
	comp=N,8.4nm,1.1s,mb4.4,baz=168,slow=6.5,SNR=6.8						
MCMT	McKenzie Canyo	40.56	331	*e*P	P	06 46 08.8	+1.2
	comp=N,3.3nm,1.1s,mb3.9						
HOOD	Mount Hood Mea	45.45	325	*e*P	P	06 46 48.0	+0.8
	comp=N,18nm,1.1s,mb4.8						
SCHQ	Schefferville	46.53	16	P	P	06 46 53.0	-2.5
	comp=N,1.8nm,0.5s,mb4.2,baz=217,slow=6.1,SNR=12						
SCHQ				LR	LR	07 07 14.8	
	comp=N,209nm,20.3s,MS4.1,baz=18,slow=37						
SCHQ	Schefferville	46.53	16	P	P	06 46 53.0	-2.5
SCHQ				LR	LR	07 07 14.8	
CPUP	Villa Florida	46.77	143	LR	LR	07 08 36.4	
	comp=N,76nm,20.8s,MS3.6,baz=53,slow=39						
PLCA	Paso Flores	53.53	165	P	P	06 47 49.2	+0.5
	comp=N,0.7nm,0.7s,mb3.7,baz=8.7,slow=14,SNR=4.3						
YKA	Yellowknife Ar	55.26	345	P	P	06 47 59.3	-1.7
	comp=N,1.4nm,1.0s,mb3.9,baz=138,slow=7.5,SNR=16						
YKA				PcP	PcP	06 49 03.5	+1.9
	comp=N,0.2nm,0.5s,baz=146,slow=4.3,SNR=4.7						
YKA				LR	LR	07 16 36.3	
	comp=N,105nm,20.2s,MS3.9,baz=145,slow=42						
YKA	Yellowknife Ar	55.26	345	P	P	06 47 59.4	-1.7
YKA				PcP	PcP	06 49 03.5	+1.9
YKA				LR	LR	07 16 36.3	
DBIC	Dimbokro	80.80	85	LR	LR	07 22 56.3	
	comp=N,66nm,20.3s,MS4.0,baz=221,slow=33						
NOA	NORSAR Array B	84.34	29	LR	LR	07 30 19.3	
	comp=N,106nm,18.0s,MS4.3,baz=115,slow=37						
TORD	Torodi Ar. Bea	86.03	77	LR	LR	07 26 21.8	
	comp=N,62nm,18.3s,MS4.0,baz=285,slow=34						
KEST	Kesra	88.56	54	LR	LR	07 25 19.7	
	comp=N,31nm,20.4s,MS3.7,baz=258,slow=32						
FINES	FINESS Array B	91.01	26	LR	LR	07 35 50.2	
	comp=N,186nm,18.4s,MS4.6,baz=356,slow=38						
AKASG	Malin Array Be	97.34	35	LR	LR	07 35 30.5	
	comp=N,105nm,19.1s,MS4.3,baz=320,slow=35						
KSRS	Korea Array	121.94	328	PKP	PKPdf	06 57 22.8	+0.1
	comp=N,1.3nm,0.7s,baz=253,slow=1.3,SNR=5.4						
ASAR	Alice Springs	139.35	246	PKP	PKPdf	06 57 58.5	+2.5
	comp=N,0.3nm,0.6s,baz=111,slow=2.1,SNR=4.4						
WRA	Warramunga Arr	139.52	252	PKP	PKPdf	06 57 59.2	+2.9
	comp=N,0.6nm,0.7s,baz=93,slow=2.6,SNR=5.1						
CMAR	Chiang Mai Arr	150.27	349	PKPbc	PKPbc	06 58 19.8	-0.2
	comp=N,3.8nm,1.1s,baz=311,slow=2.2,SNR=11						
CMAR				PKPab	PKPab	06 58 26.1	0.0
	comp=N,1.1nm,0.3s,baz=326,slow=3.1,SNR=6.0						

DJA 25 06:46:51, 10°.33S×107°.72E, h30^{km}, MLv4.3/4**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	Christmas Isla	2.04	266	P	Pn	06 47 23.4	+0.1
XMIS				S	Sn	06 47 47.0	-0.8
LEM	Lembang	3.48	358	P	Pn	06 47 46.5	+3.3
UGM	Wanagama	3.67	49	P	Pn	06 47 47.8	+2.1
UGM				S	Sn	06 48 28.5	+0.6
CBJI	Citeko	3.98	347	P	Pn	06 47 48.7	-1.3
PWJI	Pagerwojo	4.64	61	P	Pn	06 48 02.3	+3.2
PWJI				S	Sn	06 48 52.0	0.0
GMJI	Gumukmas	6.01	71	P	Pn	06 48 23.9	+6.0
GMJI				S	Sn	06 49 24.2	-1.5
TPI	Tanjungpandan	7.53	359	P	Pn	06 48 34.0	-4.8

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*IDC **25** 06:58:06.6±0.9, 0°.31S×124°.72E, h0^{km}, mb3.9/8, mb1 4.0/8, mb1mx3.9/21, mbtmp3.9/8, Error ellipse: s-maj=161.4km s-min=15.9km az=65.0*

*ISCJB **25** 06:58:14.1±0.6, 0°.18S±0°.08×125°.13E±0°.07, h79^{km}±7^{km}, mb3.8/8, Error ellipse: s-maj=16.1km s-min=7.2km az=36.7*

*DJA **25** 06:58:14, 0°.16S×125°.24E, h30^{km}, MLv4.1/5*

ISC 25 06:58:14.8±0.6**, 0°.23S**±0°.08×**125°.09E**±0°.07**, h66^{km}**±8^{km}**, n13, σ0^{s}.84**/17**, mb3.8**/8**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMSI	Cibinong	1.37	306	P	Pn	06 58 37.0	-0.9
KMSI				S	Sn	06 58 55.2	-0.1
MNI	Manado	1.68	351	P	Pn	06 58 42.9	+0.7
LBMI	Labuha	2.44	99	P	Pn	06 58 51.9	-0.5
LBMI				S	Sn	06 59 21.3	0.0
APSI	Ampana	3.51	259	P	Pn	06 59 11.4	+4.5
APSI				S	Sn	06 59 57.3	+10
NLAI	Namlea	3.60	146	P	Pn	06 59 10.2	+2.0
NLAI				S	Sn	06 59 48.3	-1.2
WRA	Warramunga Arr	21.58	156	P	P	07 02 57.8	-1.4
	1.4nm,0.8s,mb3.4,baz=334,slow=11,SNR=3.7						
ASAR	Alice Springs	24.82	160	P	P	07 03 31.5	+0.6
	0.6nm,0.5s,mb3.3,baz=339,slow=7.3,SNR=10						
STKA	Stephens Creek	35.13	155	P	P	07 05 03.1	+1.0

	2.9nm,0.6s,mb4.3,baz=320,slow=7.9,SNR=10						
SONM	Songino Array	50.56	344	P	P	07 07 06.8	+0.2
	0.6nm,0.6s,mb3.8,baz=161,slow=9.3,SNR=6.2						
MKAR	Makanchi Array	59.92	327	P	P	07 08 13.7	-0.2
	1.2nm,0.4s,mb4.3,baz=124,slow=8.2,SNR=32						
ZALV	Zalesovo Beam	63.40	335	P	P	07 08 37.0	-0.2
	0.3nm,0.3s,mb3.7,baz=151,slow=6.6,SNR=2.6						
KURK	Kurchatov	64.23	329	P	P	07 08 42.7	0.0
	1.3nm,0.6s,mb3.9,baz=134,slow=6.6,SNR=7.9						
AKTO	Aktyubinsk	75.76	323	P	P	07 09 53.0	-0.4
	1.4nm,0.6s,mb3.9,baz=90,slow=7.7,SNR=8.8						

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*ISCJB **25** 07:04:54.8±4.3, 6°.8S±0°.2×128°.7E±0°.4, h7^{km}±26^{km}, mb3.6/5, Error ellipse: s-maj=73.2km s-min=11.5km az=161.7*

*IDC **25** 07:04:55.1±1.1, 6°.77S×128°.71E, h0^{km}, mb3.9/4, mb1 3.9/6, mb1mx3.8/16, mbtmp3.7/6, ML3.7/2, MS3.1/2, Ms1 3.1/2, ms1mx2.9/30, Error ellipse: s-maj=66.0km s-min=15.5km az=72.0*

ISC 25 07:04:57.7±5.4, 6°.8S±0°.1×128°.6E±0°.4, h15^{km}±34^{km}, n9, σ0^s.97/9, mb3.6/5, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	9.01	281	LR	LR	07 10 56.8	
	comp=Z,173nm,18.9s,baz=302,slow=40						
FITZ	Fitzroy Crossi	11.60	194	LR	LR	07 12 45.1	
	comp=Z,78nm,21.9s,baz=45,slow=40						
WRA	Warramunga Arr	14.19	158	Pn	Pn	07 08 16.7	-1.5
	0.3nm,0.3s,baz=346,slow=13,SNR=8.5						
WRA				Sn	Sn	07 10 55.2	-0.2
	0.6nm,0.3s,baz=334,slow=19,SNR=5.4						
ASAR	Alice Springs	17.51	164	P	Pn	07 09 02.8	+1.3
	0.3nm,0.3s,baz=349,slow=10.0,SNR=12						
ASAR				S	Sn	07 12 16.3	-0.1
	0.2nm,0.3s,baz=336,slow=20,SNR=4.5						
STKA	Stephens Creek	27.73	156	P	P	07 10 46.8	+1.1
	1.1nm,0.6s,mb3.7,baz=343,slow=7.3,SNR=4.3						
MJAR	Matsushiro Arr	44.05	11	P	P	07 13 04.9	-0.1
	1.2nm,0.8s,mb3.7,baz=188,slow=12,SNR=4.1						
SONM	Songino Array	57.84	342	P	P	07 14 52.1	+3.5
	0.2nm,0.5s,mb3.4,baz=156,slow=7.8,SNR=3.6						
MKAR	Makanchi Array	67.32	327	P	P	07 15 51.4	-0.7
	0.4nm,0.5s,mb3.7,baz=116,slow=8.2,SNR=5.6						
KURK	Kurchatov	71.65	329	P	P	07 16 18.3	-0.4
	0.4nm,0.5s,mb3.6,baz=130,slow=4.9,SNR=2.8						

CASC 25 07:17:53.8±2.6, 10°.92N×86°.70W, h20^{km}±9^{km}, MD4.0, ML2.8, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSN	San Juan del S	0.92	65	eP	Pb	07 18 11.4	+0.4
APON	Apoyo	1.17	32	eP	Pn	07 18 15.7	+0.5
APON				AML	AML	07 18 26.8	
	comp=Z,102nm,0.3s						
TICN	Ticuantepe	1.20	22	eP	Pn	07 18 15.7	+0.2
GBS3	Finca Las Imˆ¡	1.23	96	i P	Pn	07 18 15.1	-0.8
GBS3				i S	Sb	07 18 30.6	-1.2
CONN	Concepcion	1.24	58	eP	Pn	07 18 15.9	0.0
COPN	Copaltepe	1.26	5	eP	Pn	07 18 15.7	-0.6
COPN				AML	AML	07 18 40.4	
	comp=Z,237nm,0.4s						
CSAN		1.29	12	eP	Pn	07 18 16.1	-0.6
MGAN	Managua	1.30	20	eP	Pn	07 18 16.7	-0.2
MGAN				eS	Sn	07 18 35.7	+2.0
WILN	Americas 2	1.34	22	eP	Pn	07 18 16.5	-0.8
LIM1	Limonal	1.44	98	i P	Pn	07 18 18.1	-0.7
COLC	Colonia	1.49	99	i P	Pn	07 18 18.2	-1.3
MOMN	Momotombo	1.49	6	eP	Pn	07 18 19.0	-0.5
HUEN		1.50	20	eP	Pn	07 18 19.3	-0.4
MIRN	Miramar	1.52	360	eP	Pn	07 18 19.1	-0.7
JTS	JuntasAbangare	1.83	110	eP	Pn	07 18 23.1	-1.0
BOAB	BOACO BROADBAN	1.83	33	eP	Pn	07 18 23.8	-0.4
BOAB				eS	Sn	07 18 48.7	+1.9
JCR	Jicaral	1.89	124	eP	Pn	07 18 29.5	+4.5
FORC	Fortuna	2.04	102	eP	Pn	07 18 31.9	+4.8
CGA2	Cerro Gallo 2	2.37	112	eP	Pn	07 18 31.5	-0.1
PRS1	Puriscal	2.52	111	eP	Pn	07 18 35.9	+2.2
PRS1				eS	Sn	07 19 06.1	+2.2
LAJ	Bijagual	2.74	112	eP	Pn	07 18 33.1	-3.6
LCR2	La Lucha 2	2.90	113	eP	Pn	07 18 39.6	+0.8
TGUH	Tegucigalpa,Un	3.17	350	eP	Pn	07 18 41.8	-0.8
TGUH				eS	Sn	07 19 19.4	-0.6
BUS	Buena Vista	3.19	115	eP	Pn	07 18 45.3	+2.4
BAR1		3.73	116	eP	Pn	07 18 52.4	+2.1
BAR1				eS	Sn	07 19 33.1	-0.5
ACR	Cerro Adams	4.14	123	eP	Pn	07 18 56.8	+0.8

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*CASC **25** 07:19:17.5±2.8, 12°.13N×90°.66W, h18^{km}±102^{km}, MD3.9, mb4.7(NEIC)*

*ISCJB **25** 07:19:24.6±0.5, 14°.14N±0°.08×89°.69W±0°.07, h202^{km}±4^{km}, mb3.9/6, Error ellipse: s-maj=15.9km s-min=7.4km az=37.5*

*NEIC **25** 07:19:26.3±1.1, 14°.26N×89°.73W, h192^{km}±14^{km}, mb4.3/2, Error ellipse: s-maj=25.1km s-min=11.6km az=219.0*

*IDC **25** 07:19:26.8±1.7, 14°.33N×89°.70W, h197^{km}±19^{km}, mb3.5/5, mb1 3.6/9, mb1mx3.4/23, mbtmp3.4/9, Error ellipse: s-maj=32.1km s-min=15.8km az=35.0*

ISC 25 07:19:25.5±0.5, 14°.13N±0°.08×89°.67W±0°.07, h196^{km}±4^{km}, n35, σ0^s.68/41, mb3.9/6, 3C-3D, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RBDL	Robledal	0.02	212	eP	Pn	07 19 50.6	-0.7
RTR	El Retiro	0.24	173	eP	Pn	07 19 51.0	-0.5
SNJE	San Jose	0.27	166	eP	Pn	07 19 51.0	-0.6
SBLS	San Blas	0.30	170	eP	Pn	07 19 51.0	-0.6
MTO2	Montecristo 2	0.40	49	⇑iP	Pn	07 19 51.5	-0.3
BOQS	Boqueron	0.55	136	eP	Pn	07 19 52.1	-0.3
SNET	Serv Nac Est T	0.62	136	eP	Pn	07 19 51.8	-0.9
SNET				eS	Sn	07 20 18.3	+4.6
LFU	La Fuente	0.66	125	eP	Pn	07 19 52.7	-0.2
LBRS	Las Brisas	0.73	123	eP	Pn	07 19 53.0	-0.2
LBRS				eS	Sn	07 20 21.3	+6.7
LFRS	El Faro	0.78	130	eP	Pn	07 19 53.2	-0.3
LFRS				eS	Sn	07 20 20.3	+5.2
NBG	Las Nubes	0.79	305	⇑eP	Pn	07 19 54.4	+0.8
MRL	Marmol	0.93	359	⇓iP	Pn	07 19 55.2	+0.8
MRL				eS	Sn	07 20 17.3	+0.4
PCG	Pacaya	0.94	286	⇓eP	Pn	07 19 54.9	+0.4
SNVI	San Vicente	0.96	122	eP	Pn	07 19 54.7	+0.1
PSG	Pto de San Jos	1.10	261	⇓eP	Pn	07 19 55.8	+0.2
FUG	Fuego 3	1.18	286	eP	Pn	07 19 56.1	0.0
FG6		1.25	290	eP	Pn	07 19 56.7	0.0
TP2	Tecpan 2	1.46	297	⇑eP	Pn	07 19 59.5	+1.0
BLLM	Bellamira	1.56	116	eP	Pn	07 20 00.5	+1.1
JAT	Jato	1.91	276	eP	Pn	07 20 02.7	-0.2
CNCH	Conchagua	1.98	115	eP	Pn	07 20 03.8	+0.3
CMIG	Matias Romero	5.82	301	P	Pn	07 20 49.6	-0.7
	0.2nm,0.3s,baz=109,slow=14,SNR=12						
CMIG				S	Sn	07 21 50.5	-6.9
	1.5nm,0.3s,baz=88,slow=24,SNR=10						
JTS	JuntasAbangare	5.99	129	P	Pn	07 20 54.0	+1.4
	4.8nm,0.3s,baz=321,slow=17,SNR=6.6						
JTS				S	Sn	07 22 01.2	-0.3
	5.3nm,0.3s,baz=305,slow=22,SNR=9.0						
TEIG	Tepich	6.21	12	P	Pn	07 20 54.6	-0.7
	2.5nm,0.3s,baz=233,slow=1.8,SNR=22						
TEIG	Tepich	6.21	12	ePn	Pn	07 20 54.6	-0.7
JCT	Junction City	18.75	332	eP	P	07 23 29.9	+0.1
	3.2nm,0.8s						
SDV	Santo Domingo	19.37	104	P	P	07 23 40.7	+4.2
	0.4nm,0.3s,baz=331,slow=6.9,SNR=7.1						
TXAR	Lajitas Array	19.91	322	P	P	07 23 43.4	+1.1
	0.2nm,0.3s,baz=141,slow=10,SNR=17						
TKL	Tuckaleechee C	22.08	13	P	P	07 24 05.0	+0.4
	2.8nm,0.5s,mb4.0,baz=174,slow=10,SNR=10						
SIUC	Southern Illin	23.49	1	eP	P	07 24 18.7	+1.2
	17nm,0.8s,mb4.6						
PDAR	Pinedale Array	33.28	333	P	P	07 25 44.4	0.0
	0.4nm,0.6s,mb3.1,baz=128,slow=12,SNR=4.4						
ULM	Lac du Bonnet	36.37	353	P	P	07 26 09.3	-1.3
	1.8nm,0.5s,mb3.9,baz=173,slow=9.9,SNR=4.3						
SCHQ	Schefferville	44.34	19	P	P	07 27 15.1	-0.9
	3.0nm,0.4s,mb4.0,baz=213,slow=6.6,SNR=25						
YKA	Yellowknife Ar	51.44	346	P	P	07 28 09.5	-0.7
	1.3nm,0.7s,mb3.5,baz=144,slow=7.7,SNR=32						
YKA				pP	pP	07 28 55.5	+1.6
	0.2nm,0.7s,baz=141,slow=8.4,SNR=4.1						
YKA	Yellowknife Ar	51.44	346	P	P	07 28 09.6	-0.7
YKA				pP	pP	07 28 55.5	+1.6

CASC 25 07:22:59.8±2.3, 8°.98N×83°.94W, h6^{km}±13^{km}, MD3.9, 2C-6D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUS	Buena Vista	0.60	18	⇓iP	Pg	07 23 11.5	+0.1
BAR1		0.68	67	⇑iP	Pg	07 23 12.9	+0.1
BAR1				eS	Sg	07 23 23.6	+2.0
LCR2	La Lucha 2	0.76	355	⇓iP	Pg	07 23 14.0	-0.5
ACR	Cerro Adams	0.83	113	eP	Pg	07 23 15.2	-0.6
ACR				eS	Sg	07 23 29.0	+2.4
URSC	Urasca	0.87	11	⇓iP	Pg	07 23 15.8	-0.7
URSC				eS	Sg	07 23 27.9	+0.2
LAJ	Bijagual	0.90	349	⇓iP	Pg	07 23 17.5	+0.4
LAJ				eS	Sg	07 23 32.1	+3.4
SJS	Escuela Geolog	0.96	353	eP	Pg	07 23 17.6	-0.7
PRS1	Puriscal	1.06	340	⇓eP	Pg	07 23 17.7	-2.6
CGA2	Cerro Gallo 2	1.15	333	⇓eP	Pg	07 23 20.9	-1.1
CGA2				eS	Sg	07 23 37.2	+0.2
LIO	Limon	1.36	41	eP	Pn	07 23 24.2	-1.1
JCR	Jicaral	1.44	307	eP	Pn	07 23 26.4	0.0
CNI	Changuinola	1.47	73	⇑iP	Pn	07 23 26.6	-0.2
CNI				eS	Sn	07 23 47.0	+0.6
FORC	Fortuna	1.64	334	eP	Pn	07 23 28.6	-0.6
FORC				eS	Sn	07 23 50.8	+0.2
CHPA	Chiripa	1.74	327	i P	Pn	07 23 29.6	-0.9
CHPA				i S	Sn	07 23 55.0	+2.0
AMAS	Alto Masis	1.93	328	i P	Pn	07 23 32.0	-1.0
PTEN	Parque Tenorio	2.01	329	i P	Pn	07 23 35.2	+1.0

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*IDC **25** 07:25:02.0±0.6, 33°.71N×74°.78E, h0^{km}, mb4.3/16, mb1 4.4/20, mb1mx4.2/30, mbtmp4.3/20, ML3.9/4, MS3.3/1, Ms1 3.3/1, ms1mx2.5/41, Error ellipse: s-maj=17.3km s-min=13.3km az=65.0*

*BJI **25** 07:25:03.1, 33°.80N×74°.65E, h28^{km}, mB4.5/2, mb4.3/5, ML4.2/4, Ms3.9/1*

*NDI **25** 07:25:04.6±3.5, 33°.97N×74°.59E, h28^{km}, ML4.2, mb4.3(NEIC)*

*ISCJB **25** 07:25:05.0±0.5, 33°.76N±0°.02×74°.96E±0°.04, h33^{km}±6^{km}, mb4.3/19, Error ellipse: s-maj=6.0km s-min=2.9km az=160.6*

*MOS **25** 07:25:05.1±1.2, 33°.80N×74°.94E, h32^{km}, mb4.4/6, Error ellipse: s-maj=12.0km s-min=7.0km az=96.5*

*NEIC **25** 07:25:06.4±1.8, 33°.71N×74°.94E, h28^{km}±13^{km}, mb4.3/3, Error ellipse: s-maj=11.0km s-min=4.4km az=56.0*

*NNC **25** 07:25:06.6±7.3, 34°.22N×74°.03E, h0^{km}, mb3.8, mpv3.2, Error ellipse: s-maj=78.0km s-min=40.6km az=35.0*

ISC 25 07:25:07.5±0.3, 33°.76N±0°.02×74°.91E±0°.04, h38^{km}±5^{km}, n99, σ1^s.38/126, mb4.3/19, 9C-5D, Southwestern Kashmir

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMU	Jammu	1.04	180	ePKP	Pn	07 25 23.0	-2.6
JMU				eS	Sn	07 25 37.5	-1.4
THN	Thein Dam	1.49	153	ePKP	Pn	07 25 33.5	+1.8
THN				eS	Sn	07 25 55.4	+5.5
DLH	Dalhousie	1.51	144	ePKP	Pn	07 25 36.0	+4.0
DLH				ex	x	07 26 00.0	
CEP	Cherat	2.50	272	⇑P	Pn	07 25 47.2	+1.6
CEP				S	Sn	07 26 21.0	+6.1
SARP	Sargodha	2.63	226	P	Sn	07 26 25.0	+6.9
BHK	Bhakra	2.66	151	ePKP	Pn	07 25 52.0	+4.1
BHK				ex	x	07 26 27.0	
SDNR	Sundarnagar	2.85	142	ePKP	Pn	07 25 52.0	+1.6
SDNR				eS	Sn	07 26 29.0	+5.5
DDI	Dehra Dun	4.35	141	ex	x	07 26 31.1	
DDI				eS	Sn	07 27 03.1	+2.7
KBL	Kabul	4.93	281	ePn	Pn	07 26 20.0	+1.0
KBL				eSn	Sn	07 27 15.5	+0.8
JOSI	Joshimath	5.08	128	ePKP	Pn	07 26 24.1	+3.0
JOSI				eS	Sn	07 27 20.4	+2.0
JOSI				AML	AML	07 27 46.5	
	comp=N,671nm,0.5s						
JOSI				AML	AML	07 27 46.8	
	comp=E,748nm,0.8s						
NDI	New Delhi	5.43	158	ePKP	Pn	07 26 26.0	0.0
NDI				eS	Sn	07 27 26.0	-1.3
AYAN	Aya Nagar	5.59	160	ePKP	Pn	07 26 29.4	+1.2
AYAN				eS	Sn	07 27 30.5	-0.7
KHET	Khetri	5.72	172	ePKP	Pn	07 26 30.2	+0.2
KHET				eS	Sn	07 27 32.9	-1.5
KUDL	Kundal	5.76	166	ePKP	Pn	07 26 31.8	+1.3
KUDL				eS	Sn	07 27 34.8	-0.5
SONA	Sohna	5.80	161	ePKP	Pn	07 26 33.0	+2.0
SONA				eS	Sn	07 27 36.4	+0.1
SONA				AML	AML	07 27 41.0	
	comp=N,157nm,0.1s						
SONA				AML	AML	07 27 42.2	
	comp=E,255nm,0.4s						
KSH	Kashi	5.81	8	ePn	Pn	07 26 30.3	-0.8
KSH				Sn	Sn	07 27 29.0	-7.4
KSH				smax			
	comp=N,210nm,0.3s						
KSH				smax			
	comp=E,300nm,0.4s						
PTH	Pithoragarh	6.17	131	ePKP	Pn	07 26 36.0	-0.1
PTH				eS	Sn	07 27 46.0	+0.6
LGTI	Lohaghat	6.26	132	ePKP	Pn	07 26 38.5	+1.2
LGTI				ex	x	07 27 55.2	
AJM	Ajmer	7.26	182	ePKP	Pn	07 26 52.0	+0.9
AJM				eS	Sn	07 28 10.0	-2.3
KZA	Kyzart	8.31	2	P	Pn	07 27 07.3	+2.0
	SNR=36						
AML	Almayashu	8.41	354	P	Pn	07 27 08.5	+1.7
	SNR=17						
AML	Almayashu	8.41	354	ePn	Pn	07 27 08.2	+1.4
	comp=E,38nm,0.6s						
AML				eSn	Sn	07 28 37.8	-2.6
UCH	Uchtor	8.46	358	P	Pn	07 27 09.3	+1.9
	SNR=39						
UCH	Uchtor	8.46	358	ePn	Pn	07 27 09.5	+2.1
	comp=E,39nm,0.8s						
UCH				eSn	Sn	07 28 44.3	+2.8
ULHL	Ulahol	8.54	7	P	Pn	07 27 10.8	+2.4
	SNR=6.5						
AAK	Ala-Archa	8.86	358	P	Pn	07 27 14.0	+1.0
AAK						07 28 51.7	
AAK	Ala-Archa	8.86	358	Pn	Pn	07 27 14.0	+1.1
	comp=E,0.0nm,0.3s,baz=169,slow=11,SNR=11						
AAK				Sn	Sn	07 28 51.7	+0.2
	comp=E,0.0nm,0.3s,baz=77,slow=18,SNR=4.6						
AAK				LR	LR	07 30 53.8	
	comp=E,167nm,18.1s,baz=357,slow=39						
KBK	Karagaybulak	8.88	0	P	Pn	07 27 17.1	+3.9
	SNR=8.4						
EKS2	Erkin-Say	8.93	355	P	Pn	07 27 16.8	+2.9
	SNR=7.8						
EKS2	Erkin-Say	8.93	355	ePn	Pn	07 27 16.8	+2.9
	comp=E,6.0nm,0.6s						
EKS2				eSn	Sn	07 28 50.9	-2.3
TKM2	Tokmak 2	9.16	3	⇑Pn	Pn	07 27 18.8	+1.8
	comp=E,0.2nm,0.2s						
TKM2				⇑Sn	Sn	07 28 58.7	-0.1
	comp=E,9.4nm,0.6s						
TKM2	Tokmak 2	9.16	3	P	Pn	07 27 18.8	+1.8
TKM2						07 28 57.2	
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
TKM2				smax			
	comp=N,9.0nm,0.6s						
TKM2	Tokmak 2	9.16	3	P	Pn	07 27 18.9	+1.9
	SNR=15						
TKM2	Tokmak 2	9.16	3	ePn	Pn	07 27 18.7	+1.7
	comp=N,11nm,0.4s						
TKM2				eSn	Sn	07 28 59.3	+0.5
CHMS	Chumysh	9.22	359	P	Pn	07 27 19.5	+1.6
	SNR=17						
DANN	Dangsing	9.31	123	eP	Pn	07 27 19.0	-0.2
	comp=N,72nm,0.3s						
KOLN	Koldanda	9.56	126	eP	Pn	07 27 23.3	+0.6
	comp=N,29nm,0.3s						
KK31	Karatay Array	9.94	341	Pn	Pn	07 27 26.9	-0.9
	comp=N,4.8nm,0.5s,baz=157,slow=12,SNR=75						
KK31				⇑Sn	Sn	07 29 15.7	-2.3
	comp=N,21nm,0.7s,baz=169,slow=24						
KK31	Karatay Array	9.94	341	i P	Pn	07 27 26.8	-1.0
KK31						07 29 15.6	
KK31				pmax	pmax		
	comp=Z,5.0nm,0.3s						
KK31				smax			
	comp=N,9.0nm,0.4s						
GKN	Gorkha	10.14	122	eP	Pn	07 27 29.7	-0.8
	comp=N,128nm,0.3s						
DMN	Daman	10.70	122	eP	Pn	07 27 37.5	-0.8
	comp=N,73nm,0.4s						
BHPL	Bhopal	10.71	167	ePKP	Pn	07 27 37.4	-1.0
BHPL				eS	Sn	07 29 30.8	-6.3
BHPL				AML	AML	07 29 36.7	
	comp=E,87nm,0.3s						
BHPL				AML	AML	07 29 37.2	
	comp=N,67nm,0.4s						
KKN	Kakani	10.72	121	eP	Pn	07 27 37.2	-1.3
	comp=N,86nm,0.6s						
KKN	Kakani	10.72	121	eP	Pn	07 27 37.2	-1.3
KKN				pmax	pmax		
	comp=Z,86nm,0.6s						
PKIN	Phulchoki	10.93	122	eP	Pn	07 27 40.6	-0.7
	comp=Z,60nm,0.3s						
PKI	Pulchoki	10.94	122	eP	Pn	07 27 40.2	-1.3
	comp=Z,37nm,0.2s						
PKI	Pulchoki	10.94	122	eP	Pn	07 27 40.6	-0.9
PKI				pmax	pmax		
	comp=Z,60nm,0.3s						
PKI	Pulchoki	10.94	122	eP	Pn	07 27 40.6	-0.9
	comp=Z,60nm,0.3s						
GUN	Gumba	11.08	119	eP	Pn	07 27 42.3	-1.1
	comp=Z,86nm,0.3s						
JIRN	Jiri	11.45	119	eP	Pn	07 27 46.9	-1.6
	comp=Z,167nm,0.3s						
JIRN				eS	Sn	07 29 52.2	-2.9
RAMN	Ramite	12.16	121	eP	Pn	07 27 56.4	-1.8
	comp=Z,118nm,0.5s						
TAPN	Taplejung	12.74	117	eP	Pn	07 28 03.9	-2.2
	comp=Z,70nm,0.3s						
ODAN	Odare	12.78	119	eP	Pn	07 28 04.8	-1.9
	comp=Z,72nm,0.4s						
BOK	Bokaro	13.82	133	ePKP	Pn	07 28 22.9	+2.0
MK31	Makanchi Array	14.17	21	⇓Pn	Pn	07 28 25.1	-0.5
	comp=Z,2.7nm,0.7s,baz=195,slow=11,SNR=39						
MK31	Makanchi Array	14.17	21	eP	Pn	07 28 25.0	-0.5
MK31				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	14.17	21	Pn	Pn	07 28 25.1	-0.4
	comp=Z,0.7nm,0.3s,baz=205,slow=13,SNR=25						
MKAR				Sn	Sn	07 31 01.8	+0.4
	comp=Z,0.7nm,0.3s,baz=176,slow=26,SNR=5.7						
SHL	Shillong	16.85	115	ex	Pn	07 28 53.3	-7.1
SHL				eS	Sn	07 31 54.3	-12
KURBB	Kurchatov Arra	17.06	8	⇓Pn	Pn	07 29 02.1	-0.8
	comp=Z,0.7nm,0.7s						
KURK	Kurchatov	17.16	8	⇑Pn	Pn	07 29 02.4	-1.7
	comp=Z,14nm,0.9s						
KURK	Kurchatov	17.16	8	P	Pn	07 29 01.0	-3.2
KURK				pmax	pmax		
	comp=Z,14nm,0.9s						
KURK	Kurchatov	17.16	8	P	Pn	07 29 02.2	-2.0
	comp=Z,0.2nm,0.3s,baz=194,slow=11,SNR=12						
KURK				Lg		07 33 58.7	
	comp=Z,0.2nm,0.3s,baz=255,slow=2.9,SNR=4.6						
AB09	Akbulak array	19.07	329	⇑Pn	Pn	07 29 25.6	-1.9
	comp=Z,2.1nm,0.7s						
AB09				⇑Sn	Sn	07 32 45.4	-15
	comp=Z,1.9nm,0.7s						
VOSK	Vostochnaya	19.16	353	⇑Pn	Pn	07 29 26.4	-2.3
	comp=Z,4.2nm,0.7s						
BVA0	Borovoye Array	19.53	352	⇓Pn	Pn	07 29 31.4	-1.5
	comp=Z,0.6nm,0.6s,baz=159,slow=11,SNR=27						
BVAR	Borovoye Array	19.53	352	P	Pn	07 29 31.6	-1.4
	comp=Z,1.1nm,0.3s,baz=163,slow=11,SNR=21						
BRVK	Borovoye	19.57	352	eP	Pn	07 29 32.1	-1.4
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
BRVK	Borovoye	19.57	352	eP	Pn	07 29 32.1	-1.4
	comp=Z,7.0nm,0.7s						
GTA	Gaotai	20.75	67	eP	P	07 29 46.8	+1.9
GTA				pP		07 29 51.0	
GTA				sP	sP	07 29 53.5	-5.9
GTA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
AKTK	Aktyubinsk	20.77	328	P	P	07 29 44.4	-0.6
AKTO	Aktyubinsk	20.77	328	⇓Pn	P	07 29 44.3	-0.6
	comp=Z,1.5nm,0.8s						
AKTO				⇑Sn	S	07 33 24.5	-10
	comp=Z,4.1nm,2.7s						
AKTO	Aktyubinsk	20.77	328	P	P	07 29 44.4	-0.6
	comp=Z,2.9nm,0.3s,baz=136,slow=9.0,SNR=26						
ZAA0	Zalesovo Array	21.37	16	eP	P	07 29 50.6	-0.7
ZALV	Zalesovo Beam	21.37	16	P	P	07 29 50.9	-0.5
	comp=Z,9.4nm,0.5s,mb4.4,baz=210,slow=9.8,SNR=28						
NVS	Novosibirsk	21.87	13	eP	P	07 29 54.9	-1.9
NVS				eS	S	07 33 53.6	-2.5
NVS				pmax	pmax		
	comp=Z,17nm,1.5s,mb4.2						
NVS				pmax	pmax		
	comp=E,7.0nm,1.0s						
NVS				smax			
	comp=N,14nm,1.6s						
GNI	Garni	24.86	294	i P	P	07 30 34.1	+7.7
CHTO	Chiang Mai	26.10	119	eP	P	07 30 38.9	+1.1
CHTO				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
CHTO	Chiang Mai	26.10	119	eP	P	07 30 38.9	+1.1
	comp=Z,8.9nm,1.0s,mb4.2						
CMAR	Chiang Mai Arr	26.33	119	P	P	07 30 40.5	+0.7
	comp=Z,5.2nm,0.7s,mb4.2,baz=307,slow=10.0,SNR=23						
PALK	Pallekele	26.90	167	i P	P	07 30 52.0	+7.0
SONM	Songino Array	27.45	50	P	P	07 30 51.6	+1.9
	comp=Z,3.2nm,0.7s,mb3.9,baz=250,slow=9.7,SNR=24						
SONM				PcP	PcP	07 34 08.6	+1.2
	comp=Z,0.3nm,0.4s,baz=234,slow=4.9,SNR=3.2						
KSRS	Korea Array	42.79	69	P	P	07 33 02.2	+0.7
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
KSRS	Korea Array	42.79	69	P	P	07 33 02.1	+0.7
	comp=Z,1.6nm,0.7s,mb3.9,baz=263,slow=7.6,SNR=5.3						
ARCES	ARCESS Array B	44.89	338	P	P	07 33 18.8	+0.9
	comp=Z,8.5nm,0.6s,mb4.8,baz=111,slow=8.6,SNR=40						
TIXI	Tiksi	47.16	20	⇓eP	P	07 33 35.3	-0.4
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
TIXI	Tiksi	47.16	20	eP	P	07 33 35.9	+0.1
	comp=Z,2.2nm,0.6s,mb4.3						
NOA	NORSAR Array B	48.48	324	P	P	07 33 46.8	+0.7
	comp=Z,0.7nm,0.6s,mb3.9,baz=96,slow=7.6,SNR=2.1						
MJAR	Matsushiro Arr	51.00	68	P	P	07 34 06.0	+0.5
	comp=Z,3.2nm,0.8s,mb4.3,baz=282,slow=10.0,SNR=6.3						
BILL	Bilibino	59.66	26	eP	P	07 35 09.0	+1.6
BILL				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.3						
TORD	Torodi Ar. Bea	68.94	272	P	P	07 36 07.8	-1.2
	comp=Z,1.7nm,0.5s,mb4.2,baz=48,slow=5.9,SNR=22						
WRA	Warramunga Arr	77.81	124	P	P	07 37 01.4	+0.3
	comp=Z,2.8nm,0.6s,mb4.3,baz=325,slow=5.9,SNR=30						
BOSA	Boshof	77.84	223	P	P	07 37 01.0	-0.1
	comp=Z,2.1nm,0.5s,mb4.3,baz=146,slow=9.9,SNR=6.9						
ASAR	Alice Springs	80.06	127	P	P	07 37 14.1	+0.7
	comp=Z,2.2nm,0.8s,mb4.2,baz=318,slow=6.1,SNR=24						
YKA	Yellowknife Ar	83.78	4	P	P	07 37 32.6	+0.3
YKA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
YKA	Yellowknife Ar	83.78	4	P	P	07 37 32.6	+0.3
	comp=Z,2.2nm,0.5s,mb4.5,baz=345,slow=5.3,SNR=83						
SCHQ	Schefferville	85.83	339	P	P	07 37 43.1	+0.3
	comp=Z,1.4nm,0.7s,mb4.3,baz=32,slow=5.7,SNR=3.9						
CTA	Charters Tower	86.47	117	P	P	07 37 47.6	+1.2
	comp=Z,7.0nm,0.6s,mb5.1,baz=303,slow=4.8,SNR=8.6						
STKA	Stephens Creek	90.58	129	P	P	07 38 06.4	+0.7
	comp=Z,1.4nm,0.6s,mb4.5,baz=285,slow=9.2,SNR=5.9						
PLCA	Paso Flores	151.77	246	PKPbc	PKPbc	07 44 58.5	+0.7
	comp=Z,0.8nm,0.6s,baz=89,slow=6.5,SNR=4.4						

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*FUNV **25** 07:25:21.7, 11°.06N×60°.50W, h5^{km}, MW2.8*

ISC 25 07:25:18.3±2.9, 11°.18N±0°.06×60°.4W±0°.2, h3^{km}±40^{km}, n16, σ1^s.25/23, 1C, Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRN	Trinidad (W)	1.08	241	eP	Pn	07 25 43.0	+2.5
TCE	Chacachacare	1.38	250	eP	Pn	07 25 43.5	-1.0
TCE				eS	Sn	07 26 11.1	+7.9
GRW	Mount Saint Ca	1.55	309	⇑iP	Pn	07 25 46.8	-0.1
GRW				eS	Sn	07 26 09.3	+1.9
GRHS	Sauteurs	1.57	312	eP	Pn	07 25 45.9	-1.3

GRIC	**Isle de Caille**	**1.57**	**315**	*e*P	**Pn**	**07 25 46.8**	**-0.4**
GRSS	**Sisters**	**1.60**	**314**	*e*P	**Pn**	**07 25 46.2**	**-1.4**
GRSS	**Sisters**	**1.60**	**314**	*e*P	**Pn**	**07 25 46.7**	**-0.9**
GRSS				*e*S	**Sn**	**07 26 09.3**	**+0.5**
GUIV	**Guiria**	**1.83**	**253**	*e*P	**Pn**	**07 25 52.8**	**+2.0**
GUIV				*e*S	**Sn**	**07 26 14.5**	**+0.1**
FCV	**Fort Charlotte**	**2.12**	**338**	*e*P	**Pn**	**07 25 51.0**	**-3.8**
ITEV	**Isla Los Testi**	**2.65**	**274**	*e*P	**Pn**	**07 26 03.0**	**+1.0**
ITEV				*e*S	**Sn**	**07 26 35.6**	**+0.9**
GUNV	**Guanoco**	**2.66**	**248**	*e*P	**Pn**	**07 26 03.8**	**+1.6**
GUNV				*e*S	**Sn**	**07 26 33.4**	**-1.6**
CRUV	**Carupano**	**2.79**	**260**	*e*P	**Pn**	**07 26 04.4**	**+0.4**
CRUV				*e*S	**Sn**	**07 26 36.3**	**-2.0**
RIOV	**Rio Grande**	**3.37**	**204**	*e*P	**Pn**	**07 26 12.9**	**+1.0**
PCRV	**Puerto La Cruz**	**4.25**	**257**	*e*P	**Pn**	**07 26 23.6**	**-0.3**
CAOV	**Caicara del Or**	**6.96**	**237**	*e*P	**Pn**	**07 27 00.3**	**-0.9**
BAUV	**El Baul**	**7.81**	**254**	*e*P	**Pn**	**07 27 11.7**	**-1.3**

IDC 25 07:27:45.1±1.7**, 15°.98S**×**177°.36W, h0km, mb3.8**/6**, mb1 4.1**/6**, mb1mx3.9**/17**, mbtmp3.8**/6**, MS4.0**/6**, Ms1 4.0**/6**, ms1mx3.7**/24**, Error ellipse: s-maj=162.6km s-min=21.0km az=151.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**22.73**	**191**	LR	LR	07 40 06.3	
	comp=Z,230nm,19.5s,baz=286,slow=33						
HNR	**Honiara**	**23.06**	**284**	LR	LR	07 40 23.4	
	comp=Z,863nm,20.2s,baz=119,slow=33						
STKA	**Stephens Creek**	**40.45**	**239**	P	P	07 35 26.0	+0.4
	2.9nm,0.9s,baz=87,slow=6.8,SNR=5.4						
STKA				LR	LR	07 50 53.3	
	comp=Z,124nm,20.9s,baz=25,slow=34						
WRA	**Warramunga Arr**	**46.00**	**258**	P	P	07 36 10.6	0.0
	0.6nm,0.9s,baz=64,slow=8.3,SNR=2.7						
ASAR	**Alice Springs**	**46.30**	**252**	P	P	07 36 12.6	-0.4
	1.2nm,0.7s,baz=85,slow=8.6,SNR=12						
MJAR	**Matsushiro Arr**	**66.98**	**322**	LR	LR	08 01 55.4	
	comp=Z,108nm,20.2s,baz=300,slow=31						
KSRS	**Korea Array**	**73.95**	**317**	LR	LR	08 09 42.0	
	comp=Z,55nm,18.0s,baz=228,slow=34						
NVAR	**Mina Array Bea**	**77.34**	**44**	P	P	07 39 41.2	-0.6
	0.8nm,0.8s,baz=231,slow=9.0,SNR=4.5						
TXAR	**Lajitas Array**	**84.11**	**57**	P	P	07 40 17.8	-0.6
	0.8nm,0.9s,baz=224,slow=3.5,SNR=7.3						
PDAR	**Pinedale Array**	**85.26**	**43**	P	P	07 40 26.2	+2.4
	0.3nm,0.8s,baz=238,slow=5.2,SNR=3.0						
MAW	**Mawson**	**86.01**	**199**	LR	LR	08 13 26.5	
	comp=Z,179nm,18.4s,baz=281,slow=32						
BRTR	**Keskin Array B**	**144.09**	**317**	PKP	PKPdf	07 47 21.1	-2.0
	0.8nm,0.8s,baz=18,slow=5.2,SNR=4.2						

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*ATH **25** 07:29:42.8, 36°.31N×21°.83E, h4km, MD3.7/5*
*NEIC **25** 07:29:42.8, 36°.31N×21°.83E, h4km, MD3.7(ATH), After ATH.*
*ISCJB **25** 07:29:43.6±0.9, 36°.20N±0°.05×21°.89E±0°.06, h10km, Error ellipse: s-maj=8.2km s-min=5.0km az=139.5*
*CSEM **25** 07:29:44.2±0.3, 36°.21N×21°.93E, h5km, MD3.7, Error ellipse: s-maj=6.7km s-min=4.0km az=37.0*
*THE **25** 07:29:46.8, 36°.17N×21°.84E, h32km±38km, ML3.6/3, Error ellipse: s-maj=38.1km s-min=1.0km az=179.0*
ISC 25 07:29:44.2±0.8**, 36°.19N**±0°.05×**21°.88E**±0°.05**, h10km, n33, σ0s.97**/57**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.71**	**351**	P	**Pg**	**07 29 53.8**	**-4.1**
PYL	**PYLOS**	**0.71**	**351**	*e*PG	**Pg**	**07 29 54.0**	**-3.9**
PYL	**PYLOS**	**0.71**	**351**	P	**Pg**	**07 29 53.8**	**-4.1**
KYTH	**Kithira**	**0.94**	**84**	*e*PG	**Pg**	**07 30 00.9**	**-1.4**
KYTH	**Kithira**	**0.94**	**84**	*e*Pg	**Pg**	**07 30 00.9**	**-1.4**
ITM	**Ithomi**	**0.99**	**2**	*e*PG	**Pg**	**07 29 59.6**	**-3.6**
ITM				*e*SG	**Sg**	**07 30 11.1**	**-4.9**
VLI	**Veliai**	**1.00**	**58**	*e*PG	**Pg**	**07 30 01.8**	**-1.7**
VLI	**Veliai**	**1.00**	**58**	*e*Pg	**Pg**	**07 30 01.8**	**-1.7**
DID	**Didima**	**1.70**	**39**	P	**Pn**	**07 30 13.9**	**-0.1**
DID				S	**Sn**	**07 30 35.5**	**-0.3**
DID	**Didima**	**1.70**	**39**	P	**Pn**	**07 30 13.9**	**-0.1**
DID				S	**Sn**	**07 30 35.5**	**-0.3**
GUR	**Goura**	**1.78**	**12**	*e*PB	**Pb**	**07 30 14.5**	**-2.4**
KARN	**Karanos**	**1.83**	**115**	P	**Pn**	**07 30 16.1**	**+0.4**
KARN				S	**Sn**	**07 30 38.9**	**-0.1**
KARN	**Karanos**	**1.83**	**115**	P	**Pn**	**07 30 16.1**	**+0.4**
KARN				S	**Sn**	**07 30 38.9**	**-0.1**
LTK	**Loutraki**	**2.02**	**25**	P	**Pn**	**07 30 19.1**	**+0.7**
LTK				S	**Sn**	**07 30 44.2**	**+0.5**
LTK	**Loutraki**	**2.02**	**25**	P	**Pn**	**07 30 19.1**	**+0.7**
LTK				S	**Sn**	**07 30 44.2**	**+0.5**
LAKA	**Lakka**	**2.05**	**2**	P	**Pn**	**07 30 18.9**	**+0.2**
LAKA				S	**Sn**	**07 30 43.3**	**-0.9**
LAKA	**Lakka**	**2.05**	**2**	P	**Pn**	**07 30 18.9**	**+0.2**
LAKA				S	**Sn**	**07 30 43.3**	**-0.9**
TRIZ	**Trizonia**	**2.17**	**4**	P	**Pn**	**07 30 20.7**	**+0.3**
TRIZ				S	**Sn**	**07 30 48.0**	**+0.6**
TRIZ	**Trizonia**	**2.17**	**4**	P	**Pn**	**07 30 20.7**	**+0.3**
TRIZ				S	**Sn**	**07 30 48.0**	**+0.6**
KALE	**Kalithea**	**2.21**	**5**	P	**Pn**	**07 30 21.6**	**+0.8**
KALE				S	**Sn**	**07 30 47.7**	**-0.5**
KALE	**Kalithea**	**2.21**	**5**	P	**Pn**	**07 30 21.6**	**+0.8**
KALE				S	**Sn**	**07 30 47.7**	**-0.5**
VLS	**Valsamata**	**2.23**	**333**	P	**Pn**	**07 30 21.1**	**-0.1**
VLS				S	**Sn**	**07 30 48.3**	**-0.6**
VLS	**Valsamata**	**2.23**	**333**	P	**Pn**	**07 30 21.1**	**-0.1**
VLS				S	**Sn**	**07 30 48.3**	**-0.6**
LKR	**Lokris**	**2.61**	**20**	P	**Pn**	**07 30 27.9**	**+1.5**
LKR				S	**Sn**	**07 30 59.1**	**+0.9**
LKR	**Lokris**	**2.61**	**20**	P	**Pn**	**07 30 27.9**	**+1.5**
LKR				S	**Sn**	**07 30 59.1**	**+0.9**
LKD	**Levkas**	**2.69**	**339**	P	**Pn**	**07 30 28.3**	**+0.7**
LKD				S	**Sn**	**07 30 59.9**	**-0.3**
LKD	**Levkas**	**2.69**	**339**	P	**Pn**	**07 30 28.3**	**+0.7**
LKD				S	**Sn**	**07 30 59.9**	**-0.3**
AGG	**Agios Georgios**	**2.85**	**7**	P	**Pn**	**07 30 30.8**	**+1.1**
AGG				S	**Sn**	**07 31 04.6**	**+0.6**
AGG	**Agios Georgios**	**2.85**	**7**	P	**Pn**	**07 30 30.8**	**+1.1**
AGG				S	**Sn**	**07 31 04.6**	**+0.6**
XOR	**Xorichti**	**3.33**	**18**	P	**Pn**	**07 30 36.8**	**+0.4**
XOR				S	**Sn**	**07 31 16.3**	**+0.3**
XOR	**Xorichti**	**3.33**	**18**	P	**Pn**	**07 30 36.8**	**+0.4**
XOR				S	**Sn**	**07 31 16.3**	**+0.3**
CUC	**Castrocucco**	**6.10**	**310**	*e*Pn	**Pn**	**07 31 15.6**	**+1.2**
	16nm,0.9s						
CUC				*e*Sn	**Sn**	**07 32 22.1**	**-2.2**
CUC	**Castrocucco**	**6.10**	**310**	*e*Pn	**Pn**	**07 31 15.6**	**+1.2**
	16nm,0.9s						

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*DDA **25** 07:30:46.0, 39°.40N×33°.17E, h7km±1km, Md2.9*
CSEM 25 07:30:46.7±0.3**, 39°.41N**×**33°.15E, h20km, MD2.9, Error ellipse: s-maj=10.8km s-min=6.5km az=160.0, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAMT	**Kaman**	**0.43**	**95**	*e*PG	Pb	07 30 55.7	0.0
KAMT				*e*SG	Sb	07 31 02.8	+1.0
KAMT	**Kaman**	**0.43**	**95**	*e*Pg	Pb	07 30 55.7	0.0
KAMT				*e*Sg	Sb	07 31 02.8	+1.0
CDAG	**Cicekdag**	**0.97**	**77**	*i* P	Pb	07 31 04.8	+0.1
CDAG				*i* S	Sb	07 31 18.2	+1.1
CDAG	**Cicekdag**	**0.97**	**77**	*i* P	Pb	07 31 04.8	+0.1
CDAG				*i* S	Sb	07 31 18.2	+1.1
ELDT	**Eldivan**	**1.10**	**11**	*i* P	Pn	07 31 07.3	+0.3
ELDT				*i* S	Sb	07 31 22.9	+1.9
ELDT	**Eldivan**	**1.10**	**11**	*i* P	Pn	07 31 07.3	+0.3
ELDT				*i* S	Sb	07 31 22.9	+1.9
KDHN	**Kadinhani**	**1.20**	**223**	*i* P	Pn	07 31 08.8	+0.5
KDHN				*i* S	Sb	07 31 26.0	+2.3
KDHN	**Kadinhani**	**1.20**	**223**	*i* P	Pn	07 31 08.8	+0.5
KDHN				*i* S	Sb	07 31 26.0	+2.3
SVRH	**Sivrihisar-ESK**	**1.26**	**272**	*e*PN	Pn	07 31 08.4	-0.8
SVRH	**Sivrihisar-ESK**	**1.26**	**272**	*e*Pn	Pn	07 31 08.4	-0.8
YOZ	**Yozgat**	**1.69**	**81**	*e*PN	Pn	07 31 14.3	-0.7
YOZ	**Yozgat**	**1.69**	**81**	*e*Pn	Pn	07 31 14.3	-0.8

IDC 25 07:33:00.1±4.2**, 2°.41S**×**100°.01E, h0km, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.5**/22**, mbtmp3.5**/4**, Error ellipse: s-maj=174.2km s-min=24.0km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**37.78**	**120**	P	P	07 40 18.9	+0.5
	0.2nm,0.3s,baz=309,slow=9.0,SNR=7.2						
ASAR	**Alice Springs**	**39.01**	**126**	P	P	07 40 27.9	-0.7
	0.2nm,0.5s,baz=299,slow=8.4,SNR=4.8						
SONM	**Songino Array**	**50.35**	**6**	P	P	07 41 58.7	-0.1
	0.7nm,0.5s,baz=184,slow=9.2,SNR=7.1						
MKAR	**Makanchi Array**	**51.43**	**344**	P	P	07 42 07.0	+0.1
	0.5nm,0.4s,baz=157,slow=8.7,SNR=9.2						
TXAR	**Lajitas Array**	**145.03**	**38**	PKPbc	PKPbc	07 52 39.0	-0.5
	0.6nm,0.6s,baz=277,slow=0.9,SNR=9.7						

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*GCMT **25** 07:59:50.9±0.3, 10°.19N×70°.92W, h16km±1km, MW5.0/49, Moment Tensor Solution. s21,c24; s49,c83; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.88±.15; $M_{\theta\theta}$-0.04±.12; $M_{\phi\phi}$-0.83±.14; $M_{r\theta}$-1.16±.43; $M_{\theta\phi}$-2.95±.11; $M_{\phi r}$1.76±.43; Best double couple: $M_0$3.70800×10^{16} NP1:ϕ_s261.00000°, δ60.00000°, λ160.00000°. NP2: ϕ_s1.00000°, δ73.00000°, λ32.00000°. Principal axes: T 3.9160, Plg34.0000°, Azm224.0000°; N -0.4150, Plg55.0000°, Azm26.0000°; P -3.5010, Plg9.0000°, Azm128.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **25** 07:59:50.8±0.8, 10°.07N×70°.98W, h29km, mb5.0/74, MS4.2/5 Error ellipse: s-maj=6.2km s-min=5.1km az=102.4*
*BJI **25** 07:59:50.8, 10°.20N×70°.90W, h15km, mB5.3/6*
*NEIC **25** 07:59:50.9±0.2, 10°.16N×70°.90W, mb4.9/132, MS4.3/5, MW5.0(CAR), Error ellipse: s-maj=3.6km s-min=2.7km az=10.0*
NEIC Felt [III] at Maracaibo. Also felt at Cabimas, Ciudad Ojeda, Merida, Rosario and Valera.
*ISCJB **25** 07:59:50.7±0.5, 10°.30N±0°.02×70°.90W±0°.01, h20km±4km, mb4.8/160, MS4.0/11, Error ellipse: s-maj=3.3km s-min=2.3km az=19.1*
*FUNV **25** 07:59:51.0, 10°.22N×70°.96W, h5km, MW5.0*
*IDC **25** 07:59:52.7±1.4, 10°.07N×70°.95W, h32km±10km, mb4.5/21, mb1 4.7/26, mb1mx4.7/28, mbtmp4.5/26, ML4.6/5, MS4.1/6, Ms1 4.1/6, ms1mx3.8/26, Error ellipse: s-maj=11.0km s-min=9.7km az=78.0*
*SZGRF **25** 07:59:55.6, 10°.00N×70°.33W, h33km, mb4.7, Venezuela*
ISC 25 07:59:51.3±0.5**, 10°.20N**±0°.02×**70°.90W**±0°.01**, h14km**±3km**, h16km**±1.0km**:pP-P, n763, σ0s.76**/778**, mb4.8**/160**, MS4.0**/11**, 180C-171D, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QARV	**Quebrada Arrib**	**0.37**	**89**⇑	*e*P	**Pg**	**07 59 59.3**	**+0.5**
QARV				*e*S	**Sg**	**08 00 04.9**	**+1.1**
DABV	**Dabajuro**	**0.76**	**20**⇑	*e*P	**Pg**	**08 00 06.5**	**+0.4**
DABV				*e*S	**Sg**	**08 00 17.0**	**+0.9**
DABV	**Dabajuro**	**0.76**	**20**	*e*P	**Pg**	**08 00 06.5**	**+0.4**
DABV				*e*S	**Sg**	**08 00 17.7**	**+1.6**
CURV	**Curarigua**	**0.94**	**101**⇓	*e*P	**Pb**	**08 00 09.3**	**-0.2**
CURV				*e*S	**Sb**	**08 00 22.2**	**+0.3**
CURV	**Curarigua**	**0.94**	**101**	*e*P	**Pb**	**08 00 09.2**	**-0.3**
CURV				*e*S	**Sb**	**08 00 21.9**	**+0.1**
SIQV	**Siquisique**	**1.16**	**68**⇑	*e*P	**Pn**	**08 00 13.7**	**+0.5**
SIQV				*e*S	**Sb**	**08 00 29.5**	**+1.4**
SIQV	**Siquisique**	**1.16**	**68**	*e*P	**Pn**	**08 00 13.7**	**+0.5**
SIQV				*e*S	**Sb**	**08 00 29.5**	**+1.4**
SDV	**Santo Domingo**	**1.33**	**169**	Pg	**Pg**	**08 00 14.9**	**-2.1**
	baz=22,slow=5.6						
SDV				Lg		08 00 33.3	
	19µm,0.3s,baz=247,slow=15,SNR=59						
SDV	**Santo Domingo**	**1.33**	**169**	*e*Pn	**Pn**	**08 00 15.2**	**-0.3**
SDV				*e*Sg	**Sg**	**08 00 33.5**	**-0.9**
VIGV	**El Vigia**	**1.43**	**199**⇑	*e*P	**Pn**	**08 00 16.9**	**+0.1**
VIGV				*e*S	**Sn**	**08 00 36.6**	**+1.2**
VIRV	**Villa del Rosa**	**1.51**	**282**⇑	*e*P	**Pn**	**08 00 16.5**	**-1.5**
VIRV				*e*S	**Sn**	**08 00 35.4**	**-2.1**
SANV	**Sanarito**	**1.52**	**117**⇓	*e*P	**Pn**	**08 00 20.3**	**+2.3**
SANV				*e*S	**Sn**	**08 00 40.3**	**+2.7**
SANV	**Sanarito**	**1.52**	**117**	*e*P	**Pn**	**08 00 20.3**	**+2.3**
SANV				*e*S	**Sn**	**08 00 39.5**	**+1.9**
TEPV	**Terepaima**	**1.70**	**98**⇓	*e*P	**Pn**	**08 00 21.7**	**+1.2**
TEPV				*e*S	**Sn**	**08 00 43.7**	**+1.5**
SOCV	**Socops**	**1.91**	**179**⇑	*e*P	**Pn**	**08 00 23.8**	**+0.4**
SOCV				*e*S	**Sn**	**08 00 48.8**	**+1.5**
MONV	**Montecano**	**1.97**	**28**⇑	*e*P	**Pn**	**08 00 24.2**	**0.0**
MONV				*e*S	**Sn**	**08 00 50.4**	**+1.7**
JACV	**Jacura**	**2.22**	**66**	*e*P	**Pn**	**08 00 28.5**	**+0.8**
JACV				*e*S	**Sn**	**08 00 56.0**	**+1.1**
JACV	**Jacura**	**2.22**	**66**	*e*P	**Pn**	**08 00 28.5**	**+0.8**
JACV				*e*S	**Sn**	**08 00 55.9**	**+1.0**
MAPV	**Macapo**	**2.44**	**99**	*e*P	**Pn**	**08 00 32.7**	**+2.0**
MAPV				*e*S	**Sn**	**08 01 01.8**	**+1.5**
CAPV	**Capacho**	**2.71**	**211**⇑	*e*P	**Pn**	**08 00 33.8**	**-0.6**
CAPV				*e*S	**Sn**	**08 01 07.9**	**+0.8**
TURV	**Turiamo**	**3.02**	**85**	*e*P	**Pn**	**08 00 38.2**	**-0.6**
TURV				*e*S	**Sn**	**08 01 14.3**	**-0.5**
BAUV	**El Baul**	**3.09**	**114**⇓	*e*P	**Pn**	**08 00 40.8**	**+1.1**
BAUV				*e*S	**Sn**	**08 01 16.2**	**-0.2**
BAUV	**El Baul**	**3.09**	**114**	*e*P	**Pn**	**08 00 39.9**	**+0.3**
BAUV				*e*S	**Sn**	**08 01 16.2**	**-0.2**
ELOV	**Elorza**	**3.48**	**156**	*e*P	**Pn**	**08 00 45.1**	**+0.1**
FUNV	**FUNVISIS**	**4.04**	**86**	*e*P	**Pn**	**08 00 55.0**	**+2.3**
MERV	**Las Mercedes**	**4.64**	**101**	*e*P	**Pn**	**08 01 01.6**	**+0.7**
ORCV	**Isla La Orchil**	**4.89**	**70**⇑	*e*P	**Pn**	**08 01 03.0**	**-1.5**
CUPV	**Cœpira**	**5.04**	**91**	*e*P	**Pn**	**08 01 07.4**	**+0.9**
CAOV	**Caicara del Or**	**5.35**	**122**⇓	*e*P	**Pn**	**08 01 10.7**	**-0.1**
CAOV				*e*S	**Sn**	**08 02 10.0**	**-2.4**
PCRV	**Puerto La Cruz**	**6.17**	**90**	*e*P	**Pn**	**08 01 22.7**	**+0.7**
PCRV	**Puerto La Cruz**	**6.17**	**90**	Pn	**Pn**	**08 01 23.8**	**+1.8**
	24nm,0.3s,baz=255,slow=4.0,SNR=79						
PCRV				Pg	**Pg**	**08 01 48.6**	**-0.8**
	38nm,0.3s,baz=356,slow=12,SNR=7.0						
PCRV				Sn	**Sn**	**08 02 37.0**	**+4.6**
	31nm,0.3s,baz=46,slow=22,SNR=6.6						
PCRV				Lg		08 03 15.4	
	18nm,0.3s,baz=128,slow=22,SNR=3.7						
ROSC	**El Rosal**	**6.31**	**213**	Pn	**Pn**	**08 01 23.7**	**-0.2**
	188nm,0.3s,baz=74,slow=6.1,SNR=247						
ROSC				Pg	**Pg**	**08 01 44.9**	**-7.2**
	138nm,0.3s,baz=109,slow=22,SNR=6.8						
ROSC				Sn	**Sn**	**08 02 35.1**	**-0.7**
	19nm,0.3s,baz=72,slow=18,SNR=2.2						
ROSC				Lg		08 03 10.4	
	57nm,0.3s,baz=93,slow=23,SNR=2.3						
ROSC	**El Rosal**	**6.31**	**213**	*e*Pn	**Pn**	**08 01 25.0**	**+1.0**
ROSC				Pg	**Pg**	**08 01 44.9**	**-7.2**
ROSC				Sn	**Sn**	**08 02 35.1**	**-0.7**
ROSC				*e*Sn	**Sn**	**08 02 38.6**	**+2.8**
ROSC				Lg		08 03 10.4	
CRUV	**Carupano**	**7.55**	**86**	*e*P	**Pn**	**08 01 41.2**	**+0.2**
GUNV	**Guanoco**	**7.83**	**90**	*e*P	**Pn**	**08 01 44.5**	**-0.4**
GURV	**El Guri**	**8.09**	**107**	*e*P	**Pn**	**08 01 47.7**	**-0.8**
CRPR	**Cabo Rojo, PR**	**8.58**	**25**	*e*Pn	**Pn**	**08 01 52.3**	**-2.9**
CRPR				*e*Sn	**Sn**	**08 03 28.7**	**-3.2**
SDDR	**Presa de Saban**	**8.74**	**358**	*e*Pn	**Pn**	**08 01 59.2**	**+1.9**
SDDR				*e*Sn	**Sn**	**08 03 34.6**	**-1.0**
ICM	**Isla Caja Muer**	**8.74**	**29**	*e*Pn	**Pn**	**08 01 54.6**	**-2.8**
ICM				*e*Sn	**Sn**	**08 03 27.6**	**-8.3**
LSP	**Las Mesas**	**8.74**	**25**	*e*Pn	**Pn**	**08 01 57.1**	**-0.3**
MPR	**Mayaguez**	**8.76**	**24**	*e*Pn	**Pn**	**08 01 55.7**	**-1.8**
OBIP	**Obispado Ponce**	**8.84**	**28**	*e*Pn	**Pn**	**08 01 57.1**	**-1.6**
BCIP	**Isla Barro Col**	**8.87**	**264**	*e*Pn	**Pn**	**08 01 57.1**	**-2.1**
BCIP				*e*Sn	**Sn**	**08 03 34.5**	**-4.5**
CELP	**Cerrillos**	**8.88**	**28**	*e*Pn	**Pn**	**08 01 57.3**	**-1.9**
AGP	**Aguadilla**	**8.93**	**24**	*e*Pn	**Pn**	**08 01 59.8**	**-0.2**
AGPR	**Aguadilla, PR**	**9.00**	**24**	*e*Pn	**Pn**	**08 01 59.8**	**-1.1**
	330nm,1.1s						
AGPR				*e*Sn	**Sn**	**08 03 38.6**	**-3.5**
TCE	**Chacachacare**	**9.01**	**86**	*e*	**Pn**	**08 02 04.0**	**+2.9**
AOPR	**Arecibo Observ**	**9.04**	**26**	*e*Pn	**Pn**	**08 01 59.4**	**-2.0**
SJG	**San Juan**	**9.11**	**30**	*e*Pn	**Pn**	**08 02 00.6**	**-1.8**
SJG				*e*Sn	**Sn**	**08 03 39.7**	**-5.2**
RIOV	**Rio Grande**	**9.22**	**103**	*e*P	**Pn**	**08 02 03.0**	**-0.9**
GRW	**Mount Saint Ca**	**9.27**	**77**	*e*	**Pn**	**08 02 07.8**	**+3.1**
GRGR	**Grenville**	**9.27**	**77**	*e*Pn	**Pn**	**08 02 06.3**	**+1.6**
	142nm,0.4s						
GRGR				*e*Sn	**Sn**	**08 03 49.6**	**+0.7**
HUMP	**Col San Antoni**	**9.29**	**31**	*e*Pn	**Pn**	**08 02 02.6**	**-2.3**
GRSS	**Sisters**	**9.35**	**76**	*e*	**Pn**	**08 02 05.9**	**+0.2**
TRN	**Trinidad (W)**	**9.35**	**86**	*e*	**Pn**	**08 02 07.0**	**+1.2**
CBYP	**Canovanas**	**9.39**	**31**	*e*Pn	**Pn**	**08 02 05.4**	**-0.9**
	55nm,0.6s						
CBYP				*e*Sn	**Sn**	**08 03 49.1**	**-2.7**
MTP	**Monte Pirata**	**9.40**	**33**	*e*Pn	**Pn**	**08 02 04.5**	**-2.0**
	80nm,0.8s						
MTP				*e*Sn	**Sn**	**08 03 44.6**	**-7.5**
CMJ	**Castle Mountai**	**9.50**	**327**⇓	*e*P	**Pn**	**08 02 07.3**	**-0.5**
HOJ	**Hope**	**9.61**	**324**⇓	*e*P	**Pn**	**08 02 09.8**	**+0.6**
PCJ	**Portland Cotta**	**9.64**	**322**⇓	*e*P	**Pn**	**08 02 09.9**	**+0.1**
PCJ				*e*S	**Sn**	**08 03 50.5**	**-7.5**
GWJ	**Greenwich**	**9.65**	**325**⇓	*e*P	**Pn**	**08 02 09.1**	**-0.7**
GWJ				*i* P		08 02 09.2	
STH	**Stony Hill**	**9.70**	**324**⇓	*e*P	**Pn**	**08 02 09.9**	**-0.6**
STH				*e*S	**Sn**	**08 03 50.8**	**-8.5**
FCV	**Fort Charlotte**	**9.90**	**72**	*e*P	**Pn**	**08 02 12.2**	**-1.2**
STVI	**Saint Thomas**	**9.94**	**35**	*e*Pn	**Pn**	**08 02 15.1**	**+1.3**
SVV	**Soufriere Volc**	**9.97**	**71**	*e*P	**Pn**	**08 02 13.2**	**-1.2**
TPR	**Prospect**	**10.00**	**83**	*e*	**Pn**	**08 02 17.6**	**+3.0**
SSV	**Crater Summit**	**10.00**	**71**	*e*P	**Pn**	**08 02 13.7**	**-1.0**
BHS	**Barnard House**	**10.05**	**71**	*e*P	**Pn**	**08 02 16.8**	**+1.4**
MCJ	**Malvern**	**10.11**	**320**⇓	*e*P	**Pn**	**08 02 18.5**	**+2.3**
MCJ				*e*S	**Sn**	**08 04 04.0**	**-5.4**
BBJ	**Bamboo Saint A**	**10.20**	**324**⇓	*i*P	**Pn**	**08 02 17.5**	**+0.1**
MTDJ	**Mount Denham**	**10.24**	**322**	*e*Pn	**Pn**	**08 02 16.9**	**-1.1**
MTDJ				*e*Sn	**Sn**	**08 04 06.5**	**-6.2**
SLB	**Belfond**	**10.29**	**69**	*e*P	**Pn**	**08 02 19.5**	**+0.8**
LUEV	**Luepa**	**10.30**	**114**	*e*P	**Pn**	**08 02 16.9**	**-1.8**
GTBY	**Guantanamo Bay**	**10.48**	**338**	*e*Pn	**Pn**	**08 02 21.3**	**+0.1**
GTBY				*e*Sn	**Sn**	**08 04 17.0**	**-1.6**
BIM	**Bigot**	**10.52**	**65**	*e*P	**Pn**	**08 02 22.0**	**+0.3**
FDF	**Fort de France**	**10.53**	**64**	*e*P	**Pn**	**08 02 19.0**	**-2.9**
FDF				*e*		08 04 18.0	
FDF				pmax	pmax		
	comp=Z,105nm,0.4s						
FDF	**Fort de France**	**10.53**	**64**	*e*P	**Pn**	**08 02 19.1**	**-2.9**
FDF				*e*S	**Sn**	**08 04 13.4**	**-6.4**
FDF	**Fort de France**	**10.53**	**64**	*e*Pn	**Pn**	**08 02 19.0**	**-2.9**
	comp=Z,106nm,0.4s						
FDF				*e*Sn	**Sn**	**08 04 18.0**	**-1.8**
MVM	**Montagne Vaucl**	**10.69**	**65**	*e*P	**Pn**	**08 02 27.9**	**+3.9**
NEJ	**Negril**	**10.76**	**319**⇓	*e*P	**Pn**	**08 02 28.0**	**+2.9**
GRTK	**Grand Turk**	**11.25**	**359**	*e*Pn	**Pn**	**08 02 32.1**	**+0.5**
OTAV	**Otavalo**	**12.43**	**218**	*e*Pn	**Pn**	**08 02 45.0**	**-2.8**
JTS	**JuntasAbangare**	**13.83**	**272**	P	**Pn**	**08 03 05.3**	**-1.8**
JTS						08 05 35.6	
JTS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
JTS				smax			
	comp=N,3.0nm,0.3s						
JTS	**JuntasAbangare**	**13.83**	**272**	Pn	**Pn**	**08 03 05.3**	**-1.8**
	comp=N,1.8nm,0.3s,baz=0.1,slow=19,SNR=9.8						
JTS				Sn	**Sn**	**08 05 35.5**	**-5.0**
	comp=N,3.4nm,0.3s,baz=117,slow=22,SNR=5.7						
JTS	**JuntasAbangare**	**13.83**	**272**	*e*Pn	**Pn**	**08 03 05.0**	**-2.1**
JTS				*e*Sn	**Sn**	**08 05 33.5**	**-7.1**
TGUH	**Tegucigalpa,Un**	**16.46**	**285**	*e*P	**Pn**	**08 03 44.6**	**+2.6**
	comp=N,95nm,1.3s						
ATAH	**Atahualpa**	**18.65**	**204**	P	**Pn**	**08 04 08.8**	**-0.4**
	comp=N,1.9nm,0.3s,baz=9.0,slow=5.9,SNR=22						
ATAH				LR	LR	08 12 20.6	
	comp=N,2µm,19.9s,baz=203,slow=40						
TEIG	**Tepich**	**19.48**	**303**	P	**Pn**	**08 04 17.6**	**-1.7**
	comp=N,4.0nm,0.3s,baz=173,slow=0.6,SNR=16						
TEIG				LR	LR	08 11 57.7	
	comp=N,448nm,18.8s,baz=124,slow=37						
TEIG	**Tepich**	**19.48**	**303**	*e*P	**Pn**	**08 04 18.4**	**-0.9**
	comp=N,34nm,0.6s						
TEIG				LR	LR	08 11 57.7	
DWPF	**Disney**	**20.38**	**332**	*e*P	**P**	**08 04 27.2**	**-0.5**
	comp=N,265nm,1.6s						
PAYG	**Puerto Ayora**	**22.11**	**242**	*e*P	**P**	**08 04 45.7**	**-0.8**
	comp=N,43nm,0.6s,mb5.1						
NNA	**Nana**	**22.82**	**195**	P	**P**	**08 04 51.2**	**-2.8**
	comp=N,11nm,0.5s,mb4.6,baz=3.5,slow=8.6,SNR=7.0						
NNA	**Nana**	**22.82**	**195**	*e*P	**P**	**08 04 53.1**	**-0.9**
	comp=N,11nm,0.5s,mb4.5						
CMIG	**Matias Romero**	**24.27**	**289**	P	**P**	**08 05 03.5**	**-4.8**
	comp=N,9.5nm,0.7s,mb4.3,baz=109,slow=5.0,SNR=14						
CNNC	**Cliffs of the**	**25.72**	**347**	*e*P	**P**	**08 05 22.3**	**+1.0**
	comp=N,28nm,0.8s,mb4.8						
JSC	**Jenkinsville**	**25.78**	**340**	*e*P	**P**	**08 05 22.0**	**+0.2**
JSC				*e*		08 08 51.0	
GOGA	**Godfrey**	**25.83**	**335**	*e*P	**P**	**08 05 22.8**	**+0.5**
GOGA				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.7						
GOGA	**Godfrey**	**25.83**	**335**	*e*P	**P**	**08 05 22.8**	**+0.5**
	comp=Z,24nm,1.0s,mb4.7						
SIV	**San Ignacio**	**27.79**	**159**	P	**P**	**08 05 38.9**	**-1.1**
	comp=Z,11nm,0.6s,mb4.7,baz=357,slow=9.9,SNR=100						
TKL	**Tuckaleechee C**	**27.91**	**337**	P	**P**	**08 05 41.4**	**+0.4**
TKL				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
TKL				MLR	MLR		
	comp=Z,397nm,21.7s,MS4.0						
TKL	**Tuckaleechee C**	**27.91**	**337**	P	**P**	**08 05 41.4**	**+0.4**
	comp=Z,2.5nm,0.6s,mb4.1,baz=178,slow=8.3,SNR=6.3						
TKL				LR	LR	08 16 58.6	
	comp=Z,397nm,21.7s,MS4.0,baz=333,slow=37						
TKL	**Tuckaleechee C**	**27.91**	**337**	*e*P	**P**	**08 05 42.4**	**+1.3**
TKL				LR	LR	08 16 58.6	
SWET	**Sewanee**	**28.42**	**334**	*e*P	**P**	**08 05 46.0**	**+0.4**
TZTN	**Tazewell**	**28.62**	**338**	*e*P	**P**	**08 05 46.0**	**-1.3**
	comp=Z,8.1nm,0.8s,mb4.5						
PLAL	**Pickwick Lake**	**29.22**	**330**	*e*P	**P**	**08 05 52.9**	**+0.2**
	comp=Z,18nm,0.8s,mb4.8						
PLAL				*e*PcP	PcP	08 08 58.8	-1.0
OXF	**Oxford**	**29.53**	**328**	*e*P	**P**	**08 05 55.4**	**0.0**
OXF				*e**PP	pP	08 05 59.3	-0.3
OXF				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.9						
OXF	**Oxford**	**29.53**	**328**	*e*P	**P**	**08 05 55.4**	**-0.1**
	comp=Z,19nm,0.8s,mb4.9						
OXF				*e*pP	pP	08 05 59.3	-0.3
WVT	**Waverly**	**30.04**	**332**	*e*P	**P**	**08 05 59.7**	**-0.2**
WVT				*e*		08 09 00.3	
WVT				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
WVT	**Waverly**	**30.04**	**332**	*e*P	**P**	**08 05 59.7**	**-0.2**
	comp=Z,11nm,0.8s,mb4.7						
WVT				*e*PcP	PcP	08 09 00.3	-1.6
HALT	**Halls**	**30.59**	**330**	*e*P	**P**	**08 06 05.0**	**+0.2**
NATX	**Nacogdoches**	**30.72**	**318**	*e*P	**P**	**08 06 07.8**	**+1.8**
	comp=Z,56nm,1.2s,mb5.3						
SSPA	**Standing Stone**	**30.93**	**350**	*e*P	**P**	**08 06 08.6**	**+0.8**
	comp=Z,31nm,1.4s,mb4.9						
SSPA				*e*PcP	PcP	08 09 03.4	-0.7
WCI	**Wyandotte Cave**	**31.14**	**336**	*e*P	**P**	**08 06 09.4**	**-0.2**
WCI				*e*		08 09 04.1	
WCI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
WCI	**Wyandotte Cave**	**31.14**	**336**	*e*P	**P**	**08 06 09.4**	**-0.2**
	comp=Z,11nm,0.8s,mb4.7						
WCI				*e*PcP	PcP	08 09 04.1	-0.7
UALR	**University of**	**31.33**	**325**	*e*P	**P**	**08 06 12.9**	**+1.5**
	comp=Z,14nm,1.0s,mb4.7						
ACSO	**Alum Creek Sta**	**31.77**	**342**	*e*P	**P**	**08 06 15.4**	**+0.3**
	comp=Z,26nm,0.8s,mb5.1						
ACSO				*e*pP	pP	08 06 20.0	+0.6
MIAR	**Mount Ida**	**31.88**	**323**	*e*P	**P**	**08 06 16.0**	**-0.2**
MIAR				*e**PP	pP	08 06 20.2	-0.2
MIAR				*e*		08 09 06.4	
MIAR				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
MIAR	**Mount Ida**	**31.88**	**323**	*e*P	**P**	**08 06 16.0**	**-0.3**
	comp=Z,14nm,0.9s,mb4.8						
MIAR				*e*pP	pP	08 06 20.2	-0.3
MIAR				*e*PcP	PcP	08 09 06.4	-0.5
SIUC	**Southern Illin**	**31.97**	**332**	*e*P	**P**	**08 06 16.9**	**-0.1**
	comp=Z,42nm,0.8s,mb5.3						
SIUC				*e*pP	pP	08 06 21.1	0.0
BLO	**Bloomington**	**32.04**	**337**	*e*P	**P**	**08 06 17.1**	**-0.5**
BLO				*e**PP	pP	08 06 21.6	-0.2
BLO				*e*		08 09 06.4	
BLO				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.8						
BLO	**Bloomington**	**32.04**	**337**	*e*P	**P**	**08 06 17.1**	**-0.4**
	comp=Z,13nm,0.8s,mb4.8						
BLO				*e*pP	pP	08 06 21.6	-0.2
BLO				*e*PcP	PcP	08 09 06.4	-0.7
OLIL	**Olney**	**32.31**	**334**	*e*P	**P**	**08 06 20.2**	**+0.2**
	comp=Z,31nm,0.8s,mb5.2						
OLIL				*e*pP	pP	08 06 24.1	0.0
OLIL				*e*PcP	PcP	08 09 07.5	-0.4
LVC	**Limon Verde**	**32.67**	**177**	*e*P	**P**	**08 06 20.6**	**-2.6**

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     comp=Z,104nm,3.8s
FVM  French Village   32.76 331 eP    P     08 06 23.0 -0.8
FVM                              pmax  pmax
     comp=Z,46nm,0.8s,mb5.5
FVM  French Village   32.76 331 eP    P     08 06 23.0 -0.8
     comp=Z,46nm,0.8s,mb5.5
CCM  Cathedral Cave   33.21 330 eP    P     08 06 27.4 -0.4
CCM                             e           08 09 09.8
CCM                              pmax  pmax
     comp=Z,19nm,0.7s,mb5.1
CCM  Cathedral Cave   33.21 330 eP    P     08 06 27.4 -0.4
     comp=Z,19nm,0.7s,mb5.1
CCM                             ePcP  PcP   08 09 09.8 -0.6
JCT  Junction City    33.61 311 eP    P     08 06 30.8 -0.6
JCT                              pmax  pmax
     comp=Z,9.0nm,0.8s,mb4.8
JCT  Junction City    33.61 311 eP    P     08 06 30.8 -0.6
     comp=Z,8.7nm,0.8s,mb4.7
LBNH Lisbon           33.92 359 eP    P     08 06 35.0 +1.1
LBNH                            e           08 09 11.3
LBNH                             pmax  pmax
     comp=Z,7.0nm,0.7s,mb4.7
LBNH Lisbon           33.92 359 eP    P     08 06 35.0 +1.0
     comp=Z,6.7nm,0.7s,mb4.7
LBNH                            ePcP  PcP   08 09 11.3 -0.9
WMOK Wichita Mounta   35.27 318 eP    P     08 06 42.3 -3.4
WMOK                            e*PP  pP    08 06 48.9 -1.1
WMOK                            e           08 08 06.3
WMOK                            e           08 09 15.5
WMOK                             pmax  pmax
     comp=Z,15nm,0.9s,mb4.9
WMOK Wichita Mounta   35.27 318 eP    P     08 06 42.3 -3.4
     comp=Z,15nm,0.9s,mb4.9
WMOK                            epP   pP    08 06 48.9 -1.1
WMOK                            ePP   PP    08 08 06.3 +0.4
WMOK                            ePcP  PcP   08 09 15.5 -0.8
TXAR Lajitas Array    36.04 307  P    P     08 06 52.0 -0.5
TXAR                                        08 09 18.6
TXAR                             pmax  pmax
     comp=Z,1.0nm,0.4s
TXAR                             pmax  pmax
     comp=Z,7.0nm,0.7s
TXAR                             pmax  pmax
     comp=N,1.0nm,0.8s
TXAR Lajitas Array    36.04 307  P    P     08 06 52.0 -0.5
     comp=N,1.1nm,0.4s,mb4.1,baz=131,slow=8.4,SNR=34
TXAR                             PcP  PcP   08 09 18.6 -0.2
     comp=N,6.7nm,0.7s,baz=135,slow=5.1,SNR=18
TXAR                             ScP  ScP   08 13 03.9 -1.1
     comp=N,1.1nm,0.8s,baz=133,slow=6.1,SNR=5.9
TXAR Lajitas Array    36.04 307  P    P     08 06 52.0 -0.5
TXAR                             PcP  PcP   08 09 18.6 -0.2
TXAR                             ScP  ScP   08 13 03.9 -1.1
JFWS Jewell Farm      36.70 336 eP    P     08 06 57.2 -0.7
JFWS                            e           08 09 20.0
JFWS                             pmax  pmax
     comp=Z,24nm,0.9s,mb5.0
JFWS Jewell Farm      36.70 336 eP    P     08 06 57.2 -0.6
     comp=Z,24nm,0.9s,mb5.0
JFWS                            ePcP  PcP   08 09 20.0 -0.4
KSU1 Kansas State U   36.80 326 eP    P     08 06 57.5 -1.3
     comp=Z,21nm,0.8s,mb5.0
KSU1                            ePcP  PcP   08 09 20.4 -0.5
SCIA State Center     37.16 332 eP    P     08 07 01.2 -0.6
     comp=Z,23nm,0.7s,mb5.1
SCIA                            ePcP  PcP   08 09 21.8  0.0
AMTX Amarillo         37.30 316 eP    P     08 07 02.4 -0.7
     comp=Z,21nm,0.9s,mb5.0
AMTX                            epP   pP    08 07 07.3  0.0
AMTX                            ePcP  PcP   08 09 22.1 -0.4
RCBR Riachuelo        38.33 113 eP    P     08 07 11.0 -1.0
     comp=Z,19nm,0.8s,mb4.9
CBKS Cedar Bluff      38.41 323 eP    P     08 07 11.9 -0.5
CBKS                            e           08 09 25.2
CBKS                             pmax  pmax
     comp=Z,40nm,1.2s,mb5.0
CBKS Cedar Bluff      38.41 323 eP    P     08 07 11.9 -0.6
     comp=Z,40nm,1.2s,mb5.0
CBKS                            ePcP  PcP   08 09 25.2 -0.6
CPUP Villa Florida    38.64 160  P    P     08 07 11.2 -3.2
CPUP                                        08 13 10.8
CPUP                             pmax  pmax
     comp=Z,3.0nm,0.5s
CPUP                             pmax  pmax
     comp=N,2.0nm,0.8s
CPUP Villa Florida    38.64 160  P    P     08 07 11.2 -3.2
     comp=N,3.0nm,0.5s,mb4.3,baz=327,slow=7.3,SNR=13
CPUP                             ScP  ScP   08 13 10.8 -3.7
     comp=N,1.8nm,0.8s,baz=329,slow=5.9,SNR=2.9
CPUP Villa Florida    38.64 160 eP    P     08 07 11.0 -3.4
     comp=N,18nm,0.4s,mb5.1
CPUP                             ScP  ScP   08 13 10.8 -3.7
LCO  Las Campanas     38.98 180 eP    P     08 07 14.9 -2.4
     comp=N,123nm,1.1s,mb5.5
LCO                             ePcP  PcP   08 09 26.7 -0.9
122A Conniff Cattle   40.07 309 ⇑P    P     08 07 26.2 -0.2
     baz=40
ECSD EROS Data Cent   40.17 331 eP    P     08 07 26.5 -0.5
     comp=N,2.7nm,0.6s,mb4.2
ECSD                            ePcP  PcP   08 09 30.5 -0.7
BNM  Barren Site      40.44 312 eP    P     08 07 30.3 +0.8
     comp=N,5.6nm,1.0s,mb4.2
SPB  Sao Paulo        40.68 146 eP    P     08 07 30.0 -1.5
     comp=N,13nm,0.6s,mb4.7
ANMO Albuquerque      40.69 313 eP    P     08 07 32.1 +0.6
ANMO                            e*PP  pP    08 07 36.4 +0.6
ANMO                             pmax  pmax
     comp=Z,14nm,0.9s
ANMO Albuquerque      40.69 313 eP    P     08 07 32.1 +0.5
     comp=Z,14nm,0.9s,mb4.6
ANMO                            epP   pP    08 07 36.4 +0.6
X22A Bernardo         40.88 312 ⇑P    P     08 07 33.8 +0.6
     baz=41
LAZ  Ladron           40.93 312 eP    P     08 07 34.2 +0.7
     comp=Z,24nm,1.7s,mb4.5
120A U Bar Ranch, L   41.26 308 ⇑P    P     08 07 36.2  0.0
     baz=42
319A Douglas          41.30 306 ⇑P    P     08 07 36.8 +0.2
     baz=42,SNR=8.3
EYMN Ely              41.43 339 eP    P     08 07 36.4 -1.0
     comp=Z,13nm,0.7s,mb4.7
EYMN                            epP   pP    08 07 40.4 -1.2
SDCO Great Sand Dun   41.44 317 eP    P     08 07 38.2 +0.6
     comp=Z,14nm,1.0s,mb4.5
219A White Tail Can   41.52 307 ⇓P    P     08 07 38.4 -0.1
     baz=42
119A Ashpeak Ranch,   41.86 308 ⇑P    P     08 07 41.6 +0.4
     baz=42
318A Bisbee           41.89 306 ⇑P    P     08 07 41.6 +0.2
     baz=42,SNR=8.4
T22A Edith            42.02 315 ⇓P    P     08 07 42.9 +0.5
     baz=42,SNR=11
218A Dragoon          42.13 307 ⇓P    P     08 07 44.1 +0.7
     baz=42
W20A Ramah            42.26 312 ⇑P    P     08 07 44.7 +0.3
     baz=42,SNR=7.7
Y19A Nutrioso         42.31 310 ⇑P    P     08 07 45.6 +0.8
     baz=42,SNR=5.1
118A Homack Ranch,    42.33 308 ⇑P    P     08 07 45.1 +0.2
     baz=43,SNR=21
R22A Saguache, Gunn   42.54 317 ⇑P    P     08 07 47.4 +0.8
     baz=43
ISCO Idaho Springs    42.64 320 eP    P     08 07 47.8 +0.4
ISCO                             pmax  pmax
     comp=Z,5.0nm,1.0s,mb4.2
ISCO Idaho Springs    42.64 320 eP    P     08 07 47.8 +0.3
     comp=Z,5.0nm,1.0s,mb4.2
217A Green Valley     42.67 306 ⇓P    P     08 07 47.5 -0.2
     baz=43,SNR=9.4
TUC  Tucson           42.84 307 eP    P     08 07 49.1  0.0
TUC                              pmax  pmax
     comp=Z,4.0nm,0.9s,mb4.2
TUC  Tucson           42.84 307 eP    P     08 07 49.1  0.0
     comp=Z,4.4nm,0.9s,mb4.2
117A Oracle           42.90 307 ⇑P    P     08 07 50.0 +0.4
     baz=43
W19A Sanders          42.90 311 ⇓P    P     08 07 50.2 +0.6
     baz=43
V19A Window Rock      42.92 312 ⇓P    P     08 07 50.0 +0.2
     baz=43,SNR=7.2
Z17A San Carlos Hig   42.97 308 ⇓P    P     08 07 50.4 +0.2
     baz=43,SNR=8.6
Q22A Crested Butte,   42.97 318 ⇑P    P     08 07 51.1 +1.0
     baz=43
X18A Snowflake        43.07 310 ⇓P    P     08 07 51.8 +0.8
     baz=43,SNR=11
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W18A  Petrified Fore   43.16 311 ⇓P    P     08 07 52.7 +0.9
      baz=43
MVCO  Mesa Verde       43.23 315 ⇑P    P     08 07 52.3 +0.1
      baz=44,SNR=9.4
MVCO  Mesa Verde       43.23 315 eP    P     08 07 53.0 +0.8
      comp=Z,89nm,1.9s,mb5.2
216A  Three Points,    43.26 306 ⇓P    P     08 07 52.8 +0.2
      baz=44
AGMN  Agassiz Refuge   43.37 336 eP    P     08 07 52.4 -0.8
      comp=Z,27nm,0.8s,mb5.0
Q21A  Lamborn Mesa,    43.40 317 ⇓P    P     08 07 54.2 +0.6
      baz=44
Y17A  Roosevelt        43.41 309 ⇓P    P     08 07 54.3 +0.5
      baz=44
T19A  Beclabito        43.42 314 ⇑P    P     08 07 54.1 +0.3
      baz=44,SNR=14
V18A  Ganado           43.57 312 ⇑P    P     08 07 55.5 +0.6
      baz=44
R20A  Redvale          43.62 316 ⇑P    P     08 07 56.1 +0.7
      baz=44,SNR=18
P21A  Newcastle        43.68 318 ⇓P    P     08 07 56.8 +1.0
      baz=44
PV01  Paradox Valley   43.72 316 eP    P     08 07 57.8 +1.6
      comp=Z,2µm,1.1s
Z16A  Peralta Trail,   43.73 308 ⇓P    P     08 07 56.7 +0.4
      baz=44
N22A  Wattenberg Ran   43.74 320 ⇑P    P     08 07 56.6 +0.4
      baz=44,SNR=12
S19A  Harvey Farm, M   43.93 315 ⇑P    P     08 07 58.2 +0.3
      baz=44,SNR=10
Q20A  Ridgley Place,   43.95 317 ⇓P    P     08 07 58.7 +0.7
      baz=44,SNR=45
Y16A  Circle Bar Ran   43.97 309 ⇑P    P     08 07 58.6 +0.4
      baz=44,SNR=6.7
O21A  Pagoda           44.06 319 ⇓P    P     08 07 59.6 +0.7
      baz=44
PV04  Paradox Valley   44.08 316 eP    P     08 07 59.8 +0.7
X16A  Lo Mia Camp, P   44.15 310 ⇑P    P     08 08 00.1 +0.4
      baz=44,SNR=7.5
T18A  Mexican Hat      44.16 314 ⇓P    P     08 07 59.7 -0.1
      baz=44,SNR=21
M22A  Cedar Creek Ra   44.16 321 ⇓P    P     08 08 00.2 +0.5
      baz=44
R19A  Curley Farm, L   44.27 316 ⇓P    P     08 08 00.8 +0.2
      baz=44,SNR=6.7
Z15A  Gila River Ind   44.28 308 ⇓P    P     08 08 01.1 +0.3
      baz=44
P20A  De Beque         44.29 318 ⇑P    P     08 08 01.3 +0.6
      baz=44,SNR=17
RSSD  Black Hills      44.29 326 eP    P     08 08 01.0 +0.3
RSSD                             e           08 09 44.2
RSSD                              pmax  pmax
      comp=Z,3.0nm,0.6s,mb4.2
RSSD  Black Hills      44.29 326 eP    P     08 08 01.0 +0.4
      comp=Z,3.4nm,0.6s,mb4.2
RSSD                             ePP   PP    08 09 44.1 +0.1
214A  Organ Pipe Nat   44.32 306 ⇑P    P     08 08 00.7 -0.4
      baz=44,SNR=5.9
N21A  Black Mountain   44.39 320 ⇓P    P     08 08 02.1 +0.6
      baz=45
U17A  Shonto           44.48 313 ⇓P    P     08 08 03.1 +0.8
      baz=45
W16A  Flagstaff        44.49 310 ⇓P    P     08 08 02.9 +0.5
      baz=45
S18A  Hurst Farm, Bl   44.50 314 ⇑P    P     08 08 02.5 +0.1
      baz=45,SNR=6.9
O20A  White River Ci   44.52 318 ⇓P    P     08 08 02.6 +0.1
      baz=45,SNR=7.5
WUAZ  Wupatki          44.55 311 ⇓P    P     08 08 03.1 +0.3
      baz=45,SNR=5.9
WUAZ  Wupatki          44.55 311 eP    P     08 08 03.7 +0.9
      comp=Z,10.0nm,0.9s,mb4.7
WUAZ                             ePcP  PcP   08 09 46.1 +0.1
Q19A  Hogan Spring (   44.60 316 ⇓P    P     08 08 03.4 +0.2
      baz=45,SNR=31
U16A  Tuba City        44.63 312 ⇑P    P     08 08 03.9 +0.4
      baz=45,SNR=5.9
SCHQ  Schefferville    44.63   3  P    P     08 08 03.2  0.0
      comp=Z,11nm,0.5s,mb4.7,baz=194,slow=6.4,SNR=46
SCHQ                              LR   LR    08 25 14.0
      comp=Z,234nm,19.2s,MS4.1,baz=325,slow=34
114A  Black Gap (USA   44.65 307 ⇑P    P     08 08 04.1 +0.3
      baz=45
Y15A  Casa Rosa Ranc   44.66 309 ⇑P    P     08 08 03.9 +0.1
      baz=45,SNR=8.4
P19A  Cripple Cowboy   44.75 317 ⇓P    P     08 08 04.3  0.0
      baz=45,SNR=12
M21A  Separation Pea   44.75 321 ⇓P    P     08 08 04.8 +0.4
      baz=45
R18A  Canyonlands Na   44.76 315 ⇓P    P     08 08 04.5 +0.1
      baz=45,SNR=10
T17A  Navajo Res., N   44.76 313 ⇓P    P     08 08 05.4 +0.9
      baz=45,SNR=5.8
X15A  Humboldt         44.79 309 ⇑P    P     08 08 05.0 +0.2
      baz=45,SNR=8.5
N20A  Spence Gulch,    44.90 319 ⇓P    P     08 08 06.3 +0.7
      baz=45,SNR=7.8
Z14A  Wintersburg      44.92 307 ⇑P    P     08 08 06.2 +0.3
      baz=45
ULM   Lac du Bonnet    44.94 337  P    P     08 08 04.3 -1.4
      comp=Z,14nm,0.6s,mb4.9,baz=145,slow=7.6,SNR=30
ULM                               LR   LR    08 27 38.8
      comp=Z,184nm,20.9s,MS4.0,baz=177,slow=37
ULM   Lac du Bonnet    44.94 337  P    P     08 08 04.3 -1.4
ULM                               LR   LR    08 27 38.8
L21A  Rawlins          44.96 321 ⇑P    P     08 08 06.1 +0.1
      baz=45
S17A  Black Ridge (B   45.05 314 ⇓P    P     08 08 07.4 +0.7
      baz=45,SNR=7.4
W15A  Williams         45.08 310 ⇑P    P     08 08 07.2 +0.1
      baz=45
Y14A  Wickenburg       45.17 308 ⇓P    P     08 08 07.8  0.0
      baz=45,SNR=8.5
M20A  Sweetwater, Wa   45.21 320 ⇑P    P     08 08 08.3 +0.3
      baz=45
T16A  Glen Canyon Da   45.26 313 ⇑P    P     08 08 09.0 +0.5
      baz=46
Q18A  Rafter H Ranch   45.26 316 ⇑P    P     08 08 08.9 +0.4
      baz=46,SNR=11
V15A  Kaibab Nationa   45.26 311 ⇓P    P     08 08 08.8 +0.2
      baz=46,SNR=12
X14A  Yava             45.28 309 ⇓P    P     08 08 08.8 +0.1
      baz=46,SNR=9.9
R17A  Hanksville Air   45.34 315 ⇑P    P     08 08 09.5 +0.4
      baz=46,SNR=9.6
113A  Mohawk Valley,   45.36 306 ⇓P    P     08 08 09.3 -0.1
      baz=46
SRU   San Rafael       45.53 316 eP    P     08 08 11.1 +0.5
SRU                               pmax  pmax
      comp=Z,7.0nm,0.6s,mb4.8
SRU   San Rafael       45.53 316 ⇓P    P     08 08 11.1 +0.4
      baz=46,SNR=17
SRU   San Rafael       45.53 316 eP    P     08 08 11.1 +0.4
      comp=Z,7.3nm,0.6s,mb4.8
L20A  Wamsutter        45.58 321 ⇑P    P     08 08 11.2 +0.2
      baz=46
W14A  Seligman         45.71 310 ⇑P    P     08 08 12.0  0.0
      baz=46,SNR=11
O18A  Roosevelt        45.75 318 ⇑P    P     08 08 12.6 +0.3
      baz=46,SNR=12
Y13A  Salome           45.77 308 ⇑P    P     08 08 12.4 -0.2
      baz=46,SNR=8.5
R16A  Teasdale         45.82 314 ⇑P    P     08 08 13.3 +0.4
      baz=46,SNR=12
M19A  Rock Springs     45.83 320 ⇑P    P     08 08 13.9 +0.9
      baz=46
P17A  Butcher Ranch,   45.85 316 ⇑P    P     08 08 13.7 +0.5
      baz=46,SNR=15
V14A  Boquillas Ranc   45.89 310 ⇑P    P     08 08 13.8 +0.3
      baz=46,SNR=12
Q16A  Castle Valley    45.89 315 ⇑P    P     08 08 13.7 +0.3
      baz=46
T15A  Red Dirt Ranch   45.91 312 ⇑P    P     08 08 14.3 +0.6
      baz=46,SNR=13
K20A  Yellowstone Ra   45.94 321 ⇑P    P     08 08 13.9 +0.1
      baz=46
X13A  Yucca            46.05 309 ⇓P    P     08 08 14.7 -0.1
      baz=46
S15A  Panguitch        46.17 313 ⇑P    P     08 08 15.8 +0.1
      baz=46,SNR=5.3
PDMCI Parker Dam,Lak   46.18 308 ⇑P    P     08 08 16.4 +0.6
      baz=46
O17A  Robinson Place   46.20 317 ⇑P    P     08 08 16.4 +0.5
      baz=46
U14A  Mt Trumbull      46.25 311 ⇓P    P     08 08 16.8 +0.5
      baz=46
L19A  Farson           46.27 320 ⇓P    P     08 08 16.7 +0.3
      baz=46,SNR=16
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W13A  Hualapai Mount   46.27 309 ⇑P    P     08 08 16.9 +0.3
      baz=46,SNR=7.1
GLA   Glamis           46.29 306 eP    P     08 08 16.3 -0.4
GLA                               pmax  pmax
      comp=Z,12nm,0.9s,mb4.8
GLA   Glamis           46.29 306 ⇑P    P     08 08 17.1 +0.4
      baz=46
GLA   Glamis           46.29 306 eP    P     08 08 16.3 -0.4
      comp=Z,12nm,0.9s,mb4.8
K19A  Absolon Red Bu   46.34 321 ⇑P    P     08 08 16.5 -0.4
      baz=47,SNR=7.4
R15A  Junction         46.34 314 ⇑P    P     08 08 17.4 +0.4
      baz=47,SNR=6.7
M18A  Lyman            46.37 319 ⇓P    P     08 08 17.4 +0.2
      baz=47,SNR=5.6
MSU   Marysvale        46.41 314 eP    P     08 08 18.6 +1.1
MSU                               pmax  pmax
      comp=Z,13nm,1.0s,mb4.8
MSU   Marysvale        46.41 314 eP    P     08 08 18.6 +1.1
      comp=Z,13nm,1.0s,mb4.8
T14A  Hurricane        46.44 312 ⇑P    P     08 08 17.9 +0.1
      baz=47,SNR=13
P16A  Fountain Green   46.55 316 ⇓P    P     08 08 19.2 +0.6
      baz=47
L18A  Fontenelle, Gr   46.61 320 ⇑P    P     08 08 19.4 +0.3
      baz=47,SNR=15
N17A  Moffit Pass      46.63 318 ⇑P    P     08 08 19.8 +0.5
      baz=47,SNR=20
V13A  Grand Canyon W   46.63 310 ⇓P    P     08 08 19.9 +0.6
      baz=47
DAU   Daniels Canyon   46.65 317 eP    P     08 08 20.7 +1.3
DAU                               pmax  pmax
      comp=Z,53nm,1.4s,mb5.3
DAU   Daniels Canyon   46.65 317 eP    P     08 08 20.7 +1.3
      comp=Z,53nm,1.4s,mb5.3
MPU   Maple Canyon     46.72 316 eP    P     08 08 20.4 +0.5
      comp=Z,27nm,1.1s,mb5.1
BW06  Boulder Array    46.75 321 ⇑P    P     08 08 20.2 +0.1
      baz=47,SNR=13
PDAR  Pinedale Array   46.75 321  P    P     08 08 19.8 -0.4
      comp=Z,5.2nm,0.7s,mb4.6,baz=125,slow=11,SNR=57
PDAR                              PcP  PcP   08 09 52.2 -1.3
      comp=Z,4.2nm,0.6s,baz=127,slow=6.5,SNR=5.5
PDAR                              LR   LR    08 31 20.5
      comp=Z,143nm,18.7s,MS4.0,baz=302,slow=40
Q15A  Fillmore         46.77 315 ⇓P    P     08 08 20.7 +0.4
      baz=47,SNR=8.2
M17A  Scullys Gap (B   46.78 319 ⇓P    P     08 08 20.6 +0.2
      baz=47,SNR=7.5
S14A  Cedar City       46.79 313 ⇓P    P     08 08 21.1 +0.6
      baz=47
U13A  Pakoon Wash      46.83 311 ⇓P    P     08 08 21.2 +0.3
      baz=47,SNR=7.9
R14A  James Farms, M   46.91 314 ⇓P    P     08 08 22.0 +0.5
      baz=47
IRM   Iron Mountain    46.91 308 ⇓P    P     08 08 21.7 +0.1
      baz=47,SNR=8.0
P15A  Leamington       46.95 316 ⇑P    P     08 08 22.3 +0.5
      baz=47
BC3   Big Chuckw Mtn   46.98 307 ⇓P    P     08 08 22.2  0.0
      baz=47
K18A  Toltan Ranch,    46.99 320 ⇓P    P     08 08 22.3 +0.3
      baz=47,SNR=14
NLU   North Lily Min   46.99 316 eP    P     08 08 21.0 -1.1
      comp=Z,15nm,1.0s,mb4.9
ARUT  Antelope Range   47.00 313 eP    P     08 08 22.8 +0.6
ARUT                              pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.8
ARUT  Antelope Range   47.00 313 eP    P     08 08 22.8 +0.7
      comp=Z,10nm,0.8s,mb4.8
N16A  Rees Ranch, Co   47.00 318 ⇑P    P     08 08 22.8 +0.6
      baz=47,SNR=14
T13A  Saint George     47.03 312 ⇑P    P     08 08 22.1 -0.3
      baz=47,SNR=7.4
W12A  Cal Nev Ari      47.10 309 ⇑P    P     08 08 23.3 +0.3
      baz=47
S13A  Holt Ranch, En   47.22 312 ⇓P    P     08 08 24.5 +0.6
      baz=47,SNR=13
L17A  Cokeville        47.23 319 ⇓P    P     08 08 24.0  0.0
      baz=48,SNR=11
V12A  Nelson           47.24 310 ⇑P    P     08 08 24.1  0.0
      baz=48,SNR=11
DGMT  Dagmar           47.24 330 ⇓P    P     08 08 23.6 -0.3
      baz=48,SNR=8.7
DGMT  Dagmar           47.24 330 eP    P     08 08 23.7 -0.2
      comp=Z,35nm,1.1s,mb5.2
J18A  Kendall Valley   47.28 321 ⇑P    P     08 08 24.3  0.0
      baz=48,SNR=24
M16A  Huntsville       47.34 318 ⇓P    P     08 08 24.8  0.0
      baz=48
Q14A  Sevier Lake (B   47.39 314 ⇑P    P     08 08 25.8 +0.6
      baz=48,SNR=14
O15A  The Old Anders   47.41 316 ⇑P    P     08 08 25.7 +0.4
      baz=48
I18A  Diamond G Ranc   47.42 322 ⇑P    P     08 08 25.8 +0.4
      baz=48,SNR=11
P14A  Drum Mountains   47.51 315 ⇓P    P     08 08 26.5 +0.3
      baz=48
T12A  Moapa            47.51 311 ⇓P    P     08 08 26.6 +0.4
      baz=48
GMRC  Granite Mounta   47.52 308 ⇑P    P     08 08 26.5 +0.1
      baz=48
R13A  O'Grain Ranch,   47.54 313 ⇑P    P     08 08 27.0 +0.6
      baz=48,SNR=7.5
L16A  Fish Haven       47.55 319 ⇓P    P     08 08 26.7 +0.3
      baz=48,SNR=44
K17A  Gardner Place,   47.60 320 ⇑P    P     08 08 26.7 -0.1
      baz=48,SNR=6.7
DUG   Dugway           47.60 316 eP    P     08 08 27.6 +0.7
DUG                               pmax  pmax
      comp=Z,56nm,1.5s,mb5.4
DUG   Dugway           47.60 316 ⇑P    P     08 08 27.5 +0.6
      baz=48,SNR=14
DUG   Dugway           47.60 316 eP    P     08 08 27.6 +0.7
      comp=Z,56nm,1.5s,mb5.4
J17A  Brown Place, J   47.79 321 ⇓P    P     08 08 28.7 +0.5
      baz=48,SNR=42
LOHW  Long Hollow      47.85 321 eP    P     08 08 28.8 +0.1
      comp=Z,12nm,0.8s,mb5.0
SNOW  Snow King Moun   47.87 321 eP    P     08 08 29.1 +0.3
      comp=Z,14nm,0.6s,mb5.2
SNOW                             epP   pP    08 08 33.8 +0.7
REDW  Red Top Meadow   47.87 321 eP    P     08 08 29.1 +0.2
      comp=Z,53nm,1.2s,mb5.4
RLMT  Red Lodge        47.88 324 ⇓P    P     08 08 28.9  0.0
      baz=48,SNR=13
RLMT  Red Lodge        47.88 324 eP    P     08 08 28.8 -0.1
      comp=Z,32nm,1.4s,mb5.2
Q13A  Wheeler Ranch,   47.90 314 ⇓P    P     08 08 29.6 +0.4
      baz=48,SNR=28
M15A  Larsen Ranch,    47.95 318 ⇓P    P     08 08 29.5  0.0
      baz=48,SNR=9.9
S12A  Delamar Landin   47.95 312 ⇓P    P     08 08 30.4 +0.8
      baz=48
TUQ   Turquoise Moun   47.95 309 ⇑P    P     08 08 29.9 +0.2
      baz=48
I17A  Pilgrim Ck.      48.00 322 ⇑P    P     08 08 30.4 +0.5
      baz=48,SNR=17
TPAW  Teton Pass       48.00 321 eP    P     08 08 30.1 +0.2
      comp=Z,9.4nm,0.6s,mb5.0
MOOW  Moose Ponds      48.01 321 eP    P     08 08 30.1 +0.2
      comp=Z,13nm,0.9s,mb5.0
HEC   Hector,Ludlow    48.06 308 ⇓P    P     08 08 30.7 +0.3
      baz=48
R12A  Pony Springs,    48.06 313 ⇑P    P     08 08 31.3 +0.9
      baz=48,SNR=14
K16A  Soda Springs     48.06 320 ⇑P    P     08 08 31.0 +0.6
      baz=48,SNR=7.8
T11A  Corn Creek, Al   48.08 311 ⇓P    P     08 08 31.0 +0.4
      baz=48
P13A  Bates Ranch, G   48.11 315 ⇓P    P     08 08 31.6 +0.8
      baz=48,SNR=18
N14A  Grayback Hills   48.16 317 ⇓P    P     08 08 31.2 +0.1
      baz=48,SNR=8.0
RRI2  Red Ridge        48.16 321 eP    P     08 08 31.4 +0.3
      comp=Z,17nm,0.8s,mb5.1
G18A  Lazy EL Ranch,   48.16 324 ⇓P    P     08 08 30.7 -0.3
      baz=48,SNR=15
L15A  Malad City       48.17 318 ⇑P    P     08 08 31.2  0.0
      baz=48,SNR=20
DCID1 Drake Creek      48.20 321 eP    P     08 08 31.6 +0.2
      comp=Z,14nm,0.7s,mb5.1
IMW   Indian Meadow    48.21 321 eP    P     08 08 31.4 -0.1
      comp=Z,15nm,1.0s,mb5.0
LKWY  Lake             48.24 322 eP    P     08 08 33.2 +1.5
LKWY                              pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.5
LKWY  Lake             48.24 322 eP    P     08 08 33.2 +1.5
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	comp=Z,4.4nm,0.8s,mb4.5						
J16A	Bone	48.30	320	⇓P	P	08 08 32.6	+0.4
	baz=48,SNR=21						
HVU	Hansel Valley	48.31	318	eP	P	08 08 32.4	+0.1
HVU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
HVU	Hansel Valley	48.31	318	eP	P	08 08 32.4	0.0
	comp=Z,6.1nm,0.8s,mb4.7						
O13A	Hicks Ranch, I	48.38	316	⇓P	P	08 08 33.8	+0.9
	baz=49,SNR=12						
SHOC	Shoshone	48.38	309	⇓P	P	08 08 33.3	+0.3
	baz=49						
GCMT	Greycliff	48.49	324	eP	P	08 08 33.8	+0.2
	comp=Z,11nm,0.9s,mb4.9						
GCMT				epP	pP	08 08 38.2	+0.3
Q12A	Willow Creek R	48.51	314	⇑P	P	08 08 34.5	+0.7
	baz=49,SNR=16						
I16A	Newdale	48.53	321	⇑P	P	08 08 34.5	+0.5
	baz=49,SNR=38						
M14A	Sheep Mountain	48.56	317	⇑P	P	08 08 34.2	0.0
	baz=49,SNR=33						
F18A	Big Timber	48.58	324	⇑P	P	08 08 34.3	0.0
	baz=49,SNR=18						
GSC	Goldstone	48.58	308	⇑P	P	08 08 34.4	-0.2
	baz=49						
K15A	Arbon	48.59	319	⇓P	P	08 08 34.3	-0.1
	baz=49,SNR=15						
U10A	Ash Meadows, A	48.60	310	⇑P	P	08 08 34.8	+0.1
	baz=49						
S11A	Rachel	48.62	312	⇑P	P	08 08 35.4	+0.6
	baz=49						
YMR	Madison River	48.63	322	eP	P	08 08 35.6	+0.9
	comp=Z,16nm,0.9s,mb5.1						
L14A	Malta	48.74	318	⇓P	P	08 08 35.5	-0.2
	baz=49,SNR=12						
R11A	Troy Canyon, C	48.77	313	⇓P	P	08 08 36.1	+0.1
	baz=49,SNR=9.4						
H16A	Russell Place,	48.82	322	⇑P	P	08 08 36.7	+0.5
	baz=49,SNR=10						
N13A	Wendover, West	48.85	316	⇑P	P	08 08 36.6	+0.2
	baz=49,SNR=9.4						
N13A	Wendover, West	48.85	316	eP	P	08 08 36.9	+0.5
	comp=Z,18nm,0.8s,mb5.2						
J15A	Blackfoot	48.88	320	⇓P	P	08 08 36.9	+0.2
	baz=49,SNR=17						
K14A	Jones Ranch, D	48.94	319	⇓P	P	08 08 36.9	-0.3
	baz=49,SNR=6.3						
O12A	Currie	48.96	315	⇓P	P	08 08 37.8	+0.4
	baz=49,SNR=8.7						
Q11A	Duckwater	49.02	313	⇑P	P	08 08 38.2	+0.4
	baz=49,SNR=10						
FURC	Furnace Creek,	49.02	310	⇑P	P	08 08 37.9	0.0
	baz=49,SNR=6.7						
M13A	Montello	49.05	317	⇑P	P	08 08 37.9	-0.1
	baz=49,SNR=13						
M13A	Montello	49.05	317	eP	P	08 08 38.0	0.0
	comp=Z,11nm,0.8s,mb5.0						
M13A				ePcP	PcP	08 10 01.5	-0.2
E18A	Harlowton	49.07	325	⇑P	P	08 08 38.1	0.0
	baz=49,SNR=19						
F17A	Fitzpatrick Pl	49.13	324	⇑P	P	08 08 38.8	+0.3
	baz=49,SNR=27						
I15A	Monteview	49.22	321	⇑P	P	08 08 39.6	+0.3
	baz=49,SNR=11						
L13A	Double Diamond	49.23	318	⇑P	P	08 08 39.4	+0.1
	baz=49,SNR=8.5						
R10A	Warm Springs	49.27	312	⇑P	P	08 08 40.1	+0.4
	baz=50,SNR=9.1						
LRMC	Laurel Mountai	49.32	308	⇓P	P	08 08 40.2	0.0
	baz=50						
S10A	Tonopah Range,	49.35	312	⇑P	P	08 08 40.7	+0.4
	baz=50,SNR=9.6						
EDW2	Edwards Air Fo	49.37	307	⇓P	P	08 08 40.5	0.0
	baz=50						
D18A	Linhart Farms,	49.37	326	⇑P	P	08 08 40.5	+0.1
	baz=50,SNR=8.7						
N12A	Clover Valley,	49.41	316	⇓P	P	08 08 40.7	-0.1
	baz=50,SNR=8.3						
N12A	Clover Valley,	49.41	316	eP	P	08 08 40.9	+0.1
	comp=Z,12nm,0.9s,mb4.9						
G16A	Moss Hill, Enn	49.44	322	⇓P	P	08 08 41.0	+0.1
	baz=50,SNR=13						
ELK	Elko	49.51	316	eP	P	08 08 41.3	-0.2
ELK				e		08 10 03.3	
ELK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ELK	Elko	49.51	316	eP	P	08 08 41.3	-0.2
	comp=Z,3.5nm,0.6s,mb4.6						
ELK				ePcP	PcP	08 10 03.3	-0.1
J14A	Carey	49.53	319	⇑P	P	08 08 42.1	+0.5
	baz=50,SNR=35						
O11A	Cowboy Ranch,	49.54	315	⇑P	P	08 08 42.0	+0.3
	baz=50,SNR=8.7						
Q10A	Clear Creek Ra	49.55	313	⇑P	P	08 08 42.3	+0.5
	baz=50,SNR=8.5						
E17A	Martinsdale	49.55	324	⇓P	P	08 08 42.0	+0.2
	baz=50,SNR=44						
BOZ	Bozeman (W)	49.55	323	eP	P	08 08 41.8	0.0
BOZ				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.9						
BOZ	Bozeman (W)	49.55	323	⇓P	P	08 08 41.8	0.0
	baz=50,SNR=13						
BOZ	Bozeman (W)	49.55	323	eP	P	08 08 41.8	0.0
	comp=Z,19nm,1.4s,mb4.9						
K13A	Stover Farm, H	49.58	318	⇑P	P	08 08 42.1	+0.1
	baz=50						
GRAC	Grapevine Rang	49.59	310	⇑P	P	08 08 42.5	+0.3
	baz=50						
F16A	Kennard Place,	49.63	323	⇓P	P	08 08 42.6	+0.2
	baz=50,SNR=15						
H15A	Lima	49.63	321	⇑P	P	08 08 43.5	+1.1
	baz=50,SNR=30						
S09A	Goldfield	49.74	311	⇓P	P	08 08 43.1	-0.3
	baz=50,SNR=8.1						
I14A	Mackay	49.79	320	⇑P	P	08 08 43.9	+0.3
	baz=50,SNR=16						
R09A	Tonopah	49.81	312	⇑P	P	08 08 43.9	0.0
	baz=50,SNR=11						
G15A	Dillon	49.81	322	⇑P	P	08 08 44.1	+0.3
	baz=50,SNR=15						
EGMT	Eagleton	49.83	327	⇓P	P	08 08 43.6	-0.2
	baz=50,SNR=12						
EGMT	Eagleton	49.83	327	eP	P	08 08 43.5	-0.3
	comp=Z,25nm,1.0s,mb5.2						
EGMT				ePcP	PcP	08 10 03.9	-0.5
D17A	Six Diamond Ra	49.84	325	⇑P	P	08 08 43.9	0.0
	baz=50,SNR=12						
MCMT	McKenzie Canyo	49.86	322	eP	P	08 08 45.2	+1.1
	comp=Z,4.8nm,0.7s,mb4.6						
N11A	Elko Archery C	49.88	316	⇑P	P	08 08 44.6	+0.3
	baz=50						
P10A	Eureka	49.90	314	⇓P	P	08 08 44.8	+0.2
	baz=50,SNR=8.8						
L12A	House Creek Ra	49.97	317	⇑P	P	08 08 45.0	0.0
	baz=50,SNR=7.0						
DLMT	Dillon	49.98	322	eP	P	08 08 45.5	+0.5
	comp=Z,38nm,1.5s,mb5.2						
ISA	Isabella	49.99	308	eP	P	08 08 45.4	+0.1
ISA				e		08 10 04.8	
ISA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
ISA	Isabella	49.99	308	⇓P	P	08 08 45.6	+0.3
	baz=50						
ISA	Isabella	49.99	308	eP	P	08 08 45.4	+0.1
	comp=Z,3.4nm,0.8s,mb4.4						
ISA				ePcP	PcP	08 10 04.8	-0.5
J13A	Cove Ranch, Pi	49.99	319	⇓P	P	08 08 45.1	-0.1
	baz=50,SNR=13						
B18A	Beardsley Farm	50.06	327	⇓P	P	08 08 45.5	-0.1
	baz=50,SNR=25						
E16A	East Helena	50.06	324	⇓P	P	08 08 45.6	0.0
	baz=50,SNR=16						
K12A	Draper Farm, C	50.11	318	⇓P	P	08 08 46.3	+0.2
	baz=50						
Q09A	Carvers	50.11	313	⇓P	P	08 08 46.3	+0.1
	baz=50						
LRM	Limekiln Ridge	50.13	323	eP	P	08 08 46.2	0.0
	comp=Z,17nm,0.7s,mb5.2						
C17A	Wharram Farm,	50.16	326	⇑P	P	08 08 46.2	-0.1
	baz=50,SNR=21						
F15A	Butte	50.17	323	⇓P	P	08 08 46.4	0.0
	baz=50,SNR=9.9						
M11A	Holland Ranch,	50.18	316	⇓P	P	08 08 46.6	0.0
	baz=50,SNR=6.3						
I13A	Wildhorse Cree	50.20	320	⇑P	P	08 08 47.2	+0.4
	baz=50,SNR=22						
HLID	Hailey	50.22	319	⇓P	P	08 08 47.1	+0.2
	baz=50,SNR=13						
HLID	Hailey	50.22	319	eP	P	08 08 47.2	+0.3
	comp=Z,8.9nm,0.9s,mb4.8						
HRY	Holter Researc	50.25	324	eP	P	08 08 47.2	+0.2
	comp=Z,18nm,0.7s,mb5.2						
D16A	Dana Ranch, Ca	50.26	325	⇑P	P	08 08 47.1	0.0
	baz=50,SNR=19						
P09A	Austin	50.35	314	⇓P	P	08 08 48.5	+0.5
	baz=51,SNR=15						
A18A	Metzger Ranch,	50.41	327	⇑P	P	08 08 47.7	-0.5
	baz=51,SNR=7.3						
G14A	Jackson	50.45	322	⇓P	P	08 08 48.4	-0.2
	baz=51,SNR=5.8						
L11A	Cat Creek Ranc	50.47	317	⇓P	P	08 08 49.1	+0.3
	baz=51,SNR=11						
VES	Vestal, Richgr	50.52	308	⇓P	P	08 08 49.3	0.0
	baz=51						
J12A	Stokes Ranch,	50.52	319	⇑P	P	08 08 48.8	-0.3
	baz=51,SNR=6.7						
B17A	L&G Farms, Che	50.55	326	⇓P	P	08 08 48.6	-0.8
	baz=51,SNR=7.9						
E15A	Deer Lodge	50.57	323	⇑P	P	08 08 49.4	0.0
	baz=51,SNR=27						
H13A	Challis	50.60	321	⇓P	P	08 08 49.7	-0.1
	baz=51,SNR=9.6						
O09A	Fish Creek Ran	50.63	314	⇓P	P	08 08 50.4	+0.4
	baz=51,SNR=6.8						
PLCA	Paso Flores	50.68	180	P	P	08 08 47.5	-2.8
PLCA						08 10 05.7	
PLCA				pmax	pmax		
	comp=Z,27nm,0.7s						
PLCA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
PLCA	Paso Flores	50.68	180	P	P	08 08 47.5	-2.8
	comp=Z,27nm,0.7s,mb5.3,baz=355,slow=8.3,SNR=94						
PLCA				PcP	PcP	08 10 05.7	-1.8
	comp=Z,8.2nm,0.7s,baz=8.7,slow=5.0,SNR=4.2						
F14A	Wisdom	50.68	322	⇓P	P	08 08 50.5	+0.2
	baz=51,SNR=24						
FFC	Flin Flon	50.77	337	eP	P	08 08 49.7	-1.1
FFC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
FFC	Flin Flon	50.77	337	eP	P	08 08 49.7	-1.2
	comp=Z,9.0nm,0.7s,mb4.8						
RCTC	Rector, Farmer	50.78	309	⇓P	P	08 08 51.2	-0.1
	baz=51						
NVAR	Mina Array Bea	50.78	312	P	P	08 08 51.2	0.0
	comp=Z,5.6nm,0.7s,mb4.6,baz=119,slow=7.0,SNR=55						
NVAR				PcP	PcP	08 10 07.5	-0.6
	comp=Z,5.7nm,0.6s,baz=130,slow=4.2,SNR=10.0						
NVAR	Mina Array Bea	50.78	312	P	P	08 08 51.2	0.0
NVAR				PcP	PcP	08 10 07.5	-0.6
I12A	Atlanta	50.79	319	⇑P	P	08 08 51.4	+0.2
	baz=51,SNR=18						
C16A	Fuhringer Ranc	50.80	325	⇑P	P	08 08 51.2	0.0
	baz=51,SNR=17						
D15A	Lincoln	50.83	324	⇑P	P	08 08 51.6	+0.2
	baz=51,SNR=37						
G13A	Cobalt	50.84	321	⇓P	P	08 08 51.5	-0.1
	baz=51,SNR=9.5						
A17A	Triple J Farms	50.88	327	⇑P	P	08 08 51.5	-0.3
	baz=51,SNR=6.2						
L10A	Juniper Basin	50.91	317	⇓P	P	08 08 52.5	+0.4
	baz=51,SNR=16						
K11A	Parker Ranch,	50.92	318	⇓P	P	08 08 52.4	+0.3
	baz=51,SNR=10.0						
H12A	Diamond D Ranc	50.97	320	⇓P	P	08 08 52.8	+0.3
	baz=51,SNR=12						
E14A	Clinton	51.06	323	⇓P	P	08 08 53.4	+0.2
	baz=51,SNR=8.6						
MFID	Camas Ranch	51.07	319	⇑P	P	08 08 53.3	0.0
	baz=51,SNR=7.5						
N09A	Rock Creek Ran	51.13	315	⇓P	P	08 08 53.7	-0.1
	baz=51,SNR=6.9						
CHMT	Chamberlain Mo	51.18	324	P	P	08 08 54.4	+0.3
F13A	Darby	51.25	322	⇓P	P	08 08 54.5	-0.1
	baz=52						
C15A	Salmond Ranch,	51.27	325	⇑P	P	08 08 54.7	-0.1
	baz=52,SNR=17						
M09A	Marrel Ranch,	51.31	316	⇓P	P	08 08 55.2	+0.1
	baz=52,SNR=9.3						
A16A	West Butte Ran	51.36	327	⇓P	P	08 08 55.0	-0.4
	baz=52,SNR=11						
I11A	Placerville	51.38	319	⇑P	P	08 08 55.9	+0.3
	baz=52						
D14A	Greenough	51.42	324	⇓P	P	08 08 55.7	-0.2
	baz=52,SNR=17						
K10A	MacKenzie Ranc	51.48	317	⇑P	P	08 08 56.4	0.0
	baz=52,SNR=14						
E13A	Victor	51.49	323	⇑P	P	08 08 56.0	-0.4
	baz=52,SNR=10						
SLMT	Seeley Lake	51.49	324	eP	P	08 08 56.5	0.0
	comp=Z,18nm,0.9s,mb5.0						
N08A	GE Springer Mi	51.53	315	⇑P	P	08 08 56.2	-0.7
	baz=52,SNR=5.7						
B15A	Bradely Ranch,	51.54	325	⇑P	P	08 08 55.9	-0.8
	baz=52,SNR=17						
FCC	Fort Churchill	51.55	345	eP	P	08 08 54.8	-1.8
	comp=Z,0.4nm,1.1s						
R06C	Coleville	51.66	311	⇑P	P	08 08 57.9	0.0
	baz=52						
L09A	Wilkinson Ranc	51.70	316	⇓P	P	08 08 58.0	0.0
	baz=52,SNR=19						
H11A	Donnelly	51.77	320	⇓P	P	08 08 58.3	-0.2
	baz=52,SNR=9.8						
F12A	Elk City	51.80	321	⇑P	P	08 08 58.1	-0.6
	baz=52,SNR=14						
SWMT	Swartz Lake	51.93	324	eP	P	08 08 60.0	+0.3
	comp=Z,11nm,0.8s,mb4.8						
M08A	Happy Creek Ra	51.96	315	⇓P	P	08 09 00.2	+0.2
	baz=52						
D13A	Huson	51.98	323	⇓P	P	08 09 00.1	0.0
	baz=52,SNR=22						
I10A	Payette	52.00	319	⇓P	P	08 09 00.1	-0.1
	baz=52						
A15A	Johnson Ranch,	52.00	326	⇓P	P	08 08 59.6	-0.6
	baz=52,SNR=27						
K09A	Rome	52.02	317	⇓P	P	08 09 00.4	0.0
	baz=52,SNR=19						
N07B	Gerlach	52.12	314	⇓P	P	08 09 00.6	-0.6
	baz=52						
YBMT	Yellow Bay	52.12	324	eP	P	08 09 01.3	+0.2
	comp=Z,13nm,1.0s,mb4.8						
WCN	Washoe City	52.15	312	⇓P	P	08 09 02.3	+0.8
	baz=52						
CMB	Columbia Colle	52.20	311	eP	P	08 09 01.4	-0.4
CMB				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.7						
CMB	Columbia Colle	52.20	311	eP	P	08 09 01.4	-0.4
	comp=Z,18nm,1.7s,mb4.7						
JTMT	Jette	52.21	324	eP	P	08 09 02.0	+0.2
	comp=Z,4.7nm,0.4s,mb4.8						
L08A	Fields	52.23	316	⇓P	P	08 09 01.9	0.0
	baz=52,SNR=7.9						
J09A	Fry Pan Ranch,	52.30	318	⇑P	P	08 09 02.5	0.0
	baz=52,SNR=7.3						
C13A	Hot Springs	52.35	324	⇓P	P	08 09 02.8	0.0
	baz=53,SNR=22						
A14A	Double T Ranch	52.38	326	⇑P	P	08 09 02.3	-0.7
	baz=53,SNR=6.2						
P06A	Stead Airport,	52.38	313	⇓P	P	08 09 03.7	+0.5
	baz=53						
F11A	Grangeville	52.41	321	⇓P	P	08 09 02.9	-0.4
	baz=53,SNR=16						
M07A	Soldier Meadow	52.49	315	⇑P	P	08 09 03.9	-0.1
	baz=53,SNR=25						
O06A	Flanigan	52.50	313	⇑P	P	08 09 04.0	-0.1
	baz=53						
K08A	Mann Creek Ran	52.54	317	⇑P	P	08 09 04.4	+0.1
	baz=53,SNR=14						
BSMT	Bassoo Peak	52.56	324	P	P	08 09 04.5	+0.2
E11A	Bogner Ranch,	52.67	322	⇓P	P	08 09 04.8	-0.4
	baz=53,SNR=26						
WALA	Waterton Lakes	52.70	326	eP	P	08 09 04.4	-1.0
	comp=Z,0.3nm,1.0s						
N06A	Buffalo Meadow	52.72	314	⇑P	P	08 09 05.2	-0.5
	baz=53						
G10A	Bishop Farm, J	52.74	320	⇓P	P	08 09 05.6	-0.1
	baz=53,SNR=30						
J08A	Circle Bar Ran	52.79	317	⇑P	P	08 09 05.9	-0.2
	baz=53,SNR=6.1						
L07A	Adell	52.84	316	⇓P	P	08 09 06.4	-0.2
	baz=53,SNR=8.1						
C12B	Naegeli Ranch,	52.89	324	⇓P	P	08 09 06.8	0.0
	baz=53,SNR=8.0						
A13A	Flathead Natio	52.91	325	⇓P	P	08 09 06.4	-0.5
	baz=53						
K07A	Rock Creek Ran	53.04	316	⇑P	P	08 09 07.8	-0.2
	baz=53,SNR=6.7						
D11A	Klaveano Farm,	53.07	322	⇑P	P	08 09 07.8	-0.4
	baz=53,SNR=29						
I08A	Drewsey	53.08	318	⇑P	P	08 09 07.7	-0.5
	baz=53						
F10A	Beach Ranch, E	53.12	321	⇑P	P	08 09 08.1	-0.4
	baz=53,SNR=18						
G09A	Cove	53.15	320	⇓P	P	08 09 08.2	-0.5
	baz=53,SNR=13						
E10A	Myers Farm, Un	53.28	322	⇑P	P	08 09 09.2	-0.5
	baz=54,SNR=6.5						
B12A	Libby	53.34	324	⇓P	P	08 09 09.9	-0.1
	baz=54,SNR=14						
H08A	Prairie City	53.40	319	⇑P	P	08 09 10.2	-0.4
	baz=54,SNR=10						
A12A	Yaak River Ran	53.61	325	⇑P	P	08 09 11.9	-0.1
	baz=54,SNR=16						
D10A	Wagner Farm, O	53.64	322	⇑P	P	08 09 11.6	-0.8
	baz=54,SNR=42						
LNOR	Lincton Mounta	53.73	320	P	P	08 09 12.9	-0.1
I07A	Izee	53.76	318	⇑P	P	08 09 13.0	-0.3
	baz=54,SNR=5.9						
B11A	Sandpoint	53.77	324	⇓P	P	08 09 12.9	-0.4
	baz=54,SNR=8.4						
J06A	Christmas Vall	53.87	317	⇑P	P	08 09 13.7	-0.3
	baz=54						
G08A	Pilot Rock	53.91	319	⇑P	P	08 09 14.3	-0.1
	baz=54,SNR=14						
E09A	Wood Farm, Sta	53.93	321	⇑P	P	08 09 13.8	-0.7
	baz=54,SNR=7.5						
F08A	Pendleton	54.01	320	⇓P	P	08 09 14.6	-0.4
	baz=54,SNR=13						
H07A	Lands Inn, Kim	54.01	318	⇓P	P	08 09 14.9	-0.2
	baz=54						
C10A	Spilker Farm,	54.02	323	⇑P	P	08 09 14.7	-0.4
	baz=54,SNR=11						
A11A	Hall Mountain,	54.02	325	⇓P	P	08 09 15.1	0.0
	baz=54,SNR=12						
NEW	Newport	54.12	323	eP	P	08 09 15.0	-0.9
NEW				pmax	pmax		
	comp=Z,17nm,0.9s						
NEW	Newport	54.12	323	eP	P	08 09 14.9	-0.9
	comp=Z,17nm,0.9s,mb5.0						
I06A	Prineville	54.17	318	⇑P	P	08 09 16.0	-0.3
	baz=54,SNR=7.2						
K05A	Summer Lake	54.17	316	⇓P	P	08 09 16.2	-0.1
	baz=54						
D09A	Jones Farm, Ri	54.27	322	⇑P	P	08 09 16.5	-0.4
	baz=54						
G07A	Ruggs Ranch, H	54.35	319	⇑P	P	08 09 17.4	-0.2
	baz=55						
E08A	Dider Farm, El	54.48	321	⇓P	P	08 09 18.3	-0.2
	baz=55						
H06A	Lindquist Farm	54.57	318	⇓P	P	08 09 19.1	-0.1
	baz=55						
C09A	Chrisman Ranch	54.59	323	⇑P	P	08 09 18.7	-0.6
	baz=55,SNR=28						
D08A	Wollman Farm,	54.65	321	⇓P	P	08 09 19.1	-0.6
	baz=55,SNR=14						
OD2	Odessa Site #2	54.67	322	P	P	08 09 19.4	-0.4
A10A	Northport	54.72	324	⇑P	P	08 09 19.4	-0.8
	baz=55						
EDM	Edmonton	54.73	330	eP	P	08 09 18.7	-1.5
HAWA	Hanford	54.74	320	eP	P	08 09 19.8	-0.5
	comp=Z,5.5nm,0.9s,mb4.6						
F07A	Phinny Hill Vi	54.78	320	⇓P	P	08 09 20.4	-0.2
	baz=55						
GBL	Gable Mountain	54.78	321	P	P	08 09 20.6	-0.1
B09A	Rice	54.80	323	⇑P	P	08 09 20.0	-0.8
	baz=55,SNR=15						
G06A	Carlson Farm,	54.96	319	⇑P	P	08 09 22.3	+0.3
	baz=55,SNR=9.3						
E07A	Sunnyside	55.01	321	⇓P	P	08 09 22.2	-0.1
	baz=55						
C08A	Higginbotham F	55.05	322	⇑P	P	08 09 22.4	-0.2
	baz=55,SNR=47						
F06A	Goldendale	55.27	319	⇓P	P	08 09 24.2	0.0
	baz=56						
A09A	Danville	55.32	324	⇓P	P	08 09 23.7	-0.8
	baz=56						
D07A	Quincy	55.35	321	⇓P	P	08 09 24.7	-0.1
	baz=56,SNR=18						
B08A	Colville Reser	55.48	323	⇑P	P	08 09 24.9	-0.7
	baz=56,SNR=18						
EBG	Ellensburg	55.60	321	P	P	08 09 26.8	+0.2
C07A	Waterville	55.62	322	⇑P	P	08 09 26.1	-0.6
	baz=56,SNR=6.3						
HOOD	Mount Hood Mea	55.66	319	eP	P	08 09 28.0	+1.0
	comp=Z,35nm,1.0s,mb5.3						
E06A	Yakima	55.71	320	⇑P	P	08 09 27.0	-0.4
	baz=56						
H04A	Detroit Lake	55.77	318	⇑P	P	08 09 27.6	-0.3
	baz=56,SNR=19						
D06A	Cle Elum	55.89	321	⇓P	P	08 09 28.6	-0.1
	baz=56,SNR=19						
NLW	Nelson Butte	55.96	322	P	P	08 09 28.5	-0.6
B07A	Winthrop	55.99	323	⇑P	P	08 09 28.5	-0.8
	baz=56						
WPW	White Pass	56.13	320	P	P	08 09 30.7	+0.3
C06A	Tall Timber Ra	56.23	322	⇓P	P	08 09 30.7	-0.4
	baz=56						
A07A	Ashnola River,	56.41	323	⇓P	P	08 09 32.3	0.0
	baz=57,SNR=16						
COR	Corvallis	56.48	317	eP	P	08 09 33.4	+0.5
COR				pmax	pmax		
	comp=Z,103nm,1.5s,mb5.6						
COR	Corvallis	56.48	317	eP	P	08 09 33.4	+0.5
	comp=Z,103nm,1.5s,mb5.6						
D05A	Enumclaw	56.60	321	⇑P	P	08 09 33.5	-0.3
	baz=57,SNR=8.4						
B06A	Marblemount	56.84	322	⇑P	P	08 09 34.5	-0.9
	baz=57						
A06A	Chilliwack	57.08	323	⇓P	P	08 09 36.4	-0.6
	baz=57						
F03A	Seaside	57.13	319	⇑P	P	08 09 37.7	+0.2
	baz=57						
E03A	Lebam	57.35	319	⇓P	P	08 09 38.9	-0.2
	baz=58						
A05A	Maple Falls	57.40	322	⇑P	P	08 09 37.8	-1.5
	baz=58,SNR=5.3						
NLWA	Neilton Lookou	57.86	320	⇑P	P	08 09 42.7	+0.1
	baz=58						
NLWA	Neilton Lookou	57.86	320	eP	P	08 09 42.9	+0.2
	comp=Z,32nm,1.4s,mb5.2						
PGC	Sidney	58.08	322	eP	P	08 09 43.7	-0.5
	comp=Z,0.5nm,0.6s,mb3.7						
YKA	Yellowknife Ar	60.90	338	P	P	08 10 01.9	-1.5
YKA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
YKA	Yellowknife Ar	60.90	338	P	P	08 10 01.9	-1.4
	comp=Z,8.6nm,0.7s,mb5.0,baz=124,slow=7.1,SNR=232						
EVO	Evora	62.55	52	⇑iP	P	08 10 14.6	-0.3
	comp=Z,11nm,0.8s,mb4.7						
EVO				eMLR	MLR		
	comp=Z,134nm,20.8s,MS3.8						
EFI	East Falkland	62.62	171	eP	P	08 10 12.7	-2.3
EFI				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.4						
EFI	East Falkland	62.62	171	eP	P	08 10 12.7	-2.3
	comp=Z,29nm,0.9s,mb5.4						
LIC	Lamto	65.23	88	⇑iP	P	08 10 31.9	-1.1
	comp=Z,53nm,0.9s,mb5.3						
LIC				eMLR	MLR		
	comp=Z,134nm,20.2s,MS3.8						
LIC	Lamto	65.23	88	⇑iP	P	08 10 31.9	-1.1
	comp=Z,26nm,0.9s,mb5.3						
LIC				LR	LR		
	comp=Z,70nm,20.3s,MS3.9						
SUMG	Summit	65.29	10	eP	P	08 10 32.0	-0.3
	comp=Z,14nm,0.8s,mb5.0						
DBIC	Dimbokro	65.33	87	P	P	08 10 32.6	-1.1
DBIC				pmax	pmax		
	comp=Z,11nm,0.8s						
DBIC	Dimbokro	65.33	87	P	P	08 10 32.6	-1.1
	comp=Z,11nm,0.8s,mb5.0,baz=261,slow=9.0,SNR=10						
DBIC	Dimbokro	65.33	87	eP	P	08 10 33.0	-0.7
	comp=Z,11nm,0.8s,mb5.0						
DLBC	Dease Lake	65.46	330	P	P	08 10 33.3	-0.4
	comp=Z,9.3nm,0.8s,mb4.9,baz=126,slow=4.3,SNR=26						
DLBC	Dease Lake	65.46	330	eP	P	08 10 33.9	+0.2
ESDC	Sonseca Array	65.83	51	P	P	08 10 36.4	-0.1
	comp=Z,1.1nm,0.5s,mb4.2,baz=262,slow=6.2,SNR=8.1						
RES	Resolute Bay	65.88	353	eP	P	08 10 34.8	-1.3
RES				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
RES	Resolute Bay	65.88	353	eP	P	08 10 34.8	-1.4
	comp=Z,2.6nm,0.8s,mb4.3						
QUIF	Quistinic	67.60	42	eP	P	08 10 47.4	-0.2
	comp=Z,36nm,1.1s,mb5.0						

QUIF	**Quistinic**	67.60	42	*e*P	P	08 10 47.4	-0.2
QUIF				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
QUIF	**Quistinic**	67.60	42	*e*P	P	08 10 47.4	-0.2
	comp=Z,18nm,1.1s,mb5.0						
ROSF	**Rostrenen**	67.60	42	*e*P	P	08 10 47.4	-0.2
SJPF	**Ste Jean**	68.27	48	*e*P	P	08 10 52.2	+0.3
	comp=Z,29nm,0.9s,mb5.0						
SJPF	**Ste Jean**	68.27	48	*e*P	P	08 10 52.2	+0.3
SJPF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
SJPF	**Ste Jean**	68.27	48	*e*P	P	08 10 52.2	+0.3
	comp=Z,14nm,0.9s,mb5.0						
ETSF	**Etsaut**	68.73	48	*e*P	P	08 10 55.0	+0.2
GRR	**Gorron**	69.20	42	*e*P	P	08 10 57.4	-0.2
	comp=Z,15nm,0.8s,mb4.7						
GRR	**Gorron**	69.20	42	*e*P	P	08 10 57.4	-0.2
GRR				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
GRR	**Gorron**	69.20	42	*e*P	P	08 10 57.4	-0.2
	comp=Z,7.3nm,0.8s,mb4.7						
EPF	**Esparros**	69.40	48	*e*P	P	08 10 59.3	+0.3
MFF	**Saint Martin d**	69.44	44	*e*P	P	08 10 59.1	0.0
FLN	**La Foliniere**	69.50	42	*e*P	P	08 10 59.3	-0.1
	comp=Z,60nm,1.1s,mb5.2						
FLN				*e*MLR	MLR		
	comp=Z,206nm,19.4s,MS4.1						
FLN	**La Foliniere**	69.50	42	*e*P	P	08 10 59.3	-0.1
FLN				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
FLN				MLR	MLR		
	comp=Z,210nm,19.4s,MS4.4						
FLN	**La Foliniere**	69.50	42	*e*P	P	08 10 59.3	-0.1
	comp=Z,30nm,1.1s,mb5.1						
FLN				LR	LR		
	comp=Z,210nm,19.4s,MS4.4						
LDF	**La Druitiere**	69.71	42	*e*P	P	08 11 00.6	-0.2
LFF	**La Frestale**	69.87	46	*e*P	P	08 11 01.7	-0.1
RJF	**Les Rejaudoux**	70.46	46	*e*P	P	08 11 05.0	-0.4
	comp=Z,18nm,1.0s,mb4.7						
RJF				*e*MLR	MLR		
	comp=Z,202nm,18.8s,MS4.1						
RJF	**Les Rejaudoux**	70.46	46	*e*P	P	08 11 05.0	-0.4
RJF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
RJF				MLR	MLR		
	comp=Z,200nm,18.8s,MS4.4						
RJF	**Les Rejaudoux**	70.46	46	*e*P	P	08 11 05.0	-0.4
	comp=Z,9.1nm,1.0s,mb4.7						
RJF				LR	LR		
	comp=Z,200nm,18.8s,MS4.4						
INK	**Inuvik**	70.63	340	*e*P	P	08 11 04.9	-1.1
INK				pmax	pmax		
	comp=Z,15nm,1.0s						
INK	**Inuvik**	70.63	340	*e*P	P	08 11 04.9	-1.1
	comp=Z,15nm,1.0s,mb4.9						
MTLF	**Montolieu**	70.80	48	*e*P	P	08 11 07.2	-0.3
	comp=Z,25nm,1.1s,mb4.7						
MTLF	**Montolieu**	70.80	48	*e*P	P	08 11 07.2	-0.3
MTLF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
MTLF	**Montolieu**	70.80	48	*e*P	P	08 11 07.2	-0.3
	comp=Z,12nm,1.1s,mb4.8						
CAF	**Calviac**	70.81	46	*e*P	P	08 11 07.4	-0.2
	comp=Z,14nm,0.8s,mb4.6						
CAF	**Calviac**	70.81	46	*e*P	P	08 11 07.4	-0.2
CAF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
CAF	**Calviac**	70.81	46	*e*P	P	08 11 07.4	-0.2
	comp=Z,6.9nm,0.8s,mb4.6						
TORD	**Torodi Ar. Bea**	70.94	80	P	P	08 11 07.1	-1.8
	comp=Z,3.8nm,0.4s,mb4.7,baz=289,slow=6.7,SNR=25						
TCF	**Toulx Ste Croi**	71.03	45	*e*P	P	08 11 08.5	-0.4
	comp=Z,26nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	71.03	45	*e*P	P	08 11 08.5	-0.4
TCF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	71.03	45	*e*P	P	08 11 08.5	-0.4
	comp=Z,13nm,1.1s,mb4.8						
BGF	**Bois d'Agland**	71.49	44	*e*P	P	08 11 11.1	-0.5
DAWY	**Dawson**	71.53	334	*e*P	P	08 11 11.0	-0.5
AVF	**Avril sur Loir**	71.86	44	*e*P	P	08 11 13.2	-0.6
SSF	**Saint Saulge**	71.98	44	*e*P	P	08 11 13.8	-0.8
LASF	**Ste Croix**	72.03	47	*e*P	P	08 11 15.5	+0.5
SMF	**Signal de Mont**	72.18	44	*e*P	P	08 11 15.3	-0.5
	comp=Z,14nm,0.8s,mb4.6						
SMF	**Signal de Mont**	72.18	44	*e*P	P	08 11 15.3	-0.5
SMF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
SMF	**Signal de Mont**	72.18	44	*e*P	P	08 11 15.3	-0.5
	comp=Z,6.9nm,0.8s,mb4.6						
LOR	**Lormes**	72.24	44	*e*P	P	08 11 15.5	-0.6
	comp=Z,27nm,1.0s,mb4.8						
LOR				*e*MLR	MLR		
	comp=Z,165nm,21.0s,MS4.0						
LOR	**Lormes**	72.24	44	*e*P	P	08 11 15.5	-0.6
LOR				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
LOR				MLR	MLR		
	comp=Z,160nm,21.0s,MS4.3						
LOR	**Lormes**	72.24	44	*e*P	P	08 11 15.5	-0.6
	comp=Z,14nm,1.0s,mb4.8						
LOR				LR	LR		
	comp=Z,160nm,21.0s,MS4.3						
EGAK	**Eagle**	72.45	335	*e*P	P	08 11 16.8	-0.3
	comp=Z,10nm,0.8s,mb4.8						
VIVF	**Saint-Julien-l**	72.66	46	*e*P	P	08 11 19.2	+0.5
	comp=Z,18nm,1.0s,mb4.7						
VIVF	**Saint-Julien-l**	72.66	46	*e*P	P	08 11 19.2	+0.5
VIVF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
VIVF	**Saint-Julien-l**	72.66	46	*e*P	P	08 11 19.2	+0.5
	comp=Z,8.8nm,1.0s,mb4.6						
GIVF	**Givet**	73.08	41	*e*P	P	08 11 20.8	-0.3
	comp=Z,29nm,0.8s,mb5.0						
GIVF	**Givet**	73.08	41	*e*P	P	08 11 20.8	-0.3
GIVF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
GIVF	**Givet**	73.08	41	*e*P	P	08 11 20.8	-0.3
	comp=Z,15nm,0.8s,mb5.0						
MEZF	**Maizieres J'vi**	73.12	42	*e*P	P	08 11 21.1	-0.3
MENT	**Mentasta**	73.17	333	*e*P	P	08 11 21.7	+0.3
SMRF	**Simiane la Rot**	73.26	47	*e*P	P	08 11 21.9	-0.4
	comp=Z,34nm,1.2s,mb4.8						
SMRF	**Simiane la Rot**	73.26	47	*e*P	P	08 11 21.9	-0.4
	comp=Z,34nm,1.2s,mb5.2						
ORIF	**Oris-en-Rattie**	73.52	46	*e*P	P	08 11 24.6	+0.8
	comp=Z,22nm,1.1s,mb4.7						
ORIF				*e*MLR	MLR		
	comp=Z,153nm,20.4s,MS4.0						
ORIF	**Oris-en-Rattie**	73.52	46	*e*P	P	08 11 24.6	+0.8
ORIF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
ORIF	**Oris-en-Rattie**	73.52	46	*e*P	P	08 11 24.6	+0.8
	comp=Z,11nm,1.1s,mb4.7						
TAM	**Tamanrasset**	73.68	69	*e*P	P	08 11 26.4	+1.2
TAM				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
TAM	**Tamanrasset**	73.68	69	*e*P	P	08 11 26.4	+1.2
	comp=Z,10nm,1.0s,mb4.7						
CABF	**La Chapelle**	73.72	44	*e*P	P	08 11 24.8	-0.2
LMR	**La Mourre**	73.92	48	*e*P	P	08 11 26.0	-0.2
HAU	**Haudompre**	73.96	43	*e*P	P	08 11 25.8	-0.5
HAU				*e*MLR	MLR		
	comp=Z,155nm,19.8s,MS4.0						
HAU	**Haudompre**	73.96	43	*e*P	P	08 11 25.8	-0.5
HAU				LR	LR		
	comp=Z,160nm,19.8s,MS4.3						
FRF	**La Foret Royal**	74.03	48	*e*P	P	08 11 26.5	-0.3
BNI	**Bardonecchia**	74.08	46	*e*P	P	08 11 28.1	+1.0
BNI				pmax	pmax		
	comp=Z,47nm,1.8s,mb5.1						
BNI	**Bardonecchia**	74.08	46	*e*P	P	08 11 28.1	+1.0
	comp=Z,47nm,1.8s,mb5.1						
LPL	**La Plagne**	74.14	46	*e*P	P	08 11 28.0	+0.6
MBDF	**Montbardon**	74.14	46	*e*P	P	08 11 28.1	+0.7
LPG	**La Plagne**	74.15	46	*e*P	P	08 11 28.3	+0.8
	comp=Z,25nm,1.2s,mb4.7						
LPG	**La Plagne**	74.15	46	*e*P	P	08 11 28.3	+0.8
LPG				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
LPG	**La Plagne**	74.15	46	*e*P	P	08 11 28.3	+0.8
	comp=Z,13nm,1.2s,mb4.7						
HINF	**Hinteralfeld**	74.29	43	*e*P	P	08 11 27.5	-0.8
ECH	**Echery**	74.51	43	*e*P	P	08 11 29.4	-0.1
ECH				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
ECH	**Echery**	74.51	43	*e*P	P	08 11 29.4	-0.2
	comp=Z,13nm,1.3s,mb4.7						
CDF	**Champ du Feu**	74.60	43	*e*P	P	08 11 29.5	-0.5
SBF	**Sospel**	74.61	47	*e*P	P	08 11 30.0	-0.2
	comp=Z,35nm,0.9s,mb5.0						
SBF	**Sospel**	74.61	47	*e*P	P	08 11 30.0	-0.2
SBF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
SBF	**Sospel**	74.61	47	*e*P	P	08 11 30.0	-0.2
	comp=Z,17nm,0.9s,mb5.0						
COLA	**College**	75.28	335	*e*P	P	08 11 32.8	-0.8
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
COLA	**College**	75.28	335	*e*P	P	08 11 32.8	-0.9
	comp=Z,2.9nm,0.6s,mb4.4						
BFO	**Black Forest**	75.30	43	*i* P	P	08 11 34.8	+0.7
PMR	**Palmer**	75.49	331	*e*P	P	08 11 34.6	-0.3
PMR				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
PMR	**Palmer**	75.49	331	*e*P	P	08 11 34.6	-0.2
	comp=Z,19nm,0.8s,mb5.1						
MCK	**McKinley**	75.62	333	*e*P	P	08 11 35.3	-0.3
MCK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
MCK	**McKinley**	75.62	333	*e*P	P	08 11 35.3	-0.3
	comp=Z,11nm,0.9s,mb4.8						
PGF	**Pioggiola**	75.75	49	*e*P	P	08 11 36.6	-0.2
	comp=Z,16nm,1.0s,mb4.6						
PGF	**Pioggiola**	75.75	49	*e*P	P	08 11 36.6	-0.2
PGF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
PGF	**Pioggiola**	75.75	49	*e*P	P	08 11 36.6	-0.2
	comp=Z,8.3nm,1.0s,mb4.6						
KEST	**Kesra**	76.23	56	P	P	08 11 39.5	-0.2
	comp=Z,4.6nm,0.9s,mb4.4,baz=254,slow=4.9,SNR=10						
DAVA	**Damuels**	76.33	44⇑	*i*P	P	08 11 40.3	+0.3
	comp=Z,13nm,0.9s,mb4.8						
KTH	**Kantishna Hill**	76.48	333	*e*P	P	08 11 40.4	-0.2
	comp=Z,28nm,1.1s,mb5.1						
COLD	**Coldfoot**	76.51	337	*e*P	P	08 11 40.7	+0.1
	comp=Z,9.2nm,0.8s,mb4.8						
FETA	**Feichten**	76.92	44⇑	*i*P	P	08 11 43.9	+0.6
	comp=Z,22nm,1.0s,mb5.1						
RETA	**Reutte**	76.93	44⇑	*i*P	P	08 11 43.4	0.0
	comp=Z,8.2nm,0.9s,mb4.7						
KDAK	**Kodiak Island**	77.00	327	*i* P	P	08 11 42.5	-1.1
GRA1	**Grafenberg Arr**	77.21	41	*e*P	P	08 11 45.1	+0.2
	comp=Z,9.0nm,1.3s,mb4.5						
GRF	**Grafenberg Arr**	77.21	41	*e*P	P	08 11 45.1	+0.2
GRF				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
GRF	**Grafenberg Arr**	77.21	41	*e*P	P	08 11 45.1	+0.2
GRF				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
GRF	**Grafenberg Arr**	77.21	41	*e*P	P	08 11 45.1	+0.2
	comp=Z,9.0nm,1.3s,mb4.5						
NB2	**NORSAR Subarra**	77.32	30	P	P	08 11 45.5	+0.2
	comp=Z,4.6nm,0.8s,mb4.5,baz=269,slow=5.9						
NOA	**NORSAR Array B**	77.32	30	P	P	08 11 45.6	+0.3
NOA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
NOA	**NORSAR Array B**	77.32	30	P	P	08 11 45.6	+0.3
	comp=Z,9.1nm,0.9s,mb4.7,baz=269,slow=5.8,SNR=12						
IMA2	**Indian Mountai**	77.81	336	*e*P	P	08 11 47.4	-0.5
NKC	**Novy Kostel**	77.99	41	*e*P	P	08 11 49.6	+0.4
ABTA	**Abfaltersbach**	78.15	44⇓	*i*P	P	08 11 50.3	+0.1
	comp=Z,8.8nm,0.8s,mb4.8						
CLL	**Collm**	78.31	40⇓	*i*P	P	08 11 51.3	+0.3
CLL				*e*sP	sP	08 11 56.0	-1.2
SVW2	**Sparrevohn**	78.57	330	*e*P	P	08 11 50.3	-1.9
KBA	**Koelnbreinsper**	78.70	44⇓	*i*P	P	08 11 53.5	+0.2
	comp=Z,12nm,1.0s,mb4.8						
KHC	**Kasperske Hory**	78.76	42	*e*P	P	08 11 53.8	+0.3
TTA	**Tatalina**	78.76	332	*e*P	P	08 11 53.0	-0.3
GERES	**GERESS Array B**	78.86	42	P	P	08 11 54.1	0.0
GERES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
GERES	**GERESS Array B**	78.86	42	P	P	08 11 54.1	0.0
	comp=Z,4.2nm,0.7s,mb4.5,baz=258,slow=4.0,SNR=26						
BRG	**Berggiesshubel**	78.92	40	*e*P	P	08 11 54.3	-0.1
BRG				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
BRG	**Berggiesshubel**	78.92	40	*e*P	P	08 11 54.3	-0.1
	comp=Z,8.0nm,1.0s,mb4.6						
MYKA	**Terra Mystica**	78.93	44⇑	*i*P	P	08 11 54.5	0.0
	comp=Z,10nm,0.9s,mb4.8						
CADS	**Cadrg**	79.02	45	*e*P	P	08 11 54.9	-0.1
JAVS	**Javornik**	79.26	45	*i* P	P	08 11 56.5	+0.1
PVCC	**Panska Ves**	79.33	40	*e*P	P	08 11 56.5	-0.1
PRU	**Pruhonice**	79.34	41	*e*P	P	08 11 57.1	+0.4
LJU	**Ljubljana**	79.58	45	*i* P	P	08 11 58.1	0.0
VNDS	**Vrh nad Dolski**	79.69	45	*i* P	P	08 11 58.8	+0.1
UPC	**Upice**	80.25	40	*e*P	P	08 12 02.1	+0.5
DPC	**Dobruska-Polom**	80.46	40	*e*P	P	08 12 03.4	+0.6
MODS	**Modra-Piesok**	81.26	42	*e*P	P	08 12 07.0	-0.1
VYHS	**Vyhne**	82.28	42	*e*P	P	08 12 12.0	-0.4
VYHS				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
VYHS	**Vyhne**	82.28	42	*e*P	P	08 12 12.0	-0.4
	comp=Z,2.4nm,1.3s,mb4.0						
ARCES	**ARCESS Array B**	82.75	21	P	P	08 12 13.4	-1.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ARCES	**ARCESS Array B**	82.75	21	P	P	08 12 13.4	-1.1
	comp=Z,1.5nm,0.3s,mb4.4,baz=290,slow=5.4,SNR=13						
KEV	**Kevo**	83.23	20	*e*p	P	08 12 16.2	-0.8
KECS	**Kecovo**	83.37	42	*e*P	P	08 12 18.5	+0.4
KECS				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
KECS	**Kecovo**	83.37	42	*e*P	P	08 12 18.5	+0.4
	comp=Z,3.3nm,1.0s,mb4.3						
TNA	**Tin City**	83.69	335	*e*P	P	08 12 19.7	+0.3
	comp=Z,12nm,0.9s,mb5.0						
STHS	**Stebnicka Huta**	83.73	41	*e*P	P	08 12 20.6	+0.7
CRVS	**Cervenica-Dubn**	83.95	42	*e*P	P	08 12 21.9	+0.8
CRVS				pmax	pmax		
	comp=Z,35nm,2.0s,mb5.1						
CRVS	**Cervenica-Dubn**	83.95	42	*e*P	P	08 12 21.9	+0.8
	comp=Z,35nm,2.0s,mb5.1						
KAF	**Kangasniemi**	84.42	28	*e*P	P	08 12 21.4	-1.8
KAF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
KAF	**Kangasniemi**	84.42	28	*e*p	P	08 12 21.4	-1.8
	comp=Z,2.7nm,0.7s,mb4.5						
KOLS	**Kolonicke sedl**	84.47	41	*e*P	P	08 12 24.6	+0.9
BZS	**Buzias**	84.55	45⇑	*i*P	P	08 12 24.6	+0.4
GZR	**Gura Zlata**	85.39	45⇑	*i*P	P	08 12 28.5	+0.1
GAMB	**Gambell**	85.66	334	*e*P	P	08 12 29.4	0.0
	comp=Z,6.8nm,1.1s,mb4.8						
JOF	**Joensuu**	86.49	27	*e*p	P	08 12 32.2	-1.3
	comp=Z,2.2nm,0.8s,mb4.4						
VOIR		86.96	45⇑	*i*P	P	08 12 36.7	+0.5
MLR	**Muntele Rosu**	87.56	44⇑	*i*P	P	08 12 39.6	+0.5
AKASG	**Malin Array Be**	88.52	39	P	P	08 12 41.9	-1.7
	comp=Z,0.2nm,0.3s,mb4.0,baz=265,slow=4.3,SNR=5.1						
KLMR	**Klimovskoe**	90.84	27	*e*P	P	08 12 51.3	-2.9
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb5.0						
OBN	**Obninsk**	91.48	33	*i* P	P	08 12 56.8	-0.4
OBN				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.2						
BILL	**Bilibino**	92.16	342	*e*P	P	08 12 59.3	-0.8
BILL				pmax	pmax		
	comp=Z,14nm,1.4s,mb5.1						
PRGR	**Permogore**	93.17	25	P	P	08 13 01.4	-3.5
PRGR				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.9						
BRTR	**Keskin Array B**	94.51	48	P	P	08 13 10.9	-0.7
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	**Keskin Array B**	94.51	48	P	P	08 13 10.9	-0.7
	comp=Z,1.6nm,0.9s,mb4.5,baz=222,slow=1.7,SNR=8.6						
ZALV	**Zalesovo Beam**	112.86	15	*i* PKIKP	PKiKP	08 18 25.7	-2.1
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZALV	**Zalesovo Beam**	112.86	15	PKiKP	PKiKP	08 18 25.7	-2.1
	comp=Z,1.2nm,0.4s,baz=246,slow=1.4,SNR=3.2						
KURK	**Kurchatov**	113.80	21	*i* PKIKP	PKiKP	08 18 27.9	-1.8
KURK	**Kurchatov**	113.80	21	PKiKP	PKiKP	08 18 27.9	-1.7
	comp=Z,0.3nm,0.4s,baz=318,slow=2.3,SNR=3.8						
KURK	**Kurchatov**	113.80	21	PKPdf	PKiKP	08 18 27.9	-1.8
MKAR	**Makanchi Array**	118.41	21	PKIKP	PKPdf	08 18 36.0	-2.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	118.41	21	PKP	PKPdf	08 18 36.0	-2.7
	comp=Z,1.2nm,0.4s,baz=295,slow=2.5,SNR=22						
MKAR	**Makanchi Array**	118.41	21	PKP	PKPdf	08 18 36.0	-2.7
SONM	**Songino Array**	122.17	2	PKIKP	PKPdf	08 18 43.8	-2.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM	**Songino Array**	122.17	2	PKP	PKPdf	08 18 43.8	-2.0
	comp=Z,0.5nm,0.4s,baz=334,slow=2.3,SNR=5.0						
MJAR	**Matsushiro Arr**	126.04	331	PKIKP	PKPdf	08 18 51.8	-1.8
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MJAR	**Matsushiro Arr**	126.04	331	PKP	PKPdf	08 18 51.8	-1.8
	comp=Z,2.1nm,0.7s,baz=38,slow=1.5,SNR=6.0						
HHC	**Hu-ho-hao-te**	129.16	358	*e*PKP	PKPdf	08 18 57.0	-2.5
HHC				PP	PP	08 21 08.0	+1.9
HHC				PKS		08 22 32.0	
HHC				SKS	SKSdf	08 26 03.0	-8.0
HHC				AMB	AMB		
	comp=Z,66nm,6.6s						
KSRS	**Korea Array**	129.41	341	PKIKP	PKPdf	08 18 58.5	-1.6
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KSRS	**Korea Array**	129.41	341	PKP	PKPdf	08 18 58.5	-1.6
	comp=Z,4.1nm,0.9s,baz=358,slow=0.7,SNR=13						
GTA	**Gaotai**	129.89	9	*e*PKP	PKPdf	08 18 59.8	-1.1
CD2	**Chengdu**	138.80	7	PKP	PKPdf	08 19 15.5	-2.3
CTA	**Charters Tower**	142.89	250	*e*PKP		08 19 19.3	
	comp=Z,3.9nm,0.6s						
STKA	**Stephens Creek**	143.02	229	*e*PKP		08 19 19.3	
	comp=Z,4.4nm,0.9s						
STKA	**Stephens Creek**	143.02	229	PKhKP		08 19 19.6	
	comp=Z,3.9nm,0.8s,baz=112,slow=2.9,SNR=11						
GYA	**Guiyang**	143.48	4	*e*PKP	PKPdf	08 19 23.0	-3.4
GYA				pPKP	pPKPdf	08 19 35.3	+4.2
GYA				PP	PP	08 22 38.5	+2.4
GYA				PKS		08 22 58.5	
GYA				SKS	SKSdf	08 26 26.8	-9.3
GYA				SKKS	SKKSac	08 29 23.5	-7.1
GYA				SS	SS	08 41 13.0	-3.1
GYA				AMB	AMB		
	comp=Z,110nm,8.6s						
KMI	**Kunming**	144.35	10	PKP	PKPdf	08 19 26.0	-1.9
COEN	**Coen**	146.49	260	*e*PKPdf	PKPdf	08 19 31.2	-0.6
PALK	**Pallekele**	146.82	60	*i* PKP2	PKPab	08 19 34.3	-1.1
CHTO	**Chiang Mai**	149.48	19	*e*PKPdf	PKPdf	08 19 35.4	-1.3
CHTO				*e*PKPbc	PKPbc	08 19 39.3	-1.8
CHTO				*e*PKPab	PKPab	08 19 44.2	-1.6
CMAR	**Chiang Mai Arr**	149.81	19	PKIKP	PKPdf	08 19 33.9	-3.3
CMAR						08 19 40.4	
CMAR						08 19 45.8	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CMAR	**Chiang Mai Arr**	149.81	19	PKP	PKPdf	08 19 33.9	-3.3
	comp=Z,1.1nm,0.3s,baz=303,slow=2.2,SNR=4.8						
CMAR				PKPbc	PKPbc	08 19 40.4	-1.5
	comp=Z,9.4nm,0.8s,baz=320,slow=3.5,SNR=26						
CMAR				PKPab	PKPab	08 19 45.8	-1.4
	comp=Z,4.5nm,0.7s,baz=324,slow=4.2,SNR=9.0						
ASAR	**Alice Springs**	152.82	237	PKIKP	PKPdf	08 19 40.3	-1.3
ASAR						08 19 46.7	
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ASAR				pmax	pmax		
	comp=Z,14nm,0.8s						
ASAR	**Alice Springs**	152.82	237	PKP	PKPdf	08 19 40.2	-1.4
	comp=Z,2.1nm,0.8s,baz=100,slow=1.5,SNR=22						
ASAR				PKPbc	PKPbc	08 19 46.6	-2.1
	comp=Z,14nm,0.8s,baz=116,slow=2.6,SNR=72						
WRAB	**Tennant Creek**	153.80	245	*e*PKIKP	PKPdf	08 19 40.5	-2.6
WRAB				*e*		08 19 49.1	
WRAB	**Tennant Creek**	153.80	245	*e*PKPdf	PKPdf	08 19 40.5	-2.6
WRAB				*e*PKPbc	PKPbc	08 19 49.1	-1.9
WRAB				*e*PKPab	PKPab	08 20 02.4	-1.6
WRA	**Warramunga Arr**	153.81	245	PKIKP	PKPdf	08 19 41.4	-1.7
WRA						08 19 49.1	
WRA						08 20 01.5	
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WRA				pmax	pmax		
	comp=Z,11nm,0.7s						
WRA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
WRA	**Warramunga Arr**	153.81	245	PKP	PKPdf	08 19 41.4	-1.7
	comp=Z,2.8nm,0.8s,baz=88,slow=1.6,SNR=25						
WRA				PKPbc	PKPbc	08 19 49.1	-2.0
	comp=Z,11nm,0.7s,baz=270,slow=0.4,SNR=109						
WRA				PKPab	PKPab	08 20 01.5	-2.5
	comp=Z,6.9nm,0.8s,baz=105,slow=4.0,SNR=11						

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*NEIC **25** 08:12:37.0, 17.°97N×100.°78W, h68^{km}, MD3.8(MEX), After MEX.*

MEX 25 08:12:37.2±0.4**, 17.°95N×100.°78W, h68^{km}**±17^{km}**, MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	0.73	243	*e*P	Pn	08 12 50.9	-1.5
ZIIG				*i* S	Sn	08 13 01.8	-1.6
CAIG	**El Cayaco**	1.02	151	*i* P	Pn	08 12 54.4	-1.4
CAIG				*i* S	Sn	08 13 07.5	-2.1
ACX	**Acapulco**	1.35	142	*e*P	Pn	08 13 01.8	+1.6
ACX				*e*S	Sn	08 13 16.3	-1.1
UTMO	**Huajuapan**	2.84	92	*i* P	Pn	08 13 19.4	-0.8
UTMO				*i* S	Sn	08 13 51.6	-1.6
PNIG	**Pinotepa**	2.97	121	*i* P	Pn	08 13 21.3	-0.7
PNIG				*i* S	Sn	08 13 55.1	-1.4

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*SZGRF **25** 08:36:24.6, 4.°30S×100.°94E, h31^{km}, mb6.4, MS7.1, Southwest of Sumatera, Indonesia*

*BJI **25** 08:36:28.2, 2.°94S×99.°88E, h31^{km}, mB7.3/47, mb6.2/59, Ms7.7/75, Ms7 7.5/60*

*ISCJB **25** 08:36:31.9±0.1, 2.°47S±0.°02×99.°93E±0.°01, h28^{km}, mb6.3/281, MS7.3/278, Error ellipse: s-maj=2.8km s-min=1.8km az=23.3*

*MOS **25** 08:36:31.5±1.0, 2.°41S×100.°02E, h26^{km}, mb6.5/92, MS7.2/114, Error ellipse: s-maj=7.4km s-min=3.6km az=124.2*

*TEH **25** 08:36:31.9, 2.°39N×100.°01E, h40^{km}*

*IDC **25** 08:36:32.3±1.0, 2.°60S×100.°00E, h24^{km}±5^{km}, mb5.6/30, mb1 5.7/32, mb1mx5.7/32, mbtmp5.6/32, ML4.6/2, MS7.1/30, Ms1 7.1/30, ms1mx7.1/37, Error ellipse: s-maj=7.1km s-min=5.7km az=52.0*

*GCMT **25** 08:36:33.0±0.1, 2.°66S×99.°95E, h14^{km}, MW7.2/114, Moment Tensor Solution. s114,c271; s113,c409; Duration: 9.^{s}1 Moment tensor: Scale 10^{19}Nm; M_{rr}1.52±.01; $M_{\theta\theta}$-0.89±.01; $M_{\phi\phi}$-0.62±.01; $M_{r\theta}$6.30±.17; $M_{\theta\phi}$0.80±.01; $M_{\phi r}$-4.28±.14; Best double couple: $M_0$7.77100×10^{19} NP1:ϕ_s317.00000°, δ6.00000°, λ102.00000°. NP2:ϕ_s124.00000°, δ84.00000°, λ89.00000°. Principal axes: T 7.7570, Plg51.0000°, Azm33.0000°; N 0.0310, Plg1.0000°, Azm124.0000°; P -7.7850, Plg39.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=150s.*

*NEIC **25** 08:36:33.0±0.1, 2.°49S×99.°97E, h25^{km}, mb6.4/156, ME7.1, MS7.3/197, MW6.9, MW7.0 Error ellipse: s-maj=5.4km s-min=3.5km az=37.0, Moment Tensor Solution. s79 Moment tensor: Scale 10^{19}Nm; M_{rr}1.37; $M_{\theta\theta}$-0.77; $M_{\phi\phi}$-0.60; $M_{r\theta}$1.93; $M_{\theta\phi}$0.53; $M_{\phi r}$-1.02; Best double couple: $M_0$2.50000×10^{19} NP1:ϕ_s120.00000°, δ75.00000°, λ85.00000°. NP2:ϕ_s317.00000°, δ16.00000°, λ107.00000°. Principal axes: T 2.6300, Plg59.0000°, Azm23.0000°; N -0.1900, Plg4.0000°, Azm121.0000°; P -2.4400, Plg29.0000°, Azm213.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s305.00000°, δ10.00000°, λ90.00000°. NP2:ϕ_s125.00000°, δ80.00000°, λ90.00000°. Principal axes: T Plg55.0000°, Azm35.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm215.0000°; Complex earthquake, with at least one larger event occurring about 4 seconds after the onset observed on broadband displacement seismograms. Depth from synthetics of broadband displacement seismgorams based*

on larger event. Energy computed from BB mechanism.
NEIC Felt [III] at Pekanbaru, Sumatra. Also felt at Curup, Duri and Padang. Felt [III] at Johor Bahru, Malaysia. Also felt at George Town, Kuala Lumpur and Petaling Jaya. Felt [III] in Singapore.

*IGIL **25** 08:36:38.6,2°.35S×100°.02E,h35^{km},MS6.8*
*DJA **25** 08:36:38,2°.49S×100°.06E,h58^{km},Mw7.4/35*
ISC 25 08:36:33.9±0.1**,2°.49S**±0°.02×**99°.92E**±0°.01**,h30^{km}, h30^{km}**±.6^{km}**:pP-P,n1896,**σ**1^s.20**/1258**,mb6.3**/279**, MS7.3**/278**,273C-254D,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPI	Padang Panjang	2.07	13	P	Pn	08 37 06.8	+0.1
PPI	Padang Panjang	2.07	13	P	Pn	08 37 08.4	+1.7
KSI	Kapahiang	2.91	113	P	Pn	08 37 18.1	-0.1
KSI	Kapahiang	2.91	113	P	Pn	08 37 18.8	+0.6
RGRI	Rengat	3.21	49	P	Pn	08 37 25.1	+2.7
MNAI	Manna	3.56	122	P	Pn	08 37 28.3	+1.2
GSI	Gunungsitoli	4.44	328	P	Pn	08 37 38.3	-1.0
MDSI	Maura Dua	4.69	115	P	Pn	08 37 44.0	+1.3
PMBI	Palembang	4.87	95	P	Pn	08 37 48.1	+3.0
PSI	Prapat	5.35	349	Pn	Pn	08 37 49.0	-2.7
	3.8nm,0.3s,baz=154,slow=10.0,SNR=39						
KASI	Kota Agung	5.47	124	P	Pn	08 37 52.7	-0.8
KGM	Kluang	5.62	37	P	Pn	08 37 58.2	+2.7
MYKOM	Kota Tinggi	5.79	43	P	Pn	08 38 00.6	+2.8
FRIM	Kepong	5.94	17	P	Pn	08 38 02.4	+2.5
SBJI	Serang	7.17	120	P	Pn	08 38 17.3	+0.5
SBJI	Serang	7.17	120	P	Pn	08 38 17.1	+0.3
	10µm,1.2s,95nm						
TNG	Tangerang	7.64	119	P	Pn	08 38 25.0	+1.7
TPI	Tanjungpandan	7.73	92	P	Pn	08 38 27.8	+3.3
TPI	Tanjungpandan	7.73	92	P	Pn	08 38 27.1	+2.6
	1µm,1.3s,83nm						
KULM	Kulim	7.76	5	P	Pn	08 38 25.5	+0.5
KULM	Kulim	7.76	5	*e*Pn	Pn	08 38 24.7	-0.3
	9µm,1.3s						
KULM				*e*Sn	Sn	08 39 57.1	+5.2
KTGM	Kuala Trenggan	8.40	22	P	Pn	08 38 35.7	+1.9
LEM	Lembang	8.80	120	⇑*e*P	Pn	08 38 40.5	+1.3
LEM	Lembang	8.80	120	P	Pn	08 38 41.2	+2.0
LEM	Lembang	8.80	120	P	Pn	08 38 40.0	+0.8
	10µm,1.5s						
BSI	Banda Aceh	9.18	330	P	Pn	08 38 41.5	-2.9
XMIS	Christmas Isla	9.77	145	*e*P	Pn	08 38 43.8	-8.7
XMIS				*e*S	Sn	08 40 25.4	-16
XMIS	Christmas Isla	9.77	145	*e*Pn	Pn	08 38 45.5	-7.0
	455nm,0.4s						
XMIS				*e*Sn	Sn	08 40 27.4	-14
XMIS	Christmas Isla	9.77	145	P	Pn	08 38 44.5	-8.0
COCO	West Island	10.11	197	*e*P	Pn	08 38 52.0	-5.2
COCO				pmax	pmax		
	comp=Z,3µm,0.8s						
COCO	West Island	10.11	197	*e*Pn	Pn	08 38 52.0	-5.2
	comp=Z,3µm,0.8s						
COCO	West Island	10.11	197	P	Pn	08 38 54.3	-2.9
CLJI	Cilicap	10.44	120	P	Pn	08 39 02.6	+0.9
	comp=Z,6µm,0.8s						
KSM	Kuching	11.11	69	P	Pn	08 39 14.4	+3.6
KSM	Kuching	11.11	69	*e*Pn	Pn	08 39 12.4	+1.5
	comp=Z,3µm,1.3s						
KSM				*e*Sn	Sn	08 41 27.8	+14
SMRI	Semarang	11.42	114	P	Pn	08 39 16.7	+1.6
	comp=Z,6µm,1.4s						
UGM	Wanagama	11.85	117	P	Pn	08 39 20.5	-0.5
	comp=Z,4µm,1.0s						
NGJI	Ngawi	12.47	113	P	Pn	08 39 32.7	+3.1
SJI	Sawahan	12.89	114	P	Pn	08 39 33.9	-1.4
	comp=Z,3µm,1.1s						
PWJI	Pagerwojo	13.04	115	P	Pn	08 39 37.1	-0.2
	comp=Z,2µm,0.9s						
SBUM	Sibu	13.24	68	P	Pn	08 39 43.0	+3.0
TRT	Tretes	13.68	113	⇑*e*P	Pn	08 39 46.0	0.0
KRKI	Karangkates	13.69	115	P	Pn	08 39 46.2	+0.1
PLKI	Palangkaraya	14.02	89	P	Pn	08 39 54.3	+3.7
	comp=Z,6µm,1.1s						
BTM	Bintulu	14.32	67	P	Pn	08 39 57.7	+3.0
GMJI	Gumukmas	14.63	114	P	Pn	08 39 56.6	-2.5
	comp=Z,1µm,1.3s						
BBKI	Banjar Baru	14.93	94	P	Pn	08 40 04.1	+1.0
	comp=Z,8µm,1.3s						
ABJI	Asem Bagus	15.20	111	P	Pn	08 40 05.9	-0.6
	comp=Z,4µm,0.9s						
NBBI	Negara	15.75	112	P	Pn	08 40 14.5	+0.7
	comp=Z,3µm,1.1s						
PBA	Port Blair	15.76	333	*e*x	x	08 41 06.7	
PBA				*e*x	x	08 45 46.3	
SRBI	Singaraja	16.20	111	P	Pn	08 40 18.5	-1.1
	comp=Z,3µm,1.1s						
KBKI	Kotabaru	16.25	93	P	Pn	08 40 20.0	-0.2
	comp=Z,2µm,1.4s						
IGBI	Denpasar	16.40	113	P	Pn	08 40 20.7	-1.4
	comp=Z,2µm,1.2s						
DNP	Denpasar	16.41	113	P	Pn	08 40 24.1	+1.9
	comp=Z,3µm,1.0s						
KHKI	Kahang-Kahang	16.67	111	P	Pn	08 40 24.7	-0.8
KHKI	Kahang-Kahang	16.67	111	P	Pn	08 40 24.3	-1.2
	comp=Z,2µm,1.0s						
SMKI	Samarinda	17.40	84	P	Pn	08 40 36.5	+1.8
	comp=Z,6µm,2.1s						
NST	Nakhon Sawan	18.05	1	⇓P	Pn	08 40 38.8	-3.8
	comp=Z,408nm,0.7s						
UBT	Ubonrachathani	18.33	16	⇓P	Pn	08 40 45.8	-0.3
	comp=Z,556nm,1.0s						
KKM	Kota Kinabalu	18.35	62	P	Pn	08 40 47.2	+0.9
KKM	Kota Kinabalu	18.35	62	*e*P	Pn	08 40 46.4	0.0
	comp=Z,2µm,1.0s						
KKM	Kota Kinabalu	18.35	62	P	Pn	08 40 46.8	+0.5
	comp=Z,3µm,0.9s						
SDKM	Sandakan	19.05	65	P	Pn	08 40 54.9	0.0
TSM	Tawau	19.16	69	P	Pn	08 40 56.4	+0.2
KDM	Kudat	19.29	61	P	Pn	08 40 57.9	+0.2
MKS	Makassar	19.69	98	⇑*e*P	Pn	08 40 59.6	-2.9
MKS				*e*S	Sn	08 44 41.4	-1.7
TTSI	Tana Toraja	19.88	92	P	Pn	08 41 03.9	-0.9
	comp=Z,4µm,0.9s						
KAPI	Kappang	19.95	98	Pn	Pn	08 41 04.0	-1.6
	comp=Z,32µm,1.0s,SNR=78						
KAPI	Kappang	19.95	98	P	Pn	08 41 01.4	-4.2
	comp=Z,9.1nm,0.3s,baz=287,slow=7.9,SNR=32						
KAPI				S	Sn	08 44 43.6	-5.6
	baz=246,slow=21,SNR=1.2						
KAPI				LR	LR	08 49 44.8	
	comp=Z,385µm,18.6s,baz=62,slow=40						
KAPI	Kappang	19.95	98	*e*P	Pn	08 41 01.4	-4.2
	comp=Z,6µm,1.0s						
KAPI				*e*S	Sn	08 44 43.2	-6.0
KAPI	Kappang	19.95	98	P	Pn	08 41 04.5	-1.1
	SNR=208						
KAPI				P		08 41 04.5	
	SNR=208						
KAPI	Kappang	19.95	98	P	Pn	08 41 02.9	-2.7
	comp=Z,3µm,1.2s						
PCI	Palu	19.97	86	⇑*e*P	Pn	08 41 05.0	-0.8
	comp=Z,22nm,1.5s						
PCI				*e*S	Sn	08 44 53.5	+3.7
PCI	Palu	19.97	86	P	Pn	08 41 05.2	-0.6
	comp=Z,8µm,1.4s						
MYLDM	Lahad Datu	20.06	68	P	P	08 41 06.5	+1.5
BNSI	Bone	20.24	96	P	P	08 41 07.0	+0.1
CM31	Chiang Mai Arr	20.84	357	*e*P	P	08 41 12.9	-0.4
	comp=Z,1µm,0.9s						
CMAR	Chiang Mai Arr	20.84	357	P	P	08 41 12.7	-0.6
CMAR				S	S	08 45 06.6	+2.2
CMAR	Chiang Mai Arr	20.84	357	P	P	08 41 12.7	-0.6
	comp=Z,785nm,1.1s,baz=186,slow=8.7,SNR=122						
CMAR				S	S	08 45 06.5	+2.2
	comp=Z,14nm,1.1s,baz=332,slow=30,SNR=1.7						
CMAR				LR	LR	08 49 48.5	
	comp=Z,1153µm,19.4s,MS7.3,baz=187,slow=38						
CMAR				P3KPbc		09 15 17.7	
	comp=Z,0.5nm,0.3s,baz=336,slow=5.4,SNR=4.4						
CMAR	Chiang Mai Arr	20.84	357	P	P	08 41 12.7	-0.6
CMAR				S	S	08 45 06.5	+2.2
CMAR				LR	LR	08 49 48.5	
BATP	Bataraza	21.06	58	*e*P	P	08 41 15.7	-0.1
CHG	Chiang Mai	21.19	357	⇑P	P	08 41 15.6	-1.5
	comp=Z,1µm,1.0s,mb6.1						
CHTO	Chiang Mai	21.19	357	*e*P	P	08 41 13.9	-3.2
CHTO				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.2						
CHTO				MLR	MLR		
	comp=Z,1104µm,20.0s,MS7.2						
CHTO	Chiang Mai	21.19	357	*e*P	P	08 41 13.9	-3.2
	comp=Z,1µm,1.2s,mb6.2						
CHTO				LR	LR		
	comp=Z,1104µm,20.0s,MS7.2						
CHTO	Chiang Mai	21.19	357	P	P	08 41 16.4	-0.7
	SNR=528						
CHTO				P		08 41 16.4	
	SNR=528						
CHTO	Chiang Mai	21.19	357	P	P	08 41 16.0	-1.1
	comp=Z,1µm,1.2s,mb6.1						
WSI	Waingapu	21.47	110	⇓*e*P	P	08 41 16.7	-3.5
WSI				*e*S	S	08 44 59.0	-18
WSI	Waingapu	21.47	110	P	P	08 41 20.1	-0.1
PALK	Pallekele	21.49	297	*e*P	P	08 41 22.0	+1.5
	comp=Z,6.1nm,0.6s						
PALK	Pallekele	21.49	297	P	P	08 41 23.0	+2.5
	comp=Z,507nm,1.3s,mb5.7						
APSI	Ampana	21.77	86	P	P	08 41 23.4	-0.1
	comp=Z,7µm,1.3s,mb6.9						
PPR	Puerto Princes	22.35	57	⇓*i*P	P	08 41 30.4	+0.8
KDI	Kendari	22.71	94	⇑*e*P	P	08 41 31.9	-1.6
KDI				*e*S	S	08 45 39.6	-1.1
KDI	Kendari	22.71	94	P	P	08 41 32.9	-0.6
	comp=Z,2µm,1.4s,mb6.4						
QIZ	Qiongzhong	23.50	24	P	P	08 41 41.5	-0.2
QIZ				pP		08 41 49.5	
QIZ				S	S	08 45 49.0	-4.4
QIZ				sS	sS	08 46 06.3	-1.3
QIZ				SS		08 46 40.0	
QIZ				pmax	pmax		
	comp=Z,940nm,1.0s,mb6.2						
QIZ				pmax	pmax		
	comp=Z,77µm,8.4s						
QIZ				LR	LR		
	comp=N,655µm,18.9s,MS7.4						
QIZ				LR	LR		
	comp=E,931µm,17.4s,MS7.4						
QIZ				LR	LR		
	comp=Z,762µm,18.1s,MS7.2						
QIZ	Qiongzhong	23.50	24	*e*P	P	08 41 41.2	-0.4
	comp=Z,996nm,0.9s,mb6.2						
QIZ				LR	LR		
	comp=Z,756µm,20.0s,MS7.2						
ENPP	El Nido	23.70	55	*e*P	P	08 41 43.5	0.0
ZMPH	Zamboanga City	24.01	67	⇑*e*P	P	08 41 45.6	-0.8
KMSI	Cibinong	24.25	83	P	P	08 41 48.0	-0.6
BUSP	Coron	24.77	54	*e*P	P	08 41 53.2	-0.1
IPIL	Ipil	24.80	65	*e*P	P	08 42 03.0	+9.4
CUYO	Cuyo Island	24.83	57	*e*P	P	08 41 54.4	+0.5
MNI	Manado	25.22	81	⇓*e*P	P	08 41 51.5	-5.9
MNI	Manado	25.22	81	P	P	08 41 57.5	+0.1
	comp=Z,8µm,1.0s,mb7.2						
TRD	Trivandrum	25.37	296	⇑*e*PKP	pP	08 42 09.0	+1.6
TRD				*e*S	S	08 46 33.0	+9.4
PAGZ	Pagadian	25.56	66	*e*P	P	08 42 01.3	+0.8
SJMP	San Jose	25.77	54	*e*P	P	08 42 01.9	-0.4
LUBP	Lubang	25.81	51	*e*P	P	08 42 02.8	+0.1
VIS	Vishakhapatnam	25.90	321	*e*PKP	P	08 42 03.4	-0.1
VIS				AMb	AMB	08 42 16.6	
	comp=Z,719nm,0.8s,mb6.3						
GUIM	Jordan	26.05	60	*e*P	P	08 42 05.6	+0.6
CTBH	Cotabato--PC H	26.12	68	⇓*e*P	P	08 42 06.9	+1.3
CTBH				*i* S		08 42 43.3	
SGSI	Sangihe	26.32	77	P	P	08 42 07.2	-0.2
	comp=Z,4µm,1.2s,mb6.8						
KALP	Kalibo	26.36	57	⇓*e*P	pP	08 42 19.2	+2.9
GSPH	General Santos	26.41	71	⇓*e*P	pP	08 42 16.9	+0.1
OTRP	Odiongan	26.45	56	*e*P	P	08 42 08.3	-0.3
BWNR	Bhubaneshwar	26.54	329	*e*x	x	08 42 00.1	
BWNR				*e*S	S	08 46 42.6	+0.6
TGY	Tagaytay City	26.57	51	P	P	08 42 08.9	-0.7
TGY				S	S	08 46 44.1	+1.6
TGY	Tagaytay City	26.57	51	P	P	08 42 08.9	-0.7
	comp=Z,827nm,0.6s,mb6.5,baz=242,slow=5.2,SNR=9.4						
TGY				S	S	08 46 44.1	+1.6
	comp=Z,166nm,0.3s,baz=90,slow=22,SNR=3.2						
TGY				LR	LR	08 54 06.3	
	comp=Z,3µm,18.3s,baz=332,slow=40						
RCP	Roxas	26.64	58	⇓*e*P	P	08 42 10.8	+0.5
TBP	Tagbilaran	26.74	63	⇓*e*P	P	08 42 11.1	-0.1
MBWA	Marble Bar	26.77	135	*e*P	P	08 42 08.9	-2.4
	comp=Z,15nm,0.7s						
MBWA				*e*P		08 42 10.7	
MBWA				*e*S	S	08 47 04.3	+19
MBWA				LR	LR		
	comp=Z,713µm,22.0s,MS7.2						
MBWA	Marble Bar	26.77	135	P	P	08 42 15.1	+3.8
	SNR=68						
MBWA				P		08 42 15.1	
	SNR=68						
MBWA	Marble Bar	26.77	135	P	P	08 42 11.3	-0.1
	comp=Z,736nm,1.2s,mb6.1						
KCP	Kidapawan	26.84	69	⇓*e*P	P	08 42 16.2	+4.2
SCZP	Santa Cruz	26.84	47	*e*P	pP	08 42 20.6	-0.1
CGP	Cagayan de Oro	26.99	66	⇓*e*P	P	08 42 21.6	+8.2
LLP	Lapu-Lapu	27.11	62	*e*P	pP	08 42 14.4	-8.8
BUKP	Musuan	27.11	67	*e*P	P	08 42 15.7	+1.1
NLAI	Namlea	27.16	92	P	P	08 42 13.5	-1.5
	comp=Z,977nm,1.2s,mb6.2						
BOLP	Bolinao	27.23	46	*e*P	P	08 42 15.6	0.0
DMPH	Davao City--Mi	27.25	69	*e*P	P	08 42 16.8	+1.0
DAV	Davao City (W)	27.31	69	P	P	08 42 16.1	-0.3
	comp=Z,245nm,0.4s,mb6.1,baz=184,slow=2.0,SNR=16						
DAV				S	S	08 46 46.6	-7.7
	comp=Z,241nm,0.4s,baz=75,slow=16,SNR=1.8						
DAV				LR	LR	08 54 19.0	
	comp=Z,950µm,20.8s,MS7.3,baz=53,slow=39						
DAV	Davao City (W)	27.31	69	*e*P	P	08 42 16.6	+0.3
	comp=Z,262nm,0.4s,mb6.1						
DAV				LR	LR		
	comp=Z,927µm,20.0s,MS7.3						
DAV	Davao City (W)	27.31	69	P	P	08 42 17.0	+0.7
	SNR=64						
DAV				P		08 42 17.0	
	SNR=64						
DAV	Davao City (W)	27.31	69	*e*X	P	08 42 16.7	+0.3
DAV	Davao City (W)	27.31	69	P	P	08 42 17.7	+1.4
	comp=Z,4µm,1.0s,mb6.9						
CAL	Calcutta	27.33	336	*e*PKP	P	08 42 22.2	+5.9
CAL				*e*S	S	08 47 04.7	+10
AUQP	San Andres	27.51	55	*e*P	P	08 42 21.4	+3.3
PCPH	Palayan	27.58	49	⇑*e*P	P	08 42 17.6	-1.0
KMI	Kunming	27.58	6	P	P	08 42 19.5	+0.9
KMI				pP	pP	08 42 29.0	+1.7
KMI				sP	sP	08 42 33.5	+2.6
KMI				PP		08 43 08.8	
KMI				PcP	PcP	08 45 38.5	+2.5
KMI				S	S	08 46 57.3	-1.0
KMI				sS	sS	08 47 14.3	+1.7
KMI				pmax	pmax		
	comp=Z,160nm,1.6s,mb5.4						
KMI				pmax	pmax		
	comp=Z,58µm,12.8s						
KMI				LR	LR		
	comp=N,817µm,16.4s,MS7.6						
KMI				LR	LR		
	comp=E,1050µm,13.3s,MS7.6						
KMI				LR	LR		
	comp=Z,1040µm,16.9s,MS7.5						
LBMI	Labuha	27.63	87	P	P	08 42 18.4	-0.8
	comp=Z,4µm,1.9s,mb6.7						
TNTI	Ternate	27.63	84	P	P	08 42 16.7	-2.5
	comp=Z,1µm,1.5s,mb6.3						
TNE	Ternate	27.63	84	⇓*e*P	P	08 42 14.0	-5.2
GQP	Guinayangan	27.64	53	⇓*e*P	P	08 42 17.9	-1.4
BCPH	Baguio City Da	27.72	47	⇑*i*P	P	08 42 10.7	-9.2
POLP	Polilio Island	27.72	51	*e*P	P	08 42 20.5	+0.6
IMP	Imphal	27.73	348	*e*PKP	P	08 42 21.0	+1.1
IMP				*e*S	S	08 47 05.0	+4.5
DGAR	Diego Garcia	27.79	259	P	P	08 42 17.9	-2.7
DGAR				pmax	pmax		
	comp=Z,637nm,1.3s,mb6.1						
DGAR				MLR	MLR		
	comp=Z,231µm,20.0s,MS6.8						
DGAR	Diego Garcia	27.79	259	P	P	08 42 17.9	-2.7
	comp=Z,637nm,1.3s,mb6.1						
DGAR				LR	LR		
	comp=Z,231µm,20.0s,MS6.8						
MSLP	Maasin	27.82	63	*e*P	P	08 42 20.9	0.0
MATI	Mati	27.91	70	*e*P	P	08 42 23.3	+1.6
OCLP	Ormoc	28.00	61	*e*P	P	08 42 24.4	+1.9
SCPH	Surigao	28.23	64	⇑*e*P	P	08 42 28.6	+4.0
HKC	Hong Kong Obse	28.30	29	⇑*i*P	P	08 42 26.0	+1.0
HKC				*i* S	S	08 47 10.0	+0.3
ABRA	Dolores	28.65	45	*e*P	P	08 42 26.8	-1.4
SIPP	Brgy, Tapao	28.65	44	⇓*i*P	P	08 42 32.3	+4.1
MNCY	Minicoy	28.86	292	*e*x	P	08 42 36.0	+5.8
MNCY				*e*x	x	08 45 36.0	
PVCP	Virac	28.87	56	*e*P	P	08 42 32.6	+2.4
HYB	Hyderabad	28.90	314	*e*P	P	08 42 32.0	+1.5
HYB				*e*S	S	08 47 22.0	+2.7
HYB				pmax	pmax		
	comp=Z,170nm,1.0s,mb5.7						
HYB	Hyderabad	28.90	314	*i* P	P	08 42 32.0	+1.5
	comp=Z,170nm,1.0s,mb5.7						
HYB				*e*S	S	08 47 20.0	+0.7
HYB				LR	LR	08 55 00.0	
	comp=Z,27nm,20.0s						
HYB	Hyderabad	28.90	314	*e*P	P	08 42 32.0	+1.5
	comp=Z,170nm,1.0s,mb5.7						
HYB				*e*S	S	08 47 22.0	+2.7
SHL	Shillong	28.96	345	*i* P	P	08 42 31.0	+0.2
SHL				*e*x	x	08 47 31.0	
CAUP	Cauayan	28.99	47	*e*P	P	08 42 33.9	+2.7
PIP	Pasuquin	29.04	44	⇑*e*P	P	08 42 30.6	-1.0
APYP	Conner	29.16	45	*e*P	P	08 42 32.4	-0.4
MNGI	Mangalore	29.25	302	*e*PKP	P	08 42 32.6	-1.0
MNGI				*i* x	x	08 47 38.0	
CVP	Callao Caves	29.47	46	*e*P	P	08 42 38.5	+2.9
BOK	Bokaro	29.48	333	*e*PKP	P	08 42 36.3	+0.7
BOK				AMb	AMB	08 42 53.2	
	comp=Z,2µm,1.5s,mb6.5						
GYA	Guiyang	29.51	12	⇑*i*P	P	08 42 33.8	-1.9
GYA				pP	pP	08 42 43.8	-0.6
GYA				sP	sP	08 42 50.5	+2.5
GYA				PP	PP	08 43 35.0	-7.7
GYA				S	S	08 47 30.3	+1.8
GYA				sS	sS	08 47 45.8	+2.9
GYA				SS	SS	08 49 03.5	-31
GYA				ScP	ScP	08 49 20.0	-0.7
GYA				pmax	pmax		
	comp=Z,820nm,0.8s,mb6.5						
GYA				LR	LR		
	comp=N,2136µm,15.0s,MS7.9						
GYA				LR	LR		
	comp=E,790µm,15.0s,MS7.9						
GYA				LR	LR		
	comp=Z,2569µm,15.0s,MS8.0						
PALP	Palanan	29.51	48	*e*P	P	08 42 42.4	+6.6
FITZ	Fitzroy Crossi	29.61	123	*e*P	P	08 42 34.6	-2.1
	comp=Z,644nm,0.8s,mb6.4						
FITZ				*e*S	S	08 47 13.1	-17
FITZ	Fitzroy Crossi	29.61	123	P	P	08 42 35.5	-1.2
	comp=Z,138nm,1.0s,mb5.6,baz=303,slow=7.6,SNR=33						
FITZ				S	S	08 47 24.1	-6.3
	comp=Z,32nm,0.9s,baz=144,slow=14,SNR=1.3						
FITZ				LR	LR	08 55 10.9	
	comp=Z,417µm,21.5s,MS7.0,baz=302,slow=38						
FITZ	Fitzroy Crossi	29.61	123	*e*P	P	08 42 35.3	-1.5
	comp=Z,12nm,0.6s						
FITZ				*e*S	S	08 47 32.2	+1.8
FITZ	Fitzroy Crossi	29.61	123	P	P	08 42 35.8	-0.9
	comp=Z,1µm,0.9s,mb6.7						
SHBG	Sahibganj	30.00	337	*e*x	P	08 42 37.5	-2.6
SLGI	Shiliguri	31.07	340	*e*x	pP	08 42 58.3	0.0
SWI	Sorong	31.37	88	P	P	08 42 50.6	-1.8
	comp=Z,2µm,1.1s,mb6.7						
ODAN	Odare	31.59	338	*e*P	P	08 42 54.7	+0.6
	comp=Z,2µm,0.9s,mb7.0						
GTK	Gangtok	31.59	341	*e*PKP	P	08 42 55.0	+0.9
GTK				*e*x	x	08 43 01.0	
TAPN	Taplejung	31.91	339	*e*P	P	08 42 58.1	+1.1
	comp=Z,2µm,0.9s,mb7.0						
RAMN	Ramite	31.97	337	*e*P	P	08 42 58.2	+0.8
	comp=Z,2µm,1.0s,mb6.8						
KAD	Karad	32.12	309	*e*PKP	P	08 43 00.1	+1.2
KAD				AMb	AMB	08 43 16.2	
	comp=Z,554nm,1.5s,mb6.2						
TWG	Pinlang	32.54	38	*e*P	P	08 43 02.8	+0.3
	comp=Z,5µm,2.0s,mb7.1						
TWG				*e*PP	PP	08 44 12.6	-3.8
TPUB	Ta-pu	32.62	37	*e*P	P	08 43 02.6	-0.7
	comp=Z,3µm,1.3s,mb7.0						
ALBI	Allahabad	32.74	329	*e*x	x	08 48 50.0	
QZH	Quanzhou	32.74	33	⇑*i*P	P	08 43 05.5	+1.3
QZH				sP	sP	08 43 18.3	+1.7
QZH				S	S	08 48 17.0	-2.2
QZH				LR	LR		
	comp=N,1711µm,15.9s,MS7.9						
QZH				LR	LR		
	comp=E,1176µm,16.6s,MS7.9						
QZH				LR	LR		
	comp=Z,2256µm,16.6s,MS8.0						
JIRN	Jiri	32.76	337	*e*P	P	08 43 05.3	+0.9
	comp=Z,982nm,0.7s,mb6.8						
PKI	Pulchoki	32.99	336	*e*P	P	08 43 06.7	+0.3
	comp=Z,1µm,1.1s,mb6.8						
PKI	Pulchoki	32.99	336	*e*P	P	08 43 06.7	+0.3
PKI				pmax	pmax		
	comp=Z,1µm,1.1s,mb6.8						
PKIN	Phulchoki	33.00	336	*e*P	P	08 43 06.5	0.0
POO	Poona	33.09	310	*e*PKP	P	08 43 07.6	+0.3
POO				AMb	AMB	08 43 20.2	
	comp=Z,678nm,0.8s,mb6.6						
LSA	Lhasa	33.09	346	P	P	08 43 10.8	+3.6
LSA				S	S	08 48 25.8	+1.3
LSA				LR	LR		
	comp=N,324µm,24.0s,MS7.1						
LSA				LR	LR		
	comp=E,363µm,28.7s,MS7.1						
LSA				LR	LR		
	comp=Z,575µm,24.0s,MS7.2						
LSA	Lhasa	33.09	346	*e*P	P	08 43 08.4	+1.2
LSA				*e*S	S	08 48 22.8	-1.7
LSA				pmax	pmax		
	comp=Z,2µm,0.9s,mb6.9						
LSA				MLR	MLR		
	comp=Z,471µm,22.0s,MS7.2						
LSA	Lhasa	33.09	346	*e*P	P	08 43 08.4	+1.2
	comp=Z,2µm,0.9s,mb6.9						
LSA				*e*S	S	08 48 22.8	-1.7
LSA				LR	LR		
	comp=Z,471µm,22.0s,MS7.2						
YULB	Yu-li	33.10	38	*e*P	P	08 43 06.4	-1.0
	comp=Z,2µm,1.5s,mb6.7						
MUN	Mundaring	33.10	154	*e*P	P	08 43 06.6	-0.7
MUN				*e*S	S	08 48 24.3	-0.4
GUN	Gumba	33.11	337	*e*P	P	08 43 08.2	+0.8
DMN	Daman	33.15	335	*e*P	P	08 43 08.2	+0.4
	comp=Z,3µm,1.1s,mb7.1						
SSLB	Suanglung	33.19	37	*e*P	P	08 43 06.0	-2.1
	comp=Z,2µm,1.4s,mb6.8						
KKN	Kakani	33.24	336	*e*P	P	08 43 08.9	+0.3
	comp=Z,2µm,0.9s,mb7.1						
KKN	Kakani	33.24	336	*e*P	P	08 43 08.9	+0.3
KKN				pmax	pmax		
	comp=Z,2µm,0.9s,mb7.1						
CD2	Chengdu	33.41	6	⇑*i*P	P	08 43 08.8	-1.2
CD2				sP	sP	08 43 25.0	+2.6
CD2				PP	PP	08 44 21.8	-4.2
CD2				S	S	08 48 26.3	-3.2
CD2				sS	sS	08 48 44.3	+0.4
CD2				pmax	pmax		
	comp=Z,760nm,1.3s,mb6.5						
CD2				pmax	pmax		
	comp=Z,50µm,11.5s						
CD2				LR	LR		
	comp=N,1422µm,17.8s						
CD2				LR	LR		
	comp=Z,1157µm,19.0s,MS7.6						
BHPL	Bhopal	33.69	321	*e*PKP	P	08 43 13.0	+0.4
BHPL				AMb	AMB	08 43 27.2	
	comp=Z,437nm,1.6s,mb6.2						
GKN	Gorkha	33.69	335	*e*P	P	08 43 12.8	+0.3
	comp=Z,5µm,1.3s,mb7.2						
KAKA	Kakadu	33.75	109	*e*P	P	08 43 09.0	-4.2
	comp=Z,196nm,0.5s,mb6.3						
KAKA	Kakadu	33.75	109	*e*P	P	08 43 09.1	-4.1
	comp=Z,845nm,0.8s,mb6.7						
KAKA				*e*S	S	08 48 29.2	-6.0
KAKA	Kakadu	33.75	109	P	P	08 43 10.6	-2.6
	comp=Z,583nm,0.8s,comp=Z,5µm,mb6.6						
NACB	Ninganchiao	33.86	37	*e*P	P	08 43 13.7	-0.4
	comp=Z,2µm,1.4s,mb6.8						
KOLN	Koldanda	33.94	334	*e*P	P	08 43 15.2	+0.5
	comp=Z,3µm,1.1s,mb7.1						
YHNB	Yeheng	34.10	36	*e*P	P	08 43 16.0	-0.1
	comp=Z,1µm,1.3s,mb6.7						
YHNB				*e*PP	PP	08 44 32.4	-1.4

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YHNB                                 LR       LR
      comp=Z,619µm,20.0s,MS7.3
NWAO  Narrogin (SRO)     34.36 154  eP       P        08 43 17.7 -0.6
NWAO                                 pmax     pmax
      comp=Z,378nm,1.1s
NWAO                                 MLR      MLR
      comp=Z,377µm,20.0s
NWAO  Narrogin (SRO)     34.36 154   P       P        08 43 16.9 -1.4
      comp=Z,91nm,0.9s,mb5.7,baz=322,slow=8.5,SNR=26
NWAO                                 S        S        08 48 42.9 -1.3
      comp=Z,15nm,0.7s,baz=311,slow=14,SNR=2.0
NWAO                                 LR       LR       08 56 44.6
      comp=Z,479µm,20.8s,MS7.2,baz=328,slow=35
NWAO                                 T                 09 19 14.8
      comp=Z,5.6nm,0.5s,baz=332,slow=6.4,SNR=2.4
NWAO  Narrogin (SRO)     34.36 154  eP       P        08 43 17.7 -0.6
      comp=Z,378nm,1.1s,mb6.2
NWAO                                 LR       LR
      comp=Z,377µm,20.0s,MS7.1
DANN  Dangsing           34.37 334  eP       P        08 43 18.7 +0.3
TATO  Taipei             34.40  36  eP       P        08 43 18.9 +0.2
      comp=Z,837nm,1.3s,mb6.5
TATO                                ePcP     PcP      08 45 53.7 -0.4
TATO                                 LR       LR
      comp=Z,462µm,20.0s,MS7.2
WHN   Wuhan              35.62  22 ⇑P        P        08 43 29.0 -0.1
WHN                                  pP       pP       08 43 39.5 +1.6
WHN                                  S        S        08 49 04.8 +1.3
WHN                                  pmax     pmax
      comp=Z,90µm,8.8s
WHN                                  LR       LR
      comp=N,3164µm,16.6s,MS8.2
WHN                                  LR       LR
      comp=E,1470µm,15.8s,MS8.2
WHN                                  LR       LR
      comp=Z,3984µm,17.2s,MS8.2
BAKI  Biak               36.19  89   P        P        08 43 33.4 -0.9
      comp=Z,974nm,1.0s,mb6.7
LGTI  Lohaghat           36.93 331  ePKP     P        08 43 41.1 +0.8
LGTI                                ex       x        08 48 40.5
PTH   Pithoragarh        37.02 331  ePKP     P        08 43 41.0 -0.2
PTH                                 ex       x        08 49 34.0
XAN   Xi'an              37.31  12   P        P        08 43 42.3 -1.2
XAN                                  pP       pP       08 43 52.5 +0.2
XAN                                  sP       sP       08 43 56.5 +0.6
XAN                                  PP       PP       08 45 17.3 +8.3
XAN                                  S        S        08 49 37.0 +7.7
XAN                                  ScS      ScS      08 53 46.8 -8.9
XAN                                  pmax     pmax
      comp=Z,330nm,1.3s,mb6.0
XAN                                  pmax     pmax
      comp=Z,19µm,10.8s
XAN                                  LR       LR
      comp=N,557µm,17.3s,MS7.7
XAN                                  LR       LR
      comp=E,967µm,16.2s,MS7.7
XAN                                  LR       LR
      comp=Z,719µm,16.6s,MS7.5
AJM   Ajmer              37.76 321  ePKP     P        08 43 47.8 +0.3
WRA   Warramunga Arr     37.82 120   P        P        08 43 46.4 -1.7
WRA                                  S        S        08 49 32.1 -5.3
WRA   Warramunga Arr     37.82 120   P        P        08 43 46.4 -1.7
      comp=Z,199nm,0.8s,mb5.9,baz=301,slow=8.9,SNR=395
WRA                                  S        S        08 49 32.1 -5.3
      comp=Z,47nm,1.0s,baz=288,slow=15,SNR=3.0
WRA                                  LR       LR       09 01 39.5
      comp=Z,323µm,20.7s,MS7.1,baz=295,slow=40
WRAB  Tennant Creek      37.82 120  eP       P        08 43 45.8 -2.3
WRAB                                eS       S        08 49 37.5  0.0
WRAB                                e                 08 49 50.8
WRAB                                 pmax     pmax
      comp=Z,746nm,0.9s,mb6.4
WRAB                                 MLR      MLR
      comp=Z,361µm,20.0s,MS7.2
WRAB  Tennant Creek      37.82 120  eP       P        08 43 45.8 -2.3
      comp=Z,746nm,0.9s,mb6.4
WRAB                                eS       S        08 49 37.5  0.0
WRAB                                eScP     ScP      08 49 50.8 +0.7
WRAB                                 LR       LR
      comp=Z,361µm,20.0s,MS7.2
WRAB  Tennant Creek      37.82 120   P        P        08 43 46.2 -1.9
      comp=Z,1µm,1.1s,mb6.5
NDI   New Delhi          37.89 326  ex       P        08 43 46.0 -2.5
NDI                                 ex       x        08 50 00.0
LZH   Lanzhou            38.55   5 ⇑P        P        08 43 54.0  0.0
LZH                                  pP       pP       08 44 03.3 +0.5
LZH                                  sP       sP       08 44 07.8 +1.4
LZH                                  PP       PP       08 45 26.5 +3.9
LZH                                  PcP      PcP      08 46 06.8 +0.5
LZH                                  S        S        08 49 50.0 +2.0
LZH                                  PcS      PcS      08 49 53.5 -2.0
LZH                                  sS       sS       08 50 06.0 +3.4
LZH                                  SS       SS       08 52 30.0 -8.6
LZH                                  pmax     pmax
      comp=Z,37µm,8.0s
LZH                                  LR       LR
      comp=E,945µm,15.9s
LZH                                  LR       LR
      comp=Z,924µm,18.7s,MS7.6
FORT  Forrest            38.72 140  eP       P        08 43 55.3 -0.2
      comp=Z,487nm,0.9s,mb6.2
FORT                                eS       S        08 49 51.7 +0.9
FORT  Forrest            38.72 140  eP       P        08 43 55.7 +0.2
      comp=Z,784nm,0.8s,mb6.5
FORT                                epP      pP       08 44 03.2 -1.1
FORT                                esP      sP       08 44 07.7 -0.3
DDI   Dehra Dun          38.73 329  ePKP     P        08 43 54.1 -1.5
DDI                                 ex       x        08 50 11.1
SMPI  Sarmi              38.76  90   P        P        08 43 55.6 -0.5
NJ2   Nanjing            38.77  26  eP       P        08 43 56.0 +0.2
NJ2                                  pP       pP       08 44 06.3 +1.6
NJ2                                  sP       sP       08 44 10.0 +1.7
NJ2                                  PP       PP       08 45 30.3 +5.3
NJ2                                  S        S        08 49 51.0 -0.4
NJ2                                  sS       sS       08 50 07.5 +1.5
NJ2                                  pmax     pmax
      comp=Z,440nm,1.0s,mb6.1
NJ2                                  pmax     pmax
      comp=Z,47µm,8.5s
NJ2                                  LR       LR
      comp=N,331µm,23.2s,MS7.2
NJ2                                  LR       LR
      comp=E,288µm,19.0s,MS7.2
NJ2                                  LR       LR
      comp=Z,261µm,21.5s,MS7.0
ASAR  Alice Springs      39.03 126   P        P        08 43 57.1 -1.1
ASAR                                 S        S        08 49 54.0 -1.7
ASAR  Alice Springs      39.03 126   P        P        08 43 57.1 -1.1
      comp=Z,173nm,0.9s,mb5.8,baz=299,slow=7.8,SNR=199
ASAR                                 S        S        08 49 54.0 -1.7
      comp=Z,19nm,0.9s,baz=302,slow=16,SNR=4.1
ASAR                                 P3KPbc            09 14 01.8
      comp=Z,0.7nm,1.0s,baz=118,slow=4.8,SNR=4.5
ASAR                                 P3KP              09 15 38.1
      comp=Z,1.7nm,1.1s,baz=85,slow=3.1,SNR=3.8
ASAR  Alice Springs      39.03 126   P        P        08 43 57.1 -1.1
ASAR                                 S        S        08 49 54.0 -1.7
ASAR                                e                 09 14 01.8
ASAR                                 PKKKP             09 15 38.1
BHJ   Bhuj               39.04 313  ex       P        08 44 04.3 +6.0
BHJ                                  AMb      AMB      08 44 16.8
      comp=Z,718nm,1.1s,mb6.3
BHJ                                 ex       x        08 50 07.3
SSE   Sheshan            39.06  30   P        P        08 43 58.8 +0.5
SSE                                  sP       sP       08 44 14.5 +3.8
SSE                                  PP       PP       08 45 28.0 -0.2
SSE                                  S        S        08 49 56.5 +0.6
SSE                                  sS       sS       08 50 15.3 +4.9
SSE                                  pmax     pmax
      comp=Z,810nm,1.2s,mb6.3
SSE                                  pmax     pmax
      comp=Z,45µm,12.0s
SSE                                  LR       LR
      comp=N,535µm,16.9s,MS7.5
SSE                                  LR       LR
      comp=E,296µm,16.9s,MS7.5
SSE                                  LR       LR
      comp=Z,825µm,16.2s,MS7.7
JOW   Kunigami           39.98  41   P        P        08 44 06.0  0.0
      comp=Z,63nm,0.4s,mb5.7,baz=209,slow=5.5,SNR=18
JOW                                  S        S        08 50 09.9  0.0
      comp=Z,12nm,0.4s,baz=311,slow=14,SNR=2.3
JOW                                  LR       LR       09 00 29.3
      comp=Z,169µm,21.6s,MS6.8,baz=217,slow=36
JOW   Kunigami           39.98  41   P        P        08 44 06.0  0.0
JOW                                  S        S        08 50 09.9  0.0
JOW                                  LR       LR       09 00 29.3
SDNR  Sundarnagar        40.23 329  ePKP     P        08 44 08.0 -0.1
SDNR                                ex       x        08 51 19.0
BHK   Bhakra             40.45 328  ex       P        08 44 14.0 +4.1
BHK                                 ex       x        08 45 19.2
JAY   Jayapura           40.74  91   P        P        08 44 11.7 -0.9
      comp=Z,334nm,1.5s,mb5.8
DLH   Dalhousie          41.58 329  ex       x        08 44 28.0
DLH                                 eS       S        08 50 38.0 +4.6
THN   Thein Dam          41.62 329  ePKP     P        08 44 17.8 -1.7
THN                                 ex       x        08 50 48.7
GTA   Gaotai             41.69 360⇑iP        P        08 44 20.0  0.0
GTA                                  pP       pP       08 44 30.3 +1.4
GTA                                  sP       sP       08 44 34.0 +1.5
GTA                                  PP       PP       08 46 01.0 +4.2
GTA                                  S        S        08 50 34.8 -0.2
GTA                                  sS       sS       08 50 51.5 +1.9
GTA                                  SS       SS       08 53 36.0 -5.3
GTA                                  pmax     pmax
      comp=Z,380nm,1.3s,mb5.9
GTA                                  pmax     pmax
      comp=Z,54µm,11.8s
GTA                                  LR       LR
      comp=N,458µm,16.2s,MS7.7
GTA                                  LR       LR
      comp=E,638µm,15.6s,MS7.7
GTA                                  LR       LR
      comp=Z,513µm,18.9s,MS7.4
TIA   Tai'an             41.72  21 ⇑P        P        08 44 19.5 -0.7
TIA                                  PP       PP       08 45 58.5 +1.4
TIA                                  S        S        08 50 40.5 +5.1
TIA                                  SS       SS       08 53 44.5 +2.7
TIA                                  pmax     pmax
      comp=Z,200nm,0.8s,mb5.8
TIA                                  LR       LR
      comp=N,347µm,12.0s
BTO   Baotou             43.87  11  eP       P        08 44 36.8 -0.8
BTO                                  S        S        08 51 16.3 +9.4
COEN  Coen               44.21 107  eP       P        08 44 37.5 -3.2
      comp=N,2µm,1.3s,mb6.7
COEN                                ePP      PP       08 46 23.6 -0.6
COEN  Coen               44.21 107   P        P        08 44 37.9 -2.9
      comp=N,648nm,2.5s,mb5.9
MSEY  Mahe Island        44.40 266  eP       P        08 44 43.7 +1.3
MSEY                                e*PP     pP       08 44 50.4 -0.9
MSEY                                 pmax     pmax
      comp=Z,241nm,1.3s,mb5.8
MSEY                                 MLR      MLR
      comp=Z,173µm,22.0s,MS6.9
MSEY  Mahe Island        44.40 266  eP       P        08 44 43.7 +1.3
      comp=Z,241nm,1.3s,mb5.8
MSEY                                epP      pP       08 44 50.4 -0.9
MSEY                                 LR       LR
      comp=Z,173µm,22.0s,MS6.9
HHC   Hu-ho-hao-te       44.42  13 ⇑P        P        08 44 42.8 +0.8
HHC                                  pP       pP       08 44 52.5 +1.5
HHC                                  sP       sP       08 44 56.5 +1.9
HHC                                  PP       PP       08 46 27.5 +1.4
HHC                                  PcS      PcS      08 50 17.8 -0.9
HHC                                 eS       S        08 51 14.5 -0.5
HHC                                  sS       sS       08 51 30.8 +1.1
HHC                                  SS       SS       08 54 25.0  -10
HHC                                  ScS      ScS      08 54 36.0 -2.2
HHC                                  pmax     pmax
      comp=Z,220nm,0.9s,mb5.9
HHC                                  pmax     pmax
      comp=Z,62µm,6.4s
HHC                                  LR       LR
      comp=N,640µm,15.9s,MS7.8
HHC                                  LR       LR
      comp=E,413µm,12.7s,MS7.8
HHC                                  LR       LR
      comp=Z,565µm,17.6s,MS7.5
BJT   Baijiatuau         44.85  18  eP       P        08 44 45.6 +0.1
BJT                                  pmax     pmax
      comp=Z,2µm,1.1s
BJT                                  MLR      MLR
      comp=Z,764µm,20.0s
BJT   Baijiatuau         44.85  18  eP       P        08 44 45.5 +0.1
      comp=Z,2µm,1.1s,mb6.9
BJT                                  LR       LR
      comp=Z,764µm,20.0s,MS7.6
BJI   Beijing            44.87  18   P        P        08 44 46.0 +0.4
BJI                                  pP       pP       08 44 55.5 +0.9
BJI                                  sP       sP       08 44 59.3 +1.1
BJI                                  PP       PP       08 46 31.8 +0.9
BJI                                  S        S        08 51 23.0 +1.5
BJI                                  pmax     pmax
      comp=Z,2µm,1.1s,mb6.8
BJI                                  pmax     pmax
      comp=Z,16µm,4.6s
BJI                                  LR       LR
      comp=N,1265µm,17.3s,MS8.0
BJI                                  LR       LR
      comp=E,334µm,15.1s,MS8.0
BJI                                  LR       LR
      comp=Z,888µm,17.2s,MS7.8
DL2   Dalian             45.79  24   P        P        08 44 53.0  0.0
DL2                                  PP       PP       08 46 42.3 +1.6
DL2                                  S        S        08 51 33.8 -1.1
DL2                                  pmax     pmax
      comp=Z,400nm,2.3s,mb5.9
DL2                                  pmax     pmax
      comp=Z,32µm,7.8s
DL2                                  LR       LR
      comp=E,228µm,17.1s
DL2                                  LR       LR
      comp=Z,251µm,18.2s,MS7.2
RER   Riviere de l'E     46.82 243  eP       P        08 45 03.0 +1.7
      comp=Z,888nm,1.8s,mb6.4
RER                                  LR       LR
      comp=Z,84µm,20.0s,MS6.7
INCN  Inchon             46.86  29  eP       P        08 45 00.4 -1.0
      comp=Z,5µm,2.4s,mb7.0
INCN                                ePcP     PcP      08 46 34.3 +0.3
INCN                                 LR       LR
      comp=Z,384µm,19.0s,MS7.4
INCN  Inchon             46.86  29   P        P        08 45 01.2 -0.2
      SNR=35
INCN                                 P                 08 45 01.2
      SNR=35
KSH   Kashi              47.24 335   P        P        08 45 02.5 -1.8
KSH                                  pP       pP       08 45 11.5 -1.8
KSH                                  sP       sP       08 45 15.8 -1.1
KSH                                 ePcP     PcP      08 46 36.5 +1.2
KSH                                 ePP      PP       08 46 51.3 -4.3
KSH                                 eScP     ScP      08 50 25.8 -1.6
KSH                                 ePcS     PcS      08 50 29.5 -0.9
KSH                                  S        S        08 51 48.5 -7.1
KSH                                 eScS     ScS      08 54 51.8 -4.6
KSH                                  pmax     pmax
      comp=Z,180nm,1.8s,mb5.7
KSH                                  pmax     pmax
      comp=Z,5µm,4.8s
KSH                                  LR       LR
      comp=N,127µm,12.3s,MS7.3
KSH                                  LR       LR
      comp=E,160µm,14.0s,MS7.3
KSH                                  LR       LR
      comp=Z,225µm,12.8s,MS7.3
GUMO  Guam               47.35  69  eP       P        08 45 02.3 -3.3
GUMO                                eS       S        08 51 56.1 -1.8
GUMO                                 pmax     pmax
      comp=Z,839nm,1.2s,mb6.5
GUMO                                 MLR      MLR
      comp=Z,191µm,21.0s,MS7.0
GUMO  Guam               47.35  69   P        P        08 45 02.4 -3.2
      comp=Z,211nm,0.7s,mb6.2,baz=173,slow=6.1,SNR=12
GUMO                                 S        S        08 51 57.4 -0.5
      comp=Z,40nm,0.7s,baz=17,slow=21,SNR=3.4
GUMO                                 LR       LR       09 04 45.7
      comp=Z,199µm,21.6s,MS7.0,baz=52,slow=36
GUMO  Guam               47.35  69  eP       P        08 45 02.3 -3.3
      comp=Z,839nm,1.2s,mb6.5
GUMO                                eS       S        08 51 56.1 -1.9
GUMO                                 LR       LR
      comp=Z,191µm,21.0s,MS7.0
GUMO  Guam               47.35  69   P        P        08 45 02.9 -2.7
      comp=Z,643nm,1.1s,mb6.5
WMQ   Urumqi             47.39 348⇑iP        P        08 45 06.3 +0.9
WMQ                                  pP       pP       08 45 16.0 +1.6
WMQ                                  sP       sP       08 45 20.0 +2.0
WMQ                                  PcP      PcP      08 46 38.0 +2.2
WMQ                                  PP       PP       08 47 00.0 +3.1
WMQ                                  S        S        08 51 58.0 +0.4
WMQ                                  sS       sS       08 52 13.0 +0.6
WMQ                                  ScS      ScS      08 54 55.0 -2.3
WMQ                                  SS       SS       08 55 20.0 -5.7
WMQ                                  pmax     pmax
      comp=Z,3µm,1.0s,mb7.1
WMQ                                  pmax     pmax
      comp=Z,26µm,7.7s
WMQ                                  LR       LR
      comp=N,264µm,20.6s,MS7.4
WMQ                                  LR       LR
      comp=E,266µm,17.9s,MS7.4
WMQ                                  LR       LR
      comp=Z,281µm,24.3s
KSRS  Korea Array        47.48  30   P        P        08 45 05.8 -0.5
      comp=Z,702nm,1.1s,mb6.5,baz=223,slow=7.6,SNR=172
KSRS                                 S        S        08 52 00.5 +1.4
      comp=Z,2.3nm,0.8s,baz=210,slow=7.2,SNR=2.3
KSRS                                 LR       LR       09 05 46.0
      comp=Z,236µm,18.3s,MS7.2,baz=236,slow=37
JMDO  Jabal Madar        47.71 303 ⇑P        P        08 45 08.9 +0.6
      SNR=27
SMDO  Samad              48.05 304 ⇑P        P        08 45 11.0  0.0
      SNR=72
BIDO  Bidbid             48.20 305 ⇓P        P        08 45 12.7 +0.6
      SNR=42
CTA   Charters Tower     48.46 115⇑iP        P        08 45 12.9 -1.3
      comp=Z,682nm,0.9s,mb6.7
CTA                                 eS       S        08 52 12.4 -1.2
CTA   Charters Tower     48.46 115   P        P        08 45 13.2 -1.0
      comp=Z,684nm,1.0s,mb6.6,baz=291,slow=9.1,SNR=73
CTA                                  S        S        08 52 12.8 -0.8
      comp=Z,30nm,1.1s,baz=233,slow=20,SNR=3.5
CTA   Charters Tower     48.46 115   P        P        08 45 13.2 -1.0
CTA                                  S        S        08 52 12.8 -0.8
CTAO  Charters Tower     48.46 115  eP       P        08 45 13.0 -1.2
CTAO                                 pmax     pmax
      comp=Z,1µm,1.1s,mb6.9
CTAO                                 MLR      MLR
      comp=Z,237µm,19.0s,MS7.2
CTAO  Charters Tower     48.46 115  eP       P        08 45 13.0 -1.1
      comp=Z,1µm,1.1s,mb6.9
CTAO                                 LR       LR
      comp=Z,237µm,19.0s,MS7.2
CTAO  Charters Tower     48.46 115   P        P        08 45 13.3 -0.9
      comp=Z,1µm,1.3s,mb6.8
BSY   Bisya              48.62 303 ⇑P        P        08 45 16.2 +0.8
      SNR=93
STKA  Stephens Creek     48.89 131⇑iP        P        08 45 16.6 -0.6
      comp=Z,602nm,0.8s,mb6.7
STKA                                eS       S        08 52 18.2 -1.0
STKA  Stephens Creek     48.89 131   P        P        08 45 16.4 -0.8
      comp=Z,337nm,1.0s,mb6.3,baz=301,slow=7.8,SNR=113
STKA                                 S        S        08 52 17.4 -1.8
      comp=Z,42nm,1.3s,baz=120,slow=18,SNR=1.7
STKA                                 LR       LR       09 07 29.3
      comp=Z,476µm,21.5s,MS7.5,baz=297,slow=38
STKA  Stephens Creek     48.89 131   P        P        08 45 16.4 -0.8
STKA                                eP                08 45 17.0
STKA                                ePcP     PcP      08 46 41.9 +0.4
STKA                                 S        S        08 52 17.4 -1.8
STKA                                 LR       LR       09 07 29.3
HOQ   Hoqain             48.89 304 ⇑P        P        08 45 18.3 +0.9
      SNR=79
SNY   Shenyang           49.06  23 ⇑P        P        08 45 17.3 -1.0
SNY                                  pP       pP       08 45 23.8 -3.6
SNY                                  sP       sP       08 45 34.0 +3.1
SNY                                  S        S        08 52 30.0 +8.7
SNY                                  pmax     pmax
      comp=Z,280nm,1.2s,mb6.2
SNY                                  pmax     pmax
      comp=Z,54µm,7.9s
SNY                                  LR       LR
      comp=N,450µm,17.2s,MS7.6
SNY                                  LR       LR
      comp=E,299µm,17.2s,MS7.6
SNY                                  LR       LR
      comp=Z,324µm,15.7s,MS7.4
RBK   Rabkut             49.25 296 ⇑P        P        08 45 20.6 +0.4
      SNR=76
ULHL  Ulahol             49.42 337   P        P        08 45 21.5 +0.4
      SNR=90
ARQ   Araqi              49.44 304 ⇑P        P        08 45 22.7 +1.1
      SNR=40
KZA   Kyzart             49.68 336   P        P        08 45 23.9 +0.8
      SNR=118
WHFO  Wadi Hawf          49.78 296 ⇓P        P        08 45 24.9 +0.7
      SNR=57
AAA   Alma-Ata           50.03 338  eP       P        08 45 28.5 +2.8
AAA                                 eS       S        08 52 37.5 +2.7
AAA                                  pmax     pmax
      comp=Z,58µm,5.8s
AAA                                  smax
      comp=E,151µm,7.3s
AAA                                  MLR      MLR
      comp=Z,198µm,18.0s,MS7.2
AAA   Alma-Ata           50.03 338  i P       P        08 45 26.9 +1.2
UCH   Uchtor             50.10 335   P        P        08 45 27.0 +0.7
      SNR=211
UCH   Uchtor             50.10 335  eP       P        08 45 26.9 +0.6
      comp=Z,4µm,1.4s,mb7.3
UCH                                  LR       LR
      comp=Z,239µm,21.0s,MS7.2
TKM2  Tokmak 2           50.25 337   P        P        08 45 27.8 +0.4
TKM2                                 pmax     pmax
      comp=Z,2µm,1.0s,mb7.1
TKM2  Tokmak 2           50.25 337   P        P        08 45 27.9 +0.5
      SNR=485
TKM2  Tokmak 2           50.25 337  eP       P        08 45 27.7 +0.3
      comp=Z,1µm,0.8s,mb7.0
TKM2                                 LR       LR
      comp=Z,152µm,21.0s,MS7.0
KBK   Karagaybulak       50.28 336   P        P        08 45 27.9 +0.2
      SNR=176
AML   Almayashu          50.37 335   P        P        08 45 29.3 +1.0
      SNR=14
AML   Almayashu          50.37 335  eP       P        08 45 28.8 +0.5
      comp=Z,2.9nm,0.5s
AML                                  LR       LR
      comp=Z,119µm,20.0s,MS6.9
HATD  Hatta, Dubai       50.41 305 ⇑P        P        08 45 30.3 +1.4
      SNR=58
SONM  Songino Array      50.44   6   P        P        08 45 29.2 +0.5
SONM                                 S        S        08 52 43.9 +3.6
SONM  Songino Array      50.44   6   P        P        08 45 29.2 +0.5
      comp=Z,2µm,1.1s,mb7.0,baz=189,slow=9.1,SNR=371
SONM                                 S        S        08 52 43.9 +3.7
      comp=Z,5.6nm,1.0s,baz=207,slow=9.0,SNR=2.8
SONM                                 PKP2bc            09 16 28.2
      comp=Z,3.2nm,1.1s,baz=329,slow=1.7,SNR=5.1
SONM                                 P4KPbc            09 23 01.1
      comp=Z,0.6nm,0.3s,baz=197,slow=4.5,SNR=5.8
SONM  Songino Array      50.44   6   P        P        08 45 29.2 +0.5
SONM                                 S        S        08 52 43.9 +3.7
SONM                               ⇑e                 09 16 28.2
AAK   Ala-Archa          50.45 336  eP       P        08 45 29.5 +0.6
AAK                                  pmax     pmax
      comp=Z,434nm,0.9s,mb6.5
AAK                                  MLR      MLR
      comp=Z,335µm,22.0s,MS7.3
AAK   Ala-Archa          50.45 336   P        P        08 45 29.6 +0.7
      SNR=118
AAK   Ala-Archa          50.45 336   P        P        08 45 29.1 +0.2
      comp=Z,79nm,0.8s,mb5.8,baz=139,slow=6.8,SNR=110
AAK                                  S        S        08 52 41.8 +1.2
      comp=Z,10nm,0.9s,baz=29,slow=23,SNR=1.5
AAK   Ala-Archa          50.45 336  eP       P        08 45 29.5 +0.6
      comp=Z,434nm,0.9s,mb6.5
AAK                                  LR       LR
      comp=Z,335µm,22.0s,MS7.3
AAK   Ala-Archa          50.45 336   P        P        08 45 29.5 +0.6
      SNR=290
AAK                                  P                 08 45 29.5
      SNR=290
AAK   Ala-Archa          50.45 336   P        P        08 45 29.9 +1.0
      comp=Z,195nm,1.3s,comp=Z,9µm,mb6.0
ULN   Ulaanbaatar        50.53   6  eP       P        08 45 29.9 +0.5
ULN                                  pmax     pmax
      comp=Z,1µm,0.9s,mb6.8
ULN                                  MLR      MLR
      comp=Z,617µm,21.0s,MS7.6
ULN   Ulaanbaatar        50.53   6  eP       P        08 45 29.9 +0.5
      comp=Z,1µm,0.9s,mb6.8
ULN                                  LR       LR
      comp=Z,617µm,21.0s,MS7.6
ULN   Ulaanbaatar        50.53   6   P        P        08 45 30.2 +0.8
      SNR=633
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ULN				P		08 45 30.2	
	SNR=633						
ULN	**Ulaanbaatar**	**50.53**	**6**	P	**P**	**08 45 29.9**	**+0.5**
FRU	**Bishkek**	**50.57**	**336**	⇑*i*P	**P**	**08 45 30.0**	**+0.2**
FRU				*e*		08 53 00.0	
FRU				pmax	pmax		
	comp=Z,620nm,2.0s,mb6.2						
FRU				MLR	MLR		
	comp=Z,270µm,20.0s,MS7.3						
CHMS	**Chumysh**	**50.65**	**336**	P	**P**	**08 45 30.4**	**0.0**
	SNR=131						
BANOM	**Banah**	**50.76**	**307**	⇑P	**P**	**08 45 33.3**	**+1.8**
	SNR=18						
EKS2	**Erkin-Say**	**50.77**	**335**	P	**P**	**08 45 32.0**	**+0.6**
	SNR=413						
EKS2	**Erkin-Say**	**50.77**	**335**	*e*P	**P**	**08 45 31.9**	**+0.5**
	comp=Z,2µm,0.9s,mb7.0						
EKS2				LR	LR		
	comp=Z,181µm,21.0s,MS7.1						
FAQ	**Al Faqa, Dubai**	**50.81**	**305**	⇓P	**P**	**08 45 33.3**	**+1.3**
	SNR=83						
NAZ	**Nazwa, Dubai**	**50.86**	**305**	⇑P	**P**	**08 45 33.0**	**+0.7**
	SNR=46						
USP	**Ospenovka**	**50.97**	**336**	P	**P**	**08 45 32.9**	**+0.1**
	SNR=495						
IBND	**Bandar-abas**	**51.28**	**309**	*e*P	**P**	**08 45 38.1**	**+2.7**
CN2	**Changchun**	**51.46**	**24**	⇑P	**P**	**08 45 35.5**	**-1.0**
CN2				*e*S	**S**	**08 52 55.0**	**+0.3**
MK31	**Makanchi Array**	**51.48**	**345**	*i* P	**P**	**08 45 36.4**	**-0.1**
MK31				pmax	pmax		
	comp=Z,1µm,0.9s,mb6.8						
MK31	**Makanchi Array**	**51.48**	**345**	*e*P	**P**	**08 45 36.5**	**-0.1**
MKAR	**Makanchi Array**	**51.48**	**345**	P	**P**	**08 45 36.5**	**0.0**
MKAR				S	**S**	**08 52 57.1**	**+2.4**
MKAR	**Makanchi Array**	**51.48**	**345**	P	**P**	**08 45 36.5**	**-0.1**
	comp=Z,321nm,0.6s,mb6.4,baz=149,slow=7.4,SNR=815						
MKAR				S	**S**	**08 52 57.1**	**+2.4**
	comp=Z,8.4nm,1.0s,baz=27,slow=33,SNR=3.8						
MKAR				LR	LR	09 11 58.8	
	comp=Z,120µm,19.1s,MS6.9,baz=163,slow=41						
MKAR				PKPPKP		09 16 09.7	
	comp=Z,0.9nm,0.9s,baz=329,slow=2.1,SNR=3.8						
MKAR				P4KPbc		09 23 13.6	
	comp=Z,0.8nm,0.7s,baz=159,slow=7.3,SNR=6.1						
MKAR	**Makanchi Array**	**51.48**	**345**	P	**P**	**08 45 36.5**	**-0.1**
MKAR				S	**S**	**08 52 57.1**	**+2.4**
MKAR				LR	LR	09 11 58.8	
MKAR				P'P'		09 16 09.7	
IDAH	**Dahanechah**	**51.59**	**316**	*e*P	**P**	**08 45 38.9**	**+1.2**
KK31	**Karatay Array**	**52.55**	**333**	*e*P	**P**	**08 45 43.6**	**-1.0**
KK31				pmax	pmax		
	comp=Z,395nm,0.9s,mb6.3						
MAJO	**Matsushiro**	**52.70**	**39**	*e*P	**P**	**08 45 44.3**	**-1.6**
MAJO				pmax	pmax		
	comp=Z,582nm,1.0s,mb6.5						
MAJO				MLR	MLR		
	comp=Z,258µm,19.0s,MS7.3						
MAJO	**Matsushiro**	**52.70**	**39**	*e*P	**P**	**08 45 44.3**	**-1.6**
	comp=Z,582nm,1.0s,mb6.5						
MAJO				LR	LR		
	comp=Z,258µm,19.0s,MS7.3						
MAT	**Matsushiro**	**52.70**	**39**	P	**P**	**08 45 44.2**	**-1.7**
MAT				S	**S**	**08 53 09.0**	**-2.9**
MJAR	**Matsushiro Arr**	**52.70**	**39**	P	**P**	**08 45 44.5**	**-1.4**
MJAR				S	**S**	**08 53 14.1**	**+2.2**
MJAR	**Matsushiro Arr**	**52.70**	**39**	P	**P**	**08 45 44.5**	**-1.4**
	comp=Z,446nm,1.1s,mb6.3,baz=221,slow=7.0,SNR=139						
MJAR				S	**S**	**08 53 14.1**	**+2.2**
	comp=Z,1.0nm,0.6s,baz=135,slow=45,SNR=2.9						
MJAR				LR	LR	09 09 38.1	
	comp=Z,219µm,19.1s,MS7.2,baz=215,slow=38						
MJAR				PKP2ab		09 16 52.4	
	comp=Z,2.6nm,1.1s,baz=299,slow=2.7,SNR=4.2						
ZAK	**Zakamensk**	**52.74**	**3**	*e*P	**P**	**08 45 46.0**	**+0.1**
ZAK				pmax	pmax		
	comp=Z,385nm,1.1s,mb6.2						
PAF	**Port-aux-Franc**	**53.12**	**204**	*e*P	**P**	**08 45 50.3**	**+1.6**
PAF				pmax	pmax		
	comp=Z,5µm,2.3s,mb7.0						
PAF				MLR	MLR		
	comp=Z,190µm,20.0s,MS7.1						
PAF	**Port-aux-Franc**	**53.12**	**204**	*e*P	**P**	**08 45 50.3**	**+1.5**
	comp=Z,5µm,2.3s,mb7.0						
PAF				LR	LR		
	comp=Z,190µm,20.0s,MS7.1						
IMYA	**Miami**	**53.55**	**320**	*e*P	**P**	**08 45 52.8**	**+0.7**
MDJ	**Mudanjiang**	**53.86**	**26**	P	**P**	**08 45 54.3**	**+0.1**
MDJ				pP	pP	08 46 03.3	0.0
MDJ				sP	sP	08 46 06.5	-0.4
MDJ				PP	PP	08 47 55.0	-0.7
MDJ				PcS	PcS	08 50 58.8	+0.1
MDJ				S	**S**	**08 53 27.0**	**-0.4**
MDJ				sS	sS	08 53 42.3	-0.1
MDJ				ScS	ScS	08 55 41.0	-0.5
MDJ				SS	SS	08 57 09.0	+0.1
MDJ				pmax	pmax		
	comp=Z,590nm,1.1s,mb6.4						
MDJ				pmax	pmax		
	comp=Z,42µm,10.9s						
MDJ				LR	LR		
	comp=N,501µm,19.7s,MS7.8						
MDJ				LR	LR		
	comp=E,538µm,17.4s,MS7.8						
MDJ				LR	LR		
	comp=Z,464µm,22.1s,MS7.5						
MDJ	**Mudanjiang**	**53.86**	**26**	*e*P	**P**	**08 45 54.0**	**-0.2**
	comp=Z,762nm,0.9s,mb6.6						
MDJ				LR	LR		
	comp=Z,43µm,20.0s,MS6.5						
MOY	**Mondy**	**53.96**	**1**	*e*P	**P**	**08 45 54.7**	**-0.1**
OPO	**Ambohidratompo**	**54.02**	**249**	P	**P**	**08 45 56.3**	**+0.4**
	comp=Z,34nm,0.9s,mb5.2,baz=75,slow=6.8,SNR=18						
OPO				S	**S**	**08 53 32.3**	**+1.9**
	comp=Z,1.4nm,0.6s,baz=92,slow=4.2,SNR=3.2						
IBAF	**Bafgh**	**54.05**	**313**	*e*P	**P**	**08 45 54.0**	**-1.8**
TLY	**Talaya**	**54.06**	**3**	P	**P**	**08 45 56.6**	**+1.1**
	comp=Z,3µm,0.8s,mb7.2,SNR=73						
TLY	**Talaya**	**54.06**	**3***c*	*i*P	**P**	**08 45 56.0**	**+0.5**
TLY				*e*		08 48 04.6	
TLY				*e*S	**S**	**08 53 37.9**	**+8.1**
TLY				*e*		08 55 37.4	
TLY				pmax	pmax		
	comp=Z,920nm,1.4s,mb6.5						
TLY				MLR	MLR		
	comp=Z,590µm,16.0s,MS7.7						
TLY	**Talaya**	**54.06**	**3**	*e*P	**P**	**08 45 56.0**	**+0.4**
	comp=Z,1µm,1.4s,mb6.6						
TLY				LR	LR		
	comp=Z,223µm,20.0s,MS7.2						
TLY	**Talaya**	**54.06**	**3**	P	**P**	**08 45 56.4**	**+0.9**
	SNR=320						
TLY				P		08 45 56.4	
	SNR=320						
EIDS	**Eidsvold**	**54.18**	**120**	*e*P	**P**	**08 45 56.5**	**-0.5**
	comp=Z,321nm,0.6s,mb6.4						
HIA	**Hailar**	**54.33**	**16**	*e*P	**P**	**08 45 56.8**	**-0.8**
HIA				pmax	pmax		
	comp=Z,718nm,1.0s						
HIA				MLR	MLR		
	comp=Z,882µm,19.0s						
HIA	**Hailar**	**54.33**	**16**	*e*P	**P**	**08 45 56.8**	**-0.8**
	comp=Z,718nm,1.0s,mb6.6						
HIA				LR	LR		
	comp=Z,882µm,19.0s,MS7.8						
TOO	**Toolangi**	**54.42**	**136**	*e*P	**P**	**08 45 59.5**	**+1.0**
TOO				*e*S	**S**	**08 53 38.5**	**+3.3**
IMEH	**Mehriz**	**54.65**	**312**	*e*P	**P**	**08 46 02.0**	**+1.7**
IRK	**Irkutsk**	**54.65**	**3**	*e*P	**P**	**08 45 59.3**	**-0.5**
IRK				*e*S	**S**	**08 53 48.3**	**+11**
IRK				pmax	pmax		
	comp=Z,2µm,2.7s,mb6.6						
IKRD	**Kardeh**	**54.83**	**319**	*e*P	**P**	**08 45 57.2**	**-4.3**
ISRV	**Sarvestan**	**54.85**	**309**	*e*P	**P**	**08 45 59.8**	**-1.9**
ICHK	**Chekchek**	**55.23**	**313**	*e*P	**P**	**08 46 04.6**	**+0.2**
CIT	**Chita**	**55.52**	**10**	*e*P	**P**	**08 46 07.1**	**+1.0**
CIT				*e*		08 46 18.3	
CIT				*e*S	**S**	**08 53 59.4**	**+10**
CIT				pmax	pmax		
	comp=Z,4µm,2.9s,mb7.0						
ISAD	**Sadrabad**	**55.60**	**312**	*e*P	**P**	**08 46 09.0**	**+1.9**
ASH	**Ashkhabad**	**55.63**	**321**	*e*P	**P**	**08 46 05.0**	**-2.2**
ASH				S	**S**	**08 53 49.0**	**-2.5**
ABKT	**Ailbek**	**55.77**	**320**	P	**P**	**08 46 07.3**	**-0.9**
	comp=Z,2µm,1.0s,mb7.0,SNR=22						
CAN	**Canberra**	**55.95**	**132**	*e*P	**P**	**08 46 10.0**	**+0.5**
CAN				*e*S	**S**	**08 53 53.5**	**-2.3**
CAN				pmax	pmax		
	comp=Z,3µm,1.9s,mb7.0						
CAN				MLR	MLR		
	comp=Z,353µm,21.0s,MS7.4						
CAN	**Canberra**	**55.95**	**132**	*e*P	**P**	**08 46 10.0**	**+0.5**
	comp=Z,3µm,1.9s,mb7.0						
CAN				*e*S	**S**	**08 53 53.5**	**-2.2**
CAN				LR	LR		
	comp=Z,353µm,21.0s,MS7.4						
KURK	**Kurchatov**	**56.05**	**344**	*e*P	**P**	**08 46 09.5**	**-0.5**
KURK				pmax	pmax		
	comp=Z,2µm,0.9s,mb7.1						
KURK				MLR	MLR		
	comp=Z,155µm,21.0s,MS7.1						
KURK	**Kurchatov**	**56.05**	**344**	P	**P**	**08 46 09.1**	**-0.9**
	comp=Z,330nm,1.0s,mb6.3,baz=164,slow=6.1,SNR=130						
KURK				PP	PP	08 48 22.5	+7.3
	comp=Z,62nm,0.8s,baz=160,slow=8.7,SNR=2.1						
KURK				S	**S**	**08 53 58.1**	**+1.5**
	comp=Z,2.3nm,0.8s,baz=349,slow=30,SNR=2.4						
KURK	**Kurchatov**	**56.05**	**344**	*e*P	**P**	**08 46 09.5**	**-0.4**
	comp=Z,2µm,0.9s,mb7.1						
KURK				LR	LR		
	comp=Z,155µm,21.0s,MS7.1						
KURK	**Kurchatov**	**56.05**	**344**	P	**P**	**08 46 09.9**	**-0.1**
	SNR=636						
KURK				P		08 46 09.9	
	SNR=636						
ARMA	**Armidale**	**56.19**	**125**	*e*P	**P**	**08 46 11.0**	**-0.4**
ARMA				*e*S	**S**	**08 54 08.3**	**+9.2**
ARMA	**Armidale**	**56.19**	**125**	*e*P	**P**	**08 46 10.2**	**-1.1**
	comp=Z,220nm,0.8s,mb6.2						
ARMA				*e*PcP	PcP	08 47 09.2	+0.2
CNB	**Canberra Magne**	**56.21**	**132**	*e*P	**P**	**08 46 09.4**	**-2.1**
CNB				*e*S	**S**	**08 53 56.4**	**-3.0**
RIV	**Riverview**	**57.00**	**129**	*e*P	**P**	**08 46 17.8**	**+0.7**
IZEF	**Zefreh**	**57.07**	**312**	*e*P	**P**	**08 46 19.0**	**+1.4**
IANJ	**Anjilo**	**57.21**	**316**	*e*P	**P**	**08 46 17.8**	**-0.7**
TRBA	**At Turbah**	**57.52**	**287**	*e*P	**P**	**08 46 24.3**	**+3.2**
DHBB	**Dhamar BB**	**57.54**	**289**	⇑*e*P	**P**	**08 46 24.2**	**+3.0**
ZAA0	**Zalesovo Array**	**57.63**	**349**	*e*P	**P**	**08 46 20.6**	**-0.5**
ZALV	**Zalesovo Beam**	**57.63**	**349**	P	**P**	**08 46 20.6**	**-0.5**
ZALV				S	**S**	**08 54 18.7**	**+1.4**
ZALV	**Zalesovo Beam**	**57.63**	**349**	P	**P**	**08 46 20.6**	**-0.5**
	comp=Z,575nm,1.0s,mb6.6,baz=181,slow=5.6,SNR=178						
ZALV				S	**S**	**08 54 18.7**	**+1.4**
	comp=Z,18nm,1.0s,baz=166,slow=8.6,SNR=4.1						
ZALV				LR	LR	09 13 57.2	
	comp=Z,147µm,21.4s,MS7.1,baz=163,slow=39						
ZALV				PKPPKP		09 15 58.0	
	comp=Z,6.4nm,1.2s,baz=318,slow=2.0,SNR=5.4						
ZALV				PKP2bc		09 16 19.9	
	comp=Z,11nm,1.0s,baz=323,slow=3.7,SNR=8.4						
ZALV				P4KPbc		09 23 33.4	
	comp=Z,4.1nm,0.9s,baz=151,slow=3.4,SNR=4.0						
ZALV	**Zalesovo Beam**	**57.63**	**349**	P	**P**	**08 46 20.6**	**-0.5**
ZALV				S	**S**	**08 54 18.7**	**+1.4**
ZALV				LR	LR	09 13 57.1	
ZALV				P'P'		09 15 58.0	
ZALV				⇑*e*		09 16 19.9	
ISHM	**Shahmirzad**	**57.82**	**316**	*e*P	**P**	**08 46 22.8**	**0.0**
ILAS	**Lasjerd**	**57.84**	**315**	*e*P	**P**	**08 46 22.1**	**-0.9**
ISFB	**Sefidab**	**57.84**	**314**	*e*P	**P**	**08 46 28.6**	**+5.6**
MOO	**Moorlands**	**57.94**	**140**	*e*P	**P**	**08 46 26.9**	**+3.4**
MOO				*e*S	**S**	**08 54 30.5**	**+8.7**
IFIR	**Firoozkooh**	**58.11**	**315**	*e*P	**P**	**08 46 25.4**	**+0.5**
TAU	**Tasmania Unive**	**58.26**	**141**	*e*P	**P**	**08 46 28.5**	**+2.7**
TAU				pmax	pmax		
	comp=Z,270nm,1.2s,mb6.2						
TAU				MLR	MLR		
	comp=Z,153µm,20.0s,MS7.1						
TAU	**Tasmania Unive**	**58.26**	**141**	*e*P	**P**	**08 46 28.5**	**+2.8**
	comp=Z,270nm,1.2s,mb6.2						
TAU				LR	LR		
	comp=Z,153µm,20.0s,MS7.1						
IALA	**Alasht**	**58.30**	**316**	*e*P	**P**	**08 46 25.2**	**-1.0**
KLR	**Kul'dur**	**58.41**	**24**	⇓*i*P	**P**	**08 46 22.0**	**-4.6**
KLR				*e*S	**S**	**08 54 31.0**	**+3.4**
IVRN	**Varamin**	**58.52**	**314**	*e*P	**P**	**08 46 25.5**	**-2.2**
IVRN				*e*P		08 46 27.7	
IDMV	**Damavand**	**58.59**	**315**	*e*P	**P**	**08 46 27.8**	**-0.4**
NVS	**Novosibirsk**	**58.78**	**349**	⇑*i*P	**P**	**08 46 27.9**	**-1.2**
NVS				*i*		08 48 37.4	
NVS				*e*S	**S**	**08 54 36.0**	**+3.8**
NVS				pmax	pmax		
	comp=Z,728nm,1.2s,mb6.6						
NVS				pmax	pmax		
	comp=N,824nm,1.7s						
NVS				pmax	pmax		
	comp=E,310nm,1.0s						
NVS				pmax	pmax		
	comp=Z,413nm,1.5s,mb6.2						
NVS				pmax	pmax		
	comp=N,1µm,2.0s						
NVS				smax			
	comp=N,2µm,2.4s						
NVS				smax			
	comp=E,1µm,2.3s						
ERM	**Erimo**	**59.09**	**37**	*e*P	**P**	**08 46 32.7**	**+1.1**
ERM				pmax	pmax		
	comp=Z,316nm,1.1s,mb6.3						
ERM				MLR	MLR		
	comp=Z,215µm,19.0s,MS7.3						
ERM	**Erimo**	**59.09**	**37**	*e*P	**P**	**08 46 32.7**	**+1.1**
	comp=Z,316nm,1.1s,mb6.3						
ERM				LR	LR		
	comp=Z,215µm,19.0s,MS7.3						
UMR	**Umm Al-Rimmam**	**59.18**	**307**	*e*P	**P**	**08 46 31.1**	**-1.3**
UMR				AMb	AMB	08 46 43.2	
	comp=Z,830nm,1.3s,mb6.6						
HABR	**Khabarovsk**	**59.23**	**26**	*i* P	**P**	**08 46 31.3**	**-1.1**
HABR				*i* *PP	pP	08 46 39.9	-1.7
HABR				*e**SP	sP	08 46 44.2	-0.9
HABR				*e*		08 47 18.2	
HABR						08 48 40.5	
HABR				PPP		08 50 02.4	
HABR				*e*S	**S**	**08 54 37.5**	**-0.9**
HABR				*e**SS	sS	08 54 53.1	-0.4
HABR						08 56 18.0	
HABR				*e*SS	SS	08 58 33.3	-0.1
HABR				pmax	pmax		
	comp=E,164nm,1.2s						
HABR				pmax	pmax		
	comp=Z,973nm,1.2s,mb6.7						
HABR				pmax	pmax		
	comp=N,268nm,1.2s						
HABR				pmax	pmax		
	comp=Z,11µm,7.3s						
HABR				MLR	MLR		
	comp=N,214µm,15.0s,MS7.6						
HABR				MLR	MLR		
	comp=Z,330µm,20.0s,MS7.5						
HABR				MLR	MLR		
	comp=E,280µm,15.0s,MS7.6						
IR3	**Iran Long-Peri**	**59.26**	**314**	*e*P	**P**	**08 46 31.9**	**-1.0**
NAY	**Al-Naaiem**	**59.44**	**306**	*e*P	**P**	**08 46 32.9**	**-1.4**
NAY				AMb	AMB	08 46 44.7	
	comp=Z,286nm,1.4s,mb6.1						
MIB	**Mutribah**	**59.58**	**307**	*e*P	**P**	**08 46 34.5**	**-0.7**
MIB				AMb	AMB	08 46 45.9	
	comp=Z,898nm,1.4s,mb6.6						
IMHD	**Mahdasht**	**59.61**	**314**	*e*P	**P**	**08 46 34.1**	**-1.2**
IRAZ	**Razeghan**	**60.01**	**314**	*e*P	**P**	**08 46 38.1**	**+0.1**
HNR	**Honiara**	**60.03**	**99**	P	**P**	**08 46 36.2**	**-2.4**
	comp=Z,805nm,1.1s,mb6.7,baz=217,slow=2.7,SNR=14						
HNR				S	**S**	**08 54 44.3**	**-5.6**
	comp=Z,16nm,0.4s,baz=247,slow=12,SNR=1.5						
HNR	**Honiara**	**60.03**	**99**	P	**P**	**08 46 36.2**	**-2.4**
HNR				S	**S**	**08 54 44.3**	**-5.6**
HNR				LR	LR		
	comp=Z,129µm,20.0s,MS7.1						
ASAJ	**Asahikawa**	**60.06**	**34**	S	**S**	**08 54 52.4**	**+3.2**
	comp=Z,4.3nm,0.6s,baz=78,slow=32,SNR=2.2						
VOSK	**Vostochnaya**	**60.16**	**340**	P	**P**	**08 46 37.4**	**-1.3**
VOSK				pmax	pmax		
	comp=Z,956nm,1.2s,mb6.7						
BVA0	**Borovoye Array**	**60.61**	**340**	*i* P	**P**	**08 46 40.8**	**-1.0**
BVA0				pmax	pmax		
	comp=Z,106nm,1.0s,mb5.9						
BVAR	**Borovoye Array**	**60.61**	**340**	S	**S**	**08 54 56.9**	**+0.9**
	comp=Z,1.5nm,0.7s,baz=164,slow=6.0,SNR=1.7						
BRVK	**Borovoye**	**60.68**	**340**	*e*P	**P**	**08 46 40.9**	**-1.3**
BRVK				pmax	pmax		
	comp=Z,609nm,1.0s,mb6.7						
BRVK				MLR	MLR		
	comp=Z,176µm,21.0s,MS7.2						
BRVK	**Borovoye**	**60.68**	**340**	*e*P	**P**	**08 46 40.9**	**-1.4**
	comp=Z,609nm,1.0s,mb6.7						
BRVK				LR	LR		
	comp=Z,176µm,21.0s,MS7.2						
BRVK	**Borovoye**	**60.68**	**340**	P	**P**	**08 46 41.2**	**-1.0**
	SNR=207						
BRVK				P		08 46 41.2	
	SNR=207						
BOD	**Bodaibo**	**61.17**	**9**	*e*P	**P**	**08 46 45.2**	**-0.3**
BOD				*e*		08 55 07.2	
BOD				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.8						
DESE	**Dese**	**61.46**	**284**	*e*P	**P**	**08 46 51.8**	**+3.5**
DESE				S	**S**	**08 55 16.8**	**+8.7**
YUK	**Yuzh-Kuril'sk**	**61.89**	**36**	*e*P	**P**	**08 46 50.0**	**-0.6**
YUK				*e*SP		08 47 06.0	
YUK				*e*PPP		08 50 32.0	
YUK				*e*S	**S**	**08 55 12.0**	**-0.5**
YUK				*e*PS		08 55 27.0	
YUK				*e*		08 56 32.0	
YUK				pmax	pmax		
	comp=N,18µm,6.0s						
YUK				pmax	pmax		
	comp=E,18µm,6.0s						
YUK				pmax	pmax		
	comp=Z,32µm,6.0s						
YUK				MLR	MLR		
	comp=N,158µm,18.0s,MS7.5						
YUK				MLR	MLR		
	comp=E,241µm,18.0s,MS7.5						
YUK				MLR	MLR		
	comp=Z,170µm,18.0s,MS7.2						
YSS	**Yuzh-Sakhalins**	**61.94**	**32**α	*i*P	**P**	**08 46 50.2**	**-0.7**
YSS				*e*		08 49 14.0	
YSS				*e*PPP		08 50 42.0	
YSS				*e*S	**S**	**08 55 08.0**	**-5.0**
YSS				*e*PS		08 55 26.0	
YSS				*e*PPS		08 55 42.0	
YSS				pmax	pmax		
	comp=Z,1µm,1.1s,mb7.0						
YSS				pmax	pmax		
	comp=N,680nm,1.2s						
YSS				pmax	pmax		
	comp=N,3µm,4.0s						
YSS				pmax	pmax		
	comp=E,2µm,4.0s						
YSS				pmax	pmax		
	comp=Z,7µm,4.0s						
YSS				MLR	MLR		
	comp=N,113µm,16.0s,MS7.4						
YSS				MLR	MLR		
	comp=E,181µm,16.0s,MS7.4						
YSS				MLR	MLR		
	comp=Z,223µm,16.0s,MS7.4						
YSS	**Yuzh-Sakhalins**	**61.94**	**32**	*e*P	**P**	**08 46 50.6**	**-0.2**
	comp=Z,3µm,1.1s,mb7.3						
YSS				LR	LR		
	comp=Z,40µm,20.0s,MS6.6						
ILIN	**Lien**	**61.97**	**312**	*e*P	**P**	**08 46 50.5**	**-0.8**
AB31	**Akbulak array**	**62.03**	**332**	P	**P**	**08 46 50.1**	**-1.3**
AB31				pmax	pmax		
	comp=Z,1µm,0.9s,mb7.0						
FURI	**Furi**	**62.07**	**281**	*e*P	**P**	**08 46 57.1**	**+4.7**
FURI				S	**S**	**08 55 24.4**	**+8.5**
NRGR	**Nerungri**	**62.30**	**15**	*i* P	**P**	**08 46 54.5**	**+1.4**
NRGR				S	**S**	**08 55 19.3**	**+2.1**
NRGR				smax			
	comp=N,260nm,1.2s						
CLNS	**Chul'man**	**62.50**	**15**	*e*P	**P**	**08 46 55.1**	**+0.7**
CLNS				*e**PP	pP	08 47 03.0	-0.7
CLNS				*e*		08 47 32.4	
CLNS				*e*		08 49 13.7	
CLNS				*i* PPP		08 50 42.2	
CLNS				*e*S	**S**	**08 55 24.5**	**+4.7**
CLNS				*e*		08 56 45.7	
CLNS				*e*SS	SS	08 59 27.7	+3.4
CLNS				pmax	pmax		
	comp=Z,523nm,1.1s,mb6.6						
CLNS				pmax	pmax		
	comp=E,267nm,1.0s						
CLNS				pmax	pmax		
	comp=N,330nm,1.2s						
CLNS				pmax	pmax		
	comp=Z,110nm,0.9s,mb6.0						
CLNS				pmax	pmax		
	comp=N,174nm,1.2s						
CLNS				pmax	pmax		
	comp=E,86nm,1.0s						
CLNS				smax			
	comp=N,20µm,12.3s						
CLNS				smax			
	comp=E,11µm,11.9s						
CLNS				MLR	MLR		
	comp=Z,261µm,18.0s,MS7.4						
CLNS				MLR	MLR		
	comp=N,227µm,15.0s,MS7.6						
CLNS				MLR	MLR		
	comp=E,187µm,14.0s,MS7.6						
KMBO	**Kilima Mbogo**	**62.65**	**270**	P	**P**	**08 46 55.4**	**-0.9**
KMBO				S	**S**	**08 55 25.2**	**+2.0**
KMBO	**Kilima Mbogo**	**62.65**	**270**	P	**P**	**08 46 55.4**	**-0.9**
	comp=E,23nm,0.9s,mb5.3,baz=63,slow=9.9,SNR=26						
KMBO				S	**S**	**08 55 25.2**	**+2.0**
	comp=E,1.3nm,0.7s,baz=111,slow=5.5,SNR=1.4						
KMBO				LR	LR	09 10 59.4	
	comp=E,137µm,19.5s,MS7.1,baz=84,slow=33						
KMBO				PKP2bc		09 16 09.5	
	comp=E,1.2nm,0.8s,baz=50,slow=23,SNR=4.8						
KMBO	**Kilima Mbogo**	**62.65**	**270**	P	**P**	**08 46 55.4**	**-0.9**
KMBO				S	**S**	**08 55 25.2**	**+2.0**
KMBO				LR	LR	09 10 59.4	
KMBO				⇑*e*		09 16 09.5	
ISRB	**Sarab**	**62.74**	**315**	*e*P	**P**	**08 46 56.0**	**-0.5**
IBST	**Bostanabad**	**63.23**	**315**	*e*P	**P**	**08 46 57.7**	**-2.0**
BHD	**Baghdad**	**63.25**	**309**	*i* x	x	08 47 00.0	
BHD				*i* x	x	08 55 24.0	
IHRS	**Heris**	**63.41**	**315**	*e*P	**P**	**08 46 59.7**	**-1.2**
AKTK	**Aktyubinsk**	**63.75**	**332**	P	**P**	**08 47 01.4**	**-1.5**
AKTK				S	**S**	**08 55 32.8**	**-2.8**
AKTO	**Aktyubinsk**	**63.75**	**332**	P	**P**	**08 47 01.4**	**-1.5**
	comp=E,141nm,1.0s,mb6.0,baz=130,slow=7.2,SNR=70						
AKTO				S	**S**	**08 55 32.8**	**-2.8**
	comp=E,6.7nm,1.0s,baz=314,slow=17,SNR=2.6						
IAZR	**Azarshahr**	**63.87**	**314**	*e*P	**P**	**08 47 03.5**	**-0.5**
MIR	**Mirnyy**	**64.12**	**183***c*	*e*P	**P**	**08 47 12.0**	**+7.0**
MIR				*i*		08 47 26.0	
MIR				pmax	pmax		
	comp=Z,600nm,1.5s,mb6.4						
MIR				pmax	pmax		
	comp=Z,10µm,9.0s						
IMRD	**Marand**	**64.52**	**315**	*e*P	**P**	**08 47 08.3**	**+0.1**
MAK	**Makhachkala**	**65.29**	**320***d*	*i*P	**P**	**08 47 16.9**	**+3.8**
MAK				*i*		08 47 49.4	
MAK				*i* S	S	08 55 57.5	+2.6
MAK				*e*SS	SS	09 00 09.3	+0.9
MAK				pmax	pmax		
	comp=Z,827nm,1.6s,mb6.5						
MAK				pmax	pmax		
	comp=N,180nm,1.0s						
MAK				pmax	pmax		
	comp=E,479nm,1.5s						
MAK				pmax	pmax		
	comp=Z,22µm,7.4s						
MAK				pmax	pmax		
	comp=N,8µm,6.9s						
MAK				pmax	pmax		
	comp=E,14µm,8.7s						
MAK				smax			
	comp=N,48µm,8.7s						
MAK				smax			
	comp=E,27µm,7.2s						
CUKT	**Cukurca**	**65.41**	**313**	*e*P	**P**	**08 47 19.1**	**+5.2**
MSL	**Mosul**	**65.43**	**312**	*e*x	x	08 47 20.0	
MSL				*e*x	x	08 56 04.0	
GNI	**Garni**	**65.82**	**316**	*e*P	**P**	**08 47 18.6**	**+2.0**
GNI	**Garni**	**65.82**	**316**	⇑*e*P	**P**	**08 47 17.7**	**+1.1**
GNI				pmax	pmax		
	comp=Z,83nm,1.3s						
GNI	**Garni**	**65.82**	**316**	S	S	08 56 03.2	+1.6
	comp=Z,2.1nm,0.4s,baz=263,slow=18,SNR=2.1						
GNI				PKP2bc		09 16 00.9	
	comp=Z,1.6nm,0.3s,baz=349,slow=9.6,SNR=11						
GNI	**Garni**	**65.82**	**316**	*e*P	**P**	**08 47 16.4**	**-0.2**

	comp=Z,807nm,1.1s,mb6.7						
GNI				LR	LR		
	comp=Z,57µm,19.0s,MS6.8						
GNI	**Garni**	**65.82**	**316**	P	**P**	**08 47 17.4**	**+0.8**
	SNR=76						
GNI				P		08 47 17.4	
	SNR=76						
CLDR	**Caldiran**	**65.97**	**315**	*e*P	**P**	**08 47 20.5**	**+3.0**
VANB	**Van**	**66.11**	**314**	*e*P	**P**	**08 47 19.8**	**+1.3**
DYDN	**Diyadin**	**66.29**	**315**	*i* P	**P**	**08 47 18.9**	**-0.7**
MTA	**Mtatsminda**	**66.47**	**318**	P	**P**	**08 47 20.3**	**-0.4**
TBLG	**Delisi**	**66.52**	**318**	*e*P	**P**	**08 47 22.5**	**+1.4**
TBLG				S	S	08 56 14.6	+4.6
TBLG	**Delisi**	**66.52**	**318**	P	**P**	**08 47 22.5**	**+1.4**
AGRB	**Hanur-Agry**	**66.80**	**315**	*e*P	**P**	**08 47 22.8**	**-0.1**
TATV	**Tatvan**	**66.88**	**314**	*i* P	**P**	**08 47 24.2**	**+0.7**
GOR	**Gori**	**67.06**	**318**	P	**P**	**08 47 25.7**	**+1.2**
SVE	**Sverdlovsk**	**67.10**	**338**⇑	*e*P	**P**	**08 47 24.2**	**-0.2**
SVE				*e*		08 47 57.3	
SVE				*e*S	S	08 56 20.0	+3.6
SVE				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.9						
SVE				pmax	pmax		
	comp=Z,34µm,16.4s						
SVE				MLR	MLR		
	comp=Z,217µm,21.0s,MS7.3						
KARS	**Kars**	**67.16**	**316**	*e*P	**P**	**08 47 23.5**	**-1.6**
NOUC	**Port Laguerre**	**67.21**	**113**	*e*P	**P**	**08 47 28.0**	**+2.1**
DZM	**Mont Dzumac**	**67.34**	**113**	*e*P	**P**	**08 47 27.1**	**+0.4**
	comp=Z,842nm,1.2s,mb6.6						
DZM				*e*S	S	08 56 19.2	-1.4
	comp=Z,204µm,26.9s						
DZM				*e*LR	LR	09 07 42.1	
	comp=Z,393µm,23.2s						
BEST	**Besiri**	**67.36**	**313**	*i* P	**P**	**08 47 26.6**	**+0.1**
MARD	**Mardin**	**67.51**	**312**	*i* P	**P**	**08 47 25.1**	**-2.4**
ARU	**Arti**	**67.62**	**337**	P	**P**	**08 47 27.3**	**-0.4**
	comp=Z,3µm,0.9s,mb7.3,SNR=22						
ARU	**Arti**	**67.62**	**337***c*	*i*P	**P**	**08 47 26.6**	**-1.1**
ARU				*e*		08 47 56.5	
ARU				*e*		08 49 57.0	
ARU				*e*PPP		08 51 36.1	
ARU				*e*S	S	08 56 21.6	-1.1
ARU						08 57 22.9	
ARU				SS	SS	09 00 44.7	+0.7
ARU				pmax	pmax		
	comp=Z,258nm,1.2s,mb6.1						
ARU				pmax	pmax		
	comp=Z,36µm,20.4s						
ARU				MLR	MLR		
	comp=Z,202µm,20.0s,MS7.3						
ARU	**Arti**	**67.62**	**337**	*e*P	**P**	**08 47 26.9**	**-0.8**
	comp=Z,444nm,0.9s,mb6.5						
ARU				LR	LR		
	comp=Z,213µm,21.0s,MS7.3						
HOMI	**Horasan**	**67.75**	**315**	*i* P	**P**	**08 47 28.5**	**-0.4**
ONI	**Oni**	**67.76**	**318**	P	**P**	**08 47 29.3**	**+0.4**
ERZM	**Erzurum**	**68.08**	**315**	*i* P	**P**	**08 47 32.5**	**+1.5**
EZM	**Erzurum**	**68.08**	**315**	*e*P	**P**	**08 47 34.0**	**+3.1**
DIYA	**Diyarbakir**	**68.22**	**313**	*i* P	**P**	**08 47 32.0**	**+0.1**
YAK	**Yakutsk**	**68.23**	**15***c*	*i*P	**P**	**08 47 30.3**	**-1.2**
YAK				*e**PP	pP	08 47 40.3	-0.5
YAK				*e*		08 47 55.0	
YAK				*e*		08 50 04.8	
YAK				*e*PPP		08 51 42.2	
YAK				*e*S	S	08 56 30.2	+0.4
YAK				*e**SS	sS	08 56 47.8	+2.6
YAK				*e*		08 57 26.5	
YAK				*e*SS	SS	09 00 47.9	-5.4
YAK				pmax	pmax		
	comp=Z,2µm,1.2s,mb7.1						
YAK				pmax	pmax		
	comp=N,995nm,1.2s						
YAK				pmax	pmax		
	comp=E,798nm,1.3s						
YAK				pmax	pmax		
	comp=Z,8µm,5.7s						
YAK				pmax	pmax		
	comp=N,4µm,4.6s						
YAK				pmax	pmax		
	comp=E,2µm,4.1s						
YAK				smax			
	comp=E,5µm,4.4s						
YAK				smax			
	comp=N,5µm,4.8s						
YAK				MLR	MLR		
	comp=Z,567µm,19.0s,MS7.8						
YAK				MLR	MLR		
	comp=N,258µm,19.0s,MS7.7						
YAK				MLR	MLR		
	comp=E,294µm,20.0s,MS7.7						
YAK	**Yakutsk**	**68.23**	**15**	*e*P	**P**	**08 47 30.0**	**-1.4**
	comp=E,2µm,0.8s,mb7.1						
YAK				LR	LR		
	comp=Z,490µm,19.0s,MS7.8						
KWAJ	**Kwajalein Atol**	**68.39**	**80**	*e*P	**P**	**08 47 38.0**	**+4.6**
	comp=Z,391nm,1.0s,mb6.4						
KOPT	**Kop Dagi**	**68.74**	**315**	*i* P	**P**	**08 47 32.9**	**-2.2**
KIV	**Kislovodsk**	**68.86**	**319**	P	**P**	**08 47 35.2**	**-0.6**
	comp=Z,3µm,1.2s,mb7.1,SNR=18						
KIV	**Kislovodsk**	**68.86**	**319**	*i* P	**P**	**08 47 35.1**	**-0.7**
KIV				pmax	pmax		
	comp=Z,209nm,1.7s,mb5.8						
KIV				MLR	MLR		
	comp=Z,67µm,19.8s,MS6.9						
KIV	**Kislovodsk**	**68.86**	**319**⇑	*e*P	**P**	**08 47 35.9**	**+0.1**
KIV				LR	LR		
	comp=Z,76µm,20.0s,MS6.9						
KIV	**Kislovodsk**	**68.86**	**319**	P	**P**	**08 47 35.2**	**-0.5**
	SNR=122						
KIV				P		08 47 35.2	
	SNR=122						
PZAR	**Pazar-Rize**	**68.91**	**316**	*e*P	**P**	**08 47 38.6**	**+2.5**
WAKE	**Wake Island**	**68.98**	**68**	*e*P	**P**	**08 47 36.0**	**-1.0**
	comp=Z,2µm,1.7s,mb6.7						
WAKE				LR	LR		
	comp=Z,51µm,20.0s,MS6.8						
URFA	**Urfa**	**69.01**	**312**	*e*P	**P**	**08 47 41.6**	**+4.7**
EZC	**Erzincan**	**69.12**	**314**	*e*P	**P**	**08 47 39.8**	**+2.3**
GOF	**Gofitskoye**	**69.12**	**321**⇑	*i*P	**P**	**08 47 46.2**	**+8.8**
GOF				*e*S	S	08 56 48.8	+7.8
GOF				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
GOF				smax			
	comp=N,190nm,1.8s						
GOF				smax			
	comp=E,60nm,1.8s						
MBAR	**Mbarara**	**69.18**	**270**	*e*P	**P**	**08 47 39.0**	**+0.6**
MBAR				AMS	AMS	09 12 57.4	
	comp=Z,78µm,21.5s,MS6.9						
ELZG	**Elazig**	**69.26**	**313**	*i* P	**P**	**08 47 38.2**	**-0.2**
MOPA	**Mopani**	**69.34**	**246**	*e*P	**P**	**08 47 40.2**	**+1.0**
MOPA				AMS	AMS	09 17 23.6	
	comp=Z,120µm,17.5s,MS7.2						
MALT	**Malatya**	**69.61**	**312**	*e*P	**P**	**08 47 42.5**	**+2.0**
MALT	**Malatya**	**69.61**	**312**⇑	*i*P	**P**	**08 47 40.0**	**-0.5**
MALT	**Malatya**	**69.61**	**312**	⇑P	**P**	**08 47 40.0**	**-0.5**
MALT				LR	LR		
	comp=Z,80µm,20.0s,MS7.0						
MYA	**Malataya**	**69.61**	**312**	*e*P	**P**	**08 47 41.6**	**+1.1**
KTUT	**Trabzon**	**69.62**	**316**	*e*P	**P**	**08 47 41.8**	**+1.2**
GUMT	**Gumushane**	**69.62**	**315**	*e*P	**P**	**08 47 39.9**	**-0.7**
POGA	**Pongola**	**69.63**	**242**	*e*P	**P**	**08 47 40.8**	**-0.1**
POGA				AMS	AMS	09 11 50.9	
	comp=Z,79µm,22.4s,MS6.9						
EIL	**Elat**	**69.72**	**303**	S	S	08 56 49.4	+0.8
	comp=Z,3.4nm,0.7s,baz=352,slow=21,SNR=1.9						
MAW	**Mawson**	**69.79**	**194**	P	**P**	**08 47 39.6**	**-1.5**
MAW				S	S	08 56 46.7	-1.5
MAW	**Mawson**	**69.79**	**194**	*e*P	**P**	**08 47 41.9**	**+0.8**
	comp=Z,114nm,1.5s,mb5.6						
MAW				*e*S	S	08 56 45.1	-3.1
MAW	**Mawson**	**69.79**	**194**	P	**P**	**08 47 39.6**	**-1.5**
	comp=Z,21nm,1.0s,mb5.0,baz=86,slow=17,SNR=2.4						
MAW				S	S	08 56 46.7	-1.5
	comp=Z,14nm,0.7s,baz=185,slow=17,SNR=2.4						
MAW				LR	LR	09 14 32.6	
	comp=Z,148µm,19.6s,MS7.2,baz=38,slow=33						
MAW				PKP2bc		09 15 47.3	
	comp=Z,63nm,1.1s,baz=272,slow=4.7,SNR=4.0						
MAW	**Mawson**	**69.79**	**194**	P	**P**	**08 47 39.6**	**-1.5**
MAW				S	S	08 56 46.7	-1.5
MAW				LR	LR	09 14 32.6	
MAW				⇑*e*		09 15 47.3	
FKH	**Fakeheh**	**69.82**	**308**	*e*P	**P**	**08 47 47.3**	**+5.3**
DRV	**Dumont d'Urvil**	**69.88**	**164**	P	pP	08 47 53.0	+2.0
DRV				S	S	08 56 51.0	+1.8
KEMA	**Kemaliye**	**69.90**	**313**	*i* P	**P**	**08 47 40.8**	**-1.5**
GZT	**Gaziantep**	**69.92**	**311**	*i* P	**P**	**08 47 42.5**	**0.0**
AKCD	**Akcadag**	**69.97**	**312**	*i* P	**P**	**08 47 40.8**	**-2.0**
RCY	**Rachaya**	**70.06**	**307**	*e*P	**P**	**08 47 48.0**	**+4.6**
KUZU	**Kuzuini**	**70.10**	**311**	*i* P	**P**	**08 47 42.5**	**-1.1**
GAZ	**Gaziantep**	**70.13**	**311**	*e*P	**P**	**08 47 46.9**	**+3.1**
MMAI	**Mount Meron Ar**	**70.26**	**306**	S	S	08 56 56.4	+1.5
	comp=Z,0.5nm,0.3s,baz=305,slow=49,SNR=2.2						
DARE	**Darende-Malaty**	**70.29**	**313**	*e*P	**P**	**08 47 45.4**	**+0.7**
BHL	**Bhannes**	**70.32**	**307**	*e*P	**P**	**08 47 49.9**	**+4.9**
ESPY	**Espiye-Giresun**	**70.33**	**315**	*e*P	**P**	**08 47 44.2**	**-0.7**
MCQ	**Macquarie Isla**	**70.44**	**148**	*e*P	**P**	**08 47 47.8**	**+2.5**
MCQ				*e*S	S	08 57 03.7	+7.6
KMRS	**Kahramanmaras**	**70.47**	**311**	*e*P	**P**	**08 47 43.9**	**-2.0**
MSNA	**Messina**	**70.47**	**247**	*e*P	**P**	**08 47 47.7**	**+1.5**
MSNA				AMS	AMS	09 14 59.5	
	comp=Z,65µm,21.4s,MS6.8						
SOKR	**Solikamsk**	**70.49**	**338***c*	*i*P	**P**	**08 47 47.4**	**+1.9**
SOKR				S	S	08 56 56.5	0.0
SOKR				pmax	pmax		
	comp=Z,960nm,1.2s,mb6.6						
SOKR				MLR	MLR		
	comp=Z,251µm,22.0s,MS7.4						
GRSN	**GIRESUNGRSN**	**70.65**	**315**	*i* P	**P**	**08 47 44.3**	**-2.6**
SOC	**Sochi**	**70.66**	**318***c*	*i*P	**P**	**08 47 45.3**	**-1.6**
SOC				*e**PP	pP	08 47 54.4	-1.8
SOC				*e*		08 48 04.5	
SOC				*e*		08 50 24.0	
SOC				*e*S	S	08 56 56.9	-2.3
SOC				*e*SS	SS	09 01 27.4	-4.1
SOC				pmax	pmax		
	comp=Z,650nm,1.4s,mb6.4						
SOC				MLR	MLR		
	comp=Z,51µm,20.0s,MS6.8						
SARI	**SarD1z-Kayseri**	**71.01**	**312**	*e*P	**P**	**08 47 50.7**	**+1.6**
SVSK	**Karacayir**	**71.20**	**314**	*e*P	**P**	**08 47 49.1**	**-1.1**
PINB	**Pinarbasi**	**71.22**	**312**	*i* P	**P**	**08 47 49.5**	**-0.9**
KOZT	**Kozan**	**71.27**	**311**	*e*P	**P**	**08 47 50.6**	**-0.1**
SKR	**Severo-Kuril's**	**71.32**	**34**	*e*P	**P**	**08 47 50.5**	**-0.2**
SKR				*e*		08 48 08.5	
SKR				*e*PPP		08 52 04.0	
SKR				*e*PS		08 57 44.0	
SKR				pmax	pmax		
	comp=N,16µm,12.0s						
SKR				pmax	pmax		
	comp=E,27µm,12.0s						
SKR				pmax	pmax		
	comp=Z,48µm,12.0s						
SKR				MLR	MLR		
	comp=N,91µm,18.0s,MS7.2						
SKR				MLR	MLR		
	comp=E,71µm,18.0s,MS7.2						
SKR				MLR	MLR		
	comp=Z,136µm,18.0s,MS7.2						
KRTS	**Karatas**	**71.33**	**310**	*e*P	**P**	**08 47 55.6**	**+4.5**
TOKA	**Tokat**	**71.72**	**314**	*i* P	**P**	**08 47 51.3**	**-2.1**
LSZ	**Lusaka**	**71.73**	**255**	*e*P	**P**	**08 47 53.1**	**-0.8**
LSZ				pmax	pmax		
	comp=Z,251nm,1.4s,mb6.0						
LSZ				MLR	MLR		
	comp=Z,112µm,20.0s,MS7.1						
LSZ	**Lusaka**	**71.73**	**255**	LR	LR	09 15 49.1	
	comp=Z,119µm,20.5s,MS7.1,baz=86,slow=33						
LSZ	**Lusaka**	**71.73**	**255**	*e*P	**P**	**08 47 53.1**	**-0.8**
	comp=Z,251nm,1.4s,mb6.0						
LSZ				LR	LR		
	comp=Z,112µm,20.0s,MS7.1						
LSZ	**Lusaka**	**71.73**	**255**	P	**P**	**08 47 54.3**	**+0.4**
	SNR=33						
LSZ				P		08 47 54.3	
	SNR=33						
LSZ	**Lusaka**	**71.73**	**255**	*e*P	**P**	**08 47 54.2**	**+0.3**
LSZ				AMS	AMS	09 16 10.6	
	comp=Z,790µm,19.4s,MS8.0						
KARA	**Karaisali**	**71.79**	**310**	*e*P	**P**	**08 47 55.9**	**+2.1**
EREN	**Erenkoy**	**71.96**	**309**	*e*P	**P**	**08 48 01.2**	**+6.3**
KSD	**Kokstad**	**71.97**	**239**	*e*P	**P**	**08 47 55.9**	**+0.8**
KSD				AMS	AMS	09 13 03.0	
	comp=Z,388µm,21.7s,MS7.6						
MERS	**Mersin**	**72.07**	**310**	*e*P	**P**	**08 47 54.4**	**-1.2**
KVT	**Kavak**	**72.28**	**315**	*e*P	**P**	**08 47 55.9**	**-0.8**
LFK	**Lefkose**	**72.39**	**308**	*e*P	**P**	**08 48 01.9**	**+4.5**
SLR	**Silverton**	**72.39**	**244**	*e*P	**P**	**08 47 57.1**	**-0.6**
SLR				AMS	AMS	09 14 46.5	
	comp=Z,121µm,20.3s,MS7.2						
AVNT	**Avonos**	**72.40**	**312**	*i* P	**P**	**08 48 02.6**	**+5.1**
CSS	**Prodhromos**	**72.46**	**308**	*e*P	**P**	**08 47 57.9**	**-0.1**
	comp=Z,661nm,1.1s,mb6.5						
CSS				LR	LR		
	comp=Z,104µm,19.0s,MS7.1						
ERPM	**east rand prop**	**72.49**	**243**	*e*P	**P**	**08 47 58.5**	**+0.2**
ERPM				AMS	AMS	09 17 27.4	
	comp=Z,69µm,18.3s,MS7.0						
ANN	**Anapa**	**72.65**	**319***c*	*i*P	**P**	**08 47 57.2**	**-1.6**
ANN				*i* *PP	pP	08 48 05.7	-2.5
ANN				*i*		08 48 19.2	
ANN				*i*		08 50 45.1	
ANN				*i* S	S	08 57 21.4	-0.6
ANN				pmax	pmax		
	comp=N,21nm,1.2s						
ANN				pmax	pmax		
	comp=E,13nm,1.2s						
ANN				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.3						
ANN				pmax	pmax		
	comp=N,2µm,6.2s						
ANN				pmax	pmax		
	comp=E,2µm,6.2s						
ANN				pmax	pmax		
	comp=Z,7µm,6.2s						
ANN				MLR	MLR		
	comp=N,56µm,25.0s,MS7.0						
ANN				MLR	MLR		
	comp=E,89µm,25.0s,MS7.0						
ANN				MLR	MLR		
	comp=Z,53µm,25.0s,MS6.7						
VRHR	**Novokhopersk**	**72.69**	**326**	*e*P	**P**	**08 47 57.8**	**-1.1**
VRHR				*e**PP	pP	08 48 07.1	-1.2
VRHR				*e*S	S	08 57 17.7	-4.5
VRHR				*e*SPP		08 57 49.6	
VRHR				*e*SS	SS	09 02 01.2	-1.0
VRHR				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.5s						
VRHR				smax			
	comp=N,12µm,5.5s						
VRHR				smax			
	comp=Z,400nm,5.2s						
LEF	**Lefka**	**72.85**	**308**	*e*P	**P**	**08 48 03.6**	**+3.4**
CDAG	**Cicekdag**	**73.02**	**313**	*i* P	**P**	**08 47 59.1**	**-2.0**
TARA	**Tarawa**	**73.08**	**88**	*e*P	**P**	**08 48 02.4**	**+0.4**
	comp=Z,971nm,1.1s,mb6.7						
TARA				LR	LR		
	comp=Z,69µm,21.0s,MS6.9						
JCZ	**Jackson Bay**	**73.15**	**135**	P	**P**	**08 48 04.0**	**+2.2**
BOYT	**Boyabat**	**73.21**	**315**	*i* P	**P**	**08 48 01.4**	**-0.8**
SULT	**Sultanhani-AKS**	**73.23**	**311**	*e*P	**P**	**08 48 04.0**	**+1.5**
SEK	**Senekal**	**73.25**	**241**	*e*P	**P**	**08 48 03.4**	**+0.6**
BYBT	**Boyabat**	**73.32**	**315**	*e*P	**P**	**08 48 09.8**	**+6.9**
PEA0B	**Petropavlovsk-**	**73.34**	**32**	*e*P	**P**	**08 47 59.2**	**-3.5**
PETK	**Petropavlovsk-**	**73.34**	**32**	P	**P**	**08 47 58.9**	**-3.8**
	comp=Z,30nm,0.8s,mb5.3,baz=335,slow=13,SNR=26						
PETK				PP	PP	08 50 47.7	+1.3
	comp=Z,16nm,1.0s,baz=58,slow=42,SNR=2.7						
PETK				S	S	08 57 32.5	+3.0
	comp=Z,2.4nm,0.8s,baz=268,slow=28,SNR=2.5						
PETK	**Petropavlovsk-**	**73.34**	**32**	P	**P**	**08 47 58.9**	**-3.8**
PETK				PP	PP	08 50 47.7	+1.3
PETK				S	S	08 57 32.5	+3.0
KAMT	**Kaman**	**73.43**	**312**	*e*P	**P**	**08 48 03.1**	**-0.5**
BRTR	**Keskin Array B**	**73.59**	**313**	P	**P**	**08 48 03.4**	**-1.1**
BRTR				S	S	08 57 29.2	-3.8
BRTR	**Keskin Array B**	**73.59**	**313**	P	**P**	**08 48 03.4**	**-1.1**
	comp=Z,23nm,0.7s,mb5.2,baz=135,slow=6.7,SNR=97						
BRTR				S	S	08 57 29.2	-3.8
	comp=Z,0.5nm,0.7s,baz=199,slow=26,SNR=1.8						
BRTR				PKPPKP		09 15 45.5	
	comp=Z,1.4nm,1.0s,baz=146,slow=2.4,SNR=4.3						
BRTR				LR	LR	09 21 08.2	
	comp=Z,39µm,19.7s,MS6.7,baz=292,slow=36						
KSR	**Koster**	**73.65**	**244**	*e*P	**P**	**08 48 06.1**	**+1.0**
KSR				AMS	AMS	09 14 38.0	
	comp=Z,25µm,20.1s,MS6.5						
HDMB	**Hadim**	**73.67**	**310**	*e*P	**P**	**08 48 07.2**	**+2.2**
TOS	**Tosya**	**73.71**	**314**	*e*P	**P**	**08 48 04.7**	**-0.5**
PET	**Petropavlovsk**	**73.81**	**33**α	*i*P	**P**	**08 48 04.9**	**-0.6**
PET				*e*		08 50 51.1	
PET				*e*PPP		08 52 36.5	
PET				*e*S	S	08 57 33.3	-1.5
PET				*e*PS		08 58 06.1	
PET				*e*PPS		08 58 21.5	
PET				*e*SS	SS	09 02 25.1	+5.9
PET				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
PET				pmax	pmax		
	comp=Z,41µm,17.4s						
PET				pmax	pmax		
	comp=Z,42µm,18.6s						
PET				pmax	pmax		
	comp=Z,30µm,18.8s						
PET				pmax	pmax		
	comp=Z,24µm,19.8s						
PET				smax			
	comp=E,16µm,17.7s						
PET				smax			
	comp=N,26µm,18.9s						
PET				MLR	MLR		
	comp=Z,135µm,18.0s,MS7.3						
PET				MLR	MLR		
	comp=Z,160µm,19.0s						
PET	**Petropavlovsk**	**73.81**	**33**⇑	*e*P	**P**	**08 48 05.7**	**+0.2**
PET				LR	LR		
	comp=Z,150µm,20.0s,MS7.3						
CANT	**Cankiri**	**73.87**	**313**	*e*P	**P**	**08 48 05.7**	**-0.5**
ILGA	**Ilgaz**	**73.94**	**314**	*i* P	**P**	**08 48 05.2**	**-1.3**
VORD	**Divnogorie**	**73.95**	**325**	*e*P	**P**	**08 48 05.0**	**-1.4**
VORD				*e**PP	pP	08 48 13.9	-1.9
VORD				*e*		08 48 21.7	
VORD				*e*		08 50 55.1	
VORD				*e*S	S	08 57 32.0	-4.5
VORD				pmax	pmax		
	comp=N,20nm,0.6s						
VORD				pmax	pmax		
	comp=E,30nm,0.6s						
VORD				pmax	pmax		
	comp=Z,2µm,4.6s						
VORD				pmax	pmax		
	comp=N,1µm,3.6s						
VORD				pmax	pmax		
	comp=E,760nm,4.1s						
VORD				smax			
	comp=N,4µm,5.1s						
VORD				smax			
	comp=Z,1µm,5.4s						
VORD				smax			
	comp=E,4µm,5.2s						
ELDT	**Eldivan**	**73.98**	**313**	*i* P	**P**	**08 48 05.2**	**-1.5**
BZK	**Bozkurt**	**74.02**	**315**	*e*P	**P**	**08 48 08.0**	**+1.0**
KONT	**Konya--Tatoy**	**74.03**	**311**	*e*P	**P**	**08 48 08.6**	**+1.5**
VSR	**Storozhevoye**	**74.13**	**325**	*e*P	**P**	**08 48 06.4**	**-1.0**
VSR				*i* *PP	pP	08 48 15.5	-1.3
VSR				*e*		08 48 23.7	
VSR				*e*		08 50 56.5	
VSR				*e*S	S	08 57 33.5	-5.0
VSR				*e*SPP		08 58 06.8	
VSR				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.6						
VSR				pmax	pmax		
	comp=N,8.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,20nm,0.8s						
VSR				pmax	pmax		
	comp=Z,2µm,4.3s						
VSR				pmax	pmax		
	comp=N,2µm,5.3s						
VSR				pmax	pmax		
	comp=E,2µm,5.3s						
VSR				smax			
	comp=N,5µm,5.5s						
VSR				smax			
	comp=Z,670nm,4.9s						
VSR				smax			
	comp=E,3µm,5.5s						
VSR				MLR	MLR		
	comp=Z,69µm,19.0s,MS7.0						
VSR				MLR	MLR		
	comp=N,44µm,17.0s,MS7.0						
VSR				MLR	MLR		
	comp=E,64µm,21.0s,MS7.0						
TUZ	**Tuapeka**	**74.18**	**137**	P	**P**	**08 48 09.3**	**+1.4**
LOD	**Lodumlu**	**74.28**	**313**	*e*P	**P**	**08 48 08.0**	**-0.6**
BALT	**Daday**	**74.33**	**314**	*i* P	**P**	**08 48 08.6**	**-0.2**
VOR	**Voronezh**	**74.33**	**326**	*e*P	**P**	**08 48 08.0**	**-0.6**
VOR				*e*S	S	08 57 39.0	-1.8
VOR				pmax	pmax		
	comp=Z,2µm,2.0s,mb6.7						
WVZ	**Waitaha Valley**	**74.34**	**134**	P	**P**	**08 48 06.6**	**-2.2**
KDHN	**Kadinhani**	**74.38**	**311**	*i* P	**P**	**08 48 04.4**	**-4.8**
ODZ	**Otahua Downs**	**74.68**	**136**	*e*P	**P**	**08 48 09.6**	**-1.2**
	comp=Z,135nm,1.2s,mb5.8						
RPZ	**Rata Peaks**	**74.69**	**135**	P	**P**	**08 48 09.2**	**-1.7**
	comp=Z,232nm,1.2s,mb6.0,baz=50,slow=2.0,SNR=15						
RPZ				S	S	08 57 43.0	-2.2
	comp=Z,4.9nm,0.7s,baz=208,slow=24,SNR=2.2						
RPZ				LR	LR	09 22 48.1	
	comp=Z,197µm,20.8s,MS7.4,baz=282,slow=37						
RPZ	**Rata Peaks**	**74.69**	**135**	P	**P**	**08 48 11.2**	**+0.3**
SAFT	**Safranbolu**	**74.74**	**314**	*e*P	**P**	**08 48 11.5**	**+0.3**
LBTB	**Lobatse**	**74.75**	**245**	LR	LR	09 16 49.4	
	comp=Z,157µm,19.2s,MS7.3,baz=97,slow=32						
GRM	**Grahamstown**	**74.79**	**236**	*e*P	**P**	**08 48 12.3**	**+0.6**
GRM				AMS	AMS	09 17 17.8	
	comp=Z,124µm,18.4s,MS7.2						
SIM	**Simferopol'**	**74.91**	**318***c*	*e*P	**P**	**08 48 12.1**	**0.0**
SIM				*e*S	S	08 57 44.8	-2.7
SIM				pmax	pmax		
	comp=Z,252nm,1.2s,mb6.0						
SIM				pmax	pmax		
	comp=Z,10µm,13.0s						
SVRH	**Sivrihisar-ESK**	**75.08**	**312**	*e*P	**P**	**08 48 11.0**	**-2.2**
QRZ	**Quartz Range**	**75.24**	**132**	*e*P	**P**	**08 48 17.3**	**+3.2**
OUZ	**Omahuta**	**75.25**	**126**	*e*P	**P**	**08 48 15.2**	**+0.9**
	comp=Z,471nm,1.4s,mb6.2						
BCK	**Bucak**	**75.26**	**310**	*e*P	**P**	**08 48 17.0**	**+2.7**
HVD	**Gariep Dam**	**75.34**	**239**	*e*P	**P**	**08 48 15.9**	**+1.0**
BOSA	**Boshof**	**75.35**	**241**	P	**P**	**08 48 12.8**	**-2.2**
BOSA				S	S	08 57 53.8	+0.7
BOSA	**Boshof**	**75.35**	**241**	P	**P**	**08 48 12.8**	**-2.2**
	comp=Z,13nm,0.8s,baz=94,slow=5.8,SNR=17						
BOSA				S	S	08 57 53.8	+0.7
	comp=Z,2.2nm,0.9s,baz=77,slow=16,SNR=2.0						
BOSA				LR	LR	09 17 36.1	
	comp=Z,102µm,18.6s,MS7.2,baz=94,slow=33						
BOSA	**Boshof**	**75.35**	**241**	P	**P**	**08 48 12.8**	**-2.2**
BOSA				*e*P		08 48 15.3	
BOSA				S	S	08 57 53.8	+0.7
BOSA				LR	LR	09 17 36.1	
ISP	**Isparta**	**75.42**	**310**	*e*P	**P**	**08 48 10.7**	**-4.4**
ISP	**Isparta**	**75.42**	**310**⇓	*i*P	**P**	**08 48 13.6**	**-1.6**
ISP	**Isparta**	**75.42**	**310**	P	**P**	**08 48 13.8**	**-1.4**
ISP				P		08 48 14.2	
ISP				LR	LR		
	comp=Z,61µm,19.0s,MS6.9						
SHUT	**Suhut-Afyon**	**75.57**	**311**	*e*P	**P**	**08 48 16.2**	**+0.2**
MDU	**Mudurnu**	**75.59**	**313**	*e*P	**P**	**08 48 15.7**	**-0.4**
ESKT	**Eskisehir**	**75.60**	**312**	*e*P	**P**	**08 48 23.3**	**+7.2**
ESKT	**Eskisehir**	**75.60**	**312**	*i* P	**P**	**08 48 14.8**	**-1.3**
ELL	**Elmali**	**75.61**	**309**	*e*P	**P**	**08 48 15.5**	**-0.8**
KDZE	**Karadeniz Ereo**	**75.66**	**314**	*e*P	**P**	**08 48 14.2**	**-2.3**
THZ	**Tophouse**	**75.68**	**132**	P	**P**	**08 48 18.8**	**+2.2**
AKAS	**Kas**	**75.72**	**308**	*i* P	**P**	**08 48 15.7**	**-1.2**
HENT	**Hendek**	**75.92**	**313**	*i* P	**P**	**08 48 18.4**	**+0.4**
WCZ	**Waipu Caves**	**75.94**	**126**	P	**P**	**08 48 20.2**	**+2.0**
BORA	**Eskisehir**	**75.99**	**312**	*i* P	**P**	**08 48 21.0**	**+2.6**
GOLH	**Golhisar**	**76.00**	**309**	*i* P	**P**	**08 48 14.0**	**-4.5**
ALT	**Altintas**	**76.03**	**311**	*e*P	**P**	**08 48 18.5**	**-0.2**
PRGR	**Permogore**	**76.08**	**336**⇑	*i*P	**P**	**08 48 17.8**	**-0.6**
PRGR				*e*		08 48 29.9	
PRGR				*e*S	S	08 57 59.3	-0.5
PRGR				*e*		08 58 29.6	
PRGR				pmax	pmax		
	comp=Z,594nm,1.1s,mb6.4						
SEY	**Seymchan**	**76.11**	**22**⇑	*e*P	**P**	**08 48 18.2**	**-0.3**
KHZ	**Kahutara**	**76.25**	**133**	*e*P	**P**	**08 48 22.2**	**+2.3**
	comp=Z,348nm,1.0s,mb6.2						

KHAL	Karahalli	76.33	310	*i* P	P	08 48 17.5	-2.9
TIXI	Tiksi	76.35	9	*i* P	P	08 48 18.2	-1.6
TIXI				pmax	pmax		
	comp=Z,407nm,1.7s,mb6.1						
TIXI	Tiksi	76.35	9	⇑*e*P	P	08 48 18.2	-1.6
TIXI				LR	LR		
	comp=Z,489µm,19.0s,MS7.8						
EYL	Eskiyayla	76.39	313	*e*P	P	08 48 26.6	+5.9
GDZ	Gediz	76.51	311	*i* P	P	08 48 19.2	-2.2
CAVI	Cavuskoy	76.53	312	*e*P	P	08 48 22.2	+0.8
DALT	Dalyan (Mudla)	76.60	309	*e*P	P	08 48 26.8	+4.8
ADVT	Abdulvahap	76.66	312	*e*P	P	08 48 21.5	-0.7
HIZ	Hauiti	76.68	129	P	P	08 48 23.3	+1.0
MOS	Moscow	76.87	329	*e*P	P	08 48 20.1	-2.9
MOS				*e*		08 48 31.4	
MOS				*e*		08 51 15.1	
MOS				*e*PPP		08 53 05.5	
MOS				*i* S	S	08 58 06.8	-1.9
MOS				*e*		08 58 35.9	
MOS				*i* SS	SS	09 03 03.8	-1.8
MOS				pmax	pmax		
	comp=Z,432nm,1.3s,mb6.2						
MOS				MLR	MLR		
	comp=E,130µm,20.0s						
MOS				MLR	MLR		
	comp=Z,134µm,20.0s,MS7.3						
SILT	Sile	76.92	313	*e*P	P	08 48 25.3	+1.6
WAZ	Wanganui	76.94	130	P	P	08 48 25.2	+1.4
SNZO	South Karori	76.94	132	*e*P	P	08 48 26.3	+2.5
	comp=Z,692nm,1.4s,mb6.4						
SNZO				LR	LR		
	comp=Z,248µm,21.0s,MS7.5						
YER	Yerkesik	76.96	309	*e*P	P	08 48 20.7	-3.2
YLV	Yalova	76.97	312	*e*P	P	08 48 22.7	-1.3
KULA	Kula-Manisa	76.99	310	*e*P	P	08 48 24.5	+0.4
GEMT	Gemlik	77.07	312	*e*P	P	08 48 22.8	-1.7
OBN	Obninsk	77.17	328	P	P	08 48 25.4	+0.7
	comp=Z,4µm,0.9s,mb7.3,SNR=12						
OBN	Obninsk	77.17	328	*e*P	P	08 48 24.2	-0.5
OBN				*i*	pP	08 48 34.3	+0.2
OBN				*i*		08 51 26.1	
OBN				*i* S	S	08 58 10.5	-1.4
OBN				*i* SS	SS	09 03 08.8	-1.2
OBN				pmax	pmax		
	comp=Z,436nm,1.6s,mb6.1						
OBN				pmax	pmax		
	comp=Z,6µm,4.4s						
OBN				MLR	MLR		
	comp=Z,96µm,19.0s,MS7.1						
OBN	Obninsk	77.17	328	*e*P	P	08 48 23.6	-1.1
	comp=Z,1µm,1.4s,mb6.7						
OBN				LR	LR		
	comp=Z,106µm,19.0s,MS7.2						
DST	Dursunbey	77.28	311	*e*P	P	08 48 28.3	+2.6
ISK	Istanbul-Kandi	77.32	313	*e*P	P	08 48 24.5	-1.4
NGZ	Ngauruhoe	77.34	129	*e*P	P	08 48 26.1	0.0
SYO	Syowa Base	77.38	199	⇑*e*P	P	08 48 25.6	-0.1
SYO	Syowa Base	77.38	199	⇓*i*P	P	08 48 31.0	+5.3
KLYT	Kilyos	77.38	313	*e*P	P	08 48 25.3	-1.0
MLSB	Milas	77.39	309	*e*P	P	08 48 29.8	+3.4
AYDN	Tasoluk	77.39	309	*i* P	P	08 48 25.3	-1.0
DURS	Dursunbey	77.39	311	*i* P	P	08 48 25.3	-1.0
DAT	Datca	77.42	308	*e*P	P	08 48 26.8	+0.2
PAWZ	Paruwai Farm	77.49	132	P	P	08 48 27.7	+0.8
MRZ	Mangatainoka R	77.51	131	P	P	08 48 26.2	-0.8
BGKT	Bogazkoy	77.56	313	*e*P	P	08 48 25.3	-2.0
PKA	Prieska	77.62	240	*e*P	P	08 48 27.4	-0.5
PKA				AMS	AMS	09 15 57.2	
	comp=Z,22µm,22.8s,MS6.4						
BODT	Bodrum	77.70	309	*e*P	P	08 48 32.5	+4.3
AKHS	Akhisar	77.72	311	*i* P	P	08 48 25.3	-2.9
CTKS	Kestanelik-??a	77.77	313	*e*P	P	08 48 29.0	+0.6
ELBA	Catalca	77.80	313	*i* P	P	08 48 26.2	-2.4
BALB	Balikesir	77.85	311	*e*P	P	08 48 30.5	+1.6
GCAM	G?zelcaml?	77.90	309	*i* P	P	08 48 28.0	-1.3
SLVT	Silivri	77.99	313	*e*P	P	08 48 29.2	-0.4
CTYL	Yal??k??y-??at	77.99	313	*e*P	P	08 48 31.3	+1.7
BNT	Bandirma	77.99	312	*e*P	P	08 48 31.2	+1.6
BFZ	Birch Farm	78.02	131	P	P	08 48 31.3	+1.5
BKZ	Black Stump Fm	78.02	129	P	P	08 48 29.0	-0.9
IZM	Izmir	78.03	310	*e*P	P	08 48 30.7	+0.8
BALY	Balya	78.07	311	*i* P	P	08 48 28.0	-2.1
KLMR	Klimovskoe	78.23	334	⇑*i*P	P	08 48 29.8	-0.7
KLMR				*e*		08 51 27.5	
KLMR				*e*S	S	08 58 17.2	-6.0
KLMR				pmax	pmax		
	comp=Z,770nm,1.3s,mb6.5						
CRLT	Corlu	78.31	313	*e*P	P	08 48 33.9	+2.5
URZ	Urewera	78.41	128	S	S	08 58 22.5	-3.6
	comp=Z,4.1nm,0.3s,baz=69,slow=20,SNR=7.1						
URZ				LR	LR	09 24 09.2	
	comp=Z,214µm,21.0s,MS7.5,baz=289,slow=36						
URZ	Urewera	78.41	128	P	P	08 48 28.7	-3.3
URZ				*e*P		08 48 31.9	
TKR	Tekirdag	78.42	313	*e*P	P	08 48 35.0	+3.0
URLA	Izmir	78.54	310	*i* P	P	08 48 30.6	-2.1
MFT	Murefte	78.56	312	*e*P	P	08 48 33.7	+0.9
PSN	Preselentsi	78.61	315	P	P	08 48 37.9	+4.9
SART	Tekirdag	78.61	312	*i* P	P	08 48 29.7	-3.4
TIRR	Tirgusor	78.65	316	⇓*i*P	P	08 48 33.0	-0.2
TIRR	Tirgusor	78.65	316	P	P	08 48 33.0	-0.2
MWZ	Matawai	78.74	128	P	P	08 48 33.3	-0.6
UPI	Upington	78.85	242	*e*P	P	08 48 35.9	+1.2
UPI				AMS	AMS	09 23 39.8	
	comp=Z,56µm,17.4s,MS7.0						
LPK	Lapseki	78.86	312	*e*P	P	08 48 33.9	-0.5
CVD	Cernavoda	78.88	316	⇓*i*P	P	08 48 32.9	-1.5
CVD	Cernavoda	78.88	316	⇓P	P	08 48 32.9	-1.6
CHOS	Chios island	78.96	310	P	P	08 48 37.2	+2.2
PRK	Paraskevi	78.98	311	P	P	08 48 37.9	+2.8
FUNA	Funafuti	79.03	98	*e*P	P	08 48 37.4	+1.4
	comp=Z,3µm,1.4s,mb7.0						
FUNA				LR	LR		
	comp=Z,60µm,21.0s,MS6.9						
HARR	Harsova	79.04	316	⇓*i*P	P	08 48 34.9	-0.4
HARR	Harsova	79.04	316	P	P	08 48 35.2	-0.1
KIS	Kishinev	79.05	319	α*i*P	P	08 48 34.0	-1.3
KIS				*i*		08 51 34.0	
KIS				*i* PPP		08 53 30.0	
KIS				*i* S	S	08 58 27.0	-5.5
KIS				pmax	pmax		
	comp=Z,700nm,1.4s,mb6.4						
KIS				pmax	pmax		
	comp=Z,23µm,16.0s						
KIS				pmax	pmax		
	comp=Z,11µm,18.0s						
KIS	Kishinev	79.05	319	⇑*i*P	P	08 48 34.0	-1.3
	comp=Z,700nm,1.4s,mb6.4						
KIS	Kishinev	79.05	319	*i* PP	PP	08 51 34.0	-0.7
	comp=Z,11µm,18.0s						
KIS	Kishinev	79.05	319	*i* PS	S	08 58 36.0	+3.5
KIS				LRM		09 32 42.0	
	comp=Z,72µm,20.0s						
PRD	Provadia	79.05	315	P	P	08 48 36.0	+0.6
EZN	Ezine	79.06	311	*e*P	P	08 48 36.0	+0.4
EDRB	Edirne	79.20	313	*e*P	P	08 48 37.3	+1.0
BOZC	Bozcaada	79.27	311	*i* P	P	08 48 35.0	-1.8
SIGR	SIGRI	79.28	311	P	P	08 48 37.9	+1.1
PUZ	Puketiti	79.29	128	P	P	08 48 36.3	-0.6
ENEZ	Enez	79.39	312	*e*P	P	08 48 36.5	-0.8
JMB	Yambol	79.46	314	P	P	08 48 37.0	-0.7
JMB	Yambol	79.46	314	P	P	08 48 41.8	+4.1
GADA	Gvkgeada	79.46	311	*e*P	P	08 48 36.5	-1.2
SUR	Sutherland	79.47	238	LR	LR	09 17 20.6	
	comp=Z,143µm,21.9s,MS7.3,baz=89,slow=31						
SUR	Sutherland	79.47	238	*e*P	P	08 48 39.2	+1.2
	comp=Z,2µm,1.9s,mb6.6						
SUR				LR	LR		
	comp=Z,153µm,22.0s,MS7.3						
SUR	Sutherland	79.47	238	*e*P	P	08 48 37.1	-0.8
SUR				AMS	AMS	09 17 40.6	
	comp=Z,106µm,21.2s,MS7.2						
ALN	Alexandroupoli	79.50	312	P	P	08 48 36.5	-1.4
AKASG	Malin Array Be	79.82	322	P	P	08 48 37.9	-1.5
AKASG						08 51 42.6	
AKASG				S	S	08 58 38.0	-2.6
AKASG	Malin Array Be	79.82	322	P	P	08 48 37.9	-1.5
	comp=Z,11nm,0.7s,baz=89,slow=5.0,SNR=40						
AKASG				PP	PP	08 51 42.6	+1.5
	comp=Z,19nm,0.9s,baz=48,slow=37,SNR=3.1						
AKASG				S	S	08 58 38.0	-2.6
	comp=Z,0.2nm,0.3s,baz=109,slow=8.5,SNR=4.0						
AKASG				PKPPKP		09 15 37.0	
	comp=Z,0.4nm,0.4s,baz=279,slow=2.3,SNR=4.5						
AKASG	Malin Array Be	79.82	322	P	P	08 48 37.9	-1.5
AKASG				PP	PP	08 51 42.6	+1.5
AKASG				S	S	08 58 38.0	-2.6
AKASG				P'P'		09 15 37.0	
KIEV	Kiev	79.83	322	*e*P	P	08 48 38.4	-1.1
KIEV				pmax	pmax		
	comp=Z,193nm,0.9s,mb6.0						
KIEV				MLR	MLR		
	comp=Z,74µm,21.0s,MS7.0						
KIEV	Kiev	79.83	322	*e*P	P	08 48 38.4	-1.1
	comp=Z,193nm,0.9s,mb6.0						
KIEV				LR	LR		
	comp=Z,74µm,21.0s,MS7.0						
LIA	Limnos Island	79.94	311	P	P	08 48 39.4	-0.9
LOS	Limnos	80.02	311	P	P	08 48 39.1	-1.7
SZH	Strazhica	80.10	315	P	P	08 48 45.1	+3.9
DIM	Dimitrovgrad	80.13	313	P	P	08 48 41.9	+0.6
KDZ	Kurdzhali	80.13	313	P	P	08 48 48.1	+6.8
VRI	Vrincioaia	80.15	317	⇑*i*P	P	08 48 41.3	-0.1
VRI	Vrincioaia	80.15	317	P	P	08 48 41.7	+0.3
PLOR	Plostina	80.20	317	⇓*i*P	P	08 48 41.8	+0.2
CVNA	Calvinia	80.31	239	*e*P	P	08 48 44.7	+2.1
CVNA				AMS	AMS	09 17 23.1	
	comp=Z,104µm,22.6s,MS7.1						
ELIM	Elim	80.50	236	*e*P	P	08 48 44.4	+0.9
PVL	Pavlikeni	80.52	314	P	P	08 48 47.6	+4.2
MLR	Muntele Rosu	80.60	317	⇑*i*P	P	08 48 43.5	-0.3
MLR	Muntele Rosu	80.60	317	P	P	08 48 43.9	+0.1
ATHU	Athens Univers	80.63	309	P	P	08 48 45.9	+1.8
RZN	Rozhen	80.65	313	P	P	08 48 48.1	+4.0
ATH	Athens Observa	80.69	309	P	P	08 48 45.9	+1.5
PLD	Plovdiv	80.74	313	P	P	08 48 43.2	-1.4
PLD	Plovdiv	80.74	313	P	P	08 48 49.6	+5.0
AOS	Alonnisos	80.78	310	P	P	08 48 48.0	+3.1
CER	Ceres	80.81	237	*e*P	P	08 48 45.3	+0.1
CER				AMS	AMS	09 18 52.3	
	comp=Z,21µm,19.7s,MS6.5						
OUR	Ouranopolis	80.92	311	P	P	08 48 44.1	-1.5
DID	Didima	80.98	308	P	P	08 48 46.1	+0.1
PAIG	Paliouri	81.08	311	P	P	08 48 43.5	-2.9
VOIR		81.20	317	⇓*i*P	P	08 48 46.6	-0.4
VOIR		81.20	317	P	P	08 48 47.3	+0.3
PGB	Panagyurishte	81.22	314	P	P	08 48 50.1	+2.9
LTK	Loutraki	81.28	309	P	P	08 48 46.5	-1.1
PLG	Polygyros	81.33	311	P	P	08 48 46.2	-1.6
XOR	Xorichti	81.34	310	P	P	08 48 46.2	-1.7
MMB	Musomiste	81.35	313	P	P	08 48 50.6	+2.7
LKR	Lokris	81.36	310	P	P	08 48 44.7	-3.3
SRS	Serrai	81.36	312	P	P	08 48 46.5	-1.5
SOH	Sokhos	81.49	312	P	P	08 48 47.4	-1.2
BUR02	Bucovina Ar. S	81.57	319	P	P	08 48 50.1	+1.2
BURAR	Bucovina Array	81.57	319	⇓*i*P	P	08 48 49.9	+1.0
BUR08	Bucovina Ar. S	81.59	319	*e*P	P	08 48 49.3	+0.3
HORT	Hortiatis	81.64	311	P	P	08 48 47.2	-2.2
MICGM	Minsk	81.68	326	⇓*e*P	P	08 48 48.0	-1.3
MPEP	Malo Peshtene	81.69	314	P	P	08 48 49.3	-0.3
VNDA	Vanda	81.70	169	P	P	08 48 49.0	0.0
VNDA				S	S	08 58 58.1	-1.3
VNDA	Vanda	81.70	169	P	P	08 48 49.0	-0.1
	comp=Z,59nm,1.3s,mb5.4,baz=302,slow=5.3,SNR=9.7						
VNDA				S	S	08 58 58.1	-1.3
	comp=Z,3.9nm,1.0s,baz=342,slow=23,SNR=2.3						
VNDA				LR	LR	09 24 28.7	
	comp=Z,58µm,18.2s,MS7.0,baz=312,slow=35						
VNDA	Vanda	81.70	169	P	P	08 48 49.0	-0.1
VNDA				S	S	08 58 58.1	-1.3
VNDA				LR	LR	09 24 28.7	
MNK	Minsk	81.71	326	*e*P	P	08 48 48.0	-1.5
MNK				*e*		08 51 54.0	
MNK				*e*S	S	08 58 56.0	-4.1
MNK				*e*SS	SS	09 04 12.0	-6.2
MNK				*e*SSS		09 07 38.0	
MNK				pmax	pmax		
	comp=E,320nm,1.6s						
MNK				pmax	pmax		
	comp=Z,390nm,1.8s,mb6.0						
MNK				pmax	pmax		
	comp=Z,14µm,8.0s						
MNK				pmax	pmax		
	comp=Z,15µm,6.0s						
MNK				smax			
	comp=N,62µm,6.0s						
MNK				smax			
	comp=E,22µm,8.0s						
MNK				MLR	MLR		
	comp=N,142µm,20.0s,MS7.5						
MNK				MLR	MLR		
	comp=Z,372µm,20.0s,MS7.7						
MNK				MLR	MLR		
	comp=E,147µm,18.0s,MS7.5						
THE	Thessaloniki	81.74	311	P	P	08 48 47.7	-2.3
KKB	Krupnik	81.88	313	P	P	08 48 54.5	+3.8
KNT	Kendrikon	81.89	312	P	P	08 48 49.2	-1.5
VTS	Vitosha	81.92	313	P	P	08 48 55.3	+4.4
AGG	Agios Georgios	81.94	310	P	P	08 48 49.5	-1.5
RAO	Raoul Island	81.95	119	PP	PP	08 51 55.7	-3.5
	comp=E,125nm,0.3s,baz=274,slow=21,SNR=2.3						
RAO				S	S	08 59 03.5	-0.2
	comp=E,179nm,0.5s,baz=73,slow=21,SNR=2.5						
RAO				LR	LR	09 25 11.7	
	comp=E,89µm,21.6s,MS7.1,baz=266,slow=36						
RAO	Raoul Island	81.95	119	PFAKE		08 49 00.0	+8.7
RAO				LR	LR		
	comp=Z,95µm,20.0s,MS7.2						
KALE	Kalithea	81.98	309	P	P	08 48 48.6	-2.7
LIT	Litokhoron	82.00	311	P	P	08 48 48.3	-3.1
PUL	Pulkovo	82.01	331	*e*P	P	08 48 53.3	+2.4
PUL				pmax	pmax		
	comp=Z,219nm,0.9s,mb6.1						
PUL				MLR	MLR		
	comp=Z,196µm,26.0s,MS7.3						
TRIZ	Trizonia	82.03	309	P	P	08 48 46.5	-5.0
PYL	PYLOS	82.05	308	P	P	08 48 51.6	-0.1
LAKA	Lakka	82.08	309	P	P	08 48 50.7	-1.1
VAY	Valandovo	82.16	312	P	P	08 48 50.1	-2.0
VAY	Valandovo	82.16	312	*e*P	P	08 48 52.2	+0.1
	comp=Z,438nm,1.5s,mb6.2						
GRG	Griva	82.22	312	P	P	08 48 50.9	-1.6
THL	Klokotos Trika	82.27	310	P	P	08 48 52.2	-0.6
NACGM	Naroch	82.41	326	*e*P	P	08 48 50.0	-3.1
JOF	Joensuu	82.62	335	*e*p	P	08 48 52.8	-1.3
	comp=Z,146nm,0.8s,mb6.1						
BMR	Baia Mare	82.72	319	⇓*i*P	P	08 48 56.0	+1.1
BMR	Baia Mare	82.72	319	P	P	08 48 55.8	+0.9
GZR	Gura Zlata	82.76	316	⇑*i*P	P	08 48 55.5	+0.3
GZR	Gura Zlata	82.76	316	P	P	08 48 55.4	+0.2
SBA	Scott Base	82.80	169	*e*P	P	08 48 57.6	+2.8
SBA				pmax	pmax		
	comp=Z,4µm,2.4s,mb7.0						
SBA				MLR	MLR		
	comp=Z,68µm,21.0s,MS7.0						
SBA	Scott Base	82.80	169	*e*P	P	08 48 57.6	+2.9
	comp=Z,4µm,2.4s,mb7.0						
SBA				LR	LR		
	comp=Z,68µm,21.0s,MS7.0						
LVV	L'vov	82.83	321	*e*P	P	08 48 53.0	-2.4
LVV				*i* S	S	08 59 15.0	+3.2
LVV				PS		09 00 05.0	
FNA	Florina	82.96	311	P	P	08 48 55.8	-0.5
BIA	Bitola	83.03	312	P	P	08 49 03.7	+7.0
BIA	Bitola	83.03	312	*e*P	P	08 48 56.9	+0.2
DRGR		83.07	318	⇑*i*P	P	08 48 56.6	-0.2
DRGR		83.07	318	P	P	08 48 57.1	+0.3
SKO	Skopje	83.11	313	P	P	08 48 56.3	-0.8
SKO	Skopje	83.11	313	*e*P	P	08 48 57.1	+0.1
	comp=Z,376nm,1.4s,mb6.2						
KRUS	Krusevo	83.15	312	*e*P	P	08 48 57.3	0.0
VLS	Valsamata	83.15	309	P	P	08 48 55.9	-1.5
LKD	Levkas	83.19	309	P	P	08 48 55.7	-1.8
LVZ	Lovozero	83.21	340	P	P	08 48 57.7	+0.7
	comp=Z,1µm,0.9s,mb6.9,SNR=15						
LVZ	Lovozero	83.21	340	*e*P	P	08 48 57.3	+0.3
LVZ				pmax	pmax		
	comp=Z,176nm,1.9s,mb5.8						
LVZ				MLR	MLR		
	comp=Z,260µm,21.8s,MS7.6						
LVZ	Lovozero	83.21	340	PFAKE		08 49 10.0	+13
LVZ				LR	LR		
	comp=Z,246µm,21.0s,MS7.6						
KBN	Korca	83.37	311	*e*P	P	08 49 03.5	+5.0
VSU	Vasula	83.38	330	*i* P	P	08 48 58.7	+0.6
VSU				pmax	pmax		
	comp=Z,230nm,1.7s,mb5.9						
VSU				MLR	MLR		
	comp=Z,106µm,25.5s,MS7.1						
OHR	Ohrid	83.44	312	*e*P	P	08 48 58.6	-0.2
	comp=Z,384nm,1.1s,mb6.4						
TRPA	Tarpa	83.44	319	⇑*i*P	P	08 48 58.6	0.0
APA	Apatity	83.51	339	⇑*i*P	P	08 48 55.0	-3.6
APA				*i*		08 52 18.0	
APA				*i* PPP		08 54 11.0	
APA				*i* S	S	08 59 11.0	-7.1
APA				pmax	pmax		
	comp=Z,150nm,1.6s,mb5.9						
APA				pmax	pmax		
	comp=Z,33µm,17.0s						
APA				MLR	MLR		
	comp=Z,230µm,22.0s,MS7.5						
IGT	Igoumenitsa	83.55	310	P	P	08 48 58.8	-0.6
BZS	Buzias	83.60	316	⇑*i*P	P	08 48 58.9	-0.6
BZS	Buzias	83.60	316	P	P	08 48 59.2	-0.4
KWP	Kalwaria Pacla	83.63	320	*e*P	P	08 49 01.2	+1.7
KWP				*e*pP	pP	08 49 07.5	-1.6
KWP				*e*PP	PP	08 52 23.1	+11
KWP				*e*S	S	08 59 23.6	+3.7
KWP				LMZ		09 32 16.3	
	comp=Z,98µm,23.3s						
KWP	Kalwaria Pacla	83.63	320	*e*P	P	08 49 01.2	+1.6
KWP				*e**PP	pP	08 49 07.4	-1.7
KWP				*e*S	S	08 59 23.6	+3.7
KWP				MLR	MLR		
	comp=Z,73µm,20.0s,MS7.0						
KWP	Kalwaria Pacla	83.63	320	⇓*i*P	P	08 49 00.4	+0.8
KWP	Kalwaria Pacla	83.63	320	*e*P	P	08 49 01.2	+1.6
KWP				*e*pP	pP	08 49 07.4	-1.7
KWP				*e*PP	PP	08 52 23.1	+11
KWP				*e*S	S	08 59 23.6	+3.7
KWP				LR	LR		
	comp=Z,73µm,20.0s,MS7.0						
BILL	Bilibino	83.64	20	*e*P	P	08 48 58.6	-0.6
BILL				*i*		08 49 03.9	
BILL				*i*		08 52 18.2	
BILL				*i* S	S	08 59 20.7	+1.4
BILL				pmax	pmax		
	comp=Z,149nm,1.6s,mb5.9						
BILL	Bilibino	83.64	20	*e*P	P	08 48 58.6	-0.6
	comp=Z,235nm,1.2s,mb6.2						
BILL				LR	LR		
	comp=Z,321µm,21.0s,MS7.7						
UZH	Uzhgorod	83.70	319	*e*P	P	08 49 00.4	+0.5
UZH				*e*		08 49 06.4	
UZH				*i*		08 49 13.6	
UZH				*e*		08 52 21.0	
UZH				*e*S	S	08 59 18.0	-2.7
KOLS	Kolonicke sedl	83.77	320	*i* P	P	08 49 00.6	+0.3
KOLS				*i* S	S	08 59 21.4	0.0
KOLS				pmax	pmax		
	comp=Z,439nm,1.0s,mb6.5						
KOLS	Kolonicke sedl	83.77	320	*i* P	P	08 49 00.6	+0.3
	comp=Z,439nm,1.0s,mb6.5						
KOLS				*i* S	S	08 59 21.4	0.0
SRN	Sarande	83.86	310	*e*P	P	08 49 03.2	+2.2
GRUS	Gruza	83.94	314	P	P	08 49 01.5	+0.2
TIR	Tirane	84.17	312	P	P	08 49 03.8	+1.3
TIR				*e*		08 49 10.7	
TIR				MLR	MLR		
	comp=Z,62µm,20.0s,MS7.0						
SUW	Suwalki	84.24	325	*e*P	P	08 49 02.7	+0.1
SUW				*e*pP	pP	08 49 11.4	-0.7
SUW				*e*S	S	08 59 24.5	-1.3
SUW				LMZ		09 31 29.2	
	comp=Z,94µm,21.2s						
SUW	Suwalki	84.24	325	*e*P	P	08 49 02.7	+0.1
SUW				*e*pP	pP	08 49 11.4	-0.7
SUW				*e*S	S	08 59 24.5	-1.4
PVY	Plav	84.28	313	⇓*i*P	P	08 49 03.3	+0.2
PVY	Plav	84.28	313	⇓*i*P	P	08 49 03.4	+0.3
CRVS	Cervenica-Dubn	84.29	319	*i* P	P	08 49 03.1	+0.1
CRVS				*i* S	S	08 59 24.3	-2.3
CRVS				pmax	pmax		
	comp=Z,1µm,2.8s,mb6.5						
CRVS	Cervenica-Dubn	84.29	319	*i* P	P	08 49 03.1	+0.1
CRVS				*i* S	S	08 59 24.2	-2.4
CRVS				*e*SS	SS	09 05 07.6	+11
CRVS	Cervenica-Dubn	84.29	319	*i* P	P	08 49 03.1	+0.1
	comp=Z,1µm,2.8s,mb6.5						
CRVS				*i* S	S	08 59 24.3	-2.3
CRVS				*e*SS	SS	09 05 07.6	+11
IVA	Berane	84.38	313	⇓*i*P	P	08 49 03.5	0.0
IVA	Berane	84.38	313	⇓*i*P	P	08 49 03.6	0.0
DIVS	Divibare	84.49	315	P	P	08 49 02.9	-1.2
FINES	FINESS Array B	84.50	332	P	P	08 49 04.0	+0.2
FINES						08 52 17.1	
FINES				S	S	08 59 28.4	+0.1
FINES	FINESS Array B	84.50	332	P	P	08 49 04.0	+0.2
	comp=Z,22nm,0.5s,mb5.5,baz=106,slow=5.2,SNR=38						
FINES				PP	PP	08 52 17.1	-2.3
	comp=Z,48nm,0.9s,baz=110,slow=14,SNR=3.8						
FINES				S	S	08 59 28.4	+0.1
	comp=Z,2.3nm,0.8s,baz=345,slow=6.5,SNR=2.4						
FINES				LR	LR	09 32 57.9	
	comp=Z,102µm,19.6s,MS7.2,baz=106,slow=40						
STHS	Stebnicka Huta	84.52	320	*i* P	P	08 49 04.8	+0.7
STHS				pmax	pmax		
	comp=Z,207nm,1.0s,mb6.2						
STHS	Stebnicka Huta	84.52	320	*i* P	P	08 49 04.8	+0.7
	comp=Z,207nm,1.0s,mb6.2						
KAF	Kangasniemi	84.58	333	*e*P	P	08 49 02.9	-1.2
KAF				pmax	pmax		
	comp=Z,200nm,0.7s,mb6.4						
KAF	Kangasniemi	84.58	333	*e*p	P	08 49 02.9	-1.2
	comp=Z,200nm,0.7s,mb6.4						
ULC	Ulcinj	84.72	312	⇓*i*P	P	08 49 04.9	-0.4
ULC	Ulcinj	84.72	312	⇓*i*P	P	08 49 05.0	-0.3
MIDW	Midway	84.75	62	PFAKE		08 49 20.0	+14
MIDW				LR	LR		
	comp=Z,57µm,21.0s,MS6.9						
TTG	Podgorica	84.78	313	⇓*i*P	P	08 49 04.9	-0.7
TTG	Podgorica	84.78	313	⇓*i*P	P	08 49 04.9	-0.7
PLE	Pljevlja	84.81	314	⇓*i*P	P	08 49 06.2	+0.5
PLE	Pljevlja	84.81	314	⇓*i*P	P	08 49 06.2	+0.5
KECS	Kecovo	84.86	319	*i* P	P	08 49 05.4	-0.4
KECS				*i* S	S	08 59 30.4	-1.9
KECS				pmax	pmax		
	comp=Z,74nm,0.9s,mb5.8						
KECS	Kecovo	84.86	319	*i* P	P	08 49 05.4	-0.4
	comp=Z,74nm,0.9s,mb5.8						
KECS				*i* S	S	08 59 30.4	-1.9
NKY	Niksic	85.02	313	⇓*i*P	P	08 49 06.3	-0.5
NKY	Niksic	85.02	313	⇓*i*P	P	08 49 06.4	-0.4
NKY				P		08 49 10.0	
BUM	Brajici-Budva	85.02	313	⇓*i*P	P	08 49 06.7	-0.1
BUM	Brajici-Budva	85.02	313	⇓*i*P	P	08 49 06.8	0.0
NIE	Niedzica	85.12	320	*e*P	P	08 49 07.6	+0.5
NIE				e		08 49 14.3	
NIE				*e*sP	sP	08 49 24.0	+3.9
NIE	Niedzica	85.12	320	*e*P	P	08 49 07.6	+0.5
NIE				*e*		08 49 14.3	
NIE	Niedzica	85.12	320	*e*P	P	08 49 07.6	+0.5
NIE				*e*		08 49 14.3	
NIE				*e*sP	sP	08 49 24.0	+3.9
UPM	Unac-Piva	85.14	314	⇓*i*P	P	08 49 06.5	-0.9
UPM	Unac-Piva	85.14	314	⇓*i*P	P	08 49 06.5	-0.9
PSZ	Piszkesteto	85.15	318	⇑*i*P	P	08 49 07.7	+0.4
PSZ	Piszkesteto	85.15	318	⇓*e*P	P	08 49 07.1	-0.2
PSZ	Piszkesteto	85.15	318	P	P	08 49 08.4	+1.1
PSZ				LR	LR		
	comp=Z,46µm,20.0s,MS6.9						
WAR	Warsaw	85.17	323	*e*P	P	08 49 07.6	+0.3
WAR				*e*pP	pP	08 49 16.6	-0.2
WAR				*e*S	S	08 59 44.0	+8.8
WAR				LMZ		09 31 16.2	
	comp=Z,66µm,25.4s						
WAR	Warsaw	85.17	323	*e*P	P	08 49 07.6	+0.3
WAR				*e**PP	pP	08 49 16.6	-0.2
WAR				MLR	MLR		
	comp=Z,66µm,25.4s,MS6.9						
WAR	Warsaw	85.17	323	*e*P	P	08 49 07.6	+0.3
WAR				*e*pP	pP	08 49 16.6	-0.2
WAR				*e*S	S	08 59 44.0	+8.8
WAR				LR	LR		
	comp=Z,66µm,25.4s,MS6.9						
HCY	Herceg Novi	85.34	313	⇓*i*P	P	08 49 08.1	-0.3
HCY	Herceg Novi	85.34	313	⇓*i*P	P	08 49 08.2	-0.2
BRY	Bratogost	85.36	313	⇓*i*P	P	08 49 07.3	-1.2

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BRY   Bratogost          85.36 313⇓iP       P       08 49 07.4 -1.1
OJC   Ojcow              85.58 321 eP       P       08 49 09.0 -0.4
OJC                                epP      pP      08 49 20.0 +1.0
OJC                                esP      sP      08 49 25.2 +2.8
OJC                                ePP      PP      08 52 29.2 +0.8
OJC                                eS       S       08 59 40.0 +0.6
OJC                                eSS      SS      09 05 17.1 +1.4
OJC                                 L               09 41 31.0
      comp=Z,48nm,18.6s
OJC   Ojcow              85.58 321 eP       P       08 49 09.0 -0.4
OJC                                e*PP     pP      08 49 20.0 +1.0
OJC                                e                08 52 29.2
OJC                                eS       S       08 59 40.0 +0.6
OJC                                eSS      SS      09 05 17.1 +1.4
OJC                                 MLR     MLR
      comp=Z,48µm,18.6s,MS6.9
BUD   Budapest           85.67 318⇓ePcP     PcP     08 49 13.6 +0.8
PKSM  Moragy             85.75 317⇑iP       P       08 49 09.5 -0.8
PKSM  Moragy             85.75 317  P       P       08 49 09.8 -0.5
VYHS  Vyhne              85.94 319 i P      P       08 49 10.8 -0.4
VYHS                               e                08 52 34.0
VYHS                               i S      S       08 59 41.6 -1.4
VYHS                                pmax    pmax
      comp=Z,103nm,1.4s,mb5.9
VYHS  Vyhne              85.94 319 i P      P       08 49 10.8 -0.4
VYHS                               ePP      PP      08 52 34.0 +2.7
VYHS                               i S      S       08 59 41.5 -1.5
VYHS                               eSS      SS      09 04 59.2  -22
VYHS  Vyhne              85.94 319 i P      P       08 49 10.8 -0.4
      comp=Z,103nm,1.4s,mb5.9
VYHS                               ePP      PP      08 52 34.0 +2.7
VYHS                               i S      S       08 59 41.6 -1.4
VYHS                               eSS      SS      09 04 59.2  -22
STON  Ston               85.98 313 i P      P       08 49 10.3 -1.2
KOLL  Kolacno            86.24 319 i S      S       08 59 46.0 +0.1
TIP   Timpagrande        86.25 309 eP       P       08 49 13.2 +0.2
      comp=Z,379nm,1.2s,mb6.5
TIP                                 LR      LR
      comp=Z,59µm,20.0s,MS7.0
KEV   Kevo               86.46 341 eP       P       08 49 12.3 -1.0
KEV                                 pmax    pmax
      comp=Z,88nm,0.8s,mb6.0
KEV                                 MLR     MLR
      comp=Z,116µm,20.0s,MS7.3
KEV   Kevo               86.46 341 eP       P       08 49 12.3 -1.0
      comp=Z,88nm,0.8s,mb6.0
KEV                                 LR      LR
      comp=Z,116µm,20.0s,MS7.3
BLY   Banja Luka         86.58 315  P       P       08 49 17.0 +2.5
OKC   Ostrava-Krasne     86.58 320 eP       P       08 49 14.3  0.0
OKC                                e                08 49 20.8
OKC                                 MLR     MLR
      comp=Z,39µm,19.4s,MS6.8
OKC   Ostrava-Krasne     86.58 320 eP       P       08 49 14.3  0.0
OKC                                ex       x       08 49 20.8
OKC                                ePP      PP      08 52 47.0  +11
OKC                                eS       S       08 59 57.4 +8.3
OKC                                 AMS     AMS     09 37 50.0
      comp=Z,39µm,19.4s
OKC   Ostrava-Krasne     86.58 320 eP       P       08 49 14.3  0.0
OKC                                e                08 49 20.8
OKC                                ePP      PP      08 52 47.0  +11
OKC                                eSKS             08 59 57.4
RAC   Raciborz           86.58 320 eP       P       08 49 14.8 +0.4
RAC                                eSKSac   SKSac   08 59 35.0 -3.9
RAC                                eS       S       08 59 48.0 -1.2
RAC                                 LR      LR
      comp=Z,64µm,20.0s,MS7.0
SOI   Samo               86.69 308  P       P       08 49 16.1 +0.9
CEL   Celeste            86.83 308 eP       P       08 49 16.6 +0.7
      comp=Z,353nm,1.0s,mb6.5
CEL                                 LR      LR
      comp=Z,39µm,21.0s,MS6.8
ARCES ARCESS Array B     86.90 340  P       P       08 49 15.8 +0.3
ARCES                                               08 52 35.4
ARCES                               S       S       08 59 43.4 -8.1
ARCES ARCESS Array B     86.90 340  P       P       08 49 15.8 +0.3
      comp=Z,46nm,0.8s,mb5.7,baz=96,slow=4.9,SNR=38
ARCES                               PP      PP      08 52 35.4 -3.2
      comp=Z,12nm,0.8s,baz=104,slow=15,SNR=2.8
ARCES                               S       S       08 59 43.4 -8.2
      comp=Z,3.7nm,0.9s,baz=29,slow=15,SNR=2.4
ARCES                               LR      LR      09 32 29.8
      comp=Z,196µm,20.8s,MS7.5,baz=209,slow=39
ARCES ARCESS Array B     86.90 340  P       P       08 49 15.8 +0.3
ARCES                               PP      PP      08 52 35.4 -3.2
ARCES                               S       S       08 59 43.4 -8.2
ARCES                               LR      LR      09 32 29.8
PTRP  Pietrapertosa      86.93 311  P       P       08 49 16.9 +0.6
      comp=Z,3µm,1.9s,mb7.2
MODS  Modra-Piesok       86.95 319 eP       P       08 49 15.8 -0.4
MODS                               i S      S       08 59 52.9 +0.1
MODS                                pmax    pmax
      comp=Z,728nm,2.7s,mb6.4
MODS  Modra-Piesok       86.95 319 eP       P       08 49 15.8 -0.4
      comp=Z,728nm,2.7s,mb6.4
MODS                               i S      S       08 59 52.9 +0.1
MODS                               eSS      SS      09 05 19.7  -16
MORC  Moravsky Berou     86.96 320⇓iP       P       08 49 16.1 -0.1
MORC  Moravsky Berou     86.96 320  P       P       08 49 17.6 +1.4
NVL   N'lazarevskaya     87.03 199  P       P       08 49 19.3 +3.1
NVL                                 pmax    pmax
      comp=Z,105nm,1.4s,mb5.9
ACER  Acerenza           87.05 311  P       P       08 49 17.0 +0.1
      comp=Z,2µm,1.7s,mb7.0
ZST   Bratislava         87.05 318 eP       P       08 49 16.6 -0.1
ZST                                i S      S       08 59 55.9 +2.1
CUC   Castrocucco        87.06 310 eP       P       08 49 17.4 +0.4
      comp=Z,237nm,1.0s,mb6.4
CUC                                 LR      LR
      comp=Z,62µm,20.0s,MS7.0
MAIT  Maitri             87.07 199 eP       P       08 49 18.3 +2.0
MAIT                               eS       SKSac   08 59 24.2  -17
SISC  Sisak              87.23 316 i P      P       08 49 19.2 +1.6
HAVL  Avola              87.32 307  P       P       08 49 16.3 -2.0
SOP   Sopron             87.35 318⇓eP       P       08 49 16.8 -1.4
KOGS  Kog                87.42 317 eP       P       08 49 18.4 -0.2
KOGS                               e        pP      08 49 28.0 -0.1
KOGS                               eS       S       08 59 58.9 +1.5
QSPA  South Pole Qui     87.48 180  PKPPKP          09 15 16.5
      comp=Z,21nm,1.0s,baz=150,slow=1.1,SNR=9.6
QSPA                                LR      LR      09 25 32.0
      comp=Z,174µm,19.8s,MS7.5,baz=324,slow=34
QSPA  South Pole Qui     87.48 180 eP       P       08 49 18.5 +0.4
      comp=Z,6µm,2.8s,mb7.3
QSPA                                LR      LR
      comp=Z,172µm,20.0s,MS7.5
VRAC  Vranov             87.51 319⇓iP       P       08 49 19.4 +0.5
VRAC  Vranov             87.51 319  P       P       08 49 19.4 +0.5
KTK1  Kautokeino         87.56 339 eP       P       08 49 20.8 +2.2
GKP   Gorka Klasztor     87.60 323 eP       P       08 49 20.6 +1.4
GKP                                eS       S       09 00 04.0 +5.2
GKP                                 LMZ             09 35 30.6
      comp=Z,114µm,20.9s
GKP   Gorka Klasztor     87.60 323 eP       P       08 49 20.6 +1.4
GKP                                eS       S       09 00 04.0 +5.2
GKP                                 LR      LR
      comp=Z,114µm,20.9s,MS7.3
WDD   Wield Dalam        87.71 306 eP       P       08 49 20.7 +0.5
      comp=Z,190nm,0.9s,mb6.3
WDD                                 LR      LR
      comp=Z,47µm,20.0s,MS6.9
DPC   Dobruska-Polom     87.81 320 eP       P       08 49 20.5 +0.2
DPC                                ePP      PP      08 52 56.0  +10
DPC                                eS       S       09 00 03.2 +2.2
DPC                                 AMS     AMS     09 37 30.0
      comp=Z,61µm,16.7s
MRB1  Monte Rocchett     87.81 311  P       P       08 49 19.7 -0.8
CONA  Conrad Observa     87.84 318 i P      P       08 49 21.0 +0.4
      comp=Z,110nm,1.4s,mb5.9,SNR=8.3
CSNA  Conrad Observa     87.85 318⇓iP       P       08 49 21.1 +0.5
      comp=Z,105nm,1.3s,mb5.9
ADK   Adak               87.86  38 eP       P       08 49 19.9 -0.6
ADK                                 pmax    pmax
      comp=Z,1µm,1.4s,mb6.9
ADK                                 MLR     MLR
      comp=Z,49µm,19.0s,MS6.9
ADK   Adak               87.86  38 eP       P       08 49 19.9 -0.6
      comp=Z,1µm,1.4s,mb6.9
ADK                                 LR      LR
      comp=Z,49µm,19.0s,MS6.9
KSP   Ksiaz              87.88 321 eP       P       08 49 22.6 +2.0
KSP                                epP      pP      08 49 29.8 -0.4
KSP                                ePP      PP      08 53 01.9  +15
KSP                                eS       S       09 00 09.1 +7.4
KSP                                 LMZ             09 32 48.2
      comp=Z,103µm,25.9s
KSP   Ksiaz              87.88 321⇑eP       P       08 49 21.0 +0.4
KSP                                epP      pP      08 49 29.5 -0.7
KSP                                ePP      PP      08 52 48.0 +1.1
KSP                                ePPP             08 54 52.0
KSP                                eS       S       09 00 02.0 +0.3
KSP                                 LR      LR
      comp=Z,150µm,19.6s,MS7.4
CRES  Cresnjev           87.91 316  P       P       08 49 22.0 +1.1
PSB1  Pescosannita       87.94 311  P       P       08 49 20.9 -0.2
ARSA  Arzberg            88.00 317⇑iP       P       08 49 21.3  0.0
      comp=Z,247nm,1.6s,mb6.2,SNR=13
ARSA  Arzberg            88.00 317  P       P       08 49 21.8 +0.5
BOJS  Bojanci            88.02 316 eP       P       08 49 21.1 -0.3
UPC   Upice              88.02 321 eP       P       08 49 21.7 +0.4
UPC                                epP      pP      08 49 30.9  0.0
NVLJ  Novalja            88.20 315 i P      P       08 49 18.7 -3.6
PERS  Pernice            88.22 317 eP       P       08 49 22.2 -0.1
PERS                               eS       S       09 00 05.3 +0.3
TREC  Trest              88.23 319 eP       P       08 49 22.8 +0.5
TREC                               e                08 49 29.1
TREC                               e                09 00 07.0
TREC                                MLR     MLR
      comp=Z,50µm,18.0s,MS7.0
TREC  Trest              88.23 319 eP       P       08 49 22.8 +0.5
TREC                               epP      pP      08 49 29.1 -2.8
TREC                               ePP      PP      08 52 59.9  +10
TREC                               eS       S       09 00 07.0 +1.9
TREC                                AMS     AMS     09 37 30.0
      comp=Z,50µm,18.0s
SOKA  Soboth             88.28 317⇑iP       P       08 49 22.4 -0.2
      comp=Z,312nm,1.4s,mb6.3
MIDA  Miranda            88.39 312  P       P       08 49 23.0 -0.3
RNI2  Rionero Sannit     88.47 312  P       P       08 49 25.6 +1.9
LJU   Ljubljana          88.57 316 eP       P       08 49 24.0  0.0
LJU                                e        pP      08 49 33.6  0.0
LJU                                eS       S       09 00 09.5 +1.1
LJU   Ljubljana          88.57 316 eP       P       08 49 24.0  0.0
LJU                                e        pP      08 49 33.6  0.0
LJU                                ePP      PP      08 53 02.3  +10
LJU                                eS       S       09 00 09.5 +1.1
LJU                                e                09 12 43.3
OBKA  Obir               88.60 316 i P      P       08 49 24.2  0.0
      comp=Z,280nm,1.8s,mb6.3,SNR=10
OBKA  Obir               88.60 316  P       P       08 49 24.1  0.0
CEY   Cerknica           88.61 316  P       P       08 49 24.8 +0.6
SKDS  Skadanscina        88.89 315 eP       P       08 49 24.3 -1.2
SKDS                               e        pP      08 49 34.2 -0.9
SKDS                               ePP      PP      08 53 04.4 +9.3
SKDS                               ePKPPKP          09 15 24.4
MOA   Molln              88.91 318⇑iP       P       08 49 25.2 -0.4
      comp=Z,144nm,1.2s,mb6.2,SNR=6.6
MOA   Molln              88.91 318  P       P       08 49 26.2 +0.7
PRU   Pruhonice          88.91 320 eP       P       08 49 25.2 -0.3
PRU                                epP      pP      08 49 32.7 -2.4
PRU                                ePP      PP      08 52 57.8 +2.6
PRU                                eS       S       09 00 14.0 +2.6
PRU                                 AMS     AMS     09 38 00.0
      comp=Z,65µm,16.5s
PVCC  Panska Ves         88.94 320 eP       P       08 49 26.1 +0.5
PVCC                               epP      pP      08 49 32.8 -2.4
PVCC                               ePP      PP      08 52 59.2 +3.8
PVCC                               eS       S       09 00 14.2 +2.5
PVCC                                AMS     AMS     09 40 00.0
      comp=Z,69µm,18.0s
TERO  Teramo             88.95 313  P       P       08 49 25.1 -0.8
VENT  Ventotene          88.95 311  P       P       08 49 26.2 +0.3
USI   Ustica             88.99 309  P       P       08 49 25.6 -0.6
VOY   Vojsko             89.01 316 eP       P       08 49 25.3 -0.8
VOY                                e        pP      08 49 32.8 -2.9
VOY                                e        pP      08 49 35.2 -0.5
CADS  Cadrg              89.13 316 eP       P       08 49 25.7 -1.0
CADS                               e        pP      08 49 35.8 -0.4
CADS                               eS       S       09 00 14.7 +1.0
BSD   Bornholm Skovb     89.16 325 i P      P       08 49 32.3 +5.7
      comp=Z,186nm,0.9s,mb6.4
BSD                                i S      S       09 00 13.6 +0.1
BSD
      comp=Z,94µm,19.0s
BSD   Bornholm Skovb     89.16 325 i P      P       08 49 32.3 +5.7
      comp=Z,186nm,0.9s,mb6.4
BSD                                i S      S       09 00 13.6 +0.1
TRO   Tromso             89.18 340 eP       P       08 49 28.3 +2.0
TRO                                epP      pP      08 49 34.6 -1.3
MYKA  Terra Mystica      89.23 317⇑iP       P       08 49 27.1  0.0
      comp=Z,233nm,1.6s,mb6.3
FIAM  Fiamignano         89.29 312  P       P       08 49 27.2 -0.3
GEC2  GERESS Array S     89.36 319 eP       P       08 49 27.8 +0.1
GEC2                               e*PP     pP      08 49 37.2 -0.1
GEC2                                pmax    pmax
      comp=Z,472nm,1.4s,mb6.6
GEC2  GERESS Array S     89.36 319 eP       P       08 49 27.8 +0.1
      comp=Z,472nm,1.4s,mb6.6
GEC2                               epP      pP      08 49 37.2 -0.1
      comp=Z,472nm,1.4s
GEC2                               eS       S       09 00 23.1 +7.4
GERES GERESS Array B     89.36 319  P       P       08 49 27.5 -0.2
      comp=Z,19nm,1.0s,mb5.4,baz=94,slow=4.3,SNR=47
GERES                               PP      PP      08 52 53.4 -5.4
      comp=Z,5.7nm,0.8s,baz=60,slow=7.9,SNR=2.3
GERES                               S       SKSac   08 59 57.8 +2.0
      comp=Z,0.2nm,0.3s,baz=47,slow=35,SNR=2.1
CERT  Cerreto            89.36 312  P       P       08 49 28.0 +0.2
BRG   Berggiesshubel     89.37 321⇓iP       P       08 49 28.3 +0.7
BRG                                i        pP      08 49 37.0 -0.2
BRG                                i                08 49 43.1
BRG                                 S       S       09 00 22.0 +6.3
BRG                                 SS      SS      09 06 17.0 +6.1
BRG                                 pmax    pmax
      comp=Z,36nm,1.3s,mb5.5
BRG                                 MLR     MLR
      comp=N,35µm,18.8s,MS7.0
BRG                                 MLR     MLR
      comp=E,33µm,18.7s,MS7.0
BRG                                 MLR     MLR
      comp=Z,42µm,18.0s,MS6.9
BRG   Berggiesshubel     89.37 321 eP       P       08 49 27.7 +0.1
      comp=Z,271nm,1.3s,mb6.4
BRG                                eS       S       09 00 23.4 +7.7
BRG   Berggiesshubel     89.37 321⇓iP       P       08 49 28.3 +0.6
      comp=Z,60nm,1.2s,mb5.8
BRG                                i        pP      08 49 37.0 -0.2
      comp=Z,272nm,1.3s
BRG                                i                08 49 43.1
      comp=Z,586nm,1.7s
BRG                                i                08 50 11.6
      comp=Z,630nm,1.4s
BRG                                 PP      PP      08 53 09.0  +10
BRG                                 S       S       09 00 22.0 +6.3
BRG                                 SS      SS      09 06 17.0 +6.1
BRG
      comp=N,58µm,18.8s
BRG
      comp=E,55µm,18.7s
BRG
      comp=Z,70µm,18.0s
BRG   Berggiesshubel     89.37 321⇓iP       P       08 49 28.3 +0.6
      comp=Z,36nm,1.3s,mb5.5
BRG                                i        pP      08 49 37.0 -0.2
BRG                                i                08 49 43.1
BRG                                i                08 50 11.6
BRG                                 PP      PP      08 53 09.0  +10
BRG                                 S       S       09 00 22.0 +6.3
BRG                                 SS      SS      09 06 17.0 +6.1
BRG                                 LR      LR
      comp=Z,42µm,18.0s,MS6.9
KHC   Kasperske Hory     89.47 319 eP       P       08 49 27.9 -0.2
KHC                                e        pP      08 49 36.2 -1.5
KHC                                e                08 53 07.8
KHC                                e                09 00 18.4
KHC                                 MLR     MLR
      comp=Z,71µm,20.8s,MS7.1
KHC   Kasperske Hory     89.47 319 eP       P       08 49 27.9 -0.2
KHC                                epP      pP      08 49 36.2 -1.5
KHC                                ex       x       08 50 05.5
KHC                                ePP      PP      08 53 07.8 +8.2
KHC                                eS       S       09 00 18.4 +1.7
KHC                                 AMS     AMS     09 36 00.0
      comp=Z,71µm,20.8s
KBA   Koelnbreinsper     89.47 317⇓iP       P       08 49 27.5 -0.7
      comp=Z,165nm,1.2s,mb6.2,SNR=9.4
KBA   Koelnbreinsper     89.47 317  P       P       08 49 27.8 -0.4
MTCE  Montecelio         89.55 312  P       P       08 49 29.4 +0.7
RDP   Rocca di Papa      89.55 312  P       P       08 49 28.0 -0.7
RUE   Ruedersdorf        89.60 322 eP       P       08 49 29.8 +1.1
      comp=Z,613nm,1.2s,mb6.8
RUE   Ruedersdorf        89.60 322 eP       P       08 49 29.8 +1.1
      comp=Z,1µm,1.4s,mb7.1
RUE                                e        pP      08 49 38.7 +0.5
FBE   Freiberg           89.74 321 eP       P       08 49 29.6 +0.2
      comp=Z,331nm,1.3s,mb6.5
RJOB  Jochberg           89.89 318 eP       P       08 49 29.4 -0.7
      comp=Z,162nm,1.2s,mb6.2
RJOB                               eS       S       09 00 25.9 +5.3
WET   Wettzell           89.92 319 eP       P       08 49 30.3  0.0
WET                                e*PP     pP      08 49 39.5 -0.4
WET                                 pmax    pmax
      comp=Z,296nm,1.2s,mb6.5
WET   Wettzell           89.92 319 eP       P       08 49 30.3  0.0
      comp=Z,296nm,1.2s,mb6.5
WET                                epP      pP      08 49 39.5 -0.4
WET                                eS       S       09 00 28.9 +8.0
CLL   Collm              89.99 321 eP       P       08 49 29.0 -1.5
CLL                                i                08 49 44.1
CLL                                eS       S       09 00 27.0 +5.5
CLL                                 pmax    pmax
      comp=Z,198nm,1.3s,mb6.3
CLL   Collm              89.99 321 eP       P       08 49 30.2 -0.3
      comp=Z,197nm,1.3s,mb6.3
CLL                                eS       S       09 00 27.4 +5.9
CLL   Collm              89.99 321 eP       P       08 49 29.0 -1.5
CLL                                 Pmax    pP      08 49 37.0 -3.1
CLL                               ⇑i        pP      08 49 39.4 -0.7
      comp=Z,198nm,1.3s
CLL                                i (sP)   sP      08 49 44.1 +0.5
CLL                                e                08 49 55.0
CLL                                i                08 50 14.1
      comp=Z,517nm,1.6s
CLL                                i                08 50 17.8
CLL                                ePP      PP      08 53 07.0 +3.3
CLL                                ePPP             08 55 12.0
CLL                                eSKKSac  SKKSac  09 00 11.0 -1.6
CLL                                eS       S       09 00 27.0 +5.5
      comp=N,79µm,29.4s
CLL                                eS       S       09 00 27.0 +5.5
      comp=E,12µm,22.9s
CLL                                ePS      PS      09 01 30.0 -1.2
CLL                                ePPS             09 01 59.0
CLL                                eSS      SS      09 06 48.0  +28
CLL                                eSSS             09 10 36.0
CLL                                eSSSS            09 13 14.0
CLL                                 LmV             09 38 00.0
      comp=Z,68µm,20.2s
CLL                                 Lmax            09 51 50.0
CLL                                 LmV(360         09 58 00.0
      comp=Z,7µm,20.7s
CLL   Collm              89.99 321 eP       P       08 49 29.0 -1.5
      comp=Z,198nm,1.3s,mb6.3
BADI  Badiali            90.01 313  P       P       08 49 30.6 -0.2
ABTA  Abfaltersbach      90.02 317⇓iP       P       08 49 30.3 -0.5
      comp=Z,133nm,1.3s,mb6.1,SNR=11
RGN   Rugen              90.03 324 eP       P       08 49 31.3 +0.7
      comp=Z,402nm,1.3s,mb6.6
HFA0  Hagfors New Ar     90.26 330  P       P       08 49 32.0 +0.4
NKC   Novy Kostel        90.27 320 eP       P       08 49 31.6 -0.3
NKC                                ex       x       08 49 38.5
NKC                                eS       S       09 00 29.3 +5.2
NKC                                 AMS     AMS     09 38 50.0
      comp=Z,78µm,23.5s
NKC   Novy Kostel        90.27 320 eP       P       08 49 31.6 -0.3
NKC                                e                08 49 38.5
NKC                                eSKS             09 00 29.3
TANN  Tannenbergstha     90.28 320 eP       P       08 49 31.9  0.0
      comp=Z,175nm,1.4s,mb6.2
TANN                               eS       S       09 00 32.2 +8.1
SFI   Santa Sofia        90.32 314  P       P       08 49 32.8 +0.6
WERN  Wernitzgruen       90.32 320 eP       P       08 49 32.3 +0.2
      comp=Z,137nm,1.2s,mb6.2
GUNZ  Gunzen             90.36 320 eP       P       08 49 32.3  0.0
      comp=Z,193nm,1.2s,mb6.3
GUNZ                               epP      pP      08 49 41.6 -0.3
WERD  Werda              90.38 320 eP       P       08 49 32.3 -0.1
      comp=Z,155nm,1.2s,mb6.2
ROTZ  Rotzenmuhle        90.40 320 eP       P       08 49 33.0 +0.5
      comp=Z,199nm,1.2s,mb6.3
ROTZ                               eS       S       09 00 34.4 +9.1
MOR8  Moi Rana           90.43 336 eP       P       08 49 33.6 +1.4
MOR8                               epP      pP      08 49 40.6 -1.2
PLN   Plauen             90.47 320 eP       P       08 49 32.9 +0.1
      comp=Z,395nm,1.4s,mb6.5
MANZ  Manzenberg         90.48 320 eP       P       08 49 33.3 +0.5
      comp=Z,338nm,1.2s,mb6.5
COP   Copenhagen         90.62 326 i P      P       08 49 38.3 +4.9
COP                                 pmax    pmax
      comp=Z,60nm,0.9s,mb5.9
COP                                 MLR     MLR
      comp=Z,37µm,19.0s,MS6.8
COP   Copenhagen         90.62 326 i P      P       08 49 38.3 +4.9
      comp=Z,60nm,0.9s,mb5.9
COP                                i S      S       09 00 34.8 +7.8
COP
      comp=Z,37µm,19.0s
WTTA  Wattenberg         90.64 317⇑iP       P       08 49 33.0 -0.7
      comp=Z,217nm,1.0s,mb6.4,SNR=12
WTTA  Wattenberg         90.64 317  P       P       08 49 33.4 -0.3
WATA  Walderalm          90.69 317⇑iPcP     PcP     08 49 34.3 -0.7
      comp=Z,91nm,0.8s
NEUB  Neuenburg          90.76 321 eP       P       08 49 33.9 -0.2
      comp=Z,326nm,1.1s,mb6.6
MOX   Moxa               90.83 320 eP       P       08 49 34.7 +0.2
      comp=Z,472nm,2.0s,mb6.5
MOX                                ePP      pP      08 49 42.4 -1.7
MOX                                eS       S       09 00 34.0 +4.8
MOX
      comp=Z,33µm,21.0s
MOX   Moxa               90.83 320 eP       P       08 49 34.7 +0.2
MOX                                e        pP      08 49 42.4 -1.7
MOX                                eS       S       09 00 34.0 +4.8
MOX                                 pmax    pmax
      comp=Z,472nm,2.0s,mb6.5
MOX                                 MLR     MLR
      comp=Z,33µm,21.0s,MS6.8
MOX   Moxa               90.83 320 eP       P       08 49 34.4 -0.1
      comp=Z,243nm,1.4s,mb6.3
MOX                                eS       S       09 00 36.8 +7.6
FUR   Furstenfeldbru     90.93 318 eP       P       08 49 34.8 -0.2
FUR                                eS       S       09 00 35.8 +5.6
FUR                                 pmax    pmax
      comp=Z,256nm,1.3s,mb6.4
FUR   Furstenfeldbru     90.93 318 eP       P       08 49 34.8 -0.2
      comp=Z,256nm,1.3s,mb6.4
FUR                                eS       S       09 00 35.8 +5.6
LOF   Lofoten            90.94 338 esP      sP      08 49 45.6 -2.1
MOTA  Moosalm            91.01 317⇑iP       P       08 49 34.9 -0.5
      comp=Z,172nm,0.9s,mb6.4,SNR=12
MOTA  Moosalm            91.01 317  P       P       08 49 35.1 -0.3
STOK  Stokkvaagen        91.01 336 epP      pP      08 49 42.5 -2.1
GRA1  Grafenberg Arr     91.03 320 eP       P       08 49 35.7 +0.3
      comp=Z,361nm,1.2s,mb6.6
GRA1                               epP      pP      08 49 44.9 -0.1
GRA1                               ePP      PP      08 53 16.0 +3.9
GRA1                               eS       S       09 00 39.4 +8.3
GRA1                               eSS      SS      09 06 58.2  +23
GRA1                               eP'P'            09 15 15.7
GRA1                                LR      LR
      comp=Z,74µm,20.8s,MS7.1
GRF   Grafenberg Arr     91.03 320 eP       P       08 49 35.7 +0.3
GRF                                e*PP     pP      08 49 44.9 -0.1
GRF                                e                08 53 16.0
GRF                                 pmax    pmax
      comp=Z,361nm,1.2s,mb6.6
GRF                                 MLR     MLR
      comp=Z,74µm,20.8s,MS7.1
GRF   Grafenberg Arr     91.03 320 eP       P       08 49 35.7 +0.3
GRF                                e*PP     pP      08 49 44.9 -0.1
GRF                                e                08 53 16.0
GRF                                 pmax    pmax
      comp=Z,361nm,1.2s,mb6.6
GRF   Grafenberg Arr     91.03 320 eP       P       08 49 35.7 +0.3
      comp=Z,361nm,1.2s,mb6.6
GRF                                epP      pP      08 49 44.9 -0.1
GRF                                ePP      PP      08 53 16.0 +3.9
GRF                                eS       S       09 00 39.4 +8.3
GRF                                eSS      SS      09 06 58.2  +23
GRF                                ePKPPKPdf        09 15 15.7
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GRF				*e*L		09 38 48.2	
	comp=Z,74µm,20.8s						
GRF	**Grafenberg Arr**	**91.03**	**320**	*e*P	**P**	**08 49 35.7**	**+0.3**
	comp=Z,361nm,1.2s,mb6.6						
GRF				*e*pP	pP	08 49 44.9	-0.1
GRF				*e*PP	PP	08 53 16.0	+3.9
GRF				*e*S	S	09 00 39.4	+8.3
GRF				*e*SS	SS	09 06 58.2	+23
RETA	**Reutte**	**91.25**	**317**	⇑*i*P	**P**	**08 49 35.9**	**-0.5**
	comp=Z,244nm,1.2s,mb6.4,SNR=13						
FETA	**Feichten**	**91.25**	**317**	⇑*i*P	**P**	**08 49 35.9**	**-0.7**
	comp=Z,213nm,1.6s,mb6.2,SNR=11						
VLC	**Villacollemand**	**91.38**	**314**	*e*P	**P**	**08 49 34.8**	**-2.4**
	comp=Z,514nm,1.7s,mb6.6						
VLC				LR	LR		
	comp=Z,58µm,22.0s,MS7.0						
BRMO	**Bormio**	**91.47**	**316**	P	**P**	**08 49 37.6**	**0.0**
NB2	**NORSAR Subarra**	**91.53**	**331**	P	**P**	**08 49 37.6**	**+0.1**
	comp=Z,182nm,1.2s,mb6.3,baz=95,slow=4.8						
NOA	**NORSAR Array B**	**91.53**	**331**	P	**P**	**08 49 37.2**	**-0.3**
NOA						08 53 17.8	
NOA	**NORSAR Array B**	**91.53**	**331**	P	**P**	**08 49 37.2**	**-0.3**
	comp=Z,17nm,0.9s,mb5.4,baz=334,slow=21,SNR=16						
NOA				PP	PP	08 53 17.8	+2.2
	comp=Z,23nm,0.9s,baz=92,slow=8.9,SNR=3.4						
NOA				LR	LR	09 36 21.6	
	comp=Z,70µm,21.2s,MS7.1,baz=90,slow=39						
NOA	**NORSAR Array B**	**91.53**	**331**	P	**P**	**08 49 37.2**	**-0.3**
NOA				PP	PP	08 53 17.8	+2.2
NOA				LR	LR	09 36 21.6	
HDH	**Heidenheim-Cha**	**91.66**	**318**	P	**P**	**08 49 39.3**	**+0.9**
CLZ	**Clausthal**	**91.66**	**322**	*e*P	**P**	**08 49 38.3**	**0.0**
CLZ				*e**PP	pP	08 49 47.6	-0.3
CLZ				pmax	pmax		
	comp=Z,174nm,1.2s,mb6.3						
CLZ	**Clausthal**	**91.66**	**322**	*e*P	**P**	**08 49 38.3**	**0.0**
	comp=Z,174nm,1.2s,mb6.3						
CLZ				*e*pP	pP	08 49 47.6	-0.3
CLZ				*e*S	S	09 00 43.2	+6.5
BSEG	**Bad Segeberg**	**91.76**	**324**	*e*P	**P**	**08 49 38.8**	**+0.1**
	comp=Z,95nm,1.2s,mb6.0						
BSEG				*e*S	S	09 00 45.7	+8.2
DAVA	**Damuels**	**91.84**	**317**	⇓*i*P	**P**	**08 49 39.3**	**0.0**
	comp=Z,297nm,1.1s,mb6.5,SNR=13						
NRDL	**Niedersach Rie**	**91.84**	**322**	*e*P	**P**	**08 49 38.9**	**-0.2**
	comp=Z,175nm,1.4s,mb6.2						
NRDL				*e*S	S	09 00 45.5	+7.2
KEST	**Kesra**	**91.90**	**306**	P	**P**	**08 49 40.4**	**+0.6**
	comp=Z,11nm,0.8s,mb5.2,baz=159,slow=1.8,SNR=35						
KEST				S	SKSac	09 00 13.4	+2.4
	comp=Z,1.5nm,1.0s,baz=238,slow=2.0,SNR=1.9						
KEST				LR	LR	09 31 50.3	
	comp=Z,32µm,20.1s,MS6.8,baz=157,slow=36						
KBS	**Kingsbay**	**92.03**	**349**	⇑*e*P	**P**	**08 49 41.6**	**+2.1**
KBS				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.9						
KBS	**Kingsbay**	**92.03**	**349**	*e*P	**P**	**08 49 40.0**	**+0.5**
	comp=Z,211nm,1.1s,mb6.4						
KBS				*e*	pP	08 49 48.0	-1.2
KBS				LR	LR		
	comp=Z,215µm,19.0s,MS7.6						
SIND	**Sindeldorf**	**92.08**	**319**	P	**P**	**08 49 42.9**	**+2.6**
OSPF	**L'Ospedale**	**92.18**	**311**	*e*P	**P**	**08 49 46.1**	**+5.1**
TUE	**Stuetta**	**92.18**	**316**	*e*P	**P**	**08 49 41.5**	**+0.7**
	comp=Z,197nm,1.4s,mb6.2						
TUE				*e*	pP	08 49 49.3	-1.2
TUE				LR	LR		
	comp=Z,62µm,19.0s,MS7.1						
BUCH	**Bad Urach**	**92.22**	**318**	P	**P**	**08 49 42.3**	**+1.3**
KONO	**Kongsberg**	**92.29**	**329**	PFAKE		08 49 50.0	+9.0
KONO				LR	LR		
	comp=Z,80µm,20.0s,MS7.2						
STU	**Stuttgart**	**92.33**	**319**	*e*P	**P**	**08 49 41.2**	**-0.3**
	comp=Z,168nm,1.2s,mb6.2						
STU				*e*pP	pP	08 49 50.5	-0.6
STU				*e*S	S	09 00 50.3	+7.4
PGF	**Pioggiola**	**92.35**	**312**	*e*P	**P**	**08 49 41.6**	**-0.1**
	comp=Z,818nm,1.6s,mb6.5						
PGF	**Pioggiola**	**92.35**	**312**	*e*P	**P**	**08 49 41.6**	**-0.1**
PGF				pmax	pmax		
	comp=Z,409nm,1.6s,mb6.5						
PGF	**Pioggiola**	**92.35**	**312**	*e*P	**P**	**08 49 41.6**	**-0.1**
	comp=Z,409nm,1.6s,mb6.5						
GUT	**Gutenstein**	**92.37**	**318**	P	**P**	**08 49 42.9**	**+1.2**
SISB	**Singen-Schiene**	**92.47**	**317**	P	**P**	**08 49 45.2**	**+3.1**
MUD	**Monsted U'grnd**	**92.47**	**326**	*i* P	pP	08 49 51.9	+0.4
MUD				*i* S	S	09 00 52.4	+8.6
MUD				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.8						
MUD				MLR	MLR		
	comp=Z,59µm,18.0s,MS7.1						
MUD	**Monsted U'grnd**	**92.47**	**326**	*i* P	pP	08 49 51.9	+0.4
	comp=Z,53nm,1.1s						
MUD				*i* S	S	09 00 52.4	+8.6
MUD							
	comp=Z,59µm,18.0s						
SPAK	**Spaichingen-Ko**	**92.59**	**318**	*e*P	**P**	**08 49 42.8**	**+0.1**
TOD	**Tromm**	**92.60**	**319**	*e*P	**P**	**08 49 44.9**	**+2.2**
NIKO	**Nikolski**	**92.71**	**37**	*e*P	**P**	**08 49 42.8**	**-0.4**
	comp=Z,401nm,0.9s,mb6.8						
NIKO				*e*	pP	08 49 51.8	-0.9
TNS	**Taunus Mts**	**92.84**	**320**	*e*P	**P**	**08 49 43.8**	**0.0**
TNS				pmax	pmax		
	comp=Z,266nm,1.1s,mb6.6						
TNS	**Taunus Mts**	**92.84**	**320**	*e*P	**P**	**08 49 43.8**	**0.0**
	comp=Z,266nm,1.1s,mb6.6						
TNS				*e*S	S	09 00 55.3	+7.9
BFO	**Black Forest**	**92.90**	**318**	*e*P	**P**	**08 49 43.5**	**-0.6**
BFO				pmax	pmax		
	comp=Z,80nm,1.2s,mb6.0						
BFO				MLR	MLR		
	comp=Z,55µm,20.0s,MS7.0						
BFO	**Black Forest**	**92.90**	**318**	*e*P	**P**	**08 49 43.5**	**-0.6**
	comp=Z,80nm,1.2s,mb6.0						
BFO				*e*S	S	09 00 54.8	+6.8
BFO	**Black Forest**	**92.90**	**318**	*e*P	**P**	**08 49 43.5**	**-0.6**
	comp=Z,80nm,1.2s,mb6.0						
BFO				*e*S	S	09 00 54.8	+6.8
BFO				LR	LR		
	comp=Z,55µm,20.0s,MS7.0						
FELD	**Feldberg im Sc**	**93.12**	**318**	*e*P	**P**	**08 49 44.7**	**-0.4**
TNA	**Tin City**	**93.14**	**25**	*e*P	**P**	**08 49 44.4**	**-0.5**
	comp=Z,132nm,0.8s,mb6.4						
KIZ	**Kirchzarten**	**93.18**	**318**	P	**P**	**08 49 48.1**	**+2.7**
LANF	**Langenberg**	**93.25**	**319**	*e*P	**P**	**08 49 46.0**	**+0.3**
VNA2	**Neumayer--Watz**	**93.27**	**198**	*e*P	**P**	**08 49 46.0**	**+0.6**
VNA2				*e*		08 49 58.9	
VNA2				*e*		08 50 00.0	
IBBN	**Ibbenburen**	**93.28**	**322**	*e*P	**P**	**08 49 45.6**	**-0.2**
	comp=Z,70nm,1.0s,mb6.0						
IBBN				*e*S	S	09 00 58.1	+7.0
MOL	**Molde**	**93.29**	**332**	*e*P	**P**	**08 49 43.9**	**-1.7**
MOL				*e*pP	pP	08 49 52.3	-2.9
LIBD	**Limburg**	**93.39**	**318**	*e*P	**P**	**08 49 48.4**	**+2.0**
SAOF	**Saorge**	**93.42**	**314**	*e*P	**P**	**08 49 46.8**	**+0.2**
ABH	**Alteburg**	**93.42**	**320**	P	**P**	**08 49 50.0**	**+3.5**
ABSA	**Djebel Ababsia**	**93.43**	**306**	P	**P**	**08 49 56.0**	**+9.1**
CMAH	**Djebel Manchou**	**93.48**	**306**	P	**P**	**08 49 54.0**	**+6.9**
SBF	**Sospel**	**93.50**	**314**	*e*P	**P**	**08 49 46.7**	**-0.3**
	comp=Z,255nm,1.1s,mb6.3						
SBF	**Sospel**	**93.50**	**314**	*e*P	**P**	**08 49 46.7**	**-0.3**
SBF				pmax	pmax		
	comp=Z,128nm,1.1s,mb6.3						
SBF	**Sospel**	**93.50**	**314**	*e*P	**P**	**08 49 46.7**	**-0.3**
	comp=Z,128nm,1.1s,mb6.3						
LUCF	**Luceram**	**93.57**	**314**	*e*P	**P**	**08 49 47.7**	**+0.4**
BUG	**Bochum--Univer**	**93.59**	**321**	*e*P	**P**	**08 49 46.9**	**-0.3**
	comp=Z,88nm,1.3s,mb6.0						
BUG				*e*pP	pP	08 49 55.0	-1.8
BUG				*e*S	S	09 01 02.5	+8.6
CDF	**Champ du Feu**	**93.61**	**318**	*e*P	**P**	**08 49 46.9**	**-0.5**
	comp=Z,292nm,1.6s,mb6.2						
CDF	**Champ du Feu**	**93.61**	**318**	*e*P	**P**	**08 49 46.9**	**-0.5**
CDF				pmax	pmax		
	comp=Z,146nm,1.6s,mb6.2						
CDF	**Champ du Feu**	**93.61**	**318**	*e*P	**P**	**08 49 46.9**	**-0.5**
	comp=Z,146nm,1.6s,mb6.2						
TOUF	**Mont Tournerai**	**93.64**	**314**	*e*P	**P**	**08 49 48.5**	**+0.9**
ECH	**Echery**	**93.69**	**318**	*e*P	**P**	**08 49 50.1**	**+2.4**
ECH				MLR	MLR		
	comp=Z,47µm,20.0s,MS7.0						
MOF	**Molkenrain**	**93.70**	**318**	*e*P	**P**	**08 49 49.9**	**+2.1**
MVIF	**Mont Vial**	**93.71**	**314**	*e*P	**P**	**08 49 48.5**	**+0.5**
RUP	**Ruppelstein**	**93.74**	**319**	*e*P	**P**	**08 49 45.6**	**-2.3**
VNA3	**Neumayer Olymp**	**93.87**	**198**	*e*P	**P**	**08 49 44.8**	**-3.3**
VNA3				*e*		08 49 57.2	
WTSB	**Winterswijk**	**93.87**	**322**	*e*P	**P**	**08 49 52.8**	**+4.3**
	comp=Z,111nm,1.6s,mb6.0						
HINF	**Hinteralfeld**	**93.89**	**318**	*e*P	**P**	**08 49 48.3**	**-0.4**
CALN	**Calern**	**93.90**	**314**	*e*P	**P**	**08 49 49.4**	**+0.6**
LOMF	**Lomont**	**93.92**	**317**	*e*P	**P**	**08 49 48.4**	**-0.4**
CAEH	**'Ain El Ouahch**	**93.94**	**307**	P	**P**	**08 49 58.0**	**+8.8**
WIT	**Witteveen**	**93.94**	**323**	*e*P	**P**	**08 49 57.7**	**+8.9**
	comp=Z,538nm,2.4s,mb6.5						
MBDF	**Montbardon**	**93.98**	**314**	*e*P	**P**	**08 49 50.2**	**+1.0**
	comp=Z,212nm,1.5s,mb6.0						
MBDF	**Montbardon**	**93.98**	**314**	*e*P	**P**	**08 49 50.2**	**+1.0**
MBDF				pmax	pmax		
	comp=Z,106nm,1.5s,mb6.0						
MBDF	**Montbardon**	**93.98**	**314**	*e*P	**P**	**08 49 50.2**	**+1.0**
	comp=Z,106nm,1.5s,mb6.0						
LPG	**La Plagne**	**93.99**	**315**	*e*P	**P**	**08 49 49.1**	**-0.1**
	comp=Z,74nm,0.8s,mb5.9						
LPG	**La Plagne**	**93.99**	**315**	*e*P	**P**	**08 49 49.1**	**-0.1**
LPG				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.9						
LPG	**La Plagne**	**93.99**	**315**	*e*P	**P**	**08 49 49.1**	**-0.1**
	comp=Z,37nm,0.8s,mb5.9						
LPL	**La Plagne**	**94.00**	**315**	*e*P	**P**	**08 49 49.1**	**-0.1**
	comp=Z,76nm,0.7s,mb5.9						
LPL	**La Plagne**	**94.00**	**315**	*e*P	**P**	**08 49 49.1**	**-0.1**
LPL				pmax	pmax		
	comp=Z,38nm,0.7s,mb5.9						
LPL	**La Plagne**	**94.00**	**315**	*e*P	**P**	**08 49 49.1**	**-0.1**
	comp=Z,38nm,0.7s,mb5.9						
OG01	**Vacheresse**	**94.03**	**316**	*e*P	**P**	**08 49 50.6**	**+1.3**
BNI	**Bardonecchia**	**94.04**	**315**	*e*P	**P**	**08 49 48.7**	**-0.8**
BNI				*e*	pP	08 49 58.1	-1.0
BNI				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.9						
BNI				MLR	MLR		
	comp=Z,79µm,22.0s,MS7.1						
BNI	**Bardonecchia**	**94.04**	**315**	*e*P	**P**	**08 49 48.7**	**-0.8**
	comp=Z,42nm,0.9s,mb5.9						
BNI				*e*	pP	08 49 58.1	-0.9
BNI				LR	LR		
	comp=Z,79µm,22.0s,MS7.1						
CKFL	**Kef-Lekhel**	**94.04**	**306**	P	**P**	**08 49 59.0**	**+9.3**
RSL	**Roselend**	**94.07**	**315**	*e*P	**P**	**08 49 50.8**	**+1.2**
UNV	**Unalaska Valle**	**94.11**	**36**	*e*P	**P**	**08 49 50.2**	**+0.6**
	comp=Z,60nm,0.8s,mb6.1						
LMR	**La Mourre**	**94.18**	**313**	*e*P	**P**	**08 49 49.8**	**-0.3**
CASM	**Ain Smara**	**94.23**	**306**	P	pP	08 50 02.0	+1.9
HAU	**Haudompre**	**94.23**	**318**	*e*P	**P**	**08 49 49.6**	**-0.6**
	comp=Z,414nm,1.6s,mb6.3						
HAU				*e*MLR	MLR		
	comp=Z,73µm,22.2s,MS6.8						
HAU	**Haudompre**	**94.23**	**318**	*e*P	**P**	**08 49 49.6**	**-0.6**
HAU				pmax	pmax		
	comp=Z,207nm,1.6s,mb6.3						
HAU				MLR	MLR		
	comp=Z,73µm,22.3s,MS7.1						
HAU	**Haudompre**	**94.23**	**318**	*e*P	**P**	**08 49 49.6**	**-0.6**
	comp=Z,207nm,1.6s,mb6.3						
HAU				LR	LR		
	comp=Z,73µm,22.3s,MS7.1						
CTEI	**Djebel Teioual**	**94.30**	**306**	P	pP	08 50 02.0	+1.6
WLF	**Walferdange**	**94.33**	**319**	P	**P**	**08 49 51.3**	**+0.7**
	comp=Z,136nm,2.7s,mb5.9						
WLF	**Walferdange**	**94.33**	**319**	*e*P	**P**	**08 49 50.3**	**-0.3**
WLF				*e*	pP	08 49 58.9	-1.4
WLF				pmax	pmax		
	comp=Z,146nm,1.4s,mb6.2						
WLF				MLR	MLR		
	comp=Z,74µm,19.0s,MS7.2						
WLF	**Walferdange**	**94.33**	**319**	*e*P	**P**	**08 49 50.7**	**+0.1**
	comp=Z,105nm,1.4s,mb6.1						
WLF				*e*S	S	09 01 08.6	+8.2
WLF	**Walferdange**	**94.33**	**319**	*e*P	**P**	**08 49 50.3**	**-0.4**
	comp=Z,146nm,1.4s,mb6.2						
WLF				*e*	pP	08 49 58.9	-1.4
WLF				LR	LR		
	comp=Z,74µm,19.0s,MS7.2						
MEM	**Membach**	**94.40**	**320**	P	**P**	**08 49 55.0**	**+4.0**
	comp=Z,62nm,2.5s,mb5.6						
CABF	**La Chapelle**	**94.43**	**316**	*e*P	**P**	**08 49 51.0**	**-0.2**
	comp=Z,247nm,1.4s,mb6.1						
CABF	**La Chapelle**	**94.43**	**316**	*e*P	**P**	**08 49 51.0**	**-0.2**
CABF				pmax	pmax		
	comp=Z,123nm,1.4s,mb6.1						
CABF	**La Chapelle**	**94.43**	**316**	*e*P	**P**	**08 49 51.0**	**-0.2**
	comp=Z,123nm,1.4s,mb6.2						
HGN	**Heimansgroeve**	**94.44**	**321**	*e*P	**P**	**08 49 55.8**	**+4.7**
	comp=Z,108nm,1.9s,mb6.0						
HGN	**Heimansgroeve**	**94.44**	**321**	*e*PP	PP	08 53 47.0	+8.2
HGN	**Heimansgroeve**	**94.44**	**321**	*e*SKS	SKSac	09 00 31.0	+6.7
HGN	**Heimansgroeve**	**94.44**	**321**	*e*S	S	09 00 55.7	-5.7
HGN	**Heimansgroeve**	**94.44**	**321**	*e*SP	SP	09 03 00.6	+44
TAVF	**Tavernes**	**94.50**	**313**	*e*P	**P**	**08 49 54.5**	**+2.9**
AKUT	**Akutan**	**94.53**	**36**	*e*P	**P**	**08 49 51.7**	**+0.3**
	comp=Z,102nm,0.8s,mb6.3						
STOF	**St-Etienne Org**	**94.61**	**314**	*e*P	**P**	**08 49 53.4**	**+1.3**
ORIF	**Oris-en-Rattie**	**94.61**	**315**	*e*P	**P**	**08 49 51.9**	**-0.2**
	comp=Z,181nm,1.2s,mb6.1						
ORIF				*e*MLR	MLR		
	comp=Z,92µm,22.2s,MS6.9						
ORIF	**Oris-en-Rattie**	**94.61**	**315**	*e*P	**P**	**08 49 51.9**	**-0.2**
ORIF				pmax	pmax		
	comp=Z,91nm,1.2s,mb6.1						
ORIF	**Oris-en-Rattie**	**94.61**	**315**	*e*P	**P**	**08 49 51.9**	**-0.2**
	comp=Z,90nm,1.2s,mb6.1						
DFRA	**Djebel Bou Aff**	**94.72**	**306**	P	pP	08 50 03.0	+0.6
VILF	**Villemus**	**94.75**	**314**	*e*P	**P**	**08 49 55.3**	**+2.6**
BERF	**Bertagne**	**94.78**	**313**	*e*P	**P**	**08 49 54.2**	**+1.3**
SMRF	**Simiane la Rot**	**94.85**	**314**	*e*P	**P**	**08 49 53.5**	**+0.3**
	comp=Z,183nm,1.4s,mb6.0						
SMRF	**Simiane la Rot**	**94.85**	**314**	*e*P	**P**	**08 49 53.5**	**+0.3**
	comp=Z,183nm,1.4s,mb6.3						
BCLA	**Clavier**	**94.85**	**320**	E		08 50 01.8	
OG05	**Jujurieux**	**94.88**	**316**	*e*P	**P**	**08 49 58.2**	**+4.9**
TAM	**Tamanrasset**	**95.01**	**293**	P	**P**	**08 49 55.0**	**+0.6**
TAM				*e*	pP	08 50 04.5	+0.5
TAM				pmax	pmax		
	comp=Z,81nm,1.6s,mb5.9						
TAM				MLR	MLR		
	comp=Z,54µm,20.0s,MS7.0						
TAM	**Tamanrasset**	**95.01**	**293**	P	**P**	**08 49 55.0**	**+0.6**
	comp=Z,81nm,1.6s,mb5.9						
TAM				*e*	pP	08 50 04.5	+0.5
TAM				LR	LR		
	comp=Z,54µm,20.0s,MS7.0						
MEZF	**Maizieres J'vi**	**95.08**	**318**	*e*P	**P**	**08 49 53.8**	**-0.3**
SET	**Setif**	**95.11**	**306**	P	pP	08 50 04.0	-0.2
PRAF	**Pradon**	**95.14**	**314**	*e*P	**P**	**08 49 57.0**	**+2.5**
GIVF	**Givet**	**95.17**	**320**	*e*P	**P**	**08 49 54.3**	**-0.2**
	comp=Z,53nm,1.0s,mb5.6						
GIVF	**Givet**	**95.17**	**320**	*e*P	**P**	**08 49 54.3**	**-0.2**
GIVF				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.6						
GIVF	**Givet**	**95.17**	**320**	*e*P	**P**	**08 49 54.3**	**-0.2**
	comp=Z,26nm,1.0s,mb5.6						
DOU	**Dourbes**	**95.32**	**320**	P	**P**	**08 49 56.0**	**+0.9**
VIVF	**Saint-Julien-l**	**95.47**	**315**	*e*P	**P**	**08 49 55.6**	**-0.4**
	comp=Z,114nm,1.3s,mb5.8						
VIVF	**Saint-Julien-l**	**95.47**	**315**	*e*P	**P**	**08 49 55.6**	**-0.4**
VIVF				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.8						
VIVF	**Saint-Julien-l**	**95.47**	**315**	*e*P	**P**	**08 49 55.6**	**-0.4**
	comp=Z,57nm,1.3s,mb5.8						
SNF	**Seneffe**	**95.50**	**320**	P	**P**	**08 49 57.6**	**+1.6**
	comp=Z,63nm,2.3s,mb5.6						
SSB	**Saint Sauveur**	**95.55**	**315**	*e*P	**P**	**08 49 57.7**	**+1.4**
SSB				MLR	MLR		
	comp=Z,38µm,20.0s,MS6.9						
BAIF	**Baives**	**95.57**	**320**	*e*P	**P**	**08 49 56.1**	**-0.2**
	comp=Z,139nm,1.2s,mb6.0						
BAIF	**Baives**	**95.57**	**320**	*e*P	**P**	**08 49 56.1**	**-0.2**
BAIF				pmax	pmax		
	comp=Z,69nm,1.2s,mb6.0						
BAIF	**Baives**	**95.57**	**320**	*e*P	**P**	**08 49 56.1**	**-0.2**
	comp=Z,69nm,1.2s,mb6.0						
LOR	**Lormes**	**95.94**	**317**	*e*P	**P**	**08 49 57.6**	**-0.5**
	comp=Z,171nm,1.3s,mb6.0						
LOR				*e*MLR	MLR		
	comp=Z,61µm,22.8s,MS6.7						
LOR	**Lormes**	**95.94**	**317**	*e*P	**P**	**08 49 57.6**	**-0.5**
LOR				pmax	pmax		
	comp=Z,85nm,1.3s,mb6.0						
LOR				MLR	MLR		
	comp=Z,61µm,22.8s,MS7.0						
LOR	**Lormes**	**95.94**	**317**	*e*P	**P**	**08 49 57.6**	**-0.5**
	comp=Z,85nm,1.3s,mb6.0						
LOR				LR	LR		
	comp=Z,61µm,22.8s,MS7.0						
SMF	**Signal de Mont**	**95.98**	**316**	*e*P	**P**	**08 49 57.6**	**-0.7**
	comp=Z,115nm,1.1s,mb5.9						
SMF	**Signal de Mont**	**95.98**	**316**	*e*P	**P**	**08 49 57.6**	**-0.7**
SMF				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.9						
SMF	**Signal de Mont**	**95.98**	**316**	*e*P	**P**	**08 49 57.6**	**-0.7**
	comp=Z,58nm,1.1s,mb5.9						
LASF	**Ste Croix**	**96.08**	**314**	*e*P	**P**	**08 49 58.7**	**-0.1**
	comp=Z,113nm,1.4s,mb5.8						
COLF	**Collangettes**	**96.13**	**315**	*e*P	**P**	**08 50 01.5**	**+2.5**
PLDF	**La Plantade**	**96.16**	**316**	*e*P	**P**	**08 50 06.1**	**+7.0**
SSF	**Saint Saulge**	**96.19**	**317**	*e*P	**P**	**08 49 58.8**	**-0.4**
	comp=Z,115nm,1.5s,mb5.8						
SSF	**Saint Saulge**	**96.19**	**317**	*e*P	**P**	**08 49 58.8**	**-0.4**
SSF				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.8						
SSF	**Saint Saulge**	**96.19**	**317**	*e*P	**P**	**08 49 58.8**	**-0.4**
	comp=Z,57nm,1.5s,mb5.8						
AVF	**Avril sur Loir**	**96.31**	**317**	*e*P	**P**	**08 49 59.1**	**-0.7**
	comp=Z,124nm,1.5s,mb5.8						
AVF	**Avril sur Loir**	**96.31**	**317**	*e*P	**P**	**08 49 59.1**	**-0.7**
AVF				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.8						
AVF	**Avril sur Loir**	**96.31**	**317**	*e*P	**P**	**08 49 59.1**	**-0.7**
	comp=Z,62nm,1.5s,mb5.8						
AKET	**Djebel Ketaf**	**96.34**	**306**	P	**P**	**08 50 06.2**	**+6.0**
LBL	**Lubilhac**	**96.46**	**315**	*e*P	**P**	**08 50 08.1**	**+7.6**
AGO	**Saint Agoulin**	**96.50**	**316**	*e*P	**P**	**08 50 07.7**	**+7.0**
PYM	**Petit Puy Mans**	**96.60**	**316**	*e*P	**P**	**08 50 08.8**	**+7.7**
BGF	**Bois d'Agland**	**96.67**	**316**	*e*P	**P**	**08 50 01.1**	**-0.3**
	comp=Z,323nm,1.6s,mb6.2						
BGF	**Bois d'Agland**	**96.67**	**316**	*e*P	**P**	**08 50 01.1**	**-0.3**
BGF				pmax	pmax		
	comp=Z,161nm,1.6s,mb6.2						
BGF	**Bois d'Agland**	**96.67**	**316**	*e*P	**P**	**08 50 01.1**	**-0.3**
	comp=Z,161nm,1.6s,mb6.2						
ADJB	**Djebel Djouab**	**96.70**	**306**	P	**P**	**08 50 09.4**	**+7.6**
HYF	**Humbligny**	**96.77**	**317**	*e*P	**P**	**08 50 01.8**	**0.0**
MENF	**Mencas**	**96.85**	**320**	*e*P	**P**	**08 50 04.0**	**+1.9**
EJON	**La Jonquera**	**96.86**	**312**	P	**P**	**08 50 09.9**	**+7.5**
	comp=Z,12nm,0.9s,mb5.3						
VERF	**Verneugheol**	**96.97**	**316**	*e*P	**P**	**08 50 05.9**	**+3.1**
ABA	**Alger-Bouzarea**	**97.00**	**307**	P	**P**	**08 50 11.4**	**+8.2**
ETOS	**Mallorca**	**97.05**	**310**	P	**P**	**08 50 11.6**	**+8.3**
	comp=Z,22nm,1.0s,mb5.5						
EMHD	**Djebel Mahouad**	**97.09**	**306**	P	sP	08 50 18.5	+1.9
TCF	**Toulx Ste Croi**	**97.12**	**316**	*e*P	**P**	**08 50 03.3**	**-0.2**
MTLF	**Montolieu**	**97.31**	**313**	*e*P	**P**	**08 50 04.1**	**-0.3**
	comp=Z,226nm,1.7s,mb6.0						
MTLF	**Montolieu**	**97.31**	**313**	*e*P	**P**	**08 50 04.1**	**-0.3**
MTLF				pmax	pmax		
	comp=Z,113nm,1.7s,mb6.0						
MTLF	**Montolieu**	**97.31**	**313**	*e*P	**P**	**08 50 04.1**	**-0.3**
	comp=Z,113nm,1.7s,mb6.0						
CAF	**Calviac**	**97.32**	**315**	*e*P	**P**	**08 50 04.4**	**0.0**
TFO1	**Folkestone**	**97.45**	**321**	*e*P	**P**	**08 50 08.9**	**+4.1**
LRW	**Lerwick**	**97.68**	**330**	*e*P	**P**	**08 50 10.2**	**+4.6**
LRW				AMS	AMS	09 40 38.1	
	comp=Z,93µm,20.1s,MS7.3						
RJF	**Les Rejaudoux**	**97.68**	**315**	*e*P	**P**	**08 50 06.1**	**+0.1**
RJF				*e*MLR	MLR		
	comp=Z,80µm,18.8s,MS6.9						
RJF	**Les Rejaudoux**	**97.68**	**315**	*e*P	**P**	**08 50 06.1**	**+0.1**
RJF				LR	LR		
	comp=Z,80µm,18.8s,MS7.2						
EIBI	**Ibiza**	**98.23**	**309**	P	**P**	**08 50 17.3**	**+8.7**
	comp=Z,32nm,1.1s,mb5.8						
EBNR	**Beni Rached**	**98.23**	**306**	P	pP	08 50 19.0	+0.7
EPOB	**Poblet**	**98.28**	**311**	P	**P**	**08 50 16.2**	**+7.4**
	comp=Z,7.9nm,0.9s,mb5.2						
ETRT	**Tiaret**	**98.47**	**305**	P	pP	08 50 21.0	+1.6
LDF	**La Druitiere**	**98.51**	**319**	*e*P	**P**	**08 50 08.9**	**-0.7**
	comp=Z,53nm,0.9s,mb5.8						
LDF	**La Druitiere**	**98.51**	**319**	*e*P	**P**	**08 50 08.9**	**-0.7**
LDF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.8						
LDF	**La Druitiere**	**98.51**	**319**	*e*P	**P**	**08 50 08.9**	**-0.7**
	comp=Z,26nm,0.9s,mb5.8						
TOA0	**Torodi Ar. Sit**	**98.57**	**283**	P	**P**	**08 50 11.3**	**+0.7**
TORD	**Torodi Ar. Bea**	**98.57**	**283**	P	**P**	**08 50 10.1**	**-0.5**
	comp=Z,0.8nm,0.9s,baz=97,slow=5.6,SNR=3.4						
TORD				PP	PP	08 54 14.6	+2.9
	comp=Z,9.5nm,1.2s,baz=122,slow=4.8,SNR=5.4						
TORD				PKKPbc	PKKPbc	09 06 43.4	+3.5
	comp=Z,2.5nm,0.8s,baz=314,slow=3.1,SNR=5.9						
TORD	**Torodi Ar. Bea**	**98.57**	**283**	P	**P**	**08 50 10.1**	**-0.5**
TORD				PP	PP	08 54 14.6	+2.9
TORD				PKKPbc	PKKPbc	09 06 43.4	+3.5
EANR	**'Ain N'Sour**	**98.60**	**306**	P	pP	08 50 22.5	+2.5
EPF	**Esparros**	**98.70**	**313**	*e*P	**P**	**08 50 09.9**	**-0.8**
RAR	**Rarotonga**	**98.70**	**112**	LR	LR	09 35 26.1	
	comp=Z,71µm,21.9s,MS7.1,baz=261,slow=36						
RAR	**Rarotonga**	**98.70**	**112**	PFAKE		08 50 20.0	+8.8
RAR				LR	LR		
	comp=Z,81µm,22.0s,MS7.2						
FLN	**La Foliniere**	**98.73**	**319**	*e*P	**P**	**08 50 10.0**	**-0.6**
	comp=Z,80nm,1.1s,mb5.9						
FLN				*e*MLR	MLR		
	comp=Z,89µm,21.5s,MS6.9						
FLN	**La Foliniere**	**98.73**	**319**	*e*P	**P**	**08 50 10.0**	**-0.6**
FLN				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.9						
FLN				MLR	MLR		
	comp=Z,89µm,21.5s,MS7.2						
FLN	**La Foliniere**	**98.73**	**319**	*e*P	**P**	**08 50 10.0**	**-0.6**
	comp=Z,40nm,1.1s,mb5.9						
FLN				LR	LR		
	comp=Z,89µm,21.5s,MS7.2						
DAG	**Danmarks Havn**	**98.75**	**348**	⇑*i*P	**P**	**08 50 09.1**	**-1.0**
DAG				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.9						
DAG	**Danmarks Havn**	**98.75**	**348**	⇑*i*P	**P**	**08 50 09.1**	**-1.0**
	comp=Z,40nm,1.1s,mb5.9						
CWF	**Charnwood Fore**	**98.77**	**323**	*e*P	**P**	**08 50 14.6**	**+3.8**
HPK	**Haverah Park**	**98.80**	**324**	*e*P	**P**	**08 50 14.2**	**+3.4**
HPK				AMS	AMS	09 46 59.5	
	comp=Z,64µm,18.6s,MS7.2						
KBI1	**Birley Grange**	**98.84**	**323**	*e*P	**P**	**08 50 15.7**	**+4.7**
ERTA	**Horta de San J**	**98.87**	**311**	P	**P**	**08 50 19.8**	**+8.4**
	comp=Z,18nm,1.1s,mb5.5						
EBIE	**Bielsa**	**98.87**	**313**	P	**P**	**08 50 20.5**	**+9.1**
	comp=Z,7.8nm,1.0s,mb5.2						
IMA2	**Indian Mountai**	**98.88**	**23**	*e*P	**P**	**08 50 10.6**	**-0.3**
IMA2				*e*PP	PP	08 54 16.9	+4.4
WOL	**Wolverton**	**98.90**	**321**	*e*P	**P**	**08 50 15.7**	**+4.4**
LHO	**Holmfirth**	**98.99**	**324**	*e*P	**P**	**08 50 17.0**	**+5.3**
GRR	**Gorron**	**99.02**	**318**	*e*P	**P**	**08 50 11.5**	**-0.4**
	comp=Z,67nm,1.2s,mb5.8						
GRR	**Gorron**	**99.02**	**318**	*e*P	**P**	**08 50 11.5**	**-0.4**
GRR				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.8						
GRR	**Gorron**	**99.02**	**318**	*e*P	**P**	**08 50 11.5**	**-0.4**
	comp=Z,34nm,1.2s,mb5.8						
KWE	**Weaver Farm**	**99.06**	**323**	*e*P	**P**	**08 50 17.5**	**+5.5**
SVW2	**Sparrevohn**	**99.16**	**28**	*e*P	**P**	**08 50 11.0**	**-1.3**
SVW2				*e*PP	PP	08 54 22.1	+7.4
SWN1	**Swindon**	**99.24**	**322**	*e*P	**P**	**08 50 17.5**	**+4.6**
SWN1				AMS	AMS	09 45 16.3	
	comp=Z,58µm,20.1s,MS7.1						
ETSF	**Etsaut**	**99.37**	**313**	*e*P	**P**	**08 50 13.7**	**+0.1**
	comp=Z,44nm,1.1s,mb5.6						
ETSF	**Etsaut**	**99.37**	**313**	*e*P	**P**	**08 50 13.7**	**+0.1**
ETSF				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.6						
ETSF	**Etsaut**	**99.37**	**313**	*e*P	**P**	**08 50 13.7**	**+0.1**
	comp=Z,22nm,1.1s,mb5.6						
EDI	**Edinburgh**	**99.39**	**326**	*e*P	**P**	**08 50 17.5**	**+4.1**
EDI				AMS	AMS	09 41 19.7	
	comp=Z,64µm,21.3s,MS7.1						
ESAC	**San Caprasio**	**99.41**	**312**	P	**P**	**08 50 22.3**	**+8.5**
	comp=Z,27nm,0.9s,mb5.8						
ESK	**Eskdalemuir**	**99.50**	**326**	*e*P	**P**	**08 50 18.8**	**+4.8**
ESK				AMS	AMS	09 41 23.1	
	comp=Z,56µm,21.0s,MS7.0						
ESK	**Eskdalemuir**	**99.50**	**326**	PFAKE		08 50 30.0	+16
ESK				LR	LR		
	comp=Z,72µm,22.0s,MS7.1						
JSA	**Saint Aubin**	**99.78**	**319**	*e*P	Pdif	08 50 18.9	+3.7
SJPF	**Ste Jean**	**99.83**	**313**	*e*P	Pdif	08 50 15.8	+0.4
	comp=Z,82nm,1.4s						
SJPF	**Ste Jean**	**99.83**	**313**	*e*P	Pdif	08 50 15.8	+0.4
SJPF				pmax	pmax		

	comp=Z,41nm,1.4s,mb5.7						
SJPF	**Ste Jean**	**99.83**	**313**	*e*P	Pdif	08 50 15.8	+0.4
	comp=Z,41nm,1.4s						
HGH	**Gray Hill**	**99.84**	**322**	*e*P	Pdif	08 50 20.7	+5.3
COLD	**Coldfoot**	**99.90**	**22**	*e*Pdif	Pdif	08 50 15.7	-0.1
	comp=Z,1µm,2.0s						
COLD				*e*PP	PP	08 54 23.3	+3.0
MCH1	**Michaelchurch**	**99.90**	**322**	*e*P	Pdif	08 50 19.8	+4.0
MCH1				AMS	AMS	09 44 11.6	
	comp=Z,66µm,21.6s,MS7.1						
CHUM	**Lake Minchumin**	**100.00**	**25**	*e*Pdif	Pdif	08 50 16.4	+0.2
	comp=Z,85nm,1.1s						
CHUM				*e*PP	PP	08 54 13.9	-7.2
SOFL	**Sornfelli, Far**	**100.06**	**333**	*e*P	Pdif	08 50 19.7	+3.3
PGBU	**Glenifferbraes**	**100.13**	**326**	*e*P	Pdif	08 50 20.4	+3.7
PGBU				AMS	AMS	09 41 40.3	
	comp=Z,66µm,20.6s,MS7.1						
PPLA	**Purkeypile**	**100.31**	**26**	*e*Pdif	Pdif	08 50 18.1	+0.6
	comp=Z,154nm,1.5s						
GAL1	**Galloway**	**100.43**	**325**	*e*P	Pdif	08 50 23.1	+5.0
GAL1				AMS	AMS	09 43 10.2	
	comp=Z,56µm,19.3s,MS7.1						
KPL	**Plockton**	**100.47**	**328**	*e*P	Pdif	08 50 21.1	+2.8
KPL				AMS	AMS	09 42 16.8	
	comp=Z,96µm,21.7s,MS7.3						
BPAW	**Bear Paw Mtn.**	**100.50**	**25**	*e*Pdif	Pdif	08 50 17.8	-0.6
	comp=Z,742nm,0.9s						
WLF1	**Llynfaes**	**100.53**	**324**	*e*P	Pdif	08 50 23.0	+4.5
ROSF	**Rostrenen**	**100.62**	**319**	*e*P	Pdif	08 50 18.5	-0.4
	comp=Z,50nm,1.1s						
ROSF	**Rostrenen**	**100.62**	**319**	*e*P	Pdif	08 50 18.5	-0.4
ROSF				pmax	pmax		
	comp=Z,25nm,1.1s						
ROSF	**Rostrenen**	**100.62**	**319**	*e*P	Pdif	08 50 18.5	-0.4
	comp=Z,25nm,1.1s						
KTH	**Kantishna Hill**	**100.68**	**25**	*e*Pdif	Pdif	08 50 19.1	-0.1
	comp=Z,58nm,1.1s						
DYA	**Yadsworthy**	**100.73**	**321**	*e*P	Pdif	08 50 24.6	+5.3
DYA				AMS	AMS	09 44 48.0	
	comp=Z,40µm,20.9s,MS6.9						
HTL	**Hartland**	**100.98**	**321**	*e*P	Pdif	08 50 24.7	+4.2
HTL				AMS	AMS	09 46 02.4	
	comp=Z,52µm,18.8s,MS7.1						
KDAK	**Kodiak Island**	**101.38**	**31**	PFAKE		08 50 30.0	+7.7
KDAK				LR	LR		
	comp=Z,144µm,19.0s,MS7.5						
MCK	**McKinley**	**101.48**	**25**	*e*P	Pdif	08 50 21.3	-1.4
MCK				pmax	pmax		
	comp=Z,124nm,1.1s						
MCK	**McKinley**	**101.48**	**25**	*e*Pdif	Pdif	08 50 21.3	-1.4
	comp=Z,124nm,1.1s						
COLA	**College**	**101.56**	**24**	*e*P	Pdif	08 50 24.9	+1.8
COLA				pmax	pmax		
	comp=Z,22nm,1.0s						
COLA				MLR	MLR		
	comp=Z,114µm,19.0s,MS7.4						
COLA	**College**	**101.56**	**24**	*e*Pdif	Pdif	08 50 24.9	+1.8
	comp=Z,22nm,1.0s						
COLA				LR	LR		
	comp=Z,114µm,19.0s,MS7.4						
PMR	**Palmer**	**102.05**	**27**	*e*P	Pdif	08 50 26.3	+1.0
PMR				pmax	pmax		
	comp=Z,19nm,0.8s						
PMR	**Palmer**	**102.05**	**27**	*e*Pdif	Pdif	08 50 26.3	+1.0
	comp=Z,19nm,0.8s						
KIP	**Kipapa**	**102.14**	**69**	PFAKE		08 50 40.0	+14
KIP				LR	LR		
	comp=Z,55µm,20.0s,MS7.1						
ESDC	**Sonseca Array**	**102.27**	**310**	P	Pdif	08 50 26.6	+0.4
	comp=Z,0.3nm,0.3s,baz=297,slow=38,SNR=4.8						
ESDC				PP	PP	08 54 47.7	+8.7
	comp=Z,4.7nm,0.8s,baz=77,slow=7.4,SNR=5.0						
ESDC				PKKPbc	PKKPbc	09 06 37.1	+7.0
	comp=Z,1.2nm,0.5s,baz=300,slow=2.7,SNR=5.6						
SEW	**Seward**	**102.34**	**29**	Pdif	Pdif	08 50 29.8	+3.2
	comp=Z,58nm,1.1s						
SEW				*e*PP	PP	08 54 39.0	+0.2
PAB	**San Pablo**	**102.58**	**310**	PFAKE		08 50 40.0	+12
PAB				LR	LR		
	comp=Z,30µm,20.0s,MS6.8						
SCO	**Scoresbysund**	**102.59**	**343**	*e*P	Pdif	08 50 34.8	+7.1
SCO				*i*		08 54 50.2	
SCO				pmax	pmax		
	comp=Z,9.0nm,1.1s						
SCO				MLR	MLR		
	comp=Z,118µm,22.0s,MS7.4						
SCO	**Scoresbysund**	**102.59**	**343**	*i* P	Pdif	08 50 34.8	+7.1
	comp=Z,8.7nm,1.1s						
SCO				*i*		08 54 50.2	
SCO							
	comp=Z,118µm,22.0s						
SCO	**Scoresbysund**	**102.59**	**343**	*e*P	Pdif	08 50 34.8	+7.1
	comp=Z,8.7nm,1.1s						
SCO				*i*		08 54 50.2	
SCO				LR	LR		
	comp=Z,118µm,22.0s,MS7.4						
XMAS	**Kiritimati**	**102.70**	**88**	PFAKE		08 50 40.0	+12
XMAS				LR	LR		
	comp=Z,51µm,22.0s,MS7.0						
PAX	**Paxson**	**103.21**	**25**	*e*P	Pdif	08 50 33.6	+3.2
PAX				pmax	pmax		
	comp=Z,61nm,1.6s						
PAX	**Paxson**	**103.21**	**25**	*e*Pdif	Pdif	08 50 33.6	+3.2
	comp=Z,61nm,1.6s						
MDT	**Midelt**	**103.56**	**303**	PKKPbc	PKKPbc	09 06 27.2	+1.1
	comp=Z,3.8nm,0.8s,baz=289,slow=2.6,SNR=4.5						
MENT	**Mentasta**	**103.96**	**25**	*e*Pdif	Pdif	08 50 34.8	+1.1
MENT				*e*PP	PP	08 54 51.7	+0.9
PBRG	**Braganca**	**104.05**	**312**	*e*P	Pdif	08 50 46.7	+13
PBRG	**Braganca**	**104.05**	**312**	*e*PP	PP	08 55 06.5	+14
EGAK	**Eagle**	**104.24**	**23**	*e*Pdif	Pdif	08 50 35.9	+0.9
	comp=Z,15nm,1.0s						
EGAK				LR	LR		
	comp=Z,229µm,20.0s,MS7.7						
VAL	**Valentia**	**104.31**	**323**	⇓*i*PP	PP	08 55 07.2	+13
VAL	**Valentia**	**104.31**	**323**	⇓*i*S	Sdif	09 02 35.3	+11
VAL	**Valentia**	**104.31**	**323**	⇓*i*SS	SS	09 09 50.4	+8.9
SHEL	**Horse Pasture**	**104.34**	**253**	PFAKE		08 50 50.0	+15
SHEL				LR	LR		
	comp=Z,83µm,20.0s,MS7.3						
SFS	**San Fernando**	**104.43**	**307**	PFAKE		08 50 50.0	+14
SFS				LR	LR		
	comp=Z,67µm,19.0s,MS7.2						
POHA	**Pohakuloa**	**104.53**	**70**	PFAKE		08 50 50.0	+14
POHA				LR	LR		
	comp=Z,52µm,22.0s,MS7.0						
MTE	**Manteigas**	**104.88**	**311**	*e*P	Pdif	08 50 49.5	+12
MTE	**Manteigas**	**104.88**	**311**	*e*PP	PP	08 55 11.7	+13
MTE				*e*SKS		09 01 16.7	
MTE				*e*LR	LR	09 28 15.1	
	comp=Z,41µm,20.0s						
MTE	**Manteigas**	**104.88**	**311**	PFAKE		08 50 50.0	+12
MTE				LR	LR		
	comp=Z,50µm,20.0s,MS7.0						
PMRV	**Marv??o**	**104.92**	**310**	*e*P	Pdif	08 50 49.6	+12
PMRV	**Marv??o**	**104.92**	**310**	*e*PP	PP	08 55 08.6	+10
PMRV				*e*SKS		09 01 34.3	
PMRV				A		09 50 01.3	
	comp=Z,34µm,18.0s						
DBIC	**Dimbokro**	**104.96**	**276**	Pdiff	Pdif	08 50 41.3	+3.1
	comp=Z,8.0nm,1.2s,baz=18,slow=23,SNR=2.2						
DBIC				PP	PP	08 55 02.1	+2.2
	comp=Z,7.3nm,1.0s,baz=96,slow=7.3,SNR=3.4						
PCAB	**Cabril**	**105.02**	**312**	*e*P	Pdif	08 50 50.6	+12
PCAB	**Cabril**	**105.02**	**312**	*e*PP	PP	08 55 10.6	+11
BORG	**Borgarnes**	**105.15**	**338**	PFAKE		08 55 00.0	+6.9
BORG				LR	LR		
	comp=Z,90µm,21.0s,MS7.3						
INK	**Inuvik**	**105.15**	**18**	*e*P	Pdif	08 50 39.7	+0.7
INK				pmax	pmax		
	comp=Z,34nm,1.0s						
INK	**Inuvik**	**105.15**	**18**	PKKPbc	PKKPbc	09 06 21.1	-1.3
	comp=Z,1.9nm,0.6s,baz=162,slow=1.2,SNR=7.1						
INK				PKKP	PKKPbc	09 06 31.8	+9.4
	comp=Z,6.2nm,0.8s,baz=91,slow=5.3,SNR=12						
INK	**Inuvik**	**105.15**	**18**	*e*Pdif	Pdif	08 50 39.7	+0.6
	comp=Z,34nm,1.0s						
PESTR	**Estremoz**	**105.17**	**310**	*e*P	Pdif	08 50 46.3	+7.2
PESTR	**Estremoz**	**105.17**	**310**	*e*PP	PP	08 55 07.6	+7.0
PESTR				*e*SKS	SKSac	09 01 24.5	+6.7
PESTR				A		10 01 40.6	
	comp=Z,30µm,18.0s						
DAWY	**Dawson**	**105.25**	**23**	*e*Pdif	Pdif	08 50 42.9	+3.4
DAWY				*e*PKPdf	PKiKP	08 54 53.4	+0.1
RTC	**Rabat Centre**	**105.28**	**304**	PFAKE		08 55 10.0	+16
RTC				LR	LR		
	comp=Z,32µm,21.0s,MS6.8						
SUMG	**Summit**	**105.43**	**348**	*e*Pdif	Pdif	08 50 42.3	+2.0
	comp=Z,61nm,1.1s						
PVAQ	**Vaqueiros**	**105.50**	**308**	*e*P	Pdif	08 50 52.4	+12
PVAQ	**Vaqueiros**	**105.50**	**308**	*e*PP	PP	08 55 14.5	+11
PVAQ				*e*SKS	SKSac	09 01 39.0	+20
PBEJ	**Beja**	**105.52**	**309**	*e*P	Pdif	08 50 30.3	-10
PBEJ	**Beja**	**105.52**	**309**	*e*PP	PP	08 55 14.9	+12
EVO	**Evora**	**105.55**	**309**	*e*P	Pdif	08 50 52.1	+11
EVO	**Evora**	**105.55**	**309**	*e*PP	PP	08 55 16.0	+13
EVOP	**Sao Brissos**	**105.63**	**309**	*e*P	Pdif	08 50 44.9	+3.7
EVOP				*e*S	SKSac	09 01 22.7	+2.8
EVOP				*e*SS	SS	09 10 00.6	0.0
EVOP				AMS	AMS	10 05 01.4	
	comp=Z,35µm,26.7s,MS6.8						
EVOP	**Sao Brissos**	**105.63**	**309**	*e*P	Pdif	08 50 44.9	+3.7
EVOP				*e*S	SKSac	09 01 22.7	+2.7
EVOP				*e*SS	SS	09 10 00.6	0.0
PTOM	**Tomar**	**105.67**	**310**	*e*PP	PP	08 55 22.0	+18
PBDV	**Barranco-do-Ve**	**105.69**	**308**	*e*P	Pdif	08 50 48.6	+7.2
PBDV	**Barranco-do-Ve**	**105.69**	**308**	*e*PP	PP	08 55 11.0	+6.4
PBDV				*e*SKS	SKSac	09 01 41.5	+21
MORF	**Marmelete**	**106.25**	**308**	*e*P	Pdif	08 50 55.5	+12
MORF	**Marmelete**	**106.25**	**308**	*e*PP	PP	08 55 20.0	+11
MORF				*e*SKS	SKSac	09 01 42.5	+20
MORF				A		10 00 47.2	
	comp=Z,34µm,18.0s						
MORF	**Marmelete**	**106.25**	**308**	*e*P	Pdif	08 50 54.6	+11
MORF				*e*S	SKSac	09 01 24.9	+2.2
MORF				*e*SS	SS	09 10 09.5	+0.5
PFVI	**Vila Bisbo**	**106.41**	**308**	*e*SKS	SKSac	09 01 37.4	+14
PFVI				*e*LR	LR	09 29 49.2	
PMAFR	**Mafra**	**106.45**	**310**	*e*P	Pdif	08 50 56.8	+12
PMAFR	**Mafra**	**106.45**	**310**	*e*PP	PP	08 55 23.3	+13
PMAFR				*e*SKS	SKSac	09 01 37.0	+13
PMAFR				A		09 51 44.6	
	comp=Z,37µm,18.0s						
RES	**Resolute Bay**	**107.35**	**4**	*e*P	Pdif	08 50 49.3	+0.5
RES				pmax	pmax		
	comp=Z,34nm,1.0s						
RES	**Resolute Bay**	**107.35**	**4**	PP	PP	08 55 15.6	+0.1
	comp=Z,27nm,1.0s,baz=33,slow=3.6,SNR=2.6						
RES	**Resolute Bay**	**107.35**	**4**	*e*Pdif	Pdif	08 50 49.3	+0.4
	comp=Z,34nm,1.0s						
PPT	**Papeete**	**108.72**	**109**	*e*Pdif	Pdif	08 50 56.9	+2.0
	comp=Z,5µm,27.0s						
PPT	**Papeete**	**108.72**	**109**	*e*PP	PP	08 55 25.3	-2.0
	comp=Z,13µm,27.5s						
PPT				*e*Sdif	SKKSac	09 02 44.7	+15
	comp=Z,91µm,26.0s						
PPT	**Papeete**	**108.72**	**109**	*e*PS	PS	09 04 53.2	-0.2
	comp=Z,20µm,25.5s						
PPT				*e*LR	LR	09 26 57.9	
	comp=Z,188µm,24.8s						
PPT	**Papeete**	**108.72**	**109**	*e*Pdif	Pdif	08 50 56.9	+2.0
PPT				*e*PP	PP	08 55 25.3	-2.0
PPT				*e*PS	PS	09 04 53.2	-0.2
PMSA	**Palmer Station**	**111.87**	**187**	PFAKE		08 55 20.0	+14
PMSA				LR	LR		
	comp=Z,63µm,20.0s,MS7.2						
DLBC	**Dease Lake**	**112.02**	**26**	*e*PKPdf	PKiKP	08 55 09.6	+3.5
WRAK	**Wrangell Islan**	**112.06**	**28**	PFAKE		08 55 20.0	+14
WRAK				LR	LR		
	comp=Z,124µm,20.0s,MS7.5						
SFJD	**Kangerlussuaq**	**112.43**	**348**	*e*P	Pdif	08 51 14.6	+3.2
SFJD				*e*		08 55 04.8	
SFJD				*e*		08 55 55.9	
SFJD				MLR	MLR		
	comp=Z,156µm,21.0s,MS7.6						
SFJD	**Kangerlussuaq**	**112.43**	**348**	*i* P	Pdif	08 51 14.6	+3.2
	comp=Z,12nm,0.9s						
SFJD				*e*		08 55 55.9	
SFJD							
	comp=Z,156µm,21.0s						
SFJD	**Kangerlussuaq**	**112.43**	**348**	PKiKP	PKiKP	08 55 04.9	-1.8
	comp=Z,15nm,1.1s,baz=21,slow=10,SNR=3.0						
SFJD				PP	PP	08 55 48.9	-3.4
	comp=Z,18nm,0.9s,baz=25,slow=6.9,SNR=6.8						
SFJD	**Kangerlussuaq**	**112.43**	**348**	*e*P	Pdif	08 51 14.6	+3.2
SFJD				*e*PKPdf	PKiKP	08 55 04.8	-1.9
SFJD				PP	PP	08 55 48.9	-3.4
SFJD				*e*		08 55 55.9	
SFJD				LR	LR		
	comp=Z,156µm,21.0s,MS7.6						
YKA	**Yellowknife Ar**	**114.86**	**17**	P	Pdif	08 51 26.9	+4.7
YKA						08 55 11.1	
YKA						08 56 08.7	
YKA	**Yellowknife Ar**	**114.86**	**17**	Pdiff	Pdif	08 51 26.9	+4.7
	comp=Z,1.3nm,1.0s,baz=324,slow=4.6,SNR=15						
YKA				PKP	PKiKP	08 55 11.0	-0.4
	comp=Z,9.2nm,0.9s,baz=316,slow=2.0,SNR=16						
YKA				PP	PP	08 56 08.7	-0.8
	comp=Z,29nm,0.9s,baz=324,slow=6.8,SNR=12						
YKA				PKKPab	PKKPab	09 05 54.6	-0.2
	comp=Z,1.9nm,0.8s,baz=143,slow=4.4,SNR=9.8						
YKA	**Yellowknife Ar**	**114.86**	**17**	Pdif	Pdif	08 51 26.9	+4.7
YKA				PKP	PKiKP	08 55 11.1	-0.4
YKA				PP	PP	08 56 08.7	-0.8
YKA				PKKPab	PKKPab	09 05 54.6	-0.2
FRB	**Frobisher Bay**	**118.29**	**354**	P	Pdif	08 51 39.9	+2.4
FRB						08 55 17.8	
FRB	**Frobisher Bay**	**118.29**	**354**	Pdiff	Pdif	08 51 39.9	+2.4
FRB				PKP	PKPdf	08 55 17.8	-0.3
	comp=Z,17nm,1.0s,baz=358,slow=2.7,SNR=8.6						
FRB				PP	PP	08 56 28.7	-4.7
	comp=Z,28nm,1.1s,baz=359,slow=3.0,SNR=3.5						
FRB	**Frobisher Bay**	**118.29**	**354**	Pdif	Pdif	08 51 39.9	+2.4
FRB				PKP	PKPdf	08 55 17.8	-0.3
FRB				PP	PP	08 56 28.7	-4.7
CMLA	**Cha da Macela**	**119.04**	**312**	*e*P	Pdif	08 51 43.2	+2.4
CMLA	**Cha da Macela**	**119.04**	**312**	*e*PP	PP	08 56 44.1	+4.3
CMLA	**Cha da Macela**	**119.04**	**312**	PFAKE		08 55 30.0	+10
CMLA				LR	LR		
	comp=Z,32µm,20.0s,MS7.0						
TAOE	**Nuku Hiva Isla**	**119.08**	**101**	*e*PP	PP	08 56 37.4	-3.6
	comp=Z,15µm,26.5s						
TAOE				*e*Sdif	Sdif	09 04 26.4	-1.5
	comp=Z,28µm,27.3s						
TAOE	**Nuku Hiva Isla**	**119.08**	**101**	*e*PS	PS	09 06 28.6	-1.0
	comp=Z,54µm,25.4s						
TAOE				*e*SS	SS	09 13 00.5	-0.2
	comp=Z,77µm,28.4s						
TAOE				*e*LR	LR	09 31 48.2	
	comp=Z,126µm,23.8s						
PDA	**Ponta Delgada**	**119.15**	**312**	*e*PP	PP	08 56 48.0	+7.4
PDA				*e*P		09 06 40.0	
PDA				*e*SS	SS	09 13 00.0	+0.1
PDA				*e*LR	LR	09 32 50.0	
RKT	**Rikitea**	**120.81**	**119**	*e*PP	PP	08 56 52.5	+0.1
	comp=Z,8µm,27.0s						
RKT				*e*Sdif	Sdif	09 04 41.2	-1.1
	comp=Z,29µm,27.5s						
RKT	**Rikitea**	**120.81**	**119**	*e*PS	PS	09 06 43.9	-0.7
	comp=Z,30µm,26.8s						
RKT				*e*SS	SS	09 13 21.1	-1.0
	comp=Z,67µm,30.2s						
RKT				*e*LR	LR	09 32 47.2	
	comp=Z,154µm,25.5s						
PGC	**Sidney**	**120.92**	**32**	*e*PKPdf	PKPdf	08 55 24.7	+1.1
A05A	**Maple Falls**	**121.43**	**31**	⇓P	PKPdf	08 55 24.6	+0.1
	baz=121						
NLWA	**Neilton Lookou**	**121.44**	**33**	⇓P	PKPdf	08 55 25.0	+0.5
	baz=121						
NLWA	**Neilton Lookou**	**121.44**	**33**	*e*PKPdf	PKPdf	08 55 26.4	+1.9
NLWA				LR	LR		
	comp=Z,84µm,21.0s,MS7.4						
A06A	**Chilliwack**	**121.67**	**31**	⇓P	PKPdf	08 55 25.1	+0.1
	baz=121						
B06A	**Marblemount**	**122.04**	**31**	⇓P	PKPdf	08 55 26.1	+0.4
	baz=122						
E03A	**Lebam**	**122.11**	**34**	⇑P	PKPdf	08 55 26.2	+0.4
	baz=122						
D04A	**Dobbs Creek Ra**	**122.20**	**33**	⇑P	PKPdf	08 55 26.5	+0.4
	baz=122						
A07A	**Ashnola River,**	**122.26**	**30**	⇑P	PKPdf	08 55 26.7	+0.6
	baz=122						
EDM	**Edmonton**	**122.46**	**23**	*e*PKIKP	PKPdf	08 55 25.9	-0.4
F03A	**Seaside**	**122.47**	**35**	⇑P	PKPdf	08 55 26.9	+0.3
	baz=122						
D05A	**Enumclaw**	**122.59**	**33**	⇑P	PKPdf	08 55 27.3	+0.5
	baz=122						
C06A	**Tall Timber Ra**	**122.72**	**32**	⇑P	PKPdf	08 55 27.6	+0.6
	baz=122						
B07A	**Winthrop**	**122.77**	**31**	⇑P	PKPdf	08 55 27.6	+0.5
	baz=122						
FCC	**Fort Churchill**	**122.82**	**9**	*e*PKIKP	PKPdf	08 55 26.5	-0.4
EFI	**East Falkland**	**122.89**	**196**	*e*PKIKP	PKPdf	08 55 28.5	+1.3
EFI				MLR	MLR		
	comp=Z,41µm,22.0s,MS7.0						
NLW	**Nelson Butte**	**122.91**	**31**	P	PKPdf	08 55 29.0	+1.6
ERK	**Elk Rock**	**122.93**	**34**	P	PKPdf	08 55 28.6	+1.2
LON	**Longmire**	**122.96**	**33**	*e*PKIKP	PKPdf	08 55 27.5	0.0
F04A	**Amboy**	**123.11**	**34**	⇑P	PKPdf	08 55 28.3	+0.5
	baz=123						
A09A	**Danville**	**123.20**	**29**	⇓P	PKPdf	08 55 28.8	+0.9
	baz=123						
D06A	**Cle Elum**	**123.20**	**32**	⇓P	PKPdf	08 55 28.6	+0.7
	baz=123						
B08A	**Colville Reser**	**123.24**	**30**	⇓P	PKPdf	08 55 28.6	+0.6
	baz=123						
C07A	**Waterville**	**123.30**	**31**	⇑P	PKPdf	08 55 28.3	+0.2
	baz=123						
WTV	**Waterville**	**123.35**	**31**	P	PKPdf	08 55 27.8	-0.4
COR	**Corvallis**	**123.39**	**36**	*e*PKIKP	PKPdf	08 55 30.0	+1.6
COR				*e*		08 57 10.3	
COR				MLR	MLR		
	comp=Z,55µm,21.0s,MS7.2						
ASR	**Mount Adams--S**	**123.44**	**34**	P	PKPdf	08 55 30.7	+2.2
G04A	**Mulino**	**123.51**	**35**	⇑P	PKPdf	08 55 28.8	+0.2
	baz=123						
E06A	**Yakima**	**123.54**	**33**	⇓P	PKPdf	08 55 29.0	+0.4
	baz=123						
D07A	**Quincy**	**123.66**	**32**	⇓P	PKPdf	08 55 29.6	+0.7
	baz=123						
A10A	**Northport**	**123.70**	**29**	⇑P	PKPdf	08 55 29.4	+0.5
	baz=123						
C08A	**Higginbotham F**	**123.76**	**31**	⇑P	PKPdf	08 55 29.2	+0.2
	baz=124						
B09A	**Rice**	**123.79**	**30**	⇓P	PKPdf	08 55 29.7	+0.6
	baz=124						
VLL	**Laurance Lake**	**123.81**	**34**	P	PKPdf	08 55 30.5	+1.3
HOOD	**Mount Hood Mea**	**123.91**	**34**	*e*PKPdf	PKPdf	08 55 31.2	+1.8
H04A	**Detroit Lake**	**123.99**	**35**	⇑P	PKPdf	08 55 30.1	+0.6
	baz=124						
F06A	**Goldendale**	**124.12**	**33**	⇑P	PKPdf	08 55 30.1	+0.3
	baz=124						
E07A	**Sunnyside**	**124.13**	**32**	⇑P	PKPdf	08 55 30.1	+0.4
	baz=124						
C09A	**Chrisman Ranch**	**124.14**	**30**	⇑P	PKPdf	08 55 30.1	+0.3
	baz=124						
G05A	**Wamic**	**124.15**	**34**	⇑P	PKPdf	08 55 30.4	+0.6
	baz=124						
A11A	**Hall Mountain,**	**124.28**	**28**	⇓P	PKPdf	08 55 30.5	+0.5
	baz=124						
D08A	**Wollman Farm,**	**124.30**	**31**	⇓P	PKPdf	08 55 30.5	+0.4
	baz=124						
B10A	**Chitwood Farm,**	**124.32**	**29**	⇓P	PKPdf	08 55 30.6	+0.5
	baz=124						
NEW	**Newport**	**124.40**	**29**	PFAKE		08 55 40.0	+10
NEW				LR	LR		
	comp=Z,96µm,22.0s,MS7.4						
HAWA	**Hanford**	**124.41**	**32**	*e*PKPdf	PKPdf	08 55 30.4	+0.1
HAWA				LR	LR		
	comp=Z,62µm,21.0s,MS7.2						
H2OWA	**Water**	**124.46**	**32**	P	PKPdf	08 55 31.5	+1.1
F07A	**Phinny Hill Vi**	**124.51**	**33**	⇑P	PKPdf	08 55 30.7	+0.2
	baz=124						
G06A	**Carlson Farm,**	**124.53**	**34**	⇓P	PKPdf	08 55 31.0	+0.5
	baz=124						
E08A	**Dider Farm, El**	**124.59**	**32**	⇓P	PKPdf	08 55 30.9	+0.2
	baz=124						
C10A	**Spilker Farm,**	**124.61**	**30**	⇓P	PKPdf	08 55 31.3	+0.6
	baz=124						
D09A	**Jones Farm, Ri**	**124.61**	**31**	⇑P	PKPdf	08 55 31.3	+0.6
	baz=124						
A12A	**Yaak River Ran**	**124.63**	**28**	⇓P	PKPdf	08 55 31.1	+0.4
	baz=124						
B11A	**Sandpoint**	**124.64**	**29**	⇓P	PKPdf	08 55 31.5	+0.8
	baz=124						
HUMO	**Hull Mountain**	**124.72**	**38**	*e*PKPdf	PKPdf	08 55 31.4	+0.4
HUMO				LR	LR		
	comp=Z,79µm,22.0s,MS7.3						
FFC	**Flin Flon**	**124.95**	**15**	*e*PKPdf	PKPdf	08 55 31.1	0.0
FFC				*e*PP	PP	08 57 13.5	-5.3
FFC				LR	LR		
	comp=Z,154µm,20.0s,MS7.7						
B12A	**Libby**	**124.99**	**28**	⇑P	PKPdf	08 55 32.2	+0.9
	baz=125						
H06A	**Lindquist Farm**	**125.01**	**34**	⇑P	PKPdf	08 55 32.6	+1.1
	baz=125						
G07A	**Ruggs Ranch, H**	**125.05**	**33**	⇑P	PKPdf	08 55 32.2	+0.6
	baz=125						
E09A	**Wood Farm, Sta**	**125.06**	**31**	⇑P	PKPdf	08 55 31.8	+0.3
	baz=125						
D10A	**Wagner Farm, O**	**125.14**	**30**	⇓P	PKPdf	08 55 31.9	+0.2
	baz=125						
F08A	**Pendleton**	**125.19**	**32**	⇑P	PKPdf	08 55 32.1	+0.3
	baz=125						
A13A	**Flathead Natio**	**125.20**	**27**	⇓P	PKPdf	08 55 32.1	+0.3
	baz=125						
WALA	**Waterton Lakes**	**125.34**	**27**	*e*PKPdf	PKPdf	08 55 32.3	+0.3
WALA				*e*PP	PP	08 57 31.9	+10
YBH	**Yreka Blue Hor**	**125.36**	**38**	*e*PKIKP	PKPdf	08 55 34.5	+2.2
YBH				*e*		08 57 23.0	
YBH				MLR	MLR		
	comp=Z,42µm,21.0s						
G08A	**Pilot Rock**	**125.42**	**33**	⇓P	PKPdf	08 55 32.7	+0.4
	baz=125						
H07A	**Lands Inn, Kim**	**125.53**	**34**	⇓P	PKPdf	08 55 33.0	+0.5
	baz=125						
I06A	**Prineville**	**125.56**	**35**	⇓P	PKPdf	08 55 33.0	+0.4
	baz=125						
C12B	**Naegeli Ranch,**	**125.58**	**29**	⇓P	PKPdf	08 55 33.2	+0.7
	baz=125						
B13A	**Whitefish**	**125.58**	**28**	⇓P	PKPdf	08 55 32.6	+0.1
	baz=125						
E10A	**Myers Farm, Un**	**125.61**	**31**	⇓P	PKPdf	08 55 32.9	+0.3
	baz=125						
D11A	**Klaveano Farm,**	**125.62**	**30**	⇓P	PKPdf	08 55 32.9	+0.3
	baz=125						
A14A	**Double T Ranch**	**125.62**	**26**	⇓P	PKPdf	08 55 33.2	+0.6
	baz=125						
BSMT	**Bassoo Peak**	**125.81**	**28**	*e*PKPdf	PKPdf	08 55 32.6	-0.3
BSMT				*e*PP	PP	08 57 21.1	-3.8
I07A	**Izee**	**125.88**	**34**	⇑P	PKPdf	08 55 33.6	+0.4
	baz=126						
F10A	**Beach Ranch, E**	**125.89**	**31**	⇑P	PKPdf	08 55 33.7	+0.6
	baz=126						
K05A	**Summer Lake**	**125.90**	**36**	⇓P	PKPdf	08 55 33.5	+0.2
	baz=126						
A15A	**Johnson Ranch,**	**125.92**	**26**	⇓P	PKPdf	08 55 33.6	+0.5
	baz=126						
J06A	**Christmas Vall**	**126.02**	**36**	⇓P	PKPdf	08 55 33.7	+0.2
	baz=126						
C13A	**Hot Springs**	**126.03**	**28**	⇓P	PKPdf	08 55 33.8	+0.5
	baz=126						
G09A	**Cove**	**126.06**	**32**	⇓P	PKPdf	08 55 33.9	+0.4
	baz=126						
H08A	**Prairie City**	**126.07**	**34**	⇓P	PKPdf	08 55 33.8	+0.2
	baz=126						
WDC	**Whiskeytown Da**	**126.11**	**40**	*e*PKIKP	PKPdf	08 55 33.8	+0.1
WDC				*e*		08 57 25.9	
WDC				MLR	MLR		
	comp=Z,76µm,19.0s,MS7.4						
JTMT	**Jette**	**126.12**	**28**	*e*PKPdf	PKPdf	08 55 34.8	+1.2
JTMT				*e*PP	PP	08 57 38.3	+11
E11A	**Bogner Ranch,**	**126.16**	**30**	⇓P	PKPdf	08 55 34.1	+0.4
	baz=126						
YBMT	**Yellow Bay**	**126.16**	**28**	*e*PKPdf	PKPdf	08 55 30.7	-2.9
G10A	**Bishop Farm, J**	**126.40**	**32**	⇑P	PKPdf	08 55 34.4	+0.3
	baz=126						
SWMT	**Swartz Lake**	**126.42**	**28**	*e*PKPdf	PKPdf	08 55 35.1	+1.0
SWMT				*e*PP	PP	08 57 31.3	+2.3
J07A	**Hines**	**126.43**	**35**	⇓P	PKPdf	08 55 34.5	+0.2
	baz=126						
A16A	**West Butte Ran**	**126.44**	**25**	⇓P	PKPdf	08 55 34.2	+0.1
	baz=126,SNR=6.6						
B15A	**Bradely Ranch,**	**126.49**	**26**	⇑P	PKPdf	08 55 34.7	+0.5
	baz=126,SNR=31						
D13A	**Huson**	**126.50**	**29**	⇓P	PKPdf	08 55 34.7	+0.5
	baz=126						
F11A	**Grangeville**	**126.50**	**31**	⇑P	PKPdf	08 55 34.6	+0.3
	baz=126						
I08A	**Drewsey**	**126.51**	**34**	⇑P	PKPdf	08 55 34.9	+0.5
	baz=126						
H09A	**Durkee**	**126.53**	**33**	⇓P	PKPdf	08 55 34.7	+0.3
	baz=126						
BMO	**Blue Mountains**	**126.60**	**32**	*e*PKPdf	PKPdf	08 55 34.5	0.0
BMO				*e*PP	PP	08 57 33.0	+2.7
BMO				LR	LR		
	comp=Z,71µm,20.0s,MS7.3						

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HOPS  Hopland          126.62  41 ePKPdf   PKPdf    08 55 39.4 +4.7
HOPS                               LR      LR
      comp=Z,59µm,21.0s,MS7.2
LBCM  Butte Creek Ri   126.72  39  P       PKPdf    08 55 35.6 +0.7
SCHQ  Schefferville    126.72 350  PKP     PKPdf    08 55 34.1  -0.3
      comp=Z,22nm,1.0s,baz=21,slow=5.0,SNR=19
SCHQ                               PP      PP       08 57 36.8 +6.3
      comp=Z,78nm,1.2s,baz=359,slow=6.9,SNR=3.6
MOD   Modoc            126.74  37 ePKPdf   PKPdf    08 55 35.1 +0.2
MOD                                LR      LR
      comp=Z,66µm,22.0s,MS7.3
B16A  M & M Farms, S   126.80  26 ⇓P       PKPdf    08 55 35.0 +0.2
      baz=126,SNR=25
A17A  Triple J Farms   126.82  25 ⇓P       PKPdf    08 55 35.3 +0.4
      baz=126,SNR=29
SLMT  Seeley Lake      126.86  28 ePKPdf   PKPdf    08 55 33.8  -1.2
SLMT                              ePP      PP       08 57 37.6 +5.8
C15A  Salmond Ranch,   126.87  27 ⇑P       PKPdf    08 55 35.6 +0.6
      baz=127,SNR=41
K07A  Rock Creek Ran   126.89  36 ⇓P       PKPdf    08 55 35.7 +0.5
      baz=127
J08A  Circle Bar Ran   126.92  35 ⇓P       PKPdf    08 55 35.7 +0.5
      baz=127
MSO   Missoula         126.94  29 ePKPdf   PKPdf    08 55 34.7  -0.4
MSO                               ePP      PP       08 57 28.8  -3.7
MSO                                LR      LR
      comp=Z,91µm,19.0s,MS7.5
D14A  Greenough        126.97  28 ⇓P       PKPdf    08 55 35.6 +0.4
      baz=127
F12A  Elk City         127.05  30 ⇑P       PKPdf    08 55 35.8 +0.4
      baz=127
E13A  Victor           127.10  29 ⇓P       PKPdf    08 55 36.1 +0.7
      baz=127,SNR=63
A18A  Metzger Ranch,   127.19  24 ⇑P       PKPdf    08 55 35.7 +0.2
      baz=127,SNR=18
MCCM  Marconi Confer   127.19  42  PFAKE            08 55 50.0  +14
MCCM                               LR      LR
      comp=Z,46µm,22.0s,MS7.1
CHMT  Chamberlain Mo   127.21  28  P       PKPdf    08 55 35.8 +0.1
C16A  Fuhringer Ranc   127.24  26 ⇓P       PKPdf    08 55 36.3 +0.6
      baz=127,SNR=20
L07A  Adell            127.24  36 ⇑P       PKPdf    08 55 36.6 +0.7
      baz=127
B17A  L&G Farms, Che   127.28  25 ⇑P       PKPdf    08 55 36.1 +0.4
      baz=127,SNR=15
K08A  Mann Creek Ran   127.30  35 ⇑P       PKPdf    08 55 36.1 +0.1
      baz=127
J09A  Fry Pan Ranch,   127.33  34 ⇑P       PKPdf    08 55 36.5 +0.5
      baz=127,SNR=11
I10A  Payette          127.37  33 ⇓P       PKPdf    08 55 35.9  -0.1
      baz=127
H11A  Donnelly         127.38  32 ⇑P       PKPdf    08 55 36.4 +0.3
      baz=127,SNR=15
WVOR  Wild Horse Val   127.40  36 ePKIKP   PKPdf    08 55 36.8 +0.6
WVOR                              e                 08 57 39.9
WVOR                               MLR     MLR
      comp=Z,83µm,21.0s,MS7.4
E14A  Clinton          127.45  29 ⇑P       PKPdf    08 55 36.4 +0.3
      baz=127,SNR=26
D15A  Lincoln          127.45  28 ⇓P       PKPdf    08 55 36.5 +0.4
      baz=127,SNR=21
F13A  Darby            127.49  30 ⇓P       PKPdf    08 55 36.3 +0.1
      baz=127
B18A  Beardsley Farm   127.63  25 ⇓P       PKPdf    08 55 36.5 +0.1
      baz=127,SNR=14
N06A  Buffalo Meadow   127.70  38 ⇑P       PKPdf    08 55 37.0 +0.2
      baz=128,SNR=29
L08A  Fields           127.72  36 ⇑P       PKPdf    08 55 36.8   0.0
      baz=128,SNR=27
M07A  Soldier Meadow   127.73  37 ⇑P       PKPdf    08 55 36.8   0.0
      baz=128,SNR=26
K09A  Rome             127.76  35 ⇓P       PKPdf    08 55 37.1 +0.3
      baz=128,SNR=47
C17A  Wharram Farm,    127.80  26 ⇓P       PKPdf    08 55 36.9 +0.2
      baz=128,SNR=22
J10A  Berg Farm, Mel   127.82  33 ⇑P       PKPdf    08 55 36.8  -0.2
      baz=128
E15A  Deer Lodge       127.85  28 ⇑P       PKPdf    08 55 37.4 +0.5
      baz=128,SNR=11
D16A  Dana Ranch, Ca   127.91  27 ⇓P       PKPdf    08 55 37.4 +0.4
      baz=128,SNR=45
EGMT  Eagleton         127.93  25 ⇓P       PKPdf    08 55 37.0   0.0
      baz=128,SNR=17
EGMT  Eagleton         127.93  25  PFAKE            08 55 50.0  +13
EGMT                               LR      LR
      comp=Z,129µm,21.0s,MS7.6
I11A  Placerville      127.94  32 ⇑P       PKPdf    08 55 37.6 +0.5
      baz=128
F14A  Wisdom           127.95  29 ⇓P       PKPdf    08 55 37.5 +0.4
      baz=128,SNR=8.0
HRY   Holter Researc   128.02  27 ePKPdf   PKPdf    08 55 38.6 +1.4
HRY                               ePP      PP       08 57 38.4  -1.0
G13A  Cobalt           128.03  30 ⇓P       PKPdf    08 55 37.5 +0.2
      baz=128
O06A  Flanigan         128.05  38 ⇓P       PKPdf    08 55 37.8 +0.3
      baz=128,SNR=14
H12A  Diamond D Ranc   128.09  31 ⇓P       PKPdf    08 55 38.0 +0.6
      baz=128,SNR=21
M08A  Happy Creek Ra   128.16  36 ⇑P       PKPdf    08 55 38.2 +0.5
      baz=128,SNR=24
K10A  MacKenzie Ranc   128.19  34 ⇑P       PKPdf    08 55 38.0 +0.3
      baz=128,SNR=11
D17A  Six Diamond Ra   128.20  26 ⇑P       PKPdf    08 55 38.3 +0.8
      baz=128,SNR=30
N07B  Gerlach          128.21  37 ⇑P       PKPdf    08 55 38.0 +0.3
      baz=128,SNR=9.6
E16A  East Helena      128.22  27 ⇓P       PKPdf    08 55 37.9 +0.3
      baz=128,SNR=12
L09A  Wilkinson Ranc   128.22  35 ⇑P       PKPdf    08 55 38.1 +0.4
      baz=128,SNR=22
P06A  Stead Airport,   128.29  39 ⇑P       PKPdf    08 55 38.5 +0.6
      baz=128,SNR=13
G14A  Jackson          128.31  30 ⇑P       PKPdf    08 55 38.7 +0.9
      baz=128,SNR=21
MFID  Camas Ranch      128.35  33 ⇑P       PKPdf    08 55 38.9 +0.9
      baz=128,SNR=21
F15A  Butte            128.35  29 ⇑P       PKPdf    08 55 38.5 +0.7
      baz=128,SNR=14
LRM   Limekiln Ridge   128.38  29 ePKPdf   PKPdf    08 55 38.6 +0.7
LRM                               ePP      PP       08 57 46.7 +4.8
H13A  Challis          128.39  31 ⇑P       PKPdf    08 55 38.9 +1.0
      baz=128,SNR=30
I12A  Atlanta          128.46  32 ⇑P       PKPdf    08 55 39.2 +1.1
      baz=128,SNR=16
D18A  Linhart Farms,   128.55  26 ⇓P       PKPdf    08 55 39.1 +0.9
      baz=128,SNR=10.0
WCN   Washoe City      128.60  39 ⇓P       PKPdf    08 55 38.5   0.0
      baz=128
O07A  Toulon           128.64  38 ⇓P       PKPdf    08 55 38.8 +0.2
      baz=128,SNR=12
DLMT  Dillon           128.65  29 ePKPdf   PKPdf    08 55 38.3  -0.1
DLMT                              ePP      PP       08 57 47.6 +3.9
E17A  Martinsdale      128.65  27 ⇓P       PKPdf    08 55 38.8 +0.4
      baz=128
K11A  Parker Ranch,    128.66  34 ⇑P       PKPdf    08 55 39.2 +0.6
      baz=128,SNR=11
N08A  GE Springer Mi   128.72  37 ⇓P       PKPdf    08 55 38.9 +0.2
      baz=128,SNR=22
M09A  Marrel Ranch,    128.72  36 ⇓P       PKPdf    08 55 38.9 +0.2
      baz=128
F16A  Kennard Place,   128.80  28 ⇓P       PKPdf    08 55 39.3 +0.6
      baz=128,SNR=13
G15A  Dillon           128.84  29 ⇑P       PKPdf    08 55 39.0 +0.2
      baz=129,SNR=32
J12A  Stokes Ranch,    128.85  33 ⇓P       PKPdf    08 55 39.4 +0.5
      baz=129,SNR=10.0
L10A  Juniper Basin    128.87  35 ⇓P       PKPdf    08 55 39.2 +0.3
      baz=129,SNR=28
SAO   San Andreas Ge   128.89  43 ePKIKP   PKPdf    08 55 37.4  -1.8
SAO                                MLR     MLR
      comp=Z,52µm,20.0s,MS7.2
BOZ   Bozeman (W)      128.90  28 ⇓P       PKPdf    08 55 38.8  -0.1
      baz=129,SNR=18
BOZ   Bozeman (W)      128.90  28 ePKPdf   PKPdf    08 55 39.5 +0.6
BOZ                               ePP      PP       08 57 47.3 +2.0
BOZ                                LR      LR
      comp=Z,86µm,20.0s,MS7.4
CMB   Columbia Colle   128.91  41 ePKIKP   PKPdf    08 55 39.8 +0.6
CMB                               e                 08 57 43.5
CMB                                MLR     MLR
      comp=Z,73µm,21.0s,MS7.3
MCMT  McKenzie Canyo   128.91  30 ePKPdf   PKPdf    08 55 38.7  -0.3
I13A  Wildhorse Cree   128.91  31 ⇑P       PKPdf    08 55 39.4 +0.4
      baz=129,SNR=12
E18A  Harlowton        128.99  26 ⇓P       PKPdf    08 55 38.9  -0.1
      baz=129
HLID  Hailey           129.00  32 ⇑P       PKPdf    08 55 39.6 +0.4
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      baz=129,SNR=8.0
HLID  Hailey           129.00  32 ePKPdf   PKPdf    08 55 40.4 +1.2
HLID                               LR      LR
      comp=Z,117µm,22.0s,MS7.5
P07A  Fallon           129.00  39 ⇓P       PKPdf    08 55 39.3   0.0
      baz=129
O08A  Rochester Mine   129.00  37 ⇑P       PKPdf    08 55 39.6 +0.4
      baz=129
N09A  Rock Creek Ran   129.04  36 ⇑P       PKPdf    08 55 39.5 +0.2
      baz=129,SNR=27
G16A  Moss Hill, Enn   129.13  29 ⇑P       PKPdf    08 55 39.9 +0.5
      baz=129,SNR=28
F17A  Fitzpatrick Pl   129.16  27 ⇓P       PKPdf    08 55 39.4   0.0
      baz=129,SNR=14
H15A  Lima             129.16  30 ⇑P       PKPdf    08 55 40.0 +0.5
      baz=129,SNR=11
M10A  I.L. Ranch, Tu   129.19  35 ⇑P       PKPdf    08 55 40.0 +0.5
      baz=129,SNR=7.7
L11A  Cat Creek Ranc   129.21  34 ⇓P       PKPdf    08 55 40.1 +0.5
      baz=129,SNR=24
R06C  Coleville        129.24  40 ⇑P       PKPdf    08 55 40.2 +0.4
      baz=129
J13A  Cove Ranch, Pi   129.24  32 ⇓P       PKPdf    08 55 39.8 +0.2
      baz=129,SNR=24
I14A  Mackay           129.25  31 ⇓P       PKPdf    08 55 39.8 +0.2
      baz=129
K12A  Draper Farm, C   129.37  33 ⇓P       PKPdf    08 55 40.6 +0.7
      baz=129,SNR=9.7
Q07A  Schurz           129.41  39 ⇑P       PKPdf    08 55 40.3 +0.2
      baz=129
P08A  Dixie Valley     129.41  38 ⇑P       PKPdf    08 55 40.3 +0.2
      baz=129
BMN   Battle Mountai   129.48  37 ePKIKP   PKPdf    08 55 42.5 +2.3
BMN                                MLR     MLR
      comp=Z,68µm,20.0s,MS7.3
G17A  Pierce Place,    129.56  28 ⇑P       PKPdf    08 55 40.8 +0.6
      baz=129,SNR=12
F18A  Big Timber       129.59  27 ⇑P       PKPdf    08 55 40.9 +0.7
      baz=129
J14A  Carey            129.64  31 ⇓P       PKPdf    08 55 40.8 +0.4
      baz=129,SNR=9.9
L12A  House Creek Ra   129.64  34 ⇓P       PKPdf    08 55 40.6 +0.2
      baz=129,SNR=23
O09A  Fish Creek Ran   129.66  37 ⇑P       PKPdf    08 55 40.9 +0.3
      baz=129
M11A  Holland Ranch,   129.68  35 ⇓P       PKPdf    08 55 40.8 +0.3
      baz=129,SNR=11
I15A  Monteview        129.69  30 ⇓P       PKPdf    08 55 40.8 +0.3
      baz=129,SNR=11
GCMT  Greycliff        129.69  27 ePKPdf   PKPdf    08 55 38.4  -2.0
N10A  Dunphy           129.72  36 ⇓P       PKPdf    08 55 40.7   0.0
      baz=130
DGMT  Dagmar           129.72  21 ⇑P       PKPdf    08 55 40.5 +0.1
      baz=129
DGMT  Dagmar           129.72  21 ePKPdf   PKPdf    08 55 41.0 +0.7
DGMT                              ePP      PP       08 57 49.8  -0.6
DGMT                               LR      LR
      comp=Z,148µm,20.0s,MS7.7
H16A  Russell Place,   129.78  29 ⇓P       PKPdf    08 55 40.7 +0.1
      baz=130
K13A  Stover Farm, H   129.81  32 ⇑P       PKPdf    08 55 41.2 +0.5
      baz=130,SNR=8.4
YMR   Madison River    129.94  29 ePKPdf   PKPdf    08 55 42.3 +1.4
YMR                               ePP      PP       08 57 50.1  -2.0
O10A  Cortez Mining,   130.00  36 ⇓P       PKPdf    08 55 41.6 +0.5
      baz=130
NVAR  Mina Array Bea   130.03  39  PKhKP            08 55 35.6
      comp=Z,1.8nm,0.7s,baz=294,slow=1.9,SNR=4.2
NVAR                               PKP     PKPdf    08 55 42.5 +1.3
      comp=Z,38nm,1.0s,baz=288,slow=1.7,SNR=21
NVAR                               PP      PP       08 57 59.3 +6.2
      comp=Z,25nm,1.1s,baz=283,slow=4.2,SNR=4.1
YNR   Norris Junctio   130.04  28 ePKPdf   PKPdf    08 55 42.1 +1.0
P09A  Austin           130.07  38 ⇓P       PKPdf    08 55 41.5 +0.2
      baz=130
G18A  Lazy EL Ranch,   130.11  27 ⇑P       PKPdf    08 55 41.5 +0.3
      baz=130
N11A  Elko Archery C   130.11  35 ⇓P       PKPdf    08 55 41.8 +0.5
      baz=130
J15A  Blackfoot        130.14  31 ⇓P       PKPdf    08 55 41.6 +0.2
      baz=130,SNR=21
MLAC  Mammoth Lakes    130.15  41 ⇑P       PKPdf    08 55 41.8 +0.3
      baz=130
YFT   Old Faithful     130.17  29 ePKPdf   PKPdf    08 55 44.4 +3.1
R08A  Mina             130.20  39 ⇓P       PKPdf    08 55 41.6   0.0
      baz=130
L13A  Double Diamond   130.26  33 ⇑P       PKPdf    08 55 41.7 +0.1
      baz=130,SNR=9.7
I16A  Newdale          130.27  30 ⇑P       PKPdf    08 55 42.1 +0.5
      baz=130,SNR=9.5
LKWY  Lake             130.29  28 ePKIKP   PKPdf    08 55 44.1 +2.5
LKWY                               MLR     MLR
      comp=Z,192µm,19.0s,MS7.8
H17A  Grant Village    130.33  29 ⇑P       PKPdf    08 55 42.0 +0.3
      baz=130
K14A  Jones Ranch, D   130.36  32 ⇓P       PKPdf    08 55 42.2 +0.4
      baz=130
RLMT  Red Lodge        130.39  27 ⇓P       PKPdf    08 55 42.3 +0.6
      baz=130
RLMT  Red Lodge        130.39  27 ePKPdf   PKPdf    08 55 41.7   0.0
RLMT                              ePP      PP       08 58 02.8 +7.9
RLMT                               LR      LR
      comp=Z,136µm,20.0s,MS7.6
ELK   Elko             130.44  35 ePKIKP   PKPdf    08 55 42.9 +0.9
ELK                                MLR     MLR
      comp=Z,94µm,21.0s
P10A  Eureka           130.44  37 ⇑P       PKPdf    08 55 42.3 +0.3
      baz=130,SNR=16
LAO   LASA Array       130.44  23 ePKPdf   PKPdf    08 55 41.8   0.0
LAO                                LR      LR
      comp=Z,102µm,22.0s,MS7.5
N12A  Clover Valley,   130.48  35 ⇓P       PKPdf    08 55 42.5 +0.4
      baz=130
N12A  Clover Valley,   130.48  35 ePKPdf   PKPdf    08 55 42.9 +0.9
Q09A  Carvers          130.49  38 ⇓P       PKPdf    08 55 42.6 +0.4
      baz=130
IMW   Indian Meadow    130.53  29 ePKPdf   PKPdf    08 55 43.7 +1.7
ULM   Lac du Bonnet    130.56  13  PKhKP            08 55 26.4
      comp=Z,3.1nm,1.0s,baz=324,slow=3.7,SNR=2.3
ULM                                PKP     PKPdf    08 55 41.4  -0.5
      comp=Z,34nm,0.9s,baz=340,slow=2.7,SNR=15
ULM                                PP      PP       08 58 08.7  +13
      comp=Z,27nm,1.0s,baz=342,slow=7.4,SNR=3.5
ULM                                SKPbc   SKPbc    08 59 02.4  -1.2
      comp=Z,18nm,1.0s,baz=271,slow=5.0,SNR=1.7
ULM                                SKKPbc           09 08 40.5
      comp=Z,6.5nm,1.0s,baz=135,slow=4.8,SNR=3.4
ULM   Lac du Bonnet    130.56  13  PKP     PKPdf    08 55 41.4  -0.5
ULM                                PP      PP       08 58 08.7  +13
ULM                                SKPbc   SKPbc    08 59 02.4  -1.2
ULM                                SKKPbc           09 08 40.5
O11A  Cowboy Ranch,    130.59  36 ⇑P       PKPdf    08 55 42.4 +0.1
      baz=130
K15A  Arbon            130.60  31 ⇑P       PKPdf    08 55 42.2   0.0
      baz=130,SNR=12
DCID1 Drake Creek      130.63  30 ePKPdf   PKPdf    08 55 43.3 +1.1
M13A  Montello         130.64  34 ⇓P       PKPdf    08 55 42.3  -0.1
      baz=130
M13A  Montello         130.64  34 ePKPdf   PKPdf    08 55 43.6 +1.3
J16A  Bone             130.65  30 ⇓P       PKPdf    08 55 42.3   0.0
      baz=130
SMMC  Simmler          130.65  44 ⇓P       PKPdf    08 55 42.8 +0.2
      baz=130
L14A  Malta            130.68  33 ⇓P       PKPdf    08 55 42.1  -0.3
      baz=130
I17A  Pilgrim Ck.      130.69  29 ⇑P       PKPdf    08 55 42.1  -0.3
      baz=130
MOOW  Moose Ponds      130.73  29 ePKPdf   PKPdf    08 55 43.3 +0.9
RRI2  Red Ridge        130.74  30 ePKPdf   PKPdf    08 55 42.2  -0.3
RRI2                              ePP      PP       08 58 00.3 +2.9
TPAW  Teton Pass       130.82  30 ePKPdf   PKPdf    08 55 41.3  -1.3
TPAW                              ePP      PP       08 58 03.5 +5.7
TIN   Tinemaha         130.88  41 ⇓P       PKPdf    08 55 43.3 +0.4
      baz=131
LOHW  Long Hollow      130.90  29 ePKPdf   PKPdf    08 55 43.9 +1.1
LOHW                              ePP      PP       08 58 10.4  +12
P11A  Circle Ranch,    130.91  37 ⇑P       PKPdf    08 55 42.5  -0.4
      baz=131
R09A  Tonopah          130.92  39 ⇑P       PKPdf    08 55 42.9   0.0
      baz=131
SNOW  Snow King Moun   130.94  29 ePKPdf   PKPdf    08 55 44.6 +1.7
SNOW                              ePP      PP       08 57 59.5 +0.9
N13A  Wendover, West   130.95  34 ⇑P       PKPdf    08 55 43.2 +0.2
      baz=131
N13A  Wendover, West   130.95  34 ePKPdf   PKPdf    08 55 43.5 +0.5
REDW  Red Top Meadow   130.96  30 ePKPdf   PKPdf    08 55 44.4 +1.5
REDW                              ePP      PP       08 58 04.4 +5.6
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Q10A  Clear Creek Ra   130.97  38 ⇓P       PKPdf    08 55 43.6 +0.5
      baz=131
K16A  Soda Springs     130.98  31 ⇑P       PKPdf    08 55 43.3 +0.4
      baz=131
M14A  Sheep Mountain   130.99  33 ⇑P       PKPdf    08 55 43.5 +0.5
      baz=131
VES   Vestal, Richgr   130.99  43 ⇑P       PKPdf    08 55 43.6 +0.4
      baz=131
J17A  Brown Place, J   131.03  30 ⇑P       PKPdf    08 55 43.4 +0.4
      baz=131
O12A  Currie           131.04  35 ⇓P       PKPdf    08 55 43.5 +0.3
      baz=131
HVU   Hansel Valley    131.11  32 ePKIKP   PKPdf    08 55 45.4 +2.2
HVU                               e                 08 58 08.0
S09A  Goldfield        131.13  39 ⇓P       PKPdf    08 55 43.7 +0.3
      baz=131
L15A  Malad City       131.16  32 ⇑P       PKPdf    08 55 43.7 +0.3
      baz=131
I18A  Diamond G Ranc   131.21  29 ⇓P       PKPdf    08 55 44.1 +0.8
      baz=131
AHID  Auburn Hatcher   131.28  30 ePKPdf   PKPdf    08 55 48.3 +4.7
AHID                               LR      LR
      comp=Z,126µm,20.0s,MS7.6
CWC   Cottonwood Cre   131.33  41 ⇑P       PKPdf    08 55 44.7 +0.8
      baz=131
R10A  Warm Springs     131.37  38 ⇑P       PKPdf    08 55 44.2 +0.4
      baz=131
K17A  Gardner Place,   131.38  30 ⇓P       PKPdf    08 55 43.6  -0.1
      baz=131
S10A  Tonopah Range,   131.41  39 ⇑P       PKPdf    08 55 44.2 +0.3
      baz=131
Q11A  Duckwater        131.41  37 ⇑P       PKPdf    08 55 44.1 +0.2
      baz=131
GRAC  Grapevine Rang   131.47  40 ⇓P       PKPdf    08 55 44.1 +0.1
      baz=131
J18A  Kendall Valley   131.48  29 ⇓P       PKPdf    08 55 44.6 +0.7
      baz=131
ISA   Isabella         131.50  42 ⇓P       PKPdf    08 55 44.2   0.0
      baz=131
ISA   Isabella         131.50  42 ePKPdf   PKPdf    08 55 43.7  -0.5
M15A  Larsen Ranch,    131.50  32 ⇑P       PKPdf    08 55 44.0   0.0
      baz=131
N14A  Grayback Hills   131.53  34 ⇑P       PKPdf    08 55 44.2 +0.1
      baz=131
ARVC  Arvin            131.56  43 ⇑P       PKPdf    08 55 44.6 +0.3
      baz=131
BGU   Big Grassy Mou   131.56  33 ePKPdf   PKPdf    08 55 45.2 +1.0
O13A  Hicks Ranch, I   131.56  35 ⇑P       PKPdf    08 55 44.3 +0.2
      baz=131
BSC   Santa Cruz Isl   131.61  45 ⇓P       PKPdf    08 55 44.3  -0.1
      baz=131
SPUT  South Promonto   131.61  33 ePKPdf   PKPdf    08 55 45.0 +0.8
COYC  Coyhaique        131.62 188 eP       PKPdf    08 55 42.3  -1.8
COYC  Coyhaique        131.62 188 eP       PKPdf    08 55 42.3  -1.8
L16A  Fish Haven       131.65  31 ⇓P       PKPdf    08 55 44.7 +0.5
      baz=131
DAC   Darwin (Calif)   131.74  41  PFAKE            08 56 00.0  +15
DAC                                LR      LR
      comp=Z,55µm,21.0s,MS7.2
R11A  Troy Canyon, C   131.77  38 ⇑P       PKPdf    08 55 45.3 +0.7
      baz=132
Q12A  Willow Creek R   131.79  37 ⇑P       PKPdf    08 55 44.8 +0.2
      baz=132
N15A  Stansbury Isla   131.87  33 ⇓P       PKPdf    08 55 44.9 +0.2
      baz=132
L17A  Cokeville        131.88  31 ⇑P       PKPdf    08 55 45.4 +0.7
      baz=132
K18A  Toltan Ranch,    131.90  30 ⇓P       PKPdf    08 55 45.0 +0.3
      baz=132
MPMC  Manual Prospec   131.94  41 ⇑P       PKPdf    08 55 45.4 +0.4
      baz=132
P13A  Bates Ranch, G   131.99  36 ⇑P       PKPdf    08 55 45.1 +0.1
      baz=132
BW06  Boulder Array    132.04  29 ⇓P       PKPdf    08 55 45.2 +0.2
      baz=132
BW06  Boulder Array    132.04  29 ePKPdf   PKPdf    08 55 36.2  -8.8
BW06                               LR      LR
      comp=Z,69µm,20.0s,MS7.4
PDAR  Pinedale Array   132.04  29  PKhKP            08 55 34.7
      comp=Z,2.2nm,0.9s,baz=91,slow=1.5,SNR=3.9
PDAR                               PKP     PKPdf    08 55 42.1  -2.9
      comp=Z,8.6nm,1.1s,baz=84,slow=2.8,SNR=9.2
PDAR                               PP      PP       08 58 12.1 +6.4
      comp=Z,51nm,1.1s,baz=326,slow=2.1,SNR=9.1
PDAR                               SKP              08 59 18.5
      comp=Z,11nm,0.8s,baz=94,slow=0.7,SNR=4.1
PDAR                               SKKPbc           09 08 29.9
      comp=Z,4.2nm,1.0s,baz=104,slow=3.7,SNR=3.8
PDAR  Pinedale Array   132.04  29  PKP     PKPdf    08 55 42.1  -2.9
PDAR                               PP      PP       08 58 12.1 +6.4
PDAR                               SKP              08 59 18.5
PDAR                               SKKPbc           09 08 29.9
M16A  Huntsville       132.05  32 ⇑P       PKPdf    08 55 45.3 +0.3
      baz=132
SNCC  San Nicolas Is   132.07  46 ⇑P       PKPdf    08 55 45.5 +0.1
      baz=132
S11A  Rachel           132.11  39 ⇓P       PKPdf    08 55 45.3   0.0
      baz=132
FURC  Furnace Creek,   132.11  41 ⇑P       PKPdf    08 55 45.4 +0.1
      baz=132
LRMC  Laurel Mountai   132.14  42 ⇑P       PKPdf    08 55 44.9  -0.4
      baz=132
DUG   Dugway           132.18  34 ⇓P       PKPdf    08 55 45.5 +0.2
      baz=132
DUG   Dugway           132.18  34 ePKPdf   PKPdf    08 55 44.8  -0.5
DUG                                LR      LR
      comp=Z,97µm,22.0s,MS7.5
NOQ   North Oquirrh    132.25  33 ePKPdf   PKPdf    08 55 46.7 +1.3
EDW2  Edwards Air Fo   132.27  43 ⇑P       PKPdf    08 55 45.8 +0.2
      baz=132
O15A  The Old Anders   132.31  34 ⇓P       PKPdf    08 55 45.3  -0.2
      baz=132
Q13A  Wheeler Ranch,   132.32  36 ⇓P       PKPdf    08 55 45.6  -0.1
      baz=132
K19A  Absolon Red Bu   132.34  29 ⇑P       PKPdf    08 55 45.8 +0.3
      baz=132
R12A  Pony Springs,    132.38  37 ⇑P       PKPdf    08 55 46.2 +0.4
      baz=132
AGMN  Agassiz Refuge   132.38  14 ePKPdf   PKPdf    08 55 40.9  -4.6
AGMN                              ePP      PP       08 58 06.4  -1.0
AGMN                               LR      LR
      comp=Z,161µm,21.0s,MS7.7
L18A  Fontenelle, Gr   132.43  30 ⇑P       PKPdf    08 55 45.9 +0.2
      baz=132
M17A  Scullys Gap (B   132.44  31 ⇓P       PKPdf    08 55 46.3 +0.5
      baz=132
P14A  Drum Mountains   132.45  35 ⇑P       PKPdf    08 55 46.5 +0.6
      baz=132
N16A  Rees Ranch, Co   132.45  32 ⇑P       PKPdf    08 55 46.2 +0.4
      baz=132
U10A  Ash Meadows, A   132.48  40 ⇓P       PKPdf    08 55 47.4 +1.4
      baz=132
MWC   Mount Wilson     132.59  44 ePKIKP   PKPdf    08 55 49.7 +3.4
L19A  Farson           132.64  30 ⇓P       PKPdf    08 55 47.4 +1.3
      baz=132
S12A  Delamar Landin   132.69  38 ⇑P       PKPdf    08 55 46.9 +0.6
      baz=132
T11A  Corn Creek, Al   132.69  39 ⇑P       PKPdf    08 55 46.9 +0.6
      baz=132
K20A  Yellowstone Ra   132.71  28 ⇑P       PKPdf    08 55 46.8 +0.6
      baz=132
N17A  Moffit Pass      132.73  32 ⇓P       PKPdf    08 55 46.2  -0.1
      baz=132
Q14A  Sevier Lake (B   132.73  36 ⇓P       PKPdf    08 55 46.6 +0.2
      baz=132
NLU   North Lily Min   132.76  34 ePKPdf   PKPdf    08 55 47.4 +1.0
M18A  Lyman            132.78  31 ⇑P       PKPdf    08 55 46.6 +0.2
      baz=132
CIS   Catalina Islan   132.79  45 ⇓P       PKPdf    08 55 46.8 +0.1
      baz=132
SHOC  Shoshone         132.82  41 ⇓P       PKPdf    08 55 47.2 +0.5
      baz=133
GSC   Goldstone        132.83  42 ⇑P       PKPdf    08 55 46.5  -0.1
      baz=133
GSC   Goldstone        132.83  42 ePKPdf   PKPdf    08 55 44.3  -2.3
BFSC  Mount Baldy St   132.85  44 ⇓P       PKPdf    08 55 47.2 +0.5
      baz=133
R13A  O'Grain Ranch,   132.86  37 ⇓P       PKPdf    08 55 46.8 +0.2
      baz=133
DAU   Daniels Canyon   132.88  33 ePKIKP   PKPdf    08 55 47.6 +1.0
DAU                               e                 08 58 10.0
P15A  Leamington       132.91  34 ⇓P       PKPdf    08 55 47.2 +0.5
      baz=133
SCI   San Clemente I   132.91  46 ⇑P       PKPdf    08 55 47.0 +0.1
      baz=133
MPU   Maple Canyon     132.96  33 ePKPdf   PKPdf    08 55 48.4 +1.6
MPU                               ePP      PP       08 58 24.5  +13
```

U11A	**Corn Creek**	**133.09**	**40**	⇑P	PKPdf	08 55 47.3	+0.2
	baz=133						
M19A	**Rock Springs**	**133.18**	**30**	⇑P	PKPdf	08 55 47.7	+0.5
	baz=133						
L20A	**Wamsutter**	**133.21**	**29**	⇑P	PKPdf	08 55 47.6	+0.4
	baz=133						
P16A	**Fountain Green**	**133.23**	**34**	⇑P	PKPdf	08 55 47.5	+0.2
	baz=133						
Q15A	**Fillmore**	**133.24**	**35**	⇓P	PKPdf	08 55 47.8	+0.4
	baz=133						
S13A	**Holt Ranch, En**	**133.31**	**37**	⇑P	PKPdf	08 55 47.8	+0.3
	baz=133						
O17A	**Robinson Place**	**133.32**	**32**	⇑P	PKPdf	08 55 47.5	0.0
	baz=133						
T12A	**Moapa**	**133.32**	**39**	⇓P	PKPdf	08 55 47.6	+0.1
	baz=133						
TUQ	**Turquoise Moun**	**133.33**	**41**	⇓P	PKPdf	08 55 48.0	+0.4
	baz=133						
R14A	**James Farms, M**	**133.34**	**36**	⇑P	PKPdf	08 55 47.6	+0.1
	baz=133						
BBRC	**Big Bear Sol-O**	**133.34**	**43**	⇓P	PKPdf	08 55 47.9	+0.2
	baz=133						
V11A	**Goodsprings**	**133.41**	**40**	⇓P	PKPdf	08 55 48.1	+0.3
	baz=133						
HEC	**Hector,Ludlow**	**133.42**	**42**	⇓P	PKPdf	08 55 48.2	+0.4
	baz=133						
ARUT	**Antelope Range**	**133.43**	**37**	*e*PKIKP	PKPdf	08 55 50.1	+2.4
RSSD	**Black Hills**	**133.43**	**24**	PFAKE		08 56 00.0	+12
RSSD				LR	LR		
	comp=Z,34µm,19.0s,MS7.1						
MURC	**Murrieta**	**133.52**	**44**	⇑P	PKPdf	08 55 48.5	+0.5
	baz=133						
S14A	**Cedar City**	**133.61**	**37**	⇓P	PKPdf	08 55 48.4	+0.3
	baz=133						
U12A	**Valley of Fire**	**133.62**	**39**	⇑P	PKPdf	08 55 48.4	+0.2
	baz=133						
CCUT	**Cedar City**	**133.63**	**37**	*e*PKPdf	PKPdf	08 55 47.7	-0.4
CCUT				*e*PP	PP	08 58 23.2	+7.1
T13A	**Saint George**	**133.64**	**38**	⇑P	PKPdf	08 55 49.0	+0.8
	baz=133						
O18A	**Roosevelt**	**133.66**	**32**	⇑P	PKPdf	08 55 48.8	+0.7
	baz=133						
EYMN	**Ely**	**133.66**	**11**	*e*PKPdf	PKPdf	08 55 48.8	+0.9
EYMN				*e*PP	PP	08 58 17.7	+2.2
EYMN				LR	LR		
	comp=Z,174µm,21.0s,MS7.8						
M20A	**Sweetwater, Wa**	**133.67**	**29**	⇑P	PKPdf	08 55 48.5	+0.4
	baz=133						
MVU	**Marysvale**	**133.67**	**35**	PFAKE		08 56 00.0	+12
MVU				LR	LR		
	comp=Z,83µm,21.0s,MS7.4						
MSU	**Marysvale**	**133.69**	**35**	*e*PKIKP	PKPdf	08 55 45.4	-2.8
TMUT	**Trail Mountain**	**133.70**	**34**	*e*PKPdf	PKPdf	08 55 49.8	+1.6
L21A	**Rawlins**	**133.70**	**28**	⇓P	PKPdf	08 55 48.5	+0.4
	baz=133						
P17A	**Butcher Ranch,**	**133.83**	**33**	⇓P	PKPdf	08 55 48.8	+0.3
	baz=134						
R15A	**Junction**	**133.83**	**36**	⇓P	PKPdf	08 55 49.4	+0.9
	baz=134						
V12A	**Nelson**	**133.85**	**40**	⇓P	PKPdf	08 55 49.6	+1.0
	baz=134						
GMRC	**Granite Mounta**	**133.90**	**42**	⇑P	PKPdf	08 55 49.4	+0.7
	baz=134						
Q16A	**Castle Valley**	**133.98**	**34**	⇑P	PKPdf	08 55 49.2	+0.5
	baz=134						
M21A	**Separation Pea**	**133.98**	**29**	⇑P	PKPdf	08 55 48.3	-0.4
	baz=134						
109C	**Camp Elliot, M**	**133.98**	**45**	⇑P	PKPdf	08 55 49.5	+0.6
	baz=134						
U13A	**Pakoon Wash**	**133.99**	**39**	⇑P	PKPdf	08 55 49.4	+0.5
	baz=134						
RWWY	**Rawlins**	**133.99**	**28**	*e*PKPdf	PKPdf	08 55 50.6	+1.9
PFO	**Pinyon Flat Ob**	**134.03**	**44**	⇓P	PKPdf	08 55 49.6	+0.6
	baz=134						
PFO	**Pinyon Flat Ob**	**134.03**	**44**	*e*PKPdf	PKPdf	08 55 47.5	-1.5
PFO				LR	LR		
	comp=Z,61µm,21.0s,MS7.3						
LDFC	**Landfair**	**134.08**	**41**	*e*PKPdf	PKPdf	08 55 54.6	+5.6
W12A	**Cal Nev Ari**	**134.10**	**41**	⇑P	PKPdf	08 55 50.1	+1.0
	baz=134						
T14A	**Hurricane**	**134.12**	**37**	⇓P	PKPdf	08 55 50.0	+0.9
	baz=134						
BELC	**Belle Mtn.**	**134.12**	**43**	⇓P	PKPdf	08 55 49.5	+0.4
	baz=134						
N20A	**Spence Gulch,**	**134.13**	**30**	⇓P	PKPdf	08 55 49.9	+1.0
	baz=134						
S15A	**Panguitch**	**134.14**	**36**	⇓P	PKPdf	08 55 49.9	+0.8
	baz=134						
SRU	**San Rafael**	**134.20**	**33**	⇓P	PKPdf	08 55 49.2	+0.1
	baz=134						
SRU	**San Rafael**	**134.20**	**33**	*e*PKPdf	PKPdf	08 55 49.8	+0.6
R16A	**Teasdale**	**134.24**	**35**	⇓P	PKPdf	08 55 49.6	+0.3
	baz=134						
V13A	**Grand Canyon W**	**134.33**	**39**	⇓P	PKPdf	08 55 49.7	+0.3
	baz=134						
BAR	**Barrett**	**134.40**	**45**	*e*PKPdf	PKPdf	08 55 53.8	+4.1
Q18A	**Rafter H Ranch**	**134.42**	**33**	⇓P	PKPdf	08 55 49.8	+0.2
	baz=134						
MONP	**Monument Peak**	**134.46**	**44**	⇓P	PKPdf	08 55 50.2	+0.4
	baz=134						
U14A	**Mt Trumbull**	**134.47**	**38**	⇓P	PKPdf	08 55 50.6	+0.8
	baz=134						
M22A	**Cedar Creek Ra**	**134.50**	**28**	⇑P	PKPdf	08 55 50.3	+0.6
	baz=134						
N21A	**Black Mountain**	**134.56**	**29**	⇑P	PKPdf	08 55 50.2	+0.5
	baz=134						
T15A	**Red Dirt Ranch**	**134.57**	**37**	⇑P	PKPdf	08 55 50.2	+0.3
	baz=134						
R17A	**Hanksville Air**	**134.59**	**34**	⇓P	PKPdf	08 55 50.8	+0.9
	baz=134						
NEE2	**Needles Airpor**	**134.59**	**41**	⇑P	PKPdf	08 55 50.4	+0.4
	baz=134						
IRM	**Iron Mountain**	**134.60**	**42**	⇑P	PKPdf	08 55 50.6	+0.6
	baz=134						
P19A	**Cripple Cowboy**	**134.66**	**32**	⇑P	PKPdf	08 55 51.4	+1.4
	baz=134						
O20A	**White River Ci**	**134.67**	**31**	⇑P	PKPdf	08 55 51.3	+1.3
	baz=134						
BC3	**Big Chuckw Mtn**	**134.69**	**43**	⇑P	PKPdf	08 55 50.9	+0.7
	baz=134						
DVTC	**Desert V Tower**	**134.81**	**44**	⇓P	PKPdf	08 55 51.0	+0.5
	baz=135						
W13A	**Hualapai Mount**	**134.86**	**40**	⇓P	PKPdf	08 55 50.6	+0.1
	baz=135						
SWSC	**Sam W. Stewart**	**134.87**	**44**	⇓P	PKPdf	08 55 51.3	+0.8
	baz=135						
O21A	**Pagoda**	**134.99**	**30**	⇑P	PKPdf	08 55 51.5	+0.9
	baz=135						
Q19A	**Hogan Spring (**	**135.00**	**33**	⇓P	PKPdf	08 55 51.5	+0.9
	baz=135						
V14A	**Boquillas Ranc**	**135.02**	**39**	⇓P	PKPdf	08 55 51.3	+0.6
	baz=135						
N22A	**Wattenberg Ran**	**135.04**	**29**	⇑P	PKPdf	08 55 51.2	+0.6
	baz=135						
P20A	**De Beque**	**135.06**	**31**	⇑P	PKPdf	08 55 51.7	+0.9
	baz=135						
R18A	**Canyonlands Na**	**135.06**	**34**	⇓P	PKPdf	08 55 51.6	+0.9
	baz=135						
S17A	**Black Ridge (B**	**135.08**	**35**	⇓P	PKPdf	08 55 51.7	+0.8
	baz=135						
PHWY	**Pilot Hill**	**135.11**	**27**	*e*PKPdf	PKPdf	08 55 44.4	-6.4
PHWY				*e*PP	PP	08 58 32.9	+7.7
T16A	**Glen Canyon Da**	**135.11**	**36**	⇑P	PKPdf	08 55 51.4	+0.5
	baz=135						
RCBR	**Riachuelo**	**135.11**	**259**	*e*PKPdf	PKPdf	08 55 52.0	+0.4
RCBR				LR	LR		
	comp=Z,61µm,21.0s,MS7.3						
PDMCI	**Parker Dam,Lak**	**135.19**	**41**	⇓P	PKPdf	08 55 52.1	+0.9
	baz=135						
X13A	**Yucca**	**135.21**	**41**	⇑P	PKPdf	08 55 51.6	+0.4
	baz=135						
Y12C	**Blythe**	**135.26**	**42**	⇓P	PKPdf	08 55 51.9	+0.6
	baz=135						
W14A	**Seligman**	**135.30**	**39**	⇓P	PKPdf	08 55 50.9	-0.4
	baz=135						
GLA	**Glamis**	**135.47**	**43**	⇓P	PKPdf	08 55 51.9	+0.2
	baz=135						
GLA	**Glamis**	**135.47**	**43**	*e*PKPdf	PKPdf	08 55 50.8	-0.9
R19A	**Curley Farm, L**	**135.48**	**33**	⇓P	PKPdf	08 55 51.7	+0.2
	baz=135						
V15A	**Kaibab Nationa**	**135.48**	**38**	⇑P	PKPdf	08 55 51.5	-0.1
	baz=135						
S18A	**Hurst Farm, Bl**	**135.50**	**34**	⇑P	PKPdf	08 55 51.1	-0.5
	baz=135						
Q20A	**Ridgley Place,**	**135.51**	**32**	⇓P	PKPdf	08 55 52.1	+0.5
	baz=135						
T17A	**Navajo Res., N**	**135.52**	**36**	⇑P	PKPdf	08 55 51.5	-0.1
	baz=135						
P21A	**Newcastle**	**135.53**	**31**	⇓P	PKPdf	08 55 51.8	+0.2
	baz=135						
PV04	**Paradox Valley**	**135.60**	**33**	*e*PKPdf	PKPdf	08 55 50.2	-1.5
PV04				*e*PP	PP	08 58 27.4	-1.1
Y13A	**Salome**	**135.69**	**41**	⇑P	PKPdf	08 55 52.3	+0.2
	baz=135						
W15A	**Williams**	**135.84**	**39**	⇑P	PKPdf	08 55 52.2	-0.2
	baz=136						
COWI	**Conover**	**135.85**	**9**	PKPdf	PKPdf	08 55 46.8	-5.2
COWI				*e*PP	PP	08 58 27.7	-1.7
COWI				LR	LR		
	comp=Z,141µm,20.0s,MS7.7						
U17A	**Shonto**	**135.87**	**36**	⇑P	PKPdf	08 55 52.2	-0.1
	baz=136						
X14A	**Yava**	**135.89**	**40**	⇑P	PKPdf	08 55 51.7	-0.7
	baz=136						
U16A	**Tuba City**	**135.90**	**37**	⇑P	PKPdf	08 55 52.0	-0.4
	baz=136						
112A	**Yuma**	**135.94**	**43**	⇓P	PKPdf	08 55 52.2	-0.3
	baz=136						
S19A	**Harvey Farm, M**	**135.94**	**34**	⇓P	PKPdf	08 55 52.3	-0.1
	baz=136						
T18A	**Mexican Hat**	**135.96**	**35**	⇓P	PKPdf	08 55 51.8	-0.7
	baz=136						
Q21A	**Lamborn Mesa,**	**135.98**	**31**	⇑P	PKPdf	08 55 52.6	+0.1
	baz=136						
R20A	**Redvale**	**136.03**	**33**	⇑P	PKPdf	08 55 52.6	0.0
	baz=136						
PLCA	**Paso Flores**	**136.11**	**190**	PKIKP		08 55 45.4	
PLCA						08 55 51.0	
PLCA						08 58 40.6	
PLCA	**Paso Flores**	**136.11**	**190**	PKhKP		08 55 45.4	
	comp=Z,2.3nm,0.9s,baz=215,slow=1.8,SNR=4.2						
PLCA				PKP	PKPdf	08 55 51.0	-1.7
	comp=Z,2.3nm,0.9s,baz=214,slow=2.5,SNR=6.4						
PLCA				PP	PP	08 58 40.6	+10
	comp=Z,6.6nm,0.9s,baz=142,slow=7.3,SNR=3.2						
PLCA				SKPbc	SKPbc	08 59 21.6	-1.1
	comp=Z,8.3nm,1.1s,baz=181,slow=1.6,SNR=3.0						
PLCA				SKKPbc		09 08 24.1	
	comp=Z,14nm,1.0s,baz=309,slow=4.7,SNR=4.4						
PLCA	**Paso Flores**	**136.11**	**190**	PKP		08 55 45.4	
PLCA				PKP	PKPdf	08 55 51.0	-1.7
PLCA				PP	PP	08 58 40.6	+10
PLCA				SKPbc	SKPbc	08 59 21.6	-1.1
PLCA				SKKPbc		09 08 24.1	
Y14A	**Wickenburg**	**136.15**	**41**	⇓P	PKPdf	08 55 52.5	-0.4
	baz=136						
WUAZ	**Wupatki**	**136.17**	**38**	⇓P	PKPdf	08 55 51.6	-1.3
	baz=136						
WUAZ	**Wupatki**	**136.17**	**38**	*e*PKPdf	PKPdf	08 55 57.1	+4.2
WUAZ				LR	LR		
	comp=Z,43µm,20.0s,MS7.2						
ISCO	**Idaho Springs**	**136.22**	**29**	PKIKP	PKPdf	08 55 51.1	-1.8
ISCO				*e*		08 56 01.8	
ISCO				*e*		08 58 34.0	
ISCO				MLR	MLR		
	comp=Z,78µm,22.0s,MS7.4						
Q22A	**Crested Butte,**	**136.30**	**31**	⇑P	PKPdf	08 55 52.8	-0.2
	baz=136						
X15A	**Humboldt**	**136.30**	**40**	⇓P	PKPdf	08 55 52.6	-0.6
	baz=136						
W16A	**Flagstaff**	**136.35**	**38**	⇓P	PKPdf	08 55 53.4	+0.1
	baz=136						
113A	**Mohawk Valley,**	**136.35**	**43**	⇑P	PKPdf	08 55 53.2	-0.2
	baz=136						
ECSD	**EROS Data Cent**	**136.38**	**17**	PFAKE		08 56 00.0	+6.9
ECSD				LR	LR		
	comp=Z,122µm,22.0s,MS7.6						
U18A	**Rough Rock, Ch**	**136.46**	**36**	⇓P	PKPdf	08 55 53.2	-0.2
	baz=136						
Z14A	**Wintersburg**	**136.54**	**41**	⇑P	PKPdf	08 55 53.2	-0.5
	baz=136						
Y15A	**Casa Rosa Ranc**	**136.58**	**40**	⇑P	PKPdf	08 55 53.4	-0.3
	baz=136						
T19A	**Beclabito**	**136.65**	**34**	⇓P	PKPdf	08 55 54.8	+1.0
	baz=136						
MVCO	**Mesa Verde**	**136.68**	**34**	⇑P	PKPdf	08 55 54.0	+0.2
	baz=136						
MVCO	**Mesa Verde**	**136.68**	**34**	*e*PKPdf	PKPdf	08 55 45.6	-8.3
MVCO				*e*PP	PP	08 58 35.8	+0.5
MVCO				LR	LR		
	comp=Z,95µm,20.0s,MS7.5						
X16A	**Lo Mia Camp, P**	**136.85**	**39**	⇑P	PKPdf	08 55 55.1	+0.9
	baz=137						
R22A	**Saguache, Gunn**	**136.86**	**31**	⇑P	PKPdf	08 55 54.5	+0.4
	baz=137						
W17A	**Winslow**	**136.87**	**38**	⇑P	PKPdf	08 55 54.7	+0.4
	baz=137						
OGNE	**Ogallala**	**136.90**	**24**	PFAKE		08 56 10.0	+16
OGNE				LR	LR		
	comp=Z,121µm,20.0s,MS7.6						
V18A	**Ganado**	**136.91**	**36**	⇓P	PKPdf	08 55 54.7	+0.4
	baz=137						
114A	**Black Gap (USA**	**136.96**	**42**	⇑P	PKPdf	08 55 54.6	+0.1
	baz=137						
Z15A	**Gila River Ind**	**137.11**	**41**	⇑P	PKPdf	08 55 54.9	+0.1
	baz=137						
Y16A	**Circle Bar Ran**	**137.17**	**40**	⇑P	PKPdf	08 55 54.7	-0.1
	baz=137						
X17A	**Forest Lakes**	**137.30**	**39**	⇑P	PKPdf	08 55 54.8	-0.2
	baz=137						
V19A	**Window Rock**	**137.43**	**36**	⇓P	PKPdf	08 55 55.4	+0.2
	baz=137						
W18A	**Petrified Fore**	**137.43**	**37**	⇓P	PKPdf	08 55 55.4	+0.2
	baz=137						
214A	**Organ Pipe Nat**	**137.49**	**43**	⇑P	PKPdf	08 55 55.3	-0.1
	baz=137						
W19A	**Sanders**	**137.64**	**37**	⇓P	PKPdf	08 55 55.3	-0.3
	baz=137						
GLMI	**Grayling**	**137.65**	**5**	*e*PKPdf	PKPdf	08 55 53.0	-2.4
GLMI				LR	LR		
	comp=Z,110µm,20.0s,MS7.6						
T22A	**Edith**	**137.69**	**32**	⇑P	PKPdf	08 55 54.9	-0.8
	baz=137						
Y17A	**Roosevelt**	**137.69**	**39**	⇓P	PKPdf	08 55 55.1	-0.7
	baz=137						
X18A	**Snowflake**	**137.70**	**38**	⇓P	PKPdf	08 55 55.4	-0.4
	baz=137						
LONY	**Lake Ozonia**	**137.77**	**354**	*e*PKPdf	PKPdf	08 55 55.6	0.0
LONY				LR	LR		
	comp=Z,86µm,22.0s,MS7.4						
LBNH	**Lisbon**	**137.80**	**351**	*e*PKIKP	PKPdf	08 55 57.6	+1.9
LBNH				MLR	MLR		
	comp=Z,134µm,20.0s,MS7.7						
SDCO	**Great Sand Dun**	**137.87**	**30**	PFAKE		08 56 10.0	+14
SDCO				LR	LR		
	comp=Z,96µm,19.0s,MS7.5						
SADO	**Sadowa**	**137.89**	**359**	PKhKP		08 55 44.6	
	comp=Z,6.2nm,1.0s,baz=161,slow=21,SNR=2.0						
SADO				PKP	PKPdf	08 55 54.4	-1.4
	comp=Z,20nm,1.1s,baz=14,slow=1.1,SNR=7.0						
SADO				PP	PP	08 58 49.6	+7.5
	comp=Z,60nm,0.9s,baz=350,slow=5.2,SNR=6.4						
SADO	**Sadowa**	**137.89**	**359**	PKP	PKPdf	08 55 54.4	-1.4
SADO				PP	PP	08 58 49.6	+7.5
W20A	**Ramah**	**138.16**	**36**	⇓P	PKPdf	08 55 56.6	0.0
	baz=138						
Z17A	**San Carlos Hig**	**138.19**	**39**	⇑P	PKPdf	08 55 56.7	0.0
	baz=138						
NCB	**Newcomb**	**138.37**	**354**	PFAKE		08 56 10.0	+13
NCB				LR	LR		
	comp=Z,97µm,21.0s,MS7.5						
216A	**Three Points,**	**138.37**	**42**	⇑P	PKPdf	08 55 57.1	0.0
	baz=138						
117A	**Oracle**	**138.48**	**41**	⇓P	PKPdf	08 55 57.8	+0.5
	baz=138						
Y19A	**Nutrioso**	**138.51**	**38**	⇓P	PKPdf	08 55 57.5	+0.2
	baz=138						
Z18A	**Geronimo**	**138.60**	**39**	⇓P	PKPdf	08 55 57.7	+0.2
	baz=138						
TUC	**Tucson**	**138.62**	**41**	*e*PKPdf	PKPdf	08 55 49.1	-8.4
TUC				*e*pPKPdf	pPKPdf	08 56 04.4	-3.0
TUC				LR	LR		
	comp=Z,87µm,20.0s,MS7.5						
W21A	**San Fidel**	**138.66**	**35**	⇓P	PKPdf	08 55 58.2	+0.6
	baz=138						
JFWS	**Jewell Farm**	**138.74**	**11**	*e*PKIKP	PKPdf	08 55 52.4	-5.0
JFWS				*e*		08 56 06.2	
JFWS				*e*		08 58 46.8	
JFWS				MLR	MLR		
	comp=Z,133µm,20.0s,MS7.7						
118A	**Homack Ranch,**	**138.94**	**40**	⇓P	PKPdf	08 55 58.7	+0.6
	baz=139						
217A	**Green Valley**	**138.94**	**42**	⇑P	PKPdf	08 55 58.8	+0.6
	baz=139						
Z19A	**T-Link Ranch,**	**138.95**	**38**	⇑P	PKPdf	08 55 59.2	+1.1
	baz=139						
SPB	**Sao Paulo**	**138.99**	**229**	PFAKE		08 56 10.0	+12
SPB				LR	LR		
	comp=Z,52µm,21.0s,MS7.2						
SCIA	**State Center**	**139.02**	**15**	*e*PKPdf	PKPdf	08 55 50.3	-7.7
SCIA				LR	LR		
	comp=Z,147µm,22.0s,MS7.7						
RPN	**Rapa Nui**	**139.22**	**138**	PFAKE		08 56 10.0	+11
RPN				LR	LR		
	comp=Z,32µm,20.0s,MS7.1						
119A	**Ashpeak Ranch,**	**139.28**	**39**	⇓P	PKPdf	08 55 59.6	+0.8
	baz=139						
218A	**Dragoon**	**139.32**	**41**	⇓P	PKPdf	08 56 00.1	+1.3
	baz=139						
ANMO	**Albuquerque**	**139.45**	**34**	*e*PKIKP	PKPdf	08 55 52.5	-6.5
ANMO				*e*		08 58 59.8	
ANMO				MLR	MLR		
	comp=Z,108µm,19.0s						
ANMO	**Albuquerque**	**139.45**	**34**	PP	PP	08 59 02.2	+10
	comp=Z,35nm,1.3s,baz=303,slow=17,SNR=3.8						
LAZ	**Ladron**	**139.46**	**35**	*e*PKPdf	PKPdf	08 55 57.2	-1.8
LAZ				*e*PP	PP	08 58 53.7	+1.1
X22A	**Bernardo**	**139.46**	**35**	⇓P	PKPdf	08 56 00.1	+1.0
	baz=139						
CBKS	**Cedar Bluff**	**139.64**	**24**	*e*PKHKP		08 55 51.7	
CBKS				*e*		08 58 51.6	
CBKS				MLR	MLR		
	comp=Z,152µm,22.0s,MS7.7						
318A	**Bisbee**	**139.69**	**41**	⇓P	PKPdf	08 56 00.9	+1.4
	baz=139						
219A	**White Tail Can**	**139.81**	**40**	⇑P	PKPdf	08 56 01.0	+1.2
	baz=140						
Y22D	**IRIS PASSCAL I**	**139.82**	**36**	⇑P	PKPdf	08 56 01.4	+1.7
	baz=140						
120A	**U Bar Ranch, L**	**139.84**	**39**	⇓P	PKPdf	08 56 00.9	+1.1
	baz=140						
BNM	**Barren Site**	**139.93**	**35**	*e*PKPdf	PKPdf	08 55 58.1	-1.8
319A	**Douglas**	**140.20**	**41**	⇑P	PKPdf	08 56 02.5	+2.0
	baz=140						
AAM	**Ann Arbor**	**140.23**	**4**	*e*PKIKP	PKPdf	08 55 54.3	-5.9
AAM				MLR	MLR		
	comp=Z,156µm,22.0s,MS7.7						
BINY	**Binghamton**	**140.29**	**355**	*e*PKPdf	PKPdf	08 55 58.5	-1.8
BINY				*e*PP	PP	08 58 52.3	-4.7
BINY				LR	LR		
	comp=Z,132µm,22.0s,MS7.6						
ERPA	**Erie**	**140.55**	**360**	*e*PKPdf	PKPdf	08 55 56.5	-4.3
ERPA				LR	LR		
	comp=Z,144µm,22.0s,MS7.7						
KSU1	**Kansas State U**	**140.57**	**20**	*e*PKPdf	PKPdf	08 55 56.7	-4.2
KSU1				*e*PP	PP	08 59 03.0	+4.1
KSU1				LR	LR		
	comp=Z,105µm,20.0s,MS7.6						
122A	**Conniff Cattle**	**140.74**	**37**	⇓P	PKPdf	08 56 04.2	+2.8
	baz=140						
HDIL	**Hopedale**	**141.20**	**11**	*e*PKPdf	PKPdf	08 55 55.7	-6.3
HDIL				LR	LR		
	comp=Z,150µm,20.0s,MS7.7						
SSPA	**Standing Stone**	**141.98**	**357**	*e*PKPdf	PKPdf	08 55 58.8	-4.6
SSPA				*e*PP	PP	08 59 08.4	+1.2
SSPA				LR	LR		
	comp=Z,156µm,22.0s,MS7.7						
AMTX	**Amarillo**	**142.02**	**29**	*e*PKPdf	PKPdf	08 56 01.4	-2.3
AMTX				LR	LR		
	comp=Z,96µm,22.0s,MS7.5						
ACSO	**Alum Creek Sta**	**142.34**	**4**	*e*PKPdf	PKPdf	08 55 59.2	-4.8
ACSO				*e*PP	PP	08 59 13.2	+3.8
ACSO				LR	LR		
	comp=Z,180µm,21.0s,MS7.8						
SLM	**Saint Louis**	**142.85**	**13**	*e*PKIKP	PKPdf	08 56 02.1	-2.9
MCWV	**Mont Chateau**	**143.00**	**360**	*e*PKPdf	PKPdf	08 56 01.4	-3.8
MCWV				LR	LR		
	comp=Z,177µm,21.0s,MS7.8						
BLO	**Bloomington**	**143.02**	**8**	*e*PKIKP	PKPdf	08 56 01.3	-4.0
CCM	**Cathedral Cave**	**143.15**	**15**	*e*PKIKP	PKPdf	08 56 01.3	-4.3
CCM				*e*		08 59 09.3	
CCM				MLR	MLR		
	comp=Z,146µm,21.0s,MS7.7						
OLIL	**Olney**	**143.19**	**10**	*e*PKPdf	PKPdf	08 56 02.6	-3.0
OLIL				*e*pPKPdf	pPKPdf	08 56 12.8	-2.6
FCH	**Farellones**	**143.20**	**194**	*e*P	PKPdf	08 56 05.3	-0.5
FVM	**French Village**	**143.42**	**14**	*e*PKHKP		08 56 00.6	
WMOK	**Wichita Mounta**	**143.50**	**26**	*e*PKIKP	PKPdf	08 56 02.3	-4.0
WMOK				*e*		08 59 15.1	
WMOK				MLR	MLR		
	comp=Z,101µm,20.0s,MS7.6						
LPIG	**La Paz**	**143.74**	**51**	PP	PP	08 59 20.6	+1.1
	comp=Z,13nm,0.8s,baz=158,slow=6.7,SNR=1.8						
CPUP	**Villa Florida**	**143.88**	**216**	PKP	PKPdf	08 56 05.0	-2.1
	comp=Z,16nm,0.7s,baz=115,slow=2.6,SNR=13						
SIUC	**Southern Illin**	**143.95**	**12**	*e*PKPdf	PKPdf	08 56 04.0	-3.0
WCI	**Wyandotte Cave**	**143.98**	**8**	*e*PKIKP	PKPdf	08 56 03.2	-3.8
WCI				*e*		08 59 25.7	
WCI				MLR	MLR		
	comp=Z,82µm,20.0s,MS7.5						
USIN	**University of**	**144.01**	**10**	*e*PKPdf	PKPdf	08 56 04.5	-2.6
USIN				*e*PP	PP	08 59 19.3	-0.3
CFAA	**Coronel Fontan**	**144.27**	**197**	PKP	PKPdf	08 56 06.3	-1.4
	comp=Z,2.2nm,0.6s,baz=170,slow=3.0,SNR=33						
CFAA				PP	PP	08 59 30.9	+10
	comp=Z,0.4nm,0.4s,baz=292,slow=21,SNR=15						
CBN	**Corbin**	**144.37**	**356**	*e*PKPdf	PKPdf	08 56 06.1	-1.5
CBN				LR	LR		
	comp=Z,126µm,20.0s,MS7.7						
PARMO	**Parma**	**144.84**	**14**	*e*PKPdf	PKPdf	08 56 06.7	-1.8
PVMO	**Portageville**	**145.09**	**14**	*e*PKPdf	PKPdf	08 56 07.7	-1.3
TXAR	**Lajitas Array**	**145.14**	**38**	PKPbc	PKPbc	08 56 09.5	+0.7
	comp=Z,407nm,0.7s,baz=280,slow=0.7,SNR=493						
GLAT	**Glass**	**145.32**	**13**	*e*PKPdf	PKPdf	08 56 08.9	-0.5
UTMT	**University of**	**145.35**	**13**	*e*pPKPdf	PKPdf	08 56 08.5	-0.9
ELN	**Prospectdale**	**145.43**	**1**	*e*PKPdf	PKPdf	08 56 07.8	-1.7
ELN				*e*pPKPdf	pPKPdf	08 56 17.4	-2.0
CMCH	**Combarbala**	**145.43**	**194**	*e*P	PKPbc	08 56 04.7	-5.0
CMCH	**Combarbala**	**145.43**	**194**	*e*P	PKPbc	08 56 04.7	-5.0
GNAR	**Gosnell**	**145.44**	**14**	*e*PKPdf	PKPdf	08 56 09.3	-0.3
BLA	**Blacksburg**	**145.45**	**0**	*e*PKIKP	PKPdf	08 56 08.2	-1.4
BLA				MLR	MLR		
	comp=Z,152µm,22.0s,MS7.7						
HALT	**Halls**	**145.66**	**13**	*e*PKPdf	PKPdf	08 56 09.9	0.0
HBAR	**Harrisburg**	**145.67**	**15**	*e*PKPdf	PKPdf	08 56 10.1	+0.1
MIAR	**Mount Ida**	**145.72**	**20**	*e*PKP2	PKPab	08 56 09.7	-1.1
MIAR				MLR	MLR		
	comp=Z,125µm,21.0s,MS7.7						
WVT	**Waverly**	**145.77**	**11**	*e*PKP2	PKPab	08 56 09.5	-1.4
WVT				*e*		08 59 29.6	
WVT				MLR	MLR		
	comp=Z,165µm,20.0s,MS7.8						
UALR	**University of**	**145.91**	**18**	*e*PKPdf	PKPdf	08 56 12.3	+1.8
TZTN	**Tazewell**	**145.96**	**5**	*e*PKPdf	PKPdf	08 56 10.6	+0.1
MET	**Memphis--Engin**	**146.26**	**15**	*e*PKPdf	PKPdf	08 56 12.5	+1.5
JCT	**Junction City**	**146.48**	**32**	*e*PKP2	PKPbc	08 56 11.3	-1.6
JCT				MLR	MLR		
	comp=Z,95µm,19.0s,MS7.6						
TKL	**Tuckaleechee C**	**146.82**	**6**	*e*PKP2	PKPdf	08 56 11.2	-0.8
TKL				*e*		08 56 13.2	
TKL						08 59 42.2	
TKL	**Tuckaleechee C**	**146.82**	**6**	PKPbc	PKPbc	08 56 13.4	-0.3
	baz=106,slow=1.2						
TKL				SKP		08 59 42.2	
	comp=Z,61nm,1.0s,baz=108,slow=4.6,SNR=3.4						
TKL	**Tuckaleechee C**	**146.82**	**6**	*e*PKPdf	PKPdf	08 56 11.2	-0.8
TKL				*e*PKPbc	PKPbc	08 56 13.2	-0.6
TKL				PKPbc	PKPbc	08 56 13.4	-0.3
TKL				*e*PKPab	PKPab	08 56 15.5	+0.6
TKL				SKP		08 59 42.2	
PLAL	**Pickwick Lake**	**146.83**	**12**	*e*PKPdf	PKPdf	08 56 10.8	-1.2
PLAL				*e*PKPbc	PKPbc	08 56 13.2	-0.5
PLAL				LR	LR		
	comp=Z,161µm,22.0s,MS7.8						
BBSR	**BB Station**	**146.94**	**336**	*e*PKPbc	PKPbc	08 56 14.9	+0.8
BBSR				LR	LR		
	comp=Z,85µm,21.0s,MS7.5						
CPCT	**Cooper Cave**	**146.95**	**7**	*e*PKPdf	PKPdf	08 56 12.9	+0.7
OXF	**Oxford**	**146.97**	**14**	*e*PKP2	PKPbc	08 56 13.4	-0.8
OXF				MLR	MLR		
	comp=Z,112µm,22.0s,MS7.6						
SWET	**Sewanee**	**146.99**	**9**	*e*PKPdf	PKPdf	08 56 13.0	+0.8
SWET				*e*PKPbc	PKPbc	08 56 15.0	+0.8
CNNC	**Cliffs of the**	**147.35**	**357**	*e*PKPbc	PKPbc	08 56 15.1	-0.1
CNNC				*e*PKPab	PKPab	08 56 17.0	-0.1
CNNC				LR	LR		
	comp=Z,173µm,20.0s,MS7.8						
LCO	**Las Campanas**	**147.41**	**195**	*e*PKPdf	PKPdf	08 56 14.7	+1.5

LCO				ePKPbc	PKPbc	08 56 16.1	+0.5
LCO				ePKPab	PKPab	08 56 18.8	+1.3
LCO				LR	LR		
	comp=Z,56μm,20.0s,MS7.3						
NATX	Nacogdoches	147.81	24	ePKPbc	PKPbc	08 56 16.0	-0.6
NATX				ePKPab	PKPab	08 56 18.6	-0.4
NATX				LR	LR		
	comp=Z,113μm,19.0s,MS7.7						
JSC	Jenkinsville	148.35	2	ePKIKP	PKPdf	08 56 15.2	+0.7
JSC				e		08 56 17.4	
VBMS	Vicksburg	148.84	17	ePKPbc	PKPbc	08 56 18.7	-0.5
VBMS				ePKPab	PKPab	08 56 23.5	+0.4
VBMS				LR	LR		
	comp=Z,150μm,21.0s,MS7.8						
HKT	Hockley	148.87	27	ePKIKP	PKPdf	08 56 15.9	+0.4
HKT				e		08 56 19.2	
HKT				MLR	MLR		
	comp=Z,172μm,20.0s,MS7.8						
GOGA	Godfrey	149.08	6	ePKPbc	PKPbc	08 56 18.9	-0.9
GOGA				ePKPab	PKPab	08 56 23.7	-0.3
GOGA				LR	LR		
	comp=Z,182μm,20.0s,MS7.9						
NHSC	New Hope	149.54	0	ePKPbc	PKPbc	08 56 22.4	+1.3
NHSC				LR	LR		
	comp=Z,138μm,22.0s,MS7.7						
KVTX	Kingsville	149.81	33	ePKPbc	PKPbc	08 56 22.6	+0.7
KVTX				LR	LR		
	comp=Z,109μm,19.0s,MS7.7						
BRAL	Brewton	150.88	12	ePKPdf	PKPdf	08 56 19.8	+1.2
BRAL				ePKPbc	PKPbc	08 56 23.2	-1.1
BRAL				LR	LR		
	comp=Z,139μm,20.0s,MS7.8						
LVC	Limon Verde	152.77	203	PKP	PKPdf	08 56 22.6	+0.9
	comp=Z,5.6nm,0.9s,baz=336,slow=9.8,SNR=3.0						
LVC				PKPbc	PKPbc	08 56 28.7	-0.1
	comp=Z,40nm,0.9s,baz=333,slow=2.1,SNR=14						
LVC	Limon Verde	152.77	203	PKP	PKPdf	08 56 22.6	+0.8
LVC				ePKPbc	PKPbc	08 56 26.4	-2.4
LVC				PKPbc	PKPbc	08 56 28.8	-0.1
LVC				LR	LR		
	comp=Z,38μm,20.0s,MS7.2						
SIV	San Ignacio	153.73	225	PKP	PKPdf	08 56 20.8	-2.5
	comp=Z,5.6nm,1.0s,baz=154,slow=3.9,SNR=12						
SIV				PKPbc	PKPbc	08 56 31.5	+0.4
	comp=Z,14nm,0.9s,baz=118,slow=2.4,SNR=20						
SIV				PP	PP	09 00 21.7	+4.3
	comp=Z,17nm,1.2s,baz=72,slow=23,SNR=1.4						
DWPF	Disney	154.49	3	ePKPdf	PKPdf	08 56 27.2	+3.1
DWPF				ePKPbc	PKPbc	08 56 32.5	0.0
DWPF				LR	LR		
	comp=Z,136μm,22.0s,MS7.7						
ANWB	Willy Bob	156.55	311	PFAKE		08 56 40.0	+13
ANWB				LR	LR		
	comp=Z,53μm,20.0s,MS7.4						
BBGH	Gun Hill	157.11	299	PFAKE		08 56 40.0	+12
BBGH				LR	LR		
	comp=Z,91μm,22.0s,MS7.6						
FDF	Fort de France	157.71	304	ePKIKP	PKPdf	08 56 30.2	+1.6
FDF				MLR	MLR		
	comp=Z,54μm,20.0s,MS7.4						
MTP	Monte Pirata	158.94	318	ePKPdf	PKPdf	08 56 30.9	+0.9
CBYP	Canovanas	159.01	319	ePKPdf	PKPdf	08 56 37.5	+7.4
GRTK	Grand Turk	159.18	336	PFAKE		08 56 40.0	+10
GRTK				LR	LR		
	comp=Z,93μm,20.0s,MS7.6						
SJG	San Juan	159.32	320	PFAKE		08 56 40.0	+10
SJG				LR	LR		
	comp=Z,124μm,20.0s,MS7.8						
GRHS	Sauteurs	159.33	299	e	PKPdf	08 56 35.5	+5.0
GRW	Mount Saint Ca	159.38	299	e	PKPdf	08 56 40.8	+10
GRGR	Grenville	159.38	299	ePKPdf	PKPdf	08 56 28.4	-2.2
GRGR				LR	LR		
	comp=Z,71μm,22.0s,MS7.5						
CMIG	Matias Romero	159.45	44	PKP	PKPdf	08 56 30.1	-0.5
	comp=Z,22nm,1.0s,baz=329,slow=1.5,SNR=20						
CMIG				PP	PP	09 00 49.9	+0.9
	comp=Z,8.3nm,1.1s,baz=310,slow=4.6,SNR=1.9						
ICM	Isla Caja Muer	159.72	320	ePKPdf	PKPdf	08 56 31.8	+0.9
TRN	Trinidad (W)	159.77	294	e	PKPdf	08 56 37.3	+6.2
CRPR	Cabo Rojo, PR	160.01	321	ePKPdf	PKPdf	08 56 31.3	0.0
TEIG	Tepich	160.64	24	PKP	PKPdf	08 56 30.1	-1.8
	comp=Z,7.1nm,1.0s,baz=67,slow=18,SNR=2.2						
TEIG				PP	PP	09 00 59.0	+4.5
	comp=Z,12nm,0.8s,baz=321,slow=11,SNR=3.3						
TEIG	Tepich	160.64	24	PKP	PKPdf	08 56 30.1	-1.8
TEIG				ePKPdf	PKPdf	08 56 35.4	+3.5
TEIG				PP	PP	09 00 59.0	+4.5
TEIG				LR	LR		
	comp=Z,92μm,20.0s						
SDDR	Presa de Saban	161.49	333	ePKPdf	PKPdf	08 56 35.7	+2.8
SDDR				LR	LR		
	comp=Z,140μm,20.0s						
GTBY	Guantanamo Bay	162.00	345	PFAKE		08 56 40.0	+6.7
GTBY				LR	LR		
	comp=Z,73μm,20.0s						
PCRV	Puerto La Cruz	162.87	297	PKP	PKPdf	08 56 33.8	-0.5
	comp=Z,4.8nm,0.7s,baz=248,slow=2.2,SNR=2.3						
MTDJ	Mount Denham	164.16	351	ePKPdf	PKPdf	08 56 37.1	+1.6
MTDJ				ePP	PP	09 01 24.0	+11
MTDJ				LR	LR		
	comp=Z,92μm,22.0s						
NNA	Nana	165.26	193	PKP	PKPdf	08 56 33.0	-3.5
	comp=Z,9.0nm,0.9s,baz=244,slow=12,SNR=2.8						
NNA				PP	PP	09 01 25.4	+6.7
	comp=Z,17nm,1.1s,baz=257,slow=5.4,SNR=2.4						
NNA	Nana	165.26	193	PKP	PKPdf	08 56 33.0	-3.5
NNA				ePKPdf	PKPdf	08 56 34.8	-1.7
NNA				PP	PP	09 01 25.4	+6.7
NNA				LR	LR		
	comp=Z,39μm,20.0s						
TGUH	Tegucigalpa,Un	166.49	31	ePKPdf	PKPdf	08 56 40.3	+2.8
TGUH				ePKPab	PKPab	08 57 43.1	+4.0
TGUH				LR	LR		
	comp=Z,49μm,22.0s						
SDV	Santo Domingo	168.66	304	PKP	PKPdf	08 56 36.2	-2.9
	comp=Z,3.6nm,0.7s,baz=146,slow=0.5,SNR=5.6						
SDV				PP	PP	09 01 44.3	+6.5
	comp=Z,8.9nm,0.8s,baz=44,slow=11,SNR=4.5						
SDV	Santo Domingo	168.66	304	PKP	PKPdf	08 56 36.2	-2.9
SDV				PP	PP	09 01 44.4	+6.5
SDV				LR	LR		
	comp=Z,35μm,22.0s						
PAYG	Puerto Ayora	169.32	107	ePKPdf	PKPdf	08 56 42.4	+2.9
PAYG				LR	LR		
	comp=Z,61μm,21.0s						
ATAH	Atahualpa	170.42	190	PKP	PKPdf	08 56 39.0	-1.1
	comp=Z,5.6nm,0.8s,baz=105,slow=22,SNR=3.0						
ATAH				PP	PP	09 01 52.4	+7.4
	comp=Z,2.4nm,0.5s,baz=240,slow=7.6,SNR=2.3						
JTS	JuntasAbangare	170.86	32	PKIKP	PKPdf	08 56 37.7	-2.7
JTS				e		08 56 41.5	
JTS						08 57 59.9	
JTS				MLR	MLR		
	comp=Z,62μm,21.0s						
JTS	JuntasAbangare	170.86	32	PKP	PKPdf	08 56 37.7	-2.7
	comp=Z,8.3nm,1.0s,baz=3.8,slow=20,SNR=1.9						
JTS				PKPab	PKPab	08 57 59.9	+1.4
	comp=Z,8.4nm,0.8s,baz=226,slow=7.2,SNR=1.8						
JTS				PP	PP	09 01 57.1	+9.2
	comp=Z,9.0nm,1.0s,baz=349,slow=10,SNR=4.4						
JTS	JuntasAbangare	170.86	32	PKP	PKPdf	08 56 37.7	-2.7
JTS				ePKPdf	PKPdf	08 56 41.5	+1.2
JTS				PKPab	PKPab	08 57 59.9	+1.3
JTS				PP	PP	09 01 57.1	+9.2
JTS				LR	LR		
	comp=Z,62μm,21.0s						
BCIP	Isla Barro Col	173.36	358	ePKPdf	PKPdf	08 56 44.5	+3.0
BCIP				LR	LR		
	comp=Z,68μm,21.0s						
ROSC	El Rosal	173.80	292	PKP	PKPdf	08 56 40.5	-1.2
	comp=Z,8.1nm,0.5s,baz=112,slow=22,SNR=11						
ROSC				PP	PP	09 02 12.4	+8.4
	comp=Z,15nm,1.0s,baz=95,slow=19,SNR=3.4						
ROSC	El Rosal	173.80	292	PKP	PKPdf	08 56 40.5	-1.2
ROSC				ePKPdf	PKPdf	08 56 45.6	+3.9
ROSC				PP	PP	09 02 12.4	+8.4
OTAV	Otavalo	177.23	216	ePKPdf	PKPdf	08 56 42.7	+0.1
OTAV				LR	LR		
	comp=Z,66μm,20.0s						

IDC 25 08:45:12.0±4.3**, 2°.50S**×**99°.73E, h0^{km}, mb4.5**/3**, mb1 4.6**/3**, mb1mx4.1**/22**, mbtmp4.5**/3**, Error ellipse: s-maj=184.9km s-min=32.0km az=58.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	39.18	125	P	P	08 52 42.2	+0.3
	6.2nm,0.8s,baz=296,slow=8.0,SNR=2.5						
SONM	Songino Array	50.47	6	P	P	08 54 11.6	+0.1
	1.5nm,0.4s,baz=190,slow=8.7,SNR=5.7						
MKAR	Makanchi Array	51.44	345	P	P	08 54 19.1	+0.2
	6.9nm,0.6s,baz=158,slow=8.9,SNR=9.6						
TXAR	Lajitas Array	145.26	37	PKPbc	PKPbc	09 04 50.9	-1.2
	4.4nm,0.5s,baz=214,slow=1.2,SNR=50						

IDC 25 08:46:21.8±1.4**, 2°.72S**×**99°.92E, h0^{km}, mb4.5**/13**, mb1 4.6**/13**, mb1mx4.4**/25**, mbtmp4.5**/13**, Error ellipse: s-maj=48.7km s-min=20.0km az=51.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	21.07	357	P	P	08 51 07.0	-0.7
	4.5nm,0.6s,baz=184,slow=10,SNR=4.3						
WRA	Warramunga Arr	37.71	120	P	P	08 53 39.6	+0.2
	24nm,1.2s,baz=303,slow=9.1,SNR=4.9						
ASAR	Alice Springs	38.90	125	P	P	08 53 49.5	0.0
	6.5nm,0.9s,baz=299,slow=9.2,SNR=3.1						
KSRS	Korea Array	47.68	30	P	P	08 54 59.6	-0.5
	2.1nm,0.7s,baz=227,slow=7.5,SNR=4.3						
AAK	Ala-Archa	50.66	336	P	P	08 55 24.8	+1.9
	2.5nm,0.6s,baz=176,slow=13,SNR=2.9						
SONM	Songino Array	50.66	6	P	P	08 55 23.1	+0.3
	3.1nm,0.4s,baz=189,slow=9.7,SNR=10						
MKAR	Makanchi Array	51.70	345	P	P	08 55 31.5	+0.9
	7.4nm,0.7s,baz=153,slow=9.3,SNR=12						
KURK	Kurchatov	56.27	344	P	P	08 56 03.8	-0.1
	10nm,0.9s,baz=158,slow=7.4,SNR=4.3						
ZALV	Zalesovo Beam	57.86	350	P	P	08 56 15.0	-0.1
	6.7nm,0.8s,baz=146,slow=4.7,SNR=3.7						
BVAR	Borovoye Array	60.83	340	P	P	08 56 35.0	-0.7
	1.9nm,0.6s,baz=88,slow=6.4,SNR=4.1						
PETK	Petropavlovsk-	73.53	32	P	P	08 57 55.1	-1.4
	2.7nm,0.8s,baz=187,slow=10,SNR=2.6						
BRTR	Keskin Array B	73.74	313	P	P	08 57 56.6	-1.4
	2.8nm,0.9s,baz=113,slow=3.6,SNR=2.8						
ARCES	ARCESS Array B	87.12	340	P	P	08 59 09.6	+0.4
	12nm,1.1s,baz=107,slow=17,SNR=3.9						
TXAR	Lajitas Array	145.32	38	PKPbc	PKPbc	09 06 02.6	+0.5
	4.6nm,0.7s,baz=226,slow=0.8,SNR=12						
TKL	Tuckaleechee C	147.05	6	PKPbc	PKPbc	09 06 05.4	-1.7
	4.0nm,0.9s,baz=57,slow=18,SNR=2.8						

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*IDC **25** 08:47:02.4±1.2, 2°.65S×99°.79E, h0^{km}, mb4.6/11, mb1 4.7/11, mb1mx4.5/24, mbtmp4.6/11, MS6.0/1, Ms1 6.0/1, ms1mx5.2/38, Error ellipse: s-maj=40.4km s-min=19.0km az=51.0*

*ISCJB **25** 08:47:05.5±1.2, 2°.6S±0°.2×99°.9E±0°.2, h33^{km}, mb4.6/10, Error ellipse: s-maj=36.2km s-min=15.7km az=142.9*

*NEIC **25** 08:47:07.7±0.9, 2°.60S×99°.86E, h35^{km}, Error ellipse: s-maj=31.8km s-min=12.1km az=54.0*

ISC 25 08:47:07.8±1.2**, 2°.6S**±0°.2×**99°.9E**±0°.2**, h35^{km}, n15, σ0ˢ.61**/11**, mb4.6**/10**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.45	350	LR	LR	08 50 53.6	
	comp=Z,141μm,20.0s,baz=228,slow=43						
CMAR	Chiang Mai Arr	20.94	358	P	P	08 51 46.6	-1.0
	7.6nm,0.6s,baz=186,slow=10,SNR=4.8						
WRA	Warramunga Arr	37.81	120	P	P	08 54 21.3	+0.1
	7.0nm,0.7s,mb4.5,baz=308,slow=8.9,SNR=6.5						
ASAR	Alice Springs	39.02	125	P	P	08 54 31.1	-0.2
	12nm,0.8s,mb4.6,baz=301,slow=8.2,SNR=6.1						
KSRS	Korea Array	47.60	30	P	P	08 55 40.5	+0.2
	8.6nm,0.9s,mb4.8,baz=226,slow=8.5,SNR=12						
SONM	Songino Array	50.55	6	P	P	08 56 03.8	+1.1
	10nm,0.5s,mb5.0,baz=189,slow=9.8,SNR=22						
MKAR	Makanchi Array	51.57	345	P	P	08 56 11.3	+1.0
	11nm,0.6s,mb4.9,baz=152,slow=8.5,SNR=8.5						
MJAR	Matsushiro Arr	52.83	39	P	P	08 56 19.4	-0.5
	2.3nm,0.8s,mb4.2,baz=213,slow=8.0,SNR=3.9						
KURK	Kurchatov	56.14	344	P	P	08 56 43.8	+0.1
	3.6nm,0.6s,mb4.6,baz=186,slow=6.4,SNR=6.3						
ZALV	Zalesovo Beam	57.73	350	P	P	08 56 54.8	-0.1
	12nm,0.7s,mb5.0,baz=164,slow=6.4,SNR=6.1						
BVAR	Borovoye Array	60.70	340	P	P	08 57 15.2	-0.2
	3.1nm,0.5s,mb4.7,baz=142,slow=9.1,SNR=4.5						
BRTR	Keskin Array B	73.62	313	P	P	08 58 37.2	-0.5
	1.1nm,0.6s,mb4.0,baz=138,slow=7.3,SNR=3.3						
TXAR	Lajitas Array	145.26	38	PKPbc	PKPbc	09 06 43.4	+1.2
	11nm,0.8s,baz=221,slow=1.1,SNR=17						
TXAR	Lajitas Array	145.26	38	PKPbc	PKPbc	09 06 43.4	+1.2
TKL	Tuckaleechee C	146.94	5	PKPbc	PKPbc	09 06 46.8	-0.3
	2.7nm,0.6s,baz=215,slow=15,SNR=4.6						

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*IDC **25** 08:53:56.4±0.8, 2°.65S×99°.91E, h0^{km}, mb4.4/17, mb1 4.5/18, mb1mx4.4/27, mbtmp4.4/18, ML3.7/1, Error ellipse: s-maj=27.5km s-min=14.9km az=52.0*

*ISCJB **25** 08:54:00.4±0.6, 2°.5S±0°.1×100°.1E±0°.1, h33^{km}, mb4.7/29, Error ellipse: s-maj=20.9km s-min=9.4km az=141.7*

*NEIC **25** 08:54:02.1±0.6, 2°.60S×100°.05E, h35^{km}, mb4.9/7, Error ellipse: s-maj=24.6km s-min=10.2km az=54.0*

*BJI **25** 08:54:02.2, 2°.29S×100°.49E, h28^{km}, mB5.3/1, mb5.1/3*

ISC 25 08:54:02.1±4.7**, 2°.6S**±0°.1×**100°.1E**±0°.1**, h33^{km}**±33^{km}**, n40, σ1ˢ.15**/39**, mb4.7**/29**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.45	348	Pn	Pn	08 55 19.0	-2.0
	2.2nm,0.3s,baz=125,slow=11,SNR=6.0						
PSI	Prapat	5.45	348	Pn	Pn	08 55 19.0	-2.0
CMAR	Chiang Mai Arr	20.91	357	P	P	08 58 40.5	-1.4
	11nm,0.7s,baz=185,slow=9.7,SNR=25						
ODAN	Odare	31.71	338	eP	P	09 00 26.6	+3.6
	15nm,0.6s,mb5.0						
TAPN	Taplejung	32.04	339	eP	P	09 00 26.6	+0.8
	42nm,1.2s,mb5.1						
RAMN	Ramite	32.09	337	eP	P	09 00 31.1	+4.8
	8.8nm,0.4s,mb5.0						
JIRN	Jiri	32.89	337	eP	P	09 00 36.6	+3.3
PKI	Pulchoki	33.12	336	eP	P	09 00 41.1	+5.8
GUN	Gumba	33.23	337	eP	P	09 00 39.6	+3.3
DMN	Daman	33.28	335	eP	P	09 00 42.1	+5.4
KKN	Kakani	33.37	336	eP	P	09 00 41.0	+3.5
	6.2nm,0.3s,mb5.0						
GKN	Gorkha	33.83	335	eP	P	09 00 46.2	+4.7
	11nm,0.3s,mb5.2						
KOLN	Koldanda	34.08	333	eP	P	09 00 50.6	+7.0
DANN	Dangsing	34.51	334	eP	P	09 00 52.2	+4.9
	17nm,0.5s,mb5.2						
WRA	Warramunga Arr	37.64	120	P	P	09 01 14.1	-0.3
	20nm,0.9s,mb4.8,baz=306,slow=9.1,SNR=7619						
WRAB	Tennant Creek	37.65	120	eP	P	09 01 14.6	+0.2
	6.4nm,0.5s,mb4.6						
ASAR	Alice Springs	38.86	126	P	P	09 01 24.2	-0.3
	5.2nm,0.6s,mb4.4,baz=300,slow=7.8,SNR=32						
KSH	Kashi	47.37	335	eP	P	09 02 36.5	+3.4
KSH				epP	pP	09 02 45.8	+2.9
KSH				esP	sP	09 02 50.3	+3.5
KSH				ePcP	PcP	09 04 10.0	+6.5
KSH				ePP	PP	09 04 25.8	+1.2
KSH				eScP	ScP	09 08 00.0	+4.6
KSH				ePcS	PcS	09 08 04.0	+5.3
KSH				eS	S	09 09 22.3	-2.7
KSH				esS	sS	09 09 38.5	-2.6
KSH				eSS	SS	09 12 43.0	-10
KSH				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.8						
KSRS	Korea Array	47.45	30	P	P	09 02 34.2	+0.5
	comp=Z,5.4nm,0.5s,mb4.7,baz=224,slow=8.1,SNR=23						
STKA	Stephens Creek	48.72	131	P	P	09 02 44.3	+0.6
	comp=Z,2.3nm,0.3s,mb4.6,baz=248,slow=6.1,SNR=3.9						
TKM2	Tokmak 2	50.38	337	eP	P	09 02 56.8	+0.7
	comp=Z,11nm,0.7s,mb5.0						
SONM	Songino Array	50.49	6	P	P	09 02 58.0	+1.1
	comp=Z,9.4nm,0.7s,mb4.9,baz=188,slow=9.3,SNR=24						
AML	Almayashu	50.50	335	eP	P	09 02 57.7	+0.6
	comp=Z,6.0nm,0.6s,mb4.7						
AAK	Ala-Archa	50.58	336	P	P	09 02 58.4	+0.8
	comp=Z,1.1nm,0.4s,mb4.1,baz=151,slow=19,SNR=3.3						
EKS2	Erkin-Say	50.90	335	eP	P	09 03 00.9	+0.8
	comp=Z,8.1nm,0.5s,mb4.9						
CN2	Changchun	51.46	23	eP	P	09 03 04.0	-0.2
CN2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
MKAR	Makanchi Array	51.59	344	P	P	09 03 05.4	+0.2
	comp=Z,9.9nm,0.8s,mb4.8,baz=149,slow=8.3,SNR=41						
MJAR	Matsushiro Arr	52.65	39	P	P	09 03 12.8	-0.4
	comp=Z,3.7nm,0.9s,mb4.3,baz=226,slow=7.5,SNR=7.2						
KURK	Kurchatov	56.16	344	P	P	09 03 38.0	-0.5
	comp=Z,7.3nm,1.0s,mb4.7,baz=166,slow=6.8,SNR=8.3						
ZAA0	Zalesovo Array	57.73	349	eP	P	09 03 49.5	-0.1
ZALV	Zalesovo Beam	57.73	349	P	P	09 03 49.1	-0.4
	comp=Z,10.0nm,0.7s,mb5.0,baz=179,slow=5.9,SNR=18						
ASAJ	Asahikawa	60.02	34	P	P	09 04 06.3	+0.7
	comp=Z,2.7nm,0.3s,mb4.7,baz=265,slow=11,SNR=4.8						
BVAR	Borovoye Array	60.73	340	P	P	09 04 09.3	-1.1
	comp=Z,1.2nm,0.5s,mb4.3,baz=137,slow=9.2,SNR=6.0						
KMBO	Kilima Mbogo	62.81	270	P	P	09 04 24.4	-0.7
	comp=Z,0.3nm,0.3s,mb3.9,baz=80,slow=12,SNR=2.0						
BRTR	Keskin Array B	73.76	313	P	P	09 05 30.7	-2.5
	comp=Z,0.5nm,0.5s,mb3.7,baz=131,slow=8.9,SNR=4.1						
TIXI	Tiksi	76.39	9	eP	P	09 05 46.4	-1.3
	comp=Z,3.1nm,0.4s,mb4.6						
FINES	FINESS Array B	84.64	332	P	P	09 06 30.9	-1.3
	comp=Z,2.0nm,0.7s,mb4.4,baz=114,slow=7.6,SNR=4.8						
ARCES	ARCESS Array B	87.02	340	P	P	09 06 43.3	-0.5
	comp=Z,1.2nm,0.8s,mb4.2,baz=139,slow=4.9,SNR=3.4						
TXAR	Lajitas Array	145.09	38	PKPbc	PKPbc	09 13 37.1	+0.7
	comp=Z,12nm,0.7s,baz=225,slow=0.9,SNR=137						
TKL	Tuckaleechee C	146.87	6	PKPbc	PKPbc	09 13 40.5	-1.1
	comp=Z,3.2nm,0.8s,baz=270,slow=4.0,SNR=5.5						

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*ISCJB **25** 09:03:58.6±0.6, 1°.05S±0°.07×99°.62E±0°.05, h56^{km}±6^{km}, mb4.1/7, Error ellipse: s-maj=11.3km s-min=7.5km az=162.4*

*DJA **25** 09:03:59, 1°.02S×99°.62E, h20^{km}, MLv5.0/5*

*IDC **25** 09:04:01.3±4.5, 0°.92S×99°.98E, h53^{km}±37^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.7/21, mbtmp3.9/8, ML3.9/1, Error ellipse: s-maj=70.1km s-min=17.3km az=56.0*

ISC 25 09:03:59.6±0.6**, 1°.07S**±0°.07×**99°.63E**±0°.05**, h47^{km}**±7^{km}**, n15, σ0ˢ.94**/18**, mb4.1**/7**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	Saibi	0.60	245	P	Pn	09 04 11.2	-0.7
SISI				S	Sn	09 04 20.6	-0.2
PDSI	Padang	0.84	79	P	Pn	09 04 14.9	-0.3
PDSI				S	Sn	09 04 27.1	+0.6
PPI	Padang Panjang	0.98	51	P	Pn	09 04 16.5	-0.5
PPI				S	Sn	09 04 29.4	-0.4
GSI	Gunungsitoli	3.13	319	P	Pn	09 04 46.9	+0.4
PSI	Prapat	3.91	350	P	Pn	09 04 56.8	-0.4
	8.6nm,0.3s,baz=177,slow=3.1,SNR=23						
KSI	Kapahiang	3.91	131	P	Pn	09 04 59.4	+2.2
MYKOM	Kota Tinggi	5.09	56	P	Pn	09 05 12.2	-1.1
IPM	Ipoh	5.69	14	P	Pn	09 05 23.2	+1.6
WRA	Warramunga Arr	38.78	121	P	P	09 11 18.7	-1.2
	1.0nm,0.4s,mb3.9,baz=305,slow=9.0,SNR=16						
ASAR	Alice Springs	40.09	127	P	P	09 11 30.8	0.0
	1.1nm,0.8s,mb3.7,baz=299,slow=8.0,SNR=10						
KSRS	Korea Array	46.42	31	P	P	09 12 19.9	-1.8
	0.8nm,0.5s,mb3.9,baz=219,slow=7.4,SNR=5.3						
SONM	Songino Array	49.06	6	P	P	09 12 42.2	+0.3
	0.9nm,0.5s,mb4.1,baz=189,slow=10,SNR=6.4						
MKAR	Makanchi Array	50.04	345	P	P	09 12 50.0	+0.6
	1.3nm,0.3s,mb4.4,baz=160,slow=8.4,SNR=21						
ZALV	Zalesovo Beam	56.19	350	P	P	09 13 34.6	+0.1
	3.8nm,0.6s,mb4.6,baz=183,slow=7.0,SNR=13						
ARCES	ARCESS Array B	85.48	340	P	P	09 16 33.2	+1.2
	3.1nm,0.9s,mb4.4,baz=98,slow=5.1,SNR=4.2						

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*ISCJB **25** 09:09:19.3±0.9, 17°.14N±0°.05×99°.97W±0°.05, h49^{km}±10^{km}, Error ellipse: s-maj=9.1km s-min=7.3km az=18.0*

*NEIC **25** 09:09:21.3, 17°.13N×99°.98W, h46^{km}, MD3.8(MEX), After MEX.*

*MEX **25** 09:09:21.1±0.6, 17°.14N×99°.98W, h48^{km}±7^{km}, MD3.8*

ISC 25 09:09:19.9±0.9**, 17°.14N**±0°.06×**99°.97W**±0°.05**, h44^{km}**±13^{km}**, n9, σ0ˢ.48**/16**, 1D, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.28	169	iP	Pn	09 09 28.3	-0.1
ACX				iS	Sn	09 09 34.7	+0.4
CAIG	El Cayaco	0.30	252	iP	Pn	09 09 28.3	-0.3
CAIG				iS	Sn	09 09 34.5	-0.1
MEIG	Mezcala	0.85	23	eP	Pn	09 09 35.1	-0.4
MEIG				iS	Sn	09 09 46.2	-0.6
PLIG	Platanillo	1.32	20	eP	Pn	09 09 41.9	0.0
PLIG				iS	Sn	09 09 59.1	+0.7
ZIIG	Zihuatanejo	1.50	288	iP	Pn	09 09 44.5	+0.1
ZIIG				iS	Sn	09 10 02.6	-0.1
PNIG	Pinotepa	1.92	113	iP	Pn	09 09 50.6	+0.4
PNIG				iS	Sn	09 10 12.2	-0.9
UTMO	Huajuapan	2.18	71	eP	Pn	09 09 54.7	+1.0
UTMO				iS	Sn	09 10 19.4	-0.1
TBG	Guadaloupe-3	36.73	86	⇓iP	P	09 16 10.9	-12
TBG	Guadaloupe-3	36.73	86	eP	P	09 16 14.3	-9.0

CASC 25 09:10:55.5±2.2**, 8°.41N**×**82°.87W, h1^{km}**±7^{km}**, MD3.8, 2C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	Cerro Adams	0.38	309	⇑eP	Pg	09 11 04.3	+1.5
ACR				eS	Sg	09 11 11.4	+3.7
BAR1		0.93	332	eP	Pg	09 11 13.6	+0.2
BAR1				eS	Sg	09 11 28.1	+2.5
CNI	Changuinola	1.06	19	⇓iP	Pg	09 11 15.8	0.0
CNI				eS	Sg	09 11 31.5	+1.9
BUS	Buena Vista	1.44	322	⇑eP	Pn	09 11 21.6	-1.1
BUS				eS	Sg	09 11 42.6	+0.9
URSC	Urasca	1.68	328	eP	Pn	09 11 25.7	-0.3
LCR2	La Lucha 2	1.73	320	eP	Pn	09 11 25.9	-0.9
LCR2				eS	Sn	09 11 50.9	+1.3
LAJ	Bijagual	1.90	319	eP	Pn	09 11 31.2	+2.1
PRS1	Puriscal	2.11	318	eP	Pn	09 11 31.2	-0.8
PRS1				eS	Sn	09 11 59.2	+0.3
CGA2	Cerro Gallo 2	2.24	315	eP	Pn	09 11 35.2	+1.4
CGA2				eS	Sn	09 12 05.3	+3.2
FORC	Fortuna	2.71	319	eP	Pn	09 11 42.0	+1.8

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*SZGRF **25** 09:10:16.1, 24°.31S×179°.17W, h530^{km}, South of Fiji Islands*

*ISCJB **25** 09:11:10.9±1.0, 24°.31S±0°.06×179°.92E±0°.05, h505^{km}±11^{km}, mb4.6/61, Error ellipse: s-maj=9.3km s-min=5.6km az=151.6*

*MOS **25** 09:11:11.3±3.4, 24°.11S×179°.97W, h479^{km}, mb4.8/19, Error ellipse: s-maj=13.1km s-min=11.4km az=72.0*

*BGS **25** 09:11:11.2±3.8, 24°.21S×179°.94E, h500^{km}, mb4.8(NEIC)*

*IDC **25** 09:11:11.7±0.5, 24°.24S×179°.97E, h504^{km}±4^{km}, mb4.0/21, mb1 4.2/22, mb1mx4.2/23, mbtmp4.1/22, Error ellipse: s-maj=10.3km s-min=8.3km az=154.0*

*NEIC **25** 09:11:11.2±0.8, 24°.21S×179°.94E, h500^{km}±9^{km}, mb4.8/35, Error ellipse: s-maj=8.9km s-min=6.1km az=154.0*

*BJI **25** 09:11:14.6, 23°.48S×179°.23E, h500^{km}, mB4.9/7, mb4.7/18*

ISC 25 09:11:11.9±0.9**, 24°.29S**±0°.06×**179°.95E**±0°.05**, h506^{km}**±11^{km}**, h501^{km}**±2.2^{km}**:pP-P, n606, σ0ˢ.53**/455**, mb4.6**/61**, 173C-169D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.30	159	P	P	09 12 41.8	0.0
RAO				S	S	09 13 46.0	-9.3
RAO				pmax	pmax		
	comp=Z,197nm,0.3s						
RAO				smax			
	comp=N,122nm,0.3s						
RAO	Raoul Island	5.30	159	P	P	09 12 41.8	+0.1
	comp=N,197nm,0.3s,baz=95,slow=22,SNR=12						
RAO				S	S	09 13 46.0	-9.2
	comp=N,122nm,0.3s,baz=240,slow=23,SNR=2.6						
NOUC	Port Laguerre	12.74	277	eP	P	09 14 03.0	+4.7
URZ	Urewera	14.13	189	P	P	09 14 10.4	-2.3
	comp=N,6.7nm,0.3s,baz=6.9,slow=4.7,SNR=27						
URZ				S	S	09 16 36.4	-5.6
	comp=N,2.3nm,0.3s,baz=201,slow=19,SNR=3.5						
URZ	Urewera	14.13	189	eP	P	09 14 11.0	-1.8
	comp=N,31nm,0.8s						
KHZ	Kahutara	18.84	195	eP	P	09 14 58.6	-0.8
RPZ	Rata Peaks	20.71	198	P	P	09 15 15.0	-1.4

	comp=N,19nm,0.6s,baz=0.5,slow=5.4,SNR=16						
RPZ				S	**S**	**09 18 34.1**	**-0.7**
	comp=N,23nm,1.2s,baz=39,slow=9.6,SNR=2.8						
RPZ	**Rata Peaks**	**20.71**	**198**	*e*P	**P**	**09 15 15.7**	**-0.7**
	comp=N,22nm,0.7s						
ARMA	**Armidale**	**25.84**	**250**	*e*P	**P**	**09 16 04.7**	**+2.2**
ARMA	**Armidale**	**25.84**	**250**	*e*P	**P**	**09 16 04.4**	**+1.9**
	comp=N,12nm,0.9s,mb4.3						
EIDS	**Eidsvold**	**26.20**	**262**	*e*P	**P**	**09 16 06.9**	**+1.2**
	comp=N,17nm,0.8s,mb4.5						
TARA	**Tarawa**	**26.39**	**344**	P	**P**	**09 16 03.4**	**-4.1**
CNB	**Canberra Magne**	**28.61**	**240**	*e*P	**P**	**09 16 28.8**	**+2.0**
CTA	**Charters Tower**	**31.43**	**271**	P	**P**	**09 16 52.2**	**+0.8**
CTA				pmax	pmax		
	comp=Z,35nm,0.3s						
CTA	**Charters Tower**	**31.43**	**271**	⇓*i*P	**P**	**09 16 52.2**	**+0.8**
	comp=Z,29nm,0.3s,mb5.2						
CTA	**Charters Tower**	**31.43**	**271**	P	**P**	**09 16 52.2**	**+0.8**
	comp=Z,35nm,0.3s,mb5.3,baz=96,slow=9.4,SNR=93						
CTAO	**Charters Tower**	**31.43**	**271**	*e*P	**P**	**09 16 52.1**	**+0.7**
CTAO				pmax	pmax		
	comp=Z,54nm,0.5s,mb5.2						
CTAO	**Charters Tower**	**31.43**	**271**	*e*P	**P**	**09 16 52.1**	**+0.7**
	comp=Z,54nm,0.5s,mb5.2						
TOO	**Toolangi**	**32.20**	**238**	*e*P	**P**	**09 16 57.6**	**-0.1**
STKA	**Stephens Creek**	**34.53**	**249**	*e*P	**P**	**09 17 18.3**	**+0.7**
	comp=Z,7.0nm,0.6s,mb4.3						
STKA				*e*PCP	PcP	09 19 39.1	+0.8
STKA				*e*S	**S**	**09 22 10.3**	**+0.2**
STKA				*e*SCS	ScS	09 26 41.2	+1.3
STKA	**Stephens Creek**	**34.53**	**249**	P	**P**	**09 17 18.3**	**+0.7**
	comp=Z,6.1nm,0.5s,mb4.3,baz=87,slow=9.1,SNR=24						
STKA				PcP	PcP	09 19 39.0	+0.8
	comp=Z,4.8nm,0.7s,baz=83,slow=6.0,SNR=4.8						
STKA				S	**S**	**09 22 09.7**	**-0.5**
	comp=Z,2.3nm,0.8s,baz=268,slow=16,SNR=3.4						
ASAR	**Alice Springs**	**41.92**	**261**	P	**P**	**09 18 17.9**	**0.0**
ASAR				*PP	pP	09 19 50.2	+0.3
ASAR				S	**S**	**09 23 58.9**	**-0.5**
ASAR				pmax	pmax		
	comp=Z,5.0nm,0.4s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR				pmax	pmax		
	comp=N,5.0nm,1.0s						
ASAR				smax			
	comp=N,3.0nm,0.9s						
ASAR	**Alice Springs**	**41.92**	**261**	P	**P**	**09 18 17.9**	**-0.1**
	comp=N,4.6nm,0.4s,mb4.2,baz=90,slow=6.4,SNR=103						
ASAR				pP	pP	09 19 50.2	+0.3
	comp=N,1.4nm,0.8s,baz=86,slow=7.1,SNR=1.1						
ASAR				ScP	ScP	09 23 05.3	+1.4
	comp=N,5.1nm,1.0s,baz=115,slow=4.5,SNR=8.8						
ASAR				S	**S**	**09 23 58.9**	**-0.6**
	comp=N,2.5nm,0.9s,baz=97,slow=15,SNR=9.2						
WRAB	**Tennant Creek**	**42.33**	**267**	*e*P	**P**	**09 18 20.5**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.6						
WRAB	**Tennant Creek**	**42.33**	**267**	*e*P	**P**	**09 18 20.5**	**-0.6**
	comp=Z,18nm,0.7s,mb4.6						
WRA	**Warramunga Arr**	**42.33**	**267**	P	**P**	**09 18 20.6**	**-0.6**
WRA				S	**S**	**09 24 02.6**	**-2.8**
WRA				pmax	pmax		
	comp=Z,13nm,0.3s						
WRA				pmax	pmax		
	comp=N,13nm,1.0s						
WRA				smax			
	comp=N,11nm,1.2s						
WRA	**Warramunga Arr**	**42.33**	**267**	P	**P**	**09 18 20.6**	**-0.5**
	comp=N,13nm,0.3s,mb4.9,baz=97,slow=8.3,SNR=591						
WRA				ScP	ScP	09 23 07.4	+1.8
	comp=N,13nm,1.0s,baz=100,slow=3.9,SNR=15						
WRA				S	**S**	**09 24 02.6**	**-2.8**
	comp=N,11nm,1.2s,baz=105,slow=14,SNR=12						
FORT	**Forrest**	**46.13**	**250**	*e*P	**P**	**09 18 49.7**	**-0.7**
	comp=N,5.9nm,0.4s,mb4.4						
FORT	**Forrest**	**46.13**	**250**	*e*P	**P**	**09 18 49.5**	**-1.0**
	comp=N,31nm,0.6s,mb4.9						
KAKA	**Kakadu**	**46.30**	**276**	*e*P	**P**	**09 18 51.2**	**-0.7**
	comp=N,12nm,0.3s,mb4.8						
KAKA	**Kakadu**	**46.30**	**276**	*e*P	**P**	**09 18 51.0**	**-1.0**
	comp=N,36nm,0.4s,mb5.2						
FITZ	**Fitzroy Crossi**	**50.75**	**266**	*e*P	**P**	**09 19 26.1**	**+1.0**
	comp=N,21nm,0.9s,mb4.5						
FITZ				*e*S	**S**	**09 26 04.2**	**+1.4**
FITZ	**Fitzroy Crossi**	**50.75**	**266**	P	**P**	**09 19 25.9**	**+0.9**
	comp=N,6.1nm,0.4s,mb4.3,baz=122,slow=7.6,SNR=18						
FITZ				S	**S**	**09 26 04.0**	**+1.3**
	comp=N,4.8nm,1.0s,baz=236,slow=18,SNR=5.6						
FITZ	**Fitzroy Crossi**	**50.75**	**266**	*e*P	**P**	**09 19 25.1**	**+0.1**
	comp=N,11nm,0.8s,mb4.2						
VNDA	**Vanda**	**53.99**	**185**	P	**P**	**09 19 48.9**	**+1.5**
VNDA						09 20 44.8	
VNDA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
VNDA	**Vanda**	**53.99**	**185**	P	**P**	**09 19 48.9**	**+1.5**
	comp=Z,6.2nm,0.8s,mb4.0,baz=19,slow=6.8,SNR=2.6						
VNDA				PcP	PcP	09 20 44.8	+0.1
	comp=Z,2.9nm,0.5s,baz=331,slow=5.1,SNR=3.6						
QSPA	**South Pole Qui**	**65.79**	**180**	P	**P**	**09 21 07.2**	**+1.3**
	comp=Z,39nm,0.7s,mb5.1,baz=32,slow=1.6,SNR=132						
MJAR	**Matsushiro Arr**	**72.19**	**326**	P	**P**	**09 21 44.7**	**-0.4**
MJAR				*PP	pP	09 23 31.0	-0.8
MJAR						09 24 29.5	
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MJAR	**Matsushiro Arr**	**72.19**	**326**	P	**P**	**09 21 44.7**	**-0.4**
	comp=Z,3.1nm,0.8s,mb3.9,baz=156,slow=5.8,SNR=9.1						
MJAR				pP	pP	09 23 31.0	-0.8
	comp=Z,0.6nm,0.4s,baz=322,slow=28,SNR=1.7						
MJAR				PP	PP	09 24 29.5	-5.2
	comp=Z,1.3nm,0.8s,baz=129,slow=15,SNR=3.2						
MAT	**Matsushiro**	**72.19**	**326**	P	**P**	**09 21 44.7**	**-0.4**
MAW	**Mawson**	**77.37**	**200**	P	**P**	**09 22 14.1**	**+0.3**
MAW				pmax	pmax		
	comp=Z,23nm,0.6s						
MAW	**Mawson**	**77.37**	**200**	P	**P**	**09 22 14.1**	**+0.3**
	comp=Z,23nm,0.6s,mb4.8,baz=143,slow=5.8,SNR=6.8						
YSS	**Yuzh-Sakhalins**	**78.47**	**335**	⇑*e*P	**P**	**09 22 20.0**	**+0.1**
YSS				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.5						
KSRS	**Korea Array**	**78.51**	**320**	P	**P**	**09 22 20.2**	**-0.2**
KSRS				*PP	pP	09 24 09.1	-0.3
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.9						
KSRS	**Korea Array**	**78.51**	**320**	P	**P**	**09 22 20.2**	**-0.2**
	comp=Z,2.9nm,0.7s,mb3.9,baz=130,slow=5.9,SNR=11						
KSRS				pP	pP	09 24 09.1	-0.3
	comp=Z,0.4nm,0.4s,baz=188,slow=26,SNR=2.4						
PETK	**Petropavlovsk-**	**79.47**	**347**	P	**P**	**09 22 24.6**	**-0.4**
PETK				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.5						
PETK	**Petropavlovsk-**	**79.47**	**347**	P	**P**	**09 22 24.6**	**-0.4**
	comp=Z,14nm,0.9s,mb4.5,baz=103,slow=8.1,SNR=8.1						
NJ2	**Nanjing**	**80.88**	**311**	*e*P	**P**	**09 22 31.0**	**-2.0**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.6						
USHA	**Ushuaia**	**82.00**	**147**	P	**P**	**09 22 38.7**	**+0.2**
	comp=Z,12nm,1.0s,mb4.4,baz=227,slow=6.5,SNR=4.8						
SYO	**Syowa Base**	**82.62**	**193**	⇓*e*P	**P**	**09 22 40.0**	**-1.3**
SYO	**Syowa Base**	**82.62**	**193**	⇓*e*PcP	PcP	09 22 44.6	-0.3
109C	**Camp Elliot, M**	**82.64**	**49**	⇓P	**P**	**09 22 41.5**	**-0.5**
	baz=83						
MURC	**Murrieta**	**82.98**	**48**	⇑P	**P**	**09 22 43.4**	**-0.2**
	baz=83						
VES	**Vestal, Richgr**	**83.03**	**46**	⇓P	**P**	**09 22 43.6**	**-0.3**
	baz=83						
BFSC	**Mount Baldy St**	**83.04**	**48**	⇑P	**P**	**09 22 43.7**	**-0.2**
	baz=83						
MONP	**Monument Peak**	**83.11**	**49**	⇓P	**P**	**09 22 44.8**	**+0.5**
	baz=83						
RCTC	**Rector, Farmer**	**83.21**	**45**	⇑P	**P**	**09 22 44.6**	**-0.2**
	baz=83						
ISA	**Isabella**	**83.33**	**46**	⇓P	**P**	**09 22 45.4**	**+0.1**
	baz=84						
PFO	**Pinyon Flat Ob**	**83.50**	**49**	⇑*e*P	**P**	**09 22 47.3**	**+1.0**
PFO	**Pinyon Flat Ob**	**83.50**	**49**	⇑P	**P**	**09 22 46.1**	**-0.1**
	baz=84						
SWSC	**Sam W. Stewart**	**83.58**	**50**	⇑P	**P**	**09 22 46.6**	**0.0**
	baz=84,SNR=5.8						
LRMC	**Laurel Mountai**	**83.74**	**47**	⇑P	**P**	**09 22 47.2**	**-0.2**
	baz=84						
WDC	**Whiskeytown Da**	**83.79**	**40**	*e*P	**P**	**09 22 47.9**	**+0.4**
WDC				pmax	pmax		
	comp=Z,176nm,2.5s,mb5.2						
WDC	**Whiskeytown Da**	**83.79**	**40**	*e*P	**P**	**09 22 47.9**	**+0.4**
	comp=Z,176nm,2.5s,mb5.2						
BELC	**Belle Mtn.**	**84.03**	**49**	⇓P	**P**	**09 22 48.9**	**0.0**
	baz=84						
CN2	**Changchun**	**84.17**	**324**	*e*P	**P**	**09 22 50.0**	**+0.7**
CN2				*e*pP	pP	09 24 42.3	+2.1
CN2				pmax	pmax		
	comp=Z,30nm,1.1s,mb4.7						
112A	**Yuma**	**84.20**	**51**	⇑P	**P**	**09 22 50.2**	**+0.4**
	baz=84,SNR=5.3						
MPMC	**Manual Prospec**	**84.21**	**46**	⇑P	**P**	**09 22 50.0**	**+0.3**
	baz=84						
BC3	**Big Chuckw Mtn**	**84.21**	**49**	⇑P	**P**	**09 22 49.9**	**+0.1**
	baz=84,SNR=5.3						
GSC	**Goldstone**	**84.22**	**47**	*e*P	**P**	**09 22 49.6**	**-0.2**
GSC				pmax	pmax		
	comp=Z,36nm,1.4s,mb4.7						
GSC	**Goldstone**	**84.22**	**47**	⇓P	**P**	**09 22 49.7**	**-0.1**
	baz=84,SNR=7.8						
GSC	**Goldstone**	**84.22**	**47**	*e*P	**P**	**09 22 49.6**	**-0.3**
	comp=Z,36nm,1.4s,mb4.7						
MLAC	**Mammoth Lakes**	**84.25**	**44**	⇓P	**P**	**09 22 50.2**	**+0.3**
	baz=84						
MTUM	**Tungsten Hills**	**84.26**	**45**	*e*P	**P**	**09 22 50.7**	**+0.7**
HEC	**Hector,Ludlow**	**84.28**	**48**	⇑P	**P**	**09 22 50.0**	**-0.1**
	baz=84,SNR=6.3						
GLA	**Glamis**	**84.31**	**50**	⇓P	**P**	**09 22 50.6**	**+0.3**
	baz=84,SNR=5.1						
R06C	**Coleville**	**84.40**	**43**	⇑P	**P**	**09 22 50.6**	**0.0**
	baz=84						
YBH	**Yreka Blue Hor**	**84.42**	**39**	P	**P**	**09 22 51.2**	**+0.6**
YBH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
YBH	**Yreka Blue Hor**	**84.42**	**39**	P	**P**	**09 22 51.2**	**+0.6**
	comp=Z,6.6nm,0.8s,mb4.2,baz=334,slow=2.6,SNR=12						
VNA3	**Neumayer Olymp**	**84.49**	**177**	*e*P	**P**	**09 22 50.1**	**-0.5**
WCN	**Washoe City**	**84.68**	**43**	⇑P	**P**	**09 22 52.4**	**+0.4**
	baz=85						
GMRC	**Granite Mounta**	**84.70**	**48**	⇑P	**P**	**09 22 51.9**	**-0.2**
	baz=85,SNR=6.4						
IRM	**Iron Mountain**	**84.70**	**49**	⇓P	**P**	**09 22 52.4**	**+0.2**
	baz=85,SNR=13						
P06A	**Stead Airport,**	**84.82**	**42**	⇓P	**P**	**09 22 52.8**	**+0.2**
	baz=85						
GRAC	**Grapevine Rang**	**84.83**	**46**	⇑P	**P**	**09 22 53.1**	**+0.3**
	baz=85						
HUMO	**Hull Mountain**	**84.83**	**38**	*e*P	**P**	**09 22 52.1**	**-0.5**
	comp=Z,24nm,1.3s,mb4.7						
FURC	**Furnace Creek,**	**84.86**	**46**	⇑P	**P**	**09 22 52.8**	**-0.1**
	baz=85						
TUQ	**Turquoise Moun**	**84.89**	**48**	⇓P	**P**	**09 22 53.1**	**0.0**
	baz=85,SNR=5.6						
113A	**Mohawk Valley,**	**84.90**	**51**	⇑P	**P**	**09 22 53.5**	**+0.3**
	baz=85,SNR=6.5						
VNA2	**Neumayer--Watz**	**84.91**	**178**	*e*P	**P**	**09 22 52.3**	**-0.3**
	baz=200,slow=3.5						
Y12C	**Blythe**	**84.91**	**50**	⇓P	**P**	**09 22 53.7**	**+0.5**
	baz=85,SNR=6.6						
SHOC	**Shoshone**	**84.92**	**47**	⇑P	**P**	**09 22 53.3**	**+0.1**
	baz=85						
KDAK	**Kodiak Island**	**84.93**	**14**	P	**P**	**09 22 52.9**	**+0.2**
KDAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
KDAK	**Kodiak Island**	**84.93**	**14**	P	**P**	**09 22 52.9**	**+0.2**
	comp=Z,8.3nm,0.8s,mb4.4,baz=173,slow=23,SNR=4.1						
NVAR	**Mina Array Bea**	**85.06**	**44**	P	**P**	**09 22 53.6**	**-0.2**
	comp=Z,5.1nm,0.8s,mb4.2,baz=223,slow=8.1,SNR=32						
NVAR				pP	pP	09 24 44.9	-0.1
	comp=Z,0.1nm,0.4s,baz=72,slow=39,SNR=1.8						
R08A	**Mina**	**85.14**	**44**	⇑P	**P**	**09 22 54.2**	**0.0**
	baz=85						
214A	**Organ Pipe Nat**	**85.15**	**52**	⇑P	**P**	**09 22 54.4**	**0.0**
	baz=85,SNR=8.8						
O06A	**Flanigan**	**85.16**	**42**	⇓P	**P**	**09 22 54.0**	**-0.3**
	baz=85,SNR=5.7						
U10A	**Ash Meadows, A**	**85.18**	**47**	⇑P	**P**	**09 22 54.1**	**-0.3**
	baz=85						
LDFC	**Landfair**	**85.24**	**48**	*e*P	**P**	**09 22 55.1**	**+0.3**
S09A	**Goldfield**	**85.34**	**45**	⇓P	**P**	**09 22 55.2**	**0.0**
	baz=86						
Y13A	**Salome**	**85.43**	**50**	⇓P	**P**	**09 22 56.3**	**+0.6**
	baz=86						
V11A	**Goodsprings**	**85.45**	**47**	⇓P	**P**	**09 22 55.9**	**+0.1**
	baz=86,SNR=6.4						
PDMCI	**Parker Dam,Lak**	**85.48**	**49**	⇑P	**P**	**09 22 55.9**	**0.0**
	baz=86,SNR=7.1						
114A	**Black Gap (USA**	**85.52**	**51**	⇓P	**P**	**09 22 56.6**	**+0.4**
	baz=86						
W12A	**Cal Nev Ari**	**85.53**	**48**	⇑P	**P**	**09 22 56.4**	**+0.2**
	baz=86						
O07A	**Toulon**	**85.73**	**42**	⇓P	**P**	**09 22 56.6**	**-0.5**
	baz=86,SNR=8.1						
R09A	**Tonopah**	**85.74**	**45**	⇑P	**P**	**09 22 57.0**	**-0.2**
	baz=86						
V12A	**Nelson**	**85.78**	**48**	⇑P	**P**	**09 22 57.4**	**0.0**
	baz=86,SNR=6.2						
Z14A	**Wintersburg**	**85.80**	**51**	⇑P	**P**	**09 22 57.7**	**+0.2**
	baz=86,SNR=9.7						
U11A	**Corn Creek**	**85.81**	**47**	⇓P	**P**	**09 22 57.4**	**-0.1**
	baz=86						
X13A	**Yucca**	**85.85**	**49**	⇑P	**P**	**09 22 57.7**	**-0.1**
	baz=86,SNR=9.1						
S10A	**Tonopah Range,**	**85.86**	**45**	⇓P	**P**	**09 22 57.7**	**0.0**
	baz=86,SNR=18						
N07B	**Gerlach**	**86.05**	**42**	⇑P	**P**	**09 22 58.2**	**-0.3**
	baz=86						
Y14A	**Wickenburg**	**86.07**	**50**	⇑P	**P**	**09 22 58.9**	**0.0**
	baz=86,SNR=6.7						
K05A	**Summer Lake**	**86.09**	**39**	⇓P	**P**	**09 22 59.4**	**+0.8**
	baz=86,SNR=5.3						
W13A	**Hualapai Mount**	**86.09**	**49**	⇑P	**P**	**09 22 59.2**	**+0.3**
	baz=86,SNR=5.8						
216A	**Three Points,**	**86.15**	**52**	⇓P	**P**	**09 22 59.7**	**+0.5**
	baz=86,SNR=8.7						
O08A	**Rochester Mine**	**86.26**	**43**	⇓P	**P**	**09 23 00.1**	**+0.5**
	baz=86						
S11A	**Rachel**	**86.26**	**46**	⇑P	**P**	**09 22 59.7**	**+0.1**
	baz=86						
116A	**Eloy**	**86.26**	**52**	⇓P	**P**	**09 23 00.4**	**+0.6**
	baz=86						
R10A	**Warm Springs**	**86.26**	**45**	⇑P	**P**	**09 22 59.7**	**+0.1**
	baz=86,SNR=5.8						
M07A	**Soldier Meadow**	**86.29**	**41**	⇑P	**P**	**09 23 00.2**	**+0.6**
	baz=86						
Z15A	**Gila River Ind**	**86.32**	**51**	⇑P	**P**	**09 23 00.2**	**+0.1**
	baz=86						
T11A	**Corn Creek, Al**	**86.38**	**46**	⇓P	**P**	**09 23 00.2**	**0.0**
	baz=86,SNR=18						
U12A	**Valley of Fire**	**86.38**	**47**	⇓P	**P**	**09 23 00.5**	**+0.3**
	baz=86						
V13A	**Grand Canyon W**	**86.44**	**48**	⇓P	**P**	**09 23 00.7**	**+0.2**
	baz=87,SNR=11						
X14A	**Yava**	**86.44**	**50**	⇓P	**P**	**09 23 00.7**	**+0.2**
	baz=87,SNR=7.2						
217A	**Green Valley**	**86.49**	**53**	⇓P	**P**	**09 23 01.3**	**+0.4**
	baz=87,SNR=29						
Q10A	**Clear Creek Ra**	**86.51**	**45**	⇓P	**P**	**09 23 00.9**	**+0.1**
	baz=87						
Y15A	**Casa Rosa Ranc**	**86.55**	**50**	⇑P	**P**	**09 23 01.2**	**+0.2**
	baz=87,SNR=11						
N08A	**GE Springer Mi**	**86.56**	**42**	⇓P	**P**	**09 23 01.2**	**+0.3**
	baz=87						
L07A	**Adell**	**86.57**	**41**	⇑P	**P**	**09 23 01.7**	**+0.7**
	baz=87,SNR=6.8						
H04A	**Detroit Lake**	**86.59**	**37**	⇓P	**P**	**09 23 00.7**	**-0.3**
	baz=87						
W14A	**Seligman**	**86.70**	**49**	⇓P	**P**	**09 23 02.2**	**+0.4**
	baz=87,SNR=7.3						
G04A	**Mulino**	**86.76**	**37**	⇑P	**P**	**09 23 02.1**	**+0.3**
	baz=87						
U13A	**Pakoon Wash**	**86.76**	**48**	⇑P	**P**	**09 23 02.1**	**+0.1**
	baz=87,SNR=16						
R11A	**Troy Canyon, C**	**86.76**	**45**	⇓P	**P**	**09 23 01.8**	**-0.2**
	baz=87						
O09A	**Fish Creek Ran**	**86.78**	**43**	⇑P	**P**	**09 23 02.0**	**0.0**
	baz=87						
TUC	**Tucson**	**86.79**	**52**	*e*P	**P**	**09 23 02.4**	**+0.1**
TUC				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
TUC	**Tucson**	**86.79**	**52**	*e*P	**P**	**09 23 02.4**	**+0.1**
	comp=Z,20nm,0.9s,mb4.8						
M08A	**Happy Creek Ra**	**86.81**	**42**	⇓P	**P**	**09 23 02.4**	**+0.3**
	baz=87						
S12A	**Delamar Landin**	**86.83**	**46**	⇓P	**P**	**09 23 02.6**	**+0.3**
	baz=87,SNR=8.7						
J06A	**Christmas Vall**	**86.84**	**39**	⇑P	**P**	**09 23 02.4**	**+0.1**
	baz=87,SNR=8.8						
X15A	**Humboldt**	**86.90**	**50**	⇑P	**P**	**09 23 02.9**	**+0.2**
	baz=87,SNR=7.7						
GYA	**Guiyang**	**86.90**	**301**	P	**P**	**09 23 03.3**	**+0.4**
GYA				pP	pP	09 24 53.8	-0.9
GYA				sP	sP	09 25 43.0	-3.2
GYA				SKS		09 32 42.0	
GYA				sS	sS	09 36 13.3	-4.7
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
GYA				pmax	pmax		
	comp=Z,90nm,5.1s						
V14A	**Boquillas Ranc**	**86.92**	**49**	⇓P	**P**	**09 23 03.0**	**+0.2**
	baz=87,SNR=7.1						
P10A	**Eureka**	**86.92**	**44**	⇑P	**P**	**09 23 02.8**	**+0.1**
	baz=87						
318A	**Bisbee**	**86.92**	**54**	⇓P	**P**	**09 23 03.7**	**+0.8**
	baz=87,SNR=31						
N09A	**Rock Creek Ran**	**86.97**	**42**	⇓P	**P**	**09 23 03.3**	**+0.4**
	baz=87						
Q11A	**Duckwater**	**87.00**	**45**	⇓P	**P**	**09 23 03.2**	**+0.1**
	baz=87						
K07A	**Rock Creek Ran**	**87.03**	**40**	⇑P	**P**	**09 23 03.4**	**+0.2**
	baz=87,SNR=8.8						
E03A	**Lebam**	**87.04**	**35**	⇑P	**P**	**09 23 03.7**	**+0.6**
	baz=87						
Y16A	**Circle Bar Ran**	**87.11**	**51**	⇑P	**P**	**09 23 04.1**	**+0.4**
	baz=87,SNR=9.4						
T13A	**Saint George**	**87.13**	**47**	⇑P	**P**	**09 23 04.0**	**+0.3**
	baz=87,SNR=7.5						
218A	**Dragoon**	**87.16**	**53**	⇓P	**P**	**09 23 04.2**	**+0.2**
	baz=87,SNR=33						
I06A	**Prineville**	**87.23**	**39**	⇓P	**P**	**09 23 04.4**	**+0.4**
	baz=87,SNR=22						
W15A	**Williams**	**87.25**	**49**	⇑P	**P**	**09 23 04.8**	**+0.4**
	baz=87						
F04A	**Amboy**	**87.25**	**36**	⇑P	**P**	**09 23 03.9**	**-0.2**
	baz=87,SNR=8.4						
L08A	**Fields**	**87.27**	**41**	⇑P	**P**	**09 23 04.3**	**+0.1**
	baz=87,SNR=9.9						
BJI	**Beijing**	**87.28**	**316**	P	**P**	**09 23 06.0**	**+1.6**
U14A	**Mt Trumbull**	**87.29**	**48**	⇑P	**P**	**09 23 05.2**	**+0.7**
	baz=87,SNR=17						
P11A	**Circle Ranch,**	**87.33**	**44**	⇑P	**P**	**09 23 04.9**	**+0.2**
	baz=88						
M09A	**Marrel Ranch,**	**87.36**	**42**	⇓P	**P**	**09 23 05.0**	**+0.3**
	baz=88,SNR=6.3						
R12A	**Pony Springs,**	**87.39**	**46**	⇓P	**P**	**09 23 05.0**	**+0.1**
	baz=88,SNR=7.8						
J07A	**Hines**	**87.41**	**40**	⇑P	**P**	**09 23 05.1**	**+0.2**
	baz=88,SNR=9.7						
319A	**Douglas**	**87.42**	**54**	⇓P	**P**	**09 23 06.1**	**+0.9**
	baz=88,SNR=11						
G05A	**Wamic**	**87.42**	**37**	⇑P	**P**	**09 23 04.9**	**+0.1**
	baz=88						
X16A	**Lo Mia Camp, P**	**87.42**	**50**	⇓P	**P**	**09 23 05.6**	**+0.4**
	baz=88,SNR=12						
NLWA	**Neilton Lookou**	**87.43**	**34**	⇓P	**P**	**09 23 05.4**	**+0.5**
	baz=88						
S13A	**Holt Ranch, En**	**87.47**	**47**	⇑P	**P**	**09 23 05.6**	**+0.3**
	baz=88,SNR=7.0						
Y17A	**Roosevelt**	**87.47**	**51**	⇓P	**P**	**09 23 05.9**	**+0.5**
	baz=88,SNR=5.8						
K08A	**Mann Creek Ran**	**87.50**	**40**	⇓P	**P**	**09 23 05.4**	**+0.1**
	baz=88,SNR=17						
N10A	**Dunphy**	**87.53**	**43**	⇓P	**P**	**09 23 05.5**	**0.0**
	baz=88						
Z17A	**San Carlos Hig**	**87.53**	**52**	⇑P	**P**	**09 23 06.4**	**+0.7**
	baz=88						
118A	**Homack Ranch,**	**87.55**	**53**	⇓P	**P**	**09 23 06.4**	**+0.6**
	baz=88,SNR=15						
L09A	**Wilkinson Ranc**	**87.57**	**41**	⇓P	**P**	**09 23 05.6**	**-0.1**
	baz=88,SNR=6.7						
Q12A	**Willow Creek R**	**87.64**	**45**	⇑P	**P**	**09 23 06.0**	**-0.1**
	baz=88,SNR=5.2						
H06A	**Lindquist Farm**	**87.65**	**38**	⇓P	**P**	**09 23 05.8**	**-0.2**
	baz=88,SNR=20						
V15A	**Kaibab Nationa**	**87.66**	**49**	⇑P	**P**	**09 23 06.7**	**+0.4**
	baz=88,SNR=9.2						
T14A	**Hurricane**	**87.70**	**47**	⇑P	**P**	**09 23 06.4**	**0.0**
	baz=88,SNR=6.3						
W16A	**Flagstaff**	**87.72**	**50**	⇓P	**P**	**09 23 06.8**	**+0.3**
	baz=88,SNR=6.0						
I07A	**Izee**	**87.72**	**39**	⇑P	**P**	**09 23 06.7**	**+0.4**
	baz=88,SNR=20						
R13A	**O'Grain Ranch,**	**87.72**	**46**	⇑P	**P**	**09 23 07.2**	**+0.7**
	baz=88						
O11A	**Cowboy Ranch,**	**87.72**	**44**	⇑P	**P**	**09 23 06.6**	**+0.1**
	baz=88,SNR=5.1						
G06A	**Carlson Farm,**	**87.79**	**37**	⇓P	**P**	**09 23 06.7**	**0.0**
	baz=88,SNR=9.9						
D04A	**Dobbs Creek Ra**	**87.80**	**35**	⇑P	**P**	**09 23 07.2**	**+0.6**
	baz=88						
J08A	**Circle Bar Ran**	**87.88**	**40**	⇑P	**P**	**09 23 07.3**	**+0.2**
	baz=88,SNR=16						
K09A	**Rome**	**87.94**	**41**	⇑P	**P**	**09 23 07.6**	**+0.2**
	baz=88,SNR=23						
M10A	**I.L. Ranch, Tu**	**87.97**	**42**	⇑P	**P**	**09 23 07.6**	**0.0**
	baz=88,SNR=11						
H07A	**Lands Inn, Kim**	**88.00**	**38**	⇓P	**P**	**09 23 07.7**	**+0.1**
	baz=88						
S14A	**Cedar City**	**88.02**	**47**	⇑P	**P**	**09 23 07.9**	**0.0**
	baz=88,SNR=5.3						
PLCA	**Paso Flores**	**88.03**	**134**	P	**P**	**09 23 08.5**	**+0.4**
PLCA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
PLCA	**Paso Flores**	**88.03**	**134**	P	**P**	**09 23 08.5**	**+0.4**
	comp=Z,3.7nm,0.8s,mb4.2,baz=186,slow=3.3,SNR=9.3						
F06A	**Goldendale**	**88.04**	**37**	⇓P	**P**	**09 23 08.1**	**+0.3**
	baz=88,SNR=9.7						
WUAZ	**Wupatki**	**88.05**	**50**	⇑P	**P**	**09 23 08.3**	**+0.2**
	baz=88						
WUAZ	**Wupatki**	**88.05**	**50**	*e*P	**P**	**09 23 09.2**	**+1.1**
	comp=Z,13nm,1.1s,mb4.6						
119A	**Ashpeak Ranch,**	**88.10**	**53**	⇑P	**P**	**09 23 09.1**	**+0.7**
	baz=88,SNR=6.5						
Q13A	**Wheeler Ranch,**	**88.12**	**45**	⇓P	**P**	**09 23 08.1**	**-0.2**
	baz=88,SNR=7.1						
T15A	**Red Dirt Ranch**	**88.15**	**48**	⇑P	**P**	**09 23 08.8**	**+0.2**
	baz=88,SNR=12						
I08A	**Drewsey**	**88.16**	**39**	⇓P	**P**	**09 23 08.5**	**+0.1**
	baz=88,SNR=21						
WPW	**White Pass**	**88.20**	**36**	P	**P**	**09 23 08.5**	**0.0**
D05A	**Enumclaw**	**88.28**	**35**	⇑P	**P**	**09 23 09.6**	**+0.7**
	baz=88,SNR=11						
W17A	**Winslow**	**88.28**	**50**	⇓P	**P**	**09 23 09.3**	**+0.2**
	baz=88						
J09A	**Fry Pan Ranch,**	**88.30**	**40**	⇓P	**P**	**09 23 09.0**	**0.0**
	baz=88,SNR=9.5						
L10A	**Juniper Basin**	**88.33**	**42**	⇑P	**P**	**09 23 09.1**	**-0.1**
	baz=88,SNR=12						
ELK	**Elko**	**88.33**	**43**	*e*P	**P**	**09 23 08.8**	**-0.5**
ELK				pmax	pmax		
	comp=Z,42nm,0.3s						
ELK	**Elko**	**88.33**	**43**	*e*P	**P**	**09 23 08.8**	**-0.5**
	comp=Z,42nm,0.3s,mb5.7						
G07A	**Ruggs Ranch, H**	**88.35**	**38**	⇑P	**P**	**09 23 09.1**	**-0.1**
	baz=88,SNR=11						
M11A	**Holland Ranch,**	**88.38**	**43**	⇑P	**P**	**09 23 09.9**	**+0.4**
	baz=88,SNR=12						
P13A	**Bates Ranch, G**	**88.39**	**45**	⇑P	**P**	**09 23 09.9**	**+0.3**
	baz=88,SNR=9.8						
Z19A	**T-Link Ranch,**	**88.39**	**52**	⇑P	**P**	**09 23 10.2**	**+0.5**
	baz=88						
E06A	**Yakima**	**88.41**	**36**	⇓P	**P**	**09 23 09.3**	**-0.2**
	baz=89,SNR=9.1						
PGC	**Sidney**	**88.46**	**34**	*e*P	**P**	**09 23 09.2**	**-0.4**
	comp=Z,1.3nm,0.8s,mb3.7						
H08A	**Prairie City**	**88.46**	**39**	⇑P	**P**	**09 23 09.5**	**-0.2**
	baz=89,SNR=11						
120A	**U Bar Ranch, L**	**88.48**	**53**	⇓P	**P**	**09 23 10.7**	**+0.6**
	baz=89						
K10A	**MacKenzie Ranc**	**88.49**	**41**	⇓P	**P**	**09 23 10.2**	**+0.2**
	baz=89,SNR=15						
S15A	**Panguitch**	**88.52**	**47**	⇑P	**P**	**09 23 11.1**	**+0.9**
	baz=89,SNR=10.0						
X18A	**Snowflake**	**88.53**	**51**	⇓P	**P**	**09 23 10.8**	**+0.4**
	baz=89,SNR=7.8						
U16A	**Tuba City**	**88.54**	**49**	⇓P	**P**	**09 23 10.9**	**+0.6**
	baz=89,SNR=8.7						
F07A	**Phinny Hill Vi**	**88.59**	**37**	⇑P	**P**	**09 23 10.6**	**+0.3**
	baz=89						
Q14A	**Sevier Lake (B**	**88.62**	**46**	⇓P	**P**	**09 23 11.0**	**+0.3**
	baz=89,SNR=14						
I09A	**Lost Marbles R**	**88.68**	**40**	⇑P	**P**	**09 23 10.7**	**-0.1**
	baz=89						

T16A	Glen Canyon Da	88.73	48	⇓P	P	09 23 11.3	+0.1
	baz=89						
Y19A	Nutrioso	88.74	52	⇑P	P	09 23 12.0	+0.6
	baz=89,SNR=6.8						
G08A	Pilot Rock	88.76	38	⇑P	P	09 23 11.1	-0.1
	baz=89,SNR=22						
L11A	Cat Creek Ranc	88.82	42	⇓P	P	09 23 11.3	-0.2
	baz=89,SNR=13						
R15A	Junction	88.86	47	⇑P	P	09 23 11.9	+0.1
	baz=89						
EBG	Ellensburg	88.86	36	P	P	09 23 11.8	+0.3
D06A	Cle Elum	88.89	36	⇓P	P	09 23 11.7	0.0
	baz=89,SNR=9.6						
EFI	East Falkland	88.91	148	*i* P	P	09 23 11.0	-0.9
J10A	Berg Farm, Mel	88.93	41	⇑P	P	09 23 11.8	-0.2
	baz=89,SNR=6.4						
XAN	Xi'an	88.94	308	P	P	09 23 13.0	+0.7
XAN				pP	pP	09 25 02.5	-2.2
XAN				sP	sP	09 25 52.5	-3.4
XAN				PP	PP	09 26 51.3	0.0
XAN				S	S	09 33 19.5	+2.1
XAN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
XAN				pmax	pmax		
	comp=Z,650nm,10.2s						
K11A	Parker Ranch,	88.99	41	⇓P	P	09 23 12.6	+0.3
	baz=89,SNR=11						
E07A	Sunnyside	89.03	37	⇓P	P	09 23 12.7	+0.3
	baz=89,SNR=14						
RSW	Rattlesnake Hi	89.08	37	*e*P	P	09 23 13.1	+0.5
P14A	Drum Mountains	89.08	45	⇓P	P	09 23 13.1	+0.3
	baz=89						
MSU	Marysvale	89.09	47	*e*P	P	09 23 13.2	+0.4
U17A	Shonto	89.10	49	⇓P	P	09 23 13.3	+0.3
	baz=89						
HAWA	Hanford	89.11	37	*e*P	P	09 23 12.8	0.0
	comp=Z,20nm,1.0s,mb4.9						
MDW	Midway	89.12	37	P	P	09 23 13.0	+0.2
H09A	Durkee	89.13	39	⇑P	P	09 23 12.7	-0.1
	baz=89,SNR=6.7						
PMR	Palmer	89.14	14	*e*P	P	09 23 11.7	-0.8
PMR				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
PMR	Palmer	89.14	14	*e*P	P	09 23 11.7	-0.8
	comp=Z,12nm,0.9s,mb4.7						
V18A	Ganado	89.15	50	⇑P	P	09 23 13.3	0.0
	baz=89,SNR=5.9						
F08A	Pendleton	89.17	38	⇓P	P	09 23 13.2	+0.2
	baz=89,SNR=5.2						
H2OWA	Water	89.17	37	P	P	09 23 13.2	+0.2
T17A	Navajo Res., N	89.21	48	⇑P	P	09 23 13.8	+0.3
	baz=89,SNR=6.7						
Q15A	Fillmore	89.21	46	⇓P	P	09 23 13.6	+0.2
	baz=89,SNR=6.6						
W19A	Sanders	89.23	51	⇑P	P	09 23 13.4	-0.2
	baz=89						
L12A	House Creek Ra	89.26	42	⇑P	P	09 23 13.8	+0.3
	baz=89,SNR=15						
GBL	Gable Mountain	89.27	37	P	P	09 23 13.8	+0.3
I10A	Payette	89.29	40	⇓P	P	09 23 13.4	-0.3
	baz=89						
C06A	Tall Timber Ra	89.32	35	⇓P	P	09 23 13.5	-0.1
	baz=90						
RPW	Rockport	89.32	35	*e*P	P	09 23 12.5	-1.2
M13A	Montello	89.35	43	⇓P	P	09 23 13.9	-0.1
	baz=90,SNR=18						
M13A	Montello	89.35	43	*e*P	P	09 23 13.8	-0.2
	comp=Z,23nm,1.2s,mb4.9						
D07A	Quincy	89.36	36	⇑P	P	09 23 13.9	+0.1
	baz=90,SNR=5.4						
A05A	Maple Falls	89.37	34	⇓P	P	09 23 13.3	-0.6
	baz=90						
B06A	Marblemount	89.38	35	⇑P	P	09 23 13.9	0.0
	baz=90						
KMI	Kunming	89.40	298	P	P	09 23 16.5	+1.9
KMI				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.7						
ETW	Entiat	89.42	36	*e*P	P	09 23 14.3	+0.1
G09A	Cove	89.42	39	⇓P	P	09 23 14.2	0.0
	baz=90,SNR=15						
E08A	Dider Farm, El	89.43	37	⇓P	P	09 23 14.4	+0.2
	baz=90,SNR=5.3						
R16A	Teasdale	89.43	47	⇓P	P	09 23 14.9	+0.5
	baz=90						
BMO	Blue Mountains	89.44	39	*e*P	P	09 23 14.2	-0.1
	comp=Z,4.3nm,0.9s,mb4.3						
MFID	Camas Ranch	89.48	41	⇓P	P	09 23 14.9	+0.3
	baz=90,SNR=23						
S17A	Black Ridge (B	89.55	48	⇑P	P	09 23 14.6	-0.4
	baz=90,SNR=6.7						
U18A	Rough Rock, Ch	89.56	49	⇓P	P	09 23 14.8	-0.3
	baz=90						
DUG	Dugway	89.57	45	⇓P	P	09 23 15.1	+0.1
	baz=90						
P15A	Leamington	89.58	46	⇑P	P	09 23 15.4	+0.3
	baz=90,SNR=9.8						
K12A	Draper Farm, C	89.60	42	⇓P	P	09 23 15.0	-0.1
	baz=90,SNR=8.0						
C07A	Waterville	89.61	36	⇓P	P	09 23 14.8	-0.3
	baz=90,SNR=7.8						
CMAR	Chiang Mai Arr	89.61	290	P	P	09 23 17.5	+1.7
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	89.61	290	P	P	09 23 17.5	+1.8
	comp=Z,1.1nm,0.3s,mb4.1,baz=136,slow=4.1,SNR=8.3						
SEY	Seymchan	89.64	348	⇓*e*P	P	09 23 14.7	-0.1
N14A	Grayback Hills	89.69	44	⇑P	P	09 23 15.7	+0.1
	baz=90						
I11A	Placerville	89.69	41	⇓P	P	09 23 15.5	-0.1
	baz=90,SNR=21						
NLW	Nelson Butte	89.70	35	P	P	09 23 15.2	-0.3
A06A	Chilliwack	89.75	34	⇑P	P	09 23 15.6	0.0
	baz=90,SNR=7.3						
122A	Conniff Cattle	89.75	54	⇓P	P	09 23 16.7	+0.7
	baz=90						
G10A	Bishop Farm, J	89.81	39	⇑P	P	09 23 15.8	-0.3
	baz=90,SNR=7.2						
J12A	Stokes Ranch,	89.83	41	⇑P	P	09 23 16.6	+0.4
	baz=90,SNR=19						
O15A	The Old Anders	89.84	45	⇑P	P	09 23 16.7	+0.4
	baz=90						
D08A	Wollman Farm,	89.84	37	⇑P	P	09 23 16.1	-0.1
	baz=90,SNR=6.1						
W20A	Ramah	89.86	51	⇑P	P	09 23 16.9	+0.4
	baz=90,SNR=21						
L13A	Double Diamond	89.89	43	⇓P	P	09 23 16.7	+0.2
	baz=90,SNR=6.1						
T18A	Mexican Hat	89.92	49	⇑P	P	09 23 16.8	+0.1
	baz=90,SNR=13						
M14A	Sheep Mountain	89.94	44	⇑P	P	09 23 16.7	0.0
	baz=90,SNR=16						
E09A	Wood Farm, Sta	89.95	38	⇑P	P	09 23 16.2	-0.5
	baz=90						
Q16A	Castle Valley	89.97	47	⇓P	P	09 23 17.3	+0.4
	baz=90,SNR=6.3						
P16A	Fountain Green	90.01	46	⇑P	P	09 23 18.1	+1.0
	baz=90						
R17A	Hanksville Air	90.02	47	⇓P	P	09 23 16.5	-0.6
	baz=90,SNR=11						
B07A	Winthrop	90.06	35	⇓P	P	09 23 17.2	+0.1
	baz=90,SNR=9.6						
H11A	Donnelly	90.11	40	⇓P	P	09 23 17.1	-0.3
	baz=90,SNR=17						
K13A	Stover Farm, H	90.11	42	⇑P	P	09 23 17.9	+0.4
	baz=90,SNR=17						
I12A	Atlanta	90.12	41	⇓P	P	09 23 17.4	-0.1
	baz=90,SNR=11						
S18A	Hurst Farm, Bl	90.12	48	⇓P	P	09 23 17.4	-0.3
	baz=90						
N15A	Stansbury Isla	90.14	44	⇓P	P	09 23 17.6	-0.1
	baz=90						
TMUT	Trail Mountain	90.14	46	*e*P	P	09 23 18.8	+1.1
	comp=Z,26nm,0.8s,mb5.1						
F10A	Beach Ranch, E	90.14	38	⇑P	P	09 23 16.8	-0.7
	baz=90,SNR=9.3						
OD2	Odessa Site #2	90.16	37	*e*P	P	09 23 17.1	-0.5
D09A	Jones Farm, Ri	90.18	37	⇑P	P	09 23 17.1	-0.6
	baz=90,SNR=5.0						
C08A	Higginbotham F	90.22	36	⇓P	P	09 23 17.4	-0.4
	baz=90						
MPU	Maple Canyon	90.24	46	*e*P	P	09 23 18.4	+0.3
	comp=Z,14nm,0.9s,mb4.8						
MPU				*e*pP	pP	09 25 08.5	-2.3
A07A	Ashnola River,	90.28	35	⇓P	P	09 23 18.6	+0.5
	baz=90						
L14A	Malta	90.30	43	⇑P	P	09 23 18.6	+0.2
	baz=90,SNR=8.4						
T19A	Beclabito	90.35	49	⇑P	P	09 23 18.8	0.0
	baz=90						
B08A	Colville Reser	90.41	36	⇑P	P	09 23 17.9	-0.8
	baz=90,SNR=5.4						
HLID	Hailey	90.42	41	⇑P	P	09 23 18.9	0.0
	baz=90,SNR=13						
HLID	Hailey	90.42	41	*e*P	P	09 23 18.8	-0.1
	comp=Z,9.1nm,1.0s,mb4.6						
HVU	Hansel Valley	90.45	44	*e*P	P	09 23 19.4	+0.3
HVU				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.1						
HVU	Hansel Valley	90.45	44	*e*P	P	09 23 19.4	+0.3
	comp=Z,5.1nm,1.7s,mb4.1						
J13A	Cove Ranch, Pi	90.47	42	⇑P	P	09 23 19.4	+0.3
	baz=91,SNR=18						
LAZ	Ladron	90.48	52	*e*P	P	09 23 19.6	+0.2
	comp=Z,4.1nm,1.0s,mb4.2						
M15A	Larsen Ranch,	90.49	44	⇓P	P	09 23 19.1	-0.2
	baz=91,SNR=17						
SRU	San Rafael	90.50	47	*e*P	P	09 23 19.4	0.0
SRU				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.9						
SRU	San Rafael	90.50	47	⇑P	P	09 23 19.5	+0.1
	baz=91,SNR=17						
SRU	San Rafael	90.50	47	*e*P	P	09 23 19.4	0.0
	comp=Z,17nm,0.9s,mb4.9						
E10A	Myers Farm, Un	90.51	38	⇓P	P	09 23 19.0	-0.2
	baz=91						
P17A	Butcher Ranch,	90.54	46	⇓P	P	09 23 20.0	+0.4
	baz=91,SNR=5.7						
R18A	Canyonlands Na	90.55	48	⇑P	P	09 23 19.8	+0.2
	baz=91,SNR=7.8						
K14A	Jones Ranch, D	90.62	43	⇓P	P	09 23 19.6	-0.3
	baz=91,SNR=10.0						
C09A	Chrisman Ranch	90.64	36	⇑P	P	09 23 19.5	-0.3
	baz=91						
HHC	Hu-ho-hao-te	90.66	315	*e*P	P	09 23 19.5	-0.6
HHC				pP	pP	09 25 12.5	-0.2
HHC				sP	sP	09 26 04.3	+0.5
HHC				PP	PP	09 27 05.8	+1.2
HHC				SKS		09 33 01.5	
HHC				S	S	09 33 30.5	-2.1
HHC				sS	sS	09 36 51.0	-2.9
HHC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
JLU	Jordanelle	90.67	45	*e*P	P	09 23 20.5	+0.3
	comp=Z,39nm,1.9s,mb5.0						
TXAR	Lajitas Array	90.68	58	P	P	09 23 20.2	-0.3
	comp=Z,10nm,0.8s,mb4.8,baz=214,slow=6.2,SNR=122						
TXAR				PKKPbc	PKKPbc	09 40 44.4	+0.4
	comp=Z,0.3nm,0.6s,baz=134,slow=2.0,SNR=4.5						
DAU	Daniels Canyon	90.70	45	*e*P	P	09 23 20.4	+0.1
H12A	Diamond D Ranc	90.70	40	⇓P	P	09 23 20.0	-0.2
	baz=91,SNR=12						
S19A	Harvey Farm, M	90.74	49	⇓P	P	09 23 20.0	-0.6
	baz=91						
D10A	Wagner Farm, O	90.75	37	⇑P	P	09 23 19.5	-0.8
	baz=91,SNR=9.2						
Q18A	Rafter H Ranch	90.76	47	⇓P	P	09 23 20.1	-0.5
	baz=91,SNR=7.9						
I13A	Wildhorse Cree	90.79	41	⇓P	P	09 23 20.3	-0.3
	baz=91,SNR=5.3						
L15A	Malad City	90.82	44	⇓P	P	09 23 20.5	-0.3
	baz=91,SNR=13						
N16A	Rees Ranch, Co	90.83	45	⇓P	P	09 23 20.9	+0.1
	baz=91,SNR=7.9						
J14A	Carey	90.83	42	⇑P	P	09 23 21.1	+0.3
	baz=91,SNR=19						
O17A	Robinson Place	90.92	46	⇓P	P	09 23 21.9	+0.6
	baz=91						
R19A	Curley Farm, L	90.93	48	⇓P	P	09 23 20.6	-0.8
	baz=91,SNR=7.4						
M16A	Huntsville	90.93	44	⇑P	P	09 23 21.5	+0.2
	baz=91						
W22A	Albuquerque	91.00	52	⇑P	P	09 23 22.3	+0.5
	baz=91						
H13A	Challis	91.07	41	⇑P	P	09 23 22.2	+0.3
	baz=91,SNR=7.4						
B09A	Rice	91.08	36	⇓P	P	09 23 21.2	-0.6
	baz=91						
K15A	Arbon	91.09	43	⇑P	P	09 23 22.0	0.0
	baz=91,SNR=9.7						
F12A	Elk City	91.15	39	⇑P	P	09 23 21.9	-0.3
	baz=91,SNR=10						
A09A	Danville	91.18	35	⇓P	P	09 23 22.1	-0.2
	baz=91						
I14A	Mackay	91.20	42	⇑P	P	09 23 23.1	+0.6
	baz=91,SNR=12						
N17A	Moffit Pass	91.25	45	⇓P	P	09 23 22.8	0.0
	baz=91,SNR=7.1						
CD2	Chengdu	91.25	303	P	P	09 23 21.8	-1.3
CD2				pP	pP	09 25 15.5	-0.2
CD2				sP	sP	09 26 06.0	-0.9
CD2				PP	PP	09 27 10.8	+1.3
CD2				SKS		09 33 04.8	
CD2				S	S	09 33 35.0	-3.3
CD2				sS	sS	09 36 56.8	-3.1
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.3						
CD2				pmax	pmax		
	comp=Z,170nm,4.8s						
Q19A	Hogan Spring (	91.26	47	⇑P	P	09 23 22.6	-0.3
	baz=91,SNR=12						
D11A	Klaveano Farm,	91.27	38	⇓P	P	09 23 21.7	-1.0
	baz=91						
PV01	Paradox Valley	91.32	48	*e*P	P	09 23 22.3	-0.9
	comp=Z,364nm,0.8s						
G13A	Cobalt	91.38	40	⇓P	P	09 23 23.4	+0.2
	baz=92						
L16A	Fish Haven	91.43	44	⇓P	P	09 23 23.4	-0.2
	baz=92,SNR=14						
O18A	Roosevelt	91.44	46	⇑P	P	09 23 23.2	-0.5
	baz=92,SNR=5.2						
GDL2	Guadalupe Moun	91.47	55	*e*P	P	09 23 24.5	+0.5
R20A	Redvale	91.48	48	⇑P	P	09 23 23.1	-0.8
	baz=92						
J15A	Blackfoot	91.54	42	⇑P	P	09 23 24.5	+0.5
	baz=92,SNR=11						
M17A	Scullys Gap (B	91.63	45	⇑P	P	09 23 23.7	-0.8
	baz=92,SNR=5.1						
F13A	Darby	91.70	40	⇓P	P	09 23 24.5	-0.3
	baz=92						
A10A	Northport	91.72	36	⇑P	P	09 23 24.5	-0.3
	baz=92						
K16A	Soda Springs	91.76	43	⇓P	P	09 23 25.2	+0.1
	baz=92,SNR=6.5						
P19A	Cripple Cowboy	91.79	47	⇓P	P	09 23 24.9	-0.4
	baz=92						
L17A	Cokeville	91.83	44	⇑P	P	09 23 25.2	-0.2
	baz=92						
I15A	Monteview	91.83	42	⇓P	P	09 23 25.9	+0.5
	baz=92						
G14A	Jackson	91.91	40	⇑P	P	09 23 25.8	0.0
	baz=92						
Q20A	Ridgley Place,	91.92	48	⇓P	P	09 23 25.2	-0.7
	baz=92						
T22A	Edith	91.92	50	⇓P	P	09 23 26.2	+0.3
	baz=92						
J16A	Bone	91.98	43	⇓P	P	09 23 26.3	+0.2
	baz=92,SNR=9.4						
M18A	Lyman	91.99	45	⇑P	P	09 23 26.2	0.0
	baz=92,SNR=7.5						
B11A	Sandpoint	92.05	37	⇓P	P	09 23 25.8	-0.5
	baz=92						
H15A	Lima	92.06	41	⇑P	P	09 23 26.5	0.0
	baz=92						
P20A	De Beque	92.12	47	⇑P	P	09 23 26.7	-0.2
	baz=92						
C12B	Naegeli Ranch,	92.13	38	⇑P	P	09 23 26.2	-0.5
	baz=92						
K17A	Gardner Place,	92.14	44	⇑P	P	09 23 27.1	+0.3
	baz=92,SNR=8.5						
E13A	Victor	92.15	39	⇑P	P	09 23 26.1	-0.7
	baz=92						
RRI2	Red Ridge	92.20	43	*e*P	P	09 23 26.6	-0.5
	comp=Z,13nm,1.3s,mb4.7						
L18A	Fontenelle, Gr	92.27	45	⇑P	P	09 23 27.0	-0.5
	baz=92						
F14A	Wisdom	92.28	40	⇓P	P	09 23 27.2	-0.2
	baz=92						
COLA	College	92.31	13	P	P	09 23 25.5	-1.6
COLA				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
COLA	College	92.31	13	P	P	09 23 25.5	-1.6
	comp=Z,18nm,1.5s,mb4.8						
Q21A	Lamborn Mesa,	92.34	48	⇑P	P	09 23 27.7	-0.2
	baz=92						
A11A	Hall Mountain,	92.35	36	⇓P	P	09 23 27.9	+0.3
	baz=92						
D13A	Huson	92.36	39	⇓P	P	09 23 27.8	+0.1
	baz=92						
I16A	Newdale	92.37	42	⇓P	P	09 23 28.0	+0.1
	baz=92						
DCID1	Drake Creek	92.41	43	P	P	09 23 28.3	+0.2
G15A	Dillon	92.45	41	⇓P	P	09 23 27.9	-0.4
	baz=93						
DLMT	Dillon	92.49	41	*e*P	P	09 23 28.0	-0.4
	comp=Z,10nm,1.5s,mb4.5						
B12A	Libby	92.50	37	⇓P	P	09 23 28.2	-0.1
	baz=93						
REDW	Red Top Meadow	92.50	43	*e*P	P	09 23 28.3	-0.2
	comp=Z,9.0nm,1.2s,mb4.6						
E14A	Clinton	92.54	39	⇑P	P	09 23 27.8	-0.8
	baz=93						
O20A	White River Ci	92.54	47	⇓P	P	09 23 28.1	-0.7
	baz=93						
J17A	Brown Place, J	92.58	43	⇑P	P	09 23 28.8	-0.1
	baz=93,SNR=6.3						
R22A	Saguache, Gunn	92.61	49	⇓P	P	09 23 29.3	+0.1
	baz=93						
M19A	Rock Springs	92.62	45	⇓P	P	09 23 28.6	-0.5
	baz=93						
K18A	Toltan Ranch,	92.63	44	⇑P	P	09 23 29.2	0.0
	baz=93,SNR=15						
CMIG	Matias Romero	92.64	73	P	P	09 23 28.9	-0.8
	baz=323,slow=8.7						
IMW	Indian Meadow	92.72	43	*e*P	P	09 23 29.4	-0.1
	comp=Z,76nm,2.8s,mb5.2						
A12A	Yaak River Ran	92.72	37	⇓P	P	09 23 29.0	-0.4
	baz=93						
P21A	Newcastle	92.77	48	⇑P	P	09 23 29.1	-0.7
	baz=93						
LOHW	Long Hollow	92.78	43	*e*P	P	09 23 29.1	-0.6
	comp=Z,18nm,1.8s,mb4.8						
L19A	Farson	92.79	45	⇓P	P	09 23 29.9	0.0
	baz=93						
F15A	Butte	92.81	40	⇑P	P	09 23 29.6	-0.2
	baz=93						
Q22A	Crested Butte,	92.81	48	⇓P	P	09 23 29.9	-0.1
	baz=93						
N20A	Spence Gulch,	92.87	46	⇑P	P	09 23 29.9	-0.4
	baz=93						
D14A	Greenough	92.89	39	⇓P	P	09 23 29.1	-1.1
	baz=93						
G16A	Moss Hill, Enn	92.89	41	⇑P	P	09 23 30.1	-0.1
	baz=93						
J18A	Kendall Valley	92.94	43	⇓P	P	09 23 30.4	-0.1
	baz=93						
CHMT	Chamberlain Mo	92.95	39	*e*P	P	09 23 29.0	-1.4
H16A	Russell Place,	92.95	42	⇑P	P	09 23 30.9	+0.4
	baz=93						
I17A	Pilgrim Ck.	92.96	43	⇓P	P	09 23 30.6	+0.1
	baz=93						
BW06	Boulder Array	93.00	44	⇑P	P	09 23 31.0	+0.2
	baz=93						
PDAR	Pinedale Array	93.00	44	P	P	09 23 29.8	-1.0
	comp=Z,3.0nm,0.7s,mb4.4,baz=202,slow=3.5,SNR=26						
PDAR				pP	pP	09 25 24.0	+0.4
	comp=Z,0.6nm,0.8s,baz=271,slow=5.3,SNR=2.6						
E15A	Deer Lodge	93.04	40	⇑P	P	09 23 30.5	-0.3
	baz=93						
BOZ	Bozeman (W)	93.22	41	*e*P	P	09 23 31.6	-0.1
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
BOZ	Bozeman (W)	93.22	41	⇑P	P	09 23 31.2	-0.5
	baz=93						
BOZ	Bozeman (W)	93.22	41	*e*P	P	09 23 31.6	-0.1
	comp=Z,2.8nm,0.9s,mb4.3						
M20A	Sweetwater, Wa	93.25	46	⇑P	P	09 23 31.8	-0.1
	baz=93						
I18A	Diamond G Ranc	93.32	43	⇓P	P	09 23 32.1	-0.1
	baz=93						
N21A	Black Mountain	93.33	47	⇓P	P	09 23 32.4	+0.1
	baz=93						
A13A	Flathead Natio	93.40	37	⇓P	P	09 23 32.3	-0.2
	baz=94						
L20A	Wamsutter	93.40	45	⇓P	P	09 23 32.5	-0.1
	baz=94						
D15A	Lincoln	93.44	39	⇓P	P	09 23 32.3	-0.3
	baz=94						
K19A	Absolon Red Bu	93.48	44	⇓P	P	09 23 32.9	-0.1
	baz=94						
LZH	Lanzhou	93.58	308	*e*P	P	09 23 37.5	+3.9
LZH				pP	pP	09 25 29.0	+2.6
LZH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,56nm,4.3s						
G17A	Pierce Place,	93.58	41	⇓P	P	09 23 33.0	-0.4
	baz=94						
E16A	East Helena	93.66	40	⇓P	P	09 23 32.7	-1.0
	baz=94						
K20A	Yellowstone Ra	93.72	45	⇑P	P	09 23 33.1	-1.0
	baz=94						
EGAK	Eagle	93.74	16	*e*P	P	09 23 32.2	-1.5
	comp=Z,7.8nm,1.0s,mb4.7						
M21A	Separation Pea	93.84	46	⇓P	P	09 23 34.0	-0.7
	baz=94						
F17A	Fitzpatrick Pl	93.93	41	⇓P	P	09 23 34.8	-0.2
	baz=94						
A14A	Double T Ranch	93.97	37	⇓P	P	09 23 34.5	-0.6
	baz=94						
D16A	Dana Ranch, Ca	93.99	40	⇑P	P	09 23 35.1	-0.1
	baz=94						
N22A	Wattenberg Ran	94.05	47	⇑P	P	09 23 35.5	-0.2
	baz=94						
B15A	Bradely Ranch,	94.09	38	⇑P	P	09 23 34.9	-0.7
	baz=94						
JCT	Junction City	94.19	59	*e*P	P	09 23 35.8	-0.8
JCT				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
JCT	Junction City	94.19	59	*e*P	P	09 23 35.8	-0.8
	comp=Z,6.8nm,0.9s,mb4.7						
M22A	Cedar Creek Ra	94.25	46	⇑P	P	09 23 36.3	-0.2
	baz=94						
C16A	Fuhringer Ranc	94.29	39	⇓P	P	09 23 35.7	-0.9
	baz=94						
G18A	Lazy EL Ranch,	94.29	42	⇓P	P	09 23 36.7	+0.1
	baz=94						
A15A	Johnson Ranch,	94.35	38	⇑P	P	09 23 35.6	-1.2
	baz=94						
D17A	Six Diamond Ra	94.56	40	⇓P	P	09 23 37.5	-0.3
	baz=95						
C17A	Wharram Farm,	94.76	39	⇑P	P	09 23 38.1	-0.6
	baz=95						
A16A	West Butte Ran	94.97	38	⇑P	P	09 23 38.6	-1.0
	baz=95						
SONM	Songino Array	97.37	319	P	P	09 23 48.7	-1.8
	comp=Z,0.3nm,0.3s,mb4.0,baz=152,slow=4.8,SNR=2.2						
SONM				pP	pP	09 25 43.3	-0.3
	comp=Z,0.3nm,0.3s,baz=140,slow=4.5,SNR=1.9						
SONM				PKKPbc	PKKPbc	09 40 25.8	-1.6
	comp=Z,0.1nm,0.3s,baz=275,slow=3.0,SNR=5.3						
SONM				PKKPab		09 40 58.4	
	comp=Z,0.7nm,0.8s,baz=305,slow=5.2,SNR=4.9						
YKA	Yellowknife Ar	100.73	25	P	Pdif	09 24 04.1	-1.5
YKA				*i*		09 28 25.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	100.73	25	P	Pdif	09 24 04.1	-1.5
	comp=Z,0.2nm,0.7s,baz=245,slow=4.3,SNR=7.1						
YKA				PP	PP	09 28 18.0	-2.9
	comp=Z,0.3nm,1.0s,baz=246,slow=7.0,SNR=3.8						
YKA				PKiKP	PKiKP	09 28 25.7	-2.0
	comp=Z,0.2nm,0.6s,baz=258,slow=1.7,SNR=7.7						
YKA				PKKPbc	PKKPbc	09 40 14.8	-3.6
	comp=Z,0.3nm,0.5s,baz=36,slow=2.5,SNR=11						
YKA				PKKPab		09 40 41.3	
	comp=Z,0.5nm,0.9s,baz=53,slow=5.1,SNR=7.5						
YKA	Yellowknife Ar	100.73	25	P	Pdif	09 24 04.1	-1.5
YKA				PP	PP	09 28 17.9	-2.9
ZALV	Zalesovo Beam	112.22	321	*i* PKIKP	PKiKP	09 28 47.6	-1.7
ZALV						09 39 41.1	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ZALV	Zalesovo Beam	112.22	321	PKiKP	PKiKP	09 28 47.6	-1.7
	comp=Z,1.0nm,0.3s,baz=181,slow=1.4,SNR=7.2						
ZALV				PKKPbc	PKKPbc	09 39 41.1	-1.7
	comp=Z,0.3nm,0.3s,baz=308,slow=3.6,SNR=3.7						
MKAR	Makanchi Array	112.38	313	*i* PKIKP	PKiKP	09 28 48.5	-1.4
MKAR						09 39 50.4	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						

MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	**Makanchi Array**	**112.38**	**313**	PKiKP	PKiKP	09 28 48.5	-1.4
	comp=Z,1.8nm,0.8s,baz=79,slow=1.3,SNR=14						
MKAR				PKKPbc	PKKPbc	09 39 41.3	-0.8
	comp=Z,1.2nm,0.7s,baz=282,slow=4.0,SNR=10						
MKAR				PKKPab	PKKPab	09 39 50.4	+0.1
	comp=Z,1.6nm,0.8s,baz=279,slow=4.0,SNR=12						
KSH	**Kashi**	**115.45**	**304**	*e*PKP	PKPdf	09 28 58.0	+2.0
KSH				*e*PKS		09 32 34.5	
KSH				*e*SKS	SKSdf	09 35 24.5	+4.6
AML	**Almayashu**	**117.60**	**306**	*e*PKPdf	PKPdf	09 28 59.0	-1.1
SUR	**Sutherland**	**120.23**	**200**	PKP	PKPdf	09 29 05.5	0.0
	comp=Z,9.9nm,0.7s,baz=166,slow=3.4,SNR=10						
BOSA	**Boshof**	**122.03**	**206**	PKIKP	PKPdf	09 29 09.2	+0.1
BOSA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BOSA	**Boshof**	**122.03**	**206**	PKP	PKPdf	09 29 09.2	+0.1
	comp=Z,5.8nm,0.8s,baz=168,slow=2.6,SNR=6.4						
BOSA				PKKPbc	PKKPbc	09 39 05.7	-3.1
	comp=Z,3.8nm,0.9s,baz=292,slow=3.0,SNR=4.1						
LBTB	**Lobatse**	**125.05**	**209**	PKIKP	PKPdf	09 29 15.1	+0.1
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LBTB	**Lobatse**	**125.05**	**209**	PKP	PKPdf	09 29 15.1	+0.1
	comp=Z,2.6nm,0.9s,baz=146,slow=3.6,SNR=4.2						
LBTB	**Lobatse**	**125.05**	**209**	PKP	PKPdf	09 29 15.1	+0.1
ARU	**Arti**	**127.17**	**323**	*i* PKIKP	PKPdf	09 29 17.0	-0.9
ARU						09 31 24.9	
KEV	**Kevo**	**131.79**	**348**	*e*pkp	PKPdf	09 29 25.6	-0.8
LSZ	**Lusaka**	**131.97**	**218**	PKIKP	PKPdf	09 29 28.7	+0.3
LSZ						09 32 06.9	
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.5s						
LSZ				pmax	pmax		
	comp=N,1.0nm,0.3s						
LSZ	**Lusaka**	**131.97**	**218**	PKP	PKPdf	09 29 28.7	+0.3
	comp=N,3.3nm,0.5s,baz=140,slow=3.1,SNR=8.2						
LSZ				SKPbc	SKPbc	09 32 06.9	-0.2
	comp=N,1.0nm,0.3s,baz=163,slow=7.7,SNR=4.2						
ARCES	**ARCESS Array B**	**132.26**	**348**	PKIKP	PKPdf	09 29 26.4	-0.9
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ARCES	**ARCESS Array B**	**132.26**	**348**	PKP	PKPdf	09 29 26.4	-0.9
	comp=Z,10nm,0.9s,baz=81,slow=2.2,SNR=17						
KLMR	**Klimovskoe**	**134.51**	**334**	*e*PKIKP	PKPdf	09 29 30.5	-1.2
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.2s						
KMBO	**Kilima Mbogo**	**135.86**	**240**	PKIKP	PKPdf	09 29 36.6	+0.9
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KMBO	**Kilima Mbogo**	**135.86**	**240**	PKP	PKPdf	09 29 36.6	+0.8
	comp=Z,1.5nm,0.7s,baz=54,slow=19,SNR=4.5						
JOF	**Joensuu**	**136.08**	**340**	*e*pkp	PKPdf	09 29 33.1	-1.5
KAF	**Kangasniemi**	**138.20**	**342**	*e*pkp	PKPdf	09 29 35.9	-2.6
FINES	**FINESS Array B**	**138.80**	**341**	PKhKP		09 29 28.8	
	comp=Z,1.9nm,0.5s,baz=62,slow=4.0,SNR=11						
FINES				PKP	PKPdf	09 29 39.4	-0.2
	comp=Z,1.7nm,0.4s,baz=35,slow=3.4,SNR=8.6						
FINES				SKPbc	SKPbc	09 32 25.9	-0.7
	comp=Z,2.6nm,0.5s,baz=41,slow=2.6,SNR=13						
FINES	**FINESS Array B**	**138.80**	**341**	PKP	PKPdf	09 29 39.4	-0.2
FINES				SKPbc	SKPbc	09 32 25.9	-0.7
GNI	**Garni**	**139.38**	**304**	⇑*i*PKIKP	PKPdf	09 29 41.6	+0.2
GNI				pmax	pmax		
	comp=Z,13nm,1.7s						
GOF	**Gofitskoye**	**139.54**	**312**	*e*PKIKP	PKPdf	09 29 47.3	+5.8
NB2	**NORSAR Subarra**	**142.46**	**351**	PKP	PKPdf	09 29 42.7	-3.5
	comp=Z,4.7nm,0.9s,baz=10,slow=3.2						
NOA	**NORSAR Array B**	**142.46**	**351**	PKHKP		09 29 41.8	
NOA						09 29 47.4	
NOA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	**NORSAR Array B**	**142.46**	**351**	PKhKP		09 29 41.8	
	comp=Z,6.9nm,0.8s,baz=15,slow=4.6,SNR=8.2						
NOA				PKP	PKPdf	09 29 47.4	+1.2
	comp=Z,2.3nm,0.6s,baz=15,slow=3.7,SNR=4.8						
MICGM	**Minsk**	**143.37**	**333**	*e*P	PKPdf	09 29 43.0	-5.0
MNK	**Minsk**	**143.39**	**333**	*e*PKHKP	PKPdf	09 29 43.0	-5.0
LRW	**Lerwick**	**144.17**	**1**	*e*P	PKPdf	09 29 47.8	-1.5
LRW	**Lerwick**	**144.17**	**1**	P	PKPdf	09 29 47.8	-1.5
MALT	**Malatya**	**144.54**	**302**	⇓*i*P	PKPdf	09 29 50.6	0.0
AKASG	**Malin Array Be**	**145.27**	**327**	PKHKP	PKPbc	09 29 50.6	-1.8
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
AKASG				pmax	pmax		
	comp=N,2.0nm,0.6s						
AKASG	**Malin Array Be**	**145.27**	**327**	PKPbc	PKPbc	09 29 50.5	-1.8
	comp=N,3.6nm,0.3s,baz=44,slow=3.6,SNR=38						
AKASG				pPKPbc		09 31 50.4	
	comp=N,4.8nm,0.7s,baz=43,slow=4.0,SNR=6.7						
AKASG				SKPbc	SKPbc	09 32 42.7	-0.4
	comp=N,2.2nm,0.6s,baz=45,slow=2.6,SNR=6.3						
KIEV	**Kiev**	**145.28**	**327**	*e*PKHKP	PKPbc	09 29 50.8	-1.6
SUW	**Suwalki**	**145.60**	**336**	*e*PKP	PKPbc	09 29 52.6	-0.6
SUW	**Suwalki**	**145.60**	**336**	*e*PKIKP	PKPdf	09 29 52.6	+0.7
ORE	**Reay**	**145.67**	**3**	*e*P	PKPdf	09 29 52.6	+0.7
MLA1	**Latheron**	**145.93**	**3**	*e*P	PKPdf	09 29 52.7	+0.4
MVH1	**Achvaich**	**146.26**	**4**	*e*P	PKPdf	09 29 53.1	+0.2
KAC	**Achnashellach**	**146.61**	**5**	*e*P	PKPdf	09 29 54.8	+1.4
MCD	**Coleburn Disti**	**146.66**	**3**	*e*P	PKPdf	09 29 54.4	+0.9
MDO	**Dochfour**	**146.74**	**4**	*e*P	PKPdf	09 29 54.8	+1.2
KPL	**Plockton**	**146.74**	**6**	*e*P	PKPdf	09 29 54.9	+1.2
KPL	**Plockton**	**146.74**	**6**	P	PKPdf	09 29 54.9	+1.2
MME1	**Meikle Cairn**	**146.94**	**3**	*e*P	PKPdf	09 29 55.1	+1.1
BRTR	**Keskin Array B**	**147.77**	**307**	PKHKP	PKPdf	09 29 55.1	-0.9
BRTR						09 29 59.0	
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	**Keskin Array B**	**147.77**	**307**	PKP	PKPdf	09 29 55.1	-0.9
	comp=Z,7.4nm,0.8s,baz=178,slow=3.6,SNR=7.3						
BRTR				PKPbc	PKPbc	09 29 59.0	-0.6
	comp=Z,6.0nm,0.8s,baz=225,slow=1.6,SNR=20						
BRTR				pPKPbc	pPKPbc	09 31 56.2	-1.7
	comp=Z,1.9nm,0.9s,baz=320,slow=3.2,SNR=5.1						
EBH	**Black Hill**	**147.98**	**4**	*e*P	PKPbc	09 29 58.3	-1.3
EAB	**Aberfoyle**	**147.98**	**5**	*e*P	PKPbc	09 29 58.2	-1.4
LVV	**L'vov**	**148.35**	**330**	*e*PKP2	PKPab	09 30 03.2	-2.6
ESY	**Stoneypath**	**148.35**	**3**	*e*P	PKPbc	09 29 59.4	-1.2
EAU	**Auchinoon**	**148.38**	**4**	*e*P	PKPbc	09 29 59.4	-1.2
EBL	**Broad Law**	**148.48**	**3**	*e*P	PKPbc	09 29 59.6	-1.2
ESK	**Eskdalemuir**	**148.92**	**3**	*e*P	PKPbc	09 29 59.7	-2.2
ESK	**Eskdalemuir**	**148.92**	**3**	P	PKPbc	09 29 59.7	-2.2
ECK	**Cauldkaine Hil**	**149.06**	**3**	*e*P	PKPbc	09 30 00.1	-2.2
KWP	**Kalwaria Pacla**	**149.08**	**331**	*e*PKP	PKPbc	09 30 02.6	0.0
KWP	**Kalwaria Pacla**	**149.08**	**331**	⇓*i*P	PKPbc	09 30 02.5	0.0
KWP	**Kalwaria Pacla**	**149.08**	**331**	*e*PKP	PKPbc	09 30 02.6	+0.1
BURAR	**Bucovina Array**	**149.26**	**326**	⇓*i*P	PKPbc	09 30 03.3	+0.3
GAL1	**Galloway**	**149.27**	**5**	*e*P	PKPbc	09 30 01.5	-1.3
GAL1	**Galloway**	**149.27**	**5**	P	PKPbc	09 30 01.5	-1.3
TIRR	**Tirgusor**	**149.31**	**318**	⇓*i*P	PKPbc	09 30 02.6	-0.7
BSEG	**Bad Segeberg**	**149.39**	**348**	*e*PKPbc	PKPbc	09 30 02.6	-0.5
BSEG				*e*pPKPbc	pPKPbc	09 32 06.3	+4.4
HARR	**Harsova**	**149.48**	**319**	⇓*i*P	PKPbc	09 30 03.7	0.0
KOLS	**Kolonicke sedl**	**149.79**	**330**	*i* PKP	PKPbc	09 30 04.5	+0.3
OJC	**Ojcow**	**149.87**	**334**	*e*PKP	PKPbc	09 30 04.0	-0.4
STHS	**Stebnicka Huta**	**149.89**	**332**	*e*PKP	PKPbc	09 30 04.3	-0.1
STHS				*e*		09 32 08.8	
RUE	**Ruedersdorf**	**149.95**	**343**	*e*PKPbc	PKPbc	09 30 04.3	-0.2
UZH	**Uzhgorod**	**150.00**	**330**	*e*PKHKP	PKPbc	09 30 03.2	-1.5
UZH				*e*		09 30 13.0	
CRVS	**Cervenica-Dubn**	**150.17**	**331**	*i* PKP	PKPbc	09 30 05.0	-0.1
CRVS				*e*		09 32 09.2	
MLR	**Muntele Rosu**	**150.19**	**322**	⇓*i*P	PKPbc	09 30 04.1	-1.2
NIE	**Niedzica**	**150.28**	**333**	*e*PKPc	PKPbc	09 30 05.6	+0.2
KSP	**Ksiaz**	**150.63**	**339**	*e*PKP	PKPbc	09 30 05.8	-0.3
KSP	**Ksiaz**	**150.63**	**339**	*e*PKIKP	PKPbc	09 30 05.6	-0.5
VOIR		**150.72**	**322**	⇑*i*P	PKPbc	09 30 05.8	-0.7
LHO	**Holmfirth**	**150.75**	**2**	*e*P	PKPbc	09 30 04.7	-1.6
NRDL	**Niedersach Rie**	**150.79**	**347**	*e*PKPbc	PKPbc	09 30 06.0	-0.5
NRDL				*e*pPKPbc	pPKPbc	09 32 09.4	+3.9
OKC	**Ostrava-Krasne**	**150.81**	**336**	*e*PKIKP	PKPbc	09 30 06.2	-0.4
OKC	**Ostrava-Krasne**	**150.81**	**336**	⇑*e*PKP	PKPbc	09 30 06.2	-0.4
WLF1	**Llynfaes**	**150.86**	**5**	*e*P	PKPbc	09 30 04.4	-2.2
UPC	**Upice**	**151.01**	**339**	*e*PKIKP	PKPbc	09 30 06.8	-0.2
UPC	**Upice**	**151.01**	**339**	⇑*e*PKP	PKPbc	09 30 06.8	-0.2
UPC				*e*pPKP	pPKPab	09 32 10.5	-0.8
DPC	**Dobruska-Polom**	**151.04**	**338**	*e*PKIKP	PKPbc	09 30 07.0	-0.1
DPC				*e*		09 30 17.5	
DPC	**Dobruska-Polom**	**151.04**	**338**	⇑*e*PKP	PKPbc	09 30 07.0	-0.1
DPC				*e*PKPAB	PKPab	09 30 17.5	+0.5
DPC				*e*pPKP	pPKPab	09 32 10.7	-0.7
DRGR		**151.09**	**327**	⇓*i*P	PKPbc	09 30 06.5	-0.8
MORC	**Moravsky Berou**	**151.09**	**336**	⇓*i*P	PKPbc	09 30 07.1	-0.1
CLL	**Collm**	**151.21**	**343**	*e*PKPbc	PKPbc	09 30 06.8	-0.7
CLL				*e*pPKPbc	pPKPbc	09 32 10.7	+4.2
CLL	**Collm**	**151.21**	**343**	⇑*i*PKPbc	PKPbc	09 30 06.7	-0.8
	comp=Z,45nm,0.8s						
CLL				*e*PKPab	PKPab	09 30 17.0	-0.7
CLL				*i* pPKPab	pPKPab	09 32 10.8	-1.3
	comp=Z,25nm,1.0s						
BRG	**Berggiesshubel**	**151.34**	**341**	*e*PKIKP	PKPdf	09 30 02.7	+1.5
BRG				*i*		09 30 07.4	
BRG				*i*		09 30 14.8	
BRG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRG				pmax	pmax		
	comp=Z,14nm,0.8s						
BRG				pmax	pmax		
	comp=Z,8.0nm,1.3s						
BRG				pmax	pmax		
	comp=Z,4.0nm,1.2s						
BRG	**Berggiesshubel**	**151.34**	**341**	*e*PKPbc	PKPbc	09 30 07.2	-0.6
BRG				*e*pPKPbc	pPKPbc	09 32 11.1	+4.3
BRG	**Berggiesshubel**	**151.34**	**341**	*e*PKP	PKPdf	09 30 02.7	+1.5
	comp=Z,2.3nm,0.7s						
BRG				*i*		09 30 07.4	
	comp=Z,23nm,0.8s						
BRG				*i*		09 30 14.8	
	comp=Z,13nm,1.3s						
BRG				*e*pPKP	pPKPbc	09 32 07.6	+0.8
	comp=Z,7.2nm,1.2s						
CLZ	**Clausthal**	**151.35**	**346**	*e*PKPbc	PKPbc	09 30 07.6	-0.2
IBBN	**Ibbenburen**	**151.40**	**350**	*e*PKPbc	PKPbc	09 30 07.6	-0.2
PVCC	**Panska Ves**	**151.46**	**340**	*e*PKIKP	PKPbc	09 30 07.3	-0.7
PVCC	**Panska Ves**	**151.46**	**340**	⇑*e*PKP	PKPbc	09 30 07.3	-0.7
PVCC				*e*pPKP	pPKPab	09 32 11.8	-1.3
FBE	**Freiberg**	**151.47**	**342**	*e*PKPbc	PKPbc	09 30 07.8	-0.2
FBE				*e*pPKPbc	pPKPbc	09 32 11.7	+4.6
PSZ	**Piszkesteto**	**151.60**	**331**	⇓*i*P	PKPbc	09 30 07.9	-0.5
NEUB	**Neuenburg**	**151.62**	**344**	*e*PKPbc	PKPbc	09 30 07.9	-0.5
KOLL	**Kolacno**	**151.72**	**334**	*i* PKP	PKPbc	09 30 08.8	+0.1
VRAC	**Vranov**	**151.82**	**337**	⇑*i*P	PKPbc	09 30 08.2	-0.7
PRU	**Pruhonice**	**151.94**	**340**	*e*PKIKP	PKPbc	09 30 08.7	-0.4
PRU	**Pruhonice**	**151.94**	**340**	⇑*e*PKP	PKPbc	09 30 08.7	-0.4
PRU				*e*pPKP	pPKPab	09 32 13.0	-2.1
GZR	**Gura Zlata**	**151.99**	**324**	⇑*i*P	PKPbc	09 30 08.6	-0.8
MOX	**Moxa**	**152.18**	**344**	*e*PKP	PKPbc	09 30 09.1	-0.5
	comp=Z,21nm,1.4s						
MOX	**Moxa**	**152.18**	**344**	*e*PKIKP	PKPbc	09 30 09.1	-0.5
MOX				pmax	pmax		
	comp=Z,21nm,1.4s						
MOX	**Moxa**	**152.18**	**344**	*e*PKPbc	PKPbc	09 30 09.0	-0.6
WERD	**Werda**	**152.18**	**343**	*e*PKPbc	PKPbc	09 30 09.1	-0.5
WERD				*e*pPKPbc	pPKPbc	09 32 13.0	+4.2
TREC	**Trest**	**152.22**	**338**	*e*pPKP	pPKPab	09 32 13.7	-2.6
MCH1	**Michaelchurch**	**152.25**	**4**	*e*P	PKPbc	09 30 06.9	-2.8
MCH1	**Michaelchurch**	**152.25**	**4**	P	PKPbc	09 30 06.9	-2.8
GUNZ	**Gunzen**	**152.25**	**343**	*e*pPKPbc	pPKPbc	09 32 13.4	+4.4
MODS	**Modra-Piesok**	**152.33**	**335**	*e*PKIKP	PKPbc	09 30 08.6	-1.4
MODS	**Modra-Piesok**	**152.33**	**335**	*e*PKP	PKPbc	09 30 08.5	-1.5
MODS				*e*		09 32 14.3	
BZS	**Buzias**	**152.45**	**326**	⇑*i*P	PKPbc	09 30 09.6	-0.8
MANZ	**Manzenberg**	**152.65**	**343**	*e*PKPbc	PKPbc	09 30 10.3	-0.4
KHC	**Kasperske Hory**	**152.99**	**340**	*e*PKIKP	PKPdf	09 30 03.1	-0.6
KHC				*e*		09 30 11.1	
KHC				*e*		09 30 25.5	
KHC	**Kasperske Hory**	**152.99**	**340**	*e*PKPDF	PKPdf	09 30 03.1	-0.6
KHC				⇑*e*PKP	PKPdf	09 30 11.1	+7.4
KHC				*e*PKPAB	PKPab	09 30 25.5	+0.2
KHC				*e*pPKP	pPKPab	09 32 15.9	-3.6
GRF	**Grafenberg Arr**	**153.16**	**344**	*e*PKPbc	PKPbc	09 30 09.5	-2.3
GERES	**GERESS Array B**	**153.21**	**340**	PKIKP	PKPdf	09 30 02.5	-1.5
GERES						09 30 11.4	
GERES						09 30 26.0	
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	**GERESS Array B**	**153.21**	**340**	PKP	PKPdf	09 30 02.5	-1.5
	comp=Z,0.3nm,0.5s,baz=32,slow=5.3,SNR=4.6						
GERES				PKPbc	PKPbc	09 30 11.4	-0.5
	comp=Z,3.1nm,0.8s,baz=56,slow=2.4,SNR=12						
GERES				PKPab	PKPab	09 30 26.0	-0.2
	comp=Z,1.4nm,0.7s,baz=25,slow=4.4,SNR=4.4						
GERES				pPKPbc	pPKPbc	09 32 10.9	-0.3
	comp=Z,0.3nm,0.4s,baz=197,slow=42,SNR=2.1						
CONA	**Conrad Observa**	**153.24**	**336**	⇑*i*PKPbc	PKPbc	09 30 11.8	-0.3
	comp=Z,9.1nm,1.0s						
CSNA	**Conrad Observa**	**153.24**	**336**	⇓*i*PKiKP	PKiKP	09 30 12.0	-0.1
	comp=Z,7.1nm,0.8s						
TNS	**Taunus Mts**	**153.28**	**348**	*e*PKPbc	PKPbc	09 30 11.4	-0.6
TNS				*e*pPKPbc	pPKPbc	09 32 15.4	+4.1
GIVF	**Givet**	**153.96**	**353**	*e*PKP2	PKPab	09 30 28.1	-1.2
BAIF	**Baives**	**154.06**	**354**	*e*PKP2	PKPab	09 30 28.8	-1.0
PERS	**Pernice**	**154.60**	**335**	*e*PKPdf	PKPdf	09 30 04.7	-1.3
PERS				*e*PKPab	PKPab	09 30 31.4	-0.8
CDF	**Champ du Feu**	**155.24**	**348**	*e*PKP2	PKPab	09 30 33.9	-1.0
	comp=Z,7.3nm,0.6s						
LJU	**Ljubljana**	**155.32**	**335**	*i* PKPdf	PKPdf	09 30 06.3	-0.7
LJU				*i*		09 30 15.9	
BOJS	**Bojanci**	**155.48**	**333**	*e*PKPdf	PKPdf	09 30 06.5	-0.7
BOJS				*e*		09 30 16.7	
FLN	**La Foliniere**	**155.57**	**1**	*e*PKP2	PKPab	09 30 34.4	-1.9
FETA	**Feichten**	**155.73**	**342**	⇑*i*PKPdf	PKPdf	09 30 06.4	-1.1
	comp=Z,7.0nm,0.9s						
LDF	**La Druitiere**	**155.75**	**0**	*e*PKP2	PKPab	09 30 35.1	-1.9
	comp=Z,6.8nm,0.6s						
HAU	**Haudompre**	**155.79**	**349**	*e*PKP2	PKPab	09 30 36.3	-1.0
HINF	**Hinteralfeld**	**155.89**	**349**	*e*PKP2	PKPab	09 30 36.4	-1.3
GRR	**Gorron**	**155.94**	**1**	*e*PKP2	PKPab	09 30 36.2	-1.7
LOR	**Lormes**	**156.86**	**353**	*e*PKP2	PKPab	09 30 40.7	-1.2
	comp=Z,14nm,1.0s						
SSF	**Saint Saulge**	**157.10**	**354**	*e*PKP2	PKPab	09 30 41.9	-1.1
	comp=Z,16nm,0.8s						
CABF	**La Chapelle**	**157.19**	**349**	*e*PKP2	PKPab	09 30 43.3	-0.1
AVF	**Avril sur Loir**	**157.38**	**354**	*e*PKP2	PKPab	09 30 42.9	-1.3
	comp=Z,14nm,1.1s						
SMF	**Signal de Mont**	**157.48**	**353**	*e*PKP2	PKPab	09 30 43.5	-1.1
	comp=Z,34nm,1.0s						
TCF	**Toulx Ste Croi**	**157.98**	**356**	*e*PKP2	PKPab	09 30 45.4	-1.4
LPL	**La Plagne**	**158.12**	**347**	*e*PKP2	PKPab	09 30 47.4	0.0
LPG	**La Plagne**	**158.13**	**347**	*e*PKP2	PKPab	09 30 47.6	+0.1
ORIF	**Oris-en-Rattie**	**158.86**	**348**	*e*PKP2	PKPab	09 30 50.3	-0.4
	comp=Z,14nm,0.9s						
RJF	**Les Rejaudoux**	**159.00**	**357**	*e*PKP2	PKPab	09 30 49.6	-1.6
VIVF	**Saint-Julien-l**	**159.13**	**351**	*e*PKP2	PKPab	09 30 51.2	-0.6
SBF	**Sospel**	**159.53**	**344**	*e*PKP2	PKPab	09 30 52.6	-1.1
	comp=Z,22nm,0.7s						
SMRF	**Simiane la Rot**	**159.83**	**348**	*e*PKP2	PKPab	09 30 54.6	-0.3
LIC	**Lamto**	**161.41**	**164**	*e*PKIKP	PKPdf	09 30 13.8	-1.4
	comp=Z,39nm,1.2s						
DBIC	**Dimbokro**	**161.88**	**164**	PKIKP	PKPdf	09 30 14.5	-1.2
DBIC						09 31 03.4	
DBIC				pmax	pmax		
	comp=Z,7.0nm,1.0s						
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
DBIC	**Dimbokro**	**161.88**	**164**	PKP	PKPdf	09 30 14.4	-1.2
	comp=Z,7.1nm,1.0s,baz=184,slow=5.0,SNR=3.2						
DBIC				PKPab	PKPab	09 31 03.4	-1.2
	comp=Z,5.4nm,0.9s,baz=139,slow=4.3,SNR=4.0						
ESDC	**Sonseca Array**	**164.31**	**11**	PKPab	PKPab	09 31 13.9	-0.8
	comp=Z,1.8nm,0.8s,baz=345,slow=3.6,SNR=56						
TORD	**Torodi Ar. Bea**	**168.79**	**189**	PKP	PKPdf	09 30 20.1	-1.2
	comp=Z,5.0nm,0.9s,baz=322,slow=0.4,SNR=12						
TORD				PKPab	PKPab	09 31 34.8	-0.2
	comp=Z,7.6nm,0.7s,baz=176,slow=4.0,SNR=25						
TORD				pPKP	pPKPdf	09 32 21.7	-0.5
	comp=Z,2.2nm,1.0s,baz=280,slow=0.3,SNR=2.8						
TORD				pPKPab	pPKPab	09 33 28.1	-0.3
	comp=Z,1.0nm,0.9s,baz=188,slow=1.1,SNR=3.4						
TORD				PP	PP	09 35 25.7	+1.7
	comp=Z,2.3nm,1.0s,baz=200,slow=5.9,SNR=6.1						
MDT	**Midelt**	**170.61**	**24**	PKP	PKPdf	09 30 22.1	+0.2
	comp=Z,2.9nm,0.9s,baz=68,slow=2.3,SNR=4.4						
MDT				PKPab	PKPab	09 31 43.4	+0.6
	comp=Z,1.4nm,0.9s,baz=64,slow=5.9,SNR=3.6						

SKO ***25*** *09:11:35.4, 39°.95N×21°.77E, h0^{km}, M2.2, ML2.5*
CSEM ***25*** *09:11:37.0±0.2, 40°.11N×21°.73E, h2^{km}, ML3.1/10, Error ellipse: s-maj=4.0km s-min=3.0km az=88.0*
ISCJB ***25*** *09:11:37.5±0.4, 40°.11N±0°.02×21°.72E±0°.03, h10^{km}, Error ellipse: s-maj=3.7km s-min=2.6km az=162.9*
NEIC ***25*** *09:11:37.4, 40°.11N×21°.75E, h0^{km}, MD3.3(ATH), ML3.1(THE), After THE.*
THE ***25*** *09:11:37.4, 40°.11N×21°.75E, h0^{km}±2^{km}, ML3.1/10, Error ellipse: s-maj=2.2km s-min=0.8km az=284.0*
ATH ***25*** *09:11:37.1, 40°.19N×21°.85E, h18^{km}, MD3.3/4*
ISC 25 09:11:37.8±0.5**, 40°.10N**±0°.02×**21°.74E**±0°.03**, h5**^{km}±5^{km}**,**
n43, σ1^{s}.19/71**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KZN	**Kozani**	**0.21**	**7**	*e*PB	**Pg**	**09 11 41.4**	**-0.5**
KZN	**Kozani**	**0.21**	**7**	*e*Pb	**Pg**	**09 11 41.4**	**-0.5**
MEV	**Metsovon**	**0.50**	**231**	P	**Pg**	**09 11 47.7**	**+0.3**
MEV	**Metsovon**	**0.50**	**231**	P	**Pg**	**09 11 47.7**	**+0.3**
THL	**Klokotos Trika**	**0.57**	**158**	P	**Pg**	**09 11 47.1**	**-1.7**
THL				S	**Sg**	**09 11 57.9**	**+1.6**
THL	**Klokotos Trika**	**0.57**	**158**	*e*PB	**Pg**	**09 11 48.9**	**+0.1**
THL	**Klokotos Trika**	**0.57**	**158**	P	**Pg**	**09 11 47.1**	**-1.7**
THL	**Klokotos Trika**	**0.57**	**158**	*e*Pb	**Pg**	**09 11 48.9**	**+0.1**
THL				S	**Sg**	**09 11 57.9**	**+1.6**
LIT	**Litokhoron**	**0.58**	**90**	P	**Pg**	**09 11 48.8**	**-0.1**
LIT				S	**Sg**	**09 11 56.9**	**+0.5**
LIT	**Litokhoron**	**0.58**	**90**	*e*Pb	**Pg**	**09 11 47.2**	**-1.7**
LIT				S	**Sg**	**09 11 56.9**	**+0.5**
LIT	**Litokhoron**	**0.58**	**90**	*e*Pb	**Pg**	**09 11 47.2**	**-1.7**
LIT	**Litokhoron**	**0.58**	**90**	P	**Pg**	**09 11 48.8**	**-0.1**
LIT				S	**Sg**	**09 11 56.9**	**+0.5**
FNA	**Florina**	**0.74**	**338**	P	**Pg**	**09 11 51.3**	**-0.6**
FNA				S	**Sg**	**09 12 01.8**	**+0.3**
FNA	**Florina**	**0.74**	**338**	P	**Pg**	**09 11 51.3**	**-0.6**
FNA				S	**Sg**	**09 12 01.8**	**+0.3**
BIA	**Bitola**	**0.97**	**341**	*e*Pg	**Pg**	**09 11 54.9**	**-1.6**
BIA				*e*Sg	**Sg**	**09 12 11.4**	**+2.4**
BIA				*e*Lg		09 12 11.9	
	comp=E,46nm,0.2s						
BIA				*e*Lg		09 12 12.7	
	comp=N,36nm,0.2s						
BIA	**Bitola**	**0.97**	**341**	*e*Pg	**Pg**	**09 11 54.8**	**-1.6**
BIA				*e*Sg	**Sg**	**09 12 11.4**	**+2.4**
BIA				*e*Lg		09 12 11.8	
	comp=N,46nm,0.2s						
GRG	**Griva**	**0.99**	**30**	P	**Pg**	**09 11 55.6**	**-1.2**
GRG				S	**Sg**	**09 12 10.0**	**+0.2**
GRG	**Griva**	**0.99**	**30**	P	**Pg**	**09 11 55.6**	**-1.2**
GRG				S	**Sg**	**09 12 10.0**	**+0.2**
HORT	**Hortiatis**	**1.15**	**64**	P	**Pg**	**09 11 58.9**	**-1.0**
HORT				S	**Sg**	**09 12 16.1**	**+1.3**
HORT	**Hortiatis**	**1.15**	**64**	P	**Pg**	**09 11 58.9**	**-1.0**
HORT				S	**Sg**	**09 12 16.1**	**+1.3**
AGG	**Agios Georgios**	**1.17**	**157**	P	**Pg**	**09 11 59.0**	**-1.2**
AGG				S	**Sg**	**09 12 16.3**	**+1.0**
AGG	**Agios Georgios**	**1.17**	**157**	P	**Pg**	**09 11 59.0**	**-1.2**
AGG				S	**Sg**	**09 12 16.3**	**+1.0**
EVR	**Evrytania**	**1.18**	**177**	*e*PN	**Pn**	**09 12 01.4**	**+0.5**
EVR	**Evrytania**	**1.18**	**177**	*e*Pn	**Pn**	**09 12 01.4**	**+0.5**
OHR	**Ohrid**	**1.24**	**325**	*e*Pg	**Pg**	**09 12 00.1**	**-1.4**
OHR				*e*Sg	**Sg**	**09 12 19.8**	**+2.2**
OHR				*e*Lg		09 12 20.7	
	comp=N,57nm,0.6s						
OHR				*e*Lg		09 12 21.0	
	comp=E,96nm,0.5s						
OHR	**Ohrid**	**1.24**	**325**	*e*Pg	**Pg**	**09 12 00.0**	**-1.5**
OHR				*e*Sg	**Sg**	**09 12 19.7**	**+2.1**
OHR				*e*Lg		09 12 20.7	
	comp=E,57nm,0.6s						
KRUS	**Krusevo**	**1.32**	**344**	*e*Pg	**Pg**	**09 12 01.0**	**-2.1**
KRUS				*e*Sg	**Sg**	**09 12 21.8**	**+1.6**
KRUS				*e*Lg		09 12 23.2	
	comp=E,12nm,0.3s						
KRUS				*e*Lg		09 12 23.7	
	comp=N,15nm,0.3s						
XOR	**Xorichti**	**1.34**	**123**	P	**Pn**	**09 12 01.4**	**-1.6**
XOR				S	**Sb**	**09 12 21.8**	**+1.1**
XOR	**Xorichti**	**1.34**	**123**	P	**Pn**	**09 12 01.4**	**-1.6**
XOR				S	**Sb**	**09 12 21.8**	**+1.1**
VAY	**Valandovo**	**1.37**	**27**	*e*Pn	**Pn**	**09 12 03.3**	**-0.2**
VAY				*e*Sg	**Sg**	**09 12 23.6**	**+1.6**
VAY				*e*Lg		09 12 24.2	
	comp=E,33nm,0.6s						
VAY				*e*Lg		09 12 26.2	
	comp=N,45nm,0.6s						
VAY	**Valandovo**	**1.37**	**27**	*e*Pn	**Pn**	**09 12 03.3**	**-0.2**
VAY				*e*Sg	**Sg**	**09 12 23.5**	**+1.6**
VAY				*e*Lg		09 12 24.2	
	comp=N,33nm,0.6s						
KNT	**Kendrikon**	**1.38**	**39**	P	**Pn**	**09 12 02.1**	**-1.5**
KNT	**Kendrikon**	**1.38**	**39**	P	**Pn**	**09 12 02.1**	**-1.5**
SOH	**Sokhos**	**1.43**	**59**	P	**Pn**	**09 12 03.9**	**-0.4**
SOH				S	**Sb**	**09 12 24.4**	**+1.1**
SOH	**Sokhos**	**1.43**	**59**	P	**Pn**	**09 12 03.9**	**-0.4**
SOH				S	**Sb**	**09 12 24.4**	**+1.1**
PAIG	**Paliouri**	**1.50**	**96**	P	**Pn**	**09 12 03.9**	**-1.4**
PAIG				S	**Sn**	**09 12 25.5**	**+0.3**
PAIG	**Paliouri**	**1.50**	**96**	P	**Pn**	**09 12 03.9**	**-1.4**
PAIG				S	**Sn**	**09 12 25.5**	**+0.3**
LKD	**Levkas**	**1.63**	**212**	P	**Pn**	**09 12 07.4**	**+0.4**
LKD				S	**Sn**	**09 12 30.0**	**+1.7**
LKD	**Levkas**	**1.63**	**212**	P	**Pn**	**09 12 07.4**	**+0.4**
LKD				S	**Sn**	**09 12 30.0**	**+1.7**
KALE	**Kalithea**	**1.73**	**170**	P	**Pn**	**09 12 07.8**	**-0.7**
KALE	**Kalithea**	**1.73**	**170**	P	**Pn**	**09 12 07.8**	**-0.7**
LAKA	**Lakka**	**1.87**	**174**	P	**Pn**	**09 12 10.1**	**-0.2**
LAKA	**Lakka**	**1.87**	**174**	P	**Pn**	**09 12 10.1**	**-0.2**

ISCJB ***25*** *09:46:30.9±0.7, 22°.57N±0°.09×94°.11E±0°.07, h99^{km}±11^{km}, mb3.9/4, Error ellipse: s-maj=17.3km s-min=5.1km az=36.2*
NEIC ***25*** *09:46:32.3±0.4, 22°.53N×94°.22E, h92^{km}±7^{km}, Error ellipse: s-maj=19.1km s-min=4.0km az=221.0*
IDC ***25*** *09:46:34.6±4.5, 22°.87N×94°.82E, h105^{km}±37^{km}, mb3.5/4, mb1 3.7/5, mb1mx3.2/24, mbtmp3.4/5, Error ellipse: s-maj=145.3km s-min=18.0km az=58.0*
ISC 25 09:46:32.4±0.6**, 22°.56N**±0°.09×**94°.13E**±0°.08**, h93**^{km}±10^{km}**,**
n21, σ1^{s}.25/32**, mb3.9**/4**, 1C, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMP	**Imphal**	**2.23**	**355**	*e*PKP	**Pn**	**09 47 12.0**	**+4.3**
IMP				*e*S	**Sn**	**09 47 32.0**	**-2.6**
SHL	**Shillong**	**3.63**	**326**	⇑*i*P	**Pn**	**09 47 28.0**	**+1.5**
SHL				*e*S	**Sn**	**09 48 07.0**	**-1.3**
CHTO	**Chiang Mai**	**5.85**	**129**	*e*Pn	**Pn**	**09 47 55.0**	**-1.6**
CM31	**Chiang Mai Arr**	**6.08**	**131**	*e*Pn	**Pn**	**09 47 58.9**	**-0.9**
CMAR	**Chiang Mai Arr**	**6.08**	**131**	P	**Pn**	**09 47 58.7**	**-1.1**
	0.9nm,0.3s,baz=311,slow=12,SNR=8.4						
ODAN	**Odare**	**7.47**	**306**	*e*Pn	**Pn**	**09 48 20.7**	**+2.0**
ODAN				*e*Sn	**Sn**	**09 49 42.2**	**+0.3**
	86nm,0.3s						
TAPN	**Taplejung**	**7.53**	**311**	*e*Pn	**Pn**	**09 48 20.8**	**+1.3**
TAPN				*e*Sn	**Sn**	**09 49 43.0**	**-0.2**
	68nm,0.3s						
LSA	**Lhasa**	**7.60**	**340**	*e*Pn	**Pn**	**09 48 21.2**	**+0.8**
	15nm,0.6s						
RAMN	**Ramite**	**8.12**	**304**	*e*Pn	**Pn**	**09 48 29.3**	**+1.8**
RAMN				*e*Sn	**Sn**	**09 49 56.9**	**-0.7**
	64nm,0.3s						
JIRN	**Jiri**	**8.81**	**307**	*e*Pn	**Pn**	**09 48 38.5**	**+1.6**
JIRN				*e*Sn	**Sn**	**09 50 13.0**	**-1.4**
	96nm,0.3s						
GUN	**Gumba**	**9.17**	**307**	*e*Pn	**Pn**	**09 48 43.2**	**+1.3**
PKI	**Pulchoki**	**9.35**	**304**	*e*Pn	**Pn**	**09 48 45.4**	**+1.2**
PKI				*e*Sn	**Sn**	**09 50 27.3**	**-0.3**
	41nm,0.4s						
PKIN	**Phulchoki**	**9.36**	**304**	*e*Pn	**Pn**	**09 48 45.4**	**+1.0**
PKIN				*e*Sn	**Sn**	**09 50 27.2**	**-0.7**
	24nm,0.2s						
KKN	**Kakani**	**9.56**	**305**	*e*Pn	**Pn**	**09 48 47.9**	**+0.8**
KKN				*e*Sn	**Sn**	**09 50 31.2**	**-1.5**
	23nm,0.2s						
DMN	**Daman**	**9.60**	**303**	*e*Pn	**Pn**	**09 48 48.6**	**+0.9**
DMN				*e*Sn	**Sn**	**09 50 31.8**	**-1.9**
	25nm,0.4s						
GKN	**Gorkha**	**10.15**	**304**	*e*Sn	**Sn**	**09 50 46.2**	**-1.0**
	75nm,0.3s						

KOLN	Koldanda	10.85	301	*e*Pn	Pn	09 49 05.8	+1.1
KOLN				*e*Sn	Sn	09 51 01.9	-2.4
	42nm,0.3s						
MKAR	Makanchi Array	26.01	341	P	P	09 51 57.5	+1.0
	0.3nm,0.5s,mb3.0,baz=144,slow=9.3,SNR=6.1						
WRA	Warramunga Arr	57.67	134	P	P	09 56 12.6	-0.8
	6.2nm,1.3s,mb4.5,baz=322,slow=7.4,SNR=14						
ASAR	Alice Springs	60.05	137	P	P	09 56 29.6	-0.3
	0.4nm,0.5s,mb3.8,baz=320,slow=6.8,SNR=9.5						
ARCES	ARCESS Array B	61.61	338	P	P	09 56 39.8	+0.1
	4.8nm,1.0s,mb4.5,baz=92,slow=8.1,SNR=6.6						

MEX 25 09:48:13.8±0.9,14°.80N×94°.46W,h20^{km}±35^{km},MD3.9, Off coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCIG		1.50	53	*i* P	Pn	09 48 36.3	-3.3
PCIG				*i* S	Sn	09 48 54.6	-4.0
HUIG	Huatulco	1.86	301	*i* P	Pn	09 48 42.4	-2.1
HUIG				*i* S	Sn	09 49 02.8	-4.7
CMIG	Matias Romero	2.31	350	*i* P	Pn	09 48 48.6	-2.2
CMIG				*i* S	Sn	09 49 16.0	-2.6
TGIG		2.35	33	*i* P	Pn	09 48 48.5	-2.8
TGIG				*i* S	Sn	09 49 16.9	-2.7
CCIG	Comitan	2.68	56	*e*P	Pn	09 48 52.8	-3.0
CCIG				*i* S	Sn	09 49 25.7	-2.0

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*NEIC **25** 09:49:04.0,16°.24N×98°.19W,h6^{km},MD3.7(MEX),After MEX.*

MEX 25 09:49:04.1±0.7,16°.24N×98°.19W,h5^{km}±4^{km},MD3.7,Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.16	22	*i* P	Pg	09 49 06.8	-0.5
PNIG				*i* S	Sg	09 49 09.7	+0.2
UTMO	Huajuapan	1.62	13	*e*P	Pn	09 49 29.8	-3.5
UTMO				*i* S	Sn	09 49 50.4	-4.2
VHO	Vista Hermosa	1.62	59	*i* P	Pn	09 49 30.6	-2.7
VHO				*i* S	Sn	09 49 49.1	-5.5
CAIG	El Cayaco	2.15	292	*e*P	Pn	09 49 37.3	-3.2
CAIG				*i* S	Sn	09 50 02.1	-5.4
MEIG	Mezcala	2.16	321	*i* P	Pn	09 49 37.2	-3.5
MEIG				*i* S	Sn	09 50 03.7	-4.2
TPIG	Tehuac#an	2.30	20	*i* P	Pn	09 49 40.2	-2.6
TPIG				*i* S	Sn	09 50 07.4	-4.1
ZIIG	Zihuatanejo	3.42	294	*i* P	Pn	09 49 56.5	-1.5
ZIIG				*i* S	Sn	09 50 36.4	-2.5

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*BJI **25** 09:53:34.8,2°.50N×96°.16E,h25^{km},mB5.7/3,mb4.9/22, Ms5.8/2,Ms7 5.4/2*

*DJA **25** 09:53:37,2°.53N×95°.84E,h30^{km},mb4.7/8*

*ISCJB **25** 09:53:38.8±0.9,2°.64N±0°.05×96°.11E±0°.07,h47^{km}±9^{km}, mb4.6/47,Error ellipse: s-maj=13.3km s-min=6.5km az=150.5*

*NEIC **25** 09:53:39.8±0.3,2°.64N×96°.07E,h35^{km},mb5.0/18,Error ellipse: s-maj=9.0km s-min=5.2km az=43.0*

*MOS **25** 09:53:39.4±0.8,2°.71N×96°.09E,h51^{km},mb5.0/14,Error ellipse: s-maj=13.7km s-min=7.1km az=101.2*

*IDC **25** 09:53:41.7±3.8,2°.71N×96°.12E,h52^{km}±34^{km},mb4.0/17, mb1 4.1/19,mb1mx4.0/28,mbtmp4.0/19,ML3.9/1,MS4.3/1, Ms1 4.3/1,ms1mx3.7/44,Error ellipse: s-maj=26.2km s-min=13.6km az=52.0*

ISC 25 09:53:40.6±0.9,2°.66N±0°.05×96°.11E±0°.07,h43^{km}±8^{km}, h29^{km}±2.2^{km}:pP-P,n103,σ0^{s}.91/96,mb4.6/47,2D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	1.99	132	P	Pn	09 54 10.6	-1.2
GSI	Gunungsitoli	1.99	132	P	Pn	09 54 11.4	-0.4
PSI	Prapat	2.82	87	P	Pn	09 54 24.4	+1.3
	19nm,0.3s,baz=327,slow=9.6,SNR=43						
PSI				LR	LR	09 55 32.8	
	comp=Z,6μm,20.5s,baz=293,slow=40						
PSI	Prapat	2.82	87	P	Pn	09 54 24.4	+1.3
PSI				LR	LR	09 55 32.8	
BSI	Banda Aceh	2.93	344	P	Pn	09 54 22.9	-1.8
SISI	Saibi	4.96	143	P	Pn	09 54 51.1	-1.4
	88nm,1.2s						
IPM	Ipoh	5.23	70	P	Pn	09 54 57.3	+1.0
IPM	Ipoh	5.23	70	P	Pn	09 54 57.6	+1.3
	65nm,0.5s,0.4nm						
KULM	Kulim	5.23	60	*e*Pn	Pn	09 54 57.0	+0.7
	2.7nm,1.8s						
KULM	Kulim	5.23	60	P	Pn	09 54 57.2	+0.9
PPI	Padang Panjang	5.29	126	P	Pn	09 54 58.7	+1.6
PDSI	Padang	5.62	129	P	Pn	09 55 01.3	-0.3
SDSI	Sungai Dareh	6.41	124	P	Pn	09 55 12.9	+0.5
	78nm,1.2s						
MYKOM	Kota Tinggi	7.79	96	P	Pn	09 55 31.4	0.0
	17nm,0.6s,0.2nm						
MYKOM	Kota Tinggi	7.79	96	P	Pn	09 55 31.4	0.0
	17nm,0.6s,0.2nm						
KSI	Kapahiang	9.02	134	P	Pn	09 55 49.0	+0.7
	192nm,0.9s,0.8nm						
KSI	Kapahiang	9.02	134	P	Pn	09 55 48.0	-0.3
	154nm,0.9s						
MNAI	Manna	9.77	136	P	Pn	09 55 57.3	-1.3
	371nm,1.3s						
MNAI	Manna	9.77	136	P	Pn	09 55 57.3	-1.3
	371nm,1.3s						
CMAR	Chiang Mai Arr	15.95	10	P	Pn	09 57 21.2	-0.8
	baz=195,slow=14,SNR=25						
CHTO	Chiang Mai	16.30	10	*e*P	Pn	09 57 25.4	-1.1
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CHTO	Chiang Mai	16.30	10	*e*Pn	Pn	09 57 25.4	-1.1
	comp=Z,3.4nm,0.6s						
CHTO	Chiang Mai	16.30	10	P	Pn	09 57 25.8	-0.7
	comp=Z,8.9nm,1.0s						
KKM	Kota Kinabalu	20.33	80	*e*P	P	09 58 13.3	0.0
	comp=Z,13nm,0.9s						
KKM	Kota Kinabalu	20.33	80	P	P	09 58 17.9	+4.6
	comp=Z,20nm,1.0s						
KKM	Kota Kinabalu	20.33	80	P	P	09 58 16.3	+3.0
SHL	Shillong	23.14	350	*e*PKP	P	09 58 40.5	-2.7
ODAN	Odare	25.47	342	*e*P	P	09 59 05.8	+1.0
	comp=Z,39nm,0.7s,mb5.0						
RAMN	Ramite	25.82	340	*e*P	P	09 59 09.5	+1.6
	comp=Z,73nm,0.7s,mb5.3						
TAPN	Taplejung	25.84	343	*e*P	P	09 59 09.4	+1.4
	comp=Z,24nm,0.5s,mb5.0						
JIRN	Jiri	26.61	340	*e*P	P	09 59 16.4	+1.4
	comp=Z,86nm,0.7s,mb5.4						
PKI	Pulchoki	26.80	339	*e*P	P	09 59 17.5	+0.7
	comp=Z,21nm,0.6s,mb4.8						
PKI	Pulchoki	26.80	339	*e*P	P	09 59 17.5	+0.7
PKI				pmax	pmax		
	comp=Z,21nm,0.6s,mb4.8						
GUN	Gumba	26.95	340	*e*P	P	09 59 19.1	+1.0
	comp=Z,60nm,0.7s,mb5.2						
DMN	Daman	26.95	338	*e*P	P	09 59 18.9	+0.8
	comp=Z,36nm,0.8s,mb4.9						
KKN	Kakani	27.05	339	*e*P	P	09 59 19.8	+0.8
	comp=Z,47nm,0.8s,mb5.1						
KKN	Kakani	27.05	339	*e*P	P	09 59 19.8	+0.8
KKN				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.1						
LSA	Lhasa	27.30	351	P	P	09 59 22.0	+0.7
LSA	Lhasa	27.30	351	*e*P	P	09 59 21.8	+0.5
LSA				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.7						
LSA	Lhasa	27.30	351	*e*P	P	09 59 21.8	+0.5
	comp=Z,18nm,0.8s,mb4.7						
GKN	Gorkha	27.48	338	*e*P	P	09 59 23.7	+0.8
	comp=Z,64nm,0.9s,mb5.2						
KOLN	Koldanda	27.68	336	*e*P	P	09 59 25.8	+1.1
	comp=Z,66nm,0.8s,mb5.3						
DANN	Dangsing	28.13	336	*e*P	P	09 59 29.6	+0.9
	comp=Z,50nm,0.9s,mb5.1						
LGTI	Lohaghat	30.61	332	*e*PKP	P	09 59 52.0	+1.3
MBWA	Marble Bar	33.10	137	*e*P	P	10 00 13.0	+0.4
XAN	Xi'an	33.44	20	P	P	10 00 14.5	-0.9
XAN				pP	pP	10 00 22.5	-4.5
XAN				sP	sP	10 00 26.5	-5.6
XAN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
LZH	Lanzhou	34.03	11	*e*P	P	10 00 19.3	-1.2
LZH				pP	pP	10 00 27.3	-4.8
LZH				sP	sP	10 00 30.5	-6.7
LZH				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
LZH				pmax	pmax		
	comp=Z,87nm,4.0s						
FITZ	Fitzroy Crossi	35.66	126	*e*P	P	10 00 34.5	-0.4
GTA	Gaotai	36.74	5	*e*P	P	10 00 43.3	-0.5
GTA				pP	pP	10 00 51.3	-4.2
GTA				sP	sP	10 00 54.5	-6.1
GTA				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.0						
KSH	Kashi	41.00	336	P	P	10 01 19.0	-0.5
KSH				*e*pP	pP	10 01 28.8	-2.5
KSH				*e*sP	sP	10 01 33.0	-3.4
KSH				*e*PP	PP	10 02 57.0	+2.3
KSH				*e*PcP	PcP	10 03 20.3	+1.3
KSH				*e*ScP	ScP	10 07 06.3	+0.8
KSH				*e*PcS	PcS	10 07 10.0	+0.1
KSH				*e*S	S	10 07 28.0	-0.8
KSH				*e*sS	sS	10 07 44.0	-4.5
KSH				*e*SS	SS	10 10 25.0	-7.2
KSH				*e*ScS	ScS	10 11 19.0	-1.7
KSH				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
BJT	Baijiatuau	41.40	23	*e*P	P	10 01 23.5	+0.7
BJT				pmax	pmax		
	comp=Z,15nm,0.5s						
BJT	Baijiatuau	41.40	23	*e*P	P	10 01 23.5	+0.8
	comp=Z,15nm,0.5s,mb4.9						
WRA	Warramunga Arr	43.73	123	P	P	10 01 41.6	-0.4
	comp=Z,0.8nm,0.4s,mb3.8,baz=302,slow=9.1,SNR=16						
AAK	Ala-Archa	44.24	337	P	P	10 01 45.1	-0.6
	comp=Z,4.7nm,1.0s,mb4.2,baz=173,slow=8.1,SNR=6.5						
EKS2	Erkin-Say	44.54	336	*e*P	P	10 01 48.2	0.0
	comp=Z,3.2nm,0.7s,mb4.3						
JAY	Jayapura	44.88	96	P	P	10 02 00.3	+9.0
ASAR	Alice Springs	45.14	128	P	P	10 01 53.4	+0.1
	comp=Z,0.8nm,0.6s,mb3.7,baz=300,slow=8.0,SNR=17						
KSRS	Korea Array	45.30	36	P	P	10 01 53.6	-0.6
	comp=Z,2.5nm,0.7s,mb4.2,baz=228,slow=9.2,SNR=10						
MK31	Makanchi Array	45.58	347	*e*P	P	10 01 56.2	-0.1
MK31				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.9						
MKAR	Makanchi Array	45.58	347	P	P	10 01 56.4	+0.1
	comp=Z,9.9nm,0.6s,mb4.9,baz=159,slow=8.8,SNR=231						
SONM	Songino Array	45.87	10	P	P	10 01 58.9	+0.3
	comp=Z,4.3nm,0.5s,mb4.7,baz=190,slow=9.2,SNR=40						
SONM				PcP	PcP	10 03 36.5	+1.2
	comp=Z,1.9nm,0.7s,baz=200,slow=3.5,SNR=5.1						
ULN	Ulaanbaatar	46.02	10	*e*P	P	10 02 00.2	+0.5
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ULN	Ulaanbaatar	46.02	10	*e*P	P	10 02 00.2	+0.4
	comp=Z,4.1nm,0.8s,mb4.4						
KK31	Karatay Array	46.27	334	*i* P	P	10 02 02.0	+0.1
KK31				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
ZAK	Zakamensk	47.94	6	*e*P	P	10 02 14.6	-0.1
ZAK				*e*		10 03 44.2	
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
CN2	Changchun	48.53	28	*e*P	P	10 02 19.0	-0.4
TLY	Talaya	49.26	6	*e*P	P	10 02 24.9	+0.1
TLY				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
TLY	Talaya	49.26	6	*e*P	P	10 02 24.9	0.0
	comp=Z,3.3nm,0.8s,mb4.4						
KURK	Kurchatov	50.11	346	P	P	10 02 31.1	-0.3
	baz=166,slow=6.9						
ZALV	Zalesovo Beam	51.96	352	P	P	10 02 45.1	0.0
	comp=Z,13nm,0.4s,mb5.2,baz=181,slow=7.2,SNR=70						
NVS	Novosibirsk	53.07	351	*e*P	P	10 02 52.5	-0.8
BVAR	Borovoye Array	54.52	341	P	P	10 03 03.6	-0.5
	comp=Z,3.3nm,0.6s,mb4.5,baz=140,slow=7.8,SNR=13						
STKA	Stephens Creek	55.14	132	P	P	10 03 09.7	+0.8
	comp=Z,1.2nm,0.6s,mb4.1,baz=285,slow=7.8,SNR=4.3						
AB31	Akbulak array	55.72	332	P	P	10 03 12.5	-0.2
AB31				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
BOD	Bodaibo	56.80	11	*e*P	P	10 03 19.1	-1.1
BOD				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
AKTK	Aktyubinsk	57.44	332	P	P	10 03 24.5	-0.4
AKTO	Aktyubinsk	57.44	332	P	P	10 03 24.1	-0.8
AKTO				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.8						
AKTO	Aktyubinsk	57.44	332	P	P	10 03 24.5	-0.4
	comp=Z,2.6nm,0.4s,mb4.6,baz=122,slow=8.6,SNR=18						
KMBO	Kilima Mbogo	58.96	267	P	P	10 03 37.7	+1.4
	comp=Z,0.5nm,0.4s,mb3.9,baz=235,slow=22,SNR=3.3						
KMBO	Kilima Mbogo	58.96	267	P	P	10 03 37.7	+1.4
GNI	Garni	59.49	316	P	P	10 03 40.2	+0.7
	comp=Z,2.4nm,0.4s,mb4.5,baz=134,slow=14,SNR=2.4						
ARU	Arti	61.42	337	*d i*P	P	10 03 52.2	-0.1
ARU				S	S	10 12 11.8	+1.6
ARU				pmax	pmax		
	comp=Z,28nm,2.5s,mb5.0						
YAK	Yakutsk	64.34	17	*e*P	P	10 04 10.1	-1.5
YAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
BRTR	Keskin Array B	67.33	312	P	P	10 04 30.4	-0.9
	comp=Z,1.1nm,0.8s,mb3.9,baz=92,slow=6.2,SNR=4.8						
PRGR	Permogore	69.88	337	*e*P	P	10 04 45.0	-1.7
PRGR				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
TIXI	Tiksi	71.95	10	*e*P	P	10 04 58.4	-0.8
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
TIXI	Tiksi	71.95	10	*e*P	P	10 04 58.4	-0.8
	comp=Z,5.3nm,0.7s,mb4.6						
KLMR	Klimovskoe	71.97	335	*e*P	P	10 04 55.6	-3.9
KLMR				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.7						
SEY	Seymchan	72.86	23	⇓*e*P	P	10 05 04.8	+0.1
AKASG	Malin Array Be	73.44	322	P	P	10 05 07.0	-1.4
	comp=Z,3.0nm,0.7s,mb4.3,baz=96,slow=4.2,SNR=6.3						
FINES	FINESS Array B	78.21	333	P	P	10 05 35.1	-0.3
	comp=Z,4.3nm,0.9s,mb4.4,baz=98,slow=5.8,SNR=5.5						
OKC	Ostrava-Krasne	80.21	320	AMS	AMS	10 57 20.0	
	comp=Z,8μm,19.9s						
ARCES	ARCESS Array B	80.80	340	P	P	10 05 49.7	+0.3
	comp=Z,2.4nm,0.8s,mb4.2,baz=92,slow=6.1,SNR=8.7						
ARCES	ARCESS Array B	80.80	340	P	P	10 05 49.7	+0.3
DPC	Dobruska-Polom	81.44	320	AMS	AMS	10 56 20.0	
	comp=Z,8μm,20.5s						
TREC	Trest	81.87	319	AMS	AMS	11 00 50.0	
	comp=Z,11μm,20.5s						
PRU	Pruhonice	82.54	320	AMS	AMS	10 59 50.0	
	comp=Z,8μm,21.0s						
PVCC	Panska Ves	82.57	320	AMS	AMS	10 56 30.0	
	comp=Z,9μm,21.4s						
GERES	GERESS Array B	83.00	319	P	P	10 06 01.3	-0.1
	comp=Z,1.1nm,0.6s,mb4.0,baz=95,slow=4.4,SNR=7.9						
KHC	Kasperske Hory	83.10	319	AMS	AMS	11 00 00.0	
	comp=Z,10μm,20.8s						
NKC	Novy Kostel	83.91	320	AMS	AMS	10 58 50.0	
	comp=Z,11μm,20.8s						
TXAR	Lajitas Array	142.98	29	PKP	PKPdf	10 13 07.6	-2.8
	comp=Z,0.2nm,0.6s,baz=219,slow=1.2,SNR=5.5						
TXAR	Lajitas Array	142.98	29	PKP	PKPdf	10 13 07.6	-2.8

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*BJI **25** 10:38:37.8,3°.33S×99°.88E,h35^{km},mB5.7/15,mb5.0/50, Ms5.3/26,Ms7 5.1/26*

*IDC **25** 10:38:41.4±0.6,2°.44S×99°.83E,h0^{km},mb4.9/25, mb1 4.9/26,mb1mx4.8/31,mbtmp4.9/26,ML4.0/1,Error ellipse: s-maj=23.2km s-min=10.4km az=48.0*

*ISCJB **25** 10:38:43.7±1.1,2°.50S±0°.03×99°.78E±0°.03,h28^{km}±7^{km}, mb5.0/95,MS5.3/13,Error ellipse: s-maj=7.0km s-min=4.2km az=45.0*

*DJA **25** 10:38:45,2°.55S×99°.59E,h41^{km},mb5.0/19*

*NEIC **25** 10:38:46.6±0.2,2°.47S×99°.88E,h35^{km},mb5.1/36,Error ellipse: s-maj=6.4km s-min=4.1km az=55.0*

NEIC Felt [II] at Mukomuko, Sumatra. Also felt at Padang. Felt in Singapore.

*MOS **25** 10:38:46.3±0.9,2°.25S×99°.99E,h42^{km},mb5.3/36, MS5.6/4,Error ellipse: s-maj=11.7km s-min=5.6km az=109.4*

*SZGRF **25** 10:38:53.0,0°.55S×100°.02E,h33^{km},mb4.8,Southern Sumatera, Indonesia*

ISC 25 10:38:44.9±1.1,2°.53S±0°.03×99°.75E±0°.03,h23^{km}±7^{km}, h35^{km}±1.0^{km}:pP-P,n238,σ1^{s}.06/241,mb5.0/95,MS5.3/13, 23C-8D,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	Saibi	1.36	331	P	Pn	10 39 08.1	-0.4
PDSI	Padang	1.75	24	P	Pn	10 39 12.9	-1.0
PPI	Padang Panjang	2.15	17	P	Pn	10 39 18.7	-0.7
PPI				S	Sn	10 39 47.0	+1.6
SDSI	Sungai Dareh	2.30	47	P	Pn	10 39 27.9	+6.5
KSI	Kapahiang	3.05	112	P	Pn	10 39 33.1	+1.4
KSI				S	Sn	10 40 12.1	+4.6
RGRI	Rengat	3.37	50	P	Pn	10 39 37.0	+0.9
MNAI	Manna	3.68	120	P	Pn	10 39 40.3	-0.1
MNAI				S	Sn	10 40 23.3	+0.2
GSI	Gunungsitoli	4.38	330	P	Pn	10 39 48.1	-1.9
MDSI	Maura Dua	4.83	114	P	Pn	10 39 57.4	+1.2
PSI	Prapat	5.36	351	Pn	Pn	10 40 00.8	-2.6
	5.6nm,0.3s,baz=164,slow=7.1,SNR=21						
PSI	Prapat	5.36	351	Pn	Pn	10 40 00.8	-2.6
KGM	Kluang	5.75	38	P	Pn	10 40 09.6	+0.8
MYKOM	Kota Tinggi	5.93	44	P	Pn	10 40 12.4	+1.1
MYKOM	Kota Tinggi	5.93	44	P	Pn	10 40 11.6	+0.3
	216nm,0.8s,1.7nm						
FRIM	Kepong	6.02	18	P	Pn	10 40 12.8	+0.2
IPM	Ipoh	7.07	10	P	Pn	10 40 28.0	+1.0
IPM	Ipoh	7.07	10	P	Pn	10 40 27.1	+0.1
	77nm,0.8s,0.5nm						
KULM	Kulim	7.81	7	P	Pn	10 40 36.9	-0.3
KULM	Kulim	7.81	7	*e*Pn	Pn	10 40 35.5	-1.8
	70nm,0.8s						
TPI	Tanjungpandan	7.90	92	⇓*e*P	Pn	10 40 40.0	+1.6
TPI				*e*S	Sn	10 42 28.0	+21
TPI	Tanjungpandan	7.90	92	P	Pn	10 40 39.4	+1.0
	29nm,1.1s						
CBJI	Citeko	8.06	119	P	Pn	10 40 44.9	+4.2
KTGM	Kuala Trenggan	8.50	23	P	Pn	10 40 47.8	+1.1
LEM	Lembang	8.93	119	P	Pn	10 40 55.9	+3.4
	111nm,0.7s						
BSI	Banda Aceh	9.13	331	P	Pn	10 40 52.8	-2.5
	43nm,0.9s						
XMIS	Christmas Isla	9.84	144	*e*Pn	Pn	10 41 00.0	-5.0
	30nm,0.3s						
XMIS				*e*Sn	Sn	10 42 41.9	-13
XMIS	Christmas Isla	9.84	144	P	Pn	10 41 03.3	-1.7
	79nm,1.6s						
COCO	West Island	10.03	197	*e*Pn	Pn	10 41 07.8	+0.2
COCO	West Island	10.03	197	P	Pn	10 41 05.9	-1.7
	146nm,2.1s						
SMRI	Semarang	11.56	113	P	Pn	10 41 26.5	-2.1
	181nm,1.1s						
SJI	Sawahan	13.03	114	P	Pn	10 41 48.3	-0.5
	67nm,0.8s						
PWJI	Pagerwojo	13.18	115	P	Pn	10 41 50.0	-0.8
	44nm,1.0s						
SBUM	Sibu	13.41	68	P	Pn	10 41 55.5	+1.6
	30nm,1.5s						
BBKI	Banjar Baru	15.10	94	P	Pn	10 42 22.2	+5.3
	103nm,0.7s						
ABJI	Asem Bagus	15.34	110	P	Pn	10 42 21.7	+1.7
KBKI	Kotabaru	16.41	93	P	Pn	10 42 35.8	+1.9
	50nm,1.2s						
KKM	Kota Kinabalu	18.51	63	P	Pn	10 42 59.8	-0.2
KKM	Kota Kinabalu	18.51	63	*e*P	Pn	10 42 59.4	-0.7
	23nm,0.6s						
KKM	Kota Kinabalu	18.51	63	P	Pn	10 42 59.9	-0.1
	42nm,0.6s						
SDKM	Sandakan	19.22	65	P	Pn	10 43 07.8	-0.8
TSM	Tawau	19.33	70	P	Pn	10 43 09.4	-0.5
KDM	Kudat	19.46	61	P	Pn	10 43 10.4	-1.0
TTSI	Tana Toraja	20.05	92	P	P	10 43 17.1	+0.5
KAPI	Kappang	20.11	98	P	P	10 43 15.9	-1.4
	13nm,0.6s,baz=298,slow=17,SNR=7.9						
KAPI	Kappang	20.11	98	*e*P	P	10 43 15.9	-1.4
PCI	Palu	20.14	86	P	P	10 43 18.6	+1.0
	107nm,1.1s						
MYLDM	Lahad Datu	20.23	68	P	P	10 43 19.6	+1.0
MYLDM	Lahad Datu	20.23	68	P	P	10 43 19.3	+0.7
	78nm,0.9s						
BNSI	Bone	20.40	96	P	P	10 43 20.7	+0.2
	77nm,0.9s						
CMAR	Chiang Mai Arr	20.86	358	P	P	10 43 24.2	-1.2
	15nm,0.8s,baz=186,slow=10,SNR=32						
CHTO	Chiang Mai	21.22	358	*e*P	P	10 43 27.8	-1.4
CHTO	Chiang Mai	21.22	358	P	P	10 43 27.8	-1.4
	16nm,1.2s,mb4.2						
APSI	Ampana	21.94	86	P	P	10 43 36.8	-0.3
KMI	Kunming	27.64	6	P	P	10 44 32.5	+1.6
KMI				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.4						
SHL	Shillong	28.95	345	*e*PKP	P	10 44 50.5	+7.9
GYA	Guiyang	29.58	13	⇑*i*P	P	10 44 49.8	+1.6
GYA				pP	pP	10 45 00.3	+5.2
GYA				PP	PP	10 45 46.3	-8.9
GYA				S	S	10 49 42.0	-0.1
GYA				sS	sS	10 50 01.0	+7.5
GYA				ScP	ScP	10 51 29.8	-3.8
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,130nm,4.8s						
GYA				LR	LR		
	comp=N,790nm,16.7s,MS4.6						
GYA				LR	LR		
	comp=E,820nm,15.4s,MS4.6						
GYA				LR	LR		
	comp=Z,920nm,16.9s,MS4.5						
FITZ	Fitzroy Crossi	29.73	123	*e*P	P	10 44 50.6	+1.0
	comp=Z,15nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	29.73	123	P	P	10 44 49.4	-0.2
	comp=Z,6.8nm,0.6s,mb4.5,baz=316,slow=5.9,SNR=10						
ODAN	Odare	31.56	339	*e*P	P	10 45 06.4	+0.7
	comp=Z,40nm,0.6s,mb5.4						
TAPN	Taplejung	31.89	339	*e*P	P	10 45 09.9	+1.3
	comp=Z,61nm,0.8s,mb5.5						
RAMN	Ramite	31.93	337	*e*P	P	10 45 10.0	+1.0
	comp=Z,30nm,0.7s,mb5.3						
JIRN	Jiri	32.73	337	*e*P	P	10 45 17.1	+1.2
	comp=Z,61nm,0.8s,mb5.6						
GUN	Gumba	33.07	337	*e*P	P	10 45 20.0	+1.0
	comp=Z,58nm,0.5s,mb5.7						
LSA	Lhasa	33.08	346	P	P	10 45 20.0	+1.0
LSA	Lhasa	33.08	346	*e*P	P	10 45 19.7	+0.7
LSA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
LSA	Lhasa	33.08	346	*e*P	P	10 45 19.7	+0.7
	comp=Z,15nm,0.6s,mb5.1						
DMN	Daman	33.12	336	*e*P	P	10 45 20.6	+1.3
KKN	Kakani	33.20	336	*e*P	P	10 45 20.6	+0.5
	comp=Z,22nm,0.6s,mb5.3						
KKN	Kakani	33.20	336	*e*P	P	10 45 20.6	+0.5
KKN				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.3						
CD2	Chengdu	33.47	6	P	P	10 45 26.0	+3.7
CD2				pP	pP	10 45 35.8	+6.5
CD2				sP	sP	10 45 39.8	+7.7
CD2				PP	PP	10 46 39.3	+0.9
CD2				S	S	10 50 46.0	+3.3
CD2				sS	sS	10 51 02.0	+7.8
CD2				SS	SS	10 52 52.0	-16
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,230nm,6.2s						
CD2				LR	LR		
	comp=N,2μm,15.5s						
CD2				LR	LR		
	comp=Z,4μm,19.6s,MS5.1						
GKN	Gorkha	33.66	335	*e*P	P	10 45 24.5	+0.5
	comp=Z,20nm,0.5s,mb5.3						
KOLN	Koldanda	33.90	334	*e*P	P	10 45 26.8	+0.7
	comp=Z,23nm,0.7s,mb5.2						
DANN	Dangsing	34.33	334	*e*P	P	10 45 30.5	+0.6
	comp=Z,21nm,0.4s,mb5.4						
WHN	Wuhan	35.71	22	*e*P	P	10 45 41.0	-0.8
LGTI	Lohaghat	36.88	331	*e*PKP	P	10 45 52.5	+0.8
XAN	Xi'an	37.38	13	P	P	10 45 54.0	-2.0
XAN				pP	pP	10 46 06.0	+3.0
XAN				sP	sP	10 46 08.3	+2.5
XAN				PP	PP	10 47 23.5	+2.0
XAN				S	S	10 51 45.5	+2.7
XAN				sS	sS	10 52 00.8	+6.4
XAN				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.8						
XAN				pmax	pmax		

	comp=Z,240nm,11.3s						
XAN				LR	LR		
	comp=N,1µm,17.5s,MS4.8						
XAN				LR	LR		
	comp=E,960nm,14.1s,MS4.8						
XAN				LR	LR		
	comp=Z,690nm,18.8s,MS4.5						
WRA	**Warramunga Arr**	**37.95**	**120**	P	**P**	**10 46 00.7**	**-0.3**
	comp=Z,44nm,0.7s,mb5.3,baz=304,slow=9.1,SNR=258						
WRA				PcP	PcP	10 48 17.6	+0.9
	comp=Z,2.3nm,0.7s,baz=308,slow=2.4,SNR=5.4						
WRA				S	**S**	**10 51 46.7**	**-5.1**
	comp=Z,0.7nm,0.9s,baz=293,slow=15,SNR=4.0						
WRAB	**Tennant Creek**	**37.95**	**120**	P	**P**	**10 46 00.3**	**-0.7**
	comp=Z,440nm,0.6s,mb6.4,SNR=10						
WRAB	**Tennant Creek**	**37.95**	**120**	*e*P	**P**	**10 46 00.1**	**-0.9**
WRAB				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.3						
WRAB	**Tennant Creek**	**37.95**	**120**	*e*P	**P**	**10 46 00.1**	**-0.9**
	comp=Z,40nm,0.6s,mb5.3						
LZH	**Lanzhou**	**38.60**	**5**	*e*P	**P**	**10 46 06.0**	**-0.2**
LZH				pP	pP	10 46 15.5	+2.2
LZH				sP	sP	10 46 19.0	+2.9
LZH				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.0						
LZH				pmax	pmax		
	comp=Z,320nm,6.8s						
FORT	**Forrest**	**38.80**	**139**	*e*P	**P**	**10 46 16.5**	**+8.4**
	comp=Z,17nm,0.6s,mb5.0						
FORT	**Forrest**	**38.80**	**139**	*e*P	**P**	**10 46 07.2**	**-0.8**
	comp=Z,21nm,0.7s,mb5.0						
NJ2	**Nanjing**	**38.87**	**26**	*e*P	**P**	**10 46 08.3**	**-0.3**
NJ2				pP	pP	10 46 18.3	+2.7
NJ2				sP	sP	10 46 22.0	+3.5
NJ2				pmax	pmax		
	comp=Z,30nm,1.1s,mb4.9						
ASAR	**Alice Springs**	**39.15**	**125**	P	**P**	**10 46 11.3**	**+0.2**
	comp=Z,10nm,0.6s,mb4.8,baz=300,slow=7.5,SNR=100						
ASAR				PcP	PcP	10 48 20.6	+0.2
	comp=Z,3.4nm,0.7s,baz=302,slow=2.4,SNR=7.7						
ASAR				S	**S**	**10 52 08.7**	**-1.2**
	comp=Z,1.4nm,0.7s,baz=300,slow=13,SNR=10						
GTA	**Gaotai**	**41.73**	**0**	⇑P	**P**	**10 46 32.0**	**-0.1**
GTA				pP	pP	10 46 41.0	+1.8
GTA				sP	sP	10 46 45.8	+3.8
GTA				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.8						
HHC	**Hu-ho-hao-te**	**44.49**	**13**	*e*P	**P**	**10 46 56.3**	**+1.8**
HHC				pP	pP	10 47 06.3	+4.7
HHC				sP	sP	10 47 10.3	+5.9
HHC				PP	PP	10 48 41.8	+3.2
HHC				PcS	PcS	10 52 30.3	-0.6
HHC				S	**S**	**10 53 30.3**	**+1.8**
HHC				sS	sS	10 53 46.5	+6.3
HHC				SS	SS	10 56 42.5	-5.9
HHC				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.0						
HHC				pmax	pmax		
	comp=Z,3µm,4.9s						
HHC				LR	LR		
	comp=N,700nm,14.2s,MS5.0						
HHC				LR	LR		
	comp=E,1µm,13.7s,MS5.0						
HHC				LR	LR		
	comp=Z,780nm,14.3s,MS4.8						
BJI	**Beijing**	**44.95**	**18**	P	**P**	**10 46 57.8**	**-0.4**
BJI				S	**S**	**10 53 37.3**	**+2.1**
BJI				pmax	pmax		
	comp=Z,63nm,0.8s,mb5.5						
BJI				pmax	pmax		
	comp=Z,2µm,8.1s						
BJI				LR	LR		
	comp=N,2µm,27.2s						
BJI				LR	LR		
	comp=E,2µm,19.0s						
BJI				LR	LR		
	comp=Z,4µm,29.8s,MS5.1						
KSH	**Kashi**	**47.20**	**335**	*e*P	**P**	**10 47 15.0**	**-0.9**
KSH				*e*pP	pP	10 47 24.3	+1.3
KSH				*e*sP	sP	10 47 29.3	+3.5
KSH				*e*PcP	PcP	10 48 45.3	-1.8
KSH				*e*ScP	ScP	10 52 37.3	-2.6
KSH				*e*PcS	PcS	10 52 41.0	-1.2
KSH				*e*S	**S**	**10 54 03.0**	**-4.5**
KSH				*e*ScS	ScS	10 57 04.0	-4.8
KSH				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
KSH				pmax	pmax		
	comp=Z,1µm,8.6s						
KSH				LR	LR		
	comp=N,520nm,7.0s						
KSH				LR	LR		
	comp=E,990nm,9.4s						
KSH				LR	LR		
	comp=Z,650nm,10.1s,MS4.9						
WMQ	**Urumqi**	**47.39**	**348**	⇑*i*P	**P**	**10 47 18.5**	**+1.2**
WMQ				pP	pP	10 47 28.0	+3.6
WMQ				sP	sP	10 47 32.0	+4.8
WMQ				PcP	PcP	10 48 49.0	+1.3
WMQ				PP	PP	10 49 10.0	+1.3
WMQ				*e*S	**S**	**10 54 11.0**	**+1.0**
WMQ				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.4						
KSRS	**Korea Array**	**47.59**	**31**	P	**P**	**10 47 18.1**	**-0.8**
	comp=Z,24nm,0.8s,mb5.3,baz=225,slow=8.5,SNR=76						
CTA	**Charters Tower**	**48.60**	**115**	*e*P	**P**	**10 47 26.9**	**-0.2**
	comp=Z,17nm,0.8s,mb5.1						
CTA	**Charters Tower**	**48.60**	**115**	P	**P**	**10 47 27.1**	**0.0**
	comp=Z,23nm,0.8s,mb5.3,baz=287,slow=10.0,SNR=18						
STKA	**Stephens Creek**	**48.99**	**131**	*e*P	**P**	**10 47 30.9**	**+1.0**
	comp=Z,8.0nm,0.5s,mb5.0						
STKA	**Stephens Creek**	**48.99**	**131**	P	**P**	**10 47 31.0**	**+1.1**
	comp=Z,13nm,0.7s,mb5.1,baz=309,slow=7.9,SNR=38						
SNY	**Shenyang**	**49.16**	**24**	⇑P	**P**	**10 47 29.5**	**-1.5**
SNY				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
SNY				pmax	pmax		
	comp=Z,3µm,12.0s						
SNY				LR	LR		
	comp=N,4µm,22.5s,MS5.4						
SNY				LR	LR		
	comp=E,2µm,22.1s,MS5.4						
SNY				LR	LR		
	comp=Z,6µm,21.4s,MS5.5						
KZA	**Kyzart**	**49.64**	**336**	P	**P**	**10 47 35.8**	**+1.2**
	SNR=5.9						
UCH	**Uchtor**	**50.07**	**336**	P	**P**	**10 47 39.0**	**+1.1**
	SNR=8.4						
TKM2	**Tokmak 2**	**50.21**	**337**	*e*P	**P**	**10 47 39.5**	**+0.5**
TKM2				pmax	pmax		
	comp=Z,15nm,0.5s,mb5.3						
TKM2	**Tokmak 2**	**50.21**	**337**	P	**P**	**10 47 39.9**	**+0.9**
	SNR=20						
TKM2	**Tokmak 2**	**50.21**	**337**	*e*P	**P**	**10 47 39.5**	**+0.5**
	comp=Z,15nm,0.5s,mb5.3						
KBK	**Karagaybulak**	**50.25**	**336**	P	**P**	**10 47 41.1**	**+1.8**
	SNR=8.1						
AML	**Almayashu**	**50.33**	**335**	P	**P**	**10 47 41.0**	**+1.1**
	SNR=14						
AML	**Almayashu**	**50.33**	**335**	*e*P	**P**	**10 47 40.7**	**+0.8**
	comp=Z,13nm,0.7s,mb5.1						
AAK	**Ala-Archa**	**50.41**	**336**	⇑*e*P	**P**	**10 47 41.7**	**+1.2**
AAK				pmax	pmax		
	comp=Z,9.0nm,2.5s,mb4.4						
AAK	**Ala-Archa**	**50.41**	**336**	P	**P**	**10 47 41.5**	**+1.0**
	comp=Z,2.2nm,0.6s,mb4.4,baz=138,slow=6.4,SNR=10						
AAK	**Ala-Archa**	**50.41**	**336**	*e*P	**P**	**10 47 41.1**	**+0.6**
	comp=Z,8.6nm,0.9s,mb4.8						
SONM	**Songino Array**	**50.49**	**6**	P	**P**	**10 47 41.3**	**+0.4**
	comp=Z,37nm,0.7s,mb5.5,baz=187,slow=9.3,SNR=307						
SONM				PcP	PcP	10 48 59.3	+0.4
	comp=Z,7.0nm,0.8s,baz=196,slow=4.1,SNR=6.6						
ULN	**Ulaanbaatar**	**50.59**	**6**	*e*P	**P**	**10 47 41.8**	**+0.1**
ULN				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.3						
ULN	**Ulaanbaatar**	**50.59**	**6**	*e*P	**P**	**10 47 41.8**	**+0.1**
	comp=Z,34nm,0.8s,mb5.3						
EKS2	**Erkin-Say**	**50.73**	**335**	P	**P**	**10 47 44.0**	**+1.1**
	SNR=16						
EKS2	**Erkin-Say**	**50.73**	**335**	*e*P	**P**	**10 47 43.9**	**+0.9**
	comp=Z,20nm,0.8s,mb5.1						
USP	**Ospenovka**	**50.94**	**336**	P	**P**	**10 47 44.8**	**+0.4**
	SNR=23						
MK31	**Makanchi Array**	**51.47**	**345**	*i* P	**P**	**10 47 48.3**	**0.0**
MK31				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.3						
MK31	**Makanchi Array**	**51.47**	**345**	⇑*e*P	**P**	**10 47 48.4**	**+0.1**
MKAR	**Makanchi Array**	**51.47**	**345**	P	**P**	**10 47 48.5**	**+0.1**
	comp=Z,33nm,0.7s,mb5.4,baz=148,slow=8.2,SNR=381						
MKAR	**Makanchi Array**	**51.47**	**345**	P	**P**	**10 47 48.5**	**+0.1**
CN2	**Changchun**	**51.56**	**24**	⇑P	**P**	**10 47 48.0**	**-1.1**
CN2				*e*pP	pP	10 47 56.5	+0.2
CN2				*e*S	**S**	**10 55 06.8**	**-1.7**
CN2				SS	SS	10 58 41.5	-3.5
CN2				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.5						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,2µm,17.0s,MS5.4						
CN2				LR	LR		
	comp=E,2µm,17.0s,MS5.4						
CN2				LR	LR		
	comp=Z,2µm,18.0s,MS5.2						
ZAK	**Zakamensk**	**52.79**	**3**	*e*P	**P**	**10 47 57.7**	**-0.4**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
MAJO	**Matsushiro**	**52.84**	**39**	*e*P	**P**	**10 47 57.2**	**-1.5**
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
MAJO	**Matsushiro**	**52.84**	**39**	*e*P	**P**	**10 47 57.2**	**-1.6**
	comp=Z,9.3nm,0.6s,mb4.9						
MAT	**Matsushiro**	**52.84**	**39**	P	**P**	**10 47 56.9**	**-1.8**
MJAR	**Matsushiro Arr**	**52.84**	**39**	P	**P**	**10 47 57.4**	**-1.4**
	comp=Z,9.5nm,0.9s,mb4.7,baz=223,slow=7.7,SNR=21						
MDJ	**Mudanjiang**	**53.97**	**26**	P	**P**	**10 48 06.5**	**-0.4**
MDJ				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
MDJ	**Mudanjiang**	**53.97**	**26**	*e*P	**P**	**10 48 06.5**	**-0.4**
	comp=Z,12nm,0.9s,mb4.8						
TLY	**Talaya**	**54.10**	**3**	*e*P	**P**	**10 48 08.3**	**+0.6**
TLY				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
TLY	**Talaya**	**54.10**	**3**	*e*P	**P**	**10 48 08.3**	**+0.5**
	comp=Z,9.4nm,0.8s,mb4.8						
HIA	**Hailar**	**54.41**	**16**	*e*P	**P**	**10 48 09.1**	**-1.0**
	comp=Z,14nm,0.9s,mb4.9						
IRK	**Irkutsk**	**54.70**	**3**	*e*P	**P**	**10 48 12.0**	**-0.1**
IRK				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
KURK	**Kurchatov**	**56.04**	**344**	P	**P**	**10 48 21.3**	**-0.5**
	comp=Z,188nm,0.8s,mb6.2,SNR=9.8						
KURK	**Kurchatov**	**56.04**	**344**	*e*P	**P**	**10 48 21.4**	**-0.4**
KURK				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.3						
KURK	**Kurchatov**	**56.04**	**344**	P	**P**	**10 48 21.2**	**-0.6**
	comp=Z,12nm,0.8s,mb5.0,baz=165,slow=7.1,SNR=37						
KURK	**Kurchatov**	**56.04**	**344**	*e*P	**P**	**10 48 21.4**	**-0.3**
	comp=Z,27nm,0.8s,mb5.3						
ARMA	**Armidale**	**56.30**	**125**	*e*P	**P**	**10 48 26.2**	**+2.1**
ZAA0	**Zalesovo Array**	**57.63**	**350**	*e*P	**P**	**10 48 32.5**	**-0.5**
ZALV	**Zalesovo Beam**	**57.63**	**350**	P	**P**	**10 48 32.7**	**-0.3**
	comp=Z,17nm,0.7s,mb5.2,baz=177,slow=5.9,SNR=50						
ZALV	**Zalesovo Beam**	**57.63**	**350**	P	**P**	**10 48 32.7**	**-0.3**
KLR	**Kul'dur**	**58.51**	**24**	*e*P	**P**	**10 48 34.2**	**-5.0**
KLR				pmax	pmax		
	comp=Z,68nm,1.6s,mb5.4						
NVS	**Novosibirsk**	**58.78**	**349**	*e*P	**P**	**10 48 38.8**	**-2.2**
NVS				pmax	pmax		
	comp=Z,24nm,1.5s,mb5.0						
HABR	**Khabarovsk**	**59.34**	**27**	*e*P	**P**	**10 48 42.0**	**-3.0**
HABR				*e**PP	pP	10 48 52.2	-0.1
HABR				*e**SP	sP	10 48 56.2	+1.1
HABR						10 50 51.9	
HABR				*e*S	**S**	**10 56 47.9**	**-4.4**
HABR				*e**SS	sS	10 57 05.0	+0.7
HABR				*e*		10 58 29.3	
HABR				SS	SS	11 00 43.9	-3.6
HABR				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.6						
HNR	**Honiara**	**60.19**	**99**	P	**P**	**10 48 49.9**	**-1.6**
	comp=Z,38nm,0.5s,mb5.7,baz=258,slow=15,SNR=2.8						
BVAR	**Borovoye Array**	**60.59**	**340**	P	**P**	**10 48 52.7**	**-0.8**
	comp=Z,6.1nm,0.7s,mb4.8,baz=144,slow=8.9,SNR=29						
BRVK	**Borovoye**	**60.65**	**340**	*e*P	**P**	**10 48 52.7**	**-1.2**
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb5.0						
BRVK	**Borovoye**	**60.65**	**340**	*e*P	**P**	**10 48 52.7**	**-1.2**
	comp=Z,7.3nm,0.6s,mb5.0						
BOD	**Bodaibo**	**61.23**	**9**	⇓*i*P	**P**	**10 48 57.1**	**-0.7**
BOD				pmax	pmax		
	comp=Z,17nm,1.7s,mb4.9						
AB31	**Akbulak array**	**61.98**	**332**	P	**P**	**10 49 02.1**	**-0.9**
AB31				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.5						
YSS	**Yuzh-Sakhalins**	**62.05**	**32**	⇑*i*P	**P**	**10 49 02.9**	**-0.7**
YSS				*e*		10 49 11.8	
YSS				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.6						
YSS	**Yuzh-Sakhalins**	**62.05**	**32**	*e*P	**P**	**10 49 03.2**	**-0.3**
	comp=Z,36nm,0.8s,mb5.5						
NRGR	**Nerungri**	**62.38**	**15**	*e*P	**P**	**10 49 05.5**	**0.0**
NRGR				S	**S**	**10 57 17.1**	**-14**
NRGR				smax			
	comp=N,16nm,0.8s						
KMBO	**Kilima Mbogo**	**62.48**	**270**	P	**P**	**10 49 08.5**	**+1.4**
	comp=N,0.3nm,0.4s,mb3.8,baz=43,slow=22,SNR=2.4						
CLNS	**Chul'man**	**62.58**	**15**	*e*P	**P**	**10 49 05.6**	**-1.3**
CLNS				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.2						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.7s						
AKTK	**Aktyubinsk**	**63.70**	**332**	P	**P**	**10 49 13.6**	**-0.9**
AKTO	**Aktyubinsk**	**63.70**	**332**	P	**P**	**10 49 13.6**	**-0.8**
	comp=E,5.2nm,0.6s,mb4.8,baz=129,slow=6.4,SNR=21						
SVE	**Sverdlovsk**	**67.07**	**338**	⇑*e*P	**P**	**10 49 36.4**	**+0.3**
SVE				*e*PPP		10 53 38.6	
SVE				*e*S	S	10 58 19.1	-10
SVE				*e*		10 59 32.9	
SVE				*e*SSS		11 05 41.7	
SVE				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.2						
SVE				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.8						
ARU	**Arti**	**67.59**	**337**	*c i*P	**P**	**10 49 38.7**	**-0.7**
ARU				S	S	10 58 32.3	-2.5
ARU				SS	SS	11 02 51.2	-4.7
ARU				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.1						
ARU	**Arti**	**67.59**	**337**	⇑*e*P	**P**	**10 49 38.8**	**-0.6**
YAK	**Yakutsk**	**68.31**	**15**	*e*P	**P**	**10 49 42.2**	**-1.6**
YAK				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.5						
YAK	**Yakutsk**	**68.31**	**15**	*e*P	**P**	**10 49 42.1**	**-1.7**
	comp=Z,44nm,0.8s,mb5.5						
KIV	**Kislovodsk**	**68.78**	**319**	⇑*e*P	**P**	**10 49 47.5**	**+0.3**
GOF	**Gofitskoye**	**69.04**	**321**	*e*P	**P**	**10 49 57.9**	**+9.1**
MALT	**Malatya**	**69.51**	**313**	*e*P	**P**	**10 49 52.2**	**+0.4**
MALT				pmax	pmax		
	comp=Z,29nm,1.8s,mb4.9						
MALT	**Malatya**	**69.51**	**313**	⇓*i*P	**P**	**10 49 52.7**	**+0.9**
MALT	**Malatya**	**69.51**	**313**	*e*P	**P**	**10 49 52.2**	**+0.4**
	comp=Z,28nm,1.8s,mb4.9						
SOC	**Sochi**	**70.58**	**318**	*e*P	**P**	**10 49 57.2**	**-1.1**
SOC				*e*S	S	10 59 07.8	-2.9
SOC				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.2						
ANN	**Anapa**	**72.56**	**319**	*e*P	**P**	**10 50 04.7**	**-5.5**
ANN				*e*		10 50 21.6	
ANN				*e*S	S	10 59 24.9	-8.7
ANN				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.4						
ANN				MLR	MLR		
	comp=N,2µm,21.0s,MS5.6						
ANN				MLR	MLR		
	comp=E,2µm,21.0s,MS5.6						
ANN				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.6						
VRHR	**Novokhopersk**	**72.62**	**326**	*e*P	**P**	**10 50 09.4**	**-1.0**
VRHR				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
VRHR				pmax	pmax		
	comp=N,20nm,0.7s						
PETK	**Petropavlovsk-**	**73.46**	**32**	P	**P**	**10 50 14.4**	**-0.9**
	comp=N,8.3nm,0.7s,mb4.8,baz=219,slow=0.3,SNR=14						
BRTR	**Keskin Array B**	**73.49**	**313**	P	**P**	**10 50 15.3**	**-0.5**
	comp=N,4.6nm,0.7s,mb4.5,baz=120,slow=7.2,SNR=22						
VORD	**Divnogorie**	**73.89**	**325**	*e*P	**P**	**10 50 16.8**	**-1.1**
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,1.1s						
VORD				pmax	pmax		
	comp=E,4.0nm,0.3s						
VSR	**Storozhevoye**	**74.06**	**325**	*e*P	**P**	**10 50 18.2**	**-0.7**
VSR				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.3						
VSR				pmax	pmax		
	comp=N,4.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.6s						
BOSA	**Boshof**	**75.19**	**241**	P	**P**	**10 50 24.3**	**-1.7**
	comp=E,2.8nm,0.9s,mb4.2,baz=117,slow=13,SNR=2.9						
PRGR	**Permogore**	**76.05**	**337**	*e*P	**P**	**10 50 28.7**	**-1.4**
PRGR				pmax	pmax		
	comp=Z,92nm,1.1s,mb5.6						
SEY	**Seymchan**	**76.20**	**22**	⇑*e*P	**P**	**10 50 30.7**	**-0.3**
SEY	**Seymchan**	**76.20**	**22**	⇑*e*P	**P**	**10 50 30.8**	**-0.2**
TIXI	**Tiksi**	**76.41**	**9**	⇑*e*P	**P**	**10 50 30.7**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,42nm,1.7s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.8						
TIXI	**Tiksi**	**76.41**	**9**	*e*P	**P**	**10 50 30.6**	**-1.5**
	comp=Z,18nm,0.7s,mb5.1						
MOS	**Moscow**	**76.82**	**329**	*e*P	**P**	**10 50 33.1**	**-1.5**
MOS				pmax	pmax		
	comp=Z,55nm,0.7s,mb5.6						
OBN	**Obninsk**	**77.11**	**328**	*e*P	**P**	**10 50 36.2**	**-0.1**
OBN				*e*		10 50 45.6	
OBN				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
OBN	**Obninsk**	**77.11**	**328**	⇑*e*P	**P**	**10 50 36.3**	**0.0**
OBN				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
KLMR	**Klimovskoe**	**78.19**	**334**	*e*P	**P**	**10 50 41.5**	**-0.7**
KLMR				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.0						
URZ	**Urewera**	**78.52**	**128**	P	**P**	**10 50 43.6**	**-1.0**
	comp=Z,6.6nm,0.6s,mb4.8,baz=350,slow=8.2,SNR=5.9						
TIRR	**Tirgusor**	**78.56**	**316**	⇑*i*P	**P**	**10 50 44.5**	**-0.1**
AKASG	**Malin Array Be**	**79.75**	**322**	P	**P**	**10 50 50.3**	**-0.6**
	comp=Z,0.9nm,0.5s,mb3.9,baz=94,slow=4.6,SNR=7.5						
VRI	**Vrincioaia**	**80.07**	**317**	⇓*i*P	**P**	**10 50 53.7**	**+0.9**
VRI	**Vrincioaia**	**80.07**	**317**	⇓P	**P**	**10 50 53.7**	**+0.9**
PLOR	**Plostina**	**80.12**	**317**	⇓*i*P	**P**	**10 50 54.2**	**+1.1**
MLR	**Muntele Rosu**	**80.51**	**317**	⇑*i*P	**P**	**10 50 55.8**	**+0.6**
MLR	**Muntele Rosu**	**80.51**	**317**	⇑P	**P**	**10 50 55.9**	**+0.6**
BURAR	**Bucovina Array**	**81.49**	**319**	⇑*i*P	**P**	**10 51 01.7**	**+1.3**
JOF	**Joensuu**	**82.58**	**335**	*e*p	**P**	**10 51 05.1**	**-0.7**
	comp=Z,5.9nm,0.7s,mb4.7						
BZS	**Buzias**	**83.51**	**316**	⇑*i*P	**P**	**10 51 11.4**	**+0.4**
KOLS	**Kolonicke sedl**	**83.69**	**320**	*i* P	**P**	**10 51 12.8**	**+1.0**
KOLS				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KOLS	**Kolonicke sedl**	**83.69**	**320**	*i* P	**P**	**10 51 12.8**	**+1.0**
	comp=Z,14nm,1.0s,mb5.0						
BILL	**Bilibino**	**83.73**	**20**	*e*P	**P**	**10 51 10.8**	**-0.8**
BILL				pmax	pmax		
	comp=Z,15nm,2.5s,mb4.7						
BILL	**Bilibino**	**83.73**	**20**	⇓*e*P	**P**	**10 51 10.9**	**-0.7**
SUW	**Suwalki**	**84.17**	**325**	*e*P	**P**	**10 51 14.6**	**+0.5**
CRVS	**Cervenica-Dubn**	**84.21**	**320**	*e*P	**P**	**10 51 14.6**	**+0.1**
STHS	**Stebnicka Huta**	**84.44**	**320**	*i* P	**P**	**10 51 17.1**	**+1.4**
STHS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
STHS	**Stebnicka Huta**	**84.44**	**320**	*i* P	**P**	**10 51 17.1**	**+1.4**
	comp=Z,6.0nm,1.0s,mb4.7						
FINES	**FINESS Array B**	**84.46**	**332**	P	**P**	**10 51 15.6**	**+0.1**
	comp=Z,6.8nm,0.7s,mb4.9,baz=109,slow=5.6,SNR=14						
KECS	**Kecovo**	**84.77**	**319**	*i* P	**P**	**10 51 17.9**	**+0.6**
VYHS	**Vyhne**	**85.86**	**319**	*e*P	**P**	**10 51 22.4**	**-0.4**
VYHS				pmax	pmax		
	comp=Z,11nm,1.9s,mb4.8						
VYHS	**Vyhne**	**85.86**	**319**	*e*P	**P**	**10 51 22.4**	**-0.4**
	comp=Z,11nm,1.9s,mb4.8						
ARCES	**ARCESS Array B**	**86.88**	**340**	P	**P**	**10 51 27.9**	**+0.6**
	comp=Z,7.2nm,0.8s,mb5.0,baz=99,slow=4.6,SNR=15						
SOKA	**Soboth**	**88.19**	**317**	⇓*i*PcP	PcP	10 51 35.4	-0.5
	comp=Z,5.6nm,1.1s						
GEC2	**GERESS Array S**	**89.28**	**319**	*e*P	**P**	**10 51 40.1**	**+0.9**
GEC2				pmax	pmax		
	comp=Z,12nm,1.6s,mb5.0						
GEC2	**GERESS Array S**	**89.28**	**319**	*e*P	**P**	**10 51 40.1**	**+0.9**
	comp=Z,12nm,1.6s,mb5.0						
GERES	**GERESS Array B**	**89.28**	**319**	P	**P**	**10 51 40.0**	**+0.8**
	comp=Z,1.6nm,0.7s,mb4.5,baz=113,slow=3.5,SNR=10						
BRG	**Berggiesshubel**	**89.29**	**321**	*e*P	**P**	**10 51 40.1**	**+0.9**
BRG				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.5						
BRG	**Berggiesshubel**	**89.29**	**321**	*e*P	**P**	**10 51 40.0**	**+0.8**
	comp=Z,6.0nm,1.1s,mb4.8						
BRG	**Berggiesshubel**	**89.29**	**321**	*e*P	**P**	**10 51 40.1**	**+0.9**
	comp=Z,5.5nm,1.1s,mb4.8						
WET	**Wettzell**	**89.84**	**319**	*e*P	**P**	**10 51 42.5**	**+0.7**
WET				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.0						
WET	**Wettzell**	**89.84**	**319**	*e*P	**P**	**10 51 42.5**	**+0.7**
	comp=Z,8.0nm,1.0s,mb5.0						
CLL	**Collm**	**89.92**	**321**	*e*P	**P**	**10 51 42.5**	**+0.4**
	comp=Z,5.0nm,0.4s,mb5.2						
CLL	**Collm**	**89.92**	**321**	*e*P	**P**	**10 51 43.0**	**+0.9**
TANN	**Tannenbergstha**	**90.20**	**320**	*e*P	**P**	**10 51 44.4**	**+0.9**
	comp=Z,19nm,1.8s,mb5.1						
ROTZ	**Rotzenmuhle**	**90.32**	**320**	*e*P	**P**	**10 51 44.4**	**+0.3**
	comp=Z,7.0nm,1.1s,mb4.9						
MANZ	**Manzenberg**	**90.40**	**320**	*e*P	**P**	**10 51 45.3**	**+0.9**
MOX	**Moxa**	**90.75**	**320**	*e*P	**P**	**10 51 46.6**	**+0.6**
	comp=Z,13nm,1.5s,mb5.0						
MOX	**Moxa**	**90.75**	**320**	*e*P	**P**	**10 51 46.6**	**+0.6**
MOX				pmax	pmax		
	comp=Z,13nm,1.5s,mb5.0						
MOX	**Moxa**	**90.75**	**320**	*e*P	**P**	**10 51 46.5**	**+0.5**
	comp=Z,12nm,1.5s,mb5.0						
GRA1	**Grafenberg Arr**	**90.95**	**320**	*e*P	**P**	**10 51 48.1**	**+1.1**
	comp=Z,7.0nm,0.7s,mb5.1						
GRF	**Grafenberg Arr**	**90.95**	**320**	*e*P	**P**	**10 51 48.1**	**+1.1**
GRF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.1						
GRF	**Grafenberg Arr**	**90.95**	**320**	*e*P	**P**	**10 51 48.1**	**+1.1**
GRF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.1						
GRF	**Grafenberg Arr**	**90.95**	**320**	*e*P	**P**	**10 51 48.1**	**+1.1**
	comp=Z,7.0nm,0.7s,mb5.1						
SPITS	**Spitsbergen Ar**	**91.09**	**348**	P	**P**	**10 51 46.8**	**-0.3**
	comp=Z,4.8nm,0.7s,mb5.0,baz=340,slow=7.1,SNR=8.7						
DAVA	**Damuels**	**91.75**	**317**	⇑*i*PcP	PcP	10 51 51.7	0.0
	comp=Z,9.5nm,0.8s						
YKA	**Yellowknife Ar**	**114.94**	**17**	PKP	PKiKP	10 57 22.7	-0.9
	comp=Z,0.3nm,0.8s,baz=325,slow=1.7,SNR=6.1						
YKA	**Yellowknife Ar**	**114.94**	**17**	PKP	PKiKP	10 57 22.7	-0.9
FFC	**Flin Flon**	**125.03**	**15**	⇑*i*PKIKP	PKPdf	10 57 43.5	+0.3
SCHQ	**Schefferville**	**126.72**	**350**	PKP	PKPdf	10 57 46.7	+0.3
	comp=Z,1.4nm,0.8s,baz=341,slow=7.1,SNR=5.6						
SCHQ	**Schefferville**	**126.72**	**350**	PKP	PKPdf	10 57 46.7	+0.3
NVAR	**Mina Array Bea**	**130.16**	**39**	PKP	PKPdf	10 57 54.9	+1.4
	comp=Z,0.7nm,0.6s,baz=325,slow=2.3,SNR=5.4						
ULM	**Lac du Bonnet**	**130.63**	**13**	PKP	PKPdf	10 57 53.9	-0.1
	comp=Z,2.5nm,0.8s,baz=324,slow=2.6,SNR=5.6						
PDAR	**Pinedale Array**	**132.15**	**29**	PKP	PKPdf	10 57 57.2	+0.1
	comp=Z,0.3nm,0.4s,baz=96,slow=2.2,SNR=5.0						
PDAR				PP	PP	11 00 15.8	-2.5
	comp=Z,1.4nm,1.2s,baz=298,slow=3.2,SNR=4.3						
TXAR	**Lajitas Array**	**145.27**	**38**	PKPbc	PKPbc	10 58 22.0	+0.8
	comp=Z,43nm,0.7s,baz=280,slow=0.8,SNR=560						
MIAR	**Mount Ida**	**145.81**	**20**	*e*PKIKP	PKPdf	10 58 22.6	+0.3
TKL	**Tuckaleechee C**	**146.87**	**5**	PKPbc	PKPbc	10 58 25.3	-0.5
	comp=Z,9.0nm,0.7s,baz=92,slow=2.4,SNR=23						

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*IDC **25** 10:52:07.7±0.7, 9°.99N×71°.50W, h0^{km}, mb4.0/7, mb1 4.1/8, mb1mx3.9/23, mbtmp4.0/8, ML3.6/1, Error ellipse: s-maj=31.4km s-min=11.8km az=59.0*

*ISCJB **25** 10:52:10.7±0.8, 10°.22N±0°.03×70°.98W±0°.04, h24^{km}±6^{km}, mb4.1/7, Error ellipse: s-maj=6.3km s-min=4.6km az=33.1*

*NEIC **25** 10:52:11.4, 10°.18N×70°.93W, h9^{km}, mb4.9/1, MW4.4(CAR), After CAR.*

*FUNV **25** 10:52:11.4, 10°.18N×70°.93W, h9^{km}, MW4.3*

ISC 25 10:52:10.8±0.8**, 10°.19N**±0°.03×**70°.95W**±0°.03**, h13**^{km}±4^{km}**, n31, σ1^{s}.08**/43**, mb4.1**/7**, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QARV	**Quebrada Arrib**	**0.42**	**88**	*e*P	**Pg**	**10 52 19.1**	**0.0**

QARV				eS	Sg	10 52 24.5	-0.2
DABV	Dabajuro	0.79	23	eP	Pg	10 52 26.2	+0.2
DABV				eS	Sg	10 52 37.4	+1.1
CURV	Curarigua	0.99	100	eP	Pb	10 52 29.3	-0.5
CURV				eS	Sb	10 52 41.8	-0.9
CURV	Curarigua	0.99	100	eP	Pb	10 52 29.5	-0.3
CURV				eS	Sb	10 52 41.8	-0.9
SIQV	Siquisique	1.21	68	eP	Pn	10 52 33.5	+0.1
SIQV				eS	Sb	10 52 48.9	-0.2
SDV	Santo Domingo	1.34	167	Pg	Pg	10 52 34.8	-1.6
	79nm,0.3s,baz=13,slow=8.7,SNR=1151						
SDV				Lg		10 52 52.1	
	769nm,0.3s,baz=326,slow=23,SNR=53						
SDV	Santo Domingo	1.34	167	Pg	Pg	10 52 34.8	-1.6
SDV				Lg		10 52 52.1	
VIGV	El Vigia	1.41	197	eP	Pn	10 52 36.0	-0.1
VIGV				eS	Sn	10 52 55.1	+0.6
SANV	Sanarito	1.55	116	eP	Pn	10 52 39.2	+1.1
SANV				eS	Sn	10 52 59.0	+0.8
SANV	Sanarito	1.55	116	eP	Pn	10 52 39.1	+0.9
SANV				eS	Sn	10 52 59.0	+0.8
TEPV	Terepaima	1.75	97	eP	Pn	10 52 41.5	+0.8
TEPV				eS	Sn	10 53 02.9	-0.1
SOCV	Socops	1.90	177	eP	Pn	10 52 43.4	+0.5
SOCV				eS	Sn	10 53 06.8	0.0
MONV	Montecano	2.00	29	eP	Pn	10 52 44.1	-0.1
MONV				eS	Sn	10 53 09.1	0.0
JACV	Jacura	2.26	67	eP	Pn	10 52 48.1	+0.2
JACV				eS	Sn	10 53 15.3	-0.5
TURV	Turiamo	3.07	85	eP	Pn	10 52 58.8	-0.2
BAUV	El Baul	3.12	113	eP	Pn	10 53 00.1	+0.3
BAUV				eS	Sn	10 53 35.0	-2.0
PCRV	Puerto La Cruz	6.21	90	Pn	Pn	10 53 44.4	+2.1
	1.6nm,0.3s,baz=189,slow=4.7,SNR=8.1						
PCRV				Sn	Sn	10 54 55.4	+2.1
	3.4nm,0.3s,baz=138,slow=21,SNR=3.4						
PCRV				Lg		10 55 41.9	
	4.9nm,0.3s,baz=349,slow=19,SNR=4.2						
ROSC	El Rosal	6.27	213	Pn	Pn	10 53 44.5	+1.4
	9.6nm,0.3s,baz=277,slow=11,SNR=10						
ROSC				Sn	Sn	10 54 56.2	+1.5
	2.0nm,0.3s,baz=273,slow=17,SNR=2.3						
CRPR	Cabo Rojo, PR	8.61	25	ePn	Pn	10 54 14.7	-0.6
TEIG	Tepich	19.45	303	P	Pn	10 56 33.5	-5.0
	0.2nm,0.3s,baz=138,slow=20,SNR=2.7						
SIV	San Ignacio	27.79	159	P	P	10 57 58.3	-1.4
	0.4nm,0.4s,baz=345,slow=10,SNR=3.6						
UALR	University of	31.31	325	eP	P	10 58 24.5	-6.3
	15nm,0.8s,mb4.9						
LVC	Limon Verde	32.66	177	P	P	10 58 39.1	-3.7
	3.3nm,0.7s,mb4.3,baz=348,slow=5.2,SNR=5.2						
SCHQ	Schefferville	44.64	3	P	P	11 00 22.5	-0.4
	0.9nm,0.7s,mb3.7,baz=174,slow=11,SNR=2.5						
PLCA	Paso Flores	50.67	180	P	P	11 01 07.3	-2.6
	2.0nm,0.8s,mb4.1,baz=345,slow=4.3,SNR=5.2						
YKA	Yellowknife Ar	60.90	338	P	P	11 02 21.5	-1.4
	0.9nm,0.8s,mb4.0,baz=124,slow=7.1,SNR=18						
INK	Inuvik	70.62	340	P	P	11 03 24.1	-1.5
	2.1nm,0.9s,mb4.1,baz=143,slow=11,SNR=4.3						
TORD	Torodi Ar. Bea	70.98	80	P	P	11 03 31.6	+2.8
	0.8nm,0.6s,mb3.9,baz=291,slow=7.3,SNR=7.9						
MKAR	Makanchi Array	118.44	21	PKP	PKPdf	11 11 00.0	+1.7
	0.1nm,0.4s,baz=292,slow=1.5,SNR=4.1						
ASAR	Alice Springs	152.77	237	PKP	PKPdf	11 12 01.3	0.0
	0.3nm,0.9s,baz=104,slow=2.7,SNR=3.6						
ASAR				PKPbc	PKPbc	11 12 06.1	-2.2
	0.6nm,0.8s,baz=115,slow=2.9,SNR=6.3						
WRA	Warramunga Arr	153.76	245	PKPbc	PKPbc	11 12 08.7	-1.9
	0.6nm,0.6s,baz=106,slow=2.7,SNR=9.7						

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*ISCJB **25** 11:05:21.7±1.0, 36°.25N±0°.05×21°.89E±0°.06, h10km, Error ellipse: s-maj=7.8km s-min=6.9km az=7.1*

*NEIC **25** 11:05:22.3, 36°.34N×21°.94E, h5km, MD3.7(ATH), After ATH.*

*ATH **25** 11:05:22.3, 36°.34N×21°.94E, h5km, MD3.7/7*

*CSEM **25** 11:05:23.4±0.9, 36°.34N×22°.02E, h2km, MD3.7, Error ellipse: s-maj=18.4km s-min=11.1km az=24.0*

*THE **25** 11:05:27.5, 36°.28N×22°.01E, h32km±45km, ML3.8/2, Error ellipse: s-maj=45.3km s-min=2.5km az=127.0*

ISC 25 11:05:23.3±0.9, **36°.28N**±0°.05×**21°.96E**±0°.06, **h10km, n36,** σ**1s.42**/53, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.64	344	P	Pg	11 05 33.0	-2.8
PYL	PYLOS	0.64	344	ePG	Pg	11 05 33.1	-2.7
PYL	PYLOS	0.64	344	ePg	Pg	11 05 33.1	-2.7
KYTH	Kithira	0.87	89	ePB	Pg	11 05 39.4	-0.7
KYTH	Kithira	0.87	89	ePb	Pg	11 05 39.4	-0.7
ITM	Ithomi	0.90	358	ePB	Pg	11 05 38.6	-2.1
ITM				eSB	Sg	11 05 51.0	-1.5
ITM	Ithomi	0.90	358	ePb	Pg	11 05 38.6	-2.1
ITM				eSb	Sg	11 05 51.0	-1.5
VLI	Veliai	0.90	60	ePB	Pg	11 05 39.9	-0.8
VLI	Veliai	0.90	60	ePb	Pg	11 05 39.9	-0.8
VLX	Vlachokerasia	1.14	17	ePG	Pg	11 05 42.4	-2.9
VLX	Vlachokerasia	1.14	17	ePg	Pg	11 05 42.4	-2.9
DID	Didima	1.60	39	P	Pn	11 05 52.2	+0.5
DID				S	Sn	11 06 12.3	-0.1
DID	Didima	1.60	39	P	Pn	11 05 52.2	+0.5
DID				S	Sn	11 06 12.3	-0.1
GUR	Goura	1.69	10	ePN	Pn	11 05 50.8	-2.0
LTK	Loutraki	1.92	24	P	Pn	11 05 57.7	+1.6
LTK				S	Sn	11 06 20.2	-0.1
LTK	Loutraki	1.92	24	P	Pn	11 05 57.7	+1.6
LTK				S	Sn	11 06 20.2	-0.1
LAKA	Lakka	1.96	0	P	Pn	11 05 57.5	+0.9
LAKA				S	Sn	11 06 22.8	+1.5
LAKA	Lakka	1.96	0	P	Pn	11 05 57.5	+0.9
LAKA				S	Sn	11 06 22.8	+1.5
TRIZ	Trizonia	2.09	2	P	Pn	11 05 59.9	+1.5
TRIZ				S	Sn	11 06 24.1	-0.3
TRIZ	Trizonia	2.09	2	P	Pn	11 05 59.9	+1.5
TRIZ				S	Sn	11 06 24.1	-0.3
KALE	Kalithea	2.12	4	P	Pn	11 06 00.5	+1.7
KALE	Kalithea	2.12	4	P	Pn	11 06 00.5	+1.7
VLS	Valsamata	2.19	330	P	Pn	11 06 01.9	+2.1
VLS	Valsamata	2.19	330	P	Pn	11 06 01.9	+2.1
EVR	Evrytania	2.64	357	ePG	Pn	11 06 09.5	+3.6
LKD	Levkas	2.64	337	P	Pn	11 06 07.0	+1.0
LKD				S	Sn	11 06 39.3	+1.2
LKD	Levkas	2.64	337	P	Pn	11 06 07.0	+1.0
LKD				S	Sn	11 06 39.3	+1.2
AGG	Agios Georgios	2.76	6	P	Pn	11 06 09.9	+2.3
AGG				S	Sn	11 06 41.8	+0.9
AGG	Agios Georgios	2.76	6	P	Pn	11 06 09.9	+2.3
AGG				S	Sn	11 06 41.8	+0.9
TIP	Timpagrande	5.04	307	ePn	Pn	11 06 37.8	-1.1
TIP				eSn	Sn	11 07 31.9	-5.2
KRUS	Krusevo	5.12	354	ePn	Pn	11 06 39.3	-0.7
KRUS				eSg	Sn	11 07 38.3	-0.7
KRUS	Krusevo	5.12	354	ePn	Pn	11 06 39.2	-0.8
CEL	Celeste	5.23	294	ePn	Pn	11 06 39.6	-1.9
	13nm,0.7s						
CEL	Celeste	5.23	294	ePn	Pn	11 06 39.6	-1.9
	13nm,0.7s						
CUC	Castrocucco	6.10	309	ePn	Pn	11 06 53.5	0.0
	13nm,0.7s						
CUC				eSn	Sn	11 07 58.9	-4.4
CUC	Castrocucco	6.10	309	ePn	Pn	11 06 53.5	0.0
	13nm,0.7s						

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*IDC **25** 11:38:46.1±0.5, 8°.24S×128°.58E, h0km, mb4.4/12, mb1 4.5/13, mb1mx4.5/20, mbtmp4.5/13, ML4.6/1, Error ellipse: s-maj=25.2km s-min=13.4km az=70.0*

*ISCJB **25** 11:38:48.5±0.3, 8°.33S±0°.04×128°.67E±0°.05, h33km, mb4.8/38, MS5.2/2, Error ellipse: s-maj=8.4km s-min=3.9km az=149.4*

*MOS **25** 11:38:49.0±2.6, 8°.55S×128°.59E, h33km, mb5.0/14, Error ellipse: s-maj=20.0km s-min=7.4km az=117.4*

*BJI **25** 11:38:51.1, 8°.30S×128°.60E, h35km, mB5.7/5, mb4.6/21, Ms5.3/2, Ms7 5.0/2*

*NEIC **25** 11:38:51.1±0.3, 8°.33S×128°.59E, h35km, mb5.0/19, Error ellipse: s-maj=11.6km s-min=5.6km az=55.0*

*DJA **25** 11:38:54, 8°.59S×128°.92E, h30km, mb5.0/29*

ISC 25 11:38:51.1±0.3, **8°.33S**±0°.04×**128°.64E**±0°.06, **h35km, (h20km**±6.8km**:pP-P), n106,** σ**1s.13**/110, **mb4.8**/38, **MS5.2**/2, **5C-3D, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	4.63	354⇓	eP	Pn	11 40 00.2	+1.6
AAI				eS	Sn	11 40 51.9	+0.7
TLE	Tual	4.87	57⇑	eP	Pn	11 40 01.0	-0.8
KAKA	Kakadu	5.74	140	eP	Pn	11 40 12.8	-1.0
	140nm,0.3s						
KAKA				eS	Sn	11 41 18.1	-0.3
KAKA	Kakadu	5.74	140	ePn	Pn	11 40 12.9	-0.9
	1µm,0.6s						
KAKA				eSn	Sn	11 41 17.8	-0.6
KDI	Kendari	7.40	306⇑	eP	Pn	11 40 42.3	+5.7
KDI				eS	Sn	11 42 09.7	+10
KAPI	Kappang	9.42	290	Pn	Pn	11 41 05.9	+1.5
	2.1nm,0.3s,baz=169,slow=16,SNR=1.9						
MKS	Makassar	9.62	288⇓	eP	Pn	11 41 15.2	+8.1
FITZ	Fitzroy Crossi	10.14	196	eP	Pn	11 41 12.4	-1.8
	86nm,1.0s						
FITZ				eS	Sn	11 43 02.4	-4.4
FITZ	Fitzroy Crossi	10.14	196	Pn	Pn	11 41 12.5	-1.7
	3.9nm,0.3s,baz=37,slow=11,SNR=53						
FITZ				Sn	Sn	11 43 01.6	-5.2
	6.6nm,0.3s,baz=72,slow=16,SNR=5.6						
FITZ				Lg		11 44 10.9	
	9.5nm,0.3s,baz=81,slow=19,SNR=1.7						
FITZ	Fitzroy Crossi	10.14	196	ePn	Pn	11 41 12.9	-1.4
FITZ				eSn	Sn	11 43 02.2	-4.6
FITZ				Lg		11 44 10.9	
WRAB	Tennant Creek	12.79	155	eP	Pn	11 41 46.8	-3.7
WRAB				pmax	pmax		
	comp=Z,65nm,0.8s						
WRAB	Tennant Creek	12.79	155	ePn	Pn	11 41 46.8	-3.7
	comp=Z,65nm,0.8s						
WRA	Warramunga Arr	12.79	155	P	Pn	11 41 45.6	-4.9
WRA						11 44 01.4	
WRA	Warramunga Arr	12.79	155	Pn	Pn	11 41 45.6	-5.0
	comp=Z,6.6nm,0.3s,baz=322,slow=12,SNR=149						
WRA				Sn	Sn	11 44 01.4	-10
	comp=Z,15nm,0.3s,baz=333,slow=23,SNR=13						
WRA				Lg		11 45 33.7	
	baz=336,slow=28,SNR=3.1						
COEN	Coen	15.31	113	ePn	Pn	11 42 20.6	-4.1
	comp=Z,350nm,0.8s						
COEN				eSn	Sn	11 44 59.5	-14
DAV	Davao City (W)	15.60	349	Pn	Pn	11 42 29.2	+0.8
	comp=Z,66nm,0.3s,baz=241,slow=10,SNR=2.2						
DAV	Davao City (W)	15.60	349	Pn	Pn	11 42 29.2	+0.7
ASAR	Alice Springs	16.06	162	P	Pn	11 42 29.8	-4.5
ASAR						11 45 19.9	
ASAR	Alice Springs	16.06	162	Pn	Pn	11 42 29.8	-4.5
	comp=Z,2.4nm,0.3s,baz=333,slow=9.7,SNR=106						
ASAR				Sn	Sn	11 45 19.9	-12
	comp=Z,4.0nm,0.3s,baz=347,slow=24,SNR=5.3						
ASAR				Lg		11 47 16.0	
	baz=338,slow=26,SNR=2.7						
KKM	Kota Kinabalu	18.91	319	eP	Pn	11 43 10.8	+1.1
	comp=Z,50nm,1.1s						
CTA	Charters Tower	20.66	126	P	P	11 43 29.3	+1.3
CTA				S	S	11 47 34.2	+17
CTA	Charters Tower	20.66	126	eP	P	11 43 30.1	+2.1
	comp=Z,39nm,1.1s						
CTA	Charters Tower	20.66	126	P	P	11 43 29.3	+1.3
	comp=Z,26nm,1.0s,baz=309,slow=13,SNR=11						
CTA				S	S	11 47 34.2	+17
	comp=Z,17nm,0.9s,baz=304,slow=11,SNR=3.7						
CTA				Lg		11 49 34.0	
	comp=Z,27nm,0.8s,baz=223,slow=19,SNR=3.3						
CTA	Charters Tower	20.66	126	P	P	11 43 29.3	+1.3
CTA				S	S	11 47 34.2	+17
CTA				Lg		11 49 34.0	
CTAO	Charters Tower	20.66	126	eP	P	11 43 27.6	-0.4
CTAO				pmax	pmax		
	comp=Z,70nm,1.1s						
CTAO	Charters Tower	20.66	126	eP	P	11 43 27.6	-0.4
	comp=Z,70nm,1.1s						
KSM	Kuching	20.71	297	eP	P	11 43 29.0	+0.4
	comp=Z,36nm,1.0s						
FORT	Forrest	22.34	181	eP	P	11 43 47.2	+1.3
	comp=Z,64nm,0.7s,mb5.2						
FORT				eS	S	11 47 46.0	-3.8
FORT	Forrest	22.34	181	eP	P	11 43 46.2	+0.3
	comp=Z,68nm,1.6s,mb4.8						
MUN	Mundaring	26.22	204	eP	P	11 44 23.8	+1.1
STKA	Stephens Creek	26.35	155	eP	P	11 44 24.1	+0.2
	comp=Z,15nm,0.6s,mb4.7						
STKA	Stephens Creek	26.35	155	P	P	11 44 24.4	+0.6
	comp=Z,8.5nm,0.6s,mb4.4,baz=326,slow=10.0,SNR=21						
STKA				S	S	11 49 09.3	+15
	comp=Z,3.7nm,0.7s,baz=322,slow=17,SNR=1.9						
STKA				Lg		11 52 43.5	
	comp=Z,6.2nm,1.1s,baz=66,slow=19,SNR=1.8						
STKA	Stephens Creek	26.35	155	P	P	11 44 24.4	+0.6
STKA				S	S	11 49 09.3	+15
STKA				Lg		11 52 43.5	
NWAO	Narrogin (SRO)	26.66	202	P	P	11 44 27.4	+0.7
	comp=Z,12nm,0.5s,mb4.7,baz=29,slow=9.6,SNR=21						
ARMA	Armidale	30.74	139	eP	P	11 45 08.9	+5.8
KULM	Kulim	31.02	295	eP	P	11 45 05.5	-0.3
KULM				epP	pP	11 45 15.1	-0.7
PSI	Prapat	31.63	289	P	P	11 45 09.9	-1.2
	comp=Z,3.4nm,0.3s,mb4.6,baz=104,slow=8.3,SNR=3.6						
CAN	Canberra	32.70	148	eP	P	11 45 20.4	+0.2
CAN				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
CAN	Canberra	32.70	148	eP	P	11 45 20.4	+0.2
	comp=Z,24nm,1.0s,mb5.1						
TOO	Toolangi	32.87	155	eP	P	11 45 24.1	+2.4
CNB	Canberra Magne	32.88	148	eP	P	11 45 23.5	+1.7
CMAR	Chiang Mai Arr	39.59	312	P	P	11 46 19.7	+0.4
	comp=Z,0.7nm,0.4s,mb3.8,baz=138,slow=6.9,SNR=6.2						
CMAR				ScP	ScP	11 52 15.7	+3.1
	comp=Z,0.4nm,0.4s,baz=159,slow=2.8,SNR=5.5						
CHTO	Chiang Mai	39.81	313	eP	P	11 46 21.0	-0.2
CHTO				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.5						
CHTO	Chiang Mai	39.81	313	eP	P	11 46 20.9	-0.3
	comp=Z,12nm,1.2s,mb4.5						
WHN	Wuhan	41.01	341	eP	P	11 46 37.0	+6.1
KSRS	Korea Array	45.55	359	P	P	11 47 05.8	-1.7
	comp=Z,1.4nm,0.6s,mb4.1,baz=177,slow=9.1,SNR=3.4						
XAN	Xi’an	46.10	337	P	P	11 47 09.5	-2.4
XAN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
SHL	Shillong	49.13	314	ePKP	P	11 47 35.0	-0.6
LZH	Lanzhou	49.96	334	eP	P	11 47 46.5	+4.8
LZH				pP	pP	11 47 51.3	-0.9
LZH				sP	sP	11 47 54.5	-1.8
LZH				pmax	pmax		
	comp=Z,86nm,1.6s,mb5.5						
LZH				pmax	pmax		
	comp=Z,350nm,8.9s						
RPZ	Rata Peaks	51.03	141	P	P	11 47 50.6	+0.9
	comp=Z,13nm,0.8s,mb4.9,baz=247,slow=7.7,SNR=6.2						
LSA	Lhasa	52.25	318	P	P	11 48 00.0	+1.0
LSA	Lhasa	52.25	318	eP	P	11 47 58.9	-0.1
LSA				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
LSA	Lhasa	52.25	318	eP	P	11 47 58.9	-0.2
	comp=Z,15nm,0.9s,mb4.9						
ODAN	Odare	53.13	313	eP	P	11 48 05.3	-0.3
RAMN	Ramite	53.76	312	eP	P	11 48 09.6	-0.6
	comp=Z,46nm,0.9s,mb5.4						
JIRN	Jiri	54.47	313	eP	P	11 48 15.1	-0.2
GTA	Gaotai	54.51	333	eP	P	11 48 16.5	+1.1
GTA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
GUN	Gumba	54.83	313	eP	P	11 48 17.1	-0.9
	comp=Z,30nm,0.7s,mb5.4						
PKI	Pulchoki	54.99	312	eP	P	11 48 18.3	-0.8
KKN	Kakani	55.20	312	eP	P	11 48 20.1	-0.6
DMN	Daman	55.23	312	eP	P	11 48 20.1	-0.8
	comp=Z,52nm,1.2s,mb5.4						
GKN	Gorkha	55.79	312	eP	P	11 48 24.3	-0.6
	comp=Z,11nm,0.3s,mb5.3						
KOLN	Koldanda	56.43	311	eP	P	11 48 29.1	-0.4
	comp=Z,42nm,0.9s,mb5.5						
DANN	Dangsing	56.63	312	eP	P	11 48 29.5	-1.4
KLR	Kul’dur	57.38	2	eP	P	11 48 33.3	-2.5
ULN	Ulaanbaatar	59.12	343	eP	P	11 48 49.2	+1.2
ULN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
ULN	Ulaanbaatar	59.12	343	eP	P	11 48 49.2	+1.2
	comp=Z,11nm,1.0s,mb4.8						
SONM	Songino Array	59.29	343	P	P	11 48 50.3	+1.1
	comp=Z,4.4nm,1.0s,mb4.4,baz=155,slow=6.6,SNR=11						
ZAK	Zakamensk	62.49	342	eP	P	11 49 11.8	+1.0
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.5						
TLY	Talaya	63.53	343	eP	P	11 49 23.9	+6.2
TLY				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
IRK	Irkutsk	63.85	344	eP	P	11 49 24.9	+5.1
IRK				pmax	pmax		
	comp=Z,31nm,2.0s,mb5.0						
MOY	Mondy	64.32	341	eP	P	11 49 29.6	+6.7
MOY				pmax	pmax		
	comp=Z,37nm,2.0s,mb5.1						
PETK	Petropavlovsk-	66.00	19	P	P	11 49 33.4	-0.4
	comp=Z,5.0nm,0.8s,mb4.6,baz=191,slow=2.3,SNR=5.7						
BOD	Bodaibo	66.99	352	eP	P	11 49 40.5	+0.4
BOD				pmax	pmax		
	comp=Z,5.0nm,1.8s,mb4.2						
KSH	Kashi	68.10	318	eP	P	11 49 51.0	+3.5
KSH				epP	pP	11 49 57.5	-0.8
KSH				esP	sP	11 50 00.0	-2.3
KSH				ePcP	PcP	11 50 17.0	+3.7
KSH				ePP	PP	11 52 23.0	+4.9
KSH				eScP		11 54 18.0	
KSH				ePcS		11 54 21.0	
KSH				eS	S	11 58 48.8	+3.9
KSH				esS	sS	11 58 59.3	-3.4
KSH				eScS	ScS	11 59 45.0	+0.9
KSH				eSS	SS	12 03 11.0	+2.9
KSH				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
KSH				pmax	pmax		
	comp=Z,360nm,3.5s						
KSH				LR	LR		
	comp=N,170nm,3.9s						
KSH				LR	LR		
	comp=E,340nm,6.8s						
KSH				LR	LR		
	comp=Z,410nm,7.8s						
MKAR	Makanchi Array	68.61	328	P	P	11 49 50.2	-0.3
	comp=Z,2.7nm,0.8s,mb4.2,baz=117,slow=7.6,SNR=17						
YAK	Yakutsk	70.15	1	eP	P	11 50 02.9	+3.2
YAK				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
YAK	Yakutsk	70.15	1	eP	P	11 49 59.6	0.0
	comp=Z,9.7nm,0.6s,mb4.9						
AAK	Ala-Archa	70.69	321⇑	eP	P	11 50 11.0	+7.6
AAK				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.2						
AAK	Ala-Archa	70.69	321	P	P	11 50 03.0	-0.4
	comp=Z,5.8nm,0.9s,mb4.5						
ZAA0	Zalesovo Array	72.19	335	eP	P	11 50 10.8	-1.3
ZALV	Zalesovo Beam	72.19	335	P	P	11 50 11.1	-1.1
	comp=Z,2.0nm,0.5s,mb4.3,baz=122,slow=5.6,SNR=9.5						
KURK	Kurchatov	72.96	329	eP	P	11 50 16.2	-0.6
KURK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
KURK	Kurchatov	72.96	329	eP	P	11 50 16.2	-0.6
	comp=Z,19nm,0.9s,mb5.0						
SEY	Seymchan	73.36	11⇑	eP	P	11 50 19.5	+0.6
NVS	Novosibirsk	73.47	335	eP	P	11 50 24.6	+4.8
NVS				e		11 59 56.7	
NVS				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.0						
NVS				pmax	pmax		
	comp=N,27nm,1.7s						
NVS				pmax	pmax		
	comp=E,23nm,1.6s						
BRVK	Borovoye	78.55	328	eP	P	11 50 51.0	+2.3
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BRVK	Borovoye	78.55	328	eP	P	11 50 51.0	+2.3
	comp=Z,6.9nm,0.9s,mb4.6						
TIXI	Tiksi	79.81	0⇑	eP	P	11 50 53.9	-1.4
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,700nm,18.0s,MS5.0						
TIXI	Tiksi	79.81	0	eP	P	11 50 53.7	-1.6
	comp=Z,5.5nm,0.8s,mb4.5						
QSPA	South Pole Qui	81.66	180	P	P	11 51 06.1	+0.9
	comp=Z,4.0nm,0.8s,mb4.4,baz=351,slow=3.0,SNR=16						
QSPA	South Pole Qui	81.66	180	eP	P	11 51 05.8	+0.7
ARU	Arti	86.12	328d	iP	P	11 51 34.7	+6.5
ARU				e		11 54 53.0	
ARU				S	S	12 01 59.4	-0.8
ARU				SS	SS	12 07 48.1	+8.7
ARU				pmax	pmax		
	comp=Z,15nm,1.7s,mb5.0						
ARU				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.3						
VSR	Storozhevoye	96.10	321	eP	P	11 52 18.5	+3.5
VSR				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb5.3						
VSR				pmax	pmax		
	comp=N,5.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,7.0nm,0.4s						
YKA	Yellowknife Ar	109.53	26	Pdiff	Pdif	11 53 13.9	-1.0
	comp=E,0.2nm,0.7s,baz=293,slow=5.0,SNR=6.5						
YKA				PKiKP	PKiKP	11 57 17.4	-0.2
	comp=E,0.2nm,0.5s,baz=294,slow=1.9,SNR=5.6						
YKA				PKKPbc	PKKPbc	12 08 24.8	0.0
	comp=E,0.4nm,1.0s,baz=104,slow=3.1,SNR=4.1						
YKA	Yellowknife Ar	109.53	26	Pdif	Pdif	11 53 13.9	-1.0
YKA				PKPdf	PKiKP	11 57 17.4	-0.2
YKA				PKKPbc	PKKPbc	12 08 24.8	0.0
GERES	GERESS Array B	112.56	320	PKiKP	PKiKP	11 57 23.3	-0.4
	comp=E,0.6nm,0.6s,baz=67,slow=3.5,SNR=4.5						
PDAR	Pinedale Array	118.78	46	PKP	PKPdf	11 57 36.4	+0.5
	comp=E,0.7nm,0.8s,baz=203,slow=0.4,SNR=5.4						
PV01	Paradox Valley	120.74	50	ePKPdf	PKPdf	11 57 40.1	+0.3
TXAR	Lajitas Array	126.76	60	PKP	PKPdf	11 57 54.0	+2.4
	comp=E,1.0nm,1.0s,baz=224,slow=2.5,SNR=6.7						
TORD	Torodi Ar. Bea	127.73	280	PKP	PKPdf	11 57 54.6	+0.8
	comp=E,1.8nm,0.7s,baz=65,slow=2.1,SNR=12						
PLCA	Paso Flores	128.07	161	PKP	PKPdf	11 57 56.1	+2.3
	comp=E,1.1nm,0.6s,baz=221,slow=3.4,SNR=3.5						
SCHQ	Schefferville	132.00	12	PKP	PKPdf	11 58 02.5	+1.7
	comp=E,1.0nm,0.6s,baz=359,slow=7.8,SNR=4.9						
SCHQ				SKPbc	SKPbc	12 01 25.9	+1.5
	comp=E,4.1nm,0.9s,baz=332,slow=4.8,SNR=6.5						
SCHQ	Schefferville	132.00	12	PKP	PKPdf	11 58 02.5	+1.7
SCHQ				SKPbc	SKPbc	12 01 25.9	+1.5
LVC	Limon Verde	144.77	151	ePKPdf	PKPdf	11 58 26.3	+1.2
CPUP	Villa Florida	145.06	171	PKPbc	PKPbc	11 58 26.1	+1.2
	comp=E,3.3nm,0.5s,baz=176,slow=2.7,SNR=12						

IDC 25 12:00:13.7±8.8, **9°.98N**×**92°.36E, h0km, mb3.6**/2, **mb1 3.9**/3, **mb1mx3.5**/24, **mbtmp3.7**/3, **Error ellipse: s-maj=193.8km s-min=45.1km az=97.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.57	36	Pn	Pn	12 02 46.9	+0.3
	baz=229,slow=15,SNR=8.1						
WRA	Warramunga Arr	50.92	126	P	P	12 09 16.9	-0.2
	0.2nm,0.3s,baz=307,slow=8.3,SNR=13						
ASAR	Alice Springs	52.61	130	P	P	12 09 29.9	+0.1
	0.8nm,0.7s,baz=308,slow=7.2,SNR=13						

IDC 25 12:16:07.4±1.8, **8°.90S**×**128°.86E, h0km, mb3.2**/1, **mb1 3.4**/4, **mb1mx3.3**/17, **mbtmp3.3**/4, **ML3.4**/3, **MS2.5**/1, **Ms1 2.5**/1, **ms1mx2.5**/13, **Error ellipse: s-maj=60.0km s-min=23.7km az=76.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.66	199	Pn	Pn	12 18 28.9	+1.1
	0.2nm,0.3s,baz=13,slow=14,SNR=3.9						
FITZ				Sn	Sn	12 20 19.2	+2.0
	0.7nm,0.3s,baz=291,slow=22,SNR=6.9						
WRA	Warramunga Arr	12.19	155	Pn	Pn	12 19 02.4	0.0
	0.3nm,0.3s,baz=336,slow=9.0,SNR=37						
WRA				Sn	Sn	12 21 19.7	+0.6
	0.2nm,0.3s,baz=332,slow=25,SNR=4.9						
ASAR	Alice Springs	15.45	162	Pn	Pn	12 19 45.7	-1.2
	0.1nm,0.3s,baz=333,slow=10,SNR=11						
ASAR				Sn	Sn	12 22 33.3	-5.6
	0.1nm,0.3s,baz=327,slow=23,SNR=4.6						
TGY	Tagaytay City	24.17	341	LR	LR	12 30 12.7	
	comp=Z,11nm,20.0s,baz=80,slow=35						
MKAR	Makanchi Array	69.20	328	P	P	12 27 16.1	+0.1

0.1nm,0.2s,baz=117,slow=8.3,SNR=2.7

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*CSEM **25** 12:30:28.6, 35.°92N×21.°39E, h5^{km}, MD3.5, After ATH*

ATH 25 12:30:28.6, 35.°92N×21.°39E, h5^{km}, MD3.5/6**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	1.01	16	ePB	Pb	12 30 48.2	-0.4
PYL				eSB	Sb	12 31 02.3	0.0
PYL	PYLOS	1.01	16	ePb	Pb	12 30 48.2	-0.4
PYL				eSb	Sb	12 31 02.3	0.0
ITM	Ithomi	1.33	19	ePB	Pb	12 30 53.8	-0.2
ITM	Ithomi	1.33	19	ePb	Pb	12 30 53.8	-0.2
VLI	Veliai	1.48	57	ePB	Pb	12 30 57.1	+0.5
VLI	Veliai	1.48	57	ePb	Pb	12 30 57.1	+0.5
VLX	Vlachokerasia	1.65	29	ePN	Pn	12 30 57.3	-0.9
VLX	Vlachokerasia	1.65	29	ePn	Pn	12 30 57.3	-0.9
GUR	Goura	2.15	20	ePG	Pg	12 31 08.7	-1.2
GUR	Goura	2.15	20	ePg	Pg	12 31 08.7	-1.2
DID	Didima	2.17	43	ePN	Pn	12 31 08.0	+2.6
DID	Didima	2.17	43	ePn	Pn	12 31 08.0	+2.6

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*NEIC **25** 12:32:00.1, 16.°35N×98.°22W, h5^{km}, MD3.8(MEX), After MEX.*

MEX 25 12:31:58.5±0.6**, 16.°28N×98.°21W, h7^{km}**±6^{km}**, MD3.8, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.14	36	iP	Pg	12 32 00.8	-0.7
PNIG				iS	Sg	12 32 03.3	-0.1
PNIG	Pinotepa	0.14	36	iP	Pg	12 32 00.8	-0.7
PNIG				iS	Sg	12 32 03.6	+0.2
UTMO	Huajuapan	1.59	14	iP	Pn	12 32 24.6	-2.5
UTMO				iS	Sn	12 32 44.2	-3.7
VHO	Vista Hermosa	1.62	61	iP	Pn	12 32 24.7	-2.8
VHO				iS	Sn	12 32 43.4	-5.3
VHO	Vista Hermosa	1.62	61	iP	Pn	12 32 25.6	-1.9
VHO				iS	Sn	12 32 46.0	-2.6
ACX	Acapulco	1.74	290	iP	Pn	12 32 25.6	-3.5
ACX				iS	Sn	12 32 45.7	-5.8
ACX	Acapulco	1.74	290	iP	Pn	12 32 25.6	-3.5
ACX				iS	Sn	12 32 47.9	-3.6
HUIG	Huatulco	2.08	104	iP	Pn	12 32 30.7	-3.2
HUIG				iS	Sn	12 32 56.4	-3.8
HUIG	Huatulco	2.08	104	iP	Pn	12 32 33.4	-0.5
HUIG				iS	Sn	12 32 58.7	-1.4
CAIG	El Cayaco	2.11	291	eP	Pn	12 32 31.6	-2.7
CAIG				iS	Sn	12 32 55.0	-5.8
CAIG	El Cayaco	2.11	291	eP	Pn	12 32 31.6	-2.7
CAIG				iS	Sn	12 32 57.5	-3.3
MEIG	Mezcala	2.12	321	iP	Pn	12 32 31.4	-2.9
MEIG				iS	Sn	12 32 56.4	-4.6
TPIG	Tehuac#an	2.28	21	iP	Pn	12 32 35.3	-1.3
TPIG				iS	Sn	12 33 00.9	-4.0
PLIG	Platanillo	2.44	330	iP	Pn	12 32 36.8	-2.0
PLIG				iS	Sn	12 33 04.8	-4.0
PLIG	Platanillo	2.44	330	iP	Pn	12 32 37.9	-0.9
PLIG				iS	Sn	12 33 06.8	-2.0
PPM	Popocatepetl	2.80	352	iS	Sn	12 33 18.9	+1.1
CMIG	Matias Romero	3.29	75	iP	Pn	12 32 46.4	-4.0
CMIG				iS	Sn	12 33 26.7	-3.1
ZIIG	Zihuatanejo	3.38	293	iP	Pn	12 32 56.9	+5.1

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*ISCJB **25** 12:53:59.8±0.4, 39.°03N±0.°02×28.°05E±0.°03, h4^{km}±5^{km}, Error ellipse: s-maj=3.9km s-min=3.6km az=144.0*

*NEIC **25** 12:53:59.0, 39.°02N×28.°04E, h10^{km}, MD3.1(ISK), After ISK.*

*DDA **25** 12:53:59.8, 39.°03N×28.°08E, h7^{km}±3^{km}, Md3.1*

*ISK **25** 12:53:59.5, 39.°03N×28.°06E, h5^{km}, MD3.1*

*CSEM **25** 12:54:00.2±0.1, 39.°02N×28.°06E, h5^{km}, MD3.1, Error ellipse: s-maj=2.1km s-min=1.8km az=43.0*

ISC 25 12:54:00.4±0.4**, 39.°03N**±0.°02×**28.°05E**±0.°03**, h6^{km}**±4^{km}**, n64, σ0.^{s}55**/82**, 3C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKHS	Akhisar	0.24	231	⇑iP	Pg	12 54 05.0	0.0
AKHS				iS	Sg	12 54 09.0	+0.8
BALB	Balikesir	0.63	348	ePG	Pg	12 54 12.1	-0.3
BALB				eSG	Sg	12 54 21.4	+0.8
BALB	Balikesir	0.63	348	Pg	Pg	12 54 12.6	+0.2
BALB				Sg	Sg	12 54 21.6	+1.0
BALB	Balikesir	0.63	348	Pg	Pg	12 54 12.6	+0.2
BALB				eSg	Sg	12 54 21.4	+0.8
DURS	Dursunbey	0.66	30	eP	Pg	12 54 12.8	-0.3
DURS				eS	Sg	12 54 21.4	-0.3
DURS	Dursunbey	0.66	30	eP	Pg	12 54 12.8	-0.3
DURS				eS	Sg	12 54 21.4	-0.3
MANT	Manisa	0.67	143	⇑iP	Pg	12 54 13.1	-0.1
MANT				iS	Sg	12 54 22.1	+0.3
MANT	Manisa	0.67	143	iP	Pg	12 54 13.1	-0.1
MANT				iS	Sg	12 54 22.1	+0.3
KULA	Kula-Manisa	0.70	137	ePG	Pg	12 54 13.5	-0.3
KULA				eSG	Sg	12 54 22.7	-0.2
KULA	Kula-Manisa	0.70	137	ePg	Pg	12 54 13.5	-0.3
KULA				eSg	Sg	12 54 22.7	-0.2
BALY	Balya	0.79	335	⇓iP	Pg	12 54 15.3	-0.2
BALY				iS	Sg	12 54 25.3	-0.4
BALY	Balya	0.79	335	iP	Pg	12 54 15.3	-0.2
BALY				iS	Sg	12 54 25.3	-0.4
IZM	Izmir	0.88	225	ePG	Pg	12 54 16.8	-0.5
IZM				eSG	Sg	12 54 29.6	+0.9
IZM	Izmir	0.88	225	Pg	Pg	12 54 17.1	-0.2
IZM				Sg	Sg	12 54 29.1	+0.4
BLCB	Balcova	1.02	231	ePG	Pg	12 54 19.3	-0.6
BLCB	Balcova	1.02	231	Pg	Pg	12 54 19.8	-0.1
BLCB	Balcova	1.02	231	Pg	Pg	12 54 19.8	-0.1
AYVA	Ayvalik	1.09	285	eP	Pg	12 54 21.4	0.0
AYVA				eS	Sg	12 54 35.6	0.0
AYVA	Ayvalik	1.09	285	eP	Pg	12 54 21.4	0.0
AYVA				eS	Sg	12 54 35.6	0.0
GDZ	Gediz	1.12	86	⇑iP	Pg	12 54 21.5	-0.2
GDZ				iS	Sg	12 54 35.8	-0.4
GDZ	Gediz	1.12	86	iP	Pg	12 54 21.5	-0.3
GDZ				iS	Sg	12 54 35.8	-0.4
KCT	Karacabey	1.26	11	ePN	Pn	12 54 23.1	-1.3
KCT	Karacabey	1.26	11	Pn	Pn	12 54 23.6	-0.9
KCT	Karacabey	1.26	11	Pn	Pn	12 54 23.5	-1.0
BNT	Bandirma	1.33	356	ePN	Pn	12 54 24.4	-1.1
BNT	Bandirma	1.33	356	Pn	Pn	12 54 24.8	-0.6
BNT	Bandirma	1.33	356	Pn	Pn	12 54 24.8	-0.6
KHL	Karahalli	1.35	121	ePN	Pn	12 54 26.3	+0.6
KHL	Karahalli	1.35	121	Pn	Pn	12 54 25.7	0.0
KHL	Karahalli	1.35	121	Pn	Pn	12 54 25.7	0.0
PRK	Paraskevi	1.40	280	ePn	Pn	12 54 25.4	-1.0
PRK	Paraskevi	1.40	280	ePn	Pn	12 54 25.4	-1.0
EZN	Ezine	1.56	301	ePN	Pn	12 54 28.8	+0.2
EZN	Ezine	1.56	301	Pn	Pn	12 54 28.8	+0.3
EZN	Ezine	1.56	301	ePn	Pn	12 54 28.8	+0.3
ALT	Altintas	1.60	88	ePN	Pn	12 54 29.6	+0.4
ALT	Altintas	1.60	88	Pn	Pn	12 54 29.0	-0.2
ALT	Altintas	1.60	88	Pn	Pn	12 54 29.0	-0.2
SMG	Samos	1.62	216	ePn	Pn	12 54 27.9	-1.6
SMG	Samos	1.62	216	ePn	Pn	12 54 27.9	-1.6
LPK	Lapseki	1.67	324	ePN	Pn	12 54 29.7	-0.4
LPK	Lapseki	1.67	324	ePn	Pn	12 54 29.7	-0.4
YLV	Yalova	1.84	33	ePN	Pn	12 54 33.2	+0.7
YLV	Yalova	1.84	33	ePn	Pn	12 54 33.2	+0.7
ADVT	Abdulvahap	1.92	42	ePN	Pn	12 54 33.5	0.0
ADVT	Abdulvahap	1.92	42	ePn	Pn	12 54 33.5	0.0
SHUT	Suhut-Afyon	2.01	103	ePN	Pn	12 54 35.0	+0.2
SHUT	Suhut-Afyon	2.01	103	ePn	Pn	12 54 35.0	+0.2
ISK	Istanbul-Kandi	2.18	20	ePN	Pn	12 54 36.9	-0.2
ISK	Istanbul-Kandi	2.18	20	ePn	Pn	12 54 36.9	-0.2
HRT	Hereke	2.18	34	ePN	Pn	12 54 37.9	+0.8
HRT	Hereke	2.18	34	ePn	Pn	12 54 37.9	+0.8
ESKT	Eskisehir	2.23	76	ePN	Pn	12 54 37.8	0.0
ESKT	Eskisehir	2.23	76	ePn	Pn	12 54 37.8	0.0
CTKS	Kestanelik-??a	2.23	9	ePN	Pn	12 54 38.2	+0.3
CTKS	Kestanelik-??a	2.23	9	ePn	Pn	12 54 38.2	+0.3
EYL	Eskiyayla	2.24	46	ePN	Pn	12 54 38.6	+0.8
ENEZ	Enez	2.25	320	ePN	Pn	12 54 38.6	+0.6
ENEZ	Enez	2.25	320	ePn	Pn	12 54 38.7	+0.7
SILT	Sile	2.45	29	ePN	Pn	12 54 41.3	+0.5
SILT	Sile	2.45	29	ePn	Pn	12 54 41.3	+0.5
SVRH	Sivrihisar-ESK	2.73	80	ePN	Pn	12 54 45.4	+0.7
SVRH	Sivrihisar-ESK	2.73	80	ePn	Pn	12 54 45.4	+0.8
RDO	Rodhopi	2.86	318	ePn	Pn	12 54 36.0	-10

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*MOS **25** 12:55:12.9±1.4, 37.°35N×71.°99E, h119^{km}, mb4.7/13, Error ellipse: s-maj=10.2km s-min=5.1km az=101.1*

*ISCJB **25** 12:55:12.8±0.5, 37.°32N±0.°02×72.°06E±0.°05, h122^{km}±6^{km}, mb4.3/34, Error ellipse: s-maj=6.9km s-min=3.1km az=166.5*

*IDC **25** 12:55:12.4±2.3, 37.°21N×71.°93E, h101^{km}±21^{km}, mb3.9/15, mb1 4.2/20, mb1mx4.0/29, mbtmp4.1/20, MS3.4/1, Ms1 3.4/1, ms1mx2.8/48, Error ellipse: s-maj=13.0km s-min=11.6km az=134.0*

*NEIC **25** 12:55:13.6±0.9, 37.°23N×72.°06E, h118^{km}±10^{km}, mb4.8/11, Error ellipse: s-maj=11.5km s-min=4.8km az=56.0*

*BJI **25** 12:55:15.3, 37.°53N×72.°09E, h110^{km}, mB5.0/4, mb4.4/9*

*NNC **25** 12:55:24.3±4.6, 38.°12N×71.°91E, h210^{km}±35^{km}, mb3.9, mpv5.4, Error ellipse: s-maj=42.2km s-min=23.8km az=17.0*

ISC 25 12:55:14.1±0.4**, 37.°29N**±0.°02×**72.°08E**±0.°05**, h121^{km}**±5^{km}**, n129, σ1.^{s}32**/157**, mb4.3**/34**, 14C-7D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.78	53	⇑iP	Pn	12 56 09.5	-1.1
KSH				S	Sn	12 56 46.8	-7.6
KSH				smax			
	comp=N,6μm,0.5s						
KSH				smax			
	comp=E,5μm,0.6s						
AML	Almayashu	4.99	14	P	Pn	12 56 28.6	+1.7
	SNR=2132						
AML	Almayashu	4.99	14	ePn	Pn	12 56 28.4	+1.6
AML				eSn	Sn	12 57 20.9	-2.5
JMU	Jammu	5.12	152	ePKP	Pn	12 56 31.5	+2.8
JMU				ex	x	12 57 30.0	
UCH	Uchtor	5.27	20	P	Pn	12 56 32.8	+2.1
	SNR=306						
UCH	Uchtor	5.27	20	ePn	Pn	12 56 32.0	+1.4
UCH				eSn	Sn	12 57 22.1	-8.2
KZA	Kyzart	5.37	26	P	Pn	12 56 33.7	+1.8
	SNR=87						
EKS2	Erkin-Say	5.52	13	P	Pn	12 56 35.7	+1.7
	SNR=419						
EKS2	Erkin-Say	5.52	13	ePn	Pn	12 56 35.5	+1.6
EKS2				eSn	Sn	12 57 30.0	-6.2
AAK	Ala-Archa	5.64	18	PN	Pn	12 56 37.7	+2.0
AAK				S	Sn	12 57 39.8	+0.6
AAK	Ala-Archa	5.64	18	P	Pn	12 56 37.9	+2.2
	SNR=389						
AAK	Ala-Archa	5.64	18	P	Pn	12 56 37.7	+2.0
	comp=E,1.2nm,0.3s,baz=182,slow=6.6,SNR=888						
AAK				S	Sn	12 57 39.8	+0.5
	comp=E,0.7nm,0.3s,baz=322,slow=22,SNR=24						
AAK				LR	LR	12 59 37.8	
	comp=E,368nm,21.8s,baz=66,slow=46						
AAK	Ala-Archa	5.64	18	P	Pn	12 56 38.0	+2.4
	SNR=65						
AAK				P		12 56 38.0	
	SNR=65						
THN	Thein Dam	5.69	147	ePKP	Pn	12 56 38.3	+1.9
THN				ex	x	12 57 41.6	
DLH	Dalhousie	5.71	145	ePKP	Pn	12 56 40.0	+3.3
DLH				eS	Sn	12 57 42.0	+1.0
KBK	Karagaybulak	5.79	21	P	Pn	12 56 39.9	+2.2
	SNR=105						
ULHL	Ulahol	5.89	32	P	Pn	12 56 40.8	+1.8
	SNR=170						
KK31	Karatay Array	5.93	349	⇓P	Pn	12 56 39.8	+0.3
	comp=E,549nm,0.6s,baz=177,slow=13,SNR=2687						
KK31				⇑S	Sn	12 57 41.3	-4.7
	comp=E,386nm,0.7s,baz=163,slow=16,SNR=5.0						
KK31	Karatay Array	5.93	349	iPN	Pn	12 56 39.7	+0.2
KK31				pmax	pmax		
	comp=Z,267nm,0.2s						
CHMS	Chumysh	6.05	19	P	Pn	12 56 43.0	+1.8
	SNR=176						
TKM2	Tokmak 2	6.23	24	⇓P	Pn	12 56 45.4	+1.8
	comp=Z,184nm,0.7s						
TKM2				⇑S	Sn	12 57 50.9	-2.5
	comp=Z,162nm,0.7s						
TKM2	Tokmak 2	6.23	24	ePn	Pn	12 56 45.2	+1.6
USP	Ospenovka	6.25	16	P	Pn	12 56 44.8	+1.1
	SNR=155						
BHK	Bhakra	6.87	147	ePKP	Pn	12 56 53.0	+0.7
BHK				ex	x	12 58 08.0	
SDNR	Sundarnagar	7.05	144	ePKP	Pn	12 56 55.4	+0.7
SDNR				eS	Sn	12 58 09.4	-4.0
KLP	Kalpa	7.68	137	ePKP	Pn	12 57 03.3	+0.1
KLP				eS	Sn	12 58 21.2	-7.3
KLP				AML	AML	12 58 33.5	
	comp=N,809nm,0.5s						
KLP				AML	AML	12 58 34.3	
	comp=E,1μm,0.8s						
DDI	Dehra Dun	8.54	143	ePKP	Pn	12 57 14.7	-0.3
DDI				ex	x	12 58 49.2	
RTK	Rohtak	9.00	155	ePKP	Pn	12 57 20.4	-0.7
JOSI	Joshimath	9.15	135	ePKP	Pn	12 57 24.3	+1.2
JOSI				eS	Sn	12 58 58.7	-5.5
JOSI				AML	AML	12 59 06.9	
	comp=N,1μm,0.8s						
JOSI				AML	AML	12 59 07.7	
	comp=E,941nm,0.9s						
NDI	New Delhi	9.61	152	ePKP	Pn	12 57 29.0	-0.3
NDI				ex	x	12 59 11.0	
KHET	Khetri	9.71	160	ePKP	Pn	12 57 30.1	-0.6
KHET				eS	Sn	12 59 07.8	-10
AYAN	Aya Nagar	9.75	153	ePKP	Pn	12 57 31.5	+0.2
SONA	Sohna	9.95	154	ePKP	Pn	12 57 31.9	-2.0
SONA				eS	Sn	12 59 13.8	-10
PTH	Pithoragarh	10.28	136	ePKP	Pn	12 57 39.0	+0.6
PTH				ex	x	12 59 26.5	
LGTI	Lohaghat	10.38	137	ePKP	Pn	12 57 39.2	-0.4
LGTI				ex	x	12 59 29.2	
AJM	Ajmer	11.00	168	ePKP	Pn	12 57 48.0	+0.1
AJM				ex	x	12 59 44.0	
AGRA	Agra	11.19	152	ePKP	Pn	12 57 50.2	-0.3
AGRA				eS	Sn	12 59 43.9	-10
AGRA				AML	AML	12 59 50.7	
	comp=N,164nm,0.4s						
AGRA				AML	AML	12 59 52.8	
	comp=E,158nm,0.6s						
MK31	Makanchi Array	12.14	35	⇑P	Pn	12 58 03.1	+0.2
	comp=E,27nm,1.1s,baz=205,slow=12,SNR=123						
MK31	Makanchi Array	12.14	35	iP	Pn	12 58 03.0	+0.1
MK31				pmax	pmax		
	comp=Z,13nm,0.7s						
MKAR	Makanchi Array	12.14	35	P	Pn	12 58 02.9	0.0
	comp=Z,0.6nm,0.3s,baz=223,slow=11,SNR=92						
DANN	Dangsing	13.25	129	eP	Pn	12 58 16.6	-1.0
KOLN	Koldanda	13.57	131	eP	Pn	12 58 21.4	-0.3
GKN	Gorkha	14.05	128	eP	Pn	12 58 27.1	-0.7
KURBB	Kurchatov Arra	14.10	17	⇑P	Pn	12 58 25.7	-2.5
	comp=Z,8.1nm,0.7s						
BHJ	Bhuj	14.15	189	eS	Sn	13 01 03.4	-1.9
KURK	Kurchatov	14.21	17	⇑P	Pn	12 58 26.5	-3.1
	comp=Z,63nm,0.9s						
KURK	Kurchatov	14.21	17	P	Pn	12 58 25.4	-4.2
	comp=Z,0.2nm,0.3s,baz=204,slow=12,SNR=35						
KURK				S	Sn	13 01 12.7	+6.4
	comp=Z,0.1nm,0.3s,baz=212,slow=26,SNR=3.1						
KURK	Kurchatov	14.21	17	P	Pn	12 58 27.3	-2.3
	SNR=23						
KURK				P		12 58 27.3	
	SNR=23						
KKN	Kakani	14.60	127	eP	Pn	12 58 33.7	-1.1
DMN	Daman	14.62	128	eP	Pn	12 58 34.0	-1.0
PKIN	Phulchoki	14.82	127	eP	Pn	12 58 36.9	-0.7
PKI	Pulchoki	14.84	127	eP	Pn	12 58 36.7	-1.1
PKI	Pulchoki	14.84	127	eP	Pn	12 58 36.9	-0.9
AB31	Akbulak array	14.85	327	P	Pn	12 58 34.3	-3.4
AB31				pmax	pmax		
	comp=Z,28nm,0.4s						
AB09	Akbulak array	14.86	327	⇑P	Pn	12 58 34.8	-3.0
	comp=Z,15nm,0.3s						
AB09				⇓S	Sn	13 01 04.3	-18
	comp=Z,63nm,1.0s						
GUN	Gumba	14.91	125	eP	Pn	12 58 37.7	-1.0
	comp=Z,91nm,0.5s						
JIRN	Jiri	15.28	125	eP	Pn	12 58 42.9	-0.4
	comp=Z,177nm,0.4s						
VOSK	Vostochnaya	15.45	357	⇑P	Pn	12 58 42.9	-2.3
	comp=Z,38nm,1.0s						
VOSK	Vostochnaya	15.45	357	P	Pn	12 58 42.8	-2.4
VOSK				pmax	pmax		
	comp=Z,38nm,1.0s						
BVA0	Borovoye Array	15.78	356	P	Pn	12 58 47.5	-1.7
	comp=Z,5.8nm,0.9s,baz=162,slow=13,SNR=142						
BVA0				⇑S	S	13 01 34.5	-16
	comp=Z,3.7nm,1.2s,baz=170,slow=18,SNR=6.0						
BVA0	Borovoye Array	15.78	356	iP	Pn	12 58 47.5	-1.7
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BVAR	Borovoye Array	15.78	356	P	Pn	12 58 47.7	-1.6
	comp=Z,2.0nm,0.3s,baz=161,slow=14,SNR=64						
BVAR				S	S	13 01 33.9	-16
	comp=Z,0.1nm,0.3s,baz=172,slow=23,SNR=5.3						
BRVK	Borovoye	15.81	356	eP	Pn	12 58 48.0	-1.7
BRVK				e		13 01 34.0	
BRVK				pmax	pmax		
	comp=Z,61nm,0.8s						
BRVK	Borovoye	15.81	356	ePn	Pn	12 58 48.0	-1.8
	comp=Z,61nm,0.8s						
BRVK				eSn	Sn	13 01 34.0	-11
BRVK	Borovoye	15.81	356	P	Pn	12 58 48.8	-0.9
	SNR=18						
BRVK				P		12 58 48.8	
	SNR=18						
RAMN	Ramite	16.03	126	eP	Pn	12 58 51.9	-0.7
	comp=Z,124nm,0.7s						
TAPN	Taplejung	16.50	122	eP	Pn	12 58 57.6	-0.7
	comp=Z,70nm,0.6s						
AKTK	Aktyubinsk	16.56	327	P	Pn	12 58 57.4	-1.5
AKTK				S	S	13 01 51.6	-12
AKTO	Aktyubinsk	16.56	327	⇑P	Pn	12 58 57.1	-1.8
	comp=Z,11nm,0.8s						
AKTO				⇑S	S	13 01 49.1	-14
	comp=Z,3.6nm,0.9s						
AKTO	Aktyubinsk	16.56	327	P	Pn	12 58 57.4	-1.5
	comp=Z,5.2nm,0.3s,baz=131,slow=12,SNR=126						
AKTO				S	S	13 01 51.6	-12
	comp=Z,0.8nm,0.3s,baz=158,slow=19,SNR=9.2						
ODAN	Odare	16.61	124	eP	Pn	12 58 59.3	-0.4
	comp=Z,73nm,0.6s						
LSA	Lhasa	17.60	110	P	Pn	12 59 15.0	+3.3
LSA				pmax	pmax		
	comp=Z,20nm,1.0s						
LSA	Lhasa	17.60	110	eP	Pn	12 59 11.3	-0.4
LSA				pmax	pmax		
	comp=Z,22nm,1.0s						
LSA	Lhasa	17.60	110	eP	Pn	12 59 11.3	-0.4
	comp=Z,22nm,1.0s						
BOK	Bokaro	17.93	135	ePKP	Pn	12 59 16.1	+0.5
ZAA0	Zalesovo Array	18.84	24	eP	P	12 59 24.5	+0.2
ZALV	Zalesovo Beam	18.84	24	P	P	12 59 24.7	+0.4
	comp=Z,4.5nm,0.3s,baz=215,slow=11,SNR=141						
ZALV				S	S	13 02 56.9	+5.0
	comp=Z,0.1nm,0.3s,baz=220,slow=17,SNR=3.6						
ZALV	Zalesovo Beam	18.84	24	P	P	12 59 24.7	+0.4
ZALV				S	S	13 02 56.9	+5.0
NVS	Novosibirsk	19.14	20	⇓iP	P	12 59 27.8	+0.3
NVS				eS	S	13 02 54.0	-3.8
NVS				pmax	pmax		
	comp=N,59nm,1.1s						
NVS				pmax	pmax		
	comp=Z,63nm,1.1s						
NVS				smax			
	comp=N,26nm,1.8s						
BSY	Bisya	19.36	226	P	P	12 59 32.6	+2.3
	SNR=6.1						
HYB	Hyderabad	20.61	162	iP	P	12 59 42.0	-1.7
HYB				eS	S	13 03 26.0	-1.4
HYB	Hyderabad	20.61	162	eP	P	12 59 48.0	+4.3
SVE	Sverdlovsk	20.98	342	⇑eP	P	12 59 47.5	+0.1
SVE				pmax	pmax		
	comp=Z,41nm,0.7s						
ARU	Arti	21.18	339	d iP	P	12 59 49.3	-0.3
ARU				e		13 00 19.7	
ARU				S	S	13 03 31.0	-7.0
ARU				SS		13 04 10.8	
ARU				pmax	pmax		
	comp=Z,70nm,1.2s,mb4.9						
ARU	Arti	21.18	339	eP	P	12 59 49.2	-0.3
	comp=Z,37nm,0.8s,mb4.8						
GNI	Garni	21.49	286	⇓eP	P	12 59 56.3	+3.3
GNI				pmax	pmax		
	comp=Z,33nm,1.3s						
GNI	Garni	21.49	286	P	P	12 59 55.0	+2.0
	comp=Z,4.9nm,0.4s,mb4.2,baz=158,slow=9.2,SNR=6.0						
GTA	Gaotai	21.82	76	eP	P	13 00 01.3	+4.8
GTA				sP	sP	13 00 40.0	+5.9
GTA				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.4						
GTA				pmax	pmax		
	comp=Z,190nm,5.1s						
GTA				LR	LR		
	comp=N,200nm,18.9s						
GTA				LR	LR		
	comp=E,190nm,19.5s						
GTA				LR	LR		
	comp=Z,240nm,21.9s						
KIV	Kislovodsk	23.21	296	iP	P	13 00 13.1	+3.0
KIV				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.8						
SOKR	Solikamsk	24.37	341	c iP	P	13 00 22.2	+1.6
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.5						
MOY	Mondy	24.93	46	eP	P	13 00 31.3	+5.6
SOC	Sochi	25.32	295	eP	P	13 00 30.1	+0.8
SOC				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.6						
ABTO	Aybut	25.85	225	P	P	13 00 35.7	+1.3
	SNR=5.5						
VSR	Storozhevoye	27.11	311	eP	P	13 00 45.9	+0.5
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
VSR				pmax	pmax		
	comp=N,10.0nm,1.2s						
VSR				pmax	pmax		
	comp=E,30nm,1.1s						
SONM	Songino Array	27.17	56	P	P	13 00 48.7	+2.7
	comp=E,2.0nm,0.9s,mb3.6,baz=262,slow=9.1,SNR=14						
SONM				sP	sP	13 01 19.2	-6.9
	comp=E,2.1nm,0.9s,baz=260,slow=9.9,SNR=5.7						
PRGR	Permogore	29.42	334	P	P	13 01 03.2	-2.6
PRGR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.5						
OBN	Obninsk	29.92	318	c iP	P	13 01 10.7	+0.5
OBN				i		13 02 09.4	
OBN				pmax	pmax		
	comp=Z,54nm,2.5s,mb4.7						
BRTR	Keskin Array B	30.03	287	P	P	13 01 12.6	+1.2
	comp=Z,1.4nm,0.5s,mb3.9,baz=98,slow=7.1,SNR=12						
CMAR	Chiang Mai Arr	30.10	121	P	P	13 01 16.1	+4.0
	comp=Z,1.3nm,0.8s,mb3.6,baz=307,slow=8.3,SNR=11						
CMAR				pP	pP	13 01 35.5	-3.0
	comp=Z,1.4nm,0.9s,baz=316,slow=12,SNR=3.5						
CMAR				sP	sP	13 01 46.6	-5.9
	comp=Z,0.6nm,0.4s,baz=312,slow=9.5,SNR=2.7						
KLMR	Klimovskoe	31.23	329	eP	P	13 01 20.3	-1.4
KLMR				pmax	pmax		
	comp=Z,30nm,1.6s,mb4.8						
AKASG	Malin Array Be	33.14	308	P	P	13 01 38.0	-0.5
	comp=Z,4.1nm,0.6s,mb4.4,baz=108,slow=9.9,SNR=10						
BOD	Bodaibo	34.19	40	eP	P	13 01 47.9	+0.4
BOD				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.1						
BOD				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.1						
JOF	Joensuu	35.62	329	ep	P	13 01 59.3	-0.5
	comp=Z,14nm,0.5s,mb5.1						
FINES	FINESS Array B	37.32	325	P	P	13 02 14.7	+0.5
	comp=Z,8.7nm,0.7s,mb4.8,baz=107,slow=9.1,SNR=22						
KAF	Kangasniemi	37.44	326	eP	P	13 02 14.8	-0.4
KAF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
KAF	Kangasniemi	37.44	326	ep	P	13 02 14.8	-0.4
	comp=Z,9.7nm,0.8s,mb4.8						
KEV	Kevo	40.39	338	eP	P	13 02 37.5	-2.2
KEV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
KEV	Kevo	40.39	338	ep	P	13 02 37.5	-2.2
	comp=Z,6.4nm,0.8s,mb4.5						
ARCES	ARCESS Array B	40.75	337	P	P	13 02 43.0	+0.4
	comp=Z,7.5nm,0.5s,mb4.8,baz=110,slow=8.2,SNR=55						
PSI	Prapat	42.27	138	P	P	13 02 56.5	+0.9
	comp=Z,7.0nm,0.8s,mb4.5,baz=312,slow=9.6,SNR=5.1						
YAK	Yakutsk	42.82	36	eP	P	13 03 01.2	+1.7

YAK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
BRG	**Berggiesshubel**	**42.82**	**308**	*e*P	**P**	**13 03 01.0**	**+1.3**
BRG				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
BRG	**Berggiesshubel**	**42.82**	**308**	*e*P	**P**	**13 03 01.0**	**+1.3**
	comp=Z,4.5nm,0.6s,mb4.4						
GERES	**GERESS Array B**	**43.19**	**305**	P	**P**	**13 03 04.2**	**+1.5**
	comp=Z,0.7nm,0.7s,mb3.5,baz=98,slow=11,SNR=3.4						
CLL	**Collm**	**43.38**	**308**	*e*P	**P**	**13 03 04.0**	**-0.2**
CLL				*e*(PP)		13 04 55.0	
NB2	**NORSAR Subarra**	**44.28**	**322**	P	**P**	**13 03 11.1**	**-0.1**
	comp=Z,6.5nm,1.0s,mb4.3,baz=94,slow=7.9						
NOA	**NORSAR Array B**	**44.28**	**322**	P	**P**	**13 03 11.1**	**-0.1**
	comp=Z,3.6nm,0.8s,mb4.1,baz=93,slow=7.8,SNR=6.5						
TIXI	**Tiksi**	**44.71**	**22**	⇓*e*P	**P**	**13 03 15.4**	**+0.8**
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
TIXI	**Tiksi**	**44.71**	**22**	*e*P	**P**	**13 03 15.5**	**+1.0**
	comp=Z,6.1nm,0.8s,mb4.4						
SPITS	**Spitsbergen Ar**	**46.92**	**347**	P	**P**	**13 03 33.4**	**+1.5**
	comp=Z,4.8nm,0.7s,mb4.3,baz=323,slow=11,SNR=5.8						
KMBO	**Kilima Mbogo**	**50.01**	**228**	P	**P**	**13 03 57.4**	**+1.2**
	comp=Z,4.7nm,0.6s,mb4.6,baz=35,slow=10,SNR=15						
BILL	**Bilibino**	**57.51**	**26**	*e*P	**P**	**13 04 51.9**	**+1.7**
BILL				*e*		13 05 42.1	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.6						
ESDC	**Sonseca Array**	**57.86**	**298**	P	**P**	**13 04 51.5**	**-1.6**
	comp=Z,0.8nm,0.4s,mb4.1,baz=30,slow=8.8,SNR=9.8						
TORD	**Torodi Ar. Bea**	**66.60**	**269**	P	**P**	**13 05 49.6**	**-2.1**
	comp=Z,1.0nm,0.5s,mb3.9,baz=55,slow=6.3,SNR=12						
YKA	**Yellowknife Ar**	**80.41**	**3**	P	**P**	**13 07 12.3**	**+0.6**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**80.41**	**3**	P	**P**	**13 07 12.3**	**+0.6**
	comp=Z,1.2nm,0.5s,mb4.0,baz=350,slow=5.5,SNR=35						
YKA				sP	sP	13 07 48.2	-7.1
	comp=Z,1.4nm,0.8s,baz=346,slow=5.1,SNR=3.8						
YKA	**Yellowknife Ar**	**80.41**	**3**	P	**P**	**13 07 12.3**	**+0.6**
YKA				sP	sP	13 07 48.2	-7.1
WRA	**Warramunga Arr**	**81.68**	**123**	P	**P**	**13 07 19.7**	**+0.7**
	comp=Z,1.2nm,0.6s,mb3.9,baz=325,slow=5.0,SNR=20						
ASAR	**Alice Springs**	**84.00**	**126**	P	**P**	**13 07 31.4**	**+0.4**
	comp=Z,0.3nm,0.6s,mb3.3,baz=312,slow=5.6,SNR=8.7						

IDC 25 13:05:43.1±27.0**, 24°.64S**×**174°.17W, h0**^{km}**, mb4.1**/4**, mb1 4.3**/4**, mb1mx3.9**/16**, mbtmp4.1**/4**, Error ellipse: s-maj=488.8km s-min=144.5km az=80.0, South of Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**36.79**	**269**	P	P	13 12 52.9	0.0
	4.0nm,0.4s,baz=102,slow=8.3,SNR=9.2						
STKA	**Stephens Creek**	**39.41**	**249**	P	P	13 13 14.4	-0.4
	0.8nm,0.5s,baz=94,slow=13,SNR=5.6						
ASAR	**Alice Springs**	**47.15**	**260**	P	P	13 14 17.4	-0.1
	0.6nm,0.4s,baz=102,slow=8.0,SNR=42						
WRA	**Warramunga Arr**	**47.65**	**265**	P	P	13 14 21.6	+0.2
	0.8nm,0.3s,baz=103,slow=7.4,SNR=47						

DJA 25 13:06:00, 0°.10S×**127°.26E, h139**^{km}**, MLv3.6**/6**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LBMI	**Labuha**	**0.59**	**156**	P	Pn	13 06 22.1	+1.5
LBMI				S	Sn	13 06 39.3	+3.1
TNTI	**Ternate**	**0.87**	**7**	P	Pn	13 06 22.4	-0.3
MNI	**Manado**	**2.87**	**302**	P	Pn	13 06 45.9	+0.7
NLAI	**Namlea**	**3.12**	**183**	P	Pn	13 06 49.0	+0.4
KMSI	**Cibinong**	**3.35**	**282**	P	Pn	13 06 52.4	+1.0
KMSI				S	Sn	13 07 34.0	+2.8
APSI	**Ampana**	**5.67**	**262**	P	Pn	13 07 23.3	+1.1
APSI				S	Sn	13 08 26.7	+0.3

ISCJB ***25*** *13:09:49.0±1.0, 13°.2N±0°.2×57°.4E±0°.2, h10*^{km}*, mb3.9/10, Error ellipse: s-maj=29.7km s-min=14.7km az=140.7*

IDC ***25*** *13:09:48.8±1.4, 13°.11N×57°.42E, h0*^{km}*, mb3.9/9, mb1 4.0/9, mb1mx3.7/28, mbtmp3.9/9, Error ellipse: s-maj=37.3km s-min=20.8km az=146.0*

NEIC ***25*** *13:09:50.3±1.0, 13°.08N×57°.41E, h10*^{km}*, mb4.3/3, Error ellipse: s-maj=28.0km s-min=14.1km az=141.0*

CSEM ***25*** *13:09:50.3, 13°.08N×57°.41E, h10*^{km}*, mb4.3/3, After NEIC*

ISC 25 13:09:50.5±1.0**, 13°.1N**±0°.2×**57°.4E**±0°.2**, h10**^{km}**, n24, σ0**^{s}**.96**/24**, mb3.9**/10**, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	**Kilima Mbogo**	**24.50**	**236**	P	**P**	**13 15 10.7**	**+0.5**
	1.3nm,0.7s,mb3.5,baz=35,slow=14,SNR=3.5						
KMBO	**Kilima Mbogo**	**24.50**	**236**	P	**P**	**13 15 10.7**	**+0.5**
GNI	**Garni**	**29.17**	**340**	P	**P**	**13 15 50.5**	**-1.5**
	3.4nm,0.6s,mb4.3,baz=156,slow=12,SNR=3.6						
GNI	**Garni**	**29.17**	**340**	*e*P	**P**	**13 15 50.8**	**-1.2**
	3.2nm,0.6s,mb4.2						
GNI	**Garni**	**29.17**	**340**	*e*P	**P**	**13 15 50.8**	**-1.2**
	3.2nm,0.6s,mb4.2						
EKS2	**Erkin-Say**	**32.69**	**23**	*e*P	**P**	**13 16 24.8**	**+1.8**
	8.3nm,0.9s,mb4.7						
EKS2	**Erkin-Say**	**32.69**	**23**	*e*P	**P**	**13 16 24.8**	**+1.8**
	8.3nm,0.9s,mb4.7						
AAK	**Ala-Archa**	**32.94**	**23**	P	**P**	**13 16 26.8**	**+1.7**
	2.5nm,0.8s,mb4.2,baz=188,slow=9.0,SNR=9.5						
AAK	**Ala-Archa**	**32.94**	**23**	P	**P**	**13 16 26.8**	**+1.6**
MK31	**Makanchi Array**	**39.56**	**27**	*e*P	**P**	**13 17 21.5**	**-0.2**
MK31	**Makanchi Array**	**39.56**	**27**	*e*P	**P**	**13 17 21.5**	**-0.2**
MKAR	**Makanchi Array**	**39.56**	**27**	P	**P**	**13 17 21.4**	**-0.3**
	0.6nm,0.6s,mb3.5,baz=215,slow=9.4,SNR=7.6						
CMAR	**Chiang Mai Arr**	**40.24**	**77**	P	**P**	**13 17 27.0**	**-0.8**
	0.8nm,0.8s,mb3.5,baz=273,slow=9.3,SNR=7.5						
CMAR	**Chiang Mai Arr**	**40.24**	**77**	P	**P**	**13 17 27.0**	**-0.8**
BVAR	**Borovoye Array**	**41.16**	**12**	P	**P**	**13 17 35.2**	**+0.3**
	0.8nm,0.8s,mb3.4,baz=163,slow=12,SNR=3.6						
BVAR	**Borovoye Array**	**41.16**	**12**	P	**P**	**13 17 35.2**	**+0.4**
KURK	**Kurchatov**	**41.30**	**20**	P	**P**	**13 17 35.3**	**-0.7**
	1.7nm,0.6s,mb3.8,baz=219,slow=7.9,SNR=6.9						
KURK	**Kurchatov**	**41.30**	**20**	P	**P**	**13 17 36.7**	**+0.6**
	3.0nm,1.0s,mb3.9						
KURK	**Kurchatov**	**41.30**	**20**	P	**P**	**13 17 36.7**	**+0.6**
	3.0nm,1.0s,mb3.9						
ZAA0	**Zalesovo Array**	**46.14**	**22**	*e*P	**P**	**13 18 14.8**	**-0.1**
ZAA0	**Zalesovo Array**	**46.14**	**22**	*e*P	**P**	**13 18 14.8**	**-0.2**
ZALV	**Zalesovo Beam**	**46.14**	**22**	P	**P**	**13 18 13.5**	**-1.5**
	2.4nm,0.7s,mb4.2,baz=225,slow=8.2,SNR=12						
TORD	**Torodi Ar. Bea**	**54.18**	**277**	P	**P**	**13 19 16.5**	**-0.1**
	0.3nm,0.7s,mb3.4,baz=92,slow=6.7,SNR=3.3						
TORD	**Torodi Ar. Bea**	**54.18**	**277**	P	**P**	**13 19 16.5**	**-0.1**

IDC 25 13:09:50.7±7.9**, 36°.61S**×**97°.37W, h0**^{km}**, mb3.5**/4**, mb1 4.0**/4**, mb1mx3.8**/15**, mbtmp3.5**/4**, Error ellipse: s-maj=298.8km s-min=36.8km az=40.0, West Chile Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLCA	**Paso Flores**	**21.30**	**109**	P	P	13 14 39.1	+0.2
	1.2nm,0.8s,baz=271,slow=15,SNR=2.8						
TXAR	**Lajitas Array**	**65.86**	**354**	P	P	13 20 38.3	+0.3
	0.3nm,0.9s,baz=172,slow=7.3,SNR=3.2						
NVAR	**Mina Array Bea**	**77.14**	**343**	P	P	13 21 46.5	+0.8
	0.5nm,0.6s,baz=160,slow=5.6,SNR=5.3						
PDAR	**Pinedale Array**	**79.78**	**351**	P	P	13 22 00.2	0.0
	0.6nm,0.5s,baz=155,slow=7.0,SNR=7.7						

NEIC ***25*** *13:14:57.7±1.4, 8°.64S×124°.09E, h58*^{km}*±15*^{km}*, mb4.1/1, Error ellipse: s-maj=35.8km s-min=9.6km az=60.0*

ISCJB ***25*** *13:14:58.3±1.7, 8°.8S±0°.1×124°.0E±0°.2, h83*^{km}*±19*^{km}*, mb3.7/4, Error ellipse: s-maj=36.4km s-min=11.0km az=149.7*

IDC ***25*** *13:14:58.4±4.8, 8°.63S×124°.10E, h63*^{km}*±43*^{km}*, mb3.7/3, mb1 4.0/6, mb1mx3.7/19, mbtmp3.8/6, ML4.1/3, Error ellipse: s-maj=78.9km s-min=24.9km az=63.0*

ISC 25 13:14:58.0±1.7**, 8°.6S**±0°.2×**124°.1E**±0°.3**, h58**^{km}±19^{km}**, n16, σ0**^{s}**.92**/22**, mb3.9**/4**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNA	**Kununurra**	**8.42**	**148**	*e*P	**Pn**	**13 16 59.2**	**+1.7**
	22nm,0.2s						
KNA				*e*S	**Sn**	**13 18 24.5**	**-6.6**
KAKA	**Kakadu**	**9.15**	**117**	*e*P	**Pn**	**13 17 10.7**	**+3.2**
	2.0nm,0.2s						
KAKA				*e*S	**Sn**	**13 18 38.5**	**-11**
FITZ	**Fitzroy Crossi**	**9.53**	**171**	*e*P	**Pn**	**13 17 11.9**	**-0.7**
	4.7nm,0.2s						
FITZ				*e*S	**Sn**	**13 18 49.3**	**-9.0**
FITZ	**Fitzroy Crossi**	**9.53**	**171**	P	**Pn**	**13 17 12.3**	**-0.3**
	1.3nm,0.3s,baz=354,slow=8.2,SNR=14						
FITZ				S	**Sn**	**13 18 49.6**	**-8.8**
	6.3nm,0.3s,baz=330,slow=11,SNR=17						
FITZ	**Fitzroy Crossi**	**9.53**	**171**	*e*P	**Pn**	**13 17 12.2**	**-0.4**
FITZ				S	**Sn**	**13 18 49.6**	**-8.8**
WRA	**Warramunga Arr**	**14.99**	**140**	P	**Pn**	**13 18 25.4**	**-1.2**
	0.6nm,0.3s,baz=317,slow=13,SNR=46						
WRA				S	**Sn**	**13 21 02.2**	**-9.4**
	1.4nm,0.3s,baz=312,slow=24,SNR=14						
WRAB	**Tennant Creek**	**14.99**	**140**	*e*P	**Pn**	**13 18 25.9**	**-0.7**
	4.9nm,0.5s						
KKM	**Kota Kinabalu**	**16.56**	**331**	*e*P	**Pn**	**13 18 46.5**	**0.0**
ASAR	**Alice Springs**	**17.66**	**149**	P	**Pn**	**13 19 00.8**	**+0.7**
	0.9nm,0.3s,baz=325,slow=12,SNR=69						
ASAR				S	**S**	**13 22 07.1**	**-14**
	0.6nm,0.3s,baz=316,slow=21,SNR=8.7						
STKA	**Stephens Creek**	**28.28**	**147**	P	**P**	**13 20 46.5**	**+0.5**
	0.5nm,0.4s,mb3.5,baz=325,slow=9.4,SNR=8.7						
MKAR	**Makanchi Array**	**66.54**	**330**	P	**P**	**13 25 42.0**	**+0.1**
	0.5nm,0.4s,mb3.9,baz=134,slow=6.9,SNR=17						
MKAR	**Makanchi Array**	**66.54**	**330**	P	**P**	**13 25 42.0**	**+0.1**
KURK	**Kurchatov**	**70.99**	**331**	*e*P	**P**	**13 26 09.3**	**-0.1**
	2.2nm,0.9s,mb4.1						
QSPA	**South Pole Qui**	**81.36**	**180**	P	**P**	**13 27 07.8**	**-0.1**
	1.7nm,1.0s,mb3.9,baz=342,slow=13,SNR=10						
QSPA	**South Pole Qui**	**81.36**	**180**	P	**P**	**13 27 07.8**	**-0.1**
TORD	**Torodi Ar. Bea**	**123.35**	**280**	PKP	PKPdf	13 33 48.7	-0.9
	0.8nm,1.2s,baz=105,slow=1.8,SNR=3.2						

SZGRF ***25*** *13:18:01.2, 32°.09N×139°.44E, h33*^{km}*, mb4.8, Southeast of Honshu, Japan*

ISCJB ***25*** *13:18:28.9±0.3, 29°.37N±0°.03×139°.25E±0°.02, h392*^{km}*±2*^{km}*, mb4.6/122, Error ellipse: s-maj=4.2km s-min=3.2km az=177.2*

JMA ***25*** *13:18:29.6±0.2, 29°.44N×139°.81E, h411*^{km}*±4*^{km}*, M4.2*

NEIC ***25*** *13:18:29.6±0.2, 29°.36N×139°.28E, mb4.6/69, Error ellipse: s-maj=6.4km s-min=4.1km az=157.0*

BJI ***25*** *13:18:29.3, 29°.29N×139°.41E, h417*^{km}*, mB4.7/27, mb4.7/54*

IDC ***25*** *13:18:29.7±0.5, 29°.31N×139°.33E, h395*^{km}*±5*^{km}*, mb4.2/35, mb1 4.2/40, mb1mx4.2/43, mbtmp4.2/40, Error ellipse: s-maj=8.5km s-min=6.7km az=95.0*

MOS ***25*** *13:18:30.0±0.9, 29°.38N×139°.22E, h409*^{km}*, mb4.8/48, Error ellipse: s-maj=8.5km s-min=5.0km az=108.4*

DJA ***25*** *13:18:31, 29°.43N×139°.37E, h422*^{km}*, mb4.7/15*

ISC 25 13:18:29.8±0.3**, 29°.38N**±0°.03×**139°.30E**±0°.02**, h389**^{km}±2^{km}**, h392**^{km}±2.6^{km}**:pP-P, n588, σ0**^{s}**.74**/623**, mb4.6**/122**, 141C-155D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**3.41**	**131**	P	**Pn**	**13 19 34.7**	**-1.0**
CBIJ				S	**S**	**13 20 26.2**	**-2.8**
CBIJ	**Chichi jima**	**3.41**	**131**	P	**Pn**	**13 19 35.2**	**-0.5**
	147nm,0.3s,baz=18,slow=2.4,SNR=35						
CBIJ				S	**S**	**13 20 26.6**	**-2.4**
	782nm,0.3s,baz=274,slow=22,SNR=38						
JHHJ	**Haha-jima-NKT**	**3.74**	**136**	P	**Pn**	**13 19 37.8**	**-0.9**
JHHJ				S	**S**	**13 20 32.7**	**-1.7**
JHJ2	**Mitsune**	**3.75**	**7**	P	**Pn**	**13 19 40.3**	**+1.7**
JHJ2				S	**S**	**13 20 34.3**	**-0.1**
JHJ	**Hachijo jima 2**	**3.75**	**6**	P	**Pn**	**13 19 40.4**	**+1.8**
	106nm,0.3s,baz=245,slow=20,SNR=8.0						
JHJ				S	**S**	**13 20 32.6**	**-1.9**
	216nm,0.3s,baz=98,slow=23,SNR=6.3						
JWZ	**Kozaga**	**5.15**	**324**	P	**Pn**	**13 19 56.0**	**+3.4**
BSO1	**Boso 1**	**5.45**	**15**	S	**S**	**13 21 03.8**	**-2.1**
JIE	**Ise**	**5.46**	**337**	P	**Pn**	**13 19 59.3**	**+3.3**
JIE				S	**S**	**13 21 08.9**	**+2.8**
JKN2	**Miekihoku**	**5.49**	**333**	P	**Pn**	**13 19 59.6**	**+3.4**
BSO3	**Boso 3**	**5.51**	**10**	P	**Pn**	**13 19 56.3**	**-0.1**
BSO3				S	**S**	**13 21 04.8**	**-2.2**
HMMJ	**Hamamatsu 2**	**5.62**	**347**	P	**Pn**	**13 20 00.8**	**+3.1**
HMMJ				S	**S**	**13 21 09.5**	**+0.2**
BSO4	**Boso 4**	**5.67**	**9**	P	**Pn**	**13 19 58.5**	**+0.4**
BSO4				S	**S**	**13 21 08.6**	**-1.5**
JOD2	**Odawara 2**	**5.87**	**358**	P	**Pn**	**13 20 01.3**	**+0.9**
JOD2				S	**S**	**13 21 13.1**	**-1.1**
JNY	**Yasuok**	**6.09**	**349**	P	**Pn**	**13 20 05.1**	**+2.4**
JAO	**Obara**	**6.12**	**344**	P	**Pn**	**13 20 06.0**	**+2.9**
JAO				S	**S**	**13 21 20.3**	**+1.1**
JHU	**Hanno**	**6.46**	**360**	P	**Pn**	**13 20 06.6**	**-0.2**
JHU				S	**S**	**13 21 20.4**	**-5.6**
JTO	**Tosashimizu**	**6.56**	**304**	P	**Pn**	**13 20 11.9**	**+3.8**
JTO				S	**S**	**13 21 33.4**	**+5.1**
JRY	**Ryogami san**	**6.63**	**357**	P	**Pn**	**13 20 09.5**	**+0.7**
JRY				S	**S**	**13 21 25.3**	**-4.3**
JYT	**Yasato**	**6.87**	**6**	P	**Pn**	**13 20 10.8**	**-0.7**
JYT				S	**S**	**13 21 31.7**	**-2.9**
JAG	**Ashikaga**	**7.03**	**1**	P	**Pn**	**13 20 12.5**	**-0.8**
JAG				S	**S**	**13 21 31.9**	**-5.9**
MJAR	**Matsushiro Arr**	**7.20**	**353**	P	**Pn**	**13 20 15.2**	**0.0**
MJAR				S	**S**	**13 21 40.3**	**-1.1**
MJAR	**Matsushiro Arr**	**7.20**	**353**	P	**Pn**	**13 20 15.2**	**0.0**
	2.5nm,0.3s,baz=168,slow=11,SNR=17						
MJAR				S	**S**	**13 21 40.3**	**-1.1**
	3.8nm,0.3s,baz=151,slow=15,SNR=8.7						
MJAR				ScP	ScP	13 29 07.7	-2.3
	0.1nm,0.3s,baz=153,slow=2.8,SNR=5.6						
MAJO	**Matsushiro**	**7.21**	**353**	*e*P	**Pn**	**13 20 08.4**	**-6.9**
MAJO				pmax	pmax		
	comp=Z,21nm,0.6s						
MAJO	**Matsushiro**	**7.21**	**353**	*e*Pn	**Pn**	**13 20 08.4**	**-6.8**
	comp=Z,21nm,0.6s						
MAT	**Matsushiro**	**7.21**	**353**	P	**Pn**	**13 20 15.5**	**+0.2**
MAT				S	**S**	**13 21 39.4**	**-2.1**
JHO	**Hitachi**	**7.29**	**8**	P	**Pn**	**13 20 15.9**	**-0.4**
JHO				S	**S**	**13 21 38.4**	**-4.9**
JHS	**Saijyo**	**7.67**	**319**	P	**Pn**	**13 20 25.2**	**+4.6**
JFK	**Kawauchi**	**8.08**	**9**	P	**Pn**	**13 20 25.3**	**+0.1**
JFK				S	**S**	**13 21 54.4**	**-5.4**
JSJ	**Shimokoshiki**	**8.58**	**288**	P	**Pn**	**13 20 35.2**	**+4.1**
JMK	**Ichinoseki**	**9.68**	**9**	P	**Pn**	**13 20 44.2**	**+0.3**
JMK				S	**S**	**13 22 29.6**	**-4.5**
JTU	**Tsushima**	**9.85**	**304**	P	**Pn**	**13 20 49.0**	**+3.1**
JOW	**Kunigami**	**10.06**	**258**	P	**Pn**	**13 20 52.2**	**+3.8**
JOW	**Kunigami**	**10.06**	**258**	P	**Pn**	**13 20 52.4**	**+3.9**
	comp=Z,12nm,0.3s,baz=104,slow=10,SNR=17						
KSRS	**Korea Array**	**12.45**	**313**	P	**P**	**13 21 16.9**	**+2.2**
	comp=Z,3.8nm,0.3s,baz=127,slow=10,SNR=92						
KSRS				S	**S**	**13 23 33.0**	**+1.9**
	baz=108,slow=19,SNR=4.4						
KSRS				ScP	ScP	13 29 14.6	-1.9
	comp=Z,0.2nm,0.3s,baz=149,slow=1.7,SNR=6.5						
ERM	**Erimo**	**12.99**	**13**	*e*P	**P**	**13 21 22.0**	**+1.4**
ERM				pmax	pmax		
	comp=Z,46nm,0.8s						
ERM	**Erimo**	**12.99**	**13**	*e*P	**P**	**13 21 22.0**	**+1.5**
	comp=Z,46nm,0.8s						
NEM2	**Nemuro 2**	**14.89**	**19**	P	**P**	**13 21 41.9**	**+0.7**
NEM2				S	**S**	**13 24 31.9**	**+12**
ASAJ	**Asahikawa**	**14.95**	**9**	P	**P**	**13 21 43.2**	**+1.4**
ASAJ				S	**S**	**13 24 27.8**	**+6.9**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	**Asahikawa**	**14.95**	**9**	P	**P**	**13 21 43.1**	**+1.3**
	comp=Z,3.2nm,0.3s,baz=221,slow=12,SNR=30						
ASAJ				S	**S**	**13 24 27.8**	**+6.9**
	comp=Z,0.2nm,0.3s,baz=12,slow=19,SNR=3.1						
JTKR	**Abashiri--Toko**	**15.02**	**13**	P	**P**	**13 21 44.0**	**+1.3**
JTKR				S	**S**	**13 24 31.7**	**+9.2**
MDJ	**Mudanjiang**	**17.05**	**336**	P	**P**	**13 22 05.3**	**+0.8**
MDJ				pmax	pmax		
	comp=Z,18nm,1.0s						
MDJ				pmax	pmax		
	comp=Z,120nm,5.2s						
MDJ	**Mudanjiang**	**17.05**	**336**	*e*P	**P**	**13 22 05.2**	**+0.7**
	comp=Z,13nm,0.8s						
YULB	**Yu-li**	**17.19**	**254**	*e*P	**P**	**13 22 06.1**	**-0.1**
	comp=Z,70nm,0.9s						
SSLB	**Suanglung**	**17.32**	**256**	*e*P	**P**	**13 22 07.8**	**+0.2**
	comp=Z,46nm,0.7s						
YSS	**Yuzh-Sakhalins**	**17.75**	**8**	*e*P	**P**	**13 22 12.0**	**+0.1**
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
NJ2	**Nanjing**	**17.78**	**284**	*e*P	**P**	**13 22 12.0**	**-0.4**
NJ2				pmax	pmax		
	comp=Z,60nm,1.1s						
TPUB	**Ta-pu**	**17.79**	**254**	*e*P	**P**	**13 22 13.8**	**+1.2**
	comp=Z,64nm,1.0s						
QZH	**Quanzhou**	**18.94**	**261**	⇑*i*P	**P**	**13 22 25.5**	**+0.8**
QZH				pmax	pmax		
	comp=Z,90nm,0.7s						
HABR	**Khabarovsk**	**19.35**	**351**	*e*P	**P**	**13 22 29.0**	**+0.4**
HABR				S	**S**	**13 25 42.9**	**-1.3**
HABR				pmax	pmax		
	comp=N,16nm,1.0s						
HABR				pmax	pmax		
	comp=E,11nm,0.9s						
HABR				pmax	pmax		
	comp=Z,22nm,0.9s						
HABR				MLR	MLR		
	comp=Z,103nm,16.0s						
TIA	**Tai'an**	**19.82**	**296**	⇑P	**P**	**13 22 32.8**	**-0.5**
TIA				pmax	pmax		
	comp=Z,38nm,1.0s						
KLR	**Kul'dur**	**20.65**	**346**	*e*P	**P**	**13 22 37.2**	**-3.4**
WHN	**Wuhan**	**21.64**	**279**	*e*P	**P**	**13 22 50.5**	**+0.6**
TGY	**Tagaytay City**	**22.79**	**232**	P	**P**	**13 23 00.9**	**+0.4**
	comp=Z,68nm,0.3s,mb5.5,baz=85,slow=15,SNR=3.3						
HIA	**Hailar**	**24.84**	**329**	*e*P	**P**	**13 23 19.1**	**+0.7**
HIA				pmax	pmax		
	comp=Z,25nm,0.8s						
HIA	**Hailar**	**24.84**	**329**	*e*P	**P**	**13 23 19.1**	**+0.7**
	comp=Z,25nm,0.8s,mb4.7						
HHC	**Hu-ho-hao-te**	**25.30**	**304**	*e*P	**P**	**13 23 23.3**	**+0.5**
HHC				sP	sP	13 25 23.5	+5.2
HHC				PcP	PcP	13 26 44.5	+0.9
HHC				S	**S**	**13 27 17.5**	**-2.1**
HHC				ScP	ScP	13 29 43.5	-1.8
HHC				PcS	PcS	13 30 23.3	-1.1
HHC				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.7						
HHC				pmax	pmax		
	comp=Z,180nm,4.1s						
XAN	**Xi'an**	**26.20**	**288**	P	**P**	**13 23 30.8**	**-0.1**
XAN				PP	PP	13 24 40.8	+0.9
XAN				sP	sP	13 25 28.0	+1.4
XAN				S	**S**	**13 27 35.3**	**+1.4**
XAN				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.7						
XAN				pmax	pmax		
	comp=Z,53nm,4.2s						
PETK	**Petropavlovsk-**	**27.29**	**25**	P	**P**	**13 23 41.4**	**+1.2**
	comp=Z,7.0nm,0.7s,mb4.2,baz=166,slow=4.2,SNR=13						
PETK				ScP	ScP	13 29 48.6	-2.3
	comp=Z,3.6nm,0.8s,baz=193,slow=5.6,SNR=3.2						
GYA	**Guiyang**	**28.93**	**272**	P	**P**	**13 23 55.3**	**+0.3**
GYA				pP		13 25 08.8	
GYA				PcP	PcP	13 26 52.8	+0.1
GYA				S	**S**	**13 28 16.8**	**0.0**
GYA				ScP	ScP	13 29 57.0	+0.4
GYA				PcS	PcS	13 30 35.5	-0.5
GYA				ScS	ScS	13 33 50.0	-1.4
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.2						
LZH	**Lanzhou**	**30.45**	**292**	*e*P	**P**	**13 24 08.0**	**-0.1**
LZH				pP	pP	13 25 22.0	+2.5
LZH				pmax	pmax		
	comp=Z,46nm,1.0s,mb4.8						
LZH				pmax	pmax		
	comp=Z,180nm,4.0s						
CD2	**Chengdu**	**30.70**	**282**	P	**P**	**13 24 10.3**	**-0.1**
CD2				pP	pP	13 25 24.0	+2.2
CD2				PP	PP	13 25 35.0	+5.3
CD2				sP	sP	13 26 09.5	+2.5
CD2				S	**S**	**13 28 44.0**	**-0.2**
CD2				sS	sS	13 30 56.8	+1.3
CD2				SS	SS	13 31 11.3	-4.5
CD2				pmax	pmax		
	comp=Z,140nm,0.6s,mb5.5						
CD2				pmax	pmax		
	comp=Z,400nm,5.9s						
ULN	**Ulaanbaatar**	**30.92**	**316**	*e*P	**P**	**13 24 12.8**	**+0.7**
ULN				*e*		13 26 57.3	
ULN				pmax	pmax		
	comp=Z,48nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**30.92**	**316**	*e*P	**P**	**13 24 12.8**	**+0.7**
	comp=Z,48nm,1.0s,mb4.8						
ULN				*e*PcP	PcP	13 26 57.3	-0.2
ULN	**Ulaanbaatar**	**30.92**	**316**	P	**P**	**13 24 13.1**	**+1.1**
	SNR=11						
ULN				P		13 24 13.1	
	SNR=11						
SONM	**Songino Array**	**31.31**	**315**	P	**P**	**13 24 16.0**	**+0.6**
SONM						13 26 58.1	
SONM	**Songino Array**	**31.31**	**315**	P	**P**	**13 24 16.0**	**+0.5**
	comp=Z,15nm,0.7s,mb4.5,baz=125,slow=8.4,SNR=113						
SONM				PcP	PcP	13 26 58.1	-0.4
	comp=Z,2.9nm,0.7s,baz=131,slow=3.4,SNR=5.5						
SONM				ScP	ScP	13 30 00.4	-3.6
	comp=Z,1.2nm,0.8s,baz=137,slow=2.3,SNR=5.0						
KMI	**Kunming**	**32.69**	**271**	P	**P**	**13 24 28.5**	**+0.8**
KMI				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.4						
YAK	**Yakutsk**	**33.27**	**352**	*i*P	**P**	**13 24 32.4**	**+0.3**
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.0						
BOD	**Bodaibo**	**33.43**	**335**	⇑*i*P	**P**	**13 24 33.3**	**-0.2**
BOD				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.0						
GTA	**Gaotai**	**33.85**	**298**	⇓P	**P**	**13 24 37.5**	**+0.1**
GTA				pP	pP	13 25 53.3	+3.5
GTA				sP	sP	13 26 37.0	+2.2
GTA				PcP	PcP	13 27 05.0	-0.9
GTA				S	**S**	**13 29 40.8**	**+8.3**
GTA				ScP	ScP	13 30 11.3	-1.7
GTA				sS	sS	13 31 50.3	+5.4
GTA				pmax	pmax		
	comp=Z,45nm,0.9s,mb4.8						
GTA				pmax	pmax		
	comp=Z,210nm,5.7s						
FX1	**Attu Island--F**	**34.16**	**37**	P	**P**	**13 24 40.9**	**+1.0**
	comp=Z,43nm,0.7s,mb4.9,baz=112,slow=3.7,SNR=6.4						
ZAK	**Zakamensk**	**34.22**	**318**	⇑*i*P	**P**	**13 24 40.4**	**0.0**
ZAK				pmax	pmax		
	comp=Z,35nm,1.1s,mb4.6						
IRK	**Irkutsk**	**34.48**	**321**	*e*P	**P**	**13 24 42.6**	**+0.1**
IRK				pmax	pmax		
	comp=Z,51nm,0.7s,mb5.0						
TLY	**Talaya**	**34.57**	**320**	*e*P	**P**	**13 24 44.4**	**+1.1**
TLY				pmax	pmax		
	comp=Z,32nm,0.7s,mb4.8						
TLY	**Talaya**	**34.57**	**320**	*e*P	**P**	**13 24 44.4**	**+1.1**
	comp=Z,32nm,0.7s,mb4.8						
TLY	**Talaya**	**34.57**	**320**	P	**P**	**13 24 44.6**	**+1.3**
	SNR=11						
TLY				P		13 24 44.6	
	SNR=11						
SEY	**Seymchan**	**34.62**	**11**	⇑*e*P	**P**	**13 24 43.9**	**+0.3**
MOY	**Mondy**	**36.06**	**319**	*e*P	**P**	**13 24 56.3**	**+0.4**
CHTO	**Chiang Mai**	**38.14**	**263**	*e*P	**P**	**13 25 13.8**	**+0.2**
CHTO				pmax	pmax		
	comp=Z,45nm,1.2s,mb4.7						
CHTO	**Chiang Mai**	**38.14**	**263**	*e*P	**P**	**13 25 13.8**	**+0.2**
	comp=Z,45nm,1.2s,mb4.7						
CHTO	**Chiang Mai**	**38.14**	**263**	P	**P**	**13 25 13.7**	**+0.1**
	SNR=13						
CHTO				P		13 25 13.7	
	SNR=13						
CMAR	**Chiang Mai Arr**	**38.29**	**263**	P	**P**	**13 25 15.2**	**+0.4**
CMAR						13 27 19.7	
CMAR	**Chiang Mai Arr**	**38.29**	**263**	P	**P**	**13 25 15.2**	**+0.4**
	comp=Z,5.1nm,0.8s,mb3.9,baz=56,slow=7.3,SNR=50						
CMAR				PcP	PcP	13 27 19.7	+0.1
	comp=Z,1.7nm,0.6s,baz=53,slow=1.5,SNR=8.7						
CMAR				ScP	ScP	13 30 26.4	-3.3
	comp=Z,0.3nm,0.3s,baz=16,slow=2.2,SNR=4.7						
ADK	**Adak**	**39.46**	**43**	*e*P	**P**	**13 25 23.7**	**-0.3**
LSA	**Lhasa**	**41.65**	**283**	P	**P**	**13 25 43.0**	**+1.0**
LSA	**Lhasa**	**41.65**	**283**	*e*P	**P**	**13 25 43.6**	**+1.6**
LSA				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.3						
LSA	**Lhasa**	**41.65**	**283**	*e*P	**P**	**13 25 43.6**	**+1.6**

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           comp=Z,9.4nm,0.6s,mb4.3
BILL  Bilibino          41.86  15 eP        P         13 25 42.9 -0.2
BILL                               pmax     pmax
           comp=Z,21nm,0.8s,mb4.5
BILL  Bilibino          41.86  15 eP        P         13 25 42.8 -0.3
           comp=Z,19nm,0.8s,mb4.5
TIXI  Tiksi             42.71 355⇑eP        P         13 25 49.1 -0.7
TIXI                               pmax     pmax
           comp=Z,3.0nm,1.0s,mb3.6
WMQ   Urumqi            43.19 304⇓iP        P         13 25 54.5 +0.5
WMQ                                pP       pP        13 27 10.0 +0.1
WMQ                                PcP      PcP       13 27 37.0 +1.7
WMQ                               eS        S         13 31 50.0 -0.8
WMQ                                pmax     pmax
           comp=Z,34nm,0.9s,mb4.7
TAPN  Taplejung         45.14 280 eP        P         13 26 10.3 +0.8
           comp=Z,44nm,0.4s,mb5.1
ODAN  Odare             45.54 280 eP        P         13 26 13.2 +0.5
           comp=Z,90nm,0.6s,mb5.3
ZAA0  Zalesovo Array    46.10 318 eP        P         13 26 15.7 -0.8
ZALV  Zalesovo Beam     46.10 318  P        P         13 26 15.9 -0.6
ZALV                                                  13 27 43.9
ZALV                               S        S         13 32 29.7 -2.3
ZALV  Zalesovo Beam     46.10 318  P        P         13 26 15.9 -0.6
           comp=Z,15nm,0.3s,mb4.8,baz=92,slow=7.5,SNR=130
ZALV                               PcP      PcP       13 27 43.9 -1.4
           comp=Z,5.0nm,0.5s,baz=99,slow=4.7,SNR=7.3
ZALV                               ScP      ScP       13 30 56.7 -3.8
           comp=Z,5.6nm,0.7s,baz=109,slow=4.1,SNR=14
ZALV                               S        S         13 32 29.7 -2.3
           comp=Z,0.6nm,0.6s,baz=108,slow=18,SNR=3.3
ZALV  Zalesovo Beam     46.10 318  P        P         13 26 15.9 -0.6
ZALV                               PcP      PcP       13 27 43.9 -1.4
ZALV                               ScP      ScP       13 30 56.7 -3.9
ZALV                               S        S         13 32 29.7 -2.3
RAMN  Ramite            46.20 280 eP        P         13 26 18.3 +0.6
           comp=Z,109nm,0.7s,mb5.3
JIRN  Jiri              46.36 281 eP        P         13 26 20.2 +1.2
PSI   Prapat            46.54 243  P        P         13 26 20.1 -0.3
           comp=Z,4.4nm,0.4s,mb4.1,baz=158,slow=1.1,SNR=5.4
PSI                                PcP      PcP       13 27 46.5 -1.0
           comp=Z,2.6nm,0.5s,baz=347,slow=2.4,SNR=4.2
GUN   Gumba             46.56 282 eP        P         13 26 21.7 +1.2
           comp=Z,188nm,0.8s,mb5.5
PKI   Pulchoki          47.05 282 eP        P         13 26 24.6 +0.4
PKIN  Phulchoki         47.06 282 eP        P         13 26 24.6 +0.3
           comp=Z,37nm,0.7s,mb4.8
MK31  Makanchi Array    47.07 308 i P       P         13 26 23.8 -0.2
MK31                               pmax     pmax
           comp=Z,14nm,0.5s,mb4.5
MKAR  Makanchi Array    47.07 308  P        P         13 26 23.9 -0.1
MKAR                                                  13 27 48.1
MKAR  Makanchi Array    47.07 308  P        P         13 26 23.9 -0.2
           comp=Z,22nm,0.6s,mb4.7,baz=92,slow=8.9,SNR=252
MKAR                               PcP      PcP       13 27 48.1 -0.7
           comp=Z,4.0nm,0.6s,baz=66,slow=5.4,SNR=7.2
MKAR                               ScP      ScP       13 31 01.8 -3.0
           comp=Z,1.4nm,0.8s,baz=90,slow=3.5,SNR=3.9
KKN   Kakani            47.10 282 eP        P         13 26 25.3 +0.7
           comp=Z,68nm,0.7s,mb5.1
KKN   Kakani            47.10 282 eP        P         13 26 25.3 +0.7
KKN                                pmax     pmax
           comp=Z,68nm,0.7s,mb5.1
NVS   Novosibirsk       47.16 319⇓iP        P         13 26 24.2 -0.4
NVS                               e                   13 27 47.6
NVS                                pmax     pmax
           comp=Z,61nm,1.4s,mb4.7
NVS                                pmax     pmax
           comp=E,49nm,1.3s
DMN   Daman             47.30 282 eP        P         13 26 26.7 +0.6
           comp=E,55nm,0.7s,mb5.0
GKN   Gorkha            47.60 282 eP        P         13 26 28.9 +0.5
           comp=E,123nm,1.1s,mb5.2
DANN  Dangsing          48.25 283 eP        P         13 26 34.4 +1.1
           comp=E,128nm,0.6s,mb5.4
KOLN  Koldanda          48.54 282 eP        P         13 26 36.2 +0.7
           comp=E,148nm,0.9s,mb5.3
FITZ  Fitzroy Crossi    49.01 197 eP        P         13 26 38.9 -0.1
           comp=E,7.5nm,0.6s,mb4.2
FITZ  Fitzroy Crossi    49.01 197  P        P         13 26 37.7 -1.2
           comp=E,3.9nm,0.6s,mb3.9,baz=358,slow=6.8,SNR=8.6
WRAB  Tennant Creek     49.25 186 eP        P         13 26 40.1 -0.7
WRA   Warramunga Arr    49.26 186  P        P         13 26 39.9 -1.0
WRA                                         pP        13 27 56.7 -2.6
WRA   Warramunga Arr    49.26 186  P        P         13 26 39.9 -1.0
           comp=E,11nm,0.5s,mb4.5,baz=3.6,slow=7.9,SNR=87
WRA                                PcP      PcP       13 27 56.7 -0.4
           comp=E,1.6nm,0.5s,baz=360,slow=3.9,SNR=7.3
WRA                                ScP      ScP       13 31 11.4 -3.0
           comp=E,2.5nm,0.8s,baz=360,slow=4.5,SNR=27
KURK  Kurchatov         49.57 313  P        P         13 26 42.7 -0.2
KURK                               pmax     pmax
           comp=Z,45nm,0.6s,mb5.0
KURK  Kurchatov         49.57 313  P        P         13 26 42.7 -0.2
           comp=Z,45nm,0.6s,mb5.0,baz=91,slow=7.7,SNR=52
KURK  Kurchatov         49.57 313 eP        P         13 26 42.4 -0.4
           comp=Z,38nm,0.6s,mb4.9
KURK  Kurchatov         49.57 313  P        P         13 26 42.8 -0.1
           SNR=18
KURK                               P                  13 26 42.8
           SNR=18
ULHL  Ulahol            51.64 302  P        P         13 26 59.0 +0.7
           SNR=7.7
TKM2  Tokmak 2          52.03 303  P        P         13 27 02.0 +0.9
           SNR=27
KSH   Kashi             52.24 299⇓iP        P         13 27 06.5 +3.8
KSH                               epP       pP        13 28 25.0 +2.9
KSH                               ePP       PP        13 29 10.0 +4.3
KSH                               eS        S         13 33 59.0 +2.0
KSH                               eSS       SS        13 37 43.0 +2.5
KSH                                pmax     pmax
           comp=Z,35nm,0.6s,mb4.8
KSH                                pmax     pmax
           comp=Z,180nm,4.2s
KZA   Kyzart            52.40 302  P        P         13 27 05.4 +1.6
           SNR=33
KBK   Karagaybulak      52.54 303  P        P         13 27 05.5 +0.7
           SNR=36
CHMS  Chumysh           52.64 304  P        P         13 27 05.8 +0.3
           SNR=5.8
SVW2  Sparrevohn        52.77  34 eP        P         13 27 06.2  0.0
USP   Ospenovka         52.79 304  P        P         13 27 06.7 +0.1
           SNR=18
AAK   Ala-Archa         52.87 303d iP       P         13 27 07.4 +0.2
AAK                                pmax     pmax
           comp=Z,9.0nm,0.8s,mb4.0
AAK   Ala-Archa         52.87 303  P        P         13 27 07.6 +0.4
           SNR=25
AAK   Ala-Archa         52.87 303  P        P         13 27 07.3 +0.1
           comp=Z,12nm,0.4s,mb4.5,baz=110,slow=5.7,SNR=59
AAK   Ala-Archa         52.87 303 eP        P         13 27 07.5 +0.3
           comp=Z,16nm,0.5s,mb4.5
UCH   Uchtor            52.92 303  P        P         13 27 08.9 +1.4
           SNR=36
ASAR  Alice Springs     52.99 186  P        P         13 27 07.4 -0.8
           comp=Z,3.8nm,0.6s,mb3.8,baz=16,slow=12,SNR=60
ASAR                               S        S         13 34 02.8 -4.5
           comp=Z,0.4nm,1.0s,baz=17,slow=14,SNR=3.8
EKS2  Erkin-Say         53.39 303  P        P         13 27 11.3 +0.3
           SNR=17
AML   Almayashu         53.53 303  P        P         13 27 13.3 +1.4
           SNR=72
MBWA  Marble Bar        53.66 203 eP        P         13 27 12.7 -0.4
NDI   New Delhi         53.69 286 ex        x         13 27 12.0
KDAK  Kodiak Island     54.10  38  P        P         13 27 15.7  0.0
KDAK                               pmax     pmax
           comp=Z,26nm,0.6s,mb4.6
KDAK  Kodiak Island     54.10  38  P        P         13 27 15.7  0.0
           comp=Z,26nm,0.6s,mb4.6,baz=102,slow=4.4,SNR=26
KDAK  Kodiak Island     54.10  38 eP        P         13 27 15.2 -0.6
           comp=Z,27nm,0.7s,mb4.6
RSO   Redoubt South     54.11  35 eP        P         13 27 15.9 +0.2
VOSK  Vostochnaya       54.30 316  P        P         13 27 16.5 -0.8
VOSK                               pmax     pmax
           comp=Z,35nm,0.9s,mb4.6
BVAR  Borovoye Array    54.64 316  P        P         13 27 19.6 -0.1
BVAR                                                  13 28 16.5
BVAR                               S        S         13 34 25.0 -3.7
BVAR  Borovoye Array    54.64 316  P        P         13 27 19.6 -0.1
           comp=Z,37nm,0.5s,mb4.9,baz=95,slow=7.4,SNR=264
BVAR                               PcP      PcP       13 28 16.5 -0.5
           comp=Z,8.1nm,0.7s,baz=96,slow=4.6,SNR=7.9
BVAR                               ScP      ScP       13 31 33.8 -3.6
           comp=Z,2.6nm,0.7s,baz=96,slow=6.0,SNR=7.9
BVAR                               S        S         13 34 25.0 -3.6
           comp=Z,1.1nm,0.8s,baz=84,slow=14,SNR=4.7
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BRVK  Borovoye          54.70 316 eP        P         13 27 19.9 -0.2
BRVK                               pmax     pmax
           comp=Z,34nm,0.7s,mb4.7
BRVK  Borovoye          54.70 316 eP        P         13 27 19.9 -0.2
           comp=Z,34nm,0.7s,mb4.7
BRVK  Borovoye          54.70 316  P        P         13 27 20.3 +0.2
           SNR=11
BRVK                               P                  13 27 20.3
           SNR=11
KK31  Karatay Array     55.69 304 i P       P         13 27 27.2 -0.1
KK31                               pmax     pmax
           comp=Z,38nm,0.4s,mb5.1
HYB   Hyderabad         56.47 272 i P       P         13 27 31.5 -1.6
HYB   Hyderabad         56.47 272 eP        P         13 27 32.0 -1.1
COLA  College           56.55  29 eP        P         13 27 32.7 -0.2
MENT  Mentasta          58.41  32 eP        P         13 27 45.8 +0.1
SVE   Sverdlovsk        59.87 321⇑eP        P         13 27 55.6 -0.1
SVE                                pmax     pmax
           comp=Z,28nm,0.7s,mb4.8
POO   Poona             60.12 276 ex        P         13 27 55.0 -3.0
DAWY  Dawson            60.24  30 eP        P         13 27 58.0 -0.1
FORT  Forrest           60.77 191 eP        P         13 28 01.6 -0.4
           comp=Z,35nm,0.6s,mb5.0
STKA  Stephens Creek    60.95 178 eP        P         13 28 02.8 -0.4
           comp=Z,4.0nm,0.8s,mb3.9
STKA  Stephens Creek    60.95 178  P        P         13 28 02.4 -0.8
           comp=Z,5.8nm,0.9s,mb4.0,baz=5.7,slow=7.1,SNR=8.1
ARU   Arti              61.06 321d iP       P         13 28 03.0 -0.7
ARU                               e                   13 30 21.4
ARU                                S        S         13 35 49.1 -1.9
ARU                                SS       SS        13 39 53.7 -4.4
ARU                                pmax     pmax
           comp=Z,53nm,1.0s,mb4.9
AB31  Akbulak array     61.68 313  P        P         13 28 07.2 -0.7
AB31                               pmax     pmax
           comp=Z,25nm,0.5s,mb5.0
INK   Inuvik            62.03  25 eP        P         13 28 09.1 -0.8
INK                                pmax     pmax
           comp=Z,5.0nm,0.7s
INK   Inuvik            62.03  25  P        P         13 28 09.1 -0.8
           comp=Z,4.9nm,0.4s,mb4.4,baz=287,slow=6.1,SNR=40
INK   Inuvik            62.03  25 eP        P         13 28 09.1 -0.8
           comp=Z,5.2nm,0.7s,mb4.2
MORW  Morawa            62.22 203 eP        P         13 28 11.2 -0.4
           comp=Z,11nm,1.1s,mb4.3
SKAG  Skagway           62.90  35 eP        P         13 28 16.1 +0.3
           comp=Z,8.7nm,0.7s,mb4.4
NWAO  Narrogin (SRO)    65.40 200 eP        P         13 28 31.9 -0.1
           comp=Z,102nm,0.6s,mb5.6
NWAO  Narrogin (SRO)    65.40 200  P        P         13 28 31.8 -0.3
           comp=Z,14nm,0.6s,mb4.8,baz=18,slow=5.7,SNR=20
NWAO  Narrogin (SRO)    65.40 200  P        P         13 28 31.8 -0.3
DLBC  Dease Lake        65.82  35  P        P         13 28 34.6 +0.2
           comp=Z,6.4nm,0.9s,mb4.2,baz=290,slow=8.5,SNR=11
PRGR  Permogore         66.29 329⇓iP        P         13 28 35.8 -1.5
PRGR                               pmax     pmax
           comp=Z,27nm,0.7s,mb5.0
SPITS Spitsbergen Ar    67.68 349  P        P         13 28 46.4 +0.6
           comp=Z,9.4nm,0.8s,mb4.5,baz=100,slow=6.5,SNR=8.4
KLMR  Klimovskoe        69.33 329⇓iP        P         13 28 55.4 -0.7
KLMR                               pmax     pmax
           comp=Z,15nm,1.0s,mb4.6
KEV   Kevo              69.98 340 eP        P         13 28 58.2 -1.7
KEV                                pmax     pmax
           comp=Z,8.0nm,0.6s,mb4.4
KEV   Kevo              69.98 340 ep        P         13 28 58.2 -1.7
           comp=Z,7.9nm,0.6s,mb4.4
RES   Resolute Bay      70.44  13  P        P         13 29 02.0 -0.6
RES                                *PP      pP        13 30 28.6 +0.8
RES                                pmax     pmax
           comp=Z,7.0nm,0.7s,mb4.3
RES                                pmax     pmax
           comp=Z,1.0nm,0.7s,mb3.5
RES   Resolute Bay      70.44  13  P        P         13 29 02.0 -0.5
           comp=Z,6.6nm,0.7s,mb4.3,baz=332,slow=5.1,SNR=41
RES                                pP       pP        13 30 28.6 +0.8
           comp=Z,1.4nm,0.7s,baz=306,slow=4.4,SNR=4.5
RES   Resolute Bay      70.44  13 eP        P         13 29 02.2 -0.4
           comp=Z,6.9nm,0.7s,mb4.3
ARCES ARCESS Array B    70.55 340  P        P         13 29 03.1 -0.1
           comp=Z,7.3nm,0.4s,mb4.5,baz=79,slow=8.7,SNR=76
YKA   Yellowknife Ar    71.34  28  P        P         13 29 07.2 -0.9
           comp=Z,5.3nm,0.6s,mb4.2,baz=296,slow=6.0,SNR=122
JOF   Joensuu           71.91 333 ep        P         13 29 09.4 -2.0
           comp=Z,25nm,0.6s,mb4.9
HOQ   Hoqain            72.19 287  P        P         13 29 14.1 +0.3
           SNR=5.8
VRHR  Novokhopersk      72.22 319 eP        P         13 29 12.4 -1.1
VRHR                               pmax     pmax
           comp=Z,30nm,0.7s,mb4.9
VRHR                               pmax     pmax
           comp=N,9.0nm,0.4s
MOS   Moscow            72.39 324 eP        P         13 29 11.8 -2.6
MOS                                pmax     pmax
           comp=Z,62nm,1.1s,mb5.0
HATD  Hatta, Dubai      72.65 289  P        P         13 29 16.9 +0.4
           SNR=5.2
ARQ   Araqi             72.95 287  P        P         13 29 18.6 +0.3
           SNR=7.9
OBN   Obninsk           73.20 324 eP        P         13 29 18.8 -0.3
OBN                                pmax     pmax
           comp=Z,50nm,1.5s,mb4.8
VSR   Storozhevoye      73.57 320 eP        P         13 29 20.6 -0.7
VSR                                pmax     pmax
           comp=N,10.0nm,1.0s
VSR                                pmax     pmax
           comp=E,30nm,1.0s
VSR                                pmax     pmax
           comp=Z,60nm,1.0s,mb5.2
A06A  Chilliwack        73.99  42 ⇓P        P         13 29 24.0 +0.2
           baz=74
KAF   Kangasniemi       74.31 333 eP        P         13 29 23.1 -2.2
KAF                                pmax     pmax
           comp=Z,14nm,0.5s,mb4.8
KAF   Kangasniemi       74.31 333 ep        P         13 29 23.1 -2.2
           comp=Z,14nm,0.5s,mb4.8
KIV   Kislovodsk        74.63 312 eP        P         13 29 27.7 +0.2
KIV                                pmax     pmax
           comp=Z,30nm,1.0s,mb4.9
KIV   Kislovodsk        74.63 312 eP        P         13 29 27.7 +0.2
           comp=Z,30nm,1.0s,mb4.9
KIV   Kislovodsk        74.63 312  P        P         13 29 28.4 +0.8
           SNR=5.8
KIV                                P                  13 29 28.4
           SNR=5.8
A07A  Ashnola River,    74.65  42 ⇑P        P         13 29 26.9 -0.7
           baz=74,SNR=5.5
TDL   Tradedollar La    74.77  45  P        P         13 29 29.1 +0.9
FINES FINESS Array B    74.77 333  P        P         13 29 27.2 -0.7
           comp=Z,10nm,0.4s,mb4.8,baz=72,slow=5.4,SNR=63
F04A  Amboy             74.83  46 ⇑P        P         13 29 28.4 -0.2
           baz=75
C06A  Tall Timber Ra    74.86  43 ⇓P        P         13 29 28.8 +0.1
           baz=75
GNI   Garni             74.91 308d iP       P         13 29 29.9 +0.7
GNI                                pmax     pmax
           comp=Z,31nm,1.4s
GNI   Garni             74.91 308  P        P         13 29 29.7 +0.5
           comp=Z,5.4nm,0.6s,mb4.4,baz=352,slow=6.7,SNR=9.8
GNI   Garni             74.91 308 eP        P         13 29 30.1 +0.9
           comp=Z,19nm,1.0s,mb4.7
B07A  Winthrop          75.08  43 ⇑P        P         13 29 29.6 -0.4
           baz=75,SNR=6.0
NLW   Nelson Butte      75.12  43  P        P         13 29 30.7 +0.4
D06A  Cle Elum          75.22  44 ⇑P        P         13 29 30.7 -0.2
           baz=75
ETW   Entiat            75.35  43  P        P         13 29 31.9 +0.4
TBM   Table Mountain    75.39  44  P        P         13 29 32.1 +0.4
E06A  Yakima            75.44  45 ⇓P        P         13 29 32.2 +0.2
           baz=75
C07A  Waterville        75.47  43 ⇓P        P         13 29 31.5 -0.7
           baz=75,SNR=9.5
H04A  Detroit Lake      75.53  47 ⇓P        P         13 29 32.3 -0.3
           baz=75
B08A  Colville Reser    75.59  42 ⇑P        P         13 29 32.6 -0.3
           baz=75,SNR=5.9
A09A  Danville          75.74  42 ⇓P        P         13 29 33.7 +0.1
           baz=76,SNR=11
D07A  Quincy            75.75  44 ⇑P        P         13 29 33.9 +0.1
           baz=76
F06A  Goldendale        75.92  45 ⇑P        P         13 29 34.9 +0.2
           baz=76
C08A  Higginbotham F    76.03  43 ⇑P        P         13 29 35.0 -0.3
           baz=76,SNR=9.3
E07A  Sunnyside         76.12  44 ⇑P        P         13 29 35.7 -0.2
           baz=76,SNR=5.3
MDW   Midway            76.15  44  P        P         13 29 36.6 +0.6
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B09A  Rice              76.25  42 ⇓P        P         13 29 36.4 -0.2
           baz=76,SNR=8.8
G06A  Carlson Farm,     76.26  46 ⇑P        P         13 29 36.7  0.0
           baz=76
A10A  Northport         76.33  41 ⇓P        P         13 29 37.0 +0.1
           baz=76,SNR=13
F07A  Phinny Hill Vi    76.39  45 ⇑P        P         13 29 37.5 +0.2
           baz=76
D08A  Wollman Farm,     76.45  44 ⇓P        P         13 29 37.6 -0.1
           baz=76,SNR=11
C09A  Chrisman Ranch    76.48  43 ⇓P        P         13 29 37.6 -0.2
           baz=76,SNR=9.3
YBH   Yreka Blue Hor    76.54  50  P        P         13 29 38.5 +0.3
           comp=Z,4.7nm,0.7s,mb4.2,baz=292,slow=4.2,SNR=13
E08A  Dider Farm, El    76.64  44 ⇑P        P         13 29 38.9 +0.2
           baz=76
H06A  Lindquist Farm    76.68  46 ⇑P        P         13 29 39.1  0.0
           baz=76
D09A  Jones Farm, Ri    76.81  43 ⇑P        P         13 29 39.6 -0.1
           baz=77
G07A  Ruggs Ranch, H    76.85  45 ⇑P        P         13 29 39.8 -0.1
           baz=77
A11A  Hall Mountain,    77.03  41 ⇓P        P         13 29 41.2 +0.4
           baz=77,SNR=8.9
C10A  Spilker Farm,     77.04  42 ⇑P        P         13 29 41.2 +0.3
           baz=77
I06A  Prineville        77.13  47 ⇓P        P         13 29 41.6  0.0
           baz=77,SNR=7.5
F08A  Pendleton         77.14  45 ⇑P        P         13 29 42.1 +0.5
           baz=77,SNR=13
E09A  Wood Farm, Sta    77.18  44 ⇓P        P         13 29 41.8  0.0
           baz=77
K05A  Summer Lake       77.27  48 ⇑P        P         13 29 42.6 +0.3
           baz=77
G08A  Pilot Rock        77.28  45 ⇓P        P         13 29 42.2 -0.1
           baz=77,SNR=6.0
B11A  Sandpoint         77.28  41 ⇑P        P         13 29 42.3 +0.1
           baz=77,SNR=10.0
D10A  Wagner Farm, O    77.44  43 ⇑P        P         13 29 42.5 -0.6
           baz=77
A12A  Yaak River Ran    77.44  41 ⇓P        P         13 29 43.5 +0.4
           baz=77,SNR=6.3
J06A  Christmas Vall    77.50  47 ⇓P        P         13 29 43.6  0.0
           baz=77
I07A  Izee              77.52  46 ⇑P        P         13 29 43.6  0.0
           baz=77,SNR=5.8
B12A  Libby             77.71  41 ⇑P        P         13 29 45.0 +0.4
           baz=78
E10A  Myers Farm, Un    77.82  43 ⇓P        P         13 29 45.1 -0.1
           baz=78
H08A  Prairie City      77.83  46 ⇑P        P         13 29 45.6 +0.3
           baz=78,SNR=14
LBCM  Butte Creek Ri    77.86  50  P        P         13 29 46.0 +0.4
J07A  Hines             77.98  47 ⇓P        P         13 29 46.7 +0.5
           baz=78,SNR=20
D11A  Klaveano Farm,    78.00  43 ⇑P        P         13 29 46.1 -0.1
           baz=78
F10A  Beach Ranch, E    78.00  44 ⇑P        P         13 29 46.4 +0.1
           baz=78
G09A  Cove              78.01  45 ⇓P        P         13 29 46.5 +0.3
           baz=78,SNR=14
A13A  Flathead Natio    78.14  40 ⇑P        P         13 29 47.2 +0.3
           baz=78
C12B  Naegeli Ranch,    78.17  42 ⇓P        P         13 29 47.0 -0.1
           baz=78
I08A  Drewsey           78.19  46 ⇑P        P         13 29 47.7 +0.4
           baz=78,SNR=11
K07A  Rock Creek Ran    78.35  48 ⇓P        P         13 29 48.3 +0.1
           baz=78,SNR=8.5
WALA  Waterton Lakes    78.36  40 eP        P         13 29 48.2  0.0
           comp=Z,0.2nm,0.7s
H09A  Durkee            78.38  45 ⇓P        P         13 29 48.6 +0.3
           baz=78
B13A  Whitefish         78.40  41 ⇓P        P         13 29 48.6 +0.3
           baz=78,SNR=7.7
G10A  Bishop Farm, J    78.40  44 ⇑P        P         13 29 48.4  0.0
           baz=78,SNR=20
E11A  Bogner Ranch,     78.42  43 ⇓P        P         13 29 48.3 -0.2
           baz=78
BSMT  Bassoo Peak       78.49  41 eP        P         13 29 49.1 +0.2
           comp=Z,4.3nm,0.7s,mb4.2
BMO   Blue Mountains    78.51  45 eP        P         13 29 49.0  0.0
BMO                                pmax     pmax
           comp=Z,8.0nm,0.7s,mb4.5
BMO   Blue Mountains    78.51  45 eP        P         13 29 49.0  0.0
           comp=Z,8.0nm,0.7s,mb4.5
J08A  Circle Bar Ran    78.52  47 ⇓P        P         13 29 49.2 +0.1
           baz=78,SNR=10
L07A  Adell             78.62  48 ⇓P        P         13 29 50.2 +0.5
           baz=78,SNR=16
I09A  Lost Marbles R    78.68  46 ⇑P        P         13 29 50.1 +0.1
           baz=78,SNR=5.9
A14A  Double T Ranch    78.68  40 ⇑P        P         13 29 49.9  0.0
           baz=78,SNR=5.4
F11A  Grangeville       78.69  44 ⇓P        P         13 29 50.0  0.0
           baz=78
C13A  Hot Springs       78.70  41 ⇑P        P         13 29 50.0  0.0
           baz=78,SNR=11
K08A  Mann Creek Ran    78.82  47 ⇓P        P         13 29 51.0 +0.2
           baz=79,SNR=13
JTMT  Jette             78.84  41 eP        P         13 29 50.8  0.0
           comp=Z,6.3nm,0.8s,mb4.3
N06A  Buffalo Meadow    78.91  49 ⇓P        P         13 29 51.3  0.0
           baz=79
J09A  Fry Pan Ranch,    78.98  46 ⇓P        P         13 29 51.7 +0.1
           baz=79,SNR=8.2
M07A  Soldier Meadow    79.04  49 ⇓P        P         13 29 52.0 +0.1
           baz=79,SNR=5.9
A15A  Johnson Ranch,    79.06  40 ⇓P        P         13 29 51.6 -0.3
           baz=79,SNR=8.2
SWMT  Swartz Lake       79.12  41 eP        P         13 29 52.0 -0.2
           comp=Z,5.9nm,0.9s,mb4.2
L08A  Fields            79.18  48 ⇑P        P         13 29 52.9 +0.2
           baz=79,SNR=20
AKASG Malin Array Be    79.27 323  P        P         13 29 51.7 -1.3
           comp=Z,9.3nm,0.5s,mb4.6,baz=51,slow=5.4,SNR=34
AKASG Malin Array Be    79.27 323  P        P         13 29 51.7 -1.3
KIEV  Kiev              79.28 323 eP        P         13 29 52.1 -0.9
KIEV                               pmax     pmax
           comp=Z,13nm,0.8s,mb4.6
KIEV  Kiev              79.28 323 eP        P         13 29 52.1 -0.9
           comp=Z,13nm,0.8s,mb4.6
F12A  Elk City          79.30  43 ⇓P        P         13 29 53.5 +0.2
           baz=79,SNR=13
K09A  Rome              79.32  47 ⇓P        P         13 29 53.5 +0.1
           baz=79,SNR=7.1
H11A  Donnelly          79.38  45 ⇓P        P         13 29 53.2 -0.5
           baz=79,SNR=7.1
N07B  Gerlach           79.47  49 ⇑P        P         13 29 54.1 -0.1
           baz=79
B15A  Bradely Ranch,    79.52  40 ⇓P        P         13 29 54.0 -0.4
           baz=79,SNR=6.6
M08A  Happy Creek Ra    79.53  48 ⇑P        P         13 29 54.5  0.0
           baz=79
SLMT  Seeley Lake       79.56  41 eP        P         13 29 54.5  0.0
           comp=Z,12nm,0.6s,mb4.7
J10A  Berg Farm, Mel    79.56  46 ⇓P        P         13 29 54.7  0.0
           baz=79
E13A  Victor            79.57  42 ⇑P        P         13 29 54.6 -0.1
           baz=79
D14A  Greenough         79.64  42 ⇓P        P         13 29 54.6 -0.4
           baz=79
WCN   Washoe City       79.67  51 ⇓P        P         13 29 55.4 +0.1
           baz=80
L09A  Wilkinson Ranc    79.70  48 ⇓P        P         13 29 55.8 +0.3
           baz=80
A16A  West Butte Ran    79.71  39 ⇑P        P         13 29 55.1 -0.2
           baz=80,SNR=15
C15A  Salmond Ranch,    79.78  41 ⇓P        P         13 29 55.7  0.0
           baz=80,SNR=15
I11A  Placerville       79.82  45 ⇓P        P         13 29 55.5 -0.5
           baz=80
K10A  MacKenzie Ranc    79.83  47 ⇑P        P         13 29 56.5 +0.3
           baz=80,SNR=6.5
F13A  Darby             79.83  43 ⇑P        P         13 29 55.6 -0.5
           baz=80,SNR=10
O07A  Toulon            79.84  50 ⇑P        P         13 29 56.4 +0.2
           baz=80
CHMT  Chamberlain Mo    79.87  42 eP        P         13 29 55.5 -0.8
           comp=Z,1.2nm,0.7s,mb3.6
B16A  M & M Farms, S    79.94  40 ⇑P        P         13 29 56.3 -0.2
           baz=80,SNR=9.7
N08A  GE Springer Mi    80.02  49 ⇓P        P         13 29 57.4 +0.2
           baz=80,SNR=7.6
MALT  Malatya           80.11 308 eP        P         13 29 58.2 +0.5
MALT                               pmax     pmax
           comp=Z,14nm,0.9s,mb4.6
MALT  Malatya           80.11 308⇑iP        P         13 29 58.5 +0.8
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MALT	Malatya	80.11	308	*e*P	P	13 29 58.2	+0.5
	comp=Z,14nm,0.9s,mb4.6						
MFID	Camas Ranch	80.16	46	⇑P	P	13 29 58.1	+0.2
	baz=80						
H12A	Diamond D Ranc	80.17	44	⇓P	P	13 29 57.6	-0.3
	baz=80,SNR=7.2						
A17A	Triple J Farms	80.21	39	⇑P	P	13 29 57.7	-0.2
	baz=80,SNR=7.4						
D15A	Lincoln	80.22	41	⇑P	P	13 29 58.0	-0.1
	baz=80						
O08A	Rochester Mine	80.25	49	⇓P	P	13 29 58.5	+0.1
	baz=80,SNR=6.3						
C16A	Fuhringer Ranc	80.25	40	⇑P	P	13 29 57.9	-0.4
	baz=80,SNR=12						
G13A	Cobalt	80.26	44	⇑P	P	13 29 57.8	-0.5
	baz=80,SNR=7.5						
R06C	Coleville	80.26	51	⇑P	P	13 29 58.7	+0.2
	baz=80						
K11A	Parker Ranch,	80.36	46	⇓P	P	13 29 59.1	+0.2
	baz=80,SNR=6.5						
N09A	Rock Creek Ran	80.38	49	⇓P	P	13 29 59.3	+0.2
	baz=80,SNR=5.7						
F14A	Wisdom	80.39	43	⇓P	P	13 29 59.2	+0.2
	baz=80						
I12A	Atlanta	80.39	45	⇓P	P	13 29 59.2	+0.1
	baz=80						
L10A	Juniper Basin	80.44	47	⇑P	P	13 29 59.4	+0.1
	baz=80,SNR=5.9						
E15A	Deer Lodge	80.49	42	⇑P	P	13 29 59.6	+0.1
	baz=80,SNR=6.9						
Q07A	Schurz	80.49	51	⇑P	P	13 29 59.5	-0.2
	baz=80						
B17A	L&G Farms, Che	80.51	40	⇓P	P	13 29 59.6	0.0
	baz=80,SNR=14						
H13A	Challis	80.53	44	⇓P	P	13 29 59.7	0.0
	baz=80,SNR=12						
NOA	NORSAR Array B	80.54	337	P	P	13 29 58.5	-1.0
	comp=Z,11nm,0.6s,mb4.7,baz=46,slow=5.0,SNR=23						
M10A	I.L. Ranch, Tu	80.68	48	⇓P	P	13 30 01.3	+0.7
	baz=80,SNR=6.5						
A18A	Metzger Ranch,	80.69	39	⇓P	P	13 30 00.4	-0.1
	baz=80,SNR=13						
J12A	Stokes Ranch,	80.70	45	⇓P	P	13 30 00.8	+0.1
	baz=80						
D16A	Dana Ranch, Ca	80.79	41	⇓P	P	13 30 01.2	+0.1
	baz=81,SNR=6.9						
HRY	Holter Researc	80.80	41	*e*P	P	13 30 01.2	0.0
	comp=Z,8.6nm,0.6s,mb4.7						
L11A	Cat Creek Ranc	80.85	47	⇓P	P	13 30 02.0	+0.5
	baz=81,SNR=6.5						
F15A	Butte	80.89	42	⇓P	P	13 30 01.9	+0.2
	baz=81,SNR=21						
C17A	Wharram Farm,	80.90	40	⇓P	P	13 30 01.5	-0.1
	baz=81						
LRM	Limekiln Ridge	80.93	42	*e*P	P	13 30 01.8	0.0
	comp=Z,53nm,0.7s,mb5.4						
O09A	Fish Creek Ran	80.95	49	⇑P	P	13 30 02.6	+0.6
	baz=81,SNR=6.0						
I13A	Wildhorse Cree	80.95	45	⇓P	P	13 30 02.6	+0.6
	baz=81,SNR=6.1						
HLID	Hailey	80.96	45	⇓P	P	13 30 02.7	+0.7
	baz=81,SNR=6.2						
E16A	East Helena	80.99	41	⇑P	P	13 30 02.1	0.0
	baz=81,SNR=5.9						
B18A	Beardsley Farm	81.02	39	⇑P	P	13 30 02.2	0.0
	baz=81,SNR=9.4						
NVAR	Mina Array Bea	81.09	51	P	P	13 30 03.0	+0.1
	comp=Z,8.2nm,0.7s,mb4.6,baz=280,slow=5.5,SNR=70						
NVAR				pP	pP	13 31 31.4	+0.5
	comp=Z,0.8nm,0.7s,baz=278,slow=6.1,SNR=3.8						
DLMT	Dillon	81.09	43	*e*P	P	13 30 02.8	+0.1
	comp=Z,2.7nm,0.6s,mb4.2						
MLAC	Mammoth Lakes	81.13	52	⇓P	P	13 30 03.7	+0.7
	baz=81						
FFC	Flin Flon	81.13	31	*e*P	P	13 30 01.7	-1.0
FFC				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
FFC	Flin Flon	81.13	31	*e*P	P	13 30 01.7	-1.0
	comp=Z,5.2nm,0.8s,mb4.3						
J13A	Cove Ranch, Pi	81.19	45	⇑P	P	13 30 03.7	+0.5
	baz=81,SNR=8.4						
M11A	Holland Ranch,	81.21	47	⇓P	P	13 30 03.5	+0.1
	baz=81						
D17A	Six Diamond Ra	81.21	40	⇓P	P	13 30 03.0	-0.3
	baz=81,SNR=8.2						
EGMT	Eagleton	81.24	39	⇓P	P	13 30 03.3	-0.1
	baz=81,SNR=7.7						
EGMT	Eagleton	81.24	39	*e*P	P	13 30 03.0	-0.4
	comp=Z,7.9nm,0.8s,mb4.5						
G15A	Dillon	81.26	43	⇑P	P	13 30 03.4	-0.2
	baz=81,SNR=5.7						
R08A	Mina	81.26	51	⇓P	P	13 30 04.1	+0.3
	baz=81,SNR=8.3						
P09A	Austin	81.30	49	⇑P	P	13 30 04.0	+0.1
	baz=81						
L12A	House Creek Ra	81.33	46	⇓P	P	13 30 04.3	+0.3
	baz=81,SNR=5.5						
O10A	Cortez Mining,	81.34	49	⇓P	P	13 30 04.0	-0.1
	baz=81						
I14A	Mackay	81.35	44	⇓P	P	13 30 04.5	+0.5
	baz=81,SNR=29						
F16A	Kennard Place,	81.43	42	⇑P	P	13 30 04.7	+0.2
	baz=81,SNR=7.1						
H15A	Lima	81.47	43	⇓P	P	13 30 03.9	-0.8
	baz=81						
E17A	Martinsdale	81.50	41	⇑P	P	13 30 04.8	0.0
	baz=81,SNR=12						
BOZ	Bozeman (W)	81.50	42	*e*P	P	13 30 04.8	0.0
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
BOZ	Bozeman (W)	81.50	42	⇓P	P	13 30 04.7	-0.2
	baz=81,SNR=7.0						
BOZ	Bozeman (W)	81.50	42	*e*P	P	13 30 04.8	0.0
	comp=Z,3.1nm,0.7s,mb4.2						
KIS	Kishinev	81.56	320	⇓*i*P	P	13 30 14.0	+8.9
KIS	Kishinev	81.56	320	⇓P	P	13 30 14.0	+8.9
G16A	Moss Hill, Enn	81.63	43	⇑P	P	13 30 05.2	-0.3
	baz=81,SNR=6.0						
J14A	Carey	81.64	45	⇑P	P	13 30 06.1	+0.6
	baz=81,SNR=12						
K13A	Stover Farm, H	81.65	46	⇓P	P	13 30 05.8	+0.2
	baz=81,SNR=6.3						
D18A	Linhart Farms,	81.69	40	⇑P	P	13 30 05.8	+0.1
	baz=82						
P10A	Eureka	81.71	49	⇓P	P	13 30 06.3	+0.3
	baz=82						
TIN	Tinemaha	81.84	52	⇑P	P	13 30 06.8	+0.1
	baz=82						
ELK	Elko	81.92	48	P	P	13 30 07.6	+0.5
ELK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ELK	Elko	81.92	48	P	P	13 30 07.6	+0.5
	comp=Z,4.0nm,0.7s,mb4.3						
F17A	Fitzpatrick Pl	81.92	41	⇓P	P	13 30 07.1	+0.1
	baz=82,SNR=5.8						
E18A	Harlowton	81.98	41	⇓P	P	13 30 07.5	+0.2
	baz=82,SNR=9.7						
R09A	Tonopah	82.02	51	⇓P	P	13 30 07.5	-0.2
	baz=82,SNR=13						
Q10A	Clear Creek Ra	82.17	50	⇓P	P	13 30 08.6	+0.2
	baz=82						
S09A	Goldfield	82.18	51	⇓P	P	13 30 08.4	-0.1
	baz=82,SNR=14						
G17A	Pierce Place,	82.20	42	⇑P	P	13 30 08.5	+0.1
	baz=82						
H16A	Russell Place,	82.25	43	⇑P	P	13 30 09.1	+0.4
	baz=82,SNR=6.9						
J15A	Blackfoot	82.26	44	⇓P	P	13 30 09.3	+0.6
	baz=82,SNR=6.0						
K14A	Jones Ranch, D	82.27	45	⇑P	P	13 30 08.8	-0.1
	baz=82						
M13A	Montello	82.28	47	⇑P	P	13 30 09.6	+0.7
	baz=82						
ISA	Isabella	82.37	53	⇓P	P	13 30 09.3	-0.2
	baz=82						
YMR	Madison River	82.44	43	*e*P	P	13 30 10.4	+0.7
	comp=Z,5.4nm,0.7s,mb4.4						
F18A	Big Timber	82.47	41	⇓P	P	13 30 09.9	+0.1
	baz=82,SNR=13						
O12A	Currie	82.50	48	⇑P	P	13 30 10.5	+0.4
	baz=82						
S10A	Tonopah Range,	82.50	51	⇓P	P	13 30 10.3	+0.2
	baz=82,SNR=8.7						
L14A	Malta	82.51	46	⇓P	P	13 30 10.4	+0.3
	baz=82						
R10A	Warm Springs	82.51	50	⇑P	P	13 30 10.3	+0.2
	baz=82						
I16A	Newdale	82.57	44	⇑P	P	13 30 10.8	+0.4
	baz=82,SNR=5.7						
BRTR	Keskin Array B	82.59	312	P	P	13 30 09.8	-0.7
	comp=Z,16nm,0.8s,mb4.8,baz=111,slow=3.1,SNR=69						
K15A	Arbon	82.59	45	⇑P	P	13 30 10.9	+0.4
	baz=82						
Q11A	Duckwater	82.65	49	⇑P	P	13 30 10.8	-0.1
	baz=82						
M14A	Sheep Mountain	82.73	46	⇓P	P	13 30 11.5	+0.3
	baz=82,SNR=7.9						
H17A	Grant Village	82.82	43	⇓P	P	13 30 12.7	+1.0
	baz=83,SNR=7.9						
J16A	Bone	82.83	44	⇓P	P	13 30 12.0	+0.3
	baz=83,SNR=5.9						
LKWY	Lake	82.83	43	*e*P	P	13 30 13.8	+2.1
LKWY				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
LKWY	Lake	82.83	43	*e*P	P	13 30 13.8	+2.2
	comp=Z,8.6nm,0.9s,mb4.5						
MPMC	Manual Prospec	82.86	53	⇓P	P	13 30 12.0	0.0
	baz=83						
IMW	Indian Meadow	82.89	43	*e*P	P	13 30 12.7	+0.7
	comp=Z,5.2nm,0.7s,mb4.4						
G18A	Lazy EL Ranch,	82.89	42	⇑P	P	13 30 12.0	+0.1
	baz=83						
HVU	Hansel Valley	82.94	46	*e*P	P	13 30 13.2	+0.9
HVU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.6						
HVU	Hansel Valley	82.94	46	*e*P	P	13 30 13.2	+0.9
	comp=Z,7.8nm,0.7s,mb4.5						
R11A	Troy Canyon, C	82.96	50	⇑P	P	13 30 12.2	-0.2
	baz=83,SNR=7.3						
RRI2	Red Ridge	82.96	44	*e*P	P	13 30 13.1	+0.7
	comp=Z,5.1nm,0.8s,mb4.3						
LRMC	Laurel Mountai	83.02	53	⇓P	P	13 30 12.9	+0.1
	baz=83						
L15A	Malad City	83.06	45	⇓P	P	13 30 13.0	+0.2
	baz=83,SNR=6.3						
O13A	Hicks Ranch, I	83.06	48	⇓P	P	13 30 13.3	+0.4
	baz=83						
FURC	Furnace Creek,	83.08	52	⇓P	P	13 30 13.1	0.0
	baz=83,SNR=12						
K16A	Soda Springs	83.09	44	⇑P	P	13 30 13.8	+0.8
	baz=83,SNR=7.8						
I17A	Pilgrim Ck.	83.09	43	⇓P	P	13 30 13.9	+0.9
	baz=83,SNR=7.6						
Q12A	Willow Creek R	83.09	49	⇑P	P	13 30 13.4	+0.3
	baz=83						
EDW2	Edwards Air Fo	83.11	54	⇓P	P	13 30 12.9	-0.4
	baz=83						
RLMT	Red Lodge	83.17	42	⇓P	P	13 30 13.6	+0.2
	baz=83,SNR=9.5						
RLMT	Red Lodge	83.17	42	*e*P	P	13 30 13.9	+0.5
	comp=Z,5.7nm,0.6s,mb4.5						
N14A	Grayback Hills	83.18	47	⇑P	P	13 30 13.8	+0.3
	baz=83,SNR=9.7						
BURAR	Bucovina Array	83.20	322	⇓*i*P	P	13 30 13.0	-0.5
BURAR	Bucovina Array	83.20	322	⇓P	P	13 30 13.0	-0.4
S11A	Rachel	83.22	51	⇑P	P	13 30 13.9	+0.2
	baz=83,SNR=5.3						
BGU	Big Grassy Mou	83.24	47	*e*P	P	13 30 13.8	0.0
	comp=Z,4.8nm,0.7s,mb4.3						
M15A	Larsen Ranch,	83.31	46	⇓P	P	13 30 14.5	+0.3
	baz=83,SNR=5.4						
VRI	Vrincioaia	83.39	319	⇑*i*P	P	13 30 15.6	+1.1
VRI	Vrincioaia	83.39	319	⇑P	P	13 30 15.7	+1.2
P13A	Bates Ranch, G	83.41	48	⇑P	P	13 30 14.7	0.0
	baz=83,SNR=6.3						
U10A	Ash Meadows, A	83.47	52	⇑P	P	13 30 15.1	0.0
	baz=83						
N15A	Stansbury Isla	83.58	46	⇑P	P	13 30 15.9	+0.4
	baz=83,SNR=5.8						
R12A	Pony Springs,	83.62	49	⇓P	P	13 30 15.8	0.0
	baz=83,SNR=5.5						
L16A	Fish Haven	83.64	45	⇑P	P	13 30 16.1	+0.3
	baz=83,SNR=11						
I18A	Diamond G Ranc	83.67	43	⇓P	P	13 30 16.4	+0.5
	baz=83						
Q13A	Wheeler Ranch,	83.67	49	⇑P	P	13 30 16.3	+0.3
	baz=84,SNR=7.7						
GSC	Goldstone	83.73	53	⇑P	P	13 30 16.3	-0.1
	baz=84,SNR=6.3						
DUG	Dugway	83.78	47	⇓P	P	13 30 16.6	0.0
	baz=84,SNR=12						
T11A	Corn Creek, Al	83.79	51	⇑P	P	13 30 16.7	0.0
	baz=84,SNR=9.8						
J18A	Kendall Valley	83.83	43	⇓P	P	13 30 17.1	+0.4
	baz=84,SNR=9.5						
S12A	Delamar Landin	83.85	50	⇓P	P	13 30 16.9	0.0
	baz=84						
M16A	Huntsville	83.91	46	⇑P	P	13 30 17.6	+0.4
	baz=84,SNR=7.9						
L17A	Cokeville	83.94	45	⇑P	P	13 30 17.7	+0.4
	baz=84,SNR=8.2						
P14A	Drum Mountains	83.95	48	⇓P	P	13 30 17.6	+0.3
	baz=84,SNR=20						
KOLS	Kolonicke sedl	83.95	324	*i* P	P	13 30 17.2	0.0
O15A	The Old Anders	83.95	47	⇓P	P	13 30 17.9	+0.5
	baz=84						
R13A	O’Grain Ranch,	84.12	49	⇑P	P	13 30 18.1	-0.2
	baz=84						
K18A	Toltan Ranch,	84.14	44	⇑P	P	13 30 18.8	+0.5
	baz=84						
Q14A	Sevier Lake (B	84.14	48	⇑P	P	13 30 18.5	+0.1
	baz=84,SNR=13						
BBRC	Big Bear Sol-O	84.19	54	⇓P	P	13 30 18.5	-0.2
	baz=84						
N16A	Rees Ranch, Co	84.27	46	⇓P	P	13 30 19.2	+0.3
	baz=84						
TUQ	Turquoise Moun	84.27	53	⇓P	P	13 30 19.1	0.0
	baz=84,SNR=11						
HEC	Hector,Ludlow	84.31	53	⇑P	P	13 30 19.1	-0.1
	baz=84,SNR=8.3						
MURC	Murrieta	84.33	55	⇓P	P	13 30 19.2	-0.2
	baz=84						
BW06	Boulder Array	84.36	44	⇓P	P	13 30 19.1	-0.2
	baz=84,SNR=6.1						
PDAR	Pinedale Array	84.36	44	P	P	13 30 18.9	-0.4
	comp=Z,2.8nm,0.8s,mb4.0,baz=298,slow=3.6,SNR=24						
PDAR				pP	pP	13 31 48.9	+0.8
	comp=Z,0.5nm,0.8s,baz=282,slow=4.2,SNR=2.7						
V11A	Goodsprings	84.39	52	⇑P	P	13 30 19.7	0.0
	baz=84,SNR=6.4						
T12A	Moapa	84.41	51	⇓P	P	13 30 19.9	+0.1
	baz=84						
M17A	Scullys Gap (B	84.42	45	⇑P	P	13 30 19.8	+0.1
	baz=84,SNR=6.5						
P15A	Leamington	84.47	47	⇓P	P	13 30 20.1	+0.1
	baz=84,SNR=6.0						
S13A	Holt Ranch, En	84.52	50	⇑P	P	13 30 20.7	+0.4
	baz=84,SNR=13						
L18A	Fontenelle, Gr	84.55	45	⇓P	P	13 30 20.7	+0.4
	baz=84,SNR=5.3						
VOIR		84.60	320	⇑*i*P	P	13 30 20.3	-0.2
VOIR		84.60	320	⇑P	P	13 30 20.2	-0.2
N17A	Moffit Pass	84.61	46	⇓P	P	13 30 20.8	+0.1
	baz=84,SNR=6.9						
U12A	Valley of Fire	84.69	51	⇓P	P	13 30 21.1	0.0
	baz=84						
ARUT	Antelope Range	84.69	49	*e*P	P	13 30 21.4	+0.3
ARUT				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
ARUT	Antelope Range	84.69	49	*e*P	P	13 30 21.4	+0.3
	comp=Z,3.7nm,0.7s,mb4.2						
Q15A	Fillmore	84.72	48	⇑P	P	13 30 21.5	+0.3
	baz=84,SNR=5.5						
K19A	Absolon Red Bu	84.75	43	⇓P	P	13 30 20.9	-0.4
	baz=84						
T13A	Saint George	84.80	50	⇑P	P	13 30 21.9	+0.3
	baz=85,SNR=6.8						
GMRC	Granite Mounta	84.80	53	⇓P	P	13 30 21.8	+0.1
	baz=85,SNR=7.5						
M18A	Lyman	84.81	45	⇑P	P	13 30 21.9	+0.3
	baz=85						
P16A	Fountain Green	84.84	47	⇑P	P	13 30 22.2	+0.4
	baz=85						
V12A	Nelson	84.85	52	⇓P	P	13 30 21.8	-0.1
	baz=85,SNR=5.2						
PFO	Pinyon Flat Ob	84.86	54	*i* P	P	13 30 22.2	+0.2
PFO	Pinyon Flat Ob	84.86	54	⇑P	P	13 30 21.9	-0.1
	baz=85,SNR=7.7						
L19A	Farson	84.86	44	⇑P	P	13 30 21.9	0.0
	baz=85,SNR=5.4						
S14A	Cedar City	84.88	49	⇓P	P	13 30 21.9	-0.1
	baz=85						
MMAI	Mount Meron Ar	84.92	305	P	P	13 30 20.7	-1.6
	comp=Z,7.0nm,0.7s,mb4.5,baz=37,slow=5.7,SNR=8.0						
BELC	Belle Mtn.	84.97	54	⇓P	P	13 30 22.5	-0.1
	baz=85						
U13A	Pakoon Wash	85.08	51	⇓P	P	13 30 23.5	+0.4
	baz=85,SNR=12						
O17A	Robinson Place	85.10	46	⇓P	P	13 30 23.3	+0.2
	baz=85,SNR=8.7						
MSU	Marysvale	85.12	48	*e*P	P	13 30 24.1	+0.9
MSU				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
MSU	Marysvale	85.12	48	*e*P	P	13 30 24.1	+0.8
	comp=Z,3.4nm,0.7s,mb4.2						
K20A	Yellowstone Ra	85.15	43	⇓P	P	13 30 22.8	-0.5
	baz=85						
KECS	Kecovo	85.15	324	*e*P	P	13 30 20.6	-2.6
R15A	Junction	85.22	49	⇓P	P	13 30 24.3	+0.6
	baz=85,SNR=10						
MONP	Monument Peak	85.26	55	⇑P	P	13 30 23.9	-0.1
	baz=85						
T14A	Hurricane	85.32	50	⇑P	P	13 30 24.6	+0.4
	baz=85						
V13A	Grand Canyon W	85.38	51	⇑P	P	13 30 24.4	-0.1
	baz=85,SNR=5.0						
S15A	Panguitch	85.46	49	⇓P	P	13 30 25.8	+0.9
	baz=85,SNR=6.6						
IRM	Iron Mountain	85.49	53	⇑P	P	13 30 25.2	+0.1
	baz=85						
P17A	Butcher Ranch,	85.51	47	⇓P	P	13 30 25.1	0.0
	baz=85						
L20A	Wamsutter	85.53	44	⇑P	P	13 30 25.3	+0.1
	baz=85						
BC3	Big Chuckw Mtn	85.54	54	⇓P	P	13 30 25.3	-0.1
	baz=85,SNR=7.0						
Q16A	Castle Valley	85.54	48	⇓P	P	13 30 25.4	+0.1
	baz=85						
U14A	Mt Trumbull	85.61	50	⇑P	P	13 30 25.8	+0.1
	baz=85						
DVTC	Desert V Tower	85.61	55	⇑P	P	13 30 26.0	+0.2
	baz=85						
SWSC	Sam W. Stewart	85.68	55	⇓P	P	13 30 26.3	+0.2
	baz=86						
R16A	Teasdale	85.70	48	⇑P	P	13 30 26.8	+0.7
	baz=86,SNR=7.9						
T15A	Red Dirt Ranch	85.81	50	⇓P	P	13 30 26.8	+0.1
	baz=86,SNR=6.8						
SRU	San Rafael	85.85	47	*e*P	P	13 30 26.9	+0.1
SRU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
SRU	San Rafael	85.85	47	⇓P	P	13 30 26.9	+0.1
	baz=86,SNR=8.4						
SRU	San Rafael	85.85	47	*e*P	P	13 30 26.9	+0.1
	comp=Z,5.7nm,0.7s,mb4.4						
W13A	Hualapai Mount	85.86	52	⇑P	P	13 30 27.0	+0.1
	baz=86						
M20A	Sweetwater, Wa	85.93	44	⇑P	P	13 30 27.3	+0.2
	baz=86						
DPC	Dobruska-Polom	85.96	327	*e*P	P	13 30 26.4	-0.7
VYHS	Vyhne	85.98	325	*i* P	P	13 30 26.7	-0.5
VYHS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
VYHS	Vyhne	85.98	325	*i* P	P	13 30 26.7	-0.5
	comp=Z,4.0nm,0.9s,mb4.2						
UPC	Upice	86.00	328	*e*P	P	13 30 26.5	-0.8
V14A	Boquillas Ranc	86.09	51	⇑P	P	13 30 28.1	+0.1
	baz=86						
Q18A	Rafter H Ranch	86.10	47	⇓P	P	13 30 28.1	+0.1
	baz=86						
R17A	Hanksville Air	86.12	48	⇑P	P	13 30 28.2	+0.1
	baz=86						
L21A	Rawlins	86.14	43	⇓P	P	13 30 28.4	+0.2
	baz=86						
Y12C	Blythe	86.14	53	⇑P	P	13 30 28.3	0.0
	baz=86						
X13A	Yucca	86.17	52	⇑P	P	13 30 28.4	0.0
	baz=86						
N20A	Spence Gulch,	86.27	45	⇑P	P	13 30 29.0	+0.2
	baz=86						
GLA	Glamis	86.31	54	⇑P	P	13 30 29.1	0.0
	baz=86						
W14A	Seligman	86.34	51	⇑P	P	13 30 29.4	+0.2
	baz=86						
M21A	Separation Pea	86.36	44	⇑P	P	13 30 29.3	+0.1
	baz=86						
BZS	Buzias	86.39	321	⇑*i*P	P	13 30 27.9	-1.3
BZS	Buzias	86.39	321	⇑P	P	13 30 27.9	-1.3
S17A	Black Ridge (B	86.51	48	⇑P	P	13 30 30.2	+0.2
	baz=86						
P19A	Cripple Cowboy	86.53	46	⇑P	P	13 30 30.2	+0.2
	baz=86						
V15A	Kaibab Nationa	86.62	51	⇓P	P	13 30 30.8	+0.2
	baz=86						
PVCC	Panska Ves	86.66	328	*e*P	P	13 30 29.5	-0.9
R18A	Canyonlands Na	86.67	47	⇑P	P	13 30 30.7	0.0
	baz=86						
O20A	White River Ci	86.69	45	⇓P	P	13 30 31.3	+0.5
	baz=86						
CLL	Collm	86.81	330	*e*P	P	13 30 30.0	-1.1
X14A	Yava	86.88	52	⇓P	P	13 30 32.2	+0.3
	baz=87						
ULM	Lac du Bonnet	86.89	32	P	P	13 30 30.2	-1.3
	comp=Z,2.5nm,0.6s,mb4.1,baz=317,slow=3.4,SNR=5.3						
S18A	Hurst Farm, Bl	87.00	48	⇑P	P	13 30 31.5	-0.8
	baz=87						
Y14A	Wickenburg	87.10	52	⇑P	P	13 30 32.9	+0.1
	baz=87						
R19A	Curley Farm, L	87.13	47	⇓P	P	13 30 32.6	-0.3
	baz=87						
X15A	Humboldt	87.32	52	⇓P	P	13 30 33.8	0.0
	baz=87						
Q20A	Ridgley Place,	87.35	46	⇓P	P	13 30 34.1	+0.2
	baz=87						
T18A	Mexican Hat	87.40	48	⇓P	P	13 30 34.4	+0.2
	baz=87						
Y15A	Casa Rosa Ranc	87.56	52	⇑P	P	13 30 34.8	-0.2
	baz=87						
PKSM	Moragy	87.58	323	⇓*i*P	P	13 30 33.6	-1.3
PV01	Paradox Valley	87.66	47	*e*P	P	13 30 35.8	+0.4
PHWY	Pilot Hill	87.68	43	*e*P	P	13 30 35.9	+0.5
	comp=Z,7.1nm,1.2s,mb4.3						
NKC	Novy Kostel	87.83	329	*e*P	P	13 30 36.1	+0.2
KHC	Kasperske Hory	88.09	328	*e*P	P	13 30 36.2	-1.0
GERES	GERESS Array B	88.24	327	P	P	13 30 36.3	-1.6
	comp=Z,2.0nm,0.6s,mb4.0,baz=49,slow=4.3,SNR=16						
Q22A	Crested Butte,	88.28	46	⇑P	P	13 30 38.6	+0.3
	baz=88						
GRA1	Grafenberg Arr	88.77	329	*e*P	P	13 30 39.7	-0.6
	comp=Z,8.0nm,1.1s,mb4.4						
GRF	Grafenberg Arr	88.77	329	*e*P	P	13 30 39.7	-0.6
GRF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.4						
GRF	Grafenberg Arr	88.77	329	*e*P	P	13 30 39.7	-0.6
GRF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.4						
GRF	Grafenberg Arr	88.77	329	*e*P	P	13 30 39.7	-0.6
	comp=Z,8.0nm,1.1s,mb4.4						
GRF	Grafenberg Arr	88.77	329	*e*P	P	13 30 39.7	-0.6
	comp=Z,8.0nm,1.1s,mb4.4						
W19A	Sanders	88.89	50	⇓P	P	13 30 41.2	-0.1
	baz=89						
PERS	Pernice	89.10	325	*e*P	P	13 30 40.7	-1.2
T22A	Edith	89.39	47	⇓P	P	13 30 43.8	+0.3
	baz=89						
PDKS	Podkum	89.55	325	*i* P	P	13 30 42.5	-1.5
BOJS	Bojanci	89.81	324	*i* P	P	13 30 44.3	-1.0
217A	Green Valley	89.84	53	⇓P	P	13 30 46.0	+0.3
	baz=90						
118A	Homack Ranch,	89.93	52	⇑P	P	13 30 46.1	0.0
	baz=90						
218A	Dragoon	90.26	53	⇑P	P	13 30 48.3	+0.7
	baz=90						
SKDS	Skadanscina	90.41	325	*e*	P	13 30 45.9	-2.2
318A	Bisbee	90.61	53	⇓P	P	13 30 49.5	+0.3
	baz=90						
219A	White Tail Can	90.79	52	⇓P	P	13 30 49.7	-0.3
	baz=91						
120A	U Bar Ranch, L	90.90	52	⇑P	P	13 30 51.1	+0.5
	baz=91						
ANMO	Albuquerque	90.92	49	*e*P	P	13 30 51.5	+0.9
BFO	Black Forest	91.06	330	*i* P	P	13 30 50.2	-0.8
319A	Douglas	91.14	53	⇑P	P	13 30 51.9	+0.1
	baz=91						
CDF	Champ du Feu	91.45	330	*e*P	P	13 30 51.3	-1.5
	comp=Z,4.3nm,0.6s,mb4.2						
CDF	Champ du Feu	91.45	330	*e*P	P	13 30 51.3	-1.5
CDF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
CDF	Champ du Feu	91.45	330	*e*P	P	13 30 51.3	-1.5
	comp=Z,2.2nm,0.6s,mb4.2						
HINF	Hinteralfeld	92.09	330	*e*P	P	13 30 53.8	-2.0
HAU	Haudompre	92.16	331	*e*P	P	13 30 54.3	-1.8

CABF	La Chapelle	93.35	330	eP	P	13 30 59.9	-1.7
LOR	Lormes	93.79	331	eP	P	13 31 01.9	-1.7
LPL	La Plagne	93.90	329	eP	P	13 31 02.6	-1.5
	comp=Z,9.9nm,0.6s,mb4.7						
LPL	La Plagne	93.90	329	eP	P	13 31 02.6	-1.5
LPL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
LPL	La Plagne	93.90	329	eP	P	13 31 02.6	-1.5
	comp=Z,4.9nm,0.6s,mb4.7						
LPG	La Plagne	93.91	329	eP	P	13 31 02.8	-1.4
	comp=Z,10nm,0.6s,mb4.8						
LPG	La Plagne	93.91	329	eP	P	13 31 02.8	-1.4
LPG				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
LPG	La Plagne	93.91	329	eP	P	13 31 02.8	-1.4
	comp=Z,5.1nm,0.6s,mb4.7						
SSF	Saint Saulge	94.10	331	eP	P	13 31 03.3	-1.7
SMF	Signal de Mont	94.29	331	eP	P	13 31 04.1	-1.8
	comp=Z,16nm,0.9s,mb4.8						
SMF	Signal de Mont	94.29	331	eP	P	13 31 04.1	-1.8
SMF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
SMF	Signal de Mont	94.29	331	eP	P	13 31 04.1	-1.8
	comp=Z,8.1nm,0.9s,mb4.8						
AVF	Avril sur Loir	94.38	331	eP	P	13 31 04.7	-1.6
	comp=Z,12nm,0.9s,mb4.6						
AVF	Avril sur Loir	94.38	331	eP	P	13 31 04.7	-1.6
AVF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
AVF	Avril sur Loir	94.38	331	eP	P	13 31 04.7	-1.6
	comp=Z,5.8nm,0.9s,mb4.6						
CEL	Celeste	94.44	319	eP	P	13 31 04.9	-1.8
	comp=Z,15nm,0.8s,mb5.1						
MBDF	Montbardon	94.49	328	eP	P	13 31 04.5	-2.3
	comp=Z,5.8nm,0.7s,mb4.4						
MBDF	Montbardon	94.49	328	eP	P	13 31 04.5	-2.3
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
MBDF	Montbardon	94.49	328	eP	P	13 31 04.5	-2.3
	comp=Z,2.9nm,0.7s,mb4.4						
PGF	Pioggiola	95.07	326	eP	P	13 31 07.2	-2.3
TXAR	Lajitas Array	96.23	51	P	P	13 31 14.8	-0.2
	comp=Z,2.4nm,0.8s,mb4.4,baz=299,slow=3.2,SNR=28						
TXAR				pP	pP	13 32 46.9	+1.6
	comp=Z,1.2nm,0.7s,baz=285,slow=2.2,SNR=9.8						
TXAR				PP	PP	13 35 11.9	-1.8
	comp=Z,0.4nm,0.9s,baz=272,slow=5.1,SNR=3.8						
SJPF	Ste Jean	99.27	332	eP	Pdif	13 31 26.5	-1.8
	comp=Z,7.3nm,0.8s						
SJPF	Ste Jean	99.27	332	eP	Pdif	13 31 26.5	-1.8
SJPF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.8						
SJPF	Ste Jean	99.27	332	eP	Pdif	13 31 26.5	-1.8
	comp=Z,3.7nm,0.8s						
TORD	Torodi Ar. Bea	121.17	310	PKP	PKPdf	13 36 35.9	-1.9
	comp=Z,1.1nm,0.6s,baz=42,slow=2.0,SNR=14						
TORD				PP	PP	13 38 11.3	-1.9
	comp=Z,0.9nm,0.9s,baz=42,slow=5.9,SNR=4.0						
LBTB	Lobatse	121.57	257	PKP	PKPdf	13 36 37.1	-1.0
	comp=Z,1.9nm,0.5s,baz=143,slow=4.7,SNR=3.4						
DBIC	Dimbokro	130.28	310	SKPbc	SKPbc	13 39 37.8	-3.5
	comp=Z,4.9nm,0.6s,baz=13,slow=5.3,SNR=5.4						

IDC ***25*** *13:33:45.5±0.4, 2°.33S×99°.89E, h0^{km}, mb4.9/25, mb1 5.0/27, mb1mx5.0/29, mbtmp4.9/27, ML4.5/2, MS4.7/13, Ms1 4.7/13, ms1mx4.3/35, Error ellipse: s-maj=16.3km s-min=10.6km az=50.0*

BJI ***25*** *13:33:45.3, 2°.82S×99°.87E, h35^{km}, mB5.3/35, mb5.2/57, Ms5.2/53, Ms7 5.0/50*

ISCJB ***25*** *13:33:48.9±0.2, 2°.39S±0°.03×99°.84E±0°.03, h34^{km}, mb5.1/114, MS4.8/45, Error ellipse: s-maj=4.5km s-min=3.1km az=38.0*

DJA ***25*** *13:33:48, 2°.48S×99°.64E, h22^{km}, mb5.0/27*

MOS ***25*** *13:33:49.1±1.0, 2°.23S×99°.98E, h33^{km}, mb5.4/44, MS4.7/12, Error ellipse: s-maj=10.3km s-min=5.2km az=107.7*

NEIC ***25*** *13:33:51.0±1.1, 2°.31S×99°.97E, h36^{km}±9^{km}, mb5.3/46, Error ellipse: s-maj=7.3km s-min=4.2km az=48.0*

NEIC Felt [II] at Padang and Painan, Sumatra. Also felt in Singapore.

SZGRF ***25*** *13:34:04.4, 0°.87N×99°.23E, h33^{km}, mb5.1, Northern Sumatera, Indonesia*

ISC 25 13:33:51.0±0.2**, 2°.40S**±0°.03×**99°.84E**±0°.03**, h36**^{km}**, h36**^{km}±1.4^{km}**:pP-P, n313,** σ**1^s.06**/298**, mb5.1**/114**, MS4.8**/45**, 27C-10D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.40	154	P	Pn	13 33 59.3	-1.1
SISI	Saibi	1.30	325	P	Pn	13 34 11.9	-0.8
PDSI	Padang	1.60	23	P	Pn	13 34 16.9	0.0
PPI	Padang Panjang	2.01	16	P	Pn	13 34 22.7	+0.2
SDSI	Sungai Dareh	2.16	48	P	Pn	13 34 25.6	+1.1
KSI	Kapahiang	3.02	114	P	Pn	13 34 38.7	+2.3
RGRI	Rengat	3.22	51	P	Pn	13 34 40.7	+1.5
MDSI	Maura Dua	4.80	116	P	Pn	13 35 02.4	+1.4
PSI	Prapat	5.24	350	Pn	Pn	13 35 04.2	-2.8
	5.8nm,0.3s,baz=156,slow=10,SNR=39						
KASI	Kota Agung	5.59	124	P	Pn	13 35 11.8	0.0
	446nm,0.7s,9µm3.4nm						
KGM	Kluang	5.60	38	P	Pn	13 35 13.4	+1.5
MYKOM	Kota Tinggi	5.78	44	P	Pn	13 35 15.6	+1.3
MYKOM	Kota Tinggi	5.78	44	P	Pn	13 35 15.7	+1.3
	256nm,0.9s,2.6nm						
FRIM	Kepong	5.88	18	P	Pn	13 35 16.3	+0.7
IPM	Ipoh	6.93	10	P	Pn	13 35 31.4	+1.1
IPM	Ipoh	6.93	10	P	Pn	13 35 31.0	+0.8
	129nm,0.8s,1µm1.5nm						
TPI	Tanjungpandan	7.82	93	⇓eP	Pn	13 35 44.0	+1.6
TPI				eS	Sn	13 37 12.0	+2.3
KTGM	Kuala Trenggan	8.35	23	P	Pn	13 35 51.1	+1.4
LEM	Lembang	8.92	120	P	Pn	13 35 58.9	+1.5
	187nm,1.0s						
BSI	Banda Aceh	9.06	330	P	Pn	13 35 55.8	-3.6
	83nm,0.9s						
XMIS	Christmas Isla	9.89	145	P	Pn	13 36 08.3	-2.5
	115nm,2.0s						
KSM	Kuching	11.15	70	P	Pn	13 36 31.0	+2.9
KSM	Kuching	11.15	70	P	Pn	13 36 30.4	+2.3
	22nm,0.9s						
SMRI	Semarang	11.53	114	P	Pn	13 36 34.0	+0.7
	200nm,1.3s						
UGM	Wanagama	11.97	118	P	Pn	13 36 39.2	-0.1
	172nm,1.6s						
PWJI	Pagerwojo	13.16	116	P	Pn	13 36 54.4	-1.2
	51nm,1.6s						
SBUM	Sibu	13.28	69	P	Pn	13 37 00.0	+2.8
SBUM	Sibu	13.28	69	P	Pn	13 36 59.3	+2.0
	42nm,2.1s,1µm						
GMJI	Gumukmas	14.75	114	P	Pn	13 37 15.9	-1.3
	34nm,1.3s						
KBKI	Kotabaru	16.34	94	P	Pn	13 37 41.0	+3.1
	47nm,0.9s						
KHKI	Kahang-Kahang	16.78	111	P	Pn	13 37 43.9	+0.5
	39nm,1.0s						
KKM	Kota Kinabalu	18.38	63	P	Pn	13 38 03.2	-0.1
KKM	Kota Kinabalu	18.38	63	P	Pn	13 38 03.4	+0.1
	67nm,0.9s,1µm						
SDKM	Sandakan	19.09	65	P	Pn	13 38 11.2	-0.7
TSM	Tawau	19.21	70	P	Pn	13 38 12.5	-0.8
KDM	Kudat	19.32	61	P	Pn	13 38 14.5	-0.1
MKS	Makassar	19.79	99	⇑eP	Pn	13 38 18.8	-1.4
KAPI	Kappang	20.04	98	P	P	13 38 19.2	-2.1
	3.5nm,0.3s,baz=310,slow=12,SNR=7.4						
PCI	Palu	20.05	86	⇓eP	P	13 38 22.5	+1.2
PCI	Palu	20.05	86	P	P	13 38 22.5	+1.2
	140nm,2.1s,3µm						
MYLDM	Lahad Datu	20.11	68	P	P	13 38 23.2	+1.2
MYLDM	Lahad Datu	20.11	68	P	P	13 38 22.8	+0.8
	108nm,0.9s,1µm						
BNSI	Bone	20.33	96	P	P	13 38 24.4	0.0
	120nm,0.9s						
CMAR	Chiang Mai Arr	20.74	358	P	P	13 38 26.1	-2.7
CMAR						13 42 38.9	
CMAR	Chiang Mai Arr	20.74	358	P	P	13 38 26.1	-2.7
	40nm,0.9s,baz=186,slow=10,SNR=138						
CMAR				PcP	PcP	13 42 38.9	+1.2
	2.1nm,0.8s,baz=221,slow=3.0,SNR=5.0						
CMAR				LR	LR	13 46 52.9	
	comp=Z,3µm,20.0s,MS4.6,baz=190,slow=38						
CHTO	Chiang Mai	21.10	358	eP	P	13 38 30.3	-2.3
CHTO				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.5						
CHTO	Chiang Mai	21.10	358	eP	P	13 38 30.3	-2.2
	comp=Z,21nm,0.9s,mb4.5						
CHTO	Chiang Mai	21.10	358	P	P	13 38 30.5	-2.1
	comp=Z,30nm,0.9s,mb4.6						
APSI	Ampana	21.85	86	P	P	13 38 42.2	+1.4
	comp=Z,131nm,1.5s,comp=Z,2µm,mb5.2						
KDI	Kendari	22.80	94	⇑eP	P	13 38 49.0	-1.9
KDI				eS	S	13 42 56.7	-1.3
KDI	Kendari	22.80	94	P	P	13 38 51.3	+0.4
	comp=Z,38nm,2.1s,comp=Z,1µm,mb4.5						
QIZ	Qiongzhong	23.46	24	P	P	13 38 56.3	-1.3
QIZ				S	S	13 43 05.0	-3.5
QIZ				sS	sS	13 43 20.3	-4.9
QIZ				SS		13 43 52.0	
QIZ				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.7						
QIZ				LR	LR		
	comp=N,2µm,14.4s						
QIZ				LR	LR		
	comp=Z,2µm,18.1s,MS4.7						
QIZ	Qiongzhong	23.46	24	eP	P	13 38 55.9	-1.7
	comp=Z,20nm,0.8s,mb4.6						
TGY	Tagaytay City	26.57	51	P	P	13 39 25.9	-0.1
	comp=Z,57nm,0.3s,mb5.5,baz=304,slow=3.6,SNR=3.9						
AGT	Agartala	27.43	343	ex	P	13 39 30.0	-3.6
KMI	Kunming	27.50	6	P	P	13 39 34.3	+0.1
KMI				pP	pP	13 39 44.5	+0.1
KMI				sP	sP	13 39 49.0	+0.3
KMI				PP		13 40 24.0	
KMI				PcP	PcP	13 42 52.5	+0.4
KMI				S	S	13 44 12.3	-0.6
KMI				sS	sS	13 44 30.0	+0.3
KMI				SS		13 45 33.5	
KMI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
KMI				pmax	pmax		
	comp=Z,220nm,7.2s						
KMI				LR	LR		
	comp=N,1µm,17.4s,MS4.9						
KMI				LR	LR		
	comp=E,2µm,14.9s,MS4.9						
KMI				LR	LR		
	comp=Z,2µm,14.6s,MS4.8						
HYB	Hyderabad	28.78	314	i P	P	13 39 45.5	-0.2
HYB	Hyderabad	28.78	314	eP	P	13 39 50.0	+4.3
SHL	Shillong	28.85	345	ePKP	P	13 39 46.5	+0.3
SHL				eS	S	13 44 37.0	+3.0
GYA	Guiyang	29.44	13	⇑iP	P	13 39 53.0	+1.6
GYA				pP	pP	13 40 02.5	+0.9
GYA				sP	sP	13 40 09.3	+3.4
GYA				PP	PP	13 40 50.0	-8.4
GYA				S	S	13 44 43.3	0.0
GYA				sS	sS	13 45 01.0	+0.8
GYA				SS	SS	13 46 16.3	-33
GYA				ScP	ScP	13 46 34.0	-2.1
GYA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.1						
GYA				pmax	pmax		
	comp=Z,140nm,4.4s						
GYA				LR	LR		
	comp=N,890nm,16.7s,MS4.6						
GYA				LR	LR		
	comp=E,720nm,15.4s,MS4.6						
GYA				LR	LR		
	comp=Z,620nm,16.9s,MS4.3						
FITZ	Fitzroy Crossi	29.73	123	eP	P	13 39 54.3	+0.1
	comp=Z,13nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	29.73	123	P	P	13 39 53.9	-0.3
	comp=Z,3.6nm,0.5s,mb4.4,baz=270,slow=2.9,SNR=7.7						
FITZ	Fitzroy Crossi	29.73	123	eP	P	13 39 53.8	-0.4
	comp=Z,14nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	29.73	123	P	P	13 39 53.7	-0.5
	comp=Z,38nm,1.7s,mb4.8						
ODAN	Odare	31.47	338	eP	P	13 40 10.3	+0.9
	comp=Z,58nm,0.6s,mb5.6						
TAPN	Taplejung	31.80	339	eP	P	13 40 13.4	+1.1
	comp=Z,132nm,0.9s,mb5.8						
RAMN	Ramite	31.85	337	eP	P	13 40 13.6	+0.8
	comp=Z,52nm,0.7s,mb5.5						
JIRN	Jiri	32.65	337	eP	P	13 40 20.8	+1.1
	comp=Z,109nm,0.8s,mb5.8						
QZH	Quanzhou	32.71	33	eP	P	13 40 21.8	+1.5
QZH				S	S	13 45 35.0	+0.4
QZH				LR	LR		
	comp=N,3µm,17.2s,MS5.2						
QZH				LR	LR		
	comp=E,3µm,15.1s,MS5.2						
QZH				LR	LR		
	comp=Z,4µm,15.3s,MS5.2						
PKI	Pulchoki	32.88	336	eP	P	13 40 22.2	+0.4
	comp=Z,49nm,1.0s,mb5.4						
PKI	Pulchoki	32.88	336	eP	P	13 40 22.8	+1.0
PKIN	Phulchoki	32.89	336	eP	P	13 40 22.8	+0.9
LSA	Lhasa	32.98	346	P	P	13 40 23.3	+0.7
LSA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
LSA				LR	LR		
	comp=N,800nm,23.6s,MS4.5						
LSA				LR	LR		
	comp=E,1µm,28.5s,MS4.5						
LSA				LR	LR		
	comp=Z,1µm,26.9s,MS4.5						
LSA	Lhasa	32.98	346	eP	P	13 40 23.6	+1.0
LSA				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.2						
LSA	Lhasa	32.98	346	eP	P	13 40 23.6	+1.0
	comp=Z,22nm,0.7s,mb5.2						
GUN	Gumba	32.99	337	eP	P	13 40 23.7	+0.9
	comp=Z,99nm,0.6s,mb5.9						
DMN	Daman	33.03	336	eP	P	13 40 23.6	+0.5
	comp=Z,49nm,0.9s,mb5.4						
KKN	Kakani	33.12	336	eP	P	13 40 24.2	+0.3
	comp=Z,55nm,0.7s,mb5.6						
KKN	Kakani	33.12	336	eP	P	13 40 24.2	+0.3
KKN				pmax	pmax		
	comp=Z,55nm,0.7s,mb5.6						
CD2	Chengdu	33.33	6	P	P	13 40 25.0	-0.7
CD2				pP	pP	13 40 34.5	-1.4
CD2				sP	sP	13 40 38.5	-1.7
CD2				PP	PP	13 41 37.3	-4.3
CD2				S	S	13 45 43.0	-1.1
CD2				sS	sS	13 45 59.0	-2.0
CD2				SS	SS	13 47 46.8	-22
CD2				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
CD2				pmax	pmax		
	comp=Z,230nm,7.8s						
CD2				LR	LR		
	comp=N,3µm,15.5s						
CD2				LR	LR		
	comp=Z,2µm,17.8s,MS5.0						
GKN	Gorkha	33.58	335	eP	P	13 40 28.2	+0.3
	comp=Z,64nm,1.0s,mb5.5						
KOLN	Koldanda	33.82	334	eP	P	13 40 30.6	+0.6
	comp=Z,51nm,0.8s,mb5.5						
DANN	Dangsing	34.25	334	eP	P	13 40 34.2	+0.5
	comp=Z,49nm,0.6s,mb5.6						
NWAO	Narrogin (SRO)	34.48	154	eP	P	13 40 36.2	+0.5
	comp=Z,75nm,1.2s,mb5.5						
NWAO	Narrogin (SRO)	34.48	154	P	P	13 40 36.5	+0.9
	comp=Z,8.5nm,0.8s,mb4.7,baz=45,slow=3.9,SNR=4.2						
WHN	Wuhan	35.56	22	eP	P	13 40 44.5	-0.5
WHN				LR	LR		
	comp=N,5µm,14.8s,MS5.5						
WHN				LR	LR		
	comp=E,4µm,12.7s,MS5.5						
WHN				LR	LR		
	comp=Z,9µm,16.5s,MS5.6						
LGTI	Lohaghat	36.80	331	ex	P	13 40 56.5	+0.8
XAN	Xi’an	37.24	13	P	P	13 40 57.5	-1.8
XAN				pP	pP	13 41 07.5	-2.1
XAN				sP	sP	13 41 11.3	-2.6
XAN				PP	PP	13 42 23.5	-1.2
XAN				S	S	13 46 38.8	-5.3
XAN				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.8						
XAN				pmax	pmax		
	comp=Z,100nm,8.5s						
XAN				LR	LR		
	comp=N,2µm,14.4s,MS5.2						
XAN				LR	LR		
	comp=E,2µm,16.0s,MS5.2						
XAN				LR	LR		
	comp=Z,2µm,14.8s,MS5.1						
WRA	Warramunga Arr	37.94	120	P	P	13 41 04.8	-0.7
	comp=Z,29nm,0.5s,mb5.3,baz=304,slow=9.0,SNR=154						
WRA				PcP	PcP	13 43 20.9	-0.1
	comp=Z,2.7nm,0.7s,baz=317,slow=2.2,SNR=5.0						
WRA				S	S	13 46 54.2	-0.9
	comp=Z,1.4nm,0.9s,baz=293,slow=16,SNR=4.1						
WRAB	Tennant Creek	37.94	120	P	P	13 41 04.0	-1.5
	comp=Z,402nm,0.6s,mb6.3,SNR=56						
WRAB	Tennant Creek	37.94	120	eP	P	13 41 04.3	-1.2
WRAB				e		13 43 21.3	
WRAB				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.3						
WRAB	Tennant Creek	37.94	120	eP	P	13 41 04.3	-1.1
	comp=Z,59nm,1.0s,mb5.3						
WRAB				ePcP	PcP	13 43 21.3	+0.3
WRAB	Tennant Creek	37.94	120	P	P	13 41 04.6	-0.9
	comp=Z,62nm,0.8s,mb5.4						
LZH	Lanzhou	38.47	5	eP	P	13 41 10.0	+0.4
LZH				pP	pP	13 41 19.5	-0.5
LZH				sP	sP	13 41 23.5	-0.7
LZH				pmax	pmax		
	comp=Z,89nm,1.6s,mb5.2						
LZH				pmax	pmax		
	comp=Z,280nm,6.0s						
LZH				LR	LR		
	comp=N,2µm,14.4s						
LZH				LR	LR		
	comp=Z,2µm,15.3s,MS5.1						
NJ2	Nanjing	38.72	26	eP	P	13 41 11.8	0.0
NJ2				pP	pP	13 41 20.8	-1.4
NJ2				sP	sP	13 41 25.8	-0.7
NJ2				PP	PP	13 42 44.5	+3.5
NJ2				S	S	13 47 05.5	-1.1
NJ2				sS	sS	13 47 21.0	-2.7
NJ2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
NJ2				pmax	pmax		
	comp=Z,240nm,9.8s						
NJ2				LR	LR		
	comp=N,1µm,16.7s,MS5.1						
NJ2				LR	LR		
	comp=E,2µm,18.0s,MS5.1						
NJ2				LR	LR		
	comp=Z,4µm,14.0s,MS5.4						
FORT	Forrest	38.85	140	eP	P	13 41 19.5	+6.6
	comp=Z,17nm,0.6s,mb5.0						
FORT	Forrest	38.85	140	eP	P	13 41 14.4	+1.5
	comp=Z,25nm,0.9s,mb4.9						
SSE	Sheshan	39.02	30	P	P	13 41 14.5	+0.2
SSE				sP	sP	13 41 30.8	+1.8
SSE				S	S	13 47 11.5	+0.4
SSE				sS	sS	13 47 29.3	+1.1
SSE				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.0						
SSE				pmax	pmax		
	comp=Z,220nm,11.4s						
SSE				LR	LR		
	comp=N,1µm,18.5s,MS4.9						
SSE				LR	LR		
	comp=E,1µm,18.5s,MS4.9						
SSE				LR	LR		
	comp=Z,2µm,13.5s,MS5.1						
ASAR	Alice Springs	39.15	126	P	P	13 41 14.9	-0.7
	comp=Z,14nm,0.7s,mb4.8,baz=297,slow=7.3,SNR=100						
ASAR				PcP	PcP	13 43 25.1	+0.4
	comp=Z,3.6nm,0.7s,baz=326,slow=2.1,SNR=6.7						
ASAR				S	S	13 47 12.4	-1.0
	comp=Z,1.4nm,0.8s,baz=300,slow=15,SNR=8.2						
GTA	Gaotai	41.60	360	⇑P	P	13 41 35.8	+0.2
GTA				pP	pP	13 41 44.8	-1.2
GTA				sP	sP	13 41 49.5	-0.8
GTA				PP	PP	13 43 16.3	+4.0
GTA				S	S	13 47 50.3	+0.9
GTA				sS	sS	13 48 07.5	+0.9
GTA				SS	SS	13 50 50.5	-5.1
GTA				pmax	pmax		
	comp=Z,19nm,0.6s,mb4.9						
GTA				pmax	pmax		
	comp=Z,330nm,4.8s						
GTA				LR	LR		
	comp=N,1µm,15.9s,MS5.1						
GTA				LR	LR		
	comp=E,2µm,15.9s,MS5.1						
GTA				LR	LR		
	comp=Z,1µm,15.0s,MS4.9						
TIA	Tai’an	41.66	21	⇑P	P	13 41 35.5	-0.6
TIA				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.0						
BTO	Baotou	43.80	11	eP	P	13 41 52.5	-0.9
HHC	Hu-ho-hao-te	44.35	13	eP	P	13 41 58.0	+0.2
HHC				pP	pP	13 42 07.8	-0.5
HHC				sP	sP	13 42 12.0	-0.6
HHC				PP	PP	13 43 42.8	+1.0
HHC				PcS	PcS	13 47 33.0	-1.7
HHC				eS	S	13 48 29.0	-0.8
HHC				sS	sS	13 48 46.5	-0.6
HHC				SS	SS	13 51 40.3	-9.1
HHC				ScS	ScS	13 51 51.5	-1.9
HHC				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.0						
HHC				pmax	pmax		
	comp=Z,260nm,5.6s						
HHC				LR	LR		
	comp=N,3µm,16.1s,MS5.3						
HHC				LR	LR		
	comp=E,620nm,11.4s,MS5.3						
HHC				LR	LR		
	comp=Z,2µm,14.1s,MS5.2						
BJT	Baijiatuau	44.79	18	eP	P	13 42 01.2	-0.1
BJT				pmax	pmax		
	comp=Z,69nm,0.8s						
BJT	Baijiatuau	44.79	18	eP	P	13 42 01.2	-0.1
	comp=Z,69nm,0.8s,mb5.5						
BJI	Beijing	44.81	18	P	P	13 42 01.3	-0.2
BJI				pP	pP	13 42 10.8	-1.2
BJI				sP	sP	13 42 15.3	-0.9
BJI				S	S	13 48 38.8	+2.4
BJI				pmax	pmax		
	comp=Z,95nm,0.8s,mb5.7						
BJI				pmax	pmax		
	comp=Z,530nm,5.7s						
BJI				LR	LR		
	comp=N,2µm,17.4s,MS5.2						
BJI				LR	LR		
	comp=E,800nm,16.9s,MS5.2						
BJI				LR	LR		
	comp=Z,2µm,16.7s,MS5.0						
MTSU	Mount Surprise	46.31	113	eP	P	13 42 12.6	-1.2
	comp=Z,33nm,0.7s,mb5.4						
INCN	Inchon	46.82	29	eP	P	13 42 16.0	-1.4
	comp=Z,26nm,0.8s,mb5.2						
KSH	Kashi	47.12	335	eP	P	13 42 18.5	-1.2
KSH				pP	pP	13 42 28.3	-2.0
KSH				esP	sP	13 42 32.0	-2.5
KSH				ePcP	PcP	13 43 51.5	+0.3
KSH				eScP	ScP	13 47 41.5	-1.0
KSH				ePcS	PcS	13 47 45.0	-1.2
KSH				eS	S	13 49 05.0	-4.7
KSH				eScS	ScS	13 52 08.3	-3.0
KSH				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
KSH				pmax	pmax		
	comp=Z,200nm,4.6s						
KSH				LR	LR		
	comp=N,390nm,9.1s						
KSH				LR	LR		
	comp=E,2µm,21.0s						
KSH				LR	LR		
	comp=Z,1µm,17.2s,MS4.9						
WMQ	Urumqi	47.28	348	⇑iP	P	13 42 22.0	+1.1
WMQ				pP	pP	13 42 32.0	+0.5
WMQ				sP	sP	13 42 36.0	+0.3
WMQ				PcP	PcP	13 43 52.0	+0.4
WMQ				PP	PP	13 44 13.0	+0.7
WMQ				S	S	13 49 14.0	+2.1
WMQ				sS	sS	13 49 32.0	+2.7
WMQ				ScS	ScS	13 52 10.0	-2.2
WMQ				pmax	pmax		
	comp=Z,120nm,0.9s,mb5.8						
WMQ				pmax	pmax		
	comp=Z,410nm,4.0s						
WMQ				LR	LR		
	comp=N,1µm,19.0s,MS5.1						
WMQ				LR	LR		
	comp=E,2µm,20.0s,MS5.1						
WMQ				LR	LR		

	comp=Z,1µm,26.0s						
GUMO	**Guam**	47.40	69	LR	LR	14 02 07.2	
	comp=Z,355nm,20.0s,MS4.3,baz=236,slow=36						
KSRS	**Korea Array**	47.44	31	P	P	13 42 21.8	-0.5
	comp=Z,38nm,0.8s,mb5.4,baz=226,slow=8.5,SNR=126						
KSRS				LR	LR	14 02 28.9	
	comp=Z,563nm,20.2s,MS4.5,baz=227,slow=36						
CTA	**Charters Tower**	48.58	115	*e*P	P	13 42 30.6	-0.8
	comp=Z,20nm,0.8s,mb5.2						
CTA	**Charters Tower**	48.58	115	P	P	13 42 29.9	-1.5
	comp=Z,24nm,0.8s,mb5.3,baz=279,slow=8.1,SNR=19						
CTAO	**Charters Tower**	48.58	115	*e*P	P	13 42 30.4	-1.0
CTAO				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.4						
CTAO	**Charters Tower**	48.58	115	*e*P	P	13 42 30.4	-1.0
	comp=Z,43nm,1.1s,mb5.4						
CTAO	**Charters Tower**	48.58	115	P	P	13 42 31.4	0.0
	comp=Z,45nm,0.9s,mb5.5						
SNY	**Shenyang**	49.01	23	⇑P	P	13 42 33.3	-1.0
SNY				S	S	13 49 34.5	-1.9
SNY				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
SNY				pmax	pmax		
	comp=Z,350nm,5.4s						
SNY				LR	LR		
	comp=E,1µm,15.5s						
SNY				LR	LR		
	comp=Z,1µm,14.9s,MS5.0						
STKA	**Stephens Creek**	49.01	131	*e*P	P	13 42 34.6	+0.1
	comp=Z,20nm,1.0s,mb5.1						
STKA	**Stephens Creek**	49.01	131	P	P	13 42 34.7	+0.2
	comp=Z,13nm,0.7s,mb5.1,baz=306,slow=7.3,SNR=31						
STKA				LR	LR	14 04 34.5	
	comp=Z,1µm,21.9s,MS4.9,baz=305,slow=38						
STKA	**Stephens Creek**	49.01	131	P	P	13 42 34.7	+0.1
STKA				LR	LR	14 04 34.5	
ULHL	**Ulahol**	49.30	337	P	P	13 42 37.2	+0.6
	SNR=5.6						
KZA	**Kyzart**	49.56	336	P	P	13 42 39.5	+1.1
	SNR=11						
UCH	**Uchtor**	49.99	335	P	P	13 42 42.8	+1.0
	SNR=16						
TKM2	**Tokmak 2**	50.13	337	P	P	13 42 43.7	+0.9
	SNR=42						
KBK	**Karagaybulak**	50.17	336	P	P	13 42 44.3	+1.2
	SNR=18						
AML	**Almayashu**	50.25	335	P	P	13 42 44.7	+1.0
	SNR=22						
AAK	**Ala-Archa**	50.33	336	P	P	13 42 45.3	+1.0
	comp=Z,80nm,1.3s,mb5.6,SNR=5.6						
AAK	**Ala-Archa**	50.33	336	⇑*e*P	P	13 42 45.2	+0.9
AAK				pmax	pmax		
	comp=Z,17nm,2.5s,mb4.6						
AAK				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.5						
AAK	**Ala-Archa**	50.33	336	P	P	13 42 45.3	+1.0
	SNR=8.0						
AAK	**Ala-Archa**	50.33	336	*e*P	P	13 42 45.3	+0.9
	comp=Z,104nm,2.1s,mb5.5						
AAK	**Ala-Archa**	50.33	336	P	P	13 42 45.1	+0.8
	comp=Z,4.2nm,2.2s,mb4.1						
SONM	**Songino Array**	50.35	6	P	P	13 42 45.0	+0.6
	comp=Z,73nm,0.7s,mb5.8,baz=187,slow=8.9,SNR=480						
ULN	**Ulaanbaatar**	50.45	6	*e*P	P	13 42 45.7	+0.6
ULN				pmax	pmax		
	comp=Z,49nm,0.7s,mb5.7						
ULN	**Ulaanbaatar**	50.45	6	*e*P	P	13 42 45.7	+0.5
	comp=Z,49nm,0.7s,mb5.7						
ULN	**Ulaanbaatar**	50.45	6	P	P	13 42 45.7	+0.6
	comp=Z,74nm,0.8s,comp=Z,725nm,mb5.8						
CHMS	**Chumysh**	50.53	336	P	P	13 42 46.0	+0.2
	SNR=8.8						
EKS2	**Erkin-Say**	50.65	335	P	P	13 42 47.8	+1.0
	SNR=41						
USP	**Ospenovka**	50.86	336	P	P	13 42 48.7	+0.4
	SNR=27						
MK31	**Makanchi Array**	51.37	345	*i* P	P	13 42 51.8	-0.2
MK31				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.4						
MKAR	**Makanchi Array**	51.37	345	P	P	13 42 52.2	+0.2
	comp=Z,50nm,0.7s,mb5.6,baz=148,slow=8.0,SNR=592						
MKAR				LR	LR	14 08 38.5	
	comp=Z,368nm,19.1s,MS4.4,baz=156,slow=41						
CN2	**Changchun**	51.41	24	⇑P	P	13 42 51.5	-1.0
CN2				*e*pP	pP	13 43 01.5	-1.6
CN2				*e*S	S	13 50 09.8	0.0
CN2				SS	SS	13 53 44.0	-2.1
CN2				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.6						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,1µm,18.0s,MS5.0						
CN2				LR	LR		
	comp=E,900nm,18.0s,MS5.0						
CN2				LR	LR		
	comp=Z,1µm,18.0s,MS5.0						
CMSA	**Cobar Meteorol**	51.99	129	*e*P	P	13 42 57.0	0.0
KK31	**Karatay Array**	52.43	333	*i* P	P	13 42 59.4	-0.7
KK31				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
ZAK	**Zakamensk**	52.66	3	*e*P	P	13 43 01.5	-0.1
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MAJO	**Matsushiro**	52.69	39	*e*P	P	13 43 01.0	-1.1
MAJO				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
MAJO	**Matsushiro**	52.69	39	*e*P	P	13 43 01.0	-1.1
	comp=Z,15nm,0.6s,mb5.1						
MAT	**Matsushiro**	52.69	39	P	P	13 42 59.8	-2.3
MAT				S	S	13 50 23.6	-3.9
MJAR	**Matsushiro Arr**	52.69	39	P	P	13 43 00.6	-1.5
	comp=Z,12nm,0.9s,mb4.8,baz=224,slow=7.5,SNR=25						
MDJ	**Mudanjiang**	53.81	26	P	P	13 43 10.0	-0.2
MDJ				pP	pP	13 43 19.3	-1.6
MDJ				sP	sP	13 43 23.0	-2.1
MDJ				PcP	PcP	13 44 15.3	-0.4
MDJ				PP	PP	13 45 11.5	-0.1
MDJ				ScP	ScP	13 48 09.8	-1.4
MDJ				S	S	13 50 41.0	-1.6
MDJ				ScS	ScS	13 52 55.0	-1.9
MDJ				SS	SS	13 54 24.5	+0.4
MDJ				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
MDJ				pmax	pmax		
	comp=Z,140nm,4.9s						
MDJ				LR	LR		
	comp=N,1µm,19.8s,MS5.0						
MDJ				LR	LR		
	comp=E,1µm,18.6s,MS5.0						
MDJ				LR	LR		
	comp=Z,980nm,21.0s,MS4.8						
MDJ	**Mudanjiang**	53.81	26	*e*P	P	13 43 10.3	+0.1
	comp=Z,22nm,0.9s,mb5.1						
MOY	**Mondy**	53.87	1	*e*P	P	13 43 11.6	+1.1
MOY				pmax	pmax		
	comp=Z,41nm,2.4s,mb4.9						
TLY	**Talaya**	53.97	3	*e*P	P	13 43 11.5	+0.3
TLY				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
TLY				MLR	MLR		
	comp=Z,700nm,16.0s,MS4.8						
TLY	**Talaya**	53.97	3	*e*P	P	13 43 11.4	+0.2
	comp=Z,15nm,0.9s,mb4.9						
OPO	**Ambohidratompo**	53.97	249	P	P	13 43 13.0	+1.1
	comp=Z,1.4nm,0.5s,mb4.1,baz=68,slow=6.5,SNR=5.0						
HIA	**Hailar**	54.27	16	*e*P	P	13 43 12.7	-0.7
HIA				pmax	pmax		
	comp=Z,15nm,0.8s						
HIA	**Hailar**	54.27	16	*e*P	P	13 43 12.7	-0.7
	comp=Z,15nm,0.8s,mb5.0						
EIDS	**Eidsvold**	54.30	120	*e*P	P	13 43 13.8	-0.4
IRK	**Irkutsk**	54.57	3	⇑*i*P	P	13 43 15.5	-0.1
IRK				pmax	pmax		
	comp=Z,45nm,2.2s,mb5.1						
YNG	**Young**	55.20	131	*e*P	P	13 43 21.5	+1.0
	comp=Z,9.6nm,0.8s,mb4.9						
KURK	**Kurchatov**	55.94	344	P	P	13 43 25.9	+0.4
	comp=Z,301nm,1.0s,mb6.3,SNR=12						
KURK	**Kurchatov**	55.94	344	*e*P	P	13 43 25.1	-0.4
KURK				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.6						
KURK	**Kurchatov**	55.94	344	P	P	13 43 24.9	-0.6
	comp=Z,24nm,0.8s,mb5.3,baz=163,slow=7.0,SNR=20						
KURK				LR	LR	14 11 37.8	
	comp=Z,325nm,20.4s,MS4.4,baz=105,slow=41						
KURK	**Kurchatov**	55.94	344	*e*P	P	13 43 25.1	-0.4
	comp=Z,59nm,0.9s,mb5.6						
ZALV	**Zalesovo Beam**	57.53	350	P	P	13 43 36.2	-0.5
	comp=Z,30nm,0.7s,mb5.4,baz=177,slow=5.8,SNR=138						
ZALV	**Zalesovo Beam**	57.53	350	P	P	13 43 36.2	-0.5
KLR	**Kul'dur**	58.36	24	*e*P	P	13 43 36.2	-6.4
KLR				*e*S	S	13 52 06.0	+23
KLR				*e*		13 55 32.5	
KLR				pmax	pmax		
	comp=Z,170nm,2.0s,mb5.7						
NVS	**Novosibirsk**	58.67	349	*e*P	P	13 43 43.6	-1.1
NVS				*e*S	S	13 51 47.0	+0.4
NVS				pmax	pmax		
	comp=N,34nm,1.8s						
NVS				pmax	pmax		
	comp=Z,40nm,1.8s,mb5.2						
NVS				smax			
	comp=E,60nm,3.6s						
HABR	**Khabarovsk**	59.19	27	*e*P	P	13 43 47.0	-1.4
HABR				*e**PP	pP	13 43 56.2	-3.0
HABR				*e**SP	sP	13 44 00.0	-3.4
HABR				*e*		13 44 33.8	
HABR						13 45 56.6	
HABR				S	S	13 51 53.0	-0.6
HABR				*e**SS	sS	13 52 09.0	-2.4
HABR				*e*		13 53 33.0	
HABR				SS	SS	13 55 47.6	-1.0
HABR				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.2						
HABR				pmax	pmax		
	comp=E,9.0nm,1.0s						
HABR				pmax	pmax		
	comp=N,3.0nm,0.8s						
HABR				MLR	MLR		
	comp=Z,579nm,19.0s,MS4.7						
VOSK	**Vostochnaya**	60.05	340	P	P	13 43 53.1	-1.1
VOSK				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
BVA0	**Borovoye Array**	60.50	340	P	P	13 43 56.2	-1.1
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
BVAR	**Borovoye Array**	60.50	340	P	P	13 43 56.2	-1.2
	baz=139,slow=9.0						
BRVK	**Borovoye**	60.56	340	P	P	13 43 56.0	-1.7
	comp=Z,120nm,0.5s,mb6.3,SNR=9.5						
BRVK	**Borovoye**	60.56	340	*e*P	P	13 43 56.6	-1.1
BRVK				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.2						
BRVK	**Borovoye**	60.56	340	*e*P	P	13 43 56.6	-1.1
	comp=Z,11nm,0.6s,mb5.2						
BOD	**Bodaibo**	61.10	9	⇓*i*P	P	13 44 01.0	-0.3
BOD				pmax	pmax		
	comp=Z,30nm,1.7s,mb5.2						
YSS	**Yuzh-Sakhalins**	61.90	32	⇑*i*P	P	13 44 06.0	-1.0
YSS				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.7						
YSS				MLR	MLR		
	comp=N,500nm,16.0s						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.8						
YSS	**Yuzh-Sakhalins**	61.90	32	*e*P	P	13 44 06.4	-0.5
	comp=Z,34nm,0.7s,mb5.6						
AB31	**Akbulak array**	61.91	332	P	P	13 44 05.8	-1.1
AB31				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.6						
NRGR	**Nerungri**	62.23	15	*e*P	P	13 44 08.8	-0.2
NRGR				S	S	13 52 57.8	+26
CLNS	**Chul'man**	62.44	15	*e*P	P	13 44 09.5	-0.8
CLNS				*e**PP	pP	13 44 16.6	-4.6
CLNS				*e*		13 44 46.7	
CLNS				*e*		13 46 27.2	
CLNS				*e*PPP		13 47 55.4	
CLNS				*e*S	S	13 52 37.5	+2.8
CLNS				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
CLNS				pmax	pmax		
	comp=N,11nm,0.8s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
CLNS				pmax	pmax		
	comp=N,4.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,4.0nm,1.0s						
CLNS				smax			
	comp=N,162nm,13.8s						
CLNS				smax			
	comp=E,73nm,12.2s						
CLNS				MLR	MLR		
	comp=Z,864nm,15.0s,MS5.0						
CLNS				MLR	MLR		
	comp=N,654nm,13.0s,MS5.1						
CLNS				MLR	MLR		
	comp=E,425nm,13.0s,MS5.1						
KMBO	**Kilima Mbogo**	62.56	270	P	P	13 44 12.7	+0.6
	comp=E,0.4nm,0.3s,mb4.0,baz=82,slow=9.1,SNR=3.5						
AKTO	**Aktyubinsk**	63.63	332	P	P	13 44 17.0	-1.4
AKTO				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
GNI	**Garni**	65.70	316	P	P	13 44 33.7	+1.6
GNI				pmax	pmax		
	comp=Z,14nm,0.9s						
GNI	**Garni**	65.70	316	P	P	13 44 33.7	+1.6
	comp=Z,14nm,0.9s,mb5.0						
SVE	**Sverdlovsk**	66.99	338	⇓*e*P	P	13 44 39.7	-0.3
SVE				*e*SS	SS	13 57 46.4	-3.6
SVE				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
SVE				MLR	MLR		
	comp=Z,701nm,18.0s,MS4.9						
DZM	**Mont Dzumac**	67.45	113	*e*LR	LR	14 05 05.9	
	comp=Z,912nm,23.9s						
ARU	**Arti**	67.50	337	P	P	13 44 42.9	-0.4
	comp=Z,116nm,0.6s,mb6.1,SNR=6.8						
ARU	**Arti**	67.50	337	*c i*P	P	13 44 42.4	-0.9
ARU						13 45 06.2	
ARU				*e*		13 47 09.3	
ARU				*e*PPP		13 48 44.9	
ARU				S	S	13 53 37.6	+0.5
ARU				SS	SS	13 57 54.6	-3.5
ARU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
ARU				MLR	MLR		
	comp=Z,536nm,19.0s,MS4.8						
ARU	**Arti**	67.50	337	*e*P	P	13 44 42.2	-1.1
	comp=Z,18nm,1.0s,mb5.1						
YAK	**Yakutsk**	68.17	15	*ce*P	P	13 44 46.1	-1.2
YAK				pmax	pmax		
	comp=Z,73nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.1						
YAK				MLR	MLR		
	comp=N,521nm,17.0s,MS5.0						
YAK				MLR	MLR		
	comp=E,404nm,16.0s,MS5.0						
YAK	**Yakutsk**	68.17	15	*e*P	P	13 44 46.2	-1.1
	comp=E,80nm,0.8s,mb5.8						
KIV	**Kislovodsk**	68.73	319	*e*P	P	13 44 51.0	-0.3
KIV				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
KIV	**Kislovodsk**	68.73	319	*e*P	P	13 44 51.0	-0.3
	comp=Z,15nm,0.6s,mb5.1						
GOF	**Gofitskoye**	69.00	321	*e*P	P	13 44 56.7	+3.8
MALT	**Malatya**	69.48	312	*e*P	P	13 44 56.6	+0.5
MALT				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
MALT	**Malatya**	69.48	312	⇓*i*P	P	13 44 56.8	+0.7
MALT	**Malatya**	69.48	312	*e*P	P	13 44 56.6	+0.5
	comp=Z,9.0nm,0.9s,mb4.7						
MALT	**Malatya**	69.48	312	P	P	13 44 56.6	+0.5
MAW	**Mawson**	69.86	194	LR	LR	14 09 28.8	
	comp=Z,646nm,18.9s,MS4.9,baz=109,slow=31						
SOKR	**Solikamsk**	70.37	338	⇑*i*P	P	13 45 02.2	+1.2
SOKR				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,440nm,21.0s,MS4.7						
SOC	**Sochi**	70.54	318	*e*P	P	13 44 59.5	-2.9
SOC				*e**PP	pP	13 45 12.0	-1.4
SOC				*e*S	S	13 54 09.2	-4.3
SOC				*e*		13 55 01.8	
SOC				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
SOC				MLR	MLR		
	comp=Z,340nm,18.0s,MS4.6						
LSZ	**Lusaka**	71.67	255	P	P	13 45 11.8	+2.0
ANN	**Anapa**	72.52	319	*e*P	P	13 45 04.7	-10
ANN				*e**PP	pP	13 45 14.1	-11
ANN				*e*SSS		14 02 23.3	
ANN				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.4						
ANN				MLR	MLR		
	comp=Z,652nm,23.0s,MS4.8						
VRHR	**Novokhopersk**	72.56	326	*e*P	P	13 45 13.7	-0.8
VRHR				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.5s						
PETK	**Petropavlovsk-**	73.31	32	P	P	13 45 18.1	-0.7
	comp=N,16nm,0.8s,mb5.0,baz=169,slow=0.9,SNR=12						
BRTR	**Keskin Array B**	73.47	313	P	P	13 45 19.0	-1.1
	comp=N,7.4nm,0.8s,mb4.7,baz=131,slow=7.3,SNR=38						
PET	**Petropavlovsk**	73.78	33	*e*P	P	13 45 20.9	-0.7
PET				pmax	pmax		
	comp=Z,68nm,0.7s,mb5.7						
PET	**Petropavlovsk**	73.78	33	*e*P	P	13 45 19.7	-1.9
	comp=Z,44nm,0.8s,mb5.4						
VSR	**Storozhevoye**	74.01	325	*e*P	P	13 45 21.9	-1.1
VSR				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
VSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VSR				pmax	pmax		
	comp=E,20nm,0.9s						
LBTB	**Lobatse**	74.71	245	P	P	13 45 36.2	+8.5
	comp=E,2.8nm,0.8s,mb4.3,baz=34,slow=1.5,SNR=4.2						
BOSA	**Boshof**	75.32	241	P	P	13 45 32.3	+1.1
	comp=E,2.0nm,0.7s,mb4.2,baz=86,slow=4.7,SNR=4.2						
BOSA				LR	LR	14 14 58.9	
	comp=E,797nm,18.3s,MS5.1,baz=174,slow=33						
PRGR	**Permogore**	75.96	336	⇑*i*P	P	13 45 31.6	-2.4
PRGR				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.7						
SEY	**Seymchan**	76.05	22	⇑*e*P	P	13 45 34.3	-0.2
TIXI	**Tiksi**	76.27	9	⇑*e*P	P	13 45 34.1	-1.5
TIXI				pmax	pmax		
	comp=Z,71nm,1.7s,mb5.3						
TIXI	**Tiksi**	76.27	9	*e*P	P	13 45 33.9	-1.7
MOS	**Moscow**	76.75	329	*e*P	P	13 45 35.2	-3.4
MOS				*e*		13 45 52.8	
MOS				pmax	pmax		
	comp=Z,71nm,1.2s,mb5.5						
OBN	**Obninsk**	77.04	328	*c i*P	P	13 45 39.9	-0.4
OBN				*i*	pP	13 45 52.3	+0.9
OBN				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.3						
OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.7						
OBN	**Obninsk**	77.04	328	*e*P	P	13 45 40.0	-0.3
	comp=Z,55nm,1.3s,mb5.3						
KLMR	**Klimovskoe**	78.11	334	*e*P	P	13 45 44.9	-1.2
KLMR				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
TIRR	**Tirgusor**	78.53	316	⇓*i*P	P	13 45 48.6	-0.2
URZ	**Urewera**	78.53	128	P	P	13 45 49.1	+0.1
	comp=Z,4.6nm,0.7s,mb4.5,baz=254,slow=7.4,SNR=3.2						
AKASG	**Malin Array Be**	79.70	322	P	P	13 45 54.0	-1.1
	comp=Z,1.9nm,0.5s,mb4.3,baz=85,slow=5.7,SNR=10.0						
KIEV	**Kiev**	79.70	322	*e*P	P	13 45 53.6	-1.5
KIEV				*e**PP	pP	13 46 05.4	-0.9
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KIEV	**Kiev**	79.70	322	*e*P	P	13 45 53.6	-1.5
	comp=Z,5.0nm,0.8s,mb4.5						
KIEV				*e*pP	pP	13 46 05.4	-0.9
VRI	**Vrincioaia**	80.03	317	⇑*i*P	P	13 45 57.8	+0.8
PLOR	**Plostina**	80.08	317	⇑*i*P	P	13 45 59.1	+1.9
MLR	**Muntele Rosu**	80.47	317	⇑*i*P	P	13 45 59.6	+0.2
MLR	**Muntele Rosu**	80.47	317	⇑P	P	13 45 59.6	+0.2
VOIR		81.08	317	⇓*i*P	P	13 46 02.6	0.0
VOIR		81.08	317	⇓P	P	13 46 02.6	0.0
BURAR	**Bucovina Array**	81.45	319	⇓*i*P	P	13 46 05.3	+0.8
BURAR	**Bucovina Array**	81.45	319	⇓P	P	13 46 05.3	+0.8
VNDA	**Vanda**	81.81	169	LR	LR	14 15 33.5	
	comp=Z,305nm,20.1s,MS4.7,baz=352,slow=31						
JOF	**Joensuu**	82.50	335	*e*p	P	13 46 09.3	-0.4
	comp=Z,8.9nm,0.7s,mb4.9						
BILL	**Bilibino**	83.58	20	*e*P	P	13 46 14.8	-0.4
BILL				*i*		13 46 33.7	
BILL				pmax	pmax		
	comp=Z,16nm,1.6s,mb4.9						
BILL	**Bilibino**	83.58	20	P	P	13 46 15.5	+0.3
	comp=Z,106nm,2.3s,mb5.6						
KOLS	**Kolonicke sedl**	83.65	320	*e*P	P	13 46 15.9	0.0
KOLS				pmax	pmax		
	comp=Z,821nm,4.6s						
KOLS	**Kolonicke sedl**	83.65	320	*e*P	P	13 46 15.9	0.0
	comp=Z,821nm,4.6s						
CRVS	**Cervenica-Dubn**	84.17	319	*e*P	P	13 46 19.2	+0.6
FINES	**FINESS Array B**	84.39	332	P	P	13 46 19.4	-0.1
	comp=Z,6.7nm,0.7s,mb4.9,baz=101,slow=8.0,SNR=14						
FINES				LR	LR	14 30 28.5	
	comp=Z,298nm,19.1s,MS4.7,baz=112,slow=40						
STHS	**Stebnicka Huta**	84.40	320	*e*P	P	13 46 20.2	+0.4
KAF	**Kangasniemi**	84.46	333	*e*P	P	13 46 19.1	-0.7
KAF				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.2						
KAF	**Kangasniemi**	84.46	333	*e*p	P	13 46 19.1	-0.7
	comp=Z,15nm,0.7s,mb5.2						
PSZ	**Piszkesteto**	85.03	318	*e*P	P	13 46 22.2	-0.8
PSZ				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
PSZ	**Piszkesteto**	85.03	318	*e*P	P	13 46 22.2	-0.8
	comp=Z,8.2nm,0.9s,mb4.9						
PKSM	**Moragy**	85.62	317	⇑*i*P	P	13 46 26.4	+0.4
PKSM	**Moragy**	85.62	317	⇑P	P	13 46 26.4	+0.4
VYHS	**Vyhne**	85.82	319	*e*P	P	13 46 26.4	-0.5
VYHS				pmax	pmax		
	comp=Z,25nm,2.5s,mb5.0						
VYHS	**Vyhne**	85.82	319	*e*P	P	13 46 26.4	-0.5
	comp=Z,25nm,2.5s,mb5.0						
TIP	**Timpagrande**	86.13	309	*e*P	P	13 46 29.7	+1.0
KEV	**Kevo**	86.35	341	*e*P	P	13 46 20.3	-8.8
KEV				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.1						
KEV	**Kevo**	86.35	341	*e*p	P	13 46 20.3	-8.8
	comp=Z,9.3nm,0.7s,mb5.1						
ARCES	**ARCESS Array B**	86.79	340	P	P	13 46 30.8	-0.5
	comp=Z,16nm,0.8s,mb5.3,baz=94,slow=4.9,SNR=21						
ARCES				LR	LR	14 29 09.8	
	comp=Z,501nm,18.2s,MS5.0,baz=120,slow=38						
MORC	**Moravsky Berou**	86.83	320	*e*P	P	13 46 32.0	+0.1
CUC	**Castrocucco**	86.94	310	*e*P	P	13 46 32.7	+0.1
	comp=Z,4.2nm,0.8s,mb4.7						
QSPA	**South Pole Qui**	87.57	180	LR	LR	14 22 24.8	
	comp=Z,762nm,18.7s,MS5.1,baz=336,slow=33						
QSPA	**South Pole Qui**	87.57	180	*e*P	P	13 46 35.8	+1.0
PERS	**Pernice**	88.09	317	*e*P	P	13 46 38.4	+0.4
MOZS	**Mozjanca**	88.53	316	*e*P	P	13 46 40.5	+0.4
CADS	**Cadrg**	89.01	316	*e*P	P	13 46 43.0	+0.7
GERES	**GERESS Array B**	89.24	319	P	P	13 46 43.6	+0.3
	comp=Z,3.3nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=15						
BRG	**Berggiesshubel**	89.24	321	*e*P	P	13 46 43.8	+0.5
BRG				*e*	pP	13 46 56.3	+1.7
BRG				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.7						
BRG				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.7						
BRG	**Berggiesshubel**	89.24	321	*e*P	P	13 46 43.8	+0.5
	comp=Z,8.5nm,1.2s,mb5.0						
BRG				*e*	pP	13 46 56.3	+1.7
	comp=Z,5.3nm,0.8s						
KHC	**Kasperske Hory**	89.34	319	*e*P	P	13 46 43.5	-0.3
CLL	**Collm**	89.87	321	*e*P	P	13 46 47.0	+0.8
CLL				*e*	pP	13 46 59.0	+1.5
CLL				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.0						
CLL				MLR	MLR		
	comp=Z,300nm,17.2s,MS4.8						
CLL	**Collm**	89.87	321	*e*P	P	13 46 47.0	+0.8
	comp=Z,9.0nm,1.1s,mb5.0						
CLL				*e*(pP)	pP	13 46 59.0	+1.5
CLL	**Collm**	89.87	321	*e*P	P	13 46 47.0	+0.8
	comp=Z,9.0nm,1.1s,mb5.0						
CLL				*e*	pP	13 46 59.0	+1.5
CLL				LR	LR		
	comp=Z,300nm,17.2s,MS4.8						

GRA1	**Grafenberg Arr**	**90.91**	**320**	*e*P	**P**	**13 46 51.8**	**+0.7**
	comp=Z,10.0nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**90.91**	**320**	*e*P	**P**	**13 46 51.8**	**+0.7**
GRF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**90.91**	**320**	*e*P	**P**	**13 46 51.8**	**+0.7**
GRF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**90.91**	**320**	*e*P	**P**	**13 46 51.8**	**+0.7**
	comp=Z,10.0nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**90.91**	**320**	*e*P	**P**	**13 46 51.8**	**+0.7**
	comp=Z,10.0nm,1.1s,mb5.1						
FETA	**Feichten**	**91.13**	**317**	⇑*i*PcP	PcP	13 46 52.7	-0.5
	comp=Z,6.9nm,1.0s						
NB2	**NORSAR Subarra**	**91.41**	**331**	P	**P**	**13 46 51.8**	**-1.4**
	comp=Z,3.0nm,0.9s,mb4.6,baz=92,slow=4.8						
NOA	**NORSAR Array B**	**91.41**	**331**	P	**P**	**13 46 53.0**	**-0.1**
	comp=Z,1.5nm,0.8s,mb4.4,baz=92,slow=9.4,SNR=3.6						
NOA				LR	LR	14 37 02.0	
	comp=Z,204nm,19.3s,MS4.6,baz=110,slow=42						
DAVA	**Damuels**	**91.71**	**317**	⇑*i*PcP	PcP	13 46 55.6	-0.2
	comp=Z,13nm,0.9s						
KEST	**Kesra**	**91.78**	**306**	P	**P**	**13 46 57.0**	**+1.5**
	comp=Z,3.8nm,0.9s,mb4.7,baz=97,slow=8.1,SNR=12						
AKUT	**Akutan**	**94.51**	**36**	*e*P	**P**	**13 47 03.9**	**-3.8**
TORD	**Torodi Ar. Bea**	**98.47**	**283**	P	**P**	**13 47 29.6**	**+3.1**
	comp=Z,0.2nm,0.8s,mb3.7,baz=103,slow=6.5,SNR=2.0						
RES	**Resolute Bay**	**107.27**	**4**	Pdiff	Pdif	13 48 05.2	+0.4
	comp=Z,0.5nm,0.8s,baz=345,slow=9.9,SNR=3.5						
PPT	**Papeete**	**108.83**	**109**	*e*LR	LR	14 24 22.6	
	comp=Z,638nm,28.0s						
YKA	**Yellowknife Ar**	**114.80**	**17**	PKiKP	PKiKP	13 52 25.9	-1.7
	comp=Z,0.5nm,0.8s,baz=312,slow=1.9,SNR=9.1						
YKA				PP	PP	13 53 18.4	-7.0
	comp=Z,0.3nm,0.5s,baz=326,slow=7.2,SNR=7.9						
YKA				PKKPab	PKKPab	14 03 20.2	+8.8
	comp=Z,0.1nm,0.6s,baz=138,slow=3.9,SNR=5.3						
YKA	**Yellowknife Ar**	**114.80**	**17**	PKPdf	PKiKP	13 52 25.9	-1.7
YKA				PP	PP	13 53 18.4	-7.0
YKA				PKKPab	PKKPab	14 03 20.2	+8.8
TAOE	**Nuku Hiva Isla**	**119.18**	**101**	*e*LR	LR	14 29 04.7	
	comp=Z,317nm,24.3s						
FFC	**Flin Flon**	**124.89**	**15**	⇑*i*PKIKP	PKPdf	13 52 48.3	+1.1
SCHQ	**Schefferville**	**126.61**	**350**	PKP	PKPdf	13 52 50.6	+0.1
	comp=Z,1.6nm,0.7s,baz=33,slow=7.1,SNR=4.3						
NVAR	**Mina Array Bea**	**130.01**	**39**	PKP	PKPdf	13 52 58.5	+1.0
	comp=Z,0.8nm,0.7s,baz=290,slow=2.5,SNR=7.0						
NVAR	**Mina Array Bea**	**130.01**	**39**	PKP	PKPdf	13 52 58.5	+1.0
ULM	**Lac du Bonnet**	**130.49**	**13**	PKP	PKPdf	13 52 57.0	-1.1
	comp=Z,2.6nm,0.7s,baz=354,slow=3.1,SNR=5.6						
ULM	**Lac du Bonnet**	**130.49**	**13**	PKP	PKPdf	13 52 57.0	-1.1
M13A	**Montello**	**130.61**	**34**	*e*PKPdf	PKPdf	13 52 59.5	+1.0
PDAR	**Pinedale Array**	**132.00**	**29**	PKP	PKPdf	13 53 00.8	-0.3
	comp=Z,0.3nm,0.5s,baz=84,slow=2.3,SNR=4.3						
MSU	**Marysvale**	**133.66**	**35**	*e*PKIKP	PKPdf	13 53 07.1	+2.7
WMOK	**Wichita Mounta**	**143.45**	**26**	*e*PKIKP	PKPdf	13 53 19.2	-3.2
CPUP	**Villa Florida**	**143.91**	**216**	PKP	PKPdf	13 53 22.4	-1.0
	comp=Z,0.9nm,0.6s,baz=84,slow=6.2,SNR=4.0						
TXAR	**Lajitas Array**	**145.12**	**38**	PKPbc	PKPbc	13 53 25.6	+0.7
	comp=Z,52nm,0.7s,baz=283,slow=0.9,SNR=624						
ELN	**Prospectdale**	**145.34**	**1**	*e*PKP	PKPdf	13 53 24.2	-1.4
BLA	**Blacksburg**	**145.35**	**0**	*e*PKIKP	PKPdf	13 53 24.6	-1.1
GNAR	**Gosnell**	**145.38**	**14**	*e*PKP	PKPdf	13 53 25.3	-0.5
HALT	**Halls**	**145.59**	**13**	*e*PKP	PKPdf	13 53 25.9	-0.2
MIAR	**Mount Ida**	**145.66**	**20**	*e*PKIKP	PKPdf	13 53 26.4	+0.1
WVT	**Waverly**	**145.69**	**11**	*e*PKP2	PKPab	13 53 25.9	-1.0
TZTN	**Tazewell**	**145.88**	**5**	*e*PKP	PKPdf	13 53 25.3	-1.3
JCT	**Junction City**	**146.44**	**32**	*e*PKP2	PKPab	13 53 29.1	-0.8
PLAL	**Pickwick Lake**	**146.75**	**12**	*e*PKPbc	PKPbc	13 53 28.6	-1.2
CPCT	**Cooper Cave**	**146.87**	**7**	*e*PKPbc	PKPbc	13 53 29.2	-0.9
OXF	**Oxford**	**146.91**	**14**	*e*PKP2	PKPab	13 53 29.1	-2.5
SWET	**Sewanee**	**146.91**	**9**	*e*PKPbc	PKPbc	13 53 28.8	-1.5
JSC	**Jenkinsville**	**148.26**	**2**	*e*PKP2	PKPab	13 53 33.5	-3.4
HKT	**Hockley**	**148.82**	**27**	*e*PKP2	PKPab	13 53 36.0	-3.3
GOGA	**Godfrey**	**148.99**	**5**	*e*PKP2	PKPab	13 53 35.4	-4.5
LVC	**Limon Verde**	**152.82**	**203**	*e*PKPab	PKPab	13 53 56.3	+0.3

IDC 25 13:43:26.8±1.2**, 23°.12S×178°.09W, h0^{km}, mb3.6**/2**, mb1 3.9**/2**, mb1mx3.6**/16**, mbtmp3.6**/2**, Error ellipse: s-maj=60.3km s-min=38.5km az=164.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**43.90**	**259**	P	P	13 51 35.2	-0.1
	0.4nm,0.5s,baz=99,slow=7.3,SNR=11						
WRA	**Warramunga Arr**	**44.22**	**265**	P	P	13 51 38.1	+0.1
	0.6nm,0.5s,baz=96,slow=8.4,SNR=9.5						
MKAR	**Makanchi Array**	**112.91**	**313**	PKiKP	PKiKP	14 02 04.8	-0.8
	0.1nm,0.5s,baz=124,slow=0.5,SNR=3.2						
KURK	**Kurchatov**	**115.84**	**317**	PKP	PKPdf	14 02 10.0	-1.1
	0.5nm,0.7s,baz=103,slow=1.6,SNR=3.7						
BVAR	**Borovoye Array**	**121.01**	**319**	PKP	PKPdf	14 02 19.9	-1.0
	0.5nm,0.4s,baz=107,slow=3.3,SNR=3.9						
ARCES	**ARCESS Array B**	**131.47**	**349**	PKP	PKPdf	14 02 40.7	+0.2
	3.8nm,1.0s,baz=36,slow=2.3,SNR=5.5						
AKASG	**Malin Array Be**	**145.23**	**329**	PKPbc	PKPbc	14 03 06.6	+0.7
	1.1nm,0.5s,baz=43,slow=3.6,SNR=4.8						
BRTR	**Keskin Array B**	**148.47**	**309**	PKPbc	PKPbc	14 03 15.2	-0.4
	0.4nm,0.6s,baz=62,slow=2.4,SNR=1.7						
TORD	**Torodi Ar. Bea**	**170.08**	**179**	PKPab	PKPab	14 04 52.3	0.0
	0.5nm,0.9s,baz=180,slow=0.8,SNR=2.2						

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*NEIC **25** 13:52:21.6±3.4, 36°.73N×141°.24E, h71^{km}±42^{km}, MG3.9(JMA), Error ellipse: s-maj=65.0km s-min=12.9km az=130.0*

*ISCJB **25** 13:52:22.3±0.6, 36°.99N±0°.04×140°.95E±0°.07, h102^{km}±4^{km}, mb3.5/2, Error ellipse: s-maj=9.9km s-min=5.5km az=23.0*

*IDC **25** 13:52:22.3±2.5, 36°.97N×141°.10E, h91^{km}±23^{km}, mb3.1/2, mb1 3.5/5, mb1mx3.1/25, mbtmp3.5/5, Error ellipse: s-maj=50.2km s-min=16.7km az=96.0*

*JMA **25** 13:52:24.1±0.1, 37°.01N×140°.84E, h96^{km}±1^{km}, M3.9 Broadband fault plane solution: P waves. NP1: φs140.00000°, δ28.00000°, λ-57.00000°. NP2: φs284.00000°, δ66.00000°, λ-106.00000°. Principal axes: T Plg20.0000°, Azm26.0000°; N Plg15.0000°, Azm290.0000°; P Plg65.0000°, Azm166.0000°;*

JMA Felt I J1.

ISC 25 13:52:23.5±0.5**, 37°.00N**±0°.04×**140°.93E**±0°.07**, h96**^{km}±4^{km}**, n22, σ0^{s}66**/39**, mb3.5**/2**, 3C-9D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	**Iwakimizuishiy**	**0.15**	**316**	⇓P	**Pn**	**13 52 37.7**	**+0.6**
ONAJ				S	**Sn**	**13 52 47.6**	**+0.4**
JFK	**Kawauchi**	**0.37**	**354**	⇓P	**Pn**	**13 52 38.5**	**+0.5**
JFK				*e*S	**Sn**	**13 52 49.0**	**+0.1**
JHO	**Hitachi**	**0.48**	**217**	⇑P	**Pn**	**13 52 39.1**	**+0.4**
JHO				*e*S	**Sn**	**13 52 49.9**	**-0.2**
JFT	**Otama**	**0.70**	**318**	⇓P	**Pn**	**13 52 40.6**	**0.0**
JFT				*e*S	**Sn**	**13 52 53.3**	**-0.1**
JMM	**Marumori**	**0.88**	**353**	⇓P	**Pn**	**13 52 42.5**	**+0.2**
JMM				S	**Sn**	**13 52 55.9**	**-0.5**
JFY	**Yanaizu**	**1.06**	**293**	⇓P	**Pn**	**13 52 44.3**	**+0.1**
JFY				*e*S	**Sn**	**13 52 59.4**	**-0.5**
JAG	**Ashikaga**	**1.31**	**245**	⇑P	**Pn**	**13 52 47.4**	**+0.2**
JAG				*e*S	**Sn**	**13 53 04.7**	**-0.5**
JKT	**Katashina**	**1.36**	**261**	P	**Pn**	**13 52 48.4**	**+0.6**
JOU	**Okura**	**1.38**	**351**	⇓P	**Pn**	**13 52 48.4**	**+0.3**
JOU				*e*S	**Sn**	**13 53 06.5**	**-0.2**
JYS	**Shirataka**	**1.40**	**331**	⇓P	**Pn**	**13 52 48.6**	**+0.3**
JYS				*e*S	**Sn**	**13 53 07.3**	**+0.2**
JIO	**Ouri**	**1.49**	**13**	⇑P	**Pn**	**13 52 49.4**	**-0.1**
JIO				*e*S	**Sn**	**13 53 07.9**	**-1.2**
JNS	**Sasagawa**	**1.52**	**303**	⇓P	**Pn**	**13 52 49.4**	**-0.4**
JHK	**Hiroka**	**1.55**	**280**	⇓P	**Pn**	**13 52 50.5**	**+0.4**
JHK				*e*S	**Sn**	**13 53 10.0**	**-0.3**
MJAR	**Matsushiro Arr**	**2.23**	**259**	P	**Pn**	**13 52 59.2**	**+0.3**
	7.2nm,0.3s,baz=82,slow=14,SNR=72						
MJAR				S	**Sn**	**13 53 21.4**	**-4.6**
	12nm,0.3s,baz=80,slow=18,SNR=13						
MAJO	**Matsushiro**	**2.23**	**259**	*e*Pn	**Pn**	**13 52 59.4**	**+0.5**
MAJO				*e*Sn	**Sn**	**13 53 21.9**	**-4.0**
MAT	**Matsushiro**	**2.23**	**259**	P	**Pn**	**13 52 59.5**	**+0.6**
MAT				S	**Sn**	**13 53 30.9**	**+4.9**
JHJ	**Hachijo jima 2**	**3.98**	**194**	P	**Pn**	**13 53 22.4**	**0.0**
	39nm,0.3s,baz=12,slow=20,SNR=4.3						
JHJ				S	**Sn**	**13 54 06.9**	**-1.0**
	52nm,0.3s,baz=66,slow=20,SNR=3.6						
ERM	**Erimo**	**5.30**	**18**	*e*Pn	**Pn**	**13 53 40.8**	**+0.6**
ERM				*e*Sn	**Sn**	**13 54 33.3**	**-6.6**
ASAJ	**Asahikawa**	**7.23**	**10**	P	**Pn**	**13 54 04.6**	**-1.7**
	2.2nm,0.3s,baz=207,slow=13,SNR=28						
ASAJ				S	**Sn**	**13 55 13.4**	**-13**
	0.4nm,0.3s,baz=234,slow=19,SNR=2.8						
MCK	**McKinley**	**48.88**	**34**	*e*P	**P**	**14 01 00.5**	**+1.5**
WRA	**Warramunga Arr**	**56.97**	**187**	P	**P**	**14 01 57.2**	**-1.6**
	0.3nm,0.6s,mb3.5,baz=3.4,slow=7.0,SNR=5.9						
ASAR	**Alice Springs**	**60.70**	**187**	P	**P**	**14 02 25.0**	**+0.4**
	0.2nm,0.5s,mb3.4,baz=1.3,slow=5.3,SNR=3.1						

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*ISCJB **25** 14:09:11.8±1.0, 56°.8S±0°.1×24°.0W±0°.3, h10^{km}, mb4.1/5, MS3.9/2, Error ellipse: s-maj=24.8km s-min=15.2km az=146.1*

*IDC **25** 14:09:11.7±0.9, 56°.82S×23°.87W, h0^{km}, mb4.1/5, mb1 4.1/5, mb1mx3.9/18, mbtmp4.1/5, MS3.8/2, Ms1 3.8/2, ms1mx3.5/22, Error ellipse: s-maj=28.5km s-min=28.2km az=131.0*

*NEIC **25** 14:09:13.1±0.6, 56°.81S×23°.86W, h10^{km}, mb4.4/1, Error ellipse: s-maj=20.4km s-min=16.8km az=187.0*

ISC 25 14:09:13.8±1.0**, 56°.9S**±0°.1×**24°.0W**±0°.3**, h10**^{km}**, n13, σ0^{s}80**/8**, mb4.1**/5**, MS3.9**/2**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	**Neumayer Olymp**	**15.67**	**163**	*e*P	**Pn**	**14 12 53.7**	**-0.5**
VNA3				*e*S	**Sn**	**14 15 34.3**	**-13**
EFI	**East Falkland**	**20.42**	**270**	*e*P	**P**	**14 13 50.6**	**-0.2**
	13nm,0.7s						
USHA	**Ushuaia**	**24.71**	**256**	P	**P**	**14 14 33.6**	**-1.1**
	2.9nm,0.7s,mb3.9,baz=106,slow=15,SNR=3.1						
QSPA	**South Pole Qui**	**33.40**	**180**	P	**P**	**14 15 53.0**	**+1.2**
	1.0nm,0.8s,mb3.8,baz=208,slow=2.3,SNR=6.3						
LVC	**Limon Verde**	**47.25**	**297**	P	**P**	**14 17 47.9**	**+1.0**
	4.6nm,0.8s,mb4.5,baz=122,slow=10,SNR=3.6						
LBTB	**Lobatse**	**47.58**	**69**	LR	LR	14 34 56.2	
	comp=Z,126nm,21.8s,MS3.9,baz=11,slow=32						
SIV	**San Ignacio**	**49.44**	**310**	P	**P**	**14 18 04.0**	**+0.2**
	0.4nm,0.4s,mb3.8,baz=161,slow=16,SNR=2.3						
TORD	**Torodi Ar. Bea**	**72.93**	**26**	P	**P**	**14 20 42.4**	**-0.6**
	3.9nm,0.7s,mb4.4,baz=194,slow=6.4,SNR=24						
KEST	**Kesra**	**96.45**	**27**	LR	LR	15 00 56.2	
	comp=Z,50nm,20.9s,MS4.0,baz=145,slow=32						
CMAR	**Chiang Mai Arr**	**123.12**	**108**	PKP	PKPdf	14 28 09.2	-1.1
	0.3nm,0.3s,baz=212,slow=3.2,SNR=4.3						
YKA	**Yellowknife Ar**	**137.97**	**316**	PKP	PKPdf	14 28 35.4	-1.6
	0.4nm,0.8s,baz=119,slow=2.2,SNR=5.1						
INK	**Inuvik**	**147.56**	**319**	*e*PKPbc	PKPbc	14 28 56.3	-0.2
SONM	**Songino Array**	**149.01**	**85**	PKPbc	PKPbc	14 28 59.6	-1.3
	1.1nm,0.8s,baz=234,slow=1.2,SNR=6.9						

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*BJI **25** 14:14:20.7, 2°.91S×100°.06E, h34^{km}, mB5.1/26, mb4.8/46, Ms4.7/20, Ms7 4.4/19*

*IDC **25** 14:14:21.4±0.7, 2°.33S×99°.91E, h0^{km}, mb4.6/18, mb1 4.7/20, mb1mx4.5/27, mbtmp4.6/20, ML3.7/1, Error ellipse: s-maj=26.4km s-min=12.0km az=55.0*

*DJA **25** 14:14:24, 2°.48S×99°.63E, h25^{km}, mb4.8/15*

*MOS **25** 14:14:25.5±1.0, 2°.25S×99°.96E, h40^{km}, mb5.2/20, Error ellipse: s-maj=16.6km s-min=6.8km az=105.0*

*ISCJB **25** 14:14:25.1±0.6, 2°.44S±0°.04×99°.80E±0°.05, h42^{km}±5^{km}, mb4.8/68, MS4.2/6, Error ellipse: s-maj=9.1km s-min=4.9km az=142.5*

*NEIC **25** 14:14:27.1±1.4, 2°.30S×100°.00E, h39^{km}±11^{km}, mb5.0/20, Error ellipse: s-maj=15.6km s-min=5.2km az=49.0*

NEIC Felt [II] at Painan, Sumatra.

ISC 25 14:14:26.5±0.6**, 2°.45S**±0°.04×**99°.78E**±0°.05**, h36**^{km}±5^{km}**, h35**^{km}±.9^{km}**:pP-P, n150, σ1^{s}00**/143**, mb4.8**/68**, MS4.2**/6**, 4C-4D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	**0.39**	**144**	P	**Pn**	**14 14 34.6**	**-1.0**
SISI	**Saibi**	**1.31**	**328**	P	**Pn**	**14 14 47.6**	**-0.7**
PDSI	**Padang**	**1.67**	**24**	P	**Pn**	**14 14 52.3**	**-0.9**
PPI	**Padang Panjang**	**2.07**	**17**	P	**Pn**	**14 14 58.4**	**-0.4**
SDSI	**Sungai Dareh**	**2.23**	**48**	P	**Pn**	**14 15 01.4**	**+0.4**
KSI	**Kapahiang**	**3.05**	**113**	P	**Pn**	**14 15 13.4**	**+1.1**
RGRI	**Rengat**	**3.29**	**51**	P	**Pn**	**14 15 16.2**	**+0.6**
MNAI	**Manna**	**3.70**	**121**	P	**Pn**	**14 15 21.0**	**-0.1**
MDSI	**Maura Dua**	**4.83**	**115**	P	**Pn**	**14 15 37.7**	**+0.9**
PSI	**Prapat**	**5.28**	**351**	Pn	**Pn**	**14 15 39.9**	**-3.1**
	3.0nm,0.3s,baz=178,slow=9.1,SNR=8.0						
KASI	**Kota Agung**	**5.61**	**123**	P	**Pn**	**14 15 47.2**	**-0.2**
	145nm,0.9s,0.7nm						
KGM	**Kluang**	**5.67**	**39**	P	**Pn**	**14 15 48.9**	**+0.6**
MYKOM	**Kota Tinggi**	**5.85**	**44**	P	**Pn**	**14 15 51.2**	**+0.4**
MYKOM	**Kota Tinggi**	**5.85**	**44**	P	**Pn**	**14 15 50.8**	**0.0**
	117nm,0.8s,1μm0.7nm						
FRIM	**Kepong**	**5.94**	**18**	P	**Pn**	**14 15 52.1**	**+0.1**
IPM	**Ipoh**	**6.99**	**10**	P	**Pn**	**14 16 06.5**	**+0.1**
	40nm,0.7s,0.2nm						
KULM	**Kulim**	**7.73**	**6**	P	**Pn**	**14 16 16.3**	**-0.4**
KULM	**Kulim**	**7.73**	**6**	*e*P	**Pn**	**14 16 15.2**	**-1.4**
	19nm,0.6s						
KTGM	**Kuala Trenggan**	**8.42**	**23**	P	**Pn**	**14 16 27.0**	**+1.0**
LEM	**Lembang**	**8.94**	**119**	P	**Pn**	**14 16 34.9**	**+1.7**
	63nm,0.8s						
BSI	**Banda Aceh**	**9.07**	**330**	P	**Pn**	**14 16 32.2**	**-2.8**
	27nm,0.5s						
UGM	**Wanagama**	**11.99**	**117**	P	**Pn**	**14 17 15.8**	**+0.8**
	166nm,1.5s						
PWJI	**Pagerwojo**	**13.19**	**115**	P	**Pn**	**14 17 30.5**	**-0.9**
	31nm,2.7s						
SBUM	**Sibu**	**13.35**	**69**	P	**Pn**	**14 17 35.8**	**+2.2**
SBUM	**Sibu**	**13.35**	**69**	P	**Pn**	**14 17 34.8**	**+1.2**
	13nm,1.3s						
GMJI	**Gumukmas**	**14.78**	**114**	P	**Pn**	**14 17 57.7**	**+4.6**
KMMI	**Kalianget**	**14.86**	**108**	P	**Pn**	**14 17 59.8**	**+5.7**
KKM	**Kota Kinabalu**	**18.45**	**63**	P	**Pn**	**14 18 39.1**	**-0.5**
KKM	**Kota Kinabalu**	**18.45**	**63**	P	**Pn**	**14 18 40.3**	**+0.8**
	22nm,0.7s						
SDKM	**Sandakan**	**19.16**	**65**	P	**Pn**	**14 18 47.2**	**-0.9**
TSM	**Tawau**	**19.28**	**70**	P	**Pn**	**14 18 48.9**	**-0.7**
KDM	**Kudat**	**19.40**	**61**	P	**Pn**	**14 18 50.4**	**-0.5**
KAPI	**Kappang**	**20.09**	**98**	P	**P**	**14 18 55.3**	**-1.8**
	baz=238,slow=15,SNR=2.8						
PCI	**Palu**	**20.11**	**86**	P	**P**	**14 18 57.4**	**+0.1**
	54nm,1.3s						
MYLDM	**Lahad Datu**	**20.18**	**68**	P	**P**	**14 18 58.9**	**+0.8**
MYLDM	**Lahad Datu**	**20.18**	**68**	P	**P**	**14 18 58.8**	**+0.7**
	44nm,1.0s						
BNSI	**Bone**	**20.38**	**96**	P	**P**	**14 19 00.8**	**+0.5**
	39nm,1.9s						
CMAR	**Chiang Mai Arr**	**20.79**	**358**	P	**P**	**14 19 02.9**	**-1.7**
	9.0nm,0.8s,baz=187,slow=10,SNR=62						
CHTO	**Chiang Mai**	**21.14**	**358**	*e*P	**P**	**14 19 06.8**	**-1.7**
CHTO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb3.9						
CHTO	**Chiang Mai**	**21.14**	**358**	*e*P	**P**	**14 19 06.8**	**-1.7**
	comp=Z,6.5nm,0.9s,mb4.0						
CHTO	**Chiang Mai**	**21.14**	**358**	P	**P**	**14 19 07.0**	**-1.5**
	comp=Z,8.6nm,1.2s,mb4.0						
APSI	**Ampana**	**21.91**	**86**	P	**P**	**14 19 17.8**	**+1.0**
	comp=Z,64nm,1.1s,mb5.0						
KMI	**Kunming**	**27.56**	**6**	P	**P**	**14 20 13.0**	**+2.9**
KMI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
SHL	**Shillong**	**28.88**	**345**	*e*PKP	**P**	**14 20 23.0**	**+1.1**
GYA	**Guiyang**	**29.50**	**13**	⇑*i*P	**P**	**14 20 27.5**	**+0.1**
GYA				pP	pP	14 20 38.0	+0.3
GYA				sP	sP	14 20 41.5	-0.5
GYA				PP	PP	14 21 24.5	-10
GYA				S	**S**	**14 25 18.0**	**-1.6**
GYA				sS	sS	14 25 36.8	+0.2
GYA				SS	SS	14 26 52.3	-34
GYA				ScP	ScP	14 27 11.0	-0.6
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
GYA				pmax	pmax		
	comp=Z,140nm,4.8s						
GYA				LR	LR		
	comp=N,690nm,15.7s,MS4.5						
GYA				LR	LR		
	comp=E,520nm,16.4s,MS4.5						
GYA				LR	LR		
	comp=Z,570nm,15.9s,MS4.3						
FITZ	**Fitzroy Crossi**	**29.75**	**123**	P	**P**	**14 20 30.1**	**+0.4**
	comp=Z,4.5nm,0.8s,mb4.2,baz=275,slow=6.4,SNR=5.2						
ODAN	**Odare**	**31.50**	**338**	*e*P	**P**	**14 20 46.2**	**+1.2**
	comp=Z,23nm,0.6s,mb5.2						
TAPN	**Taplejung**	**31.83**	**339**	*e*P	**P**	**14 20 49.3**	**+1.4**
RAMN	**Ramite**	**31.87**	**337**	*e*P	**P**	**14 20 49.8**	**+1.5**
	comp=Z,19nm,0.7s,mb5.0						
JIRN	**Jiri**	**32.67**	**337**	*e*P	**P**	**14 20 56.5**	**+1.2**
	comp=Z,28nm,0.8s,mb5.3						
GUN	**Gumba**	**33.01**	**337**	*e*P	**P**	**14 20 59.5**	**+1.2**
LSA	**Lhasa**	**33.01**	**346**	P	**P**	**14 20 59.8**	**+1.5**
LSA	**Lhasa**	**33.01**	**346**	*e*P	**P**	**14 20 59.5**	**+1.2**
LSA				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
LSA	**Lhasa**	**33.01**	**346**	*e*P	**P**	**14 20 59.5**	**+1.2**
	comp=Z,7.2nm,0.4s,mb5.0						
DMN	**Daman**	**33.06**	**336**	*e*P	**P**	**14 20 59.5**	**+0.8**
KKN	**Kakani**	**33.14**	**336**	*e*P	**P**	**14 21 00.0**	**+0.5**
CD2	**Chengdu**	**33.39**	**6**	P	**P**	**14 21 04.5**	**+3.0**
CD2				pP	pP	14 21 14.0	+2.1
CD2				sP	sP	14 21 18.0	+1.7
CD2				PP	PP	14 22 17.5	-0.1
CD2				S	**S**	**14 26 23.0**	**+2.7**
CD2				sS	sS	14 26 39.0	+1.6
CD2				SS	SS	14 28 27.5	-18
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				pmax	pmax		
	comp=Z,360nm,5.3s						
CD2				LR	LR		
	comp=N,350nm,11.3s						
CD2				LR	LR		
	comp=Z,350nm,9.5s						
GKN	**Gorkha**	**33.60**	**335**	*e*P	**P**	**14 21 04.1**	**+0.7**
KOLN	**Koldanda**	**33.84**	**334**	*e*P	**P**	**14 21 06.3**	**+0.8**
	comp=Z,20nm,0.8s,mb5.1						
DANN	**Dangsing**	**34.27**	**334**	*e*P	**P**	**14 21 09.4**	**+0.1**
	comp=Z,12nm,0.4s,mb5.2						
XAN	**Xi'an**	**37.30**	**13**	P	**P**	**14 21 33.5**	**-1.7**
XAN				pP	pP	14 21 44.0	-1.6
XAN				sP	sP	14 21 47.0	-2.9
XAN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
XAN				pmax	pmax		
	comp=Z,71nm,7.1s						
WRA	**Warramunga Arr**	**37.96**	**120**	P	**P**	**14 21 40.3**	**-0.7**
	comp=Z,12nm,0.4s,mb5.0,baz=306,slow=9.0,SNR=125						
WRA				PcP	PcP	14 23 57.0	+0.5
	comp=Z,1.3nm,0.7s,baz=300,slow=2.2,SNR=5.1						
WRAB	**Tennant Creek**	**37.97**	**120**	*e*P	**P**	**14 21 40.1**	**-0.9**
WRAB				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.0						
WRAB	**Tennant Creek**	**37.97**	**120**	*e*P	**P**	**14 21 40.1**	**-0.9**
	comp=Z,17nm,0.6s,mb5.0						
WRAB	**Tennant Creek**	**37.97**	**120**	P	**P**	**14 21 41.0**	**0.0**
LZH	**Lanzhou**	**38.52**	**5**	*e*P	**P**	**14 21 45.5**	**+0.1**
LZH				pP	pP	14 21 55.0	-0.9
LZH				sP	sP	14 21 59.0	-1.2
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.9						
LZH				pmax	pmax		
	comp=Z,130nm,5.2s						
NJ2	**Nanjing**	**38.79**	**26**	*e*P	**P**	**14 21 47.5**	**-0.3**
NJ2				pP	pP	14 21 57.5	-0.7
NJ2				sP	sP	14 22 01.5	-1.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
ASAR	**Alice Springs**	**39.17**	**125**	P	**P**	**14 21 50.8**	**-0.3**
	comp=Z,5.3nm,0.5s,mb4.5,baz=300,slow=7.6,SNR=67						
ASAR				PcP	PcP	14 24 00.9	+0.7
	comp=Z,1.7nm,0.7s,baz=302,slow=2.4,SNR=6.0						
ASAR				S	**S**	**14 27 48.5**	**-0.5**
	comp=Z,0.9nm,0.8s,baz=298,slow=18,SNR=6.1						
GTA	**Gaotai**	**41.65**	**0**	*e*P	**P**	**14 22 11.3**	**-0.1**
GTA				pP	pP	14 22 20.5	-1.4
GTA				sP	sP	14 22 25.3	-0.9
GTA				PP	PP	14 23 51.8	+3.6
GTA				S	**S**	**14 28 26.0**	**+0.5**
GTA				sS	sS	14 28 42.0	-0.9
GTA				SS	SS	14 31 26.0	-5.9
GTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.3						
GTA				pmax	pmax		
	comp=Z,100nm,4.2s						
GTA				LR	LR		
	comp=N,180nm,13.8s,MS4.3						
GTA				LR	LR		
	comp=E,260nm,16.8s,MS4.3						
GTA				LR	LR		
	comp=Z,190nm,18.0s,MS4.0						
HHC	**Hu-ho-hao-te**	**44.41**	**13**	*e*P	**P**	**14 22 35.3**	**+1.6**
HHC				pP	pP	14 22 45.0	+0.7
HHC				sP	sP	14 22 49.3	+0.7
HHC				PP	PP	14 24 19.5	+1.7
HHC				PcS	PcS	14 28 10.8	+0.5
HHC				*e*S	**S**	**14 29 06.3**	**+0.3**
HHC				sS	sS	14 29 23.8	+0.3
HHC				SS	SS	14 32 17.5	-8.5
HHC				ScS	ScS	14 32 28.0	-1.1
HHC				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.7						
HHC				pmax	pmax		
	comp=Z,150nm,4.9s						
HHC				LR	LR		
	comp=N,190nm,13.7s,MS4.4						
HHC				LR	LR		
	comp=E,270nm,13.1s,MS4.4						
HHC				LR	LR		
	comp=Z,240nm,12.4s,MS4.3						
BJI	**Beijing**	**44.87**	**18**	P	**P**	**14 22 37.5**	**+0.1**
BJI				S	**S**	**14 29 14.8**	**+2.1**
BJI				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.3						
BJI				pmax	pmax		
	comp=Z,230nm,6.9s						
BJI				LR	LR		
	comp=N,200nm,25.1s,MS4.2						
BJI				LR	LR		
	comp=E,290nm,26.0s,MS4.2						
BJI				LR	LR		
	comp=Z,170nm,30.6s,MS3.8						
MTSU	**Mount Surprise**	**46.34**	**113**	*e*P	**P**	**14 22 48.4**	**-1.0**
	comp=Z,10.0nm,0.6s,mb4.9						
KSH	**Kashi**	**47.14**	**335**	*e*P	**P**	**14 23 00.3**	**+5.0**
KSH				*e*pP	pP	14 23 10.3	+4.4
KSH				*e*sP	sP	14 23 13.5	+3.3
KSH				*e*PP	PP	14 24 51.0	+4.5
KSH				*e*S	**S**	**14 29 51.5**	**+6.2**
KSH				*e*sS	sS	14 30 08.0	+5.1
KSH				*e*ScS	ScS	14 32 48.5	+1.7
KSH				*e*SS	SS	14 33 12.5	-0.5
KSH				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KSH				pmax	pmax		
	comp=Z,90nm,3.8s						
KSH				LR	LR		
	comp=N,340nm,5.6s						
KSH				LR	LR		
	comp=E,300nm,5.4s						
KSH				LR	LR		
	comp=Z,390nm,5.2s						
WMQ	**Urumqi**	**47.32**	**348**	⇑*i*P	**P**	**14 22 57.8**	**+1.2**
WMQ				pP	pP	14 23 07.0	-0.2
WMQ				sP	sP	14 23 11.0	-0.5
WMQ				PcP	PcP	14 24 28.0	+0.9
WMQ				PP	PP	14 24 48.0	0.0
WMQ				*e*S	**S**	**14 29 48.0**	**+0.3**
WMQ				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
WMQ				pmax	pmax		
	comp=Z,270nm,6.3s						
WMQ				LR	LR		
	comp=N,420nm,26.2s,MS4.4						
WMQ				LR	LR		
	comp=E,380nm,24.0s,MS4.4						
WMQ				LR	LR		
	comp=Z,430nm,22.6s,MS4.4						
KSRS	**Korea Array**	**47.51**	**31**	P	**P**	**14 22 57.5**	**-0.8**
	comp=Z,14nm,0.8s,mb5.1,baz=224,slow=8.3,SNR=50						
CTA	**Charters Tower**	**48.61**	**115**	*e*P	**P**	**14 23 06.6**	**-0.4**
	comp=Z,11nm,0.8s,mb4.9						
CTA	**Charters Tower**	**48.61**	**115**	P	**P**	**14 23 06.0**	**-1.0**
	comp=Z,20nm,1.0s,mb5.1,baz=291,slow=7.8,SNR=8.2						
STKA	**Stephens Creek**	**49.02**	**131**	*e*P	**P**	**14 23 10.4**	**+0.4**
	comp=Z,5.8nm,0.8s,mb4.7						
STKA	**Stephens Creek**	**49.02**	**131**	P	**P**	**14 23 10.6**	**+0.6**

	comp=Z,5.4nm,0.6s,mb4.7,baz=308,slow=9.9,SNR=19						
UCH	Uchtor	50.01	336	eP	P	14 23 18.2	+1.0
	comp=Z,4.2nm,0.8s,mb4.5						
TKM2	Tokmak 2	50.15	337	eP	P	14 23 19.0	+0.6
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
TKM2	Tokmak 2	50.15	337	eP	P	14 23 19.0	+0.7
	comp=Z,9.5nm,0.7s,mb4.9						
AML	Almayashu	50.27	335	eP	P	14 23 19.6	+0.3
	comp=Z,8.0nm,0.8s,mb4.8						
AAK	Ala-Archa	50.35	336	⇓eP	P	14 23 21.3	+1.4
AAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.9						
AAK				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.8						
AAK	Ala-Archa	50.35	336	P	P	14 23 20.9	+1.0
	comp=Z,0.6nm,0.4s,mb4.0,baz=31,slow=2.1,SNR=6.2						
AAK	Ala-Archa	50.35	336	eP	P	14 23 20.4	+0.5
	comp=Z,3.0nm,0.6s,mb4.5						
SONM	Songino Array	50.41	6	P	P	14 23 20.7	+0.5
	comp=Z,25nm,0.7s,mb5.4,baz=188,slow=9.4,SNR=223						
SONM				PcP	PcP	14 24 38.0	-0.2
	comp=Z,2.6nm,0.7s,baz=186,slow=4.1,SNR=4.1						
ULN	Ulaanbaatar	50.51	6	eP	P	14 23 21.1	+0.2
ULN				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
ULN	Ulaanbaatar	50.51	6	eP	P	14 23 21.1	+0.2
	comp=Z,21nm,0.9s,mb5.1						
EKS2	Erkin-Say	50.67	335	eP	P	14 23 23.1	+0.8
	comp=Z,14nm,0.8s,mb4.9						
MK31	Makanchi Array	51.40	345	i P	P	14 23 27.8	+0.1
MK31				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
MKAR	Makanchi Array	51.40	345	P	P	14 23 28.0	+0.4
	comp=Z,15nm,0.6s,mb5.1,baz=147,slow=8.1,SNR=227						
MKAR	Makanchi Array	51.40	345	P	P	14 23 28.0	+0.4
CN2	Changchun	51.48	24	eP	P	14 23 27.3	-1.0
CN2				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.3						
CMSA	Cobar Meteorol	52.00	129	eP	P	14 23 33.2	+0.7
ZAK	Zakamensk	52.71	3	eP	P	14 23 37.2	-0.1
ZAK				e		14 24 42.8	
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
MAT	Matsushiro	52.76	39	P	P	14 23 36.5	-1.5
MJAR	Matsushiro Arr	52.76	39	P	P	14 23 36.1	-1.8
	comp=Z,15nm,1.2s,mb4.8,baz=219,slow=7.9,SNR=12						
MDJ	Mudanjiang	53.88	26	P	P	14 23 45.5	-0.6
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,73nm,4.3s						
MDJ	Mudanjiang	53.88	26	eP	P	14 23 46.0	-0.1
	comp=Z,6.1nm,0.9s,mb4.5						
TLY	Talaya	54.02	3	eP	P	14 23 47.5	+0.5
TLY				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
KURK	Kurchatov	55.97	344	eP	P	14 24 00.9	-0.2
KURK				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
KURK	Kurchatov	55.97	344	eP	P	14 24 00.9	-0.2
	comp=Z,15nm,0.8s,mb5.1						
ZALV	Zalesovo Beam	57.56	350	P	P	14 24 11.9	-0.4
	comp=Z,5.1nm,0.3s,mb5.0,baz=176,slow=5.8,SNR=43						
KLR	Kul'dur	58.43	24	eP	P	14 24 14.0	-4.5
KLR				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.2						
NVS	Novosibirsk	58.71	349	eP	P	14 24 19.4	-0.9
NVS				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
NVS				pmax	pmax		
	comp=N,11nm,1.5s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.3s						
BRVK	Borovoye	60.59	340	eP	P	14 24 32.4	-0.9
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.8						
BRVK	Borovoye	60.59	340	eP	P	14 24 32.4	-0.9
	comp=Z,4.4nm,0.5s,mb4.8						
BOD	Bodaibo	61.15	9	⇓iP	P	14 24 36.5	-0.5
BOD				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.5						
AB31	Akbulak array	61.92	332	P	P	14 24 41.2	-1.2
AB31				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.1						
YSS	Yuzh-Sakhalins	61.97	32	eP	P	14 24 43.0	+0.2
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.4						
SVE	Sverdlovsk	67.01	338	⇓eP	P	14 25 15.3	-0.2
SVE				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
ARU	Arti	67.53	337	d iP	P	14 25 18.3	-0.5
ARU				e		14 27 49.0	
ARU				S	S	14 34 14.1	+1.5
ARU				SS	SS	14 38 29.0	-4.8
ARU				pmax	pmax		
	comp=Z,17nm,2.5s,mb4.6						
ARU	Arti	67.53	337	eP	P	14 25 17.8	-1.0
YAK	Yakutsk	68.23	15	eP	P	14 25 21.8	-1.3
YAK				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
YAK	Yakutsk	68.23	15	eP	P	14 25 21.8	-1.3
	comp=Z,26nm,0.7s,mb5.4						
ANN	Anapa	72.52	319	eP	pP	14 25 59.7	-1.2
ANN				e*PP	PcP	14 26 08.4	+1.1
ANN				pmax	pmax		
	comp=Z,51nm,1.1s,mb5.4						
VRHR	Novokhopersk	72.57	326	eP	pP	14 25 59.8	-1.2
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
VRHR				pmax	pmax		
	comp=N,20nm,0.8s						
PETK	Petropavlovsk-	73.38	32	P	P	14 25 53.4	-1.2
	comp=N,7.4nm,0.9s,mb4.6,baz=168,slow=1.6,SNR=9.0						
PETK	Petropavlovsk-	73.38	32	P	P	14 25 53.4	-1.2
BRTR	Keskin Array B	73.46	313	P	P	14 25 54.9	-0.5
	comp=N,1.5nm,0.7s,mb4.0,baz=113,slow=5.5,SNR=10						
VORD	Divnogorie	73.84	325	eP	P	14 25 56.2	-1.1
VORD				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,0.7s						
VORD				pmax	pmax		
	comp=E,20nm,0.7s						
VSR	Storozhevoye	74.02	325	eP	P	14 25 58.0	-0.4
VSR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
VSR				pmax	pmax		
	comp=N,10.0nm,1.0s						
VSR				pmax	pmax		
	comp=E,8.0nm,0.6s						
PRGR	Permogore	75.99	336	P	P	14 26 08.7	-0.8
PRGR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
SEY	Seymchan	76.12	22	⇑eP	P	14 26 10.0	-0.3
TIXI	Tiksi	76.33	9	⇑eP	P	14 26 10.0	-1.3
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
TIXI	Tiksi	76.33	9	eP	P	14 26 09.7	-1.6
	comp=Z,9.2nm,0.6s,mb4.9						
OBN	Obninsk	77.06	328	i P	P	14 26 16.1	+0.4
OBN				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
KLMR	Klimovskoe	78.13	334	eP	P	14 26 21.0	-0.6
KLMR				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.7						
AKASG	Malin Array Be	79.70	322	P	pP	14 26 40.9	-0.8
	comp=Z,2.0nm,0.5s,baz=83,slow=4.9,SNR=7.2						
JOF	Joensuu	82.52	335	ep	P	14 26 44.7	-0.5
	comp=Z,1.8nm,0.6s,mb4.3						
FINES	FINESS Array B	84.40	332	P	P	14 26 55.0	+0.2
	comp=Z,1.6nm,0.6s,mb4.3,baz=100,slow=7.9,SNR=7.1						
KAF	Kangasniemi	84.48	333	eP	P	14 26 52.8	-2.5
KAF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.7						
KAF	Kangasniemi	84.48	333	ep	P	14 26 52.8	-2.5
	comp=Z,3.5nm,0.6s,mb4.7						
ARCES	ARCESS Array B	86.82	340	P	P	14 27 07.0	+0.2
	comp=Z,5.2nm,0.8s,mb4.8,baz=0.0,slow=2.8,SNR=7.7						
ARCES	ARCESS Array B	86.82	340	P	P	14 27 07.0	+0.2
QSPA	South Pole Qui	87.52	180	P	P	14 27 12.4	+2.4
	comp=Z,1.4nm,1.1s,mb4.1,baz=304,slow=5.6,SNR=3.1						
GERES	GERESS Array B	89.24	319	P	P	14 27 19.4	+0.7
	comp=Z,0.3nm,0.2s,mb4.2,baz=26,slow=3.7,SNR=4.9						
YKA	Yellowknife Ar	114.86	17	PKP	PKiKP	14 33 02.3	-0.8
	comp=Z,0.1nm,0.6s,baz=272,slow=2.2,SNR=3.1						
NVAR	Mina Array Bea	130.08	39	PKP	PKPdf	14 33 34.2	+1.2
	comp=Z,0.3nm,0.6s,baz=310,slow=5.6,SNR=3.0						
PDAR	Pinedale Array	132.07	29	PKP	PKPdf	14 33 37.2	+0.6
	comp=Z,0.2nm,0.6s,baz=318,slow=1.2,SNR=2.7						
CPUP	Villa Florida	143.83	216	PKP	PKiKP	14 34 04.8	+2.7
	comp=Z,0.6nm,0.4s,baz=76,slow=4.2,SNR=4.3						
CPUP	Villa Florida	143.83	216	PKP	PKiKP	14 34 04.8	+2.7
TXAR	Lajitas Array	145.19	37	PKPbc	PKPbc	14 34 01.4	+0.9
	comp=Z,17nm,0.6s,baz=291,slow=1.0,SNR=268						
TXAR	Lajitas Array	145.19	37	PKPbc	PKPbc	14 34 01.4	+0.9
MIAR	Mount Ida	145.73	20	ePKIKP	PKPdf	14 34 02.0	+0.3
WVT	Waverly	145.75	11	ePKIKP	PKPdf	14 34 01.7	0.0
TZTN	Tazewell	145.93	5	ePKP	PKPdf	14 34 02.1	+0.1
JCT	Junction City	146.52	32	ePKP2	PKPab	14 34 04.9	-0.7
PLAL	Pickwick Lake	146.81	12	ePKPbc	PKPbc	14 34 04.0	-1.3

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*ISCJB **25** 14:29:07.2±2.6, 12°.71S±0°.10×166°.3E±0°.1, h48^{km}±21^{km}, mb4.0/11, Error ellipse: s-maj=25.0km s-min=12.1km az=150.5*

*IDC **25** 14:29:08.4±6.7, 12°.65S×166°.36E, h46^{km}±52^{km}, mb3.8/9, mb1 3.9/10, mb1mx3.8/18, mbtmp3.8/10, ML4.6/1, MS3.0/1, Ms1 3.0/1, ms1mx2.8/24, Error ellipse: s-maj=48.1km s-min=24.9km az=108.0*

*NEIC **25** 14:29:09.2±1.6, 12°.68S×166°.38E, h56^{km}±13^{km}, mb4.4/2, Error ellipse: s-maj=18.1km s-min=11.4km az=73.0*

ISC 25 14:29:09.5±2.1**, 12°.70S**±0°.10×**166°.3E**±0°.1**, h54**^{km}±17^{km}**, n20, σ0ˢ.62**/19**, mb4.0**/11**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	7.02	297	P	Pn	14 30 49.7	-0.1
	11nm,0.3s,baz=106,slow=4.1,SNR=5.4						
HNR				S	Sn	14 32 08.1	-0.2
	2.7nm,0.3s,baz=198,slow=19,SNR=2.8						
HNR				LR	LR	14 32 58.6	
	comp=Z,138nm,21.3s,baz=329,slow=33						
HNR	Honiara	7.02	297	eP	Pn	14 30 49.9	+0.1
HNR				S	Sn	14 32 08.2	-0.2
HNR				LR	LR	14 32 58.6	
DZM	Mont Dzumac	9.32	179	eP	Pn	14 31 21.7	+0.5
EIDS	Eidsvold	19.10	227	P	Pn	14 33 28.2	-1.0
STKA	Stephens Creek	29.65	226	P	P	14 35 10.6	+0.6
	1.9nm,0.8s,mb3.9,baz=54,slow=8.0,SNR=3.4						
WRA	Warramunga Arr	31.46	253	P	P	14 35 26.9	+0.7
	0.5nm,0.9s,mb3.4,baz=85,slow=9.8,SNR=2.7						
ASAR	Alice Springs	32.57	246	P	P	14 35 35.6	-0.2
	1.7nm,0.9s,mb4.0,baz=74,slow=9.1,SNR=23						
KSRS	Korea Array	61.53	326	P	P	14 39 20.8	-0.2
	1.6nm,0.9s,mb4.2,baz=136,slow=8.3,SNR=4.8						
CMAR	Chiang Mai Arr	73.26	294	P	P	14 40 36.6	+1.0
	1.2nm,0.9s,mb3.8,baz=117,slow=4.3,SNR=7.7						
CMAR	Chiang Mai Arr	73.26	294	P	P	14 40 36.6	+1.0
QSPA	South Pole Qui	77.32	180	eP	P	14 40 56.9	-0.9
	5.2nm,1.0s,mb4.4						
ULN	Ulaanbaatar	79.94	324	eP	P	14 41 13.5	+0.9
	4.0nm,1.0s,mb4.3						
SONM	Songino Array	80.31	324	P	P	14 41 14.7	+0.1
	1.0nm,0.6s,mb3.9,baz=138,slow=5.0,SNR=8.4						
MKAR	Makanchi Array	95.08	317	P	P	14 42 26.6	0.0
	1.6nm,0.8s,mb4.5,baz=98,slow=6.0,SNR=17						
ZALV	Zalesovo Beam	95.20	324	P	P	14 42 25.9	-1.0
	0.7nm,0.5s,mb4.3,baz=104,slow=6.3,SNR=4.7						
ZALV	Zalesovo Beam	95.20	324	P	P	14 42 25.9	-1.0
YKA	Yellowknife Ar	96.19	27	P	P	14 42 31.1	-0.1
	0.1nm,0.5s,mb3.5,baz=259,slow=4.2,SNR=3.4						
ARCES	ARCESS Array B	118.06	345	PKP	PKPdf	14 47 48.0	-1.7
	2.1nm,0.8s,baz=103,slow=1.2,SNR=3.9						
KEST	Kesra	149.04	322	PKPbc	PKPbc	14 48 51.7	-0.3
	0.9nm,0.6s,baz=45,slow=1.4,SNR=4.1						
TORD	Torodi Ar. Bea	164.98	273	PKPab	PKPab	14 50 05.2	-0.1
	0.7nm,1.0s,baz=117,slow=0.6,SNR=3.0						

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*CSEM **25** 15:07:17.7±1.3, 37°.32N×20°.99E, h12^{km}, ML2.6/1, Error ellipse: s-maj=30.3km s-min=20.2km az=66.0*

*ATH **25** 15:07:18.8, 37°.51N×21°.12E, h29^{km}±4^{km}, MD3.0/5*

*ISCJB **25** 15:07:22.3±1.7, 37°.37N±0°.05×21°.3E±0°.1, h24^{km}±11^{km}, Error ellipse: s-maj=17.5km s-min=8.7km az=0.2*

*THE **25** 15:07:25.9, 37°.45N×21°.60E, h0^{km}±3^{km}, ML2.6/1, Error ellipse: s-maj=3.1km s-min=0.7km az=232.0*

ISC 25 15:07:22.5±1.7**, 37°.36N**±0°.06×**21°.3E**±0°.2**, h26**^{km}±15^{km}**, n20, σ1ˢ.30**/27**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.57	108	ePN	Pn	15 07 33.3	-1.6
ITM				eSN		15 07 43.7	
ITM	Ithomi	0.57	108	ePn	Pn	15 07 33.3	-1.6
PYL	PYLOS	0.61	140	P	Pb	15 07 36.5	+1.9
PYL	PYLOS	0.61	140	ePN	Pn	15 07 34.5	-1.0
PYL	PYLOS	0.61	140	ePn	Pn	15 07 34.5	-1.0
VLX	Vlachokerasia	0.90	89	ePB	Pb	15 07 37.0	-2.4
VLX	Vlachokerasia	0.90	89	ePb	Pb	15 07 37.0	-2.4
VLS	Valsamata	0.96	328	ePN	Pn	15 07 34.6	-5.7
VLS	Valsamata	0.96	328	ePn	Pn	15 07 34.6	-5.7
GUR	Goura	1.04	56	ePN	Pn	15 07 39.2	-2.2
GUR	Goura	1.04	56	ePn	Pn	15 07 39.2	-2.2
LAKA	Lakka	1.05	33	P	Pn	15 07 41.9	+0.4
LAKA				S	Sn	15 07 54.3	-1.0
LAKA	Lakka	1.05	33	P	Pn	15 07 41.9	+0.4
LAKA				S	Sn	15 07 54.3	-1.0
TRIZ	Trizonia	1.20	33	P	Pn	15 07 44.0	+0.5
TRIZ				S	Sn	15 07 59.2	+0.3
TRIZ	Trizonia	1.20	33	P	Pn	15 07 44.0	+0.5
TRIZ				S	Sn	15 07 59.2	+0.3
KALE	Kalithea	1.25	34	P	Pn	15 07 45.1	+0.9
KALE				S	Sn	15 08 00.6	+0.5
KALE	Kalithea	1.25	34	P	Pn	15 07 45.1	+0.9
KALE				S	Sn	15 08 00.6	+0.5
LKD	Levkas	1.42	341	P	Pn	15 07 53.0	+6.4
DID	Didima	1.59	84	P	Pn	15 07 50.6	+1.7
DID				S	Sn	15 08 09.5	+0.8
DID	Didima	1.59	84	P	Pn	15 07 50.6	+1.7

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*CSEM **25** 15:19:19.3, 36°.32N×21°.75E, h11^{km}, MD3.3, After ATH*

ATH 25 15:19:19.3, 36°.32N×21°.75E, h11^{km}±3^{km}**, MD3.3**/6**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.57	359	ePG	Pg	15 19 30.3	-0.2
PYL				eSG	Sg	15 19 37.2	-0.9
PYL	PYLOS	0.57	359	ePG	Pg	15 19 30.2	-0.3
PYL	PYLOS	0.57	359	ePg	Pg	15 19 30.2	-0.3
ITM	Ithomi	0.87	9	ePB	Pb	15 19 36.0	-0.4
ITM				eSG	Sg	15 19 46.7	-0.7
ITM	Ithomi	0.87	9	ePB	Pb	15 19 36.0	-0.4
ITM				eSB	Sb	15 19 48.2	+0.1
ITM	Ithomi	0.87	9	ePb	Pb	15 19 36.0	-0.4
ITM				eSb	Sb	15 19 48.2	+0.1
VLI	Veliai	1.04	67	ePG	Pg	15 19 38.8	-0.4
VLI	Veliai	1.04	67	ePG	Pg	15 19 38.8	-0.4
VLI	Veliai	1.04	67	ePg	Pg	15 19 38.8	-0.4
KYTH	Kithira	1.04	92	ePB	Pb	15 19 39.2	-0.1
KYTH	Kithira	1.04	92	ePb	Pb	15 19 39.2	-0.1
VLX	Vlachokerasia	1.16	26	ePG	Pg	15 19 40.9	-0.8
VLX	Vlachokerasia	1.16	26	ePN	Pn	15 19 41.0	-0.5
VLX	Vlachokerasia	1.16	26	ePn	Pn	15 19 41.0	-0.5
GUR	Goura	1.68	16	ePB	Pb	15 19 50.7	+0.5
GUR	Goura	1.68	16	ePB	Pb	15 19 50.7	+0.5
GUR	Goura	1.68	16	ePb	Pb	15 19 50.7	+0.5

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*ISCJB **25** 15:20:24.5±0.6, 32°.49N±0°.03×48°.48E±0°.05, h10^{km}, Error ellipse: s-maj=6.4km s-min=4.8km az=172.5*

*CSEM **25** 15:20:25.5, 32°.55N×48°.66E, h18^{km}, ML3.0*

*TEH **25** 15:20:25.0, 32°.50N×48°.42E, h10^{km}*

ISC 25 15:20:26.4±0.8**, 32°.46N**±0°.04×**48°.48E**±0°.06**, h19**^{km}±6^{km}**, n13, σ0ˢ.96**/19**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHGR	Shooshtar-Gavs	0.44	142	ePg	Pg	15 20 34.5	-1.0
SHGR				eSg	Sg	15 20 41.2	-0.4
IKOM	Komasi	1.89	335	ePn	Pn	15 20 56.6	-1.0
IKOM				e	Sg	15 21 27.5	+0.1
	comp=Z,2µm,0.2s						
IPIR	Pirpir	2.05	83	e	Sg	15 21 37.9	+5.5
	comp=Z,1µm,0.2s						
ASAO	Ashtian	2.45	31	ePn	Pn	15 21 04.7	-0.6
ASAO				eSg	Sg	15 21 37.8	-7.4
IKLH	Kolahrood	2.75	71	e	Sg	15 21 55.5	+0.8
	comp=Z,723nm,0.3s						
IKLH				ePn	Pn	15 21 09.2	-0.1
MIB	Mutribah	2.82	201	eP	Pg	15 21 19.8	-0.7
IRAZ	Razeghan	3.18	22	e	Sg	15 22 12.7	+4.3
	comp=Z,312nm,0.3s						
IZEF	Zefreh	3.28	81	ePn	Pn	15 21 16.5	-0.1
IZEF				e	Pg	15 21 18.4	-11
	comp=Z,198nm,0.0s						
NAY	Al-Naaiem	3.37	199	eP	Pn	15 21 19.6	+1.6
RDF	Al-Radifah	3.61	193	eP	Pn	15 21 22.8	+1.5
NASN	Na'in	3.67	84	ePn	Pn	15 21 21.4	-0.6
IVRN	Varamin	3.71	46	ePn	Pn	15 21 22.4	-0.1
IVRN				e	Pg	15 21 39.4	+2.0
	comp=Z,151nm,0.2s						
IDMV	Damavand	4.29	43	ePn	Pn	15 21 29.5	-1.0
IDMV				e		15 21 33.7	
	comp=Z,95nm,0.1s						

KRSC 25 15:24:39.4±0.3**, 55°.75N×162°.36E, h28**^{km}±18^{km}**, ML4.0, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.53	29	i P	Pb	15 24 49.3	-0.8
KBTR				i S	Sb	15 24 57.1	-0.3
ZLN	Zelenaya	0.92	288	i P	Pn	15 24 56.4	0.0
ZLN				i S	Sb	15 25 09.1	+0.7
BZGR	Bezymyannyi-Gr	0.96	282	i P	Pn	15 24 56.9	0.0
BZGR				i S	Sb	15 25 10.0	+0.4
KRSR	Krestovskiy	1.11	296	i P	Pn	15 24 58.6	-0.5
KRSR				i S	Sn	15 25 12.8	-0.6
KLY	Klyuchi	1.11	301	i P	Pn	15 24 57.2	-1.9
KLY				i S	Sn	15 25 10.9	-2.5
SRKR	Sorokina	1.12	324	i P	Pn	15 24 59.1	-0.1
SRKR				i S	Sn	15 25 14.0	+0.3
KMNR	Kamenistaya	1.20	271	eP	Pn	15 25 01.3	+1.0
KMNR				i S	Sn	15 25 17.5	+1.9
KPT	Kopyto	1.23	281	i P	Pn	15 25 01.3	+0.7
KPT				i S	Sn	15 25 17.7	+1.5
MKZ	Mys Kozlova	1.25	197	eP	Pn	15 25 00.7	-0.2
MKZ				i S	Sn	15 25 15.8	-1.0
TUMR	Tumrok	1.34	251	i P	Pn	15 25 03.5	+1.3
TUMR				i S	Sn	15 25 20.1	+1.0
KOZ	Kozyrevsk	1.43	283	i P	Pn	15 25 04.8	+1.3
KOZ				i S	Sn	15 25 23.8	+2.4
SRDR	Sredinnyy	1.59	292	i P	Pn	15 25 06.8	+1.2
SRDR				i S	Sn	15 25 26.7	+1.5
BKI	Bering	2.13	103	eP	Pn	15 25 13.2	+0.2
BKI				i S	Sn	15 25 37.5	-1.0
SPN	Mys Shipunski	2.99	208	eP	Pn	15 25 24.4	-0.4
SPN				i S	Sn	15 25 58.0	-1.7
NLC	Nalytchevo	3.13	215	eP	Pn	15 25 27.2	+0.5
NLC				i S	Sn	15 26 03.4	+0.3
AVH	Avacha	3.27	222	P	Pn	15 25 30.5	+1.9
AVH				i S	Sn	15 26 08.9	+2.4
GNL	Ganaly	3.29	233	P	Pn	15 25 30.6	+1.7
PET	Petropavlovsk	3.49	220	P	Pn	15 25 33.5	+1.8
PET				i S	Sn	15 26 13.1	+1.1
RUS	Russkaya	4.02	216	P	Pn	15 25 40.9	+1.9
RUS				i S	Sn	15 26 25.8	+0.7

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*CSEM **25** 15:29:50.9±0.2, 42°.71N×9°.33W, h8^{km}, ML4.3/7, Error ellipse: s-maj=5.7km s-min=2.6km az=108.0*

*ISCJB **25** 15:29:51.1±0.4, 42°.66N±0°.02×9°.00W±0°.04, h10^{km}, Error ellipse: s-maj=4.3km s-min=2.4km az=18.2*

*NEIC **25** 15:29:53.8, 42°.62N×9°.22W, h5^{km}, MN3.5(MDD), After MDD.*

*MDD **25** 15:29:53.2±0.6, 42°.63N×9°.29W, h11^{km}, mbLg3.6/33, Error ellipse: s-maj=6.8km s-min=2.6km az=103.0, PRIMO II BOIRO*

MDD EMS: III SANTA UX DE RIBEIRA.

*SFS **25** 15:29:53.0, 42°.62N×9°.22W, h5^{km}, ML3.7*

*IGIL **25** 15:29:53.6, 42°.62N×9°.22W, h5^{km}, ML3.6*

*LDG **25** 15:29:53.8±0.2, 42°.68N×9°.27W, h10^{km}, Ml4.0/27, Error ellipse: s-maj=3.9km s-min=2.0km az=105.0*

*INMG **25** 15:29:54.7±1.5, 42°.65N×9°.18W, h14^{km}±5^{km}, MD3.3, ML3.6, Error ellipse: s-maj=5.1km s-min=2.7km az=84.0*

ISC 25 15:29:52.8±0.4**, 42°.59N**±0°.02×**9°.12W**±0°.03**, h10**^{km}**, n251, σ1ˢ.41**/378**, 5C-4D, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMAZ	Mazaricos	0.37	17	⇑Pg	Pg	15 30 00.8	+0.6
	2µm,0.1s,SNR=18						
EMAZ				Lg		15 30 05.9	
	2µm,0.1s,SNR=30						
EMAZ	Mazaricos	0.37	17	Pg	Pg	15 30 00.8	+0.6
EMAZ				Lg		15 30 05.9	
STS	Santiago	0.51	55	⇑Pg	Pg	15 30 04.4	+1.6
	156nm,0.2s,SNR=18						
STS	Santiago	0.51	55	Pg	Pg	15 30 04.4	+1.6
	156nm,0.2s,SNR=18						
EZAM	Zamans	0.54	144	⇓Pg	Pg	15 30 05.0	+1.6
	183nm,0.2s,SNR=18						
EZAM	Zamans	0.54	144	Pg	Pg	15 30 04.6	+1.2
EZAM	Zamans	0.54	144	Pg	Pg	15 30 05.0	+1.6
	183nm,0.2s,SNR=18						
ELOB	Lobios	1.07	132	⇓Pg	Pg	15 30 14.6	+1.2
	605nm,0.2s,SNR=18						
ELOB				Lg		15 30 30.2	
	170nm,0.1s,SNR=16						
ELOB	Lobios	1.07	132	Pg	Pg	15 30 14.6	+1.2
	605nm,0.2s,SNR=18						
ELOB				Lg		15 30 30.2	
	170nm,0.1s,SNR=16						
PCAB	Cabril	1.20	137	eP	Pn	15 30 16.4	+0.8
PCAB				eS	Sb	15 30 34.8	+3.7
PCAB				A		15 30 36.8	
	1µm,0.3s						
PCAB	Cabril	1.20	137	Pg	Pn	15 30 16.4	+0.8
PCAB				Lg		15 30 34.8	
	688nm,0.3s						
PCAB	Cabril	1.20	137	eP	Pn	15 30 16.4	+0.8
PCAB				eS	Sb	15 30 34.8	+3.7
	1µm,0.3s						
ERUA	La Rua	1.48	97	Pn	Pn	15 30 20.3	+0.8
	38nm,0.1s,SNR=7.9						
ERUA				⇑Pg	Pg	15 30 22.7	+1.5
	144nm,0.2s,SNR=18						
ERUA				Lg		15 30 43.0	
	174nm,0.1s,SNR=7.9						
ERUA	La Rua	1.48	97	Pn	Pn	15 30 20.3	+0.8
ERUA				Pg	Pg	15 30 22.6	+1.4
ERUA				Lg		15 30 43.0	
ERUA	La Rua	1.48	97	Pn	Pn	15 30 20.3	+0.8
	38nm,0.1s,SNR=7.9						
PTO	Porto	1.50	165	eP	Pn	15 30 20.9	+1.1
PTO				eS	Sn	15 30 40.0	+0.6
PTO	Porto	1.50	165	eP	Pn	15 30 20.9	+1.1
PTO				eS	Sn	15 30 40.0	+0.6
EPON	Pontenova	1.62	62	⇑Pn	Pn	15 30 21.6	+0.1
	14nm,0.1s,SNR=18						
EPON				Pg	Pg	15 30 24.8	+0.8
	322nm,0.2s,SNR=7.9						
EPON				Sn	Sn	15 30 44.9	+2.5
	1µm,0.3s,SNR=7.9						
EPON	Pontenova	1.62	62	Pn	Pn	15 30 21.5	0.0
EPON				Pg	Pg	15 30 24.9	+0.9
EPON				Sn	Sn	15 30 44.7	+2.2
EPON	Pontenova	1.62	62	Pn	Pn	15 30 21.5	0.0
PVRL	Vila Real	1.68	141	ePn	Pn	15 30 23.0	+0.7
PVRL	Vila Real	1.68	141	ePg	Pg	15 30 25.4	+0.3
PVRL				eSg	Sg	15 30 49.1	+2.2
PVRL				A		15 30 53.7	
	510nm,0.3s						
PVRL	Vila Real	1.68	141	Pn	Pn	15 30 23.0	+0.7
PVRL				Pg	Pg	15 30 25.4	+0.3
PVRL				Lg		15 30 49.1	
	255nm,0.3s						
PVRL	Vila Real	1.68	141	ePn	Pn	15 30 23.0	+0.7
PVRL	Vila Real	1.68	141	ePg	Pg	15 30 25.4	+0.3
PVRL				eSg	Sg	15 30 49.1	+2.2
	510nm,0.3s						
ECAL	Calabor	1.89	109	⇓Pn	Pn	15 30 26.2	+1.1
	18nm,0.2s,SNR=18						
ECAL				Pg	Pg	15 30 29.6	+0.6
	112nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	15 30 50.1	+1.2

	293nm,0.3s,SNR=8.1						
ECAL				Lg		15 30 55.5	
	273nm,0.2s,SNR=21						
ECAL	**Calabor**	**1.89**	**109**	Pn	**Pn**	**15 30 26.2**	**+1.1**
ECAL				Pg	**Pg**	**15 30 29.6**	**+0.6**
ECAL				Sn	**Sn**	**15 30 50.4**	**+1.5**
ECAL				Lg		15 30 55.5	
ECAL	**Calabor**	**1.89**	**109**	Pn	**Pn**	**15 30 26.2**	**+1.1**
	18nm,0.2s,SNR=18						
PBRG	**Braganca**	**1.94**	**113**	*e*Pn	**Pn**	**15 30 26.8**	**+1.0**
PBRG				*e*Sg	**Sg**	**15 30 57.0**	**+2.0**
PBRG				A		15 30 58.9	
	529nm,0.5s						
PBRG	**Braganca**	**1.94**	**113**	Pn	**Pn**	**15 30 26.8**	**+1.0**
PBRG				Lg		15 30 57.0	
	264nm,0.5s						
PBRG	**Braganca**	**1.94**	**113**	*e*Pn	**Pn**	**15 30 26.8**	**+1.0**
PBRG				*e*Sg	**Sg**	**15 30 57.0**	**+2.0**
	529nm,0.5s						
PVIS	**Viseu**	**2.09**	**153**	*e*Pn	**Pn**	**15 30 28.4**	**+0.6**
PVIS	**Viseu**	**2.09**	**153**	*e*Pg	**Pg**	**15 30 31.3**	**-1.5**
PVIS				*e*Sg	**Sg**	**15 31 00.1**	**+0.2**
PVIS				A		15 31 06.5	
	381nm,0.4s						
PVIS	**Viseu**	**2.09**	**153**	Pn	**Pn**	**15 30 28.4**	**+0.6**
PVIS				Pg	**Pg**	**15 30 31.3**	**-1.5**
PVIS				Lg		15 31 00.1	
	190nm,0.4s						
PVIS	**Viseu**	**2.09**	**153**	*e*Pn	**Pn**	**15 30 28.4**	**+0.6**
PVIS	**Viseu**	**2.09**	**153**	*e*Pg	**Pg**	**15 30 31.3**	**-1.5**
PVIS				*e*Sg	**Sg**	**15 31 00.1**	**+0.2**
	381nm,0.4s						
MTE	**Manteigas**	**2.49**	**151**	*e*Pn	**Pn**	**15 30 33.9**	**+0.5**
MTE				*e*Sg	**Sg**	**15 31 13.4**	**+0.6**
MTE				A		15 31 18.4	
	586nm,0.5s						
MTE	**Manteigas**	**2.49**	**151**	*e*Pn	**Pn**	**15 30 33.8**	**+0.5**
MTE				*e*Pg	**Pg**	**15 30 40.7**	**+0.1**
MTE				*e*Sg	**Sg**	**15 31 13.1**	**+0.3**
MTE	**Manteigas**	**2.49**	**151**	*e*Pn	**Pn**	**15 30 33.9**	**+0.5**
MTE	**Manteigas**	**2.49**	**151**	*e*Pg	**Pg**	**15 30 40.7**	**+0.2**
MTE				*e*Sg	**Sg**	**15 31 13.4**	**+0.6**
	586nm,0.5s						
EARI	**Arriondas**	**2.96**	**75**	Pn	**Pn**	**15 30 41.2**	**+1.3**
	8.4nm,0.2s,SNR=75						
EARI				Pg	**Pg**	**15 30 49.8**	**+0.3**
	23nm,0.2s,SNR=6.3						
EARI				Sn	**Sn**	**15 31 16.4**	**+1.0**
	22nm,0.3s,SNR=7.9						
EARI				Lg		15 31 29.3	
	17nm,0.1s,SNR=7.9						
EARI	**Arriondas**	**2.96**	**75**	Pn	**Pn**	**15 30 41.2**	**+1.4**
	8.4nm,0.2s,SNR=75						
PTOM	**Tomar**	**3.02**	**170**	*e*Pn	**Pn**	**15 30 41.0**	**+0.4**
PTOM				*e*Sn	**Sn**	**15 31 15.9**	**-0.9**
PTOM				*e*Sg	**Sg**	**15 31 28.1**	**-1.6**
PTOM				A		15 31 40.4	
	244nm,0.7s						
PTOM	**Tomar**	**3.02**	**170**	Pn	**Pn**	**15 30 41.0**	**+0.4**
PTOM				Sn	**Sn**	**15 31 15.9**	**-0.9**
PTOM				Lg		15 31 28.1	
	122nm,0.7s						
PTOM	**Tomar**	**3.02**	**170**	*e*Pn	**Pn**	**15 30 41.0**	**+0.4**
PTOM				*e*Sn	**Sn**	**15 31 15.9**	**-0.9**
PTOM				*e*Sg	**Sg**	**15 31 28.1**	**-1.6**
	244nm,0.7s						
PMRV	**Marv??o**	**3.42**	**157**	*e*Pn	**Pn**	**15 30 47.0**	**+0.8**
PMRV				*e*Sn	**Sn**	**15 31 24.9**	**-1.8**
PMRV				*e*Sg	**Sg**	**15 31 42.0**	**-0.6**
PMRV				A		15 31 49.5	
	122nm,0.4s						
PMRV	**Marv??o**	**3.42**	**157**	Pn	**Pn**	**15 30 47.0**	**+0.8**
PMRV				Sn	**Sn**	**15 31 24.9**	**-1.8**
PMRV				Lg		15 31 42.0	
	61nm,0.4s						
PMRV	**Marv??o**	**3.42**	**157**	*e*Pn	**Pn**	**15 30 47.0**	**+0.8**
PMRV				*e*Sn	**Sn**	**15 31 24.9**	**-1.8**
PMRV				*e*Sg	**Sg**	**15 31 42.0**	**-0.6**
	122nm,0.4s						
ALMR	**Almeirim**	**3.46**	**173**	*e*P	**Pn**	**15 30 46.8**	**+0.1**
ALMR				*e*S	**Sn**	**15 31 25.1**	**-2.5**
ALMR				*e*S	**Sn**	**15 31 25.2**	**-2.5**
ALMR				AML	AML	15 31 26.3	
	comp=N,116nm,0.2s						
ALMR	**Almeirim**	**3.46**	**173**	*e*P	**Pn**	**15 30 46.8**	**+0.1**
ALMR				*e*S	**Sn**	**15 31 25.2**	**-2.4**
ALMR	**Almeirim**	**3.46**	**173**	*e*P	**Pn**	**15 30 46.8**	**+0.1**
ALMR				*e*S	**Sn**	**15 31 25.2**	**-2.4**
PMAFR	**Mafra**	**3.63**	**182**	*e*Pn	**Pn**	**15 30 49.0**	**-0.1**
PMAFR				*e*Sn	**Sn**	**15 31 28.1**	**-3.9**
PMAFR				A		15 31 30.9	
	comp=N,120nm,0.2s						
PMAFR	**Mafra**	**3.63**	**182**	Pn	**Pn**	**15 30 49.0**	**-0.1**
PMAFR				Sn	**Sn**	**15 31 28.1**	**-3.9**
	comp=N,60nm,0.2s						
PMAFR	**Mafra**	**3.63**	**182**	*e*Pn	**Pn**	**15 30 49.0**	**-0.1**
PESTR	**Estremoz**	**3.90**	**162**	*e*Pn	**Pn**	**15 30 53.3**	**+0.6**
PESTR				*e*Sn	**Sn**	**15 31 38.0**	**-0.5**
PESTR				*e*Sg	**Sg**	**15 31 55.9**	**-2.1**
PESTR				A		15 32 04.3	
	comp=N,116nm,0.6s						
PESTR	**Estremoz**	**3.90**	**162**	Pn	**Pn**	**15 30 53.3**	**+0.6**
PESTR				Sn	**Sn**	**15 31 38.0**	**-0.5**
PESTR				Lg		15 31 55.9	
	comp=N,58nm,0.6s						
PESTR	**Estremoz**	**3.90**	**162**	*e*Pn	**Pn**	**15 30 53.3**	**+0.6**
PESTR				*e*Sn	**Sn**	**15 31 38.0**	**-0.5**
MOE	**Montemor**	**4.11**	**172**	*e*Pn	**Pn**	**15 30 55.7**	**+0.1**
MOE				*e*Sn	**Sn**	**15 31 41.2**	**-2.5**
MOE	**Montemor**	**4.11**	**172**	*e*Pn	**Pn**	**15 30 55.7**	**+0.1**
MOE				*e*Sn	**Sn**	**15 31 41.2**	**-2.5**
EVOP	**Sao Brissos**	**4.13**	**169**	*e*Pn	**Pn**	**15 30 56.0**	**+0.1**
EVO	**Evora**	**4.14**	**168**	*e*Pn	**Pn**	**15 30 56.0**	**-0.1**
EVO				*e*Sn	**Sn**	**15 31 40.6**	**-3.9**
EVO				*e*Sg	**Sg**	**15 32 03.0**	**-2.8**
	comp=N,125nm,0.4s						
EVO	**Evora**	**4.14**	**168**	*e*Pn	**Pn**	**15 30 56.5**	**+0.4**
EVO				*e*Sn	**Sn**	**15 31 42.1**	**-2.4**
EVO				A		15 32 12.0	
	comp=N,77nm,0.4s						
EVO	**Evora**	**4.14**	**168**	Pn	**Pn**	**15 30 56.5**	**+0.4**
EVO				Sn	**Sn**	**15 31 42.1**	**-2.4**
	comp=N,77nm,0.4s						
EVO	**Evora**	**4.14**	**168**	*e*Pn	**Pn**	**15 30 56.5**	**+0.4**
EVO				*e*Sn	**Sn**	**15 31 42.1**	**-2.4**
	comp=N,77nm,0.4s						
EBAD	**Badajoz**	**4.15**	**157**	⇓Pn	**Pn**	**15 30 56.9**	**+0.7**
	comp=N,9.9nm,0.1s,SNR=18						
EBAD				Sn	**Sn**	**15 31 42.7**	**-2.1**
	comp=N,21nm,0.2s,SNR=5.5						
EBAD				Lg		15 32 04.6	
	comp=N,24nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**4.15**	**157**	Pn	**Pn**	**15 30 56.9**	**+0.7**
	comp=N,9.9nm,0.1s,SNR=18						
EBAD				Lg		15 32 04.6	
	comp=N,24nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**4.20**	**116**	Pn	**Pn**	**15 30 58.9**	**+2.0**
	comp=N,27nm,0.3s,SNR=7.9						
GUD				Sn	**Sn**	**15 31 47.1**	**+1.1**
	comp=N,19nm,0.2s,SNR=7.9						
GUD				Lg		15 32 08.8	
	comp=N,25nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**4.20**	**116**	Pn	**Pn**	**15 30 59.3**	**+2.3**
GUD				Sn	**Sn**	**15 31 47.1**	**+1.1**
GUD				Lg		15 32 08.8	
GUD	**Guadarrama**	**4.20**	**116**	Pn	**Pn**	**15 30 58.9**	**+2.0**
	comp=N,27nm,0.3s,SNR=7.9						
GUD				Sn	**Sn**	**15 31 47.2**	**+1.2**
GUD				Lg		15 32 08.8	
	comp=N,25nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	**4.23**	**79**	Pn	**Pn**	**15 30 59.5**	**+2.2**
	comp=N,9.3nm,0.2s,SNR=81						
ELAN				Sn	**Sn**	**15 31 47.9**	**+1.3**
	comp=N,67nm,0.4s,SNR=6.7						
ELAN				Lg		15 32 09.1	
	comp=N,39nm,0.3s,SNR=7.8						
ELAN	**Lanestosa**	**4.23**	**79**	Pn	**Pn**	**15 30 59.5**	**+2.2**
	comp=N,9.3nm,0.2s,SNR=81						
ELAN				Sn	**Sn**	**15 31 48.0**	**+1.4**
ELAN				Lg		15 32 09.1	
	comp=N,39nm,0.3s,SNR=7.8						
PBEJ	**Beja**	**4.66**	**168**	*e*Pn	**Pn**	**15 31 03.4**	**+0.2**
PBEJ				*e*Sn	**Sn**	**15 31 54.3**	**-3.0**
PBEJ				A		15 32 34.6	
	comp=N,48nm,0.6s						
PBEJ	**Beja**	**4.66**	**168**	Pn	**Pn**	**15 31 03.4**	**+0.2**
PBEJ				Sn	**Sn**	**15 31 54.3**	**-3.0**
	comp=N,24nm,0.6s						
PBEJ	**Beja**	**4.66**	**168**	*e*Pn	**Pn**	**15 31 03.4**	**+0.2**
PBEJ				*e*Sn	**Sn**	**15 31 54.3**	**-3.0**
	comp=N,48nm,0.6s						
PAB	**San Pablo**	**4.72**	**129**	*e*Pn	**Pn**	**15 31 05.7**	**+1.7**
PAB	**San Pablo**	**4.72**	**129**	*e*Pn	**Pn**	**15 31 05.7**	**+1.7**
ESDC	**Sonseca Array**	**4.86**	**125**	Pn	**Pn**	**15 31 07.6**	**+1.6**
	comp=N,9.6nm,0.1s,baz=310,slow=13,SNR=14						
ESDC				Pg	**Pg**	**15 31 23.5**	**-2.5**
	comp=N,5.3nm,0.2s,baz=310,slow=14,SNR=4.0						
ESDC				Sn	**Sn**	**15 32 01.5**	**-0.9**
	comp=N,1.6nm,0.5s,baz=300,slow=24,SNR=4.0						
ESDC				Lg		15 32 28.7	
	comp=N,52nm,0.9s,baz=314,slow=29,SNR=8.6						
ESDC	**Sonseca Array**	**4.86**	**125**	Pn	**Pn**	**15 31 07.7**	**+1.7**
ESDC				Pg	**Pg**	**15 31 23.4**	**-2.5**
ESDC				Sn	**Sn**	**15 32 01.5**	**-0.9**
ESDC				Lg		15 32 30.4	
ESDC	**Sonseca Array**	**4.86**	**125**	Pn	**Pn**	**15 31 07.6**	**+1.6**
	comp=N,9.6nm,0.1s,baz=310,slow=13,SNR=14						
ESDC				Lg		15 32 28.7	
	comp=N,52nm,0.9s,SNR=8.6						
ECRI	**Cripan**	**4.88**	**88**	Pn	**Pn**	**15 31 07.9**	**+1.7**
	comp=N,2.1nm,0.2s,SNR=7.9						
ECRI				Lg		15 32 28.9	
	comp=N,30nm,0.3s,SNR=7.9						
ECRI	**Cripan**	**4.88**	**88**	Pn	**Pn**	**15 31 07.9**	**+1.7**
	comp=N,2.1nm,0.2s,SNR=7.9						
ECRI				Lg		15 32 28.9	
	comp=N,30nm,0.3s,SNR=7.9						
PTEO	**Sao Teotonio**	**5.05**	**176**	*e*Pn	**Pn**	**15 31 08.6**	**0.0**
PTEO				*e*Sn	**Sn**	**15 32 03.7**	**-3.2**
PTEO				A		15 32 47.6	
	comp=N,48nm,0.9s						
PTEO	**Sao Teotonio**	**5.05**	**176**	Pn	**Pn**	**15 31 08.6**	**0.0**
PTEO				Sn	**Sn**	**15 32 03.7**	**-3.2**
	comp=N,24nm,0.9s						
PTEO	**Sao Teotonio**	**5.05**	**176**	*e*Pn	**Pn**	**15 31 08.6**	**0.0**
PTEO				*e*Sn	**Sn**	**15 32 03.7**	**-3.2**
	comp=N,48nm,0.9s						
EMIN	**Mina Concepcio**	**5.17**	**158**	⇑Pn	**Pn**	**15 31 11.1**	**+0.9**
	comp=N,11nm,0.1s,SNR=18						
EMIN				Sn	**Sn**	**15 32 08.3**	**-1.6**
	comp=N,11nm,0.3s,SNR=7.9						
EMIN				Lg		15 32 37.8	
	comp=N,16nm,0.3s,SNR=7.3						
EMIN	**Mina Concepcio**	**5.17**	**158**	Pn	**Pn**	**15 31 11.1**	**+0.9**
EMIN				Sn	**Sn**	**15 32 08.3**	**-1.6**
EMIN	**Mina Concepcio**	**5.17**	**158**	Pn	**Pn**	**15 31 11.1**	**+0.9**
	comp=N,11nm,0.1s,SNR=18						
EMIN				Lg		15 32 40.2	
	comp=N,16nm,0.3s,SNR=7.3						
EGRO	**El Granado**	**5.20**	**165**	Pn	**Pn**	**15 31 11.1**	**+0.4**
	comp=N,1.6nm,0.1s,SNR=21						
EGRO				Sn	**Sn**	**15 32 08.7**	**-2.1**
	comp=N,27nm,0.3s,SNR=7.9						
EGRO				Lg		15 32 39.7	
	comp=N,96nm,0.7s,SNR=7.9						
EGRO	**El Granado**	**5.20**	**165**	Pn	**Pn**	**15 31 11.1**	**+0.4**
	comp=N,1.6nm,0.1s,SNR=21						
EGRO				Lg		15 32 39.7	
	comp=N,96nm,0.7s,SNR=7.9						
MORF	**Marmelete**	**5.29**	**176**	*e*Pn	**Pn**	**15 31 12.1**	**+0.2**
MORF				*e*Sn	**Sn**	**15 32 08.9**	**-4.0**
MORF				A		15 32 13.2	
	comp=N,24nm,0.2s						
MORF	**Marmelete**	**5.29**	**176**	Pn	**Pn**	**15 31 12.1**	**+0.2**
MORF				Sn	**Sn**	**15 32 08.9**	**-4.0**
	comp=N,24nm,0.2s						
MORF	**Marmelete**	**5.29**	**176**	*e*Pn	**Pn**	**15 31 12.1**	**+0.2**
PVAQ	**Vaqueiros**	**5.29**	**168**	*e*Pn	**Pn**	**15 31 12.2**	**+0.3**
PVAQ				*e*Sn	**Sn**	**15 32 08.8**	**-4.1**
PVAQ				A		15 32 49.5	
	comp=N,49nm,0.6s						
PVAQ	**Vaqueiros**	**5.29**	**168**	Pn	**Pn**	**15 31 12.2**	**+0.3**
PVAQ				Sn	**Sn**	**15 32 08.8**	**-4.1**
	comp=N,49nm,0.6s						
PVAQ	**Vaqueiros**	**5.29**	**168**	*e*Pn	**Pn**	**15 31 12.2**	**+0.3**
ECAB	**El Cabril**	**5.32**	**147**	Pn	**Pn**	**15 31 13.3**	**+0.9**
	comp=N,2.1nm,0.2s,SNR=20						
ECAB				Sn	**Sn**	**15 32 12.7**	**-1.0**
	comp=N,7.8nm,0.3s,SNR=5.1						
ECAB				Lg		15 32 43.4	
	comp=N,249nm,0.7s,SNR=10						
ECAB	**El Cabril**	**5.32**	**147**	Pn	**Pn**	**15 31 13.3**	**+1.0**
	comp=N,2.1nm,0.2s,SNR=20						
ECAB				Lg		15 32 43.4	
	comp=N,249nm,0.7s,SNR=10						
PBDV	**Barranco-do-Ve**	**5.42**	**170**	*e*Pn	**Pn**	**15 31 14.1**	**+0.5**
PBDV				*e*Sn	**Sn**	**15 32 11.6**	**-4.4**
PBDV				A		15 32 50.8	
	comp=N,25nm,0.6s						
PBDV	**Barranco-do-Ve**	**5.42**	**170**	Pn	**Pn**	**15 31 14.1**	**+0.5**
PBDV				Sn	**Sn**	**15 32 11.6**	**-4.4**
	comp=N,25nm,0.6s						
PBDV	**Barranco-do-Ve**	**5.42**	**170**	*e*Pn	**Pn**	**15 31 14.1**	**+0.5**
ETOR	**Torete**	**5.58**	**106**	Pn	**Pn**	**15 31 17.5**	**+1.7**
	comp=N,7.2nm,0.1s,SNR=11						
ETOR				Sn	**Sn**	**15 32 20.3**	**+0.3**
	comp=N,30nm,0.4s,SNR=7.9						
ETOR				Lg		15 32 52.9	
	comp=N,97nm,0.5s,SNR=9.9						
ETOR	**Torete**	**5.58**	**106**	Pn	**Pn**	**15 31 17.5**	**+1.7**
	comp=N,7.2nm,0.1s,SNR=11						
ETOR				Sn	**Sn**	**15 32 22.6**	**+2.7**
	comp=N,30nm,0.4s,SNR=7.9						
ETOR				Lg		15 32 52.9	
	comp=N,97nm,0.5s,SNR=9.9						
IUSE	**Utxeti**	**5.59**	**84**	Pn	**Pn**	**15 31 18.0**	**+2.0**
	comp=N,0.9nm,0.1s,SNR=10						
IUSE				Sn	**Sn**	**15 32 22.6**	**+2.4**
	comp=N,3.7nm,0.2s,SNR=7.9						
IUSE	**Utxeti**	**5.59**	**84**	Pn	**Pn**	**15 31 18.0**	**+2.1**
	comp=N,0.9nm,0.1s,SNR=10						
IUSE				Sn	**Sn**	**15 32 22.6**	**+2.4**
	comp=N,3.7nm,0.2s,SNR=7.9						
ELIZ	**Elizondo**	**5.61**	**82**	Pn	**Pn**	**15 31 17.8**	**+1.6**
	comp=N,0.9nm,0.2s,SNR=7.9						
ELIZ	**Elizondo**	**5.61**	**82**	Pn	**Pn**	**15 31 17.8**	**+1.5**
	comp=N,0.9nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**5.62**	**140**	Pn	**Pn**	**15 31 17.3**	**+0.9**
	comp=N,0.6nm,0.1s,SNR=4.7						
EADA				Sn	**Sn**	**15 32 18.8**	**-2.1**
	comp=N,3.8nm,0.2s,SNR=7.9						
EADA				Lg		15 32 52.8	
	comp=N,41nm,0.4s,SNR=5.1						
EADA	**Adamuz**	**5.62**	**140**	Pn	**Pn**	**15 31 17.3**	**+0.9**
	comp=N,0.6nm,0.1s,SNR=4.7						
EADA				Lg		15 32 52.8	
	comp=N,41nm,0.4s,SNR=5.1						
IUNC	**Unciti**	**5.62**	**86**	Pn	**Pn**	**15 31 18.1**	**+1.6**
	comp=N,2.4nm,0.1s,SNR=6.6						
IUNC				Sn	**Sn**	**15 32 20.3**	**-0.8**
	comp=N,5.8nm,0.2s,SNR=7.9						
IUNC	**Unciti**	**5.62**	**86**	Pn	**Pn**	**15 31 18.1**	**+1.7**
	comp=N,2.4nm,0.1s,SNR=6.6						
IUNC				Sn	**Sn**	**15 32 20.3**	**-0.7**
	comp=N,5.8nm,0.2s,SNR=7.9						
EALK	**Alkurruntz**	**5.63**	**81**	Pn	**Pn**	**15 31 17.9**	**+1.4**
	comp=N,0.4nm,0.1s,SNR=4.7						
EALK				Sn	**Sn**	**15 32 20.0**	**-1.1**
	comp=N,29nm,0.4s,SNR=7.9						
EALK	**Alkurruntz**	**5.63**	**81**	Pn	**Pn**	**15 31 17.9**	**+1.4**
	comp=N,0.4nm,0.1s,SNR=4.7						
IZUN	**Zunzarren**	**5.65**	**85**	Pn	**Pn**	**15 31 19.1**	**+2.3**
	comp=N,4.7nm,0.2s,SNR=7.9						
IZUN	**Zunzarren**	**5.65**	**85**	Pn	**Pn**	**15 31 19.1**	**+2.2**
	comp=N,4.7nm,0.2s,SNR=7.9						
EORO	**Oroz-Betelu**	**5.76**	**84**	Pn	**Pn**	**15 31 20.0**	**+1.6**
	comp=N,0.2nm,0.1s,SNR=12						
EORO				Sn	**Sn**	**15 32 24.1**	**-0.3**
	comp=N,9.0nm,0.2s,SNR=7.9						
EORO	**Oroz-Betelu**	**5.76**	**84**	Pn	**Pn**	**15 31 20.0**	**+1.7**
	comp=N,0.2nm,0.1s,SNR=12						
EORO				Sn	**Sn**	**15 32 24.1**	**-0.4**
	comp=N,9.0nm,0.2s,SNR=7.9						
SJPF	**Ste Jean**	**5.83**	**82**	*e*Pn	**Pn**	**15 31 20.5**	**+1.2**
	SNR=1.0						
SJPF				*e*Sn	**Sn**	**15 32 23.5**	**-2.6**
	SNR=1.0						
SJPF				*e*Sg	**Sg**	**15 32 59.8**	**-0.1**
	comp=N,28nm,0.6s,SNR=1.0						
SJPF	**Ste Jean**	**5.83**	**82**	Pn	**Pn**	**15 31 20.5**	**+1.2**
SJPF				Sn	**Sn**	**15 32 23.5**	**-2.6**
SJPF				Lg		15 32 59.8	
	comp=N,14nm,0.6s						
SJPF	**Ste Jean**	**5.83**	**82**	*e*Pn	**Pn**	**15 31 20.5**	**+1.2**
	SNR=1.0						
EBAN	**Banos Encina**	**6.01**	**136**	Pn	**Pn**	**15 31 23.6**	**+1.8**
	comp=N,2.1nm,0.2s,SNR=7.9						
EBAN				Sn	**Sn**	**15 32 27.1**	**-3.5**
	comp=N,6.2nm,0.4s,SNR=7.9						
EBAN				Lg		15 33 05.9	
	comp=N,22nm,0.5s,SNR=7.9						
EBAN	**Banos Encina**	**6.01**	**136**	Pn	**Pn**	**15 31 23.6**	**+1.8**
	comp=N,2.1nm,0.2s,SNR=7.9						
EBAN				Lg		15 33 05.9	
	comp=N,22nm,0.5s,SNR=7.9						
ESPR	**Espera**	**6.24**	**155**	Pn	**Pn**	**15 31 26.3**	**+1.3**
	comp=N,4.4nm,0.1s,SNR=10						
ESPR				Sn	**Sn**	**15 32 34.3**	**-2.1**
	comp=N,11nm,0.3s,SNR=7.9						
ESPR				Lg		15 33 12.7	
	comp=N,52nm,0.7s,SNR=7.9						
ESPR	**Espera**	**6.24**	**155**	Pn	**Pn**	**15 31 26.3**	**+1.3**
	comp=N,4.4nm,0.1s,SNR=10						
ESPR				Lg		15 33 15.5	
	comp=N,52nm,0.7s,SNR=7.9						
ELUQ	**Luque**	**6.25**	**142**	Lg		15 33 16.5	
	comp=N,21nm,0.4s,SNR=7.9						
ELUQ	**Luque**	**6.25**	**142**	Lg		15 33 16.5	
	comp=N,21nm,0.4s,SNR=7.9						
ETSF	**Etsaut**	**6.31**	**84**	*e*Pn	**Pn**	**15 31 27.4**	**+1.5**
	SNR=1.0						
ETSF				*e*Sn	**Sn**	**15 32 35.0**	**-3.0**
ETSF				*e*Sg	**Sg**	**15 33 14.2**	**-1.2**
	comp=N,38nm,0.7s,SNR=1.0						
ETSF	**Etsaut**	**6.31**	**84**	Pn	**Pn**	**15 31 27.4**	**+1.5**
ETSF				Sn	**Sn**	**15 32 35.0**	**-3.0**
ETSF				Lg		15 33 14.2	
	comp=N,19nm,0.7s						
ETSF	**Etsaut**	**6.31**	**84**	*e*Pn	**Pn**	**15 31 27.4**	**+1.5**
	SNR=1.0						
EVIA	**Vianos**	**6.40**	**126**	Pn	**Pn**	**15 31 28.5**	**+1.4**
	comp=N,0.7nm,0.2s,SNR=7.9						
EVIA				Sn	**Sn**	**15 32 38.9**	**-1.2**
	comp=N,6.3nm,0.5s,SNR=7.9						
EVIA				Lg		15 33 19.3	
	SNR=7.9						
EVIA	**Vianos**	**6.40**	**126**	Pn	**Pn**	**15 31 28.5**	**+1.4**
	comp=N,0.7nm,0.2s,SNR=7.9						
ESAC	**San Caprasio**	**6.49**	**95**	Pn	**Pn**	**15 31 30.1**	**+1.7**
	comp=N,2.7nm,0.2s,SNR=6.8						
ESAC				Sn	**Sn**	**15 32 42.4**	**0.0**
	comp=N,32nm,0.3s,SNR=7.9						
ESAC				Lg		15 33 21.0	
	comp=N,105nm,0.5s,SNR=7.9						
ESAC	**San Caprasio**	**6.49**	**95**	Pn	**Pn**	**15 31 30.1**	**+1.8**
	comp=N,2.7nm,0.2s,SNR=6.8						
ESAC				Sn	**Sn**	**15 32 42.4**	**0.0**
	comp=N,32nm,0.3s,SNR=7.9						
ESAC				Lg		15 33 21.0	
	comp=N,105nm,0.5s,SNR=7.9						
ELOJ	**Sierra Loja**	**6.64**	**143**	Lg		15 33 25.4	
	comp=N,21nm,0.9s,SNR=7.9						
ELOJ	**Sierra Loja**	**6.64**	**143**	Lg		15 33 25.4	
	comp=N,21nm,0.9s,SNR=7.9						
EQES	**Quesada**	**6.66**	**134**	Lg		15 33 28.2	
	comp=N,79nm,0.8s,SNR=7.9						
EQES	**Quesada**	**6.66**	**134**	Lg		15 33 30.2	
	comp=N,79nm,0.8s,SNR=7.9						
EJIF	**Jimena Fronter**	**6.75**	**154**	Lg		15 33 33.2	
	comp=N,32nm,0.9s,SNR=7.9						
EJIF	**Jimena Fronter**	**6.75**	**154**	Lg		15 33 33.2	
	comp=N,32nm,0.9s,SNR=7.9						
QUIF	**Quistinic**	**6.78**	**36**	*e*Pn	**Pn**	**15 31 30.7**	**-1.6**
	SNR=1.0						
QUIF				*e*Sn	**Sn**	**15 32 43.6**	**-6.0**
	comp=N,17nm,0.3s,SNR=1.0						
QUIF	**Quistinic**	**6.78**	**36**	Pn	**Pn**	**15 31 30.7**	**-1.6**
QUIF				Sn	**Sn**	**15 32 43.6**	**-6.0**
	comp=N,8.7nm,0.3s						
QUIF	**Quistinic**	**6.78**	**36**	*e*Pn	**Pn**	**15 31 30.7**	**-1.6**
	SNR=1.0						
ECOG	**Cogollos-Vega**	**6.81**	**139**	Lg		15 33 34.5	
	comp=N,15nm,0.6s,SNR=7.9						
ECOG	**Cogollos-Vega**	**6.81**	**139**	Lg		15 33 34.5	
	comp=N,15nm,0.6s,SNR=7.9						
EBIE	**Bielsa**	**6.83**	**86**	Pn	**Pn**	**15 31 34.9**	**+1.8**
	comp=N,2.5nm,0.2s,SNR=33						
EBIE				Sn	**Sn**	**15 32 50.0**	**-0.9**
	comp=N,7.4nm,0.4s,SNR=7.9						
EBIE				Lg		15 33 33.0	
	SNR=7.9						
EBIE	**Bielsa**	**6.83**	**86**	Pn	**Pn**	**15 31 34.9**	**+1.8**
	comp=N,2.5nm,0.2s,SNR=33						
EBIE				Sn	**Sn**	**15 32 51.1**	**+0.2**
	comp=N,7.4nm,0.4s,SNR=7.9						
ECHE	**Chera**	**6.85**	**113**	Lg		15 33 35.9	
	comp=N,30nm,0.6s,SNR=7.9						
ECHE	**Chera**	**6.85**	**113**	Lg		15 33 35.9	
	comp=N,30nm,0.6s,SNR=7.9						
EMOS	**Mosqueruela**	**6.87**	**106**	Pn	**Pn**	**15 31 36.6**	**+3.1**
	comp=N,2.3nm,0.2s,SNR=12						
EMOS				Sn	**Sn**	**15 32 50.5**	**-1.2**
	comp=N,3.7nm,0.2s,SNR=7.9						
EMOS				Lg		15 33 35.7	
	comp=N,103nm,1.3s,SNR=7.9						
EMOS	**Mosqueruela**	**6.87**	**106**	Pn	**Pn**	**15 31 36.6**	**+3.1**
	comp=N,2.3nm,0.2s,SNR=12						
EMOS				Lg		15 33 38.2	
	comp=N,103nm,1.3s,SNR=7.9						
EMIJ	**Mijas**	**6.89**	**149**	Lg		15 33 37.9	
	comp=N,46nm,0.6s,SNR=7.9						
EMIJ	**Mijas**	**6.89**	**149**	Lg		15 33 39.2	
	comp=N,46nm,0.6s,SNR=7.9						
ERON	**Agron**	**6.91**	**142**	Lg		15 33 39.4	
	comp=N,15nm,0.6s,SNR=7.9						
ERON	**Agron**	**6.91**	**142**	Lg		15 33 39.4	
	comp=N,15nm,0.6s,SNR=7.9						
EHUE	**Huescar**	**6.91**	**132**	Lg		15 33 36.8	
	comp=N,35nm,1.0s,SNR=7.9						
EHUE	**Huescar**	**6.91**	**132**	Lg		15 33 39.7	
	comp=N,35nm,1.0s,SNR=7.9						
EQUE	**Quentar**	**6.93**	**139**	Lg		15 33 35.7	
	comp=N,46nm,0.8s,SNR=7.9						
EQUE	**Quentar**	**6.93**	**139**	Lg		15 33 35.7	
	comp=N,46nm,0.8s,SNR=7.9						
EPF	**Esparros**	**6.97**	**83**	*e*Pn	**Pn**	**15 31 34.4**	**-0.6**
	SNR=1.0						
EPF				*e*Sn	**Sn**	**15 32 50.7**	**-3.6**
EPF				*e*Sg	**Sg**	**15 33 34.5**	**-2.1**
	comp=N,40nm,0.7s						
EPF	**Esparros**	**6.97**	**83**	Pn	**Pn**	**15 31 34.4**	**-0.6**
EPF				Sn	**Sn**	**15 32 50.7**	**-3.6**
EPF				Lg		15 33 34.5	
	comp=N,20nm,0.7s						
EPF	**Esparros**	**6.97**	**83**	*e*Pn	**Pn**	**15 31 34.4**	**-0.6**
	SNR=1.0						
ETOB	**Tobarra**	**6.98**	**122**	Pn	**Pn**	**15 31 36.3**	**+1.2**
	comp=N,0.7nm,0.1s,SNR=7.9						
ETOB				Lg		15 33 37.1	
	comp=N,178nm,1.1s,SNR=7.9						
ETOB	**Tobarra**	**6.98**	**122**	Pn	**Pn**	**15 31 36.3**	**+1.2**
	comp=N,0.7nm,0.1s,SNR=7.9						
ETOB				Lg		15 33 38.8	
	comp=N,178nm,1.1s,SNR=7.9						
ROSF	**Rostrenen**	**7.06**	**34**	*e*Pn	**Pn**	**15 31 34.5**	**-1.7**
	SNR=1.0						
ROSF				*e*Sn	**Sn**	**15 32 50.1**	**-6.4**
	comp=N,9.4nm,0.3s,SNR=1.0						
ROSF	**Rostrenen**	**7.06**	**34**	Pn	**Pn**	**15 31 34.5**	**-1.7**
ROSF				Sn	**Sn**	**15 32 50.1**	**-6.4**
	comp=N,4.7nm,0.3s						
ROSF	**Rostrenen**	**7.06**	**34**	*e*Pn	**Pn**	**15 31 34.5**	**-1.7**
	SNR=1.0						
EGUA	**Guajares**	**7.17**	**141**	Lg		15 33 43.0	
	comp=N,173nm,0.8s,SNR=7.9						
EGUA	**Guajares**	**7.17**	**141**	Lg		15 33 43.0	
	comp=N,173nm,0.8s,SNR=7.9						
ERTA	**Horta de San J**	**7.25**	**100**	Pn	**Pn**	**15 31 40.3**	**+1.5**
	comp=N,0.4nm,0.2s,SNR=7.9						
ERTA				Sn	**Sn**	**15 32 58.6**	**-2.6**
	comp=N,5.0nm,0.2s,SNR=7.9						
ERTA				Lg		15 33 46.0	
	comp=N,116nm,1.4s,SNR=7.9						
ERTA	**Horta de San J**	**7.25**	**100**	Pn	**Pn**	**15 31 40.3**	**+1.5**
	comp=N,0.4nm,0.2s,SNR=7.9						
ERTA				Lg		15 33 48.6	
	comp=N,116nm,1.4s,SNR=7.9						
ECEU	**Ceuta**	**7.29**	**155**	Pn	**Pn**	**15 31 40.8**	**+1.5**
	comp=N,1.2nm,0.1s,SNR=7.9						

ECEU	Ceuta	7.29	155	Pn	Pn	15 31 40.8	+1.5
	comp=N,1.2nm,0.1s,SNR=7.9						
SGMF	Saint Gilles	7.31	37	*e*Pn	Pn	15 31 38.1	-1.4
	SNR=1.0						
SGMF				*e*Sn	Sn	15 32 53.7	-8.7
	comp=N,12nm,0.4s,SNR=1.0						
SGMF	Saint Gilles	7.31	37	Pn	Pn	15 31 38.1	-1.4
SGMF				Sn	Sn	15 32 53.7	-8.7
	comp=N,5.9nm,0.4s						
SGMF	Saint Gilles	7.31	37	*e*Pn	Pn	15 31 38.1	-1.4
	SNR=1.0						
EBER	Berja	7.44	138	Lg		15 33 51.4	
	comp=N,164nm,1.8s,SNR=7.9						
EBER	Berja	7.44	138	Pn	Pn	15 31 44.4	+3.0
	comp=N,0.2nm,0.1s,SNR=4.0						
EBER				Lg		15 33 54.9	
	comp=N,164nm,1.8s,SNR=7.9						
LFF	La Frestale	7.52	68	*e*Pn	Pn	15 31 41.9	-0.5
	SNR=1.0						
LFF				*e*Sn	Sn	15 33 03.2	-4.4
	comp=N,14nm,0.4s,SNR=1.0						
LFF	La Frestale	7.52	68	Pn	Pn	15 31 41.9	-0.5
LFF				Sn	Sn	15 33 03.2	-4.4
	comp=N,6.8nm,0.4s						
LFF	La Frestale	7.52	68	*e*Pn	Pn	15 31 41.9	-0.5
	SNR=1.0						
MFF	Saint Martin d	7.56	55	*e*Pn	Pn	15 31 42.2	-0.8
	SNR=1.0						
MFF				*e*Sn	Sn	15 33 02.7	-5.9
	comp=N,20nm,0.3s,SNR=1.0						
MFF	Saint Martin d	7.56	55	Pn	Pn	15 31 42.2	-0.8
MFF				Sn	Sn	15 33 02.7	-5.9
	comp=N,10nm,0.3s						
MFF	Saint Martin d	7.56	55	*e*Pn	Pn	15 31 42.2	-0.8
	SNR=1.0						
EMUR	La Murta	7.67	126	Lg		15 34 01.1	
	comp=N,54nm,0.7s,SNR=7.9						
EMUR	La Murta	7.67	126	Lg		15 34 01.1	
	comp=N,54nm,0.7s,SNR=7.9						
EPOB	Poblet	7.70	96	Pn	Pn	15 31 45.9	+0.9
	comp=N,0.1nm,0.1s,SNR=7.9						
EPOB				Sn	Sn	15 33 08.4	-3.9
	comp=N,3.3nm,0.3s,SNR=7.9						
EPOB				Lg		15 33 58.2	
	comp=N,52nm,0.9s,SNR=7.9						
EPOB	Poblet	7.70	96	Pn	Pn	15 31 45.9	+0.9
	comp=N,0.1nm,0.1s,SNR=7.9						
EPOB				Lg		15 34 00.9	
	comp=N,52nm,0.9s,SNR=7.9						
EBEN	Beniarda	7.80	117	Pn	Pn	15 31 47.8	+1.5
	comp=N,0.2nm,0.2s,SNR=7.9						
EBEN				Lg		15 34 02.4	
	SNR=7.9						
EBEN	Beniarda	7.80	117	Pn	Pn	15 31 47.8	+1.5
	comp=N,0.2nm,0.2s,SNR=7.9						
RJF	Les Rejaudoux	8.14	67	*e*Pn	Pn	15 31 50.3	-0.7
	SNR=1.0						
RJF				*e*Sn	Sn	15 33 17.0	-6.0
	comp=N,14nm,0.3s						
RJF	Les Rejaudoux	8.14	67	Pn	Pn	15 31 50.3	-0.7
RJF				Sn	Sn	15 33 17.0	-6.0
	comp=N,7.0nm,0.3s						
RJF	Les Rejaudoux	8.14	67	*e*Pn	Pn	15 31 50.3	-0.7
	SNR=1.0						
GRR	Gorron	8.20	42	*e*Pn	Pn	15 31 49.8	-2.0
	SNR=1.0						
GRR				*e*Sn	Sn	15 33 17.3	-7.2
	comp=N,13nm,0.3s						
GRR	Gorron	8.20	42	Pn	Pn	15 31 49.8	-2.0
GRR				Sn	Sn	15 33 17.3	-7.2
	comp=N,6.6nm,0.3s						
GRR	Gorron	8.20	42	*e*Pn	Pn	15 31 49.8	-2.0
	SNR=1.0						
MTLF	Montolieu	8.35	81	*e*Pn	Pn	15 31 53.6	-0.3
	SNR=1.0						
MTLF				*e*Sn	Sn	15 33 23.1	-5.1
	comp=N,7.1nm,0.4s						
MTLF	Montolieu	8.35	81	Pn	Pn	15 31 53.6	-0.3
MTLF				Sn	Sn	15 33 23.1	-5.1
	comp=N,3.6nm,0.4s						
MTLF	Montolieu	8.35	81	*e*Pn	Pn	15 31 53.6	-0.3
	SNR=1.0						
CAF	Calviac	8.43	70	*e*Pn	Pn	15 31 54.4	-0.5
	SNR=1.0						
CAF				*e*Sn	Sn	15 33 24.4	-5.6
	comp=N,8.9nm,0.3s						
CAF	Calviac	8.43	70	Pn	Pn	15 31 54.4	-0.5
CAF				Sn	Sn	15 33 24.4	-5.6
	comp=N,4.4nm,0.3s						
CAF	Calviac	8.43	70	*e*Pn	Pn	15 31 54.4	-0.5
	SNR=1.0						
FLN	La Foliniere	8.64	41	*e*Pn	Pn	15 31 56.2	-1.6
	baz=227,SNR=1.0						
FLN				*e*Sn	Sn	15 33 27.8	-7.4
	comp=N,11nm,0.3s,baz=223						
FLN	La Foliniere	8.64	41	Pn	Pn	15 31 56.2	-1.6
FLN				Sn	Sn	15 33 27.8	-7.4
	comp=N,5.6nm,0.3s						
FLN	La Foliniere	8.64	41	*e*Pn	Pn	15 31 56.2	-1.6
	baz=227,SNR=1.0						
EIBI	Ibiza	8.70	111	Pn	Pn	15 32 01.2	+2.6
	comp=N,1.2nm,0.1s,SNR=7.9						
EIBI				Sn	Sn	15 33 32.9	-3.8
	comp=N,2.6nm,0.3s,SNR=7.9						
EIBI	Ibiza	8.70	111	Pn	Pn	15 32 01.2	+2.6
	comp=N,1.2nm,0.1s,SNR=7.9						
LDF	La Druitiere	8.71	43	*e*Pn	Pn	15 31 56.9	-1.8
	SNR=1.0						
LDF				*e*Sn	Sn	15 33 29.0	-7.8
	comp=N,8.1nm,0.3s						
LDF	La Druitiere	8.71	43	*e*Pn	Pn	15 31 56.9	-1.8
	SNR=1.0						
TCF	Toulx Ste Croi	8.91	62	*e*Pn	Pn	15 31 59.5	-2.0
TCF				*e*Sn	Sn	15 33 34.0	-7.9
	comp=N,40nm,0.3s						
TCF	Toulx Ste Croi	8.91	62	Pn	Pn	15 31 59.5	-2.0
TCF				Sn	Sn	15 33 34.0	-7.9
	comp=N,20nm,0.3s						
TCF	Toulx Ste Croi	8.91	62	*e*Pn	Pn	15 31 59.5	-2.0
BGF	Bois d’Agland	9.42	61	*e*Pn	Pn	15 32 07.6	-0.9
	SNR=1.0						
BGF				*e*Sn	Sn	15 33 45.8	-8.5
	comp=N,39nm,0.3s						
BGF	Bois d’Agland	9.42	61	Pn	Pn	15 32 07.6	-0.9
BGF				Sn	Sn	15 33 45.8	-8.5
	comp=N,20nm,0.3s						
BGF	Bois d’Agland	9.42	61	*e*Pn	Pn	15 32 07.6	-0.9
	SNR=1.0						
HYF	Humbligny	9.56	57	*e*Pn	Pn	15 32 09.7	-0.7
HYF	Humbligny	9.56	57	*e*Pn	Pn	15 32 09.7	-0.7
LASF	Ste Croix	9.58	77	*e*Pn	Pn	15 32 10.4	-0.3
	SNR=1.0						
LASF				*e*Sn	Sn	15 33 52.5	-5.8
	comp=N,3.3nm,0.2s						
LASF	Ste Croix	9.58	77	Pn	Pn	15 32 10.4	-0.3
LASF				Sn	Sn	15 33 52.5	-5.8
	comp=N,1.7nm,0.2s						
LASF	Ste Croix	9.58	77	*e*Pn	Pn	15 32 10.4	-0.3
	SNR=1.0						
AVF	Avril sur Loir	9.82	60	*e*Pn	Pn	15 32 12.8	-1.2
	SNR=1.0						
AVF				*e*Sn	Sn	15 33 56.5	-7.8
	comp=N,19nm,0.5s						
AVF	Avril sur Loir	9.82	60	Pn	Pn	15 32 12.8	-1.2
AVF				Sn	Sn	15 33 56.5	-7.8
	comp=N,9.6nm,0.5s						
AVF	Avril sur Loir	9.82	60	*e*Pn	Pn	15 32 12.8	-1.2
	SNR=1.0						
SSF	Saint Saulge	10.02	59	*e*Pn	Pn	15 32 15.9	-0.8
	SNR=1.0						
SSF				*e*Sn	Sn	15 34 00.2	-9.0
	comp=N,14nm,0.4s						
SSF	Saint Saulge	10.02	59	Pn	Pn	15 32 15.9	-0.8
SSF				Sn	Sn	15 34 00.2	-9.0
	comp=N,6.8nm,0.4s						
SSF	Saint Saulge	10.02	59	*e*Pn	Pn	15 32 15.9	-0.8
	SNR=1.0						
SMF	Signal de Mont	10.09	62	*e*Pn	Pn	15 32 15.9	-1.8
SMF				*e*Sn	Sn	15 34 03.6	-7.3
	comp=N,6.2nm,0.3s						
SMF	Signal de Mont	10.09	62	Pn	Pn	15 32 15.9	-1.8
SMF				Sn	Sn	15 34 03.6	-7.3
	comp=N,3.1nm,0.3s						
SMF	Signal de Mont	10.09	62	*e*Pn	Pn	15 32 15.9	-1.8
VIVF	Saint-Julien-l	10.24	73	*e*Pn	Pn	15 32 19.5	-0.3
	SNR=1.0						
VIVF				*e*Sn	Sn	15 34 08.0	-6.6
	comp=N,8.3nm,0.4s						
VIVF	Saint-Julien-l	10.24	73	Pn	Pn	15 32 19.5	-0.3
VIVF				Sn	Sn	15 34 08.0	-6.6
	comp=N,4.2nm,0.4s						
VIVF	Saint-Julien-l	10.24	73	*e*Pn	Pn	15 32 19.5	-0.3
	SNR=1.0						
LOR	Lormes	10.32	59	*e*Pn	Pn	15 32 19.0	-1.9
	baz=239,SNR=1.0						
LOR				*e*Sn	Sn	15 34 06.9	-10
	comp=N,7.9nm,0.3s,baz=242						
LOR	Lormes	10.32	59	Pn	Pn	15 32 19.0	-1.9
LOR				Sn	Sn	15 34 06.9	-10
	comp=N,4.0nm,0.3s						
LOR	Lormes	10.32	59	*e*Pn	Pn	15 32 19.0	-1.9
	baz=239,SNR=1.0						
SFTF	Sexfontaines	11.42	56	*e*Pn	Pn	15 32 33.9	-2.0
	baz=233						
SFTF				*e*Sn	Sn	15 34 35.7	-7.8
	comp=N,4.0nm,0.2s,baz=238						
SFTF	Sexfontaines	11.42	56	Pn	Pn	15 32 33.9	-2.0
SFTF				Sn	Sn	15 34 35.7	-7.8
	comp=N,4.0nm,0.2s						
SFTF	Sexfontaines	11.42	56	*e*Pn	Pn	15 32 33.9	-2.0
	baz=233						
CABF	La Chapelle	11.56	64	*e*Pn	Pn	15 32 36.4	-1.4
CABF	La Chapelle	11.56	64	*e*Pn	Pn	15 32 36.4	-1.4
FRF	La Foret Royal	11.58	80	*e*Pn	Pn	15 32 37.9	-0.2
FRF	La Foret Royal	11.58	80	*e*Pn	Pn	15 32 37.9	-0.2
MBDF	Montbardon	11.71	74	*e*Sn	Sn	15 34 43.9	-6.7
	comp=N,1.2nm,0.4s						
MBDF	Montbardon	11.71	74	Sn	Sn	15 34 43.9	-6.7
	comp=N,0.6nm,0.4s						
BAIF	Baives	11.85	46	*e*Pn	Pn	15 32 39.6	-2.1
	SNR=1.0						
BAIF	Baives	11.85	46	*e*Pn	Pn	15 32 39.6	-2.1
	SNR=1.0						
HAU	Haudompre	12.16	58	*e*Pn	Pn	15 32 43.7	-2.3
	SNR=1.0						
HAU				*e*Sn	Sn	15 34 52.6	-8.9
	comp=N,8.1nm,0.5s						
HAU	Haudompre	12.16	58	Pn	Pn	15 32 43.7	-2.3
HAU				Sn	Sn	15 34 52.6	-8.9
	comp=N,4.1nm,0.5s						
HAU	Haudompre	12.16	58	*e*Pn	Pn	15 32 43.7	-2.3
	SNR=1.0						
GIVF	Givet	12.21	47	*e*Pn	Pn	15 32 45.4	-1.2
GIVF	Givet	12.21	47	*e*Pn	Pn	15 32 45.4	-1.2
PGF	Pioggiola	13.36	84	*e*Pn	Pn	15 33 02.2	-0.2
PGF	Pioggiola	13.36	84	*e*Pn	Pn	15 33 02.2	-0.2

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*ISCJB **25** 15:38:11.9±0.6, 39°.02N±0°.03×26°.05E±0°.04, h9km±4km, Error ellipse: s-maj=5.3km s-min=4.0km az=153.6*

*CSEM **25** 15:38:11.8±0.1, 39°.03N×26°.05E, h10km, ML3.0/5, Error ellipse: s-maj=3.2km s-min=2.5km az=59.0*

*DDA **25** 15:38:11.6, 39°.04N×26°.08E, h28km±1km, Md2.8*

*THE **25** 15:38:12.1, 39°.01N×26°.05E, h10km±1km, ML3.0/5, Error ellipse: s-maj=1.3km s-min=0.6km az=97.0*

ISC 25 15:38:12.2±0.5**, 39°.02N**±0°.03×**26°.04E**±0°.04**, h13**km±3km**, n25, σ0.59**/48**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIGR	SIGRI	0.24	323	P	Pg	15 38 17.3	0.0
SIGR				S	Sg	15 38 21.1	+0.4
SIGR	SIGRI	0.24	323	P	Pg	15 38 17.3	0.0
SIGR				S	Sg	15 38 21.1	+0.4
PRK	Paraskevi	0.29	39	P	Pg	15 38 17.6	-0.5
PRK				S	Sg	15 38 22.6	+0.5
PRK	Paraskevi	0.29	39	P	Pg	15 38 17.6	-0.5
PRK				S	Sg	15 38 22.6	+0.5
AYVA	Ayvalik	0.58	60	*i* P	Pg	15 38 23.0	-0.5
AYVA				*i* S	Sg	15 38 31.1	-0.1
AYVA	Ayvalik	0.58	60	*i* P	Pg	15 38 23.0	-0.5
AYVA				*i* S	Sg	15 38 31.0	-0.2
CHOS	Chios island	0.64	179	P	Pg	15 38 24.1	-0.5
CHOS				S	Sg	15 38 32.9	0.0
CHOS	Chios island	0.64	179	P	Pg	15 38 24.1	-0.5
CHOS				S	Sg	15 38 32.9	0.0
URLA	Izmir	0.79	147	*i* P	Pg	15 38 26.9	-0.7
URLA				*i* S	Sg	15 38 39.4	+1.5
URLA	Izmir	0.79	147	*i* P	Pg	15 38 26.9	-0.6
URLA				*i* S	Sg	15 38 39.4	+1.5
BOZC	Bozcaada	0.82	1	*i* P	Pg	15 38 27.2	-0.8
BOZC				*i* S	Sg	15 38 39.1	+0.4
LIA	Limnos Island	1.10	323	P	Pb	15 38 33.0	-0.1
LIA				S	Sb	15 38 47.8	+0.5
LIA	Limnos Island	1.10	323	P	Pb	15 38 33.0	-0.1
LIA				S	Sb	15 38 47.8	+0.5
LOS	Limnos	1.18	321	P	Pn	15 38 34.4	0.0
LOS	Limnos	1.18	321	P	Pn	15 38 34.4	0.0
AKHS	Akhisar	1.39	95	*i* P	Pn	15 38 38.1	+0.8
AKHS				*i* S	Sn	15 38 55.1	-0.4
AKHS	Akhisar	1.39	95	*i* P	Pn	15 38 38.1	+0.8
AKHS				*i* S	Sn	15 38 55.1	-0.4
BALY	Balya	1.42	59	*i* P	Pn	15 38 37.2	-0.5
BALY				*i* S	Sn	15 38 56.6	+0.3
BALY	Balya	1.42	59	*i* P	Pn	15 38 37.2	-0.5
BALY				*i* S	Sn	15 38 56.6	+0.4
ALN	Alexandroupoli	1.87	0	P	Pn	15 38 43.5	-0.5
ALN				S	Sn	15 39 07.4	-0.1
ALN	Alexandroupoli	1.87	0	P	Pn	15 38 43.5	-0.5
ALN				S	Sn	15 39 07.4	-0.1
SART	Tekirdag	1.88	27	*i* P	Pn	15 38 44.2	+0.1
SART				*i* S	Sn	15 39 11.4	+3.7
SART	Tekirdag	1.88	27	*i* P	Pn	15 38 44.2	+0.1
SART				*i* S	Sn	15 39 11.4	+3.7
DURS	Dursunbey	1.97	72	*i* P	Pn	15 38 44.5	-0.8
DURS				*i* S	Sn	15 39 10.4	+0.5
DURS	Dursunbey	1.97	72	*i* P	Pn	15 38 44.5	-0.8
DURS				*i* S	Sn	15 39 10.4	+0.4

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*IDC **25** 15:39:37.6±1.8, 2°.48N×95°.92E, h0km, mb3.7/5, mb1 3.7/7, mb1mx3.6/24, mbtmp3.6/7, ML3.1/1, MS2.8/1, Ms1 2.8/1, ms1mx2.4/27, Error ellipse: s-maj=57.3km s-min=20.6km az=55.0*

*DJA **25** 15:39:40, 2°.61N×96°.04E, h20km, MLv3.7/4*

*ISCJB **25** 15:39:41.6±1.8, 2°.60N±0°.10×96°.1E±0°.1, h37km±13km, mb3.7/7, Error ellipse: s-maj=28.1km s-min=7.2km az=148.2*

*NEIC **25** 15:39:43.1±0.8, 2°.53N×96°.04E, h35km, mb3.8/2, Error ellipse: s-maj=16.5km s-min=9.0km az=50.0*

ISC 25 15:39:43.0±4.2**, 2°.58N**±0°.10×**96°.1E**±0°.1**, h33**km±29km**, n16, σ0.62**/18**, mb3.7**/7**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSI	Gunungsitoli	1.98	130	P	Pn	15 40 13.5	-0.8
GSI				S	Sn	15 40 37.7	-0.3
PSI	Prapat	2.88	86	Pn	Pn	15 40 26.9	+0.2
	2.6nm,0.3s,baz=300,slow=8.1,SNR=11						
PSI				LR	LR	15 41 10.2	
	comp=Z,157nm,18.2s,baz=300,slow=31						
BSI	Banda Aceh	3.00	345	P	Pn	15 40 27.5	-0.7
BSI				S	Sn	15 41 02.1	-0.9
PPI	Padang Panjang	5.29	125	P	Pn	15 41 00.4	+0.6
IPM	Ipoh	5.31	69	P	Pn	15 40 59.8	-0.3
	12nm,0.5s,0.1nm						
KULM	Kulim	5.32	59	*e*P	Pn	15 40 59.9	-0.3
	9.7nm,0.8s						
CMAR	Chiang Mai Arr	16.03	10	Pn	Pn	15 43 28.0	+1.8
	baz=199,slow=11,SNR=9.1						
WRA	Warramunga Arr	43.74	123	P	P	15 47 45.4	-0.1
	0.3nm,0.4s,mb3.4,baz=299,slow=9.3,SNR=3.1						
WRAB	Tennant Creek	43.74	123	P	P	15 47 46.0	+0.4
ASAR	Alice Springs	45.14	127	P	P	15 47 56.3	-0.4
	0.2nm,0.8s,mb3.0,baz=301,slow=7.7,SNR=4.4						
MK31	Makanchi Array	45.64	347	*e*P	P	15 48 00.9	+0.6
MKAR	Makanchi Array	45.64	347	P	P	15 48 00.6	+0.3
	1.1nm,0.4s,mb4.2,baz=160,slow=8.7,SNR=28						
SONM	Songino Array	45.96	10	P	P	15 48 02.7	-0.1
	0.8nm,0.6s,mb3.8,baz=186,slow=10.0,SNR=8.3						
SONM				PcP	PcP	15 49 40.6	+1.4
	0.3nm,0.5s,baz=177,slow=3.3,SNR=2.8						
ULN	Ulaanbaatar	46.10	10	*e*P	P	15 48 04.3	+0.4
	0.5nm,0.6s,mb3.6						
KURK	Kurchatov	50.18	346	*e*P	P	15 48 35.5	+0.1
	1.0nm,0.8s,mb3.9						
ZALV	Zalesovo Beam	52.03	352	P	P	15 48 48.6	-0.6
	1.6nm,0.6s,mb4.1,baz=175,slow=6.4,SNR=7.8						

NEIC 25 15:50:33.0, 38°.62S×175°.72E, h162km**, MG4.0**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WATZ	Wairara	0.09	174	P	Pn	15 50 54.7	+0.2
WHTZ	Whakaora	0.19	104	P	Pn	15 50 55.0	+0.3
RATZ	Rangitukua	0.25	171	P	Pn	15 50 54.8	0.0
KATZ	Kakaramea	0.36	183	P	Pn	15 50 55.2	+0.1
RITZ	Rihia Road	0.37	163	P	Pn	15 50 55.5	+0.3
HATZ	Hinemaiaia	0.40	133	P	Pn	15 50 55.2	0.0
TWVZ	Taurewa	0.50	206	P	Pn	15 50 55.8	+0.1
WTVZ	West Tongariro	0.51	192	P	Pn	15 50 55.8	+0.1
NGZ	Ngauruhoe	0.56	189	P	Pn	15 50 56.1	+0.1
TUVZ	Tukino	0.65	185	P	Pn	15 50 56.7	+0.3
DRZ	Dome Shelter	0.67	190	P	Pn	15 50 56.8	+0.3
HIZ	Hauiti	0.69	279	P	Pn	15 50 56.7	0.0
HIZ				S	Sn	15 51 14.6	-0.1
WNVZ	Wahianoa	0.71	188	P	Pn	15 50 57.1	+0.3
MOVZ	Moawhango	0.79	178	P	Pn	15 50 57.1	-0.2
BKZ	Black Stump Fm	0.81	132	P	Pn	15 50 57.1	-0.4
VRZ	Vera Road	0.91	236	P	Pn	15 50 58.1	0.0
URZ	Urewera	1.15	72	P	Pn	15 50 59.7	-0.4
WAZ	Wanganui	1.27	206	P	Pn	15 51 01.0	-0.2
MWZ	Matawai	1.45	79	P	Pn	15 51 02.8	-0.1
TSZ	Takapari Road	1.45	173	P	Pn	15 51 02.7	-0.2
KNZ	Kokohu	1.58	105	P	Pn	15 51 04.4	+0.2
DVHZ	Dannevirke	1.71	169	P	Pn	15 51 04.9	-0.7
PRHZ	Porangahau	1.79	157	P	Pn	15 51 06.3	-0.2
MRZ	Mangatainoka R	2.04	183	P	Pn	15 51 08.0	-1.3
PUZ	Puketiti	2.07	75	P	Pn	15 51 09.2	-0.4
BFZ	Birch Farm	2.10	169	P	Pn	15 51 07.9	-2.0
MXZ	Matakaoa Point	2.30	63	P	Pn	15 51 12.1	-0.2
KIW	Kapiti Island	2.33	195	P	Pn	15 51 10.9	-1.6
CAW	Cannon Point	2.54	191	P	Pn	15 51 13.2	-1.9
MTW	Mount Morrison	2.54	184	P	Pn	15 51 13.2	-1.9
MRW	Makara Radio	2.72	196	P	Pn	15 51 15.3	-2.0
WEL	Wellington	2.76	195	P	Pn	15 51 15.6	-2.2
PAWZ	Paruwai Farm	2.77	185	P	Pn	15 51 15.8	-2.1
SNZO	South Karori	2.80	196	P	Pn	15 51 16.0	-2.3
MSWZ	Moikau Station	2.82	187	P	Pn	15 51 16.3	-2.2
TCW	Tory Channel	2.82	203	P	Pn	15 51 16.5	-2.0
BHW	Baring Head	2.86	193	P	Pn	15 51 16.7	-2.3
NNZ	Nelson	3.16	214	P	Pn	15 51 20.2	-2.5
QRZ	Quartz Range	3.30	227	P	Pn	15 51 21.5	-3.1
BSWZ	Blackbirch Sta	3.40	204	P	Pn	15 51 23.3	-2.5
THZ	Tophouse	3.81	214	P	Pn	15 51 28.3	-2.7
KHZ	Kahutara	4.14	203	P	Pn	15 51 32.5	-2.8
LTZ	Lake Taylor	4.92	211	P	Pn	15 51 41.5	-3.9
MQZ	McQueen’s Vall	5.58	204	P	Pn	15 51 49.4	-4.8
RPZ	Rata Peaks	6.19	213	P	Pn	15 51 58.4	-3.8
ODZ	Otahua Downs	7.45	209	P	Pn	15 52 15.2	-3.7

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*CSEM **25** 15:59:48.7, 35°.01N×26°.47E, h29km, MD3.5, After ATH*

ATH 25 15:59:48.7, 35°.01N×26°.47E, h29km**, MD3.5**/4**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NPS	Neapolis	0.75	290	*e*PN	Pn	16 00 03.2	-0.1
NPS	Neapolis	0.75	290	*e*Pn	Pn	16 00 03.2	-0.1
KARP	Karpathos	0.78	46	*e*PN	Pn	16 00 04.2	+0.5
KARP	Karpathos	0.78	46	*e*Pn	Pn	16 00 04.2	+0.5
KYTH	Kithira	3.07	295	*e*PN	Pn	16 00 37.7	+2.5
KYTH	Kithira	3.07	295	*e*Pn	Pn	16 00 37.7	+2.5
VLI	Veliai	3.34	302	*e*PN	Pn	16 00 41.3	+2.4
VLI	Veliai	3.34	302	*e*Pn	Pn	16 00 41.3	+2.4

DJA 25 16:10:58, 10°.60S×113°.25E, h20km**, MLv3.4**/4**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GMJI	Gumukmas	2.32	5	P	Pn	16 11 35.0	-0.1
GMJI				S	Sn	16 12 02.6	-0.4
PWJI	Pagerwojo	2.93	331	P	Pn	16 11 41.8	-1.7
PWJI				S	Sn	16 12 17.2	-1.0
SJI	Sawahan	3.20	333	P	Pn	16 11 46.8	-0.4
KHKI	Kahang-Kahang	3.22	47	P	Pn	16 11 46.8	-0.6
KHKI				S	Sn	16 12 29.2	+4.0

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*ISCJB **25** 16:12:36.1±0.8, 23°.82N±0°.07×93°.97E±0°.09, h73km±8km, mb3.4/6, Error ellipse: s-maj=16.6km s-min=8.0km az=145.7*

*NEIC **25** 16:12:39.5±1.1, 24°.04N×94°.38E, h79km±11km, Error ellipse: s-maj=47.4km s-min=7.8km az=61.0*

*BJI **25** 16:12:40.3, 24°.28N×94°.05E, h59km, mb4.0/4, ML3.6/2*

*IDC **25** 16:12:41.2±3.9, 24°.05N×94°.55E, h93km±36km, mb3.2/6, mb1 3.3/7, mb1mx3.1/26, mbtmp3.1/7, MS2.7/1, Ms1 2.7/1, ms1mx2.1/13, Error ellipse: s-maj=75.3km s-min=14.8km az=64.0*

ISC 25 16:12:37.6±0.7**, 23°.82N**±0°.07×**93°.96E**±0°.10**, h67**km±8km**, n15, σ1.20**/17**, mb3.4**/6**, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMP	Imphal	0.95	359	*i* x	Pn	16 12 55.0	-0.4
IMP				*i* x	Sn	16 13 07.0	-1.6
AGT	Agartala	2.48	272	*e*x	Pn	16 13 14.0	-1.7
AGT				*e*x	x	16 13 44.0	
SHL	Shillong	2.56	313	*e*PN	Pn	16 13 18.5	+1.7
SHL				*e*SN	Sn	16 13 46.0	-0.9
LSA	Lhasa	6.37	337	P	Pn	16 14 10.0	+1.2
LSA				S	Sn	16 15 22.0	+1.9
LSA				smax			
	comp=E,30nm,0.8s						
LSA	Lhasa	6.37	337	*e*P	Pn	16 14 10.0	+1.2
	comp=E,6.9nm,0.5s						
CHTO	Chiang Mai	6.82	136	*e*P	Pn	16 14 15.5	+0.5
	comp=E,3.3nm,0.6s						
CMAR	Chiang Mai Arr	7.08	138	P	Pn	16 14 19.9	+1.2
	comp=E,0.5nm,0.3s,baz=313,slow=13,SNR=18						
MKAR	Makanchi Array	24.76	341	P	P	16 17 54.3	+1.4
	comp=E,0.6nm,0.5s,mb3.3,baz=153,slow=10,SNR=19						
SONM	Songino Array	25.93	19	P	P	16 18 01.3	-2.1
	comp=E,0.3nm,0.5s,mb3.0,baz=212,slow=9.0,SNR=3.9						
KURK	Kurchatov	29.37	340	P	P	16 18 34.2	0.0
	comp=E,0.1nm,0.2s,mb3.0,baz=72,slow=3.8,SNR=2.5						
ZALV	Zalesovo Beam	30.86	349	P	P	16 18 47.1	-0.2
	comp=E,0.4nm,0.3s,mb3.6,baz=163,slow=36,SNR=2.6						
KSRS	Korea Array	32.04	57	LR	LR	16 33 49.4	
	comp=E,11nm,18.5s,baz=5.0,slow=40						
WRA	Warramunga Arr	58.66	134	P	P	16 22 27.0	-1.3
	comp=E,0.5nm,0.4s,mb3.9,baz=324,slow=7.3,SNR=2.9						
WB2	Warramunga Arr	58.67	134	*e*P	P	16 22 28.5	+0.1
ASAR	Alice Springs	61.09	138	P	P	16 22 44.8	-0.1
	comp=E,0.2nm,0.4s,mb3.5,baz=320,slow=6.6,SNR=13						

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*ISCJB **25** 16:26:01.7±0.8, 14°.81S±0°.07×123°.34E±0°.06, h10km, mb3.1/2, Error ellipse: s-maj=10.6km s-min=8.6km az=7.1*

*IDC **25** 16:26:02.6±1.7, 14°.76S×123°.20E, h0km, mb3.3/2, mb1 3.6/6, mb1mx3.5/18, mbtmp3.5/6, ML3.3/3, Error ellipse: s-maj=45.5km s-min=18.7km az=49.0*

*NEIC **25** 16:26:04.3±0.7, 14°.77S×123°.31E, h10km, Error ellipse: s-maj=14.4km s-min=10.2km az=219.0*

ISC 25 16:26:04.2±0.8**, 14°.82S**±0°.07×**123°.29E**±0°.06**, h10**km**, n16, σ0.92**/25**, mb3.1**/2**, Northwest of Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	3.97	146	*e*P	Pn	16 27 06.8	+1.7
FITZ				*e*S	Sn	16 27 51.4	-0.3
	13nm,0.2s						
FITZ	Fitzroy Crossi	3.97	146	Pn	Pn	16 27 07.1	+2.0
	1.0nm,0.3s,baz=342,slow=7.5,SNR=35						
FITZ				Sn	Sn	16 27 51.7	-0.1
	4.3nm,0.3s,baz=14,slow=24,SNR=12						
FITZ				Lg		16 28 12.6	
	7.6nm,0.3s,baz=233,slow=24,SNR=9.9						
FITZ	Fitzroy Crossi	3.97	146	*e*Pn	Pn	16 27 06.9	+1.8
FITZ				Sn	Sn	16 27 51.7	-0.1
FITZ				Lg		16 28 12.6	
KNA	Kununurra	5.37	101	*e*P	Pn	16 27 26.3	+1.9
KNA				*e*S	Sn	16 28 23.1	-3.2
MBWA	Marble Bar	7.15	208	*e*P	Pn	16 27 48.6	-0.3
MBWA				*e*S	Sn	16 29 04.6	-5.6
KAKA	Kakadu	9.14	78	*e*P	Pn	16 28 16.0	-0.2
KAKA				*e*S	Sn	16 29 51.6	-7.6

	13nm,0.6s						
KAKA	Kakadu	9.14	78	*e*P	Pn	16 28 16.5	+0.3
WRA	Warramunga Arr	11.71	117	Pn	Pn	16 28 51.0	-0.5
	0.3nm,0.3s,baz=294,slow=13,SNR=4.4						
WRA				Sn	Sn	16 30 54.9	-7.5
	0.7nm,0.3s,baz=294,slow=24,SNR=6.7						
WRA				Lg		16 32 16.3	
	0.7nm,0.3s,baz=288,slow=29,SNR=6.4						
WRAB	Tennant Creek	11.72	117	*e*P	Pn	16 28 51.8	+0.2
WB2	Warramunga Arr	11.72	117	*e*P	Pn	16 28 51.2	-0.4
MEEK	Meekatharra	12.54	200	*e*P	Pn	16 29 01.5	-1.2
MEEK				*e*S	Sn	16 31 11.5	-11
	30nm,1.3s						
ASAR	Alice Springs	13.33	133	Pn	Pn	16 29 13.4	-0.1
	0.2nm,0.3s,baz=311,slow=12,SNR=19						
ASAR				Sn	Sn	16 31 35.4	-6.6
	0.3nm,0.3s,baz=311,slow=24,SNR=6.7						
ASAR				Lg		16 33 11.5	
	0.1nm,0.3s,baz=325,slow=32,SNR=4.2						
NWAO	Narrogin (SRO)	18.84	196	P	Pn	16 30 25.4	+0.5
	0.2nm,0.3s,baz=14,slow=17,SNR=2.7						
STKA	Stephens Creek	23.83	139	P	P	16 31 18.1	+0.5
	0.5nm,0.5s,mb3.2,baz=330,slow=14,SNR=2.7						
MK31	Makanchi Array	71.53	332	*e*P	P	16 37 25.1	-0.1
MKAR	Makanchi Array	71.53	332	P	P	16 37 24.9	-0.3
	0.1nm,0.5s,mb3.0,baz=133,slow=6.1,SNR=2.6						

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*CSEM **25** 16:39:55.8±0.5, 43°.62N×17°.11E, h2^{km}, ML2.5, Error ellipse: s-maj=11.3km s-min=7.0km az=43.0*
*BEO **25** 16:39:55.9±0.8, 43°.61N×17°.07E, h0^{km}, ML2.5/3*
*ISCJB **25** 16:39:56.2±0.7, 43°.62N±0°.04×17°.11E±0°.06, h10^{km}, Error ellipse: s-maj=7.3km s-min=4.3km az=135.6*
ISC 25 16:39:57.1±0.7**, 43°.63N**±0°.04×**17°.10E**±0°.06**, h10^{km}, n16, σ1^{s}15**/29**, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STON	Ston	0.87	150	*e*Pg	Pg	16 40 11.4	-2.4
STON				Sg	Sg	16 40 25.6	+0.4
STON	Ston	0.87	150	*e*Pg	Pg	16 40 11.4	-2.5
STON				Sg	Sg	16 40 25.5	+0.3
BLY	Banja Luka	1.12	3	*e*Pg	Pg	16 40 17.2	-1.5
BLY				*e*Sg	Sg	16 40 34.1	+0.8
BLY	Banja Luka	1.12	3	*e*Pg	Pg	16 40 17.2	-1.5
BLY				*e*Sg	Sg	16 40 34.1	+0.8
BBLS	Lazići	1.69	81	*e*Pg	Pn	16 40 26.5	-0.1
BBLS				*e*Sn	Sn	16 40 48.8	+0.6
BBLS	Lazići	1.69	81	*e*Pg	Pn	16 40 26.5	-0.1
BBLS				*e*Sn	Sn	16 40 48.8	+0.6
NVLJ	Novalja	1.86	301	*e*Pn	Pn	16 40 28.9	-0.1
NVLJ				Sn	Sn	16 40 53.6	+1.1
NVLJ	Novalja	1.86	301	*e*Pn	Pn	16 40 28.9	-0.1
NVLJ				Sn	Sn	16 40 53.6	+1.1
DIVS	Divibare	2.14	76	*i* Pn	Pn	16 40 32.2	-0.6
DIVS				*e*Sg	Sg	16 41 04.0	-1.9
DIVS	Divibare	2.14	76	*i* Pn	Pn	16 40 32.2	-0.6
DIVS				*e*Sg	Sg	16 41 04.0	-1.9
GRUS	Gruza	2.63	83	*e*Pn	Pn	16 40 39.0	-0.6
BARS	Barje	3.54	102	*i* Pn	Pn	16 40 51.6	-0.4
BARS				*e*Sn	Sn	16 41 35.5	+1.6
BARS	Barje	3.54	102	*i* Pn	Pn	16 40 51.6	-0.4
BARS				*e*Sn	Sn	16 41 35.5	+1.6
ARSA	Arzberg	3.79	343	*e*Pn	Pn	16 40 54.9	-0.6
ARSA	Arzberg	3.79	343	*e*Pn	Pn	16 40 54.9	-0.6
ZAPS	Zavoj	4.04	93	*e*Pn	Pn	16 41 00.8	+1.8
ZAPS				*e*Sn	Sn	16 41 47.7	+1.4

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*IDC **25** 16:52:00.7±0.8, 15°.22S×173°.42W, h0^{km}, mb4.0/8, mb1 4.3/9, mb1mx4.1/20, mbtmp4.1/9, ML4.2/1, MS3.8/4, Ms1 3.8/4, ms1mx3.3/33, Error ellipse: s-maj=34.9km s-min=18.5km az=133.0*
*NEIC **25** 16:52:02.2±0.5, 15°.24S×173°.42W, h10^{km}, mb4.1/1, Error ellipse: s-maj=14.9km s-min=11.5km az=149.0*
*ISCJB **25** 16:52:04.0±0.6, 15°.3S±0°.1×173°.4W±0°.1, h33^{km}, mb4.0/9, MS3.8/4, Error ellipse: s-maj=19.7km s-min=13.6km az=150.5*
ISC 25 16:52:06.1±0.6**, 15°.3S**±0°.1×**173°.4W**±0°.1**, h35^{km}, n20, σ0^{s}79**/14**, mb4.0**/9**, MS3.8**/4**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	14.19	116	Pn	Pn	16 55 23.8	-0.8
	1.0nm,0.3s,baz=139,slow=10,SNR=2.7						
URZ	Urewera	24.34	198	P	P	16 57 21.2	+0.6
	9.6nm,0.6s,mb4.4,baz=17,slow=8.0,SNR=8.9						
URZ	Urewera	24.34	198	*e*P	P	16 57 21.4	+0.8
HNR	Honiara	26.69	280	LR	LR	17 06 24.7	
	comp=Z,76nm,19.1s,MS3.3,baz=194,slow=32						
RPZ	Rata Peaks	31.26	202	P	P	16 58 23.0	+0.6
	7.3nm,1.0s,mb4.5,baz=94,slow=14,SNR=3.1						
STKA	Stephens Creek	44.09	240	P	P	17 00 11.0	-0.1
	1.6nm,0.5s,mb4.0,baz=73,slow=10,SNR=5.5						
WRA	Warramunga Arr	49.88	257	P	P	17 00 56.5	+0.1
	1.1nm,0.7s,mb4.0,baz=93,slow=6.8,SNR=3.4						
WRA				S	S	17 07 59.3	-5.1
	0.6nm,0.6s,baz=130,slow=35,SNR=4.8						
ASAR	Alice Springs	50.15	252	P	P	17 00 57.2	-1.3
	2.8nm,0.7s,mb4.4,baz=87,slow=8.2,SNR=4.4						
ASAR	Alice Springs	50.15	252	P	P	17 00 57.1	-1.3
CBIJ	Chichi jima	60.31	314	LR	LR	17 22 17.1	
	comp=Z,150nm,19.9s,MS4.1,baz=119,slow=30						
KAPI	Kappang	66.39	271	LR	LR	17 29 00.1	
	comp=Z,73nm,20.8s,MS3.9,baz=167,slow=33						
NVAR	Mina Array Bea	74.26	42	P	P	17 03 40.2	+0.5
	0.6nm,0.8s,mb3.6,baz=212,slow=8.2,SNR=2.9						
NVAR	Mina Array Bea	74.26	42	P	P	17 03 40.2	+0.5
KSRS	Korea Array	76.12	316	LR	LR	17 32 02.6	
	comp=Z,93nm,20.5s,MS4.1,baz=115,slow=32						
HLID	Hailey	79.56	39	*e*P	P	17 04 10.6	+1.1
	1.7nm,0.8s,mb4.0						
PDAR	Pinedale Array	82.20	42	P	P	17 04 23.9	+0.3
	0.4nm,0.7s,mb3.5,baz=182,slow=3.5,SNR=3.5						
YKA	Yellowknife Ar	90.02	23	P	P	17 05 00.4	-1.3
	0.1nm,0.3s,mb3.6,baz=240,slow=4.8,SNR=5.6						
GERES	GERESS Array B	146.07	352	PKPbc	PKPbc	17 11 40.9	-1.4
	0.4nm,0.6s,baz=349,slow=2.7,SNR=4.2						
BR131	Keskin Array S	146.11	321	*e*PKPbc	PKPbc	17 11 43.4	+0.7
BRTR	Keskin Array B	146.11	321	PKPbc	PKPbc	17 11 43.5	+0.7
	4.8nm,0.9s,baz=53,slow=3.0,SNR=23						

IDC 25 16:56:34.5±1.6**, 8°.33S**×**128°.83E, h0^{km}, mb3.7**/3**, mb1 3.8**/6**, mb1mx3.6**/18**, mbtmp3.7**/6**, ML3.7**/3**, Error ellipse: s-maj=56.5km s-min=23.4km az=73.0, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.20	197	Pn	Pn	16 59 01.9	-0.3
	0.5nm,0.3s,baz=33,slow=9.7,SNR=9.3						
FITZ				Sn	Sn	17 00 50.5	-6.8
	0.7nm,0.3s,baz=250,slow=15,SNR=4.1						
WRA	Warramunga Arr	12.72	156	Pn	Pn	16 59 35.0	-1.7
	0.5nm,0.3s,baz=334,slow=14,SNR=7.6						
WRA				Sn	Sn	17 01 46.9	-12
	1.1nm,0.3s,baz=323,slow=23,SNR=7.8						
ASAR	Alice Springs	16.01	163	Pn	Pn	17 00 19.2	-1.9
	0.2nm,0.3s,baz=333,slow=11,SNR=28						
ASAR				Sn	Sn	17 03 07.4	-12
	0.1nm,0.3s,baz=333,slow=16,SNR=3.8						
STKA	Stephens Creek	26.27	155	P	P	17 02 12.2	+0.6
	0.3nm,0.3s,baz=340,slow=11,SNR=3.4						
NWAO	Narrogin (SRO)	26.73	202	P	P	17 02 16.5	+0.8
	3.3nm,0.7s,baz=63,slow=6.8,SNR=3.7						
MKAR	Makanchi Array	68.70	328	P	P	17 07 39.8	-0.1
	0.3nm,0.8s,baz=132,slow=5.7,SNR=2.8						

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*IDC **25** 17:08:08.4±36.0, 35°.94N×101°.36E, h0^{km}, mb3.4/2, mb1 3.4/4, mb1mx3.2/27, mbtmp3.4/4, ML3.3/1, Error ellipse: s-maj=495.0km s-min=64.5km az=157.0*
*ISCJB **25** 17:08:14.5±1.4, 36°.7N±0°.1×101°.3E±0°.1, h10^{km}, Error ellipse: s-maj=19.8km s-min=6.6km az=35.3*
*BJI **25** 17:08:15.4, 36°.59N×101°.25E, h13^{km}, ML3.7/8*
ISC 25 17:08:16.7±1.4**, 36°.6N**±0°.1×**101°.2E**±0°.1**, h10^{km}, n6, σ1^{s}13**/8**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZH	Lanzhou	2.17	103	Pg	Pn	17 08 56.0	+3.2
LZH				Sg	Sg	17 09 25.0	-1.3
LZH				smax			
	comp=N,660nm,0.8s						
LZH				smax			
	comp=E,500nm,0.6s						
GTA	Gaotai	3.01	338	Pg	Pn	17 09 11.3	+6.9
GTA				Sg	Sg	17 09 52.8	-0.5
GTA				smax			
	comp=N,32nm,0.8s						
GTA				smax			
	comp=E,56nm,1.0s						
SONM	Songino Array	11.84	17	Pn	Pn	17 11 06.9	+1.4
	comp=E,0.2nm,0.3s,baz=204,slow=15,SNR=6.7						
MKAR	Makanchi Array	17.38	312	P	Pn	17 12 18.9	-0.4
	comp=E,0.1nm,0.3s,baz=124,slow=12,SNR=4.5						
ZALV	Zalesovo Beam	20.74	332	P	P	17 12 57.5	+0.2
	comp=E,0.5nm,0.4s,baz=134,slow=12,SNR=4.3						
KURK	Kurchatov	21.48	318	P	P	17 13 04.4	-0.9
	comp=E,1.4nm,0.7s,baz=126,slow=11,SNR=12						

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*IDC **25** 17:11:30.6±0.8, 10°.35N×145°.82E, h0^{km}, mb4.3/15, mb1 4.5/16, mb1mx4.4/26, mbtmp4.3/16, ML4.5/1, MS3.4/5, Ms1 3.4/5, ms1mx3.0/34, Error ellipse: s-maj=29.6km s-min=13.5km az=86.0*
*NEIC **25** 17:11:32.0±0.4, 10°.33N×145°.80E, h10^{km}, mb5.0/17, Error ellipse: s-maj=11.5km s-min=5.6km az=89.0*
*MOS **25** 17:11:33.5±0.9, 10°.35N×145°.77E, h31^{km}, mb5.0/6, Error ellipse: s-maj=20.2km s-min=10.2km az=114.7*
*ISCJB **25** 17:11:34.1±0.6, 10°.36N±0°.04×145°.7E±0°.1, h33^{km}, mb4.7/36, MS3.3/4, Error ellipse: s-maj=17.4km s-min=6.2km az=176.9*
*BJI **25** 17:11:36.3, 10°.51N×145°.38E, h30^{km}, mB5.3/2, mb4.5/8, Ms5.1/1, Ms7 4.7/1*
ISC 25 17:11:36.1±0.6**, 10°.35N**±0°.05×**145°.8E**±0°.1**, h35^{km}, n63, σ0^{s}79**/60**, mb4.7**/36**, MS3.3**/4**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	3.33	345	*e*P	Pn	17 12 23.4	-2.4
GUMO						17 13 01.9	
GUMO	Guam	3.33	345	Pn	Pn	17 12 23.6	-2.3
	49nm,0.3s,baz=175,slow=10.0,SNR=59						
GUMO				Sn	Sn	17 13 01.9	-2.3
	128nm,0.3s,baz=52,slow=22,SNR=5.6						
GUMO				LR	LR	17 13 30.3	
	comp=Z,276nm,18.1s,baz=45,slow=36						
GUMO	Guam	3.33	345	*e*P	Pn	17 12 23.4	-2.4
GUMO				Sn	Sn	17 13 01.9	-2.3
GUMO				LR	LR	17 13 30.3	
DAV	Davao City (W)	20.22	262	LR	LR	17 22 34.3	
	comp=Z,95nm,21.9s,MS3.1,baz=128,slow=33						
KAKA	Kakadu	26.46	210	*e*P	P	17 17 09.4	-0.7
MJAR	Matsushiro Arr	26.96	346	P	P	17 17 14.8	+0.4
	5.1nm,0.8s,mb4.1,baz=167,slow=9.3,SNR=16						
MJAR				LR	LR	17 27 20.3	
	comp=Z,67nm,19.3s,MS3.2,baz=170,slow=35						
MAJO	Matsushiro	26.96	346	*e*P	P	17 17 14.2	-0.2
MAJO				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.5						
MAJO	Matsushiro	26.96	346	*e*P	P	17 17 14.2	-0.2
	comp=Z,12nm,0.8s,mb4.5						
MAT	Matsushiro	26.96	346	P	P	17 17 15.4	+1.0
CTA	Charters Tower	30.25	179	LR	LR	17 29 35.0	
	comp=Z,94nm,18.8s,MS3.5,baz=232,slow=36						
KSRS	Korea Array	31.41	332	P	P	17 17 53.4	-0.6
	comp=Z,1.4nm,0.8s,mb3.9,baz=141,slow=9.6,SNR=5.0						
WRAB	Tennant Creek	32.13	201	P	P	17 18 00.3	-0.1
	comp=Z,59nm,0.9s,mb5.4,SNR=5.4						
WRAB	Tennant Creek	32.13	201	*e*P	P	17 17 59.7	-0.7
WRA	Warramunga Arr	32.14	201	P	P	17 18 00.3	-0.2
WRA						17 20 49.6	
WRA	Warramunga Arr	32.14	201	P	P	17 18 00.3	-0.2
	comp=Z,5.9nm,0.9s,mb4.4,baz=18,slow=9.3,SNR=17						
WRA				PcP	PcP	17 20 49.6	+0.3
	comp=Z,2.0nm,0.8s,baz=13,slow=3.0,SNR=8.6						
WRA				LR	LR	17 31 03.0	
	comp=Z,95nm,19.2s,MS3.5,baz=330,slow=36						
FITZ	Fitzroy Crossi	34.56	215	P	P	17 18 21.5	-0.1
	comp=Z,3.6nm,0.9s,mb4.3,baz=325,slow=6.1,SNR=3.7						
ASAR	Alice Springs	35.75	199	P	P	17 18 31.4	-0.4
	comp=Z,6.4nm,0.9s,mb4.5,baz=20,slow=7.7,SNR=47						
ASAR				PcP	PcP	17 20 59.6	+0.2
	comp=Z,1.0nm,0.7s,baz=47,slow=2.1,SNR=6.4						
KSM	Kuching	36.32	258	*e*P	P	17 18 36.0	-0.9
	comp=Z,3.4nm,0.7s,mb4.4						
STKA	Stephens Creek	42.18	185	*e*P	P	17 19 24.1	-1.4
	comp=Z,3.4nm,0.8s,mb4.0						
STKA	Stephens Creek	42.18	185	P	P	17 19 24.6	-1.0
	comp=Z,3.7nm,0.7s,mb4.1,baz=322,slow=6.6,SNR=9.6						
CD2	Chengdu	43.98	304	P	P	17 19 40.0	-0.2
CD2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.3						
FORT	Forrest	44.29	202	*e*P	P	17 19 42.5	-0.1
	comp=Z,27nm,0.7s,mb5.1						
CMAR	Chiang Mai Arr	45.96	286	P	P	17 19 57.2	+1.0
	comp=Z,6.4nm,0.8s,mb4.6,baz=86,slow=6.0,SNR=56						
TOO	Toolangi	47.67	180	*e*P	P	17 20 09.5	+0.4
ULN	Ulaanbaatar	49.54	326	P	P	17 20 24.2	+0.8
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
ULN	Ulaanbaatar	49.54	326	P	P	17 20 24.1	+0.7
	comp=Z,3.3nm,1.0s,mb4.3						
SONM	Songino Array	49.88	326	P	P	17 20 26.4	+0.4
	comp=Z,1.5nm,0.9s,mb4.0,baz=142,slow=6.9,SNR=7.8						
SONM				PcP	PcP	17 21 46.7	+0.5
	comp=Z,1.0nm,0.7s,baz=124,slow=3.2,SNR=3.8						
GTA	Gaotai	50.00	313	P	P	17 20 28.0	+0.9
MUN	Mundaring	50.71	213	*e*P	P	17 20 31.7	-0.8
LSA	Lhasa	54.29	299	P	P	17 21 00.5	+1.3
LSA	Lhasa	54.29	299	*e*P	P	17 21 00.5	+1.3
LSA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
LSA	Lhasa	54.29	299	*e*P	P	17 21 00.5	+1.3
	comp=Z,6.3nm,0.7s,mb4.7						
TAPN	Taplejung	57.01	296	*e*P	P	17 21 19.1	+0.4
	comp=Z,7.2nm,0.6s,mb4.9						
ODAN	Odare	57.24	295	*e*P	P	17 21 20.5	+0.1
	comp=Z,13nm,0.7s,mb5.1						
RAMN	Ramite	57.96	295	*e*P	P	17 21 25.7	+0.3
	comp=Z,11nm,0.7s,mb5.0						
JIRN	Jiri	58.38	296	*e*P	P	17 21 28.9	+0.5
	comp=Z,14nm,0.7s,mb5.1						
GUN	Gumba	58.67	296	*e*P	P	17 21 30.9	+0.5
	comp=Z,43nm,0.9s,mb5.5						
PKI	Pulchoki	59.06	296	*e*P	P	17 21 33.1	0.0
	comp=Z,19nm,0.9s,mb5.1						
PKI	Pulchoki	59.06	296	*e*P	P	17 21 33.1	0.0
PKI				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
KKN	Kakani	59.19	296	*e*P	P	17 21 33.9	-0.1
	comp=Z,21nm,0.9s,mb5.2						
KKN	Kakani	59.19	296	*e*P	P	17 21 33.9	-0.1
KKN				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
DMN	Daman	59.33	296	*e*P	P	17 21 35.1	+0.1
	comp=Z,25nm,1.0s,mb5.2						
GKN	Gorkha	59.78	296	*e*P	P	17 21 37.9	-0.2
	comp=Z,38nm,1.1s,mb5.3						
DANN	Dangsing	60.57	297	*e*P	P	17 21 43.6	+0.1
KOLN	Koldanda	60.67	296	*e*P	P	17 21 44.1	-0.1
	comp=Z,22nm,0.9s,mb5.3						
MKAR	Makanchi Array	64.43	317	P	P	17 22 09.3	+0.3
	comp=Z,3.4nm,0.7s,mb4.5,baz=94,slow=8.5,SNR=38						
MKAR				PcP	PcP	17 22 43.1	0.0
	comp=Z,1.5nm,0.8s,baz=118,slow=4.1,SNR=5.3						
ZALV	Zalesovo Beam	64.76	325	P	P	17 22 10.6	-0.4
	comp=Z,0.9nm,0.5s,mb4.0,baz=111,slow=6.5,SNR=7.2						
NVS	Novosibirsk	65.91	326	*e*P	P	17 22 17.0	-1.4
KURK	Kurchatov	67.62	321	P	P	17 22 29.4	+0.1
	comp=Z,6.7nm,0.7s,mb4.8,baz=106,slow=6.1,SNR=30						
KSH	Kashi	67.92	308	P	P	17 22 34.5	+3.0
KSH				*e*pP	pP	17 22 45.0	+2.7
KSH				*e*sP	sP	17 22 48.0	+1.6
KSH				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
KSH				LR	LR		
	comp=N,140nm,5.8s						
KSH				LR	LR		
	comp=E,210nm,7.4s						
KSH				LR	LR		
	comp=Z,170nm,6.8s						
UCH	Uchtor	69.25	311	*e*P	P	17 22 41.0	+1.3
	comp=Z,12nm,1.3s,mb4.7						
BVAR	Borovoye Array	73.01	322	P	P	17 23 02.6	+0.3
	comp=Z,7.9nm,0.7s,mb4.8,baz=107,slow=8.0,SNR=39						
BRVK	Borovoye	73.07	322	*e*P	P	17 23 02.7	+0.1
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BRVK	Borovoye	73.07	322	*e*P	P	17 23 02.7	+0.1
	comp=Z,7.5nm,0.8s,mb4.7						
KBL	Kabul	73.31	303	*e*P	P	17 23 04.3	-0.1
KBL				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
KBL	Kabul	73.31	303	*e*P	P	17 23 04.3	-0.2
	comp=Z,9.1nm,1.1s,mb4.6						
AKTK	Aktyubinsk	80.68	320	P	P	17 23 45.4	-0.2
AKTO	Aktyubinsk	80.68	320	P	P	17 23 45.4	-0.2
	comp=Z,3.2nm,0.7s,mb4.3,baz=86,slow=8.0,SNR=13						
YKA	Yellowknife Ar	85.31	27	P	P	17 24 08.9	-0.4
	comp=Z,0.5nm,0.6s,mb3.8,baz=284,slow=5.5,SNR=12						
NVAR	Mina Array Bea	88.24	51	P	P	17 24 25.3	+1.2
	comp=Z,1.3nm,0.6s,mb4.3,baz=266,slow=6.1,SNR=7.8						
TORD	Torodi Ar. Bea	137.38	302	PKP	PKPdf	17 30 56.2	-0.9
	comp=Z,0.6nm,0.9s,baz=92,slow=1.1,SNR=3.6						
TORD				PP	PP	17 33 41.4	-0.8
	comp=Z,1.2nm,1.1s,baz=112,slow=1.4,SNR=3.9						
TORD	Torodi Ar. Bea	137.38	302	PKP	PKPdf	17 30 56.2	-0.9
TORD				PP	PP	17 33 41.4	-0.8
DBIC	Dimbokro	146.22	299	PKPbc	PKPbc	17 31 12.4	-1.5
	comp=Z,0.2nm,0.3s,baz=27,slow=7.9,SNR=3.7						

BJI 25 17:16:01.5, 35°.30N×**111°.11E, h16^{km}, ML3.5**/13**, Southeastern China**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XAN	Xi’an	2.20	236	Pn	Pn	17 16 40.8	+3.5
XAN				Pg	Pg	17 16 43.5	-0.2
XAN				Sn	Sn	17 17 06.0	+1.8
XAN				Sg	Sg	17 17 11.8	-0.4
XAN				smax			
	comp=N,110nm,0.5s						
XAN				smax			
	comp=E,81nm,0.5s						
BTO	Baotou	5.37	351	*e*Pn	Pn	17 17 19.3	-1.6
BTO				smax			
	comp=N,6.0nm,0.4s						
BTO				smax			
	comp=E,6.0nm,0.9s						
WHN	Wuhan	5.47	149	Pn	Pn	17 17 21.0	-1.3
WHN				smax			
	comp=N,130nm,0.7s						
WHN				smax			
	comp=E,96nm,0.6s						
WHN	Wuhan	5.47	149	*e*P	Pn	17 17 24.5	+2.2
HHC	Hu-ho-hao-te	5.55	4	*e*Pg	Pg	17 18 12.0	+24
HHC				Sg	Sg	17 18 51.3	-8.4
HHC				smax			
	comp=N,51nm,0.4s						
HHC				smax			
	comp=E,43nm,0.4s						
LZH	Lanzhou	5.96	280	*e*Pn	Pn	17 17 36.5	+7.4
LZH				Pg	Pg	17 18 01.0	+5.3
LZH				Sg	Sg	17 19 05.3	-7.6
LZH				smax			
	comp=N,65nm,0.6s						
LZH				smax			
	comp=E,99nm,0.6s						
LZH				LR	LR		
	comp=N,220nm,6.2s						
LZH				LR	LR		
	comp=Z,110nm,6.8s						

IDC 25 17:21:45.9±4.8**, 5°.27S**×**148°.31E, h0^{km}, mb3.7**/5**, mb1 3.9**/6**, mb1mx3.8**/16**, mbtmp3.8**/6**, ML4.0**/1**, Error ellipse: s-maj=156.0km s-min=23.5km az=107.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.94	222	P	Pn	17 26 21.2	+0.1
	0.4nm,0.3s,baz=43,slow=12,SNR=9.9						
ASAR	Alice Springs	22.96	216	P	P	17 26 53.3	+1.2
	0.8nm,0.5s,baz=46,slow=8.7,SNR=20						
FITZ	Fitzroy Crossi	25.56	238	P	P	17 27 14.8	-1.9
	1.2nm,0.4s,baz=49,slow=11,SNR=5.2						
SONM	Songino Array	64.42	330	P	P	17 32 25.9	+2.0
	0.4nm,0.5s,baz=143,slow=7.4,SNR=3.4						
MKAR	Makanchi Array	77.78	320	P	P	17 33 45.5	+0.5
	0.2nm,0.5s,baz=96,slow=7.4,SNR=4.4						
ZALV	Zalesovo Beam	79.10	327	P	P	17 33 51.0	-1.1
	0.3nm,0.3s,baz=85,slow=1.6,SNR=3.0						
TORD	Torodi Ar. Bea	146.17	286	PKPbc	PKPbc	17 41 26.9	-2.3
	0.4nm,0.4s,baz=68,slow=3.3,SNR=6.0						

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*ISCJB **25** 17:27:27.5±1.1, 52°.31N±0°.05×168°.60W±0°.05, h29^{km}±6^{km}, mb4.6/96, MS3.8/4, Error ellipse: s-maj=8.4km s-min=4.4km az=164.4*
*MOS **25** 17:27:27.2±1.1, 52°.41N×168°.72W, h24^{km}, mb4.8/53, Error ellipse: s-maj=11.8km s-min=5.8km az=94.5*
*BJI **25** 17:27:28.3, 52°.90N×169°.30W, h15^{km}, mB5.1/14, mb4.8/29, Ms4.7/7, Ms7 4.5/7*
*NEIC **25** 17:27:29.1, 52°.36N×168°.44W, h4^{km}, mb4.4/28, ML3.7(AEIC), ML3.9(PMR), After AEIC.*
*IDC **25** 17:27:30.4±0.8, 52°.44N×168°.60W, h39^{km}±4^{km}, mb4.1/26, mb1 4.2/26, mb1mx4.2/31, mbtmp4.1/26, MS4.1/2, Ms1 4.0/2, ms1mx3.3/31, Error ellipse: s-maj=19.4km s-min=10.8km az=175.0*
*SZGRF **25** 17:27:34.2, 52°.79N×168°.60W, h33^{km}, mb5.0, Fox Islands, Aleutian Islands, United States*
ISC 25 17:27:29.2±1.1**, 52°.36N**±0°.05×**168°.60W**±0°.05**, h27^{km}**±6^{km}**, h38^{km}**±1.2^{km}**:pP-P, n257, σ0^{s}96**/262**, mb4.6**/96**, MS3.8**/4**, 6C-2D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	Nikolski	0.64	346	P	Pb	17 27 41.7	0.0
NIKO				S	Sb	17 27 49.7	-0.6
OKFG	Magazine Ridge	1.14	21	P	Pn	17 27 48.8	-0.4
OKFG				S	Sn	17 28 05.6	+1.7
UNV	Unalaska Valle	1.96	39	P	Pn	17 27 59.6	-0.9
UNV				S	Sn	17 28 23.6	-0.5
AKLV	Akutan Long Va	2.41	40	P	Pn	17 28 06.7	-0.1
AKGG	Akutan Green G	2.42	39	P	Pn	17 28 07.8	+0.9
AKGG				S	Sn	17 28 35.1	-0.5
AKUT	Akutan	2.46	43	*e*P	Pn	17 28 08.4	+0.9
ATKA	Atka Island	3.44	270	P	Pn	17 28 22.6	+1.7
SPIA	Saint Paul Isl	4.92	350	P	Pn	17 28 43.3	+2.1
ADK	Adak	5.00	268	P	Pn	17 28 42.9	+0.5
SDPT	Sand Point	5.67	55	*e*P	Pn	17 28 50.6	-0.8
CHGN	Chignik	7.15	52	*e*P	Pn	17 29 13.3	+1.5
KDAK	Kodiak Island	10.66	53	P	Pn	17 29 58.1	-1.8
KDAK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KDAK	Kodiak Island	10.66	53	Pn	Pn	17 29 58.0	-1.8
	comp=Z,2.3nm,0.3s,baz=250,slow=8.0,SNR=23						
FX1	Attu Island--F	11.10	280	LR	LR	17 34 09.5	
	comp=Z,2µm,21.4s,baz=6.4,slow=36						
SVW2	Sparrevohn	11.29	34	*e*P	Pn	17 30 11.9	+3.5
GAMB	Gambell	11.57	353	*e*P	Pn	17 30 15.1	+2.9
	comp=Z,18nm,1.1s						
SEW	Seward	13.14	46	*e*P	Pn	17 30 32.1	-1.6
PPLA	Purkeypile	13.69	33	*e*P	Pn	17 30 43.7	+2.4
	comp=Z,28nm,1.2s						
CHUM	Lake Minchumin	14.35	30	*e*P	Pn	17 30 51.5	+1.4
	comp=Z,16nm,1.0s						
KTH	Kantishna Hill	14.56	33	*e*P	Pn	17 30 52.9	-0.1
	comp=Z,21nm,1.1s						
BPAW	Bear Paw Mtn.	14.91	31	*e*P	Pn	17 30 57.7	-0.1
	comp=Z,15nm,1.0s						
IMA2	Indian Mountai	15.66	23	*e*P	Pn	17 31 09.9	+2.3
COLA	College	16.44	32	*e*P	Pn	17 31 16.7	-0.9
COLA				pmax	pmax		
	comp=Z,11nm,0.9s						
COLA	College	16.44	32	*e*P	Pn	17 31 16.7	-0.9
	comp=Z,11nm,0.9s						
MENT	Mentasta	16.89	41	*e*P	Pn	17 31 22.9	-0.4
COLD	Coldfoot	17.43	24	*e*P	Pn	17 31 30.5	+0.5
	comp=Z,14nm,1.1s						
EGAK	Eagle	18.76	38	*e*P	Pn	17 31 43.2	-3.1
	comp=Z,7.3nm,0.8s						
DAWY	Dawson	19.13	41	*e*P	Pn	17 31 48.4	-2.3
SKAG	Skagway	19.79	56	*e*P	Pn	17 31 57.6	-1.0
	comp=Z,47nm,1.5s						
BILL	Bilibino	19.83	332	*e*P	Pn	17 31 59.4	+0.3

BILL				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BILL	Bilibino	19.83	332	eP	Pn	17 31 59.2	+0.1
	comp=Z,15nm,1.2s						
PETK	Petropavlovsk-	20.32	286	P	P	17 32 02.5	-0.3
PETK				pmax	pmax		
	comp=Z,14nm,0.6s						
PETK	Petropavlovsk-	20.32	286	P	P	17 32 02.5	-0.3
	comp=Z,14nm,0.6s,baz=84,slow=14,SNR=32						
DLBC	Dease Lake	22.49	59	P	P	17 32 25.4	-0.6
	comp=Z,2.8nm,0.9s,mb3.7,baz=285,slow=13,SNR=5.5						
DLBC	Dease Lake	22.49	59	eP	P	17 32 27.9	+1.8
SEY	Seymchan	23.02	313⇓	eP	P	17 32 31.4	-0.2
INK	Inuvik	23.10	33	P	P	17 32 30.1	-2.3
INK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
INK	Inuvik	23.10	33	P	P	17 32 30.1	-2.4
	comp=Z,5.1nm,0.6s,mb4.2,baz=233,slow=10.0,SNR=19						
INK	Inuvik	23.10	33	eP	P	17 32 29.9	-2.5
	comp=Z,11nm,1.0s,mb4.2						
YKA	Yellowknife Ar	29.90	49	P	P	17 33 34.1	0.0
YKA						17 36 34.4	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	29.90	49	P	P	17 33 34.1	0.0
	comp=Z,0.5nm,0.3s,mb3.7,baz=274,slow=7.4,SNR=22						
YKA				PcP	PcP	17 36 34.4	-1.8
	comp=Z,0.5nm,0.8s,baz=282,slow=2.2,SNR=5.4						
YKA				pPcP		17 36 45.2	
	comp=Z,0.5nm,0.7s,baz=289,slow=2.4,SNR=4.3						
YKA				ScP	ScP	17 40 16.5	+0.4
	comp=Z,0.3nm,0.7s,baz=284,slow=3.1,SNR=5.2						
YBH	Yreka Blue Hor	32.51	91	P	P	17 34 00.0	+2.7
YBH				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YBH	Yreka Blue Hor	32.51	91	P	P	17 34 00.0	+2.7
	comp=Z,1.7nm,0.7s,mb4.1,baz=249,slow=2.2,SNR=3.8						
TIXI	Tiksi	32.99	329⇑	eP	P	17 34 00.3	-0.9
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.6						
YAK	Yakutsk	33.53	311	eP	P	17 34 04.3	-1.7
YAK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
YAK	Yakutsk	33.53	311	eP	P	17 34 04.3	-1.7
	comp=Z,11nm,0.6s,mb5.0						
BSMT	Bassoo Peak	34.14	76	P	P	17 34 10.3	-1.1
	comp=Z,6.2nm,1.2s,mb4.4						
HABR	Khabarovsk	35.34	287	ceP	P	17 34 19.8	-2.0
HABR				e*SP	sP	17 34 24.3	-9.0
HABR				e		17 35 38.3	
HABR				e		17 36 49.4	
HABR				S	S	17 39 55.1	+1.0
HABR				e		17 44 40.1	
HABR				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
HABR				pmax	pmax		
	comp=N,19nm,1.5s						
HABR				pmax	pmax		
	comp=E,28nm,1.5s						
HABR				MLR	MLR		
	comp=Z,70nm,17.0s,MS3.5						
RES	Resolute Bay	36.18	26	P	P	17 34 28.1	-0.6
	comp=Z,0.4nm,0.4s,mb3.7,baz=261,slow=12,SNR=6.7						
RES	Resolute Bay	36.18	26	eP	P	17 34 27.2	-1.5
MCMT	McKenzie Canyo	36.82	79	eP	P	17 34 34.4	-0.1
	comp=Z,1.8nm,0.6s,mb4.1						
EGMT	Eagleton	37.02	73	eP	P	17 34 35.5	-0.7
	comp=Z,7.9nm,0.9s,mb4.5						
BOZ	Bozeman (W)	37.12	77	eP	P	17 34 37.2	+0.2
BOZ				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.3						
BOZ	Bozeman (W)	37.12	77	eP	P	17 34 37.2	+0.2
	comp=Z,4.9nm,1.1s,mb4.2						
NVAR	Mina Array Bea	37.19	92	P	P	17 34 38.4	+0.7
	comp=Z,0.6nm,0.5s,mb3.7,baz=299,slow=8.1,SNR=2.4						
NVAR				pP	pP	17 34 49.9	+4.0
	comp=Z,2.3nm,0.7s,baz=297,slow=7.5,SNR=4.6						
NVAR	Mina Array Bea	37.19	92	P	P	17 34 38.4	+0.7
NVAR				pP	pP	17 34 49.9	+4.0
FFC	Flin Flon	38.32	59	i P	P	17 34 47.1	0.0
LKWY	Lake	38.43	78	eP	P	17 34 49.5	+1.4
LKWY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
LKWY	Lake	38.43	78	eP	P	17 34 49.5	+1.4
	comp=Z,5.0nm,0.8s,mb4.3						
IMW	Indian Meadow	38.47	79	eP	P	17 34 48.9	+0.4
	comp=Z,4.2nm,1.0s,mb4.1						
RLMT	Red Lodge	38.81	76	eP	P	17 34 52.1	+0.8
	comp=Z,8.5nm,1.2s,mb4.3						
PDAR	Pinedale Array	39.94	80	P	P	17 35 00.8	0.0
	comp=Z,2.3nm,0.7s,mb4.0,baz=296,slow=4.5,SNR=15						
MJAR	Matsushiro Arr	40.17	268	P	P	17 35 01.9	-0.8
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MJAR	Matsushiro Arr	40.17	268	P	P	17 35 01.9	-0.8
	comp=Z,3.5nm,0.8s,mb4.1,baz=48,slow=8.2,SNR=9.3						
MAJO	Matsushiro	40.17	268	eP	P	17 35 01.9	-0.8
MAJO				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.7						
MAJO	Matsushiro	40.17	268	eP	P	17 35 01.9	-0.8
	comp=Z,16nm,1.0s,mb4.7						
MAT	Matsushiro	40.17	268	P	P	17 35 03.2	+0.5
FCC	Fort Churchill	40.59	51	eP	P	17 35 05.3	-0.6
	comp=Z,0.3nm,1.0s						
BOD	Bodaibo	42.37	309	eP	P	17 35 18.5	-2.0
BOD				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
CN2	Changchun	43.47	286	eP	P	17 35 28.5	-1.1
CN2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
SDCO	Great Sand Dun	45.46	83	P	P	17 35 46.2	+0.6
	comp=Z,3.6nm,1.1s,mb4.1						
KSRS	Korea Array	45.87	277	P	P	17 35 49.4	+0.5
KSRS				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
KSRS	Korea Array	45.87	277	P	P	17 35 49.4	+0.5
	comp=Z,9.2nm,0.9s,mb4.7,baz=56,slow=7.6,SNR=23						
TLY	Talaya	50.73	307	i P	P	17 36 26.8	+0.7
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
WMOK	Wichita Mounta	51.52	81	eP	P	17 36 30.8	-1.5
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
WMOK	Wichita Mounta	51.52	81	eP	P	17 36 30.8	-1.5
	comp=Z,4.0nm,0.8s,mb4.4						
SONM	Songino Array	51.71	301	P	P	17 36 33.4	-0.1
SONM						17 37 46.3	
SONM				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SONM	Songino Array	51.71	301	P	P	17 36 33.4	-0.1
	comp=Z,4.3nm,1.0s,mb4.3,baz=56,slow=7.8,SNR=18						
SONM				PcP	PcP	17 37 46.3	-0.3
	comp=Z,1.2nm,0.9s,baz=54,slow=3.7,SNR=2.9						
ZAK	Zakamensk	51.71	305	eP	P	17 36 32.7	-0.8
ZAK				e		17 37 45.0	
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb4.0						
TXAR	Lajitas Array	52.28	90	P	P	17 36 37.6	-0.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	52.28	90	P	P	17 36 37.5	-0.4
	comp=Z,0.6nm,0.6s,mb3.7,baz=301,slow=4.1,SNR=7.6						
HHC	Hu-ho-hao-te	53.36	291	eP	P	17 36 47.0	+1.1
HHC				pP	pP	17 36 57.0	+2.7
HHC				PP	PP	17 38 49.3	+3.3
HHC				eS	S	17 44 14.0	-1.8
HHC				SS	SS	17 47 53.0	-2.4
HHC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
HHC				pmax	pmax		
	comp=Z,160nm,4.5s						
HHC				LR	LR		
	comp=N,130nm,12.9s,MS4.5						
HHC				LR	LR		
	comp=E,250nm,15.8s,MS4.5						
HHC				LR	LR		
	comp=Z,140nm,15.5s,MS4.1						
SCHQ	Schefferville	55.12	44	P	P	17 36 58.3	-0.2
	comp=Z,2.4nm,0.7s,mb4.3,baz=335,slow=5.1,SNR=5.2						
SCHQ				LR	LR	17 59 34.9	
	comp=Z,85nm,19.3s,MS3.8,baz=294,slow=35						
KEV	Kevo	57.67	354	ep	P	17 37 15.5	-0.9
ZALV	Zalesovo Beam	57.75	318	P	P	17 37 17.0	-0.2
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
ZALV	Zalesovo Beam	57.75	318	P	P	17 37 16.9	-0.2
	comp=Z,1.1nm,0.7s,mb4.0,baz=32,slow=5.9,SNR=6.8						
ARCES	ARCESS Array B	57.98	354	P	P	17 37 17.1	-1.5
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	57.98	354	P	P	17 37 17.1	-1.5
	comp=Z,3.6nm,0.8s,mb4.4,baz=4.7,slow=6.3,SNR=7.3						
GTA	Gaotai	60.90	298	eP	P	17 37 38.8	-0.4
GTA				pP	pP	17 37 42.5	-5.2
GTA				sP	sP	17 37 45.5	-5.5
GTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
LZH	Lanzhou	61.03	292	eP	P	17 37 40.5	+0.4
LZH				pP	pP	17 37 51.5	+2.9
LZH				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.2						
LZH				pmax	pmax		
	comp=Z,100nm,6.0s						
KURK	Kurchatov	62.70	319	P	P	17 37 50.8	-0.2
KURK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
KURK	Kurchatov	62.70	319	P	P	17 37 50.8	-0.2
	comp=Z,3.8nm,0.9s,mb4.5,baz=45,slow=8.0,SNR=5.2						
KURK	Kurchatov	62.70	319	eP	P	17 37 49.9	-1.1
	comp=Z,5.6nm,0.9s,mb4.7						
PRGR	Permogore	63.14	342	eP	P	17 37 52.1	-1.7
PRGR				pmax	pmax		
	comp=Z,46nm,1.2s						
SVE	Sverdlovsk	63.92	332	eP	P	17 37 57.9	-1.2
JOF	Joensuu	64.00	350	ep	P	17 37 57.5	-2.0
	comp=Z,11nm,1.0s,mb4.8						
MKAR	Makanchi Array	64.16	314	P	P	17 37 59.8	-1.0
MKAR				*PP	pP	17 38 11.8	+2.5
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	64.16	314	P	P	17 37 59.8	-1.0
	comp=Z,2.5nm,0.7s,mb4.3,baz=50,slow=6.1,SNR=36						
MKAR				pP	pP	17 38 11.8	+2.4
	comp=Z,1.1nm,0.7s,baz=56,slow=6.2,SNR=5.9						
CD2	Chengdu	64.82	288	P	P	17 38 06.0	+0.6
CD2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
CD2				pmax	pmax		
	comp=Z,220nm,3.6s						
ARU	Arti	64.84	333	eP	P	17 38 04.3	-0.8
ARU				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
ARU	Arti	64.84	333	eP	P	17 38 04.3	-0.8
	comp=Z,8.5nm,1.1s,mb4.7						
KLMR	Klimovskoe	64.92	345	eP	P	17 38 03.6	-1.9
KLMR				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.8						
KAF	Kangasniemi	65.27	352	eP	P	17 38 06.2	-1.6
KAF				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
KAF	Kangasniemi	65.27	352	ep	P	17 38 06.2	-1.6
	comp=Z,9.0nm,0.6s,mb5.0						
FINES	FINESS Array B	65.95	352	P	P	17 38 11.2	-1.0
FINES				*PP	pP	17 38 22.8	+2.0
FINES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	65.95	352	P	P	17 38 11.2	-1.0
	comp=Z,7.0nm,0.8s,mb4.8,baz=14,slow=7.8,SNR=23						
FINES				pP	pP	17 38 22.8	+2.1
	comp=Z,2.1nm,0.5s,baz=17,slow=9.6,SNR=2.2						
NB2	NORSAR Subarra	66.95	0	P	P	17 38 17.7	-0.9
	comp=Z,1.5nm,0.6s,mb4.2,baz=1.4,slow=6.5						
NOA	NORSAR Array B	66.95	0	P	P	17 38 18.0	-0.6
NOA				*PP	pP	17 38 29.5	+2.3
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	66.95	0	P	P	17 38 18.0	-0.6
	comp=Z,3.4nm,0.9s,mb4.4,baz=1.0,slow=6.4,SNR=5.5						
NOA				pP	pP	17 38 29.5	+2.3
	comp=Z,0.9nm,0.6s,baz=360,slow=6.1,SNR=2.5						
KONO	Kongsberg	68.34	1⇑	eP	P	17 38 27.6	+0.2
KMI	Kunming	69.73	285	P	P	17 38 36.8	+0.3
KMI				pP	pP	17 38 48.8	+3.6
KMI				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
AKTK	Aktyubinsk	70.26	330	P	P	17 38 39.1	-0.2
AKTO	Aktyubinsk	70.26	330	P	P	17 38 39.1	-0.3
AKTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
AKTO	Aktyubinsk	70.26	330	P	P	17 38 39.1	-0.2
	comp=Z,6.8nm,0.8s,mb4.6,baz=28,slow=7.0,SNR=7.1						
USP	Ospenovka	70.32	316	P	P	17 38 40.2	+0.3
	SNR=8.2						
KBK	Karagaybulak	70.63	316	P	P	17 38 42.5	+0.7
	SNR=5.1						
AAK	Ala-Archa	70.84	316	P	P	17 38 43.6	+0.5
AAK				*PP	pP	17 38 55.1	+3.4
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
AAK	Ala-Archa	70.84	316	P	P	17 38 43.7	+0.6
	SNR=6.7						
AAK	Ala-Archa	70.84	316	P	P	17 38 43.6	+0.5
	comp=Z,4.4nm,0.8s,mb4.4,baz=34,slow=2.1,SNR=18						
AAK				pP	pP	17 38 55.1	+3.3
	comp=Z,2.0nm,0.7s,baz=339,slow=2.2,SNR=4.4						
AAK	Ala-Archa	70.84	316	eP	P	17 38 43.0	-0.1
	comp=Z,6.7nm,1.0s,mb4.5						
OBN	Obninsk	70.88	345	eP	P	17 38 42.3	-0.8
OBN				e		17 39 06.9	
OBN				pmax	pmax		
	comp=Z,36nm,2.5s,mb4.9						
EKS2	Erkin-Say	71.12	316	P	P	17 38 45.2	+0.4
	SNR=7.8						
AML	Almayashu	71.59	316	P	P	17 38 48.9	+1.2
	SNR=5.5						
AML	Almayashu	71.59	316	eP	P	17 38 48.1	+0.5
	comp=Z,7.0nm,1.1s,mb4.5						
KSH	Kashi	72.73	313	eP	P	17 38 57.8	+3.3
KSH				epP	pP	17 39 02.0	-1.2
KSH				esP	sP	17 39 05.3	-1.1
KSH				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
KSH				LR	LR		
	comp=N,160nm,6.3s						
KSH				LR	LR		
	comp=E,290nm,4.8s						
KSH				LR	LR		
	comp=Z,240nm,7.2s						
LSA	Lhasa	72.88	296	eP	P	17 38 56.4	+0.9
LSA				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
LSA	Lhasa	72.88	296	eP	P	17 38 56.4	+0.8
	comp=Z,16nm,1.1s,mb4.8						
VSR	Storozhevoye	74.17	342	eP	P	17 39 01.9	-0.9
VSR				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
VSR				pmax	pmax		
	comp=N,4.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,3.0nm,0.4s						
VORD	Divnogorie	74.39	342	eP	P	17 39 02.8	-1.2
VORD				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
VORD				pmax	pmax		
	comp=N,9.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,7.0nm,0.8s						
SHL	Shillong	75.67	293	ePKP	P	17 39 13.0	+1.1
AKASG	Malin Array Be	76.22	348	P	P	17 39 13.2	-1.3
AKASG				*PP	pP	17 39 24.8	+1.5
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	76.22	348	P	P	17 39 13.2	-1.3
	comp=Z,4.0nm,0.6s,mb4.6,baz=12,slow=5.7,SNR=11						
AKASG				pP	pP	17 39 24.8	+1.5
	comp=Z,1.6nm,0.5s,baz=13,slow=5.6,SNR=4.8						
KIEV	Kiev	76.22	348	eP	P	17 39 12.8	-1.8
KIEV				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.9						
KIEV	Kiev	76.22	348	eP	P	17 39 12.8	-1.8
	comp=Z,20nm,1.3s,mb4.9						
TAPN	Taplejung	76.59	297	eP	P	17 39 17.4	+0.3
	comp=Z,25nm,1.2s,mb5.0						
CHTO	Chiang Mai	76.80	284	eP	P	17 39 18.0	-0.3
CHTO				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
CHTO	Chiang Mai	76.80	284	eP	P	17 39 18.0	-0.4
	comp=Z,5.2nm,1.1s,mb4.4						
CMAR	Chiang Mai Arr	77.08	283	P	P	17 39 20.2	+0.3
CMAR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CMAR	Chiang Mai Arr	77.08	283	P	P	17 39 20.1	+0.3
	comp=Z,7.2nm,1.0s,mb4.6,baz=25,slow=6.3,SNR=34						
BRG	Berggiesshubel	77.12	358	eP	P	17 39 19.6	0.0
BRG				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
BRG	Berggiesshubel	77.12	358	eP	P	17 39 19.6	-0.1
	comp=Z,4.3nm,1.1s,mb4.3						
GUN	Gumba	77.14	299	eP	P	17 39 20.6	+0.5
ODAN	Odare	77.16	297	eP	P	17 39 20.3	+0.1
JIRN	Jiri	77.17	299	eP	P	17 39 20.8	+0.5
PVCC	Panska Ves	77.46	358	eP	P	17 39 22.0	+0.5
RAMN	Ramite	77.51	298	eP	P	17 39 22.4	+0.2
	comp=Z,24nm,0.8s,mb5.2						
KKN	Kakani	77.56	299	eP	P	17 39 22.8	+0.3
	comp=Z,46nm,1.2s,mb5.3						
KKN	Kakani	77.56	299	eP	P	17 39 22.8	+0.3
KKN				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.3						
DPC	Dobruska-Polom	77.58	357	eP	P	17 39 22.7	+0.5
PKI	Pulchoki	77.66	299	eP	P	17 39 23.1	0.0
GKN	Gorkha	77.73	300	eP	P	17 39 23.1	-0.3
	comp=Z,39nm,1.2s,mb5.2						
DMN	Daman	77.80	299	eP	P	17 39 24.0	+0.2
	comp=Z,38nm,1.2s,mb5.2						
DANN	Dangsing	77.92	301	eP	P	17 39 24.8	+0.3
	comp=Z,29nm,0.7s,mb5.3						
OKC	Ostrava-Krasne	78.02	356	eP	P	17 39 25.3	+0.6
STHS	Stebnicka Huta	78.26	353	i P	P	17 39 26.8	+0.8
STHS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
STHS	Stebnicka Huta	78.26	353	i P	P	17 39 26.8	+0.8
	comp=Z,4.4nm,0.9s,mb4.4						
GRA1	Grafenberg Arr	78.33	0	eP	P	17 39 27.1	+0.7
	comp=Z,17nm,1.3s,mb4.8						
GRF	Grafenberg Arr	78.33	0	eP	P	17 39 27.1	+0.7
GRF				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
GRF	Grafenberg Arr	78.33	0	eP	P	17 39 27.1	+0.7
GRF				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
GRF	Grafenberg Arr	78.33	0	eP	P	17 39 27.1	+0.7
	comp=Z,17nm,1.3s,mb4.8						
KOLN	Koldanda	78.47	301	eP	P	17 39 27.3	-0.2
	comp=Z,20nm,1.0s,mb5.0						
TREC	Trest	78.67	357	eP	P	17 39 29.1	+0.8
CRVS	Cervenica-Dubn	78.76	353	eP	P	17 39 28.6	-0.2
KHC	Kasperske Hory	78.87	359	eP	P	17 39 30.2	+0.8
ROSF	Rostrenen	78.91	10	eP	P	17 39 29.6	0.0
SGMF	Saint Gilles	79.06	9	eP	P	17 39 30.3	-0.1
GERES	GERESS Array B	79.16	358	P	P	17 39 28.8	-2.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES	GERESS Array B	79.16	358	P	P	17 39 28.8	-2.1
	comp=Z,1.9nm,0.9s,mb4.0,baz=355,slow=15,SNR=12						
GERES	GERESS Array B	79.16	358	P	P	17 39 28.8	-2.1
KECS	Kecovo	79.24	354	i P	P	17 39 31.9	+0.5
KECS				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
KECS	Kecovo	79.24	354	i P	P	17 39 31.9	+0.5
	comp=Z,3.3nm,1.0s,mb4.2						
VYHS	Vyhne	79.33	355	i P	P	17 39 31.7	-0.2
MEZF	Maizieres J’vi	79.38	4	eP	P	17 39 32.4	+0.3
CDF	Champ du Feu	79.55	3	eP	P	17 39 33.3	+0.2
BFO	Black Forest	79.66	2	i P	P	17 39 34.7	+1.0
ZST	Bratislava	79.71	356	i P	P	17 39 36.0	+2.0
HAU	Haudompre	79.92	3	eP	P	17 39 35.3	+0.2
CONA	Conrad Observa	80.02	357⇑	iP	P	17 39 36.3	+0.6
	comp=Z,12nm,1.1s,mb4.7						
CSNA	Conrad Observa	80.02	357⇑	iP	P	17 39 36.4	+0.7
	comp=Z,11nm,1.1s,mb4.7						
HINF	Hinteralfeld	80.13	3	eP	P	17 39 36.2	-0.1
LOR	Lormes	80.55	5	eP	P	17 39 38.6	+0.1
	comp=Z,30nm,1.3s,mb4.8						
LOR	Lormes	80.55	5	eP	P	17 39 38.6	+0.1
LOR				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
LOR	Lormes	80.55	5	eP	P	17 39 38.6	+0.1
	comp=Z,15nm,1.3s,mb4.8						
SSF	Saint Saulge	80.73	5	eP	P	17 39 39.6	+0.1
	comp=Z,27nm,1.2s,mb4.8						
SSF	Saint Saulge	80.73	5	eP	P	17 39 39.6	+0.1
SSF				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
SSF	Saint Saulge	80.73	5	eP	P	17 39 39.6	+0.1
	comp=Z,14nm,1.2s,mb4.8						
MFF	Saint Martin d	80.92	8	eP	P	17 39 40.7	+0.2
	comp=Z,43nm,1.1s,mb5.0						
MFF	Saint Martin d	80.92	8	eP	P	17 39 40.7	+0.2
MFF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
MFF	Saint Martin d	80.92	8	eP	P	17 39 40.7	+0.2
	comp=Z,21nm,1.1s,mb5.0						
KBA	Koelnbreinsper	80.93	359⇑	iP	P	17 39 41.7	+1.2
	comp=Z,24nm,1.1s,mb5.0						
AVF	Avril sur Loir	80.99	6	eP	P	17 39 40.8	-0.1
	comp=Z,9.5nm,0.9s,mb4.4						
AVF	Avril sur Loir	80.99	6	eP	P	17 39 40.8	-0.1
AVF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
AVF	Avril sur Loir	80.99	6	eP	P	17 39 40.8	-0.1
	comp=Z,4.8nm,0.9s,mb4.4						
FETA	Feichten	81.00	0⇓	iP	P	17 39 41.9	+0.9
	comp=Z,14nm,1.0s,mb4.8						
SMF	Signal de Mont	81.17	5	eP	P	17 39 41.9	+0.1
	comp=Z,23nm,1.2s,mb4.7						
SMF	Signal de Mont	81.17	5	eP	P	17 39 41.9	+0.1
SMF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
SMF	Signal de Mont	81.17	5	eP	P	17 39 41.9	+0.1
	comp=Z,12nm,1.2s,mb4.7						
BGF	Bois d’Agland	81.19	6	eP	P	17 39 42.0	0.0
	comp=Z,32nm,1.1s,mb4.9						
BGF	Bois d’Agland	81.19	6	eP	P	17 39 42.0	0.0
BGF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
BGF	Bois d’Agland	81.19	6	eP	P	17 39 42.0	0.0
	comp=Z,16nm,1.1s,mb4.9						
CABF	La Chapelle	81.31	4	eP	P	17 39 43.3	+0.7
	comp=Z,44nm,1.2s,mb5.0						
CABF	La Chapelle	81.31	4	eP	P	17 39 43.3	+0.7
CABF				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
CABF	La Chapelle	81.31	4	eP	P	17 39 43.3	+0.7
	comp=Z,22nm,1.2s,mb5.0						
PERS	Pernice	81.34	357	eP	P	17 39 43.1	+0.4
TCF	Toulx Ste Croi	81.42	6	eP	P	17 39 43.1	-0.1
	comp=Z,21nm,1.2s,mb4.7						
TCF	Toulx Ste Croi	81.42	6	eP	P	17 39 43.1	-0.1
TCF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
TCF	Toulx Ste Croi	81.42	6	eP	P	17 39 43.1	-0.1
	comp=Z,10nm,1.2s,mb4.6						
GROS	Grobnik	81.50	357	eP	P	17 39 43.7	+0.1
LPL	La Plagne	82.42	3	eP	P	17 39 49.0	+0.5
LPG	La Plagne	82.44	3	eP	P	17 39 49.5	+0.9
	comp=Z,14nm,1.1s,mb4.5						
LPG	La Plagne	82.44	3	eP	P	17 39 49.5	+0.9
LPG				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
LPG	La Plagne	82.44	3	eP	P	17 39 49.5	+0.9
	comp=Z,7.3nm,1.1s,mb4.5						
SKDS	Skadanscina	82.45	358	i P	P	17 39 48.5	-0.1
BOJS	Bojanci	82.46	357	i P	P	17 39 48.7	0.0
LFF	La Frestale	82.65	8	eP	P	17 39 49.9	+0.2
CAF	Calviac	82.77	7	eP	P	17 39 50.5	+0.2
	comp=Z,14nm,1.1s,mb4.6						
CAF	Calviac	82.77	7	eP	P	17 39 50.5	+0.2
CAF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						

CAF	Calviac	82.77	7	eP	P	17 39 50.5	+0.2
	comp=Z,7.2nm,1.1s,mb4.6						
ORIF	Oris-en-Rattie	82.99	4	eP	P	17 39 52.3	+0.9
VIVF	Saint-Julien-l	82.99	5	eP	P	17 39 52.0	+0.6
	comp=Z,7.3nm,0.8s,mb4.5						
VIVF	Saint-Julien-l	82.99	5	eP	P	17 39 52.0	+0.6
VIVF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
VIVF	Saint-Julien-l	82.99	5	eP	P	17 39 52.0	+0.6
	comp=Z,3.7nm,0.8s,mb4.5						
MBDF	Montbardon	83.21	3	eP	P	17 39 54.0	+1.4
	comp=Z,26nm,1.2s,mb4.8						
MBDF	Montbardon	83.21	3	eP	P	17 39 54.0	+1.4
MBDF				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.8						
MBDF	Montbardon	83.21	3	eP	P	17 39 54.0	+1.4
	comp=Z,13nm,1.2s,mb4.8						
SMRF	Simiane la Rot	83.92	4	eP	P	17 39 57.5	+1.3
	comp=Z,33nm,1.2s,mb5.0						
SMRF	Simiane la Rot	83.92	4	eP	P	17 39 57.5	+1.3
	comp=Z,33nm,1.2s,mb5.3						
SBF	Sospel	84.10	3	eP	P	17 39 57.5	+0.4
	comp=Z,28nm,0.9s,mb5.1						
SBF	Sospel	84.10	3	eP	P	17 39 57.5	+0.4
SBF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
SBF	Sospel	84.10	3	eP	P	17 39 57.5	+0.4
	comp=Z,14nm,0.9s,mb5.1						
SJPF	Ste Jean	84.28	9	eP	P	17 39 58.2	+0.1
MTLF	Montolieu	84.35	7	eP	P	17 39 58.8	+0.4
	comp=Z,9.5nm,0.9s,mb4.6						
MTLF	Montolieu	84.35	7	eP	P	17 39 58.8	+0.4
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
MTLF	Montolieu	84.35	7	eP	P	17 39 58.8	+0.4
	comp=Z,4.8nm,0.9s,mb4.6						
FRF	La Foret Royal	84.37	3	eP	P	17 39 58.9	+0.4
	comp=Z,33nm,1.2s,mb5.0						
FRF	La Foret Royal	84.37	3	eP	P	17 39 58.9	+0.4
FRF				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
FRF	La Foret Royal	84.37	3	eP	P	17 39 58.9	+0.4
	comp=Z,17nm,1.2s,mb5.0						
EPF	Esparros	84.51	8	eP	P	17 39 59.0	-0.2
	comp=Z,13nm,1.0s,mb4.7						
EPF	Esparros	84.51	8	eP	P	17 39 59.0	-0.2
EPF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
EPF	Esparros	84.51	8	eP	P	17 39 59.0	-0.2
	comp=Z,6.3nm,1.0s,mb4.7						
ETSF	Etsaut	84.56	9	eP	P	17 40 00.2	+0.7
	comp=Z,11nm,0.8s,mb4.7						
ETSF	Etsaut	84.56	9	eP	P	17 40 00.2	+0.7
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
ETSF	Etsaut	84.56	9	eP	P	17 40 00.2	+0.7
	comp=Z,5.3nm,0.8s,mb4.7						
LMR	La Mourre	84.60	4	eP	P	17 40 00.2	+0.5
	comp=Z,13nm,0.9s,mb4.7						
LMR	La Mourre	84.60	4	eP	P	17 40 00.2	+0.5
LMR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
LMR	La Mourre	84.60	4	eP	P	17 40 00.2	+0.5
	comp=Z,6.4nm,0.9s,mb4.8						
PGF	Pioggiola	85.45	2	eP	P	17 40 04.5	+0.5
	comp=Z,35nm,1.0s,mb5.1						
PGF	Pioggiola	85.45	2	eP	P	17 40 04.5	+0.5
PGF				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.1						
PGF	Pioggiola	85.45	2	eP	P	17 40 04.5	+0.5
	comp=Z,17nm,1.0s,mb5.1						
BR131	Keskin Array S	86.28	343	eP	P	17 40 08.5	+0.4
	comp=Z,4.7nm,1.1s,mb4.6						
BRTR	Keskin Array B	86.28	343	P	P	17 40 08.8	+0.7
BRTR				*PP	pP	17 40 19.3	+2.3
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	86.28	343	P	P	17 40 08.8	+0.6
	comp=Z,2.9nm,0.9s,mb4.5,baz=45,slow=2.1,SNR=15						
BRTR				pP	pP	17 40 19.3	+2.3
	comp=Z,1.2nm,0.7s,baz=38,slow=1.4,SNR=4.1						
WRA	Warramunga Arr	87.37	232	P	P	17 40 11.7	-1.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	87.37	232	P	P	17 40 11.7	-1.8
	comp=Z,1.0nm,0.6s,mb4.2,baz=35,slow=6.4,SNR=5.2						
ESDC	Sonseca Array	87.38	12	P	P	17 40 10.2	-3.3
	comp=Z,1.9nm,0.6s,mb4.5,baz=353,slow=5.0,SNR=7.2						
ASAR	Alice Springs	90.75	231	P	P	17 40 28.6	-0.7
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	Alice Springs	90.75	231	P	P	17 40 28.6	-0.8
	comp=Z,1.6nm,0.7s,mb4.5,baz=29,slow=4.4,SNR=20						

ISK ***25*** *17:46:17.2, 37°.29N×35°.96E, h25^{km}, ML1.8*
CSEM ***25*** *17:46:18.6±0.3, 37°.29N×35°.97E, h15^{km}, ML1.8, Error ellipse: s-maj=9.1km s-min=6.2km az=4.0*
DDA ***25*** *17:46:18.9, 37°.26N×36°.01E, h7^{km}±7^{km}, Md2.6*
ISCJB ***25*** *17:46:19.1±0.8, 37°.30N±0°.05×35°.92E±0°.05, h20^{km}±12^{km}, Error ellipse: s-maj=8.6km s-min=6.6km az=173.9*
ISC 25 17:46:19.1±0.6**, 37°.29N**±0°.05×**35°.95E**±0°.07**, h13**^{km}±11^{km}**, n10,** σ**0^s.92**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	Kozan	0.22	333	ePG	Pg	17 46 23.5	-0.3
KOZT				eSG	Sg	17 46 27.9	+0.9
CEYT	Ceyhan	0.32	211	ePG	Pg	17 46 25.1	-0.5
CEYT				eSG	Sg	17 46 30.8	+0.8
CEYT	Ceyhan	0.32	211	ePg	Pg	17 46 25.1	-0.5
CEYT				eSg	Sg	17 46 30.8	+0.9
KARA	Karaisali	0.72	268	ePG	Pg	17 46 32.1	-0.9
KARA				eSG	Sg	17 46 42.8	+0.4
KARA	Karaisali	0.72	268	ePg	Pg	17 46 32.1	-0.9
KARA				eSg	Sg	17 46 42.8	+0.4
KMRS	Kahramanmaras	0.79	74	ePG	Pg	17 46 32.9	-1.5
KMRS	Kahramanmaras	0.79	74	ePg	Pg	17 46 32.9	-1.4
KUZU	Kuzuini	1.03	119	i P	Pb	17 46 38.8	0.0
KUZU				i S	Sb	17 46 52.3	-0.1
KUZU	Kuzuini	1.03	119	i P	Pb	17 46 38.8	-0.1
KUZU				i S	Sb	17 46 52.3	-0.1
GZT	Gaziantep	1.29	86	i P	Pn	17 46 42.2	-0.6
GZT				i S	Sb	17 47 01.9	+2.2

BJI ***25*** *18:06:01.1, 2°.56S×99°.78E, h30^{km}, mB6.5/46, mb6.3/64, Ms6.7/78, Ms7 6.6/62*
DJA ***25*** *18:06:03, 2°.44S×99°.79E, h19^{km}, Mw6.5/38*
NEIC ***25*** *18:06:03.9±0.1, 2°.33S×99°.89E, h25^{km}, mb6.0/132, ME6.4, MS6.4/200, MW6.3, MW6.3, Error ellipse: s-maj=4.7km s-min=3.4km az=32.0, Moment Tensor Solution. s66 Moment tensor: Scale 10^{18}Nm; M$_{rr}$2.09; M$_{\theta\theta}$-0.78; M$_{\phi\phi}$-1.31; M$_{r\theta}$2.15; M$_{\theta\phi}$0.10; M$_{\phi r}$-1.46; Best double couple: M$_0$3.20000×10^{18} NP1:φ$_s$130.00000°, δ74.00000°, λ84.00000°. NP2:φ$_s$332.00000°, δ17.00000°, λ111.00000°. Principal axes: T 3.5600, Plg60.0000°, Azm30.0000°; N -1.0100, Plg6.0000°, Azm131.0000°; P -2.5500, Plg28.0000°, Azm224.0000°; Broadband fault plane solution: P waves. NP1:φ$_s$300.00000°, δ10.00000°, λ90.00000°. NP2:φ$_s$120.00000°, δ80.00000°, λ90.00000°. Principal axes: T Plg55.0000°, Azm30.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm210.0000°; Complex earthquake observed on broadband displacement seismograms. A large event is followed by a smaller one about 3 seconds later. Depth from synthetics of broadband displacement seismograms based on first large event. Energy computed from BB mechanism.*
NEIC Felt [V] on Pulau Sipura and [IV] on Siberut. Also felt [IV] at Padang and Painan; [II] at Argamakmur, Batusangkar, Bukittinggi, Kapahiang, Mukomuko, Padangpanjang and Solok, Sumatra. Felt [II] in Singapore.
MOS ***25*** *18:06:03.9±1.1, 2°.21S×99°.97E, h33^{km}, mb6.2/93, MS6.3/97 Error ellipse: s-maj=7.4km s-min=3.7km az=121.0*
GCMT ***25*** *18:06:03.9±0.1, 2°.58S×99°.73E, h15^{km}, MW6.6/114, Moment Tensor Solution. s114,c247; s93,c284; Duration: 5^s.7 Moment tensor: Scale 10^{19}Nm; M$_{rr}$0.21±.00; M$_{\theta\theta}$-0.12±.00; M$_{\phi\phi}$-0.08±.00; M$_{r\theta}$0.81±.01; M$_{\theta\phi}$0.13±.00; M$_{\phi r}$-0.57±.01; Best double couple: M$_0$1.02100×10^{19} NP1:φ$_s$318.00000°, δ6.00000°, λ103.00000°. NP2:φ$_s$125.00000°, δ84.00000°, λ89.00000°. Principal axes: T 1.0080, Plg51.0000°, Azm34.0000°; N 0.0240, Plg1.0000°, Azm126.0000°; P -1.0330, Plg39.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=125s.*
ISCJB ***25*** *18:06:03.1±0.1, 2°.36S±0°.02×99°.89E±0°.01, h31^{km}, mb6.1/257, MS6.4/274 Error ellipse: s-maj=2.8km s-min=1.9km az=24.0*
IGIL ***25*** *18:06:04.7, 2°.36S×99°.92E, h35^{km}, MS6.0*
IDC ***25*** *18:06:04.9±1.5, 2°.41S×100°.03E, h31^{km}±9^{km}, mb5.6/26, mb1 5.6/28, mb1mx5.6/28, mbtmp5.6/28, ML4.9/2, MS6.3/24, Ms1 6.3/24, ms1mx6.1/38, Error ellipse: s-maj=9.7km s-min=7.0km az=38.0*
SZGRF ***25*** *18:06:05.4, 2°.78S×99°.25E, h32^{km}, mb6.0, MS6.3, Southern Sumatera, Indonesia*
ISC 25 18:06:05.0±0.1**, 2°.38S**±0°.02×**99°.86E**±0°.01**, h33**^{km}**, h33**^{km}±.8^{km}**:pP-P, n1586,** σ**1^s.06**/976**, mb6.1**/255**, MS6.4**/274**, 333C-215D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.41	159	P	Pb	18 06 12.7	-1.6
SISI	Saibi	1.30	323	P	Pn	18 06 25.9	-1.0
PDSI	Padang	1.58	22	P	Pn	18 06 30.9	+0.2
PPI	Padang Panjang	1.98	16	P	Pn	18 06 37.0	+0.7
SDSI	Sungai Dareh	2.12	47	P	Pn	18 06 39.9	+1.7
KSI	Kapahiang	3.00	115	P	Pn	18 06 50.5	+0.2
RGRI	Rengat	3.19	51	P	Pn	18 06 54.6	+1.7
MNAI	Manna	3.66	123	P	Pn	18 06 59.0	-0.4
GSI	Gunungsitoli	4.32	328	P	Pn	18 07 07.4	-1.0
MDSI	Maura Dua	4.79	116	P	Pn	18 07 15.5	+0.6
PMBI	Palembang	4.93	96	P	Pn	18 07 18.6	+1.7
	7µm,1.1s,96nm						
PSI	Prapat	5.23	350	⇑eP	Pn	18 07 19.6	-1.4
PSI	Prapat	5.23	350	Pn	Pn	18 07 19.3	-1.7
	11nm,0.3s,baz=154,slow=9.9,SNR=57						
PSI				Sn	Sn	18 08 19.4	-0.8
	32nm,0.3s,baz=164,slow=11,SNR=6.9						
PSI	Prapat	5.23	350	Pn	Pn	18 07 19.3	-1.7
PSI				Sn	Sn	18 08 19.4	-0.8
KLI	Kotabumi	5.56	116	P	Pn	18 07 27.1	+1.6
KGM	Kluang	5.57	38	P	Pn	18 07 28.0	+2.3
KASI	Kota Agung	5.58	124	P	Pn	18 07 25.8	+0.1
	5µm,0.9s,60nm						
MYKOM	Kota Tinggi	5.75	44	P	Pn	18 07 30.4	+2.3
MYKOM	Kota Tinggi	5.75	44	P	Pn	18 07 29.4	+1.3
	5µm,1.9s,78nm						
FRIM	Kepong	5.85	18	P	Pn	18 07 30.8	+1.3
RBSI	Rajabasa	6.80	121	P	Pn	18 07 43.3	+0.8
IPM	Ipoh	6.91	10	P	Pn	18 07 45.6	+1.5
IPM	Ipoh	6.91	10	P	Pn	18 07 45.4	+1.3
	2µm,0.9s,20nm						
SBJI	Serang	7.27	121	P	Pn	18 07 48.9	-0.1
	4µm,1.2s,23nm						
KULM	Kulim	7.66	6	P	Pn	18 07 54.9	+0.5
KULM	Kulim	7.66	6	ePn	Pn	18 07 54.3	-0.1
	1µm,0.9s						
TNG	Tangerang	7.74	119	P	Pn	18 07 56.0	+0.5
TPI	Tanjungpandan	7.79	93	⇓eP	Pn	18 07 58.0	+1.8
TPI				eS	Sn	18 09 28.0	+4.7
TPI	Tanjungpandan	7.79	93	P	Pn	18 07 57.3	+1.1
	482nm,1.3s,11nm						
DBJI	Dramaga	8.02	121	P	Pn	18 08 03.7	+4.4
CBJI	Citeko	8.04	120	P	Pn	18 08 06.3	+6.7
KTGM	Kuala Trenggan	8.32	23	P	Pn	18 08 05.3	+1.8
LEM	Lembang	8.90	120	⇑eP	Pn	18 08 13.0	+1.6
LEM	Lembang	8.90	120	P	Pn	18 08 12.4	+1.0
	2µm,0.9s						
BSI	Banda Aceh	9.06	330	P	Pn	18 08 10.9	-2.7
	633nm,1.4s						
SNG	Songkhla	9.52	5	P	Pn	18 08 20.0	0.0
	2µm,1.1s						
XMIS	Christmas Isla	9.89	145	eP	Pn	18 08 17.2	-7.8
XMIS				eS	Sn	18 09 57.9	-17
XMIS	Christmas Isla	9.89	145	eP	Pn	18 08 17.4	-7.5
	328nm,0.5s						
XMIS	Christmas Isla	9.89	145	P	Pn	18 08 18.7	-6.3
COCO	West Island	10.20	197	Pn	Pn	18 08 25.4	-3.8
	10µm,0.7s,SNR=12						
COCO	West Island	10.20	197	eP	Pn	18 08 24.7	-4.5
COCO				pmax	pmax		
	comp=Z,2µm,1.1s						
COCO	West Island	10.20	197	eP	Pn	18 08 24.7	-4.5
	comp=Z,2µm,1.1s						
COCO	West Island	10.20	197	P	Pn	18 08 26.5	-2.7
	comp=Z,2µm,1.1s						
BJII	Banjamegara	10.97	117	⇓eP	Pn	18 08 39.6	-0.2
BJII				eS	Sn	18 10 43.3	+1.8
KSM	Kuching	11.12	70	P	Pn	18 08 43.9	+2.0
KSM	Kuching	11.12	70	eP	Pn	18 08 42.9	+1.0
	comp=Z,177nm,0.8s						
KSM	Kuching	11.12	70	P	Pn	18 08 42.9	+1.0
	comp=Z,342nm,1.6s						
SMRI	Semarang	11.51	114	P	Pn	18 08 48.1	+0.9
	comp=Z,2µm,1.3s						
UGM	Wanagama	11.95	118	P	Pn	18 08 51.7	-1.5
	comp=Z,1µm,1.1s						
SJI	Sawahan	12.99	115	P	Pn	18 09 06.3	-1.1
	comp=Z,921nm,1.0s						
PWJI	Pagerwojo	13.14	116	P	Pn	18 09 07.0	-2.5
	comp=Z,769nm,1.0s						
SBUM	Sibu	13.25	69	P	Pn	18 09 13.6	+2.6
SBUM	Sibu	13.25	69	P	Pn	18 09 13.4	+2.4
	comp=Z,739nm,2.4s						
TRT	Tretes	13.77	113	⇑eP	Pn	18 09 16.0	-2.1
PLKI	Palangkaraya	14.07	90	P	Pn	18 09 23.7	+1.5
	comp=Z,3µm,1.4s						
BTM	Bintulu	14.33	67	P	Pn	18 09 28.6	+2.8
GMJI	Gumukmas	14.73	114	P	Pn	18 09 28.3	-2.9
BBKI	Banjar Baru	15.00	94	P	Pn	18 09 36.3	+1.6
	comp=Z,2µm,1.9s						
ABJI	Asem Bagus	15.29	111	P	Pn	18 09 37.0	-1.5
	comp=Z,1µm,0.8s						
NBBI	Negara	15.84	113	P	Pn	18 09 49.6	+3.8
SRBI	Singaraja	16.30	111	P	Pn	18 09 49.3	-2.3
	comp=Z,735nm,1.3s						
KBKI	Kotabaru	16.31	94	P	Pn	18 09 51.7	0.0
	comp=Z,1µm,1.3s						
IGBI	Denpasar	16.49	113	P	Pn	18 09 53.2	-0.9
	comp=Z,1µm,0.9s						
KHKI	Kahang-Kahang	16.76	111	P	Pn	18 09 56.7	-0.7
	comp=Z,617nm,0.9s						
NST	Nakhon Sawan	17.94	1	⇑P	Pn	18 10 08.2	-3.9
	comp=Z,292nm,0.8s						
UBT	Ubonrachathani	18.24	16	P	Pn	18 10 15.1	-0.6
	comp=Z,1µm,1.0s						
KKM	Kota Kinabalu	18.35	63	P	Pn	18 10 18.0	+0.9
KKM	Kota Kinabalu	18.35	63	eP	Pn	18 10 16.8	-0.3
	comp=Z,518nm,0.8s						
KKM	Kota Kinabalu	18.35	63	P	Pn	18 10 17.8	+0.7
	comp=Z,829nm,0.9s						
SDKM	Sandakan	19.05	65	P	Pn	18 10 25.9	+0.2
TSM	Tawau	19.18	70	P	Pn	18 10 26.7	-0.4
KDM	Kudat	19.29	61	P	Pn	18 10 29.5	+1.0
BDT	Bhumibol Dam	19.52	358	P	Pn	18 10 28.0	-3.2
	comp=Z,133nm,1.0s						
MKS	Makassar	19.76	99	⇑eP	Pn	18 10 33.0	-1.2
MKS				eS	Sn	18 14 11.8	-3.7
TTSI	Tana Toraja	19.94	92	P	Pn	18 10 38.3	+2.0
	comp=Z,2µm,1.3s						
KAPI	Kappang	20.02	98	P	P	18 10 34.1	-1.2
	comp=Z,13µm,1.5s,SNR=38						
KAPI	Kappang	20.02	98	P	P	18 10 32.4	-2.8
	comp=Z,15nm,0.3s,baz=283,slow=12,SNR=32						
KAPI				S	S	18 14 15.2	-3.6
	baz=14,slow=22,SNR=2.4						
PCI	Palu	20.02	86	⇑eP	P	18 10 35.5	+0.2
	comp=Z,66nm,1.5s						
PCI	Palu	20.02	86	P	P	18 10 36.0	+0.7
	comp=Z,3µm,1.8s						
BNSI	Bone	20.30	96	P	P	18 10 38.8	+0.4
	comp=Z,2µm,1.2s						
CMAR	Chiang Mai Arr	20.73	358	P	P	18 10 40.8	-2.1
	comp=Z,426nm,1.0s,baz=187,slow=9.1,SNR=208						
CMAR				LR	LR	18 19 11.7	
	comp=Z,123µm,20.5s,MS6.3,baz=189,slow=38						
BATP	Bataraza	21.05	58	eP	P	18 10 46.2	-0.2
CHG	Chiang Mai	21.08	358	⇑P	P	18 10 43.0	-3.7
	comp=Z,417nm,1.2s,mb5.6						
CHTO	Chiang Mai	21.08	358	eP	P	18 10 45.0	-1.7
CHTO				pmax	pmax		
	comp=Z,332nm,0.9s,mb5.7						
CHTO				MLR	MLR		
	comp=Z,122µm,22.0s,MS6.2						
CHTO	Chiang Mai	21.08	358	eP	P	18 10 45.0	-1.6
	comp=Z,332nm,0.9s,mb5.7						
CHTO				LR	LR		
	comp=Z,122µm,22.0s,MS6.2						
CHTO	Chiang Mai	21.08	358	P	P	18 10 45.0	-1.7
	comp=Z,446nm,1.1s,mb5.7						
PALK	Pallekele	21.39	297	P	P	18 10 52.8	+2.7
	comp=Z,927nm,1.4s,mb5.9,SNR=24						
WSI	Waingapu	21.56	110	⇓eP	P	18 10 47.3	-4.6
WSI				eS	S	18 14 34.0	-15
WSI	Waingapu	21.56	110	P	P	18 10 51.8	-0.1
	comp=Z,3µm,1.2s,mb6.7						
APSI	Ampana	21.82	87	P	P	18 10 55.6	+0.8
	comp=Z,3µm,1.5s,mb6.5						
PPR	Puerto Princes	22.34	57	⇑iP	P	18 10 59.7	-0.6
KDI	Kendari	22.77	95	⇑eP	P	18 11 03.7	-1.2
KDI				eS	S	18 15 11.0	-1.1
KDI	Kendari	22.77	95	P	P	18 11 05.1	+0.2
	comp=Z,876nm,2.5s,mb5.7						
QIZ	Qiongzhong	23.43	24	P	P	18 11 10.8	-0.9
QIZ				pP		18 11 19.3	
QIZ				sP	sP	18 11 24.0	-0.8
QIZ				S	S	18 15 17.5	-5.1
QIZ				sS	sS	18 15 31.8	-6.4
QIZ				SS		18 16 05.0	
QIZ				pmax	pmax		
	comp=Z,320nm,1.2s,mb5.6						
QIZ				LR	LR		
	comp=N,59µm,19.0s,MS6.3						
QIZ				LR	LR		
	comp=E,67µm,17.5s,MS6.3						
QIZ				LR	LR		
	comp=Z,76µm,18.0s,MS6.2						
QIZ	Qiongzhong	23.43	24	eP	P	18 11 09.3	-2.4
	comp=Z,393nm,1.0s,mb5.8						
QIZ				LR	LR		
	comp=Z,78µm,19.0s,MS6.2						
ENPP	El Nido	23.68	55	eP	P	18 11 12.9	-1.1
ZMPH	Zamboanga City	24.02	67	⇑eP	P	18 11 16.9	-0.2
KMSI	Cibinong	24.29	83	P	P	18 11 19.9	+0.3
	comp=Z,4µm,1.0s,mb6.8						
BUSP	Coron	24.75	54	eP	P	18 11 25.2	+1.4
IPIL	Ipil	24.80	66	eP	P	18 11 24.4	+0.1
CUYO	Cuyo Island	24.82	58	eP	P	18 11 25.9	+1.5
MNI	Manado	25.26	82	⇓eP	P	18 11 22.0	-6.5
MNI	Manado	25.26	82	P	P	18 11 28.7	+0.2
	comp=Z,4µm,1.0s,mb6.9						
TRD	Trivandrum	25.27	296	⇓ePKP	P	18 11 30.0	+1.4
TRD				ex	x	18 16 08.0	
PAGZ	Pagadian	25.57	66	eP	P	18 11 30.9	-0.3
SJMP	San Jose	25.75	55	eP	P	18 11 34.3	+1.4
VIS	Vishakhapatnam	25.78	321	ePKP	P	18 11 32.3	-0.8
VIS				AMb	AMB	18 11 47.0	
	comp=Z,523nm,1.1s,mb6.0						
GUIM	Jordan	26.05	60	eP	P	18 11 37.2	+1.6
CTBH	Cotabato--PC H	26.13	68	eP	P	18 11 36.6	+0.2
SGSI	Sangihe	26.35	77	P	P	18 11 39.1	+0.7
	comp=Z,1µm,1.1s,mb6.4						
BWNR	Bhubaneshwar	26.42	329	ePKP	P	18 11 30.1	-8.8
BWNR				eS	S	18 16 02.9	-7.5
GSPH	General Santos	26.42	71	⇑eP	P	18 11 39.7	+0.6
TGY	Tagaytay City	26.54	51	P	P	18 11 39.1	-0.9
	comp=Z,382nm,0.5s,mb6.2,baz=250,slow=2.1,SNR=12						
RCP	Roxas	26.63	58	⇑eP	P	18 11 41.5	+0.6
TBP	Tagbilaran	26.74	63	⇓eP	P	18 11 41.7	-0.2
SCZP	Santa Cruz	26.80	47	eP	P	18 11 42.4	0.0
KCP	Kidapawan	26.85	70	⇓eP	P	18 11 48.3	+5.4
MBWA	Marble Bar	26.89	135	PFAKE		18 12 00.0	+17
MBWA				LR	LR		
	comp=Z,142µm,22.0s,MS6.5						
MBWA	Marble Bar	26.89	135	P	P	18 11 44.0	+0.9
	SNR=6.6						
MBWA				P		18 11 44.0	
	SNR=6.6						
MBWA	Marble Bar	26.89	135	P	P	18 11 42.9	-0.2
	comp=Z,247nm,1.4s,comp=Z,5µm,mb5.6						
CGP	Cagayan de Oro	27.00	66	⇓eP	P	18 11 45.1	+0.9
LLP	Lapu-Lapu	27.11	62	eP	P	18 11 44.9	-0.2
BUKP	Musuan	27.12	68	eP	P	18 11 47.9	+2.5
BOLP	Bolinao	27.20	46	eP	P	18 11 47.1	+1.1
CAL	Calcutta	27.21	336	ePKP	P	18 11 45.5	-0.4
CAL				eS	S	18 16 24.2	+1.4
NLAI	Namlea	27.22	92	P	P	18 11 45.8	-0.4
	comp=Z,295nm,1.0s,comp=Z,6µm,mb5.8						
DMPH	Davao City--Mi	27.27	70	eP	P	18 11 46.8	+0.2
DAV	Davao City (W)	27.33	70	P	P	18 11 46.8	-0.4
	comp=Z,536nm,0.9s,mb6.1,baz=87,slow=1.6,SNR=42						
DAV				S	S	18 16 22.2	-2.8
	comp=Z,81nm,0.4s,baz=299,slow=9.9,SNR=2.0						
DAV				LR	LR	18 23 48.3	
	comp=Z,85µm,21.1s,MS6.3,baz=35,slow=39						
DAV	Davao City (W)	27.33	70	⇑iP	P	18 11 46.6	-0.6
DAV	Davao City (W)	27.33	70	eP	P	18 11 48.2	+1.0
	comp=Z,582nm,0.8s,mb6.2						
DAV				LR	LR		
	comp=Z,83µm,21.0s,MS6.3						
DAV	Davao City (W)	27.33	70	P	P	18 11 49.0	+1.9
	SNR=42						
DAV				P		18 11 49.0	
	SNR=42						
DAV	Davao City (W)	27.33	70	P	P	18 11 48.6	+1.4
	comp=Z,1µm,1.4s,mb6.2						
KMI	Kunming	27.48	6	⇑P	P	18 11 48.8	+0.4
KMI				pP	pP	18 11 57.8	-0.1
KMI				sP	sP	18 12 05.3	+3.4
KMI				PP		18 12 37.3	
KMI				PcP	PcP	18 15 08.5	+2.1
KMI				S	S	18 16 26.0	-1.1
KMI				sS	sS	18 16 42.8	-0.1
KMI				SS		18 17 47.3	
KMI				pmax	pmax		
	comp=Z,5µm,7.8s						
KMI				LR	LR		
	comp=N,76µm,14.3s,MS6.6						
KMI				LR	LR		
	comp=E,99µm,15.1s,MS6.6						
KMI				LR	LR		
	comp=Z,86µm,18.2s,MS6.4						
AUQP	San Andres	27.49	55	eP	P	18 11 50.3	+1.7
PCPH	Palayan	27.55	49	⇑eP	P	18 11 39.3	-10
PCPH	Palayan	27.55	49	⇑eP	P	18 11 47.1	-2.0
IMP	Imphal	27.61	348	ePKP	P	18 11 50.0	+0.5
IMP				eS	S	18 16 32.0	+2.9
TNTI	Ternate	27.67	84	P	P	18 11 48.1	-2.2
	comp=Z,828nm,1.6s,mb6.1						
TNE	Ternate	27.68	84	⇑eP	P	18 11 45.0	-5.3
LBMI	Labuha	27.68	87	P	P	18 11 49.7	-0.7
	comp=Z,2µm,1.3s,mb6.5						
POLP	Polilio Island	27.69	51	eP	P	18 11 50.5	+0.1
DGAR	Diego Garcia	27.76	259	PFAKE		18 12 00.0	+9.0
DGAR				LR	LR		
	comp=Z,206µm,19.0s,MS6.7						
MSLP	Maasin	27.82	63	eP	P	18 11 51.0	-0.6
MATI	Mati	27.92	70	eP	P	18 11 52.2	-0.3
OCLP	Ormoc	28.00	61	eP	P	18 11 53.2	0.0
BALP	Baler	28.02	49	eP	P	18 11 51.3	-2.0
HKC	Hong Kong Obse	28.23	29	i P	P	18 11 54.0	-1.1
AAI	Ambon	28.32	93	P	P	18 11 56.9	+0.8
	comp=Z,284nm,1.1s,comp=Z,7µm,mb5.8						
GZH	Guangzhou	28.52	27	P	P	18 12 03.0	+5.3
GZH				LR	LR		
	comp=N,59µm,12.1s,MS6.7						
GZH				LR	LR		
	comp=E,96µm,13.7s,MS6.7						
GZH				LR	LR		
	comp=Z,108µm,19.9s						
ABRA	Dolores	28.61	45	eP	P	18 11 59.4	+0.8
SIPP	Brgy, Tapao	28.61	44	i P	P	18 11 55.8	-2.8
HYB	Hyderabad	28.79	314	eP	P	18 12 00.0	-0.1
HYB				eS	S	18 16 46.0	-1.9
HYB				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.6						
HYB	Hyderabad	28.79	314	i P	P	18 12 00.0	-0.1
	comp=Z,120nm,1.0s,mb5.6						
HYB				eS	S	18 16 46.0	-1.9
HYB				LR	LR	18 19 24.0	
	comp=Z,100nm,16.0s						
HYB	Hyderabad	28.79	314	eP	P	18 12 00.0	-0.1
	comp=Z,120nm,1.0s,mb5.6						

HYB				*e*S	**S**	**18 16 46.0**	**-1.9**
SHL	**Shillong**	**28.84**	**345**	*e*PKP	**P**	**18 12 01.5**	**+1.0**
SHL				*e*S	**S**	**18 16 51.0**	**+2.6**
PVCP	**Virac**	**28.85**	**56**	*e*P	**P**	**18 12 02.8**	**+2.0**
CAUP	**Cauayan**	**28.96**	**48**	*e*P	**P**	**18 12 02.5**	**+0.9**
MNGI	**Mangalore**	**29.15**	**302**	*i* P	**P**	**18 12 03.4**	**0.0**
MNGI				*i* S	**S**	**18 16 56.5**	**+2.9**
BOK	**Bokaro**	**29.36**	**333**	*e*PKP	**P**	**18 12 04.5**	**-0.6**
BOK				AMb	AMB	18 12 26.0	
	comp=Z,664nm,1.6s,mb6.1						
BOK				*e*S	**S**	**18 16 57.0**	**+0.3**
GYA	**Guiyang**	**29.41**	**12⇑**	*i*P	**P**	**18 12 03.8**	**-1.8**
GYA				pP	pP	18 12 11.5	-3.6
GYA				sP	sP	18 12 20.3	+1.2
GYA				PP	PP	18 13 03.3	-9.1
GYA				S	**S**	**18 16 57.5**	**0.0**
GYA				sS	sS	18 17 15.0	+1.7
GYA				SS	SS	18 18 31.0	-32
GYA				ScP	ScP	18 18 49.5	-1.2
GYA				pmax	pmax		
	comp=Z,830nm,0.8s,mb6.5						
GYA				pmax	pmax		
	comp=Z,14µm,5.2s						
GYA				LR	LR		
	comp=N,87µm,15.4s,MS6.7						
GYA				LR	LR		
	comp=E,92µm,15.3s,MS6.7						
GYA				LR	LR		
	comp=Z,99µm,15.7s,MS6.5						
FITZ	**Fitzroy Crossi**	**29.71**	**123**	*e*P	**P**	**18 12 06.6**	**-1.8**
	comp=Z,331nm,1.0s,mb6.0						
FITZ				*e*S	**S**	**18 16 59.7**	**-2.8**
FITZ	**Fitzroy Crossi**	**29.71**	**123**	P	**P**	**18 12 07.0**	**-1.3**
	comp=Z,152nm,0.9s,mb5.7,baz=299,slow=5.5,SNR=32						
FITZ				S	**S**	**18 16 59.9**	**-2.6**
	comp=Z,38nm,1.1s,baz=173,slow=17,SNR=3.6						
FITZ	**Fitzroy Crossi**	**29.71**	**123**	*e*P	**P**	**18 12 06.7**	**-1.7**
	comp=Z,209nm,1.0s,mb5.8						
FITZ	**Fitzroy Crossi**	**29.71**	**123**	P	**P**	**18 12 07.7**	**-0.7**
	comp=Z,485nm,1.2s,mb6.1						
LATR	**Latur**	**30.88**	**313**	*e*PKP	**P**	**18 12 19.0**	**+0.4**
SLGI	**Shiliguri**	**30.95**	**340**	*e*PKP	**P**	**18 12 19.0**	**-0.2**
NGP	**Nagpur**	**31.02**	**320⇑**	*i*P	**P**	**18 12 09.6**	**-10**
NGP				*e*S	**S**	**18 17 11.8**	**-11**
ODAN	**Odare**	**31.46**	**338**	*e*P	**P**	**18 12 23.6**	**-0.1**
	comp=Z,1µm,1.0s,mb6.7						
TAPN	**Taplejung**	**31.79**	**339**	*e*P	**P**	**18 12 26.5**	**-0.1**
	comp=Z,2µm,0.8s,mb6.9						
RAMN	**Ramite**	**31.84**	**337**	*e*P	**P**	**18 12 27.5**	**+0.5**
	comp=Z,541nm,0.7s,mb6.5						
JBP	**Jabalpur**	**31.94**	**324⇑**	*e*PKP	**P**	**18 12 28.2**	**+0.2**
JBP				*e*S	**S**	**18 17 36.7**	**-0.5**
KAD	**Karad**	**32.01**	**309**	*e*PKP	**P**	**18 12 27.7**	**-0.9**
KAD				AMb	AMB	18 12 41.5	
	comp=Z,225nm,1.6s,mb5.8						
TWG	**Pinlang**	**32.49**	**38**	*e*P	**P**	**18 12 33.8**	**+1.1**
	comp=Z,3µm,2.2s,mb6.8						
TPUB	**Ta-pu**	**32.57**	**37**	*e*P	**P**	**18 12 33.3**	**-0.2**
	comp=Z,780nm,1.1s,mb6.5						
ALBI	**Allahabad**	**32.62**	**329**	*e*PKP	**P**	**18 12 33.5**	**-0.4**
JIRN	**Jiri**	**32.64**	**337**	*e*P	**P**	**18 12 33.8**	**-0.2**
	comp=Z,1µm,0.9s,mb6.9						
QZH	**Quanzhou**	**32.68**	**33⇑**	*i*P	**P**	**18 12 35.5**	**+1.1**
QZH				S	**S**	**18 17 48.0**	**-0.6**
QZH				sS	sS	18 18 01.0	-3.5
QZH				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.7						
QZH				pmax	pmax		
	comp=Z,8µm,3.4s						
QZH				LR	LR		
	comp=N,84µm,15.5s,MS6.8						
QZH				LR	LR		
	comp=E,115µm,16.4s,MS6.8						
QZH				LR	LR		
	comp=Z,137µm,16.5s,MS6.7						
PKI	**Pulchoki**	**32.87**	**336**	*e*P	**P**	**18 12 36.1**	**+0.1**
	comp=Z,410nm,1.0s,mb6.3						
PKI	**Pulchoki**	**32.87**	**336**	*e*P	**P**	**18 12 36.1**	**+0.1**
PKI				pmax	pmax		
	comp=Z,410nm,1.0s,mb6.3						
PKIN	**Phulchoki**	**32.88**	**336**	*e*P	**P**	**18 12 35.7**	**-0.4**
	comp=Z,459nm,0.8s,mb6.5						
LSA	**Lhasa**	**32.97**	**346**	P	**P**	**18 12 38.3**	**+1.4**
LSA				pP	pP	18 12 47.5	+1.0
LSA				S	**S**	**18 17 55.0**	**+1.9**
LSA				pmax	pmax		
	comp=Z,7µm,15.6s						
LSA				LR	LR		
	comp=N,45µm,23.0s,MS6.3						
LSA				LR	LR		
	comp=E,58µm,27.3s,MS6.3						
LSA				LR	LR		
	comp=Z,74µm,24.6s,MS6.3						
LSA	**Lhasa**	**32.97**	**346**	*e*P	**P**	**18 12 37.7**	**+0.8**
LSA				pmax	pmax		
	comp=Z,342nm,0.7s,mb6.4						
LSA				MLR	MLR		
	comp=Z,38µm,20.0s,MS6.1						
LSA	**Lhasa**	**32.97**	**346**	*e*P	**P**	**18 12 37.7**	**+0.9**
	comp=Z,342nm,0.7s,mb6.4						
LSA				LR	LR		
	comp=Z,38µm,20.0s,MS6.1						
POO	**Poona**	**32.98**	**310**	*e*PKP	**P**	**18 12 35.9**	**-1.2**
POO				AMb	AMB	18 12 49.7	
	comp=Z,342nm,1.5s,mb6.1						
GUN	**Gumba**	**32.98**	**337**	*e*P	**P**	**18 12 36.6**	**-0.4**
	comp=Z,1µm,0.6s,mb7.0						
DMN	**Daman**	**33.03**	**335**	*e*P	**P**	**18 12 37.6**	**+0.2**
	comp=Z,662nm,0.9s,mb6.6						
YULB	**Yu-li**	**33.05**	**38**	*e*P	**P**	**18 12 37.4**	**-0.3**
	comp=Z,327nm,1.0s,mb6.2						
KKN	**Kakani**	**33.12**	**336**	*e*P	**P**	**18 12 37.6**	**-0.6**
	comp=Z,1µm,0.8s,mb6.8						
KKN	**Kakani**	**33.12**	**336**	*e*P	**P**	**18 12 37.6**	**-0.6**
KKN				pmax	pmax		
	comp=Z,1µm,0.8s,mb6.8						
SSLB	**Suanglung**	**33.13**	**37**	*e*P	**P**	**18 12 38.3**	**-0.1**
	comp=Z,800nm,1.4s,mb6.5						
MUN	**Mundaring**	**33.22**	**154**	*e*P	**P**	**18 12 40.2**	**+1.1**
MUN				*e*S	**S**	**18 17 58.9**	**+1.9**
CD2	**Chengdu**	**33.31**	**6⇑**	*i*P	**P**	**18 12 38.0**	**-1.8**
CD2				pP	pP	18 12 48.3	-1.1
CD2				sP	sP	18 12 51.8	-1.7
CD2				PP	PP	18 13 55.0	-0.6
CD2				S	**S**	**18 17 55.5**	**-2.8**
CD2				sS	sS	18 18 12.5	-1.7
CD2				SS	SS	18 19 57.8	-25
CD2				pmax	pmax		
	comp=Z,390nm,1.2s,mb6.2						
CD2				pmax	pmax		
	comp=Z,4µm,7.1s						
CD2				LR	LR		
	comp=N,119µm,19.0s						
CD2				LR	LR		
	comp=Z,99µm,17.8s,MS6.6						
BHPL	**Bhopal**	**33.56**	**321**	*e*PKP	**P**	**18 12 40.4**	**-1.8**
GKN	**Gorkha**	**33.57**	**335**	*e*P	**P**	**18 12 41.5**	**-0.7**
	comp=Z,871nm,1.0s,mb6.7						
NACB	**Ninganchiao**	**33.81**	**37**	*e*P	**P**	**18 12 44.6**	**+0.3**
	comp=Z,281nm,0.3s,mb6.7						
KOLN	**Koldanda**	**33.82**	**334**	*e*P	**P**	**18 12 43.8**	**-0.5**
	comp=Z,852nm,0.8s,mb6.7						
KAKA	**Kakadu**	**33.84**	**109**	*e*P	**P**	**18 12 41.3**	**-3.4**
	comp=Z,64nm,0.6s,mb5.7						
KAKA	**Kakadu**	**33.84**	**109**	*e*P	**P**	**18 12 41.0**	**-3.6**
	comp=Z,252nm,0.7s,mb6.3						
KAKA	**Kakadu**	**33.84**	**109**	P	**P**	**18 12 43.1**	**-1.6**
	comp=Z,192nm,0.8s,comp=Z,2µm,mb6.1						
YHNB	**Yeheng**	**34.05**	**37**	*e*P	**P**	**18 12 46.2**	**-0.1**
	comp=Z,933nm,1.4s,mb6.5						
DANN	**Dangsing**	**34.25**	**334**	*e*P	**P**	**18 12 47.0**	**-1.0**
	comp=Z,726nm,0.8s,mb6.7						
TATO	**Taipei**	**34.34**	**36**	*e*P	**P**	**18 12 49.7**	**+0.8**
	comp=Z,222nm,0.9s,mb6.1						
TATO				LR	LR		
	comp=Z,43µm,21.0s,MS6.2						
TATO	**Taipei**	**34.34**	**36**	P	**P**	**18 12 50.7**	**+1.8**
	SNR=5.4						
TATO				P		18 12 50.7	
	SNR=5.4						
NWAO	**Narrogin (SRO)**	**34.48**	**154**	*e*P	**P**	**18 12 50.8**	**+0.8**
NWAO				pmax	pmax		
	comp=Z,129nm,1.0s						
NWAO				MLR	MLR		
	comp=Z,95µm,20.0s						
NWAO	**Narrogin (SRO)**	**34.48**	**154**	P	**P**	**18 12 49.8**	**-0.3**
	comp=Z,100nm,1.0s,mb5.7,baz=323,slow=10.0,SNR=24						
NWAO				LR	LR	18 25 54.4	
	comp=Z,125µm,20.9s,MS6.6,baz=327,slow=35						
NWAO	**Narrogin (SRO)**	**34.48**	**154**	*e*P	**P**	**18 12 50.8**	**+0.7**
	comp=Z,129nm,1.0s,mb5.8						
NWAO				LR	LR		
	comp=Z,95µm,20.0s,MS6.5						
NWAO	**Narrogin (SRO)**	**34.48**	**154**	P	**P**	**18 12 51.3**	**+1.3**
	SNR=14						
NWAO				P		18 12 51.3	
	SNR=14						
WHN	**Wuhan**	**35.54**	**22**	⇑P	**P**	**18 12 57.5**	**-1.6**
WHN				pP	pP	18 13 08.5	-0.3
WHN				PP	PP	18 14 19.3	-1.0
WHN				S	**S**	**18 18 33.5**	**+0.8**
WHN				pmax	pmax		
	comp=Z,7µm,7.1s						
WHN				LR	LR		
	comp=N,244µm,15.0s,MS7.1						
WHN				LR	LR		
	comp=E,125µm,14.8s,MS7.1						
WHN				LR	LR		
	comp=Z,333µm,16.5s,MS7.2						
BAKI	**Biak**	**36.24**	**89**	P	**P**	**18 13 04.5**	**-1.0**
	comp=Z,462nm,1.8s,mb6.1						
LGTI	**Lohaghat**	**36.80**	**331**	*e*PKP	**P**	**18 13 10.3**	**+0.3**
LGTI				*e*x	x	18 19 29.5	
PTH	**Pithoragarh**	**36.90**	**331**	*e*x	x	18 13 19.0	
PTH				*e*S	**S**	**18 18 56.0**	**+2.4**
XAN	**Xi'an**	**37.22**	**12**	P	**P**	**18 13 11.8**	**-1.6**
XAN				pP	pP	18 13 22.0	-1.1
XAN				sP	sP	18 13 24.3	-2.8
XAN				PP	PP	18 14 39.8	+1.1
XAN				S	**S**	**18 18 56.5**	**-1.8**
XAN				sS	sS	18 19 12.8	-1.4
XAN				SS	SS	18 21 31.8	-10
XAN				pmax	pmax		
	comp=Z,350nm,1.3s,mb6.0						
XAN				pmax	pmax		
	comp=Z,2µm,8.7s						
XAN				LR	LR		
	comp=N,66µm,20.3s,MS6.6						
XAN				LR	LR		
	comp=E,80µm,18.5s,MS6.6						
XAN				LR	LR		
	comp=Z,78µm,17.4s,MS6.6						
AJM	**Ajmer**	**37.64**	**321**	*e*PKP	**P**	**18 13 17.5**	**+0.4**
AJM				AMb	AMB	18 13 37.0	
	comp=Z,297nm,0.5s,mb6.2						
NDI	**New Delhi**	**37.77**	**326⇑**	*i*P	**P**	**18 13 17.0**	**-1.2**
NDI				*e*x	x	18 19 05.0	
WRA	**Warramunga Arr**	**37.92**	**120**	P	**P**	**18 13 18.0**	**-1.6**
WRA				S	**S**	**18 19 05.5**	**-3.9**
WRA	**Warramunga Arr**	**37.92**	**120**	P	**P**	**18 13 18.0**	**-1.6**
	comp=Z,386nm,0.8s,mb6.2,baz=298,slow=9.5,SNR=473						
WRA				S	**S**	**18 19 05.5**	**-3.9**
	comp=Z,15nm,0.9s,baz=296,slow=14,SNR=6.5						
WRA				LR	LR	18 31 00.7	
	comp=Z,63µm,21.2s,MS6.4,baz=295,slow=40						
WRAB	**Tennant Creek**	**37.93**	**120**	P	**P**	**18 13 19.0**	**-0.7**
	comp=Z,3µm,0.6s,mb7.3						
WRAB	**Tennant Creek**	**37.93**	**120**	*e*P	**P**	**18 13 18.1**	**-1.6**
WRAB				pmax	pmax		
	comp=Z,388nm,0.8s,mb6.2						
WRAB				MLR	MLR		
	comp=Z,75µm,21.0s,MS6.5						
WRAB	**Tennant Creek**	**37.93**	**120**	*e*P	**P**	**18 13 18.1**	**-1.5**
	comp=Z,388nm,0.8s,mb6.2						
WRAB				LR	LR		
	comp=Z,75µm,21.0s,MS6.5						
WRAB	**Tennant Creek**	**37.93**	**120**	P	**P**	**18 13 19.1**	**-0.6**
	comp=Z,633nm,1.1s,comp=Z,9µm,mb6.3						
LZH	**Lanzhou**	**38.45**	**5**	⇑P	**P**	**18 13 23.5**	**-0.3**
LZH				pP	pP	18 13 31.8	-1.7
LZH				sP	sP	18 13 34.3	-3.2
LZH				PP	PP	18 14 56.0	+3.8
LZH				S	**S**	**18 19 17.0**	**+0.1**
LZH				sS	sS	18 19 33.0	+0.1
LZH				SS	SS	18 21 59.0	-8.1
LZH				pmax	pmax		
	comp=Z,970nm,1.3s,mb6.4						
LZH				pmax	pmax		
	comp=Z,4µm,4.0s						
LZH				LR	LR		
	comp=N,72µm,15.2s						
LZH				LR	LR		
	comp=Z,78µm,16.1s,MS6.6						
DDI	**Dehra Dun**	**38.61**	**329**	*e*x	x	18 13 13.8	
DDI				*e*x	x	18 19 30.3	
NJ2	**Nanjing**	**38.70**	**26**	*e*P	**P**	**18 13 26.0**	**+0.1**
NJ2				pP	pP	18 13 35.5	-0.1
NJ2				sP	sP	18 13 40.8	+1.2
NJ2				S	**S**	**18 19 19.0**	**-1.7**
NJ2				sS	sS	18 19 36.5	-0.3
NJ2				pmax	pmax		
	comp=Z,350nm,0.5s,mb6.3						
NJ2				pmax	pmax		
	comp=Z,5µm,10.8s						
NJ2				LR	LR		
	comp=N,40µm,14.5s,MS6.6						
NJ2				LR	LR		
	comp=E,45µm,13.8s,MS6.6						
NJ2				LR	LR		
	comp=Z,51µm,14.0s,MS6.5						
FORT	**Forrest**	**38.84**	**140**	*e*P	**P**	**18 13 27.0**	**-0.2**
	comp=Z,232nm,0.8s,mb6.0						
FORT				*e*S	**S**	**18 19 21.5**	**-1.5**
FORT	**Forrest**	**38.84**	**140**	*e*P	**P**	**18 13 26.9**	**-0.3**
	comp=Z,232nm,0.8s,mb6.0						
BHJ	**Bhuj**	**38.93**	**313⇓**	*e*PKP	**P**	**18 13 29.2**	**+1.2**
BHJ				*e*x	x	18 19 29.9	
SSE	**Sheshan**	**38.99**	**30**	P	**P**	**18 13 29.3**	**+0.9**
SSE				PP	PP	18 14 58.3	+0.1
SSE				S	**S**	**18 19 27.3**	**+2.1**
SSE				sS	sS	18 19 46.3	+5.0
SSE				pmax	pmax		
	comp=Z,580nm,1.2s,mb6.2						
SSE				pmax	pmax		
	comp=Z,6µm,12.0s						
SSE				LR	LR		
	comp=N,55µm,19.6s,MS6.5						
SSE				LR	LR		
	comp=E,52µm,19.6s,MS6.5						
SSE				LR	LR		
	comp=Z,70µm,19.7s,MS6.5						
ASAR	**Alice Springs**	**39.14**	**126**	P	**P**	**18 13 28.9**	**-0.9**
	comp=Z,180nm,0.8s,mb5.9,baz=301,slow=7.8,SNR=387						
ASAR				PcP	PcP	18 15 41.4	+2.3
	comp=Z,40nm,0.9s,baz=311,slow=2.6,SNR=4.1						
ASAR				S	**S**	**18 19 26.2**	**-1.5**
	comp=Z,27nm,0.7s,baz=300,slow=13,SNR=14						
JOW	**Kunigami**	**39.94**	**41**	P	**P**	**18 13 35.1**	**-1.3**
	comp=Z,92nm,0.7s,mb5.6,baz=265,slow=9.6,SNR=18						
JOW				S	**S**	**18 19 40.8**	**+1.2**
	comp=Z,37nm,1.1s,baz=72,slow=30,SNR=2.9						
JOW				LR	LR	18 29 55.5	
	comp=Z,19µm,21.7s,MS5.9,baz=238,slow=36						
SDNR	**Sundarnagar**	**40.11**	**329**	*e*PKP	**P**	**18 13 37.0**	**-0.8**
SDNR				*e*x	x	18 19 40.0	
BHK	**Bhakra**	**40.33**	**328**	*e*PKP	**P**	**18 13 41.6**	**+2.0**
BHK				*e*x	x	18 14 22.8	
JAY	**Jayapura**	**40.80**	**91**	P	**P**	**18 13 44.1**	**+0.3**
	comp=Z,132nm,1.0s,comp=Z,4µm,mb5.5						
DLH	**Dalhousie**	**41.45**	**329**	*e*PKP	**P**	**18 13 50.0**	**+1.2**
THN	**Thein Dam**	**41.50**	**329**	*e*PKP	**P**	**18 13 46.6**	**-2.6**
THN				*e*x	x	18 19 56.8	
GTA	**Gaotai**	**41.59**	**360**	⇑P	**P**	**18 13 50.0**	**+0.2**
GTA				pP	pP	18 14 01.8	+2.3
GTA				sP	sP	18 14 05.3	+1.8
GTA				PP	PP	18 15 30.5	+4.2
GTA				S	**S**	**18 20 04.3**	**+0.6**
GTA				sS	sS	18 20 21.0	+1.2
GTA				SS	SS	18 23 04.8	-4.9
GTA				pmax	pmax		
	comp=Z,400nm,1.3s,mb5.9						
GTA				pmax	pmax		
	comp=Z,6µm,7.5s						
GTA				LR	LR		
	comp=N,49µm,15.3s,MS6.7						
GTA				LR	LR		
	comp=E,64µm,18.2s,MS6.7						
GTA				LR	LR		
	comp=Z,55µm,21.9s,MS6.4						
TIA	**Tai'an**	**41.63**	**21**	⇑P	**P**	**18 13 48.5**	**-1.7**
TIA				pmax	pmax		
	comp=Z,2µm,6.0s						
TIA				LR	LR		
	comp=N,77µm,13.0s						
BTO	**Baotou**	**43.77**	**11**	*e*P	**P**	**18 14 06.8**	**-0.7**
BTO				pmax	pmax		
	comp=Z,88nm,1.5s,mb5.3						
COEN	**Coen**	**44.30**	**108**	*e*P	**P**	**18 14 09.6**	**-2.6**
	comp=Z,2µm,1.8s,mb6.5						
COEN	**Coen**	**44.30**	**108**	P	**P**	**18 14 10.2**	**-2.0**
	comp=Z,316nm,2.1s,mb5.7						
HHC	**Hu-ho-hao-te**	**44.33**	**13**	*e*P	**P**	**18 14 12.8**	**+0.8**
HHC				pP	pP	18 14 22.3	+0.5
HHC				sP	sP	18 14 26.5	+0.7
HHC				PP	PP	18 15 58.0	+2.2
HHC				PcS	PcS	18 19 48.0	-0.9
HHC				S	**S**	**18 20 44.0**	**0.0**
HHC				sS	sS	18 21 00.8	+0.6
HHC				SS	SS	18 23 54.8	-8.7
HHC				ScS	ScS	18 24 06.0	-1.9
HHC				pmax	pmax		
	comp=Z,280nm,1.1s,mb5.9						
HHC				pmax	pmax		
	comp=Z,5µm,5.1s						
HHC				LR	LR		
	comp=E,36µm,12.7s						
HHC				LR	LR		
	comp=Z,71µm,16.6s,MS6.7						
MSEY	**Mahe Island**	**44.35**	**266**	*e*P	**P**	**18 14 13.5**	**+0.8**
MSEY				pmax	pmax		
	comp=Z,143nm,1.4s,mb5.5						
MSEY				MLR	MLR		
	comp=Z,39µm,21.0s,MS6.3						
MSEY	**Mahe Island**	**44.35**	**266**	*e*P	**P**	**18 14 13.5**	**+0.8**
	comp=Z,143nm,1.4s,mb5.5						
MSEY				LR	LR		
	comp=Z,39µm,21.0s,MS6.3						
BJT	**Baijiatuau**	**44.76**	**18**	*e*P	**P**	**18 14 15.4**	**0.0**
BJT				pmax	pmax		
	comp=Z,1µm,1.0s						
BJT				MLR	MLR		
	comp=Z,47µm,19.0s						
BJT	**Baijiatuau**	**44.76**	**18**	*e*P	**P**	**18 14 15.4**	**0.0**
	comp=Z,1µm,1.0s,mb6.7						
BJT				LR	LR		
	comp=Z,47µm,19.0s,MS6.4						
BJI	**Beijing**	**44.78**	**18**	P	**P**	**18 14 15.5**	**-0.1**
BJI				pP	pP	18 14 25.5	0.0
BJI				sP	sP	18 14 29.8	+0.4
BJI				PP	PP	18 16 02.3	+1.6
BJI				S	**S**	**18 20 49.8**	**-0.8**
BJI				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.6						
BJI				pmax	pmax		
	comp=Z,8µm,4.4s						
BJI				LR	LR		
	comp=N,89µm,18.0s,MS6.8						
BJI				LR	LR		
	comp=E,46µm,17.0s,MS6.8						
BJI				LR	LR		
	comp=Z,68µm,19.0s,MS6.6						
DL2	**Dalian**	**45.72**	**24**	P	**P**	**18 14 23.3**	**+0.3**
DL2				PP	PP	18 16 10.3	-0.3
DL2				S	**S**	**18 21 05.5**	**+1.3**
DL2				pmax	pmax		
	comp=Z,400nm,1.2s,mb6.2						
DL2				pmax	pmax		
	comp=Z,4µm,3.4s						
DL2				LR	LR		
	comp=N,24µm,16.7s						
DL2				LR	LR		
	comp=Z,22µm,20.6s,MS6.1						
INCN	**Inchon**	**46.79**	**29**	*e*P	**P**	**18 14 30.0**	**-1.5**
	comp=Z,218nm,0.9s,mb6.1						
INCN				LR	LR		
	comp=Z,31µm,20.0s,MS6.3						
INCN	**Inchon**	**46.79**	**29**	P	**P**	**18 14 31.6**	**0.0**
	SNR=20						
INCN				P		18 14 31.6	
	SNR=20						
RER	**Riviere de l'E**	**46.82**	**243**	P	**P**	**18 14 33.5**	**+1.5**
	comp=Z,101nm,1.2s,mb5.6						
RER				LR	LR		
	comp=Z,27µm,20.0s,MS6.2						
WBK	**Wadi Bani Khal**	**46.99**	**304**	P	**P**	**18 14 35.1**	**+1.8**
	SNR=16						
KSH	**Kashi**	**47.12**	**335**	P	**P**	**18 14 32.5**	**-1.5**
KSH				*e*pP	pP	18 14 41.5	-2.4
KSH				sP	sP	18 14 46.0	-1.9
KSH				*e*PcP	PcP	18 16 07.3	+1.8
KSH				*e*PP	PP	18 16 21.0	-4.2
KSH				*e*ScP	ScP	18 19 56.3	-0.9
KSH				*e*PcS	PcS	18 20 00.5	-0.1
KSH				S	**S**	**18 21 18.5**	**-5.7**
KSH				*e*ScS	ScS	18 24 22.5	-3.4
KSH				pmax	pmax		
	comp=Z,2µm,3.5s						
KSH				LR	LR		
	comp=N,54µm,26.1s						
KSH				LR	LR		
	comp=E,47µm,19.8s						
KSH				LR	LR		
	comp=Z,56µm,20.1s						
WMQ	**Urumqi**	**47.27**	**348⇑**	*i*P	**P**	**18 14 36.0**	**+0.8**
WMQ				pP	pP	18 14 46.0	+0.9
WMQ				sP	sP	18 14 50.0	+1.0
WMQ				PcP	PcP	18 16 06.0	0.0
WMQ				PP	PP	18 16 27.0	+0.5
WMQ				S	**S**	**18 21 27.0**	**+0.7**
WMQ				sS	sS	18 21 43.0	+0.4
WMQ				ScS	ScS	18 24 24.0	-2.8
WMQ				pmax	pmax		
	comp=Z,980nm,0.9s,mb6.7						
WMQ				pmax	pmax		
	comp=Z,4µm,4.0s						
WMQ				LR	LR		
	comp=N,56µm,21.0s,MS6.7						
WMQ				LR	LR		
	comp=E,64µm,20.0s,MS6.7						
WMQ				LR	LR		
	comp=Z,69µm,27.0s						
GUMO	**Guam**	**47.37**	**69**	*e*P	**P**	**18 14 33.3**	**-3.1**
GUMO				pmax	pmax		
	comp=Z,426nm,1.2s,mb6.2						
GUMO				MLR	MLR		
	comp=Z,21µm,22.0s,MS6.0						
GUMO	**Guam**	**47.37**	**69**	*e*P	**P**	**18 14 33.3**	**-3.1**
	comp=Z,426nm,1.2s,mb6.2						
GUMO				LR	LR		
	comp=Z,21µm,22.0s,MS6.0						
KSRS	**Korea Array**	**47.41**	**31**	P	**P**	**18 14 35.9**	**-0.5**
	comp=Z,503nm,1.0s,mb6.4,baz=223,slow=8.2,SNR=286						
KSRS				S	**S**	**18 21 32.8**	**+4.3**
	comp=Z,1.1nm,0.9s,baz=62,slow=45,SNR=2.1						
KSRS				LR	LR	18 34 36.0	
	comp=Z,26µm,21.1s,MS6.2,baz=328,slow=36						
JMDO	**Jabal Madar**	**47.60**	**303**	P	**P**	**18 14 39.5**	**+1.4**
	SNR=9.9						
SMDO	**Samad**	**47.95**	**304**	P	**P**	**18 14 42.4**	**+1.6**
	SNR=19						
BIDO	**Bidbid**	**48.09**	**305**	P	**P**	**18 14 43.2**	**+1.3**
	SNR=16						
BSY	**Bisya**	**48.52**	**303**	P	**P**	**18 14 46.6**	**+1.4**
	SNR=39						
CTA	**Charters Tower**	**48.56**	**115**	*e*P	**P**	**18 14 44.5**	**-1.1**
	comp=Z,368nm,0.9s,mb6.4						
CTA				*e*S	**S**	**18 21 42.6**	**-2.7**
CTA	**Charters Tower**	**48.56**	**115**	S	**S**	**18 21 52.1**	**+6.8**
	comp=Z,7.1nm,1.0s,baz=261,slow=23,SNR=4.0						
CTAO	**Charters Tower**	**48.56**	**115**	*e*P	**P**	**18 14 44.2**	**-1.4**
CTAO				pmax	pmax		
	comp=Z,561nm,1.0s,mb6.5						
CTAO				MLR	MLR		
	comp=Z,61µm,22.0s,MS6.5						
CTAO	**Charters Tower**	**48.56**	**115**	*e*P	**P**	**18 14 44.2**	**-1.4**
	comp=Z,561nm,1.0s,mb6.5						
CTAO				LR	LR		
	comp=Z,61µm,22.0s,MS6.5						
CTAO	**Charters Tower**	**48.56**	**115**	P	**P**	**18 14 44.9**	**-0.7**
	comp=Z,646nm,1.1s,comp=Z,9µm,mb6.6						
HOQ	**Hoqain**	**48.79**	**304**	P	**P**	**18 14 48.7**	**+1.4**
	SNR=21						
SNY	**Shenyang**	**48.98**	**23**	⇑P	**P**	**18 14 47.3**	**-1.1**
SNY				pP	pP	18 14 55.3	-3.0
SNY				PP	PP	18 16 42.3	+0.1
SNY				S	**S**	**18 21 53.5**	**+2.9**
SNY				pmax	pmax		

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      comp=Z,300nm,1.2s,mb6.2
SNY                             pmax     pmax
      comp=Z,6µm,7.7s
SNY                             LR       LR
      comp=N,15µm,18.0s,MS6.5
SNY                             LR       LR
      comp=E,41µm,15.3s,MS6.5
SNY                             LR       LR
      comp=Z,44µm,14.9s,MS6.6
STKA  Stephens Creek    49.00 131 eP     P        18 14 48.6  -0.2
      comp=Z,186nm,0.9s,mb6.1
STKA                            eS       S        18 21 51.2   0.0
STKA  Stephens Creek    49.00 131  P     P        18 14 48.7  -0.1
      comp=Z,218nm,0.9s,mb6.2,baz=305,slow=7.8,SNR=233
STKA                            S        S        18 22 00.8  +10
      comp=Z,18nm,1.0s,baz=316,slow=21,SNR=5.0
STKA                            LR       LR       18 36 50.1
      comp=Z,105µm,21.7s,MS6.8,baz=295,slow=38
STKA                            PKP2bc            18 46 11.2
      comp=Z,4.1nm,1.1s,baz=51,slow=3.3,SNR=3.5
STKA  Stephens Creek    49.00 131  P     P        18 14 48.7  -0.1
STKA                            S        S        18 22 00.8  +10
STKA                            LR       LR       18 36 50.1
STKA                          ⇑e                  18 46 11.2
RBK   Rabkut            49.15 296  P     P        18 14 52.5  +2.4
      SNR=30
ULHL  Ulahol            49.30 337  P     P        18 14 51.9  +1.1
      SNR=28
ARQ   Araqi             49.33 304  P     P        18 14 52.7  +1.2
      SNR=20
KZA   Kyzart            49.56 336  P     P        18 14 53.4  +0.6
      SNR=131
WHFO  Wadi Hawf         49.68 296  P     P        18 14 55.0  +0.9
      SNR=46
AAA   Alma-Ata          49.91 338 eP     P        18 14 56.5  +1.0
AAA                             eS       S        18 22 06.1  +2.6
AAA                             pmax     pmax
      comp=Z,11µm,8.9s
AAA                             smax
      comp=E,16µm,7.7s
AAA                             MLR      MLR
      comp=Z,22µm,20.0s,MS6.2
ABTO  Aybut             49.92 295  P     P        18 14 58.2  +2.2
      SNR=29
UCH   Uchtor            49.98 335  P     P        18 14 56.9  +0.9
      SNR=112
UCH   Uchtor            49.98 335 eP     P        18 14 56.8  +0.8
      comp=Z,470nm,1.2s,mb6.4
UCH                             LR       LR
      comp=Z,39µm,22.0s,MS6.4
TKM2  Tokmak 2          50.12 337 eP     P        18 14 57.6  +0.5
TKM2                            pmax     pmax
      comp=Z,922nm,0.9s,mb6.8
TKM2                            MLR      MLR
      comp=Z,34µm,20.0s,MS6.3
TKM2  Tokmak 2          50.12 337  P     P        18 14 57.7  +0.6
      SNR=187
TKM2  Tokmak 2          50.12 337 eP     P        18 14 57.6  +0.5
      comp=Z,922nm,0.9s,mb6.8
TKM2                            LR       LR
      comp=Z,34µm,20.0s,MS6.3
KBK   Karagaybulak      50.16 336  P     P        18 14 58.5  +1.1
      SNR=167
CBIJ  Chichi jima       50.22  51  LR    LR       18 36 07.5
      comp=Z,18µm,20.8s,MS6.0,baz=229,slow=36
AML   Almayashu         50.25 335  P     P        18 14 58.9  +0.8
      SNR=150
AML   Almayashu         50.25 335  PFAKE          18 15 10.0  +12
AML                             LR       LR
      comp=Z,17µm,22.0s,MS6.0
HATD  Hatta, Dubai      50.30 305  P     P        18 15 00.3  +1.5
      SNR=29
AAK   Ala-Archa         50.33 336  P     P        18 14 59.7  +1.0
      comp=Z,1µm,1.1s,mb6.9,SNR=48
AAK   Ala-Archa         50.33 336c iP    P        18 14 59.3  +0.6
AAK                             pmax     pmax
      comp=Z,184nm,2.5s,mb5.7
AAK                             MLR      MLR
      comp=Z,24µm,21.0s,MS6.2
AAK   Ala-Archa         50.33 336  P     P        18 14 59.4  +0.8
      SNR=64
AAK   Ala-Archa         50.33 336⇑iP     P        18 14 59.4  +0.7
AAK                             LR       LR
      comp=Z,46µm,21.0s,MS6.5
AAK   Ala-Archa         50.33 336  P     P        18 14 59.7  +1.1
      SNR=200
AAK                             P                 18 14 59.7
      SNR=200
AAK   Ala-Archa         50.33 336  P     P        18 14 59.4  +0.7
      comp=Z,80nm,1.4s,comp=Z,2µm,mb5.5
SONM  Songino Array     50.33   6  P     P        18 14 59.1  +0.6
      comp=Z,987nm,1.0s,mb6.8,baz=188,slow=8.1,SNR=648
ULN   Ulaanbaatar       50.43   6⇑iP     P        18 14 59.9  +0.6
ULN                             LR       LR
      comp=Z,70µm,21.0s,MS6.7
ULN   Ulaanbaatar       50.43   6  P     P        18 15 00.0  +0.7
      SNR=449
ULN                             P                 18 15 00.0
      SNR=449
ULN   Ulaanbaatar       50.43   6  P     P        18 14 59.4  +0.1
      comp=Z,753nm,1.0s,mb6.7
CHMS  Chumysh           50.53 336  P     P        18 15 00.4  +0.2
      SNR=55
EKS2  Erkin-Say         50.65 335  P     P        18 15 01.9  +0.9
      SNR=147
EKS2  Erkin-Say         50.65 335 eP     P        18 15 01.7  +0.6
      comp=Z,446nm,1.3s,mb6.2
EKS2                            LR       LR
      comp=Z,31µm,21.0s,MS6.3
BANOM Banah             50.65 307 ⇑P     P        18 15 02.5  +1.1
      SNR=12
FAQ   Al Faqa, Dubai    50.70 305  P     P        18 15 03.2  +1.4
      SNR=30
NAZ   Nazwa, Dubai      50.75 305  P     P        18 15 03.4  +1.2
      SNR=23
USP   Ospenovka         50.85 336  P     P        18 15 02.8  +0.2
      SNR=300
MKAR  Makanchi Array    51.36 345  P     P        18 15 06.4  +0.1
MKAR                            S        S        18 22 27.9  +4.5
MKAR  Makanchi Array    51.36 345  P     P        18 15 06.3   0.0
      comp=Z,103nm,0.5s,mb6.0,baz=149,slow=7.6,SNR=941
MKAR                            S        S        18 22 27.9  +4.5
      comp=Z,16nm,1.1s,baz=166,slow=15,SNR=5.0
MKAR                            LR       LR       18 41 55.5
      comp=Z,13µm,18.6s,MS6.0,baz=163,slow=42
MKAR                            PKP2bc            18 45 55.6
      comp=Z,6.1nm,1.3s,baz=321,slow=1.7,SNR=6.3
MKAR  Makanchi Array    51.36 345  P     P        18 15 06.3   0.0
MKAR                            S        S        18 22 27.9  +4.5
MKAR                            LR       LR       18 41 55.5
MKAR                          ⇑e                  18 45 55.6
CN2   Changchun         51.39  24 ⇑P     P        18 15 05.8  -0.8
CN2                             epP      pP       18 15 16.0  -0.6
CN2                             PcP      PcP      18 16 20.0  -1.0
CN2                             eS       S        18 22 23.5  -0.5
CN2                             SS       SS       18 26 01.0  +0.8
CN2                             LR       LR
      comp=N,45µm,17.0s,MS6.6
CN2                             LR       LR
      comp=E,24µm,17.0s,MS6.6
CN2                             LR       LR
      comp=Z,49µm,18.0s,MS6.6
ZAK   Zakamensk         52.64   3 eP     P        18 15 15.6  -0.2
ZAK                             pmax     pmax
      comp=Z,228nm,1.2s,mb6.0
MAJO  Matsushiro        52.65  39 eP     P        18 15 14.5  -1.7
MAJO                            pmax     pmax
      comp=Z,303nm,1.0s,mb6.2
MAJO                            MLR      MLR
      comp=Z,21µm,20.0s,MS6.2
MAJO  Matsushiro        52.65  39 eP     P        18 15 14.5  -1.7
      comp=Z,303nm,1.0s,mb6.2
MAJO                            LR       LR
      comp=Z,21µm,20.0s,MS6.2
MAT   Matsushiro        52.65  39  P     P        18 15 14.7  -1.5
MAT                             S        S        18 22 50.0  +8.4
MJAR  Matsushiro Arr    52.65  39  P     P        18 15 14.8  -1.4
      comp=Z,322nm,1.0s,mb6.2,baz=222,slow=7.2,SNR=231
PAF   Port-aux-Franc    53.20 204  PFAKE          18 15 30.0  +10
PAF                             LR       LR
      comp=Z,63µm,20.0s,MS6.7
MDJ   Mudanjiang        53.79  26  P     P        18 15 25.3  +0.9
MDJ                             pP       pP       18 15 34.3  -0.1
MDJ                             sP       sP       18 15 38.0  -0.3
MDJ                             PP       PP       18 17 26.0  +0.3
MDJ                             S        S        18 22 56.8   0.0
MDJ                             ScS      ScS      18 25 08.8  -2.5
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MDJ                             SS       SS       18 26 40.0  +1.8
MDJ                             pmax     pmax
      comp=Z,490nm,1.1s,mb6.3
MDJ                             pmax     pmax
      comp=Z,3µm,3.9s
MDJ                             LR       LR
      comp=N,54µm,21.7s,MS6.7
MDJ                             LR       LR
      comp=E,43µm,17.7s,MS6.7
MDJ                             LR       LR
      comp=Z,54µm,21.7s,MS6.6
MDJ   Mudanjiang        53.79  26 eP     P        18 15 23.8  -0.6
      comp=Z,417nm,1.0s,mb6.3
MDJ                             LR       LR
      comp=Z,59µm,22.0s,MS6.6
MOY   Mondy             53.85   1 eP     P        18 15 24.6  -0.1
MOY                             pmax     pmax
      comp=Z,539nm,2.4s,mb6.0
TLY   Talaya            53.95   3  P     P        18 15 26.1  +0.7
      comp=Z,1µm,1.2s,mb6.7
TLY   Talaya            53.95   3c iP    P        18 15 25.9  +0.5
TLY                             e                 18 17 22.7
TLY                             eS       S        18 22 57.6  -1.1
TLY                             ePS               18 23 07.3
TLY                             eSS      SS       18 26 43.5  +3.0
TLY                             pmax     pmax
      comp=Z,270nm,1.1s,mb6.1
TLY                             MLR      MLR
      comp=Z,38µm,16.0s,MS6.5
TLY   Talaya            53.95   3  P     P        18 15 26.1  +0.6
      SNR=154
TLY                             P                 18 15 26.1
      SNR=154
HIA   Hailar            54.24  16 eP     P        18 15 26.5  -1.1
HIA                             pmax     pmax
      comp=Z,492nm,1.1s
HIA                             MLR      MLR
      comp=Z,57µm,19.0s
HIA   Hailar            54.24  16 eP     P        18 15 26.5  -1.1
      comp=Z,492nm,1.1s,mb6.3
HIA                             LR       LR
      comp=Z,57µm,19.0s,MS6.7
EIDS  Eidsvold          54.28 120 eP     P        18 15 26.4  -2.0
      comp=Z,275nm,1.1s,mb6.1
IRK   Irkutsk           54.55   3⇓iP     P        18 15 31.2  +1.4
IRK                             eS       S        18 23 09.2  +2.5
IRK                             pmax     pmax
      comp=Z,683nm,1.8s,mb6.4
CIT   Chita             55.43  10 eP     P        18 15 36.9  +0.8
CIT                             e                 18 23 23.3
CIT                             pmax     pmax
      comp=Z,2µm,2.6s,mb6.7
ABKT  Ailbek            55.65 320  P     P        18 15 37.9  -0.1
      comp=Z,1µm,0.8s,mb7.0,SNR=18
KURK  Kurchatov         55.93 344  P     P        18 15 39.5  -0.3
      comp=Z,4µm,0.8s,mb7.5,SNR=50
KURK  Kurchatov         55.93 344  LR    LR       18 45 09.3
      comp=Z,17µm,19.6s,MS6.2,baz=180,slow=42
KURK                            PKPPKP            18 45 39.8
      comp=Z,2.2nm,1.0s,baz=352,slow=2.5,SNR=5.6
KURK  Kurchatov         55.93 344⇑iP     P        18 15 39.6  -0.2
KURK                            LR       LR
      comp=Z,21µm,20.0s,MS6.2
KURK  Kurchatov         55.93 344 ⇑P     P        18 15 41.5  +1.7
      SNR=225
KURK                           ⇑P                 18 15 41.5
      SNR=225
CAN   Canberra          56.06 132 eP     P        18 15 41.2  +0.2
CAN                             pmax     pmax
      comp=Z,212nm,1.1s,mb6.1
CAN                             MLR      MLR
      comp=Z,88µm,21.0s,MS6.8
CAN   Canberra          56.06 132 eP     P        18 15 41.2  +0.2
      comp=Z,212nm,1.1s,mb6.1
CAN                             LR       LR
      comp=Z,88µm,21.0s,MS6.8
ARMA  Armidale          56.29 125 eP     P        18 15 43.7  +0.9
ARMA                            eS       S        18 23 34.8  +3.9
ARMA  Armidale          56.29 125 eP     P        18 15 44.2  +1.4
      comp=Z,514nm,1.6s,mb6.3
CNB   Canberra Magne    56.33 132 eP     P        18 15 43.1  +0.1
CNB                             eS       S        18 23 28.4  -2.8
RIV   Riverview         57.12 129 eP     P        18 15 49.6  +1.0
TRBA  At Turbah         57.44 287 eP     pP       18 16 01.0  -0.3
DHBB  Dhamar BB         57.45 289 eP     pP       18 16 01.6  +0.2
ZALV  Zalesovo Beam     57.51 350  P     P        18 15 50.5  -0.4
ZALV                            S        S        18 23 47.2  +1.1
ZALV  Zalesovo Beam     57.51 350  P     P        18 15 50.5  -0.4
      comp=Z,864nm,1.1s,mb6.7,baz=163,slow=5.7,SNR=264
ZALV                            S        S        18 23 47.2  +1.0
      comp=Z,7.6nm,0.8s,baz=130,slow=8.0,SNR=4.2
ZALV                            PKPPKP            18 45 40.2
      comp=Z,1.6nm,0.8s,baz=300,slow=3.3,SNR=7.6
ZALV  Zalesovo Beam     57.51 350  P     P        18 15 50.5  -0.4
ZALV                            S        S        18 23 47.2  +1.0
ZALV                            P'P'              18 45 40.2
MOO   Moorlands         58.06 140 eP     P        18 15 57.1  +2.1
MOO                             eS       S        18 23 55.4  +1.7
KLR   Kul'dur           58.33  24⇓iP     P        18 15 51.9  -4.9
KLR                             eS       S        18 23 53.0  -4.0
KLR                             eSS      SS       18 27 47.0  -2.6
KLR                             pmax     pmax
      comp=E,470nm,1.2s
KLR                             pmax     pmax
      comp=Z,1µm,1.2s,mb6.9
KLR                             pmax     pmax
      comp=N,2µm,7.5s
KLR                             pmax     pmax
      comp=E,2µm,7.5s
KLR                             pmax     pmax
      comp=Z,7µm,7.5s
TAU   Tasmania Unive    58.38 141 eP     P        18 15 58.7  +1.5
TAU                             pmax     pmax
      comp=Z,161nm,1.1s,mb6.0
TAU                             MLR      MLR
      comp=Z,34µm,20.0s,MS6.5
TAU   Tasmania Unive    58.38 141 eP     P        18 15 58.7  +1.5
      comp=Z,161nm,1.1s,mb6.0
TAU                             LR       LR
      comp=Z,34µm,20.0s,MS6.5
NVS   Novosibirsk       58.66 349⇑iP     P        18 15 58.0  -0.9
NVS                             eS       S        18 24 00.0  -1.1
NVS                             pmax     pmax
      comp=Z,501nm,1.1s,mb6.5
NVS                             pmax     pmax
      comp=N,346nm,1.3s
NVS                             pmax     pmax
      comp=E,215nm,1.1s
NVS                             smax
      comp=E,753nm,3.1s
ERM   Erimo             59.04  37  P     P        18 16 01.4  -0.5
      comp=E,938nm,0.8s,mb6.9,SNR=7.3
ERM   Erimo             59.04  37 eP     P        18 16 01.8  -0.1
ERM                             pmax     pmax
      comp=Z,132nm,0.8s,mb6.0
ERM                             MLR      MLR
      comp=Z,16µm,20.0s,MS6.1
ERM   Erimo             59.04  37 eP     P        18 16 01.8  -0.1
      comp=Z,132nm,0.8s,mb6.0
ERM                             LR       LR
      comp=Z,16µm,20.0s,MS6.1
HABR  Khabarovsk        59.16  27d iP    P        18 16 00.0  -2.6
HABR                            e*PP     pP       18 16 10.6  -2.1
HABR                            e*SP     sP       18 16 14.5  -2.1
HABR                            e                 18 16 48.3
HABR                            e                 18 18 11.4
HABR                            eS       S        18 24 05.6  -2.2
HABR                            e*SS     sS       18 24 23.3  -1.2
HABR                                              18 25 47.0
HABR                            eSS      SS       18 28 01.2  -1.4
HABR                            pmax     pmax
      comp=Z,551nm,1.1s,mb6.5
HABR                            pmax     pmax
      comp=N,185nm,1.2s
HABR                            pmax     pmax
      comp=E,275nm,1.3s
HABR                            pmax     pmax
      comp=Z,2µm,2.8s,mb6.7
HABR                            MLR      MLR
      comp=N,20µm,20.0s,MS6.4
HABR                            MLR      MLR
      comp=Z,32µm,20.0s,MS6.4
HABR                            MLR      MLR
      comp=E,17µm,16.0s,MS6.4
ASAJ  Asahikawa         60.00  34  LR    LR       18 43 20.4
      comp=E,13µm,19.5s,MS6.1,baz=74,slow=37
```

```
HNR   Honiara           60.11  99 eP     P        18 16 08.3  -1.5
HNR                             pmax     pmax
      comp=Z,841nm,1.0s,mb6.7
HNR                             MLR      MLR
      comp=Z,20µm,20.0s,MS6.2
HNR   Honiara           60.11  99 eP     P        18 16 08.3  -1.4
      comp=Z,841nm,1.0s,mb6.7
HNR                             LR       LR
      comp=Z,20µm,20.0s,MS6.2
BRVK  Borovoye          60.55 340  P     P        18 16 11.8  -0.2
      comp=Z,1µm,1.1s,mb7.0,SNR=60
BRVK  Borovoye          60.55 340⇑iP     P        18 16 11.0  -1.0
BRVK                            LR       LR
      comp=Z,20µm,22.0s,MS6.2
BRVK  Borovoye          60.55 340 ⇑P     P        18 16 13.4  +1.4
      SNR=115
BRVK                           ⇑P                 18 16 13.4
      SNR=115
BOD   Bodaibo           61.08   9 eP     P        18 16 14.9  -0.6
BOD                             pmax     pmax
      comp=Z,371nm,1.8s,mb6.2
DESE  Dese              61.38 284 eP     P        18 16 21.9  +3.5
DESE                            S        S        18 24 28.1  -9.4
YUK   Yuzh-Kuril'sk     61.83  36⇓iP     P        18 16 21.5  +0.6
YUK                             eSP               18 16 37.5
YUK                             e                 18 18 37.0
YUK                             eS       S        18 24 44.5  +2.3
YUK                             ePS               18 24 59.0
YUK                             e                 18 26 03.0
YUK                             eSS      SS       18 28 38.0  -6.7
YUK                             pmax     pmax
      comp=Z,15µm,7.0s
YUK                             pmax     pmax
      comp=N,5µm,67.0s
YUK                             pmax     pmax
      comp=E,5µm,7.0s
YUK                             smax
      comp=E,5µm,6.0s
YUK                             smax
      comp=N,3µm,13.0s
YUK                             MLR      MLR
      comp=N,15µm,18.0s,MS6.3
YUK                             MLR      MLR
      comp=E,12µm,18.0s,MS6.3
YSS   Yuzh-Sakhalins    61.87  32α iP    P        18 16 20.2  -0.9
YSS                             e*PP     pP       18 16 28.0  -3.3
YSS                             i *SP    sP       18 16 34.0  -1.2
YSS                             e                 18 18 39.0
YSS                             eS       S        18 24 38.0  -4.6
YSS                             ePS               18 24 52.0
YSS                             ePPS              18 25 04.0
YSS                             eSS      SS       18 28 43.0  -2.3
YSS                             pmax     pmax
      comp=Z,1µm,1.2s,mb6.9
YSS                             pmax     pmax
      comp=Z,3µm,6.0s
YSS   Yuzh-Sakhalins    61.87  32⇑iP     P        18 16 20.7  -0.4
FURI  Furi              62.00 281 eP     P        18 16 25.6  +3.0
FURI                            S        S        18 24 43.8  -1.5
NRGR  Nerungri          62.21  15 i P    P        18 16 24.6  +1.4
NRGR                            S        S        18 24 47.6  +1.1
NRGR                            smax
      comp=N,103nm,0.9s
CLNS  Chul'man          62.41  15c iP    P        18 16 24.0  -0.5
CLNS                            e*PP     pP       18 16 33.0  -1.7
CLNS                            e                 18 17 01.5
CLNS                            e                 18 18 37.7
CLNS                            ePPP              18 20 07.8
CLNS                            eS       S        18 24 49.6  +0.6
CLNS                            pmax     pmax
      comp=Z,335nm,0.9s,mb6.5
CLNS                            pmax     pmax
      comp=N,191nm,1.0s
CLNS                            pmax     pmax
      comp=E,163nm,1.1s
CLNS                            pmax     pmax
      comp=Z,46nm,1.3s,mb5.5
CLNS                            pmax     pmax
      comp=N,77nm,1.3s
CLNS                            pmax     pmax
      comp=E,52nm,1.0s
CLNS                            smax
      comp=N,3µm,15.8s
CLNS                            smax
      comp=E,1µm,14.3s
CLNS                            MLR      MLR
      comp=Z,49µm,17.0s,MS6.7
CLNS                            MLR      MLR
      comp=N,35µm,16.0s,MS6.7
CLNS                            MLR      MLR
      comp=E,30µm,17.0s,MS6.7
KMBO  Kilima Mbogo      62.59 270  P     P        18 16 28.5  +1.9
KMBO                            S        S        18 24 56.7  +3.8
KMBO  Kilima Mbogo      62.59 270  P     P        18 16 28.5  +1.9
      comp=E,12nm,0.9s,mb5.0,baz=63,slow=9.1,SNR=17
KMBO                            S        S        18 24 56.6  +3.8
      comp=E,1.8nm,0.5s,baz=42,slow=21,SNR=4.7
KMBO                            LR       LR       18 39 20.8
      comp=E,30µm,20.3s,MS6.5,baz=82,slow=32
MIR   Mirnyy            64.23 183deP     sP       18 16 54.0  +3.5
MIR                             i S      S        18 25 16.0  +4.6
MIR                             i PS              18 25 40.0
MIR                             pmax     pmax
      comp=Z,500nm,1.2s,mb6.4
MIR                             pmax     pmax
      comp=Z,5µm,7.0s
MAK   Makhachkala       65.17 320c iP    P        18 16 43.1  +0.1
MAK                             i                 18 17 10.2
MAK                             i                 18 19 11.4
MAK                             i PPP             18 20 48.5
MAK                             i S      S        18 25 22.4  -1.4
MAK                             eSS      SS       18 29 40.7  +3.8
MAK                             pmax     pmax
      comp=Z,353nm,1.7s,mb6.1
MAK                             pmax     pmax
      comp=N,194nm,1.0s
MAK                             pmax     pmax
      comp=E,318nm,1.9s
MAK                             pmax     pmax
      comp=Z,2µm,3.6s
MAK                             pmax     pmax
      comp=N,1µm,2.1s
MAK                             pmax     pmax
      comp=E,1µm,2.8s
MAK                             smax
      comp=Z,2µm,5.2s
MAK                             smax
      comp=N,6µm,7.3s
MAK                             smax
      comp=E,5µm,10.8s
MAK                             MLR      MLR
      comp=Z,10µm,19.0s,MS6.0
MAK                             MLR      MLR
      comp=N,1µm,12.0s
MAK                             MLR      MLR
      comp=E,7µm,22.0s
GNI   Garni             65.70 316⇑iP     P        18 16 46.2  -0.3
GNI                             MLR      MLR
      comp=Z,10µm,22.0s
GNI   Garni             65.70 316  P     P        18 16 48.2  +1.7
      SNR=38
GNI                             P                 18 16 48.2
      SNR=38
DYDN  Diyadin           66.18 315 i P    P        18 16 49.6   0.0
MTA   Mtatsminda        66.35 318  P     P        18 16 50.9  +0.2
MTA                             S        S        18 25 38.2  -0.1
TBLG  Delisi            66.41 318  P     P        18 16 51.9  +1.0
TBLG                            S        S        18 25 38.5  -0.5
GOR   Gori              66.94 318  P     P        18 16 51.5  -2.9
GOR                             S        S        18 25 46.6  +1.2
SVE   Sverdlovsk        66.98 338⇓eP     P        18 16 54.0  -0.3
SVE                             ePPP              18 21 04.7
SVE                             eS       S        18 25 44.9  -0.4
SVE                             eSS      SS       18 29 57.0  -7.5
SVE                             eSSS              18 33 01.5
SVE                             pmax     pmax
      comp=Z,963nm,1.1s,mb6.7
SVE                             pmax     pmax
      comp=Z,3µm,16.2s
SVE                             MLR      MLR
      comp=Z,21µm,21.0s,MS6.3
BEST  Besiri            67.25 313 i P    P        18 16 56.8  +0.4
NOUC  Port Laguerre     67.31 113 eP     P        18 16 58.4  +1.2
MARD  Mardin            67.40 312 i P    P        18 16 53.7  -3.6
DZM   Mont Dzumac       67.43 113 eP     P        18 16 57.6  -0.3
```

DZM	**Mont Dzumac**	**67.43**	**113**	*e*P	**P**	**18 16 58.5**	**+0.6**
	comp=Z,361nm,1.4s,mb6.2						
DZM	**Mont Dzumac**	**67.43**	**113**	*e*PP	PP	18 19 27.9	+1.0
	comp=Z,2µm,27.2s						
DZM				*e*S	S	18 25 54.4	+2.3
	comp=Z,29µm,27.0s						
DZM				*e*SS	SS	18 30 20.1	+7.3
	comp=Z,10µm,24.5s						
DZM				*e*LR	LR	18 37 36.1	
	comp=Z,61µm,23.3s						
ARU	**Arti**	**67.50**	**337**	P	**P**	**18 16 56.4**	**-1.2**
	comp=Z,2µm,1.1s,mb7.0,SNR=54						
ARU	**Arti**	**67.50**	**337**	*c i*P	**P**	**18 16 56.5**	**-1.1**
ARU				*e*		18 17 25.2	
ARU				*e*		18 19 21.2	
ARU				*e*PPP		18 21 06.2	
ARU				*e*S	S	18 25 51.5	-0.1
ARU				SS	SS	18 30 04.6	-7.9
ARU				pmax	pmax		
	comp=Z,317nm,1.7s,mb6.1						
ARU				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.4						
ARU	**Arti**	**67.50**	**337**	⇑*i*P	**P**	**18 16 56.6**	**-1.0**
ARU				LR	LR		
	comp=Z,23µm,20.0s,MS6.4						
ONI	**Oni**	**67.64**	**318**	P	**P**	**18 16 58.0**	**-0.8**
ONI				S	S	18 25 55.1	+1.3
ERZM	**Erzurum**	**67.96**	**315**	*e*P	**P**	**18 17 02.5**	**+1.6**
YAK	**Yakutsk**	**68.14**	**15**	*c i*P	**P**	**18 17 01.1**	**-0.4**
YAK				*e**PP	pP	18 17 11.5	-0.3
YAK				*e*		18 17 26.3	
YAK				*e*		18 19 31.1	
YAK				*e*PPP		18 21 08.5	
YAK				*e*S	S	18 25 57.5	-1.6
YAK				*e*		18 26 54.7	
YAK				*e*SS	SS	18 30 26.5	+4.3
YAK				pmax	pmax		
	comp=Z,950nm,1.0s,mb6.8						
YAK				pmax	pmax		
	comp=N,410nm,1.3s						
YAK				pmax	pmax		
	comp=E,279nm,1.2s						
YAK				pmax	pmax		
	comp=Z,104nm,1.5s,mb5.6						
YAK				pmax	pmax		
	comp=N,192nm,1.9s						
YAK				pmax	pmax		
	comp=E,299nm,2.2s						
YAK				smax			
	comp=N,552nm,3.8s						
YAK				smax			
	comp=E,626nm,3.4s						
YAK				MLR	MLR		
	comp=Z,42µm,17.0s,MS6.7						
YAK				MLR	MLR		
	comp=N,23µm,17.0s,MS6.6						
YAK				MLR	MLR		
	comp=E,17µm,17.0s,MS6.6						
YAK	**Yakutsk**	**68.14**	**15**	⇑*i*P	**P**	**18 17 00.1**	**-1.4**
KOPT	**Kop Dagi**	**68.62**	**315**	*i* P	**P**	**18 17 03.6**	**-1.4**
KIV	**Kislovodsk**	**68.74**	**319**	P	**P**	**18 17 06.2**	**+0.5**
	comp=E,1µm,1.0s,mb6.9,SNR=32						
KIV	**Kislovodsk**	**68.74**	**319**	*i* P	**P**	**18 17 05.4**	**-0.3**
KIV				pmax	pmax		
	comp=Z,264nm,1.0s,mb6.1						
KIV	**Kislovodsk**	**68.74**	**319**	P	**P**	**18 17 05.8**	**+0.1**
	SNR=76						
KIV				P		18 17 05.8	
	SNR=76						
WAKE	**Wake Island**	**69.00**	**68**	*e*P	**P**	**18 17 06.7**	**-1.1**
	comp=Z,197nm,1.0s,mb6.0						
WAKE				LR	LR		
	comp=Z,10µm,22.0s,MS6.0						
MBAR	**Mbarara**	**69.12**	**270**	*i* P	**P**	**18 17 08.5**	**-0.2**
MBAR				LR	LR		
	comp=Z,841nm,22.0s,MS4.9						
MBAR	**Mbarara**	**69.12**	**270**	*e*P	**P**	**18 17 09.1**	**+0.4**
MBAR				AMS	AMS	18 44 29.4	
	comp=Z,21µm,19.4s,MS6.4						
ELZG	**Elazig**	**69.15**	**313**	*i* P	**P**	**18 17 08.0**	**-0.4**
ATAB	**Bozova**	**69.30**	**312**	*i* P	**P**	**18 17 09.3**	**0.0**
MACK	**Trabzon**	**69.49**	**315**	*i* P	**P**	**18 17 10.5**	**+0.1**
MALT	**Malatya**	**69.49**	**312**	*e*P	**P**	**18 17 10.6**	**+0.1**
MALT				pmax	pmax		
	comp=Z,385nm,1.4s,mb6.1						
MALT				MLR	MLR		
	comp=Z,14µm,20.0s,MS6.2						
MALT	**Malatya**	**69.49**	**312**	⇑*i*P	**P**	**18 17 11.2**	**+0.7**
MALT	**Malatya**	**69.49**	**312**	*e*P	**P**	**18 17 10.6**	**+0.1**
	comp=Z,385nm,1.4s,mb6.1						
MALT				LR	LR		
	comp=Z,14µm,20.0s,MS6.2						
MALT	**Malatya**	**69.49**	**312**	P	**P**	**18 17 10.6**	**+0.1**
	comp=Z,224nm,1.6s,mb5.9						
POGA	**Pongola**	**69.63**	**242**	*e*P	**P**	**18 17 11.8**	**+0.2**
POGA				AMS	AMS	18 44 39.6	
	comp=Z,28µm,18.2s,MS6.5						
KEMA	**Kemaliye**	**69.78**	**313**	*i* P	**P**	**18 17 11.2**	**-1.0**
GZT	**Gaziantep**	**69.81**	**311**	*i* P	**P**	**18 17 13.2**	**+0.8**
AKCD	**Akcadag**	**69.86**	**312**	*i* P	**P**	**18 17 12.3**	**-0.4**
MAW	**Mawson**	**69.89**	**194**	*e*P	**P**	**18 17 18.5**	**+6.2**
	comp=Z,60nm,1.0s,mb5.5						
MAW				*e*S	S	18 26 22.1	+2.5
MAW	**Mawson**	**69.89**	**194**	P	**P**	**18 17 14.0**	**+1.7**
	comp=Z,24nm,0.9s,mb5.1,baz=76,slow=19,SNR=2.8						
MAW				LR	LR	18 41 05.7	
	comp=Z,40µm,21.7s,MS6.6,baz=34,slow=30						
KUZU	**Kuzuini**	**69.99**	**311**	*i* P	**P**	**18 17 13.5**	**0.0**
DRV	**Dumont d'Urvil**	**70.00**	**164**	P	**P**	**18 17 22.0**	**+9.0**
DRV				S	S	18 26 25.0	+4.1
DRV				SS	SS	18 30 56.0	+5.4
BHL	**Bhannes**	**70.21**	**307**	*e*P	**P**	**18 17 14.7**	**-0.3**
SOKR	**Solikamsk**	**70.36**	**338**	*c i*P	**P**	**18 17 16.1**	**+0.7**
SOKR				S	S	18 26 24.2	-1.2
SOKR				pmax	pmax		
	comp=Z,620nm,1.0s,mb6.5						
SOKR				MLR	MLR		
	comp=Z,27µm,23.0s,MS6.4						
MSNA	**Messina**	**70.47**	**247**	⇑*i*P	**P**	**18 17 17.1**	**+0.3**
MSNA				AMS	AMS	18 44 11.1	
	comp=Z,13µm,21.1s,MS6.2						
GRSN	**GIRESUNGRSN**	**70.53**	**315**	*i* P	**P**	**18 17 16.7**	**-0.1**
SOC	**Sochi**	**70.54**	**318**	*c i*P	**P**	**18 17 15.9**	**-0.9**
SOC				*i* *PP	pP	18 17 25.0	-2.1
SOC				*i* *SP	sP	18 17 29.2	-1.8
SOC				*i*		18 17 35.4	
SOC				*e*		18 19 50.1	
SOC				*e*PPP		18 21 42.3	
SOC				*i* S	S	18 26 25.1	-3.0
SOC				*e*		18 27 15.2	
SOC				pmax	pmax		
	comp=Z,136nm,0.8s,mb5.9						
SOC				pmax	pmax		
	comp=Z,588nm,4.2s						
SOC				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.0						
SOC	**Sochi**	**70.54**	**318**	*i* P	**P**	**18 17 16.0**	**-0.8**
PINB	**Pinarbasi**	**71.11**	**312**	*i* P	**P**	**18 17 18.9**	**-1.5**
SKR	**Severo-Kuril's**	**71.26**	**34**	*e*P	**P**	**18 17 21.0**	**0.0**
SKR				*e*		18 17 46.0	
SKR				*e*PPP		18 21 44.0	
SKR				*e*PS		18 26 58.0	
SKR				*e*		18 27 14.0	
SKR				*e*SS	SS	18 31 12.0	+1.3
SKR				pmax	pmax		
	comp=E,360nm,1.0s						
SKR				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.8						
SKR				pmax	pmax		
	comp=N,5µm,14.0s						
SKR				pmax	pmax		
	comp=E,5µm,14.0s						
SKR				pmax	pmax		
	comp=Z,8µm,14.0s						
SKR				pmax	pmax		
	comp=E,13µm,20.0s						
SKR				pmax	pmax		
	comp=Z,9µm,20.0s						
SKR				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.1						
SKR				MLR	MLR		
	comp=N,9µm,18.0s,MS6.2						
SKR				MLR	MLR		
	comp=E,9µm,18.0s,MS6.2						
TOKA	**Tokat**	**71.60**	**314**	*i* P	**P**	**18 17 23.3**	**0.0**
LSZ	**Lusaka**	**71.70**	**255**	*e*P	**P**	**18 17 24.7**	**+0.3**
LSZ				pmax	pmax		
	comp=Z,191nm,1.3s,mb5.9						
LSZ				MLR	MLR		
	comp=Z,28µm,20.0s,MS6.5						
LSZ	**Lusaka**	**71.70**	**255**	*e*P	**P**	**18 17 24.7**	**+0.3**
	comp=Z,191nm,1.3s,mb5.9						
LSZ				LR	LR		
	comp=Z,28µm,20.0s,MS6.5						
LSZ	**Lusaka**	**71.70**	**255**	⇓P	**P**	**18 17 24.3**	**-0.1**
	SNR=26						
LSZ				⇓P		18 17 24.3	
	SNR=26						
LSZ	**Lusaka**	**71.70**	**255**	*e*P	**P**	**18 17 24.7**	**+0.3**
LSZ				AMS	AMS	18 45 21.8	
	comp=Z,211µm,19.1s,MS7.4						
KSD	**Kokstad**	**71.98**	**239**	*e*P	**P**	**18 17 26.6**	**+0.8**
KSD				AMS	AMS	18 42 25.2	
	comp=Z,119µm,21.2s,MS7.1						
CSS	**Prodhromos**	**72.35**	**308**	PFAKE		18 17 40.0	+12
CSS				LR	LR		
	comp=Z,24µm,19.0s,MS6.5						
SLR	**Silverton**	**72.39**	**244**	⇑*i*P	**P**	**18 17 29.1**	**+0.8**
SLR				AMS	AMS	18 44 08.7	
	comp=Z,40µm,19.9s,MS6.7						
ERPM	**east rand prop**	**72.49**	**243**	*e*P	**P**	**18 17 29.6**	**+0.6**
ERPM				AMS	AMS	18 43 08.7	
	comp=Z,20µm,21.8s,MS6.3						
ANN	**Anapa**	**72.53**	**319**	*c i*P	**P**	**18 17 25.1**	**-3.6**
ANN				*e**PP	pP	18 17 34.9	-4.2
ANN				*e*		18 17 43.3	
ANN				*e*		18 20 13.2	
ANN				*e*PPP		18 21 54.7	
ANN				*i* S	S	18 26 46.7	-4.3
ANN				pmax	pmax		
	comp=Z,79nm,1.3s,mb5.5						
ANN				pmax	pmax		
	comp=N,418nm,8.4s						
ANN				pmax	pmax		
	comp=E,364nm,8.4s						
ANN				pmax	pmax		
	comp=Z,1µm,8.4s						
ANN				MLR	MLR		
	comp=N,6µm,21.0s,MS6.0						
ANN				MLR	MLR		
	comp=E,8µm,21.0s,MS6.0						
ANN				MLR	MLR		
	comp=Z,7µm,21.0s,MS5.9						
ANN	**Anapa**	**72.53**	**319**	*e*P	**P**	**18 17 26.8**	**-1.9**
VRHR	**Novokhopersk**	**72.56**	**326**	*e*P	**P**	**18 17 28.7**	**-0.1**
VRHR				*e*S	S	18 26 46.1	-5.0
VRHR				pmax	pmax		
	comp=Z,140nm,0.8s,mb5.9						
VRHR				pmax	pmax		
	comp=N,90nm,1.2s						
VRHR				smax			
	comp=N,3µm,4.8s						
VRHR				smax			
	comp=Z,90nm,4.1s						
CDAG	**Cicekdag**	**72.91**	**313**	*i* P	**P**	**18 17 30.9**	**-0.2**
CTKT	**Corum**	**72.92**	**314**	*i* P	**P**	**18 17 31.1**	**-0.1**
BOYT	**Boyabat**	**73.09**	**315**	*i* P	**P**	**18 17 32.5**	**+0.3**
TARA	**Tarawa**	**73.14**	**88**	*e*P	**P**	**18 17 32.4**	**-0.7**
TARA				LR	LR		
	comp=Z,11µm,22.0s,MS6.1						
SEK	**Senekal**	**73.25**	**241**	⇑*i*P	**P**	**18 17 34.1**	**+0.7**
PETK	**Petropavlovsk-**	**73.28**	**32**	P	**P**	**18 17 32.6**	**-0.4**
	comp=Z,159nm,0.8s,mb6.0,baz=213,slow=1.5,SNR=55						
BRTR	**Keskin Array B**	**73.48**	**313**	P	**P**	**18 17 34.2**	**-0.3**
	comp=Z,32nm,0.7s,mb5.3,baz=131,slow=6.1,SNR=69						
BRTR				LR	LR	18 54 42.8	
	comp=Z,7µm,19.4s,MS5.9,baz=204,slow=40						
KSR	**Koster**	**73.64**	**244**	*e*P	**P**	**18 17 35.9**	**+0.1**
KSR				AMS	AMS	18 42 50.6	
	comp=Z,7µm,21.7s,MS5.9						
PET	**Petropavlovsk**	**73.75**	**33**	*c e*P	**P**	**18 17 35.0**	**-0.8**
PET				*e*		18 20 19.5	
PET				*e*PPP		18 22 00.4	
PET				*e*S	S	18 27 03.4	-1.1
PET				*e*PS		18 27 38.3	
PET				*e*PPS		18 27 48.9	
PET				*e*SSS		18 34 57.9	
PET				pmax	pmax		
	comp=Z,5µm,17.8s						
PET				pmax	pmax		
	comp=Z,6µm,21.5s						
PET				pmax	pmax		
	comp=Z,725nm,0.8s,mb6.7						
PET				pmax	pmax		
	comp=Z,4µm,18.4s						
PET				pmax	pmax		
	comp=Z,5µm,18.3s						
PET				smax			
	comp=E,6µm,22.5s						
PET	**Petropavlovsk**	**73.75**	**33**	⇑*i*P	**P**	**18 17 35.7**	**-0.1**
PET				LR	LR		
	comp=Z,14µm,20.0s,MS6.2						
BALAT	**Bala**	**73.81**	**312**	*i* P	**P**	**18 17 34.2**	**-2.3**
ILGA	**Ilgaz**	**73.82**	**314**	*i* P	**P**	**18 17 35.8**	**-0.7**
VORD	**Divnogorie**	**73.83**	**325**	*e*P	**P**	**18 17 35.0**	**-1.3**
VORD				*e**PP	pP	18 17 45.2	-1.5
VORD				pmax	pmax		
	comp=Z,160nm,1.4s,mb5.8						
VORD				pmax	pmax		
	comp=N,30nm,1.0s						
VORD				pmax	pmax		
	comp=E,40nm,0.6s						
VORD				pmax	pmax		
	comp=Z,190nm,1.3s,mb5.9						
VORD				pmax	pmax		
	comp=N,50nm,1.1s						
VORD				pmax	pmax		
	comp=E,150nm,1.7s						
VORD				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.0						
VORD				MLR	MLR		
	comp=N,6µm,20.0s,MS6.1						
VORD				MLR	MLR		
	comp=E,7µm,21.0s,MS6.1						
ELDT	**Eldivan**	**73.86**	**313**	*i* P	**P**	**18 17 34.2**	**-2.5**
VSR	**Storozhevoye**	**74.01**	**325**	*e*P	**P**	**18 17 35.8**	**-1.5**
VSR				*i* *PP	pP	18 17 46.1	-1.6
VSR				*e*S	S	18 27 00.1	-7.4
VSR				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
VSR				pmax	pmax		
	comp=N,5.0nm,0.4s						
VSR				smax			
	comp=N,2µm,6.9s						
VSR				smax			
	comp=Z,470nm,4.1s						
VSR				smax			
	comp=E,2µm,5.8s						
VSR				MLR	MLR		
	comp=Z,12µm,19.0s,MS6.2						
VSR				MLR	MLR		
	comp=N,3µm,17.0s,MS6.1						
VSR				MLR	MLR		
	comp=E,9µm,20.0s,MS6.1						
BALT	**Daday**	**74.21**	**314**	*i* P	**P**	**18 17 39.1**	**+0.4**
VOR	**Voronezh**	**74.21**	**326**	*e*P	**P**	**18 17 38.0**	**-0.5**
VOR				pmax	pmax		
	comp=Z,1µm,1.5s,mb6.5						
KDHN	**Kadinhani**	**74.26**	**311**	*i* P	**P**	**18 17 33.5**	**-5.6**
LBTB	**Lobatse**	**74.74**	**245**	PFAKE		18 17 50.0	+7.8
LBTB				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
SIM	**Simferopol'**	**74.79**	**318**	*e*P	**P**	**18 17 41.8**	**-0.2**
SIM				*e*S	S	18 27 13.0	-3.5
SIM				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.8						
SIM				pmax	pmax		
	comp=Z,1µm,12.0s						
GRM	**Grahamstown**	**74.80**	**236**	*e*P	**P**	**18 17 43.9**	**+1.6**
GRM				AMS	AMS	18 46 32.1	
	comp=Z,29µm,18.2s,MS6.6						
RPZ	**Rata Peaks**	**74.81**	**135**	*e*P	**P**	**18 17 42.2**	**0.0**
	comp=Z,95nm,0.7s,mb5.8						
SGKT	**Sivrigoynuk**	**74.89**	**313**	*e*P	**P**	**18 17 47.3**	**+4.6**
ISP	**Isparta**	**75.30**	**310**	*e*P	**P**	**18 17 45.7**	**+0.5**
ISP				pmax	pmax		
	comp=Z,71nm,0.8s,mb5.7						
ISP				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.1						
ISP	**Isparta**	**75.30**	**310**	*e*P	**P**	**18 17 45.7**	**+0.5**
	comp=Z,71nm,0.8s,mb5.7						
ISP				LR	LR		
	comp=Z,10µm,20.0s,MS6.1						
HVD	**Gariep Dam**	**75.34**	**239**	*e*P	**P**	**18 17 44.2**	**-1.4**
OUZ	**Omahuta**	**75.35**	**126**	*e*P	**P**	**18 17 47.8**	**+2.3**
	comp=Z,119nm,1.3s,mb5.7						
BOSA	**Boshof**	**75.36**	**241**	P	**P**	**18 17 46.4**	**+0.7**
	comp=Z,12nm,0.9s,mb4.8,baz=71,slow=7.4,SNR=9.9						
BOSA				LR	LR	18 47 16.8	
	comp=Z,40µm,18.3s,MS6.8,baz=85,slow=33						
TKTP	**Tekketepe**	**75.50**	**310**	*i* P	**P**	**18 17 45.1**	**-1.1**
AKAS	**Kas**	**75.61**	**308**	*e*P	**P**	**18 17 42.9**	**-4.0**
HENT	**Hendek**	**75.80**	**313**	*i* P	**P**	**18 17 47.6**	**-0.3**
GOLH	**Golhisar**	**75.88**	**309**	*i* P	**P**	**18 17 45.1**	**-3.4**
PRGR	**Permogore**	**75.96**	**336**	⇓*i*P	**P**	**18 17 48.3**	**-0.1**
PRGR				*e*S	S	18 27 28.4	-0.4
PRGR				*e*		18 27 59.5	
PRGR				pmax	pmax		
	comp=Z,411nm,0.9s,mb6.4						
SEY	**Seymchan**	**76.03**	**22**	⇑*e*P	**P**	**18 17 48.4**	**-0.3**
SEY	**Seymchan**	**76.03**	**22**	⇑*e*P	**P**	**18 17 48.5**	**-0.2**
KHAL	**Karahalli**	**76.21**	**310**	*i* P	**P**	**18 17 47.3**	**-3.0**
TIXI	**Tiksi**	**76.25**	**9**	*i* P	**P**	**18 17 48.5**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,444nm,1.7s,mb6.1						
KHZ	**Kahutara**	**76.37**	**133**	*e*P	**P**	**18 17 49.5**	**-1.7**
	comp=Z,253nm,1.4s,mb6.0						
GDZ	**Gediz**	**76.40**	**311**	*i* P	**P**	**18 17 55.0**	**+3.6**
TURN	**Turunc**	**76.54**	**309**	*e*P	**P**	**18 17 49.5**	**-2.7**
MOS	**Moscow**	**76.75**	**329**	*e*P	**P**	**18 17 48.6**	**-4.4**
MOS				*i*	pP	18 18 00.2	-3.2
MOS				*e*		18 20 43.6	
MOS				*i* S	S	18 27 33.3	-4.4
MOS				*e*		18 28 01.1	
MOS				pmax	pmax		
	comp=Z,2µm,2.0s,mb6.6						
MOS				pmax	pmax		
	comp=Z,693nm,1.6s,mb6.3						
MOS				smax			
	comp=N,5µm,6.8s						
MOS				smax			
	comp=E,3µm,6.2s						
MOS				MLR	MLR		
	comp=E,16µm,20.0s						
MOS				MLR	MLR		
	comp=Z,14µm,20.0s,MS6.3						
ULDT	**Uludag**	**76.92**	**312**	*i* P	**P**	**18 17 54.2**	**-0.1**
MANT	**Manisa**	**76.95**	**310**	*i* P	**P**	**18 17 54.9**	**+0.4**
OBN	**Obninsk**	**77.04**	**328**	P	**P**	**18 17 54.2**	**-0.5**
	comp=Z,2µm,1.1s,mb6.9,SNR=17						
OBN	**Obninsk**	**77.04**	**328**	*c i*P	**P**	**18 17 54.1**	**-0.6**
OBN				*i*	pP	18 18 04.3	-0.8
OBN				*i*		18 20 54.8	
OBN				*i* S	S	18 27 37.3	-3.6
OBN				*i* SS	SS	18 32 37.5	-1.1
OBN				pmax	pmax		
	comp=Z,473nm,1.2s,mb6.3						
OBN				pmax	pmax		
	comp=Z,1613µm,2.2s						
SNZO	**South Karori**	**77.06**	**132**	*e*P	**P**	**18 17 54.5**	**-0.6**
	comp=Z,122nm,0.9s,mb5.8						
SNZO				LR	LR		
	comp=Z,64µm,22.0s,MS6.9						
DURS	**Dursunbey**	**77.28**	**311**	*i* P	**P**	**18 17 54.5**	**-1.8**
AYDN	**Tasoluk**	**77.28**	**309**	*i* P	**P**	**18 17 56.4**	**0.0**
SYO	**Syowa Base**	**77.47**	**199**	⇑*e*P	**P**	**18 17 56.0**	**-0.8**
SYO	**Syowa Base**	**77.47**	**199**	⇑*i*P	pP	18 18 08.2	+1.0
BDRM	**Kayabasi**	**77.49**	**309**	*e*P	**P**	**18 17 57.9**	**+0.3**
AKHS	**Akhisar**	**77.61**	**311**	*i* P	**P**	**18 17 58.2**	**0.0**
PKA	**Prieska**	**77.62**	**240**	*e*P	**P**	**18 17 58.0**	**-0.6**
PKA				AMS	AMS	18 45 32.5	
	comp=Z,6µm,22.4s,MS5.9						
ELBA	**Catalca**	**77.69**	**313**	*i* P	**P**	**18 17 57.2**	**-1.4**
GCAM	**G?zelcaml?**	**77.79**	**309**	*i* P	**P**	**18 17 59.3**	**+0.1**
BALY	**Balya**	**77.96**	**311**	*i* P	**P**	**18 17 56.0**	**-4.1**
KLMR	**Klimovskoe**	**78.11**	**334**	⇑*i*P	**P**	**18 18 00.1**	**-0.4**
KLMR				*e*S	S	18 27 49.0	-3.3
KLMR				pmax	pmax		
	comp=Z,326nm,1.3s,mb6.1						
URLA	**Izmir**	**78.43**	**310**	*i* P	**P**	**18 18 00.4**	**-2.3**
TLCR		**78.44**	**317**	⇓*i*P	**P**	**18 18 03.2**	**+0.5**
TLCR		**78.44**	**317**	⇓P	**P**	**18 18 03.2**	**+0.5**
PSN	**Preselentsi**	**78.50**	**315**	P	**P**	**18 18 00.9**	**-2.1**
SART	**Tekirdag**	**78.50**	**312**	*i* P	**P**	**18 18 05.9**	**+2.8**
URZ	**Urewera**	**78.52**	**128**	*e*P	**P**	**18 18 02.5**	**-0.8**
	comp=Z,608nm,1.8s,mb6.2						
TIRR	**Tirgusor**	**78.53**	**316**	⇑*i*P	**P**	**18 18 03.2**	**0.0**
TIRR	**Tirgusor**	**78.53**	**316**	P	**P**	**18 18 03.0**	**-0.2**
AYVA	**Ayvalik**	**78.56**	**311**	*i* P	**P**	**18 18 02.7**	**-0.8**
UPI	**Upington**	**78.85**	**242**	*e*P	**P**	**18 18 04.0**	**-1.3**
UPI				AMS	AMS	18 50 04.6	
	comp=Z,26µm,18.5s,MS6.6						
PRK	**Paraskevi**	**78.86**	**311**	P	**P**	**18 18 04.2**	**-0.9**
HARR	**Harsova**	**78.92**	**316**	P	**P**	**18 18 05.6**	**+0.3**
KIS	**Kishinev**	**78.93**	**319**	α *i*P	**P**	**18 18 05.0**	**-0.3**
KIS				*i* S	S	18 27 58.0	-3.6
KIS				pmax	pmax		
	comp=Z,400nm,2.0s,mb6.0						
KIS				pmax	pmax		
	comp=Z,3µm,15.0s						
KIS				MLR	MLR		
	comp=Z,11µm,18.0s,MS6.2						
KIS				MLR	MLR		
	comp=N,4µm,16.0s,MS6.3						
KIS				MLR	MLR		
	comp=E,10µm,18.0s,MS6.3						
KIS				MLR	MLR		
	comp=Z,12µm,19.0s						
KIS	**Kishinev**	**78.93**	**319**	⇑*i*P	**P**	**18 18 05.0**	**-0.3**
	comp=Z,400nm,2.0s,mb6.0						
KIS	**Kishinev**	**78.93**	**319**	*e*PP	PP	18 20 54.0	-10
KIS	**Kishinev**	**78.93**	**319**	*e*PsP	Px	18 25 06.0	
KIS				*i* S	S	18 27 58.0	-3.6
KIS	**Kishinev**	**78.93**	**319**	*i* PS		18 28 30.0	
KIS				*e*SS	SS	18 32 40.0	-27
KIS				*e*SSS		18 36 16.0	
KIS				LRM		19 01 26.0	
	comp=Z,10µm,18.0s						
KIS	**Kishinev**	**78.93**	**319**	P	**P**	**18 18 05.9**	**+0.6**
PRD	**Provadia**	**78.93**	**315**	P	**P**	**18 18 04.7**	**-0.7**
FUNA	**Funafuti**	**79.11**	**98**	PFAKE		18 18 20.0	+13
FUNA				LR	LR		
	comp=Z,12µm,20.0s,MS6.2						
BOZC	**Bozcaada**	**79.16**	**311**	*i* P	**P**	**18 18 04.2**	**-2.5**
SIGR	**SIGRI**	**79.17**	**311**	P	**P**	**18 18 04.8**	**-2.0**
JMB	**Yambol**	**79.34**	**314**	P	**P**	**18 18 07.1**	**-0.6**
ALN	**Alexandroupoli**	**79.39**	**312**	P	**P**	**18 18 06.4**	**-1.6**
SUR	**Sutherland**	**79.48**	**238**	*e*P	**P**	**18 18 10.1**	**+1.4**
	comp=Z,322nm,1.4s,mb6.1						
SUR				LR	LR		
	comp=Z,48µm,20.0s,MS6.8						
SUR	**Sutherland**	**79.48**	**238**	*e*P	**P**	**18 18 08.5**	**-0.2**
SUR				AMS	AMS	18 47 15.1	
	comp=Z,39µm,20.5s,MS6.7						
AKASG	**Malin Array Be**	**79.70**	**322**	P	**P**	**18 18 08.7**	**-0.7**
	comp=Z,23nm,0.7s,mb5.2,baz=89,slow=4.8,SNR=50						
AKASG				S	S	18 28 08.3	-1.3
	comp=Z,0.3nm,0.5s,baz=121,slow=9.3,SNR=7.5						
AKASG	**Malin Array Be**	**79.70**	**322**	P	**P**	**18 18 08.7**	**-0.7**
AKASG				S	S	18 28 08.3	-1.3
KIEV	**Kiev**	**79.71**	**322**	*e*P	**P**	**18 18 08.1**	**-1.4**
KIEV				pmax	pmax		
	comp=Z,51nm,0.8s,mb5.5						
KIEV				MLR	MLR		
	comp=Z,10µm,21.0s,MS6.1						
KIEV	**Kiev**	**79.71**	**322**	*e*P	**P**	**18 18 08.1**	**-1.4**
	comp=Z,51nm,0.8s,mb5.5						
KIEV				LR	LR		
	comp=Z,10µm,21.0s,MS6.1						
LIA	**Limnos Island**	**79.82**	**311**	P	**P**	**18 18 09.2**	**-1.2**
LOS	**Limnos**	**79.91**	**311**	P	**P**	**18 18 10.2**	**-0.6**
SZH	**Strazhica**	**79.99**	**315**	P	**P**	**18 18 10.3**	**-0.9**
DIM	**Dimitrovgrad**	**80.01**	**313**	P	**P**	**18 18 11.5**	**+0.2**
KDZ	**Kurdzhali**	**80.01**	**313**	P	**P**	**18 18 10.8**	**-0.5**
VRI	**Vrincioaia**	**80.04**	**317**	⇓*i*P	**P**	**18 18 11.7**	**+0.3**
VRI	**Vrincioaia**	**80.04**	**317**	P	**P**	**18 18 11.6**	**+0.2**
PLOR	**Plostina**	**80.09**	**317**	P	**P**	**18 18 12.6**	**+1.0**
PLOR	**Plostina**	**80.09**	**317**	⇑*i*P	**P**	**18 18 13.2**	**+1.6**
CVNA	**Calvinia**	**80.32**	**239**	*e*P	**P**	**18 18 12.8**	**-0.5**
CVNA				AMS	AMS	18 47 11.5	
	comp=Z,29µm,21.2s,MS6.6						
PVL	**Pavlikeni**	**80.41**	**314**	*e*P	**P**	**18 18 15.3**	**+1.9**
MLR	**Muntele Rosu**	**80.48**	**317**	⇑*i*P	**P**	**18 18 14.1**	**+0.3**
MLR	**Muntele Rosu**	**80.48**	**317**	P	**P**	**18 18 14.1**	**+0.3**
RZN	**Rozhen**	**80.53**	**313**	P	**P**	**18 18 14.4**	**+0.3**

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PLD   Plovdiv          80.63 313   P      P      18 18 13.9 -0.7
OUR   Ouranopolis      80.81 311   P      P      18 18 16.0 +0.3
CER   Ceres            80.82 237  eP      P      18 18 22.5 +6.6
CER                                AMS    AMS    18 48 54.4
      comp=Z,8µm,18.7s,MS6.1
DID   Didima           80.86 308   P      P      18 18 13.4 -2.6
PAIG  Paliouri         80.96 311   P      P      18 18 15.2 -1.3
VOIR                   81.08 317⇑ iP      P      18 18 16.5 -0.5
VOIR                   81.08 317   P      P      18 18 17.1 +0.1
PGB   Panagyurishte    81.11 314   P      P      18 18 15.9 -1.3
LTK   Loutraki         81.17 309   P      P      18 18 15.4 -2.2
PLG   Polygyros        81.22 311   P      P      18 18 16.5 -1.4
MMB   Musomiste        81.24 313   P      P      18 18 17.1 -0.8
LKR   Lokris           81.25 310   P      P      18 18 16.2 -1.8
SRS   Serrai           81.25 312   P      P      18 18 15.8 -2.2
SOH   Sokhos           81.37 312   P      P      18 18 17.0 -1.6
BUR02 Bucovina Ar. S   81.45 319   P      P      18 18 20.0 +1.1
BURAR Bucovina Array   81.45 319⇓ iP      P      18 18 19.9 +1.0
BURAR Bucovina Array   81.45 319   P      P      18 18 19.9 +1.0
HORT  Hortiatis        81.52 311   P      P      18 18 17.6 -1.8
MICGM Minsk            81.56 326  eP      P      18 18 18.0 -1.3
MPEP  Malo Peshtene    81.57 314   P      P      18 18 19.8 +0.2
MNK   Minsk            81.59 326c eP      P      18 18 18.0 -1.5
MNK                               e       pP     18 18 30.0 +0.1
MNK                               eS      S      18 28 24.0 -5.2
MNK                               ePS            18 29 20.0
MNK                               eSS     SS     18 33 40.0 -6.8
MNK                               eSSS           18 37 16.0
MNK                                pmax   pmax
      comp=Z,4µm,4.0s
MNK                                pmax   pmax
      comp=Z,490nm,1.6s,mb6.2
MNK                                pmax   pmax
      comp=E,380nm,1.6s
MNK                                smax
      comp=N,8µm,8.0s
MNK                                smax
      comp=E,8µm,14.0s
MNK                                MLR    MLR
      comp=Z,26µm,18.0s,MS6.6
THE   Thessaloniki     81.63 311   P      P      18 18 17.8 -2.2
KKB   Krupnik          81.77 313   P      P      18 18 20.4 -0.3
KNT   Kendrikon        81.77 312   P      P      18 18 20.0 -0.8
VTS   Vitosha          81.81 313   P      P      18 18 20.3 -0.6
VNDA  Vanda            81.82 169   P      P      18 18 21.1 +0.8
      comp=Z,28nm,1.2s,mb5.1,baz=312,slow=3.6,SNR=6.0
VNDA                               LR     LR     18 53 48.5
      comp=Z,25µm,18.2s,MS6.6,baz=314,slow=35
AGG   Agios Georgios   81.83 310   P      P      18 18 18.8 -2.3
KALE  Kalithea         81.87 309   P      P      18 18 19.3 -2.0
PUL   Pulkovo          81.89 331⇑ eP      P      18 18 22.0 +1.1
LIT   Litokhoron       81.89 311   P      P      18 18 19.8 -1.6
TRIZ  Trizonia         81.92 309   P      P      18 18 19.9 -1.7
PYL   PYLOS            81.94 308   P      P      18 18 20.2 -1.5
LAKA  Lakka            81.97 309   P      P      18 18 20.8 -1.1
VAY   Valandovo        82.05 312   P      P      18 18 20.7 -1.5
VAY   Valandovo        82.05 312  eP      P      18 18 22.0 -0.2
      comp=Z,404nm,1.6s,mb6.1
RAO   Raoul Island     82.05 119   PFAKE         18 18 30.0 +7.5
RAO                                LR     LR
      comp=Z,18µm,22.0s,MS6.4
GRG   Griva            82.11 312   P      P      18 18 21.1 -1.4
THL   Klokotos Trika   82.16 310   P      P      18 18 20.1 -2.7
NACGM Naroch           82.28 326  eP      P      18 18 18.0 -5.1
JOF   Joensuu          82.50 335  ep      P      18 18 23.2 -0.9
      comp=Z,105nm,0.8s,mb5.8
BMR   Baia Mare        82.60 319   P      P      18 18 26.0 +1.1
GZR   Gura Zlata       82.64 316⇑ iP      P      18 18 26.3 +1.1
GZR   Gura Zlata       82.64 316   P      P      18 18 25.7 +0.5
LVV   L'vov            82.71 321  eP      P      18 18 24.7 -0.7
LVV                               eS      S      18 28 39.7 -1.2
LVV                                MLR    MLR
      comp=N,6µm,18.0s
MEV   Metsovon         82.80 310   P      P      18 18 25.9 -0.2
FNA   Florina          82.84 311   P      P      18 18 23.9 -2.5
SBA   Scott Base       82.91 169   PFAKE         18 18 40.0  +14
SBA                                LR     LR
      comp=Z,14µm,20.0s,MS6.3
BIA   Bitola           82.92 312  eP      P      18 18 26.9 +0.2
      comp=Z,31nm,1.3s,mb5.2
DRGR                   82.95 318⇓ iP      P      18 18 27.5 +0.7
DRGR                   82.95 318   P      P      18 18 28.3 +1.5
SKO   Skopje           82.99 313  eP      P      18 18 27.6 +0.4
      comp=Z,365nm,2.1s,mb6.0
KRUS  Krusevo          83.03 312  eP      P      18 18 27.4  0.0
      comp=Z,56nm,0.9s,mb5.6
VLS   Valsamata        83.04 309   P      P      18 18 26.3 -1.2
LKD   Levkas           83.07 309   P      P      18 18 25.6 -2.0
LVZ   Lovozero         83.09 340   P      P      18 18 26.7 -0.3
      comp=Z,517nm,1.2s,mb6.4,SNR=8.4
LVZ   Lovozero         83.09 340   PFAKE         18 18 40.0  +13
LVZ                                LR     LR
      comp=Z,18µm,20.0s,MS6.5
VSU   Vasula           83.26 330⇑ iP      P      18 18 28.4 +0.3
TRPA  Tarpa            83.33 319⇑ iP      P      18 18 28.4 -0.3
OHR   Ohrid            83.33 312  eP      P      18 18 29.0 +0.1
      comp=Z,307nm,1.3s,mb6.2
APA   Apatity          83.39 339⇑ iP      P      18 18 29.0 +0.4
APA                               i              18 21 41.0
APA                               ePPP           18 23 30.0
APA                               i S     S      18 28 45.0 -2.2
APA                                pmax   pmax
      comp=Z,390nm,1.8s,mb6.1
APA                                pmax   pmax
      comp=Z,5µm,22.0s
APA                                MLR    MLR
      comp=Z,22µm,22.0s,MS6.5
IGT   Igoumenitsa      83.44 310   P      P      18 18 28.3 -1.2
BZS   Buzias           83.49 316⇑ iP      P      18 18 29.8 +0.2
BZS   Buzias           83.49 316   P      P      18 18 29.3 -0.3
KWP   Kalwaria Pacla   83.51 320  eP      P      18 18 29.4 -0.2
KWP                               eS      S      18 28 49.1  0.0
KWP                                LMZ           19 01 51.0
      comp=Z,12µm,23.3s
KWP   Kalwaria Pacla   83.51 320⇓ iP      P      18 18 31.1 +1.5
KWP   Kalwaria Pacla   83.51 320  eP      P      18 18 29.4 -0.2
KWP                               eS      S      18 28 49.1 +0.1
KWP                                LR     LR
      comp=Z,12µm,22.0s,MS6.2
BILL  Bilibino         83.56  20c iP      P      18 18 28.3 -1.1
BILL                              i              18 18 34.7
BILL                              i              18 21 39.9
BILL                              i S     S      18 28 45.4 -3.4
BILL                              i SS    SS     18 34 18.1 +2.7
BILL                               pmax   pmax
      comp=Z,117nm,1.3s,mb5.8
BILL  Bilibino         83.56  20⇑ iP      P      18 18 28.4 -1.0
BILL                               LR     LR
      comp=Z,25µm,20.0s,MS6.6
UZH   Uzhgorod         83.58 319  eP      P      18 18 30.8 +0.8
UZH                               e              18 18 36.7
UZH                               i S     S      18 28 51.0 +1.2
UZH                               i PS           18 29 49.0
UZH                                MLR    MLR
      comp=N,3µm,20.0s,MS6.0
UZH                                MLR    MLR
      comp=E,6µm,20.0s,MS6.0
UZH                                MLR    MLR
      comp=Z,3µm,20.0s,MS5.7
KOLS  Kolonicke sedl   83.65 320  eP      P      18 18 31.2 +0.9
KOLS                              eS      S      18 28 50.8 +0.3
TIM   Timisoara        83.78 316   P      P      18 18 32.7 +1.6
TIR   Tirane           84.06 312  eP      P      18 18 32.3 -0.3
TIR                                pmax   pmax
      comp=Z,96nm,0.9s,mb5.9
TIR                                MLR    MLR
      comp=Z,13µm,20.0s,MS6.3
TIR   Tirane           84.06 312  eP      P      18 18 32.3 -0.3
      comp=Z,96nm,0.9s,mb5.9
TIR                                LR     LR
      comp=Z,13µm,20.0s,MS6.3
SUW   Suwalki          84.11 325  eP      P      18 18 32.0 -0.6
SUW                               eSKS           18 28 51.8
SUW                               eS      S      18 28 56.1 +1.1
SUW                                LMZ           19 02 45.8
      comp=Z,10µm,22.3s
SUW   Suwalki          84.11 325  eP      P      18 18 32.0 -0.6
SUW                               eSKS           18 28 51.8
SUW                               eS      S      18 28 56.1 +1.1
PVY   Plav             84.16 313⇑ iP      P      18 18 33.0 -0.1
PVY   Plav             84.16 313⇑ iP      P      18 18 33.1  0.0
CRVS  Cervenica-Dubn   84.17 319  eP      P      18 18 33.8 +0.8
CRVS                              ePP     PP     18 21 52.5 +4.9
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CRVS                              eS      S      18 28 54.0 -1.8
IVA   Berane           84.26 313⇑ iP      P      18 18 33.5 -0.1
IVA   Berane           84.26 313⇑ iP      P      18 18 33.6  0.0
FINES FINESS Array B   84.38 332   P      P      18 18 33.9 +0.1
      comp=Z,45nm,0.8s,mb5.7,baz=99,slow=6.3,SNR=62
FINES                              LR     LR     19 02 18.8
      comp=Z,14µm,21.2s,MS6.3,baz=108,slow=40
STHS  Stebnicka Huta   84.40 320  eP      P      18 18 35.0 +0.8
KAF   Kangasniemi      84.46 333  eP      P      18 18 33.2 -0.9
KAF                                pmax   pmax
      comp=Z,95nm,0.6s,mb6.1
KAF   Kangasniemi      84.46 333  ep      P      18 18 33.2 -0.9
      comp=Z,95nm,0.6s,mb6.1
ULC   Ulcinj           84.60 312⇑ iP      P      18 18 34.8 -0.6
ULC   Ulcinj           84.60 312⇑ iP      P      18 18 34.8 -0.5
TTG   Podgorica        84.66 313⇑ iP      P      18 18 34.5 -1.1
TTG   Podgorica        84.66 313⇑ iP      P      18 18 34.5 -1.1
PLE   Pljevlja         84.69 314⇑ iP      P      18 18 36.4 +0.6
KECS  Kecovo           84.74 319  eP      P      18 18 36.1 +0.2
MIDW  Midway           84.74  62   PFAKE         18 18 50.0  +14
MIDW                               LR     LR
      comp=Z,7µm,20.0s,MS6.1
NKY   Niksic           84.91 313⇑ iP      P      18 18 36.2 -0.7
NKY   Niksic           84.91 313⇑ iP      P      18 18 36.2 -0.6
BUM   Brajici-Budva    84.91 313⇑ iP      P      18 18 36.1 -0.8
BUM   Brajici-Budva    84.91 313⇑ iP      P      18 18 36.1 -0.8
NIE   Niedzica         85.00 320  eP      P      18 18 38.3 +1.1
NIE                                e             18 18 59.9
NIE   Niedzica         85.00 320  eP      P      18 18 38.3 +1.1
NIE                               e              18 18 59.9
UPM   Unac-Piva        85.03 314⇑ iP      P      18 18 36.7 -0.7
UPM   Unac-Piva        85.03 314⇑ iP      P      18 18 36.7 -0.7
PSZ   Piszkesteto      85.04 318  eP      P      18 18 37.1 -0.3
PSZ                                pmax   pmax
      comp=Z,145nm,1.1s,mb6.0
PSZ                                MLR    MLR
      comp=Z,6µm,20.0s,MS6.0
PSZ   Piszkesteto      85.04 318⇓ iP      P      18 18 37.8 +0.4
PSZ   Piszkesteto      85.04 318⇑ eP      P      18 18 37.9 +0.5
PSZ   Piszkesteto      85.04 318  eP      P      18 18 37.1 -0.3
      comp=Z,145nm,1.1s,mb6.0
PSZ                                LR     LR
      comp=Z,6µm,20.0s,MS6.0
WAR   Warsaw           85.05 323  eP      P      18 18 38.9 +1.6
WAR                               epP     pP     18 18 47.9  0.0
WAR                               eS      S      18 29 10.3 +6.0
WAR                                LMZ           19 05 08.8
      comp=Z,11µm,21.1s
WAR   Warsaw           85.05 323  eP      P      18 18 38.9 +1.6
WAR                               epP     pP     18 18 47.9 +0.1
WAR                               eS      S      18 29 10.3 +6.0
WAR                                LR     LR
      comp=Z,11µm,21.1s,MS6.2
HCY   Herceg Novi      85.22 313⇑ iP      P      18 18 38.2 -0.3
BRY   Bratogost        85.25 313⇑ iP      P      18 18 37.9 -0.7
BRY   Bratogost        85.25 313⇑ iP      P      18 18 37.9 -0.7
OJC   Ojcow            85.46 321  i P     P      18 18 39.9 +0.4
OJC                               epP     pP     18 18 51.2 +1.2
OJC                               esP     sP     18 18 55.6 +1.8
OJC                               eS      S      18 29 07.4 -1.1
OJC                                L             19 07 45.6
      comp=Z,7.5nm,22.0s
BUD   Budapest         85.55 318⇑ eP      P      18 18 40.4 +0.4
PKSM  Moragy           85.63 317⇑ iP      P      18 18 39.9 -0.5
PKSM  Moragy           85.63 317   P      P      18 18 40.3 -0.1
VYHS  Vyhne            85.82 319  eP      P      18 18 41.2 -0.1
VYHS                              eS      S      18 29 09.9 -2.2
VYHS                               pmax   pmax
      comp=Z,99nm,2.0s,mb5.7
VYHS  Vyhne            85.82 319  eP      P      18 18 41.2 -0.1
      comp=Z,99nm,2.0s,mb5.7
VYHS                              eS      S      18 29 09.9 -2.2
KOLL  Kolacno          86.12 319  eP      P      18 18 43.2 +0.4
TIP   Timpagrande      86.14 309  eP      P      18 18 43.2 +0.1
      comp=Z,214nm,1.3s,mb6.2
TIP                                LR     LR
      comp=Z,15µm,20.0s,MS6.4
KEV   Kevo             86.34 341  eP      P      18 18 42.5 -0.9
KEV                                pmax   pmax
      comp=Z,58nm,0.8s,mb5.9
KEV                                MLR    MLR
      comp=Z,22µm,21.0s,MS6.5
KEV   Kevo             86.34 341  eP      P      18 18 42.5 -0.9
      comp=Z,58nm,0.8s,mb5.9
KEV                                LR     LR
      comp=Z,22µm,21.0s,MS6.5
OKC   Ostrava-Krasne   86.46 320  eP      P      18 18 45.1 +0.7
OKC                               eS      S      18 29 17.7 -0.6
OKC                                MLR    MLR
      comp=Z,6µm,19.0s,MS6.0
OKC   Ostrava-Krasne   86.46 320  eP      P      18 18 45.1 +0.7
OKC                               ex      x      18 22 22.0
OKC                               eS      S      18 29 17.7 -0.6
OKC                               ex      x      18 41 48.9
OKC                                AMS    AMS    19 07 30.0
      comp=Z,6µm,19.0s
OKC   Ostrava-Krasne   86.46 320  eP      P      18 18 45.1 +0.7
OKC                               ePP     PP     18 22 22.0  +16
OKC                               eS      S      18 29 17.7 -0.6
OKC                               e              18 41 48.9
RAC   Raciborz         86.46 320  eP      P      18 18 44.4  0.0
RAC                               eS      S      18 29 16.5 -1.8
RAC                                MLR    MLR
      comp=Z,7µm,20.0s,MS6.1
CEL   Celeste          86.72 308  eP      P      18 18 46.2 +0.3
      comp=Z,195nm,0.9s,mb6.3
CEL                                LR     LR
      comp=Z,7µm,20.0s,MS6.0
ARCES ARCESS Array B   86.78 340   P      P      18 18 45.5  0.0
      comp=Z,55nm,0.8s,mb5.8,baz=97,slow=3.5,SNR=48
ARCES                              LR     LR     19 01 51.1
      comp=Z,22µm,21.0s,MS6.5,baz=214,slow=38
MODS  Modra-Piesok     86.83 319  eP      P      18 18 47.0 +0.7
MODS                              e              18 22 09.6
MODS                              eS      S      18 29 19.3 -2.7
MODS                               pmax   pmax
      comp=Z,153nm,2.1s,mb5.9
MODS  Modra-Piesok     86.83 319  eP      P      18 18 47.0 +0.7
      comp=Z,152nm,2.1s,mb5.9
MODS                              ePP     PP     18 22 09.6 +0.4
MODS                              eS      S      18 29 19.3 -2.7
MORC  Moravsky Berou   86.84 320  eP      P      18 18 45.6 -0.7
MORC                               pmax   pmax
      comp=Z,75nm,0.9s,mb5.9
MORC  Moravsky Berou   86.84 320⇓ iP      P      18 18 46.6 +0.3
MORC  Moravsky Berou   86.84 320  eP      P      18 18 45.6 -0.7
      comp=Z,76nm,0.9s,mb5.9
ZST   Bratislava       86.93 318  eP      P      18 18 47.3 +0.6
ZST                               eS      S      18 29 23.8 +0.9
CUC   Castrocucco      86.95 310  eP      P      18 18 46.3 -0.8
      comp=Z,138nm,1.1s,mb6.1
CUC                                LR     LR
      comp=Z,11µm,20.0s,MS6.2
NVL   N'lazarevskaya   87.12 199   P      P      18 18 50.3 +3.1
NVL                                pmax   pmax
      comp=Z,178nm,1.5s,mb6.1
MAIT  Maitri           87.15 199  eP      P      18 18 46.7 -0.7
MAIT                              eS      S      18 29 12.3  -12
MAIT                              eE             18 34 29.2
SOP   Sopron           87.23 318⇑ eP      P      18 18 48.5 +0.3
KOGS  Kog              87.30 317⇑ iP      P      18 18 48.6  0.0
KOGS                              i S     S      18 29 26.5 -0.2
KOGS                              e              18 42 07.3
VRAC  Vranov           87.40 319⇓ iP      P      18 18 49.2 +0.2
VRAC  Vranov           87.40 319   P      P      18 18 50.5 +1.5
KTK1  Kautokeino       87.43 339  eP      P      18 18 48.8 +0.1
KTK1                              e              18 18 52.8
KTK1                              e              18 29 26.3
GKP   Gorka Klasztor   87.48 323  eP      P      18 18 49.1 -0.2
GKP                               ePcP    PcP    18 18 52.2 +1.0
GKP                               epP     pP     18 18 57.5 -2.3
GKP                               eSKS           18 29 16.2
GKP                               eS      S      18 29 27.5 -0.5
GKP                                LMZ           19 04 59.6
      comp=Z,14µm,21.5s
GKP   Gorka Klasztor   87.48 323  eP      P      18 18 49.1 -0.2
GKP                               ePcP    PcP    18 18 52.2 +1.0
GKP                               epP     pP     18 18 57.5 -2.3
GKP                               eSKS           18 29 16.2
GKP                               eS      S      18 29 27.5 -0.5
GKP                                LR     LR
      comp=Z,14µm,21.5s,MS6.3
QSPA  South Pole Qui   87.58 180   LR     LR     18 54 51.1
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      comp=Z,45µm,19.5s,MS6.9,baz=320,slow=33
QSPA  South Pole Qui   87.58 180  eP      P      18 18 50.2 +0.9
      comp=Z,202nm,0.8s,mb6.4
WDD   Wield Dalam      87.60 306   P      P      18 18 50.6 +0.4
      comp=Z,58nm,0.8s,mb5.9
WDD                                LR     LR
      comp=Z,10µm,19.0s,MS6.2
DPC   Dobruska-Polom   87.69 320  eP      P      18 18 51.0 +0.6
DPC                               eS      S      18 29 31.5 +1.4
DPC                                MLR    MLR
      comp=Z,8µm,19.9s,MS6.1
DPC   Dobruska-Polom   87.69 320  eP      P      18 18 51.0 +0.6
DPC                               ex      x      18 22 40.9
DPC                               eS      S      18 29 31.5 +1.4
DPC                               ex      x      18 41 50.8
DPC                                AMS    AMS    19 03 50.0
      comp=Z,8µm,19.9s
CONA  Conrad Observa   87.73 318⇑ iP      P      18 18 50.4 -0.2
      comp=Z,60nm,1.3s,mb5.7,SNR=10
CSNA  Conrad Observa   87.73 318⇑ iP      P      18 18 50.4 -0.2
      comp=Z,57nm,1.4s,mb5.6
KSP   Ksiaz            87.76 321  eP      P      18 18 51.9 +1.2
KSP                               epP     pP     18 18 59.3 -2.0
KSP                               eS      S      18 29 31.2 +0.3
KSP                                LMZ           19 04 40.4
      comp=Z,22µm,20.9s
KSP   Ksiaz            87.76 321  eP      P      18 18 51.1 +0.4
KSP                               epP     pP     18 19 00.3 -1.0
KSP                               ePP     PP     18 22 20.0 +3.4
KSP                               eS      S      18 29 29.0 -1.8
KSP                                LR     LR
      comp=Z,25µm,20.9s,MS6.6
CESS  Cesta pri Krsk   87.80 316  eP      P      18 18 51.2 +0.2
ADK   Adak             87.81  38  eP      P      18 18 50.5 -0.4
ADK                                pmax   pmax
      comp=Z,524nm,1.4s,mb6.6
ADK                                MLR    MLR
      comp=Z,9µm,20.0s,MS6.2
ADK   Adak             87.81  38  eP      P      18 18 50.5 -0.4
      comp=Z,524nm,1.4s,mb6.6
ADK                                LR     LR
      comp=Z,9µm,20.0s,MS6.2
ARSA  Arzberg          87.88 317⇓ iP      P      18 18 52.1 +0.7
      comp=Z,110nm,1.5s,mb5.9,SNR=26
UPC   Upice            87.90 321  eP      P      18 18 52.6 +1.2
PERS  Pernice          88.10 317⇑ eP      P      18 18 52.6 +0.2
PERS                              eS      S      18 29 34.6 +0.4
TREC  Trest            88.11 319  eP      P      18 18 53.2 +0.8
TREC                              eS      S      18 29 35.8 +1.6
TREC                               MLR    MLR
      comp=Z,7µm,20.9s,MS6.0
TREC  Trest            88.11 319  eP      P      18 18 53.2 +0.8
TREC                              ex      x      18 22 34.6
TREC                              eS      S      18 29 35.8 +1.6
TREC                              ex      x      18 40 31.0
TREC                              ex      x      18 42 21.2
TREC                               AMS    AMS    19 04 50.0
      comp=Z,7µm,20.9s
SOKA  Soboth           88.16 317⇑ iP      P      18 18 52.7  0.0
      comp=Z,124nm,1.4s,mb6.0
LJU   Ljubljana        88.45 316⇑ eP      P      18 18 54.4 +0.3
LJU                               e              18 19 41.3
LJU                               ePP     PP     18 22 35.3  +13
LJU                               eS      S      18 29 37.5 -0.1
OBKA  Obir             88.48 316⇑ iP      P      18 18 54.2  0.0
      comp=Z,99nm,1.6s,mb5.8,SNR=20
SKDS  Skadanscina      88.77 315⇑ iP      P      18 18 55.2 -0.4
SKDS                              e              18 19 41.8
SKDS                              eS      S      18 29 38.9 -1.7
MOA   Molln            88.79 318⇓ iP      P      18 18 55.8 +0.1
      comp=Z,62nm,1.5s,mb5.7,SNR=16
PRU   Pruhonice        88.79 320  eP      P      18 18 56.3 +0.7
PRU                               eS      S      18 29 40.7 +0.1
PRU                                MLR    MLR
      comp=Z,10µm,20.2s,MS6.2
PRU   Pruhonice        88.79 320  eP      P      18 18 56.3 +0.7
PRU                               ex      x      18 22 38.6
PRU                               eS      S      18 29 40.7 +0.1
PRU                               ex      x      18 40 48.3
PRU                               ex      x      18 42 20.2
PRU                                AMS    AMS    19 05 10.0
      comp=Z,10µm,20.2s
PVCC  Panska Ves       88.82 320  eP      P      18 18 57.5 +1.8
PVCC                              eS      S      18 29 42.1 +1.2
PVCC                               MLR    MLR
      comp=Z,8µm,18.2s,MS6.2
PVCC  Panska Ves       88.82 320  eP      P      18 18 57.5 +1.8
PVCC                              ex      x      18 22 39.4
PVCC                              eS      S      18 29 42.1 +1.2
PVCC                              ex      x      18 40 46.8
PVCC                              ex      x      18 42 17.8
PVCC                               AMS    AMS    19 05 10.0
      comp=Z,8µm,18.2s
VOY   Vojsko           88.89 316  eP      P      18 18 55.9 -0.3
VOY                               e       pP     18 19 07.6 +0.9
VOY                               e              18 19 34.7
TRI   Trieste          88.96 316   PFAKE         18 19 10.0  +14
TRI                                LR     LR
      comp=Z,8µm,22.0s,MS6.1
CADS  Cadrg            89.02 316⇑ iP      P      18 18 56.3 -0.4
CADS                              eS      S      18 29 42.9  0.0
CADS                              e              18 42 16.2
BSD   Bornholm Skovb   89.04 325  i P     P      18 18 52.2 -4.4
      comp=Z,101nm,1.0s,mb6.1
BSD                               i S     S      18 29 41.5 -1.2
BSD
      comp=Z,10µm,20.0s
BSD   Bornholm Skovb   89.04 325  i P     P      18 18 52.2 -4.4
      comp=Z,101nm,1.0s,mb6.1
BSD                               i S     S      18 29 41.5 -1.2
TRO   Tromso           89.06 340  eP      P      18 18 58.1 +1.7
TRO                               eSKS           18 29 22.4
TRO                               e              18 29 40.9
TRO                               eSS     SS     18 35 40.3 +4.4
TRO                                AMS    AMS    19 02 45.1
      comp=Z,17µm,18.2s,MS6.5
MYKA  Terra Mystica    89.11 317   P      P      18 18 57.2  0.0
      comp=Z,114nm,1.3s,mb6.0
GEC2  GERESS Array S   89.24 319  eP      P      18 18 58.2 +0.5
GEC2                              eS      S      18 29 45.4 +0.5
GEC2                               pmax   pmax
      comp=Z,322nm,1.8s,mb6.3
GEC2  GERESS Array S   89.24 319  eP      P      18 18 58.2 +0.5
      comp=Z,322nm,1.8s,mb6.3
GEC2                              eS      S      18 29 45.4 +0.5
GERES GERESS Array B   89.24 319   P      P      18 18 58.0 +0.2
      comp=Z,47nm,1.1s,mb5.8,baz=98,slow=4.0,SNR=80
BRG   Berggiesshubel   89.25 321  i P     P      18 18 58.2 +0.5
BRG                               i       pP     18 19 06.6 -1.7
BRG                                              18 22 35.0
BRG                                S      S      18 29 46.0 +1.1
BRG                                pmax   pmax
      comp=Z,194nm,1.9s,mb6.1
BRG                                pmax   pmax
      comp=Z,153nm,1.6s,mb6.1
BRG                                pmax   pmax
      comp=Z,98nm,1.2s,mb6.0
BRG                                pmax   pmax
      comp=Z,103nm,1.3s,mb6.0
BRG                                pmax   pmax
      comp=Z,3.0nm,1.0s,mb4.6
BRG                                MLR    MLR
      comp=N,7µm,21.2s,MS6.1
BRG                                MLR    MLR
      comp=E,4µm,19.9s,MS6.1
BRG                                MLR    MLR
      comp=Z,1µm,20.9s,MS5.3
BRG   Berggiesshubel   89.25 321  eP      P      18 18 58.2 +0.5
      comp=Z,322nm,1.9s,mb6.3
BRG                               eS      S      18 29 46.1 +1.2
BRG   Berggiesshubel   89.25 321  i P     P      18 18 58.2 +0.5
      comp=Z,324nm,1.9s,mb6.3
BRG                               i       pP     18 19 06.6 -1.7
      comp=Z,256nm,1.6s
BRG                               i              18 19 19.6
      comp=Z,164nm,1.2s
BRG                               i              18 19 36.2
      comp=Z,172nm,1.3s
BRG                                PP     PP     18 22 35.0 +6.5
BRG                                S      S      18 29 46.0 +1.1
BRG                               e              18 36 37.8
      comp=Z,4.2nm,1.0s
BRG
      comp=N,11µm,21.2s
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BRG
      comp=E,7µm,19.9s
BRG
      comp=Z,2µm,20.9s
BRG   Berggiesshubel   89.25 321  i P     P       18 18 58.2 +0.5
      comp=Z,194nm,1.9s,mb6.1
BRG                               i       pP      18 19 06.6 -1.7
BRG                               i               18 19 19.6
BRG                               i               18 19 36.2
BRG                                 PP    PP      18 22 35.0 +6.5
BRG                                 S     S       18 29 46.0 +1.1
BRG                               e               18 36 37.8
BRG                                 LR    LR
      comp=Z,1µm,20.9s,MS5.3
KHC   Kasperske Hory   89.35 319  eP      P       18 18 58.9 +0.7
KHC                               e               18 19 12.0
KHC                               eS      S       18 29 47.5 +1.6
KHC                                 MLR   MLR
      comp=Z,9µm,19.5s,MS6.2
KHC   Kasperske Hory   89.35 319  eP      P       18 18 58.9 +0.7
KHC                               epP     pP      18 19 12.0 +3.2
KHC                               ex      x       18 22 40.1
KHC                               eS      S       18 29 47.5 +1.6
KHC                               ex      x       18 40 50.2
KHC                               ex      x       18 42 42.0
KHC                                 AMS   AMS     19 06 30.0
      comp=Z,9µm,19.5s
KBA   Koelnbreinsper   89.35 317⇑iP       P       18 18 57.5 -0.7
      comp=Z,72nm,1.2s,mb5.9,SNR=13
RUE   Ruedersdorf      89.48 322  eP      P       18 18 59.8 +1.1
      comp=Z,561nm,1.2s,mb6.8
RJOB  Jochberg         89.77 318  eP      P       18 19 00.2  0.0
      comp=Z,64nm,1.3s,mb5.8
RJOB                              eS      S       18 29 49.0 -0.9
BJO   Bjornoya         89.78 345  eP      P       18 19 04.0 +4.2
BJO                               ePP     PP      18 22 37.5 +5.3
BJO                               e               18 29 48.2
BJO                                 AMS   AMS     19 05 55.4
      comp=Z,11µm,19.0s,MS6.3
WET   Wettzell         89.81 319  eP      P       18 19 00.7 +0.3
WET                               e*PP    pP      18 19 10.3 -0.6
WET                               eS      S       18 29 50.1  0.0
WET                                 pmax  pmax
      comp=Z,102nm,1.4s,mb6.0
WET   Wettzell         89.81 319  eP      P       18 19 00.7 +0.3
      comp=Z,102nm,1.4s,mb6.0
WET                               epP     pP      18 19 10.3 -0.6
WET                               eS      S       18 29 50.1  0.0
CLL   Collm            89.87 321⇑iP       P       18 19 01.4 +0.8
CLL                               i       pP      18 19 10.4 -0.8
CLL                               eS      S       18 29 49.0 -1.7
CLL                                 pmax  pmax
      comp=Z,235nm,2.1s,mb6.2
CLL                                 MLR   MLR
      comp=Z,9µm,18.5s,MS6.2
CLL   Collm            89.87 321  eP      P       18 19 00.9 +0.3
      comp=Z,86nm,1.4s,mb5.9
CLL                               epP     pP      18 19 10.9 -0.3
CLL                               eS      S       18 29 50.1 -0.6
CLL   Collm            89.87 321⇑iP       P       18 19 01.4 +0.8
      comp=Z,235nm,2.1s,mb6.2
CLL                                 Lmax          18 08 58.0
CLL                                 LmV           18 09 00.0
      comp=Z,9µm,18.5s
CLL                                 Pmax          18 19 08.0
CLL                               i sP    sP      18 19 10.4 -4.6
CLL                               i               18 19 21.9
      comp=Z,140nm,1.2s
CLL                               e               18 22 17.0
CLL                               ePP     PP      18 22 36.0 +2.5
CLL                               eS      S       18 29 49.0 -1.7
      comp=N,12µm,29.9s
CLL                               eS      S       18 29 49.0 -1.7
      comp=E,1µm,21.9s
CLL                               ePS     PS      18 30 56.0 -4.6
CLL                               ePPS            18 31 22.0
CLL                               eSS     SS      18 35 36.0  -13
CLL                               eSSSS           18 42 39.0
CLL   Collm            89.87 321⇑iP       P       18 19 01.4 +0.8
      comp=E,235nm,2.1s,mb6.2
CLL                               i       pP      18 19 10.4 -0.8
CLL                               i               18 19 21.9
CLL                               eS      S       18 29 49.0 -1.7
CLL                                 LR    LR
      comp=Z,9µm,18.5s,MS6.2
ABTA  Abfaltersbach    89.90 317⇑iP       P       18 19 00.1 -0.8
      comp=Z,41nm,1.1s,mb5.7,SNR=18
NKC   Novy Kostel      90.16 320  eP      P       18 19 03.2 +1.2
NKC                               eS      S       18 29 56.6 +3.3
NKC                                 MLR   MLR
      comp=Z,9µm,30.1s,MS6.0
NKC   Novy Kostel      90.16 320  eP      P       18 19 03.2 +1.2
NKC                               ex      x       18 22 47.3
NKC                               eS      S       18 29 56.6 +3.3
NKC                               ex      x       18 41 09.0
NKC                               ex      x       18 42 43.3
NKC                                 AMS   AMS     19 03 10.0
      comp=Z,9µm,30.1s
NKC   Novy Kostel      90.16 320  eP      P       18 19 03.2 +1.2
NKC                               ePP     PP      18 22 47.3  +12
NKC                               eS      S       18 29 56.6 +3.3
NKC                               e               18 41 09.0
NKC                               e               18 42 43.3
TANN  Tannenbergstha   90.16 320  eP      P       18 19 02.3 +0.3
      comp=Z,166nm,1.9s,mb6.0
TANN                              eS      S       18 29 54.8 +1.5
ROTZ  Rotzenmuhle      90.28 320  eP      P       18 19 03.4 +0.8
      comp=Z,307nm,2.2s,mb6.2
ROTZ                              eS      S       18 29 56.9 +2.4
MOR8  Moi Rana         90.30 336  eP      P       18 19 02.4 +0.1
COP   Copenhagen       90.50 326  i P     P       18 18 59.8 -3.6
COP                               i S     S       18 29 57.3 +1.1
COP
      comp=Z,4µm,19.0s
WTTA  Wattenberg       90.53 317⇑iP       P       18 19 03.7 -0.1
      comp=Z,155nm,1.8s,mb6.0,SNR=25
WATA  Walderalm        90.57 317⇑iP       P       18 19 03.2 -0.8
      comp=Z,62nm,0.9s,mb5.9,SNR=16
MOX   Moxa             90.71 320  eP      P       18 19 06.0 +1.5
      comp=Z,174nm,1.8s,mb6.1
MOX                               ePP     pP      18 19 15.1  0.0
      comp=Z,226nm,1.8s
MOX                               eS      S       18 30 00.0 +1.6
MOX
      comp=Z,8µm,22.0s
MOX   Moxa             90.71 320  eP      P       18 19 06.0 +1.5
MOX                               e       pP      18 19 15.1  0.0
MOX                               eS      S       18 30 00.0 +1.6
MOX                                 pmax  pmax
      comp=Z,174nm,1.8s,mb6.1
MOX                                 pmax  pmax
      comp=Z,226nm,1.8s,mb6.2
MOX                                 MLR   MLR
      comp=Z,8µm,22.0s,MS6.1
MOX   Moxa             90.71 320  eP      P       18 19 04.9 +0.4
      comp=Z,150nm,1.7s,mb6.0
MOX                               eS      S       18 29 58.7 +0.3
FUR   Furstenfeldbru   90.81 318  eP      P       18 19 04.8 -0.3
FUR                               eS      S       18 29 58.7 -0.8
FUR                                 pmax  pmax
      comp=Z,111nm,1.5s,mb6.0
FUR   Furstenfeldbru   90.81 318  eP      P       18 19 04.8 -0.3
      comp=Z,111nm,1.5s,mb6.0
FUR                               eS      S       18 29 58.7 -0.8
MOTA  Moosalm          90.89 317⇓iP       P       18 19 05.0 -0.4
      comp=Z,79nm,1.2s,mb5.9,SNR=28
STOK  Stokkvaagen      90.89 336  eSKS            18 29 35.8
GRA1  Grafenberg Arr   90.92 320  eP      P       18 19 06.2 +0.7
      comp=Z,396nm,2.0s,mb6.4
GRA1                              epP     pP      18 19 14.8 -1.3
GRA1                              ePP     PP      18 22 48.2 +6.4
GRA1                              eS      S       18 29 59.9 -0.5
GRA1                              eSP     SP      18 31 03.1 -4.6
GRA1                              eSS     SS      18 36 04.9 +1.2
GRA1                                LR    LR
      comp=Z,10µm,19.7s,MS6.3
GRF   Grafenberg Arr   90.92 320  eP      P       18 19 06.2 +0.7
GRF                               e*PP    pP      18 19 14.8 -1.3
GRF                               e               18 22 48.2
GRF                               eS      S       18 29 59.9 -0.5
GRF                               eSP     SP      18 31 03.1 -4.6
GRF                               eSS     SS      18 36 04.9 +1.2
GRF                                 pmax  pmax
      comp=Z,396nm,2.0s,mb6.4
GRF                                 MLR   MLR
      comp=Z,10µm,19.7s,MS6.3
GRF   Grafenberg Arr   90.92 320  eP      P       18 19 06.2 +0.7
GRF                               e*PP    pP      18 19 14.8 -1.3
GRF                               e               18 22 48.2
GRF                               eS      S       18 29 59.9 -0.5
GRF                               eSP     SP      18 31 03.1 -4.6
GRF                               eSS     SS      18 36 04.9 +1.2
GRF                                 pmax  pmax
      comp=Z,396nm,2.0s,mb6.4
GRF                                 MLR   MLR
      comp=Z,10µm,19.7s,MS6.3
GRF   Grafenberg Arr   90.92 320  eP      P       18 19 06.2 +0.7
      comp=Z,396nm,2.0s,mb6.4
GRF                               epP     pP      18 19 14.8 -1.3
GRF                               ePP     PP      18 22 48.2 +6.4
GRF                               eS      S       18 29 59.9 -0.5
GRF                               eSP     SP      18 31 03.1 -4.6
GRF                               eSS     SS      18 36 04.9 +1.2
GRF                               eL              19 08 49.1
      comp=Z,10µm,19.7s
SPITS Spitsbergen Ar   90.97 348    LR    LR      19 08 10.8
      comp=Z,23µm,19.9s,MS6.6,baz=0.0,slow=41
RETA  Reutte           91.13 317⇑iP       P       18 19 06.5 -0.1
      comp=Z,144nm,1.5s,mb6.1,SNR=26
FETA  Feichten         91.13 317⇑iP       P       18 19 06.8 +0.2
      comp=Z,112nm,1.7s,mb5.9,SNR=27
NSS   Namsos           91.22 334  eP      P       18 19 07.0 +0.4
NSS                               ePP     PP      18 22 46.9 +3.1
NSS                               e               18 30 02.6
NSS                               eSS     SS      18 36 14.3 +6.9
NSS                                 AMS   AMS     19 07 18.8
      comp=Z,14µm,18.0s,MS6.4
VLC   Villacollemand   91.27 314    PFAKE         18 19 20.0  +13
VLC                                 LR    LR
      comp=Z,9µm,22.0s,MS6.2
NB2   NORSAR Subarra   91.41 331    P     P       18 19 07.0 -0.6
      comp=Z,49nm,0.8s,mb5.9,baz=94,slow=4.6
NOA   NORSAR Array B   91.41 331    P     P       18 19 07.5 -0.1
      comp=Z,16nm,0.9s,mb5.3,baz=91,slow=4.9,SNR=12
NOA                                 LR    LR      19 09 11.4
      comp=Z,9µm,19.8s,MS6.2,baz=105,slow=41
GAMB  Gambell          91.42  26  eP      P       18 19 07.8 +0.2
      comp=Z,89nm,1.2s,mb6.0
CLZ   Clausthal        91.54 322  eP      P       18 19 08.8 +0.4
CLZ                               eS      S       18 30 05.2 -0.7
CLZ                                 pmax  pmax
      comp=Z,201nm,1.9s,mb6.1
CLZ   Clausthal        91.54 322  eP      P       18 19 08.8 +0.4
      comp=Z,201nm,1.9s,mb6.1
CLZ                               eS      S       18 30 05.2 -0.7
BSEG  Bad Segeberg     91.64 324  eP      P       18 19 09.2 +0.4
      comp=Z,146nm,1.9s,mb6.0
BSEG                              eS      S       18 30 07.0 +0.3
DAVA  Damuels          91.72 317⇑iPcP     PcP     18 19 09.6 -0.6
      comp=Z,109nm,1.0s,SNR=28
NRDL  Niedersach Rie   91.72 322  eP      P       18 19 09.7 +0.5
      comp=Z,263nm,2.0s,mb6.2
NRDL                              eS      S       18 30 08.0 +0.5
UBBA  Unterbreizbach   91.74 321  eP      P       18 19 09.6 +0.3
      comp=Z,120nm,2.0s,mb5.9
UBBA                              eS      S       18 30 07.7 -0.1
KEST  Kesra            91.80 306    P     P       18 19 11.2 +1.2
      comp=Z,45nm,1.0s,mb5.7,baz=342,slow=1.4,SNR=37
KEST                                LR    LR      19 01 10.8
      comp=Z,8µm,20.1s,MS6.1,baz=172,slow=36
KBS   Kingsbay         91.92 349  eP      P       18 19 11.3 +1.7
KBS                               eSKS            18 29 46.1
KBS                                 AMS   AMS     19 08 41.3
      comp=Z,22µm,18.0s,MS6.7
KBS   Kingsbay         91.92 349⇑eP       P       18 19 09.7 +0.1
KBS                                 LR    LR
      comp=Z,26µm,19.0s,MS6.7
TUE   Stuetta          92.07 316  eP      P       18 19 11.7 +0.7
      comp=Z,126nm,1.4s,mb6.0
TUE                                 LR    LR
      comp=Z,10µm,22.0s,MS6.2
OSPF  L'Ospedale       92.07 311  eP      P       18 19 11.2 +0.1
KONO  Kongsberg        92.17 329  eP      P       18 19 18.2 +7.1
KONO                              eSKS            18 29 41.3
KONO  Kongsberg        92.17 329  i P     P       18 19 10.9 -0.2
KONO                                LR    LR
      comp=Z,12µm,19.0s,MS6.4
STU   Stuttgart        92.22 319  eP      P       18 19 11.6  0.0
      comp=Z,162nm,1.9s,mb6.0
STU                               epP     pP      18 19 20.8 -1.4
STU                               eS      S       18 30 11.3 -0.8
PGF   Pioggiola        92.23 312  eP      P       18 19 11.8  0.0
      comp=Z,146nm,1.1s,mb5.9
PGF   Pioggiola        92.23 312  eP      P       18 19 11.8  0.0
PGF                                 pmax  pmax
      comp=Z,73nm,1.1s,mb5.9
PGF   Pioggiola        92.23 312  eP      P       18 19 11.8  0.0
      comp=Z,73nm,1.1s,mb5.9
MUD   Monsted U'grnd   92.35 326  i P     P       18 19 08.5 -3.5
MUD                               i S     S       18 30 15.7 +2.7
MUD
      comp=Z,6µm,20.0s
MUD   Monsted U'grnd   92.35 326  i P     P       18 19 08.5 -3.5
MUD                               i S     S       18 30 15.7 +2.7
SPAK  Spaichingen-Ko   92.48 318  eP      P       18 19 13.5 +0.7
TOD   Tromm            92.48 319  eP      P       18 19 13.5 +0.7
NIKO  Nikolski         92.66  37  eP      P       18 19 12.9 -0.6
      comp=Z,4µm,0.9s
TNS   Taunus Mts       92.72 320  eP      P       18 19 14.2 +0.3
TNS                               eS      S       18 30 17.4 +0.8
TNS                                 pmax  pmax
      comp=Z,104nm,1.2s,mb6.1
TNS   Taunus Mts       92.72 320  eP      P       18 19 14.2 +0.3
      comp=Z,104nm,1.2s,mb6.1
TNS                               eS      S       18 30 17.4 +0.8
BFO   Black Forest     92.78 318    P     P       18 19 15.0 +0.8
      comp=Z,173nm,1.0s,mb6.4,SNR=7.6
BFO   Black Forest     92.78 318  eP      P       18 19 13.9 -0.3
BFO                               eS      S       18 30 17.5 +0.3
BFO                                 pmax  pmax
      comp=Z,48nm,1.4s,mb5.7
BFO   Black Forest     92.78 318  eP      P       18 19 13.9 -0.3
      comp=Z,48nm,1.4s,mb5.7
BFO                               eS      S       18 30 17.5 +0.3
BFO   Black Forest     92.78 318  i P     P       18 19 15.1 +0.9
BFO                                 LR    LR
      comp=Z,8µm,19.0s,MS6.2
FELD  Feldberg im Sc   93.00 318  eP      P       18 19 15.7 +0.5
TNA   Tin City         93.07  25  eP      P       18 19 14.5 -0.7
      comp=Z,45nm,1.1s,mb5.8
LANF  Langenberg       93.14 319  eP      P       18 19 16.7 +0.9
IBBN  Ibbenburen       93.16 322  eP      P       18 19 16.0 +0.1
      comp=Z,67nm,1.5s,mb5.8
IBBN                              eS      S       18 30 19.9 -0.5
MOL   Molde            93.17 332  eP      P       18 19 22.3 +6.6
MOL                               e               18 30 16.7
MOL                                 AMS   AMS     19 05 43.1
      comp=Z,10µm,20.9s,MS6.3
LIBD  Limburg          93.27 318  eP      P       18 19 16.9 +0.4
ABH   Alteburg         93.30 320  eP      P       18 19 17.2 +0.6
SAOF  Saorge           93.30 314  eP      P       18 19 17.3 +0.6
ABSA  Djebel Ababsia   93.32 306    P     P       18 19 18.8 +1.8
BBS   Basel-Blauen     93.33 317  eP      P       18 19 16.1 -0.7
VNA2  Neumayer--Watz   93.35 198  eP      P       18 19 18.7 +2.3
CMAH  Djebel Manchou   93.37 306    P     P       18 19 18.0 +0.8
SBF   Sospel           93.39 314  eP      P       18 19 16.8 -0.3
      comp=Z,91nm,1.0s,mb5.9
SBF   Sospel           93.39 314  eP      P       18 19 16.8 -0.3
SBF                                 pmax  pmax
      comp=Z,46nm,1.0s,mb5.9
SBF   Sospel           93.39 314  eP      P       18 19 16.8 -0.3
      comp=Z,46nm,1.0s,mb5.9
AUTN  L'Aution         93.39 314  eP      P       18 19 18.0 +0.9
REVF  Revere           93.44 313  eP      P       18 19 17.8 +0.5
LUCF  Luceram          93.45 314  eP      P       18 19 18.1 +0.7
BUG   Bochum--Univer   93.47 321  eP      P       18 19 17.3  0.0
      comp=Z,41nm,1.5s,mb5.6
BUG                               eS      S       18 30 24.2 +1.1
CDF   Champ du Feu     93.49 318  eP      P       18 19 17.2 -0.3
      comp=Z,109nm,1.4s,mb5.8
CDF   Champ du Feu     93.49 318  eP      P       18 19 17.2 -0.3
CDF                                 pmax  pmax
      comp=Z,55nm,1.4s,mb5.8
CDF   Champ du Feu     93.49 318  eP      P       18 19 17.2 -0.3
      comp=Z,55nm,1.4s,mb5.8
TOUF  Mont Tournerai   93.52 314  eP      P       18 19 18.5 +0.8
ECH   Echery           93.57 318  eP      P       18 19 18.5 +0.7
ECH   Echery           93.57 318  eP      P       18 19 17.8  0.0
ECH                                 pmax  pmax
      comp=Z,33nm,1.0s,mb5.7
ECH                                 MLR   MLR
      comp=Z,6µm,20.0s,MS6.1
ECH   Echery           93.57 318  eP      P       18 19 17.8  0.0
      comp=Z,33nm,1.0s,mb5.7
ECH                                 LR    LR
      comp=Z,6µm,20.0s,MS6.1
MOF   Molkenrain       93.59 318  eP      P       18 19 18.0 +0.1
MVIF  Mont Vial        93.59 314  eP      P       18 19 18.8 +0.7
RUP   Ruppelstein      93.62 319  eP      P       18 19 18.9 +0.9
HINF  Hinteralfeld     93.78 318  eP      P       18 19 18.4 -0.4
      comp=Z,167nm,1.8s,mb5.9
HINF  Hinteralfeld     93.78 318  eP      P       18 19 18.4 -0.4
HINF                                pmax  pmax
      comp=Z,83nm,1.8s,mb5.9
HINF  Hinteralfeld     93.78 318  eP      P       18 19 18.4 -0.4
      comp=Z,83nm,1.8s,mb5.9
CALN  Calern           93.78 314  eP      P       18 19 19.7 +0.8
LOMF  Lomont           93.80 317  eP      P       18 19 19.1 +0.2
MBDF  Montbardon       93.86 314  eP      P       18 19 20.2 +0.9
      comp=Z,131nm,1.6s,mb5.8
MBDF  Montbardon       93.86 314  eP      P       18 19 20.2 +0.9
MBDF                                pmax  pmax
      comp=Z,65nm,1.6s,mb5.8
MBDF  Montbardon       93.86 314  eP      P       18 19 20.2 +0.9
      comp=Z,65nm,1.6s,mb5.8
LPG   La Plagne        93.87 315  eP      P       18 19 19.3  0.0
      comp=Z,58nm,1.0s,mb5.7
LPG   La Plagne        93.87 315  eP      P       18 19 19.3  0.0
LPG                                 pmax  pmax
      comp=Z,29nm,1.0s,mb5.7
LPG   La Plagne        93.87 315  eP      P       18 19 19.3  0.0
      comp=Z,29nm,1.0s,mb5.7
LPL   La Plagne        93.88 315  eP      P       18 19 19.3  0.0
      comp=Z,184nm,1.3s,mb6.0
LPL   La Plagne        93.88 315  eP      P       18 19 19.3  0.0
LPL                                 pmax  pmax
      comp=Z,92nm,1.3s,mb6.0
LPL   La Plagne        93.88 315  eP      P       18 19 19.3  0.0
      comp=Z,92nm,1.3s,mb6.0
OG01  Vacheresse       93.91 316  eP      P       18 19 20.3 +0.9
BNI   Bardonecchia     93.92 315  eP      P       18 19 19.2 -0.4
BNI                                 pmax  pmax
      comp=Z,45nm,1.4s,mb5.7
BNI                                 MLR   MLR
      comp=Z,10µm,20.0s,MS6.3
BNI   Bardonecchia     93.92 315  eP      P       18 19 19.2 -0.3
      comp=Z,45nm,1.4s,mb5.7
BNI                                 LR    LR
      comp=Z,10µm,20.0s,MS6.3
CKFL  Kef-Lekhel       93.93 306    P     P       18 19 20.2 +0.4
VNA3  Neumayer Olymp   93.96 198  eP      P       18 19 23.0 +3.8
FRF   La Foret Royal   93.96 313  eP      P       18 19 19.5 -0.3
      comp=Z,74nm,1.1s,mb5.7
FRF   La Foret Royal   93.96 313  eP      P       18 19 19.5 -0.3
FRF                                 pmax  pmax
      comp=Z,37nm,1.1s,mb5.7
FRF   La Foret Royal   93.96 313  eP      P       18 19 19.5 -0.3
      comp=Z,37nm,1.1s,mb5.7
LMR   La Mourre        94.06 313  eP      P       18 19 19.9 -0.3
      comp=Z,45nm,1.1s,mb5.5
LMR   La Mourre        94.06 313  eP      P       18 19 19.9 -0.3
LMR                                 pmax  pmax
      comp=Z,22nm,1.1s,mb5.5
LMR   La Mourre        94.06 313  eP      P       18 19 19.9 -0.3
      comp=Z,22nm,1.1s,mb5.5
HAU   Haudompre        94.11 318  eP      P       18 19 19.8 -0.5
      comp=Z,141nm,1.3s,mb6.0
HAU                               eMLR    MLR
      comp=Z,8µm,20.5s,MS5.9
HAU   Haudompre        94.11 318  eP      P       18 19 19.8 -0.5
HAU                                 pmax  pmax
      comp=Z,70nm,1.3s,mb5.9
HAU                                 MLR   MLR
      comp=Z,8µm,20.5s,MS6.2
HAU   Haudompre        94.11 318  eP      P       18 19 19.8 -0.5
      comp=Z,70nm,1.3s,mb5.9
HAU                                 LR    LR
      comp=Z,8µm,20.5s,MS6.2
CASM  Ain Smara        94.12 306    P     P       18 19 21.8 +1.1
CTEI  Djebel Teioual   94.19 306    P     P       18 19 23.2 +2.2
WLF   Walferdange      94.21 319    P     P       18 19 21.4 +0.7
      comp=Z,56nm,2.5s,mb5.5
WLF   Walferdange      94.21 319  eP      P       18 19 22.1 +1.4
WLF                                 pmax  pmax
      comp=Z,44nm,1.2s,mb5.8
WLF                                 MLR   MLR
      comp=Z,9µm,21.0s,MS6.2
WLF   Walferdange      94.21 319  eP      P       18 19 21.1 +0.4
      comp=Z,53nm,1.4s,mb5.8
WLF                               eS      S       18 30 28.2 -1.5
WLF   Walferdange      94.21 319  eP      P       18 19 22.1 +1.4
      comp=Z,44nm,1.2s,mb5.8
WLF                                 LR    LR
      comp=Z,9µm,21.0s,MS6.2
BER   Bergen           94.30 330  eP      P       18 19 23.3 +2.4
BER                               eSKS            18 30 03.6
BER                               e               18 30 29.9
BER                                 AMS   AMS     19 06 42.5
      comp=Z,10µm,20.0s,MS6.3
CABF  La Chapelle      94.32 316  eP      P       18 19 21.3  0.0
      comp=Z,186nm,1.5s,mb6.0
CABF  La Chapelle      94.32 316  eP      P       18 19 21.3  0.0
CABF                                pmax  pmax
      comp=Z,93nm,1.5s,mb6.0
CABF  La Chapelle      94.32 316  eP      P       18 19 21.3  0.0
      comp=Z,93nm,1.5s,mb6.0
THEF  They Montfort    94.35 318  eP      P       18 19 21.5 +0.1
FOO   Floro            94.38 331  eP      P       18 19 28.5 +7.2
FOO                               eSKS            18 30 03.9
FOO                               e               18 30 28.7
FOO                                 AMS   AMS     19 05 31.0
      comp=Z,11µm,24.5s,MS6.2
TAVF  Tavernes         94.39 313  eP      P       18 19 22.4 +0.7
ORIF  Oris-en-Rattie   94.49 315  eP      P       18 19 22.1 -0.1
      comp=Z,42nm,0.9s,mb5.6
ORIF                              eMLR    MLR
      comp=Z,10µm,23.0s,MS5.9
ORIF  Oris-en-Rattie   94.49 315  eP      P       18 19 22.1 -0.1
ORIF                                pmax  pmax
      comp=Z,21nm,0.9s,mb5.6
ORIF  Oris-en-Rattie   94.49 315  eP      P       18 19 22.1 -0.1
      comp=Z,21nm,0.9s,mb5.6
DFRA  Djebel Bou Aff   94.61 306    P     P       18 19 24.9 +2.0
VILF  Villemus         94.63 314  eP      P       18 19 24.3 +1.5
BERF  Bertagne         94.66 313  eP      P       18 19 23.2 +0.2
SMRF  Simiane la Rot   94.73 314  eP      P       18 19 23.7 +0.4
      comp=Z,91nm,1.4s,mb5.7
SMRF  Simiane la Rot   94.73 314  eP      P       18 19 23.7 +0.4
      comp=Z,91nm,1.4s,mb6.0
BCLA  Clavier          94.73 320    P     P       18 19 22.5 -0.6
TREF  Trevaresse       94.88 313  eP      P       18 19 24.7 +0.7
TAM   Tamanrasset      94.92 293  eP      P       18 19 25.8 +1.2
TAM                                 pmax  pmax
      comp=Z,18nm,1.1s,mb5.4
TAM                                 MLR   MLR
      comp=Z,14µm,21.0s,MS6.4
TAM   Tamanrasset      94.92 293  eP      P       18 19 25.8 +1.2
      comp=Z,18nm,1.1s,mb5.4
TAM                                 LR    LR
      comp=Z,14µm,21.0s,MS6.4
MEZF  Maizieres J'vi   94.97 318  eP      P       18 19 24.0 -0.2
      comp=Z,165nm,1.4s,mb6.0
MEZF  Maizieres J'vi   94.97 318  eP      P       18 19 24.0 -0.2
      comp=Z,165nm,1.4s,mb6.3
PRAF  Pradon           95.03 314  eP      P       18 19 25.6 +0.9
GIVF  Givet            95.05 320  eP      P       18 19 24.5 -0.1
      comp=Z,45nm,1.1s,mb5.5
GIVF  Givet            95.05 320  eP      P       18 19 24.5 -0.1
GIVF                                pmax  pmax
      comp=Z,23nm,1.1s,mb5.5
GIVF  Givet            95.05 320  eP      P       18 19 24.5 -0.1
      comp=Z,22nm,1.1s,mb5.5
DOU   Dourbes          95.20 320    P     P       18 19 26.2 +0.9
      comp=Z,26nm,2.5s,mb5.2
VIVF  Saint-Julien-l   95.35 315  eP      P       18 19 25.8 -0.3
      comp=Z,58nm,1.2s,mb5.6
VIVF  Saint-Julien-l   95.35 315  eP      P       18 19 25.8 -0.3
VIVF                                pmax  pmax
      comp=Z,29nm,1.2s,mb5.6
VIVF  Saint-Julien-l   95.35 315  eP      P       18 19 25.8 -0.3
      comp=Z,29nm,1.2s,mb5.6
SNF   Seneffe          95.38 320    P     P       18 19 26.1  0.0
      comp=Z,20nm,1.7s,mb5.3
SSB   Saint Sauveur    95.43 315  eP      P       18 19 25.5 -1.0
SSB                                 pmax  pmax
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	comp=Z,28nm,1.1s,mb5.6						
SSB				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.0						
SSB	**Saint Sauveur**	**95.43**	**315**	*e*P	**P**	**18 19 25.5**	**-1.0**
	comp=Z,28nm,1.1s,mb5.6						
SSB				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
BAIF	**Baives**	**95.45**	**320**	*e*P	**P**	**18 19 26.3**	**-0.1**
	comp=Z,117nm,1.3s,mb5.9						
BAIF	**Baives**	**95.45**	**320**	*e*P	**P**	**18 19 26.3**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,59nm,1.3s,mb5.9						
BAIF	**Baives**	**95.45**	**320**	*e*P	**P**	**18 19 26.3**	**-0.1**
	comp=Z,59nm,1.3s,mb5.8						
LOR	**Lormes**	**95.82**	**317**	*e*P	**P**	**18 19 27.8**	**-0.4**
	comp=Z,122nm,1.3s,mb5.9						
LOR				*e*MLR	MLR		
	comp=Z,10µm,22.8s,MS5.9						
LOR	**Lormes**	**95.82**	**317**	*e*P	**P**	**18 19 27.8**	**-0.4**
LOR				pmax	pmax		
	comp=Z,61nm,1.3s,mb5.9						
LOR				MLR	MLR		
	comp=Z,10µm,22.8s,MS6.2						
LOR	**Lormes**	**95.82**	**317**	*e*P	**P**	**18 19 27.8**	**-0.4**
	comp=Z,61nm,1.3s,mb5.9						
LOR				LR	LR		
	comp=Z,10µm,22.8s,MS6.2						
SMF	**Signal de Mont**	**95.86**	**316**	*e*P	**P**	**18 19 27.8**	**-0.6**
	comp=Z,100nm,1.2s,mb5.8						
SMF	**Signal de Mont**	**95.86**	**316**	*e*P	**P**	**18 19 27.8**	**-0.6**
SMF				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.8						
SMF	**Signal de Mont**	**95.86**	**316**	*e*P	**P**	**18 19 27.8**	**-0.6**
	comp=Z,50nm,1.2s,mb5.8						
LASF	**Ste Croix**	**95.97**	**314**	*e*P	**P**	**18 19 28.7**	**-0.2**
	comp=Z,75nm,1.4s,mb5.6						
SSF	**Saint Saulge**	**96.07**	**317**	*e*P	**P**	**18 19 28.9**	**-0.4**
	comp=Z,76nm,1.5s,mb5.6						
SSF	**Saint Saulge**	**96.07**	**317**	*e*P	**P**	**18 19 28.9**	**-0.4**
SSF				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.6						
SSF	**Saint Saulge**	**96.07**	**317**	*e*P	**P**	**18 19 28.9**	**-0.4**
	comp=Z,38nm,1.5s,mb5.6						
AVF	**Avril sur Loir**	**96.19**	**317**	*e*P	**P**	**18 19 29.3**	**-0.6**
	comp=Z,110nm,1.4s,mb5.8						
AVF	**Avril sur Loir**	**96.19**	**317**	*e*P	**P**	**18 19 29.3**	**-0.6**
AVF				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.8						
AVF	**Avril sur Loir**	**96.19**	**317**	*e*P	**P**	**18 19 29.3**	**-0.6**
	comp=Z,55nm,1.4s,mb5.8						
LBL	**Lubilhac**	**96.35**	**315**	*e*P	**P**	**18 19 32.5**	**+1.9**
PYM	**Petit Puy Mans**	**96.49**	**316**	*e*P	**P**	**18 19 33.1**	**+1.9**
BGF	**Bois d'Agland**	**96.55**	**316**	*e*P	**P**	**18 19 31.4**	**-0.1**
	comp=Z,140nm,1.3s,mb5.9						
BGF	**Bois d'Agland**	**96.55**	**316**	*e*P	**P**	**18 19 31.4**	**-0.1**
BGF				pmax	pmax		
	comp=Z,70nm,1.3s,mb5.9						
BGF	**Bois d'Agland**	**96.55**	**316**	*e*P	**P**	**18 19 31.4**	**-0.1**
	comp=Z,70nm,1.3s,mb5.9						
HYF	**Humbligny**	**96.65**	**317**	*e*P	**P**	**18 19 31.9**	**0.0**
TCF	**Toulx Ste Croi**	**97.01**	**316**	*e*P	**P**	**18 19 33.4**	**-0.2**
	comp=Z,55nm,1.3s,mb5.5						
TCF	**Toulx Ste Croi**	**97.01**	**316**	*e*P	**P**	**18 19 33.4**	**-0.2**
TCF				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.5						
TCF	**Toulx Ste Croi**	**97.01**	**316**	*e*P	**P**	**18 19 33.4**	**-0.2**
	comp=Z,27nm,1.3s,mb5.5						
MTLF	**Montolieu**	**97.19**	**313**	*e*P	**P**	**18 19 34.2**	**-0.3**
	comp=Z,86nm,1.6s,mb5.6						
MTLF	**Montolieu**	**97.19**	**313**	*e*P	**P**	**18 19 34.2**	**-0.3**
MTLF				pmax	pmax		
	comp=Z,43nm,1.6s,mb5.6						
MTLF	**Montolieu**	**97.19**	**313**	*e*P	**P**	**18 19 34.2**	**-0.3**
	comp=Z,43nm,1.6s,mb5.6						
CAF	**Calviac**	**97.20**	**315**	*e*P	**P**	**18 19 34.7**	**+0.2**
	comp=Z,62nm,1.3s,mb5.6						
CAF	**Calviac**	**97.20**	**315**	*e*P	**P**	**18 19 34.7**	**+0.2**
CAF				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.6						
CAF	**Calviac**	**97.20**	**315**	*e*P	**P**	**18 19 34.7**	**+0.2**
	comp=Z,31nm,1.3s,mb5.6						
RJF	**Les Rejaudoux**	**97.56**	**315**	*e*P	**P**	**18 19 36.2**	**+0.1**
	comp=Z,80nm,1.4s,mb5.8						
RJF				*e*MLR	MLR		
	comp=Z,8µm,21.0s,MS5.9						
RJF	**Les Rejaudoux**	**97.56**	**315**	*e*P	**P**	**18 19 36.2**	**+0.1**
RJF				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.8						
RJF				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.2						
RJF	**Les Rejaudoux**	**97.56**	**315**	*e*P	**P**	**18 19 36.2**	**+0.1**
	comp=Z,40nm,1.4s,mb5.8						
RJF				LR	LR		
	comp=Z,8µm,21.0s,MS6.2						
LFF	**La Frestale**	**98.14**	**315**	*e*P	**P**	**18 19 38.8**	**+0.1**
	comp=Z,81nm,1.4s,mb5.8						
LFF	**La Frestale**	**98.14**	**315**	*e*P	**P**	**18 19 38.8**	**+0.1**
LFF				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.8						
LFF	**La Frestale**	**98.14**	**315**	*e*P	**P**	**18 19 38.8**	**+0.1**
	comp=Z,40nm,1.4s,mb5.8						
JMIC	**Jan Mayen**	**98.18**	**342**	*e*	PS	18 32 38.7	+7.4
JMIC				*e*SS	SS	18 37 57.0	+11
JMIC	**Jan Mayen**	**98.18**	**342**	LR	LR	19 08 12.0	
	comp=Z,7µm,21.2s,MS6.2,baz=240,slow=38						
LDF	**La Druitiere**	**98.39**	**319**	*e*P	**P**	**18 19 39.0**	**-0.7**
	comp=Z,42nm,1.1s,mb5.6						
LDF	**La Druitiere**	**98.39**	**319**	*e*P	**P**	**18 19 39.0**	**-0.7**
LDF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.6						
LDF	**La Druitiere**	**98.39**	**319**	*e*P	**P**	**18 19 39.0**	**-0.7**
	comp=Z,21nm,1.1s,mb5.6						
TORD	**Torodi Ar. Bea**	**98.49**	**283**	P	**P**	**18 19 42.1**	**+1.1**
	comp=Z,2.7nm,1.0s,mb4.7,baz=100,slow=3.1,SNR=9.8						
TORD				PKKPbc	PKKPbc	18 36 11.9	+1.2
	comp=Z,2.0nm,1.0s,baz=301,slow=2.3,SNR=4.8						
TORD				LR	LR	19 02 20.6	
	comp=Z,13µm,19.3s,MS6.4,baz=105,slow=34						
EPF	**Esparros**	**98.58**	**313**	*e*P	**P**	**18 19 39.8**	**-1.0**
MFF	**Saint Martin d**	**98.61**	**317**	*e*P	**P**	**18 19 40.3**	**-0.5**
	comp=Z,75nm,1.4s,mb5.7						
MFF	**Saint Martin d**	**98.61**	**317**	*e*P	**P**	**18 19 40.3**	**-0.5**
MFF				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.7						
MFF	**Saint Martin d**	**98.61**	**317**	*e*P	**P**	**18 19 40.3**	**-0.5**
	comp=Z,38nm,1.4s,mb5.7						
DAG	**Danmarks Havn**	**98.63**	**348**	⇑*e*P	**P**	**18 19 39.2**	**-1.1**
DAG				*e*		18 23 38.0	
DAG				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.6						
DAG				MLR	MLR		
	comp=Z,19µm,18.0s,MS6.6						
DAG	**Danmarks Havn**	**98.63**	**348**	⇑*i*P	**P**	**18 19 39.2**	**-1.1**
	comp=Z,20nm,1.0s,mb5.6						
DAG				*e*		18 23 38.0	
DAG							
	comp=Z,19µm,18.0s						
DAG	**Danmarks Havn**	**98.63**	**348**	⇑*e*P	**P**	**18 19 39.2**	**-1.1**
	comp=Z,20nm,1.0s,mb5.6						
DAG				*e*		18 23 38.0	
DAG				LR	LR		
	comp=Z,19µm,18.0s,MS6.6						
RAR	**Rarotonga**	**98.79**	**112**	PFAKE		18 19 50.0	+7.8
RAR				LR	LR		
	comp=Z,12µm,22.0s,MS6.4						
IMA2	**Indian Mountai**	**98.81**	**23**	*e*P	**P**	**18 19 41.0**	**-0.3**
ETSF	**Etsaut**	**99.25**	**313**	*e*P	**P**	**18 19 44.2**	**+0.4**
	comp=Z,37nm,1.2s,mb5.5						
ETSF	**Etsaut**	**99.25**	**313**	*e*P	**P**	**18 19 44.2**	**+0.4**
ETSF				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.5						
ETSF	**Etsaut**	**99.25**	**313**	*e*P	**P**	**18 19 44.2**	**+0.4**
	comp=Z,18nm,1.2s,mb5.5						
ESK	**Eskdalemuir**	**99.38**	**326**	PFAKE		18 20 00.0	+16
ESK				LR	LR		
	comp=Z,10µm,19.0s,MS6.3						
SJPF	**Ste Jean**	**99.72**	**313**	*e*P	Pdif	18 19 46.1	+0.6
	comp=Z,38nm,1.2s						
SJPF	**Ste Jean**	**99.72**	**313**	*e*P	Pdif	18 19 46.1	+0.6
SJPF				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.4						
SJPF	**Ste Jean**	**99.72**	**313**	*e*P	Pdif	18 19 46.1	+0.6
	comp=Z,19nm,1.2s						
COLD	**Coldfoot**	**99.82**	**22**	*e*Pdif	Pdif	18 19 46.5	+0.5
	comp=Z,120nm,1.8s						
CHUM	**Lake Minchumin**	**99.92**	**25**	*e*Pdif	Pdif	18 19 47.0	+0.6
	comp=Z,68nm,1.1s						
BPAW	**Bear Paw Mtn.**	**100.43**	**25**	*e*Pdif	Pdif	18 19 47.2	-1.5
	comp=Z,92nm,1.1s						
TRF	**Thorofare Moun**	**100.91**	**25**	*e*Pdif	Pdif	18 19 50.6	-0.2
	comp=Z,34nm,1.1s						
KDAK	**Kodiak Island**	**101.32**	**31**	PFAKE		18 20 00.0	+7.4
KDAK				LR	LR		
	comp=Z,17µm,20.0s,MS6.6						
MCK	**McKinley**	**101.40**	**25**	*e*P	Pdif	18 19 52.3	-0.7
MCK				pmax	pmax		
	comp=Z,49nm,1.0s						
MCK	**McKinley**	**101.40**	**25**	*e*Pdif	Pdif	18 19 52.3	-0.7
	comp=Z,49nm,1.0s						
COLA	**College**	**101.48**	**24**	PFAKE		18 20 00.0	+6.6
COLA				LR	LR		
	comp=Z,10µm,19.0s,MS6.4						
KIP	**Kipapa**	**102.15**	**69**	PFAKE		18 20 10.0	+14
KIP				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
ESDC	**Sonseca Array**	**102.15**	**310**	P	Pdif	18 19 58.7	+2.4
	comp=Z,0.2nm,0.3s,baz=78,slow=6.9,SNR=2.2						
ESDC				PP	PKiKP	18 24 20.5	+1.5
	comp=Z,0.3nm,0.2s,baz=89,slow=6.1,SNR=3.3						
ESDC				PKKPbc	PKKPdf	18 36 13.0	+4.9
	comp=Z,0.2nm,0.3s,baz=234,slow=2.7,SNR=5.2						
PAB	**San Pablo**	**102.47**	**310**	PFAKE		18 20 10.0	+12
PAB				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
SCO	**Scoresbysund**	**102.47**	**343**	*e*P	Pdif	18 19 54.9	-2.9
SCO				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SCO				MLR	MLR		
	comp=Z,11µm,22.0s,MS6.3						
SCO	**Scoresbysund**	**102.47**	**343**	*i* P	Pdif	18 19 54.9	-2.9
	comp=Z,3.9nm,1.0s						
SCO				*i*		18 24 02.3	
SCO							
	comp=Z,11µm,22.0s						
SCO	**Scoresbysund**	**102.47**	**343**	*e*P	Pdif	18 19 54.9	-2.9
	comp=Z,3.9nm,1.0s						
SCO				*i*		18 24 02.3	
SCO				LR	LR		
	comp=Z,11µm,22.0s,MS6.3						
XMAS	**Kiritimati**	**102.76**	**88**	PFAKE		18 20 10.0	+11
XMAS				LR	LR		
	comp=Z,8µm,20.0s,MS6.2						
MENT	**Mentasta**	**103.89**	**25**	*e*Pdif	Pdif	18 20 05.3	+1.2
EGAK	**Eagle**	**104.16**	**23**	PFAKE		18 20 20.0	+15
EGAK				LR	LR		
	comp=Z,20µm,21.0s,MS6.6						
SHEL	**Horse Pasture**	**104.32**	**253**	PFAKE		18 20 20.0	+14
SHEL				LR	LR		
	comp=Z,23µm,20.0s,MS6.7						
SFS	**San Fernando**	**104.32**	**307**	PFAKE		18 20 20.0	+14
SFS				LR	LR		
	comp=Z,14µm,20.0s,MS6.5						
POHA	**Pohakuloa**	**104.54**	**70**	PFAKE		18 20 20.0	+13
POHA				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
MTE	**Manteigas**	**104.77**	**311**	*e*Pdif	Pdif	18 20 16.7	+8.7
MTE	**Manteigas**	**104.77**	**311**	*e*Pdif	Pdif	18 20 17.1	+9.1
MTE				A		19 13 51.1	
	comp=Z,5µm,17.8s						
MTE	**Manteigas**	**104.77**	**311**	PFAKE		18 20 20.0	+12
MTE				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
PMRV	**Marv??o**	**104.81**	**310**	*e*Pdif	Pdif	18 20 13.9	+5.7
PMRV	**Marv??o**	**104.81**	**310**	*e*Pdif	Pdif	18 20 16.6	+8.4
PMRV				A		19 21 35.9	
	comp=Z,5µm,17.5s						
DBIC	**Dimbokro**	**104.89**	**276**	PFAKE		18 20 20.0	+11
DBIC				LR	LR		
	comp=Z,12µm,20.0s,MS6.4						
BORG	**Borgarnes**	**105.03**	**338**	PFAKE		18 20 20.0	+11
BORG				LR	LR		
	comp=Z,15µm,19.0s,MS6.5						
PESTR	**Estremoz**	**105.06**	**310**	*e*Pdif	Pdif	18 20 15.4	+6.1
PESTR	**Estremoz**	**105.06**	**310**	*e*Pdif	Pdif	18 20 18.2	+8.9
PESTR	**Estremoz**	**105.06**	**310**	*e*PP	PP	18 24 35.4	+4.9
PESTR				A		19 14 18.1	
	comp=Z,5µm,22.4s						
INK	**Inuvik**	**105.06**	**18**	*e*P	Pdif	18 20 08.9	-0.4
INK				pmax	pmax		
	comp=Z,19nm,1.2s						
INK	**Inuvik**	**105.06**	**18**	PP	PP	18 24 25.2	-4.3
	comp=Z,25nm,1.0s,baz=309,slow=6.2,SNR=2.1						
INK	**Inuvik**	**105.06**	**18**	*e*Pdif	Pdif	18 20 08.9	-0.4
	comp=Z,19nm,1.2s						
INK				*e*PKiKP	PKiKP	18 24 20.2	-3.2
DAWY	**Dawson**	**105.17**	**23**	*e*Pdif	Pdif	18 20 10.4	+0.7
RTC	**Rabat Centre**	**105.18**	**304**	PFAKE		18 24 40.0	+15
RTC				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
SUMG	**Summit**	**105.32**	**348**	*e*Pdif	Pdif	18 20 10.6	+0.1
	comp=Z,32nm,1.2s						
SUMG				*e*PKiKP	PKiKP	18 24 27.0	+3.1
PVAQ	**Vaqueiros**	**105.38**	**308**	*e*Pdif	Pdif	18 20 14.7	+4.0
PVAQ	**Vaqueiros**	**105.38**	**308**	*e*Pdif	Pdif	18 20 16.4	+5.7
PVAQ	**Vaqueiros**	**105.38**	**308**	*e*PP	PP	18 24 42.4	+9.4
PVAQ				A		19 12 09.2	
	comp=Z,5µm,19.4s						
EVO	**Evora**	**105.44**	**309**	*e*Pdif	Pdif	18 20 16.5	+5.5
EVOP	**Sao Brissos**	**105.52**	**309**	*e*P	Pdif	18 20 11.6	+0.3
EVOP				*e*S	SKSac	18 30 46.8	-2.9
EVOP				*e*SS	SS	18 39 30.0	+0.6
EVOP				AMS	AMS	19 14 09.9	
	comp=Z,6µm,29.1s,MS6.0						
EVOP	**Sao Brissos**	**105.52**	**309**	*e*P	Pdif	18 20 11.6	+0.3
EVOP				*e*S	SKSac	18 30 46.8	-2.9
EVOP				*e*SS	SS	18 39 30.0	+0.6
PBDV	**Barranco-do-Ve**	**105.58**	**308**	*e*Pdif	Pdif	18 20 19.6	+8.0
PBDV	**Barranco-do-Ve**	**105.58**	**308**	*e*Pdif	Pdif	18 20 22.5	+11
PBDV	**Barranco-do-Ve**	**105.58**	**308**	*e*PP	PP	18 24 43.8	+9.4
PBDV				A		19 10 47.2	
	comp=Z,7µm,19.4s						
MORF	**Marmelete**	**106.13**	**308**	*e*Pdif	Pdif	18 20 20.1	+6.0
MORF	**Marmelete**	**106.13**	**308**	*e*PP	PP	18 24 46.6	+8.1
MORF				A		19 10 45.5	
	comp=Z,6µm,18.1s						
PFVI	**Vila Bisbo**	**106.30**	**308**	*e*Pdif	Pdif	18 20 12.2	-2.6
PFVI	**Vila Bisbo**	**106.30**	**308**	*e*PP	PP	18 24 41.0	+1.2
PFVI				A		19 11 09.3	
	comp=Z,7µm,20.3s						
PMAFR	**Mafra**	**106.34**	**310**	*e*Pdif	Pdif	18 20 23.7	+8.7
PMAFR	**Mafra**	**106.34**	**310**	*e*Pdif	Pdif	18 20 25.7	+11
PMAFR	**Mafra**	**106.34**	**310**	*e*PP	PP	18 24 50.8	+11
PMAFR				A		19 19 07.2	
	comp=Z,3µm,16.3s						
RES	**Resolute Bay**	**107.25**	**4**	*e*P	Pdif	18 20 19.0	0.0
RES				pmax	pmax		
	comp=Z,9.0nm,1.0s						
RES	**Resolute Bay**	**107.25**	**4**	PKiKP	PKiKP	18 24 28.2	+0.8
	comp=Z,6.3nm,0.9s,baz=72,slow=3.2,SNR=5.4						
RES	**Resolute Bay**	**107.25**	**4**	*e*Pdif	Pdif	18 20 18.9	-0.1
	comp=Z,9.3nm,1.0s						
RES				PKPdf	PKiKP	18 24 28.2	+0.8
PPT	**Papeete**	**108.81**	**109**	*e*Pdif	Pdif	18 20 22.4	-3.5
	comp=Z,674nm,26.5s						
PPT	**Papeete**	**108.81**	**109**	*e*PP	PP	18 24 50.0	-8.6
	comp=Z,2µm,27.2s						
PPT				*e*Sdif	SKKSac	18 32 08.2	+8.0
	comp=Z,13µm,26.5s						
PPT	**Papeete**	**108.81**	**109**	*e*PS	PS	18 34 26.0	+1.0
	comp=Z,3µm,25.5s						
PPT				*e*LR	LR	18 56 57.1	
	comp=Z,24µm,24.0s						
PPT	**Papeete**	**108.81**	**109**	*e*Pdif	Pdif	18 20 22.4	-3.5
PPT				*e*PP	PP	18 24 50.0	-8.6
PPT				*e*PS	PS	18 34 26.0	+1.0
PMSA	**Palmer Station**	**111.97**	**187**	PFAKE		18 24 50.0	+13
PMSA				LR	LR		
	comp=Z,16µm,22.0s,MS6.5						
WRAK	**Wrangell Islan**	**112.00**	**28**	PFAKE		18 24 50.0	+13
WRAK				LR	LR		
	comp=Z,10µm,22.0s,MS6.4						
SFJD	**Kangerlussuaq**	**112.31**	**348**	*i* P	Pdif	18 20 31.7	-10
SFJD							
	comp=Z,19µm,21.0s						
SFJD	**Kangerlussuaq**	**112.31**	**348**	PFAKE		18 24 50.0	+13
SFJD				LR	LR		
	comp=Z,23µm,22.0s,MS6.7						
YKA	**Yellowknife Ar**	**114.77**	**17**	PKP	PKiKP	18 24 41.0	-0.9
	comp=Z,2.3nm,0.7s,baz=354,slow=2.0,SNR=15						
YKA				PKKPbc	PKKPbc	18 35 28.2	+6.5
	comp=Z,4.1nm,1.0s,baz=135,slow=2.8,SNR=10						
YKA				SKKP		18 39 14.9	
	comp=Z,1.4nm,1.0s,baz=138,slow=2.3,SNR=4.0						
YKA	**Yellowknife Ar**	**114.77**	**17**	PKP	PKiKP	18 24 41.0	-0.9
YKA				PKKPbc	PKKPbc	18 35 28.2	+6.4
YKA				SKKP		18 39 14.9	
FRB	**Frobisher Bay**	**118.18**	**354**	PKP	PKPdf	18 24 48.0	-0.5
	comp=Z,5.2nm,0.8s,baz=319,slow=2.6,SNR=6.6						
CMLA	**Cha da Macela**	**118.93**	**312**	PFAKE		18 25 00.0	+9.3
CMLA				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
TAOE	**Nuku Hiva Isla**	**119.16**	**101**	*e*PP	PP	18 26 02.7	-10
	comp=Z,2µm,26.1s						
TAOE				*e*Sdif	Sdif	18 33 57.3	-1.5
	comp=Z,4µm,26.7s						
TAOE	**Nuku Hiva Isla**	**119.16**	**101**	*e*PS	SP	18 35 50.7	-6.2
	comp=Z,8µm,25.4s						
TAOE				*e*SS	SS	18 42 29.8	-2.3
TAOE				*e*LR	LR	19 01 27.6	
	comp=Z,18µm,23.6s						
RKT	**Rikitea**	**120.91**	**119**	*e*PP	PP	18 26 19.5	-4.3
	comp=Z,1µm,26.8s						
RKT				*e*Sdif	Sdif	18 34 11.4	-2.0
	comp=Z,4µm,28.0s						
RKT	**Rikitea**	**120.91**	**119**	*e*PS	PS	18 36 19.1	+2.9
	comp=Z,4µm,27.2s						
RKT				*e*SS	SS	18 43 02.4	+8.7
	comp=Z,10µm,28.9s						
RKT				*e*LR	LR	19 02 51.1	
	comp=Z,26µm,25.5s						
A05A	**Maple Falls**	**121.36**	**31**	⇑P	PKPdf	18 24 54.5	-0.5
	baz=121						
NLWA	**Neilton Lookou**	**121.39**	**33**	⇓P	PKPdf	18 24 54.7	-0.4
	baz=121						
NLWA	**Neilton Lookou**	**121.39**	**33**	PFAKE		18 25 10.0	+15
NLWA				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
A06A	**Chilliwack**	**121.61**	**31**	⇓P	PKPdf	18 24 54.6	-0.9
	baz=121						
B06A	**Marblemount**	**121.97**	**31**	⇑P	PKPdf	18 24 55.9	-0.3
	baz=122						
E03A	**Lebam**	**122.05**	**34**	⇑P	PKPdf	18 24 55.7	-0.7
	baz=122						
D04A	**Dobbs Creek Ra**	**122.14**	**33**	⇓P	PKPdf	18 24 55.7	-0.8
	baz=122						
USHA	**Ushuaia**	**122.17**	**188**	PKP	PKPdf	18 24 55.8	-0.6
	comp=Z,4.5nm,0.8s,baz=270,slow=5.2,SNR=2.5						
A07A	**Ashnola River,**	**122.20**	**30**	⇑P	PKPdf	18 24 56.4	-0.2
	baz=122						
EDM	**Edmonton**	**122.39**	**23**	*e*PKIKP	PKPdf	18 24 55.7	-1.1
F03A	**Seaside**	**122.41**	**35**	⇑P	PKPdf	18 24 56.4	-0.7
	baz=122						
D05A	**Enumclaw**	**122.53**	**33**	⇑P	PKPdf	18 24 56.2	-1.1
	baz=122						
C06A	**Tall Timber Ra**	**122.66**	**31**	⇓P	PKPdf	18 24 56.8	-0.7
	baz=122						
B07A	**Winthrop**	**122.71**	**31**	⇑P	PKPdf	18 24 57.0	-0.6
	baz=122						
FCC	**Fort Churchill**	**122.72**	**9**	*e*PKIKP	PKPdf	18 24 56.4	-0.9
NLW	**Nelson Butte**	**122.84**	**31**	P	PKPdf	18 24 58.5	+0.6
LON	**Longmire**	**122.90**	**33**	*e*PKIKP	PKPdf	18 24 58.1	+0.1
EFI	**East Falkland**	**122.98**	**196**	PFAKE		18 25 10.0	+12
EFI				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
LVP	**Lakeview Peak**	**122.98**	**34**	P	PKPdf	18 24 59.6	+1.4
F04A	**Amboy**	**123.06**	**34**	⇑P	PKPdf	18 24 58.1	-0.2
	baz=123						
A09A	**Danville**	**123.14**	**29**	⇓P	PKPdf	18 24 58.3	-0.1
	baz=123						
D06A	**Cle Elum**	**123.14**	**32**	⇑P	PKPdf	18 24 58.4	-0.1
	baz=123						
B08A	**Colville Reser**	**123.17**	**30**	⇓P	PKPdf	18 24 58.4	-0.1
	baz=123						
C07A	**Waterville**	**123.24**	**31**	⇓P	PKPdf	18 24 58.4	-0.2
	baz=123						
WTV	**Waterville**	**123.29**	**31**	P	PKPdf	18 24 58.7	-0.1
TBM	**Table Mountain**	**123.29**	**32**	P	PKPdf	18 25 00.0	+1.3
COR	**Corvallis**	**123.34**	**36**	PFAKE		18 25 10.0	+11
COR				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
G04A	**Mulino**	**123.45**	**35**	⇑P	PKPdf	18 24 58.5	-0.6
	baz=123						
EBG	**Ellensburg**	**123.47**	**32**	P	PKPdf	18 25 00.1	+1.0
E06A	**Yakima**	**123.47**	**33**	⇓P	PKPdf	18 24 59.1	0.0
	baz=123						
D07A	**Quincy**	**123.60**	**32**	⇑P	PKPdf	18 24 59.2	-0.1
	baz=123						
A10A	**Northport**	**123.63**	**29**	⇓P	PKPdf	18 24 59.3	-0.1
	baz=123						
C08A	**Higginbotham F**	**123.70**	**31**	⇑P	PKPdf	18 24 58.9	-0.6
	baz=124						
B09A	**Rice**	**123.72**	**30**	⇓P	PKPdf	18 24 59.3	-0.2
	baz=124						
H04A	**Detroit Lake**	**123.93**	**35**	⇓P	PKPdf	18 24 59.5	-0.5
	baz=124						
VFP	**Flag Point**	**123.96**	**34**	P	PKPdf	18 25 01.2	+1.2
F06A	**Goldendale**	**124.06**	**33**	⇑P	PKPdf	18 25 00.4	+0.1
	baz=124						
E07A	**Sunnyside**	**124.07**	**32**	⇓P	PKPdf	18 24 59.6	-0.6
	baz=124						
C09A	**Chrisman Ranch**	**124.08**	**30**	⇑P	PKPdf	18 24 59.3	-1.0
	baz=124						
G05A	**Wamic**	**124.09**	**34**	⇓P	PKPdf	18 24 59.9	-0.4
	baz=124						
A11A	**Hall Mountain,**	**124.21**	**28**	⇑P	PKPdf	18 25 00.8	+0.3
	baz=124						
D08A	**Wollman Farm,**	**124.24**	**31**	⇑P	PKPdf	18 25 00.3	-0.2
	baz=124						
B10A	**Chitwood Farm,**	**124.26**	**29**	⇓P	PKPdf	18 25 00.3	-0.2
	baz=124						
IRO	**Indian Ridge**	**124.29**	**36**	P	PKPdf	18 25 01.2	+0.5
NEW	**Newport**	**124.33**	**29**	*e*PKIKP	PKPdf	18 25 01.0	+0.3
NEW				MLR	MLR		
	comp=Z,11µm,20.0s						
HAWA	**Hanford**	**124.35**	**32**	*e*PKPdf	PKPdf	18 25 01.4	+0.6
HAWA				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
F07A	**Phinny Hill Vi**	**124.45**	**33**	⇓P	PKPdf	18 25 00.9	-0.2
	baz=124						
G06A	**Carlson Farm,**	**124.47**	**34**	⇓P	PKPdf	18 25 00.9	-0.2
	baz=124						
E08A	**Dider Farm, El**	**124.53**	**32**	⇓P	PKPdf	18 25 01.1	0.0
	baz=124						
C10A	**Spilker Farm,**	**124.54**	**30**	⇓P	PKPdf	18 25 00.6	-0.5
	baz=124						
D09A	**Jones Farm, Ri**	**124.55**	**31**	⇑P	PKPdf	18 25 00.8	-0.4
	baz=124						
A12A	**Yaak River Ran**	**124.56**	**28**	⇑P	PKPdf	18 25 01.2	0.0
	baz=124						
B11A	**Sandpoint**	**124.58**	**29**	⇑P	PKPdf	18 25 00.8	-0.4
	baz=124						
HUMO	**Hull Mountain**	**124.67**	**38**	*e*PKPdf	PKPdf	18 25 02.0	+0.4
HUMO				LR	LR		
	comp=Z,7µm,19.0s,MS6.3						
FFC	**Flin Flon**	**124.86**	**15**	*e*PKIKP	PKPdf	18 25 00.5	-1.0
FFC				MLR	MLR		
	comp=Z,17µm,21.0s,MS6.7						
B12A	**Libby**	**124.92**	**28**	⇑P	PKPdf	18 25 01.6	-0.2
	baz=125						
H06A	**Lindquist Farm**	**124.95**	**34**	⇓P	PKPdf	18 25 01.7	-0.3
	baz=125						
G07A	**Ruggs Ranch, H**	**124.99**	**33**	⇓P	PKPdf	18 25 01.6	-0.4
	baz=125						
E09A	**Wood Farm, Sta**	**125.00**	**31**	⇑P	PKPdf	18 25 01.6	-0.4
	baz=125						
D10A	**Wagner Farm, O**	**125.08**	**30**	⇑P	PKPdf	18 25 01.7	-0.5
	baz=125						
A13A	**Flathead Natio**	**125.13**	**27**	⇓P	PKPdf	18 25 02.0	-0.2
	baz=125						
F08A	**Pendleton**	**125.13**	**32**	⇓P	PKPdf	18 25 02.4	+0.1
	baz=125						
WALA	**Waterton Lakes**	**125.27**	**27**	*e*PKPdf	PKPdf	18 25 02.7	+0.2
YBH	**Yreka Blue Hor**	**125.31**	**38**	PFAKE		18 25 10.0	+7.2
YBH				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
G08A	**Pilot Rock**	**125.36**	**33**	⇑P	PKPdf	18 25 02.8	+0.1
	baz=125						
H07A	**Lands Inn, Kim**	**125.47**	**34**	⇓P	PKPdf	18 25 03.3	+0.3
	baz=125						
I06A	**Prineville**	**125.51**	**35**	⇓P	PKPdf	18 25 03.3	+0.1
	baz=125						
B13A	**Whitefish**	**125.51**	**28**	⇑P	PKPdf	18 25 02.7	-0.3
	baz=125						
C12B	**Naegeli Ranch,**	**125.51**	**29**	⇓P	PKPdf	18 25 02.8	-0.1
	baz=125						
E10A	**Myers Farm, Un**	**125.55**	**31**	⇓P	PKPdf	18 25 02.6	-0.5
	baz=125						
A14A	**Double T Ranch**	**125.55**	**26**	⇑P	PKPdf	18 25 02.8	-0.2
	baz=125						

D11A	**Klaveano Farm,**	**125.55**	**30**	⇓P	PKPdf	18 25 02.3	-0.8
	baz=125						
BSMT	**Bassoo Peak**	**125.74**	**28**	*e*PKPdf	PKPdf	18 25 02.9	-0.6
I07A	**Izee**	**125.82**	**34**	⇑P	PKPdf	18 25 04.1	+0.4
	baz=126						
F10A	**Beach Ranch, E**	**125.83**	**31**	⇑P	PKPdf	18 25 03.3	-0.3
	baz=126						
K05A	**Summer Lake**	**125.84**	**36**	⇑P	PKPdf	18 25 04.2	+0.4
	baz=126						
A15A	**Johnson Ranch,**	**125.85**	**26**	⇓P	PKPdf	18 25 03.1	-0.5
	baz=126						
C13A	**Hot Springs**	**125.96**	**28**	⇑P	PKPdf	18 25 03.7	-0.2
	baz=126						
J06A	**Christmas Vall**	**125.96**	**35**	⇓P	PKPdf	18 25 04.2	+0.2
	baz=126						
G09A	**Cove**	**126.00**	**32**	⇓P	PKPdf	18 25 04.3	+0.3
	baz=126						
H08A	**Prairie City**	**126.01**	**33**	⇑P	PKPdf	18 25 04.3	+0.3
	baz=126						
JTMT	**Jette**	**126.05**	**28**	*e*PKPdf	PKPdf	18 25 03.8	-0.3
WDC	**Whiskeytown Da**	**126.06**	**39**	*e*PKIKP	PKPdf	18 25 02.8	-1.5
WDC				MLR	MLR		
	comp=Z,10µm,22.0s,MS6.4						
E11A	**Bogner Ranch,**	**126.09**	**30**	⇑P	PKPdf	18 25 03.6	-0.6
	baz=126						
G10A	**Bishop Farm, J**	**126.34**	**32**	⇓P	PKPdf	18 25 03.8	-0.8
	baz=126						
SWMT	**Swartz Lake**	**126.36**	**28**	*e*PKPdf	PKPdf	18 25 04.9	+0.3
A16A	**West Butte Ran**	**126.36**	**25**	⇓P	PKPdf	18 25 03.9	-0.6
	baz=126						
J07A	**Hines**	**126.37**	**35**	⇓P	PKPdf	18 25 05.5	+0.7
	baz=126						
B15A	**Bradely Ranch,**	**126.42**	**26**	⇑P	PKPdf	18 25 04.1	-0.7
	baz=126						
D13A	**Huson**	**126.44**	**29**	⇑P	PKPdf	18 25 04.2	-0.6
	baz=126						
F11A	**Grangeville**	**126.44**	**31**	⇓P	PKPdf	18 25 04.4	-0.5
	baz=126						
I08A	**Drewsey**	**126.45**	**34**	⇓P	PKPdf	18 25 05.0	+0.1
	baz=126						
H09A	**Durkee**	**126.47**	**33**	⇓P	PKPdf	18 25 04.7	-0.2
	baz=126						
BMO	**Blue Mountains**	**126.53**	**32**	*e*PKIKP	PKPdf	18 25 05.1	+0.1
BMO				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.4						
HOPS	**Hopland**	**126.58**	**41**	PFAKE		18 25 20.0	+15
HOPS				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
SCHQ	**Schefferville**	**126.60**	**350**	PKP	PKPdf	18 25 05.1	+0.3
	comp=Z,14nm,0.8s,baz=40,slow=2.7,SNR=17						
LBCM	**Butte Creek Ri**	**126.67**	**39**	P	PKPdf	18 25 06.2	+0.7
MOD	**Modoc**	**126.69**	**37**	*e*PKPdf	PKPdf	18 25 06.6	+1.2
MOD				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
B16A	**M & M Farms, S**	**126.72**	**26**	⇓P	PKPdf	18 25 04.7	-0.5
	baz=126						
A17A	**Triple J Farms**	**126.74**	**25**	⇓P	PKPdf	18 25 05.0	-0.3
	baz=126						
SLMT	**Seeley Lake**	**126.79**	**28**	*e*PKPdf	PKPdf	18 25 05.2	-0.2
C15A	**Salmond Ranch,**	**126.80**	**27**	⇓P	PKPdf	18 25 05.3	-0.2
	baz=127						
K07A	**Rock Creek Ran**	**126.83**	**36**	⇑P	PKPdf	18 25 05.9	+0.2
	baz=127						
J08A	**Circle Bar Ran**	**126.86**	**34**	⇓P	PKPdf	18 25 06.4	+0.7
	baz=127						
I09A	**Lost Marbles R**	**126.87**	**33**	⇑P	PKPdf	18 25 05.6	-0.1
	baz=127						
MSO	**Missoula**	**126.87**	**29**	*e*PKPdf	PKPdf	18 25 05.5	-0.2
MSO				LR	LR		
	comp=Z,11µm,22.0s,MS6.5						
D14A	**Greenough**	**126.90**	**28**	⇓P	PKPdf	18 25 05.0	-0.7
	baz=127						
F12A	**Elk City**	**126.99**	**30**	⇑P	PKPdf	18 25 05.0	-0.8
	baz=127						
H10A	**Noah's Angus R**	**127.01**	**32**	⇓P	PKPdf	18 25 05.7	-0.2
	baz=127						
E13A	**Victor**	**127.03**	**29**	⇑P	PKPdf	18 25 05.9	-0.1
	baz=127						
A18A	**Metzger Ranch,**	**127.12**	**24**	⇑P	PKPdf	18 25 05.1	-0.9
	baz=127						
CHMT	**Chamberlain Mo**	**127.14**	**28**	*e*PKPdf	PKPdf	18 25 06.1	0.0
CHMT				*e*PP	PP	18 27 06.1	+1.8
MCCM	**Marconi Confer**	**127.15**	**42**	PFAKE		18 25 20.0	+14
MCCM				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
C16A	**Fuhringer Ranc**	**127.17**	**26**	⇑P	PKPdf	18 25 05.7	-0.4
	baz=127						
L07A	**Adell**	**127.19**	**36**	⇓P	PKPdf	18 25 06.4	+0.1
	baz=127						
B17A	**L&G Farms, Che**	**127.20**	**25**	⇑P	PKPdf	18 25 05.7	-0.6
	baz=127,SNR=12						
K08A	**Mann Creek Ran**	**127.25**	**35**	⇑P	PKPdf	18 25 07.2	+0.7
	baz=127						
J09A	**Fry Pan Ranch,**	**127.27**	**34**	⇑P	PKPdf	18 25 06.8	+0.3
	baz=127						
I10A	**Payette**	**127.31**	**33**	⇓P	PKPdf	18 25 07.2	+0.6
	baz=127						
H11A	**Donnelly**	**127.32**	**32**	⇓P	PKPdf	18 25 06.4	-0.1
	baz=127						
WVOR	**Wild Horse Val**	**127.34**	**35**	*e*PKIKP	PKPdf	18 25 07.4	+0.7
D15A	**Lincoln**	**127.38**	**27**	⇓P	PKPdf	18 25 06.4	-0.2
	baz=127						
E14A	**Clinton**	**127.39**	**29**	⇑P	PKPdf	18 25 06.3	-0.3
	baz=127						
G12A	**Big Creek, Yel**	**127.39**	**31**	⇑P	PKPdf	18 25 06.0	-0.6
	baz=127						
F13A	**Darby**	**127.42**	**30**	⇓P	PKPdf	18 25 06.0	-0.7
	baz=127						
B18A	**Beardsley Farm**	**127.56**	**25**	⇑P	PKPdf	18 25 06.2	-0.7
	baz=127,SNR=9.6						
N06A	**Buffalo Meadow**	**127.65**	**38**	⇓P	PKPdf	18 25 07.5	+0.1
	baz=128						
L08A	**Fields**	**127.67**	**36**	⇓P	PKPdf	18 25 07.7	+0.4
	baz=128						
M07A	**Soldier Meadow**	**127.67**	**37**	⇑P	PKPdf	18 25 07.5	+0.2
	baz=128						
K09A	**Rome**	**127.70**	**35**	⇑P	PKPdf	18 25 07.9	+0.6
	baz=128						
C17A	**Wharram Farm,**	**127.73**	**26**	⇑P	PKPdf	18 25 06.5	-0.7
	baz=128,SNR=13						
J10A	**Berg Farm, Mel**	**127.77**	**33**	⇓P	PKPdf	18 25 06.9	-0.5
	baz=128						
E15A	**Deer Lodge**	**127.78**	**28**	⇑P	PKPdf	18 25 06.9	-0.5
	baz=128						
D16A	**Dana Ranch, Ca**	**127.83**	**27**	⇑P	PKPdf	18 25 07.0	-0.5
	baz=128						
EGMT	**Eagleton**	**127.86**	**25**	⇓P	PKPdf	18 25 07.3	-0.2
	baz=128						
EGMT	**Eagleton**	**127.86**	**25**	*e*PKPdf	PKPdf	18 25 08.3	+0.8
EGMT				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
F14A	**Wisdom**	**127.88**	**29**	⇓P	PKPdf	18 25 07.6	0.0
	baz=128						
I11A	**Placerville**	**127.88**	**32**	⇓P	PKPdf	18 25 08.0	+0.3
	baz=128						
HRY	**Holter Researc**	**127.95**	**27**	*e*PKPdf	PKPdf	18 25 08.2	+0.5
G13A	**Cobalt**	**127.97**	**30**	⇓P	PKPdf	18 25 07.3	-0.5
	baz=128						
O06A	**Flanigan**	**128.00**	**38**	⇓P	PKPdf	18 25 08.1	+0.1
	baz=128						
H12A	**Diamond D Ranc**	**128.03**	**31**	⇑P	PKPdf	18 25 08.2	+0.3
	baz=128						
M08A	**Happy Creek Ra**	**128.11**	**36**	⇓P	PKPdf	18 25 08.8	+0.7
	baz=128						
D17A	**Six Diamond Ra**	**128.13**	**26**	⇓P	PKPdf	18 25 07.9	-0.1
	baz=128						
K10A	**MacKenzie Ranc**	**128.13**	**34**	⇓P	PKPdf	18 25 08.7	+0.6
	baz=128						
E16A	**East Helena**	**128.15**	**27**	⇑P	PKPdf	18 25 07.8	-0.2
	baz=128						
N07B	**Gerlach**	**128.16**	**37**	⇑P	PKPdf	18 25 08.8	+0.5
	baz=128						
L09A	**Wilkinson Ranc**	**128.17**	**35**	⇑P	PKPdf	18 25 09.2	+0.9
	baz=128						
P06A	**Stead Airport,**	**128.24**	**39**	⇓P	PKPdf	18 25 08.9	+0.5
	baz=128						
G14A	**Jackson**	**128.24**	**30**	⇓P	PKPdf	18 25 08.5	+0.2
	baz=128						
F15A	**Butte**	**128.28**	**28**	⇑P	PKPdf	18 25 08.7	+0.4
	baz=128						
MFID	**Camas Ranch**	**128.28**	**33**	⇓P	PKPdf	18 25 09.0	+0.6
	baz=128						
LRM	**Limekiln Ridge**	**128.31**	**28**	*e*PKPdf	PKPdf	18 25 07.7	-0.7
H13A	**Challis**	**128.33**	**31**	⇑P	PKPdf	18 25 08.6	+0.1
	baz=128						
I12A	**Atlanta**	**128.40**	**32**	⇓P	PKPdf	18 25 09.2	+0.6
	baz=128						
D18A	**Linhart Farms,**	**128.48**	**26**	⇓P	PKPdf	18 25 08.8	+0.1
	baz=128						
WCN	**Washoe City**	**128.55**	**39**	⇓P	PKPdf	18 25 10.0	+1.0
	baz=128						
E17A	**Martinsdale**	**128.58**	**27**	⇓P	PKPdf	18 25 08.9	0.0
	baz=128,SNR=6.5						
DLMT	**Dillon**	**128.58**	**29**	*e*PKPdf	PKPdf	18 25 10.1	+1.2
O07A	**Toulon**	**128.59**	**38**	⇓P	PKPdf	18 25 09.6	+0.5
	baz=128						
K11A	**Parker Ranch,**	**128.60**	**34**	⇑P	PKPdf	18 25 09.2	+0.2
	baz=128						
N08A	**GE Springer Mi**	**128.66**	**37**	⇓P	PKPdf	18 25 10.0	+0.7
	baz=128						
M09A	**Marrel Ranch,**	**128.67**	**36**	⇓P	PKPdf	18 25 10.2	+1.0
	baz=128						
F16A	**Kennard Place,**	**128.73**	**28**	⇑P	PKPdf	18 25 09.8	+0.6
	baz=128						
G15A	**Dillon**	**128.78**	**29**	⇑P	PKPdf	18 25 10.1	+0.8
	baz=129						
J12A	**Stokes Ranch,**	**128.79**	**32**	⇑P	PKPdf	18 25 10.2	+0.8
	baz=129						
L10A	**Juniper Basin**	**128.81**	**34**	⇑P	PKPdf	18 25 10.4	+0.9
	baz=129						
BOZ	**Bozeman (W)**	**128.83**	**28**	⇓P	PKPdf	18 25 09.9	+0.5
	baz=129						
BOZ	**Bozeman (W)**	**128.83**	**28**	*e*PKPdf	PKPdf	18 25 10.5	+1.1
BOZ				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
MCMT	**McKenzie Canyo**	**128.84**	**30**	*e*PKPdf	PKPdf	18 25 11.1	+1.6
SAO	**San Andreas Ge**	**128.85**	**43**	PFAKE		18 25 20.0	+10
SAO				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
I13A	**Wildhorse Cree**	**128.85**	**31**	⇓P	PKPdf	18 25 10.3	+0.8
	baz=129						
CMB	**Columbia Colle**	**128.86**	**41**	PFAKE		18 25 20.0	+10
CMB				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
E18A	**Harlowton**	**128.92**	**26**	⇑P	PKPdf	18 25 10.1	+0.6
	baz=129						
HLID	**Hailey**	**128.94**	**32**	⇓P	PKPdf	18 25 10.8	+1.2
	baz=129						
HLID	**Hailey**	**128.94**	**32**	*e*PKPdf	PKPdf	18 25 11.2	+1.5
HLID				LR	LR		
	comp=Z,13µm,22.0s,MS6.6						
O08A	**Rochester Mine**	**128.95**	**37**	⇑P	PKPdf	18 25 10.7	+0.9
	baz=129						
P07A	**Fallon**	**128.95**	**38**	⇑P	PKPdf	18 25 10.2	+0.3
	baz=129						
N09A	**Rock Creek Ran**	**128.98**	**36**	⇑P	PKPdf	18 25 11.0	+1.1
	baz=129						
G16A	**Moss Hill, Enn**	**129.06**	**29**	⇑P	PKPdf	18 25 10.5	+0.7
	baz=129						
F17A	**Fitzpatrick Pl**	**129.09**	**27**	⇓P	PKPdf	18 25 10.6	+0.7
	baz=129						
H15A	**Lima**	**129.10**	**30**	⇑P	PKPdf	18 25 10.4	+0.4
	baz=129						
M10A	**I.L. Ranch, Tu**	**129.13**	**35**	⇑P	PKPdf	18 25 10.5	+0.4
	baz=129						
L11A	**Cat Creek Ranc**	**129.16**	**34**	⇑P	PKPdf	18 25 11.1	+1.0
	baz=129						
J13A	**Cove Ranch, Pi**	**129.18**	**32**	⇑P	PKPdf	18 25 10.8	+0.7
	baz=129						
I14A	**Mackay**	**129.18**	**31**	⇑P	PKPdf	18 25 10.4	+0.3
	baz=129						
R06C	**Coleville**	**129.19**	**40**	⇓P	PKPdf	18 25 10.8	+0.4
	baz=129						
K12A	**Draper Farm, C**	**129.31**	**33**	⇑P	PKPdf	18 25 10.8	+0.4
	baz=129						
P08A	**Dixie Valley**	**129.36**	**38**	⇑P	PKPdf	18 25 10.9	+0.3
	baz=129						
Q07A	**Schurz**	**129.36**	**39**	⇑P	PKPdf	18 25 10.9	+0.3
	baz=129						
BMN	**Battle Mountai**	**129.43**	**37**	PFAKE		18 25 20.0	+9.3
BMN				LR	LR		
	comp=Z,8µm,22.0s,MS6.3						
G17A	**Pierce Place,**	**129.49**	**28**	⇓P	PKPdf	18 25 11.2	+0.6
	baz=129						
F18A	**Big Timber**	**129.51**	**27**	⇑P	PKPdf	18 25 10.9	+0.2
	baz=129						
J14A	**Carey**	**129.57**	**31**	⇓P	PKPdf	18 25 11.7	+0.8
	baz=129						
L12A	**House Creek Ra**	**129.58**	**33**	⇓P	PKPdf	18 25 11.6	+0.6
	baz=129						
O09A	**Fish Creek Ran**	**129.61**	**37**	⇓P	PKPdf	18 25 11.6	+0.6
	baz=129						
M11A	**Holland Ranch,**	**129.62**	**35**	⇑P	PKPdf	18 25 12.0	+1.0
	baz=129						
I15A	**Monteview**	**129.62**	**30**	⇑P	PKPdf	18 25 11.4	+0.4
	baz=129						
GCMT	**Greycliff**	**129.62**	**27**	*e*PKPdf	PKPdf	18 25 12.1	+1.2
GCMT				*e*PP	PP	18 27 17.2	-3.4
DGMT	**Dagmar**	**129.64**	**21**	⇑P	PKPdf	18 25 11.2	+0.4
	baz=129						
DGMT	**Dagmar**	**129.64**	**21**	*e*PKPdf	PKPdf	18 25 12.5	+1.6
DGMT				*e*PP	PP	18 27 18.6	-1.9
DGMT				LR	LR		
	comp=Z,15µm,22.0s,MS6.6						
N10A	**Dunphy**	**129.66**	**36**	⇓P	PKPdf	18 25 12.0	+0.8
	baz=130						
H16A	**Russell Place,**	**129.71**	**29**	⇓P	PKPdf	18 25 11.9	+0.8
	baz=130						
K13A	**Stover Farm, H**	**129.74**	**32**	⇓P	PKPdf	18 25 12.4	+1.1
	baz=130						
YMR	**Madison River**	**129.87**	**28**	*e*PKPdf	PKPdf	18 25 13.2	+1.8
O10A	**Cortez Mining,**	**129.94**	**36**	⇑P	PKPdf	18 25 12.5	+0.8
	baz=130						
Q08A	**Gabbs**	**129.96**	**39**	⇓P	PKPdf	18 25 12.6	+0.8
	baz=130						
YNR	**Norris Junctio**	**129.97**	**28**	*e*PKPdf	PKPdf	18 25 12.1	+0.5
NVAR	**Mina Array Bea**	**129.98**	**39**	PKhKP		18 25 06.5	
	comp=Z,1.1nm,0.6s,baz=247,slow=6.0,SNR=4.3						
NVAR				PKP	PKPdf	18 25 13.8	+2.0
	comp=Z,7.2nm,0.7s,baz=292,slow=1.8,SNR=15						
NVAR				SKKPbc		18 38 17.5	
	comp=Z,1.5nm,0.9s,baz=147,slow=6.2,SNR=4.7						
NVAR	**Mina Array Bea**	**129.98**	**39**	PKP		18 25 06.5	
NVAR				PKP	PKPdf	18 25 13.8	+2.0
NVAR				SKKPbc		18 38 17.5	
P09A	**Austin**	**130.02**	**37**	⇑P	PKPdf	18 25 12.8	+0.9
	baz=130						
G18A	**Lazy EL Ranch,**	**130.03**	**27**	⇓P	PKPdf	18 25 12.4	+0.7
	baz=130						
N11A	**Elko Archery C**	**130.05**	**35**	⇑P	PKPdf	18 25 13.0	+1.1
	baz=130						
J15A	**Blackfoot**	**130.08**	**31**	⇓P	PKPdf	18 25 12.7	+0.9
	baz=130,SNR=10						
YFT	**Old Faithful**	**130.10**	**29**	*e*PKPdf	PKPdf	18 25 15.5	+3.6
MLAC	**Mammoth Lakes**	**130.10**	**40**	⇑P	PKPdf	18 25 13.0	+0.9
	baz=130						
R08A	**Mina**	**130.15**	**39**	⇑P	PKPdf	18 25 13.0	+0.9
	baz=130						
L13A	**Double Diamond**	**130.20**	**33**	⇓P	PKPdf	18 25 12.5	+0.4
	baz=130						
I16A	**Newdale**	**130.21**	**30**	⇑P	PKPdf	18 25 12.8	+0.8
	baz=130						
LKWY	**Lake**	**130.22**	**28**	*e*PKIKP	PKPdf	18 25 15.7	+3.6
LKWY				MLR	MLR		
	comp=Z,18µm,19.0s,MS6.8						
H17A	**Grant Village**	**130.26**	**28**	⇑P	PKPdf	18 25 13.6	+1.4
	baz=130						
K14A	**Jones Ranch, D**	**130.30**	**32**	⇓P	PKPdf	18 25 12.9	+0.6
	baz=130,SNR=10.0						
RLMT	**Red Lodge**	**130.32**	**27**	⇓P	PKPdf	18 25 12.8	+0.5
	baz=130						
RLMT	**Red Lodge**	**130.32**	**27**	*e*PKPdf	PKPdf	18 25 13.2	+0.9
RLMT				*e*PP	PP	18 27 20.1	-5.0
RLMT				LR	LR		
	comp=Z,16µm,21.0s,MS6.7						
LAO	**LASA Array**	**130.37**	**23**	*e*PKPdf	PKPdf	18 25 10.9	-1.4
LAO				LR	LR		
	comp=Z,13µm,21.0s,MS6.6						
ELK	**Elko**	**130.38**	**35**	PFAKE		18 25 20.0	+7.5
ELK				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
P10A	**Eureka**	**130.39**	**37**	⇑P	PKPdf	18 25 13.6	+1.1
	baz=130						
N12A	**Clover Valley,**	**130.43**	**35**	⇑P	PKPdf	18 25 13.7	+1.1
	baz=130						
Q09A	**Carvers**	**130.44**	**38**	⇑P	PKPdf	18 25 13.1	+0.4
	baz=130						
IMW	**Indian Meadow**	**130.46**	**29**	*e*PKPdf	PKPdf	18 25 14.7	+2.1
ULM	**Lac du Bonnet**	**130.47**	**13**	PKP	PKPdf	18 25 13.0	+0.6
	comp=Z,22nm,0.7s,baz=339,slow=3.1,SNR=20						
K15A	**Arbon**	**130.54**	**31**	⇓P	PKPdf	18 25 13.3	+0.6
	baz=130						
O11A	**Cowboy Ranch,**	**130.54**	**36**	⇑P	PKPdf	18 25 14.0	+1.2
	baz=130						
M13A	**Montello**	**130.58**	**34**	⇓P	PKPdf	18 25 13.6	+0.7
	baz=130						
J16A	**Bone**	**130.58**	**30**	⇓P	PKPdf	18 25 13.6	+0.7
	baz=130						
RCTC	**Rector, Farmer**	**130.59**	**42**	⇑P	PKPdf	18 25 13.8	+0.7
	baz=130						
SMMC	**Simmler**	**130.62**	**44**	⇑P	PKPdf	18 25 13.9	+0.8
	baz=130						
I17A	**Pilgrim Ck.**	**130.62**	**29**	⇑P	PKPdf	18 25 13.5	+0.6
	baz=130						
L14A	**Malta**	**130.62**	**32**	⇓P	PKPdf	18 25 13.5	+0.6
	baz=130						
MOOW	**Moose Ponds**	**130.66**	**29**	*e*PKPdf	PKPdf	18 25 14.8	+1.9
RRI2	**Red Ridge**	**130.68**	**30**	*e*PKPdf	PKPdf	18 25 13.5	+0.6
RRI2				*e*PP	PP	18 27 27.8	+0.2
TPAW	**Teton Pass**	**130.75**	**29**	*e*PKPdf	PKPdf	18 25 10.8	-2.3
TIN	**Tinemaha**	**130.83**	**41**	⇓P	PKPdf	18 25 14.6	+1.1
	baz=131						
LOHW	**Long Hollow**	**130.83**	**29**	*e*PKPdf	PKPdf	18 25 14.6	+1.3
LOHW				*e*PP	PP	18 27 28.6	+0.1
P11A	**Circle Ranch,**	**130.85**	**37**	⇓P	PKPdf	18 25 14.6	+1.2
	baz=131						
R09A	**Tonopah**	**130.87**	**39**	⇓P	PKPdf	18 25 14.1	+0.6
	baz=131						
SNOW	**Snow King Moun**	**130.87**	**29**	*e*PKPdf	PKPdf	18 25 15.6	+2.3
N13A	**Wendover, West**	**130.90**	**34**	⇓P	PKPdf	18 25 14.0	+0.6
	baz=131						
REDW	**Red Top Meadow**	**130.90**	**30**	*e*PKPdf	PKPdf	18 25 14.2	+0.8
REDW				*e*PP	PP	18 27 34.2	+5.2
K16A	**Soda Springs**	**130.92**	**31**	⇓P	PKPdf	18 25 13.9	+0.5
	baz=131						
Q10A	**Clear Creek Ra**	**130.92**	**38**	⇑P	PKPdf	18 25 14.1	+0.5
	baz=131						
M14A	**Sheep Mountain**	**130.93**	**33**	⇓P	PKPdf	18 25 14.5	+0.9
	baz=131,SNR=20						
VES	**Vestal, Richgr**	**130.95**	**43**	⇑P	PKPdf	18 25 13.5	-0.3
	baz=131						
J17A	**Brown Place, J**	**130.97**	**29**	⇓P	PKPdf	18 25 14.1	+0.6
	baz=131						
O12A	**Currie**	**130.98**	**35**	⇓P	PKPdf	18 25 14.2	+0.6
	baz=131						
HVU	**Hansel Valley**	**131.05**	**32**	*e*PKIKP	PKPdf	18 25 13.1	-0.6
S09A	**Goldfield**	**131.08**	**39**	⇓P	PKPdf	18 25 14.8	+0.9
	baz=131						
L15A	**Malad City**	**131.09**	**32**	⇑P	PKPdf	18 25 14.2	+0.3
	baz=131,SNR=6.8						
I18A	**Diamond G Ranc**	**131.15**	**28**	⇓P	PKPdf	18 25 14.2	+0.4
	baz=131						
AHID	**Auburn Hatcher**	**131.21**	**30**	PFAKE		18 25 30.0	+16
AHID				LR	LR		
	comp=Z,14µm,20.0s,MS6.7						
SBC	**Santa Barbara**	**131.28**	**44**	⇓P	PKPdf	18 25 14.9	+0.5
	baz=131						
CWC	**Cottonwood Cre**	**131.28**	**41**	⇓P	PKPdf	18 25 15.4	+1.1
	baz=131						
K17A	**Gardner Place,**	**131.31**	**30**	⇓P	PKPdf	18 25 14.4	+0.2
	baz=131						
R10A	**Warm Springs**	**131.31**	**38**	⇑P	PKPdf	18 25 15.5	+1.1
	baz=131						
S10A	**Tonopah Range,**	**131.36**	**39**	⇓P	PKPdf	18 25 15.7	+1.2
	baz=131						
Q11A	**Duckwater**	**131.36**	**37**	⇓P	PKPdf	18 25 15.7	+1.3
	baz=131						
J18A	**Kendall Valley**	**131.42**	**29**	⇓P	PKPdf	18 25 14.9	+0.5
	baz=131						
GRAC	**Grapevine Rang**	**131.42**	**40**	⇓P	PKPdf	18 25 15.3	+0.7
	baz=131						
M15A	**Larsen Ranch,**	**131.44**	**32**	⇓P	PKPdf	18 25 15.1	+0.6
	baz=131						
ISA	**Isabella**	**131.46**	**42**	⇑P	PKPdf	18 25 15.0	+0.3
	baz=131						
ISA	**Isabella**	**131.46**	**42**	*e*PKPdf	PKPdf	18 25 15.8	+1.1
N14A	**Grayback Hills**	**131.47**	**34**	⇑P	PKPdf	18 25 15.5	+0.9
	baz=131,SNR=15						
BGU	**Big Grassy Mou**	**131.50**	**33**	*e*PKPdf	PKPdf	18 25 17.0	+2.3
O13A	**Hicks Ranch, I**	**131.51**	**35**	⇑P	PKPdf	18 25 15.1	+0.4
	baz=131						
ARVC	**Arvin**	**131.52**	**43**	⇑P	PKPdf	18 25 14.4	-0.4
	baz=131						
SPUT	**South Promonto**	**131.55**	**33**	*e*PKPdf	PKPdf	18 25 16.4	+1.7
BSC	**Santa Cruz Isl**	**131.57**	**45**	⇓P	PKPdf	18 25 15.1	+0.2
	baz=131						
L16A	**Fish Haven**	**131.59**	**31**	⇓P	PKPdf	18 25 15.4	+0.7
	baz=131						
DAC	**Darwin (Calif)**	**131.70**	**41**	PFAKE		18 25 30.0	+15
DAC				LR	LR		
	comp=Z,8µm,21.0s,MS6.4						
R11A	**Troy Canyon, C**	**131.72**	**38**	⇑P	PKPdf	18 25 15.7	+0.6
	baz=132						
Q12A	**Willow Creek R**	**131.73**	**36**	⇑P	PKPdf	18 25 15.7	+0.6
	baz=132						
N15A	**Stansbury Isla**	**131.80**	**33**	⇑P	PKPdf	18 25 15.5	+0.3
	baz=132						
L17A	**Cokeville**	**131.81**	**31**	⇑P	PKPdf	18 25 15.4	+0.2
	baz=132						
K18A	**Toltan Ranch,**	**131.83**	**30**	⇑P	PKPdf	18 25 15.9	+0.7
	baz=132						
MPMC	**Manual Prospec**	**131.89**	**41**	⇑P	PKPdf	18 25 16.7	+1.2
	baz=132						
P13A	**Bates Ranch, G**	**131.94**	**35**	⇓P	PKPdf	18 25 16.2	+0.8
	baz=132						
BW06	**Boulder Array**	**131.97**	**29**	⇑P	PKPdf	18 25 15.7	+0.2
	baz=132						
BW06	**Boulder Array**	**131.97**	**29**	PFAKE		18 25 30.0	+15
BW06				LR	LR		
	comp=Z,6µm,21.0s,MS6.3						
PDAR	**Pinedale Array**	**131.97**	**29**	PKhKP		18 25 09.4	
	comp=Z,7.3nm,1.1s,baz=38,slow=2.6,SNR=6.9						
PDAR				PKP	PKPdf	18 25 15.2	-0.2
	comp=Z,3.1nm,0.6s,baz=207,slow=0.3,SNR=14						
PDAR				PP	PP	18 27 33.6	-2.3
	comp=Z,12nm,1.0s,baz=285,slow=3.2,SNR=5.8						
M16A	**Huntsville**	**131.98**	**32**	⇑P	PKPdf	18 25 15.7	+0.2
	baz=132						
SNCC	**San Nicolas Is**	**132.04**	**46**	⇓P	PKPdf	18 25 16.5	+0.6
	baz=132						
S11A	**Rachel**	**132.06**	**39**	⇓P	PKPdf	18 25 16.7	+1.0
	baz=132						
FURC	**Furnace Creek,**	**132.06**	**40**	⇓P	PKPdf	18 25 16.3	+0.4
	baz=132						
LRMC	**Laurel Mountai**	**132.09**	**42**	⇓P	PKPdf	18 25 16.7	+0.8
	baz=132						
DUG	**Dugway**	**132.12**	**34**	⇑P	PKPdf	18 25 16.7	+0.9
	baz=132						
DUG	**Dugway**	**132.12**	**34**	*e*PKPdf	PKPdf	18 25 17.2	+1.4
DUG				LR	LR		
	comp=Z,12µm,21.0s,MS6.6						
NOQ	**North Oquirrh**	**132.19**	**33**	*e*PKPdf	PKPdf	18 25 17.9	+2.0
EDW2	**Edwards Air Fo**	**132.23**	**43**	⇑P	PKPdf	18 25 17.3	+1.1
	baz=132						
O15A	**The Old Anders**	**132.25**	**34**	⇑P	PKPdf	18 25 16.7	+0.6
	baz=132						
Q13A	**Wheeler Ranch,**	**132.26**	**36**	⇑P	PKPdf	18 25 16.7	+0.6
	baz=132						
K19A	**Absolon Red Bu**	**132.27**	**29**	⇑P	PKPdf	18 25 16.2	+0.2
	baz=132						
AGMN	**Agassiz Refuge**	**132.29**	**14**	PFAKE		18 25 30.0	+14
AGMN				LR	LR		
	comp=Z,21µm,22.0s,MS6.8						
R12A	**Pony Springs,**	**132.32**	**37**	⇓P	PKPdf	18 25 17.0	+0.7
	baz=132						
DECC	**Green Verdugo**	**132.34**	**44**	⇑P	PKPdf	18 25 17.1	+0.6
	baz=132						
L18A	**Fontenelle, Gr**	**132.36**	**30**	⇑P	PKPdf	18 25 16.5	+0.3
	baz=132						
M17A	**Scullys Gap (B**	**132.37**	**31**	⇑P	PKPdf	18 25 16.7	+0.4
	baz=132						
N16A	**Rees Ranch, Co**	**132.39**	**32**	⇑P	PKPdf	18 25 17.1	+0.8
	baz=132						
P14A	**Drum Mountains**	**132.39**	**35**	⇑P	PKPdf	18 25 16.7	+0.4
	baz=132						
U10A	**Ash Meadows, A**	**132.44**	**40**	⇓P	PKPdf	18 25 16.8	+0.3
	baz=132						
MWC	**Mount Wilson**	**132.55**	**44**	*e*PKIKP	PKPdf	18 25 18.1	+1.3
L19A	**Farson**	**132.57**	**30**	⇑P	PKPdf	18 25 17.0	+0.4
	baz=132						
S12A	**Delamar Landin**	**132.64**	**38**	⇓P	PKPdf	18 25 17.6	+0.7
	baz=132						
T11A	**Corn Creek, Al**	**132.64**	**39**	⇓P	PKPdf	18 25 17.7	+0.8
	baz=132						
FMP	**Fort Macarthur**	**132.66**	**44**	⇓P	PKPdf	18 25 17.4	+0.4
	baz=132						
N17A	**Moffit Pass**	**132.67**	**32**	⇑P	PKPdf	18 25 17.2	+0.4
	baz=132						
Q14A	**Sevier Lake (B**	**132.68**	**35**	⇑P	PKPdf	18 25 17.5	+0.6
	baz=132						
NLU	**North Lily Min**	**132.70**	**34**	*e*PKPdf	PKPdf	18 25 18.5	+1.6

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M18A  Lyman             132.71  31 ⇑P        PKPdf    18 25 17.7 +0.8
      baz=132
CIS   Catalina Islan    132.75  45 ⇓P        PKPdf    18 25 17.7 +0.5
      baz=133
SHOC  Shoshone          132.78  41 ⇓P        PKPdf    18 25 17.9 +0.7
      baz=133
GSC   Goldstone         132.78  42 ⇓P        PKPdf    18 25 18.0 +0.8
      baz=133
GSC   Goldstone         132.78  42 ePKPdf    PKPdf    18 25 15.2  -2.1
R13A  O'Grain Ranch,    132.80  37 ⇑P        PKPdf    18 25 18.2 +1.1
      baz=133
BFSC  Mount Baldy St    132.81  43 ⇓P        PKPdf    18 25 17.9 +0.6
      baz=133
DAU   Daniels Canyon    132.82  33 ePKIKP    PKPdf    18 25 18.1 +1.0
P15A  Leamington        132.85  34 ⇑P        PKPdf    18 25 18.1 +0.9
      baz=133
SCI   San Clemente I    132.88  45 ⇑P        PKPdf    18 25 18.3 +0.8
      baz=133
RRX   Edison Barstow    132.90  42 ⇑P        PKPdf    18 25 18.2 +0.8
      baz=133
MPU   Maple Canyon      132.90  33 ePKPdf    PKPdf    18 25 19.3 +2.0
U11A  Corn Creek        133.04  40 ⇑P        PKPdf    18 25 18.6 +0.9
      baz=133
M19A  Rock Springs      133.12  30 ⇑P        PKPdf    18 25 17.9 +0.3
      baz=133
L20A  Wamsutter         133.14  29 ⇑P        PKPdf    18 25 18.2 +0.5
      baz=133
P16A  Fountain Green    133.17  34 ⇓P        PKPdf    18 25 18.5 +0.7
      baz=133
Q15A  Fillmore          133.18  35 ⇑P        PKPdf    18 25 18.8 +1.0
      baz=133
O17A  Robinson Place    133.26  32 ⇓P        PKPdf    18 25 18.8 +0.9
      baz=133
S13A  Holt Ranch, En    133.26  37 ⇑P        PKPdf    18 25 18.8 +0.8
      baz=133
T12A  Moapa             133.28  39 ⇑P        PKPdf    18 25 19.0 +0.9
      baz=133
R14A  James Farms, M    133.28  36 ⇑P        PKPdf    18 25 19.0 +0.9
      baz=133
TUQ   Turquoise Moun    133.29  41 ⇓P        PKPdf    18 25 18.9 +0.8
      baz=133
BBRC  Big Bear Sol-O    133.30  43 ⇑P        PKPdf    18 25 18.7 +0.5
      baz=133
RSSD  Black Hills       133.35  24  PFAKE             18 25 30.0  +12
RSSD                                LR       LR
      comp=Z,8µm,19.0s,MS6.5
V11A  Goodsprings       133.37  40 ⇓P        PKPdf    18 25 19.3 +1.0
      baz=133
ARUT  Antelope Range    133.38  37 ePKIKP    PKPdf    18 25 19.9 +1.6
HEC   Hector,Ludlow     133.38  42 ⇓P        PKPdf    18 25 19.3 +1.0
      baz=133
MURC  Murrieta          133.49  44 ⇑P        PKPdf    18 25 19.2 +0.6
      baz=133
S14A  Cedar City        133.56  37 ⇓P        PKPdf    18 25 19.5 +0.9
      baz=133
EYMN  Ely               133.56  11 ePKPdf    PKPdf    18 25 18.0  -0.3
EYMN                               ePP       PP       18 27 44.9  -0.7
EYMN                                LR       LR
      comp=Z,20µm,22.0s,MS6.8
U12A  Valley of Fire    133.57  39 ⇓P        PKPdf    18 25 19.3 +0.7
      baz=133
CCUT  Cedar City        133.58  37 ePKPdf    PKPdf    18 25 20.6 +2.0
T13A  Saint George      133.59  38 ⇓P        PKPdf    18 25 19.5 +0.8
      baz=133
O18A  Roosevelt         133.59  32 ⇓P        PKPdf    18 25 19.2 +0.6
      baz=133
M20A  Sweetwater, Wa    133.60  29 ⇑P        PKPdf    18 25 19.2 +0.6
      baz=133
MVU   Marysvale         133.62  35  PFAKE             18 25 30.0  +11
MVU                                 LR       LR
      comp=Z,11µm,22.0s,MS6.5
MSU   Marysvale         133.63  35 ePKIKP    PKPdf    18 25 19.3 +0.6
L21A  Rawlins           133.63  28 ⇑P        PKPdf    18 25 18.9 +0.3
      baz=133
TMUT  Trail Mountain    133.64  34 ePKPdf    PKPdf    18 25 19.0 +0.3
P17A  Butcher Ranch,    133.77  33 ⇓P        PKPdf    18 25 19.5 +0.6
      baz=134
R15A  Junction          133.78  35 ⇑P        PKPdf    18 25 20.1 +1.1
      baz=134
V12A  Nelson            133.81  40 ⇑P        PKPdf    18 25 20.3 +1.1
      baz=134
GMRC  Granite Mounta    133.85  42 ⇑P        PKPdf    18 25 20.2 +1.0
      baz=134
M21A  Separation Pea    133.91  28 ⇑P        PKPdf    18 25 19.1   0.0
      baz=134
Q16A  Castle Valley     133.92  34 ⇓P        PKPdf    18 25 20.4 +1.2
      baz=134
RWWY  Rawlins           133.92  28 ePKPdf    PKPdf    18 25 19.3 +0.1
RWWY                               ePP       PP       18 27 47.8  -0.6
P18A  Preston Nutter    133.93  33 ⇑P        PKPdf    18 25 20.1 +0.8
      baz=134
U13A  Pakoon Wash       133.94  39 ⇓P        PKPdf    18 25 20.6 +1.3
      baz=134
109C  Camp Elliot, M    133.94  45 ⇑P        PKPdf    18 25 20.2 +0.7
      baz=134
PFO   Pinyon Flat Ob    133.99  43 ⇑P        PKPdf    18 25 20.5 +0.9
      baz=134
PFO   Pinyon Flat Ob    133.99  43 ePKPdf    PKPdf    18 25 19.7 +0.1
PFO                                 LR       LR
      comp=Z,6µm,21.0s,MS6.3
O19A  Miners Draw (B    134.03  31 ⇓P        PKPdf    18 25 19.6 +0.2
      baz=134
LDFC  Landfair          134.03  41 ePKPdf    PKPdf    18 25 22.2 +2.6
W12A  Cal Nev Ari       134.06  40 ⇓P        PKPdf    18 25 20.6 +1.0
      baz=134
T14A  Hurricane         134.06  37 ⇑P        PKPdf    18 25 20.7 +1.1
      baz=134
N20A  Spence Gulch,     134.06  30 ⇑P        PKPdf    18 25 20.1 +0.6
      baz=134
BELC  Belle Mtn.        134.08  43 ⇑P        PKPdf    18 25 20.8 +1.1
      baz=134
S15A  Panguitch         134.09  36 ⇓P        PKPdf    18 25 20.9 +1.3
      baz=134
SRU   San Rafael        134.14  33 ⇑P        PKPdf    18 25 20.5 +0.8
      baz=134
SRU   San Rafael        134.14  33 ePKPdf    PKPdf    18 25 20.7 +1.1
R16A  Teasdale          134.19  35 ⇑P        PKPdf    18 25 20.7 +0.9
      baz=134
V13A  Grand Canyon W    134.28  39 ⇑P        PKPdf    18 25 21.0 +1.0
      baz=134
BAR   Barrett           134.36  45 ePKPdf    PKPdf    18 25 22.6 +2.4
Q18A  Rafter H Ranch    134.36  33 ⇓P        PKPdf    18 25 20.8 +0.7
      baz=134
MONP  Monument Peak     134.42  44 ⇓P        PKPdf    18 25 21.1 +0.7
      baz=134
U14A  Mt Trumbull       134.42  38 ⇑P        PKPdf    18 25 21.5 +1.2
      baz=134
M22A  Cedar Creek Ra    134.43  28 ⇓P        PKPdf    18 25 20.7 +0.6
      baz=134
N21A  Black Mountain    134.49  29 ⇑P        PKPdf    18 25 21.1 +0.8
      baz=134
T15A  Red Dirt Ranch    134.51  37 ⇓P        PKPdf    18 25 21.3 +0.9
      baz=134
R17A  Hanksville Air    134.53  34 ⇑P        PKPdf    18 25 21.3 +0.9
      baz=134
NEE2  Needles Airpor    134.54  41 ⇓P        PKPdf    18 25 21.5 +1.0
      baz=134
IRM   Iron Mountain     134.56  42 ⇑P        PKPdf    18 25 21.4 +0.8
      baz=134
P19A  Cripple Cowboy    134.59  32 ⇑P        PKPdf    18 25 21.7 +1.2
      baz=134
O20A  White River Ci    134.60  30 ⇑P        PKPdf    18 25 21.4 +0.9
      baz=134
BC3   Big Chuckw Mtn    134.65  43 ⇑P        PKPdf    18 25 21.7 +0.9
      baz=134
DVTC  Desert V Tower    134.77  44 ⇓P        PKPdf    18 25 22.0 +0.9
      baz=135
W13A  Hualapai Mount    134.81  40 ⇑P        PKPdf    18 25 22.4 +1.3
      baz=135
SWSC  Sam W. Stewart    134.83  44 ⇑P        PKPdf    18 25 21.9 +0.8
      baz=135
O21A  Pagoda            134.93  30 ⇓P        PKPdf    18 25 21.5 +0.4
      baz=135
Q19A  Hogan Spring (    134.94  32 ⇑P        PKPdf    18 25 21.8 +0.7
      baz=135
N22A  Wattenberg Ran    134.97  28 ⇑P        PKPdf    18 25 21.6 +0.4
      baz=135
V14A  Boquillas Ranc    134.97  39 ⇑P        PKPdf    18 25 22.2 +0.8
      baz=135,SNR=14
P20A  De Beque          135.00  31 ⇑P        PKPdf    18 25 21.7 +0.4
      baz=135
R18A  Canyonlands Na    135.00  33 ⇑P        PKPdf    18 25 21.8 +0.5
      baz=135
S17A  Black Ridge (B    135.02  35 ⇓P        PKPdf    18 25 22.1 +0.8
      baz=135
PHWY  Pilot Hill        135.04  27 ePKPdf    PKPdf    18 25 21.1  -0.1
PHWY                               ePP       PP       18 27 57.8 +2.4
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T16A  Glen Canyon Da    135.06  36 ⇓P        PKPdf    18 25 22.2 +0.7
      baz=135
RCBR  Riachuelo         135.08 259 ePKPdf    PKPdf    18 25 24.5 +2.4
RCBR                                LR       LR
      comp=Z,15µm,20.0s,MS6.7
PDMCI Parker Dam,Lak    135.14  41 ⇑P        PKPdf    18 25 22.4 +0.7
      baz=135
X13A  Yucca             135.16  40 ⇑P        PKPdf    18 25 22.8 +1.1
      baz=135
Y12C  Blythe            135.22  42 ⇓P        PKPdf    18 25 23.0 +1.2
      baz=135
W14A  Seligman          135.25  39 ⇓P        PKPdf    18 25 23.3 +1.5
      baz=135,SNR=7.0
R19A  Curley Farm, L    135.42  33 ⇓P        PKPdf    18 25 23.1 +1.0
      baz=135
GLA   Glamis            135.43  43 ⇓P        PKPdf    18 25 23.2 +0.9
      baz=135
GLA   Glamis            135.43  43 ePKPdf    PKPdf    18 25 23.6 +1.4
V15A  Kaibab Nationa    135.43  38 ⇑P        PKPdf    18 25 23.4 +1.2
      baz=135
S18A  Hurst Farm, Bl    135.44  34 ⇑P        PKPdf    18 25 23.4 +1.2
      baz=135
Q20A  Ridgley Place,    135.45  32 ⇓P        PKPdf    18 25 22.8 +0.6
      baz=135
T17A  Navajo Res., N    135.46  36 ⇓P        PKPdf    18 25 23.4 +1.2
      baz=135
PV04  Paradox Valley    135.54  33 ePKPdf    PKPdf    18 25 23.7 +1.4
Y13A  Salome            135.64  41 ⇓P        PKPdf    18 25 23.5 +0.9
      baz=136
COWI  Conover           135.75   9 ePKPdf    PKPdf    18 25 20.3  -2.1
COWI                                LR       LR
      comp=Z,13µm,22.0s,MS6.6
W15A  Williams          135.79  39 ⇑P        PKPdf    18 25 24.0 +1.2
      baz=136
U17A  Shonto            135.81  36 ⇓P        PKPdf    18 25 23.9 +1.1
      baz=136
X14A  Yava              135.85  40 ⇑P        PKPdf    18 25 24.3 +1.3
      baz=136
U16A  Tuba City         135.85  37 ⇓P        PKPdf    18 25 24.0 +1.1
      baz=136
S19A  Harvey Farm, M    135.88  34 ⇓P        PKPdf    18 25 23.8 +0.9
      baz=136
112A  Yuma              135.90  43 ⇑P        PKPdf    18 25 24.0 +0.9
      baz=136
T18A  Mexican Hat       135.90  35 ⇓P        PKPdf    18 25 24.1 +1.1
      baz=136
PV01  Paradox Valley    135.91  33 ePKPdf    PKPdf    18 25 25.0 +2.0
Q21A  Lamborn Mesa,     135.92  31 ⇓P        PKPdf    18 25 23.7 +0.7
      baz=136
R20A  Redvale           135.97  32 ⇑P        PKPdf    18 25 24.2 +1.1
      baz=136
Y14A  Wickenburg        136.10  41 ⇓P        PKPdf    18 25 24.4 +0.9
      baz=136
WUAZ  Wupatki           136.12  38 ⇓P        PKPdf    18 25 24.4 +0.9
      baz=136
WUAZ  Wupatki           136.12  38 ePKPdf    PKPdf    18 25 24.1 +0.6
Z13A  Yuma Proving G    136.13  42 ⇑P        PKPdf    18 25 24.2 +0.6
      baz=136
ISCO  Idaho Springs     136.15  29 ePKIKP    PKPdf    18 25 23.8 +0.4
ISCO                                MLR      MLR
      comp=Z,7µm,20.0s,MS6.4
PLCA  Paso Flores       136.21 191  PKP      PKPdf    18 25 22.9  -0.6
      comp=Z,2.9nm,0.9s,baz=225,slow=13,SNR=3.3
PLCA  Paso Flores       136.21 191  PKP      PKPdf    18 25 22.9  -0.6
PLCA                                LR       LR
      comp=Z,4µm,19.0s,MS6.2
Q22A  Crested Butte,    136.24  31 ⇑P        PKPdf    18 25 24.3 +0.7
      baz=136
X15A  Humboldt          136.25  39 ⇓P        PKPdf    18 25 25.0 +1.3
      baz=136,SNR=8.1
ECSD  EROS Data Cent    136.30  17 ePKPpre            18 25 17.1
ECSD                                LR       LR
      comp=Z,10µm,20.0s,MS6.5
W16A  Flagstaff         136.30  38 ⇓P        PKPdf    18 25 24.7 +0.9
      baz=136
113A  Mohawk Valley,    136.31  42 ⇑P        PKPdf    18 25 24.9 +1.0
      baz=136
U18A  Rough Rock, Ch    136.40  35 ⇑P        PKPdf    18 25 25.0 +1.1
      baz=136
Z14A  Wintersburg       136.50  41 ⇑P        PKPdf    18 25 25.1 +0.9
      baz=136
Y15A  Casa Rosa Ranc    136.53  40 ⇓P        PKPdf    18 25 25.3 +1.0
      baz=136
T19A  Beclabito         136.60  34 ⇑P        PKPdf    18 25 25.4 +1.1
      baz=136
MVCO  Mesa Verde        136.62  34 ⇓P        PKPdf    18 25 25.3 +0.9
      baz=136
MVCO  Mesa Verde        136.62  34 ePKPdf    PKPdf    18 25 26.7 +2.4
MVCO                                LR       LR
      comp=Z,14µm,21.0s,MS6.7
R22A  Saguache, Gunn    136.79  31 ⇓P        PKPdf    18 25 26.0 +1.3
      baz=137
X16A  Lo Mia Camp, P    136.80  39 ⇓P        PKPdf    18 25 25.8 +1.0
      baz=137
W17A  Winslow           136.81  38 ⇑P        PKPdf    18 25 25.9 +1.2
      baz=137
OGNE  Ogallala          136.82  24  PFAKE             18 25 40.0  +15
OGNE                                LR       LR
      comp=Z,12µm,21.0s,MS6.6
V18A  Ganado            136.85  36 ⇓P        PKPdf    18 25 26.0 +1.2
      baz=137
114A  Black Gap (USA    136.92  42 ⇑P        PKPdf    18 25 25.6 +0.6
      baz=137
Z15A  Gila River Ind    137.06  41 ⇑P        PKPdf    18 25 26.1 +0.9
      baz=137
Y16A  Circle Bar Ran    137.12  39 ⇓P        PKPdf    18 25 26.1 +0.8
      baz=137
X17A  Forest Lakes      137.25  38 ⇑P        PKPdf    18 25 26.5 +0.9
      baz=137
V19A  Window Rock       137.37  36 ⇑P        PKPdf    18 25 26.7 +0.9
      baz=137
W18A  Petrified Fore    137.38  37 ⇑P        PKPdf    18 25 27.2 +1.4
      baz=137
115A  Sonoran Desert    137.38  41 ⇑P        PKPdf    18 25 26.6 +0.7
      baz=137
214A  Organ Pipe Nat    137.45  43 ⇓P        PKPdf    18 25 27.1 +1.1
      baz=137
Z16A  Peralta Trail,    137.50  40 ⇓P        PKPdf    18 25 27.1 +1.0
      baz=137
GLMI  Grayling          137.55   5  PFAKE             18 25 40.0  +14
GLMI                                LR       LR
      comp=Z,13µm,19.0s,MS6.7
W19A  Sanders           137.59  36 ⇑P        PKPdf    18 25 27.2 +1.0
      baz=137
T22A  Edith             137.63  32 ⇑P        PKPdf    18 25 27.9 +1.7
      baz=137
Y17A  Roosevelt         137.65  39 ⇑P        PKPdf    18 25 27.4 +1.1
      baz=138
X18A  Snowflake         137.65  38 ⇑P        PKPdf    18 25 27.7 +1.4
      baz=138
LONY  Lake Ozonia       137.65 354 ePKPpre            18 25 19.7
LONY                                LR       LR
      comp=Z,8µm,20.0s,MS6.5
LBNH  Lisbon            137.69 351 ePKIKP    PKPdf    18 25 27.6 +1.5
LBNH                                MLR      MLR
      comp=Z,17µm,21.0s,MS6.8
SADO  Sadowa            137.78 359  PKP      PKPdf    18 25 25.3  -0.9
      comp=Z,11nm,0.8s,baz=29,slow=3.0,SNR=4.6
SDCO  Great Sand Dun    137.80  30  PFAKE             18 25 40.0  +13
SDCO                                LR       LR
      comp=Z,9µm,20.0s,MS6.5
116A  Eloy              137.81  41 ⇓P        PKPdf    18 25 27.9 +1.2
      baz=138
W20A  Ramah             138.10  36 ⇓P        PKPdf    18 25 28.3 +1.1
      baz=138
Z17A  San Carlos Hig    138.14  39 ⇑P        PKPdf    18 25 27.9 +0.6
      baz=138
NCB   Newcomb           138.25 354 ePKPdf    PKPdf    18 25 27.1   0.0
NCB                                 LR       LR
      comp=Z,12µm,22.0s,MS6.6
216A  Three Points,     138.33  42 ⇑P        PKPdf    18 25 28.1 +0.4
      baz=138
117A  Oracle            138.44  40 ⇑P        PKPdf    18 25 28.4 +0.6
      baz=138
Y19A  Nutrioso          138.46  38 ⇓P        PKPdf    18 25 28.9 +1.1
      baz=138
Z18A  Geronimo          138.55  39 ⇓P        PKPdf    18 25 29.0 +0.9
      baz=138
TUC   Tucson            138.57  41 ePKHKP             18 25 21.0
TUC                                 MLR      MLR
      comp=Z,7µm,21.0s,MS6.4
W21A  San Fidel         138.60  35 ⇓P        PKPdf    18 25 28.7 +0.6
      baz=138
JFWS  Jewell Farm       138.64  11 ePKIKP    PKPdf    18 25 22.6  -5.3
JFWS                                MLR      MLR
      comp=Z,17µm,22.0s,MS6.8
118A  Homack Ranch,     138.89  40 ⇑P        PKPdf    18 25 29.7 +1.0
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      baz=139
217A  Green Valley      138.89  41 ⇓P        PKPdf    18 25 29.2 +0.5
      baz=139,SNR=5.5
Z19A  T-Link Ranch,     138.90  38 ⇓P        PKPdf    18 25 29.8 +1.2
      baz=139
SCIA  State Center      138.93  15 ePKPdf    PKPdf    18 25 27.9  -0.6
SCIA                               ePP       PP       18 28 17.4  -2.0
SCIA                                LR       LR
      comp=Z,15µm,22.0s,MS6.7
SPB   Sao Paulo         139.02 229  PFAKE             18 25 40.0  +11
SPB                                 LR       LR
      comp=Z,13µm,20.0s,MS6.7
W22A  Albuquerque       139.07  34 ⇓P        PKPdf    18 25 30.1 +1.2
      baz=139
119A  Ashpeak Ranch,    139.23  39 ⇓P        PKPdf    18 25 30.1 +0.8
      baz=139
218A  Dragoon           139.27  41 ⇑P        PKPdf    18 25 30.5 +1.1
      baz=139
RPN   Rapa Nui          139.34 138  PFAKE             18 25 40.0  +10
RPN                                 LR       LR
      comp=Z,8µm,20.0s,MS6.5
ANMO  Albuquerque       139.39  34  PFAKE             18 25 40.0  +10
ANMO                                LR       LR
      comp=Z,16µm,21.0s,MS6.7
LAZ   Ladron            139.40  35 ePKPdf    PKPdf    18 25 32.0 +2.4
X22A  Bernardo          139.40  35 ⇓P        PKPdf    18 25 30.6 +1.1
      baz=139
Z20A  Nine Sixteen R    139.44  38 ⇑P        PKPdf    18 25 30.7 +1.0
      baz=139
CBKS  Cedar Bluff       139.56  24  PFAKE             18 25 40.0  +10
CBKS                                LR       LR
      comp=Z,18µm,22.0s,MS6.8
318A  Bisbee            139.65  41 ⇑P        PKPdf    18 25 31.3 +1.3
      baz=140
219A  White Tail Can    139.76  40 ⇑P        PKPdf    18 25 31.5 +1.3
      baz=140
Y22D  IRIS PASSCAL I    139.76  35 ⇑P        PKPdf    18 25 31.4 +1.2
      baz=140
120A  U Bar Ranch, L    139.79  39 ⇑P        PKPdf    18 25 31.5 +1.1
      baz=140
BNM   Barren Site       139.88  35 ePKPpre            18 25 23.9
AAM   Ann Arbor         140.13   4  PFAKE             18 25 40.0 +9.4
AAM                                 LR       LR
      comp=Z,15µm,20.0s,MS6.7
319A  Douglas           140.15  41 ⇓P        PKPdf    18 25 32.2 +1.2
      baz=140
BINY  Binghamton        140.18 355 ePKPpre            18 25 28.3
BINY                                LR       LR
      comp=Z,13µm,20.0s,MS6.7
220A  Playas Peak, P    140.29  39 ⇑P        PKPdf    18 25 32.2 +1.0
      baz=140
121A  Cookes Peak, D    140.33  38 ⇑P        PKPdf    18 25 32.4 +1.1
      baz=140
ERPA  Erie              140.44 360 ePKPpre            18 25 26.0
ERPA                                LR       LR
      comp=Z,11µm,20.0s,MS6.6
KSU1  Kansas State U    140.48  20 ePKPpre            18 25 24.5
KSU1                                LR       LR
      comp=Z,13µm,20.0s,MS6.7
320A  Kipp Ranch, An    140.66  40 ⇓P        PKPdf    18 25 33.0 +1.1
      baz=140
122A  Conniff Cattle    140.69  37 ⇓P        PKPdf    18 25 33.2 +1.2
      baz=140
221A  Mesquite Ranch    140.69  38 ⇑P        PKPdf    18 25 33.1 +1.1
      baz=140
222A  Williams Famil    141.04  38 ⇑P        PKPdf    18 25 33.8 +1.2
      baz=141
HDIL  Hopedale          141.10  11 ePKPpre            18 25 28.4
HDIL                                LR       LR
      comp=Z,19µm,21.0s,MS6.8
SSPA  Standing Stone    141.87 357 ePKPpre            18 25 28.2
SSPA                                LR       LR
      comp=Z,16µm,22.0s,MS6.7
AMTX  Amarillo          141.95  29  PFAKE             18 25 50.0  +16
AMTX                                LR       LR
      comp=Z,15µm,22.0s,MS6.7
ACSO  Alum Creek Sta    142.23   4 ePKPpre            18 25 28.5
ACSO                                LR       LR
      comp=Z,21µm,21.0s,MS6.9
MCWV  Mont Chateau      142.90 360 ePKPpre            18 25 31.8
MCWV                                LR       LR
      comp=Z,20µm,21.0s,MS6.9
BLO   Bloomington       142.92   8 ePKIKP    PKPdf    18 25 32.4  -3.3
CCM   Cathedral Cave    143.06  15 ePKHKP             18 25 30.6
CCM                                 MLR      MLR
      comp=Z,13µm,22.0s,MS6.7
OLIL  Olney             143.09  10 ePKPpre            18 25 33.1
FVM   French Village    143.33  14 ePKIKP    PKPdf    18 25 32.0  -4.5
WMOK  Wichita Mounta    143.43  26 ePKIKP    PKPdf    18 25 32.4  -4.4
WMOK                                MLR      MLR
      comp=Z,13µm,22.0s,MS6.7
SIUC  Southern Illin    143.86  12 ePKPpre            18 25 34.2
WCI   Wyandotte Cave    143.88   8 ePKIKP    PKPdf    18 25 33.2  -4.2
WCI                                 MLR      MLR
      comp=Z,14µm,19.0s,MS6.8
USIN  University of     143.92  10 ePKPpre            18 25 34.5
CPUP  Villa Florida     143.94 216  PKP      PKPdf    18 25 36.4  -1.5
      comp=Z,9.7nm,0.7s,baz=118,slow=4.0,SNR=18
CPUP  Villa Florida     143.94 216  PKP      PKPdf    18 25 36.4  -1.5
CPUP                                LR       LR
      comp=Z,2µm,19.0s,MS6.0
CBN   Corbin            144.26 356 ePKPdf    PKPdf    18 25 36.6  -1.5
CBN                                 LR       LR
      comp=Z,11µm,21.0s,MS6.6
CFAA  Coronel Fontan    144.36 198  PKP      PKPdf    18 25 37.5  -1.1
      comp=Z,2.8nm,0.8s,baz=178,slow=2.7,SNR=22
PARMO Parma             144.75  13 ePKPdf    PKPdf    18 25 37.3  -1.7
TXAR  Lajitas Array     145.09  38  PKPbc    PKPbc    18 25 39.8 +0.5
      comp=Z,563nm,0.9s,baz=265,slow=1.1,SNR=668
GLAT  Glass             145.23  13 ePKPdf    PKPdf    18 25 38.6  -1.2
UTMT  University of     145.26  12 ePKPdf    PKPdf    18 25 39.2  -0.7
ELN   Prospectdale      145.32   1 ePKPdf    PKPdf    18 25 38.4  -1.6
BLA   Blacksburg        145.34   0 ePKIKP    PKPdf    18 25 39.0  -1.0
BLA                                 MLR      MLR
      comp=Z,22µm,22.0s,MS6.9
GNAR  Gosnell           145.35  14 ePKPdf    PKPdf    18 25 39.6  -0.5
HALT  Halls             145.56  13 ePKPdf    PKPdf    18 25 39.6  -0.8
HBAR  Harrisburg        145.58  15 ePKPdf    PKPdf    18 25 40.4   0.0
MIAR  Mount Ida         145.63  20 ePKIKP    PKPdf    18 25 40.3  -0.3
MIAR                                MLR      MLR
      comp=Z,9µm,20.0s,MS6.5
WVT   Waverly           145.67  11 ePKIKP    PKPdf    18 25 40.0  -0.6
UALR  University of     145.82  18 ePKPdf    PKPdf    18 25 42.2 +1.3
TZTN  Tazewell          145.86   5 ePKPdf    PKPdf    18 25 40.6  -0.4
JCT   Junction City     146.41  32 ePKP2     PKPab    18 25 41.7  -2.5
JCT                                 MLR      MLR
      comp=Z,8µm,20.0s,MS6.5
PLAL  Pickwick Lake     146.73  12 ePKPdf    PKPdf    18 25 42.2  -0.3
PLAL                                LR       LR
      comp=Z,18µm,22.0s,MS6.8
BBSR  BB Station        146.82 336 ePKPdf    PKPdf    18 25 44.5 +1.8
BBSR                                LR       LR
      comp=Z,9µm,22.0s,MS6.5
CPCT  Cooper Cave       146.85   7 ePKPdf    PKPdf    18 25 42.9 +0.3
OXF   Oxford            146.88  14 ePKP2     PKPab    18 25 43.5  -2.4
OXF                                 MLR      MLR
      comp=Z,20µm,22.0s,MS6.8
SWET  Sewanee           146.89   9 ePKPdf    PKPdf    18 25 42.6  -0.1
CNNC  Cliffs of the     147.24 357 ePKPdf    PKPdf    18 25 44.9 +1.6
CNNC                                LR       LR
      comp=Z,14µm,22.0s,MS6.7
LCO   Las Campanas      147.50 196 ePKPdf    PKPdf    18 25 43.9  -0.1
LCO                                 LR       LR
      comp=Z,8µm,20.0s,MS6.5
NATX  Nacogdoches       147.73  24 ePKPdf    PKPdf    18 25 45.1 +0.9
NATX                                LR       LR
      comp=Z,9µm,21.0s,MS6.6
JSC   Jenkinsville      148.25   2 ePKP2     PKPbc    18 25 47.5  -0.8
VBMS  Vicksburg         148.75  17 ePKPbc    PKPbc    18 25 50.1 +0.4
VBMS                                LR       LR
      comp=Z,12µm,22.0s,MS6.6
HKT   Hockley           148.79  27 ePKIKP    PKPdf    18 25 47.4 +1.4
HKT                                 MLR      MLR
      comp=Z,15µm,21.0s,MS6.8
GOGA  Godfrey           148.97   5 ePKIKP    PKPdf    18 25 47.2 +1.0
GOGA                                MLR      MLR
      comp=Z,15µm,21.0s,MS6.8
NHSC  New Hope          149.43   0 ePKPbc    PKPbc    18 25 52.1 +0.7
NHSC                                LR       LR
      comp=Z,18µm,22.0s,MS6.8
KVTX  Kingsville        149.75  33 ePKPbc    PKPbc    18 25 54.1 +1.7
KVTX                                LR       LR
      comp=Z,9µm,20.0s,MS6.6
BRAL  Brewton           150.78  12 ePKPdf    PKPdf    18 25 50.5 +1.4
BRAL                                LR       LR
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	comp=Z,15µm,20.0s,MS6.8						
LVC	**Limon Verde**	**152.85**	**203**	PKP	PKPdf	18 25 54.3	+1.8
	comp=Z,3.0nm,0.8s,baz=307,slow=4.3,SNR=5.8						
LVC				PKPbc	PKPbc	18 26 01.6	+1.9
	comp=Z,17nm,0.9s,baz=266,slow=2.3,SNR=11						
LVC	**Limon Verde**	**152.85**	**203**	*e*PKPdf	PKPdf	18 25 53.9	+1.4
LVC				*e*PKPbc	PKPbc	18 26 01.2	+1.6
LVC				LR	LR		
	comp=Z,11µm,20.0s,MS6.7						
SIV	**San Ignacio**	**153.76**	**225**	PKP	PKPdf	18 25 53.8	-0.1
	comp=Z,2.6nm,0.8s,baz=179,slow=3.3,SNR=3.6						
SIV				PKPbc	PKPbc	18 26 03.8	+2.0
	comp=Z,8.5nm,0.9s,baz=149,slow=2.2,SNR=12						
DWPF	**Disney**	**154.38**	**3**	PFAKE		18 26 10.0	+15
DWPF				LR	LR		
	comp=Z,13µm,22.0s,MS6.7						
ANWB	**Willy Bob**	**156.44**	**311**	PFAKE		18 26 10.0	+12
ANWB				LR	LR		
	comp=Z,7µm,21.0s,MS6.5						
BBGH	**Gun Hill**	**157.00**	**299**	PFAKE		18 26 10.0	+12
BBGH				LR	LR		
	comp=Z,12µm,20.0s,MS6.7						
FDF	**Fort de France**	**157.60**	**304**	PFAKE		18 26 10.0	+11
FDF				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
MTP	**Monte Pirata**	**158.82**	**318**	*e*PKPdf	PKPdf	18 26 00.4	-0.1
GRTK	**Grand Turk**	**159.06**	**336**	PFAKE		18 26 10.0	+9.3
GRTK				LR	LR		
	comp=Z,15µm,20.0s,MS6.8						
SJG	**San Juan**	**159.20**	**320**	PFAKE		18 26 10.0	+9.1
SJG				LR	LR		
	comp=Z,20µm,21.0s,MS6.9						
GRGR	**Grenville**	**159.28**	**299**	PFAKE		18 26 10.0	+8.9
GRGR				LR	LR		
	comp=Z,7µm,21.0s,MS6.5						
ICM	**Isla Caja Muer**	**159.60**	**320**	*e*PKPbc	PKPdf	18 26 00.7	-0.7
TEIG	**Tepich**	**160.56**	**24**	PFAKE		18 26 10.0	+7.6
TEIG				LR	LR		
	comp=Z,13µm,20.0s						
SDDR	**Presa de Saban**	**161.37**	**333**	PFAKE		18 26 10.0	+6.7
SDDR				LR	LR		
	comp=Z,13µm,21.0s						
GTBY	**Guantanamo Bay**	**161.88**	**345**	PFAKE		18 26 10.0	+6.2
GTBY				LR	LR		
	comp=Z,9µm,20.0s						
MTDJ	**Mount Denham**	**164.05**	**351**	PFAKE		18 26 20.0	+14
MTDJ				LR	LR		
	comp=Z,7µm,19.0s						
NNA	**Nana**	**165.36**	**193**	PKP	PKPdf	18 26 07.2	0.0
	comp=Z,5.6nm,0.6s,baz=201,slow=5.6,SNR=2.3						
NNA	**Nana**	**165.36**	**193**	PKP	PKPdf	18 26 07.2	0.0
NNA				LR	LR		
	comp=Z,11µm,22.0s						
TGUH	**Tegucigalpa,Un**	**166.42**	**31**	PFAKE		18 26 20.0	+12
TGUH				LR	LR		
	comp=Z,7µm,21.0s						
SDV	**Santo Domingo**	**168.55**	**305**	*e*PKPdf	PKPdf	18 26 08.9	-0.8
SDV				LR	LR		
	comp=Z,10µm,20.0s						
PAYG	**Puerto Ayora**	**169.41**	**107**	*e*PKPdf	PKPdf	18 26 11.9	+1.7
PAYG				LR	LR		
	comp=Z,9µm,20.0s						
JTS	**JuntasAbangare**	**170.80**	**31**	PFAKE		18 26 20.0	+9.1
JTS				LR	LR		
	comp=Z,14µm,22.0s						
BCIP	**Isla Barro Col**	**173.25**	**357**	PFAKE		18 26 20.0	+7.9
BCIP				LR	LR		
	comp=Z,15µm,21.0s						
ROSC	**El Rosal**	**173.71**	**293**	PKP	PKPdf	18 26 12.6	+0.3
	comp=Z,6.7nm,0.4s,baz=90,slow=20,SNR=9.3						
OTAV	**Otavalo**	**177.29**	**218**	*e*PKPdf	PKPdf	18 26 13.9	+0.7
OTAV				LR	LR		
	comp=Z,17µm,21.0s						

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*NEIC **25** 18:25:21.8, 40°.40N×26°.03E, h24^{km}, MD3.0(ATH), After ATH.*
*ATH **25** 18:25:21.8, 40°.40N×26°.03E, h24^{km}±4^{km}, MD3.0/4*
*CSEM **25** 18:25:22.7±0.1, 40°.43N×25°.91E, h20^{km}, ML3.0/5, Error ellipse: s-maj=3.4km s-min=2.6km az=122.0*
*ISCJB **25** 18:25:22.1±0.6, 40°.41N±0°.02×25°.94E±0°.04, h12^{km}±5^{km}, Error ellipse: s-maj=5.4km s-min=3.9km az=24.8*
*THE **25** 18:25:22.9, 40°.41N×25°.92E, h14^{km}±1^{km}, ML3.0/5, Error ellipse: s-maj=1.8km s-min=0.4km az=307.0*
*DDA **25** 18:25:22.6, 40°.36N×26°.04E, h6^{km}±1^{km}, Md2.9, Ml2.9*
ISC 25 18:25:22.4±0.6**, 40°.41N**±0°.03×**25°.95E**±0°.04**, h14**^{km}±5^{km}**, n31,** σ**0^{s}.77**/53**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALN	**Alexandroupoli**	**0.50**	**8**	P	**Pg**	**18 25 32.4**	**+0.2**
ALN				S	**Sg**	**18 25 39.8**	**+0.9**
ALN	**Alexandroupoli**	**0.50**	**8**	P	**Pg**	**18 25 32.4**	**+0.2**
ALN				S	**Sg**	**18 25 39.8**	**+0.9**
BOZC	**Bozcaada**	**0.57**	**172**	*i* P	**Pg**	**18 25 33.0**	**-0.6**
BOZC				*i* S	**Sg**	**18 25 40.5**	**-0.7**
LIA	**Limnos Island**	**0.78**	**229**	P	**Pg**	**18 25 37.2**	**-0.3**
LIA				S	**Sg**	**18 25 48.5**	**+0.8**
LIA	**Limnos Island**	**0.78**	**229**	*e*PB	**Pg**	**18 25 37.2**	**-0.3**
LIA				*e*SN	**Sn**	**18 25 49.7**	**-0.7**
LIA	**Limnos Island**	**0.78**	**229**	*e*Pb	**Pg**	**18 25 37.2**	**-0.3**
LIA				S	**Sg**	**18 25 48.5**	**+0.8**
LIA				*e*Sn	**Sn**	**18 25 49.7**	**-0.7**
RDO	**Rodhopi**	**0.80**	**337**	*e*PN	**Pn**	**18 25 38.1**	**-1.2**
RDO	**Rodhopi**	**0.80**	**337**	*e*Pn	**Pn**	**18 25 38.1**	**-1.2**
LOS	**Limnos**	**0.82**	**235**	P	**Pg**	**18 25 37.9**	**-0.3**
LOS	**Limnos**	**0.82**	**235**	P	**Pg**	**18 25 37.9**	**-0.3**
SART	**Tekirdag**	**0.98**	**73**	*i* P	**Pb**	**18 25 40.4**	**-0.7**
SART				*i* S	**Sb**	**18 25 53.2**	**-0.7**
SART	**Tekirdag**	**0.98**	**73**	*i* P	**Pb**	**18 25 40.4**	**-0.8**
SART				*i* S	**Sb**	**18 25 53.2**	**-0.7**
PRK	**Paraskevi**	**1.18**	**168**	P	**Pn**	**18 25 44.2**	**-0.4**
PRK				S	**Sb**	**18 26 00.4**	**+0.6**
PRK	**Paraskevi**	**1.18**	**168**	*e*PN	**Pn**	**18 25 44.1**	**-0.5**
PRK	**Paraskevi**	**1.18**	**168**	*e*Pn	**Pn**	**18 25 44.1**	**-0.5**
PRK				S	**Sb**	**18 26 00.4**	**+0.6**
SIGR	**SIGRI**	**1.20**	**184**	P	**Pn**	**18 25 44.2**	**-0.5**
SIGR				S	**Sb**	**18 26 00.7**	**+0.6**
SIGR	**SIGRI**	**1.20**	**184**	P	**Pn**	**18 25 44.2**	**-0.5**
SIGR				S	**Sb**	**18 26 00.7**	**+0.6**
AYVA	**Ayvalik**	**1.23**	**152**	*i* P	**Pn**	**18 25 45.5**	**+0.3**
AYVA				*i* S	**Sb**	**18 26 00.9**	**-0.4**
AYVA	**Ayvalik**	**1.23**	**152**	*i* P	**Pn**	**18 25 45.5**	**+0.2**
AYVA				*i* S	**Sb**	**18 26 00.9**	**-0.4**
BALY	**Balya**	**1.44**	**117**	*i* P	**Pn**	**18 25 48.9**	**+0.7**
BALY				*i* S	**Sn**	**18 26 07.6**	**+0.7**
BALY	**Balya**	**1.44**	**117**	*i* P	**Pn**	**18 25 48.8**	**+0.7**
BALY				*i* S	**Sn**	**18 26 07.6**	**+0.8**
OUR	**Ouranopolis**	**1.50**	**268**	P	**Pn**	**18 25 48.2**	**-0.8**
OUR	**Ouranopolis**	**1.50**	**268**	P	**Pn**	**18 25 48.2**	**-0.8**
NVR	**Nevrokopi**	**1.84**	**301**	*e*PN	**Pn**	**18 25 54.9**	**+1.3**
NVR	**Nevrokopi**	**1.84**	**301**	*e*Pn	**Pn**	**18 25 54.9**	**+1.3**
CHOS	**Chios island**	**2.02**	**178**	P	**Pn**	**18 25 55.8**	**-0.2**
CHOS				S	**Sn**	**18 26 21.7**	**+0.7**
CHOS	**Chios island**	**2.02**	**178**	P	**Pn**	**18 25 55.8**	**-0.2**
CHOS				S	**Sn**	**18 26 21.7**	**+0.7**
ELBA	**Catalca**	**2.02**	**68**	*e*P	**Pn**	**18 25 57.0**	**+0.8**
ELBA				*e*S	**Sn**	**18 26 20.3**	**-0.9**
ELBA	**Catalca**	**2.02**	**68**	*e*P	**Pn**	**18 25 57.0**	**+0.9**
ELBA				*e*S	**Sn**	**18 26 20.3**	**-0.9**
DURS	**Dursunbey**	**2.10**	**112**	*i* P	**Pn**	**18 26 00.4**	**+3.2**
DURS				*i* S	**Sn**	**18 26 28.2**	**+5.1**
DURS	**Dursunbey**	**2.10**	**112**	*i* P	**Pn**	**18 26 00.4**	**+3.3**

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*NEIC **25** 18:36:21.8±0.8, 19°.83N×71°.15W, h35^{km}, Error ellipse: s-maj=14.7km s-min=11.0km az=203.0*
RSPR 25 18:36:21.2, 19°.16N×71°.07W, h118^{km}±3^{km}**, MD4.7**/4**, MD4.7**/4**, 3C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SDDR	**Presa de Saban**	**0.27**	**230**	⇓*e*P	Pn	18 36 37.0	-0.7
SDDR				*e*S	Sn	18 36 50.2	0.0
GTBY	**Guantanamo Bay**	**3.89**	**282**	*e*Pn	Pn	18 37 17.2	-2.0
CRPR	**Cabo Rojo, PR**	**3.92**	**106**	⇑*e*P	Pn	18 37 22.3	+2.6
CBYP	**Canovanas**	**5.02**	**99**	⇑*e*P	Pn	18 37 38.6	+4.3
MTP	**Monte Pirata**	**5.33**	**100**	⇑*e*P	Pn	18 37 43.1	+4.5
MTP				*e*S	Sn	18 38 38.7	-0.3

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*SZGRF **25** 18:46:17.7, 44°.66N×146°.63E, h33^{km}, mb4.6, Kuril Islands, Russia*
*MOS **25** 18:46:23.9±0.9, 43°.79N×144°.82E, h121^{km}, mb4.4/25, Error ellipse: s-maj=8.6km s-min=5.6km az=106.6*
*BJI **25** 18:46:24.8, 43°.68N×144°.74E, h128^{km}, mB5.3/2, mb4.7/22*
*ISCJB **25** 18:46:24.6±0.2, 43°.72N±0°.03×144°.85E±0°.04, h130^{km}±1^{km}, mb4.2/65, Error ellipse: s-maj=5.2km s-min=4.4km az=154.1*
*JMA **25** 18:46:25.7±0.1, 43°.68N×144°.87E, h126^{km}±1^{km}, M3.9*
JMA Felt I J1.
*IDC **25** 18:46:26.6±0.6, 43°.75N×144°.81E, h133^{km}±3^{km}, mb3.9/27, mb1 4.0/29, mb1mx4.0/33, mbtmp3.9/29, MS4.9/2, Ms1 4.9/2, ms1mx4.1/42, Error ellipse: s-maj=11.5km s-min=6.9km az=176.0*
*NEIC **25** 18:46:26.3±0.2, 43°.76N×144°.79E, mb4.5/23, Error ellipse: s-maj=6.8km s-min=4.6km az=131.0*
NEIC Recorded [1 JMA] in eastern Hokkaido.
ISC 25 18:46:25.6±0.2**, 43°.72N**±0°.03×**144°.87E**±0°.04**, h126**^{km}±1^{km}**, h133**^{km}±2.0^{km}**:pP-P, n196,** σ**0^{s}.81**/216**, mb4.4**/65**, 25C-11D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNK	**Nakash**	**0.17**	**220**	⇓P	**Pn**	**18 46 43.0**	**+0.2**
JNK				*e*S	**Sn**	**18 46 55.7**	**-0.1**
JRA	**Rausu**	**0.29**	**39**	⇓P	**Pn**	**18 46 43.5**	**+0.4**
JRA				*e*S	**Sn**	**18 46 57.0**	**+0.6**
NEM2	**Nemuro 2**	**0.73**	**119**	⇓P	**Pn**	**18 46 45.5**	**-0.2**
NEM2				*e*S	**Sn**	**18 47 00.0**	**-0.9**
JAK	**Akkeshi**	**0.73**	**190**	⇓P	**Pn**	**18 46 45.7**	**0.0**
JAK				*e*S	**Sn**	**18 47 00.3**	**-0.7**
JTKR	**Abashiri--Toko**	**0.74**	**290**	⇑P	**Pn**	**18 46 46.1**	**+0.3**
JTKR				*e*S	**Sn**	**18 47 00.7**	**-0.4**
YUK	**Yuzh-Kuril'sk**	**0.79**	**66**	⇓*i*PN	**Pn**	**18 46 46.8**	**+0.7**
YUK				*i* S	**Sn**	**18 47 03.0**	**+1.3**
YUK				pmax	pmax		
	comp=N,4µm,0.6s						
YUK				pmax	pmax		
	comp=E,2µm,0.6s						
YUK				pmax	pmax		
	comp=Z,15µm,0.6s						
YUK				pmax	pmax		
	comp=Z,6µm,0.5s						
YUK				pmax	pmax		
	comp=N,2700µm,0.5s						
YUK				pmax	pmax		
	comp=E,2µm,0.5s						
YUK				smax			
	comp=E,6µm,0.8s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=N,28µm,3.0s						
YUK				smax			
	comp=E,20µm,3.0s						
JAR	**Ashorobuto**	**0.90**	**243**	⇑P	**Pn**	**18 46 47.6**	**+0.4**
JAR				*e*S	**Sn**	**18 47 03.9**	**+0.4**
JOB	**Onbets**	**1.11**	**223**	⇑P	**Pn**	**18 46 49.5**	**+0.4**
JOB				*e*S	**Sn**	**18 47 06.9**	**-0.1**
JMP	**Maruseppu**	**1.13**	**285**	⇑P	**Pn**	**18 46 49.7**	**+0.4**
JMP				*e*S	**Sn**	**18 47 07.4**	**0.0**
JKK2	**Kamakawa 2**	**1.54**	**277**	⇑P	**Pn**	**18 46 54.4**	**+0.6**
JKK2				*e*S	**Sn**	**18 47 15.4**	**0.0**
JCH	**Churui**	**1.56**	**226**	⇑P	**Pn**	**18 46 53.9**	**-0.1**
JCH				*e*S	**Sn**	**18 47 14.6**	**-1.1**
ASAJ	**Asahikawa**	**1.69**	**284**	⇑P	**Pn**	**18 46 56.5**	**+1.0**
ASAJ				*e*S	**Sn**	**18 47 19.0**	**+0.6**
ASAJ	**Asahikawa**	**1.69**	**284**	PN	**Pn**	**18 46 56.6**	**+1.1**
ASAJ				S	**Sn**	**18 47 19.5**	**+1.1**
ASAJ				pmax	pmax		
	comp=Z,98nm,0.3s						
ASAJ				smax			
	comp=N,30nm,0.3s						
ASAJ	**Asahikawa**	**1.69**	**284**	P	**Pn**	**18 46 56.6**	**+1.1**
	comp=N,98nm,0.3s,baz=222,slow=30,SNR=622						
ASAJ				S	**Sn**	**18 47 19.4**	**+1.0**
	comp=N,30nm,0.3s,baz=2.7,slow=27,SNR=25						
JFR	**Furan**	**1.75**	**252**	⇑P	**Pn**	**18 46 56.7**	**+0.5**
JFR				*e*S	**Sn**	**18 47 20.1**	**+0.5**
JSE	**Soyaes**	**2.06**	**308**	⇑P	**Pn**	**18 47 00.3**	**+0.3**
JSE				*e*S	**Sn**	**18 47 26.2**	**-0.1**
JNBK	**Urakawa-nobuka**	**2.11**	**228**	P	**Pn**	**18 46 59.8**	**-0.9**
JNBK				*e*S	**Sn**	**18 47 26.3**	**-1.3**
ERM	**Erimo**	**2.12**	**217**	*e*PN	**Pn**	**18 47 01.7**	**+1.0**
KUR	**Kuril'sk**	**2.63**	**54**	⇑*i*PN	**Pn**	**18 47 05.1**	**-2.1**
KUR				*e*S	**Sn**	**18 47 35.0**	**-4.2**
KUR				pmax	pmax		
	comp=N,90nm,0.7s						
KUR				pmax	pmax		
	comp=E,90nm,0.7s						
KUR				pmax	pmax		
	comp=Z,170nm,0.7s						
KUR				smax			
	comp=N,290nm,0.8s						
KUR				smax			
	comp=E,430nm,0.8s						
YSS	**Yuzh-Sakhalins**	**3.56**	**336**	⇑*e*PN	**Pn**	**18 47 19.8**	**+0.4**
YSS				*e*S	**Sn**	**18 48 01.0**	**0.0**
YSS				pmax	pmax		
	comp=Z,30nm,0.8s						
YSS				smax			
	comp=N,120nm,1.0s						
YSS				smax			
	comp=E,130nm,1.2s						
YSS	**Yuzh-Sakhalins**	**3.56**	**336**	*e*P	**Pn**	**18 47 19.7**	**+0.4**
HABR	**Khabarovsk**	**8.31**	**308**	*e*PN	**Pn**	**18 48 23.9**	**+0.7**
HABR				S	**Sn**	**18 49 56.5**	**+1.2**
HABR				pmax	pmax		
	comp=N,26nm,1.0s						
HABR				pmax	pmax		
	comp=E,62nm,0.9s						
HABR				pmax	pmax		
	comp=Z,66nm,0.9s						
HABR				MLR	MLR		
	comp=Z,11µm,17.0s						
MAJO	**Matsushiro**	**8.79**	**218**	*e*PN	**Pn**	**18 48 29.1**	**-0.6**
MAT	**Matsushiro**	**8.79**	**218**	P	**Pn**	**18 48 29.2**	**-0.5**
MJAR	**Matsushiro Arr**	**8.79**	**218**	P	**Pn**	**18 48 29.1**	**-0.6**
	comp=Z,1.2nm,0.3s,baz=28,slow=13,SNR=15						
KLR	**Kul'dur**	**10.59**	**306**	*e*PN	**Pn**	**18 48 50.8**	**-2.9**
PETK	**Petropavlovsk-**	**12.67**	**38**	P	**Pn**	**18 49 19.3**	**-1.7**
	comp=Z,0.5nm,0.3s,baz=211,slow=8.8,SNR=11						
PETK				LR	LR	18 54 30.1	
	comp=Z,9µm,18.4s,baz=258,slow=38						
CN2	**Changchun**	**14.04**	**277**	*e*P	**Pn**	**18 49 37.0**	**-1.8**
CN2				pmax	pmax		
	comp=Z,20nm,1.0s						
KSRS	**Korea Array**	**14.31**	**250**	P	**Pn**	**18 49 41.1**	**-1.1**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS	**Korea Array**	**14.31**	**250**	P	**Pn**	**18 49 41.0**	**-1.2**
	comp=Z,0.5nm,0.3s,baz=62,slow=12,SNR=17						
SEY	**Seymchan**	**19.74**	**10**	⇑*e*P	**P**	**18 50 43.7**	**-1.4**
YAK	**Yakutsk**	**20.41**	**339**	*e*P	**P**	**18 50 50.6**	**-1.7**
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
YAK	**Yakutsk**	**20.41**	**339**	*e*P	**P**	**18 50 52.4**	**+0.1**
	comp=Z,11nm,0.7s						
BJT	**Baijiatuau**	**21.64**	**270**	*e*P	**P**	**18 51 03.4**	**-2.3**
BJT				pmax	pmax		
	comp=Z,24nm,0.5s						
BJT	**Baijiatuau**	**21.64**	**270**	*e*P	**P**	**18 51 03.4**	**-2.2**
	comp=Z,24nm,0.5s,mb4.8						
HHC	**Hu-ho-hao-te**	**24.71**	**275**	*e*P	**P**	**18 51 35.5**	**+0.6**
HHC				pmax	pmax		
	comp=Z,19nm,0.6s,mb4.7						
SONM	**Songino Array**	**26.96**	**292**	P	**P**	**18 51 55.1**	**+0.1**
	comp=Z,5.8nm,0.5s,mb4.3,baz=93,slow=8.5,SNR=65						
SONM				pP	pP	18 52 23.1	+1.1
	comp=Z,3.7nm,0.7s,baz=87,slow=8.2,SNR=4.8						
WHN	**Wuhan**	**27.49**	**252**	P	**P**	**18 52 00.5**	**+0.6**
ZAK	**Zakamensk**	**28.81**	**298**	*e*P	**P**	**18 52 10.9**	**-0.6**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.9						
XAN	**Xi'an**	**29.41**	**263**	P	**P**	**18 52 22.3**	**+5.3**
XAN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
GUMO	**Guam**	**30.02**	**180**	LR	LR	19 05 46.4	
	comp=Z,1µm,19.0s,baz=31,slow=39						
LZH	**Lanzhou**	**32.12**	**270**	*e*P	**P**	**18 52 40.5**	**-0.3**
LZH				pmax	pmax		
	comp=Z,40nm,1.5s,mb4.9						
LZH				pmax	pmax		
	comp=Z,210nm,5.0s						
KMI	**Kunming**	**38.90**	**256**	P	**P**	**18 53 39.3**	**+0.5**
KMI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
ZAA0	**Zalesovo Array**	**39.70**	**307**	*e*P	**P**	**18 53 43.5**	**-1.6**
ZALV	**Zalesovo Beam**	**39.70**	**307**	P	**P**	**18 53 44.2**	**-0.8**
	comp=Z,3.3nm,0.5s,mb4.4,baz=87,slow=9.4,SNR=16						
ZALV				PcP	PcP	18 55 49.5	+0.4
	comp=Z,2.1nm,0.4s,baz=83,slow=3.2,SNR=8.4						
NVS	**Novosibirsk**	**40.45**	**308**	*e*P	**P**	**18 53 48.9**	**-2.4**
KDAK	**Kodiak Island**	**40.49**	**47**	*i* P	**P**	**18 53 51.9**	**+0.4**
KDAK	**Kodiak Island**	**40.49**	**47**	P	**P**	**18 53 51.6**	**+0.1**
	comp=Z,12nm,1.1s,mb4.7,baz=95,slow=20,SNR=9.4						
MK31	**Makanchi Array**	**43.13**	**297**	*e*P	**P**	**18 54 13.0**	**-0.2**
MK31				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.3						
MK31	**Makanchi Array**	**43.13**	**297**	*e*P	**P**	**18 54 12.6**	**-0.6**
MKAR	**Makanchi Array**	**43.13**	**297**	P	**P**	**18 54 13.0**	**-0.2**
	comp=Z,5.2nm,0.7s,mb4.4,baz=82,slow=8.3,SNR=62						
MKAR				pP	pP	18 54 43.6	+1.9
	comp=Z,1.4nm,0.7s,baz=75,slow=9.3,SNR=2.5						
MKAR				PcP	PcP	18 56 00.8	+0.2
	comp=Z,0.8nm,0.5s,baz=38,slow=2.4,SNR=5.5						
MKAR	**Makanchi Array**	**43.13**	**297**	P	**P**	**18 54 13.0**	**-0.2**
MKAR				pP	pP	18 54 43.6	+1.9
MKAR				PcP	PcP	18 56 00.8	+0.2
KURK	**Kurchatov**	**44.17**	**303**	P	**P**	**18 54 21.7**	**+0.2**
KURK						18 56 04.4	
KURK				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.6						
KURK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
KURK	**Kurchatov**	**44.17**	**303**	P	**P**	**18 54 21.6**	**+0.2**
	comp=Z,6.2nm,0.5s,mb4.6,baz=75,slow=8.9,SNR=33						
KURK				PcP	PcP	18 56 04.4	+0.4
	comp=Z,1.6nm,0.5s,baz=78,slow=3.5,SNR=3.8						
KURK	**Kurchatov**	**44.17**	**303**	*e*P	**P**	**18 54 20.7**	**-0.8**
	comp=Z,39nm,1.4s,mb4.9						
LSA	**Lhasa**	**44.54**	**270**	P	**P**	**18 54 26.0**	**+1.3**
LSA	**Lhasa**	**44.54**	**270**	*e*P	**P**	**18 54 26.0**	**+1.3**
LSA				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
LSA	**Lhasa**	**44.54**	**270**	*e*P	**P**	**18 54 26.0**	**+1.3**
	comp=Z,1.1nm,0.5s,mb3.8						
CMAR	**Chiang Mai Arr**	**45.94**	**252**	P	**P**	**18 54 36.4**	**+0.6**
	comp=Z,1.2nm,0.7s,mb3.7,baz=40,slow=7.8,SNR=12						
INK	**Inuvik**	**47.27**	**30**	P	**P**	**18 54 45.9**	**+0.4**
	comp=Z,1.4nm,0.4s,mb4.0,baz=304,slow=8.5,SNR=13						
INK	**Inuvik**	**47.27**	**30**	P	**P**	**18 54 45.9**	**+0.4**
BVA0	**Borovoye Array**	**48.24**	**309**	*i* P	**P**	**18 54 52.8**	**-0.4**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.8						
BVAR	**Borovoye Array**	**48.24**	**309**	P	**P**	**18 54 53.0**	**-0.2**
	comp=Z,2.1nm,0.3s,mb4.5,baz=78,slow=8.5,SNR=51						
BVAR				PcP	PcP	18 56 18.1	-0.2
	comp=Z,1.0nm,0.3s,baz=91,slow=5.0,SNR=5.8						
BRVK	**Borovoye**	**48.29**	**309**	*e*P	**P**	**18 54 53.1**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.6						
BRVK	**Borovoye**	**48.29**	**309**	*e*P	**P**	**18 54 53.1**	**-0.5**
	comp=Z,11nm,1.1s,mb4.6						
TAPN	**Taplejung**	**48.36**	**270**	*e*P	**P**	**18 54 55.1**	**+0.6**
	comp=Z,8.1nm,0.4s,mb4.9						
ODAN	**Odare**	**48.87**	**270**	*e*P	**P**	**18 54 59.2**	**+0.7**
TKM2	**Tokmak 2**	**49.02**	**294**	P	**P**	**18 54 59.9**	**+0.5**
	SNR=20						
JIRN	**Jiri**	**49.28**	**271**	*e*P	**P**	**18 55 02.2**	**+0.6**
GUN	**Gumba**	**49.36**	**272**	*e*P	**P**	**18 55 02.6**	**+0.4**
	comp=Z,60nm,0.5s						
RAMN	**Ramite**	**49.40**	**270**	*e*P	**P**	**18 55 02.6**	**+0.2**
	comp=Z,49nm,0.6s						
KBK	**Karagaybulak**	**49.57**	**294**	P	**P**	**18 55 04.2**	**+0.7**
	SNR=17						
USP	**Ospenovka**	**49.59**	**295**	P	**P**	**18 55 04.0**	**+0.3**
	SNR=14						
KZA	**Kyzart**	**49.63**	**294**	P	**P**	**18 55 05.5**	**+1.6**
	SNR=17						
KKN	**Kakani**	**49.87**	**272**	*e*P	**P**	**18 55 06.3**	**+0.3**
AAK	**Ala-Archa**	**49.88**	**295**	*e*P	**P**	**18 55 06.2**	**+0.3**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
AAK	**Ala-Archa**	**49.88**	**295**	P	**P**	**18 55 06.2**	**+0.3**
	SNR=7.4						
AAK	**Ala-Archa**	**49.88**	**295**	P	**P**	**18 55 06.1**	**+0.3**
	comp=Z,2.9nm,0.5s,mb4.5,baz=109,slow=5.5,SNR=20						
AAK	**Ala-Archa**	**49.88**	**295**	*e*P	**P**	**18 55 06.2**	**+0.3**
	comp=Z,4.0nm,0.6s,mb4.5						
PKI	**Pulchoki**	**49.90**	**272**	*e*P	**P**	**18 55 06.5**	**+0.3**
	comp=Z,15nm,0.5s,mb5.1						
PKI	**Pulchoki**	**49.90**	**272**	*e*P	**P**	**18 55 06.5**	**+0.3**
PKI				pmax	pmax		
	comp=Z,15nm,0.5s,mb5.2						
DMN	**Daman**	**50.10**	**272**	*e*P	**P**	**18 55 08.2**	**+0.5**
	comp=Z,20nm,0.6s,mb5.3						
GKN	**Gorkha**	**50.21**	**273**	*e*P	**P**	**18 55 08.7**	**+0.1**
	comp=Z,36nm,0.4s						
EKS2	**Erkin-Say**	**50.34**	**295**	P	**P**	**18 55 09.7**	**+0.3**
	SNR=8.9						
AML	**Almayashu**	**50.63**	**294**	P	**P**	**18 55 12.6**	**+1.1**
	SNR=6.9						
DANN	**Dangsing**	**50.65**	**274**	*e*P	**P**	**18 55 12.7**	**+0.8**
KOLN	**Koldanda**	**51.10**	**273**	*e*P	**P**	**18 55 15.8**	**+0.6**
	comp=Z,25nm,0.4s						
SVE	**Sverdlovsk**	**52.03**	**316**	*e*P	**P**	**18 55 20.5**	**-1.2**
SVE				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
KK31	**Karatay Array**	**52.26**	**297**	P	**P**	**18 55 23.3**	**-0.4**
KK31				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.9						
ARU	**Arti**	**53.23**	**316**	*c* *i*P	**P**	**18 55 30.2**	**-0.4**
ARU				*e*		18 57 28.5	
ARU				S	**S**	**19 02 51.6**	**-0.1**
ARU				SS	SS	19 06 31.3	-1.0
ARU				pmax	pmax		
	comp=Z,25nm,1.7s,mb5.0						
ARU	**Arti**	**53.23**	**316**	*e*P	**P**	**18 55 29.3**	**-1.3**
	comp=Z,6.3nm,0.6s,mb4.8						
RES	**Resolute Bay**	**55.47**	**16**	P	**P**	**18 55 45.7**	**-0.8**
	comp=Z,2.4nm,0.5s,mb4.5,baz=312,slow=7.2,SNR=11						
RES				pP	pP	18 56 18.6	+2.4
	comp=Z,1.2nm,0.4s,baz=304,slow=6.5,SNR=3.3						
AB31	**Akbulak array**	**55.79**	**308**	P	**P**	**18 55 48.8**	**-0.4**
AB31				pmax	pmax		
	comp=Z,6.0nm,0.3s,mb5.1						
AKTK	**Aktyubinsk**	**56.30**	**310**	P	**P**	**18 55 52.0**	**-0.7**
AKTO	**Aktyubinsk**	**56.30**	**310**	P	**P**	**18 55 52.0**	**-0.7**
	comp=Z,1.3nm,0.4s,mb4.3,baz=50,slow=10,SNR=9.1						
YKA	**Yellowknife Ar**	**56.74**	**33**	P	**P**	**18 55 55.7**	**0.0**
	comp=Z,0.6nm,0.6s,mb3.8,baz=303,slow=6.7,SNR=13						
YKA				pP	pP	18 56 27.9	+2.4
	comp=Z,0.8nm,0.8s,baz=301,slow=6.6,SNR=4.5						
YKA	**Yellowknife Ar**	**56.74**	**33**	P	**P**	**18 55 55.7**	**0.0**
YKA				pP	pP	18 56 27.9	+2.4
KEV	**Kevo**	**58.16**	**339**	*e*P	**P**	**18 56 02.3**	**-3.2**
KEV				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
KEV	**Kevo**	**58.16**	**339**	*e*p	**P**	**18 56 02.3**	**-3.2**
	comp=Z,4.7nm,0.8s,mb4.6						
ARCES	**ARCESS Array B**	**58.70**	**339**	P	**P**	**18 56 08.6**	**-0.6**
	comp=Z,4.9nm,0.9s,mb4.5,baz=44,slow=7.4,SNR=8.8						
JOF	**Joensuu**	**61.34**	**331**	*e*p	**P**	**18 56 25.6**	**-1.8**
	comp=Z,1.8nm,0.5s,mb4.4						
KAF	**Kangasniemi**	**63.59**	**333**	*e*P	**P**	**18 56 39.7**	**-2.7**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.5						
KAF	**Kangasniemi**	**63.59**	**333**	*e*p	**P**	**18 56 39.7**	**-2.7**
	comp=Z,3.0nm,0.4s,mb4.5						
WRA	**Warramunga Arr**	**64.08**	**191**	P	**P**	**18 56 45.7**	**-0.2**
	comp=Z,6.0nm,1.0s,mb4.4,baz=13,slow=7.0,SNR=16						
FINES	**FINESS Array B**	**64.14**	**332**	P	**P**	**18 56 45.4**	**-0.6**
	comp=Z,7.3nm,0.5s,mb4.8,baz=49,slow=7.5,SNR=68						
YBH	**Yreka Blue Hor**	**64.30**	**56**	P	**P**	**18 56 47.8**	**+0.5**
	comp=Z,0.8nm,0.4s,mb3.9,baz=354,slow=9.2,SNR=3.1						
OBN	**Obninsk**	**64.35**	**323**	*e*P	**P**	**18 56 47.1**	**-0.3**
OBN				pmax	pmax		
	comp=Z,37nm,2.5s,mb4.8						
FFC	**Flin Flon**	**66.70**	**36**	*i* P	**P**	**18 57 04.1**	**+1.6**
FCC	**Fort Churchill**	**66.87**	**29**	*e*P	**P**	**18 57 03.5**	**0.0**
ASAR	**Alice Springs**	**67.80**	**191**	P	**P**	**18 57 10.8**	**+1.1**
	comp=Z,0.4nm,0.4s,mb3.6,baz=7.2,slow=6.2,SNR=13						
BOZ	**Bozeman (W)**	**68.16**	**47**	*e*P	**P**	**18 57 13.2**	**+1.3**
BOZ				*e**PP	pP	18 57 45.2	+2.5
BOZ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
BOZ	**Bozeman (W)**	**68.16**	**47**	*e*P	**P**	**18 57 13.2**	**+1.3**
	comp=Z,3.6nm,1.0s,mb4.2						

BOZ				epP	pP	18 57 45.1	+2.5
KIV	Kislovodsk	68.54	311	eP	P	18 57 14.4	+0.1
KIV				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.9						
KIV	Kislovodsk	68.54	311	eP	P	18 57 14.4	+0.1
	comp=Z,17nm,0.8s,mb4.9						
NVAR	Mina Array Bea	68.99	57	P	P	18 57 18.6	+1.5
	comp=Z,1.7nm,0.7s,mb4.0,baz=296,slow=6.3,SNR=11						
NVAR				pP	pP	18 57 50.2	+2.2
	comp=Z,2.3nm,0.7s,baz=286,slow=6.3,SNR=9.8						
NB2	NORSAR Subarra	69.03	338	P	P	18 57 16.2	-0.8
	comp=Z,2.7nm,0.6s,mb4.2,baz=39,slow=6.2						
NOA	NORSAR Array B	69.03	338	P	P	18 57 16.5	-0.5
	comp=Z,6.1nm,0.8s,mb4.5,baz=35,slow=6.1,SNR=17						
GNI	Garni	69.85	307	⇑eP	P	18 57 24.2	+1.8
GNI				pmax	pmax		
	comp=Z,14nm,1.7s						
GNI				MLR	MLR		
	comp=Z,1μm,18.0s						
AKASG	Malin Array Be	70.62	323	P	P	18 57 26.2	-0.7
	comp=Z,4.3nm,0.4s,mb4.6,baz=40,slow=6.1,SNR=25						
PDAR	Pinedale Array	71.18	49	P	P	18 57 31.4	+1.0
	comp=Z,1.7nm,0.6s,mb4.1,baz=283,slow=1.4,SNR=14						
PDAR				pP	pP	18 58 03.0	+1.5
	comp=Z,1.6nm,0.8s,baz=311,slow=2.0,SNR=6.8						
BUR08	Bucovina Ar. S	74.66	322	eP	P	18 57 50.6	-0.2
BURAR	Bucovina Array	74.67	322	⇑iP	P	18 57 51.2	+0.3
BURAR	Bucovina Array	74.67	322	⇑P	P	18 57 51.2	+0.3
MALT	Malatya	74.71	309	⇓iP	P	18 57 52.8	+1.5
MALT	Malatya	74.71	309	⇓P	P	18 57 52.8	+1.4
OJC	Ojcow	74.92	327	eP	P	18 57 52.7	+0.4
STHS	Stebnicka Huta	74.97	326	eP	P	18 57 53.3	+0.7
STHS	Stebnicka Huta	74.97	326	eP	P	18 57 53.4	+0.8
STKA	Stephens Creek	75.29	183	P	P	18 57 54.2	-0.2
	comp=Z,0.4nm,0.5s,mb3.4,baz=320,slow=5.3,SNR=3.3						
STKA	Stephens Creek	75.29	183	eP	P	18 57 54.9	+0.5
TRPA	Tarpa	75.44	324	⇑iP	P	18 57 56.0	+0.7
DPC	Dobruska-Polom	76.16	329	eP	P	18 58 00.2	+0.8
MORC	Moravsky Berou	76.16	328	⇑iP	P	18 58 00.1	+0.7
MORC	Moravsky Berou	76.16	328	⇑P	P	18 58 00.1	+0.7
BRTR	Keskin Array B	76.36	312	P	P	18 58 00.9	+0.2
	comp=Z,1.0nm,0.6s,mb3.7,baz=75,slow=3.6,SNR=7.4						
VOIR		76.40	321	⇑iP	P	18 58 01.8	+1.0
VOIR		76.40	321	⇑P	P	18 58 01.8	+0.9
CLL	Collm	76.57	331	⇓iP	P	18 58 01.4	-0.3
CLL				e*PP	pP	18 58 34.0	+0.9
CLL				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
CLL	Collm	76.57	331	⇓iP	P	18 58 01.4	-0.3
	comp=Z,7.0nm,0.6s,mb4.6						
CLL				epP	pP	18 58 34.0	+0.9
PVCC	Panska Ves	76.66	330	eP	P	18 58 02.5	+0.3
VYHS	Vyhne	76.68	326	eP	P	18 58 02.8	+0.5
VYHS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
VYHS	Vyhne	76.68	326	eP	P	18 58 02.8	+0.5
	comp=Z,2.0nm,0.7s,mb4.0						
PRU	Pruhonice	77.11	330	eP	P	18 58 05.4	+0.7
GZR	Gura Zlata	77.46	322	⇑iP	P	18 58 06.9	+0.2
GZR	Gura Zlata	77.46	322	⇑P	P	18 58 06.9	+0.2
KHC	Kasperske Hory	78.17	330	eP	P	18 58 11.2	+0.6
GERES	GERESS Array B	78.36	329	P	P	18 58 11.8	+0.1
	comp=Z,1.2nm,0.5s,mb3.9,baz=39,slow=5.9,SNR=15						
GRA1	Grafenberg Arr	78.54	331	eP	P	18 58 13.1	+0.4
	comp=Z,6.0nm,1.2s,mb4.3						
GRF	Grafenberg Arr	78.54	331	eP	P	18 58 13.1	+0.4
GRF				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.3						
GRF	Grafenberg Arr	78.54	331	eP	P	18 58 13.1	+0.4
GRF				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.3						
GRF	Grafenberg Arr	78.54	331	eP	P	18 58 13.1	+0.4
	comp=Z,6.0nm,1.2s,mb4.3						
PKSM	Moragy	78.58	325	⇓iP	P	18 58 12.0	-1.0
PKSM	Moragy	78.58	325	⇓P	P	18 58 12.0	-0.9
MMAI	Mount Meron Ar	80.19	306	P	P	18 58 22.7	+0.8
	comp=Z,2.2nm,0.5s,mb4.2,baz=34,slow=11,SNR=4.7						
WTTA	Wattenberg	80.45	330	⇑iP	P	18 58 23.8	+0.8
	comp=Z,3.1nm,0.5s,mb4.4						
BAIF	Baives	80.50	336	eP	P	18 58 23.8	+0.6
	comp=Z,35nm,1.3s,mb4.7						
BAIF	Baives	80.50	336	eP	P	18 58 23.8	+0.6
BAIF				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.7						
BAIF	Baives	80.50	336	eP	P	18 58 23.8	+0.6
	comp=Z,17nm,1.3s,mb4.7						
MOTA	Moosalm	80.57	330	⇑iP	P	18 58 24.2	+0.5
	comp=Z,2.5nm,0.5s,mb4.3						
BFO	Black Forest	80.70	332	i P	P	18 58 24.9	+0.6
BFO	Black Forest	80.70	332	eP	P	18 58 23.9	-0.4
CDF	Champ du Feu	80.98	333	eP	P	18 58 25.5	-0.3
HINF	Hinteralfeld	81.64	333	eP	P	18 58 28.5	-0.8
CABF	La Chapelle	82.94	333	eP	P	18 58 35.4	-0.7
LOR	Lormes	83.08	334	eP	P	18 58 36.2	-0.6
SSF	Saint Saulge	83.38	335	eP	P	18 58 37.8	-0.6
SMF	Signal de Mont	83.64	334	eP	P	18 58 39.4	-0.3
	comp=Z,3.0nm,0.5s,mb4.1						
LPG	La Plagne	83.69	332	eP	P	18 58 40.3	+0.3
	comp=Z,7.9nm,0.8s,mb4.3						
LPG	La Plagne	83.69	332	eP	P	18 58 40.3	+0.3
LPG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
LPG	La Plagne	83.69	332	eP	P	18 58 40.3	+0.3
	comp=Z,4.0nm,0.8s,mb4.3						
BGF	Bois d’Agland	84.03	335	eP	P	18 58 41.2	-0.5
	comp=Z,11nm,0.9s,mb4.4						
BGF	Bois d’Agland	84.03	335	eP	P	18 58 41.2	-0.5
BGF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
BGF	Bois d’Agland	84.03	335	eP	P	18 58 41.2	-0.5
	comp=Z,5.4nm,0.9s,mb4.4						
TXAR	Lajitas Array	84.03	55	P	P	18 58 43.4	+1.3
	comp=Z,1.7nm,0.8s,mb3.9,baz=311,slow=3.6,SNR=8.1						
TXAR				pP	pP	18 59 14.9	+0.9
	comp=Z,1.0nm,0.7s,baz=278,slow=3.4,SNR=4.5						
SGMF	Saint Gilles	84.04	339	eP	P	18 58 41.7	0.0
ROSF	Rostrenen	84.15	339	eP	P	18 58 41.9	-0.3
MBDF	Montbardon	84.36	331	eP	P	18 58 42.4	-1.0
	comp=Z,1.9nm,0.5s,mb3.9						
MBDF	Montbardon	84.36	331	eP	P	18 58 42.4	-1.0
MBDF				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
MBDF	Montbardon	84.36	331	eP	P	18 58 42.4	-1.0
	comp=Z,0.9nm,0.5s,mb3.9						
TCF	Toulx Ste Croi	84.47	335	eP	P	18 58 43.8	-0.1
ORIF	Oris-en-Rattie	84.50	332	eP	P	18 58 44.1	0.0
	comp=Z,5.2nm,0.8s,mb4.1						
SBF	Sospel	84.88	331	eP	P	18 58 46.0	0.0
	comp=Z,16nm,0.8s,mb4.7						
SBF	Sospel	84.88	331	eP	P	18 58 46.0	0.0
SBF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
SBF	Sospel	84.88	331	eP	P	18 58 46.0	0.0
	comp=Z,7.9nm,0.8s,mb4.7						
VIVF	Saint-Julien-l	84.96	333	eP	P	18 58 46.3	-0.1
PGF	Pioggiola	85.45	329	eP	P	18 58 48.1	-0.8
RJF	Les Rejaudoux	85.57	335	eP	P	18 58 49.2	-0.2
LMR	La Mourre	85.67	331	eP	P	18 58 49.5	-0.5
	comp=Z,5.7nm,0.7s,mb4.3						
CAF	Calviac	85.74	334	eP	P	18 58 50.0	-0.3
	comp=Z,8.8nm,0.9s,mb4.4						
CAF	Calviac	85.74	334	eP	P	18 58 50.0	-0.3
CAF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
CAF	Calviac	85.74	334	eP	P	18 58 50.0	-0.3
	comp=Z,4.4nm,0.9s,mb4.4						
MTLF	Montolieu	87.11	334	eP	P	18 58 56.6	-0.4
ETSF	Etsaut	88.38	335	eP	P	18 59 03.0	0.0
	comp=Z,4.1nm,0.6s,mb4.3						
ETSF	Etsaut	88.38	335	eP	P	18 59 03.0	0.0
ETSF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
ETSF	Etsaut	88.38	335	eP	P	18 59 03.0	0.0
	comp=Z,2.0nm,0.6s,mb4.3						
ESDC	Sonseca Array	92.35	336	P	P	18 59 21.2	-0.3
	comp=Z,0.5nm,0.5s,mb4.0,baz=355,slow=4.3,SNR=3.3						

DJA 25 18:53:18, 1°.67S×99°.50E, h20km, MLv3.8/4, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	Saibi	0.53	310	P	Pb	18 53 28.8	+0.1
SISI				S	Sb	18 53 38.2	+2.2
PPSI	Pulau Pagai	1.20	155	P	Pn	18 53 39.9	+0.2
PDSI	Padang	1.22	52	P	Pn	18 53 39.1	-0.9
PDSI				S	Sb	18 53 55.7	-0.1
PPI	Padang Panjang	1.50	37	P	Pn	18 53 45.0	+1.2
SDSI	Sungai Dareh	2.06	69	P	Pn	18 53 52.1	+0.6
GSI	Gunungsitoli	3.52	327	P	Pn	18 54 12.3	+0.6
KSI	Kapahiang	3.66	123	P	Pn	18 54 13.6	0.0

IDC 25 18:57:12.3±9.8, 30°.32N×137°.54E, h261km±60km, mb3.1/3, mb1 3.0/5, mb1mx2.7/26, mbtmp2.9/5, Error ellipse: s-maj=114.2km s-min=26.5km az=165.0

JMA 25 18:57:41.2±0.3, 33°.70N×136°.81E, h381km±4km, M2.4

ISC 25 18:57:41.2±1.7, 33°.6N±0°.3×136°.9E±0°.2, h379km±9km, n13, σ0ˢ.80/13, mb3.0/3, Near south coast of western Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK02	Tokai 2	0.83	62	P	Pn	18 58 30.0	+0.5
JKN2	Miekihoku	0.84	324	P	Pn	18 58 29.4	0.0
JIE	Ise	0.84	351	P	Pn	18 58 29.7	+0.3
JWZ	Kozaga	0.96	268	P	Pn	18 58 29.9	0.0
JNY	Yasuok	1.97	24	P	Pn	18 58 34.9	0.0
JOD2	Odawara 2	2.50	47	P	Pn	18 58 38.8	+0.2
JOD2				eS	S	18 59 24.4	-0.6
MJAR	Matsushiro Arr	3.17	20	P	Pn	18 58 43.5	-0.6
	0.5nm,0.3s,baz=184,slow=8.4,SNR=5.6						
KSRS	Korea Array	8.26	301	P	Pn	18 59 38.2	-0.6
	0.2nm,0.3s,baz=114,slow=12,SNR=4.2						
ASAJ	Asahikawa	11.44	21	P	Pn	19 00 18.9	+3.0
	0.3nm,0.3s,baz=225,slow=16,SNR=3.6						
PETK	Petropavlovsk-	24.56	31	P	P	19 02 32.7	+4.5
	3.3nm,1.0s,mb3.5,baz=256,slow=10,SNR=2.4						
MKAR	Makanchi Array	42.92	305	P	P	19 05 04.5	+0.5
	0.1nm,0.5s,mb2.2,baz=93,slow=7.5,SNR=2.7						
INK	Inuvik	59.14	26	P	P	19 07 01.6	-1.3
	0.7nm,0.6s,mb3.3,baz=284,slow=0.3,SNR=5.5						
TORD	Torodi Ar. Bea	116.91	310	PKP	PKPdf	19 15 31.5	-10
	0.3nm,0.6s,baz=39,slow=1.3,SNR=4.9						

ISCJB 25 19:01:36.7±0.2, 41°.13N±0°.01×114°.88W±0°.02, h10km, mb3.1/2, Error ellipse: s-maj=2.0km s-min=1.8km az=162.1

NEIC 25 19:01:37.1, 41°.13N×114°.90W, h2km, ML2.8, After REN.

IDC 25 19:01:37.9±0.7, 40°.89N×114°.68W, h0km, mb3.3/2, mb1 3.5/4, mb1mx3.3/23, mbtmp3.2/4, ML3.1/2, Error ellipse: s-maj=18.6km s-min=4.5km az=153.0

ISC 25 19:01:36.3±0.3, 41°.14N±0°.01×114°.88W±0°.02, h3km±2km, n85, σ0ˢ.93/123, mb3.1/2, 37C-34D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.31	203	P	Pg	19 01 43.5	+1.2
	baz=0.3,SNR=74						
N12A				⇑S	Sg	19 01 47.8	+1.5
	baz=0.3						
N12A	Clover Valley,	0.31	203	ePg	Pg	19 01 43.1	+0.8
ELK	Elko	0.48	215	Pg	Pg	19 01 46.1	+0.6
	39nm,0.3s,baz=22,slow=15,SNR=87						
ELK				Lg		19 01 52.4	
	133nm,0.3s,baz=124,slow=15,SNR=122						
ELK	Elko	0.48	215	ePg	Pg	19 01 45.7	+0.1
M13A	Montello	0.58	68	⇓P	Pg	19 01 48.0	+0.4
	baz=0.6						
M13A				⇓S	Sg	19 01 56.1	+1.0
	baz=0.6						
M13A	Montello	0.58	68	eP	Pg	19 01 47.8	+0.3
N13A	Wendover, West	0.59	119	⇑P	Pg	19 01 48.4	+0.8
	baz=0.6						
N13A				⇑S	Sg	19 01 56.0	+0.9
	baz=0.6						
N13A	Wendover, West	0.59	119	eP	Pg	19 01 48.0	+0.5
N11A	Elko Archery C	0.72	244	⇓P	Pg	19 01 50.9	+0.7
	baz=0.7						
N11A				⇑S	Sg	19 02 00.1	+0.6
	baz=0.7						
M11A	Holland Ranch,	0.74	293	⇑P	Pg	19 01 50.7	+0.1
	baz=0.7						
M11A				⇓S	Sg	19 02 01.5	+1.2
	baz=0.7						
O12A	Currie	0.88	173	⇑P	Pg	19 01 53.8	+0.7
	baz=0.9						
O12A				⇓S	Sg	19 02 05.5	+1.0
	baz=0.9						
L12A	House Creek Ra	1.01	354	⇓P	Pg	19 01 55.8	+0.1
	baz=1.0						
L12A				⇓S	Sg	19 02 09.5	+0.7
	baz=1.0						
O11A	Cowboy Ranch,	1.17	211	⇑P	Pg	19 01 59.0	+0.3
	baz=1.2						
O11A				⇓S	Sg	19 02 14.1	+0.3
	baz=1.2						
L13A	Double Diamond	1.18	36	⇓P	Pg	19 01 58.4	-0.6
	baz=1.2						
L13A				⇑S	Sg	19 02 14.6	+0.3
	baz=1.2						
M14A	Sheep Mountain	1.21	72	⇓P	Pg	19 01 59.1	-0.5
	baz=1.2,SNR=211						
M14A				⇑S	Sg	19 02 15.5	+0.2
	baz=1.2						
L11A	Cat Creek Ranc	1.22	328	⇓P	Pg	19 01 59.1	-0.5
	baz=1.2						
L11A				⇓S	Sg	19 02 15.6	+0.1
	baz=1.2						
O13A	Hicks Ranch, I	1.22	146	⇑P	Pg	19 01 59.5	-0.2
	baz=1.2						
O13A				⇓S	Sg	19 02 16.1	+0.6
	baz=1.2						
N10A	Dunphy	1.30	252	⇓P	Pg	19 02 00.4	-0.9
	baz=1.3						
N10A				⇓S	Sg	19 02 18.3	+0.1
	baz=1.3						
M10A	I.L. Ranch, Tu	1.31	288	⇓P	Pg	19 02 00.7	-0.7
	baz=1.3						
M10A				⇑S	Sg	19 02 18.8	+0.5
	baz=1.3						
N14A	Grayback Hills	1.31	102	P	Pg	19 02 00.6	-0.9
	baz=1.3,SNR=81						
N14A				⇓S	Sg	19 02 18.7	+0.2
	baz=1.3						
BGU	Big Grassy Mou	1.42	98	eP	Pn	19 02 02.0	-0.9
BGU				eS	Sb	19 02 20.8	-1.0
O10A	Cortez Mining,	1.49	236	⇓P	Pn	19 02 03.3	-0.7
	baz=1.5						
O10A				⇑Sb	Sb	19 02 23.7	-0.3
	baz=1.5						
K12A	Draper Farm, C	1.50	359	⇑P	Pn	19 02 03.3	-0.8
	baz=1.5						
K12A				⇑S	Sn	19 02 22.9	-1.1
	baz=1.5						
L10A	Juniper Basin	1.52	309	⇑P	Pn	19 02 04.1	-0.2
	baz=1.5						
L10A				⇓Sb	Sb	19 02 24.9	+0.2
	baz=1.5						
L14A	Malta	1.52	53	⇓P	Pn	19 02 04.0	-0.4
	baz=1.5						
L14A				⇑Sb	Sb	19 02 24.9	0.0
	baz=1.5						
K13A	Stover Farm, H	1.62	21	⇓P	Pn	19 02 05.6	-0.2
	baz=1.6						
K13A				⇓Sb	Sb	19 02 27.6	-0.1
	baz=1.6						
HVU	Hansel Valley	1.71	67	eP	Pn	19 02 06.3	-0.7
HVU				eS	Sn	19 02 29.0	-0.3
P11A	Circle Ranch,	1.72	203	⇓P	Pn	19 02 06.8	-0.3
	baz=1.7						
P11A				⇑S	Sn	19 02 28.5	-1.1
	baz=1.7						
N15A	Stansbury Isla	1.80	97	⇓P	Pn	19 02 07.7	-0.5
	baz=1.8,SNR=22						
N15A				⇑Sb	Sb	19 02 33.2	+0.3
	baz=1.8						
P13A	Bates Ranch, G	1.81	158	⇑P	Pn	19 02 07.4	-0.9
	baz=1.8						
P13A				⇓Sb	Sb	19 02 33.7	+0.6
	baz=1.8						
DUG	Dugway	1.83	120	⇑P	Pn	19 02 07.8	-0.9
	baz=1.8						
DUG				⇓Sb	Sb	19 02 34.2	+0.3
	baz=1.8						
SPUT	South Promonto	1.84	84	eP	Pn	19 02 09.0	+0.2
SPUT				eS	Sn	19 02 34.1	+1.5
K11A	Parker Ranch,	1.84	333	⇓P	Pn	19 02 09.2	+0.4
	baz=1.8						
K11A				⇑Sb	Sb	19 02 34.3	+0.3
	baz=1.8						
M15A	Larsen Ranch,	1.86	79	⇑P	Pn	19 02 09.2	+0.1
	baz=1.8,SNR=60						
K14A	Jones Ranch, D	1.90	42	⇑P	Pn	19 02 09.8	+0.3
	baz=1.9,SNR=15						
BMN	Battle Mountai	1.91	249	eP	Pn	19 02 10.4	+0.6
P10A	Eureka	1.94	219	⇑P	Pn	19 02 10.2	+0.1
	baz=2.0						
M09A	Marrel Ranch,	1.96	279	⇑Pb	Pb	19 02 11.5	-1.0
	baz=2.0						
N09A	Rock Creek Ran	2.02	263	⇑P	Pn	19 02 10.4	-0.9
	baz=2.0						
O15A	The Old Anders	2.02	114	⇑P	Pn	19 02 10.4	-0.9
	baz=2.0						
L15A	Malad City	2.06	64	⇑P	Pn	19 02 11.7	-0.2
	baz=2.0,SNR=34						
P14A	Drum Mountains	2.08	138	⇓P	Pn	19 02 11.3	-0.8
	baz=2.1						
Q12A	Willow Creek R	2.10	179	⇑P	Pn	19 02 11.7	-0.6
	baz=2.1						
J12A	Stokes Ranch,	2.12	356	⇑Pb	Pb	19 02 14.1	-1.2
	baz=2.1						
NOQ	North Oquirrh	2.15	102	eP	Pn	19 02 14.8	+1.8
K10A	MacKenzie Ranc	2.21	318	⇓Pb	Pb	19 02 15.5	-1.4
	baz=2.2						
L09A	Wilkinson Ranc	2.27	294	⇑Pb	Pb	19 02 16.6	-1.3
	baz=2.3						
Q13A	Wheeler Ranch,	2.28	163	⇓P	Pn	19 02 14.3	-0.5
	baz=2.3						
J13A	Cove Ranch, Pi	2.32	13	⇑P	Pn	19 02 16.3	+1.0
	baz=2.3						
K15A	Arbon	2.34	48	⇑P	Pn	19 02 16.3	+0.7
	baz=2.3						
P09A	Austin	2.34	228	⇑P	Pn	19 02 15.4	-0.3
	baz=2.4						
Q11A	Duckwater	2.37	195	⇓P	Pn	19 02 15.9	-0.2
	baz=2.4						
MFID	Camas Ranch	2.38	343	⇑Pb	Pb	19 02 18.3	-1.5
	baz=2.4,SNR=12						
J14A	Carey	2.41	24	⇑P	Pn	19 02 17.5	+0.9
	baz=2.4						
NLU	North Lily Min	2.44	118	ePg	Pg	19 02 22.3	-0.9
HLID	Hailey	2.45	8	⇓P	Pn	19 02 18.3	+1.2
	baz=2.4						
Q14A	Sevier Lake (B	2.48	150	⇑P	Pn	19 02 16.5	-1.0
	baz=2.5						
P15A	Leamington	2.53	127	⇓P	Pn	19 02 17.4	-0.9
	baz=2.5,SNR=13						
MPU	Maple Canyon	2.72	113	ePg	Pg	19 02 28.2	-0.2
R12A	Pony Springs,	2.82	176	⇓P	Pn	19 02 22.2	0.0
	baz=2.8,SNR=7.0						
DAU	Daniels Canyon	2.85	104	ePg	Pg	19 02 31.6	+0.7
DAU				eSg	Sg	19 03 06.3	-1.5
WVOR	Wild Horse Val	3.09	296	eP	Pn	19 02 29.9	+4.0
AHID	Auburn Hatcher	3.25	59	eP	Pn	19 02 29.4	+1.2
MSU	Marysvale	3.35	141	eP	Pn	19 02 29.3	-0.2
TMUT	Trail Mountain	3.36	122	ePg	Pg	19 02 40.6	-0.1
RRI2	Red Ridge	3.44	49	eP	Pn	19 02 31.8	+1.0
ARUT	Antelope Range	3.53	161	eP	Pn	19 02 31.9	-0.1
REDW	Red Top Meadow	3.73	52	eP	Pn	19 02 37.1	+2.4
CCUT	Cedar City	3.77	161	eP	Pn	19 02 35.0	-0.3
CCUT				eS	Sb	19 03 32.3	+2.7
NVAR	Mina Array Bea	3.78	225	Pn	Pn	19 02 35.5	+0.1
	0.9nm,0.3s,baz=46,slow=14,SNR=16						
NVAR				Pg	Pg	19 02 45.0	-3.8
	5.0nm,0.3s,baz=49,slow=18,SNR=23						
NVAR				Sn	Sn	19 03 22.2	+1.8
	6.3nm,0.3s,baz=64,slow=33,SNR=4.1						
NVAR				Lg		19 03 35.4	
	15nm,0.3s,baz=50,slow=32,SNR=12						
NVAR	Mina Array Bea	3.78	225	Pn	Pn	19 02 35.5	+0.1
NVAR				Pg	Pg	19 02 45.0	-3.8
NVAR				Sn	Sn	19 03 22.2	+1.8
NVAR				Lg		19 03 35.4	
SRU	San Rafael	3.91	120	eP	Pn	19 02 45.1	+7.9
MCMT	McKenzie Canyo	3.98	21	eP	Pn	19 02 41.6	+3.5
IMW	Indian Meadow	4.01	45	eP	Pn	19 02 40.0	+1.4
LOHW	Long Hollow	4.02	51	eP	Pn	19 02 43.9	+5.2
MOOW	Moose Ponds	4.02	48	eP	Pn	19 02 39.9	+1.1
BMO	Blue Mountains	4.12	335	ePn	Pn	19 02 39.6	-0.4
BMO				eS	Sn	19 03 34.1	+5.5
MOD	Modoc	4.14	282	ePn	Pn	19 02 40.1	-0.3
PDAR	Pinedale Array	4.29	66	Pn	Pn	19 02 45.2	+2.8
	0.1nm,0.3s,baz=239,slow=12,SNR=8.1						
PDAR				Pg	Pg	19 02 54.8	-3.8
	0.7nm,0.3s,baz=237,slow=12,SNR=13						
PDAR				Lg		19 03 52.5	
	0.6nm,0.3s,baz=240,slow=31,SNR=7.5						
DLMT	Dillon	4.54	21	ePn	Pn	19 02 54.1	+8.3
YMR	Madison River	4.55	38	ePg	Pg	19 03 00.5	-3.1
PV04	Paradox Valley	5.36	119	ePg	Pg	19 03 16.8	-2.2
PV04				eS	Sb	19 04 25.0	+10
WUAZ	Wupatki	6.25	153	ePg	Pg	19 03 35.5	-0.6
WUAZ				eSg	Sg	19 04 54.5	-2.7
YKA	Yellowknife Ar	21.39	0	P	P	19 06 28.3	+3.5
	0.1nm,0.5s,mb2.4,baz=182,slow=10,SNR=4.9						
INK	Inuvik	29.02	346	P	P	19 07 42.4	+5.4
	0.8nm,0.4s,mb3.8,baz=180,slow=10,SNR=4.7						

GUC 25 19:19:47.0±0.5, 32°.65S×71°.05W, h11km±5km, MD3.6, ML2.0, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JACH	Jahuel	0.39	95	i P	Pg	19 19 55.4	+0.8
JACH				i S	Sg	19 20 01.6	+1.7
PEL	Peldehue	0.58	148	eP	Pg	19 19 58.7	+0.3
PEL				i S	Sg	19 20 07.4	+1.4
PEL				AML	AML	19 20 07.9	
	comp=E,228nm,0.2s						
RCDM	Rinconada Maip	0.86	166	eP	Pg	19 20 02.9	-0.7
RCDM				i S	Sg	19 20 15.1	+0.1
RCDM				AML	AML	19 20 23.1	
	comp=E,100nm,0.1s						
FCH	Farellones	0.93	137	eP	Pg	19 20 04.5	-0.5
FCH				i S	Sg	19 20 18.4	+1.3
TACH	Talagante	1.01	175	i P	Pg	19 20 05.5	-0.9
TACH				i S	Sg	19 20 19.3	-0.2
PCH	Pirque	1.07	155	i P	Pb	19 20 06.5	-1.0
PCH				i S	Sg	19 20 21.3	-0.2

ISK 25 19:37:36.2, 41°.01N×33°.47E, h5km, MD2.9

ISCJB 25 19:37:37.2±0.6, 41°.02N±0°.03×33°.43E±0°.05, h7km±6km, Error ellipse: s-maj=6.3km s-min=4.6km az=2.0

CSEM 25 19:37:37.3±0.2, 41°.02N×33°.46E, h8km, MD2.9, Error ellipse: s-maj=3.5km s-min=2.7km az=80.0

DDA 25 19:37:37.2, 41°.02N×33°.44E, h7km±1km, Md2.9

ISC 25 19:37:37.7±0.6, 41°.02N±0°.03×33°.45E±0°.05, h10km±6km, n21, σ0ˢ.63/36, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILGA	Ilgaz	0.21	81	i P	Pg	19 37 41.8	-0.2
ILGA				i S	Sg	19 37 45.6	+0.7
ILGA	Ilgaz	0.21	81	i P	Pg	19 37 41.8	-0.2
ILGA				i S	Sg	19 37 45.6	+0.7
CANT	Cankiri	0.43	162	ePG	Pg	19 37 45.5	-0.6
CANT				eSG	Sg	19 37 52.2	+0.3
TOS	Tosya	0.44	88	ePG	Pg	19 37 45.0	-1.2
TOS				eSG	Sg	19 37 52.3	+0.3
TOS	Tosya	0.44	88	ePg	Pg	19 37 45.0	-1.2
TOS				eSg	Sg	19 37 52.3	+0.3
BALT	Daday	0.52	355	i P	Pg	19 37 47.5	-0.2
BALT				i S	Sg	19 37 55.3	+0.8
BALT	Daday	0.52	355	i P	Pg	19 37 47.5	-0.2
BALT				i S	Sg	19 37 55.3	+0.8
ELDT	Eldivan	0.53	181	i P	Pg	19 37 47.4	-0.6
ELDT				i S	Sg	19 37 55.8	+0.9
ELDT	Eldivan	0.53	181	i P	Pg	19 37 47.4	-0.6
ELDT				i S	Sg	19 37 55.8	+0.9
SAFT	Safranbolu	0.61	291	ePG	Pg	19 37 49.5	0.0
SAFT	Safranbolu	0.61	291	ePg	Pg	19 37 49.5	0.0
BZK	Bozkurt	1.03	24	ePG	Pg	19 37 57.3	-0.1
BZK	Bozkurt	1.03	24	ePg	Pg	19 37 57.3	-0.1
CTKT	Corum	1.09	111	i P	Pg	19 37 58.0	-0.7
CTKT				i S	Sg	19 38 12.6	-0.3
CTKT	Corum	1.09	111	i P	Pg	19 37 58.0	-0.7
CTKT				i S	Sg	19 38 12.6	-0.3
BOYT	Boyabat	1.17	70	i P	Pb	19 37 59.0	-1.0
BOYT				i S	Sg	19 38 16.1	+0.8

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
BOYT	Boyabat	1.17	70	iP	Pb	19 37 59.0	-1.0
BOYT				iS	Sg	19 38 16.1	+0.8
CDAG	Cicekdag	1.56	153	iP	Pn	19 38 05.2	-0.4
CDAG				iS	Sn	19 38 26.7	+0.8
CDAG	Cicekdag	1.56	153	iP	Pn	19 38 05.2	-0.3
CDAG				iS	Sn	19 38 26.7	+0.8
YOZ	Yozgat	1.99	133	ePN	Pn	19 38 11.9	+0.5
YOZ	Yozgat	1.99	133	ePn	Pn	19 38 11.9	+0.5

IDC 25 19:43:58.9±4.6,**22°.54S**×**179°.96W**,**h0km**,**mb4.0**/3,**mb1 4.1**/3,**mb1mx3.8**/16,**mbtmp4.0**/3,**Error ellipse: s-maj=171.4km s-min=56.7km az=143.0**,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	35.28	246	P	P	19 50 54.6	-1.0
	1.6nm,0.4s,baz=101,slow=11,SNR=12						
ASAR	Alice Springs	42.31	259	P	P	19 51 54.6	0.0
	0.8nm,0.5s,baz=91,slow=7.7,SNR=15						
WRA	Warramunga Arr	42.55	265	P	P	19 51 57.4	+0.8
	0.6nm,0.3s,baz=97,slow=8.4,SNR=9.1						
BRTR	Keskin Array B	146.77	309	PKPbc	PKPbc	20 03 42.5	-0.6
	0.6nm,0.9s,baz=20,slow=4.6,SNR=3.2						

MOS ***25*** *19:47:52.7±1.0, 49°.67N×156°.43E, h106km, mb4.0/2, Error ellipse: s-maj=27.2km s-min=11.4km az=80.6*

ISCJB ***25*** *19:47:54.1±1.6, 49°.9N±0°.2×156°.4E±0°.2, h107km±9km, mb3.7/6, Error ellipse: s-maj=30.8km s-min=11.1km az=142.8*

KRSC ***25*** *19:47:54.8±1.4, 49°.82N×156°.86E, h10km±10km, ML4.2*

NEIC ***25*** *19:47:55.8±2.3, 49°.70N×156°.50E, h119km±21km, mb3.9/2, Error ellipse: s-maj=72.2km s-min=16.4km az=114.0*

IDC ***25*** *19:47:55.9±4.1, 49°.71N×156°.52E, h118km±31km, mb3.2/4, mb1 3.4/6, mb1mx3.1/25, mbtmp3.2/6, Error ellipse: s-maj=77.3km s-min=29.1km az=120.0*

ISC 25 19:47:55.4±1.5,**49°.9N**±0°.1×**156°.3E**±0°.2,**h101**km±9km,**n19**,σ1^s**17**/22,**mb3.7**/6,**Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.82	351	ePN	Pn	19 48 13.5	-0.5
SKR				eS	Sn	19 48 27.5	-0.5
SKR				pmax	pmax		
	comp=Z,310nm,0.5s						
SKR				pmax	pmax		
	comp=N,180nm,0.3s						
SKR				smax			
	comp=N,750nm,0.4s						
SKR				smax			
	comp=E,980nm,0.4s						
RUS	Russkaya	2.91	27	eP	Pn	19 48 40.6	+0.7
RUS				iS	Sn	19 49 13.7	-0.5
PEA0B	Petropavlovsk-	3.35	14	ePn	Pn	19 48 48.8	+3.0
PETK	Petropavlovsk-	3.35	14	P	Pn	19 48 48.7	+2.9
	comp=E,2.2nm,0.3s,baz=196,slow=12,SNR=35						
PETK	Petropavlovsk-	3.35	14	P	Pn	19 48 48.7	+2.9
PET	Petropavlovsk	3.48	24	S	Sn	19 49 25.8	-1.9
SDLR	Sedlovina	3.77	24	P	Pn	19 48 52.7	+1.4
GNL	Ganaly	3.96	14	eP	Pn	19 48 57.1	+3.2
SPN	Mys Shipunski	3.97	34	P	Pn	19 48 54.2	+0.1
SPN				S	Sn	19 49 38.3	-1.3
MKZ	Mys Kozlova	5.75	33	P	Pn	19 49 18.1	0.0
MJAR	Matsushiro Arr	18.69	231	P	P	19 52 03.8	-1.9
	comp=E,0.3nm,0.3s,baz=42,slow=14,SNR=3.8						
TIXI	Tiksi	25.17	340	eP	P	19 53 10.6	-0.3
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
TIXI	Tiksi	25.17	340	eP	P	19 53 10.6	-0.2
	comp=Z,1.7nm,0.6s,mb3.6						
SONM	Songino Array	32.43	286	P	P	19 54 15.1	-0.5
	comp=Z,0.1nm,0.4s,mb2.9,baz=70,slow=8.1,SNR=2.3						
MKAR	Makanchi Array	47.45	296	P	P	19 56 20.1	+0.5
	comp=Z,0.2nm,0.4s,mb3.2,baz=48,slow=5.8,SNR=13						
MKAR				PcP	PcP	19 57 47.0	-1.3
	comp=Z,0.1nm,0.4s,baz=51,slow=0.9,SNR=4.1						
KURK	Kurchatov	47.46	303	P	P	19 56 20.3	+0.7
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
KURK	Kurchatov	47.46	303	P	P	19 56 20.3	+0.7
	comp=Z,2.2nm,0.6s,mb4.1						
CMAR	Chiang Mai Arr	55.18	257	P	P	19 57 17.8	+0.1
	comp=Z,0.5nm,0.6s,mb3.7,baz=43,slow=7.3,SNR=4.8						
ARCES	ARCESS Array B	55.60	341	P	P	19 57 19.4	-0.5
	comp=Z,3.4nm,1.0s,mb4.3,baz=36,slow=7.5,SNR=3.8						

DJA 25 19:53:31,**1°.30S**×**100°.54E**,**h54**km,**MLv3.7**/4,**Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PDSI	Padang	0.39	349	P	Pn	19 53 41.9	+0.5
PDSI				S	Sn	19 53 52.0	+3.1
PPI	Padang Panjang	0.85	350	P	Pn	19 53 47.6	+0.7
PPI				S	Sn	19 54 02.5	+4.0
SDSI	Sungai Dareh	0.96	68	P	Pn	19 53 48.3	0.0
SISI	Saibi	1.45	269	P	Pn	19 53 55.4	+0.5
SISI				S	Sn	19 54 14.3	+1.4
PPSI	Pulau Pagai	1.55	200	P	Pn	19 53 56.7	+0.5
PPSI				S	Sn	19 54 16.7	+1.5
KSI	Kapahiang	3.11	139	P	Pn	19 54 18.4	+0.8
MNAI	Manna	3.88	142	P	Pn	19 54 29.4	+1.2
GSI	Gunungsitoli	3.93	311	P	Pn	19 54 28.9	0.0

BJI ***25*** *20:17:54.4, 28°.77N×50°.82E, h19km, mB5.1/3, mb4.2/4, Ms4.9/3, Ms7 4.8/3*

IDC ***25*** *20:17:57.1±1.0, 28°.38N×51°.61E, h0km, mb4.0/16, mb1 4.0/19, mb1mx3.9/29, mbtmp4.0/19, ML3.4/2, Error ellipse: s-maj=24.2km s-min=14.5km az=172.0*

THR ***25*** *20:17:57.5±0.3, 28°.34N×51°.42E, h18km±7km, ML4.0*

TEH ***25*** *20:17:57.9, 28°.26N×51°.44E, h15km*

NEIC ***25*** *20:17:57.7, 28°.23N×51°.46E, h16km, mb4.2/14, ML4.2(THR), MN4.2(TEH), After TEH.*

ISCJB ***25*** *20:17:59.4±1.1, 28°.47N±0°.03×51°.64E±0°.03, h22km±8km, mb4.1/37, MS4.2/2, Error ellipse: s-maj=5.7km s-min=4.6km az=166.3*

CSEM ***25*** *20:17:59.3±0.2, 28°.46N×51°.60E, h10km, mb4.3/13, Error ellipse: s-maj=5.4km s-min=4.5km az=171.0*

MOS ***25*** *20:18:00.7±1.4, 28°.40N×51°.67E, h33km, mb4.4/11, Error ellipse: s-maj=9.1km s-min=6.8km az=104.9*

KISR ***25*** *20:18:05.5±1.1, 29°.04N×51°.45E, h34km±999km, ML4.0*

ISC 25 20:18:00.5±0.9,**28°.44N**±0°.03×**51°.63E**±0°.03,**h16**km±6km,**n217**,σ1^s**19**/238,**mb4.1**/37,**MS4.2**/2,**1C-3D**,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMOK	Mouk	1.13	58	Pg	Pg	20 18 20.1	-2.2
IMOK				Sg	Sg	20 18 40.9	+3.8
IMOK	Mouk	1.13	58	ePg	Pg	20 18 20.2	-2.1
IMOK				eSg	Sg	20 18 40.9	+3.8
IMOK				e		20 18 47.3	
	comp=Z,32μm,0.2s						
IMOK	Mouk	1.13	58	ePg	Pg	20 18 20.2	-2.1
GHIR	Ghir-Karzin	1.21	97	ePg	Pg	20 18 23.0	-0.9
GHIR				eSg	Sg	20 18 41.0	+1.3
GHIR	Ghir-Karzin	1.21	97	ePg	Pg	20 18 23.1	-0.8
GHIR				eSg	Sg	20 18 41.7	+2.1
GHIR				AML	AML	20 18 47.6	
	comp=E,2μm,0.6s						
GHIR	Ghir-Karzin	1.21	97	ePg	Pg	20 18 23.2	-0.7
GHIR				eSg	Sg	20 18 41.0	+1.3
SHI	Shiraz	1.43	33	Pn	Pn	20 18 26.7	+1.0
SHI				Sn	Sn	20 18 48.2	+4.1
SHI	Shiraz	1.43	33	ePn	Pn	20 18 27.0	+1.3
SHI				eSn	Sn	20 18 48.2	+4.1
SHI				e		20 18 50.9	
	comp=Z,34μm,0.3s						
ISRV	Sarvestan	1.60	54	Pn	Pn	20 18 28.8	+0.6
ISRV				Sn	Sn	20 18 52.3	+3.8
ISRV	Sarvestan	1.60	54	ePn	Pn	20 18 30.0	+1.8
ISRV				eSn	Sn	20 18 52.3	+3.8
ISRV				e		20 19 02.7	
	comp=Z,38μm,0.4s						
ISRV	Sarvestan	1.60	54	ePn	Pn	20 18 30.0	+1.8
IPAR	Pars	1.87	41	Pn	Pn	20 18 32.0	+0.2
IPAR				Sn	Sn	20 18 58.7	+3.7
IPAR	Pars	1.87	41	ePn	Pn	20 18 32.1	+0.3
IPAR				eSn	Sn	20 18 58.8	+3.8
IPAR				e		20 19 18.2	
	comp=Z,20μm,0.4s						
IPAR	Pars	1.87	41	ePn	Pn	20 18 32.1	+0.3
IPAR				Sn	Sn	20 18 58.7	+3.7
BOQSS		3.25	219	P	Pn	20 18 55.6	+4.7
KFJS		3.26	266	S	Sb	20 19 43.8	+6.5
KFJS		3.26	266	P	Pb	20 19 03.0	+5.1
QRN	Al-Qurain	3.27	276	eP	Pn	20 18 54.5	+3.3
QRN				AML	AML	20 19 44.2	
	comp=Z,252nm,0.7s						
QRN	Al-Qurain	3.27	276	eP	Pn	20 18 54.5	+3.4
UMR	Umm Al-Rimmam	3.60	289	eP	Pn	20 18 57.4	+1.9
UMR				AML	AML	20 19 45.3	
	comp=Z,304nm,0.4s						
UMR	Umm Al-Rimmam	3.60	289	eP	Pn	20 18 57.4	+1.8
SLWS		3.74	194	P	Pn	20 18 56.6	-0.8
SLWS		3.74	194	P	Pn	20 18 56.7	-0.8
ISAD	Sadrabad	3.89	27	Pn	Pn	20 19 00.7	+1.1
ISAD				Sn	Sn	20 19 46.1	+1.1
ISAD	Sadrabad	3.89	27	eSn	Sn	20 19 46.2	+1.2
ISAD				e		20 20 14.9	
	comp=Z,4μm,0.4s						
ISAD	Sadrabad	3.89	27	Pn	Pn	20 19 00.7	+1.1
ISAD				eSn	Sn	20 19 46.2	+1.2
IMEH	Mehriz	3.92	41	Pn	Pn	20 19 00.5	+0.5
IMEH	Mehriz	3.92	41	ePn	Pn	20 19 00.5	+0.5
IMEH				e		20 19 04.2	
	comp=Z,3μm,0.2s						
IMEH	Mehriz	3.92	41	ePn	Pn	20 19 00.5	+0.5
NAY	Al-Naaiem	3.93	283	eP	Pn	20 19 03.5	+3.4
NAY				eS	Sn	20 19 46.0	+0.1
NAY				AML	AML	20 19 57.6	
	comp=Z,211nm,0.6s						
NAY	Al-Naaiem	3.93	283	eP	Pn	20 19 03.5	+3.4
NAY				eS	Sn	20 19 46.0	+0.1
IGAR	Gharneh	3.96	5	ePn	Pn	20 19 00.9	+0.3
IGAR				e		20 19 55.7	
	comp=Z,2μm,0.2s						
MIB	Mutribah	3.99	291	eP	Pn	20 19 02.4	+1.4
MIB				AML	AML	20 19 53.2	
	comp=Z,368nm,0.5s						
MIB	Mutribah	3.99	291	eP	Pn	20 19 02.3	+1.4
IPIR	Pirpir	4.27	352	Pn	Pn	20 19 05.1	+0.2
IPIR				Sn	Sn	20 19 54.0	-0.4
IPIR	Pirpir	4.27	352	ePn	Pn	20 19 05.1	+0.2
IPIR				eSn	Sn	20 19 54.1	-0.3
IPIR				e		20 20 23.8	
	comp=Z,3μm,0.3s						
IPIR	Pirpir	4.27	352	ePn	Pn	20 19 05.1	+0.2
IPIR				eSn	Sn	20 19 54.1	-0.3
BTHS		4.43	189	P	Pn	20 19 05.9	-1.2
BTHS		4.43	189	P	Pn	20 19 05.9	-1.2
IBND	Bandar-abas	4.46	102	ePn	Pn	20 19 05.8	-1.6
IBND	Bandar-abas	4.46	102	ePn	Pn	20 19 05.8	-1.6
IZEF	Zefreh	4.48	8	Pn	Pn	20 19 07.1	-0.6
IZEF	Zefreh	4.48	8	e	Pg	20 19 32.5	+6.1
	comp=Z,1μm,0.4s						
IZEF				⇓ePn	Pn	20 19 07.5	-0.2
ICHK	Chekchek	4.49	32	Pn	Pn	20 19 07.6	-0.2
ICHK	Chekchek	4.49	32	ePn	Pn	20 19 07.7	-0.1
ICHK				e		20 20 33.2	
	comp=Z,2μm,0.4s						
ICHK	Chekchek	4.49	32	ePn	Pn	20 19 07.7	-0.1
IBAF	Bafgh	4.64	47	Pn	Pn	20 19 09.2	-0.7
IBAF	Bafgh	4.64	47	e	Pn	20 19 13.0	+3.2
	comp=Z,1μm,0.2s						
IBAF				ePn	Pn	20 19 09.2	-0.7
KRBR	Kerman	4.74	70	ePn	Pn	20 19 12.0	+0.7
KRBR	Kerman	4.74	70	ePn	Pn	20 19 13.5	+2.2
KRBR				AML	AML	20 20 18.1	
	comp=E,67nm,0.6s						
KRBR				AML	AML	20 20 43.4	
	comp=N,49nm,0.6s						
KRBR	Kerman	4.74	70	ePn	Pn	20 19 12.6	+1.3
IKLH	Kolahrood	4.86	360	Pn	Pn	20 19 12.4	-0.5
IKLH	Kolahrood	4.86	360	ePn	Pn	20 19 12.4	-0.5
IKLH				e		20 21 04.3	
	comp=Z,3μm,0.5s						
IKLH	Kolahrood	4.86	360	ePn	Pn	20 19 12.4	-0.5
ISFB	Sefidab	5.91	5	Pn	Pn	20 19 27.0	-0.4
ISFB	Sefidab	5.91	5	e	Sx	20 21 21.6	
	comp=Z,1μm,0.6s						
ISFB	Sefidab	5.91	5	Pn	Pn	20 19 27.0	-0.4
ASAO	Ashtian	6.24	348	ePn	Pn	20 19 31.0	-0.8
ASAO	Ashtian	6.24	348	ePn	Pn	20 19 32.1	+0.3
ASAO				AML	AML	20 21 05.0	
	comp=N,72nm,0.7s						
ASAO				AML	AML	20 21 05.7	
	comp=E,70nm,0.6s						
ASAO	Ashtian	6.24	348	ePn	Pn	20 19 31.8	0.0
IVRN	Varamin	6.53	1	Pn	Pn	20 19 34.9	-1.0
IVRN	Varamin	6.53	1	e	Sn	20 20 41.6	-8.5
	comp=Z,594nm,0.5s						
IVRN	Varamin	6.53	1	Pn	Pn	20 19 34.9	-1.0
ILAS	Lasjerd	7.01	9	Pn	Pn	20 19 40.3	-2.2
ILAS	Lasjerd	7.01	9	ePn	Pn	20 19 40.4	-2.1
ILAS				e		20 22 21.0	
	comp=Z,358nm,0.3s						
ILAS	Lasjerd	7.01	9	ePn	Pn	20 19 40.4	-2.1
IRAZ	Razeghan	7.09	349	Pn	Pn	20 19 42.6	-0.9
IRAZ	Razeghan	7.09	349	ePn	Pn	20 19 42.6	-0.9
IRAZ				e		20 22 15.8	
	comp=Z,1μm,0.7s						
IRAZ	Razeghan	7.09	349	ePn	Pn	20 19 42.6	-0.9
IDMV	Damavand	7.12	3	Pn	Pn	20 19 43.0	-1.0
IDMV	Damavand	7.12	3	ePn	Pn	20 19 43.0	-1.0
IDMV				e		20 22 13.9	
	comp=Z,976nm,0.7s						
IDMV	Damavand	7.12	3	ePn	Pn	20 19 43.0	-1.0
IFIR	Firoozkooh	7.24	7	Pn	Pn	20 19 44.8	-0.8
IFIR	Firoozkooh	7.24	7	ePn	Pn	20 19 44.8	-0.8
IFIR				e		20 19 58.6	
	comp=Z,243nm,0.2s						
IFIR	Firoozkooh	7.24	7	ePn	Pn	20 19 44.8	-0.8
IANJ	Anjilo	7.27	15	Pn	Pn	20 19 46.0	0.0
IANJ	Anjilo	7.27	15	ePn	Pn	20 19 46.0	0.0
IANJ				e		20 22 13.2	
	comp=Z,733nm,0.7s						
IANJ	Anjilo	7.27	15	ePn	Pn	20 19 46.0	0.0
ISHM	Shahmirzad	7.48	10	Pn	Pn	20 19 48.7	-0.1
ISHM	Shahmirzad	7.48	10	ePn	Pn	20 19 48.6	-0.2
ISHM				e		20 19 55.3	
	comp=Z,278nm,0.1s						
ISHM	Shahmirzad	7.48	10	ePn	Pn	20 19 48.6	-0.2
IKOO	Kooshah	7.50	56	ePn	Pn	20 19 51.0	+1.8
IKOO				e		20 22 15.8	
	comp=Z,300nm,0.5s						
IKOO	Kooshah	7.50	56	ePn	Pn	20 19 51.0	+1.8
LYLS		7.51	213	P	Pn	20 19 50.3	+1.0
LYLS		7.51	213	P	Pn	20 19 50.3	+0.9
SNGE	Sanandaj	7.56	332	ePn	Pn	20 19 49.0	-1.0
SNGE	Sanandaj	7.56	332	ePn	Pn	20 19 49.6	-0.4
SNGE	Sanandaj	7.56	332	ePn	Pn	20 19 49.3	-0.7
ITEG	Tejag	7.57	52	ePn	Pn	20 19 50.9	+0.7
ITEG				e		20 22 17.9	
	comp=Z,224nm,0.4s						
ITEG	Tejag	7.57	52	ePn	Pn	20 19 50.9	+0.7
IALA	Alasht	7.68	7	Pn	Pn	20 19 51.0	-0.7
IALA	Alasht	7.68	7	ePn	Pn	20 19 51.0	-0.7
IALA				e		20 20 09.3	
	comp=Z,629nm,0.2s						
IALA	Alasht	7.68	7	ePn	Pn	20 19 51.0	-0.7
IPRN	Peran	7.80	4	Pn	Pn	20 19 52.5	-0.8
IPRN	Peran	7.80	4	ePn	Pn	20 19 52.5	-0.8
IPRN				e		20 20 49.8	
	comp=Z,344nm,0.2s						
IPRN	Peran	7.80	4	ePn	Pn	20 19 52.5	-0.8
IMOG	Moghan	10.05	39	ePn	Pn	20 20 23.6	-0.5
IMOG	Moghan	10.05	39	ePn	Pn	20 20 23.6	-0.5
IPAY	Payeh	10.12	36	ePn	Pn	20 20 25.2	+0.1
IPAY				e		20 20 42.2	
	comp=Z,74nm,0.3s						
IPAY	Payeh	10.12	36	ePn	Pn	20 20 25.2	+0.1
ISHV	Shirvan	10.40	28	Pn	Pn	20 20 29.1	+0.2
ISHV	Shirvan	10.40	28	e	Pn	20 20 33.1	+4.1
	comp=Z,212nm,0.3s						
ISHV	Shirvan	10.40	28	Pn	Pn	20 20 29.1	+0.2
IHRS	Heris	10.56	340	ePn	Pn	20 20 28.9	-2.3
IHRS				e		20 22 48.1	
	comp=Z,81nm,0.3s						
IMYA	Miami	10.64	40	ePn	Pn	20 20 33.1	+0.9
IMYA				e		20 20 34.6	
	comp=Z,41nm,0.2s						
IMYA	Miami	10.64	40	ePn	Pn	20 20 33.1	+0.9
IMRD	Marand	11.37	336	ePn	Pn	20 20 39.8	-2.4
IMRD				e		20 22 19.7	
	comp=Z,117nm,0.3s						
IMRD	Marand	11.37	336	ePn	Pn	20 20 39.8	-2.4
GNI	Garni	12.98	336	⇑eP	Pn	20 21 06.0	+1.7
GNI				pmax	pmax		
	comp=Z,20nm,2.5s						
GNI	Garni	12.98	336	Pn	Pn	20 21 06.9	+2.6
	comp=Z,0.1nm,0.3s,baz=147,slow=6.9,SNR=5.3						
GNI	Garni	12.98	336	eP	Pn	20 21 06.0	+1.7
	comp=Z,20nm,2.5s						
ASF	Jabal al Asfar	13.26	290	Pn	Pn	20 21 07.1	-1.0
	comp=Z,0.2nm,0.3s,baz=36,slow=19,SNR=2.4						
ASF				Sn	Sn	20 23 26.6	-8.5
	comp=Z,0.3nm,0.3s,baz=106,slow=15,SNR=3.1						
ASF				Lg		20 25 12.8	
	comp=Z,0.3nm,0.3s,baz=142,slow=18,SNR=3.2						
EIL	Elat	14.64	279	Lg		20 26 01.4	
	comp=Z,0.2nm,0.3s,baz=170,slow=11,SNR=2.0						
MALT	Malatya	14.77	315	P	Pn	20 21 29.9	+1.3
MALT				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MALT	Malatya	14.77	315	P	Pn	20 21 29.9	+1.3
	comp=Z,6.7nm,0.9s						
KBL	Kabul	16.05	63	eP	Pn	20 21 46.1	+0.7
KBL				pmax	pmax		
	comp=Z,9.0nm,1.2s						
KBL	Kabul	16.05	63	eP	Pn	20 21 46.1	+0.6
	comp=Z,9.2nm,1.2s						
KIV	Kislovodsk	17.06	338	eP	Pn	20 21 58.8	+0.6
KIV				pmax	pmax		
	comp=Z,18nm,0.9s						
KIV	Kislovodsk	17.06	338	eP	Pn	20 21 58.8	+0.6
	comp=Z,18nm,0.9s						
KIV	Kislovodsk	17.06	338	eP	Pn	20 21 58.8	+0.6
	comp=Z,18nm,0.9s						
BRTR	Keskin Array B	18.63	312	P	Pn	20 22 17.8	+0.1
	comp=Z,0.1nm,0.3s,baz=139,slow=14,SNR=23						
BRTR	Keskin Array B	18.63	312	P	Pn	20 22 17.8	+0.1
SIM	Simferopol'	21.57	324	eP	P	20 22 52.0	+2.8
SIM				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.5						
AKTK	Aktyubinsk	22.49	11	P	P	20 22 59.6	+0.6
AKTK	Aktyubinsk	22.49	11	P	P	20 22 59.6	+0.6
AKTO	Aktyubinsk	22.49	11	P	P	20 22 59.6	+0.6
	comp=Z,3.5nm,0.8s,mb3.9,baz=193,slow=12,SNR=14						
AML	Almayashu	22.52	47	eP	P	20 23 00.4	+0.9
	comp=Z,6.5nm,0.7s,mb4.2						
AML	Almayashu	22.52	47	eP	P	20 23 00.4	+1.0
	comp=Z,6.5nm,0.7s,mb4.2						
EKS2	Erkin-Say	22.85	46	eP	P	20 23 04.5	+1.7
	comp=Z,6.1nm,1.0s,mb4.0						
EKS2	Erkin-Say	22.85	46	eP	P	20 23 04.5	+1.6
	comp=Z,6.1nm,1.0s,mb4.0						
KSH	Kashi	22.94	55	eP	P	20 23 00.5	-3.4
KSH				epP		20 23 05.3	
KSH				esP	sP	20 23 07.8	-2.9
KSH				ePP		20 23 29.5	
KSH				ePcP	PcP	20 26 51.5	-2.4
KSH				eS	S	20 27 05.0	-8.5
KSH				eSS		20 27 51.0	
KSH				eScP	ScP	20 30 28.0	-3.1
KSH				ePcS	PcS	20 30 29.5	-3.4
KSH				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.0						
KSH				pmax	pmax		
	comp=Z,220nm,4.0s						
KSH				LR	LR		
	comp=N,200nm,5.7s						
KSH				LR	LR		
	comp=E,230nm,5.0s						
KSH				LR	LR		
	comp=Z,150nm,7.6s						
UCH	Uchtor	23.10	47	eP	P	20 23 04.2	-1.4
	comp=Z,10nm,1.2s,mb4.1						
UCH	Uchtor	23.10	47	eP	P	20 23 04.2	-1.4
	comp=Z,10nm,1.2s,mb4.1						
AAK	Ala-Archa	23.29	47	⇓eP	P	20 23 11.0	+3.5
AAK				pmax	pmax		
	comp=Z,10.0nm,2.5s,mb3.8						
AAK				MLR	MLR		
	comp=Z,300nm,23.0s,MS3.7						
AAK	Ala-Archa	23.29	47	P	P	20 23 08.0	+0.5
	comp=Z,1.4nm,0.6s,mb3.6,baz=207,slow=11,SNR=3.5						
AAK	Ala-Archa	23.29	47	P	P	20 23 08.0	+0.5
MLR	Muntele Rosu	26.49	317	P	P	20 23 39.3	+2.4
	comp=Z,1.7nm,0.5s,mb3.8,baz=122,slow=13,SNR=2.3						
AKASG	Malin Array Be	27.94	329	P	P	20 23 50.3	+0.4
	comp=Z,0.6nm,0.5s,mb3.5,baz=143,slow=8.8,SNR=4.7						
AKASG	Malin Array Be	27.94	329	P	P	20 23 50.3	+0.4
BRVK	Borovoye	28.19	24	eP	P	20 23 51.6	-0.5
BRVK	Borovoye	28.19	24	eP	P	20 23 51.6	-0.5
BVAR	Borovoye Array	28.20	24	P	P	20 23 52.0	-0.2
	comp=Z,3.2nm,0.7s,mb4.1,baz=222,slow=7.1,SNR=23						
BVAR	Borovoye Array	28.20	24	P	P	20 23 52.0	-0.2
ARU	Arti	28.40	8	P	P	20 24 03.8	+10
MK31	Makanchi Array	30.15	44	eP	P	20 24 09.0	-0.6
MK31	Makanchi Array	30.15	44	eP	P	20 24 09.0	-0.6
MKAR	Makanchi Array	30.15	44	P	P	20 24 08.6	-1.0
	comp=Z,1.0nm,0.8s,mb3.6,baz=243,slow=8.0,SNR=11						
MKAR	Makanchi Array	30.15	44	P	P	20 24 08.6	-1.0
KURK	Kurchatov	30.16	35	eP	P	20 24 08.9	-0.8
KURK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.0						
KURK	Kurchatov	30.16	35	eP	P	20 24 08.9	-0.8
	comp=Z,3.4nm,1.0s,mb4.0						
KURK	Kurchatov	30.16	35	eP	P	20 24 08.9	-0.8
	comp=Z,3.0nm,1.0s,mb4.0						
CUC	Castrocucco	31.57	301	eP	P	20 24 25.3	+3.0
	comp=Z,4.2nm,0.8s,mb4.3						
KLMR	Klimovskoe	33.42	349	eP	P	20 24 36.0	-2.1
KLMR				pmax	pmax		
	comp=Z,31nm,1.5s,mb5.0						
KLMR	Klimovskoe	33.42	349	eP	P	20 24 36.0	-2.1
	comp=Z,31nm,1.5s,mb5.0						
LSA	Lhasa	34.45	78	eP	P	20 24 47.2	-0.3
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
LSA	Lhasa	34.45	78	eP	P	20 24 47.2	-0.3
	comp=Z,1.6nm,0.6s,mb4.1						
LSA	Lhasa	34.45	78	eP	P	20 24 47.2	-0.3
	comp=Z,2.0nm,0.6s,mb4.2						
ZAA0	Zalesovo Array	35.14	34	eP	P	20 24 52.2	-0.9
ZAA0	Zalesovo Array	35.14	34	eP	P	20 24 52.2	-0.9
ZALV	Zalesovo Beam	35.14	34	P	P	20 24 51.5	-1.6
	comp=Z,5.1nm,0.7s,mb4.5,baz=250,slow=7.7,SNR=21						
ZALV	Zalesovo Beam	35.14	34	P	P	20 24 51.5	-1.6
GERES	GERESS Array B	35.45	316	P	P	20 24 56.3	+0.4
	comp=Z,0.2nm,0.6s,mb3.2,baz=129,slow=7.7,SNR=2.9						
GERES	GERESS Array B	35.45	316	P	P	20 24 56.3	+0.4
CLL	Collm	36.80	319	eP	P	20 25 04.0	-3.4
CLL				esP	sP	20 25 12.0	-2.4
JOF	Joensuu	36.94	345	ep	P	20 25 06.3	-2.1
	comp=Z,4.1nm,0.7s,mb4.4						
JOF	Joensuu	36.94	345	eP	P	20 25 06.3	-2.1
	comp=Z,4.1nm,0.7s,mb4.4						
FINES	FINESS Array B	37.13	340	P	P	20 25 08.3	-1.7
	comp=Z,2.7nm,0.5s,mb4.3,baz=139,slow=11,SNR=17						
FINES	FINESS Array B	37.13	340	P	P	20 25 08.4	-1.6
KAF	Kangasniemi	37.58	341	ep	P	20 25 14.1	+0.2
KAF	Kangasniemi	37.58	341	eP	P	20 25 14.1	+0.2
SBF	Sospel	38.38	306	eP	P	20 25 22.1	+1.2
	comp=Z,34nm,1.1s,mb4.7						
SBF	Sospel	38.38	306	eP	P	20 25 22.1	+1.2
SBF				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.7						
SBF	Sospel	38.38	306	eP	P	20 25 22.1	+1.2
	comp=Z,17nm,1.1s,mb4.7						
SBF	Sospel	38.38	306	eP	P	20 25 22.1	+1.2
	comp=Z,34nm,1.1s,mb5.0						
LPG	La Plagne	39.13	308	eP	P	20 25 27.5	+0.4
	comp=Z,8.3nm,1.1s,mb4.1						
LPG	La Plagne	39.13	308	eP	P	20 25 27.5	+0.4
LPG				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.1						
LPG	La Plagne	39.13	308	eP	P	20 25 27.5	+0.4
	comp=Z,4.2nm,1.1s,mb4.1						
LPG	La Plagne	39.13	308	eP	P	20 25 27.5	+0.4
	comp=Z,8.0nm,1.1s,mb4.4						
LPL	La Plagne	39.14	308	eP	P	20 25 28.0	+0.7
	comp=Z,18nm,1.3s,mb4.3						
LPL	La Plagne	39.14	308	eP	P	20 25 28.0	+0.7
LPL				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.3						

LPL	La Plagne	39.14	308	*e*P	P	20 25 28.0	+0.7
	comp=Z,9.1nm,1.3s,mb4.3						
LPL	La Plagne	39.14	308	*e*P	P	20 25 28.0	+0.7
	comp=Z,18nm,1.3s,mb4.6						
GTA	Gaotai	41.02	62	*e*P	P	20 25 43.8	+0.8
GTA				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
GTA				pmax	pmax		
	comp=Z,190nm,6.3s						
GTA				LR	LR		
	comp=N,1μm,20.1s,MS4.8						
GTA				LR	LR		
	comp=E,560nm,19.8s,MS4.8						
GTA				LR	LR		
	comp=Z,1μm,21.3s,MS4.8						
TAM	Tamanrasset	41.76	273	*e*P	P	20 25 51.0	+1.8
TAM				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
TAM	Tamanrasset	41.76	273	*e*P	P	20 25 51.0	+1.8
	comp=Z,3.7nm,1.0s,mb4.0						
NB2	NORSAR Subarra	42.25	332	P	P	20 25 52.4	-0.2
	comp=Z,3.1nm,0.8s,mb4.0,baz=123,slow=8.6						
NB2	NORSAR Subarra	42.25	332	P	P	20 25 52.4	-0.2
	comp=Z,3.1nm,0.8s,mb4.0,baz=123,slow=8.4,SNR=4.6						
NOA	NORSAR Array B	42.25	332	P	P	20 25 52.6	0.0
	comp=Z,0.9nm,0.5s,mb3.6,baz=121,slow=8.2,SNR=3.9						
NOA	NORSAR Array B	42.25	332	P	P	20 25 52.6	0.0
KEV	Kevo	43.71	348	*e*P	P	20 25 59.5	-4.9
KEV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
KEV	Kevo	43.71	348	*e*p	P	20 25 59.5	-4.9
	comp=Z,2.5nm,0.6s,mb4.1						
ARCES	ARCESS Array B	43.81	347	P	P	20 26 08.1	+2.9
	comp=Z,2.8nm,0.8s,mb4.0,baz=159,slow=8.5,SNR=9.0						
ETSF	Etsaut	44.10	303	*e*P	P	20 26 08.7	+0.8
ETSF	Etsaut	44.10	303	*e*P	P	20 26 08.7	+0.8
CHTO	Chiang Mai	44.16	92	*e*P	P	20 26 08.5	-0.2
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
CHTO	Chiang Mai	44.16	92	*e*P	P	20 26 08.5	-0.2
	comp=Z,3.0nm,0.9s,mb4.0						
CHTO	Chiang Mai	44.16	92	*e*P	P	20 26 08.5	-0.2
	comp=Z,3.0nm,0.9s,mb4.0						
CMAR	Chiang Mai Arr	44.29	92	P	P	20 26 09.7	0.0
	comp=Z,1.0nm,0.7s,mb3.6,baz=284,slow=7.8,SNR=9.0						
CMAR	Chiang Mai Arr	44.29	92	P	P	20 26 09.7	0.0
SONM	Songino Array	46.18	50	P	P	20 26 24.1	-0.3
	comp=Z,0.6nm,0.9s,mb3.5,baz=276,slow=8.7,SNR=8.1						
SONM	Songino Array	46.18	50	P	P	20 26 24.1	-0.3
TORD	Torodi Ar. Bea	48.75	263	P	P	20 26 43.6	-1.2
	comp=Z,1.6nm,0.7s,mb4.2,baz=58,slow=7.4,SNR=14						
BOD	Bodaibo	51.77	37	*e*P	P	20 27 04.3	-2.8
BOD				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
DBIC	Dimbokro	57.47	259	P	P	20 27 48.0	-1.2
	comp=Z,5.0nm,0.7s,mb4.6,baz=21,slow=10,SNR=9.0						
DBIC	Dimbokro	57.47	259	P	P	20 27 48.0	-1.1
LIC	Lamto	57.84	259	*e*P	P	20 27 51.7	0.0
	comp=Z,9.3nm,0.6s,mb4.7						
TIXI	Tiksi	59.27	21	*i*P	P	20 28 01.1	+0.3
TIXI	Tiksi	59.27	21	*i*P	P	20 28 01.1	+0.3
KSRS	Korea Array	63.07	60	P	P	20 28 26.8	-0.3
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.0						
KSRS	Korea Array	63.07	60	P	P	20 28 26.8	-0.3
	comp=Z,0.8nm,0.8s,mb3.9,baz=279,slow=9.6,SNR=4.0						
KSRS	Korea Array	63.07	60	P	P	20 28 26.8	-0.3
	comp=Z,1.0nm,0.8s,mb4.0						
SEY	Seymchan	69.75	29	⇓*e*P	P	20 29 10.3	+0.9
SEY	Seymchan	69.75	29	*e*P	P	20 29 10.3	+0.9
SCHQ	Schefferville	81.74	329	P	P	20 30 16.7	-1.5
	comp=Z,1.9nm,0.8s,mb4.1,baz=45,slow=8.0,SNR=5.0						
SCHQ	Schefferville	81.74	329	P	P	20 30 16.7	-1.5
YKA	Yellowknife Ar	88.71	354	P	P	20 30 51.9	-1.0
	comp=Z,0.8nm,0.8s,mb4.1,baz=5.2,slow=4.7,SNR=20						
YKA	Yellowknife Ar	88.71	354	P	P	20 30 51.9	-0.9

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*ISCJB **25** 20:19:29.9±1.3, 33°.25S±0°.06×177°.2W±0°.2, h33km, mb4.7/10, Error ellipse: s-maj=26.7km s-min=6.8km az=14.2*

*NEIC **25** 20:19:35.2±3.6, 32°.89S×177°.84W, h30km±23km, mb4.7/2, Error ellipse: s-maj=19.7km s-min=12.6km az=110.0*

*IDC **25** 20:19:35.7±0.8, 32°.86S×177°.87W, h31km±4km, mb4.4/6, mb1 4.6/8, mb1mx4.2/19, mbtmp4.5/8, ML4.7/2, MS4.2/1, Ms1 4.2/1, ms1mx3.3/33, Error ellipse: s-maj=23.3km s-min=18.9km az=83.0*

ISC 25 20:19:31.6±2.7**, 33°.1S**±0°.1×**177°.5W**±0°.4**, h19**km±29km**, n62,** σ**1ˢ.15**/43**, mb4.7**/10**, 1C-3D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	3.84	355	Pn	Pn	20 20 29.5	-0.2
	122nm,0.3s,baz=72,slow=16,SNR=7.7						
RAO				Sn	Sn	20 21 10.8	-3.5
	498nm,0.3s,baz=143,slow=23,SNR=8.1						
MXZ	Matakaoa Point	5.62	216	P	Pn	20 20 56.3	+2.2
PUZ	Puketiti	6.05	214	P	Pn	20 21 01.9	+1.9
MWZ	Matawai	6.61	216	P	Pn	20 21 09.4	+1.8
MWZ				S	Sn	20 22 22.4	0.0
URZ	Urewera	6.76	219	Pn	Pn	20 21 11.1	+1.3
	8.4nm,0.3s,baz=257,slow=0.9,SNR=56						
URZ				Sn	Sn	20 22 25.8	-0.4
	26nm,0.3s,baz=156,slow=19,SNR=16						
URZ	Urewera	6.76	219	*e*P	Pn	20 21 11.1	+1.4
URZ				P		20 21 11.5	
KNZ	Kokohu	7.08	212	P	Pn	20 21 14.7	+0.5
OUZ	Omahuta	7.67	251	*e*P	Pn	20 21 26.9	+4.6
	29nm,0.7s						
MOVZ	Moawhango	8.32	219	P	Pn	20 21 32.1	+0.9
DVHZ	Dannevirke	8.80	213	P	Pn	20 21 37.4	-0.4
MRZ	Mangatainoka R	9.36	214	P	Pn	20 21 44.6	-0.8
KIW	Kapiti Island	9.84	216	P	Pn	20 21 50.8	-1.2
BHW	Baring Head	10.28	214	P	Pn	20 21 57.8	-0.2
TCW	Tory Channel	10.42	217	P	Pn	20 21 58.6	-1.3
QRZ	Quartz Range	11.09	223	P	Pn	20 22 10.5	+1.4
THZ	Tophouse	11.52	219	P	Pn	20 22 13.6	-1.4
KHZ	Kahutara	11.69	215	*e*P	Pn	20 22 17.7	+0.5
	41nm,0.4s						
LTZ	Lake Taylor	12.59	217	P	Pn	20 22 28.2	-1.3
MQZ	McQueen's Vall	13.10	213	P	Pn	20 22 34.1	-2.4
WVZ	Waitaha Valley	13.59	219	P	Pn	20 22 43.3	+0.1
RPZ	Rata Peaks	13.87	217	Pn	Pn	20 22 47.2	+0.1
	13nm,0.3s,baz=40,slow=1.3,SNR=58						
RPZ				Sn	Sn	20 25 07.9	-13
	3.8nm,0.3s,baz=85,slow=10,SNR=11						
RPZ				LR	LR	20 27 52.0	
	comp=Z,890nm,19.2s,baz=214,slow=36						
RPZ	Rata Peaks	13.87	217	*e*Pn	Pn	20 22 46.8	-0.3
ODZ	Otahua Downs	15.05	214	*e*Pn	Pn	20 23 02.4	-0.6
JCZ	Jackson Bay	15.32	220	P	Pn	20 23 04.3	-2.4
CMSA	Cobar Meteorol	31.04	263	*e*P	P	20 25 49.3	+1.1
ARPS	Mount Arapiles	33.35	252	*e*P	P	20 26 09.8	+1.3
	44nm,0.9s,mb5.4						
STKA	Stephens Creek	34.37	261	*e*P	P	20 26 18.1	+0.8
	2.9nm,1.1s,mb4.1						
STKA	Stephens Creek	34.37	261	P	P	20 26 18.1	+0.8
	3.6nm,0.9s,mb4.3,baz=109,slow=8.4,SNR=5.5						
STKA				PcP	PcP	20 28 54.4	+1.4
	2.7nm,0.9s,baz=61,slow=8.9,SNR=3.5						
STKA	Stephens Creek	34.37	261	*e*P	P	20 26 18.0	+0.7
STKA				PcP	PcP	20 28 54.4	+1.4
CTA	Charters Tower	34.72	283	*e*P	P	20 26 21.6	+1.1
	6.2nm,0.6s,mb4.7						
CTA	Charters Tower	34.72	283	P	P	20 26 21.2	+0.7
	6.9nm,0.5s,mb4.8,baz=128,slow=12,SNR=15						
CTAO	Charters Tower	34.72	283	*e*P	P	20 26 21.1	+0.6
	7.6nm,0.7s,mb4.7						
BBOO	Buckleboo	38.71	257	*e*P	P	20 26 54.1	-0.3
	3.6nm,0.6s,mb4.3						
ASAR	Alice Springs	43.44	270	P	P	20 27 33.0	-0.4
	6.8nm,0.8s,mb4.5,baz=109,slow=7.7,SNR=75						
ASAR				PcP	PcP	20 29 22.1	+0.5
	1.4nm,0.7s,baz=109,slow=4.0,SNR=4.2						
WRAB	Tennant Creek	44.67	275	*e*P	P	20 27 42.2	-1.1
	7.4nm,0.6s,mb4.7						
WRA	Warramunga Arr	44.67	275	P	P	20 27 42.5	-0.9
	6.2nm,0.3s,mb4.8,baz=114,slow=7.8,SNR=138						
WRA				PcP	PcP	20 29 26.4	+0.6
	2.5nm,0.8s,baz=121,slow=3.4,SNR=6.2						
FORT	Forrest	45.82	257	*e*P	P	20 27 52.1	-0.2
	18nm,0.6s,mb5.2						
QSPA	South Pole Qui	57.03	180	P	P	20 29 21.1	+5.5
	3.8nm,0.6s,mb4.6,baz=38,slow=1.5,SNR=13						
KSRS	Korea Array	86.66	319	P	P	20 32 15.2	+1.4
	1.8nm,0.8s,mb4.3,baz=135,slow=6.1,SNR=5.9						
MKAR	Makanchi Array	119.80	309	PKP	PKPdf	20 38 21.0	+0.9
	0.8nm,0.9s,baz=64,slow=2.8,SNR=7.3						
MKAR				pPKP	pPKPdf	20 38 31.4	+4.7
	0.4nm,0.6s,baz=220,slow=0.7,SNR=3.6						
BVAR	Borovoye Array	128.60	314	PKP	PKPdf	20 38 38.5	+1.7
	0.7nm,0.6s,baz=50,slow=2.3,SNR=5.4						
BVAR				pPKP	pPKPdf	20 38 48.8	+5.4
	0.7nm,0.6s,baz=134,slow=1.4,SNR=4.9						
ARCES	ARCESS Array B	141.30	347	PKP	PKPdf	20 38 59.2	-0.7
	3.5nm,0.9s,baz=38,slow=1.6,SNR=3.5						
ARCES	ARCESS Array B	141.30	347	PKP	PKPdf	20 38 59.2	-0.7
JOF	Joensuu	145.06	337	*e*p	PKPbc	20 39 06.2	0.0
	1.9nm,0.7s						
GNI	Garni	145.62	294	*e*PKP	PKPdf	20 39 08.8	+0.3
KIV	Kislovodsk	147.03	301	*e*PKPdf	PKPdf	20 39 12.7	+2.0
KAF	Kangasniemi	147.21	339	*e*p	PKPbc	20 39 14.1	+1.4
	5.4nm,0.6s						
FINES	FINESS Array B	147.80	339	PKPbc	PKPbc	20 39 15.3	+0.9
	7.6nm,0.7s,baz=76,slow=3.6,SNR=23						
FINES				pPKPbc	pPKPbc	20 39 26.1	+5.2
	5.9nm,0.8s,baz=78,slow=3.5,SNR=3.7						
FINES	FINESS Array B	147.80	339	PKPbc	PKPbc	20 39 15.3	+0.9
FINES				pPKPbc	pPKPbc	20 39 26.1	+5.2
MALT	Malatya	150.48	290	⇑*i*P	PKPbc	20 39 23.9	+2.1
NB2	NORSAR Subarra	151.47	351	PKP	PKPbc	20 39 24.3	+0.9
	comp=Z,1.3nm,0.6s,baz=17,slow=2.6						
NOA	NORSAR Array B	151.47	351	PKPbc	PKPbc	20 39 24.1	+0.7
	comp=Z,1.9nm,0.7s,baz=14,slow=4.1,SNR=6.2						
DBIC	Dimbokro	152.84	164	PKPbc	PKPbc	20 39 31.2	+3.2
	comp=Z,7.1nm,1.0s,baz=148,slow=4.7,SNR=3.6						
DBIC				PKPab	PKPab	20 39 41.2	+2.4
	comp=Z,6.1nm,0.9s,baz=217,slow=5.1,SNR=3.3						
DBIC	Dimbokro	152.84	164	PKPbc	PKPbc	20 39 31.2	+3.2
DBIC				PKPab	PKPab	20 39 41.2	+2.4
AKASG	Malin Array Be	153.66	320	PKPbc	PKPbc	20 39 30.4	+1.8
	comp=Z,0.2nm,0.3s,baz=119,slow=1.2,SNR=4.2						
AKASG				PKPab	PKPab	20 39 40.0	-1.4
	comp=Z,2.6nm,0.6s,baz=51,slow=4.6,SNR=10						
BR131	Keskin Array S	154.16	294	*e*PKPbc	PKPbc	20 39 32.0	+1.9
BRTR	Keskin Array B	154.16	294	PKPbc	PKPbc	20 39 31.1	+1.1
	comp=Z,1.2nm,0.7s,baz=142,slow=4.1,SNR=7.7						
BRTR				pPKPbc	pPKPbc	20 39 41.5	+4.9
	comp=Z,0.9nm,0.5s,baz=132,slow=3.2,SNR=5.4						
BURAR	Bucovina Array	157.52	317	⇓*i*P	PKPab	20 39 59.5	+1.5
KWP	Kalwaria Pacla	157.68	324	⇓*i*P	PKPab	20 39 59.5	+0.9
TORD	Torodi Ar. Bea	160.13	178	PKPab	PKPab	20 40 12.4	+2.5
	comp=Z,1.6nm,0.9s,baz=178,slow=3.5,SNR=13						
BZS	Buzias	160.69	316	⇓*i*P	PKPab	20 40 12.5	+0.7
GERES	GERESS Array B	162.16	335	PKPab	PKPab	20 40 19.9	+1.8
	comp=Z,0.3nm,0.7s,baz=46,slow=5.6,SNR=3.6						

DJA 25 20:30:50, 2°.61S×100°.07E, h4km, MLv3.6/6**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	0.16	202	P	Pg	20 30 54.2	+1.0
PPSI				S	Sg	20 30 57.8	+2.4
SISI	Saibi	1.61	322	P	Pn	20 31 18.3	-0.9
SISI				S	Sn	20 31 41.3	+0.9
PDSI	Padang	1.73	13	P	Pn	20 31 20.9	0.0
SDSI	Sungai Dareh	2.15	39	P	Pn	20 31 27.4	+0.8
PPI	Padang Panjang	2.16	9	P	Pn	20 31 27.7	+0.9
MNAI	Manna	3.36	121	P	Pn	20 31 44.4	+1.0
MDSI	Maura Dua	4.50	115	P	Pn	20 31 59.4	+0.3
GSI	Gunungsitoli	4.62	327	P	Pn	20 32 00.9	+0.3

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*ISCJB **25** 20:49:20.5±0.4, 41°.13N±0°.01×114°.88W±0°.02, h5km±3km, Error ellipse: s-maj=2.3km s-min=2.2km az=12.3*

*NEIC **25** 20:49:21.4, 41°.15N×114°.89W, h8km, ML2.8, After REN.*

*IDC **25** 20:49:21.6±1.0, 41°.20N×115°.12W, h0km, mb2.4/1, mb1 3.1/3, mb1mx3.1/22, mbtmp2.7/3, ML3.1/2, MS3.4/1, Ms1 3.4/1, ms1mx3.0/8, Error ellipse: s-maj=15.9km s-min=5.9km az=122.0*

ISC 25 20:49:20.8±0.3**, 41°.14N**±0°.01×**114°.87W**±0°.02**, h5**km±2km**, n98,** σ**0ˢ.87**/129**, 33C-56D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	Clover Valley,	0.32	203	⇓P	Pg	20 49 27.8	+0.8
	baz=0.3,SNR=1000						
N12A				⇑S	Sg	20 49 32.2	+1.2
	baz=0.3						
N12A	Clover Valley,	0.32	203	*e*Pg	Pg	20 49 27.7	+0.8
N12A				*e*Sg	Sg	20 49 31.8	+0.7
ELK	Elko	0.48	215	Pg	Pg	20 49 30.4	+0.3
	72nm,0.3s,baz=7.0,slow=12,SNR=337						
ELK				Lg		20 49 36.7	
	169nm,0.3s,baz=128,slow=17,SNR=123						
ELK	Elko	0.48	215	Pg	Pg	20 49 30.4	+0.3
ELK				Lg		20 49 36.7	
M13A	Montello	0.58	68	⇓P	Pg	20 49 32.4	+0.5
	baz=0.6,SNR=90						
M13A				⇓S	Sg	20 49 40.2	+0.8
	baz=0.6						
M13A	Montello	0.58	68	*e*Pg	Pg	20 49 32.4	+0.5
M13A				*e*Sg	Sg	20 49 40.2	+0.8
N13A	Wendover, West	0.58	119	⇑P	Pg	20 49 32.6	+0.6
	baz=0.6,SNR=331						
N13A				⇓S	Sg	20 49 40.5	+0.9
	baz=0.6						
N13A	Wendover, West	0.58	119	*e*Pg	Pg	20 49 32.6	+0.6
N11A	Elko Archery C	0.73	244	⇓P	Pg	20 49 35.4	+0.6
	baz=0.7,SNR=133						
N11A				⇓S	Sg	20 49 44.7	+0.4
	baz=0.7						
M11A	Holland Ranch,	0.75	293	⇑P	Pg	20 49 35.4	+0.2
	baz=0.8,SNR=233						
M11A				⇑S	Sg	20 49 45.8	+1.0
	baz=0.8						
O12A	Currie	0.88	174	⇓P	Pg	20 49 37.9	+0.2
	baz=0.9,SNR=280						
O12A				⇑S	Sg	20 49 50.0	+0.9
	baz=0.9						
L12A	House Creek Ra	1.01	354	⇑P	Pg	20 49 40.1	0.0
	baz=1.0,SNR=52						
L12A				⇓S	Sg	20 49 53.8	+0.6
	baz=1.0						
L13A	Double Diamond	1.17	36	⇑P	Pg	20 49 42.9	-0.4
	baz=1.2						
L13A				⇓S	Sg	20 49 58.7	+0.1
	baz=1.2						
O11A	Cowboy Ranch,	1.17	211	⇓P	Pg	20 49 43.3	0.0
	baz=1.2,SNR=1000						
O11A				⇑S	Sg	20 49 58.7	+0.1
	baz=1.2						
M14A	Sheep Mountain	1.21	72	⇑P	Pg	20 49 43.5	-0.4
	baz=1.2,SNR=397						
M14A				⇓S	Sg	20 49 59.7	+0.1
	baz=1.2						
L11A	Cat Creek Ranc	1.22	327	⇓P	Pg	20 49 43.6	-0.5
	baz=1.2						
L11A				⇓S	Sg	20 50 00.1	+0.1
	baz=1.2						
O13A	Hicks Ranch, I	1.22	146	⇑P	Pg	20 49 43.8	-0.3
	baz=1.2,SNR=122						
O13A				⇓S	Sg	20 50 00.6	+0.6
	baz=1.2						
N10A	Dunphy	1.31	252	⇓P	Pn	20 49 44.9	-0.8
	baz=1.3,SNR=8.0						
N10A				⇓S	Sg	20 50 03.0	+0.1
	baz=1.3						
M10A	I.L. Ranch, Tu	1.31	287	⇓P	Pn	20 49 45.3	-0.5
	baz=1.3,SNR=627						
N14A	Grayback Hills	1.31	102	⇓P	Pn	20 49 44.9	-0.9
	baz=1.3,SNR=63						
N14A				⇓S	Sg	20 50 02.9	0.0
	baz=1.3						
BGU	Big Grassy Mou	1.41	98	*e*P	Pn	20 49 46.9	-0.4
BGU				*e*S	Sb	20 50 05.5	-0.5
K12A	Draper Farm, C	1.49	359	⇑P	Pn	20 49 47.5	-0.7
	baz=1.5,SNR=30						
K12A				⇓S	Sn	20 50 07.0	-1.1
	baz=1.5						
O10A	Cortez Mining,	1.50	236	⇓P	Pn	20 49 47.9	-0.5
	baz=1.5,SNR=79						
O10A				⇓Sb	Sb	20 50 08.6	+0.1
	baz=1.5						
L14A	Malta	1.52	54	⇓P	Pn	20 49 48.4	-0.2
	baz=1.5,SNR=58						
L14A				⇓Sb	Sb	20 50 08.9	0.0
	baz=1.5						
L10A	Juniper Basin	1.52	308	P	Pn	20 49 48.2	-0.4
	baz=1.5,SNR=880						
L10A				⇑Sb	Sb	20 50 09.3	+0.3
	baz=1.5						
K13A	Stover Farm, H	1.61	21	⇓P	Pn	20 49 49.9	-0.1
	baz=1.6,SNR=79						
K13A				⇑Sb	Sb	20 50 12.0	+0.2
	baz=1.6						
HVU	Hansel Valley	1.70	67	*e*Pn	Pn	20 49 51.3	+0.1
HVU				*e*Sn	Sn	20 50 13.5	+0.2
P11A	Circle Ranch,	1.73	203	⇓P	Pn	20 49 51.3	-0.3
	baz=1.7,SNR=19						
N15A	Stansbury Isla	1.80	97	⇑P	Pn	20 49 52.2	-0.4
	baz=1.8						
P13A	Bates Ranch, G	1.81	158	⇑P	Pn	20 49 51.6	-1.1
	baz=1.8,SNR=80						
P13A				⇓Sb	Sb	20 50 18.1	+0.7
	baz=1.8						
DUG	Dugway	1.83	120	⇑P	Pn	20 49 52.0	-1.0
	baz=1.8						
DUG				⇓Sb	Sb	20 50 18.5	+0.5
	baz=1.8						
DUG	Dugway	1.83	120	*e*Pn	Pn	20 49 52.3	-0.7
DUG				*e*S	Sn	20 50 17.4	+0.8
SPUT	South Promonto	1.84	84	*e*Pn	Pn	20 49 53.4	+0.3
K11A	Parker Ranch,	1.84	332	⇓Pb	Pb	20 49 53.7	-1.3
	baz=1.8,SNR=161						
K11A				⇓Sb	Sb	20 50 18.7	+0.3
	baz=1.8						
M15A	Larsen Ranch,	1.86	79	⇑P	Pn	20 49 53.0	-0.3
	baz=1.8,SNR=114						
K14A	Jones Ranch, D	1.89	42	⇓Pb	Pb	20 49 54.7	-1.1
	baz=1.9,SNR=26						
BMN	Battle Mountai	1.92	249	*e*Pn	Pn	20 49 55.2	+1.0
P10A	Eureka	1.95	219	⇑P	Pn	20 49 54.2	-0.3
	baz=2.0,SNR=33						
M09A	Marrel Ranch,	1.96	279	⇑Pb	Pb	20 49 55.7	-1.3
	baz=2.0,SNR=31						
O09A	Fish Creek Ran	2.01	242	⇓P	Pn	20 49 54.8	-0.6
	baz=2.0						
O15A	The Old Anders	2.02	114	⇓P	Pn	20 49 54.8	-0.7
	baz=2.0						
N09A	Rock Creek Ran	2.03	263	⇑P	Pn	20 49 55.0	-0.7
	baz=2.0						
L15A	Malad City	2.06	64	⇓P	Pn	20 49 56.1	0.0
	baz=2.0						
P14A	Drum Mountains	2.08	138	⇑P	Pn	20 49 55.6	-0.7
	baz=2.1,SNR=60						
Q12A	Willow Creek R	2.10	179	⇓P	Pn	20 49 56.2	-0.5
	baz=2.1,SNR=38						
J12A	Stokes Ranch,	2.11	356	⇓P	Pn	20 49 57.6	+0.8
	baz=2.1,SNR=131						
NOQ	North Oquirrh	2.15	102	*e*Pn	Pn	20 49 59.5	+2.2
K10A	MacKenzie Ranc	2.21	318	⇓Pb	Pb	20 49 60.0	-1.3
	baz=2.2,SNR=61						
L09A	Wilkinson Ranc	2.27	294	⇓Pb	Pb	20 50 00.9	-1.3
	baz=2.3,SNR=44						
Q13A	Wheeler Ranch,	2.28	163	⇓P	Pn	20 49 58.6	-0.6
	baz=2.3,SNR=47						
J13A	Cove Ranch, Pi	2.31	13	⇓P	Pn	20 50 00.7	+1.1
	baz=2.3,SNR=118						
P09A	Austin	2.35	228	⇓P	Pn	20 50 00.0	-0.1
	baz=2.4,SNR=5.5						
Q11A	Duckwater	2.37	195	⇑P	Pn	20 50 00.1	-0.3
	baz=2.4,SNR=56						
MFID	Camas Ranch	2.38	343	⇑P	Pn	20 50 02.0	+1.5
	baz=2.4,SNR=26						
J14A	Carey	2.40	24	⇓P	Pn	20 50 02.0	+1.3
	baz=2.4,SNR=64						
HLID	Hailey	2.44	8	⇓P	Pn	20 50 02.6	+1.3
	baz=2.4,SNR=101						
HLID	Hailey	2.44	8	*e*Pn	Pn	20 50 02.5	+1.1
HLID				*e*Sg	Sg	20 50 35.9	-3.3
NLU	North Lily Min	2.44	118	*e*P	Pn	20 50 04.2	+2.9
Q14A	Sevier Lake (B	2.48	150	⇑P	Pn	20 50 00.9	-0.9
	baz=2.5,SNR=27						
P15A	Leamington	2.53	128	⇓P	Pn	20 50 01.8	-0.8
	baz=2.5,SNR=14						
Q10A	Clear Creek Ra	2.60	207	⇑P	Pn	20 50 03.5	+0.1
	baz=2.6,SNR=59						
K09A	Rome	2.63	307	⇑P	Pn	20 50 06.3	+2.3
	baz=2.6						
I12A	Atlanta	2.66	356	⇑P	Pn	20 50 05.9	+1.6
	baz=2.7,SNR=62						
M08A	Happy Creek Ra	2.66	278	⇑Pb	Pb	20 50 07.6	-1.3
	baz=2.7						
J10A	Berg Farm, Mel	2.68	329	⇓P	Pn	20 50 07.3	+2.7
	baz=2.7						
MPU	Maple Canyon	2.71	113	*e*Pg	Pg	20 50 12.9	+0.1
L08A	Fields	2.80	293	⇑P	Pn	20 50 09.4	+3.1
	baz=2.8						
R12A	Pony Springs,	2.82	176	⇓P	Pn	20 50 06.3	-0.3
	baz=2.8,SNR=25						
I13A	Wildhorse Cree	2.83	11	⇑P	Pn	20 50 08.2	+1.6
	baz=2.8,SNR=64						
DAU	Daniels Canyon	2.84	104	*e*Pg	Pg	20 50 15.7	+0.4
DAU				*e*Sg	Sg	20 50 50.5	-1.6
P08A	Dixie Valley	2.84	240	⇓P	Pn	20 50 06.5	-0.4
	baz=2.8						
R11A	Troy Canyon, C	2.84	191	P	Pn	20 50 06.6	-0.3
	baz=2.9,SNR=146						
Q09A	Carvers	2.91	218	⇓P	Pn	20 50 07.9	+0.1
	baz=2.9						
R13A	O'Grain Ranch,	3.04	166	⇓P	Pn	20 50 09.9	+0.3
	baz=3.0,SNR=62						
WVOR	Wild Horse Val	3.09	296	*e*Pg	Pg	20 50 14.8	-5.3
WVOR				*e*Sg	Sg	20 50 57.2	-3.0
O07A	Toulon	3.20	253	⇑P	Pn	20 50 10.9	-0.9
	baz=3.2,SNR=10						
M07A	Soldier Meadow	3.25	276	⇑P	Pn	20 50 12.3	-0.1
	baz=3.2,SNR=9.6						
MSU	Marysvale	3.35	141	*e*Pn	Pn	20 50 13.6	-0.3
TMUT	Trail Mountain	3.36	122	*e*Pg	Pg	20 50 23.5	-1.7
S10A	Tonopah Range,	3.48	203	⇓P	Pn	20 50 15.6	0.0
	baz=3.5,SNR=13						
ARUT	Antelope Range	3.53	161	*e*Pn	Pn	20 50 16.5	+0.2
S11A	Rachel	3.56	191	⇓P	Pn	20 50 16.9	+0.2
	baz=3.6,SNR=14						
S14A	Cedar City	3.63	158	⇓P	Pn	20 50 17.5	-0.2
	baz=3.6,SNR=5.8						
S13A	Holt Ranch, En	3.64	167	⇓P	Pn	20 50 17.8	-0.1
	baz=3.6,SNR=29						
CCUT	Cedar City	3.77	161	*e*Pn	Pn	20 50 19.5	-0.2
NVAR	Mina Array Bea	3.79	225	Pn	Pn	20 50 19.8	0.0
	1.5nm,0.3s,baz=39,slow=13,SNR=38						
NVAR				Lg		20 51 18.9	
	12nm,0.3s,baz=65,slow=33,SNR=11						
NVAR	Mina Array Bea	3.79	225	Pn	Pn	20 50 19.8	0.0
NVAR				Lg		20 51 18.9	
SRU	San Rafael	3.91	120	*e*Pg	Pg	20 50 32.1	-3.5
T11A	Corn Creek, Al	3.91	184	P	Pn	20 50 21.4	-0.1
	baz=3.9,SNR=71						
MCMT	McKenzie Canyo	3.97	21	P	Pn	20 50 26.1	+3.7
BMO	Blue Mountains	4.11	335	*e*Pg	Pg	20 50 30.8	-8.8
MOD	Modoc	4.14	282	*e*Pn	Pn	20 50 24.9	+0.1
PDAR	Pinedale Array	4.28	66	Pn	Pn	20 50 31.8	+5.1
	0.1nm,0.3s,baz=249,slow=12,SNR=8.1						
PDAR				Pg	Pg	20 50 41.0	-1.9
	0.4nm,0.3s,baz=225,slow=14,SNR=10.0						
PDAR				Lg		20 51 35.0	
	0.7nm,0.3s,baz=287,slow=15,SNR=8.1						
PDAR				LR	LR	20 51 50.1	
	comp=Z,502nm,20.6s,baz=153,slow=34						
T14A	Hurricane	4.31	161	⇓P	Pn	20 50 27.3	+0.3
	baz=4.3,SNR=6.6						
R06C	Coleville	4.39	235	⇓P	Pn	20 50 28.1	0.0
	baz=4.4,SNR=6.9						
V11A	Goodsprings	5.32	185	⇑P	Pn	20 50 41.6	+0.7
	baz=5.3,SNR=9.1						
V12A	Nelson	5.41	180	⇓P	Pn	20 50 42.7	+0.5
	baz=5.4,SNR=9.1						
YKA	Yellowknife Ar	21.38	0	P	P	20 54 09.9	+0.9
	0.2nm,0.7s,baz=181,slow=9.4,SNR=5.8						

MAN 25 20:55:03, 17°.90N×120°.77E, h15km, mb3.7, ML2.5, MS2.0, 1C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	Dolores	0.26	192	*e*P	Pg	20 55 09.5	+0.9
ABRA				*e*S	Sg	20 55 15.0	+2.7
SIPP	Brgy, Tapao	0.29	274	⇓*e*P	Pg	20 55 12.2	+3.0
SIPP				*e*S	Sg	20 55 20.3	+6.9
PIP	Pasuquin	0.44	342	⇑*i*P	Pg	20 55 12.7	+0.8
CVP	Callao Caves	1.02	101	*e*P	Pb	20 55 19.0	-3.4
CVP				*e*S	Sb	20 55 31.6	-4.2
CAUP	Cauayan	1.39	133	*e*P	Pn	20 55 28.1	+0.3

PALP	Palanan	1.79	118	eP	Pn	20 55 33.6	+0.2

DJA ***25*** *20:57:32, 3°.88S×129°.53E, h542^{km}, mb5.8/4*
ISCJB ***25*** *20:57:42.1±0.6, 6°.19S±0°.05×128°.6E±0°.1, h341^{km}±8^{km}, mb3.4/8, Error ellipse: s-maj=19.1km s-min=6.9km az=164.1*
NEIC ***25*** *20:57:42.6±1.3, 6°.15S×128°.60E, h330^{km}±17^{km}, mb4.2/2, Error ellipse: s-maj=23.8km s-min=9.8km az=64.0*
IDC ***25*** *20:57:44.9±3.8, 6°.21S×128°.64E, h354^{km}±43^{km}, mb3.2/6, mb1 3.6/9, mb1mx3.4/17, mbtmp3.4/9, Error ellipse: s-maj=49.1km s-min=10.5km az=75.0*
ISC 25 20:57:43.2±0.6**, 6°.26S**±0°.05×**128°.4E**±0°.1**, h333**^{km}±8^{km}**, n25,** σ**0^{s}.89**/29**, mb3.4**/8**, 1C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	2.56	355	⇑eP	Pn	20 58 36.7	-0.7
AAI				eS	Sx	20 58 42.3	
AAI	Ambon	2.56	355	P	Pn	20 58 37.6	+0.2
NLAI	Namlea	3.27	337	P	Pn	20 58 44.5	+0.7
KAKA	Kakadu	7.55	148	ePn	Pn	20 59 30.6	-1.2
	94μm,3.3s						
KNA	Kununurra	9.44	178	eP	Pn	20 59 53.7	-0.8
	6.4nm,0.2s						
FITZ	Fitzroy Crossi	12.08	193	eP	Pn	21 00 27.0	+0.9
	12nm,0.7s						
FITZ				eS	S	21 02 40.4	0.0
FITZ	Fitzroy Crossi	12.08	193	P	Pn	21 00 27.0	+0.9
	0.7nm,0.3s,baz=21,slow=7.5,SNR=32						
FITZ				S	S	21 02 38.5	-2.0
	0.3nm,0.3s,baz=287,slow=19,SNR=2.8						
WRAB	Tennant Creek	14.77	158	eP	P	21 00 56.0	-0.1
	14nm,0.4s						
WRAB	Tennant Creek	14.77	158	P	P	21 00 57.7	+1.5
	22nm,0.8s						
WRA	Warramunga Arr	14.78	158	P	P	21 00 56.4	+0.2
	4.8nm,0.3s,baz=338,slow=12,SNR=150						
WRA				S	S	21 03 32.8	-3.6
	0.2nm,0.3s,baz=334,slow=20,SNR=4.1						
COEN	Coen	16.43	119	eP	P	21 01 14.5	+0.3
COEN				e		21 01 18.3	
KKM	Kota Kinabalu	17.24	315	P	P	21 01 23.8	+0.8
ASAR	Alice Springs	18.10	164	P	P	21 01 32.5	+0.4
	5.7nm,0.3s,baz=344,slow=11,SNR=368						
ASAR				S	S	21 04 42.1	+0.1
	0.1nm,0.3s,baz=345,slow=21,SNR=13						
STKA	Stephens Creek	28.32	156	eP	P	21 03 07.3	+0.1
	2.3nm,0.6s,mb3.6						
STKA	Stephens Creek	28.32	156	P	P	21 03 07.2	0.0
	2.8nm,0.5s,mb3.8,baz=329,slow=8.8,SNR=19						
CMSA	Cobar Meteorol	29.91	149	eP	P	21 03 22.1	+0.9
YNG	Young	33.48	149	eP	P	21 03 53.5	+1.4
	3.5nm,0.7s,mb3.7						
KSRS	Korea Array	43.48	359	P	P	21 05 14.3	-0.2
	1.2nm,0.5s,mb3.2,baz=176,slow=9.1,SNR=5.3						
MJAR	Matsushiro Arr	43.55	11	P	P	21 05 13.1	-2.1
	0.5nm,0.3s,mb3.1,baz=186,slow=10,SNR=3.7						
ULN	Ulaanbaatar	57.08	343	eP	P	21 06 55.9	+0.5
SONM	Songino Array	57.25	343	P	P	21 06 57.4	+0.9
	0.6nm,0.7s,mb3.1,baz=159,slow=6.9,SNR=5.6						
MK31	Makanchi Array	66.74	327	eP	P	21 07 58.1	-1.2
MKAR	Makanchi Array	66.74	327	P	P	21 07 59.5	+0.2
	0.3nm,0.3s,mb3.5,baz=121,slow=8.2,SNR=7.1						
ZALV	Zalesovo Beam	70.22	334	P	P	21 08 19.8	-0.7
	0.7nm,0.5s,mb3.6,baz=104,slow=6.3,SNR=3.9						
KURK	Kurchatov	71.06	329	eP	P	21 08 25.2	-0.4
	0.6nm,0.4s,mb3.7						

BJI ***25*** *21:02:16.5, 2°.39S×99°.74E, h35^{km}, mB6.8/48, mb6.1/66, Ms7.1/79, Ms7 7.0/62*
DJA ***25*** *21:02:17, 2°.45S×99°.51E, h26^{km}, Mw7.0/28*
ISCJB ***25*** *21:02:17.8±0.1, 2°.24S±0°.02×99°.83E±0°.01, h31^{km}, mb6.1/290, MS6.6/226, Error ellipse: s-maj=2.7km s-min=1.9km az=23.7*
NEIC ***25*** *21:02:18.4±0.1, 2°.25S×99°.81E, h25^{km}, mb6.2/134, ME6.7, MS6.6/134, MW6.5, MW6.6, Error ellipse: s-maj=4.1km s-min=2.6km az=215.0, Moment Tensor Solution. s62 Moment tensor: Scale 10^{18}Nm; M_{rr}3.53; $M_{\theta\theta}$-2.59; $M_{\phi\phi}$-0.93; $M_{r\theta}$4.93; $M_{\theta\phi}$1.04; $M_{\phi r}$-2.72; Best double couple: $M_0$6.50000×10^{18} NP1:ϕ_s118.00000°, δ75.00000°, λ91.00000°. NP2:ϕ_s294.00000°, δ15.00000°, λ86.00000°. Principal axes: T 6.7500, Plg60.0000°, Azm30.0000°; N -0.4400, Plg1.0000°, Azm298.0000°; P -6.3100, Plg29.0000°, Azm207.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s300.00000°, δ10.00000°, λ90.00000°. NP2:ϕ_s120.00000°, δ80.00000°, λ90.00000°. Principal axes: T Plg55.0000°, Azm30.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm210.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*
NEIC Several homes damaged at Sikakap. Felt [V] on Mentawai and at Painan; [IV] at Padang; [III] at Pari; [II] at Bukittingi, Kapahiang, Padangpanjang and Payakumbuh, Sumatra. Felt [III] in Singapore.
GCMT ***25*** *21:02:18.4±0.1, 2°.46S×99°.70E, h17^{km}, MW6.7/109, Moment Tensor Solution. s109,c236; s102,c310; Duration: 5^{s}.3 Moment tensor: Scale 10^{19}Nm; M_{rr}0.38±.00; $M_{\theta\theta}$-0.22±.00; $M_{\phi\phi}$-0.15±.00; $M_{r\theta}$1.17±.01; $M_{\theta\phi}$0.22±.00; $M_{\phi r}$-0.78±.01; Best double couple: $M_0$1.45800×10^{19} NP1:ϕ_s320.00000°, δ8.00000°, λ106.00000°. NP2:ϕ_s124.00000°, δ82.00000°, λ88.00000°. Principal axes: T 1.4450, Plg53.0000°, Azm31.0000°; N 0.0250, Plg2.0000°, Azm124.0000°; P -1.4700, Plg37.0000°, Azm216.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=125s.*
SZGRF ***25*** *21:02:19.6, 2°.91S×98°.98E, h33^{km}, mb6.3, MS6.6, Southwest of Sumatera, Indonesia*
MOS ***25*** *21:02:19.1±1.0, 2°.16S×99°.94E, h42^{km}, mb6.3/97, MS6.5/84, Error ellipse: s-maj=7.4km s-min=3.5km az=123.9*
IDC ***25*** *21:02:20.3±1.0, 2°.34S×99°.85E, h41^{km}±7^{km}, mb5.3/49, mb1 5.3/50, mb1mx5.3/50, mbtmp5.3/50, ML4.6/1, MS6.6/37, Ms1 6.6/37, ms1mx6.4/50, Error ellipse: s-maj=7.5km s-min=5.5km az=38.0*
IGIL ***25*** *21:02:20.7, 2°.22S×99°.85E, h39^{km}, MS6.5*
ISC 25 21:02:19.8±0.1**, 2°.24S**±0°.02×**99°.81E**±0°.01**, h33**^{km}**, h33**^{km}±1.4^{km}**:pP-P, n1773,** σ**1^{s}.01**/1175**, mb6.1**/289**, MS6.6**/226**, 394C-258D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.55	159	P	Pb	21 02 29.2	-2.1
SISI	Saibi	1.16	322	P	Pn	21 02 39.3	-0.4
PDSI	Padang	1.48	26	P	Pn	21 02 45.4	+1.3
PPI	Padang Panjang	1.87	18	P	Pn	21 02 50.2	+0.7
PPI	Padang Panjang	1.87	18	P	Pn	21 02 50.9	+1.4
PPI	Padang Panjang	1.87	18	P	Pn	21 02 50.2	+0.7
SDSI	Sungai Dareh	2.08	51	P	Pn	21 02 54.7	+2.3
KSI	Kapahiang	3.12	117	P	Pn	21 03 06.1	-0.5
KSI	Kapahiang	3.12	117	P	Pn	21 03 06.3	-0.3
RGRI	Rengat	3.15	53	P	Pn	21 03 09.8	+2.7
MNAI	Manna	3.78	124	P	Pn	21 03 15.6	-0.2
GSI	Gunungsitoli	4.17	328	P	Pn	21 03 19.9	-1.3
GSI	Gunungsitoli	4.17	328	P	Pn	21 03 20.0	-1.2
GSI	Gunungsitoli	4.17	328	P	Pn	21 03 20.0	-1.2
MDSI	Maura Dua	4.90	117	P	Pn	21 03 31.4	+0.2
	5μm,0.7s						
PMBI	Palembang	5.01	98	P	Pn	21 03 34.1	+1.4
	6μm,1.2s,194nm						
PSI	Prapat	5.09	350	⇑eP	Pn	21 03 31.8	-2.0
PSI	Prapat	5.09	350	P	Pn	21 03 32.3	-1.5
	21nm,0.3s,baz=167,slow=9.8,SNR=62						
PSI				LR	LR	21 06 14.2	
	comp=Z,1714μm,18.2s,baz=156,slow=46						
KGM	Kluang	5.50	40	P	Pn	21 03 42.3	+2.9
MYKOM	Kota Tinggi	5.69	45	P	Pn	21 03 44.7	+2.7
MYKOM	Kota Tinggi	5.69	45	P	Pn	21 03 44.4	+2.3
	8μm,1.2s,166nm						
KASI	Kota Agung	5.70	125	P	Pn	21 03 41.8	-0.4
	6μm,0.9s,68nm						
FRIM	Kepong	5.74	18	P	Pn	21 03 44.6	+1.9
IPM	Ipoh	6.79	10	P	Pn	21 03 59.7	+2.5
IPM	Ipoh	6.79	10	P	Pn	21 03 58.8	+1.6
IPM	Ipoh	6.79	10	P	Pn	21 03 59.0	+1.8
	2μm,0.9s,48nm						
RBSI	Rajabasa	6.92	121	P	Pn	21 03 59.7	+0.8
SBJI	Serang	7.39	122	P	Pn	21 04 05.6	+0.2
SBJI	Serang	7.39	122	P	Pn	21 04 05.3	-0.1
	3μm,1.0s,44nm						
KULM	Kulim	7.53	6	P	Pn	21 04 08.2	+0.9
KULM	Kulim	7.53	6	⇑iPn	Pn	21 04 07.6	+0.2
	5μm,1.4s						
KULM				eSn	Sn	21 05 35.5	+3.9
TPI	Tanjungpandan	7.86	94	⇓eP	Pn	21 04 14.0	+2.2
TPI				eS	Sn	21 05 36.0	-3.7
TPI	Tanjungpandan	7.86	94	P	Pn	21 04 13.7	+1.9
	413nm,0.8s						
TNG	Tangerang	7.86	120	P	Pn	21 04 12.0	+0.2
DBJI	Dramaga	8.14	122	P	Pn	21 04 15.5	-0.2
CBJI	Citeko	8.16	121	P	Pn	21 04 17.8	+1.9
CBJI	Citeko	8.16	121	P	Pn	21 04 18.1	+2.2
KTGM	Kuala Trenggan	8.22	24	P	Pn	21 04 19.5	+2.6
BSI	Banda Aceh	8.91	330	P	Pn	21 04 23.8	-2.5
	800nm,1.3s						
LEM	Lembang	9.02	121	P	Pn	21 04 28.6	+0.8
LEM	Lembang	9.02	121	P	Pn	21 04 27.8	0.0
	3μm,1.3s						
SNG	Songkhla	9.39	5	P	Pn	21 04 32.0	-0.9
	2μm,1.1s						
XMIS	Christmas Isla	10.03	145	eP	Pn	21 04 33.0	-8.7
XMIS				eS	Sn	21 06 16.4	-17
XMIS	Christmas Isla	10.03	145	Pn	Pn	21 04 33.2	-8.5
	382nm,0.8s						
XMIS				Sn	Sn	21 06 21.8	-11
XMIS	Christmas Isla	10.03	145	P	Pn	21 04 33.6	-8.1
	691nm,1.1s						
COCO	West Island	10.31	196	ePn	Pn	21 04 39.8	-5.7
COCO	West Island	10.31	196	P	Pn	21 04 39.8	-5.7
	1μm,1.3s						
BJII	Banjamegara	11.09	117	⇑eP	Pn	21 04 59.2	+3.1
BJII				eS	Sn	21 07 05.3	+6.3
KSM	Kuching	11.13	71	P	Pn	21 04 59.6	+2.8
KSM	Kuching	11.13	71	⇑ePn	Pn	21 04 57.6	+0.9
	498nm,1.0s						
KSM				eSn	Sn	21 07 11.3	+11
KSM	Kuching	11.13	71	P	Pn	21 04 59.7	+3.0
	719nm,1.1s						
SMRI	Semarang	11.62	115	P	Pn	21 05 03.6	+0.1
	3μm,1.2s						
UGM	Wanagama	12.07	118	P	Pn	21 05 08.5	-1.0
UGM	Wanagama	12.07	118	P	Pn	21 05 07.6	-1.9
	2μm,1.6s						
NGJI	Ngawi	12.68	114	P	Pn	21 05 19.6	+1.7
	2μm,1.2s						
SBUM	Sibu	13.26	69	P	Pn	21 05 29.2	+3.4
SBUM	Sibu	13.26	69	P	Pn	21 05 28.8	+3.0
	3μm,2.1s						
TRT	Tretes	13.88	113	⇑eP	Pn	21 05 32.0	-2.3
PLKI	Palangkaraya	14.13	90	P	Pn	21 05 39.2	+1.5
	2μm,0.9s						
BTM	Bintulu	14.33	68	P	Pn	21 05 44.2	+3.7
KMMI	Kalianget	14.90	109	P	Pn	21 05 51.7	+3.5
BBKI	Banjar Baru	15.06	95	P	Pn	21 05 55.2	+4.8
ABJI	Asem Bagus	15.39	112	P	Pn	21 05 56.0	+1.4
	1μm,1.3s						
KBKI	Kotabaru	16.38	94	P	Pn	21 06 07.9	+0.6
	1μm,1.7s						
SRBI	Singaraja	16.40	111	P	Pn	21 06 09.5	+1.9
	2μm,1.0s						
NST	Nakhon Sawan	17.80	1	P	Pn	21 06 22.1	-3.0
UBT	Ubonrachathani	18.13	16	P	Pn	21 06 29.0	-0.1
	674nm,1.0s						
KKM	Kota Kinabalu	18.34	63	P	Pn	21 06 31.9	+0.2
KKM	Kota Kinabalu	18.34	63	⇑iP	Pn	21 06 31.8	0.0
	3μm,1.4s						
KKM				eS	Sn	21 10 10.1	+14
SDKM	Sandakan	19.05	66	P	Pn	21 06 40.5	+0.2
TSM	Tawau	19.19	70	P	Pn	21 06 41.8	-0.2
KDM	Kudat	19.28	62	P	Pn	21 06 43.1	0.0
BDT	Bhumibol Dam	19.38	358	P	Pn	21 06 42.0	-2.3
	118nm,1.0s						
MKS	Makassar	19.84	99	⇑eP	Pn	21 06 46.9	-2.9
MKS				eS	Sn	21 10 24.4	-7.7
TTSI	Tana Toraja	20.01	93	P	P	21 06 50.3	+0.4
	1μm,2.0s						
PCI	Palu	20.07	87	⇑eP	P	21 06 51.0	+0.4
	44nm,2.0s						
PCI	Palu	20.07	87	P	P	21 06 51.3	+0.7
	4μm,1.3s						
KAPI	Kappang	20.09	98	P	P	21 06 50.2	-0.6
	7μm,1.0s,SNR=23						
KAPI	Kappang	20.09	98	P	P	21 06 48.8	-2.1
	697nm,1.0s,baz=285,slow=11,SNR=18						
KAPI				S	S	21 10 25.7	-9.3
	21nm,0.8s,baz=143,slow=17,SNR=1.3						
KAPI	Kappang	20.09	98	⇑iP	P	21 06 48.5	-2.4
KAPI				eS	S	21 10 29.6	-5.5
BNSI	Bone	20.38	97	P	P	21 06 53.6	-0.3
	3μm,1.1s						
CMAR	Chiang Mai Arr	20.59	358	P	P	21 06 56.0	-0.1
CMAR						21 11 06.8	
CMAR	Chiang Mai Arr	20.59	358	P	P	21 06 56.0	-0.1
	231nm,0.9s,baz=187,slow=10,SNR=254						
CMAR				PcP	PcP	21 11 06.8	+0.4
	19nm,0.9s,baz=206,slow=0.3,SNR=4.2						
CMAR				LR	LR	21 15 21.7	
	comp=Z,290μm,20.2s,MS6.6,baz=188,slow=38						
CHTO	Chiang Mai	20.94	358	⇑iP	P	21 06 56.9	-3.0
CHTO				eS	S	21 11 02.3	+11
CHTO				pmax	pmax		
	comp=Z,295nm,1.1s						
CHTO				MLR	MLR		
	comp=Z,257μm,21.0s,MS6.6						
CHTO	Chiang Mai	20.94	358	⇑iP	P	21 06 56.9	-3.0
	comp=Z,295nm,1.1s						
CHTO				eS	S	21 11 02.3	+11
CHTO				LR	LR		
	comp=Z,257μm,21.0s,MS6.6						
CHTO	Chiang Mai	20.94	358	P	P	21 06 59.8	-0.1
	SNR=131						
CHTO				P		21 06 59.8	
	SNR=131						
CHTO	Chiang Mai	20.94	358	P	P	21 06 59.6	-0.3
	comp=Z,357nm,1.9s						
BATP	Bataraza	21.02	58	eP	P	21 07 00.9	0.0
WSI	Waingapu	21.66	111	⇓eP	P	21 07 06.5	-1.3
WSI				eS	S	21 10 59.8	-6.2
APSI	Ampana	21.87	87	P	P	21 07 11.0	+0.9
	comp=Z,5μm,1.3s,mb6.8						
PPR	Puerto Princes	22.31	57	⇑iP	P	21 07 14.5	-0.2
KDI	Kendari	22.84	95	⇑eP	P	21 07 18.8	-1.6
KDI				eS	S	21 11 27.1	-0.9
KDI	Kendari	22.84	95	P	P	21 07 20.3	-0.1
	comp=Z,1μm,2.3s,mb5.9						
QIZ	Qiongzhong	23.33	25	P	P	21 07 23.3	-2.1
QIZ				S	S	21 11 34.3	-1.4
QIZ				pmax	pmax		
	comp=Z,22μm,9.5s						
QIZ				LR	LR		
	comp=N,223μm,15.4s						
QIZ				LR	LR		
	comp=Z,296μm,16.9s,MS6.8						
QIZ	Qiongzhong	23.33	25	⇑iP	P	21 07 24.6	-0.8
	comp=Z,863nm,1.2s,mb6.1						
QIZ				eS	S	21 11 41.7	+6.0
QIZ				LR	LR		
	comp=Z,278μm,19.0s,MS6.7						
ENPP	El Nido	23.65	55	eP	P	21 07 27.8	-0.7
ZMPH	Zamboanga City	24.02	67	⇑eP	P	21 07 32.0	+0.1
KMSI	Cibinong	24.33	84	P	P	21 07 34.7	-0.1
	comp=Z,5μm,1.0s,mb6.9						
BUSP	Coron	24.72	55	eP	P	21 07 38.1	-0.2
CUYO	Cuyo Island	24.79	58	eP	P	21 07 38.5	-0.4
IPIL	Ipil	24.80	66	eP	P	21 07 38.9	-0.1
TRD	Trivandrum	25.16	295	⇑ex	x	21 07 47.0	
TRD				ex	x	21 12 19.0	
MNI	Manado	25.30	82	⇓eP	P	21 07 36.5	-7.1
MNI	Manado	25.30	82	P	P	21 07 43.9	+0.3
	comp=Z,5μm,1.2s,mb6.9						
PAGZ	Pagadian	25.57	67	eP	P	21 07 46.1	+0.1
VIS	Vishakhapatnam	25.64	321	ePKP	P	21 07 46.5	-0.1
VIS				AMb	AMB	21 08 08.7	
	comp=Z,1μm,1.3s,mb6.2						
SJMP	San Jose	25.72	55	eP	P	21 07 46.6	-0.8
LUBP	Lubang	25.75	51	eP	P	21 07 47.4	-0.2
GUIM	Jordan	26.03	60	eP	P	21 07 49.0	-1.1
CTBH	Cotabato--PC H	26.14	69	⇑eP	P	21 07 50.9	-0.3
BWNR	Bhubaneshwar	26.27	329	ePKP	P	21 07 43.3	-9.0
BWNR				eS	S	21 12 15.3	-7.6
SGSI	Sangihe	26.38	77	P	P	21 07 56.0	+2.7
GSPH	General Santos	26.43	72	⇓eP	P	21 07 55.4	+1.6
TGY	Tagaytay City	26.50	52	P	P	21 07 54.3	-0.1
	comp=Z,677nm,0.5s,mb6.4,baz=174,slow=3.6,SNR=18						
TGY	Tagaytay City	26.50	52	⇓eP	P	21 08 00.5	+6.0
RCP	Roxas	26.61	59	⇑eP	P	21 07 55.5	+0.1
TBP	Tagbilaran	26.73	63	⇓eP	P	21 07 56.7	+0.1
SCZP	Santa Cruz	26.75	47	eP	P	21 07 57.7	+1.0
KCP	Kidapawan	26.86	70	⇓eP	P	21 08 03.5	+5.8
CGP	Cagayan de Oro	27.00	67	⇓eP	P	21 07 60.0	+1.1
MBWA	Marble Bar	27.02	136	⇑iP	P	21 07 57.9	-1.2
MBWA				PcP	PcP	21 11 16.2	-3.9
MBWA				eS	S	21 12 34.2	-0.6
MBWA				LR	LR		
	comp=Z,203μm,22.0s,MS6.6						
MBWA	Marble Bar	27.02	136	P	P	21 07 59.6	+0.5
	SNR=18						
MBWA				P		21 07 59.6	
	SNR=18						
MBWA	Marble Bar	27.02	136	P	P	21 07 59.6	+0.5
	comp=Z,315nm,1.2s,mb5.7						
CAL	Calcutta	27.06	336	ePKP	P	21 08 00.6	+1.3
CAL				eS	S	21 12 36.4	+1.2
LLP	Lapu-Lapu	27.09	62	eP	P	21 07 59.2	-0.6
BUKP	Musuan	27.12	68	eP	P	21 07 59.3	-0.8
BOLP	Bolinao	27.15	46	eP	P	21 07 59.6	-0.7
AGT	Agartala	27.27	343	ex	P	21 07 59.0	-2.2
AGT				ex	x	21 10 13.0	
DMPH	Davao City--Mi	27.27	70	eP	P	21 08 01.6	+0.2
NLAI	Namlea	27.28	93	P	P	21 08 01.5	0.0
	comp=Z,446nm,1.2s,mb5.9						
DAV	Davao City (W)	27.34	70	P	P	21 08 02.6	+0.6
	comp=Z,249nm,0.7s,mb5.9,baz=62,slow=4.9,SNR=32						
DAV				S	S	21 12 40.0	+0.2
	comp=Z,58nm,0.4s,baz=75,slow=20,SNR=2.0						
DAV				LR	LR	21 20 13.2	
	comp=Z,196μm,20.0s,MS6.7,baz=33,slow=39						
DAV	Davao City (W)	27.34	70	⇑eP	P	21 08 01.5	-0.5
DAV	Davao City (W)	27.34	70	⇑iP	P	21 08 02.1	+0.2
	comp=Z,4μm,1.2s,mb6.8						
DAV				eS	S	21 12 35.3	-4.5
DAV				LR	LR		
	comp=Z,190μm,20.0s,MS6.7						
DAV	Davao City (W)	27.34	70	P	P	21 08 02.7	+0.7
	SNR=73						
DAV				P		21 08 02.7	
	SNR=73						
DAV	Davao City (W)	27.34	70	P	P	21 08 03.3	+1.3
	comp=Z,2μm,1.3s,mb6.5						
KMI	Kunming	27.35	6	⇑P	P	21 08 02.5	+0.6
KMI				pP	pP	21 08 12.8	+1.3
KMI				sP	sP	21 08 17.0	+1.4
KMI				PP		21 08 51.8	
KMI				PcP	PcP	21 11 20.5	-0.3
KMI				S	S	21 12 39.0	-0.8
KMI				sS	sS	21 12 56.0	+0.4
KMI				SS		21 13 57.8	
KMI				pmax	pmax		
	comp=Z,94nm,1.8s,mb5.0						
KMI				pmax	pmax		
	comp=Z,11μm,8.3s						
KMI				LR	LR		
	comp=N,189μm,13.5s,MS7.0						
KMI				LR	LR		
	comp=E,190μm,14.8s,MS7.0						
KMI				LR	LR		
	comp=Z,193μm,19.1s,MS6.7						
AUQP	San Andres	27.46	55	eP	P	21 08 07.8	+4.8
IMP	Imphal	27.46	348	ePKP	P	21 08 04.0	+1.0
IMP				ex	x	21 12 49.0	
PCPH	Palayan	27.50	49	⇓eP	P	21 08 01.1	-2.3
GQP	Guinayangan	27.59	54	⇓eP	P	21 08 03.0	-1.2
BCPH	Baguio City Da	27.63	47	⇓iP	P	21 08 03.7	-0.9
POLP	Polilio Island	27.65	52	eP	P	21 08 04.1	-0.7
TNTI	Ternate	27.72	84	P	P	21 08 03.8	-1.6
	comp=Z,805nm,1.6s,mb6.1						
TNE	Ternate	27.72	84	⇑eP	P	21 08 00.0	-5.5
MSLP	Maasin	27.81	63	eP	P	21 08 05.3	-1.0
MATI	Mati	27.93	71	eP	P	21 08 06.0	-1.4
BALP	Baler	27.98	50	eP	P	21 08 06.6	-1.1
OCLP	Ormoc	27.99	61	eP	P	21 08 07.0	-0.8
HKC	Hong Kong Obse	28.14	29	i P	P	21 08 10.0	+0.9
SCPH	Surigao	28.23	65	⇑eP	P	21 08 08.4	-1.6
AAI	Ambon	28.39	94	P	P	21 08 13.6	+2.2
	comp=Z,387nm,1.3s,mb5.9						
GZH	Guangzhou	28.43	27	P	P	21 08 16.5	+4.9
GZH				S	S	21 13 04.8	+8.1
GZH				LR	LR		
	comp=N,97μm,23.3s						
GZH				LR	LR		
	comp=E,223μm,17.7s						
GZH				LR	LR		
	comp=Z,349μm,18.9s,MS7.0						
ABRA	Dolores	28.55	45	eP	P	21 08 11.8	-1.0
SIPP	Brgy, Tapao	28.56	45	⇑iP	P	21 08 14.3	+1.4
HYB	Hyderabad	28.65	314	eP	P	21 08 12.0	-1.7
HYB				eS	S	21 12 58.0	-2.4
HYB				pmax	pmax		
	comp=Z,160nm,1.0s,mb5.7						
HYB	Hyderabad	28.65	314	i P	P	21 08 12.0	-1.7
	comp=Z,160nm,1.0s,mb5.7						
HYB				eS	S	21 13 00.0	-0.4
HYB				LR	LR	21 18 00.0	
	comp=Z,141nm,20.0s						
HYB	Hyderabad	28.65	314	eP	P	21 08 12.0	-1.7
	comp=Z,160nm,1.0s,mb5.7						
HYB				eS	S	21 12 58.0	-2.4
SHL	Shillong	28.69	345	⇑iP	P	21 08 15.5	+1.6
SHL				ex	x	21 13 10.0	
PVCP	Virac	28.82	56	eP	P	21 08 16.0	+0.8
CAUP	Cauayan	28.91	48	eP	P	21 08 13.8	-2.1
PIP	Pasuquin	28.94	44	⇑eP	P	21 08 15.5	-0.7
MNGI	Mangalore	29.03	302	i P	P	21 08 16.8	-0.2
MNGI				i S	S	21 13 08.1	+1.6
BOK	Bokaro	29.21	333	ePKP	P	21 08 18.6	0.0
BOK				AMb	AMB	21 08 39.8	
	comp=Z,1μm,1.5s,mb6.4						
BOK				ex	x	21 13 12.2	
GYA	Guiyang	29.29	13	⇑iP	P	21 08 18.0	-1.2
GYA				pP	pP	21 08 28.0	-0.9
GYA				sP	sP	21 08 35.5	+2.6
GYA				PP	PP	21 09 16.5	-9.3
GYA				PcP	PcP	21 11 25.3	-0.3
GYA				S	S	21 13 10.3	0.0
GYA				sS	sS	21 13 29.8	+3.6
GYA				SS	SS	21 14 43.0	-33
GYA				ScP	ScP	21 15 02.0	-3.0
GYA				pmax	pmax		
	comp=Z,980nm,0.8s,mb6.6						
GYA				pmax	pmax		
	comp=Z,63μm,9.3s						
GYA				LR	LR		
	comp=N,362μm,15.8s,MS7.1						
GYA				LR	LR		
	comp=E,126μm,15.7s,MS7.1						
GYA				LR	LR		
	comp=Z,285μm,15.9s,MS7.0						
CVP	Callao Caves	29.39	47	⇓eP	P	21 08 18.6	-1.6
PALP	Palanan	29.43	48	eP	P	21 08 26.8	+6.2
FITZ	Fitzroy Crossi	29.84	124	eP	P	21 08 22.3	-1.9
	comp=Z,294nm,0.8s,mb6.1						
FITZ				eS	S	21 13 02.5	-17
FITZ	Fitzroy Crossi	29.84	124	P	P	21 08 22.4	-1.8
	comp=Z,186nm,0.9s,mb5.8,baz=293,slow=4.3,SNR=22						
FITZ				S	S	21 13 16.8	-2.3
	comp=Z,35nm,1.1s,baz=183,slow=13,SNR=3.4						
FITZ	Fitzroy Crossi	29.84	124	⇑iP	P	21 08 22.6	-1.6
	comp=Z,162nm,1.4s,mb5.6						
FITZ				ePcP	PcP	21 11 27.3	+0.2
FITZ				eS	S	21 13 13.3	-5.8
FITZ	Fitzroy Crossi	29.84	124	P	P	21 08 23.3	-0.9
	comp=Z,672nm,1.1s,mb6.3						
LATR	Latur	30.74	313	ePKP	P	21 08 33.0	+0.8
SLGI	Shiliguri	30.80	340	ePKP	P	21 08 33.5	+0.9
NGP	Nagpur	30.88	320	⇑iP	P	21 08 24.2	-9.1
NGP				ex	x	21 08 46.9	
	comp=Z,377nm,1.5s						
NGP				i S	S	21 13 20.5	-15
ODAN	Odare	31.32	338	eP	P	21 08 37.0	-0.1
	comp=Z,429nm,0.6s,mb6.5						
TAPN	Taplejung	31.65	339	eP	P	21 08 40.2	+0.2
	comp=Z,3μm,1.2s,mb7.0						
RAMN	Ramite	31.70	337	eP	P	21 08 40.7	+0.2
	comp=Z,608nm,0.8s,mb6.5						

JBP	**Jabalpur**	**31.80**	**324**	⇑*e*PKP	**P**	**21 08 41.7**	**+0.3**
JBP				*e*S	**S**	**21 13 50.0**	**+0.4**
KAD	**Karad**	**31.88**	**309**	*e*PKP	**P**	**21 08 41.3**	**-0.9**
KAD				AMb	AMB	21 09 05.2	
	comp=Z,484nm,0.7s,mb6.4						
TWG	**Pinlang**	**32.42**	**39**	⇑*i*P	**P**	**21 08 47.1**	**+0.2**
TWG				*e*S	**S**	**21 14 00.0**	**+0.7**
JIRN	**Jiri**	**32.49**	**337**	*e*P	**P**	**21 08 47.6**	**+0.1**
	comp=Z,899nm,0.8s,mb6.7						
TPUB	**Ta-pu**	**32.50**	**37**	⇑*i*P	**P**	**21 08 47.8**	**+0.2**
	comp=Z,628nm,0.9s,mb6.4						
TPUB				*e*PcP	PcP	21 11 35.3	+1.2
TPUB				*e*S	**S**	**21 14 04.3**	**+3.7**
QZH	**Quanzhou**	**32.60**	**33**	⇑*i*P	**P**	**21 08 49.5**	**+1.1**
QZH				S	**S**	**21 14 04.0**	**+1.9**
QZH				sS	sS	21 14 16.5	-1.5
QZH				pmax	pmax		
	comp=Z,2µm,1.5s,mb6.7						
QZH				pmax	pmax		
	comp=Z,17µm,7.7s						
QZH				LR	LR		
	comp=N,259µm,15.5s,MS7.2						
QZH				LR	LR		
	comp=E,276µm,15.6s,MS7.2						
QZH				LR	LR		
	comp=Z,501µm,16.4s,MS7.3						
PKI	**Pulchoki**	**32.72**	**336**	*e*P	**P**	**21 08 49.1**	**-0.4**
	comp=Z,663nm,1.1s,mb6.5						
PKI	**Pulchoki**	**32.72**	**336**	*e*P	**P**	**21 08 49.3**	**-0.2**
PKIN	**Phulchoki**	**32.73**	**336**	*e*P	**P**	**21 08 49.3**	**-0.3**
LSA	**Lhasa**	**32.83**	**346**	P	**P**	**21 08 51.5**	**+1.2**
LSA				pP	pP	21 09 01.5	+1.5
LSA				S	**S**	**21 14 06.5**	**+1.0**
LSA				sS	sS	21 14 24.5	+3.0
LSA				LR	LR		
	comp=N,77µm,25.2s,MS6.5						
LSA				LR	LR		
	comp=E,102µm,28.7s,MS6.5						
LSA				LR	LR		
	comp=Z,124µm,26.6s,MS6.5						
LSA	**Lhasa**	**32.83**	**346**	⇑*i*P	**P**	**21 08 51.7**	**+1.4**
LSA				*e*		21 11 35.5	
LSA				*e*S	**S**	**21 14 07.1**	**+1.6**
LSA				pmax	pmax		
	comp=Z,726nm,1.1s,mb6.5						
LSA				MLR	MLR		
	comp=Z,84µm,22.0s,MS6.4						
LSA	**Lhasa**	**32.83**	**346**	⇑*i*P	**P**	**21 08 51.7**	**+1.4**
	comp=Z,726nm,1.1s,mb6.5						
LSA				*e*PcP	PcP	21 11 35.5	+0.6
LSA				*e*S	**S**	**21 14 07.0**	**+1.5**
LSA				LR	LR		
	comp=Z,84µm,22.0s,MS6.4						
GUN	**Gumba**	**32.84**	**337**	*e*P	**P**	**21 08 50.4**	**-0.1**
POO	**Poona**	**32.84**	**310**	*e*PKP	**P**	**21 08 49.8**	**-0.8**
POO				AMb	AMB	21 09 14.5	
	comp=Z,505nm,1.7s,mb6.2						
DMN	**Daman**	**32.88**	**335**	*e*P	**P**	**21 08 50.5**	**-0.4**
KKN	**Kakani**	**32.97**	**336**	*e*P	**P**	**21 08 51.8**	**+0.2**
YULB	**Yu-li**	**32.98**	**38**	⇑*i*P	**P**	**21 08 51.6**	**-0.1**
	comp=Z,281nm,0.8s,mb6.2						
YULB				*e*PP	PP	21 10 07.3	+0.5
YULB				*e*S	**S**	**21 14 08.4**	**+0.4**
SSLB	**Suanglung**	**33.06**	**37**	⇑*i*P	**P**	**21 08 52.6**	**+0.1**
	comp=Z,1µm,1.5s,mb6.7						
SSLB				*e*PP	PP	21 10 09.8	+2.1
SSLB				*e*S	**S**	**21 14 16.8**	**+7.4**
CD2	**Chengdu**	**33.18**	**6**	P	**P**	**21 08 52.3**	**-1.2**
CD2				pP	pP	21 09 02.0	-1.1
CD2				sP	sP	21 09 05.8	-1.4
CD2				PP	PP	21 10 08.5	-0.5
CD2				S	**S**	**21 14 08.8**	**-2.2**
CD2				sS	sS	21 14 25.0	-2.0
CD2				SS	SS	21 16 12.8	-22
CD2				pmax	pmax		
	comp=Z,190nm,0.9s,mb6.0						
CD2				pmax	pmax		
	comp=Z,11µm,7.7s						
CD2				LR	LR		
	comp=N,303µm,17.8s						
CD2				LR	LR		
	comp=Z,259µm,17.8s,MS7.0						
MUN	**Mundaring**	**33.37**	**154**	*e*P	**P**	**21 08 55.6**	**+0.5**
MUN				*e*S	**S**	**21 14 15.4**	**+1.4**
BHPL	**Bhopal**	**33.42**	**321**	*e*PKP	**P**	**21 08 54.6**	**-1.1**
BHPL				AMb	AMB	21 09 17.2	
	comp=Z,340nm,0.9s,mb6.3						
GKN	**Gorkha**	**33.42**	**335**	*e*P	**P**	**21 08 55.1**	**-0.5**
	comp=Z,532nm,1.1s,mb6.4						
KOLN	**Koldanda**	**33.67**	**334**	*e*P	**P**	**21 08 57.4**	**-0.4**
	comp=Z,3µm,1.5s,mb6.9						
NACB	**Ninganchiao**	**33.74**	**38**	⇑*i*P	**P**	**21 08 58.1**	**-0.2**
	comp=Z,66nm,1.2s,mb5.4						
NACB				*e*PP	PP	21 10 11.2	-4.0
NACB				*e*S	**S**	**21 14 34.9**	**+15**
KAKA	**Kakadu**	**33.94**	**110**	*e*P	**P**	**21 08 54.5**	**-5.8**
	comp=Z,137nm,0.9s,mb5.9						
KAKA	**Kakadu**	**33.94**	**110**	*e*P	**P**	**21 08 57.3**	**-3.0**
	comp=Z,467nm,0.9s,mb6.4						
KAKA				*e*PP	PP	21 10 20.3	+2.8
KAKA				*e*PcP	PcP	21 11 39.2	+0.9
YHNB	**Yeheng**	**33.97**	**37**	⇑*i*P	**P**	**21 09 00.7**	**+0.3**
	comp=Z,892nm,1.4s,mb6.5						
YHNB				*e*PP	PP	21 10 18.7	+0.9
YHNB				*e*S	**S**	**21 14 24.4**	**+1.0**
YHNB				LR	LR		
	comp=Z,164µm,21.0s,MS6.7						
DANN	**Dangsing**	**34.10**	**334**	*e*P	**P**	**21 09 01.2**	**-0.3**
TATO	**Taipei**	**34.27**	**37**	⇑*i*P	**P**	**21 09 03.4**	**+0.3**
	comp=Z,4µm,2.3s,mb6.9						
TATO				*e*PP	PP	21 10 21.9	+0.8
TATO				*e*S	**S**	**21 14 29.4**	**+1.4**
TATO				LR	LR		
	comp=Z,112µm,20.0s,MS6.6						
TATO	**Taipei**	**34.27**	**37**	P	**P**	**21 09 04.7**	**+1.7**
	SNR=7.6						
TATO				P		21 09 04.7	
	SNR=7.6						
NWAO	**Narrogin (SRO)**	**34.63**	**154**	⇓*e*P	**P**	**21 09 06.1**	**+0.1**
NWAO				*e*		21 11 42.8	
NWAO				*e*S	**S**	**21 14 29.3**	**-4.1**
NWAO				pmax	pmax		
	comp=Z,773nm,1.5s						
NWAO				MLR	MLR		
	comp=Z,146µm,21.0s						
NWAO	**Narrogin (SRO)**	**34.63**	**154**	P	**P**	**21 09 05.4**	**-0.6**
	comp=Z,58nm,0.8s,mb5.6,baz=327,slow=11,SNR=17						
NWAO				S	**S**	**21 14 32.0**	**-1.4**
	comp=Z,12nm,0.9s,baz=230,slow=16,SNR=2.4						
NWAO				LR	LR	21 22 12.9	
	comp=Z,182µm,21.1s,MS6.8,baz=329,slow=34						
NWAO	**Narrogin (SRO)**	**34.63**	**154**	⇓*e*P	**P**	**21 09 06.1**	**+0.1**
	comp=Z,773nm,1.5s,mb6.4						
NWAO				*e*PcP	PcP	21 11 42.8	+2.8
NWAO				*e*S	**S**	**21 14 29.3**	**-4.1**
NWAO				LR	LR		
	comp=Z,146µm,21.0s,MS6.7						
NWAO	**Narrogin (SRO)**	**34.63**	**154**	P	**P**	**21 09 07.0**	**+0.9**
	SNR=34						
NWAO				P		21 09 07.0	
	SNR=34						
WHN	**Wuhan**	**35.43**	**22**	⇑P	**P**	**21 09 12.8**	**-0.2**
WHN				sP	sP	21 09 28.3	+1.6
WHN				PP	PP	21 10 35.0	+1.1
WHN				S	**S**	**21 14 48.0**	**+2.2**
WHN				pmax	pmax		
	comp=Z,3µm,2.0s,mb6.9						
WHN				pmax	pmax		
	comp=Z,15µm,7.9s						
WHN				LR	LR		
	comp=N,409µm,19.4s,MS7.7						
WHN				LR	LR		
	comp=E,1018µm,16.6s,MS7.7						
WHN				LR	LR		
	comp=Z,1018µm,16.6s,MS7.7						
BAKI	**Biak**	**36.30**	**89**	P	**P**	**21 09 20.1**	**-0.6**
	comp=Z,453nm,1.4s,mb6.2						
LGTI	**Lohaghat**	**36.66**	**331**	*e*PKP	**P**	**21 09 23.9**	**+0.4**
LGTI				*e*x	x	21 15 31.5	
PTH	**Pithoragarh**	**36.75**	**331**	*e*PKP	**P**	**21 09 24.2**	**-0.1**
PTH				*e*S	**S**	**21 15 06.2**	**+0.1**
XAN	**Xi’an**	**37.10**	**13**	P	**P**	**21 09 26.0**	**-1.1**
XAN				pP	pP	21 09 36.0	-0.9
XAN				sP	sP	21 09 39.5	-1.4
XAN				PP	PP	21 10 50.0	-2.1
XAN				S	**S**	**21 15 04.5**	**-6.7**
XAN				ScS	ScS	21 19 37.8	-1.7
XAN				pmax	pmax		
	comp=Z,170nm,1.9s,mb5.5						
XAN				LR	LR		
	comp=N,191µm,14.6s,MS7.1						
XAN				LR	LR		
	comp=E,169µm,16.4s,MS7.1						
XAN				LR	LR		
	comp=Z,224µm,14.6s,MS7.1						
AJM	**Ajmer**	**37.50**	**321**	*e*PKP	**P**	**21 09 29.9**	**-0.8**
NDI	**New Delhi**	**37.62**	**326**	⇑*i*P	**P**	**21 09 31.0**	**-0.7**
NDI				*e*x	x	21 15 12.0	
WRA	**Warramunga Arr**	**38.04**	**120**	P	**P**	**21 09 33.3**	**-2.0**
WRA				S	**S**	**21 15 22.5**	**-3.4**
WRA	**Warramunga Arr**	**38.04**	**120**	P	**P**	**21 09 33.3**	**-2.1**
	comp=Z,468nm,0.8s,mb6.3,baz=297,slow=9.5,SNR=266						
WRA				S	**S**	**21 15 22.5**	**-3.4**
	comp=Z,42nm,1.1s,baz=291,slow=17,SNR=7.3						
WRA				LR	LR	21 27 19.6	
	comp=Z,91µm,21.6s,MS6.5,baz=300,slow=40						
WRAB	**Tennant Creek**	**38.04**	**120**	P	**P**	**21 09 34.0**	**-1.4**
	comp=Z,4µm,0.8s,mb7.2,SNR=96						
WRAB	**Tennant Creek**	**38.04**	**120**	⇑*i*P	**P**	**21 09 33.8**	**-1.6**
WRAB				pmax	pmax		
	comp=Z,3µm,1.8s,mb6.7						
WRAB				MLR	MLR		
	comp=Z,113µm,22.0s,MS6.6						
WRAB	**Tennant Creek**	**38.04**	**120**	⇑*i*P	**P**	**21 09 33.8**	**-1.6**
	comp=Z,3µm,1.8s,mb6.7						
WRAB				*e*S	**S**	**21 15 11.7**	**-14**
WRAB				LR	LR		
	comp=Z,113µm,22.0s,MS6.6						
WRAB	**Tennant Creek**	**38.04**	**120**	P	**P**	**21 09 35.0**	**-0.4**
	comp=Z,946nm,1.2s,mb6.4						
LZH	**Lanzhou**	**38.32**	**5**	⇑P	**P**	**21 09 37.8**	**+0.4**
LZH				pP	pP	21 09 45.0	-2.2
LZH				sP	sP	21 09 46.5	-4.7
LZH				PP	PP	21 11 10.0	+4.5
LZH				S	**S**	**21 15 33.0**	**+3.4**
LZH				sS	sS	21 15 44.0	-1.7
LZH				SS	SS	21 18 13.0	-5.9
LZH				pmax	pmax		
	comp=Z,2µm,1.4s,mb6.7						
LZH				pmax	pmax		
	comp=Z,6µm,5.0s						
LZH				LR	LR		
	comp=N,167µm,13.9s						
LZH				LR	LR		
	comp=Z,220µm,17.5s,MS7.0						
DDI	**Dehra Dun**	**38.47**	**329**	⇑*i*x	x	21 09 36.4	
DDI				*e*x	x	21 15 59.4	
NJ2	**Nanjing**	**38.60**	**26**	*e*P	**P**	**21 09 40.0**	**+0.1**
NJ2				pP	pP	21 09 50.0	+0.4
NJ2				sP	sP	21 09 53.5	-0.1
NJ2				PP	PP	21 11 12.5	+3.8
NJ2				S	**S**	**21 15 35.0**	**+1.0**
NJ2				sS	sS	21 15 51.0	+0.9
NJ2				pmax	pmax		
	comp=Z,260nm,1.1s,mb5.9						
NJ2				pmax	pmax		
	comp=Z,12µm,9.6s						
NJ2				LR	LR		
	comp=N,92µm,12.8s,MS7.0						
NJ2				LR	LR		
	comp=E,117µm,14.3s,MS7.0						
NJ2				LR	LR		
	comp=Z,380µm,14.5s,MS7.3						
BHJ	**Bhuj**	**38.79**	**312**	*e*x	x	21 09 46.4	
BHJ				AMb	AMB	21 10 09.5	
	comp=Z,644nm,1.9s,mb6.0						
BHJ				*e*S	**S**	**21 15 38.6**	**+1.4**
SSE	**Sheshan**	**38.90**	**30**	P	**P**	**21 09 43.3**	**+0.9**
SSE				PP	PP	21 11 13.5	+1.5
SSE				S	**S**	**21 15 41.0**	**+2.4**
SSE				sS	sS	21 16 00.0	+5.3
SSE				pmax	pmax		
	comp=Z,470nm,1.0s,mb6.2						
SSE				pmax	pmax		
	comp=Z,11µm,12.0s						
SSE				LR	LR		
	comp=N,88µm,19.8s,MS6.9						
SSE				LR	LR		
	comp=E,156µm,19.8s,MS6.9						
SSE				LR	LR		
	comp=Z,172µm,19.5s,MS6.9						
FORT	**Forrest**	**38.98**	**140**	*e*P	**P**	**21 09 43.0**	**-0.1**
	comp=Z,232nm,0.6s,mb6.1						
FORT	**Forrest**	**38.98**	**140**	⇑*e*P	**P**	**21 09 43.8**	**+0.7**
	comp=Z,301nm,0.8s,mb6.1						
FORT				*e*ScP	ScP	21 15 43.4	+4.1
ASAR	**Alice Springs**	**39.27**	**126**	P	**P**	**21 09 44.6**	**-1.0**
ASAR						21 11 54.8	
ASAR				S	**S**	**21 15 42.5**	**-1.9**
ASAR	**Alice Springs**	**39.27**	**126**	P	**P**	**21 09 44.5**	**-1.1**
	comp=Z,211nm,0.7s,mb6.0,baz=301,slow=7.8,SNR=107						
ASAR				PcP	PcP	21 11 54.8	+0.5
	comp=Z,49nm,0.9s,baz=309,slow=4.1,SNR=4.5						
ASAR				S	**S**	**21 15 42.5**	**-1.9**
	comp=Z,66nm,0.9s,baz=297,slow=15,SNR=14						
ASAR				P3KP		21 41 26.9	
	comp=Z,1.2nm,0.9s,baz=90,slow=0.9,SNR=4.5						
JOW	**Kunigami**	**39.87**	**42**	P	**P**	**21 09 51.2**	**+0.6**
	comp=Z,122nm,0.5s,mb5.9,baz=234,slow=8.3,SNR=23						
JOW				LR	LR	21 26 18.5	
	comp=Z,47µm,20.5s,MS6.3,baz=231,slow=36						
SDNR	**Sundarnagar**	**39.97**	**329**	*e*PKP	**P**	**21 09 51.0**	**-0.3**
SDNR				*e*S	**S**	**21 15 53.6**	**-1.0**
BHK	**Bhakra**	**40.19**	**328**	*e*PKP	**P**	**21 09 53.8**	**+0.7**
BHK				*e*x	x	21 10 32.0	
JAY	**Jayapura**	**40.86**	**91**	P	**P**	**21 09 59.2**	**+0.2**
	comp=Z,243nm,0.9s,comp=Z,4µm,mb5.8						
DLH	**Dalhousie**	**41.31**	**329**	*e*PKP	**P**	**21 10 04.0**	**+1.6**
THN	**Thein Dam**	**41.35**	**329**	*e*PKP	**P**	**21 10 01.0**	**-1.7**
THN				*e*x	x	21 16 40.2	
GTA	**Gaotai**	**41.45**	**0**	P	**P**	**21 10 04.0**	**+0.6**
GTA				pP	pP	21 10 14.5	+1.3
GTA				sP	sP	21 10 18.5	+1.3
GTA				PP	PP	21 11 43.0	+3.4
GTA				S	**S**	**21 16 14.5**	**-2.0**
GTA				sS	sS	21 16 30.3	-2.3
GTA				SS	SS	21 19 13.5	-8.2
GTA				pmax	pmax		
	comp=Z,370nm,2.3s,mb5.6						
GTA				pmax	pmax		
	comp=Z,13µm,5.7s						
GTA				LR	LR		
	comp=N,127µm,15.0s,MS7.1						
GTA				LR	LR		
	comp=E,146µm,15.6s,MS7.1						
GTA				LR	LR		
	comp=Z,143µm,16.5s,MS6.9						
TIA	**Tai’an**	**41.53**	**21**	⇑P	**P**	**21 10 03.5**	**-0.6**
TIA				PP	PP	21 11 45.5	+5.0
TIA				S	**S**	**21 16 26.0**	**+8.3**
TIA				sS	sS	21 16 40.0	+6.1
TIA				pmax	pmax		
	comp=Z,280nm,1.1s,mb5.8						
TIA				pmax	pmax		
	comp=Z,5µm,7.0s						
TIA				LR	LR		
	comp=N,199µm,15.0s						
BTO	**Baotou**	**43.65**	**11**	*e*P	**P**	**21 10 21.3**	**0.0**
BTO				pmax	pmax		
	comp=Z,110nm,2.0s,mb5.2						
BTO				LR	LR		
	comp=N,113µm,15.2s,MS6.9						
BTO				LR	LR		
	comp=E,54µm,15.7s,MS6.9						
HHC	**Hu-ho-hao-te**	**44.21**	**13**	⇑*i*P	**P**	**21 10 26.5**	**+0.7**
HHC				pP	pP	21 10 36.5	+0.9
HHC				sP	sP	21 10 40.5	+0.9
HHC				PP	PP	21 12 10.8	+1.5
HHC				PcS	PcS	21 16 02.0	-1.2
HHC				*e*S	**S**	**21 16 58.3**	**+1.3**
HHC				sS	sS	21 17 15.0	+1.7
HHC				SS	SS	21 20 08.5	-7.4
HHC				ScS	ScS	21 20 20.0	-1.8
HHC				pmax	pmax		
	comp=Z,280nm,1.1s,mb5.9						
HHC				pmax	pmax		
	comp=Z,12µm,6.8s						
HHC				LR	LR		
	comp=N,242µm,15.5s,MS7.3						
HHC				LR	LR		
	comp=E,93µm,13.0s,MS7.3						
HHC				LR	LR		
	comp=Z,202µm,16.5s,MS7.1						
MSEY	**Mahe Island**	**44.31**	**266**	PFAKE		21 10 40.0	+13
MSEY				LR	LR		
	comp=Z,30µm,22.0s,MS6.2						
COEN	**Coen**	**44.39**	**108**	⇑*i*P	**P**	**21 10 24.0**	**-3.7**
	comp=Z,1µm,1.3s,mb6.4						
COEN				*e*PcP	PcP	21 12 08.7	-2.6
COEN				*e*S	**S**	**21 16 57.2**	**-3.2**
COEN	**Coen**	**44.39**	**108**	P	**P**	**21 10 25.5**	**-2.2**
	comp=Z,348nm,1.2s,mb6.0						
BJT	**Baijiatuau**	**44.65**	**18**	⇑*i*P	**P**	**21 10 29.7**	**+0.4**
BJT						21 12 20.8	
BJT				*e*S	**S**	**21 17 13.9**	**+10**
BJT				pmax	pmax		
	comp=Z,339nm,0.7s						
BJT				MLR	MLR		
	comp=Z,104µm,19.0s						
BJT	**Baijiatuau**	**44.65**	**18**	⇑*i*P	**P**	**21 10 29.7**	**+0.4**
	comp=Z,339nm,0.7s,mb6.3						
BJT				PcP	PcP	21 12 20.8	+9.2
BJT				*e*ScP	ScP	21 16 01.1	-0.5
BJT				*e*S	**S**	**21 17 13.9**	**+10**
BJT				LR	LR		
	comp=Z,104µm,19.0s,MS6.8						
BJI	**Beijing**	**44.67**	**18**	P	**P**	**21 10 30.0**	**+0.5**
BJI				pP	pP	21 10 40.0	+0.6
BJI				sP	sP	21 10 44.0	+0.6
BJI				S	**S**	**21 17 07.0**	**+3.3**
BJI				sS	sS	21 17 22.5	+2.5
BJI				pmax	pmax		
	comp=Z,470nm,1.8s,mb6.0						
BJI				pmax	pmax		
	comp=Z,17µm,6.2s						
BJI				LR	LR		
	comp=N,228µm,16.5s,MS7.2						
BJI				LR	LR		
	comp=E,94µm,17.5s,MS7.2						
BJI				LR	LR		
	comp=Z,176µm,17.3s,MS7.0						
DL2	**Dalian**	**45.62**	**24**	P	**P**	**21 10 36.5**	**-0.5**
DL2				S	**S**	**21 17 16.5**	**-0.9**
DL2				pmax	pmax		
	comp=Z,400nm,1.4s,mb6.2						
DL2				pmax	pmax		
	comp=Z,8µm,7.2s						
DL2				LR	LR		
	comp=N,62µm,16.0s						
DL2				LR	LR		
	comp=Z,56µm,15.3s,MS6.6						
KBL	**Kabul**	**46.62**	**324**	⇑*i*P	**P**	**21 10 44.0**	**-0.9**
	comp=Z,5.2nm,0.5s,mb4.7						
INCN	**Inchon**	**46.70**	**30**	⇑*i*P	**P**	**21 10 44.8**	**-0.8**
	comp=Z,3µm,2.4s,mb6.7						
INCN				*e*PcP	PcP	21 12 17.4	-1.4
INCN				*e*ScP	ScP	21 16 08.6	-1.6
INCN				*e*S	**S**	**21 17 30.7**	**-2.3**
INCN				LR	LR		
	comp=Z,86µm,19.0s,MS6.7						
INCN	**Inchon**	**46.70**	**30**	P	**P**	**21 10 44.9**	**-0.6**
	SNR=14						
INCN				P		21 10 44.9	
	SNR=14						
RER	**Riviere de l’E**	**46.83**	**243**	*e*P	**P**	**21 10 49.0**	**+2.1**
	comp=Z,66nm,0.8s,mb5.6						
RER				*e*S	**S**	**21 17 36.9**	**+1.5**
RER				LR	LR		
	comp=Z,24µm,22.0s,MS6.1						
WBK	**Wadi Bani Khal**	**46.86**	**304**	P	**P**	**21 10 49.3**	**+2.2**
	SNR=24						
KSH	**Kashi**	**46.97**	**335**	⇑*i*P	**P**	**21 10 46.5**	**-1.1**
KSH				pP	pP	21 10 53.5	-4.1
KSH				sP	sP	21 10 57.0	-4.5
KSH				*e*PcP	PcP	21 12 20.0	+0.3
KSH				*e*PP	PP	21 12 36.0	-2.5
KSH				*e*ScP	ScP	21 16 11.0	-0.2
KSH				*e*PcS	PcS	21 16 14.0	-0.7
KSH				S	**S**	**21 17 33.0**	**-3.8**
KSH				*e*ScS	ScS	21 20 37.3	-2.4
KSH				*e*SS	SS	21 20 51.3	-13
KSH				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
KSH				pmax	pmax		
	comp=Z,6µm,3.4s						
KSH				LR	LR		
	comp=N,66µm,19.3s,MS6.8						
KSH				LR	LR		
	comp=E,87µm,19.0s,MS6.8						
KSH				LR	LR		
	comp=Z,108µm,19.8s,MS6.8						
WMQ	**Urumqi**	**47.13**	**348**	⇑*i*P	**P**	**21 10 50.0**	**+1.2**
WMQ				pP	pP	21 11 00.0	+1.3
WMQ				sP	sP	21 11 04.0	+1.3
WMQ				PcP	PcP	21 12 21.0	+0.8
WMQ				PP	PP	21 12 42.0	+2.1
WMQ				S	**S**	**21 17 41.0**	**+2.1**
WMQ				sS	sS	21 17 59.0	+3.7
WMQ				ScS	ScS	21 20 39.0	-1.5
WMQ				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.8						
WMQ				pmax	pmax		
	comp=Z,5µm,5.4s						
WMQ				LR	LR		
	comp=N,90µm,19.0s,MS7.0						
WMQ				LR	LR		
	comp=E,134µm,15.4s,MS7.0						
WMQ				LR	LR		
	comp=Z,107µm,27.4s						
KSRS	**Korea Array**	**47.33**	**31**	P	**P**	**21 10 50.4**	**-0.1**
	comp=Z,185nm,0.8s,mb6.1,baz=223,slow=7.5,SNR=172						
KSRS				S	**S**	**21 17 44.4**	**+2.4**
	comp=Z,0.8nm,0.7s,baz=234,slow=14,SNR=2.4						
KSRS				LR	LR	21 30 47.9	
	comp=Z,67µm,20.9s,MS6.6,baz=228,slow=36						
GUMO	**Guam**	**47.37**	**69**	*e*P	**P**	**21 10 49.4**	**-1.8**
GUMO				*e*		21 12 23.1	
GUMO				*e*S	**S**	**21 17 42.6**	**-0.7**
GUMO				pmax	pmax		
	comp=Z,271nm,0.9s,mb6.2						
GUMO				MLR	MLR		
	comp=Z,42µm,22.0s,MS6.4						
GUMO	**Guam**	**47.37**	**69**	P	**P**	**21 10 49.5**	**-1.7**
	comp=Z,132nm,0.6s,mb6.0,baz=182,slow=13,SNR=7.2						
GUMO	**Guam**	**47.37**	**69**	*e*P	**P**	**21 10 49.4**	**-1.7**
	comp=Z,271nm,0.9s,mb6.2						
GUMO				*e*PcP	PcP	21 12 23.1	+1.4
GUMO				*e*S	**S**	**21 17 42.6**	**-0.7**
GUMO				LR	LR		
	comp=Z,42µm,22.0s,MS6.4						
GUMO	**Guam**	**47.37**	**69**	P	**P**	**21 10 51.9**	**+0.7**
	comp=Z,439nm,1.3s,mb6.2						
JMDO	**Jabal Madar**	**47.48**	**303**	⇓P	**P**	**21 10 53.6**	**+1.7**
	SNR=17						
SMDO	**Samad**	**47.82**	**304**	P	**P**	**21 10 56.6**	**+2.1**
	SNR=42						
BIDO	**Bidbid**	**47.96**	**305**	P	**P**	**21 10 57.8**	**+2.2**
	SNR=21						
BSY	**Bisya**	**48.39**	**303**	P	**P**	**21 11 00.1**	**+1.1**
	SNR=66						
HOQ	**Hoqain**	**48.66**	**304**	P	**P**	**21 11 02.6**	**+1.5**
	SNR=50						
CTA	**Charters Tower**	**48.67**	**115**	⇑*i*P	**P**	**21 10 59.8**	**-1.4**
	comp=Z,249nm,0.8s,mb6.3						
CTA				*e*S	**S**	**21 17 57.4**	**-4.2**
CTA	**Charters Tower**	**48.67**	**115**	P	**P**	**21 11 00.1**	**-1.1**
	comp=Z,317nm,0.8s,mb6.4,baz=288,slow=9.2,SNR=143						
CTA				S	**S**	**21 17 57.1**	**-4.4**
	comp=Z,2.1nm,0.6s,baz=217,slow=20,SNR=2.3						
CTAO	**Charters Tower**	**48.67**	**115**	⇑*i*P	**P**	**21 10 59.9**	**-1.3**
CTAO				*e*		21 12 26.6	
CTAO				*e*		21 12 57.5	
CTAO				*e*S	**S**	**21 17 56.6**	**-5.0**
CTAO				pmax	pmax		
	comp=Z,469nm,1.0s,mb6.5						
CTAO				MLR	MLR		
	comp=Z,101µm,22.0s,MS6.8						
CTAO	**Charters Tower**	**48.67**	**115**	⇑*i*P	**P**	**21 10 59.9**	**-1.2**
	comp=Z,469nm,1.0s,mb6.5						
CTAO				*e*PcP	PcP	21 12 26.6	+0.3
CTAO				*e*PP	PP	21 12 57.5	+3.0
CTAO				ScP	ScP	21 16 23.8	+4.9
CTAO				*e*S	**S**	**21 17 56.6**	**-5.0**
CTAO				LR	LR		
	comp=Z,101µm,22.0s,MS6.8						

CTAO	Charters Tower	48.67	115	P	P	21 11 00.3	-0.9
SNY	Shenyang	48.88	24	⇑P	P	21 11 01.5	-0.9
SNY				pP	pP	21 11 11.8	-0.6
SNY				PP	PP	21 12 56.0	0.0
SNY				S	S	21 18 07.3	+3.5
SNY				pmax	pmax		
	comp=Z,340nm,2.1s,mb6.0						
SNY				pmax	pmax		
	comp=Z,13µm,12.0s						
SNY				LR	LR		
	comp=N,33µm,19.6s						
SNY				LR	LR		
	comp=E,136µm,14.2s						
SNY				LR	LR		
	comp=Z,129µm,14.5s						
RBK	Rabkut	49.04	295	P	P	21 11 05.7	+1.6
	SNR=46						
STKA	Stephens Creek	49.13	131	eP	P	21 11 04.1	-0.4
	comp=Z,244nm,0.9s,mb6.2						
STKA				eS	S	21 18 04.3	-3.5
STKA	Stephens Creek	49.13	131	P	P	21 11 04.2	-0.3
	comp=Z,194nm,0.9s,mb6.1,baz=306,slow=7.6,SNR=149						
STKA				S	S	21 18 05.9	-1.9
	comp=Z,8.3nm,0.9s,baz=72,slow=20,SNR=1.9						
STKA				LR	LR	21 33 20.0	
	comp=Z,142µm,21.4s,MS6.9,baz=295,slow=38						
STKA				PKPPKP		21 41 48.9	
	comp=Z,3.1nm,0.9s,baz=121,slow=6.2,SNR=4.5						
ULHL	Ulahol	49.15	337	P	P	21 11 06.0	+1.6
	SNR=22						
ARQ	Araqi	49.21	304	P	P	21 11 07.2	+2.0
	SNR=27						
KZA	Kyzart	49.41	336	P	P	21 11 07.4	+1.0
	SNR=89						
WHFO	Wadi Hawf	49.57	296	P	P	21 11 09.7	+1.6
	SNR=33						
AAA	Alma-Ata	49.76	338	eP	P	21 11 10.6	+1.5
AAA				eS	S	21 18 20.8	+4.7
AAA				pmax	pmax		
	comp=Z,18µm,8.4s						
AAA				smax			
	comp=E,40µm,8.2s						
AAA	Alma-Ata	49.76	338	i P	P	21 11 10.8	+1.7
ABTO	Aybut	49.81	295	P	P	21 11 11.9	+1.9
	SNR=47						
UCH	Uchtor	49.84	335	P	P	21 11 10.9	+1.2
	SNR=90						
UCH	Uchtor	49.84	335	⇑iP	P	21 11 10.4	+0.8
	comp=E,79nm,1.1s,mb5.7						
UCH				eS	S	21 18 17.6	+0.4
TKM2	Tokmak 2	49.98	337	⇑iP	P	21 11 11.5	+0.8
TKM2				e		21 13 07.3	
TKM2				eS	S	21 18 19.3	+0.1
TKM2				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.7						
TKM2				MLR	MLR		
	comp=Z,46µm,21.0s,MS6.5						
TKM2	Tokmak 2	49.98	337	P	P	21 11 11.5	+0.8
	SNR=159						
TKM2	Tokmak 2	49.98	337	⇑iP	P	21 11 11.5	+0.7
	comp=Z,79nm,1.1s,mb5.7						
TKM2				ePP	PP	21 13 07.3	+1.3
TKM2				eS	S	21 18 19.3	+0.1
TKM2				LR	LR		
	comp=Z,46µm,21.0s,MS6.5						
KBK	Karagaybulak	50.01	336	P	P	21 11 12.2	+1.2
	SNR=74						
AML	Almayashu	50.10	335	P	P	21 11 12.5	+0.8
	SNR=92						
AML	Almayashu	50.10	335	⇑iP	P	21 11 13.1	+1.4
	comp=Z,4µm,1.6s,mb7.2						
AML				ePP	PP	21 13 19.3	+12
AML				eS	S	21 18 27.9	+7.0
AML				LR	LR		
	comp=Z,40µm,21.0s,MS6.4						
HATD	Hatta, Dubai	50.17	305	P	P	21 11 13.7	+1.2
	SNR=57						
CBIJ	Chichi jima	50.18	51	P	P	21 11 12.7	+0.1
	comp=Z,382nm,1.0s,mb6.4,baz=270,slow=12,SNR=4.7						
AAK	Ala-Archa	50.18	336	c iP	P	21 11 13.0	+0.7
AAK				pmax	pmax		
	comp=Z,288nm,2.5s,mb5.9						
AAK				MLR	MLR		
	comp=Z,42µm,22.0s,MS6.4						
AAK	Ala-Archa	50.18	336	P	P	21 11 13.2	+0.9
	SNR=81						
AAK	Ala-Archa	50.18	336	P	P	21 11 13.3	+1.0
	comp=Z,9.2nm,0.6s,mb5.0,baz=146,slow=5.1,SNR=73						
AAK				S	S	21 18 24.8	+2.8
	comp=Z,4.1nm,0.9s,baz=138,slow=12,SNR=2.0						
AAK				LR	LR	21 35 22.8	
	comp=Z,84µm,21.6s,MS6.7,baz=142,slow=39						
AAK				PKPPKP		21 41 58.6	
	comp=Z,0.3nm,0.3s,baz=281,slow=5.2,SNR=4.9						
AAK	Ala-Archa	50.18	336	⇑iP	P	21 11 13.1	+0.8
AAK	Ala-Archa	50.18	336	P	P	21 11 13.5	+1.3
	SNR=157						
AAK				P		21 11 13.5	
	SNR=157						
SONM	Songino Array	50.20	6	P	P	21 11 13.1	+0.8
SONM				S	S	21 18 23.4	+1.3
SONM	Songino Array	50.20	6	P	P	21 11 13.1	+0.7
	comp=Z,670nm,0.8s,mb6.7,baz=188,slow=9.8,SNR=558						
SONM				S	S	21 18 23.4	+1.2
	comp=Z,3.6nm,1.1s,baz=267,slow=9.7,SNR=2.6						
SONM				PKPPKP		21 41 57.5	
	comp=Z,0.6nm,0.8s,baz=24,slow=0.8,SNR=4.2						
ULN	Ulaanbaatar	50.30	6	⇑eP	P	21 11 12.2	-0.9
ULN	Ulaanbaatar	50.30	6	P	P	21 11 14.1	+1.0
	SNR=288						
ULN				P		21 11 14.1	
	SNR=288						
CHMS	Chumysh	50.38	336	P	P	21 11 13.7	-0.1
	SNR=45						
EKS2	Erkin-Say	50.50	335	P	P	21 11 15.8	+1.1
	SNR=7.1						
EKS2	Erkin-Say	50.50	335	eP	P	21 11 16.7	+2.0
	comp=Z,7.7nm,1.6s						
EKS2				eS	S	21 18 41.9	+15
EKS2				LR	LR		
	comp=Z,60µm,21.0s,MS6.6						
BANOM	Banah	50.52	307	P	P	21 11 16.2	+1.0
	SNR=15						
FAQ	Al Faqa, Dubai	50.58	305	P	P	21 11 15.7	+0.1
	SNR=47						
NAZ	Nazwa, Dubai	50.63	305	P	P	21 11 17.0	+1.0
	SNR=36						
USP	Ospenovka	50.70	336	P	P	21 11 16.7	+0.5
	SNR=138						
MK31	Makanchi Array	51.21	345	⇑iP	P	21 11 20.4	+0.4
MK31				eS	S	21 18 43.2	+7.1
MKAR	Makanchi Array	51.21	345	P	P	21 11 20.3	+0.3
MKAR				S	S	21 18 38.6	+2.5
MKAR	Makanchi Array	51.21	345	P	P	21 11 20.3	+0.4
	comp=Z,220nm,0.7s,mb6.2,baz=147,slow=7.4,SNR=305						
MKAR				S	S	21 18 38.5	+2.4
	comp=Z,14nm,1.1s,baz=155,slow=15,SNR=3.6						
MKAR				LR	LR	21 36 57.6	
	comp=Z,40µm,20.6s,MS6.4,baz=162,slow=40						
MKAR				PKPPKP		21 41 53.8	
	comp=Z,0.6nm,0.9s,baz=70,slow=1.4,SNR=3.8						
MKAR				P4KPbc		21 48 49.8	
	comp=Z,0.4nm,0.8s,baz=158,slow=5.9,SNR=3.0						
MKAR	Makanchi Array	51.21	345	P	P	21 11 20.3	+0.4
MKAR				S	S	21 18 38.5	+2.4
MKAR				LR	LR	21 36 57.6	
MKAR				P'P'		21 41 53.8	
CN2	Changchun	51.28	24	⇑P	P	21 11 20.0	-0.6
CN2				epP	pP	21 11 30.8	+0.2
CN2				PcP	PcP	21 12 32.5	-2.8
CN2				PP	PP	21 13 19.8	+2.0
CN2				eS	S	21 18 38.5	+1.2
CN2				SS	SS	21 22 14.0	+0.6
JHJ	Hachijo jima 2	51.58	43	P	P	21 11 24.1	+1.2
	comp=Z,230nm,0.8s,mb6.1,baz=286,slow=7.4,SNR=2.8						
KK31	Karatay Array	52.28	333	i P	P	21 11 27.3	-0.7
KK31				pmax	pmax		
	comp=Z,405nm,1.3s,mb6.2						
ZAK	Zakamensk	52.51	3	⇓eP	P	21 11 29.6	+0.1
ZAK				e		21 18 58.9	
ZAK				pmax	pmax		
	comp=Z,166nm,1.1s,mb5.9						
MAJO	Matsushiro	52.58	39	⇑iP	P	21 11 29.2	-1.2
MAJO				e		21 12 45.6	
MAJO				eS	S	21 18 45.0	-10
MAJO				pmax	pmax		
	comp=Z,641nm,1.3s,mb6.4						
MAJO				MLR	MLR		
	comp=Z,57µm,20.0s,MS6.6						
MAJO	Matsushiro	52.58	39	⇑iP	P	21 11 29.2	-1.2
	comp=Z,641nm,1.3s,mb6.4						
MAJO				ePcP	PcP	21 12 45.6	+5.3
MAJO				eS	S	21 18 45.0	-10
MAJO				LR	LR		
	comp=Z,57µm,20.0s,MS6.6						
MAT	Matsushiro	52.58	39	P	P	21 11 29.4	-1.0
MAT				S	S	21 19 02.0	+6.6
MJAR	Matsushiro Arr	52.59	39	P	P	21 11 29.4	-1.0
MJAR				S	S	21 18 59.0	+3.6
MJAR	Matsushiro Arr	52.59	39	P	P	21 11 29.4	-1.0
	comp=Z,390nm,1.2s,mb6.2,baz=227,slow=7.3,SNR=82						
MJAR				S	S	21 18 59.0	+3.6
	comp=Z,0.5nm,0.5s,baz=200,slow=6.0,SNR=2.6						
MJAR				PKP2bc		21 42 23.6	
	comp=Z,1.8nm,0.9s,baz=41,slow=1.8,SNR=4.6						
MJAR	Matsushiro Arr	52.59	39	P	P	21 11 29.4	-1.0
MJAR				S	S	21 18 59.0	+3.6
MJAR				⇑e		21 42 23.6	
MUKL	Al Mukalla	52.95	290	eP	pP	21 11 43.1	-0.4
MUKL				AMb	AMB	21 11 44.3	
	comp=Z,682nm,1.9s,mb6.3						
PAF	Port-aux-Franc	53.30	204	eP	P	21 11 36.3	+0.8
PAF				eS	S	21 19 00.6	-4.1
PAF				MLR	MLR		
	comp=Z,77µm,20.0s,MS6.8						
MDJ	Mudanjiang	53.69	26	P	P	21 11 38.8	+0.4
MDJ				pP	pP	21 11 45.0	-3.5
MDJ				PP	PP	21 13 36.5	-3.1
MDJ				ScP	ScP	21 16 42.0	+2.0
MDJ				S	S	21 19 10.5	+0.3
MDJ				SS	SS	21 22 53.0	+1.6
MDJ				pmax	pmax		
	comp=Z,230nm,1.1s,mb6.0						
MDJ				pmax	pmax		
	comp=Z,11µm,8.3s						
MDJ				LR	LR		
	comp=N,105µm,21.4s,MS7.0						
MDJ				LR	LR		
	comp=E,87µm,18.2s,MS7.0						
MDJ				LR	LR		
	comp=Z,138µm,21.9s,MS7.0						
MDJ	Mudanjiang	53.69	26	⇑iP	P	21 11 38.3	-0.1
	comp=Z,382nm,1.0s,mb6.3						
MDJ				ePP	PP	21 13 37.8	-1.8
MDJ				eS	S	21 19 18.6	+8.5
MDJ				LR	LR		
	comp=Z,148µm,21.0s,MS7.0						
MOY	Mondy	53.72	1	eP	P	21 11 38.7	+0.3
MOY				pmax	pmax		
	comp=Z,850nm,2.7s,mb6.2						
TLY	Talaya	53.82	3	P	P	21 11 40.0	+0.8
	comp=Z,2µm,0.8s,mb7.1,SNR=69						
TLY	Talaya	53.82	3	i P	P	21 11 36.3	-2.9
TLY				eS	S	21 19 11.8	+0.1
TLY				pmax	pmax		
	comp=Z,410nm,1.0s,mb6.3						
TLY	Talaya	53.82	3	⇑iP	P	21 11 40.1	+0.9
TLY	Talaya	53.82	3	P	P	21 11 40.5	+1.3
	SNR=184						
TLY				P		21 11 40.5	
	SNR=184						
OPO	Ambohidratompo	54.00	249	P	P	21 11 42.6	+1.5
	comp=Z,14nm,0.8s,mb4.9,baz=62,slow=5.6,SNR=16						
HIA	Hailar	54.13	16	⇑iP	P	21 11 41.0	-0.5
HIA				eS	S	21 19 24.1	+8.2
HIA				pmax	pmax		
	comp=Z,355nm,1.1s						
HIA				MLR	MLR		
	comp=Z,89µm,19.0s						
HIA	Hailar	54.13	16	⇑iP	P	21 11 41.0	-0.5
	comp=Z,355nm,1.1s,mb6.2						
HIA				eS	S	21 19 24.1	+8.1
HIA				LR	LR		
	comp=Z,89µm,19.0s,MS6.8						
EIDS	Eidsvold	54.40	120	⇑iP	P	21 11 43.1	-0.8
	comp=Z,459nm,1.2s,mb6.3						
EIDS				eScP	ScP	21 16 40.0	-3.6
EIDS				eS	S	21 19 34.1	+14
IRK	Irkutsk	54.42	3	⇑iP	P	21 11 43.9	+0.4
IRK				eS	S	21 19 23.4	+3.7
IRK				pmax	pmax		
	comp=Z,789nm,2.9s,mb6.1						
TOO	Toolangi	54.67	136	⇑iP	P	21 11 46.7	+1.0
TOO				eS	S	21 19 28.0	+4.3
CIT	Chita	55.30	10	eP	P	21 11 50.8	+0.8
CIT				e		21 12 12.0	
CIT				pmax	pmax		
	comp=Z,2µm,2.3s,mb6.8						
ABKT	Ailbek	55.51	320	P	P	21 11 51.9	+0.2
	comp=Z,677nm,0.8s,mb6.7,SNR=39						
KURK	Kurchatov	55.78	344	P	P	21 11 53.5	0.0
KURK				pmax	pmax		
	comp=Z,664nm,0.9s,mb6.7						
KURK	Kurchatov	55.78	344	S	S	21 19 39.0	+0.9
	comp=Z,2.6nm,1.0s,baz=236,slow=42,SNR=2.9						
KURK				LR	LR	21 40 59.1	
	comp=Z,43µm,19.0s,MS6.6,baz=180,slow=42						
KURK				PKPPKP		21 41 58.6	
	comp=Z,3.0nm,1.1s,baz=335,slow=2.6,SNR=5.5						
KURK				P4KPbc		21 49 09.7	
	comp=Z,1.0nm,0.9s,baz=160,slow=3.6,SNR=3.7						
KURK	Kurchatov	55.78	344	⇑iP	P	21 11 53.4	-0.1
KURK	Kurchatov	55.78	344	P	P	21 11 53.8	+0.3
	SNR=289						
KURK				P		21 11 53.8	
	SNR=289						
CAN	Canberra	56.19	132	⇑iP	P	21 11 57.0	+0.3
CAN				e		21 14 00.9	
CAN				eS	S	21 19 43.1	-1.0
CAN				pmax	pmax		
	comp=Z,358nm,1.1s,mb6.3						
CAN				MLR	MLR		
	comp=Z,122µm,21.0s,MS7.0						
CAN	Canberra	56.19	132	⇑iP	P	21 11 57.0	+0.2
	comp=Z,358nm,1.1s,mb6.3						
CAN				ePP	PP	21 14 00.9	-1.3
CAN				eS	S	21 19 43.1	-1.1
CAN				LR	LR		
	comp=Z,122µm,21.0s,MS7.0						
ARMA	Armidale	56.42	125	eP	P	21 11 59.1	+0.7
ARMA				eS	S	21 19 51.0	+3.7
ARMA	Armidale	56.42	125	⇑iP	P	21 11 59.1	+0.7
ARMA				ePP	PP	21 14 06.6	+2.3
ARMA				eS	S	21 19 46.9	-0.4
CNB	Canberra Magne	56.46	132	eP	P	21 11 58.4	-0.2
RIV	Riverview	57.25	129	eP	P	21 12 04.8	+0.6
TRBA	At Turbah	57.34	287	eP	pP	21 12 15.1	-0.3
DHBB	Dhamar BB	57.35	289	eP	pP	21 12 15.3	-0.1
DHBB				AMb	AMB	21 12 16.7	
	comp=Z,3µm,2.4s,mb6.8						
ZAA0	Zalesovo Array	57.37	350	⇑iP	P	21 12 04.5	-0.1
ZALV	Zalesovo Beam	57.37	350	P	P	21 12 04.7	0.0
ZALV				S	S	21 19 58.1	-0.9
ZALV	Zalesovo Beam	57.37	350	P	P	21 12 04.7	0.0
	comp=Z,360nm,0.9s,mb6.4,baz=156,slow=7.6,SNR=226						
ZALV				S	S	21 19 58.1	-0.9
	comp=Z,4.2nm,0.9s,baz=248,slow=1.6,SNR=2.1						
ZALV				PKPPKP		21 41 42.1	
	comp=Z,0.5nm,0.4s,baz=321,slow=2.1,SNR=4.6						
ZALV				P4KPbc		21 49 15.2	
	comp=Z,1.9nm,0.8s,baz=166,slow=2.4,SNR=5.6						
ZALV	Zalesovo Beam	57.37	350	P	P	21 12 04.7	0.0
ZALV				S	S	21 19 58.1	-0.9
ZALV				P'P'		21 41 42.1	
MOO	Moorlands	58.20	140	eP	P	21 12 12.1	+1.3
MOO				eS	S	21 20 15.2	+4.9
KLR	Kul'dur	58.23	24	⇓iP	P	21 12 07.0	-3.8
KLR				eS	S	21 20 09.0	-1.4
KLR				pmax	pmax		
	comp=E,630nm,1.2s						
KLR				pmax	pmax		
	comp=Z,2µm,1.2s,mb7.0						
KLR				pmax	pmax		
	comp=N,5µm,8.0s						
KLR				pmax	pmax		
	comp=E,3µm,8.0s						
KLR				pmax	pmax		
	comp=Z,16µm,8.0s						
QRN	Al-Qurain	58.47	306	eP	P	21 12 13.1	+0.2
NVS	Novosibirsk	58.51	349	⇑iP	P	21 12 11.9	-0.8
NVS				eS	S	21 20 13.5	-0.4
NVS				pmax	pmax		
	comp=Z,2µm,2.9s,mb6.5						
NVS				pmax	pmax		
	comp=N,922nm,2.2s						
NVS				smax			
	comp=E,1µm,2.8s						
NVS				smax			
	comp=N,239nm,1.9s						
TAU	Tasmania Unive	58.52	141	eP	P	21 12 14.8	+1.8
TAU				eS	S	21 20 14.4	0.0
TAU				pmax	pmax		
	comp=Z,143nm,0.9s,mb6.0						
TAU				MLR	MLR		
	comp=Z,41µm,20.0s,MS6.5						
TAU	Tasmania Unive	58.52	141	eP	P	21 12 14.8	+1.9
	comp=Z,143nm,0.9s,mb6.0						
TAU				ePP	PP	21 14 06.7	-16
TAU				eS	S	21 20 14.4	-0.1
TAU				LR	LR		
	comp=Z,41µm,20.0s,MS6.5						
KBD	Kabd	58.82	306	eP	P	21 12 14.8	-0.5
KBD				AMb	AMB	21 12 26.9	
	comp=Z,267nm,1.9s,mb6.0						
RDF	Al-Radifah	58.84	306	eP	P	21 12 14.9	-0.5
RDF				AMb	AMB	21 12 27.9	
	comp=Z,501nm,1.5s,mb6.3						
ERM	Erimo	58.97	37	⇓iP	P	21 12 15.9	-0.2
ERM				e		21 14 24.2	
ERM				eS	S	21 20 35.7	+15
ERM				pmax	pmax		
	comp=Z,340nm,1.1s,mb6.3						
ERM				MLR	MLR		
	comp=Z,43µm,19.0s,MS6.6						
ERM	Erimo	58.97	37	⇓iP	P	21 12 15.9	-0.2
	comp=Z,340nm,1.1s,mb6.3						
ERM				ePP	PP	21 14 24.2	-2.5
ERM				eS	S	21 20 35.6	+15
ERM				LR	LR		
	comp=Z,43µm,19.0s,MS6.6						
HABR	Khabarovsk	59.07	27	c iP	P	21 12 16.6	0.0
HABR				e*SP	sP	21 12 29.2	-1.5
HABR						21 13 04.3	
HABR				e		21 14 25.3	
HABR				eS	S	21 20 21.9	+0.6
HABR				e*SS	sS	21 20 37.1	-1.0
HABR				e		21 22 01.7	
HABR				eSS	SS	21 24 13.7	-2.2
HABR				pmax	pmax		
	comp=Z,3µm,2.3s,mb6.9						
HABR				pmax	pmax		
	comp=Z,724nm,1.3s,mb6.5						
HABR				pmax	pmax		
	comp=E,353nm,1.5s						
HABR				pmax	pmax		
	comp=N,164nm,1.2s						
HABR				MLR	MLR		
	comp=N,39µm,14.0s,MS6.9						
HABR				MLR	MLR		
	comp=E,56µm,15.0s,MS6.9						
HABR				MLR	MLR		
	comp=Z,80µm,19.0s,MS6.9						
MIB	Mutribah	59.34	307	eP	P	21 12 18.6	-0.4
MIB				AMb	AMB	21 12 31.6	
	comp=Z,491nm,1.2s,mb6.4						
VOSK	Vostochnaya	59.89	340	P	P	21 12 21.0	-1.3
VOSK				pmax	pmax		
	comp=Z,425nm,1.4s,mb6.3						
ASAJ	Asahikawa	59.92	34	P	P	21 12 22.9	+0.2
	comp=Z,408nm,1.0s,mb6.4,baz=242,slow=11,SNR=97						
ASAJ				LR	LR	21 41 29.3	
	comp=Z,39µm,18.1s,MS6.6,baz=253,slow=39						
HNR	Honiara	60.19	100	P	P	21 12 23.1	-1.9
	comp=Z,360nm,1.0s,mb6.4,baz=199,slow=3.8,SNR=5.6						
BVA0	Borovoye Array	60.34	340	i P	P	21 12 24.1	-1.2
BVA0				pmax	pmax		
	comp=Z,94nm,1.5s,mb5.6						
BVAR	Borovoye Array	60.34	340	P	P	21 12 24.1	-1.2
BVAR				S	S	21 20 35.3	-2.3
BVAR	Borovoye Array	60.34	340	P	P	21 12 24.1	-1.3
	comp=Z,19nm,0.6s,mb5.3,baz=145,slow=8.9,SNR=0.8						
BVAR				S	S	21 20 35.3	-2.3
	comp=Z,3.0nm,0.9s,baz=358,slow=4.3,SNR=2.5						
BVAR				PKPPKP		21 41 43.0	
	comp=Z,1.3nm,0.9s,baz=285,slow=5.8,SNR=4.2						
BVAR				LR	LR	21 43 20.0	
	comp=Z,40µm,21.0s,MS6.5,baz=45,slow=41						
BRVK	Borovoye	60.41	340	⇑iP	P	21 12 24.9	-0.9
BOD	Bodaibo	60.95	9	eP	P	21 12 29.5	+0.1
BOD				pmax	pmax		
	comp=Z,266nm,1.2s,mb6.2						
YUK	Yuzh-Kuril'sk	61.76	36	P	P	21 12 35.0	-0.1
YUK				eS	S	21 20 57.0	+1.0
YUK				ePS		21 21 11.0	
YUK				pmax	pmax		
	comp=E,7µm,4.0s						
YUK				pmax	pmax		
	comp=N,6µm,3.0s						
YUK				pmax	pmax		
	comp=N,710nm,1.0s						
YUK				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.9						
YUK				pmax	pmax		
	comp=E,240nm,0.6s						
YUK				smax			
	comp=N,4µm,5.0s						
YUK				smax			
	comp=E,6µm,4.0s						
YUK				MLR	MLR		
	comp=N,48µm,19.0s,MS6.8						
YUK				MLR	MLR		
	comp=E,34µm,17.0s,MS6.8						
AB31	Akbulak array	61.76	332	P	P	21 12 33.9	-1.1
AB31				pmax	pmax		
	comp=Z,476nm,0.8s,mb6.7						
YSS	Yuzh-Sakhalins	61.79	32	α iP	P	21 12 35.2	-0.1
YSS				i *SP	sP	21 12 48.0	-1.4
YSS				e		21 14 52.0	
YSS				eS	S	21 20 52.0	-4.2
YSS				ePS		21 21 06.0	
YSS				ePPS		21 21 22.0	
YSS				pmax	pmax		
	comp=Z,6µm,7.0s						
YSS				pmax	pmax		
	comp=N,700nm,1.1s						
YSS				pmax	pmax		
	comp=Z,2µm,1.1s,mb7.1						
YSS				MLR	MLR		
	comp=E,18µm,15.0s,MS6.7						
YSS				MLR	MLR		
	comp=Z,36µm,15.0s,MS6.7						
YSS				MLR	MLR		
	comp=N,30µm,14.0s,MS6.7						
YSS	Yuzh-Sakhalins	61.79	32	⇑iP	P	21 12 35.4	+0.1
FURI	Furi	61.91	281	eP	P	21 12 39.9	+3.1
FURI				S	S	21 21 05.7	+6.7
NRGR	Nerungri	62.09	15	eP	P	21 12 34.1	-3.0
NRGR				S	S	21 20 55.8	-3.9
NRGR				smax			
	comp=N,82nm,0.9s						
CLNS	Chul'man	62.30	15	eP	P	21 12 37.3	-1.2
CLNS				eS	S	21 21 04.0	+1.7
CLNS				eSS	SS	21 25 09.0	+2.8
CLNS				pmax	pmax		
	comp=Z,343nm,1.0s,mb6.4						
KMBO	Kilima Mbogo	62.53	270	P	P	21 12 41.5	+0.5
KMBO				S	S	21 21 09.0	+2.1
KMBO	Kilima Mbogo	62.53	270	P	P	21 12 41.5	+0.5
	comp=Z,8.2nm,0.9s,mb4.9,baz=80,slow=6.5,SNR=19						
KMBO				S	S	21 21 09.0	+2.2
	comp=Z,0.5nm,0.5s,baz=163,slow=20,SNR=3.7						
KMBO				LR	LR	21 37 19.2	
	comp=Z,30µm,19.4s,MS6.5,baz=82,slow=34						
KMBO				PKP2ab		21 42 00.3	
	comp=Z,2.7nm,1.0s,baz=162,slow=1.9,SNR=6.3						
KMBO	Kilima Mbogo	62.53	270	P	P	21 12 41.5	+0.5
KMBO				S	S	21 21 09.0	+2.2
KMBO				LR	LR	21 37 19.1	
KMBO				P'P'ab		21 42 00.3	
BHD	Baghdad	63.01	309	i x	x	21 12 44.0	
BHD				i x	x	21 21 12.0	
AKTK	Aktyubinsk	63.48	332	P	P	21 12 45.4	-1.0
AKTK				S	S	21 21 11.8	-5.5
AKTK				P'P'		21 41 37.9	
AKTK				LR	LR	21 43 56.8	
AKTO	Aktyubinsk	63.48	332	P	P	21 12 45.4	-1.1

AKTO				S	**S**	**21 21 11.8**	**-5.5**
AKTO	**Aktyubinsk**	**63.48**	**332**	P	**P**	**21 12 45.4**	**-1.0**
	comp=Z,61nm,1.0s,mb5.7,baz=132,slow=7.1,SNR=76						
AKTO				S	**S**	**21 21 11.8**	**-5.5**
	comp=Z,3.7nm,1.0s,baz=270,slow=20,SNR=2.2						
AKTO				PKPPKP		21 41 37.9	
	comp=Z,0.8nm,0.6s,baz=259,slow=5.2,SNR=2.3						
AKTO				LR	LR	21 43 56.8	
	comp=Z,37µm,21.9s,MS6.5,baz=354,slow=39						
CASY	**Casey**	**64.36**	**175**	*e*P	pP	21 13 01.4	-0.9
CASY	**Casey**	**64.36**	**175**	P	**P**	**21 12 54.7**	**+2.7**
	comp=Z,312nm,0.9s,mb6.3						
CASY				*e*S	**S**	**21 21 30.6**	**+2.9**
CASY				LR	LR		
	comp=Z,50µm,20.0s,MS6.7						
MIR	**Mirnyy**	**64.36**	**183***d*	*i*P	**P**	**21 12 44.0**	**-8.0**
MIR				*i* S	**S**	**21 21 30.0**	**+2.2**
MIR				*i* PS		21 21 54.0	
MIR				pmax	pmax		
	comp=Z,3µm,7.0s						
MAK	**Makhachkala**	**65.03**	**320***c*	*i*P	**P**	**21 12 56.7**	**-0.1**
MAK				*i*		21 13 27.5	
MAK				*e*		21 15 25.9	
MAK				*i* S	S	21 21 34.9	-1.9
MAK				*i*		21 22 48.8	
MAK				*e*SS	SS	21 25 43.4	-6.0
MAK				pmax	pmax		
	comp=Z,369nm,1.8s,mb6.1						
MAK				pmax	pmax		
	comp=N,205nm,1.2s						
MAK				pmax	pmax		
	comp=E,791nm,2.0s						
MAK				pmax	pmax		
	comp=N,2µm,4.3s						
MAK				pmax	pmax		
	comp=E,2µm,2.5s						
MAK				pmax	pmax		
	comp=Z,7µm,7.2s						
MAK				smax			
	comp=N,10µm,7.9s						
MAK				smax			
	comp=E,7µm,9.6s						
MAK				MLR	MLR		
	comp=N,17µm,22.0s,MS6.3						
MAK				MLR	MLR		
	comp=E,15µm,22.0s,MS6.3						
MAK				MLR	MLR		
	comp=Z,20µm,20.0s,MS6.3						
MSL	**Mosul**	**65.19**	**312**	*e*x	x	21 13 04.0	
MSL				*e*x	x	21 21 42.0	
GNI	**Garni**	**65.57**	**316***c*	*i*P	**P**	**21 13 00.2**	**-0.2**
GNI				pmax	pmax		
	comp=Z,225nm,2.5s						
GNI				MLR	MLR		
	comp=Z,9µm,18.0s						
GNI	**Garni**	**65.57**	**316**	P	**P**	**21 13 00.1**	**-0.3**
	comp=Z,32nm,1.0s,mb5.3,baz=241,slow=1.1,SNR=31						
GNI				S	S	21 21 42.5	-1.0
	comp=Z,0.7nm,0.3s,baz=158,slow=19,SNR=1.9						
GNI				PKPPKP		21 41 38.2	
	comp=Z,1.3nm,0.5s,baz=139,slow=5.1,SNR=3.6						
GNI	**Garni**	**65.57**	**316**⇑	*i*P	**P**	**21 13 00.3**	**-0.1**
GNI	**Garni**	**65.57**	**316**	P	**P**	**21 13 00.7**	**+0.4**
	SNR=52						
GNI				P		21 13 00.7	
	SNR=52						
TVAN	**Van**	**65.82**	**314**	*i* P	**P**	**21 13 03.0**	**+0.9**
TVAN	**Van**	**65.82**	**314**	*i* P	**P**	**21 13 03.0**	**+1.0**
DYDN	**Diyadin**	**66.04**	**315**	*i* P	**P**	**21 13 03.5**	**+0.1**
MTA	**Mtatsminda**	**66.21**	**318**	P	**P**	**21 13 04.3**	**-0.2**
MTA				S	S	21 21 49.1	-2.3
TBLG	**Delisi**	**66.27**	**318**	P	**P**	**21 13 04.7**	**-0.1**
TBLG				S	S	21 21 50.0	-2.0
TATV	**Tatvan**	**66.63**	**314**	*i* P	**P**	**21 13 07.9**	**+0.7**
GOR	**Gori**	**66.80**	**318**	P	**P**	**21 13 08.1**	**-0.2**
SVE	**Sverdlovsk**	**66.83**	**338**⇓	*e*P	**P**	**21 13 07.9**	**-0.2**
SVE				*e*PPP		21 17 16.6	
SVE				*e*S	S	21 21 57.7	-0.6
SVE				*e*		21 22 51.7	
SVE				*e*SSS		21 29 15.8	
SVE				pmax	pmax		
	comp=Z,7µm,17.3s						
SVE				pmax	pmax		
	comp=Z,769nm,1.2s,mb6.6						
SVE				MLR	MLR		
	comp=Z,47µm,21.0s,MS6.7						
BEST	**Besiri**	**67.12**	**313**	*i* P	**P**	**21 13 11.1**	**+0.8**
MARD	**Mardin**	**67.26**	**312**	*i* P	**P**	**21 13 10.6**	**-0.7**
ARU	**Arti**	**67.35**	**337**	P	**P**	**21 13 10.7**	**-0.7**
	comp=Z,944nm,1.1s,mb6.7,SNR=38						
ARU	**Arti**	**67.35**	**337**	*i* P	**P**	**21 13 10.6**	**-0.8**
ARU				*e*PCP	PcP	21 13 40.4	+1.5
ARU				*e*PP	PP	21 15 35.7	-4.5
ARU				*e*PPP		21 17 17.7	
ARU				S	S	21 22 03.0	-1.5
ARU				pmax	pmax		
	comp=Z,431nm,2.5s,mb6.0						
NOUC	**Port Laguerre**	**67.41**	**113**	*e*P	**P**	**21 13 13.4**	**+0.9**
HOMI	**Horasan**	**67.50**	**315**	*i* P	**P**	**21 13 12.4**	**-0.3**
ONI	**Oni**	**67.50**	**318**	P	**P**	**21 13 12.7**	**+0.1**
ONI				S	S	21 22 09.7	+2.9
DZM	**Mont Dzumac**	**67.54**	**113**	*e*P	**P**	**21 13 12.9**	**-0.4**
DZM	**Mont Dzumac**	**67.54**	**113**	*e*P	**P**	**21 13 13.4**	**+0.1**
	comp=Z,487nm,1.5s,mb6.3						
DZM				*e*S	S	21 22 04.7	-3.4
	comp=Z,49µm,27.1s						
DZM				*e*SS	SS	21 26 26.7	-2.5
	comp=Z,20µm,27.6s						
DZM				*e*LR	LR	21 33 32.0	
	comp=Z,116µm,23.8s						
ERZM	**Erzurum**	**67.82**	**315**	*i* P	**P**	**21 13 15.9**	**+1.2**
YAK	**Yakutsk**	**68.02**	**15***c*	*i*P	**P**	**21 13 14.7**	**-0.8**
YAK				*e*		21 13 39.4	
YAK				*e*		21 15 45.0	
YAK				*e*PPP		21 17 23.2	
YAK				*e*S	S	21 22 13.7	+1.3
YAK				*e*		21 23 09.4	
YAK				*e*SSS		21 29 37.4	
YAK				pmax	pmax		
	comp=Z,461nm,0.8s,mb6.6						
YAK				pmax	pmax		
	comp=E,67nm,1.2s						
YAK				pmax	pmax		
	comp=N,135nm,1.2s						
YAK				pmax	pmax		
	comp=Z,789nm,2.7s,mb6.3						
YAK				pmax	pmax		
	comp=N,286nm,2.2s						
YAK				pmax	pmax		
	comp=E,630nm,3.0s						
YAK				smax			
	comp=N,3µm,5.2s						
YAK				smax			
	comp=E,268nm,2.1s						
YAK				MLR	MLR		
	comp=Z,110µm,19.0s,MS7.1						
YAK				MLR	MLR		
	comp=N,62µm,18.0s,MS6.9						
YAK				MLR	MLR		
	comp=E,32µm,17.0s,MS6.9						
YAK	**Yakutsk**	**68.02**	**15**⇑	*e*P	**P**	**21 13 14.6**	**-0.9**
KWAJ	**Kwajalein Atol**	**68.46**	**80**	*e*P	**P**	**21 13 19.1**	**-0.1**
KOPT	**Kop Dagi**	**68.48**	**315**	*i* P	**P**	**21 13 19.0**	**+0.1**
ASF	**Jabal al Asfar**	**68.57**	**306**	P	**P**	**21 13 20.0**	**+0.3**
	comp=E,32nm,1.0s,mb5.2,baz=54,slow=2.3,SNR=18						
KIV	**Kislovodsk**	**68.60**	**319**	P	**P**	**21 13 19.1**	**-0.4**
	comp=E,1µm,1.0s,mb6.8,SNR=51						
KIV	**Kislovodsk**	**68.60**	**319**	*i* P	**P**	**21 13 19.2**	**-0.3**
KIV				pmax	pmax		
	comp=Z,391nm,2.5s,mb5.9						
KIV				MLR	MLR		
	comp=Z,21µm,20.1s,MS6.4						
KIV	**Kislovodsk**	**68.60**	**319**	P	**P**	**21 13 19.5**	**-0.1**
	SNR=94						
KIV				P		21 13 19.5	
	SNR=94						
WAKE	**Wake Island**	**69.00**	**68**	*e*P	**P**	**21 13 23.1**	**+0.6**
WAKE				LR	LR		
	comp=Z,13µm,20.0s,MS6.2						
ELZG	**Elazig**	**69.01**	**313**	*i* P	**P**	**21 13 22.8**	**+0.6**
MBAR	**Mbarara**	**69.06**	**270**	P	**P**	**21 13 29.7**	**+6.7**
	comp=Z,202nm,1.1s,mb6.0,SNR=5.7						
MBAR	**Mbarara**	**69.06**	**270***d*	*i*P	**P**	**21 13 22.8**	**-0.2**
MBAR	**Mbarara**	**69.06**	**270**	*e*P	**P**	**21 13 23.8**	**+0.7**
MBAR				AMS	AMS	21 38 21.5	
	comp=Z,23µm,21.7s,MS6.4						
ATAB	**Bozova**	**69.17**	**312**	*i* P	**P**	**21 13 23.2**	**0.0**
MACK	**Trabzon**	**69.35**	**315**	*i* P	**P**	**21 13 24.1**	**-0.2**
MALT	**Malatya**	**69.36**	**312**⇑	*i*P	**P**	**21 13 24.2**	**-0.2**
MALT				*e*		21 16 01.0	
MALT				*e*S	S	21 22 27.7	-1.4
MALT				pmax	pmax		
	comp=Z,317nm,1.4s,mb6.0						
MALT				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.4						
MALT	**Malatya**	**69.36**	**312**⇓	*i*P	**P**	**21 13 26.7**	**+2.3**
MALT	**Malatya**	**69.36**	**312**⇑	*i*P	**P**	**21 13 24.2**	**-0.2**
	comp=Z,318nm,1.4s,mb6.1						
MALT				*e*PP	PP	21 16 01.0	+2.9
MALT				*e*S	S	21 22 27.7	-1.4
MALT				LR	LR		
	comp=Z,24µm,21.0s,MS6.4						
EIL	**Elat**	**69.49**	**303**	P	**P**	**21 13 25.2**	**-0.2**
	comp=Z,63nm,1.0s,mb5.5,baz=100,slow=4.6,SNR=14						
EIL				S	S	21 22 31.7	+0.6
	comp=Z,5.1nm,1.0s,baz=31,slow=20,SNR=1.9						
EIL	**Elat**	**69.49**	**303**	P	**P**	**21 13 25.2**	**-0.2**
EIL				S	S	21 22 31.7	+0.6
POGA	**Pongola**	**69.64**	**242**	*e*P	**P**	**21 13 26.7**	**+0.3**
POGA				AMS	AMS	21 37 17.1	
	comp=Z,26µm,22.7s,MS6.4						
KEMA	**Kemaliye**	**69.64**	**313**	*i* P	**P**	**21 13 26.0**	**-0.2**
GZT	**Gaziantep**	**69.67**	**311**	*i* P	**P**	**21 13 26.5**	**+0.1**
AKCD	**Akcadag**	**69.72**	**312**	*i* P	**P**	**21 13 26.5**	**-0.2**
RCY	**Rachaya**	**69.82**	**307**	*e*P	**P**	**21 13 27.0**	**-0.4**
KUZU	**Kuzuini**	**69.85**	**311**	*i* P	**P**	**21 13 27.7**	**+0.2**
HWQ	**Hawqa**	**69.96**	**308**	*e*P	**P**	**21 13 28.4**	**+0.2**
HWQ	**Hawqa**	**69.96**	**308**	*e*P	**P**	**21 13 28.4**	**+0.2**
MAW	**Mawson**	**70.00**	**194**	P	**P**	**21 13 29.4**	**+1.6**
MAW				S	S	21 22 31.4	-4.3
MAW	**Mawson**	**70.00**	**194**	*e*P	**P**	**21 13 29.9**	**+2.1**
	comp=Z,40nm,0.9s,mb5.3						
MAW	**Mawson**	**70.00**	**194**	P	**P**	**21 13 29.4**	**+1.6**
	comp=Z,30nm,1.1s,mb5.1,baz=16,slow=7.4,SNR=2.5						
MAW				S	S	21 22 31.4	-4.2
	comp=Z,37nm,1.2s,baz=260,slow=6.1,SNR=2.3						
MAW				LR	LR	21 37 24.3	
	comp=Z,52µm,21.4s,MS6.8,baz=38,slow=30						
MMAI	**Mount Meron Ar**	**70.02**	**306**	P	**P**	**21 13 29.5**	**+0.9**
	comp=Z,23nm,0.9s,mb5.1,baz=102,slow=6.3,SNR=17						
MMAI				S	S	21 22 38.3	+1.1
	comp=Z,6.0nm,1.0s,baz=270,slow=16,SNR=2.8						
BHL	**Bhannes**	**70.08**	**307**	*e*P	**P**	**21 13 29.0**	**+0.1**
BHL	**Bhannes**	**70.08**	**307**	*e*P	**P**	**21 13 29.0**	**+0.1**
DRV	**Dumont d'Urvil**	**70.14**	**164**	P	sP	21 13 41.0	-1.9
DRV				S	S	21 22 41.0	+3.7
DRV				SS	SS	21 27 15.0	+7.4
DRV				L		21 30 00.0	
SOKR	**Solikamsk**	**70.22**	**338***c*	*i*P	**P**	**21 13 29.2**	**0.0**
SOKR				S	S	21 22 37.3	-1.1
SOKR				SS	SS	21 27 05.5	-3.6
SOKR				pmax	pmax		
	comp=Z,510nm,1.1s,mb6.4						
SOKR				MLR	MLR		
	comp=Z,51µm,20.0s,MS6.8						
COBT	**Iskenderun**	**70.40**	**310**	*i* P	**P**	**21 13 30.3**	**-0.5**
GRSN	**GIRESUNGRSN**	**70.40**	**315**	*i* P	**P**	**21 13 30.1**	**-0.6**
SOC	**Sochi**	**70.41**	**318***c*	*i*P	**P**	**21 13 29.5**	**-1.2**
SOC				*i* *PP	pP	21 13 39.8	-1.3
SOC				*i* *SP	sP	21 13 44.1	-0.8
SOC				*e*		21 13 50.8	
SOC				*e*		21 16 05.2	
SOC				*i* S	S	21 22 39.1	-2.1
SOC				*e*		21 23 28.5	
SOC				*e*SS	SS	21 27 06.6	-6.0
SOC				pmax	pmax		
	comp=Z,1µm,4.3s						
SOC				pmax	pmax		
	comp=Z,173nm,1.0s,mb5.9						
SOC				MLR	MLR		
	comp=Z,11µm,21.0s,MS6.1						
SOC	**Sochi**	**70.41**	**318**	*i* P	**P**	**21 13 29.7**	**-1.0**
MSNA	**Messina**	**70.46**	**247**	*e*P	**P**	**21 13 31.1**	**-0.4**
MSNA				AMS	AMS	21 40 33.2	
	comp=Z,14µm,20.2s,MS6.2						
PINB	**Pinarbasi**	**70.98**	**312**	*i* P	**P**	**21 13 33.9**	**-0.4**
SKR	**Severo-Kuril's**	**71.18**	**34**	*e*P	**P**	**21 13 35.0**	**-0.2**
SKR				*e*		21 13 58.0	
SKR				*e*		21 16 16.0	
SKR				*e*PPP		21 17 54.0	
SKR				*e*S	S	21 22 56.0	+6.1
SKR				*e*PS		21 23 09.0	
SKR				*e*SS	SS	21 27 20.0	-4.2
SKR				pmax	pmax		
	comp=N,400nm,1.0s						
SKR				pmax	pmax		
	comp=E,270nm,1.0s						
SKR				pmax	pmax		
	comp=Z,900nm,1.0s,mb6.7						
SKR				pmax	pmax		
	comp=N,6µm,14.0s						
SKR				pmax	pmax		
	comp=E,6µm,14.0s						
SKR				pmax	pmax		
	comp=Z,16µm,14.0s						
SKR				MLR	MLR		
	comp=N,15µm,18.0s,MS6.5						
SKR				MLR	MLR		
	comp=E,21µm,18.0s,MS6.5						
SKR				MLR	MLR		
	comp=Z,32µm,18.0s,MS6.6						
TOKA	**Tokat**	**71.47**	**314**	*i* P	**P**	**21 13 36.5**	**-0.8**
LSZ	**Lusaka**	**71.68**	**255**	P	**P**	**21 13 39.0**	**0.0**
	comp=Z,8.8nm,0.8s,mb4.7,baz=81,slow=3.8,SNR=13						
LSZ				S	S	21 22 55.9	-1.1
	comp=Z,1.2nm,0.7s,baz=78,slow=9.3,SNR=1.9						
LSZ	**Lusaka**	**71.68**	**255**⇓	*e*P	**P**	**21 13 39.1**	**+0.1**
	comp=Z,790nm,2.1s,mb6.3						
LSZ				*e*S	S	21 22 56.6	-0.4
LSZ				LR	LR		
	comp=Z,23µm,21.0s,MS6.4						
LSZ	**Lusaka**	**71.68**	**255**	P	**P**	**21 13 39.2**	**+0.2**
	SNR=49						
LSZ				P		21 13 39.2	
	SNR=49						
LSZ	**Lusaka**	**71.68**	**255**	*e*P	**P**	**21 13 39.5**	**+0.5**
LSZ				AMS	AMS	21 48 23.6	
	comp=Z,188µm,17.0s,MS7.4						
KSD	**Kokstad**	**72.00**	**239**	*e*P	pP	21 13 50.5	-0.6
KSD				AMS	AMS	21 38 20.5	
	comp=Z,95µm,22.4s,MS7.0						
CSS	**Prodhromos**	**72.22**	**308**⇑	*e*P	**P**	**21 13 41.8**	**-0.1**
	comp=Z,545nm,1.4s,mb6.3						
CSS				*e*PP	PP	21 16 21.4	-1.3
CSS				LR	LR		
	comp=Z,22µm,19.0s,MS6.5						
ANN	**Anapa**	**72.39**	**319***c*	*i*P	**P**	**21 13 37.5**	**-5.1**
ANN				*e**PP	pP	21 13 47.4	-5.6
ANN				*i*		21 16 27.4	
ANN				*i* S	S	21 22 59.9	-4.2
ANN				pmax	pmax		
	comp=Z,73nm,1.0s,mb5.6						
ANN				pmax	pmax		
	comp=N,401nm,6.5s						
ANN				pmax	pmax		
	comp=Z,1µm,6.5s						
ANN				pmax	pmax		
	comp=E,89nm,3.3s						
SLR	**Silverton**	**72.40**	**244**	*e*P	**P**	**21 13 43.8**	**+0.7**
SLR				AMS	AMS	21 40 14.4	
	comp=Z,32µm,20.1s,MS6.6						
VRHR	**Novokhopersk**	**72.42**	**326***c*	*i*P	**P**	**21 13 41.6**	**-1.1**
VRHR				*e**SP	sP	21 13 53.8	-3.2
VRHR				*e*		21 13 59.2	
VRHR				*e*S	S	21 22 59.2	-5.0
VRHR				pmax	pmax		
	comp=Z,110nm,2.0s,mb5.4						
VRHR				pmax	pmax		
	comp=N,80nm,1.6s						
VRHR				smax			
	comp=N,2µm,3.1s						
VRHR				smax			
	comp=Z,20nm,0.9s						
VRHR				MLR	MLR		
	comp=N,14µm,21.0s						
VRHR				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.5						
ERPM	**east rand prop**	**72.50**	**243**	*e*P	pP	21 13 52.3	-1.8
ERPM				AMS	AMS	21 39 22.8	
	comp=Z,20µm,21.9s,MS6.3						
CDAG	**Cicekdag**	**72.77**	**313**	*i* P	**P**	**21 13 44.5**	**-0.5**
CTKT	**Corum**	**72.78**	**314**	*i* P	**P**	**21 13 44.8**	**-0.3**
BOYT	**Boyabat**	**72.95**	**315**	*i* P	**P**	**21 13 46.6**	**+0.5**
TARA	**Tarawa**	**73.19**	**88**	*e*P	**P**	**21 13 48.0**	**-0.1**
	comp=Z,249nm,1.1s,mb6.1						
TARA				*e*PP	PP	21 16 32.7	+1.3
TARA				*e*S	S	21 23 21.4	+7.0
TARA				LR	LR		
	comp=Z,14µm,22.0s,MS6.2						
PEA0B	**Petropavlovsk-**	**73.19**	**32**⇑	*e*P	**P**	**21 13 46.4**	**-0.8**
PEA0B				*e*PP	PP	21 16 31.4	+0.9
PETK	**Petropavlovsk-**	**73.19**	**32**	P	**P**	**21 13 46.8**	**-0.4**
	comp=Z,91nm,0.7s,mb5.8,baz=232,slow=0.3,SNR=51						
PETK				LR	LR	21 46 38.7	
	comp=Z,20µm,20.4s,MS6.4,baz=127,slow=36						
SEK	**Senekal**	**73.27**	**241**	*e*P	**P**	**21 13 49.1**	**+0.9**
BR131	**Keskin Array S**	**73.34**	**313**⇑	*i*P	**P**	**21 13 47.0**	**-1.4**
	comp=Z,84nm,0.9s,mb5.7						
BRTR	**Keskin Array B**	**73.34**	**313**	P	**P**	**21 13 47.1**	**-1.3**
	comp=Z,28nm,0.9s,mb5.2,baz=129,slow=6.4,SNR=53						
BRTR				PKPPKP		21 41 27.9	
	comp=Z,0.4nm,0.8s,baz=165,slow=6.0,SNR=3.2						
BRTR				LR	LR	21 51 42.1	
	comp=Z,9µm,18.6s,MS6.1,baz=288,slow=40						
KSR	**Koster**	**73.65**	**244**⇓	*i*P	pP	21 14 01.0	0.0
KSR				AMS	AMS	21 39 24.2	
	comp=Z,8µm,20.3s,MS6.0						
PET	**Petropavlovsk**	**73.66**	**33***c*	*e*P	**P**	**21 13 49.8**	**-0.2**
PET				*e*		21 16 33.8	
PET				*e*S	S	21 23 18.4	+0.1
PET				*e*PS		21 23 53.7	
PET				*e*PPS		21 24 04.5	
PET				*e*SS	SS	21 28 03.0	+0.9
PET				pmax	pmax		
	comp=Z,11µm,8.8s						
PET				pmax	pmax		
	comp=Z,500nm,0.8s,mb6.5						
PET				pmax	pmax		
	comp=Z,11µm,18.9s						
PET				pmax	pmax		
	comp=Z,8µm,20.5s						
PET				pmax	pmax		
	comp=Z,7µm,20.2s						
PET				smax			
	comp=N,6µm,19.4s						
PET	**Petropavlovsk**	**73.66**	**33**⇑	*i*P	**P**	**21 13 49.1**	**-0.9**
PET				*e*PP	PP	21 16 34.6	0.0
BALAT	**Bala**	**73.68**	**312**	*i* P	**P**	**21 13 49.5**	**-0.9**
VORD	**Divnogorie**	**73.69**	**325**	*i* P	**P**	**21 13 48.6**	**-1.6**
VORD				*e**SP	sP	21 14 01.9	-2.6
VORD				pmax	pmax		
	comp=Z,260nm,2.3s,mb5.8						
VORD				pmax	pmax		
	comp=N,90nm,2.0s						
VORD				pmax	pmax		
	comp=E,50nm,1.2s						
VORD				MLR	MLR		
	comp=Z,9µm,20.0s,MS6.0						
VORD				MLR	MLR		
	comp=N,23µm,19.0s,MS6.5						
VORD				MLR	MLR		
	comp=E,9µm,24.0s,MS6.5						
ILGA	**Ilgaz**	**73.69**	**314**	*i* P	**P**	**21 13 49.8**	**-0.6**
ELDT	**Eldivan**	**73.73**	**313**	*i* P	**P**	**21 13 49.3**	**-1.4**
VSR	**Storozhevoye**	**73.86**	**325***c*	*i*P	**P**	**21 13 49.9**	**-1.3**
VSR				*e**SP	sP	21 14 03.3	-2.2
VSR				*e*		21 16 33.5	
VSR				*e*S	S	21 23 14.6	-6.0
VSR				*e*SP		21 23 50.6	
VSR				*e*SS	SS	21 28 12.8	+7.5
VSR				pmax	pmax		
	comp=Z,250nm,1.7s,mb5.9						
VSR				pmax	pmax		
	comp=N,70nm,2.3s						
VSR				pmax	pmax		
	comp=E,160nm,2.3s						
VSR				pmax	pmax		
	comp=Z,1µm,9.6s						
VSR				pmax	pmax		
	comp=N,230nm,8.6s						
VSR				pmax	pmax		
	comp=E,690nm,9.9s						
VSR				smax			
	comp=N,3µm,5.2s						
VSR				smax			
	comp=Z,460nm,5.7s						
VSR				smax			
	comp=E,2µm,5.9s						
VSR				MLR	MLR		
	comp=Z,27µm,18.0s,MS6.6						
VSR				MLR	MLR		
	comp=N,13µm,16.0s,MS6.4						
VSR				MLR	MLR		
	comp=E,14µm,20.0s,MS6.4						
VOR	**Voronezh**	**74.06**	**326**	*e*P	**P**	**21 13 52.0**	**-0.4**
VOR				*e*S	S	21 23 18.0	-4.8
VOR				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.4						
BALT	**Daday**	**74.07**	**314**	*i* P	**P**	**21 13 52.4**	**-0.3**
KDHN	**Kadinhani**	**74.13**	**311**	*i* P	**P**	**21 13 51.3**	**-1.8**
SIM	**Simferopol'**	**74.65**	**318***c*	*e*P	**P**	**21 13 55.2**	**-0.8**
SIM				*e*S	S	21 23 26.9	-2.8
SIM				pmax	pmax		
	comp=Z,107nm,1.0s,mb5.7						
SIM				pmax	pmax		
	comp=Z,1µm,9.9s						
LBTB	**Lobatse**	**74.75**	**245**⇓	*e*P	**P**	**21 13 57.2**	**+0.2**
LBTB				pmax	pmax		
	comp=Z,401nm,1.4s,mb6.2						
LBTB	**Lobatse**	**74.75**	**245**	P	**P**	**21 13 56.7**	**-0.2**
	comp=Z,5.1nm,0.7s,mb4.6,baz=141,slow=2.2						
LBTB				S	S	21 23 28.7	-2.8
	comp=Z,3.0nm,1.0s,baz=312,slow=16,SNR=2.2						
LBTB				LR	LR	21 41 58.0	
	comp=Z,43µm,20.2s,MS6.7,baz=97,slow=32						
LBTB	**Lobatse**	**74.75**	**245**⇓	*e*P	**P**	**21 13 57.2**	**+0.2**
	comp=Z,401nm,1.4s,mb6.2						
LBTB				*e*PP	PP	21 17 04.9	+20
GRM	**Grahamstown**	**74.83**	**236**	*e*P	**P**	**21 13 57.4**	**+0.1**
GRM				AMS	AMS	21 39 42.9	
	comp=Z,29µm,21.8s,MS6.5						
ODZ	**Otahua Downs**	**74.93**	**136**	*e*P	**P**	**21 13 58.3**	**+0.7**
RPZ	**Rata Peaks**	**74.95**	**135**	P	**P**	**21 13 58.1**	**+0.3**
	comp=Z,113nm,0.9s,mb5.8,baz=226,slow=3.0,SNR=17						
RPZ				LR	LR	21 48 16.9	
	comp=Z,58µm,21.6s,MS6.8,baz=282,slow=37						
RPZ	**Rata Peaks**	**74.95**	**135**⇑	*e*P	**P**	**21 13 58.3**	**+0.5**
	comp=Z,125nm,0.6s,mb6.0						
ISP	**Isparta**	**75.17**	**310***c*	*i*P	**P**	**21 13 57.3**	**-1.8**
ISP	**Isparta**	**75.17**	**310**⇑	*i*P	**P**	**21 13 57.4**	**-1.7**
ESKT	**Eskisehir**	**75.35**	**312**	*i* P	**P**	**21 13 58.9**	**-1.2**
HVD	**Gariep Dam**	**75.36**	**239**	*e*P	pP	21 14 10.9	0.0
TKTP	**Tekketepe**	**75.37**	**310**	*i* P	**P**	**21 13 58.8**	**-1.4**
BOSA	**Boshof**	**75.37**	**241**	P	**P**	**21 14 00.1**	**-0.4**
BOSA				S	S	21 23 35.9	-2.5
BOSA	**Boshof**	**75.37**	**241**	P	**P**	**21 14 00.1**	**-0.4**
	comp=Z,7.1nm,0.6s,mb4.8,baz=95,slow=8.6,SNR=15						
BOSA				S	S	21 23 35.9	-2.5
	comp=Z,2.2nm,1.0s,baz=265,slow=12,SNR=1.7						
BOSA				LR	LR	21 43 14.7	
	comp=Z,28µm,18.7s,MS6.6,baz=88,slow=33						
AKAS	**Kas**	**75.48**	**308**	*i* P	**P**	**21 13 55.4**	**-5.5**
OUZ	**Omahuta**	**75.48**	**126**⇓	*e*P	**P**	**21 14 01.3**	**+0.3**
	comp=Z,336nm,1.5s,mb6.0						
OUZ				*e*PP	PP	21 16 51.0	+0.5
HENT	**Hendek**	**75.67**	**313**	*i* P	**P**	**21 14 01.6**	**-0.3**
BORA	**Eskisehir**	**75.74**	**312**	*i* P	**P**	**21 14 00.4**	**-1.9**
GOLH	**Golhisar**	**75.75**	**309**	*i* P	**P**	**21 14 01.6**	**-0.9**
PRGR	**Permogore**	**75.81**	**336**⇑	*i*P	**P**	**21 14 01.8**	**-0.5**
PRGR				*e*	pP	21 14 14.7	+2.0
PRGR				*e*S	S	21 23 38.7	-3.2
PRGR				*e*		21 24 11.5	
PRGR				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
SEY	**Seymchan**	**75.92**	**22***c*	*i*P	**P**	**21 14 03.0**	**+0.1**
SEY	**Seymchan**	**75.92**	**22**⇑	*i*P	**P**	**21 14 03.1**	**+0.2**
KHAL	**Karahalli**	**76.08**	**310**	*i* P	**P**	**21 14 03.6**	**-0.7**
TIXI	**Tiksi**	**76.13**	**9***c*	*i*P	**P**	**21 14 02.7**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,486nm,1.7s,mb6.2						
TIXI	**Tiksi**	**76.13**	**9**⇑	*i*P	**P**	**21 14 02.8**	**-1.1**
GDZ	**Gediz**	**76.27**	**311**	*i* P	**P**	**21 14 03.8**	**-1.6**
TURN	**Turunc**	**76.41**	**309**	*i* P	**P**	**21 14 06.7**	**+0.4**
KHZ	**Kahutara**	**76.50**	**133**⇓	*e*P	**P**	**21 14 05.9**	**-0.8**
	comp=Z,166nm,1.1s,mb5.9						

KHZ				ePP	PP	21 16 57.4	-1.5
MOS	Moscow	76.61	329	eP	P	21 14 02.0	-4.9
MOS				e		21 14 23.6	
MOS				e		21 17 05.8	
MOS				eS	S	21 23 44.1	-6.7
MOS				e		21 24 14.7	
MOS				i SS	SS	21 28 45.3	-1.4
MOS				pmax	pmax		
	comp=Z,3µm,2.9s,mb6.7						
MOS				pmax	pmax		
	comp=Z,692nm,1.9s,mb6.3						
MOS				smax			
	comp=N,7µm,6.0s						
MOS				smax			
	comp=E,4µm,5.2s						
MOS				MLR	MLR		
	comp=E,33µm,20.0s						
MOS				MLR	MLR		
	comp=Z,31µm,20.0s,MS6.6						
ULDT	Uludag	76.79	312	i P	P	21 14 07.4	-0.9
MANT	Manisa	76.82	310	i P	P	21 14 09.1	+0.6
OBN	Obninsk	76.90	328	P	P	21 14 08.6	0.0
	comp=Z,2µm,1.1s,mb6.9,SNR=18						
OBN	Obninsk	76.90	328	c iP	P	21 14 08.0	-0.6
OBN				e	pP	21 14 16.5	-2.5
OBN				i S	S	21 23 42.5	-12
OBN				i SS	SS	21 28 50.1	-1.0
OBN				pmax	pmax		
	comp=Z,898nm,2.5s,mb6.3						
OBN				MLR	MLR		
	comp=Z,26µm,19.0s,MS6.6						
DURS	Dursunbey	77.15	311	i P	P	21 14 09.2	-1.1
AYDN	Tasoluk	77.15	309	i P	P	21 14 10.2	-0.2
SNZO	South Karori	77.19	132	eP	P	21 14 08.8	-1.7
	comp=Z,312nm,1.2s,mb6.1						
SNZO				ePP	PP	21 17 09.8	+5.1
SNZO				LR	LR		
	comp=Z,81µm,22.0s,MS7.0						
BDRM	Kayabasi	77.36	309	i P	P	21 14 11.6	0.0
AKHS	Akhisar	77.48	311	i P	P	21 14 11.3	-0.9
ELBA	Catalca	77.55	313	i P	P	21 14 10.9	-1.7
SYO	Syowa Base	77.58	199	⇓eP	P	21 14 11.8	-0.3
SYO	Syowa Base	77.58	199	⇓iP	P	21 14 20.2	+8.1
PKA	Prieska	77.64	240	eP	P	21 14 13.8	+0.5
PKA				AMS	AMS	21 41 36.6	
	comp=Z,6µm,23.6s,MS5.8						
GCAM	G?zelcaml?	77.66	309	i P	P	21 14 12.6	-0.7
BALY	Balya	77.82	311	i P	P	21 14 13.5	-0.6
KLMR	Klimovskoe	77.96	334	⇑iP	P	21 14 14.4	0.0
KLMR				eS	S	21 24 03.3	-2.1
KLMR				pmax	pmax		
	comp=Z,588nm,1.4s,mb6.3						
URLA	Izmir	78.30	310	i P	P	21 14 16.2	-0.6
TLCR		78.31	317	⇑iP	P	21 14 16.5	-0.2
PSN	Preselentsi	78.36	315	P	P	21 14 16.2	-0.8
SART	Tekirdag	78.37	312	i P	P	21 14 15.5	-1.6
TIRR	Tirgusor	78.39	316	⇑iP	P	21 14 16.3	-0.9
TIRR				pmax	pmax		
	comp=Z,197nm,1.0s,mb6.0						
TIRR	Tirgusor	78.39	316	⇑iP	P	21 14 17.1	-0.1
TIRR	Tirgusor	78.39	316	⇑iP	P	21 14 16.3	-0.9
	comp=Z,198nm,1.0s,mb6.0						
TIRR				ePP	PP	21 17 07.6	-7.1
AYVA	Ayvalik	78.43	311	i P	P	21 14 17.2	-0.3
URZ	Urewera	78.65	128	LR	LR	21 49 49.1	
	comp=Z,60µm,21.2s,MS6.9,baz=286,slow=36						
URZ	Urewera	78.65	128	⇑iP	P	21 14 17.6	-1.1
	comp=Z,911nm,1.8s,mb6.4						
URZ				ePP	PP	21 17 17.4	+0.4
CHOS	Chios island	78.72	310	P	P	21 14 17.6	-1.5
PRK	Paraskevi	78.73	311	P	P	21 14 18.5	-0.6
HARR	Harsova	78.79	316	⇑iP	P	21 14 19.5	+0.2
HARR	Harsova	78.79	316	⇑P	P	21 14 19.4	+0.1
KIS	Kishinev	78.79	319	α iP	P	21 14 18.0	-1.3
KIS				i S	S	21 24 14.0	-0.8
KIS				i PS		21 24 40.0	
KIS				i SS	SS	21 29 28.0	+8.1
KIS				pmax	pmax		
	comp=Z,1µm,2.8s,mb6.3						
KIS				pmax	pmax		
	comp=Z,3µm,10.0s						
KIS				pmax	pmax		
	comp=Z,4µm,16.0s						
KIS	Kishinev	78.79	319	⇑iP	P	21 14 18.0	-1.3
	comp=Z,1µm,2.8s,mb6.3						
KIS	Kishinev	78.79	319	ePP	PP	21 17 10.0	-8.0
KIS				i S	S	21 24 14.0	-0.8
	comp=Z,8µm,20.0s						
KIS	Kishinev	78.79	319	i PS		21 24 40.0	
KIS				i SS	SS	21 29 28.0	+8.1
KIS				LRM		21 57 35.0	
	comp=Z,13µm,20.0s						
KIS	Kishinev	78.79	319	⇑iP	P	21 14 23.5	+4.2
PRD	Provadia	78.79	315	P	P	21 14 18.9	-0.5
UPI	Upington	78.86	242	eP	P	21 14 21.1	+1.0
UPI				AMS	AMS	21 46 19.8	
	comp=Z,21µm,18.8s,MS6.5						
BOZC	Bozcaada	79.02	311	i P	P	21 14 19.1	-1.7
IDI	Anoyia	79.03	306	P	P	21 14 20.4	-0.4
	comp=Z,47nm,0.8s,mb5.5,baz=74,slow=7.2,SNR=4.6						
IDI				S	S	21 24 14.0	-3.9
	comp=Z,9.1nm,1.0s,baz=174,slow=18,SNR=1.2						
FUNA	Funafuti	79.18	98	eP	P	21 14 21.8	-0.3
	comp=Z,1µm,1.2s,mb6.7						
FUNA				LR	LR		
	comp=Z,14µm,22.0s,MS6.3						
JMB	Yambol	79.21	314	P	P	21 14 21.4	-0.3
JMB	Yambol	79.21	314	P	P	21 14 22.9	+1.2
ALN	Alexandroupoli	79.25	312	P	P	21 14 20.0	-2.0
SUR	Sutherland	79.51	238	P	P	21 14 23.8	+0.2
	comp=Z,15nm,0.8s,mb5.0,baz=84,slow=9.2,SNR=17						
SUR				LR	LR	21 42 48.6	
	comp=Z,49µm,21.5s,MS6.8,baz=82,slow=30						
SUR	Sutherland	79.51	238	eP	P	21 14 24.6	+1.0
	comp=Z,555nm,1.4s,mb6.3						
SUR				ePP	PP	21 17 28.9	+4.6
SUR				eS	S	21 24 20.6	-2.5
SUR				LR	LR		
	comp=Z,48µm,21.0s,MS6.8						
SUR	Sutherland	79.51	238	eP	P	21 14 24.6	+1.0
SUR				AMS	AMS	21 43 09.8	
	comp=Z,36µm,21.4s,MS6.7						
AKASG	Malin Array Be	79.56	322	P	P	21 14 22.1	-1.3
AKASG				S	S	21 24 18.7	-4.1
AKASG	Malin Array Be	79.56	322	P	P	21 14 22.1	-1.3
	comp=Z,14nm,0.8s,mb5.0,baz=91,slow=4.9,SNR=64						
AKASG				S	S	21 24 18.7	-4.1
	comp=Z,0.2nm,0.3s,baz=98,slow=12,SNR=6.8						
AKASG				LR	LR	21 53 27.7	
	comp=Z,20µm,21.9s,MS6.4,baz=100,slow=38						
KIEV	Kiev	79.56	322	⇑iP	P	21 14 22.0	-1.4
KIEV				e		21 17 25.5	
KIEV				eS	S	21 24 21.8	-1.1
KIEV				pmax	pmax		
	comp=Z,128nm,1.1s,mb5.8						
KIEV				MLR	MLR		
	comp=Z,21µm,22.0s,MS6.4						
KIEV	Kiev	79.56	322	⇑iP	P	21 14 22.0	-1.5
	comp=Z,128nm,1.1s,mb5.8						
KIEV				ePP	PP	21 17 25.5	+1.1
KIEV				eS	S	21 24 21.8	-1.1
KIEV				LR	LR		
	comp=Z,21µm,22.0s,MS6.4						
LIA	Limnos Island	79.69	311	P	P	21 14 23.4	-1.0
SZH	Strazhica	79.85	315	P	P	21 14 24.7	-0.5
DIM	Dimitrovgrad	79.88	313	P	P	21 14 25.6	+0.3
KDZ	Kurdzhali	79.88	313	P	P	21 14 24.5	-0.8
VRI	Vrincioaia	79.90	317	⇓iP	P	21 14 25.8	+0.4
VRI	Vrincioaia	79.90	317	⇓P	P	21 14 25.8	+0.4
PLOR	Plostina	79.95	317	⇓iP	P	21 14 27.1	+1.5
PVL	Pavlikeni	80.27	314	P	P	21 14 28.0	+0.6
CVNA	Calvinia	80.34	239	eP	P	21 14 28.8	+0.7
CVNA				AMS	AMS	21 43 04.3	
	comp=Z,29µm,21.9s,MS6.6						
MLR	Muntele Rosu	80.34	317	⇑iP	P	21 14 28.0	+0.2
MLR	Muntele Rosu	80.34	317	P	P	21 14 27.8	0.0
	comp=Z,106nm,1.1s,mb5.7,baz=64,slow=3.3,SNR=66						
MLR				S	S	21 24 27.7	-3.6
	comp=Z,0.6nm,0.4s,baz=270,slow=20,SNR=2.1						
MLR				LR	LR	21 56 54.0	
	comp=Z,17µm,19.9s,MS6.4,baz=279,slow=41						
MLR	Muntele Rosu	80.34	317	⇑P	P	21 14 28.0	+0.2
RZN	Rozhen	80.40	313	P	P	21 14 27.8	-0.4
PLD	Plovdiv	80.49	313	P	P	21 14 27.2	-1.5
PLD	Plovdiv	80.49	313	P	P	21 14 27.8	-0.9
ELIM	Elim	80.55	235	eP	P	21 14 30.2	+1.1
OUR	Ouranopolis	80.68	311	P	P	21 14 29.0	-0.7
DID	Didima	80.73	308	P	P	21 14 28.0	-2.1
PAIG	Paliouri	80.83	311	P	P	21 14 27.8	-2.7
CER	Ceres	80.84	237	eP	pP	21 14 40.9	-0.4
CER				AMS	AMS	21 44 50.1	
	comp=Z,7µm,19.1s,MS6.0						
VOIR		80.95	317	⇓iP	P	21 14 30.4	-0.6
VOIR		80.95	317	⇓P	P	21 14 30.4	-0.6
PGB	Panagyurishte	80.97	314	P	P	21 14 30.4	-0.8
LTK	Loutraki	81.03	309	P	P	21 14 28.8	-2.9
PLG	Polygyros	81.09	311	P	P	21 14 30.7	-1.2
XOR	Xorichti	81.10	310	P	P	21 14 29.9	-2.1
MMB	Musomiste	81.11	313	P	P	21 14 31.3	-0.6
SRS	Serrai	81.12	312	P	P	21 14 29.9	-2.1
SOH	Sokhos	81.24	312	P	P	21 14 30.4	-2.3
BURAR	Bucovina Array	81.31	319	⇓iP	P	21 14 34.3	+1.4
BURAR	Bucovina Array	81.31	319	⇓P	P	21 14 34.3	+1.4
BUR08	Bucovina Ar. S	81.33	319	⇑iP	P	21 14 33.7	+0.7
BUR08				ePP	PP	21 17 38.1	-0.9
BUR08				eS	S	21 24 39.6	-2.0
HORT	Hortiatis	81.39	311	P	P	21 14 30.8	-2.7
MICGM	Minsk	81.42	326	⇑iP	P	21 14 31.0	-2.3
MNK	Minsk	81.44	326	c iP	P	21 14 31.0	-2.4
MNK				e		21 17 40.0	
MNK				ePPP		21 19 30.0	
MNK				eS	S	21 24 36.0	-6.4
MNK				eSS	SS	21 30 00.0	+0.7
MNK				eSSS		21 33 20.0	
MNK				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.4						
MNK				pmax	pmax		
	comp=E,720nm,2.0s						
MNK				pmax	pmax		
	comp=Z,12µm,8.0s						
MNK				smax			
	comp=N,17µm,8.0s						
MNK				MLR	MLR		
	comp=N,30µm,22.0s						
MNK				MLR	MLR		
	comp=Z,53µm,20.0s,MS6.9						
KKB	Krupnik	81.63	313	P	P	21 14 33.9	-0.8
KNT	Kendrikon	81.64	312	P	P	21 14 33.3	-1.5
VTS	Vitosha	81.67	313	P	P	21 14 34.3	-0.6
AGG	Agios Georgios	81.70	310	P	P	21 14 33.1	-2.0
KALE	Kalithea	81.74	309	P	P	21 14 33.1	-2.3
PUL	Pulkovo	81.74	331	⇓eP	P	21 14 36.3	+1.4
LIT	Litokhoron	81.76	311	P	P	21 14 32.9	-2.5
TRIZ	Trizonia	81.79	309	P	P	21 14 32.9	-2.7
PYL	PYLOS	81.81	308	P	P	21 14 34.0	-1.8
LAKA	Lakka	81.84	309	P	P	21 14 34.0	-1.9
VAY	Valandovo	81.91	312	P	P	21 14 34.1	-2.1
VAY	Valandovo	81.91	312	eP	P	21 14 35.1	-1.1
	comp=Z,996nm,2.3s,mb6.3						
VNDA	Vanda	81.96	169	⇓eP	P	21 14 36.2	+0.4
VNDA				pmax	pmax		
	comp=Z,244nm,1.4s						
VNDA	Vanda	81.96	169	P	P	21 14 36.1	+0.4
	comp=Z,12nm,0.9s,mb4.8,baz=316,slow=5.0,SNR=7.8						
VNDA				S	S	21 24 45.8	-1.3
	comp=Z,5.9nm,1.2s,baz=359,slow=18,SNR=1.7						
VNDA				PKPPKP		21 41 13.9	
	comp=Z,5.0nm,1.1s,baz=162,slow=4.8,SNR=3.7						
VNDA				LR	LR	21 50 06.3	
	comp=Z,28µm,18.4s,MS6.7,baz=314,slow=35						
VNDA	Vanda	81.96	169	⇓eP	P	21 14 36.2	+0.4
	comp=Z,244nm,1.4s,mb5.9						
GRG	Griva	81.97	312	P	P	21 14 34.3	-2.3
THL	Klokotos Trika	82.03	310	P	P	21 14 34.6	-2.3
NACGM	Naroch	82.14	326	eP	P	21 14 33.0	-4.1
RAO	Raoul Island	82.17	119	eP	P	21 14 28.8	-9.1
RAO				e		21 17 51.5	
RAO				MLR	MLR		
	comp=Z,26µm,20.0s,MS6.6						
RAO	Raoul Island	82.17	119	LR	LR	21 51 58.9	
	comp=Z,27µm,21.4s,MS6.6,baz=271,slow=36						
RAO	Raoul Island	82.17	119	eP	P	21 14 28.8	-9.1
RAO				ePP	PP	21 17 51.5	+5.1
RAO				eS	S	21 25 03.1	+12
RAO				LR	LR		
	comp=Z,26µm,20.0s,MS6.6						
JOF	Joensuu	82.35	335	ep	P	21 14 37.4	-0.6
	comp=Z,62nm,0.7s,mb5.7						
BMR	Baia Mare	82.46	319	⇓iP	P	21 14 39.8	+0.8
GZR	Gura Zlata	82.50	316	⇓iP	P	21 14 40.1	+0.9
GZR	Gura Zlata	82.50	316	⇓P	P	21 14 40.1	+0.9
LVV	L'vov	82.56	321	eP	P	21 14 44.0	+4.6
LVV				i S	S	21 25 00.0	+5.8
LVV				i PS		21 25 55.0	
FNA	Florina	82.71	311	P	P	21 14 38.6	-1.8
BARS	Barje	82.72	313	P	P	21 14 39.5	-0.9
BIA	Bitola	82.79	312	eP	P	21 14 39.9	-0.9
	comp=Z,41nm,1.2s,mb5.3						
DRGR		82.81	318	⇑iP	P	21 14 41.8	+1.0
DRGR		82.81	318	⇑P	P	21 14 41.8	+1.0
SKO	Skopje	82.86	313	eP	P	21 14 41.0	-0.2
	comp=Z,286nm,1.3s,mb6.2						
SKO	Skopje	82.86	313	P	P	21 14 42.0	+0.9
KRUS	Krusevo	82.90	312	eP	P	21 14 40.3	-1.1
	comp=Z,119nm,1.3s,mb5.8						
VLS	Valsamata	82.91	309	P	P	21 14 40.2	-1.3
LVZ	Lovozero	82.94	340	P	P	21 14 41.9	+0.9
	comp=Z,737nm,0.7s,mb6.8,SNR=6.6						
LKD	Levkas	82.94	309	P	P	21 14 40.4	-1.3
SBA	Scott Base	83.06	169	eP	P	21 14 45.8	+4.3
SBA				eS	S	21 24 58.8	+0.5
SBA				pmax	pmax		
	comp=Z,448nm,1.6s,mb6.2						
SBA				MLR	MLR		
	comp=Z,18µm,19.0s,MS6.5						
SBA	Scott Base	83.06	169	eP	P	21 14 45.8	+4.3
	comp=Z,448nm,1.6s,mb6.2						
SBA				eS	S	21 24 58.8	+0.5
SBA				LR	LR		
	comp=Z,18µm,19.0s,MS6.5						
VSU	Vasula	83.12	330	c iP	P	21 14 41.9	-0.2
VSU				pmax	pmax		
	comp=Z,364nm,2.0s,mb6.1						
VSU	Vasula	83.12	330	⇑iP	P	21 14 41.0	-1.1
OHR	Ohrid	83.19	312	eP	P	21 14 41.5	-1.4
	comp=Z,354nm,1.2s,mb6.3						
OHR	Ohrid	83.19	312	P	P	21 14 46.0	+3.1
APA	Apatity	83.25	339	⇓iP	P	21 14 42.0	-0.6
APA				i		21 17 57.0	
APA				i PPP		21 19 48.0	
APA				i S	S	21 24 59.0	-1.4
APA				i SS	SS	21 30 23.0	-2.5
APA				pmax	pmax		
	comp=Z,290nm,1.5s,mb6.1						
APA				pmax	pmax		
	comp=Z,9µm,23.0s						
APA				MLR	MLR		
	comp=Z,59µm,21.0s,MS6.9						
IGT	Igoumenitsa	83.31	310	P	P	21 14 41.5	-2.0
BZS	Buzias	83.35	316	⇓iP	P	21 14 43.8	+0.2
BZS	Buzias	83.35	316	⇓P	P	21 14 43.8	+0.2
KWP	Kalwaria Pacla	83.37	320	ePc	P	21 14 43.8	+0.2
KWP				ePcP	PcP	21 14 48.7	+0.7
KWP				epP	pP	21 14 53.0	-1.2
KWP				eS	S	21 25 02.5	+0.2
KWP				LMZ		21 57 39.5	
	comp=Z,22µm,21.9s						
KWP	Kalwaria Pacla	83.37	320	⇑iP	P	21 14 43.2	-0.4
KWP	Kalwaria Pacla	83.37	320	⇑eP	P	21 14 43.8	+0.2
KWP				ePcP	PcP	21 14 48.7	+0.8
KWP				epP	pP	21 14 53.0	-1.1
KWP				eS	S	21 25 02.5	+0.2
UZH	Uzhgorod	83.44	319	eP	P	21 14 44.0	0.0
UZH				e		21 18 03.0	
UZH				i S	S	21 25 00.0	-3.1
UZH				i PS		21 25 55.0	
UZH				eSS	SS	21 30 37.0	+7.7
BILL	Bilibino	83.45	20	c iP	P	21 14 43.0	-0.6
BILL				i	pP	21 14 50.5	-3.7
BILL				i		21 17 52.2	
BILL				i S	S	21 25 07.9	+5.4
BILL				i SS	SS	21 30 21.9	-6.6
BILL				pmax	pmax		
	comp=Z,58µm,17.7s						
KOLS	Kolonicke sedl	83.51	320	i P	P	21 14 44.7	+0.3
KOLS				i S	S	21 24 59.3	-4.5
KOLS				pmax	pmax		
	comp=Z,192nm,1.3s,mb6.1						
KOLS	Kolonicke sedl	83.51	320	i P	P	21 14 44.7	+0.3
KOLS				i S	S	21 24 59.2	-4.6
KOLS	Kolonicke sedl	83.51	320	i P	P	21 14 44.7	+0.3
	comp=Z,192nm,1.3s,mb6.1						
KOLS				i S	S	21 24 59.3	-4.5
GRUS	Gruza	83.69	314	P	P	21 14 45.3	-0.1
TIR	Tirane	83.93	312	⇑iP	P	21 14 45.6	-1.1
TIR				e		21 17 59.5	
TIR				eS	S	21 25 08.1	-0.2
TIR				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.7						
TIR				MLR	MLR		
	comp=Z,15µm,22.0s,MS6.3						
TIR	Tirane	83.93	312	⇑iP	P	21 14 45.6	-1.1
	comp=Z,1µm,2.0s,mb6.7						
TIR				ePP	PP	21 17 59.5	-1.0
TIR				eS	S	21 25 08.1	-0.2
TIR				LR	LR		
	comp=Z,15µm,22.0s,MS6.3						
SUW	Suwalki	83.97	325	ePc	P	21 14 46.3	-0.3
SUW				ePcP	PcP	21 14 49.1	-1.4
SUW				epP	pP	21 14 51.7	-5.4
SUW				eS	S	21 25 06.0	-2.2
SUW				LMZ		21 57 04.6	
	comp=Z,18µm,21.9s						
SUW	Suwalki	83.97	325	⇑eP	P	21 14 46.3	-0.3
SUW				ePcP	PcP	21 14 49.1	-1.4
SUW				epP	pP	21 14 51.7	-5.5
SUW				eS	S	21 25 06.0	-2.2
PVY	Plav	84.03	313	⇓iP	P	21 14 46.7	-0.5
PVY	Plav	84.03	313	⇓iP	P	21 14 46.8	-0.4
CRVS	Cervenica-Dubn	84.03	319	i P	P	21 14 47.9	+0.9
CRVS				i S	S	21 25 06.9	-2.2
CRVS				eSS	SS	21 30 40.6	+2.6
CRVS				pmax	pmax		
	comp=Z,424nm,2.4s,mb6.2						
CRVS	Cervenica-Dubn	84.03	319	i P	P	21 14 47.9	+0.9
	comp=Z,424nm,2.4s,mb6.2						
CRVS				i S	S	21 25 06.9	-2.2
CRVS				eSS	SS	21 30 40.6	+2.6
IVA	Berane	84.12	313	⇓iP	P	21 14 48.0	+0.4
IVA	Berane	84.12	313	⇓iP	P	21 14 48.0	+0.4
FINES	FINESS Array B	84.24	332	P	P	21 14 47.7	-0.1
	comp=Z,26nm,0.5s,mb5.6,baz=111,slow=5.1,SNR=105						
FINES				LR	LR	22 00 00.5	
	comp=Z,26µm,18.7s,MS6.7,baz=107,slow=41						
STHS	Stebnicka Huta	84.26	320	i P	P	21 14 48.8	+0.6
STHS				eS	S	21 25 10.9	-0.5
KAF	Kangasniemi	84.31	333	eP	P	21 14 47.0	-1.1
KAF				pmax	pmax		
	comp=Z,124nm,0.7s,mb6.2						
KAF	Kangasniemi	84.31	333	ep	P	21 14 47.0	-1.1
	comp=Z,124nm,0.7s,mb6.2						
ULC	Ulcinj	84.47	312	⇓iP	P	21 14 49.1	-0.3
ULC	Ulcinj	84.47	312	⇓iP	P	21 14 49.2	-0.3
TTG	Podgorica	84.53	313	⇓iP	P	21 14 49.3	-0.4
PLE	Pljevlja	84.56	314	⇓iP	P	21 14 49.7	-0.1
PLE	Pljevlja	84.56	314	⇓iP	P	21 14 49.8	-0.1
KECS	Kecovo	84.60	319	i P	P	21 14 49.8	-0.1
BBLS	Lazići	84.63	314	P	P	21 14 50.6	+0.4
MIDW	Midway	84.73	62	eP	P	21 14 50.8	-0.3
	comp=Z,191nm,1.0s,mb6.2						
MIDW				LR	LR		
	comp=Z,11µm,20.0s,MS6.2						
NKY	Niksic	84.77	313	⇓iP	P	21 14 50.3	-0.6
NKY	Niksic	84.77	313	⇓iP	P	21 14 50.4	-0.6
BUM	Brajici-Budva	84.78	313	⇓iP	P	21 14 50.5	-0.4
NIE	Niedzica	84.86	320	eP	P	21 14 51.5	+0.3
NIE				e		21 14 57.1	
NIE	Niedzica	84.86	320	eP	P	21 14 51.5	+0.3
NIE				e		21 14 57.1	
UPM	Unac-Piva	84.89	314	⇓iP	P	21 14 50.9	-0.6
UPM	Unac-Piva	84.89	314	⇓iP	P	21 14 51.0	-0.5
PSZ	Piszkesteto	84.90	318	⇑iP	P	21 14 51.2	-0.2
PSZ				e		21 18 06.5	
PSZ				eS	S	21 25 17.4	-0.3
PSZ				pmax	pmax		
	comp=Z,266nm,1.2s,mb6.2						
PSZ				MLR	MLR		
	comp=Z,14µm,21.0s,MS6.3						
PSZ	Piszkesteto	84.90	318	⇑iP	P	21 14 51.4	0.0
PSZ	Piszkesteto	84.90	318	⇑eP	P	21 14 51.7	+0.3
PSZ	Piszkesteto	84.90	318	⇑iP	P	21 14 51.2	-0.2
	comp=Z,266nm,1.2s,mb6.2						
PSZ				ePP	PP	21 18 06.5	-1.8
PSZ				eS	S	21 25 17.4	-0.3
PSZ				LR	LR		
	comp=Z,14µm,21.0s,MS6.3						
WAR	Warsaw	84.90	323	eP	P	21 14 51.3	-0.1
WAR				ePcP	PcP	21 14 56.4	+1.7
WAR				eS	S	21 25 21.8	+4.2
WAR				LMZ		21 56 49.4	
	comp=Z,18µm,25.1s						
WAR	Warsaw	84.90	323	eP	P	21 14 51.3	0.0
WAR				ePcP	PcP	21 14 56.3	+1.7
WAR				eS	S	21 25 21.8	+4.2
WAR				LR	LR		
	comp=Z,18µm,25.1s,MS6.4						
HCY	Herceg Novi	85.09	313	⇓iP	P	21 14 52.3	-0.2
HCY	Herceg Novi	85.09	313	⇓iP	P	21 14 52.4	-0.2
BRY	Bratogost	85.11	313	⇓iP	P	21 14 51.8	-0.8
BRY	Bratogost	85.11	313	⇓iP	P	21 14 51.8	-0.8
OJC	Ojcow	85.32	321	i P	P	21 14 53.3	-0.2
OJC				epP	pP	21 15 05.8	+1.7
OJC				eS	S	21 25 20.9	-0.9
OJC				L		22 01 58.0	
	comp=Z,15nm,21.8s						
BUD	Budapest	85.41	318	⇑eP	P	21 14 54.1	+0.1
PKSM	Moragy	85.49	317	⇑iP	P	21 14 53.7	-0.7
VYHS	Vyhne	85.68	319	i P	P	21 14 55.1	-0.2
VYHS				i S	S	21 25 22.6	-2.9
VYHS				pmax	pmax		
	comp=Z,417nm,2.9s,mb6.2						
VYHS	Vyhne	85.68	319	i P	P	21 14 55.1	-0.2
	comp=Z,417nm,2.9s,mb6.2						
VYHS				i S	S	21 25 22.6	-2.9
KOLL	Kolacno	85.98	319	i P	P	21 14 57.8	+1.0
TIP	Timpagrande	86.01	309	⇑iP	P	21 14 57.3	+0.1
	comp=Z,300nm,1.2s,mb6.4						
TIP				ePP	PP	21 18 19.0	+1.4
TIP				eS	S	21 25 35.3	+6.2
TIP				LR	LR		
	comp=Z,15µm,21.0s,MS6.4						
KEV	Kevo	86.19	341	eP	P	21 14 56.5	-0.9
KEV				pmax	pmax		
	comp=Z,73nm,0.8s,mb6.0						
KEV	Kevo	86.19	341	ep	P	21 14 56.5	-0.9
	comp=Z,73nm,0.8s,mb6.0						
OKC	Ostrava-Krasne	86.32	320	eP	P	21 14 59.8	+1.4
OKC				eS	S	21 25 31.7	+0.1
OKC				MLR	MLR		
	comp=Z,11µm,18.2s,MS6.3						
OKC	Ostrava-Krasne	86.32	320	eP	P	21 14 59.8	+1.4
OKC				ex	x	21 18 30.1	
OKC				eS	S	21 25 31.7	+0.1
OKC				ex	x	21 39 13.8	
OKC				AMS	AMS	22 02 30.0	
	comp=Z,11µm,18.2s						
OKC	Ostrava-Krasne	86.32	320	eP	P	21 14 59.8	+1.4
OKC				ePP	PP	21 18 30.1	+10
OKC				eS	S	21 25 31.7	+0.1
OKC				eSKKS	SKKSdf	21 39 13.8	-46
RAC	Raciborz	86.32	320	eP	P	21 14 59.4	+0.9
RAC				eS	S	21 25 31.4	-0.3
RAC				MLR	MLR		
	comp=Z,16µm,20.0s,MS6.4						
BLY	Banja Luka	86.32	315	P	P	21 14 59.0	+0.4
JAVC	Velka Javorina	86.50	319	P	P	21 15 00.3	+1.0
CEL	Celeste	86.59	308	⇑iP	P	21 15 00.3	+0.3
	comp=Z,318nm,1.1s,mb6.5						
CEL				eS	SKSac	21 25 21.7	-2.8
CEL				LR	LR		
	comp=Z,8µm,20.0s,MS6.1						
ARCES	ARCESS Array B	86.64	340	P	P	21 14 59.8	+0.2
	comp=Z,104nm,0.9s,mb6.1,baz=99,slow=3.1,SNR=62						
ARCES				LR	LR	21 58 01.2	
	comp=Z,53µm,20.8s,MS6.9,baz=110,slow=38						
MODS	Modra-Piesok	86.69	319	i P	P	21 15 00.5	+0.2
MODS				i S	S	21 25 34.7	-0.7
MORC	Moravsky Berou	86.70	320	⇑iP	P	21 15 00.6	+0.3
MORC	Moravsky Berou	86.70	320	⇑eP	P	21 15 00.2	-0.1
MORC				ePP	PP	21 18 22.7	-0.2

MORC			*e*S	S	21 25 31.2	-4.2
SCLL	**Scilla**	**86.73 308**	P	**P**	**21 15 01.2**	**+0.4**
	comp=Z,84nm,1.0s,mb5.9					
ZST	**Bratislava**	**86.79 318**	*i* P	**P**	**21 15 01.9**	**+1.1**
ZST			*i* S	S	21 25 36.2	-0.1
ZST			pmax	pmax		
	comp=Z,1µm,3.0s					
ZST	**Bratislava**	**86.79 318**	*i* P	**P**	**21 15 01.9**	**+1.1**
	comp=Z,1µm,3.0s					
ZST			*i* S	S	21 25 36.2	-0.1
CUC	**Castrocucco**	**86.82 310**⇑	*e*P	**P**	**21 15 00.4**	**-0.7**
	comp=Z,120nm,1.0s,mb6.1					
CUC			*e*PP	PP	21 18 25.1	+1.0
CUC			*e*S	S	21 25 34.4	-2.5
CUC			LR	LR		
	comp=Z,16µm,20.0s,MS6.4					
RGNG	**Rignano Grg**	**87.16 312**	P	**P**	**21 15 03.8**	**+1.1**
KOGS	**Kog**	**87.17 317**⇑	*e*P	**P**	**21 15 02.7**	**0.0**
NVL	**N'lazarevskaya**	**87.23 199**	P	**P**	**21 15 05.6**	**+3.1**
NVL			S	SKSac	21 25 17.2	-10
NVL			pmax	pmax		
	comp=Z,97nm,1.5s,mb5.8					
VRAC	**Vranov**	**87.25 319**⇑	*i*P	**P**	**21 15 03.3**	**+0.3**
VRAC	**Vranov**	**87.25 319**	P	**P**	**21 15 03.2**	**+0.2**
	comp=Z,15nm,1.0s,mb5.2,baz=104,slow=6.0,SNR=21					
VRAC			S	S	21 25 34.0	-6.7
	comp=Z,1.1nm,0.3s,baz=202,slow=18,SNR=2.3					
VRAC	**Vranov**	**87.25 319**	⇑P	**P**	**21 15 03.4**	**+0.3**
MAIT	**Maitri**	**87.26 199**	*e*P	**P**	**21 15 01.5**	**-1.1**
MAIT			*e*E	pP	21 15 11.4	-1.8
MAIT			*e*S	SKSac	21 25 23.1	-4.3
KTK1	**Kautokeino**	**87.29 339**	*e*	SKSac	21 25 30.9	+3.4
KTK1			AMS	AMS	21 57 33.4	
	comp=N,24µm,22.6s					
GKP	**Gorka Klasztor**	**87.33 323**	*e*Pc	**P**	**21 15 03.6**	**+0.3**
GKP			*e*pP	pP	21 15 13.0	-0.9
GKP			*e*S	S	21 25 40.4	-0.9
GKP			LMZ		22 01 13.4	
	comp=N,26µm,21.2s					
GKP	**Gorka Klasztor**	**87.33 323**⇑	*e*P	**P**	**21 15 03.6**	**+0.3**
GKP			*e*pP	pP	21 15 13.0	-0.9
GKP			*e*S	S	21 25 40.4	-0.9
GKP			LR	LR		
	comp=Z,26µm,21.2s,MS6.6					
HMDC	**Modica**	**87.36 307**	P	**P**	**21 15 04.3**	**+0.5**
WDD	**Wield Dalam**	**87.47 306**	*e*P	**P**	**21 15 03.5**	**-0.9**
WDD			*e*S	S	21 25 47.8	+4.4
WDD			LR	LR		
	comp=Z,11µm,19.0s,MS6.3					
DPC	**Dobruska-Polom**	**87.55 320**	*e*P	**P**	**21 15 05.3**	**+0.9**
DPC			*e*		21 18 36.9	
DPC			*e*S	S	21 25 46.6	+3.1
DPC			MLR	MLR		
	comp=Z,18µm,18.2s,MS6.5					
DPC	**Dobruska-Polom**	**87.55 320**	*e*P	**P**	**21 15 05.3**	**+0.9**
DPC			*e*PP	PP	21 18 36.9	+7.3
DPC			*e*S	S	21 25 46.6	+3.1
DPC			*e*x	x	21 38 16.4	
DPC			AMS	AMS	22 03 00.0	
	comp=Z,18µm,18.2s					
CONA	**Conrad Observa**	**87.59 318**⇑	*i*P	**P**	**21 15 04.5**	**-0.2**
	comp=Z,50nm,1.2s,mb5.6,SNR=18					
CSNA	**Conrad Observa**	**87.59 318**⇑	*i*P	**P**	**21 15 04.6**	**-0.1**
	comp=Z,44nm,1.1s,mb5.6					
KSP	**Ksiaz**	**87.62 321**	*e*Pc		21 15 05.9	
KSP			*e*pP	pP	21 15 11.0	-4.4
KSP			*e*S	S	21 25 44.7	+0.5
KSP			LMZ		22 02 07.5	
	comp=Z,29µm,23.5s					
KSP	**Ksiaz**	**87.62 321**⇑	*e*P	**P**	**21 15 05.2**	**+0.4**
KSP			*e*pP	pP	21 15 18.3	+2.9
KSP			*e*PP	PP	21 18 32.0	+1.8
KSP			*e*S	S	21 25 44.0	-0.2
KSP			LR	LR		
	comp=Z,34µm,23.5s,MS6.7					
CESS	**Cesta pri Krsk**	**87.66 316**	*e*P	**P**	**21 15 05.2**	**+0.1**
VAE	**Valguarnera**	**87.69 307**	P	**P**	**21 15 06.4**	**+0.9**
	comp=Z,56nm,1.1s,mb5.7,baz=57,slow=3.2,SNR=15					
VAE			S	SKSac	21 25 31.0	-0.3
	comp=Z,3.6nm,0.7s,baz=242,slow=6.9,SNR=1.7					
QSPA	**South Pole Qui**	**87.72 180**	P	**P**	**21 15 05.8**	**+1.1**
	comp=Z,20nm,0.9s,mb5.3,baz=315,slow=2.7,SNR=15					
QSPA			S	SKSac	21 25 25.5	-4.4
	comp=Z,0.9nm,0.5s,baz=334,slow=6.1,SNR=2.6					
QSPA			LR	LR	21 50 59.8	
	comp=Z,66µm,19.9s,MS7.0,baz=321,slow=33					
ADK	**Adak**	**87.74 38**⇑	*e*P	**P**	**21 15 03.9**	**-1.4**
ADK			*e*		21 18 30.6	
ADK			*e*S	S	21 25 45.2	0.0
ADK			pmax	pmax		
	comp=Z,956nm,1.4s,mb6.8					
ADK			MLR	MLR		
	comp=Z,18µm,22.0s,MS6.4					
ADK	**Adak**	**87.74 38**⇑	*e*P	**P**	**21 15 03.9**	**-1.4**
	comp=Z,956nm,1.4s,mb6.8					
ADK			*e*PP	PP	21 18 30.6	-0.5
ADK			*e*S	S	21 25 45.2	0.0
ADK			LR	LR		
	comp=Z,18µm,22.0s,MS6.4					
ARSA	**Arzberg**	**87.75 317**⇑	*i*P	**P**	**21 15 05.3**	**-0.1**
	comp=Z,94nm,1.4s,mb5.8,SNR=21					
ARSA	**Arzberg**	**87.75 317**	P	**P**	**21 15 06.1**	**+0.7**
UPC	**Upice**	**87.76 321**	*e*P	**P**	**21 15 07.2**	**+1.8**
UPC			*e*S	S	21 25 49.7	+4.1
PERS	**Pernice**	**87.96 317**⇑	*e*P	**P**	**21 15 06.7**	**+0.2**
PERS			*e*S	S	21 25 47.8	+0.2
PERS			*e*		21 38 45.4	
TREC	**Trest**	**87.97 319**	*e*P	**P**	**21 15 07.8**	**+1.3**
TREC			*e*		21 18 38.3	
TREC			*e*S	S	21 25 49.1	+1.5
TREC			MLR	MLR		
	comp=Z,14µm,19.1s,MS6.4					
TREC	**Trest**	**87.97 319**	*e*P	**P**	**21 15 07.8**	**+1.3**
TREC			*e*PP	PP	21 18 38.3	+5.2
TREC			*e*S	S	21 25 49.1	+1.5
TREC			*e*x	x	21 38 21.5	
TREC			AMS	AMS	22 03 10.0	
	comp=Z,14µm,19.1s					
CSLB	**Castelbuono**	**88.01 308**	P	**P**	**21 15 07.4**	**+0.5**
	comp=Z,174nm,1.2s,mb6.2					
SOKA	**Soboth**	**88.02 317**⇓	*i*P	**P**	**21 15 07.1**	**+0.3**
	comp=Z,141nm,1.3s,mb6.0					
MIDA	**Miranda**	**88.15 312**	P	**P**	**21 15 07.2**	**-0.3**
LJU	**Ljubljana**	**88.32 316**⇑	*e*P	**P**	**21 15 08.4**	**+0.2**
LJU			*e*		21 18 39.5	
LJU			*e*S	S	21 25 51.1	+0.1
LJU	**Ljubljana**	**88.32 316**⇑	*e*P	**P**	**21 15 08.4**	**+0.2**
LJU			*e*PP	PP	21 18 39.5	+3.5
LJU			*e*		21 20 53.1	
LJU			*e*S	S	21 25 51.1	+0.1
LJU			*e*		21 38 48.2	
OBKA	**Obir**	**88.34 316**⇑	*i*P	**P**	**21 15 08.6**	**+0.3**
	comp=Z,91nm,1.5s,mb5.8,SNR=13					
OBKA	**Obir**	**88.34 316**	P	**P**	**21 15 09.3**	**+1.0**
SKDS	**Skadanscina**	**88.63 315**⇑	*e*P	**P**	**21 15 09.0**	**-0.7**
SKDS			*e*S	S	21 25 52.0	-2.0
SKDS			*e*		21 32 08.9	
MOA	**Molln**	**88.65 318**⇑	*i*P	**P**	**21 15 09.4**	**-0.3**
	comp=Z,65nm,1.4s,mb5.8,SNR=21					
MOA	**Molln**	**88.65 318**	P	**P**	**21 15 10.4**	**+0.7**
PRU	**Pruhonice**	**88.65 320**	*e*P	**P**	**21 15 11.2**	**+1.5**
PRU			*e*		21 18 41.2	
PRU			*e*S	S	21 25 53.9	-0.1
PRU			MLR	MLR		
	comp=Z,17µm,18.0s,MS6.5					
PRU	**Pruhonice**	**88.65 320**	*e*P	**P**	**21 15 11.2**	**+1.5**
PRU			*e*PP	PP	21 18 41.2	+2.7
PRU			*e*S	S	21 25 53.9	-0.1
PRU			*e*x	x	21 38 28.8	
PRU			AMS	AMS	22 04 50.0	
	comp=Z,17µm,17.8s					
PVCC	**Panska Ves**	**88.68 320**	*e*P	**P**	**21 15 11.4**	**+1.6**
PVCC			*e*		21 18 39.6	
PVCC			*e*S	S	21 25 55.9	+1.6
PVCC			MLR	MLR		
	comp=Z,19µm,18.1s,MS6.5					
PVCC	**Panska Ves**	**88.68 320**	*e*P	**P**	**21 15 11.4**	**+1.6**
PVCC			*e*PP	PP	21 18 39.6	+0.9
PVCC			*e*S	S	21 25 55.9	+1.6
PVCC			*e*x	x	21 38 13.9	
PVCC			AMS	AMS	22 05 40.0	
	comp=Z,19µm,18.1s					
VENT	**Ventotene**	**88.71 311**	P	**P**	**21 15 10.1**	**-0.1**
USI	**Ustica**	**88.75 309**	P	**P**	**21 15 10.1**	**-0.3**
	comp=Z,553nm,1.4s,mb6.7					
VOY	**Vojsko**	**88.75 316**	*e*P	**P**	**21 15 09.8**	**-0.5**
VOY			*e*		21 15 26.5	
VOY			*e*		21 16 49.3	
AQU	**L'Aquila**	**88.83 312**	P	**P**	**21 15 11.9**	**+1.2**
AQU			pmax	pmax		
	comp=Z,253nm,0.8s,mb6.6					
AQU	**L'Aquila**	**88.83 312**	P	**P**	**21 15 11.9**	**+1.2**
	comp=Z,252nm,0.8s,mb6.6					
CADS	**Cadrg**	**88.88 316**⇑	*e*P	**P**	**21 15 10.5**	**-0.4**
BSD	**Bornholm Skovb**	**88.89 325**	*i* P	**P**	**21 15 05.5**	**-5.2**
	comp=Z,72nm,0.9s,mb6.0					
BSD						
	comp=Z,22µm,20.0s					
TRO	**Tromso**	**88.91 340**	*e*P	**P**	**21 15 10.0**	**-0.5**
TRO			*e*		21 25 36.9	
TRO			*e*SS	SS	21 31 49.1	+0.7
TRO			AMS	AMS	21 58 53.3	
	comp=Z,37µm,22.8s,MS6.7					
MYKA	**Terra Mystica**	**88.97 317**⇑	*i*P	**P**	**21 15 11.2**	**-0.1**
	comp=Z,103nm,1.5s,mb5.9					
CING	**Cingoli**	**89.06 313**	P	**P**	**21 15 12.2**	**+0.5**
GEC2	**GERESS Array S**	**89.10 319**	*e*P	**P**	**21 15 12.1**	**+0.3**
GEC2			*e*S	S	21 25 59.9	+1.6
GEC2			pmax	pmax		
	comp=Z,416nm,1.8s,mb6.5					
GEC2	**GERESS Array S**	**89.10 319**	*e*P	**P**	**21 15 12.1**	**+0.3**
	comp=Z,416nm,1.8s,mb6.5					
GEC2			*e*S	S	21 25 59.9	+1.6
GERES	**GERESS Array B**	**89.10 319**	P	**P**	**21 15 12.0**	**+0.1**
	comp=Z,26nm,1.0s,mb5.5,baz=97,slow=3.2,SNR=104					
GERES			PKKPbc	PKKPbc	21 33 03.5	+12
	comp=Z,0.4nm,0.7s,baz=207,slow=0.9,SNR=4.0					
BRG	**Berggiesshubel**	**89.11 321**	*i* P	**P**	**21 15 12.1**	**+0.3**
BRG			*i*		21 15 27.5	
BRG					21 18 40.0	
BRG			S	S	21 25 59.0	+0.7
BRG			pmax	pmax		
	comp=Z,332nm,2.2s,mb6.3					
BRG			MLR	MLR		
	comp=N,10µm,16.6s,MS6.4					
BRG			MLR	MLR		
	comp=E,7µm,17.4s,MS6.4					
BRG			MLR	MLR		
	comp=Z,12µm,18.6s,MS6.3					
BRG	**Berggiesshubel**	**89.11 321**	*e*P	**P**	**21 15 12.1**	**+0.3**
	comp=Z,184nm,1.4s,mb6.2					
BRG			*e*S	S	21 25 59.2	+0.9
BRG	**Berggiesshubel**	**89.11 321**	*i* P	**P**	**21 15 12.1**	**+0.3**
	comp=Z,554nm,2.2s,mb6.5					
BRG			*i*		21 15 17.8	
	comp=Z,254nm,1.5s					
BRG			*i*		21 15 27.6	
	comp=Z,76nm,1.1s					
BRG			*i*		21 15 54.4	
	comp=Z,426nm,1.7s					
BRG			PP	PP	21 18 40.0	-2.1
BRG			S	S	21 25 59.0	+0.7
BRG			*i*		21 26 33.0	
	comp=Z,92nm,2.5s					
BRG			*e*PKPPKP		21 41 26.6	
	comp=Z,45nm,2.1s					
BRG						
	comp=N,18µm,16.6s					
BRG						
	comp=E,12µm,17.4s					
BRG						
	comp=Z,20µm,18.6s					
BRG	**Berggiesshubel**	**89.11 321**	*i* P	**P**	**21 15 12.1**	**+0.3**
	comp=Z,332nm,2.2s,mb6.3					
BRG			*i*		21 15 17.8	
BRG			*i*		21 15 27.6	
BRG			*i*		21 15 54.4	
BRG			PP	PP	21 18 40.0	-2.1
BRG			S	S	21 25 59.0	+0.7
BRG			*i*		21 26 33.0	
BRG			*e*P'P'		21 41 26.6	
BRG			LR	LR		
	comp=Z,12µm,18.6s,MS6.3					
CERT	**Cerreto**	**89.12 312**	P	**P**	**21 15 11.5**	**-0.6**
PTCC	**Patocco-Chiusa**	**89.16 316**	P	**P**	**21 15 13.5**	**+1.4**
KHC	**Kasperske Hory**	**89.21 319**⇑	*e*P	**P**	**21 15 12.4**	**+0.1**
KHC			*e*		21 18 41.8	
KHC			*e*S	S	21 25 57.2	-2.1
KHC			MLR	MLR		
	comp=Z,19µm,20.7s,MS6.5					
KHC	**Kasperske Hory**	**89.21 319**	*e*P	**P**	**21 15 12.7**	**+0.4**
KHC			*e*x	x	21 15 16.0	
KHC			*e*x	x	21 16 42.4	
KHC			*e*PP	PP	21 18 41.8	-1.2
KHC			*e*S	S	21 25 57.2	-2.1
KHC			*e*x	x	21 38 53.3	
KHC			AMS	AMS	22 01 20.0	
	comp=Z,19µm,20.7s					
KHC	**Kasperske Hory**	**89.21 319**⇑	*e*P	**P**	**21 15 12.4**	**+0.1**
KHC			*e*P		21 15 12.7	
KHC			*e*		21 15 16.0	
KHC			*e*		21 16 42.4	
KHC			*e*PP	PP	21 18 41.8	-1.2
KHC			*e*S	S	21 25 57.2	-2.1
KHC			*e*SKKS	SKKSdf	21 38 53.3	-61
KHC			LR	LR		
	comp=Z,19µm,20.7s,MS6.5					
KBA	**Koelnbreinsper**	**89.21 317**⇑	*i*P	**P**	**21 15 12.0**	**-0.4**
	comp=Z,85nm,1.3s,mb5.9,SNR=23					
KBA	**Koelnbreinsper**	**89.21 317**	P	**P**	**21 15 12.9**	**+0.5**
RUE	**Ruedersdorf**	**89.34 322**⇑	*i*P	**P**	**21 15 13.1**	**+0.3**
	comp=Z,600nm,1.1s,mb6.8					
RUE			*e*PP	PP	21 18 44.4	+0.5
MURB	**Monte Urbino**	**89.54 313**	P	**P**	**21 15 14.2**	**+0.2**
RJOB	**Jochberg**	**89.63 318**	*e*P	**P**	**21 15 13.7**	**-0.6**
	comp=Z,140nm,1.7s,mb6.0					
RJOB			*e*S	S	21 26 02.0	-1.3
BJO	**Bjornoya**	**89.64 345**	*e*P	**P**	**21 15 15.4**	**+1.6**
BJO			*e*		21 26 02.3	
BJO			AMS	AMS	22 02 47.4	
	comp=Z,30µm,22.3s,MS6.7					
WET	**Wettzell**	**89.67 319**	*e*P	**P**	**21 15 14.7**	**+0.2**
WET			*e*S	S	21 26 03.4	-0.2
WET			pmax	pmax		
	comp=Z,225nm,1.6s,mb6.2					
WET	**Wettzell**	**89.67 319**	*e*P	**P**	**21 15 14.7**	**+0.2**
	comp=Z,225nm,1.6s,mb6.2					
WET			*e*S	S	21 26 03.4	-0.2
CLL	**Collm**	**89.73 321**⇑	*i*P	**P**	**21 15 14.3**	**-0.4**
CLL			*e*S	S	21 26 05.0	+0.9
CLL			pmax	pmax		
	comp=Z,1µm,3.0s					
CLL			MLR	MLR		
	comp=Z,16µm,21.6s,MS6.4					
CLL	**Collm**	**89.73 321**	*e*P	**P**	**21 15 14.5**	**-0.2**
	comp=Z,414nm,2.3s,mb6.4					
CLL			*e*S	S	21 26 03.6	-0.5
CLL	**Collm**	**89.73 321**⇑	*i*P	**P**	**21 15 14.3**	**-0.4**
	comp=Z,1µm,3.0s					
CLL			Pmax		21 15 16.0	
CLL			*i* (pP)	pP	21 15 19.9	-5.4
CLL			*i*		21 15 36.3	
	comp=Z,189nm,1.2s					
CLL			*i*		21 15 48.0	
CLL			*i*		21 15 58.0	
CLL			*e*PP	PP	21 18 48.0	+0.9
CLL			*e*PPP		21 20 54.0	
CLL			*e*PPPP		21 22 42.0	
CLL			*e*S	S	21 26 05.0	+0.9
	comp=N,20µm,30.9s					
CLL			*e*S	S	21 26 05.0	+0.9
	comp=E,2µm,21.3s					
CLL			*e*PS	PS	21 27 24.0	+10
CLL			*e*PPS		21 27 37.0	
CLL			*e*SS	SS	21 31 48.0	-13
CLL			*e*SSS		21 36 00.0	
CLL			*e*SSSS		21 39 02.0	
CLL			Lmax		22 05 41.0	
CLL			LmV		22 10 00.0	
	comp=Z,16µm,21.6s					
CLL	**Collm**	**89.73 321**⇑	*i*P	**P**	**21 15 14.3**	**-0.4**
	comp=Z,1µm,3.0s					
CLL			*i*		21 15 19.9	
CLL			*i*		21 15 36.3	
CLL			*e*S	S	21 26 05.0	+0.9
CLL			LR	LR		
	comp=Z,16µm,21.6s,MS6.4					
ABTA	**Abfaltersbach**	**89.76 317**⇑	*i*P	**P**	**21 15 14.4**	**-0.5**
	comp=Z,61nm,1.1s,mb5.8,SNR=26					
RGN	**Rugen**	**89.77 324**	*e*P	**P**	**21 15 14.9**	**+0.1**
TOLF	**Tolfa**	**89.86 312**	P	pP	21 15 25.0	-1.1
CRE	**Caprese Michel**	**89.98 313**	P	**P**	**21 15 16.1**	**+0.1**
HFS	**Hagfors**	**89.99 330**	P	**P**	**21 15 15.4**	**-0.3**
	comp=Z,65nm,1.0s,mb5.9,baz=102,slow=2.1,SNR=14					
HFS			LR	LR	22 00 06.3	
	comp=Z,25µm,21.0s,MS6.6,baz=92,slow=38					
HFS	**Hagfors**	**89.99 330**	P	**P**	**21 15 15.4**	**-0.3**
HFS			LR	LR	22 00 06.3	
HFA0	**Hagfors New Ar**	**89.99 330**	P	**P**	**21 15 16.0**	**+0.3**
NKC	**Novy Kostel**	**90.01 320**	*e*P	**P**	**21 15 17.8**	**+1.8**
NKC			*e*		21 18 50.3	
NKC			*e*S	S	21 26 07.6	+0.9
NKC			MLR	MLR		
	comp=Z,16µm,21.0s,MS6.4					
NKC	**Novy Kostel**	**90.01 320**	*e*P	**P**	**21 15 17.8**	**+1.8**
NKC			*e*PP	PP	21 18 50.3	+0.9
NKC			*e*S	S	21 26 07.6	+0.9
NKC			*e*x	x	21 38 50.8	
NKC			AMS	AMS	22 04 00.0	
	comp=Z,16µm,21.0s					
NKC	**Novy Kostel**	**90.01 320**	*e*P	**P**	**21 15 17.8**	**+1.8**
NKC			*e*PP	PP	21 18 50.3	+0.9
NKC			*e*S	S	21 26 07.6	+0.9
NKC			*e*SKKS	SKKSdf	21 38 50.8	-63
TANN	**Tannenbergstha**	**90.02 320**	*e*P	**P**	**21 15 16.3**	**+0.2**
	comp=Z,275nm,2.2s,mb6.2					
TANN			*e*S	S	21 26 07.7	+0.9
ROTZ	**Rotzenmuhle**	**90.14 320**	*e*P	**P**	**21 15 17.4**	**+0.7**
	comp=Z,241nm,1.8s,mb6.2					
ROTZ			*e*S	S	21 26 08.0	+0.1
MOR8	**Moi Rana**	**90.16 336**	*e*P	**P**	**21 15 16.8**	**+0.5**
MOR8			AMb	AMB	21 15 29.5	
	comp=Z,250nm,3.9s					
CTI	**Castel Tesino**	**90.32 316**	P	**P**	**21 15 18.0**	**+0.4**
COP	**Copenhagen**	**90.35 326**	*i* P	**P**	**21 15 13.4**	**-4.1**
COP			pmax	pmax		
	comp=Z,38nm,0.9s,mb5.7					
COP			MLR	MLR		
	comp=Z,8µm,19.0s,MS6.2					
COP	**Copenhagen**	**90.35 326**	*i* P	**P**	**21 15 13.4**	**-4.1**
	comp=Z,38nm,0.9s,mb5.7					
COP						
	comp=Z,8µm,19.0s					
WTTA	**Wattenberg**	**90.39 317**⇑	*i*P	**P**	**21 15 17.6**	**-0.3**
	comp=Z,159nm,1.1s,mb6.2,SNR=27					
WTTA	**Wattenberg**	**90.39 317**	P	**P**	**21 15 18.5**	**+0.6**
WATA	**Walderalm**	**90.43 317**⇑	*i*P	**P**	**21 15 17.6**	**-0.5**
	comp=Z,97nm,1.3s,mb6.0,SNR=16					
MAON	**Monte Argentar**	**90.52 312**	P	**P**	**21 15 18.3**	**-0.3**
MOX	**Moxa**	**90.57 320**	*e*P	**P**	**21 15 19.5**	**+0.9**
	comp=Z,202nm,1.6s,mb6.2					
MOX			*e*		21 15 34.7	
MOX			*e*S	S	21 26 14.0	+2.2
MOX						
	comp=Z,14µm,20.0s					
MOX	**Moxa**	**90.57 320**	*e*P	**P**	**21 15 19.5**	**+0.9**
MOX			*e*		21 15 34.7	
MOX			*e*S	S	21 26 14.0	+2.2
MOX			pmax	pmax		
	comp=Z,202nm,1.6s,mb6.2					
MOX			MLR	MLR		
	comp=Z,14µm,20.0s,MS6.4					
MOX	**Moxa**	**90.57 320**	*e*P	**P**	**21 15 18.8**	**+0.2**
	comp=Z,339nm,2.2s,mb6.3					
MOX			*e*S	S	21 26 12.3	+0.5
FNVD	**Fontana Vidola**	**90.60 314**	P	**P**	**21 15 20.5**	**+1.6**
APPI	**Appiano**	**90.63 316**	P	**P**	**21 15 19.1**	**+0.1**
LOF	**Lofoten**	**90.67 338**	*e*P	**P**	**21 15 22.7**	**+4.0**
FUR	**Furstenfeldbru**	**90.67 318**	*e*P	**P**	**21 15 18.8**	**-0.4**
FUR			*e*S	S	21 26 11.6	-1.3
FUR			pmax	pmax		
	comp=Z,147nm,1.5s,mb6.1					
FUR	**Furstenfeldbru**	**90.67 318**	*e*P	**P**	**21 15 18.8**	**-0.4**
	comp=Z,147nm,1.5s,mb6.1					
FUR			*e*S	S	21 26 11.6	-1.3
STOK	**Stokkvaagen**	**90.74 336**	*e*P	**P**	**21 15 22.8**	**+3.7**
MOTA	**Moosalm**	**90.75 317**⇑	*i*P	**P**	**21 15 18.9**	**-0.6**
	comp=Z,116nm,1.0s,mb6.2,SNR=55					
MOTA	**Moosalm**	**90.75 317**	P	**P**	**21 15 20.8**	**+1.2**
GRA1	**Grafenberg Arr**	**90.78 320**	*e*P	**P**	**21 15 20.1**	**+0.5**
	comp=Z,324nm,1.6s,mb6.4					
GRA1			*e*PP	PP	21 18 59.1	+3.7
GRA1			*e*S	S	21 26 13.1	-0.7
GRA1			*e*SP	SP	21 27 18.2	-2.7
GRA1			*e*SS	SS	21 32 13.6	-2.8
GRA1			*e*SKKS	SKKSdf	21 39 40.9	-11
GRA1			LR	LR		
	comp=Z,20µm,19.5s,MS6.6					
GRF	**Grafenberg Arr**	**90.78 320**	*e*P	**P**	**21 15 20.1**	**+0.5**
GRF			*e*		21 18 59.1	
GRF			*e*S	S	21 26 13.1	-0.7
GRF			*e*SP	SP	21 27 18.2	-2.7
GRF			*e*SS	SS	21 32 13.6	-2.8
GRF			pmax	pmax		
	comp=Z,324nm,1.6s,mb6.4					
GRF			MLR	MLR		
	comp=Z,20µm,19.5s,MS6.6					
GRF	**Grafenberg Arr**	**90.78 320**	*e*P	**P**	**21 15 20.1**	**+0.5**
GRF			*e*		21 18 59.1	
GRF			*e*S	S	21 26 13.1	-0.7
GRF			*e*SP	SP	21 27 18.2	-2.7
GRF			*e*SS	SS	21 32 13.6	-2.8
GRF			pmax	pmax		
	comp=Z,324nm,1.6s,mb6.4					
GRF			MLR	MLR		
	comp=Z,20µm,19.5s,MS6.6					
GRF	**Grafenberg Arr**	**90.78 320**	*e*P	**P**	**21 15 20.1**	**+0.5**
	comp=Z,324nm,1.6s,mb6.4					
GRF			*e*PP	PP	21 18 59.1	+3.7
GRF			*e*S	S	21 26 13.1	-0.7
GRF			*e*SP	SP	21 27 18.2	-2.7
GRF			*e*SS	SS	21 32 13.6	-2.8
GRF			*e*SKKSdf	SKKSdf	21 39 40.9	-11
GRF			*e*L		22 07 27.7	
	comp=Z,20µm,19.5s					
SPITS	**Spitsbergen Ar**	**90.83 348**	LR	LR	22 05 27.9	
	comp=Z,40µm,19.3s,MS6.9,baz=0.0,slow=42					
SPB4	**Spitsbergen Ar**	**90.83 348**	*e*P	**P**	**21 15 19.7**	**+0.3**
RETA	**Reutte**	**90.99 317**⇑	*i*P	**P**	**21 15 20.4**	**-0.2**
	comp=Z,125nm,1.4s,mb6.1,SNR=35					
FETA	**Feichten**	**90.99 317**⇓	*i*P	**P**	**21 15 20.8**	**+0.1**
	comp=Z,113nm,1.1s,mb6.1,SNR=19					
NSS	**Namsos**	**91.08 334**	*e*P	**P**	**21 15 20.7**	**0.0**
NSS			*e*		21 26 16.3	
NSS			*e*SS	SS	21 32 22.0	+2.0
NSS			AMS	AMS	22 03 29.7	
	comp=Z,24µm,17.2s,MS6.7					
MABI	**Malga Bissina**	**91.11 316**	P	**P**	**21 15 21.8**	**+0.6**
VLC	**Villacollemand**	**91.13 314**⇑	*e*P	**P**	**21 15 20.2**	**-1.2**
VLC			*e*PP	PP	21 18 59.3	+0.9
VLC			*e*S	S	21 26 14.2	-3.0
VLC			LR	LR		
	comp=Z,18µm,22.0s,MS6.5					
BRMO	**Bormio**	**91.22 316**	P	**P**	**21 15 22.1**	**+0.3**
NB2	**NORSAR Subarra**	**91.26 331**	P	**P**	**21 15 20.7**	**-0.9**
	comp=Z,163nm,1.7s,mb6.1,baz=94,slow=4.6					
NB2	**NORSAR Subarra**	**91.26 331**	P	**P**	**21 15 20.0**	**-1.6**
NOA	**NORSAR Array B**	**91.26 331**	P	**P**	**21 15 21.1**	**-0.5**
	comp=Z,16nm,1.0s,mb5.3,baz=95,slow=4.6,SNR=15					
NOA			LR	LR	22 02 05.2	
	comp=Z,20µm,21.9s,MS6.5,baz=85,slow=39					
NOA	**NORSAR Array B**	**91.26 331**	P	**P**	**21 15 21.1**	**-0.5**
NOA			LR	LR	22 02 05.2	
GAMB	**Gambell**	**91.33 26**⇑	*i*P	**P**	**21 15 21.2**	**-0.6**
	comp=Z,415nm,1.5s,mb6.5					
GAMB			*e*PP	PP	21 18 59.8	+0.4
CLZ	**Clausthal**	**91.40 322**	*e*P	**P**	**21 15 22.7**	**+0.3**
CLZ			*e*S	S	21 26 18.8	-0.5
CLZ			pmax	pmax		
	comp=Z,173nm,1.6s,mb6.1					
CLZ	**Clausthal**	**91.40 322**	*e*P	**P**	**21 15 22.7**	**+0.3**
	comp=Z,173nm,1.6s,mb6.1					
CLZ			*e*S	S	21 26 18.8	-0.5
HDH	**Heidenheim-Cha**	**91.40 318**	P	**P**	**21 15 23.7**	**+1.2**
NAO01	**NORSAR Array S**	**91.41 331**	*e*P	**P**	**21 15 23.4**	**+1.0**
	comp=Z,102nm,1.3s,mb6.0					
UBR	**Ueberruh**	**91.44 317**	P	**P**	**21 15 24.1**	**+1.4**
OSL	**Oslo**	**91.46 330**	*e*P	**P**	**21 15 23.2**	**+0.7**
BSEG	**Bad Segeberg**	**91.50 324**	*e*P	**P**	**21 15 23.1**	**+0.2**
	comp=Z,559nm,2.6s,mb6.4					
BSEG			*e*S	S	21 26 21.5	+1.4

DAVOX	Davos/Dischmat	91.57	317	P	P	21 15 23.6	+0.2
	comp=Z,57nm,1.1s,mb5.8,baz=190,slow=3.1,SNR=54						
DAVOX				LR	LR	22 04 32.9	
	comp=Z,9µm,20.2s,MS6.2,baz=332,slow=41						
NRDL	Niedersach Rie	91.58	322	*e*P	P	21 15 23.6	+0.3
	comp=Z,858nm,2.6s,mb6.6						
NRDL				*e*S	S	21 26 20.6	-0.4
DAVA	Damuels	91.58	317⇓	*i*PcP	PcP	21 15 23.7	-0.6
	comp=Z,171nm,1.1s,SNR=27						
DAVA	Damuels	91.58	317	P	P	21 15 24.8	+1.4
UBBA	Unterbreizbach	91.60	321	*e*P	P	21 15 23.5	+0.1
	comp=Z,440nm,2.4s,mb6.4						
UBBA				*e*S	S	21 26 20.9	-0.3
DAVOS	Davos	91.63	317	P	P	21 15 23.6	0.0
KEST	Kesra	91.67	306	P	P	21 15 24.7	+0.6
	comp=Z,21nm,0.9s,mb5.4,baz=59,slow=0.2,SNR=40						
KEST				LR	LR	21 57 22.8	
	comp=Z,8µm,20.6s,MS6.2,baz=287,slow=36						
KBS	Kingsbay	91.77	349	*e*P	P	21 15 22.2	-1.5
KBS				*e*PP	PP	21 19 08.2	+5.6
KBS				*e*		21 26 22.7	
KBS				*e*SS	SS	21 32 38.0	+8.4
KBS				AMS	AMS	22 04 51.9	
	comp=Z,51µm,22.7s,MS6.9						
KBS	Kingsbay	91.77	349*c*	*i*P	P	21 15 22.5	-1.2
KBS	Kingsbay	91.77	349⇑	*i*P	P	21 15 22.6	-1.1
SIND	Sindeldorf	91.82	319	P	P	21 15 26.1	+1.6
BOB	Bobbio (Coli)	91.82	315	P	P	21 15 25.8	+1.2
TUE	Stuetta	91.93	316	*e*P	P	21 15 25.5	+0.4
TUE				*e*PP	PP	21 19 04.0	-0.7
TUE				*e*S	S	21 26 18.6	-5.8
TUE				LR	LR		
	comp=Z,14µm,19.0s,MS6.4						
OSPF	L'Ospedale	91.94	311	*e*P	P	21 15 24.8	-0.4
BUCH	Bad Urach	91.96	318	P	P	21 15 26.7	+1.5
KONO	Kongsberg	92.03	329	*e*P	P	21 15 25.9	+0.8
KONO				*e*		21 25 54.2	
KONO				AMS	AMS	22 03 59.1	
	comp=Z,20µm,21.1s,MS6.5						
KONO	Kongsberg	92.03	329⇓	*e*P	P	21 15 26.1	+0.9
KONO	Kongsberg	92.03	329⇓	*e*P	P	21 15 26.2	+1.0
STU	Stuttgart	92.08	319	*e*P	P	21 15 25.6	-0.1
	comp=Z,262nm,2.1s,mb6.2						
STU				*e*S	S	21 26 25.9	+0.3
STU	Stuttgart	92.08	319⇑	*e*P	P	21 15 25.9	+0.3
STU				*e*PP	PP	21 19 05.6	-0.1
PGF	Pioggiola	92.10	312	*e*P	P	21 15 26.0	+0.1
	comp=Z,456nm,1.5s,mb6.3						
PGF	Pioggiola	92.10	312	*e*P	P	21 15 26.0	+0.1
PGF				pmax	pmax		
	comp=Z,228nm,1.5s,mb6.3						
PGF	Pioggiola	92.10	312	*e*P	P	21 15 26.0	+0.1
	comp=Z,228nm,1.5s,mb6.3						
GUT	Gutenstein	92.12	318	P	P	21 15 26.1	+0.2
MUD	Monsted U'grnd	92.20	326	*i* P	P	21 15 21.3	-4.8
	comp=Z,32nm,0.9s,mb5.7						
MUD							
	comp=Z,14µm,22.0s						
LBG	Lerchenberg	92.34	318	P	P	21 15 28.4	+1.5
SPAK	Spaichingen-Ko	92.34	318	*e*P	P	21 15 27.2	+0.3
TOD	Tromm	92.34	319	*e*P	P	21 15 26.5	-0.4
TNS	Taunus Mts	92.58	320	*e*P	P	21 15 28.2	+0.2
TNS				*e*S	S	21 26 31.0	+0.9
TNS				pmax	pmax		
	comp=Z,311nm,1.8s,mb6.4						
TNS	Taunus Mts	92.58	320	*e*P	P	21 15 28.2	+0.2
	comp=Z,311nm,1.8s,mb6.4						
TNS				*e*S	S	21 26 31.0	+0.9
NIKO	Nikolski	92.58	37	*e*P	P	21 15 27.5	-0.4
	comp=Z,406nm,1.0s,mb6.8						
BFO	Black Forest	92.64	318	*e*P	P	21 15 27.9	-0.4
BFO				*e*S	S	21 26 29.9	-0.8
BFO				pmax	pmax		
	comp=Z,94nm,1.6s,mb6.0						
BFO	Black Forest	92.64	318	*e*P	P	21 15 27.9	-0.4
	comp=Z,94nm,1.6s,mb6.0						
BFO				*e*S	S	21 26 29.9	-0.8
BFO	Black Forest	92.64	318	*i* P	P	21 15 29.3	+1.0
FELD	Feldberg im Sc	92.86	318	*e*P	P	21 15 29.0	-0.3
KIZ	Kirchzarten	92.92	318	P	P	21 15 30.9	+1.3
IMI	Imperia	92.92	314	P	P	21 15 30.5	+0.8
TNA	Tin City	92.97	25⇑	*e*P	P	21 15 28.9	-0.5
	comp=Z,138nm,1.3s,mb6.2						
TNA				*e*PP	PP	21 19 12.6	+0.3
LANF	Langenberg	93.00	319	*e*P	P	21 15 29.9	0.0
IBBN	Ibbenburen	93.02	322	*e*P	P	21 15 29.9	0.0
	comp=Z,363nm,2.2s,mb6.4						
IBBN				*e*S	S	21 26 34.2	+0.4
MOL	Molde	93.02	332	*e*P	P	21 15 32.1	+2.3
MOL				*e*PP	PP	21 19 15.2	+2.5
MOL				AMb	AMB	22 01 56.4	
	comp=Z,19µm,24.1s						
LIBD	Limburg	93.13	318	*e*P	P	21 15 30.7	+0.1
ABH	Alteburg	93.16	320	*e*P	P	21 15 31.0	+0.3
SAOF	Saorge	93.17	314	*e*P	P	21 15 30.8	0.0
ABSA	Djebel Ababsia	93.19	306	P	P	21 15 33.2	+2.1
BBS	Basel-Blauen	93.19	317	*e*P	P	21 15 30.5	-0.4
CMAH	Djebel Manchou	93.24	306	P	P	21 15 32.4	+1.0
SBF	Sospel	93.25	314	*e*P	P	21 15 31.1	-0.1
	comp=Z,210nm,1.1s,mb6.2						
SBF	Sospel	93.25	314	*e*P	P	21 15 31.1	-0.1
SBF				pmax	pmax		
	comp=Z,105nm,1.1s,mb6.2						
SBF	Sospel	93.25	314	*e*P	P	21 15 31.1	-0.1
	comp=Z,105nm,1.1s,mb6.2						
AUTN	L'Aution	93.26	314	*e*P	P	21 15 32.0	+0.7
REVF	Revere	93.30	314	*e*P	P	21 15 31.3	-0.2
LUCF	Luceram	93.32	314	*e*P	P	21 15 32.0	+0.5
BUG	Bochum--Univer	93.33	321	*e*P	P	21 15 31.3	-0.1
	comp=Z,741nm,3.0s						
BUG				*e*S	S	21 26 37.4	+0.8
CDF	Champ du Feu	93.35	318	*e*P	P	21 15 31.3	-0.2
	comp=Z,185nm,1.5s,mb6.0						
CDF	Champ du Feu	93.35	318	*e*P	P	21 15 31.3	-0.2
CDF				pmax	pmax		
	comp=Z,93nm,1.5s,mb6.0						
CDF	Champ du Feu	93.35	318	*e*P	P	21 15 31.3	-0.2
	comp=Z,93nm,1.5s,mb6.0						
TOUF	Mont Tournerai	93.39	314	*e*P	P	21 15 31.7	-0.1
ECH	Echery	93.43	318	*e*P	P	21 15 31.3	-0.6
ECH	Echery	93.43	318	*e*P	P	21 15 32.1	+0.2
ECH				*e*		21 19 17.3	
ECH				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.9						
ECH				MLR	MLR		
	comp=Z,10µm,21.0s,MS6.3						
ECH	Echery	93.43	318	*e*P	P	21 15 32.1	+0.1
	comp=Z,59nm,1.1s,mb5.9						
ECH				*e*PP	PP	21 19 17.3	+0.9
ECH				*e*S	S	21 27 00.1	+22
ECH				LR	LR		
	comp=Z,10µm,21.0s,MS6.3						
MOF	Molkenrain	93.45	318	*e*P	P	21 15 31.3	-0.7
MVIF	Mont Vial	93.46	314	*e*P	P	21 15 32.5	+0.3
VNA2	Neumayer--Watz	93.46	198	*e*SKSac	SKSac	21 26 01.1	-2.2
RUP	Ruppelstein	93.48	319	*e*P	P	21 15 32.4	+0.3
WTSB	Winterswijk	93.61	322	*e*P	P	21 15 28.1	-4.6
	comp=Z,59nm,2.4s,mb5.6						
BLS5	Blasjo	93.63	329	*e*pP	pP	21 15 38.5	-4.8
HINF	Hinteralfeld	93.64	318	*e*P	P	21 15 32.3	-0.6
	comp=Z,156nm,1.4s,mb6.0						
HINF	Hinteralfeld	93.64	318	*e*P	P	21 15 32.3	-0.6
HINF				pmax	pmax		
	comp=Z,78nm,1.4s,mb6.0						
HINF	Hinteralfeld	93.64	318	*e*P	P	21 15 32.3	-0.6
	comp=Z,78nm,1.4s,mb6.0						
CALN	Calern	93.65	314	*e*P	P	21 15 33.3	+0.2
LOMF	Lomont	93.66	317	*e*P	P	21 15 33.0	0.0
WIT	Witteveen	93.67	323	*e*P	P	21 15 32.8	-0.2
	comp=Z,219nm,1.4s,mb6.4						
MBDF	Montbardon	93.73	314	*e*P	P	21 15 34.5	+1.1
	comp=Z,107nm,1.3s,mb5.8						
MBDF	Montbardon	93.73	314	*e*P	P	21 15 34.5	+1.1
MBDF				pmax	pmax		
	comp=Z,54nm,1.3s,mb5.8						
MBDF	Montbardon	93.73	314	*e*P	P	21 15 34.5	+1.1
	comp=Z,54nm,1.3s,mb5.8						
LPG	La Plagne	93.73	315	*e*P	P	21 15 33.6	+0.2
	comp=Z,97nm,1.1s,mb5.8						
LPG	La Plagne	93.73	315	*e*P	P	21 15 33.6	+0.2
LPG				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.8						
LPG	La Plagne	93.73	315	*e*P	P	21 15 33.6	+0.2
	comp=Z,49nm,1.1s,mb5.8						
LPL	La Plagne	93.75	315	*e*P	P	21 15 33.6	+0.1
	comp=Z,174nm,1.4s,mb6.0						
LPL	La Plagne	93.75	315	*e*P	P	21 15 33.6	+0.1
LPL				pmax	pmax		
	comp=Z,87nm,1.4s,mb6.0						
LPL	La Plagne	93.75	315	*e*P	P	21 15 33.6	+0.1
	comp=Z,87nm,1.4s,mb6.0						
OG01	Vacheresse	93.77	316	*e*P	P	21 15 34.1	+0.6
BNI	Bardonecchia	93.79	315	*e*P	P	21 15 33.3	-0.4
BNI				*e*		21 19 20.1	
BNI				MLR	MLR		
	comp=Z,18µm,21.0s,MS6.5						
BNI	Bardonecchia	93.79	315	*e*P	P	21 15 33.3	-0.4
BNI				*e*PP	PP	21 19 20.1	+0.8
BNI				*e*S	S	21 26 54.6	+14
BNI				LR	LR		
	comp=Z,18µm,21.0s,MS6.5						
CKFL	Kef-Lekhel	93.81	306	P	P	21 15 35.4	+1.4
RSL	Roselend	93.82	315	*e*P	P	21 15 34.1	+0.3
FRF	La Foret Royal	93.83	313	*e*P	P	21 15 33.8	-0.1
	comp=Z,428nm,1.7s,mb6.3						
FRF	La Foret Royal	93.83	313	*e*P	P	21 15 33.8	-0.1
FRF				pmax	pmax		
	comp=Z,214nm,1.7s,mb6.3						
FRF	La Foret Royal	93.83	313	*e*P	P	21 15 33.8	-0.1
	comp=Z,214nm,1.7s,mb6.3						
LMR	La Mourre	93.93	313	*e*P	P	21 15 34.3	-0.1
	comp=Z,119nm,1.3s,mb5.9						
LMR	La Mourre	93.93	313	*e*P	P	21 15 34.3	-0.1
LMR				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.9						
LMR	La Mourre	93.93	313	*e*P	P	21 15 34.3	-0.1
	comp=Z,60nm,1.3s,mb5.9						
HAU	Haudompre	93.97	318	*e*P	P	21 15 34.1	-0.3
	comp=Z,233nm,1.2s,mb6.2						
HAU				*e*MLR	MLR		
	comp=Z,14µm,22.0s,MS6.1						
HAU	Haudompre	93.97	318	*e*P	P	21 15 34.1	-0.3
HAU				pmax	pmax		
	comp=Z,117nm,1.2s,mb6.2						
HAU				MLR	MLR		
	comp=Z,14µm,22.0s,MS6.4						
HAU	Haudompre	93.97	318	*e*P	P	21 15 34.1	-0.3
	comp=Z,116nm,1.2s,mb6.2						
HAU				LR	LR		
	comp=Z,14µm,22.0s,MS6.4						
UNV	Unalaska Valle	93.98	36	*e*P	P	21 15 33.0	-1.3
	comp=Z,150nm,1.2s,mb6.3						
UNV				*e*PP	PP	21 19 20.9	+0.4
CASM	Ain Smara	93.99	306	P	P	21 15 35.4	+0.6
CTEI	Djebel Teioual	94.06	306	P	P	21 15 37.3	+2.2
WLF	Walferdange	94.07	319	P	P	21 15 35.5	+0.7
	comp=Z,64nm,1.7s,mb5.8						
WLF	Walferdange	94.07	319	*e*P	P	21 15 36.1	+1.3
WLF				*e*		21 19 21.7	
WLF				MLR	MLR		
	comp=Z,15µm,20.0s,MS6.5						
WLF	Walferdange	94.07	319	*e*P	P	21 15 35.0	+0.2
	comp=Z,144nm,1.9s,mb6.1						
WLF				*e*S	S	21 26 46.0	+2.8
WLF	Walferdange	94.07	319	*e*P	P	21 15 36.1	+1.2
WLF				*e*PP	PP	21 19 21.7	+0.4
WLF				*e*S	SKSac	21 26 11.9	+4.6
WLF				LR	LR		
	comp=Z,15µm,20.0s,MS6.5						
VNA3	Neumayer Olymp	94.07	198	*e*SKSac	SKSac	21 26 04.4	-2.2
BER	Bergen	94.16	330	*e*P	P	21 15 37.0	+2.0
BER				*e*		21 26 43.8	
BER				AMS	AMS	22 02 54.8	
	comp=Z,17µm,18.5s,MS6.5						
CABF	La Chapelle	94.18	316	*e*P	P	21 15 35.7	+0.3
	comp=Z,358nm,1.6s,mb6.2						
CABF	La Chapelle	94.18	316	*e*P	P	21 15 35.7	+0.3
CABF				pmax	pmax		
	comp=Z,179nm,1.6s,mb6.2						
CABF	La Chapelle	94.18	316	*e*P	P	21 15 35.7	+0.3
	comp=Z,179nm,1.6s,mb6.2						
HGN	Heimansgroeve	94.18	321	*e*P	P	21 15 32.1	-3.2
	comp=Z,57nm,2.7s,mb5.5						
HGN	Heimansgroeve	94.18	321	*e*PP	PP	21 19 20.7	-1.5
HGN	Heimansgroeve	94.18	321	*e*S	S	21 26 42.4	-1.8
HGN	Heimansgroeve	94.18	321	*e*SP	SP	21 28 37.8	+39
THEF	They Montfort	94.21	318	*e*P	P	21 15 33.0	-2.5
FOO	Floro	94.23	331	*e*P	P	21 15 35.4	0.0
FOO				*e*		21 26 43.3	
FOO				AMS	AMS	22 08 46.3	
	comp=Z,24µm,23.0s,MS6.6						
TAVF	Tavernes	94.25	313	*e*P	P	21 15 35.8	0.0
ORIF	Oris-en-Rattie	94.36	315	*e*P	P	21 15 36.3	0.0
	comp=Z,135nm,1.3s,mb5.9						
ORIF				*e*MLR	MLR		
	comp=Z,19µm,21.5s,MS6.2						
ORIF	Oris-en-Rattie	94.36	315	*e*P	P	21 15 36.3	0.0
ORIF				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.9						
ORIF	Oris-en-Rattie	94.36	315	*e*P	P	21 15 36.3	0.0
	comp=Z,67nm,1.3s,mb5.9						
AKUT	Akutan	94.40	36	*e*P	P	21 15 36.0	-0.2
	comp=Z,249nm,0.8s,mb6.7						
DFRA	Djebel Bou Aff	94.48	306	P	P	21 15 38.9	+1.8
VILF	Villemus	94.50	314	*e*P	P	21 15 37.7	+0.7
BERF	Bertagne	94.53	313	*e*P	P	21 15 37.2	+0.1
BCLA	Clavier	94.59	320	P	P	21 15 38.0	+0.8
	comp=Z,38nm,2.8s,mb5.3						
SMRF	Simiane la Rot	94.60	314	*e*P	P	21 15 38.0	+0.6
	comp=Z,300nm,1.8s,mb6.1						
SMRF	Simiane la Rot	94.60	314	*e*P	P	21 15 38.0	+0.6
	comp=Z,300nm,1.8s,mb6.4						
OG05	Jujurieux	94.63	316	*e*P	P	21 15 37.6	+0.1
TREF	Trevaresse	94.74	313	*e*P	P	21 15 39.1	+1.0
TAM	Tamanrasset	94.81	293	*e*P	P	21 15 40.7	+1.8
TAM				*e*		21 19 30.0	
TAM				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.3						
TAM				MLR	MLR		
	comp=Z,16µm,22.0s,MS6.5						
TAM	Tamanrasset	94.81	293	*e*P	P	21 15 40.7	+1.8
	comp=Z,8.9nm,0.7s,mb5.3						
TAM				*e*PP	PP	21 19 30.0	+2.1
TAM				*e*S	S	21 26 30.2	-21
TAM				LR	LR		
	comp=Z,16µm,22.0s,MS6.5						
MEZF	Maizieres J'vi	94.83	318	*e*P	P	21 15 38.3	0.0
	comp=Z,119nm,1.2s,mb5.9						
MEZF	Maizieres J'vi	94.83	318	*e*P	P	21 15 38.3	0.0
	comp=Z,119nm,1.2s,mb6.2						
SET	Setif	94.87	306	P	P	21 15 40.0	+1.1
PRAF	Pradon	94.89	314	*e*P	P	21 15 39.1	+0.3
GIVF	Givet	94.91	320	*e*P	P	21 15 38.7	0.0
	comp=Z,189nm,1.6s,mb6.0						
GIVF	Givet	94.91	320	*e*P	P	21 15 38.7	0.0
GIVF				pmax	pmax		
	comp=Z,94nm,1.6s,mb6.0						
GIVF	Givet	94.91	320	*e*P	P	21 15 38.7	0.0
	comp=Z,94nm,1.6s,mb6.0						
DOU	Dourbes	95.06	320	P	P	21 15 40.3	+0.9
	comp=Z,40nm,2.8s,mb5.3						
UCC	Uccle	95.18	321	P	P	21 15 40.4	+0.5
VIVF	Saint-Julien-l	95.22	315	*e*P	P	21 15 40.1	-0.1
	comp=Z,150nm,1.6s,mb5.9						
VIVF	Saint-Julien-l	95.22	315	*e*P	P	21 15 40.1	-0.1
VIVF				pmax	pmax		
	comp=Z,75nm,1.6s,mb5.9						
VIVF	Saint-Julien-l	95.22	315	*e*P	P	21 15 40.1	-0.1
	comp=Z,75nm,1.6s,mb5.9						
SNF	Seneffe	95.24	320	P	P	21 15 41.1	+0.9
SSB	Saint Sauveur	95.29	315	*e*P	P	21 15 41.1	+0.5
SSB				*e*		21 19 29.9	
SSB				S	S	21 26 46.4	-7.7
SSB				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.5						
SSB				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.3						
SSB	Saint Sauveur	95.29	315	*e*P	P	21 15 41.1	+0.5
	comp=Z,19nm,0.9s,mb5.5						
SSB				*e*PP	PP	21 19 29.9	-1.1
SSB				S	S	21 26 46.4	-7.6
SSB				LR	LR		
	comp=Z,12µm,21.0s,MS6.3						
BAIF	Baives	95.31	320	*e*P	P	21 15 40.6	+0.1
	comp=Z,135nm,1.3s,mb5.9						
BAIF	Baives	95.31	320	*e*P	P	21 15 40.6	+0.1
BAIF				pmax	pmax		
	comp=Z,68nm,1.3s,mb5.9						
BAIF	Baives	95.31	320	*e*P	P	21 15 40.6	+0.1
	comp=Z,68nm,1.3s,mb5.9						
LOR	Lormes	95.68	317	*e*P	P	21 15 42.0	-0.3
	comp=Z,149nm,1.3s,mb6.0						
LOR				*e*MLR	MLR		
	comp=Z,15µm,20.2s,MS6.2						
LOR	Lormes	95.68	317	*e*P	P	21 15 42.0	-0.3
LOR				pmax	pmax		
	comp=Z,75nm,1.3s,mb6.0						
LOR				MLR	MLR		
	comp=Z,15µm,20.3s,MS6.5						
LOR	Lormes	95.68	317	*e*P	P	21 15 42.0	-0.3
	comp=Z,75nm,1.3s,mb6.0						
LOR				LR	LR		
	comp=Z,15µm,20.3s,MS6.5						
SMF	Signal de Mont	95.72	316	*e*P	P	21 15 42.0	-0.5
	comp=Z,172nm,1.5s,mb6.0						
SMF	Signal de Mont	95.72	316	*e*P	P	21 15 42.0	-0.5
SMF				pmax	pmax		
	comp=Z,86nm,1.5s,mb6.0						
SMF	Signal de Mont	95.72	316	*e*P	P	21 15 42.0	-0.5
	comp=Z,86nm,1.5s,mb6.0						
LASF	Ste Croix	95.83	314	*e*P	P	21 15 43.1	+0.1
	comp=Z,141nm,1.6s,mb5.8						
PLDF	La Plantade	95.91	316	*e*P	P	21 15 45.3	+1.9
SSF	Saint Saulge	95.93	317	*e*P	P	21 15 43.2	-0.2
	comp=Z,124nm,1.5s,mb5.8						
SSF	Saint Saulge	95.93	317	*e*P	P	21 15 43.2	-0.2
SSF				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.8						
SSF	Saint Saulge	95.93	317	*e*P	P	21 15 43.2	-0.2
	comp=Z,62nm,1.5s,mb5.8						
AVF	Avril sur Loir	96.05	317	*e*P	P	21 15 43.5	-0.5
	comp=Z,165nm,1.5s,mb5.9						
AVF	Avril sur Loir	96.05	317	*e*P	P	21 15 43.5	-0.5
AVF				pmax	pmax		
	comp=Z,82nm,1.5s,mb5.9						
AVF	Avril sur Loir	96.05	317	*e*P	P	21 15 43.5	-0.5
	comp=Z,82nm,1.5s,mb5.9						
LBL	Lubilhac	96.21	315	*e*P	P	21 15 46.3	+1.6
AGO	Saint Agoulin	96.25	316	*e*P	P	21 15 46.0	+1.1
PYM	Petit Puy Mans	96.35	316	*e*P	P	21 15 46.2	+0.8
BGF	Bois d'Agland	96.41	316	*e*P	P	21 15 45.6	0.0
	comp=Z,247nm,1.5s,mb6.1						
BGF	Bois d'Agland	96.41	316	*e*P	P	21 15 45.6	0.0
BGF				pmax	pmax		
	comp=Z,124nm,1.5s,mb6.1						
BGF	Bois d'Agland	96.41	316	*e*P	P	21 15 45.6	0.0
	comp=Z,124nm,1.5s,mb6.1						
HYF	Humbligny	96.51	317	*e*P	P	21 15 46.2	+0.2
EMHD	Djebel Mahouad	96.85	306	P	P	21 15 50.0	+2.1
TCF	Toulx Ste Croi	96.87	316	*e*P	P	21 15 47.8	+0.1
	comp=Z,178nm,1.9s,mb5.9						
TCF	Toulx Ste Croi	96.87	316	*e*P	P	21 15 47.8	+0.1
TCF				pmax	pmax		
	comp=Z,89nm,1.9s,mb5.9						
TCF	Toulx Ste Croi	96.87	316	*e*P	P	21 15 47.8	+0.1
	comp=Z,89nm,1.9s,mb5.9						
MTLF	Montolieu	97.06	313	*e*P	P	21 15 48.4	-0.2
	comp=Z,114nm,1.5s,mb5.8						
MTLF	Montolieu	97.06	313	*e*P	P	21 15 48.4	-0.2
MTLF				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.8						
MTLF	Montolieu	97.06	313	*e*P	P	21 15 48.4	-0.2
	comp=Z,57nm,1.5s,mb5.8						
CAF	Calviac	97.06	315	*e*P	P	21 15 48.8	+0.2
	comp=Z,80nm,1.4s,mb5.7						
CAF	Calviac	97.06	315	*e*P	P	21 15 48.8	+0.2
CAF				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.7						
CAF	Calviac	97.06	315	*e*P	P	21 15 48.8	+0.2
	comp=Z,40nm,1.4s,mb5.7						
SDPT	Sand Point	97.37	35	*e*P	P	21 15 49.8	+0.1
	comp=Z,332nm,0.8s,mb6.8						
RJF	Les Rejaudoux	97.42	315	*e*P	P	21 15 50.6	+0.4
	comp=Z,154nm,1.7s,mb5.9						
RJF				*e*MLR	MLR		
	comp=Z,19µm,21.2s,MS6.2						
RJF	Les Rejaudoux	97.42	315	*e*P	P	21 15 50.6	+0.4
RJF				pmax	pmax		
	comp=Z,77nm,1.7s,mb5.9						
RJF				MLR	MLR		
	comp=Z,19µm,21.3s,MS6.5						
RJF	Les Rejaudoux	97.42	315	*e*P	P	21 15 50.6	+0.4
	comp=Z,77nm,1.7s,mb5.9						
RJF				LR	LR		
	comp=Z,19µm,21.3s,MS6.5						
EBNR	Beni Rached	98.00	306	P	pP	21 16 04.0	+0.3
LFF	La Frestale	98.00	315	*e*P	P	21 15 53.0	+0.2
	comp=Z,152nm,1.6s,mb6.0						
LFF	La Frestale	98.00	315	*e*P	P	21 15 53.0	+0.2
LFF				pmax	pmax		
	comp=Z,76nm,1.6s,mb6.0						
LFF	La Frestale	98.00	315	*e*P	P	21 15 53.0	+0.2
	comp=Z,76nm,1.6s,mb6.0						
JMIC	Jan Mayen	98.03	342	LR	LR	22 07 16.3	
	comp=Z,26µm,21.1s,MS6.7,baz=75,slow=40						
ETRT	Tiaret	98.23	305	P	pP	21 16 07.0	+2.2
LDF	La Druitiere	98.25	319	*e*P	P	21 15 53.5	-0.4
	comp=Z,81nm,1.3s,mb5.8						
LDF	La Druitiere	98.25	319	*e*P	P	21 15 53.5	-0.4
LDF				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.8						
LDF	La Druitiere	98.25	319	*e*P	P	21 15 53.5	-0.4
	comp=Z,40nm,1.3s,mb5.8						
EANR	'Ain N'Sour	98.36	306	P	pP	21 16 06.0	+0.6
CHGN	Chignik	98.39	33	P	P	21 15 53.4	-0.9
TORD	Torodi Ar. Bea	98.40	283	P	P	21 15 55.0	-0.3
	comp=Z,4.9nm,1.0s,mb5.0,baz=88,slow=1.9,SNR=15						
TORD				PP	PP	21 19 55.3	-0.5
	comp=Z,2.9nm,1.1s,baz=101,slow=5.8,SNR=3.6						
TORD				PKKP	PKKPbc	21 32 26.6	+0.8
	comp=Z,3.9nm,0.9s,baz=307,slow=3.9,SNR=6.7						
TORD				LR	LR	21 59 21.8	
	comp=Z,16µm,20.5s,MS6.5,baz=100,slow=35						
TTA	Tatalina	98.43	27	*e*P	P	21 15 57.7	+3.4
EPF	Esparros	98.45	313	*e*P	P	21 15 54.1	-0.8
	comp=Z,62nm,1.7s,mb5.6						
EPF	Esparros	98.45	313	*e*P	P	21 15 54.1	-0.8
EPF				pmax	pmax		
	comp=Z,31nm,1.7s,mb5.6						
EPF	Esparros	98.45	313	*e*P	P	21 15 54.1	-0.8
	comp=Z,31nm,1.7s,mb5.6						
MFF	Saint Martin d	98.47	317	*e*P	P	21 15 54.1	-0.8
	comp=Z,137nm,1.6s,mb5.9						
MFF	Saint Martin d	98.47	317	*e*P	P	21 15 54.1	-0.8
MFF				pmax	pmax		
	comp=Z,68nm,1.6s,mb5.9						
MFF	Saint Martin d	98.47	317	*e*P	P	21 15 54.1	-0.8
	comp=Z,68nm,1.6s,mb5.9						
IMA2	Indian Mountai	98.70	23	*e*P	P	21 15 55.5	0.0
GRR	Gorron	98.76	318	*e*P	P	21 15 55.7	-0.4
	comp=Z,135nm,1.5s,mb6.0						
GRR	Gorron	98.76	318	*e*P	P	21 15 55.7	-0.4
GRR				pmax	pmax		
	comp=Z,68nm,1.5s,mb6.0						
GRR	Gorron	98.76	318	*e*P	P	21 15 55.7	-0.4
	comp=Z,68nm,1.5s,mb6.0						
RAR	Rarotonga	98.90	112	P	P	21 15 57.4	0.0
RAR				*e*		21 19 52.4	
RAR				MLR	MLR		
	comp=Z,16µm,21.0s						
RAR	Rarotonga	98.90	112	P	P	21 15 57.4	0.0
RAR				*e*PP	PP	21 19 52.4	-7.0
RAR				S	SKSac	21 25 54.9	-39
RAR				LR	LR		
	comp=Z,16µm,21.0s,MS6.5						
SVW2	Sparrevohn	99.00	28	*e*P	P	21 15 57.5	+0.6
ETSF	Etsaut	99.12	313	*e*P	P	21 15 58.0	+0.1
	comp=Z,40nm,1.2s,mb5.5						
ETSF	Etsaut	99.12	313	*e*P	P	21 15 58.0	+0.1
ETSF				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.5						
ETSF	Etsaut	99.12	313	*e*P	P	21 15 58.0	+0.1
	comp=Z,20nm,1.3s,mb5.5						
ESK	Eskdalemuir	99.24	326	PFAKE		21 16 10.0	+12
ESK				LR	LR		
	comp=Z,17µm,22.0s,MS6.5						
SJPF	Ste Jean	99.58	313	*e*P	Pdif	21 16 00.1	+0.4
	comp=Z,73nm,1.6s						
SJPF	Ste Jean	99.58	313	*e*P	Pdif	21 16 00.1	+0.4
SJPF				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.6						
SJPF	Ste Jean	99.58	313	*e*P	Pdif	21 16 00.1	+0.4
	comp=Z,36nm,1.6s						
COLD	Coldfoot	99.72	22	*e*Pdif	Pdif	21 16 00.5	+0.3
	comp=Z,184nm,1.5s						

COLD				*e*PP	PP	21 20 03.9	-0.4
CHUM	**Lake Minchumin**	**99.83**	**25**	Pdif	Pdif	21 16 00.4	-0.3
CHUM				*e*PP	PP	21 20 07.8	+2.6
PPLA	**Purkeypile**	**100.14**	**26**	*e*Pdif	Pdif	21 16 02.6	+0.5
	comp=Z,184nm,1.4s						
PPLA				*e*PP	PP	21 20 07.9	+0.3
BPAW	**Bear Paw Mtn.**	**100.33**	**25**	*e*Pdif	Pdif	21 16 02.8	-0.2
	comp=Z,2µm,0.6s						
BPAW				*e*PP	PP	21 20 10.2	+1.3
ROSF	**Rostrenen**	**100.36**	**319**	*e*P	Pdif	21 16 03.2	+0.1
	comp=Z,121nm,1.4s						
ROSF	**Rostrenen**	**100.36**	**319**	*e*P	Pdif	21 16 03.2	+0.1
ROSF				pmax	pmax		
	comp=Z,61nm,1.4s						
ROSF	**Rostrenen**	**100.36**	**319**	*e*P	Pdif	21 16 03.2	+0.1
	comp=Z,60nm,1.4s						
KTH	**Kantishna Hill**	**100.51**	**25**	*e*Pdif	Pdif	21 16 03.9	+0.1
	comp=Z,5µm,1.1s						
KTH				*e*PP	PP	21 20 11.8	+1.5
TRF	**Thorofare Moun**	**100.81**	**25**	*e*Pdif	Pdif	21 16 05.6	+0.4
	comp=Z,2µm,0.6s						
TRF				PP	PP	21 20 08.9	-3.8
OHAK	**Old Harbor**	**100.99**	**32**	*e*Pdif	Pdif	21 16 05.5	-0.4
OHAK				*e*PP	PP	21 20 14.7	+0.5
KDAK	**Kodiak Island**	**101.23**	**31**	P	Pdif	21 16 06.8	-0.2
	comp=Z,10nm,0.8s,baz=42,slow=12,SNR=2.3						
KDAK	**Kodiak Island**	**101.23**	**31**	*e*Pdif	Pdif	21 15 58.1	-8.9
KDAK				*e*PP	PP	21 20 15.4	-0.6
KDAK				LR	LR		
	comp=Z,45µm,20.0s,MS7.0						
MCK	**McKinley**	**101.31**	**25**	*e*Pdif	Pdif	21 16 07.1	-0.2
	comp=Z,13µm,0.8s						
MCK				*e*PP	PP	21 20 13.7	-2.6
COLA	**College**	**101.38**	**24**	*e*P	Pdif	21 16 07.3	-0.4
COLA				*e*		21 20 16.5	
COLA				MLR	MLR		
	comp=Z,22µm,21.0s,MS6.7						
ESDC	**Sonseca Array**	**102.02**	**310**	P	Pdif	21 16 12.4	+1.9
	comp=Z,0.2nm,0.3s,baz=27,slow=0.6,SNR=3.5						
ESDC				PKKP	PKKPbc	21 32 20.8	+4.6
	comp=Z,1.5nm,0.7s,baz=274,slow=4.1,SNR=7.6						
KIP	**Kipapa**	**102.16**	**69**	PFAKE		21 16 20.0	+8.9
KIP				LR	LR		
	comp=Z,17µm,20.0s,MS6.6						
SEW	**Seward**	**102.18**	**29**	*e*Pdif	Pdif	21 16 10.8	-0.4
SCO	**Scoresbysund**	**102.32**	**343**	*i* P	Pdif	21 16 08.3	-3.5
SCO				*i*		21 20 23.5	
SCO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SCO				MLR	MLR		
	comp=Z,25µm,22.0s,MS6.7						
SCO	**Scoresbysund**	**102.32**	**343**	*i* P	Pdif	21 16 08.3	-3.5
	comp=Z,5.4nm,1.0s						
SCO				*i*		21 20 23.5	
SCO							
	comp=Z,25µm,22.0s						
PAB	**San Pablo**	**102.33**	**310**	PFAKE		21 16 20.0	+8.1
PAB				LR	LR		
	comp=Z,15µm,20.0s,MS6.5						
XMAS	**Kiritimati**	**102.81**	**88**	PFAKE		21 16 30.0	+16
XMAS				LR	LR		
	comp=Z,12µm,21.0s,MS6.4						
PAX	**Paxson**	**103.03**	**25**	*e*P	Pdif	21 16 14.5	-0.5
PAX				*e*		21 20 28.6	
MDT	**Midelt**	**103.33**	**303**	PKKPbc	PKKPbc	21 32 09.2	-3.0
	comp=Z,2.1nm,0.9s,baz=281,slow=5.2,SNR=2.2						
EGAK	**Eagle**	**104.06**	**23**	*e*Pdif	Pdif	21 16 19.7	+0.1
EGAK				LR	LR		
	comp=Z,41µm,20.0s,MS7.0						
SFS	**San Fernando**	**104.19**	**307**	PFAKE		21 16 30.0	+10
SFS				LR	LR		
	comp=Z,19µm,19.0s,MS6.6						
SHEL	**Horse Pasture**	**104.31**	**253**	PFAKE		21 16 30.0	+9.3
SHEL				LR	LR		
	comp=Z,20µm,21.0s,MS6.6						
POHA	**Pohakuloa**	**104.55**	**70**	PFAKE		21 16 30.0	+8.2
POHA				LR	LR		
	comp=Z,12µm,20.0s,MS6.4						
MTE	**Manteigas**	**104.64**	**311**	*e*Pdif	Pdif	21 16 22.9	+0.8
MTE	**Manteigas**	**104.64**	**311**	*e*PP	PP	21 20 47.5	+5.4
MTE				*e*SKS		21 27 16.0	
MTE				A		22 29 02.0	
	comp=Z,8µm,16.6s						
MTE	**Manteigas**	**104.64**	**311**	PFAKE		21 16 30.0	+7.9
MTE				LR	LR		
	comp=Z,9µm,21.0s,MS6.3						
PMRV	**Marv??o**	**104.68**	**310**	*e*Pdif	Pdif	21 16 26.2	+3.9
PMRV	**Marv??o**	**104.68**	**310**	*e*PP	PP	21 20 48.6	+6.2
PMRV				*e*SKS		21 27 16.6	
PMRV				A		22 27 08.7	
	comp=Z,6µm,17.0s						
BORG	**Borgarnes**	**104.88**	**338**	PFAKE		21 16 30.0	+6.8
BORG				LR	LR		
	comp=Z,27µm,21.0s,MS6.8						
PESTR	**Estremoz**	**104.92**	**310**	*e*Pdif	Pdif	21 16 28.7	+5.3
PESTR	**Estremoz**	**104.92**	**310**	*e*PP	PP	21 20 46.8	+2.6
PESTR				*e*SKS		21 27 13.2	
PESTR				A		22 16 40.2	
	comp=Z,10µm,17.5s						
INK	**Inuvik**	**104.95**	**18**	Pdiff	Pdif	21 16 23.9	+0.4
	comp=Z,6.3nm,1.1s,baz=18,slow=4.3,SNR=4.9						
INK				PP	PP	21 20 41.5	-1.9
	comp=Z,14nm,1.0s,baz=314,slow=12,SNR=5.0						
INK				PKKPbc	PKKPbc	21 32 09.8	+1.4
	comp=Z,1.5nm,0.8s,baz=18,slow=12,SNR=3.8						
INK	**Inuvik**	**104.95**	**18**	*e*Pdif	Pdif	21 16 23.8	+0.2
RTC	**Rabat Centre**	**105.05**	**304**	PFAKE		21 20 50.0	+11
RTC				LR	LR		
	comp=Z,9µm,21.0s,MS6.3						
DAWY	**Dawson**	**105.07**	**23**	*e*Pdif	Pdif	21 16 25.6	+1.5
SUMG	**Summit**	**105.17**	**348**	*e*Pdif	Pdif	21 16 27.3	+2.8
PVAQ	**Vaqueiros**	**105.25**	**308**	*e*Pdif	Pdif	21 16 30.3	+5.4
PVAQ	**Vaqueiros**	**105.25**	**308**	*e*PP	PP	21 20 51.6	+4.8
PVAQ				*e*SKS	SKSac	21 27 13.3	+10
PVAQ				A		22 08 22.2	
	comp=Z,8µm,20.4s						
EVOP	**Sao Brissos**	**105.39**	**309**	*e*P	Pdif	21 16 26.3	+0.8
EVOP				*e*SS	SS	21 35 41.2	-1.2
EVOP				AMS	AMS	22 25 48.4	
	comp=Z,8µm,13.4s,MS6.4						
EVOP	**Sao Brissos**	**105.39**	**309**	*e*P	Pdif	21 16 26.3	+0.8
EVOP				*e*SS	SS	21 35 41.2	-1.2
PBDV	**Barranco-do-Ve**	**105.45**	**308**	*e*PP	PP	21 20 52.4	+4.2
PBDV				*e*SKS	SKSac	21 27 19.5	+15
PBDV				A		22 17 41.1	
	comp=Z,8µm,22.7s						
MORF	**Marmelete**	**106.00**	**308**	*e*Pdif	Pdif	21 16 34.5	+6.3
MORF	**Marmelete**	**106.00**	**308**	*e*PP	PP	21 20 54.1	+1.8
MORF				*e*SKS	SKSac	21 27 19.6	+13
MORF				A		22 26 49.5	
	comp=Z,14µm,18.7s						
MORF	**Marmelete**	**106.00**	**308**	*e*P	Pdif	21 16 29.1	+0.9
MORF				*e*SS	SS	21 35 50.9	+0.1
PFVI	**Vila Bisbo**	**106.17**	**308**	*e*Pdif	Pdif	21 16 37.2	+8.2
PFVI	**Vila Bisbo**	**106.17**	**308**	*e*PP	PP	21 20 57.4	+3.9
PFVI				A		22 28 37.7	
	comp=Z,12µm,19.6s						
PMAFR	**Mafra**	**106.21**	**310**	*e*Pdif	Pdif	21 16 36.6	+7.5
PMAFR	**Mafra**	**106.21**	**310**	*e*PP	PP	21 20 59.9	+6.2
PMAFR				*e*SKS	SKSdf	21 27 19.0	-32
PMAFR				A		22 19 20.4	
	comp=Z,8µm,18.9s						
RES	**Resolute Bay**	**107.12**	**4**	Pdiff	Pdif	21 16 33.4	+0.3
	baz=351,slow=6.3						
PPT	**Papeete**	**108.90**	**109**	*e*Pdif	Pdif	21 16 41.6	+0.5
	comp=Z,1µm,26.8s						
PPT	**Papeete**	**108.90**	**109**	*e*PP	PP	21 21 06.9	-7.2
	comp=Z,3µm,27.0s						
PPT				*e*Sdif	Sdif	21 28 29.1	-19
PPT	**Papeete**	**108.90**	**109**	*e*PS	PS	21 30 36.9	-3.9
	comp=Z,8µm,25.5s						
PPT				*e*LR	LR	21 52 45.8	
	comp=Z,45µm,25.2s						
PPT	**Papeete**	**108.90**	**109**	*e*Pdif	Pdif	21 16 41.6	+0.5
PPT				*e*PP	PP	21 21 06.9	-7.2
PPT				*e*PS	PS	21 30 36.9	-3.9
SKAG	**Skagway**	**108.97**	**26**	*e*PKiKP	PKiKP	21 20 44.8	-0.9
DLBC	**Dease Lake**	**111.84**	**26**	PKiKP	PKiKP	21 20 52.0	+0.8
	comp=Z,8.2nm,0.9s,baz=302,slow=3.3,SNR=9.0						
DLBC				PP	PP	21 21 36.1	+2.3
	comp=Z,20nm,1.0s,baz=309,slow=6.9,SNR=5.4						
DLBC				PKKPab	PKKPab	21 31 54.7	+1.0
	comp=Z,4.4nm,1.1s,baz=340,slow=16,SNR=3.4						
DLBC	**Dease Lake**	**111.84**	**26**	*e*PKiKP	PKiKP	21 20 51.5	+0.3
DLBC				*e*PP	PP	21 21 35.4	+1.6
WRAK	**Wrangell Islan**	**111.90**	**28**	*e*Pdif	Pdif	21 16 55.6	+1.1
WRAK				*e*PKiKP	PKiKP	21 20 51.3	0.0
WRAK				LR	LR		
	comp=Z,24µm,19.0s,MS6.8						
PMSA	**Palmer Station**	**112.10**	**187**	PFAKE		21 21 00.0	+8.5
PMSA				LR	LR		
	comp=Z,20µm,22.0s,MS6.7						
SFJD	**Kangerlussuaq**	**112.17**	**348**	*e*P	Pdif	21 16 46.2	-9.4
SFJD				*i*		21 20 51.3	
SFJD				*e*		21 21 34.3	
SFJD				MLR	MLR		
	comp=Z,37µm,20.0s,MS7.0						
SFJD	**Kangerlussuaq**	**112.17**	**348**	*i* P	Pdif	21 16 46.2	-9.4
	comp=Z,6.0nm,0.8s						
SFJD							
	comp=Z,37µm,20.0s						
SFJD	**Kangerlussuaq**	**112.17**	**348**	PP	PP	21 21 31.2	-4.6
	comp=Z,28nm,1.1s,baz=302,slow=4.2,SNR=4.5						
SFJD	**Kangerlussuaq**	**112.17**	**348**	*e*P	Pdif	21 16 46.2	-9.4
SFJD				*e*PKiKP	PKiKP	21 20 51.3	-0.3
SFJD				*e*PP	PP	21 21 34.3	-1.5
SFJD				LR	LR		
	comp=Z,37µm,20.0s,MS7.0						
YKA	**Yellowknife Ar**	**114.66**	**17**	P	Pdif	21 17 07.1	+0.4
YKA						21 20 55.6	
YKA						21 21 53.3	
YKA	**Yellowknife Ar**	**114.66**	**17**	Pdiff	Pdif	21 17 07.1	+0.5
	comp=Z,0.6nm,1.0s,baz=324,slow=4.4,SNR=6.8						
YKA				PKP	PKiKP	21 20 55.6	-0.8
	comp=Z,12nm,1.0s,baz=315,slow=2.4,SNR=15						
YKA				PP	PP	21 21 53.3	-0.2
	comp=Z,18nm,1.0s,baz=328,slow=7.0,SNR=6.7						
YKA				PKKPab	PKKPab	21 31 38.8	-2.4
	comp=Z,2.2nm,0.9s,baz=143,slow=2.5,SNR=4.9						
YKA				PKKP	PKKPdf	21 31 57.5	-2.2
	comp=Z,2.2nm,0.8s,baz=136,slow=3.6,SNR=7.2						
YKA	**Yellowknife Ar**	**114.66**	**17**	Pdif	Pdif	21 17 07.1	+0.4
YKA				PKP	PKiKP	21 20 55.6	-0.8
YKA				PP	PP	21 21 53.3	-0.3
YKA				PKKPab	PKKPab	21 31 38.8	-2.4
YKA				PKKP	PKKPdf	21 31 57.5	-2.2
BBB	**Bella Bella**	**116.29**	**31**	PKP	PKPdf	21 21 00.8	+0.9
	comp=Z,22nm,0.9s,baz=321,slow=4.3,SNR=5.7						
BBB	**Bella Bella**	**116.29**	**31**	PKP	PKPdf	21 21 00.8	+0.9
FRB	**Frobisher Bay**	**118.04**	**354**	PKP	PKPdf	21 21 02.0	-0.9
	comp=Z,11nm,0.9s,baz=348,slow=2.1,SNR=14						
FRB				PKKPab	PKKPab	21 31 32.4	+6.2
	comp=Z,3.7nm,1.0s,baz=102,slow=2.7,SNR=2.4						
CMLA	**Cha da Macela**	**118.80**	**312**	PFAKE		21 21 20.0	+15
CMLA				LR	LR		
	comp=Z,9µm,19.0s,MS6.4						
TAOE	**Nuku Hiva Isla**	**119.24**	**101**	*e*PP	PP	21 22 28.4	+0.9
	comp=Z,4µm,26.4s						
TAOE				*e*Sdif	Sdif	21 30 09.8	-4.5
	comp=Z,6µm,27.5s						
TAOE	**Nuku Hiva Isla**	**119.24**	**101**	*e*PS	PS	21 32 13.1	-3.4
	comp=Z,7µm,23.4s						
TAOE				*e*SS	SS	21 38 45.6	-2.3
	comp=Z,17µm,28.5s						
TAOE				*e*LR	LR	21 59 11.1	
	comp=Z,32µm,24.2s						
PGC	**Sidney**	**120.78**	**32**	*e*PKPdf	PKPdf	21 21 08.7	+0.1
PGC				*e*PP	PP	21 22 34.8	-1.7
RKT	**Rikitea**	**121.02**	**119**	*e*SS	SS	21 39 07.4	-2.5
	comp=Z,16µm,30.0s						
RKT				*e*LR	LR	21 58 19.2	
	comp=Z,41µm,25.5s						
A05A	**Maple Falls**	**121.28**	**31**	⇓P	PKPdf	21 21 08.8	-0.8
	baz=121						
NLWA	**Neilton Lookou**	**121.30**	**33**	⇓P	PKPdf	21 21 10.0	+0.3
	baz=121						
NLWA	**Neilton Lookou**	**121.30**	**33**	*e*PKPdf	PKPdf	21 21 09.8	+0.1
NLWA				*e*PP	PP	21 22 38.1	-2.0
NLWA				LR	LR		
	comp=Z,17µm,20.0s,MS6.7						
A06A	**Chilliwack**	**121.52**	**31**	⇓P	PKPdf	21 21 09.2	-0.8
	baz=121						
B06A	**Marblemount**	**121.89**	**31**	⇓P	PKPdf	21 21 10.6	-0.2
	baz=122						
E03A	**Lebam**	**121.97**	**34**	⇓P	PKPdf	21 21 11.4	+0.4
	baz=122						
D04A	**Dobbs Creek Ra**	**122.06**	**33**	⇓P	PKPdf	21 21 11.0	-0.1
	baz=122						
A07A	**Ashnola River,**	**122.11**	**30**	⇑P	PKPdf	21 21 10.7	-0.4
	baz=122						
USHA	**Ushuaia**	**122.30**	**188**	PKP	PKPdf	21 21 11.9	+0.5
	comp=Z,19nm,0.9s,baz=52,slow=3.1,SNR=6.3						
F03A	**Seaside**	**122.33**	**35**	⇓P	PKPdf	21 21 12.2	+0.5
	baz=122						
D05A	**Enumclaw**	**122.45**	**33**	⇑P	PKPdf	21 21 11.8	-0.1
	baz=122						
C06A	**Tall Timber Ra**	**122.57**	**31**	⇑P	PKPdf	21 21 11.9	-0.2
	baz=122						
FCC	**Fort Churchill**	**122.60**	**9**	*e*PKIKP	PKPdf	21 21 10.8	-1.0
FCC				*e*		21 22 50.4	
B07A	**Winthrop**	**122.62**	**30**	⇑P	PKPdf	21 21 11.7	-0.5
	baz=122						
HEBO	**Mount Hebo**	**122.64**	**35**	*e*PKPdf	PKPdf	21 21 13.0	+0.7
HEBO				*e*PP	PP	21 22 49.3	0.0
KOSW	**Kosmos**	**122.78**	**33**	P	PKPdf	21 21 13.6	+1.1
LON	**Longmire**	**122.81**	**33**	*e*PKIKP	PKPdf	21 21 12.7	+0.1
LON				*e*		21 22 51.5	
F04A	**Amboy**	**122.97**	**34**	⇓P	PKPdf	21 21 12.6	-0.3
	baz=123						
A09A	**Danville**	**123.05**	**29**	⇑P	PKPdf	21 21 13.1	+0.2
	baz=123						
D06A	**Cle Elum**	**123.06**	**32**	⇑P	PKPdf	21 21 13.2	+0.1
	baz=123						
B08A	**Colville Reser**	**123.09**	**30**	⇓P	PKPdf	21 21 12.7	-0.4
	baz=123						
EFI	**East Falkland**	**123.09**	**196**	*e*PKIKP	PKPdf	21 21 13.4	+0.4
EFI				MLR	MLR		
	comp=Z,14µm,22.0s,MS6.6						
C07A	**Waterville**	**123.15**	**31**	⇓P	PKPdf	21 21 12.8	-0.4
	baz=123						
COR	**Corvallis**	**123.26**	**36**	*e*PKIKP	PKPdf	21 21 12.4	-1.1
COR				*e*		21 22 53.7	
G04A	**Mulino**	**123.38**	**35**	⇓P	PKPdf	21 21 13.8	+0.1
	baz=123						
E06A	**Yakima**	**123.39**	**33**	⇑P	PKPdf	21 21 13.3	-0.4
	baz=123						
D07A	**Quincy**	**123.52**	**32**	⇑P	PKPdf	21 21 13.4	-0.5
	baz=123						
A10A	**Northport**	**123.54**	**29**	⇑P	PKPdf	21 21 14.0	+0.1
	baz=123						
C08A	**Higginbotham F**	**123.61**	**31**	⇓P	PKPdf	21 21 13.9	-0.1
	baz=124						
B09A	**Rice**	**123.63**	**29**	⇑P	PKPdf	21 21 13.9	-0.2
	baz=124						
HOOD	**Mount Hood Mea**	**123.77**	**34**	*e*PKPdf	PKPdf	21 21 14.7	+0.2
HOOD				*e*PP	PP	21 22 56.3	-0.6
H04A	**Detroit Lake**	**123.85**	**35**	⇑P	PKPdf	21 21 14.4	-0.2
	baz=124						
F06A	**Goldendale**	**123.98**	**33**	⇑P	PKPdf	21 21 14.8	-0.1
	baz=124						
E07A	**Sunnyside**	**123.98**	**32**	⇓P	PKPdf	21 21 14.8	-0.1
	baz=124						
C09A	**Chrisman Ranch**	**123.99**	**30**	⇓P	PKPdf	21 21 14.7	-0.1
	baz=124						
G05A	**Wamic**	**124.01**	**34**	⇑P	PKPdf	21 21 15.4	+0.5
	baz=124						
A11A	**Hall Mountain,**	**124.12**	**28**	⇓P	PKPdf	21 21 15.6	+0.6
	baz=124						
D08A	**Wollman Farm,**	**124.15**	**31**	⇓P	PKPdf	21 21 15.1	0.0
	baz=124						
B10A	**Chitwood Farm,**	**124.17**	**29**	⇓P	PKPdf	21 21 15.3	+0.2
	baz=124						
WRD	**Warden**	**124.20**	**31**	P	PKPdf	21 21 16.6	+1.3
IRO	**Indian Ridge**	**124.21**	**36**	P	PKPdf	21 21 15.2	-0.2
NEW	**Newport**	**124.24**	**29**	*e*PKIKP	PKPdf	21 21 16.1	+0.8
NEW				*e*		21 22 59.9	
NEW				MLR	MLR		
	comp=Z,24µm,19.0s						
HAWA	**Hanford**	**124.26**	**32**	*e*PKPdf	PKPdf	21 21 15.7	+0.3
HAWA				*e*PP	PP	21 22 59.4	-0.7
HAWA				LR	LR		
	comp=Z,19µm,22.0s,MS6.7						
F07A	**Phinny Hill Vi**	**124.37**	**33**	⇑P	PKPdf	21 21 15.8	+0.2
	baz=124						
G06A	**Carlson Farm,**	**124.39**	**34**	⇓P	PKPdf	21 21 15.7	0.0
	baz=124						
E08A	**Dider Farm, El**	**124.45**	**32**	⇓P	PKPdf	21 21 15.8	+0.1
	baz=124						
C10A	**Spilker Farm,**	**124.45**	**30**	⇑P	PKPdf	21 21 15.7	0.0
	baz=124						
D09A	**Jones Farm, Ri**	**124.46**	**31**	⇑P	PKPdf	21 21 15.6	-0.2
	baz=124						
VTHM	**Trough**	**124.47**	**34**	P	PKPdf	21 21 17.1	+1.3
A12A	**Yaak River Ran**	**124.47**	**28**	⇑P	PKPdf	21 21 15.7	0.0
	baz=124						
B11A	**Sandpoint**	**124.48**	**28**	⇓P	PKPdf	21 21 15.6	-0.1
	baz=124						
HUMO	**Hull Mountain**	**124.60**	**38**	*e*PKPdf	PKPdf	21 21 16.1	-0.1
HUMO				*e*PP	PP	21 23 02.2	-0.3
HUMO				LR	LR		
	comp=Z,17µm,20.0s,MS6.7						
KTRM	**Thompson Ridge**	**124.73**	**38**	P	PKPdf	21 21 18.1	+1.6
FFC	**Flin Flon**	**124.75**	**15**	*e*PKIKP	PKPdf	21 21 16.2	+0.2
FFC				*e*		21 23 00.7	
FFC				MLR	MLR		
	comp=Z,27µm,21.0s,MS6.9						
FFC	**Flin Flon**	**124.75**	**15**	*e*PKPdf	PKPdf	21 21 16.2	+0.2
FFC				*e*PP	PP	21 23 00.7	-2.1
FFC				*e*SKPdf	SKPdf	21 24 49.1	-0.1
FFC				LR	LR		
	comp=Z,27µm,21.0s,MS6.9						
B12A	**Libby**	**124.83**	**28**	⇑P	PKPdf	21 21 16.5	+0.1
	baz=125						
VIPM	**Ingram Point**	**124.85**	**34**	PKIKP	PKPdf	21 21 18.1	+1.5
H06A	**Lindquist Farm**	**124.87**	**34**	⇓P	PKPdf	21 21 16.5	-0.1
	baz=125						
G07A	**Ruggs Ranch, H**	**124.91**	**33**	⇓P	PKPdf	21 21 16.4	-0.2
	baz=125						
E09A	**Wood Farm, Sta**	**124.91**	**31**	⇑P	PKPdf	21 21 16.4	-0.2
	baz=125						
D10A	**Wagner Farm, O**	**124.99**	**30**	⇓P	PKPdf	21 21 16.4	-0.3
	baz=125						
A13A	**Flathead Natio**	**125.04**	**27**	⇓P	PKPdf	21 21 17.0	+0.2
	baz=125						
F08A	**Pendleton**	**125.05**	**32**	⇑P	PKPdf	21 21 17.2	+0.3
	baz=125						
WALA	**Waterton Lakes**	**125.17**	**27**	*e*PKPdf	PKPdf	21 21 17.2	+0.1
WALA				*e*PP	PP	21 23 05.7	-0.3
YBH	**Yreka Blue Hor**	**125.25**	**38**	PKP	PKPdf	21 21 17.0	-0.4
	comp=Z,5.8nm,1.1s,baz=60,slow=3.5,SNR=5.4						
YBH	**Yreka Blue Hor**	**125.25**	**38**	*e*PKPdf	PKPdf	21 21 16.8	-0.6
YBH				*e*PP	PP	21 23 05.6	-1.3
YBH				LR	LR		
	comp=Z,16µm,20.0s,MS6.7						
G08A	**Pilot Rock**	**125.28**	**33**	⇓P	PKPdf	21 21 17.4	0.0
	baz=125						
LAMM	**Antelope Mount**	**125.37**	**38**	P	PKPdf	21 21 18.5	+0.9
H07A	**Lands Inn, Kim**	**125.39**	**34**	⇓P	PKPdf	21 21 17.7	+0.1
	baz=125						
B13A	**Whitefish**	**125.42**	**27**	⇓P	PKPdf	21 21 17.1	-0.4
	baz=125						
C12B	**Naegeli Ranch,**	**125.42**	**29**	⇑P	PKPdf	21 21 17.2	-0.4
	baz=125						
I06A	**Prineville**	**125.43**	**35**	⇑P	PKPdf	21 21 18.2	+0.5
	baz=125						
A14A	**Double T Ranch**	**125.45**	**26**	⇑P	PKPdf	21 21 17.2	-0.4
	baz=125						
E10A	**Myers Farm, Un**	**125.46**	**31**	⇑P	PKPdf	21 21 17.6	-0.1
	baz=125						
D11A	**Klaveano Farm,**	**125.47**	**30**	⇓P	PKPdf	21 21 17.1	-0.5
	baz=125						
BSMT	**Bassoo Peak**	**125.65**	**28**	*e*PKPdf	PKPdf	21 21 18.5	+0.6
BSMT				*e*PP	PP	21 23 07.6	-1.6
I07A	**Izee**	**125.74**	**34**	⇑P	PKPdf	21 21 18.5	+0.2
	baz=126						
F10A	**Beach Ranch, E**	**125.75**	**31**	⇑P	PKPdf	21 21 18.1	-0.1
	baz=126						
A15A	**Johnson Ranch,**	**125.75**	**26**	⇑P	PKPdf	21 21 17.2	-0.9
	baz=126,SNR=28						
K05A	**Summer Lake**	**125.77**	**36**	⇓P	PKPdf	21 21 18.4	+0.1
	baz=126						
C13A	**Hot Springs**	**125.87**	**28**	⇑P	PKPdf	21 21 17.9	-0.6
	baz=126						
J06A	**Christmas Vall**	**125.89**	**35**	⇓P	PKPdf	21 21 18.4	-0.2
	baz=126						
G09A	**Cove**	**125.92**	**32**	⇓P	PKPdf	21 21 18.3	-0.3
	baz=126						
H08A	**Prairie City**	**125.93**	**33**	⇓P	PKPdf	21 21 18.5	-0.1
	baz=126						
JTMT	**Jette**	**125.96**	**28**	*e*PKPdf	PKPdf	21 21 18.3	-0.3
JTMT				*e*PP	PP	21 23 07.6	-3.7
WDC	**Whiskeytown Da**	**125.99**	**39**	*e*PKIKP	PKPdf	21 21 18.8	-0.1
WDC				*e*		21 23 07.5	
WDC				MLR	MLR		
	comp=Z,23µm,22.0s,MS6.8						
YBMT	**Yellow Bay**	**126.00**	**28**	*e*PKPdf	PKPdf	21 21 19.8	+1.2
YBMT				*e*PP	PP	21 23 11.3	-0.2
E11A	**Bogner Ranch,**	**126.00**	**30**	⇑P	PKPdf	21 21 18.0	-0.7
	baz=126						
G10A	**Bishop Farm, J**	**126.26**	**32**	⇑P	PKPdf	21 21 18.5	-0.7
	baz=126						
SWMT	**Swartz Lake**	**126.26**	**28**	*e*PKPdf	PKPdf	21 21 19.1	-0.1
SWMT				*e*PP	PP	21 23 14.4	+1.1
A16A	**West Butte Ran**	**126.26**	**25**	⇓P	PKPdf	21 21 18.8	-0.3
	baz=126,SNR=13						
J07A	**Hines**	**126.30**	**35**	⇓P	PKPdf	21 21 19.6	+0.2
	baz=126						
B15A	**Bradely Ranch,**	**126.33**	**26**	⇓P	PKPdf	21 21 18.5	-0.8
	baz=126,SNR=58						
D13A	**Huson**	**126.34**	**29**	⇑P	PKPdf	21 21 18.9	-0.5
	baz=126						
F11A	**Grangeville**	**126.35**	**31**	⇑P	PKPdf	21 21 18.4	-1.0
	baz=126						
I08A	**Drewsey**	**126.37**	**34**	⇑P	PKPdf	21 21 19.6	+0.1
	baz=126						
H09A	**Durkee**	**126.38**	**33**	⇑P	PKPdf	21 21 19.4	-0.1
	baz=126						
BMO	**Blue Mountains**	**126.45**	**32**	*e*PKPdf	PKPdf	21 21 18.3	-1.3
BMO				*e*PP	PP	21 23 14.6	-0.2
BMO				LR	LR		
	comp=Z,19µm,22.0s,MS6.7						
SCHQ	**Schefferville**	**126.46**	**350**	PKP	PKPdf	21 21 18.9	-0.4
	comp=Z,22nm,1.0s,baz=23,slow=3.7,SNR=22						
SCHQ				PP	PP	21 23 14.6	+0.5
	comp=Z,22nm,1.0s,baz=11,slow=9.3,SNR=2.9						
HOPS	**Hopland**	**126.51**	**41**	*e*PKPdf	PKPdf	21 21 18.6	-1.3
HOPS				LR	LR		
	comp=Z,16µm,20.0s,MS6.7						
MOD	**Modoc**	**126.61**	**37**	*e*PKPdf	PKPdf	21 21 20.6	+0.6
MOD				*e*PP	PP	21 23 16.7	+0.8
B16A	**M & M Farms, S**	**126.62**	**26**	⇓P	PKPdf	21 21 19.0	-0.8
	baz=126,SNR=16						
A17A	**Triple J Farms**	**126.64**	**25**	⇑P	PKPdf	21 21 19.3	-0.6
	baz=126,SNR=32						
SLMT	**Seeley Lake**	**126.69**	**28**	*e*PKPdf	PKPdf	21 21 19.4	-0.6
SLMT				*e*PP	PP	21 23 16.1	0.0
C15A	**Salmond Ranch,**	**126.71**	**27**	⇓P	PKPdf	21 21 19.8	-0.2
	baz=126,SNR=56						
K07A	**Rock Creek Ran**	**126.75**	**35**	⇓P	PKPdf	21 21 20.4	+0.2
	baz=127						
J08A	**Circle Bar Ran**	**126.78**	**34**	⇓P	PKPdf	21 21 21.0	+0.7
	baz=127						
MSO	**Missoula**	**126.78**	**28**	*e*PKPdf	PKPdf	21 21 20.6	+0.4
MSO				*e*PP	PP	21 23 18.3	+1.5
MSO				LR	LR		
	comp=Z,24µm,20.0s,MS6.9						
I09A	**Lost Marbles R**	**126.79**	**33**	⇓P	PKPdf	21 21 20.2	-0.1
	baz=127						
D14A	**Greenough**	**126.80**	**28**	⇓P	PKPdf	21 21 19.9	-0.4
	baz=127,SNR=19						
F12A	**Elk City**	**126.90**	**30**	⇑P	PKPdf	21 21 19.7	-0.7
	baz=127						
H10A	**Noah’s Angus R**	**126.92**	**32**	⇓P	PKPdf	21 21 19.7	-0.8
	baz=127						
E13A	**Victor**	**126.94**	**29**	⇓P	PKPdf	21 21 19.8	-0.7
	baz=127						
A18A	**Metzger Ranch,**	**127.02**	**24**	⇑P	PKPdf	21 21 19.9	-0.7
	baz=127,SNR=30						
CHMT	**Chamberlain Mo**	**127.05**	**28**	*e*PKPdf	PKPdf	21 21 21.0	+0.3
CHMT				*e*PP	PP	21 23 19.4	+0.9
C16A	**Fuhringer Ranc**	**127.07**	**26**	⇓P	PKPdf	21 21 19.7	-1.0
	baz=127,SNR=28						
MCCM	**Marconi Confer**	**127.09**	**42**	PFAKE		21 21 30.0	+8.9
MCCM				LR	LR		
	comp=Z,15µm,20.0s,MS6.7						
B17A	**L&G Farms, Che**	**127.11**	**25**	⇓P	PKPdf	21 21 20.2	-0.6
	baz=127,SNR=21						
L07A	**Adell**	**127.11**	**36**	⇓P	PKPdf	21 21 21.6	+0.6
	baz=127						
K08A	**Mann Creek Ran**	**127.17**	**35**	⇓P	PKPdf	21 21 21.3	+0.3
	baz=127						
J09A	**Fry Pan Ranch,**	**127.19**	**34**	⇑P	PKPdf	21 21 21.2	+0.2
	baz=127						
I10A	**Payette**	**127.23**	**33**	⇓P	PKPdf	21 21 21.1	0.0
	baz=127						
H11A	**Donnelly**	**127.23**	**32**	⇓P	PKPdf	21 21 21.2	+0.1

	baz=127						
WVOR	**Wild Horse Val**	**127.27**	**35**	*e*PKIKP	PKPdf	21 21 22.1	+0.8
WVOR						21 23 19.9	
WVOR				MLR	MLR		
	comp=Z,24µm,22.0s,MS6.8						
D15A	**Lincoln**	**127.29**	**27**	⇓P	PKPdf	21 21 20.8	-0.4
	baz=127,SNR=46						
E14A	**Clinton**	**127.29**	**29**	⇓P	PKPdf	21 21 20.5	-0.6
	baz=127,SNR=23						
G12A	**Big Creek, Yel**	**127.30**	**31**	⇑P	PKPdf	21 21 21.0	-0.2
	baz=127						
F13A	**Darby**	**127.34**	**30**	⇓P	PKPdf	21 21 20.5	-0.8
	baz=127						
B18A	**Beardsley Farm**	**127.46**	**24**	⇓P	PKPdf	21 21 21.3	-0.1
	baz=127						
N06A	**Buffalo Meadow**	**127.58**	**38**	⇑P	PKPdf	21 21 22.1	+0.2
	baz=127						
L08A	**Fields**	**127.59**	**35**	⇑P	PKPdf	21 21 21.9	0.0
	baz=127						
M07A	**Soldier Meadow**	**127.60**	**37**	⇑P	PKPdf	21 21 22.6	+0.6
	baz=128						
K09A	**Rome**	**127.62**	**35**	⇑P	PKPdf	21 21 22.4	+0.5
	baz=128						
C17A	**Wharram Farm,**	**127.63**	**26**	⇓P	PKPdf	21 21 21.2	-0.6
	baz=128,SNR=17						
J10A	**Berg Farm, Mel**	**127.68**	**33**	⇓P	PKPdf	21 21 22.3	+0.3
	baz=128						
E15A	**Deer Lodge**	**127.69**	**28**	⇑P	PKPdf	21 21 21.4	-0.5
	baz=128,SNR=10						
D16A	**Dana Ranch, Ca**	**127.74**	**27**	⇑P	PKPdf	21 21 21.8	-0.3
	baz=128,SNR=71						
EGMT	**Eagleton**	**127.76**	**25**	⇑P	PKPdf	21 21 21.7	-0.4
	baz=128,SNR=24						
EGMT	**Eagleton**	**127.76**	**25**	*e*PKPdf	PKPdf	21 21 22.2	+0.2
EGMT				LR	LR		
	comp=Z,23µm,22.0s,MS6.8						
F14A	**Wisdom**	**127.79**	**29**	⇓P	PKPdf	21 21 22.4	+0.2
	baz=128,SNR=20						
I11A	**Placerville**	**127.80**	**32**	⇑P	PKPdf	21 21 22.6	+0.4
	baz=128						
HRY	**Holter Researc**	**127.85**	**27**	*e*PKPdf	PKPdf	21 21 22.4	+0.2
HRY				*e*PP	PP	21 23 22.9	-0.9
G13A	**Cobalt**	**127.88**	**30**	⇑P	PKPdf	21 21 21.8	-0.6
	baz=128						
O06A	**Flanigan**	**127.93**	**38**	⇑P	PKPdf	21 21 22.9	+0.3
	baz=128						
H12A	**Diamond D Ranc**	**127.94**	**31**	⇑P	PKPdf	21 21 22.5	+0.1
	baz=128						
D17A	**Six Diamond Ra**	**128.03**	**26**	⇑P	PKPdf	21 21 22.7	+0.1
	baz=128,SNR=20						
M08A	**Happy Creek Ra**	**128.03**	**36**	⇓P	PKPdf	21 21 22.4	-0.4
	baz=128						
K10A	**MacKenzie Ranc**	**128.05**	**34**	⇓P	PKPdf	21 21 23.0	+0.3
	baz=128						
E16A	**East Helena**	**128.06**	**27**	⇑P	PKPdf	21 21 22.7	+0.1
	baz=128,SNR=24						
L09A	**Wilkinson Ranc**	**128.09**	**35**	⇓P	PKPdf	21 21 23.3	+0.5
	baz=128						
N07B	**Gerlach**	**128.09**	**37**	⇑P	PKPdf	21 21 23.0	+0.1
	baz=128						
G14A	**Jackson**	**128.16**	**30**	⇑P	PKPdf	21 21 23.1	+0.2
	baz=128,SNR=36						
P06A	**Stead Airport,**	**128.17**	**39**	⇓P	PKPdf	21 21 23.2	+0.1
	baz=128						
F15A	**Butte**	**128.19**	**28**	⇓P	PKPdf	21 21 23.0	+0.1
	baz=128,SNR=14						
MFID	**Camas Ranch**	**128.20**	**33**	⇑P	PKPdf	21 21 23.2	+0.1
	baz=128						
LRM	**Limekiln Ridge**	**128.22**	**28**	*e*PKPdf	PKPdf	21 21 23.5	+0.6
LRM				*e*PP	PP	21 23 26.6	+0.4
H13A	**Challis**	**128.24**	**31**	⇑P	PKPdf	21 21 23.1	0.0
	baz=128						
I12A	**Atlanta**	**128.32**	**32**	⇑P	PKPdf	21 21 24.0	+0.8
	baz=128						
D18A	**Linhart Farms,**	**128.38**	**25**	⇑P	PKPdf	21 21 22.5	-0.7
	baz=128						
WCN	**Washoe City**	**128.48**	**39**	⇑P	PKPdf	21 21 23.7	0.0
	baz=128						
E17A	**Martinsdale**	**128.48**	**27**	⇑P	PKPdf	21 21 23.4	0.0
	baz=128,SNR=17						
O07A	**Toulon**	**128.52**	**38**	⇑P	PKPdf	21 21 24.0	+0.3
	baz=128						
K11A	**Parker Ranch,**	**128.52**	**33**	⇑P	PKPdf	21 21 23.8	+0.1
	baz=128						
N08A	**GE Springer Mi**	**128.59**	**37**	⇑P	PKPdf	21 21 24.0	+0.2
	baz=128						
M09A	**Marrel Ranch,**	**128.59**	**36**	⇑P	PKPdf	21 21 24.3	+0.5
	baz=128						
F16A	**Kennard Place,**	**128.64**	**28**	⇑P	PKPdf	21 21 23.5	-0.3
	baz=128,SNR=12						
G15A	**Dillon**	**128.69**	**29**	⇑P	PKPdf	21 21 24.3	+0.4
	baz=128,SNR=42						
J12A	**Stokes Ranch,**	**128.71**	**32**	⇑P	PKPdf	21 21 24.6	+0.6
	baz=128						
L10A	**Juniper Basin**	**128.73**	**34**	⇑P	PKPdf	21 21 25.0	+1.0
	baz=129						
BOZ	**Bozeman (W)**	**128.74**	**28**	⇓P	PKPdf	21 21 24.1	+0.2
	baz=129,SNR=35						
BOZ	**Bozeman (W)**	**128.74**	**28**	*e*PKPdf	PKPdf	21 21 24.8	+0.8
BOZ				*e*PP	PP	21 23 29.4	-0.2
BOZ				LR	LR		
	comp=Z,25µm,21.0s,MS6.9						
MCMT	**McKenzie Canyo**	**128.75**	**29**	*e*PKPdf	PKPdf	21 21 24.6	+0.6
MCMT				*e*PP	PP	21 23 30.6	+0.8
MCMT				*e*SKPdf	SKPdf	21 24 57.2	+0.1
I13A	**Wildhorse Cree**	**128.76**	**31**	⇓P	PKPdf	21 21 24.5	+0.4
	baz=129						
SAO	**San Andreas Ge**	**128.79**	**43**	*e*PKIKP	PKPdf	21 21 22.4	-1.9
SAO				*e*		21 23 30.2	
CMB	**Columbia Colle**	**128.80**	**41**	*e*PKIKP	PKPdf	21 21 24.5	+0.2
CMB				*e*		21 23 30.5	
E18A	**Harlowton**	**128.82**	**26**	⇑P	PKPdf	21 21 24.1	0.0
	baz=129						
HLID	**Hailey**	**128.85**	**32**	⇑P	PKPdf	21 21 25.0	+0.8
	baz=129						
HLID	**Hailey**	**128.85**	**32**	*e*PKPdf	PKPdf	21 21 24.7	+0.5
HLID				*e*PP	PP	21 23 32.8	+2.3
O08A	**Rochester Mine**	**128.88**	**37**	⇓P	PKPdf	21 21 24.7	+0.3
	baz=129						
P07A	**Fallon**	**128.88**	**38**	⇓P	PKPdf	21 21 25.0	+0.6
	baz=129						
N09A	**Rock Creek Ran**	**128.91**	**36**	⇓P	PKPdf	21 21 24.8	+0.3
	baz=129						
G16A	**Moss Hill, Enn**	**128.97**	**28**	⇑P	PKPdf	21 21 24.8	+0.4
	baz=129,SNR=34						
F17A	**Fitzpatrick Pl**	**128.99**	**27**	⇑P	PKPdf	21 21 24.9	+0.4
	baz=129,SNR=22						
H15A	**Lima**	**129.01**	**30**	⇓P	PKPdf	21 21 24.9	+0.4
	baz=129,SNR=28						
M10A	**I.L. Ranch, Tu**	**129.05**	**35**	⇓P	PKPdf	21 21 25.3	+0.6
	baz=129						
L11A	**Cat Creek Ranc**	**129.07**	**34**	⇓P	PKPdf	21 21 25.4	+0.7
	baz=129						
J13A	**Cove Ranch, Pi**	**129.09**	**32**	⇓P	PKPdf	21 21 25.0	+0.2
	baz=129						
I14A	**Mackay**	**129.10**	**31**	⇓P	PKPdf	21 21 25.2	+0.5
	baz=129,SNR=5.7						
R06C	**Coleville**	**129.13**	**40**	⇓P	PKPdf	21 21 25.3	+0.4
	baz=129						
K12A	**Draper Farm, C**	**129.23**	**33**	⇑P	PKPdf	21 21 25.9	+0.9
	baz=129						
P08A	**Dixie Valley**	**129.29**	**38**	⇑P	PKPdf	21 21 25.5	+0.3
	baz=129						
Q07A	**Schurz**	**129.29**	**39**	⇑P	PKPdf	21 21 25.6	+0.4
	baz=129						
BMN	**Battle Mountai**	**129.35**	**36**	*e*PKIKP	PKPdf	21 21 25.7	+0.4
BMN				*e*		21 23 36.0	
G17A	**Pierce Place,**	**129.40**	**28**	⇑P	PKPdf	21 21 25.9	+0.7
	baz=129,SNR=19						
F18A	**Big Timber**	**129.42**	**26**	⇓P	PKPdf	21 21 25.5	+0.3
	baz=129,SNR=16						
J14A	**Carey**	**129.49**	**31**	⇑P	PKPdf	21 21 26.4	+1.0
	baz=129,SNR=14						
L12A	**House Creek Ra**	**129.50**	**33**	⇓P	PKPdf	21 21 26.7	+1.2
	baz=129,SNR=6.9						
GCMT	**Greycliff**	**129.53**	**27**	*e*PKPdf	PKPdf	21 21 25.7	+0.2
GCMT				*e*PP	PP	21 23 35.5	+0.8
I15A	**Monteview**	**129.53**	**30**	⇑P	PKPdf	21 21 25.9	+0.4
	baz=129						
O09A	**Fish Creek Ran**	**129.53**	**37**	⇑P	PKPdf	21 21 26.3	+0.7
	baz=129						
DGMT	**Dagmar**	**129.53**	**21**	⇑P	PKPdf	21 21 25.4	0.0
	baz=129						
DGMT	**Dagmar**	**129.53**	**21**	*e*PKPdf	PKPdf	21 21 27.0	+1.6
DGMT				*e*PP	PP	21 23 33.7	-0.9
M11A	**Holland Ranch,**	**129.54**	**35**	⇓P	PKPdf	21 21 26.6	+0.9
	baz=129						
N10A	**Dunphy**	**129.59**	**36**	⇑P	PKPdf	21 21 26.6	+0.8
	baz=129						
H16A	**Russell Place,**	**129.62**	**29**	⇓P	PKPdf	21 21 26.9	+1.3
	baz=130,SNR=31						
K13A	**Stover Farm, H**	**129.66**	**32**	⇓P	PKPdf	21 21 26.6	+0.8
	baz=130						
YMR	**Madison River**	**129.78**	**28**	*e*PKPdf	PKPdf	21 21 27.0	+1.0
YMR				*e*PP	PP	21 23 44.0	+7.5
O10A	**Cortez Mining,**	**129.87**	**36**	⇑P	PKPdf	21 21 26.8	+0.6
	baz=130						
YNR	**Norris Junctio**	**129.88**	**28**	*e*PKPdf	PKPdf	21 21 27.4	+1.3
YNR				*e*PP	PP	21 23 37.4	+0.3
Q08A	**Gabbs**	**129.88**	**39**	⇑P	PKPdf	21 21 26.2	-0.2
	baz=130						
NVAR	**Mina Array Bea**	**129.91**	**39**	PKP	PKPdf	21 21 26.5	+0.1
	comp=Z,13nm,0.9s,baz=269,slow=2.1,SNR=19						
NVAR				PP	PP	21 23 37.8	+0.1
	comp=Z,15nm,1.1s,baz=302,slow=5.2,SNR=4.2						
G18A	**Lazy EL Ranch,**	**129.94**	**27**	⇓P	PKPdf	21 21 25.8	-0.4
	baz=130						
P09A	**Austin**	**129.95**	**37**	⇑P	PKPdf	21 21 26.5	+0.1
	baz=130						
N11A	**Elko Archery C**	**129.97**	**35**	⇓P	PKPdf	21 21 26.5	+0.1
	baz=130						
J15A	**Blackfoot**	**129.99**	**30**	⇓P	PKPdf	21 21 27.4	+1.0
	baz=130,SNR=24						
MLAC	**Mammoth Lakes**	**130.04**	**40**	⇓P	PKPdf	21 21 26.9	+0.3
	baz=130						
R08A	**Mina**	**130.08**	**39**	⇓P	PKPdf	21 21 27.1	+0.4
	baz=130						
I16A	**Newdale**	**130.12**	**29**	⇓P	PKPdf	21 21 27.4	+0.7
	baz=130,SNR=11						
L13A	**Double Diamond**	**130.12**	**33**	⇑P	PKPdf	21 21 28.0	+1.3
	baz=130,SNR=17						
H17A	**Grant Village**	**130.17**	**28**	⇓P	PKPdf	21 21 28.5	+1.7
	baz=130,SNR=17						
K14A	**Jones Ranch, D**	**130.21**	**32**	⇑P	PKPdf	21 21 27.4	+0.6
	baz=130,SNR=24						
RLMT	**Red Lodge**	**130.22**	**27**	⇓P	PKPdf	21 21 27.1	+0.3
	baz=130						
RLMT	**Red Lodge**	**130.22**	**27**	*e*PKPdf	PKPdf	21 21 26.5	-0.3
LAO	**LASA Array**	**130.26**	**23**	*e*PKPdf	PKPdf	21 21 26.4	-0.4
LAO				*e*PP	PP	21 23 39.2	-0.2
LAO				LR	LR		
	comp=Z,30µm,22.0s,MS7.0						
ELK	**Elko**	**130.31**	**35**	PKP	PKPdf	21 21 26.9	-0.2
	comp=Z,15nm,0.9s,baz=243,slow=0.4,SNR=27						
ELK	**Elko**	**130.31**	**35**	*e*PKPdf	PKPdf	21 21 28.3	+1.2
ELK				*e*PP	PP	21 23 39.9	-0.2
P10A	**Eureka**	**130.31**	**37**	⇓P	PKPdf	21 21 28.4	+1.2
	baz=130						
N12A	**Clover Valley,**	**130.35**	**35**	⇓P	PKPdf	21 21 28.3	+1.2
	baz=130						
N12A	**Clover Valley,**	**130.35**	**35**	*e*PKPdf	PKPdf	21 21 28.2	+1.0
N12A				*e*PP	PP	21 23 41.7	+1.4
ULM	**Lac du Bonnet**	**130.35**	**13**	PKP	PKPdf	21 21 26.0	-0.9
	comp=Z,20nm,0.8s,baz=336,slow=3.0,SNR=22						
ULM	**Lac du Bonnet**	**130.35**	**13**	*e*PKPdf	PKPdf	21 21 26.9	+0.1
Q09A	**Carvers**	**130.37**	**38**	⇑P	PKPdf	21 21 27.6	+0.3
	baz=130						
K15A	**Arbon**	**130.45**	**31**	⇓P	PKPdf	21 21 28.3	+0.9
	baz=130,SNR=15						
O11A	**Cowboy Ranch,**	**130.46**	**36**	⇑P	PKPdf	21 21 28.2	+0.8
	baz=130						
J16A	**Bone**	**130.50**	**30**	⇑P	PKPdf	21 21 28.1	+0.7
	baz=130,SNR=16						
M13A	**Montello**	**130.50**	**34**	⇑P	PKPdf	21 21 28.1	+0.7
	baz=130,SNR=26						
M13A	**Montello**	**130.50**	**34**	*e*PKPdf	PKPdf	21 21 28.2	+0.8
M13A				*e*PP	PP	21 23 41.5	+0.3
RCTC	**Rector, Farmer**	**130.52**	**42**	⇓P	PKPdf	21 21 28.0	+0.3
	baz=130						
I17A	**Pilgrim Ck.**	**130.53**	**29**	⇑P	PKPdf	21 21 28.6	+1.2
	baz=130,SNR=11						
L14A	**Malta**	**130.54**	**32**	⇓P	PKPdf	21 21 28.3	+0.8
	baz=130,SNR=16						
SMMC	**Simmler**	**130.56**	**44**	⇑P	PKPdf	21 21 28.6	+0.8
	baz=130						
TIN	**Tinemaha**	**130.77**	**41**	⇑P	PKPdf	21 21 28.4	+0.4
	baz=131						
P11A	**Circle Ranch,**	**130.78**	**36**	⇑P	PKPdf	21 21 28.6	+0.5
	baz=131						
R09A	**Tonopah**	**130.80**	**39**	⇑P	PKPdf	21 21 29.2	+1.1
	baz=131						
N13A	**Wendover, West**	**130.82**	**34**	⇓P	PKPdf	21 21 28.7	+0.7
	baz=131						
N13A	**Wendover, West**	**130.82**	**34**	*e*PKPdf	PKPdf	21 21 28.7	+0.7
N13A				*e*PP	PP	21 23 44.3	+0.9
N13A				*e*SKP		21 24 50.3	
K16A	**Soda Springs**	**130.83**	**30**	⇑P	PKPdf	21 21 28.5	+0.5
	baz=131						
M14A	**Sheep Mountain**	**130.85**	**33**	⇑P	PKPdf	21 21 28.9	+0.8
	baz=131,SNR=30						
Q10A	**Clear Creek Ra**	**130.85**	**38**	⇑P	PKPdf	21 21 29.0	+0.8
	baz=131						
J17A	**Brown Place, J**	**130.88**	**29**	⇑P	PKPdf	21 21 28.8	+0.7
	baz=131,SNR=13						
VES	**Vestal, Richgr**	**130.89**	**42**	⇑P	PKPdf	21 21 28.1	-0.2
	baz=131						
O12A	**Currie**	**130.90**	**35**	⇓P	PKPdf	21 21 28.7	+0.5
	baz=131,SNR=20						
HVU	**Hansel Valley**	**130.96**	**32**	*e*PKPdf	PKPdf	21 21 28.5	+0.2
HVU				*e*SKP		21 24 50.9	
L15A	**Malad City**	**131.01**	**32**	⇑P	PKPdf	21 21 28.2	-0.2
	baz=131,SNR=17						
S09A	**Goldfield**	**131.01**	**39**	⇑P	PKPdf	21 21 29.7	+1.2
	baz=131						
I18A	**Diamond G Ranc**	**131.05**	**28**	⇑P	PKPdf	21 21 28.4	0.0
	baz=131						
AHID	**Auburn Hatcher**	**131.12**	**30**	*e*PKPdf	PKPdf	21 21 29.6	+1.0
AHID				*e*PP	PP	21 23 44.7	-0.5
CWC	**Cottonwood Cre**	**131.22**	**41**	⇑P	PKPdf	21 21 29.8	+0.8
	baz=131						
SBC	**Santa Barbara**	**131.22**	**44**	⇓P	PKPdf	21 21 30.2	+1.2
	baz=131						
K17A	**Gardner Place,**	**131.22**	**30**	⇑P	PKPdf	21 21 28.9	+0.1
	baz=131						
R10A	**Warm Springs**	**131.25**	**38**	⇑P	PKPdf	21 21 30.2	+1.2
	baz=131						
S10A	**Tonopah Range,**	**131.29**	**39**	⇑P	PKPdf	21 21 30.0	+0.9
	baz=131						
Q11A	**Duckwater**	**131.29**	**37**	⇓P	PKPdf	21 21 29.7	+0.7
	baz=131,SNR=26						
J18A	**Kendall Valley**	**131.33**	**29**	⇑P	PKPdf	21 21 29.6	+0.6
	baz=131						
GRAC	**Grapevine Rang**	**131.35**	**40**	⇑P	PKPdf	21 21 29.8	+0.6
	baz=131						
M15A	**Larsen Ranch,**	**131.36**	**32**	⇓P	PKPdf	21 21 29.5	+0.4
	baz=131,SNR=12						
N14A	**Grayback Hills**	**131.38**	**33**	⇓P	PKPdf	21 21 29.4	+0.3
	baz=131,SNR=23						
ISA	**Isabella**	**131.40**	**42**	⇑P	PKPdf	21 21 29.7	+0.4
	baz=131						
ISA	**Isabella**	**131.40**	**42**	*e*PKPdf	PKPdf	21 21 29.0	-0.3
ISA				*e*PP	PP	21 23 48.9	+1.4
BGU	**Big Grassy Mou**	**131.42**	**33**	*e*PKPdf	PKPdf	21 21 29.5	+0.3
BGU				*e*SKP		21 24 53.7	
O13A	**Hicks Ranch, I**	**131.43**	**35**	⇑P	PKPdf	21 21 30.1	+0.9
	baz=131						
ARVC	**Arvin**	**131.46**	**43**	⇑P	PKPdf	21 21 30.0	+0.5
	baz=131						
SPUT	**South Promonto**	**131.47**	**32**	*e*PKPdf	PKPdf	21 21 30.0	+0.7
SPUT				*e*PP	PP	21 23 51.8	+4.3
L16A	**Fish Haven**	**131.50**	**31**	⇑P	PKPdf	21 21 30.0	+0.7
	baz=131,SNR=13						
BSC	**Santa Cruz Isl**	**131.51**	**45**	⇓P	PKPdf	21 21 30.0	+0.4
	baz=131						
DAC	**Darwin (Calif)**	**131.63**	**41**	PFAKE		21 21 40.0	+10
DAC				LR	LR		
	comp=Z,16µm,22.0s,MS6.7						
R11A	**Troy Canyon, C**	**131.65**	**38**	⇓P	PKPdf	21 21 30.7	+0.9
	baz=132,SNR=58						
Q12A	**Willow Creek R**	**131.66**	**36**	⇑P	PKPdf	21 21 30.5	+0.8
	baz=132,SNR=12						
N15A	**Stansbury Isla**	**131.72**	**33**	⇓P	PKPdf	21 21 30.4	+0.6
	baz=132,SNR=28						
L17A	**Cokeville**	**131.72**	**31**	⇓P	PKPdf	21 21 30.1	+0.3
	baz=132						
K18A	**Toltan Ranch,**	**131.74**	**29**	⇓P	PKPdf	21 21 30.6	+0.8
	baz=132						
MPMC	**Manual Prospec**	**131.83**	**41**	⇑P	PKPdf	21 21 31.4	+1.3
	baz=132						
BLG	**Laguna Peak**	**131.85**	**44**	⇓P	PKPdf	21 21 31.0	+0.7
	baz=132						
P13A	**Bates Ranch, G**	**131.86**	**35**	⇓P	PKPdf	21 21 30.8	+0.7
	baz=132,SNR=16						
BW06	**Boulder Array**	**131.88**	**29**	⇑P	PKPdf	21 21 29.9	-0.1
	baz=132						
BW06	**Boulder Array**	**131.88**	**29**	*e*PKPdf	PKPdf	21 21 30.6	+0.5
BW06				*e*PP	PP	21 23 51.8	+1.7
PDAR	**Pinedale Array**	**131.88**	**29**	PKP	PKPdf	21 21 29.8	-0.3
	comp=Z,6.7nm,0.8s,baz=230,slow=1.2,SNR=14						
PDAR				PP	PP	21 23 50.0	0.0
	comp=Z,23nm,1.0s,baz=336,slow=2.0,SNR=7.6						
PDAR				SKP		21 25 01.8	
	comp=Z,13nm,1.1s,baz=296,slow=2.9,SNR=3.1						
M16A	**Huntsville**	**131.90**	**32**	⇓P	PKPdf	21 21 30.0	-0.1
	baz=132,SNR=10						
SNCC	**San Nicolas Is**	**131.98**	**46**	⇓P	PKPdf	21 21 31.0	+0.5
	baz=132						
S11A	**Rachel**	**131.99**	**38**	⇓P	PKPdf	21 21 31.2	+0.8
	baz=132						
FURC	**Furnace Creek,**	**132.00**	**40**	⇓P	PKPdf	21 21 30.9	+0.4
	baz=132						
LRMC	**Laurel Mountai**	**132.03**	**42**	⇑P	PKPdf	21 21 31.3	+0.8
	baz=132						
DUG	**Dugway**	**132.04**	**34**	⇓P	PKPdf	21 21 31.4	+1.0
	baz=132,SNR=17						
DUG	**Dugway**	**132.04**	**34**	*e*PKPdf	PKPdf	21 21 30.8	+0.4
DUG				*e*PP	PP	21 23 51.3	0.0
NOQ	**North Oquirrh**	**132.10**	**33**	*e*PKPdf	PKPdf	21 21 32.6	+2.1
EDW2	**Edwards Air Fo**	**132.17**	**43**	⇑P	PKPdf	21 21 31.9	+1.1
	baz=132,SNR=15						
O15A	**The Old Anders**	**132.17**	**33**	⇑P	PKPdf	21 21 31.2	+0.6
	baz=132,SNR=9.4						
AGMN	**Agassiz Refuge**	**132.18**	**14**	*e*PKPdf	PKPdf	21 21 29.8	-0.6
AGMN				*e*PP	PP	21 23 50.7	-0.8
K19A	**Absolon Red Bu**	**132.18**	**28**	⇑P	PKPdf	21 21 30.4	-0.2
	baz=132						
Q13A	**Wheeler Ranch,**	**132.19**	**36**	⇓P	PKPdf	21 21 31.0	+0.3
	baz=132,SNR=24						
R12A	**Pony Springs,**	**132.25**	**37**	⇑P	PKPdf	21 21 31.5	+0.7
	baz=132,SNR=7.9						
L18A	**Fontenelle, Gr**	**132.28**	**30**	⇓P	PKPdf	21 21 31.1	+0.3
	baz=132						
DECC	**Green Verdugo**	**132.29**	**44**	⇑P	PKPdf	21 21 31.0	0.0
	baz=132						
M17A	**Scullys Gap (B**	**132.29**	**31**	⇓P	PKPdf	21 21 31.0	+0.2
	baz=132						
N16A	**Rees Ranch, Co**	**132.31**	**32**	⇓P	PKPdf	21 21 31.3	+0.4
	baz=132						
P14A	**Drum Mountains**	**132.31**	**35**	⇓P	PKPdf	21 21 32.0	+1.1
	baz=132,SNR=34						
U10A	**Ash Meadows, A**	**132.37**	**40**	⇑P	PKPdf	21 21 32.2	+1.0
	baz=132						
L19A	**Farson**	**132.48**	**29**	⇑P	PKPdf	21 21 31.6	+0.4
	baz=132						
MWC	**Mount Wilson**	**132.49**	**44**	*e*PKIKP	PKPdf	21 21 31.4	0.0
MWC				*e*		21 23 54.4	
MWC	**Mount Wilson**	**132.49**	**44**	*e*PKPdf	PKPdf	21 21 31.4	0.0
MWC				*e*PP	PP	21 23 54.4	-0.1
MWC				*e*SKP		21 24 56.2	
S12A	**Delamar Landin**	**132.56**	**38**	⇑P	PKPdf	21 21 32.9	+1.4
	baz=132,SNR=18						
T11A	**Corn Creek, Al**	**132.57**	**38**	⇑P	PKPdf	21 21 32.5	+1.0
	baz=132,SNR=25						
N17A	**Moffit Pass**	**132.59**	**32**	⇑P	PKPdf	21 21 32.0	+0.6
	baz=132						
Q14A	**Sevier Lake (B**	**132.60**	**35**	⇑P	PKPdf	21 21 32.8	+1.3
	baz=132,SNR=13						
FMP	**Fort Macarthur**	**132.60**	**44**	⇑P	PKPdf	21 21 32.4	+0.7
	baz=132						
NLU	**North Lily Min**	**132.62**	**33**	*e*PKPdf	PKPdf	21 21 32.2	+0.7
NLU				*e*PP	PP	21 23 56.1	+1.1
NLU				*e*SKP		21 25 01.9	
M18A	**Lyman**	**132.63**	**31**	⇓P	PKPdf	21 21 31.3	-0.2
	baz=132						
CIS	**Catalina Islan**	**132.69**	**45**	⇑P	PKPdf	21 21 32.6	+0.7
	baz=133						
SHOC	**Shoshone**	**132.71**	**41**	⇑P	PKPdf	21 21 32.5	+0.7
	baz=133						
GSC	**Goldstone**	**132.72**	**42**	*e*PKIKP	PKPdf	21 21 33.4	+1.6
GSC				*e*		21 23 58.6	
GSC	**Goldstone**	**132.72**	**42**	⇓P	PKPdf	21 21 32.9	+1.1
	baz=133,SNR=16						
GSC	**Goldstone**	**132.72**	**42**	*e*PKPdf	PKPdf	21 21 33.4	+1.5
GSC				*e*PP	PP	21 23 58.6	+2.6
GSC				*e*SKP		21 25 03.9	
R13A	**O’Grain Ranch,**	**132.73**	**37**	⇑P	PKPdf	21 21 32.7	+1.0
	baz=133						
DAU	**Daniels Canyon**	**132.74**	**32**	*e*PKIKP	PKPdf	21 21 31.9	+0.2
DAU				*e*		21 23 55.9	
DAU	**Daniels Canyon**	**132.74**	**32**	*e*PKPdf	PKPdf	21 21 31.9	+0.2
DAU				*e*PP	PP	21 23 55.9	+0.2
DAU				*e*SKP		21 24 57.5	
BFSC	**Mount Baldy St**	**132.75**	**43**	⇑P	PKPdf	21 21 32.6	+0.6
	baz=133						
P15A	**Leamington**	**132.77**	**34**	⇑P	PKPdf	21 21 32.4	+0.6
	baz=133						
MPU	**Maple Canyon**	**132.82**	**33**	*e*PKPdf	PKPdf	21 21 32.8	+1.0
MPU				*e*PP	PP	21 23 59.9	+3.7
MPU				*e*SKP		21 24 58.7	
SCI	**San Clemente I**	**132.82**	**45**	⇑P	PKPdf	21 21 32.4	+0.3
	baz=133						
RRX	**Edison Barstow**	**132.84**	**42**	⇑P	PKPdf	21 21 32.8	+0.8
	baz=133						
U11A	**Corn Creek**	**132.97**	**39**	⇓P	PKPdf	21 21 33.2	+0.9
	baz=133						
M19A	**Rock Springs**	**133.03**	**30**	⇓P	PKPdf	21 21 32.7	+0.5
	baz=133						
L20A	**Wamsutter**	**133.05**	**29**	⇓P	PKPdf	21 21 32.7	+0.4
	baz=133						
P16A	**Fountain Green**	**133.09**	**34**	⇑P	PKPdf	21 21 33.4	+1.0
	baz=133						
Q15A	**Fillmore**	**133.11**	**35**	⇑P	PKPdf	21 21 33.3	+0.8
	baz=133						
O17A	**Robinson Place**	**133.17**	**32**	⇑P	PKPdf	21 21 33.6	+1.1
	baz=133						
S13A	**Holt Ranch, En**	**133.18**	**37**	⇓P	PKPdf	21 21 33.9	+1.3
	baz=133,SNR=15						
T12A	**Moapa**	**133.21**	**39**	⇓P	PKPdf	21 21 33.4	+0.7
	baz=133						
R14A	**James Farms, M**	**133.21**	**36**	⇓P	PKPdf	21 21 33.2	+0.6
	baz=133						
TUQ	**Turquoise Moun**	**133.22**	**41**	⇓P	PKPdf	21 21 33.6	+0.8
	baz=133,SNR=7.0						
BBRC	**Big Bear Sol-O**	**133.24**	**43**	⇑P	PKPdf	21 21 33.5	+0.6
	baz=133						
RSSD	**Black Hills**	**133.25**	**24**	PKIKP	PKPdf	21 21 32.4	-0.2
RSSD				*e*		21 23 58.9	
ARUT	**Antelope Range**	**133.30**	**37**	*e*PKIKP	PKPdf	21 21 33.8	+0.9
ARUT				*e*		21 24 00.5	
ARUT	**Antelope Range**	**133.30**	**37**	*e*PKPdf	PKPdf	21 21 33.8	+1.0
ARUT				*e*PP	PP	21 24 00.5	+1.0
ARUT				*e*SKP		21 25 00.1	
V11A	**Goodsprings**	**133.30**	**40**	⇑P	PKPdf	21 21 34.2	+1.3
	baz=133						
HEC	**Hector,Ludlow**	**133.31**	**42**	⇑P	PKPdf	21 21 33.8	+0.9
	baz=133						
MURC	**Murrieta**	**133.43**	**44**	⇑P	PKPdf	21 21 34.1	+0.8
	baz=133						
EYMN	**Ely**	**133.44**	**10**	*e*PKPdf	PKPdf	21 21 33.0	+0.2
EYMN				*e*PP	PP	21 23 58.7	-0.8
EYMN				*e*SKP		21 24 58.7	
S14A	**Cedar City**	**133.48**	**36**	⇑P	PKPdf	21 21 34.2	+1.0
	baz=133,SNR=5.8						
U12A	**Valley of Fire**	**133.50**	**39**	⇑P	PKPdf	21 21 33.9	+0.6
	baz=133,SNR=5.7						
CCUT	**Cedar City**	**133.50**	**37**	*e*PKPdf	PKPdf	21 21 33.6	+0.4
CCUT				*e*PP	PP	21 24 00.0	-0.8
O18A	**Roosevelt**	**133.51**	**32**	⇑P	PKPdf	21 21 33.7	+0.6
	baz=133						
M20A	**Sweetwater, Wa**	**133.51**	**29**	⇓P	PKPdf	21 21 33.9	+0.7
	baz=133						
T13A	**Saint George**	**133.52**	**38**	⇓P	PKPdf	21 21 33.9	+0.7
	baz=133						
L21A	**Rawlins**	**133.54**	**28**	⇑P	PKPdf	21 21 33.0	-0.1
	baz=133						
MSU	**Marysvale**	**133.55**	**35**	*e*PKIKP	PKPdf	21 21 35.8	+2.5
MSU				*e*		21 24 01.5	
TMUT	**Trail Mountain**	**133.56**	**33**	*e*PKPdf	PKPdf	21 21 33.7	+0.4
TMUT				*e*PP	PP	21 24 03.0	+2.0
TMUT				*e*SKP		21 25 02.1	
P17A	**Butcher Ranch,**	**133.69**	**33**	⇑P	PKPdf	21 21 33.6	+0.1
	baz=134						
R15A	**Junction**	**133.70**	**35**	⇓P	PKPdf	21 21 34.6	+1.1
	baz=134						
V12A	**Nelson**	**133.74**	**40**	⇓P	PKPdf	21 21 35.2	+1.5
	baz=134,SNR=16						
GMRC	**Granite Mounta**	**133.79**	**41**	⇑P	PKPdf	21 21 35.0	+1.2
	baz=134,SNR=17						
M21A	**Separation Pea**	**133.82**	**28**	⇑P	PKPdf	21 21 33.8	+0.1
	baz=134						

Q16A	**Castle Valley**	**133.84**	**34**	⇑P	PKPdf	21 21 34.5	+0.7
	baz=134						
P18A	**Preston Nutter**	**133.84**	**32**	⇑P	PKPdf	21 21 34.6	+0.8
	baz=134						
U13A	**Pakoon Wash**	**133.87**	**38**	⇑P	PKPdf	21 21 34.7	+0.8
	baz=134						
109C	**Camp Elliot, M**	**133.89**	**45**	⇓P	PKPdf	21 21 34.7	+0.6
	baz=134						
PFO	**Pinyon Flat Ob**	**133.93**	**43**	*e*PKIKP	PKPdf	21 21 33.5	-0.7
PFO				*e*		21 24 01.9	
PFO				MLR	MLR		
	comp=Z,18µm,22.0s,MS6.7						
PFO	**Pinyon Flat Ob**	**133.93**	**43**	⇓P	PKPdf	21 21 34.6	+0.4
	baz=134						
PFO	**Pinyon Flat Ob**	**133.93**	**43**	*e*PKPdf	PKPdf	21 21 33.5	-0.7
PFO				*e*PP	PP	21 24 01.9	-1.9
PFO				*e*SKP		21 25 01.9	
PFO				LR	LR		
	comp=Z,18µm,22.0s,MS6.7						
O19A	**Miners Draw (B**	**133.94**	**31**	⇑P	PKPdf	21 21 34.0	0.0
	baz=134						
LDFC	**Landfair**	**133.97**	**41**	*e*PKPdf	PKPdf	21 21 34.9	+0.7
LDFC				*e*PP	PP	21 24 06.4	+2.5
N20A	**Spence Gulch,**	**133.98**	**30**	⇓P	PKPdf	21 21 34.5	+0.4
	baz=134						
W12A	**Cal Nev Ari**	**133.99**	**40**	⇑P	PKPdf	21 21 34.8	+0.6
	baz=134						
T14A	**Hurricane**	**133.99**	**37**	⇑P	PKPdf	21 21 35.3	+1.1
	baz=134						
S15A	**Panguitch**	**134.01**	**36**	⇑P	PKPdf	21 21 36.1	+1.9
	baz=134						
BELC	**Belle Mtn.**	**134.02**	**43**	⇑P	PKPdf	21 21 35.1	+0.8
	baz=134,SNR=10						
SRU	**San Rafael**	**134.06**	**33**	⇑P	PKPdf	21 21 34.5	+0.3
	baz=134						
SRU	**San Rafael**	**134.06**	**33**	*e*PKPdf	PKPdf	21 21 33.8	-0.5
SRU				*e*PP	PP	21 24 06.0	+1.8
R16A	**Teasdale**	**134.11**	**35**	⇑P	PKPdf	21 21 34.8	+0.4
	baz=134						
V13A	**Grand Canyon W**	**134.21**	**39**	⇓P	PKPdf	21 21 35.8	+1.2
	baz=134,SNR=13						
Q18A	**Rafter H Ranch**	**134.28**	**33**	⇓P	PKPdf	21 21 35.0	+0.4
	baz=134						
BAR	**Barrett**	**134.31**	**44**	*e*PKPdf	PKPdf	21 21 30.3	-4.6
BAR				*e*PP	PP	21 24 11.3	+5.1
BAR				*e*SKP		21 25 03.0	
M22A	**Cedar Creek Ra**	**134.34**	**28**	⇓P	PKPdf	21 21 34.5	-0.2
	baz=134						
U14A	**Mt Trumbull**	**134.35**	**38**	⇑P	PKPdf	21 21 36.2	+1.4
	baz=134						
MONP	**Monument Peak**	**134.37**	**44**	⇓P	PKPdf	21 21 36.2	+1.2
	baz=134						
N21A	**Black Mountain**	**134.40**	**29**	⇑P	PKPdf	21 21 35.2	+0.4
	baz=134						
T15A	**Red Dirt Ranch**	**134.44**	**37**	⇓P	PKPdf	21 21 35.6	+0.6
	baz=134						
R17A	**Hanksville Air**	**134.45**	**34**	⇓P	PKPdf	21 21 35.1	+0.1
	baz=134						
NEE2	**Needles Airpor**	**134.48**	**41**	⇓P	PKPdf	21 21 36.0	+0.8
	baz=134						
IRM	**Iron Mountain**	**134.50**	**42**	⇓P	PKPdf	21 21 36.4	+1.2
	baz=134,SNR=11						
P19A	**Cripple Cowboy**	**134.51**	**31**	⇑P	PKPdf	21 21 35.6	+0.5
	baz=134						
O20A	**White River Ci**	**134.51**	**30**	⇑P	PKPdf	21 21 35.3	+0.3
	baz=134						
BC3	**Big Chuckw Mtn**	**134.59**	**43**	⇓P	PKPdf	21 21 36.3	+0.9
	baz=134						
DVTC	**Desert V Tower**	**134.72**	**44**	⇓P	PKPdf	21 21 37.0	+1.3
	baz=135						
W13A	**Hualapai Mount**	**134.75**	**40**	⇓P	PKPdf	21 21 37.1	+1.4
	baz=135						
SWSC	**Sam W. Stewart**	**134.77**	**44**	⇓P	PKPdf	21 21 36.4	+0.7
	baz=135						
O21A	**Pagoda**	**134.84**	**30**	⇓P	PKPdf	21 21 35.9	+0.2
	baz=135						
Q19A	**Hogan Spring (**	**134.85**	**32**	⇓P	PKPdf	21 21 36.0	+0.3
	baz=135						
N22A	**Wattenberg Ran**	**134.88**	**28**	⇓P	PKPdf	21 21 36.4	+0.7
	baz=135						
V14A	**Boquillas Ranc**	**134.90**	**39**	⇑P	PKPdf	21 21 36.4	+0.4
	baz=135						
P20A	**De Beque**	**134.91**	**31**	⇑P	PKPdf	21 21 36.3	+0.5
	baz=135						
R18A	**Canyonlands Na**	**134.92**	**33**	⇓P	PKPdf	21 21 36.5	+0.6
	baz=135						
S17A	**Black Ridge (B**	**134.94**	**35**	⇑P	PKPdf	21 21 36.4	+0.5
	baz=135						
T16A	**Glen Canyon Da**	**134.98**	**36**	⇓P	PKPdf	21 21 36.3	+0.2
	baz=135						
RCBR	**Riachuelo**	**135.05**	**260**	*e*PKPdf	PKPdf	21 21 36.8	0.0
RCBR				LR	LR		
	comp=Z,13µm,20.0s,MS6.6						
PDMCI	**Parker Dam,Lak**	**135.08**	**41**	⇑P	PKPdf	21 21 37.0	+0.7
	baz=135						
X13A	**Yucca**	**135.10**	**40**	⇑P	PKPdf	21 21 37.4	+1.1
	baz=135						
Y12C	**Blythe**	**135.16**	**42**	⇓P	PKPdf	21 21 37.4	+0.9
	baz=135						
W14A	**Seligman**	**135.19**	**39**	⇑P	PKPdf	21 21 37.9	+1.4
	baz=135						
R19A	**Curley Farm, L**	**135.34**	**33**	⇑P	PKPdf	21 21 37.3	+0.6
	baz=135						
V15A	**Kaibab Nationa**	**135.36**	**38**	⇑P	PKPdf	21 21 38.1	+1.3
	baz=135						
S18A	**Hurst Farm, Bl**	**135.36**	**34**	⇓P	PKPdf	21 21 37.8	+1.1
	baz=135						
GLA	**Glamis**	**135.37**	**43**	⇑P	PKPdf	21 21 37.5	+0.7
	baz=135						
GLA	**Glamis**	**135.37**	**43**	*e*PKPdf	PKPdf	21 21 37.0	+0.1
GLA				*e*PP	PP	21 24 12.9	0.0
Q20A	**Ridgley Place,**	**135.37**	**32**	⇓P	PKPdf	21 21 37.1	+0.4
	baz=135						
T17A	**Navajo Res., N**	**135.38**	**35**	⇓P	PKPdf	21 21 37.7	+0.9
	baz=135						
PV04	**Paradox Valley**	**135.46**	**33**	*e*PKPdf	PKPdf	21 21 37.7	+0.8
PV04				*e*PP	PP	21 24 13.4	+0.5
Y13A	**Salome**	**135.58**	**41**	⇑P	PKPdf	21 21 38.5	+1.3
	baz=135						
COWI	**Conover**	**135.62**	**9**	*e*PKPdf	PKPdf	21 21 36.3	-0.6
COWI				*e*PP	PP	21 24 13.0	-0.4
W15A	**Williams**	**135.72**	**39**	⇓P	PKPdf	21 21 38.9	+1.4
	baz=136						
U17A	**Shonto**	**135.74**	**36**	⇑P	PKPdf	21 21 38.9	+1.5
	baz=136						
U16A	**Tuba City**	**135.77**	**37**	⇑P	PKPdf	21 21 38.7	+1.2
	baz=136						
X14A	**Yava**	**135.78**	**40**	⇓P	PKPdf	21 21 38.9	+1.3
	baz=136						
S19A	**Harvey Farm, M**	**135.80**	**33**	⇓P	PKPdf	21 21 38.3	+0.7
	baz=136						
T18A	**Mexican Hat**	**135.82**	**35**	⇑P	PKPdf	21 21 38.7	+1.1
	baz=136						
PV01	**Paradox Valley**	**135.82**	**33**	*e*PKPdf	PKPdf	21 21 36.5	-1.1
PV01				*e*PP	PP	21 24 15.6	+0.3
Q21A	**Lamborn Mesa,**	**135.83**	**31**	⇓P	PKPdf	21 21 38.2	+0.6
	baz=136						
112A	**Yuma**	**135.84**	**43**	⇓P	PKPdf	21 21 38.8	+1.0
	baz=136						
CAM4	**Nova Friburgo**	**135.88**	**234**	*e*P	PKPdf	21 21 48.6	+10
CAM4				*i*		21 21 52.5	
CAM4				*i*		21 21 57.6	
CAM4				*i*		21 22 05.2	
CAM4				*i*		21 22 10.1	
R20A	**Redvale**	**135.89**	**32**	⇓P	PKPdf	21 21 38.2	+0.5
	baz=136						
Y14A	**Wickenburg**	**136.04**	**40**	⇑P	PKPdf	21 21 39.1	+1.0
	baz=136						
WUAZ	**Wupatki**	**136.05**	**37**	⇓P	PKPdf	21 21 39.3	+1.2
	baz=136						
WUAZ	**Wupatki**	**136.05**	**37**	*e*PKPdf	PKPdf	21 21 38.5	+0.4
WUAZ				PP	PP	21 24 17.3	+0.4
WUAZ				LR	LR		
	comp=Z,16µm,19.0s,MS6.8						
ISCO	**Idaho Springs**	**136.06**	**28**	*e*PKIKP	PKPdf	21 21 36.5	-1.5
ISCO				*e*		21 24 18.0	
Z13A	**Yuma Proving G**	**136.07**	**42**	⇓P	PKPdf	21 21 38.8	+0.6
	baz=136						
Q22A	**Crested Butte,**	**136.15**	**30**	⇓P	PKPdf	21 21 39.0	+0.8
	baz=136						
ECSD	**EROS Data Cent**	**136.19**	**17**	*e*PKPdf	PKPdf	21 21 35.7	-2.4
ECSD				*e*PP	PP	21 24 16.5	-0.5
X15A	**Humboldt**	**136.19**	**39**	⇓P	PKPdf	21 21 39.5	+1.1
	baz=136						
W16A	**Flagstaff**	**136.23**	**38**	⇑P	PKPdf	21 21 39.8	+1.4
	baz=136						
113A	**Mohawk Valley,**	**136.25**	**42**	⇑P	PKPdf	21 21 39.2	+0.6
	baz=136						
U18A	**Rough Rock, Ch**	**136.32**	**35**	⇑P	PKPdf	21 21 39.9	+1.3
	baz=136						
PLCA	**Paso Flores**	**136.33**	**191**	PKP	PKPdf	21 21 39.0	+0.6
	comp=Z,7.6nm,1.0s,baz=178,slow=13,SNR=3.4						
PLCA	**Paso Flores**	**136.33**	**191**	*e*PKPdf	PKPdf	21 21 38.1	-0.3
PLCA				*e*PP	PP	21 24 15.6	-2.2
Z14A	**Wintersburg**	**136.44**	**41**	⇑P	PKPdf	21 21 39.6	+0.8
	baz=136						
Y15A	**Casa Rosa Ranc**	**136.46**	**40**	⇑P	PKPdf	21 21 39.9	+1.0
	baz=136						
T19A	**Beclabito**	**136.52**	**34**	⇑P	PKPdf	21 21 40.1	+1.2
	baz=136						
MVCO	**Mesa Verde**	**136.54**	**33**	⇑P	PKPdf	21 21 39.7	+0.8
	baz=136						
MVCO	**Mesa Verde**	**136.54**	**33**	*e*PKPdf	PKPdf	21 21 39.4	+0.5
R22A	**Saguache, Gunn**	**136.71**	**31**	⇑P	PKPdf	21 21 40.0	+0.8
	baz=136						
OGNE	**Ogallala**	**136.72**	**24**	PKPpre		21 21 32.0	
OGNE				*e*PKPdf	PKPdf	21 21 39.5	+0.4
OGNE				*e*PP	PP	21 24 21.7	+1.1
OGNE				LR	LR		
	comp=Z,26µm,20.0s,MS7.0						
X16A	**Lo Mia Camp, P**	**136.73**	**39**	⇑P	PKPdf	21 21 40.6	+1.2
	baz=137						
W17A	**Winslow**	**136.74**	**37**	⇑P	PKPdf	21 21 40.4	+1.0
	baz=137						
V18A	**Ganado**	**136.78**	**36**	⇑P	PKPdf	21 21 41.1	+1.7
	baz=137						
114A	**Black Gap (USA**	**136.85**	**42**	⇑P	PKPdf	21 21 40.6	+1.0
	baz=137						
Z15A	**Gila River Ind**	**137.00**	**41**	⇑P	PKPdf	21 21 41.0	+1.1
	baz=137						
Y16A	**Circle Bar Ran**	**137.06**	**39**	⇓P	PKPdf	21 21 41.4	+1.4
	baz=137						
X17A	**Forest Lakes**	**137.18**	**38**	⇑P	PKPdf	21 21 41.3	+1.1
	baz=137						
W18A	**Petrified Fore**	**137.30**	**37**	⇓P	PKPdf	21 21 41.6	+1.2
	baz=137						
115A	**Sonoran Desert**	**137.32**	**41**	⇓P	PKPdf	21 21 41.6	+1.1
	baz=137						
214A	**Organ Pipe Nat**	**137.39**	**43**	⇓P	PKPdf	21 21 42.0	+1.3
	baz=137						
GLMI	**Grayling**	**137.42**	**5**	*e*PKPdf	PKPdf	21 21 42.7	+2.4
GLMI				*e*PP	PP	21 24 24.4	-0.2
Z16A	**Peralta Trail,**	**137.44**	**40**	⇓P	PKPdf	21 21 41.8	+1.1
	baz=137						
LONY	**Lake Ozonia**	**137.51**	**354**	*e*PKPdf	PKPdf	21 21 40.0	-0.5
LONY				*e*PP	PP	21 24 25.1	-0.1
W19A	**Sanders**	**137.51**	**36**	⇓P	PKPdf	21 21 41.4	+0.6
	baz=137						
LBNH	**Lisbon**	**137.54**	**351**	*e*PKIKP	PKPdf	21 21 39.7	-0.9
LBNH				*e*		21 24 25.2	
T22A	**Edith**	**137.54**	**32**	⇑P	PKPdf	21 21 41.9	+1.1
	baz=137						
X18A	**Snowflake**	**137.57**	**37**	⇓P	PKPdf	21 21 41.7	+0.8
	baz=137						
Y17A	**Roosevelt**	**137.58**	**39**	⇓P	PKPdf	21 21 41.9	+0.9
	baz=137						
SADO	**Sadowa**	**137.64**	**359**	PP	PP	21 24 23.0	-2.9
	comp=Z,5.3nm,0.7s,baz=352,slow=6.3,SNR=3.5						
SDCO	**Great Sand Dun**	**137.72**	**30**	*e*PKPdf	PKPdf	21 21 41.7	+0.6
SDCO				*e*PP	PP	21 24 27.0	-0.1
116A	**Eloy**	**137.75**	**41**	⇑P	PKPdf	21 21 42.4	+1.0
	baz=138						
W20A	**Ramah**	**138.02**	**36**	⇑P	PKPdf	21 21 42.5	+0.8
	baz=138						
Z17A	**San Carlos Hig**	**138.07**	**39**	⇓P	PKPdf	21 21 43.3	+1.5
	baz=138						
NCB	**Newcomb**	**138.11**	**354**	*e*PKPdf	PKPdf	21 21 39.8	-1.8
NCB				*e*PP	PP	21 24 31.0	+2.1
NCB				LR	LR		
	comp=Z,20µm,21.0s,MS6.8						
216A	**Three Points,**	**138.26**	**41**	⇑P	PKPdf	21 21 43.6	+1.3
	baz=138						
117A	**Oracle**	**138.37**	**40**	⇓P	PKPdf	21 21 44.0	+1.6
	baz=138						
Y19A	**Nutrioso**	**138.38**	**37**	⇓P	PKPdf	21 21 43.4	+0.9
	baz=138						
Z18A	**Geronimo**	**138.49**	**39**	⇑P	PKPdf	21 21 43.9	+1.3
	baz=138						
TUC	**Tucson**	**138.51**	**41**	*e*PKIKP	PKPdf	21 21 42.6	-0.1
TUC				*e*		21 24 33.3	
TUC				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.9						
W21A	**San Fidel**	**138.52**	**35**	⇓P	PKPdf	21 21 44.0	+1.4
	baz=138						
JFWS	**Jewell Farm**	**138.52**	**11**	*e*PKIKP	PKPdf	21 21 42.1	-0.3
JFWS				*e*		21 24 32.4	
JFWS				MLR	MLR		
	comp=Z,20µm,20.0s,MS6.9						
SCIA	**State Center**	**138.82**	**15**	PKPdf	PKPdf	21 21 37.3	-5.7
SCIA				*e*PP	PP	21 24 32.2	-1.2
118A	**Homack Ranch,**	**138.82**	**40**	⇓P	PKPdf	21 21 44.4	+1.1
	baz=139						
Z19A	**T-Link Ranch,**	**138.83**	**38**	⇑P	PKPdf	21 21 43.8	+0.5
	baz=139						
217A	**Green Valley**	**138.83**	**41**	⇓P	PKPdf	21 21 44.3	+1.0
	baz=139						
W22A	**Albuquerque**	**138.99**	**34**	⇓P	PKPdf	21 21 45.1	+1.6
	baz=139						
SPB	**Sao Paulo**	**139.06**	**229**	PKPdf	PKPdf	21 21 44.7	+0.7
SPB				LR	LR		
	comp=Z,13µm,21.0s,MS6.7						
119A	**Ashpeak Ranch,**	**139.16**	**39**	⇓P	PKPdf	21 21 45.1	+1.3
	baz=139						
218A	**Dragoon**	**139.21**	**40**	⇓P	PKPdf	21 21 45.3	+1.3
	baz=139						
ANMO	**Albuquerque**	**139.31**	**34**	PKhKP		21 21 38.0	
	baz=2.4,slow=5.3						
ANMO				PKP	PKPdf	21 21 42.5	-1.6
	comp=Z,15nm,0.8s,baz=96,slow=0.8						
ANMO	**Albuquerque**	**139.31**	**34**	*e*PKPdf		21 21 38.0	
ANMO				PKP	PKPdf	21 21 42.5	-1.6
ANMO				*e*PP	PP	21 24 36.9	-0.2
LAZ	**Ladron**	**139.32**	**35**	*e*PKPdf	PKPdf	21 21 44.9	+0.7
LAZ				*e*PP	PP	21 24 37.0	-0.2
X22A	**Bernardo**	**139.32**	**35**	⇓P	PKPdf	21 21 45.0	+0.8
	baz=139						
Z20A	**Nine Sixteen R**	**139.36**	**38**	⇓P	PKPdf	21 21 45.6	+1.4
	baz=139						
CBKS	**Cedar Bluff**	**139.46**	**24**	*e*PKIKP	PKPdf	21 21 41.6	-2.7
CBKS				*e*		21 24 45.8	
CBKS				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.9						
RPN	**Rapa Nui**	**139.48**	**138**	PKIKP	PKPdf	21 21 43.8	-0.8
RPN				MLR	MLR		
	comp=Z,10µm,19.0s,MS6.6						
318A	**Bisbee**	**139.59**	**41**	⇓P	PKPdf	21 21 45.6	+0.9
	baz=139						
Y22D	**IRIS PASSCAL I**	**139.69**	**35**	⇓P	PKPdf	21 21 45.5	+0.7
	baz=140						
219A	**White Tail Can**	**139.69**	**40**	⇓P	PKPdf	21 21 46.2	+1.4
	baz=140						
120A	**U Bar Ranch, L**	**139.72**	**38**	⇓P	PKPdf	21 21 45.8	+0.9
	baz=140						
BNM	**Barren Site**	**139.80**	**35**	*e*PKPdf	PKPdf	21 21 42.6	-2.4
AAM	**Ann Arbor**	**140.00**	**4**	*e*PKIKP	PKPdf	21 21 44.5	-0.6
BINY	**Binghamton**	**140.04**	**355**	*e*PKPdf	PKPdf	21 21 43.1	-2.1
BINY				*e*PP	PP	21 24 37.5	-3.3
BINY				LR	LR		
	comp=Z,27µm,19.0s,MS7.0						
319A	**Douglas**	**140.09**	**40**	⇓P	PKPdf	21 21 47.1	+1.5
	baz=140						
220A	**Playas Peak, P**	**140.22**	**39**	⇑P	PKPdf	21 21 47.4	+1.5
	baz=140						
121A	**Cookes Peak, D**	**140.26**	**38**	⇑P	PKPdf	21 21 46.6	+0.7
	baz=140						
ERPA	**Erie**	**140.30**	**360**	*e*PKPdf	PKPdf	21 21 43.3	-2.4
ERPA				*e*PP	PP	21 24 42.2	-0.2
ERPA				LR	LR		
	comp=Z,32µm,22.0s,MS7.0						
KSU1	**Kansas State U**	**140.38**	**20**	*e*PKPdf	PKPdf	21 21 44.3	-1.6
KSU1				*e*PP	PP	21 24 43.1	0.0
KSU1				LR	LR		
	comp=Z,33µm,22.0s,MS7.0						
320A	**Kipp Ranch, An**	**140.60**	**40**	⇓P	PKPdf	21 21 48.5	+2.0
	baz=140						
122A	**Conniff Cattle**	**140.61**	**37**	⇓P	PKPdf	21 21 48.3	+1.8
	baz=140						
221A	**Mesquite Ranch**	**140.62**	**38**	⇓P	PKPdf	21 21 47.9	+1.4
	baz=140						
222A	**Williams Famil**	**140.97**	**38**	⇓P	PKPdf	21 21 48.3	+1.1
	baz=141						
HDIL	**Hopedale**	**140.98**	**11**	*e*PKPdf	PKPdf	21 21 40.9	-6.1
HDIL				*e*PP	PP	21 24 46.2	-0.5
SSPA	**Standing Stone**	**141.73**	**357**	*e*PKPdf	PKPdf	21 21 47.8	-0.5
SSPA				*e*PP	PP	21 24 50.1	-0.9
SSPA				LR	LR		
	comp=Z,986nm,22.0s,MS5.5						
AMTX	**Amarillo**	**141.86**	**29**	*e*PKPdf	PKPdf	21 21 46.4	-2.3
AMTX				*e*PP	PP	21 24 56.0	+3.5
AMTX				LR	LR		
	comp=Z,37µm,22.0s,MS7.1						
ACSO	**Alum Creek Sta**	**142.10**	**3**	*e*PKPdf	PKPdf	21 21 45.6	-3.4
ACSO				LR	LR		
	comp=Z,37µm,22.0s,MS7.1						
MNTX	**Cornudas Mount**	**142.29**	**36**	PKPdf	PKPdf	21 21 48.7	-0.8
SLM	**Saint Louis**	**142.63**	**13**	*e*PKIKP	PKPdf	21 21 49.4	-0.6
SLM						21 24 53.4	
MCWV	**Mont Chateau**	**142.76**	**360**	*e*PKPdf	PKPdf	21 21 47.2	-3.0
MCWV				PP	PP	21 24 56.6	-0.8
BLO	**Bloomington**	**142.79**	**8**	*e*PKPdf	PKPdf	21 21 46.7	-3.5
BLO				*e*PP	PP	21 24 52.7	-4.9
CCM	**Cathedral Cave**	**142.95**	**15**	*e*PKIKP	PKPdf	21 21 45.8	-4.7
CCM				*e*		21 24 58.6	
CCM				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.5						
OLIL	**Olney**	**142.97**	**10**	*e*PKPdf	PKPdf	21 21 47.8	-2.8
FVM	**French Village**	**143.21**	**14**	*e*PKIKP	PKPdf	21 21 48.9	-2.1
FVM				*e*		21 24 58.1	
WMOK	**Wichita Mounta**	**143.33**	**26**	*e*PKIKP	PKPdf	21 21 48.0	-3.3
WMOK				*e*		21 25 00.3	
FCH	**Farellones**	**143.41**	**194**	*e*P	PKPdf	21 21 50.9	-0.6
SIUC	**Southern Illin**	**143.74**	**12**	*e*PKPdf	PKPdf	21 21 49.2	-2.7
WCI	**Wyandotte Cave**	**143.75**	**8**	*e*PKIKP	PKPdf	21 21 48.6	-3.4
WCI				MLR	MLR		
	comp=Z,4µm,22.0s,MS6.2						
USIN	**University of**	**143.79**	**10**	*e*PKPdf	PKPdf	21 21 48.8	-3.2
CPUP	**Villa Florida**	**144.01**	**216**	PKP	PKPdf	21 21 50.3	-2.5
	comp=Z,14nm,0.7s,baz=127,slow=3.0,SNR=28						
CPUP	**Villa Florida**	**144.01**	**216**	*e*PKPdf	PKPdf	21 21 50.3	-2.5
CBN	**Corbin**	**144.12**	**356**	*e*PKPdf	PKPdf	21 21 51.3	-1.3
CBN				LR	LR		
	comp=Z,32µm,22.0s,MS7.0						
CFAA	**Coronel Fontan**	**144.47**	**198**	PKP	PKPdf	21 21 51.3	-2.2
	comp=Z,3.1nm,0.6s,baz=149,slow=4.8,SNR=1.6						
PARMO	**Parma**	**144.63**	**13**	*e*PKPdf	PKPdf	21 21 51.9	-1.6
PVMO	**Portageville**	**144.88**	**13**	*e*PKPdf	PKPdf	21 21 54.0	+0.1
TXAR	**Lajitas Array**	**145.01**	**37**	PKPbc	PKPbc	21 21 54.2	+0.5
	comp=Z,240nm,0.6s,baz=278,slow=1.2,SNR=532						
TXAR	**Lajitas Array**	**145.01**	**37**	PKPbc	PKPbc	21 21 54.2	+0.5
GLAT	**Glass**	**145.11**	**13**	*e*PKPdf	PKPdf	21 21 54.0	-0.4
UTMT	**University of**	**145.13**	**12**	*e*PKP	PKPdf	21 21 53.5	-0.9
ELN	**Prospectdale**	**145.18**	**1**	*e*PKP	PKPdf	21 21 53.7	-0.8
BLA	**Blacksburg**	**145.20**	**0**	*e*PKIKP	PKPdf	21 21 53.9	-0.6
GNAR	**Gosnell**	**145.23**	**14**	*e*PKP	PKPdf	21 21 53.8	-0.8
HALT	**Halls**	**145.44**	**13**	*e*PKP	PKPdf	21 21 54.6	-0.3
HBAR	**Harrisburg**	**145.46**	**15**	*e*PKPbc	PKPbc	21 21 54.6	-0.4
MIAR	**Mount Ida**	**145.53**	**20**	*e*PKIKP	PKPdf	21 21 55.2	0.0
MIAR				MLR	MLR		
	comp=Z,30µm,20.0s,MS7.1						
WVT	**Waverly**	**145.55**	**11**	*e*PKIKP	PKPdf	21 21 54.7	-0.4
CMCH	**Combarbala**	**145.64**	**194**	*e*P	PKPdf	21 21 55.7	+0.2
CMCH	**Combarbala**	**145.64**	**194**	*e*P	PKPdf	21 21 55.7	+0.2
UALR	**University of**	**145.71**	**18**	*e*PKP	PKPdf	21 21 56.8	+1.3
MET	**Memphis--Engin**	**146.06**	**14**	*e*PKPdf	PKPdf	21 21 56.3	+0.3
JCT	**Junction City**	**146.33**	**32**	*e*PKP2	PKPab	21 21 57.5	-1.1
TKL	**Tuckaleechee C**	**146.59**	**5**	PKPbc	PKPbc	21 21 57.0	-1.4
	baz=116,slow=2.6						
TKL	**Tuckaleechee C**	**146.59**	**5**	*e*PKPdf	PKPab	21 21 59.0	-0.4
PLAL	**Pickwick Lake**	**146.61**	**12**	*e*PKP	PKPdf	21 21 56.8	-0.2
BBSR	**BB Station**	**146.67**	**336**	*e*PKPdf	PKPdf	21 21 57.8	+0.6
BBSR				*e*PKPab	PKPab	21 21 59.3	-0.6
CPCT	**Cooper Cave**	**146.72**	**6**	*e*PKPdf	PKPdf	21 21 57.6	+0.5
SWET	**Sewanee**	**146.76**	**9**	*e*PKP	PKPdf	21 21 57.3	+0.1
OXF	**Oxford**	**146.77**	**14**	*e*PKP2	PKPbc	21 21 57.9	-1.1
CNNC	**Cliffs of the**	**147.10**	**357**	*e*PKPbc	PKPbc	21 21 59.4	-0.5
CNNC				LR	LR		
	comp=Z,39µm,22.0s,MS7.2						
LCO	**Las Campanas**	**147.62**	**196**	*e*PKPdf	PKPdf	21 21 59.8	+1.0
LCO				*e*PKPab	PKPab	21 22 03.6	0.0
LCO				LR	LR		
	comp=Z,11µm,21.0s,MS6.6						
NATX	**Nacogdoches**	**147.63**	**23**	*e*PKPbc	PKPbc	21 22 01.6	+0.1
NATX				LR	LR		
	comp=Z,20µm,20.0s,MS6.9						
JSC	**Jenkinsville**	**148.11**	**2**	*e*PKIKP	PKPdf	21 21 59.2	-0.3
JSC				*e*		21 22 01.8	
VBMS	**Vicksburg**	**148.64**	**17**	*e*PKPdf	PKPdf	21 22 00.4	0.0
VBMS				*e*PKPbc	PKPbc	21 22 04.6	+0.4
HKT	**Hockley**	**148.70**	**27**	*e*PKIKP	PKPdf	21 22 01.1	+0.5
HKT				*e*		21 22 04.4	
HKT				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
GOGA	**Godfrey**	**148.84**	**5**	*e*PKIKP	PKPdf	21 22 00.6	-0.1
GOGA				*e*		21 22 04.9	
NHSC	**New Hope**	**149.30**	**360**	*e*PKPdf	PKPdf	21 22 01.4	-0.1
NHSC				*e*PKPbc	PKPbc	21 22 06.3	+0.6
NHSC				LR	LR		
	comp=Z,39µm,22.0s,MS7.2						
KVTX	**Kingsville**	**149.67**	**32**	*e*PKPdf	PKPdf	21 22 01.5	-0.7
KVTX				*e*PKPbc	PKPbc	21 22 08.3	+1.4
KVTX				LR	LR		
	comp=Z,20µm,20.0s,MS6.9						
BRAL	**Brewton**	**150.66**	**12**	*e*PKPdf	PKPdf	21 22 03.6	0.0
BRAL				*e*PKPbc	PKPbc	21 22 09.9	+0.8
BRAL				LR	LR		
	comp=Z,32µm,20.0s,MS7.1						
LVC	**Limon Verde**	**152.95**	**203**	PKP	PKPdf	21 22 07.8	+0.4
	comp=Z,7.3nm,1.0s,baz=159,slow=4.7,SNR=8.8						
LVC				PKPbc	PKPbc	21 22 14.2	-0.4
	comp=Z,22nm,0.8s,baz=162,slow=2.4,SNR=11						
LVC	**Limon Verde**	**152.95**	**203**	*e*PKPdf	PKPdf	21 22 09.0	+1.7
LVC				*e*PKPbc	PKPbc	21 22 15.2	+0.6
LVC				LR	LR		
	comp=Z,13µm,21.0s,MS6.7						
SIV	**San Ignacio**	**153.82**	**226**	PKP	PKPdf	21 22 07.7	-1.1
	comp=Z,6.9nm,0.9s,baz=186,slow=0.6,SNR=11						
SIV				PKPbc	PKPbc	21 22 14.0	-2.6
	comp=Z,6.8nm,0.9s,baz=143,slow=2.1,SNR=15						
SIV	**San Ignacio**	**153.82**	**226**	PKP	PKPdf	21 22 07.7	-1.1
SIV				PKPbc	PKPbc	21 22 14.0	-2.6
DWPF	**Disney**	**154.25**	**3**	*e*PKPdf	PKPdf	21 22 09.6	+0.5
DWPF				*e*PKPbc	PKPbc	21 22 17.1	-0.2
DWPF				LR	LR		
	comp=Z,739nm,22.0s,MS5.5						
ANWB	**Willy Bob**	**156.30**	**311**	PKPdf	PKPdf	21 22 11.9	-0.2
ANWB				LR	LR		
	comp=Z,14µm,22.0s,MS6.7						
ANWB	**Willy Bob**	**156.30**	**311**	*e*P	PKPdf	21 22 10.7	-1.4
BBGH	**Gun Hill**	**156.89**	**299**	PFAKE		21 22 20.0	+7.1
BBGH				LR	LR		
	comp=Z,16µm,22.0s,MS6.8						
FDF	**Fort de France**	**157.48**	**304**	*e*PKIKP	PKPdf	21 22 13.6	0.0
FDF				MLR	MLR		
	comp=Z,16µm,22.0s,MS6.8						
MTP	**Monte Pirata**	**158.68**	**319**	*e*PKPdf	PKPdf	21 22 15.1	+0.1
MTP				*e*PP	PP	21 26 31.4	+1.4
BOT	**Bacolet**	**158.74**	**296**	*e*	PKPab	21 22 58.6	+7.8
TPR	**Prospect**	**158.79**	**296**	*e*	PKPab	21 22 56.3	+5.2
GRTK	**Grand Turk**	**158.91**	**336**	PFAKE		21 22 30.0	+15
GRTK				LR	LR		
	comp=Z,32µm,22.0s,MS7.1						
SJG	**San Juan**	**159.06**	**320**	*e*PKPdf	PKPdf	21 22 15.9	+0.4
SJG	**San Juan**	**159.06**	**320**	*e*P	PKPdf	21 22 12.9	-2.6
GRGR	**Grenville**	**159.17**	**299**	*e*PKPdf	PKPdf	21 22 15.7	0.0
TBH	**Brigand Hill**	**159.32**	**294**	*e*	PKPab	21 22 57.3	+3.9
CMIG	**Matias Romero**	**159.36**	**43**	PKP	PKPdf	21 22 14.9	-0.9
	comp=Z,15nm,1.0s,baz=219,slow=3.4,SNR=12						
CMIG				PKPab	PKPab	21 22 52.1	-1.2
	comp=Z,40nm,1.2s,baz=139,slow=1.8,SNR=7.7						
SOR	**Soroa**	**159.39**	**7**	*e*	PKPdf	21 22 15.4	-0.4
AGPR	**Aguadilla, PR**	**159.40**	**322**	*e*PKPab	PKPab	21 22 52.3	-1.1
ICM	**Isla Caja Muer**	**159.46**	**320**	*e*PKPdf	PKPdf	21 22 12.3	-3.7
TRN	**Trinidad (W)**	**159.56**	**295**	*e*	PKPab	21 22 57.0	+2.5
TPP	**Pointe-a-Pierr**	**159.73**	**294**	*e*	PKPab	21 22 53.4	-1.7
CRPR	**Cabo Rojo, PR**	**159.75**	**322**	*e*PKPdf	PKPdf	21 22 15.6	-0.7
CRPR				*e*PKPab	PKPab	21 22 49.6	-5.4
TCE	**Chacachacare**	**159.86**	**295**	*e*	PKPab	21 22 56.7	+1.0
MGV	**Manicaragua**	**160.25**	**359**	*e*	PKPdf	21 22 14.7	-2.1
TEIG	**Tepich**	**160.46**	**23**	PKP	PKPdf	21 22 15.6	-1.5
	comp=Z,14nm,0.9s,baz=311,slow=6.1,SNR=7.0						
TEIG				PKPab	PKPab	21 22 53.9	-4.1
	comp=Z,52nm,1.1s,baz=324,slow=5.2,SNR=6.3						
TEIG	**Tepich**	**160.46**	**23**	*e*PKPdf	PKPdf	21 22 17.7	+0.7
TEIG				*e*PKPab	PKPab	21 22 55.6	-2.3
TEIG				LR	LR		
	comp=Z,21µm,20.0s						

TEIG	Tepich	160.46	23	eP	PKPdf	21 22 14.6	-2.5
MOAC	Moa	161.00	345	e	PKPdf	21 22 17.9	+0.3
CCCC	Cccc	161.01	353	e	PKPdf	21 22 17.1	-0.5
SDDR	Presa de Saban	161.22	333	ePKPdf	PKPdf	21 22 17.7	-0.2
SDDR				LR	LR		
	comp=Z,37µm,22.0s						
SDDR	Presa de Saban	161.22	333	eP	PKPdf	21 22 17.4	-0.5
MASC	Masc	161.25	342	e	PKPdf	21 22 18.8	+0.9
GTBY	Guantanamo Bay	161.74	345	ePKPdf	PKPdf	21 22 19.2	+0.8
GTBY	Guantanamo Bay	161.74	345	eP	PKPdf	21 22 16.9	-1.6
RCC	Rio Carpintero	161.82	346	e	PKPdf	21 22 16.6	-1.9
LMGC	Las Mercedes	162.02	350	e	PKPdf	21 22 19.8	+1.1
PCRV	Puerto La Cruz	162.65	298	PKP	PKPdf	21 22 17.8	-1.7
	comp=Z,10nm,1.0s,baz=107,slow=3.2,SNR=3.1						
NNA	Nana	165.47	193	PKP	PKPdf	21 22 22.0	0.0
	comp=Z,5.9nm,0.4s,baz=74,slow=4.4						
NNA	Nana	165.47	193	ePKPdf	PKPdf	21 22 22.1	0.0
NNA				LR	LR		
	comp=Z,12µm,19.0s						
TGUH	Tegucigalpa,Un	166.34	30	PFAKE		21 22 30.0	+7.3
TGUH				LR	LR		
	comp=Z,16µm,20.0s						
TGUH	Tegucigalpa,Un	166.34	30	eP	PKPdf	21 22 20.9	-1.9
CNGN	Cerro Negro	167.94	32	eP	PKPdf	21 22 18.0	-5.9
SDV	Santo Domingo	168.42	305	PKP	PKPdf	21 22 22.7	-1.6
	comp=Z,8.4nm,1.0s,baz=68,slow=1.6,SNR=4.9						
SDV				PP	PP	21 27 27.3	+5.3
	comp=Z,23nm,1.1s,baz=44,slow=4.1,SNR=4.2						
SDV	Santo Domingo	168.42	305	ePKPdf	PKPdf	21 22 23.7	-0.6
SDV				LR	LR		
	comp=Z,13µm,22.0s						
SDV	Santo Domingo	168.42	305	eP	PKPdf	21 22 21.2	-3.1
BOAB	BOACO BROADB	168.50	28	eP	PKPdf	21 22 22.2	-2.1
PAYG	Puerto Ayora	169.50	106	ePKPdf	PKPdf	21 22 25.9	+0.9
PAYG				LR	LR		
	comp=Z,12µm,20.0s						
PAYG	Puerto Ayora	169.50	106	eP	PKPdf	21 22 24.2	-0.8
JTS	JuntasAbangare	170.71	30	ePKPdf	PKPdf	21 22 24.3	-1.4
JTS				LR	LR		
	comp=Z,18µm,20.0s						
JTS	JuntasAbangare	170.71	30	eP	PKPdf	21 22 23.5	-2.1
BRU2	Volcan	173.03	21	eP	PKPdf	21 22 25.0	-1.7
BCIP	Isla Barro Col	173.11	357	PFAKE		21 22 40.0	+13
BCIP				LR	LR		
	comp=Z,16µm,22.0s						
BCIP	Isla Barro Col	173.11	357	eP	PKPdf	21 22 24.4	-2.4
ROSC	El Rosal	173.60	294	PKP	PKPdf	21 22 26.4	-0.6
	comp=Z,18nm,0.8s,baz=81,slow=21,SNR=15						
OTAV	Otavalo	177.35	221	ePKPdf	PKPdf	21 22 27.8	-0.2
OTAV				LR	LR		
	comp=Z,12µm,21.0s						
OTAV	Otavalo	177.35	221	eP	PKPdf	21 22 26.6	-1.4

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*ISCJB **25** 21:03:44.9±1.7, 8°.1S±0°.1×117°.6E±0°.2, h233^{km}±15^{km}, mb4.8/3, Error ellipse: s-maj=37.0km s-min=16.5km az=164.6*

*NEIC **25** 21:03:45.9±1.4, 8°.07S×117°.60E, h233^{km}±15^{km}, mb4.6/3, Error ellipse: s-maj=26.6km s-min=11.9km az=72.0*

*IDC **25** 21:03:51.3±5.5, 7°.70S×118°.30E, h273^{km}±43^{km}, mb4.1/2, mb1 4.2/5, mb1mx4.1/21, mbtmp4.0/5, Error ellipse: s-maj=124.1km s-min=39.3km az=69.0*

ISC 25 21:03:45.7±1.6**, 8°.1S**±0°.1×**117°.6E**±0°.2**, h226**^{km}±15^{km}**, n11, σ0^s.65**/14**, mb4.8**/3**, 1D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	3.11	121	⇓eP	Pn	21 04 37.5	-0.5
WSI				eS	S	21 05 13.3	-5.9
KAPI	Kappang	3.71	35	P	Pn	21 04 45.6	+0.6
	8.2nm,0.3s,baz=204,slow=5.5,SNR=28						
FITZ	Fitzroy Crossi	12.68	143	P	Pn	21 06 42.8	+4.4
	3.8nm,0.3s,baz=317,slow=7.3,SNR=42						
FITZ				S	S	21 09 00.7	+0.8
	3.4nm,0.3s,baz=319,slow=8.4,SNR=6.3						
FITZ	Fitzroy Crossi	12.68	143	eP	Pn	21 06 39.2	+0.7
	27nm,0.4s						
FITZ				S	S	21 09 00.7	+0.8
MBWA	Marble Bar	13.18	171	ePn	Pn	21 06 44.2	-0.5
	14nm,0.6s						
WRA	Warramunga Arr	20.06	128	P	P	21 08 01.3	-0.9
	3.5nm,0.3s,baz=302,slow=12,SNR=103						
WRAB	Tennant Creek	20.07	128	eP	P	21 08 01.4	-0.8
	9.6nm,0.5s						
ASAR	Alice Springs	22.03	137	P	P	21 08 21.9	-0.2
	11nm,0.4s,mb4.8,baz=312,slow=9.3,SNR=169						
FORT	Forrest	24.63	158	eP	P	21 08 46.7	+1.0
	38nm,0.6s,mb5.2						
STKA	Stephens Creek	32.56	140	P	P	21 09 55.8	-0.1
	5.4nm,0.4s,mb4.4,baz=319,slow=9.2,SNR=37						
AML	Almayashu	64.05	325	P	P	21 13 55.6	+0.1

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*CSEM **25** 21:27:30.4±0.2, 37°.10N×5°.42W, h12^{km}, ML1.8, Error ellipse: s-maj=5.1km s-min=3.2km az=178.0*

*SFS **25** 21:27:32.0, 37°.06N×5°.39W, h23^{km}, ML1.8*

MDD 25 21:27:31.8±0.4**, 37°.04N×5°.40W, h12**^{km}±1^{km}**, mbLg1.8**/13**, 1D, Error ellipse: s-maj=4.2km s-min=2.9km az=7.0, PRIMO, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIJA	Lijar	0.14	182	Pg	Pg	21 27 33.8	-1.2
LIJA				Lg		21 27 36.4	
LIJA	Lijar	0.14	182	i P	Pg	21 27 33.8	-1.3
LIJA				i S	Sg	21 27 36.3	-1.1
ESPR	Espera	0.41	245	Pg	Pg	21 27 40.6	+0.8
	SNR=13						
ESPR				Lg		21 27 45.8	
	26nm,0.2s,SNR=14						
ESPR	Espera	0.41	245	Pg	Pg	21 27 40.6	+0.8
	SNR=13						
ESPR				Lg		21 27 47.6	
	26nm,0.2s,SNR=14						
EJIF	Jimena Fronter	0.59	186	⇓Pg	Pg	21 27 43.0	-0.3
	0.8nm,0.2s,SNR=18						
EJIF	Jimena Fronter	0.59	186	Pg	Pg	21 27 43.0	-0.3
	0.8nm,0.2s,SNR=18						
ELOJ	Sierra Loja	1.00	84	Pg	Pg	21 27 50.9	-0.2
	1.0nm,0.1s,SNR=7.9						
ELOJ				Lg		21 28 03.2	
	2.7nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	1.00	84	Pg	Pg	21 27 50.9	-0.2
	1.0nm,0.1s,SNR=7.9						
ELOJ				Lg		21 28 03.2	
	2.7nm,0.2s,SNR=7.9						
ECAB	El Cabril	1.03	359	Pg	Pg	21 27 50.4	-1.3
	15nm,0.2s,SNR=61						
ECAB				Lg		21 28 03.9	
	12nm,0.1s,SNR=18						
ECAB	El Cabril	1.03	359	Pg	Pg	21 27 50.4	-1.3
	15nm,0.2s,SNR=61						
ECAB				Lg		21 28 03.9	
	12nm,0.1s,SNR=18						
ELUQ	Luque	1.04	60	Pg	Pg	21 27 51.7	-0.2
	5.2nm,0.2s,SNR=4.0						
ELUQ				Lg		21 28 06.2	
	7.1nm,0.2s,SNR=7.9						
ELUQ	Luque	1.04	60	Pg	Pg	21 27 51.7	-0.2
	5.2nm,0.2s,SNR=4.0						
ELUQ				Lg		21 28 06.2	
	7.1nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	1.25	306	Pn	Pn	21 27 53.3	-1.9
	1.7nm,0.1s,SNR=65						
EMIN				Pg	Pg	21 27 54.2	-1.6
	8.0nm,0.2s,SNR=7.9						
EMIN				Lg		21 28 11.1	
	7.9nm,0.3s,SNR=18						
EMIN	Mina Concepcio	1.25	306	Pn	Pn	21 27 53.3	-1.8
	1.7nm,0.1s,SNR=65						
EADA	Adamuz	1.30	30	Pg	Pg	21 27 55.0	-1.8
	1.5nm,0.1s,SNR=19						
EADA				Lg		21 28 11.4	
	12nm,0.1s,SNR=23						
EADA	Adamuz	1.30	30	Pg	Pg	21 27 55.0	-1.8
	1.5nm,0.1s,SNR=19						
EADA				Lg		21 28 11.4	
	12nm,0.1s,SNR=23						
EGUA	Guajares	1.48	97	Pg	Pg	21 27 59.6	-0.7
	0.3nm,0.1s,SNR=7.9						
EGUA				Lg		21 28 17.8	
	2.1nm,0.2s,SNR=7.9						
EGUA	Guajares	1.48	97	Pg	Pg	21 27 59.6	-0.7
	0.3nm,0.1s,SNR=7.9						
EGUA				Lg		21 28 17.8	
	2.1nm,0.2s,SNR=7.9						
EQUE	Quentar	1.57	83	Pg	Pg	21 28 01.1	-0.9
	1.7nm,0.2s,SNR=7.9						
EQUE				Lg		21 28 20.6	
	1.0nm,0.2s,SNR=4.5						
EQUE	Quentar	1.57	83	Pg	Pg	21 28 01.1	-0.9
	1.7nm,0.2s,SNR=7.9						
EQUE				Lg		21 28 20.6	
	1.0nm,0.2s,SNR=4.5						
EBAN	Banos Encina	1.70	48	Pg	Pg	21 28 01.9	-2.6
	0.2nm,0.1s,SNR=7.9						
EBAN				Lg		21 28 23.8	
	5.0nm,0.2s,SNR=9.4						
EBAN	Banos Encina	1.70	48	Pg	Pg	21 28 01.9	-2.6
	0.2nm,0.1s,SNR=7.9						
EBAN				Lg		21 28 23.8	
	5.0nm,0.2s,SNR=9.4						
EGRO	El Granado	1.73	287	Pn	Pn	21 28 00.4	-1.4
	0.3nm,0.1s,SNR=7.9						
EGRO				Pg	Pg	21 28 02.2	-2.9
	0.2nm,0.2s,SNR=7.9						
EGRO				Lg		21 28 24.9	
	3.4nm,0.2s,SNR=7.2						
EGRO	El Granado	1.73	287	Pn	Pn	21 28 00.4	-1.4
	0.3nm,0.1s,SNR=7.9						
PVAQ	Vaqueiros	1.89	282	ePn	Pn	21 28 02.4	-1.5
PVAQ				eSn	Sn	21 28 24.8	-2.8
PVAQ				eSg	Sg	21 28 30.7	-1.8
PVAQ				A		21 28 33.4	
	3.6nm,0.2s						
PVAQ	Vaqueiros	1.89	282	Pn	Pn	21 28 02.4	-1.5
PVAQ				Sn	Sn	21 28 24.8	-2.8
PVAQ				Lg		21 28 30.7	
	3.6nm,0.2s						
PVAQ	Vaqueiros	1.89	282	ePn	Pn	21 28 02.4	-1.5
PVAQ				eSn	Sn	21 28 24.8	-2.8
PVAQ				eSg	Sg	21 28 30.7	-1.8
	3.6nm,0.2s						
EQES	Quesada	2.00	67	Pg	Pg	21 28 07.4	-2.8
	0.1nm,0.1s,SNR=7.9						
EQES				Lg		21 28 34.3	
	3.8nm,0.2s,SNR=7.9						
EQES	Quesada	2.00	67	Pg	Pg	21 28 07.4	-2.8
	0.1nm,0.1s,SNR=7.9						
EQES				Lg		21 28 34.3	
	3.8nm,0.2s,SNR=7.9						
PBDV	Barranco-do-Ve	2.03	276	ePn	Pn	21 28 04.6	-1.3
PBDV				eSn	Sn	21 28 28.4	-2.9
PBDV	Barranco-do-Ve	2.03	276	ePn	Pn	21 28 04.6	-1.3
PBDV				eSn	Sn	21 28 28.4	-2.9
EBAD	Badajoz	2.14	324	Pn	Pn	21 28 05.4	-1.9
	1.1nm,0.2s,SNR=7.9						
EBAD				Pg	Pg	21 28 08.7	-4.1
	0.1nm,0.1s,SNR=6.4						
EBAD				Sn	Sn	21 28 31.2	-2.6
	3.2nm,0.3s,SNR=7.9						
EBAD				Lg		21 28 37.6	
	7.4nm,0.2s,SNR=7.9						
EBAD	Badajoz	2.14	324	Pn	Pn	21 28 05.4	-1.9
	1.1nm,0.2s,SNR=7.9						
EBAD	Badajoz	2.14	324	Pg	Pg	21 28 08.7	-4.1
	0.1nm,0.1s,SNR=6.4						
EBAD				Sn	Sn	21 28 29.7	-4.1
	3.2nm,0.3s,SNR=7.9						
EBAD				Lg		21 28 37.6	
	7.4nm,0.2s,SNR=7.9						
EHUE	Huescar	2.36	70	Pn	Pn	21 28 08.9	-1.5
	0.3nm,0.2s,SNR=7.9						
EHUE				Lg		21 28 44.8	
	0.7nm,0.2s,SNR=7.9						
EHUE	Huescar	2.36	70	Pn	Pn	21 28 08.9	-1.5
	0.3nm,0.2s,SNR=7.9						
EHUE				Lg		21 28 44.8	
	0.7nm,0.2s,SNR=7.9						
PFVI	Vila Bisbo	2.74	273	eSn	Sn	21 28 45.3	-3.5
PFVI	Vila Bisbo	2.74	273	Sn	Sn	21 28 45.3	-3.5
PFVI	Vila Bisbo	2.74	273	eSn	Sn	21 28 45.3	-3.5
ESDC	Sonseca Array	2.86	23	Lg		21 28 57.3	
	1.7nm,0.4s,baz=210,slow=27,SNR=4.0						
ESDC	Sonseca Array	2.86	23	Lg		21 28 57.3	
	1.7nm,0.4s,SNR=4.0						

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*ISCJB **25** 21:29:16.3±1.1, 36°.26N±0°.06×21°.78E±0°.06, h10^{km}, Error ellipse: s-maj=8.8km s-min=6.5km az=26.2*

*NEIC **25** 21:29:17.6, 36°.18N×21°.75E, h11^{km}, MD3.6(ATH), After ATH.*

*ATH **25** 21:29:17.6, 36°.18N×21°.75E, h11^{km}±4^{km}, MD3.6/6*

*CSEM **25** 21:29:18.7±1.0, 36°.21N×21°.75E, h2^{km}, MD3.6, Error ellipse: s-maj=22.0km s-min=14.7km az=41.0*

*THE **25** 21:29:23.3, 36°.17N×21°.86E, h28^{km}±6^{km}, ML3.7/1, Error ellipse: s-maj=7.4km s-min=1.4km az=224.0*

ISC 25 21:29:17.7±1.4**, 36°.23N**±0°.06×**21°.84E**±0°.09**, h14**^{km}±11^{km}**, n25, σ1^s.04**/33**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.67	353	ePG	Pg	21 29 31.1	+0.3
PYL				eSB	Sg	21 29 41.6	+1.9
PYL	PYLOS	0.67	353	ePg	Pg	21 29 31.1	+0.3
PYL				eSb	Sg	21 29 41.6	+1.9
ITM	Ithomi	0.95	4	ePB	Pg	21 29 36.7	+0.6
ITM	Ithomi	0.95	4	ePb	Pg	21 29 36.7	+0.6
KYTH	Kithira	0.97	87	ePN	Pg	21 29 37.5	+1.1
VLI	Veliai	1.01	61	ePG	Pg	21 29 38.3	+1.1
VLI	Veliai	1.01	61	ePg	Pg	21 29 38.3	+1.1
VLX	Vlachokerasia	1.22	21	ePN	Pn	21 29 41.3	+1.0
VLX	Vlachokerasia	1.22	21	ePn	Pn	21 29 41.3	+1.0
DID	Didima	1.70	41	P	Pg	21 29 50.4	+0.1
DID				S	Sg	21 30 12.8	+0.5
DID	Didima	1.70	41	P	Pg	21 29 50.4	+0.1
DID				S	Sg	21 30 12.8	+0.5
GUR	Goura	1.75	13	ePN	Pg	21 29 50.9	-0.4
GUR	Goura	1.75	13	ePn	Pg	21 29 50.9	-0.4
KARN	Karanos	1.88	115	P	Pg	21 29 52.6	-1.1
KARN	Karanos	1.88	115	P	Pg	21 29 52.6	-1.1
LTK	Loutraki	2.00	26	P	Pg	21 29 55.6	-0.6
LTK	Loutraki	2.00	26	P	Pg	21 29 55.6	-0.6
LAKA	Lakka	2.01	3	P	Pg	21 29 55.9	-0.4
LAKA				S	Sg	21 30 20.9	-1.5
LAKA	Lakka	2.01	3	P	Pg	21 29 55.9	-0.4
LAKA				S	Sg	21 30 20.9	-1.5
TRIZ	Trizonia	2.14	5	P	Pg	21 29 57.8	-1.0
TRIZ	Trizonia	2.14	5	P	Pg	21 29 57.8	-1.0
ATHU	Athens Univers	2.33	41	P	Pg	21 30 00.1	-2.3
ATHU	Athens Univers	2.33	41	P	Pg	21 30 00.1	-2.3
CUC	Castrocucco	6.06	310	ePn	Pn	21 30 47.8	+1.0
CUC				eSn	Sn	21 31 55.1	-0.8
CUC	Castrocucco	6.06	310	ePn	Pn	21 30 47.8	+1.0
CUC				eSn	Sn	21 31 55.2	-0.7

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*IDC **25** 21:36:07.9±0.5, 61°.41S×54°.52W, h0^{km}, mb4.5/14, mb1 4.5/15, mb1mx4.4/22, mbtmp4.4/15, ML4.6/1, MS4.3/1, Ms1 4.3/1, ms1mx4.2/24, Error ellipse: s-maj=20.5km s-min=15.3km az=88.0*

*ISCJB **25** 21:36:08.2±0.4, 61°.41S±0°.06×54°.2W±0°.2, h10^{km}, mb4.6/17, Error ellipse: s-maj=10.9km s-min=8.8km az=178.1*

*NEIC **25** 21:36:13.0±3.1, 61°.51S×54°.40W, h33^{km}±22^{km}, mb4.7/8, Error ellipse: s-maj=12.7km s-min=7.9km az=96.0*

*BJI **25** 21:36:15.3, 61°.50S×54°.40W, h32^{km}*

ISC 25 21:36:09.7±0.4**, 61°.52S**±0°.07×**54°.3W**±0°.2**, h10**^{km}**, n55, σ1^s.08**/35**, mb4.6**/17**, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	Palmer Station	5.50	229	Pn	Pn	21 37 29.7	-1.8
	1.9nm,0.3s,baz=341,slow=14,SNR=4.5						
PMSA				Sn	Sn	21 38 40.0	+5.2
	1.9nm,0.3s,baz=180,slow=20,SNR=2.1						
PMSA	Palmer Station	5.50	229	ePn	Pn	21 37 29.6	-1.9
PMSA				Sn	Sn	21 38 49.9	+15
USHA	Ushuaia	10.02	306	Pn	Pn	21 38 35.2	+1.7
	0.2nm,0.3s,baz=22,slow=11,SNR=1.9						
USHA				LR	LR	21 40 37.6	
	comp=Z,2µm,21.0s,baz=47,slow=27						
EFI	East Falkland	10.08	346	ePn	Pn	21 38 35.6	+1.3
PLCA	Paso Flores	23.05	327	P	P	21 41 14.8	-0.1
	3.8nm,1.0s,mb3.8,baz=173,slow=12,SNR=5.4						
PLCA	Paso Flores	23.05	327	eP	P	21 41 14.8	-0.1
	6.2nm,0.9s,mb4.0						
QSPA	South Pole Qui	28.71	180	P	P	21 42 08.7	+2.3
	6.6nm,0.7s,mb4.5,baz=309,slow=1.2,SNR=8.1						
CPUP	Villa Florida	35.24	355	P	P	21 43 01.7	-2.4
	1.6nm,0.5s,mb4.2,baz=141,slow=5.4,SNR=5.7						
CPUP	Villa Florida	35.24	355	eP	P	21 43 02.7	-1.4
	9.3nm,0.5s,mb5.0						
LVC	Limon Verde	40.17	339	P	P	21 43 43.3	-2.5
	5.8nm,0.8s,mb4.4,baz=302,slow=13,SNR=3.5						
LVC	Limon Verde	40.17	339	eP	P	21 43 45.5	-0.4
	5.7nm,0.8s,mb4.3						
SIV	San Ignacio	45.73	351	P	P	21 44 30.5	-0.3
	2.6nm,0.8s,mb4.2,baz=222,slow=10,SNR=4.8						
SUR	Sutherland	55.11	95	P	P	21 45 43.9	+2.2
	3.6nm,0.8s,mb4.5,baz=180,slow=7.1,SNR=4.9						
SHEL	Horse Pasture	56.97	59	eP	P	21 45 54.7	-0.4
	31nm,0.7s,mb5.5						
RCBR	Riachuelo	57.24	22	eP	P	21 45 56.3	-0.8
BOSA	Boshof	60.36	96	P	P	21 46 17.4	-1.2
	4.6nm,1.0s,mb4.5,baz=249,slow=21,SNR=3.6						
BOSA	Boshof	60.36	96	P	P	21 46 17.4	-1.2
LBTB	Lobatse	63.55	94	P	P	21 46 41.1	+1.0
	3.5nm,0.5s,mb4.6,baz=176,slow=8.1,SNR=7.2						
LBTB	Lobatse	63.55	94	eP	P	21 46 40.9	+0.7
	3.2nm,0.6s,mb4.5						
OTAV	Otavalo	64.29	333	eP	P	21 46 46.1	+1.0
	12nm,1.0s,mb4.9						
RPZ	Rata Peaks	68.90	214	P	P	21 47 14.4	+0.3
	2.8nm,0.4s,mb4.5,baz=192,slow=6.2,SNR=3.1						
SDV	Santo Domingo	71.34	343	P	P	21 47 28.6	-0.9
JTS	JuntasAbangare	75.52	329	P	P	21 47 54.0	0.0
DBIC	Dimbokro	77.97	50	P	P	21 48 08.1	+0.2
NWAO	Narrogin (SRO)	85.64	173	P	P	21 48 48.8	+0.6
	6.1nm,0.8s,mb4.9,baz=157,slow=13,SNR=2.7						
NWAO	Narrogin (SRO)	85.64	173	P	P	21 48 48.5	+0.3
STKA	Stephens Creek	86.05	193	P	P	21 48 50.0	-0.2
	1.9nm,0.5s,mb4.6,baz=90,slow=2.0,SNR=7.3						
STKA	Stephens Creek	86.05	193	eP	P	21 48 50.3	0.0
	1.0nm,1.0s,mb4.0						
TORD	Torodi Ar. Bea	86.39	54	P	P	21 48 52.9	+0.9
	5.0nm,1.1s,mb4.7,baz=210,slow=5.1,SNR=13						
ASAR	Alice Springs	94.86	188	P	P	21 49 31.2	-0.5
	0.7nm,0.5s,mb4.3,baz=172,slow=4.4,SNR=6.9						
MSEY	Mahe Island	95.20	110	eP	P	21 49 32.5	-0.9
WRA	Warramunga Arr	98.53	188	P	P	21 49 47.5	-0.8
	2.5nm,1.0s,mb4.7,baz=180,slow=4.1,SNR=11						
WRAB	Tennant Creek	98.54	188	eP	P	21 49 48.2	-0.2
	2.5nm,0.7s,mb4.8						
GERES	GERESS Array B	122.69	47	PKP	PKPdf	21 55 03.7	-0.6
	0.4nm,0.6s,baz=292,slow=0.7,SNR=4.4						
BRTR	Keskin Array B	123.04	67	PKP	PKPdf	21 55 05.1	-0.2
	0.8nm,1.0s,baz=151,slow=3.3,SNR=3.3						
YKA	Yellowknife Ar	131.84	327	PKP	PKPdf	21 55 20.0	-1.4
	0.6nm,0.6s,baz=146,slow=2.3,SNR=11						
CMAR	Chiang Mai Arr	133.03	144	PKP	PKPdf	21 55 24.9	-0.2
	0.8nm,0.8s,baz=223,slow=3.6,SNR=5.5						
ARCES	ARCESS Array B	142.34	35	PKhKP		21 55 34.9	
	2.5nm,0.7s,baz=219,slow=0.8,SNR=12						
ARCES	ARCESS Array B	142.34	35	PKP		21 55 34.9	
AML	Almayashu	143.71	98	P	PKPdf	21 55 42.6	-1.2
	SNR=18						
EKS2	Erkin-Say	144.15	97	P	PKPdf	21 55 43.4	-1.2
	SNR=17						
UCH	Uchtor	144.17	99	P	PKPdf	21 55 44.1	-0.6
	SNR=18						
KZA	Kyzart	144.40	99	P	PKPdf	21 55 44.8	-0.2
	SNR=17						
AAK	Ala-Archa	144.47	98	P	PKPdf	21 55 44.7	-0.4
	SNR=15						
KBK	Karagaybulak	144.70	99	P	PKPdf	21 55 45.5	0.0
	SNR=14						
CHMS	Chumysh	144.87	98	P	PKPdf	21 55 45.5	-0.3
	SNR=10						
USP	Ospenovka	144.96	97	P	PKPdf	21 55 45.4	-0.6
	SNR=5.5						
SPITS	Spitsbergen Ar	145.69	20	PKPbc	PKPbc	21 55 46.0	-0.7
	6.5nm,0.6s,baz=208,slow=3.7,SNR=7.1						
BVAR	Borovoye Array	149.79	81	PKPbc	PKPbc	21 55 58.4	-0.1
	2.8nm,0.6s,baz=221,slow=2.6,SNR=16						
MKAR	Makanchi Array	151.27	101	PKP	PKPdf	21 55 56.1	-0.1
	4.8nm,0.7s,baz=242,slow=2.6,SNR=3.6						
MKAR				PKPbc	PKPbc	21 56 01.6	-0.5
	5.9nm,0.8s,baz=243,slow=2.7,SNR=41						
KURK	Kurchatov	152.24	91	PKPbc	PKPbc	21 56 03.6	-0.6
	4.2nm,0.7s,baz=230,slow=2.9,SNR=19						
GTA	Gaotai	152.75	132	ePKPbc	PKPbc	21 56 06.5	+0.7
MJAR	Matsushiro Arr	153.79	203	PKPab	PKPab	21 56 22.3	+1.2
	1.7nm,0.8s,baz=176,slow=6.5,SNR=4.5						
ZALV	Zalesovo Beam	157.23	91	PKPab	PKPab	21 56 34.4	-1.0
	0.4nm,0.4s,baz=226,slow=5.8,SNR=3.6						
SONM	Songino Array	162.42	132	PKPab	PKPab	21 56 58.8	+0.6
	2.4nm,0.8s,baz=206,slow=4.9,SNR=17						

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*IGQ **25** 21:37:43.1, 2°.41S×82°.59W, h12^{km}±19^{km}, Mb4.9, Ms4.8, Error ellipse: s-maj=19.1km s-min=9.4km az=160.8*

*ISCJB **25** 21:38:04.6±0.5, 2°.22S±0°.06×81°.25W±0°.04, h33^{km}, mb4.0/10, Error ellipse: s-maj=9.0km s-min=6.2km az=169.0*

*NEIC **25** 21:38:06.3±3.1, 2°.24S×81°.22W, h32^{km}±23^{km}, mb4.2/6, Error ellipse: s-maj=11.7km s-min=9.4km az=84.0*

*IDC **25** 21:38:12.7±3.4, 2°.31S×81°.15W, h92^{km}±34^{km}, mb3.6/6, mb1 3.8/9, mb1mx3.6/22, mbtmp3.7/9, MS3.8/1, Ms1 3.8/1, ms1mx3.3/41, Error ellipse: s-maj=46.6km s-min=17.8km az=73.0*

ISC 25 21:38:06.8±0.6**, 2°.23S**±0°.07×**81°.18W**±0°.05**, h35**^{km}**, n55, σ1^s.14**/56**, mb4.0**/10**, 4C-9D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHIS	Cerro-Chispas-	1.26	21	⇓P	Pn	21 38 23.1	-4.8
QIL2	Quilotoa	2.63	59	P	Pn	21 38 45.2	-1.7
IGUA	Igualata	2.64	74	⇑P	Pn	21 38 46.4	-0.5
ARRY	Arrayan	2.81	75	⇓P	Pn	21 38 48.9	-0.4
JUI6	Juive	2.83	74	⇓P	Pn	21 38 49.8	+0.3
PATA	Patacocha	2.84	75	⇓P	Pn	21 38 49.8	+0.2
RETU	Refugio	2.84	74	⇓P	Pn	21 38 50.3	+0.6
RUN5	Runtun	2.87	74	P	Pn	21 38 50.7	+0.6
ULBA	Ulba	2.88	74	P	Pn	21 38 50.4	+0.2
PISA	Pisayambo	3.02	67	P	Pn	21 38 52.5	+0.3
CAMI	Rancho Maria	3.09	60	⇓P	Pn	21 38 53.6	+0.5
MOV1	Cotopaxi Vol s	3.12	61	P	Pn	21 38 53.9	+0.3
NAS2	Nasa	3.13	60	P	Pn	21 38 54.4	+0.7
VC1	Cotopaxi 1	3.19	60	P	Pn	21 38 55.1	+0.6
TAMB	Tambo	3.20	62	P	Pn	21 38 54.7	+0.1
PITA	Cotopaxi Volc	3.21	59	P	Pn	21 38 54.0	-0.7
COV1	Cotopaxi Volc	3.23	61	P	Pn	21 38 54.8	-0.4
JUA2	San Juan 2	3.26	52	S	Sn	21 39 40.6	+7.5
JUA2	San Juan 2	3.26	52	P	Pn	21 38 53.2	-2.3
TERV	Terraza Guagua	3.29	52	P	Pn	21 38 54.8	-1.1
GGP	Refugio Guagua	3.29	52	⇑P	Pn	21 38 54.2	-1.7
PINO	Pino	3.29	51	P	Pn	21 38 53.7	-2.2
YANA	Yana	3.35	51	⇓P	Pn	21 38 54.8	-1.9
ANTI	Antisana	3.50	60	⇑P	Pn	21 38 59.4	+0.7
OTAV	Otavalo	3.67	48	P	Pn	21 38 59.0	-2.1
OTAV	Otavalo	3.67	48	S	Sn	21 39 51.8	+8.7
OTAV	Otavalo	3.67	48	ePn	Pn	21 39 00.1	-0.9
OTAV				eSn	Sn	21 39 52.9	+10
COTA	Cotacachi	3.82	48	⇑P	Pn	21 39 03.4	+0.2
CAYR	Refugio Cayamb	3.88	55	P	Pn	21 39 05.3	+1.4
CAYA	Cayambe	3.92	54	⇓S	Sn	21 40 01.8	+12
CAYA	Cayambe	3.92	54	⇓P	Pn	21 39 05.7	+1.1
CHAR	Charly	4.10	59	P	Pn	21 39 10.4	+3.3
CONE	Cono NE Rev Vo	4.14	59	P	Pn	21 39 11.0	+3.4
ATAH	Atahualpa	5.49	150	P	Pn	21 39 33.7	+7.6
	1.0nm,0.3s,baz=345,slow=7.5,SNR=13						
ATAH				S	Sn	21 40 40.2	+12
	1.5nm,0.3s,baz=131,slow=20,SNR=3.9						
ATAH				LR	LR	21 41 09.5	
	comp=Z,830nm,19.7s,baz=174,slow=32						
PAYG	Puerto Ayora	9.23	280	ePn	Pn	21 40 16.4	-1.2
NNA	Nana	10.60	156	P	Pn	21 40 40.2	+3.9
	1.9nm,0.3s,baz=330,slow=9.7,SNR=3.5						
NNA	Nana	10.60	156	ePn	Pn	21 40 37.5	+1.1
SDV	Santo Domingo	15.25	43	P	Pn	21 41 42.1	+2.5
	0.2nm,0.3s,baz=285,slow=16,SNR=1.9						
SDV	Santo Domingo	15.25	43	ePn	Pn	21 41 41.3	+1.7
	7.4nm,0.9s						
SIV	San Ignacio	24.06	126	P	P	21 43 20.7	+1.6
	0.4nm,0.5s,mb3.1,baz=316,slow=8.6,SNR=2.4						
CBYP	Canovanas	25.35	36	eP	P	21 43 30.8	+0.1
	7.4nm,0.6s,mb4.4						
MTP	Monte Pirata	25.39	37	eP	P	21 43 31.0	-0.1
	7.5nm,0.7s,mb4.3						
BBGH	Gun Hill	26.34	54	eP	P	21 43 39.2	-0.5
DWPF	Disney	30.17	360	P	P	21 44 15.3	+1.6

MIAR	Mount Ida	38.39	343	eP	P	21 45 25.7	+0.8
	0.8nm,0.4s,mb3.8						
WVT	Waverly	38.66	351	P	P	21 45 28.1	+1.0
PLCA	Paso Flores	39.51	167	P	P	21 45 32.2	-1.9
	0.5nm,0.3s,mb3.7,baz=327,slow=11,SNR=3.4						
PLCA	Paso Flores	39.51	167	eP	P	21 45 33.1	-1.1
	0.7nm,0.5s,mb3.6						
WMOK	Wichita Mounta	40.32	337	P	P	21 45 40.7	-0.2
AGMN	Agassiz Refuge	51.92	348	eP	P	21 47 11.4	-0.7
	3.6nm,0.6s,mb4.5						
NVAR	Mina Array Bea	53.00	324	P	P	21 47 22.5	+2.3
	1.1nm,0.7s,mb3.9,baz=134,slow=7.6,SNR=5.4						
USHA	Ushuaia	53.46	171	P	P	21 47 21.9	-1.4
	1.9nm,0.4s,mb4.4,baz=311,slow=9.4,SNR=4.1						
ULM	Lac du Bonnet	53.78	348	P	P	21 47 25.0	-0.7
	7.0nm,0.7s,mb4.7,baz=160,slow=9.0,SNR=12						
YKA	Yellowknife Ar	69.33	344	P	P	21 49 10.6	+0.2
	0.7nm,0.9s,mb3.6,baz=141,slow=5.4,SNR=9.1						
ASAR	Alice Springs	137.25	231	PKP	PKPdf	21 57 28.1	+0.7
	0.5nm,0.6s,baz=107,slow=2.1,SNR=5.4						

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*IDC **25** 21:45:00.1±1.9, 2°.23S×99°.94E, h0^{km}, mb3.6/8, mb1 3.7/8, mb1mx3.6/24, mbtmp3.6/8, Error ellipse: s-maj=82.1km s-min=19.2km az=55.0*

*ISCJB **25** 21:45:03.8±0.8, 2°.34S±0°.07×99°.7E±0°.1, h50^{km}±7^{km}, mb3.8/7, Error ellipse: s-maj=19.6km s-min=8.0km az=151.5*

*DJA **25** 21:45:04, 2°.36S×99°.69E, h26^{km}, MLv4.4/6*

ISC 25 21:45:04.8±0.9**, 2°.36S**±0°.07×**99°.7E**±0°.1**, h39**^{km}±9^{km}**, n19, σ0.^{s}84**/19**, mb3.8**/7**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.51	142	P	Pn	21 45 14.7	-1.0
PPSI				S	Sn	21 45 24.1	+0.8
SISI	Saibi	1.19	329	P	Pn	21 45 24.8	-0.2
PDSI	Padang	1.62	28	P	Pn	21 45 29.4	-1.6
PPI	Padang Panjang	2.01	20	P	Pn	21 45 35.9	-0.4
SDSI	Sungai Dareh	2.23	51	P	Pn	21 45 41.3	+1.9
KSI	Kapahiang	3.17	114	P	Pn	21 45 52.1	-0.1
MNAI	Manna	3.82	122	P	Pn	21 46 01.0	-0.1
GSI	Gunungsitoli	4.21	330	P	Pn	21 46 06.7	+0.2
KASI	Kota Agung	5.73	123	P	Pn	21 46 27.6	+0.2
	39nm,1.1s,0.5nm						
IPM	Ipoh	6.92	11	P	Pn	21 46 44.4	+0.7
CMAR	Chiang Mai Arr	20.69	358	P	P	21 49 40.5	-1.2
	0.7nm,0.7s,baz=183,slow=8.9,SNR=7.3						
WRA	Warramunga Arr	38.08	120	P	P	21 52 20.1	0.0
	0.4nm,0.3s,mb3.6,baz=305,slow=8.5,SNR=2.9						
ASAR	Alice Springs	39.29	126	P	P	21 52 29.3	-0.9
	0.5nm,0.7s,mb3.4,baz=301,slow=7.9,SNR=5.1						
SONM	Songino Array	50.32	6	P	P	21 53 57.9	+0.3
	2.0nm,0.7s,mb4.3,baz=188,slow=9.3,SNR=14						
MKAR	Makanchi Array	51.29	345	P	P	21 54 05.5	+0.6
	1.0nm,0.7s,mb3.9,baz=146,slow=7.9,SNR=11						
KURK	Kurchatov	55.86	344	P	P	21 54 38.2	-0.2
	0.4nm,0.7s,mb3.6,baz=171,slow=7.2,SNR=3.3						
ZALV	Zalesovo Beam	57.46	350	P	P	21 54 49.3	-0.3
	0.4nm,0.6s,mb3.7,baz=178,slow=8.8,SNR=3.8						
AKTO	Aktyubinsk	63.52	332	P	P	21 55 32.8	+1.6
	1.1nm,0.8s,mb4.0,baz=150,slow=8.1,SNR=2.7						
TXAR	Lajitas Array	145.17	37	PKP	PKPdf	22 04 39.5	+0.5
	0.9nm,0.6s,baz=266,slow=1.6,SNR=6.9						

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*ISK **25** 22:06:25.4, 37°.64N×26°.26E, h8^{km}, MD3.1*

*ATH **25** 22:06:25.4, 37°.76N×26°.13E, h10^{km}, MD3.4/3*

*DDA **25** 22:06:25.5, 37°.66N×26°.20E, h35^{km}±2^{km}, Md3.3*

*ISCJB **25** 22:06:25.1±0.7, 37°.67N±0°.02×26°.18E±0°.04, h4^{km}±5^{km}, Error ellipse: s-maj=5.0km s-min=3.5km az=155.7*

*NEIC **25** 22:06:25.4, 37°.76N×26°.13E, h10^{km}, MD3.1(ISK), MD3.4(ATH), ML3.6(THE), After ATH.*

*CSEM **25** 22:06:26.5±0.1, 37°.67N×26°.25E, h15^{km}, ML3.6/2, Error ellipse: s-maj=3.2km s-min=2.7km az=51.0*

*THE **25** 22:06:27.8, 37°.72N×26°.24E, h16^{km}±1^{km}, ML3.6/2, Error ellipse: s-maj=2.0km s-min=0.7km az=298.0*

ISC 25 22:06:26.3±0.7**, 37°.65N**±0°.02×**26°.21E**±0°.04**, h13**^{km}±5^{km}**, n62, σ0.^{s}96**/86**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMG	Samos	0.51	83	ePB	Pg	22 06 36.2	-0.1
SMG	Samos	0.51	83	ePb	Pg	22 06 36.2	-0.1
CHOS	Chios island	0.74	351	P	Pg	22 06 41.0	+0.2
CHOS				S	Sg	22 06 51.1	+0.5
CHOS	Chios island	0.74	351	P	Pg	22 06 41.0	+0.2
CHOS				S	Sg	22 06 51.1	+0.5
URLA	Izmir	0.77	23	i P	Pg	22 06 41.4	0.0
URLA				i S	Sg	22 06 53.1	+1.6
URLA	Izmir	0.77	23	i P	Pg	22 06 41.4	+0.1
URLA				i S	Sg	22 06 53.1	+1.6
GCAM	G?zelcaml?	0.82	86	i P	Pg	22 06 41.7	-0.4
GCAM				i S	Sg	22 06 54.6	+1.7
GCAM	G?zelcaml?	0.82	86	i P	Pg	22 06 41.7	-0.5
GCAM				i S	Sg	22 06 54.6	+1.7
BLCB	Balcova	0.99	42	ePG	Pg	22 06 44.4	-1.0
BLCB				eSG	Sg	22 06 58.2	-0.1
BLCB	Balcova	0.99	42	P	Pg	22 06 44.7	-0.7
BLCB				S	Sg	22 06 57.8	-0.5
BLCB	Balcova	0.99	42	ePg	Pg	22 06 44.4	-1.0
BLCB	Balcova	0.99	42	P	Pg	22 06 44.7	-0.7
BLCB				S	Sg	22 06 57.8	-0.5
BLCB				eSg	Sg	22 06 58.2	-0.1
BODT	Bodrum	1.06	123	ePG	Pg	22 06 45.1	-1.6
BODT				eSG	Sg	22 06 59.8	-0.8
BODT	Bodrum	1.06	123	ePg	Pg	22 06 45.1	-1.6
BODT				eSg	Sg	22 06 59.8	-0.7
IZM	Izmir	1.12	48	ePN	Pg	22 06 46.8	-1.2
IZM	Izmir	1.12	48	ePn	Pg	22 06 46.8	-1.1
BDRM	Kayabasi	1.15	120	i P	Pg	22 06 46.9	-1.5
BDRM				i S	Sg	22 07 03.5	+0.1
BDRM	Kayabasi	1.15	120	i P	Pg	22 06 46.9	-1.5
BDRM				i S	Sg	22 07 03.5	+0.2
MLSB	Milas	1.30	105	ePN	Pn	22 06 49.6	-0.5
MLSB	Milas	1.30	105	ePn	Pn	22 06 49.6	-0.5
AYDN	Tasoluk	1.33	89	i P	Pn	22 06 50.2	-0.4
AYDN				i S	Sb	22 07 09.8	+1.8
AYDN	Tasoluk	1.33	89	i P	Pn	22 06 50.2	-0.3
AYDN				i S	Sb	22 07 09.8	+1.8
THR4	Thira Island,	1.35	209	P	Pn	22 06 51.4	+0.6
THR4	Thira Island,	1.35	209	P	Pn	22 06 51.4	+0.6
THR5	Thira Island,	1.41	209	P	Pn	22 06 53.2	+1.6
THR5	Thira Island,	1.41	209	P	Pn	22 06 53.2	+1.6
THR1	Thera Island	1.41	205	P	Pn	22 06 53.0	+1.4
THR1	Thera Island	1.41	205	P	Pn	22 06 53.0	+1.4
DAT	Datca	1.43	130	ePN	Pn	22 06 52.1	+0.2
DAT	Datca	1.43	130	ePn	Pn	22 06 52.1	+0.2
SIGR	SIGRI	1.58	350	P	Pn	22 06 53.1	-0.9
SIGR	SIGRI	1.58	350	P	Pn	22 06 53.1	-0.9
PRK	Paraskevi	1.59	2	P	Pn	22 06 53.3	-0.9
PRK				S	Sn	22 07 13.5	-1.1
PRK	Paraskevi	1.59	2	ePb	Pn	22 06 53.3	-0.9
PRK				S	Sn	22 07 13.5	-1.1
PRK	Paraskevi	1.59	2	P	Pn	22 06 53.3	-0.9
PRK				S	Sn	22 07 13.5	-1.1
AYVA	Ayvalik	1.70	13	i P	Pn	22 06 55.5	-0.1
AYVA				i S	Sg	22 07 21.5	+0.5
AYVA	Ayvalik	1.70	13	i P	Pn	22 06 55.5	-0.1
AYVA				i S	Sg	22 07 21.5	+0.5
AKHS	Akhisar	1.76	45	i P	Pn	22 06 55.8	-0.7
AKHS				i S	Sg	22 07 23.0	0.0
AKHS	Akhisar	1.76	45	i P	Pn	22 06 55.8	-0.7
ATHU	Athens Univers	1.94	280	P	Pn	22 06 59.0	0.0
ATHU	Athens Univers	1.94	280	P	Pn	22 06 59.0	0.0
MANT	Manisa	2.04	65	i P	Pg	22 07 04.7	-0.7
MANT	Manisa	2.04	65	i P	Pg	22 07 04.7	-0.7
BOZC	Bozcaada	2.19	357	i P	Pn	22 07 01.5	-0.9
BALY	Balya	2.36	28	i P	Pn	22 07 04.0	-0.7
BALY				i S	Sg	22 07 44.6	+2.4
BALY	Balya	2.36	28	i P	Pn	22 07 04.0	-0.7
AOS	Alonnisos	2.38	310	P	Pn	22 07 05.0	+0.1
AOS	Alonnisos	2.38	310	P	Pn	22 07 05.0	+0.1
LIA	Limnos Island	2.38	341	P	Pn	22 07 04.3	-0.7
LIA	Limnos Island	2.38	341	ePN	Pn	22 07 05.2	+0.2
LIA	Limnos Island	2.38	341	P	Pn	22 07 04.3	-0.7
LIA	Limnos Island	2.38	341	ePn	Pn	22 07 05.2	+0.2
LOS	Limnos	2.44	339	P	Pn	22 07 06.2	+0.3
LOS	Limnos	2.44	339	P	Pn	22 07 06.2	+0.3
LKR	Lokris	2.72	293	P	Pn	22 07 09.6	0.0
LKR	Lokris	2.72	293	P	Pn	22 07 09.6	0.0
PAIG	Paliouri	3.01	320	P	Pn	22 07 14.1	+0.5
PAIG	Paliouri	3.01	320	P	Pn	22 07 14.1	+0.5
AKAS	Kas	3.07	116	i P	Pn	22 07 16.9	+2.5
AKAS				i S	Sn	22 07 56.6	+5.6
AKAS	Kas	3.07	116	i P	Pn	22 07 16.9	+2.5
ALN	Alexandroupoli	3.25	358	P	Pn	22 07 16.3	-0.6
ALN	Alexandroupoli	3.25	358	P	Pn	22 07 16.3	-0.6

ATH 25 22:06:36.8, 36°.38N×23°.60E, h17^{km}, MD3.3/4, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	0.47	258	ePB	Pb	22 06 46.2	-0.3
VLI	Veliai	0.63	302	ePN	Pn	22 06 49.1	-1.9
ITM	Ithomi	1.56	301	ePN	Pn	22 07 06.1	+2.3
GUR	Goura	1.85	327	ePN	Pn	22 07 10.0	+2.3
GUR	Goura	1.85	327	ePn	Pn	22 07 10.0	+2.3

IDC 25 22:07:17.5±1.4**, 22°.51N×92°.03E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/5**, mb1mx3.4**/24**, mbtmp3.5**/5**, ML3.4**/1**, Error ellipse: s-maj=46.8km s-min=23.1km az=55.0, India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.63	121	Pn	Pn	22 09 10.5	+0.4
	0.2nm,0.3s,baz=298,slow=14,SNR=8.6						
MKAR	Makanchi Array	25.47	344	P	P	22 12 46.2	-0.9
	1.1nm,0.7s,baz=159,slow=9.8,SNR=14						
SONM	Songino Array	27.77	21	P	P	22 13 08.7	+0.8
	0.4nm,0.8s,baz=210,slow=10.0,SNR=3.9						
ASAR	Alice Springs	61.36	136	P	P	22 17 35.1	-0.3
	0.4nm,0.6s,baz=303,slow=6.1,SNR=5.5						
GERES	GERESS Array B	65.83	315	P	P	22 18 05.5	+0.8
	0.2nm,0.3s,baz=67,slow=7.6,SNR=3.1						

NNC 25 22:09:34.8±2.2**, 36°.74N×66°.78E, h0**^{km}**, mb3.7, mpv3.6, 2C-2D, Error ellipse: s-maj=42.3km s-min=17.7km az=115.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.97	23	⇓Pn	Pn	22 11 20.7	+2.6
	1.8nm,0.4s,baz=208,slow=16,SNR=72						
KK31				⇑Sn	Sn	22 12 44.7	+6.6
	1.1nm,0.5s,baz=217,slow=23,SNR=5.8						
TKM2	Tokmak 2	9.17	45	⇓Pn	Pn	22 11 48.7	+0.5
	1.0nm,0.4s						
AB09	Akbulak array	13.48	340	⇑Pn	Pn	22 12 47.7	+0.6
	0.3nm,0.6s						

GUC 25 22:19:36.1±0.6**, 22°.25S×67°.69W, h188**^{km}±8^{km}**, ML3.7, 3C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.19	252	⇑iP	Pn	22 20 07.4	+1.3
LVC				i S	Sn	22 20 30.9	+1.8
PB04	Plate Boundary	1.66	269	⇑eP	Pn	22 20 18.3	+8.0
PB04				i S	Sn	22 20 49.9	+13
PB04				AML	AML	22 20 52.5	
	comp=N,242nm,0.2s						
PECH	Pedro de Valdi	1.87	259	eP	Pn	22 20 13.8	+1.5
PECH				i S	Sn	22 20 42.5	+2.1
PECH				AML	AML	22 20 43.9	
	comp=E,470nm,0.2s						
PB01	Plate Boundary	2.06	305	⇑eP	Pn	22 20 15.2	+0.8
PB01				i S	Sn	22 20 45.5	+1.5
PB01				AML	AML	22 20 47.3	
	comp=E,420nm,0.3s						

IDC 25 22:29:20.2±6.5**, 2°.32N×95°.61E, h0**^{km}**, mb3.9**/3**, mb1 3.8**/5**, mb1mx3.5**/24**, mbtmp3.7**/5**, ML3.3**/2**, Error ellipse: s-maj=128.6km s-min=39.6km az=22.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.34	82	Pn	Pn	22 30 14.0	+0.3
	0.8nm,0.3s,baz=260,slow=6.1,SNR=3.2						
CMAR	Chiang Mai Arr	16.36	11	Pn	Pn	22 33 12.1	+0.6
	0.1nm,0.3s,baz=193,slow=12,SNR=4.8						
MKAR	Makanchi Array	45.79	347	P	P	22 37 44.3	+0.7
	0.8nm,0.4s,baz=160,slow=8.5,SNR=21						
SONM	Songino Array	46.29	10	P	P	22 37 47.1	-0.4
	0.8nm,0.6s,baz=193,slow=8.9,SNR=9.1						
ZALV	Zalesovo Beam	52.22	352	P	P	22 38 32.2	-0.6
	0.8nm,0.5s,baz=175,slow=8.7,SNR=6.7						

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*IDC **25** 22:44:30.2±2.9, 2°.41S×99°.70E, h0^{km}, mb3.8/7, mb1 4.0/7, mb1mx3.8/22, mbtmp3.8/7, Error ellipse: s-maj=124.0km s-min=18.2km az=59.0*

*DJA **25** 22:44:33, 2°.45S×99°.50E, h38^{km}, MLv4.2/6*

*ISCJB **25** 22:44:35.0±0.9, 2°.44S±0°.06×99°.7E±0°.1, h57^{km}±7^{km}, mb3.9/5, Error ellipse: s-maj=18.2km s-min=8.2km az=162.4*

ISC 25 22:44:36.0±1.0**, 2°.41S**±0°.06×**99°.7E**±0°.1**, h45**^{km}±9^{km}**, n18, σ0.^{s}97**/18**, mb3.9**/5**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.47	138	P	Pn	22 44 45.7	-0.8
PPSI				S	Sn	22 44 55.2	+1.2
SISI	Saibi	1.24	330	P	Pn	22 44 57.3	+0.4
PDSI	Padang	1.67	27	P	Pn	22 45 01.8	-1.1
PDSI				S	Sn	22 45 24.4	+1.3
PPI	Padang Panjang	2.06	20	P	Pn	22 45 07.9	-0.3
SDSI	Sungai Dareh	2.27	50	P	Pn	22 45 11.6	+0.6
MNAI	Manna	3.78	121	P	Pn	22 45 31.1	-0.7
GSI	Gunungsitoli	4.26	330	P	Px	22 45 30.7	
MDSI	Maura Dua	4.92	115	P	Pn	22 45 48.3	+0.8
KASI	Kota Agung	5.70	123	P	Pn	22 45 57.6	-0.5
	58nm,0.8s,0.3nm						
MYKOM	Kota Tinggi	5.88	45	P	Pn	22 45 58.2	-2.5
CMAR	Chiang Mai Arr	20.75	358	P	P	22 49 12.8	-0.3
	0.9nm,0.3s,baz=190,slow=9.6,SNR=3.5						
WRA	Warramunga Arr	38.05	120	P	P	22 51 50.2	-0.3
	3.4nm,0.8s,mb4.1,baz=297,slow=9.2,SNR=5.3						
ASAR	Alice Springs	39.26	125	P	P	22 51 59.5	-1.0
	1.1nm,0.8s,mb3.7,baz=304,slow=8.1,SNR=5.5						
STKA	Stephens Creek	49.10	131	P	P	22 53 20.9	+1.6
	3.4nm,0.7s,mb4.5,baz=299,slow=6.8,SNR=7.7						
SONM	Songino Array	50.38	6	P	P	22 53 29.8	+1.2
	0.6nm,0.8s,mb3.7,baz=184,slow=8.6,SNR=6.1						
MKAR	Makanchi Array	51.34	345	P	P	22 53 36.2	+0.3
	0.2nm,0.6s,baz=160,slow=8.1,SNR=3.4						
ZALV	Zalesovo Beam	57.52	350	P	P	22 54 20.0	-0.6
	0.3nm,0.3s,mb3.8,baz=152,slow=6.5,SNR=2.7						
TXAR	Lajitas Array	145.21	37	PKPbc	PKPbc	23 04 10.7	+1.5
	1.5nm,0.6s,baz=253,slow=0.6,SNR=15						

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*ISCJB **25** 22:48:58.6±0.6, 14°.5N±0°.1×56°.4E±0°.1, h10^{km}, mb3.7/10, Error ellipse: s-maj=21.1km s-min=11.3km az=34.0*

*IDC **25** 22:48:59.2±1.1, 14°.55N×56°.21E, h0^{km}, mb3.7/8, mb1 3.8/8, mb1mx3.6/26, mbtmp3.7/8, MS4.7/1, Ms1 4.7/1, ms1mx3.7/36, Error ellipse: s-maj=48.5km s-min=18.5km az=127.0*

*NEIC **25** 22:49:00.5±0.5, 14°.52N×56°.35E, h10^{km}, mb3.8/5, Error ellipse: s-maj=16.1km s-min=8.6km az=124.0*

*CSEM **25** 22:49:00.4, 14°.52N×56°.35E, h10^{km}, mb3.8/5, After NEIC*

ISC 25 22:49:00.6±0.6**, 14°.5N**±0°.1×**56°.4E**±0°.1**, h10**^{km}**, n32, σ0.^{s}73**/32**, mb3.7**/10**, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	31.34	25	eP	P	22 55 22.0	+0.8
	0.5nm,0.7s,mb3.5						
AML	Almayashu	31.34	25	eP	P	22 55 22.0	+0.7
	0.5nm,0.7s,mb3.5						
KIV	Kislovodsk	31.58	341	P	P	22 55 22.8	-0.6
KIV	Kislovodsk	31.58	341	P	P	22 55 22.8	-0.6
EKS2	Erkin-Say	31.82	25	eP	P	22 55 24.7	-0.7
	0.5nm,0.5s,mb3.6						
EKS2	Erkin-Say	31.82	25	eP	P	22 55 24.7	-0.7
	0.5nm,0.5s,mb3.6						
AAK	Ala-Archa	32.09	26	P	P	22 55 30.1	+2.3
	0.3nm,0.3s,mb3.6,baz=194,slow=12,SNR=3.9						
AAK				LR	LR	23 10 07.2	
	comp=Z,1μm,18.7s,baz=331,slow=40						
AAK	Ala-Archa	32.09	26	P	P	22 55 28.4	+0.6
AAK				LR	LR	23 10 07.2	
AAK	Ala-Archa	32.09	26	P	P	22 55 28.5	+0.7
MKAR	Makanchi Array	38.80	29	P	P	22 56 25.9	+0.4
	0.3nm,0.7s,baz=204,slow=7.8,SNR=3.7						
KURK	Kurchatov	40.36	22	P	P	22 56 38.4	0.0
KURK	Kurchatov	40.36	22	P	P	22 56 38.4	0.0
LSZ	Lusaka	40.63	224	eP	P	22 56 41.4	+0.3
	1.8nm,0.8s,mb3.8						
LSZ	Lusaka	40.63	224	eP	P	22 56 41.4	+0.3
	1.8nm,0.8s,mb3.8						
TIP	Timpagrande	42.55	313	eP	P	22 56 57.5	+1.0
TIP	Timpagrande	42.55	313	eP	P	22 56 57.5	+0.9
ZALV	Zalesovo Beam	45.24	23	P	P	22 57 17.5	-0.5
	1.0nm,0.7s,mb3.7,baz=225,slow=7.5,SNR=4.8						
ZALV	Zalesovo Beam	45.24	23	P	P	22 57 17.5	-0.5
LBTB	Lobatse	49.42	218	P	P	22 57 51.4	+0.5
	2.8nm,0.8s,mb4.4,baz=37,slow=7.6,SNR=4.1						
LBTB	Lobatse	49.42	218	eP	P	22 57 51.8	+0.9
	1.5nm,0.5s,mb4.3						
LBTB	Lobatse	49.42	218	eP	P	22 57 51.8	+0.9
	1.5nm,0.5s,mb4.3						
FINES	FINESS Array B	51.67	342	P	P	22 58 06.2	-1.1
	1.2nm,0.7s,mb3.9,baz=116,slow=11,SNR=4.6						
FINES	FINESS Array B	51.67	342	P	P	22 58 06.2	-1.2
BOSA	Boshof	52.37	215	P	P	22 58 12.5	-0.6
	4.5nm,1.1s,mb4.3,baz=18,slow=6.4,SNR=3.3						
BOSA	Boshof	52.37	215	eP	P	22 58 12.9	-0.1
	1.3nm,0.7s,mb4.0						
BOSA	Boshof	52.37	215	eP	P	22 58 12.9	-0.2
	1.3nm,0.7s,mb4.0						
SONM	Songino Array	52.91	40	P	P	22 58 17.4	+0.5
	0.4nm,0.8s,mb3.4,baz=231,slow=7.6,SNR=3.7						
SONM	Songino Array	52.91	40	P	P	22 58 17.4	+0.5
TORD	Torodi Ar. Bea	52.98	276	P	P	22 58 17.4	-0.5
	0.2nm,0.7s,mb3.2,baz=98,slow=7.3,SNR=4.0						
TORD	Torodi Ar. Bea	52.98	276	P	P	22 58 17.4	-0.5
FITZ	Fitzroy Crossi	75.59	113	P	P	23 00 45.2	-0.9
FITZ	Fitzroy Crossi	75.59	113	P	P	23 00 45.2	-0.9

IDC 25 23:02:32.5±2.9**, 15°.24S×173°.16W, h0**^{km}**, mb3.7**/5**, mb1 4.0**/5**, mb1mx3.8**/18**, mbtmp3.7**/5**, Error ellipse: s-maj=174.4km s-min=25.8km az=144.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	44.32	240	P	P	23 10 44.8	+0.3
	1.4nm,0.9s,baz=76,slow=8.3,SNR=2.8						
WRA	Warramunga Arr	50.11	257	P	P	23 11 30.0	+0.2
	0.4nm,0.7s,baz=91,slow=7.8,SNR=6.0						
ASAR	Alice Springs	50.38	252	P	P	23 11 31.1	-0.8
	1.2nm,0.8s,baz=84,slow=9.2,SNR=11						
PDAR	Pinedale Array	81.99	42	P	P	23 14 55.1	+0.6
	0.2nm,0.6s,baz=236,slow=6.1,SNR=2.7						
YKA	Yellowknife Ar	89.86	23	P	P	23 15 31.9	-1.0
	0.6nm,0.9s,baz=237,slow=4.2,SNR=8.1						
GERES	GERESS Array B	146.01	352	PKPbc	PKPbc	23 22 14.4	+0.1
	0.9nm,0.8s,baz=57,slow=4.9,SNR=5.7						
BRTR	Keskin Array B	146.18	321	PKPbc	PKPbc	23 22 14.9	-0.2
	2.1nm,1.0s,baz=81,slow=1.1,SNR=9.2						

NNC 25 23:20:22.0±10.0**, 37°.25N×70°.40E, h0**^{km}**, mb3.6, mpv3.4, 5C-1D, Error ellipse: s-maj=79.4km s-min=77.6km az=10.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	5.85	1	⇑Pn	Pn	23 21 53.5	+3.6
	3.7nm,0.7s,baz=174,slow=12,SNR=48						
KK31				⇓Sn	Sn	23 23 04.5	+6.9
	1.6nm,0.3s,baz=189,slow=24,SNR=14						
TKM2	Tokmak 2	6.92	34	⇑Pn	Pn	23 22 01.3	-3.4
	1.6nm,0.7s						
TKM2				⇑Sn	Sn	23 23 24.5	+0.4
	2.0nm,0.6s						
AB09	Akbulak array	14.21	331	⇑Pn	Pn	23 23 46.5	+2.1
	0.2nm,0.3s						
AB09				⇑Sn	Sn	23 26 19.5	-3.2
	0.3nm,0.5s						

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*IDC **25** 23:22:20.2±1.1, 13°.09N×51°.08E, h0^{km}, mb3.8/11, mb1 3.9/11, mb1mx3.8/25, mbtmp3.8/11, Error ellipse: s-maj=27.3km s-min=22.8km az=29.0*

*NEIC **25** 23:22:21.5±0.5, 13°.14N×51°.00E, h10^{km}, mb4.4/4, Error ellipse: s-maj=11.7km s-min=11.2km az=100.0*

*ISCJB **25** 23:22:22.5±3.7, 13°.17N±0°.08×50°.88E±0°.06, h28^{km}±27^{km}, mb3.9/15, Error ellipse: s-maj=13.4km s-min=9.7km az=13.0*

*CSEM **25** 23:22:23.4±0.2, 13°.19N×50°.94E, h20^{km}, mb4.4/4, Error ellipse: s-maj=11.0km s-min=7.0km az=1.0*

*DHMR **25** 23:22:25.2±0.3, 13°.43N×50°.63E, h14^{km}±52^{km}, ML3.9*

ISC 25 23:22:22.9±4.3**, 13°.11N**±0°.09×**50°.94E**±0°.06**, h19**^{km}±27^{km}**, n50, σ0.^{s}97**/53**, mb3.9**/15**, 2C-1D, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	Al Mukalla	2.29	307	⇓iP	Pn	23 22 57.7	-1.9
MUKL				i S	Sn	23 23 23.2	-4.1
MUKL				AML	AML	23 23 24.2	
	comp=N,2μm,0.7s						
BDHA	Al Bayda’	5.29	280	⇑iP	Pn	23 23 41.6	+0.6
BDHA				i S	Sn	23 24 41.0	-0.4
BDHA				AML	AML	23 24 43.8	
	comp=N,257nm,0.5s						
BDHA	Al Bayda’	5.29	280	⇑iP	Pn	23 23 41.6	+0.7
BDHA				i S	Sn	23 24 41.0	-0.4
	comp=N,129nm,0.5s						
TRBA	At Turbah	6.64	272	i P	Pn	23 24 00.1	+0.6
TRBA	At Turbah	6.64	272	i P	Pn	23 24 00.1	+0.6
KMBO	Kilima Mbogo	19.60	225	P	Pn	23 26 51.3	-0.3
KMBO	Kilima Mbogo	19.60	225	P	Pn	23 26 51.3	-0.3
MALT	Malatya	27.45	338	P	P	23 28 08.0	+0.3
MALT	Malatya	27.45	338	P	P	23 28 08.0	+0.3
GNI	Garni	27.48	350	P	P	23 28 10.0	+2.1
	comp=N,1.4nm,0.6s,mb3.7,baz=358,slow=5.2,SNR=4.6						
GNI	Garni	27.48	350	eP	P	23 28 08.4	+0.5
	comp=N,4.9nm,0.8s,mb4.1						
GNI	Garni	27.48	350	eP	P	23 28 08.4	+0.5
	comp=N,4.9nm,0.8s,mb4.1						
BRTR	Keskin Array B	30.59	333	P	P	23 28 37.2	+1.8
	comp=N,0.2nm,0.2s,mb3.5,baz=152,slow=9.4,SNR=3.5						
BRTR	Keskin Array B	30.59	333	P	P	23 28 37.2	+1.7
AAK	Ala-Archa	35.79	30	eP	P	23 29 19.8	-1.1
	comp=N,5.8nm,1.5s,mb4.3						
AAK	Ala-Archa	35.79	30	eP	P	23 29 19.8	-1.1
	comp=N,5.8nm,1.5s,mb4.3						
AKTK	Aktyubinsk	37.67	7	P	P	23 29 38.4	+1.7
AKTK	Aktyubinsk	37.67	7	P	P	23 29 38.4	+1.7
AKTO	Aktyubinsk	37.67	7	P	P	23 29 38.4	+1.7
	comp=N,0.4nm,0.4s,mb3.5,baz=149,slow=5.9,SNR=3.4						
MKAR	Makanchi Array	42.66	32	P	P	23 30 17.6	-0.6
	comp=N,0.6nm,0.5s,mb3.6,baz=219,slow=7.7,SNR=12						
MKAR	Makanchi Array	42.66	32	P	P	23 30 17.6	-0.6
BVAR	Borovoye Array	42.73	17	P	P	23 30 17.1	-1.6
	comp=N,0.8nm,0.6s,mb3.6,baz=246,slow=7.2,SNR=4.6						
BVAR	Borovoye Array	42.73	17	P	P	23 30 17.1	-1.6
KURK	Kurchatov	43.74	25	P	P	23 30 26.8	-0.2
KURK	Kurchatov	43.74	25	P	P	23 30 26.8	-0.1
CMAR	Chiang Mai Arr	46.40	77	P	P	23 30 47.6	-0.9
	comp=N,1.7nm,0.7s,mb4.1,baz=276,slow=8.8,SNR=12						
CMAR	Chiang Mai Arr	46.40	77	P	P	23 30 47.7	-0.8
TORD	Torodi Ar. Bea	47.89	276	P	P	23 31 00.8	+0.6
	comp=N,0.9nm,0.6s,mb4.0,baz=81,slow=8.2,SNR=10						
TORD	Torodi Ar. Bea	47.89	276	P	P	23 31 00.8	+0.6
TORD	Torodi Ar. Bea	47.89	276	P	P	23 31 00.8	+0.6
ZALV	Zalesovo Beam	48.71	26	P	P	23 31 04.9	-1.0
	comp=N,1.1nm,0.7s,mb4.0,baz=224,slow=8.3,SNR=6.3						
BFO	Black Forest	49.73	324	P	P	23 31 19.3	+5.5
ESDC	Sonseca Array	54.85	309	P	P	23 31 50.4	-1.6
	comp=N,0.5nm,0.5s,mb3.8,baz=101,slow=6.7,SNR=3.2						
ESDC	Sonseca Array	54.85	309	P	P	23 31 50.4	-1.6
SONM	Songino Array	57.40	41	P	P	23 32 10.8	+0.6
	comp=N,0.4nm,0.7s,mb3.5,baz=253,slow=1.5,SNR=3.3						
SONM	Songino Array	57.40	41	P	P	23 32 10.8	+0.7
FITZ	Fitzroy Crossi	79.93	111	eP	P	23 34 31.3	+0.2
	comp=N,4.1nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	79.93	111	eP	P	23 34 31.3	+0.1
	comp=N,4.1nm,0.8s,mb4.4						

MAJO	Matsushiro	80.16	55	P	P	23 34 32.0	-0.1
MAJO	Matsushiro	80.16	55	P	P	23 34 32.0	-0.1
BILL	Bilibino	87.02	20	P	P	23 35 07.1	+0.4
BILL	Bilibino	87.02	20	P	P	23 35 07.1	+0.4
WRA	Warramunga Arr	88.35	111	P	P	23 35 13.9	0.0
	comp=N,0.6nm,0.6s,mb4.0,baz=300,slow=3.9,SNR=3.3						
WRA	Warramunga Arr	88.35	111	P	P	23 35 13.9	-0.1
WRAB	Tennant Creek	88.35	111	*e*P	P	23 35 13.8	-0.2
	comp=N,3.2nm,0.8s,mb4.6						
WRAB	Tennant Creek	88.35	111	*e*P	P	23 35 13.8	-0.2
	comp=N,3.2nm,0.8s,mb4.6						
WB2	Warramunga Arr	88.36	111	P	P	23 35 13.9	-0.1
WB2	Warramunga Arr	88.36	111	P	P	23 35 13.9	-0.1
ASAR	Alice Springs	88.89	114	P	P	23 35 17.2	+0.7
	comp=N,0.5nm,0.8s,mb3.9,baz=288,slow=5.0,SNR=3.9						
ASAR	Alice Springs	88.89	114	P	P	23 35 17.2	+0.7

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*ISCJB **25** 23:32:10.1±2.1, 12°.2S±0°.1×167°.2E±0°.1, h268^{km}±19^{km}, mb4.0/14, Error ellipse: s-maj=18.1km s-min=14.2km az=140.8*

*NEIC **25** 23:32:10.5±1.4, 12°.19S×167°.21E, h258^{km}±13^{km}, mb4.3/6, Error ellipse: s-maj=11.8km s-min=8.9km az=149.0*

*IDC **25** 23:32:12.7±13.0, 12°.25S×167°.16E, h277^{km}±136^{km}, mb3.7/10, mb1 3.9/10, mb1mx3.6/20, mbtmp3.7/10, Error ellipse: s-maj=64.3km s-min=34.0km az=174.0*

ISC 25 23:32:10.7±2.1**, 12°.2S**±0°.1×**167°.20E**±0°.10**, h258**^{km}±20^{km}**, n35, σ0^s.69**/33**, mb4.0**/14**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	7.63	290	*e*Pn	Pn	23 33 59.2	-0.2
	71nm,0.7s						
EIDS	Eidsvold	20.10	227	*e*P	P	23 36 26.0	+0.7
	22nm,0.5s						
CTA	Charters Tower	21.59	246	*e*P	P	23 36 41.3	+1.0
	5.3nm,0.6s,mb4.0						
CTA	Charters Tower	21.59	246	P	P	23 36 41.3	+1.0
	4.9nm,0.5s,mb4.1,baz=81,slow=12,SNR=11						
CTAO	Charters Tower	21.59	246	*e*P	P	23 36 41.4	+1.1
	4.2nm,0.5s,mb4.0						
ARMA	Armidale	23.19	216	*e*P	P	23 36 56.2	+1.4
STKA	Stephens Creek	30.65	226	*e*P	P	23 38 01.8	+0.5
	3.0nm,0.6s,mb4.0						
STKA	Stephens Creek	30.65	226	P	P	23 38 01.4	+0.1
	3.3nm,0.6s,mb4.0,baz=9.5,slow=7.4,SNR=9.8						
STKA	Stephens Creek	30.65	226	P	P	23 38 01.4	+0.1
WRAB	Tennant Creek	32.45	252	*e*P	P	23 38 16.4	-0.8
	8.6nm,1.1s,mb4.2						
WB2	Warramunga Arr	32.45	252	*e*P	P	23 38 16.5	-0.7
WRA	Warramunga Arr	32.47	252	P	P	23 38 16.6	-0.7
	2.2nm,0.4s,mb4.0,baz=85,slow=9.1,SNR=11						
RAR	Rarotonga	32.83	110	P	P	23 38 19.9	-0.6
ASAR	Alice Springs	33.59	245	P	P	23 38 26.2	-0.8
	3.2nm,0.6s,mb4.0,baz=72,slow=9.4,SNR=35						
KAKA	Kakadu	33.93	265	*e*P	P	23 38 29.9	-0.1
	9.4nm,0.5s,mb4.6						
KAKA	Kakadu	33.93	265	*e*P	P	23 38 29.9	-0.1
FITZ	Fitzroy Crossi	40.48	256	*e*P	P	23 39 24.7	-0.2
	12nm,1.3s,mb4.1						
FITZ	Fitzroy Crossi	40.48	256	P	P	23 39 24.5	-0.3
	6.1nm,0.8s,mb4.0,baz=346,slow=6.7,SNR=6.7						
FITZ	Fitzroy Crossi	40.48	256	*e*P	P	23 39 25.0	+0.1
	5.6nm,0.7s,mb4.0						
FORT	Forrest	40.59	237	*e*P	P	23 39 25.7	+0.1
	32nm,0.7s,mb4.7						
NWAO	Narrogin (SRO)	50.04	237	*e*P	P	23 40 38.9	-0.5
	3.1nm,0.6s,mb3.8						
MDJ	Mudanjiang	66.00	332	*e*P	P	23 42 29.9	+0.4
BJT	Baijiatuau	70.24	321	*e*P	P	23 42 56.2	+0.3
CMAR	Chiang Mai Arr	73.86	293	P	P	23 43 18.6	+0.9
	0.9nm,0.3s,mb3.9,baz=115,slow=3.3,SNR=4.4						
CHTO	Chiang Mai	73.98	294	P	P	23 43 18.1	-0.3
RPN	Rapa Nui	78.81	115	*e*P	P	23 43 44.6	-0.8
BILL	Bilibino	80.00	360	*e*P	P	23 43 50.9	+0.1
YBH	Yreka Blue Hor	83.66	45	P	P	23 44 11.8	+1.3
	3.0nm,0.9s,mb4.1,baz=262,slow=6.8,SNR=6.0						
NVAR	Mina Array Bea	85.66	49	P	P	23 44 21.2	+0.7
	1.2nm,0.8s,mb3.8,baz=235,slow=7.2,SNR=4.0						
MKAR	Makanchi Array	95.31	317	P	P	23 45 05.7	+0.3
	0.3nm,0.7s,mb3.5,baz=82,slow=6.7,SNR=3.8						
YKA	Yellowknife Ar	95.31	27	P	P	23 45 03.9	-1.0
	0.4nm,0.5s,mb3.8,baz=257,slow=4.5,SNR=5.4						
YKA	Yellowknife Ar	95.31	27	P	P	23 45 03.9	-1.0
KURK	Kurchatov	98.41	320	P	P	23 45 18.5	-0.7
EKS2	Erkin-Say	100.63	311	Pdif	Pdif	23 45 29.7	+0.5
ARCES	ARCESS Array B	117.77	346	PKP	PKPdf	23 50 25.6	0.0
	1.8nm,0.8s,baz=56,slow=3.1,SNR=6.9						

ISC 25 23:34:22.4±1.5**, 40°.1N**±0°.1×**75°.2E**±0°.3**, h10**^{km}**, n9, σ1^s.04**/11**, 1C-3D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.85	134	Pg	Pg	23 34 38.0	-0.8
KSH				Sg	Sg	23 34 50.5	+0.6
KSH				smax			
	comp=N,38nm,0.3s						
KSH				smax			
	comp=E,36nm,0.3s						
UCH	Uchtor	2.17	347	P	Pn	23 34 57.7	-0.9
	SNR=20						
ULHL	Ulahol	2.27	20	P	Pn	23 34 58.9	-1.1
	SNR=24						
AML	Almayashu	2.31	331	P	Pn	23 34 59.5	-0.9
	SNR=8.8						
AAK	Ala-Archa	2.57	349	P	Pn	23 35 04.7	+0.7
	SNR=8.1						
EKS2	Erkin-Say	2.76	338	P	Pn	23 35 08.1	+1.4
	SNR=6.7						
TKM2	Tokmak 2	2.82	6	⇓Pn	Pn	23 35 07.9	+0.4
	comp=E,1.5nm,0.2s						
TKM2				⇑Lg		23 35 43.1	
	comp=E,9.5nm,0.8s						
TKM2	Tokmak 2	2.82	6	P	Pn	23 35 09.7	+2.2
	SNR=5.2						
KK31	Karatay Array	4.60	312	⇓Pn	Pn	23 35 42.2	+10
	comp=E,0.3nm,0.4s,baz=132,slow=16,SNR=6.8						
KK31				⇓Sn	Sn	23 36 41.7	+16
	comp=E,0.3nm,0.4s,baz=126,slow=27,SNR=4.1						

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*ISCJB **25** 23:38:57.9±1.5, 67°.38N±0°.05×156°.8W±0°.1, h9^{km}±11^{km}, mb3.6/4, Error ellipse: s-maj=8.3km s-min=7.4km az=155.9*

*IDC **25** 23:38:59.1±1.2, 67°.28N×157°.09W, h0^{km}, mb3.6/5, mb1 4.0/8, mb1mx3.7/26, mbtmp3.6/8, ML3.8/3, Error ellipse: s-maj=49.5km s-min=18.6km az=23.0*

*NEIC **25** 23:39:00.4, 67°.36N×156°.84W, h20^{km}, ML3.6(AEIC), After AEIC.*

ISC 25 23:38:59.9±1.8**, 67°.36N**±0°.05×**156°.8W**±0°.1**, h10**^{km}±13^{km}**, n34, σ1^s.06**/42**, mb3.6**/4**, Northern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMA2	Indian Mountai	1.79	135	*e*P	Pn	23 39 30.3	-0.5
IM3	Indian Mountai	1.84	137	P	Pn	23 39 30.9	-0.6
IM3				S	Sn	23 39 55.2	+0.4
COLD	Coldfoot	2.56	90	P	Pn	23 39 41.4	0.0
GCSA	Galena City Sc	2.62	181	P	Pn	23 39 42.0	-0.3
GCSA				S	Sn	23 40 13.3	-0.9
CHUM	Lake Minchumin	3.95	150	P	Pn	23 40 01.4	+0.9
CHUM				S	Sn	23 40 46.6	-0.2
BPAW	Bear Paw Mtn.	4.05	141	P	Pn	23 40 02.4	+0.5
COLA	College	4.41	120	P	Pn	23 40 06.5	-0.2
TTA	Tatalina	4.46	175	*e*P	Pn	23 40 07.4	-0.1
TT01	Tatalina	4.48	175	P	Pn	23 40 07.5	-0.3
KTH	Kantishna Hill	4.54	145	P	Pn	23 40 08.7	+0.1
BM3	Burnt Mountain	4.70	84	P	Pn	23 40 10.3	-0.5
TRF	Thorofare Moun	4.77	142	P	Pn	23 40 12.5	+0.7
TRF				S	Sn	23 41 04.9	-2.1
IL1	Eielson Array	4.79	118	P	Pn	23 40 11.7	-0.5
TNA	Tin City	4.81	253	P	Pn	23 40 11.2	-1.1
PPLA	Purkeypile	4.88	154	P	Pn	23 40 14.0	+0.7
MCK	McKinley	4.89	134	P	Pn	23 40 13.6	+0.3
SVW2	Sparrevohn	6.31	175	P	Pn	23 40 33.3	+0.4
PMR	Palmer	6.66	147	*e*P	Pn	23 40 37.2	-0.5
EGAK	Eagle	6.86	105	*e*Pn	Pn	23 40 40.4	0.0
	8.6nm,0.6s						
EGAK				*e*S	Sn	23 42 01.0	+2.6
MENT	Mentasta	7.06	123	P	Pn	23 40 42.4	-0.9
BCA3	Beaver Creek A	7.62	117	P	Pn	23 40 50.2	-0.7
DAWY	Dawson	7.88	107	*e*Pn	Pn	23 40 53.5	-1.0
DAWY				*e*S	Sn	23 42 24.0	+0.4
INK	Inuvik	8.83	73	Pn	Pn	23 41 07.2	-0.2
	0.4nm,0.3s,baz=291,slow=14,SNR=17						
INK				Sn	Sn	23 42 43.9	-2.9
	1.1nm,0.3s,baz=100,slow=21,SNR=4.7						
INK	Inuvik	8.83	73	*e*Pn	Pn	23 41 07.8	+0.4
	5.0nm,0.7s						
INK				*e*Sn	Sn	23 42 44.6	-2.2
KDAK	Kodiak Island	9.80	167	Pn	Pn	23 41 23.7	+2.9
	0.8nm,0.3s,baz=316,slow=9.7,SNR=6.3						
KDAK	Kodiak Island	9.80	167	Pn	Pn	23 41 23.7	+2.9
DLBC	Dease Lake	14.98	114	Pn	Pn	23 42 33.9	+2.4
	0.2nm,0.3s,baz=342,slow=9.6,SNR=4.3						
YKA	Yellowknife Ar	18.23	85	Pn	Pn	23 43 10.9	-1.7
	0.4nm,0.3s,baz=304,slow=11,SNR=34						
YKA	Yellowknife Ar	18.23	85	Pn	Pn	23 43 10.9	-1.7
PDAR	Pinedale Array	35.18	110	P	P	23 45 55.8	+2.2
	0.8nm,0.9s,mb3.6,baz=355,slow=6.3,SNR=3.7						
NVAR	Mina Array Bea	36.03	124	P	P	23 46 02.6	+1.7
	0.9nm,0.5s,mb4.0,baz=319,slow=7.9,SNR=7.5						
TXAR	Lajitas Array	49.29	113	P	P	23 47 48.8	+0.1
	0.5nm,0.8s,mb3.6,baz=318,slow=3.4,SNR=3.8						
SONM	Songino Array	49.43	298	P	P	23 47 48.8	-0.8
	0.4nm,0.9s,mb3.5,baz=31,slow=6.6,SNR=3.3						
MKAR	Makanchi Array	57.78	316	P	P	23 48 52.1	+1.4
	0.2nm,0.5s,baz=35,slow=7.5,SNR=6.3						

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*NEIC **25** 23:55:03.4, 31°.69S×69°.53W, h1^{km}, ML3.6(GUC), After GUC.*

GUC 25 23:55:03.4±0.6**, 31°.69S**×**69°.53W, h1**^{km}±9^{km}**, MD4.0, ML3.6, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JACH	Jahuel	1.34	222	*e*P	Pg	23 55 28.4	-0.7
JACH				*i* S	Sg	23 55 46.8	+0.3
JACH	Jahuel	1.34	222	*e*P	Pg	23 55 28.4	-0.7
JACH				*i* S	Sg	23 55 46.8	+0.3
CMCH	Combarbala	1.36	292	*e*P	Pg	23 55 28.7	-0.8
CMCH				*i* S	Sg	23 55 47.6	+0.4
CMCH	Combarbala	1.36	292	*e*P	Pg	23 55 28.7	-0.8
CMCH				*i* S	Sg	23 55 47.6	+0.4
CMCH				AML	AML	23 55 48.6	
	comp=N,3µm,0.4s						
CHNG	Los Chungos	1.69	263	*e*P	Pn	23 55 33.1	-1.0
CHNG				*i* S	Sn	23 55 56.5	+0.2
PEL	Peldehue	1.75	214	*e*P	Pn	23 55 34.7	-0.2
PEL				*i* S	Sn	23 55 58.5	+0.7
OVCH	Ovalle	1.79	306	*e*P	Pn	23 55 35.3	-0.2
OVCH				S	Sn	23 56 00.6	+1.7
OVCH	Ovalle	1.79	306	*e*P	Pn	23 55 35.3	-0.2
OVCH				*i* S	Sn	23 56 00.6	+1.7
OVCH				AML	AML	23 56 02.9	
	comp=N,777nm,0.6s						
PCH	Pirque	2.10	203	*e*P	Pn	23 55 40.4	+0.7
PCH	Pirque	2.10	203	*e*P	Pn	23 55 40.4	+0.7
CACH	El Canelo	2.58	200	*e*P	Pn	23 55 47.9	+1.6
CACH	El Canelo	2.58	200	*e*P	Pn	23 55 47.9	+1.6
LCO	Las Campanas	2.86	339	*e*Pn	Pn	23 55 49.6	-0.5
LCO				*e*Sn	Sn	23 56 24.9	-0.2

MAN 25 23:55:03, 17°.90N×120°.77E, h15^{km}, mb3.7, ML2.5, MS2.0, Luzon

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IDC 25 23:59:00.1±5.2**, 4°.00S**×**133°.37E, h0**^{km}**, mb3.3**/1**, mb1 3.6**/3**, mb1mx3.4**/15**, mbtmp3.4**/3**, ML3.4**/1**, Error ellipse: s-maj=306.0km s-min=29.8km az=76.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	15.87	177	Pn	Pn	00 02 42.9	-2.0
	0.2nm,0.3s,baz=357,slow=13,SNR=3.3						
ASAR	Alice Springs	19.55	179	P	Pn	00 03 30.4	-0.4
	0.2nm,0.3s,baz=5.7,slow=10.0,SNR=17						
MKAR	Makanchi Array	67.65	325	P	P	00 09 59.0	+0.1
	0.1nm,0.3s,baz=111,slow=7.9,SNR=3.9						

IDC 26 00:23:13.2±0.9**, 27°.99N**×**140°.81E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.4**/22**, mbtmp3.5**/4**, Error ellipse: s-maj=32.7km s-min=19.8km az=63.0, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.51	126	Pn	Pn	00 23 41.3	-0.2
	96nm,0.3s,baz=300,slow=12,SNR=20						
CBIJ				Sn	Sn	00 23 58.6	-3.3
	221nm,0.3s,baz=217,slow=20,SNR=9.1						
WRA	Warramunga Arr	48.06	188	P	P	00 31 54.4	0.0
	8.6nm,0.8s,baz=9.8,slow=8.4,SNR=26						
KURK	Kurchatov	51.49	314	P	P	00 32 20.6	+0.3
	0.2nm,0.4s,baz=92,slow=8.3,SNR=2.5						
ASAR	Alice Springs	51.79	188	P	P	00 32 22.9	+0.1
	0.5nm,0.5s,baz=14,slow=7.9,SNR=6.7						
BVAR	Borovoye Array	56.56	317	P	P	00 32 57.1	-0.2
	0.4nm,0.5s,baz=103,slow=7.2,SNR=5.3						
YKA	Yellowknife Ar	71.93	28	P	P	00 34 38.3	+0.2
	0.1nm,0.4s,baz=300,slow=6.4,SNR=4.2						

IDC 26 00:26:28.4±4.3**, 10°.34N**×**91°.62E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.3**/23**, mbtmp3.4**/3**, MS4.0**/1**, Ms1 4.0**/1**, ms1mx3.1**/28**, Error ellipse: s-maj=158.3km s-min=30.7km az=64.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	37.18	349	P	P	00 33 41.1	0.0
	0.2nm,0.5s,baz=168,slow=9.0,SNR=4.1						
SONM	Songino Array	39.39	16	P	P	00 33 59.9	+0.1
	0.5nm,0.8s,baz=211,slow=9.3,SNR=3.5						
KSRS	Korea Array	42.35	44	LR	LR	00 51 32.7	
	comp=Z,196nm,21.2s,baz=205,slow=36						
WRA	Warramunga Arr	51.72	126	P	P	00 35 37.8	0.0
	0.4nm,0.7s,baz=306,slow=8.6,SNR=4.7						

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*CSEM **26** 00:43:04.3, 36°.40N×21°.86E, h2^{km}, MD3.5, After ATH*

ATH 26 00:43:04.3, 36°.40N×**21°.86E, h2**^{km}**, MD3.5**/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.50	349	*e*PG	Pg	00 43 14.1	+0.1
PYL	PYLOS	0.50	349	*e*Pg	Pg	00 43 14.1	+0.1
ITM	Ithomi	0.78	4	*e*PG	Pg	00 43 19.4	+0.1
ITM	Ithomi	0.78	4	*e*Pg	Pg	00 43 19.4	+0.1
VLI	Veliai	0.92	70	*e*PG	Pg	00 43 22.1	+0.1
VLI	Veliai	0.92	70	*e*Pg	Pg	00 43 22.1	+0.1
VLX	Vlachokerasia	1.05	23	*e*PG	Pg	00 43 24.8	+0.3
VLX	Vlachokerasia	1.05	23	*e*Pg	Pg	00 43 24.8	+0.3

IDC 26 00:43:36.8±1.7**, 35°.28N**×**23°.68E, h0**^{km}**, mb3.6**/4**, mb1 3.6**/4**, mb1mx3.4**/24**, mbtmp3.6**/4**, Error ellipse: s-maj=317.4km s-min=27.4km az=139.0, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	29.66	227	P	P	00 49 44.2	0.0
	0.2nm,0.6s,baz=22,slow=8.1,SNR=2.9						
KURK	Kurchatov	42.05	51	P	P	00 51 29.2	-0.7
	1.1nm,0.6s,baz=275,slow=8.5,SNR=6.3						
MKAR	Makanchi Array	44.72	56	P	P	00 51 51.5	0.0
	0.5nm,0.4s,baz=269,slow=7.5,SNR=19						
ZALV	Zalesovo Beam	45.80	46	P	P	00 52 00.1	+0.1
	0.4nm,0.3s,baz=250,slow=11,SNR=2.6						

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*IDC **26** 00:58:30.5±3.6, 2°.02S×100°.12E, h0^{km}, mb3.6/5, mb1 3.7/5, mb1mx3.5/22, mbtmp3.6/5, MS2.9/1, Ms1 2.9/1, ms1mx2.3/33, Error ellipse: s-maj=164.2km s-min=22.7km az=55.0*

*ISCJB **26** 00:58:36.0±0.6, 2°.02S±0°.06×99°.91E±0°.09, h62^{km}±8^{km}, mb3.7/5, Error ellipse: s-maj=16.8km s-min=7.9km az=150.2*

*DJA **26** 00:58:36, 2°.00S×99°.87E, h16^{km}, MLv3.9/4*

ISC 26 00:58:37.0±0.6**, 2°.02S**±0°.06×**99°.92E**±0°.09**, h51**^{km}±9^{km}**, n15, σ0^s.85**/13**, mb3.7**/5**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.74	173	P	Pn	00 58 50.5	-0.9
PPSI				S	Sn	00 59 02.7	+0.9
SISI	Saibi	1.08	310	P	Pn	00 58 54.8	-1.0
SISI				S	Sn	00 59 09.5	-0.2
PDSI	Padang	1.23	26	P	Pn	00 58 57.2	-0.6
PPI	Padang Panjang	1.62	17	P	Pn	00 59 03.3	+0.1
SDSI	Sungai Dareh	1.86	54	P	Px	00 59 10.4	
MNAI	Manna	3.82	128	P	Px	00 59 35.5	
GSI	Gunungsitoli	4.05	325	P	Pn	00 59 37.2	+0.8
PSI	Prapat	4.89	348	LR	LR	01 01 26.1	
	comp=Z,149nm,20.8s,baz=242,slow=36						
MDSI	Maura Dua	4.91	120	P	Pn	00 59 49.5	+1.2
WRA	Warramunga Arr	38.05	120	P	P	01 05 49.5	-1.3
	0.4nm,0.3s,mb3.6,baz=304,slow=9.0,SNR=4.9						
ASAR	Alice Springs	39.31	126	P	P	01 06 00.3	-1.0
	0.3nm,0.4s,mb3.4,baz=302,slow=8.1,SNR=5.4						
SONM	Songino Array	49.97	6	P	P	01 07 26.3	+0.5
	0.3nm,0.4s,mb3.7,baz=182,slow=9.2,SNR=3.6						
MKAR	Makanchi Array	51.02	344	P	P	01 07 34.9	+1.1
	1.3nm,0.6s,mb4.1,baz=147,slow=8.2,SNR=18						
ZALV	Zalesovo Beam	57.17	349	P	P	01 08 19.1	+0.6
	0.3nm,0.3s,mb3.8,baz=160,slow=5.5,SNR=3.0						
TXAR	Lajitas Array	144.77	37	PKP	PKPdf	01 18 09.3	+0.4
	0.1nm,0.5s,baz=214,slow=3.1,SNR=4.2						

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*ISCJB **26** 01:14:01.2±0.6, 11°.11N±0°.04×86°.89W±0°.05, h51^{km}±5^{km}, mb4.3/20, Error ellipse: s-maj=10.1km s-min=4.2km az=141.0*

*CASC **26** 01:14:01.2±1.4, 11°.11N×86°.88W, h27^{km}±9^{km}, MD4.3, ML3.7, mb4.5(NEIC)*

*IDC **26** 01:14:01.4±3.0, 11°.63N×86°.35W, h21^{km}±20^{km}, mb4.0/8, mb1 4.2/9, mb1mx3.9/22, mbtmp4.0/9, ML4.1/1, MS3.9/1, Ms1 3.9/1, ms1mx3.1/29, Error ellipse: s-maj=45.0km s-min=14.2km az=51.0*

*NEIC **26** 01:14:02.5±0.8, 11°.29N×86°.67W, h35^{km}, mb4.5/13, Error ellipse: s-maj=20.0km s-min=8.8km az=41.0*

*BJI **26** 01:14:02.4, 11°.30N×86°.70W, h35^{km}, mB5.3/4, Ms5.1/1, Ms7 4.9/2*

ISC 26 01:14:02.7±0.5**, 11°.16N**±0°.04×**86°.83W**±0°.05**, h46**^{km}±5^{km}**, n89, σ0^s.97**/85**, mb4.3**/20**, 2C, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRUN	El Crucero	0.97	32	*e*P	Pn	01 14 20.7	+0.8
SSN	San Juan del S	0.97	82	⇑*i*P	Pn	01 14 19.5	-0.4
SSN				*e*S	Sn	01 14 34.5	+1.9
COPN	Copaltepe	1.04	13	*e*P	Pn	01 14 20.8	-0.1
TICN	Ticuantepe	1.05	34	*e*P	Pn	01 14 20.8	-0.1
MASN	Masaya	1.06	39	*e*P	Pn	01 14 21.3	+0.2
APON	Apoyo	1.06	45	*e*P	Pn	01 14 21.3	+0.1
CSAN		1.09	21	*e*P	Pn	01 14 21.4	-0.2
XAVN	Gruta Xavier	1.10	27	*e*P	Pn	01 14 21.6	-0.1
TISN	Laguna Tiscapa	1.12	29	*e*P	Pn	01 14 22.0	0.0
MGAN	Managua	1.14	30	*e*P	Pn	01 14 22.2	0.0
MGAN				AML	AML	01 14 46.4	
	comp=N,3µm,0.3s						
WILN	Americas 2	1.18	32	*e*P	Pn	01 14 22.5	-0.3
CONN	Concepcion	1.25	71	*e*P	Pn	01 14 23.4	-0.3
MOMN	Momotombo	1.27	13	*e*P	Pn	01 14 24.3	+0.3
MIRN	Miramar	1.28	5	*e*P	Pn	01 14 24.0	-0.1
HUEN		1.34	29	⇑*e*P	Pn	01 14 24.9	0.0
CNGN	Cerro Negro	1.34	6	*e*P	Pn	01 14 24.4	-0.6
CNGN				*e*S	Sn	01 14 42.9	+1.3
GBS3	Finca Las Imˆ¡	1.40	105	*i* P	Pn	01 14 25.0	-0.8
BUEV	Buena Vista	1.44	104	*i* P	Pn	01 14 24.7	-1.7
GB1A	Borinquen Arri	1.45	103	*i* P	Pn	01 14 25.9	-0.5
GPS3	Bodega del ICE	1.50	106	*i* P	Pn	01 14 26.1	-1.0
GPS1	Guardaparques	1.50	105	*i* P	Pn	01 14 26.3	-0.9
GPS1				*i* S	Sn	01 14 54.0	+8.4
VCR	Vista de Mar	1.56	131	*e*P	Pn	01 14 27.2	-0.8
LIM1	Limonal	1.62	106	*i* P	Pn	01 14 27.6	-1.2
BOAB	BOACO BROADBAN	.71	42	*e*P	Pn	01 14 29.8	-0.4
BOAB				AML	AML	01 15 07.1	
	comp=N,559nm,0.6s						
PTEN	Parque Tenorio	1.86	104	*i* P	Pn	01 14 33.5	+1.3
CHPA	Chiripa	2.02	110	*i* P	Pn	01 14 34.8	+0.5
JTS	JuntasAbangare	2.04	115	Pn	Pn	01 14 33.6	-1.0
	comp=N,11nm,0.3s,baz=320,slow=17,SNR=68						
JTS				Pg	Pn	01 14 36.7	+2.1
	comp=N,60nm,0.3s,baz=314,slow=12,SNR=92						
JTS				Lg		01 15 02.4	
	comp=N,43nm,0.3s,baz=318,slow=20,SNR=6.5						
JTS	JuntasAbangare	2.04	115	*e*Pn	Pn	01 14 33.8	-0.7
JTS				*e*Sn	Sn	01 15 06.6	+7.8
JTS	JuntasAbangare	2.04	115	*e*P	Pn	01 14 33.4	-1.2
JCR	Jicaral	2.13	127	*e*P	Pn	01 14 35.3	-0.6
FORC	Fortuna	2.23	108	*e*P	Pn	01 14 37.1	-0.1
CNCH	Conchagua	2.32	335	*e*P	Pn	01 14 38.1	-0.3
CGA2	Cerro Gallo 2	2.59	116	*e*P	Pn	01 14 42.6	+0.5
BLLM	Bellamira	2.65	329	*e*P	Pn	01 14 42.4	-0.6
PRS1	Puriscal	2.74	115	*e*P	Pn	01 14 44.3	+0.2
CAHU	Cacacuatique	2.92	333	*e*P	Pn	01 14 47.4	+0.7
LAJ	Bijagual	2.96	116	*e*P	Pn	01 14 42.7	-4.5
LCR2	La Lucha 2	3.12	117	*e*P	Pn	01 14 49.8	+0.4
SNVI	San Vicente	3.13	321	*e*P	Pn	01 14 49.0	-0.5
LFRS	El Faro	3.28	319	*e*P	Pn	01 14 50.8	-0.7
URSC	Urasca	3.28	113	*e*P	Pn	01 14 52.0	+0.4
BUS	Buena Vista	3.42	118	*e*P	Pn	01 14 54.5	+1.0
BAR1		3.95	118	*e*P	Pn	01 15 02.0	+1.1
RBDL	Robledal	4.05	317	*e*P	Pn	01 15 02.3	+0.2
ACR	Cerro Adams	4.38	124	*e*P	Pn	01 15 07.7	+0.9
TEIG	Tepich	9.12	351	Pn	Pn	01 16 11.7	-0.1
	comp=N,0.2nm,0.3s,baz=157,slow=9.9,SNR=2.7						
CMIG	Matias Romero	9.78	308	Pn	Pn	01 16 21.4	+0.5
	comp=N,1.5nm,0.3s,baz=109,slow=10,SNR=15						
SDV	Santo Domingo	16.11	97	Pn	Pn	01 17 47.9	+1.7
	comp=N,0.3nm,0.3s,baz=327,slow=11,SNR=7.0						
SDV	Santo Domingo	16.11	97	*e*Pn	Pn	01 17 44.5	-1.6
	comp=N,12nm,1.0s						
ATAH	Atahualpa	19.90	155	LR	LR	01 25 13.8	
	comp=N,325nm,18.8s,baz=232,slow=33						
HKT	Hockley	20.49	337	*e*P	P	01 18 37.0	+0.3
	comp=N,41nm,1.6s						
NATX	Nacogdoches	21.74	342	*e*P	P	01 18 50.2	0.0
	comp=N,15nm,1.1s,mb4.3						
GOGA	Godfrey	22.36	7	*e*P	P	01 18 56.6	-0.2
	comp=N,8.1nm,0.8s,mb4.2						
OXF	Oxford	23.36	355	*e*P	P	01 19 06.4	-0.9
	comp=N,27nm,0.9s,mb4.7						
JSC	Jenkinsville	23.57	12	*e*P	P	01 19 09.5	+0.4
TXAR	Lajitas Array	23.95	321	P	P	01 19 13.4	+0.7
	comp=N,3.5nm,0.7s,mb3.9,baz=136,slow=10,SNR=30						
TXAR				PcP	PcP	01 22 57.2	+3.0
	comp=N,1.5nm,0.9s,baz=143,slow=4.4,SNR=5.6						
TXAR	Lajitas Array	23.95	321	P	P	01 19 13.4	+0.7
TXAR				PcP	PcP	01 22 57.2	+3.0
SWET	Sewanee	23.96	2	*e*P	P	01 19 12.8	+0.1
MIAR	Mount Ida	24.08	346	*e*P	P	01 19 13.7	-0.1
	comp=N,9.3nm,0.9s,mb4.2						
CPCT	Cooper Cave	24.27	5	*e*P	P	01 19 16.1	+0.6
TKL	Tuckaleechee C	24.55	6	P	P	01 19 19.1	+1.0
	comp=N,4.9nm,0.7s,mb4.1,baz=169,slow=13,SNR=6.3						
WMOK	Wichita Mounta	25.87	337	*e*P	P	01 19 31.7	+1.6
	comp=N,20nm,1.0s,mb4.6						
CCM	Cathedral Cave	27.07	352	*e*P	P	01 19 40.1	-0.8
	comp=N,8.2nm,1.1s,mb4.2						
BNM	Barren Site	29.17	325	*e*P	P	01 19 59.4	-0.3
ANMO	Albuquerque	29.66	326	P	P	01 20 06.2	+2.2
	comp=N,1.9nm,0.8s,mb3.9,baz=136,slow=10.0,SNR=5.0						
SDCO	Great Sand Dun	31.33	331	*e*P	P	01 20 16.0	-2.7
	comp=N,2.8nm,0.7s,mb4.2						
PV04	Paradox Valley	33.53	328	*e*P	P	01 20 41.9	+3.9
ECSD	EROS Data Cent	33.54	347	*e*P	P	01 20 36.7	-1.3
	comp=N,8.8nm,0.9s,mb4.7						
COWI	Conover	34.88	357	*e*P	P	01 20 47.9	-1.7
	comp=N,14nm,0.8s,mb4.9						
DAU	Daniels Canyon	36.25	328	*e*P	P	01 21 02.8	+1.4
SIV	San Ignacio	37.12	136	P	P	01 21 10.1	+1.1
	comp=N,4.6nm,1.0s,mb4.3,baz=317,slow=11						
SIV				PcP	PcP	01 23 31.0	+2.1
	comp=N,0.5nm,0.3s,baz=267,slow=9.1,SNR=3.7						
PDAR	Pinedale Array	37.19	332	P	P	01 21 09.8	+0.5
	comp=N,1.0nm,0.7s,mb3.8,baz=124,slow=10,SNR=11						
PDAR	Pinedale Array	37.19	332	P	P	01 21 09.8	+0.5
BW06	Boulder Array	37.19	332	*e*P	P	01 21 12.4	+3.0
	comp=N,39nm,2.8s,mb4.7						
AGMN	Agassiz Refuge	37.78	350	*e*P	P	01 21 13.0	-1.3

	comp=N,8.9nm,0.9s,mb4.5						
NVAR	Mina Array Bea	39.07	319	P	P	01 21 27.6	+2.4
	comp=N,1.1nm,0.8s,mb3.6,baz=140,slow=7.3,SNR=6.5						
NVAR				PcP	PcP	01 23 36.8	+2.2
	comp=N,3.1nm,0.8s,baz=147,slow=4.1,SNR=17						
ULM	Lac du Bonnet	39.68	351	P	P	01 21 27.6	-2.6
	comp=N,7.5nm,0.8s,mb4.5,baz=169,slow=8.0,SNR=13						
SCHQ	Schefferville	46.34	16	P	P	01 22 22.3	-1.7
	comp=N,1.4nm,0.5s,mb4.1,baz=213,slow=4.8,SNR=5.8						
SCHQ	Schefferville	46.34	16	P	P	01 22 22.3	-1.7
YKA	Yellowknife Ar	55.01	345	P	P	01 23 28.0	-1.1
	comp=N,1.9nm,0.9s,mb4.1,baz=136,slow=7.5,SNR=30						
YKA				PcP	PcP	01 24 30.6	+0.3
	comp=N,0.4nm,0.5s,baz=143,slow=4.2,SNR=7.3						
YKA	Yellowknife Ar	55.01	345	P	P	01 23 28.1	-1.1
YKA				PcP	PcP	01 24 30.6	+0.3
MDJ	Mudanjiang	115.43	332	PKP	PKPdf	01 32 42.0	+2.4
CN2	Changchun	117.91	334	*e*PKP	PKPdf	01 32 46.5	+2.0
CN2				PP	PP	01 34 04.3	+6.5
SONM	Songino Array	120.10	350	PKP	PKPdf	01 32 49.2	+0.6
	comp=N,0.7nm,0.9s,baz=332,slow=1.3,SNR=4.4						
HHC	Hu-ho-hao-te	125.53	343	*e*PKP	PKPdf	01 32 58.8	-0.4
HHC				sPKP		01 33 13.0	
HHC				PP	PP	01 34 53.0	+3.6
HHC				PKS		01 36 34.0	
HHC				SKS	SKSdf	01 40 05.0	-2.5
HHC				SKKS	SKKSac	01 41 41.0	-4.1
HHC				SS	SS	01 51 44.0	-0.3
HHC				AMB	AMB		
	comp=Z,200nm,5.8s						
HHC				LR	LR		
	comp=Z,150nm,13.5s						
CD2	Chengdu	136.95	347	PKP	PKPdf	01 33 21.0	-0.1
GYA	Guiyang	140.37	341	*e*PKP	PKPdf	01 33 29.0	+1.5
GYA				PP	PP	01 36 29.8	+5.4
GYA				AMB	AMB		
	comp=Z,60nm,8.2s						
KMI	Kunming	142.75	346	PKP	PKPdf	01 33 33.8	+2.0
CMAR	Chiang Mai Arr	150.03	349	PKP	PKPdf	01 33 45.6	+1.4
	comp=Z,1.2nm,0.4s,baz=328,slow=1.5,SNR=5.4						
CMAR				PKPbc	PKPbc	01 33 50.8	+1.6
	comp=Z,0.8nm,0.3s,baz=315,slow=2.6,SNR=5.7						

IDC 26 01:26:33.5±1.9**,33°.26S**×**179°.11W,h0km,mb3.6**/2**,mb1 3.9**/3**,mb1mx3.7**/16**,mbtmp3.7**/3**,ML3.6**/1**,Error ellipse: s-maj=45.0km s-min=35.6km az=102.0,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.86	211	Pn	Pn	01 28 01.3	-0.3
	1.7nm,0.3s,baz=66,slow=22,SNR=16						
URZ				Sn	Sn	01 29 08.2	-1.4
	1.7nm,0.3s,baz=271,slow=20,SNR=4.4						
ASAR	Alice Springs	42.10	271	P	P	01 34 27.9	+0.4
	0.5nm,0.5s,baz=110,slow=7.7,SNR=7.6						
WRA	Warramunga Arr	43.35	276	P	P	01 34 37.6	-0.1
	0.6nm,0.7s,baz=117,slow=8.2,SNR=6.3						
FINES	FINESS Array B	147.46	338	PKPbc	PKPbc	01 46 17.1	-1.5
	4.8nm,1.1s,baz=28,slow=4.5,SNR=6.0						
TORD	Torodi Ar. Bea	159.97	182	PKPab	PKPab	01 47 14.7	+0.2
	0.5nm,1.1s,baz=180,slow=5.6,SNR=3.3						

IDC ***26*** *01:35:35.3±1.3,10°.21N×91°.46E,h0km,mb3.7/7, mb1 3.8/7,mb1mx3.6/24,mbtmp3.7/7,Error ellipse: s-maj=54.2km s-min=20.3km az=58.0*

ISCJB ***26*** *01:35:37.5±0.9,10°.1N±0°.2×91°.3E±0°.2,h33km,mb3.8/9, Error ellipse: s-maj=38.3km s-min=12.4km az=139.5*

NEIC ***26*** *01:35:40.2±0.8,10°.20N×91°.45E,h35km,mb4.0/2,Error ellipse: s-maj=37.4km s-min=11.4km az=56.0*

ISC 26 01:35:40.2±0.9**,10°.2N**±0°.2×**91°.4E**±0°.2**,h35km,n11,** σ**0s.65**/12**,mb3.8**/9**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIS	Vishakhapatnam	10.85	315	*e*PKP	Pn	01 38 12.5	-0.5
VIS				*e*S	Sn	01 40 03.5	-10
VIS				AML	AML	01 40 07.4	
	comp=E,14nm,0.4s						
VIS				AML	AML	01 40 07.7	
	comp=N,9.0nm,0.3s						
AML	Almayashu	35.43	337	*e*P	P	01 42 34.5	+1.6
	comp=N,1.4nm,0.5s,mb4.2						
MKAR	Makanchi Array	37.31	350	P	P	01 42 49.2	+0.2
	comp=N,1.7nm,0.8s,mb4.0,baz=168,slow=8.3,SNR=19						
MKAR				PcP	PcP	01 45 09.0	+1.2
	comp=N,0.2nm,0.5s,baz=182,slow=2.9,SNR=4.2						
MKAR	Makanchi Array	37.31	350	P	P	01 42 49.2	+0.2
MKAR				PcP	PcP	01 45 09.0	+1.2
SONM	Songino Array	39.62	16	P	P	01 43 07.7	-0.5
	comp=N,0.6nm,0.5s,mb3.6,baz=207,slow=8.6,SNR=10						
ZALV	Zalesovo Beam	43.98	354	P	P	01 43 44.1	+0.2
	comp=N,0.9nm,0.4s,mb3.9,baz=178,slow=12,SNR=6.4						
BVAR	Borovoye Array	45.98	342	P	P	01 43 59.0	-0.8
	comp=N,0.3nm,0.7s,mb3.3,baz=111,slow=7.9,SNR=2.6						
BVAR				PcP	PcP	01 45 38.0	+1.9
	comp=N,0.3nm,0.7s,baz=126,slow=2.0,SNR=2.8						
WRA	Warramunga Arr	51.79	125	P	P	01 44 44.3	-0.5
	comp=N,0.7nm,0.6s,mb3.8,baz=306,slow=8.3,SNR=4.7						
WRAB	Tennant Creek	51.79	125	*e*P	P	01 44 44.8	0.0
	comp=N,0.9nm,0.8s,mb3.8						
ASAR	Alice Springs	53.45	130	P	P	01 44 57.6	+0.5
	comp=N,0.8nm,0.7s,mb3.8,baz=312,slow=7.6,SNR=8.8						
BRTR	Keskin Array B	58.89	310	P	P	01 45 35.7	0.0
	comp=N,0.5nm,0.6s,mb3.7,baz=122,slow=8.9,SNR=4.1						

ISCJB ***26*** *02:05:51.9±0.7,42°.6S±0°.2×16°.1W±0°.1,h10km,mb4.3/8, MS4.0/8,Error ellipse: s-maj=25.4km s-min=14.4km az=170.8*

IDC ***26*** *02:05:52.2±0.8,42°.65S×16°.11W,h0km,mb4.2/9, mb1 4.3/9,mb1mx4.2/17,mbtmp4.2/9,MS4.0/8,Ms1 3.9/8, ms1mx3.8/16,Error ellipse: s-maj=29.1km s-min=17.5km az=170.0*

NEIC ***26*** *02:05:53.7±0.6,42°.67S×16°.10W,h10km,Error ellipse: s-maj=25.2km s-min=13.9km az=170.0*

ISC 26 02:05:53.8±0.7**,42°.7S**±0°.2×**16°.1W**±0°.1**,h10km,n17,** σ**1s.04**/11**,mb4.3**/8**,MS4.0**/8**,Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	36.05	81	P	P	02 12 54.5	-0.9
	8.3nm,1.1s,mb4.6,baz=242,slow=9.8,SNR=4.3						
BOSA				LR	LR	02 25 37.2	
	comp=Z,130nm,20.6s,MS3.7,baz=282,slow=33						
BOSA	Boshof	36.05	81	P	P	02 12 54.5	-0.9
CPUP	Villa Florida	37.27	282	P	P	02 13 05.8	0.0
	5.8nm,0.8s,mb4.5,baz=116,slow=5.8,SNR=9.5						
CPUP				LR	LR	02 26 25.5	
	comp=Z,136nm,19.7s,MS3.8,baz=41,slow=33						
CPUP	Villa Florida	37.27	282	*e*P	P	02 13 06.3	+0.5
	17nm,0.7s,mb5.0						
LBTB	Lobatse	38.40	76	P	P	02 13 14.9	-0.5
	7.9nm,0.9s,mb4.5,baz=225,slow=8.4,SNR=7.6						
PLCA	Paso Flores	40.12	254	P	P	02 13 29.6	+0.1
	2.2nm,0.8s,mb3.9,baz=157,slow=5.3,SNR=5.1						
PLCA				LR	LR	02 27 17.1	
	comp=Z,170nm,18.2s,MS3.9,baz=109,slow=32						
CFAA	Coronel Fontan	42.40	267	P	P	02 13 46.4	-2.1
	0.8nm,1.1s,baz=120,slow=8.6,SNR=5.7						
SIV	San Ignacio	46.62	291	P	P	02 14 22.8	+0.5
	1.3nm,0.8s,mb3.9,baz=143,slow=9.5,SNR=6.6						
MAW	Mawson	47.35	149	LR	LR	02 31 13.8	
	comp=Z,166nm,18.6s,MS4.0,baz=7.5,slow=32						
QSPA	South Pole Qui	47.62	180	P	P	02 14 30.0	+0.7
	9.3nm,1.0s,mb4.8,baz=209,slow=4.9,SNR=12						
DBIC	Dimbokro	50.14	15	LR	LR	02 30 24.0	
	comp=Z,71nm,21.2s,MS3.6,baz=206,slow=29						
TORD	Torodi Ar. Bea	57.87	21	P	P	02 15 45.6	-0.2
	3.2nm,1.1s,mb4.3,baz=204,slow=4.2,SNR=7.0						
TORD				LR	LR	02 36 57.5	
	comp=Z,93nm,18.0s,MS3.9,baz=130,slow=32						
ROSC	El Rosal	70.71	296	LR	LR	02 46 51.3	
	comp=Z,133nm,20.1s,MS4.2,baz=194,slow=35						
BRTR	Keskin Array B	93.55	36	P	P	02 19 11.7	+2.1
	0.2nm,0.3s,mb4.0,baz=167,slow=7.0,SNR=2.9						
GERES	GERESS Array B	94.81	19	LR	LR	02 57 45.6	
	comp=Z,208nm,19.7s,MS4.6,baz=278,slow=33						
MKAR	Makanchi Array	124.36	55	PKP	PKPdf	02 24 53.1	+0.7
	0.1nm,0.6s,baz=299,slow=1.5,SNR=2.3						
YKA	Yellowknife Ar	130.43	323	PKP	PKPdf	02 25 02.9	-0.5
	0.1nm,0.4s,baz=117,slow=1.7,SNR=3.4						

NIED ***26*** *02:08:00,27°.50N×130°.20E,h5km,Mw4.2 Best double couple: M0 2.03000×10^{15} NP1:φs4.00000°,δ84.00000°, λ134.00000°. NP2:φs101.00000°,δ45.00000°,λ9.00000°.*

BJI ***26*** *02:08:12.1,27°.27N×130°.95E,h35km,mB4.7/2,mb4.4/17, Ms4.2/3*

IDC ***26*** *02:08:16.7±0.9,27°.57N×130°.12E,h0km,mb4.1/13, mb1 4.2/14,mb1mx4.1/23,mbtmp4.1/14,ML3.8/1,MS3.1/2, Ms1 3.1/2,ms1mx2.8/29,Error ellipse: s-maj=22.3km s-min=17.1km az=102.0*

MOS ***26*** *02:08:19.7±1.2,27°.57N×130°.28E,h36km,mb5.0/6,Error ellipse: s-maj=18.0km s-min=10.7km az=111.5*

ISCJB ***26*** *02:08:19.2±0.4,27°.48N±0°.03×130°.23E±0°.04,h33km, mb4.4/30,Error ellipse: s-maj=5.0km s-min=3.4km az=34.6*

JMA ***26*** *02:08:19.1±0.2,27°.47N×130°.23E,h68km,M4.4*

NEIC ***26*** *02:08:21.7±0.6,27°.56N×130°.13E,h35km,mb4.6/3, MW4.1(NIED),Error ellipse: s-maj=14.0km s-min=9.2km az=135.0*

ISC 26 02:08:20.4±1.2**,27°.52N**±0°.04×**130°.15E**±0°.05**,h27**km±7km**, n60,** σ**1s.05**/71**,mb4.4**/30**,2D,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	Kikaishima	0.81	349	P	Pb	02 08 36.1	+0.3
JZK				*e*S	Sb	02 08 49.4	+3.1
JAM	Amami Oshima	1.01	332	P	Pn	02 08 38.5	-0.3
JAM				*e*S	Sb	02 08 51.8	-0.3
JTK	Tokunoshima	1.09	284	P	Pn	02 08 40.3	+0.3
JTK				*e*S	Sn	02 08 54.3	0.0
JOW	Kunigami	1.81	248	P	Pn	02 08 49.7	-0.1
JOW				*e*S	Sn	02 09 11.5	-0.3
JOW	Kunigami	1.81	248	Pn	Pn	02 08 49.5	-0.3
	144nm,0.3s,baz=113,slow=22,SNR=267						
JOW				Sn	Sn	02 09 11.7	-0.1
	222nm,0.3s,baz=53,slow=20,SNR=40						
JMZ	Minamidaito 2	1.95	150	P	Pn	02 08 49.0	-2.7
JMZ				*e*S	Sn	02 09 10.7	-4.6
JIH	Iheya	2.00	256	P	Pn	02 08 52.8	+0.3
JIH				*e*S	Sn	02 09 16.2	-0.4
JNN	Nakanoshima	2.32	354	P	Pn	02 08 56.8	-0.1
JNN				*e*S	Sn	02 09 23.9	-0.7
JJT2	Tamagusuku 2	2.55	238	P	Pn	02 08 59.9	-0.1
JJT2				*e*S	Sn	02 09 30.3	+0.1
NAH1	Naha	2.56	240	*e*S	Sn	02 09 29.8	-0.6
JAGN	Aguni-jima	2.75	251	P	Pn	02 09 02.3	-0.5
JAGN				*e*S	Sn	02 09 34.1	-1.1
JKC	Kuchinoerabu	2.93	1	*e*S	Sn	02 09 37.6	-1.9
JTN	Tanegashima 3	3.20	13	P	Pn	02 09 08.1	-0.9
JTN				*e*S	Sn	02 09 44.6	-1.7
JKE	Kume jima 2	3.23	249	P	Pn	02 09 08.6	-0.8
JKE				*e*S	Sn	02 09 45.6	-1.4
SSLB	Suanglung	9.09	248	*e*Pn	Pn	02 10 28.7	-1.2
KSRS	Korea Array	10.08	350	P	Pn	02 10 46.0	+2.6
KSRS	Korea Array	10.08	350	Pn	Pn	02 10 46.0	+2.7
	0.2nm,0.3s,baz=170,slow=15,SNR=2.6						
MJAR	Matsushiro Arr	11.29	35	Pn	Pn	02 10 59.2	-0.8
	0.7nm,0.3s,baz=38,slow=25,SNR=5.5						
MJAR				LR	LR	02 15 18.2	
	comp=Z,55nm,19.4s,baz=125,slow=37						
BJI	Beijing	17.03	321	P	Pn	02 12 20.5	+3.9
BJI				pmax	pmax		
	comp=Z,67nm,0.9s						
BJI				LR	LR		
	comp=N,380nm,6.5s						
BJI				LR	LR		
	comp=E,190nm,8.7s						
XAN	Xi'an	19.34	295	P	Pn	02 12 45.0	0.0
XAN				pP	pP	02 12 51.0	-0.1
XAN				pmax	pmax		
	comp=Z,120nm,0.7s						
LZH	Lanzhou	23.88	298	*e*P	P	02 13 32.0	+0.2
LZH				pP		02 13 37.5	
LZH				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.5						
LZH				pmax	pmax		
	comp=Z,90nm,4.0s						
KMI	Kunming	24.67	271	P	P	02 13 40.8	+1.7
KMI				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.5						
KMI				LR	LR		
	comp=N,290nm,13.9s						
KMI				LR	LR		
	comp=E,190nm,8.0s						
SONM	Songino Array	27.46	324	P	P	02 14 05.4	+1.3
	comp=E,2.5nm,0.8s,mb3.8,baz=137,slow=11,SNR=18						
GTA	Gaotai	27.81	303	⇓*e*P	P	02 14 07.0	-0.4
GTA				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.1						
CMAR	Chiang Mai Arr	30.04	259	P	P	02 14 27.9	+0.5
	comp=Z,1.1nm,0.3s,mb4.1,baz=56,slow=6.8,SNR=9.2						
ODAN	Odare	37.90	279	*e*P	P	02 15 35.4	-0.1
	comp=Z,36nm,0.6s,mb5.3						
RAMN	Ramite	38.58	280	*e*P	P	02 15 42.0	+0.8
	comp=Z,11nm,0.6s,mb4.8						
GUN	Gumba	39.03	281	*e*P	P	02 15 46.2	+1.2
	comp=Z,11nm,0.5s,mb4.9						
PKI	Pulchoki	39.50	281	*e*P	P	02 15 49.4	+0.5
	comp=Z,17nm,0.6s,mb4.9						
PKI	Pulchoki	39.50	281	*e*P	P	02 15 49.4	+0.5
PKI				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.0						
KKN	Kakani	39.57	281	*e*P	P	02 15 50.1	+0.6
	comp=Z,14nm,0.5s,mb5.0						
KKN	Kakani	39.57	281	*e*P	P	02 15 50.1	+0.6
KKN				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.0						
DMN	Daman	39.76	281	*e*P	P	02 15 51.8	+0.8
	comp=Z,9.3nm,0.5s,mb4.8						
GKN	Gorkha	40.09	282	*e*P	P	02 15 54.8	+1.0
	comp=Z,18nm,0.5s,mb5.1						
DANN	Dangsing	40.80	282	*e*P	P	02 16 00.6	+1.0
	comp=Z,14nm,0.5s,mb4.8						
KOLN	Koldanda	41.04	282	*e*P	P	02 16 02.1	+0.4
	comp=Z,6.8nm,0.7s,mb4.4						
MK31	Makanchi Array	41.98	310	*e*P	P	02 16 08.2	-0.9
MKAR	Makanchi Array	41.98	310	P	P	02 16 07.9	-1.2
MKAR						02 18 10.6	
MKAR	Makanchi Array	41.98	310	P	P	02 16 07.9	-1.2
	comp=Z,2.2nm,0.7s,mb3.9,baz=96,slow=9.8,SNR=22						
MKAR				PcP	PcP	02 18 10.6	+6.6
	comp=Z,0.6nm,0.5s,baz=82,slow=3.9,SNR=5.5						
MKAR				LR	LR	02 34 18.3	
	comp=Z,48nm,19.6s,baz=352,slow=37						
ZALV	Zalesovo Beam	42.28	321	P	P	02 16 09.8	-1.7
	comp=Z,1.7nm,0.6s,mb3.9,baz=106,slow=7.9,SNR=7.3						
WRA	Warramunga Arr	47.36	175	P	P	02 16 52.4	+0.2
	comp=Z,0.8nm,0.6s,mb3.9,baz=357,slow=8.4,SNR=3.1						
ASAR	Alice Springs	51.02	176	P	P	02 17 21.4	+1.3
	comp=Z,0.6nm,0.6s,mb3.7,baz=9.0,slow=13,SNR=6.0						
INK	Inuvik	67.03	24	P	P	02 19 14.9	+4.3
	comp=Z,0.3nm,0.4s,mb3.6,baz=298,slow=3.9,SNR=4.0						
KEV	Kevo	68.86	339	*e*P	P	02 19 21.4	-0.8
KEV				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
KEV	Kevo	68.86	339	*e*p	P	02 19 21.4	-0.8
	comp=Z,4.6nm,0.7s,mb4.5						
ARCES	ARCESS Array B	69.43	339	P	P	02 19 27.6	+1.9
	comp=Z,1.5nm,0.7s,mb4.0,baz=64,slow=7.4,SNR=9.6						
GNI	Garni	69.53	305	*e*P	P	02 19 29.4	+2.6
GNI				pmax	pmax		
	comp=Z,10.0nm,1.3s						
GNI	Garni	69.53	305	*e*P	P	02 19 29.4	+2.5
	comp=Z,9.9nm,1.3s,mb4.6						
KIV	Kislovodsk	69.74	310	*e*P	P	02 19 29.7	+1.7
KIV				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
JOF	Joensuu	69.74	331	*e*p	P	02 19 27.0	-0.7
	comp=Z,4.2nm,0.5s,mb4.6						
KAF	Kangasniemi	72.20	331	*e*P	P	02 19 41.8	-0.8
KAF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
KAF	Kangasniemi	72.20	331	*e*p	P	02 19 41.8	-0.8
	comp=Z,3.4nm,0.7s,mb4.4						
FINES	FINESS Array B	72.58	331	P	P	02 19 45.5	+0.6
	comp=Z,4.5nm,0.4s,mb4.7,baz=69,slow=4.2,SNR=45						
AKASG	Malin Array Be	75.66	320	P	P	02 20 03.5	+0.4
	comp=Z,1.9nm,0.4s,mb4.4,baz=58,slow=6.1,SNR=8.2						
YKA	Yellowknife Ar	76.63	26	P	P	02 20 08.3	0.0
	comp=Z,0.1nm,0.5s,baz=302,slow=6.0,SNR=5.1						
BRTR	Keskin Array B	77.59	308	P	P	02 20 15.4	+1.2
	comp=Z,1.4nm,0.7s,mb4.0,baz=98,slow=5.1,SNR=8.0						
NB2	NORSAR Subarra	78.91	334	P	P	02 20 20.3	-0.8
	comp=Z,9.4nm,1.1s,mb4.6,baz=52,slow=5.9						
NOA	NORSAR Array B	78.91	334	P	P	02 20 20.6	-0.5
	comp=Z,4.4nm,0.9s,mb4.4,baz=51,slow=5.3,SNR=7.3						
GERES	GERESS Array B	85.19	324	P	P	02 20 53.0	-1.4
	comp=Z,0.7nm,0.8s,mb3.8,baz=32,slow=5.8,SNR=3.5						
KBA	Koelnbreinsper	86.46	322	⇓*i*PcP	PcP	02 21 05.9	+2.8
	comp=Z,2.5nm,0.5s						

TRN 26 02:18:54.0,15°.67N×**59°.98W,h3km,M3.6**(FDF)**,3D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DEG	La Desirade	1.22	302	*e*P	Pg	02 19 18.8	+1.4
MGG	Marie-Galante	1.31	281	*e*P	Pg	02 19 21.7	+2.6
MVM	Montagne Vaucl	1.42	219	*e*P	Pn	02 19 22.7	+2.0
FDF	Fort de France	1.46	231	⇓*e*P	Pn	02 19 23.9	+2.6
FDF				⇓*e*S	Sb	02 19 44.8	+3.9
BIM	Bigot	1.56	223	*e*P	Pn	02 19 25.2	+2.6
BIM				*e*S	Sn	02 19 47.5	+4.3
TBG	Guadaloupe-3	1.62	277	*e*P	Pn	02 19 25.9	+2.5
DOG	Dongo Capester	1.62	283	*e*P	Pn	02 19 26.0	+2.5
BCG	Bois Riant Cap	1.63	285	*e*P	Pn	02 19 26.4	+2.8
PHG	Guadaloupe-2	1.64	282	*e*P	Pn	02 19 26.6	+2.9
SEG	Port Louis	1.64	297	*e*P	Pn	02 19 25.6	+1.9
SCG	Saint Claude	1.68	283	*e*P	Pn	02 19 27.2	+3.0
LZG	Guadaloupe-1	1.79	285	⇓*i*P	Pn	02 19 28.6	+2.8

NEIC 26 02:43:21.9,44°.96S×**166°.38E,h12km,ML3.7**(WEL)**,After WEL.,Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	0.75	134	P	Pg	02 43 35.9	-0.6
DCZ				S	Sg	02 43 46.6	+0.2
MSZ	Milford Sound	1.14	76	P	Pb	02 43 39.7	-3.8
MLZ	Mavora Lakes	1.33	108	P	Pn	02 43 44.2	-2.0
MLZ				S	Sb	02 44 00.1	-3.5
WHZ	Wether Hill Ro	1.45	131	P	Pn	02 43 46.9	-1.0
WHZ				S	Sn	02 44 06.5	-0.2
WKZ	Wanaka	1.88	87	P	Pn	02 43 52.9	-0.9
JCZ	Jackson Bay	1.92	63	P	Pn	02 43 50.6	-3.7
EAZ	Earnscleugh	2.09	99	P	Pn	02 43 56.5	-0.2
SYZ	Scrubby Hill	2.50	130	P	Pn	02 44 02.2	-0.1
TUZ	Tuapeka	2.50	115	P	Pn	02 44 02.0	-0.3
FOZ	Fox Glacier	2.76	61	P	Pn	02 44 02.4	-3.5
LBZ	Lake Benmore	2.77	79	P	Pn	02 44 03.9	-2.2
ODZ	Otahua Downs	3.03	93	*e*Pn	Pn	02 44 08.5	-1.1
RPZ	Rata Peaks	3.58	71	*e*Pn	Pn	02 44 14.3	-2.8
WVZ	Waitaha Valley	3.66	61	P	Pn	02 44 13.4	-4.9
DSZ	Denniston Nort	5.09	53	P	Pn	02 44 33.7	-4.3
QRZ	Quartz Range	6.12	50	P	Pn	02 44 47.1	-5.0

IDC ***26*** *02:44:33.8±1.6,30°.93S×59°.13E,h0km,mb3.6/6, mb1 3.8/6,mb1mx3.7/24,mbtmp3.6/6,Error ellipse: s-maj=65.9km s-min=28.5km az=28.0*

NEIC 26 02:44:35.1±1.0**,30°.97S**×**59°.09E,h10km,Error ellipse: s-maj=41.3km s-min=19.2km az=27.0,Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	62.30	43	P	P	02 54 57.2	-0.4
	1.0nm,0.3s,baz=224,slow=6.3,SNR=2.4						
ASAR	Alice Springs	65.76	104	P	P	02 55 20.7	+0.2
	0.3nm,0.8s,baz=248,slow=4.9,SNR=2.9						
WRA	Warramunga Arr	67.71	101	P	P	02 55 33.3	+0.3
	0.9nm,1.0s,baz=242,slow=4.9,SNR=3.8						
TORD	Torodi Ar. Bea	70.41	299	P	P	02 55 50.1	+0.3
	0.5nm,1.0s,baz=125,slow=6.3,SNR=3.4						
BRTR	Keskin Array B	74.20	340	P	P	02 56 12.3	+0.5
	0.2nm,0.3s,baz=165,slow=7.0,SNR=4.2						
MKAR	Makanchi Array	80.19	16	P	P	02 56 45.9	+0.6
	0.1nm,0.5s,baz=224,slow=8.1,SNR=2.3						
YKA	Yellowknife Ar	148.20	354	PKPbc	PKPbc	03 04 20.1	-0.4
	0.6nm,0.7s,baz=0.6,slow=2.6,SNR=17						
YKA	Yellowknife Ar	148.20	354	PKPbc	PKPbc	03 04 20.1	-0.4

ISCJB ***26*** *02:54:16.9±0.5,24°.87N±0°.02×122°.07E±0°.03,h10km, mb3.7/5,Error ellipse: s-maj=3.8km s-min=2.9km az=165.8*

TAP ***26*** *02:54:16.3,24°.85N×122°.02E,h11km,ML3.5,C*

IDC ***26*** *02:54:16.6±1.8,24°.97N×122°.12E,h0km,mb3.7/6, mb1 3.8/6,mb1mx3.6/22,mbtmp3.7/6,Error ellipse: s-maj=173.1km s-min=18.5km az=65.0*

NEIC ***26*** *02:54:17.7±0.7,24°.86N×122°.03E,h10km,Error ellipse: s-maj=10.6km s-min=8.7km az=19.0*

ISC 26 02:54:17.8±0.4**,24°.86N**±0°.02×**122°.04E**±0°.03**,h10km,n53,** σ**1s.15**/72**,mb3.7**/5**,4D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.16	344	⇓*i*P	Pg	02 54 20.2	-1.0
	baz=349						
TWB1				*i* S	Sg	02 54 23.0	-0.7
	baz=349						
ILA	Ilan	0.28	251	*e*P	Pg	02 54 22.5	-0.9
	baz=253						
ILA				*e*S	Sg	02 54 26.7	-0.5
	baz=253						
TWC	Suao	0.30	215	P	Pg	02 54 22.2	-1.6
	baz=214						
TWC				*e*S	Sg	02 54 25.3	-2.6
	baz=214						
NWF	Wu-fen Shan	0.31	312	⇓*i*P	Pg	02 54 23.6	-0.4
	baz=306						
NWF				S	Sg	02 54 28.1	-0.2
	baz=306						
TWE	Neicheng	0.36	248	P	Pg	02 54 23.8	-1.1
	baz=249						
TWE				*e*S	Sg	02 54 28.8	-1.0
	baz=249						
TWA	Mucha	0.43	287	*i* P	Pg	02 54 25.6	-0.7
	baz=279						
TWA				S	Sg	02 54 31.7	-0.2
	baz=279						
ENTT	Nioudou	0.48	243	*i* P	Pg	02 54 26.1	-1.1
	baz=237						
TAP1	Taipei	0.50	291	P	Pg	02 54 26.4	-1.1
	baz=292						
TAP1				*e*S	Sg	02 54 34.4	+0.3
	baz=292						
ENA	Nanau	0.51	212	*e*P	Pg	02 54 27.1	-0.6
	baz=219						
ENA				*e*S	Sg	02 54 33.1	-1.2
	baz=219						
TATO	Taipei	0.51	283	*e*Pg	Pg	02 54 27.0	-0.8
TWY	Chenhua	0.57	316	⇓*i*P	Pg	02 54 28.8	-0.2
	baz=317						
TWY				*e*S	Sg	02 54 37.1	+0.5
	baz=317						
TWS1	Kuangyinshan	0.61	293	P	Pg	02 54 29.7	0.0
	baz=285						
TWS1				*e*S	Sg	02 54 38.1	+0.4
	baz=285						
YHNB	Yeheng	0.63	253	*e*Pg	Pg	02 54 28.3	-1.7
NSK	Sanguang	0.64	254	⇓*i*P	Pg	02 54 28.6	-1.6
	baz=255						
NNS	Nan Shan	0.73	236	*e*P	Pg	02 54 31.0	-1.0
	baz=231						
PCYT	Pengchaiyu	0.77	2	P	Pg	02 54 32.4	-0.3
	baz=356						
NCU	National Centr	0.78	278	*e*P	Pg	02 54 33.8	+0.9
	baz=279						
NCU				*e*S	Sg	02 54 45.0	+2.0
	baz=279						
NACB	Ninganchiao	0.79	211	*e*Pg	Pg	02 54 31.4	-1.6
NACB				*e*Sg	Sg	02 54 42.3	-1.1
TWD	Chiawan	0.87	207	*e*P	Pg	02 54 32.4	-2.2
	baz=203						
NSTT	Nanjuang	0.97	257	*e*P	Pg	02 54 35.5	-1.0
	baz=258						
NSTT				*e*S	Sg	02 54 49.4	+0.4
	baz=258						
YOJ	Yonaguni jima	0.97	114	*e*Pg	Pg	02 54 34.6	-1.9
TWT	Tachien	0.99	233	*e*P	Pg	02 54 36.9	0.0
	baz=229						
WHF	Hehuan Shan	1.00	225	P	Pg	02 54 35.5	-1.5
	baz=226						
WHF				*e*S	Sg	02 54 50.8	+0.8
	baz=226						

ESL	Shilin	1.18	208	eP	Pb	02 54 38.8	-1.4
	baz=212						
NSY	Sanyi	1.24	249	eP	Pn	02 54 40.4	-0.8
	baz=250						
NSY				eS	Sb	02 54 59.5	+2.1
	baz=250						
TWQ1	Liyutan	1.26	246	eP	Pn	02 54 41.4	0.0
	baz=248						
TWQ1				eS	Sb	02 54 58.7	+0.8
	baz=248						
SMLT	Sun Moon Lake	1.42	227	eP	Pn	02 54 43.8	+0.1
	baz=221						
SMLT				eS	Sn	02 55 03.3	+0.9
	baz=221						
TCU	Taichung	1.43	241	eP	Pn	02 54 45.6	+1.8
	baz=263						
TYC	Yuchr	1.44	229	P	Pn	02 54 44.7	+0.8
	baz=223						
TYC				eS	Sn	02 55 03.0	+0.2
	baz=223						
SSLB	Suanglung	1.45	223	ePn	Pn	02 54 44.2	+0.1
EHY	Hungye	1.50	206	eP	Pn	02 54 44.1	-0.6
	baz=221						
WNT	Mingjian	1.57	232	eP	Pn	02 54 49.0	+3.2
	baz=229						
YULB	Yu-li	1.61	205	ePn	Pn	02 54 46.1	-0.1
TWF1	Yuli	1.64	204	eP	Pn	02 54 46.8	0.0
	baz=220						
YUS	Yu-Shan	1.69	216	eP	Pn	02 54 46.9	-0.4
	baz=231						
ALS	Alishan	1.75	220	eP	Pn	02 54 49.8	+1.6
	baz=217						
CHN5	Tsauling	1.77	225	P	Pn	02 54 50.2	+1.8
	baz=227						
CHN5				eS	Sn	02 55 11.6	+0.6
	baz=227						
CHN4	Tsaushan	2.00	222	eP	Pn	02 54 54.2	+2.5
	baz=230						
TPUB	Ta-pu	2.01	220	ePn	Pn	02 54 53.5	+1.6
STYT	Tauyuan	2.05	215	eP	Pn	02 54 54.0	+1.6
	baz=211						
WTP	Ta-pu	2.07	219	eP	Pn	02 54 54.2	+1.6
	baz=228						
TWK	Hsinying	2.12	222	eP	Pn	02 54 54.3	+1.0
	baz=231						
CHN1	Nanshi	2.16	220	eP	Pn	02 54 55.5	+1.6
	baz=229						
SGST	Jiashian	2.21	217	eP	Pn	02 54 56.0	+1.4
	baz=212						
TWG	Pinlang	2.21	204	eP	Pn	02 54 58.0	+3.5
	baz=211						
SSD	Sandimen	2.46	212	eP	Pn	02 54 59.5	+1.4
	baz=220						
SONM	Songino Array	26.06	336	P	P	02 59 51.4	+0.1
	1.7nm,1.0s,mb3.5,baz=151,slow=9.3,SNR=7.9						
MKAR	Makanchi Array	38.40	315	P	P	03 01 39.7	+0.4
	0.2nm,0.7s,baz=98,slow=10,SNR=3.4						
ZALV	Zalesovo Beam	40.11	326	P	P	03 01 52.9	-0.6
	0.6nm,0.3s,mb3.8,baz=124,slow=9.2,SNR=2.8						
ZALV	Zalesovo Beam	40.11	326	P	P	03 01 52.9	-0.6
WRA	Warramunga Arr	46.11	164	P	P	03 02 43.9	+1.5
	0.6nm,0.7s,mb3.6,baz=346,slow=8.7,SNR=5.0						
ASAR	Alice Springs	49.59	166	P	P	03 03 09.7	+0.4
	0.3nm,0.6s,mb3.5,baz=345,slow=9.8,SNR=3.4						
STKA	Stephens Creek	59.43	161	P	P	03 04 21.6	+1.0
	0.3nm,0.3s,mb3.8,baz=349,slow=10,SNR=3.2						

CSEM ***26*** *02:58:06.2, 36°.28N×21°.71E, h13^{km}, MD3.5, After ATH*
NEIC ***26*** *02:58:06.2, 36°.28N×21°.71E, h13^{km}, MD3.5(ATH), After ATH.*
ATH 26 02:58:06.2, 36°.28N×21°.71E, h13$^{km}\pm7^{km}$, MD3.5/8,
Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.92	11	ePG	Pg	02 58 23.1	-0.8
ITM				eSB	Sb	02 58 37.3	+1.3
ITM	Ithomi	0.92	11	ePg	Pg	02 58 23.1	-0.8
ITM				eSb	Sb	02 58 37.3	+1.3
KYTH	Kithira	1.07	90	ePN	Pn	02 58 27.1	+0.2
KYTH	Kithira	1.07	90	ePn	Pn	02 58 27.1	+0.2
VLI	Veliai	1.08	66	ePG	Pg	02 58 26.6	-0.4
VLI	Veliai	1.08	66	ePg	Pg	02 58 26.6	-0.4
VLX	Vlachokerasia	1.21	26	ePN	Pn	02 58 28.2	-0.7
VLX	Vlachokerasia	1.21	26	ePn	Pn	02 58 28.2	-0.7
GUR	Goura	1.73	17	ePN	Pn	02 58 37.9	+2.0
GUR	Goura	1.73	17	ePn	Pn	02 58 37.9	+2.0
DID	Didima	1.73	45	ePN	Pn	02 58 37.5	+1.5
DID	Didima	1.73	45	ePn	Pn	02 58 37.5	+1.5
RLS	Riolos of Patr	1.79	354	ePG	Pg	02 58 39.8	-0.7
RLS	Riolos of Patr	1.79	354	ePg	Pg	02 58 39.8	-0.7
LTK	Loutraki	2.01	30	ePG	Pg	02 58 43.7	-1.0
LTK	Loutraki	2.01	30	ePg	Pg	02 58 43.7	-1.0
IDI	Anoyia	2.77	110	ePn	Pn	02 58 52.0	+1.7

BJI ***26*** *03:08:33.3, 1°.53S×122°.40E, h66^{km}, mB5.2/28, mb4.8/39, Ms4.7/23, Ms7 4.4/24*
MOS ***26*** *03:08:36.9±1.2, 0°.39S×122°.35E, h33^{km}, mb5.2/17, Error ellipse: s-maj=15.7km s-min=7.4km az=113.4*
DJA ***26*** *03:08:37, 0°.74S×122°.15E, h4^{km}, mb5.1/12*
ISCJB ***26*** *03:08:38.0±0.4, 0°.68S±0°.03×122°.14E±0°.03, h44$^{km}\pm4^{km}$, mb4.9/69, MS4.1/22, Error ellipse: s-maj=4.7km s-min=4.5km az=161.0*
IDC ***26*** *03:08:37.5±2.5, 0°.56S×122°.24E, h31$^{km}\pm17^{km}$, mb4.3/17, mb1 4.3/18, mb1mx4.3/25, mbtmp4.3/18, ML4.5/2, MS4.1/15, Ms1 4.1/15, ms1mx3.8/38, Error ellipse: s-maj=21.8km s-min=9.9km az=69.0*
NEIC ***26*** *03:08:41.8±0.9, 0°.60S×122°.24E, h66$^{km}\pm8^{km}$, mb5.0/23, Error ellipse: s-maj=8.6km s-min=5.3km az=60.0*
NEIC Felt [III] at Poso.
ISC 26 03:08:40.3±0.4**, 0°.69S**±0°.03×**122°.17E**±0°.03**, h49**$^{km}\pm4^{km}$**,**
h73$^{km}\pm1.5^{km}$**:pP-P, n182,** σ**1**^{s}**.28**/188**, mb4.9**/69**, MS4.1**/22**,**
4C-5D, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APSI	Ampana	0.56	247	P	Pn	03 08 47.0	-5.2
APSI				S	Sn	03 08 55.1	-5.8
KMSI	Cibinong	2.21	55	P	Pn	03 09 14.6	+0.2
PCI	Palu	2.34	265	P	Pn	03 09 14.3	-2.0
PCI				S	Sn	03 09 45.9	+2.1
KDI	Kendari	3.28	172	⇑eP	Pn	03 09 27.4	-1.8
KDI				eS	Sn	03 10 06.4	-0.6
KDI	Kendari	3.28	172	P	Pn	03 09 28.1	-1.1
TTSI	Tana Toraja	3.31	225	P	Pn	03 09 28.8	-0.9
MNI	Manado	3.41	52	⇓eP	Pn	03 09 24.0	-7.0
MNI				eS	Sn	03 10 14.0	+3.8
MNI	Manado	3.41	52	P	Pn	03 09 31.3	+0.3
BNSI	Bone	4.22	209	P	Pn	03 09 41.4	-0.8
KAPI	Kappang	4.93	209	Pn	Pn	03 09 50.2	-1.6
	8µm,0.5s						
KAPI	Kappang	4.93	209	Pn	Pn	03 09 49.8	-2.1
	98nm,0.3s,baz=31,slow=6.1,SNR=545						
KAPI				Sn	Sn	03 10 45.3	-2.3
	8.2nm,0.3s,baz=83,slow=19,SNR=2.9						
KAPI				LR	LR	03 12 07.3	
	comp=Z,4µm,20.1s,baz=243,slow=41						
KAPI	Kappang	4.93	209	Pn	Pn	03 09 49.8	-2.1
KAPI				Sn	Sn	03 10 45.3	-2.3
KAPI				LR	LR	03 12 07.3	
SMKI	Samarinda	4.96	273	P	Pn	03 09 52.3	0.0
MKS	Makassar	5.24	211	⇑eP	Pn	03 09 56.1	-0.1
MKS				eS	Sn	03 10 54.4	-1.0
LBMI	Labuha	5.33	90	P	Pn	03 09 56.8	-0.6
TNTI	Ternate	5.40	74	P	Pn	03 10 00.9	+2.6
SGSI	Sangihe	5.49	38	P	Pn	03 10 00.8	+1.2
NLAI	Namlea	5.54	117	P	Pn	03 10 00.9	+0.6
	557nm,0.8s,8µm3.1nm						
KBKI	Kotabaru	6.53	247	P	Pn	03 10 11.7	-2.2
	194nm,1.0s,0.8nm						
TSM	Tawau	6.55	319	P	Pn	03 10 12.3	-1.7
AAI	Ambon	6.72	116	⇓eP	Pn	03 10 19.0	+2.6
AAI				eS	Px	03 10 38.1	
AAI	Ambon	6.72	116	P	Pn	03 10 18.3	+1.9
BBKI	Banjar Baru	7.82	249	P	Pn	03 10 32.7	+1.2
SDKM	Sandakan	8.01	322	P	Pn	03 10 32.9	-1.2
DAV	Davao City (W)	8.42	24	Pn	Pn	03 10 40.3	+0.5
	62nm,0.3s,baz=246,slow=13,SNR=12						
DAV				Sn	Sn	03 12 19.8	+6.2
	92nm,0.3s,baz=232,slow=14,SNR=2.3						
DAV				LR	LR	03 13 55.1	
	comp=Z,2µm,20.9s,baz=193,slow=38						
DAV	Davao City (W)	8.42	24	ePn	Pn	03 10 40.5	+0.7
KKM	Kota Kinabalu	8.94	318	ePn	Pn	03 10 49.4	+2.5
	62nm,0.9s						
KKM				eSn	Sn	03 12 23.6	-2.7
KKM	Kota Kinabalu	8.94	318	P	Pn	03 10 49.6	+2.7
SWI	Sorong	9.10	91	P	Pn	03 10 48.5	-0.5
	215nm,0.7s,2µm						
BTM	Bintulu	9.87	293	P	Pn	03 11 00.7	+1.1
KHKI	Kahang-Kahang	10.04	220	P	Pn	03 11 01.5	-0.5
	39nm,0.6s						
SRBI	Singaraja	10.10	223	P	Pn	03 11 01.7	-1.1
	94nm,1.1s,1µm						
SBUM	Sibu	10.42	287	P	Pn	03 11 07.3	+0.1
SBUM	Sibu	10.42	287	P	Pn	03 11 07.1	0.0
	48nm,1.5s						
KSM	Kuching	12.05	280	P	Pn	03 11 29.8	+0.3
KSM	Kuching	12.05	280	eP	Pn	03 11 29.4	0.0
	35nm,1.2s						
KSM	Kuching	12.05	280	P	Pn	03 11 29.3	-0.1
	23nm,1.6s						
KAKA	Kakadu	15.70	140	eP	Pn	03 12 20.6	+2.3
	25nm,0.8s						
KAKA	Kakadu	15.70	140	eP	Pn	03 12 22.8	+4.5
	87nm,0.8s						
KAKA	Kakadu	15.70	140	P	Pn	03 12 21.0	+2.7
FITZ	Fitzroy Crossi	17.64	169	eP	Pn	03 12 42.6	0.0
	13nm,0.9s						
FITZ	Fitzroy Crossi	17.64	169	P	Pn	03 12 42.8	+0.2
	0.4nm,0.3s,baz=29,slow=3.5,SNR=11						
FITZ				LR	LR	03 20 31.3	
	comp=Z,230nm,20.3s,baz=355,slow=40						
FITZ	Fitzroy Crossi	17.64	169	eP	Pn	03 12 43.0	+0.4
	4.3nm,0.6s						
KASI	Kota Agung	18.28	254	P	Pn	03 12 51.4	+0.9
MDSI	Maura Dua	18.36	258	P	Pn	03 12 52.6	+1.2
KGM	Kluang	19.03	278	P	Pn	03 13 00.0	+0.4
KTGM	Kuala Trenggan	19.92	288	P	Pn	03 13 09.4	-0.7
MBWA	Marble Bar	20.49	187	eP	P	03 13 14.2	+0.1
MBWA	Marble Bar	20.49	187	eP	P	03 13 14.7	+0.6
	58nm,1.0s						
FRIM	Kepong	20.90	281	P	P	03 13 20.2	+1.5
PDSI	Padang	21.70	269	P	P	03 13 28.8	+1.4
	129nm,1.1s,mb5.3						
IPM	Ipoh	21.74	284	P	P	03 13 28.4	+0.6
IPM	Ipoh	21.74	284	P	P	03 13 28.2	+0.5
	84nm,1.3s,mb5.0						
PPI	Padang Panjang	21.77	270	P	P	03 13 29.4	+1.3
	62nm,1.0s,mb5.0						
KULM	Kulim	22.29	286	P	P	03 13 34.7	+1.1
KULM	Kulim	22.29	286	eP	P	03 13 33.0	-0.6
	56nm,1.3s,mb4.8						
WRAB	Tennant Creek	22.54	149	P	P	03 13 37.0	+0.8
	213nm,1.2s,mb5.5,SNR=10						
WRAB	Tennant Creek	22.54	149	eP	P	03 13 38.0	+1.8
WRAB				pmax	pmax		
	comp=Z,50nm,1.1s,mb4.9						
WRAB	Tennant Creek	22.54	149	eP	P	03 13 38.0	+1.8
	comp=Z,50nm,1.1s,mb4.9						
WRAB	Tennant Creek	22.54	149	P	P	03 13 37.0	+0.8
	comp=Z,51nm,1.4s,mb4.8						
WRA	Warramunga Arr	22.54	149	P	P	03 13 36.6	+0.4
WRA				S	S	03 17 40.1	-0.5
WRA	Warramunga Arr	22.54	149	P	P	03 13 36.6	+0.4
	comp=Z,27nm,1.0s,mb4.7,baz=328,slow=10,SNR=66						
WRA				S	S	03 17 40.1	-0.5
	comp=Z,1.4nm,1.0s,baz=323,slow=16,SNR=4.6						
WRA				ScP	ScP	03 21 04.7	+2.2
	comp=Z,3.2nm,1.1s,baz=330,slow=3.1,SNR=5.7						
QIZ	Qiongzhong	23.03	329	P	P	03 13 41.0	-0.3
QIZ				S	S	03 17 47.8	-0.7
QIZ				LR	LR		
	comp=Z,450nm,16.3s,MS4.0						
PSI	Prapat	23.49	279	P	P	03 13 45.9	-0.1
	comp=Z,21nm,0.9s,mb4.6,baz=117,slow=4.3,SNR=17						
PSI				LR	LR	03 23 14.7	
	comp=Z,434nm,21.8s,MS3.9,baz=262,slow=37						
TPUB	Ta-pu	23.89	357	eP	P	03 13 48.8	-0.7
	comp=Z,98nm,0.8s,mb5.3						
YULB	Yu-li	23.95	358	eP	P	03 13 49.1	-0.9
	comp=Z,38nm,0.7s,mb4.9						
SSLB	Suanglung	24.36	357	eP	P	03 13 53.9	+0.2
	comp=Z,89nm,1.0s,mb5.2						
COEN	Coen	24.62	123	eP	P	03 13 57.0	+0.8
	comp=Z,66nm,0.8s,mb5.2						
GSI	Gunungsitoli	24.67	275	P	P	03 13 58.6	+1.9
ASAR	Alice Springs	25.52	154	P	P	03 14 05.2	+0.8
ASAR						03 17 35.3	
ASAR	Alice Springs	25.52	154	P	P	03 14 05.2	+0.8
	comp=Z,4.3nm,0.8s,mb4.0,baz=332,slow=7.8,SNR=29						
ASAR				PcP	PcP	03 17 35.3	+0.3
	comp=Z,2.8nm,0.7s,baz=348,slow=1.9,SNR=12						
ASAR				ScP	ScP	03 21 14.6	+4.1
	comp=Z,2.1nm,0.8s,baz=351,slow=2.5,SNR=11						
GUMO	Guam	26.60	57	LR	LR	03 23 25.2	
	comp=Z,207nm,21.2s,MS3.6,baz=228,slow=34						
NST	Nakhon Sawan	27.17	308	P	P	03 14 17.8	-1.5
JOW	Kunigami	27.98	12	LR	LR	03 26 07.7	
	comp=Z,285nm,18.6s,MS3.9,baz=106,slow=38						
CMAR	Chiang Mai Arr	29.72	311	P	P	03 14 43.6	+1.6
	comp=Z,7.4nm,0.8s,mb4.5,baz=134,slow=6.7,SNR=18						
CMAR				LR	LR	03 28 08.4	
	comp=Z,177nm,18.5s,MS3.7,baz=280,slow=39						
CMAR	Chiang Mai Arr	29.72	311	P	P	03 14 43.6	+1.6
CMAR				LR	LR	03 28 08.4	
CHG	Chiang Mai	29.93	312	P	P	03 14 45.7	+1.8
CHTO	Chiang Mai	29.93	312	P	P	03 14 45.7	+1.8
CHRT	Chiangrai	29.98	314	⇑P	P	03 14 46.5	+2.2
	comp=Z,197nm,1.2s,mb5.7						
GYA	Guiyang	30.85	332	⇓iP	P	03 14 54.3	+2.4
GYA				pP	pP	03 15 12.0	+7.3
GYA				sP	sP	03 15 21.3	+11
GYA				PP	PP	03 15 58.8	-3.5
GYA				S	S	03 19 52.3	-0.1
GYA				sS	sS	03 20 23.3	+9.3
GYA				ScP	ScP	03 21 24.3	-2.7
GYA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
GYA				pmax	pmax		
	comp=Z,150nm,4.6s						
GYA				LR	LR		
	comp=N,340nm,16.7s,MS4.4						
GYA				LR	LR		
	comp=E,680nm,17.0s,MS4.4						
GYA				LR	LR		
	comp=Z,730nm,16.5s,MS4.4						
KMI	Kunming	31.81	325	P	P	03 15 02.0	+1.6
KMI				pP	pP	03 15 17.5	+4.3
KMI				sP	sP	03 15 26.3	+7.2
KMI				PP	PP	03 16 10.0	-3.0
KMI				S	S	03 20 06.0	-1.4
KMI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
KMI				pmax	pmax		
	comp=Z,160nm,3.6s						
KMI				LR	LR		
	comp=N,210nm,13.8s,MS4.2						
KMI				LR	LR		
	comp=E,290nm,16.2s,MS4.2						
KMI				LR	LR		
	comp=Z,170nm,17.5s,MS3.8						
NJ2	Nanjing	32.71	355	eP	P	03 15 08.8	+0.6
NJ2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
CD2	Chengdu	35.97	332	P	P	03 15 36.0	-0.4
CD2				pP	pP	03 15 54.3	+5.0
CD2				sP	sP	03 16 03.5	+8.3
CD2				PP	PP	03 17 00.0	+1.1
CD2				S	S	03 21 08.8	-2.8
CD2				sS	sS	03 21 39.8	+6.4
CD2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
CD2				pmax	pmax		
	comp=Z,150nm,4.7s						
CD2				LR	LR		
	comp=N,450nm,5.2s						
CD2				LR	LR		
	comp=Z,310nm,6.5s						
STKA	Stephens Creek	36.05	151	eP	P	03 15 37.5	+0.4
	comp=Z,6.1nm,0.9s,mb4.5						
STKA	Stephens Creek	36.05	151	P	P	03 15 37.8	+0.7
	comp=Z,4.3nm,0.6s,mb4.5,baz=320,slow=9.3,SNR=10						
XAN	Xi'an	36.72	341	P	P	03 15 42.3	-0.4
XAN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
KSRS	Korea Array	38.32	7	P	P	03 15 53.8	-2.5
	comp=Z,2.4nm,0.9s,mb3.9,baz=185,slow=9.5,SNR=3.9						
KSRS				LR	LR	03 32 10.2	
	comp=Z,189nm,19.1s,MS3.9,baz=19,slow=37						
SHL	Shillong	39.21	314	ePKP	P	03 16 06.5	+2.6
MAJO	Matsushiro	39.93	20	eP	P	03 16 07.2	-2.5
MAJO				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
MAJO	Matsushiro	39.93	20	eP	P	03 16 07.2	-2.5
	comp=Z,22nm,1.0s,mb4.8						
MAT	Matsushiro	39.93	20	P	P	03 16 06.6	-3.1
MJAR	Matsushiro Arr	39.93	20	P	P	03 16 07.1	-2.6
	comp=Z,12nm,0.8s,mb4.7,baz=194,slow=9.2,SNR=25						
MJAR				LR	LR	03 30 59.7	
	comp=Z,170nm,19.2s,MS3.9,baz=210,slow=34						
LZH	Lanzhou	40.37	337	eP	P	03 16 16.5	+3.2
LZH				pP	pP	03 16 33.0	+6.5
LZH				sP	sP	03 16 41.0	+8.7
LZH				PP	PP	03 17 55.3	+8.2
LZH				eS	S	03 22 19.3	+1.3
LZH				sS	sS	03 22 51.0	+11
LZH				pmax	pmax		
	comp=Z,31nm,1.2s,mb4.9						
LZH				pmax	pmax		
	comp=Z,260nm,6.3s						
LZH				LR	LR		
	comp=E,570nm,13.9s						
LZH				LR	LR		
	comp=Z,810nm,14.5s,MS4.7						
ARMA	Armidale	40.71	139	eP	P	03 16 18.4	+2.1
BJI	Beijing	40.90	353	P	P	03 16 17.0	-0.7
BJI				pP	pP	03 16 36.3	+5.5
BJI				sP	sP	03 16 45.5	+8.9
BJI				S	S	03 22 27.8	+2.0
BJI				sS	sS	03 22 57.5	+10
BJI				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.8						
BJI				LR	LR		
	comp=N,370nm,10.9s,MS4.6						
BJI				LR	LR		
	comp=E,240nm,10.2s,MS4.6						
BJI				LR	LR		
	comp=Z,160nm,24.4s						
LSA	Lhasa	42.29	318	P	P	03 16 31.0	+1.8
LSA	Lhasa	42.29	318	P	P	03 16 31.3	+2.1
LSA				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.8						
LSA	Lhasa	42.29	318	P	P	03 16 31.3	+2.0
	comp=Z,15nm,0.6s,mb4.8						
HHC	Hu-ho-hao-te	42.45	348	eP	P	03 16 30.8	+0.4
HHC				pP	pP	03 16 49.0	+5.5
HHC				sP	sP	03 16 58.0	+8.7
HHC				PP	PP	03 18 12.5	+2.9
HHC				PcS	PcS	03 22 14.0	-0.5
HHC				S	S	03 22 45.3	-3.4
HHC				sS	sS	03 23 18.0	+7.1
HHC				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.5						
HHC				pmax	pmax		
	comp=Z,210nm,4.6s						
HHC				LR	LR		
	comp=N,310nm,12.9s,MS4.5						
HHC				LR	LR		
	comp=E,320nm,13.1s,MS4.5						
HHC				LR	LR		
	comp=Z,330nm,15.1s,MS4.3						
ODAN	Odare	43.25	312	eP	P	03 16 38.1	+1.0
	comp=Z,29nm,0.6s,mb5.2						
TAPN	Taplejung	43.29	313	eP	P	03 16 38.1	+0.7
	comp=Z,47nm,1.0s,mb5.2						
RAMN	Ramite	43.89	312	eP	P	03 16 43.4	+1.2
	comp=Z,45nm,0.7s,mb5.3						
CN2	Changchun	44.39	3	eP	P	03 16 48.0	+2.1
CN2				eS	S	03 23 17.0	0.0
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
JIRN	Jiri	44.58	312	eP	P	03 16 48.7	+1.0
	comp=Z,74nm,1.0s,mb5.5						
GTA	Gaotai	44.85	335	⇑P	P	03 16 50.5	+0.8
GTA				pP	pP	03 17 09.0	+6.0
GTA				sP	sP	03 17 17.8	+9.1
GTA				PP	PP	03 18 37.8	+2.5
GTA				S	S	03 23 22.8	-1.1
GTA				sS	sS	03 23 55.3	+9.2
GTA				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
GTA				pmax	pmax		
	comp=Z,150nm,6.8s						
GTA				LR	LR		
	comp=N,200nm,15.2s,MS4.3						
GTA				LR	LR		
	comp=E,210nm,15.5s,MS4.3						
GTA				LR	LR		
	comp=Z,180nm,16.4s,MS4.1						
GUN	Gumba	44.95	312	eP	P	03 16 51.5	+0.8
	comp=Z,112nm,1.0s,mb5.7						
PKI	Pulchoki	45.11	311	eP	P	03 16 52.7	+0.7
	comp=Z,16nm,0.7s,mb5.0						
PKI	Pulchoki	45.11	311	eP	P	03 16 52.7	+0.7
PKI				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.0						
KKN	Kakani	45.33	312	eP	P	03 16 54.5	+0.8
	comp=Z,35nm,0.8s,mb5.2						
KKN	Kakani	45.33	312	eP	P	03 16 54.5	+0.8
KKN				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.2						
DMN	Daman	45.36	311	eP	P	03 16 54.8	+0.8
	comp=Z,42nm,0.9s,mb5.3						
MDJ	Mudanjiang	45.59	7	P	P	03 16 54.0	-1.4
MDJ				pP	pP	03 17 11.5	+2.8
MDJ				sP	sP	03 17 19.8	+5.3
MDJ				PP	PP	03 18 41.0	-2.0
MDJ				ScP	ScP	03 22 18.0	-4.2
MDJ				PcS	PcS	03 22 26.3	-0.9
MDJ				S	S	03 23 30.0	-4.3
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,110nm,3.7s						
MDJ				LR	LR		
	comp=N,97nm,28.2s,MS3.7						
MDJ				LR	LR		
	comp=E,76nm,33.0s,MS3.7						
MDJ				LR	LR		
	comp=Z,180nm,30.6s,MS3.8						
MDJ	Mudanjiang	45.59	7	eP	P	03 16 54.2	-1.2
	comp=Z,15nm,0.7s,mb5.0						
GKN	Gorkha	45.92	311	eP	P	03 16 59.1	+0.7
	comp=Z,46nm,0.8s,mb5.5						
HYB	Hyderabad	46.55	295	iP	P	03 17 02.0	-1.5
HYB	Hyderabad	46.55	295	eP	P	03 17 04.0	+0.5
KOLN	Koldanda	46.58	310	eP	P	03 17 03.8	+0.2
	comp=Z,24nm,0.6s,mb5.3						
DANN	Dangsing	46.76	311	eP	P	03 17 05.8	+0.8
	comp=Z,42nm,0.5s,mb5.6						
ASAJ	Asahikawa	48.19	20	P	P	03 17 14.2	-1.6
	comp=Z,15nm,0.8s,mb5.1,baz=201,slow=16,SNR=6.7						
ULN	Ulaanbaatar	50.12	347	eP	P	03 17 30.4	0.0
ULN				pmax	pmax		
	comp=Z,90nm,1.8s,mb5.5						
ULN	Ulaanbaatar	50.12	347	eP	P	03 17 30.4	0.0
	comp=Z,90nm,1.8s,mb5.5						
HABR	Khabarovsk	50.22	11	eP	P	03 17 27.9	-3.3
HABR				e*PP	pP	03 17 44.7	0.0
HABR				e		03 19 22.2	
HABR				eS	S	03 24 33.0	-6.8
HABR				e		03 27 11.5	
HABR				eSS	SS	03 28 06.7	-7.3
HABR				eSSS		03 29 34.4	
HABR				MLR	MLR		
	comp=Z,105nm,16.0s,MS3.9						
SONM	Songino Array	50.24	346	P	P	03 17 31.2	-0.2
	comp=Z,9.1nm,0.7s,mb4.9,baz=168,slow=8.1,SNR=49						
SONM				LR	LR	03 39 59.8	
	comp=Z,227nm,21.2s,MS4.2,baz=151,slow=38						
KLR	Kul'dur	50.40	8	eP	P	03 17 26.2	-6.4
YSS	Yuzh-Sakhalins	50.76	18	eP	P	03 17 35.6	+0.3
ZAK	Zakamensk	53.38	345	eP	P	03 17 53.8	-0.9
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
WMQ	Urumqi	53.95	330	P	P	03 17 59.5	+0.5
WMQ				pP	pP	03 18 18.0	+5.4
WMQ				sP	sP	03 18 27.0	+8.7

WMQ				PcP	PcP	03 19 04.0	+0.1
WMQ				PP	PP	03 20 03.0	+2.2
WMQ				eS	S	03 25 27.0	-4.1
WMQ				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
WMQ				pmax	pmax		
	comp=Z,170nm,5.0s						
WMQ				LR	LR		
	comp=N,330nm,17.0s,MS4.6						
WMQ				LR	LR		
	comp=E,330nm,19.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,390nm,20.0s,MS4.5						
TLY	Talaya	54.48	346	eP	P	03 18 02.4	-0.3
TLY				e		03 18 08.3	
TLY				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
TLY				MLR	MLR		
	comp=Z,48nm,9.0s						
TLY	Talaya	54.48	346	eP	P	03 18 01.8	-0.9
	comp=Z,12nm,1.1s,mb4.8						
MOY	Mondy	55.15	344	eP	P	03 18 08.0	+0.4
KSH	Kashi	58.14	319	P	P	03 18 29.8	+0.8
KSH				epP	pP	03 18 49.0	+6.2
KSH				esP	sP	03 18 58.0	+10
KSH				ePcP	PcP	03 19 21.3	+1.1
KSH				ePP	PP	03 20 40.5	+2.2
KSH				eScP	ScP	03 23 13.3	-3.3
KSH				ePcS	PcS	03 23 21.5	-0.2
KSH				eS	S	03 26 21.8	-5.1
KSH				esS	sS	03 26 55.3	+5.4
KSH				eScS	ScS	03 28 09.3	-5.4
KSH				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
KSH				pmax	pmax		
	comp=Z,510nm,7.0s						
KSH				LR	LR		
	comp=N,620nm,6.6s						
KSH				LR	LR		
	comp=E,540nm,6.0s						
KSH				LR	LR		
	comp=Z,490nm,6.0s						
BOD	Bodaibo	58.69	355	eP	P	03 18 31.3	-1.2
BOD				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
MKAR	Makanchi Array	58.76	329	P	P	03 18 32.7	-0.6
	comp=Z,3.4nm,0.5s,mb4.7,baz=120,slow=9.3,SNR=91						
MKAR	Makanchi Array	58.76	329	P	P	03 18 32.7	-0.6
TKM2	Tokmak 2	60.20	322	eP	P	03 18 43.1	-0.2
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
TKM2	Tokmak 2	60.20	322	eP	P	03 18 43.1	-0.1
	comp=Z,5.8nm,0.6s,mb4.8						
UCH	Uchtor	60.51	321	eP	P	03 18 46.0	+0.7
	comp=Z,6.4nm,0.9s,mb4.8						
AAK	Ala-Archa	60.73	321	eP	P	03 18 47.0	+0.1
AAK				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.0						
AAK	Ala-Archa	60.73	321	P	P	03 18 47.3	+0.4
	comp=Z,1.6nm,0.5s,mb4.4,baz=120,slow=10.0,SNR=6.8						
AAK	Ala-Archa	60.73	321	eP	P	03 18 47.0	+0.1
	comp=Z,15nm,1.3s,mb5.0						
KBL	Kabul	60.75	311	eP	P	03 18 46.9	-0.3
KBL				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.4						
KBL	Kabul	60.75	311	eP	P	03 18 46.9	-0.2
	comp=Z,19nm,0.6s,mb5.4						
AML	Almayashu	60.98	320	eP	P	03 18 48.7	+0.2
	comp=Z,9.9nm,0.8s,mb5.0						
EKS2	Erkin-Say	61.20	321	eP	P	03 18 50.0	-0.1
	comp=Z,9.3nm,1.0s,mb4.9						
PETK	Petropavlovsk-	61.24	24	P	P	03 18 49.1	-1.1
	comp=Z,4.4nm,0.7s,mb4.7,baz=200,slow=3.9,SNR=4.9						
PETK				LR	LR	03 43 40.2	
	comp=Z,122nm,20.8s,MS4.0,baz=316,slow=34						
ZALV	Zalesovo Beam	62.59	336	P	P	03 18 57.0	-2.2
	comp=Z,3.0nm,0.6s,mb4.6,baz=116,slow=6.8,SNR=17						
ZALV	Zalesovo Beam	62.59	336	P	P	03 18 57.0	-2.2
YAK	Yakutsk	62.81	4	eP	P	03 18 57.7	-2.8
YAK				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=N,13nm,1.1s						
YAK	Yakutsk	62.81	4	eP	P	03 18 59.0	-1.5
	comp=N,33nm,0.7s,mb5.6						
KURK	Kurchatov	63.16	331	P	P	03 19 01.8	-1.2
	comp=N,124nm,0.9s,mb6.0,SNR=9.3						
KURK	Kurchatov	63.16	331	eP	P	03 19 01.7	-1.3
KURK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.2						
KURK	Kurchatov	63.16	331	P	P	03 19 01.4	-1.6
	comp=Z,4.4nm,0.8s,mb4.6,baz=142,slow=4.9,SNR=23						
KURK	Kurchatov	63.16	331	eP	P	03 19 01.7	-1.3
	comp=Z,19nm,0.9s,mb5.2						
NVS	Novosibirsk	63.88	336	eP	P	03 19 05.2	-2.5
NVS				e		03 27 38.2	
NVS				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
NVS				pmax	pmax		
	comp=E,4.0nm,0.8s						
SEY	Seymchan	67.38	14	eP	P	03 19 29.4	-0.7
BVAR	Borovoye Array	68.64	329	P	P	03 19 36.5	-1.7
	comp=E,2.8nm,0.8s,mb4.2,baz=128,slow=9.6,SNR=16						
BRVK	Borovoye	68.71	329	eP	P	03 19 38.1	-0.6
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
BRVK	Borovoye	68.71	329	eP	P	03 19 38.1	-0.6
	comp=Z,7.3nm,1.0s,mb4.6						
TIXI	Tiksi	72.34	2	eP	P	03 19 58.1	-2.4
TIXI				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
AKTK	Aktyubinsk	74.36	323	P	P	03 20 10.6	-2.2
AKTO	Aktyubinsk	74.36	323	P	P	03 20 10.6	-2.2
	comp=Z,1.5nm,0.8s,mb4.0,baz=133,slow=5.8,SNR=8.0						
BILL	Bilibino	74.99	16	⇓eP	P	03 20 13.7	-2.3
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
ARU	Arti	76.29	329	d iP	P	03 20 24.3	+0.6
ARU				e		03 23 12.4	
ARU				S	S	03 30 03.6	-0.9
ARU				SS	SS	03 34 56.5	-2.8
ARU				pmax	pmax		
	comp=Z,24nm,2.7s,mb4.7						
MAW	Mawson	78.07	200	LR	LR	03 52 11.1	
	comp=Z,116nm,18.8s,MS4.2,baz=114,slow=33						
VNDA	Vanda	79.69	172	P	P	03 20 42.7	+0.5
	comp=Z,4.2nm,0.9s,mb4.4,baz=33,slow=1.2,SNR=4.3						
VNDA				LR	LR	03 52 36.0	
	comp=Z,148nm,19.4s,MS4.3,baz=321,slow=33						
VNDA	Vanda	79.69	172	P	P	03 20 42.7	+0.5
VNDA				LR	LR	03 52 36.0	
GOF	Gofitskoye	82.81	315	eP	pP	03 21 13.5	-0.2
EIL	Elat	87.91	300	LR	LR	03 59 55.7	
	comp=Z,64nm,21.0s,MS4.0,baz=265,slow=35						
BRTR	Keskin Array B	89.30	310	P	P	03 21 31.2	-0.3
	comp=Z,0.4nm,0.7s,mb3.9,baz=103,slow=3.7,SNR=3.0						
BOSA	Boshof	95.75	241	LR	LR	03 59 50.8	
	comp=Z,204nm,19.0s,MS4.6,baz=153,slow=32						
YKA	Yellowknife Ar	105.36	24	Pdiff	Pdif	03 22 43.7	-0.1
	comp=Z,0.1nm,0.7s,baz=303,slow=4.6,SNR=5.4						
YKA				PKiKP	PKiKP	03 26 55.8	-1.5
	comp=Z,0.2nm,0.5s,baz=308,slow=1.7,SNR=5.0						
YKA				PKKPbc	PKKPbc	03 38 21.1	-4.3
	comp=Z,0.4nm,0.8s,baz=116,slow=2.5,SNR=7.8						
YKA	Yellowknife Ar	105.36	24	Pdif	Pdif	03 22 43.7	-0.2
YKA				PKPdf	PKiKP	03 26 55.8	-1.5
YKA				PKKPbc	PKKPbc	03 38 21.1	-4.3
NVAR	Mina Array Bea	113.23	48	PKiKP	PKiKP	03 27 12.5	-0.4
	comp=Z,0.6nm,0.7s,baz=241,slow=2.1,SNR=5.2						
PDAR	Pinedale Array	117.66	41	PKP	PKPdf	03 27 20.7	-0.6
	comp=Z,0.4nm,0.7s,baz=46,slow=2.6,SNR=3.7						
PDAR				PKKPbc	PKKPab	03 37 51.9	+5.0
	comp=Z,0.5nm,0.8s,baz=122,slow=5.4,SNR=3.7						
TORD	Torodi Ar. Bea	119.78	285	PKP	PKPdf	03 27 24.1	-2.0
	comp=Z,0.5nm,0.7s,baz=29,slow=1.9,SNR=6.8						
ULM	Lac du Bonnet	120.98	27	PKP	PKPdf	03 27 24.8	-2.6
	comp=Z,2.8nm,0.6s,baz=345,slow=3.0,SNR=6.6						
SCHQ	Schefferville	125.53	6	PKP	PKPdf	03 27 34.8	-1.1
	comp=Z,3.9nm,0.9s,baz=37,slow=4.1,SNR=8.1						
TXAR	Lajitas Array	127.89	53	PKP	PKPdf	03 27 41.0	-0.3
	comp=Z,0.9nm,0.8s,baz=4.8,slow=3.0,SNR=6.0						
JCT	Junction City	130.38	49	ePKIKP	PKPdf	03 27 45.1	-0.9
PLCA	Paso Flores	137.18	166	PKP	PKPdf	03 28 00.4	+1.9
	comp=Z,1.1nm,0.8s,baz=214,slow=2.6,SNR=3.1						
LCO	Las Campanas	148.01	158	ePKPbc	PKPbc	03 28 22.0	+1.0
CPUP	Villa Florida	153.14	181	PKPbc	PKPbc	03 28 33.8	+0.5
	comp=Z,1.2nm,0.7s,baz=66,slow=3.0,SNR=4.3						

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*ISCJB **26** 03:27:00.8±0.7, 36°.59N±0°.04×22°.62E±0°.04, h6^{km}±5^{km}, Error ellipse: s-maj=8.0km s-min=4.7km az=27.3*

*CSEM **26** 03:27:00.7±0.3, 36°.61N×22°.58E, h5^{km}, MD3.4, Error ellipse: s-maj=7.2km s-min=4.2km az=42.0*

*NEIC **26** 03:27:01.1, 36°.62N×22°.63E, h12^{km}, MD3.4(ATH), After ATH.*

*ATH **26** 03:27:01.1, 36°.62N×22°.63E, h12^{km}±2^{km}, MD3.4/9*

*THE **26** 03:27:02.2, 36°.64N×22°.64E, h1^{km}±4^{km}, ML2.8/1, Error ellipse: s-maj=4.7km s-min=1.7km az=162.0*

ISC 26 03:27:01.5±0.7**, 36°.61N**±0°.05×**22°.64E**±0°.04**, h8**^{km}±5^{km}**, n30,** σ**0^{s}70**/39**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLI	Veliai	0.26	65	ePG	Pg	03 27 06.8	0.0
VLI				eSG	Sg	03 27 11.1	+0.8
VLI	Veliai	0.26	65	ePg	Pg	03 27 06.8	0.0
VLI				eSg	Sg	03 27 11.1	+0.8
KYTH	Kithira	0.46	135	ePB	Pg	03 27 10.4	0.0
KYTH	Kithira	0.46	135	ePb	Pg	03 27 10.4	0.0
PYL	PYLOS	0.78	292	P	Pg	03 27 15.7	-0.8
PYL				S	Sg	03 27 28.4	+1.8
PYL	PYLOS	0.78	292	ePB	Pg	03 27 15.6	-0.9
PYL	PYLOS	0.78	292	ePb	Pg	03 27 15.6	-0.9
ITM	Ithomi	0.81	315	ePB	Pg	03 27 16.5	-0.6
ITM				eSB	Sg	03 27 27.4	-0.2
ITM	Ithomi	0.81	315	ePb	Pg	03 27 16.5	-0.6
ITM				eSb	Sg	03 27 27.4	-0.2
DID	Didima	1.02	28	P	Pg	03 27 20.7	-0.4
DID	Didima	1.02	28	ePN	Pg	03 27 20.6	-0.5
DID	Didima	1.02	28	ePn	Pg	03 27 20.6	-0.5
NAIG	Nisos Aigina	1.33	30	ePB	Pb	03 27 27.2	+0.4
NAIG	Nisos Aigina	1.33	30	ePb	Pb	03 27 27.2	+0.4
GUR	Goura	1.35	350	ePG	Pn	03 27 25.9	-0.8
GUR	Goura	1.35	350	ePg	Pn	03 27 25.9	-0.8
LTK	Loutraki	1.44	10	ePB	Pb	03 27 28.4	-0.2
LTK	Loutraki	1.44	10	ePb	Pb	03 27 28.4	-0.2
VLY	Voula,Athens	1.55	36	ePN	Pn	03 27 29.0	-0.4
VLY	Voula,Athens	1.55	36	ePn	Pn	03 27 29.0	-0.4
KARN	Karanos	1.59	139	P	Pn	03 27 31.0	+1.1
KARN	Karanos	1.59	139	P	Pn	03 27 31.0	+1.1
LAKA	Lakka	1.71	342	P	Pn	03 27 32.4	+0.7
LAKA				S	Sn	03 27 54.3	+0.5
LAKA	Lakka	1.71	342	P	Pn	03 27 32.4	+0.7
LAKA				S	Sn	03 27 54.3	+0.5
RLS	Riolos of Patr	1.73	328	ePG	Pg	03 27 33.7	-0.9
RLS	Riolos of Patr	1.73	328	ePg	Pg	03 27 33.7	-0.9
PTL	Penteli	1.74	34	ePN	Pn	03 27 32.5	+0.4
PTL	Penteli	1.74	34	ePn	Pn	03 27 32.5	+0.4
IDI	Anoyia	2.25	125	ePn	Pn	03 27 38.6	-0.5
IDI				eSn	Sn	03 28 06.5	-0.5
IDI	Anoyia	2.25	125	ePn	Pn	03 27 38.6	-0.5
IDI				eSn	Sn	03 28 06.5	-0.5

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*ISCJB **26** 03:37:15.0±0.2, 41°.75N±0°.02×15°.17E±0°.02, h12^{km}±2^{km}, Error ellipse: s-maj=3.0km s-min=2.3km az=11.9*

*NEIC **26** 03:37:15.2, 41°.75N×15°.20E, h17^{km}, ML3.1(ROM), ML3.3(PDG), After ROM.*

NEIC Felt [III] at Torremaggiore.

*ROM **26** 03:37:15.2±0.1, 41°.75N×15°.20E, h17^{km}±2^{km}, Ml3.1/48, Error ellipse: s-maj=1.9km s-min=1.1km az=13.0*

*CSEM **26** 03:37:15.2±0.1, 41°.71N×15°.15E, h10^{km}, ML3.3, Error ellipse: s-maj=3.1km s-min=2.5km az=16.0*

*PDG **26** 03:37:16.4±1.0, 41°.70N×15°.16E, h6^{km}±2^{km}, ML3.3/10, Error ellipse: s-maj=1.3km s-min=1.4km az=0.0*

ISC 26 03:37:15.8±0.2**, 41°.73N**±0°.02×**15°.17E**±0°.02**, h12**^{km}±2^{km}**, n165,** σ**1^{s}17**/207**, 21C-15D, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG2	Serracapriola	0.08	355	⇑iPg	Pg	03 37 18.8	+0.5
FG2	Serracapriola	0.08	355	⇑iPg	Pg	03 37 18.8	+0.5
CIGN	Sant'Elia a Pi	0.21	250	⇑iPg	Pg	03 37 21.2	+0.9
CIGN				Sg	Sg	03 37 25.8	+2.4
	2μm,0.6s						
CIGN	Sant'Elia a Pi	0.21	250	⇑iPg	Pg	03 37 21.2	+0.9
RGNG	Rignano Grg	0.32	100	⇓iPg	Pg	03 37 21.4	-0.8
RGNG				Sg	Sg	03 37 26.1	-0.4
RGNG	Rignano Grg	0.32	100	⇓iPg	Pg	03 37 21.4	-0.8
RGNG				Sg	Sg	03 37 26.1	-0.4
MOCO	Biccari - m.te	0.36	181	Pg	Pg	03 37 23.2	+0.3
MOCO				Sg	Sg	03 37 29.7	+2.0
	830nm,0.5s						
SGRT	San Giovanni R	0.43	86	Pg	Pg	03 37 23.8	-0.5
SGRT				Sg	Sg	03 37 30.0	0.0
	3μm,0.2s						
SGRT	San Giovanni R	0.43	86	Pg	Pg	03 37 23.8	-0.5
SGRT				Sg	Sg	03 37 30.0	0.0
	3μm,0.2s						
FRES	Fresagrandinar	0.45	303	Pg	Pg	03 37 24.8	+0.2
	979nm,0.2s						
FRES	Fresagrandinar	0.45	303	Pg	Pg	03 37 24.8	+0.2
	979nm,0.2s						
FG5	Orsara di Pugl	0.45	171	Pg	Pg	03 37 24.7	0.0
	433nm,0.3s						
FG5	Orsara di Pugl	0.45	171	Pg	Pg	03 37 24.7	0.0
	433nm,0.3s						
TRIV	Trivento	0.47	275	Pg	Pg	03 37 25.4	+0.5
TRIV				Sg	Sg	03 37 34.1	+3.0
TRIV	Trivento	0.47	275	Pg	Pg	03 37 25.4	+0.5
BSSO	Busso	0.47	247	Pg	Pg	03 37 25.3	+0.3
BSSO				Sg	Sg	03 37 33.0	+1.8
	857nm,0.3s						
BSSO	Busso	0.47	247	Pg	Pg	03 37 25.3	+0.3
SACR	S. Croce Del S	0.48	227	Pg	Pg	03 37 25.3	+0.1
SACR				Sg	Sg	03 37 33.1	+1.5
	603nm,0.4s						
SACR	S. Croce Del S	0.48	227	Pg	Pg	03 37 25.3	+0.1
MSAG	Monte S. Angel	0.55	91	Pg	Pg	03 37 26.6	0.0
MSAG				Sg	Sg	03 37 33.5	-0.4
	2μm,0.2s						
MSAG	Monte S. Angel	0.55	91	Pg	Pg	03 37 26.6	0.0
PSB1	Pescosannita	0.57	208	Pg	Pg	03 37 26.6	-0.3
PSB1				Sg	Sg	03 37 36.2	+1.7
	322nm,0.5s						
PSB1	Pescosannita	0.57	208	Pg	Pg	03 37 26.6	-0.3
MS1	Monte Sant'Ang	0.58	92	ePg	Pg	03 37 26.3	-0.8
MS1				eSg	Sg	03 37 35.7	+1.0
PTRJ	Pietraroja	0.60	233	Pg	Pg	03 37 26.8	-0.7
PTRJ				Sg	Sg	03 37 36.9	+1.5
	1μm,0.3s						
PTRJ	Pietraroja	0.60	233	Pg	Pg	03 37 26.8	-0.7
PTRJ				Sg	Sg	03 37 36.9	+1.5
	1μm,0.3s						
SGTA	Sant Agata di	0.61	166	Pg	Pg	03 37 26.9	-0.8
	887nm,0.6s						
SGTA	Sant Agata di	0.61	166	Pg	Pg	03 37 26.9	-0.8
	887nm,0.6s						
MRB1	Monte Rocchett	0.62	194	⇑iPg	Pg	03 37 27.5	-0.3
	853nm,0.5s						
MRB1	Monte Rocchett	0.62	194	⇑iPg	Pg	03 37 27.5	-0.3
	853nm,0.5s						
SGG	Gregorio Mates	0.68	240	Pg	Pg	03 37 28.2	-0.9
	528nm,0.4s						
SGG	Gregorio Mates	0.68	240	Pg	Pg	03 37 28.2	-0.9
	528nm,0.4s						
MIDA	Miranda	0.69	263	Pg	Pg	03 37 28.5	-0.7
	920nm,0.5s						
MIDA	Miranda	0.69	263	Pg	Pg	03 37 28.5	-0.7
	920nm,0.5s						
CAFE	Carife	0.70	176	Pg	Pg	03 37 28.6	-0.8
	659nm,0.6s						
CAFE	Carife	0.70	176	Pg	Pg	03 37 28.6	-0.8
	659nm,0.6s						
RNI2	Rionero Sannit	0.76	268	Pg	Pg	03 37 29.8	-0.7
	948nm,0.2s						
RNI2	Rionero Sannit	0.76	268	Pg	Pg	03 37 29.8	-0.7
	948nm,0.2s						
VAGA	Valle Agricola	0.77	246	Pg	Pg	03 37 29.8	-0.8
	794nm,0.3s						
VAGA	Valle Agricola	0.77	246	Pg	Pg	03 37 29.8	-0.8
	794nm,0.3s						
CAFR	Castel Frentan	0.79	309	Pg	Pg	03 37 30.4	-0.7
	2μm,0.3s						
CAFR	Castel Frentan	0.79	309	Pg	Pg	03 37 30.4	-0.7
	2μm,0.3s						
SNAL	S. Angelo Dei	0.80	178	Pg	Pg	03 37 29.8	-1.5
	1μm,0.6s						
SNAL	S. Angelo Dei	0.80	178	Pg	Pg	03 37 29.8	-1.5
	1μm,0.6s						
VULT	Monte Vulture	0.84	156	Pg	Pg	03 37 32.3	+0.2
	2μm,0.3s						
VULT	Monte Vulture	0.84	156	Pg	Pg	03 37 32.3	+0.2
	2μm,0.3s						
CERA	Filignano	0.87	262	Pg	Pg	03 37 31.8	-0.8
	2μm,0.8s						
CERA	Filignano	0.87	262	Pg	Pg	03 37 31.8	-0.8
	2μm,0.8s						
CSSN	Cassano Irpino	0.87	187	Pg	Pg	03 37 32.4	-0.2
	139nm,0.3s						
CSSN	Cassano Irpino	0.87	187	Pg	Pg	03 37 32.4	-0.2
	139nm,0.3s						
MCRV	Calabrutti - M	0.94	180	Pg	Pg	03 37 31.9	-2.1
MCRV				Sg	Sg	03 37 47.9	+1.6
	1μm,0.4s						
MCRV	Calabrutti - M	0.94	180	Pg	Pg	03 37 31.9	-2.1
PALZ	Palazzo San Ge	0.98	142	Pg	Pg	03 37 33.6	-1.1
	1μm,0.8s						
PALZ	Palazzo San Ge	0.98	142	Pg	Pg	03 37 33.6	-1.1
	1μm,0.8s						
INTR	Introdacqua	0.99	287	Pg	Pg	03 37 33.1	-1.7
	598nm,0.2s						
INTR	Introdacqua	0.99	287	Pg	Pg	03 37 33.1	-1.7
	598nm,0.2s						
RFI	Roccamonfina	0.99	245	Pg	Pg	03 37 36.1	+1.3
	15nm,0.3s						
RFI	Roccamonfina	0.99	245	Pg	Pg	03 37 36.1	+1.3
	15nm,0.3s						
MRLC	Muro Lucano	1.00	166	Pg	Pg	03 37 35.1	+0.1
	151nm,0.4s						
MRLC	Muro Lucano	1.00	166	Pg	Pg	03 37 35.1	+0.1
	151nm,0.4s						
SDI	San Donato	1.02	269	Pg	Pg	03 37 33.5	-1.9
SDI				Sg	Sg	03 37 48.6	0.0
SDI	San Donato	1.02	269	Pg	Pg	03 37 33.5	-1.9
SDI				Sg	Sg	03 37 48.6	0.0
MRVN	Minervino Murg	1.02	130	Pg	Pg	03 37 33.9	-1.5
	355nm,0.5s						
MRVN	Minervino Murg	1.02	130	Pg	Pg	03 37 33.9	-1.5
	355nm,0.5s						
POFI	Posta Fibreno	1.09	270	Pg	Pg	03 37 34.8	-2.0
	250nm,0.5s						
POFI	Posta Fibreno	1.09	270	Pg	Pg	03 37 34.8	-2.0
	250nm,0.5s						
ACER	Acerenza	1.11	148	Pg	Pg	03 37 36.2	-0.9
	878nm,0.5s						
ACER	Acerenza	1.11	148	Pg	Pg	03 37 36.2	-0.9
	878nm,0.5s						
MODR	Mondragone	1.13	240	Pg	Pg	03 37 37.7	+0.1
	108nm,0.6s						
MODR	Mondragone	1.13	240	Pg	Pg	03 37 37.7	+0.1
	108nm,0.6s						
VVLD	Villa Vallelon	1.17	278	Pg	Pn	03 37 35.8	-2.1
	679nm,0.5s						
VVLD	Villa Vallelon	1.17	278	Pg	Pn	03 37 35.8	-2.1
	679nm,0.5s						
VCEL	Villa Celiera	1.19	304	Pg	Pn	03 37 36.8	-1.5
	399nm,0.3s						
VCEL	Villa Celiera	1.19	304	Pg	Pn	03 37 36.8	-1.5
	399nm,0.3s						
CDRU	Civita di Ruta	1.24	175	Pg	Pn	03 37 37.7	-1.3
	191nm,0.4s						
CDRU	Civita di Ruta	1.24	175	Pg	Pn	03 37 37.7	-1.3
	191nm,0.4s						
AMUR	Altamura	1.36	127	⇓iPg	Pn	03 37 39.7	-0.8
	278nm,0.3s						
AMUR	Altamura	1.36	127	⇓iPg	Pn	03 37 39.7	-0.8
	278nm,0.3s						
PTRP	Pietrapertosa	1.38	151	Pg	Pn	03 37 40.4	-0.5
	516nm,0.8s						
PTRP	Pietrapertosa	1.38	151	Pg	Pn	03 37 40.4	-0.5
	516nm,0.8s						
CMPR	Campora	1.41	176	Pg	Pn	03 37 41.1	-0.2
	184nm,0.5s						
CMPR	Campora	1.41	176	Pg	Pn	03 37 41.1	-0.2
	184nm,0.5s						
BAI	Bari	1.43	115	ePn	Pn	03 37 40.5	-1.0
BAI				eSn	Sn	03 38 01.9	+1.7
SG1	Sgolgore (BA)	1.44	127	ePn	Pn	03 37 40.8	-0.9
SG1				eSn	Sn	03 38 02.3	+1.7
GIUL	Giuliano Di Ro	1.45	264	Pg	Pn	03 37 42.4	+0.6
GIUL	Giuliano Di Ro	1.45	264	Pg	Pn	03 37 42.4	+0.6
TERO	Teramo	1.47	308	Pg	Pn	03 37 40.9	-1.2
	150nm,0.4s						
MIGL	Miglionico	1.48	139	Pg	Pn	03 37 41.6	-0.6
	749nm,0.5s						
MIGL	Miglionico	1.48	139	Pg	Pn	03 37 41.6	-0.6
	749nm,0.5s						
MCEL	Monticello	1.48	161	Pg	Pn	03 37 41.7	-0.6
	145nm,0.7s						
MCEL	Monticello	1.48	161	Pg	Pn	03 37 41.7	-0.6
	145nm,0.7s						
MTSN	Montesano sull	1.52	163	Pg	Pn	03 37 42.4	-0.5
	140nm,0.4s						
VENT	Ventotene	1.61	235	Pg	Pn	03 37 43.4	-0.7
	123nm,0.5s						
MGR	Morigerati	1.61	169	Pg	Pn	03 37 44.0	-0.1
	166nm,0.4s						
FIAM	Fiamignano	1.62	290	Pg	Pn	03 37 45.5	+1.3
	146nm,0.8s						
FIAM	Fiamignano	1.62	290	Pg	Pn	03 37 45.5	+1.3
	146nm,0.8s						
CRAC	Craco	1.66	144	Pg	Pn	03 37 44.2	-0.6
	418nm,0.6s						
SCHR	S. Chirico Rap	1.67	155	Pg	Pn	03 37 44.2	-0.7
	57nm,0.4s						
LTRZ	Laterza	1.68	132	Pg	Pn	03 37 44.2	-0.8
	260nm,0.3s						
NOCI	Noci	1.71	123	Pg	Pn	03 37 44.5	-0.9
	331nm,0.2s						
CUC	Castrocucco	1.80	164	Pg	Pn	03 37 47.1	+0.4
	154nm,0.6s						
CUC	Castrocucco	1.80	164	ePn	Pn	03 37 46.9	+0.3
CUC				Pg	Pn	03 37 47.1	+0.4
CUC	Castrocucco	1.80	164	ePn	Pn	03 37 46.9	+0.2
MTCE	Montecelio	1.84	280	Pg	Pn	03 37 48.2	+1.1
	57nm,0.6s						
MTCE	Montecelio	1.84	280	Pg	Pn	03 37 48.2	+1.1
	57nm,0.6s						
NRCA	Norcia	1.88	307	Pg	Pn	03 37 48.9	+1.1
PE1	Pezze di Greco	1.93	118	ePn	Pn	03 37 47.6	-0.9
TAR1	Taranto	2.00	126	ePn	Pn	03 37 48.7	-0.7
STON	Ston	2.20	58	ePn	Pn	03 37 51.7	-0.4
STON				Sn	Sn	03 38 18.4	-0.9
STON	Ston	2.20	58	ePn	Pn	03 37 51.7	-0.4
STON				Sn	Sn	03 38 18.4	-0.8
HCY	Herceg Novi	2.58	73	⇑iPn	Pn	03 38 00.8	+3.4
HCY				eSn	Sn	03 38 34.4	+5.8
HCY	Herceg Novi	2.58	73	⇑iPn	Pn	03 38 00.8	+3.4
PIEI	Pieia	2.65	314	Pg	Pn	03 37 59.3	+0.9
	180nm,2.1s						
BRY	Bratogost	2.76	64	⇑iPn	Pn	03 38 02.1	+2.2
BRY				eSn	Sn	03 38 39.1	+5.9
BRY	Bratogost	2.76	64	⇑iPn	Pn	03 38 02.1	+2.2
TIP	Timpagrande	2.82	154	ePn	Pn	03 38 01.5	+0.8
TIP	Timpagrande	2.82	154	ePn	Pn	03 38 01.5	+0.8
BUM	Brajici-Budva	2.84	77	⇓iPn	Pn	03 38 04.5	+3.6
BUM				eSn	Sn	03 38 40.5	+5.5
BUM	Brajici-Budva	2.84	77	⇓iPn	Pn	03 38 04.5	+3.6
NVLJ	Novalja	2.84	356	ePn	Pn	03 38 00.6	-0.4
NVLJ				Sn	Sn	03 38 35.0	-0.2
NVLJ	Novalja	2.84	356	ePn	Pn	03 38 00.6	-0.4
NVLJ				Sn	Sn	03 38 34.9	-0.2
NKY	Niksic	3.04	68	⇑iPn	Pn	03 38 06.4	+2.7
NKY				eSn	Sn	03 38 45.8	+5.8
NKY	Niksic	3.04	68	⇑iPn	Pn	03 38 06.4	+2.7
ULC	Ulcinj	3.06	84	⇑iPn	Pn	03 38 07.5	+3.6
ULC				eSn	Sn	03 38 45.9	+5.5
ULC	Ulcinj	3.06	84	⇑iPn	Pn	03 38 07.5	+3.6
PDG	Podgorica	3.12	76	⇓iPn	Pn	03 38 07.2	+2.3
TTG	Podgorica	3.12	76	⇓iPn	Pn	03 38 07.2	+2.3
TTG				eSn	Sn	03 38 47.4	+5.3
TTG	Podgorica	3.12	76	⇓iPn	Pn	03 38 07.2	+2.3
UPM	Unac-Piva	3.14	61	⇓iPn	Pn	03 38 07.1	+2.1
UPM				eSn	Sn	03 38 48.0	+5.7
UPM	Unac-Piva	3.14	61	⇓iPn	Pn	03 38 07.1	+2.1
PLE	Pljevlja	3.51	61	⇑iPn	Pn	03 38 12.8	+2.7
PLE				eSn	Sn	03 38 57.3	+5.7
PLE	Pljevlja	3.51	61	⇑iPn	Pn	03 38 12.8	+2.7
PVY	Plav	3.67	75	⇓iPn	Pn	03 38 15.0	+2.6
PVY				eSn	Sn	03 39 01.1	+5.4
PVY	Plav	3.67	75	⇓iPn	Pn	03 38 15.0	+2.6
BEY	Berane	3.69	70	⇑iPn	Pn	03 38 15.2	+2.6

IVA	Berane	3.69	70	⇑*i*Pn	Pn	03 38 15.2	+2.6
IVA				*e*Sn	Sn	03 39 01.2	+5.2
IVA	Berane	3.69	70	⇑*i*Pn	Pn	03 38 15.2	+2.6
BOJS	Bojanci	3.77	1	*i* Pn	Pn	03 38 14.4	+0.6
BOJS	Bojanci	3.77	1	*i* Pn	Pn	03 38 14.4	+0.6
BBLS	Lazići	3.78	54	*e*Pn	Pn	03 38 15.4	+1.6
SKDS	Skadanscina	3.91	348	*i* Pn	Pn	03 38 15.0	-0.6
SKDS	Skadanscina	3.91	348	*i* Pn	Pn	03 38 15.0	-0.6
DIVS	Divibare	4.26	55	*i* Pn	Pn	03 38 20.9	+0.4
OHR	Ohrid	4.28	96	*e*Pn	Pn	03 38 22.6	+1.9
OHR	Ohrid	4.28	96	*e*Pn	Pn	03 38 22.6	+1.9
PDKS	Podkum	4.33	358	*i* Pn	Pn	03 38 21.4	0.0
VOY	Vojsko	4.40	348	*e*	Pn	03 38 25.3	+2.9
VOY				*e*Sn	Sn	03 39 12.1	-1.4
IGT	Igoumenitsa	4.50	117	P	Pn	03 38 24.1	+0.4
IGT	Igoumenitsa	4.50	117	P	Pn	03 38 24.1	+0.4
KRUS	Krusevo	4.58	92	*e*Pn	Pn	03 38 24.0	-0.8
KRUS				*e*Sg	Sn	03 39 13.9	-4.0
KRUS	Krusevo	4.58	92	*e*Pn	Pn	03 38 24.0	-0.8
BIA	Bitola	4.69	97	*e*Pn	Pn	03 38 26.4	+0.1
BIA	Bitola	4.69	97	*e*Pn	Pn	03 38 26.3	0.0
FNA	Florina	4.77	99	P	Pn	03 38 28.1	+0.6
FNA				S	Sn	03 39 21.0	-1.7
FNA	Florina	4.77	99	P	Pn	03 38 28.1	+0.6
FNA				S	Sn	03 39 21.0	-1.7
KOGS	Kog	4.78	9	*i* Pn	Pn	03 38 27.2	-0.4
KOGS	Kog	4.78	9	*i* Pn	Pn	03 38 27.2	-0.4
OBKA	Obir	4.80	355	⇓*i*Pn	Pn	03 38 27.3	-0.5
OBKA				⇑*i*Sn	Sn	03 39 23.3	-0.1
OBKA	Obir	4.80	355	Pn	Pn	03 38 27.3	-0.6
OBKA				Sn	Sn	03 39 23.3	-0.1
LKD	Levkas	5.17	124	P	Pn	03 38 33.3	+0.4
LKD	Levkas	5.17	124	P	Pn	03 38 33.3	+0.4
VLS	Valsamata	5.47	129	S	Sn	03 39 37.9	-2.0
VLS	Valsamata	5.47	129	S	Sn	03 39 37.9	-2.0
MOA	Molln	6.16	354	⇑*i*Pn	Pn	03 38 46.1	-0.3
MOA				⇓*i*Sn	Sn	03 39 55.1	-1.6
MOA	Molln	6.16	354	Pn	Pn	03 38 46.1	-0.4
MOA				Sn	Sn	03 39 55.1	-1.6

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*CSEM **26** 03:38:11.1, 39°.35N×19°.73E, h5^{km}, MD3.8, After ATH*

ATH 26 03:38:11.1, 39°.35N×19°.73E, h5^{km}, MD3.8/5, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	Kerkira	0.37	8	*e*PB	Pg	03 38 18.5	+0.3
KEK	Kerkira	0.37	8	*e*Pb	Pg	03 38 18.5	+0.3
JAN	Janina	0.92	70	*e*PG	Pg	03 38 28.5	-0.2
JAN	Janina	0.92	70	*e*Pg	Pg	03 38 28.5	-0.2
VLS	Valsamata	1.35	150	*e*PB	Pb	03 38 37.1	+0.2
VLS	Valsamata	1.35	150	*e*Pb	Pb	03 38 37.1	+0.2
VLS	Valsamata	1.35	150	P	Pn	03 38 37.2	+0.6
VLS	Valsamata	1.35	150	P	Pn	03 38 37.2	+0.6
EVR	Evrytania	1.67	104	*e*PB	Pb	03 38 43.4	+1.0
EVR	Evrytania	1.67	104	*e*Pb	Pb	03 38 43.4	+1.0
EFP	Efpalio	1.93	118	*e*PN	Pn	03 38 47.5	+2.9
EFP	Efpalio	1.93	118	*e*Pn	Pn	03 38 47.5	+2.9
BIA	Bitola	2.07	36	*e*Sg	Sg	03 39 18.6	+1.1
GUR	Goura	2.48	124	*e*PN	Pn	03 38 55.5	+3.3
GUR	Goura	2.48	124	*e*Pn	Pn	03 38 55.5	+3.3
ITM	Ithomi	2.77	141	*e*PB	Pb	03 38 58.4	-2.7
ITM	Ithomi	2.77	141	*e*Pb	Pb	03 38 58.4	-2.7

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*ISCJB **26** 03:58:35.9±0.5, 51°.94N±0°.06×157°.7E±0°.1, h124^{km}±3^{km}, mb3.8/8, Error ellipse: s-maj=12.6km s-min=6.5km az=38.1*

*MOS **26** 03:58:35.2±0.9, 52°.03N×157°.44E, h127^{km}, mb4.2/1, Error ellipse: s-maj=35.1km s-min=11.7km az=63.8*

*NEIC **26** 03:58:37.3±1.1, 52°.06N×157°.51E, h125^{km}±7^{km}, mb3.8/1, Error ellipse: s-maj=21.7km s-min=13.0km az=173.0*

*KRSC **26** 03:58:37.5±0.6, 52°.05N×157°.82E, h117^{km}±32^{km}, ML4.0*

*IDC **26** 03:58:37.9±1.3, 52°.06N×157°.46E, h131^{km}±10^{km}, mb3.5/7, mb1 3.8/7, mb1mx3.4/25, mbtmp3.5/7, MS3.9/2, Ms1 3.9/2, ms1mx3.2/29, Error ellipse: s-maj=30.0km s-min=17.8km az=147.0*

ISC 26 03:58:37.1±0.5, **51°.94N**±0°.06×**157°.7E**±0°.1, **h119**^{km}±4^{km}, **n33, σ0^{s}.96**/45, **mb3.8**/8, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRL	Gorelyy	0.66	20	P	Pn	03 58 56.4	+0.5
GRL				*i* S	Sn	03 59 11.3	+1.2
MIPR	Malaya Ipel'ka	0.67	301	*i* P	Pn	03 58 55.8	-0.2
MIPR				*e*S	Sn	03 59 09.9	-0.4
RUS	Russkaya	0.70	45	*i* P	Pn	03 58 56.1	-0.1
RUS				*i* S	Sn	03 59 10.6	-0.2
PEA0B	Petropavlovsk-	1.17	0	*e*Pn	Pn	03 59 00.7	0.0
PEA0B				*e*Sn	Sn	03 59 17.7	-0.9
PETK	Petropavlovsk-	1.17	0	P	Pn	03 59 00.6	0.0
	20nm,0.3s,baz=158,slow=11,SNR=346						
PETK				S	Sn	03 59 19.7	+1.1
	5.1nm,0.3s,baz=179,slow=24,SNR=11						
PETK	Petropavlovsk-	1.17	0	P	Pn	03 59 00.6	0.0
PETK				S	Sn	03 59 19.7	+1.1
PET	Petropavlovsk	1.23	28	*e*PN	Pn	03 59 01.4	+0.1
PET				*e*S	Sn	03 59 19.9	+0.1
PET				pmax	pmax		
	comp=Z,27nm,0.6s						
PET				smax			
	comp=N,149nm,0.6s						
PET				smax			
	comp=E,338nm,0.6s						
PET	Petropavlovsk	1.23	28	*e*P	Pn	03 59 01.3	0.0
PET				*i* S	Sn	03 59 19.5	-0.3
AVH	Avacha	1.47	25	*e*P	Pn	03 59 05.1	+1.1
AVH				*i* S	Sn	03 59 25.3	+0.8
NLC	Nalytchevo	1.59	39	*e*P	Pn	03 59 04.7	-0.7
NLC				*i* S	Sn	03 59 25.0	-2.0
SKR	Severo-Kuril's	1.60	219	*e*PN	Pn	03 59 05.0	-0.5
SKR				*i* S	Sn	03 59 27.0	-0.2
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,170nm,0.5s						
SKR				smax			
	comp=N,1µm,0.5s						
SKR				smax			
	comp=E,680nm,0.6s						
GNL	Ganaly	1.77	5	*e*P	Pn	03 59 07.5	0.0
GNL				*i* S	Sn	03 59 29.6	-1.1
SPN	Mys Shipunski	1.83	50	*e*P	Pn	03 59 08.4	+0.1
SPN				*i* S	Sn	03 59 30.4	-1.8
TUMR	Tumrok	3.65	23	P	Pn	03 59 32.9	+1.1
KMNR	Kamenistaya	4.11	20	P	Pn	03 59 39.8	+1.9
KPT	Kopyto	4.30	19	P	Pn	03 59 41.0	+0.5
BZGR	Bezymyannyi-Gr	4.38	23	P	Pn	03 59 42.3	+0.8
ZLN	Zelenaya	4.48	23	*e*P	Pn	03 59 44.8	+2.0
KBTR	Krutoberegovo	5.23	33	P	Pn	03 59 52.5	-0.5
KBTR				*i* S	Sn	04 00 49.0	-3.1
FX1	Attu Island--F	9.50	78	P	Pn	04 00 51.1	+0.3
	baz=309,slow=6.5						
INK	Inuvik	35.67	36	P	P	04 05 22.1	-1.1
	comp=E,0.8nm,0.6s,mb3.8,baz=322,slow=10.0,SNR=8.1						
DLBC	Dease Lake	39.91	51	LR	LR	04 23 08.7	
	comp=E,146nm,19.3s,baz=321,slow=37						
YKA	Yellowknife Ar	45.00	41	P	P	04 06 39.7	-0.3
	comp=E,1.5nm,0.6s,mb3.9,baz=296,slow=7.9,SNR=36						
YKA	Yellowknife Ar	45.00	41	P	P	04 06 39.7	-0.3
MKAR	Makanchi Array	47.33	295	P	P	04 06 55.9	-2.5
	comp=E,0.2nm,0.5s,mb3.1,baz=66,slow=7.1,SNR=5.0						
BSMT	Bassoo Peak	53.23	57	*e*P	P	04 07 43.5	+0.6
	comp=E,0.9nm,0.8s,mb3.9						
FCC	Fort Churchill	55.29	37	*e*P	P	04 07 56.7	-0.9
NVAR	Mina Array Bea	57.52	68	P	P	04 08 14.1	+0.3
	comp=E,0.9nm,0.8s,mb3.9,baz=289,slow=7.3,SNR=5.4						
NVAR	Mina Array Bea	57.52	68	P	P	04 08 14.1	+0.3
PDAR	Pinedale Array	59.37	59	P	P	04 08 27.2	+0.7
	comp=E,1.4nm,0.7s,mb4.1,baz=325,slow=3.2,SNR=14						
CTA	Charters Tower	72.41	191	LR	LR	04 43 02.9	
	comp=E,67nm,18.0s,baz=50,slow=37						
TXAR	Lajitas Array	72.45	65	P	P	04 09 50.8	+0.4
	comp=E,1.2nm,0.5s,mb4.0,baz=298,slow=4.9,SNR=7.1						
ASAR	Alice Springs	78.12	202	P	P	04 10 22.9	+0.2
	comp=E,0.7nm,0.4s,mb3.7,baz=14,slow=5.0,SNR=16						

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*SOF **26** 04:16:46.8, 42°.49N×18°.89E, h7^{km}, MD3.3*

*BEO **26** 04:16:55.8±0.9, 42°.30N×19°.84E, h5^{km}±4^{km}, ML3.8/9*

*PRU **26** 04:16:55.7, 42°.35N×20°.26E, h0^{km}, M4.1*

*ISCJB **26** 04:16:56.4±0.3, 42°.424N±0°.010×19°.81E±0°.01, h5^{km}±2^{km}, mb3.9/12, MS3.4/2, Error ellipse: s-maj=1.8km s-min=1.5km az=40.5*

*NEIC **26** 04:16:56.0, 42°.40N×19°.80E, h6^{km}, mb4.1/2, ML3.3(BUC), ML3.9(PDG), After PDG.*

*TIR **26** 04:16:56.0, 42°.43N×19°.81E, h15^{km}*

*PDG **26** 04:16:56.3±0.8, 42°.36N×19°.85E, h0^{km}±11^{km}, MD3.8/10, ML3.8/10, Error ellipse: s-maj=0.8km s-min=1.1km az=0.0*

*SKO **26** 04:16:57.7, 42°.44N×19°.80E, h4^{km}, M3.2, ML3.7*

*MOS **26** 04:16:57.7±1.2, 42°.44N×19°.61E, h23^{km}, mb3.8/1, Error ellipse: s-maj=4.9km s-min=3.5km az=102.0*

*LDG **26** 04:16:57.2±0.1, 42°.39N×19°.84E, h10^{km}, Ml4.2/11, Error ellipse: s-maj=2.5km s-min=2.2km az=1.0*

*CSEM **26** 04:16:57.3±0.1, 42°.40N×19°.83E, h2^{km}, ML3.8/10, Error ellipse: s-maj=2.0km s-min=1.7km az=50.0*

*SZGRF **26** 04:16:57.9, 42°.39N×20°.33E, h10^{km}, Northwestern Balkan Peninsula*

*THE **26** 04:17:00.1, 42°.42N×19°.75E, h29^{km}±7^{km}, ML4.4/12, Error ellipse: s-maj=7.1km s-min=1.4km az=31.0*

*IDC **26** 04:17:03.5±1.4, 42°.47N×19°.73E, h51^{km}±13^{km}, mb3.7/10, mb1 3.8/24, mb1mx3.7/34, mbtmp3.7/24, ML3.7/13, MS3.2/4, Ms1 3.2/4, ms1mx2.8/39, Error ellipse: s-maj=12.5km s-min=10.7km az=89.0*

ISC 26 04:16:57.4±0.3, **42°.398N**±0°.010×**19°.81E**±0°.01, **h0**^{km}±2^{km}, **n446, σ1^{s}.27**/578, **mb4.0**/12, **MS3.4**/2, **69C-32D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVY	Plav	0.23	31	⇑*i*Pg	Pg	04 17 01.1	-0.7
PVY				*e*Sg	Sg	04 17 04.7	-0.1
PVY	Plav	0.23	31	⇑*i*Pg	Pg	04 17 01.1	-0.7
PVY				*e*Sg	Sg	04 17 04.7	-0.1
PDG	Podgorica	0.41	275	⇑*i*Pg	Pg	04 17 04.3	-0.9
PDG				*e*Sg	Sg	04 17 10.8	+0.2
TTG	Podgorica	0.41	275	⇑*i*Pg	Pg	04 17 04.3	-0.9
TTG				*e*Sg	Sg	04 17 10.8	+0.2
TTG	Podgorica	0.41	275	⇑*i*Pg	Pg	04 17 04.3	-0.9
TTG				*e*Sg	Sg	04 17 10.8	+0.2
BEY	Berane	0.48	7	⇑*i*Pg	Pg	04 17 05.8	-0.7
BEY				*e*Sg	Sg	04 17 13.3	+0.6
IVA	Berane	0.48	7	⇑*i*Pg	Pg	04 17 05.8	-0.7
IVA				*e*Sg	Sg	04 17 13.3	+0.6
IVA	Berane	0.48	7	⇑*i*Pg	Pg	04 17 05.8	-0.7
IVA				*e*Sg	Sg	04 17 13.3	+0.6
ULC	Ulcinj	0.60	224	⇓*i*Pg	Pg	04 17 08.2	-0.7
ULC				*e*Sg	Sg	04 17 17.2	+0.5
ULC	Ulcinj	0.60	224	⇓*i*Pg	Pg	04 17 08.2	-0.7
ULC				*e*Sg	Sg	04 17 17.2	+0.5
BUM	Brajici-Budva	0.69	262	⇓*i*Pg	Pg	04 17 09.1	-1.4
BUM				*e*Sg	Sg	04 17 20.5	+1.1
BUM	Brajici-Budva	0.69	262	⇓*i*Pg	Pg	04 17 09.1	-1.4
BUM				*e*Sg	Sg	04 17 20.5	+1.1
NKY	Niksic	0.73	305	⇓*i*Pg	Pg	04 17 10.0	-1.4
NKY				*e*Sg	Sg	04 17 21.8	+0.9
NKY	Niksic	0.73	305	⇓*i*Pg	Pg	04 17 10.0	-1.4
NKY				*e*Sg	Sg	04 17 21.8	+0.9
PHP	Peshkopia	0.85	147	*e*PG	Pg	04 17 13.8	+0.1
PHP				*i* SG	Sg	04 17 26.2	+1.5
PHP	Peshkopia	0.85	147	*e*PG	Pg	04 17 13.8	+0.1
PHP				*i* SG	Sg	04 17 26.2	+1.5
PHP	Peshkopia	0.85	147	*e*Pg	Pg	04 17 13.8	+0.1
	SNR=91						
PHP				*i* Sg	Sg	04 17 26.2	+1.5
	SNR=91						
SJES	Sjenica	0.87	8	⇑*i*Pg	Pg	04 17 12.6	-1.5
SJES				*e*Sg	Sg	04 17 26.7	+1.3
SJES	Sjenica	0.87	8	⇑*i*Pg	Pg	04 17 12.6	-1.5
SJES				*e*Sg	Sg	04 17 26.7	+1.3
HCY	Herceg Novi	0.98	273	⇑*i*Pg	Pg	04 17 14.5	-1.6
HCY				*e*Sg	Sg	04 17 30.3	+1.6
HCY	Herceg Novi	0.98	273	⇑*i*Pg	Pg	04 17 14.5	-1.6
HCY				*e*Sg	Sg	04 17 30.3	+1.6
PLE	Pljevlja	0.98	342	⇑*i*Pg	Pg	04 17 14.7	-1.5
PLE				*e*Sg	Sg	04 17 31.0	+2.1
PLE	Pljevlja	0.98	342	⇑*i*Pg	Pg	04 17 14.7	-1.5
PLE				*e*Sg	Sg	04 17 31.0	+2.1
UPM	Unac-Piva	1.04	321	⇑*i*Pg	Pg	04 17 16.3	-1.1
UPM				*e*Sg	Sg	04 17 33.5	+2.6
UPM	Unac-Piva	1.04	321	⇑*i*Pg	Pg	04 17 16.3	-1.1
UPM				*e*Sg	Sg	04 17 33.5	+2.6
TIR	Tirane	1.05	178	*e*PN	Pg	04 17 16.9	-0.6
TIR	Tirane	1.05	178	*e*PN	Pg	04 17 16.9	-0.6
TIR	Tirane	1.05	178	P	Pg	04 17 17.6	+0.1
TIR				S	Sg	04 17 32.7	+1.6
TIR	Tirane	1.05	178	*e*Pg	Pg	04 17 17.1	-0.3
TIR	Tirane	1.05	178	*e*Pn	Pg	04 17 16.9	-0.6
TIR	Tirane	1.05	178	*e*Pg	Pg	04 17 17.1	-0.4
TIR	Tirane	1.05	178	P	Pg	04 17 17.6	+0.1
TIR				S	Sg	04 17 32.7	+1.6
BRY	Bratogost	1.06	299	⇑*i*Pg	Pg	04 17 15.4	-2.3
BRY				*e*Sg	Sg	04 17 33.9	+2.4
BRY	Bratogost	1.06	299	⇑*i*Pg	Pg	04 17 15.4	-2.3
BRY				*e*Sg	Sg	04 17 33.9	+2.4
SKO	Skopje	1.28	109	P	Pn	04 17 23.0	+0.5
SKO	Skopje	1.28	109	*e*Pg	Pg	04 17 21.0	-0.9
SKO				*e*Sg	Sg	04 17 39.1	+0.6
SKO				*e*Lg		04 17 41.4	
	comp=E,1µm,0.9s						
SKO				*e*Lg		04 17 41.5	
	comp=N,757nm,0.5s						
SKO	Skopje	1.28	109	*e*Pg	Pn	04 17 21.0	-1.5
SKO	Skopje	1.28	109	P	Pn	04 17 23.0	+0.5
SKO				*e*Sg	Sg	04 17 39.1	+0.6
SKO				*e*Lg		04 17 41.3	
	comp=N,1µm,0.9s						
OHR	Ohrid	1.48	150	P	Pn	04 17 25.0	-0.2
OHR	Ohrid	1.48	150	*e*Pg	Pn	04 17 25.7	+0.5
OHR				*e*Sg	Sn	04 17 46.5	+1.2
OHR				*e*Lg		04 17 48.2	
	comp=E,2µm,1.0s						
OHR				*e*Lg		04 17 48.3	
	comp=N,1µm,0.8s						
OHR	Ohrid	1.48	150	P	Pn	04 17 25.0	-0.2
OHR	Ohrid	1.48	150	*e*Pg	Pn	04 17 25.6	+0.4
OHR				*e*Sg	Sn	04 17 46.4	+1.2
OHR				*e*Lg		04 17 48.2	
	comp=N,2µm,1.0s						
KRUS	Krusevo	1.48	133	*e*Pg	Pn	04 17 25.1	-0.2
KRUS				*e*Sg	Sn	04 17 46.1	+0.8
KRUS				*e*Lg		04 17 47.0	
	comp=E,455nm,0.6s						
KRUS				*e*Lg		04 17 47.7	
	comp=N,651nm,0.8s						
KRUS	Krusevo	1.48	133	*e*Pg	Pn	04 17 25.0	-0.3
KRUS				*e*Sg	Sn	04 17 46.1	+0.8
KRUS				*e*Lg		04 17 47.0	
	comp=N,455nm,0.6s						
BBLS	Lazići	1.50	349	⇑*i*Pn	Pn	04 17 24.0	-1.5
BBLS	Lazići	1.50	349	⇓*i*Pn	Pn	04 17 24.8	-0.7
BBLS				*e*Sn	Sn	04 17 46.4	+0.7
BBLS	Lazići	1.50	349	⇑*i*Pn	Pn	04 17 24.0	-1.5
BARS	Barje	1.54	74	⇑*i*Pn	Pn	04 17 24.8	-1.2
BARS				*e*Sn	Sn	04 17 43.1	-3.5
BARS	Barje	1.54	74	⇑*i*Pn	Pn	04 17 24.8	-1.2
BARS				*e*Sn	Sn	04 17 43.1	-3.5
GRUS	Gruza	1.63	24	⇑*i*Pn	Pn	04 17 25.6	-1.7
GRUS				*e*Sn	Sn	04 17 48.5	-0.4
GRUS	Gruza	1.63	24	⇑*i*Pn	Pn	04 17 25.6	-1.7
GRUS				*e*Sn	Sn	04 17 48.5	-0.4
STON	Ston	1.63	288	⇓*i*Pn	Pn	04 17 26.7	-0.6
STON				Sn	Sn	04 17 52.1	+3.2
STON	Ston	1.63	288	⇓*i*Pn	Pn	04 17 26.7	-0.6
STON				Sn	Sn	04 17 52.1	+3.2
DIVS	Divibare	1.71	4	P	Pn	04 17 27.3	-1.0
DIVS	Divibare	1.71	4	P	Pn	04 17 27.3	-1.0
DIVS				*e*Sn	Sn	04 17 51.8	+1.0
BIA	Bitola	1.78	140	P	Pn	04 17 29.4	+0.1
BIA	Bitola	1.78	140	*e*Pg	Pg	04 17 30.5	-1.0
BIA				*e*Sg	Sg	04 17 55.1	+0.5
BIA				*e*Lg		04 17 55.9	
	comp=E,482nm,0.8s						
BIA				*e*Lg		04 17 58.1	
	comp=N,445nm,0.8s						
BIA	Bitola	1.78	140	P	Pn	04 17 29.4	+0.1
BIA	Bitola	1.78	140	*e*Pg	Pg	04 17 30.4	-1.1
BIA				*e*Sg	Sg	04 17 55.0	+0.4
BIA				*e*Lg		04 17 55.9	
	comp=N,482nm,0.8s						
NISS		1.86	57	*e*Pn	Pn	04 17 29.4	-1.1
NISS				*i* Sg	Sg	04 17 57.6	+0.4
NISS		1.86	57	*e*Pn	Pn	04 17 29.4	-1.1
NISS				*i* Sg	Sg	04 17 57.6	+0.4
TRUS	Trudelj	1.88	13	*e*Pn	Pn	04 17 29.0	-1.7
TRUS	Trudelj	1.88	13	*e*Pn	Pn	04 17 29.0	-1.7
STIP	Stip	1.90	111	*e*Pn	Pn	04 17 30.6	-0.4
STIP				*e*Sg	Sg	04 17 59.9	+1.5
STIP				*e*Lg		04 18 00.1	
	comp=N,293nm,0.9s						
STIP				*e*Lg		04 18 01.0	
	comp=E,86nm,0.7s						
STIP	Stip	1.90	111	*e*Pn	Pn	04 17 30.5	-0.5
STIP				*e*Sg	Sg	04 17 59.9	+1.5
STIP				*e*Lg		04 18 00.1	
	comp=E,293nm,0.9s						
FNA	Florina	1.99	143	P	Pn	04 17 32.3	0.0
FNA	Florina	1.99	143	P	Pn	04 17 32.3	0.0
BOLS	Boljevac	2.12	47	⇓*i*Pn	Pn	04 17 32.3	-1.7
BOLS				*i* Sg	Sg	04 18 04.3	-1.2
BOLS	Boljevac	2.12	47	⇓*i*Pn	Pn	04 17 32.3	-1.7
SVIS	Svilajnac	2.13	28	*e*Pn	Pn	04 17 33.2	-0.9
ZAPS	Zavoj	2.25	66	⇑*i*Pn	Pn	04 17 35.2	-0.6
ZAPS	Zavoj	2.25	66	⇑*i*Pn	Pn	04 17 35.2	-0.6
VAY	Valandovo	2.32	117	P	Pn	04 17 37.1	+0.3
VAY	Valandovo	2.32	117	*e*Pn	Pn	04 17 37.8	+1.0
VAY				*e*Sg	Sg	04 18 12.2	+0.3
VAY				*e*Lg		04 18 14.2	
	comp=N,539nm,0.9s						
VAY				*e*Lg		04 18 15.0	
	comp=E,305nm,0.7s						
VAY	Valandovo	2.32	117	P	Pn	04 17 36.4	-0.4
VAY				S	Sg	04 18 13.2	+1.2
VAY	Valandovo	2.32	117	P	Pn	04 17 36.4	-0.4
VAY	Valandovo	2.32	117	*e*Pn	Pn	04 17 37.7	+0.9
VAY				*e*Sg	Sg	04 18 12.2	+0.2
VAY				*e*Lg		04 18 14.2	
	comp=E,539nm,0.9s						
PE1	Pezze di Greco	2.40	229	*i* Pn	Pn	04 17 37.0	-0.8
PE1				*e*Sn	Sn	04 18 06.9	-1.0
GRG	Griva	2.41	126	P	Pn	04 17 38.0	0.0
GRG	Griva	2.41	126	P	Pn	04 17 38.0	0.0
KKB	Krupnik	2.49	101	P	Pn	04 17 39.7	+0.6
KKB				S	Sg	04 18 18.7	+1.4
KKB	Krupnik	2.49	101	P	Pn	04 17 39.7	+0.6
VTS	Vitosha	2.52	84	S	Sg	04 18 19.1	+0.9
VTS				P	Pn	04 17 39.2	-0.3
SRN	Sarande	2.52	177	*e*PN	Pn	04 17 40.7	+1.2
SRN				*i* SN	Sn	04 18 13.5	+2.6
SRN	Sarande	2.52	177	*e*PN	Pn	04 17 40.7	+1.2
SRN				*i* SN	Sn	04 18 13.5	+2.6
SRN	Sarande	2.52	177	*e*Pn	Pn	04 17 40.7	+1.2
	SNR=60						
SRN				*i* Sn	Sn	04 18 13.5	+2.6
	SNR=60						
BAI	Bari	2.55	241	*i* Pn	Pn	04 17 39.0	-0.9
BAI				*e*Sn	Sn	04 18 09.4	-2.1
KZN	Kozani	2.56	144	*e*P	Pn	04 17 41.3	+1.3
KNT	Kendrikon	2.62	117	P	Pn	04 17 40.7	-0.1
KNT	Kendrikon	2.62	117	P	Pn	04 17 40.7	-0.1
TAR1	Taranto	2.67	226	*e*Pn	Pn	04 17 41.4	-0.1
KEK	Kerkira	2.68	180	*e*P	Pn	04 17 41.9	+0.2
SG1	Sgolgore (BA)	2.82	238	*i* Pn	Pn	04 17 42.7	-0.9
SG1				*e*Sn	Sn	04 18 17.8	-0.5
JAN	Janina	2.85	164	*e*P	Pn	04 17 45.3	+1.3
LTRZ	Laterza	2.88	232	Pn	Pn	04 17 43.1	-1.3
LTRZ	Laterza	2.88	232	Pn	Pn	04 17 43.1	-1.3
IGT	Igoumenitsa	2.89	172	P	Pn	04 17 45.2	+0.6
IGT	Igoumenitsa	2.89	172	P	Pn	04 17 45.2	+0.6
MS1	Monte Sant'Ang	2.97	258	*i* Pn	Pn	04 17 44.9	-0.7
MS1				*e*Sn	Sn	04 18 22.9	+1.0
MMB	Musomiste	3.03	104	P	Pg	04 17 53.6	-1.8
MMB				S	Sg	04 18 38.6	+4.0
HORT	Hortiatis	3.05	125	P	Pn	04 17 47.1	+0.3
HORT	Hortiatis	3.05	125	P	Pn	04 17 47.1	+0.3
LIT	Litokhoron	3.06	138	P	Pn	04 17 47.1	+0.2
LIT	Litokhoron	3.06	138	P	Pn	04 17 47.1	+0.2
SOH	Sokhos	3.09	119	P	Pn	04 17 47.4	+0.1
SOH	Sokhos	3.09	119	P	Pn	04 17 47.4	+0.1
SRS	Serrai	3.10	113	P	Pn	04 17 47.5	0.0
SRS	Serrai	3.10	113	P	Pn	04 17 47.5	0.0
RGNG	Rignano Grg	3.23	258	Pn	Pn	04 17 48.2	-1.1
RGNG	Rignano Grg	3.23	258	Pn	Pn	04 17 48.2	-1.1
THL	Klokotos Trika	3.28	149	P	Pn	04 17 51.1	+1.1
THL	Klokotos Trika	3.28	149	*e*P	Pn	04 17 51.4	+1.4
THL	Klokotos Trika	3.28	149	P	Pn	04 17 51.1	+1.1
ACER	Acerenza	3.32	242	Pn	Pn	04 17 49.7	-0.8
ACER	Acerenza	3.32	242	Pn	Pn	04 17 49.7	-0.8
PTRP	Pietrapertosa	3.39	238	Pn	Pn	04 17 50.5	-0.9
PTRP	Pietrapertosa	3.39	238	Pn	Pn	04 17 50.5	-0.9
PLG	Polygyros	3.40	125	P	Pn	04 17 52.0	+0.4
PLG	Polygyros	3.40	125	P	Pn	04 17 52.0	+0.4
ORI	Oriolo Calabro	3.45	229	P	Pn	04 17 51.8	-0.4
ORI	Oriolo Calabro	3.45	229	Pn	Pn	04 17 51.8	-0.4
BZS	Buzias	3.47	21	*e*Pn	Pn	04 17 52.2	-0.4
BZS	Buzias	3.47	21	⇑*i*P	Pn	04 17 51.7	-0.9
BZS	Buzias	3.47	21	⇑P	Pn	04 17 51.7	-0.9
BZS	Buzias	3.47	21	⇑*i*P	Pn	04 17 51.7	-0.9
BZS	Buzias	3.47	21	*e*Pn	Pn	04 17 52.2	-0.4
FG2	Serracapriola	3.51	262	Pn	Pn	04 17 52.9	-0.3
FG2	Serracapriola	3.51	262	Pn	Pn	04 17 52.9	-0.3
FG5	Orsara di Pugl	3.58	253	P	Pn	04 17 54.4	+0.4
FG5	Orsara di Pugl	3.58	253	Pn	Pn	04 17 54.4	+0.4
MRLC	Muro Lucano	3.63	245	Pn	Pn	04 17 54.1	-0.7
MRLC	Muro Lucano	3.63	245	Pn	Pn	04 17 54.1	-0.7
GZR	Gura Zlata	3.68	35	⇑*i*P	Pn	04 17 55.0	-0.5
GZR	Gura Zlata	3.68	35	⇑P	Pn	04 17 55.0	-0.5
GZR	Gura Zlata	3.68	35	⇑*i*P	Pn	04 17 55.0	-0.5
RZN	Rozhen	3.72	99	P	Pn	04 17 56.6	+0.6
RZN	Rozhen	3.72	99	P	Pn	04 17 56.6	+0.6
CIGN	Sant'Elia a Pi	3.73	260	Pn	Pn	04 17 56.3	+0.1
CIGN	Sant'Elia a Pi	3.73	260	Pn	Pn	04 17 56.3	+0.1
LKD	Levkas	3.74	170	P	Pn	04 17 56.1	-0.2
LKD	Levkas	3.74	170	P	Pn	04 17 56.1	-0.2
OUR	Ouranopolis	3.75	122	P	Pn	04 17 56.8	+0.3
OUR	Ouranopolis	3.75	122	P	Pn	04 17 56.8	+0.3
EVR	Evrytania	3.79	156	*e*P	Pn	04 18 03.8	+6.8
PAIG	Paliouri	3.82	129	P	Pn	04 17 57.2	-0.2
PAIG	Paliouri	3.82	129	P	Pn	04 17 57.2	-0.2
SGO	Sicignano	3.85	243	P	Pn	04 17 57.3	-0.5
SGO	Sicignano	3.85	243	Pn	Pn	04 17 57.3	-0.5
CUC	Castrocucco	3.86	233	*e*Pn	Pn	04 17 57.5	-0.4
CUC	Castrocucco	3.86	233	*e*Pn	Pn	04 17 57.5	-0.4
AGG	Agios Georgios	3.88	150	P	Pn	04 17 59.0	+0.9
AGG	Agios Georgios	3.88	150	P	Pn	04 17 59.0	+0.9
CSSN	Cassano Irpino	3.91	248	Pn	Pn	04 17 58.3	-0.2
CSSN	Cassano Irpino	3.91	248	Pn	Pn	04 17 58.3	-0.2
PKSM	Moragy	3.91	348	⇓*e*Pn	Pn	04 17 57.2	-1.3
PKSM				*e*Sn	Sn	04 18 46.7	+1.7
PSB1	Pescosannita	3.92	254	Pn	Pn	04 17 58.6	-0.1
PSB1	Pescosannita	3.92	254	Pn	Pn	04 17 58.6	-0.1
MGR	Morigerati	3.92	236	Pn	Pn	04 17 58.3	-0.5
MGR	Morigerati	3.92	236	Pn	Pn	04 17 58.3	-0.5
TIP	Timpagrande	3.96	217	*e*Pn	Pn	04 17 58.3	-1.1
TIP	Timpagrande	3.96	217	*e*Pn	Pn	04 17 58.3	-1.1
XOR	Xorichti	3.97	139	P	Pn	04 17 59.3	-0.1
XOR	Xorichti	3.97	139	P	Pn	04 17 59.3	-0.1
DEV	Deva	4.13	31	⇑*i*P	Pg	04 18 15.0	-1.6
NVLJ	Novalja	4.20	303	*e*Pn	Pn	04 18 03.5	+0.9
NVLJ				Sn	Sn	04 18 55.0	+2.8
NVLJ	Novalja	4.20	303	*e*Pn	Pn	04 18 03.4	+0.8
NVLJ				Sn	Sn	04 18 55.0	+2.7
MIDA	Miranda	4.21	262	Pn	Pn	04 18 02.8	+0.1
MIDA	Miranda	4.21	262	Pn	Pn	04 18 02.8	+0.1
KDZ	Kurdzhali	4.24	98	P	Pb	04 18 12.4	-0.4
KDZ				S	Sg	04 19 15.6	+2.1
VLS	Valsamata	4.26	172	P	Pn	04 18 02.6	-0.8
VLS				S	Sn	04 18 53.0	-0.7
VLS	Valsamata	4.26	172	*e*P	Pn	04 18 04.8	+1.4
VLS	Valsamata	4.26	172	P	Pn	04 18 02.6	-0.8
VLS				S	Sn	04 18 53.0	-0.7
RNI2	Rionero Sannit	4.27	263	Pn	Pn	04 18 03.9	+0.3
RNI2	Rionero Sannit	4.27	263	Pn	Pn	04 18 03.9	+0.3
PKS9	Tamasi	4.33	346	⇑*e*Pn	Pn	04 18 03.5	-0.9
INTR	Introdacqua	4.41	267	Pn	Pn	04 18 05.5	+0.1
INTR	Introdacqua	4.41	267	Pn	Pn	04 18 05.5	+0.1
GRI	Girifalco	4.41	217	P	Pn	04 18 04.3	-1.2

GRI	Girifalco	4.41	217	Pn	Pn	04 18 04.3	-1.2
RFI	Roccamonfina	4.49	258	Pn	Pn	04 18 07.7	+1.1
RFI	Roccamonfina	4.49	258	Pn	Pn	04 18 07.7	+1.1
SDI	San Donato	4.52	263	P	Pn	04 18 03.7	-3.3
SDI	San Donato	4.52	263	Pn	Pn	04 18 03.7	-3.3
BOJS	Bojanci	4.53	315	*i* Pn	Pn	04 18 09.3	+2.2
BOJS	Bojanci	4.53	315	*i* Pn	Pn	04 18 09.3	+2.2
TERO	Teramo	4.60	275	Pn	Pn	04 18 08.3	+0.3
TERO	Teramo	4.60	275	Pn	Pn	04 18 08.3	+0.3
BEHE	Becsehely	4.62	333	⇑*e*Pn	Pn	04 18 08.3	0.0
VVLD	Villa Vallelon	4.63	266	Pn	Pn	04 18 08.7	+0.1
VVLD	Villa Vallelon	4.63	266	Pn	Pn	04 18 08.7	+0.1
PKS7	Kunszentmiklos	4.67	355	⇑*e*Pn	Pn	04 18 08.0	-1.1
AOI	Ancona	4.70	286	Pn	Pn	04 18 09.7	+0.2
AOI	Ancona	4.70	286	Pn	Pn	04 18 09.7	+0.2
AQU	L'Aquila	4.75	272	P	Pn	04 18 11.5	+1.3
AQU	L'Aquila	4.75	272	Pn	Pn	04 18 11.5	+1.3
KOGS	Kog	4.79	329	*i* Pn	Pn	04 18 10.4	-0.3
KOGS	Kog	4.79	329	*i* Pn	Pn	04 18 10.4	-0.2
VOIR		4.85	49	⇓*i*P	Pn	04 18 11.9	+0.4
VOIR		4.85	49	⇓P	Pn	04 18 11.9	+0.4
VOIR		4.85	49	⇓*i*P	Pn	04 18 11.9	+0.4
ALN	Alexandroupoli	4.90	106	P	Pn	04 18 12.3	0.0
ALN	Alexandroupoli	4.90	106	P	Pn	04 18 12.3	0.0
CING	Cingoli	4.96	284	Pn	Pn	04 18 13.6	+0.6
CING	Cingoli	4.96	284	Pn	Pn	04 18 13.6	+0.6
FIAM	Fiamignano	4.97	271	Pn	Pn	04 18 14.1	+1.0
FIAM	Fiamignano	4.97	271	Pn	Pn	04 18 14.1	+1.0
PDKS	Podkum	5.04	318	*i* Pn	Pn	04 18 14.8	+0.7
VENT	Ventotene	5.05	254	Pn	Pn	04 18 12.9	-1.4
	comp=E,134nm,0.7s						
VENT	Ventotene	5.05	254	Pn	Pn	04 18 12.9	-1.4
	comp=E,134nm,0.7s						
PKSG		5.09	349	⇑*e*Pn	Pn	04 18 13.9	-1.0
PKSG				*e*Sn	Sn	04 19 13.2	-1.2
CERT	Cerreto	5.10	267	Pn	Pn	04 18 15.7	+0.8
	comp=E,85nm,0.7s						
CERT	Cerreto	5.10	267	Pn	Pn	04 18 15.7	+0.8
	comp=E,85nm,0.7s						
GROS	Grobnik	5.10	324	*i* Pn	Pn	04 18 14.4	-0.6
GROS	Grobnik	5.10	324	*i* Pn	Pn	04 18 14.4	-0.6
CEL	Celeste	5.10	217	*e*Pn	Pn	04 18 14.0	-1.0
	comp=E,24nm,0.6s						
CEL	Celeste	5.10	217	*e*Pn	Pn	04 18 14.0	-1.0
	comp=E,24nm,0.6s						
BUD	Budapest	5.12	354	⇑*e*Pn	Pn	04 18 13.9	-1.3
BUD				*e*Sn	Sn	04 19 17.4	+2.5
BUD	Budapest	5.12	354	⇑*e*Pn	Pn	04 18 13.9	-1.3
BUD				*e*Sn	Sn	04 19 17.4	+2.5
SCLL	Scilla	5.19	218	Pn	Pn	04 18 14.7	-1.5
	comp=E,15nm,0.6s						
SCLL	Scilla	5.19	218	Pn	Pn	04 18 14.7	-1.5
	comp=E,15nm,0.6s						
SOI	Samo	5.19	215	P	Pn	04 18 15.0	-1.2
SOI				pmax	pmax		
	comp=Z,48nm,0.6s						
SOI	Samo	5.19	215	Pn	Pn	04 18 15.0	-1.2
	comp=Z,48nm,0.6s						
SOI	Samo	5.19	215	Pn	Pn	04 18 15.0	-1.2
	comp=Z,48nm,0.6s						
SKDS	Skadanscina	5.24	309	*i* Pn	Pn	04 18 17.7	+0.9
SKDS	Skadanscina	5.24	309	*i* Pn	Pn	04 18 17.7	+0.9
MTCE	Montecelio	5.27	268	Pn	Pn	04 18 18.5	+1.3
MTCE	Montecelio	5.27	268	Pn	Pn	04 18 18.5	+1.3
FSSB	Fossombrone	5.32	286	Pn	Pn	04 18 17.9	0.0
	comp=Z,158nm,0.4s						
FSSB	Fossombrone	5.32	286	Pn	Pn	04 18 17.9	0.0
	comp=Z,158nm,0.4s						
LAV9	Lanuvio	5.35	265	Pn	Pn	04 18 19.7	+1.3
	comp=Z,75nm,0.4s						
LAV9	Lanuvio	5.35	265	Pn	Pn	04 18 19.7	+1.3
	comp=Z,75nm,0.4s						
SLNA	Salina	5.39	226	Pn	Pn	04 18 19.6	+0.6
	comp=Z,51nm,0.4s						
SLNA	Salina	5.39	226	Pn	Pn	04 18 19.6	+0.6
	comp=Z,51nm,0.4s						
MLR	Muntele Rosu	5.40	53	P	Pn	04 18 20.7	+1.6
MLR				S	Sn	04 19 26.9	+5.0
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR				smax			
	comp=N,1.0nm,0.3s						
MLR	Muntele Rosu	5.40	53	⇑*i*P	Pn	04 18 19.9	+0.8
MLR	Muntele Rosu	5.40	53	P	Pn	04 18 20.7	+1.7
	comp=N,0.8nm,0.3s,baz=161,slow=15,SNR=13						
MLR				S	Sn	04 19 26.9	+5.0
	comp=N,1.0nm,0.3s,baz=267,slow=15,SNR=3.3						
MLR	Muntele Rosu	5.40	53	⇑P	Pn	04 18 19.9	+0.8
MLR	Muntele Rosu	5.40	53	⇑P	Pn	04 18 19.9	+0.8
MTTG	Motta San Giov	5.41	217	Pn	Pn	04 18 20.8	+1.6
MTTG	Motta San Giov	5.41	217	Pn	Pn	04 18 20.8	+1.6
PENC	Penc	5.41	356	⇑*e*Pn	Pn	04 18 17.9	-1.2
PENC				*e*Sn	Sn	04 19 19.1	-2.9
MURB	Monte Urbino	5.43	282	Pn	Pn	04 18 19.8	+0.3
	comp=N,127nm,0.3s						
MURB	Monte Urbino	5.43	282	Pn	Pn	04 18 19.8	+0.3
	comp=N,127nm,0.3s						
PIEI	Pieia	5.46	284	Pn	Pn	04 18 20.6	+0.7
	comp=N,45nm,0.5s						
PIEI	Pieia	5.46	284	Pn	Pn	04 18 20.6	+0.7
	comp=N,45nm,0.5s						
SOKA	Soboth	5.48	323	⇓*i*Pn	Pn	04 18 19.8	-0.3
SOKA				⇑*i*Sn	Sn	04 19 26.3	+2.6
SOKA	Soboth	5.48	323	Pn	Pn	04 18 19.8	-0.3
SOKA				Sn	Sn	04 19 26.3	+2.6
PSZ	Piszkesteto	5.52	1	⇑*i*P	Pn	04 18 21.3	+0.6
PSZ	Piszkesteto	5.52	1	⇑*e*Pn	Pn	04 18 19.9	-0.8
PSZ				*e*Sn	Sn	04 19 23.8	-1.1
PSZ	Piszkesteto	5.52	1	*e*Pn	Pn	04 18 19.2	-1.5
	comp=N,25nm,0.8s						
PSZ	Piszkesteto	5.52	1	*e*Pn	Pn	04 18 19.2	-1.5
	comp=N,25nm,0.8s						
PSZ	Piszkesteto	5.52	1	⇑*i*P	Pn	04 18 21.3	+0.6
PSZ				*e*Sn	Sn	04 19 23.8	-1.1
OBKA	Obir	5.58	319	⇑*i*Pn	Pn	04 18 21.5	+0.1
OBKA				⇓*i*Sn	Sn	04 19 30.2	+4.0
OBKA	Obir	5.58	319	Pn	Pn	04 18 21.5	0.0
RSM	Repubblica di	5.60	288	P	Pn	04 18 22.3	+0.5
RSM	Repubblica di	5.60	288	Pn	Pn	04 18 22.3	+0.5
BADI	Badiali	5.67	284	Pn	Pn	04 18 24.0	+1.3
	comp=N,165nm,0.7s						
BADI	Badiali	5.67	284	Pn	Pn	04 18 24.0	+1.3
	comp=N,165nm,0.7s						
GORS	Gorjuse	5.72	315	*i* Pn	Pn	04 18 25.0	+1.5
GORS	Gorjuse	5.72	315	*i* Pn	Pn	04 18 25.0	+1.5
ARSA	Arzberg	5.73	329	⇑*i*Pn	Pn	04 18 23.4	-0.2
	SNR=24						
ARSA				⇑*i*Sn	Sn	04 19 30.3	+0.3
ARSA	Arzberg	5.73	329	Pn	Pn	04 18 23.4	-0.2
	SNR=24						
ARSA				Sn	Sn	04 19 30.3	+0.3
SOP	Sopron	5.77	338	⇑*e*Pn	Pn	04 18 25.8	+1.7
SOP	Sopron	5.77	338	⇑*e*Pn	Pn	04 18 25.8	+1.7
TRPA	Tarpa	6.05	18	⇑*i*P	Pn	04 18 27.3	-0.6
TRPA	Tarpa	6.05	18	⇑*e*Pn	Pn	04 18 27.4	-0.5
VRI	Vrincioaia	6.06	53	⇓*i*P	Pn	04 18 29.6	+1.4
VRI	Vrincioaia	6.06	53	⇓P	Pn	04 18 29.6	+1.5
VRI	Vrincioaia	6.06	53	⇓P	Pn	04 18 29.6	+1.4
KECS	Kecovo	6.10	4	*e*PN	Pn	04 18 27.9	-0.8
KECS				*e*SN	Sn	04 19 34.5	-4.7
KECS	Kecovo	6.10	4	*e*Pn	Pn	04 18 27.9	-0.8
MYKA	Terra Mystica	6.11	316	⇑*i*Pn	Pn	04 18 29.6	+0.7
MYKA				⇑*i*Sn	Sn	04 19 42.1	+2.7
MYKA	Terra Mystica	6.11	316	Pn	Pn	04 18 29.6	+0.7
MYKA				Sn	Sn	04 19 42.1	+2.7
PTCC	Patocco-Chiusa	6.12	313	Pn	Pn	04 18 30.5	+1.5
PTCC	Patocco-Chiusa	6.12	313	Pn	Pn	04 18 30.5	+1.5
VYHS	Vyhne	6.13	354	*e*PN	Pn	04 18 28.1	-1.1
VYHS				*e*SN	Sn	04 19 34.8	-5.2
VYHS	Vyhne	6.13	354	*e*Pn	Pn	04 18 28.1	-1.1
CONA	Conrad Observa	6.20	335	⇑*i*Pn	Pn	04 18 30.0	0.0
	SNR=10.0						
CONA				⇑*i*Sn	Sn	04 19 42.8	+1.3
CONA	Conrad Observa	6.20	335	Pn	Pn	04 18 30.0	0.0
	SNR=10.0						
CONA				Sn	Sn	04 19 42.8	+1.3
CSNA	Conrad Observa	6.20	335	⇑*i*Pn	Pn	04 18 29.9	-0.1
CSNA				⇑*i*Sn	Sn	04 19 42.9	+1.4
CSNA	Conrad Observa	6.20	335	Pn	Pn	04 18 29.9	-0.1
CSNA				Sn	Sn	04 19 42.9	+1.4
MODS	Modra-Piesok	6.24	344	*e*PN	Pn	04 18 32.0	+1.4
MODS				*e*SN	Sn	04 19 39.5	-3.0
MODS	Modra-Piesok	6.24	344	*e*Pn	Pn	04 18 32.0	+1.4
GIB	Gibilmanna	6.25	227	P	Pn	04 18 30.7	0.0
GIB				pmax	pmax		
	comp=Z,12nm,0.5s						
GIB	Gibilmanna	6.25	227	Pn	Pn	04 18 30.7	0.0
	comp=Z,12nm,0.5s						
GIB	Gibilmanna	6.25	227	Pn	Pn	04 18 30.7	0.0
	comp=Z,12nm,0.5s						
VMG	Vicchio	6.25	287	Pn	Pn	04 18 32.1	+1.4
	comp=Z,19nm,0.4s						
VMG	Vicchio	6.25	287	Pn	Pn	04 18 32.1	+1.4
	comp=Z,19nm,0.4s						
KOLL	Kolacno	6.26	351	*e*PN	Pn	04 18 30.9	0.0
KOLL				*e*SN	Sn	04 19 38.5	-4.6
KOLL	Kolacno	6.26	351	*e*Pn	Pn	04 18 31.0	+0.1
KOLL				*e*Sn	Sn	04 19 38.5	-4.6
KOLL	Kolacno	6.26	351	*e*Pn	Pn	04 18 31.0	+0.1
SEI	Scarperia	6.40	288	Pn	Pn	04 18 34.5	+1.7
	comp=Z,82nm,0.5s						
SEI	Scarperia	6.40	288	Pn	Pn	04 18 34.5	+1.7
	comp=Z,82nm,0.5s						
VAE	Valguarnera	6.43	222	P	Pn	04 18 36.2	+2.9
	comp=Z,0.9nm,0.3s,baz=108,slow=16,SNR=3.9						
VAE				S	Sn	04 19 50.8	+3.5
	comp=Z,0.9nm,0.3s,baz=86,slow=19,SNR=2.9						
BURAR	Bucovina Array	6.47	34	⇓*i*P	Pn	04 18 37.1	+3.3
UZH	Uzhgorod	6.47	15	*e*P	Pn	04 18 33.5	-0.3
UZH				*e*S	Sn	04 19 46.7	-1.6
BUR08	Bucovina Ar. S	6.49	34	*e*Pn	Pn	04 18 36.0	+2.0
HAVL	Avola	6.52	215	Pn	Pn	04 18 31.6	-2.9
	comp=Z,7.4nm,0.3s						
KBA	Koelnbreinsper	6.57	318	⇓*i*Pn	Pn	04 18 37.0	+1.9
	SNR=11						
KBA				⇓*i*Sn	Sn	04 19 50.9	+0.3
KBA	Koelnbreinsper	6.57	318	Pn	Pn	04 18 37.0	+1.9
	SNR=11						
KBA				Sn	Sn	04 19 50.9	+0.3
TIRR	Tirgusor	6.59	69	*e*P	Pn	04 18 34.9	-0.5
TIRR	Tirgusor	6.59	69	*e*Pn	Pn	04 18 34.9	-0.5
CRVS	Cervenica-Dubn	6.61	9	*e*PN	Pn	04 18 35.1	-0.5
CRVS	Cervenica-Dubn	6.61	9	*e*Pn	Pn	04 18 35.1	-0.5
JAVC	Velka Javorina	6.63	348	*e*Pn	Pn	04 18 36.3	+0.3
MOA	Molln	6.72	326	*i* Pn	Pn	04 18 38.3	+1.1
	SNR=14						
MOA				⇓*i*Sn	Sn	04 19 55.8	+1.6
MOA	Molln	6.72	326	Pn	Pn	04 18 38.3	+1.2
	SNR=14						
MOA				Sn	Sn	04 19 55.8	+1.5
KOLS	Kolonicke sedl	6.76	14	*e*PN	Pn	04 18 35.4	-2.3
KOLS	Kolonicke sedl	6.76	14	*e*Pn	Pn	04 18 35.4	-2.3
ABTA	Abfaltersbach	6.79	312	⇑*i*Pn	Pn	04 18 38.8	+0.7
	SNR=24						
ABTA				⇑*i*Sn	Sn	04 19 57.9	+1.8
ABTA	Abfaltersbach	6.79	312	Pn	Pn	04 18 38.8	+0.7
	SNR=24						
ABTA				Sn	Sn	04 19 57.9	+1.8
CTI	Castel Tesino	6.91	305	P	Pn	04 18 39.6	-0.2
CTI	Castel Tesino	6.91	305	Pn	Pn	04 18 39.6	-0.2
NIE	Niedzica	7.03	3	*e*Pn	Pn	04 18 42.4	+0.9
NIE	Niedzica	7.03	3	*e*Pn	Pn	04 18 42.4	+0.9
STHS	Stebnicka Huta	7.09	8	*e*PN	Pn	04 18 43.0	+0.7
STHS	Stebnicka Huta	7.09	8	*e*Pn	Pn	04 18 43.0	+0.7
VLC	Villacollemand	7.10	288	*e*Pn	Pn	04 18 42.4	-0.1
	comp=Z,14nm,0.6s						
VLC	Villacollemand	7.10	288	*e*Pn	Pn	04 18 42.4	-0.1
	comp=Z,14nm,0.6s						
VRAC	Vranov	7.27	343	P	Pn	04 18 45.5	+0.8
VRAC				S	Sn	04 20 07.8	0.0
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRAC	Vranov	7.27	343	⇓*i*P	Pn	04 18 47.5	+2.8
VRAC	Vranov	7.27	343	P	Pn	04 18 45.5	+0.8
	comp=Z,0.9nm,0.3s,baz=153,slow=14,SNR=5.2						
VRAC				S	Sn	04 20 07.8	0.0
	comp=Z,0.3nm,0.3s,baz=225,slow=20,SNR=2.4						
VRAC	Vranov	7.27	343	P	Pn	04 18 45.5	+0.8
	comp=Z,1.0nm,0.3s						
VRAC				S	Sn	04 20 07.8	0.0
RJOB	Jochberg	7.29	319	*e*Pn	Pn	04 18 47.2	+2.2
KWP	Kalwaria Pacla	7.51	15	*e*P	Pn	04 18 49.3	+1.3
KWP				pmax	pmax		
	comp=Z,8.0nm,0.6s						
KWP	Kalwaria Pacla	7.51	15	⇑*i*P	Pn	04 18 49.1	+1.1
KWP	Kalwaria Pacla	7.51	15	*e*Pn	Pn	04 18 49.3	+1.3
	comp=Z,7.5nm,0.6s						
KWP	Kalwaria Pacla	7.51	15	*e*Pn	Pn	04 18 49.3	+1.3
	comp=Z,7.5nm,0.6s						
OKC	Ostrava-Krasne	7.53	352	*e*PN	Pn	04 18 47.9	-0.4
OKC	Ostrava-Krasne	7.53	352	Pn	Pn	04 18 47.9	-0.4
MORC	Moravsky Berou	7.55	349	*e*P	Pn	04 18 48.4	-0.1
MORC				pmax	pmax		
	comp=Z,4.0nm,0.4s						
MORC	Moravsky Berou	7.55	349	⇓*i*P	Pn	04 18 49.1	+0.6
MORC	Moravsky Berou	7.55	349	*e*Pn	Pn	04 18 48.4	-0.1
	comp=Z,4.0nm,0.4s						
MORC	Moravsky Berou	7.55	349	*e*Pn	Pn	04 18 48.4	-0.1
	comp=Z,4.0nm,0.4s						
WTTA	Wattenberg	7.58	313	⇓*i*Pn	Pn	04 18 49.9	+0.9
	SNR=9.3						
WTTA				⇑*i*Sn	Sn	04 20 18.1	+2.6
WTTA	Wattenberg	7.58	313	Pn	Pn	04 18 49.9	+0.9
	SNR=9.3						
WTTA				Sn	Sn	04 20 18.1	+2.6
WATA	Walderalm	7.65	313	⇑*i*Pn	Pn	04 18 51.6	+1.6
	SNR=8.1						
WATA				⇓*i*Sn	Sn	04 20 18.8	+1.4
WATA	Walderalm	7.65	313	Pn	Pn	04 18 51.6	+1.6
	SNR=8.1						
WATA				Sn	Sn	04 20 18.8	+1.4
GEC2	GERESS Array S	7.74	329	*e*Pn	Pn	04 18 54.1	+2.9
GERES	GERESS Array B	7.74	329	P	Pn	04 18 51.8	+0.6
GERES				S	Sn	04 20 18.5	-0.9
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES				smax			
	comp=N,1.0nm,0.3s						
GERES	GERESS Array B	7.74	329	P	Pn	04 18 51.8	+0.7
	comp=N,0.9nm,0.3s,baz=152,slow=13,SNR=18						
GERES				S	Sn	04 20 18.5	-1.0
	comp=N,0.7nm,0.3s,baz=134,slow=28,SNR=3.4						
GERES	GERESS Array B	7.74	329	P	Pn	04 18 51.8	+0.6
	comp=N,1.0nm,0.3s						
GERES				S	Sn	04 20 18.5	-0.9
	comp=N,1.0nm,0.3s						
MOTA	Moosalm	7.92	312	⇓*i*Pn	Pn	04 18 54.9	+1.3
	SNR=11						
MOTA				⇑*i*Sn	Sn	04 20 25.7	+1.8
MOTA	Moosalm	7.92	312	Pn	Pn	04 18 54.9	+1.3
	SNR=11						
MOTA				Sn	Sn	04 20 25.7	+1.8
FETA	Feichten	7.95	309	⇓*i*Pn	Pn	04 18 55.5	+1.4
FETA				⇑*i*Sn	Sn	04 20 26.1	+1.4
FETA	Feichten	7.95	309	Pn	Pn	04 18 55.5	+1.4
FETA				Sn	Sn	04 20 26.1	+1.5
PGF	Pioggiola	8.00	275	*e*Pn	Pn	04 18 54.4	-0.3
PGF	Pioggiola	8.00	275	*e*Pn	Pn	04 18 54.4	-0.3
KHC	Kasperske Hory	8.02	329	*e*PN	Pn	04 18 56.5	+1.5
KHC				*e*SN	Sn	04 20 25.6	-0.7
KHC	Kasperske Hory	8.02	329	Pn	Pn	04 18 56.5	+1.5
KHC				Sn	Sn	04 20 25.6	-0.7
IDI	Anoyia	8.13	149	P	Pn	04 18 58.7	+2.1
	comp=N,0.9nm,0.3s,baz=315,slow=8.6,SNR=4.7						
IDI				S	Sn	04 20 27.5	-1.6
	comp=N,1.2nm,0.3s,baz=259,slow=19,SNR=5.0						
IDI	Anoyia	8.13	149	S	Sn	04 20 27.5	-1.6
RETA	Reutte	8.19	311	⇓*i*Pn	Pn	04 18 58.4	+1.1
	SNR=6.1						
RETA				⇓*i*Sn	Sn	04 20 32.8	+2.2
RETA	Reutte	8.19	311	Pn	Pn	04 18 58.4	+1.0
	SNR=6.1						
RETA				Sn	Sn	04 20 32.8	+2.3
WET	Wettzell	8.30	327	*e*Pn	Pn	04 19 02.4	+3.5
DPC	Dobruska-Polom	8.31	344	*e*PN	Pn	04 18 59.4	+0.4
DPC	Dobruska-Polom	8.31	344	Pn	Pn	04 18 59.4	+0.4
DAVOX	Davos/Dischmat	8.33	305	P	Pn	04 19 00.5	+1.2
	comp=N,2.8nm,0.3s,baz=116,slow=14,SNR=23						
DAVOX				S	Sn	04 20 32.7	-1.3
	comp=N,1.4nm,0.3s,baz=162,slow=21,SNR=3.6						
DAVOX	Davos/Dischmat	8.33	305	P	Pn	04 19 00.5	+1.2
DAVOX				S	Sn	04 20 32.8	-1.3
FUR	Furstenfeldbru	8.33	317	*e*Pn	Pn	04 19 02.0	+2.7
DAVOS	Davos	8.41	305	P	Pn	04 19 00.5	+0.1
DAVOS				S	Sn	04 20 32.8	-3.2
DAVOS	Davos	8.41	305	P	Pn	04 19 00.5	+0.1
TUE	Stuetta	8.52	302	*e*Pn	Pn	04 19 03.7	+1.7
	comp=N,20nm,0.6s						
TUE	Stuetta	8.52	302	*e*Pn	Pn	04 19 03.7	+1.8
	comp=N,20nm,0.6s						
DAVA	Damuels	8.58	308	⇑*i*Pn	Pn	04 19 04.1	+1.3
DAVA				⇑*i*Sn	Sn	04 20 41.0	+0.8
DAVA	Damuels	8.58	308	Pn	Pn	04 19 04.1	+1.4
DAVA				Sn	Sn	04 20 41.0	+0.8
SBF	Sospel	9.17	283	*e*Pn	Pn	04 19 08.6	-2.2
SBF				*e*Sn	Sn	04 20 43.4	-11
	comp=N,20nm,0.6s						
FRF	La Foret Royal	9.72	281	*e*Pn	Pn	04 19 16.9	-1.5
FRF				*e*Sn	Sn	04 20 55.9	-12
	comp=N,6.5nm,0.6s						
FRF	La Foret Royal	9.72	281	*e*Pn	Pn	04 19 16.9	-1.5
MBDF	Montbardon	9.75	288	*e*Pn	Pn	04 19 16.2	-2.6
MBDF				*e*Sn	Sn	04 20 59.6	-9.3
	comp=N,15nm,0.6s						
LMR	La Mourre	9.82	280	*e*Pn	Pn	04 19 16.6	-3.1
BNI	Bardonecchia	9.87	290	*e*P	Pn	04 19 19.7	-0.7
BNI				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BNI	Bardonecchia	9.87	290	*e*Pn	Pn	04 19 19.7	-0.7
	comp=Z,6.4nm,0.6s						
BNI	Bardonecchia	9.87	290	*e*P	Pn	04 19 19.7	-0.7
	comp=Z,6.0nm,0.6s						
LPG	La Plagne	9.92	293	*e*Pn	Pn	04 19 18.9	-2.1
LPG				*e*Sn	Sn	04 21 02.5	-10
	comp=Z,48nm,0.8s						
LPL	La Plagne	9.94	293	*e*Pn	Pn	04 19 19.1	-2.2
LPL				*e*Sn	Sn	04 21 01.5	-12
	comp=Z,48nm,0.8s						
MOX	Moxa	9.99	328	*e*Pn	Pn	04 19 25.0	+3.0
BFO	Black Forest	10.02	310	*e*P	Pn	04 19 22.8	+0.4
BFO				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BFO	Black Forest	10.02	310	*e*Pn	Pn	04 19 24.5	+2.1
BFO	Black Forest	10.02	310	*e*Pn	Pn	04 19 22.8	+0.4
	comp=Z,7.1nm,0.6s						
BFO	Black Forest	10.02	310	*e*P	Pn	04 19 22.8	+0.4
	comp=Z,7.0nm,0.6s						
CLL	Collm	10.05	335	*e*Pn	Pn	04 19 21.0	-1.9
CLL	Collm	10.05	335	*e*P	Pn	04 19 21.0	-1.9
ORIF	Oris-en-Rattie	10.41	289	*e*Pn	Pn	04 19 25.2	-2.6
ORIF				*e*Sn	Sn	04 21 14.4	-11
	comp=Z,14nm,0.6s						
KEST	Kesra	10.51	234	P	Pn	04 19 31.4	+2.3
	comp=Z,0.1nm,0.3s,baz=264,slow=6.4,SNR=5.3						
KEST				LR	LR	04 24 41.5	
	comp=Z,47nm,18.4s,baz=236,slow=44						
SMRF	Simiane la Rot	10.52	283	*e*Pn	Pn	04 19 26.8	-2.5
AKASG	Malin Array Be	10.53	35	P	Pn	04 19 31.2	+1.9
	comp=Z,0.4nm,0.3s,baz=222,slow=13,SNR=8.4						
HINF	Hinteralfeld	10.64	305	*e*Sn	Sn	04 21 20.5	-10
	comp=Z,11nm,0.5s						
CDF	Champ du Feu	10.66	309	*e*Pn	Pn	04 19 28.0	-3.3
CABF	La Chapelle	10.67	298	*e*Pn	Pn	04 19 29.7	-1.6
CABF	La Chapelle	10.67	298	*e*Pn	Pn	04 19 29.7	-1.6
BRTR	Keskin Array B	10.78	100	P	Pn	04 19 35.8	+3.0
	comp=Z,0.1nm,0.3s,baz=273,slow=11,SNR=3.7						
HAU	Haudompre	11.03	305	*e*Pn	Pn	04 19 33.9	-2.3
HAU				*e*Sn	Sn	04 21 28.9	-11
	comp=Z,12nm,0.4s						
TNS	Taunus Mts	11.08	319	*e*Pn	Pn	04 19 38.5	+1.5
VIVF	Saint-Julien-l	11.25	288	*e*Pn	Pn	04 19 35.4	-3.9
LASF	Ste Croix	11.76	284	*e*Pn	Pn	04 19 41.9	-4.4
SMF	Signal de Mont	12.16	296	*e*Pn	Pn	04 19 48.9	-2.9
SMF				*e*Sn	Sn	04 21 55.8	-12
	comp=Z,6.2nm,0.4s						
LOR	Lormes	12.32	299	*e*Pn	Pn	04 19 51.9	-2.1
	baz=120						
LOR				*e*Sn	Sn	04 22 00.1	-12
	comp=Z,9.1nm,0.4s						
SSF	Saint Saulge	12.49	297	*e*Pn	Pn	04 19 53.5	-2.8
AVF	Avril sur Loir	12.53	296	*e*Pn	Pn	04 19 53.7	-3.0
BGF	Bois d'Agland	12.81	295	*e*Pn	Pn	04 19 57.7	-2.9
BGF				*e*Sn	Sn	04 22 11.2	-13
	comp=Z,12nm,0.6s						
MTLF	Montolieu	12.95	280	*e*Pn	Pn	04 19 59.0	-3.5
FLN	La Foliniere	15.55	301	*e*Pn	Pn	04 20 32.7	-5.0
HFS	Hagfors	18.15	350	P	Pn	04 21 11.1	+0.5
	comp=Z,0.1nm,0.3s,baz=198,slow=9.1,SNR=3.9						
HFS	Hagfors	18.15	350	P	Pn	04 21 11.1	+0.5
GNI	Garni	18.86	88	P	Pn	04 21 20.4	+1.1
	comp=Z,0.3nm,0.3s,baz=13,slow=7.0,SNR=3.2						
GNI				LR	LR	04 28 55.9	
	comp=Z,58nm,20.0s,baz=113,slow=38						
GNI	Garni	18.86	88	P	Pn	04 21 20.4	+1.1
GNI				LR	LR	04 28 55.9	
NB2	NORSAR Subarra	19.38	347	P	Pn	04 21 24.7	-0.8
	comp=Z,2.2nm,0.7s,baz=153,slow=10						
NOA	NORSAR Array B	19.38	347	P	Pn	04 21 24.5	-1.0
	comp=Z,0.3nm,0.3s,baz=154,slow=9.9,SNR=4.9						
NOA	NORSAR Array B	19.38	347	P	Pn	04 21 24.5	-1.0
FINES	FINESS Array B	19.45	9	P	Pn	04 21 25.2	-1.0
	comp=Z,0.2nm,0.3s,baz=170,slow=12,SNR=7.2						
FINES	FINESS Array B	19.45	9	P	Pn	04 21 25.2	-1.0
EKA	Eskdalemuir Ar	19.78	319	P	Pn	04 21 28.4	-1.9
	baz=115,slow=8.8,SNR=11						
EKA	Eskdalemuir Ar	19.78	319	P	Pn	04 21 28.4	-1.9
KAF	Kangasniemi	20.12	9	*e*P	P	04 21 31.2	-1.3
KAF				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KAF	Kangasniemi	20.12	9	*e*p	P	04 21 31.2	-1.3
	comp=Z,2.1nm,0.6s						
KAF	Kangasniemi	20.12	9	*e*P	P	04 21 31.2	-1.3
	comp=Z,2.1nm,0.6s						
JOF	Joensuu	21.64	14	*e*p	P	04 21 46.9	-2.0
	comp=Z,2.5nm,0.6s,mb3.8						
JOF	Joensuu	21.64	14	*e*P	P	04 21 46.9	-2.0
AKTO	Aktyubinsk	27.29	60	LR	LR	04 34 21.4	
	comp=Z,75nm,20.9s,MS3.2,baz=295,slow=38						
ARCES	ARCESS Array B	27.36	4	P	P	04 22 41.5	-2.2
	comp=Z,3.3nm,1.0s,mb4.0,baz=186,slow=11,SNR=5.1						
ARCES	ARCESS Array B	27.36	4	P	P	04 22 41.5	-2.2
TORD	Torodi Ar. Bea	33.11	214	P	P	04 23 34.7	-0.4
	comp=Z,0.8nm,0.6s,mb3.8,baz=15,slow=7.6,SNR=11						
ZALV	Zalesovo Beam	43.38	51	P	P	04 25 02.0	+0.9
	comp=Z,1.2nm,0.7s,mb3.7,baz=280,slow=8.9,SNR=4.0						
ZALV				LR	LR	04 43 25.3	
	comp=Z,56nm,18.2s,MS3.5,baz=11,slow=36						
ZALV	Zalesovo Beam	43.38	51	P	P	04 25 02.0	+0.9
MKAR	Makanchi Array	43.67	62	P	P	04 25 02.8	-0.8
	comp=Z,0.5nm,0.6s,mb3.5,baz=292,slow=7.5,SNR=6.3						
MKAR				PcP	PcP	04 26 48.5	-2.2
	comp=Z,0.4nm,0.8s,baz=318,slow=1.9,SNR=3.3						
SCHQ	Schefferville	55.04	315	P	P	04 26 29.1	-1.3
	comp=Z,1.9nm,0.7s,mb4.2,baz=72,slow=12,SNR=5.8						
SCHQ	Schefferville	55.04	315	P	P	04 26 29.0	-1.4
SONM	Songino Array	58.25	52	P	P	04 26 53.7	+0.4
	comp=Z,0.7nm,1.0s,mb3.7,baz=281,slow=6.9,SNR=4.7						
SONM	Songino Array	58.25	52	P	P	04 26 53.7	+0.4
YKA	Yellowknife Ar	69.25	339	P	P	04 28 03.9	-1.7
	comp=Z,1.0nm,0.7s,mb4.2,baz=35,slow=5.5,SNR=21						
YKA	Yellowknife Ar	69.25	339	P	P	04 28 03.9	-1.7
YKA	Yellowknife Ar	69.25	339	P	P	04 28 03.9	-1.7
BOSA	Boshof	70.83	175	P	P	04 28 16.3	+0.7
	comp=Z,1.4nm,0.6s,mb4.3,baz=339,slow=14,SNR=6.0						
BOSA	Boshof	70.83	175	P	P	04 28 16.3	+0.6
BOSA	Boshof	70.83	175	P	P	04 28 16.3	+0.7
ULM	Lac du Bonnet	72.01	323	P	P	04 28 20.3	-2.3
	comp=Z,1.8nm,0.6s,mb4.4,baz=66,slow=2.9,SNR=4.0						
ULM	Lac du Bonnet	72.01	323	P	P	04 28 20.3	-2.3
PMR	Palmer	75.98	355	*e*P	P	04 28 45.2	-0.5
PMR	Palmer	75.98	355	*e*P	P	04 28 45.2	-0.5
EGMT	Eagleton	79.56	328	*e*P	P	04 29 05.2	-0.7
	comp=Z,4.2nm,0.8s,mb4.4						
EGMT	Eagleton	79.56	328	*e*P	P	04 29 05.2	-0.7
	comp=Z,4.2nm,0.8s,mb4.4						
PDAR	Pinedale Array	83.77	325	P	P	04 29 26.7	-1.5
	comp=Z,0.8nm,0.8s,mb4.0,baz=57,slow=4.7,SNR=7.6						
PDAR	Pinedale Array	83.77	325	P	P	04 29 26.7	-1.5
ASAR	Alice Springs	123.05	93	PKP	PKPdf	04 35 53.1	-2.6
	comp=Z,0.7nm,0.6s,baz=319,slow=2.0,SNR=7.5						
ASAR	Alice Springs	123.05	93	PKIKP	PKPdf	04 35 53.2	-2.6

ISCJB **26** *04:34:34.7±0.5, 38°.88N±0°.02×26°.62E±0°.04, h9^{km}±5^{km}, Error ellipse: s-maj=4.9km s-min=3.8km az=148.0*

CSEM **26** *04:34:34.8±0.1, 38°.88N×26°.63E, h10^{km}, MD2.9, Error ellipse: s-maj=2.2km s-min=2.0km az=40.0*

DDA **26** *04:34:34.5, 38°.90N×26°.68E, h7^{km}±7^{km}, Md2.9*

THE **26** *04:34:35.0, 38°.86N×26°.59E, h5^{km}±21^{km}, ML2.6/3, Error ellipse: s-maj=21.4km s-min=0.7km az=48.0*

ISC 26 04:34:35.0±0.4**, 38°.89N**±0°.02×**26°.62E**±0°.04**, h12**^{km}±6^{km}**,**

n21,σ0^{s}74/42,Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AYVA	**Ayvalik**	0.42	7	*i* P	Pg	04 34 42.8	-0.7
AYVA				*i* S	Sg	04 34 49.6	+0.5
AYVA	**Ayvalik**	0.42	7	*i* P	Pg	04 34 42.8	-0.6
AYVA				*i* S	Sg	04 34 49.6	+0.5
PRK	**Paraskevi**	0.45	323	P	Pg	04 34 44.0	+0.1
PRK				S	Sg	04 34 50.5	+0.5
PRK	**Paraskevi**	0.45	323	P	Pg	04 34 44.0	+0.1
PRK				S	Sg	04 34 50.5	+0.5
URLA	**Izmir**	0.53	182	*i* P	Pg	04 34 44.2	-1.1
URLA				*i* S	Sg	04 34 54.1	+1.9
URLA	**Izmir**	0.53	182	*i* P	Pg	04 34 44.2	-1.1
URLA				*i* S	Sg	04 34 54.2	+2.0
BLCB	**Balcova**	0.60	147	P	Pg	04 34 46.4	-0.2
BLCB				S	Sg	04 34 54.9	+0.4
BLCB	**Balcova**	0.60	147	P	Pg	04 34 46.4	-0.2
BLCB				S	Sg	04 34 54.9	+0.4
CHOS	**Chios island**	0.67	222	P	Pg	04 34 47.8	-0.2
CHOS				S	Sg	04 34 56.2	-0.6
CHOS	**Chios island**	0.67	222	P	Pg	04 34 47.8	-0.2
CHOS				S	Sg	04 34 56.2	-0.6
SIGR	**SIGRI**	0.68	299	P	Pg	04 34 48.1	-0.2
SIGR				S	Sg	04 34 57.7	+0.5
SIGR	**SIGRI**	0.68	299	P	Pg	04 34 48.1	-0.2
SIGR				S	Sg	04 34 57.7	+0.5
AKHS	**Akhisar**	0.93	90	*i* P	Pg	04 34 52.6	-0.4
AKHS				*i* S	Sg	04 35 04.8	-0.3
AKHS	**Akhisar**	0.93	90	*i* P	Pg	04 34 52.6	-0.3
AKHS				*i* S	Sg	04 35 04.8	-0.2
BOZC	**Bozcaada**	1.05	335	*i* P	Pb	04 34 54.8	-0.4
BOZC				*i* S	Sg	04 35 09.4	+0.4
BALY	**Balya**	1.15	42	*i* P	Pb	04 34 56.3	-0.6
BALY				*i* S	Sb	04 35 12.6	+0.8
BALY	**Balya**	1.15	42	*i* P	Pb	04 34 56.3	-0.6
BALY				*i* S	Sb	04 35 12.6	+0.8
MANT	**Manisa**	1.56	104	*i* P	Pn	04 35 01.7	-1.0
MANT				*i* S	Sn	04 35 24.5	+1.6
MANT	**Manisa**	1.56	104	*i* P	Pn	04 35 01.7	-1.0
MANT				*i* S	Sn	04 35 24.5	+1.6
DURS	**Dursunbey**	1.60	63	*i* P	Pn	04 35 02.3	-0.9
DURS				*i* S	Sn	04 35 23.9	0.0
DURS	**Dursunbey**	1.60	63	*i* P	Pn	04 35 02.3	-0.9
DURS				*i* S	Sn	04 35 23.9	0.0

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*BJI **26** 04:42:18.0, 3.°19S×99.°61E, h35km, mb4.6/4*
*DJA **26** 04:42:22, 2.°70S×99.°50E, h52km, MLv4.4/5*
*ISCJB **26** 04:42:25.1±1.0, 2.°37S±0.°07×99.°7E±0.°1, h44km±7km, mb4.5/9, MS3.6/2, Error ellipse: s-maj=19.4km s-min=8.3km az=155.5*
*IDC **26** 04:42:25.8±1.1, 2.°38S×99.°69E, h30km±4km, mb4.2/10, mb1 4.3/11, mb1mx4.0/23, mbtmp4.2/11, ML3.3/1, MS3.5/3, Ms1 3.5/3, ms1mx3.0/41, Error ellipse: s-maj=42.7km s-min=12.6km az=58.0*
*NEIC **26** 04:42:26.3±0.7, 2.°34S×99.°70E, h35km, mb4.0/2, Error ellipse: s-maj=19.2km s-min=8.1km az=58.0*
ISC 26 04:42:24.9±1.5**, 2.°39S**±0.°07×**99.°6E**±0.°1**, h28**km±10km**, h32**km±1.3km**:pP-P, n24, σ0^{s}73**/22**, mb4.5**/9**, MS3.6**/2**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	0.56	131	P	Pb	04 42 36.3	0.0
PPSI				S	Sb	04 42 44.3	+0.3
SISI	**Saibi**	1.17	335	P	Pn	04 42 45.4	0.0
PDSI	**Padang**	1.71	31	P	Pn	04 42 52.9	0.0
PPI	**Padang Panjang**	2.09	23	P	Pn	04 42 58.3	+0.2
KSI	**Kapahiang**	3.25	113	P	Pn	04 43 09.1	-5.0
PSI	**Prapat**	5.20	353	Pn	Pn	04 43 38.6	-2.3
	1.1nm,0.3s,baz=173,slow=9.9,SNR=4.9						
PSI				LR	LR	04 46 10.8	
	comp=Z,269nm,19.8s,baz=218,slow=44						
MYKOM	**Kota Tinggi**	5.95	46	P	Pn	04 43 52.6	+1.3
KULM	**Kulim**	7.71	8	Pn	Pn	04 44 14.8	-0.6
KKM	**Kota Kinabalu**	18.60	63	*e*P	Pn	04 46 40.4	-0.2
	8.9nm,0.7s						
KAPI	**Kappang**	20.29	98	*e*P	P	04 46 58.0	-0.7
	2.9nm,0.4s						
CMAR	**Chiang Mai Arr**	20.73	358	P	P	04 47 03.2	-0.1
	3.7nm,0.6s,baz=187,slow=10.0,SNR=22						
FITZ	**Fitzroy Crossi**	29.94	123	LR	LR	05 02 09.5	
	comp=Z,96nm,19.4s,MS3.5,baz=351,slow=40						
WRA	**Warramunga Arr**	38.16	120	P	P	04 49 41.5	-0.7
	6.3nm,0.7s,mb4.5,baz=306,slow=9.2,SNR=33						
WRA				pP	pP	04 49 50.5	+0.1
	4.3nm,0.5s,baz=304,slow=9.1,SNR=12						
ASAR	**Alice Springs**	39.36	125	P	P	04 49 51.3	-0.9
	2.2nm,0.5s,mb4.1,baz=301,slow=7.9,SNR=20						
ASAR				pP	pP	04 50 01.8	+1.3
	0.8nm,0.5s,baz=305,slow=8.8,SNR=5.4						
KSRS	**Korea Array**	47.57	31	P	P	04 50 58.2	0.0
	3.9nm,0.7s,mb4.5,baz=222,slow=8.6,SNR=9.2						
KSRS				pP	pP	04 51 06.4	-0.2
	1.9nm,0.7s,baz=225,slow=8.0,SNR=3.4						
STKA	**Stephens Creek**	49.20	131	P	P	04 51 11.0	+0.1
	3.9nm,0.8s,mb4.5,baz=301,slow=8.2,SNR=9.6						
STKA				LR	LR	05 12 58.0	
	comp=Z,106nm,21.7s,MS3.8,baz=205,slow=37						
SONM	**Songino Array**	50.37	6	P	P	04 51 20.5	+1.0
	1.9nm,0.4s,mb4.5,baz=188,slow=10,SNR=22						
SONM				pP	pP	04 51 29.3	+1.3
	3.3nm,0.7s,baz=187,slow=9.7,SNR=12						
SONM				PcP	PcP	04 52 38.0	+0.2
	0.3nm,0.5s,baz=186,slow=2.5,SNR=3.6						
MKAR	**Makanchi Array**	51.30	345	P	P	04 51 27.1	+0.7
	4.2nm,0.8s,mb4.4,baz=150,slow=8.1,SNR=44						
ZALV	**Zalesovo Beam**	57.48	350	P	P	04 52 11.4	+0.1
	6.0nm,0.7s,mb4.7,baz=180,slow=5.9,SNR=25						
FINES	**FINESS Array B**	84.27	332	P	P	04 54 54.4	+0.5
	3.4nm,0.8s,mb4.5,baz=123,slow=7.0,SNR=5.6						
FINES				pP	pP	04 55 04.4	+1.7
	2.8nm,1.0s,baz=115,slow=9.0,SNR=1.5						
ARCES	**ARCESS Array B**	86.70	340	P	P	04 55 06.5	+0.7
	7.1nm,1.0s,mb4.8,baz=35,slow=3.0,SNR=4.6						
ARCES				pP	pP	04 55 15.3	+0.5
	1.7nm,0.8s,baz=45,slow=1.9,SNR=1.1						
ARCES	**ARCESS Array B**	86.70	340	P	P	04 55 06.5	+0.7
ARCES				pP	pP	04 55 15.3	+0.5
TXAR	**Lajitas Array**	145.26	37	PKPbc	PKPbc	05 02 01.4	+0.9
	7.0nm,0.6s,baz=269,slow=1.0,SNR=35						
TXAR				pPKPbc	pPKPbc	05 02 10.4	+0.8
	4.4nm,0.7s,baz=302,slow=1.7,SNR=12						
TXAR	**Lajitas Array**	145.26	37	PKPbc	PKPbc	05 02 01.4	+0.9
TXAR				pPKPbc	pPKPbc	05 02 10.4	+0.8

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*ISCJB **26** 04:47:44.9±1.5, 46.°8N±0.°1×152.°6E±0.°2, h48km±12km, mb3.8/10, Error ellipse: s-maj=26.9km s-min=8.7km az=43.7*
*MOS **26** 04:47:46.2±1.1, 46.°83N×152.°48E, h61km, mb4.4/1, Error ellipse: s-maj=26.4km s-min=14.7km az=71.8*
*IDC **26** 04:47:47.5±5.0, 46.°78N×152.°46E, h55km±45km, mb3.5/10, mb1 3.7/11, mb1mx3.5/24, mbtmp3.5/11, ML3.0/1, Error ellipse: s-maj=34.9km s-min=20.1km az=90.0*
*NEIC **26** 04:47:49.6±1.4, 46.°85N×152.°61E, h73km±12km, Error ellipse: s-maj=25.2km s-min=10.6km az=123.0*
ISC 26 04:47:47.9±1.4**, 46.°8N**±0.°1×**152.°5E**±0.°2**, h58**km±11km**, n19, σ0^{s}83**/20**, mb3.8**/10**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	3.61	246	PN	Pn	04 48 40.5	-0.8
KUR				*e*S	Sn	04 49 23.0	+0.3
KUR				pmax	pmax		
	comp=Z,140nm,0.3s						
KUR				smax			
	comp=N,240nm,0.5s						
KUR				smax			
	comp=E,300nm,0.5s						
SKR	**Severo-Kuril's**	4.54	30	*e*PN	Px	04 49 04.0	
SKR				*e*	Sn	04 49 42.0	-3.5
YUK	**Yuzh-Kuril'sk**	5.45	242	PN	Px	04 49 21.2	
PETK	**Petropavlovsk-**	7.13	26	P	Pn	04 49 30.1	+0.6
	comp=E,0.3nm,0.3s,baz=177,slow=14,SNR=3.0						
ERM	**Erimo**	8.24	238	*e*Pn	Pn	04 49 46.0	+1.2
ERM				*e*Sn	Sn	04 51 12.9	-3.5
MJAR	**Matsushiro Arr**	14.80	231	P	Pn	04 51 18.2	+4.4
	comp=E,0.2nm,0.3s,baz=45,slow=9.7,SNR=4.0						
MKAR	**Makanchi Array**	46.56	297	P	P	04 56 09.2	-0.4
	comp=E,0.3nm,0.4s,mb3.6,baz=68,slow=5.9,SNR=5.5						
MKAR				PcP	PcP	04 57 43.3	+0.4
	comp=E,0.5nm,0.8s,baz=62,slow=3.0,SNR=3.7						
YKA	**Yellowknife Ar**	51.12	37	P	P	04 56 44.6	+0.4
	comp=E,0.1nm,0.5s,mb3.0,baz=297,slow=6.9,SNR=4.0						
YKA				pP	pP	04 56 57.8	-1.6
	comp=E,0.3nm,0.6s,baz=299,slow=7.2,SNR=4.5						
YKA				PcP	PcP	04 57 58.8	-0.3
	comp=E,0.1nm,0.4s,baz=301,slow=3.5,SNR=5.8						
YKA	**Yellowknife Ar**	51.12	37	P	P	04 56 44.6	+0.4
YKA				pP	pP	04 56 57.9	-1.6
YKA				PcP	PcP	04 57 58.8	-0.3
ARCES	**ARCESS Array B**	57.67	341	P	P	04 57 31.7	0.0
	comp=E,3.3nm,1.0s,mb4.3,baz=40,slow=7.1,SNR=4.2						
FINES	**FINESS Array B**	63.82	334	P	P	04 58 13.4	-0.2
	comp=E,1.3nm,0.4s,mb4.3,baz=36,slow=7.7,SNR=14						
NB2	**NORSAR Subarra**	68.04	341	P	P	04 58 40.7	0.0
	comp=Z,1.1nm,0.6s,mb4.1,baz=27,slow=6.5						
NOA	**NORSAR Array B**	68.04	341	P	P	04 58 40.5	-0.3
	comp=Z,1.7nm,0.6s,mb4.3,baz=29,slow=6.3,SNR=4.8						
WRA	**Warramunga Arr**	68.44	198	P	P	04 58 42.9	-0.7
	comp=Z,0.3nm,0.6s,mb3.5,baz=20,slow=7.2,SNR=3.1						
AKASG	**Malin Array Be**	71.28	326	P	P	04 58 59.8	-1.0
	comp=Z,1.1nm,0.3s,mb4.2,baz=32,slow=5.7,SNR=4.7						
ASAR	**Alice Springs**	72.14	198	P	P	04 59 06.2	0.0
	comp=Z,0.1nm,0.3s,mb3.2,baz=9.1,slow=5.6,SNR=7.8						
BUR08	**Bucovina Ar. S**	75.30	326	*e*P	P	04 59 25.0	+0.5
BRTR	**Keskin Array B**	78.07	316	P	P	04 59 41.5	+1.1
	comp=Z,0.6nm,0.8s,mb3.6,baz=56,slow=5.4,SNR=3.6						
GERES	**GERESS Array B**	78.23	334	P	P	04 59 41.5	+0.5
	comp=Z,0.3nm,0.4s,mb3.5,baz=13,slow=6.0,SNR=3.1						

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*IDC **26** 05:06:56.8±6.4, 40.°78N×71.°84E, h46km±42km, mb3.4/2, mb1 3.4/6, mb1mx3.2/28, mbtmp3.3/6, ML3.0/4, Error ellipse: s-maj=75.5km s-min=34.9km az=164.0*
*NNC **26** 05:07:03.3±5.4, 41.°90N×71.°75E, h0km, mb3.5, mpv3.4, Error ellipse: s-maj=55.5km s-min=29.4km az=1.0*
ISC 26 05:06:53.3±2.7**, 40.°9N**±0.°2×**71.°56E**±0.°08**, h13**km±24km**, n17, σ0^{s}95**/20**, mb3.6**/2**, 3C-4D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	**Almayashu**	2.02	52	P	Pn	05 07 25.6	-1.4
	SNR=536						
KK31	**Karatay Array**	2.34	341	⇓Pn	Pn	05 07 32.9	+1.5
	10nm,0.2s,baz=148,slow=17,SNR=404						
KK31				⇑Sn	Sn	05 07 59.4	-0.5
	16nm,0.2s,baz=139,slow=29,SNR=17						
EKS2	**Erkin-Say**	2.42	42	P	Pn	05 07 31.9	-0.6
	SNR=66						
UCH	**Uchtor**	2.58	58	P	Pn	05 07 34.4	-0.3
	SNR=24						
AAK	**Ala-Archa**	2.80	51	P	Pn	05 07 37.0	-0.7
	SNR=30						
AAK	**Ala-Archa**	2.80	51	P	Pn	05 07 37.3	-0.4
	0.2nm,0.3s,baz=207,slow=4.3,SNR=69						
AAK				S	Sn	05 08 10.2	-1.0
	0.2nm,0.3s,baz=355,slow=23,SNR=14						
KZA	**Kyzart**	3.01	66	P	Pn	05 07 41.3	+0.7
	SNR=15						
KBK	**Karagaybulak**	3.08	54	P	Pn	05 07 42.0	+0.4
	SNR=5.7						
USP	**Ospenovka**	3.23	42	P	Pn	05 07 42.4	-1.2
	SNR=7.0						
TKM2	**Tokmak 2**	3.63	55	⇑Pn	Pn	05 07 48.7	-0.4
	4.8nm,0.4s						
TKM2				⇑Lg		05 08 36.2	
	7.3nm,0.3s						
MK31	**Makanchi Array**	9.73	49	⇓Pn	Pn	05 09 21.0	+8.1
	0.6nm,0.5s,baz=233,slow=14,SNR=7.0						
MK31				⇓Lg		05 11 48.6	
	1.2nm,0.6s						
MKAR	**Makanchi Array**	9.73	49	P	Pn	05 09 14.3	+1.4
	0.0nm,0.3s,baz=242,slow=14,SNR=2.3						
MKAR				S	Sn	05 11 03.4	+1.4
	baz=241,slow=15,SNR=2.1						
MKAR				Lg		05 11 50.5	
	0.1nm,0.3s,baz=236,slow=29,SNR=4.4						
AB09	**Akbulak array**	11.72	319	⇓Pn	Pn	05 09 39.3	-0.8
	1.1nm,1.1s						
BVAR	**Borovoye Array**	12.16	357	P	Pn	05 09 50.4	+4.3
	0.2nm,0.3s,baz=165,slow=12,SNR=3.2						
ZALV	**Zalesovo Beam**	15.81	30	P	Pn	05 10 36.6	+1.3
	0.2nm,0.3s,baz=219,slow=11,SNR=2.7						
ARCES	**ARCESS Array B**	37.30	335	P	P	05 14 04.9	+0.4
	3.0nm,0.9s,mb4.1,baz=106,slow=9.6,SNR=4.4						
YKA	**Yellowknife Ar**	76.84	3	P	P	05 18 44.1	-0.2
	0.2nm,0.7s,mb3.2,baz=346,slow=6.1,SNR=5.5						

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*ISCJB **26** 05:22:32.5±0.2, 4.°60S±0.°04×149.°95E±0.°04, h513km, mb4.6/77, Error ellipse: s-maj=5.9km s-min=4.8km az=176.3*
*MOS **26** 05:22:32.3±0.8, 4.°46S×149.°92E, h501km, mb4.5/33, Error ellipse: s-maj=12.1km s-min=7.5km az=104.9*
*BJI **26** 05:22:32.9, 4.°62S×150.°20E, h531km, mB4.7/19, mb4.4/28*
*IDC **26** 05:22:33.9±0.5, 4.°62S×149.°94E, h516km±5km, mb3.9/20, mb1 4.1/22, mb1mx4.1/24, mbtmp4.0/22, Error ellipse: s-maj=13.4km s-min=8.6km az=93.0*
*GCMT **26** 05:22:33.8±0.4, 4.°59S×149.°84E, h507km±3km, MW5.1/51, Moment Tensor Solution. s51,c64; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-6.33±.35; $M_{\theta\theta}$2.29±.55; $M_{\phi\phi}$4.04±.67; $M_{r\theta}$-0.56±.63; $M_{\theta\phi}$1.42±.58; $M_{\phi r}$0.30±.74; Best double couple: $M_0$5.60700×10^{16} NP1:ϕ_s205.00000°, δ45.00000°, λ-96.00000°. NP2:ϕ_s34.00000°, δ45.00000°, λ-84.00000°. Principal axes: T 4.8330, Plg0.0000°, Azm119.0000°; N 1.5480, Plg5.0000°, Azm209.0000°; P -6.3810, Plg85.0000°, Azm28.0000°; nsta1 refers to body waves, cutoff=40s.*
*NEIC **26** 05:22:33.8±0.1, 4.°58S×149.°94E, mb4.9/42 Error ellipse: s-maj=5.5km s-min=4.0km az=108.0*
*DJA **26** 05:22:41, 5.°06S×148.°91E, h510km, mb4.7/8*
ISC 26 05:22:33.8±0.2**, 4.°61S**±0.°03×**150.°02E**±0.°04**, h514**km**, h514**km±2.3km**:pP-P, n229, σ0^{s}98**/166**, mb4.6**/77**, 8C-4D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	10.95	116	*e*P	P	05 25 01.2	-0.1
HNR				*e*		05 27 02.2	
HNR				pmax	pmax		
	comp=Z,1μm,0.8s						
HNR	**Honiara**	10.95	116	P	P	05 25 01.1	-0.2
	comp=Z,102nm,0.3s,baz=244,slow=1.6,SNR=54						
HNR				S	S	05 27 02.6	-0.2
	comp=Z,6.9nm,0.3s,baz=183,slow=17,SNR=2.2						
HNR	**Honiara**	10.95	116	*e*Pn	P	05 25 01.2	-0.1
	comp=Z,1μm,0.8s						
HNR				*e*Sn	S	05 27 02.2	-0.6
COEN	**Coen**	11.48	216	*e*Pn	P	05 25 07.7	+0.8
COEN				*e*Sn	S	05 27 14.6	+1.7
CTA	**Charters Tower**	15.81	193	P	P	05 25 53.0	+0.8
CTA				S	S	05 28 38.4	+2.7
CTA				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CTA	**Charters Tower**	15.81	193	*e*P	P	05 25 53.2	+1.0
	comp=Z,51nm,0.8s						
CTA				*e*S	S	05 28 36.4	+0.7
CTA	**Charters Tower**	15.81	193	P	P	05 25 53.0	+0.8
	comp=Z,3.3nm,0.3s,baz=12,slow=11,SNR=36						
CTA				S	S	05 28 38.4	+2.6
	baz=264,slow=19,SNR=5.5						
CTAO	**Charters Tower**	15.81	193	*e*P	P	05 25 53.0	+0.8
CTAO				pmax	pmax		
	comp=Z,88nm,0.9s						
CTAO	**Charters Tower**	15.81	193	*e*P	P	05 25 53.0	+0.8
	comp=Z,88nm,0.9s						
KAKA	**Kakadu**	19.14	244	*e*P	P	05 26 22.3	-1.6
	comp=Z,33nm,0.4s						
KAKA	**Kakadu**	19.14	244	*e*P	P	05 26 22.7	-1.2
	comp=Z,240nm,0.8s						
KAKA				*e*S	S	05 29 34.4	+3.2
EIDS	**Eidsvold**	20.66	177	*e*P	P	05 26 38.6	+0.9
	comp=Z,46nm,0.8s						
WRAB	**Tennant Creek**	21.56	224	*e*P	P	05 26 45.5	-0.3
WRAB				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.1						
WRAB	**Tennant Creek**	21.56	224	*e*P	P	05 26 45.5	-0.3
	comp=Z,55nm,1.0s,mb5.1						
WRA	**Warramunga Arr**	21.57	224	P	P	05 26 45.6	-0.4
WRA				S	S	05 30 07.1	-2.9
WRA						05 30 27.6	
WRA				pmax	pmax		
	comp=Z,18nm,0.3s						
WRA				smax			
	comp=N,5.0nm,0.9s						
WRA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
WRA	**Warramunga Arr**	21.57	224	P	P	05 26 45.6	-0.4
	comp=Z,18nm,0.3s,mb5.2,baz=46,slow=9.4,SNR=207						
WRA				S	S	05 30 07.1	-2.9
	comp=Z,4.7nm,0.9s,baz=42,slow=13,SNR=4.6						
WRA				PcP	PcP	05 30 27.6	+0.6
	comp=Z,4.5nm,0.8s,baz=44,slow=2.2,SNR=6.6						
DZM	**Mont Dzumac**	23.55	139	*e*P	P	05 27 02.2	-1.4
ASAR	**Alice Springs**	24.51	218	P	P	05 27 11.6	-0.5
ASAR						05 30 32.9	
ASAR				S	S	05 30 53.7	-2.4
ASAR				pmax	pmax		
	comp=Z,12nm,0.5s						
ASAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ASAR				smax			
	comp=N,2.0nm,0.8s						
ASAR	**Alice Springs**	24.51	218	P	P	05 27 11.6	-0.5
	comp=N,12nm,0.5s,mb4.8,baz=50,slow=8.0,SNR=128						
ASAR				PcP	PcP	05 30 32.9	-0.4
	comp=N,3.3nm,1.0s,baz=57,slow=3.4,SNR=5.0						
ASAR				S	S	05 30 53.6	-2.5
	comp=N,2.4nm,0.8s,baz=38,slow=15,SNR=4.3						
ARMA	**Armidale**	25.71	177	*e*P	P	05 27 24.5	+1.8
ARMA				*e*		05 28 38.2	
ARMA				*e*S	S	05 31 19.5	+4.6
ARMA	**Armidale**	25.71	177	*e*P	P	05 27 24.9	+2.2
	comp=N,12nm,0.3s,mb5.0						
ARMA				*e*		05 28 44.2	
FITZ	**Fitzroy Crossi**	27.35	239	*e*P	P	05 27 35.9	-1.4
	comp=N,25nm,0.3s,mb5.3						
FITZ				*e*		05 29 06.0	
FITZ	**Fitzroy Crossi**	27.35	239	P	P	05 27 36.0	-1.3
	comp=N,14nm,0.4s,mb5.0,baz=57,slow=9.0,SNR=76						
FITZ	**Fitzroy Crossi**	27.35	239	*e*P	P	05 27 35.8	-1.5
	comp=N,14nm,0.4s,mb4.9						
FITZ				*e*		05 29 05.0	
STKA	**Stephens Creek**	28.25	195	*e*P	P	05 27 44.3	-0.7
	comp=N,2.8nm,0.4s,mb4.2						
STKA	**Stephens Creek**	28.25	195	P	P	05 27 44.6	-0.4
	comp=N,3.0nm,0.4s,mb4.3,baz=32,slow=14,SNR=18						
STKA				S	S	05 31 51.6	-2.9
	comp=N,2.7nm,0.9s,baz=319,slow=18,SNR=2.5						
KAPI	**Kappang**	30.16	268	P	P	05 28 00.6	-1.4
	comp=N,9.3nm,0.5s,mb4.6,baz=107,slow=5.5,SNR=8.7						
TOO	**Toolangi**	33.06	187	*e*P	P	05 28 27.8	+1.4
FORT	**Forrest**	33.25	216	*e*P	P	05 28 26.3	-1.7
	comp=N,44nm,0.8s,mb5.0						
FORT	**Forrest**	33.25	216	*e*P	P	05 28 26.7	-1.3
	comp=N,54nm,0.8s,mb5.1						
MBWA	**Marble Bar**	33.69	238	*e*P	P	05 28 29.9	-2.1
	comp=N,7.9nm,0.6s,mb4.4						
MBWA				*e*		05 30 02.4	
URZ	**Urewera**	41.59	147	*e*P	P	05 29 37.0	+0.6
	comp=N,10nm,0.4s,mb4.7						
MUN	**Mundaring**	41.76	225	*e*P	P	05 29 36.2	-1.6
MJAR	**Matsushiro Arr**	42.40	346	P	P	05 29 41.9	-0.8
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
MJAR	**Matsushiro Arr**	42.40	346	P	P	05 29 41.9	-0.8
	comp=Z,1.6nm,0.4s,mb3.9,baz=164,slow=20,SNR=6.5						
RPZ	**Rata Peaks**	43.15	158	P	P	05 29 48.5	0.0
	comp=Z,4.5nm,0.4s,mb4.4,baz=293,slow=3.4,SNR=5.1						
KSRS	**Korea Array**	46.63	336	P	P	05 30 15.5	+0.1
KSRS						05 31 39.2	
KSRS						05 32 16.0	
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.1						
KSRS				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.0						
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
KSRS	**Korea Array**	46.63	336	P	P	05 30 15.5	+0.1
	comp=Z,2.7nm,0.5s,mb4.0,baz=154,slow=8.4,SNR=7.7						
KSRS				PcP	PcP	05 31 39.2	+0.3
	comp=Z,4.7nm,1.1s,baz=143,slow=4.4,SNR=5.6						
KSRS				PP	PP	05 32 15.9	+3.8
	comp=Z,1.6nm,0.8s,baz=158,slow=8.4,SNR=4.7						
NJ2	**Nanjing**	46.99	323	*e*P	P	05 30 19.5	+1.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
GYA	**Guiyang**	52.10	309	*e*P	PcP	05 31 54.8	-4.6
GYA				pP	pP	05 32 36.0	+1.0
GYA				PP	PP	05 33 04.3	+2.9
GYA				sP	sP	05 33 33.0	+1.7
GYA				ScP	ScP	05 35 08.5	+1.4
GYA				PcS	PcS	05 35 58.0	-0.7
GYA				S	S	05 37 42.0	+0.6
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.1						
GYA				pmax	pmax		
	comp=Z,90nm,4.9s						
MDJ	**Mudanjiang**	52.32	342	P	P	05 30 57.8	+0.6
MDJ				pmax	pmax		
	comp=Z,160nm,7.2s						
CN2	**Changchun**	53.04	338	*e*P	P	05 31 03.5	+1.2
CN2				*e*S	S	05 37 55.3	+2.0
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.3						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
HABR	**Khabarovsk**	54.46	348	*e*P	P	05 31 11.6	-0.7
HABR				*e*		05 32 06.6	
HABR				*e**PP	pP	05 32 55.2	+2.6
HABR				*e*		05 33 21.7	
HABR				S	S	05 38 10.3	-1.6
HABR				*e*		05 40 04.4	
HABR				SS	SS	05 42 05.0	+0.4
HABR				pmax	pmax		
	comp=N,25nm,1.2s						
HABR				pmax	pmax		
	comp=E,30nm,1.3s						
HABR				pmax	pmax		
	comp=Z,56nm,1.6s,mb4.6						
HABR				MLR	MLR		
	comp=Z,142nm,19.0s						
KMI	**Kunming**	54.60	305	P	P	05 31 15.5	+1.7
KMI				pP	pP	05 32 55.3	+1.2
KMI				S	S	05 38 12.5	-2.1
KMI				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.1						
CMAR	**Chiang Mai Arr**	55.30	296	P	P	05 31 19.5	+0.7
CMAR						05 32 12.0	
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
CMAR	**Chiang Mai Arr**	55.30	296	P	P	05 31 19.5	+0.7
	comp=Z,5.6nm,0.8s,mb3.8,baz=113,slow=5.4,SNR=31						
CMAR				PcP	PcP	05 32 11.9	0.0
	comp=Z,2.6nm,0.7s,baz=104,slow=2.2,SNR=8.6						
CHTO	**Chiang Mai**	55.41	296	*e*P	P	05 31 19.9	+0.3
CHTO				*e*		05 32 12.2	
CHTO				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.1						
CHTO	**Chiang Mai**	55.41	296	*e*P	P	05 31 19.9	+0.3
	comp=Z,18nm,1.3s,mb4.1						
CHTO				*e*PcP	PcP	05 32 12.2	-0.2
KLR	**Kul'dur**	55.93	346	*e*P	P	05 31 18.3	-4.3
KLR				*e*		05 32 09.8	
CD2	**Chengdu**	56.53	312	P	P	05 31 27.8	+0.7
CD2				pP	pP	05 33 09.0	+0.6
CD2				PP	PP	05 33 43.3	+2.7
CD2				sP	sP	05 34 03.0	-1.1
CD2				S	S	05 38 40.3	+0.8
CD2				sS	sS	05 41 38.8	-2.4
CD2				SS	SS	05 42 40.5	+2.8
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.6						
CD2				pmax	pmax		
	comp=Z,160nm,5.9s						
HHC	**Hu-ho-hao-te**	57.31	326	*e*P	P	05 31 32.5	+0.3
HHC				pP	pP	05 33 13.8	-0.2
HHC				PP	PP	05 33 48.8	+1.5
HHC				*e*S	S	05 38 48.5	-0.6
HHC				SS	SS	05 42 50.8	+1.3
HHC				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.2						
HHC				pmax	pmax		
	comp=Z,180nm,6.2s						

PETK	**Petropavlovsk-**	57.87	5	P	P	05 31 36.1	+0.3
PETK				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.3						
PETK	**Petropavlovsk-**	57.87	5	P	P	05 31 36.1	+0.3
	comp=Z,22nm,1.0s,mb4.3,baz=158,slow=4.3,SNR=8.3						
PET	**Petropavlovsk**	57.88	6	*e*P	P	05 31 36.7	+0.8
PET				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.3						
LZH	**Lanzhou**	59.19	317	*e*P	P	05 31 46.5	+1.4
LZH				pP	pP	05 33 28.5	+0.8
LZH				sP	sP	05 34 22.5	-0.4
LZH				pmax	pmax		
	comp=Z,37nm,1.2s,mb4.5						
LZH				pmax	pmax		
	comp=Z,140nm,4.0s						
HIA	**Hailar**	59.76	338	*e*P	P	05 31 48.8	+0.2
HIA				*e*		05 32 28.9	
HIA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
HIA	**Hailar**	59.76	338	*e*P	P	05 31 48.8	+0.1
	comp=Z,6.7nm,0.9s,mb4.0						
HIA				*e*PcP	PcP	05 32 28.9	-0.1
SHL	**Shillong**	63.83	301	⇓*i*P	P	05 32 16.5	+0.8
SHL				*e*x	x	05 34 09.5	
ULN	**Ulaanbaatar**	64.40	329	*e*P	P	05 32 19.2	+0.4
ULN				*e*		05 32 48.3	
ULN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.1						
ULN	**Ulaanbaatar**	64.40	329	*e*P	P	05 32 19.2	+0.4
	comp=Z,5.6nm,0.7s,mb4.1						
ULN				*e*PcP	PcP	05 32 48.3	+0.3
ULN				*e*		05 33 54.5	
SONM	**Songino Array**	64.71	329	P	P	05 32 21.5	+0.7
SONM				*PP	pP	05 34 07.1	+1.1
SONM				pmax	pmax		
	comp=Z,8.0nm,0.9s						
SONM	**Songino Array**	64.71	329	P	P	05 32 21.5	+0.7
	comp=Z,8.2nm,0.9s,mb4.2,baz=145,slow=3.8,SNR=38						
SONM				pP	pP	05 34 07.1	+1.1
	comp=Z,0.3nm,0.4s,baz=34,slow=37,SNR=3.3						
LSA	**Lhasa**	65.86	305	*e*P	P	05 32 29.4	+1.0
LSA				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.4						
LSA	**Lhasa**	65.86	305	*e*P	P	05 32 29.4	+0.9
	comp=Z,6.5nm,0.5s,mb4.4						
SEY	**Seymchan**	67.38	1	⇓*e*P	P	05 32 37.6	+0.5
ZAK	**Zakamensk**	67.91	330	⇑*i*P	P	05 32 40.7	0.0
ZAK				*e*	pP	05 34 29.0	+1.8
ZAK				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.6						
TAPN	**Taplejung**	67.94	302	*e*P	P	05 32 41.6	+0.2
	comp=Z,76nm,1.3s,mb5.1						
ODAN	**Odare**	68.07	301	*e*P	P	05 32 42.3	+0.2
	comp=Z,60nm,1.1s,mb5.0						
YAK	**Yakutsk**	68.27	350	*e*P	P	05 32 43.1	+0.5
YAK				pmax	pmax		
	comp=Z,16nm,0.4s,mb4.9						
TLY	**Talaya**	68.55	331	*i* P	P	05 32 44.9	+0.4
TLY				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.2						
UNV	**Unalaska Valle**	68.64	26	*e*P	P	05 32 45.1	+0.2
	comp=Z,25nm,0.6s,mb4.9						
BOD	**Bodaibo**	68.65	340	*e*P	P	05 32 43.9	-1.1
BOD				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.1						
RAMN	**Ramite**	68.77	301	*e*P	P	05 32 46.5	+0.1
	comp=Z,14nm,0.8s,mb4.6						
JIRN	**Jiri**	69.32	302	*e*P	P	05 32 50.0	+0.3
	comp=Z,14nm,0.6s,mb4.7						
GUN	**Gumba**	69.66	302	*e*P	P	05 32 51.7	0.0
	comp=Z,36nm,0.8s,mb5.0						
MOY	**Mondy**	69.84	330	*e*P	P	05 32 53.0	+0.7
PKI	**Pulchoki**	69.96	301	*e*P	P	05 32 53.5	0.0
	comp=Z,17nm,0.6s,mb4.8						
PKI	**Pulchoki**	69.96	301	*e*P	P	05 32 53.5	0.0
PKI				pmax	pmax		
	comp=Z,17nm,0.6s,mb4.8						
KKN	**Kakani**	70.13	302	*e*P	P	05 32 54.7	+0.1
	comp=Z,38nm,0.7s,mb5.0						
KKN	**Kakani**	70.13	302	*e*P	P	05 32 54.7	+0.1
KKN				pmax	pmax		
	comp=Z,38nm,0.7s,mb5.0						
DMN	**Daman**	70.23	301	*e*P	P	05 32 55.2	+0.1
	comp=Z,58nm,0.8s,mb5.2						
GKN	**Gorkha**	70.74	302	*e*P	P	05 32 57.8	-0.3
	comp=Z,61nm,0.9s,mb5.1						
KOLN	**Koldanda**	71.56	301	*e*P	P	05 33 02.9	-0.1
	comp=Z,19nm,0.4s,mb4.9						
DANN	**Dangsing**	71.58	302	*e*P	P	05 33 02.9	-0.2
	comp=Z,38nm,0.7s,mb5.0						
VNDA	**Vanda**	73.13	177	P	P	05 33 11.7	+0.6
VNDA				pmax	pmax		
	comp=Z,6.0nm,0.4s						
VNDA	**Vanda**	73.13	177	P	P	05 33 11.7	+0.5
	comp=Z,6.2nm,0.4s,mb4.4,baz=335,slow=6.7,SNR=28						
BILL	**Bilibino**	73.38	6	⇓*e*P	P	05 33 13.4	+0.8
BILL				*e**PP	pP	05 34 57.9	-3.4
BILL				*e*		05 36 07.0	
BILL				*e*S	S	05 41 55.4	-4.3
BILL				pmax	pmax		
	comp=Z,36nm,0.9s,mb4.8						
WMQ	**Urumqi**	73.74	318	P	P	05 33 16.0	+0.8
WMQ				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.5						
WMQ				pmax	pmax		
	comp=Z,270nm,6.8s						
CHGN	**Chignik**	73.79	27	*e*P	P	05 33 14.6	-0.6
HYB	**Hyderabad**	73.81	290	*i* P	P	05 33 14.0	-2.1
HYB	**Hyderabad**	73.81	290	*e*P	P	05 33 15.0	-1.1
KDAK	**Kodiak Island**	77.27	28	P	P	05 33 36.0	+1.5
KDAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.4						
KDAK	**Kodiak Island**	77.27	28	P	P	05 33 36.0	+1.5
	comp=Z,13nm,0.9s,mb4.4,baz=116,slow=12,SNR=5.9						
KDAK	**Kodiak Island**	77.27	28	P	P	05 33 36.0	+1.4
TIXI	**Tiksi**	77.37	353	⇑*e*P	P	05 33 34.1	-0.7
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
SVW2	**Sparrevohn**	77.75	24	*e*P	P	05 33 37.8	+0.7
MKAR	**Makanchi Array**	78.37	320	P	P	05 33 40.8	+0.1
MKAR				*PP	pP	05 35 32.3	+1.1
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MKAR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
MKAR	**Makanchi Array**	78.37	320	P	P	05 33 40.8	+0.1
	comp=Z,6.4nm,0.9s,mb3.9,baz=101,slow=6.3,SNR=45						
MKAR				pP	pP	05 35 32.3	+1.0
	comp=Z,2.1nm,1.1s,baz=110,slow=5.3,SNR=2.4						
TTA	**Tatalina**	78.62	22	*e*P	P	05 33 41.8	+0.1
ZALV	**Zalesovo Beam**	79.47	327	P	P	05 33 44.6	-1.8
ZALV				*PP	pP	05 35 37.4	+0.1
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.0						
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.6						
ZALV	**Zalesovo Beam**	79.47	327	P	P	05 33 44.6	-1.8
	comp=Z,4.6nm,0.7s,mb3.9,baz=104,slow=6.3,SNR=24						
ZALV				pP	pP	05 35 37.4	+0.1
	comp=Z,0.7nm,0.3s,baz=103,slow=6.2,SNR=1.7						
SEW	**Seward**	79.83	26	*e*P	P	05 33 48.1	-0.1
	comp=Z,52nm,1.0s,mb4.8						
PPLA	**Purkeypile**	80.08	23	*e*P	P	05 33 48.8	-0.6
	comp=Z,25nm,1.2s,mb4.4						
CHUM	**Lake Minchumin**	80.54	22	*e*P	P	05 33 52.1	+0.3
	comp=Z,90nm,1.0s,mb5.2						
NVS	**Novosibirsk**	80.67	327	*e*P	P	05 33 51.5	-1.1
NVS				*e*PPP		05 39 08.7	
NVS				*e*S	S	05 43 14.7	-2.7
NVS				pmax	pmax		
	comp=Z,32nm,1.7s,mb4.5						
NVS				pmax	pmax		
	comp=N,14nm,1.8s						
NVS				pmax	pmax		
	comp=E,16nm,1.4s						
NVS				smax			
	comp=N,70nm,2.7s						
NVS				smax			
	comp=E,44nm,2.7s						
PMR	**Palmer**	80.67	25	*e*P	P	05 33 51.6	-0.9
PMR				pmax	pmax		
	comp=Z,59nm,1.4s,mb4.8						
PMR	**Palmer**	80.67	25	*e*P	P	05 33 51.6	-0.9
	comp=Z,59nm,1.4s,mb4.8						
KTH	**Kantishna Hill**	80.90	23	*e*P	P	05 33 52.6	-1.0
	comp=Z,47nm,1.0s,mb4.9						
KTH				*e*		05 36 03.0	
TRF	**Thorofare Moun**	81.10	23	*e*P	P	05 33 53.5	-1.2
	comp=Z,18nm,0.7s,mb4.6						
BPAW	**Bear Paw Mtn.**	81.16	22	*e*P	P	05 33 54.1	-0.9
	comp=Z,25nm,1.0s,mb4.6						
BPAW				*e*		05 36 35.4	
IMA2	**Indian Mountai**	81.21	20	*e*P	P	05 33 55.5	+0.3
MCK	**McKinley**	81.77	23	*e*P	P	05 33 57.5	-0.6
MCK				*e*	pP	05 35 49.6	-0.2
MCK				pmax	pmax		
	comp=Z,129nm,1.0s,mb5.3						
MCK	**McKinley**	81.77	23	*e*P	P	05 33 57.5	-0.6
	comp=Z,129nm,1.0s,mb5.3						
MCK				*e*	pP	05 35 49.6	-0.2
TKM2	**Tokmak 2**	81.81	314	*e*P	P	05 33 59.3	+0.5
TKM2				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.4						
TKM2	**Tokmak 2**	81.81	314	*e*P	P	05 33 59.3	+0.5
	comp=Z,20nm,1.3s,mb4.4						
KURK	**Kurchatov**	81.92	323	P	P	05 33 58.9	-0.3
KURK				*PP	pP	05 35 51.4	+0.5
KURK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.3						
KURK	**Kurchatov**	81.92	323	P	P	05 33 58.9	-0.3
	comp=Z,14nm,1.1s,mb4.3,baz=110,slow=4.0,SNR=34						
KURK				pP	pP	05 35 51.4	+0.5
	comp=Z,0.2nm,0.3s,baz=340,slow=17,SNR=3.4						
KURK	**Kurchatov**	81.92	323	*e*P	P	05 33 58.6	-0.6
	comp=Z,40nm,1.2s,mb4.7						
FRU	**Bishkek**	82.49	314	⇑*i*P	P	05 34 04.0	+1.7
AAK	**Ala-Archa**	82.53	314	*c i*P	P	05 34 03.3	+0.8
AAK				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.4						
AAK	**Ala-Archa**	82.53	314	*e*P	P	05 34 03.5	+1.1
	comp=Z,51nm,4.7s						
COLA	**College**	82.72	22	*e*P	P	05 34 01.6	-1.3
COLA				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.0						
COLA	**College**	82.72	22	*e*P	P	05 34 01.6	-1.3
	comp=Z,40nm,0.9s,mb5.0						
COLD	**Coldfoot**	83.01	20	*e*P	P	05 34 04.9	+0.6
	comp=Z,26nm,1.2s,mb4.6						
EKS2	**Erkin-Say**	83.05	314	*e*P	P	05 34 06.0	+0.8
	comp=Z,127nm,0.6s,mb5.6						
MENT	**Mentasta**	83.54	25	*e*P	P	05 34 07.3	+0.2
MAW	**Mawson**	84.68	203	P	P	05 34 12.7	+0.1
MAW				pmax	pmax		
	comp=Z,22nm,1.0s						
MAW	**Mawson**	84.68	203	P	P	05 34 12.7	0.0
	comp=Z,22nm,1.0s,mb4.7,baz=261,slow=22,SNR=2.9						
EGAK	**Eagle**	85.29	24	*e*P	P	05 34 15.8	+0.2
	comp=Z,51nm,1.0s,mb5.0						
HYT	**Haines Junctio**	85.56	28	*e*P	P	05 34 18.2	+1.2
DAWY	**Dawson**	85.76	25	*e*P	P	05 34 18.8	+0.9
SKAG	**Skagway**	86.21	30	*e*P	P	05 34 20.8	+0.6
	comp=Z,26nm,0.9s,mb4.9						
BVAR	**Borovoye Array**	87.44	324	P	P	05 34 24.5	-1.6
BVAR				*PP	pP	05 36 19.9	+0.2
BVAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	**Borovoye Array**	87.44	324	P	P	05 34 24.5	-1.6
	comp=Z,5.8nm,0.9s,mb4.2,baz=108,slow=4.8,SNR=25						
BVAR				pP	pP	05 36 19.9	+0.2
	comp=Z,0.9nm,0.7s,baz=111,slow=3.2,SNR=3.0						
BRVK	**Borovoye**	87.50	324	*e*P	P	05 34 24.4	-2.0
BRVK				*e*	pP	05 36 19.6	-0.4
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
BRVK	**Borovoye**	87.50	324	*e*P	P	05 34 24.4	-2.0
	comp=Z,6.8nm,1.1s,mb4.3						
BRVK				*e*	pP	05 36 19.6	-0.5
INK	**Inuvik**	89.28	21	*e*P	P	05 34 33.4	-0.9
INK				*e*	pP	05 36 28.3	-0.1
INK				pmax	pmax		
	comp=Z,33nm,1.2s						
INK	**Inuvik**	89.28	21	*e*P	P	05 34 33.4	-0.9
	comp=Z,33nm,1.2s,mb5.0						
INK				*e*	pP	05 36 28.3	-0.1
MOD	**Modoc**	92.81	48	*e*P	P	05 34 51.3	+0.1
WVOR	**Wild Horse Val**	94.07	48	*e*P	P	05 34 57.4	+0.4
WVOR				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.8						
WVOR	**Wild Horse Val**	94.07	48	*e*P	P	05 34 57.4	+0.4
	comp=Z,15nm,1.7s,mb4.8						
ARU	**Arti**	94.62	326	*d i*P	P	05 34 57.7	-1.4
ARU						05 39 00.9	
ARU				S	SKSac	05 44 42.0	-2.6
ARU				SS	SS	05 52 20.6	+15
ARU				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.8						
AKTK	**Aktyubinsk**	94.80	320	P	P	05 34 58.6	-1.5
AKTO	**Aktyubinsk**	94.80	320	P	P	05 34 58.6	-1.5
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.2						
AKTO	**Aktyubinsk**	94.80	320	P	P	05 34 58.6	-1.5
	comp=Z,0.6nm,0.5s,mb4.0,baz=95,slow=7.5,SNR=3.5						
YKA	**Yellowknife Ar**	96.55	28	P	P	05 35 07.6	-0.1
YKA				*PP	pP	05 37 02.0	-0.5
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	**Yellowknife Ar**	96.55	28	P	P	05 35 07.6	-0.1
	comp=Z,1.7nm,0.8s,mb4.3,baz=293,slow=6.0,SNR=3.7						
YKA				pP	pP	05 37 02.0	-0.5
	comp=Z,1.3nm,0.9s,baz=272,slow=4.7,SNR=9.4						
YKA				PKKPbc	PKKPbc	05 51 47.8	-4.2
	comp=Z,0.2nm,0.6s,baz=87,slow=3.0,SNR=5.6						
YKA	**Yellowknife Ar**	96.55	28	P	P	05 35 07.6	-0.1
YKA				pP	pP	05 37 02.0	-0.5
YKA				PKKPbc	PKKPbc	05 51 47.8	-4.2
PDAR	**Pinedale Array**	100.77	47	P	Pdif	05 35 26.6	-0.2
	comp=Z,1.6nm,0.9s,baz=270,slow=2.5,SNR=13						
ARCES	**ARCESS Array B**	105.87	342	PKiKP	PKiKP	05 39 57.6	-0.6
	comp=Z,3.7nm,1.1s,baz=94,slow=0.2,SNR=9.5						
ARCES				PKKPbc	PKKPbc	05 51 20.9	-4.6
	comp=Z,5.1nm,0.9s,baz=256,slow=2.7,SNR=9.4						
ARCES	**ARCESS Array B**	105.87	342	PKPdf	PKiKP	05 39 57.6	-0.6
ARCES				PKKPbc	PKKPbc	05 51 20.9	-4.6
AKASG	**Malin Array Be**	112.72	324	*i* PKIKP	PKiKP	05 40 10.4	-1.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	112.72	324	PKiKP	PKiKP	05 40 10.4	-1.3
	comp=Z,0.8nm,0.4s,baz=57,slow=2.3,SNR=5.0						
HFS	**Hagfors**	115.47	337	PKIKP	PKPdf	05 40 15.5	-1.2
HFS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HFS	**Hagfors**	115.47	337	PKP	PKPdf	05 40 15.5	-1.2
	comp=Z,1.7nm,0.7s,baz=39,slow=5.5,SNR=5.6						
NOA	**NORSAR Array B**	115.77	339	PKIKP	PKPdf	05 40 15.5	-1.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	**NORSAR Array B**	115.77	339	PKP	PKPdf	05 40 15.5	-1.7
	comp=Z,1.8nm,0.9s,baz=49,slow=2.0,SNR=3.3						
LSZ	**Lusaka**	119.11	250	PKIKP	PKPdf	05 40 25.0	0.0
LSZ				pmax	pmax		
	comp=Z,2.0nm,0.5s						
LSZ	**Lusaka**	119.11	250	PKP	PKPdf	05 40 25.0	0.0
	comp=Z,1.8nm,0.5s,baz=124,slow=2.1,SNR=3.8						
DPC	**Dobruska-Polom**	120.17	328	*e*PKPDF	PKPdf	05 40 26.1	+0.1
UPC	**Upice**	120.24	328	*e*PKPDF	PKPdf	05 40 26.7	+0.5
PVCC	**Panska Ves**	120.99	329	*e*PKPDF	PKPdf	05 40 28.3	+0.7
BRG	**Berggiesshubel**	121.11	329	*e*PKPdf	PKPdf	05 40 27.9	+0.1
BRG	**Berggiesshubel**	121.11	329	*e*PKP	PKPdf	05 40 28.0	+0.2
	comp=Z,16nm,1.3s						
BRG				*e*		05 40 36.5	
	comp=Z,4.2nm,0.9s						
TREC	**Trest**	121.20	327	*e*PKPDF	PKPdf	05 40 27.9	-0.1
PRU	**Pruhonice**	121.31	328	*e*PKPDF	PKPdf	05 40 28.5	+0.3
CLL	**Collm**	121.33	330	*e*PKPdf	PKPdf	05 40 28.0	-0.2
	comp=Z,10.0nm,1.1s						
FBE	**Freiberg**	121.38	329	*e*PKPdf	PKPdf	05 40 28.6	+0.3
PLCA	**Paso Flores**	121.57	145	PKIKP	PKPdf	05 40 29.5	+0.4
PLCA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
PLCA	**Paso Flores**	121.57	145	PKP	PKPdf	05 40 29.5	+0.4
	comp=Z,1.9nm,0.6s,baz=159,slow=2.1,SNR=7.3						
TKL	**Tuckaleechee C**	121.73	51	PKIKP	PKPdf	05 40 29.8	+0.3
TKL				pmax	pmax		
	comp=Z,2.0nm,0.8s						
TKL	**Tuckaleechee C**	121.73	51	PKP	PKPdf	05 40 29.8	+0.3
	comp=Z,2.1nm,0.8s,baz=169,slow=5.0,SNR=4.3						
SCHQ	**Schefferville**	121.78	24	PKP	PKPdf	05 40 28.6	-0.4
	comp=Z,1.9nm,0.8s,baz=103,slow=8.0,SNR=4.6						
NEUB	**Neuenburg**	122.00	330	*e*PKPdf	PKPdf	05 40 29.5	0.0
WERD	**Werda**	122.20	329	*e*PKPdf	PKPdf	05 40 30.0	+0.1
GUNZ	**Gunzen**	122.24	329	*e*PKPdf	PKPdf	05 40 30.1	+0.1
PLN	**Plauen**	122.25	330	*e*PKPdf	PKPdf	05 40 30.0	0.0
NKC	**Novy Kostel**	122.26	329	*e*PKPdf	PKPdf	05 40 30.4	+0.4
NKC	**Novy Kostel**	122.26	329	*e*PKPDF	PKPdf	05 40 30.2	+0.2
WERN	**Wernitzgruen**	122.26	329	*e*PKPdf	PKPdf	05 40 30.4	+0.4
KHC	**Kasperske Hory**	122.32	328	*e*PKPDF	PKPdf	05 40 30.1	-0.1
KHC				*e*pPKP	pPKPdf	05 42 31.5	-0.2
KHC				*e*x	x	05 42 33.5	
GEC2	**GERESS Array S**	122.42	327	*e*PKPdf	PKPdf	05 40 30.2	-0.2
GERES	**GERESS Array B**	122.42	327	PKIKP	PKPdf	05 40 29.9	-0.5
GERES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GERES	**GERESS Array B**	122.42	327	PKP	PKPdf	05 40 29.9	-0.5
	comp=Z,3.5nm,0.7s,baz=65,slow=1.5,SNR=29						
GERES				pPKP	pPKPdf	05 42 32.8	+0.8
	comp=Z,1.5nm,0.7s,baz=72,slow=0.4,SNR=6.9						
MOX	**Moxa**	122.42	330	*e*PKP	PKPdf	05 40 30.8	+0.4
MOX	**Moxa**	122.42	330	*e*PKPdf	PKPdf	05 40 30.7	+0.3
MANZ	**Manzenberg**	122.58	329	*e*PKPdf	PKPdf	05 40 30.8	+0.1
WET	**Wettzell**	122.69	328	*e*PKPdf	PKPdf	05 40 31.1	+0.2
SOKA	**Soboth**	122.90	325	⇑*i*PKiKP	PKiKP	05 40 30.9	-0.7
	comp=Z,6.1nm,1.0s						
GRA1	**Grafenberg Arr**	123.22	329	*e*PKPdf	PKPdf	05 40 31.9	0.0
GRA1				*e*pPKPdf	pPKPdf	05 42 35.2	+1.8
GRF	**Grafenberg Arr**	123.22	329	*e*PKPdf	PKPdf	05 40 31.9	0.0
GRF				*e*pPKPdf	pPKPdf	05 42 35.2	+1.8
GRFO	**Grafenberg**	123.22	329	*e*PKPdf	PKPdf	05 40 31.5	-0.4
WTTA	**Wattenberg**	124.47	327	⇑*i*PKiKP	PKiKP	05 40 34.3	-0.4
	comp=Z,10nm,0.6s						
MOTA	**Moosalm**	124.72	327	⇑*i*PKiKP	PKiKP	05 40 34.4	-0.8
	comp=Z,7.3nm,0.8s						
FETA	**Feichten**	125.11	327	⇑*i*PKPdf	PKPdf	05 40 35.0	-0.6
	comp=Z,14nm,1.1s						
CDF	**Champ du Feu**	126.03	330	*e*PKP1	PKPdf	05 40 37.8	+0.5
GIVF	**Givet**	126.03	333	*e*PKP1	PKPdf	05 40 37.5	+0.2
BAIF	**Baives**	126.34	333	*e*PKP1	PKPdf	05 40 37.5	-0.4
HINF	**Hinteralfeld**	126.64	330	*e*PKP1	PKPdf	05 40 38.1	-0.4
HAU	**Haudompre**	126.76	330	*e*PKP1	PKPdf	05 40 37.6	-1.1
	comp=Z,6.9nm,0.6s						
MEZF	**Maizieres J'vi**	127.05	331	*e*PKP1	PKPdf	05 40 39.6	+0.3
CABF	**La Chapelle**	127.83	329	*e*PKP1	PKPdf	05 40 41.3	+0.5
	comp=Z,31nm,1.1s						
LPL	**La Plagne**	128.22	328	*e*PKP1	PKPdf	05 40 41.9	+0.3
LPG	**La Plagne**	128.22	328	*e*PKP1	PKPdf	05 40 42.0	+0.4
	comp=Z,7.9nm,0.8s						
LOR	**Lormes**	128.49	331	*e*PKP1	PKPdf	05 40 42.2	+0.1
PGF	**Pioggiola**	128.79	323	*e*PKP1	PKPdf	05 40 42.6	-0.2
	comp=Z,11nm,0.5s						
SSF	**Saint Saulge**	128.80	331	*e*PKP1	PKPdf	05 40 42.9	+0.2
SBF	**Sospel**	128.89	326	*e*PKP1	PKPdf	05 40 42.8	-0.1
SMF	**Signal de Mont**	128.93	330	*e*PKP1	PKPdf	05 40 42.9	0.0
ORIF	**Oris-en-Rattie**	129.06	328	*e*PKP1	PKPdf	05 40 43.3	+0.1
AVF	**Avril sur Loir**	129.07	331	*e*PKP1	PKPdf	05 40 43.2	0.0
BGF	**Bois d'Agland**	129.48	331	*e*PKP1	PKPdf	05 40 44.3	+0.3
FRF	**La Foret Royal**	129.52	326	*e*PKP1	PKPdf	05 40 44.1	0.0
VIVF	**Saint-Julien-l**	129.74	328	*e*PKP1	PKPdf	05 40 44.8	+0.3
	comp=Z,20nm,1.1s						
LMR	**La Mourre**	129.75	326	*e*PKP1	PKPdf	05 40 44.5	-0.1
	comp=Z,26nm,1.1s						
SMRF	**Simiane la Rot**	129.85	327	*e*PKP1	PKPdf	05 40 45.4	+0.7
	comp=Z,30nm,1.2s						
TCF	**Toulx Ste Croi**	129.98	331	*e*PKP1	PKPdf	05 40 45.3	+0.4
ROSF	**Rostrenen**	130.82	337	*e*PKP1	PKPdf	05 40 45.9	-0.5
KEST	**Kesra**	132.36	316	PKP	PKPdf	05 40 49.8	0.0
	comp=Z,1.9nm,1.0s,baz=286,slow=8.0,SNR=4.8						
EPF	**Esparros**	133.26	329	*e*PKP1	PKPdf	05 40 51.2	0.0
ROSC	**El Rosal**	135.81	88	PKP	PKPdf	05 40 58.1	+1.2
	comp=Z,4.8nm,0.5s,baz=106,slow=16,SNR=6.2						
ESDC	**Sonseca Array**	137.91	330	PKP	PKPdf	05 41 00.8	+0.8
	comp=Z,0.3nm,0.4s,baz=16,slow=3.1,SNR=5.2						
ESDC	**Sonseca Array**	137.91	330	PKP	PKPdf	05 41 00.8	+0.8
CPUP	**Villa Florida**	139.41	141	PKIKP	PKPdf	05 41 04.4	+1.3
CPUP				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CPUP	**Villa Florida**	139.41	141	PKP	PKPdf	05 41 04.4	+1.3
	comp=Z,0.7nm,0.4s,baz=248,slow=0.4,SNR=3.7						
SDV	**Santo Domingo**	139.42	82	*e*PKPdf	PKPdf	05 41 04.1	+0.7
TORD	**Torodi Ar. Bea**	147.61	287	PKPbc	PKPbc	05 41 20.5	-0.6
	comp=Z,12nm,0.4s,baz=7.1,slow=1.8,SNR=400						
TORD				PKPab	PKPab	05 41 24.9	-0.3
	comp=Z,11nm,0.5s,baz=68,slow=4.0,SNR=29						
TORD				pPKPbc	pPKPbc	05 43 19.6	-1.5
	comp=Z,6.4nm,1.0s,baz=70,slow=3.1,SNR=7.6						
DBIC	**Dimbokro**	154.92	276	PKPbc	PKPdf	05 41 36.7	+8.0
	comp=Z,2.8nm,0.5s,baz=99,slow=16,SNR=8.1						
DBIC				PKPab	PKPab	05 41 55.5	-0.5
	comp=Z,6.3nm,0.5s,baz=59,slow=6.4,SNR=15						
LIC	**Lamto**	155.11	275	*e*PKP2	PKPab	05 41 56.4	-0.4

IDC 26 05:24:46.7±4.7**, 4°.50S**×**149°.96E, h536**^{km}±56^{km}**, mb3.3**/5**,**
mb1 3.4/5**, mb1mx3.2**/15**, mbtmp3.3**/5**, Error ellipse:**
s-maj=80.5km s-min=22.5km az=114.0, Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	21.62	223	P	P	05 28 58.1	0.0
	3.3nm,0.7s,baz=52,slow=10,SNR=2.4						
PETK	**Petropavlovsk-**	57.76	6	P	P	05 33 46.3	0.0
	2.8nm,0.6s,baz=156,slow=5.1,SNR=3.0						
SONM	**Songino Array**	64.59	329	P	P	05 34 31.6	+0.4
	1.1nm,0.4s,baz=147,slow=5.0,SNR=8.2						
MKAR	**Makanchi Array**	78.25	320	P	P	05 35 51.2	+0.1
	0.4nm,0.4s,baz=104,slow=6.0,SNR=7.5						
ZALV	**Zalesovo Beam**	79.35	327	P	P	05 35 56.1	-0.6
	1.3nm,0.5s,baz=104,slow=6.1,SNR=3.4						
TORD	**Torodi Ar. Bea**	147.52	287	PKPbc	PKPbc	05 43 31.1	-0.6
	2.3nm,0.5s,baz=68,slow=3.2,SNR=6.6						
TORD				PKPab	PKPab	05 43 35.4	-0.2
	2.4nm,0.5s,baz=67,slow=3.6,SNR=9.1						
DBIC	**Dimbokro**	154.85	276	PKPab	PKPab	05 44 06.0	-0.5
	3.7nm,1.0s,baz=112,slow=5.5,SNR=4.2						

*IDC **26** 05:29:08.6±0.9, 2°.66S×99°.87E, h0^{km}, mb4.4/16,*
mb1 4.5/18, mb1mx4.3/28, mbtmp4.4/18, ML4.0/2, MS3.9/3,
Ms1 3.8/3, ms1mx3.2/28, Error ellipse: s-maj=33.2km
s-min=13.6km az=54.0
*BJI **26** 05:29:10.5, 3°.07S×100°.05E, h54^{km}, mB5.4/9, mb5.0/19*
*ISCJB **26** 05:29:11.5±0.7, 2°.71S±0°.06×99°.86E±0°.08, h36^{km}±5^{km},*
mb4.6/25, MS3.9/3, Error ellipse: s-maj=13.7km
s-min=8.1km az=153.8
*DJA **26** 05:29:12, 2°.61S×99°.88E, h14^{km}, MLv4.3/5*
*NEIC **26** 05:29:13.7±0.4, 2°.69S×99°.93E, h35^{km}, mb4.7/8, Error*
ellipse: s-maj=12.4km s-min=7.4km az=67.0
ISC 26 05:29:12.6±0.8**, 2°.68S**±0°.06×**99°.85E**±0°.08**, h27**^{km}±5^{km}**,**
n50, $\sigma 0^{s}.88$/43**, mb4.6**/25**, MS3.9**/3**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	**Pulau Pagai**	0.18	116	P	Pb	05 29 18.0	-0.3
PPSI				S	Sb	05 29 22.6	+0.4
SISI	**Saibi**	1.54	331	P	Pn	05 29 38.6	+0.2
PDSI	**Padang**	1.86	19	P	Pn	05 29 42.4	-0.3
PPI	**Padang Panjang**	2.28	14	P	Pn	05 29 48.9	+0.5
MDSI	**Maura Dua**	4.68	113	P	Pn	05 30 22.8	+1.3
PSI	**Prapat**	5.52	350	Pn	Pn	05 30 32.4	-0.8
	1.5nm,0.3s,baz=188,slow=7.1,SNR=3.5						
MYKOM	**Kota Tinggi**	5.98	42	P	Pn	05 30 40.2	+0.8
KULM	**Kulim**	7.96	6	*e*Pn	Pn	05 31 05.9	-0.7
COCO	**West Island**	9.91	197	*e*Pn	Pn	05 31 32.4	-0.9
KKM	**Kota Kinabalu**	18.50	62	*e*P	Pn	05 33 26.5	-0.7
	21nm,0.8s						
KAPI	**Kappang**	19.99	97	P	Pn	05 33 40.9	-4.2
	1.2nm,0.3s,baz=82,slow=19,SNR=3.9						
KAPI	**Kappang**	19.99	97	*e*P	Pn	05 33 41.3	-3.8
	25nm,0.9s						
CMAR	**Chiang Mai Arr**	21.02	358	P	P	05 33 52.9	-1.5
	11nm,0.8s,mb4.2,baz=186,slow=10,SNR=33						
CHTO	**Chiang Mai**	21.38	358	*e*P	P	05 33 55.4	-2.8
	5.8nm,1.1s,mb3.8						
FITZ	**Fitzroy Crossi**	29.57	123	LR	LR	05 48 17.2	
	comp=Z,141nm,18.9s,MS3.6,baz=292,slow=39						
LSA	**Lhasa**	33.26	346	*e*P	P	05 35 50.1	+2.4
	6.3nm,0.5s,mb4.8						
XAN	**Xi'an**	37.51	12	P	P	05 36 23.3	-1.0
XAN				pP	pP	05 36 41.8	+9.4
XAN				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						

```
WRA   Warramunga Arr   37.79 120  P       P        05 36 26.5 -0.3
      comp=Z,5.0nm,0.5s,mb4.5,baz=304,slow=9.0,SNR=48
WRA                               PcP     PcP      05 38 44.2 +0.8
      comp=Z,0.9nm,0.7s,baz=305,slow=2.1,SNR=4.2
WRAB  Tennant Creek    37.79 120  eP      P        05 36 25.9 -1.0
      comp=Z,4.9nm,0.4s,mb4.6
LZH   Lanzhou          38.75   5  eP      P        05 36 34.5 -0.1
LZH                               pmax    pmax
      comp=Z,19nm,1.5s,mb4.6
LZH                               pmax    pmax
      comp=Z,87nm,4.5s
ASAR  Alice Springs    38.98 125  P       P        05 36 36.9 +0.1
      comp=Z,5.7nm,0.7s,mb4.4,baz=302,slow=8.1,SNR=28
ASAR                              PcP     PcP      05 38 48.1 +1.1
      comp=Z,0.4nm,0.5s,baz=301,slow=2.5,SNR=4.3
BJT   Baijiatuau       45.05  18  eP      P        05 37 26.0 -0.1
      comp=Z,22nm,0.5s,mb5.2
WMQ   Urumqi           47.56 348  P       P        05 37 47.5 +1.7
WMQ                               pmax    pmax
      comp=Z,25nm,1.0s,mb5.2
WMQ                               pmax    pmax
      comp=Z,320nm,6.6s
KSRS  Korea Array      47.68  30  P       P        05 37 46.6 -0.2
      comp=Z,6.2nm,0.7s,mb4.8,baz=223,slow=8.0,SNR=16
STKA  Stephens Creek   48.81 131  P       P        05 37 56.0 +0.2
      comp=Z,5.7nm,0.9s,mb4.6,baz=309,slow=6.7,SNR=12
TKM2  Tokmak 2         50.40 337  eP      P        05 38 08.8 +1.3
SONM  Songino Array    50.63   6  P       P        05 38 10.0 +0.8
      comp=Z,9.4nm,0.7s,mb4.8,baz=188,slow=8.5,SNR=39
ULN   Ulaanbaatar      50.73   6  eP      P        05 38 10.6 +0.7
      comp=Z,10.0nm,1.0s,mb4.7
MK31  Makanchi Array   51.64 345  eP      P        05 38 17.2 +0.4
MKAR  Makanchi Array   51.64 345  P       P        05 38 17.5 +0.7
      comp=Z,7.9nm,0.7s,mb4.7,baz=147,slow=9.4,SNR=22
MKAR  Makanchi Array   51.64 345  P       P        05 38 17.5 +0.7
CN2   Changchun        51.67  24  eP      P        05 38 16.5 -0.6
CN2                               pmax    pmax
      comp=Z,20nm,0.9s,mb5.0
MJAR  Matsushiro Arr   52.90  39  P       P        05 38 25.3 -1.1
      comp=Z,0.9nm,0.4s,mb4.1,baz=225,slow=7.4,SNR=4.2
KURK  Kurchatov        56.22 344  P       P        05 38 49.9 -0.3
      comp=Z,5.6nm,0.9s,mb4.6,baz=167,slow=6.9,SNR=6.7
KURK  Kurchatov        56.22 344  eP      P        05 38 54.6 +4.5
      comp=Z,17nm,0.8s,mb5.1
ZALV  Zalesovo Beam    57.81 350  P       P        05 39 01.7 +0.3
      comp=Z,14nm,0.8s,mb5.0,baz=173,slow=5.8,SNR=22
ASAJ  Asahikawa        60.26  34  P       P        05 39 19.4 +0.8
      comp=Z,3.5nm,0.5s,mb4.7,baz=300,slow=20,SNR=3.4
BVAR  Borovoye Array   60.77 340  P       P        05 39 20.7 -1.1
      comp=Z,1.4nm,0.5s,mb4.3,baz=133,slow=10,SNR=4.3
AKTK  Aktyubinsk       63.88 332  P       P        05 39 42.7 -0.1
AKTO  Aktyubinsk       63.88 332  P       P        05 39 42.7 -0.1
      comp=Z,1.3nm,0.6s,mb4.2,baz=126,slow=19,SNR=4.1
BRTR  Keskin Array B   73.67 313  P       P        05 40 43.5 -0.6
      comp=Z,0.8nm,0.6s,mb3.8,baz=138,slow=7.6,SNR=3.6
BOSA  Boshof           75.20 241  LR      LR       06 10 01.0
      comp=Z,70nm,18.5s,MS4.0,baz=333,slow=33
FINES FINESS Array B   84.64 332  P       P        05 41 44.3 +0.8
      comp=Z,1.1nm,0.7s,mb4.1,baz=150,slow=7.9,SNR=4.1
ARCES ARCESS Array B   87.06 340  P       P        05 41 55.6 +0.3
      comp=Z,2.2nm,0.8s,mb4.5,baz=77,slow=3.9,SNR=3.3
TORD  Torodi Ar. Bea   98.54 283  LR      LR       06 28 32.9
      comp=Z,61nm,18.2s,MS4.1,baz=165,slow=36
TXAR  Lajitas Array   145.33  38  PKPbc   PKPbc    05 48 49.6 +1.1
      comp=Z,12nm,0.7s,baz=271,slow=0.7,SNR=62
WVT   Waverly         145.97  11  ePKPdf  PKPdf    05 48 49.8 +0.2
JCT   Junction City   146.68  32  ePKPdf  PKPdf    05 48 52.5 +1.6
TKL   Tuckaleechee C  147.02   5  PKPbc   PKPbc    05 48 52.5 -0.9
      comp=Z,1.2nm,0.5s,baz=355,slow=12,SNR=3.0
CPCT  Cooper Cave     147.15   7  ePKPdf  PKPdf    05 48 53.2 +1.7
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*NNC **26** 05:33:50.8±2.2, 41°.70N×73°.09E, h0^{km}, mb4.4, mpv4.0, Error ellipse: s-maj=26.2km s-min=8.5km az=1.0*

*ISCJB **26** 05:33:51.8±0.9, 41°.66N±0°.04×73°.14E±0°.07, h10^{km}, Error ellipse: s-maj=7.9km s-min=5.9km az=4.9*

*KNET **26** 05:33:52.1±0.6, 41°.70N×73°.25E, h17^{km}±2^{km}, ml3.3, Error ellipse: s-maj=3.8km s-min=2.9km az=88.0*

ISC 26 05:33:53.5±0.9**, 41°.66N**±0°.04×**73°.24E**±0°.07**, h10^{km}, n15, σ1^s.29**/25**, 15C-9D, Kyrgyzstan**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
AML   Almayashu         0.58  36   P       Pg       05 34 03.0 -1.7
      216nm,0.2s,SNR=896
AML                               ⇑S      Sg       05 34 12.1 -0.3
      1µm,0.2s
EKS2  Erkin-Say         1.08  22  ⇑P      Pg       05 34 11.6 -2.6
      39nm,0.2s,SNR=28
EKS2                              ⇓S      Sg       05 34 26.8 -1.4
      84nm,0.1s
UCH   Uchtor            1.11  59  ⇑P      Pb       05 34 12.6 -2.1
      148nm,0.2s,SNR=451
UCH                               ⇑S      Sg       05 34 28.7 -0.4
      130nm,0.2s
AAK   Ala-Archa         1.35  43   P      Pn       05 34 16.8 -1.5
      142nm,0.3s,SNR=241
AAK                               ⇓S      Sb       05 34 35.0 -1.1
      96nm,0.2s
KZA   Kyzart            1.56  74  ⇑P      Pn       05 34 20.4 -0.8
      167nm,0.2s,SNR=178
KZA                               ⇑S      Sn       05 34 42.2 +0.8
      343nm,0.4s
KBK   Karagaybulak      1.61  51  ⇑P      Pn       05 34 21.9 -0.1
      184nm,0.1s,SNR=241
KBK                               ⇓S      Sn       05 34 44.5 +1.7
      331nm,0.2s
CHMS  Chumysh           1.75  39  ⇑P      Pn       05 34 23.9 +0.1
      259nm,0.3s,SNR=160
CHMS                              ⇓S      Sn       05 34 48.1 +2.0
      172nm,0.3s
USP   Ospenovka         1.86  30   P      Pn       05 34 25.6 +0.3
      114nm,0.2s,SNR=396
USP                               ⇑S      Sn       05 34 51.5 +2.6
      386nm,0.4s
TKM2  Tokmak 2          2.16  53  ⇓Pn     Pn       05 34 30.6 +1.2
      157nm,0.7s
TKM2                              ⇓Lg              05 35 00.4
      104nm,0.5s
TKM2  Tokmak 2          2.16  53  ⇑P      Pn       05 34 30.2 +0.7
      177nm,0.4s,SNR=134
KK31  Karatay Array     2.48 306  ⇑Pn     Pn       05 34 32.9 -1.0
      40nm,0.2s,baz=128,slow=12,SNR=603
KK31                              ⇓Sn     Sn       05 35 07.8 +3.6
      76nm,0.2s,baz=120,slow=28,SNR=10
KSH   Kashi             2.98 135   Pn     Pn       05 34 42.0 +1.2
KSH                                Sn     Sn       05 35 16.3 -0.3
KSH                                smax
      comp=N,110nm,0.6s
KSH                                smax
      comp=E,62nm,0.6s
MK31  Makanchi Array    8.28  49  ⇑Pn     Pn       05 35 53.9 +0.4
      comp=E,1.4nm,0.5s,baz=230,slow=14,SNR=5.3
MK31                              ⇓Lg              05 38 14.1
      comp=E,9.6nm,0.8s,baz=153,slow=7.6,SNR=23
KURBB Kurchatov Arra    9.69  20  ⇓Sn     Sn       05 38 02.3 +0.8
      comp=E,1.0nm,0.6s
KURBB                             ⇑Lg              05 38 57.1
      comp=E,3.4nm,0.8s
KURK  Kurchatov         9.79  21  ⇑Sn     Sn       05 38 05.6 +1.5
      comp=E,4.0nm,0.9s
KURK                              ⇑Lg              05 39 00.7
      comp=E,16nm,0.7s
```

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*NEIC **26** 05:34:17.6, 38°.57N×118°.49W, h17^{km}, ML3.4(REN), After REN.*

ISC 26 05:34:17.4±0.4**, 38°.58N**±0°.02×**118°.46W**±0°.02**, h2^{km}**±3^{km}**, n49, σ1^s.02**/75**, 29C-21D, California-Nevada border region**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
R08A  Mina              0.36 131  ⇓P      Pg       05 34 25.5 +1.2
      baz=0.4,SNR=1000
R08A                              ⇓S      Sg       05 34 31.3 +2.3
      baz=0.4
Q07A  Schurz            0.45 322  ⇑P      Pg       05 34 26.6 +0.6
      baz=0.4,SNR=14
Q07A                              ⇑S      Sg       05 34 33.2 +1.3
      baz=0.4
Q08A  Gabbs             0.49  56  ⇓P      Pg       05 34 28.0 +1.1
      baz=0.5,SNR=230
Q08A                              ⇑S      Sg       05 34 35.2 +1.9
      baz=0.5
R06C  Coleville         0.78 266   P      Pg       05 34 32.2 -0.2
      baz=0.8,SNR=722
R06C                              ⇑S      Sg       05 34 42.3 -0.3
      baz=0.8
MLAC  Mammoth Lakes     1.00 198  ⇑P      Pg       05 34 36.6 +0.1
      baz=1.0,SNR=39
P07A  Fallon            1.01 341  ⇓P      Pg       05 34 37.3 +0.5
      baz=1.0,SNR=31
P07A                              ⇓S      Sg       05 34 51.8 +1.8
      baz=1.0
Q09A  Carvers           1.03  76  ⇑P      Pg       05 34 37.9 +0.9
      baz=1.1,SNR=18
Q09A                              ⇓S      Sg       05 34 52.5 +2.0
      baz=1.1
R09A  Tonopah           1.14 107   P      Pg       05 34 39.6 +0.4
      baz=1.2,SNR=721
R09A                              ⇑S      Sg       05 34 56.0 +2.0
      baz=1.2
P08A  Dixie Valley      1.15  15  ⇑P      Pg       05 34 40.1 +0.7
      baz=1.2,SNR=193
WCN   Washoe City       1.24 306   P      Pg       05 34 40.4 -0.8
      baz=1.2,SNR=998
WCN                               ⇑S      Sg       05 34 57.2 -0.1
      baz=1.2
S09A  Goldfield         1.30 131   P      Pg       05 34 42.0 -0.3
      baz=1.3,SNR=1000
S09A                              ⇓S      Sg       05 35 00.1 +1.0
      baz=1.3
P09A  Austin            1.41  46  ⇓P      Pn       05 34 43.8 -0.2
      baz=1.4,SNR=49
P09A                              ⇓S      Sg       05 35 04.1 +1.4
      baz=1.4
TIN   Tinemaha          1.54 173  ⇑Sb     Sb       05 35 07.5 +1.0
      baz=1.5
P06A  Stead Airport,    1.57 315  ⇓P      Pn       05 34 46.6 +0.4
      baz=1.6,SNR=44
P06A                              ⇑Sb     Sb       05 35 08.0 +0.6
      baz=1.6
S10A  Tonopah Range,    1.61 114  ⇑P      Pn       05 34 46.2 -0.6
      baz=1.6,SNR=472
O07A  Toulon            1.61 348  ⇑P      Pn       05 34 46.0 -0.7
      baz=1.6,SNR=247
O07A                              ⇓Sb     Sb       05 35 09.7 +1.2
      baz=1.6
CMB   Columbia Colle    1.61 251  ePn     Pn       05 34 46.3 -0.6
CMB                               eSg     Sg       05 35 07.2 -2.1
Q10A  Clear Creek Ra    1.63  81  ⇓P      Pn       05 34 47.4 +0.3
      baz=1.7,SNR=221
Q10A                              ⇓Sb     Sb       05 35 10.9 +1.9
      baz=1.7
O08A  Rochester Mine    1.72   8   P      Pn       05 34 47.6 -0.7
      baz=1.7,SNR=507
O09A  Fish Creek Ran    1.86  31  ⇓P      Pn       05 34 49.8 -0.4
      baz=1.9,SNR=22
O09A                              ⇓S      Sn       05 35 14.7 +0.4
      baz=1.9
O06A  Flanigan          1.90 326  ⇑P      Pn       05 34 52.1 +1.2
      baz=1.9,SNR=26
O06A                              ⇓Sb     Sb       05 35 18.0 +1.0
      baz=1.9
BEKR  Beckwourth        1.96 311  ⇓Sb     Sb       05 35 19.3 +0.8
      baz=1.9
BMN   Battle Mountai    2.08  27  ePg     Pg       05 34 52.0 -5.2
BMN                               eSg     Sg       05 35 24.8 +0.7
Q11A  Duckwater         2.21  82  ⇑P      Pn       05 34 55.0  0.0
      baz=2.2,SNR=45
N08A  GE Springer Mi    2.21   6  ⇑P      Pn       05 34 54.4 -0.6
      baz=2.2,SNR=39
N07B  Gerlach           2.23 350  ⇓P      Pn       05 34 55.1 -0.2
      baz=2.2,SNR=8.0
R11A  Troy Canyon, C    2.27  95  ⇓P      Pn       05 34 55.1 -0.7
      baz=2.3,SNR=17
O10A  Cortez Mining,    2.28  41  ⇑P      Pn       05 34 55.8 -0.2
      baz=2.3
N09A  Rock Creek Ran    2.38  17  ⇑P      Pn       05 34 56.7 -0.7
      baz=2.4,SNR=12
O11A  Cowboy Ranch,     2.66  54  ⇑P      Pn       05 35 01.3  0.0
      baz=2.7,SNR=6.9
T11A  Corn Creek, Al    2.89 117  ⇑P      Pn       05 35 04.0 -0.4
      baz=2.9,SNR=18
M09A  Marrel Ranch,     2.94  15  ⇑P      Pn       05 35 04.9 -0.2
      baz=3.0
S12A  Delamar Landin    3.01 108  ⇓P      Pn       05 35 05.9 -0.2
      baz=3.0,SNR=14
N11A  Elko Archery C    3.06  42  ⇑P      Pn       05 35 06.6 -0.2
      baz=3.1
M10A  I.L. Ranch, Tu    3.28  26  ⇑P      Pn       05 35 09.7 -0.1
      baz=3.3,SNR=12
ELK   Elko              3.29  48  ePn     Pn       05 35 09.5 -0.4
ELK                               ePg     Pg       05 35 19.5 -1.0
ELK                               eSg     Sg       05 36 02.1 -1.0
N12A  Clover Valley,    3.48  48  ⇑P      Pn       05 35 12.5 +0.1
      baz=3.5,SNR=14
N12A  Clover Valley,    3.48  48  ePn     Pn       05 35 11.6 -0.8
N12A                              ePg     Pg       05 35 22.4 -1.6
N12A                              eSg     Sg       05 36 08.1 -0.9
L09A  Wilkinson Ranc    3.48  10  ⇑P      Pn       05 35 12.9 +0.3
      baz=3.5,SNR=10
Q13A  Wheeler Ranch,    3.49  83  ⇑P      Pn       05 35 12.9 +0.3
      baz=3.5,SNR=9.4
M11A  Holland Ranch,    3.50  35  ⇑P      Pn       05 35 12.5 -0.3
      baz=3.5,SNR=23
WVOR  Wild Horse Val    3.85 358  ePg     Pg       05 35 25.2 -5.9
WVOR                              eSg     Sg       05 36 18.3 -2.7
T13A  Saint George      3.93 112  ⇑P      Pn       05 35 18.4 -0.3
      baz=3.9,SNR=8.8
N13A  Wendover, West    3.99  54  ePg     Pg       05 35 26.9 -6.9
N13A                              eSg     Sg       05 36 23.9 -1.6
ARUT  Antelope Range    4.03 100  ePg     Pg       05 35 32.7 -1.9
ARUT                              eSg     Sg       05 36 25.8 -1.1
L11A  Cat Creek Ranc    4.13  29  ⇑P      Pn       05 35 21.3 -0.1
      baz=4.2,SNR=5.3
CCUT  Cedar City        4.15 103  ePg     Pg       05 35 35.3 -1.6
CCUT                              eSg     Sg       05 36 29.5 -1.2
U13A  Pakoon Wash       4.18 120  ⇓P      Pn       05 35 22.2 +0.1
      baz=4.2,SNR=12
M13A  Montello          4.31  49  ePg     Pg       05 35 38.3 -1.6
M13A                              eSg     Sg       05 36 33.4 -2.4
```

IDC 26 05:54:38.9±4.3**, 2°.64S**×**99°.59E, h0^{km}, mb3.6**/4**, mb1 3.8**/4**, mb1mx3.5**/22**, mbtmp3.6**/4**, Error ellipse: s-maj=169.5km s-min=24.8km az=57.0, Southern Sumatera**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
WRA   Warramunga Arr   38.03 119   P       P        06 01 58.8 -0.5
      0.7nm,0.4s,baz=295,slow=8.2,SNR=7.9
ASAR  Alice Springs    39.22 125   P       P        06 02 09.6 +0.4
      0.2nm,0.3s,baz=295,slow=8.0,SNR=4.4
SONM  Songino Array    50.62   6   P       P        06 03 39.8 +0.2
      1.1nm,0.9s,baz=190,slow=9.1,SNR=5.4
MKAR  Makanchi Array   51.53 345   P       P        06 03 46.5  0.0
      0.4nm,0.7s,baz=152,slow=8.3,SNR=5.8
```

GUC 26 05:57:42.4±0.8**, 22°.97S**×**70°.18W, h46^{km}**±2^{km}**, MD4.0, ML3.2, 2C-1D, Near coast of northern Chile**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
CEN1  Los Morros        0.42 183 ⇓iP      Pn       05 57 55.1 +2.7
CEN1                               i S     Sn       05 58 04.6 +5.1
CEN1                                AML    AML      05 58 06.0
      comp=N,516nm,0.4s
PECH  Pedro de Valdi    0.59  51   eP      Pn       05 57 55.5 +0.9
PECH                               i S     Sn       05 58 04.8 +1.5
PECH                                AML    AML      05 58 05.5
      comp=E,5µm,0.3s
MACH  Maria Elena       0.86  27 ⇑iP      Pn       05 57 59.2 +1.1
MACH                               i S     Sn       05 58 11.3 +1.6
TOCH  Tocopilla         0.88 358   eP      Pn       05 57 58.6 +0.3
TOCH                               i S     Sn       05 58 11.0 +1.0
TOCH                                AML    AML      05 58 13.5
      comp=E,2µm,0.1s
LVC   Limon Verde       1.22  73   eP      Pn       05 58 04.3 +1.3
LVC                                i S     Sn       05 58 20.9 +2.5
LVC                                 AML    AML      05 58 21.5
      comp=N,430nm,0.4s
PB01  Plate Boundary    2.02  19 ⇑eP      Pn       05 58 15.2 +1.1
PB01                               i S     Sn       05 58 40.0 +1.9
PB01                                AML    AML      05 58 45.4
      comp=E,274nm,0.3s
HMBC  Humberston        2.69   6   eP      Pn       05 58 23.8 +0.5
HMBC                                AML    AML      05 59 09.8
      comp=E,116nm,0.3s
```

IDC 26 05:59:17.6±2.0**, 55°.27S**×**29°.11W, h0^{km}, mb3.9**/2**, mb1 4.1**/2**, mb1mx3.8**/13**, mbtmp3.9**/2**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx3.1**/12**, Error ellipse: s-maj=79.0km s-min=45.2km az=24.0, South Sandwich Islands region**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
CPUP  Villa Florida    35.48 313   P       P        06 06 15.4 -0.2
      2.0nm,0.8s,baz=146,slow=8.5,SNR=3.9
CPUP                               LR      LR       06 19 28.8
      comp=Z,65nm,20.3s,baz=269,slow=34
TORD  Torodi Ar. Bea   72.93  31   P       P        06 10 48.6 +0.1
      0.7nm,0.8s,baz=196,slow=6.5,SNR=7.4
YKA   Yellowknife Ar  134.86 319   PKP     PKPdf    06 18 37.0 +0.2
      0.2nm,0.7s,baz=128,slow=2.6,SNR=6.8
MKAR  Makanchi Array  137.68  72   PKP     PKPdf    06 18 42.0 -0.5
      0.3nm,0.9s,baz=336,slow=3.2,SNR=2.2
SONM  Songino Array   151.77  87   PKPbc   PKPbc    06 19 12.9 -0.1
      1.3nm,0.6s,baz=211,slow=3.6,SNR=11
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*NEIC **26** 06:14:33.5, 14°.68N×61°.05W, h22^{km}, MD3.5(TRN), After TRN.*

TRN 26 06:14:33.6, 14°.49N×**60°.37W, h30^{km}, MD3.5, M2.7**(FDF)**, 2C-2D, Windward Islands**

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Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
MVM   Montagne Vaucl    0.52 278 ⇑eP      Pb       06 14 46.4 +2.1
SLW   Petit Monier      0.72 230   eP      Pb       06 14 49.1 +1.4
SLW                                eS      Sb       06 14 59.3 +2.0
FDF   Fort de France    0.80 288 ⇓eP      Pn       06 14 50.0 +1.2
FDF                              ⇓eS      Sb       06 15 02.3 +2.8
SLB   Belfond           0.93 225 ⇑iP      Pn       06 14 52.2 +1.6
SLB                                eS      Sn       06 15 04.4 +1.6
MCLT  Moule a Chique    0.95 216   eP      Pn       06 14 51.2 +0.2
MCLT                               eS      Sn       06 15 02.6 -0.9
SLDE  Delcer            0.95 225   eP      Pn       06 14 52.8 +1.8
SLDE                               eS      Sn       06 15 06.9 +3.3
SLDE  Delcer            0.95 225   eP      Pn       06 14 52.8 +1.8
SLDE                               eS      Sn       06 15 03.1 -0.5
DLPL  La Plaine         1.20 315   eS      Sn       06 15 12.3 +2.7
SSV   Crater Summit     1.40 215   eP      Pn       06 14 58.4 +1.2
SSV                                eS      Sn       06 15 23.0 +8.3
SVV   Soufriere Volc    1.42 216   eP      Pn       06 14 59.6 +2.2
SVV                                eS      Sn       06 15 20.1 +4.9
SVV   Soufriere Volc    1.42 216   eP      Pn       06 15 00.2 +2.8
SVV                                eS      Sn       06 15 25.2  +10
SVB   Belmont           1.48 216   eP      Pn       06 14 59.3 +1.0
SVB                                eS      Sn       06 15 18.8 +2.2
DEG   La Desirade       1.94 340   eP      Pn       06 15 05.6 +1.1
DEG                                eS      Sn       06 15 27.6 -0.2
DOG   Dongo Capester    1.96 322   eP      Pn       06 15 07.2 +2.5
PHG   Guadaloupe-2      1.96 321   eP      Pn       06 15 08.0 +3.2
BCG   Bois Riant Cap    2.00 323   eP      Pn       06 15 07.1 +1.7
LZG   Guadaloupe-1      2.14 321   eP      Pn       06 15 09.2 +1.9
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*ISCJB **26** 06:29:31.6±0.3, 41°.75N±0°.02×15°.19E±0°.02, h15^{km}±2^{km}, Error ellipse: s-maj=3.6km s-min=2.5km az=6.4*

*CSEM **26** 06:29:31.4±0.2, 41°.74N×15°.19E, h20^{km}, ML3.2/14, Error ellipse: s-maj=4.1km s-min=2.5km az=11.0*

*NEIC **26** 06:29:31.8, 41°.77N×15°.19E, h15^{km}, ML2.5(ROM), After ROM.*

*ROM **26** 06:29:31.8±0.2, 41°.77N×15°.19E, h15^{km}±3^{km}, Ml2.5/29, Error ellipse: s-maj=2.6km s-min=1.6km az=12.0*

ISC 26 06:29:32.2±0.3**, 41°.76N**±0°.02×**15°.18E**±0°.02**, h15^{km}**±2^{km}**, n75, σ1^s.04**/117**, Southern Italy**

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Code  Station Name      Δ°   AZ°   Phase ID           Time     Res
                                   Op      ISC      h  m  s   ISC
FG2   Serracapriola     0.05 341   Pg      Pg       06 29 35.1 +0.2
FG2                                Sg      Sg       06 29 36.8 -0.1
FG2   Serracapriola     0.05 341   Pg      Pg       06 29 35.1 +0.2
FG2                                Sg      Sg       06 29 36.8 -0.1
CIGN  Sant'Elia a Pi    0.23 244   Pg      Pg       06 29 37.5 +0.2
CIGN                               Sg      Sg       06 29 42.1 +1.3
      348nm,0.6s
CIGN  Sant'Elia a Pi    0.23 244   Pg      Pg       06 29 37.5 +0.2
CIGN                               Sg      Sg       06 29 42.1 +1.3
      348nm,0.6s
RGNG  Rignano Grg       0.31 105   Pg      Pg       06 29 37.7 -1.0
RGNG                               Sg      Sg       06 29 42.7 -0.4
RGNG  Rignano Grg       0.31 105   Pg      Pg       06 29 37.7 -1.0
RGNG                               Sg      Sg       06 29 42.7 -0.4
MOCO  Biccari - m.te    0.39 183   Pg      Pg       06 29 39.5 -0.5
MOCO                               Sg      Sg       06 29 45.1 -0.2
      140nm,0.4s
SGRT  San Giovanni R    0.42  90   Pg      Pg       06 29 39.9 -0.7
SGRT                               Sg      Sg       06 29 46.2 -0.1
      616nm,0.2s
SGRT  San Giovanni R    0.42  90   Pg      Pg       06 29 39.9 -0.7
SGRT                               Sg      Sg       06 29 46.2 -0.1
      616nm,0.2s
FRES  Fresagrandinar    0.44 299   Pg      Pg       06 29 41.2 +0.2
      217nm,0.2s
FRES  Fresagrandinar    0.44 299   Pg      Pg       06 29 41.2 +0.2
      217nm,0.2s
TRIV  Trivento          0.47 271   Pg      Pg       06 29 41.8 +0.2
TRIV  Trivento          0.47 271   Pg      Pg       06 29 41.8 +0.2
FG5   Orsara di Pugl    0.48 172   Pg      Pg       06 29 41.9 +0.2
      90nm,0.2s
FG5   Orsara di Pugl    0.48 172   Pg      Pg       06 29 41.9 +0.2
      90nm,0.2s
BSSO  Busso             0.49 245   Pg      Pg       06 29 41.8 -0.1
BSSO                               Sg      Sg       06 29 49.8 +1.4
      154nm,0.3s
BSSO  Busso             0.49 245   Pg      Pg       06 29 41.8 -0.1
BSSO                               Sg      Sg       06 29 49.8 +1.4
      154nm,0.3s
SACR  S. Croce Del S    0.51 225   Pg      Pg       06 29 41.6 -0.6
SACR                               Sg      Sg       06 29 49.9 +0.9
      109nm,0.4s
SACR  S. Croce Del S    0.51 225   Pg      Pg       06 29 41.6 -0.6
SACR                               Sg      Sg       06 29 49.9 +0.9
      109nm,0.4s
MSAG  Monte S. Angel    0.55  95   Pg      Pg       06 29 43.0 +0.1
MSAG                               Sg      Sg       06 29 51.1 +0.9
      345nm,0.2s
MSAG  Monte S. Angel    0.55  95   Pg      Pg       06 29 43.0 +0.1
MSAG                               Sg      Sg       06 29 51.1 +0.9
      345nm,0.2s
MS1   Monte Sant'Ang    0.57  95   ePg     Pg       06 29 43.4  0.0
MS1                                eSg     Sg       06 29 51.8 +0.8
PSB1  Pescosannita      0.60 208   Pg      Pg       06 29 42.9 -1.1
PSB1                               Sg      Sg       06 29 52.3 +0.3
      63nm,0.3s
PSB1  Pescosannita      0.60 208   Pg      Pg       06 29 42.9 -1.1
PSB1                               Sg      Sg       06 29 52.3 +0.3
      63nm,0.3s
PTRJ  Pietraroja        0.63 231   Pg      Pg       06 29 43.3 -1.2
      262nm,0.3s
PTRJ  Pietraroja        0.63 231   Pg      Pg       06 29 43.3 -1.2
      262nm,0.3s
SGTA  Sant Agata di     0.64 168   Pg      Pg       06 29 43.3 -1.3
SGTA                               Sg      Sg       06 29 54.1 +1.0
      158nm,0.5s
SGTA  Sant Agata di     0.64 168   Pg      Pg       06 29 43.3 -1.3
SGTA                               Sg      Sg       06 29 54.1 +1.0
      158nm,0.5s
MRB1  Monte Rocchett    0.65 194   Pg      Pg       06 29 43.9 -1.0
MRB1                               Sg      Sg       06 29 55.1 +1.6
      163nm,0.5s
MRB1  Monte Rocchett    0.65 194   Pg      Pg       06 29 43.9 -1.0
MIDA  Miranda           0.70 261   Pg      Pg       06 29 44.9 -1.0
MIDA                               Sg      Sg       06 29 56.0 +0.8
      140nm,0.2s
MIDA  Miranda           0.70 261   Pg      Pg       06 29 44.9 -1.0
MIDA                               Sg      Sg       06 29 56.0 +0.8
      140nm,0.2s
SGG   Gregorio Mates    0.71 239   Pg      Pg       06 29 44.8 -1.2
SGG                                Sg      Sg       06 29 56.0 +0.7
      82nm,0.4s
SGG   Gregorio Mates    0.71 239   Pg      Pg       06 29 44.8 -1.2
SGG                                Sg      Sg       06 29 56.0 +0.7
      82nm,0.4s
CAFE  Carife            0.73 177   Pg      Pg       06 29 45.0 -1.4
CAFE                               Sg      Sg       06 29 55.8 -0.2
CAFE  Carife            0.73 177   Pg      Pg       06 29 45.0 -1.4
CAFE                               Sg      Sg       06 29 55.8 -0.2
RNI2  Rionero Sannit    0.77 266   Pg      Pg       06 29 46.2 -1.0
RNI2                               Sg      Sg       06 29 58.2 +0.8
      177nm,0.2s
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RNI2	Rionero Sannit	0.77	266	Pg	Pg	06 29 46.2	-1.0
RNI2				Sg	Sg	06 29 58.2	+0.8
	177nm,0.2s						
VAGA	Valle Agricola	0.79	245	Pg	Pg	06 29 48.6	+1.1
	140nm,0.3s						
VAGA	Valle Agricola	0.79	245	Pg	Pg	06 29 48.6	+1.1
	140nm,0.3s						
SNAL	S. Angelo Dei	0.83	179	Pg	Pg	06 29 46.2	-2.1
	218nm,0.7s						
SNAL	S. Angelo Dei	0.83	179	Pg	Pg	06 29 46.2	-2.1
	218nm,0.7s						
VULT	Monte Vulture	0.87	158	Pg	Pg	06 29 49.6	+0.7
	414nm,0.3s						
VULT	Monte Vulture	0.87	158	Pg	Pg	06 29 49.6	+0.7
	414nm,0.3s						
MCRV	Calabrutti - M	0.97	181	Pg	Pg	06 29 48.8	-2.2
	231nm,0.4s						
MCRV	Calabrutti - M	0.97	181	Pg	Pg	06 29 48.8	-2.2
	231nm,0.4s						
PALZ	Palazzo San Ge	1.00	144	Pg	Pg	06 29 51.2	-0.3
PALZ				Sg	Sg	06 30 06.2	+1.6
	240nm,0.8s						
PALZ	Palazzo San Ge	1.00	144	Pg	Pg	06 29 51.2	-0.3
PALZ				Sg	Sg	06 30 06.2	+1.6
	240nm,0.8s						
MRLC	Muro Lucano	1.03	167	Pg	Pg	06 29 51.9	-0.1
MRLC				Sg	Sg	06 30 05.9	+0.5
	61nm,0.3s						
MRLC	Muro Lucano	1.03	167	Pg	Pg	06 29 51.9	-0.1
MRLC				Sg	Sg	06 30 05.9	+0.5
	61nm,0.3s						
SDI	San Donato	1.03	268	Pg	Pg	06 29 51.8	-0.2
	31nm,0.2s						
SDI	San Donato	1.03	268	Pg	Pg	06 29 51.8	-0.2
	31nm,0.2s						
MRVN	Minervino Murg	1.03	132	Pg	Pg	06 29 51.7	-0.4
MRVN				Sg	Sg	06 30 06.3	+0.7
	61nm,0.2s						
MRVN	Minervino Murg	1.03	132	Pg	Pg	06 29 51.7	-0.4
MRVN				Sg	Sg	06 30 06.3	+0.7
	61nm,0.2s						
ACER	Acerenza	1.13	149	Pg	Pg	06 29 52.6	-1.3
	89nm,0.7s						
ACER	Acerenza	1.13	149	Pg	Pg	06 29 52.6	-1.3
	89nm,0.7s						
VVLD	Villa Vallelon	1.17	276	Pg	Pn	06 29 52.2	-1.8
VVLD				Sg	Sn	06 30 09.4	-0.4
	108nm,0.5s						
VVLD	Villa Vallelon	1.17	276	Pg	Pn	06 29 52.2	-1.8
VVLD				Sg	Sn	06 30 09.4	-0.4
	108nm,0.5s						
CDRU	Civita di Ruta	1.27	176	Pg	Pn	06 29 55.5	+0.1
	35nm,0.4s						
CDRU	Civita di Ruta	1.27	176	Pg	Pn	06 29 55.5	+0.1
	35nm,0.4s						
AMUR	Altamura	1.37	128	Pg	Pn	06 29 56.0	-0.7
	56nm,0.2s						
AMUR	Altamura	1.37	128	Pg	Pn	06 29 56.0	-0.7
	56nm,0.2s						
PTRP	Pietrapertosa	1.40	151	Pg	Pn	06 29 59.1	+1.9
	71nm,0.6s						
PTRP	Pietrapertosa	1.40	151	Pg	Pn	06 29 59.1	+1.9
	71nm,0.6s						
BAI	Bari	1.43	116	*e*Pg	Pn	06 29 57.4	-0.2
BAI				*e*Sg	Sn	06 30 19.0	+2.8
SG1	Sgolgore (BA)	1.45	129	*e*Pg	Pn	06 29 56.6	-1.3
SG1				*e*Sg	Sn	06 30 14.7	-2.0
MIGL	Miglionico	1.49	140	Pg	Pn	06 29 58.2	-0.3
	134nm,0.5s						
MIGL	Miglionico	1.49	140	Pg	Pn	06 29 58.2	-0.3
	134nm,0.5s						
LTRZ	Laterza	1.69	133	Pg	Pn	06 30 01.2	0.0
	56nm,0.4s						
NOCI	Noci	1.72	124	Pg	Pn	06 30 03.6	+2.1
	71nm,0.2s						
NOCI	Noci	1.72	124	Pg	Pn	06 30 03.6	+2.1
	71nm,0.2s						
PE1	Pezze di Greco	1.94	119	*e*Pg	Pn	06 30 07.5	+2.9
PE1				*e*Sg	Sn	06 30 34.0	+5.3
TAR1	Taranto	2.01	127	*e*Pn	Pn	06 30 08.8	+3.3
NVLJ	Novalja	2.81	355	*e*Pn	Pn	06 30 16.9	+0.3
NVLJ				Sn	Sn	06 30 51.3	+1.1
NVLJ	Novalja	2.81	355	*e*Pn	Pn	06 30 16.8	+0.2
NVLJ				Sn	Sn	06 30 51.3	+1.1

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*DDA **26** 07:08:50.8, 39°.74N×33°.33E, h7^{km}±4^{km}, Md3.0*
*ISCJB **26** 07:08:51.2±0.5, 39°.71N±0°.03×33°.33E±0°.03, h10^{km}, Error ellipse: s-maj=4.5km s-min=3.3km az=141.8*
*CSEM **26** 07:08:51.9±0.1, 39°.75N×33°.38E, h2^{km}, MD3.1, Error ellipse: s-maj=3.5km s-min=2.9km az=113.0*
*ISK **26** 07:08:51.2, 39°.74N×33°.29E, h5^{km}, MD3.1*
ISC 26 07:08:51.8±0.5**, 39°.72N**±0°.03×**33°.35E**±0°.04**, h4**^{km}±7^{km}**, n24, σ1^s.22**/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOD	Lodumlu	0.48	291	*e*PG	Pg	07 08 60.0	-1.1
LOD				*e*SG	Sg	07 09 07.8	+0.5
LOD	Lodumlu	0.48	291	*e*Pg	Pg	07 09 00.0	-1.1
LOD				*e*Sg	Sg	07 09 07.8	+0.4
ELDT	Eldivan	0.78	4	*i* P	Pg	07 09 05.2	-1.5
ELDT				*i* S	Sg	07 09 16.8	0.0
ELDT	Eldivan	0.78	4	*i* P	Pg	07 09 05.2	-1.5
ELDT				*i* S	Sg	07 09 16.8	0.0
CDAG	Cicekdag	0.80	96	*i* P	Pg	07 09 06.6	-0.5
CDAG				*i* S	Sg	07 09 17.9	+0.5
CDAG	Cicekdag	0.80	96	*i* P	Pg	07 09 06.6	-0.5
CDAG				*i* S	Sg	07 09 17.9	+0.5
CANT	Cankiri	0.91	13	*e*PG	Pg	07 09 09.2	-0.1
CANT				*e*SG	Sg	07 09 23.6	+2.4
ILGA	Ilgaz	1.36	12	*i* P	Pn	07 09 16.8	-0.8
ILGA				*i* S	Sb	07 09 34.3	-1.3
ILGA	Ilgaz	1.36	12	*i* P	Pn	07 09 16.8	-0.8
ILGA				*i* S	Sb	07 09 34.3	-1.3
CTKT	Corum	1.43	50	*i* P	Pn	07 09 17.7	-0.8
CTKT				*i* S	Sg	07 09 39.2	+1.5
CTKT	Corum	1.43	50	*i* P	Pn	07 09 17.7	-0.7
CTKT				*i* S	Sg	07 09 39.2	+1.5
SVRH	Sivrihisar-ESK	1.44	260	*e*PN	Pg	07 09 18.5	-0.8
SVRH				*e*SN	Sg	07 09 39.7	+1.7
SVRH	Sivrihisar-ESK	1.44	260	*e*Pn	Pg	07 09 18.5	-0.8
SVRH				*e*Sn	Sg	07 09 39.7	+1.7
SULT	Sultanhani-AKS	1.52	175	*e*PN	Pn	07 09 20.3	+0.6
SULT	Sultanhani-AKS	1.52	175	*e*Pn	Pn	07 09 20.3	+0.6
YOZ	Yozgat	1.52	92	*e*PN	Pn	07 09 20.5	+0.7
YOZ	Yozgat	1.52	92	*e*Pn	Pn	07 09 20.5	+0.8
KDHN	Kadinhani	1.53	219	*i* P	Pg	07 09 21.7	+0.6
KDHN				*i* S	Sg	07 09 41.8	+0.8
KDHN	Kadinhani	1.53	219	*i* P	Pg	07 09 21.7	+0.6
KDHN				*i* S	Sg	07 09 41.8	+0.8
KONT	Konya--Tatoy	1.93	204	*e*PN	Pg	07 09 26.8	-2.0
KONT	Konya--Tatoy	1.93	204	*e*Pn	Pg	07 09 26.8	-2.0
BNN	Bunyan	2.12	113	*e*PN	Pg	07 09 30.4	-2.0
BNN	Bunyan	2.12	113	*e*Pn	Pg	07 09 30.4	-2.1
SVSK	Karacayir	2.82	85	*e*PN	Pn	07 09 40.1	+2.6

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*IDC **26** 07:21:51.1±0.7, 16°.79N×119°.32E, h0^{km}, mb3.9/9, mb1 4.1/9, mb1mx3.9/22, mbtmp3.9/9, Error ellipse: s-maj=48.4km s-min=15.2km az=70.0*
*ISCJB **26** 07:21:54.4±0.7, 16°.8N±0°.1×119°.4E±0°.2, h33^{km}, mb4.0/8, Error ellipse: s-maj=35.4km s-min=12.8km az=159.4*
*NEIC **26** 07:21:56.4±0.6, 16°.83N×119°.51E, h35^{km}, mb4.2/2, Error ellipse: s-maj=51.2km s-min=12.0km az=65.0*
ISC 26 07:21:56.5±0.7**, 16°.8N**±0°.1×**119°.4E**±0°.2**, h35**^{km}**, n15, σ0^s.81**/14**, mb4.0**/8**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	21.90	18	P	P	07 26 46.8	+0.2
	3.3nm,0.9s,mb3.8,baz=198,slow=10,SNR=5.0						
SONM	Songino Array	32.76	344	P	P	07 28 25.1	-0.9
	0.3nm,0.5s,baz=160,slow=9.2,SNR=3.3						
WRA	Warramunga Arr	39.34	158	P	P	07 29 21.5	-1.0
	1.2nm,0.6s,mb3.8,baz=339,slow=9.2,SNR=10						
WRA				PcP	PcP	07 31 31.4	+0.6
	0.7nm,0.4s,baz=340,slow=3.0,SNR=6.2						
ASAR	Alice Springs	42.63	160	P	P	07 29 49.4	-0.2
	1.2nm,0.5s,mb3.9,baz=338,slow=6.8,SNR=28						
ASAR				PcP	PcP	07 31 42.0	+0.7
	0.5nm,0.4s,baz=344,slow=3.1,SNR=7.9						
MK31	Makanchi Array	42.84	322	*e*P	P	07 29 52.7	+1.6
MKAR	Makanchi Array	42.84	322	P	P	07 29 50.7	-0.4
	1.1nm,0.9s,mb3.6,baz=118,slow=9.8,SNR=8.6						
MKAR				PcP	PcP	07 31 41.1	-0.7
	0.3nm,0.8s,baz=116,slow=3.4,SNR=3.4						
MKAR	Makanchi Array	42.84	322	P	P	07 29 50.7	-0.4
MKAR				PcP	PcP	07 31 41.1	-0.7
KURK	Kurchatov	46.95	325	P	P	07 30 23.4	-0.4
	2.5nm,0.6s,mb4.3,baz=122,slow=8.8,SNR=32						
KURK	Kurchatov	46.95	325	*e*P	P	07 30 23.2	-0.6
	4.9nm,0.7s,mb4.5						
STKA	Stephens Creek	52.86	156	P	P	07 31 10.2	+1.4
	2.5nm,0.8s,mb4.2,baz=13,slow=6.1,SNR=6.5						
STKA	Stephens Creek	52.86	156	*e*P	P	07 31 10.0	+1.1
	0.9nm,0.9s,mb3.7						
ARCES	ARCESS Array B	75.77	339	P	P	07 33 38.2	-0.2
	2.5nm,0.9s,mb4.2,baz=55,slow=6.7,SNR=3.1						
YKA	Yellowknife Ar	90.39	22	P	P	07 34 54.2	+0.2
	0.4nm,0.6s,mb3.9,baz=315,slow=4.3,SNR=14						
YKA	Yellowknife Ar	90.39	22	P	P	07 34 54.2	+0.2
SDV	Santo Domingo	152.61	22	PKPbc	PKPbc	07 41 50.2	-0.2
	2.9nm,0.7s,baz=344,slow=5.7,SNR=7.9						

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*IDC **26** 07:27:12.6±1.5, 2°.68S×99°.97E, h0^{km}, mb3.9/9, mb1 4.1/9, mb1mx3.9/24, mbtmp3.9/9, MS2.7/1, Ms1 2.7/1, ms1mx2.3/30, Error ellipse: s-maj=76.1km s-min=17.4km az=52.0*
*DJA **26** 07:27:14, 2°.69S×100°.45E, h10^{km}, MLv4.2/4*
*ISCJB **26** 07:27:16.7±0.6, 2°.63S±0°.05×100°.1E±0°.1, h42^{km}±5^{km}, mb4.0/9, Error ellipse: s-maj=18.3km s-min=8.2km az=0.6*
*NEIC **26** 07:27:18.3±0.9, 2°.54S×100°.18E, h35^{km}, mb4.5/2, Error ellipse: s-maj=43.5km s-min=9.9km az=53.0*
ISC 26 07:27:17.5±0.9**, 2°.61S**±0°.05×**100°.2E**±0°.1**, h30**^{km}±8^{km}**, n19, σ0^s.96**/20**, mb4.0**/9**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.22	226	P	Pb	07 27 21.7	-2.3
PPSI				S	Sb	07 27 29.2	+0.9
SISI	Saibi	1.67	320	P	Pn	07 27 46.5	+1.7
SISI				S	Sx	07 28 13.5	
PDSI	Padang	1.71	10	P	Pn	07 27 45.9	+0.5
PDSI				S	Sn	07 28 05.8	-0.4
PPI	Padang Panjang	2.15	6	P	Pn	07 27 52.7	+1.3
PPI				S	Sn	07 28 16.8	-0.3
PSI	Prapat	5.51	347	LR	LR	07 30 47.4	
	comp=Z,83nm,21.1s,baz=337,slow=40						
CMAR	Chiang Mai Arr	20.97	357	P	P	07 31 56.7	-1.6
	1.3nm,0.5s,baz=190,slow=11,SNR=4.8						
WRA	Warramunga Arr	37.54	120	P	P	07 34 29.2	-0.1
	0.9nm,0.7s,mb3.6,baz=303,slow=9.1,SNR=7.8						
WRAB	Tennant Creek	37.55	120	*e*P	P	07 34 29.2	-0.3
	7.6nm,1.2s,mb4.3						
ASAR	Alice Springs	38.76	126	P	P	07 34 39.8	+0.2
	0.7nm,0.6s,mb3.6,baz=306,slow=8.3,SNR=7.6						
STKA	Stephens Creek	48.62	131	P	P	07 36 00.0	+1.2
	0.6nm,0.4s,mb4.0,baz=321,slow=9.3,SNR=2.9						
EKS2	Erkin-Say	50.98	335	*e*P	P	07 36 17.0	+0.5
MK31	Makanchi Array	51.66	344	*e*P	P	07 36 21.4	-0.2
MKAR	Makanchi Array	51.66	344	P	P	07 36 22.1	+0.6
	1.8nm,0.7s,mb4.1,baz=148,slow=8.2,SNR=20						
KURK	Kurchatov	56.23	344	P	P	07 36 54.2	-0.7
	2.8nm,0.9s,mb4.3,baz=158,slow=7.3,SNR=8.3						
KURK	Kurchatov	56.23	344	*e*P	P	07 36 54.9	0.0
	5.3nm,1.0s,mb4.5						
BVAR	Borovoye Array	60.81	340	P	P	07 37 26.1	-0.6
	0.4nm,0.5s,mb3.8,baz=148,slow=8.5,SNR=3.8						
BRTR	Keskin Array B	73.85	313	P	P	07 38 48.1	-1.6
	0.4nm,0.6s,mb3.5,baz=152,slow=6.5,SNR=2.8						
ARCES	ARCESS Array B	87.10	340	P	P	07 40 00.4	+0.3
	2.5nm,0.9s,mb4.4,baz=93,slow=4.9,SNR=3.7						
TXAR	Lajitas Array	145.08	38	PKPbc	PKPbc	07 46 53.1	+0.9
	1.3nm,0.7s,baz=202,slow=3.0,SNR=6.7						

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*IDC **26** 07:29:58.2±0.7, 35°.32S×179°.12W, h45^{km}±5^{km}, mb4.0/9, mb1 4.2/10, mb1mx4.1/18, mbtmp4.0/10, ML4.5/1, MS3.6/2, Ms1 3.7/2, ms1mx2.8/24, Error ellipse: s-maj=18.7km s-min=12.7km az=138.0*
*ISCJB **26** 07:29:59.1±2.6, 35°.6S±0°.1×179°.3W±0°.2, h65^{km}±21^{km}, mb4.2/10, Error ellipse: s-maj=29.8km s-min=15.8km az=41.7*
*NEIC **26** 07:30:01.4±2.5, 35°.88S×179°.22W, h78^{km}±20^{km}, mb4.6/2, Error ellipse: s-maj=27.6km s-min=14.5km az=46.0*
ISC 26 07:29:60.0±2.5**, 35°.6S**±0°.2×**179°.2W**±0°.2**, h61**^{km}±21^{km}**, h47**^{km}±3.5^{km}**:pP-P, n65, σ0^s.86**/35**, mb4.2**/10**, East of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	2.81	225	P	Pn	07 30 42.5	+0.1
MXZ				S	Sx	07 31 19.9	
PUZ	Puketiti	3.20	219	P	Pn	07 30 47.9	+0.1
PUZ				S	Sx	07 31 29.4	
MWZ	Matawai	3.78	223	P	Pn	07 30 56.1	+0.3
URZ	Urewera	3.97	227	P	Pn	07 30 58.8	+0.4
	28nm,0.3s,baz=31,slow=9.1,SNR=92						
URZ				S	Sx	07 31 47.9	
	30nm,0.3s,baz=147,slow=22,SNR=18						
URZ	Urewera	3.97	227	P	Pn	07 30 58.6	+0.2
EDRZ	Edgecumbe	4.11	232	P	Pn	07 31 00.9	+0.7
KNZ	Kokohu	4.22	215	P	Pn	07 31 00.7	-1.1
KUZ	Kuaotunu	4.28	253	P	Pn	07 31 02.8	+0.3
MKAZ	Moumakai	4.80	250	P	Pn	07 31 10.6	+0.9
BKZ	Black Stump Fm	4.94	223	P	Pn	07 31 11.7	+0.1
WTVZ	West Tongariro	5.44	228	P	Pn	07 31 19.3	+0.9
NGZ	Ngauruhoe	5.47	228	P	Pn	07 31 19.6	+0.8
TUVZ	Tukino	5.49	227	P	Pn	07 31 19.9	+0.7
WNVZ	Wahianoa	5.56	227	P	Pn	07 31 20.1	-0.1
TSZ	Takapari Road	5.87	219	P	Pn	07 31 22.6	-1.7
OUZ	Omahuta	5.91	272	*e*Pn	Pn	07 31 24.6	-0.3
	18nm,0.6s						
DVHZ	Dannevirke	5.95	217	P	Pn	07 31 23.4	-2.0
WAZ	Wanganui	6.20	226	P	Pn	07 31 29.1	+0.2
MRZ	Mangatainoka R	6.51	218	P	Px	07 31 30.5	
MTW	Mount Morrison	6.93	215	P	Px	07 31 35.3	
KIW	Kapiti Island	7.00	220	P	Px	07 31 37.5	
CAW	Cannon Point	7.10	218	P	Px	07 31 37.9	
PAWZ	Paruwai Farm	7.14	215	P	Px	07 31 38.5	
MRW	Makara Radio	7.38	219	P	Px	07 31 42.5	
SNZO	South Karori	7.44	218	P	Px	07 31 41.6	
TCW	Tory Channel	7.59	221	P	Px	07 31 45.1	
NNZ	Nelson	8.08	224	P	Px	07 31 52.7	
BSWZ	Blackbirch Sta	8.16	220	P	Px	07 31 54.1	
QRZ	Quartz Range	8.34	229	P	Px	07 31 54.8	
THZ	Tophouse	8.71	223	P	Px	07 31 59.1	
KHZ	Kahutara	8.84	218	P	Px	07 32 03.4	
LTZ	Lake Taylor	9.76	220	P	Px	07 32 14.2	
RPZ	Rata Peaks	11.04	220	P	Pn	07 32 33.1	-2.0
	0.9nm,0.3s,baz=19,slow=4.9,SNR=4.1						
RPZ				S	Sn	07 34 29.2	-7.6
	2.9nm,0.3s,baz=328,slow=19,SNR=14						
RPZ	Rata Peaks	11.04	220	*e*Pn	Pn	07 32 38.8	+3.8
RPZ				*e*Sn	Sn	07 34 29.5	-7.4
STKA	Stephens Creek	32.68	265	P	P	07 36 27.6	+1.2
	1.1nm,0.4s,mb4.1,baz=57,slow=8.5,SNR=2.9						
STKA				LR	LR	07 47 22.0	
	comp=Z,96nm,20.1s,baz=26,slow=32						
ASAR	Alice Springs	42.12	273	P	P	07 37 46.2	-0.1
	4.6nm,0.6s,mb4.3,baz=116,slow=7.6,SNR=60						
ASAR				pP	pP	07 37 59.4	-2.4
	4.5nm,0.6s,baz=115,slow=7.7,SNR=8.7						
WRAB	Tennant Creek	43.58	278	*e*P	P	07 37 56.9	-1.2
	6.5nm,0.8s,mb4.4						
WRA	Warramunga Arr	43.58	278	P	P	07 37 57.6	-0.6
	2.5nm,0.4s,mb4.3,baz=118,slow=7.6,SNR=23						
WRA				pP	pP	07 38 10.6	-3.1
	3.2nm,0.6s,baz=120,slow=7.7,SNR=7.0						
WRA				PcP	PcP	07 39 45.1	+0.3
	1.0nm,0.8s,baz=118,slow=3.4,SNR=4.9						
FITZ	Fitzroy Crossi	51.57	275	P	P	07 38 60.0	-0.1
	4.1nm,0.9s,mb4.3,baz=129,slow=13,SNR=4.5						
QSPA	South Pole Qui	54.51	180	P	P	07 39 24.6	+3.8
	5.0nm,0.7s,mb4.7,baz=43,slow=1.3,SNR=14						
QSPA	South Pole Qui	54.51	180	*e*P	P	07 39 24.0	+3.1
	5.1nm,0.7s,mb4.7						
PLCA	Paso Flores	79.69	133	P	P	07 42 01.8	+0.8
	1.2nm,0.9s,mb3.8,baz=235,slow=16,SNR=3.0						
CFAA	Coronel Fontan	86.91	127	P	P	07 42 38.3	0.0
	0.3nm,1.1s,mb3.5,baz=194,slow=8.4,SNR=5.9						
PETK	Petropavlovsk-	90.62	346	P	P	07 42 54.4	-0.6
	3.7nm,0.6s,mb4.9,baz=110,slow=7.0,SNR=8.0						
PETK	Petropavlovsk-	90.62	346	P	P	07 42 54.4	-0.6
NVAR	Mina Array Bea	92.72	43	P	P	07 43 05.3	+0.1
	0.4nm,0.7s,mb3.9,baz=223,slow=5.9,SNR=3.6						
NVAR				pP	pP	07 43 17.5	-4.9
	0.1nm,0.3s,baz=274,slow=37,SNR=2.7						
NVAR	Mina Array Bea	92.72	43	P	P	07 43 05.3	+0.1
NVAR				pP	pP	07 43 17.5	-4.9
CMAR	Chiang Mai Arr	94.20	290	LR	LR	08 26 35.2	
	comp=Z,26nm,18.3s,baz=90,slow=36						
YKA	Yellowknife Ar	110.55	27	PKiKP	PKiKP	07 48 23.5	-1.0
	0.1nm,0.3s,baz=253,slow=1.6,SNR=4.1						
MKAR	Makanchi Array	120.28	308	PKP	PKPdf	07 48 42.8	-0.9
	0.7nm,0.7s,baz=204,slow=1.5,SNR=6.9						
KURK	Kurchatov	123.85	312	PKP	PKPdf	07 48 49.5	-0.9
	1.5nm,0.6s,baz=119,slow=1.8,SNR=13						
KURK				pPKP	pPKPdf	07 49 03.8	-4.5
	0.5nm,0.6s,baz=115,slow=1.8,SNR=3.9						
BVAR	Borovoye Array	129.34	313	PKP	PKPdf	07 49 00.5	-0.3
	1.4nm,0.6s,baz=93,slow=3.0,SNR=8.4						
BVAR				pPKP	pPKPdf	07 49 14.6	-4.1
	0.6nm,0.5s,baz=132,slow=2.2,SNR=2.9						
AKTK	Aktyubinsk	136.72	308	PKP	PKPdf	07 49 14.6	-0.2
AKTO	Aktyubinsk	136.72	308	PKP	PKPdf	07 49 14.6	-0.2
	0.7nm,0.6s,baz=30,slow=23,SNR=3.7						
KEV	Kevo	142.94	345	*e*pkp	PKPdf	07 49 20.7	-4.8
ARCES	ARCESS Array B	143.43	346	PKhKP		07 49 22.7	
	2.1nm,0.9s,baz=46,slow=3.5,SNR=7.0						
GNI	Garni	145.31	291	*e*PKPdf	PKPdf	07 49 32.0	+1.5
JOF	Joensuu	146.81	335	*e*pkp	PKPdf	07 49 31.2	-1.1
	6.4nm,0.6s						
KAF	Kangasniemi	149.04	337	*e*pkp	PKPdf	07 49 38.4	+2.4
FINES	FINESS Array B	149.60	336	PKPbc	PKPbc	07 49 41.1	-0.5
	7.9nm,0.8s,baz=111,slow=4.3,SNR=14						
FINES				pPKPbc	pPKPbc	07 49 54.2	-5.2
	4.4nm,0.6s,baz=119,slow=6.7,SNR=4.4						
DBIC	Dimbokro	150.72	168	PKPbc	PKPbc	07 49 46.4	+0.6
	5.4nm,0.6s,baz=86,slow=3.5,SNR=9.8						
DBIC	Dimbokro	150.72	168	PKPbc	PKPbc	07 49 46.4	+0.6
BRTR	Keskin Array B	153.78	289	PKPbc	PKPbc	07 49 52.4	+0.4
	0.9nm,0.7s,baz=111,slow=3.7,SNR=4.4						
AKASG	Malin Array Be	154.58	315	PKPbc	PKPbc	07 49 52.7	-0.6
	0.4nm,0.4s,baz=49,slow=2.2,SNR=2.6						
AKASG				PKPab	PKPab	07 50 05.8	-2.4
	0.2nm,0.3s,baz=52,slow=3.9,SNR=5.2						
TORD	Torodi Ar. Bea	157.62	182	PKP	PKPdf	07 49 48.1	-1.7
	0.3nm,0.8s,baz=121,slow=1.2,SNR=2.6						
TORD				PKPab	PKPab	07 50 22.8	+0.9
	0.9nm,0.8s,baz=170,slow=3.8,SNR=8.4						

ISC 26 07:31:03.7±1.1**, 40°.11N**±0°.08×**75°.0E**±0°.1**, h10**^{km}**, n13, σ1^s.04**/15**, 3C-2D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.99	127	⇑*i*Pg	Pg	07 31 22.5	-0.2
KSH				Sg	Sg	07 31 36.0	+0.4
KSH				smax			
	comp=N,140nm,0.2s						
KSH				smax			
	comp=E,210nm,0.2s						
KZA	Kyzart	1.98	6	P	Pn	07 31 35.2	-2.0
	SNR=36						
UCH	Uchtor	2.14	351	P	Pn	07 31 38.7	-0.7
	SNR=91						
AML	Almayashu	2.23	335	P	Pn	07 31 40.6	-0.1
	SNR=39						
ULHL	Ulahol	2.34	24	P	Pn	07 31 41.4	-0.9
	SNR=31						
AAK	Ala-Archa	2.54	352	P	Pn	07 31 45.0	+0.1
	SNR=41						
KBK	Karagaybulak	2.54	360	P	Pn	07 31 45.0	0.0
	SNR=27						
EKS2	Erkin-Say	2.69	341	P	Pn	07 31 49.6	+2.5
	SNR=32						
TKM2	Tokmak 2	2.85	10	⇑Pn	Pn	07 31 48.7	-0.4
	comp=E,10nm,0.3s						
TKM2				⇓Sn	Sn	07 32 24.1	+0.6
	comp=E,16nm,0.5s						
TKM2	Tokmak 2	2.85	10	P	Pn	07 31 49.0	-0.2
	SNR=40						
CHMS	Chumysh	2.89	357	P	Pn	07 31 52.1	+2.4
	SNR=15						
USP	Ospenovka	3.17	354	P	Pn	07 31 53.4	-0.2
	SNR=32						
KK31	Karatay Array	4.47	313	⇓Pn	Pn	07 32 11.0	-0.4
	comp=E,0.8nm,0.3s,baz=126,slow=12,SNR=12						
KK31				⇑Lg		07 33 19.0	
	comp=E,1.9nm,0.4s,baz=131,slow=28,SNR=4.1						

MEX 26 07:34:31.4±0.7**, 16°.72N**×**99°.73W, h7**^{km}±4^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.23	309	*i* P	Pg	07 34 35.5	-0.4
ACX				*i* S	Sg	07 34 39.2	+0.2
CAIG	El Cayaco	0.60	302	*e*P	Pg	07 34 42.2	-0.8
CAIG				*i* S	Sg	07 34 51.0	0.0
MEIG	Mezcala	1.20	5	*i* P	Pg	07 34 50.5	-3.9
MEIG				*i* S	Sg	07 35 05.6	-4.5
PNIG	Pinotepa	1.58	102	*i* P	Pn	07 34 56.0	-3.7
PNIG				*i* S	Sn	07 35 15.8	-4.6
UTMO	Huajuapan	2.15	59	*i* P	Pn	07 35 05.9	-1.7
UTMO				*i* S	Sn	07 35 31.9	-2.6

FUNV 26 07:44:04.2, 6°.87N×**73°.19W, h169**^{km}**, MW3.5, 2C, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.32	41	⇑*e*P	Pn	07 44 33.1	-0.4
CAPV				*e*S	Sn	07 44 54.2	-1.9
VIGV	El Vigia	2.67	43	*e*P	Pn	07 44 47.6	-0.7
VIGV				*e*S	Sn	07 45 19.0	-3.5
SOCV	Socops	2.71	59	*e*P	Pn	07 44 47.9	-0.9
SOCV				*e*S	Sn	07 45 20.0	-3.3
ELOV	Elorza	3.68	88	*e*P	Pn	07 44 59.2	-1.7
VIRV	Villa del Rosa	3.69	12	*e*P	Pn	07 44 59.8	-1.2
VIRV				*e*S	Sn	07 45 40.3	-5.2
QARV	Quebrada Arrib	4.24	38	⇑*e*P	Pn	07 45 07.4	-0.7
SANV	Sanarito	4.46	54	*e*P	Pn	07 45 09.6	-1.4
SANV				*e*S	Sn	07 45 58.3	-4.9
CURV	Curarigua	4.47	45	*e*P	Pn	07 45 09.7	-1.3
CURV				*e*S	Sn	07 45 57.9	-5.4
DABV	Dabajuro	4.75	32	*e*P	Pn	07 45 12.4	-2.4
TEPV	Terepaima	5.01	52	*e*P	Pn	07 45 16.1	-2.0
SIQV	Siquisique	5.03	41	*e*P	Pn	07 45 16.8	-1.6
BAUV	El Baul	5.50	68	*e*P	Pn	07 45 22.1	-2.4
MONV	Montecano	5.97	32	*e*P	Pn	07 45 29.2	-1.5
TURV	Turiamo	6.38	56	*e*P	Pn	07 45 34.2	-1.8
CAOV	Caicara del Or	6.83	86	*e*P	Pn	07 45 39.7	-2.4

KRSC 26 07:50:04.9±0.7**, 55°.76N**×**162°.70E, h30**^{km}±30^{km}**, ML3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.45	8	*i* P	Pb	07 50 14.9	+0.3
KBTR				*i* S	Sb	07 50 23.4	+2.2
ZLN	Zelenaya	1.10	284	*e*P	Pn	07 50 24.8	+0.6
ZLN				*i* S	Sn	07 50 39.2	+0.9
BZGR	Bezymyannyi-Gr	1.14	280	*e*P	Pn	07 50 25.5	+0.7
BZGR				*i* S	Sn	07 50 40.1	+0.7
SRKR	Sorokina	1.24	317	*e*P	Pn	07 50 27.4	+1.3
SRKR				*i* S	Sn	07 50 43.6	+1.8
KLY	Klyuchi	1.28	297	*e*P	Pn	07 50 26.8	+0.2
KLY				*i* S	Sn	07 50 42.9	+0.2
KRSR	Krestovskiy	1.28	292	*i* P	Pn	07 50 27.2	+0.5
KRSR				*e*S	Sn	07 50 43.5	+0.6
MKZ	Mys Kozlova	1.33	205	P	Pn	07 50 28.4	+1.1
MKZ				*i* S	Sn	07 50 46.3	+2.3
KMNR	Kamenistaya	1.39	271	*i* P	Pn	07 50 29.8	+1.6
KMNR				*i* S	Sn	07 50 47.8	+2.2
KPT	Kopyto	1.41	279	*i* P	Pn	07 50 29.8	+1.3
KPT				*i* S	Sn	07 50 48.3	+2.3
TUMR	Tumrok	1.53	253	*i* P	Pn	07 50 32.0	+1.9
TUMR				*i* S	Sn	07 50 51.3	+2.4
KOZ	Kozyrevsk	1.62	282	*e*P	Pn	07 50 33.4	+2.1
KOZ				*i* S	Sn	07 50 54.5	+3.3
SRDR	Sredinnyy	1.77	290	*i* P	Pn	07 50 35.3	+2.0
SRDR				*i* S	Sn	07 50 57.1	+2.4
BKI	Bering	1.94	105	*e*P	Pn	07 50 37.4	+1.6

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI				*i* S	Sn	07 51 00.6	+1.4
SPN	Mys Shipunski	3.09	211	P	Pn	07 50 54.2	+2.6
SPN				*i* S	Sn	07 51 30.5	+3.0
NLC	Nalytchevo	3.25	218	P	Pn	07 50 55.7	+2.0
NLC				*i* S	Sn	07 51 33.4	+2.0
AVH	Avacha	3.40	224	P	Pn	07 50 58.1	+2.2
GNL	Ganaly	3.45	235	P	Pn	07 50 59.3	+2.8
PET	Petropavlovsk	3.62	222	P	Pn	07 51 02.2	+3.4

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*ISCJB **26** 07:58:53.6±0.3, 35°.96N±0°.02×117°.73W±0°.02, h10^{km}, Error ellipse: s-maj=3.1km s-min=2.5km az=147.9*

*NEIC **26** 07:58:53.7, 35°.95N×117°.73W, h2^{km}, ML3.0(PAS), After PAS.*

ISC 26 07:58:53.5±0.4**, 35°.95N**±0°.02×**117°.72W**±0°.02**, h4**^{km}±4^{km}**, n29, σ0^{s}.75**/46**, 14C-11D, Central California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPMC	Manual Prospec	0.22	60	P	Pg	07 58 58.0	+0.2
	baz=0.2,SNR=1000						
MPMC				⇓S	Sg	07 59 01.3	+0.6
	baz=0.2						
LRMC	Laurel Mountai	0.47	177	⇓P	Pg	07 59 02.5	-0.1
	baz=0.5,SNR=33						
LRMC				⇓S	Sg	07 59 09.7	+1.0
	baz=0.5						
CWC	Cottonwood Cre	0.57	329	P	Pg	07 59 04.6	+0.2
	baz=0.6,SNR=37						
CWC				⇓S	Sg	07 59 12.4	+0.6
	baz=0.6						
ISA	Isabella	0.68	245	P	Pg	07 59 06.4	-0.1
	baz=0.7,SNR=708						
ISA				⇓S	Sg	07 59 15.5	+0.2
	baz=0.7						
ISA	Isabella	0.68	245	*e*Pg	Pg	07 59 06.4	-0.1
ISA				*e*Sg	Sg	07 59 15.4	+0.1
FURC	Furnace Creek,	0.87	53	P	Pg	07 59 10.4	+0.2
	baz=0.9,SNR=170						
FURC				⇓S	Sg	07 59 22.3	+0.8
	baz=0.9						
GSC	Goldstone	0.99	131	P	Pg	07 59 12.2	-0.3
	baz=1.0,SNR=44						
GSC				⇓S	Sg	07 59 25.8	+0.6
	baz=1.0						
GSC	Goldstone	0.99	131	*e*Pg	Pg	07 59 11.9	-0.6
GSC				*e*Sg	Sg	07 59 24.5	-0.8
GRAC	Grapevine Rang	1.08	15	P	Pg	07 59 13.9	-0.4
	baz=1.1,SNR=244						
EDW2	Edwards Air Fo	1.09	192	P	Pg	07 59 13.7	-0.8
	baz=1.1,SNR=152						
VES	Vestal, Richgr	1.11	265	P	Pg	07 59 14.6	-0.3
	baz=1.1,SNR=30						
VES				⇑S	Sg	07 59 29.5	+0.3
	baz=1.1						
SHOC	Shoshone	1.17	92	⇑P	Pg	07 59 16.0	0.0
	baz=1.2,SNR=18						
SHOC				⇑S	Sg	07 59 32.0	+0.8
	baz=1.2						
U10A	Ash Meadows, A	1.22	67	⇑P	Pg	07 59 16.5	-0.4
	baz=1.2,SNR=213						
U10A				⇓S	Sg	07 59 33.3	+0.6
	baz=1.2						
RRX	Edison Barstow	1.22	151	⇑P	Pg	07 59 16.6	-0.4
	baz=1.2,SNR=29						
ARVC	Arvin	1.22	228	P	Pg	07 59 16.7	-0.3
	baz=1.2,SNR=30						
ARVC				⇑S	Sg	07 59 32.8	+0.1
	baz=1.2						
TUQ	Turquoise Moun	1.55	109	⇑P	Pn	07 59 20.8	-1.0
	baz=1.6,SNR=33						
TUQ				⇑Sb	Sb	07 59 43.7	+1.0
	baz=1.6						
HEC	Hector,Ludlow	1.59	134	⇓P	Pn	07 59 21.2	-1.2
	baz=1.6,SNR=29						
BFSC	Mount Baldy St	1.71	178	⇑Sb	Sb	07 59 48.2	+0.9
	baz=1.7						
MWC	Mount Wilson	1.75	189	*e*Pn	Pn	07 59 26.0	+1.5
MWC				*e*Sg	Sg	07 59 49.7	+0.1
DECC	Green Verdugo	1.77	197	⇑Sb	Sb	07 59 50.1	+1.1
	baz=1.8						
BBRC	Big Bear Sol-O	1.81	158	⇑Sb	Sb	07 59 51.6	+1.4
	baz=1.8						
S09A	Goldfield	1.81	13	⇑P	Pn	07 59 24.6	-0.9
	baz=1.8,SNR=36						
V11A	Goodsprings	1.86	93	P	Pn	07 59 25.5	-0.6
	baz=1.9,SNR=14						
GMRC	Granite Mounta	2.05	124	⇑P	Pn	07 59 27.2	-1.5
	baz=2.1,SNR=17						
S10A	Tonopah Range,	2.17	24	⇓P	Pn	07 59 30.4	0.0
	baz=2.2,SNR=31						
V12A	Nelson	2.34	95	⇓P	Pn	07 59 32.2	-0.6
	baz=2.3,SNR=6.1						
T11A	Corn Creek, Al	2.39	57	⇑P	Pn	07 59 33.6	+0.2
	baz=2.4,SNR=7.5						
PFO	Pinyon Flat Ob	2.56	156	Pn	Pn	07 59 35.8	+0.1
PFO				*e*Pg	Pg	07 59 41.2	-1.3
PFO				*e*Sg	Sg	08 00 14.3	-1.4
CMB	Columbia Colle	2.98	315	*e*Pg	Pg	07 59 45.6	-5.0
CMB				*e*Sg	Sg	08 00 22.9	-6.4

IDC 26 08:03:10.6±1.7**, 6°.06S**×**105°.25E, h0**^{km}**, mb3.9**/7**, mb1 4.0**/7**, mb1mx3.8**/25**, mbtmp3.9**/7**, Error ellipse: s-maj=115.5km s-min=18.5km az=49.0, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	31.45	119	P	P	08 09 34.5	+0.5
	1.0nm,0.6s,baz=292,slow=9.6,SNR=4.0						
ASAR	Alice Springs	32.65	125	P	P	08 09 44.5	0.0
	0.8nm,0.9s,baz=291,slow=7.8,SNR=4.2						
STKA	Stephens Creek	42.56	132	*e*P	P	08 11 07.4	-1.0
	4.5nm,0.6s						
STKA	Stephens Creek	42.56	132	P	P	08 11 08.1	-0.3
	5.3nm,0.6s,baz=302,slow=9.2,SNR=29						
MKAR	Makanchi Array	56.43	341	P	P	08 12 54.9	+0.9
	0.9nm,0.5s,baz=154,slow=8.5,SNR=34						
KURK	Kurchatov	61.04	341	P	P	08 13 24.5	-1.5
	0.4nm,0.7s,baz=153,slow=6.4,SNR=2.0						
BVAR	Borovoye Array	65.84	338	P	P	08 13 57.4	-0.4
	0.8nm,0.6s,baz=134,slow=6.2,SNR=5.4						
BRTR	Keskin Array B	79.91	312	P	P	08 15 22.3	+0.6
	0.5nm,0.5s,baz=72,slow=4.7,SNR=2.8						
TXAR	Lajitas Array	144.22	46	PKP	PKPdf	08 22 48.7	-0.6
	0.4nm,0.5s,baz=267,slow=2.1,SNR=4.6						

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*NEIC **26** 08:07:35.4±1.8, 6°.75S×129°.45E, h132^{km}±18^{km}, mb4.7/5, Error ellipse: s-maj=16.0km s-min=12.2km az=65.0*

*IDC **26** 08:07:35.3±4.0, 6°.75S×129°.51E, h131^{km}±37^{km}, mb3.8/10, mb1 3.9/13, mb1mx3.8/22, mbtmp3.8/13, Error ellipse: s-maj=35.5km s-min=13.1km az=67.0*

ISC 26 08:07:36.2±1.8**, 6°.90S**±0°.07×**129°.38E**±0°.09**, h137**^{km}±18^{km}**, n26, σ1^{s}.29**/31**, mb4.0**/10**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.51	153	*e*P	Pn	08 09 11.8	+2.1
	27nm,0.3s						
KAKA				*e*S	Sn	08 10 20.4	-2.4
KAKA	Kakadu	6.51	153	*e*Pn	Pn	08 09 11.4	+1.7
	90nm,0.5s						
KAKA				*e*Sn	Sn	08 10 20.0	-2.8
FITZ	Fitzroy Crossi	11.71	198	*e*P	Pn	08 10 22.1	+2.9
	9.1nm,0.3s						
FITZ				*e*S	Sn	08 12 23.7	-4.8
FITZ	Fitzroy Crossi	11.71	198	P	Pn	08 10 19.5	+0.4
	0.3nm,0.3s,baz=18,slow=12,SNR=5.5						
FITZ				S	Sn	08 12 24.7	-3.7
	6.3nm,0.3s,baz=62,slow=22,SNR=13						
WRAB	Tennant Creek	13.82	160	*e*Pn	Pn	08 10 46.0	-0.4
	5.6nm,0.6s						
WRAB				*e*Sn	Sn	08 13 11.0	-8.3
WRA	Warramunga Arr	13.83	160	P	Pn	08 10 45.9	-0.6
	0.9nm,0.3s,baz=345,slow=11,SNR=8.4						
WRA				S	Sn	08 13 12.9	-6.5
	2.5nm,0.3s,baz=345,slow=22,SNR=8.5						
COEN	Coen	15.26	118	*e*P	Pn	08 11 04.3	-0.4
	122nm,0.7s						
MBWA	Marble Bar	16.97	212	*e*P	Pn	08 11 26.7	+1.2
	7.7nm,0.7s						
MBWA				*e*S	S	08 14 33.2	-1.4
ASAR	Alice Springs	17.23	166	P	Pn	08 11 30.6	+2.0
	1.3nm,0.3s,baz=344,slow=9.5,SNR=75						
ASAR				S	S	08 14 39.1	-1.1
	0.7nm,0.3s,baz=352,slow=22,SNR=7.3						
CTA	Charters Tower	20.97	130	P	P	08 12 09.1	+0.4
	3.7nm,0.5s,baz=304,slow=15,SNR=3.6						
FORT	Forrest	23.79	183	*e*P	P	08 12 38.6	+2.3
	12nm,0.8s,mb4.5						
FORT	Forrest	23.79	183	*e*P	P	08 12 38.1	+1.8
	14nm,0.7s,mb4.6						
STKA	Stephens Creek	27.34	157	P	P	08 13 09.6	+1.2
	1.0nm,0.4s,mb3.8,baz=354,slow=9.9,SNR=5.5						
STKA	Stephens Creek	27.34	157	*e*P	P	08 13 09.0	+0.6
	0.2nm,0.4s,mb3.1						
NWAO	Narrogin (SRO)	28.25	202	P	P	08 13 19.5	+3.0
	3.4nm,0.5s,mb4.4,baz=12,slow=4.3,SNR=8.4						
CMAR	Chiang Mai Arr	39.20	310	P	P	08 14 50.7	-0.5
	1.4nm,0.5s,mb3.9,baz=142,slow=8.3,SNR=9.1						
SONM	Songino Array	58.16	342	P	P	08 17 15.4	-0.2
	0.4nm,0.5s,mb3.5,baz=158,slow=5.9,SNR=3.7						
MKAR	Makanchi Array	67.81	327	P	P	08 18 19.4	0.0
	1.4nm,0.5s,mb4.0,baz=117,slow=7.8,SNR=17						
ZALV	Zalesovo Beam	71.22	334	P	P	08 18 37.9	-2.3
	2.1nm,0.6s,mb4.1,baz=125,slow=6.2,SNR=5.7						
KURK	Kurchatov	72.11	329	P	P	08 18 45.2	-0.4
	4.6nm,0.8s,mb4.2,baz=127,slow=4.9,SNR=14						
KURK	Kurchatov	72.11	329	P	P	08 18 45.2	-0.4
BVAR	Borovoye Array	77.65	328	P	P	08 19 16.7	-0.7
	2.4nm,0.9s,mb3.8,baz=112,slow=7.2,SNR=4.9						
QSPA	South Pole Qui	83.08	180	P	P	08 19 46.4	+0.4
	1.6nm,0.6s,mb3.9,baz=282,slow=0.9,SNR=16						
TORD	Torodi Ar. Bea	128.19	281	PKP	PKPdf	08 26 26.4	-0.9
	0.4nm,0.7s,baz=43,slow=1.5,SNR=3.0						
CPUP	Villa Florida	146.33	169	PKPbc	PKPbc	08 27 01.8	+0.1
	1.4nm,0.5s,baz=106,slow=1.3,SNR=6.6						
CPUP	Villa Florida	146.33	169	PKPbc	PKPbc	08 27 01.8	+0.1

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*IDC **26** 08:07:45.2±2.3, 11°.84N×143°.42E, h0^{km}, mb4.1/9, mb1 4.2/10, mb1mx4.0/25, mbtmp4.1/10, MS3.5/3, Ms1 3.5/3, ms1mx2.9/39, Error ellipse: s-maj=58.4km s-min=25.9km az=165.0*

*NEIC **26** 08:07:51.3±1.4, 12°.03N×143°.43E, h35^{km}, mb4.4/3, Error ellipse: s-maj=38.0km s-min=13.3km az=168.0*

ISC 26 08:07:50.2±1.5**, 11°.8N**±0°.2×**143°.4E**±0°.2**, h35**^{km}**, n16, σ0^{s}.69**/17**, mb4.2**/11**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.28	38	Pn	Pn	08 08 23.7	-1.6
	69nm,0.3s,baz=191,slow=9.8,SNR=21						
GUMO				Sn	Sn	08 08 53.2	+1.0
	129nm,0.3s,baz=8.9,slow=23,SNR=9.9						
GUMO				LR	LR	08 08 54.3	
	comp=Z,527nm,20.6s,baz=340,slow=31						
GUMO	Guam	2.28	38	*e*Pn	Pn	08 08 23.9	-1.4
GUMO				*e*Sn	Sn	08 08 52.5	+0.3
GUMO				Sn	Sn	08 08 53.2	+1.0
CBIJ	Chichi jima	15.27	356	LR	LR	08 16 15.8	
	comp=Z,200nm,20.7s,baz=145,slow=34						
JHJ	Hachijo jima 2	21.49	352	LR	LR	08 19 52.9	
	comp=Z,276nm,21.7s,baz=21,slow=34						
SONM	Songino Array	47.41	327	P	P	08 16 20.8	-0.3
	0.4nm,0.5s,mb3.6,baz=148,slow=6.4,SNR=3.9						
MKAR	Makanchi Array	61.81	317	P	P	08 18 06.0	+0.3
	0.7nm,0.8s,mb3.9,baz=98,slow=8.7,SNR=6.6						
ZALV	Zalesovo Beam	62.27	325	P	P	08 18 08.6	0.0
	1.2nm,0.5s,mb4.3,baz=98,slow=6.1,SNR=4.5						
KURK	Kurchatov	65.05	321	P	P	08 18 27.7	+0.7
	3.0nm,0.6s,mb4.5,baz=106,slow=6.7,SNR=19						
KURK	Kurchatov	65.05	321	*e*P	P	08 18 27.0	0.0
	5.5nm,0.9s,mb4.6						
BVAR	Borovoye Array	70.46	322	P	P	08 19 01.6	+0.6
	1.9nm,0.5s,mb4.2,baz=104,slow=7.4,SNR=14						
BRVK	Borovoye	70.53	322	*e*P	P	08 19 01.5	0.0
	2.4nm,0.6s,mb4.3						
INK	Inuvik	76.56	22	*e*P	P	08 19 36.0	-0.6
	1.8nm,1.0s,mb4.0						
YKA	Yellowknife Ar	85.09	27	P	P	08 20 22.4	+0.1
	0.4nm,0.4s,mb3.9,baz=285,slow=5.1,SNR=12						
ARCES	ARCESS Array B	88.35	342	P	P	08 20 37.8	-0.2
	2.8nm,0.9s,mb4.5,baz=72,slow=7.9,SNR=6.2						
NVAR	Mina Array Bea	89.14	51	P	P	08 20 43.6	+1.2
	0.9nm,0.8s,mb4.2,baz=266,slow=5.7,SNR=7.0						
FINES	FINESS Array B	92.18	335	P	P	08 20 55.3	-0.7
	1.7nm,0.8s,mb4.4,baz=199,slow=7.3,SNR=4.1						

IDC 26 08:12:10.5±3.6**, 6°.94S**×**129°.59E, h150**^{km}±30^{km}**, mb3.5**/4**, mb1 3.8**/6**, mb1mx3.5**/17**, mbtmp3.6**/6**, Error ellipse: s-maj=99.4km s-min=23.2km az=64.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.72	161	P	Pn	08 15 18.4	-0.6
	1.0nm,0.3s,baz=343,slow=13,SNR=2.7						
WRA				S	Sn	08 17 40.9	-10
	1.6nm,0.3s,baz=333,slow=22,SNR=5.4						
ASAR	Alice Springs	17.14	166	P	Pn	08 16 01.2	0.0
	0.9nm,0.3s,baz=345,slow=11,SNR=7.7						
ASAR				S	S	08 19 05.0	-6.3
	0.4nm,0.3s,baz=352,slow=28,SNR=4.2						
ASAR				ScP	ScP	08 23 57.2	-0.5
	0.1nm,0.3s,baz=0.6,slow=1.4,SNR=5.1						
STKA	Stephens Creek	27.22	157	P	P	08 17 44.4	+4.0
	1.2nm,0.5s,baz=311,slow=9.3,SNR=3.8						
CMAR	Chiang Mai Arr	39.38	310	P	P	08 19 25.9	+0.1
	1.6nm,0.6s,baz=145,slow=8.1,SNR=4.5						
MKAR	Makanchi Array	67.95	327	P	P	08 22 53.2	0.0
	1.5nm,0.4s,baz=115,slow=8.4,SNR=35						
KURK	Kurchatov	72.25	329	P	P	08 23 19.2	0.0
	1.4nm,0.6s,baz=130,slow=5.0,SNR=7.7						
BVAR	Borovoye Array	77.80	328	P	P	08 23 51.2	+0.2
	0.3nm,0.5s,baz=76,slow=6.1,SNR=3.0						

NEIC 26 08:20:14.0, 38°.00S×**178°.57E, h54**^{km}**, ML4.2**(WEL)**, After WEL., Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	0.26	253	P	Pn	08 20 22.7	-0.4
PUZ				S	Sn	08 20 28.9	-0.8
MXZ	Matakaoa Point	0.48	334	P	Pn	08 20 25.3	0.0
MXZ				S	Sn	08 20 33.6	+0.2
MWZ	Matawai	0.89	247	P	Pn	08 20 29.8	-0.5
URZ	Urewera	1.18	257	P	Pn	08 20 34.3	+0.1
WIZ	White Island	1.19	293	P	Pn	08 20 34.0	-0.4
KNZ	Kokohu	1.24	214	P	Pn	08 20 34.4	-0.6
EDRZ	Edgecumbe	1.45	265	P	Pn	08 20 38.0	+0.1
MARZ	Manawahe	1.50	270	P	Pn	08 20 37.9	-0.6
LIRZ	Lichensteins R	1.73	269	P	Pn	08 20 41.4	-0.2
KARZ	Kaharoa	1.84	269	P	Pn	08 20 42.7	-0.4
TGRZ	Tauranga	1.85	278	P	Pn	08 20 42.6	-0.7
BKZ	Black Stump Fm	2.00	234	P	Pn	08 20 45.0	-0.4
KUZ	Kuaotunu	2.59	298	P	Pn	08 20 52.5	-0.9
NGZ	Ngauruhoe	2.61	242	P	Pn	08 20 53.3	-0.3
TUVZ	Tukino	2.61	240	P	Pn	08 20 53.3	-0.4
MOVZ	Moawhango	2.62	237	P	Pn	08 20 52.9	-0.8
TWVZ	Taurewa	2.68	245	P	Pn	08 20 54.2	-0.4
MKAZ	Moumakai	2.85	287	P	Pn	08 20 56.5	-0.4
TSZ	Takapari Road	2.89	224	P	Pn	08 20 55.8	-1.7
HIZ	Hauiti	2.97	259	P	Pn	08 20 58.9	+0.3
BFZ	Birch Farm	3.23	213	P	Pn	08 20 59.6	-2.5
WAZ	Wanganui	3.30	237	P	Pn	08 21 02.9	-0.3
MRZ	Mangatainoka R	3.53	220	P	Pn	08 21 03.5	-2.8
MTW	Mount Morrison	3.95	216	P	Pn	08 21 08.6	-3.4
WCZ	Waipu Caves	3.96	300	P	Pn	08 21 12.2	0.0
KIW	Kapiti Island	4.03	224	P	Pn	08 21 09.9	-3.2
CAW	Cannon Point	4.12	220	P	Pn	08 21 10.6	-3.7
PAWZ	Paruwai Farm	4.16	215	P	Pn	08 21 11.3	-3.6
MSWZ	Moikau Station	4.26	216	P	Pn	08 21 12.6	-3.8
MRW	Makara Radio	4.40	222	P	Pn	08 21 14.2	-4.0
BHW	Baring Head	4.44	219	P	Pn	08 21 14.7	-4.1
SNZO	South Karori	4.45	221	P	Pn	08 21 14.9	-4.0
TCW	Tory Channel	4.61	225	P	Pn	08 21 17.3	-3.8
NNZ	Nelson	5.14	230	P	Pn	08 21 24.7	-3.6
BSWZ	Blackbirch Sta	5.18	223	P	Pn	08 21 24.7	-4.2
QRZ	Quartz Range	5.46	237	P	Pn	08 21 29.6	-3.2
THZ	Tophouse	5.75	227	P	Pn	08 21 32.9	-3.9
KHZ	Kahutara	5.86	220	P	Pn	08 21 33.5	-4.6
DSZ	Denniston Nort	6.41	232	P	Pn	08 21 41.3	-4.4
LTZ	Lake Taylor	6.78	223	P	Pn	08 21 45.5	-5.3
MQZ	McQueen's Vall	7.25	216	P	Pn	08 21 51.9	-5.4
RPZ	Rata Peaks	8.06	223	P	Pn	08 22 04.3	-4.1
ODZ	Otahua Downs	9.21	218	P	Pn	08 22 19.0	-5.0

IDC 26 08:44:28.8±12.0**, 25°.96S**×**177°.75W, h189**^{km}±105^{km}**, mb3.4**/5**, mb1 3.7**/5**, mb1mx3.5**/15**, mbtmp3.4**/5**, Error ellipse: s-maj=42.8km s-min=36.7km az=157.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	35.92	251	P	P	08 51 12.3	+1.3
	1.0nm,0.7s,baz=71,slow=7.5,SNR=3.4						
ASAR	Alice Springs	43.75	262	P	P	08 52 15.8	+0.2
	0.8nm,0.5s,baz=87,slow=6.8,SNR=21						
WRA	Warramunga Arr	44.33	267	P	P	08 52 19.1	-1.2
	1.1nm,0.5s,baz=104,slow=7.7,SNR=12						
NVAR	Mina Array Bea	84.84	43	P	P	08 56 42.7	+0.7
	0.3nm,0.6s,baz=220,slow=9.4,SNR=3.1						
CMAR	Chiang Mai Arr	92.14	289	P	P	08 57 18.0	+0.9
	1.2nm,0.7s,baz=131,slow=3.2,SNR=7.5						
NB2	NORSAR Subarra	144.40	353	PKP	PKPdf	09 03 40.3	-1.4
	comp=Z,1.0nm,0.5s,baz=7.4,slow=3.5						
NOA	NORSAR Array B	144.40	353	PKP	PKPdf	09 03 40.4	-1.4
	comp=Z,2.1nm,0.7s,baz=4.0,slow=2.3,SNR=5.2						
AKASG	Malin Array Be	147.80	327	PKPbc	PKPbc	09 03 49.8	-1.2
	comp=Z,1.0nm,0.5s,baz=44,slow=3.3,SNR=4.2						
BRTR	Keskin Array B	150.44	305	PKPbc	PKPbc	09 03 58.0	+0.1
	comp=Z,1.2nm,1.0s,baz=66,slow=6.0,SNR=3.8						
BRTR				PKPab	PKPab	09 04 05.1	0.0
	comp=Z,1.0nm,0.5s,baz=86,slow=3.3,SNR=5.4						
TORD	Torodi Ar. Bea	167.24	178	PKP	PKPdf	09 04 11.9	-0.8
	comp=Z,0.3nm,0.6s,baz=82,slow=3.1,SNR=2.5						
TORD				PKPab	PKPab	09 05 17.6	-0.6
	comp=Z,0.2nm,0.7s,baz=186,slow=2.7,SNR=2.4						

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*CSEM **26** 09:07:19.2, 36°.33N×21°.93E, h5^{km}, MD3.5, After ATH*

*NEIC **26** 09:07:19.2, 36°.33N×21°.93E, h5^{km}, MD3.5(ATH), After ATH.*

ATH 26 09:07:19.2, 36°.33N×**21°.93E, h5**^{km}±4^{km}**, MD3.5**/9**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.58	345	*e*PB	Pg	09 07 30.8	+0.4
PYL				*e*SB	Sg	09 07 39.1	+1.0
PYL	PYLOS	0.58	345	*e*Pb	Pg	09 07 30.8	+0.4
PYL				*e*Sb	Sg	09 07 39.1	+1.0
ITM	Ithomi	0.85	360	*e*PG	Pg	09 07 35.2	-0.3
ITM				*e*SB	Sb	09 07 47.7	-0.4
ITM	Ithomi	0.85	360	*e*Pg	Pg	09 07 35.2	-0.3
ITM				*e*Sb	Sb	09 07 47.7	-0.4
KYTH	Kithira	0.90	93	*e*PB	Pb	09 07 36.3	-0.9
KYTH	Kithira	0.90	93	*e*Pb	Pb	09 07 36.3	-0.9
VLI	Veliai	0.90	64	*e*PB	Pb	09 07 37.0	-0.3
VLI				*e*SB	Sb	09 07 49.3	-0.2
VLI	Veliai	0.90	64	*e*Pb	Pb	09 07 37.0	-0.3
VLI				*e*Sb	Sb	09 07 49.3	-0.2
VLX	Vlachokerasia	1.10	19	*e*PB	Pb	09 07 40.3	-0.4
VLX				*e*SB	Sb	09 07 55.3	0.0
VLX	Vlachokerasia	1.10	19	*e*Pb	Pb	09 07 40.3	-0.4
VLX				*e*Sb	Sb	09 07 55.3	0.0
DID	Didima	1.57	41	*e*PG	Pg	09 07 48.5	-0.9
DID	Didima	1.57	41	*e*Pg	Pg	09 07 48.5	-0.9
GUR	Goura	1.64	11	*e*PB	Pb	09 07 50.5	+0.6
GUR	Goura	1.64	11	*e*Pb	Pb	09 07 50.5	+0.6
LTK	Loutraki	1.88	26	*e*PN	Pn	09 07 55.2	+3.2
LTK	Loutraki	1.88	26	*e*Pn	Pn	09 07 55.2	+3.2
VLS	Valsamata	2.13	330	*e*PN	Pn	09 07 58.3	+2.9
VLS	Valsamata	2.13	330	*e*Pn	Pn	09 07 58.3	+2.9

FUNV 26 09:30:58.9, 7°.82N×**72°.79W, h17**^{km}**, MW3.6, 2D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	0.48	84	⇓*i*P	Pg	09 31 08.9	+0.4
SOCV	Socops	1.97	76	*e*P	Pn	09 31 30.8	-0.8
VIRV	Villa del Rosa	2.69	8	*e*P	Pn	09 31 41.5	0.0
VIRV				*e*S	Sn	09 32 12.3	-1.4
QARV	Quebrada Arrib	3.26	43	*e*P	Pn	09 31 47.9	-1.5
QARV				*e*S	Sn	09 32 25.0	-2.9
CURV	Curarigua	3.55	52	*e*P	Pn	09 31 51.7	-1.5
CURV				*e*S	Sn	09 32 31.8	-3.0
SANV	Sanarito	3.63	62	*e*P	Pn	09 31 52.9	-1.4
SANV				*e*S	Sn	09 32 33.9	-2.9
DABV	Dabajuro	3.75	34	*e*P	Pn	09 31 54.9	-1.1
DABV				*e*S	Sn	09 32 36.5	-3.2
TEPV	Terepaima	4.15	59	*e*P	Pn	09 32 00.1	-1.4
TEPV				*e*S	Sn	09 32 45.2	-4.4
BAUV	El Baul	4.83	76	⇓*i*P	Pn	09 32 08.9	-2.0
TURV	Turiamo	5.54	62	*e*P	Pn	09 32 18.7	-2.1
CAOV	Caicara del Or	6.43	94	*e*P	Pn	09 32 31.5	-1.4
CAOV				*e*S	Sn	09 33 39.8	-6.3

IDC 26 09:35:10.2±3.3**, 9°.26S**×**159°.06E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/16**, mbtmp3.8**/3**, Error ellipse: s-maj=94.2km s-min=15.4km az=176.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	0.90	101	Pn	Pn	09 35 30.1	+0.1
	46nm,0.3s,baz=216,slow=3.1,SNR=33						
HNR				Sn	Sn	09 35 44.4	+0.7
	230nm,0.3s,baz=229,slow=20,SNR=18						
WRA	Warramunga Arr	26.13	243	P	P	09 40 46.1	0.0
	0.8nm,0.6s,baz=72,slow=9.1,SNR=11						
STKA	Stephens Creek	27.73	213	*e*P	P	09 41 00.4	0.0
	1.1nm,0.6s						
STKA	Stephens Creek	27.73	213	P	P	09 41 00.8	+0.4
	1.2nm,0.5s,baz=50,slow=14,SNR=8.2						
ASAR	Alice Springs	27.98	236	P	P	09 41 02.6	-0.2
	0.4nm,0.3s,baz=70,slow=10,SNR=12						

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*ISCJB **26** 09:38:00.8±0.9, 11°.77N±0°.05×125°.5E±0°.1, h58^{km}±7^{km}, mb4.1/12, Error ellipse: s-maj=16.4km s-min=8.4km az=178.2*

*MAN **26** 09:38:01, 11°.78N×125°.43E, h33^{km}, mb4.3, ML3.1, MS3.0 MAN INTENSITY II - BORONGAN EASTERN SAMAR.*

*IDC **26** 09:38:04.2±7.9, 11°.72N×125°.59E, h75^{km}±70^{km}, mb3.7/12, mb1 3.8/12, mb1mx3.7/22, mbtmp3.7/12, MS3.2/3, Ms1 3.2/3, ms1mx2.7/41, Error ellipse: s-maj=69.4km s-min=15.9km az=66.0*

ISC 26 09:38:01.6±0.9**, 11°.77N**±0°.05×**125°.6E**±0°.1**, h50**^{km}±8^{km}**, n30, σ0^{s}.89**/26**, mb4.1**/12**, 3C, Samar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.20	214	*e*P	Pn	09 38 08.9	-1.0
CNP	Catarman	1.14	311	*e*P	Pn	09 38 20.5	-0.7
OCLP	Ormoc	1.16	232	*e*P	Pn	09 38 21.2	-0.4
MSLP	Maasin	1.76	203	*e*P	Pn	09 38 31.2	+1.5
SCPH	Surigao	1.97	182	⇑*e*P	Pn	09 38 33.7	+1.1
LLP	Lapu-Lapu	2.12	227	⇑*e*P	Pn	09 38 33.8	-0.8
LLP				*e*S	Sn	09 38 55.1	-4.7
PVCP	Virac	2.27	323	*e*P	Pn	09 38 36.6	-0.1
TBP	Tagbilaran	2.65	219	*e*P	Pn	09 38 42.4	+0.5
TBP				*e*S	Sn	09 39 12.5	-0.2
RCP	Roxas	2.75	266	⇑*i*P	Pn	09 38 43.3	-0.1
GUIM	Jordan	3.12	249	*e*P	Pn	09 38 47.6	-0.7
PAGZ	Pagadian	4.44	209	*e*P	Pn	09 39 07.6	+1.1
DAV	Davao City (W)	4.67	180	LR	LR	09 40 29.6	
	comp=Z,88nm,21.2s,baz=288,slow=31						
CAUP	Cauayan	6.29	325	*e*P	Pn	09 39 32.9	+1.1
GUMO	Guam	18.94	82	LR	LR	09 49 20.9	
	comp=Z,66nm,18.4s,baz=180,slow=36						
WRA	Warramunga Arr	32.67	165	P	P	09 44 27.7	-1.6
	0.5nm,0.7s,mb3.6,baz=345,slow=9.7,SNR=4.6						
WRA				PcP	PcP	09 47 14.2	-0.2
	0.6nm,0.7s,baz=337,slow=2.8,SNR=6.1						
ASAR	Alice Springs	36.15	167	PcP	PcP	09 47 24.0	-0.3
	0.4nm,0.4s,baz=341,slow=2.9,SNR=7.2						
SONM	Songino Array	39.38	340	P	P	09 45 27.5	+1.2
	0.7nm,0.4s,mb3.7,baz=156,slow=10,SNR=7.1						
STKA	Stephens Creek	46.04	161	P	P	09 46 20.8	+0.3
	1.9nm,0.7s,mb4.1,baz=333,slow=14,SNR=4.2						
MKAR	Makanchi Array	50.42	322	P	P	09 46 55.0	+1.0
	3.1nm,0.8s,mb4.4,baz=121,slow=8.5,SNR=26						
MKAR				PcP	PcP	09 48 10.9	-1.0
	0.3nm,0.5s,baz=106,slow=5.1,SNR=3.3						
ZALV	Zalesovo Beam	52.98	331	P	P	09 47 13.5	+0.4
	1.0nm,0.4s,mb4.1,baz=123,slow=7.3,SNR=7.4						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	**Ala-Archa**	**53.77**	**315**	LR	LR	10 13 21.8	
	comp=Z,88nm,18.0s,baz=352,slow=39						
KURK	**Kurchatov**	**54.44**	**325**	P	**P**	**09 47 24.4**	**+0.5**
	6.8nm,0.6s,mb4.8,baz=127,slow=7.0,SNR=37						
BVAR	**Borovoye Array**	**60.04**	**325**	P	**P**	**09 48 03.9**	**+0.6**
	1.6nm,0.7s,mb4.2,baz=130,slow=13,SNR=9.5						
ARCES	**ARCESS Array B**	**82.55**	**340**	P	**P**	**09 50 19.4**	**+0.5**
	2.0nm,0.6s,mb4.3,baz=70,slow=7.0,SNR=16						
BRTR	**Keskin Array B**	**84.04**	**309**	P	**P**	**09 50 26.4**	**-0.8**
	1.5nm,1.0s,mb4.1,baz=64,slow=2.9,SNR=3.6						
FINES	**FINESS Array B**	**84.25**	**332**	P	**P**	**09 50 27.4**	**-0.3**
	0.5nm,0.4s,mb4.0,baz=77,slow=6.3,SNR=7.5						
AKASG	**Malin Array Be**	**84.97**	**321**	P	**P**	**09 50 30.2**	**-1.3**
	0.8nm,0.5s,mb4.1,baz=68,slow=5.0,SNR=4.4						
YKA	**Yellowknife Ar**	**92.68**	**24**	P	**P**	**09 51 06.3**	**-1.7**
	0.2nm,0.8s,mb3.6,baz=294,slow=5.3,SNR=4.3						
TORD	**Torodi Ar. Bea**	**119.05**	**292**	PKP	PKPdf	09 56 44.8	-1.1
	0.3nm,0.7s,baz=49,slow=1.9,SNR=2.9						
PLCA	**Paso Flores**	**147.85**	**157**	PKPbc	PKPbc	09 57 42.2	+0.7
	0.7nm,0.6s,baz=136,slow=0.7,SNR=3.2						

*IDC **26** 09:38:02.6±1.0,21.°59S×169.°40E,h0^{km},mb4.2/10, mb1 4.4/10,mb1mx4.3/18,mbtmp4.2/10,MS3.7/10, Ms1 3.7/10,ms1mx3.5/31,Error ellipse: s-maj=33.8km s-min=22.4km az=154.0*

*ISCJB **26** 09:38:06.8±0.9,21.°7S±0.°2×169.°2E±0.°1,h33^{km},mb4.2/12, MS3.7/7,Error ellipse: s-maj=27.3km s-min=15.6km az=157.2*

*NEIC **26** 09:38:08.0±0.8,21.°58S×169.°33E,h35^{km},mb4.3/1,Error ellipse: s-maj=27.9km s-min=16.4km az=154.0*

ISC 26 09:38:08.9±0.9**,21.°7S**±0.°2×**169.°2E**±0.°1**,h35**^{km}**,n29,** σ**1.^{s}08**/15**,mb4.2**/12**,MS3.7**/7**,Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**2.62**	**260**	*e*P	**Pn**	**09 38 47.3**	**-1.4**
RAO	**Raoul Island**	**13.85**	**126**	LR	LR	09 45 10.8	
	comp=Z,247nm,18.9s,baz=171,slow=31						
URZ	**Urewera**	**17.89**	**159**	LR	LR	09 47 54.9	
	comp=Z,138nm,19.6s,baz=152,slow=33						
AFI	**Afiamalu**	**19.64**	**70**	LR	LR	09 48 22.9	
	comp=Z,270nm,21.9s,baz=182,slow=32						
CTA	**Charters Tower**	**21.53**	**270**	*e*P	**P**	**09 42 56.9**	**+1.8**
	13nm,1.4s,mb4.2						
CTA	**Charters Tower**	**21.53**	**270**	P	**P**	**09 42 55.3**	**+0.2**
	13nm,1.1s,mb4.3,baz=76,slow=7.7,SNR=5.7						
CTA				LR	LR	09 50 18.9	
	comp=Z,230nm,19.6s,MS3.6,baz=94,slow=34						
RPZ	**Rata Peaks**	**22.05**	**176**	LR	LR	09 49 53.8	
	comp=Z,127nm,19.8s,MS3.3,baz=34,slow=32						
STKA	**Stephens Creek**	**26.63**	**242**	P	**P**	**09 43 46.3**	**+2.1**
	3.6nm,1.1s,mb3.8,baz=326,slow=2.0,SNR=3.6						
STKA				LR	LR	09 54 03.6	
	comp=Z,228nm,20.5s,MS3.7,baz=23,slow=36						
ASAR	**Alice Springs**	**32.61**	**260**	P	**P**	**09 44 37.4**	**-0.1**
	2.0nm,0.7s,mb4.2,baz=90,slow=9.2,SNR=38						
WRAB	**Tennant Creek**	**32.62**	**267**	*e*P	**P**	**09 44 36.6**	**-0.8**
	3.1nm,0.8s,mb4.3						
WRA	**Warramunga Arr**	**32.62**	**267**	P	**P**	**09 44 36.2**	**-1.4**
	1.0nm,0.6s,mb3.9,baz=97,slow=7.8,SNR=7.1						
FITZ	**Fitzroy Crossi**	**41.05**	**267**	*e*P	**P**	**09 45 49.7**	**+0.4**
	18nm,1.1s,mb4.6						
FITZ	**Fitzroy Crossi**	**41.05**	**267**	P	**P**	**09 45 49.5**	**+0.2**
	3.1nm,0.7s,mb4.0,baz=122,slow=9.4,SNR=5.3						
FITZ				LR	LR	10 04 08.1	
	comp=Z,163nm,18.2s,MS3.9,baz=103,slow=38						
GUMO	**Guam**	**42.41**	**324**	LR	LR	09 59 57.5	
	comp=Z,116nm,20.0s,MS3.8,baz=217,slow=31						
VNDA	**Vanda**	**56.03**	**182**	LR	LR	10 07 27.8	
	comp=Z,138nm,18.5s,MS4.1,baz=240,slow=32						
QSPA	**South Pole Qui**	**68.41**	**180**	P	**P**	**09 49 06.1**	**-0.4**
	2.4nm,1.0s,mb4.2,baz=313,slow=6.6,SNR=5.4						
PETK	**Petropavlovsk-**	**75.12**	**353**	P	**P**	**09 49 46.0**	**-1.0**
	8.9nm,1.0s,mb4.6,baz=115,slow=7.0,SNR=4.1						
CMAR	**Chiang Mai Arr**	**79.49**	**295**	P	**P**	**09 50 12.9**	**+0.6**
	0.5nm,0.3s,mb4.0,baz=132,slow=4.2,SNR=5.2						
LZH	**Lanzhou**	**84.34**	**312**	*e*P	**P**	**09 50 39.3**	**+1.9**
LZH				pP	pP	09 50 44.0	-4.5
LZH				sP	sP	09 50 46.8	-5.7
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb5.0						
LZH				pmax	pmax		
	comp=Z,93nm,4.8s						
SONM	**Songino Array**	**89.14**	**323**	P	**P**	**09 51 00.8**	**+0.3**
	comp=Z,0.7nm,1.1s,mb3.9,baz=150,slow=6.0,SNR=3.3						
NVAR	**Mina Array Bea**	**90.40**	**48**	P	**P**	**09 51 06.2**	**-0.5**
	comp=Z,1.6nm,0.7s,mb4.4,baz=228,slow=8.5,SNR=14						
LPIG	**La Paz**	**90.46**	**64**	LR	LR	10 24 31.1	
	comp=Z,26nm,19.0s,MS3.7,baz=40,slow=31						
ARCES	**ARCESS Array B**	**127.39**	**345**	PKP	PKPdf	09 57 08.1	-1.1
	comp=Z,2.5nm,0.9s,baz=58,slow=2.2,SNR=2.5						
BRG	**Berggiesshubel**	**145.01**	**332**	*e*P	PKPbc	09 57 41.4	-0.2
	comp=Z,15nm,1.4s						
BRG				*e*		09 57 50.0	
	comp=Z,13nm,1.3s						
CLL	**Collm**	**145.08**	**334**	*e*P	PKPbc	09 57 50.0	+8.2
KHC	**Kasperske Hory**	**146.44**	**331**	*e*P	PKPdf	09 57 38.5	-6.2
GERES	**GERESS Array B**	**146.59**	**330**	PKPbc	PKPbc	09 57 43.5	-3.0
	comp=Z,0.8nm,0.6s,baz=0.0,slow=1.5,SNR=4.3						
GRA1	**Grafenberg Arr**	**147.05**	**333**	*e*PKP	PKPab	09 57 56.7	+7.3
GRF	**Grafenberg Arr**	**147.05**	**333**	*e*PKP	PKPab	09 57 56.7	+7.3

*ISCJB **26** 10:11:31.9±0.7,17.°13S±0.°07×70.°6W±0.°1,h95^{km}±9^{km}, mb4.2/7,Error ellipse: s-maj=19.9km s-min=8.8km az=151.7*

*NEIC **26** 10:11:33.5±0.9,17.°18S×70.°54W,h96^{km}±10^{km},mb4.6/3, Error ellipse: s-maj=20.2km s-min=12.7km az=224.0*

*IDC **26** 10:11:34.5±2.2,17.°20S×70.°50W,h105^{km}±21^{km},mb3.9/4, mb1 3.9/7,mb1mx3.7/20,mbtmp3.9/7,Error ellipse: s-maj=24.9km s-min=18.2km az=70.0*

ISC 26 10:11:33.0±0.7**,17.°11S**±0.°07×**70.°6W**±0.°1**,h94**^{km}±8^{km}**,n18,** σ**1.^{s}03**/16**,mb4.2**/7**,1C,Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	**Arequipa**	**1.06**	**308**	⇑*i*P	**Pn**	**10 11 53.8**	**+0.1**
ARE				*i* S	**Sn**	**10 12 08.5**	**-0.7**
LVC	**Limon Verde**	**5.70**	**164**	P	**Pn**	**10 12 54.9**	**-0.3**
	2.5nm,0.3s,baz=353,slow=9.2,SNR=40						
LVC				S	**Sn**	**10 13 59.2**	**-0.1**
	3.4nm,0.3s,baz=163,slow=20,SNR=10.0						
NNA	**Nana**	**7.89**	**309**	P	**Pn**	**10 13 28.8**	**+3.7**
	1.9nm,0.3s,baz=115,slow=9.0,SNR=3.9						
SIV	**San Ignacio**	**9.22**	**84**	P	**Pn**	**10 13 44.0**	**+0.9**
	5.0nm,0.3s,baz=275,slow=12,SNR=154						
CFAA	**Coronel Fontan**	**14.59**	**172**	P	**Pn**	**10 14 58.4**	**+3.6**
	baz=349,slow=15,SNR=3.6						
PLCA	**Paso Flores**	**23.54**	**180**	P	**P**	**10 16 34.6**	**0.0**
	1.8nm,0.7s,mb3.5,baz=349,slow=12,SNR=8.3						
WMOK	**Wichita Mounta**	**58.10**	**333**	*e*P	**P**	**10 21 18.8**	**+2.1**
	2.1nm,0.6s,mb4.3						
DBIC	**Dimbokro**	**69.13**	**76**	P	**P**	**10 22 29.4**	**-0.4**
	4.4nm,0.6s,mb4.5,baz=252,slow=2.4,SNR=9.6						
TORD	**Torodi Ar. Bea**	**77.47**	**72**	P	**P**	**10 23 18.2**	**-0.5**
	5.4nm,0.6s,mb4.5,baz=258,slow=5.4,SNR=50						
TORD				pP	pP	10 23 44.0	+0.8
	1.9nm,0.8s,baz=251,slow=5.3,SNR=4.0						
TORD	**Torodi Ar. Bea**	**77.47**	**72**	P	**P**	**10 23 18.2**	**-0.5**
TORD				pP	pP	10 23 44.0	+0.8
PAB	**San Pablo**	**83.56**	**45**	*e*P	**P**	**10 23 56.5**	**+5.7**
	9.4nm,0.6s,mb4.8						
ESLA	**Sonseca Array**	**83.88**	**45**	*e*P	**P**	**10 23 50.7**	**-1.8**
	5.3nm,0.8s,mb4.4						
YKA	**Yellowknife Ar**	**86.54**	**341**	P	**P**	**10 24 05.0**	**-0.1**
	0.2nm,0.4s,mb3.4,baz=131,slow=4.1,SNR=8.0						
YKA	**Yellowknife Ar**	**86.54**	**341**	P	**P**	**10 24 05.0**	**-0.1**
ZALV	**Zalesovo Beam**	**138.59**	**22**	PKP	PKPdf	10 30 49.4	+1.8
	0.5nm,0.3s,baz=257,slow=3.8,SNR=3.3						
MKAR	**Makanchi Array**	**142.88**	**31**	PKhKP		10 30 52.1	
	0.1nm,0.6s,baz=311,slow=4.3,SNR=3.2						
MJAR	**Matsushiro Arr**	**148.00**	**313**	PKPbc	PKPbc	10 31 07.8	-0.1
	0.9nm,0.6s,baz=285,slow=9.9,SNR=3.5						
SONM	**Songino Array**	**149.26**	**4**	PKPbc	PKPbc	10 31 12.3	+1.5
	0.6nm,0.7s,baz=351,slow=1.4,SNR=4.5						
SONM				pPKPbc	pPKPbc	10 31 38.9	+2.3
	0.3nm,0.5s,baz=316,slow=1.2,SNR=2.6						

*NEIC **26** 10:25:34.4±0.6,13.°23N×124.°78E,h35^{km},Error ellipse: s-maj=26.3km s-min=11.3km az=60.0*

*IDC **26** 10:25:41.4±7.3,12.°95N×124.°14E,h96^{km}±64^{km},mb3.6/9, mb1 3.7/10,mb1mx3.6/23,mbtmp3.6/10,ML4.3/1,Error ellipse: s-maj=126.3km s-min=14.0km az=65.0*

*ISCJB **26** 10:25:42.5±0.6,12.°94N±0.°09×124.°0E±0.°1,h124^{km}±6^{km}, mb3.9/9,Error ellipse: s-maj=22.7km s-min=9.2km az=147.1*

*MAN **26** 10:25:42,13.°05N×124.°14E,h110^{km},mb4.1,ML2.9, MS2.6*

ISC 26 10:25:43.5±0.6**,12.°95N**±0.°09×**124.°0E**±0.°1**,h116**^{km}±6^{km}**, n19,** σ**0.^{s}67**/19**,mb3.9**/9**,1C,Samar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVCP	**Virac**	**0.66**	**12**	*e*P	**Pn**	**10 26 01.8**	**-0.3**
CNP	**Catarman**	**0.77**	**124**	*e*P	**Pn**	**10 26 03.3**	**+0.3**
AUQP	**San Andres**	**1.36**	**286**	*e*P	**Pn**	**10 26 10.5**	**+1.6**
GQP	**Guinayangan**	**1.80**	**302**	⇑*e*P	**Pn**	**10 26 14.0**	**-0.2**
POLP	**Polilio Island**	**2.68**	**312**	*e*P	**Pn**	**10 26 25.3**	**-0.2**
MSLP	**Maasin**	**2.92**	**163**	*e*P	**Pn**	**10 26 29.1**	**+0.5**
TGY	**Tagaytay City**	**3.21**	**291**	P	**Pn**	**10 26 31.3**	**-1.0**
	33nm,0.3s,baz=229,slow=4.6,SNR=7.3						
BALP	**Baler**	**3.65**	**320**	*e*P	**Pn**	**10 26 38.1**	**-0.1**
CAUP	**Cauayan**	**4.50**	**332**	*e*P	**Pn**	**10 26 49.0**	**-0.7**
SGCP	**Mt. Cagua**	**5.59**	**340**	*e*P	**Pn**	**10 27 04.3**	**-0.1**
WRA	**Warramunga Arr**	**34.23**	**163**	P	**P**	**10 32 16.8**	**-1.5**
	0.5nm,0.5s,mb3.6,baz=344,slow=9.0,SNR=6.0						
ASAR	**Alice Springs**	**37.65**	**165**	P	**P**	**10 32 47.2**	**-0.2**
	1.0nm,0.5s,mb3.9,baz=6.5,slow=9.8,SNR=28						
SONM	**Songino Array**	**37.76**	**341**	P	**P**	**10 32 48.6**	**+0.5**
	0.6nm,0.7s,mb3.5,baz=166,slow=8.5,SNR=3.8						
STKA	**Stephens Creek**	**47.65**	**160**	P	**P**	**10 34 08.2**	**+0.1**
	1.0nm,0.3s,mb4.1,baz=309,slow=6.5,SNR=4.2						
MKAR	**Makanchi Array**	**48.57**	**322**	P	**P**	**10 34 16.2**	**+1.1**
	0.9nm,0.8s,mb3.8,baz=121,slow=8.7,SNR=11						
MKAR				PcP	PcP	10 35 39.6	+0.5
	0.6nm,0.6s,baz=100,slow=4.5,SNR=7.2						
ZALV	**Zalesovo Beam**	**51.23**	**331**	P	**P**	**10 34 35.2**	**+0.2**
	0.8nm,0.4s,mb4.1,baz=134,slow=8.3,SNR=2.9						
BVAR	**Borovoye Array**	**58.22**	**325**	P	**P**	**10 35 25.1**	**-0.4**
	0.6nm,0.5s,mb3.9,baz=151,slow=9.8,SNR=4.0						
ARCES	**ARCESS Array B**	**80.93**	**339**	P	**P**	**10 37 45.1**	**+0.6**
	1.2nm,0.6s,mb3.9,baz=69,slow=6.6,SNR=3.7						
FINES	**FINESS Array B**	**82.50**	**331**	P	**P**	**10 37 52.9**	**-0.1**
	2.5nm,0.9s,mb4.0,baz=82,slow=10.0,SNR=4.3						

*IDC **26** 10:28:31.4±1.2,12.°21N×88.°68W,h0^{km},mb4.0/9, mb1 4.2/12,mb1mx4.1/24,mbtmp4.1/12,ML4.2/3,MS3.1/2, Ms1 3.1/2,ms1mx2.6/30,Error ellipse: s-maj=38.0km s-min=17.4km az=33.0*

*NEIC **26** 10:28:32.3±0.7,11.°95N×88.°96W,h10^{km},mb4.0/3, MD4.5(CASC),Error ellipse: s-maj=18.0km s-min=6.5km az=42.0*

*ISCJB **26** 10:28:33.7±0.8,11.°87N±0.°06×88.°94W±0.°06,h43^{km}±10^{km}, mb4.0/12,Error ellipse: s-maj=12.7km s-min=5.5km az=41.8*

*CASC **26** 10:28:37.1±1.5,11.°83N×88.°80W,h35^{km}±999^{km},MD4.3, mb4.0(NEIC)*

ISC 26 10:28:35.8±0.7**,11.°89N**±0.°06×**88.°93W**±0.°06**,h45**^{km}±9^{km}**, n52,** σ**1.^{s}01**/63**,mb4.0**/12**,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGUH	**Tegucigalpa,Un**	**2.69**	**37**	*e*Pn	**Pn**	**10 29 15.5**	**-1.1**
TGUH				*e*Sn	**Sn**	**10 29 49.6**	**+1.7**
BUEV	**Buena Vista**	**3.62**	**107**	*i* P	**Pn**	**10 29 28.9**	**-0.5**
GB1A	**Borinquen Arri**	**3.62**	**107**	*i* P	**Pn**	**10 29 29.4**	**0.0**
GPS3	**Bodega del ICE**	**3.67**	**108**	*i* P	**Pn**	**10 29 29.9**	**-0.2**
GPS1	**Guardaparques**	**3.68**	**107**	*i* P	**Pn**	**10 29 30.0**	**-0.2**
VCR	**Vista de Mar**	**3.68**	**118**	*e*P	**Pn**	**10 29 29.0**	**-1.2**
VCR	**Vista de Mar**	**3.68**	**118**	*e*P	**Pn**	**10 29 29.0**	**-1.2**
GPS2	**Hotel Rincˆ‡n**	**3.68**	**108**	*i* P	**Pn**	**10 29 30.1**	**-0.1**
GPS2				*i* S	**Sn**	**10 30 10.7**	**-1.8**
LIM1	**Limonal**	**3.79**	**108**	*i* P	**Pn**	**10 29 31.8**	**0.0**
JTS	**JuntasAbangare**	**4.21**	**112**	Pn	**Pn**	**10 29 37.4**	**-0.2**
	16nm,0.3s,baz=325,slow=14,SNR=300						
JTS				Sn	**Sn**	**10 30 26.3**	**+0.8**
	8.8nm,0.3s,baz=308,slow=21,SNR=5.6						
JTS	**JuntasAbangare**	**4.21**	**112**	Pn	**Pn**	**10 29 37.4**	**-0.2**
JTS				Sn	**Sn**	**10 30 26.3**	**+0.8**
JCR	**Jicaral**	**4.26**	**118**	*e*P	**Pn**	**10 29 37.4**	**-0.8**
JCR	**Jicaral**	**4.26**	**118**	*e*P	**Pn**	**10 29 37.4**	**-0.8**
CASO	**Castillo**	**4.36**	**109**	*i* P	**Pn**	**10 29 39.0**	**-0.6**
CGA2	**Cerro Gallo 2**	**4.76**	**113**	*e*P	**Pn**	**10 29 45.7**	**+0.6**
CGA2				*e*S	**Sn**	**10 30 39.1**	**+0.1**
CGA2	**Cerro Gallo 2**	**4.76**	**113**	*e*P	**Pn**	**10 29 45.7**	**+0.6**
CGA2				*e*S	**Sn**	**10 30 39.1**	**+0.1**
PRS1	**Puriscal**	**4.91**	**112**	*e*P	**Pn**	**10 29 48.0**	**+0.8**
PRS1	**Puriscal**	**4.91**	**112**	*e*P	**Pn**	**10 29 48.0**	**+0.8**
LAJ	**Bijagual**	**5.13**	**113**	*e*P	**Pn**	**10 29 45.6**	**-4.6**
LAJ	**Bijagual**	**5.13**	**113**	*e*P	**Pn**	**10 29 45.6**	**-4.6**
LCR2	**La Lucha 2**	**5.29**	**113**	*e*P	**Pn**	**10 29 53.0**	**+0.7**
LCR2				*e*S	Px	10 30 02.0	
LCR2	**La Lucha 2**	**5.29**	**113**	*e*P	**Pn**	**10 29 53.0**	**+0.7**
LCR2				*e*S	**Sn**	**10 30 52.0**	**0.0**
URSC	**Urasca**	**5.45**	**111**	*e*P	**Pn**	**10 29 55.8**	**+1.2**
URSC	**Urasca**	**5.45**	**111**	*e*P	**Pn**	**10 29 55.8**	**+1.2**
BUS	**Buena Vista**	**5.58**	**114**	*e*P	**Pn**	**10 29 57.5**	**+1.1**
BUS				*e*S	**Sn**	**10 30 59.4**	**+0.1**
BUS	**Buena Vista**	**5.58**	**114**	*e*P	**Pn**	**10 29 57.5**	**+1.1**
BUS				*e*S	**Sn**	**10 30 59.4**	**+0.1**
BAR1		**6.12**	**115**	*e*P	**Pn**	**10 30 04.4**	**+0.8**
BAR1				*e*S	**Sn**	**10 31 13.6**	**+1.2**
ACR	**Cerro Adams**	**6.52**	**119**	*e*P	**Pn**	**10 30 10.1**	**+0.9**
ACR				*e*S	**Sn**	**10 31 20.1**	**-2.1**
ACR	**Cerro Adams**	**6.52**	**119**	*e*P	**Pn**	**10 30 10.1**	**+0.9**
ACR				*e*S	**Sn**	**10 31 20.1**	**-2.1**
CMIG	**Matias Romero**	**7.75**	**313**	Pn	**Pn**	**10 30 24.8**	**-1.2**
	2.6nm,0.3s,baz=120,slow=9.1,SNR=38						
CMIG				Sn	**Sn**	**10 31 51.6**	**-0.8**
	0.8nm,0.3s,baz=50,slow=18,SNR=2.4						
TEIG	**Tepich**	**8.31**	**4**	Pn	**Pn**	**10 30 32.5**	**-1.3**
	1.1nm,0.3s,baz=21,slow=16,SNR=11						
TEIG				LR	LR	10 33 49.8	
	comp=Z,103nm,21.8s,baz=4.0,slow=40						
TEIG	**Tepich**	**8.31**	**4**	*e*Pn	**Pn**	**10 30 35.5**	**+1.8**
TEIG				LR	LR	10 33 49.8	
SDV	**Santo Domingo**	**18.24**	**98**	P	**Pn**	**10 32 44.3**	**-1.4**
	0.7nm,0.3s,baz=287,slow=16,SNR=4.0						
SDV	**Santo Domingo**	**18.24**	**98**	*e*P	**Pn**	**10 32 52.6**	**+6.8**
	4.0nm,0.7s						
JCT	**Junction City**	**21.07**	**333**	*e*P	**P**	**10 33 16.3**	**+0.1**
	8.3nm,0.8s,mb4.1						
GOGA	**Godfrey**	**22.00**	**12**	*e*P	**P**	**10 33 26.3**	**+0.2**
	4.6nm,0.7s,mb4.0						
TXAR	**Lajitas Array**	**22.13**	**324**	P	**P**	**10 33 28.8**	**+1.2**
	3.7nm,0.7s,mb3.9,baz=146,slow=11,SNR=20						
JSC	**Jenkinsville**	**23.36**	**16**	*e*P	**P**	**10 33 40.6**	**+0.1**
LPIG	**La Paz**	**23.64**	**304**	P	**P**	**10 33 44.4**	**+1.3**
	7.8nm,0.5s,mb4.4,baz=252,slow=8.3,SNR=4.7						
TKL	**Tuckaleechee C**	**24.12**	**10**	P	**P**	**10 33 45.9**	**-1.5**
	6.3nm,0.9s,mb4.1,baz=190,slow=13,SNR=7.1						
TKL				LR	LR	10 44 00.5	
	comp=Z,69nm,19.7s,baz=214,slow=39						
PDAR	**Pinedale Array**	**35.60**	**334**	P	**P**	**10 35 28.6**	**-0.5**
	0.4nm,0.8s,mb3.4,baz=143,slow=8.9,SNR=3.5						
PDAR				PcP	PcP	10 37 58.4	+1.3
	0.5nm,0.9s,baz=123,slow=7.7,SNR=3.4						
PDAR	**Pinedale Array**	**35.60**	**334**	P	**P**	**10 35 28.6**	**-0.5**
PDAR				PcP	PcP	10 37 58.4	+1.3
NVAR	**Mina Array Bea**	**37.19**	**320**	P	**P**	**10 35 45.3**	**+2.6**
	2.4nm,0.8s,mb4.1,baz=138,slow=8.1,SNR=18						
NVAR				PcP	PcP	10 38 04.5	+2.5
	0.9nm,0.7s,baz=137,slow=3.3,SNR=6.9						
ULM	**Lac du Bonnet**	**38.67**	**353**	P	**P**	**10 35 53.5**	**-1.5**
	0.9nm,0.5s,mb3.8,baz=180,slow=9.1,SNR=2.9						
MCMT	**McKenzie Canyo**	**38.69**	**333**	*e*P	**P**	**10 35 57.0**	**+1.7**
	1.4nm,0.7s,mb3.8						
SCHQ	**Schefferville**	**46.23**	**18**	P	**P**	**10 36 55.4**	**-0.9**
	2.2nm,1.0s,mb4.1,baz=195,slow=10,SNR=3.2						
SCHQ				PcP	PcP	10 38 32.8	+1.4
	1.7nm,0.6s,baz=222,slow=5.0,SNR=7.2						
SCHQ	**Schefferville**	**46.23**	**18**	P	**P**	**10 36 55.4**	**-0.9**
SCHQ				PcP	PcP	10 38 32.8	+1.4
YKA	**Yellowknife Ar**	**53.78**	**346**	P	**P**	**10 37 53.0**	**-0.4**
	2.4nm,0.8s,mb4.2,baz=142,slow=7.4,SNR=42						
YKA				PcP	PcP	10 38 60.0	+1.1
	0.6nm,0.6s,baz=142,slow=4.0,SNR=9.3						
YKA	**Yellowknife Ar**	**53.78**	**346**	P	**P**	**10 37 53.0**	**-0.4**
YKA				PcP	PcP	10 38 60.0	+1.1
TORD	**Torodi Ar. Bea**	**87.94**	**77**	P	**P**	**10 41 21.2**	**-0.4**
	0.3nm,0.7s,mb3.6,baz=296,slow=3.8,SNR=2.9						
WRA	**Warramunga Arr**	**137.73**	**253**	PKP	PKPdf	10 47 57.2	+1.3
	0.6nm,0.9s,baz=89,slow=1.9,SNR=5.5						
CMAR	**Chiang Mai Arr**	**148.86**	**345**	PKPbc	PKPbc	10 48 20.9	+1.4
	2.2nm,0.7s,baz=340,slow=3.5,SNR=13						

*IDC **26** 10:31:08.8±0.4,57.°15S×23.°51W,h0^{km},mb5.2/18, mb1 5.1/18,mb1mx5.0/23,mbtmp5.1/18,MS4.4/8, Ms1 4.4/8,ms1mx4.3/17,Error ellipse: s-maj=15.2km s-min=12.3km az=18.0*

*ISCJB **26** 10:31:09.2±0.3,57.°17S±0.°06×23.°6W±0.°1,h10^{km}, mb5.1/27,MS4.6/8,Error ellipse: s-maj=10.1km s-min=7.0km az=136.6*

*BJI **26** 10:31:10.3,57.°20S×23.°50W,h35^{km},Ms7 5.3/1*

*MOS **26** 10:31:13.1±1.1,57.°19S×23.°66W,h33^{km},mb5.5/9,Error ellipse: s-maj=24.2km s-min=15.9km az=103.0*

*GCMT **26** 10:31:14.3±0.3,57.°18S×23.°09W,h12^{km},MW5.1/60, Moment Tensor Solution. s30,c37; s60,c85; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.68±.23; M$_{\theta\theta}$-3.00±.25; M$_{\phi\phi}$6.68±.15; M$_{r\theta}$-0.08±.65; M$_{\theta\phi}$-1.16±.14; M$_{\phi r}$1.82±.47; Best double couple: M$_0$5.56400×10^{16} NP1:ϕ_s343.00000°,δ36.00000°,λ-105.00000°. NP2: ϕ_s181.00000°,δ55.00000°,λ-79.00000°. Principal axes: T 7.1230, Plg10.0000°, Azm263.0000°; N -3.1160, Plg9.0000°, Azm355.0000°; P -4.0060, Plg77.0000°, Azm126.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **26** 10:31:14.3±0.2,57.°20S×23.°51W,h35^{km},mb5.2/18 Error ellipse: s-maj=9.4km s-min=7.0km az=194.0*

*DJA **26** 10:31:23,57.°40S×22.°60W,h87^{km},mb5.6/5*

ISC 26 10:31:11.0±0.3**,57.°20S**±0.°06×**23.°6W**±0.°1**,h10**^{km}**, (h37**^{km}±.9^{km}**:pP-P),n182,** σ**1.^{s}11**/62**,mb5.1**/27**,MS4.6**/8**,2C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	**15.00**	**160**	*e*P	**Pn**	**10 34 41.9**	**-0.7**
VNA3	**Neumayer Olymp**	**15.26**	**163**	*e*P	**Pn**	**10 34 45.9**	**-0.2**
MAIT	**Maitri**	**20.17**	**146**	*e*P	**P**	**10 35 42.6**	**-2.4**
NVL	**N'lazarevskaya**	**20.19**	**146**	P	**P**	**10 35 47.9**	**+2.6**
NVL				pmax	pmax		
	comp=Z,58nm,1.2s						
EFI	**East Falkland**	**20.65**	**271**	*e*P	**P**	**10 35 49.4**	**-1.0**
EFI				pmax	pmax		
	comp=Z,145nm,0.6s						
EFI	**East Falkland**	**20.65**	**271**	*e*P	**P**	**10 35 49.4**	**-1.0**
	comp=Z,145nm,0.6s						
PMSA	**Palmer Station**	**20.71**	**232**	P	**P**	**10 35 51.4**	**+0.5**
	comp=Z,96nm,0.8s,baz=81,slow=9.9,SNR=19						
PMSA	**Palmer Station**	**20.71**	**232**	*e*P	**P**	**10 35 52.1**	**+1.2**
	comp=Z,95nm,0.7s						
USHA	**Ushuaia**	**24.85**	**256**	P	**P**	**10 36 32.2**	**-0.9**
	comp=Z,44nm,0.8s,mb5.0,baz=100,slow=9.2,SNR=15						
USHA				LR	LR	10 44 04.1	
	comp=Z,1µm,19.1s,MS4.5,baz=292,slow=31						
SYO	**Syowa Base**	**29.41**	**139**	⇑*e*P	**P**	**10 37 15.0**	**+1.0**
QSPA	**South Pole Qui**	**33.04**	**180**	P	**P**	**10 37 47.1**	**+1.2**
	comp=Z,20nm,0.9s,mb5.0,baz=205,slow=4.0,SNR=46						
QSPA				PcP	PcP	10 40 29.1	+0.2
	comp=Z,15nm,0.8s,baz=230,slow=6.6,SNR=5.5						
PLCA	**Paso Flores**	**34.16**	**278**	P	**P**	**10 37 53.8**	**-2.1**
PLCA						10 40 32.7	
PLCA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
PLCA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
PLCA				MLR	MLR		
	comp=Z,853nm,22.0s						
PLCA	**Paso Flores**	**34.16**	**278**	P	**P**	**10 37 53.8**	**-2.1**
	comp=Z,8.7nm,0.8s,mb4.8,baz=139,slow=8.4,SNR=31						
PLCA				PcP	PcP	10 40 32.6	0.0
	comp=Z,3.9nm,1.0s,baz=118,slow=5.1,SNR=3.3						
PLCA				LR	LR	10 50 35.9	
	comp=Z,853nm,22.0s,MS4.4,baz=127,slow=34						
PLCA	**Paso Flores**	**34.16**	**278**	*e*P	**P**	**10 37 53.6**	**-2.3**
	comp=Z,8.7nm,0.8s,mb4.7						
PLCA				PcP	PcP	10 40 32.6	0.0
PLCA				LR	LR	10 50 35.9	
SPB	**Sao Paulo**	**37.77**	**323**	*e*P	**P**	**10 38 28.5**	**+1.5**
	comp=Z,45nm,1.2s,mb5.1						
MAW	**Mawson**	**38.02**	**142**	LR	LR	10 54 36.6	
	comp=Z,402nm,18.3s,MS4.3,baz=96,slow=37						
SUR	**Sutherland**	**39.08**	**70**	P	**P**	**10 38 37.7**	**-0.3**
	comp=Z,24nm,0.9s,mb4.9,baz=211,slow=5.7,SNR=12						
SUR	**Sutherland**	**39.08**	**70**	*e*P	**P**	**10 38 38.5**	**+0.5**
	comp=Z,23nm,0.9s,mb4.9						
SUR				*e*PcP	PcP	10 40 41.1	-6.5
CPUP	**Villa Florida**	**39.09**	**308**	P	**P**	**10 38 37.2**	**-0.9**
CPUP						10 40 47.7	
CPUP	**Villa Florida**	**39.09**	**308**	P	**P**	**10 38 37.1**	**-0.9**
	comp=Z,21nm,0.9s,mb4.9,baz=138,slow=7.5,SNR=31						
CPUP				PcP	PcP	10 40 47.7	0.0
	comp=Z,2.7nm,0.7s,baz=135,slow=8.6,SNR=1.9						
CPUP				LR	LR	10 53 10.3	
	comp=Z,150nm,20.4s,baz=138,slow=34						
CPUP	**Villa Florida**	**39.09**	**308**	P	**P**	**10 38 37.1**	**-0.9**
CPUP				PcP	PcP	10 40 47.7	0.0
CPUP				LR	LR	10 53 10.3	
CFAA	**Coronel Fontan**	**39.85**	**291**	P	**P**	**10 38 42.0**	**-2.4**
	comp=Z,1.3nm,0.6s,mb3.8,baz=146,slow=7.4,SNR=26						
CFAA				PcP	PcP	10 40 50.2	+0.1
	comp=Z,0.9nm,0.6s,baz=138,slow=1.3,SNR=3.6						
CFAA	**Coronel Fontan**	**39.85**	**291**	P	**P**	**10 38 42.0**	**-2.4**
CFAA				PcP	PcP	10 40 50.2	+0.1
LCO	**Las Campanas**	**43.19**	**290**	*e*P	**P**	**10 39 10.6**	**-1.2**
	comp=Z,19nm,0.6s,mb5.0						
LCO				*e*pP	pP	10 39 21.3	+6.4
BOSA	**Boshof**	**44.38**	**71**	*e*P	**P**	**10 39 20.5**	**-0.9**
BOSA				*e**PP	pP	10 39 30.6	+6.1
BOSA				*e**SP	sP	10 39 34.9	+9.2
BOSA				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.2						
BOSA	**Boshof**	**44.38**	**71**	P	**P**	**10 39 20.4**	**-0.9**
	comp=Z,35nm,0.7s,mb5.2,baz=210,slow=7.7,SNR=63						
BOSA				LR	LR	10 53 31.5	
	comp=Z,834nm,21.3s,MS4.6,baz=228,slow=30						
BOSA	**Boshof**	**44.38**	**71**	*e*P	**P**	**10 39 20.5**	**-0.8**
	comp=Z,30nm,0.6s,mb5.2						
BOSA				*e*pP	pP	10 39 30.6	+6.1
BOSA				*e*sP	sP	10 39 34.9	+9.1
BOSA				LR	LR	10 53 31.5	
VNDA	**Vanda**	**45.49**	**182**	P	**P**	**10 39 29.8**	**+0.1**
	comp=Z,7.3nm,0.8s,mb4.6,baz=210,slow=6.8,SNR=6.0						
VNDA				LR	LR	10 57 07.6	
	comp=Z,219nm,19.6s,MS4.1,baz=175,slow=34						
LVC	**Limon Verde**	**47.61**	**297**	P	**P**	**10 39 47.3**	**+0.5**
	comp=Z,14nm,0.5s,mb5.3,baz=142,slow=5.5,SNR=26						
LVC	**Limon Verde**	**47.61**	**297**	P	**P**	**10 39 47.3**	**+0.5**
LVC				*e*P		10 39 47.6	
RCBR	**Riachuelo**	**52.15**	**344**	*e*P	**P**	**10 40 20.4**	**-1.1**
	comp=Z,11nm,0.8s,mb4.8						
RCBR				*e*PcP	PcP	10 41 33.8	+0.7
ARE	**Arequipa**	**54.11**	**298**	*e*P	**P**	**10 40 38.0**	**+2.1**
LSZ	**Lusaka**	**56.99**	**65**	*e*P	**P**	**10 40 55.7**	**-0.9**
LSZ				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
LSZ	**Lusaka**	**56.99**	**65**	LR	LR	11 04 28.5	
	comp=Z,470nm,18.4s,MS4.6,baz=10,slow=35						
LSZ	**Lusaka**	**56.99**	**65**	*e*P	**P**	**10 40 55.7**	**-0.9**
	comp=Z,11nm,0.6s,mb5.0						
NNA	**Nana**	**60.55**	**296**	P	**P**	**10 41 21.8**	**+0.4**
	comp=Z,14nm,0.8s,mb5.2,baz=170,slow=5.0,SNR=7.2						
NNA	**Nana**	**60.55**	**296**	*e*P	**P**	**10 41 21.0**	**-0.4**
	comp=Z,29nm,0.8s,mb5.5						
ABPO	**Ambohimpanom**	**63.83**	**85**	*e*P	**P**	**10 41 44.1**	**+0.8**
DBIC	**Dimbokro**	**65.47**	**21**	*e*P	**P**	**10 41 52.9**	**-1.1**
DBIC				pmax	pmax		
	comp=Z,29nm,0.7s						
DBIC	**Dimbokro**	**65.47**	**21**	P	**P**	**10 41 52.9**	**-1.1**
	comp=Z,33nm,0.8s,mb5.4,baz=172,slow=7.0,SNR=40						
DBIC	**Dimbokro**	**65.47**	**21**	*e*P	**P**	**10 41 52.9**	**-1.0**
	comp=Z,29nm,0.7s,mb5.4						
ATAH	**Atahualpa**	**65.62**	**297**	P	**P**	**10 41 55.8**	**+0.7**
	comp=Z,9.5nm,0.9s,mb4.8,baz=154,slow=10,SNR=8.0						
OTAV	**Otavalo**	**71.96**	**301**	*e*P	**P**	**10 42 36.4**	**+1.9**
	comp=Z,12nm,0.6s,mb5.0						
OTAV				*e*pP	pP	10 42 47.8	+10
TORD	**Torodi Ar. Bea**	**73.15**	**26**	P	**P**	**10 42 40.6**	**-0.8**
	comp=Z,87nm,0.8s,mb5.8,baz=194,slow=6.4,SNR=462						
ROSC	**El Rosal**	**74.19**	**307**	P	**P**	**10 42 48.9**	**+1.2**
	comp=Z,11nm,0.4s,mb5.1,baz=89,slow=12,SNR=5.1						
PCRV	**Puerto La Cruz**	**75.12**	**318**	P	**P**	**10 42 53.4**	**+0.3**
	comp=Z,32nm,0.6s,mb5.4,baz=179,slow=2.1,SNR=12						

SDV	Santo Domingo	76.25	312	P	P	10 42 59.9	+0.4
	comp=Z,24nm,0.8s,mb5.2,baz=165,slow=6.5,SNR=23						
SDV	Santo Domingo	76.25	312	*e*P	P	10 42 59.6	+0.1
	comp=Z,23nm,0.7s,mb5.2						
RKT	Rikitea	81.68	240	*e*LR	LR	11 09 01.1	
	comp=Z,616nm,33.0s						
TAM	Tamanrasset	83.35	27	*e*P	P	10 43 39.4	+1.6
TAM				pmax	pmax		
	comp=Z,67nm,1.6s,mb5.4						
TAM	Tamanrasset	83.35	27	*e*P	P	10 43 39.4	+1.6
	comp=Z,67nm,1.6s,mb5.4						
JTS	JuntasAbangare	83.82	300	*e*P	P	10 43 41.4	+1.0
JTS				pmax	pmax		
	comp=Z,51nm,1.4s						
JTS	JuntasAbangare	83.82	300	*e*P	P	10 43 41.4	+1.0
	comp=Z,51nm,1.4s,mb5.5						
NWAO	Narrogin (SRO)	84.31	148	*e*P	P	10 43 42.3	-0.5
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.5s						
NWAO	Narrogin (SRO)	84.31	148	*e*P	P	10 43 42.3	-0.5
	comp=Z,7.4nm,0.5s,mb5.1						
MUN	Mundaring	84.89	147	*e*P	P	10 43 45.4	-0.4
TOO	Toolangi	85.14	171	*e*P	P	10 43 47.0	+0.1
CNB	Canberra Magne	87.65	174	*e*P	P	10 43 59.5	+0.2
FORT	Forrest	89.14	156	*e*P	P	10 44 06.5	+0.1
	comp=Z,45nm,0.7s,mb5.9						
FORT	Forrest	89.14	156	*e*P	P	10 44 06.4	0.0
	comp=Z,69nm,0.9s,mb6.0						
STKA	Stephens Creek	90.39	167	*e*P	P	10 44 12.0	-0.2
	comp=Z,14nm,1.0s,mb5.2						
STKA	Stephens Creek	90.39	167	P	P	10 44 12.2	0.0
	comp=Z,17nm,0.9s,mb5.4,baz=169,slow=5.5,SNR=24						
STKA	Stephens Creek	90.39	167	*e*P	P	10 44 12.5	+0.3
	comp=Z,4.4nm,1.0s,mb4.7						
PPT	Papeete	93.07	231	*e*LR	LR	11 14 21.9	
	comp=Z,811nm,25.0s						
PPT	Papeete	93.07	231	LR	LR	11 16 27.1	
	comp=Z,552nm,19.3s,MS5.0,baz=336,slow=29						
TAOE	Nuku Hiva Isla	96.45	243	*e*LR	LR	11 15 56.7	
	comp=Z,311nm,33.6s						
ASAR	Alice Springs	97.24	159	P	P	10 44 43.0	-0.8
ASAR						10 48 38.1	
ASAR	Alice Springs	97.24	159	P	P	10 44 43.0	-0.8
	comp=Z,4.2nm,0.8s,mb4.9,baz=192,slow=4.0,SNR=27						
ASAR				PP	PP	10 48 38.0	-1.2
	comp=Z,1.5nm,0.8s,baz=205,slow=6.2,SNR=8.1						
ASAR				PKKP	PKKPbc	11 01 21.0	+1.1
	comp=Z,1.1nm,0.7s,baz=17,slow=2.6,SNR=12						
WRA	Warramunga Arr	100.95	159	P	Pdif	10 44 59.0	-1.6
WRA						10 49 08.0	
WRA	Warramunga Arr	100.95	159	P	Pdif	10 44 59.0	-1.6
	comp=Z,0.3nm,0.4s,baz=198,slow=4.5,SNR=8.2						
WRA				PP	PP	10 49 08.0	+0.4
	comp=Z,1.8nm,0.9s,baz=195,slow=6.2,SNR=6.9						
WRA				PKKP	PKKPbc	11 01 11.5	+1.9
	comp=Z,0.9nm,0.7s,baz=3.8,slow=2.9,SNR=75						
TXAR	Lajitas Array	109.10	294	PKiKP	PKiKP	10 49 39.6	-0.8
	comp=Z,1.1nm,0.9s,baz=102,slow=5.6,SNR=3.6						
ANMO	Albuquerque	115.03	296	PKP	PKiKP	10 49 49.4	-2.1
	comp=Z,0.9nm,0.8s,baz=171,slow=5.8,SNR=5.5						
SCHQ	Schefferville	117.06	334	PKP	PKPdf	10 49 53.1	-1.6
	comp=Z,2.8nm,0.8s,baz=198,slow=3.2,SNR=7.8						
SRU	San Rafael	120.30	296	*e*PKIKP	PKPdf	10 50 01.1	-0.3
HFS	Hagfors	120.63	21	PKP	PKPdf	10 49 59.6	-1.8
	comp=Z,2.5nm,0.6s,baz=155,slow=4.9,SNR=5.3						
MSU	Marysvale	120.65	294	*e*PKIKP	PKPdf	10 50 02.6	+0.5
NOA	NORSAR Array B	121.02	19	PKP	PKPdf	10 50 01.4	-0.6
	comp=Z,3.3nm,0.7s,baz=197,slow=1.9,SNR=8.8						
RSSD	Black Hills	121.14	304	*e*PKIKP	PKPdf	10 50 02.1	-0.8
KOLN	Koldanda	122.09	88	*e*P	PKPdf	10 50 03.5	-1.7
	comp=Z,72nm,0.8s						
DUG	Dugway	122.26	295	*e*PKIKP	PKPdf	10 50 05.7	+0.5
ULM	Lac du Bonnet	122.48	314	PKP	PKPdf	10 50 03.0	-2.3
	comp=Z,3.1nm,0.5s,baz=139,slow=3.0,SNR=7.1						
DANN	Dangsing	122.63	87	*e*P	PKPdf	10 50 05.1	-1.2
	comp=Z,87nm,0.8s						
PDAR	Pinedale Array	122.65	299	PKP	PKPdf	10 50 04.8	-1.1
	comp=Z,2.1nm,0.7s,baz=144,slow=5.0,SNR=19						
DMN	Daman	122.78	89	*e*P	PKPdf	10 50 05.4	-1.2
	comp=Z,51nm,0.9s						
CMAR	Chiang Mai Arr	122.80	108	PKP	PKPdf	10 50 06.4	-0.5
	comp=Z,13nm,0.8s,baz=234,slow=3.7,SNR=50						
CMAR				PKKPab	PKKPab	11 00 00.8	+1.0
	comp=Z,1.4nm,0.8s,baz=31,slow=1.5,SNR=4.2						
GKN	Gorkha	122.83	88	*e*P	PKPdf	10 50 04.9	-1.8
	comp=Z,73nm,0.9s						
PKI	Pulchoki	122.91	89	*e*P	PKPdf	10 50 05.7	-1.1
	comp=Z,56nm,0.8s						
BGU	Big Grassy Mou	122.93	295	*e*PKPdf	PKPdf	10 50 06.8	+0.4
KKN	Kakani	123.02	89	*e*P	PKPdf	10 50 05.5	-1.5
	comp=Z,43nm,0.8s						
CHTO	Chiang Mai	123.09	108	*e*PKIKP	PKPdf	10 50 06.8	-0.6
GUN	Gumba	123.44	90	*e*P	PKPdf	10 50 06.7	-1.1
	comp=Z,74nm,0.9s						
N13A	Wendover, West	123.45	295	*e*PKPdf	PKPdf	10 50 08.1	+0.7
NVAR	Mina Array Bea	123.68	290	PKP	PKPdf	10 50 09.0	+1.1
	comp=Z,3.0nm,0.7s,baz=140,slow=3.3,SNR=31						
LAO	LASA Array	124.10	304	*e*PKPdf	PKPdf	10 50 08.2	-0.2
RLMT	Red Lodge	124.30	301	*e*PKPdf	PKPdf	10 50 08.8	-0.1
FINES	FINESS Array B	124.50	26	PKP	PKPdf	10 50 07.8	-0.9
	comp=Z,19nm,0.7s,baz=132,slow=2.8,SNR=42						
DGMT	Dagmar	124.55	307	*e*PKPdf	PKPdf	10 50 08.8	-0.5
YMR	Madison River	124.76	300	*e*PKPdf	PKPdf	10 50 10.7	+0.9
KAF	Kangasniemi	125.13	26	*e*pkp	PKPdf	10 50 08.4	-1.5
MCMT	McKenzie Canyo	125.77	299	*e*PKPdf	PKPdf	10 50 12.6	+0.8
LCCM	Lewis and Clar	126.06	300	P	PKPdf	10 50 13.0	+0.7
LRM	Limekiln Ridge	126.32	300	*e*PKPdf	PKPdf	10 50 13.7	+0.9
HRY	Holter Researc	126.68	301	*e*PKPdf	PKPdf	10 50 14.2	+0.8
EGMT	Eagleton	126.69	303	*e*PKPdf	PKPdf	10 50 13.4	+0.1
WVOR	Wild Horse Val	126.84	293	*e*PKIKP	PKPdf	10 50 14.8	+0.9
KSH	Kashi	126.97	73	PKP	PKPdf	10 50 13.8	-0.4
KSH				*e*sPKP		10 50 20.5	
LBCM	Butte Creek Ri	127.04	290	P	PKPdf	10 50 15.0	+0.7
JOF	Joensuu	127.06	28	*e*pkp	PKPdf	10 50 12.5	-1.1
CHMT	Chamberlain Mo	127.50	300	P	PKPdf	10 50 15.2	+0.3
LSA	Lhasa	127.70	93	*e*PKIKP	PKPdf	10 50 16.8	+0.9
AML	Almayashu	127.73	69	P	PKPdf	10 50 15.5	-0.1
	SNR=14						
AML	Almayashu	127.73	69	*e*PKPdf	PKPdf	10 50 15.5	0.0
MSO	Missoula	127.76	300	*e*PKPdf	PKPdf	10 50 15.7	+0.2
SLMT	Seeley Lake	127.85	300	*e*PKPdf	PKPdf	10 50 15.4	-0.2
BMO	Blue Mountains	127.94	296	*e*PKIKP	PKPdf	10 50 16.0	+0.1
EKS2	Erkin-Say	128.15	68	P	PKPdf	10 50 16.2	-0.2
	SNR=18						
EKS2	Erkin-Say	128.15	68	*e*PKPdf	PKPdf	10 50 16.2	-0.2
UCH	Uchtor	128.21	69	P	PKPdf	10 50 16.7	+0.2
	SNR=14						
UCH	Uchtor	128.21	69	*e*PKPdf	PKPdf	10 50 16.9	+0.4
FFC	Flin Flon	128.31	314	*e*PKIKP	PKPdf	10 50 15.5	-0.7
KZA	Kyzart	128.48	70	P	PKPdf	10 50 17.2	+0.2
	SNR=8.2						
AAK	Ala-Archa	128.50	69	P	PKPdf	10 50 16.8	-0.2
	SNR=12						
AAK	Ala-Archa	128.50	69	PKP	PKPdf	10 50 17.0	0.0
	comp=Z,4.5nm,0.6s,baz=172,slow=3.3,SNR=21						
JTMT	Jette	128.58	300	*e*PKPdf	PKPdf	10 50 16.9	-0.1
KBK	Karagaybulak	128.75	69	P	PKPdf	10 50 17.5	0.0
	SNR=5.4						
BSMT	Bassoo Peak	128.89	300	*e*PKPdf	PKPdf	10 50 17.7	+0.1
USP	Ospenovka	128.96	68	P	PKPdf	10 50 17.1	-0.8
	SNR=5.8						
HUMO	Hull Mountain	129.15	290	*e*PKPdf	PKPdf	10 50 19.2	+1.0
BBOR	Butler Butte	129.21	291	P	PKPdf	10 50 18.9	+0.5
TKM2	Tokmak 2	129.27	70	*e*PKIKP	PKPdf	10 50 17.3	-1.2
OD2	Odessa Site #2	130.44	297	P	PKPdf	10 50 20.8	+0.3
ARU	Arti	131.01	47	*e*PKIKP	PKPdf	10 50 20.8	-0.5
ARU	Arti	131.01	47	*e*PKPdf	PKPdf	10 50 20.8	-0.5
TBM	Table Mountain	131.21	296	P	PKPdf	10 50 22.2	+0.2
ARCES	ARCESS Array B	131.29	21	PKP	PKPdf	10 50 20.4	-1.1
	comp=Z,7.4nm,0.6s,baz=201,slow=1.8,SNR=63						
ARCES				PP	PP	10 52 37.5	-3.3
	comp=Z,4.7nm,0.8s,baz=248,slow=5.1,SNR=5.6						
ARCES	ARCESS Array B	131.29	21	PKP	PKPdf	10 50 20.4	-1.1
ARCES				PP	PP	10 52 37.5	-3.3
APA	Apatity	131.37	25⇑	*i*PKIKP	PKPdf	10 50 25.0	+3.3
APA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
LON	Longmire	131.51	295	*e*PKIKP	PKPdf	10 50 22.6	0.0
NLW	Nelson Butte	131.71	297	P	PKPdf	10 50 22.8	-0.2
KEV	Kevo	131.77	21	*e*pkp	PKPdf	10 50 21.1	-1.3
BRVK	Borovoye	133.71	56	*e*PKIKP	PKPdf	10 50 26.3	-0.2
BVAR	Borovoye Array	133.73	57	PKIKP	PKPdf	10 50 26.0	-0.6
BVAR	Borovoye Array	133.73	57	PKhKP		10 50 13.6	
	comp=Z,1.3nm,0.8s,baz=218,slow=7.0,SNR=6.1						
BVAR				PKP	PKPdf	10 50 26.0	-0.5
	comp=Z,13nm,0.8s,baz=234,slow=1.5,SNR=28						
MKAR	Makanchi Array	135.38	70	PKIKP	PKPdf	10 50 28.0	-1.9
MKAR	Makanchi Array	135.38	70	PKhKP		10 50 16.4	
	comp=Z,0.3nm,0.6s,baz=226,slow=3.2,SNR=5.1						
MKAR				PKP	PKPdf	10 50 28.0	-1.8
	comp=Z,3.7nm,0.9s,baz=260,slow=1.9,SNR=17						
KURK	Kurchatov	136.11	64	PKhKP		10 50 23.0	
	comp=Z,1.8nm,0.8s,baz=235,slow=3.5,SNR=10						
KURK				PKP	PKPdf	10 50 29.7	-1.4
	comp=Z,4.0nm,0.8s,baz=226,slow=2.6,SNR=17						
SPITS	Spitsbergen Ar	137.29	11	PKhKP		10 50 25.8	
	comp=Z,1.8nm,0.2s,baz=305,slow=20,SNR=37						
YKA	Yellowknife Ar	138.38	316	PKhKP		10 50 26.5	
	comp=Z,1.2nm,0.7s,baz=118,slow=2.5,SNR=24						
YKA				PKP	PKPdf	10 50 34.3	-0.6
	comp=Z,9.6nm,0.8s,baz=128,slow=1.9,SNR=64						
YKA				PP	PP	10 53 24.4	-1.4
	comp=Z,1.3nm,0.9s,baz=129,slow=6.3,SNR=6.3						
YKA	Yellowknife Ar	138.38	316	PKP		10 50 26.5	
YKA				PKP	PKPdf	10 50 34.3	-0.6
YKA				PP	PP	10 53 24.4	-1.4
LZH	Lanzhou	139.45	98	*e*PKP	PKPdf	10 50 39.8	+2.0
LZH				sPKP		10 50 50.0	
GTA	Gaotai	139.68	91	*e*PKP		10 50 29.8	
GTA				sPKP		10 50 45.8	
GTA	Gaotai	139.68	91	*e*P	PKPdf	10 50 40.5	+2.4
GTA				pP		10 50 44.3	
GTA				sP		10 50 45.8	
GTA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NVS	Novosibirsk	140.84	61	*e*PKHKP		10 50 32.8	
NVS				pmax	pmax		
	comp=Z,24nm,1.7s						
ZALV	Zalesovo Beam	141.09	63	PKhKP		10 50 32.1	
	comp=Z,3.8nm,0.5s,baz=247,slow=3.2,SNR=19						
SKAG	Skagway	145.52	303	*e*P	PKPdf	10 50 48.3	+0.6
BTO	Baotou	146.06	99	*e*PKPbc	PKPbc	10 50 48.8	-1.4
TIA	Tai’an	146.51	112	PKPbc	PKPbc	10 50 51.3	-0.4
HHC	Hu-ho-hao-te	147.06	100	*e*PKPbc	PKPbc	10 50 52.5	-0.6
HHC				pPKP	pPKPdf	10 50 57.0	+2.6
HHC				LR	LR		
	comp=Z,390nm,18.6s,MS5.2						
INK	Inuvik	147.98	319	*e*PKHKP	PKPdf	10 50 48.8	-2.8
INK				*e*		10 50 54.2	
INK	Inuvik	147.98	319	*e*PKPdf	PKPdf	10 50 48.8	-2.8
INK				*e*PKPbc	PKPbc	10 50 54.2	-0.6
INK				*e*PKPab	PKPab	10 50 57.0	-0.5
MOY	Mondy	148.07	76	*e*PKIKP	PKPdf	10 50 51.7	-0.6
MOY				pmax	pmax		
	comp=Z,66nm,1.8s						
SONM	Songino Array	148.81	86	PKP	PKPdf	10 50 53.0	-0.6
	comp=Z,41nm,0.8s,baz=223,slow=1.7,SNR=54						
SONM				PKPbc	PKPbc	10 50 57.1	-0.5
	comp=Z,41nm,0.8s,baz=222,slow=2.7,SNR=73						
BJT	Baijiatuau	148.90	106	*e*PKIKP	PKPdf	10 50 53.8	-0.2
BJT				*e*		10 50 57.5	
BJI	Beijing	148.92	106	P	PKPbc	10 50 57.5	-0.6
BJI				pmax	pmax		
	comp=Z,130nm,0.7s						
DAWY	Dawson	149.06	310	*e*PKPbc	PKPbc	10 50 57.0	-0.7
ULN	Ulaanbaatar	149.19	86	*e*PKPdf	PKPdf	10 50 53.1	-1.1
ULN				*e*PKPbc	PKPbc	10 50 57.8	-0.7
ULN				*e*PKPab	PKPab	10 51 02.5	-0.5
TLY	Talaya	149.48	77	*e*PKPdf	PKPdf	10 50 53.6	-0.9
TLY				*e*PKPbc	PKPbc	10 50 58.8	-0.3
TLY				*e*PKPab	PKPab	10 51 02.9	-1.1
EGAK	Eagle	150.00	311	*e*PKPdf	PKPdf	10 50 54.1	-0.9
EGAK				*e*PKPbc	PKPbc	10 50 59.1	-0.8
MENT	Mentasta	150.58	306	*e*P	PKPbc	10 51 01.2	-0.2
PAX	Paxson	151.36	306	*e*PKIKP	PKPbc	10 51 02.9	-0.3
SEW	Seward	152.36	299	*e*PKPbc	PKPbc	10 51 05.3	-0.2
SEW				*e*PKPab	PKPab	10 51 15.0	-0.8
KSRS	Korea Array	152.70	124	PKIKP	PKPbc	10 51 05.7	-1.4
KSRS						10 51 16.8	
KSRS				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KSRS	Korea Array	152.70	124	PKPbc	PKPbc	10 51 05.7	-1.3
	comp=Z,7.3nm,0.8s,baz=210,slow=2.1,SNR=15						
KSRS				PKPab	PKPab	10 51 16.8	-1.0
	comp=Z,3.0nm,0.7s,baz=237,slow=2.0,SNR=4.3						
COLD	Coldfoot	154.05	314	*e*PKPdf	PKPdf	10 51 00.0	-1.0
COLD				*e*PKPbc	PKPbc	10 51 09.1	0.0
COLD				*e*PKPab	PKPab	10 51 22.2	-0.5
IMA2	Indian Mountai	155.37	312	*e*P	PKPdf	10 51 08.8	+6.0
MAT	Matsushiro	156.01	142	P	PKPab	10 51 31.9	-0.1
MJAR	Matsushiro Arr	156.01	142	PKPab	PKPab	10 51 31.1	-0.9
	comp=Z,5.5nm,0.8s,baz=185,slow=4.8,SNR=10						
CN2	Changchun	156.42	111	*e*P	PKPab	10 51 32.3	-1.3
BOD	Bodaibo	157.47	70	*e*PKIKP	PKPdf	10 51 02.8	-3.0
BOD				*e*		10 51 36.4	
BOD				pmax	pmax		
	comp=Z,8.0nm,1.1s						
BOD				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KLR	Kul’dur	163.28	108	*e*PKIKP	PKPdf	10 51 07.6	-4.9
KLR				*e*		10 51 59.3	
PETK	Petropavlovsk-	175.83	191	PKP	PKPdf	10 51 18.2	-1.7
	comp=Z,8.2nm,1.0s,baz=113,slow=3.4,SNR=4.2						
PETK				PKPab	PKPab	10 52 58.2	-0.4
	comp=Z,3.3nm,0.7s,baz=168,slow=5.0,SNR=3.6						
PETK	Petropavlovsk-	175.83	191	PKP	PKPdf	10 51 18.2	-1.7
PETK				PKPab	PKPab	10 52 58.2	-0.4

ATH ***26*** *10:46:05.2, 35°.97N×21°.70E, h5^{km}±3^{km}, ML5.2*

BJI ***26*** *10:46:05.6, 36°.43N×21°.66E, h5^{km}, mB5.4/26, mb5.0/40, Ms5.2/37, Ms7 4.8/35*

SOF ***26*** *10:46:06.2, 35°.71N×23°.39E, h2^{km}, MD5.3*

ISCJB ***26*** *10:46:06.3±0.1, 35°.91N±0°.01×21°.80E±0°.01, h10^{km}, mb4.9/152, MS5.0/168, Error ellipse: s-maj=2.1km s-min=1.5km az=29.5*

NEIC ***26*** *10:46:07.3±0.3, 35°.91N×21°.87E, h5^{km}, mb4.8/119, MS5.0/134, MW5.3, ML5.0(PDG), ML5.2(ATH), ML5.6(THE), Error ellipse: s-maj=4.3km s-min=3.3km az=194.0, Moment Tensor Solution. s12 Moment tensor: Scale 10^{16}Nm; M_{rr}7.42; $M_{\theta\theta}$-9.29; $M_{\phi\phi}$1.88; $M_{r\theta}$0.00; $M_{\theta\phi}$3.31; $M_{\phi r}$-3.59; Best double couple: $M_0$9.80000×10^{16} NP1: ϕ_s130.00000°, δ54.00000°, λ125.00000°. NP2: ϕ_s260.00000°, δ48.00000°, λ51.00000°. Principal axes: T 9.3000, Plg61.0000°, Azm100.0000°; N 1.0000, Plg27.0000°, Azm287.0000°; P -10.3000, Plg3.0000°, Azm196.0000°;*

NEIC Felt [II] at Kalamata, Greece. Also felt at Chania.

GCMT ***26*** *10:46:07.3±0.2, 36°.10N×21°.86E, h12^{km}, MW5.4/94, Moment Tensor Solution. s75,c121; s94,c172; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.16±.03; $M_{\theta\theta}$-1.12±.02; $M_{\phi\phi}$-0.03±.02; $M_{r\theta}$0.44±.05; $M_{\theta\phi}$0.74±.02; $M_{\phi r}$-0.41±.06; Best double couple: $M_0$1.46200×10^{17} NP1: ϕ_s286.00000°, δ34.00000°, λ74.00000°. NP2: ϕ_s126.00000°, δ57.00000°, λ101.00000°. Principal axes: T 1.3070, Plg75.0000°, Azm66.0000°; N 0.3140, Plg9.0000°, Azm300.0000°; P -1.6180, Plg12.0000°, Azm208.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

PDG ***26*** *10:46:07.2±0.2, 35°.99N×20°.97E, h11^{km}±11^{km}, MD5.1/4, ML5.0/10 Error ellipse: s-maj=263.0km s-min=64.5km az=90.0*

THE ***26*** *10:46:08.3, 36°.05N×21°.65E, h0^{km}±5^{km}, ML5.6/8, Error ellipse: s-maj=6.7km s-min=1.8km az=236.0*

CSEM ***26*** *10:46:08.4±0.1, 35°.95N×21°.71E, h10^{km}, mb5.1/50, Ms4.8, Mw5.4, Error ellipse: s-maj=4.2km s-min=2.9km az=30.0*

MOS ***26*** *10:46:09.4±1.5, 35°.99N×21°.79E, h33^{km}, mb5.2/50, MS4.8/51, Error ellipse: s-maj=4.2km s-min=2.2km az=96.2*

PRU ***26*** *10:46:10.3, 36°.40N×22°.23E, h0^{km}, M4.0*

TEH ***26*** *10:46:10.2, 35°.95N×21°.94E, h10^{km}*

HLW ***26*** *10:46:11.0, 36°.16N×21°.91E, h33^{km}, Mb4.8*

IDC ***26*** *10:46:12.1±1.6, 36°.23N×21°.91E, h40^{km}±15^{km}, mb4.2/23, mb1 4.3/32, mb1mx4.3/35, mbtmp4.2/32, ML4.2/7, MS4.8/19, Ms1 4.8/19, ms1mx4.5/39, Error ellipse: s-maj=11.4km s-min=10.1km az=160.0*

GII ***26*** *10:46:13.4±0.0, 35°.67N×22°.47E, h1^{km}, Mb4.9/4, Md4.9/4*

ISC 26 10:46:08.4±0.1, **35°.93N**±0°.01×**21°.80E**±0°.01, **h10**^{km}, **(h14**^{km}±1.0^{km}**:pP-P), n1322,** σ**1^{s}51**/1307, **mb4.9**/152,

MS5.0/168, 37C-42D, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.96	357	*e*PB	Pg	10 46 22.9	-4.0
PYL				*e*SB	Sg	10 46 36.9	-2.5
PYL	PYLOS	0.96	357	P	Pg	10 46 22.9	-4.0
PYL				*e*Sb	Sg	10 46 36.9	-2.5
KYTH	Kithira	1.06	71	*e*PB	Pg	10 46 27.8	-1.0
KYTH	Kithira	1.06	71	*e*Pb	Pg	10 46 27.8	-1.0
VLI	Veliai	1.21	49	*e*PB	Pn	10 46 29.0	-2.3
VLI				*e*SB	Sn	10 46 46.6	-1.1
VLI	Veliai	1.21	49	*e*Pb	Pn	10 46 29.0	-2.3
VLI				*e*Sb	Sn	10 46 46.6	-1.1
ITM	Ithomi	1.25	5	*e*PB	Pn	10 46 28.3	-3.6
ITM				*e*SB	Sn	10 46 46.0	-2.7
ITM	Ithomi	1.25	5	*e*Pb	Pn	10 46 28.3	-3.6
ITM				*e*Sb	Sn	10 46 46.0	-2.7
VLX	Vlachokerasia	1.51	18	*e*PG	Pn	10 46 32.8	-2.6
VLX				*e*SB	Sn	10 46 54.0	-1.2
VLX	Vlachokerasia	1.51	18	*e*Pg	Pn	10 46 32.8	-2.6
VLX				*e*Sb	Sn	10 46 54.0	-1.2
KARN	Karanos	1.81	106	P	Pn	10 46 41.9	+2.4
KARN	Karanos	1.81	106	P	Pn	10 46 41.9	+2.4
DID	Didima	1.95	36	P	Pn	10 46 41.8	+0.3
DID				S	Sn	10 47 08.6	+2.6
DID	Didima	1.95	36	*e*PG	Pn	10 46 41.7	+0.2
DID				*e*SN	Sn	10 47 08.5	+2.5
DID	Didima	1.95	36	P	Pn	10 46 41.8	+0.3
DID				*e*Sn	Sn	10 47 08.5	+2.5
GUR	Goura	2.05	12	*e*PN	Pn	10 46 42.7	-0.1
GUR	Goura	2.05	12	*e*Pn	Pn	10 46 42.7	-0.1
NAIG	Nisos Aigina	2.27	36	*e*PN	Pn	10 46 46.7	+0.8
NAIG	Nisos Aigina	2.27	36	*e*Pn	Pn	10 46 46.7	+0.8
LTK	Loutraki	2.29	24	P	Pn	10 46 45.8	-0.3
LTK	Loutraki	2.29	24	*e*PN	Pn	10 46 47.0	+0.9
LTK	Loutraki	2.29	24	P	Pn	10 46 45.8	-0.3
LTK	Loutraki	2.29	24	*e*Pn	Pn	10 46 47.0	+0.9
LAKA	Lakka	2.31	4	P	Pn	10 46 46.5	+0.1
LAKA	Lakka	2.31	4	P	Pn	10 46 46.5	+0.1
VLS	Valsamata	2.44	337	*e*PN	Pn	10 46 48.0	-0.2
VLS				*e*SN	Sn	10 47 20.2	+2.1
VLS	Valsamata	2.44	337	*e*Pn	Pn	10 46 48.0	-0.2
VLS				*e*Sn	Sn	10 47 20.2	+2.1
KALE	Kalithea	2.47	6	P	Pn	10 46 48.2	-0.4
KALE	Kalithea	2.47	6	P	Pn	10 46 48.2	-0.4
EFP	Efpalio	2.49	2	*e*PG	Pn	10 46 50.4	+1.5
EFP	Efpalio	2.49	2	*e*Pg	Pn	10 46 50.4	+1.5
VLY	Voula,Athens	2.50	39	*e*PN	Pn	10 46 49.8	+0.8
VLY	Voula,Athens	2.50	39	*e*Pn	Pn	10 46 49.8	+0.8
ATH	Athens Observa	2.55	36	*e*PN	Pn	10 46 51.2	+1.4
ATH	Athens Observa	2.55	36	*e*Pn	Pn	10 46 51.2	+1.4
ATHU	Athens Univers	2.58	38	P	Pn	10 46 50.6	+0.4
ATHU				S	Sn	10 47 22.9	+1.3
ATHU	Athens Univers	2.58	38	P	Pn	10 46 50.6	+0.4
ATHU				S	Sn	10 47 22.9	+1.3
IDI	Anoyia	2.60	103	*e*PN	Pn	10 46 52.1	+1.7
IDI	Anoyia	2.60	103	Pn	Pn	10 46 50.3	-0.2
	22nm,0.3s,baz=275,slow=12,SNR=64						
IDI				Sn	Sn	10 47 22.0	-0.1
	252nm,0.3s,baz=292,slow=21,SNR=7.3						
IDI	Anoyia	2.60	103	*e*Pn	Pn	10 46 52.1	+1.7
SIVA	Sivas	2.62	109	P	Pn	10 46 53.9	+3.2
SIVA	Sivas	2.62	109	P	Pn	10 46 53.9	+3.2
PTL	Penteli	2.68	37	*e*PN	Pn	10 46 51.5	-0.1
PTL	Penteli	2.68	37	*e*Pn	Pn	10 46 51.5	-0.1
LKR	Lokris	2.88	19	P	Pn	10 46 53.3	-0.9
LKR	Lokris	2.88	19	*e*PB	Pn	10 46 53.7	-0.5
LKR	Lokris	2.88	19	P	Pn	10 46 53.3	-0.9
LKD	Levkas	2.92	342	P	Pn	10 46 55.2	+0.4
LKD	Levkas	2.92	342	P	Pn	10 46 55.9	+1.1
LKD	Levkas	2.92	342	P	Pn	10 46 55.2	+0.4
THR6	Thira Island,	2.94	81	P	Pn	10 46 56.6	+1.4
THR6	Thira Island,	2.94	81	P	Pn	10 46 56.6	+1.4
LAST	Lasithi	3.10	103	P	Pn	10 46 59.6	+2.3
LAST				S	Sn	10 47 40.3	+5.9
LAST	Lasithi	3.10	103	P	Pn	10 46 59.6	+2.3
LAST				S	Sn	10 47 40.3	+5.9
AGG	Agios Georgios	3.11	8	P	Pn	10 46 57.2	-0.3
AGG	Agios Georgios	3.11	8	*e*PN	Pn	10 46 58.4	+0.9
AGG	Agios Georgios	3.11	8	P	Pn	10 46 57.2	-0.3
AGG	Agios Georgios	3.11	8	*e*Pn	Pn	10 46 58.4	+0.9
NPS	Neapolis	3.18	101	*e*PB	Pn	10 47 00.4	+2.0
NEO	Neokhori	3.55	18	*e*PN	Pn	10 47 04.0	+0.5
NEO	Neokhori	3.55	18	*e*Pn	Pn	10 47 04.0	+0.5
XOR	Xorichti	3.60	17	P	Pn	10 47 04.3	+0.1
XOR	Xorichti	3.60	17	P	Pn	10 47 02.7	-1.5
XOR	Xorichti	3.60	17	P	Pn	10 47 04.3	+0.1
THL	Klokotos Trika	3.63	3	P	Pn	10 47 04.0	-0.6
THL	Klokotos Trika	3.63	3	*e*PN	Pn	10 47 04.8	+0.2
THL	Klokotos Trika	3.63	3	P	Pn	10 47 04.0	-0.6
THL	Klokotos Trika	3.63	3	*e*Pn	Pn	10 47 04.8	+0.2
AOS	Alonnisos	3.63	26	P	Pn	10 47 05.5	+0.9
AOS	Alonnisos	3.63	26	P	Pn	10 47 05.9	+1.3
AOS	Alonnisos	3.63	26	P	Pn	10 47 05.5	+0.9
IGT	Igoumenitsa	3.78	343	P	Pn	10 47 05.6	-1.0
IGT	Igoumenitsa	3.78	343	P	Pn	10 47 05.6	-1.0
JAN	Janina	3.79	349	*e*PN	Pn	10 47 06.2	-0.6
JAN	Janina	3.79	349	*e*Pn	Pn	10 47 06.2	-0.6
MEV	Metsovon	3.87	353	P	Pn	10 47 08.2	+0.3
MEV	Metsovon	3.87	353	P	Pn	10 47 08.6	+0.7
MEV	Metsovon	3.87	353	P	Pn	10 47 08.2	+0.3
KEK	Kerkira	4.09	338	*e*PN	Pn	10 47 09.7	-1.2
KEK	Kerkira	4.09	338	*e*Pn	Pn	10 47 09.7	-1.2
CHOS	Chios island	4.19	53	P	Pn	10 47 13.5	+1.2
CHOS	Chios island	4.19	53	*e*PN	Pn	10 47 14.4	+2.1
CHOS	Chios island	4.19	53	P	Pn	10 47 13.5	+1.2
CHOS	Chios island	4.19	53	*e*Pn	Pn	10 47 14.4	+2.1
LIT	Litokhoron	4.20	7	P	Pn	10 47 12.2	-0.2
LIT	Litokhoron	4.20	7	*e*PN	Pn	10 47 12.6	+0.2
LIT	Litokhoron	4.20	7	P	Pn	10 47 12.2	-0.2
LIT	Litokhoron	4.20	7	*e*Pn	Pn	10 47 12.6	+0.2
LTBQ	Tobruq	4.25	155	*i* P	Pn	10 47 15.6	+2.5
	SNR=23						
PAIG	Paliouri	4.26	20	P	Pn	10 47 13.0	-0.2
PAIG	Paliouri	4.26	20	P	Pn	10 47 13.0	-0.2
KZN	Kozani	4.37	360	*e*PN	Pn	10 47 14.3	-0.4
KZN	Kozani	4.37	360	*e*Pn	Pn	10 47 14.3	-0.4
KARP	Karpathos	4.38	93	*e*PN	Pn	10 47 16.3	+1.4
KARP	Karpathos	4.38	93	*e*Pn	Pn	10 47 16.3	+1.4
SMG	Samos	4.42	65	*e*PN	Pn	10 47 17.0	+1.6
SMG	Samos	4.42	65	*e*Pn	Pn	10 47 17.0	+1.6
URLA	Izmir	4.54	56	*i* P	Pn	10 47 17.6	+0.5
URLA	Izmir	4.54	56	*i* P	Pn	10 47 17.6	+0.6
BODT	Bodrum	4.58	74	*e*P	Pn	10 47 17.6	-0.1
BODT	Bodrum	4.58	74	*e*P	Pn	10 47 17.6	-0.1
SIGR	SIGRI	4.59	43	P	Pn	10 47 19.4	+1.6
SIGR	SIGRI	4.59	43	P	Pn	10 47 19.4	+1.6
PLG	Polygyros	4.62	16	P	Pn	10 47 18.4	+0.2
PLG	Polygyros	4.62	16	*e*PN	Pn	10 47 18.5	+0.3
PLG	Polygyros	4.62	16	*e*Pn	Pn	10 47 18.5	+0.3
BDRM	Kayabasi	4.69	74	*i* P	Pn	10 47 20.9	+1.8
BDRM	Kayabasi	4.69	74	*i* P	Pn	10 47 21.0	+1.9
GCAM	G?zelcaml?	4.71	66	*i* P	Pn	10 47 22.3	+3.0
GCAM	G?zelcaml?	4.71	66	*i* P	Pn	10 47 22.3	+2.9
OUR	Ouranopolis	4.72	21	P	Pn	10 47 20.5	+0.9
OUR	Ouranopolis	4.72	21	P	Pn	10 47 20.5	+0.9
DAT	Datca	4.73	79	*e*P	Pn	10 47 20.5	+0.8
DAT	Datca	4.73	79	*e*P	Pn	10 47 20.5	+0.7
HORT	Hortiatis	4.77	12	P	Pn	10 47 19.6	-0.6
HORT	Hortiatis	4.77	12	P	Pn	10 47 19.6	-0.6
LIA	Limnos Island	4.78	33	P	Pn	10 47 21.4	+1.0
LIA	Limnos Island	4.78	33	*e*PN	Pn	10 47 21.5	+1.1
LIA	Limnos Island	4.78	33	*e*Pn	Pn	10 47 21.5	+1.1
THE	Thessaloniki	4.78	11	P	Pn	10 47 22.0	+1.6
THE	Thessaloniki	4.78	11	P	Pn	10 47 22.0	+1.6
BLCB	Balcova	4.85	58	*e*P	Pn	10 47 25.2	+3.8
BLCB	Balcova	4.85	58	*e*P	Pn	10 47 25.2	+3.8
PRK	Paraskevi	4.85	46	P	Pn	10 47 22.9	+1.5
PRK	Paraskevi	4.85	46	*e*PN	Pn	10 47 24.9	+3.5
PRK	Paraskevi	4.85	46	P	Pn	10 47 22.9	+1.5
FNA	Florina	4.86	356	P	Pn	10 47 21.0	-0.4
FNA	Florina	4.86	356	P	Pn	10 47 21.0	-0.4
MLSB	Milas	5.00	72	*e*P	Pn	10 47 25.1	+1.7
MLSB	Milas	5.00	72	*e*P	Pn	10 47 25.1	+1.7
IZM	Izmir	5.01	59	*e*P	Pn	10 47 28.5	+5.0
SOH	Sokhos	5.03	14	P	Pn	10 47 24.1	+0.2
SOH	Sokhos	5.03	14	*e*PN	Pn	10 47 24.3	+0.4
SOH	Sokhos	5.03	14	*e*Pn	Pn	10 47 24.3	+0.4
GRG	Griva	5.04	5	P	Pn	10 47 23.7	-0.2

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GRG   Griva             5.04   5  P     Pn     10 47 23.7 -0.2
SOI   Samo              5.07 297  P     Pn     10 47 17.7 -6.6
SOI   Samo              5.07 297  Pn    Pn     10 47 17.7 -6.6
BIA   Bitola            5.09 356  P     Pn     10 47 24.0 -0.7
BIA   Bitola            5.09 356 ePn    Pn     10 47 23.5 -1.2
BIA                              eSg    Sn     10 48 19.4 -4.1
BIA   Bitola            5.09 356 ePn    Pn     10 47 23.4 -1.3
BIA   Bitola            5.09 356  P     Pn     10 47 24.0 -0.7
BIA                              eSg    Sn     10 48 19.3 -4.2
ARG   Arkhangelos       5.13  85 ePN    Pn     10 47 27.0 +1.7
ARG   Arkhangelos       5.13  85 ePn    Pn     10 47 27.0 +1.7
AYVA  Ayvalik           5.14  48 i P    Pn     10 47 29.1 +3.7
AYVA  Ayvalik           5.14  48 i P    Pn     10 47 29.1 +3.7
TIP   Timpagrande       5.15 310 ePn    Pn     10 47 23.7 -1.7
TIP                              eSn    Sn     10 48 19.5 -5.5
TIP   Timpagrande       5.15 310 ePn    Pn     10 47 23.7 -1.8
TIP                              eSn    Sn     10 48 19.5 -5.4
BOZC  Bozcaada          5.15  39 i P    Pn     10 47 27.7 +2.2
LJBD  Adjabya           5.18 195 i P    Pn     10 47 29.9 +4.0
      SNR=23
OHR   Ohrid             5.23 352 ePn    Pn     10 47 25.8 -0.8
OHR                              eSg    Sn     10 48 22.5 -4.4
OHR   Ohrid             5.23 352  P     Pn     10 47 26.3 -0.3
OHR   Ohrid             5.23 352 ePn    Pn     10 47 25.7 -0.9
OHR   Ohrid             5.23 352  P     Pn     10 47 26.3 -0.3
OHR                              eSg    Sn     10 48 22.5 -4.4
CEL   Celeste           5.26 298 ePn    Pn     10 47 26.2 -0.8
CEL   Celeste           5.26 298 ePn    Pn     10 47 26.2 -0.8
EZN   Ezine             5.29  41 eP     Pn     10 47 30.9 +3.5
EZN   Ezine             5.29  41 eP     Pn     10 47 30.9 +3.6
KNT   Kendrikon         5.29   9  P     Pn     10 47 28.0 +0.6
KNT   Kendrikon         5.29   9  P     Pn     10 47 28.0 +0.6
GADA  Gvkgeada          5.34  36 eP     Pn     10 47 28.8 +0.7
GADA  Gvkgeada          5.34  36 eP     Pn     10 47 28.8 +0.7
YER   Yerkesik          5.36  75 eP     Pn     10 47 30.3 +2.0
YER   Yerkesik          5.36  75 eP     Pn     10 47 30.3 +2.0
SRS   Serrai            5.37  15  P     Pn     10 47 27.8 -0.6
      740nm,1.5s
SRS   Serrai            5.37  15  P     Pn     10 47 27.8 -0.6
      740nm,1.5s
VAY   Valandovo         5.42   6 ePn    Pn     10 47 28.4 -0.7
VAY   Valandovo         5.42   6  P     Pn     10 47 28.4 -0.7
VAY                               S     Sn     10 48 38.3 +6.9
VAY   Valandovo         5.42   6 ePn    Pn     10 47 28.3 -0.8
VAY                               S     Sn     10 48 38.3 +6.9
KRUS  Krusevo           5.45 356 ePn    Pn     10 47 28.1 -1.4
KRUS  Krusevo           5.45 356 ePn    Pn     10 47 28.1 -1.4
TURN  Turunc            5.57  78 i P    Pn     10 47 25.0 -6.2
DALT  Dalyan (Mudla)    5.58  79 eP     Pn     10 47 35.2 +3.7
DALT  Dalyan (Mudla)    5.58  79 eP     Pn     10 47 35.2 +3.8
TIR   Tirane            5.62 345 ePN    Pn     10 47 31.4 -0.4
TIR   Tirane            5.62 345  P     Pn     10 47 31.4 -0.4
AKHS  Akhisar           5.62  57 i P    Pn     10 47 33.8 +1.9
AKHS  Akhisar           5.62  57 i P    Pn     10 47 33.8 +1.9
NVR   Nevrokopi         5.64  16 ePN    Pn     10 47 34.7 +2.4
TAR1  Taranto           5.80 324 ePn    Pn     10 47 32.9 -1.5
MMB   Musomiste         5.85  14  P     Pn     10 47 34.3 -0.7
MMB   Musomiste         5.85  14  P     Pn     10 47 34.3 -0.7
ENEZ  Enez              5.89  34 eP     Pn     10 47 38.0 +2.3
ENEZ  Enez              5.89  34 eP     Pn     10 47 38.0 +2.3
WDD   Wield Dalam       5.91 271 ePn    Pn     10 47 36.6 +0.8
      254nm,0.4s
WDD                              eSn    Sn     10 48 42.1 -1.5
LPK   Lapseki           5.91  40 eP     Pn     10 47 36.5 +0.6
LPK   Lapseki           5.91  40 eP     Pn     10 47 36.5 +0.6
PE1   Pezze di Greco    5.96 326 ePn    Pn     10 47 34.8 -1.7
MANT  Manisa            5.97  63 eP     Pn     10 47 37.9 +1.2
MANT  Manisa            5.97  63 eP     Pn     10 47 37.9 +1.2
BALY  Balya             5.97  49 i P    Pn     10 47 42.0 +5.2
ALN   Alexandroupoli    5.97  33  P     Pn     10 47 39.7 +2.9
ALN   Alexandroupoli    5.97  33 ePN    Pn     10 47 39.1 +2.3
ALN   Alexandroupoli    5.97  33  P     Pn     10 47 39.7 +2.9
RDO   Rodhopi           5.97  28 ePN    Pn     10 47 38.0 +1.2
KKB   Krupnik           6.01   9  P     Pn     10 47 40.8 +3.5
KKB   Krupnik           6.01   9  P     Pn     10 47 40.8 +3.5
SKO   Skopje            6.04 357  P     Pn     10 47 37.3 -0.4
SKO   Skopje            6.04 357 ePn    Pn     10 47 37.2 -0.5
SKO   Skopje            6.04 357 ePn    Pn     10 47 37.1 -0.6
SKO   Skopje            6.04 357  P     Pn     10 47 37.3 -0.4
KULA  Kula-Manisa       6.05  63 eP     Pn     10 47 40.4 +2.5
KULA  Kula-Manisa       6.05  63 eP     Pn     10 47 40.4 +2.5
BALB  Balikesir         6.07  51 eP     Pn     10 47 40.7 +2.6
BALB  Balikesir         6.07  51 eP     Pn     10 47 40.7 +2.5
DENT  Denizli           6.08  70 eP     Pn     10 47 38.9 +0.6
DENT  Denizli           6.08  70 eP     Pn     10 47 38.9 +0.6
VAE   Valguarnera       6.13 287  Pn    Pn     10 47 40.4 +1.5
      1.9nm,0.3s,baz=328,slow=3.7,SNR=5.8
VAE                               Sn    Sn     10 48 52.0 +2.9
      16nm,0.3s,baz=116,slow=17,SNR=3.8
RZN   Rozhen            6.18  21  P     Pn     10 47 39.4 -0.2
RZN                               S     Sn     10 48 49.1 -1.3
RZN   Rozhen            6.18  21  P     Pn     10 47 39.4 -0.2
RZN                               S     Sn     10 48 49.1 -1.3
CUC   Castrocucco       6.23 312 ePn    Pn     10 47 41.1 +0.9
CUC                              eSn    Sn     10 48 44.5 -6.9
KSL   Kastellorizon     6.31  86 ePN    Pn     10 47 43.8 +2.4
AKAS  Kas               6.33  85 i P    Pn     10 47 39.9 -1.8
SG1   Sgolgore (BA)     6.34 322 ePn    Pn     10 47 39.6 -2.2
SG1                              eSn    Sn     10 48 49.1 -5.1
ULC   Ulcinj            6.34 343⇑iPn    Pn     10 47 38.7 -3.1
ULC                              eSn    Sn     10 48 48.6 -5.7
ULC   Ulcinj            6.34 343⇑iPn    Pn     10 47 38.7 -3.1
ULC                              eSn    Sn     10 48 48.6 -5.7
RKY   Sarkoy-Tekirda    6.36  40 eP     Pn     10 47 38.9 -3.2
SART  Tekirdag          6.36  40 i P    Pn     10 47 46.7 +4.6
KDZ   Kurdzhali         6.37  25  P     Pn     10 47 39.7 -2.5
KDZ   Kurdzhali         6.37  25  P     Pn     10 47 39.7 -2.5
GOLH  Golhisar          6.38  76 i P    Pn     10 47 47.4 +5.0
GOLH  Golhisar          6.38  76 i P    Pn     10 47 47.4 +5.0
DURS  Dursunbey         6.43  53 i P    Pn     10 47 47.4 +4.3
DURS  Dursunbey         6.43  53 i P    Pn     10 47 47.4 +4.3
BAI   Bari              6.45 325 ePn    Pn     10 47 41.0 -2.3
BNT   Bandirma          6.54  46 eP     Pn     10 47 48.4 +3.9
PLD   Plovdiv           6.56  19  P     Pn     10 47 48.5 +3.6
ELL   Elmali            6.60  81 eP     Pn     10 47 47.1 +1.8
ELL   Elmali            6.60  81 eP     Pn     10 47 47.2 +1.8
KHAL  Karahalli         6.61  66 i P    Pn     10 47 50.8 +5.3
KHL   Karahalli         6.62  67 eP     Pn     10 47 49.9 +4.2
KHL   Karahalli         6.62  67 eP     Pn     10 47 49.9 +4.3
VTS   Vitosha           6.74   9  P     Pn     10 47 47.3  0.0
VTS   Vitosha           6.74   9 ePN    Pn     10 47 48.1 +0.8
VTS   Vitosha           6.74   9  P     Pn     10 47 50.6 +3.3
VTS   Vitosha           6.74   9  P     Pn     10 47 47.3  0.0
KCT   Karacabey         6.74  48 eP     Pn     10 47 48.8 +1.5
KCT   Karacabey         6.74  48 eP     Pn     10 47 48.8 +1.5
BUM   Brajici-Budva     6.75 341⇑iPn    Pn     10 47 44.7 -2.7
BUM                              eSn    Sn     10 48 57.8 -6.4
BUM   Brajici-Budva     6.75 341⇑iPn    Pn     10 47 44.7 -2.7
BUM                              eSn    Sn     10 48 57.8 -6.4
PDG   Podgorica         6.78 344⇓iPn    Pn     10 47 45.7 -2.2
PDG                              eSn    Sn     10 48 59.4 -5.7
TTG   Podgorica         6.78 344⇓iPn    Pn     10 47 45.7 -2.2
TTG                              eSn    Sn     10 48 59.4 -5.7
PVY   Plav              6.80 349⇑iPn    Pn     10 47 46.4 -1.8
PVY                              eSn    Sn     10 49 00.9 -4.7
PVY   Plav              6.80 349⇑iPn    Pn     10 47 46.4 -1.8
PVY                              eSn    Sn     10 49 00.9 -4.7
PGB   Panagyurishte     6.86  15  P     Pn     10 47 49.1 +0.2
PGB   Panagyurishte     6.86  15  P     Pn     10 47 49.1 +0.2
GDZ   Gediz             6.87  60 i P    Pn     10 47 56.9 +7.8
BARS  Barje             6.88   0  P     Pn     10 47 50.9 +1.7
BARS  Barje             6.88   0⇓iPn    Pn     10 47 48.0 -1.2
HCY   Herceg Novi       6.99 340⇑iPn    Pn     10 47 47.0 -3.8
HCY                              eSn    Sn     10 49 02.8 -7.5
HCY   Herceg Novi       6.99 340⇑iPn    Pn     10 47 47.0 -3.8
HCY                              eSn    Sn     10 49 02.8 -7.5
EDRB  Edirne            7.05  32 eP     Pn     10 47 50.8 -0.8
EDRB  Edirne            7.05  32 eP     Pn     10 47 50.8 -0.8
BEY   Berane            7.08 349⇓iPn    Pn     10 47 50.8 -1.2
BEY                              eSn    Sn     10 49 07.6 -5.0
IVA   Berane            7.08 349⇓iPn    Pn     10 47 50.8 -1.2
IVA                              eSn    Sn     10 49 07.6 -5.0
ULDT  Uludag            7.15  52 i P    Pn     10 47 56.2 +3.2
ULDT  Uludag            7.15  52 i P    Pn     10 47 56.2 +3.2
NKY   Niksic            7.21 343⇓iPn    Pn     10 47 50.5 -3.2
NKY                              eSn    Sn     10 49 08.9 -6.6
NKY   Niksic            7.21 343⇓iPn    Pn     10 47 50.5 -3.2
NKY                              eSn    Sn     10 49 08.9 -6.6
ANTB  Antalya           7.21  80 eP     Px     10 48 03.9
BCK   Bucak             7.23  75 eP     Pn     10 47 57.3 +3.3
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BCK   Bucak             7.23  75 eP     Pn     10 47 57.3 +3.3
ISP   Isparta           7.24  72 eP     Pn     10 47 59.1 +5.0
ISP   Isparta           7.24  72  P     Pn     10 47 58.3 +4.2
ISP   Isparta           7.24  72⇓iP     Pn     10 47 56.9 +2.8
ISP   Isparta           7.24  72 ePn    Pn     10 47 58.0 +3.9
ISP                              eSn    Sn     10 49 08.1 -8.3
ISP   Isparta           7.24  72  P     Pn     10 47 58.3 +4.2
ALT   Altintas          7.31  62 eP     Pn     10 47 57.3 +2.2
ALT   Altintas          7.31  62 eP     Pn     10 47 57.3 +2.2
SWA2                    7.35 154  P     Pn     10 47 57.4 +1.7
SWA2                              S     Sn     10 49 15.9 -3.3
MS1   Monte Sant'Ang    7.36 323 ePn    Pn     10 47 54.2 -1.5
BRY   Bratogost         7.40 341⇑iPn    Pn     10 47 53.6 -2.8
BRY                              eSn    Sn     10 49 13.5 -6.8
BRY   Bratogost         7.40 341⇑iPn    Pn     10 47 53.6 -2.8
BRY                              eSn    Sn     10 49 13.5 -6.8
USI   Ustica            7.41 295  P     Pn     10 48 03.2 +6.8
SWA1                    7.42 153  P     Pn     10 47 57.4 +0.7
SWA1                              S     Sn     10 49 15.9 -5.1
SHUT  Suhut-Afyon       7.46  67 eP     Pn     10 48 00.9 +3.8
SHUT  Suhut-Afyon       7.46  67 eP     Pn     10 48 00.9 +3.8
CTKS  Kestanelik-??a    7.46  43 eP     Pn     10 48 00.0 +2.9
CTKS  Kestanelik-??a    7.46  43 eP     Pn     10 48 00.0 +2.8
NISS                    7.46   1 ePn    Pn     10 47 54.5 -2.7
CTYL  Yal??k??y-??at    7.51  41 eP     Pn     10 48 04.6 +6.8
YLV   Yalova            7.54  50 eP     Pn     10 48 01.3 +3.0
YLV   Yalova            7.54  50 eP     Pn     10 48 01.3 +3.0
BGKT  Bogazkoy          7.57  44 eP     Pn     10 48 01.2 +2.5
BGKT  Bogazkoy          7.57  44 eP     Pn     10 48 01.2 +2.5
UPM   Unac-Piva         7.59 344⇑iPn    Pn     10 47 56.5 -2.5
UPM                              eSn    Sn     10 49 18.9 -6.2
UPM   Unac-Piva         7.59 344⇑iPn    Pn     10 47 56.5 -2.5
UPM                              eSn    Sn     10 49 18.9 -6.2
PSB1  Pescosannita      7.60 316  Pn    Pn     10 48 00.6 +1.4
      620nm,1.7s
PLE   Pljevlja          7.62 347 ePn    Pn     10 47 57.5 -1.8
PLE                              eSn    Sn     10 49 19.8 -5.9
PLE   Pljevlja          7.62 347 ePn    Pn     10 47 57.5 -1.8
PLE                              eSn    Sn     10 49 19.8 -5.9
STON  Ston              7.62 337 ePn    Pn     10 47 54.7 -4.7
STON                              Sn    Sn     10 49 14.8  -11
CAVI  Cavuskoy          7.64  54 eP     Pn     10 48 04.6 +4.9
ISK   Istanbul-Kandi    7.66  46 eP     Pn     10 48 01.9 +1.9
ISK   Istanbul-Kandi    7.66  46 eP     Pn     10 48 01.9 +2.0
KLYT  Kilyos            7.77  45 eP     Pn     10 48 04.5 +3.0
KLYT  Kilyos            7.77  45 eP     Pn     10 48 04.5 +3.1
BORA  Eskisehir         7.89  57 i P    Pn     10 48 11.1 +8.0
SZH   Strazhica         7.99  22  P     Pn     10 48 07.6 +3.2
SZH   Strazhica         7.99  22  P     Pn     10 48 07.6 +3.2
ESKT  Eskisehir         8.02  61 i P    Pn     10 48 05.7 +0.9
SEYT  Eskypehyr         8.02  61 i P    Pn     10 48 05.7 +0.9
SILT  Sile              8.06  47 eP     Pn     10 48 04.6 -0.8
SILT  Sile              8.06  47 eP     Pn     10 48 04.6 -0.8
BBLS  Lazi&#263;i       8.13 348 ePn    Pn     10 48 03.1 -3.3
TRUS  Trudelj           8.35 353 ePn    Pn     10 48 06.0 -3.4
NEF   NEVSHA            8.45  28  P     Pn     10 48 10.9 +0.1
NEF   NEVSHA            8.45  28  P     Pn     10 48 10.9 +0.1
SVRH  Sivrihisar-ESK    8.47  63 eP     Pn     10 48 17.2 +6.2
HENT  Hendek            8.65  53 i P    Pn     10 48 13.2 -0.4
HENT  Hendek            8.65  53 i P    Pn     10 48 13.2 -0.4
HDMB  Hadim             8.68  80 eP     Pn     10 48 15.3 +1.4
HDMB  Hadim             8.68  80 eP     Pn     10 48 15.3 +1.4
KONT  Konya--Tatoy      8.69  74 eP     Pn     10 48 15.8 +1.6
KONT  Konya--Tatoy      8.69  74 eP     Pn     10 48 15.8 +1.7
DJES  Djerdap           8.74   3  P     Pn     10 48 15.4 +0.7
LEF   Lefka             9.08  92 eP     Pn     10 48 21.1 +1.7
LEF   Lefka             9.08  92 eP     Pn     10 48 21.2 +1.8
KDZE  Karadeniz Ereo    9.26  52 eP     Pn     10 48 25.6 +3.7
KDZE  Karadeniz Ereo    9.26  52 eP     Pn     10 48 25.6 +3.7
SGKT  Sivrigoynuk       9.30  57 i P    Pn     10 48 25.4 +2.9
SGKT  Sivrigoynuk       9.30  57 i P    Pn     10 48 25.4 +2.9
CSS   Prodhromos        9.46  93 ePn    Pn     10 48 22.8 -1.9
      115nm,0.9s
CSS                              eSn    Sn     10 50 12.1 +1.1
GZR   Gura Zlata        9.48   4  P     Pn     10 48 28.0 +3.1
GZR   Gura Zlata        9.48   4⇓iP     Pn     10 48 23.8 -1.1
GZR   Gura Zlata        9.48   4 ⇓P     Pn     10 48 23.8 -1.1
LFK   Lefkose           9.58  90 eP     Pn     10 48 29.4 +3.1
LFK   Lefkose           9.58  90 eP     Pn     10 48 29.4 +3.1
IKL   Isikli            9.63  85 eP     Pn     10 48 24.3 -2.6
SULT  Sultanhani-AKS    9.63  73 eP     Pn     10 48 32.2 +5.1
SULT  Sultanhani-AKS    9.63  73 eP     Pn     10 48 32.2 +5.2
BALAT Bala              9.67  65 i P    Pn     10 48 32.8 +5.3
BZS   Buzias            9.68 359⇑iP     Pn     10 48 28.0 +0.5
BZS   Buzias            9.68 359  P     Pn     10 48 30.6 +3.1
BZS   Buzias            9.68 359 ePn    Pn     10 48 28.3 +0.8
AWBH                    9.69 140  P     Pn     10 48 28.2 +0.5
AWBH                    9.69 140  P     Pn     10 48 28.2 +0.4
HNAT  Natroun           9.72 128  P     Pn     10 48 28.0 -0.3
HNAT  Natroun           9.72 128  P     Pn     10 48 28.0 -0.2
HMYD  Mayadein          9.73 126  P     Pn     10 48 27.8 -0.6
HMYD  Mayadein          9.73 126  P     Pn     10 48 27.8 -0.6
VOIR                    9.81  14⇑iP     Pn     10 48 28.7 -0.7
TIRR  Tirgusor          9.90  29 eP     Pn     10 48 30.0 -0.6
TIRR                              pmax  pmax
      comp=Z,95nm,1.3s
TIRR  Tirgusor          9.90  29⇓iP     Pn     10 48 29.4 -1.2
TIRR  Tirgusor          9.90  29 ePn    Pn     10 48 30.0 -0.6
      comp=Z,95nm,1.3s
HARR  Harsova           9.92  26  P     Pn     10 48 37.1 +6.2
HARR  Harsova           9.92  26⇑iP     Pn     10 48 29.6 -1.3
SQR                     9.94 125  P     Pn     10 48 30.9 -0.3
SQR                     9.94 125  P     Pn     10 48 30.9 -0.3
FYM   Al Fayyum         9.96 126  P     Pn     10 48 30.9 -0.6
AYT   Al 'Ayyat        10.02 126  P     Pn     10 48 31.8 -0.6
AYT   Al 'Ayyat        10.02 126  P     Pn     10 48 31.8 -0.6
MLR   Muntele Rosu     10.05  17  P     Pn     10 48 39.0 +6.3
MLR   Muntele Rosu     10.05  17⇑iP     Pn     10 48 32.6 -0.1
MLR   Muntele Rosu     10.05  17  Pn    Pn     10 48 31.2 -1.5
      comp=Z,0.2nm,0.3s,baz=194,slow=8.1,SNR=2.4
MLR   Muntele Rosu     10.05  17 ⇑P     Pn     10 48 32.6 -0.1
MLR                               P            10 48 39.0
BR131 Keskin Array S   10.10  64 ePn    Pn     10 48 36.0 +2.5
      comp=Z,48nm,0.9s
BRTR  Keskin Array B   10.10  64  Pn    Pn     10 48 34.4 +1.0
      comp=Z,0.7nm,0.3s,baz=254,slow=13,SNR=34
NVLJ  Novalja          10.11 331 ePn    Pn     10 48 30.1 -3.4
NVLJ                              Sn    Sn     10 50 16.7  -10
KEST  Kesra            10.11 273  Pn    Pn     10 48 37.8 +4.2
      comp=Z,0.2nm,0.3s,baz=256,slow=4.8,SNR=5.1
KEST                              Sn    Sn     10 50 27.0  0.0
      comp=Z,0.2nm,0.3s,baz=56,slow=22,SNR=2.5
ELDT  Eldivan          10.22  60 i P    Pn     10 48 38.9 +3.9
ELDT  Eldivan          10.22  60 i P    Pn     10 48 38.9 +3.9
MERS  Mersin           10.30  81 eP     Pn     10 48 36.8 +0.6
MERS  Mersin           10.30  81 eP     Pn     10 48 36.8 +0.6
KOT   Kottamia         10.34 123  P     Pn     10 48 36.3 -0.4
KOT   Kottamia         10.34 123  P     Pn     10 48 36.3 -0.4
HSAF  As Saff          10.34 125  P     Pn     10 48 36.1 -0.7
HSAF  As Saff          10.34 125  P     Pn     10 48 36.1 -0.7
HFRF  Wahat Farafira   10.37 146  P     Pn     10 48 37.5 +0.4
HFRF  Wahat Farafira   10.37 146  P     Pn     10 48 37.5 +0.4
CANT  Cankiri          10.40  60 eP     Pn     10 48 42.3 +4.8
GLL   Jalalah          10.47 124  P     Pn     10 48 37.9 -0.7
GLL   Jalalah          10.47 124  P     Pn     10 48 37.9 -0.6
PLOR  Plostina         10.56  19  P     Pn     10 48 45.6 +5.9
PLOR  Plostina         10.56  19⇑iP     Pn     10 48 40.0 +0.3
VRI   Vrincioaia       10.60  19  P     Pn     10 48 46.0 +5.8
VRI   Vrincioaia       10.60  19⇓iP     Pn     10 48 40.3 +0.1
VRI   Vrincioaia       10.60  19 ⇓P     Pn     10 48 40.3 +0.1
CDAG  Cicekdag         10.61  66 i P    Pn     10 48 41.6 +1.2
CDAG  Cicekdag         10.61  66 i P    Pn     10 48 41.6 +1.2
BALT  Daday            10.64  55 i P    Pn     10 48 41.6 +0.9
BALT  Daday            10.64  55 i P    Pn     10 48 41.6 +0.9
ILGA  Ilgaz            10.64  58 i P    Pn     10 48 49.8 +8.9
KARA  Karaisali        10.74  79 eP     Pn     10 48 43.2 +1.0
KARA  Karaisali        10.74  79 eP     Pn     10 48 43.2 +1.0
BOJS  Bojanci          10.77 335 i Pn   Pn     10 48 39.3 -3.2
BOJS                             i Sn   Sn     10 50 34.0 -9.0
DRGR                   10.87   3  P     Pn     10 48 47.3 +3.4
DRGR                   10.87   3⇓iP     Pn     10 48 43.8 -0.1
CRES  Cresnjev         10.98 336  P     Pn     10 48 45.1 -0.3
SFI   Santa Sofia      11.03 319  P     Pn     10 48 51.7 +5.6
SUZ                    11.08 120  P     Pn     10 48 45.9 -1.0
SUZ                    11.08 120  P     Pn     10 48 45.9 -1.0
VISS  Visnje           11.17 334 i Pn   Pn     10 48 47.6 -0.4
VISS                             eSn    Sn     10 50 43.6 -9.4
ZAF                    11.23 123  P     Pn     10 48 47.9 -1.0
ZAF                    11.23 123  P     Pn     10 48 47.9 -1.0
VMG   Vicchio          11.23 319  P     Pn     10 48 52.9 +4.1
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BZK   Bozkurt          11.24  54 eP     Pn     10 48 52.4 +3.3
BZK   Bozkurt          11.24  54 eP     Pn     10 48 52.4 +3.4
CEY   Cerknica         11.27 333  P     Pn     10 48 50.2 +0.8
KOGS  Kog              11.30 340  P     Pn     10 48 52.4 +2.6
KOZT  Kozan            11.37  78 eP     Pn     10 48 53.3 +2.5
JAVS  Javornik         11.54 332 i Pn   Pn     10 48 51.6 -1.4
JAVS                             i Sn   Sn     10 50 52.4 -9.4
BNN   Bunyan           11.55  71 eP     Pn     10 48 56.0 +2.8
BNN   Bunyan           11.55  71 eP     Pn     10 48 56.1 +2.9
SLTI  Sal'it           11.58 105  Pn    Pn     10 48 51.0 -2.7
SLTI                              Sn    Sn     10 50 57.9 -5.1
SLTI  Sal'it           11.58 105  Pn    Pn     10 48 51.0 -2.7
SLTI                              Sn    Sn     10 50 57.9 -5.1
MMA0B Mount Meron ar   11.60 101  Pn    Pn     10 48 52.0 -2.0
MMA0B Mount Meron ar   11.60 101  Pn    Pn     10 48 52.0 -2.0
MMAI  Mount Meron Ar   11.60 101  Pn    Pn     10 48 54.2 +0.3
      comp=Z,6.4nm,0.3s,baz=279,slow=12,SNR=13
MMAI                              Sn    Sn     10 50 59.3 -4.2
      comp=Z,10nm,0.3s,baz=318,slow=16,SNR=5.1
KZIT  Kziot            11.66 112  Pn    Pn     10 48 53.0 -1.7
KZIT                              Sn    Sn     10 50 58.9 -6.0
KZIT  Kziot            11.66 112  Pn    Pn     10 48 53.0 -1.7
KZIT                              Sn    Sn     10 50 58.9 -6.0
COBT  Iskenderun       11.69  83 eP     Pn     10 48 52.5 -2.7
HWQ   Hawqa            11.71  94 ePn    Pn     10 48 53.8 -1.6
VOY   Vojsko           11.72 332 ePn    Pn     10 48 53.7 -1.8
VOY                              e             10 48 57.3
VOY                              eSn    Sn     10 50 55.8  -10
BUD   Budapest         11.72 351⇓eP     Pn     10 48 52.1 -3.5
KSDI  Kefar Szold      11.75  99  Pn    Pn     10 48 55.2 -0.8
KSDI  Kefar Szold      11.75  99  Pn    Pn     10 48 55.2 -0.8
RCY   Rachaya          11.79  98 ePn    Pn     10 48 57.6 +1.0
RCY   Rachaya          11.79  98 ePn    Pn     10 48 57.6 +1.0
BMR   Baia Mare        11.80   6  P     Pn     10 49 00.3 +3.7
MMLI  Mount Malkishu   11.81 103  Pn    Pn     10 48 54.4 -2.4
MMLI  Mount Malkishu   11.81 103  Pn    Pn     10 48 54.4 -2.4
PERS  Pernice          11.81 337 ePn    Pn     10 48 53.0 -3.7
PERS                             i Sn   Sn     10 50 56.8  -12
HNKL  Nakhl            11.85 117  P     Pn     10 48 56.3 -1.1
HNKL                              S     Sn     10 50 59.9  -10
HNKL  Nakhl            11.85 117  P     Pn     10 48 56.3 -1.1
HNKL                              S     Sn     10 50 59.9  -10
SOKA  Soboth           11.87 337⇓iPn    Pn     10 48 53.1 -4.5
SOKA                            ⇓iSn    Sn     10 50 59.5  -11
OBKA  Obir             11.89 335⇓iPn    Pn     10 48 57.3 -0.5
OBKA  Obir             11.89 335  P     Pn     10 48 59.2 +1.4
OBKA  Obir             11.89 335  Pn    Pn     10 48 57.3 -0.5
PGF   Pioggiola        11.91 308 eP     Pn     10 48 58.3 +0.1
      comp=Z,140nm,1.2s
PGF   Pioggiola        11.91 308 eP     Pn     10 48 58.3 +0.1
PGF                               pmax  pmax
      comp=Z,70nm,1.3s
PGF   Pioggiola        11.91 308 eP     Pn     10 48 58.3 +0.1
      comp=Z,70nm,1.3s
PGF   Pioggiola        11.91 308 eP     Pn     10 48 58.3 +0.1
      comp=Z,70nm,1.2s
KSHT  Keshet           11.94 100  Pn    Pn     10 48 56.7 -1.9
KSHT  Keshet           11.94 100  Pn    Pn     10 48 56.7 -1.9
BURAR Bucovina Array   11.95  11⇑iP     Pn     10 48 57.9 -0.7
BURAR Bucovina Array   11.95  11 ⇑P     Pn     10 48 57.9 -0.7
PINB  Pinarbasi        11.95  72 eP     Pn     10 49 08.1 +9.4
HMDT  Nahal Hemdat     11.96 104  Pn    Pn     10 48 57.4 -1.4
HMDT                              Sn    Sn     10 51 06.0 -6.3
HMDT  Nahal Hemdat     11.96 104  Pn    Pn     10 48 57.4 -1.4
HMDT                              Sn    Sn     10 51 06.0 -6.3
VLC   Villacollemand   11.99 317 ePn    Pn     10 48 56.4 -2.8
PSZ   Piszkesteto      12.06 354 eP     Pn     10 48 56.0 -4.2
PSZ                               pmax  pmax
      comp=Z,209nm,1.4s
PSZ   Piszkesteto      12.06 354⇑iP     Pn     10 49 00.5 +0.3
PSZ   Piszkesteto      12.06 354⇓eP     Pn     10 48 55.9 -4.3
PSZ   Piszkesteto      12.06 354 ePn    Pn     10 48 56.0 -4.2
      comp=Z,209nm,1.4s
PSZ                              eSn    Sn     10 51 03.1  -12
DSI   Dead Sea         12.11 107  Pn    Pn     10 48 58.6 -2.3
DSI                               Sn    Sn     10 51 09.2 -6.8
DSI   Dead Sea         12.11 107  Pn    Pn     10 48 58.6 -2.3
DSI                               Sn    Sn     10 51 09.2 -6.8
TRPA  Tarpa            12.20   2⇓iP     Pn     10 49 02.7 +0.6
TRPA  Tarpa            12.20   2⇓iP     Pn     10 49 02.7 +0.6
MZDA  Masada           12.21 108  Pn    Pn     10 49 00.3 -2.0
MZDA  Masada           12.21 108  Pn    Pn     10 49 00.3 -2.0
KMRS  Kahramanmaras    12.22  78 eP     Pn     10 49 05.2 +2.8
KMRS  Kahramanmaras    12.22  78 eP     Pn     10 49 05.2 +2.8
KIS   Kishinev         12.24  23 eP     Pn     10 49 09.0 +6.4
KIS                              eS     Sn     10 51 18.0 -1.0
KIS                               MLR   MLR
      comp=N,8μm,10.0s
KIS                               MLR   MLR
      comp=Z,10μm,10.0s
KIS                               MLR   MLR
      comp=E,4μm,12.0s
KIS   Kishinev         12.24  23 eP     Pn     10 49 09.0 +6.4
KIS                              eS     Sn     10 51 18.0 -1.0
KIS                              i Li          10 52 24.0
KIS                              i LQ          10 53 10.0
KIS                               LRM          10 54 37.0
      comp=E,4μm,12.0s
ARSA  Arzberg          12.24 339⇑iPn    Pn     10 48 59.0 -3.6
ARSA  Arzberg          12.24 339  P     Pn     10 49 02.9 +0.3
ARSA  Arzberg          12.24 339  Pn    Pn     10 48 59.0 -3.6
HDK1  Dakhla           12.24 146  P     Pn     10 49 03.2 +0.4
HDK1  Dakhla           12.24 146  P     Pn     10 49 03.2 +0.4
KVT   Kavak            12.29  61 eP     Pn     10 49 02.5 -0.8
KRMI  Paran Flat       12.30 114  Pn    Pn     10 49 01.6 -1.9
KRMI  Paran Flat       12.30 114  Pn    Pn     10 49 01.6 -1.9
MYKA  Terra Mystica    12.31 333⇑iPn    Pn     10 49 00.0 -3.6
MYKA                            ⇓iSn    Sn     10 51 11.8 -9.1
MYKA  Terra Mystica    12.31 333  Pn    Pn     10 49 00.0 -3.6
TOKA  Tokat            12.36  65 i P    Pn     10 49 08.8 +4.4
TOKA  Tokat            12.36  65 i P    Pn     10 49 08.8 +4.5
SOP   Sopron           12.37 343⇓eP     Pn     10 49 01.2 -3.2
PRNI  Paran            12.38 113  Pn    Pn     10 49 02.7 -2.0
PRNI  Paran            12.38 113  Pn    Pn     10 49 03.0 -1.7
PRNI                              Sn    Sn     10 51 15.8 -7.0
PRNI  Paran            12.38 113  Pn    Pn     10 49 03.0 -1.7
HRFI  Mount Harif      12.57 114  Pn    Pn     10 49 05.8 -1.4
HRFI  Mount Harif      12.57 114  Pn    Pn     10 49 05.8 -1.4
KECS  Kecovo           12.58 356 ePN    Pn     10 49 05.2 -2.1
MBRI  Mt Berech        12.61 115  Pn    Pn     10 49 05.7 -2.0
MBRI  Mt Berech        12.61 115  Pn    Pn     10 49 05.7 -2.0
SVSK  Karacayir        12.64  67 eP     Pn     10 49 09.8 +1.7
SVSK  Karacayir        12.64  67 eP     Pn     10 49 09.8 +1.6
CTI   Castel Tesino    12.67 326  P     Pn     10 49 09.9 +1.4
HKAT  Jabal Katrina    12.69 122  P     Pn     10 49 07.8 -1.1
HKAT  Jabal Katrina    12.69 122  P     Pn     10 49 07.8 -1.0
UZH   Uzhgorod         12.70   1 eP     Pn     10 49 11.5 +2.7
UZH                              eS     Sn     10 51 32.3 +2.1
UZH                               MLR   MLR
      comp=Z,4μm,10.0s
UZH   Uzhgorod         12.70   1 i P    Pn     10 49 12.0 +3.2
EIL   Elat             12.70 116  Pn    Pn     10 49 06.9 -2.1
      comp=Z,1.8nm,0.3s,baz=306,slow=5.2,SNR=14
EIL                               Sn    Sn     10 51 27.0 -3.5
      comp=Z,6.1nm,0.3s,baz=70,slow=9.9,SNR=4.6
EIL   Elat             12.70 116  Pn    Pn     10 49 07.2 -1.8
EIL                               Sn    Sn     10 51 23.7 -6.8
EIL   Elat             12.70 116  Pn    Pn     10 49 07.2 -1.8
EIL                               Sn    Sn     10 51 23.7 -6.8
ZST   Bratislava       12.74 346 ePN    Pn     10 49 10.5 +1.1
ZST                              eSN    Sn     10 51 23.7 -7.5
VYHS  Vyhne            12.74 351 ePN    Pn     10 49 09.8 +0.3
VYHS                             eSN    Sn     10 51 24.3 -7.0
GZT   Gaziantep        12.74  79 i P    Pn     10 49 08.1 -1.5
CONA  Conrad Observa   12.77 342⇓iPn    Pn     10 49 05.6 -4.3
CONA                            ⇑iSn    Sn     10 51 21.9  -10
HBST  Basata           12.79 118  P     Pn     10 49 09.2 -1.0
HBST  Basata           12.79 118  P     Pn     10 49 09.2 -1.1
AKRG  Al Kharijah      12.80 142  P     Pn     10 49 10.6 +0.2
KBA   Koelnbreinsper   12.80 333⇑iPn    Pn     10 49 07.0 -3.3
KBA                             ⇑iSn    Sn     10 51 22.7  -10
KBA   Koelnbreinsper   12.80 333  P     Pn     10 49 11.6 +1.3
KBA   Koelnbreinsper   12.80 333  Pn    Pn     10 49 07.0 -3.3
MODS  Modra-Piesok     12.87 346 ePN    Pn     10 49 13.6 +2.3
MODS                             eSN    Sn     10 51 22.7  -12
KOLL  Kolacno          12.88 350 ePN    Pn     10 49 11.1 -0.3
CRVS  Cervenica-Dubn   12.96 359 ePN    Pn     10 49 14.0 +1.5
KOLS  Kolonicke sedl   13.00   1 ePN    Pn     10 49 14.0 +1.0
HDHB  Dhahab           13.00 120  P     Pn     10 49 12.3 -0.8
HDHB  Dhahab           13.00 120  P     Pn     10 49 12.3 -0.8
ASF   Jabal al Asfar   13.07 102  Pn    Pn     10 49 10.8 -3.3
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	comp=Z,0.6nm,0.3s,baz=121,slow=4.1,SNR=5.4						
KMPD	K-Podol'skiy	13.08	14	P	Pn	10 49 17.0	+2.9
AKCD	Akcadag	13.09	75	iP	Pn	10 49 17.6	+3.3
AKCD	Akcadag	13.09	75	iP	Pn	10 49 17.6	+3.4
HDK2	Wahat Dakhilah	13.12	150	P	Pn	10 49 15.1	+0.3
HDK2	Wahat Dakhilah	13.12	150	P	Pn	10 49 15.1	+0.3
MOA	Molln	13.15	337	⇓iPn	Pn	10 49 11.6	-3.6
MOA				⇓iSn	Sn	10 51 30.8	-11
MOA	Molln	13.15	337	P	Pn	10 49 17.2	+2.1
MOA	Molln	13.15	337	Pn	Pn	10 49 11.6	-3.5
HHRG	Al Ghardaqah	13.26	128	P	Pn	10 49 16.0	-0.7
HHRG	Al Ghardaqah	13.26	128	P	Pn	10 49 16.0	-0.7
JAVC	Velka Javorina	13.27	348	P	Pn	10 49 18.9	+2.2
MYA	Malataya	13.48	75	eP	Pn	10 49 22.7	+3.0
MYA	Malataya	13.48	75	eP	Pn	10 49 22.7	+3.0
STHS	Stebnicka Huta	13.48	358	ePN	Pn	10 49 24.9	+5.3
MALT	Malatya	13.48	75	eP	Pn	10 49 18.3	-1.4
MALT	Malatya	13.48	75	eP	Pn	10 49 20.7	+1.0
MALT				pmax	pmax		
	comp=Z,23nm,0.7s						
MALT	Malatya	13.48	75	⇓iP	Pn	10 49 21.5	+1.8
MALT	Malatya	13.48	75	ePn	Pn	10 49 20.7	+1.0
	comp=Z,23nm,0.7s						
MALT	Malatya	13.48	75	Pn	Pn	10 49 19.7	0.0
MALT	Malatya	13.48	75	Pn	Pn	10 49 19.7	0.0
MALT	Malatya	13.48	75	⇓iP	Pn	10 49 21.5	+1.8
SAOF	Saorge	13.55	311	eP	Px	10 49 30.6	
SAOF	Saorge	13.55	311	eP	Px	10 49 30.6	
RJOB	Jochberg	13.56	333	ePn	Pn	10 49 23.4	+2.8
SBF	Sospel	13.56	310	eP	Pn	10 49 21.0	+0.3
	comp=Z,173nm,1.2s						
SBF	Sospel	13.56	310	eP	Pn	10 49 21.0	+0.3
SBF				pmax	pmax		
	comp=Z,87nm,1.2s						
SBF	Sospel	13.56	310	eP	Pn	10 49 21.0	+0.3
	comp=Z,86nm,1.2s						
SBF	Sospel	13.56	310	eP	Pn	10 49 21.0	+0.3
	comp=Z,86nm,1.2s						
WTTA	Wattenberg	13.62	329	⇓iPn	Pn	10 49 24.1	+2.6
WTTA				⇑iSn	Sn	10 51 44.0	-8.9
WTTA	Wattenberg	13.62	329	P	Pn	10 49 24.1	+2.6
LUCF	Luceram	13.63	310	eP	Pn	10 49 30.2	+8.5
LUCF	Luceram	13.63	310	eP	Pn	10 49 30.2	+8.5
AUTN	L'Aution	13.64	311	eP	Px	10 49 32.1	
AUTN	L'Aution	13.64	311	eP	Px	10 49 32.1	
KEMA	Kemaliye	13.65	71	iP	Pn	10 49 25.7	+3.8
KEMA	Kemaliye	13.65	71	iP	Pn	10 49 25.7	+3.8
KWP	Kalwaria Pacla	13.71	2	eP	Pn	10 49 25.5	+2.8
KWP	Kalwaria Pacla	13.71	2	ePn	Pn	10 49 23.3	+0.7
URFA	Urfa	13.75	79	eP	Pn	10 49 25.4	+2.2
URFA	Urfa	13.75	79	eP	Pn	10 49 25.5	+2.2
MVIF	Mont Vial	13.76	310	eP	Pn	10 49 31.9	+8.5
MVIF	Mont Vial	13.76	310	eP	Pn	10 49 31.9	+8.5
TOUF	Mont Tournerai	13.76	310	eP	Pn	10 49 30.5	+7.1
TOUF	Mont Tournerai	13.76	310	eP	Pn	10 49 30.5	+7.1
FETA	Feichten	13.82	327	⇑iPn	Pn	10 49 31.6	+7.3
FETA				⇑iSn	Sn	10 51 49.6	-8.1
GRSN	GIRESUNGRSN	13.84	64	iP	Pn	10 49 24.4	-0.1
GRSN	GIRESUNGRSN	13.84	64	iP	Pn	10 49 24.4	-0.1
CALN	Calern	13.85	309	eP	Pn	10 49 32.1	+7.5
CALN	Calern	13.85	309	eP	Pn	10 49 32.1	+7.5
LMR	La Mourre	13.90	307	eP	Pn	10 49 24.5	-0.8
	comp=Z,48nm,1.4s						
LMR	La Mourre	13.90	307	eP	Pn	10 49 24.5	-0.8
LMR				pmax	pmax		
	comp=Z,24nm,1.4s						
LMR	La Mourre	13.90	307	eP	Pn	10 49 24.5	-0.8
	comp=Z,24nm,1.4s						
LMR	La Mourre	13.90	307	eP	Pn	10 49 24.5	-0.8
	comp=Z,24nm,1.4s						
VRAC	Vranov	13.90	346	P	Pn	10 49 23.9	-1.4
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRAC	Vranov	13.90	346	⇑iP	Pn	10 49 26.0	+0.7
VRAC	Vranov	13.90	346	Pn	Pn	10 49 23.9	-1.4
	comp=Z,0.6nm,0.3s,baz=138,slow=18,SNR=3.1						
VRAC	Vranov	13.90	346	⇑P	Pn	10 49 26.0	+0.7
FRF	La Foret Royal	13.91	308	eP	Pn	10 49 24.7	-0.8
	comp=Z,44nm,1.2s						
FRF	La Foret Royal	13.91	308	eP	Pn	10 49 24.7	-0.8
FRF				pmax	pmax		
	comp=Z,22nm,1.2s						
FRF	La Foret Royal	13.91	308	eP	Pn	10 49 24.7	-0.8
	comp=Z,22nm,1.2s						
FRF	La Foret Royal	13.91	308	eP	Pn	10 49 24.7	-0.8
	comp=Z,22nm,1.2s						
ELZG	Elazig	13.94	74	iP	Pn	10 49 26.4	+0.5
VAI	Varese	13.97	319	P	Pn	10 49 30.3	+4.1
VAI	Varese	13.97	319	P	Pn	10 49 30.3	+4.1
LVV	L'vov	13.97	6	iP	Pn	10 49 30.3	+4.0
LVV				eS	Sn	10 52 03.7	+2.3
LVV				MLR	MLR		
	comp=Z,3µm,9.0s						
LVV	L'vov	13.97	6	iP	Pn	10 49 30.7	+4.4
DAVOX	Davos/Dischmat	14.04	324	Pn	Pn	10 49 30.5	+3.4
	comp=Z,0.9nm,0.3s,baz=322,slow=23,SNR=3.2						
DAVOX				Sn	Sn	10 51 56.4	-6.6
	comp=Z,0.8nm,0.3s,baz=285,slow=23,SNR=3.6						
TUE	Stuetta	14.08	322	ePn	Pn	10 49 30.1	+2.4
	comp=Z,38nm,1.0s						
DAVOS	Davos	14.12	324	P	Pn	10 49 30.5	+2.2
DAVOS						10 51 56.4	
TREC	Trest	14.13	343	eP	Pn	10 49 35.5	+7.1
TREC				ex	x	10 49 40.2	
TREC				AMS	AMS	10 55 40.0	
	comp=Z,12µm,11.3s						
OKC	Ostrava-Krasne	14.15	350	eP	Pn	10 49 31.4	+2.7
OKC				ex	x	10 49 40.1	
OKC				AMS	AMS	10 56 20.0	
	comp=Z,6µm,14.0s						
OKC	Ostrava-Krasne	14.15	350	eP	Pn	10 49 31.4	+2.7
OKC				e		10 49 40.1	
ESPY	Espiye-Giresun	14.17	64	eP	Pn	10 49 33.7	+4.7
MORC	Moravsky Berou	14.18	349	⇑iP	Pn	10 49 30.2	+1.1
MORC	Moravsky Berou	14.18	349	ePn	Pn	10 49 29.7	+0.6
GEC2	GERESS Array S	14.21	338	ePn	Pn	10 49 33.6	+4.1
GERES	GERESS Array B	14.21	338	Pn	Pn	10 49 28.4	-1.1
	comp=Z,0.9nm,0.3s,baz=158,slow=14,SNR=13						
GERES				Sn	Sn	10 51 57.1	-10
	comp=Z,1.1nm,0.3s,baz=143,slow=17,SNR=5.3						
OJC	Ojcow	14.35	355	eP	Pn	10 49 33.2	+1.7
OJC				eSS		10 52 21.2	
OJC				L		10 55 46.9	
	comp=Z,7.5nm,16.5s						
OJC	Ojcow	14.35	355	eP	Pn	10 49 33.2	+1.7
OJC				eSS		10 52 21.2	
MBDF	Montbardon	14.42	312	eP	Pn	10 49 32.2	-0.2
	comp=Z,71nm,1.0s						
MBDF	Montbardon	14.42	312	eP	Pn	10 49 32.2	-0.2
MBDF				pmax	pmax		
	comp=Z,35nm,1.0s						
MBDF	Montbardon	14.42	312	eP	Pn	10 49 32.2	-0.2
	comp=Z,36nm,1.0s						
MBDF	Montbardon	14.42	312	eP	Pn	10 49 32.2	-0.2
	comp=Z,36nm,1.0s						
BERF	Bertagne	14.42	306	eP	Px	10 49 42.3	
BERF	Bertagne	14.42	306	eP	Px	10 49 42.3	
KHC	Kasperske Hory	14.50	338	eP	Pn	10 49 34.3	+0.8
KHC				pmax	pmax		
	comp=Z,49nm,1.1s						
KHC	Kasperske Hory	14.50	338	eP	Pn	10 49 31.5	-2.0
KHC				ex	x	10 49 38.0	
KHC				epP	pP	10 49 42.5	-0.5
KHC				AMS	AMS	10 55 50.0	
	comp=Z,12µm,12.6s						
KHC	Kasperske Hory	14.50	338	eP	Pn	10 49 42.5	+9.0
KHC				LR	LR		
	comp=Z,12µm,12.6s						
KHC	Kasperske Hory	14.50	338	ePn	Pn	10 49 34.3	+0.8
	comp=Z,49nm,1.1s						
VILF	Villemus	14.65	308	eP	Pn	10 49 43.4	+7.9
VILF	Villemus	14.65	308	eP	Pn	10 49 43.4	+7.9
BNI	Bardonecchia	14.65	313	eP	Pn	10 49 37.7	+2.1
BNI				pmax	pmax		
	comp=Z,36nm,1.2s						
BNI	Bardonecchia	14.65	313	ePn	Pn	10 49 37.7	+2.1
	comp=Z,36nm,1.2s						
EZC	Erzincan	14.74	70	eP	Pn	10 49 32.8	-4.0
TREF	Trevaresse	14.76	306	eP	Pn	10 49 44.1	+7.1
TREF	Trevaresse	14.76	306	eP	Pn	10 49 44.1	+7.1
SMRF	Simiane la Rot	14.79	308	eP	Pn	10 49 37.0	-0.5
	comp=Z,45nm,1.1s						
SMRF	Simiane la Rot	14.79	308	eP	Pn	10 49 37.0	-0.5
	comp=Z,45nm,1.1s						
SMRF	Simiane la Rot	14.79	308	eP	Pn	10 49 37.0	-0.5
	comp=Z,23nm,1.1s						
ANN	Anapa	14.83	49	eP	Pn	10 49 40.0	+2.0
ANN				eS	Sn	10 52 24.9	+2.6
ANN				pmax	pmax		
	comp=Z,73nm,1.1s						
LPG	La Plagne	14.86	315	eP	Pn	10 49 38.7	+0.3
	comp=Z,38nm,0.9s						
LPG	La Plagne	14.86	315	eP	Pn	10 49 38.7	+0.3
LPG				pmax	pmax		
	comp=Z,19nm,0.9s						
LPG	La Plagne	14.86	315	eP	Pn	10 49 38.7	+0.3
	comp=Z,19nm,0.9s						
LPG	La Plagne	14.86	315	eP	Pn	10 49 38.7	+0.3
	comp=Z,19nm,0.9s						
LPL	La Plagne	14.88	315	eP	Pn	10 49 38.9	+0.2
LPL	La Plagne	14.88	315	eP	Pn	10 49 38.9	+0.2
DPC	Dobruska-Polom	14.95	346	eP	Pn	10 49 43.2	+3.6
DPC				epP	pP	10 49 49.9	+1.9
DPC				AMS	AMS	10 56 40.0	
	comp=Z,6µm,16.3s						
DPC	Dobruska-Polom	14.95	346	eP	Px	10 49 49.9	
DPC				LR	LR		
	comp=Z,6µm,16.3s						
PRU	Pruhonice	15.01	342	eP	Pn	10 49 42.1	+1.7
PRU				epP	pP	10 49 47.8	-0.8
PRU				AMS	AMS	10 56 10.0	
	comp=Z,10µm,11.6s						
PRU	Pruhonice	15.01	342	eP	Pn	10 49 47.8	+7.4
PRU				LR	LR		
	comp=Z,10µm,11.6s						
ORIF	Oris-en-Rattie	15.06	311	eP	Pn	10 49 40.2	-0.9
	comp=Z,109nm,1.4s						
ORIF				eMLR	MLR		
	comp=Z,6µm,19.8s						
ORIF	Oris-en-Rattie	15.06	311	eP	Pn	10 49 40.2	-0.9
ORIF				pmax	pmax		
	comp=Z,54nm,1.4s						
ORIF	Oris-en-Rattie	15.06	311	eP	Pn	10 49 40.2	-0.9
	comp=Z,54nm,1.4s						
ORIF	Oris-en-Rattie	15.06	311	eP	Pn	10 49 40.2	-0.9
	comp=Z,54nm,1.4s						
UPC	Upice	15.16	346	eP	Pn	10 49 46.4	+4.0
UPC				epP	pP	10 49 52.8	+2.5
UPC	Upice	15.16	346	eP	Pn	10 49 46.4	+4.0
EMHD	Djebel Mahouad	15.25	277	P	Pn	10 49 51.4	+7.8
EMHD	Djebel Mahouad	15.25	277	P	Pn	10 49 51.4	+7.8
KOPT	Kop Dagi	15.30	69	iP	Pn	10 49 48.8	+4.5
MARD	Mardin	15.31	79	iP	Pn	10 49 47.4	+3.0
KSP	Ksiaz	15.42	347	eP	Pn	10 49 53.4	+7.5
KSP				e		10 50 01.0	
KSP	Ksiaz	15.42	347	eP	Pn	10 49 51.0	+5.1
KSP				epP	pP	10 50 00.5	+7.2
KSP				eS	Sn	10 52 41.0	+4.3
ETOS	Mallorca	15.47	290	P	Px	10 49 58.3	
ROTZ	Rotzenmuhle	15.49	336	ePn	Pn	10 49 54.7	+7.9
PVCC	Panska Ves	15.50	343	eP	Pn	10 49 48.7	+1.9
PVCC				epP	pP	10 49 55.0	+0.9
PVCC				AMS	AMS	10 56 20.0	
	comp=Z,11µm,10.5s						
PVCC	Panska Ves	15.50	343	eP	Pn	10 49 48.7	+1.9
PVCC				e		10 49 55.0	
PVCC				LR	LR		
	comp=Z,11µm,10.5s						
SPAK	Spaichingen-Ko	15.51	326	eP	Pn	10 49 53.6	+6.6
SPAK	Spaichingen-Ko	15.51	326	eP	Pn	10 49 53.6	+6.6
EMRS	Mersa Alam	15.63	131	P	Pn	10 49 48.4	-0.3
EMRS	Mersa Alam	15.63	131	P	Pn	10 49 48.4	-0.3
BBS	Basel-Blauen	15.68	322	eP	Px	10 49 59.2	
BBS	Basel-Blauen	15.68	322	eP	Px	10 49 59.2	
HMSM	Jabal Masmas	15.68	143	P	Pn	10 49 50.0	+0.6
HMSM	Jabal Masmas	15.68	143	P	Pn	10 49 50.0	+0.6
KIEV	Kiev	15.70	18	eP	Pn	10 49 47.6	-1.8
KIEV				e		10 52 41.7	
KIEV				pmax	pmax		
	comp=Z,18nm,0.6s						
KIEV	Kiev	15.70	18	ePn	Pn	10 49 47.6	-1.8
	comp=Z,18nm,0.6s						
KIEV				eSn	Sn	10 52 41.7	-1.6
BEST	Besiri	15.70	77	iP	Pn	10 49 53.5	+4.0
AKASG	Malin Array Be	15.71	18	Pn	Pn	10 49 43.9	-5.7
	comp=Z,1.2nm,0.3s,baz=208,slow=12,SNR=7.7						
FELD	Feldberg im Sc	15.71	324	eP	Pn	10 49 55.7	+6.0
FELD	Feldberg im Sc	15.71	324	eP	Pn	10 49 55.7	+6.0
SOC	Sochi	15.74	56	eP	Pn	10 49 49.8	-0.2
SOC				e		10 52 39.7	
SOC				pmax	pmax		
	comp=Z,16nm,0.7s						
SOC				MLR	MLR		
	comp=Z,2µm,11.0s						
GRF	Grafenberg Arr	15.77	334	eS	Sn	10 53 02.9	+18
GRF				eL		10 57 12.0	
	comp=Z,16µm,18.0s						
VIVF	Saint-Julien-l	15.78	310	eP	Pn	10 49 49.0	-1.5
	comp=Z,40nm,1.0s						
VIVF	Saint-Julien-l	15.78	310	eP	Pn	10 49 49.0	-1.5
VIVF				pmax	pmax		
	comp=Z,20nm,1.0s						
VIVF	Saint-Julien-l	15.78	310	eP	Pn	10 49 49.0	-1.5
	comp=Z,20nm,1.0s						
VIVF	Saint-Julien-l	15.78	310	eP	Pn	10 49 49.0	-1.5
	comp=Z,20nm,1.0s						
NKC	Novy Kostel	15.82	338	eP	Pn	10 49 51.9	+0.9
NKC				epP	pP	10 49 59.2	+1.5
NKC				AMS	AMS	10 56 40.0	
	comp=Z,11µm,12.8s						
NKC	Novy Kostel	15.82	338	eP	Pn	10 49 51.9	+0.9
NKC				e		10 49 59.2	
BFO	Black Forest	15.88	325	ePn	Pn	10 49 57.5	+5.6
BFO				eSn	Sn	10 52 33.8	-14
CABF	La Chapelle	15.88	317	eP	Pn	10 49 50.7	-1.2
	comp=Z,54nm,1.0s						
CABF	La Chapelle	15.88	317	eP	Pn	10 49 50.7	-1.2
CABF				pmax	pmax		
	comp=Z,27nm,1.0s						
CABF	La Chapelle	15.88	317	eP	Pn	10 49 50.7	-1.2
	comp=Z,27nm,1.0s						
CABF	La Chapelle	15.88	317	eP	Pn	10 49 50.7	-1.2
	comp=Z,27nm,1.0s						
ERZM	Erzurum	15.94	70	iP	Pn	10 49 54.9	+2.2
LOMF	Lomont	15.95	320	eP	Pn	10 49 58.6	+5.9
LOMF	Lomont	15.95	320	eP	Pn	10 49 58.6	+5.9
LASF	Ste Croix	15.95	306	eP	Pn	10 49 51.6	-1.2
	comp=Z,80nm,1.3s						
LASF	Ste Croix	15.95	306	eP	Pn	10 49 51.6	-1.2
	comp=Z,40nm,1.3s						
GUNZ	Gunzen	15.97	337	ePn	Pn	10 50 02.2	+9.2
BRG	Berggiesshubel	15.97	342	eP	Pn	10 49 55.5	+2.5
BRG				pmax	pmax		
	comp=Z,14nm,1.6s						
BRG				pmax	pmax		
	comp=Z,16nm,1.3s						
BRG				MLR	MLR		
	comp=N,4µm,13.5s						
BRG				MLR	MLR		
	comp=E,3µm,10.9s						
BRG				MLR	MLR		
	comp=Z,6µm,11.6s						
BRG	Berggiesshubel	15.97	342	ePn	Pn	10 50 01.5	+8.5
BRG	Berggiesshubel	15.97	342	eP	Pn	10 49 55.5	+2.5
	comp=Z,23nm,1.6s						
BRG				i		10 50 01.5	
	comp=Z,27nm,1.3s						
BRG							
	comp=N,6µm,13.5s						
BRG							
	comp=E,5µm,10.9s						
BRG							
	comp=Z,10µm,11.6s						
BRG	Berggiesshubel	15.97	342	eP	Pn	10 49 55.5	+2.5
	comp=Z,14nm,1.6s						
BRG				i		10 50 01.5	
TANN	Tannenbergstha	15.98	338	ePn	Pn	10 50 02.1	+9.1
WERD	Werda	16.05	338	ePn	Px	10 50 05.2	
SSB	Saint Sauveur	16.06	311	eP	Pn	10 49 59.0	+4.8
SSB				pmax	pmax		
	comp=Z,44nm,1.4s						
SSB	Saint Sauveur	16.06	311	eP	Pn	10 49 59.0	+4.8
	comp=Z,44nm,1.4s						
HINF	Hinteralfeld	16.24	322	eP	Pn	10 49 55.4	-1.1
HINF	Hinteralfeld	16.24	322	eP	Pn	10 49 55.4	-1.1
ECH	Echery	16.36	323	eP	Pn	10 50 02.5	+4.5
ECH	Echery	16.36	323	eP	Pn	10 50 02.5	+4.5
HOMI	Horasan	16.37	69	iP	Px	10 49 40.6	
EBNR	Beni Rached	16.39	277	P	Pn	10 50 07.2	+8.8
EBNR	Beni Rached	16.39	277	P	Pn	10 50 07.2	+8.8
CDF	Champ du Feu	16.44	324	eP	Pn	10 49 57.9	-1.1
	comp=Z,108nm,1.1s						
CDF	Champ du Feu	16.44	324	eP	Pn	10 49 57.9	-1.1
CDF				pmax	pmax		
	comp=Z,54nm,1.1s						
CDF	Champ du Feu	16.44	324	eP	Pn	10 49 57.9	-1.1
	comp=Z,54nm,1.1s						
CDF	Champ du Feu	16.44	324	eP	Pn	10 49 57.9	-1.1
	comp=Z,54nm,1.1s						
MOX	Moxa	16.44	337	eP	Pn	10 50 08.3	+9.3
	comp=Z,27nm,1.0s						
MOX							
	comp=Z,9µm,17.0s						
EIBI	Ibiza	16.53	287	P	Px	10 50 11.2	
ECHA	Ech Chlef	16.53	277	P	Px	10 50 11.9	
ECHA	Ech Chlef	16.53	277	P	Px	10 50 11.9	
LANF	Langenberg	16.59	326	eP	Pn	10 50 07.4	+6.4
LANF	Langenberg	16.59	326	eP	Pn	10 50 07.4	+6.4
CLL	Collm	16.62	340	eP	Pn	10 50 06.0	+4.8
CLL				eS	Sn	10 53 08.0	+2.4
CLL				MLR	MLR		
	comp=Z,7µm,17.2s						
CLL	Collm	16.62	340	ePn	Px	10 50 12.9	
CLL	Collm	16.62	340	e(P)	Pn	10 50 06.0	+4.8
CLL				iPP		10 50 13.6	
	comp=Z,130nm,1.4s						
CLL				e		10 50 25.0	
CLL				eS	Sn	10 53 08.0	+2.4
CLL				Lmax		10 57 16.0	
CLL	Collm	16.62	340	eP	Pn	10 50 06.0	+4.8
CLL				i		10 50 13.6	
CLL				eS	Sn	10 53 08.0	+2.4
HAU	Haudompre	16.62	321	eP	Pn	10 50 00.6	-0.7
	comp=Z,156nm,1.2s						
HAU				eMLR	MLR		
	comp=Z,5µm,17.5s						
HAU	Haudompre	16.62	321	eP	Pn	10 50 00.6	-0.7
HAU				pmax	pmax		
	comp=Z,78nm,1.2s						
HAU	Haudompre	16.62	321	eP	Pn	10 50 00.6	-0.7
	comp=Z,78nm,1.2s						
HAU	Haudompre	16.62	321	eP	Pn	10 50 00.6	-0.7
	comp=Z,78nm,1.2s						
TOD	Tromm	16.63	329	eP	Pn	10 50 05.7	+4.3
TOD	Tromm	16.63	329	eP	Pn	10 50 05.7	+4.3
ETRT	Tiaret	16.67	274	P	Pn	10 50 08.7	+6.7
ETRT	Tiaret	16.67	274	P	Pn	10 50 08.7	+6.7
EANR	'Ain N'Sour	16.77	276	P	Pn	10 50 11.4	+8.2
EANR	'Ain N'Sour	16.77	276	P	Pn	10 50 11.4	+8.2
MTLF	Montolieu	16.78	302	eP	Pn	10 50 02.2	-1.1
MTLF	Montolieu	16.78	302	eP	Pn	10 50 02.2	-1.1
LBL	Lubilhac	16.85	309	eP	Px	10 50 15.7	
LBL	Lubilhac	16.85	309	eP	Px	10 50 15.7	
THEF	They Montfort	16.95	321	eP	Pn	10 50 12.6	+7.2
THEF	They Montfort	16.95	321	eP	Pn	10 50 12.6	+7.2
EPOB	Poblet	17.05	295	P	Pn	10 50 14.0	+7.2
	comp=Z,1.7nm,0.4s						
UBBA	Unterbreizbach	17.14	334	ePn	Px	10 50 19.2	
SMF	Signal de Mont	17.18	314	eP	Pn	10 50 06.6	-1.8
	comp=Z,54nm,1.2s						
SMF	Signal de Mont	17.18	314	eP	Pn	10 50 06.6	-1.8
SMF				pmax	pmax		
	comp=Z,27nm,1.2s						
SMF	Signal de Mont	17.18	314	eP	Pn	10 50 06.6	-1.8
	comp=Z,27nm,1.2s						
SMF	Signal de Mont	17.18	314	eP	Pn	10 50 06.6	-1.8
	comp=Z,27nm,1.2s						
MSL	Mosul	17.22	82	ex	x	10 50 19.0	
MSL				ex	x	10 53 35.0	
TNS	Taunus Mts	17.25	330	ePn	Px	10 50 20.5	
RUP	Ruppelstein	17.45	327	eP	Pn	10 50 17.2	+5.4
RUP	Ruppelstein	17.45	327	eP	Pn	10 50 17.2	+5.4
CAF	Calviac	17.47	307	eP	Pn	10 50 10.7	-1.3
CAF	Calviac	17.47	307	eP	Pn	10 50 10.7	-1.3
LOR	Lormes	17.51	316	eP	Pn	10 50 12.4	-0.1
	comp=Z,61nm,1.1s						
LOR				eMLR	MLR		
	comp=Z,6µm,17.5s						
LOR	Lormes	17.51	316	eP	Pn	10 50 12.4	-0.1
LOR				pmax	pmax		
	comp=Z,31nm,1.1s						
LOR	Lormes	17.51	316	eP	Pn	10 50 12.4	-0.1
	comp=Z,30nm,1.1s						
LOR	Lormes	17.51	316	eP	Pn	10 50 12.4	-0.1
	comp=Z,30nm,1.1s						
ERTA	Horta de San J	17.53	293	P	Pn	10 50 19.9	+7.1
	comp=Z,1.3nm,0.5s						
AVF	Avril sur Loir	17.55	314	eP	Pn	10 50 11.5	-1.4
	comp=Z,67nm,1.2s						
AVF	Avril sur Loir	17.55	314	eP	Pn	10 50 11.5	-1.4
AVF				pmax	pmax		
	comp=Z,34nm,1.2s						
AVF	Avril sur Loir	17.55	314	eP	Pn	10 50 11.5	-1.4
	comp=Z,34nm,1.2s						
AVF	Avril sur Loir	17.55	314	eP	Pn	10 50 11.5	-1.4
	comp=Z,34nm,1.2s						
SSF	Saint Saulge	17.60	315	eP	Pn	10 50 12.6	-1.0
	comp=Z,50nm,1.1s						
SSF	Saint Saulge	17.60	315	eP	Pn	10 50 12.6	-1.0
SSF				pmax	pmax		
	comp=Z,25nm,1.1s						
SSF	Saint Saulge	17.60	315	eP	Pn	10 50 12.6	-1.0
	comp=Z,25nm,1.1s						
SSF	Saint Saulge	17.60	315	eP	Pn	10 50 12.6	-1.0
	comp=Z,25nm,1.1s						
MEZF	Maizieres J'vi	17.60	321	eP	Pn	10 50 13.0	-0.6
	comp=Z,272nm,1.2s						
MEZF	Maizieres J'vi	17.60	321	eP	Pn	10 50 13.0	-0.6
	comp=Z,272nm,1.2s						
MEZF	Maizieres J'vi	17.60	321	eP	Pn	10 50 13.0	-0.6
	comp=Z,136nm,1.2s						
GKP	Gorka Klasztor	17.63	351	eP	Px	10 50 25.1	
GKP				e		10 50 37.1	
GKP	Gorka Klasztor	17.63	351	eP	Px	10 50 25.1	
GKP				e		10 50 37.1	
DYDN	Diyadin	17.68	72	iP	Pn	10 50 15.2	+0.6
BGF	Bois d'Agland	17.73	313	eP	Pn	10 50 13.5	-1.6
	comp=Z,127nm,1.1s						
BGF	Bois d'Agland	17.73	313	eP	Pn	10 50 13.5	-1.6
BGF				pmax	pmax		
	comp=Z,63nm,1.1s						
BGF	Bois d'Agland	17.73	313	eP	Pn	10 50 13.5	-1.6
	comp=Z,63nm,1.1s						
BGF	Bois d'Agland	17.73	313	eP	Pn	10 50 13.5	-1.6
	comp=Z,63nm,1.1s						
EBEN	Beniarda	17.73	286	P	Pn	10 50 22.2	+7.0
	comp=Z,1.4nm,0.4s						
WLF	Walferdange	17.84	325	P	Pn	10 50 23.2	+6.7
	comp=Z,46nm,1.7s						
WLF	Walferdange	17.84	325	eP	Pn	10 50 19.4	+2.9
WLF				pmax	pmax		
	comp=Z,51nm,1.0s						
WLF	Walferdange	17.84	325	ePn	Pn	10 50 24.1	+7.6
WLF	Walferdange	17.84	325	eP	Pn	10 50 19.4	+2.8
	comp=Z,51nm,1.0s						
KIV	Kislovodsk	17.88	57	eP	Pn	10 50 16.7	-0.3
KIV				eS	Sn	10 53 32.6	-3.7
KIV				pmax	pmax		
	comp=Z,107nm,1.1s						
KIV				MLR	MLR		
	comp=Z,1µm,11.0s						
KIV	Kislovodsk	17.88	57	P	Pn	10 50 17.5	+0.5
	SNR=26						
KIV				P		10 50 17.5	
	SNR=26						
KIV	Kislovodsk	17.88	57	P	Pn	10 50 17.5	+0.5
	SNR=26						
RJF	Les Rejaudoux	17.98	308	eP	Pn	10 50 18.0	-0.3
	comp=Z,143nm,1.4s						
RJF				eMLR	MLR		
	comp=Z,3µm,17.5s						
RJF	Les Rejaudoux	17.98	308	eP	Pn	10 50 18.0	-0.3
RJF				pmax	pmax		
	comp=Z,72nm,1.4s						
RJF	Les Rejaudoux	17.98	308	eP	Pn	10 50 18.0	-0.3
	comp=Z,72nm,1.4s						
RJF	Les Rejaudoux	17.98	308	eP	Pn	10 50 18.0	-0.3
	comp=Z,72nm,1.4s						
TCF	Toulx Ste Croi	17.98	311	eP	Pn	10 50 17.6	-0.7
	comp=Z,72nm,1.2s						
TCF	Toulx Ste Croi	17.98	311	eP	Pn	10 50 17.6	-0.7
TCF				pmax	pmax		

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      comp=Z,36nm,1.2s
TCF   Toulx Ste Croi   17.98 311 eP    Pn     10 50 17.6 -0.7
      comp=Z,36nm,1.2s
TCF   Toulx Ste Croi   17.98 311 eP    Pn     10 50 17.6 -0.7
      comp=Z,36nm,1.2s
EPF   Esparros         17.99 300 eP    Pn     10 50 17.3 -1.1
EPF   Esparros         17.99 300 eP    Pn     10 50 17.3 -1.1
ONI   Oni              18.01  62  P    Pn     10 50 18.9 +0.2
EBIE  Bielsa           18.04 299  P    Pn     10 50 26.3 +7.3
      comp=Z,5.1nm,0.7s
EMOS  Mosqueruela      18.05 291  P    Pn     10 50 26.9 +7.6
      comp=Z,3.5nm,0.9s
SUW   Suwalki          18.11   3 eP    Pn     10 50 20.1 +0.4
SUW                              e            10 50 28.5
SUW   Suwalki          18.11   3 eP    Pn     10 50 20.5 +0.7
      comp=Z,307nm,1.0s
GOR   Gori             18.35  64  P    Pn     10 50 24.6 +1.7
ECHE  Chera            18.36 288  P    Pn     10 50 31.4 +8.4
ECHE                              pmax pmax
      comp=Z,3.0nm,0.5s
ECHE  Chera            18.36 288  P    Pn     10 50 31.4 +8.4
      comp=Z,2.5nm,0.5s
NRDL  Niedersach Rie   18.52 337 ePn   Px     10 50 36.3
GNI   Garni            18.54  70  P    Pn     10 50 23.9 -1.3
GNI                               pmax pmax
      comp=Z,5.0nm,0.3s
GNI                               MLR  MLR
      comp=Z,4µm,18.4s
GNI   Garni            18.54  70  P    Pn     10 50 23.9 -1.3
      comp=Z,4.6nm,0.3s,baz=292,slow=3.7,SNR=19
GNI                               LR   LR     10 59 07.5
      comp=Z,4µm,18.4s,baz=92,slow=42
GNI   Garni            18.54  70 eP    Pn     10 50 25.0 -0.2
      comp=Z,71nm,0.9s
GNI                               LR   LR     10 59 07.5
GNI   Garni            18.54  70 ⇓P    Pn     10 50 26.1 +0.9
      SNR=27
GNI                              ⇓P           10 50 26.1
      SNR=27
GNI   Garni            18.54  70  P    Pn     10 50 26.1 +0.9
      SNR=27
MEM   Membach          18.58 327  P    Pn     10 50 30.8 +5.3
ETSF  Etsaut           18.59 299 eP    Pn     10 50 25.7 -0.1
      comp=Z,51nm,1.0s
ETSF  Etsaut           18.59 299 eP    Pn     10 50 25.7 -0.1
ETSF                              pmax pmax
      comp=Z,26nm,1.0s
ETSF  Etsaut           18.59 299 eP    Pn     10 50 25.7 -0.1
      comp=Z,26nm,1.0s
ETSF  Etsaut           18.59 299 eP    Pn     10 50 25.7 -0.1
      comp=Z,26nm,1.0s
BUG   Bochum--Univer   18.67 331 ePn   Pn     10 50 33.6 +6.9
BCLA  Clavier          18.76 326  P    Pn     10 50 34.6 +6.8
      comp=Z,46nm,1.9s
TBLG  Delisi           18.76  65  P    Pn     10 50 29.4 +1.5
GIVF  Givet            18.77 324 eP    Pn     10 50 27.6 -0.3
      comp=Z,170nm,1.0s
GIVF  Givet            18.77 324 eP    Pn     10 50 27.6 -0.3
GIVF                              pmax pmax
      comp=Z,85nm,1.0s
GIVF  Givet            18.77 324 eP    Pn     10 50 27.6 -0.3
      comp=Z,85nm,1.0s
GIVF  Givet            18.77 324 eP    Pn     10 50 27.6 -0.3
      comp=Z,85nm,1.0s
BHD   Baghdad          18.77  92 i x   x      10 50 28.0
BHD                              i x   x      10 54 04.0
MTA   Mtatsminda       18.80  65  P    Pn     10 50 29.4 +1.1
BEBN  Eben Emael       18.86 327  E           10 50 39.0
DOU   Dourbes          18.87 324  P    Pn     10 50 30.3 +1.2
      comp=Z,68nm,1.9s
BAIF  Baives           19.03 323 eP    Pn     10 50 30.3 -0.8
      comp=Z,151nm,1.3s
BAIF  Baives           19.03 323 eP    Pn     10 50 30.3 -0.8
BAIF                              pmax pmax
      comp=Z,76nm,1.3s
BAIF  Baives           19.03 323 eP    Pn     10 50 30.3 -0.8
      comp=Z,76nm,1.3s
BAIF  Baives           19.03 323 eP    Pn     10 50 30.3 -0.8
      comp=Z,76nm,1.3s
SJPF  Ste Jean         19.12 299 eP    Pn     10 50 30.5 -1.7
      comp=Z,85nm,1.1s
SJPF  Ste Jean         19.12 299 eP    Pn     10 50 30.5 -1.7
SJPF                              pmax pmax
      comp=Z,43nm,1.1s
SJPF  Ste Jean         19.12 299 eP    Pn     10 50 30.5 -1.7
      comp=Z,42nm,1.1s
SJPF  Ste Jean         19.12 299 eP    Pn     10 50 30.5 -1.7
      comp=Z,42nm,1.1s
ISHB  Shabestar        19.13  76 eP    Pn     10 50 30.5 -1.9
ISHB  Shabestar        19.13  76 eP    Pn     10 50 30.5 -1.9
IBBN  Ibbenburen       19.17 333 ePn   Pn     10 50 39.3 +6.6
IMRD  Marand           19.20  75 eP    Pn     10 50 31.2 -2.0
TAM   Tamanrasset      19.27 232 eP    Pn     10 50 38.5 +4.4
TAM                               pmax pmax
      comp=Z,21nm,1.1s
TAM   Tamanrasset      19.27 232 eP    Pn     10 50 38.5 +4.4
      comp=Z,21nm,1.1s
NACGM Naroch           19.28   9 eP    Pn     10 50 34.0  0.0
SNF   Seneffe          19.30 324  E           10 50 41.6
EALK  Alkurruntz       19.34 299  P    Pn     10 50 40.5 +5.6
      comp=Z,5.5nm,0.7s
ELIZ  Elizondo         19.35 299  P    Pn     10 50 38.7 +3.8
ELIZ                              pmax pmax
      comp=Z,8.0nm,0.8s
ELIZ  Elizondo         19.35 299  P    Pn     10 50 38.7 +3.8
      comp=Z,8.0nm,0.8s
IAZR  Azarshahr        19.43  78 eP    Pn     10 50 34.2 -1.8
IAZR  Azarshahr        19.43  78 eP    Pn     10 50 34.2 -1.8
UCC   Uccle            19.46 325  P    Pn     10 50 42.7 +6.5
EVIA  Vianos           19.51 285  P    Pn     10 50 43.9 +7.0
EVIA                              pmax pmax
      comp=Z,7.0nm,0.6s
EVIA  Vianos           19.51 285  P    Pn     10 50 43.9 +6.9
      comp=Z,6.7nm,0.6s
ITBZ  Tabriz           19.55  76 eP    Pn     10 50 32.5 -4.9
MFF   Saint Martin d   19.58 310 eP    Pn     10 50 36.6 -1.0
MFF   Saint Martin d   19.58 310 eP    Pn     10 50 36.6 -1.0
EHUE  Huescar          19.59 283  P    Pn     10 50 43.0 +5.1
EHUE                              pmax pmax
      comp=Z,1.0nm,1.1s
EHUE  Huescar          19.59 283  P    Pn     10 50 43.0 +5.1
      comp=Z,1.1nm,1.1s
VORD  Divnogorie       19.60  35 eP    Pn     10 50 35.8 -2.1
VORD                             eS    Sn     10 54 12.0 -5.8
VORD                              pmax pmax
      comp=Z,20nm,1.0s
VORD                              pmax pmax
      comp=N,20nm,0.8s
VORD                              pmax pmax
      comp=E,10.0nm,0.9s
VORD                              smax
      comp=N,810nm,4.7s
VORD                              smax
      comp=Z,160nm,2.0s
VORD                              smax
      comp=E,420nm,3.3s
VORD                              MLR  MLR
      comp=Z,3µm,12.0s
VORD                              MLR  MLR
      comp=N,770nm,9.0s
VORD                              MLR  MLR
      comp=E,2µm,10.0s
BSEG  Bad Segeberg     19.70 340 eP    Pn     10 50 46.8 +7.7
VSR   Storozhevoye     19.71  34 eP    Pn     10 50 37.1 -2.1
VSR                              eS    Sn     10 54 10.2  -10
VSR                               pmax pmax
      comp=Z,7.0nm,0.5s
VSR                               pmax pmax
      comp=N,9.0nm,0.7s
VSR                               pmax pmax
      comp=E,3.0nm,0.7s
VSR                               smax
      comp=E,550nm,3.7s
VSR                               smax
      comp=Z,370nm,3.8s
VSR                               smax
      comp=N,350nm,3.3s
VSR                               MLR  MLR
      comp=Z,4µm,12.0s
VSR                               MLR  MLR
      comp=N,2µm,14.0s
VSR                               MLR  MLR
      comp=E,3µm,12.0s
BSD   Bornholm Skovb   19.76 348 i P   Pn     10 50 41.2 +1.5
BSD                              i            10 54 13.6
BSD                               pmax pmax
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      comp=Z,57nm,1.0s
BSD   Bornholm Skovb   19.76 348 i P   Pn     10 50 35.9 -3.8
BSD   Bornholm Skovb   19.76 348 i P   Pn     10 50 41.2 +1.5
      comp=Z,57nm,1.0s
BSD                              i            10 54 13.6
BSD
      comp=Z,2µm,19.0s
BSD   Bornholm Skovb   19.76 348 i P   Pn     10 50 41.2 +1.5
      comp=Z,57nm,1.0s
BSD                              i            10 54 13.6
EBER  Berja            19.88 280  P    Pn     10 50 46.0 +4.6
      comp=Z,6.3nm,0.5s
ECRI  Cripan           19.93 297  P    Pn     10 50 45.5 +3.6
ECRI                              pmax pmax
      comp=Z,3.0nm,0.3s
ECRI  Cripan           19.93 297  P    Pn     10 50 45.5 +3.6
      comp=Z,2.5nm,0.3s
EQES  Quesada          19.97 283  P    Pn     10 50 45.4 +3.0
      comp=Z,4.4nm,0.5s
VOR   Voronezh         20.09  33  P    P      10 50 40.0 -1.9
VOR                               pmax pmax
      comp=Z,200nm,1.0s
IBST  Bostanabad       20.16  78 eP    P      10 50 41.2 -1.5
IBST  Bostanabad       20.16  78 eP    P      10 50 41.2 -1.5
IHRS  Heris            20.25  76 eP    P      10 50 42.5 -1.3
EGUA  Guajares         20.43 280  P    P      10 50 52.8 +7.1
EGUA                              pmax pmax
      comp=Z,17nm,0.6s
EGUA  Guajares         20.43 280  P    P      10 50 52.8 +7.1
      comp=Z,17nm,0.6s
LDF   La Druitiere     20.48 315 eP    P      10 50 46.1 -0.1
      comp=Z,75nm,0.9s
LDF   La Druitiere     20.48 315 eP    P      10 50 46.1 -0.1
LDF                               pmax pmax
      comp=Z,37nm,0.9s
LDF   La Druitiere     20.48 315 eP    P      10 50 46.1 -0.1
      comp=Z,37nm,0.9s
LDF   La Druitiere     20.48 315 eP    P      10 50 46.1 -0.1
      comp=Z,37nm,0.9s
ILIN  Lien             20.52  85 eP    P      10 50 45.9 -0.8
ILIN  Lien             20.52  85 eP    P      10 50 45.9 -0.8
EBAN  Banos Encina     20.52 284  P    P      10 50 54.5 +7.8
EBAN                              pmax pmax
      comp=Z,6.0nm,0.6s
EBAN  Banos Encina     20.52 284  P    P      10 50 54.5 +7.8
      comp=Z,6.0nm,0.6s
ERON  Agron            20.60 281  P    P      10 50 54.4 +6.8
ESDC  Sonseca Array    20.67 288  P    P      10 50 48.7 +0.4
      comp=Z,5.5nm,0.6s,baz=84,slow=10,SNR=17
ESLA  Sonseca Array    20.67 288 eP    P      10 50 51.8 +3.5
      comp=Z,8.1nm,1.0s
ELAN  Lanestosa        20.72 298  P    P      10 50 52.9 +4.1
      comp=Z,5.3nm,0.9s
FLN   La Foliniere     20.78 315 eP    P      10 50 49.2 -0.1
      comp=Z,71nm,0.8s
FLN                              eMLR  MLR
      comp=Z,3µm,21.2s,MS4.4
FLN   La Foliniere     20.78 315 eP    P      10 50 49.2 -0.1
FLN                               pmax pmax
      comp=Z,36nm,0.8s
FLN                               MLR  MLR
      comp=Z,3µm,21.3s,MS4.7
FLN   La Foliniere     20.78 315 eP    P      10 50 49.2 -0.1
      comp=Z,36nm,0.8s
FLN                               LR   LR
      comp=Z,3µm,21.3s,MS4.7
FLN   La Foliniere     20.78 315 eP    P      10 50 49.2 -0.1
      comp=Z,36nm,0.8s
GRR   Gorron           20.81 314 eP    P      10 50 49.1 -0.6
GRR   Gorron           20.81 314 eP    P      10 50 49.1 -0.6
GUD   Guadarrama       20.88 291  P    P      10 50 54.0 +3.5
GUD                               pmax pmax
      comp=Z,6.0nm,0.7s
GUD   Guadarrama       20.88 291  P    P      10 50 54.0 +3.5
      comp=Z,6.3nm,0.7s
PAB   San Pablo        20.96 288 eP    P      10 50 55.3 +3.8
PAB                               pmax pmax
      comp=Z,48nm,1.1s
PAB                               MLR  MLR
      comp=Z,1µm,21.0s,MS4.3
PAB   San Pablo        20.96 288 eP    P      10 50 55.3 +3.9
      comp=Z,48nm,1.1s
PAB                               LR   LR
      comp=Z,1µm,21.0s,MS4.3
MAK   Makhachkala      21.01  63 eP    P      10 50 52.5 +0.6
MAK                              eS    S      10 54 46.3 +0.5
MAK                              eSS          10 55 05.5
MAK                               pmax pmax
      comp=Z,580nm,1.5s,mb5.7
MAK                               MLR  MLR
      comp=Z,2µm,13.0s,MS4.8
EADA  Adamuz           21.15 284  P    P      10 50 56.6 +3.2
      comp=Z,2.7nm,0.7s,mb3.7
EMIJ  Mijas            21.42 280  P    P      10 50 59.5 +3.1
      comp=Z,5.5nm,0.5s,mb4.1
OBN   Obninsk          21.71  23⇓eP    P      10 50 56.6 -2.8
OBN                              e            10 51 18.2
OBN                              eS    S      10 54 54.9 -4.5
OBN                               pmax pmax
      comp=Z,53nm,1.0s,mb4.9
OBN                               MLR  MLR
      comp=Z,1µm,15.0s,MS4.5
OBN   Obninsk          21.71  23 eP    P      10 50 59.5 +0.2
      comp=Z,139nm,0.8s,mb5.4
OBN                               LR   LR
      comp=Z,2µm,20.0s,MS4.5
SGMF  Saint Gilles     21.76 312 eP    P      10 50 59.1 -0.9
      comp=Z,42nm,0.7s,mb4.7
SGMF  Saint Gilles     21.76 312 eP    P      10 50 59.1 -0.9
SGMF                              pmax pmax
      comp=Z,21nm,0.7s,mb4.7
SGMF  Saint Gilles     21.76 312 eP    P      10 50 59.1 -0.9
      comp=Z,21nm,0.7s,mb4.7
SGMF  Saint Gilles     21.76 312 eP    P      10 50 59.1 -0.9
      comp=Z,21nm,0.7s,mb4.7
ECAB  El Cabril        21.82 284  P    P      10 51 04.6 +4.0
      comp=Z,13nm,0.7s,mb4.5
QUIF  Quistinic        21.99 311 eP    P      10 51 01.8 -0.6
      comp=Z,126nm,1.1s,mb5.0
QUIF  Quistinic        21.99 311 eP    P      10 51 01.8 -0.6
QUIF                              pmax pmax
      comp=Z,63nm,1.1s,mb5.0
QUIF  Quistinic        21.99 311 eP    P      10 51 01.8 -0.6
      comp=Z,63nm,1.1s,mb5.0
QUIF  Quistinic        21.99 311 eP    P      10 51 01.8 -0.6
      comp=Z,63nm,1.1s,mb5.0
MDT   Midelt           22.00 270  P    P      10 51 03.6 +0.9
      comp=Z,11nm,1.0s,mb4.2,baz=90,slow=11,SNR=8.8
MDT                               LR   LR     11 01 51.9
      comp=Z,2µm,18.7s,MS4.5,baz=85,slow=43
EARI  Arriondas        22.01 298  P    P      10 51 06.9 +4.3
      comp=Z,6.6nm,1.3s,mb3.9
ZFT   Errachidia       22.01 267 i P   P      10 51 03.0 +0.3
ROSF  Rostrenen        22.23 312 eP    P      10 51 04.5 -0.5
      comp=Z,212nm,1.6s,mb5.0
ROSF  Rostrenen        22.23 312 eP    P      10 51 04.5 -0.5
ROSF                              pmax pmax
      comp=Z,106nm,1.6s,mb5.0
ROSF  Rostrenen        22.23 312 eP    P      10 51 04.5 -0.5
      comp=Z,106nm,1.6s,mb5.0
ROSF  Rostrenen        22.23 312 eP    P      10 51 04.5 -0.5
      comp=Z,106nm,1.6s,mb5.0
MUD   Monsted U'grnd   22.24 341 i P   P      10 51 11.6 +6.6
      comp=Z,61nm,0.9s,mb5.0
MUD                              i            10 55 13.5
MUD
      comp=Z,3µm,18.0s
MUD   Monsted U'grnd   22.24 341 i P   P      10 51 11.6 +6.6
      comp=Z,61nm,0.9s,mb5.0
MUD                              i            10 55 13.5
MIB   Mutribah         22.27  99 eP    P      10 51 04.2 -1.4
MIB                               AMb  AMB    10 51 08.0
      comp=Z,230nm,0.6s,mb5.8
NAY   Al-Naaiem        22.41 100 eP    P      10 51 05.4 -1.7
NAY                               AMb  AMB    10 51 15.3
      comp=Z,151nm,1.2s,mb5.3
MOS   Moscow           22.57  24 eP    P      10 51 04.3 -4.2
MOS                              e            10 51 17.0
MOS                              ePPP         10 51 35.3
MOS                              eS    S      10 55 07.7 -8.3
MOS                              eSS          10 55 42.6
MOS                               pmax pmax
      comp=Z,245nm,1.0s,mb5.6
MOS                               MLR  MLR
      comp=Z,3µm,11.0s,MS5.0
SFS   San Fernando     22.58 280  PFAKE       10 51 20.0  +11
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SFS                               LR   LR
      comp=Z,2µm,20.0s,MS4.6
SFS   San Fernando     22.58 280  P           10 51 20.0  +11
UMR   Umm Al-Rimmam    22.67  99 eP    P      10 51 09.4 -0.5
UMR                               AMb  AMB    10 51 18.7
      comp=Z,463nm,1.3s,mb5.7
VSU   Vasula           22.78   7 i P   P      10 51 09.0 -1.7
RDF   Al-Radifah       22.79 101 eP    P      10 51 10.0 -1.2
RDF                               AMb  AMB    10 51 19.5
      comp=Z,153nm,1.4s,mb5.2
EMIN  Mina Concepcio   22.82 283  P    P      10 51 12.8 +1.4
      comp=Z,1.5nm,1.2s
IRAZ  Razeghan         22.83  83 eP    P      10 51 11.3 -0.2
IRAZ  Razeghan         22.83  83 eP    P      10 51 11.3 -0.2
PBRG  Braganca         22.92 293 eP    P      10 51 15.6 +3.2
      comp=Z,38nm,1.3s,mb4.7
PBRG  Braganca         22.92 293 eP    P      10 51 15.5 +3.1
PBRG  Braganca         22.92 293 eP    P      10 51 15.6 +3.2
      comp=Z,38nm,1.3s,mb4.7
ECAL  Calabor          22.93 294  P    P      10 51 14.1 +1.7
      comp=Z,3.9nm,0.5s,mb4.1
EBAD  Badajoz          23.04 286  P    P      10 51 15.5 +1.9
      comp=Z,6.6nm,0.6s,mb4.2
PMRV  Marv??o          23.32 287 eP    P      10 51 16.8 +0.2
      comp=Z,64nm,1.5s,mb4.8
PMRV                             eS    S      10 55 36.5 +7.6
PMRV                             eLR   LR     11 03 59.9
      comp=Z,970nm,16.0s
PMRV  Marv??o          23.32 287 eP    P      10 51 16.8 +0.2
      comp=Z,64nm,1.5s,mb4.8
PMRV                             eS    S      10 55 36.5 +7.6
IMHD  Mahdasht         23.38  82 eP    P      10 51 16.0 -1.3
IMHD  Mahdasht         23.38  82 eP    P      10 51 16.0 -1.3
MTE   Manteigas        23.44 290 eP    P      10 51 20.0 +2.1
      comp=Z,45nm,1.7s,mb4.6
MTE                              eS    S      10 55 39.9 +9.0
MTE                              eLR   LR     11 02 33.0
      comp=Z,2µm,18.0s
MTE   Manteigas        23.44 290 eP    P      10 51 20.1 +2.2
      comp=Z,31nm,1.0s,mb4.7
MTE                               LR   LR
      comp=Z,2µm,20.0s,MS4.5
MTE   Manteigas        23.44 290 eP    P      10 51 20.0 +2.1
      comp=Z,45nm,1.7s,mb4.6
EGRO  El Granado       23.48 283  P    P      10 51 20.3 +1.9
      comp=Z,3.3nm,0.6s,mb3.9
PESTR Estremoz         23.48 286 eP    P      10 51 21.1 +2.7
      comp=Z,74nm,1.5s,mb4.9
PESTR                            eS    S      10 55 40.3 +8.7
PESTR                            eLR   LR     11 04 21.2
      comp=Z,1µm,16.0s
PESTR Estremoz         23.48 286 eP    P      10 51 21.1 +2.7
      comp=Z,74nm,1.5s,mb4.9
PESTR                            eS    S      10 55 40.3 +8.7
RTC   Rabat Centre     23.53 274  PFAKE       10 51 30.0  +11
RTC                               LR   LR
      comp=Z,989nm,20.0s,MS4.3
RTC   Rabat Centre     23.53 274  P           10 51 30.0  +11
PVAQ  Vaqueiros        23.68 282 eP    P      10 51 20.4 +0.2
      comp=Z,68nm,1.8s,mb4.8
PVAQ                             eLR   LR     11 04 42.6
      comp=Z,689nm,18.0s
PVAQ  Vaqueiros        23.68 282 eP    P      10 51 20.4 +0.2
      comp=Z,68nm,1.8s,mb4.8
PBEJ  Beja             23.75 284 eP    P      10 51 23.4 +2.6
      comp=Z,94nm,1.5s,mb5.0
PBEJ  Beja             23.75 284 eP    P      10 51 23.4 +2.6
      comp=Z,94nm,1.5s,mb5.0
EVO   Evora            23.83 285 eP    P      10 51 24.9 +3.3
      comp=Z,56nm,2.0s,mb4.7
EVO   Evora            23.83 285 eP    P      10 51 24.9 +3.3
      comp=Z,56nm,2.0s,mb4.7
PBDV  Barranco-do-Ve   23.87 282 eP    P      10 51 25.0 +3.1
      comp=Z,108nm,1.4s,mb5.1
PBDV                             eS    S      10 55 46.9 +9.1
PBDV                              A           11 05 52.9
      comp=Z,651nm,18.0s
PBDV  Barranco-do-Ve   23.87 282 eP    P      10 51 25.0 +3.1
      comp=Z,108nm,1.4s,mb5.1
PBDV                             eS    S      10 55 46.9 +9.1
      comp=Z,651nm,18.0s
IVRN  Varamin          24.36  83 eP    P      10 51 26.4  0.0
IVRN  Varamin          24.36  83 eP    P      10 51 26.4  0.0
MORF  Marmelete        24.43 282 eS    S      10 55 54.2 +7.2
MORF                              A           11 06 02.7
      comp=Z,910nm,18.0s
MORF  Marmelete        24.43 282 eS    S      10 55 54.2 +7.2
      comp=Z,910nm,18.0s
PUL   Pulkovo          24.48  10 eP    P      10 51 25.9 -1.4
IDMV  Damavand         24.50  82 eP    P      10 51 25.9 -1.8
IDMV  Damavand         24.50  82 eP    P      10 51 25.9 -1.8
PFVI  Vila Bisbo       24.59 282 eLR   LR     11 05 23.0
      comp=Z,910nm,18.0s
HFS   Hagfors          24.78 350  P    P      10 51 27.2 -2.7
      comp=Z,8.0nm,0.6s,mb4.4,baz=162,slow=11,SNR=16
PMAFR Mafra            24.80 286  A           11 08 25.0
      comp=Z,1µm,16.0s
KONO  Kongsberg        25.02 345 eP    P      10 51 35.5 +3.3
KONO                              pmax pmax
      comp=Z,172nm,1.4s,mb5.4
KONO                              MLR  MLR
      comp=Z,3µm,20.0s,MS4.8
KONO  Kongsberg        25.02 345 eP    P      10 51 35.5 +3.2
      comp=Z,172nm,1.4s,mb5.4
KONO                              LR   LR
      comp=Z,3µm,20.0s,MS4.8
IFIR  Firoozkooh       25.07  81 eP    P      10 51 32.1 -0.8
IFIR  Firoozkooh       25.07  81 eP    P      10 51 32.1 -0.8
IZEF  Zefreh           25.32  88 eP    P      10 51 34.9 -0.3
IZEF  Zefreh           25.32  88 eP    P      10 51 34.9 -0.3
ISHM  Shahmirzad       25.47  81 eP    P      10 51 34.7 -1.8
ISHM  Shahmirzad       25.47  81 eP    P      10 51 34.7 -1.8
FINES FINESS Array B   25.68   5  P    P      10 51 34.0 -4.1
FINES                             pmax pmax
      comp=Z,8.0nm,0.7s
FINES FINESS Array B   25.68   5  P    P      10 51 34.0 -4.1
      comp=Z,7.7nm,0.7s,mb4.3,baz=157,slow=10,SNR=9.5
FINES FINESS Array B   25.68   5  P    P      10 51 42.0 +3.9
EKA   Eskdalemuir Ar   25.86 326  P    P      10 51 41.8 +1.9
      comp=Z,4.6nm,0.6s,mb4.2,baz=126,slow=9.3,SNR=12
ESK   Eskdalemuir      25.86 326 eP    P      10 51 41.7 +1.8
ESK                               pmax pmax
      comp=Z,133nm,1.5s,mb5.2
ESK   Eskdalemuir      25.86 326 eP    P      10 51 41.6 +1.7
      comp=Z,133nm,1.5s,mb5.2
NB2   NORSAR Subarra   26.02 348  P    P      10 51 39.3 -1.9
      comp=Z,115nm,1.4s,mb5.2,baz=155,slow=10
NB2   NORSAR Subarra   26.02 348  P    P      10 51 44.3 +3.1
NB2   NORSAR Subarra   26.02 348  P    P      10 51 39.3 -1.9
      comp=Z,115nm,1.4s,mb5.2,baz=155,slow=9.5,SNR=1.3
NOA   NORSAR Array B   26.02 348  P    P      10 51 38.4 -2.8
      comp=Z,2.7nm,0.6s,mb3.9,baz=319,slow=24,SNR=8.6
NOA                               LR   LR     11 02 47.7
      comp=Z,317nm,20.9s,MS3.8,baz=170,slow=39
IANJ  Anjilo           26.03  81 eP    P      10 51 39.4 -2.2
IANJ  Anjilo           26.03  81 eP    P      10 51 39.4 -2.2
KAF   Kangasniemi      26.36   5 eP    P      10 51 43.5 -0.8
KAF                               pmax pmax
      comp=Z,20nm,0.6s,mb4.8
KAF   Kangasniemi      26.36   5 ep    P      10 51 43.5 -0.8
      comp=Z,20nm,0.6s,mb4.8
IPAR  Pars             26.86  94 eP    P      10 51 48.3 -0.9
IPAR  Pars             26.86  94 eP    P      10 51 48.3 -0.9
JOF   Joensuu          27.65   9 ep    P      10 51 53.8 -2.1
      comp=Z,9.0nm,0.5s,mb4.7
VAN   Vannovskaya      28.98  75⇑eP    P      10 52 04.9 -3.1
VAN                              eS    S      10 57 02.3 +3.4
TORD  Torodi Ar. Bea   29.02 224  P    P      10 52 10.4 +1.8
      comp=Z,18nm,0.7s,mb4.9,baz=34,slow=9.2,SNR=27
TORD                              LR   LR     11 05 20.8
      comp=Z,4µm,18.5s,MS5.1,baz=35,slow=39
PRGR  Permogore        29.79  23⇓iP    P      10 52 14.1 -0.9
PRGR                             e            10 53 09.3
PRGR                             eS    S      10 57 11.2  0.0
PRGR                              pmax pmax
      comp=Z,94nm,1.3s,mb5.4
AB31  Akbulak array    30.73  52  P    P      10 52 22.2 -1.2
AB31                              pmax pmax
      comp=Z,9.0nm,0.6s,mb4.8
HATD  Hatta, Dubai     31.47 101 ⇑P    P      10 52 30.8 +0.6
      SNR=8.0
HATD  Hatta, Dubai     31.47 101  P    P      10 52 30.8 +0.6
      SNR=8.0
ARU   Arti             32.12  39d iP   P      10 52 34.1 -1.4
ARU                               S    S      10 57 44.2 -3.5
ARU                               pmax pmax
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	comp=Z,41nm,1.7s,mb5.0						
ARU				MLR	MLR		
	comp=Z,2µm,16.0s,MS4.9						
ARU	**Arti**	**32.12**	**39**	*e*P	**P**	**10 52 35.3**	**-0.2**
	comp=Z,44nm,0.9s,mb5.3						
ARU				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
ARU	**Arti**	**32.12**	**39**	*e*P	**P**	**10 52 35.3**	**-0.2**
	comp=Z,44nm,0.9s,mb5.3						
APA	**Apatity**	**32.37**	**8**	*e*P	**P**	**10 52 43.0**	**+5.4**
APA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
APA				MLR	MLR		
	comp=Z,5µm,13.0s,MS5.4						
SOKR	**Solikamsk**	**32.72**	**33**	*c i*P	**P**	**10 52 43.4**	**+2.6**
SOKR				S	**S**	**10 57 50.5**	**-6.5**
SOKR				pmax	pmax		
	comp=Z,120nm,1.2s,mb5.7						
SOKR				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.7						
LVZ	**Lovozero**	**32.84**	**9**	PFAKE		10 52 50.0	+8.3
LVZ				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
SVE	**Sverdlovsk**	**33.33**	**39**	⇓*e*P	**P**	**10 52 45.3**	**-0.8**
SVE				*e*S	**S**	**10 57 59.3**	**-7.2**
SVE				pmax	pmax		
	comp=Z,115nm,1.2s,mb5.7						
SVE				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.0						
BSY	**Bisya**	**33.35**	**103**	⇑P	**P**	**10 52 47.6**	**+0.8**
	SNR=7.8						
BSYO	**Bisya**	**33.39**	**103**	P	**P**	**10 52 47.6**	**+0.5**
	SNR=7.8						
ARCES	**ARCESS Array B**	**33.72**	**2**	P	**P**	**10 52 46.8**	**-2.6**
	comp=Z,3.7nm,0.4s,mb4.7,baz=193,slow=8.1,SNR=23						
SMDO	**Samad**	**33.87**	**102**	P	**P**	**10 52 51.1**	**-0.1**
	SNR=9.6						
SMDO	**Samad**	**33.87**	**102**	P	**P**	**10 52 51.1**	**-0.1**
	SNR=9.6						
KEV	**Kevo**	**34.00**	**3**	*e*P	**P**	**10 52 48.8**	**-3.0**
KEV				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.9						
KEV				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.6						
KEV	**Kevo**	**34.00**	**3**	*e*P	**P**	**10 52 48.8**	**-3.0**
	comp=Z,5.9nm,0.4s,mb4.9						
KEV				LR	LR		
	comp=Z,1µm,21.0s,MS4.6						
RBK	**Rabkut**	**34.05**	**114**	P	**P**	**10 52 53.6**	**+0.8**
	SNR=6.7						
RBK	**Rabkut**	**34.05**	**114**	P	**P**	**10 52 53.6**	**+0.7**
	SNR=6.7						
JMDO	**Jabal Madar**	**34.26**	**103**	⇓P	**P**	**10 52 55.3**	**+0.7**
	SNR=8.6						
JMDO	**Jabal Madar**	**34.26**	**103**	P	**P**	**10 52 55.3**	**+0.7**
	SNR=8.6						
WBK	**Wadi Bani Khal**	**34.83**	**102**	⇓P	**P**	**10 53 00.6**	**+1.1**
	SNR=10						
MBAR	**Mbarara**	**37.29**	**165**	PFAKE		10 53 30.0	+9.4
MBAR				LR	LR		
	comp=Z,567nm,21.0s,MS4.3						
BRVK	**Borovoye**	**37.77**	**48**	*e*P	**P**	**10 53 23.9**	**-0.4**
BRVK				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.0						
BRVK				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.7						
BRVK	**Borovoye**	**37.77**	**48**	*e*P	**P**	**10 53 23.9**	**-0.4**
	comp=Z,28nm,0.9s,mb5.0						
BRVK				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
BRVK	**Borovoye**	**37.77**	**48**	P	**P**	**10 53 25.5**	**+1.1**
	SNR=15						
BRVK				P		10 53 25.5	
	SNR=15						
BRVK	**Borovoye**	**37.77**	**48**	*e*P	**P**	**10 53 23.9**	**-0.4**
	comp=Z,28nm,0.9s,mb5.0						
KK31	**Karatay Array**	**37.82**	**64**	*e*P	**P**	**10 53 22.7**	**-2.2**
KK31				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.9						
BVA0	**Borovoye Array**	**37.83**	**48**	*i* P	**P**	**10 53 23.7**	**-1.1**
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
BVAR	**Borovoye Array**	**37.83**	**48**	P	**P**	**10 53 22.4**	**-2.4**
	comp=Z,3.4nm,0.5s,mb4.3,baz=260,slow=7.5,SNR=9.7						
BVAR				LR	LR	11 11 05.2	
	comp=Z,1µm,21.5s,MS4.7,baz=159,slow=40						
DBIC	**Dimbokro**	**38.01**	**226**	*e*P	**P**	**10 53 28.2**	**+1.4**
DBIC				pmax	pmax		
	comp=Z,22nm,0.8s						
DBIC	**Dimbokro**	**38.01**	**226**	P	**P**	**10 53 28.2**	**+1.4**
	comp=Z,15nm,0.8s,mb4.8,baz=19,slow=12,SNR=12						
DBIC				LR	LR	11 11 15.9	
	comp=Z,2µm,18.9s,MS5.0,baz=13,slow=39						
DBIC	**Dimbokro**	**38.01**	**226**	*e*P	**P**	**10 53 28.2**	**+1.4**
	comp=Z,22nm,0.8s,mb4.9						
DBIC				LR	LR	11 11 15.9	
DBIC	**Dimbokro**	**38.01**	**226**	*e*P	**P**	**10 53 28.2**	**+1.4**
	comp=Z,22nm,0.8s,mb4.9						
KBL	**Kabul**	**38.32**	**78**	*e*P	**P**	**10 53 28.4**	**-0.8**
KBL				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
KBL	**Kabul**	**38.32**	**78**	*e*P	**P**	**10 53 28.4**	**-0.9**
	comp=Z,7.3nm,0.8s,mb4.5						
KBL	**Kabul**	**38.32**	**78**	*e*P	**P**	**10 53 28.4**	**-0.8**
	comp=Z,7.2nm,0.8s,mb4.5						
LIC	**Lamto**	**38.47**	**226**	*e*P	**P**	**10 53 31.2**	**+0.6**
	comp=Z,75nm,0.9s,mb5.1						
LIC				*e*MLR	MLR		
	comp=Z,3µm,18.2s,MS4.9						
LIC	**Lamto**	**38.47**	**226**	*e*P	**P**	**10 53 31.2**	**+0.6**
	comp=Z,37nm,0.9s,mb5.1						
LIC				LR	LR		
	comp=Z,2µm,18.3s,MS4.9						
LIC	**Lamto**	**38.47**	**226**	*e*P	**P**	**10 53 31.2**	**+0.6**
	comp=Z,37nm,0.9s,mb5.1						
KMBO	**Kilima Mbogo**	**39.59**	**155**	LR	LR	11 13 43.5	
	comp=Z,1µm,18.2s,MS4.7,baz=285,slow=42						
EKS2	**Erkin-Say**	**40.25**	**64**	P	**P**	**10 53 47.3**	**+2.0**
	SNR=12						
EKS2	**Erkin-Say**	**40.25**	**64**	*e*P	**P**	**10 53 43.7**	**-1.5**
	comp=Z,23nm,0.8s,mb5.0						
EKS2				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
EKS2	**Erkin-Say**	**40.25**	**64**	*e*P	**P**	**10 53 43.7**	**-1.6**
	comp=Z,23nm,0.8s,mb5.0						
AML	**Almayashu**	**40.27**	**65**	*e*P	**P**	**10 53 45.9**	**+0.5**
AML				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
AML	**Almayashu**	**40.27**	**65**	*e*P	**P**	**10 53 45.9**	**+0.5**
USP	**Ospenovka**	**40.69**	**63**	P	**P**	**10 53 47.9**	**-1.0**
	SNR=5.9						
AAK	**Ala-Archa**	**40.78**	**64**	⇓*i*P	**P**	**10 53 51.0**	**+1.4**
AAK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.3						
AAK				MLR	MLR		
	comp=Z,600nm,21.0s,MS4.4						
AAK	**Ala-Archa**	**40.78**	**64**	P	**P**	**10 53 48.9**	**-0.7**
	SNR=9.2						
AAK	**Ala-Archa**	**40.78**	**64**	P	**P**	**10 53 49.3**	**-0.3**
	comp=Z,4.5nm,0.4s,mb4.4,baz=144,slow=0.5,SNR=15						
AAK				LR	LR	11 13 54.3	
	comp=Z,942nm,21.3s,MS4.6,baz=278,slow=41						
AAK	**Ala-Archa**	**40.78**	**64**	*e*P	**P**	**10 53 48.4**	**-1.2**
	comp=Z,23nm,0.9s,mb4.8						
AAK				LR	LR	11 13 54.3	
AAK	**Ala-Archa**	**40.78**	**64**	⇓P	**P**	**10 53 50.8**	**+1.2**
	SNR=11						
AAK				⇓P		10 53 50.8	
	SNR=11						
AAK	**Ala-Archa**	**40.78**	**64**	P	**P**	**10 53 50.8**	**+1.2**
	SNR=11						
FRU	**Bishkek**	**40.84**	**64**	*e*P	**P**	**10 53 51.0**	**+0.9**
FRU				*i* S	**S**	**11 00 00.0**	**-1.1**
FRU				pmax	pmax		
	comp=Z,180nm,1.8s,mb5.4						
UCH	**Uchtor**	**40.86**	**65**	P	**P**	**10 53 55.9**	**+5.6**
	SNR=5.5						
UCH	**Uchtor**	**40.86**	**65**	*e*P	**P**	**10 53 50.4**	**+0.1**
	comp=Z,30nm,1.4s,mb4.7						
UCH				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
UCH	**Uchtor**	**40.86**	**65**	*e*P	**P**	**10 53 50.4**	**+0.1**
	comp=Z,30nm,1.4s,mb4.7						
CHMS	**Chumysh**	**40.91**	**63**	P	**P**	**10 53 49.0**	**-1.7**
	SNR=6.3						
KZA	**Kyzart**	**41.42**	**65**	P	**P**	**10 53 58.4**	**+3.5**
	SNR=8.0						
TKM2	**Tokmak 2**	**41.54**	**63**	*e*P	**P**	**10 53 55.3**	**-0.5**
TKM2				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.5						
TKM2				MLR	MLR		
	comp=Z,673nm,21.0s,MS4.5						
TKM2	**Tokmak 2**	**41.54**	**63**	*e*P	**P**	**10 53 55.3**	**-0.5**
	comp=Z,12nm,0.8s,mb4.6						
TKM2				LR	LR		
	comp=Z,673nm,21.0s,MS4.5						
TKM2	**Tokmak 2**	**41.54**	**63**	*e*P	**P**	**10 53 55.3**	**-0.5**
	comp=Z,12nm,0.8s,mb4.6						
SCO	**Scoresbysund**	**41.64**	**340**	*i* P	**P**	**10 54 01.2**	**+4.8**
SCO				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.8						
SCO				MLR	MLR		
	comp=Z,210nm,18.0s,MS4.1						
SCO	**Scoresbysund**	**41.64**	**340**	*i* P	**P**	**10 54 01.2**	**+4.8**
	comp=Z,28nm,1.1s,mb4.8						
SCO							
	comp=Z,200nm,18.0s						
SPITS	**Spitsbergen Ar**	**42.41**	**358**	P	**P**	**10 54 01.0**	**-1.6**
	comp=Z,3.2nm,0.5s,mb4.2,baz=194,slow=4.0,SNR=2.5						
SPITS	**Spitsbergen Ar**	**42.41**	**358**	P	**P**	**10 54 01.0**	**-1.6**
KURK	**Kurchatov**	**42.83**	**52**	*e*P	**P**	**10 54 05.4**	**-0.9**
KURK				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
KURK				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.8						
KURK	**Kurchatov**	**42.83**	**52**	P	**P**	**10 54 02.8**	**-3.6**
	comp=Z,5.2nm,0.4s,mb4.6,baz=274,slow=8.6,SNR=19						
KURK				LR	LR	11 16 31.3	
	comp=Z,941nm,18.2s,MS4.7,baz=275,slow=43						
KURK	**Kurchatov**	**42.83**	**52**	*e*P	**P**	**10 54 05.3**	**-1.0**
	comp=Z,22nm,1.0s,mb4.8						
KURK				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
KURK	**Kurchatov**	**42.83**	**52**	P	**P**	**10 54 08.2**	**+1.9**
	SNR=10.0						
KURK				P		10 54 08.2	
	SNR=10.0						
KURK	**Kurchatov**	**42.83**	**52**	P	**P**	**10 54 08.2**	**+1.9**
	SNR=10.0						
BHJ	**Bhuj**	**43.10**	**94**	*e*x	x	10 54 05.0	
KBS	**Kingsbay**	**43.30**	**357**	PFAKE		10 54 20.0	+10
KBS				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
NVS	**Novosibirsk**	**45.49**	**45**	*e*P	**P**	**10 54 26.7**	**-0.8**
NVS				*i* S	**S**	**11 01 04.8**	**-4.2**
NVS				*e*SS	SS	11 04 22.4	-10
NVS				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.4						
NVS				pmax	pmax		
	comp=N,31nm,1.6s						
NVS				pmax	pmax		
	comp=E,39nm,1.4s						
NVS				smax			
	comp=N,91nm,2.1s						
MK31	**Makanchi Array**	**45.64**	**57**	*e*P	**P**	**10 54 26.1**	**-2.8**
MK31				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.3						
MKAR	**Makanchi Array**	**45.64**	**57**	P	**P**	**10 54 26.1**	**-2.8**
	comp=Z,5.4nm,0.3s,mb5.0,baz=273,slow=7.5,SNR=44						
MKAR				LR	LR	11 16 33.1	
	comp=Z,888nm,20.4s,MS4.7,baz=267,slow=40						
AJM	**Ajmer**	**45.70**	**87**	*e*PKP	**P**	**10 54 29.5**	**-0.1**
ZALV	**Zalesovo Beam**	**46.46**	**47**	P	**P**	**10 54 31.8**	**-3.4**
	comp=Z,7.9nm,0.4s,mb5.0,baz=269,slow=8.7,SNR=12						
ZALV				LR	LR	11 14 30.2	
	comp=Z,453nm,21.9s,MS4.4,baz=39,slow=37						
NDI	**New Delhi**	**46.87**	**82**	*e*PKP	**P**	**10 54 38.0**	**-0.8**
DDI	**Dehra Dun**	**46.90**	**80**	*e*x	x	10 54 39.2	
SUMG	**Summit**	**47.28**	**339**	P	**P**	**10 54 45.7**	**+4.3**
	comp=Z,68nm,1.3s,mb5.4						
POO	**Poona**	**48.85**	**96**	*e*PKP	**P**	**10 54 53.0**	**-1.2**
POO				*e*PKP		10 54 53.1	
POO				AMb	AMB	10 55 05.3	
	comp=Z,32nm,1.7s,mb5.1						
LGTI	**Lohaghat**	**48.99**	**80**	*e*x	x	10 54 56.5	
BHPL	**Bhopal**	**49.41**	**89**	*e*PKP	**P**	**10 54 57.2**	**-1.2**
WMQ	**Urumqi**	**49.98**	**60**	⇓*i*P	**P**	**10 55 04.0**	**+1.4**
WMQ				pP	pP	10 55 08.5	+2.8
WMQ				sP	sP	10 55 11.0	+4.0
WMQ				PcP	PcP	10 56 26.0	+3.5
WMQ				PP	PP	10 57 00.0	+2.7
WMQ				S	**S**	**11 02 11.0**	**-2.1**
WMQ				ScS	ScS	11 04 53.0	-1.0
WMQ				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
WMQ				pmax	pmax		
	comp=Z,120nm,3.7s						
WMQ				LR	LR		
	comp=N,2µm,21.8s,MS5.1						
WMQ				LR	LR		
	comp=E,2µm,21.2s,MS5.1						
WMQ				LR	LR		
	comp=Z,990nm,21.0s,MS4.8						
MSEY	**Mahe Island**	**51.26**	**135**	PFAKE		10 55 20.0	+7.5
MSEY				LR	LR		
	comp=Z,445nm,19.0s,MS4.5						
LSZ	**Lusaka**	**51.29**	**172**	*e*P	**P**	**10 55 15.9**	**+3.3**
LSZ				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
LSZ				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
LSZ	**Lusaka**	**51.29**	**172**	P	**P**	**10 55 15.3**	**+2.7**
	comp=Z,2.4nm,0.5s,mb4.3,baz=26,slow=9.9,SNR=3.3						
LSZ	**Lusaka**	**51.29**	**172**	*e*P	**P**	**10 55 15.9**	**+3.3**
	comp=Z,13nm,1.1s,mb4.8						
LSZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
DANN	**Dangsing**	**52.25**	**80**	*e*P	**P**	**10 55 18.9**	**-0.9**
	comp=Z,117nm,0.5s,mb6.1						
DANN	**Dangsing**	**52.25**	**80**	*e*P	**P**	**10 55 18.9**	**-0.9**
	comp=Z,117nm,0.5s,mb6.1						
KOLN	**Koldanda**	**52.37**	**80**	*e*P	**P**	**10 55 19.2**	**-1.5**
	comp=Z,25nm,0.6s,mb5.3						
KOLN	**Koldanda**	**52.37**	**80**	*e*P	**P**	**10 55 19.2**	**-1.5**
	comp=Z,25nm,0.6s,mb5.3						
GKN	**Gorkha**	**53.10**	**80**	*e*P	**P**	**10 55 24.5**	**-1.6**
	comp=Z,52nm,0.6s,mb5.7						
GKN	**Gorkha**	**53.10**	**80**	*e*P	**P**	**10 55 24.5**	**-1.6**
	comp=Z,52nm,0.6s,mb5.6						
HYB	**Hyderabad**	**53.23**	**95**	*i* P	**P**	**10 55 26.0**	**-1.2**
HYB	**Hyderabad**	**53.23**	**95**	*e*P	**P**	**10 55 30.0**	**+2.8**
DMN	**Daman**	**53.64**	**80**	*e*P	**P**	**10 55 28.5**	**-1.6**
	comp=Z,47nm,0.5s,mb5.7						
DMN	**Daman**	**53.64**	**80**	*e*P	**P**	**10 55 28.5**	**-1.6**
	comp=Z,47nm,0.5s,mb5.7						
KKN	**Kakani**	**53.70**	**80**	*e*P	**P**	**10 55 28.7**	**-1.9**
	comp=Z,39nm,0.7s,mb5.5						
KKN	**Kakani**	**53.70**	**80**	*e*P	**P**	**10 55 28.7**	**-1.9**
KKN				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.5						
KKN	**Kakani**	**53.70**	**80**	*e*P	**P**	**10 55 28.7**	**-1.9**
	comp=Z,39nm,0.7s,mb5.5						
PKI	**Pulchoki**	**53.90**	**80**	*e*P	**P**	**10 55 30.5**	**-1.5**
	comp=Z,23nm,0.4s,mb5.4						
PKI	**Pulchoki**	**53.90**	**80**	*e*P	**P**	**10 55 30.5**	**-1.5**
PKI				pmax	pmax		
	comp=Z,23nm,0.4s,mb5.5						
PKI	**Pulchoki**	**53.90**	**80**	*e*P	**P**	**10 55 30.5**	**-1.5**
	comp=Z,23nm,0.4s,mb5.5						
GUN	**Gumba**	**54.13**	**79**	*e*P	**P**	**10 55 32.3**	**-1.4**
	comp=Z,41nm,0.5s,mb5.6						
GUN	**Gumba**	**54.13**	**79**	*e*P	**P**	**10 55 32.3**	**-1.4**
	comp=Z,41nm,0.5s,mb5.6						
BOK	**Bokaro**	**56.00**	**84**	*e*PKP	**P**	**10 55 45.9**	**-1.3**
VIS	**Vishakhapatnam**	**56.94**	**91**	*e*PKP	**P**	**10 55 53.5**	**-0.6**
LSA	**Lhasa**	**57.52**	**75**	P	**P**	**10 55 57.0**	**-1.0**
LSA				LR	LR		
	comp=N,410nm,21.7s,MS4.7						
LSA				LR	LR		
	comp=E,600nm,25.3s,MS4.7						
LSA				LR	LR		
	comp=Z,740nm,25.3s,MS4.7						
LSA	**Lhasa**	**57.52**	**75**	*e*P	**P**	**10 55 57.3**	**-0.7**
LSA				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.3						
LSA				MLR	MLR		
	comp=Z,607nm,22.0s,MS4.7						
LSA	**Lhasa**	**57.52**	**75**	*e*P	**P**	**10 55 57.3**	**-0.7**
	comp=Z,28nm,0.8s,mb5.3						
LSA				LR	LR		
	comp=Z,607nm,22.0s,MS4.7						
LSA	**Lhasa**	**57.52**	**75**	*e*P	**P**	**10 55 57.3**	**-0.7**
	comp=Z,28nm,0.8s,mb5.3						
TLY	**Talaya**	**58.07**	**47**	*e*P	**P**	**10 56 02.7**	**+1.2**
TLY				*e*S	**S**	**11 03 56.9**	**-5.3**
TLY				*e*PS		11 04 11.4	
TLY				*e*SS	SS	11 07 49.2	-3.8
TLY				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.0						
TLY				MLR	MLR		
	comp=Z,566nm,16.0s,MS4.8						
TLY	**Talaya**	**58.07**	**47**	PFAKE		10 56 10.0	+8.5
TLY				LR	LR		
	comp=Z,668nm,22.0s,MS4.7						
IRK	**Irkutsk**	**58.26**	**46**	*e*P	**P**	**10 56 00.7**	**-2.1**
IRK				*e*S	**S**	**11 04 00.7**	**-3.9**
IRK				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.2						
ABPO	**Ambohimpanom**	**59.72**	**152**	PFAKE		10 56 20.0	+6.8
ABPO				LR	LR		
	comp=Z,680nm,20.0s,MS4.8						
SHL	**Shillong**	**59.97**	**79**	*e*PKP	**P**	**10 56 13.5**	**-1.6**
SHL				AMb	AMB	10 56 26.3	
	comp=Z,38nm,2.1s,mb5.1						
GTA	**Gaotai**	**60.00**	**61**	⇓*e*P	**P**	**10 56 15.0**	**-0.1**
GTA				pP	pP	10 56 19.5	+1.2
GTA				sP	sP	10 56 22.0	+2.5
GTA				PP	PP	10 58 28.5	+1.3
GTA				S	**S**	**11 04 25.0**	**-2.6**
GTA				sS	sS	11 04 31.3	-1.6
GTA				SS	SS	11 08 21.3	-2.5
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
GTA				pmax	pmax		
	comp=Z,110nm,4.8s						
GTA				LR	LR		
	comp=N,310nm,19.2s,MS4.6						
GTA				LR	LR		
	comp=E,330nm,19.2s,MS4.6						
GTA				LR	LR		
	comp=Z,420nm,21.3s,MS4.5						
PALK	**Pallekele**	**60.70**	**103**	*e*P	**P**	**10 56 21.2**	**+1.0**
PALK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.0						
PALK	**Pallekele**	**60.70**	**103**	*e*P	**P**	**10 56 21.2**	**+1.0**
	comp=Z,9.2nm,0.8s,mb5.0						
PALK	**Pallekele**	**60.70**	**103**	*e*P	**P**	**10 56 21.2**	**+1.0**
	comp=Z,9.2nm,0.8s,mb5.0						
SCHQ	**Schefferville**	**60.81**	**319**	P	**P**	**10 56 17.6**	**-2.8**
	comp=Z,2.4nm,0.5s,mb4.5,baz=37,slow=6.8,SNR=18						
SCHQ				LR	LR	11 22 30.0	
	comp=Z,670nm,18.6s,MS4.8,baz=61,slow=36						
SONM	**Songino Array**	**61.10**	**50**	P	**P**	**10 56 20.3**	**-2.2**
	comp=Z,2.2nm,0.6s,mb4.5,baz=279,slow=7.2,SNR=10						
SONM				LR	LR	11 27 44.6	
	comp=Z,884nm,18.3s,MS5.0,baz=188,slow=41						
ULN	**Ulaanbaatar**	**61.50**	**50**	*e*P	**P**	**10 56 24.3**	**-0.9**
ULN				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
ULN	**Ulaanbaatar**	**61.50**	**50**	*e*P	**P**	**10 56 24.3**	**-0.9**
BOD	**Bodaibo**	**61.52**	**37**	*e*P	**P**	**10 56 21.5**	**-3.6**
BOD				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.8						
RES	**Resolute Bay**	**62.20**	**344**	*e*P	**P**	**10 56 27.8**	**-1.7**
RES				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
RES	**Resolute Bay**	**62.20**	**344**	*e*P	**P**	**10 56 27.8**	**-1.7**
	comp=Z,5.5nm,0.8s,mb4.7						
RES	**Resolute Bay**	**62.20**	**344**	*e*P	**P**	**10 56 27.8**	**-1.7**
	comp=Z,5.5nm,0.8s,mb4.7						
DGAR	**Diego Garcia**	**64.19**	**122**	*e*P	**P**	**10 56 45.5**	**+2.0**
DGAR				pmax	pmax		
	comp=Z,364nm,1.3s,mb6.2						
DGAR	**Diego Garcia**	**64.19**	**122**	*e*P	**P**	**10 56 45.5**	**+2.1**
	comp=Z,364nm,1.3s,mb6.2						
DGAR	**Diego Garcia**	**64.19**	**122**	*e*P	**P**	**10 56 45.5**	**+2.0**
	comp=Z,364nm,1.3s,mb6.2						
BOSA	**Boshof**	**64.28**	**177**	P	**P**	**10 56 45.4**	**+1.7**
	comp=Z,3.2nm,0.9s,mb4.3,baz=8.3,slow=10,SNR=6.5						
BOSA				LR	LR	11 26 42.0	
	comp=Z,2µm,19.0s,MS5.2,baz=360,slow=38						
BOSA	**Boshof**	**64.28**	**177**	P	**P**	**10 56 45.4**	**+1.7**
BOSA				LR	LR	11 26 42.0	
BOSA	**Boshof**	**64.28**	**177**	P	**P**	**10 56 45.4**	**+1.7**
LZH	**Lanzhou**	**64.31**	**63**	*e*P	**P**	**10 56 43.5**	**-0.5**
LZH				pP	pP	10 56 48.0	+0.7
LZH				sP	sP	10 56 51.0	+2.5
LZH				PP	PP	10 59 06.0	+0.8
LZH				*e*S	**S**	**11 05 17.0**	**-5.0**
LZH				pmax	pmax		
	comp=Z,53nm,1.5s,mb5.3						
LZH				pmax	pmax		
	comp=Z,220nm,4.0s						
LZH				LR	LR		
	comp=N,1µm,17.4s						
LZH				LR	LR		
	comp=Z,2µm,18.9s,MS5.2						
YAK	**Yakutsk**	**66.56**	**29**	*e*P	**P**	**10 56 56.4**	**-1.8**
YAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.3						
YAK				MLR	MLR		
	comp=Z,276nm,11.0s,MS4.7						
YAK				MLR	MLR		
	comp=N,521nm,16.0s,MS5.0						
YAK				MLR	MLR		
	comp=E,412nm,12.0s,MS5.0						
CD2	**Chengdu**	**66.66**	**68**	P	**P**	**10 57 00.8**	**+1.4**
CD2				pP	pP	10 57 05.3	+2.7
CD2				sP	sP	10 57 07.5	+3.7
CD2				PP	PP	10 59 28.8	+2.9
CD2				S	S	11 05 48.5	-2.5
CD2				sS	sS	11 05 56.0	-0.4
CD2				SS	SS	11 10 05.5	-2.6
CD2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
CD2				pmax	pmax		
	comp=Z,290nm,5.7s						
CD2				LR	LR		
	comp=N,840nm,15.5s						
CD2				LR	LR		
	comp=Z,540nm,22.6s						
CLNS	**Chul'man**	**67.23**	**35**	*e*P	**P**	**10 57 12.0**	**+9.5**
CLNS				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
CLNS				pmax	pmax		
	comp=N,12nm,1.4s						
CLNS				pmax	pmax		
	comp=E,7.0nm,1.3s						
HHC	**Hu-ho-hao-te**	**67.47**	**55**	*e*P	**P**	**10 57 05.0**	**+0.7**
HHC				pP	pP	10 57 09.5	+1.9
HHC				PcP	PcP	10 57 33.5	+1.8
HHC				PP	PP	10 59 34.3	+1.6
HHC				PcS		11 01 36.5	
HHC				S	S	11 05 56.3	-4.2
HHC				sS	sS	11 06 05.5	-0.3
HHC				ScS	ScS	11 06 58.3	-4.4
HHC				SS	SS	11 10 17.0	-3.1
HHC				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.3						
HHC				pmax	pmax		
	comp=Z,300nm,4.9s						
HHC				LR	LR		
	comp=N,430nm,12.9s,MS5.2						
HHC				LR	LR		
	comp=E,810nm,15.1s,MS5.2						
HHC				LR	LR		
	comp=Z,760nm,20.0s,MS4.9						
SUR	**Sutherland**	**67.96**	**181**	PFAKE		10 57 20.0	+13
SUR				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
RCBR	**Riachuelo**	**68.13**	**245**	PFAKE		10 57 20.0	+11
RCBR				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
LBNH	**Lisbon**	**68.39**	**310**	PFAKE		10 57 20.0	+10
LBNH				LR	LR		
	comp=Z,608nm,19.0s,MS4.8						
HIA	**Hailar**	**68.41**	**44**	*e*P	**P**	**10 57 09.9**	**-0.2**
HIA				pmax	pmax		
	comp=Z,27nm,1.1s						
HIA				MLR	MLR		
	comp=Z,912nm,21.0s						
HIA	**Hailar**	**68.41**	**44**	*e*P	**P**	**10 57 09.9**	**-0.2**
	comp=Z,27nm,1.1s,mb5.2						
HIA				LR	LR		
	comp=Z,912nm,21.0s,MS5.0						
HIA	**Hailar**	**68.41**	**44**	*e*P	**P**	**10 57 09.9**	**-0.2**
	comp=Z,27nm,1.1s,mb5.2						
KMI	**Kunming**	**68.75**	**74**	P	**P**	**10 57 14.0**	**+1.4**

KMI				pP	pP	10 57 18.0	+2.1
KMI				sP	sP	10 57 19.5	+2.4
KMI				PP	PP	10 59 45.0	+0.8
KMI				S	S	11 06 14.0	-2.2
KMI				ScS	ScS	11 07 10.5	-2.6
KMI				SS	SS	11 10 38.0	-2.6
KMI				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
KMI				pmax	pmax		
	comp=Z,340nm,3.3s						
KMI				LR	LR		
	comp=N,620nm,21.0s						
KMI				LR	LR		
	comp=E,540nm,15.6s						
KMI				LR	LR		
	comp=Z,380nm,25.5s,MS4.5						
XAN	**Xi’an**	**68.94**	**63**	P	**P**	**10 57 12.5**	**-1.2**
XAN				pP	pP	10 57 23.5	+6.5
XAN				S	S	11 06 11.0	-7.3
XAN				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
XAN				LR	LR		
	comp=N,360nm,22.1s,MS4.8						
XAN				LR	LR		
	comp=E,440nm,22.5s,MS4.8						
XAN				LR	LR		
	comp=Z,500nm,15.6s						
CHTO	**Chiang Mai**	**69.00**	**82**	*e*P	**P**	**10 57 13.7**	**-0.6**
CHTO				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
CHTO				MLR	MLR		
	comp=Z,280nm,20.0s,MS4.5						
CHTO	**Chiang Mai**	**69.00**	**82**	*e*P	**P**	**10 57 13.7**	**-0.6**
	comp=Z,21nm,1.3s,mb4.9						
CHTO				LR	LR		
	comp=Z,280nm,20.0s,MS4.5						
CHTO	**Chiang Mai**	**69.00**	**82**	*e*P	**P**	**10 57 13.7**	**-0.6**
	comp=Z,21nm,1.3s,mb4.9						
CMAR	**Chiang Mai Arr**	**69.19**	**82**	P	**P**	**10 57 13.8**	**-1.6**
	comp=Z,4.3nm,0.8s,mb4.5,baz=302,slow=8.0,SNR=18						
CMAR	**Chiang Mai Arr**	**69.19**	**82**	P	**P**	**10 57 13.9**	**-1.6**
LONY	**Lake Ozonia**	**69.85**	**311**	PFAKE		10 57 30.0	+11
LONY				LR	LR		
	comp=Z,620nm,19.0s,MS4.9						
NCB	**Newcomb**	**69.96**	**310**	PFAKE		10 57 30.0	+10
NCB				LR	LR		
	comp=Z,763nm,20.0s,MS4.9						
BJI	**Beijing**	**70.92**	**54**	P	**P**	**10 57 28.3**	**+2.5**
BJI				sP	sP	10 57 30.3	0.0
BJI				S	S	11 06 39.3	-2.0
BJI				SS	SS	11 11 10.8	-2.6
BJI				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
BJI				pmax	pmax		
	comp=Z,380nm,4.8s						
BJI				LR	LR		
	comp=N,890nm,26.4s,MS5.0						
BJI				LR	LR		
	comp=E,560nm,24.2s,MS5.0						
BJI				LR	LR		
	comp=Z,670nm,24.3s,MS4.8						
BJT	**Baijiatuau**	**70.93**	**54**	PFAKE		10 57 40.0	+14
BJT				LR	LR		
	comp=Z,798nm,20.0s,MS5.0						
GYA	**Guiyang**	**71.09**	**71**	P	**P**	**10 57 26.5**	**-0.5**
GYA				PcP	PcP	10 57 50.3	+3.1
GYA				PP	PP	11 00 05.0	+0.6
GYA				S	S	11 06 39.5	-4.2
GYA				SKS		11 07 23.8	
GYA				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
GYA				pmax	pmax		
	comp=Z,300nm,7.3s						
GYA				LR	LR		
	comp=N,680nm,19.9s,MS5.0						
GYA				LR	LR		
	comp=E,570nm,18.5s,MS5.0						
GYA				LR	LR		
	comp=Z,750nm,19.8s,MS5.0						
FCC	**Fort Churchill**	**71.70**	**330**	*e*P	**P**	**10 57 35.1**	**+5.0**
	comp=Z,0.4nm,1.1s						
BILL	**Bilibino**	**72.97**	**13**⇑	*e*P	**P**	**10 57 37.3**	**-0.3**
BILL				*e*		11 00 15.3	
BILL				*e*S	S	11 07 03.1	-0.8
BILL				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
SEY	**Seymchan**	**73.86**	**21**	*e*P	**P**	**10 57 43.2**	**+0.3**
SSPA	**Standing Stone**	**74.03**	**309**	PFAKE		10 58 00.0	+16
SSPA				LR	LR		
	comp=Z,618nm,20.0s,MS4.9						
INK	**Inuvik**	**74.44**	**351**	*e*P	**P**	**10 57 49.7**	**+3.5**
INK				pmax	pmax		
	comp=Z,19nm,1.1s						
INK	**Inuvik**	**74.44**	**351**	*e*P	**P**	**10 57 49.7**	**+3.5**
	comp=Z,19nm,1.1s,mb4.9						
ERPA	**Erie**	**74.51**	**311**	PFAKE		10 58 00.0	+13
ERPA				LR	LR		
	comp=Z,592nm,21.0s,MS4.9						
CN2	**Changchun**	**74.68**	**47**	*e*P	**P**	**10 57 46.5**	**-1.5**
CN2				*e*sP	sP	10 57 53.5	+1.0
CN2				*e*S	S	11 07 18.0	-6.0
CN2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,700nm,16.0s,MS5.2						
CN2				LR	LR		
	comp=E,700nm,16.0s,MS5.2						
CN2				LR	LR		
	comp=Z,700nm,14.0s,MS5.1						
ANWB	**Willy Bob**	**74.77**	**281**	PFAKE		10 58 00.0	+11
ANWB				LR	LR		
	comp=Z,411nm,19.0s,MS4.8						
KLR	**Kul’dur**	**74.95**	**40**	*e*P	**P**	**10 57 42.0**	**-7.5**
KLR				*e*S	S	11 07 20.5	-6.4
KLR				MLR	MLR		
	comp=N,700nm,12.5s						
CBN	**Corbin**	**75.05**	**306**	PFAKE		10 58 00.0	+10
CBN				LR	LR		
	comp=Z,601nm,20.0s,MS4.9						
GLMI	**Grayling**	**75.69**	**315**	PFAKE		10 58 10.0	+16
GLMI				LR	LR		
	comp=Z,751nm,20.0s,MS5.0						
YKA	**Yellowknife Ar**	**75.84**	**341**	P	**P**	**10 57 53.1**	**-1.3**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA				MLR	MLR		
	comp=Z,497nm,18.1s						
YKA	**Yellowknife Ar**	**75.84**	**341**	P	**P**	**10 57 53.1**	**-1.2**
	comp=Z,0.9nm,0.5s,mb3.9,baz=34,slow=5.3,SNR=14						
YKA				LR	LR	11 33 16.4	
	comp=Z,497nm,18.1s,MS4.9,baz=80,slow=37						
YKA	**Yellowknife Ar**	**75.84**	**341**	P	**P**	**10 57 53.2**	**-1.2**
MDJ	**Mudanjiang**	**76.60**	**44**	P	**P**	**10 57 58.3**	**-0.7**
MDJ				pP	pP	10 58 01.3	-1.0
MDJ				sP	sP	10 58 02.8	-0.7
MDJ				PP	PP	11 00 48.3	-2.3
MDJ				S	S	11 07 42.3	-2.9
MDJ				ScS	ScS	11 08 12.5	-2.6
MDJ				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,92nm,4.0s						
MDJ				LR	LR		
	comp=N,250nm,23.4s,MS4.7						
MDJ				LR	LR		
	comp=E,300nm,23.4s,MS4.7						
MDJ				LR	LR		
	comp=Z,360nm,29.8s						
MDJ	**Mudanjiang**	**76.60**	**44**	*e*P	**P**	**10 57 58.4**	**-0.6**
	comp=Z,11nm,1.0s,mb4.8						
MDJ				LR	LR		
	comp=Z,567nm,19.0s,MS4.9						
MDJ	**Mudanjiang**	**76.60**	**44**	*e*P	**P**	**10 57 58.4**	**-0.6**
	comp=Z,11nm,1.0s,mb4.8						
AAM	**Ann Arbor**	**76.63**	**313**	PFAKE		10 58 10.0	+11
AAM				LR	LR		
	comp=Z,831nm,19.0s,MS5.1						
NJ2	**Nanjing**	**77.06**	**60**	*e*P	**P**	**10 58 04.5**	**+2.6**
NJ2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
CNNC	**Cliffs of the**	**77.07**	**304**	PFAKE		10 58 10.0	+8.2
CNNC				LR	LR		
	comp=Z,798nm,19.0s,MS5.1						
HABR	**Khabarovsk**	**77.12**	**39**	*e*P	**P**	**10 58 11.1**	**+9.2**
HABR				*e*PPP		11 02 39.6	
HABR				S	S	11 07 46.9	-3.9
HABR						11 08 15.8	
HABR				*e*SS	SS	11 12 43.1	-4.1
HABR				SSS		11 16 06.3	
HABR				pmax	pmax		
	comp=N,26nm,1.7s						
HABR				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.0						
HABR				pmax	pmax		
	comp=E,40nm,2.0s						
HABR				MLR	MLR		
	comp=Z,381nm,19.0s,MS4.7						
COWI	**Conover**	**77.42**	**318**	PFAKE		10 58 20.0	+16
COWI				LR	LR		
	comp=Z,579nm,21.0s,MS4.9						
ACSO	**Alum Creek Sta**	**77.45**	**311**	P	**P**	**10 58 02.8**	**-1.0**
	comp=Z,14nm,1.2s,mb4.8						
ACSO				LR	LR		
	comp=Z,913nm,19.0s,MS5.1						
ACSO	**Alum Creek Sta**	**77.45**	**311**	P	**P**	**10 58 02.8**	**-1.1**
	comp=Z,14nm,1.2s,mb4.8						
EYMN	**Ely**	**77.48**	**321**	PFAKE		10 58 20.0	+16
EYMN				LR	LR		
	comp=Z,911nm,20.0s,MS5.1						
QIZ	**Qiongzhong**	**77.55**	**76**	P	**P**	**10 58 08.0**	**+3.2**
QIZ				S	S	11 07 57.5	+1.1
QIZ				LR	LR		
	comp=E,520nm,21.4s						
QIZ				LR	LR		
	comp=Z,390nm,22.2s,MS4.7						
QIZ	**Qiongzhong**	**77.55**	**76**	PFAKE		10 58 20.0	+15
QIZ				LR	LR		
	comp=Z,403nm,20.0s,MS4.7						
BLA	**Blacksburg**	**77.60**	**307**	PFAKE		10 58 20.0	+15
BLA				LR	LR		
	comp=Z,846nm,19.0s,MS5.1						
FFC	**Flin Flon**	**77.63**	**330**	*e*P	**P**	**10 58 05.8**	**+1.2**
FFC				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
FFC				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
FFC	**Flin Flon**	**77.63**	**330**	*e*P	**P**	**10 58 05.8**	**+1.1**
	comp=Z,14nm,1.0s,mb4.8						
FFC				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
FFC	**Flin Flon**	**77.63**	**330**	*e*P	**P**	**10 58 05.8**	**+1.2**
	comp=Z,14nm,1.0s,mb4.8						
CBYP	**Canovanas**	**77.67**	**284**	*e*Sn	**P**	**10 58 07.3**	**+1.9**
	comp=Z,20nm,0.6s,mb5.2						
KULM	**Kulim**	**77.89**	**92**	PFAKE		10 58 20.0	+13
KULM				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
SJG	**San Juan**	**77.98**	**284**	PFAKE		10 58 20.0	+13
SJG				LR	LR		
	comp=Z,633nm,20.0s,MS4.9						
ULM	**Lac du Bonnet**	**78.11**	**324**	P	**P**	**10 58 08.5**	**+1.2**
	comp=Z,5.8nm,0.8s,mb4.5,baz=49,slow=5.2,SNR=8.3						
ULM				LR	LR	11 32 14.6	
	comp=Z,970nm,21.2s,MS5.1,baz=42,slow=36						
ULM	**Lac du Bonnet**	**78.11**	**324**	P	**P**	**10 58 08.5**	**+1.1**
ULM				LR	LR	11 32 14.6	
ULM	**Lac du Bonnet**	**78.11**	**324**	P	**P**	**10 58 08.5**	**+1.1**
IMA2	**Indian Mountai**	**78.27**	**358**	*e*P	**P**	**10 58 09.6**	**+1.7**
IMA2	**Indian Mountai**	**78.27**	**358**	*e*P	**P**	**10 58 09.6**	**+1.7**
EGAK	**Eagle**	**78.73**	**353**	PFAKE		10 58 20.0	+9.5
EGAK				LR	LR		
	comp=Z,526nm,20.0s,MS4.9						
INCN	**Inchon**	**79.12**	**52**	PFAKE		10 58 20.0	+6.8
INCN				LR	LR		
	comp=Z,582nm,20.0s,MS4.9						
COLA	**College**	**79.20**	**356**	*e*P	**P**	**10 58 08.8**	**-4.3**
COLA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
COLA				MLR	MLR		
	comp=Z,381nm,19.0s,MS4.8						
COLA	**College**	**79.20**	**356**	*e*P	**P**	**10 58 08.8**	**-4.2**
	comp=Z,12nm,1.1s,mb4.7						
COLA				LR	LR		
	comp=Z,381nm,19.0s,MS4.8						
DAWY	**Dawson**	**79.23**	**352**	*e*P	**P**	**10 58 12.5**	**-0.8**
DAWY	**Dawson**	**79.23**	**352**	*e*P	**P**	**10 58 12.5**	**-0.7**
SSE	**Sheshan**	**79.24**	**59**	P	**P**	**10 58 13.8**	**-0.2**
SSE				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.3						
SSE				pmax	pmax		
	comp=Z,320nm,4.5s						
SSE				LR	LR		
	comp=N,360nm,28.5s,MS4.8						
SSE				LR	LR		
	comp=E,430nm,28.5s,MS4.8						
SSE				LR	LR		
	comp=Z,340nm,22.3s						
AGMN	**Agassiz Refuge**	**79.44**	**323**	PFAKE		10 58 30.0	+15
AGMN				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
NHSC	**New Hope**	**79.85**	**303**	PFAKE		10 58 30.0	+13
NHSC				LR	LR		
	comp=Z,724nm,19.0s,MS5.0						
KSRS	**Korea Array**	**79.96**	**51**	P	**P**	**10 58 15.9**	**-1.8**
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
KSRS	**Korea Array**	**79.96**	**51**	P	**P**	**10 58 15.9**	**-1.8**
	comp=Z,5.3nm,0.6s,mb4.7,baz=313,slow=4.5,SNR=15						
JFWS	**Jewell Farm**	**80.06**	**316**	PFAKE		10 58 30.0	+12
JFWS				LR	LR		
	comp=Z,668nm,19.0s,MS5.0						
MCK	**McKinley**	**80.40**	**356**	*e*P	**P**	**10 58 17.0**	**-2.6**
MCK				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.3						
MCK	**McKinley**	**80.40**	**356**	*e*P	**P**	**10 58 17.0**	**-2.6**
	comp=Z,47nm,1.2s,mb5.3						
CHUM	**Lake Minchumin**	**80.41**	**357**	*e*P	**P**	**10 58 18.8**	**-0.9**
	comp=Z,14µm,0.6s						
CHUM	**Lake Minchumin**	**80.41**	**357**	*e*P	**P**	**10 58 18.8**	**-0.9**
	comp=Z,10µm,0.6s						
WCI	**Wyandotte Cave**	**80.70**	**311**	*e*P	**P**	**10 58 17.8**	**-3.9**
WCI				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
WCI				MLR	MLR		
	comp=Z,767nm,19.0s,MS5.1						
WCI	**Wyandotte Cave**	**80.70**	**311**	*e*P	**P**	**10 58 17.8**	**-4.0**
	comp=Z,7.9nm,0.7s,mb4.8						
WCI				LR	LR		
	comp=Z,767nm,19.0s,MS5.1						
MENT	**Mentasta**	**80.79**	**353**	*e*P	**P**	**10 58 26.8**	**+5.1**
HDIL	**Hopedale**	**81.03**	**314**	PFAKE		10 58 30.0	+6.5
HDIL				LR	LR		
	comp=Z,799nm,20.0s,MS5.1						
CPCT	**Cooper Cave**	**81.31**	**308**	*e*P	**P**	**10 58 25.2**	**+0.2**
CPCT	**Cooper Cave**	**81.31**	**308**	*e*P	**P**	**10 58 25.2**	**+0.2**
PPLA	**Purkeypile**	**81.39**	**357**	*e*P	**P**	**10 58 25.4**	**+0.5**
	comp=Z,67nm,1.3s,mb5.4						
PPLA	**Purkeypile**	**81.39**	**357**	*e*P	**P**	**10 58 25.4**	**+0.5**
	comp=Z,67nm,1.3s,mb5.4						
TTA	**Tatalina**	**81.46**	**359**	*e*P	**P**	**10 58 31.1**	**+5.8**
SDDR	**Presa de Saban**	**81.52**	**287**	*e*P	**P**	**10 58 27.4**	**+1.0**
	comp=Z,25nm,1.2s,mb5.0						
SDDR				LR	LR		
	comp=Z,442nm,19.0s,MS4.8						
SDDR	**Presa de Saban**	**81.52**	**287**	*e*P	**P**	**10 58 27.4**	**+1.0**
	comp=Z,25nm,1.2s,mb5.0						
GOGA	**Godfrey**	**81.87**	**305**	PFAKE		10 58 40.0	+12
GOGA				LR	LR		
	comp=Z,685nm,22.0s,MS5.0						
YSS	**Yuzh-Sakhalins**	**81.97**	**36**	*e*P	**P**	**10 58 28.3**	**0.0**
YSS				*e**SP	sP	10 58 38.2	+5.4
YSS				*e*S	S	11 08 40.0	-2.2
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
YSS				MLR	MLR		
	comp=N,800nm,16.0s,MS5.3						
YSS				MLR	MLR		
	comp=E,600nm,16.0s,MS5.3						
YSS				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.3						
YSS	**Yuzh-Sakhalins**	**81.97**	**36**	*e*P	**P**	**10 58 26.9**	**-1.4**
	comp=Z,81nm,1.1s,mb5.6						
YSS	**Yuzh-Sakhalins**	**81.97**	**36**	*e*P	**P**	**10 58 26.9**	**-1.4**
	comp=Z,81nm,1.1s,mb5.6						
SCIA	**State Center**	**82.38**	**317**	PFAKE		10 58 40.0	+9.5
SCIA				LR	LR		
	comp=Z,966nm,20.0s,MS5.2						
PMR	**Palmer**	**82.54**	**356**	*e*P	**P**	**10 58 30.0**	**-1.0**
PMR				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.2						
PMR	**Palmer**	**82.54**	**356**	*e*P	**P**	**10 58 30.0**	**-1.0**
	comp=Z,32nm,1.2s,mb5.2						
PMR	**Palmer**	**82.54**	**356**	*e*P	**P**	**10 58 30.0**	**-1.0**
	comp=Z,32nm,1.2s,mb5.2						
ECSD	**EROS Data Cent**	**82.96**	**320**	*e*P	**P**	**10 58 31.7**	**-1.8**
	comp=Z,4.8nm,0.6s,mb4.7						
ECSD				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
ECSD	**EROS Data Cent**	**82.96**	**320**	*e*P	**P**	**10 58 31.7**	**-1.8**
	comp=Z,4.8nm,0.6s,mb4.7						
WVT	**Waverly**	**82.98**	**310**	*e*P	**P**	**10 58 32.0**	**-1.8**
WVT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
WVT				MLR	MLR		
	comp=Z,681nm,19.0s,MS5.0						
WVT	**Waverly**	**82.98**	**310**	*e*P	**P**	**10 58 32.0**	**-1.8**
	comp=Z,2.8nm,0.9s,mb4.3						
WVT				LR	LR		
	comp=Z,681nm,19.0s,MS5.0						
WVT	**Waverly**	**82.98**	**310**	*e*P	**P**	**10 58 32.0**	**-1.8**
	comp=Z,2.8nm,0.9s,mb4.3						
DGMT	**Dagmar**	**83.19**	**327**	PFAKE		10 58 50.0	+15
DGMT				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
PETK	**Petropavlovsk-**	**83.41**	**25**	P	**P**	**10 58 39.5**	**+3.9**
	comp=Z,3.5nm,0.9s,mb4.4,baz=270,slow=1.4,SNR=3.5						
PETK				LR	LR	11 36 11.0	
	comp=Z,478nm,18.9s,MS4.9,baz=201,slow=36						
DWPF	**Disney**	**83.70**	**300**	PFAKE		10 58 50.0	+12
DWPF				LR	LR		
	comp=Z,452nm,22.0s,MS4.8						
CCM	**Cathedral Cave**	**83.81**	**313**	*e*P	**P**	**10 58 35.4**	**-2.6**
CCM				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
CCM				MLR	MLR		
	comp=Z,801nm,21.0s,MS5.1						
CCM	**Cathedral Cave**	**83.81**	**313**	*e*P	**P**	**10 58 35.4**	**-2.6**
	comp=Z,6.2nm,0.8s,mb4.8						
CCM				LR	LR		
	comp=Z,801nm,21.0s,MS5.1						
PLAL	**Pickwick Lake**	**83.86**	**309**	PFAKE		10 58 50.0	+12
PLAL				LR	LR		
	comp=Z,215nm,20.0s,MS4.5						
GTBY	**Guantanamo Bay**	**83.91**	**290**	PFAKE		10 58 50.0	+11
GTBY				LR	LR		
	comp=Z,362nm,20.0s,MS4.8						
GTBY	**Guantanamo Bay**	**83.91**	**290**	P		10 58 50.0	+11
WRAK	**Wrangell Islan**	**85.42**	**346**	PFAKE		10 59 00.0	+14
WRAK				LR	LR		
	comp=Z,796nm,22.0s,MS5.1						
LAO	**LASA Array**	**85.43**	**327**	*e*P	**P**	**10 58 44.5**	**-1.5**
	comp=Z,9.8nm,0.8s,mb5.0						
LAO				LR	LR		
	comp=Z,868nm,20.0s,MS5.1						
LAO	**LASA Array**	**85.43**	**327**	*e*P	**P**	**10 58 44.5**	**-1.5**
	comp=Z,9.8nm,0.8s,mb5.0						
ERM	**Erimo**	**85.71**	**40**	PFAKE		10 59 00.0	+13
ERM				LR	LR		
	comp=Z,638nm,19.0s,MS5.0						
BRAL	**Brewton**	**85.74**	**305**	PFAKE		10 59 00.0	+12
BRAL				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
EGMT	**Eagleton**	**85.89**	**330**	*e*P	**P**	**10 58 48.2**	**-0.1**
	comp=Z,40nm,1.1s,mb5.6						
EGMT				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
EGMT	**Eagleton**	**85.89**	**330**	*e*P	**P**	**10 58 48.2**	**-0.1**
	comp=Z,40nm,1.1s,mb5.6						
KSU1	**Kansas State U**	**86.19**	**317**	*e*P	**P**	**10 58 50.2**	**+0.2**
	comp=Z,18nm,0.9s,mb5.3						
KSU1				LR	LR		
	comp=Z,867nm,20.0s,MS5.2						
KSU1	**Kansas State U**	**86.19**	**317**	*e*P	**P**	**10 58 50.2**	**+0.3**
	comp=Z,18nm,0.9s,mb5.3						
RSSD	**Black Hills**	**86.38**	**324**	*e*P	**P**	**10 58 57.7**	**+6.9**
RSSD				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.3						
RSSD	**Black Hills**	**86.38**	**324**	*e*P	**P**	**10 58 57.7**	**+6.9**
	comp=Z,0.6nm,0.5s,mb4.1						
KDAK	**Kodiak Island**	**86.52**	**357**	*e*P	**P**	**10 58 48.3**	**-2.9**
KDAK				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.8						
KDAK				MLR	MLR		
	comp=Z,457nm,20.0s,MS4.9						
KDAK	**Kodiak Island**	**86.52**	**357**	*e*P	**P**	**10 58 48.3**	**-2.9**
	comp=Z,75nm,1.3s,mb5.8						
KDAK				LR	LR		
	comp=Z,457nm,20.0s,MS4.9						
WALA	**Waterton Lakes**	**86.68**	**333**	*e*P	**P**	**10 58 52.9**	**+0.8**
	comp=Z,0.6nm,1.3s,mb3.7						
WALA	**Waterton Lakes**	**86.68**	**333**	*e*P	**P**	**10 58 52.9**	**+0.7**
	comp=Z,0.6nm,1.3s,mb3.7						
MAJO	**Matsushiro**	**86.81**	**46**	*e*P	**P**	**10 58 49.2**	**-3.8**
MAJO				pmax	pmax		
	comp=Z,71nm,1.8s,mb5.6						
MAJO				MLR	MLR		
	comp=Z,729nm,19.0s,MS5.1						
MAJO	**Matsushiro**	**86.81**	**46**	*e*P	**P**	**10 58 49.2**	**-3.8**
	comp=Z,71nm,1.8s,mb5.6						
MAJO				LR	LR		
	comp=Z,729nm,19.0s,MS5.1						
MAT	**Matsushiro**	**86.81**	**46**	P	**P**	**10 58 58.4**	**+5.4**
SDV	**Santo Domingo**	**86.81**	**279**	*e*P	**P**	**10 58 53.8**	**+0.4**
	comp=Z,14nm,1.3s,mb5.0						
SDV				LR	LR		
	comp=Z,154nm,20.0s,MS4.4						
SDV	**Santo Domingo**	**86.81**	**279**	*e*P	**P**	**10 58 53.8**	**+0.4**
	comp=Z,14nm,1.3s,mb5.0						
MJAR	**Matsushiro Arr**	**86.81**	**46**	P	**P**	**10 58 50.6**	**-2.4**
	comp=Z,2.3nm,0.8s,mb4.5,baz=311,slow=4.9,SNR=3.7						
OHAK	**Old Harbor**	**87.11**	**357**	*e*P	**P**	**10 58 49.0**	**-5.1**
	comp=Z,107nm,1.7s,mb5.8						
VBMS	**Vicksburg**	**87.20**	**308**	PFAKE		10 59 10.0	+15
VBMS				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
MIAR	**Mount Ida**	**87.55**	**312**	*e*P	**P**	**10 58 52.5**	**-4.2**
MIAR				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.9						
MIAR				MLR	MLR		
	comp=Z,932nm,19.0s,MS5.2						
MIAR	**Mount Ida**	**87.55**	**312**	*e*P	**P**	**10 58 52.5**	**-4.2**
	comp=Z,5.5nm,0.8s,mb4.8						
MIAR				LR	LR		
	comp=Z,932nm,19.0s,MS5.2						
YBMT	**Yellow Bay**	**87.70**	**332**	*e*P	**P**	**10 58 57.3**	**+0.1**
	comp=Z,12nm,1.1s,mb5.0						
YBMT	**Yellow Bay**	**87.70**	**332**	*e*P	**P**	**10 58 57.3**	**+0.2**
	comp=Z,12nm,1.1s,mb5.0						
OGNE	**Ogallala**	**87.76**	**321**	PFAKE		10 59 10.0	+12
OGNE				LR	LR		
	comp=Z,658nm,19.0s,MS5.1						
HRY	**Holter Researc**	**87.79**	**330**	*e*P	**P**	**10 58 58.0**	**+0.4**
	comp=Z,4.4nm,0.8s,mb4.7						
HRY	**Holter Researc**	**87.79**	**330**	*e*P	**P**	**10 58 58.0**	**+0.4**
	comp=Z,4.4nm,0.8s,mb4.7						
JTMT	**Jette**	**87.90**	**332**	*e*P	**P**	**10 58 57.6**	**-0.4**
	comp=Z,20nm,1.1s,mb5.2						
JTMT	**Jette**	**87.90**	**332**	*e*P	**P**	**10 58 57.7**	**-0.4**
	comp=Z,20nm,1.1s,mb5.2						
KSM	**Kuching**	**87.94**	**90**	PFAKE		10 59 10.0	+11
KSM				LR	LR		
	comp=Z,484nm,21.0s,MS4.9						
RLMT	**Red Lodge**	**87.99**	**328**	*e*P	**P**	**10 59 03.7**	**+5.2**
	comp=Z,22nm,1.4s,mb5.2						
RLMT				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
SWMT	**Swartz Lake**	**87.99**	**332**	*e*P	**P**	**10 59 00.5**	**+2.0**
	comp=Z,14nm,1.1s,mb5.1						
SWMT	**Swartz Lake**	**87.99**	**332**	*e*P	**P**	**10 59 00.5**	**+2.0**
	comp=Z,14nm,1.1s,mb5.1						
SLMT	**Seeley Lake**	**88.02**	**331**	*e*P	**P**	**10 59 01.6**	**+3.0**
	comp=Z,23nm,1.6s,mb5.2						
CBKS	**Cedar Bluff**	**88.11**	**318**	PFAKE		10 59 10.0	+11
CBKS				LR	LR		
	comp=Z,913nm,20.0s,MS5.2						
CHMT	**Chamberlain Mo**	**88.19**	**331**	*e*P	**P**	**10 59 06.0**	**+6.5**
	comp=Z,8.8nm,1.5s,mb4.8						
SPB	**Sao Paulo**	**88.19**	**239**	PFAKE		10 59 10.0	+10
SPB				LR	LR		
	comp=Z,888nm,21.0s,MS5.2						
NEW	**Newport**	**88.52**	**334**	*e*P	**P**	**10 58 56.3**	**-4.7**
NEW				pmax	pmax		
	comp=Z,14nm,1.0s						
NEW				MLR	MLR		
	comp=Z,1µm,20.0s						
NEW	**Newport**	**88.52**	**334**	*e*P	**P**	**10 58 56.3**	**-4.7**
	comp=Z,14nm,1.0s,mb5.2						

NEW				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
MSO	**Missoula**	**88.53**	**331**	PFAKE		10 59 10.0	+8.9
MSO				LR	LR		
	comp=Z,617nm,19.0s,MS5.0						
LRM	**Limekiln Ridge**	**88.76**	**330**	*e*P	**P**	**10 59 03.8**	**+1.6**
	comp=Z,13nm,0.8s,mb5.3						
LRM	**Limekiln Ridge**	**88.76**	**330**	*e*P	**P**	**10 59 03.8**	**+1.6**
	comp=Z,13nm,0.8s,mb5.3						
LKWY	**Lake**	**88.92**	**328**	PFAKE		10 59 10.0	+7.0
LKWY				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MCMT	**McKenzie Canyo**	**89.73**	**330**	*e*P	**P**	**10 59 13.0**	**+6.2**
	comp=Z,0.9nm,0.8s,mb4.2						
BW06	**Boulder Array**	**89.98**	**326**	*e*P	**P**	**10 59 13.0**	**+5.0**
	comp=Z,12nm,1.5s,mb5.0						
BW06				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
PDAR	**Pinedale Array**	**89.98**	**326**	P	**P**	**10 59 07.2**	**-0.7**
	comp=Z,0.5nm,0.7s,mb3.9,baz=45,slow=3.1,SNR=3.3						
PDAR	**Pinedale Array**	**89.98**	**326**	P	**P**	**10 59 07.2**	**-0.8**
KKM	**Kota Kinabalu**	**90.06**	**83**	PFAKE		10 59 20.0	+11
KKM				LR	LR		
	comp=Z,446nm,21.0s,MS4.9						
NATX	**Nacogdoches**	**90.11**	**310**	PFAKE		10 59 20.0	+11
NATX				LR	LR		
	comp=Z,859nm,20.0s,MS5.2						
ISCO	**Idaho Springs**	**90.42**	**322**	*e*P	**P**	**10 59 13.2**	**+3.1**
ISCO				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.8						
ISCO				MLR	MLR		
	comp=Z,913nm,19.0s,MS5.2						
ISCO	**Idaho Springs**	**90.42**	**322**	*e*P	**P**	**10 59 13.2**	**+3.1**
	comp=Z,4.9nm,1.1s,mb4.8						
ISCO				LR	LR		
	comp=Z,913nm,19.0s,MS5.2						
WMOK	**Wichita Mounta**	**90.50**	**315**	PFAKE		10 59 20.0	+9.5
WMOK				LR	LR		
	comp=Z,543nm,19.0s,MS5.0						
AHID	**Auburn Hatcher**	**90.66**	**327**	PFAKE		10 59 20.0	+8.8
AHID				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
HAWA	**Hanford**	**90.97**	**334**	PFAKE		10 59 20.0	+7.5
HAWA				LR	LR		
	comp=Z,924nm,21.0s,MS5.2						
HLID	**Hailey**	**91.42**	**330**	*e*P	**P**	**10 59 11.2**	**-3.4**
	comp=Z,18nm,2.2s,mb5.0						
HLID				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
BMO	**Blue Mountains**	**91.47**	**332**	*e*P	**P**	**10 59 13.6**	**-1.2**
	comp=Z,6.7nm,1.1s,mb4.9						
BMO				LR	LR		
	comp=Z,866nm,20.0s,MS5.2						
BMO	**Blue Mountains**	**91.47**	**332**	*e*P	**P**	**10 59 13.6**	**-1.3**
	comp=Z,6.7nm,1.1s,mb4.9						
NLWA	**Neilton Lookou**	**91.53**	**337**	PFAKE		10 59 30.0	+15
NLWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
SDCO	**Great Sand Dun**	**91.93**	**321**	*e*P	**P**	**10 59 17.9**	**+0.8**
	comp=Z,7.4nm,1.5s,mb4.8						
SDCO				LR	LR		
	comp=Z,852nm,19.0s,MS5.2						
SDCO	**Great Sand Dun**	**91.93**	**321**	*e*P	**P**	**10 59 17.9**	**+0.8**
	comp=Z,7.4nm,1.5s,mb4.8						
AMTX	**Amarillo**	**92.03**	**317**	PFAKE		10 59 30.0	+12
AMTX				LR	LR		
	comp=Z,793nm,21.0s,MS5.1						
HKT	**Hockley**	**92.09**	**310**	PFAKE		10 59 30.0	+12
HKT				LR	LR		
	comp=Z,798nm,20.0s,MS5.2						
PV01	**Paradox Valley**	**93.17**	**323**	*e*P	**P**	**10 59 24.1**	**+1.2**
	comp=Z,569nm,1.1s						
PV01	**Paradox Valley**	**93.17**	**323**	*e*P	**P**	**10 59 24.1**	**+1.3**
	comp=Z,569nm,1.1s						
SRU	**San Rafael**	**93.33**	**325**	*e*P	**P**	**10 59 29.6**	**+6.0**
SRU				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
SRU	**San Rafael**	**93.33**	**325**	*e*P	**P**	**10 59 29.6**	**+6.0**
	comp=Z,4.9nm,0.8s,mb5.0						
TEIG	**Tepich**	**93.49**	**298**	PFAKE		10 59 40.0	+15
TEIG				LR	LR		
	comp=Z,367nm,20.0s,MS4.8						
TEIG	**Tepich**	**93.49**	**298**	P		10 59 40.0	+15
DUG	**Dugway**	**93.50**	**327**	PFAKE		10 59 40.0	+16
DUG				LR	LR		
	comp=Z,980nm,22.0s,MS5.2						
COR	**Corvallis**	**93.84**	**336**	PFAKE		10 59 40.0	+14
COR				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
MVCO	**Mesa Verde**	**93.86**	**322**	PFAKE		10 59 40.0	+14
MVCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BCIP	**Isla Barro Col**	**93.97**	**284**	PFAKE		10 59 40.0	+13
BCIP				LR	LR		
	comp=Z,126nm,20.0s,MS4.4						
WVOR	**Wild Horse Val**	**94.04**	**332**	PFAKE		10 59 40.0	+13
WVOR				LR	LR		
	comp=Z,850nm,20.0s,MS5.2						
JCT	**Junction City**	**94.14**	**313**	PFAKE		10 59 40.0	+13
JCT				LR	LR		
	comp=Z,808nm,21.0s,MS5.2						
ANMO	**Albuquerque**	**94.57**	**320**	PFAKE		10 59 40.0	+11
ANMO				LR	LR		
	comp=Z,835nm,21.0s,MS5.2						
MVU	**Marysvale**	**94.60**	**326**	PFAKE		10 59 40.0	+11
MVU				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
MOD	**Modoc**	**95.13**	**333**	PFAKE		10 59 40.0	+8.2
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BMN	**Battle Mountai**	**95.18**	**330**	PFAKE		10 59 40.0	+8.0
BMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
HUMO	**Hull Mountain**	**95.47**	**335**	PFAKE		10 59 40.0	+6.7
HUMO				LR	LR		
	comp=Z,523nm,20.0s,MS5.0						
YBH	**Yreka Blue Hor**	**96.15**	**334**	PFAKE		10 59 50.0	+14
YBH				LR	LR		
	comp=Z,775nm,21.0s,MS5.2						
WUAZ	**Wupatki**	**96.61**	**323**	PFAKE		10 59 50.0	+11
WUAZ				LR	LR		
	comp=Z,632nm,20.0s,MS5.1						
TGUH	**Tegucigalpa,Un**	**96.68**	**293**	PFAKE		10 59 50.0	+11
TGUH				LR	LR		
	comp=Z,255nm,20.0s,MS4.7						
TGUH	**Tegucigalpa,Un**	**96.68**	**293**	P		10 59 50.0	+11
CPUP	**Villa Florida**	**96.91**	**243**	LR	LR	11 48 16.4	
	comp=Z,1µm,18.4s,MS5.3,baz=31,slow=38						
DAV	**Davao City (W)**	**96.92**	**76**	LR	LR	11 53 42.1	
	comp=Z,263nm,21.0s,MS4.7,baz=50,slow=42						
DAV	**Davao City (W)**	**96.92**	**76**	PFAKE		10 59 50.0	+10
DAV				LR	LR		
	comp=Z,543nm,19.0s,MS5.0						
WDC	**Whiskeytown Da**	**97.10**	**333**	PFAKE		10 59 50.0	+9.2
WDC				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
TXAR	**Lajitas Array**	**97.26**	**314**	P	**P**	**10 59 45.0**	**+3.2**
	comp=Z,1.0nm,0.9s,mb4.2,baz=18,slow=8.4,SNR=5.2						
JTS	**JuntasAbangare**	**97.27**	**288**	PFAKE		10 59 50.0	+8.0
JTS				LR	LR		
	comp=Z,323nm,20.0s,MS4.8						
NVAR	**Mina Array Bea**	**97.32**	**329**	P	**P**	**10 59 43.9**	**+2.1**
	comp=Z,0.7nm,0.8s,mb4.1,baz=45,slow=1.9,SNR=5.5						
NVAR	**Mina Array Bea**	**97.32**	**329**	P	**P**	**10 59 43.9**	**+2.1**
OTAV	**Otavalo**	**98.16**	**276**	PFAKE		11 00 00.0	+14
OTAV				LR	LR		
	comp=Z,267nm,19.0s,MS4.8						
CMB	**Columbia Colle**	**98.50**	**331**	PFAKE		11 00 00.0	+13
CMB				LR	LR		
	comp=Z,799nm,19.0s,MS5.2						
HOPS	**Hopland**	**98.69**	**333**	PFAKE		11 00 00.0	+12
HOPS				LR	LR		
	comp=Z,604nm,22.0s,MS5.0						
DAC	**Darwin (Calif)**	**98.84**	**328**	PFAKE		11 00 00.0	+11
DAC				LR	LR		
	comp=Z,905nm,20.0s,MS5.3						
TUC	**Tucson**	**98.87**	**321**	PFAKE		11 00 00.0	+11
TUC				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
KAPI	**Kappang**	**99.36**	**89**	PFAKE		11 00 00.0	+8.7
KAPI				LR	LR		
	comp=Z,249nm,20.0s,MS4.7						
PFO	**Pinyon Flat Ob**	**100.57**	**326**	PFAKE		11 00 10.0	+14
PFO				LR	LR		
	comp=Z,853nm,22.0s,MS5.2						
LVC	**Limon Verde**	**103.45**	**252**	PFAKE		11 00 20.0	+11
LVC				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
NNA	**Nana**	**103.88**	**265**	PFAKE		11 00 20.0	+9.0
NNA				LR	LR		
	comp=Z,364nm,20.0s,MS4.9						
LCO	**Las Campanas**	**108.23**	**247**	PFAKE		11 04 50.0	+13
LCO				LR	LR		
	comp=Z,214nm,22.0s,MS4.7						
MBWA	**Marble Bar**	**108.31**	**103**	PFAKE		11 04 50.0	+13
MBWA				LR	LR		
	comp=Z,289nm,20.0s,MS4.8						
EFI	**East Falkland**	**111.60**	**221**	PFAKE		11 04 50.0	+7.6
EFI				LR	LR		
	comp=Z,683nm,20.0s,MS5.2						
WRA	**Warramunga Arr**	**119.39**	**94**	PKP	PKPdf	11 04 57.0	-1.4
	comp=Z,0.9nm,0.7s,baz=316,slow=1.4,SNR=14						
WRA	**Warramunga Arr**	**119.39**	**94**	PKIKP	PKPdf	11 04 57.0	-1.4
WRAB	**Tennant Creek**	**119.40**	**94**	*e*PKIKP	PKPdf	11 04 58.7	+0.3
WRAB				MLR	MLR		
	comp=Z,287nm,20.0s,MS4.9						
WRAB	**Tennant Creek**	**119.40**	**94**	*e*PKIKP	PKPdf	11 04 58.7	+0.3
ASAR	**Alice Springs**	**120.88**	**98**	PKP	PKPdf	11 05 00.1	-1.0
	comp=Z,1.0nm,0.6s,baz=307,slow=1.6,SNR=12						
ASAR	**Alice Springs**	**120.88**	**98**	PKIKP	PKPdf	11 05 00.2	-0.9
QSPA	**South Pole Qui**	**125.79**	**180**	*e*PKPdf	PKPdf	11 05 09.1	+0.2
QSPA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
QSPA	**South Pole Qui**	**125.79**	**180**	*e*PKIKP	PKPdf	11 05 09.1	+0.2
STKA	**Stephens Creek**	**130.55**	**104**	PKP	PKPdf	11 05 17.6	-1.9
	comp=Z,2.1nm,1.1s,baz=135,slow=1.4,SNR=2.4						
STKA	**Stephens Creek**	**130.55**	**104**	PKIKP	PKPdf	11 05 17.5	-1.9
HNR	**Honiara**	**133.76**	**66**	PFAKE		11 05 40.0	+14
HNR				LR	LR		
	comp=Z,408nm,20.0s,MS5.1						
VNDA	**Vanda**	**134.88**	**169**	PFAKE		11 05 40.0	+14
VNDA				LR	LR		
	comp=Z,834nm,21.0s,MS5.4						
DZM	**Mont Dzumac**	**146.33**	**76**	*e*LR	LR	11 53 58.4	
	comp=Z,336nm,23.9s						
TAOE	**Nuku Hiva Isla**	**148.42**	**324**	*e*LR	LR	11 55 03.4	
	comp=Z,181nm,21.6s						
PPT	**Papeete**	**160.17**	**335**	*e*LR	LR	12 00 29.8	
	comp=Z,621nm,26.5s						

BJI ***26*** *10:49:14.2, 36°.10N×21°.90E, h5^{km}, mb4.9/2*
ISCJB ***26*** *10:49:15.4±0.5, 35°.99N±0°.03×21°.83E±0°.06, h10^{km}, mb4.8/23, MS4.8/5, Error ellipse: s-maj=6.7km s-min=4.6km az=170.1*
ATH ***26*** *10:49:19.2, 36°.14N×21°.85E, h5^{km}±2^{km}, MD4.0/7, ML4.3*
NEIC ***26*** *10:49:19.2, 36°.14N×21°.85E, h5^{km}, ML4.3(ATH), After ATH.*
CSEM ***26*** *10:49:22.8±1.1, 36°.31N×22°.00E, h2^{km}, ML4.3, Error ellipse: s-maj=23.0km s-min=11.7km az=25.0*
IDC ***26*** *10:49:23.4±2.6, 36°.20N×21°.95E, h53^{km}±23^{km}, mb4.1/15, mb1 4.2/18, mb1mx4.1/29, mbtmp4.1/18, ML3.6/3, MS4.7/5, Ms1 4.7/5, ms1mx4.1/40, Error ellipse: s-maj=21.7km s-min=17.5km az=171.0*
MOS ***26*** *10:49:25.2±1.1, 36°.28N×22°.13E, h73^{km}, mb4.0/1, Error ellipse: s-maj=16.2km s-min=8.2km az=77.2*

ISC 26 10:49:18.1±1.1**, 36°.04N**±0°.04×**21°.85E**±0°.06**, h13**^{km}±5^{km}**, n81, σ1^{s}.28**/87**, mb4.8**/23**, MS4.8**/5**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.85**	**354**	*e*PB	**Pg**	**10 49 34.0**	**-0.6**
PYL				*e*SB	**Sg**	**10 49 44.8**	**-1.0**
PYL	**PYLOS**	**0.85**	**354**	*e*Pb	**Pg**	**10 49 34.0**	**-0.6**
PYL				*e*Sb	**Sg**	**10 49 44.8**	**-1.0**
KYTH	**Kithira**	**0.99**	**76**	*e*PG	**Pg**	**10 49 37.6**	**+0.4**
KYTH	**Kithira**	**0.99**	**76**	*e*Pg	**Pg**	**10 49 37.6**	**+0.4**
VLI	**Veliai**	**1.11**	**52**	*e*PN	**Pg**	**10 49 39.5**	**+0.1**
VLI				*e*SB	**Sg**	**10 49 54.6**	**+0.8**
VLI	**Veliai**	**1.11**	**52**	*e*Pn	**Pg**	**10 49 39.5**	**+0.1**
VLI				*e*Sb	**Sg**	**10 49 54.6**	**+0.8**
ITM	**Ithomi**	**1.14**	**3**	*e*PB	**Pg**	**10 49 39.1**	**-0.9**
ITM				*e*SB	**Sg**	**10 49 54.2**	**-0.6**
ITM	**Ithomi**	**1.14**	**3**	*e*Pb	**Pg**	**10 49 39.1**	**-0.9**
ITM				*e*Sb	**Sg**	**10 49 54.2**	**-0.6**
VLX	**Vlachokerasia**	**1.39**	**18**	*e*PG	**Pn**	**10 49 43.6**	**+0.4**
VLX				*e*SB	**Sn**	**10 50 01.7**	**+0.3**
VLX	**Vlachokerasia**	**1.39**	**18**	*e*Pg	**Pn**	**10 49 43.6**	**+0.4**
VLX				*e*Sb	**Sn**	**10 50 01.7**	**+0.3**
GUR	**Goura**	**1.93**	**12**	*e*PG	**Pn**	**10 49 53.2**	**+2.6**
GUR	**Goura**	**1.93**	**12**	*e*Pg	**Pn**	**10 49 53.2**	**+2.6**
NAIG	**Nisos Aigina**	**2.16**	**37**	*e*PG	**Pn**	**10 49 58.2**	**+4.5**
NAIG	**Nisos Aigina**	**2.16**	**37**	*e*Pg	**Pn**	**10 49 58.2**	**+4.5**
VLS	**Valsamata**	**2.36**	**335**	*e*PN	**Pn**	**10 50 00.8**	**+4.4**
VLS	**Valsamata**	**2.36**	**335**	*e*Pn	**Pn**	**10 50 00.8**	**+4.4**
EFP	**Efpalio**	**2.38**	**1**	*e*PG	**Pg**	**10 50 01.1**	**-2.6**
EFP	**Efpalio**	**2.38**	**1**	*e*Pg	**Pg**	**10 50 01.1**	**-2.6**
VLY	**Voula,Athens**	**2.38**	**40**	*e*PN	**Pn**	**10 50 01.0**	**+4.2**
VLY	**Voula,Athens**	**2.38**	**40**	*e*Pn	**Pn**	**10 50 01.0**	**+4.2**
ATH	**Athens Observa**	**2.44**	**37**	*e*PN	**Pn**	**10 50 00.9**	**+3.3**
ATH	**Athens Observa**	**2.44**	**37**	*e*Pn	**Pn**	**10 50 00.9**	**+3.3**
PTL	**Penteli**	**2.57**	**38**	*e*PN	**Pn**	**10 50 03.1**	**+3.7**
PTL	**Penteli**	**2.57**	**38**	*e*PN	**Pn**	**10 50 03.1**	**+3.7**
PTL	**Penteli**	**2.57**	**38**	*e*Pn	**Pn**	**10 50 03.1**	**+3.7**
IDI	**Anoyia**	**2.59**	**106**	P	**Pn**	**10 50 02.7**	**+3.1**
	6.7nm,0.3s,baz=327,slow=18,SNR=1.5						
LKR	**Lokris**	**2.76**	**19**	*e*PN	**Pn**	**10 50 06.2**	**+4.2**
LKR	**Lokris**	**2.76**	**19**	*e*PN	**Pn**	**10 50 06.1**	**+4.1**
LKR	**Lokris**	**2.76**	**19**	*e*Pn	**Pn**	**10 50 06.1**	**+4.1**
LKR	**Lokris**	**2.76**	**19**	*e*Pn	**Pn**	**10 50 06.1**	**+4.1**
AGG	**Agios Georgios**	**3.00**	**7**	*e*PN	**Pn**	**10 50 09.2**	**+3.9**
AGG	**Agios Georgios**	**3.00**	**7**	*e*Pn	**Pn**	**10 50 09.2**	**+3.9**
JAN	**Janina**	**3.69**	**348**	*e*PN	**Pn**	**10 50 18.7**	**+3.9**
JAN	**Janina**	**3.69**	**348**	*e*Pn	**Pn**	**10 50 18.7**	**+3.9**
KEK	**Kerkira**	**4.01**	**337**	*e*PN	**Pn**	**10 50 23.1**	**+4.0**
KEK	**Kerkira**	**4.01**	**337**	*e*Pn	**Pn**	**10 50 23.1**	**+4.0**
KZN	**Kozani**	**4.26**	**359**	*e*PN	**Pn**	**10 50 26.7**	**+4.1**
KZN	**Kozani**	**4.26**	**359**	*e*Pn	**Pn**	**10 50 26.7**	**+4.1**
BIA	**Bitola**	**4.99**	**355**	*e*Pn	**Pn**	**10 50 35.0**	**+2.4**
BIA				*e*Sg	**Sn**	**10 51 30.6**	**+0.6**
BIA	**Bitola**	**4.99**	**355**	*e*Pn	**Pn**	**10 50 34.9**	**+2.3**
BIA				*e*Sg	**Sn**	**10 51 30.6**	**+0.6**
OHR	**Ohrid**	**5.13**	**351**	*e*Pn	**Pn**	**10 50 36.5**	**+2.0**
OHR				*e*Sg	**Sn**	**10 51 31.7**	**-1.8**
OHR	**Ohrid**	**5.13**	**351**	*e*Pn	**Pn**	**10 50 36.5**	**+2.0**
OHR				*e*Sg	**Sn**	**10 51 31.6**	**-1.9**
KRUS	**Krusevo**	**5.34**	**355**	*e*Pn	**Pn**	**10 50 39.3**	**+1.9**
KRUS	**Krusevo**	**5.34**	**355**	*e*Pn	**Pn**	**10 50 39.3**	**+1.9**
STON	**Ston**	**7.54**	**336**	*e*Pn	**Pn**	**10 51 04.1**	**-3.5**
STON				Sn	**Sn**	**10 52 24.5**	**-8.3**
MLR	**Muntele Rosu**	**9.93**	**17**	P	**Pn**	**10 51 42.9**	**+2.5**
	0.3nm,0.3s,baz=311,slow=19,SNR=2.4						
BRTR	**Keskin Array B**	**10.02**	**65**	P	**Pn**	**10 51 42.8**	**+1.2**
	0.1nm,0.3s,baz=261,slow=9.6,SNR=2.7						
NVLJ	**Novalja**	**10.04**	**330**	Sn	**Sn**	**10 53 24.6**	**-10**
ESDC	**Sonseca Array**	**20.68**	**288**	P	**P**	**10 53 58.6**	**+1.0**
	3.0nm,0.6s,baz=80,slow=11,SNR=3.4						
MIB	**Mutribah**	**22.25**	**99**	*e*P	**P**	**10 54 14.1**	**-0.6**
MIB				AMb	AMB	10 54 15.5	
	comp=Z,147nm,0.8s,mb5.5						
NAY	**Al-Naaiem**	**22.39**	**100**	*e*P	**P**	**10 54 15.5**	**-0.7**
NAY				AMb	AMB	10 54 17.7	
	comp=Z,60nm,1.2s,mb4.9						
UMR	**Umm Al-Rimmam**	**22.65**	**99**	*e*P	**P**	**10 54 18.6**	**-0.3**
UMR				AMb	AMB	10 54 20.5	
	comp=Z,154nm,1.0s,mb5.4						
HFS	**Hagfors**	**24.68**	**350**	P	**P**	**10 54 37.0**	**-1.3**
	comp=Z,5.5nm,0.8s,mb4.2,baz=130,slow=16,SNR=3.1						
FINES	**FINESS Array B**	**25.56**	**5**	P	**P**	**10 54 46.9**	**+0.5**
	comp=Z,4.7nm,0.8s,mb4.1,baz=161,slow=10.0,SNR=3.2						
TORD	**Torodi Ar. Bea**	**29.13**	**224**	P	**P**	**10 55 20.6**	**+1.8**
	comp=Z,4.7nm,0.7s,mb4.3,baz=33,slow=8.7,SNR=4.8						
ARCES	**ARCESS Array B**	**33.61**	**2**	P	**P**	**10 55 57.1**	**-0.6**
	comp=Z,6.5nm,0.8s,mb4.6,baz=188,slow=10.0,SNR=4.0						
BVAR	**Borovoye Array**	**37.72**	**48**	P	**P**	**10 56 31.2**	**-2.0**
	comp=Z,2.0nm,0.6s,mb4.0,baz=5.7,slow=4.3,SNR=2.6						
KURK	**Kurchatov**	**42.73**	**52**	P	**P**	**10 57 11.8**	**-3.0**
	comp=Z,1.4nm,0.4s,mb4.1,baz=280,slow=8.0,SNR=5.2						
MKAR	**Makanchi Array**	**45.55**	**57**	P	**P**	**10 57 36.1**	**-1.2**
	comp=Z,3.9nm,0.5s,mb4.6,baz=285,slow=5.7,SNR=11						
ZALV	**Zalesovo Beam**	**46.35**	**47**	P	**P**	**10 57 42.0**	**-1.6**
	comp=Z,8.7nm,0.7s,mb4.8,baz=262,slow=9.3,SNR=4.0						
DANN	**Dangsing**	**52.19**	**80**	*e*P	**P**	**10 58 28.3**	**-0.3**
	comp=Z,102nm,0.8s,mb5.8						
KOLN	**Koldanda**	**52.31**	**81**	*e*P	**P**	**10 58 28.6**	**-0.9**
	comp=Z,40nm,1.0s,mb5.3						
GKN	**Gorkha**	**53.04**	**80**	*e*P	**P**	**10 58 34.0**	**-0.9**
	comp=Z,41nm,0.7s,mb5.5						
DMN	**Daman**	**53.58**	**80**	*e*P	**P**	**10 58 38.3**	**-0.6**
	comp=Z,67nm,0.8s,mb5.6						
PKI	**Pulchoki**	**53.84**	**80**	*e*P	**P**	**10 58 40.5**	**-0.3**
	comp=Z,51nm,0.9s,mb5.5						
GUN	**Gumba**	**54.07**	**79**	*e*P	**P**	**10 58 42.3**	**-0.2**
	comp=Z,66nm,0.9s,mb5.6						
PALK	**Pallekele**	**60.69**	**103**	LR	LR	11 26 37.1	
	comp=Z,913nm,18.6s,MS5.0,baz=315,slow=37						
SCHQ	**Schefferville**	**60.75**	**318**	P	**P**	**10 59 28.8**	**-0.5**
	comp=Z,3.5nm,0.6s,mb4.6,baz=72,slow=7.7,SNR=3.7						
SONM	**Songino Array**	**61.00**	**50**	P	**P**	**10 59 30.4**	**-0.6**
	comp=Z,1.9nm,0.6s,mb4.4,baz=288,slow=9.5,SNR=4.4						
CMAR	**Chiang Mai Arr**	**69.14**	**82**	P	**P**	**11 00 24.3**	**0.0**
	comp=Z,3.7nm,0.8s,mb4.4,baz=299,slow=8.0,SNR=4.7						
CN2	**Changchun**	**74.57**	**47**	*e*P	**P**	**11 00 56.8**	**+0.2**
KLR	**Kul'dur**	**74.84**	**40**	*e*P	**P**	**11 00 53.4**	**-4.7**
KSRS	**Korea Array**	**79.86**	**51**	P	**P**	**11 01 26.4**	**+0.1**
	comp=Z,3.5nm,0.7s,mb4.4,baz=312,slow=4.7,SNR=5.0						
PETK	**Petropavlovsk-**	**83.29**	**25**	LR	LR	11 44 57.5	
	comp=Z,499nm,19.5s,MS4.9,baz=202,slow=40						
MJAR	**Matsushiro Arr**	**86.71**	**46**	P	**P**	**11 02 01.2**	**-0.5**
	comp=Z,1.7nm,0.7s,mb4.4,baz=301,slow=5.4,SNR=4.1						
PDAR	**Pinedale Array**	**89.91**	**326**	P	**P**	**11 02 16.4**	**-0.5**
	comp=Z,0.6nm,0.8s,mb4.0,baz=39,slow=5.8,SNR=4.5						
ROSC	**El Rosal**	**92.16**	**278**	LR	LR	11 41 52.2	
	comp=Z,299nm,19.9s,MS4.7,baz=23,slow=34						
CBIJ	**Chichi jima**	**95.71**	**51**	LR	LR	11 45 36.7	
	comp=Z,433nm,20.2s,MS4.9,baz=58,slow=35						
KAPI	**Kappang**	**99.32**	**89**	LR	LR	11 54 37.0	
	comp=Z,190nm,19.6s,MS4.6,baz=190,slow=39						
WRA	**Warramunga Arr**	**119.36**	**94**	PKP	PKPdf	11 08 07.1	-0.4
	comp=Z,0.9nm,0.8s,baz=294,slow=1.5,SNR=5.6						
ASAR	**Alice Springs**	**120.85**	**98**	PKP	PKPdf	11 08 10.3	0.0
	comp=Z,1.0nm,0.8s,baz=340,slow=2.2,SNR=5.2						

TRN ***26*** *10:56:15.8, 17°.68N×61°.75W, h7^{km}, MD3.5, M3.7(FDF)*
ISCJB ***26*** *10:56:17.5±1.4, 17°.79N±0°.08×61°.59W±0°.06, h27^{km}±5^{km}, Error ellipse: s-maj=15.2km s-min=6.1km az=33.5*
RSPR ***26*** *10:56:18.8, 17°.95N×61°.53W, h52^{km}±13^{km}, MD3.7/4, MD3.7/4*
NEIC ***26*** *10:56:20.1±2.4, 17°.64N×61°.76W, h21^{km}±13^{km}, MD3.7(RSPR), Error ellipse: s-maj=33.2km s-min=15.2km az=72.0*

ISC 26 10:56:18.3±1.3**, 17°.75N**±0°.08×**61°.60W**±0°.06**, h25**^{km}±5^{km}**, n17, σ0^{s}.51**/25**, 5C, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ANWB	**Willy Bob**	**0.20**	**247**	*e*Pg	**Pb**	**10 56 23.9**	**-0.1**
ANWB				*e*Sg	**Sb**	**10 56 28.5**	**+0.7**
BPA	**Boggy Peak**	**0.74**	**200**	*e*P	**Pb**	**10 56 32.0**	**-0.6**
BPA				*e*S	**Sb**	**10 56 41.7**	**-0.6**
SKI	**Saint Kitts**	**1.17**	**250**	*e*P	**Pn**	**10 56 38.5**	**-0.5**
SKI				*e*S	**Sn**	**10 56 54.0**	**-0.1**
SEG	**Port Louis**	**1.34**	**176⇑**	*i*P	**Pn**	**10 56 41.7**	**+0.3**
SEUS	**St. Eustatius**	**1.35**	**259⇑**	*e*P	**Pn**	**10 56 41.2**	**-0.2**
SEUS				*e*S	**Sn**	**10 56 58.9**	**+0.3**
SMRT	**St. Maarten**	**1.44**	**282⇑**	*e*P	**Pn**	**10 56 42.3**	**-0.5**
SMRT				*e*S	**Sn**	**10 57 00.4**	**-0.5**
DEG	**La Desirade**	**1.52**	**160**	*e*P	**Pn**	**10 56 42.9**	**-1.0**
DEG				*e*S	**Sn**	**10 57 07.5**	**+4.8**
SABA	**Saba**	**1.58**	**266⇑**	*e*P	**Pn**	**10 56 44.5**	**-0.2**
SABA				*e*S	**Sn**	**10 57 04.5**	**+0.3**
LZG	**Guadaloupe-1**	**1.61**	**186**	*e*P	**Pn**	**10 56 44.9**	**-0.2**
BCG	**Bois Riant Cap**	**1.65**	**181**	*e*P	**Pn**	**10 56 46.2**	**+0.5**
DOG	**Dongo Capester**	**1.71**	**181**	*e*P	**Pn**	**10 56 47.0**	**+0.6**
SCG	**Saint Claude**	**1.71**	**183**	*e*P	**Pn**	**10 56 47.4**	**+0.9**
PHG	**Guadaloupe-2**	**1.72**	**182**	*e*P	**Pn**	**10 56 47.3**	**+0.6**
MGG	**Marie-Galante**	**1.84**	**172**	*e*P	**Pn**	**10 56 47.8**	**-0.5**
TBG	**Guadaloupe-3**	**1.89**	**181**	*e*P	**Pn**	**10 56 49.2**	**+0.3**
MTP	**Monte Pirata**	**3.78**	**276⇑**	*e*P	**Pn**	**10 57 14.8**	**-0.3**
MTP				*e*S	**Sn**	**10 57 59.0**	**+0.2**
CBYP	**Canovanas**	**4.09**	**278**	*e*Pn	**Pn**	**10 57 20.1**	**+0.8**

CSEM ***26*** *10:57:37.9, 35°.77N×21°.47E, h21^{km}, MD3.5, After ATH*

ATH 26 10:57:37.9, 35°.77N×21°.47E, h21^{km}±1^{km}**, MD3.5**/6**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PYL	**PYLOS**	**1.14**	**11**	*e*PN	Pn	10 57 59.5	+0.8
PYL				*e*SN	Sn	10 58 15.7	+2.0
PYL	**PYLOS**	**1.14**	**11**	*e*Pn	Pn	10 57 59.5	+0.8
PYL				*e*Sn	Sn	10 58 15.7	+2.0
KYTH	**Kithira**	**1.37**	**68**	*e*PN	Pn	10 58 03.8	+2.1
KYTH	**Kithira**	**1.37**	**68**	*e*Pn	Pn	10 58 03.8	+2.1
ITM	**Ithomi**	**1.45**	**15**	*e*PN	Pn	10 58 04.9	+2.0
ITM	**Ithomi**	**1.45**	**15**	*e*Pn	Pn	10 58 04.9	+2.0
VLX	**Vlachokerasia**	**1.76**	**24**	*e*PN	Pn	10 58 09.0	+1.9
VLX				*e*SN	Sn	10 58 32.0	+3.2
VLX	**Vlachokerasia**	**1.76**	**24**	*e*Pn	Pn	10 58 09.0	+1.9
VLX				*e*Sn	Sn	10 58 32.0	+3.2
GUR	**Goura**	**2.27**	**18**	*e*PB	Pb	10 58 17.8	-0.4
GUR	**Goura**	**2.27**	**18**	*e*Pb	Pb	10 58 17.8	-0.4
EFP	**Efpalio**	**2.67**	**7**	*e*PN	Pn	10 58 22.6	+2.9
EFP	**Efpalio**	**2.67**	**7**	*e*Pn	Pn	10 58 22.6	+2.9

IDC ***26*** *11:15:17.7±1.2, 7°.51S×119°.25E, h0^{km}, mb4.0/4, mb1 4.0/7, mb1mx3.8/21, mbtmp3.9/7, ML3.8/3, Error ellipse: s-maj=50.2km s-min=16.7km az=66.0*
ISCJB ***26*** *11:15:21.7±1.7, 7°.54S±0°.07×119°.4E±0°.2, h47^{km}±16^{km}, mb4.0/4, Error ellipse: s-maj=41.6km s-min=8.2km az=168.2*
NEIC ***26*** *11:15:22.8±0.9, 7°.49S×119°.37E, h35^{km}, Error ellipse: s-maj=36.3km s-min=9.4km az=68.0*

ISC 26 11:15:22.0±4.2**, 7°.53S**±0°.06×**119°.4E**±0°.2**, h28**^{km}±33^{km}**, n11, σ0^{s}.62**/14**, mb4.0**/4**, 1C-1D, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MKS	**Makassar**	**2.30**	**3⇑**	*e*P	**Pn**	**11 15 58.6**	**+0.5**
MKS				*e*S	**Sn**	**11 16 26.3**	**+0.8**
WSI	**Waingapu**	**2.32**	**156⇓**	*e*P	**Pn**	**11 15 58.5**	**+0.1**
KAPI	**Kappang**	**2.53**	**9**	Pn	**Pn**	**11 16 00.9**	**-0.4**
	25nm,0.3s,baz=186,slow=7.5,SNR=165						
KAPI				Sn	**Sn**	**11 16 30.7**	**-0.5**
	18nm,0.3s,baz=231,slow=16,SNR=7.8						
FITZ	**Fitzroy Crossi**	**12.16**	**150**	Pn	**Pn**	**11 18 13.5**	**0.0**
	0.3nm,0.3s,baz=318,slow=12,SNR=4.1						
FITZ				Sn	**Sn**	**11 20 17.7**	**-11**
	0.2nm,0.3s,baz=27,slow=12,SNR=2.5						
WRA	**Warramunga Arr**	**19.06**	**132**	P	**Pn**	**11 19 42.3**	**-0.9**
	0.3nm,0.3s,baz=304,slow=13,SNR=12						
ASAR	**Alice Springs**	**21.27**	**141**	P	**P**	**11 20 06.5**	**+0.2**
	1.6nm,0.6s,mb3.5,baz=309,slow=9.6,SNR=26						
STKA	**Stephens Creek**	**31.88**	**142**	P	**P**	**11 21 46.0**	**+1.0**
	0.8nm,0.4s,mb4.0,baz=317,slow=9.3,SNR=6.7						
STKA	**Stephens Creek**	**31.88**	**142**	P	**P**	**11 21 46.0**	**+1.0**
MKAR	**Makanchi Array**	**63.32**	**332**	P	**P**	**11 25 48.5**	**+0.1**
	1.5nm,0.7s,mb4.2,baz=141,slow=7.6,SNR=20						
MKAR	**Makanchi Array**	**63.32**	**332**	P	**P**	**11 25 48.5**	**+0.1**
ZALV	**Zalesovo Beam**	**67.80**	**339**	P	**P**	**11 26 16.2**	**-0.9**
	0.8nm,0.3s,mb4.2,baz=130,slow=7.8,SNR=4.5						

IDC ***26*** *11:38:36.1±0.7, 2°.69N×95°.91E, h0^{km}, mb4.5/15, mb1 4.6/17, mb1mx4.4/26, mbtmp4.5/17, ML4.1/2, MS3.6/1, Ms1 3.8/1, ms1mx2.9/43, Error ellipse: s-maj=24.6km s-min=13.0km az=46.0*
BJI ***26*** *11:38:38.6, 2°.71N×95°.96E, h27^{km}, mB5.1/13, mb4.8/35, Ms4.9/3, Ms7 4.8/3*
ISCJB ***26*** *11:38:39.8±0.8, 2°.67N±0°.04×95°.89E±0°.05, h36^{km}±7^{km}, mb4.8/62, MS4.2/3, Error ellipse: s-maj=9.5km s-min=5.1km az=139.3*
DJA ***26*** *11:38:40, 2°.67N×95°.79E, h30^{km}, mb4.6/6*
MOS ***26*** *11:38:40.8±0.9, 2°.71N×95°.94E, h48^{km}, mb5.1/20, Error ellipse: s-maj=11.3km s-min=6.5km az=106.1*
NEIC ***26*** *11:38:41.4±0.3, 2°.64N×95°.92E, h35^{km}, mb5.1/30, Error ellipse: s-maj=8.1km s-min=5.3km az=213.0*

ISC 26 11:38:41.6±0.7**, 2°.66N**±0°.04×**95°.88E**±0°.05**, h35**^{km}±7^{km}**, h28**^{km}±2.4^{km}**:pP-P, n133, σ0^{s}.98**/134**, mb4.8**/62**, MS4.2**/3**, 5C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GSI	**Gunungsitoli**	**2.17**	**129**	P	**Pn**	**11 39 14.5**	**-0.7**
GSI				S	**Sn**	**11 39 40.1**	**-0.8**
BSI	**Banda Aceh**	**2.87**	**348**	P	**Pn**	**11 39 23.2**	**-1.7**

```
BSI                                S      Sn       11 39 56.7  -1.6
PSI    Prapat             3.04  87 Pn     Pn       11 39 27.1  -0.2
       10nm,0.3s,baz=286,slow=8.0,SNR=54
PSI                                Sn     Sn       11 40 03.3  +0.8
       8.4nm,0.3s,baz=306,slow=13,SNR=3.5
KULM   Kulim              5.43  61 P      Pn       11 40 00.6  +0.6
KULM   Kulim              5.43  61 ePn    Pn       11 40 00.1   0.0
       288nm,2.2s
IPM    Ipoh               5.44  71 P      Pn       11 40 00.8  +0.6
IPM    Ipoh               5.44  71 P      Pn       11 40 00.3   0.0
       169nm,0.8s,0.6nm
IPM    Ipoh               5.44  71 S      Pn       11 39 55.9  -4.4
       0.6nm169nm,0.8s
PPI    Padang Panjang     5.48 124 P      Pn       11 40 01.3  +0.5
       61nm,1.2s,0.3nm
FRIM   Kepong             5.77  84 P      Pn       11 40 05.1  +0.4
PDSI   Padang             5.80 128 P      Pn       11 40 04.5  -0.6
KGM    Kluang             7.46  95 P      Pn       11 40 28.9  +0.9
KTGM   Kuala Trenggan     7.71  70 P      Pn       11 40 31.7  +0.4
MYKOM  Kota Tinggi        8.01  96 P      Pn       11 40 36.8  +1.2
MYKOM  Kota Tinggi        8.01  96 P      Pn       11 40 35.5  -0.1
       25nm,1.2s
KSI    Kapahiang          9.19 133 P      Pn       11 40 53.9  +2.2
       138nm,0.9s
MDSI   Maura Dua         10.92 131 P      Pn       11 41 14.2  -1.2
KSM    Kuching           14.47  94 ePn    Pn       11 42 03.9  -0.1
       23nm,1.1s
PALK   Pallekele         15.79 287 eP     Pn       11 42 23.0  +1.5
PALK                               pmax   pmax
       comp=Z,18nm,0.9s
PALK   Pallekele         15.79 287 Pn     Pn       11 42 28.9  +7.5
       comp=Z,0.4nm,0.3s,baz=125,slow=9.9,SNR=5.3
PALK                               Sn     Sx       11 45 00.5
       comp=Z,2.6nm,0.3s,baz=212,slow=12,SNR=7.3
PALK   Pallekele         15.79 287 eP     Pn       11 42 23.0  +1.5
       comp=Z,18nm,0.9s
PALK                               Pn     Sx       11 42 28.9
PALK                               Sn     Sn       11 45 00.5   -15
CMAR   Chiang Mai Arr    15.98  11 Pn     Pn       11 42 21.9  -1.9
       comp=Z,0.5nm,0.3s,baz=196,slow=10,SNR=38
CMAR                               LR     LR       11 49 02.7
       comp=Z,224nm,18.5s,baz=195,slow=39
SBUM   Sibu              16.33  90 P      Pn       11 42 29.5  +1.2
SBUM   Sibu              16.33  90 P      Pn       11 42 30.1  +1.8
CHTO   Chiang Mai        16.33  10 eP     Pn       11 42 26.8  -1.5
CHTO                               pmax   pmax
       comp=Z,13nm,0.8s
CHTO   Chiang Mai        16.33  10 eP     Pn       11 42 26.8  -1.5
       comp=Z,13nm,0.8s
CHTO   Chiang Mai        16.33  10 P      Pn       11 42 27.0  -1.3
       comp=Z,23nm,0.9s
KKM    Kota Kinabalu     20.55  80 P      P        11 43 17.8  +0.4
KKM    Kota Kinabalu     20.55  80 eP     P        11 43 17.6  +0.2
       comp=Z,48nm,1.2s
QIZ    Qiongzhong        21.24  39 P      P        11 43 23.0  -1.8
QIZ                                S      S        11 47 20.0  +0.9
QIZ                                LR     LR
       comp=N,510nm,15.8s,MS4.2
QIZ                                LR     LR
       comp=E,580nm,16.9s,MS4.2
QIZ                                LR     LR
       comp=Z,450nm,17.6s,MS3.9
KDM    Kudat             21.30  78 P      P        11 43 25.9  +0.5
SDKM   Sandakan          21.46  81 P      P        11 43 27.5  +0.3
MYLDM  Lahad Datu        22.70  83 P      P        11 43 41.0  +0.6
SHL    Shillong          23.09 351 ex     x        11 43 41.5
KMI    Kunming           23.29  16 P      P        11 43 47.3  +0.8
KMI                                pmax   pmax
       comp=Z,19nm,0.9s,mb4.5
KAPI   Kappang           25.04 108 P      P        11 44 00.8  -2.0
       comp=Z,28nm,0.9s,mb4.8,baz=300,slow=9.6,SNR=9.7
KAPI   Kappang           25.04 108 eP     P        11 44 01.6  -1.1
       comp=Z,34nm,1.0s,mb4.8
ODAN   Odare             25.40 342 eP     P        11 44 06.8  +1.0
       comp=Z,86nm,0.7s,mb5.4
DGAR   Diego Garcia      25.43 247 eP     P        11 44 05.4  -0.9
DGAR                               pmax   pmax
       comp=Z,76nm,0.6s,mb5.4
DGAR   Diego Garcia      25.43 247 eP     P        11 44 05.4  -0.9
       comp=Z,76nm,0.6s,mb5.4
RAMN   Ramite            25.73 341 eP     P        11 44 10.2  +1.3
       comp=Z,168nm,0.6s,mb5.7
TAPN   Taplejung         25.76 343 eP     P        11 44 10.3  +1.2
       comp=Z,85nm,0.9s,mb5.3
GYA    Guiyang           25.82  23 P      P        11 44 09.0  -0.7
GYA                                pmax   pmax
       comp=Z,10.0nm,1.0s,mb4.3
JIRN   Jiri              26.53 340 eP     P        11 44 17.2  +1.2
       comp=Z,204nm,0.8s,mb5.7
PKI    Pulchoki          26.71 339 eP     P        11 44 18.4  +0.7
       comp=Z,50nm,0.7s,mb5.2
PKI    Pulchoki          26.71 339 eP     P        11 44 18.4  +0.7
PKI                                pmax   pmax
       comp=Z,51nm,0.7s,mb5.2
DMN    Daman             26.86 338 eP     P        11 44 19.7  +0.7
       comp=Z,55nm,0.7s,mb5.2
GUN    Gumba             26.86 340 eP     P        11 44 19.9  +0.8
       comp=Z,132nm,0.7s,mb5.6
KKN    Kakani            26.96 339 eP     P        11 44 20.4  +0.4
       comp=Z,118nm,0.8s,mb5.5
KKN    Kakani            26.96 339 eP     P        11 44 20.4  +0.4
KKN                                pmax   pmax
       comp=Z,118nm,0.8s,mb5.5
LSA    Lhasa             27.26 351 P      P        11 44 23.5  +0.9
LSA    Lhasa             27.26 351 eP     P        11 44 23.5  +0.9
LSA                                pmax   pmax
       comp=Z,31nm,0.8s,mb4.9
LSA    Lhasa             27.26 351 eP     P        11 44 23.5  +0.8
       comp=Z,31nm,0.8s,mb4.9
GKN    Gorkha            27.39 338 eP     P        11 44 24.6  +0.8
       comp=Z,117nm,0.8s,mb5.5
KOLN   Koldanda          27.59 336 eP     P        11 44 26.3  +0.7
       comp=Z,74nm,0.6s,mb5.5
DANN   Dangsing          28.04 337 eP     P        11 44 30.5  +0.9
       comp=Z,94nm,0.6s,mb5.6
XAN    Xi’an             33.51  20 P      P        11 45 16.3  -1.5
XAN                                pP     pP       11 45 24.5  -3.4
XAN                                sP     sP       11 45 28.8  -3.4
XAN                                pmax   pmax
       comp=Z,13nm,1.1s,mb4.8
XAN                                pmax   pmax
       comp=Z,25nm,3.8s
LZH    Lanzhou           34.06  12 eP     P        11 45 21.0  -1.6
LZH                                pP     pP       11 45 29.5  -3.2
LZH                                sP     sP       11 45 32.0  -5.0
LZH                                pmax   pmax
       comp=Z,38nm,1.0s,mb5.3
LZH                                pmax   pmax
       comp=Z,170nm,5.3s
GTA    Gaotai            36.75   5 ⇑P     P        11 45 45.0  -0.7
GTA                                pP     pP       11 45 52.3  -3.6
GTA                                sP     sP       11 45 55.5  -4.6
GTA                                pmax   pmax
       comp=Z,16nm,1.0s,mb4.8
KSH    Kashi             40.90 336 P      P        11 46 19.3  -1.2
KSH                                epP    pP       11 46 29.3  -1.5
KSH                                esP    sP       11 46 33.0  -2.0
KSH                                ePP    PP       11 47 57.0  +1.7
KSH                                ePcP   PcP      11 48 20.3  -0.3
KSH                                eScP   ScP      11 52 06.0  -1.9
KSH                                ePcS   PcS      11 52 10.0  -1.5
KSH                                eS     S        11 52 28.0  -1.8
KSH                                esS    sS       11 52 44.0  -2.7
KSH                                eSS    SS       11 55 24.0  -8.3
KSH                                eScS   ScS      11 56 19.3  -3.5
KSH                                pmax   pmax
       comp=Z,9.0nm,0.8s,mb4.5
KSH                                pmax   pmax
       comp=Z,320nm,3.5s
KSH                                LR     LR
       comp=N,730nm,6.1s
KSH                                LR     LR
       comp=E,390nm,6.4s
KSH                                LR     LR
       comp=Z,770nm,7.0s
BJT    Baijiatuau        41.48  24 eP     P        11 46 26.0  +0.8
BJT                                pmax   pmax
       comp=Z,84nm,0.7s
BJT    Baijiatuau        41.48  24 eP     P        11 46 26.0  +0.8
       comp=Z,84nm,0.7s,mb5.5
BJI    Beijing           41.51  24 P      P        11 46 26.0  +0.6
BJI                                pmax   pmax
       comp=Z,120nm,0.7s,mb5.6
WMQ    Urumqi            41.62 351⇑iP     P        11 46 26.5  +0.2
WMQ                                pP     pP       11 46 34.0  -2.6
WMQ                                pmax   pmax
       comp=Z,17nm,1.1s,mb4.6
WMQ                                pmax   pmax
       comp=Z,170nm,4.8s
KZA    Kyzart            43.38 338 P      P        11 46 42.1  +1.5
       SNR=5.5
UCH    Uchtor            43.79 337 P      P        11 46 45.5  +1.5
       SNR=12
UCH    Uchtor            43.79 337 eP     P        11 46 45.3  +1.4
       comp=Z,6.6nm,0.7s,mb4.5
WRA    Warramunga Arr    43.93 122 P      P        11 46 44.7  -0.7
       comp=Z,4.9nm,0.9s,mb4.2,baz=301,slow=9.2,SNR=12
WRAB   Tennant Creek     43.93 122 eP     P        11 46 45.0  -0.4
TKM2   Tokmak 2          43.98 338 eP     P        11 46 46.4  +1.0
TKM2                               pmax   pmax
       comp=Z,18nm,1.3s,mb4.6
TKM2   Tokmak 2          43.98 338 P      P        11 46 46.5  +1.1
       SNR=7.2
TKM2   Tokmak 2          43.98 338 eP     P        11 46 46.4  +1.0
       comp=Z,18nm,1.3s,mb4.7
AML    Almayashu         44.03 336 P      P        11 46 47.4  +1.5
       SNR=17
AML    Almayashu         44.03 336 eP     P        11 46 47.3  +1.4
       comp=Z,19nm,1.0s,mb4.8
AAK    Ala-Archa         44.14 337⇑eP     P        11 46 46.7  -0.1
AAK                                pmax   pmax
       comp=Z,4.0nm,1.0s,mb4.1
AAK    Ala-Archa         44.14 337 P      P        11 46 49.3  +2.5
       SNR=7.0
AAK    Ala-Archa         44.14 337 eP     P        11 46 49.2  +2.4
       comp=Z,37nm,1.9s,mb4.8
FRU    Bishkek           44.27 338 eP     P        11 46 54.0  +6.3
EKS2   Erkin-Say         44.45 337 P      P        11 46 50.6  +1.4
       SNR=11
EKS2   Erkin-Say         44.45 337 eP     P        11 46 50.8  +1.6
       comp=Z,6.7nm,0.6s,mb4.5
USP    Ospenovka         44.68 338 P      P        11 46 51.9  +0.8
       SNR=14
ASAR   Alice Springs     45.33 127 P      P        11 46 55.9  -0.6
       comp=Z,1.2nm,0.7s,mb3.9,baz=300,slow=8.0,SNR=28
KSRS   Korea Array       45.43  36 P      P        11 46 56.0  -1.1
       comp=Z,4.6nm,0.8s,mb4.4,baz=231,slow=8.8,SNR=11
MK31   Makanchi Array    45.52 347 eP     P        11 46 57.5  -0.1
MK31                               pmax   pmax
       comp=Z,12nm,0.6s,mb5.0
MKAR   Makanchi Array    45.52 347 P      P        11 46 57.6   0.0
       comp=Z,13nm,0.6s,mb5.0,baz=156,slow=8.8,SNR=203
SONM   Songino Array     45.91  10 P      P        11 47 00.4  -0.3
       comp=Z,13nm,0.7s,mb4.9,baz=190,slow=8.5,SNR=90
SONM                               PcP    PcP      11 48 37.8  +0.5
       comp=Z,2.3nm,0.7s,baz=187,slow=4.2,SNR=4.6
ULN    Ulaanbaatar       46.05  10 eP     P        11 47 01.2  -0.6
ULN                                pmax   pmax
       comp=Z,8.0nm,0.8s,mb4.7
ULN    Ulaanbaatar       46.05  10 eP     P        11 47 01.2  -0.6
       comp=Z,7.6nm,0.8s,mb4.7
KK31   Karatay Array     46.17 334 eP     P        11 47 03.6  +0.8
KK31                               pmax   pmax
       comp=Z,2.0nm,0.4s,mb4.4
ZAK    Zakamensk         47.96   6 eP     P        11 47 15.9  -0.8
ZAK                                pmax   pmax
       comp=Z,4.0nm,1.4s,mb4.3
CN2    Changchun         48.63  28 eP     P        11 47 23.0  +1.0
TLY    Talaya            49.28   6 eP     P        11 47 27.1  +0.3
TLY                                pmax   pmax
       comp=Z,5.0nm,0.7s,mb4.7
TLY    Talaya            49.28   6 eP     P        11 47 27.4  +0.7
       comp=Z,5.5nm,0.8s,mb4.6
KURK   Kurchatov         50.05 346 eP     P        11 47 32.8  +0.1
KURK                               pmax   pmax
       comp=Z,8.0nm,0.6s,mb4.9
KURK   Kurchatov         50.05 346 P      P        11 47 32.7   0.0
       comp=Z,13nm,0.8s,mb5.0,baz=166,slow=7.0,SNR=51
KURK   Kurchatov         50.05 346 eP     P        11 47 32.8  +0.1
       comp=Z,8.5nm,0.6s,mb5.0
HIA    Hailar            50.70  20 eP     P        11 47 38.6  +0.9
HIA                                pmax   pmax
       comp=Z,14nm,1.1s
HIA    Hailar            50.70  20 eP     P        11 47 38.6  +1.0
       comp=Z,14nm,1.1s,mb4.8
ZALV   Zalesovo Beam     51.92 352 P      P        11 47 46.5  -0.2
       comp=Z,18nm,0.6s,mb5.2,baz=182,slow=7.2,SNR=103
ZALV   Zalesovo Beam     51.92 352 P      P        11 47 46.5  -0.2
NVS    Novosibirsk       53.02 351 eP     P        11 47 54.0  -0.8
NVS                                pmax   pmax
       comp=Z,10.0nm,0.6s,mb4.9
NVS                                pmax   pmax
       comp=N,4.0nm,0.5s
NVS                                pmax   pmax
       comp=E,3.0nm,0.5s
BRVK   Borovoye          54.51 341 eP     P        11 48 05.5  -0.2
BRVK                               pmax   pmax
       comp=Z,13nm,1.2s,mb4.8
BRVK   Borovoye          54.51 341 eP     P        11 48 05.5  -0.2
       comp=Z,13nm,1.2s,mb4.8
STKA   Stephens Creek    55.31 132 P      P        11 48 12.2  +0.2
       comp=Z,4.1nm,1.0s,mb4.4,baz=305,slow=5.8,SNR=8.4
KLR    Kul’dur           55.56  28 eP     P        11 48 09.0  -4.4
AB31   Akbulak array     55.61 332 P      P        11 48 13.3  -0.5
AB31                               pmax   pmax
       comp=Z,14nm,0.8s,mb5.0
HABR   Khabarovsk        56.65  30 eP     P        11 48 28.3  +7.1
HABR                                               11 49 14.6
HABR                                               11 50 24.8
HABR                               PPP             11 51 40.8
HABR                               e*SS   sS       11 56 26.1  -2.4
HABR                               e               11 58 04.7
HABR                               pmax   pmax
       comp=E,20nm,2.2s
HABR                               pmax   pmax
       comp=N,18nm,1.9s
HABR                               pmax   pmax
       comp=Z,15nm,1.5s,mb4.8
HABR                               MLR    MLR
       comp=Z,197nm,19.0s,MS4.2
BOD    Bodaibo           56.83  11 eP     P        11 48 22.0  -0.3
BOD                                pmax   pmax
       comp=Z,8.0nm,1.0s,mb4.7
SVE    Sverdlovsk        60.85 339 eP     P        11 48 50.5  +0.2
SVE                                pmax   pmax
       comp=Z,21nm,0.8s,mb5.3
ARU    Arti              61.33 337c iP    P        11 48 52.9  -0.6
ARU                                e               11 51 07.7
ARU                                S      S        11 57 13.1  +1.6
ARU                                SS     SS       12 01 10.2  -2.2
ARU                                pmax   pmax
       comp=Z,10.0nm,1.0s,mb4.9
ARU    Arti              61.33 337 eP     P        11 48 53.1  -0.4
       comp=Z,7.2nm,0.8s,mb4.8
KIV    Kislovodsk        62.34 319 eP     P        11 48 59.4  -1.2
KIV                                pmax   pmax
       comp=Z,6.0nm,1.0s,mb4.7
YAK    Yakutsk           64.40  17 eP     P        11 49 11.4  -2.5
YAK                                pmax   pmax
       comp=Z,32nm,0.9s,mb5.3
YAK                                pmax   pmax
       comp=N,6.0nm,0.9s
YAK                                pmax   pmax
       comp=E,8.0nm,1.2s
BRTR   Keskin Array B    67.16 312 P      P        11 49 31.5  -0.6
       comp=E,1.0nm,0.7s,mb3.9,baz=64,slow=5.9,SNR=4.9
PRGR   Permogore         69.78 337 eP     P        11 49 45.9  -2.1
PRGR                               pmax   pmax
       comp=Z,38nm,0.7s,mb5.4
OBN    Obninsk           70.69 328⇓eP     P        11 49 53.4  -0.3
OBN                                e               11 52 26.4
OBN                                eS     S        11 59 01.0  -4.5
OBN                                pmax   pmax
       comp=Z,6.0nm,0.8s,mb4.6
OBN                                MLR    MLR
       comp=Z,200nm,20.0s,MS4.4
KLMR   Klimovskoe        71.87 335 eP     P        11 50 00.0  -0.7
KLMR                               pmax   pmax
       comp=Z,13nm,1.4s,mb4.7
SEY    Seymchan          72.95  24⇑eP     P        11 50 06.7  -0.4
AKASG  Malin Array Be    73.30 322 P      P        11 50 08.6  -0.8
       comp=Z,2.0nm,0.5s,mb4.3,baz=95,slow=4.6,SNR=7.5
JOF    Joensuu           76.27 335 ep     P        11 50 25.6  -0.8
       comp=Z,3.2nm,0.6s,mb4.4
FINES  FINESS Array B    78.10 333 P      P        11 50 36.5  -0.2
       comp=Z,6.0nm,0.7s,mb4.6,baz=104,slow=8.0,SNR=13
FINES  FINESS Array B    78.10 333 P      P        11 50 36.5  -0.2
KAF    Kangasniemi       78.19 333 eP     P        11 50 36.2  -1.0
KAF                                pmax   pmax
       comp=Z,6.0nm,0.6s,mb4.7
KAF    Kangasniemi       78.19 333 ep     P        11 50 36.2  -1.0
       comp=Z,5.6nm,0.6s,mb4.7
ARCES  ARCESS Array B    80.72 340 P      P        11 50 50.1  -0.7
       comp=Z,4.2nm,0.8s,mb4.4,baz=93,slow=5.4,SNR=21
GERES  GERESS Array B    82.85 319 P      P        11 51 03.5  +1.0
       comp=Z,2.3nm,0.9s,mb4.2,baz=101,slow=6.9,SNR=7.4
NOA    NORSAR Array B    85.09 331 P      P        11 51 13.8  +0.2
       comp=Z,2.6nm,0.8s,mb4.4,baz=96,slow=5.4,SNR=3.5
NOA    NORSAR Array B    85.09 331 P      P        11 51 13.8  +0.2
ULM    Lac du Bonnet    126.33   9 PKP    PKPdf    11 57 40.4  -0.4
       comp=Z,0.7nm,0.3s,baz=35,slow=4.9,SNR=3.6
TXAR   Lajitas Array    143.08  29 PKP    PKPdf    11 58 10.1  -2.5
       comp=Z,0.9nm,0.9s,baz=228,slow=3.2,SNR=3.5
CPUP   Villa Florida    145.15 225 PKPbc  PKPbc    11 58 16.1  +0.4
       comp=Z,0.7nm,0.4s,baz=37,slow=1.8,SNR=3.9
CFAA   Coronel Fontan   147.55 206 PKPbc  PKPbc    11 58 23.4  +0.7
       comp=Z,0.4nm,0.6s,baz=124,slow=1.2,SNR=6.4
CFAA   Coronel Fontan   147.55 206 PKPbc  PKPbc    11 58 23.4  +0.7
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*IDC **26** 11:39:13.7±3.5, 2°.32N×95°.63E, h0km, mb4.4/7, mb1 4.4/7, mb1mx4.0/22, mbtmp4.4/7, MS4.1/3, Ms1 4.1/3, ms1mx3.4/43, Error ellipse: s-maj=83.8km s-min=45.5km az=165.0*

ISC 26 11:39:17.7±3.7**, 2°.2N**±0°.5×**95°.8E**±0°.3**, h35**km**, n11,** σ**0ˢ.99**/9**,**
mb4.4/9**, MS4.1**/3**, Off west coast of northern Sumatera**

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Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                   Op     ISC        h  m  s    ISC
LZH    Lanzhou           34.58  12 eP     P        11 46 04.3  +1.1
LZH                                pP     pP       11 46 08.0  -5.3
LZH                                sP     sP       11 46 10.5  -7.1
LZH                                pmax   pmax
       comp=Z,18nm,1.4s,mb4.8
LZH                                pmax   pmax
       comp=Z,75nm,4.3s
GTA    Gaotai            37.26   5 eP     P        11 46 25.0  -1.1
GTA                                pP     pP       11 46 29.5  -6.8
GTA                                sP     sP       11 46 31.5  -9.0
GTA                                pmax   pmax
       comp=Z,5.0nm,0.9s,mb4.3
WRA    Warramunga Arr    43.75 122 LR     LR       12 07 06.0
       comp=Z,152nm,18.8s,MS3.9,baz=230,slow=38
KSRS   Korea Array       45.89  36 P      P        11 47 36.2  -0.7
       comp=Z,1.1nm,0.6s,mb4.0,baz=237,slow=8.5,SNR=4.5
KSRS                               LR     LR       12 08 35.3
       comp=Z,210nm,18.1s,MS4.1,baz=227,slow=38
MKAR   Makanchi Array    45.98 347 P      P        11 47 37.6  +0.2
       comp=Z,3.5nm,0.4s,mb4.6,baz=161,slow=8.7,SNR=14
SONM   Songino Array     46.42  10 P      P        11 47 40.7  -0.1
       comp=Z,4.9nm,0.7s,mb4.6,baz=193,slow=9.1,SNR=6.1
SONM                               PcP    PcP      11 49 17.3  +2.0
       comp=Z,1.2nm,0.7s,baz=183,slow=2.8,SNR=2.9
ZALV   Zalesovo Beam     52.40 352 P      P        11 48 26.4  -0.1
       comp=Z,7.4nm,0.6s,mb4.8,baz=157,slow=8.3,SNR=4.9
BRTR   Keskin Array B    67.42 312 P      P        11 50 08.2  -1.8
       comp=Z,1.6nm,0.8s,mb4.1,baz=112,slow=8.4,SNR=4.3
LBTB   Lobatse           73.04 243 LR     LR       12 19 18.7
       comp=Z,126nm,18.2s,MS4.2,baz=212,slow=33
FINES  FINESS Array B    78.50 333 P      P        11 51 16.0  +1.0
       comp=Z,2.3nm,0.7s,mb4.2,baz=87,slow=7.1,SNR=2.7
ARCES  ARCESS Array B    81.16 340 P      P        11 51 30.8  +1.4
       comp=Z,1.7nm,0.8s,mb4.1,baz=89,slow=5.7,SNR=4.2
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*ISCJB **26** 11:43:53.8±0.7, 36°.25N±0°.10×137°.05E±0°.08, h278km±5km, mb3.3/2, Error ellipse: s-maj=18.0km s-min=6.5km az=150.3*

*IDC **26** 11:43:53.4±3.0, 36°.57N×136°.74E, h280km±22km, mb3.1/2, mb1 3.4/3, mb1mx2.8/25, mbtmp3.3/3, Error ellipse: s-maj=110.3km s-min=22.8km az=107.0*

*JMA **26** 11:43:54.8±0.2, 36°.19N×137°.09E, h273km±2km, M2.6*

ISC 26 11:43:54.8±0.7**, 36°.26N**±0°.10×**137°.05E**±0°.08**, h272**km±5km**,**
n22, σ**0ˢ.91**/33**, mb3.3**/2**, Eastern Honshu**

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Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                   Op     ISC        h  m  s    ISC
JGN    Niukaw             0.22 100 P      Pn       11 44 29.8  +0.2
JKG    Kaga               0.58 272 P      Pn       11 44 31.0  +0.7
JGM    Miyama             0.62 206 P      Pn       11 44 30.9  +0.3
JGM                                S      S        11 44 58.6  -0.2
JNG    Nsakai             0.86  80 P      Pn       11 44 31.9  +0.5
JNG                                S      S        11 45 01.0  +0.7
MAT    Matsushiro         0.98  73 P      Pn       11 44 32.2  +0.3
MAT                                S      S        11 45 02.0  +0.7
MAT    Matsushiro         0.98  73 P      Pn       11 44 32.3  +0.4
MJAR   Matsushiro Arr     0.98  73 P      Pn       11 44 32.8  +0.8
       2.9nm,0.3s,baz=256,slow=7.0,SNR=28
JRY    Ryogami san        1.52  99 P      Pn       11 44 35.4  +0.1
JRY                                S      S        11 45 07.3   0.0
JWT    Wachi              1.66 234 P      Pn       11 44 36.3   0.0
JWT                                eS     S        11 45 08.0  -1.2
JKY    Yasaka             1.70 249 P      Pn       11 44 36.6   0.0
JKY                                S      S        11 45 08.3  -1.4
JIE    Ise                1.89 189 P      Pn       11 44 38.6  +0.4
JOD2   Odawara 2          1.93 120 P      Pn       11 44 38.7  +0.2
JAG    Ashikaga           1.95  84 P      Pn       11 44 38.5  -0.1
JAG                                S      S        11 45 11.5  -1.8
JSD    Sado               2.02  28 P      Pn       11 44 40.9  +1.8
JKSM   Kasumi             2.05 252 P      Pn       11 44 39.5   0.0
JWY    Kouya              2.36 211 P      Pn       11 44 42.7  +0.4
JFT    Otama              2.92  64 P      Pn       11 44 49.3  +1.6
JFT                                S      S        11 45 31.4  +1.6
JFK    Kawauchi           3.26  69 P      Pn       11 44 51.0  -0.3
JFK                                S      S        11 45 34.5  -1.8
JMM    Marumori           3.40  61 P      Pn       11 44 52.8  +0.1
JMM                                S      S        11 45 37.2  -1.7
ASAJ   Asahikawa          8.92  27 P      Pn       11 45 57.8  -1.7
       2.1nm,0.3s,baz=229,slow=10,SNR=13
ASAJ                               S      S        11 47 33.2  -7.3
       0.6nm,0.3s,baz=143,slow=20,SNR=5.6
WRA    Warramunga Arr    55.95 183 P      P        11 53 04.7  -0.4
       1.0nm,0.4s,mb3.6,baz=359,slow=7.6,SNR=7.8
ASAR   Alice Springs     59.67 183 P      P        11 53 30.9  +0.1
       0.2nm,0.3s,mb3.1,baz=360,slow=6.5,SNR=7.9
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*ISCJB **26** 11:44:52.5±0.8, 21°.23S±0°.08×66°.8W±0°.1, h224km±12km, mb3.3/2, Error ellipse: s-maj=16.4km s-min=11.9km az=164.4*

*IDC **26** 11:44:52.6±1.1, 21°.10S×66°.88W, h215km±13km, mb3.2/2, mb1 3.3/6, mb1mx3.2/20, mbtmp3.2/6, Error ellipse: s-maj=28.0km s-min=17.1km az=133.0*

*NEIC **26** 11:44:53.8±0.7, 21°.13S×66°.79W, h224km±10km, Error ellipse: s-maj=13.9km s-min=13.4km az=74.0*

ISC 26 11:44:53.6±0.8**, 21°.17S**±0°.08×**66°.8W**±0°.1**, h218**km±11km**,**
n9, σ**0ˢ.87**/12**, mb3.3**/2**, Southern Bolivia**

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Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                   Op     ISC        h  m  s    ISC
LVC    Limon Verde        2.42 233 P      Pn       11 45 38.5  +0.7
       4.4nm,0.3s,baz=52,slow=8.7,SNR=27
LVC                                S      S        11 46 11.4  -1.0
       12nm,0.3s,baz=244,slow=21,SNR=24
ARE    Arequipa           6.45 316 eP     Pn       11 46 28.0  +1.1
ARE                                eS     S        11 47 41.0  -0.2
SIV    San Ignacio        7.50  48 P      Pn       11 46 39.7  -0.7
       2.5nm,0.3s,baz=254,slow=11,SNR=50
SIV                                S      S        11 47 54.8   -11
       0.5nm,0.3s,baz=232,slow=16,SNR=3.2
CPUP   Villa Florida     10.09 122 P      Pn       11 47 15.0  +1.3
       0.6nm,0.3s,baz=298,slow=13,SNR=3.0
CFAA   Coronel Fontan    10.47 187 P      Pn       11 47 14.2  -4.3
       0.2nm,0.3s,baz=356,slow=17,SNR=12
CFAA                               S      S        11 49 03.6   -12
       0.2nm,0.3s,baz=250,slow=14,SNR=6.3
PLCA   Paso Flores       19.76 188 P      P        11 49 07.3  +0.4
       0.3nm,0.3s,baz=11,slow=10,SNR=7.9
TORD   Torodi Ar. Bea    75.41  69 P      P        11 56 12.6  -1.2
       0.7nm,0.4s,mb3.7,baz=258,slow=5.7,SNR=10
YKA    Yellowknife Ar    91.54 340 P      P        11 57 35.1  +0.2
       0.1nm,0.5s,mb3.0,baz=124,slow=5.1,SNR=4.2
MKAR   Makanchi Array   144.21  37 PKP    PKPdf    12 04 02.5  -0.8
       2.5nm,1.2s,baz=346,slow=2.5,SNR=5.9
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*NEIC **26** 11:50:56.5, 36°.07N×21°.85E, h7km, MD3.5(ATH), After ATH.*

*ATH **26** 11:50:56.5, 36°.07N×21°.85E, h7km±3km, MD3.5/9*

*ISCJB **26** 11:50:57.8±1.2, 36°.10N±0°.06×21°.88E±0°.07, h10km, Error ellipse: s-maj=9.5km s-min=7.2km az=25.6*

*CSEM **26** 11:50:57.7±1.0, 36°.14N×21°.96E, h2km, ML3.7/1, Error ellipse: s-maj=18.7km s-min=11.9km az=26.0*

THE ***26*** *11:51:00.2, 36°.22N×21°.90E, h0^{km}±9^{km}, ML3.7/1, Error ellipse: s-maj=16.9km s-min=4.0km az=224.0*

ISC 26 11:50:58.3±1.2**, 36°.10N**±0°.07×**21°.86E**±0°.06**, h10^{km}, n29,** σ**1^{s}.40**/41**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.80	353	P	Pg	11 51 12.0	-1.8
PYL				S	Sg	11 51 23.5	-0.7
PYL	PYLOS	0.80	353	*e*PG	Pg	11 51 12.1	-1.7
PYL				*e*SB	Sg	11 51 23.9	-0.3
PYL	PYLOS	0.80	353	*e*Pg	Pg	11 51 12.1	-1.7
PYL				*e*Sb	Sg	11 51 23.9	-0.3
KYTH	Kithira	0.97	79	*e*PB	Pg	11 51 15.3	-1.6
KYTH	Kithira	0.97	79	*e*Pb	Pg	11 51 15.3	-1.6
VLI	Veliai	1.07	54	*e*PN	Pg	11 51 17.4	-1.4
VLI				*e*SB	Sg	11 51 32.4	-0.3
VLI	Veliai	1.07	54	*e*Pn	Pg	11 51 17.4	-1.4
VLI				*e*Sb	Sg	11 51 32.4	-0.3
ITM	Ithomi	1.08	3	*e*PG	Pg	11 51 17.2	-1.9
ITM				*e*SB	Sg	11 51 32.9	-0.3
ITM	Ithomi	1.08	3	*e*Pg	Pg	11 51 17.2	-1.9
ITM				*e*Sb	Sg	11 51 32.9	-0.3
VLX	Vlachokerasia	1.34	18	*e*PG	Pn	11 51 21.7	-1.3
VLX	Vlachokerasia	1.34	18	*e*Pg	Pn	11 51 21.7	-1.3
DID	Didima	1.79	38	P	Pn	11 51 29.6	+0.4
DID				S	Sn	11 51 52.6	+0.6
DID	Didima	1.79	38	*e*PN	Pn	11 51 29.6	+0.4
DID	Didima	1.79	38	*e*Pn	Pn	11 51 29.6	+0.4
DID				S	Sn	11 51 52.6	+0.6
GUR	Goura	1.87	12	*e*PG	Pn	11 51 31.8	+1.4
GUR	Goura	1.87	12	*e*Pg	Pn	11 51 31.8	+1.4
LTK	Loutraki	2.12	24	P	Pn	11 51 35.8	+2.1
LTK	Loutraki	2.12	24	*e*PG	Pn	11 51 35.7	+2.0
LTK	Loutraki	2.12	24	*e*Pg	Pn	11 51 35.7	+2.0
LAKA	Lakka	2.14	2	P	Pn	11 51 34.9	+0.8
LAKA				S	Sn	11 52 02.4	+1.7
LAKA	Lakka	2.14	2	P	Pn	11 51 34.9	+0.8
LAKA				S	Sn	11 52 02.4	+1.7
EFP	Efpalio	2.32	1	*e*PB	Pn	11 51 36.5	-0.1
EFP	Efpalio	2.32	1	*e*Pb	Pn	11 51 36.5	-0.1
EVR	Evrytania	2.81	359	*e*PN	Pn	11 51 46.0	+2.7
EVR	Evrytania	2.81	359	*e*Pn	Pn	11 51 46.0	+2.7
AGG	Agios Georgios	2.94	7	*e*PB	Pn	11 51 47.3	+2.2
AGG	Agios Georgios	2.94	7	*e*Pb	Pn	11 51 47.3	+2.2
CUC	Castrocucco 4.7nm,0.6s	6.15	311	*e*Pn	Pn	11 52 29.5	+0.3
CUC				*e*Sn	Sn	11 53 37.1	-2.5
CUC	Castrocucco 4.7nm,0.6s	6.15	311	*e*Pn	Pn	11 52 29.5	+0.3

ISCJB ***26*** *11:53:14.4±0.2, 41°.16N±0°.01×114°.84W±0°.01, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.6km az=21.0*

NEIC ***26*** *11:53:14.4, 41°.19N×114°.87W, h9^{km}, ML3.1, After REN.*

IDC ***26*** *11:53:14.2±0.9, 41°.21N×114°.89W, h0^{km}, mb3.0/1, mb1 3.5/3, mb1mx3.3/22, mbtmp3.0/3, ML3.4/2, Error ellipse: s-maj=21.2km s-min=4.9km az=135.0*

ISC 26 11:53:14.4±0.2**, 41°.19N**±0°.01×**114°.88W**±0°.01**, h2^{km}**±2^{km}**, n115,** σ**0^{s}.98**/185**, 46C-38D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	Clover Valley, baz=0.4,SNR=528	0.36	199	⇑P	Pg	11 53 21.7	+0.4
N12A	baz=0.4			⇓S	Sg	11 53 26.9	+1.0
N12A	Clover Valley,	0.36	199	*e*Pg	Pg	11 53 21.7	+0.4
N12A				*e*Sg	Sg	11 53 27.0	+1.0
ELK	Elko 40nm,0.3s,baz=16,slow=17,SNR=60	0.52	211	Pg	Pg	11 53 24.5	+0.1
ELK	222nm,0.3s,baz=158,slow=15,SNR=119			Lg		11 53 31.3	
M13A	Montello baz=0.6,SNR=80	0.56	73	⇑P	Pg	11 53 24.6	-0.6
M13A	Montello	0.56	73	*e*Pg	Pg	11 53 24.7	-0.5
M13A				*e*Sg	Sg	11 53 37.0	+4.5
N13A	Wendover, West baz=0.6,SNR=123	0.61	123	⇓P	Pg	11 53 26.0	-0.1
N13A	baz=0.6			⇓S	Sg	11 53 34.1	0.0
N13A	Wendover, West	0.61	123	*e*Pg	Pg	11 53 26.2	+0.1
N13A				*e*Sg	Sg	11 53 35.7	+1.6
M11A	Holland Ranch, baz=0.7,SNR=93	0.72	289	⇑P	Pg	11 53 27.9	-0.4
M11A	baz=0.7			⇓S	Sg	11 53 38.2	+0.5
N11A	Elko Archery C baz=0.8,SNR=80	0.75	240	P	Pg	11 53 28.6	-0.2
N11A	baz=0.8			⇓S	Sg	11 53 38.7	+0.3
O12A	Currie baz=0.9,SNR=109	0.93	174	⇑P	Pg	11 53 32.0	-0.2
O12A	baz=0.9			⇑S	Sg	11 53 44.6	+0.3
L12A	House Creek Ra baz=1.0,SNR=136	0.96	354	⇓P	Pg	11 53 32.4	-0.3
L12A	baz=1.0			⇑S	Sg	11 53 45.8	+0.6
L13A	Double Diamond baz=1.1,SNR=49	1.14	38	⇓P	Pg	11 53 35.4	-0.8
L13A	baz=1.1			⇑S	Sg	11 53 50.6	-0.4
L11A	Cat Creek Ranc baz=1.2	1.17	326	⇓P	Pg	11 53 36.2	-0.7
L11A	baz=1.2			⇓S	Sg	11 53 51.9	-0.1
M14A	Sheep Mountain baz=1.2,SNR=141	1.20	75	P	Pg	11 53 36.4	-1.0
M14A	baz=1.2			⇑S	Sg	11 53 52.4	-0.4
O11A	Cowboy Ranch, baz=1.2,SNR=133	1.21	209	⇑P	Pg	11 53 37.5	-0.1
O11A	baz=1.2			⇑S	Sg	11 53 53.3	-0.1
O13A	Hicks Ranch, I baz=1.3,SNR=106	1.26	147	⇑P	Pg	11 53 38.0	-0.6
O13A	baz=1.3			⇓S	Sg	11 53 55.4	+0.5
M10A	I.L. Ranch, Tu baz=1.3	1.29	285	⇑P	Pg	11 53 38.7	-0.4
M10A	baz=1.3			⇓S	Sg	11 53 56.5	+0.7
N10A	Dunphy baz=1.3,SNR=12	1.32	249	⇑P	Pg	11 53 38.9	-0.8
N10A	baz=1.3			⇓S	Sg	11 53 57.1	+0.3
N14A	Grayback Hills baz=1.3	1.33	104	⇓P	Pg	11 53 38.5	-1.4
N14A	baz=1.3			⇑S	Sg	11 53 56.9	-0.2
K12A	Draper Farm, C baz=1.4,SNR=107	1.44	359	⇓P	Pn	11 53 39.9	-1.7
K12A	baz=1.4			⇑S	Sg	11 53 59.3	-1.4
L10A	Juniper Basin baz=1.5	1.48	307	⇑P	Pn	11 53 41.4	-0.7
L10A	baz=1.5			⇑S	Sb	11 54 01.6	-0.4
L14A	Malta baz=1.5,SNR=163	1.49	55	P	Pn	11 53 41.5	-0.8
L14A	baz=1.5			⇑S	Sb	11 54 01.0	-1.2
O10A	Cortez Mining, baz=1.5,SNR=39	1.52	234	⇓P	Pn	11 53 42.5	-0.2
O10A	baz=1.5			⇓S	Sn	11 54 03.1	0.0
K13A	Stover Farm, H baz=1.6,SNR=43	1.57	22	⇑P	Pn	11 53 42.4	-0.9
K13A	baz=1.6			⇑S	Sn	11 54 03.7	-0.6
HVU	Hansel Valley	1.69	69	*e*Pn	Pn	11 53 44.1	-0.8
HVU				*e*Sg	Sg	11 54 06.6	-2.0
P11A	Circle Ranch, baz=1.8,SNR=19	1.77	202	⇑P	Pn	11 53 46.3	+0.3
K11A	Parker Ranch, baz=1.8,SNR=119	1.79	332	⇑P	Pn	11 53 46.1	-0.3
N15A	Stansbury Isla baz=1.8,SNR=61	1.81	99	⇑P	Pn	11 53 45.5	-1.1
SPUT	South Promonto	1.84	86	*e*Pn	Pn	11 53 45.9	-1.0
SPUT				*e*Sg	Sg	11 54 11.8	-1.6
M15A	Larsen Ranch, baz=1.8,SNR=56	1.85	81	⇑P	Pn	11 53 46.1	-1.1
K14A	Jones Ranch, D baz=1.9,SNR=29	1.86	43	⇑P	Pn	11 53 46.7	-0.6
P13A	Bates Ranch, G baz=1.9,SNR=24	1.86	159	⇑P	Pn	11 53 46.0	-1.3
DUG	Dugway baz=1.9,SNR=62	1.86	122	⇓P	Pn	11 53 45.9	-1.5
BMN	Battle Mountai	1.93	248	*e*Pn	Pn	11 53 48.4	+0.2
BMN				*e*Sg	Sg	11 54 14.7	-1.7
M09A	Marrel Ranch, baz=1.9,SNR=7.8	1.95	278	⇑P	Pn	11 53 48.0	-0.5
P10A	Eureka baz=2.0,SNR=20	1.98	218	⇑P	Pn	11 53 48.5	-0.4
N09A	Rock Creek Ran baz=2.0,SNR=10	2.03	261	⇑P	Pn	11 53 48.6	-1.0
O09A	Fish Creek Ran baz=2.0,SNR=24	2.03	241	⇓Pb	Pb	11 53 51.6	-0.5
L15A	Malad City baz=2.0,SNR=40	2.04	66	⇓P	Pn	11 53 49.1	-0.7
O15A	The Old Anders baz=2.0,SNR=24	2.05	116	⇓P	Pn	11 53 48.7	-1.2
J12A	Stokes Ranch, baz=2.1,SNR=58	2.06	356	⇓P	Pn	11 53 50.0	0.0
P14A	Drum Mountains baz=2.1,SNR=10	2.12	139	⇓P	Pn	11 53 49.7	-1.1
NOQ	North Oquirrh	2.16	104	*e*Pn	Pn	11 53 50.7	-0.8
NOQ				*e*Sg	Sg	11 54 24.6	+0.8
K10A	MacKenzie Ranc baz=2.2,SNR=18	2.17	318	⇑P	Pn	11 53 52.7	+1.1
L09A	Wilkinson Ranc baz=2.2,SNR=12	2.25	292	⇓P	Pn	11 53 53.8	+1.2
J13A	Cove Ranch, Pi baz=2.3,SNR=46	2.27	13	⇓P	Pn	11 53 53.2	+0.4
K15A	Arbon baz=2.3,SNR=37	2.30	49	P	Pn	11 53 53.5	+0.2
MFID	Camas Ranch baz=2.3,SNR=22	2.33	343	⇓P	Pn	11 53 54.6	+0.9
Q13A	Wheeler Ranch, baz=2.3,SNR=14	2.33	163	⇓P	Pn	11 53 52.8	-1.0
HLID	Hailey	2.39	8	*e*Pn	Pn	11 53 54.2	-0.4
HLID				*e*Sg	Sg	11 54 29.2	-2.1
CTU	Camp Tracy	2.42	101	*e*Sg	Sg	11 54 33.1	+0.8
CTU	Camp Tracy	2.42	101	*e*Pn	Pn	11 53 56.4	+1.4
CTU				*e*Pg	Pg	11 54 00.7	-0.2
NLU	North Lily Min	2.47	119	*e*Pn	Pn	11 53 56.4	+0.7
NLU				*e*Pb	Pb	11 54 00.7	+1.2
NLU				*e*Pg	Pg	11 54 03.1	+1.3
NLU				*e*Sg	Sg	11 54 33.8	+0.1
Q14A	Sevier Lake (B baz=2.5,SNR=17	2.52	150	⇑P	Pn	11 53 55.0	-1.4
P15A	Leamington baz=2.6,SNR=14	2.56	128	P	Pn	11 53 55.6	-1.4
K09A	Rome baz=2.6,SNR=40	2.60	306	P	Pn	11 53 59.3	+1.8
J10A	Berg Farm, Mel baz=2.6,SNR=31	2.63	329	⇑P	Pn	11 53 60.0	+2.0
Q10A	Clear Creek Ra baz=2.6,SNR=23	2.64	207	P	Pn	11 53 58.8	+0.8
O08A	Rochester Mine baz=2.6,SNR=12	2.65	251	⇑P	Pn	11 53 57.1	-1.0
M08A	Happy Creek Ra baz=2.6,SNR=30	2.65	277	⇑P	Pn	11 54 00.7	+2.6
MPU	Maple Canyon	2.74	114	*e*Pn	Pn	11 53 58.2	-1.2
MPU				*e*Pb	Pb	11 54 04.9	+0.8
MPU				*e*Pg	Pg	11 54 06.7	-0.1
MPU				*e*Sg	Sg	11 54 43.0	+0.6
I13A	Wildhorse Cree baz=2.8	2.78	11	⇑P	Pn	11 54 00.7	+0.8
L08A	Fields baz=2.8,SNR=17	2.78	292	⇑P	Pn	11 54 02.3	+2.4
I11A	Placerville baz=2.8	2.83	344	⇑P	Pn	11 54 03.0	+2.4
J15A	Blackfoot baz=2.9,SNR=40	2.86	39	⇑P	Pn	11 54 01.3	+0.3
DAU	Daniels Canyon	2.86	105	*e*Pn	Pn	11 54 01.0	0.0
DAU				*e*Pg	Pg	11 54 09.4	+0.2
DAU				*e*Sg	Sg	11 54 48.1	+1.9
R12A	Pony Springs, baz=2.9,SNR=9.5	2.87	176	⇓P	Pn	11 54 00.5	-0.6
R11A	Troy Canyon, C baz=2.9,SNR=7.4	2.89	191	⇑P	Pn	11 54 00.8	-0.7
Q15A	Fillmore baz=2.9,SNR=16	2.91	138	⇓P	Pn	11 54 00.4	-1.4
I14A	Mackay baz=2.9	2.93	21	⇓P	Pn	11 54 02.8	+0.8
K16A	Soda Springs baz=2.9,SNR=18	2.95	55	P	Pn	11 54 03.0	+0.7
WVOR	Wild Horse Val	3.07	295	*e*Pn	Pn	11 54 05.7	+1.8
WVOR				*e*Sg	Sg	11 54 52.2	-0.7
R13A	O'Grain Ranch, baz=3.1,SNR=38	3.09	167	P	Pn	11 54 04.3	+0.1
N07B	Gerlach baz=3.1,SNR=7.3	3.12	264	⇓P	Pn	11 54 04.1	-0.5
L17A	Cokeville baz=3.1,SNR=5.9	3.14	72	⇓P	Pn	11 54 05.6	+0.7
J16A	Bone baz=3.2,SNR=12	3.20	48	P	Pn	11 54 06.4	+0.7
O07A	Toulon baz=3.2,SNR=21	3.21	253	⇑P	Pn	11 54 04.7	-1.2
AHID	Auburn Hatcher	3.23	60	*e*Pn	Pn	11 54 05.5	-0.6
AHID				*e*Pg	Pg	11 54 18.0	+1.8
R14A	James Farms, M baz=3.2,SNR=5.8	3.23	153	⇓P	Pn	11 54 05.4	-0.7
M07A	Soldier Meadow baz=3.2,SNR=25	3.24	275	⇓P	Pn	11 54 05.7	-0.5
TMUT	Trail Mountain	3.39	123	*e*Pn	Pn	11 54 08.2	-0.2
TMUT				*e*Pg	Pg	11 54 21.7	+2.3
TMUT				*e*Sg	Sg	11 55 03.8	+0.5
MSU	Marysvale	3.39	141	*e*Pn	Pn	11 54 07.7	-0.7
MSU				*e*Sg	Sg	11 55 05.3	+1.9
H13A	Challis baz=3.4,SNR=12	3.40	8	⇑P	Pn	11 54 10.1	+1.6
L07A	Adell baz=3.4,SNR=5.5	3.44	285	⇑P	Pn	11 54 08.8	-0.3
ARUT	Antelope Range	3.58	161	*e*Pn	Pn	11 54 10.9	0.0
ARUT				*e*Pg	Pg	11 54 23.7	+0.7
ARUT				*e*Sg	Sg	11 55 08.0	-1.3
S12A	Delamar Landin baz=3.6	3.58	180	⇑P	Pn	11 54 10.5	-0.5
R15A	Junction baz=3.6	3.59	145	⇓P	Pn	11 54 10.5	-0.6
S14A	Cedar City baz=3.7,SNR=11	3.68	158	⇑P	Pn	11 54 11.9	-0.4
S13A	Holt Ranch, En baz=3.7,SNR=52	3.69	167	⇓P	Pn	11 54 12.1	-0.4
NVAR	Mina Array Bea 1.7nm,0.3s,baz=43,slow=12,SNR=27	3.82	225	Pn	Pn	11 54 13.8	-0.4
NVAR	4.6nm,0.3s,baz=34,slow=15,SNR=24			Pg	Pg	11 54 23.2	-4.3
NVAR	3.3nm,0.3s,baz=26,slow=40,SNR=3.6			Sn	Sn	11 54 59.9	+0.3
NVAR	10nm,0.3s,baz=257,slow=28,SNR=8.9			Lg		11 55 14.2	
NVAR	Mina Array Bea	3.82	225	Pn	Pn	11 54 13.8	-0.4
NVAR				Pg	Pg	11 54 23.2	-4.3
NVAR				Sn	Sn	11 54 59.9	+0.3
NVAR				Lg		11 55 14.2	
CCUT	Cedar City	3.82	162	*e*Pn	Pn	11 54 14.2	-0.1
CCUT				*e*Pg	Pg	11 54 27.2	-0.5
CCUT				*e*Sg	Sg	11 55 17.2	-0.1
MCMT	McKenzie Canyo	3.93	22	*e*Pn	Pn	11 54 17.1	+1.4
MCMT				*e*Sg	Sg	11 55 20.4	-0.1
SRU	San Rafael	3.93	120	*e*Pn	Pn	11 54 16.4	+0.6
SRU				*e*Pg	Pg	11 54 30.4	+0.6
SRU				*e*Sg	Sg	11 55 22.4	+1.6
T11A	Corn Creek, Al baz=4.0,SNR=22	3.96	184	⇓P	Pn	11 54 15.7	-0.4
BMO	Blue Mountains	4.07	335	*e*Pn	Pn	11 54 18.7	+1.1
BMO				*e*Pb	Pb	11 54 27.5	+0.8
BMO				*e*Pg	Pg	11 54 31.6	-0.7
BMO				*e*Sg	Sg	11 55 17.7	-7.3
MOD	Modoc	4.13	282	*e*Pn	Pn	11 54 17.9	-0.6
MOD				*e*Pg	Pg	11 54 33.8	+0.3
MOD				*e*Sg	Sg	11 55 27.6	+0.6
PDAR	Pinedale Array 0.4nm,0.3s,baz=243,slow=12,SNR=15	4.27	67	Pn	Pn	11 54 22.1	+1.7
PDAR	1.0nm,0.3s,baz=243,slow=14,SNR=17			Pg	Pg	11 54 30.5	-5.7
PDAR	1.5nm,0.3s,baz=229,slow=27,SNR=9.1			Lg		11 55 28.4	
BEKR	Beckwourth baz=4.4	4.38	254	⇑P	Pn	11 54 21.1	-0.8
YFT	Old Faithful	4.41	41	Pn	Pn	11 54 21.4	-0.9
YFT				*e*Sg	Sg	11 55 42.6	+6.6
YMR	Madison River	4.51	38	*e*Pn	Pn	11 54 25.5	+1.8
YMR				*e*Sg	Sg	11 55 39.8	+0.6
LRM	Limekiln Ridge	4.95	20	*e*Pn	Pn	11 54 30.8	+1.0
LRM				*e*Pg	Pg	11 54 49.1	-0.2
LRM				*e*Sg	Sg	11 55 49.0	-4.4
V11A	Goodsprings baz=5.4	5.36	185	⇑P	Pn	11 54 35.4	0.0
V13A	Grand Canyon W baz=5.4,SNR=9.1	5.38	172	⇓P	Pn	11 54 35.8	+0.2
PV04	Paradox Valley	5.39	119	Pn	Pn	11 54 37.0	+1.3
PV04				*e*Pg	Pg	11 54 54.9	-2.6
PV04				*e*Sg	Sg	11 56 04.8	-2.6
V12A	Nelson baz=5.5,SNR=10.0	5.46	180	⇓P	Pn	11 54 36.8	+0.1
MSO	Missoula 2.0nm,0.6s	5.67	7	*e*Pn	Pn	11 54 40.8	+1.1
PV01	Paradox Valley 467nm,0.8s	5.75	120	*e*Pn	Pn	11 54 43.0	+2.2
PV01				*e*Pg	Pg	11 55 04.5	-0.1
PV01				*e*Sg	Sg	11 56 20.6	+1.6
CHMT	Chamberlain Mo 1.2nm,0.5s	5.84	11	*e*Pn	Pn	11 54 42.8	+0.8
YBH	Yreka Blue Hor 0.1nm,0.3s,baz=52,slow=13,SNR=3.1	5.91	278	Pg	Pg	11 55 00.3	-7.3
YBH	0.1nm,0.3s,baz=35,slow=12,SNR=4.1			Lg		11 56 21.4	
GSC	Goldstone 8.7nm,0.6s	6.07	195	*e*Pg	Pg	11 55 09.8	-1.0
GSC				*e*Sg	Sg	11 56 31.3	+1.9
SLMT	Seeley Lake 3.6nm,0.8s	6.13	9	*e*Pn	Pn	11 54 47.3	+1.3
WUAZ	Wupatki 19nm,0.6s	6.30	153	*e*Pn	Pn	11 54 48.3	0.0
WUAZ				*e*Pg	Pg	11 55 09.3	-5.8
WUAZ				*e*Sg	Sg	11 56 37.0	+0.2
MVCO	Mesa Verde 7.5nm,0.6s	6.36	127	*e*Pg	Pg	11 55 11.6	-4.5
MVCO				*e*Sg	Sg	11 56 33.5	-4.9
YKA	Yellowknife Ar 0.7nm,0.7s,baz=180,slow=10,SNR=17	21.33	0	P	P	11 58 02.4	0.0

NEIC ***26*** *11:58:47.2, 35°.98N×21°.74E, h5^{km}, ML3.9(ATH), After ATH.*

ATH ***26*** *11:58:47.0, 35°.98N×21°.74E, h5^{km}±5^{km}, MD4.0/23, ML3.9*

ISCJB ***26*** *11:58:48.4±0.3, 36°.05N±0°.02×21°.70E±0°.03, h10^{km}, mb4.0/16, Error ellipse: s-maj=3.7km s-min=3.2km az=147.7*

HLW ***26*** *11:58:49.7, 36°.22N×22°.16E, h33^{km}, Mb4.5*

PDG ***26*** *11:58:50.8±0.1, 36°.04N×20°.10E, h8^{km}±11^{km}, ML4.2/10, Error ellipse: s-maj=114.4km s-min=14.6km az=90.0*

CSEM ***26*** *11:58:51.1±0.2, 36°.01N×21°.74E, h20^{km}, ML4.3/3, Error ellipse: s-maj=6.9km s-min=5.1km az=62.0*

MOS ***26*** *11:58:52.8±1.4, 36°.14N×21°.70E, h63^{km}, mb4.2/2, Error ellipse: s-maj=9.1km s-min=5.1km az=88.0*

THE ***26*** *11:58:53.1, 36°.25N×22°.00E, h0^{km}±13^{km}, ML4.3/3, Error ellipse: s-maj=13.6km s-min=2.3km az=219.0*

IDC ***26*** *11:58:55.0±1.7, 36°.15N×22°.02E, h55^{km}±16^{km}, mb3.7/16, mb1 3.8/22, mb1mx3.7/34, mbtmp3.8/22, ML3.7/4, Error ellipse: s-maj=17.9km s-min=11.1km az=7.0*

ISC 26 11:58:50.2±0.3**, 36°.06N**±0°.02×**21°.73E**±0°.03**, h10^{km}, n196,** σ**1^{s}.55**/227**, mb4.0**/16**, 11C-9D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.83	1	P	Pg	11 59 04.7	-1.5
PYL				S	Sg	11 59 16.1	-1.0
PYL	PYLOS	0.83	1	*e*PB	Pg	11 59 04.8	-1.4
PYL				*e*SB	Sg	11 59 17.2	+0.1
PYL	PYLOS	0.83	1	*e*Pb	Pg	11 59 04.8	-1.4
PYL				*e*Sb	Sg	11 59 17.2	+0.1
KYTH	Kithira	1.08	78	*e*PB	Pg	11 59 08.4	-2.6
KYTH	Kithira	1.08	78	*e*Pb	Pg	11 59 08.4	-2.6
ITM	Ithomi	1.13	8	*e*PB	Pg	11 59 10.2	-1.7
ITM				*e*SB	Sg	11 59 26.3	-0.2
ITM	Ithomi	1.13	8	*e*Pb	Pg	11 59 10.2	-1.7
ITM				*e*Sb	Sg	11 59 26.3	-0.2
VLI	Veliai	1.17	56	*e*PN	Pg	11 59 09.6	-3.2
VLI				*e*SB	Sg	11 59 27.8	-0.2
VLI	Veliai	1.17	56	*e*Pn	Pg	11 59 09.6	-3.2
VLI				*e*Sb	Sg	11 59 27.8	-0.2
VLX	Vlachokerasia	1.41	22	*e*PG	Pg	11 59 14.4	-2.8
VLX				*e*SB	Sb	11 59 35.8	+1.3
DID	Didima	1.88	40	P	Pn	11 59 22.0	-0.4
DID	Didima	1.88	40	*e*PG	Pn	11 59 22.8	+0.4
DID	Didima	1.88	40	P	Pn	11 59 22.0	-0.4
GUR	Goura	1.93	15	*e*PG	Pn	11 59 24.2	+1.1
VAM	Vamos	2.11	107	*e*PN	Pn	11 59 25.0	-0.6
VAM	Vamos	2.11	107	*e*Pn	Pn	11 59 25.0	-0.6
LAKA	Lakka	2.18	5	P	Pn	11 59 29.2	+2.7
LAKA	Lakka	2.18	5	P	Pn	11 59 29.2	+2.7
LTK	Loutraki	2.19	26	P	Pn	11 59 27.4	+0.7
LTK	Loutraki	2.19	26	*e*PG	Pn	11 59 28.7	+2.0
LTK	Loutraki	2.19	26	P	Pn	11 59 27.4	+0.7
NAIG	Nisos Aigina	2.20	39	*e*PN	Pn	11 59 28.3	+1.5
NAIG	Nisos Aigina	2.20	39	*e*Pn	Pn	11 59 28.3	+1.5
VLS	Valsamata	2.30	337	*e*PG	Pn	11 59 31.0	+2.9
TRIZ	Trizonia	2.31	7	P	Pn	11 59 28.4	0.0
TRIZ	Trizonia	2.31	7	P	Pn	11 59 28.4	0.0
KALE	Kalithea	2.35	8	P	Pn	11 59 30.1	+1.3
KALE	Kalithea	2.35	8	P	Pn	11 59 30.1	+1.3
EFP	Efpalio	2.36	3	*e*PG	Pn	11 59 31.6	+2.6
ATH	Athens Observa	2.48	39	*e*PN	Pn	11 59 33.0	+2.3
ATH	Athens Observa	2.48	39	*e*Pn	Pn	11 59 33.0	+2.3
ATHU	Athens Univers	2.51	40	P	Pn	11 59 30.9	-0.2
ATHU	Athens Univers	2.51	40	P	Pn	11 59 30.9	-0.2
PTL	Penteli	2.62	40	*e*PN	Pn	11 59 34.1	+1.6
PTL	Penteli	2.62	40	*e*Pn	Pn	11 59 34.1	+1.6
IDI	Anoyia	2.69	106	*e*PN	Pn	11 59 33.0	-0.5
IDI	Anoyia 7.3nm,0.3s,baz=292,slow=16,SNR=27	2.69	106	P	Pn	11 59 32.8	-0.7
IDI	21nm,0.3s,baz=232,slow=23,SNR=5.0			S	Sg	12 00 12.0	-4.6
IDI	Anoyia	2.69	106	*e*Pn	Pn	11 59 33.0	-0.5
SIVA	Sivas	2.72	112	P	Pn	11 59 36.4	+2.5
SIVA	Sivas	2.72	112	P	Pn	11 59 36.4	+2.5
LKR	Lokris	2.77	21	P	Pn	11 59 35.8	+1.1
LKR	Lokris	2.77	21	*e*PB	Pn	11 59 35.4	+0.7
LKR	Lokris	2.77	21	P	Pn	11 59 35.8	+1.1
LKD	Levkas	2.78	342	P	Pn	11 59 36.9	+2.2
LKD	Levkas	2.78	342	P	Pn	11 59 36.9	+2.2
EVR	Evrytania	2.85	1	*e*PN	Pn	11 59 39.0	+3.3
EVR	Evrytania	2.85	1	*e*Pn	Pn	11 59 39.0	+3.3
THR4	Thira Island,	2.99	81	P	Pn	11 59 36.4	-1.3
THR4	Thira Island,	2.99	81	P	Pn	11 59 36.4	-1.3
AGG	Agios Georgios	2.99	9	*e*PN	Pn	11 59 39.7	+2.0
AGG	Agios Georgios	2.99	9	*e*Pn	Pn	11 59 39.7	+2.0
NPS	Neapolis	3.26	103	*e*PB	Pn	11 59 42.5	+1.1
NEO	Neokhori	3.45	20	*e*PN	Pn	11 59 45.0	+1.1
NEO	Neokhori	3.45	20	*e*Pn	Pn	11 59 45.0	+1.1
XOR	Xorichti	3.50	19	P	Pn	11 59 44.5	-0.1
XOR	Xorichti	3.50	19	P	Pn	11 59 44.5	-0.1
THL	Klokotos Trika	3.50	4	P	Pn	11 59 45.9	+1.2
THL	Klokotos Trika	3.50	4	*e*PB	Pn	11 59 47.8	+3.1
THL	Klokotos Trika	3.50	4	P	Pn	11 59 45.9	+1.2
AOS	Alonnisos	3.54	28	P	Pn	11 59 44.6	-0.6
AOS	Alonnisos	3.54	28	P	Pn	11 59 44.6	-0.6
JAN	Janina	3.65	349	*e*PN	Pn	11 59 48.1	+1.3
JAN	Janina	3.65	349	*e*Pn	Pn	11 59 48.1	+1.3
MEV	Metsovon	3.74	354	P	Pn	11 59 50.2	+2.3
MEV	Metsovon	3.74	354	P	Pn	11 59 50.2	+2.3
ZKR	Zakros	3.78	103	P	Pn	11 59 49.4	+0.9
ZKR	Zakros	3.78	103	P	Pn	11 59 49.4	+0.9
KEK	Kerkira	3.95	338	*e*PN	Pn	11 59 52.9	+2.1
KEK	Kerkira	3.95	338	*e*Pn	Pn	11 59 52.9	+2.1
LIT	Litokhoron	4.08	8	P	Pn	11 59 54.7	+2.1
LIT	Litokhoron	4.08	8	*e*PN	Pn	11 59 54.3	+1.7
LIT	Litokhoron	4.08	8	*e*Pn	Pn	11 59 54.3	+1.7
PAIG	Paliouri	4.15	21	P	Pn	11 59 53.8	+0.2
PAIG	Paliouri	4.15	21	P	Pn	11 59 53.8	+0.2
CHOS	Chios island	4.16	55	*e*PN	Pn	11 59 54.5	+0.8
CHOS	Chios island	4.16	55	*e*Pn	Pn	11 59 54.5	+0.8
KZN	Kozani	4.24	0	*e*PN	Pn	11 59 56.5	+1.7
KZN	Kozani	4.24	0	*e*Pn	Pn	11 59 56.5	+1.7
LTBQ	Tobruq SNR=23	4.39	155	*i* P	Pn	11 59 57.4	+0.5
SMG	Samos	4.41	67	*e*PN	Pn	11 59 58.0	+0.8
SMG	Samos	4.41	67	*e*Pn	Pn	11 59 58.0	+0.8
KARP	Karpathos	4.45	95	*e*PN	Pn	11 59 58.8	+1.1
KARP	Karpathos	4.45	95	*e*Pn	Pn	11 59 58.8	+1.1
PLG	Polygyros	4.51	17	*e*PN	Pn	12 00 00.8	+2.2
PLG	Polygyros	4.51	17	*e*Pn	Pn	12 00 00.8	+2.2
HORT	Hortiatis	4.65	13	P	Pn	12 00 00.9	+0.4

HORT	Hortiatis	4.65	13	P	Pn	12 00 00.9	+0.4
FNA	Florina	4.72	357	P	Pn	12 00 02.3	+0.9
FNA	Florina	4.72	357	P	Pn	12 00 02.3	+0.9
GRG	Griva	4.92	6	P	Pn	12 00 04.9	+0.8
GRG	Griva	4.92	6	P	Pn	12 00 04.9	+0.8
SOH	Sokhos	4.92	15	P	Pn	12 00 05.7	+1.5
SOH	Sokhos	4.92	15	*e*PN	Pn	12 00 05.5	+1.3
SOH	Sokhos	4.92	15	*e*Pn	Pn	12 00 05.5	+1.3
SOI	Samo	4.96	296	Pn	Pn	12 00 05.5	+0.8
SOI				Sn	Sn	12 01 01.0	-1.1
SOI	Samo	4.96	296	Pn	Pn	12 00 05.5	+0.8
SOI				Sn	Sn	12 01 01.0	-1.1
TIP	Timpagrande	5.02	310	P	Pn	12 00 08.3	+2.7
	22nm,0.5s						
TIP	Timpagrande	5.02	310	P	Pn	12 00 08.3	+2.7
	22nm,0.5s						
OHR	Ohrid	5.09	352	*e*Pn	Pn	12 00 07.4	+0.9
OHR				*e*Sg	Sn	12 01 03.0	-2.4
OHR	Ohrid	5.09	352	*e*Pn	Pn	12 00 07.4	+0.9
CEL	Celeste	5.15	297	*e*Pn	Pn	12 00 08.1	+0.8
CEL	Celeste	5.15	297	*e*Pn	Pn	12 00 08.1	+0.8
KNT	Kendrikon	5.17	10	P	Pn	12 00 09.0	+1.4
KNT	Kendrikon	5.17	10	P	Pn	12 00 09.0	+1.4
VAY	Valandovo	5.29	7	*e*Pn	Pn	12 00 09.7	+0.4
VAY				*e*Sg	Sn	12 01 07.9	-2.3
VAY	Valandovo	5.29	7	*e*Pn	Pn	12 00 09.6	+0.3
LJBD	Adjabya	5.29	194	*i* P	Pn	12 00 09.7	+0.4
	SNR=23						
LJBD				*e*S	Sn	12 01 09.9	-0.5
	SNR=23						
KRUS	Krusevo	5.31	356	*e*Pn	Pn	12 00 09.3	-0.2
KRUS				*e*Sg	Sn	12 01 09.7	-1.1
KRUS	Krusevo	5.31	356	*e*Pn	Pn	12 00 09.3	-0.2
HAVL	Avola	5.39	282	Pn	Pn	12 00 11.7	+1.0
	47nm,0.3s						
HAVL	Avola	5.39	282	Pn	Pn	12 00 11.7	+1.0
	47nm,0.3s						
TAR1	Taranto	5.66	323	*e*Sn	Sn	12 01 16.5	-2.9
ALN	Alexandroupoli	5.90	34	*e*PN	Pn	12 00 19.5	+1.9
ALN	Alexandroupoli	5.90	34	*e*Pn	Pn	12 00 19.5	+1.9
LTRZ	Laterza	5.95	321	Pn	Pn	12 00 18.0	-0.3
	18nm,1.0s						
LTRZ	Laterza	5.95	321	Pn	Pn	12 00 18.0	-0.3
	18nm,1.0s						
VAE	Valguarnera	6.04	286	P	Pn	12 00 25.4	+5.8
	2.7nm,0.3s,baz=130,slow=10,SNR=3.5						
VAE				S	Sn	12 01 35.2	+6.5
	17nm,0.3s,baz=261,slow=2.9,SNR=5.9						
CUC	Castrocucco	6.10	312	*e*Pn	Pn	12 00 22.3	+2.0
	27nm,0.8s						
CUC				*e*Sn	Sn	12 01 33.7	+3.6
CUC	Castrocucco	6.10	312	*e*Pn	Pn	12 00 22.3	+2.0
	27nm,0.8s						
ULC	Ulcinj	6.20	343	⇓*i*Pn	Pn	12 00 20.8	-0.9
ULC				*e*Sn	Sn	12 01 28.9	-3.7
ULC	Ulcinj	6.20	343	⇓*i*Pn	Pn	12 00 20.8	-0.9
PTRP	Pietrapertosa	6.30	317	Pn	Pn	12 00 25.9	+2.8
	31nm,0.6s						
PTRP	Pietrapertosa	6.30	317	Pn	Pn	12 00 25.9	+2.8
	31nm,0.6s						
BUM	Brajici-Budva	6.61	341	⇓*i*Pn	Pn	12 00 26.1	-1.2
BUM				*e*Sn	Sn	12 01 37.5	-5.1
BUM	Brajici-Budva	6.61	341	⇓*i*Pn	Pn	12 00 26.1	-1.2
PDG	Podgorica	6.64	344	⇓*i*Pn	Pn	12 00 27.2	-0.6
TTG	Podgorica	6.64	344	⇓*i*Pn	Pn	12 00 27.2	-0.6
TTG				*e*Sn	Sn	12 01 39.7	-3.8
TTG	Podgorica	6.64	344	⇓*i*Pn	Pn	12 00 27.2	-0.6
PVY	Plav	6.66	349	⇑*i*Pn	Pn	12 00 29.1	+1.0
PVY				*e*Sn	Sn	12 01 42.9	-1.2
PVY	Plav	6.66	349	⇑*i*Pn	Pn	12 00 29.1	+1.0
PVY				*e*Sn	Sn	12 01 42.9	-1.2
HCY	Herceg Novi	6.85	340	⇑*i*Pn	Pn	12 00 28.4	-2.3
HCY				*e*Sn	Sn	12 01 42.3	-6.3
BEY	Berane	6.95	349	⇑*i*Pn	Pn	12 00 32.6	+0.6
BEY				*e*Sn	Sn	12 01 49.3	-1.7
IVA	Berane	6.95	349	⇑*i*Pn	Pn	12 00 32.6	+0.6
IVA				*e*Sn	Sn	12 01 49.3	-1.7
IVA	Berane	6.95	349	⇑*i*Pn	Pn	12 00 32.6	+0.6
IVA				*e*Sn	Sn	12 01 49.3	-1.7
NKY	Niksic	7.06	343	⇓*i*Pn	Pn	12 00 32.8	-0.8
NKY				*e*Sn	Sn	12 01 49.4	-4.5
NKY	Niksic	7.06	343	⇓*i*Pn	Pn	12 00 32.8	-0.8
BRY	Bratogost	7.26	341	⇑*i*Pn	Pn	12 00 34.8	-1.5
BRY				*e*Sn	Sn	12 01 52.2	-6.5
BRY	Bratogost	7.26	341	⇑*i*Pn	Pn	12 00 34.8	-1.5
UPM	Unac-Piva	7.45	344	*e*Pn	Pn	12 00 38.2	-0.8
UPM				*e*Sn	Sn	12 01 58.5	-5.0
UPM	Unac-Piva	7.45	344	*e*Pn	Pn	12 00 38.2	-0.8
PLE	Pljevlja	7.48	347	⇑*i*Pn	Pn	12 00 39.4	+0.1
PLE				*e*Sn	Sn	12 02 00.7	-3.4
PLE	Pljevlja	7.48	347	⇑*i*Pn	Pn	12 00 39.4	+0.1
STON	Ston	7.48	337	*e*Pn	Pn	12 00 37.0	-2.3
STON				Sn	Sn	12 01 56.3	-7.8
SWA2		7.49	154	P	Pn	12 00 37.2	-2.3
SWA2				S	Sn	12 01 55.8	-8.7
SWA1		7.56	153	P	Pn	12 00 37.2	-3.3
SWA1				S	Sn	12 01 55.8	-11
GRUS	Gruza	7.86	355	*e*Pn	Pn	12 00 42.8	-1.6
DIVS	Divibare	8.13	351	⇑*i*Pn	Pn	12 00 47.2	-1.1
HNAT	Natroun	9.85	128	P	Pn	12 01 08.4	-3.4
HNAT	Natroun	9.85	128	P	Pn	12 01 08.4	-3.4
MLR	Muntele Rosu	9.94	17	P	Pn	12 01 17.0	+3.9
	0.3nm,0.3s,baz=189,slow=13,SNR=1.8						
NVLJ	Novalja	9.97	330	*e*Pn	Pn	12 01 10.6	-2.9
NVLJ				Sn	Sn	12 02 57.9	-7.5
BRTR	Keskin Array B	10.10	65	P	Pn	12 01 15.4	+0.2
	0.2nm,0.3s,baz=259,slow=13,SNR=15						
BRTR	Keskin Array B	10.10	65	P	Pn	12 01 15.5	+0.3
HFRF	Wahat Farafira	10.51	146	P	Pn	12 01 17.7	-3.2
HFRF	Wahat Farafira	10.51	146	P	Pn	12 01 17.7	-3.2
GLL	Jalalah	10.59	125	P	Pn	12 01 17.2	-4.8
GLL	Jalalah	10.59	125	P	Pn	12 01 17.2	-4.8
MMAI	Mount Meron Ar	11.68	101	P	Pn	12 01 37.7	+0.8
	1.3nm,0.3s,baz=297,slow=13,SNR=3.4						
MALT	Malatya	13.51	75	*e*P	Pn	12 02 03.5	+1.7
MALT				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MALT	Malatya	13.51	75	*e*Pn	Pn	12 02 03.5	+1.7
	comp=Z,4.9nm,0.8s						
MALT	Malatya	13.51	75	*e*Pn	Pn	12 02 03.5	+1.7
	comp=Z,4.9nm,0.8s						
GERES	GERESS Array B	14.07	338	P	Pn	12 02 09.9	+0.5
	baz=144,slow=18,SNR=2.1						
GNI	Garni	18.55	70	P	Pn	12 03 06.0	-1.2
	comp=Z,0.6nm,0.3s,baz=180,slow=13,SNR=5.0						
GNI	Garni	18.55	70	P	Pn	12 03 06.0	-1.2
ESDC	Sonseca Array	20.58	288	P	P	12 03 33.1	+4.0
	comp=Z,0.3nm,0.3s,baz=56,slow=9.4,SNR=3.5						
HFS	Hagfors	24.64	350	P	P	12 04 08.9	-1.7
	comp=Z,1.9nm,0.5s,mb3.9,baz=163,slow=11,SNR=8.0						
HFS	Hagfors	24.64	350	P	P	12 04 08.9	-1.7
FINES	FINESS Array B	25.55	5	P	P	12 04 16.8	-2.1
	comp=Z,2.1nm,0.8s,mb3.7,baz=169,slow=11,SNR=4.6						
FINES	FINESS Array B	25.55	5	P	P	12 04 16.8	-2.1
EKA	Eskdalemuir Ar	25.71	326	P	P	12 04 22.1	+1.6
	comp=Z,1.4nm,0.6s,mb3.7,baz=127,slow=8.1,SNR=4.6						
NB2	NORSAR Subarra	25.88	348	P	P	12 04 21.2	-0.6
	comp=Z,14nm,1.4s,mb4.3,baz=159,slow=10						
NB2	NORSAR Subarra	25.88	348	P	P	12 04 21.2	-0.6
	comp=Z,14nm,1.4s,mb4.3,SNR=3.7						
NOA	NORSAR Array B	25.88	348	P	P	12 04 22.9	+1.1
	comp=Z,1.1nm,0.9s,mb3.4,baz=154,slow=12,SNR=2.7						
TORD	Torodi Ar. Bea	29.07	223	P	P	12 04 51.5	+0.6
	comp=Z,3.6nm,0.8s,mb4.2,baz=33,slow=9.1,SNR=27						
ARCES	ARCESS Array B	33.59	2	P	P	12 05 27.6	-2.6
	comp=Z,3.1nm,0.8s,mb4.3,baz=182,slow=9.3,SNR=9.9						
BVAR	Borovoye Array	37.78	48	P	P	12 06 03.2	-3.0
	comp=Z,0.9nm,0.5s,mb3.7,baz=276,slow=5.8,SNR=6.7						
AAK	Ala-Archa	40.77	64	P	P	12 06 29.5	-1.9
	comp=Z,0.8nm,0.3s,mb3.8,baz=273,slow=2.1,SNR=5.5						
AAK	Ala-Archa	40.77	64	P	P	12 06 29.5	-1.9
KURK	Kurchatov	42.80	52	P	P	12 06 43.6	-4.2
	comp=Z,1.1nm,0.3s,mb4.1,baz=272,slow=8.6,SNR=3.9						
MKAR	Makanchi Array	45.62	57	P	P	12 07 07.2	-3.3
	comp=Z,2.1nm,0.3s,mb4.5,baz=271,slow=8.1,SNR=63						
MKAR	Makanchi Array	45.62	57	P	P	12 07 07.3	-3.2
ZALV	Zalesovo Beam	46.41	47	P	P	12 07 13.2	-3.5
	comp=Z,3.6nm,0.5s,mb4.5,baz=272,slow=8.3,SNR=17						
ZAK	Zakamensk	58.24	48	*e*P	P	12 08 42.2	-2.3
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.5s,mb3.6						
ZAK	Zakamensk	58.24	48	*e*P	P	12 08 42.2	-2.3
	comp=Z,1.0nm,1.5s,mb3.6						
SONM	Songino Array	61.06	50	P	P	12 09 01.3	-2.8
	comp=Z,0.9nm,0.6s,mb4.1,baz=282,slow=8.4,SNR=9.5						
SONM				PcP	PcP	12 09 45.6	-1.5
	comp=Z,0.7nm,0.9s,baz=289,slow=4.5,SNR=3.6						
SONM	Songino Array	61.06	50	PcP	PcP	12 09 45.6	-1.5
CMAR	Chiang Mai Arr	69.23	82	P	P	12 09 55.0	-2.5
	comp=Z,1.6nm,0.8s,mb4.0,baz=302,slow=7.8,SNR=11						
CMAR	Chiang Mai Arr	69.23	82	P	P	12 09 55.0	-2.5
YKA	Yellowknife Ar	75.70	341	P	P	12 10 34.5	-0.9
	comp=Z,0.4nm,0.9s,mb3.4,baz=34,slow=5.8,SNR=6.8						
YKA	Yellowknife Ar	75.70	341	P	P	12 10 34.5	-0.9
YKA	Yellowknife Ar	75.70	341	P	P	12 10 34.5	-0.9
KSRS	Korea Array	79.92	51	P	P	12 10 56.5	-2.9
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KSRS	Korea Array	79.92	51	P	P	12 10 56.5	-2.9
	comp=Z,1.5nm,0.6s,mb4.1,baz=311,slow=4.6,SNR=5.9						
KSRS	Korea Array	79.92	51	P	P	12 10 56.5	-2.9
	comp=Z,2.0nm,0.6s,mb4.2						
WRA	Warramunga Arr	119.46	94	PKP	PKPdf	12 17 38.5	-1.8
	comp=Z,0.2nm,0.3s,baz=299,slow=1.9,SNR=2.7						
ASAR	Alice Springs	120.95	98	PKP	PKPdf	12 17 41.4	-1.8
	comp=Z,0.2nm,0.3s,baz=316,slow=1.6,SNR=7.1						

CSEM ***26*** *12:01:41.4±0.4, 36°.09N×21°.90E, h10^{km}, MD3.8, Error ellipse: s-maj=10.9km s-min=6.2km az=60.0*
NEIC ***26*** *12:01:43.4, 36°.12N×21°.94E, h8^{km}, MD3.8(ATH), After ATH.*
ATH ***26*** *12:01:43.4, 36°.12N×21°.94E, h8^{km}±5^{km}, MD3.8/10*
IDC ***26*** *12:01:49.4±4.1, 35°.97N×22°.13E, h81^{km}±42^{km}, mb3.4/5, mb1 3.4/7, mb1mx3.3/26, mbtmp3.4/7, ML2.6/2, Error ellipse: s-maj=55.6km s-min=23.7km az=133.0*
ISC 26 12:01:41.2±1.3**, 36°.08N**±0°.05×**21°.9E**±0°.1**, h7**^{km}±7^{km}**, n34,** σ**1^s.06**/38**, mb3.7**/5**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.82	353	*e*PG	Pg	12 01 57.9	+0.9
PYL				*e*SB	Sb	12 02 09.8	+0.7
PYL	PYLOS	0.82	353	*e*Pg	Pg	12 01 57.9	+0.9
PYL				*e*Sb	Sb	12 02 09.8	+0.7
KYTH	Kithira	0.97	78	*e*PB	Pb	12 02 00.6	+0.3
KYTH	Kithira	0.97	78	*e*Pb	Pb	12 02 00.6	+0.3
VLI	Veliai	1.07	53	*e*PB	Pb	12 02 02.5	+0.4
VLI	Veliai	1.07	53	*e*Pb	Pb	12 02 02.5	+0.4
ITM	Ithomi	1.10	2	*e*PG	Pg	12 02 02.8	+0.4
ITM				*e*SB	Sb	12 02 18.4	+1.3
ITM	Ithomi	1.10	2	*e*Pg	Pg	12 02 02.8	+0.4
ITM				*e*Sb	Sb	12 02 18.4	+1.3
VLX	Vlachokerasia	1.35	18	*e*PN	Pn	12 02 06.9	+0.4
VLX	Vlachokerasia	1.35	18	*e*Pn	Pn	12 02 06.9	+0.4
KARN	Karanos	1.80	111	*e*PG	Pg	12 02 15.1	-0.6
KARN	Karanos	1.80	111	*e*Pg	Pg	12 02 15.1	-0.6
DID	Didima	1.80	37	*e*PG	Pg	12 02 14.8	-0.9
DID	Didima	1.80	37	*e*Pg	Pg	12 02 14.8	-0.9
GUR	Goura	1.89	11	*e*PG	Pg	12 02 17.6	+0.1
GUR	Goura	1.89	11	*e*Pg	Pg	12 02 17.6	+0.1
VAM	Vamos	2.01	109	*e*PG	Pg	12 02 20.5	+0.7
VAM	Vamos	2.01	109	*e*Pg	Pg	12 02 20.5	+0.7
EFP	Efpalio	2.34	1	*e*PG	Pg	12 02 25.1	-1.1
EFP	Efpalio	2.34	1	*e*Pg	Pg	12 02 25.1	-1.1
IDI	Anoyia	2.58	107	*e*PN	Pn	12 02 27.9	+4.5
IDI	Anoyia	2.58	107	P	Pn	12 02 25.5	+2.2
	1.5nm,0.3s,baz=286,slow=19,SNR=2.2						
EVR	Evrytania	2.83	359	*e*PB	Pb	12 02 30.0	-2.1
LAST	Lasithi	3.08	106	*e*PN	Pn	12 02 33.7	+3.5
BRTR	Keskin Array B	9.99	65	P	Pn	12 04 09.3	+4.2
	0.1nm,0.3s,baz=236,slow=13,SNR=4.3						
TORD	Torodi Ar. Bea	29.16	224	P	P	12 07 43.9	+0.8
	0.5nm,0.7s,mb3.4,baz=32,slow=8.5,SNR=3.7						
ARCES	ARCESS Array B	33.57	2	P	P	12 08 21.4	0.0
	1.8nm,0.8s,mb4.1,baz=194,slow=9.3,SNR=2.9						
ARCES	ARCESS Array B	33.57	2	P	P	12 08 21.4	0.0
BVAR	Borovoye Array	37.69	48	P	P	12 08 56.3	-0.6
	0.4nm,0.5s,mb3.4,baz=254,slow=5.2,SNR=2.8						
BVAR	Borovoye Array	37.69	48	P	P	12 08 56.3	-0.6
MKAR	Makanchi Array	45.51	57	P	P	12 09 59.6	-1.5
	0.6nm,0.6s,mb3.7,baz=277,slow=7.0,SNR=3.8						
ZALV	Zalesovo Beam	46.32	47	P	P	12 10 05.7	-1.7
	0.8nm,0.5s,mb3.9,baz=274,slow=8.4,SNR=4.2						
ZALV	Zalesovo Beam	46.32	47	P	P	12 10 05.7	-1.7
ZALV	Zalesovo Beam	46.32	47	P	P	12 10 05.7	-1.7

ISCJB ***26*** *12:04:16.8±0.3, 17°.39N±0°.04×94°.67W±0°.03, h153^{km}±4^{km}, mb3.8/8, Error ellipse: s-maj=7.1km s-min=3.6km az=15.2*
IDC ***26*** *12:04:16.5±1.1, 17°.53N×94°.19W, h126^{km}±21^{km}, mb3.4/9, mb1 3.7/10, mb1mx3.5/24, mbtmp3.4/10, Error ellipse: s-maj=50.4km s-min=31.2km az=29.0*
NEIC ***26*** *12:04:19.2, 17°.38N×94°.67W, h152^{km}, mb4.2/5, MD4.4(MEX), After MEX.*
MEX ***26*** *12:04:19.3±0.9, 17°.40N×94°.66W, h151^{km}±6^{km}, MD4.4*
ISC 26 12:04:17.8±0.3**, 17°.39N**±0°.04×**94°.67W**±0°.03**, h149**^{km}±4^{km}**, n40,** σ**1^s.09**/61**, mb3.8**/8**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	Matias Romero	0.36	215	*i* P	Pn	12 04 38.9	+0.5
CMIG				*i* S	Sn	12 04 53.7	-0.4
CMIG	Matias Romero	0.36	215	P	Pn	12 04 38.5	+0.1
	243nm,0.3s,baz=70,slow=1.8,SNR=5882						
CMIG				S	Sn	12 04 53.6	-0.5
	529nm,0.3s,baz=340,slow=22,SNR=162						
TUIG	Tuzandepetl	0.69	20	*i* P	Pn	12 04 40.1	0.0
TUIG				*i* S	Sn	12 04 57.0	-0.1
TGIG		1.60	112	*i* P	Pn	12 04 49.0	+0.6
TGIG				*i* S	Sn	12 05 11.0	-0.7
OXX	Oaxaca	1.99	262	*i* P	Pn	12 04 54.0	+1.3
OXX				*i* S	Sn	12 05 20.3	+0.8
OXX	Oaxaca	1.99	262	*i* P	Pn	12 04 54.7	+2.0
OXX				*i* S	Sn	12 05 21.3	+1.8
VHO	Vista Hermosa	2.00	261	*e*P	Pn	12 04 53.9	+1.1
VHO				*i* S	Sn	12 05 21.1	+1.5
HUIG	Huatulco	2.12	221	*i* P	Pn	12 04 53.2	-1.1
HUIG				*i* S	Sn	12 05 22.4	+0.1
PCIG		2.17	140	*i* P	Pn	12 04 56.0	+1.1
PCIG				*i* S	Sn	12 05 23.6	+0.1
CCIG	Comitan	2.66	114	*i* P	Pn	12 05 01.7	+0.8
CCIG				*i* S	Sn	12 05 33.6	-0.5
TPIG	Tehuac#an	2.76	292	*e*P	Pn	12 05 02.9	+0.8
TPIG				*i* S	Sn	12 05 35.6	-0.7
LVIG	Laguna Verde	2.86	325	*i* P	Pn	12 05 02.8	-0.4
LVIG				*i* S	Sn	12 05 37.0	-1.4
UTMO	Huajuapan	3.02	279	*e*P	Pn	12 05 06.2	+0.9
UTMO				*i* S	Sn	12 05 41.5	-0.7
THIG		3.38	136	*i* P	Pn	12 05 10.2	+0.2
THIG				*i* S	Sn	12 05 49.7	-0.7
PNIG	Pinotepa	3.46	254	*i* P	Pn	12 05 09.7	-1.2
PNIG				*i* S	Sn	12 05 50.5	-1.6
PPM	Popocatepetl	4.12	295	*i* P	Pn	12 05 20.7	+1.2
PPM				*i* S	Sn	12 06 07.9	+0.4
MZVM		4.69	293	*i* P	Pn	12 05 30.5	+3.4
MZVM				*i* S	Sn	12 06 22.1	+1.1
PLIG	Platanillo	4.71	283	*i* P	Pn	12 05 27.8	+0.5
PLIG				*i* S	Sn	12 06 20.0	-1.5
MEIG	Mezcala	4.75	277	*e*P	Pn	12 05 28.9	+1.0
MEIG				*i* S	Sn	12 06 21.2	-1.3
CAIG	El Cayaco	5.36	267	*e*P	Pn	12 05 35.8	-0.2
CAIG				*i* S	Sn	12 06 35.2	-1.8
ZIIG	Zihuatanejo	6.49	273	*i* P	Pn	12 05 50.9	-0.2
ZIIG				*i* S	Sn	12 07 03.2	-0.8
TEIG	Tepich	6.68	64	*i* P	Pn	12 05 53.2	-0.4
TEIG	Tepich	6.68	64	P	Pn	12 05 51.8	-1.8
	1.2nm,0.3s,baz=264,slow=10,SNR=5.8						
JCT	Junction City	13.85	341	*e*P	Pn	12 07 32.8	+5.0
	7.2nm,0.6s						
TXAR	Lajitas Array	14.47	327	P	Pn	12 07 37.4	+1.8
	0.1nm,0.3s,baz=147,slow=12,SNR=9.2						
TXAR	Lajitas Array	14.47	327	P	Pn	12 07 37.4	+1.8
MIAR	Mount Ida	17.12	3	*e*P	Pn	12 08 07.4	-0.7
	5.5nm,0.8s						
UALR	University of	17.44	6	*e*P	Pn	12 08 13.0	+1.1
	14nm,0.6s						
BNM	Barren Site	19.84	330	*e*P	P	12 08 42.3	+5.3
	1.3nm,0.6s						
ANMO	Albuquerque	20.41	331	P	P	12 08 45.5	+2.3
	1.1nm,0.6s,baz=157,slow=12,SNR=11						
TKL	Tuckaleechee C	20.62	26	P	P	12 08 43.8	-1.6
	1.7nm,0.5s,baz=172,slow=9.1,SNR=3.6						
PDAR	Pinedale Array	28.30	336	P	P	12 09 59.7	+2.5
	0.2nm,0.6s,mb3.0,baz=153,slow=10,SNR=2.5						
NVAR	Mina Array Bea	29.44	320	P	P	12 10 11.6	+4.2
	0.3nm,0.6s,mb3.2,baz=113,slow=9.1,SNR=3.2						
AGMN	Agassiz Refuge	30.85	358	*e*P	P	12 10 18.7	-0.9
	13nm,0.6s,mb4.8						
ULM	Lac du Bonnet	32.80	359	P	P	12 10 34.6	-2.0
	2.2nm,0.4s,mb4.3,baz=176,slow=8.9,SNR=5.3						
YKA	Yellowknife Ar	47.17	348	P	P	12 12 34.5	-0.4
	0.5nm,0.5s,mb3.4,baz=152,slow=7.4,SNR=16						
YKA	Yellowknife Ar	47.17	348	P	P	12 12 34.5	-0.4
INK	Inuvik	56.48	344	P	P	12 13 44.1	+0.3
	0.6nm,0.5s,mb3.6,baz=152,slow=5.0,SNR=4.0						
EKA	Eskdalemuir Ar	76.74	36	P	P	12 15 51.3	-1.2
	1.2nm,0.5s,mb3.8,baz=294,slow=5.3,SNR=4.2						
ARCES	ARCESS Array B	83.73	18	P	P	12 16 30.1	+0.4
	7.1nm,1.2s,mb4.3,baz=302,slow=7.0,SNR=4.5						

IDC ***26*** *12:06:03.0±9.0, 2°.45S×100°.25E, h0^{km}, mb3.5/4, mb1 3.6/4, mb1mx3.4/22, mbtmp3.5/4, Error ellipse: s-maj=451.0km s-min=24.7km az=53.0*
ISCJB ***26*** *12:06:06.2±0.9, 2°.61S±0°.07×99°.9E±0°.1, h47^{km}±6^{km}, mb3.6/4, Error ellipse: s-maj=19.1km s-min=9.5km az=161.4*
DJA ***26*** *12:06:07, 2°.48S×100°.10E, h11^{km}, MLv3.7/5*
ISC 26 12:06:08.2±0.9**, 2°.59S**±0°.06×**100°.0E**±0°.1**, h41**^{km}±7^{km}**, n11,** σ**1^s.09**/14**, mb3.6**/4**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	0.17	169	P	Pn	12 06 12.6	-2.8
PPSI				S	Sn	12 06 20.6	+0.2
SISI	Saibi	1.54	325	P	Pn	12 06 29.8	-3.3
SISI				S	Sn	12 06 56.3	+4.4
PDSI	Padang	1.74	16	P	Pn	12 06 36.4	+0.5
PDSI				S	Sn	12 06 55.5	-1.3
PPI	Padang Panjang	2.16	11	P	Pn	12 06 42.9	+1.2
KSI	Kapahiang	2.82	112	P	Pn	12 06 51.6	+0.9
MNAI	Manna	3.45	121	P	Pn	12 07 00.6	+1.1
JMBI	JAMBI	3.78	76	P	Pn	12 07 03.5	-0.5
WRA	Warramunga Arr	37.72	120	P	P	12 13 19.6	-0.6
	0.4nm,0.3s,mb3.6,baz=309,slow=8.8,SNR=2.5						
ASAR	Alice Springs	38.93	125	P	P	12 13 29.4	-0.9
	0.4nm,0.7s,mb3.2,baz=297,slow=7.4,SNR=7.4						
MKAR	Makanchi Array	51.59	345	P	P	12 15 10.7	+0.4
	0.4nm,0.6s,mb3.5,baz=139,slow=8.0,SNR=5.3						
ZALV	Zalesovo Beam	57.74	349	P	P	12 15 54.9	+0.1
	0.4nm,0.3s,mb3.9,baz=168,slow=7.4,SNR=4.3						

HLW ***26*** *12:27:54.9, 29°.80N×36°.69E, h15^{km}, Mb3.1*
CSEM ***26*** *12:27:56.9±0.6, 29°.84N×36°.28E, h1^{km}, ML3.1, Error ellipse: s-maj=11.1km s-min=7.2km az=102.0, Mining explosion.*
GII ***26*** *12:27:56.9±0.0, 29°.90N×36°.30E, h1^{km}, Md2.0/3, Mining explosion.*
ISC 26 12:27:55.4±1.2**, 29°.84N**±0°.08×**36°.40E**±0°.07**, h0**^{km}**, n25,** σ**0^s.90**/32**, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HRFI	Mount Harif	1.20	280	Pg	Pg	12 28 17.5	-0.9
HRFI				Sg	Sg	12 28 32.8	-1.1
HRFI	Mount Harif	1.20	280	Pg	Pg	12 28 17.5	-0.9
HRFI				Sg	Sg	12 28 32.8	-1.1
EIL	Elat	1.27	263	Pg	Pg	12 28 19.4	-0.4
EIL				Sg	Sg	12 28 38.1	+1.8
EIL	Elat	1.27	263	Pg	Pg	12 28 19.4	-0.4
EIL				Sg	Sg	12 28 38.1	+1.8
ZFRI	Zfri	1.27	304	Pg	Pg	12 28 19.1	-0.7
ZFRI	Zfri	1.27	304	Pg	Pg	12 28 19.1	-0.7
MBRI	Mt Berech	1.29	268	Pg	Pg	12 28 19.5	-0.7
MBRI				Sg	Sg	12 28 37.4	+0.5
MBRI	Mt Berech	1.29	268	Pg	Pg	12 28 19.5	-0.7
PRNI	Paran	1.31	293	Pg	Pg	12 28 19.5	-1.1
PRNI	Paran	1.31	293	Pg	Pg	12 28 19.5	-1.1
KRMI	Paran Flat	1.48	281	Pn	Pn	12 28 22.7	-0.6
KRMI	Paran Flat	1.48	281	Pn	Pn	12 28 22.7	-0.6
HBST	Basata	1.58	247	P	Pn	12 28 24.8	+0.2
HBST	Basata	1.58	247	P	Pn	12 28 24.8	+0.1
HBST	Basata	1.58	247	P	Pn	12 28 24.8	+0.1
MZDA	Masada	1.71	329	Pn	Pn	12 28 27.2	+0.7
MZDA	Masada	1.71	329	Pn	Pn	12 28 27.2	+0.7
HDHB	Dhahab	1.91	235	P	Pn	12 28 28.5	-0.8
HDHB	Dhahab	1.91	235	P	Pn	12 28 28.5	-0.8
DSI	Dead Sea	1.93	333	Pn	Pn	12 28 31.2	+1.6
DSI	Dead Sea	1.93	333	Pn	Pn	12 28 31.2	+1.6
HNKL	Nakhl	2.10	273	P	Pn	12 28 32.4	+0.5
HNKL				S	Sn	12 28 59.8	+1.1
HNKL	Nakhl	2.10	273	P	Pn	12 28 32.3	+0.4
HNKL				S	Sn	12 28 59.8	+1.1
HKAT	Jabal Katrina	2.48	239	P	Pn	12 28 37.3	+0.2
HKAT	Jabal Katrina	2.48	239	P	Pn	12 28 37.3	+0.2

IDC ***26*** *12:29:07.6±1.8, 34°.25S×179°.24W, h0^{km}, mb3.9/4, mb1 4.1/5, mb1mx3.9/17, mbtmp3.9/5, ML3.9/1, MS3.8/2, Ms1 3.8/2, ms1mx3.2/25, Error ellipse: s-maj=38.4km s-min=31.1km az=74.0*
ISC 26 12:29:09.6±7.3**, 34°.3S**±0°.1×**179°.3W**±0°.3**, h10**^{km}±49^{km}**, n6,** σ**0^s.91**/6**, mb4.0**/4**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	4.94	215	Pn	Pn	12 30 23.9	+0.1
	5.2nm,0.3s,baz=211,slow=1.5,SNR=41						
URZ				Sn	Sn	12 31 20.9	0.0
	7.2nm,0.3s,baz=100,slow=22,SNR=6.7						
URZ				LR	LR	12 32 23.8	
	comp=Z,284nm,19.6s,baz=199,slow=40						
STKA	Stephens Creek	32.71	263	P	P	12 35 41.2	-1.1
	2.8nm,0.9s,mb4.2,baz=124,slow=15,SNR=4.3						
ASAR	Alice Springs	41.95	272	P	P	12 37 01.3	+0.6
	0.7nm,0.5s,mb3.6,baz=113,slow=8.0,SNR=16						
WRA	Warramunga Arr	43.29	277	P	P	12 37 12.1	+0.4
	0.5nm,0.3s,mb3.7,baz=117,slow=8.1,SNR=13						
QSPA	South Pole Qui	55.87	180	P	P	12 38 46.7	-0.1
	2.0nm,0.5s,mb4.4,baz=295,slow=4.8,SNR=6.6						
QSPA				LR	LR	12 57 19.9	
	comp=Z,290nm,21.3s,baz=318,slow=30						
FINES	FINESS Array B	148.31	337	PKPbc	PKPbc	12 48 54.4	-0.8
	0.5nm,0.4s,baz=18,slow=5.8,SNR=6.3						

ISCJB ***26*** *12:29:08.7±0.3, 31°.90S±0°.03×69°.39W±0°.06, h121^{km}±3^{km}, mb4.4/22, Error ellipse: s-maj=8.0km s-min=5.0km az=16.0*
GUC ***26*** *12:29:09.8±0.9, 32°.00S×69°.56W, h132^{km}±18^{km}, ML4.6*
NEIC ***26*** *12:29:09.8, 32°.00S×69°.56W, h132^{km}, mb4.7/9, After GUC.*
NEIC Felt [III] at Mendoza and San Juan.
IDC ***26*** *12:29:10.5±0.5, 31°.95S×69°.22W, h124^{km}±3^{km}, mb4.1/15, mb1 4.1/17, mb1mx4.1/23, mbtmp4.0/17, Error ellipse: s-maj=11.7km s-min=10.9km az=130.0*
ISC 26 12:29:09.8±0.3**, 31°.90S**±0°.03×**69°.39W**±0°.05**, h115**^{km}±3^{km}**, h127**^{km}±1.6^{km}**:pP-P, n88,** σ**0^s.81**/87**, mb4.4**/22**, 4C-13D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	1.03	73	P	Pn	12 29 31.8	+0.2
	18nm,0.3s,baz=238,slow=8.9,SNR=933						
CFAA				S	Sn	12 29 48.6	+0.5
	117nm,0.3s,baz=136,slow=24,SNR=102						
JACH	Jahuel	1.28	232	*e*P	Pn	12 29 34.6	+0.3
JACH	Jahuel	1.28	232	*e*P	Pn	12 29 34.6	+0.3
FCH	Farellones	1.61	208	⇓*i*P	Pn	12 29 40.1	+1.9
FCH				*i* S	Sn	12 30 01.8	+2.0
FCH				AML	AML	12 30 04.8	
	comp=N,5μm,0.7s						
PEL	Peldehue	1.65	221	⇓*i*P	Pn	12 29 38.3	-0.3
PEL				*i* S	Sn	12 29 59.9	-0.8
PEL				AML	AML	12 30 02.9	
	comp=E,13μm,0.5s						
ROCH	El Roble	1.73	232	⇓*i*P	Pn	12 29 39.4	-0.2
ROCH				*i* S	Sn	12 30 02.0	-0.5
ROCH	El Roble	1.73	232	⇓*i*P	Pn	12 29 39.4	-0.2
ROCH				*i* S	Sn	12 30 02.0	-0.5
CHNG	Los Chungos	1.79	270	*e*P	Pn	12 29 39.6	-0.7
CHNG				*i* S	Sn	12 30 03.1	-0.7
YECH	El Yeso	1.85	198	⇓*e*P	Pn	12 29 41.6	+0.5

YECH				*i* S	Sn	12 30 05.2	+0.2
SAN	**Santiago**	1.88	214	⇑*i*P	Pn	12 29 41.1	-0.3
SAN				S	Sn	12 30 05.2	-0.5
SAN	**Santiago**	1.88	214	⇑*i*P	Pn	12 29 41.1	-0.3
SAN				*i* S	Sn	12 30 05.2	-0.5
SJCH	**San Jose de Ma**	1.91	205	*e*P	Pn	12 29 42.3	+0.5
SJCH				*i* S	Sn	12 30 07.2	+0.8
SJCH	**San Jose de Ma**	1.91	205	*e*P	Pn	12 29 42.3	+0.5
SJCH				*i* S	Sn	12 30 07.2	+0.8
PCH	**Pirque**	1.96	209	⇓*i*P	Pn	12 29 42.3	0.0
PCH				S	Sn	12 30 07.2	-0.1
PCH	**Pirque**	1.96	209	⇓*i*P	Pn	12 29 42.3	0.0
PCH				*i* S	Sn	12 30 07.2	-0.1
ANTU	**Antumapu**	1.96	212	⇓*i*P	Pn	12 29 42.3	-0.1
ANTU				S	Sn	12 30 07.2	-0.3
ANTU	**Antumapu**	1.96	212	⇓*i*P	Pn	12 29 42.3	-0.1
ANTU				*i* S	Sn	12 30 07.2	-0.3
ANTU				AML	AML	12 30 09.2	
	comp=N,8μm,0.2s						
TACH	**Talagante**	2.18	216	⇓*i*P	Pn	12 29 44.2	-0.9
TACH				*i* S	Sn	12 30 10.8	-1.6
TACH	**Talagante**	2.18	216	⇓*i*P	Pn	12 29 44.2	-0.9
TACH				*i* S	Sn	12 30 10.8	-1.6
CHCH	**Chadas Angostu**	2.28	207	⇓*i*P	Pn	12 29 45.9	-0.6
CHCH	**Chadas Angostu**	2.28	207	⇓*i*P	Pn	12 29 45.9	-0.6
CACH	**El Canelo**	2.43	204	⇑*i*P	Pn	12 29 48.2	-0.2
CACH	**El Canelo**	2.43	204	⇑*i*P	Pn	12 29 48.2	-0.2
LCO	**Las Campanas**	3.10	338	*e*Pn	Pn	12 29 58.0	+0.8
LCO				*e*Sn	Sn	12 30 34.8	+1.1
PLCA	**Paso Flores**	8.86	186	P	Pn	12 31 14.3	-0.5
	comp=N,0.2nm,0.3s,baz=18,slow=14,SNR=6.3						
PLCA				S	Sn	12 32 54.4	+1.6
	comp=N,0.2nm,0.3s,baz=52,slow=16,SNR=2.7						
LVC	**Limon Verde**	9.27	3	P	Pn	12 31 18.0	-2.4
	comp=N,0.9nm,0.3s,baz=161,slow=8.8,SNR=9.0						
LVC				S	Sn	12 33 18.2	+15
	comp=N,0.8nm,0.3s,baz=18,slow=20,SNR=2.0						
CPUP	**Villa Florida**	11.91	65	P	Pn	12 31 52.5	-3.4
	comp=N,3.9nm,0.3s,baz=219,slow=10,SNR=16						
CPUP				S	Sn	12 34 16.1	+9.1
	comp=N,1.6nm,0.3s,baz=136,slow=20,SNR=3.1						
CPUP	**Villa Florida**	11.91	65	P	Pn	12 31 52.5	-3.4
CPUP				S	Sn	12 34 16.1	+9.1
SIV	**San Ignacio**	17.56	27	P	Pn	12 33 07.0	-0.3
	comp=N,0.9nm,0.3s,baz=208,slow=8.9,SNR=48						
NNA	**Nana**	20.98	339	P	P	12 33 45.0	+1.1
	comp=N,7.1nm,0.5s,baz=220,slow=8.2,SNR=4.0						
SDV	**Santo Domingo**	40.58	358	*e*P	P	12 36 37.4	-0.7
	comp=N,3.3nm,0.6s,mb4.3						
CELP	**Cerrillos**	49.77	4	*e*P	P	12 37 50.0	-0.6
MPR	**Mayaguez**	49.88	3	*e*P	P	12 37 50.8	-0.7
CMIG	**Matias Romero**	54.51	330	P	P	12 38 27.0	+1.2
	comp=N,1.5nm,0.3s,mb4.5,baz=135,slow=12,SNR=7.2						
TEIG	**Tepich**	54.90	338	*e*P	P	12 38 28.9	+0.3
	comp=N,29nm,0.5s,mb5.6						
QSPA	**South Pole Qui**	58.33	180	P	P	12 38 52.1	0.0
	comp=N,2.0nm,0.5s,mb4.4,baz=123,slow=3.1,SNR=26						
QSPA				pP	pP	12 39 21.6	+1.8
	comp=N,4.6nm,0.7s,baz=156,slow=1.4,SNR=6.0						
QSPA	**South Pole Qui**	58.33	180	*e*P	P	12 38 52.4	+0.3
	comp=N,2.2nm,0.5s,mb4.4						
QSPA				pP	pP	12 39 21.6	+1.8
JCT	**Junction City**	68.42	332	*e*P	P	12 40 00.0	+0.9
	comp=N,9.9nm,0.8s,mb4.7						
CPCT	**Cooper Cave**	68.49	347	*e*P	P	12 39 59.1	-0.3
TKL	**Tuckaleechee C**	68.55	347	P	P	12 39 59.4	-0.4
	comp=N,5.4nm,0.8s,mb4.4,baz=156,slow=9.6,SNR=6.0						
SWET	**Sewanee**	68.55	345	*e*P	P	12 39 59.6	-0.2
TXAR	**Lajitas Array**	69.06	328	P	P	12 40 03.8	+0.7
	comp=N,1.8nm,0.6s,mb4.0,baz=155,slow=9.3,SNR=12						
TXAR				pP	pP	12 40 35.0	+3.3
	comp=N,0.8nm,0.7s,baz=148,slow=7.4,SNR=3.3						
TXAR	**Lajitas Array**	69.06	328	P	P	12 40 03.8	+0.7
TXAR				pP	pP	12 40 35.0	+3.3
FVM	**French Village**	72.24	343	*e*P	P	12 40 22.1	-0.1
	comp=N,15nm,0.7s,mb4.9						
DBIC	**Dimbokro**	72.39	70	P	P	12 40 23.0	-0.7
	comp=N,6.0nm,0.6s,mb4.6,baz=228,slow=6.1,SNR=16						
CCM	**Cathedral Cave**	72.52	342	*e*P	P	12 40 23.8	-0.1
	comp=N,18nm,1.1s,mb4.8						
ACSO	**Alum Creek Sta**	72.87	349	*e*P	P	12 40 25.8	-0.1
	comp=N,12nm,0.7s,mb4.8						
ANMO	**Albuquerque**	75.08	329	P	P	12 40 39.9	+1.0
	comp=N,1.8nm,0.7s,mb3.9,baz=138,slow=7.9,SNR=7.9						
SADO	**Sadowa**	76.82	353	P	P	12 40 48.2	-0.4
	comp=N,5.6nm,0.5s,mb4.6,baz=213,slow=6.6,SNR=5.8						
SADO	**Sadowa**	76.82	353	P	P	12 40 48.2	-0.4
SDCO	**Great Sand Dun**	77.05	331	*e*P	P	12 40 51.2	+1.2
	comp=N,1.4nm,0.6s,mb3.9						
BOSA	**Boshof**	79.05	117	P	P	12 41 00.3	-1.2
	comp=N,2.8nm,0.7s,mb4.2,baz=242,slow=13,SNR=5.2						
BOSA				pP	pP	12 41 32.9	+2.3
	comp=N,1.6nm,0.7s,baz=225,slow=5.7,SNR=1.7						
BOSA	**Boshof**	79.05	117	P	P	12 41 00.3	-1.2
BOSA				pP	pP	12 41 32.9	+2.3
ECSD	**EROS Data Cent**	79.28	340	*e*P	P	12 41 02.0	-0.1
	comp=N,12nm,0.8s,mb4.8						
TORD	**Torodi Ar. Bea**	81.39	69	P	P	12 41 13.6	-0.6
	comp=N,5.4nm,0.7s,mb4.5,baz=283,slow=7.0,SNR=50						
TORD				pP	pP	12 41 45.0	+1.6
	comp=N,1.5nm,0.7s,baz=261,slow=5.0,SNR=3.6						
TORD	**Torodi Ar. Bea**	81.39	69	P	P	12 41 13.6	-0.6
TORD				pP	pP	12 41 45.0	+1.6
PDAR	**Pinedale Array**	82.95	331	P	P	12 41 21.6	+0.1
	comp=N,1.2nm,0.8s,mb3.8,baz=142,slow=5.6,SNR=11						
PDAR				pP	pP	12 41 53.9	+2.9
	comp=N,0.9nm,0.9s,baz=134,slow=4.3,SNR=4.0						
AGMN	**Agassiz Refuge**	83.29	343	*e*P	P	12 41 23.1	-0.1
NVAR	**Mina Array Bea**	83.48	323	P	P	12 41 25.3	+0.9
	comp=N,1.6nm,0.8s,mb3.9,baz=160,slow=6.0,SNR=11						
ULM	**Lac du Bonnet**	85.10	343	P	P	12 41 31.2	-1.0
	comp=N,4.8nm,0.8s,mb4.5,baz=155,slow=3.9,SNR=9.6						
MCMT	**McKenzie Canyo**	86.00	331	*e*P	P	12 41 38.2	+1.3
SCHQ	**Schefferville**	86.41	1	P	P	12 41 38.1	-0.6
	comp=N,4.2nm,0.6s,mb4.6,baz=166,slow=4.5,SNR=19						
MOD	**Modoc**	87.11	325	*e*P	P	12 41 43.0	+0.6
YBH	**Yreka Blue Hor**	88.19	323	P	P	12 41 47.1	-0.5
	comp=N,0.7nm,0.7s,mb3.8,baz=180,slow=9.1,SNR=3.5						
OD2	**Odessa Site #2**	90.53	329	*e*P	P	12 41 58.7	+0.4
YKA	**Yellowknife Ar**	100.81	340	P	Pdif	12 42 43.7	-1.7
	comp=N,0.1nm,0.4s,baz=144,slow=4.3,SNR=6.0						
YKA	**Yellowknife Ar**	100.81	340	P	Pdif	12 42 43.7	-1.7
ASAR	**Alice Springs**	120.42	205	PKP	PKPdf	12 47 46.0	-2.1
	comp=N,1.1nm,0.7s,baz=136,slow=1.7,SNR=9.3						
ASAR				PKKPbc	PKKPbc	12 57 53.2	-0.9
	comp=N,0.3nm,0.5s,baz=348,slow=3.3,SNR=5.8						
WRA	**Warramunga Arr**	123.65	207	PKP	PKPdf	12 47 52.7	-1.7
	comp=N,2.4nm,0.5s,baz=169,slow=1.6,SNR=18						
WRA				PKKPbc	PKKPbc	12 57 40.1	-1.7
	comp=N,0.3nm,0.5s,baz=342,slow=4.2,SNR=5.0						
BVAR	**Borovoye Array**	144.24	42	PKP	PKPdf	12 48 30.3	-1.2
	comp=N,0.9nm,0.5s,baz=289,slow=4.5,SNR=4.0						
EKS2	**Erkin-Say**	149.01	59	P	PKPdf	12 48 44.8	+4.9
	SNR=9.5						
EKS2	**Erkin-Say**	149.01	59	*e*PKPdf	PKPdf	12 48 38.5	-1.4
EKS2				*e*PKPbc	PKPbc	12 48 43.6	-0.5
EKS2				*e*PKPab	PKPab	12 48 47.3	-1.4
AML	**Almayashu**	149.02	60	P	PKPbc	12 48 44.9	+0.7
	SNR=6.9						
AML	**Almayashu**	149.02	60	*e*PKPdf	PKPdf	12 48 37.3	-2.7
AML				*e*PKPbc	PKPbc	12 48 43.8	-0.3
AML				*e*PKPab	PKPab	12 48 47.7	-1.0
PSI	**Prapat**	149.03	157	PKPbc	PKPbc	12 48 43.5	-1.6
	comp=N,9.2nm,0.8s,baz=158,slow=20,SNR=4.2						
USP	**Ospenovka**	149.44	58	P	PKPbc	12 48 45.3	+0.1
	SNR=7.4						
AAK	**Ala-Archa**	149.54	59	P	PKPbc	12 48 46.1	+0.7
	SNR=7.2						
AAK	**Ala-Archa**	149.54	59	PKPbc	PKPbc	12 48 46.0	+0.5
	comp=N,4.3nm,0.6s,baz=201,slow=2.1,SNR=15						
AAK				PKPab	PKPab	12 48 51.0	+0.2
	comp=N,3.6nm,0.5s,baz=289,slow=0.6,SNR=12						
AAK				pPKPbc	pPKPbc	12 49 17.7	+1.3
	comp=N,2.3nm,0.6s,baz=192,slow=8.3,SNR=2.4						
UCH	**Uchtor**	149.61	60	P	PKPbc	12 48 46.6	+1.0
	SNR=8.3						
UCH	**Uchtor**	149.61	60	*e*PKPdf	PKPdf	12 48 41.7	+0.8
UCH				*e*PKPbc	PKPbc	12 48 46.9	+1.2
UCH				*e*PKPab	PKPab	12 48 51.8	+0.6
KURK	**Kurchatov**	149.83	42	PKPbc	PKPbc	12 48 45.5	-0.3
	comp=N,2.6nm,0.5s,baz=302,slow=3.1,SNR=22						
KURK				PKPab	PKPab	12 48 51.6	-0.2
	comp=N,0.6nm,0.5s,baz=296,slow=4.1,SNR=6.0						
KURK				pPKPbc	pPKPbc	12 49 18.8	+2.0
	comp=N,3.3nm,0.9s,baz=299,slow=3.1,SNR=7.3						
KURK	**Kurchatov**	149.83	42	PKPbc	PKPbc	12 48 45.5	-0.3
KURK				PKPab	PKPab	12 48 51.6	-0.2
KURK				pPKPbc	pPKPbc	12 49 18.8	+2.0
TKM2	**Tokmak 2**	150.29	58	P	PKPbc	12 48 47.4	+0.1
	SNR=6.9						
TKM2	**Tokmak 2**	150.29	58	*e*PKPdf	PKPdf	12 48 39.4	-2.5
TKM2				*e*PKPbc	PKPbc	12 48 47.2	0.0
TKM2				*e*PKPab	PKPab	12 48 53.9	-0.1
ZALV	**Zalesovo Beam**	151.27	32	PKPbc	PKPbc	12 48 48.8	-0.3
	comp=N,7.3nm,0.6s,baz=304,slow=3.0,SNR=26						
ZALV				PKPab	PKPab	12 48 57.1	-0.4
	comp=N,1.4nm,0.6s,baz=309,slow=4.3,SNR=3.9						
ZALV				pPKPbc	pPKPbc	12 49 22.4	+2.3
	comp=N,4.4nm,0.7s,baz=300,slow=2.9,SNR=4.7						
MKAR	**Makanchi Array**	153.71	47	PKPbc	PKPbc	12 48 54.0	-0.9
	comp=N,1.2nm,0.8s,baz=280,slow=2.2,SNR=9.2						
MKAR				PKPab	PKPab	12 49 07.7	-0.4
	comp=N,2.2nm,0.7s,baz=297,slow=4.2,SNR=17						
MKAR				pPKPab	pPKPab	12 49 40.0	+1.8
	comp=N,1.5nm,0.7s,baz=297,slow=4.3,SNR=5.1						
MKAR	**Makanchi Array**	153.71	47	PKPbc	PKPbc	12 48 54.0	-0.9
MKAR				PKPab	PKPab	12 49 07.7	-0.4
MKAR				pPKPab	pPKPab	12 49 40.0	+1.8
SONM	**Songino Array**	163.77	10	PKPab	PKPab	12 49 51.9	+0.4
	comp=N,1.5nm,0.7s,baz=325,slow=4.7,SNR=13						

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*ISCJB **26** 12:35:11.8±0.5, 41°.20N±0°.02×114°.86W±0°.02, h4^{km}±4^{km}, Error ellipse: s-maj=2.9km s-min=2.7km az=41.7*
*IDC **26** 12:35:12.4±1.1, 41°.23N×114°.95W, h0^{km}, mb2.5/1, mb1 2.9/3, mb1mx2.9/22, mbtmp2.5/3, ML2.7/2, Error ellipse: s-maj=19.5km s-min=5.2km az=130.0*
ISC 26 12:35:12.3±0.3, **41°.20N**±0°.02×**114°.86W**±0°.02, **h5**^{km}±3^{km}, **n42**, σ**0^s.62**/64, **19C-31D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.37	202	⇓P	Pg	12 35 19.9	+0.4
	baz=0.4,SNR=35						
N12A				⇓S	Sg	12 35 25.0	+0.7
	baz=0.4						
ELK	**Elko**	0.54	213	Pg	Pg	12 35 22.6	0.0
	4.7nm,0.3s,baz=16,slow=18,SNR=29						
ELK				Lg		12 35 29.6	
	18nm,0.3s,baz=18,slow=18,SNR=41						
M13A	**Montello**	0.55	73	⇑P	Pg	12 35 23.0	+0.2
	baz=0.5,SNR=18						
N13A	**Wendover, West**	0.60	125	⇓P	Pg	12 35 24.1	+0.3
	baz=0.6,SNR=82						
N13A				⇑S	Sg	12 35 32.1	+0.5
	baz=0.6						
M11A	**Holland Ranch,**	0.74	289	⇓P	Pg	12 35 26.2	-0.3
	baz=0.8,SNR=26						
M11A				⇑S	Sg	12 35 36.0	0.0
	baz=0.8						
N11A	**Elko Archery C**	0.77	240	⇓P	Pg	12 35 26.9	0.0
	baz=0.8						
N11A				⇑S	Sg	12 35 37.2	+0.3
	baz=0.8						
O12A	**Currie**	0.94	175	⇓P	Pg	12 35 30.3	+0.1
	baz=0.9,SNR=24						
O12A				⇓S	Sg	12 35 42.6	+0.4
	baz=0.9						
L12A	**House Creek Ra**	0.95	353	⇓P	Pg	12 35 30.4	-0.2
	baz=1.0,SNR=19						
L12A				⇑S	Sg	12 35 43.3	+0.4
	baz=1.0						
L13A	**Double Diamond**	1.12	37	⇓P	Pg	12 35 33.4	-0.3
	baz=1.1,SNR=12						
L13A				⇑S	Sg	12 35 48.5	+0.2
	baz=1.1						
L11A	**Cat Creek Ranc**	1.18	326	P	Pg	12 35 34.2	-0.6
	baz=1.2,SNR=18						
L11A				⇑S	Sg	12 35 49.9	-0.2
	baz=1.2						
M14A	**Sheep Mountain**	1.18	75	P	Pg	12 35 34.4	-0.5
	baz=1.2,SNR=44						
M14A				⇓S	Sg	12 35 50.4	+0.3
	baz=1.2						
O11A	**Cowboy Ranch,**	1.23	210	⇑P	Pg	12 35 35.7	-0.1
	baz=1.2,SNR=29						
O11A				⇓S	Sg	12 35 51.8	+0.1
	baz=1.2						
O13A	**Hicks Ranch, I**	1.26	148	⇓P	Pg	12 35 35.9	-0.5
	baz=1.2,SNR=27						
O13A				⇑S	Sg	12 35 52.9	+0.3
	baz=1.2						
M10A	**I.L. Ranch, Tu**	1.31	285	⇓P	Pn	12 35 36.5	-0.6
	baz=1.3,SNR=15						
M10A				⇑S	Sg	12 35 54.6	+0.4
	baz=1.3						
N14A	**Grayback Hills**	1.31	105	P	Pn	12 35 36.5	-0.7
	baz=1.3,SNR=31						
N14A				⇓S	Sg	12 35 54.9	+0.6
	baz=1.3						
N10A	**Dunphy**	1.34	249	⇑S	Sb	12 35 55.2	-0.1
	baz=1.3						
K12A	**Draper Farm, C**	1.44	359	⇓P	Pn	12 35 38.0	-0.9
	baz=1.5,SNR=30						
K12A				⇓S	Sb	12 35 57.2	-0.8
	baz=1.5						
L14A	**Malta**	1.47	55	⇑P	Pn	12 35 39.0	-0.4
	baz=1.5,SNR=18						
L14A				⇑S	Sn	12 35 58.7	-0.3
	baz=1.5						
L10A	**Juniper Basin**	1.49	306	⇑P	Pn	12 35 39.6	-0.2
	baz=1.5,SNR=16						
L10A				⇓S	Sn	12 35 59.3	-0.3
	baz=1.5						
O10A	**Cortez Mining,**	1.54	235	⇓P	Pn	12 35 40.5	+0.1
	baz=1.5,SNR=7.5						
O10A				⇑S	Sn	12 36 01.2	+0.4
	baz=1.5						
K13A	**Stover Farm, H**	1.56	21	⇓P	Pn	12 35 40.6	-0.1
	baz=1.6,SNR=11						
K13A				⇓S	Sn	12 36 01.4	+0.2
	baz=1.6						
P11A	**Circle Ranch,**	1.78	203	⇓P	Pn	12 35 43.5	-0.2
	baz=1.8						
N15A	**Stansbury Isla**	1.79	99	⇓P	Pn	12 35 43.4	-0.4
	baz=1.8,SNR=31						
K11A	**Parker Ranch,**	1.80	331	⇑P	Pn	12 35 44.0	+0.1
	baz=1.8,SNR=10.0						
K11A				⇓S	Sn	12 36 08.2	+1.1
	baz=1.8						
M15A	**Larsen Ranch,**	1.83	81	⇓P	Pn	12 35 44.1	-0.3
	baz=1.8,SNR=17						
DUG	**Dugway**	1.85	122	⇓P	Pn	12 35 44.0	-0.7
	baz=1.8						
P13A	**Bates Ranch, G**	1.86	159	⇑P	Pn	12 35 44.0	-0.7
	baz=1.8						
P10A	**Eureka**	2.00	218	⇓P	Pn	12 35 46.4	-0.2
	baz=2.0						
J12A	**Stokes Ranch,**	2.06	355	⇑P	Pn	12 35 48.0	+0.5
	baz=2.1,SNR=16						
J13A	**Cove Ranch, Pi**	2.25	13	⇓P	Pn	12 35 50.8	+0.6
	baz=2.3,SNR=22						
K15A	**Arbon**	2.28	49	⇓P	Pn	12 35 51.0	+0.4
	baz=2.3,SNR=8.8						
Q13A	**Wheeler Ranch,**	2.33	164	⇓P	Pn	12 35 50.7	-0.5
	baz=2.3						
Q14A	**Sevier Lake (B**	2.52	151	P	Pn	12 35 53.3	-0.6
	baz=2.5,SNR=9.0						
Q10A	**Clear Creek Ra**	2.65	207	⇓P	Pn	12 35 56.2	+0.6
	baz=2.6,SNR=7.3						
I13A	**Wildhorse Cree**	2.77	11	P	Pn	12 35 58.8	+1.6
	baz=2.8,SNR=27						
R11A	**Troy Canyon, C**	2.90	191	P	Pn	12 35 59.0	-0.1
	baz=2.9,SNR=11						
Q15A	**Fillmore**	2.91	138	⇑P	Pn	12 35 58.6	-0.6
	baz=2.9						
R13A	**O'Grain Ranch,**	3.09	167	⇓P	Pn	12 36 02.1	+0.4
	baz=3.1,SNR=12						
O07A	**Toulon**	3.23	253	P	Pn	12 36 03.0	-0.6
	baz=3.2,SNR=5.9						
NVAR	**Mina Array Bea**	3.83	225	Pn	Pn	12 36 11.7	-0.2
	0.3nm,0.3s,baz=40,slow=12,SNR=8.9						
NVAR				Pg	Pg	12 36 23.4	-2.3
	0.9nm,0.3s,baz=45,slow=18,SNR=12						
NVAR				Sn	Sn	12 36 58.1	+0.8
	0.7nm,0.3s,baz=57,slow=8.8,SNR=5.3						
NVAR				Lg		12 37 12.8	
	2.2nm,0.3s,baz=93,slow=24,SNR=9.6						
PDAR	**Pinedale Array**	4.25	67	Pn	Pn	12 36 20.8	+3.1
	0.1nm,0.3s,baz=244,slow=12,SNR=3.5						
PDAR				Pg	Pg	12 36 29.9	-3.8
	0.2nm,0.3s,baz=247,slow=11,SNR=5.3						
PDAR				Lg		12 37 26.9	
	0.3nm,0.3s,baz=237,slow=30,SNR=5.5						
YKA	**Yellowknife Ar**	21.33	0	P	P	12 40 00.9	+1.1
	0.1nm,0.4s,baz=181,slow=9.6,SNR=5.5						

IDC 26 12:37:10.7±2.2, **5°.57S**×**130°.73E**, **h0**^{km}, **mb3.4**/1, **mb1 3.9**/4, **mb1mx3.6**/16, **mbtmp3.7**/4, **ML4.0**/3, **MS3.5**/1, **Ms1 3.5**/1, **ms1mx2.5**/21, **Error ellipse: s-maj=73.8km s-min=29.4km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	13.41	201	Pn	Pn	12 40 21.5	-0.9
	0.4nm,0.3s,baz=39,slow=10.0,SNR=7.2						
FITZ				Sn	Sn	12 42 34.8	-18
	1.0nm,0.3s,baz=57,slow=15,SNR=7.4						
WRA	**Warramunga Arr**	14.71	167	Pn	Pn	12 40 40.4	+0.3
	0.7nm,0.3s,baz=347,slow=11,SNR=35						
WRA				Sn	Sn	12 43 13.3	-11
	0.5nm,0.3s,baz=351,slow=18,SNR=6.0						
ASAR	**Alice Springs**	18.25	171	P	Pn	12 41 25.8	+0.3
	0.7nm,0.3s,baz=352,slow=9.7,SNR=38						
ASAR				S	Sn	12 44 38.0	-12
	0.2nm,0.3s,baz=352,slow=25,SNR=5.5						
GUMO	**Guam**	23.65	36	LR	LR	12 49 39.7	
	comp=Z,102nm,19.1s,baz=0.0,slow=32						
MKAR	**Makanchi Array**	67.45	326	P	P	12 48 08.3	+0.1
	0.3nm,0.6s,baz=124,slow=8.0,SNR=4.1						

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*NEIC **26** 12:38:34.7, 36°.17N×21°.93E, h5^{km}, MD3.5(ATH), After ATH.*
*ATH **26** 12:38:34.7, 36°.17N×21°.93E, h5^{km}±4^{km}, MD3.5/9*
*CSEM **26** 12:38:36.8±0.5, 36°.12N×22°.11E, h2^{km}, MD3.5, Error ellipse: s-maj=10.3km s-min=5.1km az=47.0*
*ISCJB **26** 12:38:37.1±1.1, 36°.11N±0°.05×22°.06E±0°.07, h10^{km}, Error ellipse: s-maj=9.3km s-min=5.4km az=140.7*
*THE **26** 12:38:37.3, 36°.15N×22°.08E, h0^{km}±2^{km}, ML3.2/1, Error ellipse: s-maj=4.7km s-min=1.0km az=237.0*
ISC 26 12:38:37.6±1.1, **36°.10N**±0°.05×**22°.05E**±0°.07, **h10**^{km}, **n31**, σ**1^s.00**/49, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KYTH	**Kithira**	0.82	77	*e*PG	Pg	12 38 51.8	-1.5
KYTH	**Kithira**	0.82	77	*e*Pg	Pg	12 38 51.8	-1.5
PYL	**PYLOS**	0.83	343	P	Pg	12 38 48.6	-5.0
PYL				S	Sg	12 39 03.0	-1.5
PYL	**PYLOS**	0.83	343	*e*PG	Pg	12 38 48.7	-5.0
PYL				*e*SB	Sg	12 38 59.2	-5.3
PYL	**PYLOS**	0.83	343	P	Pg	12 38 48.6	-5.0
PYL				S	Sg	12 39 03.0	-1.5
VLI	**Veliai**	0.94	49	*e*PB	Pg	12 38 53.8	-2.0
VLI				*e*SB	Sg	12 39 07.9	-0.1
VLI	**Veliai**	0.94	49	*e*Pb	Pg	12 38 53.8	-2.0
VLI				*e*Sb	Sg	12 39 07.9	-0.1
ITM	**Ithomi**	1.08	355	*e*PG	Pg	12 38 53.8	-4.6
ITM				*e*SB	Sg	12 39 08.7	-3.8
VLX	**Vlachokerasia**	1.29	12	*e*PG	Pg	12 38 58.0	-4.5
KARN	**Karanos**	1.67	114	P	Pn	12 39 06.5	-0.4
KARN				S	Sn	12 39 30.6	+2.3
KARN	**Karanos**	1.67	114	P	Pn	12 39 06.5	-0.4
KARN				S	Sn	12 39 30.6	+2.3
DID	**Didima**	1.70	34	P	Pn	12 39 06.1	-1.1
DID				S	Sn	12 39 29.7	+0.7
DID	**Didima**	1.70	34	*e*PG	Pn	12 39 06.2	-1.0
DID	**Didima**	1.70	34	P	Pn	12 39 06.1	-1.1
DID				S	Sn	12 39 29.7	+0.7
GUR	**Goura**	1.85	7	*e*PN	Pn	12 39 08.8	-0.5
GUR	**Goura**	1.85	7	*e*Pn	Pn	12 39 08.8	-0.5
RLS	**Riolos of Patr**	2.01	347	*e*PN	Pn	12 39 11.5	-0.1
RLS	**Riolos of Patr**	2.01	347	*e*Pn	Pn	12 39 11.5	-0.1
LTK	**Loutraki**	2.06	21	P	Pn	12 39 12.5	+0.3
LTK				S	Sn	12 39 37.9	+0.1
LTK	**Loutraki**	2.06	21	*e*PG	Pn	12 39 12.9	+0.7
LTK	**Loutraki**	2.06	21	P	Pn	12 39 12.5	+0.3
LTK				S	Sn	12 39 37.9	+0.1
LAKA	**Lakka**	2.14	358	P	Pn	12 39 12.8	-0.5
LAKA				S	Sn	12 39 40.8	+0.9
LAKA	**Lakka**	2.14	358	P	Pn	12 39 12.8	-0.5
LAKA				S	Sn	12 39 40.8	+0.9
TRIZ	**Trizonia**	2.26	0	P	Pn	12 39 14.4	-0.6
TRIZ				S	Sn	12 39 43.8	+0.8
KALE	**Kalithea**	2.29	2	P	Pn	12 39 15.4	0.0
KALE				S	Sn	12 39 44.3	+0.7
EVR	**Evrytania**	2.82	356	*e*PN	Pn	12 39 23.5	+0.8
EVR	**Evrytania**	2.82	356	*e*Pn	Pn	12 39 23.5	+0.8
AGG	**Agios Georgios**	2.93	4	P	Pn	12 39 23.9	-0.2
AGG				S	Sn	12 40 00.7	+1.4
AGG	**Agios Georgios**	2.93	4	*e*PN	Pn	12 39 24.8	+0.7
AGG	**Agios Georgios**	2.93	4	P	Pn	12 39 23.9	-0.2
AGG	**Agios Georgios**	2.93	4	*e*Pn	Pn	12 39 24.8	+0.7
AGG				S	Sn	12 40 00.7	+1.4

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*ISK **26** 12:41:43.9, 40°.32N×29°.14E, h17^{km}, MD2.6*
*CSEM **26** 12:41:44.7±0.1, 40°.32N×29°.15E, h2^{km}, MD2.6, Error ellipse: s-maj=2.0km s-min=1.9km az=59.0*
*DDA **26** 12:41:44.2, 40°.31N×29°.14E, h5^{km}, Md2.6*
*ISCJB **26** 12:41:45.1±0.4, 40°.36N±0°.03×29°.13E±0°.04, h10^{km}, Error ellipse: s-maj=4.6km s-min=3.7km az=32.8*
ISC 26 12:41:45.2±0.5, **40°.32N**±0°.03×**29°.15E**±0°.04, **h2**^{km}±5^{km}, **n31**, σ**0^s.84**/43, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GEMT	**Gemlik**	0.12	15	*e*PG	Pg	12 41 47.7	+0.2
GEMT				*e*SG	Sg	12 41 50.8	+1.8
GEMT	**Gemlik**	0.12	15	*e*Pg	Pg	12 41 47.7	+0.2
GEMT				*e*Sg	Sg	12 41 50.8	+1.7
ULDT	**Uludag**	0.18	183	*i* P	Pg	12 41 48.3	-0.3
ULDT	**Uludag**	0.18	183	*i* P	Pg	12 41 48.3	-0.3
YLV	**Yalova**	0.30	35	*e*PG	Pg	12 41 51.0	+0.1
YLV				*e*SG	Sg	12 41 55.8	+1.0
YLV	**Yalova**	0.30	35	*e*Pg	Pg	12 41 51.0	+0.1
YLV				*e*Sg	Sg	12 41 55.8	+1.0
ADVT	**Abdulvahap**	0.46	76	*e*PG	Pg	12 41 53.6	-0.4
ADVT	**Abdulvahap**	0.46	76	*e*Pg	Pg	12 41 53.7	-0.4
CAVI	**Cavuskoy**	0.54	102	*e*PG	Pg	12 41 55.1	-0.4
CAVI	**Cavuskoy**	0.54	102	*e*Pg	Pg	12 41 55.2	-0.4
KCT	**Karacabey**	0.61	265	*e*PG	Pg	12 41 56.4	-0.4
KCT	**Karacabey**	0.61	265	*e*Pg	Pg	12 41 56.4	-0.4
ISK	**Istanbul-Kandi**	0.75	355	*e*PG	Pg	12 41 59.0	-0.5
ISK	**Istanbul-Kandi**	0.75	355	*e*Pg	Pg	12 41 59.0	-0.5
DURS	**Dursunbey**	0.89	216	*i* P	Pg	12 42 03.6	+1.5
DURS				*e*S	Sg	12 42 15.1	+1.5
DURS	**Dursunbey**	0.89	216	*i* P	Pg	12 42 03.7	+1.6
DURS				*e*S	Sg	12 42 15.1	+1.5
SILT	**Sile**	0.91	24	*e*PG	Pg	12 42 02.0	-0.6
SILT	**Sile**	0.91	24	*e*Pg	Pg	12 42 02.0	-0.7
KLYT	**Kilyos**	0.94	355	*e*PG	Pg	12 42 02.4	-0.7
KLYT	**Kilyos**	0.94	355	*e*Pg	Pg	12 42 02.4	-0.7
BNT	**Bandirma**	0.94	273	*e*PG	Pg	12 42 02.2	-1.0
ELBA	**Catalca**	0.99	327	*e*P	Pg	12 42 03.9	-0.2
ELBA	**Catalca**	0.99	327	*e*P	Pg	12 42 03.9	-0.3
CTKS	**Kestanelik-??a**	1.04	332	*e*PG	Pg	12 42 04.0	-1.0
CTKS	**Kestanelik-??a**	1.04	332	*e*Pg	Pg	12 42 04.1	-1.0
GDZ	**Gediz**	1.25	168	*e*P	Pn	12 42 08.9	-0.8
GDZ				*i* S	Sn	12 42 26.9	-0.3
GDZ	**Gediz**	1.25	168	*e*P	Pn	12 42 08.9	-0.8
GDZ				*i* S	Sn	12 42 26.9	-0.3
BALY	**Balya**	1.31	244	*i* P	Pn	12 42 09.5	-1.0
BALY				*i* S	Sn	12 42 28.2	-0.3
ESKT	**Eskisehir**	1.53	121	*e*P	Pn	12 42 13.9	+0.4
ESKT				*e*S	Sn	12 42 34.3	+0.3
SART	**Tekirdag**	1.55	284	*e*P	Pn	12 42 13.7	-0.1
SART				*e*S	Sn	12 42 36.2	+1.8
SART	**Tekirdag**	1.55	284	*e*P	Pn	12 42 13.7	-0.1
SART				*e*S	Sn	12 42 36.2	+1.8

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*NEIC **26** 12:49:15.1, 36°.15N×21°.91E, h5^{km}, MD3.7(ATH), After ATH.*
*ATH **26** 12:49:15.1, 36°.15N×21°.91E, h5^{km}, MD3.7/10*
*THE **26** 12:49:15.4, 35°.96N×21°.77E, h1^{km}±2^{km}, ML3.8/5, Error ellipse: s-maj=3.7km s-min=0.9km az=230.0*
*ISCJB **26** 12:49:16.4±0.7, 36°.23N±0°.03×21°.88E±0°.05, h10^{km}, Error ellipse: s-maj=6.1km s-min=3.9km az=145.8*

*CSEM **26** 12:49:16.8±0.8, 36°.11N×21°.99E, h2^{km}, MD3.7, Error ellipse: s-maj=20.9km s-min=8.5km az=46.0*

ISC 26 12:49:17.2±0.7**, 36°.20N**±0°.03×**21°.90E**±0°.05**, h10**^{km}**, n55,** σ**1ˢ76**/88**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.71	350	P	Pg	12 49 28.9	-2.0
PYL	PYLOS	0.71	350	ePB	Pg	12 49 30.0	-0.9
PYL	PYLOS	0.71	350	P	Pg	12 49 28.9	-2.0
KYTH	Kithira	0.92	85	ePN	Pg	12 49 33.3	-1.6
KYTH	Kithira	0.92	85	ePn	Pg	12 49 33.3	-1.6
ITM	Ithomi	0.98	1	ePG	Pn	12 49 34.6	-2.4
ITM				eSB	Sn	12 49 49.6	-1.4
ITM	Ithomi	0.98	1	ePg	Pn	12 49 34.6	-2.4
ITM				eSb	Sn	12 49 49.6	-1.4
VLI	Veliai	0.98	58	ePN	Pn	12 49 35.1	-2.0
VLI				eSB	Sn	12 49 48.6	-2.4
VLI	Veliai	0.98	58	ePn	Pn	12 49 35.1	-2.0
VLI				eSb	Sn	12 49 48.6	-2.4
VLX	Vlachokerasia	1.23	18	ePG	Pn	12 49 38.7	-1.8
VLX				eSB	Sn	12 49 57.3	+0.1
VLX	Vlachokerasia	1.23	18	ePg	Pn	12 49 38.7	-1.8
VLX				eSb	Sn	12 49 57.3	+0.1
DID	Didima	1.69	39	P	Pg	12 49 47.7	-1.9
DID				S	Sg	12 50 13.7	+2.2
DID	Didima	1.69	39	ePN	Pn	12 49 47.5	+0.7
DID				eSN	Sn	12 50 11.1	+2.7
DID	Didima	1.69	39	ePn	Pn	12 49 47.5	+0.7
DID	Didima	1.69	39	P	Pg	12 49 47.7	-1.9
DID				S	Sg	12 50 13.7	+2.2
GUR	Goura	1.77	11	ePN	Pn	12 49 49.2	+1.3
GUR	Goura	1.77	11	ePn	Pn	12 49 49.2	+1.3
KARN	Karanos	1.82	115	P	Pn	12 49 47.4	-1.2
KARN				S	Sn	12 50 12.3	+0.6
KARN	Karanos	1.82	115	ePG	Pn	12 49 47.7	-0.9
KARN	Karanos	1.82	115	P	Pn	12 49 47.4	-1.2
KARN				S	Sn	12 50 12.3	+0.6
RLS	Riolos of Patr	1.89	350	ePN	Pg	12 49 51.8	-1.6
RLS	Riolos of Patr	1.89	350	ePn	Pg	12 49 51.8	-1.6
LTK	Loutraki	2.01	25	P	Pg	12 49 53.3	-2.5
LTK				S	Sg	12 50 22.9	+1.0
LTK	Loutraki	2.01	25	P	Pg	12 49 53.3	-2.5
LTK				S	Sg	12 50 22.9	+1.0
NAIG	Nisos Aigina	2.01	39	ePG	Pg	12 49 53.1	-2.7
VAM	Vamos	2.03	112	ePN	Pg	12 49 53.0	-3.1
LAKA	Lakka	2.04	2	P	Pg	12 49 53.6	-2.7
LAKA				S	Sg	12 50 22.8	0.0
LAKA	Lakka	2.04	2	P	Pg	12 49 53.6	-2.7
LAKA				S	Sg	12 50 22.8	0.0
TRIZ	Trizonia	2.17	4	P	Pg	12 49 55.9	-2.9
TRIZ				S	Sg	12 50 26.9	0.0
TRIZ	Trizonia	2.17	4	P	Pg	12 49 55.9	-2.9
TRIZ				S	Sg	12 50 26.9	0.0
KALE	Kalithea	2.20	5	P	Pg	12 49 56.1	-3.2
KALE				S	Sg	12 50 27.6	-0.2
KALE	Kalithea	2.20	5	P	Pg	12 49 56.1	-3.2
KALE				S	Sg	12 50 27.6	-0.2
LKR	Lokris	2.60	19	P	Pn	12 50 01.7	+2.4
LKR	Lokris	2.60	19	P	Pn	12 50 01.7	+2.4
LKD	Levkas	2.69	339	P	Pn	12 50 01.7	+1.1
LKD				S	Sn	12 50 37.6	+4.3
LKD	Levkas	2.69	339	P	Pn	12 50 01.7	+1.1
LKD				S	Sn	12 50 37.6	+4.3
EVR	Evrytania	2.71	358	ePN	Pn	12 50 03.0	+2.1
EVR	Evrytania	2.71	358	ePn	Pn	12 50 03.0	+2.1
AGG	Agios Georgios	2.84	7	P	Pn	12 50 04.9	+2.3
AGG				S	Sg	12 50 43.5	-4.9
AGG	Agios Georgios	2.84	7	P	Pn	12 50 04.9	+2.3
AGG				S	Sg	12 50 43.5	-4.9
LAST	Lasithi	3.09	109	P	Pn	12 50 04.9	-1.1
LAST				S	Sn	12 50 44.4	+1.4
LAST	Lasithi	3.09	109	P	Pn	12 50 04.9	-1.1
LAST				S	Sn	12 50 44.4	+1.4
XOR	Xorichti	3.32	18	P	Pn	12 50 12.1	+2.9
XOR				S	Sn	12 50 54.9	+6.1
XOR	Xorichti	3.32	18	P	Pn	12 50 12.1	+2.9
XOR				S	Sn	12 50 54.9	+6.1
AOS	Alonnisos	3.36	27	P	Pn	12 50 11.8	+2.1
AOS	Alonnisos	3.36	27	P	Pn	12 50 11.8	+2.1
THL	Klokotos Trika	3.36	1	P	Pn	12 50 12.0	+2.2
THL				S	Sn	12 50 56.8	+7.1
THL	Klokotos Trika	3.36	1	P	Pn	12 50 12.0	+2.2
THL				S	Sn	12 50 56.8	+7.1
MEV	Metsovon	3.62	352	P	Pn	12 50 15.3	+2.0
MEV	Metsovon	3.62	352	P	Pn	12 50 15.3	+2.0
CHOS	Chios island	3.97	55	P	Pn	12 50 20.7	+2.6
CHOS				S	Sn	12 51 11.9	+7.2
CHOS	Chios island	3.97	55	P	Pn	12 50 20.7	+2.6
CHOS				S	Sn	12 51 11.9	+7.2
KRUS	Krusevo	5.19	355	ePn	Pn	12 50 35.2	+0.3
KRUS				eSg	Sn	12 51 34.1	-0.6
KRUS	Krusevo	5.19	355	ePn	Pn	12 50 35.1	+0.3
CUC	Castrocucco 10nm,0.6s	6.11	310	ePn	Pn	12 50 49.4	+1.8
CUC				eSn	Sn	12 51 56.2	-1.3

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*NEIC **26** 12:56:33.2, 36°.00N×21°.85E, h5^{km}, MD3.7(ATH), After ATH.*

*ATH **26** 12:56:33.2, 36°.00N×21°.85E, h5^{km}, MD3.7/10*

*CSEM **26** 12:56:34.8±0.7, 35°.92N×21°.96E, h2^{km}, MD3.7, Error ellipse: s-maj=18.5km s-min=7.8km az=49.0*

*THE **26** 12:56:34.7, 35°.91N×21°.75E, h0^{km}±2^{km}, ML3.5/4, Error ellipse: s-maj=3.6km s-min=1.1km az=224.0*

*ISCJB **26** 12:56:37.1±0.9, 36°.19N±0°.04×22°.17E±0°.07, h10^{km}, Error ellipse: s-maj=9.1km s-min=4.0km az=144.1*

ISC 26 12:56:34.9±1.0**, 36°.07N**±0°.04×**21°.95E**±0°.07**, h10**^{km}**, n47,** σ**1ˢ68**/77**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.84	349	P	Pg	12 56 49.8	-1.4
PYL	PYLOS	0.84	349	ePG	Pg	12 56 49.7	-1.5
PYL				eSB	Sg	12 57 03.5	+1.4
PYL	PYLOS	0.84	349	ePg	Pg	12 56 49.7	-1.5
PYL				eSb	Sg	12 57 03.5	+1.4
KYTH	Kithira	0.91	76	ePN	Pg	12 56 53.2	+0.8
KYTH	Kithira	0.91	76	ePn	Pg	12 56 53.2	+0.8
VLI	Veliai	1.03	51	ePN	Pg	12 56 54.7	0.0
VLI	Veliai	1.03	51	ePn	Pg	12 56 54.7	0.0
ITM	Ithomi	1.11	359	ePN	Pn	12 56 55.3	-1.2
ITM				eSB	Sn	12 57 12.9	+1.0
ITM	Ithomi	1.11	359	ePn	Pn	12 56 55.3	-1.2
ITM				eSb	Sn	12 57 12.9	+1.0
VLX	Vlachokerasia	1.34	15	ePG	Pn	12 56 59.5	-0.3
VLX				eSB	Sn	12 57 20.8	+3.1
VLX	Vlachokerasia	1.34	15	ePg	Pn	12 56 59.5	-0.3
VLX				eSb	Sn	12 57 20.8	+3.1
KARN	Karanos	1.74	112	P	Pg	12 57 07.0	-1.3
KARN				S	Sg	12 57 32.1	+1.3
KARN	Karanos	1.74	112	P	Pg	12 57 07.0	-1.3
KARN				S	Sg	12 57 32.1	+1.3
DID	Didima	1.77	35	P	Pg	12 57 08.0	-0.9
DID				S	Sg	12 57 35.8	+3.9
DID	Didima	1.77	35	ePG	Pg	12 57 07.5	-1.4
DID	Didima	1.77	35	P	Pg	12 57 08.0	-0.9
DID				S	Sg	12 57 35.8	+3.9
GUR	Goura	1.89	10	ePG	Pg	12 57 09.8	-1.4
VAM	Vamos	1.95	109	ePG	Pg	12 57 10.5	-1.8
VAM	Vamos	1.95	109	ePg	Pg	12 57 10.5	-1.8
RLS	Riolos of Patr	2.02	349	ePG	Pg	12 57 12.6	-1.1
NAIG	Nisos Aigina	2.09	36	ePG	Pg	12 57 14.2	-0.8
LTK	Loutraki	2.12	22	P	Pg	12 57 13.6	-1.9
LTK				S	Sg	12 57 43.6	+0.7
LTK	Loutraki	2.12	22	P	Pg	12 57 13.6	-1.9
LTK				S	Sg	12 57 43.6	+0.7
LAKA	Lakka	2.17	1	P	Pg	12 57 14.1	-2.4
LAKA				S	Sg	12 57 45.1	+0.5
LAKA	Lakka	2.17	1	P	Pg	12 57 14.1	-2.4
LAKA				S	Sg	12 57 45.1	+0.5
TRIZ	Trizonia	2.29	3	P	Pg	12 57 15.4	-3.5
TRIZ				S	Sg	12 57 48.2	-0.5
TRIZ	Trizonia	2.29	3	P	Pg	12 57 15.4	-3.5
TRIZ				S	Sg	12 57 48.2	-0.5
KALE	Kalithea	2.32	4	P	Pn	12 57 15.3	+2.1
KALE				S	Sg	12 57 48.1	-1.5
KALE	Kalithea	2.32	4	P	Pn	12 57 15.3	+2.1
KALE				S	Sg	12 57 48.1	-1.5
EFP	Efpalio	2.35	359	ePN	Pg	12 57 17.3	-2.8
EFP	Efpalio	2.35	359	ePn	Pg	12 57 17.3	-2.8
VLS	Valsamata	2.37	333	P	Pg	12 57 15.6	-4.7
VLS				S	Sg	12 57 47.8	-3.2
VLS	Valsamata	2.37	333	P	Pg	12 57 15.6	-4.7
VLS				S	Sg	12 57 47.8	-3.2
LKR	Lokris	2.71	18	P	Pn	12 57 21.7	+3.2
LKR				S	Sg	12 57 59.0	-3.0
LKR	Lokris	2.71	18	P	Pn	12 57 21.7	+3.2
LKR				S	Sg	12 57 59.0	-3.0
LKD	Levkas	2.83	339	P	Pn	12 57 22.0	+1.9
LKD				S	Sn	12 57 58.5	+4.2
LKD	Levkas	2.83	339	P	Pn	12 57 22.0	+1.9
LKD				S	Sn	12 57 58.5	+4.2
EVR	Evrytania	2.84	358	ePN	Pn	12 57 24.0	+3.6
EVR	Evrytania	2.84	358	ePn	Pn	12 57 24.0	+3.6
AGG	Agios Georgios	2.96	6	P	Pn	12 57 25.4	+3.4
AGG				S	Sn	12 58 04.0	+6.4
AGG	Agios Georgios	2.96	6	P	Pn	12 57 25.4	+3.4
AGG				S	Sn	12 58 04.0	+6.4
THL	Klokotos Trika	3.49	1	P	Pn	12 57 32.7	+3.5
THL				S	Sn	12 58 17.7	+7.1
THL	Klokotos Trika	3.49	1	P	Pn	12 57 32.7	+3.5
THL				S	Sn	12 58 17.7	+7.1
MEV	Metsovon	3.75	352	P	Pn	12 57 35.3	+2.4
MEV	Metsovon	3.75	352	P	Pn	12 57 35.3	+2.4
LIT	Litokhoron	4.05	6	P	Pn	12 57 40.3	+3.4
LIT				S	Sn	12 58 31.1	+6.7
LIT	Litokhoron	4.05	6	P	Pn	12 57 40.3	+3.4
LIT				S	Sn	12 58 31.1	+6.7

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*IDC **26** 12:56:58.6±0.8, 60°.38S×26°.45W, h0^{km}, mb4.3/6, mb1 4.4/6, mb1mx4.1/15, mbtmp4.2/6, MS3.8/4, Ms1 3.8/4, ms1mx3.5/19, Error ellipse: s-maj=36.9km s-min=23.5km az=69.0*

*NEIC **26** 12:57:03.5±0.6, 60°.32S×26°.32W, h35^{km}, mb4.5/1, Error ellipse: s-maj=30.8km s-min=16.8km az=64.0*

ISC 26 12:57:03.7±6.1**, 60°.4S**±0°.2×**26°.5W**±0°.5**, h32**^{km}±44^{km}**, n15,** σ**0ˢ70**/10**, mb4.2**/6**, MS3.8**/3**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	Neumayer Olymp	12.83	155	e	Pn	13 00 02.3	-1.1
VNA3				eS	Sn	13 02 14.6	-10
VNA2	Neumayer--Watz	13.10	152	e	Pn	13 00 08.1	+0.9
PMSA	Palmer Station comp=Z,391nm,19.0s,baz=70,slow=31	17.66	239	LR	LR	13 06 01.1	
QSPA	South Pole Qui 4.1nm,1.0s,mb4.1,baz=223,slow=5.3,SNR=14	29.86	180	P	P	13 03 08.0	+0.6
QSPA	 comp=Z,134nm,19.0s,MS3.6,baz=50,slow=34			LR	LR	13 14 02.9	
QSPA	South Pole Qui 9.5nm,1.2s,mb4.4	29.86	180	eP	P	13 03 08.3	+0.9
CPUP	Villa Florida 2.6nm,0.8s,mb4.0,baz=158,slow=6.1,SNR=4.8	40.04	314	P	P	13 04 34.9	-0.6
BOSA	Boshof comp=Z,55nm,18.6s,MS3.5,baz=186,slow=34	46.85	71	LR	LR	13 23 22.8	
LVC	Limon Verde 2.7nm,0.6s,mb4.5,baz=187,slow=8.1,SNR=4.2	47.88	303	P	P	13 05 39.0	+0.5
TORD	Torodi Ar. Bea 1.2nm,0.7s,mb3.9,baz=194,slow=5.3,SNR=14	76.68	28	P	P	13 08 51.5	+0.4
MDT	Midelt comp=Z,98nm,21.6s,MS4.2,baz=352,slow=31	94.58	18	LR	LR	13 45 12.6	
ASAR	Alice Springs 1.1nm,1.0s,mb4.2,baz=180,slow=4.0,SNR=9.4	94.74	162	P	P	13 10 21.0	-0.7
WRA	Warramunga Arr 0.4nm,0.8s,mb4.0,baz=187,slow=13,SNR=3.6	98.46	162	P	P	13 10 38.5	-0.1
YKA	Yellowknife Ar 0.2nm,0.6s,baz=131,slow=2.3,SNR=3.3	139.56	314	PKP	PKPdf	13 16 25.0	-1.2
ZALV	Zalesovo Beam 0.4nm,0.5s,baz=205,slow=3.0,SNR=2.6	143.78	69	PKP	PKPdf	13 16 31.6	-2.4
SONM	Songino Array 0.5nm,0.5s,baz=220,slow=3.3,SNR=6.3	150.35	94	PKPbc	PKPbc	13 16 50.1	-0.3
SONM	 0.5nm,0.4s,baz=223,slow=3.4,SNR=7.1			PKPab	PKPab	13 16 57.2	+0.2

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*NEIC **26** 13:01:04.6, 18°.96N×65°.25W, h62^{km}, MD3.5(RSPR), After RSPR.*

RSPR 26 13:01:04.6, 18°.96N×65°.25W, h62^{km}±12^{km}**, MD3.5**/3**, MD3.5**/3**, 8C, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBVI	Tortola	0.81	132	eS	Sn	13 01 31.9	0.0
TBVI	Tortola	0.81	132	eS	Sn	13 01 31.9	0.0
CBYP	Canovanas	0.90	220	⇑eP	Pn	13 01 19.9	-1.6
CBYP				eS	Sn	13 01 32.8	-1.0
MTP	Monte Pirata	0.91	198	⇑eP	Pn	13 01 20.9	-0.7
MTP				eS	Sn	13 01 33.4	-0.6
HUMP	Col San Antoni	0.99	215	⇑eP	Pn	13 01 21.3	-1.4
HUMP				eS	Sn	13 01 34.9	-1.2
HUMP	Col San Antoni	0.99	215	⇑eP	Pn	13 01 21.3	-1.4
HUMP				eS	Sn	13 01 34.9	-1.2
CELP	Cerrillos	1.54	235	⇑eP	Pn	13 01 28.6	-1.3
CELP				eS	Sn	13 01 49.1	+0.2
CELP	Cerrillos	1.54	235	⇑eP	Pn	13 01 28.6	-1.3
CELP				eS	Sn	13 01 49.7	+0.8
AOPR	Arecibo Observ	1.55	247	⇑eP	Pn	13 01 28.8	-1.3
AOPR				eS	Sn	13 01 48.8	-0.4
CRPR	Cabo Rojo, PR	2.00	242	⇑eP	Pn	13 01 34.9	-1.3
CRPR				eS	Sn	13 01 60.0	-0.2

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*CSEM **26** 13:15:45.8, 36°.40N×22°.07E, h22^{km}, MD3.5, After ATH*

ATH 26 13:15:45.8, 36°.40N×22°.07E, h22^{km}±1^{km}**, MD3.5**/7**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.56	332	ePN	Pn	13 15 56.7	-1.8
PYL				eSN	Sb	13 16 05.5	+1.0
PYL	PYLOS	0.56	332	ePn	Pn	13 15 56.7	-1.8
PYL				eSn	Sb	13 16 05.5	+1.0
VLI	Veliai	0.77	65	ePN	Pn	13 16 00.5	-0.8
VLI				eSN	Sn	13 16 12.0	-0.2
VLI	Veliai	0.77	65	ePn	Pn	13 16 00.5	-0.8
VLI				eSn	Sn	13 16 12.0	-0.2
ITM	Ithomi	0.79	352	ePN	Pn	13 16 00.9	-0.7
ITM				eSN	Sn	13 16 12.8	+0.1
ITM	Ithomi	0.79	352	ePn	Pn	13 16 00.9	-0.7
ITM				eSn	Sn	13 16 12.8	+0.1
KYTH	Kithira	0.79	98	ePN	Pn	13 16 01.4	-0.2
KYTH	Kithira	0.79	98	ePn	Pn	13 16 01.4	-0.2
VLX	Vlachokerasia	1.00	14	ePN	Pn	13 16 04.7	+0.2
VLX	Vlachokerasia	1.00	14	ePn	Pn	13 16 04.7	+0.2
DID	Didima	1.45	40	ePN	Pn	13 16 13.4	+2.8
DID				eSN	Sn	13 16 32.0	+3.1
DID	Didima	1.45	40	ePn	Pn	13 16 13.4	+2.8
DID				eSn	Sn	13 16 32.0	+3.1
GUR	Goura	1.55	8	ePN	Pn	13 16 14.2	+2.2
GUR	Goura	1.55	8	ePn	Pn	13 16 14.2	+2.2

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*ISCJB **26** 13:17:39.6±0.5, 24°.21N±0°.02×122°.19E±0°.02, h10^{km}±3^{km}, Error ellipse: s-maj=2.9km s-min=2.5km az=44.7*

*TAP **26** 13:17:40.1, 24°.26N×122°.14E, h10^{km}, ML3.5, D*

*JMA **26** 13:17:40.6±0.4, 23°.85N×122°.35E, h7^{km}, M2.9*

ISC 26 13:17:40.2±0.4**, 24°.23N**±0°.02×**122°.18E**±0°.02**, h14**^{km}±2^{km}**, n50,** σ**0ˢ82**/96**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENA	Nanau baz=295	0.44	296	i P	Pg	13 17 48.6	-0.5
ENA	 baz=295			i S	Sg	13 17 55.0	0.0
TWC	Suao baz=323	0.48	322	i P	Pg	13 17 49.2	-0.5
TWC	 baz=323			eS	Sg	13 17 55.3	-0.9
TWD	Chiawan baz=250	0.55	254	i P	Pg	13 17 51.4	+0.4
TWD	 baz=250			i S	Sg	13 17 59.6	+1.2
HWA	Hwalien baz=239	0.58	244	eP	Pg	13 17 53.5	+1.9
HWA	 baz=239			eS	Sg	13 18 00.4	+1.1
ILA	Ilan baz=325	0.66	324	i P	Pg	13 17 53.0	-0.1
ILA	 baz=325			i S	Sg	13 18 02.5	+0.6
TWE	Neicheng baz=317	0.67	317	i P	Pg	13 17 52.7	-0.7
TWE	 baz=317			i S	Sg	13 18 02.4	+0.2
ENTT	Nioudou baz=306	0.69	306	P	Pg	13 17 53.0	-0.7
ENTT	 baz=306			S	Sg	13 18 01.8	-0.9
NNS	Nan Shan baz=284	0.76	286	P	Pg	13 17 54.7	-0.3
NNS	 baz=284			S	Sg	13 18 05.4	+0.3
TWB1	Santiao Chiao baz=350	0.79	348	P	Pg	13 17 55.4	-0.2
TWB1	 baz=350			S	Sg	13 18 07.0	+0.9
ESL	Shilin baz=235	0.80	239	eP	Pg	13 17 54.6	-1.1
ESL	 baz=235			eS	Sg	13 18 06.1	0.0
YOJ	Yonaguni jima	0.80	73	P	Pg	13 17 57.1	+1.4
YOJ				S	Sg	13 18 08.6	+2.4
WHF	Hehuan Shan baz=261	0.83	264	P	Pg	13 17 55.8	-0.6
WHF	 baz=261			S	Sg	13 18 08.3	+0.8
NSK	Sanguang baz=300	0.87	301	P	Pb	13 17 56.5	-0.6
NSK	 baz=300			eS	Sg	13 18 07.8	-0.6
NWF	Wu-fen Shan baz=337	0.91	337	P	Pb	13 17 57.6	-0.2
NWF	 baz=337			S	Sb	13 18 10.0	+0.2
TWT	Tachien baz=269	0.91	272	eP	Pb	13 17 57.7	-0.2
TWT	 baz=269			eS	Sb	13 18 10.6	+0.8
TWA	Mucha baz=325	0.92	324	P	Pb	13 17 57.7	-0.3
TWA	 baz=325			S	Sb	13 18 10.2	+0.1
TAP1	Taipei baz=323	1.00	324	eP	Pb	13 17 59.2	-0.1
TAP1	 baz=323			eS	Sb	13 18 12.4	+0.1
EHY	Hungye baz=224	1.06	227	eP	Pb	13 17 58.2	-2.2
EHY	 baz=224			eS	Sb	13 18 13.6	-0.5
TWS1	Kuangyinshan baz=322	1.11	322	eP	Pb	13 18 00.9	-0.2
TWS1	 baz=322			eS	Sb	13 18 15.9	+0.5
NSTT	Nanjuang baz=289	1.14	291	eP	Pb	13 18 01.2	-0.5
NSTT	 baz=289			eS	Sb	13 18 17.2	+0.8
NCU	National Centr baz=309	1.16	310	eP	Pn	13 18 01.6	-0.4
NCU	 baz=309			eS	Sb	13 18 17.0	0.0
TWF1	Yuli baz=220	1.19	223	eP	Pn	13 18 00.1	-2.3
TWF1	 baz=220			eS	Sb	13 18 16.9	-0.8
SMLT	Sun Moon Lake baz=251	1.22	254	eP	Pn	13 18 01.7	-1.1
SMLT	 baz=251			eS	Sb	13 18 17.4	-1.1
HSN	Hsinchu baz=298	1.24	298	eP	Pn	13 18 02.9	-0.2
HSN	 baz=298			eS	Sb	13 18 19.1	-0.1
TYC	Yuchr baz=253	1.25	255	eP	Pn	13 18 01.8	-1.5
TYC	 baz=253			eS	Sb	13 18 18.3	-1.2
TWQ1	Liyutan baz=274	1.28	275	eP	Pn	13 18 03.8	0.0
TWQ1	 baz=274			eS	Sb	13 18 21.4	+0.9
NSY	Sanyi baz=277	1.30	278	eP	Pn	13 18 04.1	+0.1
NSY	 baz=277			eS	Sb	13 18 21.0	-0.1
YUS	Yu-Shan baz=234	1.34	237	eP	Pn	13 18 04.0	-0.5
YUS	 baz=234			eS	Sn	13 18 22.7	+0.6
CHKT	Chengkung baz=211	1.35	214	eP	Pn	13 18 01.5	-3.1
TCU	Taichung baz=265	1.37	267	eP	Pn	13 18 04.8	-0.1
TCU	 baz=265			eS	Sn	13 18 22.6	-0.2
WNT	Mingjian baz=253	1.41	256	eP	Pn	13 18 05.8	+0.3
WNT	 baz=253			eS	Sn	13 18 24.2	+0.4
IRIF	Iriomote-Funau	1.42	86	P	Pn	13 18 05.6	0.0
IRIF				S	Sn	13 18 24.2	0.0
ALS	Alishan baz=238	1.44	241	eP	Pn	13 18 06.0	+0.1
ALS	 baz=238			eS	Sn	13 18 25.6	+0.9
ELDTW	Lidau baz=223	1.48	226	eP	Pn	13 18 04.9	-1.6
ELDTW	 baz=223			eS	Sn	13 18 25.1	-0.5
HATJ	Hateruma jima	1.50	96	P	Pn	13 18 05.3	-1.4
CHN5	Tsauling baz=243	1.51	246	eP	Pn	13 18 06.8	0.0
CHN5	 baz=243			eS	Sn	13 18 26.4	+0.2
WGK	Gukeng baz=248	1.57	250	eP	Pn	13 18 08.8	+1.1
WGK	 baz=248			eS	Sn	13 18 28.3	+0.4
JKRS	Kuro-shima	1.68	89	P	Pn	13 18 09.6	+0.5
STYT	Tauyuan baz=229	1.68	231	eP	Pn	13 18 09.9	+0.8
STYT	 baz=229			eS	Sn	13 18 30.5	+0.1
CHN4	Tsaushan baz=237	1.69	239	eP	Pn	13 18 09.1	-0.3
CHN4	 baz=237			eS	Sn	13 18 31.7	+0.9
TWG	Pinlang baz=214	1.73	216	eP	Pn	13 18 08.4	-1.4
TWG	 baz=214			eS	Sn	13 18 30.0	-1.7
WTP	Ta-pu baz=234	1.73	236	eP	Pn	13 18 10.2	+0.3
WTP	 baz=234			eS	Sn	13 18 32.8	+1.0
JIJ	Ishigaki jima	1.80	85	P	Pn	13 18 10.9	+0.1
JIJ				S	Sn	13 18 33.2	-0.3
TWK	Hsinying baz=236	1.82	238	eP	Pn	13 18 12.0	+0.9
TWK	 baz=236			eS	Sn	13 18 35.7	+1.8
CHN1	Nanshi baz=234	1.83	236	eP	Pn	13 18 12.2	+0.9
CHN1	 baz=234			eS	Sn	13 18 35.3	+1.1
SGST	Jiashian baz=230	1.85	232	eP	Pn	13 18 12.0	+0.4
SGST	 baz=230			eS	Sn	13 18 34.9	+0.1
SSD	Sandimen baz=222	2.05	224	eP	Pn	13 18 15.1	+0.9
SSD	 baz=222			eS	Sn	13 18 39.7	+0.2
TWM1	Shoushan baz=227	2.13	229	eP	Pn	13 18 16.2	+0.8
TWM1	 baz=227			eS	Sn	13 18 41.7	0.0
SCZT	Fangliau baz=216	2.34	218	eP	Pn	13 18 18.3	0.0
SCZT	 baz=216			eS	Sn	13 18 47.0	+0.2
JTJ	Tarama	2.34	79	eS	Sn	13 18 47.0	+0.2

GUC 26 13:18:04.2±0.7, 34°.77S×71°.43W, h41km±5km, MD3.7, ML2.7, 1C-2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CACH	El Canelo	0.94	47	⇓iP	Pn	13 18 21.8	+0.8
CACH				i S	Sn	13 18 35.1	+1.8
CHCH	Chadas Angostu	1.05	38	⇓iP	Pn	13 18 23.6	+1.2
CHCH				i S	Sn	13 18 38.0	+2.1
FCH	Farellones	1.72	34	eP	Pn	13 18 33.5	+1.9
FCH				i S	Sn	13 18 55.9	+3.5
FCH				AML	AML	13 18 58.9	
	comp=E,96nm,0.2s						
PEL	Peldehue	1.73	21	⇑eP	Pn	13 18 32.8	+1.0
PEL				i S	Sn	13 18 54.6	+1.9
PEL				AML	AML	13 18 56.5	
	comp=N,184nm,0.3s						

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*ISCJB **26** 13:41:21.8±0.4, 35°.93N±0°.03×21°.80E±0°.03, h10km, mb3.7/10, Error ellipse: s-maj=4.1km s-min=3.3km az=41.5*

*ATH **26** 13:41:22.1, 36°.00N×21°.78E, h12km±2km, MD3.9/15, ML3.5*

*CSEM **26** 13:41:23.9±0.3, 36°.04N×21°.81E, h2km, ML4.1/7, Error ellipse: s-maj=6.4km s-min=5.3km az=167.0*

*NEIC **26** 13:41:25.4±1.8, 36°.25N×21°.98E, h19km±11km, ML3.5(ATH), Error ellipse: s-maj=10.3km s-min=5.9km az=195.0*

*THE **26** 13:41:25.8, 36°.10N×21°.88E, h3km±3km, ML4.1/7, Error ellipse: s-maj=3.8km s-min=1.1km az=218.0*

*IDC **26** 13:41:27.5±3.1, 36°.17N×22°.05E, h42km±32km, mb3.5/10, mb1 3.6/11, mb1mx3.5/25, mbtmp3.5/11, ML2.6/1, Error ellipse: s-maj=22.9km s-min=20.3km az=16.0*

ISC 26 13:41:23.7±0.4, 35°.96N±0°.03×21°.85E±0°.03, h10km, n118, σ1s.29/164, mb3.7/10, 1D, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.94	355	P	Pg	13 41 39.0	-2.7
PYL	PYLOS	0.94	355	ePB	Pg	13 41 38.9	-2.8
PYL				eSB	Sg	13 41 52.1	-1.8
PYL	PYLOS	0.94	355	ePb	Pg	13 41 38.9	-2.8
PYL				eSb	Sg	13 41 52.1	-1.8
KYTH	Kithira	1.01	71	ePN	Pg	13 41 42.2	-1.0
VLI	Veliai	1.16	49	ePB	Pb	13 41 44.3	-1.5
VLI				eSB	Sb	13 42 00.9	0.0
VLI	Veliai	1.16	49	ePb	Pb	13 41 44.3	-1.5
VLI				eSb	Sb	13 42 00.9	0.0
ITM	Ithomi	1.22	3	ePN	Pn	13 41 44.1	-2.7
ITM				eSB	Sb	13 42 00.5	-2.1
ITM	Ithomi	1.22	3	ePn	Pn	13 41 44.1	-2.7
ITM				eSb	Sb	13 42 00.5	-2.1
VLX	Vlachokerasia	1.47	17	ePG	Pg	13 41 48.4	-3.5
VLX				eSB	Sb	13 42 08.7	-1.2
KARN	Karanos	1.78	108	P	Pg	13 41 56.3	-1.4
KARN				S	Sg	13 42 21.6	+0.8
KARN	Karanos	1.78	108	ePN	Pg	13 41 55.9	-1.8
KARN	Karanos	1.78	108	P	Pg	13 41 56.3	-1.4
KARN				S	Sg	13 42 21.6	+0.8
DID	Didima	1.90	36	P	Pn	13 41 56.1	-0.1
DID				S	Sn	13 42 20.4	+0.2
DID	Didima	1.90	36	ePN	Pn	13 41 56.3	+0.1
DID	Didima	1.90	36	P	Pn	13 41 56.1	-0.1
DID	Didima	1.90	36	ePn	Pn	13 41 56.3	+0.1
DID				S	Sn	13 42 20.4	+0.2
VAM	Vamos	1.99	105	ePN	Pn	13 41 58.5	+1.1
GUR	Goura	2.01	11	ePN	Pn	13 41 58.1	+0.4
GUR	Goura	2.01	11	ePn	Pn	13 41 58.1	+0.4
RLS	Riolos of Patr	2.12	352	ePG	Pg	13 42 00.0	-4.2
RLS	Riolos of Patr	2.12	352	ePg	Pg	13 42 00.0	-4.2
NAIG	Nisos Aigina	2.23	36	ePB	Pb	13 42 00.2	-3.8
LTK	Loutraki	2.25	23	P	Pn	13 42 01.9	+1.0
LTK				S	Sn	13 42 28.7	+0.1
LTK	Loutraki	2.25	23	P	Pn	13 42 01.9	+1.0
LTK				S	Sn	13 42 28.7	+0.1
LAKA	Lakka	2.28	3	P	Pn	13 42 02.4	+1.1
LAKA				S	Sn	13 42 29.6	+0.2
LAKA	Lakka	2.28	3	P	Pn	13 42 02.4	+1.1
LAKA				S	Sn	13 42 29.6	+0.2
TRIZ	Trizonia	2.41	4	P	Pn	13 42 03.0	-0.1
TRIZ				S	Sn	13 42 33.7	+1.1
TRIZ	Trizonia	2.41	4	P	Pn	13 42 03.0	-0.1
TRIZ				S	Sn	13 42 33.7	+1.1
VLS	Valsamata	2.43	336	P	Pn	13 42 04.7	+1.3
VLS				S	Sn	13 42 33.6	+0.4
VLS	Valsamata	2.43	336	P	Pn	13 42 04.7	+1.3
VLS				S	Sn	13 42 33.6	+0.4
KALE	Kalithea	2.44	5	P	Pn	13 42 04.1	+0.6
KALE				S	Sn	13 42 33.0	-0.4
KALE	Kalithea	2.44	5	P	Pn	13 42 04.1	+0.6
KALE				S	Sn	13 42 33.0	-0.4
EFP	Efpalio	2.46	1	ePN	Pn	13 42 04.6	+0.7
EFP	Efpalio	2.46	1	ePn	Pn	13 42 04.6	+0.7
ATH	Athens Observa	2.50	36	ePB	Pn	13 42 03.6	-0.9
ATHU	Athens Univers	2.53	37	P	Pn	13 42 05.8	+1.0
ATHU	Athens Univers	2.53	37	P	Pn	13 42 05.8	+1.0
IDI	Anoyia	2.57	104	P	Pn	13 42 06.9	+1.6
	1.3nm,0.3s,baz=288,slow=15,SNR=9.5						
IDI				S	Sn	13 42 34.6	-2.1
	5.4nm,0.3s,baz=317,slow=19,SNR=7.2						
IDI	Anoyia	2.57	104	S	Sn	13 42 34.6	-2.0
LKR	Lokris	2.84	19	P	Pn	13 42 09.8	+0.8
LKR				S	Sn	13 42 44.2	+0.9
LKR	Lokris	2.84	19	P	Pn	13 42 09.8	+0.8
LKR				S	Sn	13 42 44.2	+0.9
LKD	Levkas	2.90	341	P	Pn	13 42 11.0	+1.1
LKD				S	Sn	13 42 45.7	+0.8
LKD	Levkas	2.90	341	P	Pn	13 42 11.0	+1.1
LKD				S	Sn	13 42 45.7	+0.8
EVR	Evrytania	2.95	359	ePB	Pn	13 42 11.0	+0.4
AGG	Agios Georgios	3.08	7	P	Pn	13 42 13.7	+1.3
AGG				S	Sn	13 42 49.7	+0.5
AGG	Agios Georgios	3.08	7	P	Pn	13 42 13.7	+1.3
AGG				S	Sn	13 42 49.7	+0.5
XOR	Xorichti	3.56	17	P	Pn	13 42 20.5	+1.5
XOR				S	Sn	13 43 01.5	+0.4
XOR	Xorichti	3.56	17	P	Pn	13 42 20.5	+1.5
XOR				S	Sn	13 43 01.5	+0.4
AOS	Alonnisos	3.59	26	P	Pn	13 42 19.4	+0.1
AOS	Alonnisos	3.59	26	P	Pn	13 42 19.4	+0.1
THL	Klokotos Trika	3.60	2	P	Pn	13 42 20.5	+1.0
THL				S	Sn	13 43 03.5	+1.4
THL	Klokotos Trika	3.60	2	P	Pn	13 42 20.5	+1.0
THL				S	Sn	13 43 03.5	+1.4
JAN	Janina	3.77	348	ePN	Pn	13 42 22.1	+0.2
JAN	Janina	3.77	348	ePn	Pn	13 42 22.1	+0.2
MEV	Metsovon	3.85	353	P	Pn	13 42 24.2	+1.3
MEV	Metsovon	3.85	353	P	Pn	13 42 24.2	+1.3
KEK	Kerkira	4.08	337	ePN	Pn	13 42 25.2	-0.9
KEK	Kerkira	4.08	337	ePn	Pn	13 42 25.2	-0.9
CHOS	Chios island	4.14	53	P	Pn	13 42 28.0	+1.0
CHOS				S	Sn	13 43 18.0	+2.6
CHOS	Chios island	4.14	53	P	Pn	13 42 28.0	+1.0
CHOS				S	Sn	13 43 18.0	+2.6
LIT	Litokhoron	4.16	7	P	Pn	13 42 28.8	+1.5
LIT				S	Sn	13 43 16.4	+0.4
LIT	Litokhoron	4.16	7	P	Pn	13 42 28.8	+1.5
LIT				S	Sn	13 43 16.4	+0.4
PAIG	Paliouri	4.22	20	P	Pn	13 42 28.1	+0.1
PAIG	Paliouri	4.22	20	P	Pn	13 42 28.1	+0.1
SIGR	SIGRI	4.54	43	P	Pn	13 42 33.4	+0.9
SIGR	SIGRI	4.54	43	P	Pn	13 42 33.4	+0.9
PLG	Polygyros	4.58	15	P	Pn	13 42 33.4	+0.4
PLG				S	Sn	13 43 26.8	+0.5
PLG	Polygyros	4.58	15	P	Pn	13 42 33.4	+0.4
PLG				S	Sn	13 43 26.8	+0.5
FNA	Florina	4.83	356	P	Pn	13 42 36.7	+0.3
FNA				S	Sn	13 43 33.1	+0.7
FNA	Florina	4.83	356	P	Pn	13 42 36.7	+0.3
FNA				S	Sn	13 43 33.1	+0.7
GRG	Griva	5.01	5	P	Pn	13 42 40.3	+1.5
GRG	Griva	5.01	5	P	Pn	13 42 40.3	+1.5
BIA	Bitola	5.07	356	ePn	Px	13 42 28.7	
BIA				eSg	Sn	13 43 35.2	-3.0
SOI	Samo	5.09	296	Pn	Pn	13 42 40.6	+0.6
	30nm,0.3s						
SOI	Samo	5.09	296	Pn	Pn	13 42 40.6	+0.6
	30nm,0.3s						
TIP	Timpagrande	5.16	310	ePn	Pn	13 42 40.7	-0.3
	12nm,0.6s						
OHR	Ohrid	5.21	351	ePn	Pn	13 42 42.5	+0.9
OHR				eSg	Sn	13 43 36.5	-5.1
OHR	Ohrid	5.21	351	ePn	Pn	13 42 42.5	+0.9
KNT	Kendrikon	5.26	9	P	Pn	13 42 43.0	+0.7
KNT	Kendrikon	5.26	9	P	Pn	13 42 43.0	+0.7
CEL	Celeste	5.28	298	Pn	Pn	13 42 42.7	+0.1
	17nm,0.6s						
CEL	Celeste	5.28	298	Pn	Pn	13 42 42.7	+0.1
	17nm,0.6s						
VAY	Valandovo	5.38	6	ePn	Pn	13 42 43.7	-0.3
VAY	Valandovo	5.38	6	ePn	Pn	13 42 43.6	-0.4
KRUS	Krusevo	5.42	355	ePn	Pn	13 42 43.1	-1.4
KRUS				eSg	Sn	13 43 43.2	-3.7
KRUS	Krusevo	5.42	355	ePn	Pn	13 42 43.1	-1.4
LTRZ	Laterza	6.09	321	Pn	Pn	13 42 52.2	-1.5
LTRZ	Laterza	6.09	321	Pn	Pn	13 42 52.2	-1.5
RAFF	Raffo Rosso	6.15	284	Pn	Pn	13 42 57.1	+2.5
RAFF	Raffo Rosso	6.15	284	Pn	Pn	13 42 57.1	+2.5
VAE	Valguarnera	6.16	286	P	Pb	13 43 05.3	-5.8
	4.6nm,0.3s,baz=240,slow=7.1,SNR=2.5						
VAE				S	Sn	13 44 09.5	+4.3
	3.0nm,0.3s,baz=272,slow=9.3,SNR=3.8						
CUC	Castrocucco	6.24	312	eP	Pn	13 42 51.5	-4.2
	13nm,0.6s						
BARS	Barje	6.85	360	⇓iPn	Pn	13 43 03.2	-0.9
MRLC	Muro Lucano	6.92	316	Pn	Pn	13 43 05.2	+0.1
MRLC	Muro Lucano	6.92	316	Pn	Pn	13 43 05.2	+0.1
STON	Ston	7.61	336	ePn	Pn	13 43 11.1	-3.5
STON				Sn	Sn	13 44 30.5	-10
BBLS	Lazići	8.12	347	ePn	Pn	13 43 19.7	-1.8
BRTR	Keskin Array B	10.05	65	P	Pn	13 43 51.2	+3.1
BRTR	Keskin Array B	10.05	65	P	Pn	13 43 51.2	+3.1
NVLJ	Novalja	10.11	330	Sn	Sn	13 45 34.1	-8.1
BOJS	Bojanci	10.76	334	i Pn	Pn	13 43 56.3	-1.4
BOJS				i Sn	Sn	13 45 50.0	-8.2
BOJS	Bojanci	10.76	334	i Pn	Pn	13 43 56.3	-1.4
JAVS	Javornik	11.53	332	i Pn	Pn	13 44 10.7	+2.5
JAVS				i Sn	Sn	13 46 09.7	-7.3
JAVS	Javornik	11.53	332	i Pn	Pn	13 44 10.7	+2.4
KIEV	Kiev	15.66	18	eP	Pn	13 45 04.3	+0.1
	932nm,0.6s						
AKBB	Malin Array Si	15.67	18	eP	Pn	13 45 03.8	-0.5
HFS	Hagfors	24.76	350	P	P	13 46 43.0	-2.1
	1.8nm,0.6s,mb3.8,baz=134,slow=13,SNR=4.8						
FINES	FINESS Array B	25.64	5	P	P	13 46 50.5	-2.7
	0.6nm,0.5s,mb3.4,baz=183,slow=36,SNR=3.7						
NOA	NORSAR Array B	26.00	348	P	P	13 46 55.7	-0.7
	1.6nm,0.8s,mb3.6,baz=146,slow=9.6,SNR=2.5						
NOA	NORSAR Array B	26.00	348	P	P	13 46 55.7	-0.7
NOA	NORSAR Array B	26.00	348	P	P	13 46 55.7	-0.7
TORD	Torodi Ar. Bea	29.07	224	P	P	13 47 26.1	+1.8
	1.2nm,0.7s,mb3.7,baz=33,slow=8.3,SNR=7.4						
ARCES	ARCESS Array B	33.69	2	P	P	13 48 01.6	-2.9
	1.8nm,0.7s,mb4.1,baz=187,slow=8.6,SNR=8.1						
MKAR	Makanchi Array	45.59	57	P	P	13 49 41.1	-2.7
	0.6nm,0.5s,mb3.8,baz=278,slow=5.7,SNR=6.7						
ZALV	Zalesovo Beam	46.41	47	P	P	13 49 47.2	-2.9
	1.7nm,0.6s,mb4.2,baz=269,slow=8.5,SNR=9.0						
SONM	Songino Array	61.06	50	P	P	13 51 35.9	-1.6
	0.4nm,0.5s,mb3.8,baz=277,slow=7.9,SNR=3.4						
CMAR	Chiang Mai Arr	69.15	82	P	P	13 52 29.1	-1.4
	0.6nm,0.8s,mb3.6,baz=312,slow=8.5,SNR=5.2						
YKA	Yellowknife Ar	75.83	341	P	P	13 53 08.0	-1.6
	0.1nm,0.4s,mb3.1,baz=37,slow=5.3,SNR=4.2						

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*ISCJB **26** 14:14:29.3±0.7, 10°.2S±0°.2×13°.4W±0°.2, h10km, mb4.3/12, MS4.3/21, Error ellipse: s-maj=29.4km s-min=14.0km az=42.4*

*IDC **26** 14:14:29.7±1.4, 10°.21S×13°.44W, h0km, mb4.2/9, mb1 4.2/10, mb1mx4.1/22, mbtmp4.1/10, ML3.5/1, MS4.3/22, Ms1 4.3/22, ms1mx4.2/35, Error ellipse: s-maj=56.0km s-min=27.2km az=138.0*

*NEIC **26** 14:14:30.9±0.6, 10°.30S×13°.37W, h10km, mb4.9/3, Error ellipse: s-maj=27.1km s-min=13.1km az=134.0*

*GCMT **26** 14:14:30.9±0.3, 10°.64S×13°.04W, h12km, MW5.0/74, Moment Tensor Solution. s26,c30; s74,c105; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.78±.11; $M_{\theta\theta}$0.35±.13; $M_{\phi\phi}$3.43±.11; $M_{r\theta}$0.28±.45; $M_{\theta\phi}$-1.21±.09; $M_{\phi r}$-0.37±.41; Best double couple: $M_0$3.84200×10^{16} NP1:ϕ_s163.00000°, δ42.00000°, λ-87.00000°. NP2: ϕ_s339.00000°, δ48.00000°, λ-93.00000°. Principal axes: T 3.8740, Plg3.0000°, Azm71.0000°; N -0.0630, Plg2.0000°, Azm341.0000°; P -3.8100, Plg86.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 14:14:31.2±0.7, 10°.3S±0°.2×13°.4W±0°.2, h10km, n32, σ0s.82/15, mb4.3/12, MS4.3/21, Ascension Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	Dimbokro	18.83	27	P	Pn	14 18 50.5	-1.3
	0.1nm,0.3s,baz=207,slow=14,SNR=2.1						
DBIC				LR	LR	14 24 29.7	
	comp=Z,762nm,19.9s,baz=182,slow=32						
BBTS	Babate	24.95	353	LR	LR	14 28 34.8	
	comp=Z,274nm,18.0s,MS3.8,baz=198,slow=34						
TORD	Torodi Ar. Bea	27.65	33	P	P	14 20 18.5	-0.8
	1.3nm,0.7s,mb3.7,baz=216,slow=8.9,SNR=5.1						
TORD				LR	LR	14 29 56.0	
	comp=Z,627nm,18.3s,MS4.2,baz=215,slow=34						
TORD	Torodi Ar. Bea	27.65	33	P	P	14 20 18.5	-0.8
TORD				LR	LR	14 29 56.0	
BOSA	Boshof	40.51	122	LR	LR	14 35 11.9	
	comp=Z,484nm,20.4s,MS4.3,baz=286,slow=31						
CPUP	Villa Florida	44.45	243	P	P	14 22 42.3	-0.4
	0.7nm,0.4s,mb3.7,baz=50,slow=6.3,SNR=3.5						
CPUP				LR	LR	14 38 06.5	
	comp=Z,536nm,21.3s,MS4.4,baz=67,slow=32						
ESDC	Sonseca Array	50.44	9	LR	LR	14 41 47.0	
	comp=Z,192nm,21.5s,MS4.1,baz=345,slow=32						
KEST	Kesra	50.52	24	P	P	14 23 29.6	-0.1
	2.5nm,0.9s,mb4.1,baz=171,slow=6.3,SNR=6.0						
KEST				LR	LR	14 44 09.9	
	comp=Z,167nm,19.6s,MS4.1,baz=195,slow=35						
KMBO	Kilima Mbogo	51.12	83	P	P	14 23 34.9	+0.2
	1.0nm,0.6s,mb3.9,baz=257,slow=14,SNR=3.9						
KMBO				LR	LR	14 44 11.6	
	comp=Z,416nm,18.4s,MS4.5,baz=285,slow=35						
KMBO	Kilima Mbogo	51.12	83	P	P	14 23 34.9	+0.2
KMBO				LR	LR	14 44 11.6	
VAE	Valguarnera	54.16	27	LR	LR	14 48 29.7	
	comp=Z,584nm,19.1s,MS4.7,baz=304,slow=38						
IDI	Anoyia	57.96	37	P	P	14 24 26.1	+2.1
	8.6nm,0.9s,mb4.8,baz=211,slow=9.1,SNR=2.9						
PLCA	Paso Flores	58.64	228	LR	LR	14 45 51.0	
	comp=Z,261nm,19.5s,MS4.4,baz=79,slow=32						
DAVOX	Davos/Dischmat	60.46	18	LR	LR	14 50 13.2	
	comp=Z,434nm,19.7s,MS4.6,baz=263,slow=36						
EIL	Elat	61.16	48	LR	LR	14 50 59.8	
	comp=Z,230nm,18.5s,MS4.4,baz=252,slow=36						
ROSC	El Rosal	62.53	281	LR	LR	14 50 37.9	
	comp=Z,261nm,19.1s,MS4.4,baz=22,slow=35						
MMAI	Mount Meron Ar	63.32	45	LR	LR	14 49 57.0	
	comp=Z,104nm,20.6s,MS4.0,baz=270,slow=34						
GERES	GERESS Array B	63.50	20	P	P	14 25 01.0	-0.5
	0.3nm,0.4s,mb3.7,baz=209,slow=5.6,SNR=4.6						
ASF	Jabal al Asfar	63.91	47	LR	LR	14 51 01.4	
	comp=Z,293nm,20.8s,MS4.5,baz=279,slow=34						
OTAV	Otavalo	65.54	275	eP	P	14 25 16.2	+0.6
	9.9nm,1.1s,mb4.8						
MLR	Muntele Rosu	65.80	29	P	P	14 25 17.4	+0.9
	1.9nm,0.4s,mb4.5,baz=214,slow=3.6,SNR=4.4						
BRTR	Keskin Array B	66.11	38	P	P	14 25 19.1	+0.4
	2.1nm,0.8s,mb4.2						
KIEV	Kiev	71.07	27	eP	P	14 25 49.5	+0.1
	24nm,1.3s,mb5.0						
AKASG	Malin Array Be	71.08	27	P	P	14 25 49.5	-0.1
	1.5nm,0.5s,mb4.2,baz=224,slow=6.4,SNR=10						
NOA	NORSAR Array B	73.67	12	LR	LR	14 57 47.3	
	comp=Z,89nm,20.9s,MS4.0,baz=280,slow=35						
MAW	Mawson	75.34	157	LR	LR	14 52 09.8	
	comp=Z,217nm,18.7s,MS4.5,baz=259,slow=30						
SCHQ	Schefferville	78.77	332	LR	LR	14 53 59.3	
	comp=Z,128nm,19.1s,MS4.3,baz=349,slow=30						
QSPA	South Pole Qui	79.88	180	eP	P	14 26 38.8	-0.8
	12nm,1.0s,mb4.8						
SPITS	Spitsbergen Ar	89.82	6	LR	LR	15 06 18.6	
	comp=Z,123nm,19.4s,MS4.3,baz=165,slow=35						
VNDA	Vanda	92.34	179	LR	LR	15 04 04.7	
	comp=Z,169nm,18.0s,MS4.5,baz=160,slow=32						
ULM	Lac du Bonnet	93.04	320	LR	LR	15 02 50.6	
	comp=Z,119nm,18.1s,MS4.4,baz=49,slow=31						
TXAR	Lajitas Array	95.19	299	LR	LR	15 05 39.3	
	comp=Z,74nm,21.1s,MS4.1,baz=185,slow=32						

IDC 26 14:37:48.5±1.6, 15°.76S×174°.67W, h0km, mb4.0/4, mb1 4.2/5, mb1mx3.8/19, mbtmp4.1/5, Error ellipse: s-maj=55.6km s-min=28.9km az=148.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.35	57	Pn	Pn	14 38 42.3	+0.2
	55nm,0.3s,baz=240,slow=8.1,SNR=131						
AFI				Sn	Sn	14 39 12.7	-10
	70nm,0.3s,baz=229,slow=19,SNR=13						
URZ	Urewera	23.55	196	P	P	14 43 00.8	0.0
	2.5nm,0.4s,baz=305,slow=16,SNR=3.3						
STKA	Stephens Creek	42.80	240	P	P	14 45 48.5	+0.4
	0.5nm,0.4s,baz=60,slow=14,SNR=3.7						
WRA	Warramunga Arr	48.57	257	P	P	14 46 33.8	-0.2
	0.7nm,0.4s,baz=96,slow=6.3,SNR=30						
ASAR	Alice Springs	48.83	252	P	P	14 46 35.6	-0.4
	3.2nm,0.6s,baz=89,slow=7.6,SNR=58						

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*ISCJB **26** 14:41:30.5±0.5, 51°.47N±0°.03×16°.17E±0°.03, h0km, Error ellipse: s-maj=3.9km s-min=2.6km az=26.0*

*IPEC **26** 14:41:33.5±0.2, 51°.43N×16°.23E, h0km, ML2.2/3, Error ellipse: s-maj=1.4km s-min=0.8km az=32.0*

*CSEM **26** 14:41:33.0±0.3, 51°.42N×16°.15E, h2km, ML3.3/7, Error ellipse: s-maj=5.1km s-min=3.4km az=22.0*

*IDC **26** 14:41:33.1±0.9, 51°.44N×16°.21E, h0km, mb1 3.3/5, mb1mx3.1/23, mbtmp3.2/5, ML2.6/5, Error ellipse: s-maj=19.2km s-min=7.8km az=106.0*

*WAR **26** 14:41:33.8, 51°.45N×16°.18E, ML2.7, Mining Induced*

*PRU **26** 14:41:34.9, 51°.37N×16°.11E, h0km*

*VIE **26** 14:41:35.6±0.5, 51°.17N×16°.24E, h0km, mb2.2/3, ML2.7/3, Error ellipse: s-maj=3.3km s-min=2.6km az=179.0 54 km W of Wroclaw Suspected Mining induced.*

ISC 26 14:41:32.0±0.5, 51°.48N±0°.02×16°.17E±0°.03, h0km, n43, σ1s.04/78, 1C-1D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.64	173	ePg	Pg	14 41 44.9	+0.6
KSP				eSg	Sg	14 41 53.0	+0.5
KSP	Ksiaz	0.64	173	i Pg	Pg	14 41 44.9	+0.6
KSP				eSg	Sg	14 41 53.0	+0.4
KSP	Ksiaz	0.64	173	ePg	Pg	14 41 44.7	+0.4
	baz=356						
KSP				eSg	Sg	14 41 52.0	-0.6
	baz=356						
UPC	Upice	0.98	186	ePG	Pg	14 41 51.1	+0.4
UPC	Upice	0.98	186	ePg	Pg	14 41 51.0	+0.3
	baz=8.3						
DPC	Dobruska-Polom	1.13	175	ePG	Pg	14 41 53.7	0.0
DPC				eSG	Sg	14 42 08.4	0.0
	comp=Z,41nm,0.4s						
DPC	Dobruska-Polom	1.13	175	Pg	Pg	14 41 53.7	0.0
DPC				eSg	Sg	14 42 07.7	-0.7
	baz=357						
PVCC	Panska Ves	1.39	227	ePG	Pg	14 41 59.4	+0.8
PVCC	Panska Ves	1.39	227	Pg	Pg	14 41 59.4	+0.8
PVCC				eSg	Sg	14 42 17.7	+1.1
	baz=48						
BRG	Berggiesshubel	1.53	248	PN	Pn	14 42 01.0	+0.5
BRG				PG	Pg	14 42 01.8	+0.5
BRG				SG	Sg	14 42 21.9	+0.8
	comp=Z,76nm,0.4s						
BRG	Berggiesshubel	1.53	248	ePn	Pn	14 42 01.3	+0.8
	baz=68						
BRG				eSg	Sg	14 42 21.6	+0.5
	baz=68						
PRU	Pruhonice	1.82	215	ePG	Pg	14 42 06.4	-0.4
PRU				eSG	Sg	14 42 30.0	-0.3
	comp=Z,49nm,0.3s						
PRU	Pruhonice	1.82	215	ePn	Pn	14 42 05.9	+1.4
	baz=36						
PRU	Pruhonice	1.82	215	Pg	Pg	14 42 06.4	-0.4
PRU				eSg	Sg	14 42 29.4	-0.9
	baz=36						
MORC	Moravsky Berou	1.91	152	ePn	Pn	14 42 05.5	-0.3
	baz=334						
MORC				eSg	Sg	14 42 31.8	-1.6
	comp=Z,18nm,0.3s,baz=334						
CLL	Collm	1.99	266	i Pg	Pg	14 42 10.7	+0.5
CLL				eSg	Sg	14 42 37.0	+1.0
	comp=Z,22nm,0.7s						
CLL	Collm	1.99	266	ePn	Pn	14 42 10.4	+3.5
	baz=85						
OKC	Ostrava-Krasne	2.07	142	ePG	Pg	14 42 11.7	+0.1
OKC				eSG	Sg	14 42 38.1	-0.3
	comp=Z,41nm,0.7s						
OKC	Ostrava-Krasne	2.07	142	Pg	Pg	14 42 11.7	+0.1
OKC				Sg	Sg	14 42 38.1	-0.3
	comp=Z,41nm,0.7s						
VRAC	Vranov	2.19	173	Pn	Pn	14 42 10.2	+0.6
	comp=Z,1.9nm,0.3s,baz=344,slow=18,SNR=9.7						
VRAC				Lg		14 42 41.7	
	comp=Z,5.4nm,0.3s,baz=356,slow=19,SNR=7.2						
VRAC	Vranov	2.19	173	ePn	Pn	14 42 10.5	+0.9
	baz=354						
VRAC				eSg	Sg	14 42 41.1	-1.2
	comp=Z,19nm,0.4s,baz=354						
KRUC	Moravsky	2.42	177	ePg	Pg	14 42 17.0	-1.4
	baz=358						
KRUC				eSg	Sg	14 42 48.5	-1.3
	comp=Z,8.2nm,0.3s,baz=358						
OJC	Ojcow	2.62	117	ePg	Pg	14 42 23.2	+1.0
OJC				eSg	Sg	14 42 57.4	+1.3
OJC	Ojcow	2.62	117	ePg	Pg	14 42 23.2	+1.0
OJC				eSg	Sg	14 42 57.4	+1.3
NKC	Novy Kostel	2.67	244	ePN	Pn	14 42 16.8	+0.6
NKC				ePG	Pg	14 42 22.7	-0.5
NKC				eSG	Sg	14 42 57.8	+0.1
	comp=Z,43nm,0.4s						
NKC	Novy Kostel	2.67	244	Pn	Pn	14 42 16.8	+0.6
JAVC	Velka Javorina	2.79	159	ePn	Pn	14 42 20.1	+2.2
	baz=341						
KHC	Kasperske Hory	2.88	216	ePN	Pn	14 42 19.5	+0.4
KHC				ePG	Pg	14 42 25.7	-1.5
KHC				eSN	Sn	14 42 54.1	-0.3
KHC				eSG	Sg	14 43 02.6	-1.9
	comp=Z,11nm,0.4s						
KHC	Kasperske Hory	2.88	216	Pn	Pn	14 42 19.5	+0.4
MOX	Moxa	3.00	256	ePG	Pg	14 42 29.9	+0.5
MOX				eSG	Sg	14 43 09.4	+1.2
MOX	Moxa	3.00	256	ePg	Pg	14 42 29.3	-0.1
	baz=73						
MOX				eSg	Sg	14 43 07.8	-0.4
	baz=73						
GERES	GERESS Array B	3.08	212	Pn	Pn	14 42 23.1	+1.2
	comp=Z,0.3nm,0.3s,baz=30,slow=14,SNR=5.9						
GERES				Pg	Pg	14 42 28.8	-2.1
	comp=Z,2.9nm,0.3s,baz=34,slow=17,SNR=19						
GERES				Lg		14 43 08.5	
	comp=Z,4.5nm,0.3s,baz=31,slow=29,SNR=13						
MODS	Modra-Piesok	3.19	167	ePN	Pg	14 42 33.2	+0.1
MODS				eSG	Sg	14 43 15.6	+1.2
VYHS	Vyhne	3.45	149	ePN	Pg	14 42 38.4	+0.4
VYHS				eSG	Sg	14 43 24.2	+1.5
BSD	Bornholm Skovb	3.72	349	i P	Pn	14 42 30.2	-0.4
BSD				i S	Sn	14 43 13.3	-1.8
BSD				i S	Sn	14 43 14.2	-0.9
BSD	Bornholm Skovb	3.72	349	i P	Pn	14 42 30.2	-0.4
BSD				i S	Sn	14 43 13.3	-1.8
MOA	Molln	3.84	200	⇑iPn	Pn	14 42 32.3	0.0
MOA				⇓iSg	Sg	14 43 33.9	-1.3
	comp=Z,9.0nm,0.3s						
MOA	Molln	3.84	200	Pn	Pn	14 42 32.3	0.0
MOA				Sg	Sg	14 43 33.9	-1.3
	comp=Z,9.0nm,0.3s						
STHS	Stebnicka Huta	3.84	121	eSG	Sg	14 43 40.7	+5.3
STHS	Stebnicka Huta	3.84	121	eSg	Sg	14 43 40.7	+5.3
HFS	Hagfors	8.79	352	Pn	Pn	14 43 39.2	-0.9
	comp=Z,0.1nm,0.3s,baz=173,slow=16,SNR=3.7						
FINES	FINESS Array B	11.38	25	Pn	Pn	14 44 12.9	-2.6
	comp=Z,0.1nm,0.3s,baz=194,slow=11,SNR=2.9						
FINES				Sn	Sn	14 46 14.7	-8.5
	comp=Z,0.2nm,0.3s,baz=206,slow=22,SNR=4.0						
ARCES	ARCESS Array B	18.65	10	Pn	Pn	14 45 46.0	-5.2
	comp=Z,0.1nm,0.3s,baz=196,slow=13,SNR=2.7						

IDC ***26*** *14:52:30.9±2.2, 3°.30N×96°.21E, h0^{km}, mb3.5/5, mb1 3.6/7, mb1mx3.5/24, mbtmp3.5/7, ML4.3/1, MS3.8/1, Ms1 3.8/1, ms1mx2.6/27, Error ellipse: s-maj=72.6km s-min=19.7km az=57.0*

ISCJB ***26*** *14:52:33.4±1.4, 3°.3N±0°.1×96°.1E±0°.2, h33^{km}, mb3.4/5, Error ellipse: s-maj=26.8km s-min=14.2km az=140.4*

NEIC ***26*** *14:52:36.8±1.3, 3°.43N×96°.42E, h35^{km}, Error ellipse: s-maj=33.7km s-min=11.1km az=57.0*

ISC 26 14:52:36.1±1.5, **3°.3N**±0°.2×**96°.2E**±0°.2, **h35**^{km}, **n9**, σ**1**^{s}**04**/8, **mb3.4**/5, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSI	Prapat	2.73	101	Pn	Pn	14 53 16.4	-1.1
	0.8nm,0.3s,baz=262,slow=7.1,SNR=4.6						
KULM	Kulim	4.81	66	*e*P	Pn	14 53 48.8	+2.7
CMAR	Chiang Mai Arr	15.27	10	Pn	Pn	14 56 07.8	-1.3
	0.4nm,0.3s,baz=193,slow=12,SNR=3.1						
WRA	Warramunga Arr	43.99	123	P	P	15 00 40.4	+0.1
	0.2nm,0.8s,mb2.9,baz=303,slow=8.9,SNR=2.6						
MKAR	Makanchi Array	44.96	346	P	P	15 00 47.6	-0.1
	0.6nm,0.6s,mb3.6,baz=155,slow=7.9,SNR=9.7						
SONM	Songino Array	45.19	10	P	P	15 00 50.5	+1.0
	0.8nm,0.7s,mb3.6,baz=190,slow=8.4,SNR=7.9						
ASAR	Alice Springs	45.45	128	P	P	15 00 52.1	+0.1
	0.2nm,0.8s,mb3.0,baz=298,slow=8.1,SNR=2.9						
KURK	Kurchatov	49.50	345	LR	LR	15 23 18.7	
	comp=Z,86nm,18.3s,baz=215,slow=37						
ZALV	Zalesovo Beam	51.32	351	P	P	15 01 36.8	+0.1
	0.7nm,0.5s,mb3.8,baz=169,slow=8.4,SNR=5.9						

BJI ***26*** *14:54:01.4, 36°.33N×21°.75E, h5^{km}, mB5.2/21, mb4.8/31, Ms5.1/16, Ms7 4.7/17*

ISCJB ***26*** *14:54:02.9±0.2, 35°.96N±0°.01×21°.90E±0°.02, h10^{km}, mb4.6/74, MS4.0/21, Error ellipse: s-maj=2.3km s-min=2.1km az=175.3*

IDC ***26*** *14:54:03.4±0.6, 36°.09N×22°.10E, h0^{km}, mb4.2/18, mb1 4.2/25, mb1mx4.1/35, mbtmp4.1/25, ML4.0/6, MS3.9/16, Ms1 3.9/16, ms1mx3.6/37, Error ellipse: s-maj=13.9km s-min=12.4km az=171.0*

ATH ***26*** *14:54:04.2, 36°.05N×21°.83E, h5^{km}, MD4.3/24, ML4.3*

NEIC ***26*** *14:54:04.2, 36°.05N×21°.83E, h5^{km}, mb4.8/33, ML4.3(ATH), ML4.8(THE), After ATH.*

HLW ***26*** *14:54:05.9, 36°.13N×22°.28E, h33^{km}, Mb4.5*

CSEM ***26*** *14:54:05.2±0.1, 36°.00N×21°.93E, h10^{km}, mb4.7/43, Ms4.6, Error ellipse: s-maj=4.2km s-min=3.5km az=38.0*

PDG ***26*** *14:54:05.4±0.1, 35°.94N×20°.46E, h11^{km}±11^{km}, ML4.5/10, Error ellipse: s-maj=125.3km s-min=22.0km az=90.0*

MOS ***26*** *14:54:06.6±1.3, 36°.07N×21°.89E, h33^{km}, mb4.8/27, Error ellipse: s-maj=5.9km s-min=3.1km az=85.7*

THE ***26*** *14:54:08.3, 36°.20N×22°.06E, h0^{km}±2^{km}, ML4.8/12, Error ellipse: s-maj=3.1km s-min=0.9km az=214.0*

GII ***26*** *14:54:12.7±0.0, 35°.48N×22°.78E, h1^{km}±2^{km}, Mb4.6/4, Md4.6/4*

SOF ***26*** *14:54:17.4, 36°.56N×24°.53E, h2^{km}, MD4.4*

ISC 26 14:54:05.0±0.2, **35°.97N**±0°.01×**21°.96E**±0°.02, **h10**^{km}, **(h34**^{km}±2.4^{km}**:pP-P)**, **n527**, σ**1**^{s}**30**/606, **mb4.6**/74, **MS4.0**/21, **29C-19D**, **Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KYTH	Kithira	0.93	70	*e*PN	Pg	14 54 23.8	+0.9
KYTH	Kithira	0.93	70	*e*Pn	Pg	14 54 23.8	+0.9
PYL	PYLOS	0.94	349	*e*PB	Pg	14 54 20.7	-2.5
PYL				*e*SB	Sg	14 54 31.9	-3.6
VLI	Veliai	1.09	46	*e*PB	Pg	14 54 25.5	-0.5
VLI				*e*SB	Sg	14 54 40.8	+0.6
VLI	Veliai	1.09	46	*e*Pb	Pg	14 54 25.5	-0.5
VLI				*e*Sb	Sg	14 54 40.8	+0.6
ITM	Ithomi	1.21	359	*e*PB	Pg	14 54 25.6	-2.7
ITM				*e*SB	Sg	14 54 42.1	-2.0
ITM	Ithomi	1.21	359	*e*Pb	Pg	14 54 25.6	-2.7
ITM				*e*Sb	Sg	14 54 42.1	-2.0
VLX	Vlachokerasia	1.44	13	*e*PG	Pn	14 54 29.9	-1.3
VLX				*e*SB	Sn	14 54 50.3	+0.1
KARN	Karanos	1.69	109	*e*PG	Pn	14 54 38.2	+3.6
DID	Didima	1.85	33	P	Pn	14 54 38.0	+1.2
DID				S	Sn	14 54 59.1	-1.1
DID	Didima	1.85	33	*e*PG	Pn	14 54 38.1	+1.3
DID				*e*SN	Sg	14 55 04.4	-0.1
DID	Didima	1.85	33	P	Pn	14 54 38.0	+1.2
DID				S	Sn	14 54 59.1	-1.1
DID				*e*Sn	Sg	14 55 04.4	-0.1
VAM	Vamos	1.91	106	*e*PN	Pn	14 54 41.0	+3.4
VAM	Vamos	1.91	106	*e*Pn	Pn	14 54 41.0	+3.4
GUR	Goura	1.99	9	*e*PG	Pn	14 54 39.2	+0.5
RLS	Riolos of Patr	2.12	349	*e*PG	Pn	14 54 41.9	+1.3
NAIG	Nisos Aigina	2.17	34	*e*PG	Pn	14 54 44.4	+3.2
LTK	Loutraki	2.21	21	P	Pn	14 54 42.8	+1.1
LTK				S	Sn	14 55 07.7	-1.3
LTK	Loutraki	2.21	21	*e*PN	Pn	14 54 42.9	+1.2
LTK	Loutraki	2.21	21	*e*Pn	Pn	14 54 42.9	+1.2
LTK				S	Sn	14 55 07.7	-1.3
LAKA	Lakka	2.27	0	P	Pn	14 54 44.1	+1.5
LAKA				S	Sn	14 55 09.4	-1.2
LAKA	Lakka	2.27	0	P	Pn	14 54 44.1	+1.5
LAKA				S	Sn	14 55 09.4	-1.2
TRIZ	Trizonia	2.40	2	P	Pn	14 54 45.9	+1.6
TRIZ				S	Sn	14 55 13.3	-0.4
TRIZ	Trizonia	2.40	2	P	Pn	14 54 45.9	+1.6
TRIZ				S	Sn	14 55 13.3	-0.4
KALE	Kalithea	2.43	3	P	Pn	14 54 46.0	+1.3
KALE				S	Sn	14 55 14.5	+0.1
KALE	Kalithea	2.43	3	P	Pn	14 54 46.0	+1.3
KALE				S	Sn	14 55 14.5	+0.1
ATH	Athens Observa	2.45	35	*e*PN	Pn	14 54 48.4	+3.4
ATH	Athens Observa	2.45	35	*e*Pn	Pn	14 54 48.4	+3.4
EFP	Efpalio	2.46	359	*e*PG	Pn	14 54 47.4	+2.3
VLS	Valsamata	2.46	334	P	Pn	14 54 46.0	+0.8
VLS				S	Sn	14 55 16.9	+1.5
VLS	Valsamata	2.46	334	*e*PN	Pn	14 54 45.8	+0.6
VLS	Valsamata	2.46	334	*e*Pn	Pn	14 54 45.8	+0.6
ATHU	Athens Univers	2.48	36	P	Pn	14 54 46.1	+0.7
ATHU				S	Sn	14 55 15.3	-0.4
ATHU	Athens Univers	2.48	36	P	Pn	14 54 46.1	+0.7
ATHU				S	Sn	14 55 15.3	-0.4
IDI	Anoyia	2.48	105	Pn	Pn	14 54 48.9	+3.4
	20nm,0.3s,baz=292,slow=15,SNR=142						
IDI	Anoyia	2.48	105	Pn	Pn	14 54 48.9	+3.4
PTL	Penteli	2.58	36	*e*PN	Pn	14 54 50.3	+3.5
PTL	Penteli	2.58	36	*e*Pn	Pn	14 54 50.3	+3.5
LKR	Lokris	2.81	17	P	Pn	14 54 50.3	+0.4
LKR				S	Sn	14 55 23.2	-0.6
LKR	Lokris	2.81	17	*e*PB	Pn	14 54 50.0	+0.1
LKR	Lokris	2.81	17	P	Pn	14 54 50.3	+0.4
LKR				S	Sn	14 55 23.2	-0.6
THR6	Thira Island,	2.81	81	P	Pn	14 54 53.0	+3.0
THR6	Thira Island,	2.81	81	P	Pn	14 54 53.0	+3.0
THR4	Thira Island,	2.83	79	P	Pn	14 54 52.7	+2.5
THR4	Thira Island,	2.83	79	P	Pn	14 54 52.7	+2.5
THR1	Thera Island	2.86	81	P	Pn	14 54 52.6	+1.9
THR1	Thera Island	2.86	81	P	Pn	14 54 52.6	+1.9
LKD	Levkas	2.93	340	P	Pn	14 54 53.4	+1.8
LKD				S	Sn	14 55 27.6	+0.8
LKD	Levkas	2.93	340	P	Pn	14 54 53.4	+1.8
EVR	Evrytania	2.95	358	*e*PG	Pn	14 54 55.5	+3.6
NPS	Neapolis	3.06	102	*e*PB	Pn	14 54 58.4	+5.0
AGG	Agios Georgios	3.07	5	P	Pn	14 54 54.1	+0.6
AGG				S	Sn	14 55 29.7	-0.5
AGG	Agios Georgios	3.07	5	P	Pn	14 54 54.1	+0.6
AGG				S	Sn	14 55 29.7	-0.5
NEO	Neokhori	3.48	16	*e*PN	Pn	14 55 00.5	+1.3
NEO	Neokhori	3.48	16	*e*Pn	Pn	14 55 00.5	+1.3
XOR	Xorichti	3.53	16	P	Pn	14 54 59.9	0.0
XOR				S	Sn	14 55 42.1	+0.3
XOR	Xorichti	3.53	16	P	Pn	14 54 59.9	0.0
XOR				S	Sn	14 55 42.1	+0.3
AOS	Alonnisos	3.54	25	P	Pn	14 55 00.5	+0.4
AOS	Alonnisos	3.54	25	P	Pn	14 55 00.5	+0.4
ZKR	Zakros	3.58	102	P	Pn	14 55 04.2	+3.7
ZKR				S	Sn	14 55 48.5	+5.7
ZKR	Zakros	3.58	102	P	Pn	14 55 04.2	+3.7
THL	Klokotos Trika	3.59	1	P	Pn	14 55 01.9	+1.1
THL				S	Sn	14 55 43.7	+0.5
THL	Klokotos Trika	3.59	1	*e*PN	Pn	14 55 02.0	+1.2
THL	Klokotos Trika	3.59	1	*e*Pn	Pn	14 55 02.0	+1.2
JAN	Janina	3.79	347	*e*PN	Pn	14 55 04.4	+1.0
JAN	Janina	3.79	347	*e*Pn	Pn	14 55 04.4	+1.0
MEV	Metsovon	3.86	352	P	Pn	14 55 06.2	+1.8
MEV	Metsovon	3.86	352	P	Pn	14 55 06.2	+1.8
CHOS	Chios island	4.07	52	P	Pn	14 55 08.0	+0.7
CHOS				S	Sn	14 55 56.6	+1.7
CHOS	Chios island	4.07	52	P	Pn	14 55 08.0	+0.7
CHOS				S	Sn	14 55 56.6	+1.7
KEK	Kerkira	4.11	336	P	Pn	14 55 09.7	+1.8
KEK	Kerkira	4.11	336	P	Pn	14 55 09.7	+1.8
LIT	Litokhoron	4.15	6	P	Pn	14 55 10.3	+1.9
LIT				S	Sn	14 55 57.6	+0.6
LIT	Litokhoron	4.15	6	P	Pn	14 55 10.3	+1.9
PAIG	Paliouri	4.18	18	P	Pn	14 55 09.7	+0.8
PAIG				S	Sn	14 55 57.3	-0.5
PAIG	Paliouri	4.18	18	P	Pn	14 55 09.7	+0.8
PAIG				S	Sn	14 55 57.3	-0.5
LTBQ	Tobruq	4.23	157	*i* P	Pn	14 55 14.5	+5.0
	SNR=45						
SMG	Samos	4.28	65	P	Pn	14 55 13.2	+3.0
SMG	Samos	4.28	65	P	Pn	14 55 13.2	+3.0
KZN	Kozani	4.34	358	*e*PN	Pn	14 55 12.2	+1.2
KZN	Kozani	4.34	358	*e*Pn	Pn	14 55 12.2	+1.2
URLA	Izmir	4.41	56	*i* P	Pn	14 55 12.7	+0.8
URLA	Izmir	4.41	56	*i* P	Pn	14 55 12.7	+0.7
SIGR	SIGRI	4.48	43	P	Pn	14 55 14.6	+1.6
SIGR				S	Sn	14 56 05.3	+0.2
SIGR	SIGRI	4.48	43	P	Pn	14 55 14.6	+1.6
SIGR				S	Sn	14 56 05.3	+0.2
PLG	Polygyros	4.55	14	P	Pn	14 55 15.7	+1.7
PLG				S	Sn	14 56 07.3	+0.4
PLG	Polygyros	4.55	14	*e*PN	Pn	14 55 16.1	+2.1
PLG	Polygyros	4.55	14	*e*Pn	Pn	14 55 16.1	+2.1
PLG				S	Sn	14 56 07.3	+0.4
GCAM	G?zelcaml?	4.57	66	*i* P	Pn	14 55 23.3	+9.1
OUR	Ouranopolis	4.64	19	P	Pn	14 55 15.7	+0.5
OUR	Ouranopolis	4.64	19	P	Pn	14 55 15.7	+0.5
LOS	Limnos	4.67	31	P	Pn	14 55 16.5	+1.0
LOS	Limnos	4.67	31	P	Pn	14 55 16.5	+1.0
LIA	Limnos Island	4.68	32	P	Pn	14 55 17.2	+1.5
LIA				S	Sn	14 56 10.4	+0.3
LIA	Limnos Island	4.68	32	P	Pn	14 55 17.2	+1.5
LIA				S	Sn	14 56 10.4	+0.3
HORT	Hortiatis	4.71	11	P	Pn	14 55 16.4	+0.3
HORT				S	Sn	14 56 11.6	+0.8
HORT	Hortiatis	4.71	11	P	Pn	14 55 16.4	+0.3
HORT				S	Sn	14 56 11.6	+0.8
FNA	Florina	4.83	355	P	Pn	14 55 18.4	+0.6
FNA				S	Sn	14 56 14.7	+0.9
FNA	Florina	4.83	355	P	Pn	14 55 18.4	+0.6
SOH	Sokhos	4.97	12	P	Pn	14 55 21.2	+1.5
SOH	Sokhos	4.97	12	P	Pn	14 55 21.2	+1.5
GRG	Griva	5.00	4	P	Pn	14 55 20.4	+0.4
GRG				S	Sn	14 56 18.6	+0.8
GRG	Griva	5.00	4	P	Pn	14 55 20.4	+0.4
ARG	Arkhangelos	5.00	85	*e*PB	Pn	14 55 27.1	+7.0
BOZC	Bozcaada	5.05	39	*i* P	Pn	14 55 22.5	+1.8
BIA	Bitola	5.07	355	*e*Pn	Pn	14 55 21.0	-0.1
BIA				*e*Sg	Sn	14 56 18.4	-1.2
BIA	Bitola	5.07	355	*e*Pn	Pn	14 55 20.9	-0.2
SOI	Samo	5.17	296	P	Pn	14 55 22.7	+0.3
SOI	Samo	5.17	296	P	Pn	14 55 22.7	+0.3
TIP	Timpagrande	5.23	309	*e*Pn	Pn	14 55 23.2	-0.1
	49nm,0.6s						
TIP				S	Sn	14 56 19.7	-3.9
TIP	Timpagrande	5.23	309	*e*Pn	Pn	14 55 23.2	0.0
	49nm,0.6s						
TIP				S	Sn	14 56 19.7	-3.9
KNT	Kendrikon	5.24	8	P	Pn	14 55 24.3	+0.9
KNT	Kendrikon	5.24	8	P	Pn	14 55 24.3	+0.9
LJBD	Adjabya	5.25	197	*i* P	Pn	14 55 26.6	+3.1
	SNR=45						
LJBD				*e*S	Sn	14 56 24.1	0.0
	228nm,0.6s,SNR=45						
SRS	Serrai	5.30	13	P	Pn	14 55 24.7	+0.5
SRS	Serrai	5.30	13	P	Pn	14 55 24.7	+0.5
CEL	Celeste	5.36	297	*e*Pn	Pn	14 55 24.5	-0.5
	42nm,0.6s						
CEL	Celeste	5.36	297	*e*Pn	Pn	14 55 24.5	-0.5
	42nm,0.6s						
VAY	Valandovo	5.37	5	*e*Pn	Pn	14 55 25.3	+0.2
VAY	Valandovo	5.37	5	P	Pn	14 55 25.4	+0.2
VAY				S	Sn	14 56 33.8	+6.8
VAY				Sg	Sb	14 56 44.6	+1.2
VAY	Valandovo	5.37	5	*e*Pn	Pn	14 55 25.3	+0.1
MTTG	Motta San Giov	5.41	294	P	Pn	14 55 25.6	-0.1
MTTG	Motta San Giov	5.41	294	P	Pn	14 55 25.6	-0.1
KRUS	Krusevo	5.42	354	*e*Pn	Pn	14 55 25.2	-0.7
KRUS	Krusevo	5.42	354	*e*Pn	Pn	14 55 25.2	-0.7
TURN	Turunc	5.43	78	*i* P	Pn	14 55 25.3	-0.8
HAVL	Avola	5.60	282	Pn	Pn	14 55 29.9	+1.6
HAVL	Avola	5.60	282	Pn	Pn	14 55 29.9	+1.6
TIR	Tirane	5.62	344	*e*P	Pn	14 55 29.1	+0.5
TIR				pmax	pmax		
	comp=Z,61nm,0.3s						
TIR	Tirane	5.62	344	*e*Pn	Pn	14 55 29.1	+0.6
	comp=Z,61nm,0.3s						
TIR	Tirane	5.62	344	*e*Pn	Pn	14 55 29.1	+0.5
	comp=Z,61nm,0.3s						
TAR1	Taranto	5.85	322	*e*Pn	Pn	14 55 30.7	-1.1
BALY	Balya	5.85	48	*i* P	Pn	14 55 36.1	+4.3
HMDC	Modica	5.87	282	P	Pn	14 55 33.3	+1.3
HMDC	Modica	5.87	282	P	Pn	14 55 33.3	+1.3
ALN	Alexandroupoli	5.88	32	P	Pn	14 55 33.7	+1.6
ALN				S	Sn	14 56 40.2	+0.7
ALN	Alexandroupoli	5.88	32	P	Pn	14 55 33.7	+1.6
ALN				S	Sn	14 56 40.2	+0.7
RDO	Rodhopi	5.88	27	*e*PN	Pn	14 55 33.9	+1.7
RDO	Rodhopi	5.88	27	*e*Pn	Pn	14 55 33.9	+1.7
HVZN	Vizzini	5.95	284	Pn	Pn	14 55 40.8	+7.6
KKB	Krupnik	5.96	8	P	Pn	14 55 40.7	+7.5
ORI	Oriolo Calabro	5.97	315	P	Pn	14 55 33.7	+0.3
ORI	Oriolo Calabro	5.97	315	P	Pn	14 55 33.7	+0.3
PE1	Pezze di Greco	6.00	325	*e*Pn	Pn	14 55 32.5	-1.3
SKO	Skopje	6.01	356	*e*Pn	Pn	14 55 34.1	+0.1
SKO	Skopje	6.01	356	*e*Pn	Pn	14 55 34.1	+0.1
WDD	Wield Dalam	6.03	271	P	Pn	14 55 32.3	-2.0
RZN	Rozhen	6.11	20	P	Pn	14 55 36.8	+1.5
RZN	Rozhen	6.11	20	P	Pn	14 55 36.8	+1.5
LTRZ	Laterza	6.15	320	P	Pn	14 55 34.5	-1.3
LTRZ	Laterza	6.15	320	P	Pn	14 55 34.5	-1.3
AKAS	Kas	6.20	85	*i* P	Pn	14 55 38.4	+1.8
AKAS	Kas	6.20	85	*i* P	Pn	14 55 38.4	+1.9
AKAS				*i* S	Sn	14 56 50.2	+2.8
RAFF	Raffo Rosso	6.24	284	Pn	Pn	14 55 38.8	+1.7
RAFF				Sn	Sn	14 56 44.6	-3.8
RAFF	Raffo Rosso	6.24	284	Pn	Pn	14 55 38.8	+1.7
RAFF				Sn	Sn	14 56 44.6	-3.8
VAE	Valguarnera	6.25	286	Pn	Pn	14 55 39.6	+2.4
	comp=Z,5.4nm,0.3s,baz=99,slow=13,SNR=2.5						
VAE				Sn	Sn	14 56 52.6	+3.9
	comp=Z,7.9nm,0.3s,baz=138,slow=15,SNR=6.9						
VAE	Valguarnera	6.25	286	Pn	Pn	14 55 39.6	+2.4
GOLH	Golhisar	6.25	76	*i* P	Pn	14 55 42.6	+5.3
KDZ	Kurdzhali	6.29	24	P	Pn	14 55 37.0	-0.7
KDZ	Kurdzhali	6.29	24	P	Pn	14 55 37.0	-0.7
CUC	Castrocucco	6.30	311	*e*Pn	Pn	14 55 37.7	-0.2
	comp=Z,74nm,0.6s						
CUC	Castrocucco	6.30	311	*e*Pn	Pn	14 55 37.7	-0.2
	comp=Z,74nm,0.6s						
ULC	Ulcinj	6.35	341	⇑*i*Pn	Pn	14 55 37.0	-1.6
ULC				*e*Sn	Sn	14 56 45.8	-5.4
ULC	Ulcinj	6.35	341	⇑*i*Pn	Pn	14 55 37.0	-1.6
SG1	Sgolgore (BA)	6.39	321	*e*Pn	Pn	14 55 38.0	-1.2
KHAL	Karahalli	6.48	66	*i* P	Pn	14 55 44.0	+3.6
KHAL	Karahalli	6.48	66	*i* P	Pn	14 55 44.0	+3.6
PTRP	Pietrapertosa	6.50	316	P	Pn	14 55 41.2	+0.6
PTRP	Pietrapertosa	6.50	316	P	Pn	14 55 41.2	+0.6
CSLB	Castelbuono	6.62	290	Pn	Pn	14 55 51.2	+8.8
GIB	Gibilmanna	6.66	290	P	Pn	14 55 46.5	+3.6
VTS	Vitosha	6.69	8	P	Pn	14 55 44.0	+0.7
VTS	Vitosha	6.69	8	P	Pn	14 55 47.0	+3.7
VTS	Vitosha	6.69	8	P	Pn	14 55 44.0	+0.7
ACER	Acerenza	6.74	317	P	Pn	14 55 44.9	+0.9
ACER	Acerenza	6.74	317	P	Pn	14 55 44.9	+0.9
BUM	Brajici-Budva	6.76	340	⇓*i*Pn	Pn	14 55 42.1	-2.1
BUM				*e*Sn	Sn	14 56 55.0	-6.2
BUM	Brajici-Budva	6.76	340	⇓*i*Pn	Pn	14 55 42.1	-2.1
PDG	Podgorica	6.79	343	⇓*i*Pn	Pn	14 55 43.5	-1.1
PDG				*e*Sn	Sn	14 56 56.9	-5.0
TTG	Podgorica	6.79	343	⇓*i*Pn	Pn	14 55 43.5	-1.1
TTG				*e*Sn	Sn	14 56 56.9	-5.0
TTG	Podgorica	6.79	343	⇓*i*Pn	Pn	14 55 43.5	-1.1
TTG				*e*Sn	Sn	14 56 56.9	-5.0
PVY	Plav	6.80	348	⇑*i*Pn	Pn	14 55 44.8	0.0
PVY				*e*Sn	Sn	14 56 59.4	-2.8
PVY	Plav	6.80	348	⇑*i*Pn	Pn	14 55 44.8	0.0
PVY				*e*Sn	Sn	14 56 59.4	-2.8
BARS	Barje	6.84	359	⇓*i*Pn	Pn	14 55 45.5	+0.1
HCY	Herceg Novi	7.01	339	⇓*i*Pn	Pn	14 55 45.0	-2.6
HCY				*e*Sn	Sn	14 57 00.1	-7.2
HCY	Herceg Novi	7.01	339	⇓*i*Pn	Pn	14 55 45.0	-2.6
HCY				P		14 55 50.0	
HCY				*e*Sn	Sn	14 57 00.1	-7.2
HCY	Herceg Novi	7.01	339	P	Pn	14 55 50.0	+2.4
BEY	Berane	7.08	348	⇑*i*Pn	Pn	14 55 48.2	-0.4
BEY				*e*Sn	Sn	14 57 06.3	-2.8
IVA	Berane	7.08	348	⇑*i*Pn	Pn	14 55 48.2	-0.4
IVA				*e*Sn	Sn	14 57 06.3	-2.8
IVA	Berane	7.08	348	⇑*i*Pn	Pn	14 55 48.2	-0.4
IVA				*e*Sn	Sn	14 57 06.3	-2.8
ISP	Isparta	7.10	72	P	Pn	14 55 53.0	+4.0
ISP	Isparta	7.10	72	P	Pn	14 55 53.0	+4.0
NKY	Niksic	7.21	342	⇑*i*Pn	Pn	14 55 49.2	-1.2
NKY				*e*Sn	Sn	14 57 06.6	-5.8
NKY	Niksic	7.21	342	⇑*i*Pn	Pn	14 55 49.2	-1.2
MS1	Monte Sant'Ang	7.41	323	*e*Pn	Pn	14 55 54.2	+1.1
BRY	Bratogost	7.41	340	*e*Pn	Pn	14 55 50.7	-2.5
BRY				*e*Sn	Sn	14 57 10.6	-6.7
BRY	Bratogost	7.41	340	*e*Pn	Pn	14 55 50.7	-2.5
BRY				P		14 55 55.0	
BRY				*e*Sn	Sn	14 57 10.6	-6.7
BRY	Bratogost	7.41	340	P	Pn	14 55 55.0	+1.8
NISS		7.43	360	⇑*i*Pn	Pn	14 55 54.0	+0.6
FG5	Orsara di Pugl	7.46	317	P	Pn	14 55 54.1	+0.3
FG5				pmax	pmax		
	comp=Z,81nm,0.6s						
FG5	Orsara di Pugl	7.46	317	Pn	Pn	14 55 54.1	+0.3
	comp=Z,81nm,0.6s						
FG5	Orsara di Pugl	7.46	317	Pn	Pn	14 55 54.1	+0.3
	comp=Z,81nm,0.6s						
MRB1	Monte Rocchett	7.52	315	Pn	Pn	14 55 55.5	+0.9
	comp=Z,152nm,0.7s						
MRB1	Monte Rocchett	7.52	315	Pn	Pn	14 55 55.5	+0.9
	comp=Z,152nm,0.7s						
RGNG	Rignano Grg	7.56	321	Pn	Pn	14 55 53.7	-1.6
RGNG	Rignano Grg	7.56	321	Pn	Pn	14 55 53.7	-1.6
UPM	Unac-Piva	7.60	343	⇑*i*Pn	Pn	14 55 54.6	-1.2
UPM				*e*Sn	Sn	14 57 16.0	-5.9
UPM	Unac-Piva	7.60	343	⇑*i*Pn	Pn	14 55 54.6	-1.2
PLE	Pljevlja	7.62	346	⇑*i*Pn	Pn	14 55 55.4	-0.6
PLE				*e*Sn	Sn	14 57 17.4	-4.9
PLE	Pljevlja	7.62	346	⇑*i*Pn	Pn	14 55 55.4	-0.6
STON	Ston	7.64	336	*e*Pn	Pn	14 55 52.7	-3.7
STON				Sn	Sn	14 57 13.3	-10
SZH	Strazhica	7.91	22	*e*P	Pn	14 56 02.7	+2.7
SZH	Strazhica	7.91	22	*e*P	Pn	14 56 02.7	+2.7
BBLS	Lazići	8.13	347	⇓*i*Pn	Pn	14 56 00.9	-2.1
DIVS	Divibare	8.26	350	⇓*i*Pn	Pn	14 56 02.8	-2.0
LZLA	Zalla	8.27	208	*i* P	Pn	14 56 05.6	+0.5
	SNR=43						
SDI	San Donato	8.56	315	P	Pn	14 56 10.9	+2.0
SDI				pmax	pmax		
	comp=Z,12nm,0.4s						
SDI	San Donato	8.56	315	Pn	Pn	14 56 10.9	+2.0
	comp=Z,12nm,0.4s						
SDI	San Donato	8.56	315	Pn	Pn	14 56 10.9	+2.0
	comp=Z,12nm,0.4s						
GZR	Gura Zlata	9.44	4	⇑*i*P	Pn	14 56 21.2	+0.2
GZR	Gura Zlata	9.44	4	⇑P	Pn	14 56 21.2	+0.3
GZR	Gura Zlata	9.44	4	P	Pn	14 56 21.2	+0.2
NRCA	Norcia	9.69	318	Pn	Pn	14 56 25.1	+0.7
	comp=Z,15nm,0.7s						
NRCA	Norcia	9.69	318	Pn	Pn	14 56 25.1	+0.7
	comp=Z,15nm,0.7s						
VOIR		9.75	13	⇑*i*P	Pn	14 56 26.0	+0.8
VOIR		9.75	13	⇑P	Pn	14 56 26.0	+0.8
VOIR		9.75	13	P	Pn	14 56 26.0	+0.8
TIRR	Tirgusor	9.81	28	⇑*i*P	Px	14 56 36.4	
TIRR	Tirgusor	9.81	28	⇑P	Px	14 56 36.4	
BRTR	Keskin Array B	9.97	64	Pn	Pn	14 56 31.5	+3.2
BRTR	Keskin Array B	9.97	64	Pn	Pn	14 56 31.5	+3.2
MLR	Muntele Rosu	9.98	16	⇑*i*P	Pn	14 56 33.0	+4.6
MLR	Muntele Rosu	9.98	16	Pn	Pn	14 56 29.7	+1.3
	comp=Z,0.1nm,0.3s,baz=192,slow=19,SNR=2.8						
MLR	Muntele Rosu	9.98	16	Pn	Pn	14 56 29.7	+1.3
MLR				⇑P		14 56 33.0	
MLR	Muntele Rosu	9.98	16	P	Pn	14 56 29.7	+1.3
NVLJ	Novalja	10.15	330	Sn	Sn	14 58 15.2	-9.3
KEST	Kesra	10.24	272	Pn	Pn	14 56 34.0	+2.0
	comp=Z,0.1nm,0.3s,baz=62,slow=7.9,SNR=2.7						
KEST				Sn	Sn	14 58 22.3	-4.6
	comp=Z,0.1nm,0.3s,baz=52,slow=19,SNR=2.2						
KOT	Kottamia	10.24	123	P	Pn	14 56 29.8	-2.3
KOT				S	Sn	14 58 15.5	-11
KOT	Kottamia	10.24	123	P	Pn	14 56 29.8	-2.3
KOT				S	Sn	14 58 15.5	-12
HFRF	Wahat Farafira	10.32	147	P	Pn	14 56 33.1	0.0
HFRF	Wahat Farafira	10.32	147	P	Pn	14 56 33.1	-0.1
GLL	Jalalah	10.38	125	P	Pn	14 56 32.4	-1.7
GLL	Jalalah	10.38	125	P	Pn	14 56 32.3	-1.7
CDAG	Cicekdag	10.48	66	*i* P	Pn	14 56 39.0	+3.8
CDAG	Cicekdag	10.48	66	*i* P	Pn	14 56 39.0	+3.7
PKSM	Moragy	10.54	347	⇓*i*P	Pn	14 56 36.5	+0.5
PKSM	Moragy	10.54	347	⇓P	Pn	14 56 36.5	+0.5
PKSM	Moragy	10.54	347	⇓P	Pn	14 56 36.5	+0.5
BOJS	Bojanci	10.80	334	*i* Pn	Pn	14 56 38.8	-0.8
BOJS				*i* Sn	Sn	14 58 32.7	-7.7
BOJS	Bojanci	10.80	334	Pn	Pn	14 56 38.8	-0.8
MMAI	Mount Meron Ar	11.48	101	Pn	Pn	14 56 48.3	-0.7
	comp=Z,2.9nm,0.3s,baz=287,slow=13,SNR=6.2						
MMAI				Sn	Sn	14 58 47.1	-10
	baz=300,slow=26,SNR=2.2						
KZIT	Kziot	11.55	112	Sn	Sn	14 58 51.2	-7.8
JAVS	Javornik	11.57	331	*i* Pn	Pn	14 56 50.1	0.0
JAVS				*e*Sn	Sn	14 58 51.5	-7.8
JAVS	Javornik	11.57	331	*i* Pn	Pn	14 56 50.1	0.0
VOY	Vojsko	11.75	331	*e*Pn	Pn	14 56 51.7	-0.9
VOY				*e*Sn	Sn	14 58 54.7	-9.0
VOY	Vojsko	11.75	331	*e*Pn	Pn	14 56 51.7	-0.9
PERS	Pernice	11.83	336	*i* Pn	Pn	14 56 51.6	-2.1
PERS	Pernice	11.83	336	*i* Pn	Pn	14 56 51.6	-2.1
HMDT	Nahal Hemdat	11.84	104	Pn	Pn	14 56 53.3	-0.6
HMDT				Sn	Sn	14 58 58.8	-7.3
BURAR	Bucovina Array	11.89	11	⇓*i*P	Pn	14 56 58.7	+4.2
BURAR	Bucovina Array	11.89	11	⇓P	Pn	14 56 58.6	+4.1
DSI	Dead Sea	12.00	108	Pn	Pn	14 56 53.2	-2.9
DSI				Sn	Sn	14 59 01.6	-8.3
PGF	Pioggiola	12.00	307	*e*P	Pn	14 56 50.7	-5.3
PSZ	Piszkesteto	12.04	353	⇓*i*P	Pn	14 56 55.0	-1.6
PSZ	Piszkesteto	12.04	353	⇓P	Pn	14 56 55.0	-1.6
PSZ	Piszkesteto	12.04	353	P	Pn	14 56 55.0	-1.6
MZDA	Masada	12.10	109	Pn	Pn	14 56 55.3	-2.1
MZDA				Sn	Sn	14 59 02.3	-10
HDK1	Dakhla	12.20	146	P	Pn	14 56 58.4	-0.4
HDK1	Dakhla	12.20	146	P	Pn	14 56 58.4	-0.4
PRNI	Paran	12.28	113	Pn	Pn	14 56 58.4	-1.5
HRFI	Mount Harif	12.46	115	Pn	Pn	14 57 00.3	-2.2
MBRI	Mt Berech	12.50	116	Pn	Pn	14 57 00.6	-2.4
MBRI				Sn	Sn	14 59 12.3	-10
EIL	Elat	12.60	116	Pn	Pn	14 57 02.1	-2.1
	comp=Z,0.6nm,0.3s,baz=306,slow=14,SNR=3.9						
EIL				Sn	Sn	14 59 15.3	-9.3
	comp=Z,0.8nm,0.3s,baz=288,slow=20,SNR=4.0						
EIL	Elat	12.60	116	Pn	Pn	14 57 01.4	-2.9
EIL				Sn	Sn	14 59 17.0	-7.6
ASF	Jabal al Asfar	12.95	103	Pn	Pn	14 57 08.4	-0.7
	comp=Z,0.4nm,0.3s,baz=292,slow=19,SNR=3.0						
ASF				Sn	Sn	14 59 24.0	-9.3
	comp=Z,0.2nm,0.3s,baz=233,slow=20,SNR=2.1						
MALT	Malatya	13.35	75	⇓*i*P	Pn	14 57 17.7	+3.2
MALT	Malatya	13.35	75	*e*Pn	Pn	14 57 16.6	+2.0
	comp=Z,16nm,1.0s						
MALT	Malatya	13.35	75	Pn	Pn	14 57 16.4	+1.9
MALT	Malatya	13.35	75	P	Pn	14 57 17.7	+3.2
VRAC	Vranov	13.90	345	Pn	Pn	14 57 17.8	-4.2
	comp=Z,0.3nm,0.3s,baz=166,slow=19,SNR=2.0						
DAVOX	Davos/Dischmat	14.09	324	Pn	Px	14 57 13.4	
	baz=176,slow=19,SNR=2.3						
DAVOX				Sn	Sn	14 59 53.4	-7.4
	comp=Z,0.3nm,0.3s,baz=176,slow=19,SNR=2.9						
TUE	Stuetta	14.13	322	Pn	Pn	14 57 25.5	+0.3
	comp=Z,14nm,1.1s						

TUE	Stuetta	14.13	322	Pn	Pn	14 57 25.5	+0.4
	comp=Z,14nm,1.1s						
OKC	Ostrava-Krasne	14.14	350	eP	Pn	14 57 34.7	+9.5
GERES	GERESS Array B	14.23	337	Pn	Pn	14 57 24.9	-1.5
	comp=Z,0.3nm,0.3s,baz=154,slow=14,SNR=4.7						
GERES	GERESS Array B	14.23	337	Pn	Pn	14 57 24.9	-1.6
MBDF	Montbardon	14.50	312	eP	Pn	14 57 26.6	-3.5
	comp=Z,18nm,1.0s						
MBDF	Montbardon	14.50	312	eP	Pn	14 57 26.6	-3.5
MBDF				pmax	pmax		
	comp=Z,9.0nm,1.0s						
MBDF	Montbardon	14.50	312	eP	Pn	14 57 26.6	-3.5
	comp=Z,8.9nm,1.0s						
KHC	Kasperske Hory	14.52	338	eP	Pn	14 57 34.1	+3.7
KHC				ex	x	14 58 02.5	
KHC	Kasperske Hory	14.52	338⇑	eP	Pn	14 57 30.7	+0.3
KHC				eP		14 57 34.1	
KHC				e		14 58 02.5	
KHC	Kasperske Hory	14.52	338	eP	Pn	14 57 34.1	+3.7
DPC	Dobruska-Polom	14.95	346	eP	Pn	14 57 42.5	+6.3
DPC	Dobruska-Polom	14.95	346	eP	Pn	14 57 42.5	+6.3
PRU	Pruhonice	15.02	341	eP	Pn	14 57 46.0	+8.8
ORIF	Oris-en-Rattie	15.14	311	eP	Pn	14 57 35.8	-3.0
UPC	Upice	15.16	345	eP	Pn	14 57 47.7	+8.7
KSP	Ksiaz	15.42	346	eP	Px	14 57 54.2	
PVCC	Panska Ves	15.51	342	eP	Px	14 57 54.4	
KIEV	Kiev	15.63	17	P	Pn	14 57 46.0	+0.8
AKASG	Malin Array Be	15.64	17	Pn	Pn	14 57 43.4	-1.9
	comp=Z,0.3nm,0.3s,baz=206,slow=12,SNR=3.2						
AKASG	Malin Array Be	15.64	17	Pn	Pn	14 57 43.4	-1.9
GRA1	Grafenberg Arr	15.79	334	eP	Pn	14 57 50.2	+2.8
	comp=Z,28nm,1.7s						
GRA1	Grafenberg Arr	15.79	334	eP	Pn	14 57 50.2	+2.8
	comp=Z,28nm,1.7s						
GRF	Grafenberg Arr	15.79	334	eP	Pn	14 57 50.2	+2.8
GRF				pmax	pmax		
	comp=Z,28nm,1.7s						
GRF	Grafenberg Arr	15.79	334	eP	Pn	14 57 50.2	+2.8
GRF				pmax	pmax		
	comp=Z,28nm,1.7s						
GRF	Grafenberg Arr	15.79	334	eP	Pn	14 57 50.2	+2.8
	comp=Z,28nm,1.7s						
GRF	Grafenberg Arr	15.79	334	eP	Pn	14 57 50.2	+2.8
	comp=Z,28nm,1.7s						
NKC	Novy Kostel	15.84	337	eP	Px	14 58 06.2	
CABF	La Chapelle	15.95	317	eP	Pn	14 57 42.7	-6.7
BRG	Berggiesshubel	15.98	341	eP	Pn	14 57 59.3	+10
	comp=Z,7.3nm,1.1s						
HOMI	Horasan	16.24	69	i P	Pn	14 57 56.2	+3.1
MOX	Moxa	16.46	336	e(P)	Pn	14 58 02.7	+6.7
CLL	Collm	16.63	340	e(sP)	sP	14 58 00.0	-4.6
CLL				i PP		14 58 07.7	
	comp=Z,32nm,1.7s						
CLL				LmH		15 03 00.0	
	comp=N,700nm,18.7s						
CLL				LmH		15 03 00.0	
	comp=E,800nm,20.7s						
CLL	Collm	16.63	340	eP	Pn	14 58 00.0	+2.0
CLL				i		14 58 07.7	
CLL	Collm	16.63	340	eP	Pn	14 58 00.0	+2.0
SSF	Saint Saulge	17.67	315	eP	Pn	14 58 06.9	-4.2
KIV	Kislovodsk	17.75	57	eP	Pn	14 58 11.5	-0.6
KIV				eS	Sn	15 01 28.4	-1.5
KIV				pmax	pmax		
	comp=Z,43nm,1.1s						
KIV				MLR	MLR		
	comp=Z,154nm,10.0s						
KIV	Kislovodsk	17.75	57	ePn	Pn	14 58 13.2	+1.0
	comp=Z,45nm,1.0s						
KIV	Kislovodsk	17.75	57	eP	Pn	14 58 11.5	-0.6
	comp=Z,43nm,1.1s						
KIV	Kislovodsk	17.75	57	ePn	Pn	14 58 13.2	+1.1
	comp=Z,45nm,1.0s						
ONI	Oni	17.88	62	P	Pn	14 58 15.0	+1.3
SUW	Suwalki	18.07	2	P	Pn	14 58 15.4	-0.5
SUW				pmax	pmax		
	comp=Z,28nm,0.4s						
SUW	Suwalki	18.07	2	P	Pn	14 58 15.4	-0.6
	comp=Z,28nm,0.4s						
SUW	Suwalki	18.07	2	P	Pn	14 58 15.4	-0.5
	comp=Z,28nm,0.4s						
GNI	Garni	18.41	70	P	Pn	14 58 21.7	+1.4
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI				MLR	MLR		
	comp=Z,211nm,18.5s						
GNI	Garni	18.41	70	P	Pn	14 58 21.7	+1.4
	comp=Z,1.2nm,0.3s,baz=342,slow=6.4,SNR=14						
GNI				LR	LR	15 05 34.8	
	comp=Z,211nm,18.5s,baz=84,slow=38						
GNI	Garni	18.41	70	eP	Pn	14 58 21.2	+1.0
	comp=Z,22nm,0.8s						
GNI	Garni	18.41	70	eP	Pn	14 58 21.2	+0.9
	comp=Z,22nm,0.8s						
TBLG	Delisi	18.63	65	P	Pn	14 58 22.2	-0.8
TBLG	Delisi	18.63	65	P	Pn	14 58 22.2	-0.8
MTA	Mtatsminda	18.67	65	P	Pn	14 58 23.6	+0.2
TAM	Tamanrasset	19.39	232	P	Pn	14 58 34.3	+2.1
TAM				pmax	pmax		
	comp=Z,6.0nm,1.0s						
TAM	Tamanrasset	19.39	232	P	Pn	14 58 34.3	+2.1
	comp=Z,5.7nm,1.0s						
VSR	Storozhevoye	19.62	34	eP	Pn	14 58 33.3	-1.4
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VSR				pmax	pmax		
	comp=N,20nm,1.1s						
VSR				pmax	pmax		
	comp=E,20nm,1.2s						
VSR	Storozhevoye	19.62	34	eP	Pn	14 58 33.3	-1.4
	comp=E,20nm,1.1s						
ESDC	Sonseca Array	20.78	288	P	P	14 58 46.4	+0.2
	comp=E,1.5nm,0.5s,baz=82,slow=11,SNR=8.8						
ESDC	Sonseca Array	20.78	288	P	P	14 58 46.4	+0.2
FLN	La Foliniere	20.84	315	eP	P	14 58 44.5	-2.3
FLN	La Foliniere	20.84	315	eP	P	14 58 44.5	-2.3
OBN	Obninsk	21.63	23⇑	eP	P	14 58 53.6	-1.5
OBN				e		14 59 15.3	
OBN				eS	S	15 02 54.7	+0.2
OBN				pmax	pmax		
	comp=Z,62nm,1.7s,mb4.8						
OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS3.7						
OBN	Obninsk	21.63	23	eP	P	14 58 56.2	+1.0
	comp=Z,30nm,0.6s,mb4.9						
OBN	Obninsk	21.63	23	eP	P	14 58 53.6	-1.5
	comp=Z,62nm,1.7s,mb4.8						
MDT	Midelt	22.13	270	P	P	14 59 01.6	+0.9
	comp=Z,5.4nm,1.2s,mb3.9,baz=81,slow=16,SNR=3.5						
MDT				LR	LR	15 07 21.6	
	comp=Z,105nm,19.5s,MS3.3,baz=78,slow=36						
MDT	Midelt	22.13	270	P	P	14 59 01.6	+0.9
MOS	Moscow	22.49	24	eP	P	14 59 01.5	-2.8
MOS				ePPP		14 59 29.2	
MOS				eS	S	15 03 05.6	-5.5
MOS				pmax	pmax		
	comp=Z,144nm,1.3s,mb5.2						
VSU	Vasula	22.73	7	eP	P	14 59 04.3	-2.5
VSU	Vasula	22.73	7	eP	P	14 59 04.3	-2.5
HFS	Hagfors	24.77	350	P	P	14 59 25.2	-1.4
	comp=Z,4.2nm,0.5s,mb4.2,baz=156,slow=10,SNR=17						
HFS				LR	LR	15 09 38.5	
	comp=Z,231nm,21.6s,MS3.6,baz=165,slow=38						
HFS	Hagfors	24.77	350	P	P	14 59 25.2	-1.4
FINES	FINESS Array B	25.63	5	P	P	14 59 32.9	-1.5
	comp=Z,2.6nm,0.6s,mb3.9,baz=166,slow=10,SNR=10						
FINES				LR	LR	15 10 35.8	
	comp=Z,382nm,18.9s,MS3.9,baz=352,slow=39						
FINES	FINESS Array B	25.63	5	P	P	14 59 32.9	-1.5
FINES				LR	LR	15 10 35.8	
FINES	FINESS Array B	25.63	5	P	P	14 59 32.9	-1.5
EKA	Eskdalemuir Ar	25.90	326	P	P	14 59 37.5	+0.6
	comp=Z,2.0nm,0.7s,mb3.7,baz=121,slow=11,SNR=2.4						
EKA	Eskdalemuir Ar	25.90	326	P	P	14 59 37.5	+0.6
NB2	NORSAR Subarra	26.01	348	P	P	14 59 36.0	-1.9
	comp=Z,5.4nm,0.8s,mb4.1,baz=159,slow=11						
NB2	NORSAR Subarra	26.01	348	P	P	14 59 36.0	-1.9
	comp=Z,5.4nm,0.8s,mb4.1,baz=159,slow=10,SNR=8.8						
NOA	NORSAR Array B	26.01	348	P	P	14 59 36.9	-1.0
	comp=Z,1.2nm,0.5s,mb3.6,baz=159,slow=9.6,SNR=6.2						
NOA				LR	LR	15 10 31.1	
	comp=Z,85nm,21.1s,MS3.3,baz=180,slow=38						
NOA	NORSAR Array B	26.01	348	P	P	14 59 36.9	-1.0
KAF	Kangasniemi	26.31	5	eP	P	14 59 38.4	-2.2
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
KAF	Kangasniemi	26.31	5	ep	P	14 59 38.4	-2.2
	comp=Z,6.0nm,0.8s,mb4.2						
KAF	Kangasniemi	26.31	5	eP	P	14 59 38.4	-2.2
	comp=Z,6.0nm,0.8s,mb4.2						
KLMR	Klimovskoe	27.32	19	eP	P	14 59 47.6	-2.0
KLMR				pmax	pmax		
	comp=Z,29nm,1.3s,mb4.7						
KLMR	Klimovskoe	27.32	19	eP	P	14 59 47.6	-2.0
	comp=Z,29nm,1.3s,mb4.7						
JOF	Joensuu	27.60	9	ep	P	14 59 51.5	-0.6
	comp=Z,3.2nm,0.5s,mb4.2						
JOF	Joensuu	27.60	9	eP	P	14 59 51.5	-0.6
	comp=Z,3.2nm,0.5s,mb4.2						
TOA0	Torodi Ar. Sit	29.13	224	eP	P	15 00 07.7	+1.5
TOA0	Torodi Ar. Sit	29.13	224	eP	P	15 00 07.7	+1.5
TORD	Torodi Ar. Bea	29.13	224	P	P	15 00 07.8	+1.6
	comp=Z,9.7nm,0.8s,mb4.6,baz=33,slow=9.0,SNR=71						
TORD				LR	LR	15 13 06.0	
	comp=Z,148nm,20.1s,MS3.6,baz=35,slow=39						
TORD	Torodi Ar. Bea	29.13	224	P	P	15 00 07.8	+1.6
TORD				LR	LR	15 13 06.0	
PRGR	Permogore	29.71	23	eP	P	15 00 06.2	-4.7
PRGR				eS	S	15 04 58.9	-7.7
PRGR				pmax	pmax		
	comp=Z,36nm,1.3s,mb4.9						
AB31	Akbulak array	30.61	52	P	P	15 00 17.0	-2.0
AB31				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.4						
AB31	Akbulak array	30.61	52	P	P	15 00 17.0	-2.0
	comp=Z,6.0nm,1.0s,mb4.4						
FAQ	Al Faqa, Dubai	30.96	102	P	P	15 00 23.2	+0.8
HATD	Hatta, Dubai	31.35	101	P	P	15 00 26.4	+0.6
ARU	Arti	32.01	39d	iP	P	15 00 29.1	-2.2
ARU				e		15 01 35.4	
ARU				S	S	15 05 40.4	-2.3
ARU				SS	SS	15 07 27.3	-32
ARU				pmax	pmax		
	comp=Z,38nm,2.5s,mb4.8						
ARU	Arti	32.01	39	i P	P	15 00 29.1	-2.2
	comp=Z,38nm,2.5s,mb4.8						
SOKR	Solikamsk	32.62	33⇑	iP	P	15 00 36.3	-0.3
SOKR				pmax	pmax		
	comp=Z,40nm,1.7s,mb5.1						
SOKR	Solikamsk	32.62	33	i P	P	15 00 36.3	-0.3
	comp=Z,40nm,1.7s,mb5.1						
SVE	Sverdlovsk	33.22	39⇑	eP	P	15 00 40.6	-1.2
SVE				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
SVE	Sverdlovsk	33.22	39	eP	P	15 00 40.6	-1.2
	comp=Z,19nm,0.9s,mb5.0						
ARCES	ARCESS Array B	33.68	2	P	P	15 00 44.7	-1.0
	comp=Z,2.5nm,0.5s,mb4.4,baz=187,slow=9.2,SNR=30						
ARCES				LR	LR	15 14 45.5	
	comp=Z,172nm,18.9s,MS3.8,baz=75,slow=37						
ARCES	ARCESS Array B	33.68	2	P	P	15 00 44.7	-1.0
KEV	Kevo	33.96	3	eP	P	15 00 47.1	-1.1
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
KEV	Kevo	33.96	3	ep	P	15 00 47.1	-1.1
	comp=Z,2.7nm,0.5s,mb4.4						
KEV	Kevo	33.96	3	eP	P	15 00 47.1	-1.1
	comp=Z,2.7nm,0.5s,mb4.4						
BRVK	Borovoye	37.65	48	eP	P	15 01 19.7	-0.3
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
BRVK	Borovoye	37.65	48	eP	P	15 01 19.7	-0.2
	comp=Z,8.0nm,0.8s,mb4.5						
BRVK	Borovoye	37.65	48	eP	P	15 01 19.7	-0.3
	comp=Z,8.0nm,0.8s,mb4.5						
KK31	Karatay Array	37.69	64	i P	P	15 01 19.9	-0.5
KK31				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
KK31	Karatay Array	37.69	64	i P	P	15 01 19.9	-0.5
	comp=Z,2.0nm,0.4s,mb4.2						
BVA0	Borovoye Array	37.71	48	P	P	15 01 19.6	-0.9
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.5						
BVA0	Borovoye Array	37.71	48	P	P	15 01 19.6	-0.9
	comp=Z,1.0nm,0.9s,mb3.5						
VOSK	Vostochnaya	38.03	48	P	P	15 01 21.8	-1.4
VOSK				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.3						
VOSK	Vostochnaya	38.03	48	P	P	15 01 21.8	-1.4
	comp=Z,10.0nm,1.4s,mb4.3						
DBIC	Dimbokro	38.13	227	P	P	15 01 25.8	+1.4
	comp=Z,9.2nm,0.9s,mb4.5,baz=18,slow=9.3,SNR=11						
DBIC				LR	LR	15 19 09.2	
	comp=Z,104nm,19.2s,MS3.7,baz=10,slow=39						
DBIC	Dimbokro	38.13	227	P	P	15 01 25.8	+1.4
DBIC				LR	LR	15 19 09.2	
DBIC	Dimbokro	38.13	227	P	P	15 01 25.8	+1.4
LIC	Lamto	38.58	226	eP	P	15 01 28.3	0.0
	comp=Z,42nm,1.0s,mb4.8						
LIC	Lamto	38.58	226	eP	P	15 01 28.3	0.0
	comp=Z,21nm,1.0s,mb4.8						
LIC	Lamto	38.58	226	eP	P	15 01 28.3	0.0
	comp=Z,21nm,1.0s,mb4.8						
EKS2	Erkin-Say	40.12	64	P	P	15 01 40.9	0.0
	SNR=9.7						
EKS2	Erkin-Say	40.12	64	eP	P	15 01 41.3	+0.4
	comp=Z,8.9nm,0.9s,mb4.5						
EKS2	Erkin-Say	40.12	64	eP	P	15 01 41.3	+0.5
	comp=Z,8.9nm,0.9s,mb4.5						
AML	Almayashu	40.14	65	eP	P	15 01 41.3	+0.3
	comp=Z,2.0nm,0.6s,mb4.0						
AML	Almayashu	40.14	65	eP	P	15 01 41.3	+0.3
	comp=Z,2.0nm,0.6s,mb4.0						
AAK	Ala-Archa	40.65	64	eP	P	15 01 45.7	+0.5
AAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
AAK	Ala-Archa	40.65	64	P	P	15 01 45.9	+0.7
	SNR=7.1						
AAK	Ala-Archa	40.65	64	eP	P	15 01 45.7	+0.5
	comp=Z,9.6nm,0.9s,mb4.4						
AAK	Ala-Archa	40.65	64	eP	P	15 01 45.7	+0.5
	comp=Z,9.6nm,0.9s,mb4.4						
FRU	Bishkek	40.71	64	i P	P	15 01 46.0	+0.3
FRU				pmax	pmax		
	comp=Z,60nm,2.0s,mb4.9						
FRU	Bishkek	40.71	64	i P	P	15 01 46.0	+0.3
	comp=Z,60nm,2.0s,mb4.9						
UCH	Uchtor	40.73	65	eP	P	15 01 47.0	+1.2
	comp=Z,4.8nm,0.9s,mb4.1						
UCH	Uchtor	40.73	65	eP	P	15 01 47.0	+1.2
	comp=Z,4.8nm,0.9s,mb4.1						
CHMS	Chumysh	40.78	63	P	P	15 01 46.4	+0.1
	SNR=5.1						
KZA	Kyzart	41.29	65	P	P	15 01 51.5	+1.0
	SNR=8.4						
TKM2	Tokmak 2	41.41	63	eP	P	15 01 50.3	-1.1
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
TKM2	Tokmak 2	41.41	63	eP	P	15 01 50.3	-1.1
	comp=Z,6.0nm,0.9s,mb4.2						
TKM2	Tokmak 2	41.41	63	eP	P	15 01 50.3	-1.1
	comp=Z,6.0nm,0.9s,mb4.2						
ULHL	Ulahol	41.99	64	P	P	15 01 56.2	0.0
	SNR=6.0						
SPITS	Spitsbergen Ar	42.39	358	P	P	15 01 58.7	-0.3
	comp=Z,3.3nm,0.6s,mb4.2,baz=160,slow=6.2,SNR=10						
SPITS	Spitsbergen Ar	42.39	358	P	P	15 01 58.7	-0.3
KURK	Kurchatov	42.71	52	eP	P	15 02 00.3	-1.7
KURK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
KURK	Kurchatov	42.71	52	eP	P	15 02 00.3	-1.7
	comp=Z,6.9nm,1.0s,mb4.3						
KURK	Kurchatov	42.71	52	eP	P	15 02 00.3	-1.7
	comp=Z,6.9nm,1.0s,mb4.3						
NVS	Novosibirsk	45.38	45	eP	P	15 02 22.3	-1.0
NVS				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.7						
NVS				pmax	pmax		
	comp=N,1.0nm,0.6s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.0s						
NVS	Novosibirsk	45.38	45	eP	P	15 02 22.3	-1.0
	comp=E,1.0nm,0.6s,mb3.8						
MK31	Makanchi Array	45.52	57	i P	P	15 02 23.3	-1.2
MK31				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
MK31	Makanchi Array	45.52	57	i P	P	15 02 23.3	-1.2
	comp=Z,3.0nm,0.4s,mb4.6						
MKAR	Makanchi Array	45.52	57	P	P	15 02 23.4	-1.1
	comp=Z,2.8nm,0.3s,mb4.6,baz=276,slow=7.4,SNR=51						
MKAR				LR	LR	15 24 35.5	
	comp=Z,135nm,19.1s,MS3.9,baz=268,slow=40						
MKAR	Makanchi Array	45.52	57	P	P	15 02 23.5	-1.0
ZAA0	Zalesovo Array	46.34	47	eP	P	15 02 29.2	-1.7
ZAA0	Zalesovo Array	46.34	47	eP	P	15 02 29.2	-1.7
ZALV	Zalesovo Beam	46.34	47	P	P	15 02 28.8	-2.1
	comp=Z,5.7nm,0.6s,mb4.7,baz=276,slow=8.1,SNR=17						
NDI	New Delhi	46.73	83	ePKP	P	15 02 33.0	-1.4
WMQ	Urumqi	49.85	60	P	P	15 02 58.8	+0.5
WMQ				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,120nm,5.4s						
LSZ	Lusaka	51.30	172	P	P	15 03 10.4	+1.1
LSZ				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
LSZ	Lusaka	51.30	172	P	P	15 03 10.4	+1.1
	comp=Z,1.1nm,0.4s,mb4.1,baz=333,slow=7.4,SNR=3.7						
LSZ	Lusaka	51.30	172	P	P	15 03 10.4	+1.1
	comp=Z,1.0nm,0.4s,mb4.1						
DANN	Dangsing	52.12	80	eP	P	15 03 15.9	+0.4
	comp=Z,89nm,0.8s,mb5.7						
DANN	Dangsing	52.12	80	eP	P	15 03 15.9	+0.4
	comp=Z,89nm,0.8s,mb5.7						
KOLN	Koldanda	52.23	81	eP	P	15 03 16.2	-0.2
	comp=Z,32nm,1.0s,mb5.2						
KOLN	Koldanda	52.23	81	eP	P	15 03 16.2	-0.2
	comp=Z,32nm,1.0s,mb5.2						
GKN	Gorkha	52.96	80	eP	P	15 03 21.4	-0.4
	comp=Z,37nm,0.7s,mb5.4						
GKN	Gorkha	52.96	80	eP	P	15 03 21.4	-0.4
	comp=Z,37nm,0.7s,mb5.4						
HYB	Hyderabad	53.10	95	i P	P	15 03 23.0	+0.1
HYB	Hyderabad	53.10	95	eP	P	15 03 23.0	+0.1
HYB	Hyderabad	53.10	95	eP	P	15 03 23.0	+0.1
DMN	Daman	53.51	80	eP	P	15 03 25.9	+0.1
	comp=Z,50nm,0.8s,mb5.5						
DMN	Daman	53.51	80	eP	P	15 03 25.9	+0.1
	comp=Z,50nm,0.8s,mb5.5						
KKN	Kakani	53.57	80	eP	P	15 03 25.8	-0.5
	comp=Z,26nm,0.7s,mb5.3						
KKN	Kakani	53.57	80	eP	P	15 03 25.8	-0.5
KKN				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.3						
KKN	Kakani	53.57	80	eP	P	15 03 25.8	-0.5
	comp=Z,26nm,0.7s,mb5.3						
PKI	Pulchoki	53.77	80	eP	P	15 03 27.5	-0.2
	comp=Z,103nm,1.4s,mb5.6						
PKI	Pulchoki	53.77	80	eP	P	15 03 27.5	-0.2
PKI				pmax	pmax		
	comp=Z,103nm,1.4s,mb5.6						
PKI	Pulchoki	53.77	80	eP	P	15 03 27.5	-0.2
	comp=Z,103nm,1.4s,mb5.6						
GUN	Gumba	53.99	79	eP	P	15 03 29.1	-0.3
	comp=Z,65nm,1.1s,mb5.5						
GUN	Gumba	53.99	79	eP	P	15 03 29.1	-0.3
	comp=Z,65nm,1.1s,mb5.5						
JIRN	Jiri	54.35	79	eP	P	15 03 32.0	0.0
	comp=Z,30nm,0.8s,mb5.3						
JIRN	Jiri	54.35	79	eP	P	15 03 32.0	0.0
	comp=Z,30nm,0.8s,mb5.3						
RAMN	Ramite	54.99	80	eP	P	15 03 36.0	-0.6
	comp=Z,50nm,1.1s,mb5.5						
RAMN	Ramite	54.99	80	eP	P	15 03 36.0	-0.6
	comp=Z,50nm,1.1s,mb5.5						
ODAN	Odare	55.66	80	eP	P	15 03 40.9	-0.6
	comp=Z,29nm,1.1s,mb5.2						
ODAN	Odare	55.66	80	eP	P	15 03 40.9	-0.6
	comp=Z,29nm,1.1s,mb5.2						
TAPN	Taplejung	55.70	79	eP	P	15 03 41.3	-0.4
	comp=Z,33nm,1.1s,mb5.3						
TAPN	Taplejung	55.70	79	eP	P	15 03 41.3	-0.4
	comp=Z,33nm,1.1s,mb5.3						
LSA	Lhasa	57.39	75	P	P	15 03 54.5	+0.8
LSA	Lhasa	57.39	75	eP	P	15 03 54.1	+0.4
LSA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
LSA	Lhasa	57.39	75	eP	P	15 03 54.1	+0.4
	comp=Z,15nm,0.8s,mb5.1						
LSA	Lhasa	57.39	75	P	P	15 03 53.3	-0.4
	SNR=8.1						
ZAK	Zakamensk	58.16	48	eP	P	15 03 57.8	-1.0
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.2						
ZAK	Zakamensk	58.16	48	eP	P	15 03 57.8	-1.0
	comp=Z,3.0nm,1.2s,mb4.2						
SHL	Shillong	59.84	79	ex	x	15 04 11.5	
GTA	Gaotai	59.87	61	eP	P	15 04 11.0	+0.1
GTA				pP	pP	15 04 21.8	+7.7
GTA				PP	PP	15 06 25.8	+3.1
GTA				S	S	15 12 20.3	-2.3
GTA				SS	SS	15 16 19.3	+0.9
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
GTA				pmax	pmax		
	comp=Z,89nm,5.3s						
GTA				LR	LR		
	comp=N,77nm,15.2s,MS4.2						
GTA				LR	LR		
	comp=E,100nm,16.3s,MS4.2						
GTA				LR	LR		
	comp=Z,87nm,16.9s,MS4.0						
LBTB	Lobatse	60.75	176	LR	LR	15 32 06.6	
	comp=Z,153nm,18.3s,MS4.2,baz=199,slow=38						
SCHQ	Schefferville	60.87	319	P	P	15 04 17.1	-0.3
	comp=Z,1.4nm,0.6s,mb4.3,baz=69,slow=7.4,SNR=4.5						
SCHQ	Schefferville	60.87	319	P	P	15 04 17.1	-0.3
SONM	Songino Array	60.98	50	P	P	15 04 17.6	-0.7
	comp=Z,1.3nm,0.7s,mb4.2,baz=284,slow=7.4,SNR=13						
SONM	Songino Array	60.98	50	P	P	15 04 17.6	-0.7
TIXI	Tiksi	61.32	20⇑	eP	P	15 04 19.2	-1.1
TIXI				pmax	pmax		
	comp=Z,16nm,2.5s,mb4.7						
TIXI	Tiksi	61.32	20	eP	P	15 04 19.2	-1.1
	comp=Z,16nm,2.5s,mb4.7						
ULN	Ulaanbaatar	61.38	50	eP	P	15 04 20.2	-0.8
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
ULN	Ulaanbaatar	61.38	50	eP	P	15 04 20.1	-0.9
	comp=Z,3.5nm,0.8s,mb4.5						
ULN	Ulaanbaatar	61.38	50	eP	P	15 04 20.2	-0.8
	comp=Z,4.0nm,0.8s,mb4.6						
BOD	Bodaibo	61.42	38	eP	P	15 04 18.5	-2.6
BOD				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
LZH	Lanzhou	64.17	63	eP	P	15 04 40.0	+0.1
LZH				pP	pP	15 04 51.0	+7.9
LZH				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
LZH				pmax	pmax		
	comp=Z,96nm,4.5s						
BOSA	Boshof	64.31	177	LR	LR	15 34 14.7	
	comp=Z,156nm,18.3s,MS4.2,baz=350,slow=37						
YAK	Yakutsk	66.47	29	eP	P	15 04 51.6	-2.7
YAK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
CD2	Chengdu	66.53	68	P	P	15 04 55.0	-0.2
CD2				pP	pP	15 05 05.5	+7.1
CD2				PP	PP	15 07 23.5	+2.1
CD2				S	S	15 13 41.3	-4.8
CD2				sS	sS	15 13 58.3	+6.9
CD2				SS	SS	15 17 59.8	-2.9
CD2				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
CD2				pmax	pmax		
	comp=Z,170nm,5.9s						
CD2				LR	LR		
	comp=N,330nm,8.3s						
CD2				LR	LR		
	comp=Z,300nm,6.5s						
HHC	Hu-ho-hao-te	67.34	55	eP	P	15 05 00.0	-0.2
HHC				pP	pP	15 05 10.3	+6.8
HHC				PP	PP	15 07 29.3	+1.0
HHC				eS	S	15 13 49.5	-6.2
HHC				sS	sS	15 14 07.3	+6.3
HHC				ScS	ScS	15 14 51.3	-7.1
HHC				SS	SS	15 18 10.0	-4.9
HHC				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
HHC				pmax	pmax		
	comp=Z,210nm,4.9s						
HHC				LR	LR		
	comp=N,160nm,13.9s,MS4.8						
HHC				LR	LR		
	comp=E,320nm,13.9s,MS4.8						
HHC				LR	LR		
	comp=Z,200nm,16.7s,MS4.4						
KMI	Kunming	68.61	74	P	P	15 05 08.5	0.0

KMI				S	S	15 14 08.0	-3.3
KMI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
KMI				LR	LR		
	comp=Z,100nm,20.3s,MS4.0						
XAN	Xi'an	68.81	63	P	P	15 05 09.5	-0.1
XAN				pP	pP	15 05 16.3	+3.5
XAN				sP	sP	15 05 19.5	+5.5
XAN				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
CHTO	Chiang Mai	68.87	82	*e*P	P	15 05 09.4	-0.7
CHTO				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
CHTO	Chiang Mai	68.87	82	*e*P	P	15 05 09.4	-0.7
	comp=Z,11nm,1.3s,mb4.6						
CHTO	Chiang Mai	68.87	82	*e*P	P	15 05 09.4	-0.7
	comp=Z,11nm,1.3s,mb4.6						
CMAR	Chiang Mai Arr	69.06	82	P	P	15 05 10.7	-0.6
	comp=Z,5.3nm,0.9s,mb4.5,baz=300,slow=7.9,SNR=30						
CMAR	Chiang Mai Arr	69.06	82	P	P	15 05 10.7	-0.6
GYA	Guiyang	70.96	71	*e*P	P	15 05 24.0	+1.1
GYA				PP	PP	15 08 01.5	+1.6
GYA				S	S	15 14 33.3	-5.6
GYA				SKS		15 15 18.5	
GYA				SS	SS	15 19 09.3	-2.0
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,70nm,5.2s						
GYA				LR	LR		
	comp=N,380nm,19.7s,MS4.8						
GYA				LR	LR		
	comp=E,270nm,18.9s,MS4.8						
GYA				LR	LR		
	comp=Z,350nm,19.4s,MS4.6						
FCC	Fort Churchill	71.74	330	*e*P	P	15 05 28.0	+1.0
FCC	Fort Churchill	71.74	330	*e*P	P	15 05 28.0	+1.0
BILL	Bilibino	72.91	13⇑	*e*P	P	15 05 32.7	-1.2
BILL				*e**PP	pP	15 05 51.3	+14
BILL				*e*S	S	15 15 03.0	+3.1
BILL				pmax	pmax		
	comp=Z,12nm,2.6s,mb4.4						
BILL				MLR	MLR		
	comp=Z,200nm,22.0s,MS4.3						
BILL	Bilibino	72.91	13	*e*P	P	15 05 32.7	-1.2
	comp=Z,12nm,2.6s,mb4.4						
BILL	Bilibino	72.91	13	*e*PcP	PcP	15 05 51.3	+0.4
SEY	Seymchan	73.78	21⇑	*e*P	P	15 05 38.9	-0.2
SEY	Seymchan	73.78	21	*e*P	P	15 05 38.9	-0.2
CN2	Changchun	74.56	47	*e*P	P	15 05 43.5	-0.5
CN2				*e*S	S	15 15 14.5	-4.8
CN2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
YKA	Yellowknife Ar	75.86	341	P	P	15 05 50.6	-0.5
	comp=Z,0.3nm,0.4s,mb3.5,baz=37,slow=5.8,SNR=7.3						
YKA				LR	LR	15 38 02.0	
	comp=Z,72nm,19.9s,MS4.0,baz=175,slow=35						
YKA	Yellowknife Ar	75.86	341	P	P	15 05 50.6	-0.5
YKA				LR	LR	15 38 02.0	
YKA	Yellowknife Ar	75.86	341	P	P	15 05 50.6	-0.5
MDJ	Mudanjiang	76.48	44	P	P	15 05 53.0	-2.0
MDJ				pmax	pmax		
	comp=Z,8.0nm,2.1s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,83nm,3.9s						
NJ2	Nanjing	76.93	60	*e*P	P	15 06 00.3	+2.5
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.3						
FFC	Flin Flon	77.67	330	*i* P	P	15 06 03.4	+1.9
ULM	Lac du Bonnet	78.16	325	LR	LR	15 43 50.9	
	comp=Z,107nm,18.8s,MS4.2,baz=24,slow=38						
KSRS	Korea Array	79.83	51	P	P	15 06 12.3	-1.4
KSRS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
KSRS	Korea Array	79.83	51	P	P	15 06 12.3	-1.4
	comp=Z,5.0nm,1.0s,mb4.4,baz=302,slow=5.2,SNR=6.6						
KSRS	Korea Array	79.83	51	P	P	15 06 12.3	-1.4
	comp=Z,5.0nm,1.0s,mb4.4						
YSS	Yuzh-Sakhalins	81.87	36	*e*P	P	15 06 23.9	-0.5
YSS	Yuzh-Sakhalins	81.87	36	*e*P	P	15 06 23.9	-0.5
EGMT	Eagleton	85.93	330	*e*P	P	15 06 45.5	+0.3
	comp=Z,7.2nm,1.0s,mb4.9						
EGMT	Eagleton	85.93	330	*e*P	P	15 06 45.5	+0.4
	comp=Z,7.2nm,1.0s,mb4.9						
JTMT	Jette	87.94	332	*e*P	P	15 06 56.1	+1.2
	comp=Z,5.6nm,1.2s,mb4.7						
JTMT	Jette	87.94	332	*e*P	P	15 06 56.1	+1.2
	comp=Z,5.6nm,1.2s,mb4.7						
PDAR	Pinedale Array	90.02	327	LR	LR	15 48 14.5	
	comp=Z,89nm,18.6s,MS4.2,baz=305,slow=36						
CPUP	Villa Florida	97.04	243	LR	LR	15 52 58.2	
	comp=Z,93nm,19.4s,MS4.3,baz=15,slow=36						
TXAR	Lajitas Array	97.33	314	LR	LR	15 52 46.9	
	comp=Z,72nm,18.6s,MS4.2,baz=120,slow=36						
WRA	Warramunga Arr	119.27	94	PKP	PKPdf	15 12 54.4	-0.4
	comp=Z,0.5nm,0.8s,baz=305,slow=2.9,SNR=5.6						
ASAR	Alice Springs	120.75	98	PKP	PKPdf	15 12 57.3	-0.3
	comp=Z,0.7nm,0.7s,baz=311,slow=1.4,SNR=8.0						

JMA 26 15:02:51.5±0.1**, 38°.17N×144°.66E, h48^{km}, M3.6, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OFUJ	Ofunato	2.51	292	P	Pn	15 03 31.2	+1.4
OFUJ				*e*S	Sn	15 04 00.7	+1.5
JIO	Ouri	2.62	277	P	Pn	15 03 32.7	+1.4
JIO				*e*S	Sn	15 04 02.6	+0.8
MIYJ	Miyakonagasawa	2.62	303	P	Pn	15 03 32.5	+1.2
MIYJ				*e*S	Sn	15 04 03.1	+1.1
JMK	Ichinoseki	2.81	287	P	Pn	15 03 35.4	+1.5
JMK				*e*S	Sn	15 04 08.4	+1.9
JOT	Ohata	4.25	320	P	Pn	15 03 53.2	-0.4
JOT				*e*S	Sn	15 04 42.5	+0.6
JCH	Churui	4.55	348	P	Pn	15 03 58.2	+0.5
JCH				*e*S	Sn	15 04 48.1	-1.2
JRY	Ryogami san	5.08	247	*e*S	Sn	15 05 00.2	-2.2
NEM2	Nemuro 2	5.25	9	P	Pn	15 04 05.4	-2.0
NEM2				*e*S	Sn	15 05 01.9	-4.7
JTKR	Abashiri--Toko	5.82	355	P	Pn	15 04 15.2	0.0
JTKR				*e*S	Sn	15 05 18.3	-2.3

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*DDA **26** 15:10:55.2, 39°.52N×26°.05E, h8^{km}±6^{km}, Md3.1*
*ISK **26** 15:10:55.3, 39°.59N×25°.97E, h18^{km}, MD3.0*
*ISCJB **26** 15:10:56.0±0.5, 39°.56N±0°.02×26°.00E±0°.04, h12^{km}±4^{km}, Error ellipse: s-maj=4.9km s-min=3.2km az=176.0*
*CSEM **26** 15:10:56.1±0.1, 39°.55N×26°.01E, h15^{km}, ML2.9/5, Error ellipse: s-maj=3.6km s-min=2.8km az=80.0*
*THE **26** 15:10:56.9, 39°.51N×25°.98E, h15^{km}±1^{km}, ML2.9/5, Error ellipse: s-maj=1.8km s-min=0.8km az=231.0*
ISC 26 15:10:56.3±0.4**, 39°.55N**±0°.02×**26°.00E**±0°.04**, h17**^{km}±3^{km}**, n34, σ0ˢ.81**/59**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	Bozcaada	0.29	9	*i* P	Pg	15 11 02.3	-0.2
BOZC				*i* S	Sg	15 11 06.6	-0.2
SIGR	SIGRI	0.36	198	P	Pg	15 11 03.2	-0.5
SIGR				S	Sg	15 11 08.6	-0.1
SIGR	SIGRI	0.36	198	P	Pg	15 11 03.2	-0.5
SIGR				S	Sg	15 11 08.6	-0.1
EZN	Ezine	0.37	43	*e*PG	Pg	15 11 03.3	-0.7
EZN				*e*SG	Sg	15 11 09.0	-0.2
EZN	Ezine	0.37	43	*e*Pg	Pg	15 11 03.3	-0.7
EZN				*e*Sg	Sg	15 11 09.0	-0.2
PRK	Paraskevi	0.37	145	P	Pg	15 11 03.9	-0.1
PRK				S	Sg	15 11 09.5	+0.4
PRK	Paraskevi	0.37	145	P	Pg	15 11 03.9	-0.1
PRK				S	Sg	15 11 09.5	+0.4
AYVA	Ayvalik	0.59	114	*i* P	Pg	15 11 08.8	+0.8
AYVA				*i* S	Sg	15 11 18.6	+2.8
AYVA	Ayvalik	0.59	114	*i* P	Pg	15 11 08.8	+0.9
AYVA				*i* S	Sg	15 11 18.6	+2.8
GADA	Gvkgeada	0.64	353	*e*PG	Pg	15 11 08.0	-0.9
GADA				*e*SG	Sg	15 11 16.5	-0.9
GADA	Gvkgeada	0.64	353	*e*Pg	Pg	15 11 08.0	-0.9
GADA				*e*Sg	Sg	15 11 16.5	-1.0
LIA	Limnos Island	0.71	299	P	Pg	15 11 10.2	-0.1
LIA				S	Sg	15 11 21.5	+1.7
LIA	Limnos Island	0.71	299	P	Pg	15 11 10.2	-0.1
LIA				S	Sg	15 11 21.5	+1.7
LOS	Limnos	0.80	299	P	Pb	15 11 12.2	+0.4
LOS	Limnos	0.80	299	P	Pb	15 11 12.2	+0.4
LPK	Lapseki	1.01	35	*e*PG	Pg	15 11 14.8	-1.0
LPK				*e*SG	Sg	15 11 29.5	+0.5
LPK	Lapseki	1.01	35	*e*Pg	Pg	15 11 14.8	-1.0
LPK				*e*Sg	Sg	15 11 29.5	+0.5
CHOS	Chios island	1.17	178	P	Pn	15 11 17.6	-0.2
CHOS				S	Sb	15 11 32.0	-0.8
CHOS	Chios island	1.17	178	P	Pn	15 11 17.6	-0.2
CHOS				S	Sb	15 11 32.0	-0.8
ENEZ	Enez	1.19	6	*e*PN	Pn	15 11 17.7	-0.5
ENEZ				*e*SN	Sn	15 11 33.2	-0.7
ENEZ	Enez	1.19	6	*e*Pn	Pn	15 11 17.7	-0.4
ENEZ				*e*Sn	Sn	15 11 33.2	-0.7
BALY	Balya	1.27	81	*i* P	Pn	15 11 20.0	+0.8
BALY				*i* S	Sb	15 11 36.6	+0.9
BALY	Balya	1.27	81	*i* P	Pn	15 11 20.0	+0.8
BALY				*i* S	Sb	15 11 36.6	+0.9
URLA	Izmir	1.28	158	*i* P	Pn	15 11 18.7	-0.7
URLA				*i* S	Sb	15 11 35.4	-0.7
URLA	Izmir	1.28	158	*i* P	Pn	15 11 18.7	-0.7
URLA				*i* S	Sb	15 11 35.4	-0.7
ALN	Alexandroupoli	1.34	2	P	Pn	15 11 20.9	+0.6
ALN				S	Sn	15 11 38.8	+1.1
ALN	Alexandroupoli	1.34	2	P	Pn	15 11 20.9	+0.6
ALN				S	Sn	15 11 38.8	+1.1
SART	Tekirdag	1.45	38	*i* P	Pn	15 11 22.2	+0.4
SART	Tekirdag	1.45	38	*i* P	Pn	15 11 22.2	+0.4
BNT	Bandirma	1.68	61	*e*PN	Pn	15 11 23.6	-1.4
OUR	Ouranopolis	1.73	297	P	Pn	15 11 26.7	+1.1
OUR	Ouranopolis	1.73	297	P	Pn	15 11 26.7	+1.1
KCT	Karacabey	1.95	68	*e*PN	Pn	15 11 28.2	-0.4
KCT	Karacabey	1.95	68	*e*Pn	Pn	15 11 28.2	-0.4

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*ISCJB **26** 15:43:42.6±0.9, 36°.10N±0°.04×21°.75E±0°.05, h10^{km}, Error ellipse: s-maj=7.2km s-min=4.0km az=142.7*
*NEIC **26** 15:43:44.7, 36°.09N×21°.85E, h5^{km}, MD3.6(ATH), After ATH.*
*ATH **26** 15:43:44.7, 36°.09N×21°.85E, h5^{km}±2^{km}, MD3.6/13*
*CSEM **26** 15:43:47.6±0.3, 36°.04N×22°.13E, h2^{km}, MD3.6, Error ellipse: s-maj=7.7km s-min=4.9km az=48.0*
*THE **26** 15:43:48.8, 36°.09N×22°.14E, h1^{km}±1^{km}, ML3.2/3, Error ellipse: s-maj=3.0km s-min=1.1km az=224.0*
ISC 26 15:43:44.0±0.9**, 36°.08N**±0°.04×**21°.79E**±0°.05**, h10**^{km}**, n39, σ1ˢ.22**/68**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.81	357	P	Pg	15 44 00.6	+0.9
PYL	PYLOS	0.81	357	*e*PB	Pg	15 44 00.3	+0.6
PYL				*e*SB	Sg	15 44 11.9	+1.6
PYL	PYLOS	0.81	357	P	Pg	15 44 00.6	+0.9
PYL				*e*Sb	Sg	15 44 11.9	+1.6
KYTH	Kithira	1.03	78	*e*PN	Pg	15 44 03.7	-0.1
ITM	Ithomi	1.10	6	*e*PB	Pg	15 44 05.7	+0.5
ITM				*e*SB	Sg	15 44 21.3	+1.8
VLI	Veliai	1.13	55	*e*PB	Pg	15 44 05.5	-0.1
VLI				*e*SB	Sg	15 44 20.4	+0.2
VLI	Veliai	1.13	55	*e*Pb	Pg	15 44 05.5	-0.1
VLI				*e*Sb	Sg	15 44 20.4	+0.2
VLX	Vlachokerasia	1.37	20	*e*PB	Pb	15 44 10.1	+0.4
DID	Didima	1.84	39	P	Pg	15 44 17.8	-1.4
DID				S	Sn	15 44 40.7	+1.8
DID	Didima	1.84	39	*e*PG	Pg	15 44 17.8	-1.4
DID				*e*SN	Sg	15 44 44.4	+1.3
DID	Didima	1.84	39	P	Pg	15 44 17.8	-1.4
DID				S	Sn	15 44 40.7	+1.8
KARN	Karanos	1.86	111	P	Pn	15 44 17.1	+1.2
KARN				S	Sn	15 44 39.9	+0.5
KARN	Karanos	1.86	111	P	Pn	15 44 17.1	+1.2
KARN				S	Sn	15 44 39.9	+0.5
GUR	Goura	1.91	13	*e*PG	Pg	15 44 19.9	-0.6
GUR				*e*SN	Sg	15 44 46.5	+1.3
RLS	Riolos of Patr	1.99	353	*e*PG	Pg	15 44 21.6	-0.5
VAM	Vamos	2.08	108	*e*PN	Pg	15 44 22.5	-1.2
LTK	Loutraki	2.16	26	P	Pg	15 44 24.2	-1.1
LTK				S	Sg	15 44 50.7	-2.6
LTK	Loutraki	2.16	26	*e*PG	Pg	15 44 24.4	-0.9
LTK	Loutraki	2.16	26	P	Pg	15 44 24.2	-1.1
LTK				S	Sg	15 44 50.7	-2.6
LAKA	Lakka	2.16	4	P	Pg	15 44 25.0	-0.4
LAKA				S	Sg	15 44 53.1	-0.3
LAKA	Lakka	2.16	4	P	Pg	15 44 25.0	-0.4
LAKA				S	Sg	15 44 53.1	-0.3
TRIZ	Trizonia	2.29	6	P	Pg	15 44 27.1	-0.8
TRIZ				S	Sg	15 44 57.1	-0.5
TRIZ	Trizonia	2.29	6	P	Pg	15 44 27.1	-0.8
TRIZ				S	Sg	15 44 57.1	-0.5
VLS	Valsamata	2.30	336	P	Pg	15 44 29.5	+1.4
VLS				S	Sg	15 44 59.3	+1.4
VLS	Valsamata	2.30	336	*e*PN	Pn	15 44 25.5	+3.6
VLS	Valsamata	2.30	336	P	Pg	15 44 29.5	+1.4
VLS				S	Sg	15 44 59.3	+1.4
KALE	Kalithea	2.32	7	P	Pg	15 44 27.5	-1.0
KALE				S	Sg	15 44 56.7	-1.9
KALE	Kalithea	2.32	7	P	Pg	15 44 27.5	-1.0
KALE				S	Sg	15 44 56.7	-1.9
EFP	Efpalio	2.34	2	*e*PG	Pg	15 44 28.1	-0.8
LKR	Lokris	2.74	20	P	Pn	15 44 32.1	+4.1
LKR				S	Sn	15 45 06.0	+4.8
LKR	Lokris	2.74	20	P	Pn	15 44 32.1	+4.1
LKR				S	Sn	15 45 06.0	+4.8
LKD	Levkas	2.77	341	P	Pg	15 44 34.8	-2.3
LKD				S	Sg	15 45 12.0	-1.1
LKD	Levkas	2.77	341	P	Pg	15 44 34.8	-2.3
LKD				S	Sg	15 45 12.0	-1.1
AGG	Agios Georgios	2.97	8	P	Pn	15 44 36.3	+5.2
AGG				S	Sn	15 45 13.6	+6.8
AGG	Agios Georgios	2.97	8	*e*PN	Pn	15 44 35.1	+4.0
AGG	Agios Georgios	2.97	8	*e*Pn	Pn	15 44 35.1	+4.0
AGG	Agios Georgios	2.97	8	P	Pn	15 44 36.3	+5.2
AGG				S	Sn	15 45 13.6	+6.8
XOR	Xorichti	3.46	18	P	Pn	15 44 41.7	+3.8
XOR				S	Sn	15 45 24.6	+5.6
XOR	Xorichti	3.46	18	P	Pn	15 44 41.7	+3.8
XOR				S	Sn	15 45 24.6	+5.6

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*ISCJB **26** 15:56:47.1±1.0, 77°.06N±0°.07×19°.1E±0°.2, h2^{km}±12^{km}, Error ellipse: s-maj=12.5km s-min=6.0km az=23.6*
*CSEM **26** 15:56:47.2±0.1, 76°.93N×18°.75E, h2^{km}, ML2.5, Error ellipse: s-maj=2.4km s-min=0.8km az=47.0*
*NAO **26** 15:56:48.6±1.8, 76°.98N×19°.19E, h13^{km}±19^{km}, ML2.5*
*BER **26** 15:56:50.8±3.7, 76°.92N×18°.90E, h21^{km}±42^{km}, MD1.9, ML2.8, ML2.5(NAO)*
ISC 26 15:56:48.6±0.8**, 77°.02N**±0°.06×**19°.1E**±0°.2**, h13**^{km}±10^{km}**, n10, σ0ˢ.46**/17**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	0.79	271	*e*P	Pg	15 57 04.5	+0.6
HSP				*e*S	Sg	15 57 14.3	0.0
SPA0	Spitsbergen Ar	1.30	335	Pg	Pg	15 57 13.3	-0.3
	baz=150,slow=18						
SPA0				Lg		15 57 31.4	
	baz=146,slow=22						
SPA0	Spitsbergen Ar	1.30	335	Pg	Pg	15 57 13.3	-0.3
	baz=150,slow=17,SNR=166						
SPA0				Lg		15 57 31.4	
	baz=146,slow=22						
HOPEN	Hopen	1.47	108	*e*P	Pn	15 57 14.8	+0.2
HOPEN				*e*Sg	Sg	15 57 35.9	+0.2
HOPEN				AML	AML	15 57 39.1	
	comp=Z,306nm,0.3s						
HOPEN	Hopen	1.47	108	*e*P	Pn	15 57 14.9	+0.2
	SNR=62						
HOPEN				*e*Sg	Sg	15 57 35.9	+0.2
	comp=Z,306nm,0.3s,SNR=94						
KBS	Kingsbay	2.42	326	Pn	Pn	15 57 28.6	+0.8
KBS				Pg	Pg	15 57 34.3	-0.8
KBS				Lg		15 58 03.8	
KBS	Kingsbay	2.42	326	*e*P	Pn	15 57 28.4	+0.5
KBS				*e*Pg	Pg	15 57 34.6	-0.4
KBS				*e*Sg	Sg	15 58 06.3	-0.1
KBS				AML	AML	15 58 09.4	
	comp=Z,84nm,0.2s						
KBS	Kingsbay	2.42	326	Pn	Pn	15 57 28.6	+0.7
ARA0	ARCESS Array S	7.75	163	Pn	Pn	15 58 40.1	-0.8
	baz=348,slow=12						
ARA0				Sn	Sn	15 59 59.7	-8.6
	baz=0.5,slow=22						
ARA0	ARCESS Array S	7.75	163	Pn	Pn	15 58 40.1	-0.8
	baz=348,slow=12,SNR=6.6						

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*NEIC **26** 16:01:47.8, 36°.17N×21°.83E, h14^{km}, ML3.2(ATH), After ATH.*
*ATH **26** 16:01:47.8, 36°.17N×21°.83E, h14^{km}±1^{km}, MD3.7/10, ML3.2*
*CSEM **26** 16:01:48.4±0.4, 36°.01N×21°.84E, h2^{km}, ML3.2, Error ellipse: s-maj=10.6km s-min=4.8km az=51.0*
*ISCJB **26** 16:01:49.8±0.8, 36°.27N±0°.03×21°.91E±0°.05, h10^{km}, Error ellipse: s-maj=6.7km s-min=3.9km az=153.9*
*THE **26** 16:01:49.2, 36°.06N×21°.80E, h0^{km}±2^{km}, ML3.6/5, Error ellipse: s-maj=3.9km s-min=1.1km az=229.0*
ISC 26 16:01:49.7±0.8**, 36°.22N**±0°.03×**21°.90E**±0°.05**, h10**^{km}**, n57, σ1ˢ.65**/91**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.68	350	P	Pg	16 02 01.8	-1.1
PYL	PYLOS	0.68	350	*e*PG	Pg	16 02 01.6	-1.3
PYL				*e*SB	Sg	16 02 11.7	-0.1
PYL	PYLOS	0.68	350	P	Pg	16 02 01.8	-1.1
KYTH	Kithira	0.92	86	*e*PB	Pg	16 02 06.7	-0.8
KYTH	Kithira	0.92	86	*e*Pb	Pg	16 02 06.7	-0.8
ITM	Ithomi	0.95	1	*e*PB	Pg	16 02 07.3	-0.8
ITM				*e*SB	Sg	16 02 21.6	+1.1
VLI	Veliai	0.97	59	*e*PB	Pg	16 02 07.9	-0.5
VLI				*e*SB	Sg	16 02 22.3	+1.2
VLX	Vlachokerasia	1.21	19	*e*PG	Pg	16 02 11.5	-1.4
VLX				*e*SB	Sg	16 02 29.0	+0.4
VLX	Vlachokerasia	1.21	19	*e*Pg	Pg	16 02 11.5	-1.4
VLX				*e*Sb	Sg	16 02 29.0	+0.4
DID	Didima	1.67	40	P	Pg	16 02 19.9	-1.9
DID				S	Sg	16 02 46.2	+2.8
DID	Didima	1.67	40	*e*PN	Pg	16 02 20.0	-1.8
DID				*e*SN	Sg	16 02 43.0	-0.4
DID	Didima	1.67	40	*e*Pn	Pg	16 02 20.0	-1.8
DID				S	Sg	16 02 46.2	+2.8
GUR	Goura	1.75	12	*e*PG	Pg	16 02 21.6	-1.6
KARN	Karanos	1.84	116	P	Pn	16 02 21.2	-0.1
KARN				S	Sg	16 02 46.6	-2.1
KARN	Karanos	1.84	116	P	Pn	16 02 21.2	-0.1
KARN				S	Sg	16 02 46.6	-2.1
LTK	Loutraki	1.99	25	P	Pg	16 02 26.6	-1.2
LTK				S	Sg	16 02 54.4	+0.8
LTK	Loutraki	1.99	25	*e*PG	Pg	16 02 26.0	-1.8
LTK	Loutraki	1.99	25	P	Pg	16 02 26.6	-1.2
LTK				S	Sg	16 02 54.4	+0.8
NAIG	Nisos Aigina	1.99	39	*e*PN	Pg	16 02 25.0	-2.9
NAIG	Nisos Aigina	1.99	39	*e*Pn	Pg	16 02 25.0	-2.9
LAKA	Lakka	2.01	2	P	Pg	16 02 26.3	-2.0
LAKA				S	Sg	16 02 55.3	+0.9
LAKA	Lakka	2.01	2	P	Pg	16 02 26.3	-2.0
LAKA				S	Sg	16 02 55.3	+0.9
VAM	Vamos	2.04	113	*e*PN	Pn	16 02 24.0	-0.1
VAM	Vamos	2.04	113	*e*Pn	Pn	16 02 24.0	-0.1
TRIZ	Trizonia	2.14	4	P	Pg	16 02 28.6	-2.2
TRIZ				S	Sg	16 02 58.9	+0.4
TRIZ	Trizonia	2.14	4	P	Pg	16 02 28.6	-2.2
TRIZ				S	Sg	16 02 58.9	+0.4
KALE	Kalithea	2.17	5	P	Pg	16 02 28.9	-2.4
KALE				S	Sg	16 02 58.5	-1.0
KALE	Kalithea	2.17	5	P	Pg	16 02 28.9	-2.4
KALE				S	Sg	16 02 58.5	-1.0
VLS	Valsamata	2.21	332	P	Pg	16 02 28.7	-3.4
VLS				S	Sg	16 02 58.3	-2.4
VLS	Valsamata	2.21	332	P	Pg	16 02 28.7	-3.4
VLS				S	Sg	16 02 58.3	-2.4
ATH	Athens Observa	2.27	39	*e*PN	Pn	16 02 29.1	+1.8
ATH	Athens Observa	2.27	39	*e*Pn	Pn	16 02 29.1	+1.8
ATHU	Athens Univers	2.30	40	P	Pg	16 02 30.6	-3.2
ATHU	Athens Univers	2.30	40	P	Pg	16 02 30.6	-3.2
LKR	Lokris	2.58	20	P	Pn	16 02 34.2	+2.8
LKR				S	Sg	16 03 08.7	-3.8
LKR	Lokris	2.58	20	P	Pn	16 02 34.2	+2.8
LKR				S	Sg	16 03 08.7	-3.8
LKD	Levkas	2.67	339	P	Pn	16 02 35.2	+2.5
LKD				S	Sg	16 03 10.3	-5.1
LKD	Levkas	2.67	339	P	Pn	16 02 35.2	+2.5
LKD				S	Sg	16 03 10.3	-5.1
EVR	Evrytania	2.69	359	*e*PN	Pn	16 02 33.5	+0.5
AGG	Agios Georgios	2.81	7	P	Pn	16 02 37.1	+2.4
AGG				S	Sg	16 03 15.5	-4.6
AGG	Agios Georgios	2.81	7	P	Pn	16 02 37.1	+2.4
AGG				S	Sg	16 03 15.5	-4.6
LAST	Lasithi	3.10	109	P	Pn	16 02 38.7	0.0
LAST				S	Sn	16 03 19.6	+3.8
LAST	Lasithi	3.10	109	P	Pn	16 02 38.7	0.0
LAST				S	Sn	16 03 19.6	+3.8
XOR	Xorichti	3.30	18	P	Pn	16 02 44.3	+2.9
XOR				S	Sn	16 03 27.5	+6.8
XOR	Xorichti	3.30	18	P	Pn	16 02 44.3	+2.9
XOR				S	Sn	16 03 27.5	+6.8
AOS	Alonnisos	3.33	28	P	Pn	16 02 44.5	+2.6
AOS	Alonnisos	3.33	28	P	Pn	16 02 44.5	+2.6
THL	Klokotos Trika	3.34	2	P	Pn	16 02 45.3	+3.4
THL				S	Sn	16 03 28.3	+6.7
THL	Klokotos Trika	3.34	2	P	Pn	16 02 45.3	+3.4
THL				S	Sn	16 03 28.3	+6.7
MEV	Metsovon	3.59	352	P	Pn	16 02 47.5	+2.1
MEV	Metsovon	3.59	352	P	Pn	16 02 47.5	+2.1
LIT	Litokhoron	3.90	7	P	Pn	16 02 52.9	+3.3
LIT				S	Sn	16 03 42.2	+6.8
LIT	Litokhoron	3.90	7	P	Pn	16 02 52.9	+3.3
LIT				S	Sn	16 03 42.2	+6.8
FNA	Florina	4.57	355	P	Pn	16 02 59.7	+0.9
FNA	Florina	4.57	355	P	Pn	16 02 59.7	+0.9
KNT	Kendrikon	4.99	9	P	Pn	16 03 08.1	+3.5
KNT	Kendrikon	4.99	9	P	Pn	16 03 08.1	+3.5

IDC 26 16:09:36.8±4.0**, 4°.05S×152°.12E, h0**^{km}**, mb3.3**/2**, mb1 3.6**/2**, mb1mx3.4**/16**, mbtmp3.4**/2**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.7**/17**, Error ellipse: s-maj=186.3km s-min=47.0km az=118.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	9.44	125	LR	LR	16 15 16.3	
	comp=Z,68nm,18.9s,baz=226,slow=36						
WRA	Warramunga Arr	23.45	226	P	P	16 14 48.4	+0.3
	0.7nm,0.5s,baz=51,slow=9.8,SNR=3.3						
ASAR	Alice Springs	26.26	220	P	P	16 15 14.0	+0.1
	0.2nm,0.4s,baz=54,slow=9.2,SNR=5.0						
TORD	Torodi Ar. Bea	149.42	289	PKPbc	PKPbc	16 29 28.3	-0.7
	0.4nm,0.4s,baz=67,slow=2.2,SNR=8.9						

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*IDC **26** 16:10:25.2±16.0, 31°.31N×66°.83E, h0^{km}, mb3.5/2, mb1 3.5/3, mb1mx3.3/26, mbtmp3.5/3, MS3.9/1, Ms1 3.9/1, ms1mx2.9/45, Error ellipse: s-maj=272.5km s-min=129.6km az=53.0*
*NEIC **26** 16:10:28.2±2.4, 30°.99N×67°.19E, h35^{km}, mb4.0/7, Error ellipse: s-maj=35.0km s-min=9.9km az=56.0*
*BJI **26** 16:10:28.2, 31°.00N×67°.20E, h35^{km}, mb4.4/2*
*DMN **26** 16:13:23.7±10.0, 27°.98N×81°.86E, h98^{km}±5^{km}, Mb3.6/1, Error ellipse: s-maj=280.9km s-min=22.0km az=89.0*
ISC 26 16:10:31.0±2.3**, 31°.16N**±0°.09×**67°.4E**±0°.2**, h52**^{km}±19^{km}**, n30, σ1ˢ.22**/30**, mb3.7**/4**, Southeastern Afghanistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	3.66	22	*e*Pn	Pn	16 11 28.0	+2.8
THN	Thein Dam	7.23	78	*e*x	Pn	16 12 17.6	+3.6
THN				*e*PKP		16 18 43.3	
NDI	New Delhi	8.90	104	*e*x	Sn	16 14 20.0	+4.2
KSH	Kashi	10.91	38	P	Pn	16 13 01.5	-2.8
KSH				*e*pP		16 13 08.5	
KSH				*e*sP		16 13 11.0	
KSH				*e*PP		16 13 25.3	
KSH				*e*S	Sx	16 14 52.0	
KSH				*e*sS		16 15 03.5	
KSH				*e*PcP	Sn	16 15 04.5	-0.3

KSH				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KSH				pmax	pmax		
	comp=Z,330nm,4.3s						
KSH				LR	LR		
	comp=N,520nm,5.6s						
KSH				LR	LR		
	comp=E,590nm,6.7s						
KSH				LR	LR		
	comp=Z,590nm,5.6s						
AML	Almayashu	12.07	23	ePn	Pn	16 13 20.1	-0.1
	comp=Z,7.9nm,0.6s						
UCH	Uchtor	12.45	25	eP	Pn	16 13 25.5	+0.1
	comp=Z,3.3nm,0.6s						
EKS2	Erkin-Say	12.57	22	P	Pn	16 13 27.5	+0.4
AAK	Ala-Archa	12.79	24	ePn	Pn	16 13 30.7	+0.6
	comp=Z,3.2nm,0.8s						
TKM2	Tokmak 2	13.45	27	eP	Pn	16 13 38.4	-0.6
	comp=Z,9.1nm,1.0s						
DANN	Dangsing	14.52	97	eP	Pn	16 13 53.6	+0.1
	comp=Z,25nm,0.6s						
DANN	Dangsing	14.52	97	eP	Pn	16 13 53.6	+0.1
	comp=Z,25nm,0.6s						
KOLN	Koldanda	14.54	99	eP	Pn	16 13 51.5	-2.3
	comp=Z,15nm,0.7s						
KOLN	Koldanda	14.54	99	eP	Pn	16 13 51.5	-2.3
	comp=Z,15nm,0.7s						
DMN	Daman	15.87	98	eP	Pn	16 14 09.2	-1.7
	comp=Z,7.8nm,0.7s						
DMN	Daman	15.87	98	eP	Pn	16 14 09.2	-1.7
	comp=Z,7.8nm,0.7s						
GUN	Gumba	16.44	97	eP	Pn	16 14 18.2	0.0
	comp=Z,17nm,0.4s						
GUN	Gumba	16.44	97	eP	Pn	16 14 18.2	0.0
	comp=Z,17nm,0.4s						
JIRN	Jiri	16.77	97	eP	Pn	16 14 22.8	+0.4
	comp=Z,21nm,0.9s						
JIRN	Jiri	16.77	97	eP	Pn	16 14 22.8	+0.4
	comp=Z,21nm,0.9s						
RAMN	Ramite	17.33	99	eP	Pn	16 14 28.9	-0.4
	comp=Z,5.8nm,0.5s						
RAMN	Ramite	17.33	99	eP	Pn	16 14 28.9	-0.4
	comp=Z,5.8nm,0.5s						
TAPN	Taplejung	18.15	97	eP	Pn	16 14 41.4	+2.0
	comp=Z,5.7nm,0.7s						
TAPN	Taplejung	18.15	97	eP	Pn	16 14 41.4	+2.0
	comp=Z,5.7nm,0.7s						
MK31	Makanchi Array	19.40	32	eP	Pn	16 14 53.7	-0.5
MKAR	Makanchi Array	19.40	32	P	Pn	16 14 54.1	-0.1
	comp=Z,0.1nm,0.3s,baz=216,slow=10.0,SNR=13						
GNI	Garni	20.41	302	LR	LR	16 24 27.9	
	comp=Z,304nm,18.7s,baz=95,slow=42						
BRVK	Borovoye	21.99	5	eP	P	16 15 19.2	-1.3
	comp=Z,6.6nm,0.8s,mb4.1						
ARU	Arti	26.01	349	eP	P	16 15 58.6	-0.2
	comp=Z,4.0nm,0.8s,mb4.0						
ZALV	Zalesovo Beam	26.02	24	P	P	16 16 00.1	+1.2
	comp=Z,0.7nm,0.5s,mb3.4,baz=230,slow=8.9,SNR=3.8						
SONM	Songino Array	33.99	49	P	P	16 17 12.9	+3.3
	comp=Z,0.3nm,0.7s,mb3.3,baz=241,slow=11,SNR=2.5						

ISCJB **26** *16:10:33.6±0.4, 35°.97N±0°.01×21°.91E±0°.01, h4^{km}±2^{km}, mb5.0/120, MS4.4/43, Error ellipse: s-maj=2.1km s-min=1.8km az=11.8*

IDC **26** *16:10:34.5±0.5, 36°.16N×22°.03E, h0^{km}, mb4.6/23, mb1 4.7/32, mb1mx4.6/36, mbtmp4.5/32, ML4.1/7, MS4.3/25, Ms1 4.3/25, ms1mx4.0/50, Error ellipse: s-maj=12.3km s-min=11.0km az=38.0*

SOF **26** *16:10:35.5, 35°.83N×22°.18E, h19^{km}, MD4.9*

ATH **26** *16:10:35.9, 36°.06N×21°.85E, h17^{km}±1^{km}, MD4.6/17, ML4.9*

BJI **26** *16:10:36.9, 36°.31N×21°.88E, h33^{km}, mB5.2/24, mb5.2/48, Ms5.1/27, Ms7 4.7/24*

CSEM **26** *16:10:36.0±0.1, 35°.97N×21°.82E, h10^{km}, mb4.8/18, Ms4.2, Mw5.0, Error ellipse: s-maj=3.0km s-min=2.4km az=19.0*

PDG **26** *16:10:36.5±0.1, 36°.08N×20°.59E, h2^{km}±11^{km}, ML4.7/10, Error ellipse: s-maj=151.3km s-min=29.6km az=90.0*

THE **26** *16:10:37.7, 36°.08N×21°.90E, h5^{km}±1^{km}, ML5.3/12, Error ellipse: s-maj=2.2km s-min=0.8km az=229.0*

MOS **26** *16:10:38.0±1.3, 36°.14N×21°.94E, h33^{km}, mb5.2/41, MS4.3/22, Error ellipse: s-maj=4.1km s-min=2.2km az=98.5*

NEIC **26** *16:10:40.0±0.4, 36°.09N×21°.89E, h38^{km}±3^{km}, mb4.6/96, MS4.2/1, MD4.6(ATH), Error ellipse: s-maj=4.7km s-min=2.5km az=192.0*

GCMT **26** *16:10:40.0±0.3, 36°.07N×21°.80E, h18^{km}, MW5.0/62, Moment Tensor Solution. s35,c43; s62,c98; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.65±.20; $M_{\theta\theta}$-2.62±.14; $M_{\phi\phi}$-1.02±.14; $M_{r\theta}$1.99±.30; $M_{\theta\phi}$2.41±.09; $M_{\phi r}$-0.34±.32; Best double couple: $M_0$4.50600×10^{16} NP1:ϕ_s321.00000°,δ35.00000°,λ114.00000°. NP2: ϕ_s113.00000°,δ59.00000°,λ75.00000°. Principal axes: T 4.2550, Plg72.0000°, Azm346.0000°; N 0.5110, Plg13.0000°, Azm121.0000°; P -4.7560, Plg12.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

HLW **26** *16:10:40.0, 36°.13N×22°.65E, h33^{km}, Mb4.9*

DJA **26** *16:10:43, 36°.25N×21°.95E, h54^{km}, mb4.9/9*

SZGRF **26** *16:10:50.4, 36°.68N×20°.61E, h10^{km}, mb4.7, MS4.3, Central Mediterranean Sea*

ISC 26 16:10:36.3±0.5**, 35°.98N**±0°.01×**21°.88E**±0°.01**, h11**^{km}±3^{km}**, h25**^{km}±1.2^{km}**:pP-P, n1119,** σ**1.^{s}16**/1206**, mb5.0**/120**, MS4.4**/43**, 106C-91D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.92	353	P	Pg	16 10 52.0	-2.0
PYL				S	Sg	16 11 06.0	0.0
PYL	PYLOS	0.92	353	ePN	Pg	16 10 51.8	-2.2
PYL				eSN	Sg	16 11 04.0	-2.0
PYL	PYLOS	0.92	353	P	Pg	16 10 52.0	-2.0
PYL				S	Sg	16 11 06.0	0.0
KYTH	Kithira	0.98	72	ePN	Pg	16 10 55.2	-0.1
KYTH	Kithira	0.98	72	ePn	Pg	16 10 55.2	-0.1
VLI	Veliai	1.13	49	ePN	Pg	16 10 56.6	-1.4
VLI	Veliai	1.13	49	ePn	Pg	16 10 56.6	-1.4
ITM	Ithomi	1.20	2	ePN	Pn	16 10 57.2	-1.8
ITM				eSN	Sn	16 11 12.4	-2.8
ITM	Ithomi	1.20	2	ePn	Pn	16 10 57.2	-1.8
ITM				eSn	Sn	16 11 12.4	-2.8
VLX	Vlachokerasia	1.44	16	ePB	Pb	16 11 00.9	-2.3
VLX				eSN	Sn	16 11 21.5	+0.2
VLX	Vlachokerasia	1.44	16	ePb	Pb	16 11 00.9	-2.3
VLX				eSn	Sn	16 11 21.5	+0.2
KARN	Karanos	1.76	109	P	Pn	16 11 09.1	+2.4
KARN				S	Sn	16 11 32.1	+3.0
KARN	Karanos	1.76	109	P	Pn	16 11 09.1	+2.4
DID	Didima	1.87	35	P	Pn	16 11 08.3	0.0
DID				S	Sn	16 11 33.1	+1.2
DID	Didima	1.87	35	ePN	Pn	16 11 08.9	+0.6
DID	Didima	1.87	35	P	Pn	16 11 08.3	0.0
DID	Didima	1.87	35	ePn	Pn	16 11 08.9	+0.6
DID				S	Sn	16 11 33.1	+1.2
VAM	Vamos	1.98	106	ePN	Pn	16 11 12.0	+2.3
VAM	Vamos	1.98	106	ePn	Pn	16 11 12.0	+2.3
GUR	Goura	1.99	11	ePN	Pn	16 11 10.4	+0.6
GUR	Goura	1.99	11	ePn	Pn	16 11 10.4	+0.6
RLS	Riolos of Patr	2.10	351	ePB	Pn	16 11 11.0	-0.4
RLS	Riolos of Patr	2.10	351	ePn	Pn	16 11 11.0	-0.4
NAIG	Nisos Aigina	2.19	36	ePN	Pn	16 11 13.7	+1.0
NAIG	Nisos Aigina	2.19	36	ePn	Pn	16 11 13.7	+1.0
LTK	Loutraki	2.22	23	P	Pn	16 11 14.1	+1.1
LTK				S	Sn	16 11 41.5	+1.1
LTK	Loutraki	2.22	23	ePN	Pn	16 11 14.4	+1.4
LTK	Loutraki	2.22	23	P	Pn	16 11 14.1	+1.1
LTK	Loutraki	2.22	23	ePn	Pn	16 11 14.4	+1.4
LTK				S	Sn	16 11 41.5	+1.1
LAKA	Lakka	2.26	2	P	Pn	16 11 14.7	+1.1
LAKA				S	Sn	16 11 42.3	+0.9
LAKA	Lakka	2.26	2	P	Pn	16 11 14.7	+1.1
LAKA				S	Sn	16 11 42.3	+0.9
TRIZ	Trizonia	2.38	4	P	Pn	16 11 15.6	+0.3
TRIZ				S	Sn	16 11 43.3	-1.2
TRIZ	Trizonia	2.38	4	P	Pn	16 11 15.6	+0.3
TRIZ				S	Sn	16 11 43.3	-1.2
KALE	Kalithea	2.41	5	P	Pn	16 11 15.7	0.0
KALE				S	Sn	16 11 46.0	+0.7
KALE	Kalithea	2.41	5	P	Pn	16 11 15.7	0.0
KALE				S	Sn	16 11 46.0	+0.7
VLS	Valsamata	2.42	335	P	Pn	16 11 16.2	+0.4
VLS				S	Sn	16 11 45.9	+0.4
VLS	Valsamata	2.42	335	ePN	Pn	16 11 16.1	+0.3
VLS				eSN	Sn	16 11 46.0	+0.5
VLS	Valsamata	2.42	335	ePn	Pn	16 11 16.1	+0.3
VLS				eSn	Sn	16 11 46.0	+0.5
EFP	Efpalio	2.44	1	ePN	Pn	16 11 18.0	+1.9
EFP				eSN	Sn	16 11 46.1	+0.2
EFP	Efpalio	2.44	1	ePn	Pn	16 11 18.0	+1.9
EFP				eSn	Sn	16 11 46.1	+0.2
ATH	Athens Observa	2.47	36	ePB	Pb	16 11 17.2	-3.6
ATH	Athens Observa	2.47	36	ePb	Pb	16 11 17.2	-3.6
ATHU	Athens Univers	2.50	37	P	Pn	16 11 17.3	+0.4
ATHU				S	Sn	16 11 48.5	+1.1
ATHU	Athens Univers	2.50	37	P	Pn	16 11 17.3	+0.4
ATHU				S	Sn	16 11 48.5	+1.1
IDI	Anoyia	2.55	105	ePN	Pn	16 11 19.5	+1.9
IDI	Anoyia	2.55	105	Pn	Pn	16 11 18.5	+0.9
	28nm,0.3s,baz=282,slow=14,SNR=154						
IDI				LR	LR	16 11 49.7	
	comp=Z,1µm,19.9s,baz=331,slow=30						
IDI	Anoyia	2.55	105	ePn	Pn	16 11 19.5	+1.9
SIVA	Sivas	2.58	111	P	Pn	16 11 20.1	+2.1
SIVA	Sivas	2.58	111	P	Pn	16 11 20.1	+2.1
PTL	Penteli	2.60	37	ePN	Pn	16 11 18.6	+0.2
PTL	Penteli	2.60	37	ePn	Pn	16 11 18.6	+0.2
LKR	Lokris	2.81	18	P	Pn	16 11 21.3	+0.1
LKR				S	Sn	16 11 55.1	+0.1
LKR	Lokris	2.81	18	ePN	Pn	16 11 21.8	+0.6
LKR	Lokris	2.81	18	ePn	Pn	16 11 21.8	+0.6
LKR				S	Sn	16 11 55.1	+0.1
THR6	Thira Island,	2.87	81	P	Pn	16 11 24.1	+2.1
THR6	Thira Island,	2.87	81	P	Pn	16 11 24.1	+2.1
THR4	Thira Island,	2.89	79	P	Pn	16 11 22.8	+0.6
THR4	Thira Island,	2.89	79	P	Pn	16 11 22.8	+0.6
LKD	Levkas	2.89	341	P	Pn	16 11 23.9	+1.6
LKD				S	Sn	16 11 58.6	+1.6
LKD	Levkas	2.89	341	P	Pn	16 11 23.9	+1.6
LKD				S	Sn	16 11 58.6	+1.6
THR1	Thera Island	2.92	81	P	Pn	16 11 23.6	+0.9
THR1	Thera Island	2.92	81	P	Pn	16 11 23.6	+0.9
EVR	Evrytania	2.93	359	ePB	Pb	16 11 24.0	-4.6
EVR	Evrytania	2.93	359	ePb	Pb	16 11 24.0	-4.6
AGG	Agios Georgios	3.06	7	P	Pn	16 11 24.8	+0.2
AGG				S	Sn	16 12 01.5	+0.4
AGG	Agios Georgios	3.06	7	ePB	Pb	16 11 26.6	-4.1
AGG	Agios Georgios	3.06	7	P	Pn	16 11 24.8	+0.2
AGG	Agios Georgios	3.06	7	ePb	Pb	16 11 26.6	-4.1
AGG				S	Sn	16 12 01.5	+0.4
NPS	Neapolis	3.13	102	ePN	Pn	16 11 27.5	+2.0
NPS	Neapolis	3.13	102	ePn	Pn	16 11 27.5	+2.0
NEO	Neokhori	3.49	17	ePN	Pn	16 11 30.5	0.0
NEO	Neokhori	3.49	17	ePn	Pn	16 11 30.5	0.0
XOR	Xorichti	3.54	17	P	Pn	16 11 31.6	+0.5
XOR				S	Sn	16 12 13.7	+0.8
XOR	Xorichti	3.54	17	P	Pn	16 11 31.6	+0.5
XOR				S	Sn	16 12 13.7	+0.8
AOS	Alonnisos	3.56	26	P	Pn	16 11 31.8	+0.3
AOS	Alonnisos	3.56	26	P	Pn	16 11 31.8	+0.3
THL	Klokotos Trika	3.58	2	P	Pn	16 11 32.9	+1.2
THL				S	Sn	16 12 14.8	+0.8
THL	Klokotos Trika	3.58	2	ePN	Pn	16 11 32.5	+0.8
THL	Klokotos Trika	3.58	2	ePn	Pn	16 11 32.5	+0.8
THL				S	Sn	16 12 14.8	+0.8
IGT	Igoumenitsa	3.75	341	P	Pn	16 11 34.0	-0.1
IGT				S	Sn	16 12 19.0	+0.8
IGT	Igoumenitsa	3.75	341	P	Pn	16 11 34.0	-0.1
IGT				S	Sn	16 12 19.0	+0.8
JAN	Janina	3.76	348	ePN	Pn	16 11 35.1	+0.9
JAN	Janina	3.76	348	ePn	Pn	16 11 35.1	+0.9
MEV	Metsovon	3.83	353	P	Pn	16 11 37.1	+1.9
MEV	Metsovon	3.83	353	P	Pn	16 11 37.1	+1.9
KEK	Kerkira	4.07	337	ePN	Pn	16 11 38.5	0.0
KEK	Kerkira	4.07	337	ePn	Pn	16 11 38.5	0.0
CHOS	Chios island	4.11	53	P	Pn	16 11 39.3	+0.3
CHOS				S	Sn	16 12 28.6	+1.5
CHOS	Chios island	4.11	53	ePN	Pn	16 11 40.0	+1.0
CHOS	Chios island	4.11	53	P	Pn	16 11 39.3	+0.3
CHOS	Chios island	4.11	53	ePn	Pn	16 11 40.0	+1.0
CHOS				S	Sn	16 12 28.6	+1.5
LIT	Litokhoron	4.14	7	P	Pn	16 11 41.2	+1.7
LIT				S	Sn	16 12 28.2	+0.3
LIT	Litokhoron	4.14	7	ePN	Pn	16 11 39.7	+0.2
LIT	Litokhoron	4.14	7	ePn	Pn	16 11 39.7	+0.2
LIT	Litokhoron	4.14	7	P	Pn	16 11 41.2	+1.7
LIT				S	Sn	16 12 28.2	+0.3
PAIG	Paliouri	4.19	19	P	Pn	16 11 40.7	+0.6
PAIG				S	Sn	16 12 30.0	+1.0
PAIG	Paliouri	4.19	19	P	Pn	16 11 40.7	+0.6
PAIG				S	Sn	16 12 30.0	+1.0
LTBQ	Tobruq	4.27	156	iP	Pn	16 11 44.6	+3.4
	SNR=23						
KARP	Karpathos	4.32	94	ePN	Pn	16 11 43.4	+1.5
KARP	Karpathos	4.32	94	ePn	Pn	16 11 43.4	+1.5
KZN	Kozani	4.32	359	ePN	Pn	16 11 43.6	+1.7
KZN	Kozani	4.32	359	ePn	Pn	16 11 43.6	+1.7
SMG	Samos	4.33	65	ePN	Pn	16 11 43.7	+1.6
SMG	Samos	4.33	65	ePn	Pn	16 11 43.7	+1.6
URLA	Izmir	4.45	56	iP	Pn	16 11 43.5	-0.3
URLA	Izmir	4.45	56	iP	Pn	16 11 43.5	-0.3
BODT	Bodrum	4.51	75	ePN	Pn	16 11 43.7	-0.8
BODT	Bodrum	4.51	75	ePn	Pn	16 11 43.7	-0.8
SIGR	SIGRI	4.51	43	P	Pn	16 11 44.5	-0.1
SIGR	SIGRI	4.51	43	P	Pn	16 11 44.5	-0.1
PLG	Polygyros	4.56	15	P	Pn	16 11 46.4	+1.2
PLG	Polygyros	4.56	15	P	Pn	16 11 46.4	+1.2
BDRM	Kayabasi	4.61	75	iP	Pn	16 11 46.2	+0.3
BDRM	Kayabasi	4.61	75	iP	Pn	16 11 46.2	+0.3
GCAM	G?zelcaml?	4.63	67	iP	Pn	16 11 46.7	+0.6
GCAM	G?zelcaml?	4.63	67	iP	Pn	16 11 46.7	+0.6
OUR	Ouranopolis	4.65	20	P	Pn	16 11 47.1	+0.6
OUR	Ouranopolis	4.65	20	P	Pn	16 11 47.1	+0.6
DAT	Datca	4.66	79	ePN	Pn	16 11 46.0	-0.6
DAT	Datca	4.66	79	ePn	Pn	16 11 46.0	-0.6
LOS	Limnos	4.69	32	P	Pn	16 11 49.1	+2.1
LOS	Limnos	4.69	32	P	Pn	16 11 49.1	+2.1
LIA	Limnos Island	4.70	33	P	Pn	16 11 48.0	+0.8
LIA				S	Sn	16 12 42.5	+0.8
LIA	Limnos Island	4.70	33	ePN	Pn	16 11 48.2	+1.0
LIA	Limnos Island	4.70	33	P	Pn	16 11 48.0	+0.8
LIA	Limnos Island	4.70	33	ePn	Pn	16 11 48.2	+1.0
LIA				S	Sn	16 12 42.5	+0.8
HORT	Hortiatis	4.71	11	P	Pn	16 11 47.5	+0.2
HORT				S	Sn	16 12 43.0	+1.2
HORT	Hortiatis	4.71	11	P	Pn	16 11 47.5	+0.2
HORT				S	Sn	16 12 43.0	+1.2
THE	Thessaloniki	4.72	10	P	Pn	16 11 48.1	+0.7
THE	Thessaloniki	4.72	10	P	Pn	16 11 48.1	+0.7
BLCB	Balcova	4.77	58	ePN	Pn	16 11 48.7	+0.6
BLCB	Balcova	4.77	58	ePn	Pn	16 11 48.7	+0.6
PRK	Paraskevi	4.77	46	P	Pn	16 11 49.4	+1.2
PRK	Paraskevi	4.77	46	ePN	Pn	16 11 48.9	+0.7
PRK	Paraskevi	4.77	46	ePn	Pn	16 11 48.9	+0.7
PRK	Paraskevi	4.77	46	P	Pn	16 11 49.4	+1.2
FNA	Florina	4.81	355	P	Pn	16 11 48.9	+0.2
FNA				S	Sn	16 12 46.7	+2.3
FNA	Florina	4.81	355	P	Pn	16 11 48.9	+0.2
FNA				S	Sn	16 12 46.7	+2.3
MLSB	Milas	4.92	73	ePN	Pn	16 11 50.1	-0.1
MLSB	Milas	4.92	73	ePn	Pn	16 11 50.1	-0.1
IZM	Izmir	4.93	59	ePN	Pn	16 11 50.1	-0.2
SOH	Sokhos	4.97	13	P	Pn	16 11 52.8	+2.0
SOH	Sokhos	4.97	13	ePN	Pn	16 11 52.0	+1.2
SOH	Sokhos	4.97	13	ePn	Pn	16 11 52.0	+1.2
SOH	Sokhos	4.97	13	P	Pn	16 11 52.8	+2.0
GRG	Griva	4.98	5	P	Pn	16 11 51.7	+0.7
GRG				S	Sn	16 12 50.0	+1.4
GRG	Griva	4.98	5	P	Pn	16 11 51.7	+0.7
GRG				S	Sn	16 12 50.0	+1.4
BIA	Bitola	5.05	355	P	Pn	16 11 52.4	+0.5
BIA	Bitola	5.05	355	ePn	Pn	16 11 52.3	+0.4
BIA				eSg	Sn	16 12 49.9	-0.3
BIA	Bitola	5.05	355	ePn	Pn	16 11 52.2	+0.3
BIA	Bitola	5.05	355	P	Pn	16 11 52.4	+0.5
AYVA	Ayvalik	5.06	48	iP	Pn	16 11 53.2	+1.1
AYVA	Ayvalik	5.06	48	iP	Pn	16 11 53.2	+1.1
ARG	Arkhangelos	5.07	86	ePN	Pn	16 11 53.7	+1.5
ARG	Arkhangelos	5.07	86	ePn	Pn	16 11 53.7	+1.5
BOZC	Bozcaada	5.07	39	iP	Pn	16 11 52.0	-0.3
AYDN	Tasoluk	5.10	69	iP	Pn	16 11 52.3	-0.3
AYDN	Tasoluk	5.10	69	iP	Pn	16 11 52.3	-0.3
TIP	Timpagrande	5.17	310	ePn	Pn	16 11 52.1	-1.5
	131nm,0.8s						
TIP	Timpagrande	5.17	310	ePn	Pn	16 11 52.1	-1.5
	131nm,0.8s						
OHR	Ohrid	5.19	351	ePn	Pn	16 11 54.0	+0.1
OHR	Ohrid	5.19	351	ePn	Pn	16 11 53.9	0.0
EZN	Ezine	5.21	41	ePN	Pn	16 11 56.5	+2.5
EZN	Ezine	5.21	41	ePn	Pn	16 11 56.6	+2.5
KNT	Kendrikon	5.23	8	P	Pn	16 11 55.3	+0.8
KNT	Kendrikon	5.23	8	P	Pn	16 11 55.3	+0.8
LJBD	Adjabya	5.25	196	iP	Pn	16 11 56.8	+2.1
	SNR=23						
GADA	Gvkgeada	5.26	36	ePN	Pn	16 11 58.5	+3.6
GADA	Gvkgeada	5.26	36	ePn	Pn	16 11 58.5	+3.6
YER	Yerkesik	5.28	76	ePN	Pn	16 11 55.3	+0.2
YER	Yerkesik	5.28	76	ePn	Pn	16 11 55.3	+0.1
CEL	Celeste	5.29	297	ePn	Pn	16 11 55.9	+0.6
CEL	Celeste	5.29	297	ePn	Pn	16 11 55.9	+0.6
SRS	Serrai	5.30	14	P	Pn	16 11 56.4	+1.0
SRS	Serrai	5.30	14	P	Pn	16 11 56.4	+1.0
VAY	Valandovo	5.36	6	P	Pn	16 11 57.1	+0.9
VAY	Valandovo	5.36	6	ePn	Pn	16 11 56.8	+0.6
VAY	Valandovo	5.36	6	P	Pn	16 11 57.3	+1.1
VAY				Sg	Sg	16 13 36.9	+8.6
VAY	Valandovo	5.36	6	ePn	Pn	16 11 56.8	+0.6
VAY	Valandovo	5.36	6	P	Pn	16 11 57.1	+0.9
KRUS	Krusevo	5.40	355	ePn	Pn	16 11 56.2	-0.5
KRUS	Krusevo	5.40	355	ePn	Pn	16 11 56.2	-0.6
TURN	Turunc	5.50	79	iP	Pn	16 11 54.8	-3.3
DALT	Dalyan (Mudla)	5.51	80	ePN	Pn	16 11 58.5	+0.2
DALT	Dalyan (Mudla)	5.51	80	ePn	Pn	16 11 58.5	+0.2
NVR	Nevrokopi	5.58	16	ePN	Pn	16 12 00.4	+1.2
NVR	Nevrokopi	5.58	16	ePn	Pn	16 12 00.4	+1.2
TIR	Tirane	5.58	344	P	Pn	16 11 59.9	+0.6
TIR	Tirane	5.58	344	ePN	Pn	16 11 59.8	+0.5
TIR	Tirane	5.58	344	ePn	Pn	16 11 59.8	+0.5
HMDC	Modica	5.80	282	Pn	Pn	16 12 02.8	+0.5
HMDC	Modica	5.80	282	Pn	Pn	16 12 02.8	+0.5
ENEZ	Enez	5.81	34	ePN	Pn	16 12 06.2	+3.8
LPK	Lapseki	5.83	40	ePN	Pn	16 12 05.4	+2.7
LPK	Lapseki	5.83	40	ePn	Pn	16 12 05.4	+2.7
HVZN	Vizzini	5.89	284	Pn	Pn	16 12 06.1	+2.7
BALY	Balya	5.89	49	iP	Pn	16 12 03.9	+0.4
BALY	Balya	5.89	49	iP	Pn	16 12 03.9	+0.4
ALN	Alexandroupoli	5.90	32	P	Pn	16 12 05.2	+1.6
ALN				S	Sn	16 13 13.8	+2.6
ALN	Alexandroupoli	5.90	32	ePN	Pn	16 12 04.5	+0.9
ALN	Alexandroupoli	5.90	32	ePn	Pn	16 12 04.5	+0.9
ALN	Alexandroupoli	5.90	32	P	Pn	16 12 05.2	+1.6
ALN				S	Sn	16 13 13.8	+2.6
RDO	Rodhopi	5.90	28	ePN	Pn	16 12 04.8	+1.2
RDO	Rodhopi	5.90	28	ePn	Pn	16 12 04.8	+1.2
KKB	Krupnik	5.95	9	P	Pn	16 12 06.0	+1.7
KKB	Krupnik	5.95	9	P	Pn	16 12 06.0	+1.7
WDD	Wield Dalam	5.97	271	eP	Pn	16 12 04.9	+0.3
	364nm,0.9s						
WDD	Wield Dalam	5.97	271	eP	Pn	16 12 04.9	+0.3
	364nm,0.9s						
KULA	Kula-Manisa	5.97	63	ePN	Pn	16 12 05.5	+0.9
KULA	Kula-Manisa	5.97	63	ePn	Pn	16 12 05.5	+0.9
SKO	Skopje	5.99	357	P	Pn	16 12 05.6	+0.7
SKO	Skopje	5.99	357	ePn	Pn	16 12 05.4	+0.5
SKO	Skopje	5.99	357	ePn	Pn	16 12 05.3	+0.4
SKO	Skopje	5.99	357	P	Pn	16 12 05.6	+0.7
BALB	Balikesir	5.99	51	ePN	Pn	16 12 06.3	+1.4
BALB	Balikesir	5.99	51	ePn	Pn	16 12 06.3	+1.4
RZN	Rozhen	6.11	20	P	Pn	16 12 07.3	+0.8
RZN				S	Sg	16 13 45.1	-7.4
RZN	Rozhen	6.11	20	P	Pn	16 12 07.3	+0.8
RAFF	Raffo Rosso	6.17	284	Pn	Pn	16 12 07.9	+0.5
	261nm,0.6s						
RAFF	Raffo Rosso	6.17	284	Pn	Pn	16 12 07.9	+0.5
	261nm,0.6s						
VAE	Valguarnera	6.18	286	Pn	Pn	16 12 13.5	+6.1
	6.8nm,0.3s,baz=6.3,slow=4.1,SNR=8.6						
VAE				Sn	Sn	16 13 16.1	-2.0
	9.0nm,0.3s,baz=219,slow=11,SNR=3.4						
VAE				LR	LR	16 14 07.6	
	comp=Z,190nm,19.5s,baz=334,slow=34						
VAE	Valguarnera	6.18	286	Sn	Sn	16 13 16.1	-2.0
CUC	Castrocucco	6.24	312	ePn	Pn	16 12 10.1	+1.8
CUC	Castrocucco	6.24	312	ePn	Pn	16 12 10.1	+1.8
AKAS	Kas	6.26	85	iP	Pn	16 12 07.7	-0.9
RKY	Sarkoy-Tekirda	6.28	40	ePN	Pn	16 12 11.9	+3.1
SART	Tekirdag	6.28	40	iP	Pn	16 12 10.8	+1.9
KDZ	Kurdzhali	6.30	25	P	Pn	16 12 08.8	-0.3
KDZ				S	Sn	16 13 19.7	-1.3
KDZ	Kurdzhali	6.30	25	P	Pn	16 12 08.8	-0.3
GOLH	Golhisar	6.31	76	iP	Pn	16 12 11.3	+2.1
ULC	Ulcinj	6.31	342	⇑iPn	Pn	16 12 07.7	-1.6
ULC				eSn	Sn	16 13 16.1	-5.3
ULC	Ulcinj	6.31	342	⇑iPn	Pn	16 12 07.7	-1.6
DURS	Dursunbey	6.35	53	iP	Pn	16 12 11.1	+1.2
BNT	Bandirma	6.46	46	ePN	Pn	16 12 13.3	+2.0
ELL	Elmali	6.53	81	ePN	Pn	16 12 12.9	+0.7
ELL	Elmali	6.53	81	ePn	Pn	16 12 13.0	+0.8
KHAL	Karahalli	6.53	66	iP	Pn	16 12 12.9	+0.6
VTS	Vitosha	6.68	8	P	Pn	16 12 15.9	+1.6
VTS	Vitosha	6.68	8	ePN	Pn	16 12 15.3	+1.0
VTS	Vitosha	6.68	8	P	Pn	16 12 15.2	+0.9
VTS	Vitosha	6.68	8	ePn	Pn	16 12 15.3	+1.0
BUM	Brajici-Budva	6.72	341	⇓iPn	Pn	16 12 13.1	-1.8
BUM				eSn	Sn	16 13 25.4	-6.0
BUM	Brajici-Budva	6.72	341	⇓iPn	Pn	16 12 13.1	-1.8
PDG	Podgorica	6.75	343	⇓iPn	Pn	16 12 13.6	-1.7
TTG	Podgorica	6.75	343	⇓iPn	Pn	16 12 13.6	-1.7
TTG				eSn	Sn	16 13 27.2	-5.0
TTG	Podgorica	6.75	343	⇓iPn	Pn	16 12 13.6	-1.7
PVY	Plav	6.77	348	⇑iPn	Pn	16 12 15.3	-0.2
PVY				eSn	Sn	16 13 29.4	-3.2
PVY	Plav	6.77	348	⇑iPn	Pn	16 12 15.3	-0.2
LMSR	Misrath	6.77	239	iP	Pn	16 12 16.5	+0.9
	SNR=22						
GDZ	Gediz	6.79	61	iP	Pn	16 12 16.7	+0.8
BARS	Barje	6.83	360	⇓iPn	Pn	16 12 15.5	-0.8
HCY	Herceg Novi	6.97	339	⇑iPn	Pn	16 12 15.7	-2.6
HCY				eSn	Sn	16 13 30.2	-7.3
EDRB	Edirne	6.98	31	ePN	Pn	16 12 22.2	+3.8
BEY	Berane	7.05	348	⇑iPn	Pn	16 12 19.0	-0.4
IVA	Berane	7.05	348	⇑iPn	Pn	16 12 19.0	-0.4
IVA				eSn	Sn	16 13 36.0	-3.5
IVA	Berane	7.05	348	⇑iPn	Pn	16 12 19.0	-0.4
ULDT	Uludag	7.07	52	iP	Pn	16 12 22.8	+3.1
BCK	Bucak	7.15	76	ePN	Pn	16 12 20.9	+0.1
BCK	Bucak	7.15	76	ePn	Pn	16 12 21.0	+0.2
ISP	Isparta	7.16	72	ePN	Pn	16 12 21.9	+1.0
ISP	Isparta	7.16	72	ePN	Pn	16 12 23.3	+2.4
ISP	Isparta	7.16	72	⇑iP	Pn	16 12 23.4	+2.5
ISP	Isparta	7.16	72	ePn	Pn	16 12 23.3	+2.4
NKY	Niksic	7.18	343	⇓iPn	Pn	16 12 19.3	-1.8
NKY				eSn	Sn	16 13 36.6	-6.0
NKY	Niksic	7.18	343	⇓iPn	Pn	16 12 19.3	-1.8
SLVT	Silivri	7.21	42	ePN	Pn	16 12 24.0	+2.4
SLVT	Silivri	7.21	42	ePn	Pn	16 12 24.0	+2.4
ALT	Altintas	7.23	62	ePN	Pn	16 12 21.9	+0.1
ALT	Altintas	7.23	62	ePn	Pn	16 12 21.9	+0.1
ELBA	Catalca	7.28	43	iP	Pn	16 12 21.4	-1.1
SWA2		7.37	155	P	Pn	16 12 24.4	+0.6
SWA2				S	Sn	16 13 40.0	-7.3
BRY	Bratogost	7.38	341	⇑iPn	Pn	16 12 21.3	-2.6
BRY				eSn	Sn	16 13 41.1	-6.4
SHUT	Suhut-Afyon	7.38	67	ePN	Pn	16 12 24.5	+0.6
SHUT	Suhut-Afyon	7.38	67	ePn	Pn	16 12 24.5	+0.6
CTKS	Kestanelik-??a	7.38	43	ePN	Pn	16 12 26.6	+2.6
CTKS	Kestanelik-??a	7.38	43	ePn	Pn	16 12 26.6	+2.7
NISS		7.41	0	⇓iPn	Pn	16 12 23.3	-1.1
SJES	Sjenica	7.42	349	ePn	Pn	16 12 23.1	-1.3
CTYL	Yal??k??y-??at	7.43	40	ePN	Pn	16 12 27.4	+2.8
CTYL	Yal??k??y-??at	7.43	40	ePn	Pn	16 12 27.4	+2.8
YLV	Yalova	7.46	50	ePN	Pn	16 12 25.8	+0.7
YLV	Yalova	7.46	50	ePn	Pn	16 12 25.8	+0.7
BGKT	Bogazkoy	7.49	44	ePN	Pn	16 12 27.0	+1.5
BGKT	Bogazkoy	7.49	44	ePn	Pn	16 12 27.0	+1.6
CAVI	Cavuskoy	7.56	54	ePN	Pn	16 12 27.0	+0.5
CAVI	Cavuskoy	7.56	54	ePn	Pn	16 12 27.0	+0.6
UPM	Unac-Piva	7.57	343	⇑iPn	Pn	16 12 25.1	-1.4

UPM				*e*Sn	Sn	16 13 46.4	-5.8
UPM	Unac-Piva	7.57	343	⇑*i*Pn	Pn	16 12 25.1	-1.4
ISK	Istanbul-Kandi	7.58	46	*e*PN	Pn	16 12 28.1	+1.5
ISK	Istanbul-Kandi	7.58	46	*e*Pn	Pn	16 12 28.2	+1.5
PLE	Pljevlja	7.58	346	⇑*i*Pn	Pn	16 12 25.7	-1.0
PLE				*e*Sn	Sn	16 13 48.3	-4.4
PLE	Pljevlja	7.58	346	⇑*i*Pn	Pn	16 12 25.7	-1.0
STON	Ston	7.60	336	*e*Pn	Pn	16 12 23.5	-3.4
STON				Sn	Sn	16 13 42.9	-10
PSB1	Pescosannita	7.61	316	Pn	Pn	16 12 30.3	+3.1
	280nm,1.1s						
ADVT	Abdulvahap	7.62	52	*e*PN	Pn	16 12 28.4	+1.2
ADVT	Abdulvahap	7.62	52	*e*Pn	Pn	16 12 28.4	+1.2
KLYT	Kilyos	7.69	45	*e*PN	Pn	16 12 30.5	+2.3
KLYT	Kilyos	7.69	45	*e*Pn	Pn	16 12 30.5	+2.3
BORA	Eskisehir	7.81	58	*i* P	Pn	16 12 32.4	+2.5
BOLS	Boljevac	7.84	0	*e*Pn	Pn	16 12 28.7	-1.5
SZH	Strazhica	7.92	22	P	Pn	16 12 35.2	+3.9
ESKT	Eskisehir	7.94	61	*e*PN	Pn	16 12 32.1	+0.5
ESKT	Eskisehir	7.94	61	*i* P	Pn	16 12 33.9	+2.4
ESKT	Eskisehir	7.94	61	*e*Pn	Pn	16 12 32.1	+0.5
SILT	Sile	7.98	47	*e*PN	Pn	16 12 33.6	+1.5
SILT	Sile	7.98	47	*e*Pn	Pn	16 12 33.7	+1.6
GHAR	Gharyan	8.25	245	*i* P	Pn	16 12 37.0	+1.1
	SNR=22						
LZLA	Zalla	8.26	207	*i* P	Pn	16 12 36.6	+0.6
	SNR=22						
SVRH	Sivrihisar-ESK	8.39	63	*e*PN	Pn	16 12 38.1	+0.3
SVRH	Sivrihisar-ESK	8.39	63	*e*Pn	Pn	16 12 38.1	+0.3
KDHN	Kadinhani	8.55	70	*i* P	Pn	16 12 39.1	-0.9
LJFR	Jufra	8.56	218	*i* P	Pn	16 12 39.9	-0.2
	SNR=22						
MDU	Mudurnu	8.60	56	*e*PN	Pn	16 12 41.5	+0.8
MDU	Mudurnu	8.60	56	*e*Pn	Pn	16 12 41.5	+0.8
HDMB	Hadim	8.60	80	*e*PN	Pn	16 12 40.7	-0.1
HDMB	Hadim	8.60	80	*e*Pn	Pn	16 12 40.7	0.0
KONT	Konya--Tatoy	8.62	74	*e*PN	Pn	16 12 40.6	-0.3
KONT	Konya--Tatoy	8.62	74	*e*Pn	Pn	16 12 40.6	-0.3
LSHF	Shwairf	8.76	229	*i* P	Pn	16 12 42.6	-0.3
	SNR=22						
LEF	Lefka	9.02	92	*e*PN	Pn	16 12 46.7	+0.3
LEF	Lefka	9.02	92	*e*Pn	Pn	16 12 46.7	+0.3
TERO	Teramo	9.22	318	Pn	Pn	16 12 52.2	+3.0
CSS	Prodhromos	9.40	93	*e*PN	Pn	16 12 51.8	+0.2
CSS	Prodhromos	9.40	93	*e*P	Pn	16 12 51.4	-0.2
	39nm,0.8s						
CSS	Prodhromos	9.40	93	*e*Pn	Pn	16 12 51.8	+0.1
GZR	Gura Zlata	9.43	4	⇓*i*P	Pn	16 12 51.0	-1.0
GZR	Gura Zlata	9.43	4	P	Pn	16 12 51.2	-0.8
GZR	Gura Zlata	9.43	4	P	Pn	16 12 51.2	-0.8
LOD	Lodumlu	9.44	62	*e*PN	Pn	16 12 52.5	+0.2
LOD	Lodumlu	9.44	62	*e*Pn	Pn	16 12 52.5	+0.3
LFK	Lefkose	9.52	91	*e*PN	Pn	16 12 52.6	-0.6
LFK	Lefkose	9.52	91	*e*Pn	Pn	16 12 52.6	-0.7
SULT	Sultanhani-AKS	9.56	73	*e*PN	Pn	16 12 53.5	-0.3
SULT	Sultanhani-AKS	9.56	73	*e*Pn	Pn	16 12 53.5	-0.3
BZS	Buzias	9.63	359	⇑*i*P	Pn	16 12 53.4	-1.3
BZS	Buzias	9.63	359	⇑P	Pn	16 12 53.4	-1.4
BZS	Buzias	9.63	359	P	Pn	16 12 53.4	-1.3
NRCA	Norcia	9.63	318	Pn	Pn	16 12 55.9	+1.1
	45nm,0.6s						
NRCA	Norcia	9.63	318	Pn	Pn	16 12 55.9	+1.1
	45nm,0.6s						
AWBH		9.68	140	P	Pn	16 12 54.2	-1.4
AWBH		9.68	140	P	Pn	16 12 54.2	-1.4
HNAT	Natroun	9.70	128	P	Pn	16 12 53.0	-2.9
HNAT	Natroun	9.70	128	P	Pn	16 12 53.0	-2.8
VOIR		9.75	13	⇑*i*P	Pn	16 12 56.6	+0.2
VOIR		9.75	13	P	Pn	16 12 56.9	+0.5
VOIR		9.75	13	P	Pn	16 12 56.9	+0.5
TIRR	Tirgusor	9.83	29	⇓*i*P	Pn	16 12 58.3	+0.8
TIRR	Tirgusor	9.83	29	*e*P	Pn	16 12 56.6	-0.9
	106nm,1.5s						
TIRR	Tirgusor	9.83	29	P	Pn	16 12 58.3	+0.8
HARR	Harsova	9.85	26	⇑*i*P	Pn	16 12 58.5	+0.8
HARR	Harsova	9.85	26	P	Pn	16 12 58.9	+1.1
HARR	Harsova	9.85	26	P	Pn	16 12 58.8	+1.1
MLR	Muntele Rosu	9.99	17	⇓*i*P	Pn	16 13 00.8	+1.1
MLR	Muntele Rosu	9.99	17	Pn	Pn	16 13 00.2	+0.6
	0.1nm,0.3s,baz=192,slow=5.6,SNR=6.7						
MLR	Muntele Rosu	9.99	17	P	Pn	16 13 00.7	+1.1
MLR	Muntele Rosu	9.99	17	P	Pn	16 13 00.7	+1.0
SNTG	Esanatoglia	10.01	319	Pn	Pn	16 13 02.0	+2.0
	82nm,1.2s						
SNTG	Esanatoglia	10.01	319	Pn	Pn	16 13 02.0	+2.0
	82nm,1.2s						
BRTR	Keskin Array B	10.02	65	Pn	Pn	16 13 01.2	+1.0
BRTR	Keskin Array B	10.02	65	P	Pn	16 13 01.2	+1.0
ASS	Assisi	10.04	318	P	Pn	16 13 02.2	+1.9
ASS				pmax	pmax		
	comp=Z,27nm,0.8s						
ASS	Assisi	10.04	318	Pn	Pn	16 13 02.2	+1.9
	comp=Z,27nm,0.8s						
ASS	Assisi	10.04	318	P	Pn	16 13 02.2	+1.9
	comp=Z,27nm,0.8s						
NVLJ	Novalja	10.10	330	*e*Pn	Pn	16 12 58.7	-2.6
NVLJ				Sn	Sn	16 14 42.3	-12
NVLJ	Novalja	10.10	330	*e*Pn	Pn	16 12 58.7	-2.5
KEST	Kesra	10.18	272	Pn	Pn	16 13 03.6	+1.3
	comp=Z,0.1nm,0.3s,baz=339,slow=4.0,SNR=7.4						
MERS	Mersin	10.23	81	*e*PN	Pn	16 13 02.5	-0.5
MERS	Mersin	10.23	81	*e*Pn	Pn	16 13 02.6	-0.4
KOT	Kottamia	10.31	123	P	Pn	16 13 00.2	-3.9
HSAF	As Saff	10.32	125	P	Pn	16 13 00.7	-3.6
HFRF	Wahat Farafira	10.37	146	P	Pn	16 13 04.3	-0.7
HFRF	Wahat Farafira	10.37	146	P	Pn	16 13 04.3	-0.7
GLL	Jalalah	10.45	125	P	Pn	16 13 02.9	-3.1
PLOR	Plostina	10.50	19	⇑*i*P	Pn	16 13 07.6	+0.9
PLOR	Plostina	10.50	19	P	Pn	16 13 07.6	+0.9
PKSM	Moragy	10.51	348	⇑*i*P	Pn	16 13 03.5	-3.3
PKSM	Moragy	10.51	348	⇑P	Pn	16 13 03.5	-3.3
CDAG	Cicekdag	10.53	66	*i* P	Pn	16 13 07.7	+0.5
BADI	Badiali	10.55	318	Pn	Pn	16 13 12.0	+4.6
ILGA	Ilgaz	10.56	58	*i* P	Pn	16 13 06.8	-0.7
RSM	Repubblica di	10.73	321	P	Pn	16 13 09.9	0.0
RSM	Repubblica di	10.73	321	P	Pn	16 13 09.9	0.0
BOJS	Bojanci	10.75	334	*i* Pn	Pn	16 13 08.3	-1.9
BOJS				*e*Sn	Sn	16 15 02.1	-8.4
BOJS	Bojanci	10.75	334	*i* Pn	Pn	16 13 08.3	-1.9
DRGR		10.82	3	⇓*i*P	Pn	16 13 11.3	+0.3
DRGR		10.82	3	⇓P	Pn	16 13 11.3	+0.3
DRGR		10.82	3	P	Pn	16 13 11.3	+0.3
VISS	Visnje	11.16	334	*i* Pn	Pn	16 13 15.4	-0.3
VISS				*e*Sn	Sn	16 15 11.3	-9.1
VISS	Visnje	11.16	334	*i* Pn	Pn	16 13 15.4	-0.3
ZAF		11.20	124	P	Pn	16 13 12.6	-3.7
LJU	Ljubljana	11.48	333	*e*Pn	Pn	16 13 18.5	-1.6
LJU				*e*Sn	Sn	16 15 24.0	-4.2
JAVS	Javornik	11.52	332	*e*Pn	Pn	16 13 20.3	-0.4
JAVS				*e*Sn	Sn	16 15 20.4	-9.0
JAVS	Javornik	11.52	332	*e*Pn	Pn	16 13 20.3	-0.4
MMAI	Mount Meron Ar	11.54	101	Pn	Pn	16 13 19.0	-2.1
	comp=Z,2.2nm,0.3s,baz=282,slow=12,SNR=14						
MMAI				Sn	Sn	16 15 21.5	-8.5
	comp=Z,4.2nm,0.3s,baz=308,slow=26,SNR=5.2						
LUMB	Murzuk	11.55	214	*i* P	Pn	16 13 19.7	-1.5
	SNR=22						
BUD	Budapest	11.69	350	⇑*e*P	Pn	16 13 22.2	-0.7
BUD	Budapest	11.69	350	⇑*e*P	Pn	16 13 22.2	-0.7
VOY	Vojsko	11.70	332	*e*Pn	Pn	16 13 22.0	-1.2
VOY				*e*Sn	Sn	16 15 22.8	-11
VOY	Vojsko	11.70	332	*e*Pn	Pn	16 13 22.0	-1.2
PERS	Pernice	11.79	337	*e*Pn	Pn	16 13 22.0	-2.3
PERS				*e*Sn	Sn	16 15 26.2	-10
PERS	Pernice	11.79	337	*e*Pn	Pn	16 13 22.0	-2.3
HNKL	Nakhl	11.82	117	P	Pn	16 13 21.7	-3.1
LKFR	Kufra	11.84	174	*i* P	Pn	16 13 24.0	-1.1
	SNR=22						
SOKA	Soboth	11.85	336	⇓*i*Pn	Pn	16 13 21.9	-3.3
SOKA				⇓*i*Sn	Sn	16 15 28.2	-9.2
OBKA	Obir	11.87	335	⇑*i*Pn	Pn	16 13 23.2	-2.3
OBKA				⇓*i*Sn	Sn	16 15 28.1	-10
PINB	Pinarbasi	11.87	73	*i* P	Pn	16 13 28.5	+3.0
BURAR	Bucovina Array	11.89	11	⇑*i*P	Pn	16 13 26.5	+0.9
BURAR	Bucovina Array	11.89	11	⇑P	Pn	16 13 26.5	+0.9
BURAR	Bucovina Array	11.89	11	⇑P	Pn	16 13 26.5	+0.9
BUR08	Bucovina Ar. S	11.91	11	*e*P	Pn	16 13 26.2	+0.2
BUR08	Bucovina Ar. S	11.91	11	*e*P	Pn	16 13 26.2	+0.2
PGF	Pioggiola	11.94	307	*e*P	Pn	16 13 26.5	+0.2
	comp=Z,117nm,1.5s						
PGF	Pioggiola	11.94	307	*e*P	Pn	16 13 26.5	+0.2
PGF				pmax	pmax		
	comp=Z,59nm,1.5s						
PGF	Pioggiola	11.94	307	*e*P	Pn	16 13 26.5	+0.2
	comp=Z,59nm,1.5s						
PGF	Pioggiola	11.94	307	*e*P	Pn	16 13 26.5	+0.2
	comp=Z,59nm,1.5s						
PSZ	Piszkesteto	12.02	354	⇑*i*P	Pn	16 13 25.3	-2.1
PSZ	Piszkesteto	12.02	354	*e*P	Pn	16 13 25.0	-2.4
PSZ	Piszkesteto	12.02	354	*e*P	Pn	16 13 25.0	-2.5
	comp=Z,50nm,1.1s						
PSZ	Piszkesteto	12.02	354	P	Pn	16 13 25.3	-2.1
TRPA	Tarpa	12.15	2	⇓*e*P	Pn	16 13 28.9	-0.3
KIS	Kishinev	12.17	23	*e*P	Pn	16 13 32.0	+2.5
KIS				*e*		16 15 48.0	
KIS				MLR	MLR		
	comp=Z,2µm,9.0s						
KIS				MLR	MLR		
	comp=N,2µm,10.0s						
KIS	Kishinev	12.17	23	*e*P	Pn	16 13 32.0	+2.5
KIS				*e*LQ		16 16 32.0	
KIS				LRM		16 19 05.0	
	comp=N,2µm,10.0s						
KIS	Kishinev	12.17	23	*e*P	Pn	16 13 32.0	+2.5
PTCC	Patocco-Chiusa	12.22	331	Pn	Pn	16 13 28.5	-1.8
PTCC	Patocco-Chiusa	12.22	331	Pn	Pn	16 13 28.5	-1.8
KECS	Kecovo	12.54	356	*e*PN	Pn	16 13 29.8	-4.7
UZH	Uzhgorod	12.64	1	⇓*i*P	Pn	16 13 35.9	-0.1
UZH				*e*S	Sn	16 15 59.0	+2.3
UZH				MLR	MLR		
	comp=Z,200nm,10.0s						
UZH	Uzhgorod	12.64	1	*i* P	Pn	16 13 35.9	-0.1
	comp=Z,200nm,10.0s						
EIL	Elat	12.66	116	Pn	Pn	16 13 33.6	-2.7
	comp=Z,1.3nm,0.3s,baz=316,slow=12,SNR=13						
EIL				Sn	Sn	16 15 46.1	-11
	comp=Z,3.1nm,0.3s,baz=299,slow=18,SNR=4.5						
EIL	Elat	12.66	116	Pn	Pn	16 13 33.6	-2.8
GZT	Gaziantep	12.67	79	*i* P	Pn	16 13 34.3	-2.2
VYHS	Vyhne	12.70	351	*e*PN	Pn	16 13 32.9	-3.9
VYHS				*e*SN	Sn	16 15 53.0	-5.2
ZST	Bratislava	12.71	345	*e*PN	Pn	16 13 35.8	-1.0
ZST	Bratislava	12.71	345	*e*P	Pn	16 13 35.8	-1.0
CONA	Conrad Observa	12.74	341	⇓*i*Pn	Pn	16 13 35.0	-2.3
KBA	Koelnbreinsper	12.79	333	⇑*i*Pn	Pn	16 13 36.8	-1.1
KBA				⇓*i*Sn	Sn	16 15 51.7	-8.6
AKRG	Al Kharijah	12.80	142	P	Pn	16 13 37.9	-0.4
ABTA	Abfaltersbach	12.84	330	⇑*i*Pn	Pn	16 13 38.0	-0.7
ABTA				⇓*i*Sn	Sn	16 15 52.8	-8.7
MODS	Modra-Piesok	12.84	346	*e*PN	Pn	16 13 33.0	-5.7
SIM	Simferopol’	12.91	42	*e*P	Pn	16 13 41.7	+2.0
SIM				*e*S	Sn	16 16 02.0	-1.3
SIM				pmax	pmax		
	comp=Z,22nm,0.9s						
SIM				MLR	MLR		
	comp=Z,800nm,14.0s						
SIM	Simferopol’	12.91	42	*e*P	Pn	16 13 41.7	+2.0
	comp=Z,22nm,0.9s						
CRVS	Cervenica-Dubn	12.92	359	*e*PN	Pn	16 13 38.1	-1.6
CRVS	Cervenica-Dubn	12.92	359	*e*P	Pn	16 13 38.1	-1.6
KOLS	Kolonicke sedl	12.95	1	*e*PN	Pn	16 13 39.1	-1.0
KOLS	Kolonicke sedl	12.95	1	*e*P	Pn	16 13 39.1	-1.0
ASF	Jabal al Asfar	13.02	103	Pn	Pn	16 13 38.9	-2.3
	comp=Z,0.3nm,0.3s,baz=168,slow=9.2,SNR=7.9						
ASF				Sn	Sn	16 16 01.6	-4.4
	comp=Z,0.7nm,0.3s,baz=177,slow=18,SNR=2.4						
MOA	Molln	13.13	337	⇓*i*Pn	Pn	16 13 40.2	-2.4
MOA				⇓*i*Sn	Sn	16 15 58.8	-10
HHRG	Al Ghardaqah	13.24	128	P	Pn	16 13 41.9	-2.4
HHRG	Al Ghardaqah	13.24	128	P	Pn	16 13 41.9	-2.4
MALT	Malatya	13.41	75	⇑*i*P	Pn	16 13 47.8	+1.3
MALT	Malatya	13.41	75	*e*P	Pn	16 13 47.3	+0.8
	comp=Z,50nm,1.1s						
MALT	Malatya	13.41	75	*e*P	Pn	16 13 47.3	+0.8
	comp=Z,50nm,1.1s						
STHS	Stebnicka Huta	13.44	358	*e*PN	Pn	16 13 43.9	-2.9
STHS				*e*		16 13 57.4	
RJOB	Jochberg	13.54	333	*e*P	Pn	16 13 48.1	-0.2
	comp=Z,12nm,1.1s						
RJOB				*e*S	Sn	16 16 10.1	-8.6
SAOF	Saorge	13.57	310	*e*P	Pn	16 13 54.1	+5.4
KEMA	Kemaliye	13.57	71	*i* P	Pn	16 13 48.4	-0.3
SBF	Sospel	13.58	310	*e*P	Pn	16 13 50.0	+1.2
	comp=Z,69nm,1.0s						
SBF	Sospel	13.58	310	*e*P	Pn	16 13 50.0	+1.2
	comp=Z,34nm,1.0s						
SBF	Sospel	13.58	310	*e*P	Pn	16 13 50.0	+1.2
	comp=Z,34nm,1.0s						
WTTA	Wattenberg	13.61	329	⇓*i*Pn	Pn	16 13 47.3	-1.9
LUCF	Luceram	13.65	310	*e*P	Px	16 14 01.5	
AUTN	L’Aution	13.65	310	*e*P	Pn	16 13 55.0	+5.2
KWP	Kalwaria Pacla	13.66	2	*e*P	Pn	16 13 49.6	-0.2
KWP	Kalwaria Pacla	13.66	2	*e*P	Pn	16 13 49.6	-0.2
KWP	Kalwaria Pacla	13.66	2	*e*P	Pn	16 13 49.6	-0.2
GRSN	GIRESUNGRSN	13.76	64	*i* P	Pn	16 13 49.4	-1.8
TOUF	Mont Tournerai	13.77	310	*e*P	Px	16 14 03.2	
MVIF	Mont Vial	13.78	309	*e*P	Pn	16 13 59.5	+8.0
FETA	Feichten	13.82	326	⇑*i*Pn	Pn	16 13 49.8	-2.3
FETA				⇑*i*Sn	Sn	16 16 17.2	-8.3
VRAC	Vranov	13.87	345	⇓*i*P	Pn	16 13 50.8	-1.9
VRAC	Vranov	13.87	345	Pn	Pn	16 13 50.6	-2.1
	comp=Z,0.3nm,0.3s,baz=186,slow=10,SNR=2.8						
VRAC	Vranov	13.87	345	P	Pn	16 13 50.8	-1.9
LMR	La Mourre	13.92	306	*e*P	Pn	16 13 52.4	-1.0
LMR	La Mourre	13.92	306	*e*P	Pn	16 13 52.4	-1.0
LVV	L’vov	13.92	6	*e*P	Pn	16 13 57.9	+4.5
LVV				MLR	MLR		
	comp=Z,800nm,9.0s						
FRF	La Foret Royal	13.93	308	*e*P	Pn	16 13 53.1	-0.5
FRF	La Foret Royal	13.93	308	*e*P	Pn	16 13 53.1	-0.5
DAVOX	Davos/Dischmat	14.04	324	Pn	Pn	16 13 58.4	+3.4
	comp=Z,0.5nm,0.3s,baz=151,slow=18,SNR=6.4						
TUE	Stuetta	14.08	322	*e*P	Pn	16 13 56.7	+1.1
	comp=Z,19nm,0.9s						
TUE	Stuetta	14.08	322	*e*P	Pn	16 13 56.7	+1.1
	comp=Z,19nm,0.9s						
TREC	Trest	14.10	343	*e*P	Pn	16 14 01.8	+5.9
TREC				AMS	AMS	16 20 10.0	
	comp=Z,3µm,13.3s						
OKC	Ostrava-Krasne	14.11	350	*e*P	Pn	16 14 05.6	+10
OKC				AMS	AMS	16 21 00.0	
	comp=Z,2µm,9.3s						
DAVOS	Davos	14.12	324	P	Pn	16 13 58.4	+2.3
DAVOS	Davos	14.12	324	P	Pn	16 13 58.4	+2.3
MORC	Moravsky Berou	14.14	348	*e*P	Pn	16 13 54.9	-1.6
MORC				pmax	pmax		
	comp=Z,11nm,0.8s						
MORC	Moravsky Berou	14.14	348	⇑*i*P	Pn	16 13 54.8	-1.7
MORC	Moravsky Berou	14.14	348	*e*P	Pn	16 13 54.9	-1.6
	comp=Z,11nm,0.8s						
MORC	Moravsky Berou	14.14	348	*e*Pn	Pn	16 13 54.3	-2.2
GEC2	GERESS Array S	14.19	337	*e*P	Pn	16 13 56.6	-0.5
GERES	GERESS Array B	14.19	337	Pn	Pn	16 13 54.3	-2.8
	comp=Z,0.4nm,0.3s,baz=156,slow=11,SNR=11						
OJC	Ojcow	14.31	355	*e*P	Pn	16 13 56.9	-1.8
MBDF	Montbardon	14.44	312	*e*P	Pn	16 14 00.7	+0.2
	comp=Z,32nm,0.8s						
MBDF	Montbardon	14.44	312	*e*P	Pn	16 14 00.7	+0.2
MBDF				pmax	pmax		
	comp=Z,16nm,0.8s						
MBDF	Montbardon	14.44	312	*e*P	Pn	16 14 00.7	+0.2
	comp=Z,16nm,0.8s						
KHC	Kasperske Hory	14.48	338	*e*P	Pn	16 13 59.9	-1.1
KHC				*e*x	x	16 14 09.5	
KHC				*e*x	x	16 14 19.5	
KHC				*e*x	x	16 14 44.0	
KHC				AMS	AMS	16 20 20.0	
	comp=Z,3µm,9.9s						
VILF	Villemus	14.67	307	*e*P	Pn	16 14 09.6	+6.0
VILF	Villemus	14.67	307	*e*P	Pn	16 14 09.6	+6.0
WET	Wettzell	14.71	336	*e*P	Pn	16 14 05.2	+1.0
ANN	Anapa	14.75	49	*e*P	Pn	16 14 01.5	-3.2
ANN				*e*S	Sn	16 16 44.7	-3.4
ANN				pmax	pmax		
	comp=Z,30nm,1.0s						
TREF	Trevaresse	14.78	306	*e*P	Pn	16 14 13.5	+8.3
SMRF	Simiane la Rot	14.81	308	*e*P	Pn	16 14 03.9	-1.7
MACK	Trabzon	14.86	65	*i* P	Pn	16 14 04.7	-1.6
LPG	La Plagne	14.87	314	*e*P	Pn	16 14 07.2	+0.8
	comp=Z,38nm,1.2s						
LPG	La Plagne	14.87	314	*e*P	Pn	16 14 07.2	+0.8
LPG				pmax	pmax		
	comp=Z,19nm,1.2s						
LPG	La Plagne	14.87	314	*e*P	Pn	16 14 07.2	+0.8
	comp=Z,19nm,1.2s						
LPL	La Plagne	14.89	314	*e*P	Pn	16 14 07.2	+0.5
	comp=Z,48nm,1.4s						
LPL	La Plagne	14.89	314	*e*P	Pn	16 14 07.2	+0.5
LPL				pmax	pmax		
	comp=Z,24nm,1.4s						
LPL	La Plagne	14.89	314	*e*P	Pn	16 14 07.2	+0.5
	comp=Z,24nm,1.4s						
DPC	Dobruska-Polom	14.91	346	*e*P	Pn	16 14 12.9	+5.9
DPC				AMS	AMS	16 21 10.0	
	comp=Z,2µm,13.1s						
DPC	Dobruska-Polom	14.91	346	*e*P	Pn	16 14 12.9	+5.9
	comp=Z,2µm,13.1s						
PRU	Pruhonice	14.98	341	*e*P	Pn	16 14 13.6	+5.7
PRU				AMS	AMS	16 20 30.0	
	comp=Z,3µm,10.2s						
PRU	Pruhonice	14.98	341	*e*P	Pn	16 14 13.6	+5.7
	comp=Z,3µm,10.2s						
ORIF	Oris-en-Rattie	15.08	311	*e*P	Pn	16 14 08.4	-0.8
	comp=Z,29nm,1.0s						
ORIF				*e*MLR	MLR		
	comp=Z,1µm,19.0s						
ORIF	Oris-en-Rattie	15.08	311	*e*P	Pn	16 14 08.4	-0.8
ORIF				pmax	pmax		
	comp=Z,14nm,1.0s						
ORIF	Oris-en-Rattie	15.08	311	*e*P	Pn	16 14 08.4	-0.8
	comp=Z,14nm,1.0s						
UPC	Upice	15.13	346	*e*P	Pn	16 14 15.4	+5.6
UPC	Upice	15.13	346	*e*P	Pn	16 14 15.4	+5.6
MARD	Mardin	15.23	79	*i* P	Pn	16 14 10.1	-1.2
KSP	Ksiaz	15.39	347	*e*P	Pn	16 14 18.3	+5.0
KSP				*e*		16 14 26.2	
KSP	Ksiaz	15.39	347	*e*P	Pn	16 14 18.0	+4.7
KSP				*e*pP	pP	16 14 25.3	+4.3
KSP	Ksiaz	15.39	347	*e*P	Pn	16 14 18.0	+4.7
PVCC	Panska Ves	15.47	342	*e*P	Pn	16 14 24.0	+10
PVCC				AMS	AMS	16 21 00.0	
	comp=Z,4µm,9.2s						
ROTZ	Rotzenmuhle	15.47	336	*e*P	Pn	16 14 14.9	+0.5
SPAK	Spaichingen-Ko	15.51	325	*e*P	Pn	16 14 16.1	+1.3
KIEV	Kiev	15.63	18	*e*P	Pn	16 14 12.3	-4.1
KIEV				pmax	pmax		
	comp=Z,28nm,1.0s						
KIEV	Kiev	15.63	18	*e*P	Pn	16 14 12.3	-4.1
	comp=Z,28nm,1.0s						
AKASG	Malin Array Be	15.64	18	Pn	Pn	16 14 12.3	-4.2
	comp=Z,0.9nm,0.3s,baz=206,slow=12,SNR=8.4						
SOC	Sochi	15.66	56	*e*P	Pn	16 14 15.4	-1.4
SOC				*e*		16 17 05.0	
SOC				pmax	pmax		
	comp=Z,30nm,1.2s						
SOC				MLR	MLR		
	comp=Z,330nm,10.0s						
BBS	Basel-Blauen	15.68	321	*e*P	Pn	16 14 16.1	-0.9
MANZ	Manzenberg	15.70	336	*e*P	Pn	16 14 15.7	-1.5
FELD	Feldberg im Sc	15.71	323	*e*P	Pn	16 14 20.4	+2.9
FELD	Feldberg im Sc	15.71	323	*e*P	Pn	16 14 20.4	+2.9
GRA1	Grafenberg Arr	15.75	334	*e*P	Pn	16 14 18.5	+0.5
	comp=Z,142nm,1.5s						
GRF	Grafenberg Arr	15.75	334	*e*P	Pn	16 14 18.5	+0.5
GRF				pmax	pmax		
	comp=Z,142nm,1.5s						
GRF				MLR	MLR		
	comp=Z,2µm,20.9s						
GRF	Grafenberg Arr	15.75	334	*e*P	Pn	16 14 18.5	+0.5
	comp=Z,142nm,1.5s						
GRF				*e*L		16 21 46.9	
	comp=Z,3µm,20.9s						
VIVF	Saint-Julien-l	15.79	309	*e*P	Pn	16 14 17.3	-1.3
	comp=Z,70nm,1.7s						
VIVF	Saint-Julien-l	15.79	309	*e*P	Pn	16 14 17.3	-1.3
VIVF				pmax	pmax		
	comp=Z,35nm,1.7s						
VIVF	Saint-Julien-l	15.79	309	*e*P	Pn	16 14 17.3	-1.3
	comp=Z,35nm,1.7s						
NKC	Novy Kostel	15.80	337	*e*P	Pn	16 14 18.7	+0.1
NKC				AMS	AMS	16 21 10.0	
	comp=Z,3µm,9.8s						
STU	Stuttgart	15.82	328	*e*P	Pn	16 14 20.8	+1.9
STU	Stuttgart	15.82	328	*e*P	Pn	16 14 20.8	+1.9
BFO	Black Forest	15.88	325	P	Pn	16 14 24.6	+4.9
BFO				pmax	pmax		
	comp=Z,21nm,1.1s						
BFO	Black Forest	15.88	325	P	Pn	16 14 24.6	+5.0
	comp=Z,21nm,1.1s						
BFO	Black Forest	15.88	325	P	Pn	16 14 24.6	+4.9
	comp=Z,21nm,1.1s						
CABF	La Chapelle	15.89	317	*e*P	Pn	16 14 18.6	-1.2
	comp=Z,26nm,1.0s						
CABF	La Chapelle	15.89	317	*e*P	Pn	16 14 18.6	-1.2
CABF				pmax	pmax		
	comp=Z,13nm,1.0s						
CABF	La Chapelle	15.89	317	*e*P	Pn	16 14 18.6	-1.2
	comp=Z,13nm,1.0s						
BRG	Berggiesshubel	15.95	341	*e*P	Pn	16 14 20.3	-0.2
BRG				pmax	pmax		
	comp=Z,11nm,1.8s						
BRG				pmax	pmax		
	comp=Z,28nm,1.7s						
BRG				pmax	pmax		
	comp=Z,20nm,1.5s						
BRG				MLR	MLR		
	comp=N,1µm,21.2s						
BRG				MLR	MLR		
	comp=E,2µm,11.0s						
BRG				MLR	MLR		
	comp=Z,2µm,18.6s						
BRG	Berggiesshubel	15.95	341	*e*P	Pn	16 14 19.7	-0.8
BRG	Berggiesshubel	15.95	341	*e*P	Pn	16 14 20.3	-0.2
	comp=Z,18nm,1.8s						
BRG				*e*		16 14 29.4	
	comp=Z,47nm,1.7s						
BRG				*e*		16 14 45.6	
	comp=Z,34nm,1.4s						
BRG							
	comp=N,2µm,21.2s						
BRG							
	comp=E,3µm,11.0s						
BRG							
	comp=Z,3µm,18.6s						
BRG	Berggiesshubel	15.95	341	*e*P	Pn	16 14 20.3	-0.2
	comp=Z,11nm,1.8s						
BRG				*e*		16 14 29.4	
BRG				*e*		16 14 45.6	
LOMF	Lomont	15.95	320	*e*P	Px	16 14 31.9	
TANN	Tannenbergstha	15.96	338	*e*P	Pn	16 14 19.4	-1.2
LASF	Ste Croix	15.97	306	*e*P	Pn	16 14 19.9	-1.0
	comp=Z,45nm,1.4s						
MOF	Molkenrain	16.12	322	*e*P	Pn	16 14 28.4	+5.6
MOF	Molkenrain	16.12	322	*e*P	Pn	16 14 28.4	+5.6
HINF	Hinteralfeld	16.24	321	*e*P	Pn	16 14 23.6	-0.7
	comp=Z,98nm,1.3s						
HINF	Hinteralfeld	16.24	321	*e*P	Pn	16 14 23.6	-0.7
HINF				pmax	pmax		
	comp=Z,49nm,1.3s						
HINF	Hinteralfeld	16.24	321	*e*P	Pn	16 14 23.6	-0.7
	comp=Z,49nm,1.3s						
HOMI	Horasan	16.29	70	*i* P	Pn	16 14 22.6	-2.4
ECH	Echery	16.36	323	*e*P	Pn	16 14 30.8	+5.0
ECH	Echery	16.36	323	*e*P	Pn	16 14 30.3	+4.5
ECH				pmax	pmax		
	comp=Z,47nm,1.5s						
ECH	Echery	16.36	323	*e*P	Pn	16 14 30.3	+4.5
	comp=Z,47nm,1.5s						
ECH	Echery	16.36	323	*e*P	Pn	16 14 30.3	+4.5
	comp=Z,47nm,1.5s						
MOX	Moxa	16.42	336	*e*P	Pn	16 14 27.7	+1.1
	comp=Z,23nm,1.3s						
MOX							
	comp=Z,2µm,17.0s						
MOX	Moxa	16.42	336	*e*P	Pn	16 14 27.7	+1.1
MOX				pmax	pmax		
	comp=Z,23nm,1.3s						
MOX				MLR	MLR		
	comp=Z,2µm,17.0s						
MOX	Moxa	16.42	336	*e*P	Pn	16 14 26.4	-0.2
MOX	Moxa	16.42	336	*e*P	Pn	16 14 27.7	+1.1
	comp=Z,23nm,1.3s						
CDF	Champ du Feu	16.44	324	*e*P	Pn	16 14 25.7	-1.1
	comp=Z,58nm,1.2s						
CDF	Champ du Feu	16.44	324	*e*P	Pn	16 14 25.7	-1.1
CDF				pmax	pmax		
	comp=Z,29nm,1.2s						
CDF	Champ du Feu	16.44	324	*e*P	Pn	16 14 25.7	-1.1
	comp=Z,29nm,1.2s						
CLL	Collm	16.59	340	*e*P	Pn	16 14 31.0	+2.3
CLL				pmax	pmax		

	comp=Z,29nm,1.6s						
CLL				MLR	MLR		
	comp=Z,2µm,18.3s						
CLL	**Collm**	**16.59**	**340**	*e*P	**Pn**	**16 14 28.4**	**-0.3**
CLL	**Collm**	**16.59**	**340**	*e*(P)	**Pn**	**16 14 31.0**	**+2.3**
	comp=Z,29nm,1.6s						
CLL				*i* PP		16 14 39.4	
	comp=Z,48nm,1.4s						
CLL				*i*		16 14 46.3	
CLL				*i*		16 14 55.1	
CLL				LmH		16 19 00.0	
	comp=N,2µm,20.3s						
CLL				LmH		16 19 00.0	
	comp=E,3µm,21.6s						
CLL				LmV		16 21 00.0	
	comp=Z,2µm,18.3s						
CLL				Lmax		16 22 00.0	
CLL	**Collm**	**16.59**	**340**	*e*P	**Pn**	**16 14 31.0**	**+2.3**
	comp=Z,29nm,1.6s						
CLL				*i*		16 14 39.4	
CLL	**Collm**	**16.59**	**340**	*e*P	**Pn**	**16 14 31.0**	**+2.3**
	comp=Z,2µm,18.3s						
TOD	**Tromm**	**16.62**	**329**	*e*P	**Pn**	**16 14 31.2**	**+2.1**
TOD	**Tromm**	**16.62**	**329**	*e*P	**Pn**	**16 14 31.2**	**+2.1**
HAU	**Haudompre**	**16.62**	**321**	*e*P	**Pn**	**16 14 29.2**	**0.0**
	comp=Z,98nm,1.2s						
HAU				*e*MLR	MLR		
	comp=Z,979nm,19.8s						
HAU	**Haudompre**	**16.62**	**321**	*e*P	**Pn**	**16 14 29.2**	**0.0**
HAU				pmax	pmax		
	comp=Z,49nm,1.2s						
HAU	**Haudompre**	**16.62**	**321**	*e*P	**Pn**	**16 14 29.2**	**0.0**
	comp=Z,49nm,1.2s						
HAU	**Haudompre**	**16.62**	**321**	*e*P	**Pn**	**16 14 29.2**	**0.0**
	comp=Z,49nm,1.2s						
MTLF	**Montolieu**	**16.81**	**302**	*e*P	**Pn**	**16 14 30.4**	**-1.1**
LBL	**Lubilhac**	**16.86**	**309**	*e*P	**Pn**	**16 14 40.3**	**+8.0**
THEF	**They Montfort**	**16.95**	**321**	*e*P	**Pn**	**16 14 37.7**	**+4.4**
EPOB	**Poblet**	**17.09**	**295**	P	**Pn**	**16 14 37.7**	**+2.5**
	comp=Z,0.3nm,0.3s						
EPOB	**Poblet**	**17.09**	**295**	P	**Pn**	**16 14 37.7**	**+2.6**
	comp=Z,0.3nm,0.3s						
UBBA	**Unterbreizbach**	**17.12**	**334**	*e*P	**Pn**	**16 14 35.2**	**-0.3**
SMF	**Signal de Mont**	**17.20**	**314**	*e*P	**Pn**	**16 14 35.1**	**-1.3**
TNS	**Taunus Mts**	**17.24**	**330**	*e*P	**Pn**	**16 14 36.3**	**-0.7**
TNS	**Taunus Mts**	**17.24**	**330**	*e*P	**Pn**	**16 14 36.3**	**-0.7**
PYM	**Petit Puy Mans**	**17.25**	**310**	*e*P	**Pn**	**16 14 38.2**	**+1.1**
PYM	**Petit Puy Mans**	**17.25**	**310**	*e*P	**Pn**	**16 14 38.2**	**+1.1**
CAF	**Calviac**	**17.49**	**307**	*e*P	**Pn**	**16 14 38.8**	**-1.3**
	comp=Z,74nm,1.4s						
CAF	**Calviac**	**17.49**	**307**	*e*P	**Pn**	**16 14 38.8**	**-1.3**
CAF				pmax	pmax		
	comp=Z,37nm,1.4s						
CAF	**Calviac**	**17.49**	**307**	*e*P	**Pn**	**16 14 38.8**	**-1.3**
	comp=Z,37nm,1.4s						
CAF	**Calviac**	**17.49**	**307**	*e*P	**Pn**	**16 14 38.8**	**-1.3**
	comp=Z,37nm,1.4s						
LOR	**Lormes**	**17.52**	**316**	*e*P	**Pn**	**16 14 39.9**	**-0.6**
	comp=Z,67nm,1.4s						
LOR				*e*MLR	MLR		
	comp=Z,1µm,17.2s						
LOR	**Lormes**	**17.52**	**316**	*e*P	**Pn**	**16 14 39.9**	**-0.6**
LOR				pmax	pmax		
	comp=Z,33nm,1.4s						
LOR	**Lormes**	**17.52**	**316**	*e*P	**Pn**	**16 14 39.9**	**-0.6**
	comp=Z,33nm,1.4s						
LOR	**Lormes**	**17.52**	**316**	*e*P	**Pn**	**16 14 39.9**	**-0.6**
	comp=Z,33nm,1.4s						
AVF	**Avril sur Loir**	**17.56**	**314**	*e*P	**Pn**	**16 14 38.9**	**-2.0**
	comp=Z,48nm,1.3s						
AVF	**Avril sur Loir**	**17.56**	**314**	*e*P	**Pn**	**16 14 38.9**	**-2.0**
AVF				pmax	pmax		
	comp=Z,24nm,1.3s						
AVF	**Avril sur Loir**	**17.56**	**314**	*e*P	**Pn**	**16 14 38.9**	**-2.0**
	comp=Z,24nm,1.3s						
ERTA	**Horta de San J**	**17.57**	**293**	P	**Pn**	**16 14 47.9**	**+6.7**
GKP	**Gorka Klasztor**	**17.59**	**351**	*e*P	**Pn**	**16 14 42.2**	**+1.0**
GKP	**Gorka Klasztor**	**17.59**	**351**	*e*P	**Pn**	**16 14 42.2**	**+0.9**
GKP	**Gorka Klasztor**	**17.59**	**351**	*e*P	**Pn**	**16 14 42.2**	**+0.9**
MEZF	**Maizieres J'vi**	**17.61**	**320**	*e*P	**Pn**	**16 14 39.3**	**-2.2**
	comp=Z,280nm,1.6s						
MEZF	**Maizieres J'vi**	**17.61**	**320**	*e*P	**Pn**	**16 14 39.3**	**-2.2**
	comp=Z,280nm,1.6s						
SSF	**Saint Saulge**	**17.61**	**315**	*e*P	**Pn**	**16 14 41.0**	**-0.6**
	comp=Z,24nm,1.0s						
SSF	**Saint Saulge**	**17.61**	**315**	*e*P	**Pn**	**16 14 41.0**	**-0.6**
SSF				pmax	pmax		
	comp=Z,12nm,1.0s						
SSF	**Saint Saulge**	**17.61**	**315**	*e*P	**Pn**	**16 14 41.0**	**-0.6**
	comp=Z,12nm,1.0s						
SSF	**Saint Saulge**	**17.61**	**315**	*e*P	**Pn**	**16 14 41.0**	**-0.6**
	comp=Z,12nm,1.0s						
BGF	**Bois d'Agland**	**17.74**	**312**	*e*P	**Pn**	**16 14 41.9**	**-1.3**
	comp=Z,57nm,1.1s						
BGF	**Bois d'Agland**	**17.74**	**312**	*e*P	**Pn**	**16 14 41.9**	**-1.3**
BGF				pmax	pmax		
	comp=Z,29nm,1.1s						
BGF	**Bois d'Agland**	**17.74**	**312**	*e*P	**Pn**	**16 14 41.9**	**-1.3**
	comp=Z,28nm,1.1s						
BGF	**Bois d'Agland**	**17.74**	**312**	*e*P	**Pn**	**16 14 41.9**	**-1.3**
	comp=Z,28nm,1.1s						
EBEN	**Beniarda**	**17.78**	**285**	P	**Pn**	**16 14 48.0**	**+4.2**
	comp=Z,5.7nm,0.6s						
KIV	**Kislovodsk**	**17.80**	**57**	P	**Pn**	**16 14 44.8**	**+0.9**
	comp=Z,453nm,0.9s,SNR=15						
KIV	**Kislovodsk**	**17.80**	**57**	*e*P	**Pn**	**16 14 43.5**	**-0.4**
KIV				*e*S	**Sn**	**16 18 01.0**	**-1.1**
KIV				pmax	pmax		
	comp=Z,90nm,1.1s						
KIV				MLR	MLR		
	comp=Z,280nm,12.0s						
KIV	**Kislovodsk**	**17.80**	**57**	*e*P	**Pn**	**16 14 43.9**	**0.0**
	comp=Z,90nm,1.0s						
KIV	**Kislovodsk**	**17.80**	**57**	P	**Pn**	**16 14 44.3**	**+0.4**
	SNR=23						
KIV				P		16 14 44.3	
	SNR=23						
KIV	**Kislovodsk**	**17.80**	**57**	P	**Pn**	**16 14 44.3**	**+0.4**
	SNR=23						
WLF	**Walferdange**	**17.84**	**325**	P	**Pn**	**16 14 48.0**	**+3.6**
	comp=Z,24nm,1.3s						
WLF	**Walferdange**	**17.84**	**325**	P	**Pn**	**16 14 47.5**	**+3.2**
WLF				pmax	pmax		
	comp=Z,64nm,1.3s						
WLF	**Walferdange**	**17.84**	**325**	P	**Pn**	**16 14 47.5**	**+3.1**
	comp=Z,64nm,1.3s						
ONI	**Oni**	**17.93**	**62**	P	**Pn**	**16 14 45.3**	**-0.3**
TCF	**Toulx Ste Croi**	**18.00**	**311**	*e*P	**Pn**	**16 14 45.9**	**-0.4**
	comp=Z,43nm,1.2s						
TCF	**Toulx Ste Croi**	**18.00**	**311**	*e*P	**Pn**	**16 14 45.9**	**-0.4**
TCF				pmax	pmax		
	comp=Z,22nm,1.2s						
TCF	**Toulx Ste Croi**	**18.00**	**311**	*e*P	**Pn**	**16 14 45.9**	**-0.4**
	comp=Z,22nm,1.2s						
TCF	**Toulx Ste Croi**	**18.00**	**311**	*e*P	**Pn**	**16 14 45.9**	**-0.4**
	comp=Z,22nm,1.2s						
RJF	**Les Rejaudoux**	**18.00**	**307**	*e*P	**Pn**	**16 14 45.7**	**-0.7**
	comp=Z,119nm,1.5s						
RJF				*e*MLR	MLR		
	comp=Z,627nm,17.0s						
RJF	**Les Rejaudoux**	**18.00**	**307**	*e*P	**Pn**	**16 14 45.7**	**-0.7**
RJF				pmax	pmax		
	comp=Z,59nm,1.5s						
RJF	**Les Rejaudoux**	**18.00**	**307**	*e*P	**Pn**	**16 14 45.7**	**-0.7**
	comp=Z,59nm,1.5s						
RJF	**Les Rejaudoux**	**18.00**	**307**	*e*P	**Pn**	**16 14 45.7**	**-0.7**
	comp=Z,59nm,1.5s						
EPF	**Esparros**	**18.02**	**300**	*e*P	**Pn**	**16 14 45.8**	**-0.9**
EPF	**Esparros**	**18.02**	**300**	*e*P	**Pn**	**16 14 45.8**	**-0.9**
SUW	**Suwalki**	**18.05**	**2**	*e*P	**Pn**	**16 14 46.2**	**-0.8**
SUW				*e*		16 14 53.0	
SUW	**Suwalki**	**18.05**	**2**	*e*P	**Pn**	**16 14 46.2**	**-0.8**
SUW				*e*		16 14 53.0	
SUW	**Suwalki**	**18.05**	**2**	*e*P	**Pn**	**16 14 46.2**	**-0.8**
EBIE	**Bielsa**	**18.07**	**298**	P	**Pn**	**16 14 49.3**	**+2.0**
	comp=Z,5.4nm,0.8s						
EBIE	**Bielsa**	**18.07**	**298**	P	**Pn**	**16 14 49.3**	**+2.0**
	comp=Z,5.4nm,0.8s						
EMOS	**Mosqueruela**	**18.10**	**291**	P	**Pn**	**16 14 54.2**	**+6.6**
	comp=Z,8.8nm,0.8s						
LFF	**La Frestale**	**18.36**	**306**	*e*P	**Pn**	**16 14 49.2**	**-1.6**
	comp=Z,145nm,1.5s						
LFF	**La Frestale**	**18.36**	**306**	*e*P	**Pn**	**16 14 49.2**	**-1.6**
LFF				pmax	pmax		
	comp=Z,73nm,1.5s						
LFF	**La Frestale**	**18.36**	**306**	*e*P	**Pn**	**16 14 49.2**	**-1.6**
	comp=Z,73nm,1.5s						
LFF	**La Frestale**	**18.36**	**306**	*e*P	**Pn**	**16 14 49.2**	**-1.6**
	comp=Z,73nm,1.5s						
ECHE	**Chera**	**18.40**	**288**	P	**Pn**	**16 14 56.7**	**+5.4**
	comp=Z,6.5nm,0.8s						
GNI	**Garni**	**18.46**	**70**	P	**Pn**	**16 14 51.0**	**-1.1**
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI	**Garni**	**18.46**	**70**	P	**Pn**	**16 14 51.0**	**-1.2**
	comp=Z,0.9nm,0.3s,baz=311,slow=2.2,SNR=40						
GNI	**Garni**	**18.46**	**70**	*e*P	**Pn**	**16 14 50.8**	**-1.3**
	comp=Z,80nm,0.9s						
GNI	**Garni**	**18.46**	**70**	P	**Pn**	**16 14 51.5**	**-0.7**
	SNR=20						
GNI				P		16 14 51.5	
	SNR=20						
GNI	**Garni**	**18.46**	**70**	P	**Pn**	**16 14 51.5**	**-0.6**
	SNR=20						
NRDL	**Niedersach Rie**	**18.50**	**337**	*e*P	**Pn**	**16 14 50.4**	**-2.0**
ETSF	**Etsaut**	**18.63**	**299**	*e*P	**Pn**	**16 14 53.4**	**-0.7**
	comp=Z,25nm,0.9s						
ETSF	**Etsaut**	**18.63**	**299**	*e*P	**Pn**	**16 14 53.4**	**-0.7**
ETSF				pmax	pmax		
	comp=Z,13nm,0.9s						
ETSF	**Etsaut**	**18.63**	**299**	*e*P	**Pn**	**16 14 53.4**	**-0.7**
	comp=Z,13nm,0.9s						
ETSF	**Etsaut**	**18.63**	**299**	*e*P	**Pn**	**16 14 53.4**	**-0.7**
	comp=Z,13nm,0.9s						
BUG	**Bochum--Univer**	**18.66**	**330**	*e*P	**Pn**	**16 14 55.4**	**+1.0**
TBLG	**Delisi**	**18.68**	**65**	P	**Pn**	**16 14 54.3**	**-0.5**
TBLG	**Delisi**	**18.68**	**65**	P	**Pn**	**16 14 54.3**	**-0.5**
MTA	**Mtatsminda**	**18.72**	**65**	P	**Pn**	**16 14 54.6**	**-0.6**
BCLA	**Clavier**	**18.76**	**325**	P	**Pn**	**16 14 57.3**	**+1.7**
GIVF	**Givet**	**18.77**	**324**	*e*P	**Pn**	**16 14 56.1**	**+0.4**
	comp=Z,84nm,0.9s						
GIVF	**Givet**	**18.77**	**324**	*e*P	**Pn**	**16 14 56.1**	**+0.4**
GIVF				pmax	pmax		
	comp=Z,42nm,0.9s						
GIVF	**Givet**	**18.77**	**324**	*e*P	**Pn**	**16 14 56.1**	**+0.4**
	comp=Z,42nm,0.9s						
GIVF	**Givet**	**18.77**	**324**	*e*P	**Pn**	**16 14 56.1**	**+0.4**
	comp=Z,42nm,0.9s						
DOU	**Dourbes**	**18.87**	**324**	P	**Pn**	**16 14 57.2**	**+0.2**
	comp=Z,25nm,1.9s						
MNK	**Minsk**	**18.97**	**11**	*e*P	**Pn**	**16 14 52.0**	**-6.2**
MICGM	**Minsk**	**18.98**	**11**	*e*P	**Pn**	**16 14 52.0**	**-6.3**
BAIF	**Baives**	**19.03**	**323**	*e*P	**Pn**	**16 14 58.6**	**-0.3**
	comp=Z,40nm,1.0s						
BAIF	**Baives**	**19.03**	**323**	*e*P	**Pn**	**16 14 58.6**	**-0.3**
BAIF				pmax	pmax		
	comp=Z,20nm,1.0s						
BAIF	**Baives**	**19.03**	**323**	*e*P	**Pn**	**16 14 58.6**	**-0.3**
	comp=Z,20nm,1.0s						
BAIF	**Baives**	**19.03**	**323**	*e*P	**Pn**	**16 14 58.6**	**-0.3**
	comp=Z,20nm,1.0s						
SJPF	**Ste Jean**	**19.15**	**299**	*e*P	**Pn**	**16 14 57.6**	**-2.8**
	comp=Z,46nm,0.9s						
SJPF	**Ste Jean**	**19.15**	**299**	*e*P	**Pn**	**16 14 57.6**	**-2.8**
SJPF				pmax	pmax		
	comp=Z,23nm,0.9s						
SJPF	**Ste Jean**	**19.15**	**299**	*e*P	**Pn**	**16 14 57.6**	**-2.8**
	comp=Z,23nm,0.9s						
SJPF	**Ste Jean**	**19.15**	**299**	*e*P	**Pn**	**16 14 57.6**	**-2.8**
	comp=Z,23nm,0.9s						
SNF	**Seneffe**	**19.30**	**324**	P	**Pn**	**16 15 00.3**	**-1.8**
TAM	**Tamanrasset**	**19.35**	**232**	*e*P	**Pn**	**16 15 06.6**	**+3.7**
TAM				pmax	pmax		
	comp=Z,18nm,1.3s						
TAM	**Tamanrasset**	**19.35**	**232**	*e*P	**Pn**	**16 15 06.6**	**+3.7**
	comp=Z,18nm,1.3s						
EALK	**Alkurruntz**	**19.38**	**299**	P	**Pn**	**16 15 06.0**	**+2.9**
	comp=Z,5.6nm,0.6s						
ELIZ	**Elizondo**	**19.38**	**299**	P	**Pn**	**16 15 06.0**	**+2.8**
ELIZ				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ELIZ	**Elizondo**	**19.38**	**299**	P	**Pn**	**16 15 06.0**	**+2.8**
	comp=Z,5.7nm,0.6s						
UCC	**Uccle**	**19.45**	**325**	P	**Pn**	**16 15 04.5**	**+0.5**
MFF	**Saint Martin d**	**19.59**	**310**	*e*P	**Pn**	**16 15 04.7**	**-1.0**
	comp=Z,47nm,1.1s						
MFF	**Saint Martin d**	**19.59**	**310**	*e*P	**Pn**	**16 15 04.7**	**-1.0**
MFF				pmax	pmax		
	comp=Z,24nm,1.1s						
MFF	**Saint Martin d**	**19.59**	**310**	*e*P	**Pn**	**16 15 04.7**	**-1.0**
	comp=Z,24nm,1.1s						
MFF	**Saint Martin d**	**19.59**	**310**	*e*P	**Pn**	**16 15 04.7**	**-1.0**
	comp=Z,24nm,1.1s						
VSR	**Storozhevoye**	**19.64**	**34**	*e*P	**Pn**	**16 15 03.1**	**-3.1**
VSR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
VSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
VSR				MLR	MLR		
	comp=Z,1µm,13.0s						
VSR				MLR	MLR		
	comp=N,900nm,18.0s						
VSR				MLR	MLR		
	comp=E,1µm,16.0s						
VSR	**Storozhevoye**	**19.64**	**34**	*e*P	**Pn**	**16 15 03.1**	**-3.1**
	comp=E,900nm,18.0s						
EHUE	**Huescar**	**19.64**	**283**	P	**Pn**	**16 15 08.7**	**+2.3**
EHUE				pmax	pmax		
	comp=Z,21nm,1.4s						
EHUE	**Huescar**	**19.64**	**283**	P	**Pn**	**16 15 08.7**	**+2.4**
	comp=Z,21nm,1.4s						
BSEG	**Bad Segeberg**	**19.68**	**339**	*e*P	**Pn**	**16 15 04.7**	**-2.0**
BSEG				pmax	pmax		
	comp=Z,94nm,1.7s						
BSEG	**Bad Segeberg**	**19.68**	**339**	*e*P	**Pn**	**16 15 04.7**	**-2.0**
	comp=Z,94nm,1.7s						
BSEG	**Bad Segeberg**	**19.68**	**339**	*e*P	**Pn**	**16 15 04.7**	**-2.0**
	comp=Z,94nm,1.7s						
BSD	**Bornholm Skovb**	**19.73**	**348**	*e*P	**Pn**	**16 15 11.1**	**+3.9**
BSD				pmax	pmax		
	comp=Z,36nm,0.8s						
BSD	**Bornholm Skovb**	**19.73**	**348**	*i* P	**Pn**	**16 15 11.1**	**+3.9**
	comp=Z,36nm,0.8s						
BSD	**Bornholm Skovb**	**19.73**	**348**	*e*P	**Pn**	**16 15 11.1**	**+3.9**
	comp=Z,36nm,0.8s						
EBER	**Berja**	**19.94**	**280**	P	**Pn**	**16 15 15.1**	**+5.3**
	comp=Z,8.8nm,0.8s						
VOR	**Voronezh**	**20.02**	**33**	*e*P	**P**	**16 15 08.0**	**-0.9**
VOR				*e*S	**S**	**16 18 42.0**	**-12**
VOR				pmax	pmax		
	comp=Z,150nm,1.0s						
VOR	**Voronezh**	**20.02**	**33**	*e*P	**P**	**16 15 08.0**	**-0.9**
	comp=Z,150nm,1.0s						
EQES	**Quesada**	**20.02**	**283**	P	**P**	**16 15 13.3**	**+4.1**
	comp=Z,4.4nm,0.7s						
ECOG	**Cogollos-Vega**	**20.45**	**281**	P	**P**	**16 15 21.8**	**+8.1**
	comp=Z,2.4nm,0.3s						
EGUA	**Guajares**	**20.48**	**280**	P	**P**	**16 15 20.2**	**+6.1**
EGUA				pmax	pmax		
	comp=Z,65nm,0.9s						
EGUA	**Guajares**	**20.48**	**280**	P	**P**	**16 15 20.2**	**+6.0**
	comp=Z,65nm,0.9s						
LDF	**La Druitiere**	**20.50**	**315**	*e*P	**P**	**16 15 14.2**	**0.0**
	comp=Z,54nm,0.9s						
LDF	**La Druitiere**	**20.50**	**315**	*e*P	**P**	**16 15 14.2**	**0.0**
LDF				pmax	pmax		
	comp=Z,27nm,0.9s						
LDF	**La Druitiere**	**20.50**	**315**	*e*P	**P**	**16 15 14.2**	**0.0**
	comp=Z,27nm,0.9s						
LDF	**La Druitiere**	**20.50**	**315**	*e*P	**P**	**16 15 14.2**	**0.0**
	comp=Z,27nm,0.9s						
EBAN	**Banos Encina**	**20.58**	**284**	P	**P**	**16 15 21.0**	**+5.9**
EBAN				pmax	pmax		
	comp=Z,4.0nm,0.4s						
EBAN	**Banos Encina**	**20.58**	**284**	P	**P**	**16 15 21.0**	**+5.9**
	comp=Z,3.5nm,0.4s						
VRHR	**Novokhopersk**	**20.71**	**37**	*e*P	**P**	**16 15 15.8**	**-0.7**
VRHR				pmax	pmax		
	comp=Z,40nm,0.5s						
VRHR				pmax	pmax		
	comp=N,20nm,0.8s						
VRHR	**Novokhopersk**	**20.71**	**37**	*e*P	**P**	**16 15 15.8**	**-0.7**
	comp=N,20nm,0.8s						
ESDC	**Sonseca Array**	**20.72**	**288**	P	**P**	**16 15 17.4**	**+0.8**
	comp=N,3.9nm,0.7s,baz=86,slow=9.3,SNR=9.1						
ESDC	**Sonseca Array**	**20.72**	**288**	P	**P**	**16 15 19.8**	**+3.1**
	comp=N,10.0nm,2.2s						
ELAN	**Lanestosa**	**20.75**	**298**	P	**P**	**16 15 18.1**	**+1.1**
	comp=N,48nm,1.3s						
ELAN	**Lanestosa**	**20.75**	**298**	P	**P**	**16 15 18.1**	**+1.1**
	comp=N,48nm,1.3s						
FLN	**La Foliniere**	**20.79**	**315**	*e*P	**P**	**16 15 17.1**	**-0.2**
	comp=N,65nm,0.9s						
FLN				*e*MLR	MLR		
	comp=Z,680nm,23.0s,MS3.7						
FLN	**La Foliniere**	**20.79**	**315**	*e*P	**P**	**16 15 17.1**	**-0.2**
FLN				pmax	pmax		
	comp=Z,32nm,0.9s						
FLN				MLR	MLR		
	comp=Z,680nm,23.0s,MS4.0						
FLN	**La Foliniere**	**20.79**	**315**	*e*P	**P**	**16 15 17.1**	**-0.2**
	comp=Z,32nm,0.9s						
FLN				LR	LR		
	comp=Z,680nm,23.0s,MS4.0						
FLN	**La Foliniere**	**20.79**	**315**	*e*P	**P**	**16 15 17.1**	**-0.2**
	comp=Z,32nm,0.9s						
GRR	**Gorron**	**20.82**	**314**	*e*P	**P**	**16 15 17.5**	**-0.2**
	comp=Z,64nm,1.1s						
GRR	**Gorron**	**20.82**	**314**	*e*P	**P**	**16 15 17.5**	**-0.2**
GRR				pmax	pmax		
	comp=Z,32nm,1.1s						
GRR	**Gorron**	**20.82**	**314**	*e*P	**P**	**16 15 17.5**	**-0.2**
	comp=Z,32nm,1.1s						
GRR	**Gorron**	**20.82**	**314**	*e*P	**P**	**16 15 17.5**	**-0.2**
	comp=Z,32nm,1.1s						
MAK	**Makhachkala**	**20.93**	**63**	*e*P	**P**	**16 15 16.2**	**-2.7**
MAK				*e*		16 15 37.7	
MAK				*e*S	**S**	**16 19 07.8**	**-4.2**
MAK				*e*SS		16 19 32.3	
MAK				*e*SSS		16 19 43.8	
MAK				pmax	pmax		
	comp=Z,432nm,1.5s						
MAK				MLR	MLR		
	comp=Z,635nm,15.0s,MS4.1						
PAB	**San Pablo**	**21.01**	**288**	*e*P	**P**	**16 15 20.9**	**+1.1**
PAB				pmax	pmax		
	comp=Z,24nm,1.0s,mb4.5						
PAB	**San Pablo**	**21.01**	**288**	*e*P	**P**	**16 15 20.9**	**+1.1**
	comp=Z,24nm,1.0s,mb4.5						
PAB	**San Pablo**	**21.01**	**288**	*e*P	**P**	**16 15 20.9**	**+1.1**
	comp=Z,24nm,1.0s,mb4.5						
EADA	**Adamuz**	**21.20**	**284**	P	**P**	**16 15 23.9**	**+2.1**
	comp=Z,5.6nm,0.7s,mb4.0						
EMIJ	**Mijas**	**21.48**	**279**	P	**P**	**16 15 24.4**	**-0.5**
	comp=Z,4.1nm,0.7s,mb3.9						
EMIJ	**Mijas**	**21.48**	**279**	P	**P**	**16 15 24.4**	**-0.4**
	comp=Z,4.1nm,0.7s,mb3.9						
OBN	**Obninsk**	**21.64**	**23⇓**	*e*P	**P**	**16 15 24.0**	**-2.4**
OBN				*i* S	**S**	**16 19 18.4**	**-7.3**
OBN				pmax	pmax		
	comp=Z,174nm,1.2s,mb5.4						
OBN				MLR	MLR		
	comp=Z,300nm,13.0s,MS3.9						
OBN	**Obninsk**	**21.64**	**23**	*e*P	**P**	**16 15 23.8**	**-2.6**
	comp=Z,137nm,1.1s,mb5.3						
SGMF	**Saint Gilles**	**21.78**	**312**	*e*P	**P**	**16 15 27.4**	**-0.6**
	comp=Z,97nm,1.4s,mb4.8						
SGMF	**Saint Gilles**	**21.78**	**312**	*e*P	**P**	**16 15 27.4**	**-0.6**
SGMF				pmax	pmax		
	comp=Z,49nm,1.4s,mb4.7						
SGMF	**Saint Gilles**	**21.78**	**312**	*e*P	**P**	**16 15 27.4**	**-0.6**
	comp=Z,48nm,1.4s,mb4.7						
SGMF	**Saint Gilles**	**21.78**	**312**	*e*P	**P**	**16 15 27.4**	**-0.6**
	comp=Z,48nm,1.4s,mb4.8						
ECAB	**El Cabril**	**21.87**	**284**	P	**P**	**16 15 31.5**	**+2.5**
	comp=Z,20nm,1.1s,mb4.5						
QUIF	**Quistinic**	**22.01**	**311**	*e*P	**P**	**16 15 29.8**	**-0.7**
	comp=Z,194nm,1.4s,mb5.0						
QUIF	**Quistinic**	**22.01**	**311**	*e*P	**P**	**16 15 29.8**	**-0.7**
QUIF				pmax	pmax		
	comp=Z,97nm,1.4s,mb5.0						
QUIF	**Quistinic**	**22.01**	**311**	*e*P	**P**	**16 15 29.8**	**-0.7**
	comp=Z,97nm,1.4s,mb5.0						
QUIF	**Quistinic**	**22.01**	**311**	*e*P	**P**	**16 15 29.8**	**-0.7**
	comp=Z,97nm,1.4s,mb5.0						
MDT	**Midelt**	**22.06**	**269**	P	**P**	**16 15 32.1**	**+1.0**
	comp=Z,2.5nm,0.8s,baz=96,slow=7.0,SNR=5.6						
MDT				LR	LR	16 25 47.0	
	comp=Z,521nm,20.2s,MS3.9,baz=85,slow=41						
MDT	**Midelt**	**22.06**	**269**	P	**P**	**16 15 32.1**	**+0.9**
MUD	**Monsted U'grnd**	**22.21**	**341**	*i* P	**P**	**16 15 33.7**	**+1.2**
MUD				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.6						
MUD	**Monsted U'grnd**	**22.21**	**341**	*i* P	**P**	**16 15 33.7**	**+1.2**
	comp=Z,23nm,0.9s,mb4.6						
MUD	**Monsted U'grnd**	**22.21**	**341**	*i* P	**P**	**16 15 33.7**	**+1.2**
	comp=Z,23nm,0.9s,mb4.6						
MIB	**Mutribah**	**22.22**	**99**	*e*P	**P**	**16 15 31.9**	**-1.0**
MIB				AMb	AMB	16 15 33.2	
	comp=Z,557nm,0.9s,mb6.0						
ROSF	**Rostrenen**	**22.25**	**311**	*e*P	**P**	**16 15 33.1**	**+0.1**
	comp=Z,191nm,1.4s,mb5.0						
ROSF	**Rostrenen**	**22.25**	**311**	*e*P	**P**	**16 15 33.1**	**+0.1**
ROSF				pmax	pmax		
	comp=Z,95nm,1.4s,mb5.0						
ROSF	**Rostrenen**	**22.25**	**311**	*e*P	**P**	**16 15 33.1**	**+0.1**
	comp=Z,95nm,1.4s,mb5.0						
ROSF	**Rostrenen**	**22.25**	**311**	*e*P	**P**	**16 15 33.1**	**+0.1**
	comp=Z,95nm,1.4s,mb5.0						
NAY	**Al-Naaiem**	**22.36**	**100**	*e*P	**P**	**16 15 33.2**	**-1.1**
NAY				AMb	AMB	16 15 35.5	
	comp=Z,265nm,1.0s,mb5.6						
MOS	**Moscow**	**22.50**	**24**	*e*P	**P**	**16 15 32.3**	**-3.3**
MOS				*e*		16 15 45.6	
MOS				*e*PPP		16 16 01.1	
MOS				*e*S	**S**	**16 19 32.6**	**-10**
MOS				*i*		16 19 49.3	
MOS				pmax	pmax		
	comp=Z,219nm,1.1s,mb5.5						
MOS				pmax	pmax		
	comp=Z,400nm,1.4s,mb5.7						
UMR	**Umm Al-Rimmam**	**22.62**	**99**	*e*P	**P**	**16 15 35.8**	**-1.3**
UMR				AMb	AMB	16 15 38.2	
	comp=Z,617nm,1.1s,mb6.0						
VSU	**Vasula**	**22.72**	**7**	*e*P	**P**	**16 15 34.0**	**-3.9**
RDF	**Al-Radifah**	**22.74**	**101**	*e*P	**P**	**16 15 37.1**	**-1.3**
RDF				AMb	AMB	16 15 39.5	
	comp=Z,156nm,1.1s,mb5.3						
EMIN	**Mina Concepcio**	**22.88**	**283**	P	**P**	**16 15 41.0**	**+1.2**
	comp=Z,4.4nm,0.8s,mb3.9						
EMIN	**Mina Concepcio**	**22.88**	**283**	P	**P**	**16 15 41.0**	**+1.2**
	comp=Z,4.4nm,0.8s,mb3.9						
ECAL	**Calabor**	**22.97**	**294**	P	**P**	**16 15 40.7**	**0.0**
	comp=Z,6.9nm,0.9s,mb4.1						
ECAL	**Calabor**	**22.97**	**294**	P	**P**	**16 15 40.7**	**0.0**
	comp=Z,6.9nm,0.9s,mb4.1						
EBAD	**Badajoz**	**23.09**	**286**	P	**P**	**16 15 41.3**	**-0.7**
	comp=Z,18nm,1.0s,mb4.4						
EBAD	**Badajoz**	**23.09**	**286**	P	**P**	**16 15 41.3**	**-0.7**
	comp=Z,18nm,1.0s,mb4.4						
MVO	**Moncorvo**	**23.13**	**292**	*e*P	**P**	**16 15 42.4**	**0.0**
	comp=Z,35nm,1.2s,mb4.7						
MVO	**Moncorvo**	**23.13**	**292**	*e*P	**P**	**16 15 42.4**	**0.0**
	comp=Z,35nm,1.2s,mb4.7						
PMRV	**Marv??o**	**23.36**	**287**	*e*P	**P**	**16 15 44.9**	**0.0**
	comp=Z,27nm,1.4s,mb4.5						
PMRV	**Marv??o**	**23.36**	**287**	*e*P	**P**	**16 15 44.9**	**0.0**
	comp=Z,27nm,1.4s,mb4.5						
PCBR	**Castelo Branco**	**23.43**	**288**	*e*P	**P**	**16 15 46.3**	**+0.7**
	comp=Z,28nm,1.6s,mb4.4						
MTE	**Manteigas**	**23.49**	**290**	*e*P	**P**	**16 15 45.5**	**-0.7**
MTE	**Manteigas**	**23.49**	**290**	*e*P	**P**	**16 15 45.5**	**-0.7**
PESTR	**Estremoz**	**23.53**	**286**	*e*P	**P**	**16 15 47.4**	**+0.7**
	comp=Z,27nm,1.4s,mb4.5						
EGRO	**El Granado**	**23.54**	**283**	P	**P**	**16 15 46.7**	**0.0**
	comp=Z,7.6nm,0.7s,mb4.2						
PVAQ	**Vaqueiros**	**23.73**	**282**	*e*P	**P**	**16 15 49.6**	**+1.1**
	comp=Z,51nm,1.6s,mb4.7						
PBEJ	**Beja**	**23.80**	**284**	*e*P	**P**	**16 15 50.4**	**+1.3**
	comp=Z,62nm,1.8s,mb4.7						
PBDV	**Barranco-do-Ve**	**23.92**	**282**	*e*P	**P**	**16 15 51.9**	**+1.7**
	comp=Z,62nm,2.1s,mb4.7						
HFS	**Hagfors**	**24.74**	**350**	P	**P**	**16 15 55.5**	**-2.0**
	comp=Z,5.0nm,0.4s,mb4.4,baz=152,slow=9.9,SNR=14						
FINES	**FINESS Array B**	**25.62**	**5**	P	**P**	**16 16 04.0**	**-1.5**
	comp=Z,12nm,0.8s,mb4.5,baz=166,slow=8.8,SNR=15						
FINES				LR	LR	16 27 10.8	
	comp=Z,540nm,18.3s,MS4.1,baz=187,slow=39						
EKA	**Eskdalemuir Ar**	**25.85**	**326**	P	**P**	**16 16 07.8**	**+0.2**
	comp=Z,6.9nm,0.6s,mb4.4,baz=127,slow=9.1,SNR=10						
NB2	**NORSAR Subarra**	**25.98**	**348**	P	**P**	**16 16 07.6**	**-1.1**
	comp=Z,0.5nm,0.5s,baz=157,slow=10						
NOA	**NORSAR Array B**	**25.98**	**348**	P	**P**	**16 16 06.6**	**-2.1**
	comp=Z,8.2nm,0.9s,mb4.2,baz=160,slow=9.2,SNR=9.8						
KAF	**Kangasniemi**	**26.30**	**5**	*e*P	**P**	**16 16 07.9**	**-3.7**
KAF				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.6						
KAF	**Kangasniemi**	**26.30**	**5**	*e*p	**P**	**16 16 07.9**	**-3.7**

	comp=Z,15nm,0.8s,mb4.6						
KLMR	**Klimovskoe**	**27.32**	**19**	⇑*i*P	**P**	**16 16 21.1**	**+0.3**
KLMR				pmax	pmax		
	comp=Z,101nm,1.5s,mb5.1						
JOF	**Joensuu**	**27.59**	**9**	*e*p	**P**	**16 16 23.1**	**-0.1**
	comp=Z,4.4nm,0.5s,mb4.3						
TORD	**Torodi Ar. Bea**	**29.10**	**224**	P	**P**	**16 16 38.4**	**+1.3**
	comp=Z,8.6nm,0.7s,mb4.6,baz=32,slow=9.2,SNR=65						
TORD				PcP	PcP	16 19 45.2	+0.2
	comp=Z,2.9nm,1.0s,baz=32,slow=5.4,SNR=4.2						
TORD				LR	LR	16 30 12.7	
	comp=Z,1µm,18.1s,MS4.5,baz=40,slow=40						
TORD	**Torodi Ar. Bea**	**29.10**	**224**	P	**P**	**16 16 38.4**	**+1.3**
TORD				PcP	PcP	16 19 45.2	+0.2
TORD				LR	LR	16 30 12.8	
PRGR	**Permogore**	**29.72**	**23**	*e*P	**P**	**16 16 37.2**	**-5.0**
PRGR				*e*S	**S**	**16 21 30.7**	**-7.1**
PRGR				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.0						
NAZ	**Nazwa, Dubai**	**30.96**	**101**	P	**P**	**16 16 53.9**	**+0.4**
	SNR=6.8						
NAZ	**Nazwa, Dubai**	**30.96**	**101**	P	**P**	**16 16 53.9**	**+0.3**
	SNR=6.8						
FAQ	**Al Faqa, Dubai**	**31.03**	**102**	P	**P**	**16 16 54.0**	**-0.1**
	SNR=7.6						
BANOM	**Banah**	**31.04**	**99**	P	**P**	**16 16 54.3**	**+0.1**
	SNR=11						
BANOM	**Banah**	**31.04**	**99**	P	**P**	**16 16 53.7**	**-0.5**
	SNR=17						
HATD	**Hatta, Dubai**	**31.42**	**101**	P	**P**	**16 16 57.9**	**+0.3**
	SNR=17						
HATD	**Hatta, Dubai**	**31.42**	**101**	P	**P**	**16 16 57.0**	**-0.6**
	SNR=6.7						
ARU	**Arti**	**32.04**	**39**	P	**P**	**16 17 00.2**	**-2.5**
	comp=Z,139nm,1.5s,mb5.6,SNR=8.4						
ARU	**Arti**	**32.04**	**39**	*d i*P	**P**	**16 17 00.9**	**-1.8**
ARU				S	**S**	**16 22 12.4**	**-1.8**
ARU				SS	SS	16 23 54.8	-37
ARU				pmax	pmax		
	comp=Z,51nm,1.7s,mb5.1						
ARU	**Arti**	**32.04**	**39**	*e*P	**P**	**16 17 00.1**	**-2.5**
	comp=Z,34nm,1.1s,mb5.1						
ARU	**Arti**	**32.04**	**39**	*i* P	**P**	**16 17 00.9**	**-1.8**
	comp=Z,51nm,1.7s,mb5.1						
APA	**Apatity**	**32.31**	**8**	⇑*e*P	Px	16 17 21.2	
APA				pmax	pmax		
	comp=Z,65nm,0.6s,mb5.6						
APA				MLR	MLR		
	comp=Z,1µm,11.0s,MS4.9						
ARQ	**Araqi**	**32.46**	**103**	P	**P**	**16 17 07.3**	**+0.5**
	SNR=13						
ARQ	**Araqi**	**32.46**	**103**	P	**P**	**16 17 07.3**	**+0.5**
	SNR=13						
SOKR	**Solikamsk**	**32.65**	**33**	⇑*i*P	**P**	**16 17 07.7**	**-0.2**
SOKR				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
SOKR	**Solikamsk**	**32.65**	**33**	*i* P	**P**	**16 17 07.7**	**-0.2**
	comp=Z,50nm,1.1s,mb5.4						
HOQ	**Hoqain**	**32.96**	**102**	P	**P**	**16 17 10.8**	**-0.3**
	SNR=15						
HOQ	**Hoqain**	**32.96**	**102**	P	**P**	**16 17 10.9**	**-0.2**
	SNR=15						
SVE	**Sverdlovsk**	**33.25**	**39**	⇑*e*P	**P**	**16 17 11.5**	**-1.7**
SVE				*e*S	**S**	**16 22 27.5**	**-5.5**
SVE				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.4						
SVE				MLR	MLR		
	comp=Z,650nm,13.0s,MS4.5						
SVE	**Sverdlovsk**	**33.25**	**39**	*e*P	**P**	**16 17 11.5**	**-1.7**
	comp=Z,54nm,1.1s,mb5.4						
BSY	**Bisya**	**33.30**	**104**	P	**P**	**16 17 13.9**	**-0.2**
	SNR=12						
BSYO	**Bisya**	**33.34**	**104**	P	**P**	**16 17 13.9**	**-0.6**
	SNR=12						
WHFO	**Wadi Hawf**	**33.43**	**114**	P	**P**	**16 17 15.8**	**+0.5**
	SNR=5.2						
WHFO	**Wadi Hawf**	**33.43**	**114**	P	**P**	**16 17 15.8**	**+0.5**
	SNR=5.2						
ABTO	**Aybut**	**33.44**	**115**	P	**P**	**16 17 16.4**	**+1.1**
	SNR=11						
ABTO	**Aybut**	**33.44**	**115**	P	**P**	**16 17 16.5**	**+1.2**
	SNR=11						
ARCES	**ARCESS Array B**	**33.67**	**2**	P	**P**	**16 17 15.2**	**-1.6**
ARCES						16 18 28.7	
ARCES	**ARCESS Array B**	**33.67**	**2**	P	**P**	**16 17 15.2**	**-1.6**
	comp=Z,14nm,0.8s,mb4.9,baz=186,slow=8.5,SNR=30						
ARCES				PP	PP	16 18 28.6	-4.2
	comp=Z,6.3nm,0.9s,baz=178,slow=13,SNR=5.4						
ARCES				LR	LR	16 31 52.1	
	comp=Z,520nm,18.4s,MS4.3,baz=183,slow=38						
ARCES	**ARCESS Array B**	**33.67**	**2**	P	**P**	**16 17 15.2**	**-1.6**
SMDO	**Samad**	**33.81**	**102**	P	**P**	**16 17 18.6**	**+0.1**
	SNR=14						
SMDO	**Samad**	**33.81**	**102**	P	**P**	**16 17 18.6**	**0.0**
	SNR=14						
KEV	**Kevo**	**33.95**	**3**	*e*P	**P**	**16 17 16.4**	**-2.8**
KEV				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
KEV	**Kevo**	**33.95**	**3**	*e*p	**P**	**16 17 16.4**	**-2.8**
	comp=Z,11nm,0.9s,mb4.8						
RBK	**Rabkut**	**34.02**	**114**	P	**P**	**16 17 21.3**	**+0.9**
	SNR=14						
RBK	**Rabkut**	**34.02**	**114**	P	**P**	**16 17 21.3**	**+1.0**
	SNR=14						
JMDO	**Jabal Madar**	**34.21**	**103**	P	**P**	**16 17 21.8**	**-0.2**
	SNR=9.4						
JMDO	**Jabal Madar**	**34.21**	**103**	P	**P**	**16 17 21.8**	**-0.2**
	SNR=9.4						
WBK	**Wadi Bani Khal**	**34.77**	**102**	P	**P**	**16 17 27.6**	**+0.7**
	SNR=14						
BRVK	**Borovoye**	**37.69**	**48**	P	**P**	**16 17 50.5**	**-1.0**
	comp=Z,99nm,0.7s,mb5.7,SNR=5.6						
BRVK	**Borovoye**	**37.69**	**48**	*e*P	**P**	**16 17 49.7**	**-1.8**
BRVK				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
BRVK	**Borovoye**	**37.69**	**48**	*e*P	**P**	**16 17 49.7**	**-1.8**
	comp=Z,18nm,0.9s,mb4.8						
BRVK	**Borovoye**	**37.69**	**48**	P	**P**	**16 17 50.5**	**-1.0**
	SNR=8.7						
BRVK				P		16 17 50.5	
	SNR=8.7						
BRVK	**Borovoye**	**37.69**	**48**	P	**P**	**16 17 50.5**	**-1.0**
	SNR=8.7						
BVAR	**Borovoye Array**	**37.75**	**48**	LR	LR	16 35 29.1	
	comp=Z,341nm,18.8s,MS4.2,baz=257,slow=40						
DBIC	**Dimbokro**	**38.09**	**226**	P	**P**	**16 17 56.4**	**+1.1**
DBIC						16 20 11.6	
DBIC	**Dimbokro**	**38.09**	**226**	P	**P**	**16 17 56.4**	**+1.1**
	comp=Z,20nm,0.9s,mb4.8,baz=21,slow=10,SNR=21						
DBIC				PcP	PcP	16 20 11.6	+1.2
	comp=Z,7.1nm,0.9s,baz=143,slow=2.7,SNR=3.2						
DBIC				LR	LR	16 35 41.4	
	comp=Z,524nm,19.1s,MS4.4,baz=14,slow=39						
DBIC	**Dimbokro**	**38.09**	**226**	P	**P**	**16 17 56.4**	**+1.1**
KBL	**Kabul**	**38.25**	**78**	*e*P	**P**	**16 17 55.7**	**-0.7**
KBL	**Kabul**	**38.25**	**78**	*e*P	**P**	**16 17 55.7**	**-0.7**
LIC	**Lamto**	**38.55**	**226**	*e*P	**P**	**16 17 59.9**	**+0.8**
	comp=Z,14nm,0.4s,mb4.8						
LIC				*e*MLR	MLR		
	comp=Z,744nm,18.2s,MS4.2						
LIC	**Lamto**	**38.55**	**226**	*e*P	**P**	**16 17 59.9**	**+0.8**
	comp=Z,6.8nm,0.4s,mb4.7						
LIC				LR	LR		
	comp=Z,370nm,18.3s,MS4.2						
LIC	**Lamto**	**38.55**	**226**	*e*P	**P**	**16 17 59.9**	**+0.8**
	comp=Z,6.8nm,0.4s,mb4.8						
JMIC	**Jan Mayen**	**38.56**	**345**	LR	LR	16 32 38.3	
	comp=Z,377nm,18.0s,MS4.2,baz=76,slow=34						
KMBO	**Kilima Mbogo**	**39.60**	**155**	P	**P**	**16 18 10.8**	**+2.9**
	comp=Z,7.1nm,1.1s,mb4.3,baz=344,slow=7.4,SNR=8.6						
KMBO				LR	LR	16 36 12.1	
	comp=Z,365nm,18.2s,MS4.2,baz=99,slow=39						
EKS2	**Erkin-Say**	**40.17**	**64**	P	**P**	**16 18 11.9**	**-0.5**
	SNR=27						
EKS2	**Erkin-Say**	**40.17**	**64**	*e*P	**P**	**16 18 11.8**	**-0.7**
	comp=Z,37nm,1.1s,mb5.0						
EKS2	**Erkin-Say**	**40.17**	**64**	*e*P	**P**	**16 18 11.8**	**-0.6**
	comp=Z,37nm,1.1s,mb5.0						
AML	**Almayashu**	**40.19**	**65**	P	**P**	**16 18 12.4**	**-0.2**
	SNR=7.8						
AML	**Almayashu**	**40.19**	**65**	P	**P**	**16 18 11.7**	**-0.9**
	SNR=7.9						
USP	**Ospenovka**	**40.61**	**63**	P	**P**	**16 18 14.5**	**-1.6**
	SNR=8.1						
AAK	**Ala-Archa**	**40.70**	**64**	P	**P**	**16 18 16.3**	**-0.5**
	comp=Z,128nm,1.0s,mb5.5,SNR=13						
AAK	**Ala-Archa**	**40.70**	**64**	⇑*e*P	**P**	**16 18 16.1**	**-0.7**
AAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**40.70**	**64**	P	**P**	**16 18 16.8**	**0.0**
	SNR=22						
AAK	**Ala-Archa**	**40.70**	**64**	LR	LR	16 38 57.9	
	comp=Z,241nm,19.2s,MS4.1,baz=173,slow=42						
AAK	**Ala-Archa**	**40.70**	**64**	*e*P	**P**	**16 18 15.9**	**-0.8**
	comp=Z,31nm,1.1s,mb4.8						
AAK	**Ala-Archa**	**40.70**	**64**	P	**P**	**16 18 16.5**	**-0.3**
	SNR=11						
AAK				P		16 18 16.5	
	SNR=11						
AAK	**Ala-Archa**	**40.70**	**64**	P	**P**	**16 18 16.5**	**-0.3**
	SNR=11						
FRU	**Bishkek**	**40.76**	**64**	⇓*i*P	**P**	**16 18 18.0**	**+0.7**
FRU				*i*		16 18 27.0	
FRU				*i*		16 20 20.0	
FRU				*e*		16 24 27.0	
FRU				pmax	pmax		
	comp=Z,200nm,2.0s,mb5.4						
FRU	**Bishkek**	**40.76**	**64**	*i* P	**P**	**16 18 18.0**	**+0.7**
	comp=Z,200nm,2.0s,mb5.4						
UCH	**Uchtor**	**40.78**	**65**	P	**P**	**16 18 17.6**	**+0.2**
	SNR=11						
CHMS	**Chumysh**	**40.83**	**63**	P	**P**	**16 18 17.1**	**-0.8**
	SNR=13						
KBK	**Karagaybulak**	**41.03**	**64**	P	**P**	**16 18 19.0**	**-0.5**
	SNR=12						
KZA	**Kyzart**	**41.34**	**65**	P	**P**	**16 18 22.8**	**+0.7**
	SNR=30						
TKM2	**Tokmak 2**	**41.46**	**63**	*e*P	**P**	**16 18 22.3**	**-0.7**
TKM2				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.4						
TKM2	**Tokmak 2**	**41.46**	**63**	P	**P**	**16 18 22.4**	**-0.6**
	SNR=5.9						
TKM2	**Tokmak 2**	**41.46**	**63**	*e*P	**P**	**16 18 22.3**	**-0.8**
	comp=Z,12nm,1.0s,mb4.5						
TKM2	**Tokmak 2**	**41.46**	**63**	*e*P	**P**	**16 18 22.3**	**-0.7**
	comp=Z,11nm,1.0s,mb4.5						
SCO	**Scoresbysund**	**41.62**	**339**	*i* P	**P**	**16 18 23.7**	**-0.3**
SCO				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.2						
SCO	**Scoresbysund**	**41.62**	**339**	*i* P	**P**	**16 18 23.7**	**-0.3**
	comp=Z,7.4nm,1.1s,mb4.2						
SCO	**Scoresbysund**	**41.62**	**339**	*i* P	**P**	**16 18 23.7**	**-0.3**
	comp=Z,7.4nm,1.1s,mb4.2						
ULHL	**Ulahol**	**42.04**	**64**	P	**P**	**16 18 28.7**	**+0.9**
	SNR=9.6						
SPITS	**Spitsbergen Ar**	**42.37**	**358**	LR	LR	16 37 57.0	
	comp=Z,566nm,18.9s,MS4.5,baz=295,slow=39						
KSH	**Kashi**	**42.38**	**68**	*e*P	**P**	**16 18 28.8**	**-1.9**
KSH				*e*pP	pP	16 18 41.8	+7.8
KSH				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.0						
KSH				LR	LR		
	comp=N,290nm,6.0s						
KSH				LR	LR		
	comp=E,300nm,7.2s						
KSH				LR	LR		
	comp=Z,290nm,5.5s						
KURK	**Kurchatov**	**42.75**	**52**	P	**P**	**16 18 31.1**	**-2.4**
	comp=Z,62nm,1.0s,mb5.3,SNR=8.3						
KURK	**Kurchatov**	**42.75**	**52**	*e*P	**P**	**16 18 31.4**	**-2.1**
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
KURK	**Kurchatov**	**42.75**	**52**	LR	LR	16 40 48.3	
	comp=Z,184nm,20.0s,MS4.0,baz=285,slow=43						
KURK	**Kurchatov**	**42.75**	**52**	*e*P	**P**	**16 18 31.4**	**-2.1**
	comp=Z,9.6nm,0.8s,mb4.6						
KURK	**Kurchatov**	**42.75**	**52**	P	**P**	**16 18 32.0**	**-1.5**
	SNR=7.4						
KURK				P		16 18 32.0	
	SNR=7.4						
NVS	**Novosibirsk**	**45.41**	**45**	*i* P	**P**	**16 18 52.4**	**-2.3**
NVS				*i*		16 20 36.7	
NVS				*i* S	**S**	**16 25 30.0**	**-5.6**
NVS				pmax	pmax		
	comp=N,20nm,1.3s						
NVS				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.1						
NVS				pmax	pmax		
	comp=E,22nm,1.2s						
NVS				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.7						
NVS				pmax	pmax		
	comp=N,6.0nm,1.1s						
NVS				pmax	pmax		
	comp=E,11nm,1.5s						
NVS				smax			
	comp=N,54nm,1.7s						
NVS				smax			
	comp=E,9.0nm,1.3s						
MKAR	**Makanchi Array**	**45.56**	**57**	P	**P**	**16 18 54.2**	**-1.8**
	comp=E,10nm,0.6s,mb4.9,baz=269,slow=8.0,SNR=68						
MKAR				LR	LR	16 39 11.4	
	comp=E,174nm,19.5s,MS4.0,baz=268,slow=38						
MKAR	**Makanchi Array**	**45.56**	**57**	P	**P**	**16 18 54.2**	**-1.8**
MKAR				LR	LR	16 39 11.4	
MKAR	**Makanchi Array**	**45.56**	**57**	P	**P**	**16 18 54.2**	**-1.8**
AJM	**Ajmer**	**45.63**	**87**	*e*PKP	**P**	**16 18 56.9**	**0.0**
ZAA0	**Zalesovo Array**	**46.38**	**47**	*e*P	**P**	**16 18 59.7**	**-2.7**
ZALV	**Zalesovo Beam**	**46.38**	**47**	P	**P**	**16 18 59.6**	**-2.7**
	comp=E,13nm,0.7s,mb5.0,baz=272,slow=8.8,SNR=45						
ZALV				LR	LR	16 39 59.6	
	comp=E,135nm,20.5s,MS3.9,baz=308,slow=38						
NDI	**New Delhi**	**46.80**	**83**	*e*PKP	**P**	**16 19 04.5**	**-1.5**
DDI	**Dehra Dun**	**46.83**	**80**	*e*x	x	16 19 05.3	
POO	**Poona**	**48.79**	**97**	*e*PKP	**P**	**16 19 22.3**	**+0.7**
LGTI	**Lohaghat**	**48.92**	**80**	*e*PKP	**P**	**16 19 20.8**	**-1.7**
BHPL	**Bhopal**	**49.34**	**89**	*e*PKP	**P**	**16 19 25.0**	**-0.7**
KAD	**Karad**	**49.71**	**98**	*e*PKP	**P**	**16 19 29.7**	**+1.1**
WMQ	**Urumqi**	**49.90**	**60**	⇓*i*P	**P**	**16 19 29.3**	**-0.5**
WMQ				pP	pP	16 19 37.0	+3.8
WMQ				sP	sP	16 19 40.0	+5.4
WMQ				PcP	PcP	16 20 51.0	+0.9
WMQ				PP	PP	16 21 24.0	-0.4
WMQ				S	**S**	**16 26 35.0**	**-4.7**
WMQ				ScS	ScS	16 29 16.0	-5.2
WMQ				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,200nm,6.0s						
WMQ				LR	LR		
	comp=N,1µm,25.9s,MS4.9						
WMQ				LR	LR		
	comp=E,770nm,20.9s,MS4.9						
WMQ				LR	LR		
	comp=Z,810nm,20.9s,MS4.7						
SFJD	**Kangerlussuaq**	**50.67**	**331**	LR	LR	16 40 40.7	
	comp=Z,385nm,19.4s,MS4.4,baz=68,slow=36						
LSZ	**Lusaka**	**51.33**	**172**	*e*P	**P**	**16 19 42.5**	**+1.8**
LSZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LSZ	**Lusaka**	**51.33**	**172**	*e*P	**P**	**16 19 42.5**	**+1.8**
	comp=Z,8.7nm,0.8s,mb4.7						
DANN	**Dangsing**	**52.18**	**80**	*e*P	**P**	**16 19 46.8**	**-0.3**
	comp=Z,312nm,0.9s,mb6.2						
KOLN	**Koldanda**	**52.30**	**81**	*e*P	**P**	**16 19 46.9**	**-1.1**
	comp=Z,135nm,1.1s,mb5.8						
GKN	**Gorkha**	**53.02**	**80**	*e*P	**P**	**16 19 52.2**	**-1.2**
	comp=Z,296nm,1.3s,mb6.1						
HYB	**Hyderabad**	**53.17**	**95**	⇓*i*P	**P**	**16 19 54.0**	**-0.6**
HYB	**Hyderabad**	**53.17**	**95**	*e*P	**P**	**16 19 53.5**	**-1.1**
DMN	**Daman**	**53.57**	**80**	*e*P	**P**	**16 19 56.4**	**-1.0**
	comp=Z,236nm,1.0s,mb6.1						
KKN	**Kakani**	**53.63**	**80**	*e*P	**P**	**16 19 56.7**	**-1.1**
	comp=Z,162nm,1.3s,mb5.8						
KKN	**Kakani**	**53.63**	**80**	*e*P	**P**	**16 19 56.7**	**-1.1**
KKN				pmax	pmax		
	comp=Z,162nm,1.3s,mb5.8						
PKIN	**Phulchoki**	**53.81**	**80**	*e*P	**P**	**16 19 58.5**	**-0.7**
	comp=Z,64nm,1.0s,mb5.5						
PKI	**Pulchoki**	**53.83**	**80**	*e*P	**P**	**16 19 58.2**	**-1.1**
	comp=Z,199nm,1.1s,mb6.0						
PKI	**Pulchoki**	**53.83**	**80**	*e*P	**P**	**16 19 58.5**	**-0.8**
PKI				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.5						
PKI	**Pulchoki**	**53.83**	**80**	*e*P	**P**	**16 19 58.5**	**-0.8**
	comp=Z,64nm,1.0s,mb5.5						
GUN	**Gumba**	**54.06**	**79**	*e*P	**P**	**16 20 00.1**	**-0.9**
	comp=Z,202nm,1.1s,mb6.0						
JIRN	**Jiri**	**54.41**	**79**	*e*P	**P**	**16 20 02.5**	**-1.1**
	comp=Z,148nm,1.1s,mb5.8						
RAMN	**Ramite**	**55.05**	**80**	*e*P	**P**	**16 20 06.6**	**-1.6**
	comp=Z,148nm,1.0s,mb6.0						
ODAN	**Odare**	**55.72**	**80**	*e*P	**P**	**16 20 11.6**	**-1.5**
	comp=Z,88nm,1.2s,mb5.7						
TAPN	**Taplejung**	**55.76**	**79**	*e*P	**P**	**16 20 12.3**	**-1.0**
	comp=Z,244nm,1.5s,mb6.0						
BOK	**Bokaro**	**55.93**	**84**	*e*PKP	**P**	**16 20 12.8**	**-1.7**
MOY	**Mondy**	**56.43**	**47**	*e*P	**P**	**16 20 19.4**	**+1.7**
VIS	**Vishakhapatnam**	**56.88**	**91**	*e*PKP	**P**	**16 20 20.7**	**-0.7**
VIS				AMb	AMB	16 20 22.5	
	comp=Z,15nm,1.0s,mb5.0						
LSA	**Lhasa**	**57.45**	**75**	P	**P**	**16 20 25.3**	**0.0**
LSA				S	**S**	**16 28 16.5**	**-5.9**
LSA				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
LSA	**Lhasa**	**57.45**	**75**	*e*P	**P**	**16 20 25.2**	**-0.1**
LSA				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.5						
LSA	**Lhasa**	**57.45**	**75**	*e*P	**P**	**16 20 25.2**	**-0.1**
	comp=Z,43nm,0.8s,mb5.5						
TLY	**Talaya**	**57.99**	**47**	*e*P	**P**	**16 20 28.4**	**-0.4**
TLY				*e*S	**S**	**16 28 33.5**	**+4.6**
TLY				*e*SSS		16 34 42.9	
TLY				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
TLY				MLR	MLR		
	comp=Z,134nm,13.0s,MS4.2						
ZAK	**Zakamensk**	**58.20**	**48**	⇑*i*P	**P**	**16 20 29.2**	**-1.0**
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
FRB	**Frobisher Bay**	**58.59**	**329**	P	**P**	**16 20 32.3**	**-0.4**
	comp=Z,9.4nm,1.0s,mb4.8,baz=81,slow=7.5,SNR=18						
SHL	**Shillong**	**59.90**	**79**	⇑*i*P	**P**	**16 20 41.6**	**-0.8**
GTA	**Gaotai**	**59.92**	**61**	P	**P**	**16 20 41.5**	**-0.9**
GTA				pP	pP	16 20 49.0	+3.1
GTA				sP	sP	16 20 52.0	+4.8
GTA				PP	PP	16 22 56.0	+1.7
GTA				S	**S**	**16 28 50.5**	**-3.8**
GTA				sS	sS	16 29 03.8	+3.7
GTA				SS	SS	16 32 49.0	-1.3
GTA				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
GTA				pmax	pmax		
	comp=Z,64nm,4.2s						
GTA				LR	LR		
	comp=N,140nm,16.6s,MS4.3						
GTA				LR	LR		
	comp=E,110nm,16.1s,MS4.3						
GTA				LR	LR		
	comp=Z,150nm,18.4s,MS4.2						
PALK	**Pallekele**	**60.65**	**103**	*i* P	**P**	**16 20 50.0**	**+2.3**
SCHQ	**Schefferville**	**60.81**	**319**	P	**P**	**16 20 48.3**	**+0.1**
	comp=Z,8.9nm,1.1s,mb4.8,baz=67,slow=7.7,SNR=12						
SONM	**Songino Array**	**61.02**	**50**	P	**P**	**16 20 48.4**	**-1.4**
	comp=Z,8.5nm,1.1s,mb4.8,baz=285,slow=8.5,SNR=44						
SONM				LR	LR	16 52 20.2	
	comp=Z,178nm,18.7s,MS4.2,baz=341,slow=41						
TIXI	**Tiksi**	**61.33**	**20**	⇑*i*P	**P**	**16 20 49.7**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.2						
ULN	**Ulaanbaatar**	**61.42**	**50**	*e*P	**P**	**16 20 50.9**	**-1.5**
ULN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
ULN	**Ulaanbaatar**	**61.42**	**50**	*e*P	**P**	**16 20 50.9**	**-1.5**
	comp=Z,11nm,1.0s,mb5.0						
BOD	**Bodaibo**	**61.45**	**38**	*e*P	**P**	**16 20 50.0**	**-2.4**
BOD				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
IMP	**Imphal**	**61.90**	**79**	*e*PKP	**P**	**16 20 57.0**	**+0.9**
LZH	**Lanzhou**	**64.23**	**63**	*e*P	**P**	**16 21 11.0**	**-0.3**
LZH				pP	pP	16 21 17.0	+2.1
LZH				sP	sP	16 21 21.5	+5.3
LZH				PP	PP	16 23 33.5	+1.2
LZH				*e*S	**S**	**16 29 43.0**	**-5.8**
LZH				sS	sS	16 29 56.0	+1.4
LZH				*e*SS	SS	16 33 55.0	-2.7
LZH				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.5						
LZH				pmax	pmax		
	comp=Z,180nm,4.0s						
LZH				LR	LR		
	comp=E,1µm,15.1s						
LZH				LR	LR		
	comp=Z,1µm,16.5s,MS5.2						
BOSA	**Boshof**	**64.33**	**177**	P	**P**	**16 21 12.7**	**+0.9**
	comp=Z,7.7nm,1.0s,mb4.7,baz=28,slow=12,SNR=5.2						
BOSA				LR	LR	16 51 56.2	
	comp=Z,248nm,18.9s,MS4.4,baz=356,slow=38						
YAK	**Yakutsk**	**66.49**	**29**	*e*P	**P**	**16 21 22.9**	**-2.6**
YAK				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.3						
YAK				pmax	pmax		
	comp=E,11nm,1.2s						
CD2	**Chengdu**	**66.58**	**68**	P	**P**	**16 21 26.3**	**-0.4**
CD2				pP	pP	16 21 34.0	+3.8
CD2				sP	sP	16 21 37.3	+5.8
CD2				PP	PP	16 23 54.3	+1.2
CD2				S	S	16 30 13.0	-4.8
CD2				sS	sS	16 30 26.0	+2.4
CD2				SS	SS	16 34 28.8	-5.8
CD2				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.8						
CD2				pmax	pmax		
	comp=Z,220nm,4.2s						
CD2				LR	LR		
	comp=N,380nm,8.9s						
CD2				LR	LR		
	comp=Z,260nm,10.1s,MS4.7						
HHC	**Hu-ho-hao-te**	**67.39**	**55**	*e*P	**P**	**16 21 31.0**	**-0.7**
HHC				pP	pP	16 21 38.5	+3.3
HHC				PP	PP	16 23 59.8	0.0
HHC				PcS		16 26 02.0	
HHC				S	S	16 30 21.0	-6.2
HHC				sS	sS	16 30 34.3	+1.2
HHC				ScS	ScS	16 31 23.0	-6.7
HHC				SS	SS	16 34 42.0	-4.6
HHC				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.5						
HHC				pmax	pmax		
	comp=Z,220nm,3.6s						
HHC				LR	LR		
	comp=N,280nm,13.5s,MS4.8						
HHC				LR	LR		
	comp=E,300nm,16.5s,MS4.8						
HHC				LR	LR		
	comp=Z,270nm,15.0s,MS4.6						
HIA	**Hailar**	**68.33**	**44**	*e*P	**P**	**16 21 36.2**	**-1.2**
HIA				pmax	pmax		
	comp=Z,37nm,1.2s						
HIA	**Hailar**	**68.33**	**44**	*e*P	**P**	**16 21 36.2**	**-1.2**
	comp=Z,37nm,1.2s,mb5.3						
KMI	**Kunming**	**68.67**	**74**	⇑P	**P**	**16 21 39.0**	**-1.0**
KMI				pP	pP	16 21 47.0	+3.5
KMI				sP	sP	16 21 49.5	+4.7
KMI				PP	PP	16 24 11.5	+0.1
KMI				S	S	16 30 37.5	-5.5
KMI				sS	sS	16 30 51.0	+2.1
KMI				SS	SS	16 35 01.5	-5.7
KMI				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
KMI				pmax	pmax		
	comp=Z,78nm,3.1s						
KMI				LR	LR		
	comp=N,290nm,13.0s,MS4.7						
KMI				LR	LR		
	comp=E,130nm,13.0s,MS4.7						
KMI				LR	LR		
	comp=Z,120nm,12.6s,MS4.3						
CHTO	**Chiang Mai**	**68.93**	**82**	*e*P	**P**	**16 21 40.7**	**-1.0**
CHTO				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
CHTO	**Chiang Mai**	**68.93**	**82**	*e*P	**P**	**16 21 40.7**	**-1.0**
	comp=Z,29nm,1.2s,mb5.1						
CHTO	**Chiang Mai**	**68.93**	**82**	P	**P**	**16 21 40.7**	**-1.0**
	SNR=9.1						
CHTO				P		16 21 40.7	
	SNR=9.1						
CMAR	**Chiang Mai Arr**	**69.12**	**82**	P	**P**	**16 21 41.8**	**-1.1**
	comp=Z,11nm,0.8s,mb4.8,baz=304,slow=7.5,SNR=93						
CMAR				LR	LR	16 58 23.3	
	comp=Z,79nm,18.5s,MS4.0,baz=92,slow=42						
BJI	**Beijing**	**70.84**	**54**	P	**P**	**16 21 52.0**	**-1.1**
BJI				pP	pP	16 21 59.0	+2.3
BJI				sP	sP	16 22 01.3	+3.3
BJI				PP	PP	16 24 25.3	-4.4
BJI				S	S	16 31 05.0	-3.1
BJI				SS	SS	16 35 34.5	-5.4
BJI				pmax	pmax		

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        comp=Z,33nm,1.1s,mb5.2
BJI                              pmax    pmax
        comp=Z,170nm,4.1s
BJI                              LR      LR
        comp=N,280nm,15.9s,MS4.7
BJI                              LR      LR
        comp=E,200nm,16.5s,MS4.7
BJI                              LR      LR
        comp=Z,140nm,32.1s
GYA     Guiyang         71.02  71⇑iP     P         16 21 53.3 -1.1
GYA                              pP      pP        16 22 01.0 +3.0
GYA                              sP      sP        16 22 04.5 +5.2
GYA                              PP      PP        16 24 33.0 +1.4
GYA                              S       S         16 31 06.5 -4.1
GYA                              sS      sS        16 31 19.3 +2.9
GYA                              SKS               16 31 51.0
GYA                              SS      SS        16 35 41.8 -1.5
GYA                              pmax    pmax
        comp=Z,20nm,1.0s,mb5.0
GYA                              pmax    pmax
        comp=Z,100nm,5.6s
GYA                              LR      LR
        comp=N,580nm,18.9s,MS5.0
GYA                              LR      LR
        comp=E,490nm,19.7s,MS5.0
GYA                              LR      LR
        comp=Z,500nm,18.0s,MS4.8
FCC     Fort Churchill  71.69 330 eP     P         16 21 57.9  0.0
        comp=Z,0.4nm,1.1s
BILL    Bilibino        72.91  13⇑eP     P         16 22 03.6 -1.4
BILL                             e                 16 24 43.6
BILL                             eS      S         16 31 26.9 -4.0
BILL                             pmax    pmax
        comp=Z,31nm,1.7s,mb5.0
BILL                             MLR     MLR
        comp=Z,200nm,17.0s,MS4.5
SEY     Seymchan        73.79  21 eP     P         16 22 09.3 -1.0
CN2     Changchun       74.59  47 eP     P         16 22 14.0 -1.3
CN2                              esP     sP        16 22 25.3 +5.1
CN2                              PcP     PcP       16 22 29.5 -0.2
CN2                              eS      S         16 31 44.3 -6.5
CN2                              pmax    pmax
        comp=Z,50nm,1.0s,mb5.4
CN2                              pmax    pmax
        comp=Z,200nm,3.0s
CN2                              LR      LR
        comp=N,200nm,13.0s,MS4.8
CN2                              LR      LR
        comp=E,300nm,13.0s,MS4.8
CN2                              LR      LR
        comp=Z,300nm,15.0s,MS4.7
KLR     Kul'dur         74.87  40 eP     P         16 22 11.9 -4.9
KLR                              pmax    pmax
        comp=Z,62nm,1.4s,mb5.3
YKA     Yellowknife Ar  75.82 341 P      P         16 22 21.7 -0.3
        comp=Z,3.4nm,0.9s,mb4.3,baz=37,slow=5.6,SNR=41
YKA     Yellowknife Ar  75.82 341 P      P         16 22 21.7 -0.3
MDJ     Mudanjiang      76.52  44 P      P         16 22 26.3  0.0
MDJ                              pP      pP        16 22 32.8 +2.9
MDJ                              sP      sP        16 22 35.5 +4.3
MDJ                              S       S         16 32 10.3 -1.7
MDJ                              sS      sS        16 32 21.5 +3.6
MDJ                              pmax    pmax
        comp=Z,8.0nm,1.3s,mb4.5
MDJ                              pmax    pmax
        comp=Z,100nm,5.1s
MDJ                              LR      LR
        comp=N,73nm,22.1s,MS4.1
MDJ                              LR      LR
        comp=E,89nm,22.1s,MS4.1
MDJ                              LR      LR
        comp=Z,88nm,19.3s,MS4.1
NJ2     Nanjing         76.98  60 eP     P         16 22 31.5 +2.3
NJ2                              pmax    pmax
        comp=Z,40nm,0.7s,mb5.5
HABR    Khabarovsk      77.04  39ceP     P         16 22 27.6 -1.6
HABR                             e                 16 22 38.1
HABR                             ePPP              16 27 06.3
HABR                             eS      S         16 32 15.2 -2.5
HABR                             e                 16 32 43.5
HABR                             eSSS              16 40 35.5
HABR                             pmax    pmax
        comp=Z,30nm,1.9s,mb4.9
HABR                             pmax    pmax
        comp=N,21nm,1.8s
HABR                             pmax    pmax
        comp=E,19nm,1.7s
HABR                             MLR     MLR
        comp=Z,80nm,17.0s,MS4.1
FFC     Flin Flon       77.62 330 P      P         16 22 33.8 +1.4
        comp=Z,76nm,1.1s,mb5.5,SNR=7.9
FFC     Flin Flon       77.62 330 eP     P         16 22 32.8 +0.4
FFC                              pmax    pmax
        comp=Z,19nm,1.1s,mb4.9
FFC     Flin Flon       77.62 330 eP     P         16 22 32.8 +0.4
        comp=Z,19nm,1.1s,mb4.9
ULM     Lac du Bonnet   78.11 325 P      P         16 22 35.3 +0.1
        comp=Z,10.0nm,1.0s,mb4.7,baz=60,slow=5.4,SNR=9.1
ULM                              LR      LR        16 56 29.1
        comp=Z,281nm,18.7s,MS4.6,baz=50,slow=35
IMA2    Indian Mountai  78.22 358 eP     P         16 22 35.7 +0.2
DAWY    Dawson          79.19 352 eP     P         16 22 41.0 +0.2
KSRS    Korea Array     79.88  51 P      P         16 22 44.0 -1.1
KSRS                             pmax    pmax
        comp=Z,17nm,1.0s,mb4.9
KSRS                             MLR     MLR
        comp=Z,126nm,18.4s,MS4.3
KSRS    Korea Array     79.88  51 P      P         16 22 44.0 -1.2
        comp=Z,17nm,1.0s,mb4.9,baz=309,slow=5.2,SNR=23
KSRS                             LR      LR        17 02 44.3
        comp=Z,126nm,18.4s,MS4.3,baz=77,slow=39
MCK     McKinley        80.35 356 eP     P         16 22 46.1 -1.1
MCK                              e                 16 22 53.5
MCK                              pmax    pmax
        comp=Z,12nm,1.0s,mb4.8
MCK     McKinley        80.35 356 eP     P         16 22 46.1 -1.1
        comp=Z,12nm,1.0s,mb4.8
MCK                              e                 16 22 53.5
CHUM    Lake Minchumin  80.36 357 eP     P         16 22 46.5 -0.7
        comp=Z,33nm,1.2s,mb5.1
CHUM                             e                 16 22 56.5
MENT    Mentasta        80.75 353 eP     P         16 22 49.4 +0.1
CPCT    Cooper Cave     81.33 308 eP     P         16 22 54.3 +1.3
YSS     Yuzh-Sakhalins  81.90  36⇑eP     P         16 22 55.0 -0.7
YSS                              e                 16 23 03.6
ECSD    EROS Data Cent  82.97 320 eP     P         16 23 01.6 +0.2
        comp=Z,7.5nm,1.0s,mb4.7
DGMT    Dagmar          83.18 327 ⇑P     P         16 23 02.9 +0.5
        baz=83
PETK    Petropavlovsk-  83.34  25 LR     LR        17 04 59.1
        comp=Z,138nm,20.6s,MS4.3,baz=210,slow=39
PLAL    Pickwick Lake   83.88 309 eP     P         16 23 03.9 -2.3
        comp=Z,70nm,1.4s,mb5.6
A18A    Metzger Ranch,  85.21 330 ⇓P     P         16 23 13.0 +0.3
        baz=85
LAO     LASA Array      85.43 327 eP     P         16 23 15.1 +1.2
        comp=Z,6.9nm,0.8s,mb4.8
A17A    Triple J Farms  85.53 331 ⇓P     P         16 23 14.3  0.0
        baz=85
B18A    Beardsley Farm  85.60 330 ⇓P     P         16 23 15.0 +0.3
        baz=85
A16A    West Butte Ran  85.88 331 ⇑P     P         16 23 15.7 -0.3
        baz=85,SNR=12
EGMT    Eagleton        85.88 330 ⇑P     P         16 23 16.5 +0.5
        baz=86
EGMT    Eagleton        85.88 330 eP     P         16 23 16.5 +0.5
        comp=Z,52nm,1.1s,mb5.7
B17A    L&G Farms, Che  86.09 331 ⇑P     P         16 23 16.7 -0.4
        baz=86,SNR=5.5
KSU1    Kansas State U  86.19 317 eP     P         16 23 18.5 +0.7
        comp=Z,42nm,1.2s,mb5.5
A15A    Johnson Ranch,  86.29 332 ⇑P     P         16 23 17.9 -0.2
        baz=86,SNR=29
B16A    M & M Farms, S  86.35 331 ⇑P     P         16 23 18.4 +0.1
        baz=86
KDAK    Kodiak Island   86.48 357 LR     LR        17 06 24.9
        comp=Z,188nm,19.4s,MS4.5,baz=77,slow=39
A14A    Double T Ranch  86.56 332 ⇓P     P         16 23 19.3 -0.1
        baz=86,SNR=27
D18A    Linhart Farms,  86.56 329 ⇑P     P         16 23 19.6 +0.2
        baz=86
C17A    Wharram Farm,   86.60 330 ⇑P     P         16 23 19.8 +0.2
        baz=86
WALA    Waterton Lakes  86.67 333 eP     P         16 23 19.5 -0.4
        comp=Z,0.4nm,1.0s
MJAR    Matsushiro Arr  86.73  46 P      P         16 23 20.1 -0.3
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        comp=Z,6.5nm,0.9s,mb4.9,baz=313,slow=5.2,SNR=11
B15A    Bradely Ranch,  86.77 331 ⇑P     P         16 23 19.9 -0.4
        baz=86,SNR=13
C16A    Fuhringer Ranc  86.86 331 ⇓P     P         16 23 20.5 -0.4
        baz=86,SNR=6.2
A13A    Flathead Natio  86.96 333 ⇓P     P         16 23 21.2 -0.1
        baz=86
D17A    Six Diamond Ra  86.96 330 ⇓P     P         16 23 21.5 +0.1
        baz=86,SNR=9.8
C15A    Salmond Ranch,  87.22 331 ⇑P     P         16 23 22.3 -0.4
        baz=87
D16A    Dana Ranch, Ca  87.41 330 ⇓P     P         16 23 23.9 +0.3
        baz=87,SNR=8.1
A12A    Yaak River Ran  87.41 334 ⇓P     P         16 23 23.3 -0.2
        baz=87,SNR=5.4
B13A    Whitefish       87.44 333 ⇑P     P         16 23 23.7 +0.1
        baz=87,SNR=7.3
F18A    Big Timber      87.55 328 ⇓P     P         16 23 24.8 +0.5
        baz=87
E17A    Martinsdale     87.58 329 ⇓P     P         16 23 24.8 +0.4
        baz=87
A11A    Hall Mountain,  87.64 334 ⇓P     P         16 23 24.7  0.0
        baz=87
YBMT    Yellow Bay      87.69 332 eP     P         16 23 25.6 +0.7
        comp=Z,8.8nm,0.9s,mb5.0
B12A    Libby           87.78 333 ⇓P     P         16 23 25.4 +0.1
        baz=87
HRY     Holter Researc  87.78 330 eP     P         16 23 26.1 +0.8
        comp=Z,5.9nm,1.0s,mb4.8
D15A    Lincoln         87.79 331 ⇑P     P         16 23 25.5 +0.2
        baz=87
E16A    East Helena     87.86 330 ⇑P     P         16 23 25.7  0.0
        baz=87,SNR=7.7
JTMT    Jette           87.89 332 eP     P         16 23 26.7 +0.9
        comp=Z,21nm,1.1s,mb5.3
F17A    Fitzpatrick Pl  87.95 329 ⇓P     P         16 23 26.2 +0.1
        baz=88
G18A    Lazy EL Ranch,  87.95 328 ⇓P     P         16 23 26.6 +0.4
        baz=88
RLMT    Red Lodge       87.98 328 ⇓P     P         16 23 27.0 +0.7
        baz=88,SNR=6.5
RLMT    Red Lodge       87.98 328 eP     P         16 23 27.2 +0.9
        comp=Z,7.0nm,1.1s,mb4.8
SWMT    Swartz Lake     87.98 332 eP     P         16 23 26.7 +0.4
        comp=Z,23nm,1.4s,mb5.2
BSMT    Bassoo Peak     87.99 332 eP     P         16 23 27.2 +0.8
        comp=Z,6.7nm,1.2s,mb4.8
A10A    Northport       88.05 335 ⇓P     P         16 23 26.7 +0.2
        baz=88
C13A    Hot Springs     88.06 332 ⇑P     P         16 23 27.2 +0.6
        baz=88,SNR=5.6
D14A    Greenough       88.14 331 ⇓P     P         16 23 27.2 +0.2
        baz=88
E15A    Deer Lodge      88.34 330 ⇑P     P         16 23 28.5 +0.5
        baz=88
C12B    Naegeli Ranch,  88.37 333 ⇓P     P         16 23 28.5 +0.4
        baz=88
A09A    Danville        88.40 335 ⇑P     P         16 23 28.6 +0.4
        baz=88
F16A    Kennard Place,  88.44 329 ⇓P     P         16 23 29.2 +0.7
        baz=88
D13A    Huson           88.50 332 ⇑P     P         16 23 28.8 +0.1
        baz=88
NEW     Newport         88.50 334 eP     P         16 23 29.3 +0.6
NEW                              pmax    pmax
        comp=Z,7.0nm,0.8s
NEW     Newport         88.50 334 eP     P         16 23 29.3 +0.6
        comp=Z,7.1nm,0.8s,mb5.0
E14A    Clinton         88.68 331 ⇓P     P         16 23 29.6  0.0
        baz=88,SNR=5.3
B09A    Rice            88.73 335 ⇓P     P         16 23 30.0 +0.3
        baz=88
F15A    Butte           88.75 330 ⇓P     P         16 23 30.1 +0.2
        baz=88
E13A    Victor          88.93 331 ⇓P     P         16 23 30.7 -0.1
        baz=88,SNR=5.6
A07A    Ashnola River,  88.94 336 ⇑P     P         16 23 30.7 -0.1
        baz=88
G16A    Moss Hill, Enn  88.97 329 ⇓P     P         16 23 31.3 +0.3
        baz=88,SNR=7.1
H17A    Grant Village   89.12 328 ⇑P     P         16 23 32.5 +0.8
        baz=89,SNR=7.5
F14A    Wisdom          89.13 330 ⇑P     P         16 23 31.8  0.0
        baz=89,SNR=5.0
H16A    Russell Place,  89.16 329 ⇑P     P         16 23 32.6 +0.7
        baz=89
B08A    Colville Reser  89.19 335 ⇓P     P         16 23 32.3 +0.3
        baz=89
C09A    Chrisman Ranch  89.30 334 ⇓P     P         16 23 32.9 +0.4
        baz=89
G15A    Dillon          89.30 330 ⇑P     P         16 23 33.0 +0.5
        baz=89
I18A    Diamond G Ranc  89.35 327 ⇑P     P         16 23 33.3 +0.5
        baz=89,SNR=6.2
B07A    Winthrop        89.36 336 ⇑P     P         16 23 33.2 +0.4
        baz=89
I17A    Pilgrim Ck.     89.50 328 ⇓P     P         16 23 34.9 +1.3
        baz=89,SNR=6.2
C08A    Higginbotham F  89.58 335 ⇓P     P         16 23 34.1 +0.2
        baz=89
K19A    Absolon Red Bu  89.61 326 ⇑P     P         16 23 33.2 -0.8
        baz=89,SNR=6.2
M22A    Cedar Creek Ra  89.67 324 ⇓P     P         16 23 34.9 +0.6
        baz=89,SNR=6.0
MCMT    McKenzie Canyo  89.72 330 eP     P         16 23 36.1 +1.6
        comp=Z,1.9nm,1.1s,mb4.3
E11A    Bogner Ranch,   89.78 332 ⇓P     P         16 23 34.1 -0.6
        baz=89
H15A    Lima            89.81 329 ⇓P     P         16 23 35.6 +0.6
        baz=89,SNR=7.8
J18A    Kendall Valley  89.83 327 ⇓P     P         16 23 35.3 +0.2
        baz=89,SNR=24
M21A    Separation Pea  89.88 324 ⇑P     P         16 23 35.1 -0.2
        baz=90,SNR=7.8
F12A    Elk City        89.92 332 ⇑P     P         16 23 35.6 +0.1
        baz=90
I16A    Newdale         89.93 328 ⇓P     P         16 23 36.5 +0.9
        baz=90
D09A    Jones Farm, Ri  89.95 334 ⇓P     P         16 23 35.6 +0.1
        baz=90
PDAR    Pinedale Array  89.97 326 P      P         16 23 35.0 -0.8
        comp=Z,2.6nm,1.0s,mb4.5,baz=46,slow=4.3,SNR=17
PDAR                             LR      LR        17 03 45.5
        comp=Z,261nm,18.3s,MS4.7,baz=40,slow=36
BW06    Boulder Array   89.97 326 ⇑P     P         16 23 35.2 -0.5
        baz=90,SNR=8.3
J17A    Brown Place, J  90.01 328 ⇑P     P         16 23 36.6 +0.7
        baz=90
C07A    Waterville      90.01 335 ⇑P     P         16 23 35.9 +0.1
        baz=90
L20A    Wamsutter       90.02 325 ⇑P     P         16 23 35.8 -0.2
        baz=90,SNR=5.2
G13A    Cobalt          90.07 331 ⇑P     P         16 23 36.2 +0.1
        baz=90,SNR=7.7
F11A    Grangeville     90.15 332 ⇓P     P         16 23 36.1 -0.4
        baz=90
K18A    Toltan Ranch,   90.29 327 ⇑P     P         16 23 37.6 +0.4
        baz=90
M20A    Sweetwater, Wa  90.35 325 ⇓P     P         16 23 37.7 +0.2
        baz=90,SNR=7.4
ISCO    Idaho Springs   90.42 322 eP     P         16 23 38.3 +0.4
ISCO                             pmax    pmax
        comp=Z,6.0nm,0.4s,mb5.3
ISCO    Idaho Springs   90.42 322 eP     P         16 23 38.3 +0.3
        comp=Z,6.1nm,0.4s,mb5.3
G12A    Big Creek, Yel  90.47 331 ⇑P     P         16 23 37.9 -0.1
        baz=90
J16A    Bone            90.47 328 ⇓P     P         16 23 38.2 +0.1
        baz=90
F10A    Beach Ranch, E  90.48 333 ⇓P     P         16 23 38.2 +0.1
        baz=90
H13A    Challis         90.51 330 ⇑P     P         16 23 38.6 +0.4
        baz=90,SNR=9.1
N21A    Black Mountain  90.61 324 ⇑P     P         16 23 39.1 +0.3
        baz=90,SNR=6.1
I14A    Mackay          90.71 329 ⇓P     P         16 23 39.7 +0.5
        baz=90
H12A    Diamond D Ranc  90.77 331 ⇑P     P         16 23 39.9 +0.5
        baz=90
M19A    Rock Springs    90.79 325 ⇑P     P         16 23 40.0 +0.5
        baz=90
L18A    Fontenelle, Gr  90.86 326 ⇑P     P         16 23 40.0 +0.1
        baz=90
N20A    Spence Gulch,   90.90 325 ⇑P     P         16 23 40.5 +0.4
        baz=90,SNR=6.7
I13A    Wildhorse Cree  90.99 330 ⇑P     P         16 23 41.1 +0.6
        baz=91
G10A    Bishop Farm, J  91.02 332 ⇑P     P         16 23 39.9 -0.6
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        baz=91
F08A    Pendleton       91.20 334 ⇓P     P         16 23 41.3 -0.1
        baz=91
G09A    Cove            91.28 333 ⇑P     P         16 23 41.7 -0.1
        baz=91
N19A    John Jarvie Ra  91.28 325 ⇑P     P         16 23 41.7 -0.2
        baz=91
E06A    Yakima          91.32 335 ⇑P     P         16 23 41.8 -0.1
        baz=91
L16A    Fish Haven      91.41 327 ⇑P     P         16 23 42.5 +0.1
        baz=91
H10A    Noah's Angus R  91.47 332 ⇑P     P         16 23 42.8 +0.1
        baz=91
M17A    Scullys Gap (B  91.50 326 ⇓P     P         16 23 42.9  0.0
        baz=91
G08A    Pilot Rock      91.70 334 ⇓P     P         16 23 43.6 -0.2
        baz=91
O19A    Miners Draw (B  91.73 325 ⇓P     P         16 23 43.9 -0.1
        baz=91
Q22A    Crested Butte,  91.78 322 ⇑P     P         16 23 44.5 +0.3
        baz=91
N17A    Moffit Pass     92.00 326 ⇓P     P         16 23 45.3 +0.1
        baz=92
P20A    De Beque        92.01 324 ⇑P     P         16 23 45.0 -0.3
        baz=92
P19A    Cripple Cowboy  92.19 324 ⇓P     P         16 23 45.8 -0.3
        baz=92
G06A    Carlson Farm,   92.34 335 ⇓P     P         16 23 46.9 +0.2
        baz=92
P18A    Preston Nutter  92.78 325 ⇓P     P         16 23 49.3 +0.4
        baz=92
Q19A    Hogan Spring (  92.86 324 ⇑P     P         16 23 49.9 +0.7
        baz=92
J09A    Fry Pan Ranch,  92.91 332 ⇓P     P         16 23 49.4 +0.1
        baz=92
I07A    Izee            92.94 333 ⇓P     P         16 23 49.9 +0.4
        baz=92
R20A    Redvale         93.03 323 ⇑P     P         16 23 50.2 +0.2
        baz=93
Q18A    Rafter H Ranch  93.15 325 ⇓P     P         16 23 50.3 -0.2
        baz=93
PV01    Paradox Valley  93.17 323 eP     P         16 23 51.2 +0.5
        comp=Z,320nm,0.8s
T22A    Edith           93.21 321 ⇓P     P         16 23 51.1 +0.3
        baz=93
SRU     San Rafael      93.33 325 ⇑P     P         16 23 51.5 +0.1
        baz=93
H04A    Detroit Lake    93.36 335 ⇑P     P         16 23 51.5 +0.1
        baz=93
R19A    Curley Farm, L  93.38 324 ⇑P     P         16 23 52.1 +0.4
        baz=93
R18A    Canyonlands Na  93.61 324 ⇓P     P         16 23 52.7 +0.1
        baz=93
S19A    Harvey Farm, M  93.75 323 ⇓P     P         16 23 53.3  0.0
        baz=93
J06A    Christmas Vall  93.89 333 ⇑P     P         16 23 54.1 +0.2
        baz=93
R17A    Hanksville Air  93.97 325 ⇓P     P         16 23 54.0 -0.3
        baz=94
WVOR    Wild Horse Val  94.03 332 eP     P         16 23 55.2 +0.7
WVOR                             pmax    pmax
        comp=Z,4.0nm,0.8s,mb4.9
WVOR    Wild Horse Val  94.03 332 eP     P         16 23 55.2 +0.7
        comp=Z,4.3nm,0.8s,mb4.9
K07A    Rock Creek Ran  94.04 332 ⇑P     P         16 23 54.7 +0.1
        baz=94
S18A    Hurst Farm, Bl  94.21 324 ⇓P     P         16 23 55.3 -0.1
        baz=94
T19A    Beclabito       94.42 323 ⇑P     P         16 23 56.3 -0.2
        baz=94
T18A    Mexican Hat     94.59 323 ⇓P     P         16 23 57.6 +0.4
        baz=94
K05A    Summer Lake     94.61 333 ⇓P     P         16 23 56.8 -0.4
        baz=94
N06A    Buffalo Meadow  95.93 332 ⇑P     P         16 24 03.1 -0.2
        baz=96
CPUP    Villa Florida   96.99 243 LR     LR        17 09 51.9
        comp=Z,240nm,19.9s,MS4.7,baz=28,slow=37
Z20A    Nine Sixteen R  97.11 320 ⇑P     P         16 24 09.1 +0.3
        baz=97
TXAR    Lajitas Array   97.28 314 P      P         16 24 10.5 +0.9
        comp=Z,1.8nm,0.9s,mb4.5,baz=64,slow=6.1,SNR=5.3
TXAR                             LR      LR        17 11 09.8
        comp=Z,136nm,20.3s,MS4.4,baz=5.0,slow=37
TXAR    Lajitas Array   97.28 314 P      P         16 24 10.5 +0.9
TXAR                             LR      LR        17 11 09.8
V14A    Boquillas Ranc  97.34 324 ⇓P     P         16 24 10.6 +0.8
        baz=97
R06C    Coleville       97.70 330 ⇓P     P         16 24 12.2 +0.9
        baz=97
WRA     Warramunga Arr 119.33  94 PKP    PKPdf     16 29 24.9 -1.1
        comp=Z,2.4nm,0.9s,baz=299,slow=2.3,SNR=11
ASAR    Alice Springs  120.82  98 PKP    PKPdf     16 29 27.9 -0.9
        comp=Z,3.3nm,0.9s,baz=333,slow=2.0,SNR=24
STKA    Stephens Creek 130.50 104 PKP    PKPdf     16 29 47.1  0.0
        comp=Z,4.0nm,0.9s,baz=26,slow=6.8,SNR=5.9
URZ     Urewera        160.13 104 PKPab  PKPab     16 31 13.9 -1.8
        comp=Z,14nm,0.9s,baz=347,slow=3.6,SNR=5.0
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*NEIC **26** 16:19:16.8, 35.°81N×21.°67E, h5^{km}, ML3.6(ATH), After ATH.*
*ATH **26** 16:19:16.8, 35.°81N×21.°67E, h5^{km}±4^{km}, MD3.8/11, ML3.6*
*ISCJB **26** 16:19:18.9±0.8, 35.°78N±0.°04×21.°64E±0.°05, h10^{km}, Error ellipse: s-maj=6.9km s-min=4.1km az=137.2*
*CSEM **26** 16:19:20.1±0.4, 35.°85N×21.°71E, h2^{km}, ML3.9/8, Error ellipse: s-maj=7.9km s-min=4.7km az=50.0*
*THE **26** 16:19:21.3, 35.°93N×21.°63E, h0^{km}±2^{km}, ML3.9/8, Error ellipse: s-maj=3.3km s-min=1.2km az=222.0*
ISC 26 16:19:20.6±0.8**, 35.°80N**±0.°04×**21.°70E**±0.°05**, h10^{km}, n72, σ0.°94**/115**, Central Mediterranean Sea**

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Code    Station Name      Δ°  AZ°   Phase ID         Time      Res
                                   Op      ISC     h  m  s    ISC
PYL     PYLOS           1.09   2   P       Pg     16 19 39.0 -2.6
PYL                                S       Sg     16 19 53.6 -2.2
PYL     PYLOS           1.09   2   ePN     Pg     16 19 37.5 -4.1
PYL                                eSB     Sg     16 19 52.8 -3.0
PYL     PYLOS           1.09   2   ePn     Pg     16 19 37.5 -4.1
PYL     PYLOS           1.09   2   P       Pg     16 19 39.0 -2.6
PYL                                eSb     Sg     16 19 52.8 -3.0
PYL                                S       Sg     16 19 53.6 -2.2
KYTH    Kithira         1.19  66   ePB     Pb     16 19 40.9 -2.3
KYTH    Kithira         1.19  66   ePb     Pb     16 19 40.9 -2.3
VLI     Veliai          1.36  47   ePG     Pg     16 19 42.6 -4.1
VLI                                eSB     Sb     16 20 02.2 -1.3
VLI     Veliai          1.36  47   ePg     Pg     16 19 42.6 -4.1
VLI                                eSb     Sb     16 20 02.2 -1.3
ITM     Ithomi          1.39   8   ePG     Pg     16 19 42.7 -4.5
ITM                                eSB     Sb     16 20 02.9 -1.5
ITM     Ithomi          1.39   8   ePg     Pg     16 19 42.7 -4.5
ITM                                eSb     Sb     16 20 02.9 -1.5
VLX     Vlachokerasia   1.66  19   ePG     Pg     16 19 47.5 -4.9
VLX                                eSB     Sb     16 20 10.6 -1.6
VLX     Vlachokerasia   1.66  19   ePg     Pg     16 19 47.5 -4.9
VLX                                eSb     Sb     16 20 10.6 -1.6
KARN    Karanos         1.85 102   P       Pg     16 19 54.4 -1.8
KARN                               S       Sg     16 20 21.6 +1.4
KARN    Karanos         1.85 102   P       Pg     16 19 54.4 -1.8
VAM     Vamos           2.08 100   ePN     Pn     16 19 55.0 -0.5
VAM     Vamos           2.08 100   ePn     Pn     16 19 55.0 -0.5
DID     Didima          2.10  36   P       Pn     16 19 55.7 -0.2
DID                                S       Sn     16 20 22.4 +0.3
DID     Didima          2.10  36   ePN     Pn     16 19 55.1 -0.8
DID                                eSN     Sn     16 20 24.3 +2.2
DID     Didima          2.10  36   ePn     Pn     16 19 55.1 -0.8
DID     Didima          2.10  36   P       Pn     16 19 55.7 -0.2
DID                                S       Sn     16 20 22.4 +0.3
DID                                eSn     Sn     16 20 24.3 +2.2
GUR     Goura           2.19  14   ePN     Pn     16 19 57.0 -0.1
GUR     Goura           2.19  14   ePn     Pn     16 19 57.0 -0.1
RLS     Riolos of Patr  2.26 355   ePG     Pg     16 19 58.7 -5.2
RLS     Riolos of Patr  2.26 355   ePg     Pg     16 19 58.7 -5.2
NAIG    Nisos Aigina    2.43  36   ePN     Pn     16 20 00.9 +0.6
NAIG    Nisos Aigina    2.43  36   ePn     Pn     16 20 00.9 +0.6
LTK     Loutraki        2.44  24   P       Pn     16 20 00.2 -0.3
LTK                                S       Sn     16 20 31.2 +0.8
LTK     Loutraki        2.44  24   ePN     Pn     16 20 01.1 +0.6
LTK     Loutraki        2.44  24   P       Pn     16 20 00.2 -0.3
LTK     Loutraki        2.44  24   ePn     Pn     16 20 01.1 +0.6
LTK                                S       Sn     16 20 31.2 +0.8
LAKA    Lakka           2.44   5   P       Pn     16 20 01.1 +0.6
LAKA                               S       Sn     16 20 30.8 +0.3
LAKA    Lakka           2.44   5   P       Pn     16 20 01.1 +0.6
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LAKA				S	Sn	16 20 30.8	+0.3
VLS	Valsamata	2.53	340	P	Pn	16 20 01.5	-0.2
VLS				S	Sn	16 20 31.8	-0.8
VLS	Valsamata	2.53	340	P	Pn	16 20 01.5	-0.2
VLS				S	Sn	16 20 31.8	-0.8
TRIZ	Trizonia	2.58	7	P	Pn	16 20 02.9	+0.5
TRIZ				S	Sn	16 20 33.8	+0.1
TRIZ	Trizonia	2.58	7	P	Pn	16 20 02.9	+0.5
TRIZ				S	Sn	16 20 33.8	+0.1
KALE	Kalithea	2.61	8	P	Pn	16 20 03.5	+0.7
KALE				S	Sn	16 20 34.9	+0.4
KALE	Kalithea	2.61	8	P	Pn	16 20 03.5	+0.7
KALE				S	Sn	16 20 34.9	+0.4
ATH	Athens Observa	2.71	36	*e*PN	Pn	16 20 04.3	+0.2
ATH	Athens Observa	2.71	36	*e*Pn	Pn	16 20 04.3	+0.2
ATHU	Athens Univers	2.73	37	P	Pn	16 20 05.0	+0.5
ATHU	Athens Univers	2.73	37	P	Pn	16 20 05.0	+0.5
PTL	Penteli	2.84	37	*e*PN	Pn	16 20 05.3	-0.6
PTL	Penteli	2.84	37	*e*Pn	Pn	16 20 05.3	-0.6
LKD	Levkas	3.02	344	P	Pn	16 20 08.9	+0.5
LKD				S	Sn	16 20 44.9	+0.3
LKD	Levkas	3.02	344	P	Pn	16 20 08.9	+0.5
LKD				S	Sn	16 20 44.9	+0.3
LKR	Lokris	3.03	20	P	Pn	16 20 07.9	-0.7
LKR				S	Sn	16 20 46.5	+1.6
LKR	Lokris	3.03	20	*e*PN	Pn	16 20 09.5	+0.9
LKR	Lokris	3.03	20	P	Pn	16 20 07.9	-0.7
LKR	Lokris	3.03	20	*e*Pn	Pn	16 20 09.5	+0.9
LKR				S	Sn	16 20 46.5	+1.6
AGG	Agios Georgios	3.25	9	P	Pn	16 20 11.5	-0.2
AGG				S	Sn	16 20 51.6	+1.2
AGG	Agios Georgios	3.25	9	P	Pn	16 20 11.5	-0.2
AGG				S	Sn	16 20 51.6	+1.2
XOR	Xorichti	3.75	18	P	Pn	16 20 19.2	+0.7
XOR				S	Sn	16 21 03.7	+1.0
XOR	Xorichti	3.75	18	P	Pn	16 20 19.2	+0.7
XOR				S	Sn	16 21 03.7	+1.0
THL	Klokotos Trika	3.77	4	P	Pn	16 20 18.1	-0.6
THL				S	Sn	16 21 02.6	-0.4
THL	Klokotos Trika	3.77	4	P	Pn	16 20 18.1	-0.6
THL				S	Sn	16 21 02.6	-0.4
IGT	Igoumenitsa	3.88	344	P	Pn	16 20 19.4	-0.8
IGT				S	Sn	16 21 06.4	+0.6
IGT	Igoumenitsa	3.88	344	P	Pn	16 20 19.4	-0.8
IGT				S	Sn	16 21 06.4	+0.6
MEV	Metsovon	3.99	355	P	Pn	16 20 22.4	+0.6
MEV	Metsovon	3.99	355	P	Pn	16 20 22.4	+0.6
CHOS	Chios island	4.34	52	P	Pn	16 20 26.8	+0.3
CHOS				S	Sn	16 21 21.1	+4.0
CHOS	Chios island	4.34	52	P	Pn	16 20 26.8	+0.3
LIT	Litokhoron	4.34	8	P	Pn	16 20 27.4	+0.8
LIT				S	Sn	16 21 17.6	+0.4
LIT	Litokhoron	4.34	8	P	Pn	16 20 27.4	+0.8
LIT				S	Sn	16 21 17.6	+0.4
PAIG	Paliouri	4.41	20	P	Pn	16 20 27.8	+0.3
PAIG	Paliouri	4.41	20	P	Pn	16 20 27.8	+0.3
SIGR	SIGRI	4.75	43	P	Pn	16 20 32.4	+0.2
SIGR	SIGRI	4.75	43	P	Pn	16 20 32.4	+0.2
FNA	Florina	4.98	357	P	Pn	16 20 35.1	-0.3
FNA				S	Sn	16 21 33.3	+0.3
FNA	Florina	4.98	357	P	Pn	16 20 35.1	-0.3
FNA				S	Sn	16 21 33.3	+0.3
KRUS	Krusevo	5.57	357	*e*Pn	Pn	16 20 42.4	-1.1
KRUS				*e*Sg	Sn	16 21 41.1	-6.4
KRUS	Krusevo	5.57	357	*e*Pn	Pn	16 20 42.4	-1.1

IDC 26 16:21:52.0±1.5**, 52°.91N×67°.20W, h0^{km}, mb3.3**/2**, mb1 3.7**/3**, mb1mx3.3**/26**, mbtmp3.5**/3**, ML3.8**/1**, Error ellipse: s-maj=31.0km s-min=10.6km az=90.0, Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCHQ	Schefferville	1.94	6	Pg	Pg	16 22 26.5	-2.6
	15nm,0.3s,baz=184,slow=12,SNR=77						
SCHQ				Lg		16 22 52.0	
	27nm,0.3s,baz=69,slow=12,SNR=18						
FRB	Frobisher Bay	10.89	357	Pn	Pn	16 24 25.8	-3.1
	0.6nm,0.3s,baz=182,slow=13,SNR=8.1						
FRB				Sn	Sn	16 26 21.9	-9.3
	0.1nm,0.3s,baz=94,slow=19,SNR=3.1						
FRB				Lg		16 27 27.4	
	0.8nm,0.3s,baz=25,slow=8.9,SNR=4.2						
ULM	Lac du Bonnet	17.97	273	Lg		16 31 12.6	
	0.3nm,0.3s,baz=143,slow=3.8,SNR=3.5						
RES	Resolute Bay	24.55	343	Lg		16 34 26.8	
	0.8nm,0.8s,baz=229,slow=19,SNR=3.5						
YKA	Yellowknife Ar	26.48	310	P	P	16 27 30.1	-0.3
	0.2nm,0.6s,baz=90,slow=9.9,SNR=4.5						
YKA				Lg		16 35 39.2	
	0.5nm,0.7s,baz=81,slow=28,SNR=4.6						
TORD	Torodi Ar. Bea	66.90	99	P	P	16 32 45.9	-0.1
	0.4nm,0.7s,baz=306,slow=8.8,SNR=2.6						

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*ISCJB **26** 16:25:20.9±0.4, 59°.78N±0°.03×23°.94E±0°.05, h0^{km}, Error ellipse: s-maj=4.2km s-min=3.2km az=147.9*

*IDC **26** 16:25:20.4±2.8, 59°.56N×24°.34E, h0^{km}, mb1 3.3/4, mb1mx3.0/25, mbtmp3.2/4, ML3.0/3, Error ellipse: s-maj=36.0km s-min=9.5km az=154.0*

*CSEM **26** 16:25:22.1±0.2, 59°.75N×24°.01E, h2^{km}, ML2.1, Error ellipse: s-maj=6.0km s-min=4.2km az=145.0, Mining explosion.*

*HEL **26** 16:25:22.2±0.1, 59°.76N×23°.97E, h0^{km}, ML2.1(UPP), Explosion*

*UPP **26** 16:25:23.0, 59°.79N×23°.87E, h0^{km}, ML2.1, Suspected Mining explosion.*

ISC 26 16:25:21.8±0.4**, 59°.76N**±0°.03×**23°.99E**±0°.05**, h0^{km}, n50, σ1ˢ.07**/76**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MEF	Metsahovi	0.50	24	*e*P	Pg	16 25 31.0	-0.3
MEF				*e*S	Sg	16 25 36.5	-1.3
MEF	Metsahovi	0.50	24	P	Pg	16 25 31.0	-0.3
MEF				S	Sg	16 25 36.4	-1.4
MTSE	Matsula	1.06	185	*e*P	Pg	16 25 40.9	-1.1
MTSE				*e*S	Sg	16 25 53.6	-2.1
MTSE	Matsula	1.06	185	P	Pg	16 25 40.9	-1.1
PVF	Pernaja	1.22	49	*e*P	Pg	16 25 43.8	-1.4
PVF				*e*S	Sg	16 25 58.7	-2.3
PVF	Pernaja	1.22	49	P	Pg	16 25 43.8	-1.4
PVF				S	Sg	16 25 58.6	-2.4
RAF	Rauma	1.68	320	*e*P	Pn	16 25 51.9	-0.4
RAF				*e*S	Sn	16 26 12.9	-1.6
RAF	Rauma	1.68	320	P	Pn	16 25 51.9	-0.4
RAF				S	Sn	16 26 12.9	-1.6
VSU	Vasula	1.93	131	*e*P	Pn	16 25 56.3	+0.5
VSU				*e*S	Sn	16 26 21.0	+0.4
VSU	Vasula	1.93	131	P	Pn	16 25 56.2	+0.5
VSU				S	Sn	16 26 21.0	+0.4
VJF	Virojoki	1.95	65	*e*P	Pn	16 25 55.6	-0.4
VJF				*e*S	Sn	16 26 22.2	+1.1
VJF	Virojoki	1.95	65	P	Pn	16 25 55.6	-0.4
VJF				S	Sn	16 26 22.2	+1.1
FIA0	FINESS Array S	1.98	31	*e*P	Pn	16 25 57.6	+1.1
FIA0				*e*S	Sn	16 26 23.4	+1.6
FIA0	FINESS Array S	1.98	31	P	Pn	16 25 57.5	+1.1
FIA0				S	Sn	16 26 23.4	+1.6
FINES	FINESS Array B	1.98	31	Pn	Pn	16 25 57.5	+1.1
	3.2nm,0.3s,baz=206,slow=16,SNR=289						
FINES				Sn	Sn	16 26 24.0	+2.2
	6.8nm,0.3s,baz=198,slow=26,SNR=22						
AAL	Aland	2.05	283	*e*P	Pn	16 25 58.1	+0.7
AAL				*e*S	Sn	16 26 23.9	+0.2
AAL	Aland	2.05	283	P	Pn	16 25 58.1	+0.7
AAL				S	Sn	16 26 23.8	+0.1
KEF	Keuruu	2.45	10	*e*P	Pn	16 26 05.0	+2.1
KEF				*e*S	Sn	16 26 32.2	-1.4
KEF	Keuruu	2.45	10	P	Pn	16 26 05.0	+2.1
KEF				S	Sn	16 26 32.1	-1.4
KAF	Kangasniemi	2.62	25	*e*P	Pn	16 26 07.1	+1.9
KAF				*e*S	Sn	16 26 37.6	0.0
KAF	Kangasniemi	2.62	25	P	Pn	16 26 07.0	+1.8
KAF				S	Sn	16 26 37.6	0.0
GRAU	Graesoe	2.79	284	*e*P	Pn	16 26 07.2	-0.5
GRAU	Graesoe	2.79	284	P	Pn	16 26 07.2	-0.4
FORU	Forsmark	2.98	285	*e*P	Pn	16 26 11.1	+1.0
FORU	Forsmark	2.98	285	P	Pn	16 26 11.1	+0.9
FLYU	Flymyra	3.09	279	*e*P	Pn	16 26 12.1	+0.3
FLYU	Flymyra	3.09	279	P	Pn	16 26 12.1	+0.4
SUF	Sumiainen	3.15	18	*e*P	Pn	16 26 14.3	+1.8
SUF				*e*S	Sn	16 26 49.9	-0.7
SUF	Sumiainen	3.15	18	P	Pn	16 26 14.2	+1.7
SUF				S	Sn	16 26 49.9	-0.7
NYNU	Nynaeshamn	3.15	259	*e*P	Pn	16 26 12.9	+0.3
NYNU	Nynaeshamn	3.15	259	P	Pn	16 26 12.9	+0.3
VAF	Ylistaro	3.35	350	*e*P	Pn	16 26 17.2	+2.0
VAF				*e*S	Sn	16 26 55.4	-0.4
VAF	Ylistaro	3.35	350	P	Pn	16 26 17.2	+1.9
VAF				S	Sn	16 26 55.3	-0.4
OSTU	Oestervaala	3.47	281	*e*P	Pn	16 26 17.1	+0.1
OSTU	Oestervaala	3.47	281	P	Pn	16 26 17.1	+0.1
IGGU	Iggoen	3.50	291	*e*P	Pn	16 26 17.6	+0.2
IGGU	Iggoen	3.50	291	P	Pn	16 26 17.6	+0.3
GOTU	Gotland	3.51	236	*e*P	Pn	16 26 18.1	+0.6
GOTU	Gotland	3.51	236	P	Pn	16 26 18.1	+0.6
ARNU	Arnoeviken	3.78	304	*e*P	Pn	16 26 21.4	+0.3
ARNU	Arnoeviken	3.78	304	P	Pn	16 26 21.4	+0.2
ESKU	Eskilstuna	3.91	265	*e*P	Pn	16 26 23.6	+0.7
ESKU	Eskilstuna	3.91	265	P	Pn	16 26 23.6	+0.7
HUDU	Hudiksvall	3.91	303	*e*P	Pn	16 26 23.0	0.0
HUDU	Hudiksvall	3.91	303	P	Pn	16 26 23.0	+0.1
FALU	Falun	4.14	284	*e*P	Pn	16 26 26.5	+0.3
FALU	Falun	4.14	284	P	Pn	16 26 26.5	+0.3
HFS	Hagfors	5.19	279	Pn	Pn	16 26 40.7	+0.2
	0.3nm,0.3s,baz=96,slow=13,SNR=21						
HFS				Sn	Sn	16 27 39.4	-1.6
	0.6nm,0.3s,baz=82,slow=16,SNR=5.4						
NOA	NORSAR Array B	6.46	287	Pn	Pn	16 26 56.7	-1.3
	0.4nm,0.3s,baz=95,slow=17,SNR=14						
NOA				Sn	Sn	16 28 12.6	+0.4
	0.3nm,0.3s,baz=286,slow=19,SNR=2.3						
ARCES	ARCESS Array B	9.83	3	Pn	Pn	16 27 43.0	-1.1
	0.1nm,0.3s,baz=183,slow=14,SNR=28						

IDC 26 16:25:35.0±3.5**, 59°.47N×24°.53E, h0^{km}, mb1 3.2**/4**, mb1mx3.0**/25**, mbtmp3.2**/4**, ML3.4**/2**, Error ellipse: s-maj=45.7km s-min=10.6km az=150.0, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FINES	FINESS Array B	2.12	21	Pn	Pn	16 26 13.2	+1.5
	3.6nm,0.3s,baz=198,slow=12,SNR=25						
FINES				Sn	Sn	16 26 39.4	+0.7
	8.5nm,0.3s,baz=192,slow=25,SNR=11						
HFS	Hagfors	5.51	282	Pn	Pn	16 26 56.3	-1.8
	0.3nm,0.3s,baz=106,slow=15,SNR=7.8						
HFS				Sn	Sn	16 27 59.8	-2.4
	1.1nm,0.3s,baz=87,slow=27,SNR=6.6						
NOA	NORSAR Array B	6.81	289	Pn	Pn	16 27 12.3	-3.7
	0.5nm,0.3s,baz=95,slow=17,SNR=9.4						
ARCES	ARCESS Array B	10.12	2	Pn	Pn	16 27 59.2	-2.0
	0.3nm,0.3s,baz=180,slow=13,SNR=10						

IDC 26 16:25:43.4±3.8**, 59°.59N×24°.45E, h0^{km}, mb1 3.2**/4**, mb1mx3.0**/25**, mbtmp3.1**/4**, ML2.9**/4**, Error ellipse: s-maj=53.9km s-min=12.0km az=147.0, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FINES	FINESS Array B	2.03	23	Pn	Pn	16 26 19.7	+0.9
	3.5nm,0.3s,baz=206,slow=15,SNR=14						
FINES				Sn	Sn	16 26 46.3	+1.5
	7.3nm,0.3s,baz=191,slow=25,SNR=7.8						
HFS	Hagfors	5.45	280	Pn	Pn	16 27 05.0	-0.8
	0.4nm,0.3s,baz=98,slow=10,SNR=9.3						
NOA	NORSAR Array B	6.74	288	Pn	Pn	16 27 19.4	-4.0
	0.5nm,0.3s,baz=95,slow=17,SNR=6.4						
NOA				Sn	Sn	16 28 44.2	+3.5
	1.0nm,0.3s,baz=344,slow=17,SNR=3.4						
ARCES	ARCESS Array B	10.00	2	Pn	Pn	16 28 06.8	-1.3
	0.2nm,0.3s,baz=181,slow=12,SNR=5.6						

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*ISCJB **26** 16:36:12.1±0.7, 0°.85N±0°.05×126°.96E±0°.06, h59^{km}±7^{km}, mb4.3/14, Error ellipse: s-maj=10.8km s-min=7.7km az=153.4*

*DJA **26** 16:36:12, 0°.88N×127°.04E, h30^{km}, MLv4.5/4*

*IDC **26** 16:36:14.6±7.5, 0°.80N×126°.80E, h63^{km}±73^{km}, mb4.0/12, mb1 4.0/13, mb1mx3.8/22, mbtmp3.9/13, ML3.5/1, Error ellipse: s-maj=39.6km s-min=15.9km az=81.0*

*NEIC **26** 16:36:16.4±2.6, 0°.77N×126°.82E, h83^{km}±25^{km}, mb4.2/2, Error ellipse: s-maj=22.7km s-min=7.6km az=60.0*

ISC 26 16:36:12.9±0.6**, 0°.88N**±0°.05×**127°.03E**±0°.06**, h49^{km}**±7^{km}**, n36, σ0ˢ.86**/34**, mb4.3**/14**, 1C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNE	Ternate	0.35	105	⇑*e*P	Px	16 36 18.5	
TNE				*e*S	Sx	16 36 25.5	
TNTI	Ternate	0.35	107	P	Pn	16 36 21.6	-0.9
LBMI	Labuha	1.57	163	P	Pn	16 36 39.3	+0.8
MNI	Manado	2.26	284	P	Pn	16 36 47.3	-0.6
KMSI	Cibinong	3.06	264	P	Pn	16 36 59.0	+0.1
SGSI	Sangihe	3.17	332	P	Pn	16 37 02.2	+1.8
NLAI	Namlea	4.09	179	P	Pn	16 37 13.4	+0.4
AAI	Ambon	4.68	166	P	Pn	16 37 22.1	+1.0
KDI	Kendari	6.52	223	P	Pn	16 37 46.9	+0.6
	18nm,1.0s						
TTSI	Tana Toraja	8.19	242	P	Pn	16 38 08.5	-0.8
	28nm,1.1s						
BNSI	Bone	8.68	233	P	Pn	16 38 16.1	+0.1
	22nm,0.7s						
BAKI	Biak	9.30	103	P	Pn	16 38 23.0	-1.6
KAPI	Kappang	9.33	231	*e*P	Pn	16 38 24.6	-0.3
KSM	Kuching	16.73	272	P	Pn	16 40 04.0	-0.1
FITZ	Fitzroy Crossi	18.91	184	P	Pn	16 40 30.3	-0.4
	0.1nm,0.3s,baz=20,slow=12,SNR=3.0						
FITZ	Fitzroy Crossi	18.91	184	P	Pn	16 40 29.4	-1.3
WRAB	Tennant Creek	21.89	161	*e*P	P	16 41 01.9	0.0
	6.3nm,0.6s,mb4.2						
WRA	Warramunga Arr	21.89	161	P	P	16 41 01.7	-0.3
	5.5nm,0.6s,mb4.1,baz=336,slow=11,SNR=93						
ASAR	Alice Springs	25.29	165	P	P	16 41 35.0	0.0
	4.1nm,0.6s,mb4.2,baz=343,slow=7.6,SNR=57						
NWAO	Narrogin (SRO)	34.87	194	P	P	16 42 59.5	-0.2
	8.6nm,0.9s,mb4.7,baz=53,slow=10,SNR=2.4						
NWAO	Narrogin (SRO)	34.87	194	P	P	16 42 59.5	-0.2
STKA	Stephens Creek	35.38	158	P	P	16 43 04.2	+0.2
	1.3nm,0.3s,mb4.3,baz=334,slow=8.3,SNR=14						
STKA	Stephens Creek	35.38	158	*e*P	P	16 43 04.0	-0.1
KSRS	Korea Array	36.41	1	P	P	16 43 12.9	+0.1
	1.1nm,0.7s,mb3.9,baz=176,slow=9.6,SNR=6.1						
ARMA	Armidale	38.95	145	*e*P	P	16 43 35.8	+1.4
ULN	Ulaanbaatar	49.91	342	*e*P	P	16 45 01.7	+0.1
	1.2nm,0.4s,mb4.3						
SONM	Songino Array	50.08	342	P	P	16 45 03.4	+0.4
	1.7nm,0.8s,mb4.1,baz=150,slow=9.4,SNR=10						
PETK	Petropavlovsk-	57.95	21	P	P	16 46 02.8	+2.5
	4.6nm,1.0s,mb4.5,baz=227,slow=7.7,SNR=3.1						
MKAR	Makanchi Array	60.07	326	P	P	16 46 14.8	-0.2
	1.1nm,0.5s,mb4.2,baz=120,slow=7.7,SNR=27						
MKAR	Makanchi Array	60.07	326	P	P	16 46 14.8	-0.2
ZAA0	Zalesovo Array	63.26	334	*e*P	P	16 46 35.5	-0.9
ZALV	Zalesovo Beam	63.26	334	P	P	16 46 34.8	-1.5
	0.5nm,0.4s,mb4.0,baz=110,slow=6.5,SNR=6.1						
KURK	Kurchatov	64.30	328	P	P	16 46 43.1	-0.2
	3.4nm,0.6s,mb4.6,baz=130,slow=6.1,SNR=18						
BVAR	Borovoye Array	69.87	327	P	P	16 47 19.4	+0.8
	2.0nm,0.9s,mb4.1,baz=134,slow=8.4,SNR=8.7						
ARCES	ARCESS Array B	93.21	340	P	P	16 49 20.6	-1.2
	2.2nm,0.8s,mb4.6,baz=64,slow=6.1,SNR=2.9						
TORD	Torodi Ar. Bea	124.05	286	PKP	PKPdf	16 55 05.7	-1.3
	0.4nm,0.5s,baz=52,slow=2.8,SNR=3.3						

IDC 26 16:38:14.8±48.0**, 21°.33S×178°.96W, h520^{km}**±409^{km}**, mb3.2**/4**, mb1 3.3**/4**, mb1mx3.0**/18**, mbtmp3.2**/4**, Error ellipse: s-maj=374.9km s-min=110.7km az=109.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	32.53	266	P	P	16 44 03.1	+0.3
	2.1nm,0.4s,baz=80,slow=12,SNR=5.8						
ASAR	Alice Springs	43.47	258	P	P	16 45 31.8	-0.1
	1.6nm,0.8s,baz=89,slow=8.2,SNR=14						
ASAR				PcP	PcP	16 47 08.2	-0.5
	0.3nm,0.6s,baz=112,slow=4.0,SNR=4.5						
WRA	Warramunga Arr	43.61	263	P	P	16 45 33.5	+0.4
	0.9nm,0.4s,baz=100,slow=9.4,SNR=22						
FITZ	Fitzroy Crossi	52.04	263	P	P	16 46 35.1	-1.2
	1.4nm,0.5s,baz=153,slow=6.8,SNR=2.3						
BRTR	Keskin Array B	146.72	311	PKPbc	PKPbc	16 56 57.5	-0.9
MMAI	Mount Meron Ar	147.43	298	PKPbc	PKPbc	16 57 00.7	+0.2
	1.0nm,0.4s,baz=79,slow=8.6,SNR=5.7						

NEIC 26 16:46:45.2, 45°.52S×167°.07E, h67^{km}, ML4.0(WEL)**, After WEL., South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.07	55	P	Pn	16 46 54.5	-0.5
DCZ				S	Sn	16 47 01.8	-0.3
WHZ	Wether Hill Ro	0.72	122	P	Pn	16 46 59.5	-0.6
WHZ				S	Sn	16 47 11.6	+0.5
MLZ	Mavora Lakes	0.80	78	P	Pn	16 47 00.2	-0.8
MSZ	Milford Sound	1.04	36	P	Pn	16 47 04.1	+0.1
WKZ	Wanaka	1.54	64	P	Pn	16 47 10.9	+0.3
WKZ				S	Sn	16 47 30.0	+0.3
EAZ	Earnscleugh	1.60	80	P	Pn	16 47 11.3	-0.1
TUZ	Tuapeka	1.85	105	P	Pn	16 47 14.3	-0.3
JCZ	Jackson Bay	1.88	40	P	Pn	16 47 15.0	-0.1
LBZ	Lake Benmore	2.48	64	P	Pn	16 47 22.1	-1.2
ODZ	Otahua Downs	2.57	81	P	Pn	16 47 23.3	-1.1
FOZ	Fox Glacier	2.71	45	P	Pn	16 47 26.1	-0.2
RPZ	Rata Peaks	3.37	59	P	Pn	16 47 33.3	-2.0
MQZ	McQueen’s Vall	4.38	68	P	Pn	16 47 46.7	-2.4
CRLZ	Canterbury Las	4.42	66	P	Pn	16 47 47.4	-2.3
LTZ	Lake Taylor	4.63	56	P	Pn	16 47 49.8	-2.8
DSZ	Denniston Nort	5.10	44	P	Pn	16 47 57.1	-1.9
KHZ	Kahutara	5.60	59	P	Pn	16 48 02.8	-3.1
THZ	Tophouse	5.66	50	P	Pn	16 48 03.1	-3.5
QRZ	Quartz Range	6.16	42	P	Pn	16 48 11.5	-2.0

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*ISCJB **26** 17:02:17.9±1.3, 73°.94N±0°.08×10°.5E±0°.5, h10^{km}, mb3.4/2, MS3.5/2, Error ellipse: s-maj=22.1km s-min=8.7km az=158.4*

*IDC **26** 17:02:17.8±1.9, 73°.89N×8°.35E, h0^{km}, mb3.4/2, mb1 3.6/5, mb1mx3.3/25, mbtmp3.6/5, ML3.2/3, MS3.6/3, Ms1 3.6/3, ms1mx2.9/47, Error ellipse: s-maj=33.1km s-min=17.3km az=80.0*

*NEIC **26** 17:02:18.5±1.2, 73°.96N×8°.68E, h10^{km}, Error ellipse: s-maj=22.6km s-min=9.5km az=73.0*

ISC 26 17:02:19.8±1.2**, 73°.99N**±0°.08×**9°.9E**±0°.6**, h10^{km}, n13, σ1ˢ.60**/14**, mb3.4**/2**, MS3.5**/2**, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	3.35	22	*e*P	Pn	17 03 11.7	-0.3
SPITS	Spitsbergen Ar	4.49	17	Pn	Pn	17 03 28.4	+0.7
	baz=263,slow=14,SNR=205						
KBS	Kingsbay	4.99	4	*e*Pn	Pn	17 03 33.5	-1.1
ARCES	ARCESS Array B	6.60	125	Pn	Pn	17 03 59.6	+3.0
	0.8nm,0.3s,baz=321,slow=10,SNR=29						
ARCES				Sn	Sn	17 05 08.1	-3.7
	1.0nm,0.3s,baz=318,slow=20,SNR=9.9						
ARCES	ARCESS Array B	6.60	125	Pn	Pn	17 03 59.6	+3.0
ARCES				Sn	Sn	17 05 08.1	-3.7
ARE0	ARCESS Array S	6.60	125	*e*Pn	Pn	17 03 58.5	+1.9
ARE0				*e*Sn	Sn	17 05 03.1	-8.7
KEV	Kevo	6.79	120	*e*Pn	Pn	17 04 02.0	+2.9
KEV				*e*Sn	Sn	17 05 10.6	-5.7
FINES	FINESS Array B	13.91	146	Pn	Pn	17 05 37.1	+0.5
	0.1nm,0.3s,baz=324,slow=6.9,SNR=3.0						
HFS	Hagfors	13.99	172	LR	LR	17 10 22.0	
	comp=Z,245nm,18.8s,baz=163,slow=35						
SFJD	Kangerlussuaq	20.45	282	LR	LR	17 14 04.1	
	comp=Z,123nm,18.7s,MS3.3,baz=180,slow=35						
SCHQ	Schefferville	34.88	280	LR	LR	17 22 36.8	
	comp=Z,103nm,18.5s,MS3.6,baz=54,slow=35						
MKAR	Makanchi Array	40.90	90	P	P	17 10 04.7	+3.2
	0.2nm,0.7s,mb2.9,baz=305,slow=5.1,SNR=2.4						
TORD	Torodi Ar. Bea	61.00	189	P	P	17 12 31.9	-1.1
	0.9nm,0.9s,mb3.9,baz=0.5,slow=7.3,SNR=4.4						

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*ISCJB **26** 17:06:43.7±0.6, 38°.64N±0°.03×29°.13E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=4.6km az=177.8*

*DDA **26** 17:06:43.8, 38°.65N×29°.07E, h7^{km}±5^{km}, Md2.8*

*CSEM **26** 17:06:44.2±0.2, 38°.64N×29°.13E, h2^{km}, MD2.8, Error ellipse: s-maj=3.4km s-min=3.1km az=162.0*

ISC 26 17:06:44.3±0.6**, 38°.65N**±0°.04×**29°.12E**±0°.04**, h4^{km}**±14^{km}**, n12, σ0ˢ.18**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KULA	Kula-Manisa	0.38	250	*e*PG	Pg	17 06 51.9	+0.3
KULA				*e*SG	Sg	17 06 56.5	0.0
KULA	Kula-Manisa	0.38	250	*e*Pg	Pg	17 06 51.9	+0.3
KULA				*e*Sg	Sg	17 06 56.5	-0.1
KHL	Karahalli	0.45	135	*e*PG	Pg	17 06 52.9	0.0
KHL				*e*SG	Sg	17 06 58.7	-0.1
KHL	Karahalli	0.45	135	*e*Pg	Pg	17 06 52.9	0.0
KHL				*e*Sg	Sg	17 06 58.7	-0.1
MANT	Manisa	0.47	251	*i* P	Pg	17 06 53.3	+0.1
MANT				*i* S	Sg	17 06 59.1	-0.2
MANT	Manisa	0.47	251	*i* P	Pg	17 06 53.3	+0.1
MANT				*i* S	Sg	17 06 59.1	-0.2
GDZ	Gediz	0.53	32	*i* P	Pg	17 06 54.2	-0.2
GDZ				*i* S	Sg	17 07 01.4	+0.1
GDZ	Gediz	0.53	32	*i* P	Pg	17 06 54.2	-0.2
GDZ				*i* S	Sg	17 07 01.4	+0.2
DURS	Dursunbey	1.08	333	*i* P	Pg	17 07 04.8	-0.1
DURS				*i* S	Sg	17 07 18.9	0.0
DURS	Dursunbey	1.08	333	*i* P	Pg	17 07 04.8	-0.2
DURS				*i* S	Sg	17 07 18.9	-0.1
BALY	Balya	1.60	314	*i* P	Pb	17 07 14.7	+0.4
BALY				*i* S	Sb	17 07 34.6	-0.2
BALY	Balya	1.60	314	*i* P	Pb	17 07 14.7	+0.3
BALY				*i* S	Sb	17 07 34.7	-0.2

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*ISCJB **26** 17:09:27.4±0.9, 35°.82N±0°.05×21°.87E±0°.06, h10^{km}, Error ellipse: s-maj=8.2km s-min=5.0km az=137.0*

*NEIC **26** 17:09:27.0, 35°.97N×21°.79E, h5^{km}, MD3.7(ATH), After ATH.*

*ATH **26** 17:09:27.0, 35°.97N×21°.79E, h5^{km}, MD3.7/12*

*CSEM **26** 17:09:29.2±0.6, 35°.98N×21°.88E, h2^{km}, MD3.7, Error ellipse: s-maj=12.6km s-min=6.6km az=43.0*

*THE **26** 17:09:29.3, 35°.93N×21°.92E, h0^{km}±2^{km}, ML3.5/6, Error ellipse: s-maj=3.9km s-min=1.2km az=217.0*

ISC 26 17:09:28.1±0.9**, 35°.80N**±0°.05×**21°.84E**±0°.06**, h10^{km}, n65, σ1ˢ.17**/97**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	Kithira	1.08	63	*e*PB	Pg	17 09 47.7	-1.3
KYTH	Kithira	1.08	63	*e*Pb	Pg	17 09 47.7	-1.3
PYL	PYLOS	1.10	356	*e*PB	Pg	17 09 44.8	-4.5
PYL				*e*SB	Sg	17 09 58.3	-5.3
PYL	PYLOS	1.10	356	P	Pg	17 09 44.8	-4.5
PYL				*e*Sb	Sg	17 09 58.3	-5.3
VLI	Veliai	1.28	44	*e*PG	Pn	17 09 49.2	-2.9
VLI	Veliai	1.28	44	*e*Pg	Pn	17 09 49.2	-2.9
ITM	Ithomi	1.38	3	*e*PB	Pn	17 09 50.2	-3.3
ITM				*e*SB	Sn	17 10 07.3	-4.5
VLX	Vlachokerasia	1.63	15	*e*PG	Pn	17 09 54.2	-2.7
VLX				*e*SB	Sn	17 10 15.3	-2.6
KARN	Karanos	1.74	102	P	Pn	17 10 00.5	+2.1
KARN				S	Sn	17 10 23.8	+3.2
KARN	Karanos	1.74	102	P	Pn	17 10 00.5	+2.1
KARN				S	Sn	17 10 23.8	+3.2
VAM	Vamos	1.96	101	*e*PN	Pg	17 10 05.0	-0.8
VAM	Vamos	1.96	101	*e*Pn	Pg	17 10 05.0	-0.8
DID	Didima	2.04	33	P	Pn	17 10 01.3	-1.3
DID				S	Sn	17 10 28.1	0.0
DID	Didima	2.04	33	*e*PG	Pn	17 10 02.0	-0.6
DID	Didima	2.04	33	P	Pn	17 10 01.3	-1.3
DID				S	Sn	17 10 28.1	0.0
GUR	Goura	2.17	11	*e*PG	Pn	17 10 04.1	-0.3
RLS	Riolos of Patr	2.28	353	*e*PN	Pn	17 10 05.5	-0.3
RLS	Riolos of Patr	2.28	353	*e*Pn	Pn	17 10 05.5	-0.3
NAIG	Nisos Aigina	2.37	34	*e*PG	Pn	17 10 08.4	+1.4
LTK	Loutraki	2.40	22	P	Pn	17 10 07.4	-0.1
LTK				S	Sn	17 10 36.6	-0.3

LTK	Loutraki	2.40	22	*e*PG	Pn	17 10 08.6	+1.1
LTK	Loutraki	2.40	22	P	Pn	17 10 07.4	-0.1
LAKA	Lakka	2.44	3	P	Pn	17 10 08.1	+0.1
LAKA				S	Sn	17 10 38.5	+0.6
LAKA	Lakka	2.44	3	P	Pn	17 10 08.1	+0.1
TRIZ	Trizonia	2.57	4	P	Pn	17 10 10.0	+0.2
TRIZ				S	Sn	17 10 41.8	+0.7
TRIZ	Trizonia	2.57	4	P	Pn	17 10 10.0	+0.2
TRIZ				S	Sn	17 10 41.8	+0.7
VLS	Valsamata	2.58	338	P	Pn	17 10 10.6	+0.7
VLS				S	Sn	17 10 42.6	+1.3
VLS	Valsamata	2.58	338	*e*PN	Pn	17 10 09.2	-0.7
VLS	Valsamata	2.58	338	*e*Pn	Pn	17 10 09.2	-0.7
VLS	Valsamata	2.58	338	P	Pn	17 10 10.6	+0.7
VLS				S	Sn	17 10 42.6	+1.3
KALE	Kalithea	2.60	5	P	Pn	17 10 09.8	-0.4
KALE				S	Sn	17 10 40.9	-1.0
KALE	Kalithea	2.60	5	P	Pn	17 10 09.8	-0.4
KALE				S	Sn	17 10 40.9	-1.0
EFP	Efpalio	2.63	1	*e*PN	Pn	17 10 11.3	+0.7
EFP	Efpalio	2.63	1	*e*Pn	Pn	17 10 11.3	+0.7
PTL	Penteli	2.77	35	*e*PN	Pn	17 10 13.9	+1.3
PTL	Penteli	2.77	35	*e*Pn	Pn	17 10 13.9	+1.3
LKR	Lokris	3.00	18	P	Pn	17 10 16.0	+0.3
LKR	Lokris	3.00	18	*e*PN	Pn	17 10 16.3	+0.6
LKR	Lokris	3.00	18	P	Pn	17 10 16.0	+0.3
LKR	Lokris	3.00	18	*e*Pn	Pn	17 10 16.3	+0.6
LKD	Levkas	3.06	342	P	Pn	17 10 17.1	+0.6
LKD				S	Sn	17 10 54.0	+0.9
LKD	Levkas	3.06	342	P	Pn	17 10 17.1	+0.6
LKD				S	Sn	17 10 54.0	+0.9
AGG	Agios Georgios	3.24	7	P	Pn	17 10 18.6	-0.5
AGG				S	Sn	17 10 58.5	+0.8
AGG	Agios Georgios	3.24	7	P	Pn	17 10 18.6	-0.5
AGG				S	Sn	17 10 58.5	+0.8
XOR	Xorichti	3.72	16	P	Pn	17 10 25.2	-0.4
XOR				S	Sn	17 11 09.2	-0.3
XOR	Xorichti	3.72	16	P	Pn	17 10 25.2	-0.4
XOR				S	Sn	17 11 09.2	-0.3
AOS	Alonnisos	3.74	25	P	Pn	17 10 25.3	-0.6
AOS	Alonnisos	3.74	25	P	Pn	17 10 25.3	-0.6
THL	Klokotos Trika	3.77	2	P	Pn	17 10 25.6	-0.6
THL				S	Sn	17 11 11.8	+1.2
THL	Klokotos Trika	3.77	2	*e*PN	Pn	17 10 25.3	-0.9
THL	Klokotos Trika	3.77	2	*e*Pn	Pn	17 10 25.3	-0.9
THL	Klokotos Trika	3.77	2	P	Pn	17 10 25.6	-0.6
THL				S	Sn	17 11 11.8	+1.2
IGT	Igoumenitsa	3.92	343	P	Pn	17 10 27.3	-1.0
IGT				S	Sn	17 11 16.1	+1.8
IGT	Igoumenitsa	3.92	343	P	Pn	17 10 27.3	-1.0
IGT				S	Sn	17 11 16.1	+1.8
MEV	Metsovon	4.01	353	P	Pn	17 10 30.0	+0.4
MEV	Metsovon	4.01	353	P	Pn	17 10 30.0	+0.4
CHOS	Chios island	4.25	51	P	Pn	17 10 33.8	+0.9
CHOS				S	Sn	17 11 22.6	+0.1
CHOS	Chios island	4.25	51	P	Pn	17 10 33.8	+0.9
LIT	Litokhoron	4.33	7	P	Pn	17 10 34.4	+0.4
LIT				S	Sn	17 11 24.8	+0.3
LIT	Litokhoron	4.33	7	P	Pn	17 10 34.4	+0.4
LIT				S	Sn	17 11 24.8	+0.3
FNA	Florina	4.99	356	P	Pn	17 10 41.7	-1.4
FNA				S	Sn	17 11 42.7	+1.9
FNA	Florina	4.99	356	P	Pn	17 10 41.7	-1.4
FNA				S	Sn	17 11 42.7	+1.9
KRUS	Krusevo	5.58	355	*e*Pn	Pn	17 10 49.0	-2.2
KRUS				*e*Sg	Sn	17 11 48.5	-6.9
KRUS	Krusevo	5.58	355	*e*Pn	Pn	17 10 49.0	-2.2
BARS	Barje	7.01	360	*i* Pn	Pn	17 11 08.7	-2.1

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*ISCJB **26** 17:12:11.9±0.6, 51°.46N±0°.03×16°.10E±0°.03, h0^{km}, Error ellipse: s-maj=4.4km s-min=2.6km az=16.3*
*NEIC **26** 17:12:12.4±0.9, 51°.56N×16°.14E, h5^{km}, ML2.6(SZGRF), Error ellipse: s-maj=10.0km s-min=4.6km az=21.0*
*CSEM **26** 17:12:12.8±0.2, 51°.52N×16°.09E, h2^{km}, ML3.0/10, Error ellipse: s-maj=4.3km s-min=2.6km az=28.0*
*IPEC **26** 17:12:13.6±0.4, 51°.52N×16°.16E, h9^{km}±1^{km}, ML2.0/3, Error ellipse: s-maj=2.4km s-min=0.9km az=29.0*
*PRU **26** 17:12:14.7, 51°.48N×16°.06E, h0^{km}*
*WAR **26** 17:12:14, 51°.53N×16°.09E, ML2.5, Mining Induced*
*VIE **26** 17:12:15.0±0.5, 51°.35N×16°.07E, h0^{km}, mb2.2/2, ML2.7/4, Error ellipse: s-maj=3.2km s-min=3.0km az=108.0 71 km WNW of Wroclaw Suspected Mining induced.*
ISC 26 17:12:13.0±0.6**, 51°.51N**±0°.03×**16°.10E**±0°.03**, h0^{km}, n46, σ0^{s}.87**/86**, 2C-5D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.68	169	*e*Pg	Pg	17 12 26.5	+0.5
KSP				*e*Sg	Sg	17 12 36.0	+1.2
KSP	Ksiaz	0.68	169	*i* Pg	Pg	17 12 26.6	+0.6
KSP				*e*Sg	Sg	17 12 35.7	+0.8
KSP	Ksiaz	0.68	169	⇓*i*Pg	Pg	17 12 26.6	+0.6
KSP				*e*Sg	Sg	17 12 35.7	+0.8
KSP	Ksiaz	0.68	169	*e*Pg	Pg	17 12 26.4	+0.4
	baz=353						
KSP				*e*Sg	Sg	17 12 35.7	+0.8
	baz=353						
UPC	Upice	1.01	183	*e*PG	Pg	17 12 32.6	+0.3
UPC	Upice	1.01	183	*e*Pg	Pg	17 12 32.6	+0.3
	baz=5.2						
DPC	Dobruska-Polom	1.17	173	*e*PG	Pg	17 12 35.5	+0.1
DPC				*e*SG	Sg	17 12 51.0	+0.4
	comp=Z,31nm,0.8s						
DPC	Dobruska-Polom	1.17	173	Pg	Pg	17 12 35.5	+0.1
DPC				Sg	Sg	17 12 51.0	+0.4
	comp=Z,31nm,0.8s						
PVCC	Panska Ves	1.38	225	*e*PG	Pg	17 12 39.8	+0.4
PVCC	Panska Ves	1.38	225	Pg	Pg	17 12 39.8	+0.4
PVCC				*e*Sg	Sg	17 12 58.3	+1.1
	baz=45						
BRG	Berggiesshubel	1.50	246	Pg	Pg	17 12 41.4	-0.3
BRG				Sg	Sg	17 13 01.7	+0.6
BRG	Berggiesshubel	1.50	246	Pg	Pg	17 12 41.4	-0.3
BRG				*e*Sg	Sg	17 13 01.4	+0.3
	baz=64						
BRG				SG	Sg	17 13 01.7	+0.6
	comp=Z,55nm,0.4s						
BRG	Berggiesshubel	1.50	246	PG	Pg	17 12 41.4	-0.3
PRU	Pruhonice	1.82	213	*e*PN	Pn	17 12 45.1	-0.4
PRU				*e*PG	Pg	17 12 46.9	-0.9
PRU				*e*SG	Sg	17 13 11.5	+0.2
	comp=Z,14nm,0.4s						
PRU	Pruhonice	1.82	213	Pn	Pn	17 12 45.1	-0.4
CLL	Collm	1.95	265	*i* Pn	Pn	17 12 46.2	-1.0
CLL				*e*Pg	Pg	17 12 49.0	-1.3
CLL				*i*		17 12 53.4	
CLL				*i* Sg	Sg	17 13 15.0	-0.5
	comp=Z,19nm,0.7s						
CLL	Collm	1.95	265	*i* Pn	Pn	17 12 46.2	-1.0
CLL				*e*Pg	Pg	17 12 49.0	-1.3
CLL				*i* Sg	Sg	17 13 15.0	-0.5
CLL	Collm	1.95	265	*i* Pn	Pn	17 12 46.2	-1.0
MORC	Moravsky Berou	1.97	152	*e*Pn	Pn	17 12 46.6	-0.9
MORC				*e*Sn	Sn	17 13 13.8	+1.0
MORC	Moravsky Berou	1.97	152	*e*Pn	Pn	17 12 47.0	-0.5
	baz=334						
MORC				*e*Sn	Sn	17 13 13.8	+1.0
MORC				*e*Sg	Sg	17 13 15.2	-0.9
	comp=Z,16nm,0.3s,baz=334						
OKC	Ostrava-Krasne	2.13	141	*e*PG	Pg	17 12 53.1	-0.6
OKC				*e*SG	Sg	17 13 20.5	-0.7
	comp=Z,28nm,0.6s						
VRAC	Vranov	2.23	172	*e*Pn	Pn	17 12 51.3	+0.2
	baz=353						
VRAC				*e*Sg	Sg	17 13 23.2	-1.4
	comp=Z,7.7nm,0.3s,baz=353						
TREC	Trest	2.26	190	*e*PN	Pn	17 12 52.5	+1.0
TREC				*e*PG	Pg	17 12 55.3	-0.9
TREC				*e*SG	Sg	17 13 24.2	-1.2
	comp=Z,18nm,0.6s						
KRUC	Moravsky	2.46	175	*e*Pn	Pn	17 12 54.7	+0.4
	baz=357						
KRUC	Moravsky	2.46	175	*e*Pg	Pg	17 12 58.6	-1.5
	baz=357						
KRUC				*e*Sg	Sg	17 13 30.9	-1.1
	comp=Z,5.4nm,0.3s,baz=357						
NKC	Novy Kostel	2.64	242	*e*PN	Pn	17 12 56.9	+0.1
NKC				*e*PG	Pg	17 13 03.0	-0.6
NKC				*e*SG	Sg	17 13 40.6	+2.8
	comp=Z,34nm,0.3s						
NKC	Novy Kostel	2.64	242	*e*Pn	Pn	17 12 56.9	+0.1
	baz=60						
OJC	Ojcow	2.68	117	*e*Pg	Pg	17 13 04.2	-0.1
OJC				*e*Sg	Sg	17 13 40.1	+1.1
OJC	Ojcow	2.68	117	*e*Pg	Pg	17 13 04.2	-0.1
OJC				*e*Sg	Sg	17 13 40.1	+1.1
KHC	Kasperske Hory	2.88	215	*e*PN	Pn	17 12 59.8	-0.2
KHC				*e*PG	Pg	17 13 07.8	-0.3
KHC				*e*SN	Sn	17 13 36.9	+1.6
KHC				*e*SG	Sg	17 13 45.5	+0.1
	comp=Z,7.4nm,0.5s						
KHC	Kasperske Hory	2.88	215	Pn	Pn	17 12 59.8	-0.2
MOX	Moxa	2.96	255	*e*PG	Pg	17 13 08.6	-1.0
MOX				*i* SG	Sg	17 13 48.7	+0.8
GEC2	GERESS Array S	3.08	211	*e*Pn	Pn	17 13 03.6	+0.8
GEC2	GERESS Array S	3.08	211	*e*Pn	Pn	17 13 03.6	+0.8
WET	Wettzell	3.14	222	*e*Pn	Pn	17 13 03.8	+0.1
WET	Wettzell	3.14	222	*e*Pn	Pn	17 13 03.8	+0.1
VYHS	Vyhne	3.50	149	*e*PN	Pg	17 13 20.7	+0.7
VYHS				*e*SN	Sg	17 14 03.1	-2.3
CLZ	Clausthal	3.58	277	*e*Pn	Pn	17 13 08.6	-1.0
CLZ	Clausthal	3.58	277	*e*Pn	Pn	17 13 08.6	-1.0
CONA	Conrad Observa	3.59	183	⇑*i*Pn	Pn	17 13 10.6	+0.7
CONA				⇑*i*Sg	Sg	17 14 08.3	0.0
	comp=Z,9.2nm,0.5s						
CONA	Conrad Observa	3.59	183	Pn	Pn	17 13 10.6	+0.8
CONA				Sg	Sg	17 14 08.3	0.0
	comp=Z,9.2nm,0.5s						
CSNA	Conrad Observa	3.59	183	⇓*i*Pn	Pn	17 13 10.4	+0.5
CSNA				⇓*i*Sg	Sg	17 14 08.5	+0.2
	comp=Z,6.9nm,0.4s						
CSNA	Conrad Observa	3.59	183	Pn	Pn	17 13 10.4	+0.6
CSNA				Sg	Sg	17 14 08.5	+0.2
	comp=Z,6.9nm,0.4s						
MOA	Molln	3.86	199	⇓*i*Pn	Pn	17 13 13.7	+0.3
MOA				⇓*i*Sg	Sg	17 14 17.1	+0.3
	comp=Z,8.4nm,0.5s						
MOA	Molln	3.86	199	Pn	Pn	17 13 13.7	+0.3
MOA				Sg	Sg	17 14 17.1	+0.3
	comp=Z,8.4nm,0.5s						
STHS	Stebnicka Huta	3.90	121	*e*PN	Pg	17 13 29.1	+1.4
STHS				*e*SN	Sg	17 14 19.2	+1.0

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*BJI **26** 17:13:26.2, 8°.37N×126°.54E, h12^{km}, mB5.2/35, mb4.8/44, Ms4.7/41, Ms7 4.6/36*
*GCMT **26** 17:13:27.8±0.2, 8°.45N×126°.89E, h24^{km}, MW5.2/88, Moment Tensor Solution. s56,c81; s88,c145; Duration: 1^{s}.0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.56±.02; $M_{\theta\theta}$0.11±.01; $M_{\phi\phi}$-0.67±.02; $M_{r\theta}$0.19±.02; $M_{\theta\phi}$0.06±.01; $M_{\phi r}$0.65±.04; Best double couple: $M_0$0.91600×10^{17} NP1:ϕ_s157.00000°, δ24.00000°, λ58.00000°. NP2: ϕ_s12.00000°, δ69.00000°, λ103.00000°. Principal axes: T 0.8850, Plg63.0000°, Azm303.0000°; N 0.0610, Plg12.0000°, Azm187.0000°; P -0.9480, Plg23.0000°, Azm91.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **26** 17:13:27.8±0.2, 8°.46N×126°.69E, h10^{km}, mb5.2/56 Error ellipse: s-maj=7.9km s-min=5.3km az=72.0*
NEIC Felt [III PIVS] at Bislig. Felt at Davao.
*MOS **26** 17:13:30.6±1.1, 8°.43N×126°.60E, h45^{km}, mb5.3/41, MS4.5/8, Error ellipse: s-maj=11.5km s-min=5.3km az=114.0*
*MAN **26** 17:13:30, 8°.40N×126°.93E, h62^{km}, mb5.6, ML4.6, MS5.0*
MAN INTENSITY III - BISLIG SURIGAO DEL SUR.
*IDC **26** 17:13:31.4±0.8, 8°.40N×126°.57E, h37^{km}±5^{km}, mb4.5/29, mb1 4.6/29, mb1mx4.6/31, mbtmp4.4/29, MS4.5/17, Ms1 4.5/17, ms1mx4.2/46, Error ellipse: s-maj=20.2km s-min=9.6km az=72.0*
*ISCJB **26** 17:13:32.7±0.5, 8°.46N±0°.02×126°.79E±0°.03, h64^{km}±4^{km}, mb5.0/121, Error ellipse: s-maj=5.7km s-min=3.6km az=168.9*
*DJA **26** 17:13:36, 8°.13N×127°.01E, h7^{km}, mb5.4/13*
ISC 26 17:13:34.4±0.5**, 8°.45N**±0°.02×**126°.78E**±0°.03**, h64**^{km}±3^{km}**, h48**^{km}±3.5^{km}**:pP-P, n288, σ1^{s}.21**/314**, mb5.0**/121**, 17C-10D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	1.25	294	*e*P	Pn	17 13 54.1	-1.8
MATI	Mati	1.58	199	*e*P	Pn	17 13 57.3	-3.0
BUKP	Musuan	1.79	252	*e*P	Pn	17 14 02.7	-0.3
DAV	Davao City (W)	1.81	221	Pn	Pn	17 14 02.6	-0.8
	699nm,0.3s,baz=354,slow=1.7,SNR=132						
DAV				Lg		17 14 29.1	
	763nm,0.3s,baz=87,slow=23,SNR=18						
DAV				LR	LR	17 14 31.7	
	comp=Z,7µm,20.4s,baz=359,slow=37						
DAV	Davao City (W)	1.81	221	⇑*e*P	Pn	17 14 00.9	-2.5
DAV	Davao City (W)	1.81	221	*e*Pn	Pn	17 14 02.8	-0.6
DAV				*e*Sn	Sn	17 14 30.5	+5.1
SCPH	Surigao	1.83	316	⇑*e*P	Pn	17 14 01.6	-2.1
SCPH				*e*S	Sn	17 14 28.6	+2.6
DMPH	Davao City--Mi	1.85	223	⇓*i*P	Pn	17 14 04.3	+0.4
DMPH				*i* S	Sn	17 14 42.8	+17
CGP	Cagayan de Oro	2.06	270	⇓*i*P	Pn	17 14 06.3	-0.4
CGP				*i* S	Sn	17 14 32.7	+1.3
KCP	Kidapawan	2.20	230	⇓*i*P	Pn	17 14 13.7	+5.0
KCP				*i* S	Sn	17 14 42.0	+7.2
MSLP	Maasin	2.53	312	*e*P	Pn	17 14 12.9	-0.1
CTBH	Cotabato--PC H	2.79	244	⇑*i*P	Pn	17 14 15.8	-0.8
CTBH				*i* S	Sn	17 14 50.1	+1.0
GSPH	General Santos	2.97	218	⇓*i*P	Pn	17 14 17.9	-1.1
GSPH				*i* S	Sn	17 14 55.0	+1.4
TBP	Tagbilaran	3.13	293	*e*P	Pn	17 14 21.2	-0.1
TBP				*e*S	Sn	17 14 57.8	+0.2
LLP	Lapu-Lapu	3.34	304	⇑*e*P	Pn	17 14 23.9	-0.2
LLP				*e*S	Sn	17 15 04.5	+1.9
OCLP	Ormoc	3.35	321	*e*P	Pn	17 14 24.9	+0.5
PAGZ	Pagadian	3.41	260	*e*P	Pn	17 14 26.0	+0.8
SNPH	Sibulan	3.61	284	*e*P	Pn	17 14 28.0	+0.1
CNP	Catarman	4.54	333	*e*P	Pn	17 14 40.8	+0.2
GUIM	Jordan	4.66	298	*e*P	Pn	17 14 42.2	-0.1
ZMPH	Zamboanga City	4.90	253	⇑*e*P	Pn	17 14 45.5	-0.1
RCP	Roxas	5.03	308	⇓*e*P	Pn	17 14 47.7	+0.3
PVCP	Virac	5.72	334	*e*P	Pn	17 14 56.9	+0.1
CUYO	Cuyo Island	6.16	293	*e*P	Pn	17 15 02.6	-0.2
SJMP	San Jose	6.84	306	*e*P	Pn	17 15 13.4	+1.2
BUSP	Coron	7.37	299	*e*P	Pn	17 15 20.3	+0.9
TNE	Ternate	7.64	176	⇓*e*P	Pn	17 15 21.0	-2.0
ENPP	El Nido	7.75	291	*e*P	Pn	17 15 24.1	-0.3
POLP	Polilio Island	7.83	323	*e*P	Pn	17 15 26.1	+0.4
TGY	Tagaytay City	8.02	315	Pn	Pn	17 15 28.5	+0.2
	37nm,0.3s,baz=139,slow=7.8,SNR=3.1						
TGY				LR	LR	17 18 56.7	
	comp=Z,35nm,18.2s,baz=275,slow=41						
PPR	Puerto Princes	8.05	280	⇓*i*P	Pn	17 15 29.0	+0.2
LUBP	Lubang	8.29	310	*e*P	Pn	17 15 36.2	+4.3
CAUP	Cauayan	9.73	331	*e*P	Pn	17 15 49.4	-2.2
TSM	Tawau	9.76	246	P	Pn	17 15 52.7	+0.5
SDKM	Sandakan	9.91	254	P	Pn	17 15 53.9	-0.3
KDM	Kudat	9.97	262	P	Pn	17 15 54.0	-1.0
KKM	Kota Kinabalu	10.75	258	*e*Pn	Pn	17 16 04.9	-0.7
	107nm,1.4s						
KDI	Kendari	13.00	199	⇑*e*P	Pn	17 16 35.7	-0.7
KDI				*e*S	Sn	17 19 05.0	+5.6
KAPI	Kappang	15.10	208	Pn	Pn	17 17 05.8	+1.8
	1.3nm,0.3s,baz=31,slow=8.1,SNR=11						
MKS	Makassar	15.41	208	⇑*e*P	Pn	17 17 17.6	+10
SBUM	Sibu	15.66	248	P	Pn	17 17 13.4	+2.1
TPUB	Ta-pu	15.90	339	*e*Pn	Pn	17 17 13.8	-0.4
	41nm,0.4s						
TPUB				*e*S	S	17 20 21.8	+1.3
SSLB	Suanglung	16.24	341	*e*Pn	Pn	17 17 18.2	-0.3
NACB	Ninganchiao	16.40	343	Pn	Pn	17 17 18.4	-2.1
YHNB	Yeheng	16.93	343	*e*Pn	Pn	17 17 28.7	+1.5
KSM	Kuching	17.80	248	P	Pn	17 17 40.1	+2.2
KSM	Kuching	17.80	248	*e*Pn	Pn	17 17 37.5	-0.5
	53nm,1.1s						
QZH	Quanzhou	18.17	336	P	Pn	17 17 40.0	-2.3
QZH				S	S	17 20 56.0	-10
QZH				sS	sS	17 21 11.5	-17
QZH				LR	LR		
	comp=Z,2µm,13.2s						
JOW	Kunigami	18.34	4	LR	LR	17 23 51.3	
	comp=Z,1µm,19.6s,baz=339,slow=34						
GUMO	Guam	18.47	72	LR	LR	17 23 23.3	
	comp=Z,1µm,21.1s,baz=244,slow=32						
GZH	Guangzhou	19.44	320	P	Pn	17 18 00.8	+3.3
GZH				S	S	17 21 37.5	+5.2
GZH				LR	LR		
	comp=N,2µm,21.4s						
GZH				LR	LR		
	comp=E,2µm,18.8s						
QIZ	Qiongzhong	19.50	304	P	Pn	17 17 52.3	-6.0
QIZ				S	S	17 21 23.0	-11
QIZ				LR	LR		
	comp=E,2µm,19.5s						
QIZ				LR	LR		
	comp=Z,3µm,20.2s						
QIZ	Qiongzhong	19.50	304	*e*P	Pn	17 17 55.8	-2.6
KAKA	Kakadu	21.76	165	*e*P	P	17 18 19.8	-1.1
	comp=Z,65nm,0.6s,mb5.2						
KAKA				*e*S	S	17 22 11.4	-6.7
KAKA	Kakadu	21.76	165	*e*P	P	17 18 19.3	-1.6
	comp=Z,232nm,0.7s,mb5.7						
UBT	Ubonrachathani	22.33	290	P	P	17 18 28.0	+1.0
SSE	Sheshan	23.13	348	P	P	17 18 35.5	+0.3
SSE				S	S	17 22 43.5	+1.9
SSE				pmax	pmax		
	comp=Z,280nm,0.8s,mb5.7						
SSE				pmax	pmax		
	comp=Z,340nm,7.4s						
SSE				LR	LR		
	comp=N,490nm,14.5s						
SSE				LR	LR		
	comp=E,450nm,14.5s						
SSE				LR	LR		
	comp=Z,860nm,19.0s						
CBIJ	Chichi jima	23.60	36	LR	LR	17 25 49.3	
	comp=Z,699nm,20.6s,baz=18,slow=31						
KTGM	Kuala Trenggan	23.67	264	P	P	17 18 42.6	+2.1
MYKOM	Kota Tinggi	23.76	255	P	P	17 18 44.0	+2.8
KGM	Kluang	24.21	256	P	P	17 18 48.0	+2.7
NJ2	Nanjing	24.61	344	*e*P	P	17 18 50.0	+1.2
NJ2				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.8						
FRIM	Kepong	25.54	260	P	P	17 19 00.2	+2.7
IPM	Ipoh	25.88	263	P	P	17 19 02.8	+2.2
KULM	Kulim	26.12	265	P	P	17 19 05.2	+2.5
KULM	Kulim	26.12	265	*e*Pn	P	17 19 02.5	-0.2
	comp=Z,159nm,1.5s,mb5.3						
GYA	Guiyang	26.18	316	P	P	17 19 04.0	+1.0
GYA				S	S	17 23 30.3	-0.2
GYA				SS		17 24 40.5	
GYA				ScP	ScP	17 26 02.0	-1.3
GYA				PcS	PcS	17 26 08.0	-1.9
GYA				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.8						
GYA				pmax	pmax		
	comp=Z,120nm,4.8s						
GYA				LR	LR		
	comp=N,1µm,12.2s						
GYA				LR	LR		
	comp=E,1µm,12.7s						
GYA				LR	LR		
	comp=Z,1µm,13.2s						
FITZ	Fitzroy Crossi	26.41	182	*e*P	P	17 19 05.2	+0.1
	comp=Z,53nm,0.6s,mb5.2						
FITZ				*e*S	S	17 23 39.0	+4.8
FITZ	Fitzroy Crossi	26.41	182	P	P	17 19 05.3	+0.1
	comp=Z,23nm,0.5s,mb5.0,baz=11,slow=8.4,SNR=31						
FITZ	Fitzroy Crossi	26.41	182	*e*P	P	17 19 04.8	-0.3
	comp=Z,26nm,0.6s,mb4.9						
FITZ				*e*S	S	17 23 41.5	+7.3
NST	Nakhon Sawan	27.00	288	P	P	17 19 07.0	-3.6
	comp=Z,74nm,0.9s,mb5.2						
COEN	Coen	27.58	144	*e*P	P	17 19 15.6	-0.1
	comp=Z,504nm,1.3s,mb6.0						
PSI	Prapat	28.27	260	P	P	17 19 24.6	+2.7
	comp=Z,13nm,0.9s,mb4.6,baz=50,slow=3.9,SNR=14						
PSI				LR	LR	17 31 48.5	
	comp=Z,600nm,20.6s,baz=232,slow=39						
KMI	Kunming	28.28	309	P	P	17 19 22.3	+0.4
KMI				S	S	17 24 00.5	-3.2
KMI				SS	SS	17 25 30.0	-35
KMI				ScP	ScP	17 26 09.8	+0.1
KMI				PcS	PcS	17 26 17.0	+0.6
KMI				ScS	ScS	17 30 01.0	-1.7
KMI				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
KMI				pmax	pmax		
	comp=Z,110nm,3.8s						
KMI				LR	LR		
	comp=N,670nm,17.3s						
KMI				LR	LR		
	comp=E,1µm,19.5s						
KMI				LR	LR		
	comp=Z,2µm,15.1s						
BDT	Bhumibol Dam	28.42	291	P	P	17 19 23.0	-0.3
CHRT	Chiangrai	28.48	296	⇑P	P	17 19 23.5	-0.3
	comp=Z,145nm,1.2s,mb5.5						
CMAR	Chiang Mai Arr	28.80	293	P	P	17 19 26.4	-0.2
CMAR				*PP	pP	17 19 36.3	-5.8
CMAR	Chiang Mai Arr	28.80	293	P	P	17 19 26.4	-0.2
	comp=Z,22nm,0.9s,mb4.9,baz=112,slow=7.1,SNR=122						
CMAR				pP	pP	17 19 36.2	-5.8
	comp=Z,23nm,1.1s,baz=114,slow=7.7,SNR=8.8						
CMAR				ScP	ScP	17 26 13.6	+2.2
	comp=Z,0.8nm,0.9s,baz=99,slow=2.8,SNR=4.5						
CMAR				LR	LR	17 31 35.0	
	comp=Z,1µm,18.2s,baz=236,slow=38						
KSRS	Korea Array	28.89	2	P	P	17 19 28.1	+0.9
	comp=Z,3.5nm,0.4s,mb4.4,baz=186,slow=9.8,SNR=26						
KSRS				pP	pP	17 19 37.3	-5.4
	comp=Z,8.2nm,0.8s,baz=181,slow=11,SNR=9.4						
KSRS				LR	LR	17 29 52.1	
	comp=Z,477nm,19.0s,baz=177,slow=34						
CHG	Chiang Mai	28.90	294	⇑P	P	17 19 27.4	-0.1
	comp=Z,30nm,1.0s,mb5.0						
CHTO	Chiang Mai	28.90	294	*e*P	P	17 19 27.0	-0.5
CHTO				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.0						
CHTO	Chiang Mai	28.90	294	*e*P	P	17 19 27.0	-0.5
	comp=Z,31nm,1.1s,mb5.0						
CHTO	Chiang Mai	28.90	294	P	P	17 19 27.9	+0.4
	SNR=12						
CHTO				P		17 19 27.9	
	SNR=12						
INCN	Inchon	28.90	360	P	P	17 19 25.5	-1.8
WRAB	Tennant Creek	29.17	165	P	P	17 19 38.3	+8.5
	comp=Z,194nm,0.4s,mb6.2,SNR=6.0						
WRAB	Tennant Creek	29.17	165	*e*P	P	17 19 28.7	-1.1
WRAB				*e*	pP	17 19 38.8	-6.5
WRAB				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.1						
WRAB	Tennant Creek	29.17	165	*e*P	P	17 19 28.7	-1.1
	comp=Z,38nm,1.0s,mb5.1						
WRAB				*e*		17 19 38.8	
WRA	Warramunga Arr	29.18	165	P	P	17 19 28.8	-1.1
	comp=Z,3.9nm,0.6s,mb4.3,baz=342,slow=9.1,SNR=22						
WRA				pP	pP	17 19 38.2	-7.2
	comp=Z,12nm,0.5s,baz=348,slow=10,SNR=33						
WRA				S	S	17 24 13.0	-4.9
	comp=Z,7.2nm,1.1s,baz=340,slow=16,SNR=5.9						
MJAR	Matsushiro Arr	29.84	19	P	P	17 19 35.9	+0.3
	comp=Z,1.6nm,0.5s,mb4.0,baz=187,slow=9.9,SNR=5.5						
MBWA	Marble Bar	30.23	193	*e*P	P	17 19 39.0	-0.2
	comp=Z,12nm,0.6s,mb4.8						
XAN	Xi'an	30.31	330	P	P	17 19 37.3	-2.5
XAN				pP	pP	17 19 48.8	-6.6
XAN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
ASAR	Alice Springs	32.67	168	P	P	17 20 00.0	-0.6
ASAR				S	S	17 25 08.9	-3.5
ASAR	Alice Springs	32.67	168	P	P	17 20 00.0	-0.6
	comp=Z,3.0nm,0.5s,mb4.5,baz=354,slow=7.0,SNR=30						
ASAR				S	S	17 25 08.9	-3.5
	comp=Z,3.9nm,1.0s,baz=352,slow=22,SNR=5.6						
ASAR				ScP	ScP	17 26 25.6	+1.5
	comp=Z,5.6nm,1.0s,baz=348,slow=2.8,SNR=10						
BJT	Baijiatuau	32.83	345	*e*P	P	17 20 00.8	-1.1
BJT				pmax	pmax		
	comp=Z,73nm,1.5s						
BJT	Baijiatuau	32.83	345	*e*P	P	17 20 00.8	-1.1
	comp=Z,73nm,1.5s,mb5.4						
BJI	Beijing	32.85	345	P	P	17 20 01.8	-0.2
BJI				S	S	17 25 13.3	-1.7
BJI				ScS	ScS	17 30 28.0	+3.7
BJI				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.0						
BJI				pmax	pmax		
	comp=Z,230nm,6.4s						
BJI				LR	LR		

	comp=N,570nm,20.8s						
BJI				LR	LR		
	comp=E,390nm,20.8s						
BJI				LR	LR		
	comp=Z,600nm,20.2s						
CTA	Charters Tower	34.23	146	eP	P	17 20 15.3	+1.0
	comp=Z,23nm,1.6s,mb4.8						
CTA				eS	S	17 25 37.9	+1.2
CTA	Charters Tower	34.23	146	P	P	17 20 14.7	+0.4
	comp=Z,7.3nm,0.8s,mb4.7,baz=321,slow=12,SNR=9.3						
CTA				LR	LR	17 33 48.0	
	comp=Z,653nm,20.5s,baz=335,slow=36						
CTAO	Charters Tower	34.23	146	eP	P	17 20 15.3	+1.0
CTAO				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.3						
CTAO	Charters Tower	34.23	146	eP	P	17 20 15.3	+1.1
	comp=Z,57nm,1.5s,mb5.3						
LZH	Lanzhou	34.55	326	⇑P	P	17 20 16.5	-0.4
LZH				PP	PP	17 21 34.3	-2.0
LZH				S	S	17 25 39.0	-2.4
LZH				SS	SS	17 27 56.0	-17
LZH				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
LZH				pmax	pmax		
	comp=Z,180nm,4.2s						
LZH				LR	LR		
	comp=E,1µm,15.0s						
LZH				LR	LR		
	comp=Z,2µm,16.4s						
HHC	Hu-ho-hao-te	34.98	340	eP	P	17 20 20.0	-0.6
HHC				pP	pP	17 20 29.8	-6.4
HHC				sP	sP	17 20 34.0	-10
HHC				PP	PP	17 21 38.0	-3.0
HHC				S	S	17 25 48.3	+0.4
HHC				sS	sS	17 26 04.3	-10
HHC				PcS	PcS	17 26 37.0	-1.4
HHC				SS	SS	17 28 04.0	-18
HHC				ScS	ScS	17 30 35.5	-0.1
HHC				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
HHC				pmax	pmax		
	comp=Z,250nm,5.1s						
HHC				LR	LR		
	comp=N,510nm,14.8s						
HHC				LR	LR		
	comp=E,310nm,11.2s						
HHC				LR	LR		
	comp=Z,810nm,16.0s						
CN2	Changchun	35.23	358	eP	P	17 20 24.3	+1.7
CN2				eS	S	17 25 53.3	+1.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
CN2				pmax	pmax		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,300nm,17.0s						
CN2				LR	LR		
	comp=E,300nm,17.0s						
CN2				LR	LR		
	comp=Z,600nm,18.0s						
MDJ	Mudanjiang	36.11	3	P	P	17 20 32.0	+1.9
MDJ				PP	PP	17 21 55.3	+1.9
MDJ				S	S	17 26 09.0	+3.9
MDJ				ScP	ScP	17 26 37.0	+1.1
MDJ				PcS	PcS	17 26 43.8	+1.5
MDJ				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
MDJ				pmax	pmax		
	comp=Z,170nm,6.1s						
MDJ				LR	LR		
	comp=N,120nm,25.8s						
MDJ				LR	LR		
	comp=E,320nm,32.5s						
MDJ				LR	LR		
	comp=Z,370nm,19.1s						
SHL	Shillong	37.29	301	⇑iP	P	17 20 41.5	+1.0
SHL				eS	S	17 26 25.5	+1.9
FORT	Forrest	39.02	178	eP	P	17 20 55.4	+0.5
	comp=Z,46nm,0.6s,mb5.4						
FORT	Forrest	39.02	178	eP	P	17 20 55.0	+0.1
	comp=Z,50nm,0.6s,mb5.4						
FORT				eS	S	17 26 47.9	-1.6
GTA	Gaotai	39.16	326	eP	P	17 20 55.0	-1.0
GTA				PP	PP	17 22 29.8	+3.0
GTA				S	S	17 26 49.3	-2.1
GTA				SS	SS	17 29 35.5	-11
GTA				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.2						
GTA				pmax	pmax		
	comp=Z,43nm,5.4s						
GTA				LR	LR		
	comp=N,270nm,21.3s						
GTA				LR	LR		
	comp=E,430nm,19.2s						
GTA				LR	LR		
	comp=Z,440nm,19.8s						
LSA	Lhasa	39.50	307	P	P	17 20 59.3	+0.3
LSA				S	S	17 26 59.0	+2.1
LSA				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.6						
LSA				LR	LR		
	comp=N,230nm,22.1s						
LSA				LR	LR		
	comp=E,440nm,24.5s						
LSA				LR	LR		
	comp=Z,780nm,23.7s						
LSA	Lhasa	39.50	307	eP	P	17 20 59.4	+0.4
LSA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.6						
LSA	Lhasa	39.50	307	eP	P	17 20 59.4	+0.4
	comp=Z,7.7nm,0.6s,mb4.6						
HABR	Khabarovsk	40.49	8	eP	P	17 21 06.5	-0.4
HABR				e*SP	sP	17 21 19.5	-11
HABR				e		17 22 38.8	
HABR				e		17 23 07.9	
HABR				S	S	17 27 13.2	+2.1
HABR				eSS	SS	17 30 12.9	0.0
HABR				e		17 31 09.0	
HABR				MLR	MLR		
	comp=Z,307nm,18.0s						
YSS	Yuzh-Sakhalins	40.72	17	eP	P	17 21 11.3	+2.5
YSS	Yuzh-Sakhalins	40.72	17	eP	P	17 21 09.5	+0.7
	comp=Z,15nm,0.9s,mb4.6						
KLR	Kul'dur	40.86	5	eP	P	17 21 06.9	-3.0
KLR				pmax	pmax		
	comp=Z,100nm,1.8s,mb5.1						
HIA	Hailar	41.11	353	eP	P	17 21 11.2	-0.7
HIA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HIA	Hailar	41.11	353	eP	P	17 21 11.2	-0.7
	comp=Z,7.9nm,0.8s,mb4.4						
TAPN	Taplejung	41.42	302	eP	P	17 21 14.8	-0.1
	comp=Z,115nm,0.9s,mb5.5						
MUN	Mundaring	41.45	194	eP	P	17 21 15.5	+0.6
ODAN	Odare	41.53	301	eP	P	17 21 15.7	-0.1
	comp=Z,120nm,0.6s,mb5.7						
NWAO	Narrogin (SRO)	42.14	192	eP	P	17 21 20.0	-0.6
NWAO				pmax	pmax		
	comp=Z,75nm,1.3s						
NWAO	Narrogin (SRO)	42.14	192	eP	P	17 21 20.0	-0.6
	comp=Z,75nm,1.3s,mb5.2						
RAMN	Ramite	42.22	301	eP	P	17 21 21.6	+0.1
	comp=Z,233nm,1.1s,mb5.7						
STKA	Stephens Creek	42.53	161	eP	P	17 21 23.8	+0.1
	comp=Z,18nm,1.0s,mb4.8						
STKA	Stephens Creek	42.53	161	P	P	17 21 24.1	+0.3
	comp=Z,6.6nm,0.7s,mb4.5,baz=339,slow=7.5,SNR=19						
STKA				LR	LR	17 40 53.3	
	comp=Z,420nm,19.3s,baz=120,slow=39						
ULN	Ulaanbaatar	42.69	340	eP	P	17 21 23.5	-1.4
ULN				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
ULN	Ulaanbaatar	42.69	340	eP	P	17 21 23.5	-1.4
	comp=Z,7.2nm,0.6s,mb4.6						
ULN	Ulaanbaatar	42.69	340	P	P	17 21 24.9	0.0
	SNR=6.2						
ULN				P		17 21 24.9	
	SNR=6.2						
JIRN	Jiri	42.79	302	eP	P	17 21 26.2	+0.1
	comp=Z,116nm,0.5s,mb5.9						
SONM	Songino Array	42.89	340	P	P	17 21 26.3	-0.2
SONM						17 23 17.3	
SONM	Songino Array	42.89	340	P	P	17 21 26.3	-0.2
	comp=Z,2.3nm,0.5s,mb4.2,baz=158,slow=9.0,SNR=23						
SONM				PcP	PcP	17 23 17.3	+0.9
	comp=Z,2.1nm,0.5s,baz=161,slow=4.6,SNR=5.2						
GUN	Gumba	43.13	302	eP	P	17 21 28.8	0.0
	comp=Z,76nm,0.5s,mb5.7						
PKI	Pulchoki	43.42	301	eP	P	17 21 31.0	-0.2
	comp=Z,23nm,0.5s,mb5.1						
PKI	Pulchoki	43.42	301	eP	P	17 21 31.4	+0.2
PKI				pmax	pmax		
	comp=Z,25nm,0.5s,mb5.2						
PKI	Pulchoki	43.42	301	eP	P	17 21 31.4	+0.2
	comp=Z,25nm,0.5s,mb5.2						
PKIN	Phulchoki	43.44	301	eP	P	17 21 31.4	+0.1
	comp=Z,25nm,0.5s,mb5.2						
KKN	Kakani	43.60	302	eP	P	17 21 31.9	-0.7
	comp=Z,22nm,0.5s,mb5.2						
KKN	Kakani	43.60	302	eP	P	17 21 31.9	-0.7
KKN				pmax	pmax		
	comp=Z,22nm,0.5s,mb5.1						
DMN	Daman	43.69	301	eP	P	17 21 32.8	-0.5
	comp=Z,167nm,1.2s,mb5.6						
GKN	Gorkha	44.21	302	eP	P	17 21 36.4	-1.0
	comp=Z,24nm,0.4s,mb5.2						
CIT	Chita	44.77	348	eP	P	17 21 39.8	-1.7
CIT				e	pP	17 21 52.3	-5.4
CIT				e	pP	17 21 58.6	+0.9
CIT				pmax	pmax		
	comp=Z,72nm,1.7s,mb5.2						
KOLN	Koldanda	45.01	301	eP	P	17 21 43.6	-0.3
	comp=Z,88nm,0.5s,mb5.8						
DANN	Dangsing	45.05	302	eP	P	17 21 43.8	-0.4
	comp=Z,117nm,0.5s,mb6.0						
ARMA	Armidale	45.42	149	eP	P	17 21 48.5	+1.5
PALK	Pallekele	45.64	272	LR	LR	17 43 55.4	
	comp=Z,366nm,19.3s,baz=78,slow=40						
ZAK	Zakamensk	46.13	339	eP	P	17 21 50.6	-1.7
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.6s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
TLY	Talaya	47.10	340	eP	P	17 21 59.8	-0.1
TLY				eS	S	17 28 49.2	+1.8
TLY				eSS	SS	17 31 54.2	-21
TLY				pmax	pmax		
	comp=Z,28nm,2.0s,mb4.8						
TLY				MLR	MLR		
	comp=Z,386nm,22.0s						
TLY	Talaya	47.10	340	eP	P	17 21 59.5	-0.4
	comp=Z,4.0nm,0.6s,mb4.5						
TLY	Talaya	47.10	340	P	P	17 22 00.1	+0.2
	SNR=9.8						
TLY				P		17 22 00.1	
	SNR=9.8						
IRK	Irkutsk	47.38	341	eP	P	17 22 00.7	-1.3
IRK				pmax	pmax		
	comp=Z,21nm,1.6s,mb4.8						
HYB	Hyderabad	47.73	286	i P	P	17 22 05.0	-0.3
HYB	Hyderabad	47.73	286	eP	P	17 22 05.0	-0.3
MOY	Mondy	48.01	339	eP	P	17 22 05.6	-1.3
NRGR	Nerungri	48.11	358	eP	P	17 22 07.1	-0.5
NRGR				S	S	17 29 07.2	+5.7
NRGR				smax			
	comp=N,33nm,0.7s						
CLNS	Chul'man	48.29	359	eP	P	17 22 09.7	+0.7
CLNS				e		17 23 37.1	
CLNS				e		17 23 57.4	
CLNS				ePPP		17 24 48.4	
CLNS				eS	S	17 29 02.5	-1.5
CLNS				eSS	SS	17 32 29.6	-4.6
CLNS				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.0						
CLNS				pmax	pmax		
	comp=N,18nm,1.3s						
CLNS				pmax	pmax		
	comp=E,5.0nm,1.3s						
CLNS				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,4.0nm,1.0s						
CLNS				smax			
	comp=N,107nm,12.5s						
CLNS				smax			
	comp=E,140nm,13.1s						
CLNS				MLR	MLR		
	comp=Z,117nm,17.0s						
CLNS				MLR	MLR		
	comp=N,170nm,17.0s						
CLNS				MLR	MLR		
	comp=E,195nm,15.0s						
LGTI	Lohaghat	48.32	302	ex	P	17 22 10.5	+0.8
WMQ	Urumqi	48.96	323	P	P	17 22 14.0	-0.4
WMQ				PcP	PcP	17 23 38.0	+0.3
WMQ				PP	PP	17 24 08.0	-0.3
WMQ				ScS	ScS	17 31 58.0	-2.8
WMQ				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
WMQ				pmax	pmax		
	comp=Z,170nm,6.4s						
WMQ				LR	LR		
	comp=N,1µm,18.7s						
WMQ				LR	LR		
	comp=E,910nm,17.3s						
WMQ				LR	LR		
	comp=Z,660nm,18.0s						
TOO	Toolangi	49.01	160	eP	P	17 22 13.8	-1.0
DZM	Mont Dzumac	49.32	129	eLR	LR	17 36 29.4	
	comp=Z,922nm,23.4s						
BOD	Bodaibo	50.23	351	⇑iP	P	17 22 24.3	+0.5
BOD				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.8						
NDI	New Delhi	50.69	300	ex	P	17 22 24.5	-3.3
PETK	Petropavlovsk-	51.09	23	P	P	17 22 32.5	+2.2
	comp=Z,6.2nm,0.8s,mb4.6,baz=224,slow=2.7,SNR=13						
PET	Petropavlovsk	51.41	24	eP	P	17 22 35.0	+2.3
PET				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.2						
PET	Petropavlovsk	51.41	24	eP	P	17 22 35.0	+2.3
	comp=Z,44nm,1.3s,mb5.2						
YAK	Yakutsk	53.52	2	eP	P	17 22 47.7	-0.5
YAK				e*PP	pP	17 22 57.6	-7.1
YAK				e		17 23 50.9	
YAK				e		17 24 49.0	
YAK				eS	S	17 30 20.6	+4.4
YAK				e		17 32 34.4	
YAK				eSS	SS	17 34 01.8	+4.6
YAK				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
YAK				pmax	pmax		
	comp=N,16nm,1.3s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.4s						
YAK				pmax	pmax		
	comp=Z,151nm,3.6s						
YAK				pmax	pmax		
	comp=N,174nm,4.4s						
YAK				pmax	pmax		
	comp=E,126nm,3.0s						
YAK				smax			
	comp=E,32nm,1.8s						
YAK				MLR	MLR		
	comp=Z,240nm,16.0s						
MK31	Makanchi Array	53.77	323	eP	P	17 22 49.8	-0.5
MK31				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
MKAR	Makanchi Array	53.77	323	P	P	17 22 49.6	-0.7
	comp=Z,7.5nm,0.4s,mb4.9,baz=118,slow=7.2,SNR=192						
MKAR				ScP	ScP	17 27 49.1	+1.0
	comp=Z,2.5nm,1.1s,baz=130,slow=3.8,SNR=4.6						
MKAR				LR	LR	17 47 42.5	
	comp=Z,739nm,19.7s,baz=125,slow=38						
KSH	Kashi	54.82	313	eP	P	17 22 59.8	+1.7
KSH				ePcP	PcP	17 24 02.0	+2.3
KSH				ePP	PP	17 25 03.0	+1.6
KSH				eScP	ScP	17 27 52.8	-0.1
KSH				ePcS	PcS	17 28 00.5	+1.0
KSH				eS	S	17 30 33.0	-1.5
KSH				eScS	ScS	17 32 40.0	-1.7
KSH				eSS	SS	17 34 16.0	-2.6
KSH				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
KSH				pmax	pmax		
	comp=Z,140nm,4.0s						
KSH				LR	LR		
	comp=N,3µm,21.2s						
KSH				LR	LR		
	comp=E,520nm,11.4s						
KSH				LR	LR		
	comp=Z,1µm,15.5s						
KZA	Kyzart	56.24	315	P	P	17 23 09.5	+1.2
	SNR=14						
TKM2	Tokmak 2	56.32	317	eP	P	17 23 08.2	-0.5
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
TKM2	Tokmak 2	56.32	317	eP	P	17 23 08.2	-0.5
	comp=Z,5.6nm,0.7s,mb4.7						
ZAA0	Zalesovo Array	56.45	332	eP	P	17 23 07.5	-2.0
ZALV	Zalesovo Beam	56.45	332	P	P	17 23 08.0	-1.5
ZALV						17 24 05.2	
ZALV	Zalesovo Beam	56.45	332	P	P	17 23 08.0	-1.5
	comp=Z,3.5nm,0.4s,mb4.7,baz=122,slow=6.1,SNR=27						
ZALV				PcP	PcP	17 24 05.2	-0.6
	comp=Z,3.6nm,0.7s,baz=116,slow=6.7,SNR=2.6						
ZALV				LR	LR	17 49 58.9	
	comp=Z,337nm,18.3s,baz=324,slow=39						
KBK	Karagaybulak	56.66	316	P	P	17 23 11.9	+0.7
	SNR=10						
UCH	Uchtor	56.81	315	P	P	17 23 13.6	+1.4
	SNR=20						
UCH	Uchtor	56.81	315	eP	P	17 23 12.8	+0.6
	comp=Z,16nm,0.9s,mb5.0						
CHMS	Chumysh	56.92	316	P	P	17 23 13.1	+0.1
	SNR=5.9						
FRU	Bishkek	56.95	316	eP	P	17 23 08.0	-5.3
AAK	Ala-Archa	56.97	316	⇑eP	P	17 23 12.5	-0.9
AAK				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.3						
AAK	Ala-Archa	56.97	316	LR	LR	17 49 43.1	
	comp=Z,952nm,20.5s,baz=87,slow=38						
AAK	Ala-Archa	56.97	316	eP	P	17 23 13.6	+0.3
	comp=Z,3.0nm,0.6s,mb4.5						
USP	Ospenovka	57.19	317	P	P	17 23 15.1	+0.2
	SNR=16						
AML	Almayashu	57.34	315	P	P	17 23 17.1	+1.1
	SNR=12						
AML	Almayashu	57.34	315	eP	P	17 23 16.1	+0.1
	comp=Z,15nm,0.9s,mb5.0						
SEY	Seymchan	57.46	14	⇑eP	P	17 23 17.2	+0.8
EKS2	Erkin-Say	57.47	316	P	P	17 23 17.7	+0.7
	SNR=20						
EKS2	Erkin-Say	57.47	316	eP	P	17 23 16.8	-0.2
	comp=Z,11nm,0.8s,mb4.9						
NVS	Novosibirsk	57.73	332	i P	P	17 23 16.9	-1.6
NVS				i S	S	17 31 13.0	+0.5
NVS				i		17 32 59.0	
NVS				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
NVS				pmax	pmax		
	comp=N,14nm,1.3s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.0s						
NVS				smax			
	comp=N,22nm,2.2s						
NVS				smax			
	comp=E,15nm,2.2s						
KURK	Kurchatov	57.84	326	P	P	17 23 18.4	-1.0
	comp=E,200nm,0.5s,mb6.4,SNR=22						
KURK	Kurchatov	57.84	326	P	P	17 23 18.7	-0.7
KURK				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.4						
KURK	Kurchatov	57.84	326	eP	P	17 23 18.6	-0.7
	comp=Z,21nm,0.6s,mb5.3						
KURK	Kurchatov	57.84	326	P	P	17 23 19.7	+0.3
	SNR=12						
KURK				P		17 23 19.7	
	SNR=12						
KBL	Kabul	58.78	305	eP	P	17 23 25.4	-0.8
KBL				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
KBL	Kabul	58.78	305	eP	P	17 23 25.4	-0.8
	comp=Z,18nm,0.6s,mb5.3						
KK31	Karatay Array	59.88	315	i P	P	17 23 32.8	-0.9
KK31				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
VOSK	Vostochnaya	62.99	326	P	P	17 23 53.4	-1.0
VOSK				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.2						
TIXI	Tiksi	63.15	1	⇑eP	P	17 23 55.3	+0.1
TIXI				pmax	pmax		
	comp=Z,63nm,1.7s,mb5.5						
BVA0	Borovoye Array	63.44	326	i P	P	17 23 57.0	-0.4
BVA0				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.9						
BRVK	Borovoye	63.51	326	P	P	17 23 57.7	-0.2
	comp=Z,233nm,0.8s,mb6.3,SNR=29						
BRVK	Borovoye	63.51	326	eP	P	17 23 57.2	-0.7
BRVK				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
BRVK	Borovoye	63.51	326	eP	P	17 23 57.2	-0.7
	comp=Z,26nm,0.7s,mb5.4						
BRVK	Borovoye	63.51	326	P	P	17 23 57.7	-0.2
	SNR=12						
BRVK				P		17 23 57.7	
	SNR=12						
BILL	Bilibino	65.01	15	⇓eP	P	17 24 08.3	+0.9
BILL				e*PP	pP	17 24 24.2	-0.3
BILL				e		17 26 28.4	
BILL				eS	S	17 32 53.9	+9.5
BILL				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
BILL				MLR	MLR		
	comp=Z,200nm,17.0s						
BILL	Bilibino	65.01	15	eP	P	17 24 08.5	+1.1
	comp=Z,34nm,1.3s,mb5.2						
URZ	Urewera	65.98	138	P	P	17 24 16.4	+2.3
	comp=Z,5.5nm,0.8s,mb4.6,baz=0.0,slow=2.0,SNR=3.3						
URZ				LR	LR	17 49 54.1	
	comp=Z,546nm,19.0s,baz=298,slow=33						
AB31	Akbulak array	68.58	320	P	P	17 24 29.4	-1.1
AB31				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
SVE	Sverdlovsk	70.00	328	⇓eP	P	17 24 38.4	-0.7
SVE				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
ARU	Arti	71.01	327	P	P	17 24 44.2	-1.1
	comp=Z,340nm,0.4s,mb6.6,SNR=27						
ARU	Arti	71.01	327	c iP	P	17 24 44.0	-1.3
ARU				e		17 27 17.8	
ARU				S	S	17 33 56.6	+0.2
ARU				SS	SS	17 38 37.1	+6.7
ARU				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.2						
ARU	Arti	71.01	327	eP	P	17 24 43.9	-1.4
	comp=Z,27nm,0.5s,mb5.4						
MAK	Makhachkala	76.45	312	eP	P	17 25 12.4	-5.0
MAK				eS	S	17 34 58.9	+0.8
MAK				i		17 35 27.3	
MAK				pmax	pmax		
	comp=Z,105nm,1.4s,mb5.6						
MAK				MLR	MLR		
	comp=Z,380nm,19.0s						
RDF	Al-Radifah	76.56	298	eP	P	17 25 16.6	-1.8
RDF				AMb	AMB	17 25 18.0	
	comp=Z,82nm,1.3s,mb5.5						
SVW2	Sparrevohn	76.68	29	eP	P	17 25 23.4	+5.1
MIB	Mutribah	76.72	299	eP	P	17 25 17.7	-1.5
MIB				AMb	AMB	17 25 23.0	
	comp=Z,28nm,0.9s,mb5.2						
NAY	Al-Naaiem	76.82	298	eP	P	17 25 17.7	-2.1
NAY				AMb	AMB	17 25 18.8	
	comp=Z,28nm,1.2s,mb5.1						
KDAK	Kodiak Island	77.91	33	i P	P	17 25 28.2	+2.9
IMA2	Indian Mountai	78.08	24	eP	P	17 25 28.2	+2.2
PRGR	Permogore	78.41	331	P	P	17 25 24.0	-4.0
PRGR				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.4						
GNI	Garni	78.53	309	⇑eP	P	17 25 27.6	-1.5
GNI				pmax	pmax		
	comp=Z,13nm,1.7s						
GNI	Garni	78.53	309	P	P	17 25 32.6	+3.5
	comp=Z,2.3nm,0.4s,mb4.5,baz=45,slow=10.0,SNR=4.0						
GNI	Garni	78.53	309	eP	P	17 25 29.3	+0.2
	comp=Z,11nm,1.0s,mb4.7						
KTH	Kantishna Hill	79.05	27	eP	P	17 25 34.0	+2.5
	comp=Z,16nm,1.1s,mb4.8						
KTH				e		17 25 45.4	
TRF	Thorofare Moun	79.33	27	eP	P	17 25 35.0	+2.0
	comp=Z,30nm,1.2s,mb5.1						
COLD	Coldfoot	79.56	23	eP	P	17 25 36.0	+1.9
	comp=Z,19nm,1.1s,mb4.9						
COLD				e	pP	17 25 52.2	+0.6
PMR	Palmer	79.81	29	eP	P	17 25 36.7	+1.1
PMR				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						

PMR	Palmer	79.81	29	*e*P	P	17 25 36.6	+1.0
	comp=Z,34nm,1.2s,mb5.2						
MCK	McKinley	79.95	27	*e*P	P	17 25 37.3	+1.0
MCK				*e*	pP	17 25 53.2	-0.7
MCK				pmax	pmax		
	comp=Z,62nm,1.2s,mb5.4						
MCK	McKinley	79.95	27	*e*P	P	17 25 37.3	+1.0
	comp=Z,62nm,1.2s,mb5.4						
MCK				*e*	pP	17 25 53.1	-0.7
KIV	Kislovodsk	79.95	313	*e*P	P	17 25 36.8	+0.1
KIV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
KIV				MLR	MLR		
	comp=Z,463nm,19.0s						
KIV	Kislovodsk	79.95	313	P	P	17 25 36.7	-0.1
	comp=Z,8.5nm,0.6s,mb4.8						
KLMR	Klimovskoe	81.35	330	*e*P	P	17 25 42.2	-1.6
KLMR				pmax	pmax		
	comp=Z,39nm,1.4s,mb5.1						
PAX	Paxson	81.51	27	*e*P	P	17 25 46.8	+2.1
PAX				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
PAX	Paxson	81.51	27	*e*P	P	17 25 46.8	+2.1
	comp=Z,28nm,1.4s,mb5.0						
MENT	Mentasta	82.31	27	*e*P	P	17 25 51.1	+2.2
OBN	Obninsk	83.26	325⇓	*e*P	P	17 25 52.0	-1.9
OBN				*e**PP	pP	17 26 08.7	-2.9
OBN				*e*		17 29 01.1	
OBN				*e*S	S	17 36 09.6	+0.2
OBN				pmax	pmax		
	comp=Z,27nm,1.7s,mb5.0						
OBN				MLR	MLR		
	comp=Z,300nm,20.0s						
EGAK	Eagle	83.30	26	*e*P	P	17 25 55.7	+1.8
	comp=Z,36nm,1.5s,mb5.2						
MALT	Malatya	83.54	308	*e*P	P	17 25 55.7	-0.1
MALT				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.0						
MALT	Malatya	83.54	308	*e*P	P	17 25 55.7	-0.1
	comp=Z,7.6nm,0.7s,mb4.9						
APA	Apatity	83.54	337	*e*P	P	17 25 56.0	+0.8
APA				MLR	MLR		
	comp=Z,900nm,25.0s						
DAWY	Dawson	84.14	26	*e*P	P	17 26 00.5	+2.2
JOF	Joensuu	85.03	333	*e*p	P	17 26 00.7	-2.1
	comp=Z,9.5nm,0.6s,mb5.1						
ASF	Jabal al Asfar	85.46	302	P	P	17 26 06.7	+1.1
	comp=Z,2.3nm,0.8s,mb4.4,baz=301,slow=6.0,SNR=4.0						
KEV	Kevo	85.50	340	*e*P	P	17 26 04.3	-0.7
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.8						
KEV	Kevo	85.50	340	*e*p	P	17 26 04.3	-0.7
	comp=Z,3.2nm,0.5s,mb4.8						
INK	Inuvik	85.78	22	*e*P	P	17 26 07.5	+1.1
INK				pmax	pmax		
	comp=Z,30nm,1.5s						
INK	Inuvik	85.78	22	*e*P	P	17 26 07.5	+1.0
	comp=Z,30nm,1.5s,mb5.3						
SPITS	Spitsbergen Ar	85.89	349	P	P	17 26 06.9	+0.1
	comp=Z,6.5nm,0.7s,mb5.0,baz=3.4,slow=9.7,SNR=16						
ARCES	ARCESS Array B	86.06	340	P	P	17 26 07.9	+0.1
	comp=Z,6.3nm,0.4s,mb5.2,baz=86,slow=6.3,SNR=71						
PPT	Papeete	86.52	108	*e*LR	LR	17 53 40.2	
	comp=Z,564nm,27.5s						
MMAI	Mount Meron Ar	86.60	303	P	P	17 26 11.9	+0.6
	comp=Z,2.4nm,0.5s,mb4.7,baz=84,slow=8.5,SNR=7.8						
BRTR	Keskin Array B	87.07	310	P	P	17 26 12.1	-1.2
	comp=Z,1.9nm,0.4s,mb4.6						
EIL	Elat	87.45	299	P	P	17 26 14.1	-1.4
	comp=Z,4.7nm,0.7s,mb4.8,baz=26,slow=10.0,SNR=4.6						
KAF	Kangasniemi	87.46	332	*e*P	P	17 26 12.2	-2.6
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.9						
KAF	Kangasniemi	87.46	332	*e*p	P	17 26 12.2	-2.6
	comp=Z,5.9nm,0.8s,mb4.9						
FINES	FINESS Array B	87.72	332	P	P	17 26 15.2	-0.8
	comp=Z,11nm,0.4s,mb5.4,baz=82,slow=5.0,SNR=133						
VNDA	Vanda	88.07	173	P	P	17 26 18.3	+1.0
	comp=Z,7.6nm,1.2s,mb4.8,baz=329,slow=5.9,SNR=3.2						
VNDA				LR	LR	18 06 59.0	
	comp=Z,274nm,18.1s,baz=9.9,slow=36						
VNDA	Vanda	88.07	173	P	P	17 26 18.3	+1.0
VNDA				LR	LR	18 06 59.0	
AKASG	Malin Array Be	88.28	321	P	P	17 26 17.3	-1.6
	comp=Z,2.6nm,0.4s,mb4.8,baz=63,slow=5.1,SNR=13						
DLBC	Dease Lake	89.69	31	LR	LR	17 59 59.2	
	comp=Z,131nm,21.5s,baz=144,slow=31						
KMBO	Kilima Mbogo	89.69	269	P	P	17 26 25.9	-0.5
	comp=Z,2.5nm,0.9s,mb4.5,baz=69,slow=22,SNR=7.4						
BUR08	Bucovina Ar. S	91.53	318	*e*P	P	17 26 33.4	-0.8
MLR	Muntele Rosu	91.55	316	P	P	17 26 33.5	-0.8
	comp=Z,0.8nm,0.5s,mb4.3,baz=16,slow=14,SNR=3.3						
LVV	L'vov	91.73	321	*e*P	P	17 26 41.5	+6.5
KOLS	Kolonicke sedl	93.08	320	*e*P	P	17 26 40.8	-0.5
KOLS	Kolonicke sedl	93.08	320	*e*P	P	17 26 40.9	-0.4
UZH	Uzhgorod	93.15	320	*e*P	P	17 26 41.5	-0.1
RES	Resolute Bay	93.19	10	*e*P	P	17 26 42.0	+0.7
RES				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
RES	Resolute Bay	93.19	10	P	P	17 26 42.0	+0.8
	comp=Z,1.4nm,0.7s,mb4.5,baz=310,slow=3.6,SNR=9.2						
RES	Resolute Bay	93.19	10	*e*P	P	17 26 42.0	+0.7
	comp=Z,3.4nm,0.9s,mb4.8						
STHS	Stebnicka Huta	93.58	321	*e*P	P	17 26 44.2	+0.6
STHS				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.8						
STHS	Stebnicka Huta	93.58	321	*e*P	P	17 26 44.2	+0.6
	comp=Z,3.6nm,1.0s,mb4.8						
STHS				*e*PP	pP	17 27 00.7	-0.7
STHS				*e*SP	sP	17 27 10.1	+1.7
CRVS	Cervenica-Dubn	93.60	320	*e*P	P	17 26 43.8	+0.1
CRVS				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.2						
CRVS	Cervenica-Dubn	93.60	320	*e*P	P	17 26 43.8	+0.1
	comp=Z,9.7nm,1.1s,mb5.2						
KECS	Kecovo	94.34	320	*e*P	P	17 26 46.2	-0.9
KECS				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.7						
KECS	Kecovo	94.34	320	*e*P	P	17 26 46.2	-0.9
	comp=Z,4.9nm,1.5s,mb4.7						
KECS				*e*PP	pP	17 27 00.8	-4.2
KECS				*e*SP	sP	17 27 10.4	-1.5
NOA	NORSAR Array B	94.60	334	P	P	17 26 46.5	-1.5
	comp=Z,2.0nm,0.6s,mb4.7,baz=66,slow=4.6,SNR=8.8						
YKA	Yellowknife Ar	95.20	24	P	P	17 26 51.5	+0.8
	comp=Z,1.1nm,0.9s,mb4.3,baz=300,slow=4.7,SNR=11						
YKA	Yellowknife Ar	95.20	24	P	P	17 26 51.5	+0.8
VYHS	Vyhne	95.38	321	*e*P	P	17 26 51.2	-0.6
VRAC	Vranov	96.49	322	P	P	17 26 56.9	0.0
	comp=Z,4.4nm,0.8s,mb4.9,baz=75,slow=1.1,SNR=3.8						
GERES	GERESS Array B	98.43	322	P	P	17 27 05.3	-0.4
	comp=Z,1.7nm,0.7s,mb4.7,baz=72,slow=4.3,SNR=8.4						
YBH	Yreka Blue Hor	99.36	45	LR	LR	18 03 27.2	
	comp=Z,258nm,21.9s,baz=313,slow=30						
WALA	Waterton Lakes	102.04	36	*e*P	Pdif	17 27 13.3	-8.2
TORD	Torodi Ar. Bea	121.39	291	PKP	PKPdf	17 32 20.4	-1.1
	comp=Z,0.8nm,0.3s,baz=58,slow=1.7,SNR=16						
TORD				SKP		17 35 52.8	
	comp=Z,0.6nm,0.8s,baz=74,slow=3.2,SNR=3.1						
DBIC	Dimbokro	129.50	286	SKPbc		17 35 54.3	
	comp=Z,4.4nm,1.0s,baz=5.4,slow=5.6,SNR=3.4						
PLCA	Paso Flores	144.35	157	PKP	PKPdf	17 33 04.0	+0.4
	comp=Z,5.3nm,0.9s,baz=198,slow=2.2,SNR=4.8						
SDDR	Presa de Saban	147.44	33	*e*PKPdf	PKPbc	17 33 12.3	+0.3

MAN 26 17:21:19, 8°.32N×126°.92E, h14^{km}, mb4.8, ML3.7, MS3.7, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	1.43	297	*e*P	Pn	17 21 44.6	0.0
BUTP				*e*S	Sn	17 22 02.8	-0.4
SCPH	Surigao	2.02	316⇑	*e*P	Pn	17 21 52.5	-0.2
CGP	Cagayan de Oro	2.20	274⇓	*e*P	Pn	17 21 56.4	+1.2
CGP				*e*S	Sn	17 22 24.3	+2.1
MSLP	Maasin	2.71	312	*e*P	Pn	17 22 04.5	+2.2
MSLP				*e*S	Sn	17 22 37.3	+2.4
TBP	Tagbilaran	3.31	295	*e*P	Pn	17 22 11.8	+1.4
TBP				*e*S	Sn	17 22 39.6	-10
LLP	Lapu-Lapu	3.52	305	*e*P	Pn	17 22 15.6	+2.3
LLP				*e*S	Sn	17 22 56.5	+1.7

MAN 26 17:24:41, 8°.55N×126°.46E, h18^{km}, mb4.2, ML3.1, MS2.8, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	0.93	297	*e*P	Pb	17 24 58.5	-0.1
BUTP				*e*S	Sb	17 25 10.2	-0.5
BUKP	Musuan	1.54	244	*e*P	Pn	17 25 07.3	-0.3
BUKP				*e*S	Sn	17 25 17.9	-9.2
TBP	Tagbilaran	2.81	294	*e*P	Pn	17 25 26.0	+1.0
TBP				*e*S	Sn	17 26 00.3	+1.8

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*BJI **26** 17:24:40.7, 0°.42N×97°.06E, h35^{km}, mB5.2/3, mb4.7/6*
*IDC **26** 17:24:43.4±1.0, 1°.11N×97°.14E, h0^{km}, mb4.0/11, mb1 4.1/13, mb1mx3.9/26, mbtmp3.9/13, ML3.7/2, Error ellipse: s-maj=32.7km s-min=16.3km az=57.0*
*DJA **26** 17:24:47, 1°.03N×97°.15E, h26^{km}, MLv3.9/4*
*ISCJB **26** 17:24:48.3±1.2, 1°.15N±0°.08×97°.23E±0°.10, h49^{km}±9^{km}, mb4.3/25, Error ellipse: s-maj=19.3km s-min=7.4km az=144.9*
*NEIC **26** 17:24:49.1±0.5, 1°.21N×97°.26E, h35^{km}, mb4.5/13, Error ellipse: s-maj=12.1km s-min=6.6km az=45.0*

ISC 26 17:24:48.7±1.7, 1°.10N±0°.08×97°.16E±0°.09, h34^{km}±10^{km}, n41, σ0^{s}.99/41, mb4.3/25, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	0.46	64	P	Pb	17 24 57.5	-1.3
GSI				S	Sb	17 25 07.5	+1.8
PSI	Prapat	2.44	46	Pn	Pn	17 25 25.3	-0.8
	5.1nm,0.3s,baz=254,slow=6.8,SNR=22						
SISI	Saibi	3.09	141	P	Pn	17 25 34.6	-0.4
PPI	Padang Panjang	3.59	116	P	Pn	17 25 43.0	+1.1
PPI				S	Sn	17 26 24.1	+1.0
PDSI	Padang	3.86	121	P	Pn	17 25 43.3	-2.3
IPM	Ipoh	5.12	49	P	Pn	17 26 03.1	+0.2
KSM	Kuching	13.15	88	P	Pn	17 27 53.5	+0.4
CMAR	Chiang Mai Arr	17.34	6	P	Pn	17 28 45.8	-2.3
	0.3nm,0.3s,baz=195,slow=12,SNR=13						
CHTO	Chiang Mai	17.69	6	*e*P	Pn	17 28 49.6	-2.8
	1.5nm,0.6s						
KKM	Kota Kinabalu	19.64	75	P	Pn	17 29 12.6	-3.5
KMI	Kunming	24.48	12	P	P	17 30 06.0	+1.3
KMI				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.3						
SHL	Shillong	24.85	349	*e*PKP	P	17 30 08.7	+0.7
ODAN	Odare	27.28	341	*e*P	P	17 30 30.6	+0.6
	comp=Z,20nm,0.9s,mb4.6						
TAPN	Taplejung	27.63	342	*e*P	P	17 30 33.8	+0.7
	comp=Z,31nm,0.9s,mb5.0						
RAMN	Ramite	27.63	339	*e*P	P	17 30 33.7	+0.5
	comp=Z,4.8nm,0.5s,mb4.4						
JIRN	Jiri	28.42	339	*e*P	P	17 30 40.7	+0.5
	comp=Z,40nm,1.4s,mb4.8						
GUN	Gumba	28.76	339	*e*P	P	17 30 44.2	+0.9
	comp=Z,10nm,0.6s,mb4.7						
KKN	Kakani	28.88	338	*e*P	P	17 30 44.7	+0.4
	comp=Z,12nm,0.9s,mb4.6						
LSA	Lhasa	29.01	349	*e*P	P	17 30 46.3	+0.9
	comp=Z,4.0nm,0.9s,mb4.2						
GKN	Gorkha	29.31	337	*e*P	P	17 30 48.4	+0.3
	comp=Z,14nm,0.9s,mb4.7						
KOLN	Koldanda	29.53	335	*e*P	P	17 30 49.3	-0.8
	comp=Z,9.2nm,0.8s,mb4.6						
WRA	Warramunga Arr	42.02	122	P	P	17 32 36.6	-0.5
	comp=Z,1.1nm,0.6s,mb3.7,baz=300,slow=9.0,SNR=13						
WRAB	Tennant Creek	42.02	122	*e*P	P	17 32 36.6	-0.5
	comp=Z,5.7nm,1.1s,mb4.1						
ASAR	Alice Springs	43.37	127	P	P	17 32 47.9	-0.2
	comp=Z,5.1nm,1.3s,mb4.1,baz=297,slow=7.6,SNR=13						
UCH	Uchtor	45.72	336	*e*P	P	17 33 06.8	+0.2
	comp=Z,3.0nm,0.9s,mb4.2						
TKM2	Tokmak 2	45.89	338	*e*P	P	17 33 08.6	+0.8
	comp=Z,4.5nm,0.9s,mb4.4						
KSRS	Korea Array	45.95	34	P	P	17 33 08.1	-0.4
	comp=Z,4.1nm,0.8s,mb4.4,baz=228,slow=9.5,SNR=7.7						
EKS2	Erkin-Say	46.38	336	*e*P	P	17 33 12.2	+0.5
	comp=Z,1.7nm,0.6s,mb4.2						
SONM	Songino Array	47.23	8	P	P	17 33 18.1	-0.1
	comp=Z,0.8nm,0.4s,mb4.0,baz=188,slow=10,SNR=10.0						
SONM				PcP	PcP	17 34 47.9	-1.3
	comp=Z,0.4nm,0.5s,baz=188,slow=2.5,SNR=3.7						
MK31	Makanchi Array	47.33	346	*e*P	P	17 33 18.7	-0.3
MKAR	Makanchi Array	47.33	346	P	P	17 33 18.9	-0.2
	comp=Z,1.7nm,0.6s,mb4.2,baz=160,slow=8.8,SNR=32						
KURK	Kurchatov	51.88	345	P	P	17 33 53.1	-0.5
	comp=Z,0.8nm,0.5s,mb3.9,baz=160,slow=6.0,SNR=4.4						
STKA	Stephens Creek	53.32	132	P	P	17 34 05.4	+0.7
	comp=Z,1.0nm,0.6s,mb3.9,baz=293,slow=13,SNR=3.1						
ZAA0	Zalesovo Array	53.65	351	*e*P	P	17 34 05.1	-1.5
ZALV	Zalesovo Beam	53.65	351	P	P	17 34 06.2	-0.5
	comp=Z,2.1nm,0.4s,mb4.4,baz=182,slow=7.1,SNR=18						
BVAR	Borovoye Array	56.33	341	P	P	17 34 25.2	-0.8
	comp=Z,1.3nm,0.7s,mb4.1,baz=141,slow=7.6,SNR=7.4						
ARCES	ARCESS Array B	82.61	340	P	P	17 37 07.3	-0.7
	comp=Z,1.8nm,0.9s,mb4.1,baz=48,slow=3.6,SNR=3.7						
ARCES	ARCESS Array B	82.61	340	P	P	17 37 07.3	-0.7
GERES	GERESS Array B	84.86	319	P	P	17 37 22.0	+2.0
	comp=Z,0.3nm,0.5s,mb3.7,baz=35,slow=5.3,SNR=2.0						
CPUP	Villa Florida	144.91	222	PKP	PKPdf	17 44 22.9	-0.1
	comp=Z,0.9nm,0.6s,baz=180,slow=2.0,SNR=3.2						
CPUP	Villa Florida	144.91	222	PKP	PKPdf	17 44 22.9	-0.1

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*SKHL **26** 17:30:34.1±0.2, 46°.50N×153°.50E, h47^{km}±17^{km}, mb5.0/6*
*ISCJB **26** 17:30:37.1±0.7, 46°.79N±0°.06×152°.87E±0°.07, h52^{km}±6^{km}, mb4.4/50, Error ellipse: s-maj=11.2km s-min=4.9km az=142.0*
*JMA **26** 17:30:37.9±0.7, 46°.86N×152°.88E, h30^{km}, M4.6*
*MOS **26** 17:30:38.2±1.1, 46°.93N×152°.76E, h59^{km}, mb4.3/14, Error ellipse: s-maj=11.0km s-min=7.1km az=71.1*
*IDC **26** 17:30:42.1±2.6, 46°.95N×152°.71E, h75^{km}±23^{km}, mb3.8/26, mb1 4.0/28, mb1mx4.0/34, mbtmp3.9/28, Error ellipse: s-maj=15.5km s-min=11.5km az=143.0*
*BJI **26** 17:30:43.0, 47°.00N×152°.70E, h82^{km}, mB4.7/4, mb4.4/5, Ms4.9/1, Ms7 4.5/1*
*NEIC **26** 17:30:43.0±1.0, 47°.04N×152°.73E, h83^{km}±8^{km}, mb4.5/16, Error ellipse: s-maj=10.5km s-min=5.5km az=148.0*

ISC 26 17:30:39.5±0.6, 46°.80N±0°.06×152°.89E±0°.07, h56^{km}±5^{km}, n133, σ1^{s}.24/144, mb4.4/50, 7C-3D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.83	248⇑	*i*PN	Pn	17 31 33.0	-2.9
KUR				*e*S	Sn	17 32 17.0	-2.6
KUR				pmax	pmax		
	comp=N,100nm,0.4s						
KUR				pmax	pmax		
	comp=E,50nm,0.4s						
KUR				pmax	pmax		
	comp=Z,190nm,0.4s						
KUR				smax			
	comp=N,870nm,0.5s						
KUR				smax			
	comp=E,210nm,0.5s						
KUR	Kuril'sk	3.83	248⇑	*i*P	Pn	17 31 33.0	-2.9
KUR				AMB	AMB	17 31 35.0	
	comp=E,100nm,0.4s						
KUR				AMB	AMB	17 31 35.0	
	comp=E,50nm,0.4s						
KUR				AMB	AMB	17 31 35.0	
	comp=E,190nm,0.4s						
KUR				*e*S	Sn	17 32 17.0	-2.6
KUR				A		17 32 35.8	
	comp=E,870nm,0.5s						
KUR				A		17 32 35.8	
	comp=E,210nm,0.5s						
SKR	Severo-Kuril's	4.43	28	*e*P	Pn	17 31 43.4	-0.7
SKR				AMB	AMB	17 31 46.1	
	comp=E,60nm,0.5s						
SKR				*e*S	Sn	17 32 31.0	-3.3
SKR				A		17 32 35.5	
	comp=E,150nm,0.5s						
SKR				A		17 32 35.5	
	comp=E,80nm,0.5s						
SKR				A		17 32 35.5	
	comp=E,60nm,0.5s						
YUK	Yuzh-Kuril'sk	5.67	243	*e*PN	Pn	17 32 01.5	+0.5
YUK				*e*S	Sn	17 33 07.2	+2.5
YUK				pmax	pmax		
	comp=Z,340nm,0.3s						
YUK				smax			
	comp=N,500nm,0.5s						
YUK				smax			
	comp=E,230nm,0.4s						
YUK				smax			
	comp=E,3µm,1.0s						
YUK	Yuzh-Kuril'sk	5.67	243	*e*P	Pn	17 32 01.5	+0.5
YUK				AMB	AMB	17 32 03.5	
	comp=E,340nm,0.3s						
YUK				*e*S	Sn	17 33 07.2	+2.5
YUK				A		17 33 24.5	
	comp=E,500nm,0.5s						
YUK				A		17 33 24.5	
	comp=E,230nm,0.5s						
YUK				A		17 33 29.0	
	comp=E,3µm,1.0s						
NEM2	Nemuro 2	6.11	238	P	Pn	17 32 05.3	-1.8
NEM2				*e*S	Sn	17 33 09.9	-5.7
JRA	Rausu	6.17	245	P	Pn	17 32 09.7	+1.8
JTKR	Abashiri--Toko	6.93	249	P	Pn	17 32 19.8	+1.6
YSS	Yuzh-Sakhalins	6.95	275⇑	*i*PN	Pn	17 32 21.0	+2.5
YSS				*e*S	Sn	17 33 37.7	+1.6
YSS				pmax	pmax		
	comp=Z,30nm,0.4s						
YSS				smax			
	comp=E,20nm,0.7s						
YSS	Yuzh-Sakhalins	6.95	275⇑	*i*P	Pn	17 32 21.0	+2.5
YSS				AMB	AMB	17 32 22.3	
	comp=E,30nm,0.4s						
YSS				*e*S	Sn	17 33 37.7	+1.6
YSS				A		17 33 38.7	
	comp=E,20nm,0.7s						
YSS	Yuzh-Sakhalins	6.95	275	*e*Pn	Pn	17 32 20.7	+2.2
	comp=E,20nm,0.3s						
JAK	Akkeshi	6.95	240	P	Pn	17 32 17.1	-1.5
JAK				*e*S	Sn	17 33 31.4	-4.7
PETK	Petropavlovsk-	7.03	24	P	Pn	17 32 20.7	+1.0
	comp=E,0.7nm,0.3s,baz=179,slow=11,SNR=13						
PET	Petropavlovsk	7.25	29	*e*PN	Pn	17 32 22.4	-0.3
PET				pmax	pmax		
	comp=Z,13nm,0.6s						
PET	Petropavlovsk	7.25	29	*e*Pn	Pn	17 32 23.0	+0.3
PET				*e*Sn	Sn	17 33 27.7	-16
JMP	Maruseppu	7.26	251	P	Pn	17 32 25.2	+2.3
JAR	Ashorobuto	7.34	245	P	Pn	17 32 24.6	+0.6
JAR				*e*S	Sn	17 33 45.3	-0.6
JSE	Soyaes	7.42	259	P	Pn	17 32 27.2	+2.2
JOB	Onbets	7.52	242	P	Pn	17 32 26.0	-0.4
UGL	Uglegorsk	7.62	291	*e*P	Pn	17 32 29.5	+1.9
UGL				AMB	AMB	17 32 31.0	
	comp=Z,48nm,0.8s						
ASAJ	Asahikawa	7.72	253	P	Pn	17 32 31.6	+2.5
ASAJ	Asahikawa	7.72	253	PN	Pn	17 32 31.7	+2.6
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	7.72	253	P	Pn	17 32 31.6	+2.6
	comp=Z,2.6nm,0.3s,baz=76,slow=8.8,SNR=20						
JKK2	Kamakawa 2	7.72	251	P	Pn	17 32 31.0	+1.9
JWK2	Keihoku	7.79	263	P	Pn	17 32 35.1	+5.1
TYV	Tymovskoe	7.88	305	*e*P	Pn	17 32 31.5	+0.3
TYV				AMB	AMB	17 32 35.5	
	comp=Z,44nm,1.0s						
TYV				AMB	AMB	17 32 35.5	
	comp=Z,11nm,0.8s						
TYV				AMB	AMB	17 32 35.5	
	comp=Z,4.0nm,0.5s						
JCH	Churui	7.97	242	P	Pn	17 32 31.5	-1.0
JCH				*e*S	Sn	17 33 55.8	-5.4
JFR	Furan	8.15	247	P	Pn	17 32 36.3	+1.3
JAB	Ashibetsu	8.22	250	P	Pn	17 32 38.6	+2.6
ERM	Erimo	8.45	239	*e*PN	Pn	17 32 39.1	0.0
JEM	Erimo	8.45	239	P	Pn	17 32 39.5	+0.4
JBT2	Biratori 2	8.49	246	P	Pn	17 32 39.7	0.0
JNBK	Urakawa-nobuka	8.53	242	P	Pn	17 32 38.3	-1.9
JNBK				*e*S	Sn	17 34 08.4	-6.6
JEW	Eniwo	9.04	248	P	Pn	17 32 48.2	+1.0
JNB	Noboribetsu	9.49	247	P	Pn	17 32 52.5	-0.8
JNB				*e*S	Sn	17 34 34.8	-3.6
JKB	Kayabe	9.81	244	P	Pn	17 32 56.2	-1.5
JKB				*e*S	Sn	17 34 38.6	-7.6
JSH	Shimam	10.04	250	P	Pn	17 33 01.3	+0.5
JYM2	Yakumo 2	10.10	247	P	Pn	17 33 00.5	-1.1
JSR	Shiriuchi	10.39	244	P	Pn	17 33 03.3	-2.3
JTM	Tenmabayashi	10.44	239	P	Pn	17 33 02.9	-3.4
JANG	Nango	10.45	236	P	Pn	17 33 02.6	-3.9
JTH	Tanohata	10.55	233	*e*S	Sn	17 34 52.4	-12
JOSM	Okushiri--Mats	10.68	249	P	Pn	17 33 07.3	-2.3
JRG	Rokugo	11.61	235	P	Pn	17 33 19.2	-3.1
JIO	Ouri	11.90	230	*e*S	Sn	17 35 24.5	-13
HABR	Khabarovsk	12.15	284	*e*PN	Pn	17 33 33.9	+4.3
HABR				*e*		17 35 47.1	
HABR				pmax	pmax		
	comp=N,13nm,1.6s						
HABR				pmax	pmax		
	comp=Z,48nm,2.6s						
HABR				pmax	pmax		
	comp=E,40nm,2.4s						
HABR				MLR	MLR		
	comp=Z,266nm,16.0s						
KLR	Kul'dur	14.35	287	*e*P	Pn	17 34 04.4	+5.1
MJAR	Matsushiro Arr	14.99	232	P	Pn	17 34 12.9	+5.2
	comp=Z,0.6nm,0.3s,baz=40,slow=9.5,SNR=8.3						
YAK	Yakutsk	20.19	327	*e*P	P	17 35 08.5	-0.7
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s						
YAK	Yakutsk	20.19	327	*e*P	P	17 35 08.9	-0.3
	comp=Z,11nm,0.7s						
KSRS	Korea Array	20.66	252	P	P	17 35 15.6	+1.1
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KSRS	Korea Array	20.66	252	P	P	17 35 15.6	+1.1
	comp=Z,3.1nm,0.6s,baz=59,slow=9.9,SNR=11						
BILL	Bilibino	22.38	13⇑	*e*P	P	17 35 28.7	-3.8
BILL				*e*		17 35 50.6	
BILL				*e*S	S	17 39 18.6	-16
BILL				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb3.9						
BILL	Bilibino	22.38	13	*e*P	P	17 35 30.0	-2.5
TIXI	Tiksi	27.37	344	*e*P	P	17 36 14.5	-4.4
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.6						
ULN	Ulaanbaatar	30.73	289	*e*P	P	17 36 52.1	+3.1
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
ULN	Ulaanbaatar	30.73	289	*e*P	P	17 36 52.1	+3.1
	comp=Z,1.8nm,0.8s,mb4.0						
SONM	Songino Array	31.17	289	P	P	17 36 53.3	+0.4
	comp=Z,0.5nm,0.7s,mb3.5,baz=58,slow=5.8,SNR=2.9						
NACB	Ninganchiao	33.69	239	P	P	17 37 14.4	-0.7
	comp=Z,43nm,1.0s,mb5.3						
IMA2	Indian Mountai	33.85	36	*e*P	P	17 37 16.7	+0.6
XAN	Xi'an	35.36	265	P	P	17 37 29.5	0.0
XAN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
MCK	McKinley	35.71	40	P	P	17 37 32.6	+0.5
COLA	College	36.19	38	P	P	17 37 36.7	+0.5
INK	Inuvik	41.69	32	P	P	17 38 23.2	+1.1
	comp=Z,2.7nm,0.6s,mb4.0,baz=285,slow=11,SNR=8.6						
ZALV	Zalesovo Beam	42.45	306	P	P	17 38 25.9	-2.5
	comp=Z,0.8nm,0.4s,mb3.7,baz=64,slow=7.6,SNR=6.0						
ZALV				PcP	PcP	17 40 20.1	-0.3
	comp=Z,1.1nm,0.6s,baz=54,slow=2.6,SNR=5.4						
MKAR	Makanchi Array	46.78	297	P	P	17 39 02.0	-1.0
	comp=Z,0.8nm,0.6s,mb3.8,baz=68,slow=6.7,SNR=11						
MKAR				PcP	PcP	17 40 35.6	+0.2
	comp=Z,0.9nm,0.6s,baz=115,slow=0.8,SNR=5.9						
KURK	Kurchatov	47.20	303	P	P	17 39 05.9	-0.4
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KURK	Kurchatov	47.20	303	P	P	17 39 05.8	-0.5
	comp=Z,1.3nm,0.5s,mb4.1,baz=70,slow=8.5,SNR=9.3						
KURK	Kurchatov	47.20	303	*e*P	P	17 39 02.8	-3.5
LSA	Lhasa	50.12	273	*e*P	P	17 39 30.3	+1.4
LSA				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
LSA	Lhasa	50.12	273	*e*P	P	17 39 30.2	+1.3
	comp=Z,2.5nm,0.5s,mb4.5						
BVAR	Borovoye Array	50.70	309	P	P	17 39 32.0	-1.0
BVAR						17 40 49.2	
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BVAR	Borovoye Array	50.70	309	P	P	17 39 32.0	-1.0
	comp=Z,0.7nm,0.4s,mb4.0,baz=42,slow=8.5,SNR=5.1						
BVAR				PcP	PcP	17 40 49.2	-0.4
	comp=Z,1.0nm,0.5s,baz=94,slow=1.4,SNR=6.1						

RES	Resolute Bay	50.84	19	P	P	17 39 33.8	0.0
	comp=Z,0.5nm,0.3s,mb3.9,baz=321,slow=7.5,SNR=7.5						
YKA	Yellowknife Ar	50.98	37	P	P	17 39 35.1	+0.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=296,slow=7.0,SNR=13						
YKA				PcP	PcP	17 40 50.7	+0.3
	comp=Z,0.5nm,0.5s,baz=302,slow=3.7,SNR=9.9						
CMAR	Chiang Mai Arr	52.23	256	P	P	17 39 46.0	+1.1
	comp=Z,2.3nm,0.7s,mb4.2,baz=36,slow=7.2,SNR=22						
SPITS	Spitsbergen Ar	52.53	350	P	P	17 39 45.0	-1.4
SPITS				pmax	pmax		
	comp=Z,14nm,1.2s						
SPITS	Spitsbergen Ar	52.53	350	P	P	17 39 45.0	-1.3
	comp=Z,14nm,1.1s,mb4.8,baz=61,slow=14,SNR=12						
TAPN	Taplejung	53.94	273	*e*P	P	17 39 58.0	+0.6
	comp=Z,6.9nm,0.4s,mb4.9						
ODAN	Odare	54.47	273	*e*P	P	17 40 01.3	0.0
	comp=Z,6.8nm,0.7s,mb4.7						
JIRN	Jiri	54.79	274	*e*P	P	17 40 04.0	+0.5
	comp=Z,9.0nm,0.3s,mb5.2						
GUN	Gumba	54.84	275	*e*P	P	17 40 04.7	+0.8
	comp=Z,6.7nm,0.3s,mb5.1						
RAMN	Ramite	54.96	273	*e*P	P	17 40 04.1	-0.7
	comp=Z,22nm,0.4s,mb5.6						
KKN	Kakani	55.33	275	*e*P	P	17 40 08.2	+0.8
	comp=Z,8.1nm,0.3s,mb5.2						
PKI	Pulchoki	55.38	275	*e*P	P	17 40 07.9	+0.1
	comp=Z,3.5nm,0.3s,mb4.9						
DMN	Daman	55.56	275	*e*P	P	17 40 09.5	+0.4
	comp=Z,14nm,0.6s,mb5.2						
GKN	Gorkha	55.63	276	*e*P	P	17 40 09.8	+0.2
	comp=Z,14nm,0.6s,mb5.1						
DANN	Dangsing	56.01	277	*e*P	P	17 40 13.5	+1.2
KOLN	Koldanda	56.49	276	*e*P	P	17 40 15.9	+0.2
	comp=Z,7.8nm,0.6s,mb4.9						
ARCES	ARCESS Array B	57.75	341	P	P	17 40 22.9	-1.2
	comp=Z,2.6nm,0.9s,mb4.3,baz=27,slow=7.2,SNR=7.3						
SUMG	Summit	60.66	4	*e*P	P	17 40 44.1	0.0
	comp=Z,5.6nm,0.6s,mb4.9						
FFC	Flin Flon	60.80	40	*e*P	P	17 40 45.4	+0.1
FFC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.4						
FFC	Flin Flon	60.80	40	*e*P	P	17 40 45.4	+0.1
	comp=Z,1.8nm,0.7s,mb4.3						
JOF	Joensuu	61.22	334	*e*p	P	17 40 45.8	-2.2
	comp=Z,2.1nm,0.6s,mb4.4						
KBL	Kabul	61.90	292	*e*P	P	17 40 51.7	-1.4
KBL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
KBL	Kabul	61.90	292	*e*P	P	17 40 51.7	-1.4
	comp=Z,2.8nm,0.8s,mb4.4						
NVAR	Mina Array Bea	62.55	62	P	P	17 40 59.1	+1.8
	comp=Z,0.6nm,0.6s,mb3.9,baz=253,slow=1.5,SNR=3.9						
KAF	Kangasniemi	63.33	335	*e*P	P	17 41 00.7	-1.4
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
KAF	Kangasniemi	63.33	335	*e*p	P	17 41 00.7	-1.4
	comp=Z,1.9nm,0.5s,mb4.5						
FINES	FINESS Array B	63.93	335	P	P	17 41 05.2	-0.8
	comp=Z,4.2nm,0.4s,mb4.8,baz=40,slow=6.9,SNR=47						
FINES	FINESS Array B	63.93	335	P	P	17 41 05.2	-0.8
BW06	Boulder Array	64.84	54	*e*P	P	17 41 13.0	+0.7
	comp=Z,2.6nm,1.0s,mb4.2						
PDAR	Pinedale Array	64.84	54	P	P	17 41 13.4	+1.1
	comp=Z,1.2nm,0.8s,mb4.0,baz=310,slow=2.9,SNR=9.8						
RSSD	Black Hills	66.91	50	*e*P	P	17 41 25.9	+0.3
RSSD				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
RSSD	Black Hills	66.91	50	*e*P	P	17 41 25.9	+0.3
	comp=Z,2.7nm,0.7s,mb4.4						
NB2	NORSAR Subarra	68.13	341	P	P	17 41 32.3	-0.7
	comp=Z,3.4nm,0.6s,mb4.5,baz=27,slow=6.5						
NOA	NORSAR Array B	68.13	341	P	P	17 41 32.6	-0.4
	comp=Z,4.0nm,0.5s,mb4.7,baz=28,slow=6.2,SNR=20						
HFS	Hagfors	68.35	339	P	P	17 41 33.8	-0.7
	comp=Z,8.3nm,0.4s,mb5.1,baz=55,slow=6.0,SNR=56						
WRA	Warramunga Arr	68.51	199	P	P	17 41 35.6	-0.2
	comp=Z,0.5nm,0.7s,mb3.6,baz=21,slow=6.8,SNR=8.5						
AKASG	Malin Array Be	71.42	326	P	P	17 41 52.4	-1.0
	comp=Z,3.0nm,0.3s,mb4.7,baz=34,slow=6.3,SNR=16						
ASAR	Alice Springs	72.21	198	P	P	17 41 59.2	+1.0
	comp=Z,1.0nm,0.6s,mb3.9,baz=13,slow=5.3,SNR=23						
PALK	Pallekele	72.55	262	P	P	17 42 01.2	+0.5
	comp=Z,4.4nm,0.8s,mb4.5,baz=11,slow=5.2,SNR=3.2						
BUR08	Bucovina Ar. S	75.44	326	*e*P	P	17 42 16.2	-0.9
BURAR	Bucovina Array	75.46	326	⇓*i*P	P	17 42 16.9	-0.3
TLCR		76.02	323	⇓*i*P	P	17 42 20.3	-0.1
WMOK	Wichita Mounta	76.45	54	P	P	17 42 19.6	-3.5
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
WMOK	Wichita Mounta	76.45	54	P	P	17 42 19.6	-3.5
	comp=Z,4.2nm,0.8s,mb4.4						
MLR	Muntele Rosu	76.93	325	⇑*i*P	P	17 42 26.5	+0.9
MLR	Muntele Rosu	76.93	325	P	P	17 42 26.0	+0.4
	comp=Z,4.2nm,0.6s,mb4.5,baz=233,slow=3.3,SNR=4.5						
MALT	Malatya	77.00	313	*e*P	P	17 42 26.9	+0.8
MALT				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
MALT	Malatya	77.00	313	⇓*i*P	P	17 42 27.9	+1.8
MALT	Malatya	77.00	313	*e*P	P	17 42 26.9	+0.8
	comp=Z,2.4nm,0.7s,mb4.2						
VOIR		77.33	325	⇑*i*P	P	17 42 28.5	+0.7
TXAR	Lajitas Array	77.60	60	P	P	17 42 30.0	+0.3
	comp=Z,0.4nm,0.4s,mb3.7,baz=298,slow=4.9,SNR=6.7						
BRTR	Keskin Array B	78.25	317	P	P	17 42 32.9	-0.2
	comp=Z,1.2nm,0.8s,mb3.9						
GERES	GERESS Array B	78.34	334	P	P	17 42 32.8	-0.5
	comp=Z,2.8nm,1.2s,mb4.1,baz=0.0,slow=1.9,SNR=3.4						
STU	Stuttgart	79.71	337	P	P	17 42 39.6	-1.2
MMAI	Mount Meron Ar	82.66	311	P	P	17 42 57.7	+0.8
	comp=Z,1.0nm,0.5s,mb4.1,baz=46,slow=7.2,SNR=5.8						
DBIC	Dimbokro	123.21	333	PKP	PKPdf	17 49 29.2	-1.0
	comp=Z,2.6nm,0.9s,baz=27,slow=4.5,SNR=3.0						
DBIC	Dimbokro	123.21	333	PKP	PKPdf	17 49 29.2	-1.0
PLCA	Paso Flores	148.37	95	PKPbc	PKPbc	17 50 19.4	+0.4
	comp=Z,2.3nm,0.9s,baz=217,slow=4.7,SNR=5.4						
PLCA	Paso Flores	148.37	95	PKPbc	PKPbc	17 50 19.4	+0.4
CPUP	Villa Florida	148.58	60	PKPbc	PKPbc	17 50 20.3	+0.4
	comp=Z,1.0nm,0.5s,baz=9.5,slow=9.5,SNR=4.5						

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*NEIC **26** 17:30:53.4, 36°.00N×21°.82E, h4^{km}, ML3.4(ATH), After ATH.*

*ATH **26** 17:30:53.4, 36°.00N×21°.82E, h4^{km}±1^{km}, MD3.7/12, ML3.4*

*CSEM **26** 17:30:55.7±0.4, 36°.08N×21°.76E, h2^{km}, ML3.8/4, Error ellipse: s-maj=10.4km s-min=7.0km az=65.0*

*ISCJB **26** 17:30:56.4±0.6, 36°.12N±0°.03×21°.78E±0°.05, h10^{km}, mb3.8/7, Error ellipse: s-maj=6.2km s-min=4.4km az=153.9*

*THE **26** 17:30:58.8, 36°.25N×21°.77E, h2^{km}±2^{km}, ML3.8/4, Error ellipse: s-maj=3.9km s-min=2.2km az=221.0*

*IDC **26** 17:30:59.8±4.2, 36°.09N×21°.99E, h53^{km}±40^{km}, mb3.4/6, mb1 3.6/7, mb1mx3.4/24, mbtmp3.4/7, ML3.0/1, Error ellipse: s-maj=41.1km s-min=24.6km az=139.0*

ISC 26 17:30:57.1±0.6**, 36°.11N**±0°.03×**21°.79E**±0°.05**, h10^{km}, n82,** σ**1^{s}.31**/114**, mb3.8**/7**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.79	357	P	Pg	17 31 10.0	-2.2
PYL				S	Sg	17 31 19.8	-2.7
PYL	PYLOS	0.79	357	*e*PB	Pg	17 31 10.2	-2.0
PYL				*e*SG	Sg	17 31 23.5	+1.0
PYL	PYLOS	0.79	357	P	Pg	17 31 10.0	-2.2
PYL				S	Sg	17 31 19.8	-2.7
PYL				*e*Sg	Sg	17 31 23.5	+1.0
ITM	Ithomi	1.07	6	*e*PB	Pg	17 31 15.7	-2.0
ITM				*e*SB	Sg	17 31 31.3	-0.4
ITM	Ithomi	1.07	6	*e*Pb	Pg	17 31 15.7	-2.0
ITM				*e*Sb	Sg	17 31 31.3	-0.4
VLI	Veliai	1.11	56	*e*PB	Pg	17 31 15.5	-2.9
VLI	Veliai	1.11	56	*e*Pb	Pg	17 31 15.5	-2.9
VLX	Vlachokerasia	1.35	20	*e*PB	Pg	17 31 19.7	-3.2
VLX				*e*SB	Sg	17 31 39.4	-1.0
VLX	Vlachokerasia	1.35	20	*e*Pb	Pg	17 31 19.7	-3.2
VLX				*e*Sb	Sg	17 31 39.4	-1.0
DID	Didima	1.82	39	P	Pn	17 31 27.5	-0.9
DID				S	Sn	17 31 52.5	+1.1
DID	Didima	1.82	39	*e*PN	Pn	17 31 27.5	-0.9
DID				*e*SB	Sg	17 31 54.3	-1.1
DID	Didima	1.82	39	P	Pn	17 31 27.5	-0.9
DID				S	Sn	17 31 52.5	+1.1
DID				*e*Sb	Sg	17 31 54.3	-1.1
GUR	Goura	1.88	13	*e*PN	Pn	17 31 29.5	+0.3
GUR	Goura	1.88	13	*e*Pn	Pn	17 31 29.5	+0.3
RLS	Riolos of Patr	1.96	353	*e*PG	Pn	17 31 32.0	+1.6
RLS	Riolos of Patr	1.96	353	*e*Pg	Pn	17 31 32.0	+1.6
VAM	Vamos	2.08	109	*e*PN	Pn	17 31 30.5	-1.5
VAM	Vamos	2.08	109	*e*Pn	Pn	17 31 30.5	-1.5
LTK	Loutraki	2.13	26	P	Pn	17 31 33.4	+0.7
LTK				S	Sn	17 31 59.6	+0.4
LTK	Loutraki	2.13	26	*e*PG	Pn	17 31 33.9	+1.2
LTK				*e*SN	Sg	17 32 02.2	-3.3
LTK	Loutraki	2.13	26	P	Pn	17 31 33.4	+0.7
LTK	Loutraki	2.13	26	*e*Pg	Pn	17 31 33.9	+1.2
LTK				S	Sn	17 31 59.6	+0.4
LTK				*e*Sn	Sg	17 32 02.2	-3.3
LAKA	Lakka	2.13	4	P	Pn	17 31 34.1	+1.4
LAKA				S	Sn	17 31 59.2	-0.1
LAKA	Lakka	2.13	4	P	Pn	17 31 34.1	+1.4
LAKA				S	Sn	17 31 59.2	-0.1
NAIG	Nisos Aigina	2.14	39	*e*PN	Pn	17 31 32.7	-0.1
NAIG	Nisos Aigina	2.14	39	*e*Pn	Pn	17 31 32.7	-0.1
TRIZ	Trizonia	2.26	6	P	Pn	17 31 35.7	+1.2
TRIZ	Trizonia	2.26	6	P	Pn	17 31 35.7	+1.2
VLS	Valsamata	2.28	335	P	Pn	17 31 34.1	-0.6
VLS				S	Sn	17 32 02.8	0.0
VLS	Valsamata	2.28	335	P	Pn	17 31 34.1	-0.6
VLS				S	Sn	17 32 02.8	0.0
KALE	Kalithea	2.29	7	P	Pn	17 31 35.6	+0.6
KALE	Kalithea	2.29	7	P	Pn	17 31 35.6	+0.6
EFP	Efpalio	2.32	2	*e*PN	Pn	17 31 37.0	+1.8
EFP	Efpalio	2.32	2	*e*Pn	Pn	17 31 37.0	+1.8
ATH	Athens Observa	2.42	39	*e*PN	Pn	17 31 36.8	+0.2
ATH	Athens Observa	2.42	39	*e*Pn	Pn	17 31 36.8	+0.2
ATHU	Athens Univers	2.45	40	P	Pn	17 31 37.7	+0.7
ATHU	Athens Univers	2.45	40	P	Pn	17 31 37.7	+0.7
PTL	Penteli	2.55	40	*e*PN	Pn	17 31 38.5	0.0
PTL	Penteli	2.55	40	*e*Pn	Pn	17 31 38.5	0.0
IDI	Anoyia	2.65	107	P	Pn	17 31 38.1	-1.8
	3.4nm,0.3s,baz=299,slow=16,SNR=32						
IDI	Anoyia	2.65	107	P	Pn	17 31 38.1	-1.8
SIVA	Sivas	2.69	113	P	Pn	17 31 42.0	+1.6
SIVA	Sivas	2.69	113	P	Pn	17 31 42.0	+1.6
LKR	Lokris	2.71	20	P	Pn	17 31 41.2	+0.5
LKR				S	Sn	17 32 14.3	+0.7
LKR	Lokris	2.71	20	*e*PB	Pn	17 31 41.9	+1.2
LKR	Lokris	2.71	20	P	Pn	17 31 41.2	+0.5
LKR	Lokris	2.71	20	*e*Pb	Pn	17 31 41.9	+1.2
LKR				S	Sn	17 32 14.3	+0.7
LKD	Levkas	2.75	341	P	Pn	17 31 42.4	+1.2
LKD				S	Sn	17 32 13.3	-1.1
LKD	Levkas	2.75	341	P	Pn	17 31 42.4	+1.2
LKD				S	Sn	17 32 13.3	-1.1
AGG	Agios Georgios	2.94	8	P	Pn	17 31 45.2	+1.4
AGG				S	Sn	17 32 19.3	+0.1
AGG	Agios Georgios	2.94	8	P	Pn	17 31 45.2	+1.4
AGG				S	Sn	17 32 19.3	+0.1
LAST	Lasithi	3.15	106	P	Pn	17 31 47.1	+0.4
LAST	Lasithi	3.15	106	P	Pn	17 31 47.1	+0.4
XOR	Xorichti	3.44	18	P	Pn	17 31 51.7	+1.1
XOR	Xorichti	3.44	18	P	Pn	17 31 51.7	+1.1
THL	Klokotos Trika	3.46	3	P	Pn	17 31 52.3	+1.4
THL	Klokotos Trika	3.46	3	*e*PN	Pn	17 31 51.8	+0.9
THL	Klokotos Trika	3.46	3	*e*Pn	Pn	17 31 51.8	+0.9
THL	Klokotos Trika	3.46	3	P	Pn	17 31 52.3	+1.4
IGT	Igoumenitsa	3.61	342	P	Pn	17 31 52.9	-0.1
IGT				S	Sn	17 32 34.7	-0.9
IGT	Igoumenitsa	3.61	342	P	Pn	17 31 52.9	-0.1
IGT				S	Sn	17 32 34.7	-0.9
MEV	Metsovon	3.70	353	P	Pn	17 31 56.3	+2.1
MEV	Metsovon	3.70	353	P	Pn	17 31 56.3	+2.1
CHOS	Chios island	4.09	55	P	Pn	17 32 00.1	+0.4
CHOS				S	Sn	17 32 49.9	+2.3
CHOS	Chios island	4.09	55	P	Pn	17 32 00.1	+0.4
CHOS				S	Sn	17 32 49.9	+2.3
FNA	Florina	4.68	356	P	Pn	17 32 08.1	+0.4
FNA	Florina	4.68	356	P	Pn	17 32 08.1	+0.4
STON	Ston	7.46	336	*e*Pn	Pn	17 32 40.8	-5.1
STON				Sn	Sn	17 34 03.9	-6.5
STON	Ston	7.46	336	*e*Pn	Pn	17 32 40.8	-5.1
STON				Sn	Sn	17 34 03.9	-6.5
STON	Ston	7.46	336	*e*Pn	Pn	17 32 40.8	-5.0
STON				Sn	Sn	17 34 03.9	-6.5
NVLJ	Novalja	9.96	330	Sn	Sn	17 35 03.8	-8.0
TORD	Torodi Ar. Bea	29.14	223	P	P	17 36 56.7	-1.6
	0.6nm,0.7s,mb3.4,baz=30,slow=9.5,SNR=4.7						
ARCES	ARCESS Array B	33.55	2	P	P	17 37 34.3	-2.3
	7.5nm,1.2s,mb4.5,baz=192,slow=8.0,SNR=5.0						
ARCES	ARCESS Array B	33.55	2	P	P	17 37 34.3	-2.3
MKAR	Makanchi Array	45.55	57	P	P	17 39 12.9	-4.0
	0.4nm,0.4s,mb3.7,baz=267,slow=7.7,SNR=13						
ZALV	Zalesovo Beam	46.34	47	P	P	17 39 18.2	-4.8
	0.3nm,0.3s,mb3.6,baz=258,slow=7.2,SNR=2.9						
SONM	Songino Array	61.00	50	P	P	17 41 07.7	-2.8
	0.2nm,0.5s,mb3.5,baz=268,slow=7.2,SNR=2.5						
SONM	Songino Array	61.00	50	P	P	17 41 07.7	-2.8
SONM	Songino Array	61.00	50	LR	LR	17 41 07.5	
	comp=Z,718nm,19.8s,baz=305,slow=39						
KMI	Kunming	68.70	74	P	P	17 41 57.5	-3.6
KMI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
CMAR	Chiang Mai Arr	69.17	82	P	P	17 42 00.1	-4.0
	comp=Z,0.4nm,0.6s,mb3.5,baz=306,slow=8.8,SNR=5.6						

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*ISCJB **26** 17:36:26.3±0.2, 42°.42N±0°.01×19°.79E±0°.02, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.7km az=149.9*

*THE **26** 17:36:26.7, 42°.42N×19°.74E, h1^{km}±2^{km}, ML3.9/5, Error ellipse: s-maj=3.2km s-min=1.3km az=272.0*

*PDG **26** 17:36:26.2±0.2, 42°.40N×19°.78E, h0^{km}±11^{km}, MD3.0/8, ML2.9/10, Error ellipse: s-maj=0.3km s-min=0.5km az=0.0*

*CSEM **26** 17:36:26.2±0.1, 42°.42N×19°.77E, h2^{km}, ML2.9/10, Error ellipse: s-maj=2.3km s-min=2.2km az=175.0*

*NEIC **26** 17:36:26.2, 42°.40N×19°.78E, h0^{km}, ML2.9(PDG), After PDG.*

*SKO **26** 17:36:26.8, 42°.43N×19°.80E, h5^{km}*

*SOF **26** 17:36:28.7, 42°.18N×20°.04E, h20^{km}, MD2.9*

ISC 26 17:36:27.3±0.2**, 42°.42N**±0°.01×**19°.79E**±0°.02**, h10^{km}, n117,** σ**1^{s}.25**/190**, 21C-9D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVY	Plav	0.23	38	⇑*i*Pg	Pg	17 36 30.6	-1.3
PVY				*e*Sg	Sg	17 36 34.5	-0.6
PVY	Plav	0.23	38	⇑*i*Pg	Pg	17 36 30.6	-1.3
PVY				*e*Sg	Sg	17 36 34.5	-0.6
PDG	Podgorica	0.39	272	⇑*i*Pg	Pg	17 36 33.0	-1.9
PDG				*e*Sg	Sg	17 36 39.1	-1.0
TTG	Podgorica	0.39	272	⇑*i*Pg	Pg	17 36 33.0	-1.9
TTG				*e*Sg	Sg	17 36 39.1	-1.0
TTG	Podgorica	0.39	272	⇑*i*Pg	Pg	17 36 33.0	-1.9
TTG				*e*Sg	Sg	17 36 39.1	-1.0
BEY	Berane	0.46	10	⇑*i*Pg	Pg	17 36 35.2	-1.1
BEY				*i* Sg	Sg	17 36 42.6	+0.1
IVA	Berane	0.46	10	⇑*i*Pg	Pg	17 36 35.2	-1.1
IVA				*i* Sg	Sg	17 36 42.6	+0.1
IVA	Berane	0.46	10	⇑*i*Pg	Pg	17 36 35.2	-1.1
IVA				*i* Sg	Sg	17 36 42.6	+0.1
ULC	Ulcinj	0.60	222	⇑*i*Pg	Pg	17 36 37.0	-1.9
ULC				*i* Sg	Sg	17 36 46.3	-0.5
ULC	Ulcinj	0.60	222	⇑*i*Pg	Pg	17 36 37.0	-1.9
ULC				*i* Sg	Sg	17 36 46.3	-0.5
BUM	Brajici-Budva	0.67	260	⇓*i*Pg	Pg	17 36 38.3	-1.9
BUM				*i* Sg	Sg	17 36 48.6	-0.3
BUM	Brajici-Budva	0.67	260	⇓*i*Pg	Pg	17 36 38.3	-1.9
BUM				*i* Sg	Sg	17 36 48.6	-0.3
NKY	Niksic	0.70	305	⇑*i*Pg	Pg	17 36 39.3	-1.6
NKY				*i* Sg	Sg	17 36 50.5	+0.4
NKY	Niksic	0.70	305	⇑*i*Pg	Pg	17 36 39.3	-1.6
SJES	Sjenica	0.86	9	*e*Pg	Pg	17 36 42.0	-1.8
SJES				*e*Sg	Sg	17 36 56.8	+1.9
HCY	Herceg Novi	0.95	272	⇑*i*Pg	Pg	17 36 43.7	-1.9
HCY				*e*Sg	Sg	17 36 58.4	+0.4
HCY	Herceg Novi	0.95	272	⇑*i*Pg	Pg	17 36 43.7	-1.9
PLE	Pljevlja	0.96	343	⇑*i*Pg	Pg	17 36 44.0	-1.7
PLE				*i* Sg	Sg	17 36 59.5	+1.3
PLE	Pljevlja	0.96	343	⇑*i*Pg	Pg	17 36 44.0	-1.7
UPM	Unac-Piva	1.02	321	⇑*i*Pg	Pg	17 36 45.2	-1.6
UPM				*i* Sg	Sg	17 37 01.4	+1.3
UPM	Unac-Piva	1.02	321	⇑*i*Pg	Pg	17 36 45.2	-1.6
BRY	Bratogost	1.04	298	⇑*i*Pg	Pg	17 36 45.4	-1.8
BRY				*i* Sg	Sg	17 37 01.8	+1.1
BRY	Bratogost	1.04	298	⇑*i*Pg	Pg	17 36 45.4	-1.8
TIR	Tirane	1.07	177	P	Pg	17 36 45.8	-2.0
TIR				S	Sg	17 37 03.1	+1.4
TIR	Tirane	1.07	177	*e*Pg	Pg	17 36 45.4	-2.4
TIR				*e*Sg	Sg	17 37 00.2	-1.5
TIR				*e*Sn	Sn	17 37 03.6	+0.5
TIR	Tirane	1.07	177	⇓*i*Pg	Pg	17 36 45.6	-2.2
TIR	Tirane	1.07	177	P	Pg	17 36 45.8	-2.0
TIR				*e*Sg	Sg	17 37 02.1	+0.4
TIR				S	Sg	17 37 03.1	+1.4
SKO	Skopje	1.31	109	P	Pn	17 36 52.1	+0.6
SKO				S	Sb	17 37 12.3	+3.6
SKO	Skopje	1.31	109	*e*Pn	Pn	17 36 50.3	-1.3
SKO				*e*Sg	Sg	17 37 09.9	+0.6
SKO	Skopje	1.31	109	*i* Pg	Pg	17 36 50.3	-2.0
SKO	Skopje	1.31	109	P	Pn	17 36 52.1	+0.6
SKO				*e*Sg	Sg	17 37 09.8	+0.5
SKO				S	Sb	17 37 12.3	+3.6
BBLS	Lazići	1.48	349	*e*Sg	Sg	17 37 15.5	+0.7
OHR	Ohrid	1.51	149	P	Pn	17 36 54.6	+0.3
OHR				S	Sn	17 37 15.4	+1.4
OHR	Ohrid	1.51	149	*e*Pn	Pn	17 36 54.5	+0.2
OHR				*e*Sg	Sg	17 37 15.5	-0.2
OHR	Ohrid	1.51	149	*e*Pg	Pg	17 36 54.2	-2.0
OHR	Ohrid	1.51	149	*e*Pn	Pn	17 36 54.5	+0.2
OHR				*e*Sg	Sg	17 37 15.5	-0.2
KRUS	Krusevo	1.51	133	*e*Pn	Pn	17 36 53.8	-0.6
KRUS				*e*Sg	Sg	17 37 14.9	-0.9
KRUS	Krusevo	1.51	133	*e*Pn	Pn	17 36 53.7	-0.7
KRUS				*e*Sg	Sg	17 37 14.9	-1.0
BARS	Barje	1.55	74	*e*Pg	Pg	17 36 54.3	-2.7
BARS				*e*Sg	Sg	17 37 15.7	-1.4
STON	Ston	1.61	287	*e*Pn	Pn	17 36 54.5	-1.1
STON				Sn	Sn	17 37 20.0	+3.6
STON	Ston	1.61	287	*e*Pn	Pn	17 36 54.5	-1.1
STON				Sn	Sn	17 37 19.9	+3.5
GRUS	Gruza	1.62	24	*e*Pn	Pn	17 36 55.9	0.0
GRUS				*e*Sg	Sg	17 37 18.9	-0.5
DIVS	Divibare	1.69	5	P	Pn	17 36 56.6	-0.2
DIVS				S	Sn	17 37 19.9	+1.4
DIVS	Divibare	1.69	5	P	Pn	17 36 56.6	-0.2
DIVS				S	Sn	17 37 19.9	+1.4
DIVS				*e*Sg	Sg	17 37 23.6	+2.0
BIA	Bitola	1.81	140	P	Pn	17 36 59.8	+1.4
BIA				S	Sn	17 37 24.7	+3.3
BIA	Bitola	1.81	140	*e*Pn	Pn	17 36 59.9	+1.5
BIA				*e*Sg	Sg	17 37 25.4	0.0
BIA	Bitola	1.81	140	*e*Pn	Pn	17 36 59.7	+1.3
BIA				S	Sn	17 37 24.7	+3.3
BIA				*e*Sg	Sg	17 37 25.3	-0.1
TRUS	Trudelj	1.86	14	⇓*i*Pn	Pn	17 37 00.3	+1.1
NISS		1.87	57	*e*Pn	Pn	17 36 59.9	+0.6
FNA	Florina	2.02	143	P	Pn	17 37 02.3	+1.0
FNA				S	Sn	17 37 28.1	+1.5
FNA	Florina	2.02	143	P	Pn	17 37 02.3	+1.0
FNA				S	Sn	17 37 28.1	+1.5
BOLS	Boljevac	2.12	48	*e*Pn	Pn	17 37 01.6	-1.2
BOLS				*e*Sg	Sg	17 37 36.6	+1.1
ZAPS	Zavoj	2.26	67	⇑*i*Pn	Pn	17 37 04.9	+0.2
VAY	Valandovo	2.35	117	P	Pn	17 37 06.1	+0.2
VAY	Valandovo	2.35	117	*e*Pn	Pn	17 37 06.3	+0.4
VAY				*e*Sg	Sg	17 37 40.9	-1.8
VAY	Valandovo	2.35	117	P	Pn	17 37 09.0	+3.1
VAY				*i* S	Sn	17 37 41.0	+6.3
VAY	Valandovo	2.35	117	*e*Pn	Pn	17 37 06.2	+0.3
VAY				*e*Sg	Sg	17 37 40.8	-1.9
VAY				*i* S	Sn	17 37 41.0	+6.3
PE1	Pezze di Greco	2.39	229	*e*Pn	Pn	17 37 06.3	-0.2
PE1				*e*Sn	Sn	17 37 35.2	-0.6
GRG	Griva	2.44	126	P	Pn	17 37 07.2	+0.1
GRG				S	Sn	17 37 39.4	+2.4
GRG	Griva	2.44	126	P	Pn	17 37 07.2	+0.1
GRG				S	Sn	17 37 39.4	+2.4
VTS	Vitosha	2.54	85	P	Pn	17 37 08.0	-0.4
VTS				S	Sn	17 37 38.2	-1.2
VTS				Sg	Sg	17 37 47.9	-0.8
VTS	Vitosha	2.54	85	P	Pn	17 37 08.0	-0.4
VTS				S	Sn	17 37 38.2	-1.2
VTS				Sg	Sg	17 37 47.9	-0.8
BAI	Bari	2.54	240	*e*Pn	Pn	17 37 07.5	-1.0
BAI				*e*Sn	Sn	17 37 38.8	-0.6
KNT	Kendrikon	2.64	117	P	Pn	17 37 10.8	+0.9
KNT	Kendrikon	2.64	117	P	Pn	17 37 10.8	+0.9
TAR1	Taranto	2.66	226	*e*Pn	Pn	17 37 14.7	+4.5
KEK	Kerkira	2.70	180	*e*PN	Pn	17 37 10.5	-0.2
SG1	Sgolgore (BA)	2.81	237	*e*Pn	Pn	17 37 11.1	-1.1
SG1				*e*Sn	Sn	17 37 47.2	+1.0
JAN	Janina	2.87	163	*e*PN	Pn	17 37 15.4	+2.3
LTRZ	Laterza	2.87	232	Pn	Pn	17 37 12.3	-0.7
LTRZ	Laterza	2.87	232	Pn	Pn	17 37 12.3	-0.7
IGT	Igoumenitsa	2.91	172	P	Pn	17 37 14.5	+0.9
IGT				S	Sn	17 37 49.9	+1.3
IGT	Igoumenitsa	2.91	172	P	Pn	17 37 14.5	+0.9
IGT				S	Sn	17 37 49.9	+1.3
MS1	Monte Sant'Ang	2.95	257	*e*Pn	Pn	17 37 14.0	-0.1
LIT	Litokhoron	3.08	138	P	Pn	17 37 16.5	+0.5
LIT				S	Sn	17 37 56.0	+3.2
LIT	Litokhoron	3.08	138	*e*PN	Pn	17 37 16.9	+0.9
LIT	Litokhoron	3.08	138	P	Pn	17 37 16.5	+0.5
LIT				S	Sn	17 37 56.0	+3.2
RGNG	Rignano Grg	3.21	258	Pn	Pn	17 37 17.4	-0.4
RGNG	Rignano Grg	3.21	258	Pn	Pn	17 37 17.4	-0.4
THL	Klokotos Trika	3.31	149	*e*PN	Pn	17 37 19.9	+0.8
BZS	Buzias	3.46	22	⇓*i*P	Pn	17 37 21.1	-0.1
BZS	Buzias	3.46	22	⇓*i*P	Pn	17 37 21.1	-0.1
GZR	Gura Zlata	3.68	35	⇓*i*P	Pg	17 37 35.3	-2.4
CIGN	Sant'Elia a Pi	3.71	260	Pn	Pn	17 37 24.7	+0.1
CIGN	Sant'Elia a Pi	3.71	260	Pn	Pn	17 37 24.7	+0.1
RZN	Rozhen	3.74	100	P	Pn	17 37 25.4	+0.4
RZN	Rozhen	3.74	100	P	Pn	17 37 25.4	+0.4
LKD	Levkas	3.76	170	P	Pn	17 37 25.0	-0.3
LKD				S	Sn	17 38 12.5	+2.9
LKD	Levkas	3.76	170	P	Pn	17 37 25.0	-0.3
LKD				S	Sn	17 38 12.5	+2.9
CUC	Castrocucco	3.85	232	*e*Pn	Pn	17 37 26.1	-0.4
CUC				*e*Sn	Sn	17 38 12.5	+0.7
CUC	Castrocucco	3.85	232	*e*Pn	Pn	17 37 26.1	-0.4
CUC				*e*Sn	Sn	17 38 12.5	+0.7
PKSM	Moragy	3.88	348	⇓*i*P	Pn	17 37 26.5	-0.5
PKSM	Moragy	3.88	348	⇓*i*P	Pn	17 37 26.5	-0.5
CSSN	Cassano Irpino	3.89	248	Pn	Pn	17 37 28.2	+1.1
CSSN	Cassano Irpino	3.89	248	Pn	Pn	17 37 28.2	+1.1
AGG	Agios Georgios	3.90	149	*e*PN	Pn	17 37 27.5	+0.3
TIP	Timpagrande	3.97	216	*e*Pn	Pn	17 37 27.1	-1.0
TIP	Timpagrande	3.97	216	*e*Pn	Pn	17 37 27.1	-1.0
SGG	Gregorio Mates	4.17	258	Pn	Pn	17 37 31.9	+1.1
SGG	Gregorio Mates	4.17	258	Pn	Pn	17 37 31.9	+1.1
NVLJ	Novalja	4.17	303	*e*Pn	Pn	17 37 32.4	+1.5
NVLJ				Sn	Sn	17 38 23.0	+3.3
NVLJ	Novalja	4.17	303	*e*Pn	Pn	17 37 32.4	+1.5
NVLJ				Sn	Sn	17 38 22.9	+3.2
KDZ	Kurdzhali	4.26	98	Sg	Sg	17 38 41.1	-3.0
KDZ	Kurdzhali	4.26	98	Sg	Sg	17 38 41.1	-3.0
RFI	Roccamonfina	4.47	258	Pn	Pn	17 37 36.5	+1.4
RFI	Roccamonfina	4.47	258	Pn	Pn	17 37 36.5	+1.4
SDI	San Donato	4.50	263	Pn	Pn	17 37 36.7	+1.2
SDI	San Donato	4.50	263	Pn	Pn	17 37 36.7	+1.2
SZH	Strazhica	4.60	77	*e*S	Sn	17 38 31.2	+1.0
SZH	Strazhica	4.60	77	*e*S	Sn	17 38 31.2	+1.0
ALN	Alexandroupoli	4.93	106	*e*PN	Pn	17 37 41.2	-0.1
VOY	Vojsko	5.57	312	*e*Pn	Pn	17 37 53.2	+3.1
VOY				*e*Sn	Sn	17 38 58.7	+4.6
KECS	Kecovo	6.09	4	*e*PN	Pn	17 38 01.7	+4.5
KECS				*e*SN	Sn	17 39 06.9	0.0
VYHS	Vyhne	6.12	354	*e*PN	Pn	17 37 59.7	+2.1
VYHS				*e*SN	Sn	17 39 06.7	-0.9
VYHS	Vyhne	6.12	354	*e*Pn	Pn	17 37 59.7	+2.1
VYHS				*e*Sn	Sn	17 39 06.7	-0.9
CRVS	Cervenica-Dubn	6.59	10	*e*PN	Pn	17 38 05.0	+0.9
CRVS	Cervenica-Dubn	6.59	10	*e*Pn	Pn	17 38 05.0	+0.9

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*ISCJB **26** 17:49:59.4±0.2, 30°.05N±0°.02×101°.88E±0°.02, h10^{km}, mb4.8/130, MS4.4/23, Error ellipse: s-maj=3.4km s-min=2.5km az=171.6*

*IDC **26** 17:50:00.0±0.5, 30°.09N×101°.84E, h0^{km}, mb4.4/25, mb1 4.6/26, mb1mx4.5/30, mbtmp4.5/26, ML3.9/1, MS4.3/13, Ms1 4.3/13, ms1mx4.1/51, Error ellipse: s-maj=16.5km s-min=11.1km az=54.0*

BJI ***26*** *17:50:01.9, 30°.13N×102°.04E, h22^{km}, mB5.0/26, mb4.7/35, ML5.0/15, Ms4.9/52, Ms7 4.5/42*

MOS ***26*** *17:50:01.7±0.9, 30°.05N×101°.82E, h26^{km}, mb5.1/74, MS4.6/10, Error ellipse: s-maj=6.9km s-min=4.1km az=118.2*

GCMT ***26*** *17:50:03.6±0.3, 30°.03N×101°.96E, h29^{km}±1^{km}, MW5.1/73, Moment Tensor Solution. s36,c40; s73,c113; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.34±.22; $M_{\theta\theta}$4.17±.18; $M_{\phi\phi}$-2.83±.18; $M_{r\theta}$-0.80±.28; $M_{\theta\phi}$-4.22±.14; $M_{\phi r}$-0.60±.29; Best double couple: $M_0$5.60300×10^{16} NP1:ϕ_s340.00000°,δ78.00000°,λ-7.00000°. NP2: ϕ_s71.00000°,δ83.00000°,λ-168.00000°. Principal axes: T 6.1810, Plg4.0000°, Azm205.0000°; N -1.1570, Plg76.0000°, Azm100.0000°; P -5.0250, Plg14.0000°, Azm296.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***26*** *17:50:03.6±1.5, 30°.09N×101°.77E, h24^{km}±10^{km}, mb4.9/83 Error ellipse: s-maj=5.7km s-min=4.5km az=198.0*

NEIC Felt at Chengdu and Yaan.

DJA ***26*** *17:50:08, 30°.19N×101°.92E, h40^{km}, mb4.6/10*

SZGRF ***26*** *17:50:18.5, 30°.54N×99°.13E, h30^{km}, mb5.2, Sichuan, China*

ISC 26 17:50:01.5±0.1**, 30°.09N**±0°.02×**101°.86E**±0°.02**, h10**^{km}**, (h26**^{km}±2.3^{km}**:pP-P), n397, σ1**^{s}**.22**/419**, mb4.8**/130**, MS4.4**/23**, 26C-12D, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CD2	**Chengdu**	**1.83**	**63**	⇑*i*Pg	**Pg**	**17 50 33.0**	**-3.6**
CD2				Sg	**Sg**	**17 50 58.0**	**-2.4**
CD2				smax			
	comp=N,24µm,0.9s						
CD2				smax			
	comp=E,20µm,0.8s						
KMI	**Kunming**	**5.00**	**171**	Pn	**Pn**	**17 51 19.5**	**+2.9**
KMI				Sn	**Sn**	**17 52 18.8**	**+4.3**
KMI				LR	LR		
	comp=N,12µm,6.2s						
KMI				LR	LR		
	comp=E,28µm,8.5s						
KMI				LR	LR		
	comp=Z,6µm,7.1s						
GYA	**Guiyang**	**5.57**	**129**	Pn	**Pn**	**17 51 24.0**	**-0.3**
GYA				Pg	**Pg**	**17 51 41.8**	**-6.3**
GYA				Sn	**Sn**	**17 52 34.0**	**+5.6**
GYA				Sg	**Sg**	**17 52 47.5**	**-13**
GYA				smax			
	comp=N,3µm,1.0s						
GYA				smax			
	comp=E,2µm,1.0s						
GYA				LR	LR		
	comp=N,14µm,8.4s						
GYA				LR	LR		
	comp=E,8µm,7.0s						
GYA				LR	LR		
	comp=Z,10µm,8.3s						
LZH	**Lanzhou**	**6.21**	**15**	⇑Pn	**Pn**	**17 51 37.0**	**+3.8**
LZH				Pg	**Pg**	**17 51 57.0**	**-3.4**
LZH				Sn	**Sn**	**17 52 45.5**	**+1.3**
LZH				Sg	**Sg**	**17 53 20.5**	**-0.4**
LZH				smax			
	comp=N,780nm,1.2s						
LZH				smax			
	comp=E,990nm,1.3s						
LZH				LR	LR		
	comp=N,8µm,5.4s						
LZH				LR	LR		
	comp=Z,8µm,6.5s						
XAN	**Xi'an**	**7.17**	**55**	Pn	**Pn**	**17 51 44.5**	**-1.9**
XAN				Pg	**Pg**	**17 52 09.5**	**-9.3**
XAN				Sn	**Sn**	**17 53 06.5**	**-1.4**
XAN				Sg	**Sg**	**17 53 43.5**	**-8.1**
XAN				smax			
	comp=N,890nm,1.2s						
XAN				smax			
	comp=E,690nm,1.2s						
XAN				LR	LR		
	comp=N,6µm,11.5s						
XAN				LR	LR		
	comp=E,3µm,14.6s						
XAN				LR	LR		
	comp=Z,2µm,19.4s						
IMP	**Imphal**	**8.80**	**235**	*e*x	x	17 52 14.0	
LSA	**Lhasa**	**9.31**	**270**	P	**Pn**	**17 52 18.0**	**+2.3**
LSA				S	**Sn**	**17 54 05.5**	**+5.0**
LSA				pmax	pmax		
	comp=Z,50nm,0.6s						
LSA				LR	LR		
	comp=N,8µm,17.3s						
LSA				LR	LR		
	comp=E,5µm,10.7s						
LSA				LR	LR		
	comp=Z,6µm,9.7s						
LSA	**Lhasa**	**9.31**	**270**	⇑*i*P	**Pn**	**17 52 18.5**	**+2.8**
LSA				pmax	pmax		
	comp=Z,43nm,0.7s						
LSA	**Lhasa**	**9.31**	**270**	⇑*i*Pn	**Pn**	**17 52 18.4**	**+2.8**
	comp=Z,43nm,0.7s						
GTA	**Gaotai**	**9.45**	**350**	*e*P	**Pn**	**17 52 21.8**	**+4.1**
GTA				S	**Sn**	**17 54 07.8**	**+3.8**
GTA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GTA				pmax	pmax		
	comp=Z,65nm,5.4s						
GTA				LR	LR		
	comp=N,1µm,18.1s						
GTA				LR	LR		
	comp=E,4µm,19.5s						
GTA				LR	LR		
	comp=Z,1µm,20.8s						
SHL	**Shillong**	**9.91**	**245**	*e*PKP	**Pn**	**17 52 21.2**	**-2.8**
SHL				*e*x	x	17 54 16.0	
CHRT	**Chiangrai**	**10.34**	**191**	⇓P	**Pn**	**17 52 34.0**	**+4.1**
	comp=Z,255nm,1.5s						
WHN	**Wuhan**	**10.80**	**84**	⇑P	**Pn**	**17 52 38.3**	**+2.1**
WHN				S	**Sn**	**17 54 26.0**	**-11**
WHN				LR	LR		
	comp=N,25µm,10.2s						
WHN				LR	LR		
	comp=E,7µm,9.0s						
AGT	**Agartala**	**11.30**	**239**	*e*x	x	17 53 09.0	
CHG	**Chiang Mai**	**11.53**	**194**	⇓P	**Pn**	**17 52 51.3**	**+5.1**
	comp=E,14nm,0.9s						
CHTO	**Chiang Mai**	**11.53**	**194**	*e*P	**Pn**	**17 52 48.2**	**+2.0**
CHTO				pmax	pmax		
	comp=Z,41nm,1.1s						
CHTO	**Chiang Mai**	**11.53**	**194**	*e*Pn	**Pn**	**17 52 48.2**	**+2.0**
	comp=Z,41nm,1.1s						
CHTO				*e*		17 53 37.2	
CHTO	**Chiang Mai**	**11.53**	**194**	P	**Pn**	**17 52 51.2**	**+5.0**
	SNR=9.0						
CHTO				P		17 52 51.2	
	SNR=9.0						
CMAR	**Chiang Mai Arr**	**11.88**	**194**	Pn	**Pn**	**17 52 53.5**	**+2.5**
	comp=Z,0.4nm,0.3s,baz=7.9,slow=12,SNR=35						
CMAR				Pg	Pn	17 53 43.5	+53
	comp=Z,1.0nm,0.3s,baz=10,slow=16,SNR=26						
CMAR				Lg		17 56 21.2	
	comp=Z,0.1nm,0.3s,baz=6.7,slow=25,SNR=3.3						
CMAR				LR	LR	17 58 22.8	
	comp=Z,189nm,20.0s,baz=182,slow=42						
GZH	**Guangzhou**	**12.41**	**121**	P	**Pn**	**17 52 56.3**	**-1.9**
GZH				S	**Sn**	**17 55 17.0**	**+0.4**
GZH				LR	LR		
	comp=N,3µm,6.3s						
GZH				LR	LR		
	comp=E,3µm,6.0s						
BTO	**Baotou**	**12.42**	**30**	*e*P	**Pn**	**17 52 54.8**	**-3.5**
TAPN	**Taplejung**	**12.72**	**261**	*e*P	**Pn**	**17 53 02.9**	**+0.5**
	comp=E,165nm,1.1s						
BDT	**Bhumibol Dam**	**13.05**	**192**	P	**Pn**	**17 53 13.0**	**+6.1**
ODAN	**Odare**	**13.13**	**259**	*e*P	**Pn**	**17 53 07.8**	**-0.2**
	comp=E,38nm,0.5s						
QIZ	**Qiongzhong**	**13.18**	**145**	P	**Pn**	**17 53 07.0**	**-1.7**
QIZ				S	**Sn**	**17 55 33.5**	**-1.9**
QIZ				pmax	pmax		
	comp=Z,360nm,3.9s						
QIZ				LR	LR		
	comp=N,3µm,12.2s						
QIZ				LR	LR		
	comp=E,4µm,12.1s						
QIZ				LR	LR		
	comp=Z,4µm,9.6s						
HHC	**Hu-ho-hao-te**	**13.32**	**34**	*e*P	**Pn**	**17 53 11.0**	**+0.4**
HHC				pP		17 53 19.0	
HHC				sP		17 53 26.0	
HHC				*e*S	**Sn**	**17 55 37.0**	**-1.8**
HHC				sS		17 55 50.0	
HHC				SS		17 55 53.0	
HHC				pmax	pmax		
	comp=Z,24nm,1.0s						
HHC				pmax	pmax		
	comp=Z,130nm,4.3s						
HHC				LR	LR		
	comp=N,3µm,6.3s						
HHC				LR	LR		
	comp=E,2µm,5.5s						
HHC				LR	LR		
	comp=Z,2µm,9.6s						
RAMN	**Ramite**	**13.78**	**261**	*e*P	**Pn**	**17 53 16.3**	**-0.6**
	comp=Z,50nm,0.7s						
JIRN	**Jiri**	**13.94**	**264**	*e*P	**Pn**	**17 53 19.3**	**+0.1**
	comp=Z,94nm,0.8s						
GUN	**Gumba**	**14.16**	**265**	*e*P	**Pn**	**17 53 21.9**	**-0.1**
	comp=Z,155nm,1.0s						
TIA	**Tai'an**	**14.16**	**60**	*e*P	**Pn**	**17 53 20.3**	**-1.8**
TIA				LR	LR		
	comp=N,1µm,10.0s						
CAL	**Calcutta**	**14.27**	**241**	*e*x	x	17 53 13.3	
CAL				*e*x	x	17 55 31.5	
NST	**Nakhon Sawan**	**14.43**	**187**	P	**Pn**	**17 53 31.0**	**+5.1**
PKI	**Pulchoki**	**14.64**	**264**	*e*P	**Pn**	**17 53 27.2**	**-1.4**
	comp=N,72nm,0.6s						
PKI	**Pulchoki**	**14.64**	**264**	*e*P	**Pn**	**17 53 27.7**	**-0.9**
PKI				pmax	pmax		
	comp=Z,166nm,0.7s						
PKI	**Pulchoki**	**14.64**	**264**	*e*P	**Pn**	**17 53 27.7**	**-0.9**
	comp=Z,166nm,0.7s						
PKIN	**Phulchoki**	**14.65**	**264**	*e*P	**Pn**	**17 53 27.7**	**-1.1**
	comp=Z,166nm,0.7s						
NJ2	**Nanjing**	**14.70**	**78**	*e*P	**Pn**	**17 53 28.3**	**-1.1**
NJ2				pP	pP	17 53 36.8	-1.7
NJ2				PP		17 53 40.5	
NJ2				sP	sP	17 53 43.5	+3.7
NJ2				S	**Sn**	**17 56 15.0**	**+2.7**
NJ2				sS	sS	17 56 23.0	-13
NJ2				pmax	pmax		
	comp=Z,30nm,1.1s						
NJ2				pmax	pmax		
	comp=Z,20nm,4.1s						
NJ2				LR	LR		
	comp=N,5µm,12.1s						
NJ2				LR	LR		
	comp=E,2µm,13.0s						
NJ2				LR	LR		
	comp=Z,2µm,12.9s						
KKN	**Kakani**	**14.70**	**265**	*e*P	**Pn**	**17 53 28.0**	**-1.5**
	comp=Z,116nm,0.7s						
KKN	**Kakani**	**14.70**	**265**	*e*P	**Pn**	**17 53 28.0**	**-1.5**
KKN				pmax	pmax		
	comp=Z,116nm,0.7s						
DMN	**Daman**	**14.89**	**265**	*e*P	**Pn**	**17 53 30.3**	**-1.8**
	comp=Z,88nm,0.9s						
GKN	**Gorkha**	**15.21**	**266**	*e*P	**Pn**	**17 53 33.6**	**-2.7**
	comp=Z,89nm,0.8s						
BJI	**Beijing**	**15.34**	**46**	P	**Pn**	**17 53 37.8**	**-0.2**
BJI				S	**Sn**	**17 56 29.0**	**+1.0**
BJI				pmax	pmax		
	comp=Z,51nm,1.3s						
BOK	**Bokaro**	**15.56**	**250**	*e*PKP	**Pn**	**17 53 40.4**	**-0.5**
BOK				AMb	AMB	17 53 47.8	
	comp=Z,31nm,0.6s						
QZH	**Quanzhou**	**15.70**	**105**	*e*P	**Pn**	**17 53 40.8**	**-1.9**
QZH				*e*S	**Sn**	**17 56 32.3**	**-4.5**
QZH				LR	LR		
	comp=N,7µm,8.2s						
QZH				LR	LR		
	comp=E,3µm,9.4s						
QZH				LR	LR		
	comp=Z,8µm,8.5s						
DANN	**Dangsing**	**15.90**	**268**	*e*P	**Pn**	**17 53 42.3**	**-3.1**
	comp=Z,159nm,0.6s						
KOLN	**Koldanda**	**16.16**	**266**	*e*P	**Pn**	**17 53 44.6**	**-4.1**
	comp=Z,84nm,0.8s						
SSE	**Sheshan**	**16.67**	**82**	P	**Pn**	**17 53 56.3**	**+1.1**
SSE				S	**Sn**	**17 57 01.0**	**+0.5**
SSE				pmax	pmax		
	comp=Z,34nm,0.7s						
SSE				pmax	pmax		
	comp=Z,320nm,4.7s						
SSE				LR	LR		
	comp=N,7µm,14.0s						
SSE				LR	LR		
	comp=E,1µm,14.0s						
SSE				LR	LR		
	comp=Z,3µm,9.6s						
WMQ	**Urumqi**	**17.74**	**324**	P	**Pn**	**17 54 10.5**	**+2.0**
WMQ				pP	pP	17 54 20.0	+7.8
WMQ				sP	sP	17 54 26.0	+13
WMQ				*e*S	**Sn**	**17 57 23.0**	**-3.2**
WMQ				sS	sS	17 57 37.0	-0.9
WMQ				PcP	PcP	17 58 49.0	+2.8
WMQ				pmax	pmax		
	comp=Z,20nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,280nm,5.5s						
WMQ				LR	LR		
	comp=N,4µm,18.4s						
WMQ				LR	LR		
	comp=E,3µm,17.2s						
WMQ				LR	LR		
	comp=Z,2µm,23.6s						
SONM	**Songino Array**	**18.07**	**10**	P	**Pn**	**17 54 14.1**	**+1.7**
	comp=Z,0.4nm,0.3s,baz=192,slow=9.3,SNR=78						
SONM				Lg		17 59 36.9	
	comp=Z,0.0nm,0.3s,baz=169,slow=19,SNR=2.8						
SSLB	**Suanglung**	**18.13**	**106**	*e*Pn	**Pn**	**17 54 14.4**	**+1.0**
	comp=Z,134nm,1.5s						
YHNB	**Yeheng**	**18.14**	**103**	*e*P	**Pn**	**17 54 16.7**	**+3.1**
	comp=Z,44nm,0.9s						
ULN	**Ulaanbaatar**	**18.20**	**11**	*e*P	**Pn**	**17 54 14.8**	**+0.7**
ULN				pmax	pmax		
	comp=Z,23nm,0.9s						
ULN	**Ulaanbaatar**	**18.20**	**11**	*e*Pn	**Pn**	**17 54 14.8**	**+0.7**
	comp=Z,23nm,0.9s						
DL2	**Dalian**	**18.49**	**56**	P	**Pn**	**17 54 18.5**	**+0.8**
DL2				*e*S	**Sn**	**17 57 45.0**	**+0.7**
DL2				pmax	pmax		
	comp=Z,50nm,0.9s						
DL2				LR	LR		
	comp=N,1µm,16.7s						
DL2				LR	LR		
	comp=E,1µm,17.2s						
DL2				LR	LR		
	comp=Z,580nm,13.7s						
LGTI	**Lohaghat**	**18.78**	**273**	*e*PKP	**Pn**	**17 54 23.0**	**+1.7**
JOSI	**Joshimath**	**19.26**	**277**	*e*PKP	**Pn**	**17 54 26.6**	**-0.5**
JOSI				AMb	AMB	17 54 31.0	
	comp=Z,154nm,0.8s						
ZAK	**Zakamensk**	**20.30**	**3**	⇑*i*P	**P**	**17 54 39.3**	**+2.0**
ZAK				pmax	pmax		
	comp=Z,39nm,1.0s						
DDI	**Dehra Dun**	**20.57**	**277**	*e*x	x	17 54 40.5	
VIS	**Vishakhapatnam**	**20.91**	**238**	*e*PKP	**P**	**17 54 45.1**	**+0.9**
VIS				AMb	AMB	17 54 48.6	
	comp=Z,30nm,0.6s						
SNY	**Shenyang**	**21.06**	**50**	⇓P	**P**	**17 54 49.3**	**+3.6**
SNY				S	**S**	**17 58 39.5**	**-0.6**
SNY				pmax	pmax		
	comp=Z,43nm,1.2s,mb4.7						
SNY				pmax	pmax		
	comp=Z,420nm,3.5s						
SNY				LR	LR		
	comp=E,900nm,11.3s						
SNY				LR	LR		
	comp=Z,990nm,12.5s,MS4.4						
AGRA	**Agra**	**21.17**	**268**	*e*PKP	**P**	**17 54 46.5**	**-0.5**
AGRA				AMb	AMB	17 54 49.8	
	comp=Z,114nm,0.9s,mb5.2						
NDI	**New Delhi**	**21.51**	**272**	*e*PKP	**P**	**17 54 50.0**	**-0.6**
MOY	**Mondy**	**21.57**	**359**	*e*P	**P**	**17 54 53.5**	**+2.5**
MOY				pmax	pmax		
	comp=Z,87nm,2.3s,mb4.8						
TLY	**Talaya**	**21.61**	**3**	*e*P	**P**	**17 54 55.5**	**+4.0**
TLY				*e*		17 55 18.3	
TLY				*e*S	**S**	**17 58 55.0**	**+4.3**
TLY				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.5						
TLY				MLR	MLR		
	comp=Z,472nm,17.0s,MS4.0						
TLY	**Talaya**	**21.61**	**3**	*e*P	**P**	**17 54 55.3**	**+3.8**
	comp=Z,36nm,1.4s,mb4.6						
TLY	**Talaya**	**21.61**	**3**	P	**P**	**17 54 56.6**	**+5.1**
	SNR=8.7						
TLY				P		17 54 56.6	
	SNR=8.7						
AYAN	**Aya Nagar**	**21.63**	**272**	*e*PKP	**P**	**17 54 49.4**	**-2.5**
AYAN				AMb	AMB	17 54 59.7	
	comp=Z,30nm,1.2s,mb4.6						
SONA	**Sohna**	**21.71**	**271**	*e*PKP	**P**	**17 54 52.2**	**-0.6**
SONA				AMb	AMB	17 54 59.0	
	comp=Z,37nm,0.7s,mb5.0						
INCN	**Inchon**	**21.83**	**64**	*e*P	**P**	**17 54 54.5**	**+0.6**
	comp=Z,57nm,0.9s,mb5.0						
IRK	**Irkutsk**	**22.21**	**4**	*e*P	**P**	**17 55 01.3**	**+3.5**
IRK				pmax	pmax		
	comp=Z,117nm,1.6s,mb5.1						
KUDL	**Kundal**	**22.24**	**271**	*e*PKP	**P**	**17 54 57.7**	**-0.7**
KUDL				AMb	AMB	17 55 08.0	
	comp=Z,27nm,0.7s,mb4.8						
MKAR	**Makanchi Array**	**22.56**	**323**	P	**P**	**17 55 01.8**	**+0.2**
	comp=Z,15nm,0.9s,mb4.4,baz=121,slow=13,SNR=45						
MKAR				LR	LR	18 05 01.5	
	comp=Z,804nm,21.8s,MS4.1,baz=125,slow=40						
KSRS	**Korea Array**	**22.83**	**64**	P	**P**	**17 55 04.3**	**-0.3**
KSRS				pmax	pmax		
	comp=Z,31nm,0.9s,mb4.7						
KSRS				MLR	MLR		
	comp=Z,1µm,18.8s,MS4.3						
KSRS	**Korea Array**	**22.83**	**64**	P	**P**	**17 55 04.2**	**-0.4**
	comp=Z,31nm,0.8s,mb4.8,baz=252,slow=9.5,SNR=51						
KSRS				LR	LR	18 03 45.6	
	comp=Z,1µm,18.8s,MS4.3,baz=262,slow=36						
KHET	**Khetri**	**22.85**	**271**	*e*PKP	**P**	**17 55 04.8**	**0.0**
KHET				AMb	AMB	17 55 12.2	
	comp=Z,31nm,1.5s,mb4.5						
BHPL	**Bhopal**	**22.85**	**258**	*e*PKP	**P**	**17 55 05.2**	**+0.3**
BHPL				AMb	AMB	17 55 11.1	
	comp=Z,36nm,0.7s,mb4.9						
KSH	**Kashi**	**23.18**	**301**	P	**P**	**17 55 12.0**	**+3.7**
KSH				*e*PP		17 55 44.8	
KSH				*e*PcP	PcP	17 58 59.3	+2.9
KSH				*e*S	**S**	**17 59 17.8**	**-2.1**
KSH				*e*SS		18 00 07.0	
KSH				*e*ScP	ScP	18 02 32.0	-2.5
KSH				*e*PcS	PcS	18 02 37.3	+1.8
KSH				*e*ScS	ScS	18 06 17.3	-3.2
KSH				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.2						
KSH				pmax	pmax		
	comp=Z,330nm,5.8s						
KSH				LR	LR		
	comp=N,2µm,11.1s						
KSH				LR	LR		
	comp=E,1µm,9.5s						
KSH				LR	LR		
	comp=Z,1µm,9.8s						
CN2	**Changchun**	**23.20**	**47**	⇑P	**P**	**17 55 08.5**	**+0.1**
CN2				*e*pP		17 55 20.0	
CN2				*e*S	**S**	**17 59 12.5**	**-7.5**
CN2				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.7						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,1µm,14.0s,MS4.8						
CN2				LR	LR		
	comp=E,2µm,14.0s,MS4.8						
CN2				LR	LR		
	comp=Z,500nm,13.0s,MS4.2						
HIA	**Hailar**	**23.48**	**30**	*e*P	**P**	**17 55 11.0**	**-0.3**
HIA				pmax	pmax		
	comp=Z,63nm,1.3s						
HIA	**Hailar**	**23.48**	**30**	*e*P	**P**	**17 55 11.0**	**-0.3**
	comp=Z,63nm,1.3s,mb4.9						
CIT	**Chita**	**23.56**	**18**	*e*P	**P**	**17 55 13.1**	**+1.0**
CIT				*e*		17 55 37.3	
AJM	**Ajmer**	**24.21**	**268**	*e*PKP	**P**	**17 55 19.1**	**+0.7**
AJM				AMb	AMB	17 55 28.5	
	comp=Z,33nm,0.5s,mb5.0						
KZA	**Kyzart**	**24.51**	**306**	P	**P**	**17 55 22.7**	**+1.8**
	SNR=14						
TKM2	**Tokmak 2**	**24.58**	**309**	*e*P	**P**	**17 55 22.5**	**+1.0**
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.3						
TKM2	**Tokmak 2**	**24.58**	**309**	*e*P	**P**	**17 55 22.4**	**+0.9**
	comp=Z,9.8nm,0.9s,mb4.3						
KULM	**Kulim**	**24.69**	**183**	*e*P	**P**	**17 55 20.2**	**-2.5**
	comp=Z,15nm,1.0s,mb4.5						
HYB	**Hyderabad**	**24.72**	**245**	⇑*i*P	**P**	**17 55 23.0**	**0.0**
HYB	**Hyderabad**	**24.72**	**245**	*e*P	**P**	**17 55 23.0**	**0.0**
KBK	**Karagaybulak**	**24.92**	**308**	P	**P**	**17 55 26.7**	**+2.1**
	SNR=14						
UCH	**Uchtor**	**25.07**	**306**	P	**P**	**17 55 28.1**	**+2.1**
	SNR=13						
UCH	**Uchtor**	**25.07**	**306**	*e*P	**P**	**17 55 27.6**	**+1.6**
	comp=Z,19nm,1.2s,mb4.5						
FRU	**Bishkek**	**25.22**	**308**	*e*P	**P**	**17 55 28.0**	**+0.7**
FRU				pmax	pmax		
	comp=Z,40nm,1.8s,mb4.7						
AAK	**Ala-Archa**	**25.23**	**307**	⇑*e*P	**P**	**17 55 27.3**	**-0.1**
AAK				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.1						
AAK	**Ala-Archa**	**25.23**	**307**	P	**P**	**17 55 29.2**	**+1.8**
	SNR=10						
AAK	**Ala-Archa**	**25.23**	**307**	P	**P**	**17 55 29.2**	**+1.8**
	comp=Z,5.4nm,0.7s,mb4.2,baz=122,slow=5.2,SNR=15						
AAK				LR	LR	18 06 32.7	
	comp=Z,626nm,21.5s,MS4.1,baz=348,slow=39						
AAK	**Ala-Archa**	**25.23**	**307**	*e*P	**P**	**17 55 28.7**	**+1.3**
	comp=Z,17nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**25.23**	**307**	P	**P**	**17 55 30.1**	**+2.7**
	SNR=8.2						
AAK				P		17 55 30.1	
	SNR=8.2						
USP	**Ospenovka**	**25.46**	**309**	P	**P**	**17 55 30.6**	**+1.1**
	SNR=13						
AML	**Almayashu**	**25.62**	**306**	P	**P**	**17 55 33.0**	**+2.0**
	SNR=11						
AML	**Almayashu**	**25.62**	**306**	*e*P	**P**	**17 55 32.5**	**+1.6**
	comp=Z,190nm,0.8s,mb5.7						
EKS2	**Erkin-Say**	**25.73**	**307**	P	**P**	**17 55 33.6**	**+1.6**
	SNR=11						
EKS2	**Erkin-Say**	**25.73**	**307**	*e*P	**P**	**17 55 32.8**	**+0.8**
	comp=Z,16nm,1.0s,mb4.5						
MDJ	**Mudanjiang**	**26.23**	**49**	P	**P**	**17 55 38.0**	**+1.5**
MDJ				pP	pP	17 55 49.0	+9.5
MDJ				S	**S**	**18 00 09.0**	**+0.3**
MDJ				ScP	ScP	18 02 40.0	-2.9
MDJ				PcS	PcS	18 02 44.5	+0.7
MDJ				ScS	ScS	18 06 28.8	-3.9
MDJ				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,110nm,3.8s						
MDJ				LR	LR		
	comp=N,760nm,15.7s,MS4.5						
MDJ				LR	LR		
	comp=E,740nm,15.2s,MS4.5						
MDJ				LR	LR		
	comp=Z,850nm,14.7s,MS4.4						
MDJ	**Mudanjiang**	**26.23**	**49**	*e*P	**P**	**17 55 37.4**	**+0.9**
	comp=Z,44nm,1.3s,mb4.8						
ZAA0	**Zalesovo Array**	**26.86**	**337**	*e*P	**P**	**17 55 41.6**	**-0.4**
ZALV	**Zalesovo Beam**	**26.86**	**337**	P	**P**	**17 55 42.2**	**+0.1**
	comp=Z,7.8nm,0.8s,mb4.3,baz=145,slow=8.8,SNR=21						
ZALV				LR	LR	18 06 23.5	
	comp=Z,385nm,18.6s,MS4.0,baz=147,slow=37						
ZALV	**Zalesovo Beam**	**26.86**	**337**	P	**P**	**17 55 42.2**	**+0.1**
ZALV				LR	LR	18 06 23.5	
KURK	**Kurchatov**	**26.96**	**326**	P	**P**	**17 55 42.5**	**-0.5**
KURK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.4						
KURK				MLR	MLR		
	comp=Z,814nm,20.9s,MS4.3						
KURK	**Kurchatov**	**26.96**	**326**	P	**P**	**17 55 42.5**	**-0.5**
	comp=Z,7.0nm,0.6s,mb4.4,baz=133,slow=9.5,SNR=37						
KURK				LR	LR	18 06 20.4	
	comp=Z,814nm,20.9s,MS4.3,baz=125,slow=36						
KURK	**Kurchatov**	**26.96**	**326**	*e*P	**P**	**17 55 42.9**	**-0.2**
	comp=Z,15nm,0.8s,mb4.6						
PSI	**Prapat**	**27.28**	**186**	P	**P**	**17 55 46.5**	**+0.3**
	comp=Z,3.4nm,0.7s,mb4.0,baz=319,slow=8.9,SNR=12						
KKM	**Kota Kinabalu**	**27.47**	**148**	*e*P	**P**	**17 55 49.7**	**+1.8**
	comp=Z,22nm,0.8s,mb4.8						

KBL	**Kabul**	28.02	288	*e*P	P	17 55 53.3	+0.6
KBL				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.7						
KBL	**Kabul**	28.02	288	*e*P	P	17 55 53.3	+0.6
	comp=Z,22nm,1.0s,mb4.7						
NVS	**Novosibirsk**	28.12	337	*e*P	P	17 55 52.6	-0.8
NVS				pmax	pmax		
	comp=N,16nm,1.3s						
NVS				pmax	pmax		
	comp=E,12nm,1.3s						
NVS				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.3						
KAD	**Karad**	28.27	250	*e*PKP	P	17 55 55.9	+0.8
KAD				AMb	AMB	17 56 01.4	
	comp=Z,29nm,0.6s,mb5.1						
BOD	**Bodaibo**	28.98	13	*e*P	P	17 56 01.7	+0.8
BOD				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.3						
KSM	**Kuching**	29.57	163	P	P	17 56 08.8	+2.2
KLR	**Kul'dur**	29.63	41	*e*P	P	17 56 03.2	-3.6
MJAR	**Matsushiro Arr**	30.92	68	P	P	17 56 17.8	-0.6
	comp=Z,1.9nm,0.8s,mb4.0,baz=276,slow=12,SNR=3.8						
MJAR				LR	LR	18 07 53.7	
	comp=Z,506nm,19.1s,MS4.2,baz=235,slow=35						
MJAR	**Matsushiro Arr**	30.92	68	P	P	17 56 17.8	-0.6
MJAR				LR	LR	18 07 53.8	
CLNS	**Chul'man**	31.23	24	*e*P	P	17 56 22.3	+1.4
CLNS				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.7						
CLNS				pmax	pmax		
	comp=N,12nm,1.2s						
CLNS				pmax	pmax		
	comp=E,11nm,1.1s						
HABR	**Khabarovsk**	31.24	45	P	P	17 56 19.6	-1.5
HABR				*e**PP	pP	17 56 28.9	+4.7
HABR				*e**SP	sP	17 56 33.3	+7.9
HABR				*e*PPP		17 57 32.1	
HABR						17 59 12.4	
HABR				*e*S	S	18 01 24.8	-2.6
HABR				*e**SS	sS	18 01 41.8	+9.4
HABR				*e*		18 06 50.3	
HABR				MLR	MLR		
	comp=Z,218nm,14.0s,MS4.0						
BVAR	**Borovoye Array**	32.43	324	LR	LR	18 09 44.5	
	comp=Z,979nm,19.6s,MS4.5,baz=119,slow=36						
BRVK	**Borovoye**	32.51	324	*e*P	P	17 56 31.0	-1.1
BRVK				*e*		17 57 37.2	
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
BRVK	**Borovoye**	32.51	324	*e*Pn	P	17 56 31.0	-1.1
	comp=Z,5.0nm,0.7s,mb4.5						
BRVK				*e*PP	PP	17 57 37.2	-8.3
YSS	**Yuzh-Sakhalins**	35.69	50	*e*P	P	17 57 01.0	+1.1
YSS				*e*		17 57 06.1	
YSS				*e*S	S	18 02 38.0	+1.6
YSS				MLR	MLR		
	comp=Z,500nm,14.0s,MS4.4						
YSS	**Yuzh-Sakhalins**	35.69	50	*e*P	P	17 56 59.1	-0.8
	comp=Z,37nm,1.3s,mb5.2						
YAK	**Yakutsk**	36.75	22	*e*P	P	17 57 07.8	-0.9
YAK				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.9						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.2s						
YAK				MLR	MLR		
	comp=Z,680nm,16.0s,MS4.5						
YAK	**Yakutsk**	36.75	22	*e*P	P	17 57 09.0	+0.3
	comp=Z,22nm,0.8s,mb5.0						
SVE	**Sverdlovsk**	39.19	325	⇓*e*P	P	17 57 29.9	+0.5
SVE				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.7						
SMDO	**Samad**	39.62	271	P	P	17 57 35.5	+2.1
	SNR=8.7						
JMDO	**Jabal Madar**	39.81	270	P	P	17 57 36.7	+1.7
	SNR=7.0						
ARU	**Arti**	40.08	324	c *i*P	P	17 57 37.2	+0.4
ARU				*e*		17 59 07.8	
ARU				S	S	18 03 43.0	+0.3
ARU				SS	SS	18 06 38.1	-1.7
ARU				pmax	pmax		
	comp=Z,19nm,1.7s,mb4.5						
ARU	**Arti**	40.08	324	*e*P	P	17 57 36.4	-0.4
	comp=Z,7.4nm,0.8s,mb4.5						
HOQ	**Hoqain**	40.09	272	P	P	17 57 38.8	+1.5
	SNR=8.0						
BSY	**Bisya**	40.46	271	P	P	17 57 42.6	+2.2
	SNR=12						
ARQ	**Araqi**	40.85	272	P	P	17 57 45.7	+2.1
	SNR=7.0						
TIXI	**Tiksi**	44.14	12	*e*P	P	17 58 10.1	+0.4
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
TIXI	**Tiksi**	44.14	12	*e*P	P	17 58 09.2	-0.5
	comp=Z,36nm,1.1s,mb5.0						
WHFO	**Wadi Hawf**	45.27	266	P	P	17 58 19.7	+0.2
	SNR=9.2						
SEY	**Seymchan**	45.92	29	*e*P	P	17 58 23.9	-0.1
PETK	**Petropavlovsk-**	46.26	44	P	P	17 58 27.1	+0.2
	comp=Z,4.9nm,0.8s,mb4.5,baz=232,slow=3.5,SNR=5.4						
GNI	**Garni**	47.08	298	*e*P	P	17 58 33.7	+0.3
GNI				pmax	pmax		
	comp=Z,9.0nm,1.1s						
GNI	**Garni**	47.08	298	*e*P	P	17 58 33.1	-0.3
	comp=Z,19nm,1.1s,mb4.9						
PRGR	**Permogore**	48.07	328	P	P	17 58 38.4	-2.4
PRGR				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.2						
KIV	**Kislovodsk**	48.26	304	*e*P	P	17 58 42.5	-0.1
KIV				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
KIV				MLR	MLR		
	comp=Z,307nm,16.0s,MS4.4						
KIV	**Kislovodsk**	48.26	304	*e*P	P	17 58 42.8	+0.2
	comp=Z,14nm,0.8s,mb5.0						
KLMR	**Klimovskoe**	50.81	326	*e*P	P	17 59 01.1	-0.7
KLMR				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.0						
MOS	**Moscow**	51.36	319	*e*P	P	17 59 15.5	+10
MOS				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.4						
ANN	**Anapa**	51.93	305	*e*P	P	17 59 12.4	+2.0
ANN				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.3						
OBN	**Obninsk**	51.95	318	⇓*e*P	P	17 59 08.9	-1.5
OBN				*e*		18 01 02.2	
OBN				*e*S	S	18 06 34.1	+0.9
OBN				pmax	pmax		
	comp=Z,49nm,2.5s,mb5.0						
OBN				MLR	MLR		
	comp=Z,300nm,16.0s,MS4.4						
MALT	**Malatya**	52.20	297	*e*P	P	17 59 13.1	+0.6
MALT				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
MALT	**Malatya**	52.20	297	⇑*i*P	P	17 59 13.7	+1.2
MALT	**Malatya**	52.20	297	*e*P	P	17 59 13.1	+0.6
	comp=Z,5.5nm,1.0s,mb4.4						
BILL	**Bilibino**	52.92	25	⇑*i*P	P	17 59 17.6	+0.2
BILL				*e*		18 01 15.0	
BILL				*e*S	S	18 06 48.4	+2.2
BILL				pmax	pmax		
	comp=Z,22nm,1.7s,mb4.8						
BILL				MLR	MLR		
	comp=Z,700nm,18.0s,MS4.8						
BILL	**Bilibino**	52.92	25	*e*P	P	17 59 16.9	-0.5
	comp=Z,18nm,1.3s,mb4.8						
APA	**Apatity**	54.36	334	*e*P	P	17 59 30.0	+2.1
APA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
APA				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
JOF	**Joensuu**	54.86	328	*e*p	P	17 59 30.7	-0.9
	comp=Z,8.2nm,0.5s,mb5.0						
ASF	**Jabal al Asfar**	54.88	290	LR	LR	18 25 41.4	
	comp=Z,238nm,18.4s,MS4.3,baz=154,slow=39						
BRTR	**Keskin Array B**	55.56	300	P	P	17 59 36.7	-0.4
	comp=Z,1.9nm,0.7s,mb4.2						
AKASG	**Malin Array Be**	56.67	313	P	P	17 59 43.9	-0.9
	comp=Z,3.0nm,0.5s,mb4.5,baz=72,slow=6.5,SNR=10.0						
AKASG	**Malin Array Be**	56.67	313	P	P	17 59 43.9	-0.9
KIEV	**Kiev**	56.69	313	*e*P	P	17 59 43.0	-1.9
KIEV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
KIEV	**Kiev**	56.69	313	*e*P	P	17 59 43.0	-2.0
	comp=Z,5.8nm,0.8s,mb4.7						
KEV	**Kevo**	56.88	336	*e*P	P	17 59 46.4	+0.4
KEV				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
KEV	**Kevo**	56.88	336	*e*p	P	17 59 44.6	-1.4
	comp=Z,13nm,0.7s,mb5.1						
KEV	**Kevo**	56.88	336	*e*P	P	17 59 46.4	+0.4
	comp=Z,18nm,0.8s,mb5.2						
KAF	**Kangasniemi**	57.19	327	*e*P	P	17 59 52.2	+3.9
KAF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
KAF	**Kangasniemi**	57.19	327	*e*p	P	17 59 52.2	+3.9
	comp=Z,4.4nm,0.7s,mb4.6						
EIL	**Elat**	57.22	288	P	P	17 59 47.6	-1.4
	comp=Z,2.1nm,0.5s,mb4.4,baz=36,slow=11,SNR=2.7						
FINES	**FINESS Array B**	57.34	326	P	P	17 59 48.3	-1.0
	comp=Z,3.0nm,1.0s,mb4.3,baz=102,slow=8.4,SNR=2.2						
ARCES	**ARCESS Array B**	57.40	336	P	P	17 59 49.1	-0.6
	comp=Z,3.1nm,0.7s,mb4.4,baz=91,slow=7.4,SNR=23						
TIRR	**Tirgusor**	58.34	306	⇑*i*P	P	17 59 56.3	-0.4
TIRR	**Tirgusor**	58.34	306	⇑P	P	17 59 56.3	-0.4
ISP	**Isparta**	58.39	298	*e*P	P	18 00 02.0	+4.8
ISP				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
ISP	**Isparta**	58.39	298	*e*P	P	18 00 02.0	+4.8
	comp=Z,19nm,0.9s,mb5.1						
HARR	**Harsova**	58.62	307	⇓*i*P	P	17 59 58.8	+0.1
HARR	**Harsova**	58.62	307	⇓P	P	17 59 58.8	+0.1
WRAB	**Tennant Creek**	58.75	144	*e*P	P	17 59 59.1	-0.6
WRAB				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.2						
WRAB	**Tennant Creek**	58.75	144	*e*P	P	17 59 59.1	-0.6
	comp=Z,17nm,0.7s,mb5.2						
WRA	**Warramunga Arr**	58.75	144	P	P	17 59 59.1	-0.7
	comp=Z,8.3nm,0.7s,mb4.9,baz=327,slow=8.9,SNR=44						
WRA				PcP	PcP	18 00 52.1	+2.6
	comp=Z,9.6nm,0.8s,baz=338,slow=4.3,SNR=14						
VRI	**Vrincioaia**	59.19	308	⇓*i*P	P	18 00 02.7	+0.1
VRI	**Vrincioaia**	59.19	308	⇓P	P	18 00 02.7	+0.1
PLOR	**Plostina**	59.25	308	⇓*i*P	P	18 00 04.2	+1.2
MLR	**Muntele Rosu**	59.81	308	⇑*i*P	P	18 00 07.4	+0.5
MLR	**Muntele Rosu**	59.81	308	P	P	18 00 07.5	+0.6
	comp=Z,5.6nm,0.7s,mb4.7,baz=80,slow=1.6,SNR=9.6						
BURAR	**Bucovina Array**	59.82	310	⇑*i*P	P	18 00 06.2	-0.7
BURAR	**Bucovina Array**	59.82	310	⇑P	P	18 00 06.2	-0.7
MORW	**Morawa**	60.36	166	*e*P	P	18 00 11.2	+0.5
	comp=Z,23nm,1.0s,mb5.2						
VOIR		60.44	308	⇑*i*P	P	18 00 11.4	+0.2
VOIR		60.44	308	⇑P	P	18 00 11.4	+0.3
KWP	**Kalwaria Pacla**	60.99	313	*e*P	P	18 00 15.5	+0.6
KWP				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.5						
KWP	**Kalwaria Pacla**	60.99	313	*e*P	P	18 00 15.4	+0.6
	comp=Z,44nm,1.2s,mb5.5						
KOLS	**Kolonicke sedl**	61.43	312	*e*P	P	18 00 17.9	0.0
ASAR	**Alice Springs**	61.67	146	P	P	18 00 19.1	-0.6
	comp=Z,2.3nm,0.6s,mb4.5,baz=329,slow=6.3,SNR=36						
ASAR				PcP	PcP	18 01 03.3	+2.2
	comp=Z,5.1nm,0.7s,baz=332,slow=3.6,SNR=15						
CRVS	**Cervenica-Dubn**	61.96	313	*e*P	P	18 00 23.1	+1.7
STHS	**Stebnicka Huta**	61.97	313	*e*P	P	18 00 21.6	+0.1
GZR	**Gura Zlata**	61.99	308	⇓*i*P	P	18 00 28.3	+6.6
GZR	**Gura Zlata**	61.99	308	⇓P	P	18 00 28.3	+6.6
KECS	**Kecovo**	62.69	312	*e*P	P	18 00 25.9	-0.4
KECS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
KECS	**Kecovo**	62.69	312	*e*P	P	18 00 25.9	-0.4
	comp=Z,2.4nm,0.6s,mb4.5						
MUN	**Mundaring**	63.21	166	*e*P	P	18 00 30.1	+0.3
HFS	**Hagfors**	63.53	326	P	P	18 00 30.5	-1.2
	comp=Z,5.5nm,0.6s,mb4.7,baz=99,slow=4.8,SNR=7.7						
HFS				LR	LR	18 32 00.5	
	comp=Z,502nm,19.7s,MS4.7,baz=230,slow=40						
VYHS	**Vyhne**	63.74	313	*e*P	P	18 00 33.8	+0.5
OKC	**Ostrava-Krasne**	63.80	314	*e*P	P	18 00 37.4	+3.7
OKC				*e*pP	pP	18 00 42.9	+6.0
OKC				AMS	AMS	18 29 10.0	
	comp=Z,1µm,6.3s						
OKC	**Ostrava-Krasne**	63.80	314	*e*P	P	18 00 37.4	+3.7
OKC				*e*pP	pP	18 00 42.9	+6.0
KOLL	**Kolacno**	63.99	313	*e*P	P	18 00 36.3	+1.3
MORC	**Moravsky Berou**	64.19	314	*e*P	P	18 00 36.1	-0.1
MORC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
MORC	**Moravsky Berou**	64.19	314	⇑*i*P	P	18 00 36.5	+0.3
MORC	**Moravsky Berou**	64.19	314	*e*P	P	18 00 36.1	-0.2
	comp=Z,6.2nm,0.8s,mb4.7						
NWAO	**Narrogin (SRO)**	64.34	166	*e*P	P	18 00 36.6	-0.6
NWAO				pmax	pmax		
	comp=Z,16nm,0.8s						
NWAO	**Narrogin (SRO)**	64.34	166	*e*P	P	18 00 37.1	-0.1
	comp=Z,103nm,0.8s,mb5.9						
NWAO	**Narrogin (SRO)**	64.34	166	*e*P	P	18 00 36.6	-0.7
	comp=Z,16nm,0.8s,mb5.1						
NB2	**NORSAR Subarra**	64.47	327	P	P	18 00 37.4	-0.5
	comp=Z,14nm,1.1s,mb4.9,baz=74,slow=6.5						
NOA	**NORSAR Array B**	64.47	327	P	P	18 00 36.6	-1.3
	comp=Z,2.8nm,0.6s,mb4.5,baz=74,slow=6.6,SNR=6.6						
PKSM	**Moragy**	64.54	310	⇑*i*P	P	18 00 38.8	+0.2
PKSM	**Moragy**	64.54	310	⇑P	P	18 00 38.8	+0.2
MODS	**Modra-Piesok**	64.77	313	*e*P	P	18 00 40.1	0.0
DPC	**Dobruska-Polom**	64.78	315	*e*P	P	18 00 41.1	+1.0
DPC				*e*pP	pP	18 00 49.5	+6.2
DPC				AMS	AMS	18 31 20.0	
	comp=Z,800nm,10.8s						
UPC	**Upice**	64.92	315	*e*P	P	18 00 44.8	+3.8
UPC				*e*pP	pP	18 00 51.0	+6.8
VRAC	**Vranov**	64.92	314	⇑*i*P	P	18 00 48.8	+7.8
VRAC	**Vranov**	64.92	314	⇑P	P	18 00 48.8	+7.7
ZST	**Bratislava**	64.94	313	*e*P	P	18 00 44.4	+3.3
TREC	**Trest**	65.61	314	*e*P	P	18 00 48.6	+3.1
TREC				*e*pP	pP	18 00 55.6	+6.8
TREC				AMS	AMS	18 32 10.0	
	comp=Z,1µm,7.5s						
CTAO	**Charters Tower**	65.68	134	P	P	18 00 46.7	+0.5
CTAO				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
CTAO	**Charters Tower**	65.68	134	P	P	18 00 46.7	+0.5
	comp=Z,23nm,1.2s,mb5.1						
PVCC	**Panska Ves**	65.79	316	*e*P	P	18 00 47.1	+0.5
PVCC				*e*pP	pP	18 00 52.1	+2.2
PVCC				AMS	AMS	18 31 30.0	
	comp=Z,1µm,21.0s						
PRU	**Pruhonice**	65.98	315	*e*P	P	18 00 48.3	+0.5
PRU				*e*pP	pP	18 00 57.1	+6.0
PRU				AMS	AMS	18 31 30.0	
	comp=Z,800nm,18.0s						
BRG	**Berggiesshubel**	66.06	316	*e*P	P	18 00 50.8	+2.5
BRG					PcP	18 01 19.1	+0.3
BRG				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
BRG	**Berggiesshubel**	66.06	316	*e*P	P	18 00 48.0	-0.3
	comp=Z,6.0nm,0.9s,mb4.6						
BRG	**Berggiesshubel**	66.06	316	*e*P	P	18 00 50.8	+2.5
	comp=Z,3.7nm,0.7s,mb4.5						
BRG	**Berggiesshubel**	66.06	316	*e*P	P	18 00 50.8	+2.5
	comp=Z,2.2nm,0.7s,mb4.3						
CLL	**Collm**	66.48	317	*e*P	P	18 00 50.9	-0.1
	comp=Z,7.0nm,0.9s,mb4.7						
CLL	**Collm**	66.48	317	*e*P	P	18 00 51.0	0.0
	comp=Z,10.0nm,1.3s,mb4.7						
CLL				*i*	pP	18 00 54.0	-0.3
CLL				*i* (sP)	sP	18 00 59.6	+4.1
CLL				LmV		18 17 00.0	
	comp=Z,500nm,19.2s						
CLL	**Collm**	66.48	317	*e*P	P	18 00 51.0	0.0
	comp=Z,10.0nm,1.3s,mb4.7						
CLL				*i*	pP	18 00 54.0	-0.3
CLL				*i*		18 00 59.6	
SOKA	**Soboth**	66.75	312	⇑*i*P	P	18 00 52.9	0.0
	comp=Z,7.8nm,1.1s,mb4.7						
KHC	**Kasperske Hory**	66.85	314	*e*P	P	18 00 56.5	+3.0
KHC				*e*pP	pP	18 01 02.6	+5.9
KHC				AMS	AMS	18 30 50.0	
	comp=Z,900nm,8.0s						
KHC	**Kasperske Hory**	66.85	314	*e*P	P	18 00 56.5	+3.0
KHC				*e*pP	pP	18 01 02.6	+5.9
GEC2	**GERESS Array S**	66.87	314	*e*P	P	18 00 53.6	0.0
GEC2				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.7						
GEC2	**GERESS Array S**	66.87	314	*e*P	P	18 00 53.6	0.0
	comp=Z,11nm,1.3s,mb4.7						
GEC2	**GERESS Array S**	66.87	314	*e*P	P	18 00 53.6	0.0
	comp=Z,11nm,1.3s,mb4.7						
GERES	**GERESS Array B**	66.87	314	P	P	18 00 54.4	+0.8
	comp=Z,1.4nm,0.5s,mb4.2,baz=76,slow=5.6,SNR=6.8						
BSEG	**Bad Segeberg**	67.14	320	*e*P	P	18 00 55.8	+0.6
BSEG				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
BSEG	**Bad Segeberg**	67.14	320	*e*P	P	18 00 55.8	+0.6
	comp=Z,23nm,1.1s,mb5.1						
BSEG	**Bad Segeberg**	67.14	320	*e*P	P	18 00 55.8	+0.6
NKC	**Novy Kostel**	67.17	316	*e*P	P	18 00 56.4	+0.9
NKC				*e*pP	pP	18 01 04.6	+5.9
NKC				AMS	AMS	18 32 20.0	
	comp=Z,1µm,6.4s						
NKC	**Novy Kostel**	67.17	316	*e*P	P	18 00 56.4	+0.9
NKC				*e*pP	pP	18 01 04.6	+5.9
WET	**Wettzell**	67.28	315	*e*P	P	18 00 56.6	+0.4
WET				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
WET	**Wettzell**	67.28	315	*e*P	P	18 00 56.6	+0.4
	comp=Z,8.0nm,1.1s,mb4.7						
WET	**Wettzell**	67.28	315	*e*P	P	18 00 56.6	+0.4
	comp=Z,8.0nm,1.1s,mb4.7						
ROTZ	**Rotzenmuhle**	67.48	315	*e*P	P	18 00 57.8	+0.4
	comp=Z,16nm,1.1s,mb5.0						
CLZ	**Clausthal**	67.84	318	*e*P	P	18 01 00.6	+0.9
CLZ				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
CLZ	**Clausthal**	67.84	318	*e*P	P	18 01 00.6	+0.9
	comp=Z,17nm,1.0s,mb5.0						
CLZ	**Clausthal**	67.84	318	*e*P	P	18 01 00.6	+0.9
	comp=Z,17nm,1.0s,mb5.0						
GRA1	**Grafenberg Arr**	68.10	316	*e*P	P	18 01 01.6	+0.2
	comp=Z,18nm,0.8s,mb5.2						
GRA1				*e*pP	pP	18 01 10.1	+5.5
GRF	**Grafenberg Arr**	68.10	316	*e*P	P	18 01 01.6	+0.2
GRF				*e**PP	pP	18 01 10.1	+5.5
GRF				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
GRF	**Grafenberg Arr**	68.10	316	*e*P	P	18 01 01.6	+0.2
GRF				*e**PP	pP	18 01 10.1	+5.5
GRF				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
GRF	**Grafenberg Arr**	68.10	316	*e*P	P	18 01 01.6	+0.2
	comp=Z,18nm,0.8s,mb5.2						
GRF				*e*pP	pP	18 01 10.1	+5.5
GRF	**Grafenberg Arr**	68.10	316	*e*P	P	18 01 01.6	+0.2
	comp=Z,18nm,0.8s,mb5.2						
GRF				*e*pP	pP	18 01 10.1	+5.5
JMIC	**Jan Mayen**	68.14	341	LR	LR	18 36 47.4	
	comp=Z,631nm,20.9s,MS4.8,baz=57,slow=41						
TIP	**Timpagrande**	68.20	303	*e*P	P	18 00 57.6	-4.6
	comp=Z,6.4nm,0.8s,mb4.7						
IMA2	**Indian Mountai**	68.46	25	*e*P	P	18 01 03.5	+0.2
CUC	**Castrocucco**	68.58	305	*e*P	P	18 01 03.4	-1.1
	comp=Z,7.3nm,0.8s,mb4.7						
KMBO	**Kilima Mbogo**	68.79	256	P	P	18 01 07.2	+1.0
	comp=Z,5.1nm,0.9s,mb4.4,baz=44,slow=9.6,SNR=12						
CEL	**Celeste**	69.17	303	*e*P	P	18 01 07.4	-0.9
	comp=Z,15nm,0.8s,mb5.0						
FETA	**Feichten**	69.39	313	⇑*i*P	P	18 01 09.4	-0.1
	comp=Z,17nm,1.1s,mb4.9						
STU	**Stuttgart**	69.68	315	*e*P	P	18 01 11.8	+0.6
	comp=Z,21nm,1.0s,mb5.0						
DAVOX	**Davos/Dischmat**	70.02	313	LR	LR	18 36 10.3	
	comp=Z,691nm,19.6s,MS4.9,baz=62,slow=40						
BFO	**Black Forest**	70.38	315	*e*P	P	18 01 14.9	-0.6
BFO				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BFO	**Black Forest**	70.38	315	*e*P	P	18 01 15.9	+0.4
	comp=Z,19nm,1.3s,mb4.9						
BFO	**Black Forest**	70.38	315	*e*P	P	18 01 14.9	-0.6
	comp=Z,13nm,1.1s,mb4.8						
CDF	**Champ du Feu**	70.99	315	*e*P	P	18 01 18.2	-1.0
	comp=Z,19nm,0.8s,mb4.7						
CDF	**Champ du Feu**	70.99	315	*e*P	P	18 01 18.2	-1.0
CDF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
CDF	**Champ du Feu**	70.99	315	*e*P	P	18 01 18.2	-1.0
	comp=Z,9.3nm,0.8s,mb4.8						
WLF	**Walferdange**	71.15	317	P	P	18 01 21.5	+1.4
	comp=Z,31nm,1.3s,mb5.1						
WLF	**Walferdange**	71.15	317	*e*P	P	18 01 20.1	-0.1
WLF				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
WLF	**Walferdange**	71.15	317	*e*P	P	18 01 21.3	+1.1
	comp=Z,58nm,1.2s,mb5.4						
WLF	**Walferdange**	71.15	317	*e*P	P	18 01 20.1	0.0
	comp=Z,42nm,1.0s,mb5.3						
COLA	**College**	71.17	25	*e*P	P	18 01 20.7	+0.7
COLA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
COLA	**College**	71.17	25	*e*P	P	18 01 20.7	+0.6
	comp=Z,8.5nm,0.8s,mb4.7						
BCLA	**Clavier**	71.34	318	P	P	18 01 23.5	+2.2
HINF	**Hinteralfeld**	71.49	315	*e*P	P	18 01 21.0	-1.3
	comp=Z,18nm,0.9s,mb4.7						
HINF	**Hinteralfeld**	71.49	315	*e*P	P	18 01 21.0	-1.3
HINF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
HINF	**Hinteralfeld**	71.49	315	*e*P	P	18 01 21.0	-1.3
	comp=Z,8.8nm,0.9s,mb4.7						
HAU	**Haudompre**	71.72	315	*e*P	P	18 01 22.4	-1.3
GIVF	**Givet**	71.75	318	*e*P	P	18 01 22.9	-0.9
BAIF	**Baives**	72.13	318	*e*P	P	18 01 25.2	-0.8
STKA	**Stephens Creek**	72.24	145	*e*P	P	18 01 29.8	+3.0
	comp=Z,2.8nm,0.6s,mb4.4						
STKA	**Stephens Creek**	72.24	145	P	P	18 01 27.2	+0.3
	comp=Z,3.7nm,0.7s,mb4.4,baz=304,slow=7.5,SNR=6.3						
STKA	**Stephens Creek**	72.24	145	P	P	18 01 27.2	+0.3
MEZF	**Maizieres J'vi**	72.30	316	*e*P	P	18 01 26.3	-0.8
	comp=Z,13nm,0.6s,mb4.7						
MEZF	**Maizieres J'vi**	72.30	316	*e*P	P	18 01 26.3	-0.8
	comp=Z,13nm,0.6s,mb5.0						
PGF	**Pioggiola**	72.30	309	*e*P	P	18 01 26.4	-0.8
	comp=Z,42nm,1.1s,mb5.0						
PGF	**Pioggiola**	72.30	309	*e*P	P	18 01 26.4	-0.8
PGF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
PGF	**Pioggiola**	72.30	309	*e*P	P	18 01 26.4	-0.8
	comp=Z,21nm,1.1s,mb5.0						
PMR	**Palmer**	72.36	28	*e*P	P	18 01 26.8	-0.4
PMR				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
PMR	**Palmer**	72.36	28	*e*P	P	18 01 26.8	-0.5
	comp=Z,19nm,0.9s,mb5.0						
CABF	**La Chapelle**	72.47	314	*e*P	P	18 01 27.0	-1.2
	comp=Z,16nm,0.9s,mb4.6						
CABF	**La Chapelle**	72.47	314	*e*P	P	18 01 27.0	-1.2
CABF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
CABF	**La Chapelle**	72.47	314	*e*P	P	18 01 27.0	-1.2
	comp=Z,7.9nm,0.9s,mb4.6						
LPG	**La Plagne**	72.53	313	*e*P	P	18 01 28.3	-0.2
	comp=Z,56nm,0.8s,mb5.3						
LPG	**La Plagne**	72.53	313	*e*P	P	18 01 28.3	-0.2
LPG				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
LPG	**La Plagne**	72.53	313	*e*P	P	18 01 28.3	-0.2
	comp=Z,28nm,0.8s,mb5.2						
LPL	**La Plagne**	72.53	313	*e*P	P	18 01 28.2	-0.4
	comp=Z,35nm,0.7s,mb5.1						
LPL	**La Plagne**	72.53	313	*e*P	P	18 01 28.2	-0.4
LPL				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
LPL	**La Plagne**	72.53	313	*e*P	P	18 01 28.2	-0.4
	comp=Z,18nm,0.7s,mb5.1						
BNI	**Bardonecchia**	72.76	312	*e*P	P	18 01 28.8	-1.2
BNI				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
BNI	**Bardonecchia**	72.76	312	*e*P	P	18 01 28.8	-1.1
	comp=Z,13nm,1.0s,mb4.8						
SBF	**Sospel**	72.78	311	*e*P	P	18 01 29.0	-1.1
	comp=Z,37nm,0.9s,mb5.0						
SBF	**Sospel**	72.78	311	*e*P	P	18 01 29.0	-1.1
SBF				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
SBF	**Sospel**	72.78	311	*e*P	P	18 01 29.0	-1.1
	comp=Z,18nm,0.9s,mb5.0						
MBDF	**Montbardon**	72.84	312	*e*P	P	18 01 29.3	-1.1
	comp=Z,8.9nm,0.5s,mb4.6						
MBDF	**Montbardon**	72.84	312	*e*P	P	18 01 29.3	-1.1
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
MBDF	**Montbardon**	72.84	312	*e*P	P	18 01 29.3	-1.1
	comp=Z,4.4nm,0.5s,mb4.6						
ORIF	**Oris-en-Rattie**	73.33	312	*e*P	P	18 01 32.4	-0.9
	comp=Z,17nm,0.9s,mb4.6						
ORIF	**Oris-en-Rattie**	73.33	312	*e*P	P	18 01 32.4	-0.9
ORIF				pmax	pmax		

	comp=Z,8.0nm,0.9s,mb4.7						
ORIF	Oris-en-Rattie	73.33	312	eP	P	18 01 32.4	-0.9
	comp=Z,8.4nm,0.9s,mb4.7						
FRF	La Foret Royal	73.43	311	eP	P	18 01 32.8	-1.1
LOR	Lormes	73.56	315	eP	P	18 01 33.2	-1.4
LMR	La Mourre	73.62	311	eP	P	18 01 34.1	-0.9
INK	Inuvik	73.74	19	P	P	18 01 36.2	+0.9
INK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
INK	Inuvik	73.74	19	P	P	18 01 36.2	+0.9
	comp=Z,7.8nm,0.8s,mb4.7,baz=335,slow=7.8,SNR=17						
INK	Inuvik	73.74	19	eP	P	18 01 35.5	+0.2
	comp=Z,17nm,1.1s,mb4.9						
SMF	Signal de Mont	73.85	315	eP	P	18 01 35.1	-1.2
	comp=Z,27nm,0.8s,mb4.9						
SMF	Signal de Mont	73.85	315	eP	P	18 01 35.1	-1.2
SMF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
SMF	Signal de Mont	73.85	315	eP	P	18 01 35.1	-1.2
	comp=Z,13nm,0.8s,mb4.9						
SSF	Saint Saulge	73.87	315	eP	P	18 01 35.1	-1.3
	comp=Z,28nm,1.0s,mb4.8						
SSF	Saint Saulge	73.87	315	eP	P	18 01 35.1	-1.3
SSF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
SSF	Saint Saulge	73.87	315	eP	P	18 01 35.1	-1.3
	comp=Z,14nm,1.0s,mb4.8						
SMRF	Simiane la Rot	73.94	312	eP	P	18 01 36.2	-0.7
AVF	Avril sur Loir	74.08	315	eP	P	18 01 36.4	-1.3
	comp=Z,47nm,1.2s,mb5.0						
AVF	Avril sur Loir	74.08	315	eP	P	18 01 36.4	-1.3
AVF				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
AVF	Avril sur Loir	74.08	315	eP	P	18 01 36.4	-1.3
	comp=Z,24nm,1.2s,mb5.0						
VIVF	Saint-Julien-l	74.13	313	eP	P	18 01 36.9	-1.1
BGF	Bois d'Agland	74.50	315	eP	P	18 01 38.8	-1.3
	comp=Z,21nm,1.0s,mb4.7						
BGF	Bois d'Agland	74.50	315	eP	P	18 01 38.8	-1.3
BGF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
BGF	Bois d'Agland	74.50	315	eP	P	18 01 38.8	-1.3
	comp=Z,11nm,1.0s,mb4.7						
DAWY	Dawson	74.65	24	eP	P	18 01 41.7	+1.0
RES	Resolute Bay	74.91	5	eP	P	18 01 42.8	+0.8
RES				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
RES	Resolute Bay	74.91	5	LR	LR	18 33 34.3	
	comp=Z,158nm,21.6s,MS4.3,baz=54,slow=35						
RES	Resolute Bay	74.91	5	eP	P	18 01 42.8	+0.8
	comp=Z,12nm,1.0s,mb4.8						
LASF	Ste Croix	75.00	312	eP	P	18 01 42.4	-0.7
	comp=Z,25nm,1.1s,mb4.8						
TCF	Toulx Ste Croi	75.01	315	eP	P	18 01 42.1	-1.0
	comp=Z,32nm,1.0s,mb4.9						
TCF	Toulx Ste Croi	75.01	315	eP	P	18 01 42.1	-1.0
TCF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
TCF	Toulx Ste Croi	75.01	315	eP	P	18 01 42.1	-1.0
	comp=Z,16nm,1.0s,mb4.9						
LDF	La Druitiere	75.31	318	eP	P	18 01 44.4	-0.4
	comp=Z,23nm,0.9s,mb4.8						
LDF	La Druitiere	75.31	318	eP	P	18 01 44.4	-0.4
LDF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
LDF	La Druitiere	75.31	318	eP	P	18 01 44.4	-0.4
	comp=Z,12nm,0.9s,mb4.8						
FLN	La Foliniere	75.44	318	eP	P	18 01 44.5	-1.0
CAF	Calviac	75.74	314	eP	P	18 01 46.8	-0.5
	comp=Z,42nm,1.3s,mb4.9						
CAF	Calviac	75.74	314	eP	P	18 01 46.8	-0.5
CAF				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
CAF	Calviac	75.74	314	eP	P	18 01 46.8	-0.5
	comp=Z,21nm,1.3s,mb4.9						
GRR	Gorron	75.84	318	eP	P	18 01 46.2	-1.6
	comp=Z,39nm,1.0s,mb5.0						
GRR	Gorron	75.84	318	eP	P	18 01 46.2	-1.6
GRR				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
GRR	Gorron	75.84	318	eP	P	18 01 46.2	-1.6
	comp=Z,19nm,1.0s,mb5.0						
RJF	Les Rejaudoux	75.91	314	eP	P	18 01 47.8	-0.4
	comp=Z,42nm,1.1s,mb5.0						
RJF	Les Rejaudoux	75.91	314	eP	P	18 01 47.8	-0.4
RJF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
RJF	Les Rejaudoux	75.91	314	eP	P	18 01 47.8	-0.4
	comp=Z,21nm,1.1s,mb5.0						
MFF	Saint Martin d	76.30	316	eP	P	18 01 49.5	-0.9
MTLF	Montolieu	76.40	312	eP	P	18 01 50.1	-1.0
LFF	La Frestale	76.56	314	eP	P	18 01 50.8	-1.2
	comp=Z,16nm,0.6s,mb4.8						
LFF	La Frestale	76.56	314	eP	P	18 01 50.8	-1.2
LFF				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
LFF	La Frestale	76.56	314	eP	P	18 01 50.8	-1.2
	comp=Z,8.3nm,0.6s,mb4.8						
ARMA	Armidale	76.56	137	eP	P	18 01 54.8	+2.8
SGMF	Saint Gilles	76.89	318	eP	P	18 01 53.2	-0.6
	comp=Z,52nm,0.9s,mb5.2						
SGMF	Saint Gilles	76.89	318	eP	P	18 01 53.2	-0.6
SGMF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
SGMF	Saint Gilles	76.89	318	eP	P	18 01 53.2	-0.6
	comp=Z,26nm,0.9s,mb5.2						
ROSF	Rostrenen	77.26	319	eP	P	18 01 55.1	-0.8
	comp=Z,93nm,1.1s,mb5.3						
ROSF	Rostrenen	77.26	319	eP	P	18 01 55.1	-0.8
ROSF				pmax	pmax		
	comp=Z,47nm,1.1s,mb5.3						
ROSF	Rostrenen	77.26	319	eP	P	18 01 55.1	-0.8
	comp=Z,47nm,1.1s,mb5.3						
EPF	Esparros	77.75	313	eP	P	18 01 57.2	-1.5
	comp=Z,5.8nm,0.7s,mb4.3						
EPF	Esparros	77.75	313	eP	P	18 01 57.2	-1.5
EPF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
EPF	Esparros	77.75	313	eP	P	18 01 57.2	-1.5
	comp=Z,2.9nm,0.6s,mb4.4						
ETSF	Etsaut	78.39	313	eP	P	18 02 01.9	-0.3
	comp=Z,17nm,0.7s,mb4.8						
ETSF	Etsaut	78.39	313	eP	P	18 02 01.9	-0.3
ETSF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
ETSF	Etsaut	78.39	313	eP	P	18 02 01.9	-0.3
	comp=Z,8.4nm,0.7s,mb4.8						
SJPF	Ste Jean	78.70	313	eP	P	18 02 03.8	-0.2
	comp=Z,15nm,0.7s,mb4.8						
SJPF	Ste Jean	78.70	313	eP	P	18 02 03.8	-0.2
SJPF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
SJPF	Ste Jean	78.70	313	eP	P	18 02 03.8	-0.2
	comp=Z,7.6nm,0.7s,mb4.7						
SFJD	Kangerlussuaq	81.00	349	eP	P	18 02 14.8	-1.1
SFJD				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
SFJD	Kangerlussuaq	81.00	349	eP	P	18 02 14.8	-1.2
	comp=Z,16nm,0.8s,mb5.0						
ESDC	Sonseca Array	82.26	311	P	P	18 02 24.2	+1.0
	comp=Z,0.2nm,0.3s,mb3.5,baz=39,slow=6.6,SNR=4.6						
ESDC	Sonseca Array	82.26	311	P	P	18 02 24.2	+1.0
YKA	Yellowknife Ar	83.22	16	P	P	18 02 27.7	0.0
	comp=Z,6.2nm,1.0s,mb4.6,baz=327,slow=4.9,SNR=25						
YKA	Yellowknife Ar	83.22	16	P	P	18 02 27.7	0.0
LSZ	Lusaka	84.00	249	eP	P	18 02 32.1	-0.3
LSZ				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.6						
LSZ	Lusaka	84.00	249	eP	P	18 02 32.1	-0.3
	comp=Z,5.8nm,1.1s,mb4.6						
FRB	Frobisher Bay	86.18	356	P	P	18 02 43.7	+1.1
	comp=Z,4.4nm,0.6s,mb4.8,baz=357,slow=6.2,SNR=16						
FRB	Frobisher Bay	86.18	356	P	P	18 02 43.7	+1.1
FCC	Fort Churchill	90.50	8	P	P	18 03 01.0	-2.3
	comp=Z,0.3nm,1.4s						
TORD	Torodi Ar. Bea	92.08	286	P	P	18 03 13.8	+2.4
	comp=Z,1.5nm,0.8s,mb4.3,baz=65,slow=2.6,SNR=8.5						
TORD	Torodi Ar. Bea	92.08	286	P	P	18 03 13.8	+2.4
FFC	Flin Flon	93.07	14	eP	P	18 03 16.5	+1.2
FFC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.6						
FFC	Flin Flon	93.07	14	eP	P	18 03 16.5	+1.3
	comp=Z,2.4nm,0.8s,mb4.7						
PLCA	Paso Flores	167.71	208	PKP2	PKPab	18 11 14.9	+0.7
PLCA				pmax	pmax		
	comp=Z,4.0nm,1.1s						
PLCA	Paso Flores	167.71	208	PKPab	PKPab	18 11 14.8	+0.6
	comp=Z,3.9nm,1.1s,baz=169,slow=3.5,SNR=4.9						

IDC ***26*** *17:53:49.9±3.5, 9°.10N×82°.66W, h0^{km}, mb3.9/2, mb1 4.1/3, mb1mx3.6/20, mbtmp3.9/3, ML4.0/1, MS3.1/1, Ms1 3.1/1, ms1mx2.4/37, Error ellipse: s-maj=78.6km s-min=40.4km az=13.0*
ISCJB ***26*** *17:53:51.5±0.9, 8°.94N±0°.06×82°.84W±0°.03, h9^{km}±6^{km}, mb4.1/3, Error ellipse: s-maj=9.8km s-min=4.7km az=12.2*
CASC ***26*** *17:53:52.0±2.0, 8°.96N×82°.87W, h6^{km}, MD4.0, mb4.6(NEIC)*
NEIC ***26*** *17:53:52.7, 8°.95N×82°.93W, h6^{km}, mb4.6/1, MD4.1(CASC), After CASC.*
ISC 26 17:53:51.7±0.9, **8°.96N**±0°.05×**82°.85W**±0°.03, **h4**^{km}±5^{km}, **n39**, σ**0^{s}98**/54, **mb4.1**/3, **6D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACR	Cerro Adams	0.44	225	⇓iP	Pg	17 54 00.7	+0.6
ACR	Cerro Adams	0.44	225	⇓iP	Pg	17 54 00.7	+0.6
BAR1		0.53	301	⇓iP	Pg	17 54 01.9	0.0
CNI	Changuinola	0.56	36	⇓iP	Pg	17 54 03.5	+1.1
CNI				eS	Sg	17 54 15.2	+5.4
CNI	Changuinola	0.56	36	⇓iP	Pg	17 54 03.6	+1.1
LIO	Limon	1.05	350	eP	Pg	17 54 11.7	-0.1
LIO				eS	Sg	17 54 26.4	+0.9
LIO	Limon	1.05	350	eP	Pg	17 54 11.7	-0.1
LIO				eS	Sg	17 54 25.7	+0.2
BUS	Buena Vista	1.07	303	eP	Pg	17 54 11.6	-0.7
BUS	Buena Vista	1.07	303	eP	Pg	17 54 11.4	-0.8
URSC	Urasca	1.26	314	eP	Pg	17 54 14.8	-1.1
URSC	Urasca	1.26	314	eP	Pg	17 54 14.2	-1.6
LCR2	La Lucha 2	1.38	304	⇓eP	Pn	17 54 16.5	-1.2
LCR2	La Lucha 2	1.38	304	eP	Pn	17 54 16.4	-1.3
SJS	Escuela Geolog	1.53	309	eP	Pn	17 54 19.8	-0.1
SJS				eS	Sn	17 54 40.2	-0.1
SJS	Escuela Geolog	1.53	309	eP	Pn	17 54 19.8	-0.1
SJS				eS	Sn	17 54 40.2	-0.1
LAJ	Bijagual	1.54	306	eP	Pn	17 54 23.7	+3.7
LAJ				eS	Sn	17 54 47.4	+7.0
LAJ	Bijagual	1.54	306	eP	Pn	17 54 23.7	+3.7
LAJ				eS	Sn	17 54 47.4	+7.0
PRS1	Puriscal	1.76	305	eP	Pn	17 54 22.0	-1.0
PRS1	Puriscal	1.76	305	eP	Pn	17 54 22.0	-1.0
CGA2	Cerro Gallo 2	1.91	303	eP	Pn	17 54 24.6	-0.4
CGA2				eS	Sn	17 54 48.8	-0.7
CGA2	Cerro Gallo 2	1.91	303	eP	Pn	17 54 24.4	-0.6
CGA2				eS	Sn	17 54 48.3	-1.1
FORC	Fortuna	2.33	310	eP	Pn	17 54 31.9	+1.0
FORC	Fortuna	2.33	310	eP	Pn	17 54 31.9	+1.0
FORC				eS	Sn	17 55 01.8	+1.8
JCR	Jicaral	2.40	292	eP	Pn	17 54 33.6	+1.8
JCR	Jicaral	2.40	292	eP	Pn	17 54 33.2	+1.4
JCR				eS	Sn	17 55 00.9	-0.7
JTS	JuntasAbangare	2.46	303	Pn	Pn	17 54 33.2	+0.6
	28nm,0.3s,baz=104,slow=23,SNR=48						
JTS				Sn	Sn	17 55 03.9	+0.8
	39nm,0.3s,baz=314,slow=22,SNR=13						
JTS	JuntasAbangare	2.46	303	ePn	Pn	17 54 32.6	0.0
JTS				Pn	Pn	17 54 33.2	+0.6
JTS				eSn	Sn	17 55 03.5	+0.4
JTS				Sn	Sn	17 55 03.9	+0.8
VCR	Vista de Mar	2.98	293	eS	Sn	17 55 17.4	+1.5
BCIP	Isla Barro Col	2.98	86	ePn	Pn	17 54 39.9	0.0
BCIP				eSn	Sn	17 55 11.4	-4.7
BCIP	Isla Barro Col	2.98	86	eP	Pn	17 54 40.3	+0.4
BCIP				eS	Sn	17 55 15.7	-0.4
UPIG		3.28	89	eP	Pn	17 54 44.6	+0.7
UPIG				eS	Sn	17 55 23.6	+0.2
MTDJ	Mount Denham	10.56	29	P	Pn	17 56 23.4	-0.6
	35nm,1.1s						
CMIG	Matias Romero	14.23	306	LR	LR	18 03 30.0	
	comp=Z,73nm,18.6s,baz=14,slow=41						
GOGA	Godfrey	24.34	359	eP	P	17 59 10.7	+0.1
	14nm,1.0s,mb4.4						
ULM	Lac du Bonnet	42.56	348	P	P	18 01 45.9	-2.7
	2.5nm,0.8s,mb4.0,baz=187,slow=10,SNR=4.2						
YKA	Yellowknife Ar	58.19	343	P	P	18 03 45.4	-1.2
	0.9nm,0.8s,mb3.8,baz=137,slow=7.5,SNR=7.5						
YKA	Yellowknife Ar	58.19	343	P	P	18 03 45.4	-1.2
ASAR	Alice Springs	141.96	243	PKhKP		18 13 18.9	
	0.1nm,0.7s,baz=116,slow=4.2,SNR=3.8						
ASAR				PKP	PKPdf	18 13 24.4	-1.4
	0.2nm,0.6s,baz=120,slow=2.5,SNR=6.1						
WRA	Warramunga Arr	142.46	249	PKP	PKPdf	18 13 24.3	-2.5
	0.4nm,0.8s,baz=91,slow=1.9,SNR=3.6						

NEIC ***26*** *18:12:14.4, 36°.12N×21°.86E, h5^{km}, MD3.6(ATH), After ATH.*
CSEM ***26*** *18:12:14.4, 36°.12N×21°.86E, h5^{km}, MD3.6, After ATH*
ATH 26 18:12:14.4, 36°.12N×21°.86E, h5^{km}±3^{km}, **MD3.6**/10, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.78	353	ePB	Pb	18 12 29.3	-1.1
PYL				eSB	Sb	18 12 40.8	-0.5
PYL	PYLOS	0.78	353	ePb	Pb	18 12 29.3	-1.1
PYL				eSb	Sb	18 12 40.8	-0.5
KYTH	Kithira	0.96	80	ePB	Pb	18 12 32.9	-0.7
KYTH	Kithira	0.96	80	ePb	Pb	18 12 32.9	-0.7
VLI	Veliai	1.05	55	ePB	Pb	18 12 34.9	-0.2
VLI				eSB	Sb	18 12 49.5	+0.3
VLI	Veliai	1.05	55	ePb	Pb	18 12 34.9	-0.2
VLI				eSb	Sb	18 12 49.5	+0.3
ITM	Ithomi	1.06	3	ePN	Pn	18 12 34.7	-1.2
ITM				eSB	Sb	18 12 50.2	+0.8
ITM	Ithomi	1.06	3	ePn	Pn	18 12 34.7	-1.2
ITM				eSb	Sb	18 12 50.2	+0.8
VLX	Vlachokerasia	1.32	18	ePG	Pg	18 12 39.0	-0.6
VLX				eSB	Sb	18 12 57.6	+0.8
VLX	Vlachokerasia	1.32	18	ePg	Pg	18 12 39.0	-0.6
VLX				eSb	Sb	18 12 57.6	+0.8
DID	Didima	1.77	38	ePG	Pg	18 12 47.1	-1.2
DID	Didima	1.77	38	ePg	Pg	18 12 47.1	-1.2
GUR	Goura	1.85	12	ePG	Pg	18 12 49.0	-0.9
GUR	Goura	1.85	12	ePg	Pg	18 12 49.0	-0.9
VAM	Vamos	2.03	110	ePN	Pn	18 12 52.2	+2.9
VAM	Vamos	2.03	110	ePn	Pn	18 12 52.2	+2.9
LTK	Loutraki	2.10	25	ePN	Pn	18 12 52.6	+2.5
LTK	Loutraki	2.10	25	ePn	Pn	18 12 52.6	+2.5
EFP	Efpalio	2.30	1	ePN	Pn	18 12 56.2	+3.2
EFP	Efpalio	2.30	1	ePn	Pn	18 12 56.2	+3.2
AGG	Agios Georgios	2.92	7	ePN	Pn	18 13 05.2	+3.7
AGG	Agios Georgios	2.92	7	ePn	Pn	18 13 05.2	+3.7

SKHL ***26*** *18:15:30.2±4.0, 47°.58N×154°.71E, h45^{km}±14^{km}, mb5.1/6*
MOS ***26*** *18:15:34.9±1.2, 48°.13N×153°.99E, h70^{km}, mb4.4/5, Error ellipse: s-maj=11.1km s-min=7.6km az=70.7*
ISCJB ***26*** *18:15:35.0±0.8, 48°.16N±0°.07×153°.97E±0°.10, h68^{km}±7^{km}, mb4.0/23, Error ellipse: s-maj=15.5km s-min=4.8km az=139.9*
NEIC ***26*** *18:15:38.3±1.1, 48°.23N×153°.95E, h83^{km}±9^{km}, mb4.3/8, Error ellipse: s-maj=17.8km s-min=7.5km az=153.0*
IDC ***26*** *18:15:39.2±2.6, 48°.15N×153°.82E, h91^{km}±22^{km}, mb3.7/18, mb1 3.9/20, mb1mx3.8/31, mbtmp3.7/20, MS3.1/1, Ms1 3.1/1, ms1mx2.9/37, Error ellipse: s-maj=27.4km s-min=13.3km az=163.0*
ISC 26 18:15:37.4±0.8, **48°.22N**±0°.07×**153°.89E**±0°.09, **h69**^{km}±6^{km}, **n63**, σ**1^{s}14**/70, **mb4.0**/23, **2D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	2.86	30	ePN	Pn	18 16 19.5	-1.1
SKR				eS	Sn	18 16 53.0	-0.9
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,90nm,0.5s						
SKR				smax			
	comp=N,630nm,0.3s						
SKR				smax			
	comp=E,590nm,0.3s						
SKR	Severo-Kuril's	2.86	30	eP	Pn	18 16 19.5	-1.1
SKR				AMB	AMB	18 16 21.0	
	comp=E,60nm,0.5s						
SKR				AMB	AMB	18 16 21.0	
	comp=E,90nm,0.5s						
SKR				eS	Sn	18 16 53.0	-0.9
SKR				A		18 16 56.0	
	comp=E,130nm,0.4s						
SKR				A		18 16 56.0	
	comp=E,630nm,0.2s						
SKR				A		18 16 56.0	
	comp=E,590nm,0.2s						
KUR	Kuril'sk	5.11	236	ePN	Pn	18 16 47.6	-3.7
KUR				eS	Sn	18 17 47.7	-1.2
KUR				pmax	pmax		
	comp=N,60nm,0.5s						
KUR				pmax	pmax		
	comp=Z,140nm,0.5s						
KUR				smax			
	comp=N,320nm,0.8s						
KUR				smax			
	comp=E,220nm,0.8s						
KUR	Kuril'sk	5.11	236	eP	Pn	18 16 47.6	-3.7
KUR				AMB	AMB	18 16 50.0	
	comp=E,60nm,0.5s						
KUR				AMB	AMB	18 16 50.0	
	comp=E,140nm,0.5s						
KUR				eS	Sn	18 17 47.7	-1.2
KUR				A		18 18 03.0	
	comp=E,320nm,0.8s						
KUR				A		18 18 03.0	
	comp=E,220nm,0.8s						
PEA0B	Petropavlovsk-	5.46	25	ePn	Pn	18 16 57.8	+1.8
PETK	Petropavlovsk-	5.46	25	P	Pn	18 16 58.1	+2.0
	comp=E,3.9nm,0.3s,baz=176,slow=11,SNR=278						
PETK				S	Sn	18 18 15.2	+18
	comp=E,0.9nm,0.3s,baz=154,slow=14,SNR=2.8						
PETK				LR	LR	18 18 51.2	
	comp=E,194nm,19.9s,baz=245,slow=35						
PET	Petropavlovsk	5.68	30	ePN	Pn	18 16 59.7	+0.6
PET				eS	Sn	18 18 02.9	0.0
PET				smax			
	comp=N,90nm,0.5s						
PET				smax			
	comp=E,109nm,0.5s						
PET	Petropavlovsk	5.68	30	ePn	Pn	18 16 59.2	+0.1
YUK	Yuzh-Kuril'sk	6.97	236	ePN	Pn	18 17 15.0	-1.8
YUK				S	Sn	18 18 35.0	+0.4
YUK				pmax	pmax		
	comp=Z,270nm,0.3s						
YUK				smax			
	comp=E,170nm,0.5s						
YUK	Yuzh-Kuril'sk	6.97	236	eP	Pn	18 17 15.0	-1.8
YUK				AMB	AMB	18 17 15.5	
	comp=E,270nm,0.3s						
YUK				eS	Sn	18 18 35.0	+0.4
YUK				A		18 18 49.5	
	comp=E,170nm,0.5s						
YSS	Yuzh-Sakhalins	7.64	265	⇓ePN	Pn	18 17 27.3	+1.4
YSS				pmax	pmax		
	comp=E,50nm,0.7s						
YSS				pmax	pmax		
	comp=Z,50nm,0.7s						
YSS	Yuzh-Sakhalins	7.64	265	⇓eP	Pn	18 17 27.3	+1.4
YSS				AMB	AMB	18 17 28.2	
	comp=Z,50nm,0.7s						
YSS				AMB	AMB	18 17 28.2	
	comp=Z,50nm,0.7s						
YSS				eS	Sn	18 18 48.6	-2.2
YSS				A		18 18 52.5	
	comp=Z,40nm,0.8s						
YSS	Yuzh-Sakhalins	7.64	265	ePn	Pn	18 17 27.9	+2.0
UGL	Uglegorsk	7.88	281	eP	Pn	18 17 32.2	+3.0
UGL				AMB	AMB	18 17 33.5	
	comp=Z,81nm,0.8s						
ASAJ	Asahikawa	8.85	247	PN	Pn	18 17 43.9	+1.5
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	8.85	247	P	Pn	18 17 43.9	+1.5
	comp=Z,1.8nm,0.3s,baz=68,slow=14,SNR=17						
NKL	Nikolayevsk	9.72	305	eP	Pn	18 17 53.5	-0.8
NKL				AMB	AMB	18 17 55.0	
	comp=Z,19nm,1.1s						
NKL				AMB	AMB	18 17 55.0	
	comp=Z,28nm,1.1s						
FX1	Attu Island--F	13.10	62	P	Pn	18 18 37.4	-2.9
	comp=Z,2.7nm,0.3s,baz=211,slow=5.9,SNR=5.0						
KLR	Kul'dur	14.64	282	eP	Pn	18 19 02.0	+1.4
MAJO	Matsushiro	16.41	230	eP	Pn	18 19 24.0	+0.8
MDJ	Mudanjiang	17.11	267	P	Pn	18 19 32.8	+0.9
	comp=Z,4.2nm,0.6s						
YAK	Yakutsk	19.40	324	eP	Pn	18 19 59.2	0.0
YAK				pmax	pmax		
	comp=Z,11nm,0.8s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK	Yakutsk	19.40	324	eP	Pn	18 19 55.3	-3.9
	comp=N,16nm,0.6s						
BILL	Bilibino	20.84	13	P	P	18 20 11.4	-1.6
BILL				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BILL	Bilibino	20.84	13	P	P	18 20 11.4	-1.6
	comp=Z,5.3nm,1.1s						
KSRS	Korea Array	21.77	250	P	P	18 20 23.0	-0.2
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb3.9						
KSRS	Korea Array	21.77	250	P	P	18 20 22.9	-0.3
	comp=Z,4.6nm,0.8s,mb3.9,baz=54,slow=10,SNR=9.0						
HIA	Hailar	22.43	286	P	P	18 20 29.7	-0.5
SONM	Songino Array	31.37	287	P	P	18 21 50.7	-0.5
	comp=Z,0.4nm,0.8s,mb3.2,baz=77,slow=6.5,SNR=3.2						
INK	Inuvik	40.13	33	P	P	18 23 07.0	+1.1
INK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
INK	Inuvik	40.13	33	P	P	18 23 07.0	+1.1
	comp=Z,3.5nm,0.6s,mb4.4,baz=290,slow=6.0,SNR=8.1						
INK	Inuvik	40.13	33	eP	P	18 23 06.7	+0.9
	comp=Z,2.9nm,0.6s,mb4.3						
ZALV	Zalesovo Beam	42.19	305	P	P	18 23 22.9	-0.1
	comp=Z,0.3nm,0.3s,mb3.5,baz=62,slow=6.7,SNR=2.6						
ZALV				PcP	PcP	18 25 14.6	-1.3
	comp=Z,0.7nm,0.6s,baz=45,slow=6.5,SNR=4.0						
QIZ	Qiongzhong	45.92	246	eP	P	18 23 47.0	-6.1
	comp=Z,374nm,1.3s						
MKAR	Makanchi Array	46.74	296	P	P	18 23 59.8	+0.4
	comp=Z,1.6nm,0.7s,mb3.9,baz=67,slow=8.0,SNR=18						
MKAR				PcP	PcP	18 25 31.4	-0.2
	comp=Z,0.2nm,0.5s,baz=67,slow=4.8,SNR=2.4						
KURK	Kurchatov	47.00	303	P	P	18 24 00.7	-0.5
	comp=Z,1.2nm,0.6s,mb3.8,baz=69,slow=8.6,SNR=14						
RES	Resolute Bay	49.27	19	eP	P	18 24 18.2	-0.3
RES				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
RES	Resolute Bay	49.27	19	eP	P	18 24 18.2	-0.3
	comp=Z,2.6nm,0.8s,mb4.2						
YKA	Yellowknife Ar	49.43	38	P	P	18 24 20.4	+0.6
	comp=Z,0.8nm,0.7s,mb3.7,baz=295,slow=6.9,SNR=8.2						
BVAR	Borovoye Array	50.34	309	P	P	18 24 25.1	-1.7
	comp=Z,0.7nm,0.4s,mb3.9,baz=44,slow=8.7,SNR=6.9						
BRVK	Borovoye	50.38	309	P	P	18 24 27.9	+0.8
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
BRVK	Borovoye	50.38	309	P	P	18 24 27.9	+0.8
	comp=Z,1.7nm,0.7s,mb4.1						
LSA	Lhasa	50.73	272	eP	P	18 24 31.0	+0.9
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
LSA	Lhasa	50.73	272	eP	P	18 24 31.0	+0.9
	comp=Z,2.7nm,0.6s,mb4.5						
TKM2	Tokmak 2	52.83	295	eP	P	18 24 39.9	-5.7
TKM2				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
TKM2	Tokmak 2	52.83	295	eP	P	18 24 39.9	-5.7
	comp=Z,23nm,1.2s,mb5.1						
AAK	Ala-Archa	53.66	296	P	P	18 24 53.1	+1.4
ARCES	ARCESS Array B	56.63	341	P	P	18 25 14.0	+1.3
	comp=Z,1.6nm,0.8s,mb4.1,baz=30,slow=9.3,SNR=2.5						
NVAR	Mina Array Bea	61.29	63	P	P	18 25 45.3	-0.1
	comp=Z,1.1nm,0.6s,mb4.0,baz=295,slow=8.1,SNR=7.5						
FINES	FINESS Array B	62.93	335	P	P	18 25 55.2	-0.7
	comp=Z,1.3nm,0.6s,mb4.1,baz=15,slow=7.9,SNR=8.7						
FINES	FINESS Array B	62.93	335	P	P	18 25 55.2	-0.7
FRB	Frobisher Bay	63.48	20	P	P	18 25 59.0	-0.6
	comp=Z,1.8nm,0.4s,mb4.4,baz=316,slow=6.1,SNR=6.4						
NOA	NORSAR Array B	67.00	341	P	P	18 26 22.1	-0.3
	comp=Z,1.1nm,0.9s,mb3.7,baz=26,slow=3.4,SNR=3.3						
HFS	Hagfors	67.26	340	P	P	18 26 23.9	-0.1
	comp=Z,1.4nm,0.4s,mb4.2,baz=56,slow=5.6,SNR=16						
AKASG	Malin Array Be	70.61	326	P	P	18 26 42.4	-2.6
	comp=Z,0.3nm,0.4s,mb3.5,baz=34,slow=5.5,SNR=2.9						

EKA	Eskdalemuir Ar	75.03	347	P	P	18 27 10.3	-0.7
	comp=Z,2.7nm,1.0s,mb3.9,baz=18,slow=4.8,SNR=4.5						
TXAR	Lajitas Array	76.32	61	P	P	18 27 19.0	+0.2
	comp=Z,1.6nm,0.6s,mb3.9,baz=302,slow=4.4,SNR=10						
TXAR	Lajitas Array	76.32	61	P	P	18 27 19.0	+0.2
GERES	GERESS Array B	77.36	334	P	P	18 27 23.9	-0.5
	comp=Z,0.4nm,0.5s,mb3.5,baz=337,slow=4.3,SNR=2.6						
DAVOS	Davos	80.28	336	P	P	18 27 41.2	+0.8
DAVOX	Davos/Dischmat	80.31	336	P	P	18 27 41.2	+0.6
	comp=Z,4.0nm,0.9s,mb4.2,baz=350,slow=12,SNR=4.2						
TORD	Torodi Ar. Bea	114.09	330	PKP	PKiKP	18 34 07.4	-1.5
	comp=Z,0.6nm,0.7s,baz=34,slow=2.4,SNR=4.3						
DBIC	Dimbokro	122.23	335	PKP	PKPdf	18 34 22.6	-2.0
	comp=Z,1.0nm,0.4s,baz=266,slow=3.9,SNR=3.1						

IDC ***26*** *18:18:24.5±0.3, 3°.84S×101°.01E, h0^{km}, mb5.1/39, mb1 5.2/41, mb1mx5.2/42, mbtmp5.1/41, ML5.1/2, MS5.6/23, Ms1 5.6/23, ms1mx5.5/34, Error ellipse: s-maj=10.6km s-min=6.5km az=40.0*

BJI ***26*** *18:18:25.3, 4°.27S×100°.84E, h41^{km}, mB6.1/50, mb5.5/58, Ms6.2/73, Ms7 6.0/61*

GCMT ***26*** *18:18:26.4±0.1, 4°.28S×100°.81E, h19^{km}, MW5.9/72, Moment Tensor Solution. s72,c123; s70,c161; Duration: 2^{s}5 Moment tensor: Scale 10^{18}Nm; M_{rr}0.38±.01; $M_{\theta\theta}$-0.25±.01; $M_{\phi\phi}$-0.13±.01; $M_{r\theta}$0.77±.02; $M_{\theta\phi}$0.33±.01; $M_{\phi r}$-0.31±.02; Best double couple: $M_0$0.95000×10^{18} NP1:ϕ_s334.00000°,δ17.00000°, λ129.00000°. NP2:ϕ_s113.00000°,δ77.00000°,λ79.00000°. Principal axes: T 0.9000, Plg57.0000°, Azm9.0000°; N 0.0990, Plg11.0000°, Azm116.0000°; P -0.9990, Plg31.0000°, Azm212.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC ***26*** *18:18:27.5±0.2, 3°.85S×101°.07E, h20^{km}, mb5.5/63, ME5.4, MS5.9/186, MW5.8 Error ellipse: s-maj=8.7km s-min=5.9km az=223.0, Moment Tensor Solution. s60 Moment tensor: Scale 10^{17}Nm; M_{rr}3.32; $M_{\theta\theta}$-1.41; $M_{\phi\phi}$-1.91; $M_{r\theta}$4.61; $M_{\theta\phi}$3.36; $M_{\phi r}$-2.04; Best double couple: $M_0$6.70000×10^{17} NP1:ϕ_s116.00000°,δ72.00000°, λ71.00000°. NP2:ϕ_s345.00000°,δ26.00000°,λ136.00000°. Principal axes: T 6.1400, Plg58.0000°, Azm359.0000°; N 1.0300, Plg18.0000°, Azm122.0000°; P -7.1700, Plg24.0000°, Azm221.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

NEIC Felt [V] at Lais and [IV] at Bengkulu and Kapahiang.

DJA ***26*** *18:18:27, 4°.06S×100°.66E, h30^{km}, Mw5.9/23*

MOS ***26*** *18:18:28.1±1.4, 3°.60S×101°.08E, h26^{km}, mb5.7/61, MS5.7/75, Error ellipse: s-maj=8.7km s-min=4.4km az=113.7*

ISCJB ***26*** *18:18:28.5±0.1, 3°.80S±0°.02×100°.96E±0°.02, h33^{km}, mb5.4/169, MS5.8/242, Error ellipse: s-maj=3.9km s-min=2.3km az=28.7*

TEH ***26*** *18:18:33.9, 3°.62S×101°.19E, h64^{km}*

SZGRF ***26*** *18:18:35.0, 5°.48S×97°.81E, h33^{km}, mb5.5, MS5.5, Southwest of Sumatera, Indonesia*

ISC 26 18:18:30.6±0.1**, 3°.81S**±0°.02×**100°.94E**±0°.02**, h35^{km}, h35^{km}**±2.0^{km}**:pP-P, n808,** σ1^s**26**/624**, mb5.4**/169**, MS5.8**/242**, 79C-22D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	1.40	318	P	Pn	18 18 52.1	-1.4
KSI	Kapahiang	1.65	85	P	Pn	18 18 57.4	+0.3
MNAI	Manna	2.08	105	P	Pn	18 19 04.0	+1.0
SISI	Saibi	3.08	323	P	Pn	18 19 15.1	-1.7
PPI	Padang Panjang	3.37	351	P	Pn	18 19 20.7	-0.1
RGRI	Rengat	3.71	22	P	Pn	18 19 26.9	+1.6
PMBI	Palembang	3.92	77	P	Pn	18 19 31.3	+3.0
KASI	Kota Agung	3.93	116	P	Pn	18 19 27.7	-0.7
SBJI	Serang	5.66	114	P	Pn	18 19 53.1	+0.9
	2µm,1.2s,7.8nm						
GSI	Gunungsitoli	6.09	326	P	Pn	18 19 55.8	-2.4
	409nm,1.0s,5.3nm						
KGM	Kluang	6.25	22	P	Pn	18 20 02.2	+1.8
MYKOM	Kota Tinggi	6.27	28	P	Pn	18 20 03.5	+2.8
MYKOM	Kota Tinggi	6.27	28	P	Pn	18 20 02.3	+1.6
	441nm,1.3s,5.4nm						
TPI	Tanjungpandan	6.78	81	⇓eP	Pn	18 20 08.5	+0.9
TPI	Tanjungpandan	6.78	81	P	Pn	18 20 09.1	+1.5
	113nm,0.8s,4µm3.1nm						
PSI	Prapat	6.87	343	Pn	Pn	18 20 06.4	-2.4
	23nm,0.3s,baz=164,slow=7.6,SNR=23						
FRIM	Kepong	7.03	6	P	Pn	18 20 12.2	+1.2
LEM	Lembang	7.29	115	⇑eP	Pn	18 20 16.9	+2.3
LEM	Lembang	7.29	115	P	Pn	18 20 15.5	+0.9
	1µm,0.8s,8.6nm						
XMIS	Christmas Isla	8.11	145	eP	Pn	18 20 18.5	-7.4
XMIS				eS	Sn	18 21 42.5	-14
XMIS				eT		18 28 53.4	
XMIS	Christmas Isla	8.11	145	ePn	Pn	18 20 18.3	-7.6
	144nm,0.7s						
XMIS				eSn	Sn	18 21 42.2	-14
XMIS	Christmas Isla	8.11	145	P	Pn	18 20 21.0	-4.9
	221nm,1.1s						
IPM	Ipoh	8.23	1	P	Pn	18 20 28.0	+0.4
IPM	Ipoh	8.23	1	P	Pn	18 20 30.1	+2.5
	240nm,2.8s						
KULM	Kulim	9.04	358	P	Pn	18 20 38.5	-0.1
KULM	Kulim	9.04	358	⇑ePn	Pn	18 20 38.1	-0.6
	331nm,1.0s						
KULM	Kulim	9.04	358	P	Pn	18 20 39.6	+0.9
	426nm,1.2s,6µm						
COCO	West Island	9.27	206	Pn	Pn	18 20 35.6	-6.2
	8µm,0.9s,SNR=26						
COCO	West Island	9.27	206	ePn	Pn	18 20 35.0	-6.7
	1µm,0.8s						
COCO	West Island	9.27	206	P	Pn	18 20 36.3	-5.5
	SNR=14						
COCO				P		18 20 36.3	
	SNR=14						
COCO	West Island	9.27	206	P	Pn	18 20 35.5	-6.3
	2µm,1.0s						
KTGM	Kuala Trenggan	9.33	14	P	Pn	18 20 44.0	+1.3
BJII	Banjamegara	9.40	112	⇓eP	Pn	18 20 44.8	+1.2
SMRI	Semarang	9.99	109	P	Pn	18 20 52.8	+1.1
	494nm,1.4s						
UGM	Wanagama	10.36	114	P	Pn	18 20 56.1	-0.7
	481nm,0.9s						
KSM	Kuching	10.73	61	P	Pn	18 21 04.9	+3.1
KSM	Kuching	10.73	61	⇑iPn	Pn	18 21 03.9	+2.1
	57nm,0.9s						
KSM	Kuching	10.73	61	P	Pn	18 21 05.5	+3.7
	72nm,0.9s,3µm						
SNG	Songkhla	10.92	358	P	Pn	18 21 03.0	-1.4
	520nm,0.9s						
SJI	Sawahan	11.45	110	P	Pn	18 21 11.8	+0.1
	482nm,0.7s						
PWJI	Pagerwojo	11.58	112	P	Pn	18 21 12.1	-1.4
	253nm,0.9s						
KRKI	Karangkates	12.23	111	P	Pn	18 21 22.6	+0.2
TRT	Tretes	12.26	109	⇑eP	Pn	18 21 25.0	+2.2
SBUM	Sibu	12.87	61	P	Pn	18 21 34.9	+3.7
SBUM	Sibu	12.87	61	P	Pn	18 21 35.1	+4.0
	204nm,2.5s,10µm						
PLKI	Palangkaraya	13.08	83	P	Pn	18 21 37.1	+3.1
	601nm,0.9s						
GMJI	Gumukmas	13.20	110	P	Pn	18 21 36.0	+0.4
	125nm,0.7s						
KMMI	Kalianget	13.36	105	P	Pn	18 21 38.8	+1.0
	372nm,2.1s						
ABJI	Asem Bagus	13.80	107	P	Pn	18 21 45.0	+1.2
	572nm,0.8s						
BBKI	Banjar Baru	13.87	89	P	Pn	18 21 48.5	+3.7
BTM	Bintulu	13.99	60	P	Pn	18 21 50.2	+3.8
SRBI	Singaraja	14.81	107	P	Pn	18 21 55.5	-2.1
	255nm,0.8s,5µm						
IGBI	Denpasar	14.96	110	P	Pn	18 21 58.3	-1.3
	516nm,1.4s,6µm						
DNP	Denpasar	14.98	110	P	Pn	18 21 59.4	-0.4
	584nm,0.8s						
KBKI	Kotabaru	15.20	89	P	Pn	18 22 03.1	+0.3
	257nm,1.0s,5µm						
KHKI	Kahang-Kahang	15.27	108	P	Pn	18 22 00.7	-2.9
	176nm,0.8s,3µm						
KKM	Kota Kinabalu	18.12	57	P	Pn	18 22 42.0	+2.4
KKM	Kota Kinabalu	18.12	57	⇑iPn	Pn	18 22 39.8	+0.2
	244nm,1.3s						
KKM	Kota Kinabalu	18.12	57	P	Pn	18 22 40.3	+0.7
	209nm,2.4s						
MKS	Makassar	18.52	95	⇑eP	Pn	18 22 46.3	+1.8
MKS				eS	S	18 26 24.4	+11
TSM	Tawau	18.73	65	P	Pn	18 22 48.6	+1.6
SDKM	Sandakan	18.75	60	P	Pn	18 22 48.5	+1.3
KAPI	Kappang	18.79	94	Pn	Pn	18 22 46.0	-1.8
	1µm,1.1s,SNR=38						
KAPI	Kappang	18.79	94	P	Pn	18 22 44.6	-3.2
	12nm,0.3s,baz=271,slow=12,SNR=50						
KAPI				S	S	18 26 16.9	-2.4
	0.2nm,0.3s,baz=52,slow=12,SNR=2.1						
KAPI	Kappang	18.79	94	P	Pn	18 22 44.6	-3.2
KAPI				S	S	18 26 16.9	-2.4
TTSI	Tana Toraja	18.86	88	P	Pn	18 22 49.3	+0.7
PCI	Palu	19.09	82	P	Pn	18 22 51.5	+0.1
	588nm,1.4s						
KDM	Kudat	19.11	56	P	Pn	18 22 53.5	+2.0
BNSI	Bone	19.12	92	P	Pn	18 22 51.0	-0.8
	543nm,1.5s						
UBT	Ubonrachathani	19.36	12	P	Pn	18 22 54.5	0.0
NST	Nakhon Sawan	19.37	358	P	Pn	18 22 51.0	-3.7
	58nm,0.7s						
WSI	Waingapu	20.08	108	⇓eP	P	18 23 01.0	-0.1
WSI				eS	S	18 26 32.5	-13
WSI	Waingapu	20.08	108	P	P	18 22 59.7	-1.4
	980nm,0.6s,9µm						
APSI	Ampana	20.89	83	P	P	18 23 10.6	+0.7
	923nm,1.2s,9µm						
BDT	Bhumibol Dam	21.00	355	P	P	18 23 09.5	-1.6
	60nm,0.9s,mb4.9						
KDI	Kendari	21.63	91	⇑eP	P	18 23 17.3	-0.6
KDI				eS	S	18 27 16.9	+1.2
KDI	Kendari	21.63	91	P	P	18 23 18.4	+0.5
	403nm,1.4s,8µm,mb5.7						
CMAR	Chiang Mai Arr	22.21	355	P	P	18 23 21.7	-2.4
CMAR						18 27 21.1	
CMAR	Chiang Mai Arr	22.21	355	P	P	18 23 21.7	-2.4
	58nm,0.8s,mb5.0,baz=185,slow=9.1,SNR=61						
CMAR				PcP	PcP	18 27 21.1	+1.0
	5.7nm,0.9s,baz=207,slow=2.8,SNR=6.4						
CMAR				ScP	ScP	18 30 58.5	+3.5
	2.7nm,1.0s,baz=216,slow=2.5,SNR=4.8						
CMAR				LR	LR	18 33 19.5	
	comp=Z,19µm,18.7s,MS5.5,baz=5.0,slow=40						
CMAR				P3KPbc		18 57 13.9	
	1.3nm,1.2s,baz=346,slow=3.6,SNR=2.9						
CMAR	Chiang Mai Arr	22.21	355	P	P	18 23 21.7	-2.4
CMAR				PcP	PcP	18 27 21.1	+1.0
CMAR				ScP	ScP	18 30 58.5	+3.5
CMAR				LR	LR	18 33 19.5	
CHTO	Chiang Mai	22.56	355	⇑eP	P	18 23 24.0	-3.8
CHTO				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.2						
CHTO				MLR	MLR		
	comp=Z,18µm,19.0s,MS5.5						
CHTO	Chiang Mai	22.56	355	⇑ePn	P	18 23 24.0	-3.8
	comp=Z,92nm,1.0s,mb5.2						
CHTO				LR	LR		
	comp=Z,18µm,19.0s,MS5.5						
CHTO	Chiang Mai	22.56	355	P	P	18 23 28.2	+0.5
	SNR=43						
CHTO				P		18 23 28.2	
	SNR=43						
PALK	Pallekele	23.00	299	eP	P	18 23 33.9	+1.3
PALK				pmax	pmax		
	comp=Z,76nm,0.8s,mb5.2						
PALK	Pallekele	23.00	299	P	P	18 23 34.4	+1.9
	comp=Z,13nm,1.1s,mb4.3,baz=90,slow=5.1,SNR=3.3						
PALK				S	S	18 27 42.9	+2.1
	comp=Z,6.6nm,1.0s,baz=201,slow=11,SNR=2.4						
PALK				LR	LR	18 31 42.1	
	comp=Z,24µm,20.3s,MS5.6,baz=117,slow=35						
PALK	Pallekele	23.00	299	eP	P	18 23 33.9	+1.3
	comp=Z,76nm,0.8s,mb5.2						
KMSI	Cibinong	23.43	80	P	P	18 23 35.3	-1.7
	comp=Z,488nm,0.8s,mb6.0						
QIZ	Qiongzhong	24.32	21	P	P	18 23 42.5	-2.6
QIZ				S	S	18 28 00.8	-1.3
QIZ				pmax	pmax		
	comp=Z,4µm,10.8s						
QIZ				LR	LR		
	comp=N,12µm,14.3s,MS5.8						
QIZ				LR	LR		
	comp=E,23µm,16.0s,MS5.8						
QIZ				LR	LR		
	comp=Z,24µm,20.9s,MS5.7						
QIZ	Qiongzhong	24.32	21	PFAKE		18 23 50.0	+4.9
QIZ				LR	LR		
	comp=Z,25µm,20.0s,MS5.7						
MNI	Manado	24.45	78	P	P	18 23 45.0	-1.3
	comp=Z,338nm,0.9s,mb5.8						
MBWA	Marble Bar	25.12	135	ePn	P	18 23 49.7	-2.7
	comp=Z,131nm,1.0s,mb5.4						
MBWA				eS	S	18 28 21.4	+6.5
MBWA				LR	LR		
	comp=Z,24µm,21.0s,MS5.7						
NLAI	Namlea	26.11	90	P	P	18 24 01.0	-0.5
	comp=Z,94nm,0.9s,mb5.3						
RCP	Roxas	26.52	55	⇓eP	P	18 24 07.0	+2.0
TGY	Tagaytay City	26.64	48	P	P	18 24 06.2	0.0
	comp=Z,312nm,0.8s,mb5.9,baz=182,slow=8.1,SNR=13						
LBMI	Labuha	26.72	84	P	P	18 24 08.3	+1.4
	comp=Z,315nm,1.0s,mb5.8						
TNTI	Ternate	26.80	81	P	P	18 24 06.7	-0.9
	comp=Z,134nm,0.9s,mb5.5						
DAV	Davao City (W)	26.86	66	P	P	18 24 10.3	+2.2
	comp=Z,103nm,0.4s,mb5.7,baz=167,slow=9.1,SNR=3.8						
DAV	Davao City (W)	26.86	66	⇑eP	P	18 24 05.9	-2.3
DAV	Davao City (W)	26.86	66	P	P	18 24 07.5	-0.6
DAV				LR	LR		
	comp=Z,15µm,19.0s,MS5.6						
TRD	Trivandrum	26.87	297	⇓ePKP	P	18 24 18.0	+10
TRD				eS	S	18 28 50.0	+7.3
AAI	Ambon	27.19	91	P	P	18 24 12.1	+0.9
	comp=Z,70nm,0.7s,comp=Z,2µm,mb5.3						
VIS	Vishakhapatnam	27.56	321	ePKP	P	18 24 14.7	+0.3
VIS				AMb	AMB	18 25 10.3	
	comp=Z,136nm,1.4s,mb5.4						
FITZ	Fitzroy Crossi	28.04	122	eP	P	18 24 17.5	-1.2
	comp=Z,177nm,0.8s,mb5.8						
FITZ				eS	S	18 29 00.3	-0.8
FITZ	Fitzroy Crossi	28.04	122	P	P	18 24 17.6	-1.1
	comp=Z,68nm,0.8s,mb5.3,baz=274,slow=4.4,SNR=67						
FITZ				S	S	18 28 58.3	-2.8
	comp=Z,3.7nm,0.7s,baz=66,slow=20,SNR=2.4						
FITZ				LR	LR	18 35 28.9	
	comp=Z,13µm,21.9s,MS5.5,baz=309,slow=37						
FITZ	Fitzroy Crossi	28.04	122	⇑eP	P	18 24 17.2	-1.5
	comp=Z,122nm,0.9s,mb5.5						
FITZ	Fitzroy Crossi	28.04	122	P	P	18 24 17.9	-0.8
	comp=Z,295nm,0.9s,mb5.9						
BWNR	Bhubaneshwar	28.19	329	ePKP	P	18 24 19.0	-1.0
DGAR	Diego Garcia	28.57	262	PFAKE		18 24 30.0	+6.5
DGAR				LR	LR		
	comp=Z,11µm,20.0s,MS5.5						
KMI	Kunming	28.81	3	P	P	18 24 26.3	+0.9
KMI				pP	pP	18 24 38.0	+2.4
KMI				PP	PP	18 25 21.5	-9.5
KMI				PcP	PcP	18 27 36.3	+1.5
KMI				S	S	18 29 10.5	-2.5
KMI				sS	sS	18 29 32.0	+2.2
KMI				SS	SS	18 30 44.5	-32
KMI				ScS	ScS	18 35 05.0	-2.4
KMI				pmax	pmax		
	comp=Z,62nm,1.7s,mb5.1						
KMI				LR	LR		
	comp=N,27µm,14.9s,MS6.2						
KMI				LR	LR		
	comp=E,35µm,17.6s,MS6.2						
KMI				LR	LR		
	comp=Z,35µm,13.3s,MS6.2						
CAL	Calcutta	28.94	335	⇓iP	P	18 24 31.0	+4.4
CAL				eS	S	18 29 26.1	+11
AGT	Agartala	29.10	342	ePKP	P	18 24 27.0	-1.0
AGT				ex	x	18 24 50.0	
GZH	Guangzhou	29.34	24	P	P	18 24 36.5	+6.3
GZH				S	S	18 29 38.0	+17
GZH				LR	LR		
	comp=N,17µm,15.0s,MS5.9						
GZH				LR	LR		
	comp=E,13µm,13.4s,MS5.9						
GZH				LR	LR		
	comp=Z,19µm,13.2s,MS5.9						
SHL	Shillong	30.49	344	⇑iP	P	18 24 41.5	+1.2
SHL				AMb	AMB	18 24 54.3	
	comp=Z,197nm,0.9s,mb5.8						
SHL				eS	S	18 29 42.5	+3.0
HYB	Hyderabad	30.55	314	i P	P	18 24 40.0	-0.9
HYB	Hyderabad	30.55	314	eP	P	18 24 40.0	-0.9
GYA	Guiyang	30.59	10	⇑iP	P	18 24 41.3	+0.1
GYA				pP	pP	18 24 53.3	+1.9
GYA				PP	PP	18 25 45.3	-5.5
GYA				PcP	PcP	18 27 35.3	-4.1
GYA				S	S	18 29 43.5	+2.5
GYA				sS	sS	18 30 03.3	+5.5
GYA				ScP	ScP	18 31 17.5	-1.9
GYA				SS	SS	18 31 31.3	-21
GYA				pmax	pmax		
	comp=Z,90nm,0.8s,mb5.7						
GYA				pmax	pmax		
	comp=Z,2µm,8.0s						
GYA				LR	LR		
	comp=N,24µm,17.1s,MS6.1						
GYA				LR	LR		
	comp=E,25µm,16.9s,MS6.1						
GYA				LR	LR		
	comp=Z,26µm,16.7s,MS6.0						
MNGI	Mangalore	30.82	303	ePKP	P	18 24 50.0	+6.6
MNGI				AMb	AMB	18 24 58.3	
	comp=Z,53nm,1.2s,mb5.2						
MNGI				eS	S	18 29 52.0	+7.2
BOK	Bokaro	31.11	333	ePKP	P	18 24 45.6	-0.2
BOK				AMb	AMB	18 25 05.1	
	comp=Z,178nm,1.5s,mb5.7						
MUN	Mundaring	31.48	155	eP	pP	18 24 57.1	-2.1
MUN				eS	S	18 29 54.4	-0.4
KAKA	Kakadu	32.37	108	eP	P	18 24 54.1	-2.9
	comp=Z,57nm,0.6s,mb5.6						
KAKA	Kakadu	32.37	108	eP	P	18 24 54.1	-2.9
	comp=Z,144nm,0.6s,mb6.0						
KAKA	Kakadu	32.37	108	P	P	18 24 54.8	-2.2
	comp=Z,140nm,0.6s,comp=Z,1µm,mb6.0						
SLGI	Shiliguri	32.66	339	ePKP	P	18 25 00.0	+0.6
NWAO	Narrogin (SRO)	32.73	154	eP	P	18 24 59.4	-0.6
NWAO				pmax	pmax		
	comp=Z,81nm,1.2s						
NWAO				MLR	MLR		
	comp=Z,17µm,20.0s						
NWAO	Narrogin (SRO)	32.73	154	P	P	18 24 59.6	-0.4
	comp=Z,30nm,1.0s,mb5.2,baz=326,slow=12,SNR=8.0						
NWAO				LR	LR	18 38 14.6	
	comp=Z,22µm,18.9s,MS5.9,baz=328,slow=36						
NWAO	Narrogin (SRO)	32.73	154	eP	P	18 24 59.4	-0.6
	comp=Z,81nm,1.2s,mb5.5						
NWAO				LR	LR		
	comp=Z,17µm,20.0s,MS5.8						
NGP	Nagpur	32.80	320	⇑iP	P	18 24 57.6	-3.0
NGP				ex	x	18 30 10.7	
QZH	Quanzhou	33.33	30	⇑iP	P	18 25 07.5	+2.2
QZH				S	S	18 30 23.8	+0.1
QZH				pmax	pmax		
	comp=Z,3µm,3.6s						
QZH				LR	LR		
	comp=N,26µm,16.0s,MS6.2						
QZH				LR	LR		
	comp=E,22µm,16.1s,MS6.2						
QZH				LR	LR		
	comp=Z,24µm,14.5s,MS6.0						
JBP	Jabalpur	33.72	324	ePKP	P	18 25 08.6	-0.2
JBP				ex	x	18 25 26.2	
	comp=Z,96nm,1.3s						
JBP				eS	S	18 30 32.7	+2.8
KAD	Karad	33.73	309	ePKP	P	18 25 08.2	-0.7
KAD				AMb	AMB	18 25 14.6	
	comp=Z,33nm,1.2s,mb5.1						
YHNB	Yeheng	34.58	34	eP	P	18 25 13.2	-3.0
	comp=Z,66nm,1.0s,mb5.5						
YHNB				LR	LR		
	comp=Z,7µm,22.0s,MS5.3						
LSA	Lhasa	34.61	345	P	P	18 25 16.5	+0.1
LSA				pP	pP	18 25 25.5	-1.1
LSA				sP	sP	18 25 29.5	-1.4
LSA				PP	PP	18 26 36.8	+1.5
LSA				S	S	18 30 42.8	-0.7
LSA				sS	sS	18 31 03.3	+2.9
LSA				LR	LR		
	comp=N,14µm,26.5s,MS5.7						
LSA				LR	LR		
	comp=E,13µm,27.3s,MS5.7						
LSA				LR	LR		
	comp=Z,4µm,25.0s,MS5.1						
LSA	Lhasa	34.61	345	⇑eP	P	18 25 17.1	+0.7
LSA				pmax	pmax		
	comp=Z,193nm,1.5s,mb5.8						
LSA				MLR	MLR		
	comp=Z,12µm,20.0s,MS5.6						
LSA	Lhasa	34.61	345	⇑eP	P	18 25 17.1	+0.8
	comp=Z,193nm,1.5s,mb5.8						
LSA				LR	LR		
	comp=Z,12µm,20.0s,MS5.6						
CD2	Chengdu	34.63	4	P	P	18 25 15.5	-1.0
CD2				pP	pP	18 25 30.0	+3.3
CD2				PP	PP	18 26 38.0	+2.6
CD2				S	S	18 30 42.0	-1.7
CD2				sS	sS	18 31 02.0	+1.4
CD2				SS	SS	18 33 06.0	-8.9
CD2				pmax	pmax		
	comp=Z,190nm,1.1s,mb5.9						
CD2				pmax	pmax		
	comp=Z,3µm,4.4s						
CD2				LR	LR		
	comp=N,38µm,15.5s						
CD2				LR	LR		
	comp=Z,44µm,16.1s,MS6.3						
POO	Poona	34.71	311	ePKP	P	18 25 18.2	+0.8
POO				AMb	AMB	18 25 33.4	
	comp=Z,50nm,1.1s,mb5.4						
TATO	Taipei	34.88	34	PFAKE		18 25 30.0	+11
TATO				LR	LR		
	comp=Z,6µm,19.0s,MS5.3						
BAKI	Biak	35.22	87	P	P	18 25 20.8	-1.1
	comp=Z,94nm,1.0s,mb5.7						
BHPL	Bhopal	35.34	321	ePKP	P	18 25 23.3	+0.5
BOM	Bombay	35.72	310	ex	x	18 25 19.4	
BOM				ex	x	18 25 24.8	
	comp=Z,88nm,2.5s						
BOM				ex	x	18 33 58.6	
WRA	Warramunga Arr	36.28	119	P	P	18 25 28.1	-2.8
WRA				S	S	18 31 10.0	+0.5
WRA	Warramunga Arr	36.28	119	P	P	18 25 28.1	-2.8
	comp=Z,50nm,0.8s,mb5.5,baz=291,slow=9.6,SNR=98						
WRA				S	S	18 31 10.0	+0.5
	comp=Z,13nm,1.1s,baz=295,slow=16,SNR=10						
WRA				LR	LR	18 40 29.6	
	comp=Z,5µm,18.3s,MS5.3,baz=295,slow=37						
WRAB	Tennant Creek	36.29	119	P	P	18 25 29.0	-2.0
	comp=Z,608nm,0.7s,mb6.6,SNR=49						
WRAB	Tennant Creek	36.29	119	eP	P	18 25 29.0	-2.0
WRAB				eS	S	18 31 05.0	-4.6
WRAB				pmax	pmax		
	comp=Z,96nm,0.9s,mb5.7						
WRAB				MLR	MLR		
	comp=Z,19µm,22.0s,MS5.8						
WRAB	Tennant Creek	36.29	119	eP	P	18 25 29.0	-1.9
	comp=Z,96nm,0.9s,mb5.7						
WRAB				eS	S	18 31 05.0	-4.6
WRAB				LR	LR		
	comp=Z,19µm,22.0s,MS5.8						
WRAB	Tennant Creek	36.29	119	P	P	18 25 29.8	-1.2
	comp=Z,121nm,0.8s,comp=Z,2µm,mb5.9						
WHN	Wuhan	36.48	20	⇑P	P	18 25 33.0	+0.6
WHN				PP	PP	18 26 58.8	+2.9
WHN				LR	LR		
	comp=N,21µm,12.0s,MS6.3						
WHN				LR	LR		
	comp=E,31µm,14.5s,MS6.3						
WHN				LR	LR		
	comp=Z,48µm,14.0s,MS6.4						
FORT	Forrest	37.06	139	eP	P	18 25 37.5	+0.1
	comp=Z,37nm,0.7s,mb5.3						
FORT	Forrest	37.06	139	eP	P	18 25 36.7	-0.7
	comp=Z,86nm,0.8s,mb5.6						
ASAR	Alice Springs	37.44	125	P	P	18 25 39.6	-1.1
	comp=Z,29nm,0.7s,mb5.2,baz=300,slow=7.3,SNR=142						
ASAR				S	S	18 31 26.2	-0.9
	comp=Z,3.0nm,0.6s,baz=300,slow=17,SNR=5.7						
XAN	Xi’an	38.39	11	P	P	18 25 47.0	-1.5
XAN				PP	PP	18 27 19.5	+2.7
XAN				pmax	pmax		
	comp=Z,89nm,1.2s,mb5.4						

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XAN                                 pmax    pmax
      comp=Z,870nm,13.0s
XAN                                 LR      LR
      comp=N,10µm,19.5s,MS6.0
XAN                                 LR      LR
      comp=E,23µm,19.0s,MS6.0
XAN                                 LR      LR
      comp=Z,20µm,14.1s,MS6.1
LGTI  Lohaghat          38.57 330  ePKP    P       18 25 51.0 +0.9
PTH   Pithoragarh       38.66 330  ePKP    P       18 25 50.5 -0.4
PTH                                ex      x       18 27 38.5
AJM   Ajmer             39.42 321  ePKP    P       18 25 58.4 +1.1
NJ2   Nanjing           39.52  24  eP      P       18 25 58.5 +0.5
NJ2                                 pP      pP      18 26 10.5 +2.1
NJ2                                 PP      PP      18 27 33.8 +4.6
NJ2                                 S       S       18 31 56.0 -2.1
NJ2                                 sS      sS      18 32 16.0 +0.8
NJ2                                 pmax    pmax
      comp=Z,70nm,0.9s,mb5.4
NJ2                                 pmax    pmax
      comp=Z,2µm,10.1s
NJ2                                 LR      LR
      comp=N,22µm,19.6s,MS6.2
NJ2                                 LR      LR
      comp=E,33µm,24.3s,MS6.2
NJ2                                 LR      LR
      comp=Z,20µm,18.9s
NDI   New Delhi         39.54 326  ePKP    P       18 25 58.0 -0.3
SSE   Sheshan           39.72  28   P       P       18 26 00.3 +0.6
SSE                                 S       S       18 32 01.5 +0.4
SSE                                 sS      sS      18 32 23.3 +5.1
SSE                                 ScS     ScS     18 36 02.8 -2.1
SSE                                 pmax    pmax
      comp=Z,65nm,0.8s,mb5.4
SSE                                 pmax    pmax
      comp=Z,1µm,9.0s
SSE                                 LR      LR
      comp=N,9µm,18.2s,MS5.8
SSE                                 LR      LR
      comp=E,8µm,18.2s,MS5.8
SSE                                 LR      LR
      comp=Z,12µm,14.8s,MS5.8
JAY   Jayapura          39.72  89   P       P       18 26 00.9 +0.9
      comp=Z,64nm,0.8s,mb5.4
LZH   Lanzhou           39.78   4  eP      P       18 26 00.8 +0.7
LZH                                 pmax    pmax
      comp=Z,1µm,1.2s,mb6.5
LZH                                 pmax    pmax
      comp=Z,4µm,4.0s
LZH                                 LR      LR
      comp=E,32µm,13.2s
LZH                                 LR      LR
      comp=Z,34µm,17.1s,MS6.3
DDI   Dehra Dun         40.38 329  ex      P       18 26 04.3 -0.9
BHJ   Bhuj              40.68 313  ePKP    P       18 26 07.3 -0.5
BHJ                                 AMb     AMB     18 26 27.6
      comp=Z,74nm,1.7s,mb5.0
BHK   Bhakra            42.11 328  ePKP    P       18 26 19.2 -0.2
TIA   Tai'an            42.59  19  eP      P       18 26 21.8 -1.4
TIA                                 S       S       18 32 50.5 +6.8
TIA                                 LR      LR
      comp=N,11µm,14.0s
COEN  Coen              42.85 106⇑eP      P       18 26 23.0 -2.7
      comp=N,213nm,0.8s,mb5.9
COEN  Coen              42.85 106   P       P       18 26 24.8 -0.9
      comp=N,157nm,1.1s,mb5.7
GTA   Gaotai            43.02 359 ⇑P       P       18 26 27.0 +0.4
GTA                                 pP      pP      18 26 39.5 +2.5
GTA                                 sP      sP      18 26 44.8 +3.5
GTA                                 PP      PP      18 28 10.5 +3.5
GTA                                 S       S       18 32 50.3 +0.5
GTA                                 sS      sS      18 33 11.0 +4.0
GTA                                 SS      SS      18 35 58.0 -4.9
GTA                                 pmax    pmax
      comp=Z,14nm,1.8s,mb4.4
GTA                                 pmax    pmax
      comp=Z,1µm,5.9s
GTA                                 LR      LR
      comp=N,10µm,16.6s,MS5.9
GTA                                 LR      LR
      comp=E,11µm,20.2s,MS5.9
GTA                                 LR      LR
      comp=Z,14µm,16.1s,MS6.0
THN   Thein Dam         43.27 328  ePKP    P       18 26 26.5 -2.3
BTO   Baotou            44.97  10  eP      P       18 26 42.0 -0.3
BTO                                 pmax    pmax
      comp=Z,42nm,1.3s,mb5.1
MSEY  Mahe Island       45.34 267   PFAKE           18 27 00.0  +14
MSEY                                LR      LR
      comp=Z,8µm,19.0s,MS5.7
HHC   Hu-ho-hao-te      45.49  11  eP      P       18 26 47.5 +1.1
HHC                                 pP      pP      18 26 59.8 +2.9
HHC                                 sP      sP      18 27 04.8 +3.7
HHC                                 PcP     PcP     18 28 25.5 +0.6
HHC                                 PP      PP      18 28 34.5 +1.1
HHC                                 PcS     PcS     18 32 18.3 -0.6
HHC                                 S       S       18 33 26.0 +0.2
HHC                                 ScS     ScS     18 36 36.5 -3.7
HHC                                 SS      SS      18 36 44.0 -6.3
HHC                                 pmax    pmax
      comp=Z,140nm,0.9s,mb5.8
HHC                                 pmax    pmax
      comp=Z,3µm,4.8s
HHC                                 LR      LR
      comp=N,23µm,13.6s,MS6.3
HHC                                 LR      LR
      comp=E,5µm,11.9s,MS6.3
HHC                                 LR      LR
      comp=Z,24µm,13.2s,MS6.3
BJT   Baijiatuau        45.80  16   PFAKE           18 27 00.0  +11
BJT                                 LR      LR
      comp=Z,22µm,20.0s,MS6.1
BJI   Beijing           45.82  16   P       P       18 26 49.0 -0.1
BJI                                 sP      sP      18 27 01.3 -2.5
BJI                                 PP      PP      18 28 35.5 -1.4
BJI                                 S       S       18 33 31.3 +0.7
BJI                                 sS      sS      18 33 50.5 +2.6
BJI                                 pmax    pmax
      comp=Z,170nm,1.1s,mb5.9
BJI                                 pmax    pmax
      comp=Z,2µm,7.4s
BJI                                 LR      LR
      comp=N,11µm,19.1s,MS6.2
BJI                                 LR      LR
      comp=E,24µm,19.7s,MS6.2
BJI                                 LR      LR
      comp=Z,16µm,20.0s,MS6.0
DL2   Dalian            46.60  22⇑iP      P       18 26 55.3 +0.1
DL2                                 pP      pP      18 27 07.3 +1.6
DL2                                 PP      PP      18 28 47.0 +1.8
DL2                                 S       S       18 33 42.5 +0.7
DL2                                 pmax    pmax
      comp=Z,60nm,0.9s,mb5.5
DL2                                 pmax    pmax
      comp=Z,840nm,6.8s
DL2                                 LR      LR
      comp=N,5µm,18.0s,MS5.7
DL2                                 LR      LR
      comp=E,6µm,17.1s,MS5.7
DL2                                 LR      LR
      comp=Z,7µm,18.0s,MS5.7
GUMO  Guam              46.89  68   PFAKE           18 27 10.0  +12
GUMO                                LR      LR
      comp=Z,3µm,20.0s,MS5.3
CTA   Charters Tower    46.99 114  eP      P       18 26 59.5 +0.9
      comp=Z,38nm,0.9s,mb5.3
CTA                                eS      S       18 33 47.9 -0.2
CTA   Charters Tower    46.99 114   LR      LR      18 49 15.2
      comp=Z,7µm,20.6s,MS5.6,baz=283,slow=39
CTAO  Charters Tower    46.99 114⇑eP      P       18 26 58.2 -0.4
CTAO                                pmax    pmax
      comp=Z,101nm,1.1s,mb5.7
CTAO                                MLR     MLR
      comp=Z,11µm,22.0s,MS5.8
CTAO  Charters Tower    46.99 114⇑eP      P       18 26 58.2 -0.4
      comp=Z,101nm,1.1s,mb5.7
CTAO                                LR      LR
      comp=Z,11µm,22.0s,MS5.8
RER   Riviere de l'E    47.16 245   PFAKE           18 27 10.0  +10
RER                                 LR      LR
      comp=Z,6µm,20.0s,MS5.5
STKA  Stephens Creek    47.26 131  eP      P       18 27 00.0 -0.5
      comp=Z,41nm,0.6s,mb5.5
STKA                               eS      S       18 33 50.8 -0.7
STKA  Stephens Creek    47.26 131   P       P       18 27 00.1 -0.4
      comp=Z,59nm,0.8s,mb5.6,baz=304,slow=7.7,SNR=108
STKA                                LR      LR      18 47 05.8
      comp=Z,15µm,21.8s,MS5.9,baz=298,slow=36
INCN  Inchon            47.52  28  eP      P       18 27 01.1 -1.2
      comp=Z,59nm,1.1s,mb5.5
INCN                                LR      LR
      comp=Z,5µm,22.0s,MS5.5
KSRS  Korea Array       48.11  29   P       P       18 27 06.4 -0.6
KSRS                                pmax    pmax
      comp=Z,57nm,1.0s,mb5.6
KSRS  Korea Array       48.11  29   P       P       18 27 06.4 -0.6
      comp=Z,57nm,0.9s,mb5.6,baz=223,slow=7.3,SNR=53
WBK   Wadi Bani Khal    48.68 305   P       P       18 27 15.3 +3.7
      SNR=15
KSH   Kashi             48.86 334⇑iP      P       18 27 11.3 -1.4
KSH                                epP     pP      18 27 23.3  0.0
KSH                                 sP      sP      18 27 28.5 +1.0
KSH                                ePcP    PcP     18 28 37.0 +0.1
KSH                                ePP     PP      18 29 03.5 -2.8
KSH                                eScP    ScP     18 32 25.5 -3.9
KSH                                ePcS    PcS     18 32 31.8 -1.3
KSH                                 S       S       18 34 07.5 -6.4
KSH                                eScS    ScS     18 36 56.0 -6.4
KSH                                 pmax    pmax
      comp=Z,21nm,0.8s,mb5.2
KSH                                 pmax    pmax
      comp=Z,2µm,4.1s
KSH                                 LR      LR
      comp=N,6µm,12.4s,MS6.0
KSH                                 LR      LR
      comp=E,9µm,17.4s,MS6.0
KSH                                 LR      LR
      comp=Z,10µm,16.7s,MS5.9
WMQ   Urumqi            48.89 347⇑iP      P       18 27 13.5 +0.7
WMQ                                 S       S       18 34 13.0 -1.1
WMQ                                 sS      sS      18 34 34.0 +2.5
WMQ                                 ScS     ScS     18 37 01.0 -1.4
WMQ                                 SS      SS      18 37 39.0 -6.4
WMQ                                 pmax    pmax
      comp=Z,150nm,1.1s,mb5.9
WMQ                                 pmax    pmax
      comp=Z,3µm,4.9s
WMQ                                 LR      LR
      comp=N,8µm,19.0s,MS5.9
WMQ                                 LR      LR
      comp=E,9µm,19.6s,MS5.9
WMQ                                 LR      LR
      comp=Z,7µm,24.2s,MS5.5
JMDO  Jabal Madar       49.28 304   P       P       18 27 19.0 +2.7
      SNR=11
SMDO  Samad             49.64 305   P       P       18 27 20.1 +1.2
      SNR=14
SNY   Shenyang          49.87  22 ⇑P       P       18 27 18.8 -1.6
SNY                                 S       S       18 34 29.3 +1.3
SNY                                 sS      sS      18 34 49.5 +4.1
SNY                                 pmax    pmax
      comp=Z,53nm,1.3s,mb5.4
SNY                                 pmax    pmax
      comp=Z,2µm,7.1s
SNY                                 LR      LR
      comp=E,17µm,14.9s
SNY                                 LR      LR
      comp=Z,21µm,14.5s,MS6.3
BSY   Bisya             50.20 304   P       P       18 27 27.0 +3.8
      SNR=17
HOQ   Hoqain            50.48 305   P       P       18 27 29.1 +3.7
      SNR=17
RBK   Rabkut            50.74 296   P       P       18 27 30.8 +3.4
      SNR=11
ARQ   Araqi             51.02 304   P       P       18 27 30.5 +1.1
      SNR=14
ULHL  Ulahol            51.03 336   P       P       18 27 29.0 -0.1
      SNR=16
WHFO  Wadi Hawf         51.27 296   P       P       18 27 32.4 +1.0
      SNR=8.4
KZA   Kyzart            51.29 336   P       P       18 27 31.9 +0.8
      SNR=59
SONM  Songino Array     51.65   5   P       P       18 27 34.5 +0.8
      comp=Z,94nm,0.9s,mb5.7,baz=184,slow=6.9,SNR=225
SONM                                S       S       18 34 59.6 +7.2
      comp=Z,0.3nm,0.5s,baz=171,slow=9.9,SNR=3.5
UCH   Uchtor            51.72 335   P       P       18 27 34.9 +0.6
      SNR=42
UCH   Uchtor            51.72 335⇑eP      P       18 27 34.6 +0.2
      comp=Z,142nm,0.4s,mb6.2
UCH                                 LR      LR
      comp=Z,9µm,20.0s,MS5.8
ULN   Ulaanbaatar       51.73   5⇑iP      P       18 27 34.8 +0.5
ULN                                 pmax    pmax
      comp=Z,99nm,1.1s,mb5.7
ULN                                 MLR     MLR
      comp=Z,12µm,20.0s,MS5.9
ULN   Ulaanbaatar       51.73   5⇑iP      P       18 27 34.8 +0.5
      comp=Z,100nm,1.1s,mb5.7
ULN                                 LR      LR
      comp=Z,12µm,20.0s,MS5.9
ULN   Ulaanbaatar       51.73   5   P       P       18 27 35.4 +1.1
      SNR=54
ULN                                 P               18 27 35.4
      SNR=54
TKM2  Tokmak 2          51.85 336⇑eP      P       18 27 35.4 +0.1
TKM2                                pmax    pmax
      comp=Z,115nm,0.9s,mb5.8
TKM2                                MLR     MLR
      comp=Z,11µm,20.0s,MS5.9
TKM2  Tokmak 2          51.85 336   P       P       18 27 35.7 +0.4
      SNR=36
TKM2  Tokmak 2          51.85 336⇑eP      P       18 27 35.4 +0.1
      comp=Z,115nm,0.9s,mb5.8
TKM2                                LR      LR
      comp=Z,11µm,20.0s,MS5.9
KBK   Karagaybulak      51.90 336   P       P       18 27 36.2 +0.6
      SNR=47
AML   Almayashu         51.99 334   P       P       18 27 36.8 +0.5
      SNR=38
AML   Almayashu         51.99 334⇑iP      P       18 27 36.5 +0.1
      comp=Z,142nm,0.4s,mb6.2
AML                                 LR      LR
      comp=Z,4µm,20.0s,MS5.5
HATD  Hatta, Dubai      52.00 306   P       P       18 27 40.4 +3.7
      SNR=15
AAK   Ala-Archa         52.06 335   P       P       18 27 37.9 +1.0
      comp=Z,221nm,0.8s,mb6.1,SNR=10
AAK   Ala-Archa         52.06 335   P       P       18 27 37.4 +0.5
AAK                                 S       S       18 35 02.5 +4.2
AAK                                 pmax    pmax
      comp=Z,5.0nm,0.5s,mb4.7
AAK   Ala-Archa         52.06 335   P       P       18 27 37.3 +0.5
      SNR=22
AAK   Ala-Archa         52.06 335   P       P       18 27 37.4 +0.5
      comp=Z,5.0nm,0.5s,mb4.7,baz=158,slow=5.7,SNR=24
AAK                                 S       S       18 35 02.5 +4.2
      comp=Z,0.3nm,0.3s,baz=267,slow=18,SNR=2.0
AAK   Ala-Archa         52.06 335⇑eP      P       18 27 37.1 +0.2
      comp=Z,46nm,1.0s,mb5.4
AAK                                 LR      LR
      comp=Z,12µm,20.0s,MS5.9
AAK   Ala-Archa         52.06 335   P       P       18 27 37.3 +0.4
FRU   Bishkek           52.18 336  eP      P       18 27 37.0 -0.7
FRU                                e               18 29 44.0
FRU                                eS      S       18 35 04.0 +4.1
FRU                                 pmax    pmax
      comp=Z,420nm,2.3s,mb6.0
FRU                                 MLR     MLR
      comp=N,7µm,20.0s,MS5.9
FRU                                 MLR     MLR
      comp=E,9µm,20.0s,MS5.9
FRU                                 MLR     MLR
      comp=Z,11µm,20.0s,MS5.9
CHMS  Chumysh           52.26 336   P       P       18 27 38.1 -0.2
      SNR=22
CN2   Changchun         52.27  22 ⇑P       P       18 27 37.3 -1.1
CN2                                epP     pP      18 27 50.0 +1.0
CN2                                esP     sP      18 27 55.0 +1.8
CN2                                 PcP     PcP     18 28 47.3 -2.1
CN2                                 PP      PP      18 29 37.8 +0.5
CN2                                eS      S       18 34 59.0 -2.1
CN2                                 SS      SS      18 38 34.5 -4.8
CN2                                 pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.8
CN2                                 pmax    pmax
      comp=Z,200nm,5.0s
CN2                                 LR      LR
      comp=N,16µm,15.0s,MS6.2
CN2                                 LR      LR
      comp=E,9µm,15.0s,MS6.2
CN2                                 LR      LR
      comp=Z,18µm,15.0s,MS6.2
PAF   Port-aux-Franc    52.35 205   PFAKE           18 27 50.0  +11
PAF                                 LR      LR
      comp=Z,14µm,20.0s,MS6.0
EKS2  Erkin-Say         52.39 335   P       P       18 27 39.8 +0.5
      SNR=74
EKS2  Erkin-Say         52.39 335⇑eP      P       18 27 39.5 +0.2
      comp=Z,142nm,0.4s,mb6.2
EKS2                                LR      LR
      comp=Z,8µm,21.0s,MS5.7
FAQ   Al Faqa, Dubai    52.40 305   P       P       18 27 39.8 +0.1
      SNR=11
NAZ   Nazwa, Dubai      52.45 306   P       P       18 27 40.5 +0.4
      SNR=9.8
USP   Ospenovka         52.59 336   P       P       18 27 40.6 -0.1
      SNR=65
EIDS  Eidsvold          52.65 119  eP      P       18 27 40.9 -0.7
      comp=Z,32nm,0.8s,mb5.3
TOO   Toolangi          52.77 136  eP      P       18 27 42.0 -0.2
TOO                                eS      S       18 35 11.1 +2.9
MK31  Makanchi Array    53.01 344  i P     P       18 27 43.7 -0.1
MK31                                pmax    pmax
      comp=Z,56nm,0.8s,mb5.5
MKAR  Makanchi Array    53.01 344   P       P       18 27 43.5 -0.3
MKAR                                S       S       18 35 13.9 +2.8
MKAR  Makanchi Array    53.01 344   P       P       18 27 43.5 -0.3
      comp=Z,52nm,0.8s,mb5.5,baz=151,slow=6.6,SNR=178
MKAR                                S       S       18 35 13.9 +2.8
      comp=Z,0.5nm,0.7s,baz=57,slow=5.3,SNR=2.1
MKAR                                LR      LR      18 54 46.0
      comp=Z,5µm,18.6s,MS5.5,baz=354,slow=41
MAJO  Matsushiro        53.10  38  eP      P       18 27 42.3 -2.4
MAJO                                pmax    pmax
      comp=Z,50nm,0.9s,mb5.4
MAJO                                MLR     MLR
      comp=Z,6µm,21.0s,MS5.6
MAJO  Matsushiro        53.10  38  eP      P       18 27 42.3 -2.4
      comp=Z,50nm,0.9s,mb5.4
MAJO                                LR      LR
      comp=Z,6µm,21.0s,MS5.6
MAT   Matsushiro        53.10  38   P       P       18 27 43.1 -1.6
MAT                                eS      S       18 35 14.0 +1.3
MJAR  Matsushiro Arr    53.10  38   P       P       18 27 43.6 -1.1
      comp=Z,37nm,0.9s,mb5.3,baz=217,slow=7.1,SNR=47
MJAR                                LR      LR      18 51 43.7
      comp=Z,3µm,20.1s,MS5.3,baz=240,slow=38
YNG   Young             53.45 131  eP      P       18 27 48.4 +1.1
      comp=Z,22nm,0.6s,mb5.3
ZAK   Zakamensk         54.01   2⇑iP      P       18 27 51.3 +0.2
ZAK                                e               18 29 59.0
ZAK                                 pmax    pmax
      comp=Z,26nm,1.0s,mb5.1
KK31  Karatay Array     54.18 333  i P     P       18 27 51.2 -1.3
KK31                                pmax    pmax
      comp=Z,18nm,1.0s,mb5.0
CAN   Canberra          54.31 132  eP      P       18 27 54.8 +1.2
      comp=Z,52nm,1.1s,mb5.4
CAN                                 LR      LR
      comp=Z,17µm,21.0s,MS6.1
OPO   Ambohidratompo    54.52 250   P       P       18 27 56.2 +0.8
      comp=Z,7.0nm,0.8s,mb4.8,baz=76,slow=6.6,SNR=6.9
ABPO  Ambohimpanom      54.55 249   PFAKE           18 28 10.0  +14
ABPO                                LR      LR
      comp=Z,8µm,22.0s,MS5.7
ARMA  Armidale          54.60 125  eP      P       18 27 57.0 +1.2
ARMA                               eS      S       18 35 38.8 +5.6
ARMA  Armidale          54.60 125⇑eP      P       18 27 56.6 +0.8
      comp=Z,49nm,0.9s,mb5.5
MDJ   Mudanjiang        54.60  25   P       P       18 27 55.0 -0.5
MDJ                                 pP      pP      18 28 06.8 +0.6
MDJ                                 sP      sP      18 28 11.5 +1.1
MDJ                                 ScP     ScP     18 32 52.5 -1.7
MDJ                                 PcS     PcS     18 32 57.5 -0.2
MDJ                                 S       S       18 35 32.0 -0.7
MDJ                                 sS      sS      18 35 52.0 +1.7
MDJ                                 ScS     ScS     18 37 40.5 -1.5
MDJ                                 pmax    pmax
      comp=Z,13nm,1.2s,mb4.8
MDJ                                 pmax    pmax
      comp=Z,2µm,7.3s
MDJ                                 LR      LR
      comp=N,11µm,19.1s,MS6.1
MDJ                                 LR      LR
      comp=E,12µm,18.0s,MS6.1
MDJ                                 LR      LR
      comp=Z,12µm,20.5s,MS5.9
MDJ   Mudanjiang        54.60  25   PFAKE           18 28 00.0 +4.5
MDJ                                 LR      LR
      comp=Z,12µm,20.0s,MS6.0
MOY   Mondy             55.26   0  eP      P       18 28 01.5 +1.4
MOY                                 pmax    pmax
      comp=Z,205nm,2.9s,mb5.7
TLY   Talaya            55.32   2   P       P       18 28 01.6 +1.1
      comp=Z,266nm,1.0s,mb6.2,SNR=20
TLY   Talaya            55.32   2  eP      P       18 28 01.2 +0.7
TLY                                e               18 30 10.0
TLY                                eS      S       18 35 42.6 +0.5
TLY                                ePS             18 35 49.3
TLY                                e               18 37 49.6
TLY                                 pmax    pmax
      comp=Z,54nm,1.1s,mb5.5
TLY                                 MLR     MLR
      comp=Z,20µm,15.0s,MS6.3
TLY   Talaya            55.32   2  eP      P       18 28 00.8 +0.2
      comp=Z,58nm,1.1s,mb5.5
TLY                                 LR      LR
      comp=Z,11µm,21.0s,MS5.9
TLY   Talaya            55.32   2   P       P       18 28 01.6 +1.1
      SNR=42
TLY                                 P               18 28 01.6
      SNR=42
HIA   Hailar            55.32  15⇑iP      P       18 27 59.0 -1.6
HIA                                 MLR     MLR
      comp=Z,13µm,20.0s
IRK   Irkutsk           55.91   2  eP      P       18 28 04.7 -0.1
IRK                                eS      S       18 35 53.8 +3.9
IRK                                 pmax    pmax
      comp=Z,187nm,2.2s,mb5.7
TAU   Tasmania Unive    56.60 140   PFAKE           18 28 20.0  +10
TAU                                 LR      LR
      comp=Z,10µm,20.0s,MS5.9
CIT   Chita             56.64   9  eP      P       18 28 10.7 +0.7
CIT                                e       pP      18 28 21.0 +0.3
CIT                                e               18 30 19.8
CIT                                e               18 36 07.2
CIT                                 pmax    pmax
      comp=Z,370nm,2.6s,mb6.0
ABKT  Ailbek            57.43 320   P       P       18 28 15.3 -0.6
      comp=Z,243nm,0.9s,mb6.2,SNR=8.2
VAN   Vannovskaya       57.45 320⇓iP      P       18 28 15.7 -0.3
VAN                                i S     S       18 36 12.3 +1.5
KURK  Kurchatov         57.59 343   P       P       18 28 16.2 -0.6
      comp=Z,629nm,1.1s,mb6.6,SNR=92
KURK  Kurchatov         57.59 343⇑eP      P       18 28 16.2 -0.6
KURK                               eS      S       18 36 15.2 +2.9
KURK                                pmax    pmax
      comp=Z,88nm,0.8s,mb5.8
KURK                                MLR     MLR
      comp=Z,14µm,19.0s,MS6.1
KURK  Kurchatov         57.59 343   P       P       18 28 15.8 -1.0
      comp=Z,44nm,0.8s,mb5.5,baz=167,slow=6.4,SNR=109
KURK                                S       S       18 36 14.8 +2.6
      comp=Z,1.1nm,1.0s,baz=153,slow=10,SNR=3.4
KURK  Kurchatov         57.59 343⇑eP      P       18 28 16.2 -0.6
      comp=Z,88nm,0.8s,mb5.8
KURK                               eS      S       18 36 15.2 +2.9
KURK                                LR      LR
      comp=Z,14µm,19.0s,MS6.1
KURK  Kurchatov         57.59 343   P       P       18 28 16.3 -0.5
      SNR=51
KURK                                P               18 28 16.3
      SNR=51
HNR   Honiara           58.82  99   PFAKE           18 28 30.0 +4.0
HNR                                 LR      LR
      comp=Z,4µm,22.0s,MS5.5
ZAA0  Zalesovo Array    59.11 349⇑eP      P       18 28 26.3 -0.9
ZALV  Zalesovo Beam     59.11 349   P       P       18 28 26.6 -0.7
ZALV                                S       S       18 36 29.1 -2.8
ZALV  Zalesovo Beam     59.11 349   P       P       18 28 26.6 -0.6
      comp=Z,119nm,0.9s,mb5.9,baz=173,slow=5.1,SNR=192
ZALV                                S       S       18 36 29.1 -2.8
      comp=Z,0.5nm,0.6s,baz=150,slow=3.2,SNR=2.2
ZALV                                LR      LR      18 57 22.2
      comp=Z,5µm,19.8s,MS5.6,baz=165,slow=40
ZALV                                PKP2bc          18 58 11.8
      comp=Z,0.3nm,0.5s,baz=270,slow=3.0,SNR=4.8
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ZALV	**Zalesovo Beam**	**59.11**	**349**	P	**P**	**18 28 26.6**	**-0.6**
ZALV				S	**S**	**18 36 29.1**	**-2.8**
ZALV				LR	LR	18 57 22.2	
ZALV			⇑	*e*		18 58 11.8	
KLR	**Kul'dur**	**59.20**	**23**⇓	*i*P	**P**	**18 28 23.2**	**-4.8**
KLR				*e*S	**S**	**18 36 43.5**	**+10**
KLR				*e*		18 38 13.5	
KLR				pmax	pmax		
	comp=E,90nm,2.0s						
KLR				pmax	pmax		
	comp=Z,360nm,2.0s,mb6.1						
KLR				pmax	pmax		
	comp=Z,2µm,7.5s						
KLR				smax			
	comp=N,2µm,10.0s						
KLR				smax			
	comp=E,900nm,10.0s						
ERM	**Erimo**	**59.55**	**36**	PFAKE		18 28 40.0	+9.4
ERM				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
HABR	**Khabarovsk**	**59.96**	**26**	*e*P	**P**	**18 28 31.3**	**-2.0**
HABR				*e**PP	pP	18 28 39.4	-4.6
HABR				*e**SP	sP	18 28 44.0	-4.2
HABR				*e*		18 29 16.9	
HABR						18 30 44.1	
HABR				S	**S**	**18 36 41.2**	**-1.9**
HABR				*e**SS	sS	18 36 55.6	-5.3
HABR				*e*		18 38 17.0	
HABR				*e*SS	SS	18 40 36.1	-4.1
HABR				pmax	pmax		
	comp=E,76nm,2.0s						
HABR				pmax	pmax		
	comp=N,53nm,2.5s						
HABR				pmax	pmax		
	comp=Z,134nm,2.5s,mb5.5						
HABR				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.0						
HABR				MLR	MLR		
	comp=N,8µm,19.0s,MS6.1						
HABR				MLR	MLR		
	comp=E,11µm,16.0s,MS6.1						
NVS	**Novosibirsk**	**60.26**	**348**⇑	*i*P	**P**	**18 28 34.0**	**-1.2**
NVS				*e*		18 30 54.2	
NVS				*i* S	**S**	**18 36 49.1**	**+2.4**
NVS				pmax	pmax		
	comp=N,161nm,2.2s						
NVS				pmax	pmax		
	comp=E,79nm,2.2s						
NVS				pmax	pmax		
	comp=Z,133nm,2.2s,mb5.6						
NVS				pmax	pmax		
	comp=N,107nm,2.1s						
NVS				pmax	pmax		
	comp=Z,66nm,2.1s,mb5.3						
NVS				pmax	pmax		
	comp=E,20nm,1.0s						
NVS				smax			
	comp=N,69nm,2.0s						
NVS				smax			
	comp=E,68nm,2.0s						
ASAJ	**Asahikawa**	**60.58**	**33**	P	**P**	**18 28 36.9**	**-0.7**
ASAJ				pmax	pmax		
	comp=Z,25nm,0.8s						
ASAJ	**Asahikawa**	**60.58**	**33**	P	**P**	**18 28 36.9**	**-0.7**
	comp=Z,25nm,0.8s,mb5.4,baz=231,slow=9.4,SNR=14						
IRAZ	**Razeghan**	**61.66**	**314**	*e*P	**P**	**18 28 44.1**	**-1.0**
VOSK	**Vostochnaya**	**61.74**	**340**	P	**P**	**18 28 44.0**	**-1.3**
VOSK				pmax	pmax		
	comp=Z,62nm,1.2s,mb5.6						
BVA0	**Borovoye Array**	**62.19**	**340**	*i* P	**P**	**18 28 46.6**	**-1.7**
BVA0				pmax	pmax		
	comp=Z,96nm,3.0s						
BVAR	**Borovoye Array**	**62.19**	**340**	P	**P**	**18 28 47.1**	**-1.2**
	comp=Z,23nm,0.8s,mb5.4,baz=146,slow=6.9,SNR=80						
BVAR				S	**S**	**18 37 14.2**	**+2.9**
	comp=Z,0.6nm,0.9s,baz=148,slow=8.5,SNR=2.8						
BRVK	**Borovoye**	**62.26**	**340**	P	**P**	**18 28 47.8**	**-0.9**
	comp=Z,247nm,0.6s,mb6.5,SNR=25						
BRVK	**Borovoye**	**62.26**	**340**⇑	*e*P	**P**	**18 28 47.2**	**-1.5**
BRVK				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.5						
BRVK				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.8						
BRVK	**Borovoye**	**62.26**	**340**⇑	*e*P	**P**	**18 28 47.2**	**-1.5**
	comp=Z,27nm,0.7s,mb5.5						
BRVK				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
BRVK	**Borovoye**	**62.26**	**340**	P	**P**	**18 28 47.8**	**-0.9**
	SNR=22						
BRVK				P		18 28 47.8	
	SNR=22						
BOD	**Bodaibo**	**62.32**	**8**	*e*P	**P**	**18 28 48.6**	**-0.5**
BOD				*e*	pP	18 28 57.8	-2.1
BOD				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.8						
BOD				pmax	pmax		
	comp=Z,69nm,0.9s,mb5.8						
YUK	**Yuzh-Kuril'sk**	**62.36**	**35**	P	**P**	**18 28 51.0**	**+1.4**
YUK				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.7						
YUK				MLR	MLR		
	comp=N,3µm,16.0s,MS5.7						
YUK				MLR	MLR		
	comp=E,4µm,20.0s,MS5.7						
YSS	**Yuzh-Sakhalins**	**62.52**	**31**α	*e*P	**P**	**18 28 49.7**	**-0.9**
YSS				*e**SP	sP	18 29 04.0	-1.6
YSS				*e*S	**S**	**18 37 19.0**	**+3.3**
YSS				*e*PS		18 37 36.0	
YSS				pmax	pmax		
	comp=N,50nm,1.2s						
YSS				pmax	pmax		
	comp=Z,150nm,1.2s,mb6.0						
YSS				pmax	pmax		
	comp=E,30nm,1.0s						
YSS				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.6						
YSS				MLR	MLR		
	comp=N,3µm,14.0s,MS5.8						
YSS				MLR	MLR		
	comp=E,4µm,16.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**62.52**	**31**⇑	*e*P	**P**	**18 28 50.2**	**-0.4**
YSS				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
CASY	**Casey**	**62.72**	**176**	PFAKE		18 29 00.0	+8.4
CASY				LR	LR		
	comp=Z,13µm,19.0s,MS6.1						
NRGR	**Nerungri**	**63.30**	**14**	*i* P	**P**	**18 28 55.9**	**+0.3**
NRGR				S	**S**	**18 37 30.1**	**+5.0**
NRGR				smax			
	comp=N,37nm,0.7s						
CLNS	**Chul'man**	**63.51**	**14**	*e*P	**P**	**18 28 56.8**	**-0.2**
CLNS				*e*		18 29 29.2	
CLNS				*e*		18 31 19.0	
CLNS				*e*PPP		18 32 50.7	
CLNS				*e*S	**S**	**18 37 35.3**	**+7.6**
CLNS				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.5						
CLNS				pmax	pmax		
	comp=N,33nm,1.2s						
CLNS				pmax	pmax		
	comp=E,28nm,1.2s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,6.0nm,1.3s						
CLNS				smax			
	comp=N,760nm,14.4s						
CLNS				smax			
	comp=E,492nm,14.4s						
CLNS				MLR	MLR		
	comp=Z,18µm,17.0s,MS6.3						
CLNS				MLR	MLR		
	comp=N,16µm,17.0s,MS6.3						
CLNS				MLR	MLR		
	comp=E,6µm,16.0s,MS6.3						
AB31	**Akbulak array**	**63.67**	**331**	P	**P**	**18 28 57.0**	**-1.2**
AB31				pmax	pmax		
	comp=Z,99nm,1.2s,mb5.7						
KMBO	**Kilima Mbogo**	**63.68**	**271**	P	**P**	**18 29 01.0**	**+2.0**
	comp=Z,3.9nm,0.9s,mb4.4,baz=66,slow=22,SNR=7.8						
KMBO				LR	LR	18 55 25.9	
	comp=Z,3µm,18.3s,MS5.5,baz=92,slow=35						
DZM	**Mont Dzumac**	**65.89**	**112**	*e*S	S	18 37 52.5	-5.9
	comp=Z,6µm,26.4s						
DZM				*e*SS	SS	18 42 13.9	0.0
	comp=Z,3µm,23.7s						
DZM				*e*LR	LR	18 49 00.7	
	comp=Z,8µm,31.2s						
MAK	**Makhachkala**	**66.95**	**320**	*e*P	**P**	**18 29 19.2**	**-0.4**
MAK				*e*		18 29 49.5	
MAK				*e*		18 31 47.0	
MAK				*e*PPP		18 33 26.0	
MAK				*e*S	S	18 38 09.7	-0.7
MAK				*e*		18 39 09.1	
MAK				pmax	pmax		
	comp=Z,172nm,1.8s,mb5.8						
HAKT	**HAKKARI**	**67.10**	**313**	*i* P	sP	18 29 39.9	+4.2
GNI	**Garni**	**67.47**	**316**⇑	*e*P	**P**	**18 29 23.3**	**+0.3**
GNI				pmax	pmax		
	comp=Z,60nm,1.7s						
GNI				MLR	MLR		
	comp=Z,4µm,23.0s						
GNI	**Garni**	**67.47**	**316**	P	**P**	**18 29 23.5**	**+0.5**
	comp=Z,6.4nm,0.8s,mb4.7,baz=345,slow=14,SNR=15						
GNI				LR	LR	19 00 43.3	
	comp=Z,2µm,20.8s,MS5.3,baz=335,slow=38						
GNI	**Garni**	**67.47**	**316**	*e*P	**P**	**18 29 22.9**	**-0.1**
	comp=Z,41nm,0.9s,mb5.5						
GNI				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
GNI	**Garni**	**67.47**	**316**	P	**P**	**18 29 23.7**	**+0.7**
	SNR=16						
GNI				P		18 29 23.7	
	SNR=16						
DYDN	**Diyadin**	**67.94**	**315**	*i* P	**P**	**18 29 25.6**	**-0.3**
MTA	**Mtatsminda**	**68.13**	**318**	P	**P**	**18 29 25.3**	**-1.8**
MTA				S	S	18 38 29.0	+4.4
TBLG	**Delisi**	**68.18**	**318**	*i* P	**P**	**18 29 27.7**	**+0.3**
TBLG				*e*S	S	18 38 29.3	+4.0
TBLG	**Delisi**	**68.18**	**318**	P	**P**	**18 29 27.7**	**+0.3**
TBLG				S	S	18 38 29.3	+4.1
DRV	**Dumont d'Urvil**	**68.34**	**164**	P	**P**	**18 29 37.0**	**+9.1**
DRV				S	S	18 38 36.0	+10
DRV				SS	SS	18 42 48.0	-2.0
DRV				R		18 51 00.0	
TATV	**Tatvan**	**68.53**	**314**	*i* P	**P**	**18 29 32.3**	**+2.7**
SVE	**Sverdlovsk**	**68.70**	**338**⇓	*e*P	**P**	**18 29 29.9**	**-0.4**
SVE				*e*		18 32 04.2	
SVE				*e*PPP		18 33 41.7	
SVE				*e*S	S	18 38 31.7	+0.9
SVE				pmax	pmax		
	comp=Z,143nm,1.2s,mb5.8						
SVE				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.1						
GOR	**Gori**	**68.71**	**318**	P	**P**	**18 29 30.8**	**+0.1**
MAW	**Mawson**	**68.78**	**195**	LR	LR	18 53 05.0	
	comp=Z,9µm,21.1s,MS6.0,baz=41,slow=30						
MAW	**Mawson**	**68.78**	**195**	PFAKE		18 29 40.0	+9.3
MAW				LR	LR		
	comp=Z,19µm,22.0s,MS6.3						
BEST	**Besiri**	**69.00**	**313**	*i* P	**P**	**18 29 32.3**	**-0.4**
MARD	**Mardin**	**69.15**	**312**	*i* P	**P**	**18 29 27.5**	**-6.0**
ARU	**Arti**	**69.23**	**336**	P	**P**	**18 29 33.8**	**+0.2**
	comp=Z,252nm,1.5s,mb5.9,SNR=18						
ARU	**Arti**	**69.23**	**336***c*	*i*P	**P**	**18 29 33.0**	**-0.6**
ARU				*e*		18 29 54.4	
ARU				*e*		18 32 02.0	
ARU				*e*PPP		18 33 51.0	
ARU				S	S	18 38 37.5	+0.4
ARU						18 39 32.4	
ARU				SS	SS	18 43 03.0	-1.3
ARU				pmax	pmax		
	comp=Z,115nm,1.7s,mb5.5						
ARU				MLR	MLR		
	comp=Z,6µm,18.0s,MS5.9						
ARU	**Arti**	**69.23**	**336**	*e*P	**P**	**18 29 32.8**	**-0.8**
	comp=Z,93nm,1.3s,mb5.6						
ARU				LR	LR		
	comp=Z,6µm,19.0s,MS5.9						
YAK	**Yakutsk**	**69.25**	**14***c*	*i*P	**P**	**18 29 32.0**	**-1.6**
YAK				*e**PP	pP	18 29 38.4	-6.2
YAK				*e*		18 29 58.4	
YAK				*e*		18 32 06.6	
YAK				*e*S	S	18 38 27.4	-10
YAK				*e*		18 39 05.4	
YAK				*e*SS	SS	18 43 05.1	+0.7
YAK				pmax	pmax		
	comp=Z,143nm,0.9s,mb5.9						
YAK				pmax	pmax		
	comp=N,48nm,1.0s						
YAK				pmax	pmax		
	comp=E,32nm,1.0s						
YAK				pmax	pmax		
	comp=Z,278nm,3.8s						
YAK				smax			
	comp=N,810nm,14.4s						
YAK				smax			
	comp=E,144nm,9.2s						
YAK				MLR	MLR		
	comp=Z,13µm,14.0s,MS6.3						
YAK				MLR	MLR		
	comp=N,8µm,14.0s,MS6.2						
YAK				MLR	MLR		
	comp=E,8µm,16.0s,MS6.2						
YAK	**Yakutsk**	**69.25**	**14**⇑	*e*P	**P**	**18 29 31.1**	**-2.5**
	comp=E,154nm,0.8s,mb6.0						
YAK				LR	LR		
	comp=Z,10µm,19.0s,MS6.1						
HOMI	**Horasan**	**69.40**	**315**	*i* P	**P**	**18 29 34.6**	**-0.5**
ONI	**Oni**	**69.42**	**318**	P	**P**	**18 29 35.4**	**+0.3**
ONI				S	S	18 38 40.5	+0.6
ERZM	**Erzurum**	**69.72**	**315**	*i* P	**P**	**18 29 36.3**	**-0.7**
DIYA	**Diyarbakir**	**69.86**	**313**	*i* P	**P**	**18 29 36.9**	**-1.1**
KOPT	**Kop Dagi**	**70.38**	**315**	*i* P	**P**	**18 29 42.4**	**+1.3**
ASF	**Jabal al Asfar**	**70.40**	**306**	P	**P**	**18 29 41.2**	**-0.2**
	comp=Z,24nm,1.1s,mb5.0,baz=340,slow=1.5,SNR=15						
KIV	**Kislovodsk**	**70.52**	**319**	*e*P	**P**	**18 29 41.4**	**-0.4**
KIV				*e*S	S	18 38 53.5	+0.8
KIV				*e*SS	SS	18 43 24.0	-0.7
KIV				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
KIV				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
KIV	**Kislovodsk**	**70.52**	**319**	*e*P	**P**	**18 29 40.8**	**-1.1**
	comp=Z,32nm,0.8s,mb5.3						
KIV				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
KIV	**Kislovodsk**	**70.52**	**319**	P	**P**	**18 29 42.2**	**+0.3**
	SNR=14						
KIV				P		18 29 42.2	
	SNR=14						
MALT	**Malatya**	**71.24**	**313**⇑	*e*P	**P**	**18 29 45.9**	**-0.5**
MALT				pmax	pmax		
	comp=Z,53nm,1.4s,mb5.3						
MALT				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.8						
MALT	**Malatya**	**71.24**	**313**⇑	*i*P	**P**	**18 29 46.5**	**+0.1**
MALT	**Malatya**	**71.24**	**313**⇑	*e*P	**P**	**18 29 45.9**	**-0.4**
	comp=Z,53nm,1.4s,mb5.3						
MALT				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
EIL	**Elat**	**71.29**	**303**	P	**P**	**18 29 46.8**	**0.0**
	comp=Z,27nm,0.8s,mb5.2,baz=33,slow=2.6,SNR=16						
EIL				S	S	18 39 03.5	+1.3
	comp=Z,1.3nm,0.7s,baz=40,slow=13,SNR=2.5						
GZT	**Gaziantep**	**71.55**	**311**	*i* P	**P**	**18 29 47.1**	**-1.1**
SKR	**Severo-Kuril's**	**71.84**	**33**	*e*P	**P**	**18 29 48.0**	**-1.7**
SKR				*e*	pP	18 29 57.0	-3.7
SKR				*e*		18 32 36.0	
SKR				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
SKR				pmax	pmax		
	comp=Z,3µm,12.0s						
SKR				MLR	MLR		
	comp=N,5µm,16.0s,MS5.9						
SKR				MLR	MLR		
	comp=Z,6µm,16.0s,MS5.9						
SKR				MLR	MLR		
	comp=E,3µm,20.0s,MS5.9						
MMAI	**Mount Meron Ar**	**71.86**	**306**	P	**P**	**18 29 50.9**	**+0.7**
	comp=E,9.7nm,0.7s,mb4.8,baz=100,slow=7.8,SNR=14						
BHL	**Bhannes**	**71.92**	**307**	*e*P	**P**	**18 29 53.6**	**+3.0**
SOKR	**Solikamsk**	**72.08**	**338***c*	*i*P	**P**	**18 29 51.5**	**+0.6**
SOKR				S	S	18 39 08.8	-1.4
SOKR				SSS		18 47 02.2	
SOKR				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,9µm,23.0s,MS6.0						
TARA	**Tarawa**	**72.12**	**87**	PFAKE		18 30 00.0	+7.9
TARA				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
SOC	**Sochi**	**72.32**	**318***c*	*i*P	**P**	**18 29 52.4**	**-0.3**
SOC				*e**PP	pP	18 30 01.4	-2.3
SOC				*e*		18 30 07.8	
SOC				*e*PPP		18 34 14.5	
SOC				*e*S	S	18 39 13.7	+0.1
SOC				*e*		18 39 53.4	
SOC				*e*SS	SS	18 43 54.6	+2.3
SOC				*e*SSS		18 47 08.3	
SOC				pmax	pmax		
	comp=Z,2µm,20.1s						
SOC				pmax	pmax		
	comp=Z,355nm,5.0s						
SOC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
SOC	**Sochi**	**72.32**	**318**	*i* P	**P**	**18 29 52.5**	**-0.2**
LSZ	**Lusaka**	**72.38**	**255**	*e*P	**P**	**18 29 53.9**	**+0.3**
LSZ				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.2						
LSZ				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.0						
LSZ	**Lusaka**	**72.38**	**255**	*e*P	**P**	**18 29 53.9**	**+0.3**
	comp=Z,49nm,1.4s,mb5.2						
LSZ				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
RPZ	**Rata Peaks**	**73.05**	**135**	*e*P	**P**	**18 29 57.4**	**+0.3**
	comp=Z,86nm,1.7s,mb5.4						
PETK	**Petropavlovsk-**	**73.91**	**32**	P	**P**	**18 30 01.2**	**-0.7**
	comp=Z,23nm,1.0s,mb5.1,baz=230,slow=0.7,SNR=24						
PETK				LR	LR	19 05 16.1	
	comp=Z,2µm,20.4s,MS5.4,baz=137,slow=38						
PETK	**Petropavlovsk-**	**73.91**	**32**	P	**P**	**18 30 01.2**	**-0.7**
PETK				LR	LR	19 05 16.1	
CSS	**Prodhromos**	**74.07**	**308**	PFAKE		18 30 10.0	+6.8
CSS				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
ANN	**Anapa**	**74.30**	**319**	*e*P	**P**	**18 30 01.8**	**-2.6**
ANN				*e*S	S	18 39 31.1	-4.9
ANN				pmax	pmax		
	comp=Z,760nm,7.3s						
ANN				MLR	MLR		
	comp=N,2µm,21.0s						
ANN				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
VRHR	**Novokhopersk**	**74.34**	**326**	*e*P	**P**	**18 30 02.6**	**-1.9**
VRHR				*e*S	S	18 39 34.4	-1.8
VRHR				pmax	pmax		
	comp=N,10.0nm,0.4s						
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
VRHR				smax			
	comp=N,550nm,2.2s						
VRHR				smax			
	comp=Z,60nm,2.8s						
PET	**Petropavlovsk**	**74.37**	**32**	*e*P	**P**	**18 30 04.1**	**-0.5**
PET				*e*		18 30 19.5	
PET				*e*		18 32 48.4	
PET				*e*S	S	18 39 34.0	-2.4
PET				*e*PS		18 40 08.4	
PET				*e*PPS		18 40 21.0	
PET				pmax	pmax		
	comp=Z,73nm,1.4s,mb5.4						
PET				pmax	pmax		
	comp=Z,1µm,18.8s						
PET				pmax	pmax		
	comp=Z,700nm,13.5s						
PET				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.8						
PET				MLR	MLR		
	comp=Z,4µm,20.0s						
PET	**Petropavlovsk**	**74.37**	**32**	*e*P	**P**	**18 30 03.3**	**-1.2**
	comp=Z,152nm,1.4s,mb5.7						
PET				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
CDAG	**Cicekdag**	**74.66**	**313**	*i* P	**P**	**18 30 05.2**	**-1.3**
BR131	**Keskin Array S**	**75.23**	**313**	PFAKE		18 30 20.0	+10
BR131				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
BRTR	**Keskin Array B**	**75.23**	**313**	P	**P**	**18 30 08.4**	**-1.5**
	comp=Z,11nm,0.8s,mb4.8						
SNZO	**South Karori**	**75.31**	**132**	PFAKE		18 30 20.0	+10
SNZO				LR	LR		
	comp=Z,10µm,22.0s,MS6.1						
VORD	**Divnogorie**	**75.61**	**325**	*e*P	**P**	**18 30 10.0**	**-1.8**
VORD				*e*S	S	18 39 46.6	-3.7
VORD				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
VORD				pmax	pmax		
	comp=N,50nm,0.5s						
VORD				pmax	pmax		
	comp=E,40nm,0.6s						
VORD				smax			
	comp=N,1µm,4.4s						
VORD				smax			
	comp=Z,810nm,4.7s						
VORD				smax			
	comp=E,400nm,4.8s						
VORD				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.7						
VORD				MLR	MLR		
	comp=N,3µm,16.0s,MS5.7						
VORD				MLR	MLR		
	comp=E,3µm,21.0s,MS5.7						
ELDT	**Eldivan**	**75.62**	**313**	*i* P	**P**	**18 30 08.7**	**-3.3**
BOSA	**Boshof**	**75.62**	**242**	P	**P**	**18 30 12.1**	**-0.3**
	comp=E,8.7nm,0.9s,mb4.7,baz=68,slow=6.1,SNR=7.2						
BOSA				LR	LR	18 57 35.8	
	comp=E,7µm,20.3s,MS5.9,baz=84,slow=31						
VSR	**Storozhevoye**	**75.79**	**325**	*e*P	**P**	**18 30 11.1**	**-1.7**
VSR				*e*S	S	18 39 49.0	-3.3
VSR				pmax	pmax		
	comp=N,2.0nm,0.6s						
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VSR				pmax	pmax		
	comp=E,10.0nm,0.8s						
VSR				smax			
	comp=N,980nm,3.8s						
VSR				smax			
	comp=Z,560nm,4.4s						
VSR				smax			
	comp=E,230nm,3.0s						
VSR				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.8						
VSR				MLR	MLR		
	comp=N,3µm,20.0s,MS5.6						
VSR				MLR	MLR		
	comp=E,2µm,19.0s,MS5.6						
BALT	**Daday**	**75.97**	**314**	*i* P	**P**	**18 30 13.3**	**-0.7**
VOR	**Voronezh**	**75.99**	**326**	*e*P	**P**	**18 30 15.0**	**+1.1**
VOR				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
SIM	**Simferopol'**	**76.56**	**318**	*e*P	**P**	**18 30 16.5**	**-0.8**
SIM				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.4						
URZ	**Urewera**	**76.79**	**128**	*e*P	**P**	**18 30 18.3**	**-0.6**
	comp=Z,18nm,0.9s,mb5.0						
SEY	**Seymchan**	**76.94**	**22**⇑	*e*P	**P**	**18 30 18.9**	**-0.2**
ISP	**Isparta**	**77.04**	**310**	P	**P**	**18 30 19.4**	**-0.8**
ISP				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.6						
ESKT	**Eskisehir**	**77.23**	**312**	*i* P	**P**	**18 30 19.9**	**-1.3**
TIXI	**Tiksi**	**77.48**	**9**⇑	*e*P	**P**	**18 30 20.3**	**-1.7**
TIXI				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.6						
TIXI				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.1						
TIXI	**Tiksi**	**77.48**	**9**⇑	*i*P	**P**	**18 30 20.1**	**-1.9**
	comp=Z,40nm,0.6s,mb5.5						
TIXI				*e*PP	PP	18 33 15.2	-1.7
TIXI				LR	LR		
	comp=Z,10µm,19.0s,MS6.1						
HENT	**Hendek**	**77.56**	**313**	*i* P	**P**	**18 30 20.7**	**-2.3**
GOLH	**Golhisar**	**77.61**	**309**	*i* P	**P**	**18 30 18.4**	**-5.1**
BORA	**Eskisehir**	**77.62**	**312**	*i* P	**P**	**18 30 23.2**	**-0.2**
PRGR	**Permogore**	**77.69**	**336**⇓	*i*P	**P**	**18 30 23.1**	**-0.2**
PRGR				*e*	pP	18 30 32.7	-1.7
PRGR				*e*S	S	18 40 14.0	+1.4
PRGR				pmax	pmax		
	comp=Z,55nm,0.8s,mb5.5						
FUNA	**Funafuti**	**77.84**	**98**	PFAKE		18 30 30.0	+4.8
FUNA				LR	LR		
	comp=Z,8µm,19.0s,MS6.1						
KHAL	**Karahalli**	**77.95**	**310**	*i* P	**P**	**18 30 22.7**	**-2.6**

GDZ	**Gediz**	**78.14**	**311**	*i* P	**P**	**18 30 35.8**	**+9.5**
TURN	**Turunc**	**78.27**	**309**	*i* P	**P**	**18 30 21.0**	**-6.1**
MOS	**Moscow**	**78.52**	**329**	*e*P	**P**	**18 30 27.3**	**-0.7**
MOS				*e*	pP	18 30 35.7	-3.4
MOS				*e*		18 33 24.0	
MOS				*e*S	S	18 40 20.1	-1.7
MOS				*e*SS	SS	18 45 28.4	+2.6
MOS				pmax	pmax		
	comp=Z,200nm,1.7s,mb5.8						
MOS				pmax	pmax		
	comp=Z,800nm,2.7s,mb6.2						
ULDT	**Uludag**	**78.67**	**312**	*i* P	**P**	**18 30 27.0**	**-2.2**
MANT	**Manisa**	**78.69**	**310**	*i* P	**P**	**18 30 28.1**	**-1.3**
OBN	**Obninsk**	**78.82**	**328**	⇑*e*P	**P**	**18 30 29.1**	**-0.6**
OBN				*e*		18 33 29.6	
OBN				*i* S	S	18 40 24.2	-0.8
OBN				pmax	pmax		
	comp=Z,156nm,1.7s,mb5.7						
OBN	**Obninsk**	**78.82**	**328**	*e*P	**P**	**18 30 28.8**	**-0.9**
	comp=Z,90nm,1.0s,mb5.7						
OBN				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
DURS	**Dursunbey**	**79.03**	**311**	*i* P	**P**	**18 30 25.3**	**-5.9**
ELBA	**Catalca**	**79.44**	**313**	*i* P	**P**	**18 30 28.0**	**-5.5**
GCAM	**G?zelcaml?**	**79.52**	**309**	*i* P	**P**	**18 30 31.5**	**-2.5**
SUR	**Sutherland**	**79.64**	**238**	LR	LR	18 58 53.6	
	comp=Z,2µm,20.2s,MS5.5,baz=106,slow=30						
SUR	**Sutherland**	**79.64**	**238**	PFAKE		18 30 40.0	+5.3
SUR				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
KLMR	**Klimovskoe**	**79.86**	**334**	⇓*i*P	**P**	**18 30 35.3**	**+0.1**
KLMR				*i*	pP	18 30 46.5	+0.2
KLMR				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.7						
URLA	**Izmir**	**80.16**	**310**	*i* P	**P**	**18 30 26.2**	**-11**
VNDA	**Vanda**	**80.22**	**169**	P	**P**	**18 30 37.0**	**+0.1**
	comp=Z,12nm,1.2s,mb4.7,baz=18,slow=5.7,SNR=2.5						
VNDA				LR	LR	19 05 04.7	
	comp=Z,5µm,18.1s,MS5.9,baz=312,slow=35						
SART	**Tekirdag**	**80.25**	**312**	*i* P	**P**	**18 30 35.0**	**-2.9**
TIRR	**Tirgusor**	**80.30**	**316**	*e*P	**P**	**18 30 36.4**	**-1.6**
TIRR				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
TIRR	**Tirgusor**	**80.30**	**316**	⇓*i*P	**P**	**18 30 37.5**	**-0.5**
TIRR	**Tirgusor**	**80.30**	**316**	*e*P	**P**	**18 30 36.4**	**-1.6**
	comp=Z,31nm,1.0s,mb5.2						
RAO	**Raoul Island**	**80.42**	**119**	PFAKE		18 30 50.0	+11
RAO				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
CHOS	**Chios island**	**80.58**	**310**	P	**P**	**18 30 41.3**	**+1.6**
PRK	**Paraskevi**	**80.60**	**311**	P	**P**	**18 30 40.9**	**+1.2**
HARR	**Harsova**	**80.69**	**316**	⇑*i*P	**P**	**18 30 40.0**	**-0.1**
HARR	**Harsova**	**80.69**	**316**	P	**P**	**18 30 40.1**	**0.0**
PRD	**Provadia**	**80.69**	**315**	P	**P**	**18 30 41.2**	**+1.1**
KIS	**Kishinev**	**80.70**	**319**	*e*P	**P**	**18 30 42.0**	**+1.9**
KIS				*e*		18 33 46.0	
KIS				*e*S	S	18 40 43.0	-2.3
KIS				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.6						
KIS				MLR	MLR		
	comp=N,2µm,25.0s						
KIS				MLR	MLR		
	comp=E,1µm,16.0s						
KIS	**Kishinev**	**80.70**	**319**	*e*P	**P**	**18 30 42.0**	**+1.9**
KIS				*e*S	S	18 40 43.0	-2.3
KIS				LRM		19 13 00.0	
	comp=E,3µm,20.0s						
IDI	**Anoyia**	**80.86**	**306**	P	**P**	**18 30 41.2**	**0.0**
	comp=E,18nm,0.8s,mb5.1,baz=94,slow=6.2,SNR=12						
SIVA	**Sivas**	**80.87**	**306**	P	**P**	**18 30 42.1**	**+0.8**
BOZC	**Bozcaada**	**80.90**	**311**	*i* P	**P**	**18 30 39.5**	**-1.8**
SIGR	**SIGRI**	**80.91**	**311**	P	**P**	**18 30 42.8**	**+1.4**
ALN	**Alexandroupoli**	**81.14**	**312**	P	**P**	**18 30 43.4**	**+0.8**
SBA	**Scott Base**	**81.31**	**169**	PFAKE		18 30 50.0	+7.2
SBA				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
AKASG	**Malin Array Be**	**81.48**	**322**	P	**P**	**18 30 42.7**	**-1.4**
AKASG						18 33 48.1	
AKASG	**Malin Array Be**	**81.48**	**322**	P	**P**	**18 30 42.7**	**-1.5**
	comp=Z,4.9nm,0.8s,mb4.5,baz=87,slow=5.1,SNR=16						
AKASG				PP	PP	18 33 48.0	-2.6
	comp=Z,2.2nm,0.8s,baz=94,slow=7.0,SNR=3.8						
AKASG				LR	LR	19 11 22.5	
	comp=Z,4µm,22.0s,MS5.7,baz=135,slow=39						
KIEV	**Kiev**	**81.49**	**322**	*e*P	**P**	**18 30 42.4**	**-1.8**
KIEV				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
KIEV				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.7						
KIEV	**Kiev**	**81.49**	**322**	*e*P	**P**	**18 30 42.4**	**-1.8**
	comp=Z,18nm,0.9s,mb5.0						
KIEV				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
LIA	**Limnos Island**	**81.56**	**311**	P	**P**	**18 30 44.5**	**-0.4**
KARN	**Karanos**	**81.66**	**306**	P	**P**	**18 30 46.9**	**+1.4**
SZH	**Strazhica**	**81.75**	**315**	P	**P**	**18 30 44.9**	**-0.9**
KDZ	**Kurdzhali**	**81.77**	**313**	P	**P**	**18 30 46.9**	**+1.0**
VRI	**Vrincioaia**	**81.81**	**317**	⇑*i*P	**P**	**18 30 46.1**	**+0.1**
VRI	**Vrincioaia**	**81.81**	**317**	P	**P**	**18 30 46.4**	**+0.4**
MLR	**Muntele Rosu**	**82.25**	**317**	P	**P**	**18 30 48.1**	**-0.2**
MLR				pmax	pmax		
	comp=Z,44nm,1.2s						
MLR	**Muntele Rosu**	**82.25**	**317**	⇑*i*P	**P**	**18 30 48.2**	**-0.1**
MLR	**Muntele Rosu**	**82.25**	**317**	P	**P**	**18 30 48.1**	**-0.3**
	comp=Z,44nm,1.2s,mb5.2,baz=223,slow=1.6,SNR=18						
MLR	**Muntele Rosu**	**82.25**	**317**	P	**P**	**18 30 48.7**	**+0.3**
RZN	**Rozhen**	**82.29**	**313**	P	**P**	**18 30 47.9**	**-0.7**
TSUM	**Tsumeb**	**82.50**	**251**	PFAKE		18 31 00.0	+10
TSUM				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
DID	**Didima**	**82.59**	**308**	P	**P**	**18 30 49.1**	**-1.2**
PAIG	**Paliouri**	**82.70**	**311**	P	**P**	**18 30 52.3**	**+1.5**
VOIR		**82.85**	**317**	⇑*i*P	**P**	**18 30 51.2**	**-0.3**
VOIR		**82.85**	**317**	⇑P	**P**	**18 30 51.2**	**-0.3**
LTK	**Loutraki**	**82.89**	**309**	*e*P	**P**	**18 30 49.6**	**-2.3**
LKR	**Lokris**	**82.98**	**310**	*e*P	**P**	**18 30 50.8**	**-1.5**
SRS	**Serrai**	**83.00**	**312**	P	**P**	**18 30 51.7**	**-0.6**
BUR02	**Bucovina Ar. S**	**83.23**	**319**	P	**P**	**18 30 54.2**	**+0.9**
BURAR	**Bucovina Array**	**83.23**	**319**	⇑*i*P	**P**	**18 30 53.8**	**+0.4**
VLX	**Vlachokerasia**	**83.24**	**308**	*e*P	**P**	**18 30 53.1**	**-0.5**
BUR08	**Bucovina Ar. S**	**83.25**	**319**	*e*P	**P**	**18 30 53.6**	**+0.1**
MPEP	**Malo Peshtene**	**83.33**	**314**	P	**P**	**18 30 52.4**	**-1.6**
MICGM	**Minsk**	**83.34**	**326**	⇓*e*P	**P**	**18 30 53.0**	**-0.8**
GUR	**Goura**	**83.36**	**309**	*e*P	**P**	**18 30 53.0**	**-1.3**
MNK	**Minsk**	**83.37**	**326**	⇓*e*P	**P**	**18 30 53.0**	**-0.9**
MNK				*e*S	S	18 41 08.0	-4.3
MNK				*e*SS	SS	18 46 32.0	-6.2
MNK				pmax	pmax		
	comp=Z,150nm,1.5s,mb5.8						
KKB	**Krupnik**	**83.52**	**313**	P	**P**	**18 30 50.0**	**-5.0**
KNT	**Kendrikon**	**83.52**	**312**	P	**P**	**18 30 53.9**	**-1.1**
AGG	**Agios Georgios**	**83.56**	**310**	P	**P**	**18 30 57.0**	**+1.7**
VTS	**Vitosha**	**83.57**	**313**	P	**P**	**18 30 55.8**	**+0.6**
VTS	**Vitosha**	**83.57**	**313**	P	**P**	**18 30 54.3**	**-0.9**
KALE	**Kalithea**	**83.60**	**309**	P	**P**	**18 30 56.3**	**+0.8**
LIT	**Litokhoron**	**83.63**	**311**	P	**P**	**18 30 54.5**	**-1.1**
PYL	**PYLOS**	**83.66**	**308**	P	**P**	**18 30 56.9**	**+1.1**
PYL	**PYLOS**	**83.66**	**308**	*e*P	**P**	**18 30 54.1**	**-1.7**
LAKA	**Lakka**	**83.70**	**309**	P	**P**	**18 30 56.5**	**+0.5**
EFP	**Efpalio**	**83.79**	**309**	*e*P	**P**	**18 30 55.5**	**-1.0**
VAY	**Valandovo**	**83.80**	**312**	*e*P	**P**	**18 30 54.9**	**-1.6**
GRG	**Griva**	**83.85**	**312**	P	**P**	**18 30 57.7**	**+1.0**
NACGM	**Naroch**	**84.06**	**326**	*e*P	**P**	**18 31 02.0**	**+4.5**
RLS	**Riolos of Patr**	**84.07**	**309**	*e*P	**P**	**18 30 58.2**	**+0.3**
JOF	**Joensuu**	**84.24**	**334**	*e*p	**P**	**18 30 56.8**	**-1.4**
	comp=Z,20nm,1.0s,mb5.2						
BMR	**Baia Mare**	**84.38**	**318**	P	**P**	**18 30 59.8**	**+0.6**
GZR	**Gura Zlata**	**84.41**	**316**	⇓*i*P	**P**	**18 31 00.3**	**+0.8**
GZR	**Gura Zlata**	**84.41**	**316**	P	**P**	**18 31 01.4**	**+1.9**
MIDW	**Midway**	**84.47**	**61**	PFAKE		18 31 10.0	+10
MIDW				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
LVV	**L'vov**	**84.48**	**321**	*e*P	**P**	**18 31 03.3**	**+3.6**
LVV				*i*		18 31 06.5	
LVV				*i*	pP	18 31 13.8	+2.9
LVV				*e*		18 34 10.0	
LVV				*e*S	S	18 41 26.0	+2.2
LVV				MLR	MLR		
	comp=N,2µm,24.0s,MS5.6						
LVV				MLR	MLR		
	comp=E,2µm,24.0s,MS5.6						
LVV				MLR	MLR		
	comp=Z,2µm,24.0s,MS5.3						
BILL	**Bilibino**	**84.52**	**20**	⇑*e*P	**P**	**18 30 58.7**	**-0.8**
BILL				*e*		18 34 08.6	
BILL				*i* S	S	18 41 21.3	-2.1
BILL				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.6						
BILL	**Bilibino**	**84.52**	**20**	*e*P	**P**	**18 30 57.7**	**-1.8**
	comp=Z,46nm,1.0s,mb5.6						
BILL				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
FNA	**Florina**	**84.59**	**311**	P	**P**	**18 31 00.7**	**+0.2**
DRGR		**84.73**	**318**	⇓*i*P	**P**	**18 31 00.9**	**-0.1**
DRGR		**84.73**	**318**	P	**P**	**18 31 03.5**	**+2.5**
LVZ	**Lovozero**	**84.79**	**340**	PFAKE		18 31 10.0	+9.1
LVZ				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
LKD	**Levkas**	**84.80**	**309**	P	**P**	**18 31 01.2**	**-0.4**
VSU	**Vasula**	**85.03**	**329**	*e*P	**P**	**18 31 01.9**	**-0.4**
VSU				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.3						
VSU	**Vasula**	**85.03**	**329**	*e*P	**P**	**18 31 01.0**	**-1.3**
APA	**Apatity**	**85.10**	**339**	⇓*i*P	**P**	**18 31 04.7**	**+2.3**
APA				*i*	pP	18 31 14.2	+0.6
APA				*i* S	S	18 41 32.0	+2.8
APA				pmax	pmax		
	comp=Z,81nm,1.4s,mb5.7						
APA				MLR	MLR		
	comp=Z,6µm,21.0s,MS6.0						
BZS	**Buzias**	**85.25**	**316**	⇑*i*P	**P**	**18 31 03.3**	**-0.4**
BZS	**Buzias**	**85.25**	**316**	⇑P	**P**	**18 31 03.2**	**-0.4**
KWP	**Kalwaria Pacla**	**85.29**	**320**	*e*P	**P**	**18 31 06.3**	**+2.5**
KWP				LMZ		19 15 43.3	
	comp=Z,4µm,24.2s						
KWP	**Kalwaria Pacla**	**85.29**	**320**	*e*P	**P**	**18 31 06.3**	**+2.5**
KWP				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
UZH	**Uzhgorod**	**85.36**	**319**	*e*P	**P**	**18 31 03.3**	**-0.8**
UZH				*i*		18 31 06.5	
UZH				*i*	pP	18 31 13.8	-1.5
UZH				*e*S	S	18 41 26.0	-6.5
UZH				*i* SP		18 42 23.0	
UZH				*e*PS		18 42 33.0	
UZH				*e*SS	SS	18 47 04.0	-3.9
UZH				MLR	MLR		
	comp=Z,2µm,24.0s,MS5.3						
KOLS	**Kolonicke sedl**	**85.43**	**320**	*e*P	**P**	**18 31 04.4**	**-0.1**
KOLS				pmax	pmax		
	comp=Z,56nm,1.2s,mb5.6						
KOLS	**Kolonicke sedl**	**85.43**	**320**	*e*P	**P**	**18 31 04.4**	**-0.1**
KOLS				*e*PCP	PcP	18 31 07.3	-0.2
KOLS				*e*		18 31 22.7	
KOLS	**Kolonicke sedl**	**85.43**	**320**	*e*P	**P**	**18 31 04.4**	**-0.1**
	comp=Z,56nm,1.2s,mb5.6						
KOLS				*e*PcP	PcP	18 31 07.3	-0.2
TIR	**Tirane**	**85.81**	**312**	PFAKE		18 31 20.0	+13
TIR				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
SUW	**Suwalki**	**85.89**	**325**	*e*P	**P**	**18 31 06.3**	**-0.4**
SUW				*e*PcP	PcP	18 31 08.8	-0.6
SUW				*e*pP	pP	18 31 14.2	-3.7
SUW				*e*S	S	18 41 42.0	+4.4
SUW				LMZ		19 14 48.9	
	comp=Z,2µm,22.9s						
SUW	**Suwalki**	**85.89**	**325**	*e*P	**P**	**18 31 06.3**	**-0.4**
SUW				e*PP	pP	18 31 14.1	-3.8
SUW				*e*S	S	18 41 41.9	+4.4
SUW				MLR	MLR		
	comp=Z,2µm,22.9s,MS5.5						
SUW	**Suwalki**	**85.89**	**325**	*e*P	**P**	**18 31 06.3**	**-0.4**
SUW				*e*PcP	PcP	18 31 08.7	-0.7
SUW				*e*pP	pP	18 31 14.1	-3.8
SUW				*e*S	S	18 41 41.9	+4.4
CRVS	**Cervenica-Dubn**	**85.95**	**319**	*e*P	**P**	**18 31 07.8**	**+0.7**
CRVS				pmax	pmax		
	comp=Z,70nm,2.1s,mb5.5						
CRVS	**Cervenica-Dubn**	**85.95**	**319**	*e*P	**P**	**18 31 07.8**	**+0.7**
CRVS				*e*PCP	PcP	18 31 10.7	+0.9
CRVS				*e*		18 31 23.6	
CRVS				*e*S	S	18 41 37.9	-0.4
CRVS	**Cervenica-Dubn**	**85.95**	**319**	*e*P	**P**	**18 31 07.8**	**+0.7**
	comp=Z,70nm,2.1s,mb5.5						
CRVS				*e*PcP	PcP	18 31 10.7	+0.9
CRVS				*e*S	S	18 41 37.9	-0.4
FINES	**FINESS Array B**	**86.14**	**332**	P	**P**	**18 31 07.6**	**-0.1**
	comp=Z,9.0nm,0.7s,mb5.1,baz=93,slow=5.2,SNR=17						
FINES				LR	LR	19 16 30.2	
	comp=Z,4µm,18.1s,MS5.9,baz=354,slow=40						
FINES	**FINESS Array B**	**86.14**	**332**	P	**P**	**18 31 07.6**	**-0.1**
FINES				LR	LR	19 16 30.2	
DIVS	**Divibare**	**86.14**	**315**	P	**P**	**18 31 10.5**	**+2.4**
QSPA	**South Pole Qui**	**86.17**	**180**	PKKPbc	PKKPbc	18 49 06.5	-3.3
	comp=Z,2.3nm,1.1s,baz=226,slow=6.2,SNR=3.6						
STHS	**Stebnicka Huta**	**86.18**	**320**	*e*P	**P**	**18 31 08.8**	**+0.6**
STHS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
STHS	**Stebnicka Huta**	**86.18**	**320**	*e*P	**P**	**18 31 08.8**	**+0.6**
STHS				*e*PCP	PcP	18 31 11.4	+0.6
STHS				*e*		18 31 24.0	
STHS				*e*		18 31 30.5	
STHS	**Stebnicka Huta**	**86.18**	**320**	*e*P	**P**	**18 31 08.8**	**+0.6**
	comp=Z,6.5nm,0.9s,mb4.9						
STHS				*e*PcP	PcP	18 31 11.4	+0.6
STHS				*e*SP		18 31 30.5	
KAF	**Kangasniemi**	**86.21**	**333**	*e*P	**P**	**18 31 06.0**	**-2.1**
KAF				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.3						
KAF	**Kangasniemi**	**86.21**	**333**	*e*p	**P**	**18 31 06.0**	**-2.1**
	comp=Z,11nm,0.5s,mb5.3						
AFI	**Afiamalu**	**86.46**	**104**	PFAKE		18 31 20.0	+10
AFI				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
KECS	**Kecovo**	**86.51**	**319**	*e*P	**P**	**18 31 09.3**	**-0.6**
KECS				*e*		18 31 28.1	
NIE	**Niedzica**	**86.78**	**320**	*e*P	**P**	**18 31 11.6**	**+0.4**
PSZ	**Piszkesteto**	**86.81**	**318**	*e*P	**P**	**18 31 10.3**	**-1.0**
PSZ						18 31 13.6	
PSZ				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.4						
PSZ				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
PSZ	**Piszkesteto**	**86.81**	**318**	⇑*i*P	**P**	**18 31 12.0**	**+0.7**
PSZ	**Piszkesteto**	**86.81**	**318**	⇓*e*PcP	PcP	18 31 14.5	+0.9
PSZ	**Piszkesteto**	**86.81**	**318**	*e*P	**P**	**18 31 10.3**	**-1.0**
	comp=Z,34nm,1.3s,mb5.4						
PSZ				P		18 31 13.6	
PSZ				⇓*e*P		18 31 14.5	
PSZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
PKS7	**Kunszentmiklos**	**87.17**	**317**	⇑*e*P	**P**	**18 31 16.2**	**+3.1**
OJC	**Ojcow**	**87.24**	**321**	*e*P	**P**	**18 31 14.4**	**+1.0**
OJC				*e*S	S	18 41 49.9	-0.9
OJC				L		19 20 51.5	
	comp=Z,2.0nm,17.3s						
BUD	**Budapest**	**87.33**	**318**	⇓*e*PcP	PcP	18 31 16.9	+1.0
PKSM	**Moragy**	**87.40**	**316**	⇓*i*P	**P**	**18 31 13.6**	**-0.6**
PKSM	**Moragy**	**87.40**	**316**	⇓P	**P**	**18 31 13.6**	**-0.7**
PKSM				P		18 31 17.3	
VYHS	**Vyhne**	**87.60**	**319**	*e*P	**P**	**18 31 14.8**	**-0.3**
VYHS				pmax	pmax		
	comp=Z,23nm,1.6s,mb5.2						
VYHS	**Vyhne**	**87.60**	**319**	*e*P	**P**	**18 31 14.8**	**-0.3**
	comp=Z,23nm,1.6s,mb5.2						
VYHS				*e*PcP	PcP	18 31 17.4	+0.3
VYHS				*e*S	S	18 41 52.8	-1.5
RHK3	**Tenkes**	**87.62**	**316**	⇑*e*P	**P**	**18 31 14.2**	**-1.1**
PKSG		**87.74**	**318**	⇑*e*P	**P**	**18 31 18.1**	**+2.3**
TIP	**Timpagrande**	**87.88**	**309**	*e*P	**P**	**18 31 16.4**	**-0.3**
	comp=Z,31nm,1.3s,mb5.4						
TIP				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
LTRZ	**Laterza**	**87.99**	**311**	P	**P**	**18 31 18.6**	**+1.4**
KEV	**Kevo**	**88.04**	**340**	*e*P	**P**	**18 31 15.7**	**-1.1**
KEV				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.2						
KEV				MLR	MLR		
	comp=Z,6µm,21.0s,MS6.0						
KEV	**Kevo**	**88.04**	**340**	*e*P	**P**	**18 31 15.7**	**-1.1**
	comp=Z,13nm,0.8s,mb5.2						
KEV				LR	LR		
	comp=Z,6µm,21.0s,MS6.0						
ORI	**Oriolo Calabro**	**88.21**	**310**	P	**P**	**18 31 21.4**	**+3.1**
OKC	**Ostrava-Krasne**	**88.24**	**320**	*e*P	**P**	**18 31 19.0**	**+0.9**
OKC				*e*S	S	18 42 01.9	+1.6
OKC				MLR	MLR		
	comp=Z,2µm,17.4s,MS5.5						
OKC	**Ostrava-Krasne**	**88.24**	**320**	*e*P	**P**	**18 31 19.0**	**+0.9**
OKC				*e*S	S	18 42 01.9	+1.6
OKC				*e*x	x	18 48 00.8	
OKC				*e*x	x	18 55 15.7	
OKC				AMS	AMS	19 21 30.0	
	comp=Z,2µm,17.4s						
OKC	**Ostrava-Krasne**	**88.24**	**320**	*e*P	**P**	**18 31 19.0**	**+0.9**
OKC				*e*S	S	18 42 01.9	+1.6
OKC				*e*SS	SS	18 48 00.8	+11
OKC				*e*SKKS	SKKSdf	18 55 15.7	-51
SOI	**Samo**	**88.30**	**308**	P	**P**	**18 31 20.7**	**+2.0**
SOI				pmax	pmax		
	comp=Z,49nm,1.5s,mb5.5						
SOI	**Samo**	**88.30**	**308**	P	**P**	**18 31 20.7**	**+2.0**
	comp=Z,49nm,1.5s,mb5.5						
CEL	**Celeste**	**88.45**	**308**	*e*P	**P**	**18 31 18.5**	**-0.9**
	comp=Z,49nm,1.1s,mb5.7						
CEL				P		18 31 22.2	
CEL				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
ARCES	**ARCESS Array B**	**88.48**	**340**	P	**P**	**18 31 19.1**	**+0.2**
	comp=Z,32nm,0.9s,mb5.5,baz=104,slow=5.1,SNR=33						
ARCES				LR	LR	19 15 15.0	
	comp=Z,9µm,21.4s,MS6.2,baz=102,slow=38						
PTRP	**Pietrapertosa**	**88.56**	**311**	P	**P**	**18 31 21.5**	**+1.6**
MTTG	**Motta San Giov**	**88.58**	**308**	P	**P**	**18 31 23.5**	**+3.5**
	comp=Z,47nm,1.1s,mb5.7						
MODS	**Modra-Piesok**	**88.61**	**318**	*e*P	**P**	**18 31 20.1**	**+0.2**
MODS				pmax	pmax		
	comp=Z,26nm,1.5s,mb5.3						
MODS	**Modra-Piesok**	**88.61**	**318**	*e*P	**P**	**18 31 20.1**	**+0.2**
MODS				*e*PCP	PcP	18 31 22.5	+1.0
MODS				*e*		18 31 37.0	
MODS				*e*		18 31 43.0	
MODS				*e*S	S	18 42 05.3	+1.4
MODS	**Modra-Piesok**	**88.61**	**318**	*e*P	**P**	**18 31 20.1**	**+0.2**
	comp=Z,26nm,1.5s,mb5.3						
MODS				*e*PcP	PcP	18 31 22.5	+1.0
MODS				*e*SP		18 31 43.0	
MODS				*e*S	S	18 42 05.3	+1.4
MORC	**Moravsky Berou**	**88.62**	**320**	*e*P	**P**	**18 31 18.4**	**-1.5**
MORC				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.5						
MORC	**Moravsky Berou**	**88.62**	**320**	⇑*i*P	**P**	**18 31 20.1**	**+0.2**
MORC	**Moravsky Berou**	**88.62**	**320**	*e*P	**P**	**18 31 18.4**	**-1.5**
	comp=Z,33nm,1.4s,mb5.5						
ACER	**Acerenza**	**88.68**	**311**	P	**P**	**18 31 22.7**	**+2.3**
CUC	**Castrocucco**	**88.69**	**310**	*e*P	**P**	**18 31 19.4**	**-1.2**
	comp=Z,21nm,1.0s,mb5.4						
CUC				*e*PP	PP	18 34 55.5	+5.9
CUC				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
ZST	**Bratislava**	**88.70**	**318**	*e*P	**P**	**18 31 20.6**	**+0.2**
ZST				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.2						
ZST	**Bratislava**	**88.70**	**318**	*e*P	**P**	**18 31 20.6**	**+0.2**
	comp=Z,8.9nm,0.8s,mb5.2						
SOP	**Sopron**	**89.01**	**318**	⇑*e*PcP	PcP	18 31 22.1	-1.2
RGNG	**Rignano Grg**	**89.04**	**312**	P	**P**	**18 31 23.6**	**+1.5**
VRAC	**Vranov**	**89.17**	**319**	P	**P**	**18 31 21.9**	**-0.7**
	comp=Z,2.2nm,0.6s,mb4.7,baz=124,slow=4.1,SNR=3.3						
WDD	**Wield Dalam**	**89.31**	**306**	PFAKE		18 31 30.0	+6.5
WDD				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
DPC	**Dobruska-Polom**	**89.47**	**320**	*e*P	**P**	**18 31 24.9**	**+1.0**
DPC				*e*S	S	18 42 14.0	+2.1
DPC				MLR	MLR		
	comp=Z,2µm,26.3s,MS5.5						
DPC	**Dobruska-Polom**	**89.47**	**320**	*e*P	**P**	**18 31 24.9**	**+1.0**
DPC				*e*S	S	18 42 14.0	+2.1
DPC				*e*PKKP	PKKPbc	18 48 59.8	-1.1
DPC				*e*x	x	18 55 13.5	
DPC				AMS	AMS	19 20 50.0	
	comp=Z,2µm,26.3s						
VAE	**Valguarnera**	**89.54**	**307**	P	**P**	**18 31 25.0**	**+0.5**
	comp=Z,5.8nm,0.6s,mb5.1,baz=339,slow=1.7,SNR=3.4						
KSP	**Ksiaz**	**89.54**	**321**	*e*P	**P**	**18 31 25.4**	**+1.1**
KSP				LMZ		19 15 08.4	
	comp=Z,4µm,24.3s						
KSP	**Ksiaz**	**89.54**	**321**	*e*P	**P**	**18 31 26.9**	**+2.6**
KSP				*e*S	S	18 42 11.0	-1.5
KSP				LR	LR		
	comp=Z,4µm,24.3s,MS5.8						
ARSA	**Arzberg**	**89.66**	**317**	⇑*i*P	**P**	**18 31 24.9**	**0.0**
	comp=Z,32nm,1.8s,mb5.4						
BOJS	**Bojanci**	**89.67**	**315**	*e*P	**P**	**18 31 25.0**	**+0.1**
UPC	**Upice**	**89.68**	**321**	*e*P	**P**	**18 31 27.0**	**+2.1**
PERS	**Pernice**	**89.87**	**317**	*e*P	**P**	**18 31 26.3**	**+0.4**
TREC	**Trest**	**89.89**	**319**	*e*P	**P**	**18 31 28.1**	**+2.2**
TREC				*e*S	S	18 42 13.9	-2.0
TREC				*e*SS	SS	18 48 15.0	+1.0
TREC				MLR	MLR		
	comp=Z,3µm,20.8s,MS5.8						
TREC	**Trest**	**89.89**	**319**	*e*P	**P**	**18 31 28.1**	**+2.2**
TREC				*e*S	S	18 42 13.9	-2.0
TREC				*e*SS	SS	18 48 15.0	+1.0
TREC				*e*x	x	18 55 12.3	
TREC				AMS	AMS	19 18 30.0	
	comp=Z,3µm,20.8s						
SOKA	**Soboth**	**89.93**	**317**	⇑*i*P	**P**	**18 31 26.2**	**+0.1**
	comp=Z,31nm,1.1s,mb5.5						
VISS	**Visnje**	**89.98**	**316**	*i* P	**P**	**18 31 26.9**	**+0.5**
RFI	**Roccamonfina**	**90.20**	**311**	P	**P**	**18 31 30.6**	**+3.0**
	comp=Z,14nm,1.5s,mb5.1						
LJU	**Ljubljana**	**90.22**	**316**	*e*P	**P**	**18 31 27.0**	**-0.6**
OBKA	**Obir**	**90.25**	**316**	⇑*i*PcP	PcP	18 31 28.5	-0.4
	comp=Z,22nm,1.4s						
JAVS	**Javornik**	**90.53**	**316**	*i* P	**P**	**18 31 29.4**	**+0.5**
JAVS				*i*	pP	18 31 38.4	-1.9
PRU	**Pruhonice**	**90.57**	**320**	*e*P	**P**	**18 31 31.2**	**+2.1**
PRU				*e*S	S	18 42 25.7	+3.6
PRU				*e*SS	SS	18 48 36.8	+13
PRU				MLR	MLR		
	comp=Z,2µm,22.6s,MS5.6						
PRU	**Pruhonice**	**90.57**	**320**	*e*P	**P**	**18 31 31.2**	**+2.1**
PRU				*e*S	S	18 42 25.7	+3.6
PRU				*e*x	x	18 48 36.8	
PRU				*e*x	x	18 55 13.9	
PRU				AMS	AMS	19 16 00.0	
	comp=Z,2µm,22.6s						
PVCC	**Panska Ves**	**90.60**	**320**	*e*P	**P**	**18 31 31.9**	**+2.7**
PVCC				AMS	AMS	19 21 00.0	
	comp=Z,3µm,17.8s						
VOY	**Vojsko**	**90.66**	**316**	*e*P	**P**	**18 31 31.3**	**+1.7**
GEC2	**GERESS Array S**	**91.02**	**319**	*e*P	**P**	**18 31 32.7**	**+1.5**
GEC2				*e*S	S	18 42 24.6	-1.7
GEC2				pmax	pmax		
	comp=Z,153nm,2.2s,mb5.9						
GEC2	**GERESS Array S**	**91.02**	**319**	*e*P	**P**	**18 31 32.7**	**+1.5**
	comp=Z,153nm,2.2s,mb5.9						
GEC2				*e*S	S	18 42 24.6	-1.7
GEC2	**GERESS Array S**	**91.02**	**319**	*e*P	**P**	**18 31 32.7**	**+1.5**
	comp=Z,153nm,2.2s,mb5.9						
GEC2				*e*S	S	18 42 24.6	-1.7
GERES	**GERESS Array B**	**91.02**	**319**	P	**P**	**18 31 30.8**	**-0.4**
	comp=Z,4.5nm,0.7s,mb4.9,baz=98,slow=4.6,SNR=12						
BRG	**Berggiesshubel**	**91.03**	**321**	*e*P	**P**	**18 31 33.7**	**+2.5**
BRG				S	S	18 42 19.0	-7.2
BRG				pmax	pmax		
	comp=Z,22nm,1.5s,mb5.3						
BRG				pmax	pmax		
	comp=Z,30nm,1.7s,mb5.3						
BRG				MLR	MLR		
	comp=N,2µm,17.9s,MS5.7						
BRG				MLR	MLR		
	comp=E,1µm,19.1s,MS5.7						
BRG				MLR	MLR		
	comp=Z,2µm,17.9s,MS5.6						
BRG	**Berggiesshubel**	**91.03**	**321**	*e*P	**P**	**18 31 33.0**	**+1.8**
	comp=Z,25nm,1.4s,mb5.3						
BRG				*e*S	S	18 42 25.6	-0.6
BRG	**Berggiesshubel**	**91.03**	**321**	*e*P	**P**	**18 31 33.7**	**+2.5**
	comp=Z,37nm,1.5s,mb5.5						
BRG				*e*		18 32 11.2	
	comp=Z,50nm,1.7s						
BRG				S	S	18 42 19.0	-7.2
BRG							
	comp=N,3µm,17.9s						
BRG							
	comp=E,2µm,19.1s						
BRG							
	comp=Z,3µm,17.9s						
BRG	**Berggiesshubel**	**91.03**	**321**	*e*P	**P**	**18 31 33.7**	**+2.5**
	comp=Z,22nm,1.5s,mb5.3						

BRG				*e*		18 32 11.2	
BRG				S	S	18 42 19.0	-7.2
BRG				LR	LR		
	comp=Z,2µm,17.9s,MS5.6						
PTCC	**Patocco-Chiusa**	**91.06**	**316**	P	**P**	**18 31 31.6**	**+0.1**
KHC	**Kasperske Hory**	**91.12**	**319**	*e*P	**P**	**18 31 31.8**	**+0.1**
KHC				*e*	pP	18 31 41.0	-1.9
KHC				*e*S	S	18 42 28.3	+1.1
KHC				*e*SS	SS	18 48 32.7	+0.9
KHC				MLR	MLR		
	comp=Z,4µm,23.8s,MS5.8						
KHC	**Kasperske Hory**	**91.12**	**319**	*e*P	**P**	**18 31 31.8**	**+0.1**
KHC				*e*x	x	18 31 41.0	
KHC				*e*S	S	18 42 28.3	+1.1
KHC				*e*SS	SS	18 48 32.7	+0.9
KHC				*e*x	x	18 55 11.9	
KHC				AMS	AMS	19 19 00.0	
	comp=Z,4µm,23.8s						
RSM	**Repubblica di**	**91.53**	**314**	P	**P**	**18 31 37.1**	**+3.4**
RJOB	**Jochberg**	**91.54**	**318**	*e*P	**P**	**18 31 34.6**	**+1.0**
	comp=Z,77nm,2.2s,mb5.6						
WET	**Wettzell**	**91.58**	**319**	*e*P	**P**	**18 31 35.3**	**+1.5**
WET				*e*S	S	18 42 28.8	-2.6
WET				pmax	pmax		
	comp=Z,52nm,1.7s,mb5.6						
WET	**Wettzell**	**91.58**	**319**	*e*P	**P**	**18 31 35.3**	**+1.5**
	comp=Z,52nm,1.7s,mb5.6						
WET				*e*S	S	18 42 28.8	-2.6
WET	**Wettzell**	**91.58**	**319**	*e*P	**P**	**18 31 35.3**	**+1.5**
	comp=Z,52nm,1.7s,mb5.6						
WET				*e*S	S	18 42 28.8	-2.6
CLL	**Collm**	**91.65**	**321**	*e*P	**P**	**18 31 36.0**	**+1.9**
CLL				*e*S	S	18 42 33.0	+1.1
CLL				pmax	pmax		
	comp=Z,15nm,1.4s,mb5.1						
CLL				MLR	MLR		
	comp=Z,2µm,19.6s,MS5.7						
CLL	**Collm**	**91.65**	**321**	*e*P	**P**	**18 31 35.4**	**+1.3**
	comp=Z,16nm,1.4s,mb5.2						
CLL				*e*S	S	18 42 30.9	-1.0
CLL	**Collm**	**91.65**	**321**	*e*(P)	**P**	**18 31 36.0**	**+1.9**
	comp=Z,15nm,1.4s,mb5.1						
CLL				LmV		18 22 00.0	
	comp=Z,2µm,19.6s						
CLL				*e*		18 31 52.0	
CLL				*e*SKSac	SKSac	18 42 10.0	+6.0
CLL				*e*S	S	18 42 33.0	+1.1
	comp=N,2µm,22.8s						
CLL				*e*S	S	18 42 33.0	+1.1
	comp=E,800nm,20.0s						
CLL				*e*PS	PS	18 43 53.0	+7.3
CLL				*e*SS	SS	18 48 30.0	-9.3
CLL				*e*		18 50 18.0	
CLL				*e*SSS		18 52 24.0	
CLL				*e*SSSS		18 55 30.0	
CLL	**Collm**	**91.65**	**321**	*e*P	**P**	**18 31 36.0**	**+1.9**
	comp=E,15nm,1.4s,mb5.1						
CLL				*e*S	S	18 42 33.0	+1.1
CLL				LR	LR		
	comp=Z,2µm,19.6s,MS5.7						
HFS	**Hagfors**	**91.90**	**330**	P	**P**	**18 31 35.1**	**+0.1**
	comp=Z,9.7nm,1.0s,mb5.1,baz=114,slow=6.6,SNR=5.8						
NKC	**Novy Kostel**	**91.93**	**320**	*e*P	**P**	**18 31 37.5**	**+2.1**
NKC				*e*SKS		18 41 57.5	
NKC				AMS	AMS	19 17 00.0	
	comp=Z,3µm,25.6s						
NKC	**Novy Kostel**	**91.93**	**320**	*e*P	**P**	**18 31 37.5**	**+2.1**
NKC				*e*S	SKSac	18 41 57.5	-8.2
TANN	**Tannenbergstha**	**91.94**	**320**	*e*P	**P**	**18 31 36.7**	**+1.3**
	comp=Z,102nm,2.5s,mb5.7						
TANN				*e*S	S	18 42 35.1	+0.6
ROTZ	**Rotzenmuhle**	**92.06**	**320**	*e*P	**P**	**18 31 38.1**	**+2.1**
	comp=Z,22nm,1.5s,mb5.3						
ROTZ				*e*S	S	18 42 35.1	-0.5
MANZ	**Manzenberg**	**92.14**	**320**	*e*P	**P**	**18 31 38.3**	**+2.0**
	comp=Z,39nm,1.5s,mb5.5						
MANZ				*e*S	S	18 42 36.2	-0.1
CTI	**Castel Tesino**	**92.22**	**316**	P	**P**	**18 31 39.1**	**+2.3**
MOX	**Moxa**	**92.49**	**320**	*e*P	**P**	**18 31 40.4**	**+2.5**
	comp=Z,21nm,1.6s,mb5.2						
MOX				*e*S	S	18 42 43.0	+3.6
MOX							
	comp=Z,2µm,20.0s						
MOX	**Moxa**	**92.49**	**320**	*e*P	**P**	**18 31 40.4**	**+2.5**
MOX				*e*S	S	18 42 43.0	+3.6
MOX				pmax	pmax		
	comp=Z,21nm,1.6s,mb5.2						
MOX				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
MOX	**Moxa**	**92.49**	**320**	*e*P	**P**	**18 31 39.7**	**+1.8**
	comp=Z,137nm,3.1s						
MOX				*e*S	S	18 42 37.2	-2.2
MOX	**Moxa**	**92.49**	**320**	*e*P	**P**	**18 31 40.4**	**+2.5**
	comp=Z,21nm,1.6s,mb5.2						
MOX				*e*S	S	18 42 43.0	+3.6
MOX				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
SPITS	**Spitsbergen Ar**	**92.58**	**348**	P	**P**	**18 31 36.8**	**-1.1**
	comp=Z,12nm,0.8s,mb5.4,baz=134,slow=5.6,SNR=8.1						
GRA1	**Grafenberg Arr**	**92.69**	**319**	*e*P	**P**	**18 31 40.8**	**+1.9**
GRA1				*e*S	S	18 42 39.3	-2.0
GRA1				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
GRF	**Grafenberg Arr**	**92.69**	**319**	*e*P	**P**	**18 31 40.8**	**+1.9**
GRF				*e*S	S	18 42 39.3	-2.0
GRF				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.5						
GRF	**Grafenberg Arr**	**92.69**	**319**	*e*P	**P**	**18 31 40.8**	**+1.9**
GRF				*e*S	S	18 42 39.3	-2.0
GRF				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.5						
GRF	**Grafenberg Arr**	**92.69**	**319**	*e*P	**P**	**18 31 40.8**	**+1.9**
GRF				*e*S	S	18 42 39.3	-2.0
GRF				*e*L		19 22 58.9	
	comp=Z,2µm,21.0s						
GRF	**Grafenberg Arr**	**92.69**	**319**	*e*P	**P**	**18 31 40.8**	**+1.9**
GRF				*e*S	S	18 42 39.3	-2.0
GRF				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
VLC	**Villacollemand**	**93.03**	**314**	PFAKE		18 31 50.0	+9.4
VLC				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
NB2	**NORSAR Subarra**	**93.17**	**331**	P	**P**	**18 31 40.7**	**-0.2**
	comp=Z,1.4nm,0.8s,mb4.4,baz=93,slow=5.3						
NOA	**NORSAR Array B**	**93.17**	**331**	P	**P**	**18 31 40.3**	**-0.6**
	comp=Z,7.0nm,1.1s,mb5.0,baz=92,slow=4.8,SNR=5.4						
NOA				LR	LR	19 18 52.6	
	comp=Z,3µm,21.6s,MS5.7,baz=105,slow=39						
DAVOX	**Davos/Dischmat**	**93.48**	**316**	P	**P**	**18 31 41.6**	**-1.0**
	comp=Z,4.1nm,0.8s,mb4.9,baz=30,slow=8.1						
KEST	**Kesra**	**93.50**	**305**	P	**P**	**18 31 44.3**	**+1.4**
	comp=Z,4.7nm,1.2s,mb4.8,baz=153,slow=1.9,SNR=9.9						
KEST				LR	LR	19 14 03.1	
	comp=Z,2µm,20.3s,MS5.5,baz=30,slow=36						
NRDL	**Niedersach Rie**	**93.50**	**322**	*e*P	**P**	**18 31 44.9**	**+2.3**
KBS	**Kingsbay**	**93.52**	**349**	PFAKE		18 31 50.0	+7.8
KBS				LR	LR		
	comp=Z,6µm,22.0s,MS6.0						
DAVOS	**Davos**	**93.54**	**317**	P	**P**	**18 31 41.6**	**-1.3**
TUE	**Stuetta**	**93.83**	**316**	PFAKE		18 31 50.0	+5.7
TUE				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
KONO	**Kongsberg**	**93.94**	**329**	PFAKE		18 31 50.0	+5.6
KONO				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
STU	**Stuttgart**	**93.99**	**318**	*e*S	S	18 42 52.0	-0.8
TNS	**Taunus Mts**	**94.50**	**320**	*e*S	S	18 42 54.1	-3.0
BFO	**Black Forest**	**94.56**	**318**	*e*S	S	18 42 53.0	-4.7
BFO	**Black Forest**	**94.56**	**318**	PFAKE		18 32 00.0	+12
BFO				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
BUG	**Bochum--Univer**	**95.25**	**321**	*e*S	S	18 43 01.4	-2.2
ECH	**Echery**	**95.34**	**318**	PFAKE		18 32 00.0	+8.9
ECH				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
LPG	**La Plagne**	**95.64**	**315**	*e*P	**P**	**18 31 54.3**	**+1.8**
	comp=Z,12nm,0.9s,mb5.0						
LPG	**La Plagne**	**95.64**	**315**	*e*P	**P**	**18 31 54.3**	**+1.8**
LPG				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb5.0						
LPG	**La Plagne**	**95.64**	**315**	*e*P	**P**	**18 31 54.3**	**+1.8**
	comp=Z,6.1nm,0.9s,mb5.0						
LPL	**La Plagne**	**95.65**	**315**	*e*P	**P**	**18 31 54.2**	**+1.6**
BNI	**Bardonecchia**	**95.69**	**315**	PFAKE		18 32 00.0	+7.2
BNI				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
WLF	**Walferdange**	**95.99**	**319**	PFAKE		18 32 00.0	+6.0
WLF				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
TAM	**Tamanrasset**	**96.45**	**292**	PFAKE		18 32 10.0	+13
TAM				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
SSB	**Saint Sauveur**	**97.20**	**315**	PFAKE		18 32 10.0	+10
SSB				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
RAR	**Rarotonga**	**97.27**	**112**	PFAKE		18 32 10.0	+9.5
RAR				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
IMA2	**Indian Mountai**	**99.68**	**24**	*e*P	Pdif	18 32 10.5	0.0
TORD	**Torodi Ar. Bea**	**99.85**	**283**	P	Pdif	18 32 13.6	+2.2
	comp=Z,0.5nm,0.8s,baz=102,slow=6.1,SNR=2.8						
TORD				PP	PP	18 36 23.5	+6.1
	comp=Z,0.6nm,0.9s,baz=99,slow=8.9,SNR=2.5						
TORD				PKKP	PKKPbc	18 48 33.4	+1.3
	comp=Z,0.4nm,0.6s,baz=294,slow=3.9,SNR=4.0						
TORD				LR	LR	19 16 43.6	
	comp=Z,4µm,19.7s,MS5.9,baz=70,slow=35						
XMAS	**Kiritimati**	**101.72**	**89**	PFAKE		18 32 30.0	+10
XMAS				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
KDAK	**Kodiak Island**	**101.96**	**32**	PFAKE		18 32 30.0	+9.3
KDAK				LR	LR		
	comp=Z,5µm,22.0s,MS6.0						
COLA	**College**	**102.34**	**24**	PFAKE		18 32 30.0	+7.6
COLA				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
ESLA	**Sonseca Array**	**103.89**	**310**	PFAKE		18 32 40.0	+11
ESLA				LR	LR		
	comp=Z,12µm,19.0s,MS6.4						
PAB	**San Pablo**	**104.20**	**310**	PFAKE		18 32 40.0	+9.4
PAB				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
SHEL	**Horse Pasture**	**104.93**	**252**	PFAKE		18 37 00.0	+10
SHEL				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
EGAK	**Eagle**	**105.05**	**23**	PFAKE		18 37 00.0	+11
EGAK				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
SFS	**San Fernando**	**106.03**	**307**	PFAKE		18 37 00.0	+8.6
SFS				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
INK	**Inuvik**	**106.07**	**18**	Pdiff	Pdif	18 32 38.0	-1.0
	comp=Z,1.7nm,0.9s,baz=336,slow=3.2,SNR=4.0						
DBIC	**Dimbokro**	**106.11**	**276**	PFAKE		18 37 00.0	+7.9
DBIC				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MTE	**Manteigas**	**106.51**	**311**	PFAKE		18 37 00.0	+7.9
MTE				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
RTC	**Rabat Centre**	**106.87**	**304**	PFAKE		18 37 00.0	+7.0
RTC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
PPT	**Papeete**	**107.32**	**110**	*e*Sdif	Sdif	18 44 40.7	-4.3
	comp=Z,3µm,25.8s						
PPT	**Papeete**	**107.32**	**110**	*e*PS	PS	18 46 34.5	-0.6
	comp=Z,929nm,27.0s						
PPT				*e*LR	LR	19 08 08.9	
	comp=Z,5µm,24.8s						
PMSA	**Palmer Station**	**110.70**	**187**	PFAKE		18 37 10.0	+11
PMSA				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
WRAK	**Wrangell Islan**	**112.72**	**29**	PFAKE		18 37 10.0	+6.7
WRAK				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
DLBC	**Dease Lake**	**112.74**	**26**	PKiKP	PKiKP	18 37 02.7	-0.5
	comp=Z,2.8nm,0.9s,baz=288,slow=6.4,SNR=3.4						
DLBC	**Dease Lake**	**112.74**	**26**	PKPdf	PKiKP	18 37 02.7	-0.6
SFJD	**Kangerlussuaq**	**113.92**	**348**	PFAKE		18 37 10.0	+4.7
SFJD				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
YKA	**Yellowknife Ar**	**115.81**	**17**	PKP	PKPdf	18 37 07.7	-1.3
	comp=Z,1.9nm,0.8s,baz=326,slow=2.0,SNR=22						
YKA				PKKPab	PKKPab	18 47 45.7	-0.6
	comp=Z,0.3nm,0.9s,baz=139,slow=4.4,SNR=4.5						
YKA	**Yellowknife Ar**	**115.81**	**17**	PKP	PKPdf	18 37 07.7	-1.3
YKA				PKKPab	PKKPab	18 47 45.7	-0.6
TAOE	**Nuku Hiva Isla**	**117.81**	**102**	*e*LR	LR	19 13 01.7	
	comp=Z,4µm,23.9s						
RKT	**Rikitea**	**119.28**	**119**	*e*PS	PS	18 48 25.4	-1.4
	comp=Z,1µm,25.8s						
RKT				*e*SS	SS	18 54 56.0	-1.7
	comp=Z,2µm,28.5s						
RKT				*e*LR	LR	19 13 41.3	
	comp=Z,4µm,26.8s						
FRB	**Frobisher Bay**	**119.70**	**355**	PKP	PKPdf	18 37 15.8	-0.7
	comp=Z,1.3nm,0.4s,baz=305,slow=0.1,SNR=6.5						
FRB	**Frobisher Bay**	**119.70**	**355**	PKP	PKPdf	18 37 15.8	-0.7
CMLA	**Cha da Macela**	**120.68**	**312**	PFAKE		18 37 30.0	+11
CMLA				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
OBC	**Olympics--Boni**	**121.48**	**34**	P	PKPdf	18 37 23.0	+2.6
OOW	**Octopus West**	**121.59**	**34**	P	PKPdf	18 37 22.7	+2.1
EFI	**East Falkland**	**121.90**	**195**	PFAKE		18 37 30.0	+8.9
EFI				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
NLWA	**Neilton Lookou**	**121.96**	**34**	PFAKE		18 37 30.0	+8.7
NLWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
LON	**Longmire**	**123.48**	**34**	*e*PKIKP	PKPdf	18 37 23.7	-0.6
TDL	**Tradedollar La**	**123.49**	**35**	P	PKPdf	18 37 26.0	+1.7
COR	**Corvallis**	**123.84**	**37**	PFAKE		18 37 30.0	+5.0
COR				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
FCC	**Fort Churchill**	**123.95**	**9**	*e*PKPdf	PKPdf	18 37 22.3	-2.5
FCC				*e*PP	PP	18 39 02.6	-5.2
HAWA	**Hanford**	**124.96**	**33**	*e*PKPdf	PKPdf	18 37 26.8	-0.3
HAWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
NEW	**Newport**	**125.03**	**30**	*e*PKIKP	PKPdf	18 37 28.7	+1.5
NEW				MLR	MLR		
	comp=Z,3µm,20.0s						
HUMO	**Hull Mountain**	**125.12**	**39**	*e*PKPdf	PKPdf	18 37 27.5	0.0
HUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
YBH	**Yreka Blue Hor**	**125.74**	**40**	PKP	PKPdf	18 37 29.3	+0.5
	comp=Z,4.0nm,0.8s,baz=24,slow=3.4,SNR=13						
YBH	**Yreka Blue Hor**	**125.74**	**40**	PKP	PKPdf	18 37 29.3	+0.6
YBH				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
FFC	**Flin Flon**	**125.93**	**16**	*e*PKIKP	PKPdf	18 37 27.4	-1.3
FFC				MLR	MLR		
	comp=Z,5µm,22.0s,MS6.2						
LNOR	**Lincton Mounta**	**125.96**	**33**	PKIKP	PKPdf	18 37 29.7	+0.6
WALA	**Waterton Lakes**	**126.04**	**28**	*e*PKPdf	PKPdf	18 37 30.2	+1.1
WDC	**Whiskeytown Da**	**126.45**	**41**	*e*PKIKP	PKPdf	18 37 29.3	-0.9
WDC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.7						
BSMT	**Bassoo Peak**	**126.46**	**29**	*e*PKPdf	PKPdf	18 37 28.7	-1.2
BSMT				*e*PP	PP	18 39 23.1	-2.0
JTMT	**Jette**	**126.78**	**29**	*e*PKPdf	PKPdf	18 37 30.6	0.0
HOPS	**Hopland**	**126.91**	**43**	PFAKE		18 37 40.0	+8.9
HOPS				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LBCM	**Butte Creek Ri**	**127.08**	**40**	P	PKPdf	18 37 31.8	+0.5
SWMT	**Swartz Lake**	**127.08**	**29**	*e*PKPdf	PKPdf	18 37 27.7	-3.5
SWMT				*e*PP	PP	18 39 32.2	+2.9
BMO	**Blue Mountains**	**127.14**	**34**	PFAKE		18 37 40.0	+8.7
BMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MOD	**Modoc**	**127.15**	**38**	*e*PKPdf	PKPdf	18 37 32.0	+0.6
MOD				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
MCCM	**Marconi Confer**	**127.46**	**43**	PFAKE		18 37 40.0	+7.8
MCCM				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
SLMT	**Seeley Lake**	**127.52**	**29**	*e*PKPdf	PKPdf	18 37 31.6	-0.4
MSO	**Missoula**	**127.59**	**30**	*e*PKPdf	PKPdf	18 37 31.1	-1.0
MSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
WVOR	**Wild Horse Val**	**127.86**	**37**	*e*PKIKP	PKPdf	18 37 33.6	+0.8
WVOR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
CHMT	**Chamberlain Mo**	**127.87**	**29**	*e*PKPdf	PKPdf	18 37 31.6	-1.0
SCHQ	**Schefferville**	**128.17**	**351**	PKP	PKPdf	18 37 33.3	+0.3
	comp=Z,6.8nm,0.9s,baz=36,slow=3.0,SNR=11						
EGMT	**Eagleton**	**128.67**	**26**	*e*PKPdf	PKPdf	18 37 34.1	-0.1
EGMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
LRM	**Limekiln Ridge**	**129.03**	**30**	*e*PKPdf	PKPdf	18 37 35.6	+0.7
LRM				*e*PP	PP	18 39 42.0	0.0
SAO	**San Andreas Ge**	**129.13**	**44**	PFAKE		18 37 40.0	+4.6
SAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
CMB	**Columbia Colle**	**129.21**	**42**	PFAKE		18 37 40.0	+4.5
CMB				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MCMT	**McKenzie Canyo**	**129.53**	**31**	*e*PKPdf	PKPdf	18 37 38.1	+2.2
BOZ	**Bozeman (W)**	**129.56**	**29**	*e*PKIKP	PKPdf	18 37 36.3	+0.4
BOZ				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.9						
HLID	**Hailey**	**129.56**	**33**	*e*PKPdf	PKPdf	18 37 36.9	+0.9
HLID				*e*SKP		18 40 56.0	
HLID				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
BMN	**Battle Mountai**	**129.90**	**38**	PFAKE		18 37 50.0	+13
BMN				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
NVAR	**Mina Array Bea**	**130.37**	**41**	PKhKP		18 37 32.8	
	comp=Z,0.6nm,0.8s,baz=246,slow=2.2,SNR=3.7						
NVAR				PKP	PKPdf	18 37 39.6	+1.9
	comp=Z,6.1nm,0.9s,baz=262,slow=2.3,SNR=20						
NVAR				SKPbc	SKPbc	18 40 59.7	+1.3
	comp=Z,1.2nm,0.4s,baz=289,slow=4.5,SNR=8.5						
NVAR	**Mina Array Bea**	**130.37**	**41**	PKP		18 37 32.8	
NVAR				PKP	PKPdf	18 37 39.6	+1.9
NVAR				SKPbc	SKPbc	18 40 59.7	+1.3
DGMT	**Dagmar**	**130.57**	**22**	PFAKE		18 37 50.0	+12
DGMT				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
YMR	**Madison River**	**130.59**	**30**	*e*PKPdf	PKPdf	18 37 37.6	-0.3
YMR				*e*PP	PP	18 39 52.5	+0.3
YMR				*e*SKP		18 41 02.1	
YFT	**Old Faithful**	**130.81**	**30**	*e*PKPdf	PKPdf	18 37 40.6	+2.3
ELK	**Elko**	**130.91**	**36**	*e*PKPdf	PKPdf	18 37 39.5	+0.8
ELK				*e*SKP		18 40 60.0	
ELK				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
LKWY	**Lake**	**130.94**	**29**	PFAKE		18 37 50.0	+11
LKWY				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
N12A	**Clover Valley,**	**130.96**	**36**	*e*PKPdf	PKPdf	18 37 40.0	+1.2
N12A				*e*SKP		18 41 02.8	
RLMT	**Red Lodge**	**131.08**	**28**	*e*PKPdf	PKPdf	18 37 38.1	-0.7
RLMT				*e*PP	PP	18 39 55.7	+0.4
RLMT				*e*SKP		18 41 03.4	
RLMT				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
M13A	**Montello**	**131.14**	**35**	*e*PKPdf	PKPdf	18 37 40.2	+1.2
LAO	**LASA Array**	**131.22**	**25**	*e*PKPdf	PKPdf	18 37 36.8	-2.2
LAO				*e*SKP		18 41 02.6	
LAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
ULM	**Lac du Bonnet**	**131.59**	**14**	PKP	PKPdf	18 37 37.2	-2.4
	comp=Z,11nm,0.9s,baz=350,slow=2.9,SNR=13						
ULM				PP	PP	18 39 58.5	+0.3
	comp=Z,2.0nm,0.8s,baz=346,slow=9.1,SNR=3.0						
ULM	**Lac du Bonnet**	**131.59**	**14**	PKP	PKPdf	18 37 37.2	-2.4
ULM				PP	PP	18 39 58.5	+0.3
HVU	**Hansel Valley**	**131.65**	**34**	*e*PKPdf	PKPdf	18 37 40.7	+0.7
HVU				*e*SKP		18 41 03.6	
AHID	**Auburn Hatcher**	**131.87**	**32**	PFAKE		18 37 50.0	+10
AHID				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
DAC	**Darwin (Calif)**	**132.03**	**43**	PFAKE		18 37 50.0	+9.1
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BGU	**Big Grassy Mou**	**132.07**	**35**	*e*PKPdf	PKPdf	18 37 42.2	+1.4
BGU				*e*SKP		18 41 05.3	
BW06	**Boulder Array**	**132.67**	**31**	PFAKE		18 37 50.0	+8.1
BW06				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
PDAR	**Pinedale Array**	**132.67**	**31**	PKhKP		18 37 28.2	
	comp=Z,0.3nm,0.6s,baz=298,slow=4.4,SNR=3.8						
PDAR				PKP	PKPdf	18 37 42.1	+0.2
	comp=Z,3.4nm,0.7s,baz=222,slow=2.0,SNR=15						
PDAR				PP	PP	18 40 05.5	-0.1
	comp=Z,1.4nm,0.9s,baz=336,slow=3.3,SNR=3.8						
PDAR	**Pinedale Array**	**132.67**	**31**	PKP	PKPdf	18 37 42.1	+0.2
PDAR				PP	PP	18 40 05.5	-0.1
DUG	**Dugway**	**132.68**	**35**	*e*PKPdf	PKPdf	18 37 42.4	+0.4
DUG				*e*SKP		18 41 07.0	
DUG				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
GSC	**Goldstone**	**133.10**	**43**	*e*PKPdf	PKPdf	18 37 42.9	0.0
GSC				*e*SKP		18 41 09.6	
AGMN	**Agassiz Refuge**	**133.39**	**15**	*e*PKPdf	PKPdf	18 37 42.5	-0.6
AGMN				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
DAU	**Daniels Canyon**	**133.42**	**34**	*e*PKIKP	PKPdf	18 37 43.8	+0.4
MVU	**Marysvale**	**134.13**	**37**	PFAKE		18 37 50.0	+5.2
MVU				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MSU	**Marysvale**	**134.15**	**37**	*e*PKPdf	PKPdf	18 37 45.2	+0.3
MSU				*e*SKP		18 41 14.3	
RSSD	**Black Hills**	**134.20**	**25**	*e*PKHKP		18 37 31.6	
RSSD				*e*		18 37 44.5	
RSSD				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.9						
RSSD	**Black Hills**	**134.20**	**25**	*e*PKPpre		18 37 31.6	
RSSD				*e*PKPdf	PKPdf	18 37 44.5	-0.3
RSSD				*e*SKP		18 41 06.3	
RSSD				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
PFO	**Pinyon Flat Ob**	**134.26**	**45**	*e*PKPdf	PKPdf	18 37 44.1	-1.1
PFO				*e*SKP		18 41 11.4	
PFO				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
SRU	**San Rafael**	**134.72**	**35**	*e*PKIKP	PKPdf	18 37 46.7	+0.8
EYMN	**Ely**	**134.74**	**12**	PFAKE		18 38 00.0	+14
EYMN				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
PLCA	**Paso Flores**	**135.00**	**189**	PKP	PKPdf	18 37 44.6	-1.7
	comp=Z,1.7nm,0.9s,baz=198,slow=3.2,SNR=2.7						
RCBR	**Riachuelo**	**135.85**	**258**	PFAKE		18 38 00.0	+11
RCBR				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
PV04	**Paradox Valley**	**136.13**	**34**	*e*PKPdf	PKPdf	18 37 47.7	-0.8
PV01	**Paradox Valley**	**136.50**	**34**	*e*PKPdf	PKPdf	18 37 50.3	+1.0
WUAZ	**Wupatki**	**136.56**	**39**	*e*PKPdf	PKPdf	18 37 47.4	-2.1
WUAZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
ISCO	**Idaho Springs**	**136.86**	**30**	PFAKE		18 38 00.0	+10
ISCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
COWI	**Conover**	**136.97**	**10**	PFAKE		18 38 00.0	+10
COWI				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
MVCO	**Mesa Verde**	**137.18**	**35**	*e*PKPdf	PKPdf	18 37 52.7	+2.2
MVCO				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
ECSD	**EROS Data Cent**	**137.31**	**19**	*e*PKPdf	PKPdf	18 37 48.5	-2.0
ECSD				*e*PP	PP	18 40 33.4	-1.2
ECSD				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
RPN	**Rapa Nui**	**137.57**	**138**	PFAKE		18 38 00.0	+8.4
RPN				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
OGNE	**Ogallala**	**137.64**	**26**	PFAKE		18 38 00.0	+8.7
OGNE				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
SDCO	**Great Sand Dun**	**138.46**	**32**	PFAKE		18 38 00.0	+7.1
SDCO				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
GLMI	**Grayling**	**138.86**	**6**	PFAKE		18 38 00.0	+6.6
GLMI				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
SPB	**Sao Paulo**	**138.87**	**227**	PFAKE		18 38 00.0	+6.0
SPB				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
TUC	**Tucson**	**138.92**	**43**	*e*PKPdf	PKPdf	18 37 54.1	+0.3
TUC				*e*SKP		18 41 26.4	
TUC				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LONY	**Lake Ozonia**	**139.16**	**355**	*e*PKPdf	PKPdf	18 37 54.2	+0.2
LONY				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
SADO	**Sadowa**	**139.21**	**0**	PKP	PKPdf	18 37 52.4	-1.6
	comp=Z,8.5nm,0.9s,baz=173,slow=1.0,SNR=3.8						
SADO				PP	PP	18 40 47.2	+1.1
	comp=Z,6.7nm,0.9s,baz=352,slow=6.6,SNR=4.6						
SADO	**Sadowa**	**139.21**	**0**	PKP	PKPdf	18 37 52.4	-1.6
SADO				PP	PP	18 40 47.2	+1.1
LBNH	**Lisbon**	**139.25**	**352**	PFAKE		18 38 00.0	+5.9
LBNH				LR	LR		

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,3µm,21.0s,MS6.0						
NCB	Newcomb	139.78	355	PFAKE		18 38 00.0	+4.9
NCB				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
JFWS	Jewell Farm	139.81	13	PFAKE		18 38 00.0	+4.8
JFWS				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
LAZ	Ladron	139.91	37	*e*PKP	PKPdf	18 37 50.4	-5.2
ANMO	Albuquerque	139.93	36	PFAKE		18 38 10.0	+14
ANMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
SCIA	State Center	140.00	17	PFAKE		18 38 00.0	+4.4
SCIA				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
BNM	Barren Site	140.39	37	*e*PKPdf	PKPdf	18 37 52.5	-4.0
KSU1	Kansas State U	141.42	22	*e*PKPdf	PKPdf	18 37 57.2	-0.9
KSU1				LR	LR		
	comp=Z,3µm,21.0s,MS6.1						
AAM	Ann Arbor	141.45	5	PFAKE		18 38 10.0	+12
AAM				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
BINY	Binghamton	141.68	356	PFAKE		18 38 10.0	+11
BINY				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
ERPA	Erie	141.85	1	PFAKE		18 38 10.0	+11
ERPA				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
HDIL	Hopedale	142.27	13	PFAKE		18 38 10.0	+10
HDIL				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
AMTX	Amarillo	142.63	31	PKPdf	PKPdf	18 37 59.8	-0.7
AMTX				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
SSPA	Standing Stone	143.32	359	*e*PKPpre		18 37 57.8	
SSPA				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
CPUP	Villa Florida	143.40	214	PKP	PKPdf	18 38 00.9	-1.2
	comp=Z,0.7nm,0.5s,baz=141,slow=6.5,SNR=3.8						
ACSO	Alum Creek Sta	143.57	5	*e*PKPdf	PKPdf	18 37 57.4	-4.6
ACSO				LR	LR		
	comp=Z,4µm,21.0s,MS6.2						
CCM	Cathedral Cave	144.14	17	*e*PKIKP	PKPdf	18 37 59.3	-3.8
CCM				MLR	MLR		
	comp=Z,3µm,22.0s,MS6.0						
BLO	Bloomington	144.15	10	*e*PKIKP	PKPdf	18 37 59.8	-3.2
WMOK	Wichita Mounta	144.19	28	*e*PKIKP	PKPdf	18 38 00.0	-3.2
WMOK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.9						
OLIL	Olney	144.27	12	*e*PKPdf	PKPdf	18 38 00.9	-2.4
OLIL				*e*		18 38 10.7	
MCWV	Mont Chateau	144.31	1	*e*PKPdf	PKPdf	18 37 59.8	-3.5
MCWV				LR	LR		
	comp=Z,4µm,21.0s,MS6.2						
FVM	French Village	144.43	16	*e*PKIKP	PKPdf	18 38 00.7	-2.9
SIUC	Southern Illin	144.99	14	*e*PKPdf	PKPdf	18 38 02.3	-2.2
USIN	University of	145.10	12	*e*PKPdf	PKPdf	18 38 03.2	-1.5
WCI	Wyandotte Cave	145.11	10	*e*PKIKP	PKPdf	18 38 02.8	-1.9
WCI				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.1						
TXAR	Lajitas Array	145.52	40	PKIKP	PKPdf	18 38 06.2	+0.5
TXAR				pmax	pmax		
	comp=Z,89nm,0.8s						
TXAR	Lajitas Array	145.52	40	PKPbc	PKPbc	18 38 06.2	+0.5
	comp=Z,89nm,0.8s,baz=263,slow=1.5,SNR=116						
CBN	Corbin	145.73	358	*e*PKPdf	PKPdf	18 38 05.8	0.0
CBN				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
GLAT	Glass	146.35	15	*e*PKPbc	PKPbc	18 38 09.7	+1.6
LCO	Las Campanas	146.40	193	PFAKE		18 38 20.0	+13
LCO				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
GNAR	Gosnell	146.44	16	*e*PKPbc	PKPbc	18 38 08.6	+0.2
MIAR	Mount Ida	146.57	22	*e*PKP2	PKPbc	18 38 07.3	-1.5
MIAR				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.0						
HBAR	Harrisburg	146.64	17	*e*PKPdf	PKPdf	18 38 04.0	-3.4
ELN	Prospectdale	146.70	2	*e*PKPdf	PKPdf	18 38 07.2	-0.3
BLA	Blacksburg	146.73	2	*e*PKP2	PKPab	18 38 08.6	-1.7
BLA				MLR	MLR		
	comp=Z,3µm,22.0s,MS6.1						
UALR	University of	146.81	20	*e*PKPbc	PKPbc	18 38 09.9	+0.4
WVT	Waverly	146.83	13	*e*PKIKP	PKPdf	18 38 05.3	-2.4
WVT				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.1						
JCT	Junction City	147.02	34	*e*PKP2	PKPbc	18 38 08.4	-1.8
JCT				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.0						
MAIG	Mazatlaan	147.27	51	*i* P	PKPbc	18 38 11.2	0.0
PLAL	Pickwick Lake	147.87	14	*e*PKPdf	PKPdf	18 38 07.5	-2.0
PLAL				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
OXF	Oxford	147.97	16	*e*PKP2	PKPdf	18 38 10.7	+1.0
OXF				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.1						
TKL	Tuckaleechee C	148.01	7	PKP2	PKPbc	18 38 11.8	-1.0
TKL				pmax	pmax		
	comp=Z,38nm,0.7s						
TKL	Tuckaleechee C	148.01	7	PKPbc	PKPbc	18 38 11.8	-1.0
	comp=Z,38nm,0.7s,baz=111,slow=2.7,SNR=27						
TKL	Tuckaleechee C	148.01	7	*e*PKPbc	PKPbc	18 38 11.2	-1.6
SWET	Sewanee	148.10	11	*e*PKPbc	PKPbc	18 38 11.5	-1.6
CPCT	Cooper Cave	148.11	8	*e*PKPbc	PKPbc	18 38 11.3	-1.8
BBSR	BB Station	148.56	336	*e*PKPbc	PKPbc	18 38 12.3	-2.0
BBSR				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
NATX	Nacogdoches	148.56	26	*e*PKPbc	PKPbc	18 38 13.5	-0.9
NATX				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
CNNC	Cliffs of the	148.71	358	*e*PKPbc	PKPbc	18 38 13.8	-0.9
CNNC				LR	LR		
	comp=Z,3µm,21.0s,MS6.1						
HKT	Hockley	149.53	30	*e*PKHKP	PKPdf	18 38 13.4	+1.1
HKT				MLR	MLR		
	comp=Z,3µm,22.0s,MS6.1						
JSC	Jenkinsville	149.61	4	*e*PKP2	PKPbc	18 38 16.1	-0.8
VBMS	Vicksburg	149.76	20	PFAKE		18 38 20.0	+7.4
VBMS				LR	LR		
	comp=Z,4µm,21.0s,MS6.2						
GOGA	Godfrey	150.26	7	*e*PKIKP	PKPdf	18 38 12.6	-0.8
GOGA				*e*		18 38 16.4	
GOGA				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.1						
KVTX	Kingsville	150.33	35	PFAKE		18 38 20.0	+6.3
KVTX				LR	LR		
	comp=Z,3µm,21.0s,MS6.1						
ZAIG	Zacatecas	150.45	48	*e*P	PKPdf	18 38 14.6	+0.6
NHSC	New Hope	150.83	2	PFAKE		18 38 20.0	+5.7
NHSC				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
BRAL	Brewton	151.91	15	*e*PKPbc	PKPbc	18 38 21.2	-1.3
BRAL				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
LVC	Limon Verde	151.93	200	PKPbc	PKPbc	18 38 21.9	-0.8
	comp=Z,7.4nm,0.8s,baz=146,slow=3.6,SNR=3.4						
LVC				PKPab	PKPab	18 38 31.8	0.0
	comp=Z,25nm,0.9s,baz=70,slow=0.5,SNR=8.7						
LVC	Limon Verde	151.93	200	*e*PKPdf	PKPdf	18 38 18.9	+2.6
LVC				LR	LR		
	comp=Z,2µm,21.0s,MS6.0						
SIV	San Ignacio	153.48	222	PKPbc	PKPbc	18 38 25.2	-1.1
	comp=Z,2.3nm,0.8s,baz=137,slow=5.2,SNR=8.1						
DWPF	Disney	155.73	5	PFAKE		18 38 30.0	+8.5
DWPF				LR	LR		
	comp=Z,3µm,22.0s,MS6.1						
ANWB	Willy Bob	158.18	310	PFAKE		18 38 30.0	+5.1
ANWB				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
BBGH	Gun Hill	158.62	297	PFAKE		18 38 40.0	+15
BBGH				LR	LR		
	comp=Z,3µm,20.0s,MS6.2						
FDF	Fort de France	159.28	303	PFAKE		18 38 40.0	+14
FDF				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
CMIG	Matias Romero	159.62	49	PKP	PKPdf	18 38 26.0	-0.6
	comp=Z,3.1nm,0.8s,baz=123,slow=3.9,SNR=4.7						
CMIG				PKPab	PKPab	18 39 05.0	+0.1
	comp=Z,3.9nm,0.8s,baz=293,slow=6.0,SNR=5.3						
CMIG	Matias Romero	159.62	49	*i* P	PKPdf	18 38 23.3	-3.3
GRTK	Grand Turk	160.79	337	PFAKE		18 38 40.0	+12
GRTK				LR	LR		
	comp=Z,3µm,21.0s						
GRGR	Grenville	160.90	297	PFAKE		18 38 40.0	+12
GRGR				LR	LR		
	comp=Z,2µm,20.0s						
SJG	San Juan	160.98	319	PFAKE		18 38 40.0	+12
SJG				LR	LR		
	comp=Z,4µm,20.0s						
TEIG	Tepich	161.37	28	PFAKE		18 38 40.0	+12
TEIG				LR	LR		
	comp=Z,2µm,20.0s						
SDDR	Presa de Saban	163.12	334	PFAKE		18 38 40.0	+10
SDDR				LR	LR		
	comp=Z,3µm,20.0s						
GTBY	Guantanamo Bay	163.52	347	PFAKE		18 38 40.0	+9.4
GTBY				LR	LR		
	comp=Z,2µm,22.0s						
NNA	Nana	164.16	188	PFAKE		18 38 40.0	+8.7
NNA				LR	LR		
	comp=Z,2µm,20.0s						
MTDJ	Mount Denham	165.59	354	PFAKE		18 38 40.0	+7.5
MTDJ				LR	LR		
	comp=Z,3µm,20.0s						
TGUH	Tegucigalpa,Un	166.98	38	PFAKE		18 38 40.0	+6.4
TGUH				LR	LR		
	comp=Z,3µm,20.0s						
PAYG	Puerto Ayora	167.93	111	PFAKE		18 38 40.0	+5.6
PAYG				LR	LR		
	comp=Z,2µm,20.0s						
SDV	Santo Domingo	170.23	301	PKPab	PKPab	18 39 52.4	+0.6
	comp=Z,3.0nm,0.3s,baz=153,slow=6.8,SNR=3.1						
SDV				PP	PP	18 43 46.1	+4.4
	comp=Z,2.2nm,0.4s,baz=345,slow=4.7,SNR=3.5						
SDV	Santo Domingo	170.23	301	PFAKE		18 38 50.0	+14
SDV				LR	LR		
	comp=Z,2µm,20.0s						
JTS	JuntasAbangare	171.30	42	PFAKE		18 38 50.0	+14
JTS				LR	LR		
	comp=Z,2µm,19.0s						
BCIP	Isla Barro Col	174.62	8	PFAKE		18 38 50.0	+12
BCIP				LR	LR		
	comp=Z,3µm,20.0s						
OTAV	Otavalo	176.40	190	*e*PKPdf	PKPdf	18 38 38.4	+0.2
OTAV				*e*PKPab	PKPab	18 40 21.8	+3.0
OTAV				LR	LR		
	comp=Z,2µm,20.0s						

ISCJB ***26*** *18:28:43.8±0.5, 36°.39N±0°.03×140°.07E±0°.06, h119km±3km, mb3.6/7, Error ellipse: s-maj=7.8km s-min=5.0km az=21.9*

IDC ***26*** *18:28:45.3±4.2, 36°.36N×140°.03E, h117km±26km, mb3.3/7, mb1 3.4/9, mb1mx3.3/27, mbtmp3.3/9, Error ellipse: s-maj=64.7km s-min=9.7km az=62.0*

JMA ***26*** *18:28:45.3±0.1, 36°.41N×140°.01E, h111km±1km, M3.6*
JMA Felt I J1.

NEIC ***26*** *18:28:48.0±6.2, 36°.11N×139°.45E, h126km±20km, MG3.6(JMA), Error ellipse: s-maj=171.9km s-min=14.2km az=65.0*

ISC 26 18:28:45.0±0.5**, 36°.40N**±0°.03×**140°.06E**±0°.05**, h113**km±3km**, n25, σ0s.45**/41**, mb3.6**/7**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYT	Yasato	0.20	148	P	Pn	18 29 01.0	+0.3
JYT				S	Sn	18 29 12.5	0.0
JAG	Ashikaga	0.49	274	P	Pn	18 29 02.1	0.0
JAG				S	Sn	18 29 14.7	-0.3
JKT	Katashina	0.75	300	P	Pn	18 29 04.2	+0.1
JKT				*e*S	Sn	18 29 18.8	+0.3
JRY	Ryogami san	1.01	248	P	Pn	18 29 06.9	+0.4
JRY				S	Sn	18 29 23.3	+0.5
JFY	Yanaizu	1.05	344	P	Pn	18 29 07.1	+0.2
JFY				*e*S	Sn	18 29 23.2	-0.3
JFT	Otama	1.14	11	P	Pn	18 29 08.1	+0.2
JFT				*e*S	Sn	18 29 25.8	+0.6
JFK	Kawauchi	1.17	34	P	Pn	18 29 08.4	+0.3
JFK				S	Sn	18 29 25.6	-0.1
JHK	Hiroka	1.20	316	P	Pn	18 29 08.5	0.0
JHK				S	Sn	18 29 26.0	-0.3
JOD2	Odawara 2	1.38	215	P	Pn	18 29 10.3	-0.3
JOD2				S	Sn	18 29 29.4	-0.6
MJAR	Matsushiro Arr	1.50	276	P	Pn	18 29 11.1	-0.9
	32nm,0.3s,baz=91,slow=11,SNR=240						
MJAR				S	Sn	18 29 32.0	-0.5
	11nm,0.3s,baz=299,slow=24,SNR=5.5						
MAJO	Matsushiro	1.50	276	*e*Pn	Pn	18 29 11.8	-0.2
MAT	Matsushiro	1.50	276	P	Pn	18 29 12.0	0.0
MAT				S	Sn	18 29 32.2	-0.3
MAT	Matsushiro	1.50	276	P	Pn	18 29 11.9	-0.1
MAT				*e*S	Sn	18 29 32.3	-0.2
JYN	Shimob	1.52	234	P	Pn	18 29 12.5	+0.3
JYN				S	Sn	18 29 33.2	+0.2
JNS	Sasagawa	1.54	337	P	Pn	18 29 12.1	-0.3
JNS				*e*S	Sn	18 29 33.3	0.0
JMM	Marumori	1.58	21	P	Pn	18 29 13.0	+0.1
JMM				*e*S	Sn	18 29 33.5	-0.6
JHJ	Hachijo jima 2	3.28	184	P	Pn	18 29 35.1	+0.4
	27nm,0.3s,baz=37,slow=15,SNR=6.2						
JHJ				S	Sn	18 30 13.2	0.0
	34nm,0.3s,baz=75,slow=20,SNR=5.3						
KSRS	Korea Array	9.78	280	P	Pn	18 31 04.0	+1.5
	0.3nm,0.3s,baz=94,slow=14,SNR=3.7						
SONM	Songino Array	27.26	305	P	P	18 34 18.7	+0.4
	0.5nm,0.6s,mb3.2,baz=108,slow=9.0,SNR=5.3						
ZALV	Zalesovo Beam	41.55	313	P	P	18 36 21.0	-0.1
	0.3nm,0.3s,mb3.5,baz=94,slow=7.9,SNR=2.0						
MKAR	Makanchi Array	43.54	302	P	P	18 36 36.7	-0.6
	0.5nm,0.7s,mb3.4,baz=83,slow=7.0,SNR=3.1						
KURK	Kurchatov	45.48	308	P	P	18 36 52.2	-0.4
	0.5nm,0.3s,mb3.7,baz=96,slow=10,SNR=4.7						
BVAR	Borovoye Array	50.20	313	P	P	18 37 30.0	+1.1
	0.5nm,0.5s,mb3.7,baz=91,slow=9.1,SNR=4.8						
WRA	Warramunga Arr	56.29	186	P	P	18 38 13.1	-0.7
	0.7nm,0.5s,mb4.0,baz=1.6,slow=7.5,SNR=10						
ASAR	Alice Springs	60.02	187	P	P	18 38 39.3	-0.4
	0.6nm,1.0s,mb3.6,baz=17,slow=4.8,SNR=4.1						

NEIC ***26*** *18:33:39.7, 36°.14N×21°.88E, h14km, MD3.5(ATH), After ATH.*

CSEM ***26*** *18:33:39.7, 36°.14N×21°.88E, h14km, MD3.5, After ATH*

ATH 26 18:33:39.7, 36°.14N×21°.88E, h14km±2km**, MD3.5**/8**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.76	352	*e*PB	Pb	18 33 53.7	-1.0
PYL				*e*SB	Sb	18 34 05.3	+0.3
PYL	PYLOS	0.76	352	*e*Pb	Pb	18 33 53.7	-1.0
PYL				*e*Sb	Sb	18 34 05.3	+0.3
KYTH	Kithira	0.95	81	*e*PN	Pn	18 33 58.2	-0.3
KYTH	Kithira	0.95	81	*e*Pn	Pn	18 33 58.2	-0.3
VLI	Veliai	1.03	56	*e*PG	Pg	18 33 59.1	-0.5
VLI				*e*SB	Sb	18 34 13.6	+0.9
VLI	Veliai	1.03	56	*e*Pg	Pg	18 33 59.1	-0.5
VLI				*e*Sb	Sb	18 34 13.6	+0.9
ITM	Ithomi	1.04	2	*e*PB	Pb	18 33 59.3	-0.2
ITM				*e*SB	Sb	18 34 14.1	+1.2
ITM	Ithomi	1.04	2	*e*Pb	Pb	18 33 59.3	-0.2
ITM				*e*Sb	Sb	18 34 14.1	+1.2
VLX	Vlachokerasia	1.29	18	*e*PN	Pn	18 34 03.4	+0.1
VLX				*e*SB	Sb	18 34 21.9	+1.7
VLX	Vlachokerasia	1.29	18	*e*Pn	Pn	18 34 03.4	+0.1
VLX				*e*Sb	Sb	18 34 21.9	+1.7
DID	Didima	1.75	38	*e*PN	Pn	18 34 11.4	+1.9
DID	Didima	1.75	38	*e*Pn	Pn	18 34 11.4	+1.9
GUR	Goura	1.83	12	*e*PN	Pn	18 34 13.2	+2.5
GUR	Goura	1.83	12	*e*Pn	Pn	18 34 13.2	+2.5
RLS	Riolos of Patr	1.94	350	*e*PN	Pn	18 34 14.9	+2.6
RLS	Riolos of Patr	1.94	350	*e*Pn	Pn	18 34 14.9	+2.6
LTK	Loutraki	2.07	24	*e*PG	Pg	18 34 17.8	-1.6
LTK	Loutraki	2.07	24	*e*Pg	Pg	18 34 17.8	-1.6

MAN 26 18:55:12, 8°.34N×126°.94E, h54km**, mb4.5, ML3.4, MS3.3, 1C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	1.45	296	*e*P	Pn	18 55 36.7	+0.9
MATI	Mati	1.54	206	*e*P	Pn	18 55 37.7	+0.6
BUKP	Musuan	1.91	256	*e*P	Pn	18 55 44.8	+2.6
SCPH	Surigao	2.03	315	⇑*e*P	Pn	18 55 43.9	+0.2
CGP	Cagayan de Oro	2.22	273	⇓*e*P	Pn	18 55 48.6	+2.1
CGP				*e*S	Sn	18 56 13.9	+1.1
MSLP	Maasin	2.72	311	*e*P	Pn	18 55 55.2	+1.9

IDC 26 19:04:30.8±6.6**, 4°.42S**×**130°.67E, h106**km±53km**, mb2.9**/2**, mb1 3.3**/4**, mb1mx3.1**/16**, mbtmp3.1**/4**, Error ellipse: s-maj=80.7km s-min=13.9km az=74.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	14.46	200	P	Pn	19 07 48.4	-2.0
	0.2nm,0.3s,baz=34,slow=7.3,SNR=3.6						
FITZ				S	Sn	19 10 30.0	0.0
	0.0nm,0.3s,baz=273,slow=10,SNR=3.1						
WRA	Warramunga Arr	15.84	167	P	Pn	19 08 03.0	-4.8
	0.1nm,0.3s,baz=346,slow=14,SNR=2.9						
WRA				S	S	19 10 53.9	-17
	0.5nm,0.3s,baz=348,slow=24,SNR=7.8						
ASAR	Alice Springs	19.39	171	P	P	19 08 49.3	+0.9
	0.2nm,0.3s,baz=351,slow=10.0,SNR=26						
ASAR				S	S	19 12 22.8	+0.7
	0.2nm,0.3s,baz=348,slow=28,SNR=6.4						
CMAR	Chiang Mai Arr	38.66	307	P	P	19 11 45.5	+1.2
	0.2nm,0.7s,baz=127,slow=5.3,SNR=4.1						
MKAR	Makanchi Array	66.46	326	P	P	19 15 08.2	-0.6
	0.1nm,0.6s,baz=134,slow=6.2,SNR=3.2						

IDC ***26*** *19:14:21.7±0.8, 8°.69N×126°.94E, h0km, mb4.1/13, mb1 4.2/14, mb1mx4.0/25, mbtmp4.1/14, Error ellipse: s-maj=29.2km s-min=13.9km az=78.0*

ISCJB ***26*** *19:14:23.8±0.5, 8°.59N±0°.04×127°.15E±0°.06, h33km, mb4.3/33, Error ellipse: s-maj=8.0km s-min=6.0km az=8.7*

NEIC ***26*** *19:14:23.4±0.4, 8°.59N×126°.82E, h10km, mb4.6/18, Error ellipse: s-maj=13.7km s-min=7.7km az=70.0*

MAN ***26*** *19:14:28, 8°.43N×126°.76E, h15km, mb5.0, ML3.9, MS4.0*

ISC 26 19:14:26.3±0.5**, 8°.53N**±0°.04×**127°.05E**±0°.05**, h35**km**, n53, σ1s.14**/61**, mb4.3**/33**, 3C-2D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	1.48	287	*e*P	Pn	19 14 49.5	-1.0
MATI	Mati	1.76	207	*e*P	Pn	19 14 54.2	-0.1
DAV	Davao City (W)	2.05	225	Pn	Pn	19 14 59.6	+1.2
	97nm,0.3s,baz=18,slow=3.2,SNR=9.5						
DAV				Sn	Sn	19 15 25.5	+2.7
	59nm,0.3s,baz=223,slow=22,SNR=5.2						
DAV	Davao City (W)	2.05	225	*e*Pn	Pn	19 14 54.9	-3.5
DAV				*e*Sn	Sn	19 15 22.8	0.0
DAV				Sn	Sn	19 15 25.5	+2.7
BUKP	Musuan	2.07	252	*e*P	Pn	19 14 58.4	-0.2
KCP	Kidapawan	2.46	232	⇓*e*P	Pn	19 15 09.9	+6.0
KCP				*i* S	Sn	19 15 38.5	+5.8
MSLP	Maasin	2.69	307	*e*P	Pn	19 15 09.1	+2.0
CTBH	Cotabato--PC H	3.06	245	⇑*e*P	Pn	19 15 11.6	-0.6
CTBH				*i* S	Sn	19 15 45.3	-2.4
GSPH	General Santos	3.20	221	⇓*e*P	Pn	19 15 13.3	-0.8
GSPH				*e*S	Sn	19 15 50.3	-0.7
TBP	Tagbilaran	3.35	290	*e*P	Pn	19 15 17.0	+0.7
TBP				*e*S	Sn	19 15 49.6	-5.2
OCLP	Ormoc	3.47	316	*e*P	Pn	19 15 21.8	+3.9
LLP	Lapu-Lapu	3.52	301	⇑*e*P	Pn	19 15 20.6	+2.0
LLP				*e*S	Sn	19 16 00.5	+1.4
PAGZ	Pagadian	3.69	260	*e*P	Pn	19 15 22.8	+1.9
GUIM	Jordan	4.87	296	*e*P	Pn	19 15 38.1	+1.0
RCP	Roxas	5.20	306	⇑*e*P	Pn	19 15 43.9	+2.2
FITZ	Fitzroy Crossi	26.50	183	P	P	19 20 01.3	+0.7
	1.0nm,0.3s,mb3.8,baz=355,slow=11,SNR=4.9						
CMAR	Chiang Mai Arr	29.02	293	P	P	19 20 22.4	-0.8
	3.3nm,0.9s,mb4.1,baz=113,slow=7.1,SNR=24						
WRAB	Tennant Creek	29.18	166	P	P	19 20 20.9	-3.6
	26nm,1.6s,mb4.7						
WRA	Warramunga Arr	29.19	166	P	P	19 20 28.4	+3.8
	0.3nm,0.3s,mb3.5,baz=347,slow=10.0,SNR=3.1						
ASAR	Alice Springs	32.69	168	P	P	19 20 57.5	+2.0
	0.3nm,0.3s,mb3.7,baz=347,slow=7.4,SNR=12						
LSA	Lhasa	39.67	307	P	P	19 21 55.9	+0.7
TAPN	Taplejung	41.60	302	*e*P	P	19 22 11.4	+0.2
	17nm,0.9s,mb4.7						
ODAN	Odare	41.72	301	*e*P	P	19 22 11.7	-0.4
	21nm,0.8s,mb4.8						
RAMN	Ramite	42.42	301	*e*P	P	19 22 17.7	-0.1
	24nm,1.1s,mb4.7						
STKA	Stephens Creek	42.51	162	P	P	19 22 19.2	+0.7
	0.7nm,0.5s,mb3.7,baz=338,slow=11,SNR=2.9						
STKA	Stephens Creek	42.51	162	P	P	19 22 19.2	+0.7
ULN	Ulaanbaatar	42.71	340	P	P	19 22 18.7	-1.2
	1.6nm,0.6s,mb3.9						
SONM	Songino Array	42.91	340	P	P	19 22 20.0	-1.4
	0.5nm,0.7s,mb3.4,baz=158,slow=6.1,SNR=4.9						
SONM				PcP	PcP	19 24 12.5	+0.7
	0.4nm,0.8s,baz=144,slow=5.2,SNR=3.0						
JIRN	Jiri	42.98	302	*e*P	P	19 22 22.3	-0.1
	16nm,0.7s,mb4.9						
GUN	Gumba	43.32	302	*e*P	P	19 22 25.0	-0.2
	16nm,0.8s,mb4.8						
PKI	Pulchoki	43.61	301	*e*P	P	19 22 27.2	-0.3
	6.2nm,0.7s,mb4.5						
PKIN	Phulchoki	43.63	301	*e*P	P	19 22 27.2	-0.4
	6.2nm,0.7s,mb4.5						
DMN	Daman	43.88	301	*e*P	P	19 22 29.2	-0.5
	9.9nm,0.9s,mb4.5						
GKN	Gorkha	44.40	302	*e*P	P	19 22 32.7	-1.1
	4.9nm,0.7s,mb4.3						
KOLN	Koldanda	45.21	301	*e*P	P	19 22 39.8	-0.5
	18nm,0.8s,mb4.9						
DANN	Dangsing	45.24	302	*e*P	P	19 22 40.0	-0.5
MKAR	Makanchi Array	53.87	323	P	P	19 23 45.1	-0.9
	1.7nm,0.7s,mb4.1,baz=122,slow=8.2,SNR=21						
ZALV	Zalesovo Beam	56.51	332	P	P	19 24 04.0	-0.9
	0.6nm,0.3s,mb4.0,baz=120,slow=5.6,SNR=5.4						
ZALV	Zalesovo Beam	56.51	332	P	P	19 24 04.0	-0.9
UCH	Uchtor	56.94	315	*e*P	P	19 24 08.9	+0.7
	2.7nm,1.0s,mb4.2						
AML	Almayashu	57.48	315	*e*P	P	19 24 11.9	-0.1
	2.2nm,0.8s,mb4.2						
EKS2	Erkin-Say	57.60	316	*e*P	P	19 24 13.4	+0.5
	2.0nm,0.8s,mb4.2						
KURK	Kurchatov	57.93	326	P	P	19 24 14.3	-0.7
	2.0nm,0.5s,mb4.4,baz=124,slow=6.6,SNR=13						
KURK	Kurchatov	57.93	326	P	P	19 24 14.3	-0.7
KBL	Kabul	58.95	305	*e*P	P	19 24 21.3	-1.1
	3.4nm,0.8s,mb4.4						
BVAR	Borovoye Array	63.53	326	P	P	19 24 52.7	-0.3
	4.2nm,0.7s,mb4.6,baz=116,slow=7.9,SNR=24						
BRVK	Borovoye	63.60	326	*e*P	P	19 24 53.1	-0.4
	6.4nm,0.8s,mb4.7						
ARU	Arti	71.10	327	*e*P	P	19 25 39.9	-1.0
	4.2nm,0.6s,mb4.5						
MCK	McKinley	79.76	27	P	P	19 26 33.2	+2.7
	4.2nm,0.9s,mb4.4						
JOF	Joensuu	85.08	333	*e*p	P	19 26 56.4	-1.9
	2.6nm,0.7s,mb4.5						
ARCES	ARCESS Array B	86.08	340	P	P	19 27 03.2	+0.1
	1.8nm,0.7s,mb4.4,baz=82,slow=5.9,SNR=9.6						
FINES	FINESS Array B	87.78	332	P	P	19 27 10.8	-0.7
	1.3nm,0.6s,mb4.3,baz=74,slow=4.0,SNR=12						
YKA	Yellowknife Ar	95.02	24	P	P	19 27 47.1	+1.9
	0.3nm,0.8s,mb3.8,baz=298,slow=4.6,SNR=5.9						

NEIC ***26*** *19:33:05.4, 17°.71N×101°.48W, h41km, MD4.1(MEX), After MEX.*

MEX 26 19:33:05.4±0.6**, 17°.70N**×**101°.48W, h41**km±4km**, MD4.1, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.10	170	*i* P	Pn	19 33 10.3	-1.8
ZIIG				*i* S	Sn	19 33 15.4	-1.3
CAIG	El Cayaco	1.33	119	*e*P	Pn	19 33 26.0	-1.5
CAIG				*i* S	Sn	19 33 42.5	-1.5
ACX	Acapulco	1.71	119	*i* P	Pn	19 33 30.7	-2.0
ACX				*i* S	Sn	19 33 51.5	-1.9
MEIG	Mezcala	1.79	83	*e*P	Pn	19 33 32.1	-1.7
MEIG				*i* S	Sn	19 33 54.2	-1.1
MMIG	Aquila	1.87	288	*i* P	Pn	19 33 33.2	-1.6
MMIG				*i* S	Sn	19 33 55.5	-1.7
MOIG	Morelia	1.98	8	*e*P	Pn	19 33 35.1	-1.3
MOIG				*i* S	Sn	19 33 58.0	-2.1
PLIG	Platanillo	2.00	70	*e*P	Pn	19 33 35.2	-1.5
PLIG				*i* S	Sn	19 33 57.7	-2.9
SZVM	Salazar	2.56	51	*e*P	Pn	19 33 44.1	-0.3
SZVM				*i* S	Sn	19 34 14.8	+0.4
YAIG	Yautepec	2.57	63	*e*P	Pn	19 33 43.4	-1.1
YAIG				*i* S	Sn	19 34 12.3	-2.2
MZVM		2.60	55	*i* P	Pn	19 33 43.2	-1.8
MZVM				*i* S	Sn	19 34 12.9	-2.4

CHVM	**Chichinautzin**	**2.61**	**58**	*i* P	Pn	19 33 44.3	-0.8
CHVM				*i* S	Sn	19 34 15.2	-0.3
EZ5V		**2.68**	**312**	*e*P	Pn	19 33 46.1	+0.1
EZ5V				*i* S	Sn	19 34 14.9	-2.3
R15V		**2.79**	**302**	*i* P	Pn	19 33 46.9	-0.6
R15V				*e*P		19 33 47.4	
R15V				*i* S	Sn	19 34 17.9	-2.0
PPM	**Popocatepetl**	**3.03**	**63**	*e*P	Pn	19 33 50.0	-0.8
PPM				*i* S	Sn	19 34 24.2	-1.8
SFJM	**Santa Fe**	**3.13**	**332**	*i* P	Pn	19 33 52.2	-0.1
PNIG	**Pinotepa**	**3.46**	**112**	*i* P	Pn	19 33 55.4	-1.5
PNIG				*i* S	Sn	19 34 35.7	-0.9
DEIG	**Demacu**	**3.47**	**41**	*i* P	Pn	19 33 55.4	-1.5
DEIG				*i* S	Sn	19 34 36.1	-0.7
UTMO	**Huajuapan**	**3.51**	**87**	*i* P	Pn	19 33 57.2	-0.3
UTMO				*i* S	Sn	19 34 37.6	-0.1
TPIG	**Tehuac#an**	**3.98**	**79**	*e*P	Pn	19 34 03.4	-0.6
ANIG	**Ahuacatlan**	**4.40**	**320**	*i* P	Pn	19 34 13.1	+3.4
VHO	**Vista Hermosa**	**4.58**	**97**	*i* P	Pn	19 34 13.1	+1.0
VHO				*i* S	Sn	19 35 01.3	-2.8
HUIG	**Huatulco**	**5.50**	**110**	*i* P	Pn	19 34 23.7	-1.1
HUIG				*i* S	Sn	19 35 26.2	-0.6
CMIG	**Matias Romero**	**6.33**	**95**	*i* P	Pn	19 34 39.0	+2.8
CMIG				*i* S	Sn	19 35 46.3	-1.0

*MOS **26** 19:47:03.4±0.8, 6°.89S×129°.62E, h55^{km}, mb5.1/14, Error ellipse: s-maj=16.7km s-min=6.5km az=115.6*
*BJI **26** 19:47:07.2, 7°.35S×130°.03E, h130^{km}, mB5.4/6, mb4.6/17*
*NEIC **26** 19:47:09.8±0.8, 7°.04S×129°.68E, h106^{km}±7^{km}, mb5.0/33, Error ellipse: s-maj=8.3km s-min=4.9km az=58.0*
*ISCJB **26** 19:47:11.4±0.6, 7°.16S±0°.03×129°.94E±0°.04, h147^{km}±5^{km}, mb4.8/64, Error ellipse: s-maj=6.6km s-min=5.0km az=156.3*
*IDC **26** 19:47:13.7±1.5, 7°.00S×129°.65E, h137^{km}±11^{km}, mb4.3/14, mb1 4.3/15, mb1mx4.3/19, mbtmp4.3/15, Error ellipse: s-maj=19.4km s-min=11.5km az=68.0*
*DJA **26** 19:47:14, 7°.16S×129°.89E, h146^{km}, mb5.1/33*
ISC 26 19:47:12.7±0.5, **7°.16S**±0°.03×**129°.90E**±0°.04, **h140**^{km}±4^{km}, **n218,** σ**1**^{s}.**13**/188, **mb4.8**/63, **11C-4D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLE	**Tual**	**3.20**	**62**	⇑*e*P	**Pn**	**19 48 00.0**	**-2.3**
TLE				*e*S	**Sn**	**19 48 35.0**	**-5.6**
AAI	**Ambon**	**3.85**	**334**	⇓*e*P	**Pn**	**19 48 00.9**	**-10**
AAI				*e*S	**Sn**	**19 48 55.7**	**-0.1**
AAI	**Ambon**	**3.85**	**334**	P	**Pn**	**19 48 10.6**	**-0.2**
NLAI	**Namlea**	**4.79**	**324**	P	**Pn**	**19 48 23.9**	**+0.6**
KAKA	**Kakadu**	**6.05**	**156**	*e*P	**Pn**	**19 48 40.7**	**+0.6**
	241nm,0.3s						
KAKA				*e*S	**Sn**	**19 49 37.0**	**-11**
KAKA	**Kakadu**	**6.05**	**156**	*e*Pn	**Pn**	**19 48 41.4**	**+1.3**
	19nm,0.5s						
KAKA				*e*Sn	**Sn**	**19 49 33.9**	**-15**
KAKA	**Kakadu**	**6.05**	**156**	P	**Pn**	**19 48 42.4**	**+2.3**
	810nm,0.6s,16nm						
KUG	**Kupang**	**6.90**	**244**	⇓*e*P	**Pn**	**19 48 51.5**	**0.0**
KDI	**Kendari**	**7.92**	**293**	⇓*e*P	**Pn**	**19 49 04.9**	**-0.2**
KDI				*e*S	**Sn**	**19 50 33.0**	**-0.3**
KDI	**Kendari**	**7.92**	**293**	P	**Pn**	**19 49 05.5**	**+0.3**
	82nm,1.2s,976nm0.3nm						
TNTI	**Ternate**	**8.28**	**342**	P	**Pn**	**19 49 09.5**	**-0.5**
	303nm,0.8s,3µm						
BAKI	**Biak**	**8.57**	**46**	P	**Pn**	**19 49 15.8**	**+1.9**
	2µm,0.9s						
KMSI	**Cibinong**	**9.69**	**322**	P	**Pn**	**19 49 31.3**	**+2.4**
	228nm,0.9s						
WSI	**Waingapu**	**9.82**	**255**	⇑*e*P	**Pn**	**19 49 28.0**	**-2.6**
WSI				*e*S	**Sn**	**19 51 05.0**	**-14**
WSI	**Waingapu**	**9.82**	**255**	P	**Pn**	**19 49 28.6**	**-2.0**
	730nm,0.6s						
MNI	**Manado**	**9.93**	**329**	P	**Pn**	**19 49 32.1**	**0.0**
	150nm,0.7s,1µm						
BNSI	**Bone**	**10.12**	**285**	P	**Pn**	**19 49 34.2**	**-0.5**
	80nm,1.5s						
APSI	**Ampana**	**10.31**	**307**	P	**Pn**	**19 49 38.9**	**+1.8**
	184nm,1.3s,2µm						
KAPI	**Kappang**	**10.32**	**281**	P	**Pn**	**19 49 36.1**	**-1.1**
	0.6nm,0.3s,baz=121,slow=5.6,SNR=9.7						
FITZ	**Fitzroy Crossi**	**11.64**	**201**	*e*P	**Pn**	**19 49 51.5**	**-3.1**
	725nm,0.8s						
FITZ				*e*S	**Sn**	**19 51 52.2**	**-11**
FITZ	**Fitzroy Crossi**	**11.64**	**201**	P	**Pn**	**19 49 51.8**	**-2.8**
	27nm,0.3s,baz=35,slow=12,SNR=111						
FITZ				S	**Sn**	**19 51 56.0**	**-7.2**
	37nm,0.3s,baz=149,slow=17,SNR=6.3						
FITZ	**Fitzroy Crossi**	**11.64**	**201**	P	**Pn**	**19 49 52.9**	**-1.7**
	630nm,0.7s						
PCI	**Palu**	**11.80**	**301**	P	**Pn**	**19 49 59.7**	**+2.9**
	271nm,0.8s						
WRAB	**Tennant Creek**	**13.41**	**162**	Pn	**Pn**	**19 50 16.0**	**-1.6**
	982nm,0.7s,SNR=78						
WRAB	**Tennant Creek**	**13.41**	**162**	*e*P	**Pn**	**19 50 15.9**	**-1.7**
WRAB				pmax	pmax		
	comp=Z,95nm,0.7s						
WRAB	**Tennant Creek**	**13.41**	**162**	*e*Pn	**Pn**	**19 50 15.9**	**-1.7**
	comp=Z,95nm,0.7s						
WRAB				*e*Sn	**Sn**	**19 52 37.9**	**-8.0**
WRAB	**Tennant Creek**	**13.41**	**162**	P	**Pn**	**19 50 16.2**	**-1.4**
	comp=Z,168nm,0.8s,comp=Z,1µm						
WRA	**Warramunga Arr**	**13.41**	**162**	P	**Pn**	**19 50 15.9**	**-1.7**
	comp=Z,13nm,0.3s,baz=335,slow=13,SNR=207						
WRA				S	**Sn**	**19 52 38.2**	**-7.8**
	comp=Z,26nm,0.3s,baz=332,slow=22,SNR=13						
KBKI	**Kotabaru**	**14.21**	**285**	P	**Pn**	**19 50 31.6**	**+3.8**
	comp=Z,109nm,0.9s,comp=Z,964nm						
KHKI	**Kahang-Kahang**	**14.22**	**264**	P	**Pn**	**19 50 31.8**	**+3.9**
	comp=Z,35nm,0.8s						
SRBI	**Singaraja**	**14.59**	**265**	P	**Pn**	**19 50 33.5**	**+0.9**
	comp=Z,45nm,0.7s						
COEN	**Coen**	**14.69**	**118**	*e*Pn	**Pn**	**19 50 35.7**	**+2.0**
	comp=Z,209nm,0.6s						
COEN				*e*Sn	**Sn**	**19 53 07.5**	**-9.1**
COEN	**Coen**	**14.69**	**118**	P	**Pn**	**19 50 36.7**	**+2.9**
	comp=Z,186nm,1.4s						
IGBI	**Denpasar**	**14.71**	**263**	P	**Pn**	**19 50 34.1**	**0.0**
	comp=Z,184nm,0.5s,comp=Z,4µm						
BBKI	**Banjar Baru**	**15.44**	**283**	P	**Pn**	**19 50 46.4**	**+3.2**
	comp=Z,611nm,1.4s,comp=Z,6µm						
ABJI	**Asem Bagus**	**15.55**	**267**	P	**Pn**	**19 50 43.4**	**-1.2**
	comp=Z,86nm,0.8s						
KMMI	**Kalianget**	**15.82**	**269**	P	**Pn**	**19 50 48.9**	**+1.1**
	comp=Z,72nm,1.1s						
GMJI	**Gumukmas**	**16.35**	**265**	P	**Pn**	**19 50 53.8**	**-0.6**
TSM	**Tawau**	**16.54**	**313**	P	**Pn**	**19 50 57.2**	**+0.5**
PLKI	**Palangkaraya**	**16.64**	**286**	P	**Pn**	**19 50 58.1**	**+0.2**
	comp=Z,934nm,1.0s,comp=Z,8µm						
ASAR	**Alice Springs**	**16.86**	**167**	P	**Pn**	**19 51 01.1**	**+0.7**
ASAR				S	**S**	**19 54 01.0**	**-7.1**
ASAR	**Alice Springs**	**16.86**	**167**	P	**Pn**	**19 51 01.1**	**+0.6**
	comp=Z,6.6nm,0.3s,baz=334,slow=9.6,SNR=266						
ASAR				S	**S**	**19 54 01.0**	**-7.1**
	comp=Z,3.8nm,0.3s,baz=356,slow=28,SNR=5.5						
ASAR				ScP	ScP	19 59 02.7	+1.2
	baz=343,slow=1.5,SNR=5.4						
MBWA	**Marble Bar**	**17.04**	**214**	*e*P	**Pn**	**19 51 01.8**	**-0.9**
	comp=Z,42nm,0.5s						
MBWA				*e*S	**S**	**19 53 56.4**	**-16**
MBWA	**Marble Bar**	**17.04**	**214**	P	**Pn**	**19 51 05.0**	**+2.3**
	SNR=5.3						
MBWA				P		19 51 05.0	
	SNR=5.3						
MBWA	**Marble Bar**	**17.04**	**214**	P	**Pn**	**19 51 02.4**	**-0.3**
	comp=Z,105nm,0.9s						
TRT	**Tretes**	**17.13**	**267**	⇑*e*P	**Pn**	**19 51 04.0**	**+0.1**
SDKM	**Sandakan**	**17.96**	**315**	P	**Pn**	**19 51 14.1**	**+0.3**
PWJI	**Pagerwojo**	**17.96**	**266**	P	**Pn**	**19 51 11.1**	**-2.7**
	comp=Z,55nm,0.8s						
SJI	**Sawahan**	**17.99**	**267**	P	**P**	**19 51 12.5**	**-0.3**
	comp=Z,76nm,0.6s						
KKM	**Kota Kinabalu**	**18.94**	**314**	P	**P**	**19 51 22.9**	**-0.2**
KKM	**Kota Kinabalu**	**18.94**	**314**	*e*P	**P**	**19 51 21.3**	**-1.7**
	comp=Z,91nm,0.9s						
KDM	**Kudat**	**19.12**	**317**	P	**P**	**19 51 26.5**	**+1.4**
BTM	**Bintulu**	**19.69**	**301**	P	**P**	**19 51 32.9**	**+1.6**
SBUM	**Sibu**	**20.07**	**298**	P	**P**	**19 51 36.8**	**+1.5**
SBUM	**Sibu**	**20.07**	**298**	P	**P**	**19 51 35.7**	**+0.4**
	comp=Z,228nm,0.8s,comp=Z,2µm						
CTA	**Charters Tower**	**20.41**	**131**	P	**P**	**19 51 44.0**	**+5.2**
	comp=Z,4.1nm,0.8s,baz=315,slow=10.0,SNR=3.3						
CTAO	**Charters Tower**	**20.41**	**131**	*e*P	**P**	**19 51 43.3**	**+4.4**
CTAO				pmax	pmax		
	comp=Z,21nm,1.0s						
CTAO	**Charters Tower**	**20.41**	**131**	*e*P	**P**	**19 51 43.3**	**+4.4**
	comp=Z,21nm,1.0s						
KSM	**Kuching**	**21.35**	**293**	P	**P**	**19 51 50.1**	**+1.1**
KSM	**Kuching**	**21.35**	**293**	*e*P	**P**	**19 51 46.3**	**-2.7**
	comp=Z,35nm,0.6s,mb4.9						
KSM	**Kuching**	**21.35**	**293**	P	**P**	**19 51 46.7**	**-2.3**
	comp=Z,64nm,0.6s,comp=Z,614nm,mb5.1						
LEM	**Lembang**	**22.12**	**269**	P	**P**	**19 51 57.7**	**+0.5**
	comp=Z,128nm,0.7s,mb5.5						
TPI	**Tanjungpandan**	**22.59**	**280**	P	**P**	**19 52 01.8**	**0.0**
	comp=Z,44nm,1.4s,mb4.7						
CBJI	**Citeko**	**22.90**	**270**	P	**P**	**19 52 04.5**	**-0.2**
TGY	**Tagaytay City**	**22.92**	**337**	P	**P**	**19 52 05.0**	**+0.2**
	comp=Z,136nm,0.5s,mb5.7,baz=188,slow=7.1,SNR=4.1						
FORT	**Forrest**	**23.56**	**184**	*e*P	**P**	**19 52 12.9**	**+2.4**
	comp=Z,82nm,0.6s,mb5.4						
FORT	**Forrest**	**23.56**	**184**	*e*P	**P**	**19 52 12.7**	**+2.2**
	comp=Z,109nm,0.6s,mb5.6						
FORT				*e*S	**S**	**19 56 20.4**	**+6.2**
STKA	**Stephens Creek**	**26.90**	**158**	*e*P	**P**	**19 52 43.6**	**+2.9**
	comp=Z,5.9nm,0.4s,mb4.6						
STKA	**Stephens Creek**	**26.90**	**158**	P	**P**	**19 52 43.5**	**+2.8**
	comp=Z,9.0nm,0.4s,mb4.7,baz=332,slow=8.7,SNR=56						
STKA	**Stephens Creek**	**26.90**	**158**	P	**P**	**19 52 43.5**	**+2.8**
MYKOM	**Kota Tinggi**	**27.48**	**288**	P	**P**	**19 52 47.5**	**+1.4**
MYKOM	**Kota Tinggi**	**27.48**	**288**	P	**P**	**19 52 47.2**	**+1.1**
	comp=Z,29nm,1.3s,mb4.8						
MUN	**Mundaring**	**27.80**	**206**	*e*P	pP	19 53 22.0	+3.5
MUN				*e*S	sS	19 58 13.2	-0.6
KGM	**Kluang**	**28.05**	**288**	P	**P**	**19 52 52.7**	**+1.6**
NWAO	**Narrogin (SRO)**	**28.21**	**203**	P	**P**	**19 52 54.0**	**+1.7**
	comp=Z,8.5nm,0.6s,mb4.6,baz=40,slow=9.8,SNR=9.1						
KTGM	**Kuala Trenggan**	**29.45**	**294**	P	**P**	**19 53 05.2**	**+1.6**
PPI	**Padang Panjang**	**30.17**	**281**	P	**P**	**19 53 09.3**	**-0.6**
	comp=Z,55nm,1.1s,mb5.2						
IPM	**Ipoh**	**31.05**	**291**	P	**P**	**19 53 17.6**	**-0.1**
IPM	**Ipoh**	**31.05**	**291**	P	**P**	**19 53 18.2**	**+0.5**
	comp=Z,17nm,0.9s,mb4.8						
KULM	**Kulim**	**31.70**	**292**	P	**P**	**19 53 23.5**	**+0.1**
KULM	**Kulim**	**31.70**	**292**	*e*P	**P**	**19 53 19.7**	**-3.7**
	comp=Z,16nm,0.9s,mb4.8						
PSI	**Prapat**	**32.46**	**287**	P	**P**	**19 53 27.6**	**-2.5**
	comp=Z,38nm,0.8s,mb5.2,baz=117,slow=3.8,SNR=30						
GSI	**Gunungsitoli**	**33.33**	**283**	P	**P**	**19 53 37.2**	**-0.5**
	comp=Z,47nm,1.2s,mb5.1						
CMAR	**Chiang Mai Arr**	**39.76**	**310**	P	**P**	**19 54 31.1**	**-0.9**
CMAR						19 56 37.5	
CMAR	**Chiang Mai Arr**	**39.76**	**310**	P	**P**	**19 54 31.1**	**-0.9**
	comp=Z,5.5nm,0.6s,mb4.4,baz=136,slow=6.8,SNR=74						
CMAR				PcP	PcP	19 56 37.5	+1.7
	comp=Z,2.1nm,0.7s,baz=164,slow=3.1,SNR=6.0						
CMAR				ScP	ScP	20 00 12.9	+1.2
	comp=Z,0.9nm,0.7s,baz=159,slow=3.5,SNR=7.6						
CHTO	**Chiang Mai**	**39.97**	**311**	*e*P	**P**	**19 54 32.7**	**-1.1**
CHTO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
CHTO	**Chiang Mai**	**39.97**	**311**	*e*P	**P**	**19 54 32.7**	**-1.1**
	comp=Z,14nm,0.9s,mb4.6						
CHTO	**Chiang Mai**	**39.97**	**311**	P	**P**	**19 54 33.2**	**-0.6**
	SNR=6.1						
CHTO				P		19 54 33.2	
	SNR=6.1						
CHTO	**Chiang Mai**	**39.97**	**311**	P	**P**	**19 54 33.2**	**-0.6**
MAJO	**Matsushiro**	**44.16**	**10**	*e*P	**P**	**19 55 05.9**	**-1.6**
MAJO				pmax	pmax		
	comp=Z,44nm,1.4s,mb4.9						
MAJO	**Matsushiro**	**44.16**	**10**	*e*P	**P**	**19 55 05.9**	**-1.6**
	comp=Z,44nm,1.4s,mb4.9						
MJAR	**Matsushiro Arr**	**44.16**	**10**	P	**P**	**19 55 06.2**	**-1.4**
	comp=Z,3.5nm,0.8s,mb4.0,baz=187,slow=10.0,SNR=5.9						
KSRS	**Korea Array**	**44.42**	**358**	P	**P**	**19 55 09.1**	**-0.4**
	comp=Z,2.0nm,0.7s,mb3.9,baz=173,slow=9.1,SNR=3.2						
XAN	**Xi'an**	**45.54**	**335**	P	**P**	**19 55 16.5**	**-2.0**
XAN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
BJT	**Baijiatuau**	**48.63**	**346**	P	**P**	**19 55 41.4**	**-0.9**
BJT				pmax	pmax		
	comp=Z,13nm,1.0s						
BJT	**Baijiatuau**	**48.63**	**346**	P	**P**	**19 55 41.4**	**-0.8**
	comp=Z,13nm,1.0s,mb4.5						
LZH	**Lanzhou**	**49.50**	**332**	*e*P	**P**	**19 55 50.0**	**+1.0**
LZH				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.5						
LZH				pmax	pmax		
	comp=Z,95nm,5.0s						
MDJ	**Mudanjiang**	**51.54**	**360**	P	**P**	**19 56 04.4**	**+0.2**
	comp=Z,11nm,1.0s,mb4.4						
LSA	**Lhasa**	**52.25**	**316**	P	**P**	**19 56 10.0**	**+0.3**
LSA	**Lhasa**	**52.25**	**316**	*e*P	**P**	**19 56 09.5**	**-0.2**
LSA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
LSA	**Lhasa**	**52.25**	**316**	*e*P	**P**	**19 56 09.5**	**-0.2**
	comp=Z,9.9nm,0.6s,mb4.6						
ODAN	**Odare**	**53.29**	**311**	*e*P	**P**	**19 56 16.6**	**-0.8**
	comp=Z,23nm,0.5s,mb5.1						
TAPN	**Taplejung**	**53.32**	**312**	*e*P	**P**	**19 56 17.0**	**-0.6**
	comp=Z,31nm,0.4s,mb5.4						
RAMN	**Ramite**	**53.93**	**311**	*e*P	**P**	**19 56 21.5**	**-0.6**
	comp=Z,46nm,0.5s,mb5.5						
GTA	**Gaotai**	**54.07**	**331**	*e*P	**P**	**19 56 22.8**	**0.0**
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.0						
JIRN	**Jiri**	**54.62**	**311**	*e*P	**P**	**19 56 26.4**	**-0.7**
	comp=Z,31nm,0.5s,mb5.3						
GUN	**Gumba**	**54.99**	**311**	*e*P	**P**	**19 56 28.9**	**-0.8**
	comp=Z,54nm,0.4s,mb5.6						
PKI	**Pulchoki**	**55.16**	**311**	*e*P	**P**	**19 56 29.8**	**-1.1**
	comp=Z,20nm,0.5s,mb5.1						
PKI	**Pulchoki**	**55.16**	**311**	*e*P	**P**	**19 56 29.8**	**-1.1**
PKI				pmax	pmax		
	comp=Z,21nm,0.5s,mb5.1						
PKIN	**Phulchoki**	**55.17**	**311**	*e*P	**P**	**19 56 29.8**	**-1.2**
	comp=Z,21nm,0.5s,mb5.2						
KKN	**Kakani**	**55.37**	**311**	*e*P	**P**	**19 56 31.2**	**-1.2**
	comp=Z,32nm,0.5s,mb5.3						
KKN	**Kakani**	**55.37**	**311**	*e*P	**P**	**19 56 31.2**	**-1.2**
KKN				pmax	pmax		
	comp=Z,32nm,0.5s,mb5.3						
DMN	**Daman**	**55.41**	**311**	*e*P	**P**	**19 56 32.0**	**-0.7**
	comp=Z,14nm,0.5s,mb5.0						
GKN	**Gorkha**	**55.97**	**311**	*e*P	**P**	**19 56 35.8**	**-0.9**
	comp=Z,40nm,0.4s,mb5.6						
KLR	**Kul'dur**	**56.17**	**1**	*e*P	**P**	**19 56 32.3**	**-5.4**
HYB	**Hyderabad**	**56.30**	**296**	*i* P	**P**	**19 56 36.5**	**-2.7**
KOLN	**Koldanda**	**56.63**	**310**	*e*P	**P**	**19 56 40.7**	**-0.7**
	comp=Z,38nm,0.6s,mb5.4						
DANN	**Dangsing**	**56.81**	**311**	*e*P	**P**	**19 56 41.8**	**-0.8**
	comp=Z,30nm,0.5s,mb5.4						
ULN	**Ulaanbaatar**	**58.39**	**342**	*e*P	**P**	**19 56 52.9**	**-0.4**
ULN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
ULN	**Ulaanbaatar**	**58.39**	**342**	*e*P	**P**	**19 56 52.9**	**-0.4**
	comp=Z,6.5nm,0.6s,mb4.6						
SONM	**Songino Array**	**58.56**	**342**	P	**P**	**19 56 55.1**	**+0.6**
	comp=Z,4.2nm,0.7s,mb4.4,baz=156,slow=5.2,SNR=32						
ZAK	**Zakamensk**	**61.78**	**341**	⇑*i*P	**P**	**19 57 16.7**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.0						
TLY	**Talaya**	**62.80**	**342**	*e*P	**P**	**19 57 23.8**	**+0.7**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
TLY	**Talaya**	**62.80**	**342**	*e*P	**P**	**19 57 22.8**	**-0.3**
	comp=Z,18nm,0.9s,mb4.9						
MOY	**Mondy**	**63.63**	**340**	*e*P	**P**	**19 57 30.0**	**+1.4**
PETK	**Petropavlovsk-**	**64.50**	**18**	P	**P**	**19 57 35.6**	**+1.3**
	comp=Z,3.6nm,0.7s,mb4.3,baz=186,slow=5.6,SNR=4.4						
BOD	**Bodaibo**	**66.04**	**351**	*e*P	**P**	**19 57 44.3**	**+0.2**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
KSH	**Kashi**	**68.07**	**318**	P	**P**	**19 57 58.0**	**+0.7**
KSH				*e*PcP	PcP	19 58 24.8	+2.4
KSH				*e*PP	PP	20 00 29.0	-0.5
KSH				*e*S	S	20 06 52.0	+6.2
KSH				*e*SS	SS	20 11 15.0	+3.8
KSH				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
KSH				pmax	pmax		
	comp=Z,170nm,3.2s						
KSH				LR	LR		
	comp=N,310nm,6.9s						
KSH				LR	LR		
	comp=E,440nm,6.0s						
KSH				LR	LR		
	comp=Z,490nm,7.6s						
MK31	**Makanchi Array**	**68.31**	**327**	*e*P	**P**	**19 57 58.8**	**+0.2**
MK31				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.8						
MKAR	**Makanchi Array**	**68.31**	**327**	P	**P**	**19 57 58.7**	**+0.1**
	comp=Z,14nm,0.5s,mb4.9,baz=116,slow=8.1,SNR=266						
MKAR	**Makanchi Array**	**68.31**	**327**	P	**P**	**19 57 58.7**	**0.0**
YAK	**Yakutsk**	**68.98**	**360**	*e*P	**P**	**19 58 02.0**	**-0.5**
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.8						
YAK	**Yakutsk**	**68.98**	**360**	*e*P	**P**	**19 58 02.1**	**-0.4**
	comp=Z,18nm,0.8s,mb4.8						
KZA	**Kyzart**	**69.84**	**320**	P	**P**	**19 58 09.6**	**+1.4**
	SNR=15						
KBK	**Karagaybulak**	**70.32**	**320**	P	**P**	**19 58 12.1**	**+1.0**
	SNR=7.8						
UCH	**Uchtor**	**70.39**	**320**	P	**P**	**19 58 13.3**	**+1.8**
	SNR=13						
UCH	**Uchtor**	**70.39**	**320**	*e*P	**P**	**19 58 12.9**	**+1.4**
	comp=Z,10nm,0.8s,mb4.6						
AAK	**Ala-Archa**	**70.60**	**320**	⇑*e*P	**P**	**19 58 11.2**	**-1.6**
AAK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
AAK	**Ala-Archa**	**70.60**	**320**	P	**P**	**19 58 14.0**	**+1.2**
	SNR=12						
AAK	**Ala-Archa**	**70.60**	**320**	*e*P	**P**	**19 58 12.8**	**0.0**
	comp=Z,12nm,0.8s,mb4.7						
AML	**Almayashu**	**70.87**	**319**	P	**P**	**19 58 15.6**	**+1.1**
	SNR=22						
USP	**Ospenovka**	**70.91**	**320**	P	**P**	**19 58 15.1**	**+0.4**
	SNR=18						
EKS2	**Erkin-Say**	**71.07**	**320**	P	**P**	**19 58 17.3**	**+1.6**
	SNR=18						
EKS2	**Erkin-Say**	**71.07**	**320**	*e*P	**P**	**19 58 16.6**	**+1.0**
	comp=Z,11nm,0.6s,mb4.8						
ZAA0	**Zalesovo Array**	**71.68**	**334**	*e*P	**P**	**19 58 17.9**	**-1.1**
ZALV	**Zalesovo Beam**	**71.68**	**334**	P	**P**	**19 58 18.1**	**-1.0**
	comp=Z,7.5nm,0.6s,mb4.6,baz=121,slow=5.5,SNR=41						
SEY	**Seymchan**	**71.98**	**11**	⇑*e*P	**P**	**19 58 21.4**	**+0.7**
VNDA	**Vanda**	**72.30**	**173**	P	**P**	**19 58 24.8**	**+2.4**
	comp=Z,3.4nm,0.9s,mb4.1,baz=308,slow=4.7,SNR=2.9						
KURK	**Kurchatov**	**72.60**	**329**	P	**P**	**19 58 24.5**	**-0.1**
KURK				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.9						
KURK	**Kurchatov**	**72.60**	**329**	*e*P	**P**	**19 58 24.3**	**-0.3**
	comp=Z,25nm,0.9s,mb5.0						
KURK	**Kurchatov**	**72.60**	**329**	P	**P**	**19 58 24.8**	**+0.2**
	SNR=7.7						
KURK				P		19 58 24.8	
	SNR=7.7						
NVS	**Novosibirsk**	**72.97**	**334**	⇑*i*P	**P**	**19 58 25.8**	**-0.9**
NVS				*e*S	S	20 07 37.6	-4.3
NVS				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.6						
NVS				pmax	pmax		
	comp=N,5.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,5.0nm,0.6s						
NVS				smax			
	comp=N,7.0nm,1.4s						
NVS				smax			
	comp=E,14nm,1.2s						
KK31	**Karatay Array**	**73.40**	**319**	*i* P	**P**	**19 58 29.7**	**+0.2**
KK31				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
SMDO	**Samad**	**76.33**	**296**	P	**P**	**19 58 47.2**	**+0.4**
	SNR=7.8						
BIDO	**Bidbid**	**76.37**	**296**	P	**P**	**19 58 47.9**	**+0.9**
	SNR=10						
HOQ	**Hoqain**	**77.11**	**296**	P	**P**	**19 58 52.3**	**+1.2**
	SNR=7.8						
VOSK	**Vostochnaya**	**77.69**	**328**	P	**P**	**19 58 53.0**	**-0.7**
VOSK				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.4						
BVA0	**Borovoye Array**	**78.15**	**328**	*i* P	**P**	**19 58 56.1**	**-0.1**
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.8						
BRVK	**Borovoye**	**78.22**	**328**	*e*P	**P**	**19 58 56.3**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.6						
BRVK	**Borovoye**	**78.22**	**328**	*e*P	**P**	**19 58 56.3**	**-0.3**
	comp=Z,16nm,1.1s,mb4.5						
BRVK	**Borovoye**	**78.22**	**328**	P	**P**	**19 58 57.1**	**+0.4**
	SNR=5.4						
BRVK				P		19 58 57.1	
	SNR=5.4						
BANOM	**Banah**	**78.56**	**298**	P	**P**	**19 59 00.3**	**+1.1**
	SNR=7.2						
TIXI	**Tiksi**	**78.65**	**360**	⇑*e*P	**P**	**19 58 58.3**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
TIXI	**Tiksi**	**78.65**	**360**	*e*P	**P**	**19 58 58.4**	**-0.3**
	comp=Z,3.1nm,0.4s,mb4.3						
WHFO	**Wadi Hawf**	**79.13**	**290**	⇑P	**P**	**19 59 03.3**	**+0.9**
	SNR=6.3						
AB31	**Akbulak array**	**82.57**	**322**	P	**P**	**19 59 19.4**	**-0.6**
AB31				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.8						
SVE	**Sverdlovsk**	**84.85**	**329**	⇓*e*P	**P**	**19 59 31.5**	**+0.1**
SVE				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.9						
ARU	**Arti**	**85.79**	**328**	*c i*P	**P**	**19 59 35.8**	**-0.3**
ARU				S	S	20 09 57.1	0.0
ARU				SS	SS	20 15 37.3	-0.1
ARU				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
ARU	**Arti**	**85.79**	**328**	*e*P	**P**	**19 59 35.5**	**-0.6**
	comp=Z,9.2nm,0.8s,mb4.6						
GNI	**Garni**	**90.88**	**310**	⇑*e*P	**P**	**19 59 59.4**	**-1.3**
GNI				pmax	pmax		
	comp=Z,5.0nm,1.4s						
GNI	**Garni**	**90.88**	**310**	*e*P	**P**	**20 00 00.8**	**+0.2**
MCK	**McKinley**	**92.47**	**26**	P	**P**	**20 00 07.1**	**-0.3**
MCK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
MCK	**McKinley**	**92.47**	**26**	P	**P**	**20 00 07.1**	**-0.3**
	comp=Z,6.4nm,1.0s,mb4.6						
VSR	**Storozhevoye**	**95.99**	**321**	*e*P	**P**	**20 00 22.5**	**-1.3**
VSR				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.9						
VSR				pmax	pmax		
	comp=N,4.0nm,0.4s						
VSR				pmax	pmax		
	comp=E,2.0nm,0.4s						
BRTR	**Keskin Array B**	**99.34**	**309**	P	Pdif	20 00 37.8	-1.1
	comp=E,0.8nm,0.8s						
BRTR	**Keskin Array B**	**99.34**	**309**	P	Pdif	20 00 37.8	-1.1
ARCES	**ARCESS Array B**	**101.69**	**340**	P	Pdif	20 00 49.0	-0.4
	comp=E,2.0nm,0.9s,baz=70,slow=8.0,SNR=3.7						
ARCES	**ARCESS Array B**	**101.69**	**340**	P	Pdif	20 00 49.0	-0.4
FINES	**FINESS Array B**	**102.86**	**331**	PKiKP	PKiKP	20 05 14.9	+0.9
	comp=E,2.3nm,0.9s,baz=162,slow=5.8,SNR=4.6						
YKA	**Yellowknife Ar**	**107.94**	**26**	PKiKP	PKiKP	20 05 24.5	+1.2
	comp=E,0.5nm,0.6s,baz=293,slow=1.8,SNR=10						
YKA				PKKPbc	PKKPbc	20 16 37.4	-1.6
	comp=E,0.6nm,0.6s,baz=105,slow=2.9,SNR=11						
GERES	**GERESS Array B**	**112.48**	**320**	PKiKP	PKiKP	20 05 33.0	+0.7
	comp=E,0.9nm,0.5s,baz=97,slow=3.4,SNR=4.4						
PDAR	**Pinedale Array**	**117.07**	**45**	PKP	PKPdf	20 05 43.1	+1.8
	comp=E,0.7nm,0.7s,baz=309,slow=2.5,SNR=7.3						
HINF	**Hinteralfeld**	**117.14**	**321**	*e*PKIKP	PKPdf	20 05 41.6	+0.3
	comp=E,6.5nm,0.7s						
PGF	**Pioggiola**	**117.39**	**314**	*e*PKIKP	PKPdf	20 05 43.0	+1.1
	comp=E,6.5nm,0.8s						
HAU	**Haudompre**	**117.39**	**321**	*e*PKIKP	PKPdf	20 05 42.4	+0.6
GIVF	**Givet**	**117.52**	**324**	*e*PKIKP	PKPdf	20 05 43.1	+1.2
MEZF	**Maizieres J'vi**	**118.01**	**322**	*e*PKIKP	PKPdf	20 05 44.1	+1.2
LPG	**La Plagne**	**118.02**	**318**	*e*PKIKP	PKPdf	20 05 44.3	+1.3
	comp=E,6.4nm,0.7s						
LPL	**La Plagne**	**118.02**	**318**	*e*PKIKP	PKPdf	20 05 44.2	+1.2
	comp=E,4.7nm,0.6s						
CABF	**La Chapelle**	**118.06**	**320**	*e*PKIKP	PKPdf	20 05 44.2	+1.1
	comp=E,5.5nm,0.5s						
MBDF	**Montbardon**	**118.26**	**317**	*e*PKIKP	PKPdf	20 05 44.8	+1.3
	comp=E,8.6nm,0.9s						
ORIF	**Oris-en-Rattie**	**118.79**	**318**	*e*PKIKP	PKPdf	20 05 45.3	+0.8
	comp=E,4.1nm,0.6s						
KEST	**Kesra**	**118.85**	**307**	PKP	PKPdf	20 05 46.1	+1.2
	comp=E,0.6nm,0.6s,baz=22,slow=5.4,SNR=5.0						
KEST				PP	PP	20 07 02.6	-2.9
	comp=E,0.7nm,0.9s,baz=90,slow=7.1,SNR=3.5						
LOR	**Lormes**	**119.23**	**321**	*e*PKIKP	PKPdf	20 05 46.2	+0.9
SMRF	**Simiane la Rot**	**119.32**	**317**	*e*PKIKP	PKPdf	20 05 46.8	+1.2
	comp=E,6.0nm,0.8s						
SMF	**Signal de Mont**	**119.48**	**320**	*e*PKIKP	PKPdf	20 05 46.8	+1.0
SSF	**Saint Saulge**	**119.53**	**321**	*e*PKIKP	PKPdf	20 05 46.8	+0.9
	comp=E,6.2nm,0.7s						
VIVF	**Saint-Julien-l**	**119.62**	**318**	*e*PKIKP	PKPdf	20 05 46.9	+0.8
AVF	**Avril sur Loir**	**119.74**	**321**	*e*PKIKP	PKPdf	20 05 47.4	+1.1

BGF	**Bois d'Agland**	120.15	320	*e*PKIKP	PKPdf	20 05 48.2	+1.1
	comp=E,11nm,0.7s						
LASF	**Ste Croix**	120.44	317	*e*PKIKP	PKPdf	20 05 48.8	+1.0
TCF	**Toulx Ste Croi**	120.66	320	*e*PKIKP	PKPdf	20 05 49.2	+1.1
	comp=E,8.2nm,0.8s						
LDF	**La Druitiere**	121.08	324	*e*PKIKP	PKPdf	20 05 49.8	+1.0
FLN	**La Foliniere**	121.22	324	*e*PKIKP	PKPdf	20 05 50.0	+0.9
CAF	**Calviac**	121.31	319	*e*PKIKP	PKPdf	20 05 50.6	+1.2
ANMO	**Albuquerque**	121.47	53	PKP	PKPdf	20 05 52.2	+2.2
	comp=E,1.2nm,0.6s,baz=326,slow=3.6,SNR=3.3						
GRR	**Gorron**	121.61	324	*e*PKIKP	PKPdf	20 05 50.8	+0.9
MTLF	**Montolieu**	121.82	317	*e*PKIKP	PKPdf	20 05 51.2	+0.8
MFF	**Saint Martin d**	122.00	322	*e*PKIKP	PKPdf	20 05 51.5	+0.8
ULM	**Lac du Bonnet**	122.63	33	PKP	PKPdf	20 05 52.1	+0.3
	comp=E,2.8nm,0.6s,baz=307,slow=5.1,SNR=5.8						
EPF	**Esparros**	123.21	317	*e*PKIKP	PKPdf	20 05 54.2	+1.1
ETSF	**Etsaut**	123.86	318	*e*PKIKP	PKPdf	20 05 56.1	+1.7
TORD	**Torodi Ar. Bea**	128.75	281	PKP	PKPdf	20 06 04.9	+0.5
	comp=E,3.1nm,0.6s,baz=83,slow=1.8,SNR=20						
TORD				SKPbc		20 09 11.8	
	comp=E,2.2nm,0.8s,baz=73,slow=3.4,SNR=10						
PLCA	**Paso Flores**	128.76	160	PKP	PKPdf	20 06 06.0	+2.1
	comp=E,1.7nm,0.8s,baz=281,slow=6.3,SNR=5.1						
SCHQ	**Schefferville**	130.60	13	PKP	PKPdf	20 06 08.8	+2.0
	comp=E,0.6nm,0.6s,baz=315,slow=4.3,SNR=2.7						
SCHQ				SKPbc	SKPbc	20 09 18.2	+0.5
	comp=E,7.1nm,0.8s,baz=359,slow=4.1,SNR=16						
DBIC	**Dimbokro**	135.10	272	PKP	PKPdf	20 06 18.0	+1.4
	comp=E,3.5nm,0.7s,baz=102,slow=1.0,SNR=6.0						
DBIC				SKPbc	SKPbc	20 09 33.6	-0.8
	comp=E,1.7nm,0.7s,baz=121,slow=5.9,SNR=5.5						
CPUP	**Villa Florida**	145.98	168	PKPbc	PKPbc	20 06 38.6	+1.9
	comp=E,8.8nm,0.6s,baz=190,slow=3.8,SNR=17						
CPUP				SKPbc	SKPbc	20 10 04.8	+1.9
	comp=E,4.9nm,0.8s,baz=170,slow=3.2,SNR=9.7						
CPUP	**Villa Florida**	145.98	168	PKPbc	PKPbc	20 06 38.6	+1.9
CPUP				SKPbc	SKPbc	20 10 04.8	+1.8

ISCJB ***26*** *19:57:57.2±0.1, 47.°76N±0.°01×15.°87E±0.°01, h10*^{km}*, Error ellipse: s-maj=1.7km s-min=1.3km az=167.9*

VIE ***26*** *19:57:58.0±0.2, 47.°69N×15.°94E, h8*^{km}*±2*^{km}*, mb3.0/8, ML3.5/8, Error ellipse: s-maj=2.4km s-min=1.4km az=121.0   1 km N of Gloggnitz felt 5EMS98 at Gloggnitz / LOWER AUSTRIA*

CSEM ***26*** *19:57:58.3±0.1, 47.°72N×15.°97E, h2*^{km}*, ML3.9/23, Error ellipse: s-maj=2.1km s-min=1.7km az=174.0*

IPEC ***26*** *19:57:58.3±0.1, 47.°70N×16.°04E, h0*^{km}*, ML3.0/3, Error ellipse: s-maj=1.1km s-min=0.6km az=128.0*

LDG ***26*** *19:57:59.0±0.1, 47.°65N×16.°17E, h10*^{km}*, Ml3.6/18, Error ellipse: s-maj=2.5km s-min=1.8km az=177.0*

NEIC ***26*** *19:57:59.3±0.2, 47.°68N×16.°01E, h10*^{km}*, ML3.7(BUC), ML3.9(STR), Error ellipse: s-maj=3.8km s-min=2.5km az=160.0*

PRU ***26*** *19:57:59.9, 47.°78N×15.°98E, h0*^{km}

BGR ***26*** *19:58:02.3±0.5, 47.°67N×15.°79E, h10*^{km}*, ML3.7, Error ellipse: s-maj=8.9km s-min=5.6km az=80.0*

STR ***26*** *19:58:07.9±1.1, 47.°77N×14.°98E, h10*^{km}*, Ml3.6, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 26 19:57:58.2±0.2**, 47.°73N**±0.°01×**15.°97E**±0.°01**, h0**^{km}±2^{km}**, n261, σ1**^{s}**20**/433**, 25C-30D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CONA	**Conrad Observa**	0.21	340	⇓*e*Pg	Pg	19 58 03.6	+1.4
	215nm,0.1s,SNR=4600						
CONA				⇓*i*Sg	Sg	19 58 07.2	+2.2
	2µm,0.2s						
CONA	**Conrad Observa**	0.21	340	Pg	Pg	19 58 03.6	+1.4
	215nm,0.1s,SNR=1000						
CONA				Sg	Sg	19 58 07.2	+2.2
	2µm,0.2s						
CSNA	**Conrad Observa**	0.21	339	⇓*i*Pg	Pg	19 58 03.7	+1.4
	172nm,0.1s						
CSNA				⇓*i*Sg	Sg	19 58 07.2	+2.2
	1µm,0.1s						
CSNA	**Conrad Observa**	0.21	339	Pg	Pg	19 58 03.7	+1.5
	172nm,0.1s						
CSNA				Sg	Sg	19 58 07.2	+2.2
	1µm,0.1s						
SOP	**Sopron**	0.40	97	⇑*e*Pg	Pg	19 58 06.9	+1.1
SOP				*e*Pn	Sg	19 58 12.3	+1.3
SOP	**Sopron**	0.40	97	⇑*e*Pg	Pg	19 58 06.9	+1.1
SOP				*e*Sg	Sg	19 58 12.3	+1.3
ARSA	**Arzberg**	0.57	212	*e*Pg	Pg	19 58 08.5	-0.5
ARSA				*e*Sg	Sg	19 58 15.9	-0.5
ARSA	**Arzberg**	0.57	212	*e*Pg	Pg	19 58 09.1	0.0
	252nm,0.1s,SNR=1451						
ARSA				⇓*i*Sg	Sg	19 58 16.0	-0.4
	583nm,0.1s						
ARSA	**Arzberg**	0.57	212	*e*Pg	Pg	19 58 09.0	0.0
	baz=38						
ARSA				Sg	Sg	19 58 16.0	-0.4
	583nm,0.1s						
ZST	**Bratislava**	0.89	58	*e*PN	Pg	19 58 16.0	+0.7
ZST				*e*PG	Pn	19 58 17.8	-0.1
ZST				*e*SN	Sn	19 58 29.8	-1.7
ZST	**Bratislava**	0.89	58	*e*Pg	Pg	19 58 15.9	+0.6
	baz=236						
ZST				*e*Sn	Sn	19 58 29.8	-1.7
MODS	**Modra-Piesok**	1.09	53	*e*PN	Pn	19 58 20.0	-0.6
MODS				*e*PG	Pg	19 58 21.1	+2.1
MODS				*e*SN	Sn	19 58 36.0	-0.3
MODS	**Modra-Piesok**	1.09	53	*e*Pn	Pn	19 58 20.0	-0.6
MOA	**Molln**	1.16	277	*e*Pn	Pn	19 58 20.4	-1.1
MOA				*e*Sg	Sg	19 58 36.8	+1.5
MOA	**Molln**	1.16	277	*e*Pg	Pg	19 58 20.4	+0.1
	48nm,0.1s,SNR=196						
MOA				⇑*i*Sg	Sg	19 58 36.2	+0.9
	314nm,0.2s						
MOA	**Molln**	1.16	277	Pg	Pg	19 58 20.4	+0.1
	48nm,0.1s,SNR=196						
MOA				Sg	Sg	19 58 36.2	+0.9
	314nm,0.2s						
SOKA	**Soboth**	1.23	212	⇓*i*Pg	Pg	19 58 20.6	-1.1
	70nm,0.2s						
SOKA				⇑*i*Sg	Sg	19 58 36.3	-1.4
	83nm,0.2s						
SOKA	**Soboth**	1.23	212	Pg	Pg	19 58 20.6	-1.2
	70nm,0.2s						
SOKA				Sg	Sg	19 58 36.3	-1.4
	83nm,0.2s						
SMOL	**Smolenice**	1.25	51	*e*PN	Pn	19 58 23.1	+0.2
SMOL				*e*SN	Sn	19 58 41.0	+0.6
SMOL	**Smolenice**	1.25	51	*e*Pn	Pn	19 58 23.1	+0.2
SMOL				*e*Sn	Sn	19 58 41.0	+0.6
GROS	**Grobnik**	1.31	194	*i* Pn	Pn	19 58 22.0	-1.6
GROS	**Grobnik**	1.31	194	*i* Pn	Pn	19 58 22.0	-1.6
KRUC	**Moravsky**	1.36	12	*e*Pn	Pn	19 58 24.1	-0.3
KRUC				*e*Sg	Sg	19 58 42.0	+0.1
	179nm,0.2s,baz=190						
BEHE	**Becsehely**	1.38	156	⇓*e*Pn	Pn	19 58 24.8	+0.3
BEHE	**Becsehely**	1.38	156	*e*Pg	Pg	19 58 26.8	+2.3
BEHE				*e*Sn	Sn	19 58 45.1	+1.7
OBKA	**Obir**	1.56	219	*e*Pg	Pg	19 58 27.0	-1.1
	126nm,0.3s,SNR=77						
OBKA				⇑*i*Sg	Sg	19 58 48.4	+0.1
	114nm,0.3s						
OBKA	**Obir**	1.56	219	Pg	Pg	19 58 27.0	-1.1
	126nm,0.3s,SNR=77						
OBKA				Sg	Sg	19 58 48.4	+0.1
	114nm,0.3s						
TREC	**Trest**	1.60	349	*e*PG	Pg	19 58 28.2	-0.6
TREC				*e*SG	Sg	19 58 49.3	-0.2
	comp=Z,417nm,0.4s						
TREC	**Trest**	1.60	349	Pg	Pg	19 58 28.2	-0.6
TREC				Sg	Sg	19 58 49.3	-0.2
	comp=Z,417nm,0.4s						
JAVC	**Velka Javorina**	1.60	45	*e*Pn	Pn	19 58 29.0	+1.3
	baz=224						
JAVC				*e*Sg	Sg	19 58 50.1	+0.5
	comp=Z,142nm,0.6s						
VRAC	**Vranov**	1.63	14	⇑*i*P	Pn	19 58 27.9	-0.2
VRAC	**Vranov**	1.63	14	S	Sn	19 58 50.0	+0.2
VRAC	**Vranov**	1.63	14	⇑P	Pn	19 58 27.9	-0.2
VRAC				S	Sn	19 58 50.0	+0.2
VRAC	**Vranov**	1.63	14	*e*Pn	Pn	19 58 27.9	-0.2
VRAC				*e*Sg	Sn	19 58 48.8	-1.0
	comp=Z,128nm,0.2s,baz=193						
PKSG		1.67	101	⇓*e*Pn	Pn	19 58 27.9	-0.8
PKSG		1.67	101	*e*Pg	Pg	19 58 30.2	0.0
PKSG				*e*Sn	Sg	19 58 53.5	+1.6
PDKS	**Podkum**	1.80	202	*i* Pn	Pn	19 58 30.1	-0.3
KOLL	**Kolacno**	1.84	62	*e*PN	Pn	19 58 30.3	-0.6
KOLL				*e*SN	Sn	19 58 53.0	-1.8
KOLL	**Kolacno**	1.84	62	*e*Pn	Pn	19 58 30.3	-0.6
KOLL				*e*Sn	Sn	19 58 53.0	-1.8
GEC2	**GERESS Array S**	1.88	307	*e*Pn	Pn	19 58 32.7	+1.2
GEC2				*e*Sg	Sg	19 58 58.5	-0.1
GEC2	**GERESS Array S**	1.88	307	*e*Pn	Pn	19 58 32.7	+1.2
GEC2				*e*Sg	Sg	19 58 58.5	-0.1
GEC2	**GERESS Array S**	1.88	307	Pn	Pn	19 58 32.7	+1.2
GEC2				Sg	Sg	19 58 58.5	-0.1
KBA	**Koelnbreinsper**	1.90	251	*e*Pn	Pg	19 58 32.5	-2.0
KBA	**Koelnbreinsper**	1.90	251	⇓*i*Pg	Pg	19 58 32.6	-2.0
	comp=Z,30nm,0.2s,SNR=56						
KBA				⇑*i*Sg	Sg	19 59 00.1	+0.9
	comp=Z,107nm,0.4s						
KBA	**Koelnbreinsper**	1.90	251	Pg	Pg	19 58 32.6	-1.9
	comp=Z,30nm,0.2s,SNR=56						
KBA				*e*Sg	Sg	19 58 58.7	-0.4
	baz=70						
MYKA	**Terra Mystica**	1.93	236	⇓*i*Pg	Pg	19 58 32.4	-2.8
	comp=Z,17nm,0.3s						
MYKA				⇑*i*Sn	Sn	19 58 56.8	-0.3
	comp=Z,51nm,0.4s						
PKS9	**Tamasi**	1.95	125	⇑*e*Pn	Pn	19 58 31.9	-0.5
PKS9	**Tamasi**	1.95	125	Pg	Pg	19 58 36.7	+1.2
PKS9				Sn	Sg	19 59 00.5	-0.2
	comp=Z,5.9nm,0.4s						
GORS	**Gorjuse**	1.96	224	*i* Pn	Pn	19 58 32.6	+0.1
GORS	**Gorjuse**	1.96	224	*i* Pn	Pn	19 58 32.6	+0.1
BGLD	**Berchtesgaden**	2.00	269	⇓*i*Pn	Pn	19 58 33.7	+0.6
BGLD	**Berchtesgaden**	2.00	269	Pn	Pn	19 58 33.7	+0.6
VYHS	**Vyhne**	2.07	67	*e*PN	Pn	19 58 33.0	-1.1
VYHS				*e*PG	Pg	19 58 38.0	+0.2
VYHS				*e*SN	Sn	19 58 58.7	-1.8
VYHS	**Vyhne**	2.07	67	*e*Pn	Pn	19 58 33.0	-1.1
BUD	**Budapest**	2.08	96	⇓*e*Pn	Pn	19 58 33.7	-0.6
BUD				*e*Pg	Pg	19 58 38.1	+0.1
BUD				*e*S	Sn	19 59 02.8	+2.0
BUD	**Budapest**	2.08	96	⇓*e*Pn	Pn	19 58 33.7	-0.6
BUD	**Budapest**	2.08	96	*e*Pg	Pg	19 58 38.1	+0.1
BUD				*e*Sn	Sn	19 59 02.8	+2.0
KHC	**Kasperske Hory**	2.12	312	*e*PN	Pn	19 58 36.4	+1.6
KHC				*e*PG	Pg	19 58 39.0	+0.2
KHC				*e*x	x	19 58 55.0	
KHC				*e*SG	Sg	19 59 05.2	-1.1
	comp=Z,227nm,0.3s						
KHC	**Kasperske Hory**	2.12	312	*e*Pn	Pn	19 58 36.0	+1.2
	baz=130						
RJOB	**Jochberg**	2.14	271	⇓*i*Pn	Pn	19 58 36.3	+1.2
RJOB	**Jochberg**	2.14	271	Pn	Pn	19 58 36.3	+1.2
VOY	**Vojsko**	2.22	221	*e*Pn	Pn	19 58 35.9	-0.2
VOY				*e*		19 58 40.4	
VOY				*e*Sn	Sg	19 59 09.8	+0.4
VOY	**Vojsko**	2.22	221	*e*Pn	Pn	19 58 35.9	-0.2
PTCC	**Patocco-Chiusa**	2.23	234	Pn	Pn	19 58 36.7	+0.5
PTCC	**Patocco-Chiusa**	2.23	234	Pn	Pn	19 58 36.7	+0.5
PKS7	**Kunszentmiklos**	2.27	106	Pn	Pn	19 58 38.1	+1.2
PKS7	**Kunszentmiklos**	2.27	106	⇑Pg	Pg	19 58 42.6	+0.9
BOJS	**Bojanci**	2.28	193	*i* Pn	Pn	19 58 36.6	-0.4
BOJS	**Bojanci**	2.28	193	*i* Pn	Pn	19 58 36.6	-0.4
MORC	**Moravsky Berou**	2.30	26	*e*Pn	Pn	19 58 36.6	-0.7
MORC				*e*Pg	Pg	19 58 43.8	+1.7
MORC	**Moravsky Berou**	2.30	26	*e*Pn	Pn	19 58 36.6	-0.6
GMNA	**Gemona**	2.37	233	Pn	Pn	19 58 39.6	+1.4
GMNA	**Gemona**	2.37	233	Pn	Pn	19 58 39.6	+1.4
PKSM	**Moragy**	2.38	129	⇑*i*P	Pn	19 58 37.2	-1.1
PKSM	**Moragy**	2.38	129	⇑P	Pn	19 58 37.2	-1.1
PKSM				S	Sn	19 59 05.3	-2.8
PKSM	**Moragy**	2.38	129	⇓*e*Pn	Pn	19 58 37.3	-1.0
PKSM				*e*Sn	Sn	19 59 04.8	-3.3
PKSM				S	Sn	19 59 05.3	-2.8
RHK3	**Tenkes**	2.42	139	⇑*e*Pn	Pn	19 58 38.2	-0.7
PRU	**Pruhonice**	2.45	338	*e*PN	Pn	19 58 41.1	+1.8
PRU				*e*PG	Pg	19 58 45.2	+0.1
PRU				*e*SG	Sg	19 59 15.5	-1.3
	comp=Z,269nm,0.7s						
PRU	**Pruhonice**	2.45	338	*e*Pn	Pn	19 58 41.0	+1.7
	baz=156						
WET	**Wettzell**	2.50	306	*e*Pn	Pn	19 58 42.5	+2.5
WET				*e*Sg	Sg	19 59 18.3	0.0
WET	**Wettzell**	2.50	306	*e*Pn	Pn	19 58 42.5	+2.5
WET				*e*Sg	Sg	19 59 18.3	-0.1
WET	**Wettzell**	2.50	306	Pn	Pn	19 58 42.5	+2.5
WET				Sg	Sg	19 59 18.3	-0.1
ABTA	**Abfaltersbach**	2.55	249	⇓*i*Pn	Pn	19 58 39.5	-1.2
ABTA				⇑*i*Sg	Sg	19 59 20.6	+0.4
	comp=Z,51nm,0.6s						
ABTA	**Abfaltersbach**	2.55	249	Pn	Pn	19 58 39.5	-1.2
ABTA				Sg	Sg	19 59 20.6	+0.5
	comp=Z,51nm,0.6s						
OKC	**Ostrava-Krasne**	2.55	34	*e*PN	Pn	19 58 41.2	+0.4
OKC				*e*SN	Sn	19 59 11.8	-0.7
OKC	**Ostrava-Krasne**	2.55	34	Pn	Pn	19 58 41.2	+0.4
OKC				Sn	Sn	19 59 11.8	-0.7
SKDS	**Skadanscina**	2.57	212	*i* Pn	Pn	19 58 40.7	-0.3
SKDS	**Skadanscina**	2.57	212	*i* Pn	Pn	19 58 40.7	-0.2
DPC	**Dobruska-Polom**	2.63	5	*e*PN	Pn	19 58 43.3	+1.5
DPC				*e*PG	Pg	19 58 47.6	-1.0
DPC				*e*SG	Sg	19 59 21.1	-1.6
	comp=Z,116nm,0.5s						
DPC	**Dobruska-Polom**	2.63	5	*e*Pn	Pn	19 58 43.0	+1.2
	baz=184						
PSZ	**Piszkesteto**	2.65	84	⇓*i*P	Pn	19 58 41.7	-0.4
PSZ	**Piszkesteto**	2.65	84	S	Sn	19 59 13.0	-1.9
PSZ	**Piszkesteto**	2.65	84	⇓*e*Pn	Pn	19 58 41.7	-0.4
PSZ				*e*Sn	Sn	19 59 12.9	-2.0
PSZ	**Piszkesteto**	2.65	84	*e*Pn	Pn	19 58 41.3	-0.8
PSZ				*e*Pg	Pg	19 58 51.2	+2.2
PSZ				*e*Sg	Sg	19 59 28.7	+5.4
PSZ	**Piszkesteto**	2.65	84	*e*Pn	Pn	19 58 41.4	-0.7
	baz=267						
PSZ	**Piszkesteto**	2.65	84	*e*Pg	Pg	19 58 51.2	+2.2
PSZ				*e*Sn	Sn	19 59 12.9	-2.0
PKS6	**Bocsa**	2.70	113	Pn	Pn	19 58 38.0	-4.8
PKS6				Sg	Sg	19 59 25.6	+0.7
	comp=Z,1.5nm,0.5s						
UPC	**Upice**	2.78	1	*e*PN	Pn	19 58 45.5	+1.6
UPC				*e*PG	Pg	19 58 50.5	-0.9
UPC				*e*SG	Sg	19 59 25.8	-1.6
UPC	**Upice**	2.78	1	Pn	Pn	19 58 45.5	+1.6
PVCC	**Panska Ves**	2.95	342	*e*PN	Pn	19 58 47.8	+1.6
PVCC				*e*PG	Pg	19 58 53.9	-0.7
PVCC				*e*SG	Sg	19 59 31.9	-0.9
	comp=Z,319nm,0.5s						
PVCC	**Panska Ves**	2.95	342	Pn	Pn	19 58 47.8	+1.6
WTTA	**Wattenberg**	2.98	263	*e*Pn	Pn	19 58 48.4	+1.9
WTTA				*e*Sg	Sg	19 59 32.6	-1.1
WTTA	**Wattenberg**	2.98	263	*e*Pn	Pn	19 58 48.5	+2.0
	SNR=17						
WTTA				⇓*i*Sg	Sg	19 59 34.5	+0.8
	comp=Z,52nm,0.4s						
WTTA	**Wattenberg**	2.98	263	Pn	Pn	19 58 48.4	+1.9
WTTA				Sg	Sg	19 59 34.5	+0.8
	comp=Z,52nm,0.4s						
SCE	**Schlegeis**	2.98	258	⇓*i*Pn	Pn	19 58 48.4	+1.8
SCE				⇓*i*Sn	Sn	19 59 24.4	+1.5
SCE	**Schlegeis**	2.98	258	Pn	Pn	19 58 48.4	+1.8
SCE				Sn	Sn	19 59 24.4	+1.5
WATA	**Walderalm**	3.00	264	⇑*e*Pn	Pn	19 58 48.7	+1.7
	SNR=12						
WATA	**Walderalm**	3.00	264	Pn	Pn	19 58 48.7	+1.8
	SNR=12						
KECS	**Kecovo**	3.12	74	*e*PN	Pn	19 58 47.9	-0.6
KECS				*e*SN	Sn	19 59 26.0	-0.4
KSP	**Ksiaz**	3.12	4	*e*Pn	Pn	19 58 51.0	+2.4
KSP				*e*Pg	Pg	19 58 56.5	-1.5
KSP				*e*Sg	Sg	19 59 37.2	-1.3
KSP	**Ksiaz**	3.12	4	*e*Pg	Pg	19 58 56.5	-1.5
KSP				*e*Sg	Sg	19 59 36.7	-1.8
KSP	**Ksiaz**	3.12	4	*e*Pg	Pg	19 58 56.5	-1.5
KSP				*e*Sg	Sg	19 59 36.7	-1.8
ROTZ	**Rotzenmuhle**	3.22	311	*e*Pn	Pn	19 58 52.7	+2.8
ROTZ				*e*Sg	Sg	19 59 41.3	-0.2
ROTZ	**Rotzenmuhle**	3.22	311	Pn	Pn	19 58 52.7	+2.8
ROTZ				Sg	Sg	19 59 41.3	-0.2
NVLJ	**Novalja**	3.26	194	*e*Pn	Pn	19 58 51.0	+0.5
NVLJ				Sn	Sn	19 59 28.5	-1.3
NVLJ	**Novalja**	3.26	194	*e*Pn	Pn	19 58 50.9	+0.5
NVLJ				Sn	Sn	19 59 28.5	-1.4
MOTA	**Moosalm**	3.32	265	⇑*i*Pn	Pn	19 58 52.5	+1.3
MOTA	**Moosalm**	3.32	265	Pn	Pn	19 58 52.5	+1.2
NIE	**Niedzica**	3.34	58	*e*Pn	Pn	19 58 52.2	+0.6
NIE				*e*P		19 58 55.7	
NIE				*e*Sn	Sn	19 59 32.7	+0.8
NIE				*e*Sg	Sg	19 59 46.4	+0.9
NIE	**Niedzica**	3.34	58	*e*Pn	Pn	19 58 52.2	+0.6
MANZ	**Manzenberg**	3.41	313	*e*Pn	Pn	19 58 54.7	+2.2
MANZ	**Manzenberg**	3.41	313	Pn	Pn	19 58 54.7	+2.2
CTI	**Castel Tesino**	3.41	242	Pn	Pn	19 58 53.9	+1.4
CTI	**Castel Tesino**	3.41	242	Pn	Pn	19 58 53.9	+1.4
BRG	**Berggiesshubel**	3.41	338	*e*Pn	Pn	19 58 54.2	+1.6
BRG	**Berggiesshubel**	3.41	338	PN	Pn	19 58 54.2	+1.6
BRG				PG	Pg	19 59 03.4	-0.2
BRG				*i*		19 59 32.2	
BRG	**Berggiesshubel**	3.41	338	SG	Sg	19 59 46.0	-1.8
	comp=Z,113nm,0.4s						
BRG	**Berggiesshubel**	3.41	338	Pn	Pn	19 58 54.2	+1.6
BRG				Pg	Pg	19 59 03.4	-0.2
BRG				*i*		19 59 32.2	
BRG				Sg	Sg	19 59 46.0	-1.8
BRG	**Berggiesshubel**	3.41	338	Pn	Pn	19 58 54.2	+1.6
NKC	**Novy Kostel**	3.41	319	*e*PN	Pn	19 58 54.8	+2.2
NKC				*e*PG	Pg	19 59 02.2	-1.4
NKC				*e*SG	Sg	19 59 46.7	-1.1
	comp=Z,158nm,0.4s						
NKC	**Novy Kostel**	3.41	319	Pn	Pn	19 58 54.8	+2.2
APPI	**Appiano**	3.47	251	Pn	Pn	19 58 55.1	+1.7
APPI	**Appiano**	3.47	251	Pn	Pn	19 58 55.1	+1.7
WERN	**Wernitzgruen**	3.48	319	*e*Sg	Sg	19 59 49.8	-0.3
WERN	**Wernitzgruen**	3.48	319	Sg	Sg	19 59 49.8	-0.3
RETA	**Reutte**	3.53	268	*i* Pn	Pn	19 58 55.4	+1.2
	SNR=8.7						
RETA				⇓*i*Sg	Sg	19 59 50.6	-1.0
	comp=Z,67nm,0.4s						
RETA	**Reutte**	3.53	268	Pn	Pn	19 58 55.4	+1.2
	SNR=8.7						
RETA				Sg	Sg	19 59 50.6	-1.0
	comp=Z,67nm,0.4s						
OJC	**Ojcow**	3.54	44	*e*P	Pn	19 58 55.3	+0.9
OJC				*e*S	Sn	19 59 36.0	-0.9
OJC	**Ojcow**	3.54	44	*e*P	Pn	19 58 55.3	+0.9
OJC				*e*S	Sn	19 59 36.0	-0.9
FETA	**Feichten**	3.63	261	*i* Pn	Pn	19 58 57.2	+1.6
	SNR=11						
FETA				⇓*i*Sg	Sg	19 59 52.6	-2.2
	comp=Z,12nm,0.4s						
FETA	**Feichten**	3.63	261	Pn	Pn	19 58 57.2	+1.6
	SNR=11						
FETA				Sg	Sg	19 59 52.6	-2.2
	comp=Z,12nm,0.4s						
GRA1	**Grafenberg Arr**	3.71	304	*e*Pn	Pn	19 58 58.7	+2.1
GRA1	**Grafenberg Arr**	3.71	304	Pn	Pn	19 58 58.7	+2.1
GRF	**Grafenberg Arr**	3.71	304	*e*Pn	Pn	19 58 58.7	+2.1
GRF	**Grafenberg Arr**	3.71	304	*e*Pn	Pn	19 58 58.7	+2.1
GRF	**Grafenberg Arr**	3.71	304	*e*Pn	Pn	19 58 58.7	+2.1
CRVS	**Cervenica-Dubn**	3.85	70	*e*PN	Pn	19 58 58.9	+0.4
CRVS				*e*SN	Sn	19 59 45.2	+0.8
CRVS	**Cervenica-Dubn**	3.85	70	*e*Pn	Pn	19 58 58.9	+0.4
CRVS				*e*Sn	Sn	19 59 45.2	+0.8
STHS	**Stebnicka Huta**	3.89	62	*e*PN	Pn	19 59 00.0	+0.9
STHS				*e*SN	Sn	19 59 47.0	+1.6
STHS	**Stebnicka Huta**	3.89	62	*e*Pn	Pn	19 59 00.0	+0.9
STHS				*e*Sn	Sn	19 59 47.0	+1.6
CLL	**Collm**	4.07	333	*e*Pn	Pn	19 59 03.5	+2.0
CLL				*e*Sn	Sn	19 59 49.0	-0.8
CLL				*e*Sg	Sg	20 00 06.0	-2.8
CLL	**Collm**	4.07	333	*i* Pn	Pn	19 59 03.9	+2.3
CLL				*e*		19 59 10.0	
CLL				*e*Pg	Pg	19 59 15.0	-1.1
CLL				*e*		19 59 21.0	
CLL				*e*Sn	Sn	19 59 49.0	-0.8
CLL				*e*Sg	Sg	20 00 06.0	-2.8
	comp=Z,124nm,0.8s						
CLL				*i* Sgmax		20 00 09.2	
CLL	**Collm**	4.07	333	*i* Pn	Pn	19 59 03.9	+2.3
CLL				*e*Sn	Sn	19 59 49.0	-0.8
CLL				*e*Sg	Sg	20 00 06.0	-2.8
CLL	**Collm**	4.07	333	Pn	Pn	19 59 03.5	+1.9
CLL				Sn	Sn	19 59 49.0	-0.8
CLL				Sg	Sg	20 00 06.0	-2.8
MOX	**Moxa**	4.08	317	*e*PN	Pn	19 59 04.1	+2.4
MOX				*e*PG	Pg	19 59 14.5	-1.9
MOX				*i* SG	Sg	20 00 06.7	-2.5
MOX	**Moxa**	4.08	317	Pn	Pn	19 59 04.1	+2.4
DAVA	**Damuels**	4.15	266	*e*Pn	Pn	19 59 03.6	+0.9
DAVA				*e*Sg	Sg	20 00 10.9	-0.6
DAVA	**Damuels**	4.15	266	⇑*i*Pn	Pn	19 59 03.8	+1.1
DAVA				⇓*i*Sn	Sn	19 59 52.9	+1.0
DAVA				⇑*i*Sg	Sg	20 00 11.0	-0.5
	comp=Z,40nm,0.3s						
DAVA	**Damuels**	4.15	266	Pn	Pn	19 59 03.6	+0.9
DAVA				Sn	Sn	19 59 52.9	+1.0
DAVA				Sg	Sg	20 00 11.0	-0.5
	comp=Z,40nm,0.3s						
KOLS	**Kolonicke sedl**	4.37	72	*e*PN	Pn	19 59 05.1	-0.7
KOLS				*e*SN	Sn	19 59 57.8	+0.4
KOLS	**Kolonicke sedl**	4.37	72	*e*Pn	Pn	19 59 05.1	-0.7
KOLS				*e*Sn	Sn	19 59 57.8	+0.4
BZS	**Buzias**	4.42	116	⇑*i*P	Pn	19 59 06.2	-0.3
BZS	**Buzias**	4.42	116	⇑P	Pn	19 59 06.2	-0.2
BZS				S	Sn	19 59 56.1	-2.5
BZS	**Buzias**	4.42	116	⇑P	Pn	19 59 06.2	-0.3
BZS				S	Sn	19 59 56.1	-2.5
BBLS	**Lazići**	4.55	147	⇑*i*Pn	Pn	19 59 07.8	-0.4
DIVS	**Divibare**	4.59	141	⇑*i*Pn	Pn	19 59 07.9	-0.8
TRUS	**Trudelj**	4.67	137	*e*Pn	Pn	19 59 08.3	-1.6
DRGR		4.69	99	⇓*i*P	Pn	19 59 10.2	+0.2
DRGR		4.69	99	⇓P	Pn	19 59 10.2	+0.1
DRGR				S	Sn	20 00 02.1	-2.9
DRGR		4.69	99	⇓P	Pn	19 59 10.2	+0.2
DRGR				S	Sn	20 00 02.1	-2.9
TUE	**Stuetta**	4.70	257	*e*Pn	Pn	19 59 11.2	+1.0
TUE	**Stuetta**	4.70	257	*e*Pn	Pn	19 59 11.1	+0.9
SPAK	**Spaichingen-Ko**	4.84	277	P	Pn	19 59 10.6	-1.6
SPAK				S	Sn	20 00 04.7	-4.3
SPAK	**Spaichingen-Ko**	4.84	277	P	Pn	19 59 10.6	-1.6
SPAK				S	Sn	20 00 04.7	-4.3
STON	**Ston**	5.01	165	Sn	Sn	20 00 12.1	-0.9
STON	**Ston**	5.01	165	Sn	Sn	20 00 12.1	-0.9
GRUS	**Gruza**	5.08	137	⇑*i*Pn	Pn	19 59 14.5	-0.9
TOD	**Tromm**	5.11	294	P	Pn	19 59 15.9	+0.1
TOD				S	Sn	20 00 11.6	-3.8
TOD	**Tromm**	5.11	294	P	Pn	19 59 15.9	+0.1
TOD				S	Sn	20 00 11.6	-3.8
BFO	**Black Forest**	5.16	280	*e*Pn	Pn	19 59 16.7	+0.1
	comp=Z,13nm,0.5s						
BFO				*e*Pg	Pg	19 59 39.2	+2.2
BFO				*e*Sg	Sg	20 00 41.7	-2.2
BFO	**Black Forest**	5.16	280	*e*Pn	Pn	19 59 16.7	+0.1
	comp=Z,13nm,0.5s						
GZR	**Gura Zlata**	5.24	114	S	Sn	20 00 16.2	-2.6
GZR	**Gura Zlata**	5.24	114	S	Sn	20 00 16.2	-2.6
NRCA	**Norcia**	5.29	203	Pn	Pn	19 59 17.8	-0.6
	comp=Z,1.8nm,0.2s						
NRCA	**Norcia**	5.29	203	Pn	Pn	19 59 17.8	-0.6
	comp=Z,1.8nm,0.2s						
FELD	**Feldberg im Sc**	5.37	275	P	Pn	19 59 19.0	-0.4
FELD	**Feldberg im Sc**	5.37	275	P	Pn	19 59 19.0	-0.4
PII	**Pisa**	5.53	226	Pn	Pn	19 59 21.3	-0.4
	comp=Z,7.3nm,0.2s						
PII	**Pisa**	5.53	226	Pn	Pn	19 59 21.3	-0.4
	comp=Z,7.3nm,0.2s						
LANF	**Langenberg**	5.58	286	P	Pn	19 59 23.0	+0.6
LANF	**Langenberg**	5.58	286	P	Pn	19 59 23.0	+0.6
BBS	**Basel-Blauen**	5.73	270	P	Pn	19 59 23.3	-1.1
BBS	**Basel-Blauen**	5.73	270	P	Pn	19 59 23.3	-1.1
CDF	**Champ du Feu**	5.87	280	*e*Pg	Pg	19 59 46.9	-3.6
	SNR=1.0						
CDF				*e*Sg	Sg	20 01 07.3	+0.8
	comp=Z,40nm,0.7s						
CDF	**Champ du Feu**	5.87	280	*e*Pn	Pn	19 59 25.7	-0.6
CDF				*e*Pg	Pg	19 59 46.9	-3.6
CDF				*e*Sg	Sg	20 01 07.3	+0.8
CDF	**Champ du Feu**	5.87	280	*e*Pn	Pn	19 59 25.7	-0.6
	SNR=1.0						
CDF				*e*Sg	Sg	20 01 07.3	+0.8
	comp=Z,20nm,0.7s						
PCP	**Piancastagn**	6.07	241	P	Pn	19 59 26.9	-2.1
HINF	**Hinteralfeld**	6.15	274	*e*Pg	Pg	19 59 55.8	-0.1
	SNR=1.0						
HINF				*e*Sn	Sn	20 00 36.8	-4.2
HINF				*e*Sg	Sg	20 01 16.1	+0.6
	comp=Z,21nm,0.6s						

HINF	**Hinteralfeld**	**6.15**	**274**	*e*Pn	**Pn**	**19 59 29.4**	**-0.7**
HINF				*e*Pg	**Pg**	**19 59 55.8**	**-0.1**
HINF				*e*Sn	**Sn**	**20 00 36.8**	**-4.2**
HINF				*e*Sg	**Sg**	**20 01 16.1**	**+0.6**
HINF	**Hinteralfeld**	**6.15**	**274**	*e*Pn	**Pn**	**19 59 29.4**	**-0.7**
	SNR=1.0						
HINF	**Hinteralfeld**	**6.15**	**274**	*e*Pg	**Pg**	**19 59 55.8**	**-0.1**
	SNR=1.0						
HINF				*e*Sg	**Sg**	**20 01 16.1**	**+0.6**
	comp=Z,10nm,0.6s						
BUR08	**Bucovina Ar. S**	**6.23**	**87**	*e*Pn	**Pn**	**19 59 30.5**	**-0.8**
BUR08				*e*Sn	**Sn**	**20 00 41.0**	**-2.1**
BUR08	**Bucovina Ar. S**	**6.23**	**87**	*e*Pn	**Pn**	**19 59 30.5**	**-0.8**
BUR08				*e*Sn	**Sn**	**20 00 41.0**	**-2.2**
BURAR	**Bucovina Array**	**6.25**	**88**	⇓*i*P	**Pn**	**19 59 31.0**	**-0.5**
BURAR	**Bucovina Array**	**6.25**	**88**	⇓P	**Pn**	**19 59 31.0**	**-0.4**
BURAR	**Bucovina Array**	**6.25**	**88**	⇓P	**Pn**	**19 59 31.0**	**-0.5**
BURAR				S	**Sn**	**20 00 41.7**	**-1.8**
BARS	**Barje**	**6.41**	**138**	*e*Pn	**Pn**	**19 59 33.0**	**-0.8**
HAU	**Haudompre**	**6.48**	**276**	*e*Pg	**Pg**	**20 00 01.9**	**-0.4**
	SNR=1.0						
HAU				*e*Sn	**Sn**	**20 00 44.5**	**-4.8**
HAU				*e*Sg	**Sg**	**20 01 24.5**	**-1.7**
	comp=Z,23nm,0.5s						
HAU	**Haudompre**	**6.48**	**276**	*e*Pn	**Pn**	**19 59 34.7**	**0.0**
HAU				*e*Pg	**Pg**	**20 00 01.9**	**-0.4**
HAU				*e*Sn	**Sn**	**20 00 44.5**	**-4.8**
HAU				*e*Sg	**Sg**	**20 01 24.5**	**-1.7**
HAU	**Haudompre**	**6.48**	**276**	*e*Pn	**Pn**	**19 59 34.7**	**0.0**
	SNR=1.0						
HAU	**Haudompre**	**6.48**	**276**	*e*Pg	**Pg**	**20 00 01.9**	**-0.4**
	SNR=1.0						
HAU				*e*Sg	**Sg**	**20 01 24.5**	**-1.7**
	comp=Z,12nm,0.5s						
LPG	**La Plagne**	**6.73**	**254**	*e*Pn	**Pn**	**19 59 39.5**	**+1.4**
	SNR=1.0						
LPG				*e*Sn	**Sn**	**20 00 50.8**	**-4.6**
	comp=Z,13nm,0.8s						
LPG	**La Plagne**	**6.73**	**254**	*e*Pn	**Pn**	**19 59 39.5**	**+1.4**
	SNR=1.0						
LPL	**La Plagne**	**6.74**	**254**	*e*Pn	**Pn**	**19 59 39.5**	**+1.3**
	SNR=1.0						
LPL				*e*Sn	**Sn**	**20 00 51.0**	**-4.6**
	comp=Z,3.7nm,0.4s						
LPL	**La Plagne**	**6.74**	**254**	*e*Pn	**Pn**	**19 59 39.5**	**+1.3**
	SNR=1.0						
WLF	**Walferdange**	**6.78**	**290**	*e*Pn	**Pn**	**19 59 38.3**	**-0.5**
WLF				*e*Sn	**Sn**	**20 00 52.5**	**-4.2**
WLF				*e*Sg	**Sg**	**20 01 37.8**	**+2.0**
WLF	**Walferdange**	**6.78**	**290**	*e*Pn	**Pn**	**19 59 38.3**	**-0.5**
CABF	**La Chapelle**	**6.83**	**264**	*e*Pn	**Pn**	**19 59 38.8**	**-0.7**
CABF				*e*Sn	**Sn**	**20 00 51.6**	**-6.3**
	comp=Z,8.5nm,0.5s,SNR=1.0						
CABF	**La Chapelle**	**6.83**	**264**	*e*Pn	**Pn**	**19 59 38.8**	**-0.7**
BNI	**Bardonecchia**	**6.96**	**251**	*e*Pn	**Pn**	**19 59 43.1**	**+1.9**
BNI				*e*Sn	**Sn**	**20 01 04.2**	**+3.1**
BNI	**Bardonecchia**	**6.96**	**251**	*e*Pn	**Pn**	**19 59 43.2**	**+1.9**
MBDF	**Montbardon**	**7.05**	**248**	*e*P	**Pn**	**19 59 46.0**	**+3.5**
	SNR=1.0						
MBDF				*e*Sn	**Sn**	**20 00 57.5**	**-5.8**
	comp=Z,3.2nm,0.4s						
RFYF	**Reffroy**	**7.08**	**281**	*e*Pn	**Pn**	**19 59 42.8**	**-0.1**
	baz=98						
RFYF				*e*Sg	**Sg**	**20 01 45.3**	**0.0**
	comp=Z,16nm,0.3s						
RFYF	**Reffroy**	**7.08**	**281**	*e*Pn	**Pn**	**19 59 42.8**	**-0.1**
	baz=98						
RFYF				*e*Sg	**Sg**	**20 01 45.3**	**0.0**
	comp=Z,7.8nm,0.3s						
SBF	**Sospel**	**7.11**	**240**	*e*Pn	**Pn**	**19 59 43.7**	**+0.4**
SBF				*e*Sn	**Sn**	**20 00 58.8**	**-5.9**
	comp=Z,19nm,0.8s						
SBF	**Sospel**	**7.11**	**240**	*e*Pn	**Pn**	**19 59 43.7**	**+0.4**
PGF	**Pioggiola**	**7.15**	**226**	*e*Pn	**Pn**	**19 59 42.7**	**-1.2**
PGF	**Pioggiola**	**7.15**	**226**	*e*Pn	**Pn**	**19 59 42.7**	**-1.2**
SFTF	**Sexfontaines**	**7.36**	**278**	*e*Pn	**Pn**	**19 59 46.1**	**-0.6**
SFTF				*e*Sg	**Sg**	**20 01 54.0**	**-0.3**
	comp=Z,13nm,0.5s						
SFTF	**Sexfontaines**	**7.36**	**278**	*e*Pn	**Pn**	**19 59 46.1**	**-0.6**
SFTF				*e*Sg	**Sg**	**20 01 54.0**	**-0.3**
	comp=Z,6.4nm,0.5s						
ORIF	**Oris-en-Rattie**	**7.53**	**252**	*e*Pn	**Pn**	**19 59 49.5**	**+0.4**
	SNR=1.0						
ORIF				*e*Sn	**Sn**	**20 01 10.5**	**-4.6**
	comp=Z,7.0nm,0.5s,SNR=1.0						
ORIF	**Oris-en-Rattie**	**7.53**	**252**	*e*Pn	**Pn**	**19 59 49.5**	**+0.4**
	SNR=1.0						
FRF	**La Foret Royal**	**7.75**	**241**	*e*Pn	**Pn**	**19 59 52.9**	**+0.8**
FRF	**La Foret Royal**	**7.75**	**241**	*e*Pn	**Pn**	**19 59 52.9**	**+0.8**
BAIF	**Baives**	**8.10**	**291**	*e*Pn	**Pn**	**19 59 56.2**	**-0.6**
BAIF				*e*Sg	**Sg**	**20 02 17.5**	**-0.4**
	comp=Z,3.9nm,0.4s						
BAIF	**Baives**	**8.10**	**291**	*e*Pn	**Pn**	**19 59 56.2**	**-0.6**
BAIF				*e*Sg	**Sg**	**20 02 17.5**	**-0.4**
	comp=Z,2.0nm,0.4s						
SMRF	**Simiane la Rot**	**8.17**	**246**	*e*Pn	**Pn**	**19 59 58.5**	**+0.6**
SMRF	**Simiane la Rot**	**8.17**	**246**	*e*Pn	**Pn**	**19 59 58.5**	**+0.6**
LOR	**Lormes**	**8.22**	**271**	*e*Pn	**Pn**	**19 59 58.4**	**-0.1**
	baz=90						
LOR				*e*Sn	**Sn**	**20 01 26.7**	**-5.3**
LOR				*e*Sg	**Sg**	**20 02 21.2**	**-0.7**
	comp=Z,4.0nm,0.4s						
LOR	**Lormes**	**8.22**	**271**	*e*Pn	**Pn**	**19 59 58.4**	**-0.1**
	baz=90						
LOR				*e*Sg	**Sg**	**20 02 21.2**	**-0.7**
	comp=Z,2.0nm,0.4s						
SMF	**Signal de Mont**	**8.34**	**267**	*e*Pn	**Pn**	**20 00 00.0**	**-0.1**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**20 01 27.9**	**-7.0**
	comp=Z,4.1nm,0.4s,SNR=1.0						
SMF	**Signal de Mont**	**8.34**	**267**	*e*Pn	**Pn**	**20 00 00.0**	**-0.1**
	SNR=1.0						
VIVF	**Saint-Julien-l**	**8.34**	**254**	*e*Pn	**Pn**	**19 59 59.1**	**-1.0**
	SNR=1.0						
VIVF				*e*Sn	**Sn**	**20 01 26.9**	**-8.0**
	comp=Z,6.8nm,0.6s,SNR=1.0						
VIVF	**Saint-Julien-l**	**8.34**	**254**	*e*Pn	**Pn**	**19 59 59.1**	**-1.0**
	SNR=1.0						
SSF	**Saint Saulge**	**8.48**	**270**	*e*Pn	**Pn**	**20 00 01.2**	**-1.0**
	SNR=1.0						
SSF	**Saint Saulge**	**8.48**	**270**	*e*Pn	**Pn**	**20 00 01.2**	**-1.0**
	SNR=1.0						
AVF	**Avril sur Loir**	**8.64**	**268**	*e*Pn	**Pn**	**20 00 04.3**	**0.0**
	SNR=1.0						
AVF	**Avril sur Loir**	**8.64**	**268**	*e*Pn	**Pn**	**20 00 04.3**	**0.0**
	SNR=1.0						
BGF	**Bois d’Agland**	**9.02**	**267**	*e*Pn	**Pn**	**20 00 09.7**	**+0.1**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**20 01 45.6**	**-6.2**
	comp=Z,7.9nm,0.4s						
BGF	**Bois d’Agland**	**9.02**	**267**	*e*Pn	**Pn**	**20 00 09.7**	**+0.1**
	SNR=1.0						
LASF	**Ste Croix**	**9.20**	**251**	*e*Pn	**Pn**	**20 00 11.1**	**-0.9**
LASF				*e*Sn	**Sn**	**20 01 49.9**	**-6.3**
	comp=Z,4.9nm,0.5s						
LASF	**Ste Croix**	**9.20**	**251**	*e*Pn	**Pn**	**20 00 11.1**	**-0.9**
CAF	**Calviac**	**10.02**	**259**	*e*Pn	**Pn**	**20 00 22.8**	**-0.4**
	SNR=1.0						
CAF	**Calviac**	**10.02**	**259**	*e*Pn	**Pn**	**20 00 22.8**	**-0.4**
	SNR=1.0						
MTLF	**Montolieu**	**10.60**	**251**	*e*Pn	**Pn**	**20 00 31.6**	**+0.5**
MTLF	**Montolieu**	**10.60**	**251**	*e*Pn	**Pn**	**20 00 31.6**	**+0.5**
FLN	**La Foliniere**	**11.02**	**281**	*e*Pn	**Pn**	**20 00 36.8**	**-0.1**
	baz=102						
FLN	**La Foliniere**	**11.02**	**281**	*e*Pn	**Pn**	**20 00 36.8**	**-0.1**
	baz=102						
MFF	**Saint Martin d**	**11.03**	**270**	*e*Pn	**Pn**	**20 00 37.1**	**0.0**
MFF	**Saint Martin d**	**11.03**	**270**	*e*Pn	**Pn**	**20 00 37.1**	**0.0**
MALT	**Malatya**	**18.87**	**112**	*e*P	**Pn**	**20 02 22.1**	**+1.8**

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*NEIC **26** 20:03:00.7±1.5, 3°.15N×97°.22E, h79^{km}±11^{km}, mb4.2/6, Error ellipse: s-maj=17.9km s-min=6.5km az=54.0*

*IDC **26** 20:03:00.1±2.8, 3°.20N×97°.23E, h72^{km}±21^{km}, mb3.7/10, mb1 3.8/11, mb1mx3.6/24, mbtmp3.7/11, Error ellipse: s-maj=37.8km s-min=13.1km az=49.0*

*ISCJB **26** 20:03:02.8±1.1, 3°.29N±0°.08×97°.47E±0°.08, h108^{km}±9^{km}, mb4.0/15, Error ellipse: s-maj=16.3km s-min=10.1km az=139.7*

ISC 26 20:03:03.7±1.1**, 3°.26N**±0°.08×**97°.46E**±0°.09**, h100**^{km}±10^{km}**, n26, σ0^{s}.97**/29**, mb4.0**/15**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**1.54**	**107**	P	**Pn**	**20 03 29.4**	**-1.1**
	40nm,0.3s,baz=301,slow=9.4,SNR=42						
PSI				S	**Sn**	**20 03 50.8**	**0.0**
	88nm,0.3s,baz=162,slow=18,SNR=26						
KULM	**Kulim**	**3.77**	**58**	*e*Pn	**Pn**	**20 03 59.5**	**-0.3**
KULM				*e*		20 04 06.7	
KULM				*e*Sn	**Sn**	**20 04 33.2**	**-10**
KULM				*e*Sg	**Sn**	**20 04 41.8**	**-1.5**
KSM	**Kuching**	**12.96**	**98**	Pn	**Pn**	**20 06 13.1**	**+8.8**
CMAR	**Chiang Mai Arr**	**15.17**	**5**	P	**Pn**	**20 06 33.4**	**+0.7**
	0.3nm,0.3s,baz=197,slow=11,SNR=13						
CHTO	**Chiang Mai**	**15.52**	**5**	*e*Pn	**Pn**	**20 06 39.0**	**+1.8**
PALK	**Pallekele**	**17.15**	**284**	P	**Pn**	**20 06 58.9**	**+1.6**
	0.8nm,0.3s,baz=101,slow=14,SNR=6.7						
KKM	**Kota Kinabalu**	**18.90**	**81**	*e*P	**P**	**20 07 18.7**	**+2.1**
	12nm,0.9s						
KAPI	**Kappang**	**23.74**	**110**	P	**P**	**20 08 07.3**	**+0.2**
	6.6nm,0.5s,mb4.2,baz=306,slow=7.3,SNR=12						
LSA	**Lhasa**	**26.96**	**348**	*e*P	**P**	**20 08 36.6**	**+0.6**
YULB	**Yu-li**	**30.53**	**47**	P	**P**	**20 09 08.9**	**+1.1**
	26nm,1.0s,mb4.9						
WRA	**Warramunga Arr**	**42.94**	**124**	P	**P**	**20 10 53.4**	**+0.3**
	1.9nm,0.4s,mb4.2,baz=302,slow=9.3,SNR=29						
WRAB	**Tennant Creek**	**42.94**	**124**	*e*P	**P**	**20 10 52.8**	**-0.3**
	2.5nm,0.5s,mb4.2						
UCH	**Uchtor**	**43.88**	**335**	*e*P	**P**	**20 10 59.1**	**-1.1**
AML	**Almayashu**	**44.15**	**335**	*e*P	**P**	**20 11 02.8**	**+0.4**
	2.4nm,0.7s,mb4.0						
ASAR	**Alice Springs**	**44.46**	**129**	P	**P**	**20 11 05.1**	**-0.1**
	0.3nm,0.4s,mb3.4,baz=297,slow=7.5,SNR=8.7						
SONM	**Songino Array**	**45.06**	**9**	P	**P**	**20 11 09.2**	**-0.3**
	0.6nm,0.3s,mb3.8,baz=185,slow=8.4,SNR=18						
SONM				PcP	PcP	20 12 49.4	+0.7
	0.3nm,0.5s,baz=191,slow=2.9,SNR=4.0						
SONM				ScP	ScP	20 16 36.3	+4.0
	0.5nm,0.9s,baz=197,slow=2.3,SNR=3.5						
ULN	**Ulaanbaatar**	**45.20**	**9**	P	**P**	**20 11 14.1**	**+3.5**
	1.1nm,0.7s,mb3.7						
MKAR	**Makanchi Array**	**45.32**	**345**	P	**P**	**20 11 10.3**	**-1.3**
	1.2nm,0.4s,mb4.0,baz=157,slow=8.1,SNR=39						
ZAA0	**Zalesovo Array**	**51.58**	**350**	*e*P	**P**	**20 11 58.7**	**-0.8**
ZALV	**Zalesovo Beam**	**51.58**	**350**	P	**P**	**20 11 58.9**	**-0.6**
	3.0nm,0.4s,mb4.7,baz=168,slow=7.1,SNR=24						
BRVK	**Borovoye**	**54.46**	**340**	*e*P	**P**	**20 12 19.5**	**-1.2**
	1.8nm,0.7s,mb4.2						
STKA	**Stephens Creek**	**54.56**	**133**	P	**P**	**20 12 22.2**	**+0.4**
	0.8nm,0.5s,mb4.0,baz=318,slow=7.1,SNR=3.8						
STKA	**Stephens Creek**	**54.56**	**133**	P	**P**	**20 12 22.2**	**+0.4**
BRTR	**Keskin Array B**	**67.93**	**312**	P	**P**	**20 13 51.1**	**-0.9**
	0.2nm,0.4s,mb3.3						
FINES	**FINESS Array B**	**78.30**	**332**	P	**P**	**20 14 51.9**	**-0.6**
	1.9nm,0.9s,mb3.8,baz=101,slow=4.4,SNR=8.3						
ARCES	**ARCESS Array B**	**80.69**	**340**	P	**P**	**20 15 05.4**	**0.0**
	0.7nm,0.5s,mb3.7,baz=96,slow=6.4,SNR=8.1						

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*ISCJB **26** 20:06:30.9±0.9, 18°.52S±0°.08×177°.68W±0°.09, h397^{km}±12^{km}, mb4.2/26, Error ellipse: s-maj=16.6km s-min=7.7km az=38.2*

*NEIC **26** 20:06:33.6±1.3, 18°.64S×177°.56W, h421^{km}±15^{km}, mb4.3/10, Error ellipse: s-maj=20.0km s-min=9.4km az=145.0*

*IDC **26** 20:06:33.3±2.0, 18°.62S×177°.61W, h413^{km}±21^{km}, mb3.7/13, mb1 3.9/14, mb1mx3.7/22, mbtmp3.7/14, Error ellipse: s-maj=19.4km s-min=11.3km az=142.0*

ISC 26 20:06:33.0±1.2**, 18°.62S**±0°.07×**177°.59W**±0°.09**, h407**^{km}±15^{km}**, n51, σ0^{s}.92**/48**, mb4.2**/26**, 1C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.29**	**51**	P	**P**	**20 08 20.2**	**-0.1**
	16nm,0.3s,baz=130,slow=1.1,SNR=16						
AFI				S	**S**	**20 09 42.0**	**-5.7**
	15nm,0.3s,baz=49,slow=20,SNR=6.0						
AFI	**Afiamalu**	**7.29**	**51**	*e*Pn	**Pn**	**20 08 20.1**	**-0.1**
AFI				P		20 08 20.2	
AFI				S	**S**	**20 09 42.0**	**-5.7**
AFI				*e*Sn	**S**	**20 09 42.2**	**-5.6**
RAO	**Raoul Island**	**10.59**	**182**	S	**S**	**20 10 54.3**	**-1.0**
	48nm,0.3s,baz=270,slow=20,SNR=4.0						
URZ	**Urewera**	**20.11**	**192**	P	**P**	**20 10 36.6**	**-1.1**
	9.1nm,0.3s,baz=315,slow=2.9,SNR=11						
URZ				S	**S**	**20 13 50.4**	**-7.2**
	5.6nm,0.9s,baz=150,slow=20,SNR=3.4						
RPZ	**Rata Peaks**	**26.79**	**198**	P	**P**	**20 11 38.0**	**+0.2**
	6.1nm,0.6s,mb4.2,baz=314,slow=7.5,SNR=6.5						
EIDS	**Eidsvold**	**29.76**	**251**	*e*P	**P**	**20 12 04.8**	**+0.5**
	16nm,0.9s,mb4.4						
ARMA	**Armidale**	**30.27**	**241**	*e*P	**P**	**20 12 10.2**	**+1.6**
CNB	**Canberra Magne**	**33.62**	**234**	*e*P	**P**	**20 12 38.9**	**+1.5**
CTA	**Charters Tower**	**34.10**	**261**	*e*P	**P**	**20 12 42.0**	**+0.3**
	4.4nm,0.4s,mb4.1						
CTA	**Charters Tower**	**34.10**	**261**	P	**P**	**20 12 41.8**	**+0.1**
	5.5nm,0.4s,mb4.2,baz=76,slow=13,SNR=8.8						
CTAO	**Charters Tower**	**34.10**	**261**	*e*P	**P**	**20 12 41.8**	**+0.2**
	6.3nm,0.5s,mb4.2						
TOO	**Toolangi**	**37.33**	**232**	*e*P	**P**	**20 13 09.6**	**+1.1**
STKA	**Stephens Creek**	**38.98**	**242**	*e*P	**P**	**20 13 23.2**	**+1.1**
	26nm,1.0s,mb4.5						
STKA	**Stephens Creek**	**38.98**	**242**	P	**P**	**20 13 23.1**	**+1.0**
	13nm,0.4s,mb4.6,baz=87,slow=8.8,SNR=52						
ARPS	**Mount Arapiles**	**39.86**	**235**	*e*P	**P**	**20 13 29.8**	**+0.5**
	56nm,0.9s,mb4.9						
WRAB	**Tennant Creek**	**45.26**	**260**	*e*P	**P**	**20 14 11.2**	**-1.1**
	7.4nm,0.7s,mb4.1						
WRA	**Warramunga Arr**	**45.27**	**260**	P	**P**	**20 14 11.3**	**-1.1**
	5.9nm,0.5s,mb4.2,baz=96,slow=7.5,SNR=74						
WRA				PcP	PcP	20 15 43.9	-0.4
	2.7nm,0.7s,baz=93,slow=3.6,SNR=7.3						
WRA				S	**S**	**20 20 15.3**	**-6.4**
	1.3nm,0.9s,baz=92,slow=14,SNR=6.0						
ASAR	**Alice Springs**	**45.35**	**255**	P	**P**	**20 14 13.1**	**+0.1**
	44nm,0.5s,mb5.1,baz=90,slow=8.5,SNR=894						
ASAR				PcP	PcP	20 15 44.2	-0.3
	3.0nm,0.5s,baz=105,slow=4.0,SNR=6.9						
ASAR				S	**S**	**20 20 18.4**	**-4.4**
	0.9nm,0.8s,baz=91,slow=16,SNR=6.7						
KAKA	**Kakadu**	**48.35**	**269**	*e*P	**P**	**20 14 35.0**	**-1.0**
	9.0nm,0.4s,mb4.5						
FORT	**Forrest**	**50.41**	**245**	*e*P	**P**	**20 14 50.9**	**-0.2**
	44nm,0.6s,mb5.0						
FORT	**Forrest**	**50.41**	**245**	*e*P	**P**	**20 14 50.7**	**-0.4**
	20nm,0.8s,mb4.5						
FITZ	**Fitzroy Crossi**	**53.68**	**261**	*e*P	**P**	**20 15 15.3**	**+0.2**
	15nm,0.4s,mb4.6						
FITZ	**Fitzroy Crossi**	**53.68**	**261**	*e*P	**P**	**20 15 15.1**	**0.0**
	6.2nm,0.5s,mb4.1						
MBWA	**Marble Bar**	**58.66**	**256**	*e*P	**P**	**20 15 49.4**	**-0.4**
MEEK	**Meekatharra**	**58.91**	**250**	*e*P	**P**	**20 15 50.8**	**-0.6**
	9.1nm,0.5s,mb4.4						
NWAO	**Narrogin (SRO)**	**59.56**	**242**	P	**P**	**20 15 55.5**	**-0.3**
	7.1nm,0.5s,mb4.3,baz=96,slow=6.6,SNR=8.3						
NWAO	**Narrogin (SRO)**	**59.56**	**242**	P	**P**	**20 15 55.5**	**-0.3**
MUN	**Mundaring**	**60.50**	**243**	*e*P	**P**	**20 16 02.1**	**+0.1**
MORW	**Morawa**	**60.91**	**247**	*e*P	**P**	**20 16 04.1**	**-0.7**
	6.7nm,0.6s,mb4.2						
MJAR	**Matsushiro Arr**	**68.94**	**323**	P	**P**	**20 16 54.5**	**-1.1**
	1.7nm,0.4s,mb4.0,baz=155,slow=5.7,SNR=6.2						
MAJO	**Matsushiro**	**68.94**	**323**	*e*P	**P**	**20 16 55.7**	**+0.1**
	6.5nm,0.8s,mb4.3						
KSM	**Kuching**	**73.54**	**277**	*e*P	**P**	**20 17 23.6**	**+0.2**
	15nm,0.7s,mb4.7						
CMB	**Columbia Colle**	**77.83**	**43**	P	**P**	**20 17 46.9**	**+0.1**
	6.9nm,1.4s,mb4.1						
NVAR	**Mina Array Bea**	**79.40**	**43**	P	**P**	**20 17 56.5**	**+1.3**
	0.7nm,0.6s,mb3.5,baz=227,slow=8.6,SNR=6.1						
ELK	**Elko**	**82.65**	**43**	P	**P**	**20 18 12.9**	**+0.8**
	0.6nm,0.5s,mb3.6,baz=190,slow=5.2,SNR=4.1						
PMR	**Palmer**	**83.11**	**13**	*e*P	**P**	**20 18 11.4**	**-2.5**
	7.5nm,1.0s,mb4.4						
MCK	**McKinley**	**85.06**	**12**	*e*P	**P**	**20 18 22.3**	**-1.3**
	7.1nm,1.1s,mb4.3						
TXAR	**Lajitas Array**	**85.72**	**57**	P	**P**	**20 18 29.3**	**+1.6**
	1.1nm,0.7s,mb3.7,baz=213,slow=6.4,SNR=5.8						
PDAR	**Pinedale Array**	**87.33**	**43**	P	**P**	**20 18 35.9**	**+0.8**
	0.3nm,0.6s,mb3.2,baz=189,slow=4.6,SNR=3.2						
CMAR	**Chiang Mai Arr**	**89.85**	**289**	P	**P**	**20 18 48.4**	**+1.0**
	2.3nm,0.9s,mb4.0,baz=120,slow=2.6,SNR=16						
YKA	**Yellowknife Ar**	**94.65**	**25**	P	**P**	**20 19 07.4**	**-1.0**
	0.4nm,0.6s,mb3.6,baz=245,slow=4.4,SNR=7.2						
YKA	**Yellowknife Ar**	**94.65**	**25**	P	**P**	**20 19 07.4**	**-1.0**
MKAR	**Makanchi Array**	**110.18**	**314**	PKiKP	PKiKP	20 24 15.4	-1.7
	0.2nm,0.5s,baz=142,slow=0.5,SNR=9.1						
ARCES	**ARCESS Array B**	**127.15**	**350**	PKP	PKPdf	20 24 47.5	-1.5
	2.6nm,0.9s,baz=102,slow=1.7,SNR=5.6						
FINES	**FINESS Array B**	**134.08**	**344**	PKP	PKPdf	20 25 00.8	-1.5
	2.4nm,0.9s,baz=2.5,slow=4.4,SNR=3.7						
BR131	**Keskin Array S**	**145.83**	**315**	*e*P	PKPdf	20 25 24.9	+0.7
BRTR	**Keskin Array B**	**145.83**	**315**	PKPbc	PKPbc	20 25 23.9	-1.6
CLL	**Collm**	**146.32**	**348**	⇑*i*PKPbc	PKPbc	20 25 25.9	-0.6
	comp=Z,6.0nm,0.9s						
GERES	**GERESS Array B**	**148.49**	**346**	PKPbc	PKPbc	20 25 31.6	-0.8
	comp=Z,0.8nm,0.5s,baz=29,slow=3.0,SNR=4.4						
TOA0	**Torodi Ar. Sit**	**174.52**	**173**	*e*P	PKPdf	20 25 52.6	-2.9
TORD	**Torodi Ar. Bea**	**174.52**	**173**	PKP	PKPdf	20 25 53.3	-2.2
	comp=Z,0.5nm,1.0s,baz=48,slow=2.1,SNR=2.9						
TORD				PKPab	PKPab	20 27 30.7	-0.4
	comp=Z,0.2nm,0.6s,baz=198,slow=2.9,SNR=2.3						

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*ISCJB **26** 20:54:33.4±0.5, 19°.96S±0°.03×69°.09W±0°.07, h105^{km}±4^{km}, mb4.2/20, Error ellipse: s-maj=11.0km s-min=4.8km az=164.9*

*NEIC **26** 20:54:34.0±1.1, 20°.11S×68°.99W, h100^{km}±11^{km}, mb4.4/10, Error ellipse: s-maj=16.8km s-min=11.0km az=75.0*

*IDC **26** 20:54:34.8±0.5, 19°.98S×68°.98W, h103^{km}±4^{km}, mb4.0/13, mb1 4.2/15, mb1mx4.1/21, mbtmp4.1/15, MS3.1/1, Ms1 3.1/1, ms1mx2.6/40, Error ellipse: s-maj=18.0km s-min=8.5km az=87.0*

*GUC **26** 20:54:35.0±0.6, 20°.04S×69°.11W, h89^{km}±6^{km}, ML4.9*

*BJI **26** 20:54:36.9, 20°.10S×69°.00W, h99^{km}*

ISC 26 20:54:34.5±0.5**, 19°.97S**±0°.03×**69°.08W**±0°.07**, h98**^{km}±4^{km}**, h105**^{km}±1.1^{km}**:pP-P, n58, σ1^{s}.00**/62**, mb4.2**/20**, 5C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HMBC	**Humberston**	**0.82**	**248**	⇑*i*P	**Pn**	**20 54 52.0**	**-0.9**
HMBC				*i* S	**Sn**	**20 55 05.1**	**-1.5**
HMBC				AML	AML	20 55 07.3	
	comp=E,80µm,0.5s						
MNMC	**Miæe Miæ**	**0.96**	**330**	⇓*i*P	**Pn**	**20 54 55.5**	**+1.2**
MNMC				*i* S	**Sn**	**20 55 11.0**	**+1.8**
MNMC				AML	AML	20 55 12.6	
	comp=N,43µm,0.5s						
PSGC	**Pisagua**	**1.05**	**290**	⇑*i*P	**Pn**	**20 54 54.7**	**-0.5**
PSGC				*i* S	**Sn**	**20 55 10.2**	**-0.6**
PSGC				AML	AML	20 55 11.9	
	comp=E,30µm,0.5s						
PB01	**Plate Boundary**	**1.14**	**199**	⇑*i*P	**Pn**	**20 54 55.9**	**-0.4**
PB01				*i* S	**Sn**	**20 55 11.4**	**-1.3**
PB01				AML	AML	20 55 13.9	
	comp=E,28µm,0.4s						
MACH	**Maria Elena**	**2.31**	**196**	⇑*i*P	**Pn**	**20 55 11.7**	**+0.7**
MACH				*i* S	**Sn**	**20 55 39.3**	**+0.3**
PB04	**Plate Boundary**	**2.32**	**189**	*e*P	**Pn**	**20 55 13.8**	**+2.6**
PB04				*i* S	**Sn**	**20 55 43.1**	**+3.8**
PB04				AML	AML	20 55 55.0	
	comp=E,8µm,0.3s						
TOCH	**Tocopilla**	**2.36**	**206**	⇓*i*P	**Pn**	**20 55 12.0**	**+0.3**
TOCH				*i* S	**Sn**	**20 55 39.8**	**-0.4**
TOCH				AML	AML	20 55 45.6	
	comp=E,11µm,0.5s						
LVC	**Limon Verde**	**2.64**	**177**	P	**Pn**	**20 55 16.0**	**+0.6**
	comp=E,103nm,0.3s,baz=18,slow=9.9,SNR=341						
LVC				S	**Sn**	**20 55 47.8**	**+1.0**
	comp=E,371nm,0.3s,baz=306,slow=19,SNR=17						
LVC	**Limon Verde**	**2.64**	**177**	*e*Pn	**Pn**	**20 55 15.6**	**+0.2**
LVC				*e*Sn	**Sn**	**20 55 42.5**	**-4.2**
LVC	**Limon Verde**	**2.64**	**177**	*e*P	**Pn**	**20 55 16.1**	**+0.7**
LVC				*i* S	**Sn**	**20 55 47.7**	**+0.9**
LVC				AML	AML	20 55 55.7	
	comp=E,3µm,0.5s						
PECH	**Pedro de Valdi**	**2.68**	**192**	⇑*i*P	**Pn**	**20 55 16.1**	**+0.2**
PECH				*i* S	**Sn**	**20 55 48.0**	**+0.3**
PECH				AML	AML	20 55 53.6	
	comp=E,10µm,0.7s						
ARE	**Arequipa**	**4.17**	**326**	*e*P	**Pn**	**20 55 40.0**	**+4.0**
ARE				*e*S	**Sn**	**20 56 24.0**	**+0.3**
SIV	**San Ignacio**	**8.58**	**64**	P	**Pn**	**20 56 35.1**	**-0.9**
	comp=E,31nm,0.3s,baz=258,slow=12,SNR=817						
SIV				LR	LR	20 59 22.7	
	comp=E,130nm,21.4s,baz=325,slow=34						
LCO	**Las Campanas**	**9.13**	**189**	*e*Pn	**Pn**	**20 56 38.2**	**-5.1**
	comp=E,34nm,0.7s						
LCO				*e*Sn	**Sn**	**20 58 09.8**	**-14**
NNA	**Nana**	**10.89**	**316**	P	Px	20 57 21.1	
	comp=E,1.6nm,0.3s,baz=150,slow=12,SNR=7.7						
NNA				S	**Sn**	**20 59 06.1**	**-1.1**
	comp=E,2.1nm,0.3s,baz=212,slow=19,SNR=2.6						
CFAA	**Coronel Fontan**	**11.62**	**176**	P	**Pn**	**20 57 12.4**	**-4.7**
	comp=E,0.1nm,0.3s,baz=4.8,slow=15,SNR=3.0						
CFAA				S	**Sn**	**20 59 35.2**	**+10**
	comp=E,0.1nm,0.3s,baz=260,slow=17,SNR=2.7						
PLCA	**Paso Flores**	**20.74**	**183**	P	**P**	**20 59 06.7**	**-0.5**
	comp=E,15nm,0.6s,baz=358,slow=11,SNR=34						
PLCA	**Paso Flores**	**20.74**	**183**	P	**P**	**20 59 06.7**	**-0.5**
OTAV	**Otavalo**	**22.08**	**334**	*e*P	**P**	**20 59 23.4**	**+1.6**
	comp=E,4.6nm,0.9s,mb3.8						
SDV	**Santo Domingo**	**28.71**	**357**	P	**P**	**21 00 22.1**	**-0.6**
	comp=E,1.7nm,0.5s,mb4.0,baz=198,slow=9.6,SNR=2.6						
RCBR	**Riachuelo**	**35.16**	**71**	*e*P	**P**	**21 01 19.9**	**+0.6**
	comp=E,9.7nm,0.7s,mb4.7						
TEIG	**Tepich**	**44.15**	**334**	P	**P**	**21 02 33.6**	**0.0**
	comp=E,8.7nm,0.8s,mb4.6,baz=153,slow=2.3,SNR=3.7						
CMIG	**Matias Romero**	**44.70**	**324**	P	**P**	**21 02 38.8**	**+0.7**
	comp=E,2.7nm,0.8s,mb4.0,baz=123,slow=5.6,SNR=3.9						
WVT	**Waverly**	**58.54**	**342**	*e*P	**P**	**21 04 19.4**	**-1.5**
	comp=E,5.5nm,0.7s,mb4.7						
MIAR	**Mount Ida**	**59.00**	**336**	*e*P	**P**	**21 04 23.6**	**-0.5**
	comp=E,6.6nm,0.8s,mb4.7						
TXAR	**Lajitas Array**	**59.28**	**325**	P	**P**	**21 04 25.1**	**-1.0**
	comp=E,0.3nm,0.5s,mb3.6,baz=135,slow=7.3,SNR=2.8						
TXAR	**Lajitas Array**	**59.28**	**325**	P	**P**	**21 04 25.1**	**-1.0**
WMOK	**Wichita Mounta**	**61.29**	**332**	P	**P**	**21 04 44.0**	**+4.4**
	comp=E,3.1nm,0.9s,mb4.3						
SDCO	**Great Sand Dun**	**66.85**	**329**	*e*P	**P**	**21 05 16.5**	**+0.5**
	comp=E,2.2nm,0.8s,mb4.0						
DBIC	**Dimbokro**	**68.46**	**74**	P	**P**	**21 05 25.7**	**-1.0**
	comp=E,16nm,0.8s,mb4.9,baz=224,slow=6.4,SNR=24						
DBIC	**Dimbokro**	**68.46**	**74**	*e*P	**P**	**21 05 25.4**	**-1.2**
	comp=E,22nm,0.8s,mb5.0						
PV01	**Paradox Valley**	**68.67**	**327**	P	**P**	**21 05 29.5**	**+2.1**
RSSD	**Black Hills**	**71.35**	**334**	P	**P**	**21 05 43.2**	**-0.4**
ISA	**Isabella**	**72.45**	**320**	*e*P	**P**	**21 05 51.8**	**+1.3**
	comp=E,4.2nm,0.6s,mb4.5						
PDAR	**Pinedale Array**	**72.71**	**330**	P	**P**	**21 05 52.1**	**+0.3**
	comp=E,0.4nm,0.5s,mb3.5,baz=116,slow=8.1,SNR=4.6						
ULM	**Lac du Bonnet**	**73.81**	**342**	P	**P**	**21 05 57.2**	**-0.9**
	comp=E,3.2nm,0.6s,mb4.2,baz=162,slow=5.8,SNR=5.0						
NVAR	**Mina Array Bea**	**74.19**	**322**	P	**P**	**21 06 01.8**	**+1.2**
	comp=E,2.0nm,0.9s,mb3.9,baz=157,slow=7.7,SNR=8.6						
SCHQ	**Schefferville**	**74.52**	**1**	P	**P**	**21 06 01.7**	**-0.4**
	comp=E,2.4nm,0.9s,mb3.9,baz=211,slow=5.4,SNR=4.2						
SCHQ	**Schefferville**	**74.52**	**1**	*e*P	**P**	**21 06 00.9**	**-1.2**
	comp=E,2.8nm,0.9s,mb4.0						
HLID	**Hailey**	**75.66**	**328**	*e*P	**P**	**21 06 10.4**	**+1.4**
	comp=E,4.0nm,1.0s,mb4.1						
TOA0	**Torodi Ar. Sit**	**77.00**	**71**	*e*P	**P**	**21 06 16.0**	**-1.1**
TOA0				*e*	pP	21 06 42.4	+0.1
TORD	**Torodi Ar. Bea**	**77.00**	**71**	P	**P**	**21 06 15.7**	**-1.4**
	comp=E,2.3nm,0.4s,mb4.3,baz=253,slow=5.4,SNR=101						
TORD				pP	pP	21 06 43.1	+0.8
	comp=E,7.3nm,0.8s,baz=254,slow=5.1,SNR=6.9						
TORD				sP	sP	21 06 54.2	+1.4
	comp=E,2.6nm,0.7s,baz=255,slow=5.3,SNR=2.9						
WALA	**Waterton Lakes**	**79.45**	**332**	*e*P	**P**	**21 06 30.1**	**+0.3**
	comp=E,0.1nm,0.7s						
FCC	**Fort Churchill**	**81.11**	**347**	*e*P	**P**	**21 06 37.7**	**-0.9**
	comp=E,0.1nm,0.8s						
BOSA	**Boshof**	**84.31**	**118**	P	**P**	**21 06 56.7**	**+0.6**
	comp=E,4.1nm,1.0s,mb4.2,baz=242,slow=6.3,SNR=3.0						
BOSA	**Boshof**	**84.31**	**118**	P	**P**	**21 06 56.7**	**+0.6**
YKA	**Yellowknife Ar**	**89.69**	**341**	P	**P**	**21 07 20.8**	**-0.3**
	comp=E,5.9nm,0.7s,mb4.8,baz=134,slow=4.6,SNR=126						
YKA				pP	pP	21 07 48.2	+1.3
	comp=E,2.6nm,0.7s,baz=134,slow=4.6,SNR=6.2						
YKA	**Yellowknife Ar**	**89.69**	**341**	P	**P**	**21 07 20.8**	**-0.3**
YKA				pP	pP	21 07 48.2	+1.3
ASAR	**Alice Springs**	**131.19**	**208**	PKP	PKPdf	21 13 34.9	-0.9
	comp=E,0.5nm,0.5s,baz=143,slow=1.6,SNR=5.0						
WRA	**Warramunga Arr**	**134.18**	**211**	PKP	PKPdf	21 13 41.1	-0.5
	comp=E,1.0nm,0.6s,baz=154,slow=1.8,SNR=12						
ZALV	**Zalesovo Beam**	**140.63**	**24**	PKhKP		21 13 46.9	
	comp=E,0.4nm,0.4s,baz=270,slow=1.4,SNR=3.4						
ZALV				PKP	PKPdf	21 13 52.9	+0.6
	comp=E,0.8nm,0.5s,baz=325,slow=2.3,SNR=5.2						
ZALV				pPKP	pPKPdf	21 14 20.6	+1.4
	comp=E,0.6nm,0.5s,baz=339,slow=3.8,SNR=2.3						

ZALV	Zalesovo Beam	140.63	24	PKP	PKPdf	21 13 46.9	-5.4
ZALV				PKP	PKPdf	21 13 52.9	+0.6
ZALV				pPKP	pPKPdf	21 14 20.6	+1.4
MK31	Makanchi Array	144.48	35	*e*PKPdf	PKPdf	21 13 58.0	-1.4
MKAR	Makanchi Array	144.48	35	PKP	PKPdf	21 13 57.6	-1.8
	comp=E,0.6nm,0.5s,baz=343,slow=2.5,SNR=15						
MKAR				pPKP	pPKPdf	21 14 26.1	-0.2
	comp=E,0.6nm,0.6s,baz=313,slow=1.9,SNR=3.0						
MKAR				sPKP		21 14 38.4	
	comp=E,0.6nm,0.7s,baz=356,slow=4.0,SNR=5.6						
MKAR				SKPbc	SKPbc	21 17 30.1	+0.4
	comp=E,0.4nm,0.8s,baz=336,slow=1.6,SNR=4.1						
MJAR	Matsushiro Arr	150.98	310	PKPbc	PKPbc	21 14 15.5	-0.7
	comp=E,2.4nm,0.8s,baz=75,slow=1.8,SNR=6.3						
MJAR	Matsushiro Arr	150.98	310	PKPbc	PKPbc	21 14 15.5	-0.7
SONM	Songino Array	151.96	6	PKP	PKPdf	21 14 11.1	-0.5
	comp=E,0.7nm,0.8s,baz=338,slow=3.3,SNR=5.0						
SONM				PKPbc	PKPbc	21 14 18.0	-0.1
	comp=E,1.6nm,0.5s,baz=314,slow=1.4,SNR=18						
SONM				pPKPbc	pPKPbc	21 14 46.5	+1.6
	comp=E,1.3nm,0.7s,baz=335,slow=1.7,SNR=4.3						
CMAR	Chiang Mai Arr	168.59	96	PKP	PKPdf	21 14 32.1	+1.4
	comp=E,0.3nm,0.6s,baz=289,slow=2.8,SNR=2.9						

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*IDC **26** 20:55:13.7±1.1, 36°.24N×21°.89E, h0^{km}, mb3.9/7, mb1 3.8/9, mb1mx3.7/24, mbtmp3.8/9, ML2.1/2, MS3.2/2, Ms1 3.2/2, ms1mx2.7/53, Error ellipse: s-maj=24.4km s-min=23.0km az=125.0*

*NEIC **26** 20:55:16.0, 36°.13N×21°.93E, h13^{km}, ML3.2(ATH), After ATH.*

*THE **26** 20:55:16.6, 35°.99N×21°.81E, h0^{km}±1^{km}, ML3.9/9, Error ellipse: s-maj=3.3km s-min=1.0km az=228.0*

*ATH **26** 20:55:16.0, 36°.13N×21°.93E, h13^{km}±1^{km}, MD4.0/18, ML3.3*

*CSEM **26** 20:55:17.3±0.5, 36°.18N×22°.00E, h1^{km}, ML3.3, Error ellipse: s-maj=12.4km s-min=5.8km az=47.0*

*ISCJB **26** 20:55:17.3±0.5, 36°.24N±0°.03×21°.93E±0°.03, h10^{km}, mb3.8/7, Error ellipse: s-maj=4.4km s-min=3.2km az=137.3*

ISC 26 20:55:17.9±0.4, **36°.20N**±0°.03×**21°.96E**±0°.03, **h10**^{km}, **n123**, σ**1^{s}.72**/173, **mb3.8**/7, **1C-1D**, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.72	346	P	Pg	20 55 30.7	-1.1
PYL	PYLOS	0.72	346	*e*PG	Pg	20 55 30.5	-1.3
PYL				*e*SB	Sg	20 55 41.2	0.0
PYL	PYLOS	0.72	346	*e*Pg	Pg	20 55 30.5	-1.3
PYL				*e*Sb	Sg	20 55 41.2	0.0
KYTH	Kithira	0.87	84	*e*PN	Pg	20 55 33.8	-0.9
KYTH	Kithira	0.87	84	*e*Pn	Pg	20 55 33.8	-0.9
VLI	Veliai	0.94	56	*e*PN	Pg	20 55 35.6	-0.4
VLI				*e*SB	Sb	20 55 48.9	+0.1
VLI	Veliai	0.94	56	*e*Pn	Pg	20 55 35.6	-0.4
VLI				*e*Sb	Sb	20 55 48.9	+0.1
ITM	Ithomi	0.98	358	*e*PB	Pb	20 55 36.0	-1.0
ITM				*e*SB	Sb	20 55 50.9	+0.9
ITM	Ithomi	0.98	358	*e*Pb	Pb	20 55 36.0	-1.0
ITM				*e*Sb	Sb	20 55 50.9	+0.9
VLX	Vlachokerasia	1.22	16	*e*PG	Pg	20 55 39.9	-1.4
VLX				*e*SB	Sb	20 55 57.6	+0.8
VLX	Vlachokerasia	1.22	16	*e*Pg	Pg	20 55 39.9	-1.4
VLX				*e*Sb	Sb	20 55 57.6	+0.8
DID	Didima	1.66	38	P	Pg	20 55 48.2	-1.5
DID				S	Sg	20 56 15.5	+4.3
DID	Didima	1.66	38	*e*PG	Pg	20 55 48.2	-1.5
DID				*e*SN	Sg	20 56 11.1	-0.1
DID	Didima	1.66	38	*e*Pg	Pg	20 55 48.2	-1.5
DID				*e*Sn	Sg	20 56 11.1	-0.1
GUR	Goura	1.76	10	*e*PN	Pn	20 55 49.4	+1.0
GUR	Goura	1.76	10	*e*Pn	Pn	20 55 49.4	+1.0
KARN	Karanos	1.77	116	P	Pg	20 55 48.5	-3.4
KARN				S	Sg	20 56 13.0	-1.9
KARN	Karanos	1.77	116	*e*PN	Pg	20 55 48.3	-3.6
KARN	Karanos	1.77	116	*e*Pn	Pg	20 55 48.3	-3.6
KARN	Karanos	1.77	116	P	Pg	20 55 48.5	-3.4
KARN				S	Sg	20 56 13.0	-1.9
RLS	Riolos of Patr	1.90	348	P	Pg	20 55 54.4	+0.1
RLS	Riolos of Patr	1.90	348	P	Pg	20 55 54.4	+0.1
VAM	Vamos	1.98	113	*e*PN	Pn	20 55 51.0	-0.4
VAM	Vamos	1.98	113	*e*Pn	Pn	20 55 51.0	-0.4
LTK	Loutraki	1.99	23	P	Pg	20 55 54.7	-1.4
LTK				S	Sg	20 56 23.0	+1.1
LTK	Loutraki	1.99	23	*e*PG	Pg	20 55 53.7	-2.4
LTK	Loutraki	1.99	23	*e*Pg	Pg	20 55 53.7	-2.4
LTK	Loutraki	1.99	23	P	Pg	20 55 54.7	-1.4
LTK				S	Sg	20 56 23.0	+1.1
LAKA	Lakka	2.04	0	P	Pg	20 55 55.0	-2.0
LAKA				S	Sg	20 56 24.4	+0.9
LAKA	Lakka	2.04	0	P	Pg	20 55 55.0	-2.0
LAKA				S	Sg	20 56 24.4	+0.9
TRIZ	Trizonia	2.17	2	P	Pg	20 55 56.8	-2.6
TRIZ				S	Sg	20 56 27.3	-0.2
TRIZ	Trizonia	2.17	2	P	Pg	20 55 56.8	-2.6
TRIZ				S	Sg	20 56 27.3	-0.2
KALE	Kalithea	2.19	4	P	Pg	20 55 56.3	-3.7
KALE				S	Sg	20 56 27.4	-1.0
KALE	Kalithea	2.19	4	P	Pg	20 55 56.3	-3.7
KALE				S	Sg	20 56 27.4	-1.0
EFP	Efpalio	2.23	359	*e*PG	Pg	20 55 57.8	-2.8
EFP	Efpalio	2.23	359	*e*Pg	Pg	20 55 57.8	-2.8
ATH	Athens Observa	2.26	38	*e*PN	Pn	20 55 56.6	+1.3
ATH	Athens Observa	2.26	38	*e*Pn	Pn	20 55 56.6	+1.3
VLS	Valsamata	2.26	331	P	Pg	20 55 56.8	-4.4
VLS				S	Sg	20 56 28.3	-2.3
VLS	Valsamata	2.26	331	*e*PN	Pn	20 55 56.1	+0.8
VLS	Valsamata	2.26	331	*e*Pn	Pn	20 55 56.1	+0.8
VLS	Valsamata	2.26	331	P	Pg	20 55 56.8	-4.4
VLS				S	Sg	20 56 28.3	-2.3
ATHU	Athens Univers	2.29	39	P	Pg	20 55 58.5	-3.3
ATHU	Athens Univers	2.29	39	P	Pg	20 55 58.5	-3.3
PTL	Penteli	2.39	39	*e*PN	Pn	20 55 58.0	+0.9
PTL	Penteli	2.39	39	*e*Pn	Pn	20 55 58.0	+0.9
IDI	Anoyia	2.55	110	Pn	Pn	20 55 59.0	-0.2
	3.6nm,0.3s,baz=297,slow=17,SNR=41						
IDI	Anoyia	2.55	110	Pn	Pn	20 55 59.0	-0.2
LKR	Lokris	2.58	18	P	Pg	20 56 02.6	-4.8
LKR				S	Sg	20 56 37.7	-3.2
LKR	Lokris	2.58	18	P	Pn	20 56 01.9	+2.2
LKR	Lokris	2.58	18	P	Pg	20 56 02.6	-4.8
LKR				S	Sg	20 56 37.7	-3.2
SIVA	Sivas	2.60	116	P	Pn	20 55 59.9	-0.1
SIVA				S	Sn	20 56 33.8	+2.2
SIVA	Sivas	2.60	116	*e*PN	Pn	20 56 00.0	0.0
SIVA	Sivas	2.60	116	*e*Pn	Pn	20 56 00.0	0.0
SIVA				S	Sn	20 56 33.8	+2.2
LKD	Levkas	2.71	338	P	Pn	20 56 03.3	+1.8
LKD				S	Sg	20 56 39.4	-5.7
LKD	Levkas	2.71	338	P	Pn	20 56 03.3	+1.8
LKD				S	Sg	20 56 39.4	-5.7
EVR	Evrytania	2.72	357	*e*PB	Pb	20 56 03.5	-3.1
EVR	Evrytania	2.72	357	*e*Pb	Pb	20 56 03.5	-3.1
AGG	Agios Georgios	2.84	6	P	Pn	20 56 06.3	+3.1
AGG				S	Sg	20 56 44.4	-4.6
AGG	Agios Georgios	2.84	6	*e*PB	Pb	20 56 05.4	-3.2
AGG	Agios Georgios	2.84	6	*e*Pb	Pb	20 56 05.4	-3.2
AGG	Agios Georgios	2.84	6	P	Pn	20 56 06.3	+3.1
AGG				S	Sg	20 56 44.4	-4.6
LAST	Lasithi	3.04	109	P	Pn	20 56 06.0	0.0
LAST				S	Sn	20 56 46.5	+4.0
LAST	Lasithi	3.04	109	*e*PN	Pn	20 56 06.0	0.0
LAST	Lasithi	3.04	109	*e*Pn	Pn	20 56 06.0	0.0
LAST				S	Sn	20 56 46.5	+4.0
XOR	Xorichti	3.31	17	P	Pn	20 56 13.0	+3.3
XOR				S	Sg	20 56 56.7	-7.5
XOR	Xorichti	3.31	17	P	Pn	20 56 13.0	+3.3
XOR				S	Sg	20 56 56.7	-7.5
AOS	Alonnisos	3.33	27	P	Pn	20 56 13.7	+3.6
AOS	Alonnisos	3.33	27	P	Pn	20 56 13.7	+3.6
THL	Klokotos Trika	3.36	1	P	Pn	20 56 12.3	+1.9
THL				S	Sn	20 56 56.1	+5.7
THL	Klokotos Trika	3.36	1	P	Pn	20 56 12.3	+1.9
THL				S	Sn	20 56 56.1	+5.7
JAN	Janina	3.56	346	*e*PN	Pn	20 56 15.4	+2.2
JAN	Janina	3.56	346	*e*Pn	Pn	20 56 15.4	+2.2
IGT	Igoumenitsa	3.57	339	P	Pn	20 56 13.5	+0.2
IGT				S	Sn	20 57 01.4	+5.8
IGT	Igoumenitsa	3.57	339	P	Pn	20 56 13.5	+0.2
IGT				S	Sn	20 57 01.4	+5.8
MEV	Metsovon	3.63	351	P	Pn	20 56 16.6	+2.5
MEV	Metsovon	3.63	351	P	Pn	20 56 16.6	+2.5
KEK	Kerkira	3.91	335	*e*PN	Pn	20 56 19.4	+1.5
KEK	Kerkira	3.91	335	*e*Pn	Pn	20 56 19.4	+1.5
LIT	Litokhoron	3.92	6	P	Pn	20 56 21.3	+3.2
LIT				S	Sn	20 57 11.1	+7.0
LIT	Litokhoron	3.92	6	*e*PN	Pn	20 56 20.0	+1.9
LIT	Litokhoron	3.92	6	*e*Pn	Pn	20 56 20.0	+1.9
LIT	Litokhoron	3.92	6	P	Pn	20 56 21.3	+3.2
LIT				S	Sn	20 57 11.1	+7.0
CHOS	Chios island	3.93	55	P	Pn	20 56 20.2	+2.0
CHOS				S	Sn	20 57 11.4	+7.1
CHOS	Chios island	3.93	55	P	Pn	20 56 20.2	+2.0
CHOS				S	Sn	20 57 11.4	+7.1
PAIG	Paliouri	3.96	19	P	Pn	20 56 21.4	+2.7
PAIG				S	Sn	20 57 13.2	+8.0
PAIG	Paliouri	3.96	19	P	Pn	20 56 21.4	+2.7
PAIG				S	Sn	20 57 13.2	+8.0
SIGR	SIGRI	4.31	45	P	Pn	20 56 25.8	+2.3
SIGR	SIGRI	4.31	45	P	Pn	20 56 25.8	+2.3
FNA	Florina	4.60	354	P	Pn	20 56 29.2	+1.7
FNA				S	Sn	20 57 28.3	+7.3
FNA	Florina	4.60	354	P	Pn	20 56 29.2	+1.7
FNA				S	Sn	20 57 28.3	+7.3
SOH	Sokhos	4.75	13	P	Pn	20 56 31.9	+2.5
SOH	Sokhos	4.75	13	P	Pn	20 56 31.9	+2.5
KNT	Kendrikon	5.01	8	P	Pn	20 56 35.3	+2.2
KNT	Kendrikon	5.01	8	P	Pn	20 56 35.3	+2.2
KRUS	Krusevo	5.20	354	*e*Pn	Pn	20 56 36.1	+0.5
KRUS				*e*Sg	Sn	20 57 34.1	-1.4
KRUS	Krusevo	5.20	354	*e*Pn	Pn	20 56 36.1	+0.5
ALN	Alexandroupoli	5.68	33	P	Pn	20 56 45.2	+2.9
ALN	Alexandroupoli	5.68	33	P	Pn	20 56 45.2	+2.9
VAE	Valguarnera	6.19	284	Pn	Pn	20 56 52.5	+3.2
	0.6nm,0.3s,baz=104,slow=19,SNR=1.9						
VAE				Sn	Sn	20 58 02.1	+1.9
	0.8nm,0.3s,baz=108,slow=20,SNR=2.7						
SG1	Sgolgore (BA)	6.22	320	*e*Pn	Pn	20 56 48.7	-1.0
BARS	Barje	6.61	359	⇑*i*Pn	Pn	20 56 55.6	+0.5
STON	Ston	7.43	335	*e*Pn	Pn	20 57 04.0	-2.4
STON				Sn	Sn	20 58 23.8	-7.0
BBLS	Lazići	7.91	346	*e*Pn	Pn	20 57 12.6	-0.2
DIVS	Divibare	8.04	350	⇓*i*Pn	Pn	20 57 13.6	-1.0
MLR	Muntele Rosu	9.76	17	Pn	Pn	20 57 44.4	+6.2
	0.1nm,0.3s,baz=164,slow=19,SNR=1.9						
MLR				LR	LR	21 01 38.5	
	comp=Z,180nm,20.2s,baz=283,slow=40						
BRTR	Keskin Array B	9.87	66	Pn	Pn	20 57 42.0	+2.2
BRTR	Keskin Array B	9.87	66	Pn	Pn	20 57 42.0	+2.3
NVLJ	Novalja	9.95	329	*e*Pn	Pn	20 57 38.7	-2.2
NVLJ				Sn	Sn	20 59 25.0	-7.5
NVLJ	Novalja	9.95	329	*e*Pn	Pn	20 57 38.7	-2.2
ASF	Jabal al Asfar	13.00	104	LR	LR	21 05 05.7	
	comp=Z,73nm,19.0s,baz=217,slow=45						
GNI	Garni	18.33	71	P	Pn	20 59 31.2	-1.0
	0.2nm,0.3s,baz=356,slow=16,SNR=3.2						
GNI	Garni	18.33	71	Pn	Pn	20 59 29.9	-2.2
GNI	Garni	18.33	71	Pn	Pn	20 59 29.9	-2.2
ESDC	Sonseca Array	20.72	287	P	P	20 59 59.2	+0.9
	0.7nm,0.6s,baz=89,slow=9.1,SNR=3.7						
HFS	Hagfors	24.54	350	P	P	21 00 35.3	-2.0
	2.8nm,0.8s,mb3.8,baz=153,slow=11,SNR=2.5						
FINES	FINESS Array B	25.40	5	P	P	21 00 42.0	-3.1
	4.6nm,1.0s,mb4.0,baz=189,slow=8.0,SNR=3.1						
TORD	Torodi Ar. Bea	29.30	224	P	P	21 01 17.9	-2.7
	1.1nm,0.8s,mb3.7,baz=34,slow=8.4,SNR=10						
TORD	Torodi Ar. Bea	29.30	224	P	P	21 01 17.9	-2.7
ARCES	ARCESS Array B	33.45	2	P	P	21 01 53.6	-3.0
	1.9nm,1.1s,mb4.0,baz=196,slow=9.4,SNR=4.8						
MKAR	Makanchi Array	45.38	57	P	P	21 03 33.6	-2.7
	0.4nm,0.3s,mb3.7,baz=267,slow=7.7,SNR=18						
ZALV	Zalesovo Beam	46.18	47	P	P	21 03 39.5	-3.0
	0.5nm,0.4s,mb3.8,baz=284,slow=8.7,SNR=3.1						
CMAR	Chiang Mai Arr	69.02	82	P	P	21 06 20.9	-3.0
	0.5nm,0.7s,mb3.6,baz=295,slow=8.3,SNR=4.9						

IDC 26 21:04:07.1±4.6, **19°.30S**×**176°.30W**, **h0**^{km}, **mb4.3**/4, **mb1 4.5**/4, **mb1mx4.0**/17, **mbtmp4.3**/4, **Error ellipse: s-maj=170.2km s-min=49.5km az=136.0**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.75	243	*e*P	P	21 11 42.1	+0.4
	1.4nm,0.5s						
STKA	Stephens Creek	39.75	243	P	P	21 11 42.0	+0.3
	1.4nm,0.5s,baz=94,slow=8.5,SNR=9.3						
ASAR	Alice Springs	46.36	255	P	P	21 12 35.0	-0.3
	5.3nm,0.5s,baz=98,slow=7.5,SNR=103						
WRA	Warramunga Arr	46.36	261	P	P	21 12 35.2	-0.2
	1.5nm,0.3s,baz=97,slow=7.4,SNR=124						
FITZ	Fitzroy Crossi	54.78	261	*e*P	P	21 13 38.4	-0.7
	3.5nm,0.4s						
CMAR	Chiang Mai Arr	91.23	289	P	P	21 17 15.3	+0.5
	0.6nm,0.7s,baz=90,slow=2.9,SNR=4.7						
BRTR	Keskin Array B	147.18	315	PKPbc	PKPbc	21 23 51.7	-0.8

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*CSEM **26** 21:04:37.8, 36°.08N×21°.85E, h13^{km}, MD3.5, After ATH*

*NEIC **26** 21:04:37.8, 36°.08N×21°.85E, h13^{km}, MD3.5(ATH), After ATH.*

ATH 26 21:04:37.8, **36°.08N**×**21°.85E**, **h13**^{km}±2^{km}, **MD3.5**/10, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.82	354	*e*PG	Pg	21 04 53.1	-0.6
PYL				*e*SB	Sb	21 05 05.3	+0.5
PYL	PYLOS	0.82	354	*e*Pg	Pg	21 04 53.1	-0.6
PYL				*e*Sb	Sb	21 05 05.3	+0.5
KYTH	Kithira	0.98	78	*e*PN	Pn	21 04 56.8	-0.4
KYTH	Kithira	0.98	78	*e*Pn	Pn	21 04 56.8	-0.4
VLI	Veliai	1.08	54	*e*PG	Pg	21 04 57.9	-0.8
VLI				*e*SB	Sb	21 05 13.6	+1.1
VLI	Veliai	1.08	54	*e*Pg	Pg	21 04 57.9	-0.8
VLI				*e*Sb	Sb	21 05 13.6	+1.1
ITM	Ithomi	1.10	3	*e*PB	Pb	21 04 58.5	-0.2
ITM				*e*SB	Sb	21 05 13.8	+0.9
ITM	Ithomi	1.10	3	*e*Pb	Pb	21 04 58.5	-0.2
ITM				*e*Sb	Sb	21 05 13.8	+0.9
VLX	Vlachokerasia	1.36	18	*e*PG	Pg	21 05 02.7	-1.2
VLX				*e*SB	Sb	21 05 21.3	+1.0
VLX	Vlachokerasia	1.36	18	*e*Pg	Pg	21 05 02.7	-1.2
VLX				*e*Sb	Sb	21 05 21.3	+1.0
DID	Didima	1.81	38	*e*PN	Pn	21 05 10.4	+1.8
DID	Didima	1.81	38	*e*Pn	Pn	21 05 10.4	+1.8
GUR	Goura	1.89	12	*e*PN	Pn	21 05 12.0	+2.2
GUR	Goura	1.89	12	*e*Pn	Pn	21 05 12.0	+2.2
RLS	Riolos of Patr	2.00	351	*e*PG	Pg	21 05 15.0	-1.1
RLS	Riolos of Patr	2.00	351	*e*Pg	Pg	21 05 15.0	-1.1
VAM	Vamos	2.03	109	*e*PN	Pn	21 05 14.0	+2.4
VAM	Vamos	2.03	109	*e*Pn	Pn	21 05 14.0	+2.4
LTK	Loutraki	2.13	24	*e*PN	Pn	21 05 15.6	+2.5
LTK	Loutraki	2.13	24	*e*Pn	Pn	21 05 15.6	+2.5

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*CSEM **26** 21:25:56.9±0.6, 36°.03N×21°.90E, h2^{km}, MD3.6, Error ellipse: s-maj=13.1km s-min=7.2km az=36.0*

*THE **26** 21:25:57.2, 36°.03N×21°.84E, h0^{km}±2^{km}, ML3.1/5, Error ellipse: s-maj=3.7km s-min=1.2km az=220.0*

*ATH **26** 21:25:57.9, 36°.19N×21°.92E, h6^{km}±2^{km}, MD3.6/12*

*NEIC **26** 21:25:57.9, 36°.19N×21°.92E, h6^{km}, MD3.6(ATH), After ATH.*

*ISCJB **26** 21:25:59.8±0.7, 36°.25N±0°.04×21°.99E±0°.05, h10^{km}, Error ellipse: s-maj=6.1km s-min=4.1km az=138.0*

ISC 26 21:26:00.3±0.7, **36°.25N**±0°.03×**21°.96E**±0°.05, **h10**^{km}, **n56**, σ**1^{s}.31**/88, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.67	345	P	Pg	21 26 11.2	-2.1
PYL	PYLOS	0.67	345	*e*PB	Pg	21 26 11.4	-1.9
PYL	PYLOS	0.67	345	P	Pg	21 26 11.2	-2.1
KYTH	Kithira	0.87	87	*e*PB	Pg	21 26 15.2	-2.0
KYTH	Kithira	0.87	87	*e*Pb	Pg	21 26 15.2	-2.0
VLI	Veliai	0.92	59	*e*PB	Pg	21 26 16.4	-1.7
VLI				*e*SB	Sg	21 26 30.1	+0.1
VLI	Veliai	0.92	59	*e*Pb	Pg	21 26 16.4	-1.7
VLI				*e*Sb	Sg	21 26 30.1	+0.1
ITM	Ithomi	0.93	359	*e*PB	Pg	21 26 16.6	-1.7
ITM				*e*SB	Sg	21 26 30.4	-0.1
ITM	Ithomi	0.93	359	*e*Pb	Pg	21 26 16.6	-1.7
ITM				*e*Sb	Sg	21 26 30.4	-0.1
VLX	Vlachokerasia	1.17	17	*e*PB	Pb	21 26 21.1	-1.6
VLX				*e*SB	Sb	21 26 38.2	+0.3
VLX	Vlachokerasia	1.17	17	*e*Pb	Pb	21 26 21.1	-1.6
VLX				*e*Sb	Sb	21 26 38.2	+0.3
DID	Didima	1.62	39	P	Pn	21 26 28.7	-0.3
DID				S	Sg	21 26 54.1	+1.5
DID	Didima	1.62	39	*e*PG	Pn	21 26 28.7	-0.3
DID	Didima	1.62	39	P	Pn	21 26 28.7	-0.3
DID				S	Sg	21 26 54.1	+1.5
GUR	Goura	1.72	10	*e*PN	Pg	21 26 31.3	-2.0
GUR	Goura	1.72	10	*e*Pn	Pg	21 26 31.3	-2.0
KARN	Karanos	1.80	117	P	Pn	21 26 28.9	-2.5
KARN				S	Sn	21 26 53.5	-0.8
KARN	Karanos	1.80	117	P	Pn	21 26 28.9	-2.5
KARN				S	Sn	21 26 53.5	-0.8
RLS	Riolos of Patr	1.85	348	*e*PN	Pn	21 26 32.0	-0.1
RLS	Riolos of Patr	1.85	348	*e*Pn	Pn	21 26 32.0	-0.1
LTK	Loutraki	1.95	24	P	Pn	21 26 34.4	+0.9
LTK				S	Sg	21 27 03.2	+0.2
LTK	Loutraki	1.95	24	*e*PN	Pn	21 26 34.1	+0.6
LTK	Loutraki	1.95	24	*e*Pn	Pn	21 26 34.1	+0.6
LTK	Loutraki	1.95	24	P	Pn	21 26 34.4	+0.9
LTK				S	Sg	21 27 03.2	+0.2
LAKA	Lakka	1.99	0	P	Pn	21 26 34.7	+0.6
LAKA				S	Sg	21 27 03.8	-0.6
LAKA	Lakka	1.99	0	P	Pn	21 26 34.7	+0.6
LAKA				S	Sg	21 27 03.8	-0.6
VAM	Vamos	2.01	114	*e*PN	Pn	21 26 35.0	+0.8
TRIZ	Trizonia	2.12	2	P	Pn	21 26 36.4	+0.6
TRIZ				S	Sg	21 27 07.5	-0.9
TRIZ	Trizonia	2.12	2	P	Pn	21 26 36.4	+0.6
TRIZ				S	Sg	21 27 07.5	-0.9
KALE	Kalithea	2.15	4	P	Pn	21 26 37.5	+1.3
KALE				S	Sg	21 27 06.9	-2.4
KALE	Kalithea	2.15	4	P	Pn	21 26 37.5	+1.3
KALE				S	Sg	21 27 06.9	-2.4
EFP	Efpalio	2.18	359	*e*PN	Pn	21 26 38.2	+1.6
EFP	Efpalio	2.18	359	*e*Pn	Pn	21 26 38.2	+1.6
VLS	Valsamata	2.22	331	P	Pn	21 26 36.2	-0.9
VLS				S	Sg	21 27 07.8	-3.8
VLS	Valsamata	2.22	331	*e*PB	Pn	21 26 36.6	-0.5
VLS	Valsamata	2.22	331	P	Pn	21 26 36.2	-0.9
VLS				S	Sg	21 27 07.8	-3.8
LKR	Lokris	2.54	19	P	Pn	21 26 42.5	+0.9
LKR				S	Sn	21 27 17.3	+4.7
LKR	Lokris	2.54	19	P	Pn	21 26 42.5	+0.9
LKR				S	Sn	21 27 17.3	+4.7
LKD	Levkas	2.67	337	P	Pn	21 26 44.1	+0.7
LKD				S	Sn	21 27 19.1	+3.4
LKD	Levkas	2.67	337	P	Pn	21 26 44.1	+0.7
LKD				S	Sn	21 27 19.1	+3.4
AGG	Agios Georgios	2.79	6	P	Pn	21 26 46.4	+1.4
AGG				S	Sn	21 27 22.6	+3.9
AGG	Agios Georgios	2.79	6	*e*PN	Pn	21 26 46.3	+1.3
AGG	Agios Georgios	2.79	6	P	Pn	21 26 46.4	+1.4
AGG				S	Sn	21 27 22.6	+3.9
XOR	Xorichti	3.27	17	P	Pn	21 26 51.8	+0.2
XOR				S	Sn	21 27 36.2	+5.7
XOR	Xorichti	3.27	17	P	Pn	21 26 51.8	+0.2
XOR				S	Sn	21 27 36.2	+5.7
THL	Klokotos Trika	3.31	1	P	Pn	21 26 53.1	+0.9
THL				S	Sn	21 27 37.3	+5.6
THL	Klokotos Trika	3.31	1	P	Pn	21 26 53.1	+0.9
THL				S	Sn	21 27 37.3	+5.6
IGT	Igoumenitsa	3.52	339	P	Pn	21 26 53.7	-1.4
IGT				S	Sn	21 27 40.5	+3.7
IGT	Igoumenitsa	3.52	339	P	Pn	21 26 53.7	-1.4
IGT				S	Sn	21 27 40.5	+3.7
MEV	Metsovon	3.58	351	P	Pn	21 26 56.7	+0.8
MEV	Metsovon	3.58	351	P	Pn	21 26 56.7	+0.8
LIT	Litokhoron	3.87	6	P	Pn	21 27 01.2	+1.3
LIT	Litokhoron	3.87	6	P	Pn	21 27 01.2	+1.3
CHOS	Chios island	3.90	56	P	Pn	21 27 01.6	+1.3
CHOS	Chios island	3.90	56	P	Pn	21 27 01.6	+1.3
BDRM	Kayabasi	4.49	78	*i* S	Sn	21 28 03.2	+2.6

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*NEIC **26** 21:32:30.3, 36°.22N×21°.68E, h17^{km}, MD3.5(ATH), After ATH.*

*ATH **26** 21:32:30.3, 36°.22N×21°.68E, h17^{km}±2^{km}, MD3.5/11*

*ISCJB **26** 21:32:33.9±0.9, 36°.39N±0°.04×21°.96E±0°.06, h8^{km}±4^{km}, Error ellipse: s-maj=9.5km s-min=5.2km az=141.1*

*CSEM **26** 21:32:33.9±0.4, 36°.35N×21°.98E, h10^{km}, MD3.5, Error ellipse: s-maj=9.8km s-min=5.8km az=45.0*

*THE **26** 21:32:35.5, 36°.45N×22°.04E, h5^{km}±3^{km}, ML2.8/3, Error ellipse: s-maj=3.7km s-min=1.2km az=222.0*

ISC 26 21:32:34.5±1.0, **36°.39N**±0°.05×**21°.99E**±0°.06, **h7**^{km}±4^{km}, **n45**, σ**0^{s}.98**/70, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.54	339	*e*PB	Pg	21 32 43.0	-1.9
PYL				*e*SN	Sg	21 32 53.1	+1.1
ITM	Ithomi	0.79	356	*e*PN	Pg	21 32 48.5	-1.1
ITM				*e*SN	Sg	21 33 03.0	+3.1
VLI	Veliai	0.83	67	*e*PN	Pg	21 32 51.2	+0.8
VLI				*e*SN	Sg	21 33 07.6	+6.4
VLI	Veliai	0.83	67	*e*Pn	Pg	21 32 51.2	+0.8
KYTH	Kithira	0.85	97	*e*PN	Pg	21 32 51.6	+0.7
KYTH	Kithira	0.85	97	*e*Pn	Pg	21 32 51.6	+0.7
VLX	Vlachokerasia	1.03	18	*e*PN	Pg	21 32 53.9	-0.3
VLX				*e*SN	Sg	21 33 11.8	+4.3
VLX	Vlachokerasia	1.03	18	*e*Pn	Pg	21 32 53.9	-0.3
VLX				*e*Sn	Sg	21 33 11.8	+4.3
DID	Didima	1.50	42	P	Pn	21 33 00.7	-1.0
DID				S	Sn	21 33 20.7	-0.7
DID	Didima	1.50	42	*e*PN	Pn	21 33 02.1	+0.4
DID	Didima	1.50	42	P	Pn	21 33 00.7	-1.0
DID	Didima	1.50	42	*e*Pn	Pn	21 33 02.1	+0.4
DID				S	Sn	21 33 20.7	-0.7
GUR	Goura	1.57	10	*e*PN	Pn	21 33 03.0	+0.3
GUR	Goura	1.57	10	*e*Pn	Pn	21 33 03.0	+0.3
RLS	Riolos of Patr	1.71	346	*e*PN	Pn	21 33 04.2	-0.5
RLS	Riolos of Patr	1.71	346	*e*Pn	Pn	21 33 04.2	-0.5
LTK	Loutraki	1.81	25	P	Pn	21 33 05.1	-0.8
LTK				S	Sn	21 33 28.7	-0.4
LTK	Loutraki	1.81	25	*e*PB	Pb	21 33 05.8	-2.0
LTK	Loutraki	1.81	25	P	Pn	21 33 05.1	-0.8
LTK				S	Sn	21 33 28.7	-0.4
LAKA	Lakka	1.84	360	P	Pn	21 33 06.4	-0.1
LAKA				S	Sn	21 33 30.8	+0.8
LAKA	Lakka	1.84	360	P	Pn	21 33 06.4	-0.1
LAKA				S	Sn	21 33 30.8	+0.8
KARN	Karanos	1.85	122	P	Pn	21 33 06.9	+0.3
KARN				S	Sn	21 33 32.1	+1.9
KARN	Karanos	1.85	122	P	Pn	21 33 06.9	+0.3
KARN				S	Sn	21 33 32.1	+1.9
KALE	Kalithea	2.00	3	P	Pn	21 33 09.2	+0.6
KALE				S	Sn	21 33 34.1	+0.3
KALE	Kalithea	2.00	3	P	Pn	21 33 09.2	+0.6
KALE				S	Sn	21 33 34.1	+0.3
EFP	Efpalio	2.03	358	*e*PN	Pn	21 33 08.9	-0.2
EFP	Efpalio	2.03	358	*e*Pn	Pn	21 33 08.9	-0.2
VLS	Valsamata	2.10	328	P	Pn	21 33 09.3	-0.7
VLS				S	Sn	21 33 36.6	+0.2
VLS	Valsamata	2.10	328	*e*PN	Pn	21 33 07.6	-2.4
VLS	Valsamata	2.10	328	*e*Pn	Pn	21 33 07.6	-2.4
VLS	Valsamata	2.10	328	P	Pn	21 33 09.3	-0.7
VLS				S	Sn	21 33 36.6	+0.2
LKR	Lokris	2.39	19	P	Pn	21 33 13.2	-0.8
LKR				S	Sn	21 33 42.9	-0.7
LKR	Lokris	2.39	19	P	Pn	21 33 13.2	-0.8
LKR				S	Sn	21 33 42.9	-0.7
LKD	Levkas	2.54	336	P	Pn	21 33 16.5	+0.4
LKD				S	Sn	21 33 48.3	+1.0
LKD	Levkas	2.54	336	P	Pn	21 33 16.5	+0.4
LKD				S	Sn	21 33 48.3	+1.0
AGG	Agios Georgios	2.64	6	P	Pn	21 33 18.4	+1.0
AGG				S	Sn	21 33 49.5	-0.1
AGG	Agios Georgios	2.64	6	*e*PB	Pn	21 33 18.4	+1.0
AGG	Agios Georgios	2.64	6	P	Pn	21 33 18.4	+1.0
AGG				S	Sn	21 33 49.5	-0.1
XOR	Xorichti	3.12	17	P	Pn	21 33 24.2	+0.2
XOR	Xorichti	3.12	17	P	Pn	21 33 24.2	+0.2
THL	Klokotos Trika	3.17	0	P	Pn	21 33 24.9	+0.2

THL				S	Sn	21 34 03.6	+0.9
THL	**Klokotos Trika**	**3.17**	**0**	P	**Pn**	**21 33 24.9**	**+0.2**
THL				S	Sn	21 34 03.6	+0.9
LIT	**Litokhoron**	**3.73**	**6**	P	**Pn**	**21 33 32.0**	**-0.3**
LIT	**Litokhoron**	**3.73**	**6**	P	**Pn**	**21 33 32.0**	**-0.3**
BOZC	**Bozcaada**	**4.71**	**42**	*i* P	**Pn**	**21 33 43.8**	**-2.0**

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*CSEM **26** 21:34:47.8, 35°.28N×58°.35E, h7^{km}, ML3.5, After TEH*

TEH 26 21:35:51.5, 35°.28N×58°.35E, h7^{km}, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMOG	**Moghan**	**1.16**	**44**	*e*Pg	Pg	21 36 12.4	-1.3
IMOG				*e*		21 36 35.0	
	comp=Z,4µm,0.2s						
IMOG	**Moghan**	**1.16**	**44**	*e*Pg	Pg	21 36 12.4	-1.3
IPAY	**Payeh**	**1.28**	**24**	*e*Pg	Pg	21 36 14.1	-2.0
IPAY				*e*		21 36 40.1	
	comp=Z,8µm,0.2s						
IPAY	**Payeh**	**1.28**	**24**	*e*Pg	Pg	21 36 14.1	-2.0
IAKL	**Akhelmad**	**1.36**	**14**	*e*Pg	Pg	21 36 14.9	-2.8
IAKL				*e*Sg	Sg	21 36 33.8	-1.6
IAKL				*e*		21 36 35.0	
	comp=Z,7µm,0.2s						
IKRD	**Kardeh**	**1.50**	**5**	*e*Pn	Pn	21 36 22.6	+3.7
IKRD				*e*		21 36 52.2	
	comp=Z,4µm,0.3s						
IMYA	**Miami**	**1.78**	**53**	*e*Pn	Pn	21 36 23.1	+0.5
IMYA				*e*Sn	Sn	21 36 45.0	-0.5
IMYA				*e*		21 36 54.8	
	comp=Z,4µm,0.3s						
IMYA	**Miami**	**1.78**	**53**	*e*Pn	Pn	21 36 23.1	+0.5
IMYA				*e*Sn	Sn	21 36 45.0	-0.5
ISFR	**Sfrayin**	**1.80**	**351**	*e*Pn	Pn	21 36 22.5	-0.4
ISFR				*e*		21 36 55.8	
	comp=Z,5µm,0.3s						
ISFR	**Sfrayin**	**1.80**	**351**	*e*Pn	Pn	21 36 22.5	-0.4
IEMG	**Emamgholi**	**2.15**	**6**	*e*Pn	Pn	21 36 27.9	+0.1
IEMG				*e*		21 36 30.9	
	comp=Z,2µm,0.3s						
IEMG	**Emamgholi**	**2.15**	**6**	*e*Pn	Pn	21 36 27.9	+0.1
ITEG	**Tejag**	**2.40**	**172**	*e*Pn	Pn	21 36 31.9	+0.7
ITEG				*e*		21 37 12.0	
	comp=Z,5µm,0.3s						
ITEG	**Tejag**	**2.40**	**172**	*e*Pn	Pn	21 36 31.9	+0.7
IANJ	**Anjilo**	**3.63**	**274**	*e*Pn	Pn	21 36 47.9	-0.2
IANJ				*e*		21 37 53.0	
	comp=Z,559nm,0.4s						
IANJ	**Anjilo**	**3.63**	**274**	*e*Pn	Pn	21 36 47.9	-0.2
ISHM	**Shahmirzad**	**4.16**	**279**	*e*Pn	Pn	21 36 55.2	-0.2
ISHM				*e*		21 38 25.8	
	comp=Z,662nm,0.4s						
ISHM	**Shahmirzad**	**4.16**	**279**	*e*Pn	Pn	21 36 55.2	-0.2
IBAF	**Bafgh**	**4.35**	**213**	*e*Pn	Pn	21 36 57.6	-0.4
IBAF				*e*		21 38 30.9	
	comp=Z,1µm,0.5s						
IBAF	**Bafgh**	**4.35**	**213**	*e*Pn	Pn	21 36 57.6	-0.4
ILAS	**Lasjerd**	**4.41**	**273**	*e*Pn	Pn	21 37 08.3	+9.5
ILAS	**Lasjerd**	**4.41**	**273**	*e*Pn	Pn	21 37 08.3	+9.5
ICHK	**Chekchek**	**4.46**	**228**	*e*Pn	Pn	21 36 58.6	-1.0
ICHK				*e*		21 38 26.5	
	comp=Z,903nm,0.2s						
ICHK	**Chekchek**	**4.46**	**228**	*e*Pn	Pn	21 36 58.6	-1.0
IALA	**Alasht**	**4.58**	**282**	*e*Pn	Pn	21 37 00.9	-0.3
IALA	**Alasht**	**4.58**	**282**	*e*Pn	Pn	21 37 00.9	-0.3
IFIR	**Firoozkooh**	**4.58**	**276**	*e*	Pn	21 37 07.2	+6.0
	comp=Z,171nm,0.2s						
IFIR				*e*Pn	Pn	21 37 01.1	-0.1
IFIR	**Firoozkooh**	**4.58**	**276**	*e*Pn	Pn	21 37 01.1	-0.1
IMEH	**Mehriz**	**4.98**	**220**	*e*Pn	Pn	21 37 07.1	+0.4
IMEH	**Mehriz**	**4.98**	**220**	*e*Pn	Pn	21 37 07.1	+0.4
IPRN	**Peran**	**4.98**	**283**	*e*Pn	Pn	21 37 05.9	-0.8
IPRN	**Peran**	**4.98**	**283**	*e*Pn	Pn	21 37 05.9	-0.8
ISFB	**Sefidab**	**5.11**	**261**	*e*Pn	Pn	21 37 04.9	-3.5
ISFB	**Sefidab**	**5.11**	**261**	*e*Pn	Pn	21 37 04.9	-3.5
ISAD	**Sadrabad**	**5.14**	**231**	*e*Pn	Pn	21 36 48.9	-20
ISAD	**Sadrabad**	**5.14**	**231**	*e*Pn	Pn	21 36 48.9	-20
IDMV	**Damavand**	**5.17**	**275**	*e*Pn	Pn	21 37 07.6	-1.6
IDMV				*e*		21 39 36.1	
	comp=Z,342nm,0.6s						
IDMV	**Damavand**	**5.17**	**275**	*e*Pn	Pn	21 37 07.6	-1.6

IDC 26 21:48:21.0±1.6**, 0°.76N×96°.93E, h0^{km}, mb3.5**/7**, mb1 3.5**/9**, mb1mx3.5**/25**, mbtmp3.4**/9**, ML3.3**/2**, 1D, Error ellipse: s-maj=49.4km s-min=21.6km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.84**	**44**	⇓*e*P	Pn	21 49 06.9	-0.8
PSI	**Prapat**	**2.84**	**44**	Pn	Pn	21 49 07.0	-0.7
	2.0nm,0.3s,baz=289,slow=15,SNR=9.0						
CMAR	**Chiang Mai Arr**	**17.70**	**6**	P	Pn	21 52 27.6	-1.5
	0.1nm,0.3s,baz=194,slow=12,SNR=3.3						
WRA	**Warramunga Arr**	**42.03**	**121**	P	P	21 56 14.4	-0.3
	0.3nm,0.4s,baz=304,slow=8.9,SNR=3.0						
ASAR	**Alice Springs**	**43.35**	**127**	P	P	21 56 25.3	0.0
	0.2nm,0.5s,baz=301,slow=8.1,SNR=4.9						
MKAR	**Makanchi Array**	**47.60**	**346**	P	P	21 56 59.0	+0.4
	0.4nm,0.5s,baz=164,slow=9.1,SNR=7.4						
SONM	**Songino Array**	**47.60**	**9**	P	P	21 56 59.1	+0.5
	0.2nm,0.5s,baz=180,slow=6.8,SNR=3.0						
KURK	**Kurchatov**	**52.15**	**345**	P	P	21 57 32.7	-0.4
	0.4nm,0.3s,baz=165,slow=6.1,SNR=5.3						
ZALV	**Zalesovo Beam**	**53.95**	**351**	P	P	21 57 46.5	+0.2
	0.7nm,0.3s,baz=178,slow=5.3,SNR=3.9						
BVAR	**Borovoye Array**	**56.58**	**341**	P	P	21 58 04.6	-0.8
	0.3nm,0.4s,baz=131,slow=8.4,SNR=2.8						

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*IDC **26** 22:15:54.1±6.2, 27°.67N×130°.01E, h0^{km}, mb3.9/8, mb1 4.0/8, mb1mx3.7/25, mbtmp3.9/8, MS3.1/2, Ms1 3.1/2, ms1mx2.5/37, Error ellipse: s-maj=152.7km s-min=68.2km az=0.0*

*NIED **26** 22:16:00, 28°.40N×130°.10E, h14^{km}, Mw3.8 Best double couple: $M_0$5.02000×10^{14} NP1:ϕ_s32.00000°, δ76.00000°, λ89.00000°. NP2:ϕ_s217.00000°, δ14.00000°, λ95.00000°.*

*ISCJB **26** 22:16:02.0±1.2, 28°.36N±0°.07×130°.11E±0°.10, h30^{km}±5^{km}, mb3.8/8, Error ellipse: s-maj=17.7km s-min=5.2km az=36.0*

*JMA **26** 22:16:02.8±0.2, 28°.38N×130°.07E, h26^{km}±2^{km}, M3.5*

JMA Felt II J1.

ISC 26 22:16:03.1±0.9**, 28°.38N**±0°.06×**130°.05E**±0°.09**, h26^{km}**±4^{km}**, n17, σ0^s.98**/23**, mb3.8**/8**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.10**	**229**	P	**Pb**	**22 16 07.3**	**-0.5**
JZK				S	**Sb**	**22 16 11.3**	**+0.3**
JAM	**Amami Oshima**	**0.40**	**275**	P	**Pb**	**22 16 11.4**	**-0.2**
JAM				*e*S	**Sb**	**22 16 16.9**	**-0.6**
JTK	**Tokunoshima**	**1.14**	**239**	P	**Pn**	**22 16 23.8**	**+0.4**
JTK				*e*S	**Sn**	**22 16 39.0**	**+0.9**
JNN	**Nakanoshima**	**1.47**	**354**	P	**Pn**	**22 16 28.5**	**+0.6**
JKC	**Kuchinoerabu**	**2.08**	**3**	P	**Pn**	**22 16 37.8**	**+1.5**
JKC				*e*S	**Sn**	**22 17 02.6**	**+1.2**
JOW	**Kunigami**	**2.20**	**226**	P	**Pn**	**22 16 38.0**	**0.0**
JOW				*e*S	**Sn**	**22 17 05.8**	**+1.4**
JIH	**Iheya**	**2.28**	**235**	P	**Pn**	**22 16 39.2**	**+0.1**
JIH				*e*S	**Sn**	**22 17 07.2**	**+0.8**
JTN	**Tanegashima 3**	**2.41**	**19**	P	**Pn**	**22 16 41.7**	**+0.9**
JTN				*e*S	**Sn**	**22 17 10.5**	**+1.0**
KSRS	**Korea Array**	**9.23**	**349**	LR	LR	22 21 59.6	
	comp=Z,42nm,20.5s,baz=181,slow=37						
SONM	**Songino Array**	**26.73**	**323**	P	**P**	**22 21 40.8**	**+0.5**
	0.3nm,0.5s,mb3.1,baz=143,slow=11,SNR=2.8						
MKAR	**Makanchi Array**	**41.37**	**310**	P	**P**	**22 23 45.7**	**-1.2**
	0.1nm,0.3s,mb2.9,baz=80,slow=9.3,SNR=4.6						
KURK	**Kurchatov**	**44.42**	**315**	P	**P**	**22 24 09.2**	**-2.4**
	0.3nm,0.4s,mb3.4,baz=98,slow=8.5,SNR=4.1						
KURK				LR	LR	22 43 54.6	
	comp=Z,62nm,19.7s,baz=165,slow=37						
BVAR	**Borovoye Array**	**49.79**	**317**	P	**P**	**22 24 52.2**	**-1.2**
	0.7nm,0.6s,mb3.9,baz=92,slow=8.4,SNR=3.9						
SPITS	**Spitsbergen Ar**	**67.07**	**348**	P	**P**	**22 26 52.6**	**-1.0**
	13nm,1.0s,mb4.9,baz=57,slow=7.2,SNR=3.2						
ARCES	**ARCESS Array B**	**68.61**	**339**	P	**P**	**22 27 02.9**	**-0.5**
	3.4nm,1.0s,mb4.2,baz=71,slow=8.1,SNR=5.6						
FINES	**FINESS Array B**	**71.80**	**331**	P	**P**	**22 27 22.2**	**-0.8**
	1.1nm,0.5s,mb4.0,baz=64,slow=5.1,SNR=16						
AKASG	**Malin Array Be**	**74.95**	**320**	P	**P**	**22 27 40.0**	**-1.8**
	0.4nm,0.4s,mb3.7,baz=58,slow=6.7,SNR=5.2						

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*NEIC **26** 22:17:15.3, 35°.98N×21°.79E, h4^{km}, mb3.4/1, ML3.5(ATH), After ATH.*

*ATH **26** 22:17:15.3, 35°.98N×21°.79E, h4^{km}±2^{km}, MD3.9/14, ML3.5*

*ISCJB **26** 22:17:16.1±0.4, 35°.97N±0°.03×21°.79E±0°.03, h10^{km}, mb3.6/7, Error ellipse: s-maj=4.1km s-min=2.8km az=38.6*

*CSEM **26** 22:17:17.3±0.2, 36°.02N×21°.84E, h2^{km}, ML4.1/8, Error ellipse: s-maj=5.0km s-min=3.1km az=38.0*

*THE **26** 22:17:19.8, 36°.07N×21°.95E, h10^{km}±2^{km}, ML4.1/8, Error ellipse: s-maj=3.3km s-min=0.9km az=227.0*

*IDC **26** 22:17:22.9±3.3, 36°.12N×21°.98E, h65^{km}±34^{km}, mb3.5/7, mb1 3.4/9, mb1mx3.3/26, mbtmp3.4/9, ML2.7/1, Error ellipse: s-maj=31.1km s-min=22.5km az=130.0*

*TIR **26** 22:17:34.4, 38°.96N×25°.15E, h0^{km}*

ISC 26 22:17:17.8±0.4**, 35°.98N**±0°.03×**21°.83E**±0°.03**, h10^{km}, n139, σ1^s.24**/192**, mb3.6**/7**, 1C, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.92**	**356**	P	**Pg**	**22 17 32.3**	**-3.1**
PYL	**PYLOS**	**0.92**	**356**	*e*PG	**Pg**	**22 17 32.8**	**-2.6**
PYL	**PYLOS**	**0.92**	**356**	P	**Pg**	**22 17 32.3**	**-3.1**
PYL	**PYLOS**	**0.92**	**356**	*e*Pg	**Pg**	**22 17 32.8**	**-2.6**
KYTH	**Kithira**	**1.02**	**73**	*e*PG	**Pg**	**22 17 35.3**	**-2.1**
KYTH	**Kithira**	**1.02**	**73**	*e*Pg	**Pg**	**22 17 35.3**	**-2.1**
VLI	**Veliai**	**1.16**	**50**	*e*PG	**Pg**	**22 17 37.2**	**-2.8**
VLI				*e*SB	**Sg**	**22 17 54.3**	**-0.8**
VLI	**Veliai**	**1.16**	**50**	*e*Pg	**Pg**	**22 17 37.2**	**-2.8**
VLI				*e*Sb	**Sg**	**22 17 54.3**	**-0.8**
VLX	**Vlachokerasia**	**1.45**	**17**	*e*PB	**Pb**	**22 17 41.9**	**-3.0**
VLX				*e*SB	**Sb**	**22 18 02.7**	**-0.8**
VLX	**Vlachokerasia**	**1.45**	**17**	*e*Pb	**Pb**	**22 17 41.9**	**-3.0**
VLX				*e*Sb	**Sb**	**22 18 02.7**	**-0.8**
KARN	**Karanos**	**1.79**	**108**	P	**Pb**	**22 17 49.6**	**-1.1**
KARN				S	**Sn**	**22 18 12.8**	**+1.2**
KARN	**Karanos**	**1.79**	**108**	*e*PB	**Pb**	**22 17 50.0**	**-0.7**
KARN	**Karanos**	**1.79**	**108**	P	**Pb**	**22 17 49.6**	**-1.1**
KARN	**Karanos**	**1.79**	**108**	*e*Pb	**Pb**	**22 17 50.0**	**-0.7**
KARN				S	**Sn**	**22 18 12.8**	**+1.2**
DID	**Didima**	**1.90**	**36**	P	**Pn**	**22 17 49.6**	**-0.6**
DID				S	**Sn**	**22 18 13.5**	**-0.6**
DID	**Didima**	**1.90**	**36**	*e*PN	**Pn**	**22 17 50.4**	**+0.2**
DID	**Didima**	**1.90**	**36**	P	**Pn**	**22 17 49.6**	**-0.6**
DID	**Didima**	**1.90**	**36**	*e*Pn	**Pn**	**22 17 50.4**	**+0.2**
DID				S	**Sn**	**22 18 13.5**	**-0.6**
GUR	**Goura**	**1.99**	**12**	*e*PN	**Pn**	**22 17 51.9**	**+0.4**
GUR	**Goura**	**1.99**	**12**	*e*Pn	**Pn**	**22 17 51.9**	**+0.4**
RLS	**Riolos of Patr**	**2.09**	**352**	*e*PG	**Pg**	**22 17 54.0**	**-3.9**
RLS	**Riolos of Patr**	**2.09**	**352**	*e*Pg	**Pg**	**22 17 54.0**	**-3.9**
NAIG	**Nisos Aigina**	**2.22**	**36**	*e*PN	**Pn**	**22 17 55.3**	**+0.7**
NAIG	**Nisos Aigina**	**2.22**	**36**	*e*Pn	**Pn**	**22 17 55.3**	**+0.7**
LTK	**Loutraki**	**2.23**	**24**	P	**Pn**	**22 17 54.8**	**0.0**
LTK				S	**Sn**	**22 18 21.7**	**-0.7**
LTK	**Loutraki**	**2.23**	**24**	*e*PN	**Pn**	**22 17 55.7**	**+0.9**
LTK	**Loutraki**	**2.23**	**24**	P	**Pn**	**22 17 54.8**	**0.0**
LTK	**Loutraki**	**2.23**	**24**	*e*Pn	**Pn**	**22 17 55.7**	**+0.9**
LTK				S	**Sn**	**22 18 21.7**	**-0.7**
LAKA	**Lakka**	**2.26**	**3**	P	**Pn**	**22 17 56.2**	**+1.0**
LAKA				S	**Sn**	**22 18 22.7**	**-0.3**
LAKA	**Lakka**	**2.26**	**3**	P	**Pn**	**22 17 56.2**	**+1.0**
LAKA				S	**Sn**	**22 18 22.7**	**-0.3**
TRIZ	**Trizonia**	**2.39**	**5**	P	**Pn**	**22 17 57.6**	**+0.7**
TRIZ				S	**Sn**	**22 18 27.0**	**+0.8**
TRIZ	**Trizonia**	**2.39**	**5**	P	**Pn**	**22 17 57.6**	**+0.7**
TRIZ				S	**Sn**	**22 18 27.0**	**+0.8**
VLS	**Valsamata**	**2.41**	**336**	P	**Pn**	**22 17 57.4**	**+0.2**
VLS				S	**Sn**	**22 18 28.3**	**+1.6**
VLS	**Valsamata**	**2.41**	**336**	P	**Pn**	**22 17 57.4**	**+0.2**
VLS				S	**Sn**	**22 18 28.3**	**+1.6**
KALE	**Kalithea**	**2.42**	**6**	P	**Pn**	**22 17 57.7**	**+0.3**
KALE				S	**Sn**	**22 18 26.2**	**-0.8**
KALE	**Kalithea**	**2.42**	**6**	P	**Pn**	**22 17 57.7**	**+0.3**
KALE				S	**Sn**	**22 18 26.2**	**-0.8**
EFP	**Efpalio**	**2.44**	**1**	*e*PG	**Pg**	**22 17 59.9**	**-4.7**
EFP	**Efpalio**	**2.44**	**1**	*e*Pg	**Pg**	**22 17 59.9**	**-4.7**
ATH	**Athens Observa**	**2.50**	**37**	*e*PN	**Pn**	**22 17 59.8**	**+1.4**
ATH	**Athens Observa**	**2.50**	**37**	*e*Pn	**Pn**	**22 17 59.8**	**+1.4**
IDI	**Anoyia**	**2.59**	**105**	P	**Pn**	**22 18 00.5**	**+0.9**
	1.5nm,0.3s,baz=299,slow=13,SNR=20						
IDI	**Anoyia**	**2.59**	**105**	P	**Pn**	**22 18 00.5**	**+0.8**
SIVA	**Sivas**	**2.61**	**111**	P	**Pn**	**22 18 01.7**	**+1.6**
SIVA				S	**Sn**	**22 18 32.0**	**+0.2**
SIVA	**Sivas**	**2.61**	**111**	P	**Pn**	**22 18 01.7**	**+1.6**
SIVA				S	**Sn**	**22 18 32.0**	**+0.2**
PTL	**Penteli**	**2.63**	**38**	*e*PN	**Pn**	**22 18 00.3**	**0.0**
PTL	**Penteli**	**2.63**	**38**	*e*Pn	**Pn**	**22 18 00.3**	**0.0**
LKR	**Lokris**	**2.82**	**19**	P	**Pn**	**22 18 02.5**	**-0.4**
LKR				S	**Sn**	**22 18 36.4**	**-0.6**
LKR	**Lokris**	**2.82**	**19**	*e*PN	**Pn**	**22 18 03.0**	**+0.1**
LKR	**Lokris**	**2.82**	**19**	P	**Pn**	**22 18 02.5**	**-0.4**
LKR	**Lokris**	**2.82**	**19**	*e*Pn	**Pn**	**22 18 03.0**	**+0.1**
LKR				S	**Sn**	**22 18 36.4**	**-0.6**
LKD	**Levkas**	**2.88**	**341**	P	**Pn**	**22 18 05.2**	**+1.5**
LKD				S	**Sn**	**22 18 40.0**	**+1.6**
LKD	**Levkas**	**2.88**	**341**	P	**Pn**	**22 18 05.2**	**+1.5**
LKD				S	**Sn**	**22 18 40.0**	**+1.6**
AGG	**Agios Georgios**	**3.06**	**7**	P	**Pn**	**22 18 06.9**	**+0.7**
AGG				S	**Sn**	**22 18 43.8**	**+0.9**
AGG	**Agios Georgios**	**3.06**	**7**	*e*PB	**Pb**	**22 18 07.7**	**-4.6**
AGG	**Agios Georgios**	**3.06**	**7**	P	**Pn**	**22 18 06.9**	**+0.7**
AGG	**Agios Georgios**	**3.06**	**7**	*e*Pb	**Pb**	**22 18 07.7**	**-4.6**
AGG				S	**Sn**	**22 18 43.8**	**+0.9**
LAST	**Lasithi**	**3.08**	**104**	P	**Pn**	**22 18 07.6**	**+1.1**
LAST				S	**Sn**	**22 18 44.3**	**+0.8**
LAST	**Lasithi**	**3.08**	**104**	*e*PN	**Pn**	**22 18 07.4**	**+0.9**
LAST	**Lasithi**	**3.08**	**104**	*e*Pn	**Pn**	**22 18 07.4**	**+0.9**
LAST				S	**Sn**	**22 18 44.3**	**+0.8**
NPS	**Neapolis**	**3.16**	**102**	*e*PN	**Pn**	**22 18 07.7**	**+0.1**
NPS	**Neapolis**	**3.16**	**102**	*e*Pn	**Pn**	**22 18 07.7**	**+0.1**
XOR	**Xorichti**	**3.55**	**17**	P	**Pn**	**22 18 12.8**	**-0.1**
XOR				S	**Sn**	**22 18 54.8**	**0.0**
XOR	**Xorichti**	**3.55**	**17**	P	**Pn**	**22 18 12.8**	**-0.1**
XOR				S	**Sn**	**22 18 54.8**	**0.0**
AOS	**Alonnisos**	**3.58**	**26**	P	**Pn**	**22 18 13.8**	**+0.5**
AOS	**Alonnisos**	**3.58**	**26**	P	**Pn**	**22 18 13.8**	**+0.5**
THL	**Klokotos Trika**	**3.58**	**2**	P	**Pn**	**22 18 13.9**	**+0.6**
THL				S	**Sn**	**22 18 56.8**	**+1.1**
THL	**Klokotos Trika**	**3.58**	**2**	*e*PN	**Pn**	**22 18 13.8**	**+0.5**
THL	**Klokotos Trika**	**3.58**	**2**	*e*Pn	**Pn**	**22 18 13.8**	**+0.5**
THL				S	**Sn**	**22 18 56.8**	**+1.1**
ZKR	**Zakros**	**3.68**	**102**	*e*PN	**Pn**	**22 18 16.2**	**+1.5**
ZKR	**Zakros**	**3.68**	**102**	*e*Pn	**Pn**	**22 18 16.2**	**+1.5**
IGT	**Igoumenitsa**	**3.74**	**342**	P	**Pn**	**22 18 15.2**	**-0.3**
IGT				S	**Sn**	**22 19 00.5**	**+0.9**
IGT	**Igoumenitsa**	**3.74**	**342**	P	**Pn**	**22 18 15.2**	**-0.3**
IGT				S	**Sn**	**22 19 00.5**	**+0.9**
MEV	**Metsovon**	**3.83**	**353**	P	**Pn**	**22 18 18.2**	**+1.5**
MEV	**Metsovon**	**3.83**	**353**	P	**Pn**	**22 18 18.2**	**+1.5**
CHOS	**Chios island**	**4.14**	**53**	P	**Pn**	**22 18 21.3**	**+0.3**
CHOS				S	**Sn**	**22 19 08.5**	**-1.0**
CHOS	**Chios island**	**4.14**	**53**	P	**Pn**	**22 18 21.3**	**+0.3**
CHOS				S	**Sn**	**22 19 08.5**	**-1.0**
LIT	**Litokhoron**	**4.14**	**7**	P	**Pn**	**22 18 22.4**	**+1.3**
LIT	**Litokhoron**	**4.14**	**7**	P	**Pn**	**22 18 22.4**	**+1.3**
SRN	**Sarande**	**4.15**	**340**	*e*PN	**Pg**	**22 18 44.1**	**+6.8**
SRN				*i* SN	**Sg**	**22 19 38.2**	**+7.1**
SRN	**Sarande**	**4.15**	**340**	*e*Pn	**Pg**	**22 18 44.1**	**+6.8**
	SNR=35						
SRN				*i* Sn	**Sg**	**22 19 38.2**	**+7.1**
	SNR=35						
PAIG	**Paliouri**	**4.20**	**20**	P	**Pn**	**22 18 21.4**	**-0.5**
PAIG				S	**Sn**	**22 19 11.7**	**+0.7**
PAIG	**Paliouri**	**4.20**	**20**	P	**Pn**	**22 18 21.4**	**-0.5**
PAIG				S	**Sn**	**22 19 11.7**	**+0.7**
SIGR	**SIGRI**	**4.54**	**44**	P	**Pn**	**22 18 26.7**	**+0.2**
SIGR				S	**Sn**	**22 19 19.5**	**+0.2**
SIGR	**SIGRI**	**4.54**	**44**	P	**Pn**	**22 18 26.7**	**+0.2**
SIGR				S	**Sn**	**22 19 19.5**	**+0.2**
PLG	**Polygyros**	**4.57**	**16**	P	**Pn**	**22 18 27.7**	**+0.8**
PLG	**Polygyros**	**4.57**	**16**	P	**Pn**	**22 18 27.7**	**+0.8**
LIA	**Limnos Island**	**4.72**	**33**	P	**Pn**	**22 18 29.8**	**+0.8**
LIA	**Limnos Island**	**4.72**	**33**	P	**Pn**	**22 18 29.8**	**+0.8**
FNA	**Florina**	**4.81**	**356**	P	**Pn**	**22 18 30.3**	**+0.1**
FNA				S	**Sn**	**22 19 28.0**	**+2.1**
FNA	**Florina**	**4.81**	**356**	P	**Pn**	**22 18 30.3**	**+0.1**
FNA				S	**Sn**	**22 19 28.0**	**+2.1**
SOH	**Sokhos**	**4.98**	**13**	P	**Pn**	**22 18 33.2**	**+0.7**
SOH	**Sokhos**	**4.98**	**13**	P	**Pn**	**22 18 33.2**	**+0.7**
TIP	**Timpagrande**	**5.14**	**310**	*e*Pn	**Pn**	**22 18 34.9**	**+0.1**
	8.8nm,0.7s						
TIP				*e*Sn	**Sn**	**22 19 31.6**	**-2.5**
TIP	**Timpagrande**	**5.14**	**310**	*e*Pn	**Pn**	**22 18 34.9**	**+0.1**
	8.8nm,0.7s						
TIP				*e*Sn	**Sn**	**22 19 31.6**	**-2.5**
KNT	**Kendrikon**	**5.24**	**9**	P	**Pn**	**22 18 36.5**	**+0.4**
KNT	**Kendrikon**	**5.24**	**9**	P	**Pn**	**22 18 36.5**	**+0.4**
CEL	**Celeste**	**5.26**	**297**	*e*Pn	**Pn**	**22 18 36.3**	**-0.1**
	10nm,0.7s						
CEL				*e*Sn	**Sn**	**22 19 34.6**	**-2.5**
CEL	**Celeste**	**5.26**	**297**	*e*Pn	**Pn**	**22 18 36.3**	**-0.1**
	10nm,0.7s						
CEL				*e*Sn	**Sn**	**22 19 34.6**	**-2.5**
SRS	**Serrai**	**5.31**	**15**	P	**Pn**	**22 18 38.1**	**+1.0**
SRS	**Serrai**	**5.31**	**15**	P	**Pn**	**22 18 38.1**	**+1.0**
KRUS	**Krusevo**	**5.40**	**355**	*e*Pn	**Pn**	**22 18 37.5**	**-0.8**
KRUS				*e*Sg	**Sn**	**22 19 38.4**	**-2.1**
KRUS	**Krusevo**	**5.40**	**355**	*e*Pn	**Pn**	**22 18 37.4**	**-0.9**
PHP	**Peshkopia**	**5.80**	**350**	*e*PN	**Pn**	**22 18 49.1**	**+5.3**
PHP	**Peshkopia**	**5.80**	**350**	*e*Pn	**Pn**	**22 18 49.1**	**+5.3**
	SNR=35						
CUC	**Castrocucco**	**6.21**	**312**	*e*Pn	**Pn**	**22 18 51.6**	**+2.1**
	19nm,0.7s						
CUC				*e*Sn	**Sn**	**22 20 01.2**	**+0.7**
CUC	**Castrocucco**	**6.21**	**312**	*e*Pn	**Pn**	**22 18 51.6**	**+2.1**
	19nm,0.7s						
CUC				*e*Sn	**Sn**	**22 20 01.2**	**+0.7**
PUK	**Puka**	**6.24**	**347**	*e*PN	Px	22 19 05.7	
PUK				*i* SN	**Sn**	**22 20 03.5**	**+2.4**
PUK	**Puka**	**6.24**	**347**	*e*Pn	Px	22 19 05.7	
	SNR=35						
PUK				*i* Sn	**Sn**	**22 20 03.5**	**+2.4**
	SNR=35						
SG1	**Sgolgore (BA)**	**6.32**	**322**	*e*Pn	**Pn**	**22 18 49.4**	**-1.5**
BAI	**Bari**	**6.42**	**324**	*e*Pn	**Pn**	**22 18 51.6**	**-0.8**
BARS	**Barje**	**6.83**	**360**	⇑*i*Pn	**Pn**	**22 18 57.3**	**-0.6**
CSSN	**Cassano Irpino**	**7.23**	**314**	Pn	**Pn**	**22 19 10.7**	**+7.2**
	10.0nm,0.4s						
FG5	**Orsara di Pugl**	**7.37**	**318**	Pn	**Pn**	**22 19 06.0**	**+0.6**
	7.7nm,0.4s						
FG5	**Orsara di Pugl**	**7.37**	**318**	Pn	**Pn**	**22 19 06.0**	**+0.6**
	7.7nm,0.4s						
RGNG	**Rignano Grg**	**7.49**	**321**	Pn	**Pn**	**22 19 06.2**	**-0.8**
RGNG	**Rignano Grg**	**7.49**	**321**	Pn	**Pn**	**22 19 06.2**	**-0.8**
STON	**Ston**	**7.59**	**336**	*e*Pn	**Pn**	**22 19 04.2**	**-4.2**
STON				Sn	**Sn**	**22 20 25.6**	**-8.8**
BBLS	**Lazići**	**8.09**	**347**	*e*Pn	**Pn**	**22 19 14.6**	**-0.7**
CSS	**Prodhromos**	**9.44**	**93**	*e*Pn	**Pn**	**22 19 34.4**	**+0.6**
CSS	**Prodhromos**	**9.44**	**93**	*e*Pn	**Pn**	**22 19 34.4**	**+0.6**
MLR	**Muntele Rosu**	**10.00**	**17**	P	**Pn**	**22 19 47.9**	**+6.5**
	0.1nm,0.3s,baz=197,slow=7.5,SNR=5.3						
BRTR	**Keskin Array B**	**10.06**	**65**	P	**Pn**	**22 19 44.2**	**+2.0**
BRTR	**Keskin Array B**	**10.06**	**65**	P	**Pn**	**22 19 44.2**	**+2.0**
BR131	**Keskin Array S**	**10.06**	**65**	Pn	**Pn**	**22 19 42.6**	**+0.4**
BR131	**Keskin Array S**	**10.06**	**65**	Pn	**Pn**	**22 19 42.6**	**+0.4**
NVLJ	**Novalja**	**10.08**	**330**	*e*Pn	**Pn**	**22 19 38.2**	**-4.4**
NVLJ				Sn	**Sn**	**22 21 24.3**	**-11**
MALT	**Malatya**	**13.45**	**75**	Pn	**Pn**	**22 20 26.9**	**-1.7**
MALT	**Malatya**	**13.45**	**75**	Pn	**Pn**	**22 20 26.9**	**-1.7**
KIV	**Kislovodsk**	**17.83**	**57**	*e*Pn	**Pn**	**22 21 22.9**	**-3.0**
GNI	**Garni**	**18.50**	**70**	*e*P	**Pn**	**22 21 31.7**	**-2.5**
	1.3nm,0.5s						
HFS	**Hagfors**	**24.73**	**350**	P	**P**	**22 22 36.5**	**-2.5**
	3.2nm,0.9s,mb3.9,baz=151,slow=6.6,SNR=2.8						
FINES	**FINESS Array B**	**25.62**	**5**	P	**P**	**22 22 44.1**	**-3.0**
	1.7nm,0.8s,mb3.6,baz=236,slow=27,SNR=3.0						
ESK	**Eskdalemuir**	**25.84**	**326**	P	**P**	**22 22 47.1**	**-2.1**
TORD	**Torodi Ar. Bea**	**29.07**	**224**	P	**P**	**22 23 19.2**	**+0.8**
	0.7nm,0.8s,mb3.5,baz=32,slow=8.9,SNR=5.2						
ARCES	**ARCESS Array B**	**33.67**	**2**	P	**P**	**22 23 56.5**	**-1.9**
	1.2nm,0.8s,mb3.9,baz=188,slow=7.4,SNR=4.0						
KURK	**Kurchatov**	**42.78**	**52**	P	**P**	**22 25 11.3**	**-4.0**
	0.1nm,0.3s,mb3.0,baz=279,slow=8.2,SNR=2.6						
KURK	**Kurchatov**	**42.78**	**52**	*e*P	**P**	**22 25 12.4**	**-2.9**
MKAR	**Makanchi Array**	**45.59**	**57**	P	**P**	**22 25 35.3**	**-2.6**
	0.3nm,0.3s,mb3.7,baz=268,slow=7.8,SNR=10						
ZALV	**Zalesovo Beam**	**46.41**	**47**	P	**P**	**22 25 41.1**	**-3.1**
	0.7nm,0.5s,mb3.8,baz=273,slow=9.6,SNR=3.7						

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*LDG **26** 22:20:49.8±0.5, 22°.81N×94°.02E, h33^{km}, Mb4.6/7, Ms3.1/1, Error ellipse: s-maj=27.3km s-min=18.3km az=7.0*

*ISCJB **26** 22:20:55.9±0.5, 23°.14N±0°.03×94°.04E±0°.03, h66^{km}±4^{km}, mb4.4/61, Error ellipse: s-maj=5.6km s-min=3.7km az=31.6*

*BJI **26** 22:20:56.2, 23°.22N×94°.18E, h62^{km}, mB4.8/13, mb4.4/28, ML4.4/6, Ms4.4/13, Ms7 3.9/13*

*NEIC **26** 22:20:58.1±0.6, 23°.19N×94°.11E, h71^{km}±5^{km}, mb4.5/28, Error ellipse: s-maj=8.5km s-min=4.9km az=223.0*

*IDC **26** 22:20:59.5±0.7, 23°.24N×94°.38E, h87^{km}±6^{km}, mb4.0/31, mb1 4.1/32, mb1mx4.1/37, mbtmp4.0/32, MS3.6/12, Ms1 3.6/12, ms1mx3.3/44, Error ellipse: s-maj=14.7km s-min=9.3km az=58.0*

*DJA **26** 22:21:00, 22°.68N×93°.91E, h61^{km}, mb4.9/13*

ISC 26 22:20:57.6±0.4**, 23°.17N**±0°.03×**94°.03E**±0°.03**, h64^{km}**±3^{km}**, n176, σ1^s.29**/196**, mb4.4**/61**, 11C-6D, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	**Imphal**	**1.61**	**357**	*e*PKP	**Pn**	**22 21 26.0**	**+2.1**
AGT	**Agartala**	**2.65**	**286**	*e*x	**Pn**	**22 21 36.0**	**-1.9**
AGT				*e*x	x	22 21 57.0	
SHL	**Shillong**	**3.09**	**321**	*e*PKP	**Pn**	**22 21 43.8**	**-0.1**
SHL				*e*PKP		22 21 47.0	
SHL				*e*S	**Sn**	**22 22 19.8**	**+0.2**
CAL	**Calcutta**	**5.29**	**264**	*e*x	x	22 22 30.3	
CAL				*e*x	x	22 23 17.2	
SHBG	**Sahibganj**	**6.16**	**291**	*e*PKP	**Pn**	**22 22 19.5**	**-6.4**
SHBG				*e*S	**Sn**	**22 23 26.0**	**-9.0**
SLGI	**Shiliguri**	**6.19**	**306**	*e*PKP	**Pn**	**22 22 27.5**	**+1.1**
SLGI				*e*S	**Sn**	**22 23 30.0**	**-5.7**
CHRT	**Chiangrai**	**6.28**	**120**	⇑PN	**Pn**	**22 22 27.0**	**-0.7**
CHRT	**Chiangrai**	**6.28**	**120**	PG	**Pn**	**22 22 33.5**	**+5.8**
CHG	**Chiang Mai**	**6.31**	**132**	PN	**Pn**	**22 22 27.2**	**-0.9**
CHTO	**Chiang Mai**	**6.31**	**132**	*e*Pn	**Pn**	**22 22 27.1**	**-1.0**
	53nm,0.6s						
CHTO				*e*Sn	**Sn**	**22 23 36.7**	**-2.2**
CMAR	**Chiang Mai Arr**	**6.56**	**135**	P	**Pn**	**22 22 31.2**	**-0.4**
	5.2nm,0.3s,baz=312,slow=13,SNR=203						
CMAR				S	**Sn**	**22 23 40.6**	**-4.5**
	2.9nm,0.3s,baz=312,slow=15,SNR=3.4						
CMAR				LR	LR	22 25 14.0	
	comp=Z,297nm,20.3s,baz=220,slow=40						
LSA	**Lhasa**	**7.00**	**339**	P	**Pn**	**22 22 39.5**	**+2.1**
LSA				S	**Sn**	**22 23 53.3**	**-2.2**
LSA				smax			
	comp=N,310nm,0.8s						
LSA				smax			
	comp=E,220nm,0.7s						
LSA	**Lhasa**	**7.00**	**339**	*e*Pn	**Pn**	**22 22 39.6**	**+2.2**
	comp=E,12nm,1.8s						
LSA				*e*Sn	**Sn**	**22 23 55.1**	**-0.4**
ODAN	**Odare**	**7.05**	**303**	*e*Pn	**Pn**	**22 22 39.6**	**+1.4**
ODAN				*e*Sn	**Sn**	**22 23 55.5**	**-1.5**
	comp=E,1µm,0.5s						
TAPN	**Taplejung**	**7.07**	**307**	*e*Pn	**Pn**	**22 22 40.2**	**+1.7**
TAPN				*e*Sn	**Sn**	**22 23 56.6**	**-0.8**
	comp=E,1µm,0.7s						
BOK	**Bokaro**	**7.50**	**276**	*e*S	**Sn**	**22 24 04.2**	**-3.8**
BDT	**Bhumibol Dam**	**7.52**	**141**	P	**Pn**	**22 22 45.0**	**+0.4**
	comp=E,76nm,0.9s						
RAMN	**Ramite**	**7.71**	**301**	*e*Pn	**Pn**	**22 22 48.9**	**+1.6**
RAMN				*e*Sn	**Sn**	**22 24 11.1**	**-2.1**
	comp=E,803nm,0.4s						
BWNR	**Bhubaneshwar**	**8.16**	**251**	*e*PKP	**Pn**	**22 22 49.0**	**-4.4**
BWNR				*e*S	**Sn**	**22 24 10.0**	**-14**
KMI	**Kunming**	**8.19**	**75**	⇑P	**Pn**	**22 22 56.0**	**+2.2**
KMI				sP		22 23 07.0	
KMI				S	**Sn**	**22 24 18.8**	**-6.1**
KMI				pmax	pmax		
	comp=Z,87nm,1.0s						
KMI				pmax	pmax		
	comp=Z,370nm,3.1s						
KMI				LR	LR		
	comp=N,1µm,8.4s						
KMI				LR	LR		
	comp=E,520nm,7.7s						
KMI				LR	LR		

	comp=Z,480nm,9.5s						
JIRN	**Jiri**	8.38	304	*e*Pn	Pn	22 22 57.6	+1.3
JIRN				*e*Sn	Sn	22 24 27.3	-2.1
	comp=Z,916nm,0.4s						
GUN	**Gumba**	8.74	304	*e*Pn	Pn	22 23 02.5	+1.2
GUN				*e*Sn	Sn	22 24 35.2	-3.1
	comp=Z,1μm,0.5s						
PKI	**Pulchoki**	8.94	301	*e*Pn	Pn	22 23 05.1	+1.1
PKI				*e*Sn	Sn	22 24 41.3	-1.9
	comp=Z,451nm,0.5s						
PKI	**Pulchoki**	8.94	301	*e*Pn	Pn	22 23 05.1	+1.1
PKI				*e*Sn	Sn	22 24 41.6	-1.6
PKIN	**Phulchoki**	8.95	301	*e*Pn	Pn	22 23 05.1	+0.9
PKIN				*e*Sn	Sn	22 24 41.6	-1.9
	comp=Z,430nm,0.4s						
KKN	**Kakani**	9.14	302	*e*Pn	Pn	22 23 07.3	+0.5
KKN				*e*Sn	Sn	22 24 45.9	-2.3
	comp=Z,273nm,0.2s						
DMN	**Daman**	9.20	301	*e*Pn	Pn	22 23 08.0	+0.5
DMN				*e*Sn	Sn	22 24 47.4	-2.1
	comp=Z,486nm,0.6s						
NST	**Nakhon Sawan**	9.42	141	P	Pn	22 23 04.0	-6.6
	comp=Z,48nm,0.7s						
GKN	**Gorkha**	9.75	302	*e*Pn	Pn	22 23 15.4	+0.4
GKN				*e*Sn	Sn	22 24 59.0	-3.9
	comp=Z,652nm,0.3s						
KOLN	**Koldanda**	10.47	298	*e*Pn	Pn	22 23 24.7	-0.3
KOLN				*e*Sn	Sn	22 25 16.1	-4.7
	comp=Z,671nm,0.4s						
DANN	**Dangsing**	10.59	301	*e*Pn	Pn	22 23 26.1	-0.5
DANN				*e*Sn	Sn	22 25 19.5	-4.1
	comp=Z,526nm,0.5s						
VIS	**Vishakhapatnam**	11.40	244	*e*PKP	Pn	22 23 37.2	-0.5
VIS				*e*S	Sn	22 25 34.8	-8.6
GYA	**Guiyang**	11.93	72	⇑*i*P	Pn	22 23 44.8	-0.1
GYA				pP		22 23 54.8	
GYA				S	Sn	22 25 54.0	-2.4
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
GYA				pmax	pmax		
	comp=Z,50nm,5.3s						
GYA				LR	LR		
	comp=N,1μm,11.1s						
GYA				LR	LR		
	comp=E,590nm,10.8s						
GYA				LR	LR		
	comp=Z,480nm,10.3s						
LGTI	**Lohaghat**	13.85	300	*e*PKP	Pn	22 24 11.3	+0.5
LGTI				*e*S	Sn	22 26 37.5	-5.5
PTH	**Pithoragarh**	13.91	300	*e*PKP	Pn	22 24 10.5	-1.2
PTH				*e*x	x	22 26 39.5	
NGP	**Nagpur**	14.02	265	*e*PKP	Pn	22 24 12.7	-0.5
NGP				AMb	AMB	22 24 13.1	
	comp=Z,43nm,0.8s						
NGP				*e*x	x	22 26 37.1	
BHPL	**Bhopal**	15.27	274	*e*PKP	Pn	22 24 30.7	+1.3
BHPL				*e*x	x	22 27 10.2	
QIZ	**Qiongzhong**	15.32	103	*e*Pn	Pn	22 24 31.2	+1.1
	comp=Z,18nm,0.6s						
LZH	**Lanzhou**	15.43	31	*e*P	Pn	22 24 32.0	+0.6
LZH				pP	pP	22 24 44.0	-4.0
LZH				sP	sP	22 24 50.5	-5.6
LZH				pmax	pmax		
	comp=Z,30nm,1.0s						
LZH				pmax	pmax		
	comp=Z,150nm,5.2s						
HYB	**Hyderabad**	15.60	251	*i* P	Pn	22 24 36.0	+2.3
HYB				*e*S	S	22 27 28.0	-10
HYB	**Hyderabad**	15.60	251	*e*P	Pn	22 24 36.0	+2.3
DDI	**Dehra Dun**	15.94	300	*e*PKP	Pn	22 24 37.5	-0.4
DDI				*e*x	x	22 27 17.0	
NDI	**New Delhi**	16.09	293	*e*PKP	Pn	22 24 39.0	-0.8
NDI				*e*x	x	22 25 19.0	
GTA	**Gaotai**	16.92	16	*e*P	Pn	22 24 51.0	+0.9
GTA				pP	pP	22 25 04.0	-0.5
GTA				sP	sP	22 25 09.5	-3.2
GTA				pmax	pmax		
	comp=Z,3.0nm,1.3s						
XAN	**Xi'an**	16.96	47	P	Pn	22 24 48.0	-2.6
XAN				pP	pP	22 25 04.5	-0.5
XAN				sP	sP	22 25 12.0	-1.1
XAN				pmax	pmax		
	comp=Z,12nm,1.0s						
LATR	**Latur**	17.00	257	*e*PKP	Pn	22 24 52.5	+1.2
AJM	**Ajmer**	17.90	285	*e*PKP	Pn	22 25 04.2	+1.9
AJM				*e*x	x	22 28 07.0	
THN	**Thein Dam**	18.62	304	*e*PKP	Pn	22 25 10.9	0.0
THN				*e*x	x	22 28 24.7	
KULM	**Kulim**	18.89	159	*e*P	Pn	22 25 15.3	+1.1
	comp=Z,9.5nm,0.8s						
POO	**Poona**	19.41	260	⇑*i*P	Pn	22 25 20.0	-0.4
	comp=Z,30nm,1.0s						
POO				*i* PP		22 25 35.0	
KAD	**Karad**	19.50	256	*e*PKP	Pn	22 25 21.1	-0.4
KAD				AMb	AMB	22 25 25.2	
	comp=Z,19nm,0.9s						
KAD				*e*x	x	22 28 49.1	
WHN	**Wuhan**	19.55	64	⇑P	Pn	22 25 18.3	-3.6
PALK	**Pallekele**	20.35	221	P	P	22 25 31.9	+3.0
	comp=Z,37nm,1.1s,baz=38,slow=12,SNR=14						
PALK				S	S	22 29 05.9	-7.7
	comp=Z,7.7nm,0.6s,baz=311,slow=22,SNR=6.8						
PALK				LR	LR	22 33 15.8	
	comp=Z,86nm,19.7s,baz=33,slow=36						
PSI	**Prapat**	20.80	166	⇓*e*P	P	22 25 36.2	+2.5
PSI	**Prapat**	20.80	166	P	P	22 25 34.8	+1.1
	comp=Z,19nm,0.8s,baz=309,slow=13,SNR=14						
PSI				S	S	22 29 22.1	-0.3
	comp=Z,1.6nm,0.3s,baz=38,slow=22,SNR=5.1						
PSI				ScP	ScP	22 33 09.1	-2.9
	comp=Z,3.0nm,0.6s,baz=225,slow=1.4,SNR=4.3						
WMQ	**Urumqi**	21.25	347	*e*P	P	22 25 39.5	+1.1
WMQ				pP		22 25 57.0	
WMQ				pmax	pmax		
	comp=Z,29nm,1.0s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,180nm,4.2s						
WMQ				LR	LR		
	comp=Z,580nm,24.0s						
KSH	**Kashi**	22.37	321	P	P	22 25 52.3	+2.0
KSH				*e*pP		22 26 08.8	
KSH				*e*PP		22 26 21.0	
KSH				*e*S	S	22 29 47.0	-5.2
KSH				*e*PcP	PcP	22 29 47.3	+3.9
KSH				*e*sS	sS	22 30 15.0	-0.5
KSH				*e*SS		22 30 31.0	
KSH				*e*ScP	ScP	22 33 16.8	+1.3
KSH				*e*PcS	PcS	22 33 25.3	+3.2
KSH				*e*ScS	ScS	22 37 01.3	+0.7
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.1						
KSH				pmax	pmax		
	comp=Z,400nm,4.5s						
KSH				LR	LR		
	comp=N,440nm,5.2s						
KSH				LR	LR		
	comp=E,320nm,5.5s						
KSH				LR	LR		
	comp=Z,480nm,5.6s						
HHC	**Hu-ho-hao-te**	22.99	36	*e*P	P	22 25 56.5	-0.3
HHC				pP		22 26 13.5	
HHC				PP		22 26 29.3	
HHC				*e*S	S	22 29 55.5	-6.8
HHC				sS	sS	22 30 24.0	-3.5
HHC				SS		22 30 44.3	
HHC				PcS	PcS	22 33 23.8	+0.1
HHC				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.2						
HHC				pmax	pmax		
	comp=Z,200nm,4.4s						
HHC				LR	LR		
	comp=N,110nm,9.9s						
HHC				LR	LR		
	comp=E,160nm,9.9s						
HHC				LR	LR		
	comp=Z,110nm,15.3s						
NJ2	**Nanjing**	23.67	63	*e*P	P	22 26 03.8	+0.4
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.8						
KBL	**Kabul**	24.58	303	*e*P	P	22 26 14.3	+2.7
	comp=Z,46nm,1.0s,mb5.0						
TKM2	**Tokmak 2**	24.93	327	*e*P	P	22 26 17.1	+2.3
	comp=Z,25nm,1.1s,mb4.7						
UCH	**Uchtor**	25.01	324	*e*Pn	P	22 26 16.7	+1.2
	comp=Z,14nm,0.9s,mb4.5						
BJT	**Baijiatuau**	25.15	43	P	P	22 26 16.3	-0.5
BJI	**Beijing**	25.16	43	P	P	22 26 17.0	+0.1
BJI				S	S	22 30 36.5	-0.9
BJI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.4						
BJI				LR	LR		
	comp=N,140nm,6.1s						
BJI				LR	LR		
	comp=E,120nm,7.9s						
BJI				LR	LR		
	comp=Z,67nm,34.7s						
AAK	**Ala-Archa**	25.30	325	P	P	22 26 20.9	+2.8
	comp=Z,3.6nm,0.7s,mb4.0,baz=131,slow=6.1,SNR=14						
AAK				LR	LR	22 38 02.0	
	comp=Z,69nm,18.6s,baz=271,slow=40						
AAK	**Ala-Archa**	25.30	325	*e*P	P	22 26 19.8	+1.7
	comp=Z,11nm,0.8s,mb4.4						
AML	**Almayashu**	25.39	323	*e*P	P	22 26 21.2	+2.3
	comp=Z,20nm,0.9s,mb4.7						
MKAR	**Makanchi Array**	25.40	341	P	P	22 26 19.9	+1.0
	comp=Z,12nm,0.6s,mb4.6,baz=148,slow=10.0,SNR=93						
MKAR				PcP	PcP	22 29 49.2	-0.5
	comp=Z,0.5nm,0.4s,baz=177,slow=3.9,SNR=5.3						
MKAR				ScP	ScP	22 33 20.3	-3.3
	comp=Z,1.1nm,0.6s,baz=112,slow=1.3,SNR=9.3						
EKS2	**Erkin-Say**	25.71	324	*e*P	P	22 26 22.6	+0.8
	comp=Z,16nm,1.0s,mb4.5						
SONM	**Songino Array**	26.52	19	P	P	22 26 27.1	-2.0
	comp=Z,0.5nm,0.3s,mb3.5,baz=205,slow=7.7,SNR=6.1						
SONM				ScP	ScP	22 33 23.7	-3.1
	comp=Z,0.4nm,0.6s,baz=226,slow=3.8,SNR=3.5						
SONM				LR	LR	22 36 50.4	
	comp=Z,71nm,20.9s,baz=155,slow=36						
ULN	**Ulaanbaatar**	26.75	20	*e*P	P	22 26 33.4	+2.3
	comp=Z,7.1nm,0.8s,mb4.2						
TLY	**Talaya**	29.41	12	*e*P	P	22 26 55.3	+0.4
KURK	**Kurchatov**	30.00	340	P	P	22 27 00.1	0.0
	comp=Z,2.5nm,0.5s,mb4.2,baz=157,slow=7.6,SNR=22						
KURK				ScP	ScP	22 33 34.2	-3.4
	comp=Z,6.0nm,1.0s,baz=152,slow=2.9,SNR=14						
KURK	**Kurchatov**	30.00	340	*e*P	P	22 27 00.3	+0.2
	comp=Z,6.0nm,0.7s,mb4.4						
KURK				*e*ScP	ScP	22 33 34.0	-3.5
ZALV	**Zalesovo Beam**	31.51	350	P	P	22 27 13.3	0.0
	comp=Z,1.5nm,0.4s,mb4.2,baz=153,slow=8.3,SNR=8.3						
ZALV				PcP	PcP	22 30 03.1	-1.7
	comp=Z,1.1nm,0.4s,baz=158,slow=2.1,SNR=4.5						
ZALV				PKiKP	PKiKP	22 37 32.6	-1.2
	comp=Z,0.4nm,0.3s,baz=199,slow=3.1,SNR=3.8						
ZALV	**Zalesovo Beam**	31.51	350	P	P	22 27 13.3	0.0
ZALV				PcP	PcP	22 30 03.1	-1.7
KSRS	**Korea Array**	32.35	56	LR	LR	22 41 00.4	
	comp=Z,61nm,20.4s,baz=32,slow=38						
HIA	**Hailar**	32.99	31	*e*P	P	22 27 27.3	+0.9
BVAR	**Borovoye Array**	34.81	335	P	P	22 27 42.6	+0.5
	comp=Z,1.3nm,0.5s,mb4.1,baz=128,slow=9.6,SNR=7.5						
BVAR				PcP	PcP	22 30 12.5	-1.6
	comp=Z,0.8nm,0.5s,baz=164,slow=4.7,SNR=3.3						
BVAR				ScP	ScP	22 33 50.1	-3.9
	comp=Z,1.2nm,0.7s,baz=143,slow=3.7,SNR=4.5						
BRVK	**Borovoye**	34.88	335	P	P	22 27 42.7	0.0
	comp=Z,4.4nm,0.6s,mb4.6						
MDJ	**Mudanjiang**	36.05	45	P	P	22 27 51.0	-1.8
MDJ				pmax	pmax		
	comp=Z,6.0nm,1.9s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,64nm,3.8s						
KAPI	**Kappang**	37.63	135	P	P	22 28 06.6	+0.1
	comp=Z,9.1nm,0.4s,mb4.9						
AKTK	**Aktyubinsk**	39.03	323	P	P	22 28 18.9	+1.0
AKTK				ScP	ScP	22 34 06.1	-3.8
AKTK				LR	LR	22 47 10.7	
AKTO	**Aktyubinsk**	39.03	323	P	P	22 28 18.9	+1.0
	comp=Z,3.0nm,0.6s,mb4.2,baz=112,slow=9.5,SNR=15						
AKTO				ScP	ScP	22 34 06.1	-3.7
	comp=Z,0.7nm,0.5s,baz=103,slow=5.5,SNR=4.5						
AKTO				LR	LR	22 47 10.7	
	comp=Z,98nm,19.5s,baz=298,slow=40						
MAJO	**Matsushiro**	40.23	60	P	P	22 28 27.9	-0.2
MJAR	**Matsushiro Arr**	40.23	60	P	P	22 28 23.5	-4.7
	comp=Z,2.6nm,0.7s,mb4.1,baz=274,slow=9.1,SNR=5.4						
MJAR				LR	LR	22 44 47.6	
	comp=Z,70nm,18.9s,baz=295,slow=36						
ARU	**Arti**	42.12	331	*e*P	P	22 28 44.0	+0.7
	comp=Z,3.6nm,0.5s,mb4.3						
KIV	**Kislovodsk**	46.70	309	*e*P	P	22 29 22.9	+2.8
	comp=Z,13nm,1.5s,mb4.6						
MALT	**Malatya**	49.42	301	*e*P	P	22 29 40.9	-0.3
MBWA	**Marble Bar**	50.68	148	*e*P	P	22 29 49.7	-1.1
FITZ	**Fitzroy Crossi**	51.34	140	*e*P	P	22 29 54.3	-1.5
TIXI	**Tiksi**	52.39	13	*e*P	P	22 30 00.4	-2.5
	comp=Z,4.4nm,0.4s,mb4.7						
EIL	**Elat**	52.82	290	P	P	22 30 07.0	+0.2
	comp=Z,3.7nm,0.9s,mb4.3,baz=198,slow=17,SNR=2.8						
EIL				LR	LR	22 57 35.7	
	comp=Z,36nm,19.5s,baz=269,slow=41						
EIL	**Elat**	52.82	290	P	P	22 30 07.0	+0.2
EIL				LR	LR	22 57 35.7	
BRTR	**Keskin Array B**	53.15	303	P	P	22 30 08.8	-0.2
	comp=Z,0.6nm,0.7s,mb3.7						
CSS	**Prodhromos**	53.62	297	*e*P	P	22 30 13.8	+1.2
MORW	**Morawa**	56.09	157	*e*P	P	22 30 29.7	-0.6
	comp=Z,2.2nm,0.4s,mb4.5						
AKASG	**Malin Array Be**	56.56	316	P	P	22 30 32.9	-0.6
	comp=Z,2.2nm,0.5s,mb4.4,baz=79,slow=7.2,SNR=8.0						
AKASG	**Malin Array Be**	56.56	316	P	P	22 30 32.9	-0.6
KIEV	**Kiev**	56.57	316	*e*P	P	22 30 33.2	-0.4
	comp=Z,4.7nm,0.6s,mb4.7						
JOF	**Joensuu**	57.25	331	*e*p	P	22 30 37.1	-1.1
	comp=Z,2.2nm,0.6s,mb4.4						
VRI	**Vrincioaia**	58.13	311	⇑*i*P	P	22 30 46.2	+1.6
WRA	**Warramunga Arr**	58.16	134	P	P	22 30 43.7	-1.4
	comp=Z,5.9nm,0.6s,mb4.8,baz=323,slow=7.5,SNR=35						
WRA				ScP	ScP	22 35 24.8	-6.0
	comp=Z,0.8nm,0.5s,baz=324,slow=4.6,SNR=5.3						
WRAB	**Tennant Creek**	58.16	134	*e*P	P	22 30 45.6	+0.5
	comp=Z,8.6nm,0.6s,mb5.0						
PLOR	**Plostina**	58.18	311	⇓*i*P	P	22 30 47.1	+2.1
MLR	**Muntele Rosu**	58.69	310	⇑*i*P	P	22 30 50.2	+1.7
MLR	**Muntele Rosu**	58.69	310	P	P	22 30 50.5	+1.9
	comp=Z,6.6nm,0.8s,mb4.7,baz=155,slow=1.6,SNR=16						
MUN	**Mundaring**	58.80	158	*e*P	P	22 30 48.5	-0.8
BURAR	**Bucovina Array**	59.13	313	⇓*i*P	P	22 30 54.7	+3.2
BURAR	**Bucovina Array**	59.13	313	⇓P	P	22 30 54.7	+3.2
BUR08	**Bucovina Ar. S**	59.14	313	*e*P	P	22 30 53.4	+1.8
VOIR		59.32	310	⇑*i*P	P	22 30 51.2	-1.7
VOIR		59.32	310	⇑P	P	22 30 51.2	-1.7
KAF	**Kangasniemi**	59.38	330	*e*p	P	22 30 55.6	+2.6
FINES	**FINESS Array B**	59.40	329	P	P	22 30 53.2	0.0
	comp=Z,1.7nm,0.6s,mb4.3,baz=103,slow=7.5,SNR=9.1						
FINES	**FINESS Array B**	59.40	329	P	P	22 30 53.2	0.0
NWAO	**Narrogin (SRO)**	60.02	158	*e*P	P	22 30 56.7	-1.0
	comp=Z,6.3nm,0.4s,mb5.0						
KMBO	**Kilima Mbogo**	60.23	254	P	P	22 31 01.4	+1.8
	comp=Z,2.4nm,0.8s,mb4.3,baz=57,slow=9.2,SNR=10						
IDI	**Anoyia**	60.46	299	P	P	22 31 02.0	+1.1
	comp=Z,1.8nm,0.5s,mb4.4,baz=222,slow=4.7,SNR=4.6						
KEV	**Kevo**	60.54	338	*e*p	P	22 31 04.9	+4.0
	comp=Z,4.0nm,0.9s,mb4.5						
ASAR	**Alice Springs**	60.57	138	P	P	22 31 00.7	-1.0
	comp=Z,5.0nm,0.5s,mb4.9,baz=319,slow=6.9,SNR=128						
KWP	**Kalwaria Pacla**	60.73	315	⇓*i*P	P	22 31 03.4	+0.9
KWP	**Kalwaria Pacla**	60.73	315	⇓P	P	22 31 03.4	+0.9
ARCES	**ARCESS Array B**	61.01	338	P	P	22 31 04.0	0.0
	comp=Z,2.7nm,0.7s,mb4.5,baz=69,slow=4.0,SNR=12						
ARCES				LR	LR	23 01 36.3	
	comp=Z,100nm,18.2s,baz=351,slow=40						
BZS	**Buzias**	61.72	311	⇑*i*P	P	22 31 10.9	+1.7
BZS	**Buzias**	61.72	311	⇑P	P	22 31 10.9	+1.7
PSZ	**Piszkesteto**	62.70	313	*e*P	P	22 31 16.0	+0.3
	comp=Z,1.8nm,0.6s,mb4.4						
SPITS	**Spitsbergen Ar**	64.95	347	P	P	22 31 29.6	-0.5
	comp=Z,17nm,1.0s,mb5.0,baz=342,slow=12,SNR=3.4						
HFS	**Hagfors**	65.42	327	P	P	22 31 33.1	-0.2
	comp=Z,3.8nm,0.7s,mb4.5,baz=77,slow=6.4,SNR=8.8						
TIP	**Timpagrande**	66.19	304	*e*P	P	22 31 38.3	-0.4
NB2	**NORSAR Subarra**	66.56	328	P	P	22 31 39.8	-0.9
	comp=Z,4.8nm,1.0s,mb4.5,baz=84,slow=6.5						
NOA	**NORSAR Array B**	66.56	328	P	P	22 31 39.9	-0.8
	comp=Z,1.5nm,0.7s,mb4.1,baz=85,slow=6.4,SNR=5.9						
NOA				pP	pP	22 32 01.2	+3.5
	comp=Z,3.0nm,0.7s,baz=86,slow=6.3,SNR=5.2						
NOA				LR	LR	23 04 38.2	
	comp=Z,76nm,18.2s,baz=270,slow=39						
GERES	**GERESS Array B**	66.68	315	P	P	22 31 42.1	+0.4
	comp=Z,1.3nm,0.6s,mb4.1,baz=69,slow=7.3,SNR=7.6						
DAVOX	**Davos/Dischmat**	69.59	313	P	P	22 31 59.8	-0.1
	comp=Z,1.9nm,0.7s,mb4.2,baz=134,slow=12,SNR=3.0						
CDF	**Champ du Feu**	70.94	315	*e*P	P	22 32 07.9	-0.3
STKA	**Stephens Creek**	71.17	138	*e*P	P	22 32 08.0	-1.7
	comp=Z,1.5nm,0.6s,mb4.1						
STKA	**Stephens Creek**	71.17	138	P	P	22 32 07.7	-2.0
	comp=Z,2.3nm,0.6s,mb4.3,baz=331,slow=7.9,SNR=5.9						
HINF	**Hinteralfeld**	71.36	315	*e*P	P	22 32 10.1	-0.6
HAU	**Haudompre**	71.65	315	*e*P	P	22 32 11.3	-1.1
LPG	**La Plagne**	72.01	312	*e*P	P	22 32 14.6	-0.1
LPL	**La Plagne**	72.02	312	*e*P	P	22 32 14.5	-0.2
	comp=Z,7.8nm,0.6s,mb4.5						
LPL	**La Plagne**	72.02	312	*e*P	P	22 32 14.5	-0.2
	comp=Z,3.9nm,0.6s,mb4.5						
CABF	**La Chapelle**	72.17	314	*e*P	P	22 32 14.4	-1.2
MBDF	**Montbardon**	72.20	312	*e*P	P	22 32 15.5	-0.3
	comp=Z,6.9nm,0.7s,mb4.4						
MBDF	**Montbardon**	72.20	312	*e*P	P	22 32 15.5	-0.3
	comp=Z,3.5nm,0.7s,mb4.4						
KEST	**Kesra**	72.73	302	P	P	22 32 19.7	+0.6
	comp=Z,0.5nm,0.7s,mb3.6,baz=56,slow=3.6,SNR=4.3						
ORIF	**Oris-en-Rattie**	72.76	312	*e*P	P	22 32 18.0	-1.1
LOR	**Lormes**	73.46	315	*e*P	P	22 32 21.5	-1.7
VIVF	**Saint-Julien-l**	73.60	312	*e*P	P	22 32 23.3	-0.8
SMF	**Signal de Mont**	73.65	314	*e*P	P	22 32 22.7	-1.7
	comp=Z,8.3nm,0.7s,mb4.5						
SMF	**Signal de Mont**	73.65	314	*e*P	P	22 32 22.7	-1.7
	comp=Z,4.2nm,0.6s,mb4.5						
SSF	**Saint Saulge**	73.75	315	*e*P	P	22 32 23.4	-1.5
	comp=Z,14nm,0.9s,mb4.6						
SSF	**Saint Saulge**	73.75	315	*e*P	P	22 32 23.4	-1.5
	comp=Z,7.1nm,0.9s,mb4.6						
AVF	**Avril sur Loir**	73.93	314	*e*P	P	22 32 25.0	-1.0
BGF	**Bois d'Agland**	74.33	314	*e*P	P	22 32 27.0	-1.3
TCF	**Toulx Ste Croi**	74.83	314	*e*P	P	22 32 30.7	-0.5
	comp=Z,15nm,0.9s,mb4.6						
TCF	**Toulx Ste Croi**	74.83	314	*e*P	P	22 32 30.7	-0.5
	comp=Z,7.7nm,0.9s,mb4.6						
LSZ	**Lusaka**	74.87	246	*e*P	P	22 32 33.3	+1.4
	comp=Z,8.9nm,0.7s,mb4.8						
MTLF	**Montolieu**	75.74	311	*e*P	P	22 32 34.4	-2.1
SUMG	**Summit**	79.29	347	*e*P	P	22 32 56.4	+0.7
	comp=Z,8.7nm,1.1s,mb4.6						
RES	**Resolute Bay**	82.21	2	P	P	22 33 10.7	-0.6
	comp=Z,4.9nm,0.9s,mb4.4						
INK	**Inuvik**	82.40	16	P	P	22 33 10.7	-1.7
	comp=Z,4.3nm,0.5s,mb4.6,baz=325,slow=4.2,SNR=11						
BOSA	**Boshof**	83.88	236	P	P	22 33 21.8	+1.1
	comp=Z,3.6nm,0.6s,mb4.7,baz=70,slow=5.7,SNR=9.5						
TORD	**Torodi Ar. Bea**	87.03	283	P	P	22 33 37.6	+0.9
	comp=Z,1.0nm,0.7s,mb4.2,baz=51,slow=3.9,SNR=9.5						
TORD				LR	LR	23 15 29.6	
	comp=Z,48nm,18.4s,baz=245,slow=38						
TORD	**Torodi Ar. Bea**	87.03	283	P	P	22 33 37.6	+0.9
TORD				LR	LR	23 15 29.6	
YKA	**Yellowknife Ar**	91.64	13	P	P	22 33 55.5	-1.9
	comp=Z,0.7nm,0.6s,mb4.2,baz=331,slow=4.4,SNR=15						
YKA				pP	pP	22 34 20.1	+4.8
	comp=Z,1.1nm,0.8s,baz=331,slow=4.6,SNR=5.9						
YKA	**Yellowknife Ar**	91.64	13	P	P	22 33 55.5	-1.9
YKA				pP	pP	22 34 20.1	+4.8
DBIC	**Dimbokro**	95.51	280	LR	LR	23 16 34.4	
	comp=Z,49nm,19.8s,baz=30,slow=35						
PDAR	**Pinedale Array**	110.88	18	PKiKP	PKiKP	22 39 22.1	-1.5
	comp=Z,0.3nm,0.5s,baz=69,slow=2.8,SNR=4.1						
JCT	**Junction City**	125.03	15	*e*PKPdf	PKPdf	22 39 49.2	-1.9
TXAR	**Lajitas Array**	125.09	19	PKP	PKPdf	22 39 50.2	-1.1
	comp=Z,0.9nm,0.6s,baz=115,slow=0.9,SNR=6.8						
TXAR				pPKP	pPKPdf	22 40 15.6	+5.8
	comp=Z,0.9nm,0.7s,baz=114,slow=1.1,SNR=3.2						
SDV	**Santo Domingo**	144.78	333	PKP	PKPdf	22 40 26.7	-1.4
	comp=Z,15nm,0.4s,baz=106,slow=3.9,SNR=26						
JTS	**JuntasAbangare**	146.73	358	PKPbc	PKPbc	22 40 30.8	-2.4
	comp=Z,1.8nm,0.3s,baz=275,slow=23,SNR=2.8						
ROSC	**El Rosal**	149.91	336	PKPbc	PKPbc	22 40 42.5	+0.9
	comp=Z,8.0nm,0.5s,baz=94,slow=20,SNR=4.7						
CPUP	**Villa Florida**	153.82	257	PKPbc	PKPbc	22 40 49.1	-1.0
	comp=Z,1.2nm,0.5s,baz=92,slow=6.1,SNR=5.9						
SIV	**San Ignacio**	155.50	282	PKPab	PKPab	22 41 11.5	+0.8
	comp=Z,0.8nm,0.5s,baz=150,slow=8.1,SNR=4.1						

IDC 26 22:28:22.2±1.9**, 6°.91S**×**128°.89E, h0**^{km}**, mb3.4**/2**, mb1 3.7**/4**, mb1mx3.5**/17**, mbtmp3.6**/4**, ML3.8**/2**, Error ellipse: s-maj=151.7km s-min=30.4km az=67.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	13.99	158	Pn	Pn	22 31 41.9	0.0
	0.7nm,0.3s,baz=341,slow=12,SNR=8.3						
WRA				Sn	Sn	22 34 03.4	-15
	0.7nm,0.3s,baz=328,slow=24,SNR=5.6						
ASAR	**Alice Springs**	17.34	164	P	Pn	22 32 25.9	+0.1
	0.2nm,0.3s,baz=336,slow=9.6,SNR=2.8						
ASAR				S	Sn	22 35 24.6	-15
	0.1nm,0.3s,baz=352,slow=32,SNR=2.9						
MKAR	**Makanchi Array**	67.55	327	P	P	22 39 20.9	+0.5
	0.2nm,0.5s,baz=117,slow=8.1,SNR=6.4						
KURK	**Kurchatov**	71.87	329	P	P	22 39 46.6	-0.3
	0.2nm,0.4s,baz=127,slow=5.2,SNR=2.8						

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*ISCJB **26** 22:39:06.8±1.6, 38°.46N±0°.06×99°.42E±0°.06, h10^{km}±10^{km}, mb3.7/5, MS3.6/2, Error ellipse: s-maj=9.9km s-min=7.3km az=167.4*

*BJI **26** 22:39:07.8, 38°.45N×99°.63E, h8^{km}, mb4.4/1, ML3.8/10, Ms3.8/3, Ms7 3.7/3*

*NEIC **26** 22:39:09.1±0.7, 38°.49N×99°.41E, h10^{km}, mb3.8/5, Error ellipse: s-maj=12.0km s-min=9.1km az=118.0*

*MOS **26** 22:39:09.5±1.2, 38°.47N×99°.41E, h33^{km}, mb4.1/3, Error ellipse: s-maj=15.6km s-min=9.9km az=99.1*

*IDC **26** 22:39:11.7±6.6, 38°.43N×99°.51E, h35^{km}±60^{km}, mb3.3/3, mb1 3.7/7, mb1mx3.4/28, mbtmp3.5/7, ML3.9/3, MS3.5/3, Ms1 3.5/3, ms1mx2.8/39, Error ellipse: s-maj=31.6km s-min=24.1km az=49.0*

ISC 26 22:39:09.2±1.2**, 38°.49N**±0°.04×**99°.48E**±0°.06**, h16**^{km}±8^{km}**, n30, σ1^{s}.18**/34**, mb3.7**/5**, MS3.6**/2**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GTA	**Gaotai**	0.96	16	Pg	Pg	22 39 27.0	-0.8
GTA				Sg	Sg	22 39 40.5	+0.2
GTA				smax			
	comp=N,280nm,0.8s						
GTA				smax			
	comp=E,620nm,0.8s						
LZH	**Lanzhou**	4.23	123	Pn	Pn	22 40 14.3	+1.3
LZH				Sg	Sg	22 41 24.3	-0.7
LZH				smax			
	comp=N,140nm,0.7s						
LZH				smax			
	comp=E,120nm,0.6s						
LZH				LR	LR		
	comp=E,770nm,7.9s						
LZH				LR	LR		
	comp=Z,470nm,8.4s						
BTO	**Baotou**	8.42	72	*e*P	Pn	22 41 10.3	-0.2
HHC	**Hu-ho-hao-te**	9.61	72	*e*P	Pn	22 41 22.0	-4.9
HHC				S	Sn	22 43 19.8	+5.2
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,5.8s						
HHC				LR	LR		
	comp=N,160nm,5.3s						
HHC				LR	LR		
	comp=E,200nm,4.2s						
HHC				LR	LR		
	comp=Z,220nm,8.7s						
SONM	**Songino Array**	10.61	26	P	Pn	22 41 42.6	+2.0
SONM						22 43 36.7	
SONM	**Songino Array**	10.61	26	Pn	Pn	22 41 42.6	+2.0
	comp=Z,2.9nm,0.3s,baz=206,slow=15,SNR=99						
SONM				Sn	Sn	22 43 36.7	-2.3
	comp=Z,0.1nm,0.3s,baz=215,slow=14,SNR=3.8						
SONM				Lg		22 44 35.5	
	comp=Z,0.3nm,0.3s,baz=218,slow=29,SNR=8.7						
SONM				LR	LR	22 46 15.4	
	comp=Z,162nm,19.4s,baz=201,slow=40						
ULN	**Ulaanbaatar**	10.88	28	*e*P	Pn	22 41 45.9	+1.7
ULN				*e*		22 43 39.4	
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s						

ULN	Ulaanbaatar	10.88	28	*e*Pn	Pn	22 41 45.9	+1.8
	comp=Z,2.9nm,0.8s						
ULN				*e*Sn	Sn	22 43 39.4	-6.0
LSA	Lhasa	11.15	221	P	Pn	22 41 50.2	+2.1
ZAK	Zakamensk	12.19	12	*e*P	Pn	22 42 05.0	+2.8
ZAK				*e*		22 44 23.6	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s						
MK31	Makanchi Array	15.11	309	*e*P	Pn	22 42 41.9	0.0
MKAR	Makanchi Array	15.11	309	Pn	Pn	22 42 41.4	-0.5
	comp=Z,0.0nm,0.3s,baz=116,slow=14,SNR=3.3						
MKAR				Lg		22 47 15.8	
	comp=Z,0.0nm,0.3s,baz=118,slow=25,SNR=3.6						
ZALV	Zalesovo Beam	18.43	332	P	Pn	22 43 23.2	-0.7
	comp=Z,0.3nm,0.3s,baz=140,slow=12,SNR=7.4						
KURK	Kurchatov	19.16	316	*e*P	Pn	22 43 31.4	-1.3
KURK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
KURK	Kurchatov	19.16	316	P	Pn	22 43 32.7	+0.1
	comp=Z,0.1nm,0.3s,baz=117,slow=12,SNR=9.4						
KURK	Kurchatov	19.16	316	*e*P	Pn	22 43 31.4	-1.3
	comp=Z,7.6nm,1.3s						
UCH	Uchtor	19.36	289	*e*P	Pn	22 43 35.0	-0.3
	comp=Z,1.0nm,0.6s						
AAK	Ala-Archa	19.40	290	P	Pn	22 43 34.9	-0.8
CMAR	Chiang Mai Arr	19.96	181	P	Pn	22 43 40.1	-2.4
	baz=349,slow=9.3,SNR=6.0						
AML	Almayashu	19.97	289	*e*P	Pn	22 43 42.1	-0.4
	comp=Z,2.7nm,0.8s						
KSRS	Korea Array	22.42	84	P	P	22 44 06.8	-0.3
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
KSRS				MLR	MLR		
	comp=Z,57nm,21.8s,MS3.0						
KSRS	Korea Array	22.42	84	P	P	22 44 06.8	-0.4
	comp=Z,2.5nm,0.8s,mb3.7,baz=277,slow=8.5,SNR=5.1						
KSRS				LR	LR	22 53 47.6	
	comp=Z,57nm,21.8s,MS3.0,baz=275,slow=39						
BVAR	Borovoye Array	24.74	315	P	P	22 44 31.0	+1.2
	comp=Z,0.7nm,0.6s,mb3.4,baz=103,slow=11,SNR=2.7						
BVAR	Borovoye Array	24.74	315	P	P	22 44 30.9	+1.2
BRVK	Borovoye	24.82	315	P	P	22 44 30.9	+0.5
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.8						
BRVK	Borovoye	24.82	315	P	P	22 44 30.9	+0.5
	comp=Z,3.0nm,0.9s,mb3.8						
MALT	Malatya	47.04	290	*e*P	P	22 47 39.6	-0.4
MALT				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb4.1						
MALT	Malatya	47.04	290	*e*P	P	22 47 39.6	-0.3
	comp=Z,4.1nm,1.6s,mb4.1						
JMIC	Jan Mayen	59.59	339	LR	LR	23 22 10.7	
	comp=Z,152nm,18.9s,MS4.2,baz=26,slow=43						
YKA	Yellowknife Ar	75.69	16	P	P	22 50 53.1	-0.3
	comp=Z,0.3nm,0.5s,mb3.5,baz=333,slow=6.0,SNR=4.2						

IDC ***26*** *22:43:18.9±1.0, 8°.30S×128°.85E, h0^{km}, mb3.9/7, mb1 4.0/8, mb1mx3.9/17, mbtmp3.9/8, ML3.8/1, MS3.5/6, Ms1 3.5/6, ms1mx3.2/37, Error ellipse: s-maj=65.9km s-min=19.9km az=69.0*

ISCJB ***26*** *22:43:27.8±1.5, 8°.82S±0°.06×129°.16E±0°.07, h118^{km}±15^{km}, mb3.8/9, Error ellipse: s-maj=12.9km s-min=8.3km az=147.0*

NEIC ***26*** *22:43:27.5±1.5, 8°.78S×129°.04E, h95^{km}±17^{km}, mb3.6/3, Error ellipse: s-maj=16.7km s-min=10.1km az=218.0*

ISC 26 22:43:28.8±1.7**, 8°.89S**±0°.09×**129°.05E**±0°.09**, h109**^{km}±19^{km}**, n34,** σ**0^{s}.94**/37**, mb3.8**/9**, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	5.05	139	*e*P	Pn	22 44 43.7	+1.4
	36nm,0.5s						
KAKA	Kakadu	5.05	139	*e*Pn	Pn	22 44 42.8	+0.5
	192nm,0.5s						
KAKA				*e*Sn	Sn	22 45 39.5	0.0
FITZ	Fitzroy Crossi	9.74	200	*e*P	Pn	22 45 46.8	+0.8
	14nm,0.7s						
FITZ				*e*S	Sn	22 47 35.4	+1.9
FITZ	Fitzroy Crossi	9.74	200	Pn	Pn	22 45 46.8	+0.8
	0.6nm,0.3s,baz=52,slow=12,SNR=12						
FITZ				Sn	Sn	22 47 31.4	-2.1
	0.7nm,0.3s,baz=34,slow=12,SNR=2.0						
FITZ				LR	LR	22 50 18.5	
	comp=Z,171nm,21.0s,baz=23,slow=41						
FITZ	Fitzroy Crossi	9.74	200	*e*Pn	Pn	22 45 47.0	+1.0
FITZ				*e*Sn	Sn	22 47 38.0	+4.5
FITZ				LR	LR	22 50 18.5	
KAPI	Kappang	10.00	292	LR	LR	22 49 32.9	
	comp=Z,202nm,18.6s,baz=144,slow=39						
WRAB	Tennant Creek	12.12	156	*e*Pn	Pn	22 46 17.7	-0.1
	11nm,0.6s						
WRAB				*e*Sn	Sn	22 48 29.9	-1.3
WRA	Warramunga Arr	12.12	156	Pn	Pn	22 46 17.2	-0.7
	3.0nm,0.3s,baz=342,slow=13,SNR=42						
WRA				Sn	Sn	22 48 31.3	0.0
	2.4nm,0.3s,baz=330,slow=23,SNR=11						
WRA				Lg		22 50 05.6	
	baz=329,slow=30,SNR=3.6						
WRA				LR	LR	22 51 11.1	
	comp=Z,85nm,19.0s,baz=295,slow=37						
WB2	Warramunga Arr	12.13	156	*e*Pn	Pn	22 46 17.8	-0.2
WB2				*e*Sn	Sn	22 48 31.1	-0.3
COEN	Coen	14.73	111	*e*Pn	Pn	22 46 50.9	-0.9
COEN				*e*Sn	Sn	22 49 27.9	-6.6
ASAR	Alice Springs	15.41	163	Pn	Pn	22 47 01.9	+1.6
	0.8nm,0.3s,baz=338,slow=10,SNR=61						
ASAR				Sn	Sn	22 49 47.9	-3.0
	0.2nm,0.3s,baz=330,slow=14,SNR=3.8						
ASAR				Lg		22 51 48.1	
	0.2nm,0.3s,baz=346,slow=31,SNR=3.3						
CTAO	Charters Tower	20.01	126	*e*P	P	22 47 54.0	+1.0
	0.9nm,0.3s						
FORT	Forrest	21.80	182	*e*P	P	22 48 19.6	+7.5
	8.7nm,0.6s,mb4.3						
STKA	Stephens Creek	25.67	155	*e*P	P	22 48 56.4	+7.8
	3.4nm,0.8s,mb3.8						
STKA	Stephens Creek	25.67	155	P	P	22 48 56.3	+7.7
	3.8nm,0.6s,mb4.0,baz=336,slow=10,SNR=12						
STKA	Stephens Creek	25.67	155	*e*P	P	22 48 50.0	+1.5
	0.7nm,0.7s,mb3.2						
KULM	Kulim	31.62	295	*e*P	P	22 49 39.9	-1.8
TAU	Tasmania Unive	37.48	158	P	P	22 50 32.5	+0.7
CMAR	Chiang Mai Arr	40.26	313	P	P	22 50 54.1	-1.2
	0.5nm,0.4s,mb3.7,baz=144,slow=7.8,SNR=3.8						
RPZ	Rata Peaks	50.35	141	LR	LR	23 14 10.9	
	comp=Z,144nm,18.9s,baz=194,slow=36						
LSA	Lhasa	52.93	318	P	P	22 52 33.4	-0.6
SONM	Songino Array	59.93	343	P	P	22 53 24.2	+0.9
	0.5nm,0.8s,mb3.6,baz=167,slow=7.1,SNR=2.9						
SONM	Songino Array	59.93	343	P	P	22 53 24.2	+0.9
MK31	Makanchi Array	69.29	328	*e*P	P	22 54 24.7	+0.5
MKAR	Makanchi Array	69.29	328	P	P	22 54 24.4	+0.1
	1.4nm,0.9s,mb3.8,baz=122,slow=6.0,SNR=9.2						
EKS2	Erkin-Say	71.84	320	P	P	22 54 40.0	+0.2
ZALV	Zalesovo Beam	72.86	334	P	P	22 54 44.9	-0.7
	0.3nm,0.3s,mb3.7,baz=126,slow=2.0,SNR=3.9						
KURK	Kurchatov	73.64	329	P	P	22 54 50.5	+0.2
	0.8nm,0.5s,mb3.7,baz=126,slow=4.9,SNR=9.0						
BVAR	Borovoye Array	79.16	328	P	P	22 55 21.5	+0.2
	0.5nm,0.6s,mb3.5,baz=116,slow=3.4,SNR=4.1						
BRVK	Borovoye	79.23	328	*e*P	P	22 55 22.2	+0.4
	1.2nm,0.7s,mb3.8						
MMAI	Mount Meron Ar	97.82	302	LR	LR	23 44 25.1	
	comp=Z,30nm,19.0s,baz=20,slow=38						
EIL	Elat	97.88	299	LR	LR	23 49 31.1	
	comp=Z,35nm,19.1s,baz=264,slow=41						
TORD	Torodi Ar. Bea	128.23	280	PKP	PKPdf	23 02 27.1	+3.8
	0.4nm,0.7s,baz=45,slow=1.1,SNR=4.7						
CPUP	Villa Florida	144.45	170	PKPbc	PKiKP	23 02 58.1	+1.3
	1.2nm,0.6s,baz=172,slow=3.0,SNR=3.7						

ISCJB ***26*** *22:44:24.4±0.7, 40°.65N±0°.03×27°.76E±0°.06, h1^{km}±18^{km}, Error ellipse: s-maj=7.3km s-min=5.4km az=14.8*

CSEM ***26*** *22:44:24.9±0.1, 40°.65N×27°.74E, h5^{km}, MD2.7, Error ellipse: s-maj=2.6km s-min=2.1km az=125.0*

DDA ***26*** *22:44:24.7, 40°.61N×27°.76E, h7^{km}±3^{km}, Md2.8*

ISK ***26*** *22:44:24.4, 40°.65N×27°.78E, h6^{km}, MD2.7*

ISC 26 22:44:24.9±0.7**, 40°.65N**±0°.03×**27°.75E**±0°.06**, h5**^{km}±14^{km}**, n18,** σ**0^{s}.31**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNT	Bandirma	0.32	156	*e*PG	Pg	22 44 31.2	+0.2
BNT				*e*SG	Sg	22 44 35.4	+0.2
BNT	Bandirma	0.32	156	*e*Pg	Pg	22 44 31.3	+0.3
BNT				*e*Sg	Sg	22 44 35.4	+0.2
SART	Tekirdag	0.43	276	*i* P	Pg	22 44 33.5	+0.2
SART	Tekirdag	0.43	276	*i* P	Pg	22 44 33.5	+0.2
KCT	Karacabey	0.60	129	*e*PG	Pg	22 44 36.2	-0.2
KCT				*e*SG	Sg	22 44 43.9	-0.3
KCT	Karacabey	0.60	129	*e*Pg	Pg	22 44 36.3	-0.1
KCT				*e*Sg	Sg	22 44 43.9	-0.3
ELBA	Catalca	0.72	46	*i* P	Pg	22 44 39.1	+0.4
ELBA				*i* S	Sg	22 44 47.7	-0.4
ELBA	Catalca	0.72	46	*i* P	Pg	22 44 39.2	+0.5
ELBA				*i* S	Sg	22 44 47.7	-0.4
LPK	Lapseki	0.80	250	*e*PG	Pg	22 44 39.9	-0.4
LPK	Lapseki	0.80	250	*e*Pg	Pg	22 44 39.9	-0.4
CTKS	Kestanelik-??a	0.82	44	*e*PG	Pg	22 44 41.2	+0.5
CTKS				*e*SG	Sg	22 44 51.7	+0.3
CTKS	Kestanelik-??a	0.82	44	*e*Pg	Pg	22 44 41.2	+0.5
CTKS				*e*Sg	Sg	22 44 51.7	+0.3
CTYL	Yal??k??y-??at	0.92	26	*e*PG	Pg	22 44 42.4	-0.3
CTYL	Yal??k??y-??at	0.92	26	*e*Pg	Pg	22 44 42.4	-0.3
BGKT	Bogazkoy	0.94	55	*e*PG	Pg	22 44 42.6	-0.4
BGKT	Bogazkoy	0.94	55	*e*Pg	Pg	22 44 42.6	-0.4
DST	Dursunbey	1.24	147	*e*PN	Pn	22 44 48.9	0.0
DST	Dursunbey	1.24	147	*e*Pn	Pn	22 44 48.9	+0.1

ISCJB ***26*** *22:55:17.2±0.4, 60°.05N±0°.03×153°.08W±0°.09, h140^{km}±4^{km}, mb3.5/4, Error ellipse: s-maj=7.9km s-min=5.2km az=17.3*

IDC ***26*** *22:55:18.4±4.5, 60°.02N×153°.08W, h130^{km}±35^{km}, mb3.2/4, mb1 3.3/5, mb1mx3.1/25, mbtmp3.2/5, Error ellipse: s-maj=48.3km s-min=27.6km az=20.0*

NEIC ***26*** *22:55:19.9, 60°.07N×153°.08W, h133^{km}, MG3.2(AEIC), After AEIC.*

ISC 26 22:55:18.5±0.4**, 60°.05N**±0°.03×**153°.06W**±0°.09**, h135**^{km}±4^{km}**, n41,** σ**0^{s}.82**/46**, mb3.5**/4**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSO	Redoubt South	0.45	20	*e*P	Pn	22 55 38.2	+0.4
RSO				*e*S	Sn	22 55 52.0	-0.4
AUL	Augustine Lava	0.69	196	P	Pn	22 55 40.3	+1.0
AUL				S	Sn	22 55 56.1	+1.2
SLKM	Skilak Lake	1.49	71	P	Pn	22 55 46.9	+0.2
SVW2	Sparrevohn	1.63	311	P	Pn	22 55 47.9	-0.3
SEW	Seward	1.81	87	P	Pn	22 55 50.8	+0.4
FIB	Fire Island	1.81	50	*e*Pn	Pn	22 55 52.0	+1.6
FIB				*e*Sn	Sn	22 56 15.6	+0.8
SKT	Skwentna	2.08	20	P	Pn	22 55 53.6	0.0
KDAK	Kodiak Island	2.28	174	P	Pn	22 55 55.8	-0.4
KDAK				S	Sn	22 56 23.9	-1.1
PMR	Palmer	2.47	49	P	Pn	22 55 58.4	-0.1
PMR				S	Sn	22 56 27.0	-2.2
KNK	Knik Glacier	2.65	57	P	Pn	22 56 00.1	-0.5
GHO	Glory Hole Cre	2.66	48	P	Pn	22 56 00.2	-0.6
OHAK	Old Harbor	2.83	182	P	Pn	22 56 02.2	-0.9
PPLA	Purkeypile	2.89	8	P	Pn	22 56 04.5	+0.8
PPLA				S	Sn	22 56 40.1	+1.4
SML	Sawmill	2.91	51	P	Pn	22 56 04.3	+0.4
TT01	Tatalina	3.20	335	P	Pn	22 56 07.1	-0.6
TTA	Tatalina	3.22	335	*e*P	Pn	22 56 07.5	-0.5
MID	Middleton Isla	3.46	97	P	Pn	22 56 13.2	+2.1
SII	Sitkinak Islan	3.54	190	P	Pn	22 56 11.5	-0.7
KTH	Kantishna Hill	3.66	15	P	Pn	22 56 13.3	-0.4
TRF	Thorofare Moun	3.66	20	P	Pn	22 56 13.5	-0.2
EYAK	Cordova Ski Ar	3.68	79	P	Pn	22 56 13.6	-0.3
CHUM	Lake Minchumin	3.87	5	*e*Pn	Pn	22 56 16.5	+0.1
MCK	McKinley	4.18	26	P	Pn	22 56 20.4	-0.2
BPAW	Bear Paw Mtn.	4.18	13	P	Pn	22 56 20.2	-0.5
PAX	Paxson	4.67	48	*e*Pn	Pn	22 56 26.5	-0.6
CHGN	Chignik	4.70	219	*e*P	Pn	22 56 27.5	-0.1
COLA	College	5.41	24	P	Pn	22 56 36.3	-0.7
IL1	Eielson Array	5.54	29	P	Pn	22 56 38.0	-0.8
IM3	Indian Mountai	5.97	357	P	Pn	22 56 44.5	+0.1
IMA2	Indian Mountai	6.05	358	*e*P	Pn	22 56 45.5	0.0
BCA3	Beaver Creek A	6.18	56	P	Pn	22 56 46.6	-0.7
PNL	Peninsula	6.89	87	P	Pn	22 56 57.5	+0.6
EGAK	Eagle	7.28	44	P	Pn	22 57 01.2	-0.8
COLD	Coldfoot	7.32	9	*e*Pn	Pn	22 57 02.5	-0.1
	11nm,0.6s						
YKA	Yellowknife Ar	18.46	66	P	P	22 59 24.7	+1.3
	0.2nm,0.3s,baz=278,slow=10.0,SNR=35						
YKA				ScP	ScP	23 07 10.7	+0.9
	baz=284,slow=2.1,SNR=3.7						
YKA	Yellowknife Ar	18.46	66	P	P	22 59 24.8	+1.3
YKA				ScP	ScP	23 07 10.7	+0.9
SONM	Songino Array	54.74	306	P	P	23 04 35.3	+1.9
	1.0nm,0.7s,mb3.7,baz=41,slow=7.3,SNR=9.6						
ZALV	Zalesovo Beam	57.32	324	P	P	23 04 52.4	+0.7
	0.6nm,0.4s,mb3.8,baz=26,slow=7.0,SNR=2.9						
BVAR	Borovoye Array	62.01	332	P	P	23 05 23.3	-0.5
	0.3nm,0.5s,mb3.4,baz=34,slow=10,SNR=2.9						
MKAR	Makanchi Array	64.38	321	P	P	23 05 38.8	-0.6
	0.2nm,0.6s,mb3.1,baz=44,slow=6.6,SNR=3.1						
QSPA	South Pole Qui	149.84	180	PKPbc	PKPbc	23 14 51.5	+1.0
	1.1nm,0.8s,baz=294,slow=2.4,SNR=4.9						

IDC 26 23:01:25.4±2.1**, 4°.54N**×**89°.10E, h0**^{km}**, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.4**/24**, mbtmp3.7**/4**, ML3.4**/1**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.5**/44**, Error ellipse: s-maj=54.2km s-min=32.5km az=42.0, North Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	8.78	288	Pn	Pn	23 03 34.1	+0.3
	0.4nm,0.3s,baz=108,slow=14,SNR=2.2						
PALK				Sn	Sn	23 05 03.1	-10
	2.5nm,0.3s,baz=195,slow=19,SNR=10.0						
PALK				LR	LR	23 06 48.6	
	comp=Z,84nm,19.5s,baz=21,slow=37						
MKAR	Makanchi Array	42.50	353	P	P	23 09 22.1	-0.3
	0.4nm,0.9s,baz=155,slow=7.6,SNR=3.8						
SONM	Songino Array	45.62	16	P	P	23 09 47.7	+0.2
	0.8nm,0.7s,baz=194,slow=9.0,SNR=6.9						
WRA	Warramunga Arr	50.68	120	P	P	23 10 27.1	0.0
	1.1nm,0.9s,baz=292,slow=9.1,SNR=3.1						

IDC ***26*** *23:33:39.1±1.1, 36°.24N×21°.93E, h0^{km}, mb3.9/7, mb1 3.8/14, mb1mx3.6/32, mbtmp3.7/14, ML2.9/4, MS3.3/1, Ms1 3.3/1, ms1mx2.3/49, Error ellipse: s-maj=23.3km s-min=16.9km az=161.0*

ATH ***26*** *23:33:39.8, 36°.05N×21°.79E, h10^{km}±3^{km}, MD4.0/17, ML3.5*

NEIC ***26*** *23:33:39.8, 36°.05N×21°.79E, h10^{km}, ML3.5(ATH), After ATH.*

CSEM ***26*** *23:33:40.9±0.2, 36°.02N×21°.81E, h2^{km}, ML3.5, Error ellipse: s-maj=5.0km s-min=3.9km az=75.0*

ISCJB ***26*** *23:33:40.1±0.3, 35°.97N±0°.02×21°.71E±0°.03, h10^{km}, mb3.9/7, Error ellipse: s-maj=3.6km s-min=3.0km az=144.9*

THE ***26*** *23:33:42.1, 36°.03N×21°.85E, h3^{km}±3^{km}, ML4.0/10, Error ellipse: s-maj=3.9km s-min=1.0km az=227.0*

ISC 26 23:33:41.8±0.3**, 36°.00N**±0°.02×**21°.77E**±0°.03**, h10**^{km}**, n119,** σ**1^{s}.29**/176**, mb3.9**/7**, 1C, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.90	359	P	Pg	23 33 55.8	-3.3
PYL	PYLOS	0.90	359	*e*PB	Pg	23 33 56.0	-3.1
PYL				*e*SB	Sg	23 34 06.7	-4.1
PYL	PYLOS	0.90	359	P	Pg	23 33 55.8	-3.3
KYTH	Kithira	1.07	74	*e*PN	Pg	23 33 59.9	-2.4
KYTH	Kithira	1.07	74	*e*Pn	Pg	23 33 59.9	-2.4
ITM	Ithomi	1.19	6	*e*PB	Pg	23 34 01.6	-3.0
ITM				*e*SB	Sg	23 34 16.9	-3.2
ITM	Ithomi	1.19	6	*e*Pb	Pg	23 34 01.6	-3.0
ITM				*e*Sb	Sg	23 34 16.9	-3.2
VLI	Veliai	1.19	52	*e*PG	Pg	23 34 01.2	-3.4
VLI				*e*SB	Sg	23 34 17.4	-2.7
VLI	Veliai	1.19	52	*e*Pg	Pg	23 34 01.2	-3.4
VLI				*e*Sb	Sg	23 34 17.4	-2.7
VLX	Vlachokerasia	1.46	20	*e*PG	Pg	23 34 05.6	-4.2
VLX	Vlachokerasia	1.46	20	*e*Pg	Pg	23 34 05.6	-4.2
KARN	Karanos	1.85	108	P	Pn	23 34 13.5	-0.1
KARN				S	Sn	23 34 37.1	+0.1
KARN	Karanos	1.85	108	*e*PN	Pn	23 34 13.7	+0.1
KARN	Karanos	1.85	108	*e*Pn	Pn	23 34 13.7	+0.1
KARN				S	Sn	23 34 37.1	+0.1
DID	Didima	1.91	38	P	Pn	23 34 13.5	-1.0
DID				S	Sn	23 34 38.3	-0.3
DID	Didima	1.91	38	*e*PN	Pn	23 34 13.7	-0.8
DID	Didima	1.91	38	*e*Pn	Pn	23 34 13.7	-0.8
DID				S	Sn	23 34 38.3	-0.3
GUR	Goura	1.99	13	*e*PN	Pn	23 34 15.1	-0.4
GUR	Goura	1.99	13	*e*Pn	Pn	23 34 15.1	-0.4
RLS	Riolos of Patr	2.07	353	*e*PG	Pn	23 34 17.0	+0.4
NAIG	Nisos Aigina	2.24	38	*e*PG	Pn	23 34 19.9	+1.0
LTK	Loutraki	2.24	25	P	Pn	23 34 19.2	+0.3
LTK				S	Sn	23 34 45.6	-1.0
LTK	Loutraki	2.24	25	P	Pn	23 34 19.2	+0.3
LTK				S	Sn	23 34 45.6	-1.0
LAKA	Lakka	2.25	4	P	Pn	23 34 19.9	+0.9
LAKA				S	Sn	23 34 47.3	+0.5
LAKA	Lakka	2.25	4	P	Pn	23 34 19.9	+0.9
LAKA				S	Sn	23 34 47.3	+0.5
VLS	Valsamata	2.37	337	P	Pn	23 34 21.2	+0.5
VLS				S	Sn	23 34 51.6	+1.7
VLS	Valsamata	2.37	337	*e*PN	Pn	23 34 20.8	+0.1
VLS	Valsamata	2.37	337	*e*Pn	Pn	23 34 20.8	+0.1
VLS				S	Sn	23 34 51.6	+1.7
TRIZ	Trizonia	2.38	6	P	Pn	23 34 21.6	+0.8
TRIZ				S	Sn	23 34 51.7	+1.7
TRIZ	Trizonia	2.38	6	P	Pn	23 34 21.6	+0.8
TRIZ				S	Sn	23 34 51.7	+1.7
KALE	Kalithea	2.41	7	P	Pn	23 34 21.9	+0.6
KALE				S	Sn	23 34 51.0	+0.2
KALE	Kalithea	2.41	7	P	Pn	23 34 21.9	+0.6
KALE				S	Sn	23 34 51.0	+0.2
EFP	Efpalio	2.43	3	*e*PG	Pn	23 34 23.6	+2.1
ATH	Athens Observa	2.52	38	*e*PN	Pn	23 34 22.3	-0.4
ATH	Athens Observa	2.52	38	*e*Pn	Pn	23 34 22.3	-0.4
ATHU	Athens Univers	2.54	39	P	Pn	23 34 23.1	0.0
ATHU	Athens Univers	2.54	39	P	Pn	23 34 23.1	0.0
IDI	Anoyia	2.64	105	Pn	Pn	23 34 24.3	-0.2
	2.0nm,0.3s,baz=293,slow=15,SNR=18						
IDI	Anoyia	2.64	105	Pn	Pn	23 34 24.3	-0.2
PTL	Penteli	2.65	39	*e*PN	Pn	23 34 23.7	-0.9
PTL	Penteli	2.65	39	*e*Pn	Pn	23 34 23.7	-0.9
SIVA	Sivas	2.67	111	P	Pn	23 34 24.9	+0.1
SIVA				S	Sn	23 34 58.4	+1.2
SIVA	Sivas	2.67	111	P	Pn	23 34 24.9	+0.1
SIVA				S	Sn	23 34 58.4	+1.2
LKR	Lokris	2.83	20	P	Pn	23 34 27.0	0.0
LKR				S	Sn	23 35 01.4	+0.3
LKR	Lokris	2.83	20	*e*PB	Pn	23 34 25.4	-1.6
LKR	Lokris	2.83	20	P	Pn	23 34 27.0	0.0
LKR				S	Sn	23 35 01.4	+0.3
LKD	Levkas	2.85	342	P	Pn	23 34 28.6	+1.3
LKD				S	Sn	23 35 04.4	+2.8
LKD	Levkas	2.85	342	P	Pn	23 34 28.6	+1.3
LKD				S	Sn	23 35 04.4	+2.8
EVR	Evrytania	2.91	1	*e*PN	Pn	23 34 27.0	-1.2
EVR	Evrytania	2.91	1	*e*Pn	Pn	23 34 27.0	-1.2
AGG	Agios Georgios	3.05	8	P	Pn	23 34 31.2	+1.1
AGG				S	Sn	23 35 08.6	+1.9
AGG	Agios Georgios	3.05	8	P	Pn	23 34 31.2	+1.1
AGG				S	Sn	23 35 08.6	+1.9
LAST	Lasithi	3.14	104	P	Pn	23 34 30.9	-0.4
LAST				S	Sn	23 35 09.8	+1.0
LAST	Lasithi	3.14	104	*e*PN	Pn	23 34 30.9	-0.4
LAST	Lasithi	3.14	104	*e*Pn	Pn	23 34 30.9	-0.4
LAST				S	Sn	23 35 09.8	+1.0
NPS	Neapolis	3.22	102	*e*PN	Pn	23 34 32.8	+0.4
NPS	Neapolis	3.22	102	*e*Pn	Pn	23 34 32.8	+0.4
XOR	Xorichti	3.55	18	P	Pn	23 34 37.3	+0.4
XOR				S	Sn	23 35 20.6	+1.7
XOR	Xorichti	3.55	18	P	Pn	23 34 37.3	+0.4
XOR				S	Sn	23 35 20.6	+1.7
THL	Klokotos Trika	3.57	3	P	Pn	23 34 38.1	+0.9
THL				S	Sn	23 35 21.1	+1.7
THL	Klokotos Trika	3.57	3	P	Pn	23 34 38.1	+0.9
THL				S	Sn	23 35 21.1	+1.7
AOS	Alonnisos	3.58	27	P	Pn	23 34 37.5	+0.1
AOS	Alonnisos	3.58	27	P	Pn	23 34 37.5	+0.1
IGT	Igoumenitsa	3.71	343	P	Pn	23 34 38.3	-0.8
IGT				S	Sn	23 35 24.0	+1.2
IGT	Igoumenitsa	3.71	343	P	Pn	23 34 38.3	-0.8
IGT				S	Sn	23 35 24.0	+1.2
MEV	Metsovon	3.81	354	P	Pn	23 34 41.4	+0.9
MEV	Metsovon	3.81	354	P	Pn	23 34 41.4	+0.9
LIT	Litokhoron	4.14	8	P	Pn	23 34 46.2	+1.2
LIT				S	Sn	23 35 35.3	+1.9
LIT	Litokhoron	4.14	8	P	Pn	23 34 46.2	+1.2
LIT				S	Sn	23 35 35.3	+1.9
CHOS	Chios island	4.17	54	P	Pn	23 34 45.0	-0.5
CHOS				S	Sn	23 35 35.4	+1.1
CHOS	Chios island	4.17	54	P	Pn	23 34 45.0	-0.5
CHOS				S	Sn	23 35 35.4	+1.1
PAIG	Paliouri	4.21	21	P	Pn	23 34 45.4	-0.5
PAIG				S	Sn	23 35 35.6	+0.5
PAIG	Paliouri	4.21	21	P	Pn	23 34 45.4	-0.5
PAIG				S	Sn	23 35 35.6	+0.5
LTBQ	Tobruq	4.32	155	*i* P	Pn	23 34 49.3	+1.8
	SNR=23						
KARP	Karpathos	4.41	94	*e*PN	Pn	23 34 48.7	-0.1
KARP	Karpathos	4.41	94	*e*Pn	Pn	23 34 48.7	-0.1
SIGR	SIGRI	4.56	44	P	Pn	23 34 50.8	-0.1
SIGR				S	Sn	23 35 45.9	+1.9
SIGR	SIGRI	4.56	44	P	Pn	23 34 50.8	-0.1
SIGR				S	Sn	23 35 45.9	+1.9
LIA	Limnos Island	4.74	34	P	Pn	23 34 53.8	+0.5
LIA	Limnos Island	4.74	34	P	Pn	23 34 53.8	+0.5
FNA	Florina	4.79	356	P	Pn	23 34 53.7	-0.3
FNA				S	Sn	23 35 52.5	+3.0
FNA	Florina	4.79	356	P	Pn	23 34 53.7	-0.3
FNA				S	Sn	23 35 52.5	+3.0
SOH	Sokhos	4.97	14	P	Pn	23 34 56.6	+0.1
SOH	Sokhos	4.97	14	P	Pn	23 34 56.6	+0.1
BIA	Bitola	5.03	356	*e*Pn	Pn	23 34 57.6	+0.4
BIA				*e*Sg	Sn	23 35 51.9	-3.4
BIA	Bitola	5.03	356	*e*Pn	Pn	23 34 57.6	+0.4
TIP	Timpagrande	5.09	310	*e*Pn	Pn	23 34 56.8	-1.3
	13nm,0.6s						
TIP				*e*Sn	Sn	23 35 54.7	-2.1
TIP	Timpagrande	5.09	310	*e*Pn	Pn	23 34 56.8	-1.3
	13nm,0.6s						
TIP				*e*Sn	Sn	23 35 54.7	-2.2
ARG	Arkhangelos	5.16	86	*e*PN	Pn	23 34 58.4	-0.6
ARG	Arkhangelos	5.16	86	*e*Pn	Pn	23 34 58.4	-0.6
CEL	Celeste	5.21	297	*e*Pn	Pn	23 34 59.1	-0.6
	8.9nm,0.4s						
CEL				*e*Sn	Sn	23 35 51.6	-8.2
CEL	Celeste	5.21	297	*e*Pn	Pn	23 34 59.1	-0.6
	8.9nm,0.4s						
KNT	Kendrikon	5.23	9	P	Pn	23 35 00.1	0.0
KNT	Kendrikon	5.23	9	P	Pn	23 35 00.1	0.0
LJBD	Adjabya	5.24	195	*i* P	Pn	23 35 01.9	+1.7
	SNR=23						
KRUS	Krusevo	5.38	356	*e*Pn	Pn	23 35 00.8	-1.3
KRUS				*e*Sg	Sn	23 36 00.3	-3.8
KRUS	Krusevo	5.38	356	*e*Pn	Pn	23 35 00.7	-1.4
TIR	Tirane	5.54	345	*e*Pn	Pn	23 35 00.9	-3.5
TIR				Sn	Sn	23 36 01.1	-7.0
VAE	Valguarnera	6.09	286	Pn	Pn	23 35 13.6	+1.8
	0.2nm,0.3s,baz=101,slow=10,SNR=2.2						
VAE				Sn	Sn	23 36 20.2	-1.3
	1.4nm,0.3s,baz=283,slow=22,SNR=3.7						
VAE	Valguarnera	6.09	286	Pn	Pn	23 35 13.6	+1.8
VAE				Sn	Sn	23 36 20.2	-1.3
CUC	Castrocucco	6.16	312	*e*Pn	Pn	23 35 09.4	-3.4
	9.6nm,0.6s						
CUC				*e*Sn	Sn	23 36 17.0	-6.4
BARS	Barje	6.81	0	⇑*i*Pn	Pn	23 35 20.5	-1.2
STON	Ston	7.55	337	*e*Pn	Pn	23 35 28.1	-3.8
STON				Sn	Sn	23 36 47.3	-10
LJFR	Jufra	8.51	218	*i* P	Pn	23 35 45.2	0.0
	SNR=22						
MLR	Muntele Rosu	10.00	17	Pn	Pn	23 35 59.8	-5.6
	0.1nm,0.3s,baz=278,slow=4.1,SNR=3.0						
NVLJ	Novalja	10.04	331	*e*Pn	Pn	23 35 58.1	-7.9
NVLJ				Sn	Sn	23 37 45.9	-13
KEST	Kesra	10.08	272	Pn	Pn	23 36 07.3	+0.6
	0.0nm,0.3s,baz=111,slow=14,SNR=2.3						
BRTR	Keskin Array B	10.10	65	Pn	Pn	23 36 02.8	-4.0
MMAI	Mount Meron Ar	11.64	101	Pn	Pn	23 36 24.0	-3.9
	baz=277,slow=12,SNR=2.5						
MMAI				Sn	Sn	23 38 29.9	-8.0
	0.5nm,0.3s,baz=301,slow=26,SNR=3.3						

GNI	Garni	18.55	70	P	Pn	23 37 56.7	-2.0
	0.3nm,0.3s,baz=298,slow=3.0,SNR=4.7						
GNI	Garni	18.55	70	P	Pn	23 37 56.7	-2.0
FINES	FINESS Array B	25.61	5	P	P	23 39 07.8	-3.2
	5.6nm,1.1s,mb4.0,baz=196,slow=9.7,SNR=2.7						
TORD	Torodi Ar. Bea	29.05	224	P	P	23 39 42.7	+0.5
	1.2nm,0.7s,mb3.7,baz=33,slow=8.8,SNR=9.9						
TORD	Torodi Ar. Bea	29.05	224	P	P	23 39 42.7	+0.5
ARCES	ARCESS Array B	33.66	2	P	P	23 40 19.9	-2.4
	3.9nm,1.1s,mb4.3,baz=189,slow=10,SNR=6.4						
BVAR	Borovoye Array	37.80	48	P	P	23 40 55.7	-2.4
	0.2nm,0.3s,mb3.3,baz=248,slow=6.1,SNR=3.2						
KURK	Kurchatov	42.81	52	P	P	23 41 35.2	-4.4
	0.9nm,0.3s,mb4.0,baz=277,slow=8.5,SNR=3.5						
MKAR	Makanchi Array	45.63	57	P	P	23 41 58.6	-3.6
	0.7nm,0.4s,mb4.0,baz=269,slow=7.7,SNR=26						
ZALV	Zalesovo Beam	46.43	47	P	P	23 42 03.8	-4.7
	0.5nm,0.4s,mb3.8,baz=261,slow=11,SNR=2.7						

NEIC 26 23:41:32.2, 38°.05S×176°.15E, h163^{km}, MG3.9(WEL), **After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.79	106	P	Pn	23 41 56.6	0.0
MWZ	Matawai	1.12	105	P	Pn	23 41 59.7	+0.5
MWZ				S	Sn	23 42 20.0	+0.1
BKZ	Black Stump Fm	1.15	167	P	Pn	23 41 59.5	+0.1
BKZ				S	Sn	23 42 20.1	-0.3
WTVZ	West Tongariro	1.15	202	P	Pn	23 41 59.5	+0.1
TWVZ	Taurewa	1.16	208	P	Pn	23 41 59.8	+0.3
TUVZ	Tukino	1.28	198	P	Pn	23 42 00.8	+0.2
WNVZ	Wahianoa	1.35	199	P	Pn	23 42 01.4	+0.2
MOVZ	Moawhango	1.39	193	P	Pn	23 42 01.2	-0.4
KNZ	Kokohu	1.54	130	P	Pn	23 42 03.1	0.0
PUZ	Puketiti	1.66	91	P	Pn	23 42 04.3	-0.1
MXZ	Matakaoa Point	1.78	75	P	Pn	23 42 05.6	0.0
TSZ	Takapari Road	2.01	184	P	Pn	23 42 07.1	-1.1
BFZ	Birch Farm	2.63	178	P	Pn	23 42 13.5	-1.9
MRZ	Mangatainoka R	2.65	189	P	Pn	23 42 13.3	-2.3
KIW	Kapiti Island	2.97	198	P	Pn	23 42 16.6	-3.0
MTW	Mount Morrison	3.15	189	P	Pn	23 42 18.6	-3.2
CAW	Cannon Point	3.17	195	P	Pn	23 42 19.1	-3.0
MRW	Makara Radio	3.37	199	P	Pn	23 42 21.2	-3.4
PAWZ	Paruwai Farm	3.38	189	P	Pn	23 42 21.3	-3.4
MSWZ	Moikau Station	3.43	191	P	Pn	23 42 21.9	-3.5
TCW	Tory Channel	3.48	204	P	Pn	23 42 22.5	-3.5
QRZ	Quartz Range	3.94	224	P	Pn	23 42 27.8	-4.2
BSWZ	Blackbirch Sta	4.06	205	P	Pn	23 42 29.6	-3.8
THZ	Tophouse	4.47	213	P	Pn	23 42 34.9	-3.9
KHZ	Kahutara	4.80	204	P	Pn	23 42 38.6	-4.5
LTZ	Lake Taylor	5.58	211	P	Pn	23 42 48.7	-4.6

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*CSEM **26** 23:48:02.7, 36°.20N×21°.62E, h28^{km}, MD3.6, After ATH*
ATH 26 23:48:02.7, 36°.20N×21°.62E, h28^{km}±4^{km}**, MD3.6**/6, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.70	8	*e*PN	Pn	23 48 16.8	+0.1
PYL				*e*SN	Sn	23 48 26.1	-0.5
PYL	PYLOS	0.70	8	*e*Pn	Pn	23 48 16.8	+0.1
PYL				*e*Sn	Sn	23 48 26.1	-0.5
ITM	Ithomi	1.01	14	*e*PN	Pn	23 48 22.4	+1.4
ITM				*e*SN	Sn	23 48 37.1	+2.9
ITM	Ithomi	1.01	14	*e*Pn	Pn	23 48 22.4	+1.4
ITM				*e*Sn	Sn	23 48 37.1	+2.9
KYTH	Kithira	1.15	86	*e*PN	Pn	23 48 24.6	+1.7
KYTH	Kithira	1.15	86	*e*Pn	Pn	23 48 24.6	+1.7
VLI	Veliai	1.18	64	*e*PN	Pn	23 48 24.9	+1.6
VLI	Veliai	1.18	64	*e*Pn	Pn	23 48 24.9	+1.6
VLX	Vlachokerasia	1.32	27	*e*PN	Pn	23 48 27.5	+2.3
VLX	Vlachokerasia	1.32	27	*e*Pn	Pn	23 48 27.5	+2.3
DID	Didima	1.84	44	*e*PB	Pb	23 48 34.0	-1.6
DID	Didima	1.84	44	*e*Pb	Pb	23 48 34.0	-1.6

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*IDC **26** 23:47:59.6±1.3, 46°.56N×152°.99E, h0^{km}, mb3.8/8, mb1 4.0/8, mb1mx3.7/24, mbtmp3.8/8, MS4.6/1, Ms1 4.6/1, ms1mx3.0/47, Error ellipse: s-maj=33.6km s-min=31.2km az=177.0*
*ISCJB **26** 23:48:04.2±3.5, 46°.6N±0°.2×153°.0E±0°.2, h44^{km}±29^{km}, mb3.9/8, Error ellipse: s-maj=32.3km s-min=27.4km az=168.8*
*MOS **26** 23:48:04.7±0.6, 46°.63N×152°.88E, h50^{km}, mb4.1/7, Error ellipse: s-maj=41.1km s-min=20.0km az=85.7*
ISC 26 23:48:06.1±3.3, **46°.6N**±0°.2×**153°.0E**±0°.2, **h44**^{km}±27^{km}**, n18,** σ**0^{s}.17**/17, **mb3.9**/8, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	4.60	26	*e*PN	Pn	23 49 13.0	0.0
SKR				*e*		23 50 04.0	
KDAK	Kodiak Island	34.28	51	LR	LR	00 07 57.7	
	comp=Z,918nm,18.3s,baz=252,slow=35						
MKAR	Makanchi Array	46.94	297	P	P	23 56 32.2	0.0
	0.2nm,0.3s,mb3.5,baz=59,slow=8.8,SNR=5.0						
KURK	Kurchatov	47.39	304	P	P	23 56 35.5	-0.1
KURK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KURK	Kurchatov	47.39	304	P	P	23 56 35.5	-0.1
	comp=Z,0.8nm,0.4s,mb4.0,baz=71,slow=8.7,SNR=5.2						
YKA	Yellowknife Ar	51.11	37	P	P	23 57 04.0	+0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	51.11	37	P	P	23 57 04.0	+0.2
	comp=Z,0.5nm,0.9s,mb3.5,baz=294,slow=7.2,SNR=4.9						
ARCES	ARCESS Array B	57.99	341	P	P	23 57 53.7	+0.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	57.99	341	P	P	23 57 53.7	+0.1
	comp=Z,2.1nm,0.8s,mb4.2,baz=21,slow=7.7,SNR=3.7						
FINES	FINESS Array B	64.16	335	P	P	23 58 35.2	-0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	64.16	335	P	P	23 58 35.2	-0.3
	comp=Z,0.7nm,0.3s,mb4.2,baz=43,slow=6.3,SNR=10						
NB2	NORSAR Subarra	68.36	341	P	P	23 59 02.9	+0.5
	comp=Z,0.6nm,0.5s,mb3.9,baz=26,slow=6.5						
NOA	NORSAR Array B	68.36	341	P	P	23 59 02.5	+0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	68.36	341	P	P	23 59 02.5	0.0
	comp=Z,1.0nm,0.8s,mb3.9,baz=27,slow=6.4,SNR=5.8						
ASAR	Alice Springs	72.02	198	P	P	23 59 25.2	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	72.02	198	P	P	23 59 25.2	+0.1
	comp=Z,0.8nm,0.5s,mb3.9,baz=8.1,slow=6.5,SNR=2.6						
TXAR	Lajitas Array	77.65	60	P	P	23 59 57.7	-0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	Lajitas Array	77.65	60	P	P	23 59 57.7	-0.2
	comp=Z,0.7nm,0.8s,mb3.7,baz=301,slow=7.2,SNR=3.1						

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*MAN **26** 23:51:35, 5°.44N×127°.25E, h4^{km}, mb4.9, ML3.8, MS3.9*
*BJI **26** 23:51:40.6, 5°.70N×127°.10E, h70^{km}, mB5.0/4, mb4.6/9*
*NEIC **26** 23:51:42.6±1.3, 5°.73N×127°.12E, h71^{km}±11^{km}, mb4.5/18, Error ellipse: s-maj=14.2km s-min=5.8km az=68.0*
*ISCJB **26** 23:51:42.1±1.0, 5°.70N±0°.06×127°.17E±0°.09, h84^{km}±8^{km}, mb4.4/36, Error ellipse: s-maj=16.2km s-min=7.8km az=158.7*
*IDC **26** 23:51:43.2±2.5, 5°.72N×127°.05E, h75^{km}±22^{km}, mb4.1/15, mb1 4.1/16, mb1mx4.0/27, mbtmp4.1/16, MS3.4/4, Ms1 3.5/4, ms1mx3.0/40, Error ellipse: s-maj=25.1km s-min=10.9km az=72.0*
*DJA **26** 23:51:44, 6°.00N×127°.29E, h59^{km}, mb4.8/9*
ISC 26 23:51:43.6±1.0, **5°.70N**±0°.06×**127°.15E**±0°.09, **h80**^{km}±8^{km}, **n64,** σ**0^{s}.93**/65, **mb4.4**/36, **1C-1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	1.53	325	*e*P	Pn	23 52 06.0	-3.3
MATI				*e*S	Sn	23 52 31.2	+2.5
DAV	Davao City (W)	2.08	311	P	Pn	23 52 15.7	-0.8
	264nm,0.3s,baz=82,slow=14,SNR=19						
DAV				S	Sn	23 52 42.1	+0.5
	167nm,0.3s,baz=284,slow=23,SNR=14						
DAV				LR	LR	23 52 57.9	
	comp=Z,484nm,18.1s,baz=265,slow=38						
GSPH	General Santos	2.22	280	⇑*i*P	Pn	23 52 14.7	-3.8
GSPH				*e*S	Sn	23 52 39.5	-5.6
BUKP	Musuan	3.00	316	*e*P	Pn	23 52 28.8	-0.2
BUKP				*e*S	Sn	23 53 07.7	+3.8
CGP	Cagayan de Oro	3.67	319	⇓*e*P	Pn	23 52 38.2	+0.1
CGP				*e*S	Sn	23 53 26.3	+6.0
KAPI	Kappang	12.95	215	P	Pn	23 54 42.3	-2.3
	1.1nm,0.3s,baz=331,slow=13,SNR=4.2						
GUMO	Guam	19.14	65	LR	LR	00 02 17.5	
	comp=Z,126nm,19.7s,baz=262,slow=33						
FITZ	Fitzroy Crossi	23.69	184	P	P	23 56 49.7	+1.4
	2.5nm,0.5s,mb3.8,baz=350,slow=7.9,SNR=5.5						
FITZ	Fitzroy Crossi	23.69	184	*e*P	P	23 56 50.3	+2.1
	3.6nm,0.6s,mb3.9						
CBIJ	Chichi jima	25.65	32	P	P	23 57 06.0	0.0
	124nm,0.5s,mb5.6,baz=281,slow=22,SNR=5.2						
WRAB	Tennant Creek	26.43	165	*e*P	P	23 57 13.3	+0.2
	8.3nm,0.8s,mb4.2						
WRA	Warramunga Arr	26.44	165	P	P	23 57 13.1	0.0
	5.1nm,0.6s,mb4.2,baz=344,slow=10,SNR=14						
WB2	Warramunga Arr	26.44	165	*e*P	P	23 57 14.1	+0.9
PSI	Prapat	28.29	265	P	P	23 57 27.9	-2.0
	2.7nm,0.5s,mb4.1,baz=98,slow=7.1,SNR=8.1						
PSI				LR	LR	00 10 41.6	
	comp=Z,59nm,19.6s,baz=114,slow=40						
PSI	Prapat	28.29	265	P	P	23 57 27.9	-2.0
PSI				LR	LR	00 10 41.6	
ASAR	Alice Springs	29.92	168	P	P	23 57 44.4	+0.2
	0.9nm,0.5s,mb3.6,baz=358,slow=9.3,SNR=14						
CMAR	Chiang Mai Arr	30.30	297	P	P	23 57 46.0	-1.5
	0.7nm,0.4s,mb3.7,baz=96,slow=8.3,SNR=4.2						
CMAR				LR	LR	00 10 11.5	
	comp=Z,64nm,18.8s,baz=105,slow=37						
CHTO	Chiang Mai	30.43	298	*e*P	P	23 57 47.7	-1.0
CTA	Charters Tower	31.77	144	LR	LR	00 12 05.2	
	comp=Z,92nm,19.6s,baz=234,slow=38						
XAN	Xi'an	32.88	331	P	P	23 58 10.5	+0.4
XAN				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.9						
BJT	Baijiatuau	35.57	345	P	P	23 58 32.6	-0.7
SHL	Shillong	39.09	304	*e*PKP	P	23 59 08.0	+4.7
NWAO	Narrogin (SRO)	39.55	193	P	P	23 59 08.2	+1.3
	comp=Z,10.0nm,0.9s,mb4.7,baz=27,slow=6.8,SNR=2.9						
STKA	Stephens Creek	39.82	161	P	P	23 59 09.2	+0.1
	comp=Z,1.5nm,0.4s,mb4.2,baz=328,slow=7.8,SNR=7.6						
GTA	Gaotai	41.65	328	*e*P	P	23 59 25.0	+0.8
GTA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
TAPN	Taplejung	43.23	304	*e*Pn	P	23 59 38.4	+1.2
	comp=Z,4.0nm,0.5s,mb4.4						
ODAN	Odare	43.31	304	*e*Pn	P	23 59 39.2	+1.3
	comp=Z,11nm,0.6s,mb4.7						
RAMN	Ramite	44.00	303	*e*Pn	P	23 59 45.0	+1.6
	comp=Z,8.9nm,0.6s,mb4.7						
JIRN	Jiri	44.59	304	*e*Pn	P	23 59 48.8	+0.6
	comp=Z,7.3nm,0.6s,mb4.6						
GUN	Gumba	44.94	304	*e*Pn	P	23 59 51.5	+0.6
PKI	Pulchoki	45.21	304	*e*Pn	P	23 59 53.1	+0.1
PKIN	Phulchoki	45.22	304	*e*Pn	P	23 59 53.1	0.0
ULN	Ulaanbaatar	45.40	341	*e*P	P	23 59 53.3	-0.9
	comp=Z,44nm,0.6s,mb5.4						
DMN	Daman	45.47	304	*e*Pn	P	23 59 55.3	+0.2
SONM	Songino Array	45.59	340	P	P	23 59 55.2	-0.4
	comp=Z,1.1nm,0.6s,mb3.8,baz=156,slow=8.5,SNR=9.1						
KOLN	Koldanda	46.78	303	*e*Pn	P	00 00 05.9	+0.5
	comp=Z,13nm,0.7s,mb4.8						
DANN	Dangsing	46.85	304	*e*Pn	P	00 00 06.1	+0.2
TLY	Talaya	49.81	341	*e*P	P	00 00 26.9	-1.3
	comp=Z,2.2nm,0.8s,mb4.1						
PET	Petropavlovsk	53.77	23	P	P	00 00 57.6	-0.1
MKAR	Makanchi Array	56.20	324	P	P	00 01 15.6	+0.2
	comp=Z,7.3nm,0.6s,mb4.9,baz=117,slow=9.1,SNR=7.7						
MKAR	Makanchi Array	56.20	324	P	P	00 01 15.6	+0.2
UCH	Uchtor	59.03	316	*e*P	P	00 01 36.5	+1.1
	comp=Z,2.7nm,0.7s,mb4.4						
ZALV	Zalesovo Beam	59.05	332	P	P	00 01 34.5	-0.7
	comp=Z,2.9nm,0.6s,mb4.5,baz=126,slow=6.1,SNR=14						
ZALV	Zalesovo Beam	59.05	332	P	P	00 01 34.5	-0.7
AAK	Ala-Archa	59.20	317	P	P	00 01 37.0	+0.5
	comp=Z,0.7nm,0.4s,mb4.1,baz=146,slow=11,SNR=5.2						
AAK	Ala-Archa	59.20	317	*e*P	P	00 01 35.6	-0.9
	comp=Z,148nm,1.3s,mb5.9						
AML	Almayashu	59.56	316	*e*P	P	00 01 38.6	-0.4
	comp=Z,2.9nm,0.7s,mb4.4						
EKS2	Erkin-Say	59.70	317	*e*P	P	00 01 40.3	+0.3
	comp=Z,2.5nm,0.6s,mb4.4						
KURK	Kurchatov	60.33	327	P	P	00 01 44.3	+0.2
	comp=Z,14nm,0.6s,mb5.2,baz=125,slow=6.5,SNR=156						
KURK	Kurchatov	60.33	327	*e*P	P	00 01 44.0	-0.1
	comp=Z,16nm,0.6s,mb5.2						
KBL	Kabul	60.68	307	*e*P	P	00 01 46.2	-0.6
	comp=Z,1.6nm,0.6s,mb4.2						
RPZ	Rata Peaks	63.13	146	P	P	00 02 09.9	+6.9
	comp=Z,7.8nm,0.8s,mb4.7,baz=315,slow=2.9,SNR=4.2						
BRVK	Borovoye	65.99	326	*e*P	P	00 02 21.6	+0.1
	comp=Z,6.3nm,0.8s,mb4.5						
AKTK	Aktyubinsk	72.39	321	P	P	00 03 01.4	+0.2
AKTO	Aktyubinsk	72.39	321	P	P	00 03 01.4	+0.2
	comp=Z,4.7nm,0.7s,mb4.5,baz=95,slow=7.2,SNR=24						
KIV	Kislovodsk	82.10	313	*e*P	P	00 03 56.0	+0.5
	comp=Z,3.1nm,0.7s,mb4.2						
JOF	Joensuu	87.63	333	*e*p	P	00 04 22.0	-0.9
	comp=Z,1.6nm,0.5s,mb4.3						
ARCES	ARCESS Array B	88.76	340	P	P	00 04 27.2	-0.9
	comp=Z,2.8nm,1.0s,mb4.3,baz=74,slow=6.7,SNR=8.4						
BR131	Keskin Array S	89.10	310	P	P	00 04 30.1	-0.3
	comp=Z,0.4nm,0.3s,mb3.9						
KAF	Kangasniemi	90.06	332	*e*p	P	00 04 29.8	-4.5
	comp=Z,2.5nm,0.7s,mb4.5						
FINES	FINESS Array B	90.31	332	P	P	00 04 34.7	-0.9
	comp=Z,1.9nm,0.7s,mb4.4,baz=79,slow=7.2,SNR=7.1						
FINES	FINESS Array B	90.31	332	P	P	00 04 34.7	-0.9
TORD	Torodi Ar. Bea	122.69	289	PKP	PKPdf	00 10 31.3	0.0
	comp=Z,0.3nm,0.3s,baz=64,slow=1.6,SNR=12						
TORD	Torodi Ar. Bea	122.69	289	PKP	PKPdf	00 10 31.3	0.0

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*CSEM **26** 23:52:08.5, 36°.06N×21°.75E, h6^{km}, MD3.5, After ATH*
ATH 26 23:52:08.5, 36°.06N×21°.75E, h6^{km}±4^{km}**, MD3.5**/7, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.83	360	*e*PB	Pb	23 52 24.6	-0.8
PYL				*e*SB	Sb	23 52 35.5	-1.4
PYL	PYLOS	0.83	360	*e*Pb	Pb	23 52 24.6	-0.8
PYL				*e*Sb	Sb	23 52 35.5	-1.4
KYTH	Kithira	1.06	78	*e*PN	Pn	23 52 29.1	-0.8
KYTH	Kithira	1.06	78	*e*Pn	Pn	23 52 29.1	-0.8
ITM	Ithomi	1.13	7	*e*PB	Pb	23 52 30.0	-0.4
ITM				*e*SB	Sb	23 52 46.2	+0.9
ITM	Ithomi	1.13	7	*e*Pb	Pb	23 52 30.0	-0.4
ITM				*e*Sb	Sb	23 52 46.2	+0.9
VLI	Veliai	1.16	55	*e*PN	Pn	23 52 29.7	-1.6
VLI				*e*SB	Sb	23 52 46.6	+0.3
VLI	Veliai	1.16	55	*e*Pn	Pn	23 52 29.7	-1.6
VLI				*e*Sb	Sb	23 52 46.6	+0.3
VLX	Vlachokerasia	1.40	21	*e*PG	Pg	23 52 34.3	-1.1
VLX	Vlachokerasia	1.40	21	*e*Pg	Pg	23 52 34.3	-1.1
DID	Didima	1.87	39	*e*PN	Pn	23 52 43.1	+2.0
DID	Didima	1.87	39	*e*Pn	Pn	23 52 43.1	+2.0
GUR	Goura	1.93	14	*e*PN	Pn	23 52 44.2	+2.3
GUR	Goura	1.93	14	*e*Pn	Pn	23 52 44.2	+2.3
LTK	Loutraki	2.19	26	*e*PN	Pn	23 52 47.7	+2.3
LTK	Loutraki	2.19	26	*e*Pn	Pn	23 52 47.7	+2.3

IDC 26 23:57:50.5±2.1, **6°.00S×146°.73E, h0**^{km}**, mb3.8**/4, **mb1 4.0**/5, **mb1mx3.8**/16, **mbtmp3.8**/5, **ML3.3**/1, **MS3.2**/2, **Ms1 3.2**/2, **ms1mx3.0**/27, **Error ellipse: s-maj=58.7km s-min=30.9km az=91.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	13.53	105	LR	LR	00 05 23.7	
	comp=Z,120nm,19.4s,baz=129,slow=34						
WRA	Warramunga Arr	18.36	220	P	Pn	00 02 05.7	-1.0
	0.1nm,0.3s,baz=48,slow=13,SNR=4.3						
WRA				LR	LR	00 07 55.8	
	comp=Z,79nm,21.3s,baz=80,slow=33						
ASAR	Alice Springs	21.47	214	P	P	00 02 40.1	-0.6
	1.4nm,0.7s,baz=45,slow=9.2,SNR=8.7						
FITZ	Fitzroy Crossi	23.84	238	P	P	00 03 04.9	-0.7
	3.5nm,0.7s,baz=53,slow=11,SNR=4.1						
STKA	Stephens Creek	26.19	190	P	P	00 03 28.4	+1.6
	0.6nm,0.4s,baz=8.9,slow=12,SNR=2.1						
CMAR	Chiang Mai Arr	53.01	298	P	P	00 07 11.2	+1.6
	1.2nm,0.3s,baz=128,slow=5.8,SNR=4.4						
TORD	Torodi Ar. Bea	144.83	284	PKP	PKPdf	00 17 28.9	-1.7
	2.4nm,0.7s,baz=78,slow=3.5,SNR=16						
DBIC	Dimbokro	151.75	273	PKPbc	PKPbc	00 17 47.0	-1.2
	2.4nm,0.9s,baz=90,slow=1.0,SNR=3.1						

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*IDC **26** 23:58:21.8±0.6, 52°.57N×168°.13W, h0^{km}, mb4.5/29, mb1 4.7/29, mb1mx4.7/32, mbtmp4.5/29, MS4.0/12, Ms1 4.0/12, ms1mx3.6/49, Error ellipse: s-maj=19.4km s-min=11.1km az=175.0*
*ISCJB **26** 23:58:24.8±0.9, 52°.47N±0°.03×168°.12W±0°.03, h28^{km}±6^{km}, mb4.8/143, MS4.0/18, Error ellipse: s-maj=4.9km s-min=2.5km az=11.5*
*MOS **26** 23:58:24.0±1.1, 52°.50N×168°.14W, h23^{km}, mb5.1/68, MS4.1/4, Error ellipse: s-maj=9.1km s-min=4.5km az=92.3*
*NEIC **26** 23:58:26.3±0.9, 52°.46N×168°.10W, h28^{km}±5^{km}, mb4.9/93, ML4.2(AEIC), Error ellipse: s-maj=5.4km s-min=2.8km az=178.0*
*BJI **26** 23:58:27.2, 53°.05N×168°.73W, h27^{km}, mB5.2/17, mb4.9/34, Ms4.8/10, Ms7 4.3/11*
*SZGRF **26** 23:58:31.2, 52°.62N×169°.91W, h44^{km}, mb4.9, Fox Islands, Aleutian Islands, United States*
ISC 26 23:58:26.8±0.9, **52°.49N**±0°.03×**168°.14W**±0°.03, **h29**^{km}±6^{km}, **h37**^{km}±2.8^{km}**:pP-P, n624,** σ**0^{s}.71**/631, **mb4.8**/143, **MS4.0**/18, **137C-139D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKO	Nikolski	0.65	318	P	Pb	23 58 39.2	-0.4
NIKO				S	Sb	23 58 51.9	+3.6
OKFG	Magazine Ridge	0.93	8	P	Pn	23 58 43.7	-0.2
OKFG				S	Sn	23 58 58.7	+2.5
AKLV	Akutan Long Va	2.12	37	P	Pn	23 59 00.2	0.0
AKLV				S	Sn	23 59 27.3	+1.6
AKGG	Akutan Green G	2.14	36	P	Pn	23 59 00.7	+0.2
AKUT	Akutan	2.17	40	*e*Pn	Pn	23 59 00.1	-0.9
AKUT				*e*Sn	Sn	23 59 26.9	0.0
GSTR	Great Sitkin T	4.88	268	Pn	Pn	23 59 38.9	+0.8
ADK	Adak	5.29	267	*e*Pn	Pn	23 59 44.9	+1.1
ADK				*e*Sn	Sn	00 00 44.5	+0.8
SDPT	Sand Point	5.36	55	P	Pn	23 59 43.8	-0.9
CHGN	Chignik	6.84	52	*e*Pn	Pn	00 00 04.4	-0.6
CHGN				*e*Sn	Sn	00 01 22.3	+0.5
AMKA	Amchitka	7.84	267	*e*Pn	Pn	00 00 20.2	+1.4
KDAK	Kodiak Island	10.35	53	Pn	Pn	00 00 51.1	-2.0
	7.7nm,0.3s,baz=211,slow=4.3,SNR=73						
KDAK				Sn	Sn	00 02 40.7	-7.3
	0.3nm,0.3s,baz=7.7,slow=19,SNR=3.4						
KDAK	Kodiak Island	10.35	53	*e*Pn	Pn	00 00 51.5	-1.6
KDAK				*e*Sn	Sn	00 02 49.5	+1.5
SVW2	Sparrevohn	11.02	34	*e*Pn	Pn	00 01 04.4	+2.3
SVW2				*e*Sn	Sn	00 03 05.4	+1.2
RSO	Redoubt South	11.64	41	*e*Pn	Pn	00 01 13.9	+3.2
TTA	Tatalina	12.28	27	*e*P	Pn	00 01 22.8	+3.4
PMR	Palmer	13.74	41	*e*Pn	Pn	00 01 39.0	-0.2
PMR				Sn	Sn	00 04 07.7	-2.9
IMA2	Indian Mountai	15.42	23	*e*P	Pn	00 02 04.3	+2.4
COLA	College	16.18	32	*e*P	Pn	00 02 09.3	-2.4
COLA				pmax	pmax		
	comp=Z,56nm,0.9s						
COLA	College	16.18	32	*e*Pn	Pn	00 02 09.2	-2.4
	comp=Z,56nm,0.9s						
EGAK	Eagle	18.48	38	*e*P	Pn	00 02 38.7	-1.6
	comp=Z,32nm,0.9s						
HYT	Haines Junctio	18.64	51	*e*Pn	Pn	00 02 41.8	-0.5
DAWY	Dawson	18.84	41	*e*P	Pn	00 02 43.2	-1.5
SIT	Sitka	19.35	63	P	Pn	00 02 50.0	-0.8
SKAG	Skagway	19.48	56	*e*P	Pn	00 02 51.9	-0.4
	comp=Z,39nm,0.6s						
BILL	Bilibino	19.85	331	⇑*e*P	Pn	00 02 56.5	-0.2
BILL				pmax	pmax		
	comp=Z,20nm,1.1s						
BILL				MLR	MLR		
	comp=Z,2µm,17.0s						
BILL	Bilibino	19.85	331	*e*P	Pn	00 02 54.6	-2.0
	comp=Z,18nm,1.0s						
PET	Petropavlovsk	20.01	285	*e*P	P	00 02 56.9	+0.1
PET				pmax	pmax		
	comp=Z,74nm,1.7s						
PET	Petropavlovsk	20.01	285	*e*P	P	00 02 56.9	0.0
	comp=Z,25nm,0.6s						
PETK	Petropavlovsk-	20.56	285	P	P	00 03 03.0	+0.2
	comp=Z,16nm,0.5s,baz=84,slow=13,SNR=26						
PETK				LR	LR	00 10 27.5	
	comp=Z,158nm,21.9s,MS3.3,baz=88,slow=35						
DLBC	Dease Lake	22.18	59	P	P	00 03 21.4	+1.3
	comp=Z,12nm,0.9s,mb4.3,baz=275,slow=12,SNR=12						
DLBC	Dease Lake	22.18	59	*e*P	P	00 03 18.5	-1.6
INK	Inuvik	22.83	33	P	P	00 03 24.0	-3.0
	comp=Z,31nm,0.7s,mb4.8,baz=233,slow=11,SNR=38						
INK				pPcP		00 07 32.2	
	comp=Z,3.2nm,0.7s,baz=245,slow=19,SNR=3.5						
INK				LR	LR	00 13 15.3	
	comp=Z,450nm,19.4s,MS3.9,baz=354,slow=39						
INK	Inuvik	22.83	33	*e*P	P	00 03 23.8	-3.2
SEY	Seymchan	23.14	312	⇑*e*P	P	00 03 28.7	-1.6
MIDW	Midway	25.21	199	*e*P	P	00 03 47.9	-1.9
E03A	Lebam	29.17	84	⇑P	P	00 04 25.3	+0.1
	baz=29						
F03A	Seaside	29.47	85	⇑P	P	00 04 28.3	+0.5
	baz=29						
YKA	Yellowknife Ar	29.59	49	P	P	00 04 28.1	-0.7
YKA						00 07 32.4	
YKA						00 11 13.2	
YKA	Yellowknife Ar	29.59	49	P	P	00 04 28.1	-0.7
	comp=Z,3.6nm,0.9s,mb4.1,baz=271,slow=9.1,SNR=41						
YKA				PcP	PcP	00 07 32.4	-0.4
	comp=Z,1.6nm,0.8s,baz=281,slow=2.5,SNR=7.7						
YKA				pPcP		00 07 47.4	
	comp=Z,2.3nm,0.7s,baz=286,slow=2.3,SNR=13						
YKA				ScP	ScP	00 11 13.1	+0.9
	comp=Z,0.4nm,0.8s,baz=277,slow=3.3,SNR=5.9						
YKA	Yellowknife Ar	29.59	49	P	P	00 04 28.1	-0.7
YKA				PcP	PcP	00 07 32.4	-0.4
YKA				pPcP		00 07 47.4	
YKA				ScP	ScP	00 11 13.2	+0.9
B07A	Winthrop	30.37	78	⇑P	P	00 04 36.0	+0.2
	baz=30						
G04A	Mulino	30.48	85	⇓P	P	00 04 36.9	+0.1
	baz=30						
KEBM	Edson Butte	30.59	91	*e*P	P	00 04 38.1	+0.2
	comp=Z,23nm,1.1s,mb4.9						
ETW	Entiat	30.63	80	*e*P	P	00 04 38.1	0.0
E06A	Yakima	30.74	82	⇑P	P	00 04 38.7	-0.4
	baz=31						
C07A	Waterville	30.75	79	⇑P	P	00 04 39.5	+0.3
	baz=31						
B08A	Colville Reser	30.89	78	⇑P	P	00 04 40.9	+0.5
	baz=31						
H04A	Detroit Lake	30.93	86	⇑P	P	00 04 41.1	+0.3
	baz=31,SNR=7.4						
A09A	Danville	31.06	76	⇑P	P	00 04 42.4	+0.4
	baz=31						
G05A	Wamic	31.17	84	⇑P	P	00 04 43.3	+0.3
	baz=31						
F06A	Goldendale	31.24	83	⇑P	P	00 04 44.0	+0.6
	baz=31						
C08A	Higginbotham F	31.32	79	⇓P	P	00 04 44.9	+0.8
	baz=31						
B09A	Rice	31.57	77	⇑P	P	00 04 46.3	-0.1
	baz=31						
HUMO	Hull Mountain	31.58	90	*e*P	P	00 04 47.7	+1.2
	comp=Z,5.3nm,0.9s,mb4.4						
G06A	Carlson Farm,	31.59	84	⇓P	P	00 04 46.7	+0.1
	baz=31						
HAWA	Hanford	31.68	81	*e*P	P	00 04 48.6	+1.2
	comp=Z,8.5nm,0.8s,mb4.6						
OD2	Odessa Site #2	31.70	79	*e*P	P	00 04 47.5	-0.1
YSS	Yuzh-Sakhalins	31.72	280	*e*P	P	00 04 47.6	-0.1
YSS				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.0						
YSS	Yuzh-Sakhalins	31.72	280	*e*P	P	00 04 47.6	-0.1
	comp=Z,9.9nm,0.4s,mb5.0						
D08A	Wollman Farm,	31.73	80	⇓P	P	00 04 47.7	-0.1
	baz=32						
H06A	Lindquist Farm	32.03	85	⇓P	P	00 04 50.4	-0.1
	baz=32						
D09A	Jones Farm, Ri	32.10	79	⇓P	P	00 04 51.1	+0.1
	baz=32						

KHMM	**Horse Mountain**	**32.11**	**93**	*e*P	**P**	**00 04 52.8**	**+1.6**
	comp=Z,18nm,1.0s,mb4.9						
G07A	**Ruggs Ranch, H**	**32.16**	**83**	⇓P	**P**	**00 04 51.9**	**+0.3**
	baz=32						
YBH	**Yreka Blue Hor**	**32.23**	**91**	P	**P**	**00 04 53.2**	**+1.0**
	comp=Z,6.0nm,0.8s,mb4.5,baz=312,slow=4.2,SNR=24						
YBH	**Yreka Blue Hor**	**32.23**	**91**	*e*P	**P**	**00 04 53.4**	**+1.1**
NEW	**Newport**	**32.25**	**77**	*e*P	**P**	**00 04 52.4**	**+0.1**
NEW				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NEW	**Newport**	**32.25**	**77**	*e*P	**P**	**00 04 52.4**	**0.0**
	comp=Z,6.2nm,0.8s,mb4.5						
A11A	**Hall Mountain,**	**32.39**	**75**	⇓P	**P**	**00 04 53.8**	**+0.3**
	baz=32						
F08A	**Pendleton**	**32.44**	**82**	⇑P	**P**	**00 04 54.4**	**+0.4**
	baz=32						
E09A	**Wood Farm, Sta**	**32.46**	**80**	⇓P	**P**	**00 04 54.7**	**+0.4**
	baz=32						
G08A	**Pilot Rock**	**32.58**	**83**	⇓P	**P**	**00 04 55.6**	**+0.3**
	baz=32,SNR=5.9						
B11A	**Sandpoint**	**32.62**	**76**	⇓P	**P**	**00 04 56.0**	**+0.4**
	baz=32						
D10A	**Wagner Farm, O**	**32.72**	**79**	⇓P	**P**	**00 04 56.6**	**+0.1**
	baz=33						
K05A	**Summer Lake**	**32.78**	**88**	⇓P	**P**	**00 04 58.0**	**+1.0**
	baz=33,SNR=9.1						
A12A	**Yaak River Ran**	**32.82**	**75**	⇓P	**P**	**00 04 57.8**	**+0.5**
	baz=33						
I07A	**Izee**	**32.88**	**85**	⇓P	**P**	**00 04 57.8**	**-0.1**
	baz=33,SNR=7.3						
J06A	**Christmas Vall**	**32.94**	**87**	⇑P	**P**	**00 04 58.9**	**+0.5**
	baz=33,SNR=8.2						
WDC	**Whiskeytown Da**	**33.01**	**93**	*e*P	**P**	**00 04 59.7**	**+0.6**
TIXI	**Tiksi**	**33.02**	**329**	⇑*e*P	**P**	**00 04 57.3**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
TIXI	**Tiksi**	**33.02**	**329**	*e*P	**P**	**00 04 58.5**	**-0.3**
E10A	**Myers Farm, Un**	**33.10**	**80**	⇑P	**P**	**00 04 60.0**	**+0.2**
	baz=33						
H08A	**Prairie City**	**33.16**	**84**	⇑P	**P**	**00 05 00.1**	**-0.2**
	baz=33						
F10A	**Beach Ranch, E**	**33.28**	**81**	⇓P	**P**	**00 05 01.2**	**-0.2**
	baz=33						
D11A	**Klaveano Farm,**	**33.29**	**78**	⇑P	**P**	**00 05 01.0**	**-0.4**
	baz=33						
G09A	**Cove**	**33.30**	**82**	⇓P	**P**	**00 05 01.9**	**+0.3**
	baz=33						
I08A	**Drewsey**	**33.54**	**85**	⇑P	**P**	**00 05 03.8**	**+0.1**
	baz=33						
A13A	**Flathead Natio**	**33.55**	**74**	⇑P	**P**	**00 05 03.7**	**0.0**
	baz=33						
YAK	**Yakutsk**	**33.66**	**311**	*e*P	**P**	**00 05 02.6**	**-1.9**
YAK				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
YAK	**Yakutsk**	**33.66**	**311**	*e*P	**P**	**00 05 05.1**	**+0.6**
G10A	**Bishop Farm, J**	**33.70**	**82**	⇓P	**P**	**00 05 05.0**	**0.0**
	baz=34,SNR=7.8						
E11A	**Bogner Ranch,**	**33.70**	**79**	⇓P	**P**	**00 05 04.3**	**-0.8**
	baz=34						
K07A	**Rock Creek Ran**	**33.80**	**87**	⇑P	**P**	**00 05 06.3**	**+0.3**
	baz=34,SNR=5.2						
BSMT	**Bassoo Peak**	**33.83**	**76**	*e*P	**P**	**00 05 06.0**	**-0.1**
	comp=Z,5.2nm,1.0s,mb4.4						
F11A	**Grangeville**	**33.97**	**80**	⇓P	**P**	**00 05 06.8**	**-0.6**
	baz=34						
C13A	**Hot Springs**	**34.04**	**76**	⇑P	**P**	**00 05 07.5**	**-0.4**
	baz=34,SNR=5.0						
A14A	**Double T Ranch**	**34.11**	**74**	⇑P	**P**	**00 05 08.0**	**-0.6**
	baz=34,SNR=6.1						
L07A	**Adell**	**34.12**	**88**	⇓P	**P**	**00 05 09.0**	**+0.2**
	baz=34						
K08A	**Mann Creek Ran**	**34.24**	**86**	⇓P	**P**	**00 05 10.1**	**+0.3**
	baz=34						
YBMT	**Yellow Bay**	**34.28**	**76**	*e*P	**P**	**00 05 11.2**	**+1.1**
H10A	**Noah's Angus R**	**34.29**	**82**	⇓P	**P**	**00 05 10.1**	**0.0**
	baz=34,SNR=13						
J09A	**Fry Pan Ranch,**	**34.35**	**85**	⇑P	**P**	**00 05 11.0**	**+0.3**
	baz=34						
D13A	**Huson**	**34.39**	**77**	⇓P	**P**	**00 05 10.2**	**-0.8**
	baz=34						
A15A	**Johnson Ranch,**	**34.52**	**73**	⇑P	**P**	**00 05 11.3**	**-0.8**
	baz=34						
N06A	**Buffalo Meadow**	**34.56**	**90**	⇑P	**P**	**00 05 12.7**	**+0.2**
	baz=34,SNR=10						
F12A	**Elk City**	**34.58**	**80**	⇓P	**P**	**00 05 12.3**	**-0.4**
	baz=34,SNR=11						
M07A	**Soldier Meadow**	**34.59**	**89**	⇑P	**P**	**00 05 13.4**	**+0.5**
	baz=34,SNR=7.0						
L08A	**Fields**	**34.63**	**87**	⇑P	**P**	**00 05 13.4**	**+0.2**
	baz=34,SNR=5.6						
H11A	**Donnelly**	**34.67**	**82**	⇑P	**P**	**00 05 13.0**	**-0.5**
	baz=34,SNR=5.1						
E13A	**Victor**	**34.87**	**78**	⇑P	**P**	**00 05 14.8**	**-0.4**
	baz=35						
O06A	**Flanigan**	**34.91**	**91**	⇓P	**P**	**00 05 16.0**	**+0.4**
	baz=35,SNR=7.7						
D14A	**Greenough**	**34.96**	**77**	⇓P	**P**	**00 05 15.2**	**-0.7**
	baz=35,SNR=5.2						
M08A	**Happy Creek Ra**	**35.04**	**88**	⇓P	**P**	**00 05 17.5**	**+0.8**
	baz=35						
N07B	**Gerlach**	**35.07**	**90**	⇓P	**P**	**00 05 17.2**	**+0.3**
	baz=35,SNR=7.4						
I11A	**Placerville**	**35.13**	**83**	⇑P	**P**	**00 05 17.8**	**+0.3**
	baz=35						
C15A	**Salmond Ranch,**	**35.16**	**75**	⇓P	**P**	**00 05 17.7**	**+0.1**
	baz=35,SNR=10.0						
K10A	**MacKenzie Ranc**	**35.20**	**85**	⇑P	**P**	**00 05 18.4**	**+0.3**
	baz=35						
E14A	**Clinton**	**35.30**	**78**	⇓P	**P**	**00 05 18.7**	**-0.2**
	baz=35						
B16A	**M & M Farms, S**	**35.38**	**73**	⇑P	**P**	**00 05 18.9**	**-0.7**
	baz=35						
H12A	**Diamond D Ranc**	**35.45**	**81**	⇓P	**P**	**00 05 19.9**	**-0.3**
	baz=35						
MFID	**Camas Ranch**	**35.48**	**83**	⇓P	**P**	**00 05 20.5**	**+0.1**
	baz=35						
WCN	**Washoe City**	**35.48**	**92**	⇓P	**P**	**00 05 20.9**	**+0.4**
	baz=35						
O07A	**Toulon**	**35.50**	**90**	⇑P	**P**	**00 05 21.7**	**+1.0**
	baz=35,SNR=10						
G13A	**Cobalt**	**35.54**	**80**	⇓P	**P**	**00 05 20.2**	**-0.8**
	baz=35,SNR=9.1						
D15A	**Lincoln**	**35.57**	**76**	⇑P	**P**	**00 05 20.9**	**-0.2**
	baz=35						
HABR	**Khabarovsk**	**35.57**	**287**	*e*P	**P**	**00 05 19.2**	**-2.0**
HABR				*e**PP	pP	00 05 29.1	-0.7
HABR				*e*		00 07 47.4	
HABR				S	**S**	**00 10 53.7**	**-1.2**
HABR				*e*SS	SS	00 13 17.6	-12
HABR				*e*		00 15 35.6	
HABR				MLR	MLR		
	comp=Z,118nm,17.0s,MS3.7						
N08A	**GE Springer Mi**	**35.58**	**89**	⇑P	**P**	**00 05 21.4**	**0.0**
	baz=35						
M09A	**Marrel Ranch,**	**35.62**	**87**	⇑P	**P**	**00 05 21.9**	**+0.2**
	baz=36						
C16A	**Fuhringer Ranc**	**35.65**	**74**	⇓P	**P**	**00 05 21.2**	**-0.7**
	baz=36,SNR=9.1						
F14A	**Wisdom**	**35.68**	**78**	⇑P	**P**	**00 05 22.2**	**0.0**
	baz=36,SNR=6.1						
I12A	**Atlanta**	**35.70**	**82**	⇓P	**P**	**00 05 22.1**	**-0.2**
	baz=36,SNR=7.2						
K11A	**Parker Ranch,**	**35.72**	**85**	⇓P	**P**	**00 05 23.2**	**+0.7**
	baz=36						
A17A	**Triple J Farms**	**35.72**	**72**	⇓P	**P**	**00 05 22.0**	**-0.4**
	baz=36						
E15A	**Deer Lodge**	**35.81**	**77**	⇑P	**P**	**00 05 23.1**	**-0.1**
	baz=36						
H13A	**Challis**	**35.81**	**81**	⇓P	**P**	**00 05 22.6**	**-0.7**
	baz=36,SNR=6.1						
L10A	**Juniper Basin**	**35.84**	**86**	⇑P	**P**	**00 05 23.4**	**-0.2**
	baz=36						
O08A	**Rochester Mine**	**35.86**	**90**	⇑P	**P**	**00 05 24.2**	**+0.4**
	baz=36,SNR=7.9						
G14A	**Jackson**	**35.93**	**79**	⇓P	**P**	**00 05 24.4**	**+0.1**
	baz=36						
RES	**Resolute Bay**	**35.94**	**26**	P	**P**	**00 05 22.2**	**-1.8**
RES						00 07 50.3	
RES	**Resolute Bay**	**35.94**	**26**	P	**P**	**00 05 22.1**	**-1.9**
	comp=Z,1.9nm,0.8s,mb4.1,baz=245,slow=12,SNR=8.6						
RES				PcP	PcP	00 07 50.2	+0.1
	comp=Z,2.5nm,0.9s,baz=269,slow=4.3,SNR=5.9						
RES				pPcP		00 08 04.0	
	comp=Z,2.0nm,0.7s,baz=229,slow=4.1,SNR=4.8						
J12A	**Stokes Ranch,**	**36.02**	**83**	⇑P	**P**	**00 05 25.1**	**+0.1**
	baz=36,SNR=6.2						
M10A	**I.L. Ranch, Tu**	**36.12**	**87**	⇓P	**P**	**00 05 26.2**	**+0.3**
	baz=36						
R06C	**Coleville**	**36.16**	**93**	⇓P	**P**	**00 05 26.5**	**+0.2**
	baz=36,SNR=10						
L11A	**Cat Creek Ranc**	**36.23**	**85**	⇓P	**P**	**00 05 26.9**	**0.0**
	baz=36,SNR=9.3						
I13A	**Wildhorse Cree**	**36.24**	**82**	⇓P	**P**	**00 05 26.9**	**-0.1**
	baz=36,SNR=9.0						
HLID	**Hailey**	**36.26**	**82**	⇓P	**P**	**00 05 26.8**	**-0.3**
	baz=36,SNR=6.4						
P08A	**Dixie Valley**	**36.27**	**90**	⇓P	**P**	**00 05 27.6**	**+0.4**
	baz=36						
E16A	**East Helena**	**36.32**	**76**	⇑P	**P**	**00 05 27.6**	**0.0**
	baz=36						
K12A	**Draper Farm, C**	**36.48**	**84**	⇑P	**P**	**00 05 29.4**	**+0.4**
	baz=36						
J13A	**Cove Ranch, Pi**	**36.49**	**82**	⇑P	**P**	**00 05 29.2**	**+0.1**
	baz=36,SNR=12						
MCMT	**McKenzie Canyo**	**36.52**	**79**	*e*P	**P**	**00 05 28.9**	**-0.4**
	comp=Z,2.0nm,0.7s,mb4.1						
B18A	**Beardsley Farm**	**36.52**	**72**	⇑P	**P**	**00 05 29.1**	**-0.2**
	baz=36						
O09A	**Fish Creek Ran**	**36.52**	**89**	⇑P	**P**	**00 05 29.7**	**+0.3**
	baz=36						
G15A	**Dillon**	**36.55**	**79**	⇓P	**P**	**00 05 30.1**	**+0.5**
	baz=36						
D17A	**Six Diamond Ra**	**36.60**	**75**	⇓P	**P**	**00 05 30.3**	**+0.4**
	baz=36						
I14A	**Mackay**	**36.64**	**81**	⇑P	**P**	**00 05 30.9**	**+0.6**
	baz=36						
L12A	**House Creek Ra**	**36.69**	**85**	⇑P	**P**	**00 05 31.6**	**+0.8**
	baz=36						
EGMT	**Eagleton**	**36.71**	**73**	⇑P	**P**	**00 05 30.1**	**-0.8**
	baz=36,SNR=8.6						
EGMT	**Eagleton**	**36.71**	**73**	*e*P	**P**	**00 05 30.3**	**-0.6**
	comp=Z,13nm,0.9s,mb4.8						
EGMT				*e*PcP	PcP	00 07 52.6	-0.3
H15A	**Lima**	**36.75**	**80**	⇓P	**P**	**00 05 31.1**	**-0.2**
	baz=37,SNR=5.3						
BOZ	**Bozeman (W)**	**36.81**	**78**	*e*P	**P**	**00 05 31.5**	**-0.3**
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
BOZ	**Bozeman (W)**	**36.81**	**78**	⇑P	**P**	**00 05 31.7**	**-0.1**
	baz=37						
BOZ	**Bozeman (W)**	**36.81**	**78**	*e*P	**P**	**00 05 31.5**	**-0.3**
	comp=Z,1.6nm,0.8s,mb3.9						
E17A	**Martinsdale**	**36.85**	**76**	⇑P	**P**	**00 05 31.7**	**-0.4**
	baz=37,SNR=7.4						
O10A	**Cortez Mining,**	**36.87**	**88**	⇓P	**P**	**00 05 33.0**	**+0.6**
	baz=37						
NVAR	**Mina Array Bea**	**36.91**	**92**	P	**P**	**00 05 32.8**	**+0.1**
	comp=Z,4.0nm,0.7s,mb4.3,baz=296,slow=8.3,SNR=33						
NVAR				pPcP		00 08 09.5	
	comp=Z,1.5nm,0.7s,baz=298,slow=2.5,SNR=5.6						
G16A	**Moss Hill, Enn**	**36.93**	**78**	⇓P	**P**	**00 05 32.6**	**-0.2**
	baz=37						
J14A	**Carey**	**36.93**	**82**	⇑P	**P**	**00 05 33.0**	**+0.2**
	baz=37,SNR=9.0						
K13A	**Stover Farm, H**	**36.97**	**83**	⇓P	**P**	**00 05 33.7**	**+0.5**
	baz=37						
KLR	**Kul'dur**	**37.13**	**290**	*e*P	**P**	**00 05 29.7**	**-4.8**
F17A	**Fitzpatrick Pl**	**37.25**	**77**	⇑P	**P**	**00 05 34.8**	**-0.8**
	baz=37,SNR=6.0						
P10A	**Eureka**	**37.30**	**89**	⇑P	**P**	**00 05 36.2**	**+0.1**
	baz=37						
E18A	**Harlowton**	**37.35**	**75**	⇓P	**P**	**00 05 36.4**	**0.0**
	baz=37						
L13A	**Double Diamond**	**37.38**	**84**	⇓P	**P**	**00 05 36.9**	**+0.3**
	baz=37,SNR=7.6						
N12A	**Clover Valley,**	**37.43**	**86**	⇓P	**P**	**00 05 37.3**	**+0.1**
	baz=37,SNR=7.0						
O11A	**Cowboy Ranch,**	**37.48**	**88**	⇓P	**P**	**00 05 38.3**	**+0.7**
	baz=37						
G17A	**Pierce Place,**	**37.52**	**77**	⇓P	**P**	**00 05 37.9**	**+0.1**
	baz=37						
H16A	**Russell Place,**	**37.54**	**79**	⇑P	**P**	**00 05 37.7**	**-0.3**
	baz=37,SNR=5.3						
J15A	**Blackfoot**	**37.55**	**81**	⇓P	**P**	**00 05 38.5**	**+0.4**
	baz=37						
R09A	**Tonopah**	**37.79**	**91**	⇓P	**P**	**00 05 40.0**	**-0.1**
	baz=38,SNR=7.7						
F18A	**Big Timber**	**37.81**	**76**	⇑P	**P**	**00 05 39.9**	**-0.4**
	baz=38						
Q10A	**Clear Creek Ra**	**37.83**	**90**	⇓P	**P**	**00 05 40.9**	**+0.4**
	baz=38,SNR=8.0						
L14A	**Malta**	**37.84**	**84**	⇑P	**P**	**00 05 40.8**	**+0.3**
	baz=38,SNR=6.6						
O12A	**Currie**	**37.96**	**87**	⇑P	**P**	**00 05 41.7**	**+0.1**
	baz=38,SNR=5.7						
S09A	**Goldfield**	**38.02**	**92**	⇓P	**P**	**00 05 42.1**	**0.0**
	baz=38						
M14A	**Sheep Mountain**	**38.08**	**84**	⇑P	**P**	**00 05 43.1**	**+0.5**
	baz=38						
VES	**Vestal, Richgr**	**38.11**	**96**	⇓P	**P**	**00 05 42.5**	**-0.4**
	baz=38						
H17A	**Grant Village**	**38.11**	**79**	⇓P	**P**	**00 05 44.0**	**+1.2**
	baz=38,SNR=5.9						
J16A	**Bone**	**38.11**	**81**	⇓P	**P**	**00 05 43.4**	**+0.5**
	baz=38,SNR=6.0						
IMW	**Indian Meadow**	**38.17**	**80**	*e*P	**P**	**00 05 43.5**	**+0.2**
	comp=Z,6.0nm,0.9s,mb4.3						
RRI2	**Red Ridge**	**38.25**	**80**	*e*P	**P**	**00 05 44.8**	**+0.8**
	comp=Z,19nm,1.3s,mb4.7						
Q11A	**Duckwater**	**38.27**	**89**	⇑P	**P**	**00 05 44.4**	**+0.1**
	baz=38						
S10A	**Tonopah Range,**	**38.28**	**91**	⇓P	**P**	**00 05 44.2**	**-0.1**
	baz=38,SNR=10						
CWC	**Cottonwood Cre**	**38.33**	**94**	⇑P	**P**	**00 05 44.7**	**0.0**
	baz=38						
L15A	**Malad City**	**38.37**	**83**	⇑P	**P**	**00 05 45.1**	**0.0**
	baz=38						
K16A	**Soda Springs**	**38.38**	**81**	⇓P	**P**	**00 05 46.6**	**+1.5**
	baz=38,SNR=8.5						
GRAC	**Grapevine Rang**	**38.40**	**93**	⇑P	**P**	**00 05 45.9**	**+0.6**
	baz=38						
RLMT	**Red Lodge**	**38.50**	**77**	⇑P	**P**	**00 05 46.1**	**+0.1**
	baz=38,SNR=9.6						
O13A	**Hicks Ranch, I**	**38.51**	**87**	⇓P	**P**	**00 05 46.8**	**+0.6**
	baz=38						
REDW	**Red Top Meadow**	**38.52**	**80**	*e*P	**P**	**00 05 45.5**	**-0.8**
	comp=Z,12nm,1.3s,mb4.5						
N14A	**Grayback Hills**	**38.56**	**85**	⇑P	**P**	**00 05 47.0**	**+0.4**
	baz=38						
ISA	**Isabella**	**38.60**	**96**	*e*P	**P**	**00 05 46.2**	**-0.8**
ISA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
ISA	**Isabella**	**38.60**	**96**	⇓P	**P**	**00 05 46.6**	**-0.4**
	baz=38,SNR=6.9						
ISA	**Isabella**	**38.60**	**96**	*e*P	**P**	**00 05 46.2**	**-0.8**
	comp=Z,5.7nm,0.8s,mb4.3						
J17A	**Brown Place, J**	**38.61**	**80**	⇓P	**P**	**00 05 47.3**	**+0.3**
	baz=38						
R11A	**Troy Canyon, C**	**38.63**	**90**	⇑P	**P**	**00 05 47.0**	**-0.3**
	baz=38,SNR=7.0						
M15A	**Larsen Ranch,**	**38.65**	**84**	⇑P	**P**	**00 05 47.3**	**-0.1**
	baz=38						
P13A	**Bates Ranch, G**	**38.90**	**87**	⇑P	**P**	**00 05 49.4**	**-0.1**
	baz=39,SNR=6.8						
MPMC	**Manual Prospec**	**38.93**	**94**	⇑P	**P**	**00 05 50.4**	**+0.6**
	baz=39						
L16A	**Fish Haven**	**38.94**	**82**	⇑P	**P**	**00 05 50.1**	**+0.3**
	baz=39						
N15A	**Stansbury Isla**	**38.94**	**85**	⇑P	**P**	**00 05 49.9**	**0.0**
	baz=39						
I18A	**Diamond G Ranc**	**38.95**	**79**	⇓P	**P**	**00 05 50.3**	**+0.4**
	baz=39						
FURC	**Furnace Creek,**	**39.05**	**93**	⇓P	**P**	**00 05 51.3**	**+0.5**
	baz=39						
DUG	**Dugway**	**39.18**	**86**	⇓P	**P**	**00 05 52.0**	**+0.1**
	baz=39,SNR=8.3						
LRMC	**Laurel Mountai**	**39.20**	**95**	⇑P	**P**	**00 05 52.2**	**+0.1**
	baz=39						
Q13A	**Wheeler Ranch,**	**39.20**	**88**	⇓P	**P**	**00 05 52.0**	**0.0**
	baz=39						
L17A	**Cokeville**	**39.23**	**82**	⇓P	**P**	**00 05 52.4**	**+0.1**
	baz=39						
M16A	**Huntsville**	**39.23**	**83**	⇓P	**P**	**00 05 51.8**	**-0.5**
	baz=39,SNR=5.4						
R12A	**Pony Springs,**	**39.24**	**89**	⇑P	**P**	**00 05 52.3**	**0.0**
	baz=39						
P14A	**Drum Mountains**	**39.40**	**87**	⇑P	**P**	**00 05 53.9**	**+0.2**
	baz=39						
EDW2	**Edwards Air Fo**	**39.41**	**96**	⇑P	**P**	**00 05 53.8**	**0.0**
	baz=39						
K18A	**Toltan Ranch,**	**39.42**	**81**	⇓P	**P**	**00 05 54.2**	**+0.4**
	baz=39						
S12A	**Delamar Landin**	**39.55**	**90**	⇑P	**P**	**00 05 55.5**	**+0.6**
	baz=39						
T11A	**Corn Creek, Al**	**39.55**	**91**	⇓P	**P**	**00 05 54.8**	**-0.1**
	baz=39						
N16A	**Rees Ranch, Co**	**39.60**	**84**	⇑P	**P**	**00 05 56.0**	**+0.6**
	baz=39						
Q14A	**Sevier Lake (B**	**39.64**	**87**	⇓P	**P**	**00 05 55.4**	**-0.3**
	baz=40,SNR=6.2						
PDAR	**Pinedale Array**	**39.64**	**80**	P	**P**	**00 05 55.1**	**-0.5**
	comp=Z,6.1nm,0.8s,mb4.4,baz=305,slow=4.7,SNR=44						
R13A	**O'Grain Ranch,**	**39.72**	**89**	⇑P	**P**	**00 05 56.2**	**-0.1**
	baz=40						
M17A	**Scullys Gap (B**	**39.73**	**82**	⇓P	**P**	**00 05 56.2**	**-0.1**
	baz=40						
L18A	**Fontenelle, Gr**	**39.84**	**81**	⇓P	**P**	**00 05 57.2**	**-0.1**
	baz=40						
GSC	**Goldstone**	**39.85**	**95**	*e*P	**P**	**00 05 57.2**	**-0.3**
GSC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
GSC	**Goldstone**	**39.85**	**95**	⇑P	**P**	**00 05 57.3**	**-0.1**
	baz=40,SNR=10.0						
GSC	**Goldstone**	**39.85**	**95**	*e*P	**P**	**00 05 57.2**	**-0.3**
	comp=Z,8.0nm,0.8s,mb4.5						
P15A	**Leamington**	**39.89**	**86**	⇓P	**P**	**00 05 57.9**	**+0.1**
	baz=40						
N17A	**Moffit Pass**	**39.94**	**83**	⇑P	**P**	**00 05 57.9**	**-0.2**
	baz=40						
K19A	**Absolon Red Bu**	**40.03**	**80**	⇓P	**P**	**00 05 58.3**	**-0.6**
	baz=40,SNR=14						
BFSC	**Mount Baldy St**	**40.05**	**97**	⇓P	**P**	**00 05 59.0**	**-0.1**
	baz=40,SNR=5.4						
M18A	**Lyman**	**40.12**	**82**	⇓P	**P**	**00 05 59.4**	**-0.2**
	baz=40						
L19A	**Farson**	**40.15**	**81**	⇑P	**P**	**00 05 59.5**	**-0.4**
	baz=40						
CIS	**Catalina Islan**	**40.16**	**98**	⇑P	**P**	**00 05 59.8**	**-0.3**
	baz=40						
S13A	**Holt Ranch, En**	**40.17**	**90**	⇓P	**P**	**00 06 00.3**	**+0.2**
	baz=40						
FCC	**Fort Churchill**	**40.28**	**51**	*e*P	**P**	**00 06 00.2**	**-0.5**
	comp=Z,0.4nm,0.9s						
O17A	**Robinson Place**	**40.45**	**84**	⇓P	**P**	**00 06 02.4**	**0.0**
	baz=40						
MJAR	**Matsushiro Arr**	**40.45**	**269**	P	**P**	**00 06 01.1**	**-1.4**
	comp=Z,2.5nm,0.6s,mb4.1,baz=58,slow=7.5,SNR=5.9						
MAJO	**Matsushiro**	**40.45**	**269**	*e*P	**P**	**00 06 02.8**	**+0.3**
MAT	**Matsushiro**	**40.45**	**269**	P	**P**	**00 06 02.5**	**0.0**
U12A	**Valley of Fire**	**40.49**	**92**	⇓P	**P**	**00 06 02.9**	**+0.1**
	baz=40						
T13A	**Saint George**	**40.50**	**90**	⇓P	**P**	**00 06 02.9**	**+0.1**
	baz=40						
M19A	**Rock Springs**	**40.62**	**81**	⇓P	**P**	**00 06 03.9**	**+0.1**
	baz=40						
V12A	**Nelson**	**40.76**	**93**	⇑P	**P**	**00 06 05.7**	**+0.7**
	baz=41						
L20A	**Wamsutter**	**40.82**	**80**	⇑P	**P**	**00 06 05.3**	**-0.1**
	baz=41						
O18A	**Roosevelt**	**40.85**	**84**	⇑P	**P**	**00 06 06.4**	**+0.7**
	baz=41						
U13A	**Pakoon Wash**	**40.85**	**91**	⇑P	**P**	**00 06 06.4**	**+0.6**
	baz=41						
P17A	**Butcher Ranch,**	**40.89**	**85**	⇑P	**P**	**00 06 06.5**	**+0.5**
	baz=41						
GMRC	**Granite Mounta**	**40.90**	**94**	⇓P	**P**	**00 06 06.2**	**+0.1**
	baz=41						
Q16A	**Castle Valley**	**40.97**	**86**	⇑P	**P**	**00 06 06.8**	**+0.1**
	baz=41						
N19A	**John Jarvie Ra**	**40.97**	**82**	⇓P	**P**	**00 06 06.1**	**-0.6**
	baz=41						
T14A	**Hurricane**	**40.98**	**90**	⇑P	**P**	**00 06 07.3**	**+0.6**
	baz=41						
P18A	**Preston Nutter**	**41.09**	**84**	⇑P	**P**	**00 06 07.9**	**+0.2**
	baz=41,SNR=11						
R16A	**Teasdale**	**41.17**	**87**	⇓P	**P**	**00 06 08.7**	**+0.3**
	baz=41,SNR=6.6						
PFO	**Pinyon Flat Ob**	**41.21**	**96**	⇓P	**P**	**00 06 08.7**	**-0.1**
	baz=41						
V13A	**Grand Canyon W**	**41.21**	**92**	⇑P	**P**	**00 06 09.1**	**+0.3**
	baz=41						
M20A	**Sweetwater, Wa**	**41.21**	**81**	⇑P	**P**	**00 06 08.5**	**-0.1**
	baz=41						
BELC	**Belle Mtn.**	**41.22**	**95**	⇑P	**P**	**00 06 08.8**	**0.0**
	baz=41						
SRU	**San Rafael**	**41.24**	**85**	*e*P	**P**	**00 06 08.8**	**-0.1**
SRU				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.5						
SRU	**San Rafael**	**41.24**	**85**	⇓P	**P**	**00 06 09.5**	**+0.6**
	baz=41,SNR=10						
SRU	**San Rafael**	**41.24**	**85**	*e*P	**P**	**00 06 08.8**	**-0.1**
	comp=Z,12nm,0.9s,mb4.5						
U14A	**Mt Trumbull**	**41.33**	**90**	⇑P	**P**	**00 06 09.9**	**+0.2**
	baz=41						
O19A	**Miners Draw (B**	**41.37**	**83**	⇓P	**P**	**00 06 09.5**	**-0.4**
	baz=41,SNR=5.3						
L21A	**Rawlins**	**41.43**	**80**	⇓P	**P**	**00 06 09.8**	**-0.6**
	baz=41,SNR=6.5						
T15A	**Red Dirt Ranch**	**41.43**	**89**	⇓P	**P**	**00 06 10.7**	**+0.2**
	baz=41						
Q18A	**Rafter H Ranch**	**41.49**	**85**	⇑P	**P**	**00 06 10.5**	**-0.4**
	baz=41,SNR=10						
R17A	**Hanksville Air**	**41.56**	**86**	⇑P	**P**	**00 06 11.3**	**-0.3**
	baz=41,SNR=8.1						
N20A	**Spence Gulch,**	**41.56**	**82**	⇓P	**P**	**00 06 11.2**	**-0.4**
	baz=41,SNR=5.4						
IRM	**Iron Mountain**	**41.63**	**95**	⇓P	**P**	**00 06 11.9**	**-0.2**
	baz=42						
M21A	**Separation Pea**	**41.64**	**80**	⇑P	**P**	**00 06 11.9**	**-0.2**
	baz=42						
MONP	**Monument Peak**	**41.72**	**97**	⇓P	**P**	**00 06 13.0**	**+0.1**
	baz=42						
P19A	**Cripple Cowboy**	**41.86**	**84**	⇓P	**P**	**00 06 13.3**	**-0.6**
	baz=42,SNR=11						
V14A	**Boquillas Ranc**	**41.89**	**91**	⇓P	**P**	**00 06 14.8**	**+0.5**
	baz=42						
O20A	**White River Ci**	**42.00**	**82**	⇑P	**P**	**00 06 14.4**	**-0.8**
	baz=42,SNR=7.8						
S17A	**Black Ridge (B**	**42.00**	**87**	⇓P	**P**	**00 06 14.8**	**-0.4**
	baz=42,SNR=15						
N21A	**Black Mountain**	**42.06**	**81**	⇓P	**P**	**00 06 15.2**	**-0.4**
	baz=42						
R18A	**Canyonlands Na**	**42.08**	**86**	⇓P	**P**	**00 06 15.1**	**-0.6**
	baz=42,SNR=6.6						
X13A	**Yucca**	**42.14**	**93**	⇑P	**P**	**00 06 16.3**	**0.0**
	baz=42						
PDMCI	**Parker Dam,Lak**	**42.15**	**94**	⇓P	**P**	**00 06 16.6**	**+0.2**
	baz=42						
W14A	**Seligman**	**42.18**	**92**	⇑P	**P**	**00 06 16.8**	**+0.1**
	baz=42						
M22A	**Cedar Creek Ra**	**42.23**	**80**	⇓P	**P**	**00 06 16.6**	**-0.4**
	baz=42,SNR=6.6						
P20A	**De Beque**	**42.30**	**83**	⇑P	**P**	**00 06 16.7**	**-0.9**
	baz=42,SNR=6.0						
V15A	**Kaibab Nationa**	**42.34**	**90**	⇓P	**P**	**00 06 17.8**	**-0.2**
	baz=42,SNR=6.2						
O21A	**Pagoda**	**42.42**	**82**	⇓P	**P**	**00 06 18.0**	**-0.5**
	baz=42						
S18A	**Hurst Farm, Bl**	**42.46**	**87**	⇓P	**P**	**00 06 18.2**	**-0.6**
	baz=42,SNR=9.7						
BOD	**Bodaibo**	**42.50**	**309**	*e*P	**P**	**00 06 17.4**	**-1.6**
BOD				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
R19A	**Curley Farm, L**	**42.52**	**85**	⇓P	**P**	**00 06 18.4**	**-1.0**
	baz=42,SNR=5.2						
N22A	**Wattenberg Ran**	**42.67**	**80**	⇓P	**P**	**00 06 20.5**	**-0.1**
	baz=42						
PV04	**Paradox Valley**	**42.68**	**85**	*e*P	**P**	**00 06 20.0**	**-0.7**
Q20A	**Ridgley Place,**	**42.70**	**84**	⇑P	**P**	**00 06 19.7**	**-1.1**
	baz=42,SNR=5.4						
U17A	**Shonto**	**42.75**	**88**	⇓P	**P**	**00 06 21.4**	**+0.1**
	baz=43						
U16A	**Tuba City**	**42.77**	**89**	⇓P	**P**	**00 06 21.4**	**0.0**
	baz=43						
X14A	**Yava**	**42.80**	**92**	⇓P	**P**	**00 06 21.9**	**+0.2**
	baz=43						
T18A	**Mexican Hat**	**42.89**	**87**	⇓P	**P**	**00 06 21.2**	**-1.1**
	baz=43,SNR=11						
S19A	**Harvey Farm, M**	**42.95**	**86**	⇓P	**P**	**00 06 22.1**	**-0.8**
	baz=43,SNR=7.6						
WUAZ	**Wupatki**	**43.03**	**90**	⇑P	**P**	**00 06 23.7**	**+0.2**
	baz=43						
PV01	**Paradox Valley**	**43.05**	**85**	*e*P	**P**	**00 06 23.3**	**-0.3**
	comp=Z,1µm,0.8s						
PV01				PP	PP	00 08 00.7	-3.0
Y14A	**Wickenburg**	**43.09**	**93**	⇓P	**P**	**00 06 23.9**	**-0.1**
	baz=43						
R20A	**Redvale**	**43.13**	**85**	⇓P	**P**	**00 06 24.1**	**-0.1**
	baz=43						
X15A	**Humboldt**	**43.19**	**92**	⇓P	**P**	**00 06 25.0**	**+0.2**
	baz=43						
Z13A	**Yuma Proving G**	**43.19**	**94**	⇓P	**P**	**00 06 24.6**	**-0.3**
	baz=43						
Q21A	**Lamborn Mesa,**	**43.21**	**83**	⇑P	**P**	**00 06 24.8**	**-0.1**

	baz=43						
W16A	Flagstaff	43.21	91	⇑P	P	00 06 25.2	+0.2
	baz=43						
113A	Mohawk Valley,	43.42	95	⇓P	P	00 06 26.8	+0.1
	baz=43						
ULM	Lac du Bonnet	43.43	63	P	P	00 06 24.2	-2.3
	comp=Z,4.9nm,0.8s,mb4.3,baz=291,slow=7.7,SNR=6.9						
ULM				LR	LR	00 24 35.3	
	comp=Z,179nm,21.6s,MS3.9,baz=291,slow=36						
Y15A	Casa Rosa Ranc	43.49	92	⇓P	P	00 06 27.3	+0.1
	baz=43						
Q22A	Crested Butte,	43.60	83	⇑P	P	00 06 28.0	0.0
	baz=43						
T19A	Beclabito	43.60	87	⇓P	P	00 06 27.1	-1.0
	baz=43,SNR=18						
MVCO	Mesa Verde	43.68	86	⇑P	P	00 06 28.2	-0.5
	baz=44						
CN2	Changchun	43.70	286	eP	P	00 06 27.8	-1.1
CN2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
X16A	Lo Mia Camp, P	43.72	91	⇑P	P	00 06 29.1	0.0
	baz=44						
HIA	Hailar	43.88	296	eP	P	00 06 30.7	+0.5
114A	Black Gap (USA	43.97	94	⇓P	P	00 06 30.6	-0.5
	baz=44						
R22A	Saguache, Gunn	44.09	84	⇑P	P	00 06 32.1	+0.1
	baz=44						
AGMN	Agassiz Refuge	44.49	65	eP	P	00 06 33.8	-1.4
	comp=Z,17nm,1.3s,mb4.6						
X18A	Snowflake	44.55	90	⇑P	P	00 06 35.9	+0.1
	baz=44						
214A	Organ Pipe Nat	44.56	95	⇓P	P	00 06 35.9	0.0
	baz=44						
Y17A	Roosevelt	44.57	92	⇓P	P	00 06 36.0	+0.1
	baz=44						
T22A	Edith	44.78	85	⇑P	P	00 06 37.4	-0.2
	baz=45,SNR=10						
W20A	Ramah	45.04	88	⇑P	P	00 06 39.5	-0.1
	baz=45						
Y19A	Nutrioso	45.37	90	⇓P	P	00 06 42.9	+0.6
	baz=45						
KSRS	Korea Array	46.14	277	P	P	00 06 48.4	0.0
	comp=Z,10.0nm,0.8s,mb4.8,baz=53,slow=7.8,SNR=17						
KSRS				LR	LR	00 24 07.4	
	comp=Z,103nm,18.8s,MS3.8,baz=229,slow=34						
119A	Ashpeak Ranch,	46.15	91	⇑P	P	00 06 48.6	+0.1
	baz=46						
218A	Dragoon	46.24	93	⇑P	P	00 06 49.1	-0.1
	baz=46						
Z20A	Nine Sixteen R	46.34	90	⇑P	P	00 06 50.2	+0.2
	baz=46						
X22A	Bernardo	46.37	88	⇑P	P	00 06 50.4	+0.2
	baz=46						
ANMO	Albuquerque	46.41	87	LR	LR	00 24 25.3	
	comp=Z,106nm,18.3s,MS3.8,baz=340,slow=34						
318A	Bisbee	46.65	93	⇓P	P	00 06 52.6	+0.3
	baz=46						
219A	White Tail Can	46.70	92	⇓P	P	00 06 53.2	+0.4
	baz=47						
BNM	Barren Site	46.84	88	eP	P	00 06 53.4	-0.5
	comp=Z,6.5nm,1.0s,mb4.5						
INCN	Inchon	46.90	278	P	P	00 06 54.5	+0.2
121A	Cookes Peak, D	47.24	90	⇑P	P	00 06 56.8	-0.1
	baz=47						
320A	Kipp Ranch, An	47.61	92	⇑P	P	00 06 59.9	0.0
	baz=48						
DAG	Danmarks Havn	49.56	9	⇑eP	P	00 07 13.0	-1.3
DAG				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
DAG	Danmarks Havn	49.56	9	⇑iP	P	00 07 13.0	-1.3
	comp=Z,13nm,1.0s,mb4.9						
DAG	Danmarks Havn	49.56	9	⇑eP	P	00 07 13.0	-1.3
	comp=Z,13nm,1.0s,mb4.9						
SUMG	Summit	50.44	18	eP	P	00 07 21.1	+0.1
	comp=Z,28nm,0.9s,mb5.3						
TLY	Talaya	50.87	307	eP	P	00 07 24.4	-0.2
TLY				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
TLY				MLR	MLR		
	comp=Z,93nm,12.0s,MS4.0						
TLY	Talaya	50.87	307	eP	P	00 07 24.7	+0.2
	comp=Z,7.2nm,0.8s,mb4.7						
WMOK	Wichita Mounta	51.22	81	eP	P	00 07 26.3	-1.1
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
WMOK	Wichita Mounta	51.22	81	eP	P	00 07 26.3	-1.1
	comp=Z,4.7nm,0.8s,mb4.5						
BJI	Beijing	51.46	288	P	P	00 07 28.8	-0.3
BJI				PP	PP	00 09 25.8	-0.4
BJI				S	S	00 14 43.5	-3.5
BJI				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
BJI				pmax	pmax		
	comp=Z,260nm,5.6s						
BJI				LR	LR		
	comp=N,290nm,15.2s,MS4.7						
BJI				LR	LR		
	comp=E,440nm,16.1s,MS4.7						
BJI				LR	LR		
	comp=Z,170nm,18.5s,MS4.1						
BJT	Baijiatuau	51.48	288	P	P	00 07 28.8	-0.4
ULN	Ulaanbaatar	51.52	301	eP	P	00 07 28.8	-0.7
ULN				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ULN	Ulaanbaatar	51.52	301	eP	P	00 07 28.8	-0.6
	comp=Z,8.7nm,0.8s,mb4.7						
ZAK	Zakamensk	51.86	306	eP	P	00 07 31.6	-0.4
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
SONM	Songino Array	51.88	301	P	P	00 07 32.0	-0.2
SONM						00 08 44.7	
SONM	Songino Array	51.88	301	P	P	00 07 32.0	-0.2
	comp=Z,4.0nm,0.7s,mb4.4,baz=66,slow=5.5,SNR=30						
SONM				PcP	PcP	00 08 44.6	+0.1
	comp=Z,1.3nm,0.9s,baz=29,slow=3.3,SNR=4.0						
SONM				pPcP		00 08 58.3	
	comp=Z,1.5nm,0.7s,baz=69,slow=1.9,SNR=4.6						
SFJD	Kangerlussuaq	51.93	26	P	P	00 07 31.2	-1.0
	comp=Z,9.4nm,0.9s,mb4.7,baz=307,slow=4.5,SNR=4.3						
TXAR	Lajitas Array	51.99	90	P	P	00 07 32.3	-0.9
	comp=Z,8.2nm,0.7s,mb4.8,baz=299,slow=5.5,SNR=51						
MOY	Mondy	52.17	308	eP	P	00 07 34.2	-0.1
JCT	Junction City	53.54	86	eP	P	00 07 42.8	-1.9
JCT				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.0						
JCT	Junction City	53.54	86	eP	P	00 07 42.8	-1.9
	comp=Z,30nm,1.4s,mb5.0						
HHC	Hu-ho-hao-te	53.58	292	eP	P	00 07 45.3	+0.5
HHC				PP	PP	00 09 47.5	+2.2
HHC				S	S	00 15 12.5	-3.5
HHC				ScS	ScS	00 17 27.5	-4.3
HHC				SS	SS	00 18 51.5	-4.5
HHC				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
HHC				pmax	pmax		
	comp=Z,94nm,4.5s						
HHC				LR	LR		
	comp=N,120nm,16.6s,MS4.4						
HHC				LR	LR		
	comp=E,220nm,15.5s,MS4.4						
HHC				LR	LR		
	comp=Z,200nm,16.7s,MS4.2						
BTO	Baotou	54.62	292	eP	P	00 07 52.5	+0.1
SCHQ	Schefferville	54.83	44	P	P	00 07 52.7	-1.0
	comp=Z,8.0nm,0.9s,mb4.7,baz=308,slow=6.6,SNR=11						
SCHQ				LR	LR	00 32 22.8	
	comp=Z,181nm,19.7s,MS4.2,baz=5.0,slow=37						
OLIL	Olney	54.84	70	P	P	00 07 51.7	-2.3
KEV	Kevo	57.56	354	P	P	00 08 13.2	+0.2
ZALV	Zalesovo Beam	57.84	318	P	P	00 08 14.1	-1.1
	comp=Z,1.1nm,0.6s,mb4.1,baz=36,slow=8.1,SNR=6.2						
ZALV				pPcP		00 09 20.2	
	comp=Z,1.1nm,0.7s,baz=36,slow=2.3,SNR=3.6						
ZALV				LR	LR	00 34 14.9	
	comp=Z,108nm,18.5s,MS4.0,baz=57,slow=37						
ARCES	ARCESS Array B	57.88	354	P	P	00 08 13.8	-1.4
	comp=Z,9.8nm,0.8s,mb4.9,baz=1.2,slow=8.4,SNR=11						
ARCES				LR	LR	00 33 55.2	
	comp=Z,139nm,20.2s,MS4.1,baz=148,slow=37						
ARCES	ARCESS Array B	57.88	354	P	P	00 08 13.8	-1.4
ARCES				LR	LR	00 33 55.2	
ARE0	ARCESS Array S	57.88	354	P	P	00 08 15.6	+0.4
TKL	Tuckaleechee C	59.46	70	LR	LR	00 35 10.1	
	comp=Z,133nm,19.5s,MS4.1,baz=304,slow=37						
XAN	Xi’an	59.78	288	P	P	00 08 28.5	-0.5
XAN				pP	pP	00 08 37.8	-0.1
XAN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
GTA	Gaotai	61.09	298	eP	P	00 08 37.5	-0.3
GTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
LZH	Lanzhou	61.24	293	eP	P	00 08 39.5	+0.6
LZH				pP	pP	00 08 48.0	+0.1
LZH				sP	sP	00 08 52.0	+0.7
LZH				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.4						
LZH				pmax	pmax		
	comp=Z,120nm,4.5s						
KURK	Kurchatov	62.78	319	eP	P	00 08 48.0	-1.0
KURK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
KURK	Kurchatov	62.78	319	eP	P	00 08 48.0	-1.0
	comp=Z,2.6nm,0.8s,mb4.4						
PRGR	Permogore	63.10	343	eP	P	00 08 47.9	-3.0
PRGR				pmax	pmax		
	comp=Z,57nm,1.1s,mb5.6						
JOF	Joensuu	63.92	350	ep	P	00 08 54.1	-2.2
	comp=Z,8.7nm,0.8s,mb4.8						
SVE	Sverdlovsk	63.93	333	⇑eP	P	00 08 56.8	+0.3
SVE				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
BRVK	Borovoye	64.05	325	eP	P	00 08 57.2	-0.1
MK31	Makanchi Array	64.27	314	eP	P	00 08 57.9	-1.0
MKAR	Makanchi Array	64.27	314	P	P	00 08 57.6	-1.3
	comp=Z,2.8nm,0.8s,mb4.3,baz=50,slow=6.1,SNR=30						
MKAR				LR	LR	00 37 46.5	
	comp=Z,131nm,18.8s,MS4.1,baz=6.1,slow=37						
ARU	Arti	64.85	333	d iP	P	00 09 01.7	-0.8
ARU				e		00 11 21.6	
ARU				S	S	00 17 40.3	-1.0
ARU				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
KLMR	Klimovskoe	64.86	345	eP	P	00 09 00.6	-1.9
KLMR				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.8						
CD2	Chengdu	65.05	289	P	P	00 09 04.8	+0.6
CD2				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.4						
CD2				pmax	pmax		
	comp=Z,210nm,4.8s						
KAF	Kangasniemi	65.17	353	eP	P	00 09 02.1	-2.4
KAF				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
KAF	Kangasniemi	65.17	353	ep	P	00 09 02.1	-2.4
	comp=Z,17nm,0.6s,mb5.3						
FINES	FINESS Array B	65.85	353	P	P	00 09 07.6	-1.3
	comp=Z,17nm,0.8s,mb5.2,baz=20,slow=7.4,SNR=49						
GYA	Guiyang	66.64	283	P	P	00 09 14.8	+0.3
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
NB2	NORSAR Subarra	66.82	0	P	P	00 09 14.2	-0.9
	comp=Z,8.6nm,0.7s,mb4.9,baz=1.3,slow=6.2						
NOA	NORSAR Array B	66.82	0	P	P	00 09 14.3	-0.8
	comp=Z,7.6nm,0.8s,mb4.8,baz=0.7,slow=6.3,SNR=19						
NOA	NORSAR Array B	66.82	0	P	P	00 09 14.3	-0.8
KMI	Kunming	69.97	285	P	P	00 09 35.8	+0.4
KMI				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
KMI				LR	LR		
	comp=Z,44nm,19.2s,MS3.7						
USP	Ospenovka	70.42	316	P	P	00 09 38.4	+0.5
	SNR=7.6						
KBK	Karagaybulak	70.73	316	P	P	00 09 39.9	+0.1
	SNR=8.5						
OBN	Obninsk	70.82	345	⇑eP	P	00 09 38.7	-1.4
OBN				eS	S	00 18 54.5	+1.8
OBN				pmax	pmax		
	comp=Z,49nm,2.5s,mb5.0						
OBN				MLR	MLR		
	comp=Z,200nm,21.0s,MS4.3						
AAK	Ala-Archa	70.94	316	⇑eP	P	00 09 40.5	-0.5
AAK				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
AAK	Ala-Archa	70.94	316	P	P	00 09 41.4	+0.4
	SNR=10.0						
AAK	Ala-Archa	70.94	316	eP	P	00 09 41.4	+0.4
	comp=Z,9.3nm,0.9s,mb4.7						
KZA	Kyzart	71.07	315	P	P	00 09 42.9	+1.0
	SNR=6.5						
EKS2	Erkin-Say	71.22	317	P	P	00 09 43.0	+0.3
	SNR=9.5						
EKS2	Erkin-Say	71.22	317	eP	P	00 09 42.6	-0.2
	comp=Z,7.3nm,0.9s,mb4.6						
UCH	Uchtor	71.27	316	eP	P	00 09 44.1	+1.1
	comp=Z,2.0nm,0.9s,mb4.0						
PPT	Papeete	71.61	161	LR	LR	00 32 33.1	
	comp=Z,183nm,21.8s,MS4.3,baz=39,slow=29						
AML	Almayashu	71.69	316	P	P	00 09 46.6	+1.0
	SNR=9.2						
AML	Almayashu	71.69	316	eP	P	00 09 46.9	+1.3
	comp=Z,5.8nm,0.8s,mb4.6						
KSH	Kashi	72.84	313	⇑iP	P	00 09 56.0	+3.5
KSH				ePcP	PcP	00 10 12.5	+2.9
KSH				eS	S	00 19 20.5	+4.0
KSH				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
KSH				pmax	pmax		
	comp=Z,340nm,3.5s						
KSH				LR	LR		
	comp=N,310nm,5.8s						
KSH				LR	LR		
	comp=E,300nm,7.0s						
KSH				LR	LR		
	comp=Z,410nm,7.6s						
LSA	Lhasa	73.07	297	eP	P	00 09 55.3	+1.3
LSA				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
LSA	Lhasa	73.07	297	eP	P	00 09 55.2	+1.2
	comp=Z,26nm,0.9s,mb5.2						
SUW	Suwalki	73.45	353	eP	P	00 09 55.0	-0.8
SUW	Suwalki	73.45	353	eP	P	00 09 55.0	-0.8
VRHR	Novokhopersk	73.78	341	eP	P	00 09 57.7	-0.1
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
VRHR				pmax	pmax		
	comp=N,50nm,0.7s						
VSR	Storozhevoye	74.13	343	eP	P	00 09 59.2	-0.7
VSR				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
VSR				pmax	pmax		
	comp=N,4.0nm,0.7s						
VSR				pmax	pmax		
	comp=E,1.0nm,0.9s						
VORD	Divnogorie	74.35	342	eP	P	00 10 00.4	-0.7
VORD				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
VORD				pmax	pmax		
	comp=N,20nm,0.7s						
VORD				pmax	pmax		
	comp=E,20nm,0.5s						
SHL	Shillong	75.88	293	ePKP	P	00 10 11.5	+1.1
CLZ	Clausthal	76.03	1	eP	P	00 10 11.4	+0.6
CLZ				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
CLZ	Clausthal	76.03	1	eP	P	00 10 11.4	+0.6
	comp=Z,20nm,1.1s,mb5.0						
CLZ	Clausthal	76.03	1	eP	P	00 10 11.4	+0.6
	comp=Z,20nm,1.1s,mb5.0						
AKASG	Malin Array Be	76.14	349	P	P	00 10 09.8	-1.7
	comp=Z,9.1nm,0.8s,mb4.7,baz=15,slow=5.8,SNR=23						
CLL	Collm	76.57	359	eP	P	00 10 13.8	-0.1
	comp=Z,6.0nm,0.9s,mb4.5						
CLL	Collm	76.57	359	i P	P	00 10 13.9	0.0
	comp=Z,8.0nm,1.2s,mb4.5						
TAPN	Taplejung	76.78	298	eP	P	00 10 15.6	+0.1
	comp=Z,33nm,1.0s,mb5.2						
BRG	Berggiesshubel	77.00	359	eP	P	00 10 16.1	-0.2
BRG				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
BRG	Berggiesshubel	77.00	359	eP	P	00 10 16.3	0.0
	comp=Z,11nm,1.1s,mb4.7						
BRG	Berggiesshubel	77.00	359	eP	P	00 10 16.1	-0.2
	comp=Z,11nm,1.1s,mb4.7						
CHTO	Chiang Mai	77.05	284	eP	P	00 10 16.8	-0.3
CHTO				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
CHTO	Chiang Mai	77.05	284	eP	P	00 10 16.8	-0.2
	comp=Z,8.7nm,1.3s,mb4.5						
MOX	Moxa	77.24	0	eP	P	00 10 17.6	-0.1
	comp=Z,9.0nm,1.0s,mb4.7						
UPC	Upice	77.32	357	eP	P	00 10 18.2	+0.1
CMAR	Chiang Mai Arr	77.32	284	P	P	00 10 18.6	0.0
	comp=Z,9.3nm,1.0s,mb4.7,baz=26,slow=5.9,SNR=37						
CMAR				LR	LR	00 49 28.1	
	comp=Z,62nm,18.3s,MS4.0,baz=70,slow=40						
GUN	Gumba	77.32	299	eP	P	00 10 18.8	+0.3
	comp=Z,53nm,0.9s,mb5.5						
PVCC	Panska Ves	77.33	358	eP	P	00 10 18.4	+0.2
ODAN	Odare	77.34	298	eP	P	00 10 18.5	-0.2
JIRN	Jiri	77.36	299	eP	P	00 10 19.1	+0.4
	comp=Z,66nm,1.0s,mb5.5						
OJC	Ojcow	77.44	355	eP	P	00 10 19.2	+0.4
DPC	Dobruska-Polom	77.47	357	eP	P	00 10 19.4	+0.5
DPC				ex	x	00 10 32.4	
GIVF	Givet	77.61	5	eP	P	00 10 19.5	-0.2
BAIF	Baives	77.62	5	eP	P	00 10 19.8	0.0
NKC	Novy Kostel	77.65	360	eP	P	00 10 20.5	+0.5
RAMN	Ramite	77.70	298	eP	P	00 10 20.7	+0.1
	comp=Z,59nm,1.0s,mb5.5						
KKN	Kakani	77.74	300	eP	P	00 10 20.9	+0.1
KWP	Kalwaria Pacla	77.84	353	eP	P	00 10 21.4	+0.4
KWP	Kalwaria Pacla	77.84	353	eP	P	00 10 21.4	+0.4
PKI	Pulchoki	77.84	299	eP	P	00 10 21.5	+0.1
	comp=Z,46nm,1.1s,mb5.3						
PKI	Pulchoki	77.84	299	eP	P	00 10 21.8	+0.4
PKI				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
PKI	Pulchoki	77.84	299	eP	P	00 10 21.8	+0.4
	comp=Z,21nm,0.9s,mb5.1						
PKIN	Phulchoki	77.85	299	eP	P	00 10 21.8	+0.4
	comp=Z,21nm,0.9s,mb5.1						
PRU	Pruhonice	77.87	358	eP	P	00 10 21.1	-0.1
MANZ	Manzenberg	77.90	360	eP	P	00 10 21.0	-0.4
	comp=Z,10.0nm,1.3s,mb4.6						
GKN	Gorkha	77.91	300	eP	P	00 10 21.6	-0.2
	comp=Z,52nm,1.1s,mb5.4						
OKC	Ostrava-Krasne	77.91	356	eP	P	00 10 21.9	+0.5
OKC				ex	x	00 10 33.8	
DMN	Daman	77.97	300	eP	P	00 10 22.4	+0.2
	comp=Z,38nm,1.1s,mb5.2						
MORC	Moravsky Berou	78.00	356	eP	P	00 10 20.4	-1.5
MORC				pmax	pmax		
	comp=Z,34nm,1.9s,mb5.0						
MORC	Moravsky Berou	78.00	356	⇑iP	P	00 10 22.0	+0.1
MORC	Moravsky Berou	78.00	356	eP	P	00 10 20.4	-1.5
	comp=Z,34nm,1.9s,mb5.0						
DANN	Dangsing	78.09	301	eP	P	00 10 23.2	+0.4
	comp=Z,52nm,0.7s,mb5.6						
STHS	Stebnicka Huta	78.16	354	eP	P	00 10 23.9	+1.1
STHS				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
STHS	Stebnicka Huta	78.16	354	eP	P	00 10 23.9	+1.1
	comp=Z,7.6nm,1.0s,mb4.6						
GRA1	Grafenberg Arr	78.19	0	eP	P	00 10 23.4	+0.4
	comp=Z,38nm,1.4s,mb5.1						
GRA1				epP	pP	00 10 36.0	+3.8
GRF	Grafenberg Arr	78.19	0	eP	P	00 10 23.4	+0.4
GRF				e*PP	pP	00 10 36.0	+3.8
GRF				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.1						
GRF	Grafenberg Arr	78.19	0	eP	P	00 10 23.4	+0.4
GRF				e*PP	pP	00 10 36.0	+3.8
GRF				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.1						
GRF	Grafenberg Arr	78.19	0	eP	P	00 10 23.4	+0.4
	comp=Z,38nm,1.4s,mb5.1						
GRF				epP	pP	00 10 36.0	+3.8
GRF	Grafenberg Arr	78.19	0	eP	P	00 10 23.4	+0.4
	comp=Z,38nm,1.4s,mb5.1						
GRF				epP	pP	00 10 36.0	+3.8
NIE	Niedzica	78.21	354	eP	P	00 10 24.0	+0.9
VRAC	Vranov	78.50	357	⇓iP	P	00 10 25.2	+0.5
VRAC	Vranov	78.50	357	⇓P	P	00 10 25.2	+0.5
TREC	Trest	78.54	358	eP	P	00 10 25.3	+0.4
KOLS	Kolonicke sedl	78.56	353	eP	P	00 10 25.1	0.0
KOLN	Koldanda	78.64	301	eP	P	00 10 25.8	0.0
CRVS	Cervenica-Dubn	78.65	354	eP	P	00 10 25.4	-0.2
ROSF	Rostrenen	78.72	10	eP	P	00 10 26.9	+0.9
	comp=Z,236nm,1.7s,mb5.5						
ROSF	Rostrenen	78.72	10	eP	P	00 10 26.9	+0.9
ROSF				pmax	pmax		
	comp=Z,118nm,1.7s,mb5.5						
ROSF	Rostrenen	78.72	10	eP	P	00 10 26.9	+0.9
	comp=Z,118nm,1.7s,mb5.5						
WET	Wettzell	78.74	359	eP	P	00 10 26.4	+0.4
WET				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.7						
WET	Wettzell	78.74	359	eP	P	00 10 26.4	+0.4
	comp=Z,14nm,1.4s,mb4.7						
WET	Wettzell	78.74	359	eP	P	00 10 26.4	+0.4
	comp=Z,14nm,1.4s,mb4.7						
KHC	Kasperske Hory	78.75	359	eP	P	00 10 26.6	+0.6
KHC				ex	x	00 10 39.0	
LDF	La Druitiere	78.78	8	eP	P	00 10 25.4	-0.8
GRR	Gorron	78.92	9	eP	P	00 10 27.9	+0.9
	comp=Z,92nm,1.4s,mb5.2						
GRR	Gorron	78.92	9	eP	P	00 10 27.9	+0.9
GRR				pmax	pmax		
	comp=Z,46nm,1.4s,mb5.2						
GRR	Gorron	78.92	9	eP	P	00 10 27.9	+0.9
	comp=Z,46nm,1.4s,mb5.2						
GEC2	GERESS Array S	79.03	359	eP	P	00 10 27.5	-0.1
GEC2				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
GEC2	GERESS Array S	79.03	359	eP	P	00 10 27.5	-0.1
	comp=Z,9.0nm,1.2s,mb4.6						
GEC2	GERESS Array S	79.03	359	eP	P	00 10 27.5	-0.1
	comp=Z,9.0nm,1.2s,mb4.6						
GERES	GERESS Array B	79.03	359	P	P	00 10 27.5	-0.1
	comp=Z,2.9nm,0.9s,mb4.2,baz=328,slow=4.9,SNR=8.0						
KECS	Kecovo	79.14	354	eP	P	00 10 27.3	-0.9
KECS				e		00 10 33.6	
KECS				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
KECS	Kecovo	79.14	354	eP	P	00 10 27.3	-0.9
	comp=Z,5.7nm,1.1s,mb4.4						
KECS				ePP	PcP	00 10 33.6	-2.9
KOLL	Kolacno	79.15	356	eP	P	00 10 28.8	+0.5
VYHS	Vyhne	79.22	355	eP	P	00 10 29.2	+0.6
VYHS				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
VYHS	Vyhne	79.22	355	eP	P	00 10 29.2	+0.6
	comp=Z,9.6nm,1.2s,mb4.6						
MEZF	Maizieres J’vi	79.22	5	eP	P	00 10 28.9	+0.3
SMOL	Smolenice	79.26	356	eP	P	00 10 28.9	0.0
TRPA	Tarpa	79.34	353	⇑iP	P	00 10 29.4	+0.1
CDF	Champ du Feu	79.40	3	eP	P	00 10 29.7	+0.1
MODS	Modra-Piesok	79.41	356	eP	P	00 10 30.6	+0.9
MODS				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
MODS	Modra-Piesok	79.41	356	eP	P	00 10 30.6	+0.9
	comp=Z,8.9nm,1.2s,mb4.6						
BFO	Black Forest	79.51	2	eP	P	00 10 30.4	+0.1
BFO				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
BFO	Black Forest	79.51	2	eP	P	00 10 30.4	+0.1
	comp=Z,20nm,1.4s,mb4.8						
BFO	Black Forest	79.51	2	eP	P	00 10 30.4	+0.1
	comp=Z,20nm,1.4s,mb4.8						
ZST	Bratislava	79.59	356	eP	P	00 10 31.8	+1.1
ZST				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
ZST	Bratislava	79.59	356	eP	P	00 10 31.8	+1.1
	comp=Z,11nm,0.9s,mb4.8						
BUR08	Bucovina Ar. S	79.59	351	eP	P	00 10 30.6	-0.1
BURAR	Bucovina Array	79.62	351	⇑iP	P	00 10 30.5	-0.4
BURAR	Bucovina Array	79.62	351	⇑P	P	00 10 30.5	-0.4
FUR	Furstenfeldbru	79.72	0	eP	P	00 10 32.1	+0.7
FUR				pmax	pmax		
	comp=Z,54nm,1.8s,mb5.2						
FUR	Furstenfeldbru	79.72	0	eP	P	00 10 32.1	+0.7
	comp=Z,54nm,1.8s,mb5.2						
FUR	Furstenfeldbru	79.72	0	eP	P	00 10 32.1	+0.7
	comp=Z,54nm,1.8s,mb5.2						
PSZ	Piszkesteto	79.73	355	eP	P	00 10 32.3	+0.8
PSZ				pmax	pmax		
	comp=Z,46nm,1.8s,mb5.1						
PSZ	Piszkesteto	79.73	355	⇓iP	P	00 10 32.2	+0.7
PSZ	Piszkesteto	79.73	355	eP	P	00 10 32.3	+0.8
	comp=Z,46nm,1.8s,mb5.1						
HAU	Haudompre	79.77	4	eP	P	00 10 31.5	-0.2
	comp=Z,16nm,1.1s,mb4.5						
HAU	Haudompre	79.77	4	eP	P	00 10 31.5	-0.2
HAU				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
HAU	Haudompre	79.77	4	eP	P	00 10 31.5	-0.2
	comp=Z,8.0nm,1.1s,mb4.6						
HINF	Hinteralfeld	79.98	3	eP	P	00 10 32.7	-0.1

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                  comp=Z,15nm,1.0s,mb4.5
HINF  Hinteralfeld      79.98   3  eP       P        00 10 32.7 -0.1
HINF                                pmax    pmax
                  comp=Z,7.0nm,1.0s,mb4.5
HINF  Hinteralfeld      79.98   3  eP       P        00 10 32.7 -0.1
                  comp=Z,7.3nm,1.0s,mb4.6
RJOB  Jochberg          80.15 359  eP       P        00 10 33.7  0.0
                  comp=Z,9.0nm,1.0s,mb4.7
KIV   Kislovodsk        80.32 338  eP       P        00 10 33.5 -1.2
KIV                                 pmax    pmax
                  comp=Z,15nm,1.1s,mb4.8
KIV   Kislovodsk        80.32 338  eP       P        00 10 35.5 +0.7
                  comp=Z,12nm,1.0s,mb4.8
LOR   Lormes            80.38   6  eP       P        00 10 34.9 -0.1
                  comp=Z,32nm,1.2s,mb4.8
LOR   Lormes            80.38   6  eP       P        00 10 34.9 -0.1
LOR                                 pmax    pmax
                  comp=Z,16nm,1.2s,mb4.8
LOR   Lormes            80.38   6  eP       P        00 10 34.9 -0.1
                  comp=Z,16nm,1.2s,mb4.8
SSF   Saint Saulge      80.57   6  eP       P        00 10 36.0  0.0
                  comp=Z,20nm,1.0s,mb4.7
SSF   Saint Saulge      80.57   6  eP       P        00 10 36.0  0.0
SSF                                 pmax    pmax
                  comp=Z,10.0nm,1.0s,mb4.7
SSF   Saint Saulge      80.57   6  eP       P        00 10 36.0  0.0
                  comp=Z,10.0nm,1.0s,mb4.7
MFF   Saint Martin d    80.75   8  eP       P        00 10 37.1 +0.1
                  comp=Z,57nm,1.1s,mb5.1
MFF   Saint Martin d    80.75   8  eP       P        00 10 37.1 +0.1
MFF                                 pmax    pmax
                  comp=Z,28nm,1.1s,mb5.1
MFF   Saint Martin d    80.75   8  eP       P        00 10 37.1 +0.1
                  comp=Z,28nm,1.1s,mb5.1
AVF   Avril sur Loir    80.83   6  eP       P        00 10 37.2 -0.2
                  comp=Z,35nm,1.1s,mb4.9
AVF   Avril sur Loir    80.83   6  eP       P        00 10 37.2 -0.2
AVF                                 pmax    pmax
                  comp=Z,17nm,1.1s,mb4.9
AVF   Avril sur Loir    80.83   6  eP       P        00 10 37.2 -0.2
                  comp=Z,17nm,1.1s,mb4.9
SMF   Signal de Mont    81.00   6  eP       P        00 10 38.2 -0.1
                  comp=Z,38nm,1.0s,mb5.0
SMF   Signal de Mont    81.00   6  eP       P        00 10 38.2 -0.1
SMF                                 pmax    pmax
                  comp=Z,19nm,1.0s,mb5.0
SMF   Signal de Mont    81.00   6  eP       P        00 10 38.2 -0.1
                  comp=Z,19nm,1.0s,mb5.0
BGF   Bois d'Agland     81.03   6  eP       P        00 10 38.3 -0.1
                  comp=Z,45nm,1.2s,mb5.0
BGF   Bois d'Agland     81.03   6  eP       P        00 10 38.3 -0.1
BGF                                 pmax    pmax
                  comp=Z,22nm,1.2s,mb5.0
BGF   Bois d'Agland     81.03   6  eP       P        00 10 38.3 -0.1
                  comp=Z,22nm,1.2s,mb5.0
CABF  La Chapelle       81.15   4  eP       P        00 10 39.7 +0.6
                  comp=Z,57nm,1.2s,mb5.1
CABF  La Chapelle       81.15   4  eP       P        00 10 39.7 +0.6
CABF                                pmax    pmax
                  comp=Z,28nm,1.2s,mb5.1
CABF  La Chapelle       81.15   4  eP       P        00 10 39.7 +0.6
                  comp=Z,28nm,1.2s,mb5.1
TCF   Toulx Ste Croi    81.25   7  eP       P        00 10 39.4 -0.2
                  comp=Z,14nm,1.0s,mb4.6
TCF   Toulx Ste Croi    81.25   7  eP       P        00 10 39.4 -0.2
TCF                                 pmax    pmax
                  comp=Z,7.0nm,1.0s,mb4.5
TCF   Toulx Ste Croi    81.25   7  eP       P        00 10 39.4 -0.2
                  comp=Z,7.2nm,1.0s,mb4.6
SOC   Sochi             81.33 340  i P      P        00 10 41.6 +1.5
ONI   Oni               81.45 337    P      P        00 10 41.8 +1.1
MLR   Muntele Rosu      81.65 350⇑iP       P        00 10 43.0 +1.2
MLR   Muntele Rosu      81.65 350 ⇑P       P        00 10 43.0 +1.2
VOIR                    81.79 351⇑iP       P        00 10 43.7 +1.2
BZS   Buzias            81.91 353⇑iP       P        00 10 43.5 +0.4
BZS   Buzias            81.91 353 ⇑P       P        00 10 43.5 +0.3
TBLG  Delisi            81.93 336  eP       P        00 10 43.7 +0.4
TBLG  Delisi            81.93 336    P      P        00 10 43.7 +0.4
MTA   Mtatsminda        81.95 336    P      P        00 10 42.0 -1.4
GZR   Gura Zlata        82.04 352⇓iP       P        00 10 44.0 +0.2
GZR   Gura Zlata        82.04 352 ⇓P       P        00 10 44.0 +0.1
RJF   Les Rejaudoux     82.18   7  eP       P        00 10 44.3 -0.2
                  comp=Z,12nm,0.8s,mb4.6
RJF   Les Rejaudoux     82.18   7  eP       P        00 10 44.3 -0.2
RJF                                 pmax    pmax
                  comp=Z,6.0nm,0.8s,mb4.6
RJF   Les Rejaudoux     82.18   7  eP       P        00 10 44.3 -0.2
                  comp=Z,6.0nm,0.8s,mb4.6
LPL   La Plagne         82.27   4  eP       P        00 10 46.4 +1.4
                  comp=Z,23nm,1.4s,mb4.6
LPL   La Plagne         82.27   4  eP       P        00 10 46.4 +1.4
LPL                                 pmax    pmax
                  comp=Z,12nm,1.4s,mb4.6
LPL   La Plagne         82.27   4  eP       P        00 10 46.4 +1.4
                  comp=Z,12nm,1.4s,mb4.6
LPG   La Plagne         82.29   4  eP       P        00 10 46.6 +1.5
                  comp=Z,27nm,1.3s,mb4.7
LPG   La Plagne         82.29   4  eP       P        00 10 46.6 +1.5
LPG                                 pmax    pmax
                  comp=Z,13nm,1.3s,mb4.7
LPG   La Plagne         82.29   4  eP       P        00 10 46.6 +1.5
                  comp=Z,13nm,1.3s,mb4.7
TIRR  Tirgusor          82.38 348  eP       P        00 10 46.0 +0.4
TIRR                                pmax    pmax
                  comp=Z,6.0nm,0.8s,mb4.6
TIRR  Tirgusor          82.38 348⇓iP       P        00 10 45.8 +0.2
TIRR  Tirgusor          82.38 348  eP       P        00 10 46.0 +0.4
                  comp=Z,6.3nm,0.8s,mb4.6
LFF   La Frestale       82.48   8  eP       P        00 10 46.1  0.0
                  comp=Z,31nm,0.9s,mb4.9
LFF   La Frestale       82.48   8  eP       P        00 10 46.1  0.0
LFF                                 pmax    pmax
                  comp=Z,15nm,0.9s,mb4.9
LFF   La Frestale       82.48   8  eP       P        00 10 46.1  0.0
                  comp=Z,15nm,0.9s,mb4.9
CAF   Calviac           82.60   7  eP       P        00 10 46.9 +0.2
                  comp=Z,18nm,0.9s,mb4.8
CAF   Calviac           82.60   7  eP       P        00 10 46.9 +0.2
CAF                                 pmax    pmax
                  comp=Z,9.0nm,0.9s,mb4.8
CAF   Calviac           82.60   7  eP       P        00 10 46.9 +0.2
                  comp=Z,8.8nm,0.9s,mb4.8
BNI   Bardonecchia      82.73   4  eP       P        00 10 49.5 +2.0
BNI                                 pmax    pmax
                  comp=Z,13nm,0.9s,mb5.0
BNI   Bardonecchia      82.73   4  eP       P        00 10 49.5 +2.1
                  comp=Z,12nm,0.9s,mb4.9
ORIF  Oris-en-Rattie    82.83   4  eP       P        00 10 48.7 +0.7
                  comp=Z,12nm,1.0s,mb4.6
ORIF  Oris-en-Rattie    82.83   4  eP       P        00 10 48.7 +0.7
ORIF                                pmax    pmax
                  comp=Z,6.0nm,1.0s,mb4.6
ORIF  Oris-en-Rattie    82.83   4  eP       P        00 10 48.7 +0.7
                  comp=Z,6.3nm,1.0s,mb4.6
VIVF  Saint-Julien-l    82.83   5  eP       P        00 10 48.4 +0.4
                  comp=Z,12nm,0.9s,mb4.6
VIVF  Saint-Julien-l    82.83   5  eP       P        00 10 48.4 +0.4
VIVF                                pmax    pmax
                  comp=Z,6.0nm,0.9s,mb4.6
VIVF  Saint-Julien-l    82.83   5  eP       P        00 10 48.4 +0.4
                  comp=Z,6.2nm,0.9s,mb4.6
MBDF  Montbardon        83.06   4  eP       P        00 10 50.5 +1.3
                  comp=Z,21nm,0.8s,mb4.9
MBDF  Montbardon        83.06   4  eP       P        00 10 50.5 +1.3
MBDF                                pmax    pmax
                  comp=Z,10.0nm,0.8s,mb4.9
MBDF  Montbardon        83.06   4  eP       P        00 10 50.5 +1.3
                  comp=Z,10nm,0.8s,mb4.9
GNI   Garni             83.42 335⇑eP       P        00 10 51.1  0.0
GNI                                 pmax    pmax
                  comp=Z,15nm,1.7s
GNI   Garni             83.42 335    P      P        00 10 52.2 +1.1
                  comp=Z,4.1nm,0.8s,mb4.5,baz=57,slow=3.9,SNR=8.8
GNI   Garni             83.42 335  eP       P        00 10 52.2 +1.1
                  comp=Z,5.6nm,0.8s,mb4.7
LASF  Ste Croix         83.56   6  eP       P        00 10 51.5 -0.3
                  comp=Z,48nm,1.5s,mb5.1
SMRF  Simiane la Rot    83.76   5  eP       P        00 10 54.0 +1.2
                  comp=Z,45nm,1.3s,mb5.1
SMRF  Simiane la Rot    83.76   5  eP       P        00 10 54.0 +1.2
                  comp=Z,45nm,1.3s,mb5.4
SBF   Sospel            83.95   3  eP       P        00 10 54.1 +0.4
                  comp=Z,30nm,0.8s,mb5.2
SBF   Sospel            83.95   3  eP       P        00 10 54.1 +0.4
SBF                                 pmax    pmax
                  comp=Z,15nm,0.8s,mb5.2
SBF   Sospel            83.95   3  eP       P        00 10 54.1 +0.4
                  comp=Z,15nm,0.8s,mb5.2
MTLF  Montolieu         84.18   7  eP       P        00 10 55.4 +0.5
                  comp=Z,39nm,1.2s,mb5.1
MTLF  Montolieu         84.18   7  eP       P        00 10 55.4 +0.5
MTLF                                pmax    pmax
                  comp=Z,19nm,1.2s,mb5.1
MTLF  Montolieu         84.18   7  eP       P        00 10 55.4 +0.5
                  comp=Z,19nm,1.2s,mb5.1
FRF   La Foret Royal    84.22   4  eP       P        00 10 55.5 +0.4
                  comp=Z,31nm,1.0s,mb5.1
FRF   La Foret Royal    84.22   4  eP       P        00 10 55.5 +0.4
FRF                                 pmax    pmax
                  comp=Z,16nm,1.0s,mb5.1
FRF   La Foret Royal    84.22   4  eP       P        00 10 55.5 +0.4
                  comp=Z,16nm,1.0s,mb5.1
EPF   Esparros          84.34   8  eP       P        00 10 55.4 -0.3
                  comp=Z,28nm,1.0s,mb5.0
EPF   Esparros          84.34   8  eP       P        00 10 55.4 -0.3
EPF                                 pmax    pmax
                  comp=Z,14nm,1.0s,mb5.0
EPF   Esparros          84.34   8  eP       P        00 10 55.4 -0.3
                  comp=Z,14nm,1.0s,mb5.0
ETSF  Etsaut            84.38   9  eP       P        00 10 56.6 +0.6
                  comp=Z,21nm,0.8s,mb5.0
ETSF  Etsaut            84.38   9  eP       P        00 10 56.6 +0.6
ETSF                                pmax    pmax
                  comp=Z,11nm,0.8s,mb5.0
ETSF  Etsaut            84.38   9  eP       P        00 10 56.6 +0.6
                  comp=Z,11nm,0.8s,mb5.0
LMR   La Mourre         84.44   4  eP       P        00 10 56.8 +0.6
                  comp=Z,30nm,1.1s,mb5.0
LMR   La Mourre         84.44   4  eP       P        00 10 56.8 +0.6
LMR                                 pmax    pmax
                  comp=Z,15nm,1.1s,mb5.0
LMR   La Mourre         84.44   4  eP       P        00 10 56.8 +0.6
                  comp=Z,15nm,1.1s,mb5.0
PGF   Pioggiola         85.31   2  eP       P        00 11 01.0 +0.4
                  comp=Z,103nm,1.1s,mb5.6
PGF   Pioggiola         85.31   2  eP       P        00 11 01.0 +0.4
PGF                                 pmax    pmax
                  comp=Z,51nm,1.1s,mb5.6
PGF   Pioggiola         85.31   2  eP       P        00 11 01.0 +0.4
                  comp=Z,51nm,1.1s,mb5.6
BRTR  Keskin Array B    86.23 343    P      P        00 11 05.6 +0.4
                  comp=Z,7.9nm,1.0s,mb4.9
MALT  Malatya           86.66 339  eP       P        00 11 08.3 +0.9
MALT                                pmax    pmax
                  comp=Z,4.0nm,1.1s,mb4.6
MALT  Malatya           86.66 339⇓iP       P        00 11 08.9 +1.5
MALT  Malatya           86.66 339  eP       P        00 11 08.2 +0.9
                  comp=Z,3.6nm,1.1s,mb4.5
ESDC  Sonseca Array     87.19  12    P      P        00 11 09.4 -0.5
                  comp=Z,5.4nm,0.8s,mb4.8,baz=346,slow=4.4,SNR=24
WRA   Warramunga Arr    87.67 233    P      P        00 11 11.2 -1.2
                  comp=Z,0.8nm,1.0s,mb3.9,baz=33,slow=5.6,SNR=4.5
ISP   Isparta           88.58 345    P      P        00 11 17.7 +1.1
TIP   Timpagrande       88.61 356  eP       P        00 11 16.5 -0.2
PSI   Prapat            89.59 274    P      P        00 11 21.9 +0.2
                  comp=Z,1.6nm,0.4s,mb4.7,baz=1.5,slow=24,SNR=6.7
HYB   Hyderabad         89.75 299  eP       sP       00 11 34.0 -1.1
ASAR  Alice Springs     91.05 231    P      P        00 11 27.1 -1.0
                  comp=Z,2.0nm,0.9s,mb4.4,baz=38,slow=3.9,SNR=11
KEST  Kesra             92.12   2    P      P        00 11 33.3 +0.1
                  comp=Z,0.8nm,0.9s,mb4.1,baz=70,slow=6.5,SNR=4.7
TORD  Torodi Ar. Bea   114.04  11    PKiKP  PKiKP    00 17 01.7 -1.4
                  comp=Z,0.6nm,0.9s,baz=341,slow=3.6,SNR=2.9
QSPA  South Pole Qui   142.25 180    PKhKP           00 17 48.2
                  comp=Z,0.7nm,0.6s,baz=80,slow=2.2,SNR=4.5
QSPA                                 PKP    PKPdf    00 17 56.0 +1.6
                  comp=Z,0.6nm,0.5s,baz=76,slow=5.2,SNR=4.3
BOSA  Boshof           154.15 332    PKPbc  PKPbc    00 18 21.4 -2.0
                  comp=Z,4.6nm,1.1s,baz=40,slow=2.9,SNR=3.1
BOSA                                 PKPab  PKPab    00 18 37.1  0.0
                  comp=Z,3.4nm,0.9s,baz=24,slow=1.7,SNR=4.8
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NEIC ***27*** *00:00:52.5, 40°.20N×20°.74E, h5^{km}, MD3.4(ATH), After ATH.*
CSEM ***27*** *00:00:52.9±0.2, 40°.16N×20°.73E, h2^{km}, MD3.4, Error ellipse: s-maj=5.7km s-min=3.5km az=104.0*
ISCJB ***27*** *00:00:52.8±0.4, 40°.18N±0°.02×20°.70E±0°.04, h10^{km}, Error ellipse: s-maj=4.8km s-min=2.7km az=19.3*
ATH ***27*** *00:00:52.5, 40°.20N×20°.74E, h5^{km}±4^{km}, MD3.4/11*
THE ***27*** *00:00:53.0, 40°.18N×20°.72E, h0^{km}±2^{km}, ML2.8/4, Error ellipse: s-maj=2.2km s-min=0.6km az=289.0*
SKO ***27*** *00:00:54.0, 40°.10N×20°.91E, h1^{km}, M1.9, ML2.3*
ISC 27 00:00:53.4±0.5**, 40°.16N**±0°.02×**20°.74E**±0°.04**, h2**^{km}±6^{km}**, n46,** σ**1^{s}04**/70**, Greece-Albania border region**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s   ISC
JAN   Janina            0.51 170  ePB      Pg       00 01 02.3 -0.8
JAN                               eSB      Sg       00 01 10.6 +0.9
JAN   Janina            0.51 170  ePb      Pg       00 01 02.3 -0.8
JAN                               eSb      Sg       00 01 10.6 +0.9
MEV   Metsovon          0.53 134   P       Pg       00 01 03.6 +0.1
MEV   Metsovon          0.53 134   P       Pg       00 01 03.6 +0.1
IGT   Igoumenitsa       0.70 207   P       Pg       00 01 05.7 -1.0
IGT                                S       Sg       00 01 17.4 +1.6
IGT   Igoumenitsa       0.70 207   P       Pg       00 01 05.7 -1.0
IGT                                S       Sg       00 01 17.4 +1.6
FNA   Florina           0.79  38   P       Pg       00 01 08.1 -0.5
FNA                                S       Sg       00 01 19.8 +0.9
FNA   Florina           0.79  38   P       Pg       00 01 08.1 -0.5
FNA                                S       Sg       00 01 19.8 +0.9
KZN   Kozani            0.81  79  ePB      Pg       00 01 08.6 -0.2
KZN   Kozani            0.81  79  ePb      Pg       00 01 08.6 -0.2
KEK   Kerkira           0.85 239  ePG      Pg       00 01 08.6 -1.0
KEK                               eSB      Sg       00 01 21.4 +0.8
KEK   Kerkira           0.85 239  ePg      Pg       00 01 08.6 -1.0
KEK                               eSb      Sg       00 01 21.4 +0.8
OHR   Ohrid             0.95   3  ePg      Pg       00 01 11.9 +0.2
OHR                               eSg      Sg       00 01 25.8 +1.8
OHR                               eLg               00 01 26.9
            comp=E,58nm,0.5s
OHR                               eLg               00 01 28.1
            comp=N,54nm,0.6s
OHR   Ohrid             0.95   3  ePg      Pg       00 01 11.8 +0.1
OHR                                S       Sg       00 01 24.2 +0.2
OHR                               eSg      Sg       00 01 25.8 +1.8
OHR                               eLg               00 01 26.9
            comp=N,58nm,0.5s
BIA   Bitola            0.97  27   P       Pg       00 01 10.5 -1.5
BIA                                S       Sg       00 01 24.7 +0.2
BIA   Bitola            0.97  27  ePg      Pg       00 01 10.8 -1.2
BIA                               eSg      Sg       00 01 24.9 +0.3
BIA                               eLg               00 01 25.4
            comp=E,24nm,0.2s
BIA                               eLg               00 01 26.0
            comp=N,22nm,0.2s
BIA   Bitola            0.97  27  ePg      Pg       00 01 10.8 -1.2
BIA                               eSg      Sg       00 01 24.8 +0.3
BIA                               eLg               00 01 25.4
            comp=N,24nm,0.2s
THL   Klokotos Trika    1.15 121   P       Pg       00 01 14.5 -0.9
THL                                S       Sg       00 01 32.3 +2.1
THL   Klokotos Trika    1.15 121  ePN      Pn       00 01 14.2 -2.2
THL                               eSB      Sb       00 01 30.1 -1.1
THL   Klokotos Trika    1.15 121  ePn      Pn       00 01 14.2 -2.2
THL                               eSb      Sb       00 01 30.1 -1.1
THL                                S       Sg       00 01 32.3 +2.1
KRUS  Krusevo           1.27  18  ePg      Pg       00 01 16.8 -0.9
KRUS                              eSg      Sg       00 01 34.8 +0.6
KRUS                              eLg               00 01 35.4
            comp=N,9.6nm,0.3s
KRUS                              eLg               00 01 35.5
            comp=E,11nm,0.3s
KRUS  Krusevo           1.27  18  ePg      Pg       00 01 16.8 -0.9
KRUS                              eSg      Sg       00 01 34.8 +0.6
KRUS                              eLg               00 01 35.4
            comp=E,9.6nm,0.3s
LIT   Litokhoron        1.34  92   P       Pn       00 01 19.3 +0.2
LIT                                S       Sg       00 01 38.3 +1.7
LIT   Litokhoron        1.34  92  ePB      Pb       00 01 18.2 -1.1
LIT   Litokhoron        1.34  92  ePb      Pb       00 01 18.2 -1.1
LIT   Litokhoron        1.34  92   P       Pn       00 01 19.3 +0.2
LIT                                S       Sg       00 01 38.3 +1.7
LKD   Levkas            1.45 183   P       Pn       00 01 20.3 -0.3
LKD                                S       Sb       00 01 40.9 +1.0
LKD   Levkas            1.45 183   P       Pn       00 01 20.3 -0.3
LKD                                S       Sb       00 01 40.9 +1.0
EVR   Evrytania         1.49 146  ePG      Pg       00 01 20.5 -1.4
EVR   Evrytania         1.49 146  ePg      Pg       00 01 20.5 -1.4
AGG   Agios Georgios    1.67 132  ePG      Pg       00 01 24.1 -1.3
AGG   Agios Georgios    1.67 132  ePg      Pg       00 01 24.1 -1.3
VAY   Valandovo         1.81  50  ePn      Pn       00 01 25.4 -0.2
VAY   Valandovo         1.81  50  ePn      Pn       00 01 25.3 -0.3
EFP   Efpalio           1.95 152  ePG      Pg       00 01 30.4 -0.4
EFP   Efpalio           1.95 152  ePg      Pg       00 01 30.4 -0.4
VLS   Valsamata         1.98 183   P       Pn       00 01 27.9  0.0
VLS   Valsamata         1.98 183   P       Pn       00 01 27.9  0.0
SOH   Sokhos            2.10  71  ePN      Pn       00 01 30.0 +0.4
SOH   Sokhos            2.10  71  ePn      Pn       00 01 30.0 +0.4
LKR   Lokris            2.31 130  ePN      Pn       00 01 34.2 +1.8
LKR   Lokris            2.31 130  ePn      Pn       00 01 34.2 +1.8
GUR   Goura             2.55 150  ePN      Pn       00 01 36.7 +1.1
GUR   Goura             2.55 150  ePN      Pn       00 01 36.7 +1.1
GUR   Goura             2.55 150  ePn      Pn       00 01 36.7 +1.1
GUR   Goura             2.55 150  ePn      Pn       00 01 36.7 +1.1
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CSEM ***27*** *00:08:00.0, 36°.26N×21°.74E, h17^{km}, MD3.5, After ATH*
NEIC ***27*** *00:08:00.0, 36°.26N×21°.74E, h17^{km}, MD3.5(ATH), After ATH.*
ATH 27 00:08:00.0, 36°.26N×21°.74E, h17^{km}±2^{km}**, MD3.5**/8**, Southern Greece**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s   ISC
PYL   PYLOS             0.63   0  ePB      Pb       00 08 11.9 -0.7
PYL                               eSB      Sb       00 08 20.8 -0.4
PYL   PYLOS             0.63   0  ePb      Pb       00 08 11.9 -0.7
PYL                               eSb      Sb       00 08 20.8 -0.4
ITM   Ithomi            0.93   9  ePN      Pn       00 08 17.4 -0.9
ITM                               eSN      Sn       00 08 31.2  0.0
ITM   Ithomi            0.93   9  ePn      Pn       00 08 17.4 -0.9
ITM                               eSn      Sn       00 08 31.2  0.0
KYTH  Kithira           1.05  88  ePN      Pn       00 08 20.2 +0.3
KYTH  Kithira           1.05  88  ePn      Pn       00 08 20.2 +0.3
VLI   Veliai            1.07  64  ePN      Pn       00 08 20.4 +0.2
VLI                               eSN      Sn       00 08 35.1 +0.5
VLI   Veliai            1.07  64  ePn      Pn       00 08 20.4 +0.2
VLI                               eSn      Sn       00 08 35.1 +0.5
VLX   Vlachokerasia     1.22  25  ePN      Pn       00 08 22.5 +0.2
VLX                               eSN      Sn       00 08 40.3 +1.9
VLX   Vlachokerasia     1.22  25  ePn      Pn       00 08 22.5 +0.2
VLX                               eSn      Sn       00 08 40.3 +1.9
DID   Didima            1.73  44  ePN      Pn       00 08 30.6 +1.3
DID   Didima            1.73  44  ePn      Pn       00 08 30.6 +1.3
GUR   Goura             1.74  16  ePN      Pn       00 08 32.4 +3.0
GUR   Goura             1.74  16  ePn      Pn       00 08 32.4 +3.0
RLS   Riolos of Patr    1.81 353  ePN      Pn       00 08 32.4 +2.1
RLS   Riolos of Patr    1.81 353  ePn      Pn       00 08 32.4 +2.1
LTK   Loutraki          2.01  29  ePN      Pn       00 08 35.5 +2.3
LTK   Loutraki          2.01  29  ePn      Pn       00 08 35.5 +2.3
VLS   Valsamata         2.12 335  ePB      Pb       00 08 35.5 -2.5
VLS   Valsamata         2.12 335  ePb      Pb       00 08 35.5 -2.5
EFP   Efpalio           2.17   3  ePN      Pn       00 08 38.4 +3.1
EFP   Efpalio           2.17   3  ePn      Pn       00 08 38.4 +3.1
AGG   Agios Georgios    2.80   9  ePB      Pb       00 08 47.4 -2.1
AGG   Agios Georgios    2.80   9  ePb      Pb       00 08 47.4 -2.1
```

TIR ***27*** *00:24:42.9, 42°.43N×19°.82E, h6^{km}, ML2.5*
CSEM ***27*** *00:24:42.0±0.2, 42°.38N×19°.89E, h2^{km}, ML2.3/8, Error ellipse: s-maj=3.9km s-min=3.3km az=146.0*
ISCJB ***27*** *00:24:42.3±0.3, 42°.43N±0°.02×19°.88E±0°.02, h10^{km}, Error ellipse: s-maj=2.6km s-min=2.3km az=159.9*
PDG ***27*** *00:24:43.1±0.2, 42°.41N×19°.82E, h0^{km}±11^{km}, MD2.4/3, ML2.3/8, Error ellipse: s-maj=0.6km s-min=0.9km az=0.0*
BEO ***27*** *00:24:44.7±1.0, 42°.44N×19°.91E, h0^{km}, ML2.1/6*
SKO ***27*** *00:24:44.0, 42°.44N×19°.87E, h4^{km}*
ISC 27 00:24:43.2±0.3**, 42°.43N**±0°.02×**19°.86E**±0°.02**, h10**^{km}**, n45,** σ**1^{s}24**/82**, 19C-6D, Northwestern Balkan Peninsula**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s   ISC
PVY   Plav              0.19  26⇑iPg       Pg       00 24 46.8 -0.4
PVY                               eSg      Sg       00 24 50.5 +0.6
PVY   Plav              0.19  26⇑iPg       Pg       00 24 46.8 -0.4
PVY                               eSg      Sg       00 24 50.5 +0.6
PUK   Puka              0.38 177  ePG      Pg       00 24 49.6 -1.2
PUK                               i SG     Sg       00 24 56.7 +0.8
PUK   Puka              0.38 177  ePg      Pg       00 24 49.6 -1.2
      SNR=104
PUK                               i Sg     Sg       00 24 56.7 +0.8
      SNR=104
BEY   Berane            0.45   3⇑iPg       Pg       00 24 51.6 -0.3
BEY                               eSg      Sg       00 24 59.1 +1.3
IVA   Berane            0.45   3⇑iPg       Pg       00 24 51.6 -0.3
IVA                               eSg      Sg       00 24 59.1 +1.3
PDG   Podgorica         0.45 271⇑iPg       Pg       00 24 50.0 -1.9
PDG                               eSg      Sg       00 24 56.7 -1.1
TTG   Podgorica         0.45 271⇑iPg       Pg       00 24 50.0 -1.9
TTG                               eSg      Sg       00 24 56.7 -1.1
ULC   Ulcinj            0.65 225⇑iPg       Pg       00 24 54.6 -1.2
ULC                               eSg      Sg       00 25 04.4 +0.1
ULC   Ulcinj            0.65 225⇑iPg       Pg       00 24 54.6 -1.2
ULC                               eSg      Sg       00 25 04.4 +0.1
BUM   Brajici-Budva     0.73 260⇑iPg       Pg       00 24 55.9 -1.3
BUM                               eSg      Sg       00 25 07.0 +0.3
BUM   Brajici-Budva     0.73 260⇑iPg       Pg       00 24 55.9 -1.3
BUM                               eSg      Sg       00 25 07.0 +0.3
NKY   Niksic            0.75 301⇑iPg       Pg       00 24 56.1 -1.5
NKY                               eSg      Sg       00 25 08.4 +1.1
NKY   Niksic            0.75 301⇑iPg       Pg       00 24 56.1 -1.5
NKY                               eSg      Sg       00 25 08.4 +1.1
SJES  Sjenica           0.84   6  ePg      Pg       00 24 59.5 +0.1
SJES                              eSg      Sg       00 25 10.3  0.0
SJES  Sjenica           0.84   6  ePg      Pg       00 24 59.5 +0.1
SJES                              eSg      Sg       00 25 10.3  0.0
PHP   Peshkopia         0.86 150  ePG      Pg       00 24 57.2 -2.5
PHP                               i SG     Sg       00 25 12.9 +2.0
PHP   Peshkopia         0.86 150  ePg      Pg       00 24 57.2 -2.5
      SNR=93
PLE   Pljevlja          0.97 339⇓iPg       Pg       00 25 01.3 -0.5
PLE                               eSg      Sg       00 25 16.0 +1.6
PLE   Pljevlja          0.97 339⇓iPg       Pg       00 25 01.3 -0.5
PLE                               eSg      Sg       00 25 16.0 +1.6
HCY   Herceg Novi       1.01 272⇓iPg       Pg       00 25 00.9 -1.7
HCY                               eSg      Sg       00 25 16.6 +0.8
HCY   Herceg Novi       1.01 272⇓iPg       Pg       00 25 00.9 -1.7
HCY                               eSg      Sg       00 25 16.6 +0.8
UPM   Unac-Piva         1.05 318⇑iPg       Pg       00 25 02.4 -0.9
UPM                               eSg      Sg       00 25 18.9 +2.0
UPM   Unac-Piva         1.05 318⇑iPg       Pg       00 25 02.4 -0.9
UPM                               eSg      Sg       00 25 18.9 +2.0
TIR   Tirane            1.08 180  ePG      Pg       00 25 05.6 +1.7
TIR                               i SG     Sg       00 25 21.7 +3.8
TIR   Tirane            1.08 180  ePg      Pg       00 25 05.6 +1.7
      SNR=92
BRY   Bratogost         1.08 296⇓iPg       Pg       00 25 02.0 -2.0
BRY                               eSg      Sg       00 25 19.3 +1.2
BRY   Bratogost         1.08 296⇓iPg       Pg       00 25 02.0 -2.0
BRY                               eSg      Sg       00 25 19.3 +1.2
BBLS  Lazi&#263;i       1.48 347  ePg      Pg       00 25 10.8 -0.7
BBLS                              eSg      Sg       00 25 31.8 +1.1
BBLS  Lazi&#263;i       1.48 347  ePg      Pg       00 25 10.8 -0.7
BBLS                              eSg      Sg       00 25 31.8 +1.1
KRUS  Krusevo           1.48 135  ePn      Pn       00 25 10.9 +1.0
KRUS                              eSg      Sg       00 25 31.6 +0.8
OHR   Ohrid             1.49 152  ePn      Pn       00 25 11.3 +1.3
OHR                               eSg      Sg       00 25 31.6 +0.6
BARS  Barje             1.49  74⇑iPg       Pg       00 25 10.7 -1.1
BARS                              eSg      Sg       00 25 31.1 -0.1
BARS  Barje             1.49  74⇑iPg       Pg       00 25 10.7 -1.1
BARS                              eSg      Sg       00 25 31.1 -0.1
GRUS  Gruza             1.59  23⇑iPg       Pg       00 25 12.1 -1.6
GRUS                              eSg      Sg       00 25 34.8 +0.5
STON  Ston              1.66 286  ePn      Pn       00 25 12.4 +0.1
STON                               Sn      Sn       00 25 37.9 +4.3
STON  Ston              1.66 286  ePn      Pn       00 25 12.4 +0.1
STON                               Sn      Sn       00 25 37.8 +4.2
DIVS  Divibare          1.67   3  ePg      Pg       00 25 15.3  0.0
DIVS  Divibare          1.67   3  ePg      Pg       00 25 15.3  0.0
BOLS  Boljevac          2.08  47  ePg      Pg       00 25 22.2 -0.8
BOLS  Boljevac          2.08  47  ePg      Pg       00 25 22.2 -0.8
ZAPS  Zavoj             2.21  67⇑iPg       Pg       00 25 23.3 -2.2
ZAPS  Zavoj             2.21  67⇑iPg       Pg       00 25 23.3 -2.2
NVLJ  Novalja           4.21 302  ePn      Pn       00 25 50.0 +2.6
NVLJ                               Sn      Sn       00 26 40.4 +3.7
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Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
NVLJ	Novalja	4.21	302	ePn	Pn	00 25 50.0	+2.6
NVLJ				Sn	Sn	00 26 40.3	+3.6

ISCJB ***27*** *00:42:55.0±0.4, 37.°10N±0.°03×71.°74E±0.°05, h131^{km}±7^{km}, mb3.4/5, Error ellipse: s-maj=6.9km s-min=4.1km az=164.9*

NEIC ***27*** *00:42:55.7±0.6, 37.°08N×71.°78E, h123^{km}±7^{km}, mb4.8/11, Error ellipse: s-maj=6.7km s-min=4.1km az=54.0*

IDC ***27*** *00:42:55.5±4.8, 37.°08N×71.°86E, h122^{km}±36^{km}, mb3.2/5, mb1 3.3/10, mb1mx3.1/29, mbtmp3.2/10, Error ellipse: s-maj=51.0km s-min=26.2km az=143.0*

NNC ***27*** *00:42:59.9±6.8, 37.°95N×70.°77E, h0^{km}, mb4.4, mpv4.0, Error ellipse: s-maj=55.1km s-min=50.6km az=46.0*

ISC 27 00:42:56.2±0.4**, 37.°11N**±0.°03×**71.°77E**±0.°05**, h127**^{km}±6^{km}**, n58, σ1.^{s}01**/70**, mb3.5**/5**, 5C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	3.28	178	P	Pn	00 43 49.1	+2.8
CEP				S	Sn	00 44 29.0	+3.9
KBL	Kabul	3.39	222	ePn	Pn	00 43 47.3	-0.4
KBL				eSn	Sn	00 44 27.0	-0.6
KSH	Kashi	4.08	53	Pn	Pn	00 43 54.5	-2.4
KSH				Sn	Sn	00 44 37.0	-7.0
KSH				smax			
	comp=N,630nm,0.4s						
KSH				smax			
	comp=E,490nm,0.4s						
AML	Almayashu	5.23	16	P	Pn	00 44 12.3	+0.1
	SNR=49						
UCH	Uchtor	5.53	22	P	Pn	00 44 16.9	+0.6
	SNR=13						
KZA	Kyzart	5.64	27	P	Pn	00 44 18.5	+0.8
	SNR=16						
THN	Thein Dam	5.68	144	ePKP	Pn	00 44 19.9	+1.5
THN				eS	Sn	00 45 22.1	-0.3
EKS2	Erkin-Say	5.76	15	P	Pn	00 44 19.8	+0.6
	SNR=9.3						
AAK	Ala-Archa	5.90	20	P	Pn	00 44 22.1	+0.9
	SNR=16						
AAK	Ala-Archa	5.90	20	P	Pn	00 44 22.0	+0.8
	comp=E,0.1nm,0.3s,baz=158,slow=6.0,SNR=39						
AAK				S	Sn	00 45 25.8	-1.8
	comp=E,0.1nm,0.3s,baz=132,slow=24,SNR=12						
AAK	Ala-Archa	5.90	20	ePn	Pn	00 44 21.0	-0.2
AAK				eSn	Sn	00 45 25.1	-2.4
KK31	Karatay Array	6.07	351	⇑Pn	Pn	00 44 21.8	-1.6
	comp=E,4.9nm,0.3s,baz=189,slow=15,SNR=193						
KK31				⇓Sn	Sn	00 45 25.0	-6.5
	comp=E,5.1nm,0.3s,baz=173,slow=18,SNR=8.3						
ULHL	Ulahol	6.18	33	P	Pn	00 44 26.7	+1.7
	SNR=8.3						
CHMS	Chumysh	6.31	20	P	Pn	00 44 27.1	+0.4
	SNR=11						
USP	Ospenovka	6.50	18	P	Pn	00 44 29.4	+0.2
	SNR=6.5						
TKM2	Tokmak 2	6.50	26	⇑Pn	Pn	00 44 29.7	+0.4
	comp=E,18nm,0.8s						
TKM2				⇑Sn	Sn	00 45 45.8	+3.7
	comp=E,7.2nm,0.6s						
DDI	Dehra Dun	8.55	140	ex	Sn	00 46 31.9	0.0
JOSI	Joshimath	9.20	133	ePKP	Pn	00 45 08.4	+2.6
JOSI				AMb	AMB	00 45 09.9	
	comp=Z,86nm,0.4s						
JOSI				eS	Sn	00 46 43.6	-3.9
KHET	Khetri	9.63	158	eS	Sn	00 46 51.1	-6.8
AYAN	Aya Nagar	9.71	151	ePKP	Pn	00 45 12.7	0.0
AYAN				AMb	AMB	00 45 15.1	
	comp=Z,7.3nm,0.2s						
KUDL	Kundal	9.78	155	ePKP	Pn	00 45 12.9	-0.7
KUDL				AMb	AMB	00 45 15.4	
	comp=Z,6.0nm,0.3s						
KUDL				eS	Sn	00 46 54.2	-7.4
SONA	Sohna	9.90	152	ePKP	Pn	00 45 15.7	+0.5
SONA				eS	Sn	00 46 57.3	-7.2
MK31	Makanchi Array	12.44	36	ePn	Pn	00 45 49.2	+0.7
MKAR	Makanchi Array	12.44	36	P	Pn	00 45 49.8	+1.2
	comp=Z,0.1nm,0.3s,baz=224,slow=14,SNR=7.9						
DANN	Dangsing	13.34	127	eP	Pn	00 46 00.2	-0.2
	comp=Z,17nm,0.2s						
KOLN	Koldanda	13.64	130	eP	Pn	00 46 03.8	-0.6
	comp=Z,15nm,0.3s						
GKN	Gorkha	14.13	126	eP	Pn	00 46 10.2	-0.5
	comp=Z,21nm,0.3s						
KURK	Kurchatov	14.46	18	P	Pn	00 46 13.0	-1.6
	comp=Z,0.0nm,0.3s,baz=203,slow=12,SNR=2.8						
KURK	Kurchatov	14.46	18	Pn	Pn	00 46 14.8	+0.2
KKN	Kakani	14.70	125	eP	Pn	00 46 16.5	-1.3
	comp=Z,8.7nm,0.2s						
DMN	Daman	14.71	126	eP	Pn	00 46 17.2	-0.7
	comp=Z,7.4nm,0.2s						
AB09	Akbulak array	14.88	328	⇑Pn	Pn	00 46 16.7	-3.3
	comp=Z,1.5nm,0.3s						
AB09				⇑Sn	Sn	00 48 46.0	-19
	comp=Z,2.1nm,0.7s						
PKIN	Phulchoki	14.92	126	eP	Pn	00 46 20.9	+0.4
	comp=Z,22nm,0.4s						
PKI	Pulchoki	14.93	126	eP	Pn	00 46 19.8	-0.9
	comp=Z,10nm,0.3s						
PKI	Pulchoki	14.93	126	eP	Pn	00 46 20.9	+0.2
	comp=Z,22nm,0.4s						
GUN	Gumba	15.01	124	eP	Pn	00 46 21.4	-0.3
	comp=Z,62nm,0.8s						
JIRN	Jiri	15.38	124	eP	Pn	00 46 26.0	-0.4
	comp=Z,32nm,0.5s						
BVAR	Borovoye Array	15.95	357	P	Pn	00 46 33.6	+0.5
	comp=Z,0.1nm,0.3s,baz=185,slow=16,SNR=2.4						
BRVK	Borovoye	15.98	357	Pn	Pn	00 46 32.2	-1.4
RAMN	Ramite	16.13	125	eP	Pn	00 46 35.0	-0.6
	comp=Z,17nm,0.3s						
AKTK	Aktyubinsk	16.58	328	P	Pn	00 46 40.1	-0.8
AKTO	Aktyubinsk	16.58	328	P	Pn	00 46 40.1	-0.8
	comp=Z,0.4nm,0.3s,baz=149,slow=18,SNR=6.3						
TAPN	Taplejung	16.61	121	eP	Pn	00 46 41.5	0.0
	comp=Z,15nm,0.4s						
ODAN	Odare	16.71	123	eP	Pn	00 46 43.4	+0.7
	comp=Z,13nm,0.4s						
LSA	Lhasa	17.77	109	eP	Pn	00 46 55.2	-0.3
	comp=Z,3.5nm,0.8s						
GNI	Garni	21.30	287	P	P	00 47 33.9	+1.3
	comp=Z,1.5nm,0.4s,mb3.6,baz=83,slow=0.8,SNR=5.1						
GNI	Garni	21.30	287	eP	P	00 47 33.6	+0.9
	comp=Z,1.6nm,0.4s,mb3.7						
ULN	Ulaanbaatar	27.92	56	P	P	00 48 33.6	-0.6
TIRR	Tirgusor	33.33	297	eP	P	00 49 21.7	0.0
ARCES	ARCESS Array B	40.82	337	P	P	00 50 26.1	+1.4
	comp=Z,1.2nm,0.6s,mb3.9,baz=114,slow=9.0,SNR=10						
NB2	NORSAR Subarra	44.27	323	P	P	00 50 53.2	+0.5
	comp=Z,0.9nm,0.5s,mb3.8,baz=94,slow=7.9						
NOA	NORSAR Array B	44.27	323	P	P	00 50 53.2	+0.6
	comp=Z,1.5nm,0.8s,mb3.8,baz=103,slow=6.9,SNR=2.7						
VAL	Valentia	57.28	313	⇓iS	S	01 00 05.5	-11
TORD	Torodi Ar. Bea	66.35	269	P	P	00 53 31.3	-0.2
	comp=Z,0.3nm,0.4s,mb3.5,baz=49,slow=5.8,SNR=12						
TORD	Torodi Ar. Bea	66.35	269	P	P	00 53 31.3	-0.2
YKA	Yellowknife Ar	80.61	3	P	P	00 54 53.7	-0.5
	comp=Z,0.1nm,0.5s,mb2.9,baz=347,slow=5.1,SNR=4.3						
YKA				pP	pP	00 55 26.5	+0.4
	comp=Z,0.3nm,0.4s,baz=352,slow=5.5,SNR=6.0						
YKA	Yellowknife Ar	80.61	3	P	P	00 54 53.7	-0.5
YKA				pP	pP	00 55 26.5	+0.4
WRAK	Wrangell Islan	84.61	13	P	P	00 55 16.4	+1.4

CSEM ***27*** *00:50:33.1±1.2, 33.°22N×34.°78E, h2^{km}, ML3.2, Error ellipse: s-maj=24.7km s-min=8.6km az=99.0*

GRAL 27 00:50:37.0±0.4**, 33.°25N×35.°00E, h32**^{km}±2^{km}**, MD3.0, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.37	49	eP	Pb	00 50 45.0	-0.6
MATL	Matirih	0.37	49	eP	Pb	00 50 45.0	-0.5
RCY	Rachaya	0.73	71	eP	Pn	00 50 50.7	-0.4
RCY				eS	Sb	00 51 00.8	-0.2
RCY	Rachaya	0.73	71	eP	Pn	00 50 50.7	-0.4
RCY				eS	Sb	00 51 00.8	-0.1
BHL	Bhannes	0.85	40	eP	Pn	00 50 52.0	-0.9
BHL	Bhannes	0.85	40	eP	Pn	00 50 52.0	-0.8

ISCJB ***27*** *00:51:29.6±5.1, 14.°88S±0.°06×166.°79E±0.°07, h7^{km}±32^{km}, mb4.3/21, MS3.6/7, Error ellipse: s-maj=12.3km s-min=10.4km az=16.3*

IDC ***27*** *00:51:30.8±0.7, 14.°79S×166.°74E, h0^{km}, mb4.2/13, mb1 4.3/13, mb1mx4.2/19, mbtmp4.1/13, MS3.7/7, Ms1 3.6/7, ms1mx3.4/24, Error ellipse: s-maj=23.8km s-min=19.4km az=110.0*

LDG ***27*** *00:51:33.2±0.2, 14.°63S×166.°38E, h10^{km}, Mb4.7/2, Ms4.3/1, Error ellipse: s-maj=30.3km s-min=8.7km az=84.0*

BJI ***27*** *00:51:33.4, 14.°90S×166.°80E, h35^{km}, mB5.4/3, mb4.8/5*

NEIC ***27*** *00:51:35.4±0.3, 14.°88S×166.°80E, h35^{km}, mb4.7/8, Error ellipse: s-maj=7.6km s-min=6.7km az=138.0*

ISC 27 00:51:33.1±5.8**, 14.°83S**±0.°06×**166.°79E**±0.°07**, h17**^{km}±35^{km}**, n75, σ0.^{s}79**/39**, mb4.3**/21**, MS3.6**/7**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	7.21	183	eS	Sn	00 54 35.0	-4.1
DZM	Mont Dzumac	7.21	183	ePn	Pn	00 53 17.9	+0.3
	19nm,0.4s						
DZM				eSn	Sn	00 54 38.9	-0.2
CTA	Charters Tower	20.27	252	eP	P	00 56 01.5	-6.4
	12nm,1.1s						
CTA	Charters Tower	20.27	252	LR	LR	01 02 43.9	
	comp=Z,202nm,19.6s,MS3.5,baz=52,slow=33						
CTAO	Charters Tower	20.27	252	eP	P	00 56 07.7	-0.2
	66nm,1.5s						
AFI	Afiamalu	20.79	90	LR	LR	01 02 31.5	
	comp=Z,147nm,21.8s,MS3.3,baz=192,slow=32						
AFI	Afiamalu	20.79	90	eP	P	00 56 13.7	+0.2
ARMA	Armidale	20.85	219	eP	P	00 56 17.9	+3.8
URZ	Urewera	25.06	161	P	P	00 56 59.3	+2.8
	2.6nm,0.3s,mb4.2,baz=307,slow=5.1,SNR=4.0						
URZ	Urewera	25.06	161	eP	P	00 56 55.3	-1.2
STKA	Stephens Creek	28.57	229	eP	P	00 57 29.2	+1.0
	6.4nm,1.6s,mb4.1						
STKA	Stephens Creek	28.57	229	P	P	00 57 29.4	+1.2
	3.4nm,0.8s,mb4.2,baz=68,slow=12,SNR=7.3						
STKA				LR	LR	01 07 56.8	
	comp=Z,144nm,21.1s,MS3.5,baz=25,slow=34						
WRAB	Tennant Creek	31.34	256	eP	P	00 57 52.1	-0.8
	10nm,1.2s,mb4.5						
WRA	Warramunga Arr	31.35	256	P	P	00 57 52.2	-0.8
	0.5nm,0.7s,mb3.5,baz=86,slow=8.7,SNR=2.8						
WRA				LR	LR	01 09 47.8	
	comp=Z,239nm,20.6s,MS3.9,baz=85,slow=35						
ASAR	Alice Springs	32.20	249	P	P	00 57 59.6	-0.8
	3.0nm,0.8s,mb4.2,baz=73,slow=9.2,SNR=9.1						
RAR	Rarotonga	32.38	106	P	P	00 58 01.0	-1.0
GUMO	Guam	35.61	321	LR	LR	01 11 43.0	
	comp=Z,84nm,18.7s,MS3.5,baz=144,slow=34						
FORT	Forrest	38.84	239	eP	P	00 58 58.2	+0.8
	19nm,0.8s,mb4.9						
FITZ	Fitzroy Crossi	39.54	259	eP	P	00 59 03.0	-0.3
MIDW	Midway	45.46	20	eP	P	00 59 51.1	-0.2
KSM	Kuching	58.17	281	P	P	01 01 25.6	-0.9
TWG	Pinlang	58.34	309	P	P	01 01 27.4	-0.2
VNDA	Vanda	62.75	181	eP	P	01 01 56.8	-0.1
	10nm,0.9s,mb5.0						
KSRS	Korea Array	63.56	326	LR	LR	01 26 25.0	
	comp=Z,30nm,20.4s,MS3.5,baz=355,slow=33						
PETK	Petropavlovsk-	68.11	354	P	P	01 02 33.0	+1.2
	6.7nm,1.0s,mb4.6,baz=158,slow=9.3,SNR=4.6						
PETK				LR	LR	01 28 39.6	
	comp=Z,72nm,20.9s,MS3.9,baz=146,slow=33						
MDJ	Mudanjiang	68.15	332	P	P	01 02 31.7	-0.5
CMAR	Chiang Mai Arr	74.57	294	P	P	01 03 13.1	+1.5
	1.1nm,0.4s,mb4.1,baz=128,slow=4.4,SNR=10						
CHTO	Chiang Mai	74.70	295	eP	P	01 03 11.8	-0.5
	1.6nm,0.5s,mb4.2						
QSPA	South Pole Qui	75.19	180	P	P	01 03 14.3	+0.2
	5.3nm,0.7s,mb4.6,baz=356,slow=2.1,SNR=24						
LZH	Lanzhou	78.05	312	eP	P	01 03 32.0	+1.1
LZH				pP	pP	01 03 37.3	+0.7
LZH				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,87nm,4.3s						
ULN	Ulaanbaatar	81.94	324	eP	P	01 03 51.6	-0.2
	comp=Z,1.1nm,0.7s,mb3.9						
SONM	Songino Array	82.30	324	P	P	01 03 54.1	+0.5
	comp=Z,0.8nm,0.8s,mb3.7,baz=141,slow=6.2,SNR=6.6						
BILL	Bilibino	82.64	360	eP	P	01 03 54.9	0.0
	comp=Z,9.5nm,0.6s,mb5.0						
MCK	McKinley	85.40	18	eP	P	01 04 09.0	-0.1
COLD	Coldfoot	87.65	15	eP	P	01 04 19.5	-0.5
	comp=Z,4.4nm,1.0s,mb4.6						
NVAR	Mina Array Bea	87.69	49	P	P	01 04 21.1	+0.2
	comp=Z,0.4nm,0.6s,mb3.8,baz=236,slow=5.0,SNR=4.0						
PDAR	Pinedale Array	95.36	47	P	P	01 04 57.6	+1.1
	comp=Z,0.3nm,0.9s,mb3.7,baz=231,slow=4.0,SNR=2.1						
MK31	Makanchi Array	96.96	316	eP	P	01 05 03.7	+0.1
MKAR	Makanchi Array	96.96	316	P	P	01 05 04.1	+0.4
	comp=Z,0.8nm,0.8s,mb4.2,baz=98,slow=6.7,SNR=6.3						
MKAR	Makanchi Array	96.96	316	P	P	01 05 04.1	+0.4
ZALV	Zalesovo Beam	97.20	324	P	P	01 05 04.0	-0.5
	comp=Z,0.8nm,0.7s,mb4.3,baz=127,slow=3.9,SNR=3.9						
YKA	Yellowknife Ar	97.85	27	P	P	01 05 05.8	-1.5
	comp=Z,0.4nm,0.8s,mb4.0,baz=253,slow=4.5,SNR=8.2						
ARCES	ARCESS Array B	120.23	345	PKP	PKPdf	01 10 23.1	+0.5
	comp=Z,3.0nm,0.8s,baz=81,slow=2.3,SNR=12						
FLN	La Foliniere	144.58	345	ePKP1	PKPdf	01 11 08.6	-0.1
LDF	La Druitiere	144.65	345	ePKP1	PKPdf	01 11 09.0	+0.2
LOR	Lormes	144.68	340	ePKP1	PKPdf	01 11 08.9	0.0
	comp=Z,15nm,1.1s						
SSF	Saint Saulge	144.97	340	ePKP1	PKPdf	01 11 09.0	-0.4
	comp=Z,35nm,1.1s						
GRR	Gorron	145.02	346	ePKP1	PKPbc	01 11 09.6	+0.8
	comp=Z,16nm,0.6s						
HYF	Humbligny	145.07	341	ePKP1	PKPbc	01 11 09.6	+0.6
LPL	La Plagne	145.09	335	ePKP1	PKPbc	01 11 09.9	+0.8
	comp=Z,11nm,0.8s						
LPG	La Plagne	145.10	335	ePKP1	PKPbc	01 11 10.0	+0.9
	comp=Z,27nm,1.1s						
SMF	Signal de Mont	145.22	339	ePKP1	PKPbc	01 11 09.7	+0.2
	comp=Z,23nm,1.0s						
AVF	Avril sur Loir	145.26	340	ePKP1	PKPbc	01 11 09.7	+0.1
	comp=Z,24nm,1.1s						
SGMF	Saint Gilles	145.53	347	ePKP1	PKPbc	01 11 10.3	-0.1
	comp=Z,44nm,1.1s						
ROSF	Rostrenen	145.60	348	ePKP1	PKPbc	01 11 10.5	-0.1
	comp=Z,98nm,1.3s						
BGF	Bois d’Agland	145.63	340	ePKP1	PKPbc	01 11 11.1	+0.3
	comp=Z,37nm,1.0s						
MBDF	Montbardon	145.72	334	ePKP1	PKPbc	01 11 11.1	0.0
	comp=Z,14nm,0.8s						
ORIF	Oris-en-Rattie	145.93	335	ePKP1	PKPbc	01 11 12.3	+0.5
	comp=Z,21nm,0.8s						
TCF	Toulx Ste Croi	146.08	341	ePKP1	PKPbc	01 11 11.5	-0.7
	comp=Z,29nm,1.3s						
SBF	Sospel	146.12	333	ePKP1	PKPbc	01 11 12.2	-0.2
	comp=Z,36nm,1.0s						
PGF	Pioggiola	146.41	330	ePKP1	PKPbc	01 11 13.3	0.0
	comp=Z,67nm,1.3s						
VIVF	Saint-Julien-l	146.45	337	ePKP1	PKPbc	01 11 13.7	+0.4
MFF	Saint Martin d	146.49	344	ePKP1	PKPbc	01 11 13.4	0.0
	comp=Z,30nm,1.0s						
FRF	La Foret Royal	146.71	333	ePKP1	PKPbc	01 11 14.0	-0.1
	comp=Z,41nm,1.1s						
SMRF	Simiane la Rot	146.83	335	ePKP1	PKPbc	01 11 14.1	-0.4
	comp=Z,21nm,1.1s						
LMR	La Mourre	146.95	333	ePKP1	PKPbc	01 11 14.7	-0.1
	comp=Z,30nm,1.1s						
RJF	Les Rejaudoux	147.17	341	ePKP1	PKPbc	01 11 15.7	+0.3
	comp=Z,51nm,1.3s						
CAF	Calviac	147.33	340	ePKP1	PKPbc	01 11 16.3	+0.5
	comp=Z,23nm,1.1s						
LASF	Ste Croix	147.43	337	ePKP1	PKPbc	01 11 16.6	+0.5
	comp=Z,28nm,1.1s						
LFF	La Frestale	147.75	341	ePKP1	PKPbc	01 11 16.4	-0.6
MTLF	Montolieu	148.66	338	ePKP1	PKPbc	01 11 19.7	+0.2
	comp=Z,13nm,0.9s						
EPF	Esparros	149.59	340	ePKP1	PKPbc	01 11 22.0	+0.2
	comp=Z,16nm,1.0s						
ETSF	Etsaut	149.99	341	ePKP1	PKPbc	01 11 23.3	+0.5
	comp=Z,7.1nm,0.7s						
KEST	Kesra	150.99	320	PKPbc	PKPbc	01 11 25.7	+0.3
	comp=Z,3.4nm,1.0s,baz=291,slow=1.5,SNR=13						
TORD	Torodi Ar. Bea	165.44	265	PKPab	PKPab	01 12 35.6	-0.2
	comp=Z,0.7nm,0.9s,baz=106,slow=3.9,SNR=3.8						

ZUR ***27*** *00:56:28.3, 54.°20N×1.°80W, h10^{km}, mb4.3/2*

STR ***27*** *00:56:39.6±2.0, 53.°60N×0.°96W, h10^{km}, Ml5.6, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISCJB ***27*** *00:56:43.0±0.3, 53.°263N±0.°009×0.°30W±0.°01, h7^{km}±2^{km}, mb4.8/107, MS4.1/34, Error ellipse: s-maj=1.8km s-min=1.3km az=41.0*

MOS ***27*** *00:56:43.0±0.9, 53.°28N×0.°38W, h12^{km}, mb4.9/33, MS4.0/17, Error ellipse: s-maj=4.8km s-min=2.3km az=109.8*

IDC ***27*** *00:56:43.7±0.5, 53.°35N×0.°42W, h0^{km}, mb4.5/23, mb1 4.6/32, mb1mx4.5/35, mbtmp4.5/32, ML4.8/7, MS3.8/29, Ms1 3.8/29, ms1mx3.7/39, Error ellipse: s-maj=12.3km s-min=10.0km az=46.0*

BJI ***27*** *00:56:44.4, 54.°13N×0.°49W, h8^{km}, mB5.3/23, mb5.1/40, Ms5.1/21, Ms7 4.7/19*

PRU ***27*** *00:56:45.5, 53.°67N×0.°31W, h0^{km}, M4.9, Some Damage In England*

CSEM ***27*** *00:56:46.7±0.1, 53.°31N×0.°42W, h24^{km}, mb4.7/26, ML5.5/10, Error ellipse: s-maj=1.9km s-min=1.7km az=44.0*

LDG ***27*** *00:56:47.0±0.1, 53.°40N×0.°53W, h24^{km}, Md5.0/4, Ml5.6/46, ms3.7/9, Error ellipse: s-maj=2.6km s-min=2.0km az=62.0*

NEIC ***27*** *00:56:47.8, 53.°40N×0.°33W, h18^{km}, mb4.8/55, ML5.3(SZGRF), ML5.2(BGS), ML5.3(STR), After BGS.*

NEIC One person injured and buildings damaged in Lincolnshire and South Yorkshire. Felt [V] at Barnsley, Bedworth, Beeston and Stapleford, Bentley, Beverley, Bicester, Boston, Brigg, Brighouse, Chesterfield, Chorley, Doncaster, Droitwich, East Retford, Eaton Socon, Failsworth, Grantham, Grimsby, Heywood, Hinckley, Ilkeston, Kingston upon Hull, Leicester, Lincoln, Long Eaton, Loughborough, Mablethorpe and Sutton, Mansfield, Matlock, Melton Mowbray, Mold, Morley, Newark, Rotherham, Scunthorpe, Sheffield, Skegness, Sleaford, Spalding-Pinchbeck, Stamford, Whitefield and Worksop. Felt widely in the United Kingdom, north to Arbroath, southwest to Falmouth-Penryn and east to Great Yarmouth. Also felt at Douglas, Isle of Man; Antwerp, Brussels and Gent, Belgium; Aniche, France; Letterkenny, Ireland and Haarlem, The Netherlands.

BGS ***27*** *00:56:47.8±2.2, 53.°40N×0.°33W, h18^{km}±14^{km}, MD7.1, ML5.2, Fault plane solution: NP1:ϕ_s91.00000°, δ66.00000°, λ150.00000°.*

SZGRF ***27*** *00:56:48.9, 53.°51N×0.°03W, h10^{km}, mb5.3, United Kingdom*

IPEC ***27*** *00:56:48.2±0.2, 53.°51N×0.°30W, h47^{km}±12^{km}, Error ellipse: s-maj=2.6km s-min=1.4km az=54.0*

UCC ***27*** *00:56:50.7, 53.°34N×0.°43W, h0^{km}, ML4.9*

NAO ***27*** *00:56:51.9±10.0, 53.°90N×0.°08E, h20^{km}±80^{km}, ML5.0*

ISC 27 00:56:45.4±0.3**, 53.°318N**±0.°009×**0.°32W**±0.°01**, h9**^{km}±1^{km}**, h15**^{km}±2.3^{km}**:pP-P, n1396, σ1.^{s}16**/1631**, mb4.8**/107**,** **MS4.1**/34**, 133C-174D, United Kingdom**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBI1	Birley Grange	0.73	265	⇑iP	Pg	00 57 01.6	+2.1
KBI1	Birley Grange	0.73	265	⇑iP	Pg	00 57 01.6	+2.2
CWF	Charnwood Fore	0.83	226	ePg	Pg	00 57 03.7	+2.3
CWF				eS	Sg	00 57 15.2	+3.0
CWF				AML	AML	00 57 15.9	
	comp=N,64μm,0.2s						
CWF				AML	AML	00 57 16.1	
	comp=E,87μm,0.2s						
CWF	Charnwood Fore	0.83	226	ePg	Pg	00 57 03.7	+2.3
CWF				eS	Sg	00 57 15.2	+3.0
CWF				AML	AML	00 57 15.9	
	comp=N,64μm,0.2s						
CWF				AML	AML	00 57 16.1	
	comp=E,87μm,0.2s						
CWF	Charnwood Fore	0.83	226	P	Pg	00 57 01.8	+0.4
CWF				S	Sg	00 57 15.1	+2.9
CWF	Charnwood Fore	0.83	226	P	Pg	00 57 01.8	+0.4
CWF	Charnwood Fore	0.83	226	ePg	Pg	00 57 03.7	+2.3
	SNR=94						
CWF				S	Sg	00 57 15.1	+2.9
LHO	Holmfirth	0.95	285	⇓iP	Pg	00 57 04.6	+1.0
LHO	Holmfirth	0.95	285	P	Pg	00 57 04.6	+1.0
LHO	Holmfirth	0.95	285	⇓iP	Pg	00 57 04.6	+1.0
KWE	Weaver Farm	0.97	252	⇑iP	Pg	00 57 05.3	+1.4
KWE	Weaver Farm	0.97	252	P	Pg	00 57 04.1	+0.2
KWE	Weaver Farm	0.97	252	P	Pg	00 57 04.1	+0.2
ABA1	Baconsthorpe	0.98	115	⇓iP	Pg	00 57 06.4	+2.1
ABA1	Baconsthorpe	0.98	115	⇓iP	Pg	00 57 06.4	+2.1
HPK	Haverah Park	1.01	310	⇓eP	Pg	00 57 05.5	+0.7
HPK				eS	Sg	00 57 18.2	+0.4
HPK				AML	AML	00 57 20.2	
	comp=N,194μm,0.2s						
HPK				AML	AML	00 57 20.4	
	comp=E,146μm,0.2s						
HPK	Haverah Park	1.01	310	⇓eP	Pg	00 57 05.5	+0.7
HPK				eS	Sg	00 57 18.2	+0.4
HPK				AML	AML	00 57 20.2	
	comp=N,194μm,0.2s						
HPK				AML	AML	00 57 20.4	
	comp=E,146μm,0.2s						
HPK	Haverah Park	1.01	310	P	Pg	00 57 03.8	-1.0
HPK				S	Sg	00 57 18.4	+0.5
HPK	Haverah Park	1.01	310	P	Pg	00 57 03.8	-1.0
HPK				eS	Sg	00 57 18.2	+0.4
	comp=E,15nm,4.0s,SNR=68						
STNC	Stoke	1.16	259	eP	Pb	00 57 08.2	+0.8
STNC				eS	Sb	00 57 24.1	+1.6
STNC				AML	AML	00 57 25.5	
	comp=N,78μm,0.3s						
STNC				AML	AML	00 57 29.4	
	comp=E,85μm,0.4s						
STNC	Stoke	1.16	259	eP	Pb	00 57 08.2	+0.7
STNC				eS	Sb	00 57 24.1	+1.5
	comp=E,78μm,0.3s						
AEU	East Anglia Un	1.17	126	P	Pg	00 57 09.2	+1.4
AEU				S	Sg	00 57 25.0	+2.0
AEU	East Anglia Un	1.17	126	⇓iP	Pg	00 57 09.2	+1.4
AEU				eS	Sg	00 57 25.0	+2.0
AEU	East Anglia Un	1.17	126	P	Pg	00 57 09.2	+1.4
AEU				S	Sg	00 57 25.0	+2.0
AEU	East Anglia Un	1.17	126	⇓iP	Pb	00 57 09.2	+1.5
AEU				eS	Sb	00 57 25.0	+2.0
AWI1	Witton	1.17	114	⇓iP	Pb	00 57 09.2	+1.5
AWI1	Witton	1.17	114	⇓iP	Pb	00 57 09.2	+1.5
TCR	Colchester	1.67	153	⇓iP	Pn	00 57 16.1	+1.5
TCR	Colchester	1.67	153	⇓iP	Pn	00 57 16.1	+1.5
XAL	Allendale	1.91	325	eP	Pn	00 57 18.1	+0.1
XAL	Allendale	1.91	325	P	Pn	00 57 18.1	+0.1
XAL	Allendale	1.91	325	P	Pn	00 57 17.2	-0.8
XAL	Allendale	1.91	325	P	Pn	00 57 17.2	-0.8
SWN1	Swindon	2.02	207	P	Pn	00 57 20.8	+1.2
SWN1				S	Sn	00 57 47.0	+2.1
SWN1				S	Sn	00 57 47.2	+2.3
SWN1				AML	AML	00 57 51.1	
	comp=E,53μm,0.4s						
SWN1				AML	AML	00 57 51.9	
	comp=E,64μm,0.6s						
SWN1	Swindon	2.02	207	eP	Pn	00 57 20.8	+1.2
SWN1				eS	Sn	00 57 47.0	+2.1
SWN1				eS	Sn	00 57 47.2	+2.3
SWN1				AML	AML	00 57 51.1	
	comp=E,53μm,0.4s						
SWN1				AML	AML	00 57 51.9	
	comp=N,64μm,0.6s						
SWN1	Swindon	2.02	207	P	Pn	00 57 20.8	+1.2
SWN1				S	Sn	00 57 47.0	+2.1
SWN1				S	Sn	00 57 47.2	+2.3
SWN1				AML	AML	00 57 51.1	
	comp=N,53μm,0.4s						
SWN1				AML	AML	00 57 51.9	
	comp=N,64μm,0.6s						
SWN1	Swindon	2.02	207	eP	Pn	00 57 20.8	+1.2
SWN1				eS	Sn	00 57 47.0	+2.1
SWN1				eS	Sn	00 57 47.2	+2.3
SWN1				AML	AML	00 57 51.1	
	comp=E,53μm,0.4s						
SWN1				AML	AML	00 57 51.9	
	comp=N,64μm,0.6s						
SWN1	Swindon	2.02	207	eP	Pn	00 57 20.8	+1.2
SWN1				eS	Sn	00 57 47.0	+2.1
SWN1				AML	AML	00 57 51.9	
	comp=N,64μm,0.6s						
SWN1	Swindon	2.02	207	eP	Pn	00 57 20.8	+1.2
SWN1				eS	Sn	00 57 47.0	+2.1
	comp=N,85μm,0.4s						
WOL	Wolverton	2.08	196	eP	Pn	00 57 21.5	+1.1

WOL				*e*S	**Sn**	**00 57 50.4**	**+4.0**
WOL	**Wolverton**	**2.08**	**196**	*e*P	**Pn**	**00 57 21.5**	**+1.1**
MCH1	**Michaelchurch**	**2.10**	**232**	*e*P	**Pn**	**00 57 21.0**	**+0.3**
MCH1				*e*S	**Sn**	**00 57 47.1**	**+0.3**
MCH1				*e*S	**Sn**	**00 57 47.2**	**+0.4**
MCH1				AML	AML	00 57 53.8	
	comp=N,13µm,0.2s						
MCH1				AML	AML	00 57 54.0	
	comp=E,16µm,0.3s						
MCH1	**Michaelchurch**	**2.10**	**232**	*e*P	**Pn**	**00 57 21.0**	**+0.3**
MCH1				*e*S	**Sn**	**00 57 47.1**	**+0.3**
MCH1				*e*S	**Sn**	**00 57 47.2**	**+0.4**
MCH1				AML	AML	00 57 53.8	
	comp=N,13µm,0.2s						
MCH1				AML	AML	00 57 54.0	
	comp=E,16µm,0.3s						
MCH1	**Michaelchurch**	**2.10**	**232**	*e*P	**Pn**	**00 57 21.0**	**+0.4**
MCH1				*e*S	**Sn**	**00 57 47.1**	**+0.3**
	SNR=55						
WPM1	**Penmaenmawr**	**2.15**	**270**	*e*P	**Pn**	**00 57 21.3**	**0.0**
WPM1	**Penmaenmawr**	**2.15**	**270**	*e*P	**Pn**	**00 57 21.3**	**-0.1**
HTR	**Trewern Hill**	**2.18**	**237**	*e*P	**Pn**	**00 57 22.6**	**+0.9**
HTR	**Trewern Hill**	**2.18**	**237**	*e*P	**Pn**	**00 57 22.6**	**+0.8**
HGH	**Gray Hill**	**2.27**	**223**	*e*P	**Pn**	**00 57 24.2**	**+1.2**
HGH	**Gray Hill**	**2.27**	**223**	*e*P	**Pn**	**00 57 24.2**	**+1.3**
YLL	**Llanberis**	**2.32**	**267**	*e*P	**Pn**	**00 57 23.7**	**0.0**
YLL	**Llanberis**	**2.32**	**267**	*e*P	**Pn**	**00 57 23.7**	**0.0**
TFO1	**Folkestone**	**2.38**	**157**	*e*P	**Pn**	**00 57 25.8**	**+1.3**
TFO1				AML	AML	00 58 12.3	
	comp=N,19µm,0.5s						
TFO1				AML	AML	00 58 17.0	
	comp=E,15µm,0.4s						
TFO1	**Folkestone**	**2.38**	**157**	*e*P	**Pn**	**00 57 25.8**	**+1.3**
WME	**Myndd Eilian**	**2.39**	**273**	*e*P	**Pn**	**00 57 24.3**	**-0.3**
WME	**Myndd Eilian**	**2.39**	**273**	*e*P	**Pn**	**00 57 24.3**	**-0.3**
	comp=E,15µm,0.4s						
WLF1	**Llynfaes**	**2.45**	**271**	P	**Pn**	**00 57 25.1**	**-0.3**
WLF1				AML	AML	00 58 03.6	
	comp=E,41µm,0.6s						
WLF1				AML	AML	00 58 03.6	
	comp=E,13µm,0.6s						
WLF1				AML	AML	00 58 04.2	
	comp=E,22µm,0.2s						
WLF1				AML	AML	00 58 04.4	
	comp=E,7µm,0.2s						
WLF1	**Llynfaes**	**2.45**	**271**	*e*P	**Pn**	**00 57 25.1**	**-0.3**
WLF1				AML	AML	00 58 03.6	
	comp=N,41µm,0.6s						
WLF1				AML	AML	00 58 03.6	
	comp=N,13µm,0.6s						
WLF1				AML	AML	00 58 04.2	
	comp=E,22µm,0.2s						
WLF1				AML	AML	00 58 04.4	
	comp=E,7µm,0.2s						
WLF1	**Llynfaes**	**2.45**	**271**	*e*P	**Pn**	**00 57 25.1**	**-0.3**
WLF1				AML	AML	00 58 03.6	
	comp=N,41µm,0.6s						
WLF1				AML	AML	00 58 03.6	
	comp=N,13µm,0.6s						
WLF1				AML	AML	00 58 04.2	
	comp=E,22µm,0.2s						
WLF1				AML	AML	00 58 04.4	
	comp=E,7µm,0.2s						
WLF1	**Llynfaes**	**2.45**	**271**	*e*P	**Pn**	**00 57 25.1**	**-0.3**
WLF1				AML	AML	00 58 03.6	
	comp=N,41µm,0.6s						
WLF1				AML	AML	00 58 03.6	
	comp=N,13µm,0.6s						
WLF1				AML	AML	00 58 04.2	
	comp=E,22µm,0.2s						
WLF1				AML	AML	00 58 04.4	
	comp=E,7µm,0.2s						
WLF1	**Llynfaes**	**2.45**	**271**	*e*P	**Pn**	**00 57 25.1**	**-0.3**
BHH	**Howats Hill**	**2.46**	**317**	*e*P	**Pn**	**00 57 25.6**	**0.0**
BHH	**Howats Hill**	**2.46**	**317**	*e*P	**Pn**	**00 57 25.6**	**0.0**
SWK	**Warminster**	**2.48**	**209**	P	**Pn**	**00 57 35.5**	**+10**
YRE	**Yr Eifl**	**2.50**	**264**	*e*P	**Pn**	**00 57 26.2**	**+0.1**
YRE	**Yr Eifl**	**2.50**	**264**	*e*P	**Pn**	**00 57 26.2**	**+0.1**
YRC	**Rhoscolyn**	**2.56**	**270**	*e*P	**Pn**	**00 57 26.9**	**0.0**
YRC	**Rhoscolyn**	**2.56**	**270**	*e*P	**Pn**	**00 57 26.9**	**0.0**
EKA	**Eskdalemuir Ar**	**2.62**	**322**	Pn	**Pn**	**00 57 27.1**	**-0.6**
	baz=141,slow=14,SNR=445						
EKA	**Eskdalemuir Ar**	**2.62**	**322**	*e*Pn	**Pn**	**00 57 27.0**	**-0.7**
	baz=136						
EKA	**Eskdalemuir Ar**	**2.62**	**322**	P	**Pn**	**00 57 27.2**	**-0.5**
EKA	**Eskdalemuir Ar**	**2.62**	**322**	*e*Pg	**Pg**	**00 57 34.0**	**-1.5**
	baz=136						
ESK	**Eskdalemuir**	**2.62**	**321**	*e*P	**Pn**	**00 57 26.6**	**-1.1**
ESK				AML	AML	00 58 10.9	
	comp=E,5µm,0.4s						
ESK				AML	AML	00 58 11.4	
	comp=N,5µm,0.4s						
ESK	**Eskdalemuir**	**2.62**	**321**	*e*Pn	**Pn**	**00 57 27.4**	**-0.4**
ESK				*e*Pg	**Pg**	**00 57 35.8**	**+0.2**
ESK				*e*S	**Sn**	**00 58 05.6**	**+6.0**
ESK	**Eskdalemuir**	**2.62**	**321**	*e*P	**Pn**	**00 57 26.6**	**-1.2**
	comp=N,5µm,0.4s						
ESK	**Eskdalemuir**	**2.62**	**321**	Pn	**Pn**	**00 57 27.3**	**-0.5**
	SNR=84						
ESK	**Eskdalemuir**	**2.62**	**321**	*e*Pg	**Pg**	**00 57 35.8**	**+0.2**
BWH	**Wardlaw**	**2.70**	**315**	*e*P	**Pn**	**00 57 28.7**	**-0.2**
BWH	**Wardlaw**	**2.70**	**315**	*e*P	**Pn**	**00 57 28.7**	**-0.2**
WIM	**Isle of Man**	**2.72**	**290**	*e*P	**Pn**	**00 57 28.4**	**-0.7**
WIM	**Isle of Man**	**2.72**	**290**	*e*P	**Pn**	**00 57 28.4**	**-0.7**
EBL	**Broad Law**	**2.93**	**328**	*e*P	**Pn**	**00 57 31.2**	**-0.8**
EBL	**Broad Law**	**2.93**	**328**	P	**Pn**	**00 57 31.3**	**-0.7**
ESY	**Stoneypath**	**2.93**	**334**	*e*P	**Pn**	**00 57 31.0**	**-1.0**
ESY	**Stoneypath**	**2.93**	**334**	*e*P	**Pn**	**00 57 31.0**	**-1.0**
GAL1	**Galloway**	**3.02**	**303**	*e*P	**Pn**	**00 57 32.2**	**-1.0**
GAL1				AML	AML	00 58 27.1	
	comp=N,3µm,0.4s						
GAL1				AML	AML	00 58 30.5	
	comp=E,3µm,0.7s						
GAL1	**Galloway**	**3.02**	**303**	*e*P	**Pn**	**00 57 32.2**	**-1.0**
EDI	**Edinburgh**	**3.10**	**329**	*e*P	**Pn**	**00 57 33.5**	**-0.9**
EDI				AML	AML	00 58 34.5	
	comp=E,3µm,0.8s						
EDI				AML	AML	00 58 41.4	
	comp=N,4µm,0.5s						
EDI	**Edinburgh**	**3.10**	**329**	P	**Pn**	**00 57 33.9**	**-0.4**
EDI	**Edinburgh**	**3.10**	**329**	*e*P	**Pn**	**00 57 33.5**	**-0.8**
	comp=N,4µm,0.5s						
HEX	**Exmoor**	**3.11**	**225**	*e*P	**Pn**	**00 57 35.5**	**+1.0**
HEX	**Exmoor**	**3.11**	**225**	*e*P	**Pn**	**00 57 35.5**	**+1.0**
EAU	**Auchinoon**	**3.12**	**326**	*e*P	**Pn**	**00 57 34.3**	**-0.3**
EAU	**Auchinoon**	**3.12**	**326**	*e*P	**Pn**	**00 57 34.3**	**-0.3**
MENF	**Mencas**	**3.16**	**150**	P	**Pn**	**00 57 36.9**	**+1.7**
MENF	**Mencas**	**3.16**	**150**	P	**Pn**	**00 57 36.9**	**+1.7**
HTL	**Hartland**	**3.46**	**229**	*e*P	**Pn**	**00 57 39.9**	**+0.5**
HTL				AML	AML	00 58 44.7	
	comp=E,5µm,0.8s						
HTL				AML	AML	00 58 46.9	
	comp=N,4µm,0.4s						
HTL	**Hartland**	**3.46**	**229**	*e*P	**Pn**	**00 57 39.8**	**+0.4**
	comp=N,4µm,0.4s						
EBH	**Black Hill**	**3.47**	**329**	*e*P	**Pn**	**00 57 39.2**	**-0.3**
EBH	**Black Hill**	**3.47**	**329**	*e*P	**Pn**	**00 57 39.2**	**-0.2**
PGBU	**Glenifferbraes**	**3.48**	**318**	P	**Pn**	**00 57 39.4**	**-0.2**
PGBU				AML	AML	00 58 47.5	
	comp=N,5µm,0.7s						
PGBU				AML	AML	00 58 47.6	
	comp=N,6µm,0.7s						
PGBU	**Glenifferbraes**	**3.48**	**318**	*e*P	**Pn**	**00 57 39.4**	**-0.2**
PGBU				AML	AML	00 58 47.5	
	comp=E,5µm,0.7s						
PGBU				AML	AML	00 58 47.6	
	comp=N,6µm,0.7s						
PGBU	**Glenifferbraes**	**3.48**	**318**	P	**Pn**	**00 57 39.4**	**-0.2**
PGBU				AML	AML	00 58 47.5	
	comp=N,5µm,0.7s						
PGBU				AML	AML	00 58 47.6	
	comp=N,6µm,0.7s						
PGBU	**Glenifferbraes**	**3.48**	**318**	*e*P	**Pn**	**00 57 39.4**	**-0.2**
PGBU				AML	AML	00 58 47.5	
	comp=E,5µm,0.7s						
PGBU				AML	AML	00 58 47.6	
	comp=N,6µm,0.7s						
DSB	**Dublin**	**3.64**	**271**	*e*P	**Pn**	**00 57 41.8**	**+0.1**
DSB				AML	AML	00 58 46.7	
	comp=N,2µm,0.8s						
DSB				AML	AML	00 58 52.5	
	comp=E,1µm,0.9s						
DSB	**Dublin**	**3.64**	**271**	*e*Pn	**Pn**	**00 57 41.9**	**+0.1**
DSB				*e*Pg	**Pg**	**00 57 55.1**	**+0.1**
DSB				*e*S	**Sn**	**00 58 24.5**	**-0.2**
DSB	**Dublin**	**3.64**	**271**	Pn	**Pn**	**00 57 41.8**	**+0.1**
DSB	**Dublin**	**3.64**	**271**	*e*Pg	**Pg**	**00 57 55.1**	**+0.1**
DYA	**Yadsworthy**	**3.65**	**219**	*e*P	**Pn**	**00 57 42.1**	**+0.1**
DYA				*e*S	**Sn**	**00 58 22.8**	**-2.3**
DYA				AML	AML	00 58 46.2	
	comp=N,4µm,0.5s						
DYA				AML	AML	00 58 51.8	
	comp=E,3µm,0.5s						
DYA	**Yadsworthy**	**3.65**	**219**	*e*P	**Pn**	**00 57 42.1**	**+0.1**
DYA				*e*S	**Sn**	**00 58 22.8**	**-2.3**
	comp=E,3µm,0.5s,SNR=53						
EAB	**Aberfoyle**	**3.70**	**323**	*e*P	**Pn**	**00 57 42.4**	**-0.3**
EAB	**Aberfoyle**	**3.70**	**323**	*e*P	**Pn**	**00 57 42.4**	**-0.2**
	comp=E,2µm,0.8s						
DLF	**Lyons Farm**	**3.73**	**272**	*e*P	**Pn**	**00 57 42.8**	**-0.2**
UCC	**Uccle**	**3.83**	**129**	⇓PN	**Pn**	**00 57 44.9**	**+0.4**
UCC				PG	**Pg**	**00 58 00.1**	**+1.3**
UCC				SN	**Sn**	**00 58 27.7**	**-1.9**
UCC				SG	**Sg**	**00 58 49.1**	**+0.6**
	comp=E,2µm,0.4s						
UCC	**Uccle**	**3.83**	**129**	*e*P	**Pn**	**00 57 44.1**	**-0.4**
UCC	**Uccle**	**3.83**	**129**	Pn	**Pn**	**00 57 44.8**	**+0.3**
OPLO	**Oploo**	**4.13**	**112**	*e*P	**Pn**	**00 57 49.9**	**+1.4**
OPLO	**Oploo**	**4.13**	**112**	*e*P	**Pn**	**00 57 49.9**	**+1.4**
DCN	**Croghan**	**4.17**	**273**	*e*P	**Pn**	**00 57 49.3**	**+0.2**
DCN	**Croghan**	**4.17**	**273**	*e*P	**Pn**	**00 57 49.3**	**+0.2**
WIT	**Witteveen**	**4.25**	**94**	*e*P	**Pn**	**00 57 51.3**	**+1.2**
WIT	**Witteveen**	**4.25**	**94**	*e*P	**Pn**	**00 57 51.3**	**+1.2**
JSA	**Saint Aubin**	**4.30**	**196**	*e*P	**Pn**	**00 57 50.3**	**-0.5**
JSA				AML	AML	00 58 50.3	
	comp=N,1µm,0.6s						
JSA				AML	AML	00 59 07.2	
	comp=E,3µm,0.7s						
JSA	**Saint Aubin**	**4.30**	**196**	*e*P	**Pn**	**00 57 50.3**	**-0.5**
	comp=E,3µm,0.7s						
BAIF	**Baives**	**4.31**	**137**	*e*Pg	**Pg**	**00 58 07.6**	**-0.3**
BAIF				*e*Sn	**Sn**	**00 58 40.0**	**-1.3**
BAIF				*e*Sg	**Sg**	**00 59 04.7**	**+1.0**
	comp=E,4µm,0.6s						
BAIF	**Baives**	**4.31**	**137**	⇓*i*P	**Pn**	**00 57 51.6**	**+0.7**
BAIF	**Baives**	**4.31**	**137**	*e*P	**Pn**	**00 57 51.7**	**+0.7**
BAIF				*e*		00 58 40.0	
BAIF	**Baives**	**4.31**	**137**	*e*Pn	**Pn**	**00 57 51.7**	**+0.7**
BAIF				*e*Pg	**Pg**	**00 58 07.6**	**-0.3**
BAIF				*e*Sn	**Sn**	**00 58 40.0**	**-1.3**
BAIF				*e*Sg	**Sg**	**00 59 04.7**	**+1.0**
BAIF	**Baives**	**4.31**	**137**	*e*Pn	**Pn**	**00 57 51.7**	**+0.7**
	SNR=1.0						
BAIF	**Baives**	**4.31**	**137**	*e*Pg	**Pg**	**00 58 07.6**	**-0.3**
BAIF				*e*Sn	**Sn**	**00 58 40.0**	**-1.3**
BAIF				*e*Sg	**Sg**	**00 59 04.7**	**+1.0**
	comp=E,2µm,0.6s						
DOU	**Dourbes**	**4.44**	**135**	⇓PN	**Pn**	**00 57 53.2**	**+0.4**
DOU				PG	**Pg**	**00 58 09.5**	**-0.9**
DOU				SN	**Sn**	**00 58 43.2**	**-1.4**
DOU				SG	**Sg**	**00 59 06.4**	**-1.6**
	comp=Z,2µm,0.7s						
DOU	**Dourbes**	**4.44**	**135**	Pn	**Pn**	**00 57 53.2**	**+0.4**
BEBN	**Eben Emael**	**4.48**	**122**	⇓PN	**Pn**	**00 57 53.9**	**+0.6**
BEBN				PG	**Pg**	**00 58 11.3**	**+0.1**
BEBN				SN	**Sn**	**00 58 41.1**	**-4.4**
BEBN				SG	**Sg**	**00 59 07.9**	**-1.2**
	comp=Z,1µm,0.9s						
BEBN	**Eben Emael**	**4.48**	**122**	Pn	**Pn**	**00 57 53.9**	**+0.6**
BCLA	**Clavier**	**4.53**	**128**	⇓PN	**Pn**	**00 57 54.5**	**+0.4**
BCLA				PG	**Pg**	**00 58 11.4**	**-0.8**
BCLA				SN	**Sn**	**00 58 44.6**	**-2.2**
BCLA				SG	**Sg**	**00 59 07.6**	**-3.2**
	comp=N,3µm,0.6s						
BCLA	**Clavier**	**4.53**	**128**	Pn	**Pn**	**00 57 54.5**	**+0.4**
GIVF	**Givet**	**4.54**	**133**	*e*Pn	**Pn**	**00 57 54.3**	**+0.2**
	SNR=1.0						
GIVF				*e*Sn	**Sn**	**00 58 44.9**	**-2.0**
GIVF				*e*Sg	**Sg**	**00 59 11.1**	**+0.1**
	comp=N,15µm,0.9s						
GIVF	**Givet**	**4.54**	**133**	*e*P	**Pn**	**00 57 54.3**	**+0.2**
GIVF				*e*		00 58 44.9	
GIVF	**Givet**	**4.54**	**133**	*e*Pn	**Pn**	**00 57 54.3**	**+0.2**
	SNR=1.0						
GIVF				*e*Sn	**Sn**	**00 58 44.9**	**-2.0**
GIVF				*e*Sg	**Sg**	**00 59 11.1**	**+0.1**
	comp=N,7µm,0.9s						
WTSB	**Winterswijk**	**4.54**	**104**	*e*P	**Pn**	**00 57 54.0**	**-0.1**
WTSB	**Winterswijk**	**4.54**	**104**	*e*Pn	**Pn**	**00 57 54.8**	**+0.6**
WTSB	**Winterswijk**	**4.54**	**104**	*e*Pg	**Pb**	**00 58 01.6**	**-3.5**
WTSB	**Winterswijk**	**4.54**	**104**	*e*P	**Pn**	**00 57 54.0**	**-0.2**
FLN	**La Foliniere**	**4.56**	**181**	*e*Pn	**Pn**	**00 57 54.2**	**-0.3**
	baz=0.5,SNR=1.0						
FLN				*e*Sn	**Sn**	**00 58 45.9**	**-1.6**
	baz=3.4						
FLN				*e*Sg	**Sg**	**00 59 12.4**	**+0.6**
	comp=N,3µm,0.5s,baz=9.8						
FLN				*e*MLR	MLR		
	comp=Z,2µm,18.2s						
FLN	**La Foliniere**	**4.56**	**181**	*e*P	**Pn**	**00 57 54.2**	**-0.2**
FLN				*e*S	**Sn**	**00 58 44.4**	**-3.1**
FLN	**La Foliniere**	**4.56**	**181**	*e*Pn	**Pn**	**00 57 54.2**	**-0.3**
FLN				*e*Sn	**Sn**	**00 58 45.9**	**-1.6**
FLN				*e*Sg	**Sg**	**00 59 12.4**	**+0.6**
FLN	**La Foliniere**	**4.56**	**181**	*e*Pn	**Pn**	**00 57 54.2**	**-0.3**
	baz=0.5,SNR=1.0						
FLN				*e*Sn	**Sn**	**00 58 45.9**	**-1.6**
	baz=3.4						
FLN				*e*Sg	**Sg**	**00 59 12.4**	**+0.6**
	comp=Z,2µm,0.5s,baz=9.8						
MCD	**Coleburn Disti**	**4.59**	**340**	*e*P	**Pn**	**00 57 54.1**	**-0.7**
MCD	**Coleburn Disti**	**4.59**	**340**	*e*P	**Pn**	**00 57 54.1**	**-0.7**
HGN	**Heimansgroeve**	**4.63**	**121**	*e*P	**Pn**	**00 57 55.4**	**0.0**
HGN	**Heimansgroeve**	**4.63**	**121**	*e*Pn	**Pn**	**00 57 55.9**	**+0.5**
HGN	**Heimansgroeve**	**4.63**	**121**	*e*Pg	**Pb**	**00 58 03.5**	**-3.1**
HGN	**Heimansgroeve**	**4.63**	**121**	*e*Pn	**Pn**	**00 57 55.9**	**+0.5**
LDF	**La Druitiere**	**4.73**	**178**	*e*Pn	**Pn**	**00 57 56.4**	**-0.4**
	SNR=1.0						
LDF				*e*Sn	**Sn**	**00 58 49.5**	**-2.2**
	comp=Z,762nm,0.3s,SNR=1.0						
LDF				*e*Sg	**Sg**	**00 59 18.3**	**+1.1**
	comp=Z,3µm,0.4s						
LDF	**La Druitiere**	**4.73**	**178**	*e*P	**Pn**	**00 57 56.4**	**-0.4**
LDF				*e*		00 58 49.5	
LDF	**La Druitiere**	**4.73**	**178**	*e*Pn	**Pn**	**00 57 56.4**	**-0.4**
	SNR=1.0						
LDF				*e*Sn	**Sn**	**00 58 49.5**	**-2.2**
	comp=Z,381nm,0.3s,SNR=1.0						
LDF				*e*Sg	**Sg**	**00 59 18.3**	**+1.1**
	comp=Z,1µm,0.4s						
MDO	**Dochfour**	**4.73**	**332**	*e*P	**Pn**	**00 57 56.3**	**-0.5**
MDO	**Dochfour**	**4.73**	**332**	*e*P	**Pn**	**00 57 56.3**	**-0.5**
MEM	**Membach**	**4.76**	**122**	*e*P	**Pn**	**00 57 57.0**	**-0.2**
MEM	**Membach**	**4.76**	**122**	*e*P	**Pn**	**00 57 57.0**	**-0.2**
KAR1	**Arisaig**	**4.80**	**321**	*e*P	**Pn**	**00 57 57.0**	**-0.7**
KAR1	**Arisaig**	**4.80**	**321**	*e*P	**Pn**	**00 57 57.0**	**-0.7**
HLG	**Helgoland**	**4.95**	**77**	*e*Pn	**Pn**	**00 57 59.1**	**-0.6**
HLG				*e*Sn	**Sn**	**00 58 50.7**	**-6.2**
GRR	**Gorron**	**4.95**	**184**	*e*Pn	**Pn**	**00 57 59.2**	**-0.6**
	SNR=1.0						
GRR				*e*Sn	**Sn**	**00 58 53.3**	**-3.7**
GRR				*e*Sg	**Sg**	**00 59 24.4**	**+0.3**
	comp=Z,3µm,0.5s,SNR=1.0						
GRR	**Gorron**	**4.95**	**184**	*e*P	**Pn**	**00 57 59.4**	**-0.4**
GRR	**Gorron**	**4.95**	**184**	*e*P	**Pn**	**00 57 59.2**	**-0.6**
GRR				*e*		00 58 53.3	
GRR	**Gorron**	**4.95**	**184**	*e*Pn	**Pn**	**00 57 59.2**	**-0.6**
	SNR=1.0						
GRR				*e*Sn	**Sn**	**00 58 53.3**	**-3.7**
GRR				*e*Sg	**Sg**	**00 59 24.4**	**+0.3**
	comp=Z,1µm,0.5s,SNR=1.0						
IBBN	**Ibbenburen**	**5.00**	**98**	*e*P	**Pn**	**00 58 00.6**	**+0.1**
IBBN	**Ibbenburen**	**5.00**	**98**	*e*Pn	**Pn**	**00 58 01.1**	**+0.6**
IBBN				*e*Sn	**Sn**	**00 58 52.7**	**-5.7**
IBBN	**Ibbenburen**	**5.00**	**98**	*e*Pn	**Pn**	**00 58 01.1**	**+0.6**
BUG	**Bochum--Univer**	**5.01**	**109**	*e*Pn	**Pn**	**00 58 01.5**	**+0.8**
BUG				*e*Sn	**Sn**	**00 58 55.0**	**-3.6**
BUG	**Bochum--Univer**	**5.01**	**109**	*e*Pn	**Pn**	**00 58 01.5**	**+0.8**
BUG				*e*Sn	**Sn**	**00 58 55.0**	**-3.6**
KPL	**Plockton**	**5.05**	**325**	*e*P	**Pn**	**00 58 00.1**	**-1.0**
KPL	**Plockton**	**5.05**	**325**	*e*P	**Pn**	**00 58 00.1**	**-1.0**
KAC	**Achnashellach**	**5.06**	**328**	*e*P	**Pn**	**00 58 00.3**	**-1.0**
KAC	**Achnashellach**	**5.06**	**328**	*e*P	**Pn**	**00 58 00.3**	**-1.0**
MVH1	**Achvaich**	**5.11**	**336**	*e*P	**Pn**	**00 58 01.2**	**-0.8**
MVH1	**Achvaich**	**5.11**	**336**	*e*P	**Pn**	**00 58 01.2**	**-0.8**
SGMF	**Saint Gilles**	**5.26**	**197**	*e*Pn	**Pn**	**00 58 03.7**	**-0.4**
	SNR=1.0						
SGMF				*e*Sn	**Sn**	**00 59 01.4**	**-3.4**
	comp=Z,976nm,0.4s,SNR=1.0						
SGMF				*e*Sg	**Sg**	**00 59 34.6**	**+0.3**
	comp=Z,3µm,0.7s						
SGMF	**Saint Gilles**	**5.26**	**197**	*e*P	**Pn**	**00 58 03.9**	**-0.2**
SGMF	**Saint Gilles**	**5.26**	**197**	*e*P	**Pn**	**00 58 03.7**	**-0.4**
SGMF				*e*		00 59 01.4	
SGMF	**Saint Gilles**	**5.26**	**197**	*e*Pn	**Pn**	**00 58 03.7**	**-0.4**
	SNR=1.0						
SGMF				*e*Sn	**Sn**	**00 59 01.4**	**-3.4**
	comp=Z,488nm,0.4s,SNR=1.0						
SGMF				*e*Sg	**Sg**	**00 59 34.6**	**+0.3**
	comp=Z,1µm,0.7s						
MLA1	**Latheron**	**5.29**	**342**	*e*P	**Pn**	**00 58 03.4**	**-0.9**
MLA1	**Latheron**	**5.29**	**342**	*e*P	**Pn**	**00 58 03.4**	**-1.0**
ROSF	**Rostrenen**	**5.33**	**202**	*e*Pn	**Pn**	**00 58 04.6**	**-0.4**
	SNR=1.0						
ROSF				*e*Sn	**Sn**	**00 59 04.0**	**-2.4**
ROSF				*e*Sg	**Sg**	**00 59 35.6**	**-0.7**
	comp=Z,2µm,0.5s						
ROSF	**Rostrenen**	**5.33**	**202**	*e*P	**Pn**	**00 58 04.7**	**-0.3**
ROSF	**Rostrenen**	**5.33**	**202**	*e*P	**Pn**	**00 58 04.6**	**-0.4**
ROSF				*e*		00 59 04.0	
ROSF	**Rostrenen**	**5.33**	**202**	*e*Pn	**Pn**	**00 58 04.6**	**-0.4**
	SNR=1.0						
ROSF				*e*Sn	**Sn**	**00 59 04.0**	**-2.4**
ROSF				*e*Sg	**Sg**	**00 59 35.6**	**-0.7**
	comp=Z,780nm,0.5s						
WLF	**Walferdange**	**5.45**	**130**	⇓PN	**Pn**	**00 58 07.1**	**+0.4**
WLF				PG	**Pg**	**00 58 27.7**	**-2.0**
WLF				SN		00 58 39.3	
WLF				SG	**Sn**	**00 59 06.5**	**-2.9**
	comp=N,3µm,0.8s						
WLF	**Walferdange**	**5.45**	**130**	*e*Pn	**Pn**	**00 58 07.5**	**+0.8**
WLF	**Walferdange**	**5.45**	**130**	*e*Pn	**Pn**	**00 58 07.3**	**+0.6**
WLF				*e*Sn	**Sn**	**00 59 09.2**	**-0.2**
WLF	**Walferdange**	**5.45**	**130**	Pn	**Pn**	**00 58 07.1**	**+0.4**
WLF	**Walferdange**	**5.45**	**130**	*e*P	**Pn**	**00 58 07.3**	**+0.6**
KSK	**Scoval**	**5.52**	**321**	*e*P	**Pn**	**00 58 07.8**	**+0.2**
KSK	**Scoval**	**5.52**	**321**	*e*P	**Pn**	**00 58 07.8**	**+0.2**
ORE	**Reay**	**5.59**	**341**	*e*P	**Pn**	**00 58 07.2**	**-1.3**
ORE	**Reay**	**5.59**	**341**	*e*P	**Pn**	**00 58 07.2**	**-1.3**
QUIF	**Quistinic**	**5.70**	**200**	*e*Pn	**Pn**	**00 58 09.6**	**-0.5**
	SNR=1.0						
QUIF				*e*Sn	**Sn**	**00 59 12.8**	**-2.8**
QUIF	**Quistinic**	**5.70**	**200**	*e*P	**Pn**	**00 58 09.5**	**-0.6**
QUIF	**Quistinic**	**5.70**	**200**	*e*Pn	**Pn**	**00 58 09.6**	**-0.5**
	SNR=1.0						
QUIF				*e*Sn	**Sn**	**00 59 12.8**	**-2.8**
RUP	**Ruppelstein**	**5.86**	**125**	P	**Pn**	**00 58 12.9**	**+0.6**
RUP	**Ruppelstein**	**5.86**	**125**	P	**Pn**	**00 58 12.9**	**+0.6**
MEZF	**Maizieres J'vi**	**5.90**	**143**	*e*Pn	**Pn**	**00 58 13.2**	**+0.4**
	baz=322,SNR=1.0						
MEZF				*e*Sn	**Sn**	**00 59 17.1**	**-3.3**
MEZF				*e*Sg	**Sg**	**00 59 53.7**	**-0.9**
	comp=N,3µm,0.7s,baz=320						
MEZF	**Maizieres J'vi**	**5.90**	**143**	*e*Pn	**Pn**	**00 58 13.2**	**+0.4**
	baz=322,SNR=1.0						
RFYF	**Reffroy**	**5.95**	**140**	*e*Pn	**Pn**	**00 58 13.9**	**+0.4**
	baz=311						
RFYF				*e*Sn	**Sn**	**00 59 18.3**	**-3.4**
	baz=318						
RFYF				*e*Sg	**Sg**	**00 59 55.2**	**-1.1**
	comp=N,2µm,0.5s,baz=323						
RFYF	**Reffroy**	**5.95**	**140**	*e*Pn	**Pn**	**00 58 13.9**	**+0.4**
	baz=311						
ABH	**Alteburg**	**5.99**	**122**	P	**Pn**	**00 58 14.6**	**+0.6**
ABH	**Alteburg**	**5.99**	**122**	P	**Pn**	**00 58 14.6**	**+0.6**
SFTF	**Sexfontaines**	**6.14**	**144**	*e*Pn	**Pn**	**00 58 16.2**	**0.0**
	baz=319						
SFTF				*e*Sn	**Sn**	**00 59 22.8**	**-3.7**
	comp=N,1µm,0.4s						
SFTF	**Sexfontaines**	**6.14**	**144**	*e*Pn	**Pn**	**00 58 16.2**	**0.0**
	baz=319						
VAL	**Valentia**	**6.20**	**261**	*e*P	**Pn**	**00 58 17.5**	**+0.6**
VAL	**Valentia**	**6.20**	**261**	*e*P	**Pn**	**00 58 15.7**	**-1.2**
VAL	**Valentia**	**6.20**	**261**	*e*P	**Pn**	**00 58 17.5**	**+0.6**
TNS	**Taunus Mts**	**6.26**	**116**	*e*Pn	**Pn**	**00 58 18.9**	**+1.1**
TNS	**Taunus Mts**	**6.26**	**116**	*e*Pn	**Pn**	**00 58 18.5**	**+0.7**
	baz=305						
TNS	**Taunus Mts**	**6.26**	**116**	*e*P	**Pn**	**00 58 18.9**	**+1.1**
MUD	**Monsted U'grnd**	**6.32**	**56**	*e*P	**Pn**	**00 58 17.2**	**-1.3**
MUD	**Monsted U'grnd**	**6.32**	**56**	*e*Pn	**Pn**	**00 58 17.8**	**-0.7**
MUD	**Monsted U'grnd**	**6.32**	**56**	⇓*i*P	**Pn**	**00 58 17.8**	**-0.7**
MUD				*i* S	**Sn**	**00 59 32.9**	**+2.3**
MUD				*e*		01 01 55.5	
MUD							
	comp=Z,750nm,17.0s						
MUD	**Monsted U'grnd**	**6.32**	**56**	⇓*i*P	**Pn**	**00 58 17.8**	**-0.7**
MUD				*i* S	**Sn**	**00 59 32.9**	**+2.3**
MUD				*e*		01 01 55.5	
MUD	**Monsted U'grnd**	**6.32**	**56**	⇓*i*P	**Pn**	**00 58 17.8**	**-0.7**
	SNR=83						
MUD				*i* S	**Sn**	**00 59 32.9**	**+2.3**
	comp=Z,146nm,0.5s,SNR=82						
HYF	**Humbligny**	**6.34**	**161**	*e*Pn	**Pn**	**00 58 19.1**	**+0.2**
HYF				*e*Sg	**Sg**	**01 00 08.5**	**-0.4**
HYF	**Humbligny**	**6.34**	**161**	*e*P	**Pn**	**00 58 18.9**	**-0.1**
HYF	**Humbligny**	**6.34**	**161**	*e*Pn	**Pn**	**00 58 19.1**	**+0.2**
BSEG	**Bad Segeberg**	**6.36**	**80**	*e*P	**Pn**	**00 58 18.4**	**-0.8**
BSEG	**Bad Segeberg**	**6.36**	**80**	P	**Pn**	**00 58 18.4**	**-0.8**
BSEG	**Bad Segeberg**	**6.36**	**80**	*e*Pn	**Pn**	**00 58 18.1**	**-1.0**
BSEG				*e*Sn	**Sn**	**00 59 24.5**	**-7.2**
BSEG	**Bad Segeberg**	**6.36**	**80**	*e*Pn	**Pn**	**00 58 18.2**	**-0.9**
	baz=270						
THEF	**They Montfort**	**6.48**	**139**	P	**Pn**	**00 58 20.5**	**-0.2**
THEF	**They Montfort**	**6.48**	**139**	P	**Pn**	**00 58 20.5**	**-0.2**
STAV	**Stavanger**	**6.56**	**28**	*e*P	**Pn**	**00 58 18.2**	**-3.6**
STAV				*e*S	**Sn**	**00 59 27.8**	**-8.8**
STAV	**Stavanger**	**6.56**	**28**	*e*Pn	**Pn**	**00 58 18.2**	**-3.6**
STAV				*e*Sn	**Sn**	**00 59 27.8**	**-8.8**
STAV				AML	AML	00 59 40.3	
	comp=Z,203nm,0.2s						
SNART	**Snartemo**	**6.58**	**37**	*e*P	**Pn**	**00 58 19.3**	**-2.8**
SNART				*e*S	**Sn**	**00 59 30.2**	**-6.9**
SNART	**Snartemo**	**6.58**	**37**	*e*Pn	**Pn**	**00 58 19.3**	**-2.8**
SNART				*e*Sn	**Sn**	**00 59 30.2**	**-6.9**
SNART				AML	AML	00 59 41.6	
	comp=Z,632nm,0.3s						
KTD	**Kalmit**	**6.61**	**124**	P	**Pn**	**00 58 24.1**	**+1.5**
KTD	**Kalmit**	**6.61**	**124**	P	**Pn**	**00 58 24.1**	**+1.5**
LOR	**Lormes**	**6.62**	**155**	*e*Pn	**Pn**	**00 58 22.5**	**-0.2**
	baz=336,SNR=1.0						
LOR				*e*Sn	**Sn**	**00 59 30.8**	**-7.4**
	comp=Z,801nm,0.4s,baz=342,SNR=1.0						
LOR				*e*Sg	**Sg**	**01 00 17.3**	**-0.5**
	comp=Z,1µm,0.7s,baz=337						
LOR				*e*MLR	MLR		
	comp=Z,1µm,19.0s						
LOR	**Lormes**	**6.62**	**155**	⇓*i*P	**Pn**	**00 58 22.4**	**-0.3**
LOR	**Lormes**	**6.62**	**155**	*e*Pn	**Pn**	**00 58 22.5**	**-0.2**
LOR				*e*Sn	**Sn**	**00 59 30.8**	**-7.4**
LOR				*e*Sg	**Sg**	**01 00 17.3**	**-0.5**
LOR	**Lormes**	**6.62**	**155**	*e*Pn	**Pn**	**00 58 22.5**	**-0.2**
	baz=336,SNR=1.0						
KMY	**Karmoy**	**6.67**	**25**	⇓*e*P	**Pn**	**00 58 20.7**	**-2.7**
KMY				*e*S	**Sn**	**00 59 30.2**	**-9.2**
KMY	**Karmoy**	**6.67**	**25**	*e*Pn	**Pn**	**00 58 20.7**	**-2.7**
KMY				*e*Sn	**Sn**	**00 59 30.2**	**-9.2**
KMY				AML	AML	00 59 45.5	
	comp=Z,251nm,0.3s						
CLZ	**Clausthal**	**6.68**	**98**	*e*Pn	**Pn**	**00 58 24.4**	**+0.8**
CLZ				*e*Sn	**Sn**	**00 59 32.3**	**-7.4**
CLZ	**Clausthal**	**6.68**	**98**	*e*Pn	**Pn**	**00 58 24.4**	**+0.8**
LANF	**Langenberg**	**6.71**	**127**	P	**Pn**	**00 58 24.3**	**+0.4**
LANF	**Langenberg**	**6.71**	**127**	P	**Pn**	**00 58 24.3**	**+0.4**
MFF	**Saint Martin d**	**6.72**	**179**	*e*Pn	**Pn**	**00 58 22.8**	**-1.3**
	SNR=1.0						
MFF				*e*Sn	**Sn**	**00 59 35.8**	**-5.0**
MFF				*e*Sg	**Sg**	**01 00 18.5**	**-2.6**
	comp=Z,3µm,1.0s						
MFF	**Saint Martin d**	**6.72**	**179**	*e*P	**Pn**	**00 58 22.9**	**-1.3**
MFF	**Saint Martin d**	**6.72**	**179**	*e*P	**Pn**	**00 58 22.8**	**-1.3**
MFF				*e*		00 59 35.8	
MFF	**Saint Martin d**	**6.72**	**179**	*e*Pn	**Pn**	**00 58 22.8**	**-1.3**
	SNR=1.0						
SSF	**Saint Saulge**	**6.73**	**157**	*e*Pn	**Pn**	**00 58 23.8**	**-0.4**
	SNR=1.0						
SSF				*e*Sg	**Sg**	**01 00 19.5**	**-1.7**
	comp=Z,830nm,0.5s						
SSF	**Saint Saulge**	**6.73**	**157**	⇓*i*P	**Pn**	**00 58 23.7**	**-0.5**
SSF	**Saint Saulge**	**6.73**	**157**	*e*Pn	**Pn**	**00 58 23.8**	**-0.4**
	SNR=1.0						
HAU	**Haudompre**	**6.80**	**139**	*e*Pn	**Pn**	**00 58 24.5**	**-0.7**
	SNR=1.0						

HAU				eSn	Sn	00 59 37.6	-5.0
HAU				eMLR	MLR		
	comp=Z,1µm,15.8s						
HAU	Haudompre	6.80	139	⇑iP	Pn	00 58 24.7	-0.4
HAU	Haudompre	6.80	139	ePn	Pn	00 58 24.5	-0.7
	SNR=1.0						
TOD	Tromm	6.80	119	P	Pn	00 58 25.5	+0.3
TOD	Tromm	6.80	119	P	Pn	00 58 25.5	+0.3
SWS	Schriesheim-Wi	6.82	121	P	Pn	00 58 26.7	+1.2
SWS	Schriesheim-Wi	6.82	121	P	Pn	00 58 26.7	+1.2
LRW	Lerwick	6.85	356	eP	Pn	00 58 23.1	-2.8
LRW				AML	AML	00 59 39.3	
	comp=E,407nm,0.4s						
LRW				AML	AML	00 59 40.0	
	comp=N,319nm,0.3s						
LRW	Lerwick	6.85	356	eP	Pn	00 58 23.1	-2.8
LRW				AML	AML	00 59 39.3	
	comp=E,407nm,0.4s						
LRW				AML	AML	00 59 40.0	
	comp=N,319nm,0.3s						
CDF	Champ du Feu	6.87	133	ePn	Pn	00 58 26.2	+0.1
	SNR=1.0						
CDF				eSn	Sn	00 59 41.5	-2.8
CDF				eSg	Sg	01 00 22.2	-3.6
	comp=N,801nm,0.6s,SNR=1.0						
CDF	Champ du Feu	6.87	133	eP	Pn	00 58 26.4	+0.2
CDF	Champ du Feu	6.87	133	eP	Pn	00 58 26.2	+0.1
CDF				e		00 59 41.5	
CDF	Champ du Feu	6.87	133	ePn	Pn	00 58 26.2	+0.1
	SNR=1.0						
AVF	Avril sur Loir	6.95	159	ePn	Pn	00 58 26.4	-0.8
	SNR=1.0						
AVF				eSg	Sg	01 00 27.5	-0.7
	comp=N,1µm,0.7s						
AVF	Avril sur Loir	6.95	159	⇓iP	Pn	00 58 26.3	-0.9
AVF	Avril sur Loir	6.95	159	ePn	Pn	00 58 26.4	-0.8
	SNR=1.0						
ECH	Echery	6.97	134	eP	Pn	00 58 26.7	-0.8
ECH	Echery	6.97	134	P	Pn	00 58 27.7	+0.2
ECH	Echery	6.97	134	ePn	Pn	00 58 27.5	0.0
ECH				eSn	Sn	00 59 47.7	+1.0
ECH	Echery	6.97	134	ePn	Pn	00 58 27.5	0.0
BGF	Bois d'Agland	7.07	162	ePn	Pn	00 58 28.0	-0.9
	SNR=1.0						
BGF				eSg	Sg	01 00 30.8	-1.3
	comp=N,4µm,0.6s						
BGF	Bois d'Agland	7.07	162	⇓iP	Pn	00 58 27.9	-0.9
BGF	Bois d'Agland	7.07	162	ePn	Pn	00 58 28.0	-0.9
	SNR=1.0						
HINF	Hinteralfeld	7.15	137	ePn	Pn	00 58 29.2	-0.8
	baz=325,SNR=1.0						
HINF				eSg	Sg	01 00 33.4	-1.4
	comp=N,2µm,0.8s						
HINF	Hinteralfeld	7.15	137	eP	Pn	00 58 29.5	-0.5
HINF	Hinteralfeld	7.15	137	ePn	Pn	00 58 29.2	-0.8
	baz=325,SNR=1.0						
BLS5	Blasjo	7.18	29	eP	Pn	00 58 28.0	-2.4
BLS5				eS	Sn	00 59 44.0	-7.9
BLS5	Blasjo	7.18	29	ePn	Pn	00 58 28.0	-2.4
BLS5				eSn	Sn	00 59 44.0	-7.9
BLS5				AML	AML	00 59 52.3	
	comp=Z,290nm,0.1s						
CHIF	Chize	7.19	180	P	Pn	00 58 30.2	-0.4
CHIF	Chize	7.19	180	P	Pn	00 58 30.2	-0.4
SMF	Signal de Mont	7.20	156	ePn	Pn	00 58 29.7	-0.9
	SNR=1.0						
SMF				eSg	Sg	01 00 34.5	-1.7
	comp=Z,2µm,0.7s						
SMF	Signal de Mont	7.20	156	⇓iP	Pn	00 58 29.7	-0.9
SMF	Signal de Mont	7.20	156	ePn	Pn	00 58 29.7	-0.9
	SNR=1.0						
LIBD	Limburg	7.21	133	P	Pn	00 58 31.7	+0.9
LIBD	Limburg	7.21	133	P	Pn	00 58 31.7	+0.9
TCF	Toulx Ste Croi	7.22	166	ePn	Pn	00 58 29.9	-1.1
	SNR=1.0						
TCF				eSn	Sn	00 59 50.2	-2.9
TCF				eSg	Sg	01 00 35.5	-1.6
	comp=Z,3µm,0.9s						
TCF	Toulx Ste Croi	7.22	166	eP	Pn	00 58 29.9	-1.1
TCF				e		00 59 50.2	
TCF	Toulx Ste Croi	7.22	166	ePn	Pn	00 58 29.9	-1.1
	SNR=1.0						
MOF	Molkenrain	7.24	136	P	Pn	00 58 31.1	-0.1
MOF	Molkenrain	7.24	136	P	Pn	00 58 31.1	-0.1
SIND	Sindeldorf	7.38	119	P	Pn	00 58 34.6	+1.5
SIND	Sindeldorf	7.38	119	P	Pn	00 58 34.6	+1.5
LBG	Lerchenberg	7.40	125	P	Pn	00 58 34.3	+0.9
LBG	Lerchenberg	7.40	125	P	Pn	00 58 34.3	+0.9
BFO	Black Forest	7.41	129	i P	Pn	00 58 34.1	+0.6
BFO	Black Forest	7.41	129	ePn	Pn	00 58 33.9	+0.4
BFO	Black Forest	7.41	129	ePn	Pn	00 58 33.9	+0.4
FBB	Freiburg im Br	7.43	132	P	Pn	00 58 35.4	+1.5
FBB	Freiburg im Br	7.43	132	P	Pn	00 58 35.4	+1.5
KIZ	Kirchzarten	7.50	132	P	Pn	00 58 35.2	+0.5
KIZ	Kirchzarten	7.50	132	P	Pn	00 58 35.2	+0.5
LOMF	Lomont	7.52	140	P	Pn	00 58 35.3	+0.2
LOMF	Lomont	7.52	140	P	Pn	00 58 35.3	+0.2
STU	Stuttgart	7.53	123	eP	Pn	00 58 35.7	+0.5
STU	Stuttgart	7.53	123	ePn	Pn	00 58 36.2	+1.1
STU	Stuttgart	7.53	123	ePn	Pn	00 58 36.0	+0.9
	baz=312						
FELD	Feldberg im Sc	7.59	132	P	Pn	00 58 36.4	+0.3
FELD	Feldberg im Sc	7.59	132	P	Pn	00 58 36.4	+0.3
EGD	Espegrend	7.60	21	eP	Pn	00 58 31.8	-4.4
EGD				eS	Sn	00 59 53.3	-9.0
EGD	Espegrend	7.60	21	ePn	Pn	00 58 31.8	-4.4
EGD				eSn	Sn	00 59 53.3	-9.0
EGD				AML	AML	01 00 08.8	
	comp=Z,278nm,0.3s						
AGO	Saint Agoulin	7.61	162	P	Pn	00 58 36.0	-0.3
AGO	Saint Agoulin	7.61	162	P	Pn	00 58 36.0	-0.3
TUBL	Tuebingen-Lenn	7.64	125	P	Pn	00 58 38.2	+1.6
TUBL	Tuebingen-Lenn	7.64	125	P	Pn	00 58 38.2	+1.6
ODD1	Odda	7.64	27	⇓eP	Pn	00 58 32.8	-3.9
ODD1				eS	Sn	00 59 55.1	-8.1
ODD1	Odda	7.64	27	ePn	Pn	00 58 32.9	-3.7
ODD1				eSn	Sn	00 59 55.1	-8.1
ODD1				AML	AML	01 00 25.2	
	comp=Z,188nm,0.7s						
BOURR	Bourrignon	7.64	138	⇑iPn	Pn	00 58 36.9	+0.1
	comp=Z,162nm,0.4s						
BOURR	Bourrignon	7.64	138	⇑iPn	Pn	00 58 36.9	+0.1
	comp=Z,162nm,0.4s						
BBS	Basel-Blauen	7.70	136	P	Pn	00 58 37.7	+0.1
BBS	Basel-Blauen	7.70	136	P	Pn	00 58 37.7	+0.1
BER	Bergen	7.73	21	P	Pn	00 58 34.4	-3.5
BER	Bergen	7.73	21	eP	Pn	00 58 33.4	-4.5
BER				eP		00 58 34.4	
BER	Bergen	7.73	21	P	Pn	00 58 34.4	-3.5
BRANT	Les Verrieres	7.73	143	⇓iPn	Pn	00 58 38.2	+0.2
	comp=Z,669nm,0.3s						
BRANT	Les Verrieres	7.73	143	⇓iPn	Pn	00 58 38.2	+0.2
	comp=Z,669nm,0.3s						
PLDF	La Plantade	7.79	159	P	Pn	00 58 38.7	0.0
PLDF	La Plantade	7.79	159	P	Pn	00 58 38.7	0.0
SPAK	Spaichingen-Ko	7.79	128	P	Pn	00 58 39.1	+0.4
SPAK	Spaichingen-Ko	7.79	128	P	Pn	00 58 39.1	+0.4
ASK	Askoy	7.79	21	eP	Pn	00 58 34.2	-4.5
ASK				eS	Sn	00 59 57.4	-9.4
ASK	Askoy	7.79	21	ePn	Pn	00 58 34.2	-4.5
ASK				eSn	Sn	00 59 57.4	-9.4
ASK				AML	AML	01 00 02.2	
	comp=Z,271nm,0.9s						
VERF	Verneugheol	7.79	165	P	Pn	00 58 38.5	-0.3
VERF	Verneugheol	7.79	165	P	Pn	00 58 38.5	-0.3
COP	Copenhagen	7.79	67	eP	Pn	00 58 38.1	-0.6
COP	Copenhagen	7.79	67	ePn	Pn	00 58 38.5	-0.3
COP				eSn	Sn	00 59 55.5	-12
COP	Copenhagen	7.79	67	⇓iP	Pn	00 58 38.5	-0.3
COP				i S	Sn	01 00 00.1	-6.9
COP	Copenhagen	7.79	67	⇓iP	Pn	00 58 38.5	-0.3
	SNR=83						
BUCH	Bad Urach	7.82	125	P	Pn	00 58 40.4	+1.3
BUCH	Bad Urach	7.82	125	P	Pn	00 58 40.4	+1.3
MOX	Moxa	7.84	105	ePN	Pn	00 58 40.3	+0.9
MOX							
	comp=Z,1µm,15.0s						
MOX	Moxa	7.84	105	eP	Pn	00 58 39.9	+0.4
MOX	Moxa	7.84	105	ePn	Pn	00 58 40.7	+1.3
MOX				eSn	Sn	01 00 03.9	-4.3
MOX	Moxa	7.84	105	ePn	Pn	00 58 40.2	+0.8
	baz=296						
PYM	Petit Puy Mans	7.88	163	P	Pn	00 58 39.3	-0.7
PYM	Petit Puy Mans	7.88	163	P	Pn	00 58 39.3	-0.7
CABF	La Chapelle	7.88	146	eP	Pn	00 58 46.0	+6.0
CABF				eSn	Sn	01 00 04.0	-5.2
CABF				eSg	Sn	01 00 56.8	+48
	comp=Z,2µm,0.8s						
CABF	La Chapelle	7.88	146	⇓iP	Pn	00 58 39.9	-0.1
CABF	La Chapelle	7.88	146	eP	Pn	00 58 40.1	+0.1
CABF				e		01 00 04.0	
CABF	La Chapelle	7.88	146	ePn	Pn	00 58 40.1	+0.1
CABF				eP		00 58 46.0	
CABF				eSn	Sn	01 00 04.0	-5.2
CABF				eSg	Sn	01 00 56.8	+48
CABF	La Chapelle	7.88	146	ePn	Pn	00 58 40.1	+0.1
	SNR=1.0						
BALST	Balsthal	7.88	136	⇓iPn	Pn	00 58 40.2	+0.2
	comp=Z,116nm,0.3s						
BALST	Balsthal	7.88	136	⇓iPn	Pn	00 58 40.2	+0.2
	comp=Z,116nm,0.3s						
CFF	Clermont-Ferra	7.88	162	P	Pn	00 58 39.9	-0.1
CFF	Clermont-Ferra	7.88	162	P	Pn	00 58 39.9	-0.1
SLE	Schleitheim	7.90	131	⇓iPn	Pn	00 58 40.3	+0.1
	comp=Z,273nm,0.5s						
SLE	Schleitheim	7.90	131	⇓iPn	Pn	00 58 40.3	+0.1
	comp=Z,273nm,0.5s						
SULZ	Cheisacher	7.91	134	⇓iPn	Pn	00 58 40.6	+0.2
	comp=Z,224nm,0.5s						
SULZ	Cheisacher	7.91	134	⇓iPn	Pn	00 58 40.6	+0.2
	comp=Z,224nm,0.5s						
GUT	Gutenstein	7.96	127	P	Pn	00 58 42.1	+1.0
GUT	Gutenstein	7.96	127	P	Pn	00 58 42.1	+1.0
GIMEL	St. Georges /	8.01	145	⇓iPn	Pn	00 58 41.9	+0.2
	comp=Z,220nm,0.2s						
GIMEL	St. Georges /	8.01	145	⇓iPn	Pn	00 58 41.9	+0.2
	comp=Z,220nm,0.2s						
TORNY	Torny/Romont	8.05	142	⇓iPn	Pn	00 58 42.6	+0.3
	comp=Z,652nm,0.3s						
TORNY	Torny/Romont	8.05	142	⇓iPn	Pn	00 58 42.6	+0.3
	comp=Z,652nm,0.3s						
GRA1	Grafenberg Arr	8.06	112	ePn	Pn	00 58 43.8	+1.3
GRA1				eSn	Sn	01 00 07.7	-6.0
GRA1	Grafenberg Arr	8.06	112	ePn	Pn	00 58 43.8	+1.3
GRF	Grafenberg Arr	8.06	112	ePn	Pn	00 58 43.8	+1.3
GRF				eSn	Sn	01 00 07.7	-6.0
GRF	Grafenberg Arr	8.06	112	ePn	Pn	00 58 43.8	+1.3
GRFO	Grafenberg	8.06	112	P	Pn	00 58 44.4	+1.9
GRFO	Grafenberg	8.06	112	P	Pn	00 58 44.4	+1.9
TRULL	Truellikon	8.07	131	⇓iPn	Pn	00 58 42.9	+0.3
	comp=Z,116nm,0.2s						
TRULL	Truellikon	8.07	131	⇓iPn	Pn	00 58 42.9	+0.3
	comp=Z,116nm,0.2s						
FLACH	Flaach	8.07	132	⇓iPn	Pn	00 58 43.1	+0.4
	comp=Z,50nm,0.1s						
FLACH	Flaach	8.07	132	⇓iPn	Pn	00 58 43.1	+0.4
	comp=Z,50nm,0.1s						
RJF	Les Rejaudoux	8.11	171	ePn	Pn	00 58 41.3	-1.9
	SNR=1.0						
RJF				eSn	Sn	01 00 09.1	-5.7
RJF				eSg	Sn	01 01 03.3	+48
	comp=Z,2µm,0.8s						
RJF				eMLR	MLR		
	comp=Z,2µm,16.0s						
RJF	Les Rejaudoux	8.11	171	ePn	Pn	00 58 41.3	-1.9
RJF				eSn	Sn	01 00 09.1	-5.7
RJF				eSg	Sn	01 01 03.3	+48
RJF	Les Rejaudoux	8.11	171	ePn	Pn	00 58 41.3	-1.9
	SNR=1.0						
RGN	Rugen	8.15	76	ePn	Pn	00 58 43.2	-0.4
RGN	Rugen	8.15	76	ePn	Pn	00 58 43.2	-0.4
FRNF	Fournols	8.16	166	P	Pn	00 58 42.5	-1.3
FRNF	Fournols	8.16	166	P	Pn	00 58 42.5	-1.3
HDH	Heidenheim-Cha	8.16	121	P	Pn	00 58 45.3	+1.5
HDH	Heidenheim-Cha	8.16	121	P	Pn	00 58 45.3	+1.5
SISB	Singen-Schiene	8.17	130	P	Pn	00 58 45.4	+1.4
SISB	Singen-Schiene	8.17	130	P	Pn	00 58 45.4	+1.4
COLF	Collangettes	8.23	160	P	Pn	00 58 44.7	-0.1
COLF	Collangettes	8.23	160	P	Pn	00 58 44.7	-0.1
SUE	Sulen	8.23	18	⇓eP	Pn	00 58 41.0	-3.8
SUE				eS	Sn	01 00 05.5	-12
SUE	Sulen	8.23	18	ePn	Pn	00 58 40.9	-3.9
SUE				eSn	Sn	01 00 05.5	-12
SUE				AML	AML	01 00 22.8	
	comp=Z,231nm,1.2s						
WERD	Werda	8.32	105	ePn	Pn	00 58 47.2	+1.1
OG01	Vacheresse	8.33	144	P	Pn	00 58 46.1	0.0
OG01	Vacheresse	8.33	144	P	Pn	00 58 46.1	0.0
GUNZ	Gunzen	8.37	106	ePn	Pn	00 58 48.1	+1.3
KONO	Kongsberg	8.38	37	eP	Pn	00 58 43.5	-3.4
KONO				eS	Sn	01 00 13.9	-7.6
KONO	Kongsberg	8.38	37	ePn	Pn	00 58 43.5	-3.4
KONO				eSn	Sn	01 00 13.6	-7.8
KONO				AML	AML	01 00 39.1	
	comp=Z,114nm,0.5s						
KONO	Kongsberg	8.38	37	⇑eP	Pn	00 58 43.2	-3.6
WIMIS	Wimmis	8.39	139	⇓iPn	Pn	00 58 47.4	+0.3
	comp=Z,249nm,0.6s						
WIMIS	Wimmis	8.39	139	⇓iPn	Pn	00 58 47.4	+0.3
	comp=Z,249nm,0.6s						
CLL	Collm	8.41	98	eP	Pn	00 58 48.0	+0.8
CLL				e		01 00 27.0	
CLL				MLR	MLR		
	comp=Z,1µm,14.3s						
CLL	Collm	8.41	98	ePn	Pn	00 58 47.4	+0.2
CLL	Collm	8.41	98	ePn	Pn	00 58 48.0	+0.8
CLL				e		00 58 56.0	
CLL				e		01 00 10.0	
CLL				eSn	Sn	01 00 27.0	+4.8
CLL				eSg	Sn	01 01 22.0	+60
	comp=Z,445nm,1.2s						
CLL				LmH		01 01 30.0	
	comp=N,2µm,19.2s						
CLL				LmH		01 01 30.0	
	comp=E,600nm,20.5s						
CLL				Lmax		01 01 50.0	
CLL	Collm	8.41	98	ePn	Pn	00 58 48.0	+0.8
CLL				eSn	Sn	01 00 27.0	+4.8
CLL				eSg	Sn	01 01 22.0	+60
CLL	Collm	8.41	98	ePn	Pn	00 58 48.0	+0.8
AIGLE	Aigle	8.41	143	⇓iPn	Pn	00 58 47.4	+0.1
	comp=E,158nm,0.4s						
AIGLE	Aigle	8.41	143	⇓iPn	Pn	00 58 47.4	+0.1
	comp=E,158nm,0.4s						
LFF	La Frestale	8.41	175	ePn	Pn	00 58 46.0	-1.3
	SNR=1.0						
LFF				eSn	Sn	01 00 16.3	-6.0
LFF				eSg	Sn	01 01 13.2	+51
	comp=E,2µm,0.7s						
LFF	La Frestale	8.41	175	eP	Pn	00 58 45.9	-1.4
LFF	La Frestale	8.41	175	eP	Pn	00 58 46.0	-1.3
LFF				e		01 00 16.3	
LFF	La Frestale	8.41	175	ePn	Pn	00 58 46.0	-1.3
	SNR=1.0						
MANZ	Manzenberg	8.42	108	ePn	Pn	00 58 48.4	+1.1
LBL	Lubilhac	8.42	163	P	Pn	00 58 47.4	0.0
LBL	Lubilhac	8.42	163	P	Pn	00 58 47.4	0.0
TANN	Tannenbergstha	8.43	105	ePn	Pn	00 58 48.6	+1.1
WERN	Wernitzgruen	8.43	106	ePn	Pn	00 58 48.8	+1.2
NKC	Novy Kostel	8.50	106	ePN	Pn	00 58 49.4	+0.9
NKC				AMS	AMS	01 02 30.0	
	comp=E,1µm,9.8s						
NKC	Novy Kostel	8.50	106	ePn	Pn	00 58 49.4	+0.9
SENIN	Lac Senin/Sane	8.52	142	⇓iPn	Pn	00 58 49.3	+0.5
	comp=E,440nm,0.7s						
SENIN	Lac Senin/Sane	8.52	142	⇓iPn	Pn	00 58 49.3	+0.5
	comp=E,440nm,0.7s						
HASLI	Hasliberg/Brie	8.53	137	⇓iPn	Pn	00 58 49.3	+0.4
	comp=E,156nm,0.3s						
HASLI	Hasliberg/Brie	8.53	137	⇓iPn	Pn	00 58 49.3	+0.4
	comp=E,156nm,0.3s						
CAF	Calviac	8.54	169	ePn	Pn	00 58 47.4	-1.7
	SNR=1.0						
CAF				eSn	Sn	01 00 19.2	-6.3
	comp=E,579nm,0.4s,SNR=1.0						
CAF				eSg	Sn	01 01 17.8	+52
	comp=E,1µm,0.9s						
CAF	Calviac	8.54	169	eP	Pn	00 58 47.9	-1.2
CAF	Calviac	8.54	169	eP	Pn	00 58 47.4	-1.7
CAF				e		01 00 19.2	
CAF	Calviac	8.54	169	ePn	Pn	00 58 47.4	-1.7
	SNR=1.0						
GRYON	Gryon	8.55	143	⇓iPn	Pn	00 58 49.4	+0.2
	comp=E,119nm,0.6s						
GRYON	Gryon	8.55	143	⇓iPn	Pn	00 58 49.4	+0.2
	comp=E,119nm,0.6s						
RUE	Ruedersdorf	8.57	90	ePn	Pn	00 58 48.1	-1.3
RUE				eSn	Sn	01 00 24.6	-1.5
RUE	Ruedersdorf	8.57	90	ePn	Pn	00 58 48.1	-1.3
RUE	Ruedersdorf	8.57	90	P	Pn	00 58 50.6	+1.2
	SNR=82						
RUE				eSn	Sn	01 00 24.6	-1.5
ROTZ	Rotzenmuhle	8.58	109	ePn	Pn	00 58 50.5	+0.9
SALAN	Lac Salanfe	8.59	144	⇓iPn	Pn	00 58 49.8	+0.1
	comp=E,158nm,0.5s						
SALAN	Lac Salanfe	8.59	144	⇓iPn	Pn	00 58 49.8	+0.1
	comp=E,158nm,0.5s						
STRU	Stroemstad	8.59	44	P	Pn	00 58 47.3	-2.4
HYA	Hoyanger	8.62	22	⇓eP	Pn	00 58 47.9	-2.1
HYA				eS	Sn	01 00 16.2	-11
HYA	Hoyanger	8.62	22	ePn	Pn	00 58 48.1	-2.0
HYA				eSn	Sn	01 00 16.2	-11
HYA				AML	AML	01 00 38.7	
	comp=Z,148nm,0.5s						
HYA	Hoyanger	8.62	22	ePn	Pn	00 58 48.1	-2.0
	SNR=55						
LKBD	Leukerbad	8.63	140	⇓iPn	Pn	00 58 50.7	+0.5
	comp=Z,258nm,0.8s						
LKBD	Leukerbad	8.63	140	⇓iPn	Pn	00 58 50.7	+0.5
	comp=Z,258nm,0.8s						
EMV	Vieux Emosson	8.63	144	⇓iPn	Pn	00 58 50.5	+0.2
	comp=Z,110nm,0.2s						
EMV	Vieux Emosson	8.63	144	⇓iPn	Pn	00 58 50.5	+0.2
	comp=Z,110nm,0.2s						
SSB	Saint Sauveur	8.65	157	eP	Pn	00 58 48.0	-2.5
SSB	Saint Sauveur	8.65	157	P	Pn	00 58 48.9	-1.6
SSB	Saint Sauveur	8.65	157	ePn	Pn	00 58 49.4	-1.2
SSB				eSn	Sn	01 00 22.8	-5.2
SSB	Saint Sauveur	8.65	157	ePn	Pn	00 58 49.3	-1.2
UBR	Ueberruh	8.71	126	P	Pn	00 58 53.1	+1.7
UBR	Ueberruh	8.71	126	P	Pn	00 58 53.1	+1.7
FOO	Floro	8.79	17	eP	Pn	00 58 47.9	-4.5
FOO				eS	Sn	01 00 18.8	-13
FOO	Floro	8.79	17	ePn	Pn	00 58 47.9	-4.5
FOO				eSn	Sn	01 00 18.8	-13
FOO				AML	AML	01 00 26.7	
	comp=Z,158nm,0.6s						
DIX	Grande Dixence	8.80	142	⇓iPn	Pn	00 58 53.3	+0.7
	comp=Z,94nm,0.3s						
DIX	Grande Dixence	8.80	142	⇓iPn	Pn	00 58 53.3	+0.7
	comp=Z,94nm,0.3s						
RSL	Roselend	8.87	147	P	Pn	00 58 53.6	0.0
RSL	Roselend	8.87	147	P	Pn	00 58 53.6	0.0
DAVA	Damuels	8.89	129	⇑iPn	Pn	00 58 55.4	+1.7
	comp=Z,74nm,0.5s,SNR=26						
DAVA				⇓iSn	Sn	01 00 33.0	-0.9
DAVA	Damuels	8.89	129	Pn	Pn	00 58 55.4	+1.6
	comp=Z,74nm,0.5s,SNR=26						
DAVA				Sn	Sn	01 00 33.0	-0.9
FUR	Furstenfeldbru	8.98	120	ePn	Pn	00 58 56.9	+1.9
FUR	Furstenfeldbru	8.98	120	ePn	Pn	00 58 56.9	+1.9
OSL	Oslo	8.99	38	ePn	Pn	00 58 51.9	-3.3
OSL				eSn	Sn	01 00 29.7	-6.8
GRN	Grenoble	9.00	151	P	Pn	00 58 54.9	-0.4
GRN	Grenoble	9.00	151	P	Pn	00 58 54.9	-0.4
MMK	Mattmark	9.04	140	ePn	Pn	00 58 56.9	+1.1
	baz=327						
LPL	La Plagne	9.06	147	ePn	Pn	00 58 56.4	+0.3
	SNR=1.0						
LPL				eSn	Sn	01 00 34.1	-4.0
	comp=Z,277nm,0.6s						
LPL	La Plagne	9.06	147	eP	Pn	00 58 56.3	+0.2
LPL	La Plagne	9.06	147	ePn	Pn	00 58 56.4	+0.3
	SNR=1.0						
VIVF	Saint-Julien-l	9.08	157	ePn	Pn	00 58 55.1	-1.3
	SNR=1.0						
VIVF				eSn	Sn	01 00 31.4	-7.2
	comp=Z,235nm,0.3s,SNR=1.0						
VIVF				eSg	Sn	01 01 33.9	+55
	comp=Z,1µm,0.9s						
VIVF	Saint-Julien-l	9.08	157	eP	Pn	00 58 55.1	-1.3
VIVF				e		01 00 31.4	
VIVF	Saint-Julien-l	9.08	157	ePn	Pn	00 58 55.1	-1.3
	SNR=1.0						
LPG	La Plagne	9.08	147	ePn	Pn	00 58 56.8	+0.4
	SNR=1.0						
LPG				eSn	Sn	01 00 34.4	-4.2
	comp=Z,323nm,0.4s						
LPG	La Plagne	9.08	147	eP	Pn	00 58 56.4	0.0
LPG	La Plagne	9.08	147	ePn	Pn	00 58 56.8	+0.4
	SNR=1.0						
BSD	Bornholm Skovb	9.11	73	eP	Pn	00 58 55.7	-1.1
BSD	Bornholm Skovb	9.11	73	i P	Pn	00 58 55.4	-1.4
BSD				pmax	pmax		
	comp=Z,71nm,0.7s						
BSD	Bornholm Skovb	9.11	73	ePn	Pn	00 58 55.6	-1.2
BSD	Bornholm Skovb	9.11	73	i P	Pn	00 58 55.4	-1.4
	comp=Z,71nm,0.7s						
BSD	Bornholm Skovb	9.11	73	eP	Pn	00 58 55.7	-1.1
BRG	Berggiesshubel	9.12	100	eP	Pn	00 58 57.4	+0.5
BRG	Berggiesshubel	9.12	100	i P	Pn	00 58 57.9	+1.0
BRG				pmax	pmax		
	comp=Z,16nm,0.7s						
BRG				pmax	pmax		
	comp=Z,28nm,0.9s						
BRG				MLR	MLR		
	comp=N,1µm,7.1s						
BRG				MLR	MLR		
	comp=E,450nm,8.4s						
BRG				MLR	MLR		
	comp=Z,861nm,9.3s						
BRG	Berggiesshubel	9.12	100	ePn	Pn	00 58 57.6	+0.7
BRG	Berggiesshubel	9.12	100	i P	Pn	00 58 57.9	+1.0
	comp=Z,26nm,0.7s						
BRG				i		00 59 06.3	
	comp=Z,47nm,0.9s						
BRG				e		01 01 02.0	
BRG							
	comp=N,2µm,7.1s						
BRG							
	comp=E,751nm,8.4s						
BRG							
	comp=Z,1µm,9.3s						
BRG	Berggiesshubel	9.12	100	i P	Pn	00 58 57.9	+1.0
	comp=Z,16nm,0.7s						
BRG				i		00 59 06.3	
BRG				e		01 01 02.0	
BRG	Berggiesshubel	9.12	100	eP	Pn	00 58 57.4	+0.5
GDM	Grand'Maison	9.14	150	P	Pn	00 58 57.5	+0.2
GDM	Grand'Maison	9.14	150	P	Pn	00 58 57.5	+0.2
RETA	Reutte	9.17	125	⇑iPn	Pn	00 58 59.3	+1.7
	comp=Z,59nm,1.0s,SNR=25						
RETA	Reutte	9.17	125	Pn	Pn	00 58 59.3	+1.7
	comp=Z,59nm,1.0s,SNR=25						
DAVOS	Davos	9.18	131	P	Pn	00 59 00.4	+2.6
DAVOS						01 00 38.8	
DAVOS	Davos	9.18	131	P	Pn	00 59 00.4	+2.6
LSD	Lago del Serru	9.24	145	P	Pn	00 58 59.6	+1.0
LSD				pmax	pmax		
	comp=Z,271nm,0.6s						
LSD	Lago del Serru	9.24	145	Pn	Pn	00 58 59.6	+1.0
	comp=Z,271nm,0.6s						
LSD	Lago del Serru	9.24	145	Pn	Pn	00 58 59.6	+1.0
	comp=Z,271nm,0.6s						
DAVOX	Davos/Dischmat	9.26	131	Pn	Pn	00 59 00.4	+1.5
	baz=318,slow=16						
DAVOX				Sn	Sn	01 00 38.8	-4.3
	comp=Z,12nm,0.3s,baz=222,slow=22,SNR=5.7						
DAVOX				LR	LR	01 02 23.8	
	comp=Z,213nm,19.6s,baz=314,slow=36						
DAVOX	Davos/Dischmat	9.26	131	Pn	Pn	00 59 00.4	+1.5
TUE	Stuetta	9.26	134	ePn	Pn	00 59 00.8	+1.9
TUE				eSn	Sn	01 00 45.6	+2.6
TUE	Stuetta	9.26	134	ePn	Pn	00 59 00.8	+1.9
WET	Wettzell	9.27	111	eP	Pn	00 58 59.2	+0.1
WET	Wettzell	9.27	111	ePn	Pn	00 58 59.6	+0.5
WET	Wettzell	9.27	111	ePn	Pn	00 58 59.6	+0.5
ORIF	Oris-en-Rattie	9.33	152	ePn	Pn	00 58 59.2	-0.7
	baz=342,SNR=1.0						
ORIF				eSn	Sn	01 00 39.4	-5.5
	comp=Z,385nm,0.5s,SNR=1.0						
ORIF				eMLR	MLR		
	comp=Z,1µm,17.3s						
ORIF	Oris-en-Rattie	9.33	152	eP	Pn	00 58 59.4	-0.5
ORIF	Oris-en-Rattie	9.33	152	ePn	Pn	00 58 59.2	-0.7
	baz=342,SNR=1.0						
NASU	Vaermlandsnaes	9.40	48	P	Pn	00 58 57.8	-2.9
ORO	Oropa	9.40	142	P	Pn	00 59 01.8	+1.0
ORO	Oropa	9.40	142	P	Pn	00 59 01.8	+1.0
TRAV	Traversella	9.41	143	Pn	Pn	00 59 01.9	+0.9
	comp=Z,778nm,0.7s						
TRAV	Traversella	9.41	143	Pn	Pn	00 59 01.9	+0.9

	comp=Z,778nm,0.7s						
MOTA	Moosalm	9.43	125	⇑iPn	Pn	00 59 03.1	+1.8
	comp=Z,23nm,0.5s,SNR=32						
MOTA	Moosalm	9.43	125	Pn	Pn	00 59 03.1	+1.8
	comp=Z,23nm,0.5s,SNR=32						
BNI	Bardonecchia	9.45	148	ePn	Pn	00 59 01.6	+0.1
BNI				eSn	Sn	01 00 46.6	-1.2
BNI	Bardonecchia	9.45	148	Pn	Pn	00 59 01.6	+0.1
VXJU	Vaexsjoe	9.46	61	P	Pn	00 58 59.7	-1.8
FETA	Feichten	9.48	127	i Pn	Pn	00 59 03.6	+1.7
	comp=Z,44nm,1.0s,SNR=33						
FETA				⇓iSn	Sn	01 00 48.8	+0.3
FETA	Feichten	9.48	127	Pn	Pn	00 59 03.6	+1.7
	comp=Z,44nm,1.0s,SNR=33						
FETA				Sn	Sn	01 00 48.8	+0.3
OCF	Saint Nazaire	9.49	155	P	Pn	00 59 02.2	+0.1
OCF	Saint Nazaire	9.49	155	P	Pn	00 59 02.2	+0.1
OG26	St.-Nazaire-De	9.49	155	P	Pn	00 59 02.2	+0.1
OG26	St.-Nazaire-De	9.49	155	P	Pn	00 59 02.2	+0.1
VAI	Varese	9.50	138	P	Pn	00 59 02.9	+0.7
VAI	Varese	9.50	138	P	Pn	00 59 02.9	+0.7
RSP	Reno Superiore	9.56	146	P	Pn	00 59 04.7	+1.7
RSP	Reno Superiore	9.56	146	P	Pn	00 59 04.7	+1.7
MUGIO	Muggio	9.57	137	⇓iPn	Pn	00 59 03.4	+0.3
	comp=Z,30nm,0.2s						
MUGIO	Muggio	9.57	137	⇓iPn	Pn	00 59 03.4	+0.3
	comp=Z,30nm,0.2s						
PVCC	Panska Ves	9.61	101	ePN	Pn	00 59 03.7	0.0
PVCC				AMS	AMS	01 03 20.0	
	comp=Z,2µm,10.3s						
PVCC	Panska Ves	9.61	101	Pn	Pn	00 59 03.7	0.0
LASF	Ste Croix	9.65	162	ePn	Pn	00 59 03.4	-0.9
	SNR=1.0						
LASF				eSg	Sn	01 01 53.2	+61
	comp=Z,868nm,1.0s						
LASF	Ste Croix	9.65	162	eP	Pn	00 59 03.5	-0.8
LASF	Ste Croix	9.65	162	ePn	Pn	00 59 03.4	-0.9
	SNR=1.0						
KHC	Kasperske Hory	9.67	110	ePN	Pn	00 59 04.9	+0.4
KHC				ex	x	00 59 12.0	
KHC				ex	x	00 59 20.0	
KHC				ex	x	00 59 29.5	
KHC				ex	x	00 59 38.0	
KHC				ex	x	00 59 59.0	
KHC				eSN	Sn	01 00 56.7	+3.5
KHC				AMS	AMS	01 03 30.0	
	comp=Z,1µm,6.9s						
KHC	Kasperske Hory	9.67	110	ePn	Pn	00 59 04.9	+0.4
KHC				e		00 59 12.0	
KHC				e		00 59 20.0	
KHC				e		00 59 29.5	
KHC				e		00 59 38.0	
KHC				e		00 59 59.0	
KHC				eSn	Sn	01 00 56.7	+3.5
KHC	Kasperske Hory	9.67	110	ePn	Pn	00 59 04.9	+0.4
	baz=302						
WATA	Walderalm	9.68	123	⇑iPn	Pn	00 59 07.3	+2.8
	comp=Z,54nm,0.7s,SNR=11						
WATA	Walderalm	9.68	123	Pn	Pn	00 59 07.3	+2.7
	comp=Z,54nm,0.7s,SNR=11						
BRMO	Bormio	9.71	131	P	Pn	00 59 08.2	+3.1
WTTA	Wattenberg	9.75	124	⇑iPn	Pn	00 59 07.7	+2.1
	comp=Z,57nm,1.1s,SNR=14						
WTTA	Wattenberg	9.75	124	Pn	Pn	00 59 07.7	+2.0
	comp=Z,57nm,1.1s,SNR=14						
MBDF	Montbardon	9.77	149	ePn	Pn	00 59 05.8	-0.1
	SNR=1.0						
MBDF				eSn	Sn	01 00 48.9	-6.8
	comp=Z,388nm,0.6s						
MBDF	Montbardon	9.77	149	eP	Pn	00 59 05.7	-0.2
MBDF	Montbardon	9.77	149	ePn	Pn	00 59 05.8	-0.1
	SNR=1.0						
PRU	Pruhonice	9.82	104	ePN	Pn	00 59 07.8	+1.3
PRU				AMS	AMS	01 03 30.0	
	comp=Z,1µm,14.1s						
PRU	Pruhonice	9.82	104	Pn	Pn	00 59 07.8	+1.3
GEC2	GERESS Array S	9.89	111	ePn	Pn	00 59 08.4	+0.9
GEC2				eSn	Sn	01 00 57.8	-0.7
GEC2	GERESS Array S	9.89	111	ePn	Pn	00 59 08.4	+0.9
GERES	GERESS Array B	9.89	111	P	Pn	00 59 07.8	+0.3
GERES						01 00 57.4	
GERES	GERESS Array B	9.89	111	Pn	Pn	00 59 07.8	+0.2
	comp=Z,2.3nm,0.3s,baz=292,slow=14,SNR=45						
GERES				Sn	Sn	01 00 57.4	-1.1
	comp=Z,3.8nm,0.3s,baz=283,slow=13,SNR=3.4						
GERES				LR	LR	01 03 39.3	
	comp=Z,621nm,18.1s,baz=111,slow=42						
GERES	GERESS Array B	9.89	111	Pn	Pn	00 59 07.8	+0.3
NB2	NORSAR Subarra	9.94	34	Pn	Pn	00 59 04.3	-3.8
	baz=223,slow=12						
NOA	NORSAR Array B	9.94	34	P	Pn	00 59 04.5	-3.7
NOA						01 00 52.8	
NOA	NORSAR Array B	9.94	34	Pn	Pn	00 59 04.5	-3.7
	comp=Z,5.9nm,0.3s,baz=225,slow=12,SNR=69						
NOA				Sn	Sn	01 00 52.8	-6.9
	comp=Z,7.6nm,0.3s,baz=63,slow=17,SNR=3.4						
NOA				LR	LR	01 03 22.9	
	comp=Z,347nm,19.5s,baz=230,slow=40						
SURF	Saint Ours	10.01	149	P	Pn	00 59 10.0	+0.8
SURF	Saint Ours	10.01	149	P	Pn	00 59 10.0	+0.8
RJOB	Jochberg	10.04	119	ePn	Pn	00 59 11.7	+2.1
DOMB	Dombas	10.07	26	ePn	Pn	00 59 07.4	-2.6
DOMB				eSn	Sn	01 00 59.8	-3.1
DOMB	Dombas	10.07	26	ePn	Pn	00 59 07.4	-2.6
DOMB				eSn	Sn	01 00 55.6	-7.3
PZZ	Stroppo	10.08	148	P	Pn	00 59 10.4	+0.3
PZZ				pmax	pmax		
	comp=Z,785nm,0.7s						
PZZ	Stroppo	10.08	148	Pn	Pn	00 59 10.4	+0.3
	comp=Z,784nm,0.7s						
PZZ	Stroppo	10.08	148	Pn	Pn	00 59 10.4	+0.3
	comp=Z,784nm,0.7s						
OSSF	Osses	10.09	184	P	Pn	00 59 08.6	-1.7
OSSF	Osses	10.09	184	P	Pn	00 59 08.6	-1.7
MABI	Malga Bissina	10.10	132	P	Pn	00 59 11.4	+1.0
MABI				Pn	Pn	00 59 14.5	+4.1
MABI	Malga Bissina	10.10	132	P	Pn	00 59 11.4	+1.0
APPI	Appiano	10.11	128	P	Pn	00 59 14.3	+3.8
ORDF	Ordiarp	10.12	183	P	Pn	00 59 08.7	-2.0
ORDF	Ordiarp	10.12	183	P	Pn	00 59 08.7	-2.0
DOI	San Damiano	10.12	148	P	Pn	00 59 11.2	+0.5
DOI	San Damiano	10.12	148	P	Pn	00 59 11.2	+0.5
MTLF	Montolieu	10.12	169	ePn	Pn	00 59 08.7	-2.1
	SNR=1.0						
MTLF				eSn	Sn	01 00 58.3	-6.0
MTLF				eSg	Sn	01 02 05.2	+61
	comp=Z,538nm,0.9s						
MTLF	Montolieu	10.12	169	eP	Pn	00 59 08.7	-2.1
MTLF				e		01 00 58.3	
MTLF	Montolieu	10.12	169	ePn	Pn	00 59 08.7	-2.1
	SNR=1.0						
SMRF	Simiane la Rot	10.12	155	ePn	Pn	00 59 10.0	-0.8
	SNR=1.0						
SMRF				eSn	Sn	01 00 59.6	-4.7
SMRF				eSg	Sn	01 02 04.0	+60
	comp=Z,520nm,1.0s						
SMRF	Simiane la Rot	10.12	155	eP	Pn	00 59 10.0	-0.7
SMRF	Simiane la Rot	10.12	155	ePn	Pn	00 59 10.0	-0.8
	SNR=1.0						
RUSF	Rustrel	10.13	155	eP	Pn	00 59 10.4	-0.5
RUSF	Rustrel	10.13	155	eP	Pn	00 59 10.4	-0.5
EALK	Alkurruntz	10.14	185	P	Pn	00 59 10.1	-0.8
EALK	Alkurruntz	10.14	185	P	Pn	00 59 10.1	-0.8
	comp=Z,44nm,0.3s						
OSKU	Oskarshamn	10.14	61	P	Pn	00 59 08.5	-2.4
MOL	Molde	10.17	21	Pn	Pn	00 59 08.8	-2.5
MOL				Sn	Sn	01 00 53.9	-11
MOL	Molde	10.17	21	eP	Pn	00 59 07.9	-3.4
MOL				ePn	Pn	00 59 08.8	-2.5
MOL				eSn	Sn	01 00 53.9	-11
MOL	Molde	10.17	21	ePn	Pn	00 59 08.8	-2.5
MOL				eSn	Sn	01 00 53.9	-11
MOL	Molde	10.17	21	ePn	Pn	00 59 08.8	-2.5
MOL				eSn	Sn	01 00 53.9	-11
MOL				AML	AML	01 01 12.1	
	comp=Z,45nm,0.6s						
LNKU	Linkoeping	10.17	55	P	Pn	00 59 08.6	-2.7
ELIZ	Elizondo	10.19	185	P	Pn	00 59 10.3	-1.4
ELIZ	Elizondo	10.19	185	P	Pn	00 59 10.3	-1.4
OGDI	Digne	10.20	152	eP	Pn	00 59 11.4	-0.3
ROTM	Rocchetta Tana	10.20	143	P	Pn	00 59 12.9	+1.1
SJPF	Ste Jean	10.23	184	ePn	Pn	00 59 10.2	-2.0
	SNR=1.0						
SJPF				eSn	Sn	01 00 59.9	-7.0
SJPF				eSg	Sn	01 02 09.4	+63
	comp=Z,763nm,0.9s						
SJPF	Ste Jean	10.23	184	eP	Pn	00 59 10.1	-2.1
SJPF	Ste Jean	10.23	184	eP	Pn	00 59 10.2	-2.0
SJPF				e		01 00 59.9	
SJPF	Ste Jean	10.23	184	ePn	Pn	00 59 10.2	-2.0
	SNR=1.0						
ATE	Arette	10.24	182	P	Pn	00 59 09.7	-2.7
ATE	Arette	10.24	182	P	Pn	00 59 09.7	-2.7
REYF	Montagne du Re	10.26	180	P	Pn	00 59 09.6	-3.0
REYF	Montagne du Re	10.26	180	P	Pn	00 59 09.6	-3.0
HFS	Hagfors	10.28	43	P	Pn	00 59 10.3	-2.4
	baz=226,slow=14						
HFS	Hagfors	10.28	43	Pn	Pn	00 59 09.8	-2.9
	comp=Z,3.1nm,0.3s,baz=229,slow=14,SNR=137						
HFS				Sn	Sn	01 00 59.8	-8.1
	comp=Z,8.6nm,0.3s,baz=235,slow=23,SNR=5.4						
HFS				LR	LR	01 03 35.0	
	comp=Z,532nm,19.9s,baz=250,slow=40						
HFA0	Hagfors New Ar	10.28	43	Pn	Pn	00 59 09.0	-3.8
LABF	Labassere	10.28	178	P	Pn	00 59 10.4	-2.5
LABF	Labassere	10.28	178	P	Pn	00 59 10.4	-2.5
ELAN	Lanestosa	10.30	193	P	Pn	00 59 11.6	-1.7
ELAN	Lanestosa	10.30	193	P	Pn	00 59 11.6	-1.6
EPF	Esparros	10.30	177	ePn	Pn	00 59 10.8	-2.4
	SNR=1.0						
EPF				eSn	Sn	01 00 58.8	-10
	comp=Z,300nm,0.4s,SNR=1.0						
EPF	Esparros	10.30	177	eP	Pn	00 59 10.7	-2.6
EPF	Esparros	10.30	177	ePn	Pn	00 59 10.8	-2.4
	SNR=1.0						
MAGA	Magasa	10.36	132	P	Pn	00 59 17.2	+3.2
STV	Sant Anna di V	10.38	148	P	Pn	00 59 16.4	+2.2
STV	Sant Anna di V	10.38	148	P	Pn	00 59 16.4	+2.2
IUSE	Utxeti	10.41	185	Pn	Pn	00 59 13.8	-0.9
	comp=Z,14nm,0.3s						
MLS	Moulis	10.41	174	P	Pn	00 59 12.0	-2.7
MLS	Moulis	10.41	174	P	Pn	00 59 12.0	-2.7
ETSF	Etsaut	10.43	181	ePn	Pn	00 59 12.3	-2.6
	SNR=1.0						
ETSF				eSn	Sn	01 01 04.0	-7.7
	comp=Z,171nm,0.5s,SNR=1.0						
ETSF				eSg	Sn	01 02 15.1	+63
	comp=Z,549nm,0.9s						
ETSF	Etsaut	10.43	181	eP	Pn	00 59 12.3	-2.6
ETSF				e		01 01 04.0	
ETSF	Etsaut	10.43	181	ePn	Pn	00 59 12.3	-2.6
	SNR=1.0						
VIEF	Viey	10.44	179	P	Pn	00 59 12.8	-2.3
VIEF	Viey	10.44	179	P	Pn	00 59 12.8	-2.3
EORO	Oroz-Betelu	10.45	184	P	Pn	00 59 14.0	-1.3
	comp=Z,15nm,0.3s						
ASPU	Aespoe	10.46	60	P	Pn	00 59 12.9	-2.4
UPC	Upice	10.47	99	ePN	Pn	00 59 16.4	+0.9
UPC	Upice	10.47	99	Pn	Pn	00 59 16.4	+0.9
MELF	Melles	10.48	176	P	Pn	00 59 12.7	-2.9
IZUN	Zunzarren	10.49	185	P	Pn	00 59 14.9	-0.9
	comp=Z,26nm,0.3s						
VSTU	Vaestervik	10.50	59	P	Pn	00 59 13.0	-2.8
GKP	Gorka Klasztor	10.51	83	eP	Pn	00 59 15.9	-0.2
GKP				e		00 59 34.0	
GKP				eS	Sn	01 01 10.0	-3.7
GKP	Gorka Klasztor	10.51	83	eP	Pn	00 59 15.9	-0.1
GKP				e		00 59 34.0	
GKP				eS	Sn	01 01 10.0	-3.7
GKP	Gorka Klasztor	10.51	83	eP	Pn	00 59 15.9	-0.1
KSP	Ksiaz	10.52	97	eP	Pn	00 59 17.7	+1.6
KSP				eS	Sn	01 01 10.6	-3.4
KSP	Ksiaz	10.52	97	eP	Pn	00 59 16.8	+0.6
KSP				eS	Sn	01 01 10.3	-3.7
KSP	Ksiaz	10.52	97	eP	Pn	00 59 16.8	+0.6
KSP				eS	Sn	01 01 10.3	-3.7
KSP				e		01 02 35.7	
KSP	Ksiaz	10.52	97	eP	Pn	00 59 16.8	+0.6
ARBF	Arbois	10.52	157	eP	Pn	00 59 15.7	-0.5
ARBF	Arbois	10.52	157	eP	Pn	00 59 15.7	-0.5
PCP	Piancastagn	10.53	143	P	Pn	00 59 17.1	+0.7
PCP				pmax	pmax		
	comp=Z,191nm,0.7s						
PCP	Piancastagn	10.53	143	Pn	Pn	00 59 17.1	+0.7
	comp=Z,191nm,0.7s						
PCP	Piancastagn	10.53	143	P	Pn	00 59 17.1	+0.7
	comp=Z,191nm,0.7s						
EARI	Arriondas	10.54	200	P	Pn	00 59 14.7	-1.7
	comp=Z,12nm,0.4s						
EARI	Arriondas	10.54	200	P	Pn	00 59 14.7	-1.7
	comp=Z,12nm,0.4s						
IPRE	Itoiz	10.54	184	P	Pn	00 59 15.3	-1.2
ABTA	Abfaltersbach	10.54	123	i Pn	Pn	00 59 19.6	+3.2
	comp=Z,38nm,1.1s,SNR=23						
NRAU	Nora	10.54	47	P	Pn	00 59 14.0	-2.4
LRDF	Laroque-de-Fa	10.56	168	P	Pn	00 59 14.1	-2.6
LRDF	Laroque-de-Fa	10.56	168	P	Pn	00 59 14.1	-2.6
TOUF	Mont Tournerai	10.56	149	P	Pn	00 59 16.4	-0.4
TOUF	Mont Tournerai	10.56	149	P	Pn	00 59 16.4	-0.4
EARA	Aranguren	10.59	185	P	Pn	00 59 17.0	-0.1
	comp=Z,36nm,0.2s						
IUNC	Unciti	10.60	185	P	Pn	00 59 16.9	-0.3
	comp=Z,41nm,0.3s						
CTI	Castel Tesino	10.62	128	P	Pn	00 59 21.1	+3.5
AUTN	L'Aution	10.64	148	P	Pn	00 59 17.7	-0.1
AUTN	L'Aution	10.64	148	P	Pn	00 59 17.7	-0.1
MVIF	Mont Vial	10.64	149	P	Pn	00 59 17.8	0.0
MVIF	Mont Vial	10.64	149	P	Pn	00 59 17.8	0.0
BYXU	Byxelkrok	10.64	61	P	Pn	00 59 15.3	-2.5
EBIE	Bielsa	10.64	178	P	Pn	00 59 16.6	-1.2
	comp=Z,70nm,0.4s						
EBIE	Bielsa	10.64	178	P	Pn	00 59 16.8	-1.1
	comp=Z,0.3nm,3.0s						
QLNO	Quiliano	10.65	144	P	Pn	00 59 20.0	+2.0
QLNO	Quiliano	10.65	144	P	Pn	00 59 20.0	+2.0
TREC	Trest	10.68	106	ePN	Pn	00 59 19.3	+1.0
TREC				AMS	AMS	01 03 50.0	
	comp=Z,1µm,8.7s						
TREC	Trest	10.68	106	Pn	Pn	00 59 19.3	+1.0
SAOF	Saorge	10.69	148	P	Pn	00 59 17.5	-0.9
SAOF	Saorge	10.69	148	P	Pn	00 59 17.5	-0.9
CALN	Calern	10.69	151	P	Pn	00 59 18.7	+0.2
CALN	Calern	10.69	151	P	Pn	00 59 18.7	+0.2
LUCF	Luceram	10.70	149	P	Pn	00 59 17.6	-1.1
LUCF	Luceram	10.70	149	P	Pn	00 59 17.6	-1.1
DPC	Dobruska-Polom	10.72	99	ePN	Pn	00 59 19.7	+0.9
DPC				AMS	AMS	01 04 10.0	
	comp=Z,1µm,12.0s						
DPC	Dobruska-Polom	10.72	99	ePn	Pn	00 59 19.5	+0.7
	baz=294						
CARF	Carcanieres	10.73	170	P	Pn	00 59 16.8	-2.3
CARF	Carcanieres	10.73	170	P	Pn	00 59 16.8	-2.3
RORO	Rocca Rossa	10.74	146	P	Pn	00 59 18.4	-0.8
KBA	Koelnbreinsper	10.75	120	⇑iPn	Pn	00 59 20.0	+0.7
	comp=Z,41nm,0.5s,SNR=18						
KBA				⇑iSn	Sn	01 01 20.0	+0.5
KBA	Koelnbreinsper	10.75	120	Pn	Pn	00 59 20.0	+0.7
	comp=Z,41nm,0.5s,SNR=18						
KBA				Sn	Sn	01 01 20.0	+0.4
SBF	Sospel	10.76	148	ePn	Pn	00 59 18.9	-0.5
	SNR=1.0						
SBF				eSn	Sn	01 01 14.7	-5.1
	comp=Z,505nm,0.7s						
SBF	Sospel	10.76	148	ePn	Pn	00 59 18.9	-0.5
	SNR=1.0						
MOA	Molln	10.76	115	⇓iPn	Pn	00 59 20.1	+0.7
	comp=Z,15nm,0.6s,SNR=8.4						
MOA	Molln	10.76	115	Pn	Pn	00 59 20.1	+0.7
	comp=Z,15nm,0.6s,SNR=8.4						
RONM	Roccetta Nervi	10.80	148	P	Pn	00 59 19.0	-1.0
FRF	La Foret Royal	10.80	152	ePn	Pn	00 59 19.0	-1.0
	SNR=1.0						
FRF				eSn	Sn	01 01 14.6	-6.2
	comp=Z,257nm,0.6s						
FRF	La Foret Royal	10.80	152	eP	Pn	00 59 19.1	-0.9
FRF	La Foret Royal	10.80	152	ePn	Pn	00 59 19.0	-1.0
	SNR=1.0						
ECRI	Cripan	10.81	189	P	Pn	00 59 19.7	-0.5
	comp=Z,32nm,0.3s						
REVF	Revere	10.85	149	P	Pn	00 59 19.6	-1.1
REVF	Revere	10.85	149	P	Pn	00 59 19.6	-1.1
VIKU	Vikbolandet	10.86	55	P	Pn	00 59 18.4	-2.3
IMI	Imperia	10.86	147	Pn	Pn	00 59 19.1	-1.8
	comp=Z,162nm,0.6s						
IMI	Imperia	10.86	147	P	Pn	00 59 19.3	-1.6
ANTF	Antibes	10.93	150	eP	Pn	00 59 20.5	-1.3
ANTF	Antibes	10.93	150	eP	Pn	00 59 20.5	-1.3
LMR	La Mourre	10.97	153	ePn	Pn	00 59 20.8	-1.5
	SNR=1.0						
LMR				eSn	Sn	01 01 18.4	-6.6
	comp=Z,67nm,0.6s						
LMR	La Mourre	10.97	153	ePn	Pn	00 59 20.8	-1.5
	SNR=1.0						
EPON	Pontenova	10.98	207	P	Pn	00 59 21.2	-1.2
	comp=Z,35nm,0.3s						
ESKU	Eskilstuna	11.00	51	P	Pn	00 59 20.2	-2.5
SC2M	Scurtabo	11.02	140	Pn	Pn	00 59 24.9	+1.9
	comp=Z,108nm,0.9s						
SC2M	Scurtabo	11.02	140	P	Pn	00 59 23.9	+0.9
SC2M	Scurtabo	11.02	140	Pn	Pn	00 59 24.9	+1.9
	comp=Z,108nm,0.9s						
VALF	Valcebollere	11.03	171	P	Pn	00 59 22.5	-0.7
VALF	Valcebollere	11.03	171	P	Pn	00 59 22.5	-0.7
SJAF	Saint Jean de	11.05	168	P	Pn	00 59 21.3	-2.1
SJAF	Saint Jean de	11.05	168	P	Pn	00 59 21.3	-2.1
EJON	La Jonquera	11.09	168	P	Pn	00 59 23.0	-0.9
	comp=Z,14nm,0.9s						
EJON	La Jonquera	11.09	168	P	Pn	00 59 23.0	-0.9
	comp=Z,14nm,0.9s						
CODM	Codolo	11.15	139	P	Pn	00 59 25.0	+0.1
GRAM	Graiana	11.16	138	P	Pn	00 59 27.0	+2.1
MYKA	Terra Mystica	11.20	121	⇑iPn	Pn	00 59 29.0	+3.5
	comp=Z,16nm,0.5s						
PTCC	Patocco-Chiusa	11.20	123	P	Pn	00 59 28.6	+3.1
GMNA	Gemona	11.23	123	P	Pn	00 59 28.3	+2.4
GMNA	Gemona	11.23	123	P	Pn	00 59 28.3	+2.4
KRUC	Moravsky	11.32	105	ePn	Pn	00 59 28.8	+1.8
	baz=299						
VRAC	Vranov	11.32	104	P	Pn	00 59 27.6	+0.6
VRAC						01 01 34.6	
VRAC	Vranov	11.32	104	⇑iP	Pn	00 59 29.6	+2.6
VRAC	Vranov	11.32	104	Pn	Pn	00 59 27.6	+0.6
	comp=Z,0.9nm,0.3s,baz=294,slow=13,SNR=12						
VRAC				Sn	Sn	01 01 34.6	+1.1
	comp=Z,1.3nm,0.3s,baz=0.0,slow=14,SNR=2.7						
VRAC				Lg		01 02 51.0	
	baz=360,slow=18,SNR=2.4						
VRAC				LR	LR	01 04 03.6	
	comp=Z,243nm,19.4s,baz=298,slow=39						
VRAC	Vranov	11.32	104	P	Pn	00 59 27.6	+0.6
ROBS	Robic	11.39	123	ePn	Pn	00 59 30.0	+1.9
ROBS	Robic	11.39	123	ePn	Pn	00 59 30.0	+1.9
GSCL	Gusciola	11.48	137	P	Pn	00 59 32.2	+2.8
GSCL	Gusciola	11.48	137	P	Pn	00 59 32.2	+2.8
CADS	Cadrg	11.52	122	i Pn	Pn	00 59 33.2	+3.4
SARO	Sassorosso	11.54	138	P	Pn	00 59 31.4	+1.2
GOTU	Gotland	11.56	60	P	Pn	00 59 27.9	-2.4
VLC	Villacollemand	11.56	138	ePn	Pn	00 59 32.7	+2.3
VLC				eSn	Sn	01 01 37.9	-1.6
VLC	Villacollemand	11.56	138	ePn	Pn	00 59 32.7	+2.3
GORS	Gorjuse	11.59	121	ePn	Pn	00 59 33.4	+2.7
GORS	Gorjuse	11.59	121	ePn	Pn	00 59 33.4	+2.6
CSNA	Conrad Observa	11.60	111	⇑iPn	Pn	00 59 30.0	-0.8
	comp=Z,12nm,1.0s						
CSNA				⇓iSn	Sn	01 01 40.3	0.0
CSNA	Conrad Observa	11.60	111	Pn	Pn	00 59 30.0	-0.9
	comp=Z,12nm,1.0s						
CSNA				Sn	Sn	01 01 40.3	0.0
CONA	Conrad Observa	11.60	111	⇓iPn	Pn	00 59 29.5	-1.4
	comp=Z,13nm,1.0s						
CONA	Conrad Observa	11.60	111	Pn	Pn	00 59 29.5	-1.4
	comp=Z,13nm,1.0s						
ESAC	San Caprasio	11.60	181	P	Pn	00 59 30.8	-0.2
	comp=Z,39nm,0.3s						
ESAC	San Caprasio	11.60	181	P	Pn	00 59 30.8	-0.2
	comp=Z,39nm,0.3s						
MORC	Moravsky Berou	11.67	100	⇑iP	Pn	00 59 34.7	+2.9
MORC	Moravsky Berou	11.67	100	ePn	Pn	00 59 31.6	-0.3
MORC				eSn	Sn	01 01 38.8	-3.2
MORC	Moravsky Berou	11.67	100	eP	Pn	00 59 31.6	-0.2
MORC	Moravsky Berou	11.67	100	ePn	Pn	00 59 31.9	+0.1
	baz=295						
NYNU	Nynaeshamn	11.68	54	P	Pn	00 59 29.7	-2.2
BDI	Bagni Di Lucca	11.72	138	P	Pn	00 59 34.8	+2.1
BDI	Bagni Di Lucca	11.72	138	P	Pn	00 59 34.8	+2.1
VOJS	Vojsko	11.73	123	ePn	Pn	00 59 34.6	+1.9
VOJS	Vojsko	11.73	123	ePn	Pn	00 59 34.6	+2.0
OBKA	Obir	11.75	119	⇓iPn	Pn	00 59 33.9	+1.0
	comp=Z,27nm,0.8s,SNR=7.0						
OBKA	Obir	11.75	119	Pn	Pn	00 59 33.9	+1.0
	comp=Z,27nm,0.8s,SNR=7.0						
OSTU	Oestervaala	11.79	47	P	Pn	00 59 30.7	-2.7
STS	Santiago	11.79	211	P	Pn	00 59 32.7	-0.8
STS				pmax	pmax		
	comp=Z,23nm,0.5s						
STS	Santiago	11.79	211	P	Pn	00 59 32.7	-0.8
	comp=Z,23nm,0.5s						
STS	Santiago	11.79	211	P	Pn	00 59 32.7	-0.8
	comp=Z,23nm,0.5s						
ARSA	Arzberg	11.80	115	⇓iPn	Pn	00 59 34.8	+1.1
	comp=Z,22nm,1.0s,SNR=6.7						
ARSA	Arzberg	11.80	115	Pn	Pn	00 59 34.8	+1.1
	comp=Z,22nm,1.0s,SNR=6.7						
POPM	Popiglio	11.80	137	P	Pn	00 59 33.8	+0.1
MAIM	Mastiano	11.81	139	P	Pn	00 59 33.6	-0.2
MOZS	Mozjanca	11.83	121	ePn	Pn	00 59 36.8	+2.7
MOZS	Mozjanca	11.83	121	ePn	Pn	00 59 36.8	+2.7
ERUA	La Rua	11.85	205	P	Pn	00 59 32.5	-1.8
	comp=Z,18nm,0.3s						
EMAZ	Mazaricos	11.87	213	P	Pn	00 59 33.9	-0.7
	comp=Z,18nm,0.4s						
EMAZ	Mazaricos	11.87	213	P	Pn	00 59 33.9	-0.7
	comp=Z,18nm,0.4s						
ROTU	Roteberg	11.88	40	P	Pn	00 59 31.9	-2.7
PERS	Pernice	11.96	118	ePn	Pn	00 59 39.2	+3.3
PII	Pisa	11.98	139	P	Pn	00 59 36.8	+0.7
PII	Pisa	11.98	139	P	Pn	00 59 36.8	+0.7
OKC	Ostrava-Krasne	12.00	99	ePN	Pn	00 59 37.7	+1.3
OKC				AMS	AMS	01 04 50.0	
	comp=Z,1µm,13.5s						
OKC	Ostrava-Krasne	12.00	99	Pn	Pn	00 59 37.7	+1.3
EPOB	Poblet	12.01	175	P	Pn	00 59 36.8	+0.3
	comp=Z,11nm,0.4s						
EPOB	Poblet	12.01	175	P	Pn	00 59 36.8	+0.3
	comp=Z,11nm,0.4s						
FLYU	Flymyra	12.07	48	P	Pn	00 59 34.5	-2.9
SOP	Sopron	12.12	111	⇑eP	Pn	00 59 38.3	+0.2
SKDS	Skadanscina	12.13	124	ePn	Pn	00 59 39.3	+1.1
SKDS	Skadanscina	12.13	124	ePn	Pn	00 59 39.3	+1.1
ZST	Bratislava	12.15	108	ePN	Pn	00 59 41.0	+2.5
ZST				e		01 03 23.1	
ZST	Bratislava	12.15	108	eP	Pn	00 59 41.0	+2.5
MODS	Modra-Piesok	12.16	107	ePN	Pn	00 59 42.7	+4.1
MODS				e		01 02 38.9	
ECAL	Calabor	12.17	203	P	Pn	00 59 38.0	-0.8
	comp=Z,9.8nm,0.3s						
ECAL	Calabor	12.17	203	P	Pn	00 59 38.0	-0.7
	comp=Z,9.8nm,0.3s						
SMOL	Smolenice	12.18	106	ePN	Pn	00 59 42.6	+3.8
SMOL				e		01 02 40.8	
SMOL				e		01 03 26.8	
IGGU	Iggoen	12.18	45	P	Pn	00 59 35.7	-3.1
VMG	Vicchio	12.20	135	P	Pn	00 59 40.1	+1.0
VMG	Vicchio	12.20	135	P	Pn	00 59 40.1	+1.0
CEY	Cerknica	12.20	123	i Pn	Pn	00 59 40.3	+1.1
CEY	Cerknica	12.20	123	i Pn	Pn	00 59 40.3	+1.1
PDKS	Podkum	12.28	120	ePn	Pn	00 59 41.8	+1.6
PBRG	Braganca	12.30	203	eP	Pn	00 59 39.4	-1.1
	comp=Z,37nm,1.5s						
PBRG				eS	Sn	01 01 47.5	-10
PBRG	Braganca	12.30	203	eP	Pn	00 59 39.4	-1.1
	comp=Z,37nm,1.5s						
SFI	Santa Sofia	12.37	135	P	Pn	00 59 44.0	+2.5
SFI	Santa Sofia	12.37	135	P	Pn	00 59 44.0	+2.5
ERTA	Horta de San J	12.38	178	P	Pn	00 59 39.5	-2.0
	comp=Z,0.1nm,3.0s						
PGF	Pioggiola	12.44	146	ePn	Pn	00 59 40.5	-2.0
	baz=337,SNR=1.0						
PGF				eSn	Sn	01 01 55.0	-6.1
	comp=Z,23nm,0.5s						
PGF	Pioggiola	12.44	146	ePn	Pn	00 59 40.5	-2.0
	baz=337,SNR=1.0						
GRAU	Graesoe	12.46	48	P	Pn	00 59 39.8	-2.8
CSNT	Castellina Chi	12.50	137	P	Pn	00 59 45.6	+2.4
CSNT	Castellina Chi	12.50	137	P	Pn	00 59 45.6	+2.4
EZAM	Zamans	12.50	210	P	Pn	00 59 42.4	-0.9
	comp=Z,0.1nm,3.0s						
ETOR	Torete	12.56	186	P	Pn	00 59 43.5	-0.6
ETOR				pmax	pmax		
	comp=Z,41nm,0.3s						
ETOR	Torete	12.56	186	P	Pn	00 59 43.5	-0.6
	comp=Z,40nm,0.3s						

ETOR	Torete	12.56	186	P	Pn	00 59 43.5	-0.6
	comp=Z,40nm,0.3s						
HUDU	Hudiksvall	12.57	41	P	Pn	00 59 42.4	-1.7
ELOB	Lobios	12.58	208	P	Pn	00 59 43.3	-1.1
	comp=Z,42nm,0.5s						
RSM	Repubblica di	12.61	133	P	Pn	00 59 47.2	+2.4
RSM	Repubblica di	12.61	133	P	Pn	00 59 47.2	+2.4
ARNU	Arnoeviken	12.65	41	P	Pn	00 59 43.0	-2.1
KOGS	Kog	12.69	116	*e*Pn	Pn	00 59 47.8	+2.0
KOGS	Kog	12.69	116	*e*Pn	Pn	00 59 47.8	+2.0
KOLL	Kolacno	12.71	104	*e*PN	Pn	00 59 48.4	+2.3
KOLL				*e*		01 03 01.5	
KOLL				*e*		01 03 56.0	
KOLL	Kolacno	12.71	104	*e*P	Pn	00 59 48.4	+2.3
PCAB	Cabril	12.72	207	*e*P	Pn	00 59 44.9	-1.3
	comp=Z,68nm,1.9s						
PCAB				*e*S	Sn	01 01 57.6	-10
PCAB	Cabril	12.72	207	*e*P	Pn	00 59 44.9	-1.3
	comp=Z,68nm,1.9s						
OJC	Ojcow	12.83	96	*e*P	Pn	00 59 45.5	-2.3
OJC				*e*PP		00 59 55.0	
OJC				*e*S	Sn	01 02 05.1	-5.5
BADI	Badiali	12.86	135	P	Pn	00 59 49.9	+1.7
BADI	Badiali	12.86	135	P	Pn	00 59 49.9	+1.7
NSS	Namsos	12.88	24	*e*Pn	Pn	00 59 44.8	-3.4
GUD	Guadarrama	12.94	193	P	Pn	00 59 47.7	-1.6
	comp=Z,39nm,0.6s						
FSSB	Fossombrone	12.95	133	P	Pn	00 59 49.8	+0.5
FSSB	Fossombrone	12.95	133	P	Pn	00 59 49.8	+0.5
EMOS	Mosqueruela	12.96	181	P	Pn	00 59 48.6	-0.9
	comp=Z,35nm,0.5s						
MVO	Moncorvo	12.98	203	*e*P	Pn	00 59 48.5	-1.3
	comp=Z,49nm,1.2s						
MVO				*e*S	Sn	01 02 02.2	-12
MVO	Moncorvo	12.98	203	*e*P	Pn	00 59 48.5	-1.3
	comp=Z,49nm,1.2s						
VYHS	Vyhne	13.01	104	*e*PN	Pn	00 59 52.3	+2.2
VYHS				*e*		01 03 03.6	
VYHS				*e*		01 04 07.6	
VYHS	Vyhne	13.01	104	*e*P	Pn	00 59 52.3	+2.2
PVRL	Vila Real	13.04	205	*e*P	Pn	00 59 49.8	-0.8
	comp=Z,46nm,1.3s						
PVRL				*e*S	Sn	01 02 05.2	-10
PVRL	Vila Real	13.04	205	*e*P	Pn	00 59 49.8	-0.8
	comp=Z,46nm,1.3s						
MURB	Monte Urbino	13.18	135	P	Pn	00 59 54.8	+2.3
MURB	Monte Urbino	13.18	135	P	Pn	00 59 54.8	+2.3
NVLJ	Novalja	13.26	125	*e*Pn	Pn	00 59 54.5	+0.9
NVLJ	Novalja	13.26	125	*e*Pn	Pn	00 59 54.5	+0.9
NVLJ	Novalja	13.26	125	*e*Pn	Pn	00 59 54.4	+0.8
SNTG	Esanatoglia	13.37	134	P	Pn	00 59 55.8	+0.7
SNTG	Esanatoglia	13.37	134	P	Pn	00 59 55.8	+0.7
PTO	Porto	13.41	208	*e*P	Pn	00 59 54.9	-0.7
	comp=Z,66nm,1.9s						
PTO	Porto	13.41	208	*e*P	Pn	00 59 54.9	-0.7
	comp=Z,66nm,1.9s						
NIE	Niedzica	13.46	99	*e*P	Pn	00 59 54.4	-1.9
PVIS	Viseu	13.61	205	*e*P	Pn	00 59 57.5	-0.9
	comp=Z,33nm,1.9s						
PVIS				*e*S	Sn	01 02 22.8	-6.9
PVIS	Viseu	13.61	205	*e*P	Pn	00 59 57.5	-0.9
	comp=Z,33nm,1.9s						
BUD	Budapest	13.63	108	*e*P	Pn	01 00 07.5	+8.9
NRCA	Norcia	13.78	134	P	Pn	01 00 01.4	+0.7
MTE	Manteigas	13.82	204	*e*P	Pn	00 59 59.9	-1.4
	comp=Z,34nm,1.1s						
MTE				*e*S	Sn	01 02 26.2	-8.6
MTE	Manteigas	13.82	204	*e*Pn	Pn	01 00 00.0	-1.3
MTE				*e*Sn	Sn	01 02 32.8	-2.0
MTE	Manteigas	13.82	204	Pn	Pn	01 00 00.0	-1.3
MTE				*e*Sn	Sn	01 02 32.8	-2.0
ESDC	Sonseca Array	13.87	192	Pn	Pn	01 00 00.2	-1.8
	comp=Z,7.9nm,0.3s,baz=8.9,slow=12,SNR=86						
ESDC				Sn	Sn	01 02 23.0	-13
	comp=Z,8.1nm,0.3s,baz=8.9,slow=23,SNR=7.9						
ESDC				LR	LR	01 06 01.7	
	comp=Z,310nm,20.4s,baz=0.0,slow=40						
ESDC	Sonseca Array	13.87	192	Pn	Pn	01 00 00.2	-1.8
PSZ	Piszkesteto	13.90	105	⇑*i*P	Pn	01 00 08.0	+5.6
PSZ	Piszkesteto	13.90	105	*e*P	Pn	01 00 07.7	+5.3
PSZ	Piszkesteto	13.90	105	*e*Pn	Pn	01 00 02.9	+0.5
PSZ				*e*Sn	Sn	01 02 46.0	+9.3
PSZ	Piszkesteto	13.90	105	*e*Pn	Pn	01 00 02.9	+0.5
PSZ	Piszkesteto	13.90	105	*e*P	Pn	01 00 07.7	+5.3
SUW	Suwalki	13.94	78	*e*P	Pn	01 00 02.6	-0.2
SUW				*e*PP		01 00 10.6	
SUW				*e*		01 00 31.8	
SUW				*e*S	Sn	01 02 27.3	-10
SUW	Suwalki	13.94	78	*e*PP		01 00 10.6	
SUW				*e*		01 00 31.8	
SUW				*e*S	Sn	01 02 27.3	-10
SUW	Suwalki	13.94	78	Pn	Pn	01 00 01.8	-1.0
	SNR=80						
SUW	Suwalki	13.94	78	*e*P	Pn	01 00 10.6	+7.8
KECS	Kecovo	13.97	102	*e*PN	Pn	01 00 06.0	+2.7
KECS				*e*		01 03 29.7	
KECS				*e*		01 04 39.9	
STHS	Stebnicka Huta	14.01	97	*e*PN	Pn	01 00 03.1	-0.7
STHS				*e*		01 04 42.3	
STHS	Stebnicka Huta	14.01	97	*e*Pn	Pn	01 00 03.1	-0.7
PAB	San Pablo	14.05	193	*e*Pn	Pn	01 00 02.3	-2.1
PAB				*e*Sn	Sn	01 02 27.5	-13
PAB	San Pablo	14.05	193	*e*Pn	Pn	01 00 02.3	-2.1
PKSM	Moragy	14.14	113	⇓*i*P	Pn	01 00 08.3	+2.7
TERO	Teramo	14.16	133	P	Pn	01 00 07.3	+1.3
FIAM	Fiamignano	14.25	136	P	Pn	01 00 07.8	+0.7
AQU	L'Aquila	14.30	135	P	Pn	01 00 08.6	+0.8
PCBR	Castelo Branco	14.34	203	*e*P	Pn	01 00 07.4	-1.0
	comp=Z,28nm,1.9s						
PCBR				*e*S	Sn	01 02 34.4	-13
CRVS	Cervenica-Dubn	14.36	99	*e*PN	Pn	01 00 08.8	+0.2
CRVS				*e*		01 03 36.5	
CRVS				*e*		01 04 48.1	
CRVS	Cervenica-Dubn	14.36	99	*e*Pn	Pn	01 00 08.9	+0.3
CRVS	Cervenica-Dubn	14.36	99	*e*Pn	Pn	01 00 08.9	+0.3
PTQR	Pietraquaria	14.57	135	P	Pn	01 00 12.0	+0.5
STOK	Stokkvaagen	14.62	22	*e*Pn	Pn	01 00 09.6	-2.4
STOK				AML	AML	01 03 19.6	
	comp=Z,13nm,0.7s						
FLOS	Flostrand	14.70	22	*e*Pn	Pn	01 00 11.6	-1.6
PMRV	Marv??o	14.71	202	*e*P	Pn	01 00 11.8	-1.7
	comp=Z,37nm,1.8s						
PMRV				*e*S	Sn	01 02 45.6	-11
PTOM	Tomar	14.78	205	*e*P	Pn	01 00 13.6	-0.7
	comp=Z,51nm,1.1s						
PTOM				*e*S	Sn	01 02 50.3	-7.8
KONS	Konsvik	14.79	21	*e*Pn	Pn	01 00 13.0	-1.3
KWP	Kalwaria Pacla	14.80	95	*e*P	Pn	01 00 13.2	-1.4
KWP				*e*PP		01 00 23.5	
KWP				*e*		01 00 35.8	
KWP				*e*S	Sn	01 02 58.9	+0.5
KWP	Kalwaria Pacla	14.80	95	*e*P	Pn	01 00 13.1	-1.4
KWP				*e*S	Sn	01 02 58.9	+0.5
KWP	Kalwaria Pacla	14.80	95	*e*Pn	Pn	01 00 12.8	-1.7
KWP				*e*PP		01 00 23.5	
KWP				*e*		01 00 35.8	
KWP				*e*Sn	Sn	01 02 52.6	-5.8
KWP				*e*S	Sn	01 02 58.9	+0.5
KWP	Kalwaria Pacla	14.80	95	*e*Pn	Pn	01 00 12.9	-1.6
MOR8	Moi Rana	14.82	24	*e*Pn	Pn	01 00 14.4	-0.4
MOR8	Moi Rana	14.82	24	*e*Pn	Pn	01 00 14.4	-0.3
	SNR=55						
KOLS	Kolonicke sedl	14.83	98	*e*PN	Pn	01 00 14.1	-0.8
KOLS				*e*		01 04 58.2	
KOLS	Kolonicke sedl	14.83	98	*e*Pn	Pn	01 00 14.1	-0.8
UZH	Uzhgorod	14.97	99	⇑*i*P	Pn	01 00 07.9	-9.0
UZH				MLR	MLR		
	comp=Z,3µm,13.0s						
SDI	San Donato	15.00	135	P	Pn	01 00 17.1	-0.2
PESTR	Estremoz	15.29	202	*e*P	Pn	01 00 20.7	-0.6
	comp=Z,33nm,1.5s						
PESTR				*e*S	Sn	01 03 02.7	-7.9
TRPA	Tarpa	15.35	101	⇑*i*P	Pn	01 00 22.9	+1.0
PMAFR	Mafra	15.63	207	*e*P	Pn	01 00 25.0	-0.6
	comp=Z,109nm,1.2s						
EVO	Evora	15.71	203	*e*Pn	Pn	01 00 26.2	-0.5
EVO				*e*Sn	Sn	01 03 14.8	-6.0
	comp=Z,39nm,0.8s						
EVO				*e*MLR	MLR		
	comp=Z,501nm,17.0s						
EVO	Evora	15.71	203	*e*P	Pn	01 00 26.1	-0.6
	comp=Z,41nm,1.2s						
EVO				*e*S	Sn	01 03 11.1	-10
CART	Cartagena	15.74	182	*e*P	Pn	01 00 32.0	+4.9
EVOP	Sao Brissos	15.74	203	*e*Pn	Pn	01 00 26.2	-0.9
STON	Ston	15.89	124	*e*Pn	Pn	01 00 30.1	+1.1
STON	Ston	15.89	124	*e*Pn	Pn	01 00 30.1	+1.1
VSU	Vasula	15.96	60	*e*P	Pn	01 00 26.0	-3.8
PBEJ	Beja	16.16	202	*e*P	Pn	01 00 32.0	-0.5
	comp=Z,35nm,1.8s						
PBEJ				*e*S	Sn	01 03 30.4	-1.3
BZS	Buzias	16.16	110	⇑*i*P	Pn	01 00 36.9	+4.4
BZS	Buzias	16.16	110	⇑*i*P	Pn	01 00 36.9	+4.4
FIA0	FINESS Array S	16.29	50	P	Pn	01 00 31.0	-3.0
	baz=245,slow=12						
FINES	FINESS Array B	16.29	50	Pn	Pn	01 00 30.7	-3.3
	comp=Z,3.1nm,0.3s,baz=250,slow=9.9,SNR=80						
FINES				Sn	Sn	01 03 20.1	-15
	comp=Z,1.1nm,0.3s,baz=245,slow=20,SNR=2.7						
FINES				LR	LR	01 07 36.4	
	comp=Z,429nm,20.0s,baz=356,slow=40						
ENIJ	Nijar	16.40	185	P	Pn	01 00 36.3	+0.7
	comp=Z,8.5nm,0.4s						
ERON	Agron	16.48	190	P	Pn	01 00 36.8	+0.2
	comp=Z,13nm,0.4s						
MNK	Minsk	16.59	75	⇑*e*P	Pn	01 00 33.0	-4.9
KAF	Kangasniemi	16.61	47	*e*P	Pn	01 00 33.4	-4.7
KAF				pmax	pmax		
	comp=Z,28nm,0.7s						
KAF	Kangasniemi	16.61	47	*e*p	Pn	01 00 33.4	-4.7
	comp=Z,28nm,0.7s						
MICGM	Minsk	16.61	75	⇑*e*P	Pn	01 00 33.0	-5.2
EGUA	Guajares	16.64	189	P	Pn	01 00 39.2	+0.6
	comp=Z,0.2nm,3.0s						
PVAQ	Vaqueiros	16.73	201	*e*P	Pn	01 00 39.9	+0.2
	comp=Z,45nm,1.6s						
PVAQ				*e*S	Sn	01 03 32.9	-13
PVAQ	Vaqueiros	16.73	201	*e*P	Pn	01 00 39.9	+0.2
	comp=Z,45nm,1.6s						
LIJA	Lijar	16.79	194	*e*P	Pn	01 00 43.2	+2.7
PBDV	Barranco-do-Ve	16.93	201	*e*P	Pn	01 00 42.9	+0.7
PBDV				*e*S	Sn	01 03 48.6	-1.7
PBDV	Barranco-do-Ve	16.93	201	*e*P	Pn	01 00 42.9	+0.7
GZR	Gura Zlata	16.95	109	⇓*i*P	Pn	01 00 46.8	+4.3
GZR	Gura Zlata	16.95	109	⇓*i*P	Pn	01 00 46.8	+4.3
MORF	Marmelete	17.03	203	*e*P	Pn	01 00 45.4	+1.9
	comp=Z,75nm,1.7s						
MORF				*e*S	Sn	01 03 45.3	-7.5
MORF	Marmelete	17.03	203	P	Pn	01 00 44.0	+0.5
EMIJ	Mijas	17.04	192	P	Pn	01 00 44.5	+0.8
	comp=Z,20nm,0.5s						
EBNR	Beni Rached	17.07	175	P	Pn	01 00 51.0	+6.9
BUR08	Bucovina Ar. S	17.16	99	*e*Pn	Pn	01 00 45.2	+0.1
BUR08				*e*Sn	Sn	01 03 53.3	-2.4
BUR08	Bucovina Ar. S	17.16	99	*e*Pn	Pn	01 00 45.2	+0.1
BURAR	Bucovina Array	17.18	99	⇓*i*P	Pn	01 00 48.6	+3.2
BURAR	Bucovina Array	17.18	99	⇓*i*P	Pn	01 00 48.6	+3.2
ECHA	Ech Chlef	17.21	175	P	Pn	01 00 51.5	+5.7
PFVI	Vila Bisbo	17.24	204	*e*S	Sn	01 03 58.3	+0.5
EJIF	Jimena Fronter	17.25	194	P	Pn	01 00 46.1	-0.2
	comp=Z,8.2nm,0.4s						
EMHD	Djebel Mahouad	17.27	171	P	Pn	01 00 49.3	+2.8
EMHD	Djebel Mahouad	17.27	171	P	Pn	01 00 49.3	+2.8
CUC	Castrocucco	17.27	134	*e*Pn	Pn	01 00 46.8	+0.2
	comp=Z,18nm,1.0s						
CUC	Castrocucco	17.27	134	P	Pn	01 00 46.5	-0.1
	comp=Z,18nm,1.0s						
SFS	San Fernando	17.35	196	*e*P	Pn	01 00 50.0	+2.5
SFS	San Fernando	17.35	196	*e*P	Pn	01 00 50.0	+2.5
EANR	'Ain N'Sour	17.39	176	P	Pn	01 00 52.0	+3.9
KMPD	K-Podol'skiy	17.48	95	P	Pn	01 00 50.0	+0.9
ETRT	Tiaret	17.96	176	P	Pn	01 00 53.0	-2.1
ETRT	Tiaret	17.96	176	P	Pn	01 00 53.0	-2.1
PUL	Pulkovo	17.96	57	*e*P	Pn	01 00 52.5	-2.5
PUL				pmax	pmax		
	comp=Z,157nm,0.4s						
JMIC	Jan Mayen	18.11	351	LR	LR	01 07 48.6	
	comp=Z,254nm,18.2s,baz=42,slow=37						
VOIR		18.23	105	⇑*i*P	Pn	01 01 00.7	+2.3
VOIR		18.23	105	⇑*i*P	Pn	01 01 00.7	+2.3
KIEV	Kiev	18.31	86	*e*P	Pn	01 00 55.3	-4.0
KIEV				*e*		01 04 23.1	
KIEV				pmax	pmax		
	comp=Z,20nm,0.6s						
KIEV	Kiev	18.31	86	*e*Pn	Pn	01 00 55.3	-3.9
	comp=Z,20nm,0.6s						
KIEV				*e*Sn	Sn	01 04 23.1	-0.5
AKASG	Malin Array Be	18.31	86	Pn	Pn	01 00 55.7	-3.7
	comp=Z,6.7nm,0.3s,baz=291,slow=10,SNR=22						
AKASG				Sn	Sn	01 04 08.9	-15
	comp=Z,2.1nm,0.3s,baz=285,slow=23,SNR=4.4						
TIP	Timpagrande	18.35	134	*e*Pn	Pn	01 01 01.0	+1.1
TIP	Timpagrande	18.35	134	*e*Pn	Pn	01 01 01.0	+1.1
TRO	Tromso	18.61	21	*e*Pn	Pn	01 01 01.5	-1.4
TRO	Tromso	18.61	21	*e*Pn	Pn	01 01 01.5	-1.4
	SNR=55						
MLR	Muntele Rosu	18.72	104	⇑*i*P	Pn	01 01 09.6	+5.3
MLR	Muntele Rosu	18.72	104	P	Pn	01 01 05.3	+1.0
	comp=Z,0.2nm,0.3s,baz=208,slow=8.6,SNR=10						
MLR				LR	LR	01 07 51.4	
	comp=Z,364nm,20.2s,baz=295,slow=36						
MLR	Muntele Rosu	18.72	104	P	Pn	01 01 05.3	+1.0
CEL	Celeste	18.76	137	*e*P	Pn	01 01 04.4	-0.5
	comp=Z,12nm,0.8s						
CEL	Celeste	18.76	137	*e*P	Pn	01 01 04.4	-0.5
	comp=Z,12nm,0.8s						
KEST	Kesra	18.85	155	P	Pn	01 01 07.0	+1.0
	comp=Z,0.1nm,0.3s,baz=306,slow=2.2,SNR=34						
KEST				LR	LR	01 08 32.5	
	comp=Z,116nm,18.1s,baz=276,slow=38						
VAE	Valguarnera	18.86	141	P	Pn	01 01 08.7	+2.7
	comp=Z,0.3nm,0.3s,baz=106,slow=18,SNR=2.5						
VAE				LR	LR	01 10 15.1	
	comp=Z,233nm,18.3s,baz=56,slow=43						
PLOR	Plostina	18.93	102	⇑*i*P	Pn	01 01 07.7	+0.8
PLOR	Plostina	18.93	102	⇑*i*P	Pn	01 01 07.7	+0.8
VRI	Vrincioaia	18.97	102	⇑*i*P	Pn	01 01 07.7	+0.3
VRI	Vrincioaia	18.97	102	⇑*i*P	Pn	01 01 07.7	+0.3
JOF	Joensuu	19.07	47	*e*P	Pn	01 01 03.3	-5.1
JOF				pmax	pmax		
	comp=Z,32nm,0.6s						
JOF	Joensuu	19.07	47	*e*p	Pn	01 01 03.3	-5.1
	comp=Z,32nm,0.6s						
KTK1	Kautokeino	19.19	26	*e*Pn	Pn	01 01 07.8	-2.1
KTK1	Kautokeino	19.19	26	*e*Pn	Pn	01 01 07.8	-2.0
	SNR=55						
KIS	Kishinev	19.62	97	*e*P	Pn	01 01 26.0	+11
SCO	Scoresbysund	19.79	339	*i* P	Pn	01 01 17.4	+0.4
SCO				pmax	pmax		
	comp=Z,18nm,0.9s						
SCO	Scoresbysund	19.79	339	*i* P	Pn	01 01 17.4	+0.4
	comp=Z,18nm,0.9s						
SCO	Scoresbysund	19.79	339	*i* P	Pn	01 01 17.4	+0.4
	comp=Z,18nm,0.9s						
ARA0	ARCESS Array S	20.14	26	P	P	01 01 17.2	-2.1
	baz=225,slow=12						
ARA0	ARCESS Array S	20.14	26	P	P	01 01 17.2	-2.1
	baz=225,slow=12,SNR=539						
ARCES	ARCESS Array B	20.14	26	P	P	01 01 17.6	-1.8
	comp=Z,18nm,0.4s,baz=226,slow=12,SNR=339						
ARCES				LR	LR	01 10 29.9	
	comp=Z,518nm,18.4s,MS3.9,baz=235,slow=41						
ARCES	ARCESS Array B	20.14	26	P	P	01 01 17.6	-1.7
ARE0	ARCESS Array S	20.14	26	*e*P	P	01 01 17.6	-1.7
ARE0	ARCESS Array S	20.14	26	*e*P	P	01 01 17.6	-1.7
HARR	Harsova	20.33	104	⇑*i*P	P	01 01 22.3	+0.7
HARR	Harsova	20.33	104	⇑*i*P	P	01 01 22.3	+0.7
KEV	Kevo	20.69	27	*e*P	P	01 01 21.8	-3.4
KEV				pmax	pmax		
	comp=Z,15nm,0.5s						
KEV	Kevo	20.69	27	*e*p	P	01 01 21.8	-3.4
	comp=Z,15nm,0.5s						
KEV	Kevo	20.69	27	P	P	01 01 23.2	-2.0
	comp=Z,89nm,1.1s,SNR=51						
MDT	Midelt	20.72	190	P	P	01 01 26.3	+0.5
	comp=Z,9.5nm,1.0s,baz=351,slow=14,SNR=8.5						
MDT				LR	LR	01 09 16.6	
	comp=Z,162nm,21.6s,MS3.4,baz=191,slow=36						
MDT	Midelt	20.72	190	*e*P	P	01 01 26.2	+0.3
	baz=7.2						
TIRR	Tirgusor	20.75	104	*e*P	P	01 01 24.7	-1.4
TIRR				pmax	pmax		
	comp=Z,20nm,0.7s						
TIRR	Tirgusor	20.75	104	⇑*i*P	P	01 01 25.3	-0.8
TIRR	Tirgusor	20.75	104	*e*P	P	01 01 24.7	-1.4
	comp=Z,20nm,0.7s						
TIRR	Tirgusor	20.75	104	P	P	01 01 24.7	-1.4
	comp=Z,20nm,0.7s						
APA0	Apatity Array	21.40	35	P	P	01 01 32.1	-0.8
	baz=251,slow=10						
APA0	Apatity Array	21.40	35	P	P	01 01 32.1	-0.8
	baz=251,slow=9.7,SNR=6.5						
ZFT	Errachidia	21.47	189	*i* P	P	01 01 35.0	+1.1
OBN	Obninsk	21.49	70	⇑*i*P	P	01 01 32.6	-1.4
OBN				*i*		01 01 36.2	
OBN				*i*		01 02 04.7	
OBN				*e*S	S	01 05 28.3	-3.7
OBN				*i*		01 05 43.0	
OBN				pmax	pmax		
	comp=Z,78nm,1.3s,mb4.9						
OBN				MLR	MLR		
	comp=Z,200nm,14.0s,MS3.7						
OBN	Obninsk	21.49	70	*e*P	P	01 01 32.6	-1.3
OBN				*e*S	S	01 05 31.2	-0.7
OBN	Obninsk	21.49	70	⇑P	P	01 01 32.7	-1.3
	SNR=51						
OBN				*e*S	S	01 05 31.2	-0.8
APA	Apatity	21.52	36	⇑*i*P	P	01 01 33.0	-1.2
APA				*e*		01 05 34.0	
APA				pmax	pmax		
	comp=Z,84nm,1.4s,mb5.0						
APA				MLR	MLR		
	comp=Z,1µm,11.0s,MS4.5						
APA	Apatity	21.52	36	*i* P	P	01 01 33.0	-1.2
	comp=Z,84nm,1.4s,mb5.0						
APA	Apatity	21.52	36	*e*PcP	PcP	01 05 34.0	-2.2
	comp=Z,1µm,11.0s						
MOS	Moscow	21.97	68	*e*P	P	01 01 35.8	-3.3
MOS				*e*S	S	01 05 31.4	-10
MOS				*e*SSS		01 06 10.7	
MOS				pmax	pmax		
	comp=Z,102nm,1.3s,mb5.1						
BOZC	Bozcaada	22.43	116	*i* P	P	01 01 40.8	-3.3
BALY	Balya	23.35	114	*i* P	P	01 01 46.2	-7.6
VSR	Storozhevoye	24.05	79	*e*P	P	01 01 59.0	-1.4
VSR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.5						
VSR				pmax	pmax		
	comp=N,3.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,20nm,1.0s						
DAG	Danmarks Havn	24.54	350	*i* P	P	01 02 04.0	-0.7
DAG	Danmarks Havn	24.54	350	*e*P	P	01 02 04.0	-0.7
SUMG	Summit	25.17	334	*e*P	P	01 02 11.6	+1.1
	comp=E,17nm,0.9s,mb4.6						
SUMG	Summit	25.17	334	P	P	01 02 11.5	+1.0
	comp=E,14nm,0.9s,mb4.5,SNR=41						
IDI	Anoyia	25.29	125	P	P	01 02 10.6	-1.3
	comp=E,11nm,1.1s,mb4.3,baz=352,slow=15,SNR=5.2						
IDI				LR	LR	01 11 55.4	
	comp=E,127nm,21.5s,MS3.4,baz=289,slow=36						
IDI	Anoyia	25.29	125	P	P	01 02 10.6	-1.3
BALT	Daday	25.42	104	*i* P	P	01 02 13.5	+0.5
BALT	Daday	25.42	104	*i* P	P	01 02 13.5	+0.5
VRHR	Novokhopersk	25.54	78	*e*P	P	01 02 14.8	+0.8
VRHR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.0						
VRHR				pmax	pmax		
	comp=N,20nm,0.6s						
VRHR	Novokhopersk	25.54	78	*e*P	P	01 02 14.8	+0.8
	comp=N,20nm,0.6s,mb4.8						
PRGR	Permogore	25.56	53	*e*P	P	01 02 12.5	-1.6
PRGR				*e*S	S	01 06 41.1	-0.4
PRGR				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.0						
PRGR	Permogore	25.56	53	*e*P	P	01 02 12.5	-1.6
	comp=Z,64nm,1.2s,mb5.0						
LSHF	Shwairf	25.63	150	*i* P	P	01 02 15.3	+0.3
	comp=Z,25nm,1.1s,mb4.7,SNR=28						
SPA0	Spitsbergen Ar	25.67	8	P	P	01 02 14.8	-0.1
	baz=176,slow=12						
SPA0	Spitsbergen Ar	25.67	8	P	P	01 02 14.8	-0.1
	baz=176,slow=12,SNR=6.6						
SPITS	Spitsbergen Ar	25.67	8	P	P	01 02 15.2	+0.2
	comp=Z,18nm,0.6s,mb4.8,baz=261,slow=12,SNR=15						
SPITS				LR	LR	01 11 24.7	
	comp=Z,104nm,18.1s,MS3.4,baz=260,slow=34						
SPITS	Spitsbergen Ar	25.67	8	P	P	01 02 15.2	+0.2
SPITS				LR	LR	01 11 24.7	
SPITS	Spitsbergen Ar	25.67	8	P	P	01 02 15.2	+0.3
ANN	Anapa	25.90	94	*e*P	P	01 02 13.6	-3.8
ANN				*e*S	S	01 06 43.4	-3.8
ANN				pmax	pmax		
	comp=Z,71nm,1.5s,mb5.0						
ANN				MLR	MLR		
	comp=Z,614nm,16.0s,MS4.2						
ILGA	Ilgaz	25.92	104	*i* P	P	01 02 18.5	+1.0
ILGA	Ilgaz	25.92	104	*i* P	P	01 02 18.5	+1.0
KBS	Kingsbay	26.07	5	*e*P	P	01 02 20.9	+2.3
KBS	Kingsbay	26.07	5	*e*P	P	01 02 20.9	+2.3
BRTR	Keskin Array B	26.74	107	P	P	01 02 26.0	+1.0
	comp=Z,1.6nm,0.7s,mb3.6						
BRTR	Keskin Array B	26.74	107	P	P	01 02 26.0	+1.0
CTKT	Corum	26.82	104	*i* P	P	01 02 25.5	-0.1
CTKT	Corum	26.82	104	*i* P	P	01 02 25.5	-0.2
LJFR	Jufra	26.94	148	*i* P	P	01 02 28.2	+1.4
	comp=Z,19nm,1.0s,mb4.6,SNR=152						
AKAS	Kas	26.97	117	*i* P	P	01 02 20.3	-6.8
LZLA	Zalla	28.03	145	*i* P	P	01 02 37.7	+1.1
	comp=Z,18nm,1.5s,mb4.5,SNR=152						
LUMB	Murzuk	29.39	152	*i* P	P	01 02 49.3	+0.6
	comp=Z,16nm,1.2s,mb4.6,SNR=28						
KIV	Kislovodsk	29.52	91	*e*P	P	01 02 50.8	+1.1
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.2						
KIV				MLR	MLR		
	comp=Z,134nm,13.0s,MS3.8						
KIV	Kislovodsk	29.52	91	*e*P	P	01 02 49.5	-0.2
	comp=Z,3.0nm,0.6s,mb4.2						
KIV	Kislovodsk	29.52	91	*e*P	P	01 02 49.5	-0.2
	comp=Z,3.0nm,0.6s,mb4.2						
MALT	Malatya	30.45	104	*e*P	P	01 03 01.0	+2.9
MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
MALT	Malatya	30.45	104	*e*P	P	01 03 00.9	+2.9
	comp=Z,1.8nm,0.8s,mb3.9						
MALT	Malatya	30.45	104	P	P	01 02 59.3	+1.2
	comp=Z,1.8nm,0.8s,mb3.9						
ERZM	Erzurum	31.15	98	*i* P	P	01 03 06.1	+2.0
ERZM	Erzurum	31.15	98	*i* P	P	01 03 06.1	+2.0
SOKR	Solikamsk	31.30	55	⇑*i*P	P	01 03 05.5	+0.2
SOKR				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
SOKR	Solikamsk	31.30	55	*i* P	P	01 03 05.5	+0.2
	comp=Z,20nm,0.8s,mb5.0						
GNI	Garni	33.00	95	*c i*P	P	01 03 21.5	+1.1
GNI				pmax	pmax		
	comp=Z,20nm,1.7s						
GNI	Garni	33.00	95	P	P	01 03 21.6	+1.2
	comp=Z,4.8nm,0.7s,mb4.6,baz=0.2,slow=3.3,SNR=13						
GNI				LR	LR	01 19 59.3	
	comp=Z,135nm,19.1s,MS3.7,baz=141,slow=42						
GNI	Garni	33.00	95	*e*P	P	01 03 20.6	+0.1
	comp=Z,30nm,1.4s,mb5.0						
GNI				*e*PP	PP	01 04 33.9	-1.0
GNI	Garni	33.00	95	*e*P	P	01 03 20.6	+0.2
	comp=Z,30nm,1.4s,mb5.0						
ARU	Arti	33.13	60	*c i*P	P	01 03 20.1	-1.2
ARU				*e*		01 04 26.7	
ARU				S	S	01 08 37.8	-2.5
ARU				SS	SS	01 10 37.6	-25
ARU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
ARU	Arti	33.13	60	*e*P	P	01 03 19.7	-1.6
	comp=Z,17nm,0.9s,mb5.0						
ARU				*e*PP	PP	01 04 33.3	-2.7
ARU	Arti	33.13	60	⇑P	P	01 03 20.2	-1.1
TVAN	Van	33.24	99	*i* P	P	01 03 23.9	+1.3
TVAN	Van	33.24	99	*i* P	P	01 03 23.9	+1.3
SVE	Sverdlovsk	34.06	59	⇓*e*P	P	01 03 28.8	-0.7
SVE				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
SVE	Sverdlovsk	34.06	59	*e*P	P	01 03 28.8	-0.7
	comp=Z,14nm,0.7s,mb5.0						
AB31	Akbulak array	36.93	71	P	P	01 03 53.3	-0.9
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
AB31	Akbulak array	36.93	71	P	P	01 03 53.3	-0.9
	comp=Z,1.0nm,0.4s,mb4.0						
SCHQ	Schefferville	37.73	300	P	P	01 03 59.8	-1.2
	comp=Z,3.3nm,0.8s,mb4.1,baz=73,slow=7.1,SNR=11						
SCHQ				LR	LR	01 16 17.9	

	comp=Z,78nm,20.3s,MS3.5,baz=25,slow=31						
SCHQ	Schefferville	37.73	300	eP	P	01 04 00.0	-0.9
	baz=64						
TOA0	Torodi Ar. Sit	40.10	177	eP	P	01 04 20.6	-0.5
TOA0	Torodi Ar. Sit	40.10	177	eP	P	01 04 20.6	-0.5
TORD	Torodi Ar. Bea	40.10	177	P	P	01 04 20.4	-0.7
	comp=Z,3.5nm,0.9s,mb4.1,baz=349,slow=8.5,SNR=18						
TORD				PcP	PcP	01 06 25.0	-0.6
	comp=Z,0.8nm,0.7s,baz=352,slow=4.1,SNR=2.4						
TORD				LR	LR	01 22 24.7	
	comp=Z,250nm,18.8s,MS4.1,baz=355,slow=38						
BBTS	Babate	40.64	205	P	P	01 04 25.7	+0.1
	comp=Z,16nm,1.0s,mb4.6,baz=0.0,slow=3.0,SNR=3.3						
BBTS	Babate	40.64	205	P	P	01 04 25.7	+0.1
RES	Resolute Bay	40.67	336	P	P	01 04 24.9	-0.3
RES				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.2						
RES	Resolute Bay	40.67	336	P	P	01 04 24.9	-0.4
	comp=Z,3.0nm,0.5s,mb4.1,baz=58,slow=7.6,SNR=40						
RES	Resolute Bay	40.67	336	eP	P	01 04 24.3	-1.0
	comp=Z,3.5nm,0.6s,mb4.2						
RES	Resolute Bay	40.67	336	P	P	01 04 24.9	-0.3
	comp=Z,3.5nm,0.6s,mb4.2,SNR=37						
BRVK	Borovoye	40.70	61	eP	P	01 04 25.5	-0.2
BRVK				e		01 05 57.8	
BRVK				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.0						
BRVK	Borovoye	40.70	61	eP	P	01 04 25.5	-0.3
	comp=Z,36nm,0.9s,mb5.0						
BRVK				ePP	PP	01 05 57.8	-1.4
BRVK	Borovoye	40.70	61	P	P	01 04 26.0	+0.3
	SNR=8.9						
BRVK				P		01 04 26.0	
	SNR=8.9						
BRVK	Borovoye	40.70	61	P	P	01 04 25.8	+0.1
	comp=Z,36nm,0.9s,mb5.0						
BRVK	Borovoye	40.70	61	ePP	PP	01 05 57.8	-1.5
BVA0	Borovoye Array	40.77	61	iP	P	01 04 26.4	+0.1
BVA0				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
BVA0	Borovoye Array	40.77	61	iP	P	01 04 26.4	+0.1
	comp=Z,6.0nm,0.7s,mb4.3						
VOSK	Vostochnaya	41.23	61	P	P	01 04 29.8	-0.3
VOSK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
VOSK	Vostochnaya	41.23	61	P	P	01 04 29.8	-0.3
	comp=Z,10.0nm,0.7s,mb4.5						
NVS	Novosibirsk	46.25	53	iP	P	01 05 09.4	-1.0
NVS				pmax	pmax		
	comp=N,4.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
NVS				pmax	pmax		
	comp=E,6.0nm,0.9s						
NVS	Novosibirsk	46.25	53	iP	P	01 05 09.4	-1.0
KURK	Kurchatov	46.31	60	eP	P	01 05 09.9	-1.1
KURK				e		01 06 55.9	
KURK				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.3						
KURK	Kurchatov	46.31	60	eP	P	01 05 09.9	-1.1
	comp=Z,29nm,0.7s,mb5.3						
KURK				ePP	PP	01 06 55.9	-3.5
KURK	Kurchatov	46.31	60	P	P	01 05 10.5	-0.5
	SNR=7.8						
KURK				P		01 05 10.5	
	SNR=7.8						
KURK	Kurchatov	46.31	60	P	P	01 05 10.5	-0.5
	SNR=7.8						
KK31	Karatay Array	46.45	73	iP	P	01 05 12.0	-0.2
KK31				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
KK31	Karatay Array	46.45	73	P	P	01 05 12.1	-0.1
DBIC	Dimbokro	46.65	186	P	P	01 05 13.6	-0.5
	comp=Z,5.5nm,0.7s,mb4.6,baz=341,slow=7.0,SNR=15						
DBIC				LR	LR	01 26 11.3	
	comp=Z,63nm,19.5s,MS3.6,baz=356,slow=38						
DBIC	Dimbokro	46.65	186	P	P	01 05 13.6	-0.5
DBIC				LR	LR	01 26 11.3	
LIC	Lamto	47.11	186	eP	P	01 05 16.9	-0.7
	comp=Z,9.7nm,0.6s,mb4.6,baz=2.4						
LIC				epP	pP	01 05 24.3	+3.8
LIC				eMLR	MLR		
	comp=Z,137nm,17.0s,MS3.7						
LIC	Lamto	47.11	186	eP	P	01 05 16.9	-0.7
	comp=Z,4.8nm,0.6s,mb4.6						
LIC				epP	pP	01 05 24.3	+3.8
LIC				LR	LR		
	comp=Z,70nm,17.0s,MS3.7						
LIC	Lamto	47.11	186	eP	P	01 05 16.9	-0.7
	comp=Z,4.8nm,0.6s,mb4.6,baz=2.4						
LIC				epP	pP	01 05 24.3	+3.8
ZAA0	Zalesovo Array	47.52	53	eP	P	01 05 19.6	-0.7
ZAA0				ePP	PP	01 07 11.2	-0.3
ZAA0	Zalesovo Array	47.52	53	eP	P	01 05 19.6	-0.8
ZALV	Zalesovo Beam	47.52	53	P	P	01 05 19.9	-0.5
	comp=Z,20nm,0.6s,mb5.3,baz=303,slow=7.4,SNR=96						
ZALV				LR	LR	01 26 40.3	
	comp=Z,87nm,18.6s,MS3.8,baz=329,slow=38						
FCC	Fort Churchill	48.53	316	eP	P	01 05 27.9	-0.2
FCC	Fort Churchill	48.53	316	eP	P	01 05 27.9	-0.2
EKS2	Erkin-Say	48.59	71	eP	P	01 05 29.2	+0.4
	comp=Z,5.3nm,0.8s,mb4.6						
EKS2	Erkin-Say	48.59	71	eP	P	01 05 29.2	+0.4
	comp=Z,5.3nm,0.8s,mb4.6						
AML	Almayashu	48.88	72	eP	P	01 05 31.5	+0.4
	comp=Z,16nm,0.6s,mb5.2						
AML				ePP	PP	01 07 25.1	+1.0
AML	Almayashu	48.88	72	eP	P	01 05 31.5	+0.4
	comp=Z,16nm,0.6s,mb5.2						
AAK	Ala-Archa	49.02	71	eP	P	01 05 32.3	+0.2
AAK				e		01 06 55.8	
AAK				e		01 07 25.2	
AAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
AAK	Ala-Archa	49.02	71	LR	LR	01 27 20.6	
	comp=Z,167nm,19.0s,MS4.0,baz=126,slow=37						
AAK	Ala-Archa	49.02	71	eP	P	01 05 32.3	+0.2
	comp=Z,7.5nm,0.8s,mb4.8						
AAK				ePcP	PcP	01 06 55.8	0.0
AAK				ePP	PP	01 07 25.2	-0.1
AAK	Ala-Archa	49.02	71	⇑P	P	01 05 32.5	+0.4
	SNR=5.3						
AAK				⇑P		01 05 32.5	
	SNR=5.3						
AAK	Ala-Archa	49.02	71	P	P	01 05 32.2	+0.1
	comp=Z,7.5nm,0.8s,mb4.8						
UCH	Uchtor	49.29	71	eP	P	01 05 34.2	+0.1
	comp=Z,2.7nm,0.8s,mb4.3						
UCH				ePcP	PcP	01 06 57.3	+0.4
UCH				ePP	PP	01 07 28.6	+0.8
UCH	Uchtor	49.29	71	eP	P	01 05 34.2	0.0
	comp=Z,2.7nm,0.8s,mb4.3						
TIXI	Tiksi	50.30	19c	iP	P	01 05 40.5	-1.0
TIXI				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
TIXI	Tiksi	50.30	19	eP	P	01 05 40.6	-0.9
	comp=Z,5.9nm,0.6s,mb4.8						
TIXI	Tiksi	50.30	19	P	P	01 05 41.0	-0.5
	comp=Z,5.9nm,0.6s,mb4.8						
MK31	Makanchi Array	50.63	62	eP	P	01 05 43.9	-0.4
MK31				pmax	pmax		
	comp=Z,3.0nm,0.2s,mb4.9						
MK31	Makanchi Array	50.63	62	eP	P	01 05 43.8	-0.5
MK31				ePP	PP	01 07 41.5	+1.6
MK31	Makanchi Array	50.63	62	eP	P	01 05 43.9	-0.4
	comp=Z,3.0nm,0.2s,mb4.9						
MKAR	Makanchi Array	50.63	62	P	P	01 05 43.9	-0.4
MKAR						01 07 40.8	
MKAR	Makanchi Array	50.63	62	P	P	01 05 43.9	-0.4
	comp=Z,9.9nm,0.4s,mb5.1,baz=308,slow=6.6,SNR=280						
MKAR				PP	PP	01 07 40.8	+0.9
	comp=Z,5.0nm,0.8s,baz=301,slow=8.3,SNR=6.6						
MKAR				LR	LR	01 28 38.3	
	comp=Z,216nm,20.7s,MS4.2,baz=332,slow=38						
KSH	Kashi	51.90	73	⇑iP	P	01 05 55.3	+1.3
KSH				epP	pP	01 05 59.5	+2.5
KSH				esP	sP	01 06 02.0	+3.9
KSH				ePcP	PcP	01 07 08.0	+1.4
KSH				ePP	PP	01 07 53.0	+1.4
KSH				eScP	ScP	01 11 03.0	-0.3
KSH				ePcS	PcS	01 11 04.8	+0.2
KSH				eS	S	01 13 15.8	-0.8
KSH				esS	sS	01 13 23.0	+1.5
KSH				eScS	ScS	01 15 41.5	-2.5
KSH				eSS	SS	01 16 50.3	-2.5
KSH				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.6						
KSH				LR	LR		
	comp=N,320nm,5.8s						
KSH				LR	LR		
	comp=E,230nm,7.7s						
KSH				LR	LR		
	comp=Z,270nm,6.2s						
HOQ	Hoqain	52.20	101	P	P	01 05 55.5	-0.8
	SNR=5.6						
HOQ	Hoqain	52.20	101	P	P	01 05 55.5	-0.8
	SNR=5.6						
BIDO	Bidbid	52.72	101	⇓P	P	01 06 00.1	-0.2
	SNR=5.6						
BIDO	Bidbid	52.72	101	P	P	01 06 00.1	-0.1
	SNR=5.6						
BSY	Bisya	52.77	102	P	P	01 06 00.1	-0.5
	SNR=5.0						
BSYO	Bisya	52.81	102	P	P	01 06 00.1	-0.8
	SNR=5.0						
SMDO	Samad	53.03	101	P	P	01 06 02.1	-0.4
	SNR=7.1						
SMDO	Samad	53.03	101	P	P	01 06 02.1	-0.4
	SNR=7.1						
YKA	Yellowknife Ar	53.56	328	P	P	01 06 05.0	-0.9
	comp=Z,3.2nm,0.7s,mb4.3,baz=47,slow=7.4,SNR=65						
YKA				LR	LR	01 28 04.3	
	comp=Z,125nm,18.9s,MS4.0,baz=145,slow=35						
YKA	Yellowknife Ar	53.56	328	P	P	01 06 05.0	-0.9
YKA				LR	LR	01 28 04.3	
YKA	Yellowknife Ar	53.56	328	P	P	01 06 05.0	-0.9
JMDO	Jabal Madar	53.59	102	P	P	01 06 06.2	-0.4
	SNR=7.3						
JMDO	Jabal Madar	53.59	102	P	P	01 06 06.2	-0.4
	SNR=7.3						
INK	Inuvik	53.84	340	eP	P	01 06 06.5	-1.4
INK				pmax	pmax		
	comp=Z,3.0nm,0.4s						
INK	Inuvik	53.84	340	eP	P	01 06 06.5	-1.4
	comp=Z,3.0nm,0.4s,mb4.6						
INK	Inuvik	53.84	340	eP	P	01 06 06.5	-1.4
	comp=Z,3.0nm,0.4s,mb4.6						
EYMN	Ely	54.27	304	eP	P	01 06 10.8	-0.5
FFC	Flin Flon	54.46	316	eP	P	01 06 11.9	-0.6
FFC				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
FFC	Flin Flon	54.46	316	eP	P	01 06 11.9	-0.6
	comp=Z,3.1nm,0.7s,mb4.3						
ULM	Lac du Bonnet	54.82	309	P	P	01 06 16.1	+0.8
	comp=Z,1.2nm,0.6s,mb4.1,baz=10,slow=11,SNR=2.2						
ACSO	Alum Creek Sta	55.02	292	P	P	01 06 17.0	+0.2
WMQ	Urumqi	55.46	61	P	P	01 06 20.5	+0.6
WMQ				pP	pP	01 06 25.0	+2.1
WMQ				sP	sP	01 06 27.5	+3.4
WMQ				PcP	PcP	01 07 20.0	0.0
WMQ				PP	PP	01 08 26.0	+2.6
WMQ				eS	S	01 14 04.0	-0.6
WMQ				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
WMQ				pmax	pmax		
	comp=Z,180nm,4.2s						
WMQ				LR	LR		
	comp=N,340nm,15.2s,MS4.6						
WMQ				LR	LR		
	comp=E,280nm,18.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,300nm,18.2s,MS4.4						
MOY	Mondy	56.45	47	eP	P	01 06 27.9	+1.0
MOY				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
BOD	Bodaibo	57.07	36	eP	P	01 06 29.2	-2.1
BOD				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
IRK	Irkutsk	57.45	45	eP	P	01 06 32.1	-1.9
IRK				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.5						
TLY	Talaya	57.59	46	eP	P	01 06 34.8	-0.2
TLY				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
TLY				MLR	MLR		
	comp=Z,204nm,15.0s,MS4.4						
TLY	Talaya	57.59	46	eP	P	01 06 34.6	-0.4
	comp=Z,8.8nm,0.9s,mb4.8						
TLY				ePcP	PcP	01 07 27.5	-0.7
ZAK	Zakamensk	58.38	47	⇑iP	P	01 06 40.9	+0.3
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
EGAK	Eagle	58.43	341	eP	P	01 06 40.1	-0.6
BILL	Bilibino	58.55	6	eP	P	01 06 40.9	-0.6
BILL				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.3						
BILL	Bilibino	58.55	6	eP	P	01 06 40.9	-0.6
	comp=Z,52nm,1.5s,mb5.3						
DAWY	Dawson	58.72	340	eP	P	01 06 43.0	+0.3
IMA2	Indian Mountai	59.23	348	eP	P	01 06 46.5	+0.3
COLA	College	59.52	345	eP	P	01 06 48.6	+0.4
COLA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
COLA	College	59.52	345	eP	P	01 06 48.6	+0.4
	comp=Z,5.9nm,0.8s,mb4.7						
GOGA	Godfrey	60.11	287	eP	P	01 06 52.0	-0.8
TNA	Tin City	61.07	354	eP	P	01 06 58.9	0.0
	comp=Z,8.8nm,0.7s,mb5.0						
TNA				ePcP	PcP	01 07 41.3	-0.5
CHUM	Lake Minchumin	61.12	346	eP	P	01 06 58.9	-0.3
	comp=Z,31nm,1.0s,mb5.4						
CHUM				ePcP	PcP	01 07 41.8	-0.2
KTH	Kantishna Hill	61.23	345	eP	P	01 06 60.0	0.0
	comp=Z,7.8nm,0.9s,mb4.8						
DLBC	Dease Lake	61.39	333	eP	P	01 07 01.9	+0.8
SONM	Songino Array	61.65	47	P	P	01 07 03.0	0.0
	comp=Z,16nm,0.8s,mb5.2,baz=312,slow=7.6,SNR=113						
SONM				LR	LR	01 36 27.5	
	comp=Z,220nm,19.0s,MS4.3,baz=360,slow=39						
SONM	Songino Array	61.65	47	P	P	01 07 03.0	0.0
SONM				LR	LR	01 36 27.4	
ULN	Ulaanbaatar	61.91	47	eP	P	01 07 04.8	0.0
ULN				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
ULN	Ulaanbaatar	61.91	47	eP	P	01 07 04.8	0.0
	comp=Z,16nm,1.0s,mb5.1						
ULN	Ulaanbaatar	61.91	47	⇓P	P	01 07 04.8	0.0
	SNR=5.9						
ULN				⇓P		01 07 04.8	
	SNR=5.9						
PPLA	Purkeypile	62.04	346	eP	P	01 07 05.0	-0.5
SEY	Seymchan	62.13	14	⇑eP	P	01 07 05.8	-0.2
LAO	LASA Array	62.15	312	eP	P	01 07 06.5	0.0
	comp=Z,22nm,1.3s,mb5.1						
B18A	Beardsley Farm	62.41	315	⇓P	P	01 07 07.8	-0.3
	baz=62						
KMBO	Kilima Mbogo	62.62	137	eP	P	01 07 10.6	+0.7
EGMT	Eagleton	62.68	315	⇑P	P	01 07 09.6	-0.3
	baz=62						
EGMT	Eagleton	62.68	315	eP	P	01 07 10.0	+0.1
	comp=Z,4.9nm,0.8s,mb4.7						
A16A	West Butte Ran	62.74	316	⇑P	P	01 07 10.0	-0.3
	baz=62						
B17A	L&G Farms, Che	62.92	315	⇓P	P	01 07 11.5	0.0
	baz=63						
GAMB	Gambell	63.05	356	eP	P	01 07 12.1	-0.1
	comp=Z,4.8nm,0.5s,mb4.9						
A15A	Johnson Ranch,	63.19	317	⇑P	P	01 07 13.2	-0.1
	baz=63						
B16A	M & M Farms, S	63.20	316	⇑P	P	01 07 13.1	-0.3
	baz=63						
C17A	Wharram Farm,	63.41	315	⇑P	P	01 07 14.6	-0.2
	baz=63,SNR=6.3						
A14A	Double T Ranch	63.47	317	⇓P	P	01 07 14.8	-0.4
	baz=63,SNR=12						
WALA	Waterton Lakes	63.60	318	eP	P	01 07 16.1	0.0
C16A	Fuhringer Ranc	63.70	316	⇓P	P	01 07 16.0	-0.7
	baz=63,SNR=9.5						
D17A	Six Diamond Ra	63.76	314	⇑P	P	01 07 16.9	-0.2
	baz=63						
E18A	Harlowton	63.88	314	⇑P	P	01 07 18.2	+0.3
	baz=64						
C15A	Salmond Ranch,	64.08	316	⇑P	P	01 07 18.5	-0.7
	baz=64						
D16A	Dana Ranch, Ca	64.22	315	⇓P	P	01 07 19.8	-0.3
	baz=64						
F18A	Big Timber	64.31	313	⇑P	P	01 07 20.8	+0.1
	baz=64,SNR=5.4						
E17A	Martinsdale	64.37	314	⇓P	P	01 07 21.2	+0.1
	baz=64						
B13A	Whitefish	64.37	318	⇓P	P	01 07 20.7	-0.3
	baz=64,SNR=8.6						
DANN	Dangsing	64.38	76	eP	P	01 07 21.5	+0.1
	comp=Z,66nm,0.8s,mb5.7						
D15A	Lincoln	64.62	316	⇓P	P	01 07 22.6	-0.2
	baz=64						
A11A	Hall Mountain,	64.66	319	⇓P	P	01 07 22.5	-0.5
	baz=64,SNR=5.3						
E16A	East Helena	64.66	315	⇑P	P	01 07 22.9	-0.2
	baz=64						
KOLN	Koldanda	64.72	77	eP	P	01 07 23.1	-0.6
	comp=Z,25nm,1.0s,mb5.2						
RLMT	Red Lodge	64.72	312	⇑P	P	01 07 23.6	+0.2
	baz=64						
RLMT	Red Lodge	64.72	312	eP	P	01 07 23.3	-0.1
	comp=Z,2.8nm,0.9s,mb4.3						
B12A	Libby	64.74	318	⇓P	P	01 07 23.6	0.0
	baz=64						
SWMT	Swartz Lake	64.86	317	eP	P	01 07 23.7	-0.7
	comp=Z,2.7nm,0.6s,mb4.5						
GTA	Gaotai	64.91	57	P	P	01 07 25.0	+0.2
GTA				pP	pP	01 07 28.5	+0.7
GTA				sP	sP	01 07 30.0	+1.0
GTA				S	S	01 16 06.3	+0.3
GTA				sS	sS	01 16 13.5	+2.5
GTA				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.2						
GTA				pmax	pmax		
	comp=Z,51nm,3.9s						
GTA				LR	LR		
	comp=N,85nm,17.8s,MS4.1						
GTA				LR	LR		
	comp=E,89nm,19.9s,MS4.1						
GTA				LR	LR		
	comp=Z,88nm,17.3s,MS4.0						
BSMT	Bassoo Peak	64.92	317	eP	P	01 07 25.3	+0.6
	comp=Z,7.1nm,0.8s,mb4.8						
MIAR	Mount Ida	64.95	295	eP	P	01 07 23.9	-1.2
MIAR				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
MIAR	Mount Ida	64.95	295	eP	P	01 07 23.9	-1.2
	comp=Z,3.1nm,0.6s,mb4.5						
C13A	Hot Springs	64.97	317	⇓P	P	01 07 25.0	0.0
	baz=65,SNR=11						
D14A	Greenough	65.00	316	⇓P	P	01 07 25.2	-0.1
	baz=65						
B11A	Sandpoint	65.08	319	⇑P	P	01 07 25.2	-0.5
	baz=65						
A10A	Northport	65.11	320	⇓P	P	01 07 25.9	0.0
	baz=65						
GKN	Gorkha	65.15	76	eP	P	01 07 26.0	-0.5
E15A	Deer Lodge	65.16	315	⇓P	P	01 07 26.5	+0.2
	baz=65						
C12B	Naegeli Ranch,	65.31	318	⇓P	P	01 07 27.6	+0.4
	baz=65						
D13A	Huson	65.39	317	⇑P	P	01 07 27.4	-0.3
	baz=65,SNR=6.8						
A09A	Danville	65.51	320	⇑P	P	01 07 28.4	-0.1
	baz=65						
NEW	Newport	65.52	319	eP	P	01 07 28.2	-0.4
NEW				pmax	pmax		
	comp=Z,5.0nm,1.0s						
NEW	Newport	65.52	319	eP	P	01 07 28.2	-0.3
	comp=Z,4.5nm,1.0s,mb4.5						
E14A	Clinton	65.52	316	⇑P	P	01 07 28.3	-0.3
	baz=65						
LRM	Limekiln Ridge	65.56	315	eP	P	01 07 29.4	+0.6
	comp=Z,17nm,0.7s,mb5.2						
F15A	Butte	65.56	315	⇑P	P	01 07 28.9	+0.1
	baz=65,SNR=5.5						
KKN	Kakani	65.68	76	eP	P	01 07 29.6	-0.3
	comp=Z,35nm,0.7s,mb5.5						
KKN	Kakani	65.68	76	eP	P	01 07 29.6	-0.3
KKN				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.5						
DMN	Daman	65.72	76	eP	P	01 07 30.1	-0.1
	comp=Z,57nm,0.7s,mb5.7						
G16A	Moss Hill, Enn	65.75	314	⇓P	P	01 07 30.3	+0.2
	baz=65						
B09A	Rice	65.79	320	⇓P	P	01 07 30.3	0.0
	baz=65						
E13A	Victor	65.79	316	⇑P	P	01 07 30.3	-0.1
	baz=65						
H17A	Grant Village	65.87	313	⇓P	P	01 07 32.1	+1.2
	baz=66,SNR=6.6						
PKIN	Phulchoki	65.91	76	eP	P	01 07 31.4	0.0
	comp=Z,18nm,0.6s,mb5.3						
H16A	Russell Place,	65.92	313	⇓P	P	01 07 31.4	+0.2
	baz=66						
PKI	Pulchoki	65.92	76	eP	P	01 07 31.2	-0.3
	comp=Z,37nm,0.9s,mb5.4						
PKI	Pulchoki	65.92	76	eP	P	01 07 31.4	-0.1
PKI				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
PKI	Pulchoki	65.92	76	eP	P	01 07 31.4	-0.1
	comp=Z,18nm,0.6s,mb5.3						
GUN	Gumba	65.94	75	eP	P	01 07 31.5	-0.1
	comp=Z,36nm,0.9s,mb5.4						
DLMT	Dillon	65.98	314	eP	P	01 07 31.6	0.0
	comp=Z,6.4nm,1.0s,mb4.6						
G15A	Dillon	66.09	314	⇓P	P	01 07 32.6	+0.3
	baz=66,SNR=7.6						
A07A	Ashnola River,	66.13	321	⇑P	P	01 07 32.4	-0.1
	baz=66,SNR=8.2						
B08A	Colville Reser	66.30	320	⇓P	P	01 07 33.5	-0.1
	baz=66						
JIRN	Jiri	66.31	75	eP	P	01 07 34.1	+0.1
	comp=Z,42nm,0.9s,mb5.5						
K19A	Absolon Red Bu	66.32	310	⇓P	P	01 07 33.5	-0.4
	baz=66						
C09A	Chrisman Ranch	66.34	319	⇑P	P	01 07 33.7	-0.2
	baz=66						
G14A	Jackson	66.45	315	⇓P	P	01 07 34.9	+0.3
	baz=66						
MCMT	McKenzie Canyo	66.52	314	eP	P	01 07 35.7	+0.6
	comp=Z,1.3nm,0.7s,mb4.1						
J18A	Kendall Valley	66.55	311	⇑P	P	01 07 35.6	+0.3
	baz=66,SNR=16						
D10A	Wagner Farm, O	66.56	318	⇑P	P	01 07 34.3	-1.0
	baz=66						
H15A	Lima	66.59	314	⇓P	P	01 07 35.9	+0.3
	baz=66						
C08A	Higginbotham F	66.66	320	⇑P	P	01 07 35.5	-0.4
	baz=66,SNR=6.0						
I16A	Newdale	66.68	313	⇑P	P	01 07 37.1	+1.0
	baz=66,SNR=5.9						
PDAR	Pinedale Array	66.69	311	P	P	01 07 35.5	-0.7
	comp=Z,1.3nm,0.7s,mb4.1,baz=52,slow=5.1,SNR=13						
PDAR				LR	LR	01 35 24.2	
	comp=Z,122nm,18.5s,MS4.2,baz=174,slow=35						
PDAR	Pinedale Array	66.69	311	P	P	01 07 35.5	-0.7
PDAR				LR	LR	01 35 24.2	
E11A	Bogner Ranch,	66.69	317	⇑P	P	01 07 35.1	-1.1
	baz=66,SNR=6.6						
L20A	Wamsutter	66.73	310	⇓P	P	01 07 36.5	0.0
	baz=66						
F12A	Elk City	66.79	316	⇑P	P	01 07 37.1	+0.3
	baz=66						
G13A	Cobalt	66.89	315	⇓P	P	01 07 37.8	+0.3
	baz=66						
E10A	Myers Farm, Un	66.95	318	⇓P	P	01 07 37.0	-0.8
	baz=67						
RRI2	Red Ridge	67.03	312	eP	P	01 07 39.0	+0.7
	comp=Z,8.9nm,1.2s,mb4.7						
F11A	Grangeville	67.05	317	⇓P	P	01 07 37.7	-0.7
	baz=67,SNR=6.1						
RAMN	Ramite	67.08	75	eP	P	01 07 38.5	-0.4
C07A	Waterville	67.12	320	⇓P	P	01 07 38.4	-0.5
	baz=67						
L19A	Farson	67.12	310	⇑P	P	01 07 38.7	-0.3
	baz=67						
ISCO	Idaho Springs	67.16	306	eP	P	01 07 39.3	+0.1
D08A	Wollman Farm,	67.20	319	⇓P	P	01 07 39.1	-0.3
	baz=67						
J16A	Bone	67.21	312	⇓P	P	01 07 40.2	+0.7
	baz=67						
G12A	Big Creek, Yel	67.32	316	⇑P	P	01 07 40.4	+0.2
	baz=67						
H13A	Challis	67.33	315	⇑P	P	01 07 40.4	+0.2
	baz=67						
F10A	Beach Ranch, E	67.42	318	⇑P	P	01 07 40.2	-0.6
	baz=67,SNR=7.0						
TAPN	Taplejung	67.42	74	eP	P	01 07 41.2	+0.1
	comp=Z,55nm,0.8s,mb5.6						
I14A	Mackay	67.49	314	⇑P	P	01 07 41.7	+0.5
	baz=67						
D07A	Quincy	67.50	320	⇑P	P	01 07 41.0	-0.2
	baz=67,SNR=6.6						
H12A	Diamond D Ranc	67.59	315	⇓P	P	01 07 42.3	+0.4

	baz=67						
WMOK	Wichita Mounta	67.60	298	*e*P	P	01 07 44.4	+2.3
LSA	Lhasa	67.61	70	*e*P	P	01 07 42.5	+0.3
LSA				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
LSA	Lhasa	67.61	70	*e*P	P	01 07 42.5	+0.3
	comp=Z,8.1nm,0.9s,mb4.8						
ODAN	Odare	67.61	75	*e*P	P	01 07 42.1	-0.2
	comp=Z,18nm,0.8s,mb5.2						
N20A	Spence Gulch,	67.61	309	⇑P	P	01 07 42.5	+0.4
	baz=67						
E08A	Dider Farm, El	67.72	319	⇓P	P	01 07 42.7	0.0
	baz=67						
I13A	Wildhorse Cree	67.79	314	⇓P	P	01 07 43.7	+0.6
	baz=67						
G10A	Bishop Farm, J	67.93	317	⇑P	P	01 07 43.3	-0.7
	baz=68,SNR=10.0						
H11A	Donnelly	67.95	316	⇓P	P	01 07 43.5	-0.7
	baz=68						
E07A	Sunnyside	67.98	320	⇑P	P	01 07 44.5	+0.2
	baz=68						
M18A	Lyman	67.98	310	⇓P	P	01 07 45.0	+0.6
	baz=68						
N19A	John Jarvie Ra	67.99	309	⇑P	P	01 07 44.5	0.0
	baz=68,SNR=5.1						
L16A	Fish Haven	68.13	311	⇑P	P	01 07 45.3	0.0
	baz=68						
F08A	Pendleton	68.18	319	⇑P	P	01 07 45.4	-0.2
	baz=68						
HLID	Hailey	68.20	314	⇑P	P	01 07 46.2	+0.5
	baz=68,SNR=5.0						
HLID	Hailey	68.20	314	*e*P	P	01 07 45.1	-0.6
	comp=Z,5.0nm,1.2s,mb4.4						
J13A	Cove Ranch, Pi	68.23	314	⇑P	P	01 07 46.6	+0.7
	baz=68						
D05A	Enumclaw	68.27	321	⇑P	P	01 07 46.0	-0.1
	baz=68						
I12A	Atlanta	68.32	315	⇓P	P	01 07 46.4	0.0
	baz=68						
H10A	Noah’s Angus R	68.35	316	⇑P	P	01 07 46.6	-0.1
	baz=68,SNR=6.6						
BMO	Blue Mountains	68.37	317	*e*P	P	01 07 46.1	-0.7
	comp=Z,6.7nm,0.7s,mb4.8						
E06A	Yakima	68.43	320	⇑P	P	01 07 47.2	+0.2
	baz=68						
F07A	Phinny Hill Vi	68.56	319	⇓P	P	01 07 48.7	+0.8
	baz=68						
H09A	Durkee	68.67	317	⇓P	P	01 07 48.3	-0.3
	baz=68						
N17A	Moffit Pass	68.72	310	⇓P	P	01 07 49.3	+0.3
	baz=68,SNR=7.1						
J12A	Stokes Ranch,	68.75	315	⇑P	P	01 07 49.6	+0.5
	baz=68						
M16A	Huntsville	68.78	311	⇓P	P	01 07 50.0	+0.6
	baz=68						
NLWA	Neilton Lookou	68.80	323	⇓P	P	01 07 50.2	+0.8
	baz=68						
NLWA	Neilton Lookou	68.80	323	*e*P	P	01 07 48.7	-0.6
P19A	Cripple Cowboy	68.90	308	⇓P	P	01 07 50.1	-0.1
	baz=69						
L14A	Malta	68.92	313	⇑P	P	01 07 50.8	+0.5
	baz=69						
MFID	Camas Ranch	68.92	315	⇑P	P	01 07 50.7	+0.5
	baz=69						
G07A	Ruggs Ranch, H	68.98	319	⇑P	P	01 07 51.0	+0.4
	baz=69						
F06A	Goldendale	69.00	320	⇑P	P	01 07 51.3	+0.7
	baz=69						
M15A	Larsen Ranch,	69.03	312	⇑P	P	01 07 51.4	+0.5
	baz=69						
L13A	Double Diamond	69.19	313	⇓P	P	01 07 52.7	+0.7
	baz=69						
O17A	Robinson Place	69.27	310	⇑P	P	01 07 52.7	+0.3
	baz=69,SNR=5.9						
G06A	Carlson Farm,	69.38	319	⇑P	P	01 07 53.6	+0.5
	baz=69						
E03A	Lebam	69.40	322	⇑P	P	01 07 53.9	+0.8
	baz=69						
M14A	Sheep Mountain	69.40	312	⇓P	P	01 07 54.1	+0.9
	baz=69						
HHC	Hu-ho-hao-te	69.41	49	*e*P	P	01 07 53.3	0.0
HHC				pP	pP	01 07 57.8	+1.4
HHC				PP	PP	01 10 27.0	+0.8
HHC				PcS		01 12 21.3	
HHC				*e*S	S	01 16 57.0	-3.3
HHC				sS	sS	01 17 04.0	-1.3
HHC				ScS	ScS	01 17 50.0	-4.5
HHC				SS	SS	01 21 23.5	-2.9
HHC				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
HHC				pmax	pmax		
	comp=Z,99nm,3.8s						
HHC				LR	LR		
	comp=N,290nm,18.4s,MS4.7						
HHC				LR	LR		
	comp=E,230nm,14.2s,MS4.7						
HHC				LR	LR		
	comp=Z,350nm,16.0s,MS4.7						
LZH	Lanzhou	69.50	57	*e*P	P	01 07 54.5	+0.6
LZH				pP	pP	01 07 57.5	+0.5
LZH				sP	sP	01 07 58.8	+0.6
LZH				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
LZH				pmax	pmax		
	comp=Z,280nm,5.6s						
LZH				LR	LR		
	comp=E,570nm,18.0s						
LZH				LR	LR		
	comp=Z,640nm,19.2s,MS4.9						
K11A	Parker Ranch,	69.54	315	⇑P	P	01 07 54.9	+0.8
	baz=69						
H06A	Lindquist Farm	69.68	319	⇑P	P	01 07 54.8	-0.1
	baz=69						
R20A	Redvale	69.76	307	⇑P	P	01 07 55.4	-0.1
	baz=69						
N14A	Grayback Hills	69.85	312	⇓P	P	01 07 56.6	+0.5
	baz=70						
Q18A	Rafter H Ranch	69.86	309	⇓P	P	01 07 56.7	+0.5
	baz=70						
K10A	MacKenzie Ranc	69.89	315	⇓P	P	01 07 56.8	+0.6
	baz=70						
PV01	Paradox Valley	69.89	307	*e*P	P	01 07 55.7	-0.7
I07A	Izee	69.89	318	⇑P	P	01 07 56.9	+0.7
	baz=70						
L11A	Cat Creek Ranc	69.91	314	⇑P	P	01 07 57.2	+0.8
	baz=70						
F03A	Seaside	69.92	322	⇓P	P	01 07 57.1	+0.8
	baz=70						
T22A	Edith	69.97	305	⇑P	P	01 07 57.6	+0.7
	baz=70						
SRU	San Rafael	70.04	309	⇑P	P	01 07 57.3	+0.1
	baz=70,SNR=5.2						
KLR	Kul’dur	70.09	31	*e*P	P	01 07 52.3	-5.0
R19A	Curley Farm, L	70.10	308	⇑P	P	01 07 58.3	+0.7
	baz=70						
DUG	Dugway	70.22	311	*e*P	P	01 07 58.8	+0.5
DUG				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
DUG	Dugway	70.22	311	⇓P	P	01 07 59.0	+0.8
	baz=70						
DUG	Dugway	70.22	311	*e*P	P	01 07 58.8	+0.5
	comp=Z,1.5nm,0.6s,mb4.1						
L10A	Juniper Basin	70.29	315	⇑P	P	01 07 59.2	+0.5
	baz=70,SNR=7.1						
I06A	Prineville	70.29	318	⇑P	P	01 07 59.4	+0.7
	baz=70						
K09A	Rome	70.31	316	⇑P	P	01 07 59.4	+0.6
	baz=70,SNR=5.6						
R18A	Canyonlands Na	70.32	308	⇓P	P	01 07 59.5	+0.6
	baz=70						
H04A	Detroit Lake	70.45	320	⇑P	P	01 07 59.9	+0.3
	baz=70						
K08A	Mann Creek Ran	70.60	316	⇑P	P	01 08 01.2	+0.6
	baz=70						
N12A	Clover Valley,	70.67	313	⇓P	P	01 08 02.6	+1.5
	baz=70						
M10A	I.L. Ranch, Tu	70.78	314	⇓P	P	01 08 01.5	-0.1
	baz=70						
J06A	Christmas Vall	70.84	318	⇑P	P	01 08 02.5	+0.4
	baz=70,SNR=8.8						
K07A	Rock Creek Ran	70.94	317	⇓P	P	01 08 02.5	-0.2
	baz=71						
L08A	Fields	70.99	316	⇓P	P	01 08 03.4	+0.5
	baz=71						
T19A	Beclabito	71.15	307	⇓P	P	01 08 05.1	+1.1
	baz=71						
SHL	Shillong	71.18	72	*e*PKP	P	01 08 06.5	+2.1
SDV	Santo Domingo	71.19	259	*e*P	P	01 08 05.3	+0.8
	comp=Z,11nm,0.9s,mb4.8						
SDV				*e*		01 08 12.8	
T18A	Mexican Hat	71.31	307	⇓P	P	01 08 06.1	+1.1
	baz=71						
P13A	Bates Ranch, G	71.36	312	⇑P	P	01 08 06.5	+1.3
	baz=71						
Q14A	Sevier Lake (B	71.40	311	⇑P	P	01 08 06.4	+0.9
	baz=71						
K05A	Summer Lake	71.58	318	⇓P	P	01 08 07.5	+0.9
	baz=71						
M08A	Happy Creek Ra	71.61	316	⇑P	P	01 08 07.6	+0.8
	baz=71						
HABR	Khabarovsk	71.76	29	*e*P	P	01 08 04.9	-2.6
HABR				*e**PP	pP	01 08 08.4	-2.2
HABR						01 08 24.4	
HABR				*e*PPP		01 12 25.5	
HABR				*e*S	S	01 17 23.3	-4.0
HABR				*e*		01 18 12.3	
HABR				MLR	MLR		
	comp=Z,106nm,19.0s,MS4.1						
M07A	Soldier Meadow	72.00	316	⇓P	P	01 08 09.9	+0.8
	baz=72						
N08A	GE Springer Mi	72.06	315	⇓P	P	01 08 10.3	+0.9
	baz=72						
BNM	Barren Site	72.10	303	*e*P	P	01 08 11.5	+1.7
BJI	Beijing	72.11	46	P	P	01 08 09.8	0.0
BJI				S	S	01 17 24.5	-7.2
BJI				SS	SS	01 22 07.0	-0.8
BJI				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.4						
BJI				pmax	pmax		
	comp=Z,140nm,3.8s						
BJI				LR	LR		
	comp=N,210nm,15.9s,MS4.7						
BJI				LR	LR		
	comp=E,300nm,16.1s,MS4.7						
BJI				LR	LR		
	comp=Z,41nm,19.3s,MS3.7						
PETK	Petropavlovsk-	72.37	14	P	P	01 08 10.1	-1.0
	comp=Z,3.5nm,0.9s,mb4.3,baz=57,slow=9.0,SNR=3.6						
R13A	O’Grain Ranch,	72.38	311	⇑P	P	01 08 12.5	+1.2
	baz=72						
N07B	Gerlach	72.42	316	⇓P	P	01 08 12.7	+1.1
	baz=72						
O08A	Rochester Mine	72.48	315	⇓P	P	01 08 13.1	+1.1
	baz=72						
LSZ	Lusaka	72.58	151	P	P	01 08 16.4	+3.7
Q11A	Duckwater	72.59	312	⇑P	P	01 08 14.3	+1.6
	baz=72						
CN2	Changchun	72.67	38	*e*P	P	01 08 13.5	+0.5
CN2				*e*sP	sP	01 08 20.5	+3.2
CN2				*e*S	S	01 17 35.5	-2.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,200nm,18.0s,MS4.7						
CN2				LR	LR		
	comp=E,300nm,18.0s,MS4.7						
CN2				LR	LR		
	comp=Z,300nm,19.0s,MS4.6						
U16A	Tuba City	72.71	308	⇑P	P	01 08 14.6	+1.2
	baz=72						
N06A	Buffalo Meadow	72.81	316	⇓P	P	01 08 14.9	+1.0
	baz=72						
O07A	Toulon	72.89	315	⇓P	P	01 08 15.5	+1.1
	baz=72						
Q10A	Clear Creek Ra	72.93	313	⇓P	P	01 08 15.7	+1.0
	baz=73						
R11A	Troy Canyon, C	72.97	312	⇓P	P	01 08 15.5	+0.7
	baz=73,SNR=6.4						
O06A	Flanigan	73.29	316	⇓P	P	01 08 17.5	+0.7
	baz=73						
WUAZ	Wupatki	73.33	307	⇓P	P	01 08 18.4	+1.4
	baz=73						
MDJ	Mudanjiang	73.44	35	P	P	01 08 15.5	-2.1
MDJ				sP	sP	01 08 20.0	-1.8
MDJ				S	S	01 17 44.8	-1.8
MDJ				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.3						
MDJ				pmax	pmax		
	comp=Z,190nm,4.7s						
MDJ				LR	LR		
	comp=N,110nm,37.5s,MS4.0						
MDJ				LR	LR		
	comp=E,130nm,39.9s,MS4.0						
MDJ				LR	LR		
	comp=Z,83nm,25.2s						
U14A	Mt Trumbull	73.45	309	⇑P	P	01 08 18.4	+0.6
	baz=73						
V15A	Kaibab Nationa	73.46	308	⇓P	P	01 08 18.6	+0.7
	baz=73						
CD2	Chengdu	73.53	60	P	P	01 08 18.5	+0.2
CD2				pP	pP	01 08 23.0	+1.6
CD2				sP	sP	01 08 25.3	+2.7
CD2				PP	PP	01 11 03.8	+2.0
CD2				S	S	01 17 45.8	-2.3
CD2				sS	sS	01 17 53.0	-0.2
CD2				SKS		01 18 19.5	
CD2				SS	SS	01 22 30.3	+0.3
CD2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.5						
CD2				pmax	pmax		
	comp=Z,190nm,5.7s						
CD2				LR	LR		
	comp=N,410nm,5.9s						
CD2				LR	LR		
	comp=Z,270nm,6.5s						
XAN	Xi’an	73.65	55	P	P	01 08 18.0	-1.0
XAN				pP	pP	01 08 28.0	+5.9
XAN				sP	sP	01 08 32.8	+10
XAN				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
T11A	Corn Creek, Al	73.71	311	⇓P	P	01 08 20.5	+1.2
	baz=73,SNR=5.7						
R09A	Tonopah	73.71	313	⇑P	P	01 08 20.0	+0.7
	baz=73						
S10A	Tonopah Range,	73.77	312	⇑P	P	01 08 20.5	+0.9
	baz=73						
U13A	Pakoon Wash	73.81	310	⇓P	P	01 08 20.9	+0.9
	baz=74						
WCN	Washoe City	73.98	315	⇑P	P	01 08 22.0	+1.1
	baz=74						
X17A	Forest Lakes	74.01	306	⇑P	P	01 08 22.5	+1.4
	baz=74						
V14A	Boquillas Ranc	74.05	309	⇓P	P	01 08 22.7	+1.3
	baz=74						
NVAR	Mina Array Bea	74.09	314	P	P	01 08 21.9	+0.4
	comp=Z,0.5nm,0.6s,mb3.6,baz=49,slow=6.7,SNR=3.8						
S09A	Goldfield	74.21	313	⇓P	P	01 08 22.9	+0.7
	baz=74						
X16A	Lo Mia Camp, P	74.25	307	⇓P	P	01 08 23.9	+1.4
	baz=74,SNR=8.2						
V13A	Grand Canyon W	74.28	309	⇑P	P	01 08 23.9	+1.2
	baz=74						
W14A	Seligman	74.39	308	⇑P	P	01 08 24.8	+1.5
	baz=74						
TXAR	Lajitas Array	74.40	298	P	P	01 08 23.8	+0.3
	comp=Z,1.4nm,0.7s,mb4.0,baz=90,slow=3.8,SNR=8.4						
TXAR	Lajitas Array	74.40	298	P	P	01 08 23.8	+0.3
R06C	Coleville	74.51	315	⇓P	P	01 08 25.2	+1.3
	baz=74,SNR=5.2						
Y17A	Roosevelt	74.55	306	⇓P	P	01 08 25.8	+1.5
	baz=74						
X15A	Humboldt	74.58	307	⇑P	P	01 08 25.9	+1.5
	baz=74						
V12A	Nelson	74.79	310	⇑P	P	01 08 27.1	+1.5
	baz=74						
X14A	Yava	74.90	308	⇓P	P	01 08 27.8	+1.5
	baz=75						
X13A	Yucca	75.25	309	⇓P	P	01 08 29.9	+1.6
	baz=75						
YSS	Yuzh-Sakhalins	75.27	25	P	P	01 08 28.3	+0.1
SHOC	Shoshone	75.30	311	⇓P	P	01 08 30.2	+1.7
	baz=75						
PDMCI	Parker Dam,Lak	75.63	309	⇓P	P	01 08 32.1	+1.6
	baz=75						
MPMC	Manual Prospec	75.71	312	⇓P	P	01 08 32.5	+1.6
	baz=75						
318A	Bisbee	75.96	304	⇓P	P	01 08 33.9	+1.4
	baz=76						
GSC	Goldstone	76.03	311	*e*P	P	01 08 33.0	+0.2
GSC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
GSC	Goldstone	76.03	311	⇓P	P	01 08 34.5	+1.7
	baz=76						
GSC	Goldstone	76.03	311	*e*P	P	01 08 33.0	+0.3
	comp=Z,2.3nm,0.8s,mb4.2						
217A	Green Valley	76.10	305	⇑P	P	01 08 34.1	+0.9
	baz=76						
Y12C	Blythe	76.26	309	⇑P	P	01 08 35.4	+1.3
	baz=76						
LRMC	Laurel Mountai	76.28	312	⇓P	P	01 08 35.9	+1.7
	baz=76						
ISA	Isabella	76.48	312	⇓P	P	01 08 36.1	+0.8
	baz=76,SNR=5.8						
BELC	Belle Mtn.	76.74	310	⇓P	P	01 08 37.9	+1.1
	baz=76						
BC3	Big Chuckw Mtn	76.78	309	⇓P	P	01 08 38.4	+1.4
	baz=76						
PFO	Pinyon Flat Ob	77.28	310	*i* P	P	01 08 42.6	+2.8
PFO	Pinyon Flat Ob	77.28	310	⇑P	P	01 08 41.3	+1.5
	baz=77						
KMI	Kunming	77.59	65	P	P	01 08 41.8	+0.1
KMI				pP	pP	01 08 46.5	+1.7
KMI				sP	sP	01 08 48.5	+2.6
KMI				PP	PP	01 11 37.8	+1.6
KMI				S	S	01 18 30.3	-2.9
KMI				SS	SS	01 23 34.5	+2.7
KMI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
KMI				pmax	pmax		
	comp=Z,130nm,3.9s						
KMI				LR	LR		
	comp=N,280nm,19.6s,MS4.6						
KMI				LR	LR		
	comp=E,150nm,21.9s,MS4.6						
MONP	Monument Peak	77.86	309	⇓P	P	01 08 45.4	+2.2
	baz=78						
DVTC	Desert V Tower	77.91	309	⇑P	P	01 08 45.4	+2.0
	baz=78						
CIS	Catalina Islan	78.34	311	⇓P	P	01 08 48.1	+2.4
	baz=78						
GYA	Guiyang	78.61	61	P	P	01 08 47.3	-0.1
GYA				PP	PP	01 11 46.5	+1.8
GYA				S	S	01 18 43.0	-1.2
GYA				SKS		01 18 56.8	
GYA				SS	SS	01 23 48.0	+0.9
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,80nm,4.9s						
GYA				LR	LR		
	comp=N,490nm,22.1s,MS4.9						
GYA				LR	LR		
	comp=E,430nm,21.8s,MS4.9						
GYA				LR	LR		
	comp=Z,450nm,22.3s,MS4.8						
KSRS	Korea Array	79.11	40	P	P	01 08 48.8	-1.1
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,118nm,19.5s,MS4.2						
KSRS	Korea Array	79.11	40	P	P	01 08 48.8	-1.1
	comp=Z,2.7nm,0.7s,mb4.3,baz=332,slow=5.0,SNR=5.3						
KSRS				LR	LR	01 48 12.1	
	comp=Z,118nm,19.5s,MS4.2,baz=155,slow=39						
WHN	Wuhan	79.14	53	*e*P	P	01 08 48.8	-1.4
NJ2	Nanjing	79.97	49	*e*P	P	01 08 54.5	-0.2
NJ2				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
CMAR	Chiang Mai Arr	80.79	72	P	P	01 08 58.4	-0.9
	comp=Z,1.5nm,0.6s,mb4.1,baz=312,slow=6.1,SNR=11						
CMAR				LR	LR	01 49 11.0	
	comp=Z,37nm,19.6s,MS3.7,baz=310,slow=39						
MAJO	Matsushiro	83.56	32	P	P	01 09 12.7	-0.8
MJAR	Matsushiro Arr	83.56	32	P	P	01 09 13.1	-0.5
	comp=Z,6.2nm,1.0s,mb4.7,baz=344,slow=5.4,SNR=7.0						
MJAR				LR	LR	01 51 16.8	
	comp=Z,69nm,21.9s,MS4.0,baz=80,slow=39						
MJAR	Matsushiro Arr	83.56	32	P	P	01 09 13.1	-0.5
MJAR				LR	LR	01 51 16.8	
BOSA	Boshof	84.57	158	P	P	01 09 15.5	-3.0
	comp=Z,2.3nm,0.9s,mb4.3,baz=349,slow=10,SNR=2.5						
NACB	Ninganchiao	87.93	51	*e*P	P	01 09 35.6	+0.2
CPUP	Villa Florida	93.43	229	LR	LR	01 51 12.6	
	comp=Z,57nm,18.2s,MS4.1,baz=273,slow=35						
QSPA	South Pole Qui	143.19	180	PKhKP		01 16 14.4	
	comp=Z,1.4nm,0.6s,baz=290,slow=0.3,SNR=9.5						
STKA	Stephens Creek	145.31	67	*e*P	PKPbc	01 16 21.9	-0.9
	comp=Z,11nm,0.8s						
STKA	Stephens Creek	145.31	67	PKPbc	PKPbc	01 16 22.3	-0.5
	comp=Z,12nm,0.7s,baz=326,slow=5.4,SNR=27						
STKA	Stephens Creek	145.31	67	PKPbc	PKPbc	01 16 22.3	-0.5

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*CSEM **27** 01:00:58.9, 36.°40N×21.°85E, h15^{km}, MD3.8, After ATH*

ATH 27 01:00:58.9, 36.°40N×21.°85E, h15^{km}±3^{km}**, MD3.8**/7,
Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.50	350	*e*PN	Pg	01 01 07.9	-1.0
PYL				*e*SN	Sg	01 01 16.0	+0.4
PYL	PYLOS	0.50	350	*e*Pn	Pg	01 01 07.9	-1.0
PYL				*e*Sn	Sg	01 01 16.0	+0.4
ITM	Ithomi	0.78	5	*e*PN	Pn	01 01 14.3	-1.1
ITM				*e*SN	Sn	01 01 25.7	-1.1
ITM	Ithomi	0.78	5	*e*Pn	Pn	01 01 14.3	-1.1
ITM				*e*Sn	Sn	01 01 25.7	-1.1
VLI	Veliai	0.93	70	*e*PN	Pn	01 01 16.7	-0.7
VLI				*e*SB	Sb	01 01 29.7	+0.8
VLI	Veliai	0.93	70	*e*Pn	Pn	01 01 16.7	-0.7
VLI				*e*Sb	Sb	01 01 29.7	+0.8
KYTH	Kithira	0.96	97	*e*PN	Pn	01 01 17.7	-0.2
KYTH	Kithira	0.96	97	*e*Pn	Pn	01 01 17.7	-0.2
VLX	Vlachokerasia	1.06	24	*e*PN	Pn	01 01 18.6	-0.6
VLX	Vlachokerasia	1.06	24	*e*Pn	Pn	01 01 18.6	-0.6
DID	Didima	1.57	45	*e*PN	Pn	01 01 28.7	+2.5
DID	Didima	1.57	45	*e*Pn	Pn	01 01 28.7	+2.5
GUR	Goura	1.58	14	*e*PN	Pn	01 01 28.2	+1.8
GUR	Goura	1.58	14	*e*Pn	Pn	01 01 28.2	+1.8
EFP	Efpalio	2.02	1	*e*PN	Pn	01 01 34.4	+1.9
EFP	Efpalio	2.02	1	*e*Pn	Pn	01 01 34.4	+1.9

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*IDC **27** 01:08:00.1±1.4, 33.°44S×178.°45W, h0^{km}, mb4.3/3, mb1 4.5/5, mb1mx4.1/18, mbtmp4.3/5, ML3.9/2, MS3.8/1, Ms1 3.7/1, ms1mx2.9/20, Error ellipse: s-maj=37.1km s-min=29.4km az=123.0*

*NEIC **27** 01:08:05.2±5.2, 33.°44S×178.°49W, h36^{km}±45^{km}, mb4.5/2, Error ellipse: s-maj=52.1km s-min=21.2km az=196.0*

ISC 27 01:08:06.7±4.5**, 33.°8S**±0.°2×**178.°1W**±0.°4**, h76**^{km}±27^{km}**, n16,
σ0.ˢ41**/9**, mb4.3**/5**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.92	219	Pn	Pn	01 09 31.6	-0.2
	5.3nm,0.3s,baz=275,slow=2.4,SNR=19						
URZ				Sn	Sn	01 10 38.0	-0.2
	8.1nm,0.3s,baz=154,slow=22,SNR=11						
OUZ	Omahuta	7.00	256	*e*Pn	Pn	01 09 46.8	+0.3
	20nm,0.6s						
RPZ	Rata Peaks	13.03	217	Pn	Pn	01 11 08.6	+0.1
	0.4nm,0.3s,baz=331,slow=18,SNR=3.5						
STKA	Stephens Creek	33.77	262	LR	LR	01 27 02.7	
	comp=Z,143nm,18.9s,baz=26,slow=34						
CTA	Charters Tower	34.39	284	P	P	01 14 46.0	-0.6
	2.2nm,0.3s,mb4.4,baz=135,slow=4.0,SNR=3.0						
ASAR	Alice Springs	42.94	271	P	P	01 15 58.8	+0.5
	2.7nm,0.7s,mb4.1,baz=110,slow=7.2,SNR=33						
WRAB	Tennant Creek	44.23	276	*e*P	P	01 16 08.4	-0.2
	3.8nm,0.7s,mb4.2						
WRA	Warramunga Arr	44.23	276	P	P	01 16 08.2	-0.4
	2.9nm,0.6s,mb4.2,baz=117,slow=7.4,SNR=13						
FORT	Forrest	45.18	258	*e*P	P	01 16 16.7	+0.7
	9.0nm,0.8s,mb4.5						
MKAR	Makanchi Array	119.83	309	PKP	PKPdf	01 26 51.0	+3.3
	0.2nm,0.8s,baz=116,slow=3.4,SNR=2.0						
EKS2	Erkin-Say	124.38	302	*e*PKPdf	PKPdf	01 26 59.2	+2.6
JOF	Joensuu	145.49	337	*e*p	PKPab	01 27 36.8	+1.2
	1.8nm,0.9s						
KAF	Kangasniemi	147.67	339	*e*p	PKPab	01 27 44.7	+0.6
	1.7nm,0.5s						
FINES	FINESS Array B	148.25	338	PKPbc	PKPbc	01 27 46.1	+2.9
	1.5nm,0.5s,baz=38,slow=4.6,SNR=19						
BRTR	Keskin Array B	153.96	292	PKPbc	PKPbc	01 28 00.1	+2.8
TORD	Torodi Ar. Bea	159.47	179	PKPab	PKPab	01 28 39.5	+4.5
	0.4nm,0.8s,baz=174,slow=4.2,SNR=3.6						

IDC **27** *01:11:23.0±11.0, 11°.25S×166°.37E, h150^{km}±98^{km}, mb4.0/9, mb1 4.1/9, mb1mx3.8/21, mbtmp4.0/9, Error ellipse: s-maj=43.1km s-min=19.0km az=34.0*

ISCJB **27** *01:11:25.3±3.9, 11°.3S±0°.2×166°.3E±0°.1, h183^{km}±34^{km}, mb4.4/14, Error ellipse: s-maj=29.2km s-min=17.9km az=20.4*

NEIC **27** *01:11:25.4±2.7, 11°.30S×166°.34E, h173^{km}±24^{km}, mb4.6/5, Error ellipse: s-maj=18.7km s-min=10.7km az=199.0*

ISC 27 01:11:24.1±4.0**, 11°.2S**±0°.2×**166°.3E**±0°.1**, h158**^{km}±35^{km}**, n21, σ0^{s}65**/20**, mb4.4**/14**, 1C, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	10.79	179	*e*Pn	Pn	01 13 54.7	+0.3
	24nm,0.6s						
CTA	Charters Tower	21.23	243	P	P	01 15 56.6	-1.0
	5.2nm,0.7s,mb4.0,baz=77,slow=14,SNR=3.1						
CTAO	Charters Tower	21.23	243	*e*P	P	01 15 57.7	0.0
	7.8nm,0.7s,mb4.2						
COEN	Coen	22.76	261	*e*P	P	01 16 12.8	-0.4
	41nm,0.7s,mb5.0						
ARMA	Armidale	23.48	213	*e*P	P	01 16 21.3	+1.8
ARMA				*e*		01 16 39.8	
URZ	Urewera	28.60	162	P	P	01 17 04.6	-0.9
	7.5nm,0.4s,mb4.8,baz=336,slow=3.8,SNR=16						
WRAB	Tennant Creek	31.95	250	*e*P	P	01 17 34.9	-0.3
	5.2nm,0.7s,mb4.4						
WRA	Warramunga Arr	31.96	250	P	P	01 17 35.3	0.0
	4.4nm,0.5s,mb4.4,baz=81,slow=8.8,SNR=18						
RPZ	Rata Peaks	32.63	174	P	P	01 17 40.8	0.0
	37nm,0.8s,mb5.2,baz=338,slow=1.5,SNR=28						
RPZ	Rata Peaks	32.63	174	*e*P	P	01 17 40.0	-0.9
	38nm,0.8s,mb5.2						
KAKA	Kakadu	33.17	264	*e*P	P	01 17 45.1	-0.9
	11nm,0.6s,mb4.8						
ASAR	Alice Springs	33.23	244	P	P	01 17 46.1	-0.2
	3.4nm,0.9s,mb4.1,baz=78,slow=9.4,SNR=13						
ASAR				pP	pP	01 18 14.5	-5.4
	0.5nm,0.7s,baz=68,slow=10,SNR=1.4						
FITZ	Fitzroy Crossi	39.89	255	⇑*i*P	P	01 18 43.1	+0.3
	36nm,0.6s,mb5.2						
FORT	Forrest	40.41	235	*e*P	P	01 18 47.5	+0.5
	8.5nm,0.6s,mb4.5						
FORT	Forrest	40.41	235	*e*P	P	01 18 47.2	+0.3
	9.9nm,0.6s,mb4.6						
CMAR	Chiang Mai Arr	72.71	293	P	P	01 22 36.4	+1.1
	1.6nm,0.4s,mb4.2,baz=120,slow=5.0,SNR=4.6						
QSPA	South Pole Qui	78.78	180	P	P	01 23 08.7	0.0
	2.1nm,0.8s,mb3.8,baz=63,slow=3.4,SNR=6.8						
NVAR	Mina Array Bea	85.70	50	P	P	01 23 45.6	+0.2
	0.2nm,0.3s,mb3.3,baz=238,slow=8.4,SNR=3.7						
MK31	Makanchi Array	94.04	317	*e*P	P	01 24 24.1	-0.2
MKAR	Makanchi Array	94.04	317	P	P	01 24 24.4	0.0
	0.2nm,0.4s,mb3.6,baz=91,slow=5.0,SNR=4.9						
MKAR				pP	pP	01 24 58.6	-5.8
	0.5nm,0.7s,baz=103,slow=5.0,SNR=4.2						
ARCES	ARCESS Array B	116.65	346	PKP	PKPdf	01 29 47.6	-1.2
	1.1nm,0.8s,baz=46,slow=2.5,SNR=5.2						

ATH **27** *01:38:42.5, 36°.07N×21°.83E, h6^{km}±3^{km}, MD3.8/15, ML3.0*

CSEM **27** *01:38:42.4±0.5, 35°.98N×21°.85E, h2^{km}, ML3.0, Error ellipse: s-maj=11.2km s-min=6.5km az=20.0*

NEIC **27** *01:38:42.5, 36°.07N×21°.83E, h6^{km}, ML3.0(ATH), After ATH.*

ISCJB **27** *01:38:43.3±0.6, 36°.07N±0°.04×21°.76E±0°.04, h10^{km}, Error ellipse: s-maj=5.9km s-min=4.2km az=35.9*

THE **27** *01:38:43.4, 36°.02N×21°.81E, h1^{km}±4^{km}, ML3.7/2, Error ellipse: s-maj=9.5km s-min=2.8km az=229.0*

ISC 27 01:38:44.7±0.5**, 36°.09N**±0°.04×**21°.83E**±0°.04**, h10**^{km}**, n82, σ1^{s}41**/103**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.81	355	P	Pg	01 38 58.0	-2.3
PYL				S	Sg	01 39 11.4	+0.5
PYL	PYLOS	0.81	355	*e*PB	Pg	01 38 58.2	-2.1
PYL				*e*SB	Sg	01 39 10.4	-0.5
PYL	PYLOS	0.81	355	*e*Pb	Pg	01 38 58.2	-2.1
PYL				*e*Sb	Sg	01 39 10.4	-0.5
KYTH	Kithira	1.00	78	*e*PB	Pg	01 39 01.7	-2.2
KYTH	Kithira	1.00	78	*e*Pb	Pg	01 39 01.7	-2.2
ITM	Ithomi	1.10	4	*e*PB	Pg	01 39 03.4	-2.3
ITM				*e*SB	Sg	01 39 17.9	-2.1
ITM	Ithomi	1.10	4	*e*Pb	Pg	01 39 03.4	-2.3
VLI	Veliai	1.10	55	*e*PG	Pg	01 39 02.9	-2.9
VLI				*e*SB	Sg	01 39 19.2	-0.8
VLI	Veliai	1.10	55	*e*Pg	Pg	01 39 02.9	-2.9
VLI				*e*Sb	Sg	01 39 19.2	-0.8
VLX	Vlachokerasia	1.36	19	*e*PG	Pn	01 39 07.6	-2.1
DID	Didima	1.81	38	P	Pn	01 39 15.7	-0.3
DID	Didima	1.81	38	*e*PG	Pn	01 39 15.6	-0.4
DID	Didima	1.81	38	P	Pn	01 39 15.7	-0.3
KARN	Karanos	1.83	111	P	Pn	01 39 15.4	-0.8
KARN				S	Sn	01 39 39.9	+0.5
KARN	Karanos	1.83	111	*e*PG	Pn	01 39 15.9	-0.3
KARN	Karanos	1.83	111	*e*Pg	Pn	01 39 15.9	-0.3
KARN				S	Sn	01 39 39.9	+0.5
GUR	Goura	1.89	12	*e*PN	Pn	01 39 17.5	+0.5
GUR	Goura	1.89	12	*e*Pn	Pn	01 39 17.5	+0.5
RLS	Riolos of Patr	1.99	352	*e*PG	Pn	01 39 19.8	+1.4
VAM	Vamos	2.05	109	*e*PG	Pg	01 39 20.5	-3.4
VAM	Vamos	2.05	109	*e*Pg	Pg	01 39 20.5	-3.4
NAIG	Nisos Aigina	2.14	38	*e*PN	Pn	01 39 21.6	+1.2
NAIG	Nisos Aigina	2.14	38	*e*Pn	Pn	01 39 21.6	+1.2
LTK	Loutraki	2.14	25	P	Pn	01 39 22.2	+1.8
LTK	Loutraki	2.14	25	*e*PN	Pn	01 39 21.8	+1.4
LTK	Loutraki	2.14	25	*e*Pn	Pn	01 39 21.8	+1.4
LAKA	Lakka	2.15	3	P	Pn	01 39 22.6	+2.0
LAKA	Lakka	2.15	3	P	Pn	01 39 22.6	+2.0
VLS	Valsamata	2.31	335	P	Pn	01 39 22.3	-0.5
VLS	Valsamata	2.31	335	*e*PN	Pn	01 39 23.4	+0.7
VLS	Valsamata	2.31	335	*e*Pn	Pn	01 39 23.4	+0.7
KALE	Kalithea	2.31	6	P	Pn	01 39 24.9	+2.1
KALE	Kalithea	2.31	6	P	Pn	01 39 24.9	+2.1
EFP	Efpalio	2.34	2	*e*PG	Pn	01 39 25.6	+2.5
ATH	Athens Observa	2.42	38	*e*PB	Pn	01 39 24.1	-0.1
IDI	Anoyia	2.62	107	*e*PB	Pn	01 39 26.7	-0.3
SIVA	Sivas	2.66	113	*e*PN	Pn	01 39 29.0	+1.5
LKR	Lokris	2.73	20	P	Pn	01 39 27.6	-0.9
LKR				S	Sn	01 40 04.3	+2.8
LKR	Lokris	2.73	20	*e*PN	Pn	01 39 29.5	+1.0
LKR	Lokris	2.73	20	P	Pn	01 39 27.6	-0.9
LKR	Lokris	2.73	20	*e*Pn	Pn	01 39 29.5	+1.0
LKR				S	Sn	01 40 04.3	+2.8
LKD	Levkas	2.78	341	P	Pn	01 39 30.3	+1.1
LKD				S	Sn	01 40 04.7	+1.9
LKD	Levkas	2.78	341	P	Pn	01 39 30.3	+1.1
LKD				S	Sn	01 40 04.7	+1.9
EVR	Evrytania	2.83	360	*e*PN	Pn	01 39 32.0	+2.1
EVR	Evrytania	2.83	360	*e*Pn	Pn	01 39 32.0	+2.1
THR1	Thera Island	2.95	83	P	Pn	01 39 30.1	-1.5
THR1	Thera Island	2.95	83	P	Pn	01 39 30.1	-1.5
AGG	Agios Georgios	2.96	8	P	Pn	01 39 32.6	+0.9
AGG	Agios Georgios	2.96	8	P	Pn	01 39 32.6	+0.9
THL	Klokotos Trika	3.48	2	*e*PN	Pn	01 39 40.1	+1.3
THL	Klokotos Trika	3.48	2	*e*Pn	Pn	01 39 40.1	+1.3
IGT	Igoumenitsa	3.64	341	P	Pn	01 39 40.4	-0.6
IGT	Igoumenitsa	3.64	341	P	Pn	01 39 40.4	-0.6
JAN	Janina	3.65	348	*e*PN	Pn	01 39 41.8	+0.7
JAN	Janina	3.65	348	*e*Pn	Pn	01 39 41.8	+0.7
MEV	Metsovon	3.72	353	P	Pn	01 39 43.8	+1.6
MEV	Metsovon	3.72	353	P	Pn	01 39 43.8	+1.6
KEK	Kerkira	3.96	337	*e*PN	Pn	01 39 46.8	+1.4
KEK	Kerkira	3.96	337	*e*Pn	Pn	01 39 46.8	+1.4
KZN	Kozani	4.21	359	*e*PN	Pn	01 39 49.9	+1.0
KZN	Kozani	4.21	359	*e*Pn	Pn	01 39 49.9	+1.0
PLG	Polygyros	4.47	16	*e*PN	Pn	01 39 52.3	-0.1
PLG	Polygyros	4.47	16	*e*Pn	Pn	01 39 52.3	-0.1
FNA	Florina	4.71	356	P	Pn	01 39 55.7	0.0
FNA	Florina	4.71	356	P	Pn	01 39 55.7	0.0
BIA	Bitola	4.94	356	*e*Pn	Pn	01 39 59.0	+0.1
BIA				*e*Sn	Sn	01 40 55.0	-1.1
BIA	Bitola	4.94	356	*e*Pn	Pn	01 39 59.0	+0.1
BIA				*e*Sn	Sn	01 40 55.0	-1.1
TIP	Timpagrande	5.07	309	P	Pn	01 40 01.0	+0.3
TIP	Timpagrande	5.07	309	P	Pn	01 40 01.0	+0.3
CEL	Celeste	5.21	296	Pn	Pn	01 40 01.8	-0.8
CEL				Sn	Sn	01 40 59.7	-3.0
CEL	Celeste	5.21	296	Pn	Pn	01 40 01.8	-0.8
CEL				Sn	Sn	01 40 59.7	-3.0
KRUS	Krusevo	5.29	355	*e*Pn	Pn	01 40 02.9	-0.8
KRUS				*e*Sn	Sn	01 41 01.3	-3.5
KRUS	Krusevo	5.29	355	*e*Pn	Pn	01 40 02.9	-0.9
HAVL	Avola	5.47	281	Pn	Pn	01 40 05.0	-1.1
HAVL				Sn	Sn	01 41 04.6	-4.5
HAVL	Avola	5.47	281	Pn	Pn	01 40 05.0	-1.1
LTRZ	Laterza	5.99	320	Pn	Pn	01 40 11.6	-1.6
LTRZ				Sn	Sn	01 41 14.9	-6.9
LTRZ	Laterza	5.99	320	Pn	Pn	01 40 11.6	-1.6
CUC	Castrocucco	6.14	311	*e*Pn	Pn	01 40 15.7	+0.3
	5.9nm,0.6s						
CUC	Castrocucco	6.14	311	*e*Pn	Pn	01 40 15.7	+0.3
	5.9nm,0.6s						
SG1	Sgolgore (BA)	6.23	321	*e*Pn	Pn	01 40 15.9	-0.7
STON	Ston	7.49	336	*e*Pn	Pn	01 40 30.5	-3.4
STON				Sn	Sn	01 41 50.3	-8.6
NVLJ	Novalja	9.99	330	*e*Pn	Pn	01 41 04.2	-4.0
NVLJ				Sn	Sn	01 42 51.0	-9.3

NEIC **27** *01:45:07.1, 36°.29N×21°.62E, h4^{km}, mb3.8/1, ML3.4(ATH), After ATH.*

ATH **27** *01:45:07.3, 36°.28N×21°.66E, h5^{km}±2^{km}, MD3.9/20, ML3.4*

IDC **27** *01:45:07.8±1.2, 36°.40N×21°.76E, h0^{km}, mb3.7/8, mb1 3.7/12, mb1mx3.6/27, mbtmp3.6/12, ML3.2/3, MS4.0/1, Ms1 3.9/1, ms1mx2.5/39, Error ellipse: s-maj=23.4km s-min=19.1km az=3.0*

ISCJB **27** *01:45:08.3±0.4, 36°.31N±0°.03×21°.69E±0°.03, h10^{km}, mb3.9/12, Error ellipse: s-maj=3.9km s-min=3.1km az=23.6*

CSEM **27** *01:45:08.9±0.3, 36°.32N×21°.75E, h2^{km}, ML4.0/3, Error ellipse: s-maj=5.9km s-min=4.6km az=21.0*

THE **27** *01:45:10.2, 36°.38N×21°.78E, h2^{km}±2^{km}, ML4.0/3, Error ellipse: s-maj=3.5km s-min=1.3km az=244.0*

ISC 27 01:45:09.9±0.3**, 36°.32N**±0°.03×**21°.76E**±0°.03**, h10**^{km}**, n164, σ1^{s}31**/191**, mb3.9**/12**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.57	359	P	Pg	01 45 19.4	-1.7
PYL				S	Sg	01 45 27.9	-0.7
PYL	PYLOS	0.57	359	*e*PB	Pg	01 45 19.6	-1.5
PYL				*e*SB	Sg	01 45 27.5	-1.1
PYL	PYLOS	0.57	359	P	Pg	01 45 19.4	-1.7
PYL	PYLOS	0.57	359	*e*Pb	Pg	01 45 19.6	-1.5
PYL				*e*Sg	Sg	01 45 27.5	-1.1
PYL				S	Sg	01 45 27.9	-0.7
ITM	Ithomi	0.87	9	*e*PN	Pg	01 45 25.4	-1.3
ITM	Ithomi	0.87	9	*e*Pg	Pg	01 45 25.4	-1.3
VLI	Veliai	1.03	67	*e*PG	Pg	01 45 28.2	-1.5
VLI				*e*SB	Sg	01 45 44.8	+1.7
VLI	Veliai	1.03	67	*e*Pb	Pg	01 45 28.2	-1.5
VLI				*e*Sb	Sg	01 45 44.8	+1.7
KYTH	Kithira	1.03	92	*e*PN	Pg	01 45 28.5	-1.3
KYTH	Kithira	1.03	92	*e*Pb	Pg	01 45 28.5	-1.3
VLX	Vlachokerasia	1.16	25	*e*PG	Pg	01 45 30.2	-2.0
VLX				*e*SB	Sb	01 45 46.5	-0.7
VLX	Vlachokerasia	1.16	25	*e*Pg	Pg	01 45 30.2	-2.0
VLX				*e*Sb	Sb	01 45 46.5	-0.7
DID	Didima	1.68	45	P	Pn	01 45 39.4	+0.1
DID				S	Sn	01 46 01.7	+0.9
DID	Didima	1.68	45	*e*PG	Pg	01 45 39.8	-2.2
DID	Didima	1.68	45	P	Pn	01 45 39.4	+0.1
DID	Didima	1.68	45	*e*Pg	Pg	01 45 39.8	-2.2
DID				S	Sn	01 46 01.7	+0.9
GUR	Goura	1.68	16	*e*PG	Pg	01 45 39.4	-2.7
GUR	Goura	1.68	16	*e*Pg	Pg	01 45 39.4	-2.7
RLS	Riolos of Patr	1.75	352	*e*PN	Pn	01 45 41.1	+0.8
RLS	Riolos of Patr	1.75	352	*e*Pb	Pn	01 45 41.1	+0.8
LAKA	Lakka	1.92	5	P	Pn	01 45 44.2	+1.5
LAKA	Lakka	1.92	5	P	Pn	01 45 44.2	+1.5
LTK	Loutraki	1.95	29	P	Pn	01 45 43.1	0.0
LTK				S	Sn	01 46 09.0	+1.3
LTK	Loutraki	1.95	29	*e*PG	Pg	01 45 44.9	-2.5
LTK	Loutraki	1.95	29	P	Pn	01 45 43.1	0.0
LTK	Loutraki	1.95	29	*e*Pg	Pg	01 45 44.9	-2.5
LTK				S	Sn	01 46 09.0	+1.3
KARN	Karanos	1.98	117	P	Pn	01 45 44.2	+0.8
KARN				S	Sn	01 46 10.6	+2.3
KARN	Karanos	1.98	117	*e*PN	Pn	01 45 44.1	+0.7
KARN	Karanos	1.98	117	*e*Pn	Pn	01 45 44.1	+0.7
KARN				S	Sn	01 46 10.6	+2.3
NAIG	Nisos Aigina	1.99	43	*e*PN	Pn	01 45 45.2	+1.5
NAIG	Nisos Aigina	1.99	43	*e*Pn	Pn	01 45 45.2	+1.5
TRIZ	Trizonia	2.06	7	P	Pn	01 45 46.9	+2.4
TRIZ				S	Sn	01 46 12.3	+2.1
TRIZ	Trizonia	2.06	7	P	Pn	01 45 46.9	+2.4
TRIZ				S	Sn	01 46 12.3	+2.1
VLS	Valsamata	2.08	334	P	Pn	01 45 44.6	-0.2
VLS	Valsamata	2.08	334	*e*PN	Pn	01 45 44.3	-0.5
VLS	Valsamata	2.08	334	*e*Pn	Pn	01 45 44.3	-0.5
KALE	Kalithea	2.09	8	P	Pn	01 45 46.6	+1.6
KALE	Kalithea	2.09	8	P	Pn	01 45 46.6	+1.6
EFP	Efpalio	2.11	3	*e*PG	Pg	01 45 47.4	-2.9
EFP	Efpalio	2.11	3	*e*Pg	Pg	01 45 47.4	-2.9
VAM	Vamos	2.18	114	*e*PN	Pn	01 45 46.5	+0.3
VAM	Vamos	2.18	114	*e*Pb	Pn	01 45 46.5	+0.3
VLY	Voula,Athens	2.23	46	*e*PN	Pn	01 45 47.6	+0.6
VLY	Voula,Athens	2.23	46	*e*Pb	Pn	01 45 47.6	+0.6
ATH	Athens Observa	2.27	43	*e*PN	Pn	01 45 48.7	+1.2
ATH	Athens Observa	2.27	43	*e*Pn	Pn	01 45 48.7	+1.2
ATHU	Athens Univers	2.31	44	P	Pn	01 45 48.4	+0.4
ATHU	Athens Univers	2.31	44	P	Pn	01 45 48.4	+0.4
PTL	Penteli	2.41	44	*e*PN	Pn	01 45 50.7	+1.3
PTL	Penteli	2.41	44	*e*Pb	Pn	01 45 50.7	+1.3
LKR	Lokris	2.53	23	P	Pn	01 45 50.6	-0.4
LKR				S	Sn	01 46 21.5	-0.3
LKR	Lokris	2.53	23	*e*PB	Pn	01 45 50.5	-0.5
LKR	Lokris	2.53	23	*e*Pn	Pn	01 45 50.5	-0.5
LKR				S	Sn	01 46 21.5	-0.3
LKD	Levkas	2.54	340	P	Pn	01 45 52.4	+1.2
LKD	Levkas	2.54	340	P	Pn	01 45 52.4	+1.2
EVR	Evrytania	2.59	1	*e*PN	Pn	01 45 54.0	+2.1
EVR	Evrytania	2.59	1	*e*Pn	Pn	01 45 54.0	+2.1
AGG	Agios Georgios	2.73	9	P	Pn	01 45 54.3	+0.4
AGG				S	Sn	01 46 27.0	0.0
AGG	Agios Georgios	2.73	9	*e*PN	Pn	01 45 54.7	+0.8
AGG	Agios Georgios	2.73	9	*e*Pn	Pn	01 45 54.7	+0.8
AGG				S	Sn	01 46 27.0	0.0
IDI	Anoyia	2.75	111	Pn	Pn	01 45 54.1	+0.1
	1.5nm,0.3s,baz=296,slow=17,SNR=16						
IDI	Anoyia	2.75	111	Pn	Pn	01 45 54.1	+0.1
SIVA	Sivas	2.80	117	P	Pn	01 45 55.6	+0.8
SIVA	Sivas	2.80	117	*e*PN	Pb	01 45 57.7	-2.4
SIVA	Sivas	2.80	117	P	Pn	01 45 55.6	+0.8
SIVA	Sivas	2.80	117	*e*Pb	Pb	01 45 57.7	-2.4
NEO	Neokhori	3.20	21	*e*PB	Pb	01 46 02.5	-4.3
NEO	Neokhori	3.20	21	*e*Pb	Pb	01 46 02.5	-4.3
LAST	Lasithi	3.24	110	P	Pn	01 46 01.9	+1.1
LAST	Lasithi	3.24	110	*e*PN	Pn	01 46 02.0	+1.2
LAST	Lasithi	3.24	110	*e*Pn	Pn	01 46 02.0	+1.2
THL	Klokotos Trika	3.25	3	P	Pn	01 46 01.4	+0.5
THL	Klokotos Trika	3.25	3	*e*PN	Pn	01 46 01.7	+0.8
THL	Klokotos Trika	3.25	3	*e*Pn	Pn	01 46 01.7	+0.8
XOR	Xorichti	3.25	20	P	Pn	01 46 00.1	-0.8
XOR	Xorichti	3.25	20	P	Pn	01 46 00.1	-0.8
IGT	Igoumenitsa	3.40	341	P	Pn	01 46 02.9	-0.1
IGT				S	Sn	01 46 43.9	+0.6
IGT	Igoumenitsa	3.40	341	P	Pn	01 46 02.9	-0.1
IGT				S	Sn	01 46 43.9	+0.6
JAN	Janina	3.41	348	*e*PN	Pn	01 46 04.1	+1.0
JAN	Janina	3.41	348	*e*Pn	Pn	01 46 04.1	+1.0
MEV	Metsovon	3.48	353	P	Pn	01 46 06.3	+2.2
MEV	Metsovon	3.48	353	P	Pn	01 46 06.3	+2.2
KEK	Kerkira	3.72	336	*e*PN	Pn	01 46 08.6	+1.2
KEK	Kerkira	3.72	336	*e*Pn	Pn	01 46 08.6	+1.2
LIT	Litokhoron	3.82	8	P	Pn	01 46 10.0	+1.3
LIT	Litokhoron	3.82	8	*e*PN	Pn	01 46 10.4	+1.7
LIT	Litokhoron	3.82	8	*e*Pn	Pn	01 46 10.4	+1.7
KZN	Kozani	3.98	0	*e*PN	Pn	01 46 12.5	+1.5
KZN	Kozani	3.98	0	*e*Pn	Pn	01 46 12.5	+1.5
CHOS	Chios island	4.00	58	P	Pn	01 46 10.3	-0.9
CHOS	Chios island	4.00	58	*e*PN	Pn	01 46 13.5	+2.3
CHOS	Chios island	4.00	58	P	Pn	01 46 10.3	-0.9
CHOS	Chios island	4.00	58	*e*Pn	Pn	01 46 13.5	+2.3
OUR	Ouranopolis	4.37	23	P	Pn	01 46 17.3	+1.0
OUR	Ouranopolis	4.37	23	P	Pn	01 46 17.3	+1.0
FNA	Florina	4.47	356	P	Pn	01 46 17.9	+0.3
FNA	Florina	4.47	356	P	Pn	01 46 17.9	+0.3
SCTE	Santa Cesarea	4.55	326	*e*PN	Pn	01 46 18.8	-0.1
SCTE	Santa Cesarea	4.55	326	*e*Pn	Pn	01 46 18.8	-0.1
SOH	Sokhos	4.67	15	*e*PN	Pn	01 46 22.7	+2.3
SOH	Sokhos	4.67	15	*e*Pn	Pn	01 46 22.7	+2.3
BIA	Bitola	4.70	356	*e*Pn	Pn	01 46 20.8	-0.1
BIA	Bitola	4.70	356	*e*Pn	Pn	01 46 20.8	-0.1
SOI	Samo	4.88	293	Pn	Pn	01 46 23.0	-0.3
SOI	Samo	4.88	293	Pn	Pn	01 46 23.0	-0.3
TIP	Timpagrande	4.88	307	P	Pn	01 46 23.7	+0.3
TIP	Timpagrande	4.88	307	P	Pn	01 46 23.7	+0.3
KNT	Kendrikon	4.92	10	P	Pn	01 46 25.2	+1.4
KNT	Kendrikon	4.92	10	P	Pn	01 46 25.2	+1.4
KRUS	Krusevo	5.06	356	*e*Pn	Pn	01 46 24.9	-0.9
KRUS				*e*Sn	Sn	01 47 23.7	-0.5
KRUS	Krusevo	5.06	356	*e*Pn	Pn	01 46 24.8	-1.0
KRUS				*e*Sn	Sn	01 47 23.7	-0.5
CEL	Celeste	5.06	294	*e*Pn	Pn	01 46 25.3	-0.5
CEL	Celeste	5.06	294	*e*Pn	Pn	01 46 25.3	-0.5
STIP	Stip	5.38	3	*e*Pn	Pn	01 46 31.3	+1.1
STIP	Stip	5.38	3	*e*Pn	Pn	01 46 31.2	+1.1
PE1	Pezze di Greco	5.62	324	*e*Pn	Pn	01 46 32.5	-1.0
LTRZ	Laterza	5.77	319	Pn	Pn	01 46 34.1	-1.5
LTRZ	Laterza	5.77	319	Pn	Pn	01 46 34.1	-1.5
CUC	Castrocucco	5.95	310	*e*Pn	Pn	01 46 39.4	+1.4
CUC	Castrocucco	5.95	310	*e*Pn	Pn	01 46 39.4	+1.4
VAE	Valguarnera	6.00	283	Pn	Pn	01 46 39.7	+0.9
	0.7nm,0.3s,baz=287,slow=14,SNR=4.4						
VAE				Sn	Sn	01 47 48.9	+1.4
	1.0nm,0.3s,baz=120,slow=14,SNR=2.5						
VAE	Valguarnera	6.00	283	Pn	Pn	01 46 39.7	+1.0
VAE				Sn	Sn	01 47 48.9	+1.4
SG1	Sgolgore (BA)	6.02	320	*e*Pn	Pn	01 46 38.2	-0.7
BAI	Bari	6.12	323	*e*Pn	Pn	01 46 39.6	-0.7
PTRP	Pietrapertosa	6.13	315	Pn	Pn	01 46 41.5	+1.0
PTRP	Pietrapertosa	6.13	315	Pn	Pn	01 46 41.5	+1.0
BARS	Barje	6.49	0	⇑*i*Pn	Pn	01 46 44.9	-0.5
FG5	Orsara di Pugl	7.09	316	Pn	Pn	01 46 54.0	+0.4
FG5	Orsara di Pugl	7.09	316	Pn	Pn	01 46 54.0	+0.4
RGNG	Rignano Grg	7.19	320	Pn	Pn	01 46 54.2	-0.8
RGNG	Rignano Grg	7.19	320	Pn	Pn	01 46 54.2	-0.8
STON	Ston	7.25	336	*e*Pn	Pn	01 46 52.8	-3.1
STON				Sn	Sn	01 48 11.2	-7.1
BBLS	Lazići	7.75	347	*e*Pn	Pn	01 47 02.5	-0.2
DIVS	Divibare	7.89	351	*e*Pn	Pn	01 47 02.8	-1.8
CSS	Prodhromos	9.52	95	*e*Pn	Pn	01 47 24.3	-2.7
MLR	Muntele Rosu	9.69	18	Pn	Pn	01 47 28.6	-0.8
	baz=161,slow=18						
MLR	Muntele Rosu	9.69	18	Pn	Pn	01 47 28.6	-0.7
NVLJ	Novalja	9.76	330	*e*Pn	Pn	01 47 28.6	-1.7
NVLJ				Sn	Sn	01 49 12.4	-7.5
NVLJ	Novalja	9.76	330	*e*Pn	Pn	01 47 28.6	-1.7
BRTR	Keskin Array B	9.97	67	Pn	Pn	01 47 39.7	+6.5
MMAI	Mount Meron Ar	11.71	102	Pn	Pn	01 47 55.8	-1.2
	0.3nm,0.3s,baz=295,slow=11,SNR=3.0						
HFS	Hagfors	24.39	350	P	P	01 50 26.2	-1.8
	1.0nm,0.4s,mb3.6,baz=162,slow=10.0,SNR=4.1						
HFS	Hagfors	24.39	350	P	P	01 50 26.2	-1.8
FINES	FINESS Array B	25.29	5	P	P	01 50 33.9	-2.3
	3.4nm,0.9s,mb3.9,baz=165,slow=16,SNR=3.3						
TORD	Torodi Ar. Bea	29.28	223	P	P	01 51 11.4	-1.0
	0.4nm,0.7s,mb3.2,baz=23,slow=7.8,SNR=3.1						
ARU	Arti	31.83	39	*e*P	P	01 51 34.1	-0.5
	7.9nm,0.9s,mb4.5						
ARU	Arti	31.83	39	*e*P	P	01 51 34.2	-0.4
	7.9nm,0.9s,mb4.5						
ARCES	ARCESS Array B	33.34	2	P	P	01 51 45.6	-2.0
	2.1nm,1.0s,mb4.0,baz=185,slow=9.1,SNR=4.9						
EKS2	Erkin-Say	40.11	64	*e*P	P	01 52 44.6	-1.0
	2.7nm,0.7s,mb4.1						
EKS2	Erkin-Say	40.11	64	*e*P	P	01 52 44.7	-1.0
	2.7nm,0.7s,mb4.1						
KURK	Kurchatov	42.62	52	*e*P	P	01 53 05.1	-1.0
	1.2nm,0.6s,mb3.8						
KURK	Kurchatov	42.62	52	*e*P	P	01 53 05.1	-1.0
	1.2nm,0.6s,mb3.8						
MK31	Makanchi Array	45.46	57	*e*P	P	01 53 26.8	-2.1
MKAR	Makanchi Array	45.46	57	P	P	01 53 27.1	-1.9
	0.4nm,0.4s,mb3.6,baz=267,slow=7.3,SNR=12						
ZALV	Zalesovo Beam	46.22	47	P	P	01 53 34.2	-0.6
	0.7nm,0.4s,mb3.9,baz=268,slow=8.1,SNR=3.6						
ZALV	Zalesovo Beam	46.22	47	P	P	01 53 34.2	-0.6
ZALV	Zalesovo Beam	46.22	47	P	P	01 53 34.2	-0.6
SCHQ	Schefferville	60.50	318	P	P	01 55 20.2	+0.4
	0.5nm,0.5s,mb3.8,baz=21,slow=8.6,SNR=2.9						
SCHQ	Schefferville	60.50	318	P	P	01 55 20.2	+0.4
SONM	Songino Array	60.88	50	P	P	01 55 23.8	+1.3
	0.3nm,0.6s,mb3.6,baz=280,slow=8.6,SNR=2.0						
SONM	Songino Array	60.88	50	P	P	01 55 23.8	+1.3
BOSA	Boshof	64.67	177	LR	LR	02 23 57.8	
	comp=Z,94nm,18.1s,baz=167,slow=36						
CMAR	Chiang Mai Arr	69.17	82	P	P	01 56 19.8	+3.0
	1.1nm,0.3s,mb4.3,baz=291,slow=7.6,SNR=4.1						
CMAR	Chiang Mai Arr	69.17	82	P	P	01 56 19.8	+3.0

ISCJB **27** *01:58:24.0±0.8, 30°.80N±0°.03×56°.88E±0°.03, h9^{km}±6^{km}, mb4.0/22, MS3.2/2, Error ellipse: s-maj=4.5km s-min=4.2km az=136.6*

IDC **27** *01:58:23.3±1.7, 30°.63N×56°.89E, h0^{km}, mb4.0/16, mb1 4.1/20, mb1mx4.0/34, mbtmp4.0/20, ML3.4/3, MS3.1/5, Ms1 3.1/5, ms1mx2.8/33, Error ellipse: s-maj=39.5km s-min=14.4km az=163.0*

THR **27** *01:58:24.6±0.6, 30°.77N×56°.92E, h14^{km}±6^{km}, ML3.7*

NEIC **27** *01:58:24.6, 30°.77N×56°.92E, h14^{km}, mb3.8/12, ML3.7(THR), MN4.2(TEH), After THR.*

CSEM **27** *01:58:25.5±0.2, 30°.78N×56°.90E, h10^{km}, mb4.4/8, Error ellipse: s-maj=5.7km s-min=5.0km az=140.0*

TEH **27** *01:58:25.6, 30°.84N×56°.94E, h6^{km}*

MOS **27** *01:58:28.0±1.0, 30°.86N×56°.74E, h33^{km}, mb4.3/5, Error ellipse: s-maj=12.3km s-min=9.1km az=104.2*

ISC 27 01:58:25.4±0.9**, 30°.79N**±0°.03×**56°.89E**±0°.03**, h7**^{km}±6^{km}**, n183, σ1^{s}18**/197**, mb4.0**/22**, MS3.2**/2**, 2C-3D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRBR	Kerman	0.81	188	Pg	Pg	01 58 39.0	-2.0
KRBR				Sg	Sg	01 58 51.0	-0.6
KRBR	Kerman	0.81	188	*e*Pg	Pg	01 58 39.6	-1.4
KRBR				*e*Sg	Sg	01 58 51.2	-0.4
KRBR				AML	AML	01 58 59.9	
	comp=E,2µm,0.4s						
KRBR				AML	AML	01 59 02.3	
	comp=N,3µm,0.5s						
KRBR	Kerman	0.81	188	Pg	Pg	01 58 39.0	-2.0
KRBR				Sg	Sg	01 58 51.0	-0.6
IBAF	Bafgh	1.38	305	Pn	Pn	01 58 49.8	-1.2
IBAF				Sg	Sg	01 59 09.4	-0.4
IBAF	Bafgh	1.38	305	*e*	Sx	01 59 19.1	
	comp=Z,32µm,0.2s						
IBAF	Bafgh	1.38	305	Pn	Pn	01 58 49.8	-1.2
IBAF				Sg	Sg	01 59 09.4	-0.4
IMEH	Mehriz	2.04	288	Pn	Pn	01 59 00.5	+0.5
IMEH				Sg	Sg	01 59 29.2	-1.7
IMEH	Mehriz	2.04	288	*e*Pn	Pn	01 59 00.5	+0.5
IMEH				*e*Sg	Sg	01 59 29.2	-1.7
IMEH				*e*		01 59 30.8	
	comp=Z,31µm,0.3s						
IMEH	Mehriz	2.04	288	*e*Pn	Pn	01 59 00.5	+0.5
IKOO	Kooshah	2.43	47	*e*Sn	Sn	01 59 33.7	-1.7
IKOO				*e*Pn	Pn	01 59 05.1	-0.4
IKOO				*e*		01 59 43.4	
	comp=Z,19µm,0.3s						
ICHK	Chekchek	2.56	305	Pn	Pn	01 59 07.9	+0.6
ICHK				Sn	Sn	01 59 38.4	-0.3
ICHK	Chekchek	2.56	305	*e*Sn	Sn	01 59 38.5	-0.2
ICHK				*e*		01 59 53.7	
	comp=Z,20µm,0.2s						
ICHK	Chekchek	2.56	305	Pn	Pn	01 59 07.9	+0.6
ICHK				*e*Sn	Sn	01 59 38.5	-0.2
ITEG	Tejag	2.63	37	*e*Sn	Sn	01 59 38.6	-1.7
ITEG				*e*Pn	Pn	01 59 07.1	-1.1
ITEG				*e*		01 59 53.6	
	comp=Z,10µm,0.3s						
ISAD	Sadrabad	2.96	293	Pn	Pn	01 59 13.4	+0.7
ISAD	Sadrabad	2.96	293	*e*Pn	Pn	01 59 13.4	+0.7
ISAD				*e*		02 00 04.5	
	comp=Z,9µm,0.3s						
ISAD	Sadrabad	2.96	293	*e*Pn	Pn	01 59 13.4	+0.7

IBND	Bandar-abas	3.35	185	ePn	Pn	01 59 18.1	+0.1
IBND				e		02 00 32.2	
	comp=Z,8µm,0.5s						
IBND	Bandar-abas	3.35	185	ePn	Pn	01 59 18.1	+0.1
IPAR	Pars	3.45	255	Pn	Pn	01 59 21.6	+2.1
IPAR	Pars	3.45	255	ePn	Pn	01 59 21.6	+2.1
IPAR				e		02 00 30.3	
	comp=Z,3µm,0.4s						
IPAR	Pars	3.45	255	ePn	Pn	01 59 21.6	+2.1
ISRV	Sarvestan	3.56	248	Pn	Pn	01 59 22.7	+1.7
ISRV	Sarvestan	3.56	248	ePn	Pn	01 59 22.7	+1.7
ISRV				e		02 00 34.1	
	comp=Z,3µm,0.3s						
ISRV	Sarvestan	3.56	248	ePn	Pn	01 59 22.7	+1.7
ZHSF	Zahedan	3.57	108	Pn	Pn	01 59 21.0	-0.1
ZHSF	Zahedan	3.57	108	ePn	Pn	01 59 21.3	+0.2
ZHSF				AML	AML	02 00 26.7	
	comp=E,72nm,0.6s						
ZHSF	Zahedan	3.57	108	Pn	Pn	01 59 21.0	-0.1
NASN	Na'in	4.01	301	Pn	Pn	01 59 28.0	+0.9
NASN				Sg	Sg	02 00 30.0	-4.1
NASN	Na'in	4.01	301	ePn	Pn	01 59 28.4	+1.3
NASN				eSg	Sg	02 00 30.2	-3.9
NASN				AML	AML	02 00 38.4	
	comp=E,120nm,0.6s						
NASN				AML	AML	02 00 39.8	
	comp=N,160nm,0.5s						
NASN	Na'in	4.01	301	Pn	Pn	01 59 28.0	+0.9
NASN				Sg	Sg	02 00 30.0	-4.1
GHIR	Ghir-Karzin	4.22	235	Pn	Pn	01 59 30.0	0.0
GHIR	Ghir-Karzin	4.22	235	ePn	Pn	01 59 31.0	+0.9
GHIR				AML	AML	02 00 59.6	
	comp=E,69nm,0.7s						
GHIR	Ghir-Karzin	4.22	235	Pn	Pn	01 59 30.0	0.0
BANOM	Banah	4.88	186	⇓P	Pn	01 59 42.1	+3.0
	SNR=7.4						
BANOM	Banah	4.88	186	P	Pn	01 59 42.1	+3.0
	SNR=7.4						
IKLH	Kolahrood	5.16	301	Pn	Pn	01 59 45.3	+2.3
IKLH	Kolahrood	5.16	301	ePn	Pn	01 59 45.3	+2.3
IKLH				e		02 01 23.2	
	comp=Z,1µm,0.3s						
IKLH	Kolahrood	5.16	301	ePn	Pn	01 59 45.3	+2.3
IANJ	Anjilo	5.29	333	Pn	Pn	01 59 45.0	+0.3
IANJ	Anjilo	5.29	333	ePn	Pn	01 59 45.0	+0.3
IANJ				e		02 01 26.3	
	comp=Z,3µm,0.7s						
IANJ	Anjilo	5.29	333	ePn	Pn	01 59 45.0	+0.3
ISFB	Sefidab	5.29	313	Pn	Pn	01 59 45.0	+0.3
ISFB	Sefidab	5.29	313	ePn	Pn	01 59 45.1	+0.4
ISFB				e		02 01 33.5	
	comp=Z,882nm,0.4s						
ISFB	Sefidab	5.29	313	ePn	Pn	01 59 45.1	+0.4
IPIR	Pirpir	5.44	292	Pn	Pn	01 59 49.4	+2.5
IPIR	Pirpir	5.44	292	ePn	Pn	01 59 49.5	+2.6
IPIR	Pirpir	5.44	292	Pn	Pn	01 59 49.4	+2.5
NAZ	Nazwa, Dubai	5.88	191	⇓P	Pn	01 59 56.5	+3.6
	SNR=7.2						
IPAY	Payeh	5.91	17	Pn	Pn	01 59 52.2	-1.1
IPAY	Payeh	5.91	17	ePn	Pn	01 59 52.2	-1.1
IPAY				e		02 01 39.3	
	comp=Z,457nm,0.3s						
IPAY	Payeh	5.91	17	ePn	Pn	01 59 52.2	-1.1
IFIR	Firoozkooh	5.95	325	Pn	Pn	01 59 53.7	-0.1
IFIR	Firoozkooh	5.95	325	ePn	Pn	01 59 53.7	-0.1
IFIR				e		02 00 22.0	
	comp=Z,386nm,0.2s						
IFIR	Firoozkooh	5.95	325	ePn	Pn	01 59 53.7	-0.1
IAKL	Akhelmad	6.00	15	Pn	Pn	01 59 56.9	+2.4
IAKL	Akhelmad	6.00	15	ePn	Pn	01 59 57.0	+2.5
IAKL				e		02 00 24.8	
	comp=Z,542nm,0.3s						
IKRD	Kardeh	6.12	12	Pn	Pn	02 00 00.3	+4.2
IKRD	Kardeh	6.12	12	ePn	Pn	02 00 00.4	+4.3
IKRD				e		02 02 24.1	
	comp=Z,404nm,0.4s						
IMYA	Miami	6.15	25	Pn	Pn	01 59 57.5	+0.9
IMYA	Miami	6.15	25	ePn	Pn	01 59 57.5	+0.9
IMYA				e		02 00 40.9	
	comp=Z,443nm,0.5s						
IMYA	Miami	6.15	25	ePn	Pn	01 59 57.5	+0.9
IDMV	Damavand	6.27	321	Pn	Pn	01 59 59.6	+1.4
IDMV	Damavand	6.27	321	ePn	Pn	01 59 59.6	+1.4
IDMV				e		02 02 00.2	
	comp=Z,1µm,0.4s						
IDMV	Damavand	6.27	321	ePn	Pn	01 59 59.6	+1.4
ISFR	Sfrayin	6.31	8	Pn	Pn	01 59 57.4	-1.4
ISFR	Sfrayin	6.31	8	ePn	Pn	01 59 57.4	-1.4
ISFR				e		02 02 03.2	
	comp=Z,1µm,0.4s						
ISFR	Sfrayin	6.31	8	ePn	Pn	01 59 57.4	-1.4
DAMV	Damavand	6.34	321	Pn	Pn	02 00 00.0	+0.8
DAMV	Damavand	6.34	321	ePn	Pn	02 00 00.7	+1.5
DAMV	Damavand	6.34	321	Pn	Pn	02 00 00.0	+0.8
IPRN	Peran	6.63	326	Pn	Pn	02 00 03.0	-0.1
IPRN	Peran	6.63	326	ePn	Pn	02 00 03.1	0.0
IPRN				e		02 02 17.7	
	comp=Z,1µm,0.3s						
IPRN	Peran	6.63	326	ePn	Pn	02 00 03.1	0.0
ISHV	Shirvan	6.76	6	Pn	Pn	02 00 05.2	+0.3
ISHV	Shirvan	6.76	6	ePn	Pn	02 00 05.2	+0.3
ISHV				e		02 02 25.2	
	comp=Z,2µm,0.7s						
ISHV	Shirvan	6.76	6	ePn	Pn	02 00 05.2	+0.3
IEMG	Emamgholi	6.77	12	Pn	Pn	02 00 06.5	+1.5
IEMG	Emamgholi	6.77	12	e	Pg	02 00 44.2	+9.2
	comp=Z,206nm,0.2s						
IEMG				ePn	Pn	02 00 06.5	+1.5
BJRD	Bojnurd	6.90	3	ePn	Pn	02 00 07.8	+0.9
BJRD	Bojnurd	6.90	3	ePn	Pn	02 00 07.8	+0.9
CHTH	Charan	7.02	318	Pn	Pn	02 00 10.0	+1.5
CHTH	Charan	7.02	318	ePn	Pn	02 00 10.2	+1.8
CHTH	Charan	7.02	318	ePn	Pn	02 00 10.0	+1.5
HOQ	Hoqain	7.19	177	⇓P	Pn	02 00 11.4	+0.5
	SNR=9.7						
HOQ	Hoqain	7.19	177	P	Pn	02 00 11.4	+0.5
	SNR=9.7						
IRAZ	Razeghan	7.43	310	Pn	Pn	02 00 14.1	0.0
IRAZ	Razeghan	7.43	310	ePn	Pn	02 00 14.2	+0.1
IRAZ				e		02 03 00.6	
	comp=Z,375nm,0.4s						
IRAZ	Razeghan	7.43	310	ePn	Pn	02 00 14.2	+0.1
BSY	Bisya	8.02	178	⇑P	Pn	02 00 23.4	+1.1
	SNR=9.2						
BSYO	Bisya	8.04	178	P	Pn	02 00 23.4	+0.9
	SNR=9.2						
ZNJK	Zanjan	9.00	313	ePn	Pn	02 00 37.5	+1.8
ZNJK	Zanjan	9.00	313	ePn	Pn	02 00 37.5	+1.9
WHFO	Wadi Hawf	13.13	193	P	Pn	02 01 29.5	-2.7
	SNR=7.7						
GNI	Garni	13.59	317	eP	Pn	02 01 38.1	-0.4
GNI	Garni	13.59	317	eP	Pn	02 01 38.1	-0.4
ABTO	Aybut	13.77	195	⇑P	Pn	02 01 37.5	-3.6
	SNR=7.1						
MALT	Malatya	16.94	301	eP	Pn	02 02 23.1	+0.3
MALT				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MALT	Malatya	16.94	301	eP	Pn	02 02 23.1	+0.3
	comp=Z,4.7nm,1.0s						
MALT	Malatya	16.94	301	eP	Pn	02 02 23.1	+0.3
	comp=Z,5.0nm,1.0s						
ASF	Jabal al Asfar	17.11	280	P	Pn	02 02 23.3	-1.6
	comp=Z,0.2nm,0.3s,baz=322,slow=8.5,SNR=4.2						
ASF				LR	LR	02 09 15.9	
	comp=Z,16nm,19.7s,baz=90,slow=38						
AML	Almayashu	17.60	45	eP	Pn	02 02 30.8	-0.1
	comp=Z,4.4nm,1.0s						
AML	Almayashu	17.60	45	eP	Pn	02 02 30.8	-0.2
	comp=Z,4.4nm,1.0s						
EKS2	Erkin-Say	17.95	44	eP	Pn	02 02 35.6	+0.3
	comp=Z,5.7nm,1.1s						
EKS2	Erkin-Say	17.95	44	eP	Pn	02 02 35.7	+0.4
	comp=Z,5.7nm,1.1s						
UCH	Uchtor	18.16	46	eP	Pn	02 02 37.6	-0.3
	comp=Z,2.5nm,0.9s						
UCH	Uchtor	18.16	46	eP	Pn	02 02 37.6	-0.3
	comp=Z,2.5nm,0.9s						
AAK	Ala-Archa	18.37	45	eP	Pn	02 02 41.1	+0.6
AAK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AAK	Ala-Archa	18.37	45	P	Pn	02 02 40.2	-0.2
	comp=Z,0.0nm,0.3s,baz=225,slow=8.3,SNR=5.3						
AAK	Ala-Archa	18.37	45	eP	Pn	02 02 41.1	+0.6
	comp=Z,3.4nm,0.9s						
AAK	Ala-Archa	18.37	45	eP	Pn	02 02 41.1	+0.6
	comp=Z,3.0nm,0.9s						
EIL	Elat	18.99	272	P	Pn	02 02 48.2	+0.1
	comp=Z,0.5nm,0.3s,baz=117,slow=2.3,SNR=3.4						
EIL				LR	LR	02 10 14.3	
	comp=Z,37nm,20.8s,baz=53,slow=37						
EIL	Elat	18.99	272	P	Pn	02 02 48.2	+0.1
EIL				LR	LR	02 10 14.3	
EIL	Elat	18.99	272	P	Pn	02 02 48.2	+0.1
AKTK	Aktyubinsk	19.64	2	P	Pn	02 02 55.2	-0.5
AKTK				LR	LR	02 11 12.3	
AKTK	Aktyubinsk	19.64	2	P	Pn	02 02 55.2	-0.5
AKTO	Aktyubinsk	19.64	2	P	Pn	02 02 55.2	-0.5
	comp=Z,0.1nm,0.3s,baz=195,slow=11,SNR=14						
AKTO				LR	LR	02 11 12.3	
	comp=Z,93nm,20.9s,baz=285,slow=39						
CSS	Prodhromos	20.20	288	eP	P	02 02 57.7	-3.0
	comp=Z,14nm,1.1s						
BR131	Keskin Array S	20.93	302	eP	P	02 03 08.2	-0.3
	comp=Z,1.4nm,0.7s						
BR131	Keskin Array S	20.93	302	eP	P	02 03 08.2	-0.3
	comp=Z,1.4nm,0.7s						
BRTR	Keskin Array B	20.93	302	P	P	02 03 08.6	+0.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	Keskin Array B	20.93	302	P	P	02 03 08.6	+0.2
	comp=Z,1.8nm,0.9s						
BRTR	Keskin Array B	20.93	302	P	P	02 03 08.6	+0.1
	comp=Z,2.0nm,0.9s						
BRVK	Borovoye	24.30	20	eP	P	02 03 44.4	+1.3
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb3.9						
BRVK	Borovoye	24.30	20	eP	P	02 03 44.4	+1.2
	comp=Z,4.6nm,1.1s,mb3.8						
BRVK	Borovoye	24.30	20	eP	P	02 03 44.4	+1.3
	comp=Z,5.0nm,1.1s,mb3.9						
BVAR	Borovoye Array	24.30	20	P	P	02 03 43.7	+0.5
	comp=Z,3.1nm,0.7s,mb3.8,baz=198,slow=7.8,SNR=14						
BVAR	Borovoye Array	24.30	20	P	P	02 03 43.7	+0.5
MK31	Makanchi Array	25.29	44	eP	P	02 03 53.1	+0.9
MK31	Makanchi Array	25.29	44	eP	P	02 03 53.1	+0.9
MKAR	Makanchi Array	25.29	44	P	P	02 03 52.2	+0.1
	comp=Z,2.7nm,1.0s,mb3.7,baz=225,slow=9.9,SNR=14						
MKAR	Makanchi Array	25.29	44	P	P	02 03 52.2	0.0
ARU	Arti	25.66	2	eP	P	02 03 54.1	-1.3
ARU				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.3						
ARU	Arti	25.66	2	eP	P	02 03 54.0	-1.4
	comp=Z,9.1nm,0.9s,mb4.3						
ARU	Arti	25.66	2	eP	P	02 03 54.0	-1.4
	comp=Z,9.1nm,0.9s,mb4.3						
KURK	Kurchatov	25.66	33	eP	P	02 03 57.5	+1.9
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
KURK	Kurchatov	25.66	33	P	P	02 03 55.0	-0.6
	comp=Z,0.8nm,0.3s,mb3.8,baz=234,slow=9.2,SNR=4.1						
KURK				LR	LR	02 15 32.6	
	comp=Z,53nm,19.9s,MS3.1,baz=300,slow=40						
KURK	Kurchatov	25.66	33	eP	P	02 03 57.5	+2.0
	comp=Z,1.7nm,0.7s,mb3.7						
KURK				LR	LR	02 15 32.6	
KURK	Kurchatov	25.66	33	eP	P	02 03 57.5	+1.9
	comp=Z,2.0nm,0.7s,mb3.8						
IDI	Anoyia	27.13	288	P	P	02 04 09.1	+0.1
	comp=Z,4.6nm,0.8s,mb4.1,baz=124,slow=4.4,SNR=4.1						
IDI	Anoyia	27.13	288	P	P	02 04 09.1	+0.1
MLR	Muntele Rosu	28.21	310	P	P	02 04 20.7	+2.2
	comp=Z,2.4nm,0.8s,mb3.9,baz=199,slow=3.0,SNR=8.8						
MLR	Muntele Rosu	28.21	310	P	P	02 04 20.7	+2.2
AKASG	Malin Array Be	28.62	322	P	P	02 04 21.7	-0.4
	comp=Z,0.2nm,0.3s,mb3.3,baz=128,slow=8.5,SNR=7.8						
AKASG	Malin Array Be	28.62	322	P	P	02 04 21.7	-0.5
KIEV	Kiev	28.62	322	eP	P	02 04 21.2	-1.0
KIEV				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
KIEV	Kiev	28.62	322	eP	P	02 04 21.2	-1.0
	comp=Z,3.6nm,0.7s,mb4.2						
KIEV	Kiev	28.62	322	eP	P	02 04 21.2	-1.0
	comp=Z,4.0nm,0.7s,mb4.3						
ZAA0	Zalesovo Array	30.65	33	eP	P	02 04 41.2	+1.1
ZAA0	Zalesovo Array	30.65	33	eP	P	02 04 41.2	+1.1
ZALV	Zalesovo Beam	30.65	33	P	P	02 04 39.8	-0.4
	comp=Z,3.2nm,0.9s,mb4.2,baz=248,slow=7.8,SNR=12						
FINES	FINESS Array B	36.69	336	P	P	02 05 33.1	+0.6
	comp=Z,2.2nm,0.7s,mb4.1,baz=149,slow=8.0,SNR=5.6						
FINES	FINESS Array B	36.69	336	P	P	02 05 33.1	+0.6
GERES	GERESS Array B	37.16	312	P	P	02 05 36.4	-0.3
	comp=Z,1.3nm,0.7s,mb3.8,baz=95,slow=11,SNR=6.3						
GERES	GERESS Array B	37.16	312	P	P	02 05 36.4	-0.3
SONM	Songino Array	41.16	51	P	P	02 06 11.9	+1.8
	comp=Z,1.1nm,1.1s,mb3.4,baz=266,slow=8.9,SNR=5.2						
SONM				LR	LR	02 26 10.8	
	comp=Z,47nm,19.2s,MS3.4,baz=72,slow=40						
SONM	Songino Array	41.16	51	P	P	02 06 11.9	+1.8
LPG	La Plagne	41.40	305	eP	P	02 06 11.2	-1.0
LPG	La Plagne	41.40	305	eP	P	02 06 11.2	-1.0
LPL	La Plagne	41.42	305	eP	P	02 06 11.0	-1.3
	comp=Z,6.4nm,0.8s,mb4.0						
LPL	La Plagne	41.42	305	eP	P	02 06 11.0	-1.3
	comp=Z,6.0nm,0.8s,mb4.2						
BNI	Bardonecchia	41.44	305	eP	P	02 06 11.0	-1.5
BNI				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.3						
BNI	Bardonecchia	41.44	305	eP	P	02 06 11.0	-1.4
	comp=Z,8.7nm,1.1s,mb4.3						
BNI	Bardonecchia	41.44	305	eP	P	02 06 11.0	-1.5
	comp=Z,9.0nm,1.1s,mb4.3						
NOA	NORSAR Array B	42.47	329	P	P	02 06 21.9	+1.3
	comp=Z,1.6nm,0.8s,mb3.7,baz=118,slow=8.0,SNR=3.2						
NOA	NORSAR Array B	42.47	329	P	P	02 06 21.9	+1.2
BAIF	Baives	43.47	312	eP	P	02 06 28.1	-0.8
	comp=Z,31nm,1.2s,mb4.6						
BAIF	Baives	43.47	312	eP	P	02 06 28.1	-0.8
	comp=Z,31nm,1.2s,mb4.9						
SMF	Signal de Mont	43.48	307	eP	P	02 06 27.8	-1.3
SMF	Signal de Mont	43.48	307	eP	P	02 06 27.8	-1.3
LOR	Lormes	43.49	308	eP	P	02 06 27.9	-1.3
	comp=Z,24nm,1.2s,mb4.5						
LOR	Lormes	43.49	308	eP	P	02 06 27.9	-1.3
	comp=Z,24nm,1.2s,mb4.8						
BGF	Bois d'Agland	44.16	307	eP	P	02 06 33.4	-1.2
BGF	Bois d'Agland	44.16	307	eP	P	02 06 33.4	-1.2
EKA	Eskdalemuir Ar	48.43	319	P	P	02 07 06.8	-1.2
	comp=Z,2.5nm,0.9s,mb4.2,baz=108,slow=8.1,SNR=4.4						
EKA	Eskdalemuir Ar	48.43	319	P	P	02 07 06.8	-1.2
ESDC	Sonseca Array	49.65	298	P	P	02 07 16.6	-1.0
	comp=Z,1.3nm,0.8s,mb4.0,baz=80,slow=5.9,SNR=3.9						
ESDC	Sonseca Array	49.65	298	P	P	02 07 16.6	-1.0
TOA0	Torodi Ar. Sit	53.58	264	eP	P	02 07 45.7	-1.6
TOA0	Torodi Ar. Sit	53.58	264	eP	P	02 07 45.7	-1.6
TORD	Torodi Ar. Bea	53.58	264	P	P	02 07 46.0	-1.3
	comp=Z,6.4nm,0.7s,mb4.7,baz=60,slow=5.4,SNR=43						
YKA	Yellowknife Ar	86.79	356	P	P	02 11 09.0	-1.0
	comp=Z,1.2nm,0.9s,mb4.1,baz=358,slow=5.1,SNR=16						
YKA	Yellowknife Ar	86.79	356	P	P	02 11 09.0	-1.0

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*ISCJB **27** 02:07:57.2±0.5, 2°.42S±0°.07×29°.09E±0°.06, h10^{km}, mb4.0/14, MS3.5/4, Error ellipse: s-maj=9.4km s-min=9.0km az=5.5*

*IDC **27** 02:07:57.7±0.8, 2°.41S×29°.00E, h0^{km}, mb4.1/12, mb1 4.1/14, mb1mx4.0/28, mbtmp4.0/14, ML3.6/2, MS3.5/5, Ms1 3.5/5, ms1mx3.2/35, Error ellipse: s-maj=22.2km s-min=16.0km az=96.0*

*NEIC **27** 02:07:59.1±0.3, 2°.39S×28°.97E, h10^{km}, mb4.6/2, Error ellipse: s-maj=9.8km s-min=6.5km az=94.0*

ISC 27 02:07:59.4±0.5, **2°.42S**±0°.06×**29°.04E**±0°.06, **h10**^{km}, **n31**, σ**0^s.73**/32, **mb4.0**/14, **MS3.5**/4, **5C-2D, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	8.31	81	Pn	Pn	02 10 00.5	+0.4
	1.0nm,0.3s,baz=235,slow=22,SNR=11						
KMBO				Sn	Sn	02 11 33.0	-1.0
	0.8nm,0.3s,baz=252,slow=19,SNR=4.1						
KMBO				Lg		02 12 19.2	
	5.4nm,0.3s,baz=313,slow=20,SNR=15						
KMBO				LR	LR	02 13 22.5	
	comp=Z,358nm,20.8s,baz=258,slow=39						
KMBO	Kilima Mbogo	8.31	81	Pn	Pn	02 10 00.5	+0.4
KMBO				Sn	Sn	02 11 33.0	-1.0
KMBO				Lg		02 12 19.2	
KMBO				LR	LR	02 13 22.5	
LSZ	Lusaka	12.80	184	Pn	Pn	02 11 01.9	+0.3
	0.2nm,0.3s,baz=16,slow=13,SNR=3.4						
LSZ				Sn	Sn	02 13 13.8	-11
	0.3nm,0.3s,baz=95,slow=11,SNR=2.1						
LSZ				Lg		02 14 32.7	
	0.4nm,0.3s,baz=92,slow=21,SNR=6.9						
LBTB	Lobatse	22.71	188	P	P	02 13 02.3	+0.9
	3.3nm,1.0s,mb3.7,baz=39,slow=14,SNR=3.8						
LBTB				LR	LR	02 20 41.1	
	comp=Z,58nm,20.3s,MS3.0,baz=16,slow=34						
BOSA	Boshof	26.30	188	P	P	02 13 34.7	-0.6
	2.6nm,1.0s,mb3.7,baz=14,slow=8.3,SNR=3.3						
BOSA	Boshof	26.30	188	P	P	02 13 34.7	-0.6
TOA0	Torodi Ar. Sit	31.24	300	eP	P	02 14 19.0	-0.5
TORD	Torodi Ar. Bea	31.24	300	P	P	02 14 17.9	-1.6
	0.9nm,0.9s,mb3.6,baz=104,slow=7.8,SNR=8.2						
TORD				LR	LR	02 26 57.5	
	comp=Z,139nm,19.2s,MS3.6,baz=125,slow=36						
DBIC	Dimbokro	35.02	285	LR	LR	02 29 21.4	
	comp=Z,108nm,18.8s,MS3.6,baz=71,slow=37						
IDI	Anoyia	37.71	354	P	P	02 15 15.3	+0.1
	6.5nm,0.9s,mb4.4,baz=194,slow=10,SNR=4.4						
MALT	Malatya	41.45	11	⇑iP	P	02 15 48.3	+1.9
BRTR	Keskin Array B	42.15	5	P	P	02 15 52.7	+0.6
	2.0nm,0.7s,mb3.9						
KEST	Kesra	42.18	336	P	P	02 15 52.6	+0.1
	1.3nm,1.1s,mb3.5,baz=123,slow=0.7,SNR=6.0						
MLR	Muntele Rosu	47.78	357	⇓iP	P	02 16 37.2	+0.4
MLR	Muntele Rosu	47.78	357	P	P	02 16 37.1	+0.2
	3.1nm,0.9s,mb4.4,baz=176,slow=11,SNR=10.0						
GZR	Gura Zlata	47.93	354	⇑iP	P	02 16 38.2	+0.2
BZS	Buzias	48.28	353	⇑iP	P	02 16 40.6	-0.1
PKSM	Moragy	49.29	350	⇑iP	P	02 16 48.5	+0.1
BURAR	Bucovina Array	49.94	357	⇑iP	P	02 16 55.0	+1.6
KWP	Kalwaria Pacla	52.13	355	⇓iP	P	02 17 10.4	+0.6
GERES	GERESS Array B	52.77	347	P	P	02 17 14.2	-0.4
	1.3nm,0.8s,mb3.9,baz=168,slow=8.2,SNR=5.3						
KIEV	Kiev	52.91	0	eP	P	02 17 14.8	-0.7
	1.7nm,0.4s,mb4.3						
AKASG	Malin Array Be	52.91	0	P	P	02 17 14.7	-0.9
	1.5nm,0.7s,mb4.0,baz=186,slow=7.3,SNR=7.0						
KHC	Kasperske Hory	53.06	347	eP	P	02 17 16.0	-0.8
AKTK	Aktyubinsk	58.21	21	P	P	02 17 54.0	+0.2
AKTO	Aktyubinsk	58.21	21	P	P	02 17 54.0	+0.2
	2.1nm,0.9s,mb4.2,baz=213,slow=7.1,SNR=8.7						
ARU	Arti	63.37	18	eP	P	02 18 28.4	-0.4
	5.6nm,0.8s,mb4.8						
MK31	Makanchi Array	67.65	37	eP	P	02 18 56.4	-0.3
MKAR	Makanchi Array	67.65	37	P	P	02 18 56.9	+0.2
	0.7nm,0.6s,mb3.9,baz=242,slow=6.1,SNR=11						
KURK	Kurchatov	67.70	32	P	P	02 18 56.6	-0.3
	0.4nm,0.3s,mb3.9,baz=242,slow=7.2,SNR=4.0						
CPUP	Villa Florida	85.69	244	LR	LR	02 55 06.1	
	comp=Z,28nm,20.8s,MS3.6,baz=14,slow=33						

IDC 27 02:29:44.9±3.0, **33°.58S**×**178°.68W**, **h0**^{km}, **mb3.7**/2, **mb1 4.0**/3, **mb1mx3.8**/16, **mbtmp3.8**/3, **ML3.7**/1, **MS3.3**/1, **Ms1 3.3**/1, **ms1mx2.8**/23, **Error ellipse: s-maj=72.3km s-min=36.2km az=118.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	4.36	9	LR	LR	02 32 07.1	
	comp=Z,300nm,18.5s,baz=236,slow=33						
URZ	Urewera	5.79	215	Pn	Pn	02 31 12.9	+0.9
	2.1nm,0.3s,baz=301,slow=10,SNR=15						
URZ				Sn	Sn	02 32 17.6	-1.5
	3.4nm,0.3s,baz=154,slow=22,SNR=8.4						
ASAR	Alice Springs	42.46	271	P	P	02 37 41.9	0.0
	0.7nm,0.7s,baz=113,slow=6.8,SNR=7.8						
WRA	Warramunga Arr	43.74	276	P	P	02 37 52.1	-0.1
	0.6nm,0.5s,baz=117,slow=8.0,SNR=3.6						
FINES	FINESS Array B	147.89	338	PKPbc	PKPbc	02 49 30.4	-0.8
	1.5nm,0.8s,baz=29,slow=4.4,SNR=6.2						

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*IDC **27** 02:48:57.6±1.6, 40°.44N×50°.36E, h0^{km}, mb3.7/10, mb1 3.8/13, mb1mx3.6/29, mbtmp3.7/13, ML3.7/1, Error ellipse: s-maj=34.3km s-min=12.5km az=154.0*

*ISCJB **27** 02:49:04.2±0.5, 40°.94N±0°.06×50°.40E±0°.05, h51^{km}±7^{km}, mb3.6/10, Error ellipse: s-maj=10.8km s-min=5.9km az=158.6*

*NEIC **27** 02:49:04.3±1.8, 40°.64N×50°.40E, h44^{km}±15^{km}, mb3.8/3, Error ellipse: s-maj=24.2km s-min=9.4km az=161.0*

*MOS **27** 02:49:04.3±1.5, 41°.07N×50°.30E, h33^{km}, mb4.1/2, Error ellipse: s-maj=14.6km s-min=12.4km az=72.4*

*CSEM **27** 02:49:05.1±0.3, 40°.69N×50°.41E, h60^{km}, ML3.0, Error ellipse: s-maj=14.8km s-min=6.2km az=161.0*

ISC 27 02:49:05.2±0.6, **40°.80N**±0°.06×**50°.45E**±0°.05, **h51**^{km}±6^{km}, **n55**, σ**1^s.24**/63, **mb3.6**/10, **2C-2D, Caspian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NDR	Nardaran	0.42	238	P	Pn	02 49 15.0	-0.5
	SNR=80						
NDR				S	Sn	02 49 25.1	+2.3
GOBA	Gobu	0.68	234	P	Pn	02 49 18.4	-0.2
	SNR=71						
SIZA	Siyzn	1.21	284	P	Pn	02 49 27.7	+2.1
	SNR=20						
ALIB	li-Bayraml	1.39	233	P	Pn	02 49 27.1	-1.0
	SNR=7.5						
PQL	Pirkuli	1.41	270	P	Pn	02 49 29.0	+0.6
	SNR=11						
SEKA	Sheki	2.49	280	P	Pn	02 49 44.3	+1.1
	SNR=84						
GANJ	Ganja	3.14	268	P	Pn	02 49 50.2	-1.9
	SNR=6.9						
GANJ				S	Sn	02 50 26.4	-1.9
NAX	Nakhchivan	4.14	248	S	Sn	02 50 51.5	-1.4
MTA	Mtatsminda	4.36	284	P	Pn	02 50 17.0	+8.2
GNI	Garni	4.40	263	Pn	Pn	02 50 08.8	-0.6
	0.5nm,0.3s,baz=198,slow=3.2,SNR=3.7						
GNI	Garni	4.40	263	Pn	Pn	02 50 08.8	-0.6
TBLG	Delisi	4.40	284	i PN	Pn	02 50 09.5	+0.1
TBLG	Delisi	4.40	284	P	Pn	02 50 09.5	+0.1
TBLG	Delisi	4.40	284	i Pn	Pn	02 50 09.5	+0.1
GOR	Gori	4.91	286	P	Pn	02 50 17.6	+1.2
ONI	Oni	5.53	291	P	Pn	02 50 26.2	+1.3
KIV	Kislovodsk	6.55	301	eP	Pn	02 50 38.1	-0.8
KIV				e		02 51 52.5	
KIV	Kislovodsk	6.55	301	ePn	Pn	02 50 38.1	-0.8
KIV				eSn	Sn	02 51 52.5	+0.2
KIV	Kislovodsk	6.55	301	ePn	Pn	02 50 38.1	-0.8
KIV				eSn	Sn	02 51 52.5	+0.3
AB09	Akbulak array	10.78	35	⇓Pn	Pn	02 51 36.4	-0.3
	0.9nm,0.5s,baz=215,slow=14						
AB09				⇑Sn	Sn	02 53 35.6	-0.2
	3.7nm,0.6s,baz=215,slow=24						
AB09	Akbulak array	10.78	35	Pn	Pn	02 51 36.4	-0.3
	0.9nm,0.5s,baz=215						
AKTK	Aktyubinsk	10.99	26	Pn	Pn	02 51 40.0	+0.5
AKTK				Sn	Sn	02 53 38.2	-2.6
AKTK	Aktyubinsk	10.99	26	Pn	Pn	02 51 40.0	+0.5
AKTO	Aktyubinsk	10.99	26	Pn	Pn	02 51 40.0	+0.5
	1.0nm,0.3s,baz=207,slow=13,SNR=16						
AKTO				Sn	Sn	02 53 38.2	-2.6
	1.3nm,0.3s,baz=347,slow=19,SNR=10						
KK31	Karatay Array	15.10	75	⇓Pn	Pn	02 52 34.3	-0.9
	0.9nm,0.6s,baz=299,slow=8.7,SNR=13						
KK31				⇑Sn	Sn	02 55 16.7	-4.5
	1.0nm,0.9s,baz=193,slow=39,SNR=3.9						
KK31	Karatay Array	15.10	75	Pn	Pn	02 52 34.3	-0.9
	0.9nm,0.6s,SNR=13						
ARU	Arti	16.51	16	eP	Pn	02 52 48.9	-4.1
ARU				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ARU	Arti	16.51	16	eP	Pn	02 52 48.9	-4.2
	comp=Z,5.2nm,0.8s						
BVAR	Borovoye Array	18.23	41	P	Pn	02 53 17.3	+3.1
	comp=Z,0.2nm,0.3s,baz=230,slow=12,SNR=4.8						
BVAR	Borovoye Array	18.23	41	P	Pn	02 53 17.3	+3.1
IDI	Anoyia	20.84	263	P	P	02 53 41.2	-1.3
	comp=Z,1.0nm,0.4s,baz=84,slow=19,SNR=5.5						
IDI	Anoyia	20.84	263	P	P	02 53 41.2	-1.3
KURK	Kurchatov	21.89	54	eP	P	02 53 54.1	+0.4
KURK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.8						
KURK	Kurchatov	21.89	54	P	P	02 53 53.9	+0.3
	comp=Z,0.7nm,0.7s,mb3.2,baz=254,slow=11,SNR=3.8						
KURK	Kurchatov	21.89	54	eP	P	02 53 54.1	+0.5
	comp=Z,5.4nm,1.3s,mb3.8						
KURK	Kurchatov	21.89	54	eP	P	02 53 54.1	+0.4

	comp=Z,5.4nm,1.3s,mb3.8						
MK31	Makanchi Array	23.64	65	eP	P	02 54 12.6	+0.9
MK31				e		02 54 25.4	
MK31	Makanchi Array	23.64	65	eP	P	02 54 12.6	+0.9
MKAR	Makanchi Array	23.64	65	P	P	02 54 12.2	+0.5
	comp=Z,0.5nm,0.5s,mb3.2,baz=265,slow=8.5,SNR=8.7						
MKAR	Makanchi Array	23.64	65	P	P	02 54 12.2	+0.5
FINES	FINESS Array B	25.43	332	eP	P	02 54 28.7	+1.0
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	25.43	332	P	P	02 54 28.8	+1.0
	comp=Z,1.5nm,0.4s,mb3.9,baz=143,slow=12,SNR=14						
TIP	Timpagrande	25.78	277	eP	P	02 54 33.5	+2.4
	comp=Z,2.3nm,0.6s,mb3.9						
HFS	Hagfors	29.78	323	P	P	02 55 07.4	+0.7
	comp=Z,1.4nm,0.3s,mb4.2,baz=114,slow=9.7,SNR=32						
NB2	NORSAR Subarra	31.26	324	P	P	02 55 20.2	+0.5
	comp=Z,0.4nm,0.3s,mb3.7,baz=118,slow=8.6						
NB2	NORSAR Subarra	31.26	324	P	P	02 55 20.2	+0.5
	comp=Z,0.4nm,0.3s,mb3.7,baz=118,slow=8.1,SNR=3.1						
NOA	NORSAR Array B	31.26	324	P	P	02 55 20.1	+0.4
	comp=Z,0.8nm,0.8s,mb3.6,baz=112,slow=9.5,SNR=5.5						
NOA	NORSAR Array B	31.26	324	P	P	02 55 20.1	+0.4
EKA	Eskdalemuir Ar	37.67	311	P	P	02 56 15.8	+0.7
	comp=Z,1.7nm,0.6s,mb3.9,baz=96,slow=8.5,SNR=6.9						
EKA	Eskdalemuir Ar	37.67	311	P	P	02 56 15.8	+0.7
ESDC	Sonseca Array	40.99	287	P	P	02 56 42.1	-0.9
	comp=Z,0.6nm,0.6s,mb3.4,baz=57,slow=8.0,SNR=4.1						
ESDC	Sonseca Array	40.99	287	P	P	02 56 42.1	-0.9
TORD	Torodi Ar. Bea	50.61	251	P	P	02 57 56.6	-2.5
	comp=Z,0.1nm,0.4s,mb3.1,baz=40,slow=7.6,SNR=4.2						
YKA	Yellowknife Ar	76.35	353	P	P	03 00 48.6	+0.2
	comp=Z,0.1nm,0.5s,mb3.0,baz=336,slow=6.5,SNR=4.0						
YKA	Yellowknife Ar	76.35	353	P	P	03 00 48.7	+0.3

IDC 27 02:51:17.9±1.5**, 4°.13N×126°.57E, h0^{km}, mb3.8**/6**, mb1 3.9**/6**, mb1mx3.7**/22**, mbtmp3.8**/6**, MS3.0**/2**, Ms1 3.0**/2**, ms1mx2.5**/36**, Error ellipse: s-maj=103.7km s-min=19.7km az=67.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	3.09	341	LR	LR	02 52 45.1	
	comp=Z,276nm,21.1s,baz=55,slow=28						
KAPI	Kappang	11.35	217	LR	LR	02 58 36.2	
	comp=Z,84nm,20.2s,baz=143,slow=39						
FITZ	Fitzroy Crossi	22.11	182	P	P	02 56 15.4	+0.4
	2.6nm,0.8s,baz=31,slow=8.9,SNR=3.9						
WRA	Warramunga Arr	25.11	163	P	P	02 56 43.8	-0.8
	2.2nm,0.5s,baz=343,slow=10,SNR=9.0						
ASAR	Alice Springs	28.54	166	P	P	02 57 14.8	-0.7
	0.3nm,0.5s,baz=337,slow=6.4,SNR=3.5						
STKA	Stephens Creek	38.55	159	P	P	02 58 43.6	+1.1
	2.7nm,0.8s,baz=330,slow=7.7,SNR=7.4						
MKAR	Makanchi Array	57.14	325	P	P	03 01 06.1	-0.3
	0.5nm,0.7s,baz=128,slow=7.9,SNR=6.8						
AKTO	Aktyubinsk	73.25	322	P	P	03 02 51.5	+0.5
	0.7nm,0.7s,baz=76,slow=9.7,SNR=3.8						

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*ISCJB **27** 03:13:03.6±2.3, 10°.3N±0°.3×91°.5E±0°.6, h20^{km}, mb3.6/6, Error ellipse: s-maj=98.0km s-min=16.7km az=151.6*

*NEIC **27** 03:13:05.9±1.7, 10°.35N×91°.54E, mb3.8/1, Error ellipse: s-maj=74.2km s-min=12.8km az=62.0*

*IDC **27** 03:13:06.0±2.4, 10°.35N×91°.58E, h20^{km}±5^{km}, mb3.5/5, mb1 3.6/5, mb1mx3.4/23, mbtmp3.5/5, Error ellipse: s-maj=98.6km s-min=16.2km az=64.0*

ISC 27 03:13:06.0±2.3**, 10°.3N**±0°.3×**91°.5E**±0°.6**, h22^{km}, h22^{km}**±.6^{km}**:pP-P, n7, σ0^{s}.16**/7**, mb3.6**/6**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	37.18	350	eP	P	03 20 15.2	-0.2
MK31				epP	pP	03 20 21.5	-0.5
MKAR	Makanchi Array	37.18	350	P	P	03 20 15.3	0.0
	0.8nm,0.8s,mb3.6,baz=167,slow=8.4,SNR=8.1						
MKAR				pP	pP	03 20 21.8	-0.2
	0.8nm,0.8s,baz=169,slow=9.2,SNR=6.4						
SONM	Songino Array	39.44	16	P	P	03 20 34.4	-0.1
	0.5nm,0.7s,mb3.3,baz=200,slow=8.5,SNR=4.0						
SONM				pP	pP	03 20 40.8	-0.3
	0.3nm,0.4s,baz=197,slow=9.0,SNR=3.2						
KURK	Kurchatov	41.65	348	eP	P	03 20 52.5	-0.1
	1.8nm,1.0s,mb3.7						
ZALV	Zalesovo Beam	43.84	354	P	P	03 21 10.7	+0.4
	0.4nm,0.3s,mb3.6,baz=172,slow=11,SNR=3.4						
ZALV				pP	pP	03 21 16.1	-0.9
	0.6nm,0.4s,baz=164,slow=7.5,SNR=2.0						
WRA	Warramunga Arr	51.80	126	P	P	03 22 12.5	0.0
	0.8nm,0.6s,mb3.8,baz=307,slow=8.3,SNR=6.6						
WRA				pP	pP	03 22 18.6	-0.8
	0.7nm,0.6s,baz=305,slow=8.6,SNR=4.2						
ASAR	Alice Springs	53.48	130	P	P	03 22 24.9	0.0
	0.7nm,0.8s,mb3.6,baz=305,slow=8.6,SNR=4.6						
ASAR				pP	pP	03 22 31.1	-0.7
	0.7nm,0.6s,baz=306,slow=7.5,SNR=4.2						

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*NEIC **27** 03:19:16.8±0.6, 18°.72N×145°.26E, h300^{km}, mb3.8/1, Error ellipse: s-maj=27.7km s-min=13.6km az=97.0*

IDC 27 03:18:43.7±0.9**, 19°.01N×145°.54E, h0^{km}, mb3.5**/6**, mb1 3.8**/6**, mb1mx3.6**/22**, mbtmp3.5**/6**, Error ellipse: s-maj=37.7km s-min=22.9km az=98.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	Tennant Creek	40.22	196	eP	P	03 26 21.9	-0.3
	3.0nm,0.6s						
WRA	Warramunga Arr	40.23	196	P	P	03 26 22.6	+0.3
	2.3nm,0.7s,baz=15,slow=9.0,SNR=7.9						
ASAR	Alice Springs	43.91	195	P	P	03 26 51.9	-0.4
	0.3nm,0.4s,baz=14,slow=7.0,SNR=6.1						
MKAR	Makanchi Array	58.14	314	P	P	03 28 39.7	+0.4
	0.1nm,0.5s,baz=99,slow=8.9,SNR=2.5						
BVAR	Borovoye Array	66.14	320	P	P	03 29 32.7	-0.2
	0.3nm,0.5s,baz=103,slow=6.5,SNR=2.3						
YKA	Yellowknife Ar	77.79	28	P	P	03 30 42.6	+0.1
	0.1nm,0.4s,baz=289,slow=5.7,SNR=2.7						
NVAR	Mina Array Bea	83.07	52	P	P	03 31 11.8	+0.3
	0.3nm,0.5s,baz=286,slow=4.5,SNR=2.2						

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*ISCJB **27** 03:23:12.6±1.5, 36°.33N±0°.09×21°.62E±0°.09, h11^{km}±14^{km}, Error ellipse: s-maj=17.6km s-min=7.7km az=38.2*

*CSEM **27** 03:23:12.2±0.9, 36°.28N×21°.61E, h10^{km}±5^{km}, MD3.6, Error ellipse: s-maj=14.9km s-min=6.5km az=46.0*

*ATH **27** 03:23:13.3, 36°.35N×21°.58E, h36^{km}±3^{km}, MD3.6/10*

*THE **27** 03:23:13.5, 36°.28N×21°.61E, h16^{km}±2^{km}, ML3.0/2, Error ellipse: s-maj=3.8km s-min=1.6km az=53.0*

*NEIC **27** 03:23:13.3, 36°.35N×21°.58E, h36^{km}, MD3.6(ATH), After ATH.*

ISC 27 03:23:12.6±1.6**, 36°.28N**±0°.06×**21°.61E**±0°.09**, h15^{km}**±7^{km}**, n35, σ0^{s}.96**/45**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.63	10	P	Pg	03 23 25.3	+0.4
PYL	PYLOS	0.63	10	ePN	Pn	03 23 25.4	-1.6
PYL				eSN	Sg	03 23 34.1	+0.8
PYL	PYLOS	0.63	10	ePn	Pn	03 23 25.4	-1.6
ITM	Ithomi	0.94	16	ePN	Pn	03 23 30.4	-0.9
ITM				eSN	Sn	03 23 42.4	-2.1
ITM	Ithomi	0.94	16	ePn	Pn	03 23 30.4	-0.9
KYTH	Kithira	1.16	89	ePN	Pn	03 23 35.1	+0.8
KYTH	Kithira	1.16	89	ePn	Pn	03 23 35.1	+0.8
VLI	Veliai	1.16	67	ePN	Pn	03 23 34.7	+0.4
VLI				eSN	Sn	03 23 50.5	+0.6
VLI	Veliai	1.16	67	ePn	Pn	03 23 34.7	+0.4
VLI				eSn	Sn	03 23 50.5	+0.6
VLX	Vlachokerasia	1.26	29	ePN	Pn	03 23 35.9	+0.2
VLX	Vlachokerasia	1.26	29	ePn	Pn	03 23 35.9	+0.2
GUR	Goura	1.76	19	ePB	Pb	03 23 43.5	-1.1
GUR	Goura	1.76	19	ePb	Pb	03 23 43.5	-1.1
DID	Didima	1.79	46	P	Pn	03 23 43.0	-0.1
DID	Didima	1.79	46	ePN	Pn	03 23 43.1	0.0
DID	Didima	1.79	46	ePn	Pn	03 23 43.1	0.0
LAKA	Lakka	1.98	9	P	Pn	03 23 46.0	+0.3
LAKA	Lakka	1.98	9	P	Pn	03 23 46.0	+0.3
LTK	Loutraki	2.06	32	P	Pn	03 23 46.5	-0.1
LTK	Loutraki	2.06	32	ePN	Pn	03 23 46.2	-0.4
LTK	Loutraki	2.06	32	ePn	Pn	03 23 46.2	-0.4
VLS	Valsamata	2.06	337	P	Pn	03 23 46.2	-0.6
VLS				S	Sn	03 24 12.8	+0.6
VLS	Valsamata	2.06	337	ePN	Pn	03 23 45.9	-0.9
VLS	Valsamata	2.06	337	ePn	Pn	03 23 45.9	-0.9
VLS				S	Sn	03 24 12.8	+0.6
KARN	Karanos	2.07	114	P	Pn	03 23 46.8	-0.1
KARN	Karanos	2.07	114	P	Pn	03 23 46.8	-0.1
KALE	Kalithea	2.15	11	P	Pn	03 23 49.1	+1.1
KALE	Kalithea	2.15	11	P	Pn	03 23 49.1	+1.1
EFP	Efpalio	2.16	6	ePB	Pb	03 23 49.2	-2.2
LKD	Levkas	2.54	343	P	Pn	03 23 54.3	+1.0
LKD				S	Sn	03 24 24.9	+0.8
LKD	Levkas	2.54	343	P	Pn	03 23 54.3	+1.0
LKD				S	Sn	03 24 24.9	+0.8
LKR	Lokris	2.62	25	P	Pn	03 23 53.5	-0.9
LKR	Lokris	2.62	25	P	Pn	03 23 53.5	-0.9
AGG	Agios Georgios	2.80	12	P	Pn	03 23 58.0	+1.1
AGG				S	Sn	03 24 31.4	+1.0
AGG	Agios Georgios	2.80	12	P	Pn	03 23 58.0	+1.1
AGG				S	Sn	03 24 31.4	+1.0

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*MOS **27** 03:27:33.5±3.6, 40°.86N×49°.43E, h10^{km}, mb4.3/1, Error ellipse: s-maj=13.8km s-min=9.2km az=128.0*

*IDC **27** 03:27:33.2±1.7, 41°.09N×48°.95E, h0^{km}, mb3.4/7, mb1 3.6/10, mb1mx3.4/27, mbtmp3.5/10, ML3.4/2, Error ellipse: s-maj=36.9km s-min=17.7km az=159.0*

*ISCJB **27** 03:27:35.2±1.0, 41°.30N±0°.04×49°.23E±0°.04, h14^{km}±7^{km}, mb3.4/7, Error ellipse: s-maj=6.2km s-min=5.4km az=146.7*

*CSEM **27** 03:27:35.3±0.2, 41°.24N×49°.20E, h5^{km}, ML2.9, Error ellipse: s-maj=6.9km s-min=6.0km az=126.0*

*NEIC **27** 03:27:41.2±1.6, 41°.31N×49°.08E, h53^{km}±16^{km}, mb3.4/1, Error ellipse: s-maj=24.1km s-min=11.5km az=161.0*

ISC 27 03:27:36.3±0.7**, 41°.21N**±0°.04×**49°.21E**±0°.04**, h13^{km}**±6^{km}**, n51, σ1^{s}.15**/57**, mb3.4**/7**, 1C-2D, Caspian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIZA	Siyzn	0.27	241	P	Pg	03 27 42.0	0.0
	SNR=269						
PQL	Pirkuli	0.63	228	P	Pg	03 27 47.3	-1.3
	SNR=99						
PQL				S	Sg	03 27 57.5	+0.6
NDR	Nardaran	0.86	137	P	Pg	03 27 51.3	-1.6
	SNR=12						
GOBA	Gobu	0.90	154	P	Pg	03 27 52.2	-1.5
	SNR=7.6						
GOBA				S	Sg	03 28 07.1	+1.6
KSMR	Kasumkent	0.91	296	i PG	Pg	03 27 55.5	+1.7
KSMR				i S	Sg	03 28 11.0	+5.3
KSMR				pmax	pmax		
	comp=Z,535nm,0.2s						
KSMR	Kasumkent	0.91	296	i Pg	Pg	03 27 55.5	+1.7
	comp=Z,535nm,0.2s						
ALIB	Ii-Bayraml	1.26	187	P	Pn	03 27 59.8	+0.2
	SNR=26						
URKR	Urkarakh	1.52	309	i PN	Pn	03 28 02.0	-1.2
URKR				pmax	pmax		
	comp=Z,67nm,0.2s						
URKR	Urkarakh	1.52	309	i Pn	Pn	03 28 02.0	-1.2
	comp=Z,67nm,0.2s						
SEKA	Sheki	1.52	271	S	Sn	03 28 22.5	-0.3
BRDA	Brd	1.81	239	P	Pn	03 28 07.3	+0.1
	SNR=4.5						
KMKR	Kumukh	1.83	301	ePN	Pn	03 28 03.5	-4.0
KMKR				eS	Sn	03 28 35.0	+4.5
KMKR				pmax	pmax		
	comp=Z,64nm,0.3s						
KMKR	Kumukh	1.83	301	ePn	Pn	03 28 03.5	-4.0
	comp=Z,64nm,0.3s						
GLBA	Clilabad	2.06	198	P	Pn	03 28 11.1	+0.4
	SNR=14						
MAK	Makhachkala	2.16	325	ePN	Px	03 28 23.3	
MAK				e		03 28 51.0	
MAK				pmax	pmax		
	comp=Z,219nm,0.3s						
MAK				smax			
	comp=N,666nm,0.8s						
MAK				smax			
	comp=E,357nm,1.0s						
MAK				MLR	MLR		
	comp=Z,177nm,8.0s						
GANJ	Ganja	2.26	257	P	Pn	03 28 13.1	-0.3
	SNR=9.2						
GANJ				S	Sn	03 28 41.7	+0.6
GNI	Garni	3.56	254	d iPN	Pn	03 28 33.2	+1.9
GNI	Garni	3.56	254	Pn	Pn	03 28 34.1	+2.8
	comp=Z,0.7nm,0.3s,baz=27,slow=4.5,SNR=3.5						
GNI	Garni	3.56	254	i Pn	Pn	03 28 33.2	+1.9
ONI	Oni	4.51	290	P	Pn	03 28 52.0	+7.7
KIV	Kislovodsk	5.54	302	i P	Pn	03 29 07.7	+9.2
KIV	Kislovodsk	5.54	302	ePn	Pn	03 28 59.6	+1.1
KIV	Kislovodsk	5.54	302	ePn	Pn	03 28 59.6	+1.1
SOC	Sochi	7.42	292	i P	Pn	03 29 31.3	+7.1
ANN	Anapa	9.35	296	eP	Px	03 30 01.1	
ANN				eS	Sx	03 31 52.8	
ANN				pmax	pmax		
	comp=Z,64nm,1.0s						
AB09	Akbulak array	11.03	40	⇑Pn	Pn	03 30 13.4	-0.2
	comp=Z,0.3nm,0.3s,baz=218,slow=12						
AB09				⇓Sn	Sn	03 32 12.0	-4.7
	comp=Z,3.0nm,0.5s,baz=221,slow=22						
AB09	Akbulak array	11.03	40	Pn	Pn	03 30 13.4	-0.2
	comp=Z,0.3nm,0.3s,baz=218						
AKTK	Aktyubinsk	11.07	31	Pn	Pn	03 30 14.1	-0.2
AKTK				Sn	Sn	03 32 12.7	-5.2
AKTK	Aktyubinsk	11.07	31	P	Pn	03 30 14.1	-0.2
AKTO	Aktyubinsk	11.07	31	Pn	Pn	03 30 14.1	-0.2
	comp=Z,0.4nm,0.3s,baz=198,slow=13,SNR=7.2						
AKTO				Sn	Sn	03 32 12.7	-5.2
	comp=Z,0.6nm,0.3s,baz=321,slow=22,SNR=10						
BRTR	Keskin Array B	11.96	268	Pn	Pn	03 30 20.8	-5.6
	comp=Z,0.2nm,0.3s,baz=119,slow=17,SNR=7.9						
OBN	Obninsk	16.23	333	i P	Pn	03 31 33.6	+10
OBN				pmax	pmax		
	comp=Z,41nm,3.0s						
BVAR	Borovoye Array	18.55	43	P	Pn	03 31 55.1	+2.3
	comp=Z,0.3nm,0.3s,baz=270,slow=7.4,SNR=4.9						
BVAR	Borovoye Array	18.55	43	P	Pn	03 31 55.1	+2.3
KURK	Kurchatov	22.41	55	P	P	03 32 34.5	+0.1
	comp=Z,0.4nm,0.6s,mb3.0,baz=257,slow=11,SNR=2.2						
KURK	Kurchatov	22.41	55	eP	P	03 32 35.1	+0.7
	comp=Z,1.3nm,0.9s,mb3.4						
KURK	Kurchatov	22.41	55	eP	P	03 32 35.1	+0.7
	comp=Z,1.3nm,0.9s,mb3.4						
MK31	Makanchi Array	24.32	66	eP	P	03 32 54.4	+0.9
MK31	Makanchi Array	24.32	66	eP	P	03 32 54.4	+0.9
MKAR	Makanchi Array	24.32	66	P	P	03 32 55.0	+1.5
	comp=Z,0.3nm,0.6s,mb2.9,baz=270,slow=9.0,SNR=6.1						
MKAR	Makanchi Array	24.32	66	P	P	03 32 55.0	+1.5
FINES	FINESS Array B	24.64	333	P	P	03 32 55.5	-0.7
	comp=Z,2.6nm,0.8s,mb3.8,baz=199,slow=5.2,SNR=6.2						
FINES	FINESS Array B	24.64	333	P	P	03 32 55.5	-0.7
FINES	FINESS Array B	24.64	333	P	P	03 32 55.5	-0.7
HFS	Hagfors	28.89	323	P	P	03 33 34.0	-0.5
	comp=Z,0.7nm,0.4s,mb3.8,baz=105,slow=11,SNR=7.2						
HFS	Hagfors	28.89	323	P	P	03 33 34.0	-0.5
NOA	NORSAR Array B	30.38	324	P	P	03 33 46.6	-1.1
	comp=Z,1.0nm,0.8s,mb3.6,baz=107,slow=9.3,SNR=3.0						
NOA	NORSAR Array B	30.38	324	P	P	03 33 46.6	-1.0
TORD	Torodi Ar. Bea	49.86	250	P	P	03 36 26.8	-2.6
	comp=Z,0.6nm,1.1s,mb3.5,baz=69,slow=4.9,SNR=4.2						
YKA	Yellowknife Ar	75.83	352	P	P	03 39 20.3	-1.4
	comp=Z,0.1nm,0.6s,mb2.9,baz=14,slow=5.9,SNR=3.6						
YKA	Yellowknife Ar	75.83	352	P	P	03 39 20.3	-1.4

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*ISCJB **27** 03:28:21.0±0.7, 35°.60N±0°.03×39°.75E±0°.04, h17^{km}±6^{km}, Error ellipse: s-maj=6.3km s-min=3.7km az=142.7*

*NSSC **27** 03:28:21, 35°.64N×39°.73E, h11^{km}±2^{km}*

*ISK **27** 03:28:24.7, 36°.14N×40°.07E, h5^{km}, ML3.8*

*CSEM **27** 03:28:27.9±0.3, 36°.16N×40°.08E, h10^{km}, ML3.8, Error ellipse: s-maj=8.3km s-min=5.5km az=151.0*

*DDA **27** 03:28:30.4, 35°.99N×39°.74E, h10^{km}*

ISC 27 03:28:21.3±0.7**, 35°.63N**±0°.03×**39°.72E**±0°.03**, h10^{km}**±4^{km}**, n47, σ0^{s}.98**/64**, 3D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSHR	Al Beshri	0.09	61	⇓P	Pg	03 28 26.0	+2.3
MNKR	ALMNKUR	0.48	311	⇓P	Pg	03 28 31.0	+0.2
MNKR				⇑S	Sg	03 28 38.0	+0.8
SFNV	Sufian	0.85	22	⇑P	Pg	03 28 36.0	-1.8
SFNV				⇑S	Sg	03 28 48.0	-0.9
JHLN	Al Jahlan	1.04	273	⇑P	Pg	03 28 41.0	-0.4
JHLN				⇑S	Sg	03 28 55.0	0.0
KBSD	Kabsdagh	1.53	26	⇑P	Pn	03 28 48.0	-0.7
KBSD				⇑S	Sn	03 29 08.0	-0.6
SLMH	Al Salmeh	1.57	293	⇑P	Pn	03 28 49.0	-0.3
SLMH				⇑S	Sn	03 29 10.0	+0.3
MARD	Mardin	1.89	26	i P	Pn	03 28 53.6	-0.1
MARD				i S	Sn	03 29 18.9	+1.3
URFA	Urfa	1.95	338	ePN	Pn	03 28 55.2	+0.7
URFA				eSN	Sn	03 29 18.8	-0.4
URFA	Urfa	1.95	338	ePn	Pn	03 28 55.3	+0.7
URFA				eSn	Sn	03 29 18.8	-0.4
ATAB	Bozova	2.17	328	i P	Pn	03 28 57.3	-0.3
ATAB				i S	Sn	03 29 23.6	-0.9
DIY	Diyarbakir	2.30	10	ePN	Pn	03 28 58.0	-1.4
DIY	Diyarbakir	2.30	10	ePn	Pn	03 28 58.0	-1.4
DIYA	Diyarbakir	2.32	8	i P	Pn	03 29 02.2	+2.6
DIYA				i S	Sn	03 29 31.1	+3.0
KUZU	Kuzuini	2.43	299	i P	Pn	03 29 05.8	+4.6
KUZU				i S	Sn	03 29 36.7	+5.8
GZT	Gaziantep	2.45	315	i P	Sn	03 29 35.1	+3.7
GAZ	Gaziantep	2.55	308	ePN	Pn	03 29 08.5	+5.7
GAZ	Gaziantep	2.55	308	ePn	Pn	03 29 08.5	+5.7
BEST	Besiri	2.58	28	i P	Pn	03 29 03.6	+0.4
DRWC	Darouich	2.67	293	⇑P	Pn	03 29 03.0	-1.4
DRWC				⇑S	Sn	03 29 37.0	+0.2
BTCH	Batrach	2.68	280	⇑P	Pn	03 29 04.0	-0.6
BTCH				⇑S	Sn	03 29 38.0	+0.8
WRDH	Warideh	2.70	268	⇑P	Pn	03 29 04.0	-0.9
WRDH				⇓S	Sn	03 29 37.0	-0.6
BIDA	Albida	2.85	259	⇑P	Pn	03 29 06.0	-0.9
BIDA				⇑S	Sn	03 29 41.0	-0.2
SLNF	Slenfeh	2.85	270	⇑P	Pn	03 29 07.0	+0.1
SLNF				⇑S	Sn	03 29 41.0	-0.3
MALT	Malatya	2.88	339	ePN	Pn	03 29 08.1	+0.9
MALT	Malatya	2.88	339	ePn	Pn	03 29 08.1	+0.8
COBT	Iskenderun	2.95	289	i P	Pn	03 29 11.9	+3.7
KMRS	Kahramanmaras	2.95	310	ePN	Pn	03 29 13.8	+5.6
KMRS	Kahramanmaras	2.95	310	ePn	Pn	03 29 13.9	+5.7
AKCD	Akcadag	3.03	332	i P	Pn	03 29 09.7	+0.3
ZALF	Zalf	3.34	217	⇑P	Pn	03 29 14.0	+0.3
ZALF				⇑S	Sn	03 29 55.0	+1.5
HWQ	Hawqa	3.38	248	eP	Pn	03 29 15.0	+0.8
CEYT	Ceyhan	3.50	294	ePN	Pn	03 29 23.8	+8.0
CEYT	Ceyhan	3.50	294	ePn	Pn	03 29 23.8	+8.0
CUKT	Cukurca	3.53	62	ePN	Pn	03 29 15.8	-0.4
CUKT	Cukurca	3.53	62	ePn	Pn	03 29 15.8	-0.4
KRTS	Karatas	3.65	286	ePN	Pn	03 29 26.9	+9.1
KRTS	Karatas	3.65	286	ePn	Pn	03 29 27.0	+9.2
HAKT	HAKKARI	3.74	58	i P	Pg	03 29 40.1	+7.1
BHL	Bhannes	3.76	244	eP	Pn	03 29 18.8	-0.7
KEMA	Kemaliye	3.77	345	i P	Pn	03 29 19.7	+0.2
VANB	Van	4.17	44	ePN	Pn	03 29 23.8	-1.2
VANB	Van	4.17	44	ePn	Pn	03 29 23.8	-1.2
ERZM	Erzurum	4.47	16	i P	Pn	03 29 30.6	+1.4
EZM	Erzurum	4.47	16	ePN	Pn	03 29 28.1	-1.1
NIG	Nigde	4.79	303	ePN	Pn	03 29 40.8	+7.2
NIG	Nigde	4.79	303	ePn	Pn	03 29 40.8	+7.2

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*ISCJB **27** 03:36:56.4±1.5, 5°.75N±0°.08×127°.0E±0°.1, h83^{km}±13^{km}, mb3.9/11, Error ellipse: s-maj=22.1km s-min=12.3km az=159.3*

*IDC **27** 03:36:57.5±4.8, 5°.78N×127°.16E, h78^{km}±39^{km}, mb3.6/9, mb1 3.7/10, mb1mx3.5/24, mbtmp3.7/10, ML4.3/1, MS3.2/1, Ms1 3.2/1, ms1mx2.3/37, Error ellipse: s-maj=79.5km s-min=13.3km az=68.0*

*NEIC **27** 03:36:58.5±2.5, 5°.78N×127°.08E, h87^{km}±19^{km}, mb4.0/2, Error ellipse: s-maj=65.6km s-min=8.2km az=69.0*

*MAN **27** 03:37:06, 6°.30N×126°.37E, h7^{km}, mb4.4, ML3.3, MS3.1*

ISC 27 03:36:58.0±1.4**, 5°.69N**±0°.08×**126°.9E**±0°.1**, h79^{km}**±12^{km}**, n18, σ1^{s}.14**/20**, mb3.9**/11**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.41	332	eP	Pn	03 37 19.6	-2.5
MATI				eS	Sn	03 37 32.6	-7.7
DAV	Davao City (W)	1.91	316	P	Pn	03 37 30.2	+1.5
	100nm,0.3s,baz=241,slow=9.7,SNR=4.7						
DAV				S	Sn	03 37 54.7	+2.7
	74nm,0.3s,baz=11,slow=21,SNR=12						
GSPH	General Santos	1.99	281	⇑eP	Pn	03 37 27.7	-2.1
GSPH				i S	Sn	03 37 53.8	-0.2
BUKP	Musuan	2.85	320	eP	Pn	03 37 42.8	+1.5
BUKP				eS	Sn	03 38 07.9	-6.7
GUMO	Guam	19.35	65	LR	LR	03 47 51.7	
	comp=Z,83nm,21.9s,slow=34						
FITZ	Fitzroy Crossi	23.68	183	P	P	03 42 03.6	+1.1
	3.2nm,0.9s,mb3.6,baz=4.8,slow=12,SNR=2.0						
WRAB	Tennant Creek	26.49	164	eP	P	03 42 29.4	+1.3
	2.4nm,0.7s,mb3.7						
WRA	Warramunga Arr	26.50	164	P	P	03 42 28.2	0.0
	0.7nm,0.3s,mb3.5,baz=353,slow=8.4,SNR=5.9						
ASAR	Alice Springs	29.97	167	P	P	03 42 57.9	-1.1
	0.3nm,0.6s,mb3.1,baz=358,slow=9.4,SNR=5.0						
SONM	Songino Array	45.51	341	P	P	03 45 09.1	-0.4
	0.3nm,0.6s,mb3.2,baz=146,slow=2.8,SNR=3.9						
MK31	Makanchi Array	56.07	324	eP	P	03 46 28.8	-0.1
MKAR	Makanchi Array	56.07	324	P	P	03 46 28.9	+0.1
	2.1nm,0.6s,mb4.3,baz=124,slow=8.2,SNR=31						
ZALV	Zalesovo Beam	58.94	332	P	P	03 46 47.9	-1.0
	0.7nm,0.4s,mb4.1,baz=148,slow=8.7,SNR=4.1						
KURK	Kurchatov	60.20	327	P	P	03 46 57.6	-0.1
	3.4nm,0.6s,mb4.6,baz=122,slow=7.4,SNR=37						
BVAR	Borovoye Array	65.79	326	P	P	03 47 34.6	0.0
	0.8nm,0.3s,mb4.0,baz=123,slow=7.8,SNR=8.1						
BRVK	Borovoye	65.86	326	eP	P	03 47 35.0	-0.1
	1.7nm,0.6s,mb4.0						
ARCES	ARCESS Array B	88.68	340	P	P	03 49 42.6	+0.4
	1.6nm,0.8s,mb4.1,baz=88,slow=4.6,SNR=2.5						
TORD	Torodi Ar. Bea	122.46	289	PKP	PKPdf	03 55 45.0	-0.3
	0.2nm,0.7s,baz=81,slow=1.6,SNR=5.5						

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*NEIC **27** 03:49:43.4, 36°.03N×21°.86E, h9^{km}, MD3.5(ATH), After ATH.*

*CSEM **27** 03:49:43.4, 36°.03N×21°.86E, h9^{km}, MD3.5, After ATH*

ATH 27 03:49:43.4, 36°.03N×21°.86E, h9^{km}±4^{km}**, MD3.5**/10**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.87	354	ePG	Pg	03 49 59.2	-0.9
PYL				eSB	Sb	03 50 12.4	0.0
PYL	PYLOS	0.87	354	ePg	Pg	03 49 59.2	-0.9
PYL				eSb	Sb	03 50 12.4	0.0
KYTH	Kithira	0.98	75	ePN	Pn	03 50 02.6	-0.8
KYTH	Kithira	0.98	75	ePn	Pn	03 50 02.6	-0.8
VLI	Veliai	1.11	51	ePG	Pg	03 50 04.0	-0.7
VLI	Veliai	1.11	51	ePg	Pg	03 50 04.0	-0.7
ITM	Ithomi	1.15	3	ePG	Pg	03 50 04.4	-1.1
ITM				eSB	Sb	03 50 21.4	+1.0
ITM	Ithomi	1.15	3	ePg	Pg	03 50 04.4	-1.1
ITM				eSb	Sb	03 50 21.4	+1.0
VLX	Vlachokerasia	1.40	17	ePN	Pn	03 50 08.9	-0.2
VLX	Vlachokerasia	1.40	17	ePn	Pn	03 50 08.9	-0.2
DID	Didima	1.84	36	ePN	Pn	03 50 16.9	+1.7
DID	Didima	1.84	36	ePn	Pn	03 50 16.9	+1.7
GUR	Goura	1.94	11	ePN	Pn	03 50 18.6	+2.1
GUR	Goura	1.94	11	ePn	Pn	03 50 18.6	+2.1
RLS	Riolos of Patr	2.05	351	ePN	Pn	03 50 20.6	+2.6
RLS	Riolos of Patr	2.05	351	ePn	Pn	03 50 20.6	+2.6
LTK	Loutraki	2.18	24	ePN	Pn	03 50 22.6	+2.8
LTK	Loutraki	2.18	24	ePn	Pn	03 50 22.6	+2.8
EFP	Efpalio	2.39	1	ePN	Pn	03 50 25.1	+2.4
EFP	Efpalio	2.39	1	ePn	Pn	03 50 25.1	+2.4
AGG	Agios Georgios	3.01	7	ePB	Pb	03 50 34.5	-2.7
AGG	Agios Georgios	3.01	7	ePb	Pb	03 50 34.5	-2.7

MAN 27 03:51:50, 13°.35N×125°.03E, h25^{km}, mb4.6, ML3.4, MS3.4, 1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVCP	Virac	0.88	287	eP	Pb	03 52 06.8	+0.1
PVCP				eS	Sb	03 52 13.6	-4.4
CNP	Catarman	0.90	203	eP	Pb	03 52 07.1	+0.1

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GQP	Guinayangan	2.57	283	⇓eP	Pn	03 52 31.3	+1.3
GQP				eS	Sn	03 53 02.3	+1.8

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*DJA **27** 04:13:53, 7°.44S×123°.04E, h423^{km}, mb4.4/6*

*ISCJB **27** 04:13:55.6±0.6, 7°.87S±0°.07×123°.08E±0°.07, h298^{km}±9^{km}, mb3.9/5, Error ellipse: s-maj=14.3km s-min=7.0km az=137.7*

*NEIC **27** 04:13:57.1±1.0, 7°.86S×123°.11E, h298^{km}±14^{km}, mb4.3/5, Error ellipse: s-maj=33.2km s-min=9.3km az=55.0*

*IDC **27** 04:13:58.1±2.0, 7°.93S×123°.07E, h305^{km}±34^{km}, mb3.1/2, mb1 3.5/6, mb1mx3.3/19, mbtmp3.3/6, Error ellipse: s-maj=89.9km s-min=11.2km az=63.0*

ISC 27 04:13:57.0±0.6**, 7°.88S**±0°.06×**123°.04E**±0°.07**, h298**^{km}±9^{km}**, n32, σ1^s.15**/40**, mb3.9**/5**, 1C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSI	Waingapu	3.25	237	P	Px	04 15 15.8	
KDI	Kendari	3.92	354	⇑eP	Pn	04 15 02.1	-0.1
KDI	Kendari	3.92	354	P	Pn	04 15 01.8	-0.4
KAPI	Kappang	4.33	311	P	Pn	04 15 07.6	+0.7
	3.5nm,0.3s,baz=157,slow=6.1,SNR=12						
KAPI				S	S	04 16 06.7	+3.8
	baz=212,slow=18,SNR=4.1						
KAPI	Kappang	4.33	311	P	Pn	04 15 07.6	+0.7
KAPI				S	S	04 16 06.7	+3.8
KAPI	Kappang	4.33	311	P	Pn	04 15 07.4	+0.5
BNSI	Bone	4.52	320	P	Pn	04 15 11.5	+2.5
KHKI	Kahang-Kahang	7.38	266	P	Pn	04 15 40.3	-2.7
	50nm,0.9s,0.2nm						
SRBI	Singaraja	7.76	268	P	Pn	04 15 47.3	-0.4
	39nm,0.7s,0.1nm						
SMKI	Samarinda	9.40	321	P	Pn	04 16 00.4	-7.4
	198nm,0.5s						
GMJI	Gumukmas	9.51	267	P	Pn	04 16 07.5	-1.8
	22nm,0.8s						
KNA	Kununurra	9.62	145	eP	Pn	04 16 01.5	-9.0
	6.2nm,0.2s						
KNA				eS	S	04 17 54.2	-5.2
KAKA	Kakadu	10.42	118	eP	Pn	04 16 18.5	-1.8
	16nm,0.3s						
KAKA	Kakadu	10.42	118	ePn	Pn	04 16 17.8	-2.5
	53nm,0.5s						
KAKA				eS	S	04 18 07.5	-10
KAKA	Kakadu	10.42	118	P	Pn	04 16 18.5	-1.8
	51nm,0.9s						
FITZ	Fitzroy Crossi	10.47	166	eP	Pn	04 16 19.9	-1.1
	20nm,0.3s						
FITZ	Fitzroy Crossi	10.47	166	P	Pn	04 16 20.2	-0.8
	2.1nm,0.3s,baz=3.0,slow=11,SNR=34						
FITZ				S	S	04 18 18.6	-0.1
	0.6nm,0.3s,baz=236,slow=9.7,SNR=3.2						
FITZ	Fitzroy Crossi	10.47	166	P	Pn	04 16 21.3	+0.3
PWJI	Pagerwojo	11.13	268	P	Pn	04 16 30.1	+1.0
KKM	Kota Kinabalu	15.41	334	eP	Pn	04 17 21.1	+0.6
	8.0nm,0.4s						
WRA	Warramunga Arr	16.24	139	P	P	04 17 28.0	+0.2
	1.4nm,0.3s,baz=316,slow=12,SNR=21						
WRA				S	S	04 20 23.9	+1.1
	0.4nm,0.3s,baz=314,slow=26,SNR=12						
WRAB	Tennant Creek	16.24	139	eP	P	04 17 27.6	-0.2
	8.4nm,0.9s						
WRAB				eS	S	04 20 23.4	+0.6
WB2	Warramunga Arr	16.25	139	eP	P	04 17 27.9	0.0
WB2				eS	S	04 20 23.6	+0.6
ASAR	Alice Springs	18.84	148	P	P	04 17 57.2	+1.4
	1.3nm,0.3s,baz=328,slow=12,SNR=48						
ASAR				S	S	04 21 12.6	-1.4
	baz=327,slow=22,SNR=7.3						
MEEK	Meekatharra	19.13	192	eP	P	04 18 00.3	+1.5
	15nm,0.3s						
COEN	Coen	20.66	109	eP	P	04 18 13.6	-1.5
FORT	Forrest	23.26	169	eP	P	04 18 38.6	0.0
	8.2nm,0.8s,mb4.1						
STKA	Stephens Creek	29.47	147	P	P	04 19 35.2	+1.1
	0.7nm,0.3s,mb3.5,baz=318,slow=8.0,SNR=4.5						
STKA	Stephens Creek	29.47	147	P	P	04 19 35.2	+1.1
SONM	Songino Array	57.39	347	P	P	04 23 15.4	+0.7
	0.3nm,0.5s,mb3.0,baz=155,slow=6.9,SNR=3.7						
AAK	Ala-Archa	66.92	323	eP	P	04 24 16.9	-0.9
	4.8nm,0.6s,mb4.4						
EKS2	Erkin-Say	67.36	323	eP	P	04 24 19.2	-1.4
	2.8nm,0.5s,mb4.2						

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*ISCJB **27** 04:15:47.5±0.6, 22°.30S±0°.04×70°.41W±0°.06, h43^{km}±5^{km}, mb4.2/9, Error ellipse: s-maj=9.2km s-min=6.0km az=5.1*

*GUC **27** 04:15:47.8±0.8, 22°.39S×70°.38W, h36^{km}±3^{km}, MD4.5, ML4.5*

*NEIC **27** 04:15:47.8, 22°.39S×70°.38W, h36^{km}, mb4.4/5, MD4.5(GUC), After GUC.*

NEIC Felt [III] at Sierra Gorda and [II] at Baquedano.

*IDC **27** 04:15:53.0±2.4, 22°.16S×70°.13W, h65^{km}±20^{km}, mb3.8/6, mb1 3.9/8, mb1mx3.7/17, mbtmp3.8/8, MS3.3/1, Ms1 3.3/1, ms1mx2.9/31, Error ellipse: s-maj=24.9km s-min=22.7km az=65.0*

ISC 27 04:15:48.3±0.7**, 22°.33S**±0°.03×**70°.40W**±0°.05**, h33**^{km}±4^{km}**, n37, σ1^s.12**/43**, mb4.2**/9**, 7D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TOCH	Tocopilla	0.29	39	eP	Pb	04 15 55.7	-0.2
TOCH				iS	Sb	04 16 01.4	+0.3
TOCH				AML	AML	04 16 01.7	
	comp=E,172µm,0.3s						
MACH	Maria Elena	0.61	78	⇓iP	Pb	04 16 00.3	-0.2
MACH				iS	Sb	04 16 09.0	+0.1
PECH	Pedro de Valdi	0.72	112	⇓iP	Pn	04 16 01.7	-0.5
PECH				iS	Sn	04 16 11.4	-0.8
PECH				AML	AML	04 16 12.1	
	comp=N,55µm,0.5s						
PB04	Plate Boundary	0.85	86	iS	Pn	04 15 59.9	-4.1
PB04				AML	AML	04 16 02.7	
	comp=N,60µm,0.6s						
CEN1	Los Morros	1.07	170	⇓iP	Pn	04 16 08.1	+1.0
CEN1				iS	Sn	04 16 23.5	+2.6
ANCH	Antofagasta	1.35	180	⇓eP	Pn	04 16 10.3	-0.6
ANCH				iS	Sn	04 16 27.1	-0.5
ANCH	Antofagasta	1.35	180	⇓eP	Pn	04 16 10.3	-0.6
ANCH				iS	Sn	04 16 27.1	-0.5
ANCH				AML	AML	04 16 29.8	
	comp=E,10µm,0.3s						
LVC	Limon Verde	1.41	102	P	Pn	04 16 12.7	+1.1
LVC				S	Sn	04 16 30.5	+1.5
	comp=E,874nm,0.3s,baz=106,slow=18,SNR=23						
LVC	Limon Verde	1.41	102	⇓eP	Pn	04 16 12.2	+0.6
LVC				iS	Sn	04 16 30.6	+1.6
LVC				AML	AML	04 16 33.8	
	comp=E,6µm,0.6s						
PB01	Plate Boundary	1.53	34	eP	Pn	04 16 14.7	+1.4
PB01				iS	Sn	04 16 35.5	+3.4
PB01				AML	AML	04 16 38.4	
	comp=E,5µm,0.4s						
CPN1	Cerro Paranal	2.29	180	⇓iP	Pn	04 16 22.9	-0.9
ARE	Arequipa	5.92	350	eP	Pn	04 17 14.0	+0.2
ARE				eS	Sn	04 18 18.0	-2.5
LCO	Las Campanas	6.66	182	ePn	Pn	04 17 21.8	-2.1
	comp=E,27nm,0.4s						
CFAA	Coronel Fontan	9.44	169	P	Pn	04 18 02.6	+0.6
	comp=E,0.1nm,0.3s,baz=356,slow=12,SNR=6.1						
CFAA				S	Sn	04 19 56.3	+9.3
	comp=E,0.2nm,0.3s,baz=208,slow=16,SNR=3.3						
SIV	San Ignacio	10.83	56	P	Pn	04 18 21.8	+0.7
	comp=E,3.7nm,0.3s,baz=250,slow=9.8,SNR=82						
SIV				S	Sn	04 20 19.8	-1.5
	comp=E,0.2nm,0.3s,baz=298,slow=22,SNR=2.0						
CPUP	Villa Florida	12.56	111	P	Pn	04 18 43.9	-0.9
	comp=E,0.2nm,0.3s,baz=280,slow=7.2,SNR=3.8						
CPUP				LR	LR	04 24 10.1	
	comp=E,138nm,19.4s,baz=120,slow=40						
PLCA	Paso Flores	18.35	180	P	Pn	04 20 06.2	+6.1
	comp=E,0.1nm,0.3s,baz=356,slow=10.0,SNR=4.7						
PLCA	Paso Flores	18.35	180	eP	Pn	04 19 58.7	-1.5
	comp=E,3.6nm,1.0s						
WVT	Waverly	60.43	344	eP	P	04 25 53.8	-0.8
	comp=E,4.2nm,0.9s,mb4.5						
TXAR	Lajitas Array	60.53	327	P	P	04 25 57.0	+1.6
	comp=E,0.3nm,0.8s,mb3.5,baz=145,slow=4.6,SNR=3.6						
WCI	Wyandotte Cave	62.05	346	eP	P	04 26 05.0	-0.5
	comp=E,5.0nm,0.8s,mb4.7						
SDCO	Great Sand Dun	68.27	331	eP	P	04 26 47.6	+1.7
	comp=E,3.3nm,1.2s,mb4.2						
DBIC	Dimbokro	70.29	74	P	P	04 26 58.1	-0.9
	comp=E,2.2nm,0.7s,mb4.2,baz=209,slow=6.9,SNR=6.5						
DBIC	Dimbokro	70.29	74	eP	P	04 26 57.9	-1.1
	comp=E,2.0nm,0.6s,mb4.2						
NVAR	Mina Array Bea	75.30	323	P	P	04 27 29.9	+1.8
	comp=E,0.4nm,0.7s,mb3.5,baz=145,slow=5.4,SNR=4.1						
TOA0	Torodi Ar. Sit	78.93	71	eP	P	04 27 48.2	-0.9
TORD	Torodi Ar. Bea	78.93	71	P	P	04 27 48.5	-0.5
	comp=E,3.5nm,0.7s,mb4.4,baz=253,slow=5.2,SNR=81						
FCC	Fort Churchill	83.13	348	eP	P	04 28 10.4	0.0
BOSA	Boshof	84.28	118	P	P	04 28 17.5	+0.3
	comp=E,2.7nm,0.6s,mb4.6,baz=219,slow=3.1,SNR=4.5						
YKA	Yellowknife Ar	91.51	341	P	P	04 28 51.2	+0.3
	comp=E,0.5nm,0.6s,mb4.0,baz=138,slow=4.3,SNR=14						
YKA	Yellowknife Ar	91.51	341	P	P	04 28 51.2	+0.3
ASAR	Alice Springs	128.54	209	PKP	PKPdf	04 34 52.8	+0.2
	comp=E,0.1nm,0.3s,baz=149,slow=2.9,SNR=4.6						
WRA	Warramunga Arr	131.54	212	PKP	PKPdf	04 34 58.6	+0.2
	comp=E,0.3nm,0.3s,baz=143,slow=1.7,SNR=10						
ZALV	Zalesovo Beam	143.28	24	PKP	PKPdf	04 35 19.3	+0.4
	comp=E,0.9nm,0.4s,baz=316,slow=4.1,SNR=4.9						
AAK	Ala-Archa	144.48	47	ePKPdf	PKPdf	04 35 21.5	+0.2
MKAR	Makanchi Array	147.11	35	PKPbc	PKPbc	04 35 26.8	-1.0
	comp=E,2.6nm,0.8s,baz=11,slow=1.4,SNR=29						
SONM	Songino Array	154.42	5	PKP	PKPdf	04 35 38.2	+1.2
	comp=E,0.5nm,0.8s,baz=322,slow=3.2,SNR=3.7						
SONM				PKPbc	PKPbc	04 35 45.9	+0.6
	comp=E,0.5nm,0.8s,baz=351,slow=2.6,SNR=4.1						

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*NSSC **27** 04:19:48, 35°.61N×39°.75E, h11^{km}±1^{km}*

*DDA **27** 04:19:48.9, 35°.86N×39°.63E, h2^{km}±3^{km}, Md3.5*

*ISCJB **27** 04:19:49.2±0.8, 35°.61N±0°.04×39°.73E±0°.04, h16^{km}±6^{km}, Error ellipse: s-maj=8.7km s-min=4.0km az=144.3*

*ISK **27** 04:19:50.5, 35°.91N×39°.79E, h5^{km}, ML3.8*

*CSEM **27** 04:19:53.7±0.4, 35°.93N×39°.78E, h10^{km}, ML3.8, Error ellipse: s-maj=11.6km s-min=5.0km az=105.0*

ISC 27 04:19:49.7±0.8**, 35°.64N**±0°.04×**39°.70E**±0°.04**, h10**^{km}±4^{km}**, n53, σ1^s.08**/68**, 3D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BSHR	Al Beshri	0.10	72	⇓P	Pg	04 19 54.0	+1.8
MNKR	ALMNKUR	0.47	311	⇑P	Pg	04 19 58.0	-0.8
MNKR				⇑S	Sg	04 20 06.0	+1.1
SFNV	Sufian	0.84	23	⇑P	Pg	04 20 04.0	-2.0
SFNV				⇑S	Sg	04 20 16.0	-1.0
JHLN	Al Jahlan	1.03	272	⇑P	Pg	04 20 08.0	-1.5
JHLN				⇑S	Sg	04 20 23.0	+0.1
KBSD	Kabsdagh	1.52	26	⇑P	Pn	04 20 15.0	-2.0
KBSD				⇑S	Sn	04 20 36.0	-0.8
SLMH	Al Salmeh	1.55	292	⇑P	Pn	04 20 16.0	-1.4
SLMH				⇓S	Sn	04 20 37.0	-0.6
MARD	Mardin	1.88	27	iP	Pn	04 20 21.2	-0.8
MARD				iS	Sn	04 20 46.2	+0.4
URFA	Urfa	1.93	339	ePN	Pn	04 20 22.6	-0.1
URFA				eSN	Sn	04 20 46.8	-0.3
URFA	Urfa	1.93	339	ePn	Pn	04 20 22.6	-0.1
ATAB	Bozova	2.15	329	iP	Pn	04 20 25.4	-0.3
ATAB				iS	Sn	04 20 53.0	+0.6
ATAB	Bozova	2.15	329	iP	Pn	04 20 25.4	-0.3
ATAB				iS	Sn	04 20 53.0	+0.6
DIY	Diyarbakir	2.29	10	ePN	Pn	04 20 27.0	-0.6
DIY	Diyarbakir	2.29	10	ePn	Pn	04 20 27.0	-0.6
DIYA	Diyarbakir	2.31	8	iP	Pn	04 20 29.0	+1.2
DIYA				iS	Sn	04 20 56.6	+0.4
DIYA	Diyarbakir	2.31	8	iP	Pn	04 20 29.0	+1.2
DIYA				iS	Sn	04 20 56.6	+0.4
KUZU	Kuzuini	2.41	299	iP	Pn	04 20 33.7	+4.5
KUZU	Kuzuini	2.41	299	iP	Pn	04 20 33.7	+4.5
GAZ	Gaziantep	2.53	308	ePN	Pn	04 20 32.8	+2.0
GAZ	Gaziantep	2.53	308	ePn	Pn	04 20 32.8	+2.0
BEST	Besiri	2.58	29	iP	Pn	04 20 31.6	+0.1
WRDH	Warideh	2.69	268	⇑P	Pn	04 20 32.0	-1.0
WRDH				⇑S	Sn	04 21 05.0	-0.6
BIDA	Albida	2.83	258	⇑P	Pn	04 20 34.0	-1.1
BIDA				⇑S	Sn	04 21 09.0	-0.3
SLNF	Slenfeh	2.84	270	⇑P	Pn	04 20 34.0	-1.1
SLNF				⇓S	Sn	04 21 09.0	-0.3
MALT	Malatya	2.86	339	ePN	Pn	04 20 35.7	+0.3
MALT	Malatya	2.86	339	ePn	Pn	04 20 35.7	+0.3
MYA	Malataya	2.87	339	ePN	Pn	04 20 35.5	0.0
MYA	Malataya	2.87	339	ePn	Pn	04 20 35.5	-0.1
ELZG	Elazig	2.91	349	iP	Pn	04 20 37.3	+1.2
ELZG	Elazig	2.91	349	iP	Pn	04 20 37.3	+1.2
COBT	Iskenderun	2.93	288	iP	Pn	04 20 40.9	+4.6
COBT	Iskenderun	2.93	288	iP	Pn	04 20 40.9	+4.5
AKCD	Akcadag	3.01	332	iP	Pn	04 20 37.4	-0.1
AKCD				iS	Sn	04 21 21.8	+8.2
AKCD	Akcadag	3.01	332	iP	Pn	04 20 37.3	-0.2
FKH	Fakeheh	3.05	244	ePn	Pn	04 20 38.0	-0.1
HWQ	Hawqa	3.37	247	ePn	Pn	04 20 43.1	+0.7
CEYT	Ceyhan	3.48	294	ePN	Pn	04 20 47.5	+3.7
CEYT	Ceyhan	3.48	294	ePn	Pn	04 20 47.5	+3.6
KOZT	Kozan	3.62	302	ePN	Pn	04 20 48.1	+2.2
KRTS	Karatas	3.63	286	ePN	Pn	04 20 50.5	+4.5
KRTS	Karatas	3.63	286	ePn	Pn	04 20 50.5	+4.5
HAKT	HAKKARI	3.75	58	iP	Pg	04 21 07.5	+6.0
KEMA	Kemaliye	3.75	345	iP	Pn	04 20 47.7	0.0
KEMA	Kemaliye	3.75	345	iP	Pn	04 20 47.7	+0.1
BHL	Bhannes	3.76	244	ePn	Pn	04 20 49.5	+1.7
PINB	Pinarbasi	4.02	320	iP	Pn	04 20 48.2	-3.2
EZC	Erzincan	4.10	1	ePN	Pn	04 20 52.9	+0.4
BNN	Bunyan	4.45	317	ePN	Pn	04 20 59.4	+2.2
BNN	Bunyan	4.45	317	ePn	Pn	04 20 59.4	+2.2
EZM	Erzurum	4.46	17	ePN	Pn	04 20 57.9	+0.5
ERZM	Erzurum	4.46	17	iP	Pn	04 20 57.1	-0.3
ERZM	Erzurum	4.46	17	iP	Pn	04 20 57.1	-0.3
SVSK	Karacayir	4.78	334	ePN	Pn	04 21 03.0	+1.2
SVSK	Karacayir	4.78	334	ePn	Pn	04 21 03.0	+1.2

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*NNC **27** 04:22:07.2±4.2, 42°.42N×80°.98E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=43.0km s-min=15.3km az=141.0*

*BJI **27** 04:22:07.4, 42°.32N×80°.71E, h7^{km}, ML2.9/7*

*ISCJB **27** 04:22:08.3±2.1, 42°.4N±0°.1×80°.4E±0°.2, h10^{km}, Error ellipse: s-maj=30.4km s-min=8.6km az=38.2*

ISC 27 04:22:11.6±1.9**, 42°.5N**±0°.1×**80°.3E**±0°.2**, h10**^{km}**, n5, σ1^s.17**/8**, 9C-1D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TKM2	Tokmak 2	3.50	279	⇑Pg	Pg	04 23 19.1	+0.4
	12nm,0.9s						
TKM2				⇑Lg		04 24 13.2	
	14nm,0.4s						
KSH	Kashi	4.40	230	ePn	Pg	04 23 36.5	+0.7
KSH				Sn	Sg	04 24 45.8	+13
KSH				smax			
	comp=N,14nm,0.6s						
KSH				smax			
	comp=E,14nm,0.6s						
MK31	Makanchi Array	4.57	17	⇑Pn	Pn	04 23 18.5	-2.1
	comp=E,0.4nm,0.3s,baz=194,slow=13,SNR=26						
MK31				⇑Pg	Pg	04 23 33.8	-5.2
	comp=E,1.2nm,0.5s,baz=189,slow=16,SNR=6.4						
MK31				⇑Sn	Sn	04 24 14.9	+1.1
	comp=E,1.3nm,0.3s,baz=183,slow=27,SNR=3.3						
MK31				⇑Lg		04 24 28.8	
	comp=E,7.1nm,0.6s,baz=193,slow=32,SNR=5.4						
KK31	Karatay Array	7.24	278	⇓Pg	Pg	04 24 28.9	-1.1
	comp=E,0.6nm,0.5s						
KK31				⇑Lg		04 26 15.4	
	comp=E,2.1nm,0.6s,baz=93,slow=27,SNR=4.8						
KURK	Kurchatov	8.35	353	⇑Pn	Pn	04 24 13.5	+1.0
	comp=E,4.9nm,1.9s						
KURK				⇑Lg		04 26 39.0	
	comp=E,11nm,1.1s						

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*ISCJB **27** 04:44:34.1±1.1, 36°.25N±0°.05×21°.67E±0°.07, h20^{km}±8^{km}, Error ellipse: s-maj=10.8km s-min=6.8km az=136.5*

*CSEM **27** 04:44:34.9±0.5, 36°.23N×21°.67E, h24^{km}±3^{km}, MD3.6, Error ellipse: s-maj=9.4km s-min=5.3km az=49.0*

*NEIC **27** 04:44:35.8, 36°.34N×21°.75E, h36^{km}, MD3.6(ATH), After ATH.*

*ATH **27** 04:44:35.8, 36°.34N×21°.75E, h36^{km}±2^{km}, MD3.6/11*

*THE **27** 04:44:35.0, 36°.25N×21°.71E, h19^{km}±2^{km}, ML3.3/2, Error ellipse: s-maj=2.6km s-min=1.3km az=235.0*

ISC 27 04:44:34.1±1.2**, 36°.24N**±0°.05×**21°.70E**±0°.07**, h15**^{km}±6^{km}**, n35, σ0^s.84**/59**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.66	3	P	Pg	04 44 46.8	-0.1
PYL				S	Sg	04 44 57.3	+1.7
PYL	PYLOS	0.66	3	ePN	Pn	04 44 47.0	-1.8
PYL				eSN	Sg	04 44 56.4	+0.8
PYL	PYLOS	0.66	3	ePn	Pn	04 44 47.0	-1.8
PYL				eSn	Sg	04 44 56.4	+0.8
PYL				S	Sg	04 44 57.3	+1.7
ITM	Ithomi	0.95	11	ePN	Pn	04 44 51.9	-1.0
ITM				eSN	Sn	04 45 05.0	-1.2
ITM	Ithomi	0.95	11	ePn	Pn	04 44 51.9	-1.0
ITM				eSn	Sn	04 45 05.0	-1.2
KYTH	Kithira	1.08	87	ePN	Pn	04 44 55.8	+1.2
KYTH	Kithira	1.08	87	ePn	Pn	04 44 55.8	+1.2
VLI	Veliai	1.10	64	ePN	Pn	04 44 55.6	+0.7
VLI				eSN	Sn	04 45 09.5	-0.4
VLI	Veliai	1.10	64	ePn	Pn	04 44 55.6	+0.7
VLI				eSn	Sn	04 45 09.5	-0.4
VLX	Vlachokerasia	1.25	26	ePN	Pn	04 44 57.4	+0.4
VLX				eSN	Sn	04 45 13.1	-0.4
VLX	Vlachokerasia	1.25	26	ePn	Pn	04 44 57.4	+0.4
VLX				eSn	Sn	04 45 13.1	-0.4
DID	Didima	1.77	44	P	Pn	04 45 03.9	-0.1
DID				S	Sn	04 45 26.3	+0.1
DID	Didima	1.77	44	ePN	Pn	04 45 03.8	-0.2
DID	Didima	1.77	44	ePn	Pn	04 45 03.8	-0.2
DID				S	Sn	04 45 26.3	+0.1
GUR	Goura	1.77	17	ePB	Pb	04 45 04.6	-1.6
RLS	Riolos of Patr	1.82	354	ePN	Pn	04 45 05.5	+0.7
RLS	Riolos of Patr	1.82	354	ePn	Pn	04 45 05.5	+0.7
KARN	Karanos	1.99	114	P	Pn	04 45 07.2	+0.2
KARN	Karanos	1.99	114	P	Pn	04 45 07.2	+0.2
LAKA	Lakka	2.01	6	P	Pn	04 45 07.9	+0.5
LAKA				S	Sn	04 45 32.8	+0.6
LAKA	Lakka	2.01	6	P	Pn	04 45 07.9	+0.5
LAKA				S	Sn	04 45 32.8	+0.6
LTK	Loutraki	2.05	29	P	Pn	04 45 07.5	-0.4
LTK				S	Sn	04 45 33.1	0.0
LTK	Loutraki	2.05	29	ePN	Pn	04 45 07.8	-0.1
LTK	Loutraki	2.05	29	ePn	Pn	04 45 07.8	-0.1
LTK				S	Sn	04 45 33.1	0.0
VLS	Valsamata	2.13	336	P	Pn	04 45 08.4	-0.6
VLS				S	Sn	04 45 35.3	+0.2
VLS	Valsamata	2.13	336	ePN	Pn	04 45 08.4	-0.6
VLS	Valsamata	2.13	336	ePn	Pn	04 45 08.4	-0.6
VLS				S	Sn	04 45 35.3	+0.2
EFP	Efpalio	2.19	4	ePB	Pb	04 45 11.1	-2.2
LKD	Levkas	2.60	342	P	Pn	04 45 15.8	+0.3
LKD				S	Sn	04 45 47.6	+0.8
LKD	Levkas	2.60	342	P	Pn	04 45 15.8	+0.3
LKD				S	Sn	04 45 47.6	+0.8
AGG	Agios Georgios	2.82	10	P	Pn	04 45 19.2	+0.6
AGG				S	Sn	04 45 53.2	+0.9
AGG	Agios Georgios	2.82	10	ePN	Pn	04 45 19.5	+0.9
AGG	Agios Georgios	2.82	10	ePn	Pn	04 45 19.5	+0.9
AGG				S	Sn	04 45 53.2	+0.9
THL	Klokotos Trika	3.33	4	P	Pn	04 45 25.8	+0.3
THL				S	Sn	04 46 04.9	+0.2
THL	Klokotos Trika	3.33	4	P	Pn	04 45 25.8	+0.3
THL				S	Sn	04 46 04.9	+0.2

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*NEIC **27** 04:50:53.6, 17°.39N×94°.83W, h150^{km}, MD4.0(MEX), After MEX.*

MEX 27 04:50:54.1±0.4**, 17°.38N**×**94°.84W, h145**^{km}±4^{km}**, MD4.0, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.29	189	eP	Pn	04 51 12.5	-1.5
CMIG				iS	Sn	04 51 27.2	-2.0
TGIG		1.75	110	eP	Pn	04 51 24.9	-1.1
TGIG				eS	Sn	04 51 48.6	-1.8
VHO	Vista Hermosa	1.84	261	iP	Pn	04 51 26.3	-0.7
VHO				iS	Sn	04 51 51.2	-1.1
VHO	Vista Hermosa	1.84	261	iP	Pn	04 51 26.3	-0.7
VHO				iS	Sn	04 51 52.2	-0.1
HUIG	Huatulco	2.01	217	eP	Pn	04 51 27.6	-1.5
HUIG				iS	Sn	04 51 54.8	-1.1
HUIG	Huatulco	2.01	217	eP	Pn	04 51 27.6	-1.5
HUIG				iS	Sn	04 51 55.8	-0.1
PCIG		2.28	137	eP	Pn	04 51 30.9	-1.3
PCIG				eS	Sn	04 51 58.7	-2.9
TPIG	Tehuac#an	2.62	294	iP	Pn	04 51 35.8	-0.6
TPIG				iS	Sn	04 52 05.8	-3.3
CCIG	Comitan	2.81	112	eP	Pn	04 51 38.4	-0.4
CCIG				iS	Sn	04 52 11.8	-1.6
PNIG	Pinotepa	3.30	253	iP	Pn	04 51 42.6	-2.5
PNIG				iS	Sn	04 52 22.2	-2.3
PPM	Popocatepetl	3.97	296	iP	Pn	04 51 54.2	+0.4
PPM				iS	Sn	04 52 39.3	-1.0
MEIG	Mezcala	4.59	278	iP	Pn	04 52 01.4	-0.7
MEIG				iS	Sn	04 52 53.1	-1.7

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*NEIC **27** 04:53:54.6, 16°.02N×94°.97W, h20^{km}, MD3.8(MEX), After MEX.*

MEX 27 04:53:54.3±1.0**, 16°.01N**×**94°.98W, h20**^{km}±27^{km}**, MD3.8, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	1.08	5	eP	Pn	04 54 10.3	-4.0
CMIG				iS	Sb	04 54 25.1	-2.9
HUIG	Huatulco	1.11	258	iP	Pn	04 54 12.0	-2.8
HUIG				iS	Sb	04 54 26.0	-3.0
PCIG		1.72	100	eP	Pn	04 54 19.7	-3.4
PCIG				iP		04 54 20.6	
PCIG				iS	Sn	04 54 40.6	-3.9
TGIG		1.94	66	eP	Pn	04 54 23.9	-2.2
TGIG				iS	Sn	04 54 46.5	-3.4
VHO	Vista Hermosa	1.99	302	eP	Pn	04 54 23.3	-3.5
VHO				iS	Sn	04 54 48.7	-2.4
CCIG	Comitan	2.74	84	iP	Pn	04 54 35.6	-1.6
CCIG				iS	Sn	04 55 07.6	-2.1
PNIG	Pinotepa	3.05	278	iP	Pn	04 54 39.2	-2.2
PNIG				iS	Sn	04 55 13.5	-3.9
PNIG	Pinotepa	3.05	278	iP	Pn	04 54 39.2	-2.2
PNIG				iS	Sn	04 55 12.1	-5.3
UTMO	Huajuapan	3.25	304	iP	Pn	04 54 42.9	-1.3
UTMO				iS	Sn	04 55 19.9	-2.5

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*ISCJB **27** 04:54:25.9±0.4, 34°.65S±0°.04×178°.98W±0°.06, h41^{km}, mb5.1/45, MS4.9/25, Error ellipse: s-maj=8.1km s-min=4.0km az=26.2*

*NEIC **27** 04:54:27.7±0.9, 34°.63S×178°.97W, h44^{km}±8^{km}, mb5.1/23, Error ellipse: s-maj=9.2km s-min=8.4km az=167.0*

*MOS **27** 04:54:27.2±1.6, 34°.14S×179°.22W, h33^{km}, mb5.3/16, Error ellipse: s-maj=13.0km s-min=12.1km az=88.3*

*IDC **27** 04:54:27.8±2.0, 34°.33S×179°.22W, h33^{km}±14^{km}, mb4.7/19, mb1 4.8/21, mb1mx4.8/26, mbtmp4.8/21, ML5.2/2, MS4.9/16, Ms1 4.9/16, ms1mx4.8/22, Error ellipse: s-maj=15.1km s-min=11.8km az=172.0*

*GCMT **27** 04:54:27.7±0.1, 34°.47S×178°.56W, h17^{km}, MW5.5/94, Moment Tensor Solution. s74,c117; s94,c177; Duration: 1^s.3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.14±.03; M$_{\theta\theta}$-0.07±.02; M$_{\phi\phi}$-1.08±.02; M$_{r\theta}$0.18±.05; M$_{\theta\phi}$-0.30±.01; M$_{\phi r}$1.66±.08; Best double couple: M$_0$2.02900×10^{17} NP1:ϕ_s203.00000°, δ18.00000°, λ104.00000°. NP2:ϕ_s8.00000°, δ73.00000°, λ85.00000°. Principal axes: T 2.0270, Plg62.0000°, Azm271.0000°; N -0.0010, Plg4.0000°, Azm9.0000°; P -2.0310, Plg28.0000°, Azm102.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **27** 04:54:27.1, 34°.44S×179°.16W, h37^{km}, mB5.7/15, mb5.4/13, Ms5.4/14, Ms7 4.9/14*

ISC 27 04:54:27.8±0.3**, 34°.64S**±0°.03×**178°.97W**±0°.06**, h43**^{km}**, h43**^{km}±1.8^{km}**:pP-P, n299, σ1^s.39**/142**, mb5.1**/45**, MS4.9**/25**, 5C-4D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.66	216	P	Pn	04 55 22.7	+0.9
MXZ				S	Sn	04 56 07.1	+3.4

PUZ	**Puketiti**	**4.09**	**212**	P	**Pn**	**04 55 27.4**	**-0.4**
PUZ				S	**Sn**	**04 56 16.6**	**+2.2**
MWZ	**Matawai**	**4.64**	**216**	P	**Pn**	**04 55 35.9**	**+0.6**
MWZ				S	**Sn**	**04 56 30.2**	**+2.2**
URZ	**Urewera**	**4.80**	**220**	Pn	**Pn**	**04 55 37.3**	**-0.1**
	122nm,0.3s,baz=26,slow=4.7,SNR=181						
URZ				Sn	**Sn**	**04 56 35.4**	**+3.6**
	73nm,0.3s,baz=153,slow=18,SNR=6.8						
URZ	**Urewera**	**4.80**	**220**	P	**Pn**	**04 55 38.0**	**+0.5**
KUZ	**Kuaotunu**	**4.81**	**243**	P	**Pn**	**04 55 39.8**	**+2.2**
KNZ	**Kokohu**	**5.14**	**211**	P	**Pn**	**04 55 40.9**	**-1.2**
MKAZ	**Moumakai**	**5.36**	**241**	P	**Pn**	**04 55 47.7**	**+2.5**
RAO	**Raoul Island**	**5.45**	**10**	Pn	**Pn**	**04 55 42.4**	**-4.0**
	55nm,0.3s,baz=311,slow=23,SNR=3.3						
RAO				Sn	Sx	04 56 37.1	
	186nm,0.3s,baz=86,slow=22,SNR=5.1						
WCZ	**Waipu Caves**	**5.62**	**255**	P	**Pn**	**04 55 51.2**	**+2.4**
BKZ	**Black Stump Fm**	**5.80**	**218**	P	**Pn**	**04 55 51.4**	**+0.2**
RATZ	**Rangitukua**	**5.97**	**223**	*e*P	**Pn**	**04 55 53.9**	**+0.4**
RITZ	**Rihia Road**	**6.00**	**222**	P	**Pn**	**04 55 54.9**	**+1.0**
KATZ	**Kakaramea**	**6.09**	**223**	P	**Pn**	**04 55 56.1**	**+1.0**
OUZ	**Omahuta**	**6.14**	**262**	*e*Pn	**Pn**	**04 55 57.9**	**+2.1**
	188nm,0.8s						
WTVZ	**West Tongariro**	**6.24**	**223**	P	**Pn**	**04 55 57.7**	**+0.4**
NGZ	**Ngauruhoe**	**6.28**	**222**	P	**Pn**	**04 55 58.2**	**+0.4**
HIZ	**Hauiti**	**6.30**	**230**	P	**Pn**	**04 55 59.5**	**+1.5**
TWVZ	**Taurewa**	**6.30**	**224**	P	**Pn**	**04 55 58.5**	**+0.5**
TUVZ	**Tukino**	**6.32**	**221**	P	**Pn**	**04 55 58.5**	**+0.2**
MOVZ	**Moawhango**	**6.36**	**220**	P	**Pn**	**04 55 58.0**	**-0.9**
WNVZ	**Wahianoa**	**6.39**	**221**	P	**Pn**	**04 55 59.3**	**0.0**
TSZ	**Takapari Road**	**6.75**	**215**	P	**Pn**	**04 56 03.1**	**-1.1**
BFZ	**Birch Farm**	**7.12**	**211**	P	**Pn**	**04 56 07.1**	**-2.3**
MRZ	**Mangatainoka R**	**7.41**	**214**	P	**Pn**	**04 56 10.6**	**-2.6**
MTW	**Mount Morrison**	**7.84**	**212**	P	**Pn**	**04 56 17.1**	**-2.0**
KIW	**Kapiti Island**	**7.88**	**216**	P	**Pn**	**04 56 16.7**	**-3.0**
PAWZ	**Paruwai Farm**	**8.05**	**212**	P	**Pn**	**04 56 18.7**	**-3.4**
SNZO	**South Karori**	**8.32**	**215**	*e*Pn	**Pn**	**04 56 26.0**	**+0.2**
SNZO				*e*Sn	Sx	04 57 54.4	
TCW	**Tory Channel**	**8.46**	**217**	P	**Pn**	**04 56 24.8**	**-2.8**
NNZ	**Nelson**	**8.92**	**220**	P	**Pn**	**04 56 31.3**	**-2.7**
BSWZ	**Blackbirch Sta**	**9.03**	**216**	P	**Pn**	**04 56 32.6**	**-2.9**
QRZ	**Quartz Range**	**9.13**	**225**	P	**Pn**	**04 56 33.9**	**-3.0**
KHZ	**Kahutara**	**9.73**	**215**	*e*Pn	**Pn**	**04 56 44.2**	**-0.8**
	118nm,1.2s						
KHZ				*e*Sn	Sx	04 58 27.4	
LTZ	**Lake Taylor**	**10.62**	**217**	P	**Pn**	**04 56 55.3**	**-2.0**
MQZ	**McQueen's Vall**	**11.14**	**213**	P	**Pn**	**04 56 59.6**	**-4.8**
RPZ	**Rata Peaks**	**11.91**	**217**	Pn	**Pn**	**04 57 11.2**	**-3.7**
	2.2nm,0.3s,baz=34,slow=2.7,SNR=10						
RPZ				Sn	Sx	04 59 17.0	
	11nm,0.3s,baz=354,slow=21,SNR=7.2						
RPZ	**Rata Peaks**	**11.91**	**217**	P	**Pn**	**04 57 11.8**	**-3.1**
ODZ	**Otahua Downs**	**13.09**	**214**	*e*Pn	**Pn**	**04 57 30.0**	**-0.9**
	61nm,1.0s						
ODZ				*e*Sn	Sx	04 59 47.2	
DZM	**Mont Dzumac**	**17.91**	**311**	*e*P	**Pn**	**04 58 35.1**	**+1.5**
	201nm,1.3s						
DZM				*e*LR	LR	05 02 56.4	
	11µm,25.5s						
DZM	**Mont Dzumac**	**17.91**	**311**	*e*P	**Pn**	**04 58 35.0**	**+1.3**
	114nm,1.2s						
NOUC	**Port Laguerre**	**17.97**	**310**	*e*P	**Pn**	**04 58 35.4**	**+1.0**
RAR	**Rarotonga**	**21.55**	**57**	P	**P**	**04 59 14.7**	**+1.2**
	40nm,1.1s,mb4.8,baz=243,slow=7.3,SNR=3.5						
RAR				LR	LR	05 05 13.9	
	comp=Z,871nm,21.3s,MS4.1,baz=234,slow=30						
RAR	**Rarotonga**	**21.55**	**57**	*e*P	**P**	**04 59 14.0**	**+0.5**
	62nm,1.1s,mb5.0						
AFI	**Afiamalu**	**21.64**	**19**	*e*P	**P**	**04 59 12.2**	**-2.3**
AFI				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.3						
AFI	**Afiamalu**	**21.64**	**19**	P	**P**	**04 59 12.1**	**-2.3**
	comp=Z,45nm,0.9s,mb4.9,baz=232,slow=14,SNR=5.0						
AFI	**Afiamalu**	**21.64**	**19**	*e*P	**P**	**04 59 12.2**	**-2.3**
	comp=Z,110nm,0.9s,mb5.3						
ARMA	**Armidale**	**25.10**	**271**	*e*P	**P**	**04 59 51.8**	**+3.3**
ARMA	**Armidale**	**25.10**	**271**	*e*P	**P**	**04 59 51.7**	**+3.2**
	comp=Z,78nm,1.3s,mb5.1						
CAN	**Canberra**	**26.20**	**259**	*e*P	**P**	**04 59 59.8**	**+1.4**
CAN				pmax	pmax		
	comp=Z,26nm,1.2s,mb4.6						
CAN	**Canberra**	**26.20**	**259**	*e*P	**P**	**04 59 59.8**	**+1.4**
	comp=Z,26nm,1.2s,mb4.6						
EIDS	**Eidsvold**	**27.45**	**282**	*e*P	**P**	**05 00 11.1**	**+1.4**
	comp=Z,45nm,1.3s,mb4.8						
EIDS				*e*pP	pP	05 00 22.4	+1.3
PPT	**Papeete**	**31.23**	**65**	LR	LR	05 11 27.1	
	comp=Z,2µm,19.2s,MS4.7,baz=241,slow=33						
HNR	**Honiara**	**31.66**	**317**	P	**P**	**05 00 44.4**	**-2.7**
	comp=Z,52nm,0.6s,mb5.5,baz=169,slow=8.3,SNR=5.7						
HNR				LR	LR	05 11 29.0	
	comp=Z,914nm,19.1s,MS4.5,baz=41,slow=33						
HNR	**Honiara**	**31.66**	**317**	*e*P	**P**	**05 00 45.4**	**-1.7**
	comp=Z,106nm,1.0s,mb5.6						
STKA	**Stephens Creek**	**32.95**	**264**	*e*P	**P**	**05 00 59.5**	**+1.2**
	comp=Z,14nm,1.1s,mb4.8						
STKA				*e*		05 03 42.2	
STKA				*e*S	**S**	**05 06 15.9**	**+2.4**
STKA	**Stephens Creek**	**32.95**	**264**	P	**P**	**05 00 59.3**	**+1.0**
	comp=Z,21nm,1.1s,mb5.0,baz=99,slow=8.9,SNR=18						
STKA				PcP	PcP	05 03 42.4	+0.7
	comp=Z,6.7nm,1.0s,baz=38,slow=3.0,SNR=3.0						
STKA				ScP	ScP	05 07 25.4	+3.0
	comp=Z,7.5nm,1.0s,baz=310,slow=3.8,SNR=5.4						
STKA				LR	LR	05 13 58.8	
	comp=Z,5µm,18.4s,MS5.3,baz=100,slow=36						
STKA	**Stephens Creek**	**32.95**	**264**	P	**P**	**05 00 59.3**	**+1.0**
STKA				PcP	PcP	05 03 42.4	+0.7
STKA				ScP	ScP	05 07 25.4	+3.0
STKA				LR	LR	05 13 58.8	
CTA	**Charters Tower**	**33.93**	**286**	*e*P	**P**	**05 01 07.9**	**+1.0**
	comp=Z,24nm,0.7s,mb5.2						
CTA				*e*PP	PP	05 02 30.8	+6.6
CTA				*e*S	**S**	**05 06 31.0**	**+2.2**
CTA	**Charters Tower**	**33.93**	**286**	P	**P**	**05 01 07.1**	**+0.2**
	comp=Z,26nm,0.6s,mb5.3,baz=109,slow=10,SNR=18						
CTA				LR	LR	05 14 17.8	
	comp=Z,2µm,18.2s,MS4.9,baz=94,slow=35						
CTA	**Charters Tower**	**33.93**	**286**	P	**P**	**05 01 07.1**	**+0.2**
CTA				LR	LR	05 14 17.8	
CTAO	**Charters Tower**	**33.93**	**286**	*e*P	**P**	**05 01 08.1**	**+1.2**
CTAO				*e**PP	pP	05 01 19.8	+1.3
CTAO				pmax	pmax		
	comp=Z,164nm,1.4s,mb5.8						
CTAO	**Charters Tower**	**33.93**	**286**	*e*P	**P**	**05 01 08.1**	**+1.2**
	comp=Z,164nm,1.4s,mb5.8						
CTAO				*e*pP	pP	05 01 19.8	+1.3
COEN	**Coen**	**39.86**	**292**	*e*P	**P**	**05 01 57.7**	**+0.4**
	comp=Z,609nm,1.3s,mb6.2						
RKT	**Rikitea**	**39.91**	**85**	*e*S	**S**	**05 08 11.3**	**+11**
	comp=Z,348nm,26.2s						
RKT				*e*LR	LR	05 12 46.0	
	comp=Z,3µm,29.0s,baz=240						
ASAR	**Alice Springs**	**42.25**	**272**	P	**P**	**05 02 16.9**	**-0.1**
ASAR						05 04 10.4	
ASAR				S	**S**	**05 08 33.6**	**-1.0**
ASAR	**Alice Springs**	**42.25**	**272**	P	**P**	**05 02 16.9**	**-0.1**
	comp=Z,50nm,0.8s,mb5.2,baz=113,slow=7.5,SNR=324						
ASAR				PcP	PcP	05 04 10.4	0.0
	comp=Z,8.3nm,0.8s,baz=121,slow=4.3,SNR=5.0						
ASAR				ScP	ScP	05 07 56.6	-0.9
	comp=Z,1.8nm,0.9s,baz=107,slow=3.8,SNR=2.8						
ASAR				S	**S**	**05 08 33.6**	**-1.0**
	comp=Z,8.3nm,1.0s,baz=116,slow=15,SNR=17						
WB2	**Warramunga Arr**	**43.61**	**277**	*e*P	**P**	**05 02 27.3**	**-0.7**
WB2				*e*S	**S**	**05 08 52.7**	**-2.0**
WRAB	**Tennant Creek**	**43.62**	**277**	P	**P**	**05 02 27.5**	**-0.6**
	comp=Z,196nm,0.8s,mb5.9,SNR=21						
WRAB	**Tennant Creek**	**43.62**	**277**	*e*P	**P**	**05 02 27.5**	**-0.6**
WRAB				*e*S	**S**	**05 08 54.1**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,99nm,1.4s,mb5.3						
WRAB	**Tennant Creek**	**43.62**	**277**	*e*P	**P**	**05 02 27.5**	**-0.6**
	comp=Z,99nm,1.4s,mb5.3						
WRAB				*e*S	**S**	**05 08 54.1**	**-0.7**
WRA	**Warramunga Arr**	**43.62**	**277**	P	**P**	**05 02 27.8**	**-0.3**
WRA						05 04 15.0	
WRA				S	**S**	**05 08 53.6**	**-1.2**
WRA	**Warramunga Arr**	**43.62**	**277**	P	**P**	**05 02 27.8**	**-0.3**
	comp=Z,12nm,0.5s,mb4.9,baz=121,slow=7.5,SNR=32						
WRA				PcP	PcP	05 04 15.0	0.0
	comp=Z,8.6nm,0.9s,baz=120,slow=3.1,SNR=5.1						
WRA				S	**S**	**05 08 53.6**	**-1.2**
	comp=Z,5.3nm,1.0s,baz=117,slow=14,SNR=6.2						
WRA				LR	LR	05 19 42.1	
	comp=Z,1µm,19.4s,MS4.8,baz=120,slow=35						
FORT	**Forrest**	**44.32**	**260**	*e*P	**P**	**05 02 32.9**	**-0.7**
	comp=Z,46nm,0.7s,mb5.3						
FORT	**Forrest**	**44.32**	**260**	*e*P	**P**	**05 02 33.1**	**-0.4**
	comp=Z,41nm,0.6s,mb5.3						
FORT				*e*PcP	PcP	05 04 16.9	-0.3
KAKA	**Kakadu**	**49.01**	**284**	*e*P	**P**	**05 03 09.2**	**-1.3**
	comp=Z,24nm,0.8s,mb5.3						
KAKA	**Kakadu**	**49.01**	**284**	*e*P	**P**	**05 03 09.2**	**-1.3**
	comp=Z,67nm,0.8s,mb5.7						
FITZ	**Fitzroy Crossi**	**51.67**	**274**	*e*P	**P**	**05 03 29.9**	**-0.7**
	comp=Z,42nm,0.8s,mb5.4						
FITZ				*e*S	**S**	**05 10 47.1**	**-2.0**
FITZ	**Fitzroy Crossi**	**51.67**	**274**	P	**P**	**05 03 30.2**	**-0.4**
	comp=Z,21nm,0.7s,mb5.2,baz=134,slow=6.6,SNR=35						
FITZ				LR	LR	05 25 37.1	
	comp=Z,4µm,18.1s,MS5.5,baz=120,slow=36						
FITZ	**Fitzroy Crossi**	**51.67**	**274**	*e*P	**P**	**05 03 30.1**	**-0.4**
	comp=Z,27nm,0.9s,mb5.2						
NWAO	**Narrogin (SRO)**	**52.24**	**253**	*e*P	**P**	**05 03 34.4**	**-0.3**
NWAO				*e**PP	pP	05 03 46.4	-0.4
NWAO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NWAO	**Narrogin (SRO)**	**52.24**	**253**	P	**P**	**05 03 34.1**	**-0.5**
	comp=Z,6.4nm,0.6s,mb4.8,baz=112,slow=7.3,SNR=6.1						
NWAO	**Narrogin (SRO)**	**52.24**	**253**	*e*P	**P**	**05 03 34.4**	**-0.3**
	comp=Z,9.2nm,0.8s,mb4.8						
NWAO				*e*pP	pP	05 03 46.4	-0.4
MUN	**Mundaring**	**53.40**	**253**	*e*P	**P**	**05 03 42.8**	**-0.4**
MEEK	**Meekatharra**	**53.56**	**260**	*e*P	**P**	**05 03 43.6**	**-0.8**
	comp=Z,33nm,1.0s,mb5.2						
MORW	**Morawa**	**54.65**	**257**	*e*P	**P**	**05 03 51.6**	**-0.7**
	comp=Z,23nm,1.1s,mb5.1						
MBWA	**Marble Bar**	**55.07**	**267**	*e*P	**P**	**05 03 54.5**	**-0.9**
	comp=Z,16nm,1.0s,mb5.0						
QSPA	**South Pole Qui**	**55.48**	**180**	P	**P**	**05 04 01.7**	**+4.1**
	comp=Z,33nm,1.1s,mb5.3,baz=34,slow=3.3,SNR=43						
QSPA				LR	LR	05 25 26.3	
	comp=Z,967nm,19.6s,MS4.9,baz=43,slow=33						
KDI	**Kendari**	**61.99**	**286**	⇓*e*P	**P**	**05 04 41.9**	**-1.9**
KAPI	**Kappang**	**63.65**	**283**	P	**P**	**05 04 53.8**	**-1.0**
	comp=Z,10nm,0.9s,mb4.9,baz=125,slow=5.4,SNR=7.1						
KAPI	**Kappang**	**63.65**	**283**	*e*P	**P**	**05 04 53.6**	**-1.2**
	comp=Z,25nm,1.3s,mb5.1						
MAW	**Mawson**	**68.07**	**201**	LR	LR	05 34 33.5	
	comp=Z,2µm,19.4s,MS5.3,baz=117,slow=35						
SYO	**Syowa Base**	**72.81**	**194**	⇑*e*P	**P**	**05 05 52.0**	**+0.6**
SYO	**Syowa Base**	**72.81**	**194**	⇓*e*pP	pP	05 06 03.0	-1.0
KKM	**Kota Kinabalu**	**73.16**	**290**	*e*P	**P**	**05 05 52.5**	**-1.7**
	comp=Z,17nm,0.8s,mb5.0						
VNA3	**Neumayer Olymp**	**74.14**	**176**	*e*P	**P**	**05 06 02.4**	**+3.3**
VNA3				*e*	pP	05 06 13.2	+1.4
VNA3				*e*	pP	05 06 16.0	+4.2
VNA2	**Neumayer--Watz**	**74.56**	**177**	*e*P	**P**	**05 06 05.8**	**+4.2**
VNA2				*e*	pP	05 06 15.9	+1.7
VNA2				*e*	pP	05 06 17.7	+3.5
NVL	**N'lazarevskaya**	**74.61**	**184**	P	**P**	**05 06 09.6**	**+7.8**
NVL				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.2						
NVL				MLR	MLR		
	comp=N,1µm,20.0s						
NVL				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
NVL				MLR	MLR		
	comp=E,207nm,7.0s						
KSM	**Kuching**	**75.07**	**282**	*e*P	**P**	**05 06 04.3**	**-1.1**
	comp=E,18nm,0.7s,mb5.1						
PLCA	**Paso Flores**	**80.22**	**133**	P	**P**	**05 06 35.5**	**+1.7**
	comp=E,6.0nm,1.1s,mb4.5,baz=232,slow=4.1,SNR=7.1						
PLCA				LR	LR	05 36 24.9	
	comp=E,581nm,18.3s,MS5.0,baz=227,slow=31						
MJAR	**Matsushiro Arr**	**81.28**	**326**	P	**P**	**05 06 37.3**	**-1.9**
	comp=E,4.6nm,1.0s,mb4.3,baz=174,slow=7.0,SNR=4.3						
MJAR				LR	LR	05 37 41.5	
	comp=E,277nm,19.0s,MS4.6,baz=155,slow=32						
MAT	**Matsushiro**	**81.28**	**326**	*e*S	S	05 16 57.6	+11
PSI	**Prapat**	**85.09**	**277**	P	**P**	**05 06 57.7**	**-1.8**
	comp=E,7.8nm,0.9s,mb4.8,baz=214,slow=5.6,SNR=8.3						
PSI	**Prapat**	**85.09**	**277**	P	**P**	**05 06 57.7**	**-1.8**
KULM	**Kulim**	**85.10**	**280**	*e*P	**P**	**05 06 58.5**	**-1.1**
	comp=E,10nm,0.9s,mb5.0						
KSRS	**Korea Array**	**87.06**	**320**	P	**P**	**05 07 07.9**	**-0.7**
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
KSRS				MLR	MLR		
	comp=Z,251nm,18.6s,MS4.7						
KSRS	**Korea Array**	**87.06**	**320**	P	**P**	**05 07 07.9**	**-0.7**
	comp=Z,4.8nm,0.8s,mb4.8,baz=139,slow=5.4,SNR=5.6						
KSRS				LR	LR	05 45 11.7	
	comp=Z,251nm,18.6s,MS4.7,baz=131,slow=35						
YSS	**Yuzh-Sakhalins**	**88.21**	**335**	*e*P	**P**	**05 07 14.0**	**+0.2**
YSS				*e*S	S	05 17 52.0	-2.8
YSS				MLR	MLR		
	comp=Z,900nm,17.0s,MS5.2						
YSS				MLR	MLR		
	comp=E,1µm,18.0s						
YSS	**Yuzh-Sakhalins**	**88.21**	**335**	*e*P	**P**	**05 07 13.6**	**-0.2**
NJ2	**Nanjing**	**88.40**	**311**	*e*P	**P**	**05 07 16.3**	**+1.2**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.2						
PET	**Petropavlovsk**	**89.45**	**347**	*e*P	**P**	**05 07 19.8**	**+0.3**
PET				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.6						
PET	**Petropavlovsk**	**89.45**	**347**	*e*P	**P**	**05 07 19.8**	**+0.3**
	comp=Z,32nm,1.0s,mb5.6						
PEA0B	**Petropavlovsk-**	**89.71**	**346**	*e*P	**P**	**05 07 21.2**	**+0.5**
PETK	**Petropavlovsk-**	**89.71**	**346**	P	**P**	**05 07 21.4**	**+0.7**
	comp=Z,75nm,0.9s,mb6.0,baz=124,slow=6.7,SNR=56						
PETK				LR	LR	05 47 40.9	
	comp=Z,367nm,18.4s,MS4.8,baz=157,slow=36						
WHN	**Wuhan**	**90.26**	**308**	*e*P	**P**	**05 07 22.5**	**-1.4**
CMB	**Columbia Colle**	**90.44**	**42**	*e*P	**P**	**05 07 25.8**	**+1.2**
CMB				*e**PP	pP	05 07 37.5	0.0
CMB				pmax	pmax		
	comp=Z,23nm,1.6s,mb5.3						
CMB	**Columbia Colle**	**90.44**	**42**	*e*P	**P**	**05 07 25.8**	**+1.3**
	comp=Z,23nm,1.6s,mb5.3						
CMB				*e*pP	pP	05 07 37.5	0.0
MDJ	**Mudanjiang**	**91.66**	**326**	P	**P**	**05 07 31.3**	**+1.3**
MDJ				pmax	pmax		
	comp=Z,7.0nm,1.8s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,120nm,4.5s						
MDJ	**Mudanjiang**	**91.66**	**326**	*e*P	**P**	**05 07 29.4**	**-0.6**
	comp=Z,5.5nm,0.7s,mb5.0						
NVAR	**Mina Array Bea**	**91.89**	**43**	P	**P**	**05 07 34.1**	**+2.9**
	comp=Z,2.1nm,1.1s,mb4.4,baz=220,slow=7.5,SNR=7.2						
TUC	**Tucson**	**92.38**	**52**	*e*P	**P**	**05 07 32.7**	**-1.0**
TUC				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.8						
TUC	**Tucson**	**92.38**	**52**	*e*P	**P**	**05 07 32.7**	**-1.0**
	comp=Z,7.0nm,1.4s,mb4.8						
GYA	**Guiyang**	**92.96**	**300**	P	**P**	**05 07 38.0**	**+1.5**
GYA				PP	PP	05 11 23.8	+3.8
GYA				SKS		05 18 07.3	
GYA				S	S	05 18 39.0	-0.3
GYA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.5						
GYA				pmax	pmax		
	comp=Z,130nm,5.2s						
GYA				LR	LR		
	comp=N,690nm,22.8s,MS5.2						
GYA				LR	LR		
	comp=E,530nm,21.0s,MS5.2						
GYA				LR	LR		
	comp=Z,650nm,22.3s,MS5.0						
CN2	**Changchun**	**93.03**	**323**	*e*P	**P**	**05 07 35.8**	**-0.6**
CN2				*e*sP	sP	05 07 52.8	-1.3
CN2				*e*S	S	05 18 36.8	-2.4
CN2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.5						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,1µm,19.0s,MS5.5						
CN2				LR	LR		
	comp=E,800nm,19.0s,MS5.5						
CN2				LR	LR		
	comp=Z,500nm,21.0s,MS4.9						
CMAR	**Chiang Mai Arr**	**94.03**	**290**	P	**P**	**05 07 41.8**	**+0.1**
	comp=Z,1.7nm,0.6s,mb4.7,baz=148,slow=3.4,SNR=8.1						
CMAR				PP	PP	05 11 28.1	-0.4
	comp=Z,2.6nm,0.9s,baz=137,slow=6.5,SNR=16						
KLR	**Kul'dur**	**94.28**	**330**	*e*P	pP	05 07 52.3	-2.7
WVOR	**Wild Horse Val**	**94.49**	**40**	*e*P	**P**	**05 07 43.3**	**+0.2**
WVOR				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.8						
WVOR	**Wild Horse Val**	**94.49**	**40**	*e*P	**P**	**05 07 43.3**	**+0.2**
	comp=Z,3.6nm,1.0s,mb4.8						
KMI	**Kunming**	**95.00**	**297**	P	**P**	**05 07 46.5**	**+0.6**
KMI				pP	pP	05 07 58.3	-0.6
KMI				sP	sP	05 08 02.0	-1.7
KMI				PP	PP	05 11 39.5	+3.5
KMI				SKS		05 18 18.5	
KMI				S	S	05 18 56.3	-1.0
KMI				sS	sS	05 19 16.5	-2.6
KMI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.9						
KMI				pmax	pmax		
	comp=Z,130nm,6.6s						
KMI				LR	LR		
	comp=N,280nm,32.9s,MS4.7						
KMI				LR	LR		
	comp=E,270nm,32.9s,MS4.7						
KMI				LR	LR		
	comp=Z,370nm,38.7s						
TXAR	**Lajitas Array**	**95.34**	**58**	P	**P**	**05 07 49.8**	**+2.4**
	comp=Z,1.0nm,1.0s,mb4.2,baz=206,slow=5.4,SNR=5.5						
TXAR				LR	LR	05 43 33.3	
	comp=Z,444nm,18.3s,MS5.0,baz=45,slow=31						
BJI	**Beijing**	**95.37**	**316**	P	**P**	**05 07 48.3**	**+1.1**
BJI				SS	SS	05 25 22.3	-6.5
BJI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb5.0						
BJI				pmax	pmax		
	comp=Z,280nm,6.8s						
BJI				LR	LR		
	comp=N,310nm,26.0s,MS4.8						
BJI				LR	LR		
	comp=E,270nm,25.0s,MS4.8						
BJI				LR	LR		
	comp=Z,190nm,28.6s,MS4.4						
CD2	**Chengdu**	**97.65**	**302**	P	**P**	**05 07 59.3**	**+1.5**
CD2				pP	pP	05 08 12.8	+2.0
CD2				PP	PP	05 12 01.0	+4.6
CD2				SKS		05 18 32.0	
CD2				S	S	05 19 18.8	-1.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.6						
CD2				pmax	pmax		
	comp=Z,300nm,6.2s						
CD2				LR	LR		
	comp=N,370nm,9.5s						
CD2				LR	LR		
	comp=Z,340nm,12.5s,MS5.0						
CPUP	**Villa Florida**	**97.96**	**130**	LR	LR	05 46 02.5	
	comp=Z,475nm,18.2s,MS5.0,baz=203,slow=32						
HHC	**Hu-ho-hao-te**	**98.58**	**314**	*e*P	**P**	**05 08 03.3**	**+1.5**
HHC				pP	pP	05 08 16.5	+1.7
HHC				sP	sP	05 08 21.8	+2.3
HHC				PP	PP	05 12 07.3	+3.9
HHC				SKS		05 18 36.5	
HHC				*e*S	S	05 19 25.5	-1.9
HHC				SS	SS	05 26 16.0	+1.9
HHC				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.2						
HHC				pmax	pmax		
	comp=Z,210nm,5.7s						
HHC				LR	LR		
	comp=N,420nm,18.2s,MS5.1						
HHC				LR	LR		
	comp=E,280nm,16.1s,MS5.1						
HHC				LR	LR		
	comp=Z,340nm,15.8s,MS4.9						
PDAR	**Pinedale Array**	**99.75**	**44**	LR	LR	05 49 07.3	
	comp=Z,593nm,18.4s,MS5.1,baz=238,slow=33						
SEY	**Seymchan**	**99.91**	**347**	*e*P	Pdif	05 08 04.9	-3.0
SEY	**Seymchan**	**99.91**	**347**	*e*P	Pdif	05 08 04.9	-3.0
LZH	**Lanzhou**	**100.58**	**307**	*e*P	Pdif	05 08 13.5	+2.6
LZH				pP		05 08 25.5	
LZH				sP		05 08 30.0	
LZH				pmax	pmax		
	comp=Z,14nm,1.0s						
LZH				pmax	pmax		
	comp=Z,74nm,5.0s						
WMQ	**Urumqi**	**115.16**	**307**	*e*PKP	PKiKP	05 13 05.3	+1.3
WMQ				sPKP		05 13 20.0	
WMQ				*e*PP	PP	05 14 11.0	+5.9
WMQ				PKS		05 16 41.0	
WMQ				SKS	SKSdf	05 20 13.0	+0.6
WMQ				AMB	AMB		
	comp=Z,120nm,5.6s						
WMQ				LR	LR		
	comp=N,210nm,20.5s,MS5.1						
WMQ				LR	LR		
	comp=E,410nm,20.5s,MS5.1						
WMQ				LR	LR		
	comp=Z,330nm,24.0s,MS4.9						
MSEY	**Mahe Island**	**115.60**	**244**	*i* PKIKP	PKPdf	05 13 04.7	-1.1
MKAR	**Makanchi Array**	**119.81**	**308**	PKP	PKPdf	05 13 12.6	-0.2
	comp=Z,3.4nm,1.0s,baz=68,slow=2.1,SNR=18						
ZALV	**Zalesovo Beam**	**120.61**	**317**	PKP	PKPdf	05 13 13.7	-0.4
	comp=Z,0.6nm,0.3s,baz=192,slow=2.9,SNR=3.9						
RES	**Resolute Bay**	**121.52**	**18**	*e*PKIKP	PKPdf	05 13 14.8	-0.5
RES	**Resolute Bay**	**121.52**	**18**	*e*PKPdf	PKPdf	05 13 14.8	-0.5
KURK	**Kurchatov**	**123.33**	**312**	*e*PKPdf	PKPdf	05 13 19.0	-0.4
KURK				*e*SKPdf	SKPdf	05 16 51.4	+0.1
UCH	**Uchtor**	**123.57**	**301**	*e*PKPdf	PKPdf	05 13 21.1	+0.9
AAK	**Ala-Archa**	**123.71**	**302**	⇑*i*PKIKP	PKPdf	05 13 18.6	-1.9
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
AAK	**Ala-Archa**	**123.71**	**302**	PKP	PKPdf	05 13 21.0	+0.6
	comp=Z,1.8nm,0.5s,baz=130,slow=6.3,SNR=5.0						
AAK	**Ala-Archa**	**123.71**	**302**	*e*PKPdf	PKPdf	05 13 21.0	+0.5
LSZ	**Lusaka**	**124.05**	**212**	*e*PKIKP	PKPdf	05 13 23.0	+1.0
LSZ	**Lusaka**	**124.05**	**212**	*e*PKPdf	PKPdf	05 13 23.0	+1.0
EKS2	**Erkin-Say**	**124.22**	**302**	*e*PKPdf	PKPdf	05 13 20.9	-0.5
BVAR	**Borovoye Array**	**128.79**	**314**	PKP	PKPdf	05 13 29.8	0.0
	comp=Z,4.0nm,0.8s,baz=111,slow=3.3,SNR=21						
BRVK	**Borovoye**	**128.86**	**314**	*e*PKIKP	PKPdf	05 13 30.1	+0.1
BRVK	**Borovoye**	**128.86**	**314**	*e*PKPdf	PKPdf	05 13 30.1	+0.2
SCHQ	**Schefferville**	**129.88**	**44**	PKP	PKiKP	05 13 36.2	+3.5
	comp=Z,3.4nm,1.1s,baz=284,slow=7.0,SNR=3.0						
SCHQ	**Schefferville**	**129.88**	**44**	PKP	PKiKP	05 13 36.2	+3.5
ARU	**Arti**	**135.76**	**318**	*i* PKIKP	PKPdf	05 13 42.8	-0.1
ARU						05 16 17.1	
ARU				SS	SS	05 34 08.2	-8.6
ARU	**Arti**	**135.76**	**318**	⇑*e*PKP	PKPdf	05 13 43.1	+0.2
AKTK	**Aktyubinsk**	**136.24**	**309**	PKP	PKPdf	05 13 43.4	-0.6
AKTO	**Aktyubinsk**	**136.24**	**309**	PKP	PKPdf	05 13 43.4	-0.6
	comp=Z,2.1nm,0.7s,baz=96,slow=9.1,SNR=6.7						
KEV	**Kevo**	**142.04**	**346**	*e*pkp	PKPdf	05 13 51.6	-2.4
KEV	**Kevo**	**142.04**	**346**	*e*PKP	PKPdf	05 13 51.6	-2.4
APA	**Apatity**	**142.16**	**340**	⇓*i*PKIKP	PKPdf	05 13 54.6	+0.4
APA				pmax	pmax		
	comp=Z,15nm,1.1s						
ARCES	**ARCESS Array B**	**142.52**	**346**	PKhKP		05 13 50.1	
	comp=Z,2.3nm,0.7s,baz=35,slow=4.4,SNR=6.5						
ARCES				PKP	PKPdf	05 13 57.7	+2.9
	comp=Z,3.3nm,0.6s,baz=47,slow=2.1,SNR=8.2						
MAK	**Makhachkala**	**143.23**	**297**	*i* P	Pdif	05 11 33.0	+13
MAK				*e*		05 13 56.1	
MAK				*e*		05 17 05.9	
MAK				*e*PPP		05 20 22.3	
MAK				pmax	pmax		
	comp=Z,20nm,0.3s						
KLMR	**Klimovskoe**	**144.03**	**329**	*e*PKIKP	PKPdf	05 13 54.7	-3.0
KLMR				pmax	pmax		
	comp=Z,41nm,1.4s						
GNI	**Garni**	**145.11**	**292**	*e*PKIKP	PKPdf	05 13 59.8	-0.5
GNI	**Garni**	**145.11**	**292**	*e*PKPdf	PKPdf	05 13 59.8	-0.5
MTA	**Mtatsminda**	**145.18**	**295**	P	PKPbc	05 13 59.4	-0.7
LOF	**Lofoten**	**145.71**	**352**	*e*P	PKPbc	05 14 02.9	+2.0
LOF				AMB	AMB	05 14 10.3	
	comp=Z,165nm,3.5s						
DYDN	**Diyadin**	**145.86**	**291**	*i* P	PKPdf	05 14 02.8	+1.2
TVAN	**Van**	**145.97**	**289**	*i* P	PKPdf	05 14 01.1	-0.7
JOF	**Joensuu**	**145.99**	**336**	*e*pkp	PKPdf	05 13 59.8	-1.2
JOF	**Joensuu**	**145.99**	**336**	*e*PKP	PKPdf	05 13 59.8	-1.2
ONI	**Oni**	**146.21**	**296**	P	PKPdf	05 14 03.4	+1.4
KIV	**Kislovodsk**	**146.75**	**299**	*i* PKP2	PKPbc	05 14 04.3	-0.4
KIV				pmax	pmax		
	comp=Z,32nm,1.1s						
KIV	**Kislovodsk**	**146.75**	**299**	*e*PKPbc	PKPbc	05 14 04.7	-0.1
HOMI	**Horasan**	**147.27**	**292**	*i* P	PKPbc	05 14 06.1	-0.2
MOR8	**Moi Rana**	**147.44**	**350**	*e*P	PKPdf	05 14 05.2	+1.8
STOK	**Stokkvaagen**	**147.49**	**351**	*e*P	PKPbc	05 14 06.7	+0.6
BEST	**Besiri**	**147.57**	**288**	*i* P	PKPbc	05 14 07.1	-0.1
ERZM	**Erzurum**	**147.67**	**291**	*i* P	PKPbc	05 14 08.4	+1.0
MARD	**Mardin**	**147.88**	**286**	*i* P	PKPbc	05 14 07.5	-0.6

OBN	**Obninsk**	148.06	321	⇑*i*PKP2	PKPbc	05 14 07.3	-0.7
OBN				pmax	pmax		
	comp=Z,146nm,1.5s						
OBN	**Obninsk**	148.06	321	⇑*e*PKP	PKPbc	05 14 07.4	-0.6
KAF	**Kangasniemi**	148.21	338	*e*pkp	PKPdf	05 14 06.7	+1.9
KAF	**Kangasniemi**	148.21	338	*e*PKP	PKPdf	05 14 06.7	+1.9
KOPT	**Kop Dagi**	148.35	292	*i* P	PKPbc	05 14 10.5	+1.3
DIYA	**Diyarbakir**	148.47	288	*i* P	PKPbc	05 14 10.3	+0.7
FINES	**FINESS Array B**	148.78	337	PKPbc	PKPbc	05 14 09.9	+0.3
	comp=Z,24nm,0.7s,baz=85,slow=4.0,SNR=46						
SOC	**Sochi**	148.92	298	*i* PKIKP	PKPbc	05 14 09.5	-1.1
SOC				*e*		05 14 12.4	
SOC				*e*		05 14 20.6	
SOC				pmax	pmax		
	comp=Z,33nm,0.9s						
NSS	**Namsos**	149.34	351	*e*P	PKPdf	05 14 06.5	0.0
ELZG	**Elazig**	149.42	288	*i* P	PKPbc	05 14 11.7	-0.3
MALT	**Malatya**	149.84	288	*e*PKIKP	PKPdf	05 14 08.3	+0.1
MALT				*e*		05 14 13.5	
MALT	**Malatya**	149.84	288	*e*PKPdf	PKPdf	05 14 08.3	+0.1
MALT				*e*PKPbc	PKPbc	05 14 13.5	+0.5
KEMA	**Kemaliye**	149.85	290	*i* P	PKPbc	05 14 13.4	+0.4
ATAB	**Bozova**	149.87	286	*i* P	PKPbc	05 14 13.6	+0.5
GRSN	**GIRESUNGRSN**	150.07	293	*i* P	PKPdf	05 14 10.0	+1.6
AKCD	**Akcadag**	150.24	288	*i* P	PKPbc	05 14 12.7	-1.3
GZT	**Gaziantep**	150.43	286	*i* P	PKPbc	05 14 14.6	+0.1
ANN	**Anapa**	150.44	301	*i* PKIKP	PKPdf	05 14 11.0	+2.1
ANN				*e*		05 21 09.7	
ANN				pmax	pmax		
	comp=Z,95nm,1.4s						
KUZU	**Kuzuini**	150.76	285	*i* P	PKPbc	05 14 15.2	0.0
LIC	**Lamto**	151.18	167	*e*PKP2	PKPbc	05 14 19.7	+2.8
	comp=Z,106nm,1.0s						
COBT	**Iskenderun**	151.38	284	*i* P	PKPbc	05 14 17.4	+0.6
PINB	**Pinarbasi**	151.45	289	*i* P	PKPbc	05 14 14.9	-2.0
MMAI	**Mount Meron Ar**	151.48	277	PKPbc	PKPbc	05 14 17.9	+0.8
	comp=Z,8.7nm,0.5s,baz=81,slow=5.2,SNR=13						
DBIC	**Dimbokro**	151.64	168	PKPbc	PKPbc	05 14 20.6	+2.6
	comp=Z,10nm,0.8s,baz=154,slow=3.8,SNR=14						
DBIC				PKPab	PKPab	05 14 29.2	+2.6
	comp=Z,19nm,0.9s,baz=130,slow=2.0,SNR=14						
MICGM	**Minsk**	152.71	325	*e*	PKPdf	05 14 14.0	+2.0
CTKT	**Corum**	152.72	293	*i* P	PKPbc	05 14 17.6	-2.0
NB2	**NORSAR Subarra**	152.78	349	PKP	PKPbc	05 14 19.3	+0.2
	comp=Z,18nm,0.9s,baz=17,slow=2.6						
NB2	**NORSAR Subarra**	152.78	349	PKP	PKPbc	05 14 19.3	+0.2
	baz=17,slow=2.6						
NOA	**NORSAR Array B**	152.78	349	PKPbc	PKPbc	05 14 19.5	+0.4
	comp=Z,6.2nm,0.8s,baz=14,slow=4.1,SNR=11						
NOA				PKPab	PKPab	05 14 28.7	-1.4
	comp=Z,27nm,1.0s,baz=24,slow=3.3,SNR=16						
NOA	**NORSAR Array B**	152.78	349	PKPbc	PKPbc	05 14 19.5	+0.4
NOA				PKPab	PKPab	05 14 28.7	-1.4
CDAG	**Cicekdag**	153.05	290	*i* P	PKPbc	05 14 18.6	-1.8
HFS	**Hagfors**	153.19	346	PKPbc	PKPbc	05 14 20.2	+0.2
	comp=Z,10nm,0.8s,baz=198,slow=0.9,SNR=8.7						
ILGA	**Ilgaz**	153.51	294	*i* P	PKPbc	05 14 21.6	+0.3
CSS	**Prodhromos**	153.53	280	*e*PKPbc	PKPbc	05 14 22.4	+0.8
BRTR	**Keskin Array B**	153.62	291	PKPbc	PKPbc	05 14 20.8	-0.8
BALT	**Daday**	153.73	295	*i* P	PKPdf	05 14 15.4	+1.4
AKASG	**Malin Array Be**	154.00	317	PKPbc	PKPbc	05 14 21.6	-0.4
	comp=Z,3.1nm,0.7s,baz=69,slow=1.6,SNR=13						
KIEV	**Kiev**	154.01	317	*e*PKIKP	PKPdf	05 14 13.0	-1.0
KIEV				*e*		05 14 21.5	
KIEV	**Kiev**	154.01	317	*e*PKPdf	PKPdf	05 14 13.0	-1.1
KIEV				*e*PKPbc	PKPbc	05 14 21.5	-0.6
LVV	**L'vov**	157.32	319	*e*PKP2	PKPab	05 14 54.5	+4.6
MLR	**Muntele Rosu**	158.15	307	PKP	PKPdf	05 14 23.3	+3.6
	comp=Z,0.6nm,0.5s,baz=77,slow=4.2,SNR=2.9						
MLR				PKPab	PKPab	05 14 52.7	-1.0
	comp=Z,3.8nm,1.0s,baz=197,slow=7.9,SNR=3.7						
TORD	**Torodi Ar. Bea**	158.59	182	PKP	PKPdf	05 14 22.5	+1.4
	comp=Z,2.8nm,1.1s,baz=219,slow=1.3,SNR=8.0						
TORD				PKPab	PKPab	05 14 58.8	+2.7
	comp=Z,6.3nm,0.9s,baz=172,slow=3.3,SNR=7.4						
UZH	**Uzhgorod**	158.93	318	*e*PKP2	PKPab	05 14 54.5	-2.4
EKA	**Eskdalemuir Ar**	159.10	7	PKP2	PKPab	05 14 57.4	+0.1
EKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
EKA	**Eskdalemuir Ar**	159.10	7	PKPab	PKPab	05 14 57.4	0.0
	comp=Z,2.4nm,0.8s,baz=329,slow=3.1,SNR=4.7						
BSEG	**Bad Segeberg**	159.63	344	*e*PKPab	PKPab	05 14 59.6	-0.1
DPC	**Dobruska-Polom**	160.73	329	*e*PKP	PKPab	05 15 04.4	-0.2
VYHS	**Vyhne**	160.85	322	*e*PKP	PKPdf	05 14 27.1	+4.4
VYHS				*e*		05 15 04.8	
VYHS	**Vyhne**	160.85	322	*e*PKP	PKPdf	05 14 27.1	+4.4
VYHS				*e*		05 15 04.8	
NRDL	**Niedersach Rie**	161.01	343	*e*PKPab	PKPab	05 15 05.4	-0.3
CLL	**Collm**	161.22	336	*e*PKPab	PKPab	05 15 06.1	-0.6
CLL	**Collm**	161.22	336	⇓*i*PKPab	PKPab	05 15 06.2	-0.5
	comp=Z,26nm,1.4s						
CLL				*i*		05 15 10.0	
CLL				*e*pPKPab	pPKPab	05 15 20.0	+0.3
CLL				LmV		05 40 00.0	
	comp=Z,300nm,19.6s						
BRG	**Berggiesshubel**	161.26	334	*e*PKP2	PKPab	05 15 07.0	+0.1
BRG				pmax	pmax		
	comp=Z,10.0nm,1.5s						
BRG				pmax	pmax		
	comp=Z,14nm,1.5s						
BRG	**Berggiesshubel**	161.26	334	*e*PKPab	PKPab	05 15 06.8	-0.1
BRG	**Berggiesshubel**	161.26	334	*e*PKP	PKPab	05 15 07.0	+0.1
	comp=Z,17nm,1.5s						
BRG				*e*		05 15 11.3	
	comp=Z,23nm,1.5s						
PVCC	**Panska Ves**	161.30	332	*e*PKP	PKPab	05 15 06.9	-0.2
CLZ	**Clausthal**	161.54	341	*e*PKPab	PKPab	05 15 07.7	-0.4
IBBN	**Ibbenburen**	161.69	347	*e*PKPab	PKPab	05 15 08.8	+0.1
PRU	**Pruhonice**	161.74	331	*e*PKP	PKPab	05 15 10.9	+1.9
TREC	**Trest**	161.88	328	*e*PKP	PKPab	05 15 05.2	-4.5
ZST	**Bratislava**	161.92	323	*e*PKP	PKPab	05 15 10.3	+0.4
TANN	**Tannenbergstha**	162.16	336	*e*PKPab	PKPab	05 15 09.0	-1.9
MOX	**Moxa**	162.24	337	*e*PKP	PKPab	05 15 10.6	-0.6
	comp=Z,29nm,1.7s						
MOX	**Moxa**	162.24	337	*e*PKP2	PKPab	05 15 10.6	-0.6
MOX				pmax	pmax		
	comp=Z,29nm,1.7s						
MOX	**Moxa**	162.24	337	*e*PKPab	PKPab	05 15 10.7	-0.5
NKC	**Novy Kostel**	162.32	335	*e*PKP	PKPab	05 15 11.6	0.0
UBBA	**Unterbreizbach**	162.56	341	*e*PKPab	PKPab	05 15 11.4	-1.2
BUG	**Bochum--Univer**	162.61	347	*e*PKPab	PKPab	05 15 12.5	-0.3
MANZ	**Manzenberg**	162.65	335	*e*PKPab	PKPab	05 15 12.5	-0.5
ROTZ	**Rotzenmuhle**	162.80	335	*e*PKPab	PKPab	05 15 13.4	-0.3
KHC	**Kasperske Hory**	162.80	331	*e*PKP2	PKPab	05 15 14.5	+0.8
KHC	**Kasperske Hory**	162.80	331	*e*PKP	PKPab	05 15 15.8	+2.1
GRF	**Grafenberg Arr**	163.19	337	*e*PKPab	PKPab	05 15 14.8	-0.6
BEBN	**Eben Emael**	163.50	350	PKPab	PKPab	05 15 17.0	+0.3
TNS	**Taunus Mts**	163.51	343	*e*PKPab	PKPab	05 15 15.9	-0.8
MEM	**Membach**	163.63	349	PKPab	PKPab	05 15 18.6	+1.3
BCLA	**Clavier**	163.92	350	PKPab	PKPab	05 15 18.8	+0.2
RJOB	**Jochberg**	164.23	330	*e*PKPab	PKPab	05 15 19.5	-0.5
GIVF	**Givet**	164.30	351	*e*PKP2	PKPab	05 15 19.7	-0.5
DOU	**Dourbes**	164.33	351	PKPab	PKPab	05 15 20.7	+0.3
BAIF	**Baives**	164.41	352	*e*PKP2	PKPab	05 15 20.4	-0.3
	comp=Z,10nm,0.8s						
WLF	**Walferdange**	164.52	347	PKPab	PKPab	05 15 21.7	+0.5
WLF	**Walferdange**	164.52	347	*e*PKPab	PKPab	05 15 21.2	0.0
BFO	**Black Forest**	165.28	341	*e*PKPab	PKPab	05 15 24.1	-0.5
CDF	**Champ du Feu**	165.47	343	*e*PKP2	PKPab	05 15 24.7	-0.7
	comp=Z,45nm,1.2s						
MEZF	**Maizieres J'vi**	165.83	349	*e*PKP2	PKPab	05 15 26.6	-0.4
	comp=Z,29nm,1.0s						
ROSF	**Rostrenen**	165.94	12	*e*PKP2	PKPab	05 15 26.5	-1.0
	comp=Z,84nm,1.3s						
LDF	**La Druitiere**	166.03	3	*e*PKP2	PKPab	05 15 27.3	-0.6
HAU	**Haudompre**	166.07	345	*e*PKP2	PKPab	05 15 27.2	-0.9
	comp=Z,37nm,1.2s						
HINF	**Hinteralfeld**	166.13	343	*e*PKP2	PKPab	05 15 27.2	-1.2
	comp=Z,9.3nm,0.9s						
SGMF	**Saint Gilles**	166.14	10	*e*PKP2	PKPab	05 15 27.8	-0.6
	comp=Z,112nm,1.5s						
QUIF	**Quistinic**	166.37	12	*e*PKP2	PKPab	05 15 28.6	-0.8
	comp=Z,270nm,1.9s						
LOR	**Lormes**	167.21	351	*e*PKP2	PKPab	05 15 32.5	-0.6
	comp=Z,44nm,1.4s						
CABF	**La Chapelle**	167.44	344	*e*PKP2	PKPab	05 15 33.7	-0.5
SSF	**Saint Saulge**	167.45	352	*e*PKP2	PKPab	05 15 33.7	-0.5
	comp=Z,36nm,1.1s						
AVF	**Avril sur Loir**	167.74	352	*e*PKP2	PKPab	05 15 34.9	-0.5
	comp=Z,58nm,1.3s						
SMF	**Signal de Mont**	167.82	351	*e*PKP2	PKPab	05 15 35.2	-0.6
	comp=Z,116nm,1.3s						
BGF	**Bois d'Agland**	168.01	354	*e*PKP2	PKPab	05 15 36.2	-0.5
LPL	**La Plagne**	168.30	340	*e*PKP2	PKPab	05 15 37.0	-1.0
	comp=Z,28nm,1.2s						
LPG	**La Plagne**	168.31	340	*e*PKP2	PKPab	05 15 37.0	-1.0
	comp=Z,33nm,1.2s						
TCF	**Toulx Ste Croi**	168.33	356	*e*PKP2	PKPab	05 15 37.7	-0.4
	comp=Z,16nm,0.9s						
ORIF	**Oris-en-Rattie**	169.08	342	*e*PKP2	PKPab	05 15 41.2	-0.3
	comp=Z,32nm,1.1s						
RJF	**Les Rejaudoux**	169.34	358	*e*PKP2	PKPab	05 15 42.2	-0.4
	comp=Z,7.9nm,0.8s						
VIVF	**Saint-Julien-l**	169.42	346	*e*PKP2	PKPab	05 15 42.8	-0.2
	comp=Z,26nm,1.2s						
SBF	**Sospel**	169.54	334	*e*PKP2	PKPab	05 15 42.2	-1.4
	comp=Z,38nm,0.9s						
CAF	**Calviac**	169.70	356	*e*PKP2	PKPab	05 15 44.2	0.0
	comp=Z,83nm,1.6s						
PGF	**Pioggiola**	169.94	324	*e*PKP2	PKPab	05 15 44.2	-1.2
	comp=Z,46nm,1.2s						
SMRF	**Simiane la Rot**	170.04	341	*e*PKP2	PKPab	05 15 45.5	-0.2
FRF	**La Foret Royal**	170.08	336	*e*PKP2	PKPab	05 15 44.6	-1.4
LASF	**Ste Croix**	170.33	348	*e*PKP2	PKPab	05 15 46.3	-0.7
LMR	**La Mourre**	170.33	336	*e*PKP2	PKPab	05 15 45.3	-1.8
MTLF	**Montolieu**	171.26	354	*e*PKP2	PKPab	05 15 50.9	-0.2
	comp=Z,29nm,1.3s						
KEST	**Kesra**	173.10	281	PKP	PKPdf	05 14 34.4	+2.2
	comp=Z,1.1nm,0.8s,baz=59,slow=5.9,SNR=3.0						
KEST				PKPab	PKPab	05 15 57.1	-2.7
	comp=Z,1.2nm,0.9s,baz=295,slow=5.6,SNR=1.8						
ESDC	**Sonseca Array**	173.59	37	PKP	PKPdf	05 14 34.0	+1.8
	comp=Z,0.5nm,0.7s,baz=352,slow=5.4,SNR=4.6						
MDT	**Midelt**	174.96	110	PKP	PKPdf	05 14 35.1	+2.2
	comp=Z,2.9nm,1.0s,baz=252,slow=3.2,SNR=3.2						

BJI 27 04:56:50.1, 4°.52N×95°.06E, h81^{km}, mB5.0/3, mb4.7/13, Ms4.8/2, Ms7 4.4/2

IDC 27 04:56:51.6±3.5, 4°.66N×95°.04E, h60^{km}±34^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.0/27, mbtmp4.1/18, ML3.6/1, MS3.5/3, Ms1 3.6/3, ms1mx3.1/46, Error ellipse: s-maj=23.0km s-min=15.5km az=63.0

ISCJB 27 04:56:52.3±0.9, 4°.69N±0°.07×95°.17E±0°.07, h82^{km}±7^{km}, mb4.5/43, Error ellipse: s-maj=14.2km s-min=6.7km az=42.9

NEIC 27 04:56:52.7±1.4, 4°.71N×95°.16E, h70^{km}±13^{km}, mb4.6/14, Error ellipse: s-maj=14.8km s-min=7.3km az=59.0

ISC 27 04:56:53.4±1.0, 4°.70N±0°.07×95°.14E±0°.07, h75^{km}±8^{km}, n70, σ0^{s}.96/72, mb4.5/43, 1D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	**Banda Aceh**	0.81	11	⇓*e*P	**Pn**	**04 57 08.5**	**-1.4**
BSI				*e*S	**Sn**	**04 57 22.5**	**+0.4**
PSI	**Prapat**	4.22	116	P	**Pn**	**04 57 55.5**	**+0.1**
	3.4nm,0.3s,baz=333,slow=14,SNR=12						
PSI				S	**Sn**	**04 58 45.0**	**+1.5**
	6.4nm,0.3s,baz=145,slow=20,SNR=4.3						
PSI				LR	LR	04 59 59.5	
	comp=Z,589nm,20.5s,baz=274,slow=43						
PSI	**Prapat**	4.22	116	P	**Pn**	**04 57 55.5**	**+0.1**
PSI				S	**Sn**	**04 58 45.0**	**+1.5**
PSI				LR	LR	04 59 59.5	
KULM	**Kulim**	5.52	84	*e*Pn	**Pn**	**04 58 11.4**	**-1.7**
	22nm,0.5s						
KULM				*e*Sn	**Sn**	**04 59 15.1**	**-0.2**
CMAR	**Chiang Mai Arr**	14.17	15	P	**Pn**	**05 00 13.0**	**+2.4**
	1.3nm,0.3s,baz=208,slow=11,SNR=41						
CMAR				LR	LR	05 05 39.5	
	comp=Z,156nm,19.5s,baz=195,slow=37						
CHTO	**Chiang Mai**	14.51	15	*e*P	**Pn**	**05 00 19.4**	**+4.4**
	10nm,0.6s						
PALK	**Pallekele**	14.58	281	S	**Sn**	**05 02 39.2**	**-17**
	2.4nm,0.3s,baz=194,slow=18,SNR=7.5						
ODAN	**Odare**	23.25	342	*e*P	**P**	**05 01 54.0**	**-0.3**
	19nm,0.5s,mb4.7						
RAMN	**Ramite**	23.58	341	*e*P	**P**	**05 01 57.2**	**-0.2**
	25nm,0.6s,mb4.8						
TAPN	**Taplejung**	23.61	343	*e*P	**P**	**05 01 56.9**	**-0.8**
	10nm,0.5s,mb4.4						
JIRN	**Jiri**	24.37	340	*e*P	**P**	**05 02 04.9**	**+0.3**
	20nm,0.4s,mb4.8						
PKI	**Pulchoki**	24.56	339	*e*P	**P**	**05 02 06.1**	**-0.3**
	11nm,0.5s,mb4.5						
DMN	**Daman**	24.71	338	*e*P	**P**	**05 02 08.0**	**+0.3**
GUN	**Gumba**	24.71	340	*e*P	**P**	**05 02 08.3**	**+0.6**
	23nm,0.5s,mb4.9						
LSA	**Lhasa**	25.15	352	*e*P	**P**	**05 02 12.3**	**+0.6**
	12nm,0.6s,mb4.5						
GKN	**Gorkha**	25.24	338	*e*P	**P**	**05 02 12.4**	**-0.1**
	27nm,0.5s,mb4.9						
KOLN	**Koldanda**	25.44	336	*e*P	**P**	**05 02 14.4**	**+0.1**
	32nm,0.6s,mb4.9						
DANN	**Dangsing**	25.89	337	*e*P	**P**	**05 02 18.5**	**+0.1**
	56nm,0.6s,mb5.2						
CD2	**Chengdu**	27.30	16	P	**P**	**05 02 30.5**	**-0.6**
CD2				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.1						
CD2				pmax	pmax		
	comp=Z,180nm,5.1s						
XAN	**Xi'an**	31.88	22	P	**P**	**05 03 11.0**	**-0.6**
XAN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
LZH	**Lanzhou**	32.25	13	*e*P	**P**	**05 03 24.0**	**+9.2**
LZH				pP	pP	05 03 28.3	-4.2
LZH				sP	sP	05 03 30.8	-10
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.6						
LZH				pmax	pmax		
	comp=Z,75nm,4.3s						
GTA	**Gaotai**	34.81	6	*e*P	**P**	**05 03 36.5**	**-0.5**
GTA				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
KSH	**Kashi**	38.76	336	P	**P**	**05 04 09.0**	**-1.5**
KSH				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.7						
KSH				pmax	pmax		
	comp=Z,120nm,3.4s						
KSH				LR	LR		
	comp=N,300nm,5.8s						
KSH				LR	LR		
	comp=E,340nm,5.9s						
KSH				LR	LR		
	comp=Z,600nm,5.3s						
UCH	**Uchtor**	41.64	337	P	**P**	**05 04 35.6**	**+1.2**
	SNR=21						
TKM2	**Tokmak 2**	41.82	338	P	**P**	**05 04 37.4**	**+1.6**
	SNR=5.9						
TKM2	**Tokmak 2**	41.82	338	*e*P	**P**	**05 04 35.8**	**0.0**
	comp=Z,9.3nm,0.6s,mb4.7						
KBK	**Karagaybulak**	41.84	338	P	**P**	**05 04 37.6**	**+1.6**
	SNR=7.2						
AML	**Almayashu**	41.89	336	P	**P**	**05 04 37.6**	**+1.3**
	SNR=23						
AAK	**Ala-Archa**	41.99	337	P	**P**	**05 04 39.5**	**+2.3**
	SNR=9.4						
AAK	**Ala-Archa**	41.99	337	P	**P**	**05 04 38.0**	**+0.8**
	comp=Z,6.0nm,0.6s,mb4.5,baz=126,slow=6.3,SNR=29						
AAK	**Ala-Archa**	41.99	337	*e*P	**P**	**05 04 38.6**	**+1.4**
	comp=Z,7.7nm,0.6s,mb4.6						
EKS2	**Erkin-Say**	42.30	336	P	**P**	**05 04 41.1**	**+1.4**
	SNR=11						
EKS2	**Erkin-Say**	42.30	336	*e*P	**P**	**05 04 40.2**	**+0.5**
	comp=Z,12nm,0.7s,mb4.7						
USP	**Ospenovka**	42.53	338	P	**P**	**05 04 43.2**	**+1.6**
	SNR=7.4						
MKAR	**Makanchi Array**	43.38	347	P	**P**	**05 04 48.3**	**-0.1**
	comp=Z,13nm,0.6s,mb4.9,baz=169,slow=7.9,SNR=181						
SONM	**Songino Array**	44.05	11	P	**P**	**05 04 53.5**	**-0.2**
	comp=Z,2.3nm,0.6s,mb4.1,baz=191,slow=8.8,SNR=20						
SONM				PcP	PcP	05 06 38.8	+0.8
	comp=Z,2.3nm,0.6s,baz=196,slow=3.7,SNR=14						
KSRS	**Korea Array**	44.26	38	P	**P**	**05 04 56.4**	**+0.7**
	comp=Z,2.1nm,0.6s,mb4.0,baz=221,slow=8.6,SNR=6.4						
WRA	**Warramunga Arr**	45.65	124	P	**P**	**05 05 07.1**	**+0.2**
	comp=Z,2.6nm,0.5s,mb4.3,baz=302,slow=9.2,SNR=4.7						
WRAB	**Tennant Creek**	45.66	124	*e*P	**P**	**05 05 06.7**	**-0.2**
	comp=Z,14nm,0.7s,mb4.8						
ASAR	**Alice Springs**	47.15	128	P	**P**	**05 05 18.4**	**-0.2**
	comp=Z,1.4nm,0.5s,mb4.0,baz=297,slow=8.1,SNR=5.2						
KURK	**Kurchatov**	47.91	346	P	**P**	**05 05 23.3**	**-0.7**
	comp=Z,11nm,0.7s,mb4.8,baz=166,slow=7.0,SNR=40						
HIA	**Hailar**	49.07	21	*e*P	**P**	**05 05 33.4**	**+0.4**
	comp=Z,5.3nm,0.6s,mb4.7						
ZAA0	**Zalesovo Array**	49.81	352	*e*P	**P**	**05 05 38.1**	**-0.4**
ZALV	**Zalesovo Beam**	49.81	352	P	**P**	**05 05 38.8**	**+0.3**
	comp=Z,10nm,0.5s,mb5.0,baz=183,slow=7.9,SNR=38						
BVAR	**Borovoye Array**	52.29	341	P	**P**	**05 05 56.7**	**-0.5**
	comp=Z,7.7nm,0.6s,mb4.9,baz=141,slow=8.7,SNR=52						
BRVK	**Borovoye**	52.35	341	*e*P	**P**	**05 05 57.0**	**-0.6**
	comp=Z,8.5nm,0.6s,mb5.0						
AKTK	**Aktyubinsk**	55.19	332	P	**P**	**05 06 17.6**	**-0.8**
AKTO	**Aktyubinsk**	55.19	332	P	**P**	**05 06 17.6**	**-0.8**
	comp=Z,1.9nm,0.5s,mb4.4,baz=128,slow=10,SNR=9.1						
KMBO	**Kilima Mbogo**	58.12	266	P	**P**	**05 06 40.5**	**+0.7**
	comp=Z,0.8nm,0.4s,mb4.1,baz=54,slow=24,SNR=4.1						
ASF	**Jabal al Asfar**	60.79	304	LR	LR	05 34 12.1	
	comp=Z,60nm,18.7s,baz=156,slow=37						
BR131	**Keskin Array S**	65.25	312	*e*P	**P**	**05 07 26.1**	**-1.2**
	comp=Z,1.2nm,0.6s,mb3.9						
BRTR	**Keskin Array B**	65.25	312	P	**P**	**05 07 26.3**	**-1.1**
	comp=Z,1.4nm,0.6s,mb4.0,baz=124,slow=8.6,SNR=9.7						
TIXI	**Tiksi**	70.14	11	*e*P	**P**	**05 07 56.3**	**-1.2**
	comp=Z,8.6nm,0.6s,mb4.8						
AKASG	**Malin Array Be**	71.25	322	P	**P**	**05 08 03.0**	**-1.6**
	comp=Z,2.2nm,0.5s,mb4.2,baz=92,slow=5.4,SNR=9.4						
JOF	**Joensuu**	74.12	335	*e*p	**P**	**05 08 20.3**	**-1.1**
	comp=Z,2.6nm,0.6s,mb4.1						
BOSA	**Boshof**	74.78	239	P	**P**	**05 08 25.1**	**-0.8**
	comp=Z,2.9nm,0.8s,mb4.1,baz=118,slow=6.5,SNR=5.0						
BOSA	**Boshof**	74.78	239	*e*P	**P**	**05 08 25.1**	**-0.8**
	comp=Z,2.2nm,0.6s,mb4.1						
FINES	**FINESS Array B**	75.96	332	P	**P**	**05 08 31.5**	**-0.5**
	comp=Z,3.7nm,0.6s,mb4.3,baz=98,slow=6.5,SNR=16						
FINES	**FINESS Array B**	75.96	332	P	**P**	**05 08 31.5**	**-0.5**
KAF	**Kangasniemi**	76.05	333	*e*p	**P**	**05 08 30.9**	**-1.6**
	comp=Z,3.5nm,0.5s,mb4.3						
MORC	**Moravsky Berou**	78.42	320	*e*P	**P**	**05 08 45.9**	**-0.1**
	comp=Z,1.7nm,0.7s,mb3.9						
ARCES	**ARCESS Array B**	78.57	340	P	**P**	**05 08 46.5**	**+0.1**
	comp=Z,1.1nm,0.4s,mb4.0,baz=99,slow=6.9,SNR=30						
GERES	**GERESS Array B**	80.84	319	P	**P**	**05 08 59.7**	**+0.5**
	comp=Z,1.3nm,0.6s,mb3.9,baz=116,slow=3.1,SNR=5.5						
LPG	**La Plagne**	85.55	315	*e*P	**P**	**05 09 26.4**	**+2.9**
	comp=Z,8.9nm,0.9s,mb4.4						
LPG	**La Plagne**	85.55	315	*e*P	**P**	**05 09 26.4**	**+2.9**
	comp=Z,4.4nm,0.9s,mb4.4						
LPL	**La Plagne**	85.56	315	*e*P	**P**	**05 09 26.2**	**+2.6**
	comp=Z,5.3nm,0.7s,mb4.3						
LPL	**La Plagne**	85.56	315	*e*P	**P**	**05 09 26.2**	**+2.6**
	comp=Z,2.7nm,0.7s,mb4.3						
TORD	**Torodi Ar. Bea**	92.29	283	P	**P**	**05 09 56.2**	**+0.2**
	comp=Z,0.2nm,0.7s,baz=84,slow=4.7,SNR=3.0						
TORD	**Torodi Ar. Bea**	92.29	283	P	**P**	**05 09 56.2**	**+0.2**
TXAR	**Lajitas Array**	141.64	27	PKP	PKPdf	05 16 15.7	-1.2
	comp=Z,0.2nm,0.5s,baz=36,slow=1.7,SNR=3.6						

IDC 27 05:15:07.1±3.4, 30°.10S×138°.83E, h0^{km}, mb1 3.0/3, mb1mx3.0/15, mbtmp2.8/3, ML2.2/2, Error ellipse: s-maj=106.1km s-min=14.9km az=47.0, South Australia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	2.96	127	Pn	Pn	05 15 56.5	+1.2
	0.2nm,0.3s,baz=308,slow=13,SNR=4.6						
STKA				Lg		05 16 40.1	
	1.2nm,0.3s,baz=21,slow=19,SNR=5.8						
ASAR	**Alice Springs**	7.77	324	Pn	Pn	05 17 00.3	-1.2
	0.1nm,0.3s,baz=145,slow=13,SNR=6.8						
ASAR				Sn	Sn	05 18 30.3	+0.1
	0.1nm,0.3s,baz=154,slow=22,SNR=3.6						
ASAR				Lg		05 19 15.1	
	0.1nm,0.3s,baz=154,slow=24,SNR=2.9						
WRA	**Warramunga Arr**	10.90	337	Pn	Pn	05 17 45.7	+1.3
	baz=152,slow=13,SNR=2.8						
WRA				Sn	Sn	05 19 47.1	0.0
	0.0nm,0.3s,baz=161,slow=24,SNR=2.9						

MDD 27 05:19:18.9±1.4, 36°.75N×10°.83W, h0^{km}, mbLg2.7/29, Error ellipse: s-maj=12.3km s-min=9.2km az=53.0, PRIMO

NEIC 27 05:19:18.3, 36°.77N×10°.87W, h0^{km}, MN2.9(MDD), After MDD.

IGIL 27 05:19:18.7, 36°.63N×10°.96W, h11^{km}, ML2.6

INMG 27 05:19:19.7±0.9, 36°.68N×10°.90W, h10^{km}, ML2.3, Error ellipse: s-maj=4.1km s-min=2.7km az=70.0

CSEM 27 05:19:20.6±0.4, 36°.86N×10°.70W, h10^{km}, ML3.4/16, Error ellipse: s-maj=7.2km s-min=5.1km az=55.0

ISC 27 05:19:20.8±0.8, 36°.87N±0°.04×10°.68W±0°.05, h10^{km}, n95, σ1^{s}.14/168, 1C, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	1.51	79	*i* Pn	**Pn**	**05 19 47.7**	**-0.2**
PFVI				*e*Sn	**Sn**	**05 20 08.7**	**+1.1**
PFVI				A		05 20 10.2	
	20nm,0.2s						
PFVI	**Vila Bisbo**	1.51	79	⇑P	**Pn**	**05 19 47.7**	**-0.2**
PFVI				S	**Sn**	**05 20 08.7**	**+1.1**
	10nm,0.2s						
MORF	**Marmelete**	1.68	74	*e*Pn	**Pn**	**05 19 50.1**	**-0.2**
MORF				*e*Sn	**Sn**	**05 20 13.3**	**+1.4**
MORF				A		05 20 14.9	
	26nm,0.1s						
MORF	**Marmelete**	1.68	74	P	**Pn**	**05 19 50.1**	**-0.2**
MORF				S	**Sn**	**05 20 13.3**	**+1.4**
	26nm,0.1s						
MORF	**Marmelete**	1.68	74	*e*Pn	**Pn**	**05 19 50.1**	**-0.2**
MORF				*e*Sn	**Sn**	**05 20 13.3**	**+1.4**
	26nm,0.1s						
PTEO	**Sao Teotonio**	1.71	66	*e*Pn	**Pn**	**05 19 51.2**	**+0.6**
PTEO				*e*Sn	**Sn**	**05 20 14.6**	**+2.2**
PTEO				A		05 20 15.3	
	14nm,0.2s						
PTEO	**Sao Teotonio**	1.71	66	P	**Pn**	**05 19 51.2**	**+0.6**
PTEO				S	**Sn**	**05 20 14.6**	**+2.2**
	7.1nm,0.2s						
PTEO	**Sao Teotonio**	1.71	66	*e*Pn	**Pn**	**05 19 51.2**	**+0.6**
PTEO				*e*Sn	**Sn**	**05 20 14.6**	**+2.2**
	14nm,0.2s						
PBDV	**Barranco-do-Ve**	2.23	80	*e*Pn	**Pn**	**05 19 58.0**	**+0.2**
PBDV				*e*Sn	**Sn**	**05 20 26.6**	**+1.2**
PBDV				A		05 20 29.6	
	7.3nm,0.1s						
PBDV	**Barranco-do-Ve**	2.23	80	P	**Pn**	**05 19 58.0**	**+0.2**
PBDV				S	**Sn**	**05 20 26.6**	**+1.2**
	7.3nm,0.1s						
PBDV	**Barranco-do-Ve**	2.23	80	*e*Pn	**Pn**	**05 19 58.0**	**+0.2**
PBDV				*e*Sn	**Sn**	**05 20 26.6**	**+1.2**
	7.3nm,0.1s						
PMAFR	**Mafra**	2.36	28	*e*Pn	**Pn**	**05 19 59.6**	**0.0**
PMAFR				*e*Sn	**Sn**	**05 20 30.3**	**+1.7**
PMAFR				A		05 20 31.6	
	50nm,0.2s						
PMAFR	**Mafra**	2.36	28	P	**Pn**	**05 19 59.6**	**0.0**
PMAFR				S	**Sn**	**05 20 30.3**	**+1.7**
	50nm,0.2s						
PMAFR	**Mafra**	2.36	28	*e*Pn	**Pn**	**05 19 59.6**	**0.0**
PMAFR				*e*Sn	**Sn**	**05 20 30.3**	**+1.7**
	50nm,0.2s						
PVAQ	**Vaqueiros**	2.43	76	*e*Pn	**Pn**	**05 20 00.6**	**+0.1**
PVAQ				*e*Sn	**Sn**	**05 20 31.0**	**+0.7**
PVAQ				A		05 20 33.4	
	18nm,0.1s						
PVAQ	**Vaqueiros**	2.43	76	P	**Pn**	**05 20 00.6**	**+0.1**
PVAQ				S	**Sn**	**05 20 31.0**	**+0.7**
	18nm,0.1s						
PVAQ	**Vaqueiros**	2.43	76	*e*Pn	**Pn**	**05 20 00.6**	**+0.1**
PVAQ				*e*Sn	**Sn**	**05 20 31.0**	**+0.7**
	18nm,0.1s						
MOE	**Montemor**	2.48	48	*e*Sn	**Sn**	**05 20 33.4**	**+1.8**
MOE	**Montemor**	2.48	48	*e*Sn	**Sn**	**05 20 33.4**	**+1.8**
PBEJ	**Beja**	2.52	62	*e*Pn	**Pn**	**05 20 02.2**	**+0.4**
PBEJ				*e*Sn	**Sn**	**05 20 34.2**	**+1.6**
PBEJ				A		05 20 36.2	
	6.1nm,0.3s						
PBEJ	**Beja**	2.52	62	P	**Pn**	**05 20 02.2**	**+0.4**
PBEJ				S	**Sn**	**05 20 34.2**	**+1.6**
	3.1nm,0.3s						
PBEJ	**Beja**	2.52	62	*e*Pn	**Pn**	**05 20 02.2**	**+0.4**
PBEJ				*e*Sn	**Sn**	**05 20 34.2**	**+1.6**
	6.1nm,0.3s						
EGRO	**El Granado**	2.64	74	P	**Pn**	**05 20 03.6**	**+0.2**
	1.1nm,0.1s,SNR=14						
EGRO				S	**Sn**	**05 20 36.5**	**+1.0**
	10nm,0.1s,SNR=52						
EGRO	**El Granado**	2.64	74	P	**Pn**	**05 20 03.6**	**+0.2**
	1.1nm,0.1s,SNR=14						
EGRO				S	**Sn**	**05 20 36.5**	**+1.0**
	10nm,0.1s,SNR=52						
EVO	**Evora**	2.69	51	*e*Pn	**Pn**	**05 20 06.0**	**+1.9**
EVO				*e*Sn	**Sn**	**05 20 38.8**	**+2.0**
EVO				A		05 20 40.1	

	14nm,0.1s						
EVO	**Evora**	**2.69**	**51**	P	**Pn**	**05 20 06.0**	**+1.9**
EVO				S	**Sn**	**05 20 38.8**	**+2.0**
	14nm,0.1s						
EVO	**Evora**	**2.69**	**51**	*e*Pn	**Pn**	**05 20 06.0**	**+1.9**
EVO				*e*Sn	**Sn**	**05 20 38.8**	**+2.0**
	14nm,0.1s						
ALMR	**Almeirim**	**2.83**	**35**	*e*S	**Sn**	**05 20 41.7**	**+1.6**
ALMR				*e*S	**Sn**	**05 20 41.7**	**+1.6**
ALMR				AML	AML	05 20 42.1	
	comp=E,18nm,0.2s						
ALMR	**Almeirim**	**2.83**	**35**	*e*S	**Sn**	**05 20 41.7**	**+1.6**
PESTR	**Estremoz**	**3.16**	**50**	*e*Pn	**Pn**	**05 20 12.1**	**+1.6**
PESTR				*e*Sn	**Sn**	**05 20 49.8**	**+1.5**
PESTR				A		05 20 51.5	
	comp=E,2.6nm,0.2s						
PESTR	**Estremoz**	**3.16**	**50**	P	**Pn**	**05 20 12.1**	**+1.6**
PESTR				S	**Sn**	**05 20 49.8**	**+1.5**
	comp=E,1.3nm,0.2s						
PESTR	**Estremoz**	**3.16**	**50**	*e*Pn	**Pn**	**05 20 12.1**	**+1.6**
PESTR				*e*Sn	**Sn**	**05 20 49.8**	**+1.5**
	comp=E,2.6nm,0.2s						
PTOM	**Tomar**	**3.28**	**32**	*e*Sn	**Sn**	**05 20 53.0**	**+1.8**
PTOM				A		05 20 55.5	
	comp=E,7.5nm,0.1s						
PTOM	**Tomar**	**3.28**	**32**	S	**Sn**	**05 20 53.0**	**+1.8**
	comp=E,3.8nm,0.1s						
PTOM	**Tomar**	**3.28**	**32**	*e*Sn	**Sn**	**05 20 53.0**	**+1.8**
	comp=E,7.5nm,0.1s						
EMIN	**Mina Concepcio**	**3.32**	**73**	P	**Pn**	**05 20 12.9**	**+0.1**
	comp=E,1.4nm,0.1s,SNR=16						
EMIN				S	**Sn**	**05 20 52.4**	**+0.1**
	comp=E,6.4nm,0.2s						
EMIN	**Mina Concepcio**	**3.32**	**73**	P	**Pn**	**05 20 12.9**	**+0.1**
	comp=E,1.4nm,0.1s,SNR=16						
EMIN				S	**Sn**	**05 20 52.4**	**+0.1**
	comp=E,6.4nm,0.2s						
EBAD	**Badajoz**	**3.46**	**56**	P	**Pn**	**05 20 15.5**	**+0.8**
	comp=E,1.3nm,0.1s,SNR=10.0						
EBAD				S	**Sn**	**05 20 56.7**	**+0.9**
	comp=E,4.5nm,0.1s,SNR=16						
EBAD	**Badajoz**	**3.46**	**56**	P	**Pn**	**05 20 15.5**	**+0.8**
	comp=E,1.3nm,0.1s,SNR=10.0						
EBAD				S	**Sn**	**05 20 56.7**	**+0.9**
	comp=E,4.5nm,0.1s,SNR=16						
PMRV	**Marv??o**	**3.64**	**44**	*e*Pn	**Pn**	**05 20 17.3**	**+0.1**
PMRV				*e*Sn	**Sn**	**05 21 01.2**	**+1.0**
PMRV				A		05 21 04.9	
	comp=E,6.2nm,0.2s						
PMRV	**Marv??o**	**3.64**	**44**	P	**Pn**	**05 20 17.3**	**+0.1**
PMRV				S	**Sn**	**05 21 01.2**	**+1.0**
	comp=E,3.1nm,0.2s						
PMRV	**Marv??o**	**3.64**	**44**	*e*Pn	**Pn**	**05 20 17.3**	**+0.1**
PMRV				*e*Sn	**Sn**	**05 21 01.2**	**+1.0**
	comp=E,6.2nm,0.2s						
ESPR	**Espera**	**3.87**	**89**	P	**Pn**	**05 20 19.7**	**-0.7**
	comp=E,4.3nm,0.2s,SNR=10.0						
ESPR				S	**Sn**	**05 21 04.7**	**-1.1**
	comp=E,24nm,0.2s						
ESPR	**Espera**	**3.87**	**89**	P	**Pn**	**05 20 19.7**	**-0.6**
	comp=E,4.3nm,0.2s,SNR=10.0						
ESPR				S	**Sn**	**05 21 04.7**	**-1.1**
	comp=E,24nm,0.2s						
PCBR	**Castelo Branco**	**3.89**	**39**	*e*Pn	**Pn**	**05 20 21.1**	**+0.5**
PCBR				*e*Sn	**Sn**	**05 21 07.0**	**+0.6**
PCBR				A		05 21 09.3	
	comp=E,3.5nm,0.2s						
PCBR	**Castelo Branco**	**3.89**	**39**	P	**Pn**	**05 20 21.1**	**+0.5**
PCBR				S	**Sn**	**05 21 07.0**	**+0.6**
	comp=E,1.8nm,0.2s						
PCBR	**Castelo Branco**	**3.89**	**39**	*e*Pn	**Pn**	**05 20 21.1**	**+0.5**
PCBR				*e*Sn	**Sn**	**05 21 07.0**	**+0.6**
	comp=E,3.5nm,0.2s						
MTE	**Manteigas**	**4.30**	**34**	*e*Pn	**Pn**	**05 20 26.3**	**+0.1**
MTE				*e*Sn	**Sn**	**05 21 17.1**	**+0.7**
MTE	**Manteigas**	**4.30**	**34**	Pn	**Pn**	**05 20 26.5**	**+0.3**
MTE				Sn	**Sn**	**05 21 17.3**	**+0.9**
MTE	**Manteigas**	**4.30**	**34**	*e*Pn	**Pn**	**05 20 26.3**	**+0.1**
MTE				*e*Sn	**Sn**	**05 21 17.1**	**+0.7**
ECAB	**El Cabril**	**4.36**	**72**	P	**Pn**	**05 20 26.9**	**-0.1**
	comp=E,1.4nm,0.1s,SNR=7.7						
ECAB				S	**Sn**	**05 21 17.0**	**-0.9**
	comp=E,5.3nm,0.2s,SNR=7.4						
ECAB	**El Cabril**	**4.36**	**72**	P	**Pn**	**05 20 27.0**	**0.0**
	comp=E,1.4nm,0.1s,SNR=7.7						
ECAB				S	**Sn**	**05 21 17.0**	**-0.9**
	comp=E,5.3nm,0.2s,SNR=7.4						
PVIS	**Viseu**	**4.42**	**29**	*e*Pn	**Pn**	**05 20 27.9**	**+0.1**
PVIS				*e*Sn	**Sn**	**05 21 19.3**	**0.0**
PVIS				A		05 21 21.7	
	comp=E,4.8nm,0.1s						
PVIS	**Viseu**	**4.42**	**29**	P	**Pn**	**05 20 27.9**	**+0.1**
PVIS				S	**Sn**	**05 21 19.3**	**0.0**
	comp=E,2.4nm,0.1s						
PVIS	**Viseu**	**4.42**	**29**	*e*Pn	**Pn**	**05 20 27.9**	**+0.1**
PVIS				*e*Sn	**Sn**	**05 21 19.3**	**0.0**
	comp=E,4.8nm,0.1s						
PVRL	**Vila Real**	**4.97**	**27**	*e*Sn	**Sn**	**05 21 32.2**	**-0.7**
PVRL				A		05 21 34.7	
	comp=E,4.9nm,0.3s						
PVRL	**Vila Real**	**4.97**	**27**	S	**Sn**	**05 21 32.2**	**-0.7**
	comp=E,2.5nm,0.3s						
PVRL	**Vila Real**	**4.97**	**27**	*e*Sn	**Sn**	**05 21 32.2**	**-0.7**
	comp=E,4.9nm,0.3s						
EADA	**Adamuz**	**5.03**	**73**	P	**Pn**	**05 20 36.2**	**0.0**
	comp=E,0.9nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**05 21 33.0**	**-1.3**
	comp=E,3.6nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**5.03**	**73**	P	**Pn**	**05 20 36.2**	**0.0**
	comp=E,0.9nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**05 21 33.0**	**-1.3**
	comp=E,3.6nm,0.1s,SNR=7.9						
MVO	**Moncorvo**	**5.15**	**32**	*e*Pn	**Pn**	**05 20 37.7**	**-0.2**
MVO				*e*Sn	**Sn**	**05 21 36.7**	**-0.6**
MVO	**Moncorvo**	**5.15**	**32**	*e*Pn	**Pn**	**05 20 37.7**	**-0.2**
MVO				*e*Sn	**Sn**	**05 21 36.7**	**-0.6**
PCAB	**Cabril**	**5.26**	**22**	*e*Pn	**Pn**	**05 20 39.9**	**+0.5**
PCAB				*e*Sn	**Sn**	**05 21 38.9**	**-1.1**
PCAB				A		05 21 53.9	
	comp=E,2.1nm,0.4s						
PCAB	**Cabril**	**5.26**	**22**	P	**Pn**	**05 20 39.9**	**+0.5**
PCAB				S	**Sn**	**05 21 38.9**	**-1.1**
	comp=E,1.1nm,0.4s						
PCAB	**Cabril**	**5.26**	**22**	*e*Pn	**Pn**	**05 20 39.9**	**+0.5**
PCAB				*e*Sn	**Sn**	**05 21 38.9**	**-1.1**
	comp=E,2.1nm,0.4s						
ELOB	**Lobios**	**5.39**	**21**	P	**Pn**	**05 20 40.5**	**-0.7**
	comp=E,0.7nm,0.1s,SNR=6.6						
ELOB				S	**Sn**	**05 21 41.3**	**-2.0**
	comp=E,1.6nm,0.1s						
ELOB	**Lobios**	**5.39**	**21**	P	**Pn**	**05 20 40.5**	**-0.7**
	comp=E,0.7nm,0.1s,SNR=6.6						
ELOB				S	**Sn**	**05 21 41.3**	**-2.0**
	comp=E,1.6nm,0.1s						
EZAM	**Zamans**	**5.49**	**16**	S	**Sn**	**05 21 43.7**	**-2.1**
	comp=E,2.1nm,0.2s,SNR=7.9						
EZAM	**Zamans**	**5.49**	**16**	S	**Sn**	**05 21 43.7**	**-2.1**
	comp=E,2.1nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	**5.63**	**75**	P	**Pn**	**05 20 44.6**	**0.0**
	comp=E,0.8nm,0.1s,SNR=7.9						
EBAN				S	**Sn**	**05 21 46.9**	**-2.4**
	comp=E,1.4nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	**5.63**	**75**	P	**Pn**	**05 20 44.6**	**0.0**
	comp=E,0.8nm,0.1s,SNR=7.9						
EBAN				S	**Sn**	**05 21 46.9**	**-2.4**
	comp=E,1.4nm,0.2s,SNR=7.9						
PBRG	**Braganca**	**5.80**	**31**	*e*Sn	**Sn**	**05 21 52.3**	**-1.1**
PBRG				A		05 21 54.4	
	comp=E,2.4nm,0.2s						
PBRG	**Braganca**	**5.80**	**31**	S	**Sn**	**05 21 52.3**	**-1.1**
	comp=E,1.2nm,0.2s						
PBRG	**Braganca**	**5.80**	**31**	*e*Sn	**Sn**	**05 21 52.3**	**-1.1**
	comp=E,2.4nm,0.2s						
EQUE	**Quentar**	**5.80**	**85**	S	**Sn**	**05 21 52.3**	**-1.2**
	comp=E,0.3nm,0.1s,SNR=7.9						
EQUE	**Quentar**	**5.80**	**85**	S	**Sn**	**05 21 52.3**	**-1.2**
	comp=E,0.3nm,0.1s,SNR=7.9						
ECAL	**Calabor**	**5.92**	**30**	P	**Pn**	**05 20 48.8**	**+0.4**
	comp=E,0.2nm,0.1s,SNR=7.9						
ECAL				S	**Sn**	**05 21 54.8**	**-1.4**
	comp=E,4.6nm,0.2s,SNR=7.1						
ECAL	**Calabor**	**5.92**	**30**	P	**Pn**	**05 20 48.8**	**+0.4**
	comp=E,0.2nm,0.1s,SNR=7.9						
ECAL				S	**Sn**	**05 21 54.8**	**-1.5**
	comp=E,4.6nm,0.2s,SNR=7.1						
ESDC	**Sonseca Array**	**5.98**	**60**	P	**Pn**	**05 20 49.7**	**+0.4**
	comp=E,1.7nm,0.1s,baz=246,slow=13,SNR=7.9						
ESDC				S	**Sn**	**05 21 56.7**	**-1.3**
	comp=E,1.2nm,0.1s,baz=244,slow=23,SNR=5.9						
ESDC	**Sonseca Array**	**5.98**	**60**	P	**Pn**	**05 20 49.7**	**+0.3**
	comp=E,1.7nm,0.1s,baz=246,slow=13,SNR=7.9						
ESDC				S	**Sn**	**05 21 56.7**	**-1.2**
	comp=E,1.2nm,0.1s,baz=244,slow=23,SNR=5.9						
EQES	**Quesada**	**6.14**	**79**	P	**Pn**	**05 20 51.2**	**-0.2**
	comp=E,0.1nm,0.1s,SNR=7.9						
EQES				S	**Sn**	**05 22 00.4**	**-1.4**
	comp=E,0.3nm,0.1s,SNR=7.9						
EQES	**Quesada**	**6.14**	**79**	P	**Pn**	**05 20 51.2**	**-0.3**
	comp=E,0.1nm,0.1s,SNR=7.9						
EQES				S	**Sn**	**05 22 00.4**	**-1.3**
	comp=E,0.3nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	**6.21**	**12**	S	**Sn**	**05 21 58.6**	**-5.0**
	comp=E,1.6nm,0.1s,SNR=7.9						
EHUE	**Huescar**	**6.51**	**79**	S	**Sn**	**05 22 09.2**	**-1.8**
	comp=E,0.3nm,0.1s,SNR=7.9						
EHUE	**Huescar**	**6.51**	**79**	S	**Sn**	**05 22 09.2**	**-1.8**
	comp=E,0.3nm,0.1s,SNR=7.9						
EVIA	**Vianos**	**6.72**	**72**	P	**Pn**	**05 20 58.4**	**-1.0**
	comp=E,0.4nm,0.1s,SNR=7.9						
EVIA				S	**Sn**	**05 22 13.6**	**-2.4**
	comp=E,0.4nm,0.1s,SNR=7.9						
EVIA	**Vianos**	**6.72**	**72**	P	**Pn**	**05 20 58.4**	**-1.1**
	comp=E,0.4nm,0.1s,SNR=7.9						
EVIA				S	**Sn**	**05 22 13.6**	**-2.4**
	comp=E,0.4nm,0.1s,SNR=7.9						
EPON	**Pontenova**	**7.00**	**22**	P	**Pn**	**05 21 02.7**	**-0.5**
	comp=E,0.8nm,0.2s,SNR=7.9						
EPON				S	**Sn**	**05 22 19.9**	**-3.0**
	comp=E,0.9nm,0.4s,SNR=7.9						
EPON	**Pontenova**	**7.00**	**22**	P	**Pn**	**05 21 02.7**	**-0.6**
	comp=E,0.8nm,0.2s,SNR=7.9						
EPON				S	**Sn**	**05 22 19.9**	**-2.9**
	comp=E,0.9nm,0.4s,SNR=7.9						
ETOB	**Tobarra**	**7.45**	**73**	P	**Pn**	**05 21 09.0**	**-0.6**
	comp=E,0.2nm,0.1s,SNR=4.0						
ETOB				S	**Sn**	**05 22 32.5**	**-1.6**
	comp=E,0.5nm,0.3s,SNR=7.9						
ETOB	**Tobarra**	**7.45**	**73**	P	**Pn**	**05 21 09.0**	**-0.5**
	comp=E,0.2nm,0.1s,SNR=4.0						
ETOB				S	**Sn**	**05 22 32.5**	**-1.6**
	comp=E,0.5nm,0.3s,SNR=7.9						
EARI	**Arriondas**	**7.67**	**31**	S	**Sn**	**05 22 38.1**	**-1.4**
	comp=E,0.3nm,0.3s,SNR=7.9						
EARI	**Arriondas**	**7.67**	**31**	S	**Sn**	**05 22 38.1**	**-1.4**
	comp=E,0.3nm,0.3s,SNR=7.9						
ETOR	**Torete**	**7.80**	**57**	P	**Pn**	**05 21 15.0**	**+0.7**
	comp=E,1.4nm,0.2s,SNR=4.0						
ETOR				S	**Sn**	**05 22 39.5**	**-3.2**
	comp=E,3.3nm,0.2s,SNR=7.9						
ETOR	**Torete**	**7.80**	**57**	P	**Pn**	**05 21 15.0**	**+0.7**
	comp=E,1.4nm,0.2s,SNR=4.0						

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*ISCJB **27** 05:22:31.3±0.2, 51°.52N±0°.01×16°.11E±0°.02, h0^{km}, mb3.7/7, Error ellipse: s-maj=1.9km s-min=1.5km az=17.8*
*MOS **27** 05:22:31.7±1.1, 51°.63N×16°.08E, h10^{km}, mb4.1/4, Error ellipse: s-maj=6.5km s-min=3.8km az=88.4*
*LDG **27** 05:22:32.7±0.3, 51°.53N×16°.12E, h1^{km}, Ml4.2/9, Error ellipse: s-maj=6.7km s-min=2.6km az=8.0, Suspected Mining induced.*
*NEIC **27** 05:22:33.1±0.4, 51°.61N×16°.06E, h5^{km}, MG3.4(WAR), Error ellipse: s-maj=5.2km s-min=3.5km az=190.0*
*IDC **27** 05:22:33.9±0.5, 51°.54N×15°.96E, h0^{km}, mb3.8/7, mb1 3.8/14, mb1mx3.7/27, mbtmp3.8/14, ML3.6/6, MS2.9/1, Ms1 2.9/1, ms1mx2.3/40, Error ellipse: s-maj=9.1km s-min=5.4km az=106.0*
*IPEC **27** 05:22:33.9±0.2, 51°.54N×16°.18E, h10^{km}±1^{km}, ML3.4/3, Error ellipse: s-maj=1.5km s-min=0.6km az=43.0*
*CSEM **27** 05:22:33.1±0.1, 51°.55N×16°.09E, h2^{km}, ML3.8, Ms3.7, Error ellipse: s-maj=2.0km s-min=1.8km az=10.0*
*PRU **27** 05:22:34.7, 51°.49N×16°.09E, h0^{km}, Felt In Harrachov*
*BGR **27** 05:22:34.6±0.4, 51°.46N×16°.09E, h1^{km}, ML3.8, Error ellipse: s-maj=4.4km s-min=2.2km az=19.0*
*WAR **27** 05:22:35, 51°.53N×16°.10E, ML3.3, Mining Induced*
*VIE **27** 05:22:36.9±0.5, 51°.28N×15°.97E, h0^{km}, mb3.3/11, ML3.4/12, Ms3.7/1, Error ellipse: s-maj=3.1km s-min=2.7km az=175.0 75 km WNW of Wroclaw Suspected Mining induced.*
*UPP **27** 05:22:39.7, 51°.96N×15°.52E, h0^{km}, ML2.0, Suspected Mining explosion.*
ISC 27 05:22:33.0±0.2**, 51°.55N**±0°.01×**16°.10E**±0°.02**, h0^{km}, n265, σ1^s.05**/408**, mb3.7**/7**, 27C-19D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.72**	**170**	*e*Pg	**Pg**	**05 22 47.4**	**+0.7**
KSP				*e*Sg	**Sg**	**05 22 56.7**	**+0.8**
KSP	**Ksiaz**	**0.72**	**170**	*i* Pg	**Pg**	**05 22 47.4**	**+0.7**
KSP				*e*Sg	**Sg**	**05 22 56.5**	**+0.6**
KSP				*e*L		05 23 00.4	
KSP	**Ksiaz**	**0.72**	**170**	*e*Pg	**Pg**	**05 22 47.4**	**+0.7**
KSP				*e*Sg	**Sg**	**05 22 56.8**	**+0.9**
KSP	**Ksiaz**	**0.72**	**170**	⇓*i*P	**Pg**	**05 22 47.4**	**+0.7**
KSP				*e*		05 22 56.5	
KSP	**Ksiaz**	**0.72**	**170**	⇓*i*Pg	**Pg**	**05 22 47.4**	**+0.7**
KSP				*e*Sg	**Sg**	**05 22 56.5**	**+0.6**
KSP				*e*		05 23 00.4	
KSP	**Ksiaz**	**0.72**	**170**	*e*Pg	**Pg**	**05 22 47.3**	**+0.6**
	baz=354						
KSP				*e*Sg	**Sg**	**05 22 56.5**	**+0.6**
UPC	**Upice**	**1.04**	**183**	*e*PG	**Pg**	**05 22 53.4**	**+0.5**
UPC	**Upice**	**1.04**	**183**	*e*Pg	**Pg**	**05 22 53.4**	**+0.5**
DPC	**Dobruska-Polom**	**1.21**	**173**	*e*Pg	**Pg**	**05 22 56.2**	**+0.1**
DPC				*e*Sg	**Sg**	**05 23 11.7**	**0.0**
DPC	**Dobruska-Polom**	**1.21**	**173**	*e*P	**Pg**	**05 22 56.3**	**+0.2**
DPC				*e*		05 23 10.8	
DPC				smax			
	comp=N,509nm,0.7s						
DPC	**Dobruska-Polom**	**1.21**	**173**	*e*PG	**Pg**	**05 22 56.3**	**+0.2**
DPC				*e*SG	**Sg**	**05 23 10.8**	**-0.9**
	comp=Z,509nm,0.7s						
DPC	**Dobruska-Polom**	**1.21**	**173**	*e*Pg	**Pg**	**05 22 56.1**	**0.0**
	baz=356						
DPC				Sg	**Sg**	**05 23 11.7**	**0.0**
PVCC	**Panska Ves**	**1.41**	**224**	*e*P	**Pn**	**05 22 59.8**	**0.0**
PVCC				*e*		05 23 18.8	
PVCC				smax			
	comp=N,1µm,0.4s						
PVCC	**Panska Ves**	**1.41**	**224**	*e*PG	**Pn**	**05 22 59.8**	**0.0**
PVCC				*e*SG	**Sg**	**05 23 18.8**	**+0.6**
	comp=Z,1µm,0.4s						
PVCC	**Panska Ves**	**1.41**	**224**	Pg	**Pn**	**05 22 59.8**	**0.0**
PVCC				*e*Sg	**Sg**	**05 23 18.7**	**+0.5**
	baz=44						
BRG	**Berggiesshubel**	**1.52**	**244**	*e*Pn	**Pn**	**05 23 00.7**	**-0.7**
BRG				*e*Sg	**Sg**	**05 23 22.8**	**+1.1**
BRG	**Berggiesshubel**	**1.52**	**244**	P	**Pn**	**05 23 00.9**	**-0.4**
BRG						05 23 22.7	
BRG				smax			
	comp=N,521nm,0.4s						
BRG	**Berggiesshubel**	**1.52**	**244**	PN	**Pn**	**05 23 00.9**	**-0.4**
BRG				PG	**Pg**	**05 23 02.7**	**+0.7**
BRG				SG	**Sg**	**05 23 22.7**	**+1.0**
	comp=N,870nm,0.4s						
BRG	**Berggiesshubel**	**1.52**	**244**	P	**Pn**	**05 23 00.9**	**-0.4**
BRG	**Berggiesshubel**	**1.52**	**244**	*e*Pn	**Pn**	**05 23 01.5**	**+0.2**
	baz=64						
RUE	**Ruedersdorf**	**1.71**	**304**	*e*Pn	**Pn**	**05 23 03.5**	**-0.5**
RUE				*e*Sn	**Sn**	**05 23 28.8**	**+2.2**
RUE	**Ruedersdorf**	**1.71**	**304**	*e*Pn	**Pn**	**05 23 03.5**	**-0.5**
	baz=122						
RUE				*e*Sn	**Sn**	**05 23 28.8**	**+2.2**
RUE				*e*Sg	**Sg**	**05 23 29.1**	**+1.1**
	baz=122						
FBE	**Freiberg**	**1.84**	**251**	*e*Pn	**Pn**	**05 23 05.2**	**-0.5**
FBE				*e*Sg	**Sg**	**05 23 32.7**	**+0.7**
FBE	**Freiberg**	**1.84**	**251**	Pn	**Pn**	**05 23 05.2**	**-0.6**
FBE				Sg	**Sg**	**05 23 32.7**	**+0.7**
PRU	**Pruhonice**	**1.85**	**213**	*e*P	**Pn**	**05 23 05.8**	**-0.1**
PRU				*e*		05 23 31.5	
PRU				smax			
	comp=N,276nm,0.4s						
PRU	**Pruhonice**	**1.85**	**213**	*e*PN	**Pn**	**05 23 05.8**	**-0.1**
PRU				*e*PG	**Pg**	**05 23 07.8**	**-0.6**
PRU				*e*SG	**Sg**	**05 23 31.5**	**-0.9**
	comp=Z,276nm,0.4s						
PRU	**Pruhonice**	**1.85**	**213**	Pn	**Pn**	**05 23 05.8**	**-0.1**
GKP	**Gorka Klasztor**	**1.86**	**21**	*e*Pn	**Pn**	**05 23 13.5**	**+7.5**
GKP				*e*Pg	**Pg**	**05 23 16.4**	**+7.8**
GKP				*e*Sn	**Sn**	**05 23 39.2**	**+9.0**
GKP	**Gorka Klasztor**	**1.86**	**21**	*e*P	**Pn**	**05 23 13.5**	**+7.5**
GKP				*e*		05 23 16.4	
GKP	**Gorka Klasztor**	**1.86**	**21**	*e*Pn	**Pn**	**05 23 13.5**	**+7.5**
GKP				*e*Pg	**Pg**	**05 23 16.4**	**+7.8**
GKP				*e*Sn	**Sn**	**05 23 39.2**	**+9.0**
CLL	**Collm**	**1.96**	**264**	*e*Pn	**Pn**	**05 23 06.7**	**-0.7**
CLL				*e*Pg	**Pg**	**05 23 10.0**	**-0.4**
CLL				*e*Sg	**Sg**	**05 23 36.8**	**+1.0**
CLL	**Collm**	**1.96**	**264**	*e*Pn	**Pn**	**05 23 07.0**	**-0.4**
CLL				*e*Pg	**Pg**	**05 23 10.0**	**-0.4**
CLL				*i*		05 23 13.8	
CLL				*i* Sg	**Sg**	**05 23 36.9**	**+1.1**
	comp=Z,302nm,0.7s						
CLL				*i*		05 23 42.5	
CLL	**Collm**	**1.96**	**264**	*e*Pn	**Pn**	**05 23 07.0**	**-0.4**
CLL				*e*Pg	**Pg**	**05 23 10.0**	**-0.4**
CLL				*i* Sg	**Sg**	**05 23 36.9**	**+1.1**
CLL	**Collm**	**1.96**	**264**	*e*Pn	**Pn**	**05 23 07.0**	**-0.4**
CLL	**Collm**	**1.96**	**264**	Pg	**Pg**	**05 23 10.0**	**-0.4**
CLL				*e*Sg	**Sg**	**05 23 35.8**	**0.0**
	baz=82						
CLL				*i* S	**Sg**	**05 23 36.9**	**+1.1**
RAC	**Raciborz**	**1.98**	**137**	*e*Pn	**Pn**	**05 23 07.1**	**-0.5**
RAC				*e*Pg	**Pg**	**05 23 11.3**	**+0.5**
RAC				*e*Sg	**Sg**	**05 23 36.4**	**0.0**
RAC	**Raciborz**	**1.98**	**137**	*e*Pn	**Pn**	**05 23 07.1**	**-0.5**
MORC	**Moravsky Berou**	**2.00**	**152**	*e*Pn	**Pn**	**05 23 07.2**	**-0.7**
MORC				*e*Sg	**Sg**	**05 23 36.2**	**-0.8**
MORC	**Moravsky Berou**	**2.00**	**152**	⇓*i*P	**Pn**	**05 23 07.6**	**-0.3**
MORC	**Moravsky Berou**	**2.00**	**152**	⇓P	**Pn**	**05 23 07.6**	**-0.3**
MORC				S	**Sn**	**05 23 34.7**	**+1.2**
MORC	**Moravsky Berou**	**2.00**	**152**	*e*Pn	**Pn**	**05 23 07.6**	**-0.3**
	baz=334						
MORC				S	**Sn**	**05 23 34.7**	**+1.2**
MORC				Sg	**Sg**	**05 23 36.2**	**-0.8**
OKC	**Ostrava-Krasne**	**2.15**	**142**	*e*Pn	**Pn**	**05 23 09.0**	**-1.0**
OKC				*e*Sg	**Sg**	**05 23 41.3**	**-0.7**
OKC	**Ostrava-Krasne**	**2.15**	**142**	*e*P	**Pn**	**05 23 09.0**	**-1.0**
OKC				*e*		05 23 41.1	
OKC				smax			
	comp=N,456nm,0.6s						
OKC	**Ostrava-Krasne**	**2.15**	**142**	*e*PN	**Pn**	**05 23 09.0**	**-1.0**
OKC				*e*PG	**Pg**	**05 23 13.8**	**-0.3**
OKC				*e*SG	**Sg**	**05 23 41.1**	**-0.9**
	comp=Z,456nm,0.6s						
OKC	**Ostrava-Krasne**	**2.15**	**142**	Pn	**Pn**	**05 23 09.0**	**-1.0**
VRAC	**Vranov**	**2.26**	**172**	P	**Pn**	**05 23 12.6**	**+1.0**
VRAC						05 23 43.6	
VRAC				pmax	pmax		
	comp=Z,11nm,0.3s						
VRAC	**Vranov**	**2.26**	**172**	⇓*i*P	**Pn**	**05 23 11.9**	**+0.3**
VRAC	**Vranov**	**2.26**	**172**	Pn	**Pn**	**05 23 12.6**	**+1.0**
	comp=Z,11nm,0.3s,baz=342,slow=14,SNR=38						
VRAC				Lg		05 23 43.6	
	comp=Z,22nm,0.3s,baz=90,slow=22,SNR=13						
VRAC	**Vranov**	**2.26**	**172**	⇓P	**Pn**	**05 23 11.8**	**+0.3**
VRAC				S	**Sn**	**05 23 41.8**	**+1.6**
VRAC	**Vranov**	**2.26**	**172**	*e*Pn	**Pn**	**05 23 11.8**	**+0.2**
VRAC				S	**Sn**	**05 23 41.8**	**+1.6**
VRAC				*e*Sg	**Sg**	**05 23 43.7**	**-2.0**
	comp=Z,172nm,0.4s,baz=353						
TREC	**Trest**	**2.29**	**190**	*e*PN	**Pn**	**05 23 12.4**	**+0.5**
TREC				*e*PG	**Pg**	**05 23 16.0**	**-0.8**
TREC	**Trest**	**2.29**	**190**	*e*Pn	**Pn**	**05 23 12.3**	**+0.4**
	baz=11						
TREC	**Trest**	**2.29**	**190**	Pg	**Pg**	**05 23 16.0**	**-0.8**
TREC				*e*Sg	**Sg**	**05 23 45.8**	**-0.7**
	baz=11						
KRUC	**Moravsky**	**2.50**	**176**	*e*Pn	**Pn**	**05 23 15.2**	**+0.4**
	baz=357						
KRUC	**Moravsky**	**2.50**	**176**	*e*Pg	**Pg**	**05 23 19.5**	**-1.3**
KRUC				*e*Sg	**Sg**	**05 23 52.1**	**-1.0**
	comp=Z,140nm,0.6s,baz=357						
TANN	**Tannenbergstha**	**2.57**	**245**	*e*Pn	**Pn**	**05 23 16.1**	**+0.3**
TANN				*e*Sg	**Sg**	**05 23 55.1**	**-0.3**
TANN	**Tannenbergstha**	**2.57**	**245**	Pn	**Pn**	**05 23 16.1**	**+0.4**
TANN				Sg	**Sg**	**05 23 55.1**	**-0.3**
WERD	**Werda**	**2.64**	**247**	*e*Pn	**Pn**	**05 23 16.9**	**+0.1**
WERD				*e*Sg	**Sg**	**05 23 56.9**	**-0.8**
WERD	**Werda**	**2.64**	**247**	Pn	**Pn**	**05 23 16.9**	**+0.1**
WERD				Sg	**Sg**	**05 23 56.9**	**-0.8**
NKC	**Novy Kostel**	**2.66**	**242**	*e*PN	**Pn**	**05 23 17.4**	**+0.3**
NKC				*e*PG	**Pg**	**05 23 24.2**	**+0.2**
NKC				*e*SG	**Sg**	**05 23 59.6**	**+1.1**
	comp=Z,718nm,0.3s						
NKC	**Novy Kostel**	**2.66**	**242**	*e*Pn	**Pn**	**05 23 17.3**	**+0.2**
	baz=60						
OJC	**Ojcow**	**2.69**	**118**	*e*Pn	**Pn**	**05 23 15.9**	**-1.6**
OJC				*e*Pg	**Pg**	**05 23 24.9**	**+0.4**
OJC				*e*Sn	**Sn**	**05 23 49.4**	**-1.3**
OJC				*e*Sg	**Sg**	**05 23 59.8**	**+0.4**
OJC	**Ojcow**	**2.69**	**118**	*e*Pn	**Pn**	**05 23 17.4**	**0.0**
OJC				*e*Sg	**Sg**	**05 23 59.9**	**+0.5**
OJC	**Ojcow**	**2.69**	**118**	*e*P	**Pn**	**05 23 15.9**	**-1.6**
OJC				*e*		05 23 49.4	
OJC	**Ojcow**	**2.69**	**118**	*e*P	**Pn**	**05 23 15.9**	**-1.6**
OJC	**Ojcow**	**2.69**	**118**	Pn	**Pn**	**05 23 17.4**	**-0.1**
JAVC	**Velka Javorina**	**2.87**	**159**	*e*Pn	**Pn**	**05 23 21.7**	**+1.7**
JAVC				*e*Sg	**Sg**	**05 24 05.4**	**+0.2**
KHC	**Kasperske Hory**	**2.91**	**215**	*e*PN	**Pn**	**05 23 20.3**	**-0.2**
KHC				*e*PG	**Pg**	**05 23 26.9**	**-1.8**
KHC				*e*SN	**Sn**	**05 23 55.0**	**-1.1**
KHC				*e*SG	**Sg**	**05 24 04.7**	**-1.7**
	comp=Z,117nm,0.6s						
KHC	**Kasperske Hory**	**2.91**	**215**	*e*Pn	**Pn**	**05 23 20.3**	**-0.2**
MGBB	**Grossbuechelbe**	**2.93**	**239**	⇓*i*Pn	**Pn**	**05 23 21.1**	**+0.4**
MGBB	**Grossbuechelbe**	**2.93**	**239**	Pn	**Pn**	**05 23 21.1**	**+0.4**
MOX	**Moxa**	**2.97**	**254**	*e*PN	**Pn**	**05 23 21.0**	**-0.3**
MOX				*i* PG	**Pg**	**05 23 30.1**	**+0.2**
MOX				*i* SG	**Sg**	**05 24 09.8**	**+1.4**
MOX	**Moxa**	**2.97**	**254**	*e*Pn	**Pn**	**05 23 21.0**	**-0.3**
MOX				*i* Pg	**Pg**	**05 23 30.1**	**+0.2**
MOX				*e*Sg	**Sg**	**05 24 09.6**	**+1.3**
MOX	**Moxa**	**2.97**	**254**	Pn	**Pn**	**05 23 21.0**	**-0.3**
MANZ	**Manzenberg**	**2.98**	**240**	*e*Pn	**Pn**	**05 23 21.9**	**+0.5**
MANZ	**Manzenberg**	**2.98**	**240**	Pn	**Pn**	**05 23 21.9**	**+0.5**
ROTZ	**Rotzenmuhle**	**3.06**	**236**	*e*Pn	**Pn**	**05 23 22.8**	**+0.3**
GEC2	**GERESS Array S**	**3.12**	**211**	*e*Pn	**Pn**	**05 23 23.5**	**+0.2**
GEC2	**GERESS Array S**	**3.12**	**211**	*e*Pn	**Pn**	**05 23 23.5**	**+0.2**
GEC2	**GERESS Array S**	**3.12**	**211**	Pn	**Pn**	**05 23 23.5**	**+0.2**
GERES	**GERESS Array B**	**3.12**	**211**	P	**Pn**	**05 23 23.5**	**+0.2**
GERES						05 24 00.6	
GERES	**GERESS Array B**	**3.12**	**211**	Pn	**Pn**	**05 23 23.5**	**+0.2**
	comp=Z,12nm,0.3s,baz=32,slow=12,SNR=233						
GERES				Pg	**Pg**	**05 23 30.6**	**-2.1**
	comp=Z,16nm,0.3s,baz=26,slow=17,SNR=46						
GERES				Sn	**Sn**	**05 24 00.6**	**-0.6**
	comp=Z,12nm,0.3s,baz=22,slow=29,SNR=7.0						
GERES				Lg		05 24 11.3	
	comp=Z,15nm,0.3s,baz=20,slow=26,SNR=5.5						
GERES	**GERESS Array B**	**3.12**	**211**	Pn	**Pn**	**05 23 23.5**	**+0.2**
GERES	**GERESS Array B**	**3.12**	**211**	Pg	**Pg**	**05 23 30.6**	**-2.0**
GERES				S	**Sn**	**05 24 00.6**	**-0.6**
SMOL	**Smolenice**	**3.15**	**164**	*e*PN	**Pn**	**05 23 16.9**	**-6.9**
SMOL				*e*PG	**Pg**	**05 23 33.3**	**-0.1**
SMOL				*e*SG	**Sg**	**05 24 13.2**	**-1.1**
WET	**Wettzell**	**3.17**	**222**	*e*Pn	**Pn**	**05 23 24.6**	**+0.5**
WET				*e*Sg	**Sg**	**05 24 13.5**	**-1.3**
WET	**Wettzell**	**3.17**	**222**	*e*Pn	**Pn**	**05 23 24.6**	**+0.5**
WET				*e*Sg	**Sg**	**05 24 13.5**	**-1.3**
WET	**Wettzell**	**3.17**	**222**	*e*Pn	**Pn**	**05 23 24.5**	**+0.4**
	baz=40						
WET				Sg	**Sg**	**05 24 13.5**	**-1.3**
MODS	**Modra-Piesok**	**3.27**	**166**	*e*P	**Pn**	**05 23 25.0**	**-0.4**
MODS				pmax	pmax		
	comp=N,47nm,0.6s						
MODS	**Modra-Piesok**	**3.27**	**166**	*e*PN	**Pn**	**05 23 25.0**	**-0.4**
MODS				*e*PG	**Pg**	**05 23 35.2**	**-0.3**
MODS				*e*SG	**Sg**	**05 24 16.3**	**-1.6**
MODS	**Modra-Piesok**	**3.27**	**166**	*e*Pn	**Pn**	**05 23 25.0**	**-0.4**
KOLL	**Kolacno**	**3.32**	**153**	*e*PN	**Pn**	**05 23 29.6**	**+3.5**
KOLL				*e*PG	**Pg**	**05 23 40.1**	**+3.5**
KOLL				*e*SG	**Sg**	**05 24 20.0**	**+0.4**
KOLL	**Kolacno**	**3.32**	**153**	*e*Pn	**Pn**	**05 23 29.6**	**+3.5**
ZST	**Bratislava**	**3.42**	**169**	*e*P	**Pn**	**05 23 28.9**	**+1.5**
ZST				pmax	pmax		
	comp=N,104nm,0.6s						
ZST	**Bratislava**	**3.42**	**169**	*e*PN	**Pn**	**05 23 28.9**	**+1.5**
ZST				*e*PG	**Pg**	**05 23 38.1**	**-0.3**

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ZST                                eSG      Sg      05 24 23.5 +0.8
ZST   Bratislava          3.42 169 ePn      Pn      05 23 28.9 +1.5
NIE   Niedzica            3.43 127 ePn      Pn      05 23 27.7 +0.1
NIE                                ePg      Pg      05 23 38.2 -0.5
NIE                                eSn      Sn      05 24 06.1 -2.8
NIE                                eSg      Sg      05 24 23.0 -0.1
NIE   Niedzica            3.43 127 eP       Pn      05 23 27.7 +0.1
NIE                                e                05 24 06.1
NIE   Niedzica            3.43 127 ePn      Pn      05 23 27.7 +0.1
VYHS  Vyhne               3.53 149 eP       Pn      05 23 28.7 -0.3
VYHS                                pmax    pmax
      comp=N,20nm,0.6s
VYHS  Vyhne               3.53 149 ePN      Pn      05 23 28.7 -0.3
VYHS                               ePG      Pg      05 23 39.4 -1.2
VYHS                               eSG      Sg      05 24 22.9 -3.4
VYHS  Vyhne               3.53 149 ePn      Pn      05 23 28.7 -0.3
CLZ   Clausthal           3.58 277 ePn      Pn      05 23 30.5 +0.9
CLZ                                eSg      Sg      05 24 28.6 +0.7
CLZ   Clausthal           3.58 277 ePn      Pn      05 23 30.5 +0.8
CLZ                                eSg      Sg      05 24 28.6 +0.7
CLZ   Clausthal           3.58 277 ePn      Pn      05 23 30.4 +0.7
      baz=92
CLZ                                 Sg      Sg      05 24 28.6 +0.7
GRA1  Grafenberg Arr      3.62 241 ePn      Pn      05 23 30.9 +0.6
GRA1                               eSg      Sg      05 24 29.5 +0.2
GRA1  Grafenberg Arr      3.62 241  Pn      Pn      05 23 30.9 +0.6
GRA1                                Sg      Sg      05 24 29.5 +0.2
GRF   Grafenberg Arr      3.62 241 ePn      Pn      05 23 30.9 +0.6
GRF                                eSg      Sg      05 24 29.5 +0.2
GRF   Grafenberg Arr      3.62 241 ePn      Pn      05 23 30.9 +0.6
GRF                                eSg      Sg      05 24 29.5 +0.2
GRF   Grafenberg Arr      3.62 241 ePn      Pn      05 23 30.9 +0.6
GRF                                eSg      Sg      05 24 29.5 +0.2
CONA  Conrad Observa      3.63 183⇑iPn      Pn      05 23 31.0 +0.7
CONA                              ⇑iSg      Sg      05 24 28.0 -1.5
      comp=N,132nm,0.4s
CONA  Conrad Observa      3.63 183  Pn      Pn      05 23 31.0 +0.7
CONA                                Sg      Sg      05 24 28.0 -1.4
      comp=N,132nm,0.4s
CSNA  Conrad Observa      3.63 183⇑iPn      Pn      05 23 31.0 +0.7
CSNA                              ⇓iSg      Sg      05 24 27.9 -1.5
      comp=N,139nm,0.5s
CSNA  Conrad Observa      3.63 183  Pn      Pn      05 23 31.0 +0.7
CSNA                                Sg      Sg      05 24 27.9 -1.5
      comp=N,139nm,0.5s
BSD   Bornholm Skovb      3.64 349 i P      Pn      05 23 29.7 -0.8
BSD                                i S      Sn      05 24 12.2 -2.0
BSD   Bornholm Skovb      3.64 349 i P      Pn      05 23 29.7 -0.8
BSD                                i S      Sn      05 24 12.2 -2.0
SOP   Sopron              3.88 175⇓ePn      Pn      05 23 34.0 +0.2
SOP   Sopron              3.88 175⇓eP       Pn      05 23 34.0 +0.2
HROE  Hohe Rhon--Fla      3.89 257⇓iPn      Pn      05 23 34.0 +0.1
HROE  Hohe Rhon--Fla      3.89 257  Pn      Pn      05 23 34.0 +0.1
MOA   Molln               3.89 199⇓iPn      Pn      05 23 34.2 +0.3
MOA                               ⇑iSg      Sg      05 24 36.3 -1.6
MOA   Molln               3.89 199  Pn      Pn      05 23 34.2 +0.3
MOA                                 Sg      Sg      05 24 36.3 -1.6
STHS  Stebnicka Huta      3.92 121 eP       Pn      05 23 34.9 +0.6
STHS                                pmax    pmax
      comp=N,91nm,0.7s
STHS  Stebnicka Huta      3.92 121 ePN      Pn      05 23 34.9 +0.6
STHS                               ePG      Pg      05 23 47.7 -0.2
STHS                               eSN      Sn      05 24 04.1  -17
STHS                               eSG      Sg      05 24 38.8 +0.1
STHS  Stebnicka Huta      3.92 121 ePn      Pn      05 23 34.9 +0.6
KECS  Kecovo              4.17 136 eP       Pn      05 23 37.7 -0.1
KECS                                pmax    pmax
      comp=N,24nm,0.7s
KECS  Kecovo              4.17 136 ePN      Pn      05 23 37.7 -0.1
KECS                               ePG      Pg      05 23 53.5 +0.7
KECS                               eSG      Sg      05 24 47.4 +0.5
ARSA  Arzberg             4.32 185⇑iPn      Pn      05 23 41.0 +1.1
ARSA                              ⇑iSg      Sg      05 24 51.2 -0.4
      comp=N,128nm,0.5s
ARSA  Arzberg             4.32 185  Pn      Pn      05 23 41.0 +1.2
ARSA                                Sg      Sg      05 24 51.2 -0.4
      comp=N,128nm,0.5s
CRVS  Cervenica-Dubn      4.34 126 ePN      Pn      05 23 40.8 +0.7
CRVS                               ePG      Pg      05 23 55.2 -0.9
CRVS                               eSG      Sg      05 24 51.4 -0.9
CRVS  Cervenica-Dubn      4.34 126 ePn      Pn      05 23 40.8 +0.7
PSZ   Piszkesteto         4.39 144⇑iP       Pn      05 23 41.6 +0.8
PSZ   Piszkesteto         4.39 144⇓ePn      Pn      05 23 41.9 +1.1
PSZ   Piszkesteto         4.39 144 ⇑P       Pn      05 23 41.6 +0.8
PSZ   Piszkesteto         4.39 144  P       Pn      05 23 41.6 +0.8
BUD   Budapest            4.49 154 ePB      Pb      05 23 58.8 +6.2
KWP   Kalwaria Pacla      4.62 112 ePn      Pg      05 23 59.1 -2.4
KOLS  Kolonicke sedl      4.75 121 ePN      Pn      05 23 46.0 +0.3
KOLS                               ePG      Pg      05 24 07.7 +3.8
KOLS                               eSG      Sg      05 25 09.2 +3.9
KOLS  Kolonicke sedl      4.75 121 ePn      Pn      05 23 46.0 +0.3
KBA   Koelnbreinsper      4.82 203⇓iPn      Pn      05 23 47.5 +0.8
KBA                               ⇑iSg      Sg      05 25 06.7 -1.2
      comp=N,72nm,0.6s
KBA   Koelnbreinsper      4.82 203  Pn      Pn      05 23 47.5 +0.7
KBA                                 Sg      Sg      05 25 06.7 -1.1
      comp=N,72nm,0.6s
UZH   Uzhgorod            4.94 124 eP       Pn      05 23 50.3 +2.0
UZH                                eS       Sn      05 24 48.5 +2.4
UZH                                 smax
      comp=N,60nm,1.2s
UZH                                 smax
      comp=E,120nm,1.2s
UZH                                 smax
      comp=Z,60nm,1.2s
UZH   Uzhgorod            4.94 124 eP       Pn      05 23 50.3 +2.0
UZH                                eS       Sn      05 24 48.5 +2.4
GROS  Grobnik             5.11 185 i Pn     Pn      05 23 51.7 +1.0
GROS  Grobnik             5.11 185 i Pn     Pn      05 23 51.7 +1.0
WATA  Walderalm           5.15 217⇓iPn      Pn      05 23 51.8 +0.6
WATA                              ⇑iSg      Sg      05 25 18.9 +0.7
      comp=Z,48nm,0.8s
WATA  Walderalm           5.15 217  Pn      Pn      05 23 51.8 +0.6
WATA                                Sg      Sg      05 25 18.9 +0.7
      comp=Z,48nm,0.8s
ZAVS  Zavodnje            5.17 188 i Pn     Pn      05 23 52.6 +1.2
ZAVS  Zavodnje            5.17 188 i Pn     Pn      05 23 52.6 +1.1
WTTA  Wattenberg          5.18 216⇑iPn      Pn      05 23 53.2 +1.5
WTTA                              ⇑iSg      Sg      05 25 19.3 -0.1
      comp=Z,38nm,0.5s
WTTA  Wattenberg          5.18 216  Pn      Pn      05 23 53.2 +1.5
WTTA                                Sg      Sg      05 25 19.3 -0.1
      comp=Z,38nm,0.5s
MOTA  Moosalm             5.32 220⇑iPn      Pn      05 23 54.0 +0.4
MOTA  Moosalm             5.32 220  Pn      Pn      05 23 54.0 +0.4
LVV   L'vov               5.33 106 eP       Pn      05 23 50.3 -3.4
LVV                                eS       Sn      05 24 48.5 -7.2
LVV   L'vov               5.33 106 eP       Pn      05 23 50.3 -3.4
RETA  Reutte              5.35 223⇑iPn      Pn      05 23 54.2 +0.2
RETA                              ⇑iSg      Sg      05 25 24.6 -0.1
      comp=Z,70nm,0.6s
RETA  Reutte              5.35 223  Pn      Pn      05 23 54.2 +0.2
RETA                                Sg      Sg      05 25 24.6 -0.1
      comp=Z,70nm,0.6s
ABTA  Abfaltersbach       5.35 208⇑iPn      Pn      05 23 55.1 +1.1
ABTA                              ⇑iSg      Sg      05 25 24.4 -0.3
      comp=Z,39nm,0.6s
ABTA  Abfaltersbach       5.35 208  Pn      Pn      05 23 55.1 +1.1
ABTA                                Sg      Sg      05 25 24.4 -0.4
      comp=Z,39nm,0.6s
TRPA  Tarpa               5.39 127⇓iP       Pn      05 23 54.9 +0.4
TRPA  Tarpa               5.39 127⇓iP       Pn      05 23 54.9 +0.4
VXJU  Vaexsjoe            5.43 353  P       Pn      05 23 54.5 -0.5
VNDS  Vrh nad Dolski      5.53 190 i Pn     Pn      05 23 57.3 +0.9
VNDS  Vrh nad Dolski      5.53 190 i Pn     Pn      05 23 57.3 +0.8
PDKS  Podkum              5.54 188 i Pn     Pn      05 23 57.9 +1.3
PKSM  Moragy              5.60 162⇓eP       Pn      05 23 58.8 +1.4
LEGS  Legarje             5.63 186 i Pn     Pn      05 23 59.0 +1.1
LEGS  Legarje             5.63 186 i Pn     Pn      05 23 59.0 +1.2
OSKU  Oskarshamn          5.66 360  P       Pn      05 23 57.8 -0.4
VOY   Vojsko              5.71 196 ePn      Pn      05 23 59.3 +0.4
VOY                                eSn      Sg      05 25 37.1 +0.8
VOY   Vojsko              5.71 196 ePn      Pn      05 23 59.3 +0.4
FETA  Feichten            5.74 220⇑iPn      Pn      05 24 00.1 +0.8
FETA                              ⇑iSg      Sg      05 25 37.3 +0.2
      comp=Z,37nm,0.8s
FETA  Feichten            5.74 220  Pn      Pn      05 24 00.1 +0.8
FETA                                Sg      Sg      05 25 37.3 +0.2
      comp=Z,37nm,0.8s
CRES  Cresnjev            5.74 185 i Pn     Pn      05 24 00.3 +0.9
CRES  Cresnjev            5.74 185 i Pn     Pn      05 24 00.3 +0.9
BYXU  Byxelkrok           5.78   5  P       Pn      05 23 59.8  0.0
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VISS  Visnje              5.81 189 i Pn     Pn      05 24 01.3 +1.0
VISS  Visnje              5.81 189 i Pn     Pn      05 24 01.3 +1.0
DAVA  Damuels             5.89 226⇑iPn      Pn      05 24 01.2 -0.2
DAVA                              ⇓iSg      Sg      05 25 44.2 +2.2
      comp=Z,75nm,0.7s
DAVA  Damuels             5.89 226  Pn      Pn      05 24 01.2 -0.2
DAVA                                Sg      Sg      05 25 44.2 +2.2
      comp=Z,75nm,0.7s
ASPU  Aespoe              5.89   3  P       Pn      05 24 01.5 +0.1
BFO   Black Forest        5.96 240 eP       Pn      05 24 01.3 -1.1
BFO                                 pmax    pmax
      comp=Z,20nm,0.6s
BFO   Black Forest        5.96 240 ePn      Pn      05 24 01.3 -1.1
      comp=Z,20nm,0.6s
BFO                                eSg      Sg      05 25 42.5 -1.8
BFO   Black Forest        5.96 240 ePn      Pn      05 24 01.3 -1.1
      comp=Z,20nm,0.6s
BFO                                eSg      Sg      05 25 42.5 -1.9
BOJS  Bojanci             6.08 186 i Pn     Pn      05 24 05.0 +1.0
BOJS  Bojanci             6.08 186 i Pn     Pn      05 24 05.0 +1.0
VSTU  Vaestervik          6.13   2  P       Pn      05 24 04.8 +0.1
DAVOS Davos               6.27 224  P       Pn      05 24 06.7 +0.1
DAVOS Davos               6.27 224  P       Pn      05 24 06.7 +0.1
DAVOX Davos/Dischmat      6.28 223  Pn      Pn      05 24 06.6 -0.1
      comp=Z,1.5nm,0.3s,baz=17,slow=17,SNR=16
DAVOX                               Lg              05 25 52.2
      comp=Z,2.1nm,0.3s,baz=252,slow=20,SNR=3.7
DAVOX                               LR      LR      05 27 01.3
      comp=Z,125nm,21.6s,baz=127,slow=43
DAVOX Davos/Dischmat      6.28 223  Pn      Pn      05 24 06.7  0.0
DRGR                      6.43 135⇑iP       Pn      05 24 10.3 +1.4
DRGR                      6.43 135 ⇑P       Pn      05 24 10.3 +1.4
DRGR                      6.43 135  P       Pn      05 24 10.3 +1.4
CDF   Champ du Feu        6.50 245 ePn      Pn      05 24 08.4 -1.4
CDF                                eSg      Sg      05 25 55.4 -6.2
      comp=Z,92nm,0.8s
CDF   Champ du Feu        6.50 245 ePn      Pn      05 24 08.4 -1.4
LNKU  Linkoeping          6.70 357  P       Pn      05 24 11.8 -0.7
TUE   Stuetta             6.75 224 ePn      Pn      05 24 13.5 +0.3
      comp=Z,6.8nm,0.6s
TUE                                eSg      Sg      05 26 09.6  0.0
TUE   Stuetta             6.75 224 ePn      Pn      05 24 13.5 +0.3
      comp=Z,6.8nm,0.6s
TUE                                eSg      Sg      05 26 09.6  0.0
BZS   Buzias              6.97 146⇑iP       Pn      05 24 17.6 +1.4
BZS   Buzias              6.97 146 ⇑P       Pn      05 24 17.6 +1.3
BZS   Buzias              6.97 146  P       Pn      05 24 17.6 +1.4
VIKU  Vikbolandet         6.98   3  P       Pn      05 24 16.2 -0.1
HINF  Hinteralfeld        7.07 242 ePn      Pn      05 24 15.6 -2.0
HINF                               eSg      Sg      05 26 13.5 -6.3
      comp=Z,55nm,0.7s
HINF  Hinteralfeld        7.07 242 ePn      Pn      05 24 15.6 -2.0
BUR08 Bucovina Ar. S      7.08 120 ePn      Pn      05 24 18.4 +0.7
BUR08 Bucovina Ar. S      7.08 120 ePn      Pn      05 24 18.5 +0.7
BURAR Bucovina Array      7.11 120⇑iP       Pn      05 24 18.5 +0.3
BURAR Bucovina Array      7.11 120 ⇑P       Pn      05 24 18.5 +0.3
HAU   Haudompre           7.24 245 ePn      Pn      05 24 18.4 -1.6
HAU                                eSg      Sg      05 26 19.2 -6.2
      comp=Z,57nm,0.7s
HAU   Haudompre           7.24 245 ePn      Pn      05 24 18.4 -1.6
GIVF  Givet               7.29 263 eSg      Sg      05 26 21.0 -6.0
      comp=Z,70nm,0.9s
NYNU  Nynaeshamn          7.55   8  P       Pn      05 24 24.0 -0.2
NASU  Vaermlandsnaes      7.58 348  P       Pn      05 24 24.1 -0.5
GZR   Gura Zlata          7.59 142⇑iP       Pn      05 24 26.0 +1.3
GZR   Gura Zlata          7.59 142  P       Pn      05 24 26.0 +1.3
ESKU  Eskilstuna          7.70   1  P       Pn      05 24 26.0 -0.2
SFTF  Sexfontaines        7.89 249 ePn      Pn      05 24 26.3 -2.6
CABF  La Chapelle         8.22 237 eSg      Sg      05 26 50.3 -6.5
      comp=Z,106nm,1.0s
KIEV  Kiev                8.29  91 eP       Pn      05 24 35.0 +0.7
KIEV                                pmax    pmax
      comp=Z,11nm,0.6s
KIEV  Kiev                8.29  91 ePn      Pn      05 24 35.0 +0.7
      comp=Z,11nm,0.6s
KIEV  Kiev                8.29  91 eP       Pn      05 24 35.0 +0.7
      comp=Z,11nm,0.6s
AKASG Malin Array Be      8.30  91  P       Pn      05 24 34.3 -0.2
AKASG                                               05 26 03.6
AKASG Malin Array Be      8.30  91  Pn      Pn      05 24 34.3 -0.1
      comp=Z,3.2nm,0.3s,baz=279,slow=12,SNR=16
AKASG                               Sn      Sn      05 26 03.5 -5.3
      comp=Z,1.7nm,0.3s,baz=271,slow=23,SNR=5.2
AKASG                               Lg              05 27 01.9
      comp=Z,0.7nm,0.3s,baz=273,slow=27,SNR=4.2
AKASG Malin Array Be      8.30  91  P       Pn      05 24 34.3 -0.2
AKBB  Malin Array Si      8.30  91 eP       Pn      05 24 33.7 -0.8
AKBB  Malin Array Si      8.30  91 eP       Pn      05 24 33.7 -0.8
LPL   La Plagne           8.66 229 eP       Pn      05 24 42.1 +2.7
LPL   La Plagne           8.66 229 eP       Pn      05 24 42.1 +2.7
LPG   La Plagne           8.67 229 eSg      Sg      05 27 04.6 -6.5
      comp=Z,63nm,1.2s
HFS   Hagfors             8.71 352  P       Pn      05 24 38.3 -1.8
HFS                                                 05 26 16.0
HFS   Hagfors             8.71 352  Pn      Pn      05 24 38.3 -1.7
      comp=Z,0.2nm,0.3s,baz=168,slow=15,SNR=4.9
HFS                                 Sn      Sn      05 26 16.0 -2.8
      comp=Z,0.4nm,0.3s,baz=328,slow=44,SNR=3.2
HFS                                 Lg              05 27 06.1
      comp=Z,0.3nm,0.3s,baz=186,slow=27,SNR=3.1
HFS   Hagfors             8.71 352  P       Pn      05 24 38.3 -1.8
LOR   Lormes              9.06 247 ePn      Pn      05 24 43.4 -1.4
      baz=67
LOR                                eSg      Sg      05 27 16.8 -6.8
      comp=Z,32nm,1.0s
LOR   Lormes              9.06 247 ePn      Pn      05 24 43.4 -1.4
      baz=67
MBDF  Montbardon          9.24 226 eP       Pn      05 24 50.0 +2.6
MBDF                               eSg      Sn      05 27 21.6  +50
      comp=Z,29nm,1.0s
MBDF  Montbardon          9.24 226 eP       Pn      05 24 50.0 +2.6
SSF   Saint Saulge        9.37 246 ePn      Pn      05 24 47.2 -2.0
SSF   Saint Saulge        9.37 246 ePn      Pn      05 24 47.2 -2.0
AVF   Avril sur Loir      9.61 245 ePn      Pn      05 24 49.9 -2.5
SBF   Sospel              9.65 221 eP       Pn      05 24 53.5 +0.5
SBF   Sospel              9.65 221 eP       Pn      05 24 53.5 +0.5
NOA   NORSAR Array B      9.89 346  P       Pn      05 24 53.8 -2.4
NOA                                                 05 26 41.4
NOA   NORSAR Array B      9.89 346  Pn      Pn      05 24 53.8 -2.4
      comp=Z,0.2nm,0.3s,baz=165,slow=12,SNR=4.8
NOA                                 Sn      Sn      05 26 41.4 -6.5
      comp=Z,0.2nm,0.3s,baz=217,slow=23,SNR=2.6
NOA                                 Lg              05 27 44.7
      comp=Z,0.4nm,0.3s,baz=86,slow=6.3,SNR=4.1
NOA   NORSAR Array B      9.89 346  Pn      Pn      05 24 53.8 -2.4
NOA                                 Sn      Sn      05 26 41.4 -6.5
NOA                                 Lg              05 27 44.7
NOA   NORSAR Array B      9.89 346  P       Pn      05 24 53.8 -2.4
FINES FINESS Array B     11.33  25  Pn      Pn      05 25 13.9 -2.0
      comp=Z,0.4nm,0.3s,baz=201,slow=10,SNR=12
FINES                               Sn      Sn      05 27 14.0 -9.0
      comp=Z,0.5nm,0.3s,baz=208,slow=20,SNR=3.9
FINES                               Lg              05 28 30.5
      comp=Z,0.2nm,0.3s,baz=217,slow=21,SNR=2.6
FINES FINESS Array B     11.33  25  P       Pn      05 25 13.9 -2.0
      comp=Z,1.0nm,0.3s
EKA   Eskdalemuir Ar     12.09 296  Pn      Pn      05 25 22.4 -3.8
      baz=105,slow=14,SNR=6.1
EKA                                 Sn      Sn      05 27 33.5 -8.1
      baz=102,slow=25,SNR=2.9
ARCES ARCESS Array B     18.59  10  P       Pn      05 26 48.3 -3.1
ARCES                               pmax    pmax
      comp=Z,1.0nm,0.3s
ARCES ARCESS Array B     18.59  10  P       Pn      05 26 48.2 -3.1
      comp=Z,0.5nm,0.3s,baz=199,slow=11,SNR=18
AKTO  Aktyubinsk         26.15  76  P       P       05 28 08.5  0.0
AKTO                                pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.0
AKTO  Aktyubinsk         26.15  76  P       P       05 28 08.5  0.0
      comp=Z,1.5nm,0.5s,mb3.8,baz=278,slow=9.8,SNR=8.1
BVAR  Borovoye Array     32.58  66  P       P       05 29 06.5 +0.9
BVAR                                pmax    pmax
      comp=Z,1.0nm,0.6s
BVAR  Borovoye Array     32.58  66  P       P       05 29 06.5 +0.9
      comp=Z,1.1nm,0.6s,mb4.0,baz=292,slow=8.7,SNR=7.9
BVAR  Borovoye Array     32.58  66  P       P       05 29 06.5 +0.9
      comp=Z,1.0nm,0.6s,mb3.9
TORD  Torodi Ar. Bea     40.03 202  P       P       05 30 08.8 -0.8
      comp=Z,1.1nm,0.8s,mb3.5,baz=10,slow=8.7,SNR=6.7
ZALV  Zalesovo Beam      40.18  59  P       P       05 30 11.6 +1.1
      comp=Z,0.4nm,0.3s,mb3.5,baz=316,slow=8.1,SNR=3.4
MKAR  Makanchi Array     42.20  69  P       P       05 30 28.0 +0.8
      comp=Z,0.4nm,0.6s,mb3.3,baz=309,slow=6.1,SNR=5.6
SONM  Songino Array      54.90  55  P       P       05 32 06.7 +1.8
```

```
SONM                                pmax    pmax
      comp=Z,1.0nm,0.7s
SONM  Songino Array      54.90  55  P       P       05 32 06.7 +1.7
      comp=Z,0.6nm,0.7s,mb3.7,baz=273,slow=8.2,SNR=5.2
SONM  Songino Array      54.90  55  P       P       05 32 06.7 +1.8
      comp=Z,1.0nm,0.7s,mb4.0
YKA   Yellowknife Ar     59.82 336  P       P       05 32 40.2 +0.7
YKA                                 pmax    pmax
      comp=Z,1.0nm,0.6s
YKA   Yellowknife Ar     59.82 336  P       P       05 32 40.2 +0.8
      comp=Z,1.2nm,0.6s,mb4.1,baz=30,slow=6.7,SNR=24
YKA   Yellowknife Ar     59.82 336  P       P       05 32 40.2 +0.7
      comp=Z,1.0nm,0.6s,mb4.0
```

SKO **27** *05:23:52.0, 40°.31N×19°.61E, h0^{km}*

NEIC **27** *05:23:54.6, 40°.50N×19°.80E, h4^{km}, MD3.6(ATH), After ATH.*

ATH **27** *05:23:54.6, 40°.50N×19°.80E, h4^{km}, MD3.6/4*

PDG **27** *05:23:56.2±0.4, 40°.38N×19°.95E, h6^{km}±1^{km}, ML2.9/10, Error ellipse: s-maj=0.7km s-min=1.1km az=0.0*

CSEM **27** *05:23:56.3±0.2, 40°.35N×19°.94E, h1^{km}, MD3.6, Error ellipse: s-maj=4.4km s-min=3.2km az=63.0*

THE **27** *05:23:56.9, 40°.40N×19°.96E, h0^{km}±2^{km}, ML3.6/3, Error ellipse: s-maj=2.9km s-min=0.9km az=291.0*

ISCJB **27** *05:23:57.2±0.3, 40°.35N±0°.02×19°.90E±0°.03, h10^{km}, Error ellipse: s-maj=3.3km s-min=2.3km az=157.0*

ISC 27 05:23:57.9±0.3**, 40°.34N**±0°.02×**19°.93E**±0°.03**, h10^{km}, n78, σ1^{s}40**/123**, 15C-10D, Albania**

```
Code  Station Name         Δ°  AZ°   Phase ID          Time       Res
                                    Op      ISC      h  m  s     ISC
KEK   Kerkira             0.64 189 ePG      Pg      05 24 09.3 -0.9
KEK                                eSG      Sg      05 24 20.7 +2.1
KEK   Kerkira             0.64 189 ePg      Pg      05 24 09.3 -0.9
IGT   Igoumenitsa         0.87 159  P       Pg      05 24 13.6 -1.0
IGT                                 S       Sg      05 24 28.0 +2.1
IGT   Igoumenitsa         0.87 159  P       Pg      05 24 13.6 -1.0
IGT                                 S       Sg      05 24 28.0 +2.1
JAN   Janina              0.99 134 ePB      Pg      05 24 14.8 -2.1
JAN                                eSB      Sg      05 24 32.3 +2.6
JAN   Janina              0.99 134 ePb      Pg      05 24 14.8 -2.1
TIR   Tirane              1.00 357  P       Pg      05 24 14.4 -2.8
TIR                                 S       Sg      05 24 28.8 -1.5
TIR   Tirane              1.00 357 ePg      Pg      05 24 14.3 -2.9
TIR                                eSn      Sg      05 24 32.0 +1.8
TIR   Tirane              1.00 357 ePg      Pg      05 24 14.3 -2.9
TIR                                 S       Sg      05 24 28.8 -1.5
TIR                                eSn      Sn      05 24 32.0 -0.2
OHR   Ohrid               1.01  41 ePg      Pg      05 24 13.4 -3.9
OHR                                eSg      Sg      05 24 30.0 -0.5
OHR   Ohrid               1.01  41 ePg      Pg      05 24 13.4 -4.0
OHR                                eSg      Sg      05 24 30.0 -0.5
MEV   Metsovon            1.14 119  P       Pb      05 24 17.5 -2.2
MEV   Metsovon            1.14 119  P       Pb      05 24 17.5 -2.2
FNA   Florina             1.19  68  P       Pb      05 24 17.9 -2.6
FNA                                 S       Sb      05 24 35.1 -0.8
FNA   Florina             1.19  68  P       Pb      05 24 17.9 -2.6
FNA                                 S       Sb      05 24 35.1 -0.8
BIA   Bitola              1.26  57  P       Pn      05 24 19.1 -2.4
BIA                                 S       Sb      05 24 37.9  0.0
BIA   Bitola              1.26  57 ePn      Pn      05 24 19.1 -2.4
BIA                                eSn      Sn      05 24 39.5 +1.1
BIA   Bitola              1.26  57 ePn      Pn      05 24 19.1 -2.4
BIA                                 S       Sb      05 24 37.9  0.0
BIA                                eSn      Sn      05 24 39.5 +1.1
KZN   Kozani              1.41  91 ePB      Pb      05 24 23.8 -0.4
KZN   Kozani              1.41  91 ePb      Pb      05 24 23.8 -0.4
KRUS  Krusevo             1.43  44 ePn      Pn      05 24 21.5 -2.4
KRUS                               eSn      Sn      05 24 44.4 +1.6
KRUS  Krusevo             1.43  44 ePn      Pn      05 24 21.4 -2.5
KRUS                               eSn      Sn      05 24 44.3 +1.5
ULC   Ulcinj              1.70 343⇑iPn      Pn      05 24 26.6 -0.9
ULC                                eSn      Sn      05 24 51.6 +2.3
LKD   Levkas              1.73 161  P       Pn      05 24 27.9 -0.1
LKD                                 S       Sn      05 24 52.6 +2.6
LKD   Levkas              1.73 161  P       Pn      05 24 27.9 -0.1
LKD                                 S       Sn      05 24 52.6 +2.6
THL   Klokotos Trika      1.78 115  P       Pn      05 24 29.2 +0.5
THL                                 S       Sn      05 24 52.6 +1.2
THL   Klokotos Trika      1.78 115 ePN      Pn      05 24 29.8 +1.1
THL   Klokotos Trika      1.78 115 ePn      Pn      05 24 29.8 +1.1
THL                                 S       Sn      05 24 52.6 +1.2
PE1   Pezze di Greco      1.96 284 ePn      Pn      05 24 31.6 +0.4
LIT   Litokhoron          1.98  96  P       Pn      05 24 31.7 +0.3
LIT   Litokhoron          1.98  96⇓iPG      Pg      05 24 33.2 -2.6
LIT   Litokhoron          1.98  96⇓iPg      Pg      05 24 33.2 -2.6
GRG   Griva               1.98  71  P       Pn      05 24 30.9 -0.5
GRG   Griva               1.98  71  P       Pn      05 24 30.9 -0.5
TAR1  Taranto             2.03 276 ePn      Pg      05 24 36.1 -0.6
BUM   Brajici-Budva       2.10 339⇑iPn      Pn      05 24 32.1 -1.0
BUM                                eSn      Sn      05 25 00.9 +1.6
BUM   Brajici-Budva       2.10 339⇑iPn      Pn      05 24 32.1 -1.0
BUM                                eSn      Sn      05 25 00.9 +1.6
PDG   Podgorica           2.14 347⇑iPn      Pn      05 24 33.2 -0.5
PDG                                eSn      Sn      05 25 02.2 +1.9
TTG   Podgorica           2.14 347⇑iPn      Pn      05 24 33.2 -0.5
TTG                                eSn      Sn      05 25 02.2 +1.9
TTG   Podgorica           2.14 347⇑iPn      Pn      05 24 33.2 -0.5
TTG                                eSn      Sn      05 25 02.2 +1.9
VLS   Valsamata           2.22 166  P       Pn      05 24 34.5 -0.3
VLS   Valsamata           2.22 166 ePN      Pn      05 24 37.6 +2.8
VLS   Valsamata           2.22 166  P       Pn      05 24 34.5 -0.3
VAY   Valandovo           2.23  63  P       Pn      05 24 33.6 -1.2
VAY   Valandovo           2.23  63 ePn      Pn      05 24 34.1 -0.7
VAY                                eSn      Sn      05 25 04.4 +2.0
VAY   Valandovo           2.23  63 ePn      Pn      05 24 34.1 -0.7
VAY                                eSn      Sn      05 25 04.3 +1.9
PVY   Plav                2.25   1⇑iPn      Pn      05 24 35.1  0.0
PVY                                eSn      Sn      05 25 04.4 +1.5
HCY   Herceg Novi         2.36 333⇑iPn      Pn      05 24 35.9 -0.8
HCY                                eSn      Sn      05 25 07.5 +1.8
HCY   Herceg Novi         2.36 333⇑iPn      Pn      05 24 35.9 -0.8
HCY                                eSn      Sn      05 25 07.5 +1.8
LTRZ  Laterza             2.39 277  Pn      Pn      05 24 36.8 -0.2
LTRZ  Laterza             2.39 277  Pn      Pn      05 24 36.8 -0.2
KNT   Kendrikon           2.40  69  P       Pn      05 24 36.7 -0.5
KNT   Kendrikon           2.40  69  P       Pn      05 24 36.7 -0.5
SG1   Sgolgore (BA)       2.52 282 ePn      Pn      05 24 37.6 -1.3
BEY   Berane              2.52 359⇑iPn      Pn      05 24 38.7 -0.2
BEY                                eSn      Sn      05 25 11.8 +2.1
IVA   Berane              2.52 359⇑iPn      Pn      05 24 38.7 -0.2
IVA                                eSn      Sn      05 25 11.8 +2.1
IVA   Berane              2.52 359⇑iPn      Pn      05 24 38.7 -0.2
IVA                                eSn      Sn      05 25 11.8 +2.1
NKY   Niksic              2.56 344⇓iPn      Pn      05 24 38.6 -0.8
NKY                                eSn      Sn      05 25 12.4 +1.7
NKY   Niksic              2.56 344⇓iP       Pn      05 24 38.6 -0.8
NKY   Niksic              2.56 344⇓iPn      Pn      05 24 38.6 -0.8
NKY                                eSn      Sn      05 25 12.4 +1.7
RLS   Riolos of Patr      2.58 152 ePN      Pn      05 24 41.0 +1.4
RLS   Riolos of Patr      2.58 152 ePn      Pn      05 24 41.0 +1.4
PLG   Polygyros           2.69  88 ePB      Pb      05 24 42.3 -3.7
BRY   Bratogost           2.76 338⇓iPn      Pn      05 24 41.5 -0.6
BRY                                eSn      Sn      05 25 16.7 +1.2
BRY   Bratogost           2.76 338⇓iP       Pn      05 24 41.5 -0.6
BRY   Bratogost           2.76 338⇓iPn      Pn      05 24 41.5 -0.6
BARS  Barje               2.85  29 i Pn     Pn      05 24 43.4 +0.1
UPM   Unac-Piva           2.96 345⇓iPn      Pn      05 24 44.0 -0.8
UPM                                eSn      Sn      05 25 21.7 +1.3
UPM   Unac-Piva           2.96 345⇓iPn      Pn      05 24 44.0 -0.8
UPM                                eSn      Sn      05 25 21.7 +1.3
PLE   Pljevlja            3.01 353⇑iPn      Pn      05 24 45.3 -0.3
PLE                                eSn      Sn      05 25 22.3 +0.6
PLE   Pljevlja            3.01 353⇑iP       Pn      05 24 45.3 -0.3
PLE   Pljevlja            3.01 353⇑iPn      Pn      05 24 45.3 -0.3
PLE                                eSn      Sn      05 25 22.3 +0.6
STON  Ston                3.03 327 ePn      Pn      05 24 43.5 -2.4
STON                                Sn      Sn      05 25 20.5 -1.6
STON  Ston                3.03 327 ePn      Pn      05 24 43.5 -2.3
STON                                Sn      Sn      05 25 20.5 -1.6
NISS                      3.41  26 i Pn     Pn      05 24 47.6 -3.5
ZAPS  Zavoj               3.56  34 ePn      Pn      05 24 54.5 +1.4
SOI   Samo                3.77 234  Pn      Pn      05 24 55.3 -0.7
SOI   Samo                3.77 234  Pn      Pn      05 24 55.3 -0.7
```

ISCJB **27** *05:27:34.9±1.9, 35°.03S±0°.07×178°.7W±0°.2, h30^{km}±15^{km}, mb4.9/11, MS4.6/14, Error ellipse: s-maj=23.7km*

s-min=7.9km az=20.5

*IDC **27** 05:27:36.6±0.6, 34°75S×179°33W, h0^{km}, mb4.8/7, mb1 4.9/9, mb1mx4.7/18, mbtmp4.8/9, ML4.5/2, MS4.6/14, Ms1 4.6/14, ms1mx4.3/23, Error ellipse: s-maj=21.6km s-min=19.6km az=127.0*

*GCMT **27** 05:27:41.3±0.2, 34°85S×178°90W, h20^{km}±1^{km}, MW5.2/76, Moment Tensor Solution. s42,c64; s76,c111; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.45±.26; $M_{\theta\theta}$-0.95±.17; $M_{\phi\phi}$-4.50±.17; $M_{r\theta}$1.75±.35; $M_{\theta\phi}$-1.68±.11; $M_{\phi r}$5.80±.39; Best double couple: $M_0$8.05500×10^{16} NP1:ϕ_s205.00000°,δ21.00000°,λ96.00000°. NP2: ϕ_s18.00000°,δ69.00000°,λ88.00000°. Principal axes: T 8.2060, Plg66.0000°, Azm284.0000°; N -0.3010, Plg2.0000°, Azm19.0000°; P -7.9040, Plg24.0000°, Azm110.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **27** 05:27:41.3±0.5, 34°99S×179°23W, h35^{km}, mb5.2/4 Error ellipse: s-maj=13.6km s-min=6.5km az=118.0*

*MOS **27** 05:27:43.9±2.1, 33°66S×179°74W, h33^{km}, mb5.2/3, Error ellipse: s-maj=50.3km s-min=19.2km az=18.1*

ISC 27 05:27:36.7±1.8**, 34°98S**±0°06×**178°7W**±0°2**, h33**^{km}±16^{km}**, n107, σ1^{s}04**/59**, mb4.9**/11**, MS4.6**/14**, 1D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.57	223	P	Pn	05 28 31.7	+2.0
MXZ				S	Sn	05 29 10.5	-0.2
PUZ	Puketiti	3.97	218	P	Pn	05 28 36.6	+1.3
MWZ	Matawai	4.55	221	P	Pn	05 28 44.8	+1.6
MWZ				S	Sn	05 29 35.3	+0.4
URZ	Urewera	4.73	225	Pn	Pn	05 28 46.5	+0.8
	16nm,0.3s,baz=36,slow=5.8,SNR=69						
URZ				Sn	Sn	05 29 39.0	-0.4
	41nm,0.3s,baz=172,slow=24,SNR=8.3						
URZ	Urewera	4.73	225	*e*Pn	Pn	05 28 46.0	+0.3
URZ				*e*Sn	Sn	05 29 40.3	+0.9
KNZ	Kokohu	5.00	215	P	Pn	05 28 49.9	+0.5
KNZ				S	Sn	05 29 45.2	-0.7
MKAZ	Moumakai	5.45	245	P	Pn	05 28 56.0	+0.4
BKZ	Black Stump Fm	5.71	221	P	Pn	05 28 59.9	+0.7
BKZ				S	Sn	05 30 02.7	-0.8
RAO	Raoul Island	5.74	6	Sn	Sn	05 30 02.2	-2.2
	140nm,0.3s,baz=188,slow=23,SNR=4.2						
WCZ	Waipu Caves	5.80	258	P	Pn	05 28 59.9	-0.5
RATZ	Rangitukua	5.92	227	P	Pn	05 29 02.9	+0.8
NGZ	Ngauruhoe	6.22	226	P	Pn	05 29 06.7	+0.5
TUVZ	Tukino	6.25	225	P	Pn	05 29 07.6	+1.0
MOVZ	Moawhango	6.29	224	P	Pn	05 29 07.3	+0.2
HIZ	Hauiti	6.30	234	P	Pn	05 29 06.7	-0.6
WNVZ	Wahianoa	6.32	225	P	Pn	05 29 08.2	+0.6
OUZ	Omahuta	6.37	266	*e*Pn	Pn	05 29 08.0	-0.2
	106nm,0.7s						
TSZ	Takapari Road	6.64	219	P	Pn	05 29 12.1	+0.2
WAZ	Wanganui	6.96	225	P	Pn	05 29 16.9	+0.6
BFZ	Birch Farm	6.98	214	P	Pn	05 29 15.8	-0.8
MRZ	Mangatainoka R	7.29	217	P	Pn	05 29 19.2	-1.6
MRZ				S	Sn	05 30 36.7	-5.6
MTW	Mount Morrison	7.71	215	P	Pn	05 29 25.3	-1.2
TCW	Tory Channel	8.36	220	P	Pn	05 29 32.8	-2.7
NNZ	Nelson	8.85	223	P	Pn	05 29 40.0	-2.2
KHZ	Kahutara	9.61	217	P	Pn	05 29 53.1	+0.4
LTZ	Lake Taylor	10.53	220	P	Pn	05 30 03.4	-1.8
RPZ	Rata Peaks	11.81	219	Pn	Pn	05 30 21.7	-1.1
	5.0nm,0.3s,baz=37,slow=3.3,SNR=17						
RPZ				Sn	Sn	05 32 22.4	-11
	3.9nm,0.3s,baz=297,slow=19,SNR=9.8						
RPZ	Rata Peaks	11.81	219	*e*Pn	Pn	05 30 21.3	-1.5
RPZ				Sn	Sn	05 32 22.4	-11
DZM	Mont Dzumac	18.33	311	*e*LR	LR	05 36 24.9	
	5μm,23.2s						
RAR	Rarotonga	21.52	55	LR	LR	05 39 30.4	
	comp=Z,599nm,19.0s,MS4.0,baz=238,slow=33						
ARMA	Armidale	25.38	272	*e*P	P	05 33 02.8	+1.9
PPT	Papeete	31.14	64	*e*LR	LR	05 42 20.0	
	1μm,24.0s,baz=229						
PPT	Papeete	31.14	64	LR	LR	05 42 34.3	
	comp=Z,781nm,20.3s,MS4.4,baz=232,slow=28						
STKA	Stephens Creek	33.18	264	*e*P	P	05 34 11.5	+1.2
	4.4nm,1.0s,mb4.3						
STKA				*e*		05 36 55.3	
STKA	Stephens Creek	33.18	264	P	P	05 34 11.0	+0.7
	3.0nm,0.5s,mb4.4,baz=109,slow=9.9,SNR=8.7						
STKA				PcP	PcP	05 36 55.2	+2.6
	4.4nm,0.7s,baz=110,slow=4.0,SNR=6.5						
STKA				LR	LR	05 46 56.5	
	comp=Z,956nm,20.4s,MS4.5,baz=58,slow=36						
STKA	Stephens Creek	33.18	264	P	P	05 34 11.0	+0.7
STKA				PcP	PcP	05 36 55.2	+2.6
STKA				LR	LR	05 46 56.5	
CTA	Charters Tower	34.28	286	*e*P	P	05 34 20.5	+0.6
	22nm,0.8s,mb5.1						
CTA	Charters Tower	34.28	286	P	P	05 34 20.4	+0.5
	32nm,0.9s,mb5.2,baz=114,slow=8.9,SNR=17						
CTA	Charters Tower	34.28	286	P	P	05 34 20.4	+0.5
CTAO	Charters Tower	34.28	286	*e*P	P	05 34 20.1	+0.2
CTAO				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.0						
CTAO	Charters Tower	34.28	286	*e*P	P	05 34 20.1	+0.2
	comp=Z,29nm,1.3s,mb5.0						
RKT	Rikitea	39.68	85	*e*LR	LR	05 46 12.7	
	comp=Z,1μm,28.5s,baz=243						
COEN	Coen	40.23	292	*e*P	P	05 35 10.6	+0.2
	comp=Z,79nm,0.8s,mb5.5						
ASAR	Alice Springs	42.53	272	P	P	05 35 28.9	-0.4
	comp=Z,20nm,0.8s,mb4.9,baz=113,slow=7.4,SNR=165						
ASAR				S	S	05 41 40.1	-9.4
	comp=Z,1.3nm,0.9s,baz=117,slow=16,SNR=6.7						
WB2	Warramunga Arr	43.92	277	*e*P	P	05 35 39.8	-0.7
WRAB	Tennant Creek	43.92	277	P	P	05 35 40.0	-0.6
	comp=Z,247nm,0.7s,mb6.0,SNR=15						
WRAB	Tennant Creek	43.92	277	*e*P	P	05 35 40.0	-0.6
WRAB				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.0						
WRAB	Tennant Creek	43.92	277	*e*P	P	05 35 40.0	-0.6
	comp=Z,23nm,0.7s,mb5.0						
WRA	Warramunga Arr	43.93	277	P	P	05 35 40.1	-0.5
	comp=Z,22nm,0.7s,mb5.0,baz=120,slow=7.5,SNR=92						
WRA				LR	LR	05 54 32.5	
	comp=Z,1μm,18.3s,MS4.9,baz=110,slow=37						
FORT	Forrest	44.52	260	*e*P	P	05 35 44.8	-0.4
	comp=Z,31nm,0.6s,mb5.3						
FITZ	Fitzroy Crossi	51.96	274	*e*P	P	05 36 42.8	0.0
	comp=Z,18nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	51.96	274	LR	LR	05 58 10.3	
	comp=Z,1μm,18.8s,MS5.0,baz=151,slow=36						
QSPA	South Pole Qui	55.15	180	P	P	05 37 12.2	+6.9
	comp=Z,10nm,1.2s,mb4.7,baz=62,slow=1.1,SNR=14						
GUMO	Guam	59.42	318	LR	LR	05 58 57.2	
	comp=Z,218nm,18.8s,MS4.3,baz=118,slow=32						
KAPI	Kappang	63.98	283	LR	LR	06 07 27.9	
	comp=Z,399nm,18.6s,MS4.6,baz=145,slow=38						
MAW	Mawson	67.85	201	LR	LR	06 07 44.7	
	comp=Z,452nm,19.8s,MS4.7,baz=294,slow=36						
PLCA	Paso Flores	79.80	133	LR	LR	06 10 42.9	
	comp=Z,187nm,18.5s,MS4.5,baz=204,slow=32						
MJAR	Matsushiro Arr	81.71	326	LR	LR	06 13 34.3	
	comp=Z,191nm,18.2s,MS4.5,baz=115,slow=34						
PSI	Prapat	85.39	277	LR	LR	06 17 15.8	
	comp=Z,894nm,20.4s,MS5.2,baz=152,slow=35						
KSRS	Korea Array	87.49	320	LR	LR	06 17 23.3	
	comp=Z,94nm,18.8s,MS4.2,baz=56,slow=34						
PETK	Petropavlovsk-	90.10	346	P	P	05 40 36.0	+3.3
	comp=Z,9.2nm,0.7s,mb5.2,baz=123,slow=7.4,SNR=12						
NVAR	Mina Array Bea	91.95	43	P	P	05 40 49.7	+8.0
	comp=Z,0.2nm,0.5s,mb3.7,baz=227,slow=4.7,SNR=4.3						
TXAR	Lajitas Array	95.30	58	LR	LR	06 15 11.4	
	comp=Z,312nm,18.2s,MS4.8,baz=325,slow=30						
CPUP	Villa Florida	97.55	129	LR	LR	06 17 38.9	
	comp=Z,325nm,19.1s,MS4.8,baz=189,slow=31						
YKA	Yellowknife Ar	109.79	26	PKiKP	PKiKP	05 46 11.1	+7.7
	comp=Z,0.2nm,0.6s,baz=258,slow=1.8,SNR=5.1						
MKAR	Makanchi Array	120.23	308	PKP	PKPdf	05 46 26.6	+2.7
	comp=Z,0.7nm,0.6s,baz=228,slow=2.3,SNR=4.4						
ZALV	Zalesovo Beam	121.03	317	PKP	PKPdf	05 46 28.0	+2.8
	comp=Z,0.6nm,0.3s,baz=50,slow=2.3,SNR=3.5						
KURK	Kurchatov	123.75	312	PKP	PKPdf	05 46 33.4	+2.9
	comp=Z,2.0nm,0.6s,baz=111,slow=2.0,SNR=5.6						
BVAR	Borovoye Array	129.22	313	PKP	PKPdf	05 46 44.8	+3.9
	comp=Z,1.8nm,0.6s,baz=126,slow=2.0,SNR=7.0						
AKTK	Aktyubinsk	136.66	309	PKP	PKPdf	05 46 58.7	+3.7
AKTO	Aktyubinsk	136.66	309	PKP	PKPdf	05 46 58.7	+3.7
	comp=Z,1.2nm,0.7s,baz=140,slow=1.9,SNR=5.2						
KEV	Kevo	142.43	346	*e*pkp	PKPdf	05 47 04.6	-0.3
ARCES	ARCESS Array B	142.91	346	PKhKP		05 47 06.7	
	comp=Z,2.6nm,0.9s,baz=83,slow=3.8,SNR=5.6						
GNI	Garni	145.48	292	PKP	PKPdf	05 47 14.7	+3.6
	comp=Z,1.8nm,0.4s,baz=163,slow=20,SNR=6.2						
JOF	Joensuu	146.41	336	*e*pkp	PKPbc	05 47 14.6	+1.3
ONI	Oni	146.59	296	P	PKPab	05 47 17.4	+1.7
VRHR	Novokhopersk	146.93	312	*e*PKIKP	PKPab	05 47 17.9	+1.2
VRHR				pmax	pmax		
	comp=Z,50nm,0.5s						
VRHR				pmax	pmax		
	comp=N,40nm,0.6s						
KIV	Kislovodsk	147.15	298	*e*PKIKP	PKPab	05 47 17.3	-0.5
KIV				pmax	pmax		
	comp=Z,12nm,1.0s						
MOS	Moscow	147.68	321	*e*PKHKP	PKPbc	05 47 16.9	-0.2
MOS				pmax	pmax		
	comp=Z,79nm,0.9s						
BEST	Besiri	147.92	287	*i* P	PKPab	05 47 20.3	-0.8
ERZM	Erzurum	148.04	291	*i* P	PKPab	05 47 20.8	-0.7
VORD	Divnogorie	148.39	312	*e*PKIKP	PKPab	05 47 21.5	-1.0
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VSR	Storozhevoye	148.40	313	*e*PKP2	PKPab	05 47 22.0	-0.5
VSR				pmax	pmax		
	comp=E,7.0nm,0.7s						
OBN	Obninsk	148.49	321	⇓*i*PKP2	PKPab	05 47 22.6	-0.2
OBN				pmax	pmax		
	comp=Z,89nm,1.4s						
KAF	Kangasniemi	148.62	338	*e*pkp	PKPab	05 47 22.1	-1.0
FINES	FINESS Array B	149.19	337	PKPbc	PKPab	05 47 24.4	-1.1
	comp=Z,11nm,0.8s,baz=32,slow=4.8,SNR=19						
MALT	Malatya	150.20	287	*e*PKHKP		05 47 17.4	
ATAB	Bozova	150.22	286	*i* P	PKPbc	05 47 26.8	+2.6
KEMA	Kemaliye	150.22	289	*i* P	PKPab	05 47 27.9	-2.4
ASF	Jabal al Asfar	150.35	275	PKPbc	PKPab	05 47 28.7	-2.4
	comp=Z,5.3nm,0.7s,baz=16,slow=1.6,SNR=8.9						
AKCD	Akcadag	150.59	287	*i* P	PKPbc	05 47 27.8	+2.7
GZT	Gaziantep	150.78	285	*i* P	PKPbc	05 47 28.4	+2.9
EIL	Elat	151.21	269	PKPbc	PKPbc	05 47 30.5	+3.7
	comp=Z,16nm,0.8s,baz=26,slow=2.8,SNR=12						
EIL				PKPab	PKPab	05 47 38.9	+4.2
	comp=Z,11nm,0.8s,baz=313,slow=4.0,SNR=5.1						
EIL	Elat	151.21	269	PKPbc	PKPbc	05 47 30.5	+3.7
EIL				PKPab	PKPab	05 47 38.9	+4.2
DBIC	Dimbokro	151.25	167	PKPbc	PKPbc	05 47 33.3	+5.9
	comp=Z,3.2nm,0.7s,baz=188,slow=5.1,SNR=6.6						
DBIC				PKPab	PKPab	05 47 41.5	+6.4
	comp=Z,7.5nm,0.8s,baz=136,slow=3.8,SNR=8.5						
COBT	Iskenderun	151.72	283	*i* P	PKPbc	05 47 31.1	+3.3
MMAI	Mount Meron Ar	151.78	276	PKPbc	PKPbc	05 47 32.2	+4.2
	comp=Z,9.0nm,0.6s,baz=72,slow=2.7,SNR=14						
MMAI				PKPab	PKPab	05 47 41.3	+4.3
	comp=Z,7.9nm,0.6s,baz=77,slow=3.7,SNR=6.3						
CTKT	Corum	153.09	292	*i* P	PKPbc	05 47 32.5	+1.9
MICGM	Minsk	153.14	325	*e*	PKPbc	05 47 33.0	+2.7
MNK	Minsk	153.16	325	*e*PKIKP	PKPbc	05 47 33.0	+2.7
NB2	NORSAR Subarra	153.16	349	PKP	PKPbc	05 47 34.1	+4.0
	comp=Z,16nm,1.4s,baz=17,slow=2.6						
NOA	NORSAR Array B	153.16	349	PKPbc	PKPbc	05 47 34.0	+3.8
	comp=Z,5.3nm,1.1s,baz=16,slow=4.5,SNR=7.3						
NOA				PKPab	PKPab	05 47 44.6	+2.8
	comp=Z,5.8nm,1.0s,baz=25,slow=4.2,SNR=6.4						
CDAG	Cicekdag	153.42	290	*i* P	PKPbc	05 47 31.6	+0.2
BRTR	Keskin Array B	153.98	290	PKPbc	PKPbc	05 47 35.5	+2.8
	comp=Z,4.3nm,0.9s,baz=114,slow=3.5,SNR=22						
BRTR				PKPab	PKPab	05 47 47.7	+1.5
	comp=Z,2.9nm,0.6s,baz=141,slow=4.5,SNR=7.5						
BALT	Daday	154.11	294	*i* P	PKPbc	05 47 35.9	+3.1
AKASG	Malin Array Be	154.43	316	PKPbc	PKPbc	05 47 36.6	+3.4
	comp=Z,3.0nm,0.6s,baz=64,slow=1.9,SNR=9.0						
TORD	Torodi Ar. Bea	158.26	181	PKP	PKPdf	05 47 36.3	+5.3
	comp=Z,1.2nm,1.1s,baz=119,slow=38,SNR=3.6						
TORD				PKPab	PKPab	05 48 10.9	+6.1
	comp=Z,1.5nm,0.6s,baz=156,slow=2.9,SNR=9.5						

IDC 27 05:56:22.6±2.2**, 3°36S**×**128°05E, h0**^{km}**, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.5**/19**, mbtmp3.6**/3**, ML3.7**/1**, Error ellipse: s-maj=177.9km s-min=26.8km az=67.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.59	160	P	Pn	06 00 28.8	-0.4
	0.3nm,0.3s,baz=342,slow=12,SNR=17						
ASAR	Alice Springs	20.97	165	P	P	06 01 07.7	+0.3
	1.5nm,0.6s,baz=350,slow=9.9,SNR=18						
MKAR	Makanchi Array	64.14	327	P	P	06 06 58.9	+0.1
	0.5nm,0.7s,baz=119,slow=8.3,SNR=6.8						

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*NEIC **27** 06:01:32.4, 29°21S×70°09W, h127^{km}, MG3.9(GUC), After GUC.*

GUC 27 06:01:32.4±1.0**, 29°21S**×**70°09W, h127**^{km}±18^{km}**, ML3.9, 2C-1D, Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	Las Campanas	0.57	290	⇑*i*P	Pn	06 01 52.9	+1.3
LCO				*i* S	Sn	06 02 07.4	+1.4
LCO	Las Campanas	0.57	290	⇑*i*P	Pn	06 01 52.9	+1.3
LCO				*i* S	Sn	06 02 07.4	+1.4
LCO				AML	AML	06 02 08.0	
	comp=N,3μm,0.3s						
TLL	Tololo Astrono	1.14	213	*e*P	Pn	06 01 57.6	+1.2
TLL				*i* S	Sn	06 02 16.0	+1.4
TLL	Tololo Astrono	1.14	213	*e*P	Pn	06 01 57.6	+1.2
TLL				*i* S	Sn	06 02 16.0	+1.4
TLL				AML	AML	06 02 17.6	
	comp=E,1μm,0.4s						
CPCH	Copiapo	1.86	353	*e*P	Pn	06 02 04.7	+0.2
CPCH				*i* S	Sn	06 02 29.3	+0.3
CPCH	Copiapo	1.86	353	*e*P	Pn	06 02 04.7	+0.2
CPCH				*i* S	Sn	06 02 29.3	+0.3
CPCH				AML	AML	06 02 30.7	
	comp=E,3μm,0.1s						
CHNG	Los Chungos	2.93	204	*e*P	Pn	06 02 18.4	+0.4
CHNG				*i* S	Sn	06 02 53.4	+0.2
FCH	Farellones	4.11	182	⇓*e*P	Pn	06 02 32.5	-1.1
FCH				*i* S	Sn	06 03 19.5	-1.5
LVC	Limon Verde	6.65	9	*e*Pn	Pn	06 03 07.1	-0.6

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*CSEM **27** 06:09:22.8±0.2, 42°87N×13°81E, h32^{km}±2^{km}, ML2.4/5, Error ellipse: s-maj=5.2km s-min=3.1km az=79.0*

*ISCJB **27** 06:09:23.7±0.5, 42°92N±0°03×13°80E±0°07, h27^{km}±4^{km}, Error ellipse: s-maj=8.9km s-min=5.4km az=0.8*

*ROM **27** 06:09:23.6±0.2, 42°90N×13°80E, h27^{km}±2^{km}, Md2.5/14, Ml2.2/11, Error ellipse: s-maj=3.4km s-min=2.0km az=63.0*

ISC 27 06:09:24.0±0.5**, 42°92N**±0°03×**13°78E**±0°07**, h27**^{km}±4^{km}**, n32, σ0^{s}66**/44**, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFFI	Offida	0.07	282	Pg	Pb	06 09 28.5	-0.1
OFFI				Sg	Sb	06 09 32.9	+1.1
	848nm,0.4s						
OFFI	Offida	0.07	282	Pg	Pb	06 09 28.5	-0.1
OFFI				Sg	Sb	06 09 32.9	+1.1
	848nm,0.4s						
TRTR	Tortoreto Alta	0.15	139	Pg	Pb	06 09 28.4	-0.8
TRTR				Sg	Sb	06 09 32.9	+0.2
	2μm,0.4s						
TRTR	Tortoreto Alta	0.15	139	Pg	Pb	06 09 28.4	-0.8
TRTR				Sg	Sb	06 09 32.9	+0.2
	2μm,0.4s						
TERO	Teramo	0.33	204	Pg	Pb	06 09 30.6	-0.8
TERO				Sg	Sb	06 09 36.7	+0.2
	147nm,0.3s						
TERO	Teramo	0.33	204	Pg	Pb	06 09 30.6	-0.8
TERO				Sg	Sb	06 09 36.7	+0.2
	147nm,0.3s						
CAMP	Campotosto	0.47	216	Pg	Pb	06 09 33.0	-0.7
CAMP				Sg	Sb	06 09 40.9	+0.5
	13nm,0.4s						
CAMP	Campotosto	0.47	216	Pg	Pb	06 09 33.0	-0.7
CAMP				Sg	Sb	06 09 40.9	+0.5
	13nm,0.4s						
NRCA	Norcia	0.50	260	Pg	Pb	06 09 33.8	-0.4
	25nm,0.1s						
NRCA	Norcia	0.50	260	Pg	Pb	06 09 33.8	-0.4
	25nm,0.1s						
VCEL	Villa Celiera	0.53	175	Pg	Pb	06 09 33.7	-0.9
VCEL				Sg	Sb	06 09 42.4	+0.5
	101nm,0.3s						
VCEL	Villa Celiera	0.53	175	Pg	Pb	06 09 33.7	-0.9
VCEL				Sg	Sb	06 09 42.4	+0.5
	101nm,0.3s						
CING	Cingoli	0.63	317	Pg	Pb	06 09 36.5	+0.2
	86nm,0.2s						
CING	Cingoli	0.63	317	Pg	Pb	06 09 36.5	+0.2
	86nm,0.2s						
LNSS	Leonessa	0.63	240	Pg	Pb	06 09 36.1	-0.3
	172nm,0.4s						
LNSS	Leonessa	0.63	240	Pg	Pb	06 09 36.1	-0.3
	172nm,0.4s						
AOI	Ancona	0.64	348	Pg	Pb	06 09 36.5	-0.1
	138nm,0.4s						
AOI	Ancona	0.64	348	Pg	Pb	06 09 36.5	-0.1
	138nm,0.4s						
CESI	CESI - Serrava	0.65	278	Pg	Pb	06 09 36.7	0.0
	41nm,0.3s						
CESI	CESI - Serrava	0.65	278	Pg	Pb	06 09 36.7	0.0
	41nm,0.3s						
INTR	Introdacqua	0.91	174	Pg	Pn	06 09 39.5	-1.5
	74nm,0.4s						
INTR	Introdacqua	0.91	174	Pg	Pn	06 09 39.5	-1.5
	74nm,0.4s						
VVLD	Villa Vallelon	1.05	186	Pg	Pn	06 09 43.8	+0.8
	50nm,0.7s						
VVLD	Villa Vallelon	1.05	186	Pg	Pn	06 09 43.8	+0.8
	50nm,0.7s						
SDI	San Donato	1.21	179	Pg	Pn	06 09 45.9	+0.8
	15nm,0.4s						
SDI	San Donato	1.21	179	Pg	Pn	06 09 45.9	+0.8
	15nm,0.4s						
MIDA	Miranda	1.32	164	Pg	Pn	06 09 47.8	+1.1
MIDA	Miranda	1.32	164	Pg	Pn	06 09 47.8	+1.1
CERA	Filignano	1.33	172	Pg	Pn	06 09 46.9	+0.1
CERA	Filignano	1.33	172	Pg	Pn	06 09 46.9	+0.1
NVLJ	Novalja	1.82	25	*e*Pn	Pn	06 09 53.5	-0.1
NVLJ				Sn	Sn	06 10 15.9	+0.2
NVLJ	Novalja	1.82	25	*e*Pn	Pn	06 09 53.4	-0.1
NVLJ				Sn	Sn	06 10 15.9	+0.2

NEIC 27 06:28:21.3, 36°04S×**179°47E, h142**^{km}**, MG4.0**(WEL)**, After WEL., Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.79	211	P	Pn	06 28 51.9	-1.5
PUZ	Puketiti	2.25	205	P	Pn	06 28 58.8	-0.1
MWZ	Matawai	2.77	214	P	Pn	06 29 05.4	+0.1
MWZ				S	Sn	06 29 40.0	+0.7
URZ	Urewera	2.91	220	*e*Pn	Pn	06 29 07.3	+0.2
URZ				*e*Sn	Sn	06 29 43.9	+1.4
TGRZ	Tauranga	3.08	236	P	Pn	06 29 09.7	+0.4
KUZ	Kuaotunu	3.11	256	P	Pn	06 29 09.2	-0.5
KNZ	Kokohu	3.30	205	P	Pn	06 29 11.3	-0.8
MKAZ	Moumakai	3.62	252	P	Pn	06 29 16.9	+0.5
BKZ	Black Stump Fm	3.92	216	P	Pn	06 29 19.5	-0.7
NGZ	Ngauruhoe	4.39	223	P	Pn	06 29 26.9	+0.5
TUVZ	Tukino	4.42	222	P	Pn	06 29 27.0	+0.2
MOVZ	Moawhango	4.47	220	P	Pn	06 29 26.5	-1.0
WNVZ	Wahianoa	4.50	222	P	Pn	06 29 27.9	+0.1
TSZ	Takapari Road	4.88	214	P	Pn	06 29 31.6	-1.2
WAZ	Wanganui	5.13	222	P	Pn	06 29 36.9	+0.7
MRZ	Mangatainoka R	5.54	212	P	Pn	06 29 39.7	-1.9
MTW	Mount Morrison	5.98	210	P	Pn	06 29 44.8	-2.8
KIW	Kapiti Island	6.00	215	P	Pn	06 29 45.4	-2.4
CAW	Cannon Point	6.12	213	P	Pn	06 29 46.8	-2.7
PAWZ	Paruwai Farm	6.20	209	P	Pn	06 29 48.4	-2.1
KHZ	Kahutara	7.86	214	Pn	Pn	06 30 05.5	-7.2
LTZ	Lake Taylor	8.74	217	P	Pn	06 30 21.5	-3.0
MQZ	McQueen's Vall	9.28	212	P	Pn	06 30 28.2	-3.4
ODZ	Otahua Downs	11.22	214	P	Pn	06 30 53.1	-4.3

DJA 27 06:36:45, 0°30N×**96°83E, h34**^{km}**, MLv3.8**/5**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	1.25	37	P	Pn	06 37 12.9	+6.9
GSI				S	Sn	06 37 24.0	+2.4
PPI	Padang Panjang	3.65	102	P	Pn	06 37 43.4	+4.4
BSI	Banda Aceh	5.38	344	P	Pn	06 38 03.6	+0.6
	18nm,1.1s,0.1nm						
IPM	Ipoh	5.90	45	P	Pn	06 38 03.1	-7.0
	13nm,2.2s,0.1nm						
MYKOM	Kota Tinggi	7.17	78	P	Pn	06 38 25.0	-2.6

IDC 27 06:40:16.9±10.0**, 34°51N**×**73°73E, h68**^{km}±84^{km}**, mb3.2**/4**, mb1 3.3**/5**, mb1mx3.0**/25**, mbtmp3.2**/5**, ML2.9**/1**, 2D, Error ellipse: s-maj=114.6km s-min=48.8km az=139.0, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	8.94	345	⇓Pn	Pn	06 42 19.7	-3.4
	3.1nm,0.4s,baz=158,slow=12,SNR=11						
KK31				⇓Sn	Sn	06 43 54.5	-7.7
	1.9nm,0.8s,baz=164,slow=21,SNR=5.5						
MKAR	Makanchi Array	13.87	25	P	Pn	06 43 32.2	+2.1
	0.1nm,0.3s,baz=207,slow=12,SNR=3.5						
ZALV	Zalesovo Beam	20.95	19	P	P	06 44 52.3	-1.6
	1.5nm,0.4s,baz=214,slow=9.9,SNR=5.0						
ARCES	ARCESS Array B	43.83	338	P	P	06 48 15.9	+0.2
	0.4nm,0.5s,baz=98,slow=9.3,SNR=4.8						
TORD	Torodi Ar. Bea	67.94	271	P	P	06 51 08.6	-0.3
	0.4nm,1.0s,baz=52,slow=5.6,SNR=2.5						
YKA	Yellowknife Ar	83.10	4	P	P	06 52 35.4	+0.6
	0.1nm,0.5s,baz=348,slow=5.3,SNR=4.4						

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*NIED **27** 06:54:00, 26°90N×142°70E, h5^{km}, Mw6.0 Best double couple: $M_0$1.31000×10^{18} NP1:ϕ_s358.00000°,δ54.00000°, λ55.00000°. NP2:ϕ_s227.00000°,δ48.00000°,λ128.00000°.*

*IDC **27** 06:54:18.0±0.4, 26°85N×142°58E, h0^{km}, mb5.5/29, mb1 5.5/33, mb1mx5.5/34, mbtmp5.4/33, ML4.8/4, MS6.1/36, Ms1 6.1/36, ms1mx6.0/41, Error ellipse: s-maj=11.2km s-min=9.1km az=53.0*

*BJI **27** 06:54:18.3, 26°91N×142°51E, h16^{km}, mB6.3/45, mb5.4/60, Ms6.4/72, Ms7 6.3/59*

*GCMT **27** 06:54:20.6±0.1, 26°72N×142°80E, h17^{km}, MW6.2/117, Moment Tensor Solution. s110,c249; s117,c452; Duration: 3^{s}2 Moment tensor: Scale 10^{18}Nm; M_{rr}1.87±.02; $M_{\theta\theta}$0.22±.01; $M_{\phi\phi}$-2.09±.01; $M_{r\theta}$0.39±.04; $M_{\theta\phi}$-0.34±.01; $M_{\phi r}$2.05±.05; Best double couple: $M_0$2.89500×10^{18} NP1:ϕ_s186.00000°,δ22.00000°, λ86.00000°. NP2:ϕ_s10.00000°,δ68.00000°,λ92.00000°. Principal axes: T 2.7610, Plg67.0000°, Azm283.0000°; N 0.2650, Plg2.0000°, Azm190.0000°; P -3.0290, Plg23.0000°, Azm99.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **27** 06:54:20.6±0.1, 26°82N×142°44E, h15^{km}, mb5.8/240, ME6.3, MS6.1/198, MW6.1, MW6.2, MW6.0(NIED) Error ellipse: s-maj=3.0km s-min=2.4km az=165.0, Moment Tensor Solution. s75 Moment tensor: Scale 10^{18}Nm; M_{rr}1.55; $M_{\theta\theta}$-0.33; $M_{\phi\phi}$-1.21; $M_{r\theta}$0.44; $M_{\theta\phi}$-0.16; $M_{\phi r}$1.13; Best double couple: $M_0$1.90000×10^{18} NP1:ϕ_s186.00000°, δ25.00000°,λ80.00000°. NP2:ϕ_s17.00000°,δ66.00000°, λ94.00000°. Principal axes: T 2.0100, Plg69.0000°, Azm295.0000°; N -0.3200, Plg3.0000°, Azm195.0000°; P -1.6800, Plg20.0000°, Azm103.0000°; Broadband fault plane solution: P waves. NP1:ϕ_s195.00000°,δ5.00000°, λ90.00000°. NP2:ϕ_s15.00000°,δ85.00000°,λ90.00000°. Principal axes: T Plg50.0000°, Azm285.0000°; N Plg0.0000°, Azm0.0000°; P Plg40.0000°, Azm105.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Recorded [3 JMA] in the Chichijima-retto.

*JMA **27** 06:54:21.3, 26°88N×142°74E, h38^{km}±5^{km}, M6.6*

JMA Felt III J1.

*ISCJB **27** 06:54:22.3±0.1, 26°89N±0°02×142°43E±0°01, h33^{km}, mb5.7/337, MS6.2/289, Error ellipse: s-maj=2.4km*

s-min=1.8km az=170.4
MOS ***27*** *06:54:23.1±0.8, 26.°88N×142.°41E, h40^{km}, mb6.0/138,*
MS6.2/93, Error ellipse: s-maj=6.6km s-min=3.5km
az=110.4
SZGRF ***27*** *06:54:24.1, 27.°15N×142.°52E, h33^{km}, mb5.9, MS6.3,*
Bonin Islands, Japan, region
TEH ***27*** *06:54:25.0, 26.°84N×142.°42E, h47^{km}*
DJA ***27*** *06:54:27, 27.°00N×142.°56E, h67^{km}, Mw6.4/22*
BGS ***27*** *06:54:36.5±2.2, 27.°62N×141.°78E, h15^{km}, mb5.8*
ISC 27 06:54:23.9±0.1**, 26.°88N**±0.°02×**142.°45E**±0.°01**, h35**^{km}**,**
h35^{km}±1.3^{km}**:pP-P, n1628,** σ**0.^{s}84**/1516**, mb5.7**/336**,**
MS6.2/289**, 308C-216D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**0.32**	**313**	⇓P	**Pn**	**06 54 32.4**	**+0.3**
CBIJ				*e*S	**Sn**	**06 54 40.5**	**+2.8**
CBIJ	**Chichi jima**	**0.32**	**313**	Pn	**Pn**	**06 54 32.5**	**+0.3**
	17µm,0.3s,baz=123,slow=3.5,SNR=625						
CBIJ				Sn	**Sn**	**06 54 41.8**	**+4.1**
	48µm,0.3s,baz=90,slow=20,SNR=41						
JHHJ	**Haha-jima-NKT**	**0.34**	**224**	P	**Pn**	**06 54 32.6**	**+0.2**
JHHJ				*e*S	**Sn**	**06 54 40.6**	**+2.4**
JHJ	**Hachijo jima 2**	**6.63**	**340**	Pn	**Pn**	**06 55 59.3**	**+0.4**
	45nm,0.3s,baz=87,slow=18,SNR=3.5						
JHJ				Sn	**Sn**	**06 57 15.6**	**+2.3**
	78nm,0.3s,baz=50,slow=22,SNR=4.4						
JHJ				LR	LR	06 58 21.4	
	comp=Z,146µm,21.6s,baz=149,slow=36						
BSO1	**Boso 1**	**7.85**	**351**	P	**Pn**	**06 56 14.2**	**-1.4**
JWZ	**Kozaga**	**8.82**	**320**	P	**Pn**	**06 56 30.1**	**+1.2**
JOD2	**Odawara 2**	**8.84**	**342**	P	**Pn**	**06 56 28.7**	**-0.5**
JOD2				*e*S	**Sn**	**06 58 09.6**	**+2.1**
JIE	**Ise**	**8.97**	**328**	P	**Pn**	**06 56 31.4**	**+0.4**
JRY	**Ryogami san**	**9.60**	**343**	P	**Pn**	**06 56 38.8**	**-0.8**
JRY				*e*S	**Sn**	**06 58 23.8**	**-2.3**
JHO	**Hitachi**	**9.83**	**351**	P	**Pn**	**06 56 41.4**	**-1.4**
JGM	**Miyama**	**10.06**	**332**	P	**Pn**	**06 56 46.4**	**+0.5**
JMZ	**Minamidaito 2**	**10.12**	**267**	P	**Pn**	**06 56 52.2**	**+5.4**
JNG	**Nsakai**	**10.19**	**340**	P	**Pn**	**06 56 48.2**	**+0.5**
JTO	**Tosashimizu**	**10.27**	**308**	P	**Pn**	**06 56 53.2**	**+4.4**
JSB	**Shiboa**	**10.29**	**349**	P	**Pn**	**06 56 49.1**	**+0.1**
MJAR	**Matsushiro Arr**	**10.29**	**341**	Pn	**Pn**	**06 56 48.6**	**-0.4**
	13nm,0.3s,baz=159,slow=11,SNR=40						
MJAR				Sn	**Sn**	**06 58 49.7**	**+6.7**
	3.6nm,0.3s,baz=112,slow=14,SNR=4.0						
MAJO	**Matsushiro**	**10.29**	**341**	*e*Pn	**Pn**	**06 56 49.5**	**+0.5**
MAJO				*e*Sn	**Sn**	**06 58 44.3**	**+1.3**
MAT	**Matsushiro**	**10.29**	**341**	P	**Pn**	**06 56 48.5**	**-0.5**
MAT				*e*S	**Sn**	**06 58 40.3**	**-2.7**
MAT	**Matsushiro**	**10.29**	**341**	P	**Pn**	**06 56 48.6**	**-0.4**
MAT				*e*S	**Sn**	**06 58 40.7**	**-2.3**
JGN	**Niukaw**	**10.29**	**336**	P	**Pn**	**06 56 49.7**	**+0.7**
JNS	**Sasagawa**	**11.22**	**347**	P	**Pn**	**06 57 00.5**	**-1.3**
JHS	**Saijyo**	**11.38**	**318**	P	**Pn**	**06 57 09.7**	**+5.7**
JAM	**Amami Oshima**	**11.49**	**281**	P	**Pn**	**06 57 12.2**	**+6.7**
JMK	**Ichinoseki**	**12.08**	**355**	P	**Pn**	**06 57 10.7**	**-2.9**
JMK				*e*S	**Sn**	**06 59 21.0**	**-6.0**
JSJ	**Shimokoshiki**	**12.10**	**296**	P	**Pn**	**06 57 20.3**	**+6.5**
JOW	**Kunigami**	**12.65**	**273**	Pn	**Pn**	**06 57 25.9**	**+4.4**
	8.2nm,0.3s,baz=109,slow=13,SNR=9.6						
JOW				LR	LR	07 01 29.9	
	comp=Z,104µm,20.6s,baz=129,slow=34						
GUMO	**Guam**	**13.41**	**170**	P	**Pn**	**06 57 32.0**	**+0.1**
GUMO				pmax	pmax		
	comp=Z,7.0nm,0.3s						
GUMO				MLR	MLR		
	comp=Z,68µm,21.7s						
GUMO	**Guam**	**13.41**	**170**	Pn	**Pn**	**06 57 32.0**	**+0.1**
	comp=Z,7.0nm,0.3s,baz=11,slow=22,SNR=3.8						
GUMO				LR	LR	07 01 48.5	
	comp=Z,68µm,21.7s,baz=11,slow=34						
GUMO	**Guam**	**13.41**	**170**	*e*Pn	**Pn**	**06 57 32.9**	**+1.0**
ERM	**Erimo**	**15.11**	**2**	*e*P	**Pn**	**06 57 54.1**	**-0.6**
ERM				*e*		07 00 40.6	
ERM				pmax	pmax		
	comp=Z,456nm,1.0s						
ERM	**Erimo**	**15.11**	**2**	*e*Pn	**Pn**	**06 57 54.1**	**-0.5**
	comp=Z,456nm,1.0s						
ERM				*e*Sn	**Sn**	**07 00 40.6**	**-0.2**
KSRS	**Korea Array**	**16.18**	**314**	P	**Pn**	**06 58 09.3**	**+0.8**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,121µm,18.8s						
KSRS	**Korea Array**	**16.18**	**314**	Pn	**Pn**	**06 58 09.3**	**+0.8**
	comp=Z,1.9nm,0.3s,baz=120,slow=10,SNR=22						
KSRS				LR	LR	07 04 09.5	
	comp=Z,121µm,18.8s,baz=122,slow=36						
INCN	**Inchon**	**17.03**	**312**	*e*Pn	**Pn**	**06 58 20.0**	**+0.7**
	comp=Z,460nm,1.5s						
ASAJ	**Asahikawa**	**17.20**	**0**	P	**Pn**	**06 58 21.6**	**+0.3**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,58µm,19.2s						
ASAJ	**Asahikawa**	**17.20**	**0**	P	**Pn**	**06 58 21.6**	**+0.2**
	comp=Z,6.3nm,0.3s,baz=240,slow=17,SNR=12						
ASAJ				LR	LR	07 06 05.0	
	comp=Z,58µm,19.2s,baz=199,slow=41						
YUK	**Yuzh-Kuril'sk**	**17.34**	**8**	*e*P	**Pn**	**06 58 27.0**	**+3.9**
YUK				*e*S	**S**	**07 01 35.0**	**-7.6**
YUK				pmax	pmax		
	comp=Z,350nm,0.5s						
YUK				pmax	pmax		
	comp=Z,14µm,2.8s						
YUK				pmax	pmax		
	comp=N,15µm,3.0s						
YUK				pmax	pmax		
	comp=E,5µm,2.6s						
YUK				smax			
	comp=N,880nm,0.8s						
YUK				smax			
	comp=E,440nm,0.8s						
YUK				smax			
	comp=N,19µm,12.0s						
YUK				smax			
	comp=E,26µm,10.0s						
YUK				MLR	MLR		
	comp=Z,50µm,17.0s						
YUK				MLR	MLR		
	comp=N,94µm,15.0s						
YUK				MLR	MLR		
	comp=E,61µm,15.0s						
TATO	**Taipei**	**18.95**	**269**	*e*Pn	**Pn**	**06 58 42.8**	**-0.1**
	comp=E,1µm,1.6s						
NACB	**Ninganchiao**	**19.01**	**266**	*e*P	**Pn**	**06 58 43.9**	**+0.2**
SSE	**Sheshan**	**19.06**	**288**	P	**Pn**	**06 58 44.3**	**+0.1**
SSE				pP	pP	06 58 54.3	+1.8
SSE				S	**S**	**07 02 16.8**	**-0.9**
SSE				pmax	pmax		
	comp=Z,47nm,0.9s						
SSE				pmax	pmax		
	comp=Z,21µm,15.6s						
SSE				LR	LR		
	comp=N,25µm,19.7s						
SSE				LR	LR		
	comp=E,43µm,19.2s						
SSE				LR	LR		
	comp=Z,52µm,18.5s						
YHNB	**Yeheng**	**19.10**	**268**	*e*P	**Pn**	**06 58 45.0**	**+0.2**
	comp=Z,371nm,0.8s						
YULB	**Yu-li**	**19.46**	**264**	*e*P	**Pn**	**06 58 49.0**	**0.0**
	comp=Z,2µm,1.3s						
SSLB	**Suanglung**	**19.67**	**266**	*e*P	**Pn**	**06 58 51.1**	**-0.4**
	comp=Z,1µm,1.2s						
TWG	**Pinlang**	**19.81**	**263**	*e*P	**Pn**	**06 58 51.7**	**-1.5**
	comp=Z,787nm,1.2s						
YSS	**Yuzh-Sakhalins**	**20.04**	**1**	α *i*P	**P**	**06 58 55.0**	**+1.2**
YSS				*e*		06 59 10.0	
YSS				*e**SP	sP	06 59 13.0	+5.5
YSS				*e*PPP		06 59 29.0	
YSS				*e*S	**S**	**07 02 37.0**	**0.0**
YSS				*i* SS		07 03 06.0	
YSS				pmax	pmax		
	comp=Z,70nm,1.1s						
YSS				pmax	pmax		
	comp=N,50nm,1.2s						
YSS				pmax	pmax		
	comp=Z,17µm,8.0s						
YSS				pmax	pmax		
	comp=N,14µm,10.0s						
YSS				smax			
	comp=N,27µm,10.0s						
YSS				smax			
	comp=E,40µm,10.0s						
YSS				MLR	MLR		
	comp=Z,34µm,16.0s,MS5.8						
YSS				MLR	MLR		
	comp=N,31µm,15.0s,MS5.9						
YSS				MLR	MLR		
	comp=E,27µm,12.0s,MS5.9						
YSS	**Yuzh-Sakhalins**	**20.04**	**1**	*e*P	**P**	**06 58 55.3**	**+1.5**
	comp=E,668nm,1.3s						
YSS				LR	LR		
	comp=Z,7µm,19.0s,MS5.1						
MDJ	**Mudanjiang**	**20.50**	**333**	*e*P	**P**	**06 58 59.0**	**+0.3**
	comp=Z,508nm,1.5s						
MDJ				LR	LR		
	comp=Z,75µm,19.0s,MS6.1						
CVP	**Callao Caves**	**21.13**	**249**	⇑*e*P	**P**	**06 59 08.2**	**+2.4**
DL2	**Dalian**	**21.14**	**310**	⇑*i*P	**P**	**06 59 03.3**	**-2.5**
DL2				PP		06 59 28.5	
DL2				S	**S**	**07 02 54.3**	**-4.8**
DL2				sS	sS	07 03 05.5	-8.4
DL2				pmax	pmax		
	comp=Z,50nm,1.0s,mb4.8						
DL2				pmax	pmax		
	comp=Z,5µm,15.6s						
DL2				LR	LR		
	comp=N,37µm,16.2s,MS6.0						
DL2				LR	LR		
	comp=E,41µm,16.8s,MS6.0						
DL2				LR	LR		
	comp=Z,57µm,17.2s,MS6.0						
NJ2	**Nanjing**	**21.16**	**290**	*e*P	**P**	**06 59 05.0**	**-1.1**
NJ2				pP		06 59 16.0	
NJ2				S	**S**	**07 02 56.0**	**-3.5**
NJ2				sS	sS	07 03 05.0	-9.4
NJ2				SS		07 03 24.0	
NJ2				pmax	pmax		
	comp=Z,60nm,1.0s,mb4.9						
NJ2				pmax	pmax		
	comp=Z,8µm,11.2s						
NJ2				LR	LR		
	comp=N,38µm,16.2s,MS6.0						
NJ2				LR	LR		
	comp=E,39µm,17.2s,MS6.0						
NJ2				LR	LR		
	comp=Z,50µm,16.8s,MS6.0						
SNY	**Shenyang**	**21.50**	**319**	⇑P	**P**	**06 59 07.0**	**-2.6**
SNY				S	**S**	**07 02 59.8**	**-6.1**
SNY				pmax	pmax		
	comp=Z,150nm,0.8s,mb5.4						
SNY				pmax	pmax		
	comp=Z,10µm,12.0s						
SNY				LR	LR		
	comp=N,52µm,14.1s						
SNY				LR	LR		
	comp=Z,51µm,15.7s,MS6.0						
CAUP	**Cauayan**	**21.51**	**247**	*e*P	**P**	**06 59 19.0**	**+9.1**
QZH	**Quanzhou**	**21.54**	**270**	⇑*i*P	**P**	**06 59 12.5**	**+2.3**
QZH				S	**S**	**07 03 04.0**	**-3.0**
QZH				pmax	pmax		
	comp=Z,2µm,1.5s,mb6.2						
QZH				pmax	pmax		
	comp=Z,18µm,7.2s						
QZH				LR	LR		
	comp=N,38µm,15.4s,MS6.2						
QZH				LR	LR		
	comp=E,76µm,17.5s,MS6.2						
QZH				LR	LR		
	comp=Z,114µm,23.2s						
PVCP	**Virac**	**21.62**	**236**	*e*P	**P**	**06 59 13.6**	**+2.5**
CN2	**Changchun**	**21.78**	**325**	*e*P	**P**	**06 59 12.5**	**0.0**
CN2				*e*S	**S**	**07 03 06.0**	**-5.3**
CN2				pmax	pmax		
	comp=Z,50nm,1.4s,mb4.8						
CN2				LR	LR		
	comp=N,58µm,14.0s,MS6.4						
CN2				LR	LR		
	comp=E,93µm,14.0s,MS6.4						
CN2				LR	LR		
	comp=Z,99µm,15.0s,MS6.3						
HABR	**Khabarovsk**	**22.32**	**347**	*c i*P	**P**	**06 59 19.4**	**+1.2**
HABR				*e**SP	sP	06 59 31.6	-0.5
HABR				*e*PPP		06 59 50.2	
HABR				*e*		07 03 11.9	
HABR				*e*S	**S**	**07 03 24.4**	**+2.7**
HABR				*e**SS	sS	07 03 39.3	+2.6
HABR				*e*SS		07 03 53.1	
HABR				*e*SSS		07 04 08.9	
HABR						07 10 32.2	
HABR				pmax	pmax		
	comp=Z,2µm,1.4s,mb6.3						
HABR				pmax	pmax		
	comp=N,572nm,1.4s						
HABR				pmax	pmax		
	comp=E,233nm,0.8s						
HABR				pmax	pmax		
	comp=Z,15µm,6.3s						
HABR				MLR	MLR		
	comp=E,22µm,13.0s,MS5.9						
HABR				MLR	MLR		
	comp=Z,24µm,14.0s,MS5.8						
HABR				MLR	MLR		
	comp=N,29µm,18.0s,MS5.9						
GQP	**Guinayangan**	**22.72**	**239**	⇓*e*P	**P**	**06 59 24.4**	**+1.6**
SCPH	**Surigao**	**23.36**	**226**	⇑*e*P	**P**	**06 59 29.1**	**-0.5**
TIA	**Tai'an**	**23.45**	**300**	⇑P	**P**	**06 59 28.3**	**-1.9**
TIA				S	**S**	**07 03 40.0**	**-1.0**
TIA				pmax	pmax		
	comp=Z,190nm,1.0s,mb5.5						
TIA				pmax	pmax		
	comp=Z,4µm,8.0s						
TIA				LR	LR		
	comp=N,22µm,17.9s,MS5.7						
TIA				LR	LR		
	comp=E,15µm,19.5s,MS5.7						
MSLP	**Maasin**	**23.52**	**228**	*e*P	**P**	**06 59 31.5**	**+0.5**
TGY	**Tagaytay City**	**23.77**	**242**	P	**P**	**06 59 34.2**	**+0.8**
	comp=E,470nm,0.5s,mb6.2,baz=156,slow=5.8,SNR=18						
TGY				LR	LR	07 07 32.1	
	comp=E,318nm,18.4s,baz=27,slow=33						
KLR	**Kul'dur**	**23.80**	**342**	⇓*i*P	**P**	**06 59 29.4**	**-4.0**
KLR				pmax	pmax		
	comp=N,260nm,2.2s						
KLR				pmax	pmax		
	comp=E,370nm,2.2s						
KLR				pmax	pmax		
	comp=Z,1µm,2.2s,mb5.9						
KLR				pmax	pmax		
	comp=Z,4µm,12.5s						
LLP	**Lapu-Lapu**	**23.99**	**230**	⇓*e*P	**P**	**06 59 36.6**	**+1.3**
RCP	**Roxas**	**23.99**	**234**	⇓*e*P	**P**	**06 59 36.9**	**+1.5**
OTRP	**Odiongan**	**24.00**	**237**	*e*P	**P**	**06 59 37.4**	**+1.9**
TBP	**Tagbilaran**	**24.51**	**229**	*e*P	**P**	**06 59 39.8**	**-0.3**
LUBP	**Lubang**	**24.53**	**242**	*e*P	**P**	**06 59 41.0**	**+0.6**
SJMP	**San Jose**	**24.62**	**239**	*e*P	**P**	**06 59 44.1**	**+3.0**
GUIM	**Jordan**	**24.73**	**233**	*e*P	**P**	**06 59 44.3**	**+2.1**
WHN	**Wuhan**	**24.88**	**285**	⇑P	**P**	**06 59 43.5**	**+0.1**
WHN				sP	sP	06 59 56.0	-1.7
WHN				S	**S**	**07 04 01.5**	**-2.8**
WHN				pmax	pmax		
	comp=Z,8µm,8.5s						
WHN				LR	LR		
	comp=N,34µm,12.9s,MS6.4						
WHN				LR	LR		
	comp=E,68µm,12.2s,MS6.4						
WHN				LR	LR		
	comp=Z,131µm,18.9s						
BUKP	**Musuan**	**25.08**	**224**	*e*P	**P**	**06 59 46.9**	**+1.6**
DAV	**Davao City (W)**	**25.40**	**222**	P	**P**	**06 59 48.8**	**+0.6**
	comp=Z,282nm,0.4s,mb6.2,baz=72,slow=20,SNR=6.7						
DAV				LR	LR	07 08 04.9	
	comp=Z,38µm,20.5s,MS5.9,baz=230,slow=32						
DAV	**Davao City (W)**	**25.40**	**222**	⇑*e*P	**P**	**06 59 46.5**	**-1.7**
DAV	**Davao City (W)**	**25.40**	**222**	P	**P**	**06 59 48.8**	**+0.6**
DAV				LR	LR	07 08 04.9	
DAV	**Davao City (W)**	**25.40**	**222**	P	**P**	**06 59 50.9**	**+2.7**
	SNR=12						
DAV				P		06 59 50.9	
	SNR=12						
BJT	**Baijiatuau**	**25.43**	**308**	*e*P	**P**	**06 59 46.9**	**-1.4**
BJT				pmax	pmax		
	comp=Z,47nm,0.6s						
BJT				MLR	MLR		
	comp=Z,77µm,19.0s						
BJT	**Baijiatuau**	**25.43**	**308**	*e*P	**P**	**06 59 46.9**	**-1.4**
	comp=Z,47nm,0.6s,mb5.2						
BJT				LR	LR		
	comp=Z,77µm,19.0s,MS6.2						
BJI	**Beijing**	**25.44**	**308**	P	**P**	**06 59 46.5**	**-1.9**
BJI				pP	pP	06 59 59.3	+0.9
BJI				S	**S**	**07 04 13.0**	**+0.1**
BJI				pmax	pmax		
	comp=Z,29nm,2.2s,mb4.4						
BJI				pmax	pmax		
	comp=Z,5µm,7.5s						
BJI				LR	LR		
	comp=N,57µm,15.8s,MS6.3						
BJI				LR	LR		
	comp=E,64µm,17.7s,MS6.3						
BJI				LR	LR		
	comp=Z,53µm,17.2s,MS6.1						
BUSP	**Coron**	**25.61**	**239**	*e*P	**P**	**06 59 50.6**	**+0.5**
CUYO	**Cuyo Island**	**25.73**	**236**	*e*P	**P**	**06 59 53.6**	**+2.4**
SKR	**Severo-Kuril's**	**25.96**	**20**	*e*P	**P**	**06 59 54.0**	**+1.0**
SKR				*e*		07 00 52.0	
SKR				*i* S	**S**	**07 04 26.0**	**+5.0**
SKR				*e*SS		07 05 41.0	
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb5.6						
SKR				pmax	pmax		
	comp=E,800nm,1.5s						
SKR				pmax	pmax		
	comp=Z,7µm,8.0s						
SKR				pmax	pmax		
	comp=N,6µm,10.0s						
SKR				pmax	pmax		
	comp=E,5µm,10.0s						
SKR				smax			
	comp=E,24µm,14.0s						
SKR				smax			
	comp=N,10µm,10.0s						
SKR				MLR	MLR		
	comp=N,22µm,14.0s,MS6.2						
SKR				MLR	MLR		
	comp=Z,45µm,14.0s,MS6.2						
SKR				MLR	MLR		
	comp=E,48µm,12.0s,MS6.2						
HKC	**Hong Kong Obse**	**26.08**	**266**	⇑*i*P	**P**	**06 59 58.0**	**+3.6**
HKC				*i* S	**S**	**07 04 32.0**	**+8.6**
CTBH	**Cotabato--PC H**	**26.10**	**225**	⇓*e*P	**P**	**06 59 55.8**	**+1.2**
PAGZ	**Pagadian**	**26.18**	**227**	*e*P	**P**	**06 59 55.8**	**+0.5**
GZH	**Guangzhou**	**26.62**	**268**	P	**P**	**06 59 55.3**	**-3.9**
GZH				S	**S**	**07 04 21.3**	**-11**
GZH				LR	LR		
	comp=N,28µm,17.1s,MS6.2						
GZH				LR	LR		
	comp=E,42µm,16.1s,MS6.2						
GZH				LR	LR		
	comp=Z,84µm,20.8s,MS6.3						
ENPP	**El Nido**	**26.69**	**239**	*e*P	**P**	**07 00 01.7**	**+1.7**
PPR	**Puerto Princes**	**28.13**	**237**	⇓*i*P	**P**	**07 00 11.6**	**-1.2**
HIA	**Hailar**	**28.41**	**328**	*e*P	**P**	**07 00 15.1**	**+0.1**
HIA				pmax	pmax		
	comp=Z,310nm,1.4s						
HIA				MLR	MLR		
	comp=Z,42µm,19.0s						
HIA	**Hailar**	**28.41**	**328**	*e*P	**P**	**07 00 15.1**	**+0.1**
	comp=Z,310nm,1.4s,mb5.7						
HIA				LR	LR		
	comp=Z,42µm,19.0s,MS6.0						
PEA0B	**Petropavlovsk-**	**28.56**	**19**	*e*P	**P**	**07 00 18.6**	**+2.4**
PETK	**Petropavlovsk-**	**28.56**	**19**	P	**P**	**07 00 17.8**	**+1.6**
	comp=Z,18nm,0.9s,mb4.8,baz=189,slow=6.3,SNR=12						
PETK				LR	LR	07 09 39.4	
	comp=Z,10µm,21.4s,MS5.4,baz=30,slow=32						
PET	**Petropavlovsk**	**28.78**	**20**	*e*P	**P**	**07 00 14.4**	**-3.8**
PET				pmax	pmax		
	comp=Z,93nm,1.4s,mb5.3						
PET				pmax	pmax		
	comp=Z,6µm,9.9s						
PET				pmax	pmax		
	comp=Z,5µm,9.8s						
PET				MLR	MLR		
	comp=Z,37µm,17.0s,MS6.1						
PET				MLR	MLR		
	comp=Z,39µm,18.0s						
PET	**Petropavlovsk**	**28.78**	**20**	*e*P	**P**	**07 00 19.1**	**+0.9**
	comp=Z,149nm,1.3s,mb5.6						
PET				LR	LR		
	comp=Z,33µm,19.0s,MS6.0						
HHC	**Hu-ho-hao-te**	**29.01**	**307**	*e*P	**P**	**07 00 19.0**	**-1.4**
HHC				pP	pP	07 00 30.5	0.0
HHC				PP	PP	07 01 13.5	-13
HHC				PcP	PcP	07 03 28.0	-0.3
HHC				*e*S	**S**	**07 05 03.5**	**-5.8**
HHC				sS	sS	07 05 24.8	-1.2
HHC				SS	SS	07 06 33.3	-40
HHC				PcS	PcS	07 07 09.3	-1.7
HHC				ScS	ScS	07 10 56.0	-5.0
HHC				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.9						
HHC				pmax	pmax		
	comp=Z,5µm,8.2s						
HHC				LR	LR		
	comp=N,33µm,14.6s,MS6.3						
HHC				LR	LR		
	comp=E,50µm,15.7s,MS6.3						
HHC				LR	LR		
	comp=Z,66µm,15.3s,MS6.4						
BATP	**Bataraza**	**29.46**	**237**	*e*P	**P**	**07 00 25.6**	**+1.0**
XAN	**Xi'an**	**29.67**	**292**	P	**P**	**07 00 24.3**	**-2.1**
XAN				pP	pP	07 00 36.3	-0.2
XAN				PP	PP	07 01 18.5	-15
XAN				S	**S**	**07 05 15.8**	**-4.0**
XAN				pmax	pmax		
	comp=Z,100nm,0.7s,mb5.7						
XAN				pmax	pmax		
	comp=Z,1µm,13.2s						
XAN				LR	LR		
	comp=N,3µm,16.4s,MS5.9						
XAN				LR	LR		
	comp=E,23µm,14.4s,MS5.9						
XAN				LR	LR		
	comp=Z,23µm,15.4s,MS5.9						
BTO	**Baotou**	**30.05**	**305**	*e*P	**P**	**07 00 27.0**	**-2.7**
QIZ	**Qiongzhong**	**30.95**	**262**	P	**P**	**07 00 35.5**	**-2.3**
QIZ				S	**S**	**07 05 38.8**	**-1.4**
QIZ				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.3						
QIZ				pmax	pmax		
	comp=Z,5µm,13.3s						
QIZ				LR	LR		
	comp=N,13µm,18.0s,MS6.0						
QIZ				LR	LR		
	comp=E,28µm,18.3s,MS6.0						
QIZ				LR	LR		
	comp=Z,37µm,16.6s,MS6.1						
QIZ	**Qiongzhong**	**30.95**	**262**	*e*P	**P**	**07 00 38.1**	**+0.2**
	comp=Z,656nm,1.9s,mb6.1						
QIZ				LR	LR		
	comp=Z,39µm,22.0s,MS6.0						
KDM	**Kudat**	**31.41**	**235**	P	**P**	**07 00 43.7**	**+1.8**
MYLDM	**Lahad Datu**	**31.42**	**231**	P	**P**	**07 00 45.5**	**+3.6**
GYA	**Guiyang**	**31.91**	**277**	⇑*i*P	**P**	**07 00 46.5**	**+0.3**
GYA				pP	pP	07 00 58.0	+1.6
GYA				PP	PP	07 01 53.8	-4.8
GYA				S	**S**	**07 05 55.3**	**+0.3**
GYA				ScP	ScP	07 07 13.0	-4.0
GYA				PcS	PcS	07 07 18.3	-2.7
GYA				SS	SS	07 07 51.0	-22
GYA				pmax	pmax		
	comp=Z,190nm,1.0s,mb5.9						
GYA				pmax	pmax		
	comp=Z,4µm,12.6s						
GYA				LR	LR		
	comp=N,19µm,16.7s,MS6.2						
GYA				LR	LR		
	comp=E,46µm,18.8s,MS6.2						
GYA				LR	LR		
	comp=Z,58µm,19.1s,MS6.3						
SDKM	**Sandakan**	**32.02**	**233**	P	**P**	**07 00 48.2**	**+1.0**
NRGR	**Nerungri**	**32.36**	**342**	*i* P	**P**	**07 00 52.3**	**+2.6**
NRGR				S	**S**	**07 06 08.7**	**+7.5**
NRGR				smax			
	comp=N,87nm,0.9s						
KKM	**Kota Kinabalu**	**32.45**	**235**	P	**P**	**07 00 53.3**	**+2.3**
KKM	**Kota Kinabalu**	**32.45**	**235**	*e*P	**P**	**07 00 52.0**	**+1.0**
	comp=N,189nm,0.9s,mb5.9						
KKM				LR	LR		
	comp=Z,36µm,20.0s,MS6.1						
CLNS	**Chul'man**	**32.47**	**342**	*c i*P	**P**	**07 00 51.3**	**+0.6**

CLNS				e*PP	pP	07 01 00.1	-0.7
CLNS				*e*PPP		07 02 04.7	
CLNS				*e*		07 03 38.4	
CLNS				*e*S	**S**	**07 05 57.9**	**-5.0**
CLNS				pmax	pmax		
	comp=Z,98nm,1.1s,mb5.5						
CLNS				pmax	pmax		
	comp=N,94nm,1.1s						
CLNS				pmax	pmax		
	comp=E,19nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.3						
CLNS				pmax	pmax		
	comp=N,61nm,1.1s						
CLNS				pmax	pmax		
	comp=E,74nm,0.8s						
CLNS				smax			
	comp=N,11µm,14.3s						
CLNS				smax			
	comp=E,4µm,13.8s						
CLNS				MLR	MLR		
	comp=Z,36µm,17.0s,MS6.1						
CLNS				MLR	MLR		
	comp=N,23µm,15.0s,MS6.1						
CLNS				MLR	MLR		
	comp=E,11µm,12.0s,MS6.1						
CLNS	**Chul'man**	**32.47**	**342**	*e*P	**P**	**07 00 51.4**	**+0.7**
TSM	**Tawau**	**32.49**	**231**	P	**P**	**07 00 52.7**	**+1.3**
CIT	**Chita**	**33.20**	**327**	*e*P	**P**	**07 00 58.8**	**+1.6**
CIT				*e*	pP	07 01 08.4	+1.1
CIT				*e*		07 02 03.8	
CIT				*e*		07 06 21.5	
CIT				pmax	pmax		
	comp=Z,524nm,1.8s,mb6.2						
LZH	**Lanzhou**	**33.99**	**295**	⇑P	**P**	**07 01 04.0**	**-0.3**
LZH				pP	pP	07 01 14.5	0.0
LZH				sP	sP	07 01 19.5	+0.8
LZH				PP	PP	07 02 18.8	-2.8
LZH				PcP	PcP	07 03 43.3	+1.5
LZH				S	**S**	**07 06 24.0**	**-3.1**
LZH				sS	sS	07 06 45.0	+1.1
LZH				ScP	ScP	07 07 22.3	-1.7
LZH				SS	SS	07 08 33.0	-22
LZH				ScS	ScS	07 11 27.0	+1.0
LZH				pmax	pmax		
	comp=Z,410nm,1.0s,mb6.3						
LZH				pmax	pmax		
	comp=Z,3µm,6.2s						
LZH				LR	LR		
	comp=E,74µm,17.0s						
LZH				LR	LR		
	comp=Z,96µm,19.5s,MS6.5						
CD2	**Chengdu**	**33.99**	**286**	P	**P**	**07 01 03.8**	**-0.6**
CD2				pP	pP	07 01 16.3	+1.8
CD2				PP	PP	07 02 19.5	-2.2
CD2				S	**S**	**07 06 22.3**	**-5.0**
CD2				sS	sS	07 06 39.0	-5.1
CD2				pmax	pmax		
	comp=Z,380nm,0.7s,mb6.4						
CD2				pmax	pmax		
	comp=Z,6µm,11.8s						
CD2				LR	LR		
	comp=N,80µm,16.4s						
CD2				LR	LR		
	comp=Z,65µm,18.6s,MS6.4						
ULN	**Ulaanbaatar**	**34.64**	**317**	*e*P	**P**	**07 01 09.3**	**-0.4**
ULN				*e*		07 03 45.4	
ULN				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.4						
ULN				MLR	MLR		
	comp=Z,26µm,21.0s,MS5.9						
ULN	**Ulaanbaatar**	**34.64**	**317**	*e*P	**P**	**07 01 09.3**	**-0.4**
	comp=Z,44nm,0.8s,mb5.4						
ULN				*e*PcP	PcP	07 03 45.4	+1.9
ULN				LR	LR		
	comp=Z,26µm,21.0s,MS5.9						
ULN	**Ulaanbaatar**	**34.64**	**317**	P	**P**	**07 01 09.8**	**+0.1**
	SNR=30						
ULN				P		07 01 09.8	
	SNR=30						
SONM	**Songino Array**	**35.03**	**316**	P	**P**	**07 01 13.0**	**-0.1**
	comp=Z,17nm,0.8s,mb5.0,baz=126,slow=8.3,SNR=48						
SONM				ScP	ScP	07 07 32.8	+5.3
	comp=Z,3.8nm,0.8s,baz=128,slow=3.7,SNR=4.2						
SONM				LR	LR	07 15 40.8	
	comp=Z,36µm,20.8s,MS6.1,baz=116,slow=36						
SONM				P3KPbc		07 32 07.1	
	comp=Z,0.5nm,0.7s,baz=298,slow=3.2,SNR=4.6						
SONM	**Songino Array**	**35.03**	**316**	P	**P**	**07 01 13.0**	**-0.1**
SONM				ScP	ScP	07 07 32.8	+5.3
SONM				LR	LR	07 15 40.8	
SONM				*e*		07 32 07.1	
MIDW	**Midway**	**35.54**	**78**	PFAKE		07 01 30.0	+12
MIDW				LR	LR		
	comp=Z,18µm,20.0s,MS5.8						
KMI	**Kunming**	**35.63**	**276**	P	**P**	**07 01 19.5**	**+0.9**
KMI				pP	pP	07 01 28.0	-0.8
KMI				sP	sP	07 01 30.8	-2.2
KMI				PP	PP	07 02 41.5	+1.7
KMI				S	**S**	**07 06 57.5**	**+4.9**
KMI				sS	sS	07 07 10.5	+1.0
KMI				pmax	pmax		
	comp=Z,69nm,1.5s,mb5.4						
KMI				pmax	pmax		
	comp=Z,4µm,7.7s						
KMI				LR	LR		
	comp=N,34µm,16.1s,MS6.2						
KMI				LR	LR		
	comp=E,16µm,16.1s,MS6.2						
KMI				LR	LR		
	comp=Z,36µm,19.7s,MS6.1						
KDI	**Kendari**	**36.15**	**215**	⇑*e*P	**P**	**07 01 23.1**	**0.0**
KDI				*e*S	**S**	**07 07 00.7**	**0.0**
YAK	**Yakutsk**	**36.17**	**350**	c *i*P	**P**	**07 01 22.6**	**-0.1**
YAK				e*PP	pP	07 01 34.9	+2.0
YAK				*e*		07 03 50.3	
YAK				*e*S	**S**	**07 06 58.8**	**-1.2**
YAK				pmax	pmax		
	comp=Z,111nm,0.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,72nm,1.3s						
YAK				pmax	pmax		
	comp=E,25nm,0.8s						
YAK				pmax	pmax		
	comp=Z,219nm,1.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,355nm,2.3s						
YAK				pmax	pmax		
	comp=E,146nm,1.9s						
YAK				smax			
	comp=N,2µm,6.8s						
YAK				smax			
	comp=E,3µm,8.0s						
YAK				MLR	MLR		
	comp=Z,30µm,22.0s,MS6.0						
YAK				MLR	MLR		
	comp=N,25µm,19.0s,MS6.1						
YAK				MLR	MLR		
	comp=E,20µm,17.0s,MS6.1						
YAK	**Yakutsk**	**36.17**	**350**	*e*P	**P**	**07 01 23.2**	**+0.5**
	comp=E,174nm,0.9s,mb6.0						
YAK				LR	LR		
	comp=Z,26µm,20.0s,MS6.0						
SEY	**Seymchan**	**36.65**	**8**	⇑*e*P	**P**	**07 01 27.6**	**+0.9**
SEY	**Seymchan**	**36.65**	**8**	⇑*e*P	**P**	**07 01 27.7**	**+1.0**
BTM	**Bintulu**	**36.66**	**235**	P	**P**	**07 01 29.1**	**+1.7**
BOD	**Bodaibo**	**36.85**	**335**	*e*P	**P**	**07 01 28.5**	**-0.1**
BOD				pmax	pmax		
	comp=Z,202nm,0.9s,mb6.0						
GTA	**Gaotai**	**37.49**	**300**	⇑P	**P**	**07 01 33.5**	**-0.8**
GTA				PP	PP	07 03 04.0	+3.9
GTA				S	**S**	**07 07 20.0**	**-0.7**
GTA				SS	SS	07 09 58.0	-7.8
GTA				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.6						
GTA				pmax	pmax		
	comp=Z,2µm,7.1s						
GTA				LR	LR		
	comp=N,19µm,15.5s,MS6.3						
GTA				LR	LR		
	comp=E,33µm,16.4s,MS6.3						
GTA				LR	LR		
	comp=Z,39µm,15.8s,MS6.3						
SBUM	**Sibu**	**37.80**	**235**	P	**P**	**07 01 38.8**	**+1.7**
IRK	**Irkutsk**	**38.15**	**322**	*e*P	**P**	**07 01 39.4**	**-0.2**
IRK				*e*S	**S**	**07 07 39.3**	**+8.9**
IRK				pmax	pmax		
	comp=Z,223nm,1.3s,mb5.7						
TLY	**Talaya**	**38.25**	**321**	P	**P**	**07 01 40.5**	**0.0**
	comp=Z,620nm,0.8s,mb6.4,SNR=27						
TLY	**Talaya**	**38.25**	**321**	*e*P	**P**	**07 01 40.8**	**+0.3**
TLY				*e*		07 03 06.7	
TLY				*e*S	**S**	**07 07 40.7**	**+8.8**
TLY				*e*SS	SS	07 10 50.3	+30
TLY				*e*		07 11 42.2	
TLY				pmax	pmax		
	comp=Z,84nm,0.8s,mb5.5						
TLY				MLR	MLR		
	comp=Z,49µm,15.0s,MS6.4						
TLY	**Talaya**	**38.25**	**321**	*e*P	**P**	**07 01 40.5**	**0.0**
	comp=Z,89nm,0.9s,mb5.5						
TLY				LR	LR		
	comp=Z,34µm,19.0s,MS6.2						
TLY	**Talaya**	**38.25**	**321**	P	**P**	**07 01 41.2**	**+0.7**
	SNR=56						
TLY				P		07 01 41.2	
	SNR=56						
KAPI	**Kappang**	**38.57**	**218**	P	**P**	**07 01 42.0**	**-1.5**
	comp=Z,747nm,1.7s,mb6.1,SNR=11						
KAPI	**Kappang**	**38.57**	**218**	P	**P**	**07 01 42.5**	**-1.0**
	comp=Z,27nm,1.0s,mb4.9,baz=87,slow=1.8,SNR=11						
KAPI				LR	LR	07 16 08.0	
	comp=Z,13µm,20.6s,MS5.7,baz=48,slow=34						
KAPI	**Kappang**	**38.57**	**218**	*e*P	**P**	**07 01 42.3**	**-1.3**
	comp=Z,194nm,1.2s,mb5.7						
KAPI				LR	LR		
	comp=Z,16µm,22.0s,MS5.8						
TARA	**Tarawa**	**38.73**	**126**	*e*P	**P**	**07 01 42.8**	**-2.1**
TARA				LR	LR		
	comp=Z,14µm,19.0s,MS5.8						
MKS	**Makassar**	**38.89**	**218**	⇑*e*P	**P**	**07 01 46.8**	**+0.6**
MKS				*e*S	**S**	**07 07 47.8**	**+5.6**
ADK	**Adak**	**39.51**	**40**	*e*P	**P**	**07 01 55.6**	**+4.6**
ADK				*e*		07 04 01.7	
ADK				pmax	pmax		
	comp=Z,180nm,1.1s,mb5.7						
ADK				MLR	MLR		
	comp=Z,25µm,20.0s,MS6.0						
ADK	**Adak**	**39.51**	**40**	*e*P	**P**	**07 01 55.6**	**+4.5**
	comp=Z,180nm,1.1s,mb5.7						
ADK				*e*PcP	PcP	07 04 01.7	+3.6
ADK				LR	LR		
	comp=Z,25µm,20.0s,MS6.0						
CHRT	**Chiangrai**	**39.63**	**269**	⇑P	**P**	**07 01 53.5**	**+1.0**
	comp=Z,658nm,1.2s,mb6.2						
MOY	**Mondy**	**39.76**	**320**	*e*P	**P**	**07 01 52.8**	**-0.3**
MOY				pmax	pmax		
	comp=Z,196nm,3.4s						
KSM	**Kuching**	**39.86**	**236**	P	**P**	**07 01 55.6**	**+1.2**
KSM	**Kuching**	**39.86**	**236**	*e*P	**P**	**07 01 55.3**	**+0.9**
	comp=Z,123nm,1.3s,mb5.5						
KSM				LR	LR		
	comp=Z,9µm,21.0s,MS5.6						
KAKA	**Kakadu**	**40.53**	**195**	*e*P	**P**	**07 01 58.5**	**-1.4**
	comp=Z,182nm,1.3s,mb5.5						
KAKA	**Kakadu**	**40.53**	**195**	*e*P	**P**	**07 01 59.0**	**-0.8**
COEN	**Coen**	**40.60**	**179**	*e*P	**P**	**07 02 00.1**	**-0.2**
	comp=Z,902nm,0.9s,mb6.4						
CHTO	**Chiang Mai**	**40.73**	**268**	*e*P	**P**	**07 02 01.6**	**+0.1**
CHTO				pmax	pmax		
	comp=Z,157nm,1.0s,mb5.6						
CHTO				MLR	MLR		
	comp=Z,16µm,20.0s,MS5.9						
CHTO	**Chiang Mai**	**40.73**	**268**	*e*P	**P**	**07 02 01.6**	**+0.1**
	comp=Z,157nm,1.0s,mb5.6						
CHTO				LR	LR		
	comp=Z,16µm,20.0s,MS5.9						
CMAR	**Chiang Mai Arr**	**40.85**	**268**	P	**P**	**07 02 02.5**	**-0.1**
	comp=Z,33nm,0.7s,mb5.1,baz=51,slow=7.8,SNR=86						
CMAR				LR	LR	07 20 19.5	
	comp=Z,27µm,18.1s,MS6.1,baz=77,slow=38						
BDT	**Bhumibol Dam**	**41.22**	**266**	P	**P**	**07 02 06.2**	**+0.6**
	comp=Z,62nm,0.8s,mb5.3						
KTGM	**Kuala Trenggan**	**43.15**	**247**	P	**P**	**07 02 22.9**	**+1.5**
IMP	**Imphal**	**43.51**	**278**	*e*PKP	**P**	**07 02 24.0**	**-0.2**
IMP				*e*x	x	07 09 04.0	
BILL	**Bilibino**	**43.62**	**13**	⇑*i*P	**P**	**07 02 24.7**	**+0.3**
BILL				*i* S	**S**	**07 08 54.4**	**+3.2**
BILL				*i* SS	SS	07 12 17.4	+11
BILL				pmax	pmax		
	comp=Z,130nm,1.4s,mb5.5						
BILL				MLR	MLR		
	comp=Z,17µm,22.0s,MS5.9						
BILL	**Bilibino**	**43.62**	**13**	*e*P	**P**	**07 02 24.5**	**+0.1**
	comp=Z,108nm,1.0s,mb5.5						
BILL				LR	LR		
	comp=Z,11µm,20.0s,MS5.8						
SNG	**Songkhla**	**44.26**	**251**	P	**P**	**07 02 31.0**	**+0.7**
	comp=Z,400nm,0.9s,mb6.2						
MYKOM	**Kota Tinggi**	**44.63**	**243**	P	**P**	**07 02 35.7**	**+2.5**
KGM	**Kluang**	**44.91**	**243**	P	**P**	**07 02 37.5**	**+2.0**
LSA	**Lhasa**	**44.96**	**286**	P	**P**	**07 02 36.5**	**+0.8**
LSA				pP	pP	07 02 45.8	-0.4
LSA				sP	sP	07 02 49.5	-0.9
LSA				PP	PP	07 04 23.3	+2.2
LSA				S	**S**	**07 09 11.8**	**0.0**
LSA				sS	sS	07 09 30.3	+1.4
LSA				LR	LR		
	comp=N,12µm,18.9s,MS6.3						
LSA				LR	LR		
	comp=E,34µm,20.3s,MS6.3						
LSA				LR	LR		
	comp=Z,51µm,20.3s,MS6.4						
LSA	**Lhasa**	**44.96**	**286**	*e*P	**P**	**07 02 36.2**	**+0.5**
LSA				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.4						
LSA				MLR	MLR		
	comp=Z,53µm,19.0s,MS6.5						
LSA	**Lhasa**	**44.96**	**286**	*e*P	**P**	**07 02 36.2**	**+0.5**
	comp=Z,65nm,1.0s,mb5.4						
LSA				LR	LR		
	comp=Z,53µm,19.0s,MS6.5						
SHL	**Shillong**	**45.13**	**280**	⇑*i*P	**P**	**07 02 36.0**	**-1.2**
SHL				*e*x	x	07 09 13.0	
KULM	**Kulim**	**45.23**	**249**	P	**P**	**07 02 39.0**	**+0.9**
KULM	**Kulim**	**45.23**	**249**	*e*P	**P**	**07 02 38.6**	**+0.5**
	comp=Z,151nm,0.8s,mb5.9						
KULM				LR	LR		
	comp=Z,22µm,21.0s,MS6.1						
IPM	**Ipoh**	**45.36**	**248**	P	**P**	**07 02 39.7**	**+0.6**
TIXI	**Tiksi**	**45.45**	**354**	c *i*P	**P**	**07 02 38.3**	**-0.7**
TIXI				*e*S	**S**	**07 09 19.4**	**+1.6**
TIXI				*e*		07 12 30.9	
TIXI				pmax	pmax		
	comp=Z,106nm,1.2s,mb5.5						
TIXI				MLR	MLR		
	comp=N,11µm,16.0s,MS5.9						
TIXI				MLR	MLR		
	comp=Z,15µm,16.0s,MS6.0						
TIXI				MLR	MLR		
	comp=E,5µm,16.0s,MS5.9						
TIXI	**Tiksi**	**45.45**	**354**	*e*P	**P**	**07 02 39.0**	**-0.1**
	comp=E,66nm,0.9s,mb5.5						
TIXI				LR	LR		
	comp=Z,18µm,22.0s,MS6.0						
FRIM	**Kepong**	**45.57**	**246**	P	**P**	**07 02 42.2**	**+1.5**
AGT	**Agartala**	**46.10**	**278**	*e*PKP	**P**	**07 02 44.0**	**-0.8**
AGT				*e*x	x	07 03 40.0	
CTA	**Charters Tower**	**46.83**	**175**	*e*P	**P**	**07 02 49.4**	**-1.0**
	comp=Z,45nm,0.9s,mb5.4						
CTA				*e*S	**S**	**07 09 35.5**	**-3.1**
CTAO	**Charters Tower**	**46.83**	**175**	*e*P	**P**	**07 02 49.6**	**-0.8**
CTAO				pmax	pmax		
	comp=Z,216nm,1.3s,mb5.9						
CTAO				MLR	MLR		
	comp=Z,10µm,20.0s,MS5.8						
CTAO	**Charters Tower**	**46.83**	**175**	*e*P	**P**	**07 02 49.6**	**-0.9**
	comp=Z,216nm,1.3s,mb5.9						
CTAO				LR	LR		
	comp=Z,10µm,20.0s,MS5.8						
WMQ	**Urumqi**	**46.89**	**306**	⇑*i*P	**P**	**07 02 50.5**	**-0.3**
WMQ				PcP	PcP	07 04 21.0	-2.1
WMQ				PP	PP	07 04 44.0	+2.8
WMQ				S	**S**	**07 09 41.0**	**+1.8**
WMQ				ScS	ScS	07 12 37.0	-5.5
WMQ				pmax	pmax		
	comp=Z,89nm,1.4s,mb5.5						
WMQ				pmax	pmax		
	comp=Z,4µm,8.4s						
WMQ				LR	LR		
	comp=N,34µm,16.3s,MS6.6						
WMQ				LR	LR		
	comp=E,38µm,15.6s,MS6.6						
WMQ				LR	LR		
	comp=Z,34µm,17.8s,MS6.4						
WRAB	**Tennant Creek**	**47.19**	**190**	P	**P**	**07 02 54.3**	**+1.1**
	comp=Z,6µm,0.7s,SNR=19						
WRAB	**Tennant Creek**	**47.19**	**190**	*e*P	**P**	**07 02 52.7**	**-0.5**
WRAB				LR	LR		
	comp=Z,23µm,21.0s,MS6.1						
WRA	**Warramunga Arr**	**47.20**	**190**	P	**P**	**07 02 52.2**	**-1.1**
	comp=Z,502nm,0.7s,mb6.6,baz=10,slow=8.4,SNR=130						
WRA				LR	LR	07 21 10.6	
	comp=Z,18µm,21.5s,MS6.0,baz=25,slow=34						
GAMB	**Gambell**	**47.22**	**26**	*e*P	**P**	**07 02 52.8**	**-0.2**
	comp=Z,170nm,1.3s,mb5.8						
LEM	**Lembang**	**47.55**	**230**	⇑*e*P	**P**	**07 02 56.8**	**+0.6**
FITZ	**Fitzroy Crossi**	**47.59**	**202**	*e*P	**P**	**07 02 55.2**	**-1.2**
FITZ				*e*S	**S**	**07 09 46.4**	**-3.1**
FITZ	**Fitzroy Crossi**	**47.59**	**202**	P	**P**	**07 02 56.2**	**-0.2**
	comp=Z,99nm,0.9s,mb5.8,baz=20,slow=8.6,SNR=11						
FITZ				LR	LR	07 22 14.1	
	comp=Z,6µm,18.9s,MS5.6,baz=17,slow=35						
PSI	**Prapat**	**48.03**	**248**	P	**P**	**07 03 00.8**	**+0.8**
	comp=Z,254nm,0.7s,mb6.4,baz=34,slow=3.9,SNR=150						
PSI				LR	LR	07 20 43.7	
	comp=Z,16µm,21.4s,MS6.0,baz=63,slow=33						
TAPN	**Taplejung**	**48.38**	**284**	*e*P	**P**	**07 03 03.2**	**+0.6**
ODAN	**Odare**	**48.77**	**283**	*e*P	**P**	**07 03 05.6**	**0.0**
	comp=Z,775nm,1.3s,mb6.6						
CAL	**Calcutta**	**49.05**	**277**	*e*PKP	**P**	**07 03 09.0**	**+1.2**
CAL				*e*x	x	07 10 36.7	
RAMN	**Ramite**	**49.43**	**283**	*e*P	**P**	**07 03 11.0**	**+0.3**
	comp=Z,296nm,0.9s,mb6.3						
TNA	**Tin City**	**49.49**	**25**	*e*P	**P**	**07 03 10.8**	**+0.3**
	comp=Z,150nm,1.2s,mb5.9						
JIRN	**Jiri**	**49.63**	**285**	*e*P	**P**	**07 03 12.6**	**+0.5**
	comp=Z,418nm,0.8s,mb6.5						
SDPT	**Sand Point**	**49.73**	**39**	*e*P	**P**	**07 03 11.1**	**-1.4**
	comp=Z,213nm,1.0s,mb6.1						
ZAA0	**Zalesovo Array**	**49.80**	**319**	*e*P	**P**	**07 03 11.9**	**-1.1**
ZALV	**Zalesovo Beam**	**49.80**	**319**	P	**P**	**07 03 12.3**	**-0.7**
ZALV						07 04 32.7	
ZALV	**Zalesovo Beam**	**49.80**	**319**	P	**P**	**07 03 12.2**	**-0.8**
	comp=Z,41nm,0.9s,mb5.5,baz=102,slow=7.2,SNR=52						
ZALV				PcP	PcP	07 04 32.6	-0.8
	comp=Z,32nm,0.8s,baz=101,slow=3.0,SNR=5.1						
ZALV				LR	LR	07 24 50.9	
	comp=Z,23µm,19.1s,MS6.2,baz=97,slow=37						
ZALV				PKP2bc		07 34 22.7	
	comp=Z,0.6nm,0.3s,baz=256,slow=4.1,SNR=4.0						
ZALV	**Zalesovo Beam**	**49.80**	**319**	P	**P**	**07 03 12.2**	**-0.8**
ZALV				PcP	PcP	07 04 32.6	-0.8
ZALV				LR	LR	07 24 50.9	
ZALV				⇑*e*		07 34 22.7	
GUN	**Gumba**	**49.84**	**285**	*e*P	**P**	**07 03 14.5**	**+0.8**
	comp=Z,705nm,0.9s,mb6.7						
FUNA	**Funafuti**	**50.09**	**130**	*e*P	**P**	**07 03 14.3**	**-1.4**
	comp=Z,422nm,1.0s,mb6.4						
FUNA				LR	LR		
	comp=Z,25µm,20.0s,MS6.2						
PKI	**Pulchoki**	**50.32**	**285**	*e*P	**P**	**07 03 17.7**	**+0.3**
	comp=Z,334nm,1.2s,mb6.2						
PKI	**Pulchoki**	**50.32**	**285**	*e*P	**P**	**07 03 17.7**	**+0.3**
PKI				pmax	pmax		
	comp=Z,334nm,1.2s,mb6.2						
PKIN	**Phulchoki**	**50.33**	**285**	*e*P	**P**	**07 03 17.6**	**+0.1**
	comp=Z,154nm,0.7s,mb6.2						
KKN	**Kakani**	**50.39**	**285**	*e*P	**P**	**07 03 18.3**	**+0.4**
	comp=Z,180nm,0.9s,mb6.1						
KKN	**Kakani**	**50.39**	**285**	*e*P	**P**	**07 03 18.3**	**+0.4**
KKN				pmax	pmax		
	comp=Z,180nm,0.9s,mb6.1						
DMN	**Daman**	**50.58**	**285**	*e*P	**P**	**07 03 19.7**	**+0.4**
	comp=Z,153nm,0.7s,mb6.0						
MK31	**Makanchi Array**	**50.79**	**310**	*i* P	**P**	**07 03 19.2**	**-1.4**
MKAR	**Makanchi Array**	**50.79**	**310**	P	**P**	**07 03 19.5**	**-1.1**
MKAR						07 04 37.4	
MKAR	**Makanchi Array**	**50.79**	**310**	P	**P**	**07 03 19.5**	**-1.1**
	comp=Z,13nm,0.7s,mb5.0,baz=90,slow=8.5,SNR=122						
MKAR				PcP	PcP	07 04 37.4	+0.2
	comp=Z,19nm,0.8s,baz=79,slow=6.4,SNR=5.3						
MKAR				ScP	ScP	07 08 35.5	+4.8
	comp=Z,7.6nm,0.9s,baz=88,slow=5.4,SNR=3.6						
MKAR				LR	LR	07 25 58.0	
	comp=Z,38µm,18.5s,MS6.4,baz=91,slow=37						
MKAR				PKPPKP		07 34 09.3	
	comp=Z,0.6nm,0.9s,baz=269,slow=4.9,SNR=3.6						
MKAR				PKP2bc		07 34 22.9	
	comp=Z,0.5nm,0.8s,baz=270,slow=1.2,SNR=3.9						
MKAR				P4KPbc		07 40 53.4	
	comp=Z,0.2nm,0.5s,baz=79,slow=6.4,SNR=5.5						
MKAR	**Makanchi Array**	**50.79**	**310**	P	**P**	**07 03 19.5**	**-1.1**
MKAR				PcP	PcP	07 04 37.4	+0.2
MKAR				ScP	ScP	07 08 35.5	+4.8
MKAR				LR	LR	07 25 58.0	
MKAR				P'P'		07 34 09.3	
MKAR				⇑*e*		07 34 22.9	
NVS	**Novosibirsk**	**50.85**	**320**	⇑*i*P	**P**	**07 03 20.3**	**-0.7**
NVS				*i* S	**S**	**07 10 46.0**	**+11**
NVS				pmax	pmax		
	comp=Z,179nm,1.3s,mb5.8						
NVS				pmax	pmax		
	comp=N,41nm,0.9s						
NVS				pmax	pmax		
	comp=E,133nm,1.6s						
GKN	**Gorkha**	**50.89**	**285**	*e*P	**P**	**07 03 22.0**	**+0.3**
	comp=E,1µm,1.6s,mb6.5						
ASAR	**Alice Springs**	**50.92**	**190**	P	**P**	**07 03 21.5**	**-0.3**
	comp=E,39nm,0.7s,mb5.5,baz=15,slow=12,SNR=32						
ASAR				PKPPKP		07 33 59.9	
	comp=E,0.9nm,0.8s,baz=136,slow=2.8,SNR=5.4						
ASAR				PKP2bc		07 34 24.7	
	comp=E,1.2nm,0.9s,baz=157,slow=2.6,SNR=4.4						
ASAR				P4KPbc		07 41 04.0	
	comp=E,0.5nm,1.0s,baz=19,slow=4.6,SNR=4.1						
ASAR	**Alice Springs**	**50.92**	**190**	P	**P**	**07 03 21.5**	**-0.3**
ASAR				P'P'		07 33 59.9	
ASAR				⇑*e*		07 34 24.7	
CHGN	**Chignik**	**51.04**	**38**	*e*P	**P**	**07 03 23.9**	**+1.5**
XMIS	**Christmas Isla**	**51.52**	**229**	*e*P	**P**	**07 03 24.9**	**-1.5**
	comp=E,512nm,1.7s,mb6.2						
DANN	**Dangsing**	**51.57**	**286**	*e*P	**P**	**07 03 27.7**	**+0.9**
	comp=E,760nm,1.0s,mb6.6						
KOLN	**Koldanda**	**51.84**	**285**	*e*P	**P**	**07 03 29.0**	**+0.2**
	comp=E,433nm,1.2s,mb6.2						
MBWA	**Marble Bar**	**52.58**	**207**	PFAKE		07 03 50.0	+16
MBWA				LR	LR		
	comp=Z,6µm,22.0s,MS5.6						
EIDS	**Eidsvold**	**52.61**	**170**	*e*P	**P**	**07 03 32.9**	**-1.4**
	comp=Z,160nm,1.6s,mb5.7						
KURK	**Kurchatov**	**53.30**	**315**	*e*P	**P**	**07 03 38.2**	**-1.1**
KURK				*e*S	**S**	**07 11 08.2**	**-0.1**
KURK				pmax	pmax		
	comp=Z,101nm,0.9s,mb5.8						
KURK				MLR	MLR		
	comp=Z,37µm,19.0s,MS6.5						
KURK	**Kurchatov**	**53.30**	**315**	P	**P**	**07 03 38.3**	**-0.9**
	comp=Z,58nm,0.6s,mb5.7,baz=91,slow=8.1,SNR=101						
KURK				LR	LR	07 27 43.6	
	comp=Z,26µm,18.2s,MS6.3,baz=95,slow=38						
KURK	**Kurchatov**	**53.30**	**315**	*e*P	**P**	**07 03 38.2**	**-1.1**
	comp=Z,101nm,0.9s,mb5.8						
KURK				*e*S	**S**	**07 11 08.2**	**-0.1**
KURK				LR	LR		
	comp=Z,37µm,19.0s,MS6.5						
KURK	**Kurchatov**	**53.30**	**315**	P	**P**	**07 03 38.6**	**-0.6**
	SNR=56						
KURK				P		07 03 38.6	
	SNR=56						
SVW2	**Sparrevohn**	**53.35**	**32**	*e*P	**P**	**07 03 39.0**	**-0.4**
TTA	**Tatalina**	**53.52**	**30**	*e*P	**P**	**07 03 43.2**	**+2.6**
DZM	**Mont Dzumac**	**53.92**	**152**	*e*P	**P**	**07 03 44.7**	**+0.7**
	comp=Z,332nm,1.4s,mb6.1						
DZM				*e*S	**S**	**07 11 15.9**	**-1.3**
	comp=Z,26µm,25.8s						
DZM				*e*LQ		07 17 03.3	
	comp=Z,25µm,31.9s						
DZM				*e*LR	LR	07 19 21.4	
	comp=Z,36µm,21.8s						
DZM	**Mont Dzumac**	**53.92**	**152**	*e*P	**P**	**07 03 42.1**	**-1.9**
	comp=Z,316nm,1.4s,mb6.0						
ALBI	**Allahabad**	**54.01**	**283**	*e*PKP	**P**	**07 03 43.0**	**-1.9**
KIP	**Kipapa**	**54.19**	**82**	*e*P	**P**	**07 03 44.3**	**-1.9**
KIP	**Kipapa**	**54.19**	**82**	PFAKE		07 04 00.0	+14
KIP				LR	LR		
	comp=Z,22µm,20.0s,MS6.2						

LGTI	**Lohaghat**	54.32	288	*e*PKP	P	07 03 48.3	+1.3
LGTI				*e*x	x	07 11 29.3	
PTH	**Pithoragarh**	54.32	288	*e*PKP	P	07 03 46.2	-0.8
PTH				*e*x	x	07 11 31.0	
KDAK	**Kodiak Island**	54.40	37	P	P	07 03 49.0	+1.9
	comp=Z,651nm,0.7s,mb6.7,SNR=5.6						
KDAK	**Kodiak Island**	54.40	37	P	P	07 03 47.6	+0.5
KDAK				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.4						
KDAK	**Kodiak Island**	54.40	37	P	P	07 03 47.6	+0.4
	comp=Z,39nm,0.8s,mb5.4,baz=343,slow=6.2,SNR=8.0						
KDAK	**Kodiak Island**	54.40	37	*e*P	P	07 03 47.1	0.0
KDAK				LR	LR		
	comp=Z,12µm,19.0s,MS6.0						
RSO	**Redoubt South**	54.62	33	*e*P	P	07 03 49.1	+0.4
JOSI	**Joshimath**	54.65	290	*e*PKP	P	07 03 49.9	+0.5
JOSI				AMb	AMB	07 03 55.9	
	comp=Z,2µm,0.9s,mb7.2						
AAA	**Alma-Ata**	54.71	305	*i* P	P	07 03 51.1	+1.4
AAA				*i* S	S	07 11 26.2	-1.4
AAA				pmax	pmax		
	comp=Z,6µm,15.6s						
AAA				MLR	MLR		
	comp=Z,42µm,16.0s,MS6.6						
VIS	**Vishakhapatnam**	55.04	274	⇑*i*P	P	07 03 53.2	+0.8
VIS				AMb	AMB	07 03 55.4	
	comp=Z,72nm,0.6s,mb5.9						
IMA2	**Indian Mountai**	55.18	26	*e*P	P	07 03 53.1	+0.4
PPLA	**Purkeypile**	55.23	30	*e*P	P	07 03 54.6	+1.6
	comp=Z,289nm,1.5s,mb6.1						
CHUM	**Lake Minchumin**	55.33	29	*e*P	P	07 03 55.1	+1.3
	comp=Z,58nm,0.9s,mb5.6						
ULHL	**Ulahol**	55.33	304	P	P	07 03 56.0	+1.9
	SNR=8.8						
TKM2	**Tokmak 2**	55.73	305	*e*P	P	07 03 58.6	+1.6
TKM2				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.6						
TKM2				MLR	MLR		
	comp=Z,23µm,19.0s,MS6.3						
TKM2	**Tokmak 2**	55.73	305	P	P	07 03 57.4	+0.4
	SNR=18						
TKM2	**Tokmak 2**	55.73	305	*e*P	P	07 03 58.6	+1.5
	comp=Z,52nm,0.9s,mb5.6						
TKM2				LR	LR		
	comp=Z,23µm,19.0s,MS6.3						
KSH	**Kashi**	55.89	301	P	P	07 04 01.3	+3.1
KSH				*e*PcP	PcP	07 04 59.5	+2.8
KSH				*e*PP	PP	07 06 07.8	+4.9
KSH				*e*ScP	ScP	07 08 53.0	-0.1
KSH				*e*PcS	PcS	07 08 58.0	+1.0
KSH				*e*S	S	07 11 44.3	+0.8
KSH				*e*ScS	ScS	07 13 43.0	-1.8
KSH				SS	SS	07 15 33.0	+3.7
KSH				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.3						
KSH				pmax	pmax		
	comp=Z,3µm,5.5s						
KSH				LR	LR		
	comp=N,17µm,13.5s,MS6.6						
KSH				LR	LR		
	comp=E,33µm,14.2s,MS6.6						
KSH				LR	LR		
	comp=Z,50µm,14.0s,MS6.8						
KTH	**Kantishna Hill**	55.90	30	*e*P	P	07 03 58.6	+0.8
	comp=Z,166nm,1.5s,mb5.8						
BPAW	**Bear Paw Mtn.**	55.95	29	*e*P	P	07 03 59.5	+1.2
	comp=Z,116nm,1.3s,mb5.8						
DDI	**Dehra Dun**	55.96	290	⇑*i*P	P	07 03 56.9	-2.0
DDI				*e*S	S	07 11 46.4	+1.7
KZA	**Kyzart**	56.09	304	P	P	07 04 01.0	+1.4
	SNR=74						
TRF	**Thorofare Moun**	56.16	30	*e*P	P	07 04 00.1	+0.3
	comp=Z,98nm,1.1s,mb5.8						
SEW	**Seward**	56.22	34	*e*P	P	07 04 01.7	+1.5
	comp=Z,177nm,1.1s,mb6.0						
JBP	**Jabalpur**	56.22	281	⇑*e*PKP	P	07 04 01.3	+0.4
JBP				*e*x	x	07 12 01.4	
KBK	**Karagaybulak**	56.24	305	P	P	07 04 00.9	+0.2
	SNR=34						
CHMS	**Chumysh**	56.34	305	P	P	07 04 03.2	+1.8
	SNR=21						
FRU	**Bishkek**	56.46	305	α*e*P	P	07 04 01.5	-0.7
FRU				*e*S	S	07 12 06.5	+16
FRU				pmax	pmax		
	comp=Z,5µm,15.0s						
FRU				pmax	pmax		
	comp=Z,450nm,2.2s,mb6.1						
FRU				MLR	MLR		
	comp=Z,28µm,17.0s,MS6.4						
USP	**Ospenovka**	56.49	306	P	P	07 04 02.2	-0.2
	SNR=39						
PMR	**Palmer**	56.49	32	*e*P	P	07 04 02.4	+0.2
PMR				pmax	pmax		
	comp=Z,171nm,1.2s,mb6.0						
PMR	**Palmer**	56.49	32	*e*P	P	07 04 02.4	+0.2
	comp=Z,171nm,1.2s,mb6.0						
AAK	**Ala-Archa**	56.57	305	P	P	07 04 03.0	0.0
AAK						07 05 02.2	
AAK				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
AAK				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.3						
AAK				MLR	MLR		
	comp=Z,22µm,18.3s,MS6.3						
AAK	**Ala-Archa**	56.57	305	P	P	07 04 03.1	+0.1
	SNR=37						
AAK	**Ala-Archa**	56.57	305	P	P	07 04 03.0	0.0
	comp=Z,23nm,0.6s,mb5.3,baz=127,slow=5.8,SNR=56						
AAK				PcP	PcP	07 05 02.1	+2.9
	comp=Z,23nm,0.7s,baz=101,slow=2.3,SNR=4.6						
AAK				LR	LR	07 32 31.7	
	comp=Z,22µm,18.3s,MS6.3,baz=73,slow=40						
AAK	**Ala-Archa**	56.57	305	*e*P	P	07 04 02.9	-0.2
	comp=Z,34nm,0.8s,mb5.4						
AAK				LR	LR		
	comp=Z,15µm,19.0s,MS6.1						
AAK	**Ala-Archa**	56.57	305	P	P	07 04 03.3	+0.3
	SNR=26						
AAK				P		07 04 03.3	
	SNR=26						
SDNR	**Sundarnagar**	56.60	291	*e*PKP	P	07 04 04.0	+0.6
UCH	**Uchtor**	56.61	304	P	P	07 04 04.6	+1.3
	SNR=115						
UCH	**Uchtor**	56.61	304	*e*P	P	07 04 04.5	+1.2
	comp=Z,112nm,1.0s,mb5.8						
UCH				LR	LR		
	comp=Z,29µm,20.0s,MS6.4						
COLD	**Coldfoot**	56.76	25	*e*P	P	07 04 05.1	+1.1
	comp=Z,183nm,1.4s,mb5.9						
MCK	**McKinley**	56.80	30	*e*P	P	07 04 04.7	+0.4
POHA	**Pohakuloa**	56.92	83	PFAKE		07 04 20.0	+14
POHA				LR	LR		
	comp=Z,14µm,19.0s,MS6.1						
NDI	**New Delhi**	57.08	288	*e*PKP	P	07 04 05.0	-1.8
	comp=Z,29nm,0.6s,mb5.5						
EKS2	**Erkin-Say**	57.09	305	P	P	07 04 06.9	+0.1
	SNR=48						
EKS2	**Erkin-Say**	57.09	305	*e*P	P	07 04 06.6	-0.2
	comp=Z,46nm,0.9s,mb5.5						
EKS2				LR	LR		
	comp=Z,14µm,19.0s,MS6.1						
AYAN	**Aya Nagar**	57.20	288	*e*PKP	P	07 04 06.8	-0.9
AML	**Almayashu**	57.23	304	P	P	07 04 08.8	+1.1
	SNR=156						
AML	**Almayashu**	57.23	304	*e*P	P	07 04 08.3	+0.6
	comp=Z,83nm,0.7s,mb5.9						
AML				LR	LR		
	comp=Z,22µm,19.0s,MS6.3						
COLA	**College**	57.39	28	*e*P	P	07 04 08.5	+0.1
COLA				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.5						
COLA				MLR	MLR		
	comp=Z,8µm,19.0s,MS5.8						
COLA	**College**	57.39	28	*e*P	P	07 04 08.4	0.0
	comp=Z,52nm,1.1s,mb5.5						
COLA				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
THN	**Thein Dam**	57.42	293	*e*PKP	P	07 04 07.5	-1.7
THN				*e*S	S	07 12 07.8	+3.9
ARMA	**Armidale**	57.65	171	*e*P	P	07 04 13.8	+3.2
ARMA				*e*S	S	07 12 04.7	-1.8
ARMA	**Armidale**	57.65	171	*e*P	P	07 04 10.2	-0.3
NGP	**Nagpur**	57.68	279	*e*PKP	P	07 04 07.8	-3.4
NGP				*e*x	x	07 04 20.1	
	comp=Z,166nm,2.2s						
NGP				*e*S	S	07 12 06.2	-1.4
KUDL	**Kundal**	57.83	288	*e*PKP	P	07 04 11.2	-1.0
KUDL				AMb	AMB	07 04 14.6	
	comp=Z,109nm,0.9s,mb5.9						
PAX	**Paxson**	58.30	31	*e*P	P	07 04 15.6	+0.8
PAX				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.4						
PAX	**Paxson**	58.30	31	*e*P	P	07 04 15.6	+0.7
	comp=Z,44nm,1.0s,mb5.4						
BVAR	**Borovoye Array**	58.36	318	P	P	07 04 15.2	-0.3
	comp=Z,90nm,0.5s,mb6.0,baz=93,slow=8.4,SNR=241						
BVAR				LR	LR	07 30 09.4	
	comp=Z,30µm,19.2s,MS6.4,baz=86,slow=37						
BVAR				PKP2bc		07 34 01.3	
	comp=Z,1.4nm,0.9s,baz=211,slow=8.3,SNR=5.5						
BVAR				P4KPbc		07 41 25.8	
	comp=Z,0.8nm,0.6s,baz=96,slow=3.0,SNR=5.6						
BVAR	**Borovoye Array**	58.36	318	P	P	07 04 15.2	-0.3
BVAR				LR	LR	07 30 09.4	
BVAR				⇑*e*		07 34 01.3	
BRVK	**Borovoye**	58.42	318	*e*P	P	07 04 15.8	-0.1
BRVK				*e*S	S	07 12 17.1	+0.8
BRVK				MLR	MLR		
	comp=Z,29µm,19.0s,MS6.4						
BRVK	**Borovoye**	58.42	318	P	P	07 04 16.4	+0.6
	SNR=80						
BRVK				P		07 04 16.4	
	SNR=80						
STKA	**Stephens Creek**	58.43	181	*e*P	P	07 04 14.7	-1.4
	comp=Z,118nm,1.7s,mb5.6						
STKA				*e*S	S	07 12 13.7	-3.0
STKA	**Stephens Creek**	58.43	181	P	P	07 04 14.9	-1.2
	comp=Z,37nm,0.8s,mb5.5,baz=349,slow=7.5,SNR=21						
KHET	**Khetri**	58.43	288	*e*PKP	P	07 04 15.8	-0.6
KHET				AMb	AMB	07 04 18.7	
	comp=Z,125nm,0.8s,mb6.0						
BHPL	**Bhopal**	58.44	282	*e*PKP	P	07 04 15.7	-0.8
BHPL				AMb	AMB	07 04 19.1	
	comp=Z,83nm,1.1s,mb5.7						
COCO	**West Island**	58.90	235	*e*P	P	07 04 20.4	+0.7
COCO				*e**PP	pP	07 04 33.0	+2.6
COCO				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.5						
FORT	**Forrest**	58.96	194	*e*P	P	07 04 18.8	-1.0
	comp=Z,155nm,0.7s,mb6.1						
FORT				*e*S	S	07 12 21.2	-2.4
FORT	**Forrest**	58.96	194	*e*P	P	07 04 18.9	-0.8
MENT	**Mentasta**	59.09	31	*e*P	P	07 04 24.2	+3.8
HYB	**Hyderabad**	59.40	275	*i* P	P	07 04 23.0	-0.2
HYB				*e*S	S	07 12 30.0	0.0
HYB				LR	LR	07 30 00.0	
	comp=Z,19nm,22.0s						
HYB	**Hyderabad**	59.40	275	*e*P	P	07 04 23.0	-0.2
HYB				*e*S	S	07 12 26.0	-4.0
KK31	**Karatay Array**	59.40	306	*i* P	P	07 04 22.2	-0.7
AJM	**Ajmer**	59.88	286	*e*PKP	P	07 04 26.0	-0.4
AFI	**Afiamalu**	60.16	127	PFAKE		07 04 40.0	+12
AFI				LR	LR		
	comp=Z,11µm,21.0s,MS6.0						
EGAK	**Eagle**	60.24	29	*e*P	P	07 04 28.2	-0.1
EGAK				LR	LR		
	comp=Z,9µm,19.0s,MS5.9						
LATR	**Latur**	60.81	277	*e*PKP	P	07 04 34.0	+1.1
DAWY	**Dawson**	61.02	29	*e*P	P	07 04 34.9	+1.3
PNL	**Peninsula**	61.28	34	*e*P	P	07 04 37.4	+2.0
PALK	**Pallekele**	61.57	264	*e*P	P	07 04 38.7	+0.6
PALK				pmax	pmax		
	comp=Z,385nm,1.3s,mb6.4						
PALK	**Pallekele**	61.57	264	P	P	07 04 38.0	-0.2
	comp=Z,46nm,0.8s,mb5.6,baz=74,slow=6.6,SNR=19						
PALK				LR	LR	07 33 34.2	
	comp=Z,12µm,19.2s,MS6.1,baz=60,slow=38						
PALK	**Pallekele**	61.57	264	*e*P	P	07 04 38.7	+0.6
	comp=Z,385nm,1.3s,mb6.4						
PALK	**Pallekele**	61.57	264	P	P	07 04 39.2	+1.1
	SNR=7.9						
PALK				P		07 04 39.2	
	SNR=7.9						
HYT	**Haines Junctio**	62.12	33	*e*P	P	07 04 42.4	+1.4
CAN	**Canberra**	62.17	174	*e*P	P	07 04 41.2	-0.4
CAN				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.6						
CAN				MLR	MLR		
	comp=Z,9µm,20.0s,MS5.9						
CAN	**Canberra**	62.17	174	*e*P	P	07 04 41.2	-0.4
	comp=Z,50nm,1.0s,mb5.6						
CAN				LR	LR		
	comp=Z,9µm,20.0s,MS5.9						
CNB	**Canberra Magne**	62.20	174	*e*P	P	07 04 41.7	-0.1
CNB				*e*S	S	07 13 03.9	-1.0
XMAS	**Kiritimati**	62.56	103	PFAKE		07 05 00.0	+15
XMAS				LR	LR		
	comp=Z,20µm,19.0s,MS6.3						
INK	**Inuvik**	63.13	24	*e*P	P	07 04 47.5	-0.2
POO	**Poona**	63.17	278	⇑*i*P	P	07 04 46.0	-2.8
	comp=Z,200nm,1.0s,mb6.2						
POO				*e*PKP		07 04 47.9	
POO				AMb	AMB	07 05 00.6	
	comp=Z,171nm,1.1s,mb6.1						
KAD	**Karad**	63.32	277	*e*PKP	P	07 04 48.6	-1.1
KAD				AMb	AMB	07 04 51.9	
	comp=Z,97nm,0.6s,mb6.1						
SKAG	**Skagway**	63.36	34	*e*P	P	07 04 53.8	+4.5
SVE	**Sverdlovsk**	63.54	323	⇑*e*P	P	07 04 51.3	+0.8
SVE				*e*S	S	07 13 26.0	+4.6
SVE				*e*		07 14 44.5	
SVE				pmax	pmax		
	comp=Z,350nm,1.5s,mb6.2						
SVE				MLR	MLR		
	comp=Z,28µm,19.0s,MS6.5						
MUN	**Mundaring**	63.65	205	*e*P	P	07 04 50.7	-0.8
MUN				*e*S	S	07 13 24.0	+0.8
BOM	**Bombay**	63.96	279	*i* x	x	07 04 40.3	
BOM				*e*S	S	07 13 27.6	-0.2
NWAO	**Narrogin (SRO)**	64.13	203	*e*P	P	07 04 53.5	-1.1
NWAO				MLR	MLR		
	comp=Z,5µm,20.0s						
NWAO	**Narrogin (SRO)**	64.13	203	LR	LR	07 30 43.7	
	comp=Z,6µm,19.7s,MS5.8,baz=26,slow=34						
NWAO	**Narrogin (SRO)**	64.13	203	P	P	07 04 54.7	0.0
	SNR=12						
NWAO				P		07 04 54.7	
	SNR=12						
TOO	**Toolangi**	64.17	177	*e*P	P	07 04 54.5	-0.3
TOO				*e*S	S	07 13 29.4	-0.1
TRD	**Trivandrum**	64.36	267	⇓*e*x	x	07 05 04.0	
TRD				*e*x	x	07 13 49.0	
ARU	**Arti**	64.74	322	P	P	07 04 58.1	-0.3
	comp=Z,2µm,0.9s,mb7.1,SNR=60						
ARU	**Arti**	64.74	322	*d* *i*P	P	07 04 58.8	+0.4
ARU				*e*		07 05 28.8	
ARU				*e*		07 07 20.1	
ARU				*e*PPP		07 08 51.9	
ARU				*e*S	S	07 13 38.8	+2.5
ARU				*e*		07 14 48.1	
ARU				pmax	pmax		
	comp=Z,598nm,1.7s,mb6.3						
ARU				MLR	MLR		
	comp=Z,23µm,17.0s,MS6.4						
ARU	**Arti**	64.74	322	⇑*e*P	P	07 04 58.7	+0.3
SOKR	**Solikamsk**	65.07	326	*c* *i*P	P	07 05 01.1	+0.6
SOKR				S	S	07 13 43.4	+3.2
SOKR				SS	SS	07 17 51.5	-0.7
SOKR				pmax	pmax		
	comp=Z,360nm,1.6s,mb6.2						
SOKR				MLR	MLR		
	comp=Z,49µm,19.0s,MS6.7						
BHJ	**Bhuj**	65.19	285	*e*x	P	07 05 06.9	+4.9
BHJ				AMb	AMB	07 05 10.1	
	comp=Z,207nm,1.5s,mb5.9						
CRAG	**Craig**	65.23	39	*e*P	P	07 05 02.0	+0.3
QUE	**Quetta**	65.25	293	*e*P	P	07 05 00.0	-2.2
QUE				*e*S	S	07 13 45.0	+1.6
AB31	**Akbulak array**	65.41	314	P	P	07 05 02.1	-0.8
AB31				pmax	pmax		
	comp=Z,69nm,0.7s,mb5.8						
WRAK	**Wrangell Islan**	65.46	37	*e*P	P	07 05 07.0	+3.9
	comp=Z,118nm,1.3s,mb5.8						
WRAK				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
DLBC	**Dease Lake**	66.25	35	*e*P	P	07 05 09.7	+1.5
AKTK	**Aktyubinsk**	66.35	316	P	P	07 05 08.6	-0.3
AKTK				⇑*e*		07 33 47.4	
AKTK				LR	LR	07 35 25.1	
AKTO	**Aktyubinsk**	66.35	316	P	P	07 05 08.6	-0.3
	comp=Z,46nm,0.8s,mb5.6,baz=85,slow=6.9,SNR=129						
AKTO				PKP2bc		07 33 47.4	
	comp=Z,2.9nm,1.1s,baz=215,slow=4.0,SNR=4.7						
AKTO				LR	LR	07 35 25.1	
	comp=Z,26µm,18.3s,MS6.5,baz=74,slow=37						
OUZ	**Omahuta**	68.43	153	*e*P	P	07 05 22.9	+0.7
	comp=Z,134nm,1.4s,mb5.8						
IMYA	**Miami**	68.81	301	*e*P	P	07 05 26.2	+1.4
MOO	**Moorlands**	69.11	176	*e*P	P	07 05 26.7	+0.5
ISRO	**Mashad**	69.31	301	*e*P	P	07 05 29.2	+1.4
IMOG	**Moghan**	69.47	301	*e*P	P	07 05 30.4	+1.5
IEMG	**Emamgholi**	69.58	302	*e*P	P	07 05 30.6	+1.1
TAU	**Tasmania Unive**	69.58	176	*e*P	P	07 05 31.7	+2.6
TAU				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.6						
TAU				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.0						
TAU	**Tasmania Unive**	69.58	176	*e*P	P	07 05 31.7	+2.6
	comp=Z,80nm,1.1s,mb5.6						
TAU				LR	LR		
	comp=Z,9µm,22.0s,MS6.0						
IAKL	**Akhelmad**	69.76	302	*e*P	P	07 05 31.2	+0.6
ABKT	**Ailbek**	69.81	303	P	P	07 05 31.5	+0.6
	comp=Z,459nm,1.0s,mb6.4,SNR=17						
VAN	**Vannovskaya**	69.82	303	P	P	07 05 30.3	-0.6
VAN				S	S	07 14 39.4	+1.4
VAN	**Vannovskaya**	69.82	303	*e*P	P	07 05 30.3	-0.6
PRGR	**Permogore**	69.85	330	⇑*i*P	P	07 05 31.6	+0.9
PRGR				*e*S	S	07 14 40.5	+2.9
PRGR				pmax	pmax		
	comp=Z,151nm,0.5s,mb6.2						
IKRD	**Kardeh**	69.89	302	*e*P	P	07 05 29.2	-2.2
ALE	**Alert**	70.17	3	P	P	07 05 33.0	+0.6
	comp=Z,245nm,1.5s,mb5.9,SNR=20						
IDAH	**Dahanechah**	70.17	297	⇓*e*P	P	07 05 34.5	+1.3
ISFR	**Sfrayin**	70.19	302	*e*P	P	07 05 33.3	+0.1
ISHV	**Shirvan**	70.25	303	*e*P	P	07 05 33.5	-0.1
SPITS	**Spitsbergen Ar**	70.64	350	LR	LR	07 39 05.4	
	comp=Z,9µm,18.8s,MS6.1,baz=40,slow=38						
KBS	**Kingsbay**	70.79	351	*e*P	P	07 05 38.4	+2.1
KBS				*e*S	S	07 14 53.7	+5.5
KBS				*e*SS	SS	07 19 25.0	+5.1
KBS				AMS	AMS	07 50 28.4	
	comp=Z,7µm,13.5s,MS6.1						
KBS	**Kingsbay**	70.79	351	*e*P	P	07 05 37.0	+0.8
KBS				pmax	pmax		
	comp=Z,106nm,2.0s,mb5.4						
KBS				MLR	MLR		
	comp=Z,6µm,18.0s,MS5.9						
KBS	**Kingsbay**	70.79	351	*e*P	P	07 05 37.1	+0.9
	comp=Z,94nm,1.1s,mb5.6						
KBS				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
IKOO	**Kooshah**	70.96	297	*e*P	P	07 05 39.3	+1.3
RES	**Resolute Bay**	72.22	14	*e*P	P	07 05 44.7	-0.2
YKA	**Yellowknife Ar**	72.22	28	P	P	07 05 43.9	-1.2
	comp=Z,32nm,0.8s,mb5.3,baz=293,slow=6.0,SNR=106						
YKA				PKP2bc		07 33 32.6	
	comp=Z,0.8nm,1.0s,baz=100,slow=2.4,SNR=4.6						
YKA	**Yellowknife Ar**	72.22	28	P	P	07 05 43.9	-1.2
YKA				⇑*e*		07 33 32.6	
APA	**Apatity**	72.34	338	⇑*i*P	P	07 05 46.2	+0.5
APA				*i* PPP		07 10 14.0	
APA				*i* S	S	07 15 06.0	-0.2
APA				*e*		07 15 30.0	
APA				*e*SS	SS	07 19 52.0	+8.1
APA				pmax	pmax		
	comp=Z,140nm,1.1s,mb5.8						
APA				pmax	pmax		
	comp=Z,6µm,12.0s						
APA				MLR	MLR		
	comp=Z,19µm,17.0s,MS6.4						
BJO	**Bjornoya**	72.45	346	*e*P	P	07 05 48.4	+2.1
BJO				AMb	AMB	07 06 05.5	
	comp=Z,231nm,2.6s,mb5.7						
BJO				*e*S	S	07 15 14.2	+6.8
BJO				AMS	AMS	07 39 59.1	
	comp=Z,16µm,20.3s,MS6.3						
URZ	**Urewera**	72.48	152	*e*P	P	07 05 46.2	-0.6
	comp=Z,436nm,1.9s,mb6.1						
KLMR	**Klimovskoe**	72.89	330	⇑*i*P	P	07 05 49.7	+0.7
KLMR				*i*		07 06 06.7	
KLMR				*e*S	S	07 15 14.7	+2.0
KLMR				pmax	pmax		
	comp=Z,143nm,1.0s,mb5.9						
PGC	**Sidney**	72.89	44	*e*P	P	07 05 49.6	+0.3
NLWA	**Neilton Lookou**	73.09	45	⇓P	P	07 05 50.8	+0.3
	baz=73,SNR=16						
NLWA				⇑S	S	07 15 15.6	+0.2
	baz=73						
NLWA	**Neilton Lookou**	73.09	45	*e*P	P	07 05 50.7	+0.2
	comp=Z,223nm,1.6s,mb5.8						
NLWA				LR	LR		
	comp=Z,11µm,19.0s,MS6.2						
KEV	**Kevo**	73.26	341	*e*P	P	07 05 51.0	-0.1
KEV				pmax	pmax		
	comp=Z,53nm,0.6s,mb5.7						
KEV	**Kevo**	73.26	341	*e*p	P	07 05 51.0	-0.1
	comp=Z,53nm,0.6s,mb5.7						
RAR	**Rarotonga**	73.59	125	PFAKE		07 06 10.0	+16
RAR				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
E03A	**Lebam**	73.59	46	⇓P	P	07 05 53.9	+0.4
	baz=74,SNR=16						
E03A				⇓S	S	07 15 20.7	-0.4
	baz=74						
A05A	**Maple Falls**	73.60	43	⇓P	P	07 05 53.4	-0.1
	baz=74						
A05A				⇑S	S	07 15 21.8	+0.6
	baz=74						
ARCES	**ARCESS Array B**	73.82	341	P	P	07 05 55.3	+0.9
	comp=Z,64nm,0.6s,mb5.7,baz=62,slow=3.2,SNR=139						
ARCES				LR	LR	07 44 16.2	
	comp=Z,20µm,18.1s,MS6.4,baz=70,slow=41						
F03A	**Seaside**	73.82	46	⇑P	P	07 05 55.2	+0.4
	baz=74,SNR=10.0						
F03A				⇑S	S	07 15 24.0	+0.2
	baz=74						
IANJ	**Anjilo**	73.83	302	*e*P	P	07 05 55.7	+0.6
D04A	**Dobbs Creek Ra**	73.86	45	⇓P	P	07 05 55.9	+0.9
	baz=74						
HEBO	**Mount Hebo**	73.96	47	*e*P	P	07 05 57.4	+1.7
	comp=Z,235nm,1.5s,mb5.9						
IBAF	**Bafgh**	73.98	298	*e*P	P	07 05 56.4	+0.3
SNZO	**South Karori**	74.14	155	*e*P	P	07 05 54.0	-2.5
	comp=Z,169nm,1.1s,mb5.9						
SNZO				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
B06A	**Marblemount**	74.15	43	⇑P	P	07 05 56.6	-0.1
	baz=74						
B06A				⇑S	S	07 15 28.8	+1.4
	baz=74						
RPW	**Rockport**	74.16	43	*e*P	P	07 05 57.4	+0.6
ISHM	**Shahmirzad**	74.18	302	*e*P	P	07 05 57.5	+0.4
D05A	**Enumclaw**	74.35	45	⇑P	P	07 05 58.1	+0.2
	baz=74,SNR=6.5						
D05A				⇓S	S	07 15 30.7	+1.1
	baz=74						
RMW	**Rattlesnake Mo**	74.36	45	P	P	07 05 59.1	+1.1
KEBM	**Edson Butte**	74.46	50	*e*P	P	07 05 59.6	+1.0
COR	**Corvallis**	74.50	48	*e*P	P	07 05 58.7	-0.1
COR				pmax	pmax		
	comp=Z,219nm,1.5s,mb5.9						
COR				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.2						
COR	**Corvallis**	74.50	48	*e*P	P	07 05 58.7	-0.2
	comp=Z,219nm,1.5s,mb5.9						
COR				LR	LR		
	comp=Z,12µm,20.0s,MS6.2						
F04A	**Amboy**	74.56	46	⇑P	P	07 05 59.5	+0.3
	baz=74,SNR=32						
F04A				⇑S	S	07 15 32.8	+0.7
	baz=74						
ILAS	**Lasjerd**	74.59	302	*e*P	P	07 06 00.6	+1.1
WBK	**Wadi Bani Khal**	74.59	288	P	P	07 06 00.4	+0.7
	SNR=74						
A07A	**Ashnola River,**	74.62	43	⇓P	P	07 05 59.7	+0.3
	baz=74,SNR=12						
A07A				⇑S	S	07 15 33.3	+0.7
	baz=74						
LON	**Longmire**	74.63	45	*e*P	P	07 05 59.4	-0.2
LON				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
LON	**Longmire**	74.63	45	*e*P	P	07 05 59.4	-0.2
	comp=Z,50nm,1.1s,mb5.3						
IFIR	**Firoozkooh**	74.65	302	*e*P	P	07 06 00.7	+0.8
ICHK	**Chekchek**	74.65	299	⇑*e*P	P	07 06 00.7	+0.7

KHZ	Kahutara	74.68	157	*e*P	P	07 05 57.0	-2.7
	comp=Z,143nm,1.1s,mb5.8						
IPRN	Peran	74.73	303	*e*P	P	07 06 00.0	-0.3
C06A	Tall Timber Ra	74.75	44	⇓P	P	07 06 00.2	0.0
	baz=75,SNR=9.0						
C06A				⇑S	S	07 15 34.9	+0.8
	baz=75						
IBND	Bandar-abas	74.76	293	⇑*e*P	P	07 06 01.6	+0.9
G04A	Mulino	74.80	47	⇓P	P	07 06 00.9	+0.3
	baz=75,SNR=49						
G04A				⇓S	S	07 15 35.2	+0.4
	baz=75						
IMEH	Mehriz	74.81	298	*e*P	P	07 06 00.6	-0.3
BIDO	Bidbid	74.95	289	P	P	07 06 02.6	+0.8
	SNR=40						
RPZ	Rata Peaks	75.00	159	*e*P	P	07 05 59.8	-1.6
	comp=Z,179nm,1.1s,mb5.9						
B07A	Winthrop	75.01	43	⇓P	P	07 06 01.8	+0.1
	baz=75,SNR=16						
B07A				⇓S	S	07 15 37.5	+0.4
	baz=75						
D06A	Cle Elum	75.07	45	⇓P	P	07 06 02.2	+0.1
	baz=75,SNR=17						
D06A				⇓S	S	07 15 39.1	+1.4
	baz=75						
H04A	Detroit Lake	75.20	47	⇑P	P	07 06 02.8	0.0
	baz=75,SNR=34						
H04A				⇑S	S	07 15 39.6	+0.4
	baz=75						
SMDO	Samad	75.20	289	P	P	07 06 03.9	+0.6
	SNR=34						
IDMV	Damavand	75.21	303	*e*P	P	07 06 04.0	+0.9
ETW	Entiat	75.22	44	*e*P	P	07 06 03.1	+0.2
TBM	Table Mountain	75.23	44	P	P	07 06 03.2	+0.2
E06A	Yakima	75.24	45	⇑P	P	07 06 03.3	+0.2
	baz=75,SNR=16						
E06A				⇑S	S	07 15 40.4	+0.8
	baz=75						
HOOD	Mount Hood Mea	75.29	47	*e*P	P	07 06 04.0	+0.6
EBG	Ellensburg	75.35	45	P	P	07 06 03.6	-0.1
C07A	Waterville	75.36	44	⇑P	P	07 06 03.3	-0.4
	baz=75,SNR=24						
C07A				⇓S	S	07 15 40.0	-0.9
	baz=75						
JOF	Joensuu	75.38	334	*e*P	P	07 06 02.7	-0.8
JOF				pmax	pmax		
	comp=Z,140nm,0.7s,mb6.0						
JOF	Joensuu	75.38	334	*e*p	P	07 06 02.7	-0.8
	comp=Z,140nm,0.7s,mb6.0						
IRO	Indian Ridge	75.42	48	P	P	07 06 04.9	+0.8
WTV	Waterville	75.42	44	P	P	07 06 03.8	-0.3
JMDO	Jabal Madar	75.42	288	P	P	07 06 04.6	0.0
	SNR=43						
HUMO	Hull Mountain	75.50	49	*e*P	P	07 06 05.1	+0.5
	comp=Z,40nm,1.1s,mb5.3						
HUMO				LR	LR		
	comp=Z,9µm,22.0s,MS6.0						
ISFB	Sefidab	75.53	301	*e*P	P	07 06 05.2	+0.2
B08A	Colville Reser	75.53	43	⇑P	P	07 06 04.6	-0.1
	baz=75,SNR=32						
B08A				⇑S	S	07 15 42.3	-0.5
	baz=75						
G05A	Wamic	75.54	46	⇓P	P	07 06 05.0	+0.2
	baz=75,SNR=14						
G05A				⇑S	S	07 15 43.2	+0.2
	baz=75						
BANOM	Banah	75.55	292	P	P	07 06 06.2	+1.0
	SNR=39						
BBOR	Butler Butte	75.57	49	P	P	07 06 05.8	+0.7
MAK	Makhachkala	75.59	311	c *i*P	P	07 06 05.8	+0.7
MAK				*i*		07 06 19.3	
MAK				*e*		07 08 58.0	
MAK				*i* S	S	07 15 43.6	0.0
MAK				*e*		07 16 16.7	
MAK				*e*SS	SS	07 20 42.1	+7.6
MAK				pmax	pmax		
	comp=Z,168nm,0.7s,mb6.1						
MAK				pmax	pmax		
	comp=N,55nm,0.7s						
MAK				pmax	pmax		
	comp=E,67nm,0.6s						
MAK				pmax	pmax		
	comp=Z,3µm,4.1s						
MAK				pmax	pmax		
	comp=N,2µm,4.2s						
MAK				pmax	pmax		
	comp=E,2µm,4.3s						
MAK				smax			
	comp=N,918nm,3.8s						
MAK				smax			
	comp=E,6µm,8.8s						
MAK				MLR	MLR		
	comp=Z,69µm,16.0s,MS7.0						
MAK				MLR	MLR		
	comp=E,56µm,16.0s,MS7.1						
MAK				MLR	MLR		
	comp=N,60µm,16.0s,MS7.1						
TRO	Tromso	75.61	342	*e*P	P	07 06 05.3	+0.5
TRO				AMb	AMB	07 06 19.5	
	comp=Z,188nm,0.9s,mb6.0						
TRO				*e*PP	PP	07 08 56.0	+2.1
TRO				*e*S	S	07 15 45.1	+2.1
TRO				AMS	AMS	07 45 08.2	
	comp=Z,20µm,18.0s,MS6.5						
D07A	Quincy	75.61	44	⇑P	P	07 06 05.2	0.0
	baz=76,SNR=14						
D07A				⇓S	S	07 15 43.6	-0.2
	baz=76						
HOQ	Hoqain	75.62	289	P	P	07 06 06.0	+0.3
	SNR=133						
KHMM	Horse Mountain	75.64	51	*e*P	P	07 06 06.9	+1.4
IVRN	Varamin	75.67	302	*e*P	P	07 06 04.9	-0.9
F06A	Goldendale	75.68	46	⇑P	P	07 06 05.7	+0.1
	baz=76,SNR=12						
A09A	Danville	75.73	42	⇑P	P	07 06 05.8	0.0
	baz=76,SNR=24						
DGAR	Diego Garcia	75.79	254	PFAKE		07 06 20.0	+13
DGAR				LR	LR		
	comp=Z,9µm,19.0s,MS6.1						
VRHR	Novokhopersk	75.92	320	*e*P	P	07 06 08.1	+1.2
VRHR				*i* *PP	pP	07 06 19.4	+1.5
VRHR				*e*S	S	07 15 47.3	+0.3
VRHR				pmax	pmax		
	comp=Z,70nm,0.6s,mb5.8						
VRHR				pmax	pmax		
	comp=N,30nm,0.5s						
VRHR				smax			
	comp=N,1µm,3.9s						
VRHR				smax			
	comp=Z,80nm,3.7s						
VRHR				MLR	MLR		
	comp=Z,950nm,15.0s,MS5.2						
VRHR				MLR	MLR		
	comp=N,8µm,14.0s						
DAG	Danmarks Havn	75.94	356	⇓*i*P	P	07 06 06.9	+0.3
DAG				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
DAG				MLR	MLR		
	comp=Z,7µm,17.0s,MS6.0						
DAG	Danmarks Havn	75.94	356	⇓*i*P	P	07 06 06.9	+0.3
	comp=Z,19nm,0.9s,mb5.0						
DAG							
	comp=Z,7µm,17.0s						
C08A	Higginbotham F	75.94	43	⇑P	P	07 06 07.0	0.0
	baz=76,SNR=43						
E07A	Sunnyside	75.94	45	⇑P	P	07 06 07.6	+0.5
	baz=76,SNR=34						
MDW	Midway	75.98	45	P	P	07 06 07.6	+0.3
G06A	Carlson Farm,	75.98	46	⇑P	P	07 06 07.6	+0.2
	baz=76,SNR=29						
YBH	Yreka Blue Hor	76.01	50	*e*P	P	07 06 07.4	-0.2
YBH				pmax	pmax		
	comp=Z,78nm,1.1s						
YBH				MLR	MLR		
	comp=Z,8µm,22.0s						
YBH	Yreka Blue Hor	76.01	50	*e*P	P	07 06 07.4	-0.1
	comp=Z,78nm,1.1s,mb5.5						
YBH				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
IR3	Iran Long-Peri	76.01	303	*e*P	P	07 06 07.7	0.0
MOS	Moscow	76.02	326	*e*P	P	07 06 04.4	-2.9
MOS				*e*	pP	07 06 14.7	-3.6
MOS				*e*		07 08 53.3	
MOS				*e*S	S	07 15 47.5	-0.4
MOS				*e*SS	SS	07 20 50.0	+10
MOS				pmax	pmax		
	comp=Z,389nm,1.7s,mb6.1						
MOS				pmax	pmax		
	comp=Z,4µm,4.7s						
MOS				MLR	MLR		
	comp=Z,49µm,18.0s,MS6.9						
MOS				MLR	MLR		
	comp=N,26µm,17.0s,MS6.8						
MOS				MLR	MLR		
	comp=E,36µm,18.0s,MS6.8						
MOS	Moscow	76.02	326	*e*P	P	07 06 03.0	-4.3
IZEF	Zefreh	76.02	300	*e*P	P	07 06 07.2	-0.6
BSY	Bisya	76.04	289	P	P	07 06 08.4	+0.3
	SNR=116						
ODZ	Otahua Downs	76.06	160	*e*P	P	07 06 02.2	-5.3
	comp=E,23nm,0.5s,mb5.4						
HATD	Hatta, Dubai	76.12	291	P	P	07 06 08.8	+0.3
	SNR=73						
LAMM	Antelope Mount	76.12	50	P	P	07 06 09.0	+0.8
F07A	Phinny Hill Vi	76.17	45	⇓P	P	07 06 08.4	0.0
	baz=76						
RSW	Rattlesnake Hi	76.18	45	*e*P	P	07 06 09.4	+0.9
IMHD	Mahdasht	76.20	303	*e*P	P	07 06 09.6	+0.8
HAWA	Hanford	76.22	45	*e*P	P	07 06 08.5	-0.1
	comp=E,83nm,1.1s,mb5.6						
HAWA				LR	LR		
	comp=Z,12µm,20.0s,MS6.2						
B09A	Rice	76.22	43	⇓P	P	07 06 08.8	+0.1
	baz=76,SNR=36						
OD2	Odessa Site #2	76.31	44	P	P	07 06 09.6	+0.4
D08A	Wollman Farm,	76.32	44	⇓P	P	07 06 09.2	0.0
	baz=76,SNR=42						
A10A	Northport	76.34	42	⇓P	P	07 06 09.3	0.0
	baz=76,SNR=36						
ARQ	Araqi	76.38	289	P	P	07 06 10.2	+0.2
	SNR=77						
H06A	Lindquist Farm	76.39	47	⇑P	P	07 06 09.6	-0.1
	baz=76,SNR=26						
C09A	Chrisman Ranch	76.41	43	⇑P	P	07 06 09.7	0.0
	baz=76,SNR=17						
IKLH	Kolahrood	76.44	301	*e*P	P	07 06 10.9	+0.7
NAZ	Nazwa, Dubai	76.44	291	P	P	07 06 10.9	+0.6
	SNR=33						
E08A	Dider Farm, El	76.47	45	⇑P	P	07 06 10.3	+0.2
	baz=76,SNR=12						
WDC	Whiskeytown Da	76.59	51	*e*P	P	07 06 10.6	-0.3
WDC				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
WDC				MLR	MLR		
	comp=Z,16µm,19.0s,MS6.3						
WDC	Whiskeytown Da	76.59	51	*e*P	P	07 06 10.6	-0.3
	comp=Z,44nm,1.0s,mb5.3						
WDC				LR	LR		
	comp=Z,16µm,19.0s,MS6.3						
G07A	Ruggs Ranch, H	76.59	46	⇑P	P	07 06 11.0	+0.2
	baz=76,SNR=20						
FAQ	Al Faqa, Dubai	76.60	291	P	P	07 06 11.4	+0.2
	SNR=40						
D09A	Jones Farm, Ri	76.70	44	⇓P	P	07 06 11.1	-0.3
	baz=77,SNR=14						
I06A	Prineville	76.79	47	⇑P	P	07 06 12.1	+0.2
	baz=77,SNR=36						
B10A	Chitwood Farm,	76.83	42	⇑P	P	07 06 12.1	0.0
	baz=77						
OBN	Obninsk	76.84	325	P	P	07 06 12.9	+0.9
	comp=Z,1µm,1.0s,mb6.8,SNR=7.4						
OBN	Obninsk	76.84	325	c *i*P	P	07 06 12.6	+0.6
OBN				*i*	pP	07 06 21.4	-1.6
OBN				*i*		07 06 32.7	
OBN				*i*		07 09 12.5	
OBN				*i* PPP		07 10 49.4	
OBN				*i* S	S	07 15 57.7	+0.8
OBN				*i* SS	SS	07 20 57.9	+5.2
OBN				pmax	pmax		
	comp=Z,181nm,0.9s,mb6.0						
OBN				MLR	MLR		
	comp=Z,56µm,19.0s,MS6.9						
OBN	Obninsk	76.84	325	*e*P	P	07 06 11.7	-0.3
	comp=Z,302nm,1.0s,mb6.2						
OBN				LR	LR		
	comp=Z,53µm,19.0s,MS6.9						
K05A	Summer Lake	76.84	49	⇓P	P	07 06 12.4	+0.2
	baz=77,SNR=48						
HOPS	Hopland	76.86	53	PFAKE		07 06 20.0	+7.6
HOPS				LR	LR		
	comp=Z,13µm,19.0s,MS6.3						
IRAZ	Razeghan	76.86	303	*e*P	P	07 06 12.7	+0.2
NEW	Newport	76.91	42	*e*P	P	07 06 12.1	-0.4
NEW				pmax	pmax		
	comp=Z,83nm,0.8s						
NEW				MLR	MLR		
	comp=Z,6µm,20.0s						
NEW	Newport	76.91	42	*e*P	P	07 06 12.1	-0.4
	comp=Z,83nm,0.8s,mb5.7						
NEW				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
F08A	Pendleton	76.94	45	⇓P	P	07 06 13.1	+0.3
	baz=77,SNR=51						
H07A	Lands Inn, Kim	76.94	47	⇑P	P	07 06 12.9	+0.1
	baz=77						
C10A	Spilker Farm,	76.99	43	⇑P	P	07 06 13.2	+0.2
	baz=77,SNR=19						
VOR	Voronezh	77.01	322	*e*P	P	07 06 13.0	0.0
VOR				pmax	pmax		
	comp=Z,400nm,2.0s,mb6.0						
E09A	Wood Farm, Sta	77.03	44	⇑P	P	07 06 13.1	-0.2
	baz=77,SNR=20						
G08A	Pilot Rock	77.04	46	⇑P	P	07 06 13.4	+0.1
	baz=77,SNR=20						
A11A	Hall Mountain,	77.06	42	⇑P	P	07 06 14.2	+0.8
	baz=77,SNR=17						
J06A	Christmas Vall	77.12	48	⇓P	P	07 06 14.0	+0.2
	baz=77,SNR=23						
I07A	Izee	77.20	47	⇓P	P	07 06 14.4	+0.2
	baz=77,SNR=21						
VSR	Storozhevoye	77.26	321	c *i*P	P	07 06 14.9	+0.5
VSR				*e**PP	pP	07 06 26.8	+1.4
VSR				*e*S	S	07 15 59.1	-2.5
VSR				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
VSR				pmax	pmax		
	comp=N,10.0nm,0.5s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.5s						
VSR				smax			
	comp=N,660nm,3.0s						
VSR				smax			
	comp=Z,290nm,3.3s						
VSR				smax			
	comp=E,510nm,3.6s						
VSR				MLR	MLR		
	comp=N,7µm,16.0s,MS6.5						
VSR				MLR	MLR		
	comp=E,16µm,16.0s,MS6.5						
VSR				MLR	MLR		
	comp=Z,22µm,16.0s,MS6.6						
B11A	Sandpoint	77.29	42	⇑P	P	07 06 14.7	+0.1
	baz=77,SNR=13						
VORD	Divnogorie	77.30	321	c *i*P	P	07 06 14.7	0.0
VORD				*e**PP	pP	07 06 27.0	+1.3
VORD				*e*S	S	07 16 01.9	-0.2
VORD				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
VORD				pmax	pmax		
	comp=N,30nm,0.9s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.5s						
VORD				smax			
	comp=N,570nm,3.0s						
VORD				smax			
	comp=Z,330nm,3.2s						
VORD				smax			
	comp=E,720nm,3.8s						
VORD				MLR	MLR		
	comp=Z,14µm,16.0s,MS6.4						
VORD				MLR	MLR		
	comp=N,6µm,14.0s,MS6.3						
VORD				MLR	MLR		
	comp=E,11µm,16.0s,MS6.3						
MCCM	Marconi Confer	77.34	54	*e*P	P	07 06 15.0	-0.1
MCCM				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
D10A	Wagner Farm, O	77.34	44	⇓P	P	07 06 14.6	-0.4
	baz=77,SNR=9.9						
PUL	Pulkovo	77.43	331	⇑*e*P	P	07 06 16.7	+1.5
A12A	Yaak River Ran	77.49	41	⇓P	P	07 06 16.4	+0.6
	baz=77,SNR=38						
ISRB	Sarab	77.54	306	*e*P	P	07 06 17.1	+0.8
H08A	Prairie City	77.55	46	⇓P	P	07 06 16.4	+0.2
	baz=77,SNR=35						
MOD	Modoc	77.58	49	*e*P	P	07 06 16.4	-0.1
	comp=Z,85nm,1.1s,mb5.6						
J07A	Hines	77.62	48	⇑P	P	07 06 16.3	-0.3
	baz=78,SNR=44						
E10A	Myers Farm, Un	77.69	44	⇓P	P	07 06 16.6	-0.3
	baz=78,SNR=9.2						
B12A	Libby	77.74	42	⇓P	P	07 06 17.4	+0.2
	baz=78,SNR=12						
KAF	Kangasniemi	77.77	334	*e*P	P	07 06 16.4	-0.7
KAF				pmax	pmax		
	comp=Z,55nm,0.5s,mb5.7						
KAF	Kangasniemi	77.77	334	*e*p	P	07 06 16.4	-0.7
	comp=Z,55nm,0.5s,mb5.7						
IHRS	Heris	77.79	307	*e*P	P	07 06 18.1	+0.4
G09A	Cove	77.80	45	⇓P	P	07 06 17.7	+0.2
	baz=78,SNR=60						
F10A	Beach Ranch, E	77.84	45	⇑P	P	07 06 17.7	-0.1
	baz=78,SNR=22						
I08A	Drewsey	77.88	47	⇓P	P	07 06 17.9	-0.2
	baz=78,SNR=11						
D11A	Klaveano Farm,	77.92	43	⇑P	P	07 06 17.9	-0.3
	baz=78,SNR=48						
MTA	Mtatsminda	77.94	311	P	P	07 06 19.1	+0.6
K07A	Rock Creek Ran	77.96	48	⇑P	P	07 06 18.7	+0.1
	baz=78,SNR=48						
TBLG	Delisi	77.96	311	P	P	07 06 19.1	+0.6
H09A	Durkee	78.14	46	⇓P	P	07 06 19.4	-0.1
	baz=78,SNR=31						
C12B	Naegeli Ranch,	78.15	42	⇓P	P	07 06 19.5	+0.1
	baz=78						
J08A	Circle Bar Ran	78.18	47	⇓P	P	07 06 20.0	+0.3
	baz=78,SNR=40						
L07A	Adell	78.18	49	⇑P	P	07 06 19.6	-0.2
	baz=78,SNR=63						
G10A	Bishop Farm, J	78.21	45	⇑P	P	07 06 19.7	-0.2
	baz=78,SNR=111						
A13A	Flathead Natio	78.22	41	⇓P	P	07 06 19.8	-0.1
	baz=78						
FINES	FINESS Array B	78.24	334	P	P	07 06 19.7	0.0
	comp=Z,141nm,0.8s,mb6.0,baz=81,slow=4.2,SNR=127						
FINES				LR	LR	07 43 56.9	
	comp=Z,14µm,18.2s,MS6.3,baz=61,slow=38						
BMO	Blue Mountains	78.28	46	*e*P	P	07 06 20.3	0.0
	comp=Z,138nm,1.2s,mb5.8						
BMO				LR	LR		
	comp=Z,9µm,22.0s,MS6.1						
E11A	Bogner Ranch,	78.31	44	⇑P	P	07 06 20.2	-0.2
	baz=78,SNR=38						
KIV	Kislovodsk	78.36	313	P	P	07 06 22.2	+1.5
	comp=Z,888nm,1.7s,mb6.4,SNR=26						
KIV	Kislovodsk	78.36	313	c *i*P	P	07 06 21.7	+1.0
KIV				*e*		07 09 19.3	
KIV				*e*S	S	07 16 16.2	+2.4
KIV				*e*SS	SS	07 21 19.3	+3.0
KIV				pmax	pmax		
	comp=Z,105nm,1.0s,mb5.7						
KIV				pmax	pmax		
	comp=Z,3µm,7.7s						
KIV				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.5						
KIV	Kislovodsk	78.36	313	*e*P	P	07 06 21.6	+0.9
	comp=Z,380nm,1.4s,mb6.1						
KIV				LR	LR		
	comp=Z,25µm,20.0s,MS6.5						
KIV	Kislovodsk	78.36	313	P	P	07 06 21.6	+0.8
	SNR=67						
KIV				P		07 06 21.6	
	SNR=67						
N06A	Buffalo Meadow	78.39	50	⇑P	P	07 06 20.6	-0.4
	baz=78,SNR=17						
I09A	Lost Marbles R	78.39	47	⇑P	P	07 06 20.8	-0.1
	baz=78						
BEKR	Beckwourth	78.41	51	⇑P	P	07 06 20.6	-0.5
	baz=78						
K08A	Mann Creek Ran	78.45	48	⇑P	P	07 06 21.1	-0.1
	baz=78,SNR=38						
B13A	Whitefish	78.45	42	⇓P	P	07 06 21.4	+0.3
	baz=78,SNR=33						
WALA	Waterton Lakes	78.46	41	*e*P	P	07 06 21.4	+0.3
	comp=Z,3.3nm,1.0s,mb4.2						
ONI	Oni	78.46	312	P	P	07 06 22.3	+1.0
ITBZ	Tabriz	78.47	307	*e*P	P	07 06 22.2	+0.8
WVOR	Wild Horse Val	78.47	48	*e*P	P	07 06 21.3	-0.1
WVOR				pmax	pmax		
	comp=Z,387nm,2.0s,mb6.0						
WVOR				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.0						
WVOR	Wild Horse Val	78.47	48	*e*P	P	07 06 21.2	-0.1
	comp=Z,387nm,2.0s,mb6.0						
WVOR				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
BSMT	Bassoo Peak	78.50	42	*e*P	P	07 06 21.9	+0.5
	comp=Z,84nm,1.2s,mb5.5						
D12A	Red Ives Fores	78.52	43	⇑P	P	07 06 21.3	-0.2
	baz=78						
F11A	Grangeville	78.55	44	⇓P	P	07 06 21.2	-0.6
	baz=78,SNR=32						
M07A	Soldier Meadow	78.57	49	⇓P	P	07 06 21.7	-0.2
	baz=78,SNR=29						
IMRD	Marand	78.58	308	*e*P	P	07 06 22.3	+0.3
GNI	Garni	78.64	309	*e*P	P	07 06 23.0	+0.7
GNI	Garni	78.64	309	⇑*e*P	P	07 06 23.7	+1.4
GNI				pmax	pmax		
	comp=Z,175nm,1.3s						
GNI	Garni	78.64	309	LR	LR	07 46 22.5	
	comp=Z,6µm,18.6s,MS6.0,baz=72,slow=40						
GNI	Garni	78.64	309	*e*P	P	07 06 23.6	+1.3
	comp=Z,174nm,1.1s,mb5.9						
GNI				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
GNI	Garni	78.64	309	⇑P	P	07 06 21.8	-0.6
	SNR=53						
GNI				⇑P		07 06 21.8	
	SNR=53						
O06A	Flanigan	78.65	51	⇓P	P	07 06 22.5	+0.1
	baz=78,SNR=31						
J09A	Fry Pan Ranch,	78.66	47	⇓P	P	07 06 22.3	-0.1
	baz=78,SNR=36						
C13A	Hot Springs	78.70	42	⇑P	P	07 06 22.6	+0.1
	baz=79,SNR=50						
H10A	Noah’s Angus R	78.76	46	⇑P	P	07 06 22.3	-0.6
	baz=79,SNR=65						
L08A	Fields	78.78	48	⇑P	P	07 06 22.9	-0.1
	baz=79,SNR=44						
A14A	Double T Ranch	78.78	41	⇑P	P	07 06 23.0	+0.1
	baz=79,SNR=32						
P06A	Stead Airport,	78.81	51	⇑P	P	07 06 23.3	0.0
	baz=79						
ISHB	Shabestar	78.82	307	*e*P	P	07 06 24.1	+0.7
JTMT	Jette	78.85	42	*e*P	P	07 06 23.3	0.0
	comp=Z,124nm,1.1s,mb5.8						
I10A	Payette	78.95	46	⇓P	P	07 06 23.9	-0.1
	baz=79						
SAO	San Andreas Ge	78.95	54	*e*P	P	07 06 23.9	-0.2
SAO				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
SAO				MLR	MLR		
	comp=Z,12µm,19.0s,MS6.2						
SAO	San Andreas Ge	78.95	54	*e*P	P	07 06 23.9	-0.2
	comp=Z,31nm,1.0s,mb5.2						
SAO				LR	LR		
	comp=Z,12µm,19.0s,MS6.2						
YBMT	Yellow Bay	78.95	42	*e*P	P	07 06 24.3	+0.4
	comp=Z,59nm,0.9s,mb5.5						
K09A	Rome	78.96	48	⇓P	P	07 06 24.0	-0.1
	baz=79,SNR=17						
N07B	Gerlach	78.97	50	⇓P	P	07 06 23.8	-0.4
	baz=79,SNR=36						
D13A	Huson	79.04	43	⇑P	P	07 06 23.8	-0.6
	baz=79,SNR=12						
WCN	Washoe City	79.07	52	⇓P	P	07 06 24.8	+0.1
	baz=79,SNR=18						
M08A	Happy Creek Ra	79.08	49	⇑P	P	07 06 25.1	+0.4
	baz=79,SNR=17						
SWMT	Swartz Lake	79.13	42	*e*P	P	07 06 24.8	-0.1
	comp=Z,60nm,0.9s,mb5.5						
CMB	Columbia Colle	79.17	53	*e*P	P	07 06 24.6	-0.7
CMB				pmax	pmax		
	comp=Z,83nm,1.0s,mb5.6						
CMB				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.1						
CMB	Columbia Colle	79.17	53	*e*P	P	07 06 24.6	-0.7
	comp=Z,83nm,1.0s,mb5.6						
CMB				LR	LR		
	comp=Z,9µm,22.0s,MS6.1						

F12A	Elk City	79.17	44	⇓P	P	07 06 25.0	-0.1
	baz=79,SNR=31						
H11A	Donnelly	79.18	45	⇓P	P	07 06 24.7	-0.5
	baz=79,SNR=50						
A15A	Johnson Ranch,	79.18	40	⇑P	P	07 06 24.8	-0.3
	baz=79,SNR=35						
MOR8	Moi Rana	79.20	341	*e*P	P	07 06 24.9	0.0
MOR8				AMb	AMB	07 06 34.3	
	comp=Z,143nm,2.1s,mb5.5						
J10A	Berg Farm, Mel	79.27	47	⇑P	P	07 06 25.5	-0.2
	baz=79						
ILIN	Lien	79.28	304	*e*P	P	07 06 26.1	+0.2
L09A	Wilkinson Ranc	79.30	48	⇑P	P	07 06 26.1	+0.1
	baz=79,SNR=14						
O07A	Toulon	79.30	50	⇓P	P	07 06 25.7	-0.3
	baz=79,SNR=26						
PPT	Papeete	79.36	116	*e*P	P	07 06 26.8	+0.2
	comp=Z,131nm,1.7s,mb5.6						
PPT				*e*S	S	07 16 23.4	-1.7
	comp=Z,18µm,31.8s						
PPT				*e*SS	SS	07 21 32.0	-1.2
	comp=Z,4µm,24.5s						
PPT				*e*LR	LR	07 30 59.0	
	comp=Z,11µm,20.2s,baz=301						
PPT	Papeete	79.36	116	LR	LR	07 37 02.0	
	comp=Z,11µm,19.4s,MS6.2,baz=298,slow=32						
PPT	Papeete	79.36	116	*e*P	P	07 06 26.8	+0.2
	comp=Z,131nm,1.7s,mb5.6						
PPT				*e*S	S	07 16 23.4	-1.7
PPT				*e*SS	SS	07 21 32.0	-1.2
PMOR	Pomariorio Ree	79.38	113	*e*P	P	07 06 26.8	+0.1
	comp=Z,248nm,1.3s,mb6.0						
MSO	Missoula	79.48	43	*e*P	P	07 06 26.9	+0.1
	comp=Z,44nm,1.3s,mb5.2						
MSO				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
STOK	Stokkvaagen	79.49	342	*e*P	P	07 06 30.6	+4.1
K10A	MacKenzie Ranc	79.49	47	⇑P	P	07 06 27.1	+0.1
	baz=79,SNR=19						
E13A	Victor	79.51	43	⇑P	P	07 06 26.3	-0.7
	baz=79,SNR=17						
N08A	GE Springer Mi	79.54	50	⇑P	P	07 06 27.2	0.0
	baz=79,SNR=9.5						
TIAR	Tiarei	79.54	116	*e*P	P	07 06 27.8	+0.3
	comp=Z,189nm,1.3s,mb5.9						
KARS	Kars	79.57	310	*e*P	P	07 06 28.3	+0.9
P07A	Fallon	79.57	51	⇑P	P	07 06 27.2	-0.3
	baz=79						
I11A	Placerville	79.57	46	⇓P	P	07 06 27.0	-0.4
	baz=79,SNR=11						
B15A	Bradely Ranch,	79.60	41	⇓P	P	07 06 27.2	-0.2
	baz=79,SNR=40						
R06C	Coleville	79.62	52	⇓P	P	07 06 27.7	0.0
	baz=80,SNR=18						
D14A	Greenough	79.62	42	⇑P	P	07 06 27.4	-0.2
	baz=80,SNR=11						
DYDN	Diyadin	79.63	309	*i* P	P	07 06 29.0	+1.2
CLDR	Caldiran	79.65	309	*e*P	P	07 06 27.9	0.0
VSU	Vasula	79.70	331	⇑*i*P	P	07 06 28.4	+0.7
M09A	Marrel Ranch,	79.72	49	⇑P	P	07 06 28.2	0.0
	baz=80,SNR=12						
O08A	Rochester Mine	79.74	50	⇑P	P	07 06 28.7	+0.4
	baz=80,SNR=39						
C15A	Salmond Ranch,	79.83	41	⇑P	P	07 06 29.0	+0.3
	baz=80,SNR=21						
A16A	West Butte Ran	79.85	40	⇓P	P	07 06 28.6	-0.2
	baz=80,SNR=58						
MFID	Camas Ranch	79.88	46	⇑P	P	07 06 28.9	-0.1
	baz=80,SNR=50						
Q07A	Schurz	79.89	52	⇓P	P	07 06 29.4	+0.2
	baz=80						
N09A	Rock Creek Ran	79.92	49	⇓P	P	07 06 29.3	0.0
	baz=80,SNR=12						
E14A	Clinton	79.95	43	⇓P	P	07 06 28.9	-0.5
	baz=80,SNR=9.4						
H12A	Diamond D Ranc	79.98	45	⇓P	P	07 06 28.9	-0.6
	baz=80,SNR=28						
K11A	Parker Ranch,	80.05	47	⇑P	P	07 06 29.7	-0.3
	baz=80,SNR=25						
B16A	M & M Farms, S	80.05	41	⇓P	P	07 06 29.5	-0.3
	baz=80,SNR=20						
P08A	Dixie Valley	80.06	51	⇑P	P	07 06 30.3	+0.2
	baz=80						
L10A	Juniper Basin	80.07	48	⇓P	P	07 06 30.1	0.0
	baz=80,SNR=22						
AGRB	Hanur-Agry	80.10	309	*e*P	P	07 06 30.8	+0.5
G13A	Cobalt	80.12	44	⇓P	P	07 06 29.6	-0.7
	baz=80,SNR=54						
D15A	Lincoln	80.23	42	⇑P	P	07 06 30.7	-0.2
	baz=80						
VANB	Van	80.26	308	*e*P	P	07 06 31.6	+0.5
TVAN	Van	80.28	308	*i* P	P	07 06 33.3	+2.0
M10A	I.L. Ranch, Tu	80.28	48	⇓P	P	07 06 31.1	-0.1
	baz=80,SNR=19						
F14A	Wisdom	80.31	43	⇑P	P	07 06 30.6	-0.7
	baz=80,SNR=12						
BMN	Battle Mountai	80.32	50	*e*P	P	07 06 32.1	+0.6
BMN				pmax	pmax		
	comp=Z,126nm,1.4s,mb5.7						
BMN				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.1						
BMN	Battle Mountai	80.32	50	*e*P	P	07 06 32.1	+0.6
	comp=Z,126nm,1.4s,mb5.7						
BMN				LR	LR		
	comp=Z,8µm,21.0s,MS6.1						
C16A	Fuhringer Ranc	80.33	41	⇑P	P	07 06 30.9	-0.5
	baz=80,SNR=53						
H13A	Challis	80.35	45	⇑P	P	07 06 31.6	0.0
	baz=80,SNR=40						
A17A	Triple J Farms	80.37	40	⇑P	P	07 06 31.5	-0.1
	baz=80,SNR=14						
J12A	Stokes Ranch,	80.43	46	⇑P	P	07 06 31.4	-0.6
	baz=80,SNR=14						
MLAC	Mammoth Lakes	80.45	53	⇑P	P	07 06 32.3	+0.1
	baz=80						
SOC	Sochi	80.45	314*c*	*i*P	P	07 06 32.4	+0.3
SOC				*e**PP	pP	07 06 40.8	-2.4
SOC				*e*		07 09 31.6	
SOC				*e*S	S	07 16 38.4	+2.4
SOC				*e*SSS		07 25 11.4	
SOC				pmax	pmax		
	comp=Z,142nm,1.2s,mb5.8						
SOC				pmax	pmax		
	comp=Z,3µm,7.8s						
SOC				MLR	MLR		
	comp=Z,24µm,20.0s,MS6.5						
SOC	Sochi	80.45	314	*i* P	P	07 06 32.6	+0.5
O09A	Fish Creek Ran	80.46	50	⇑P	P	07 06 32.2	0.0
	baz=80,SNR=15						
E15A	Deer Lodge	80.46	43	⇓P	P	07 06 32.0	-0.1
	baz=80,SNR=23						
NVAR	Mina Array Bea	80.47	52	P	P	07 06 32.4	+0.1
	comp=Z,20nm,0.8s,mb5.1,baz=277,slow=6.1,SNR=54						
NVAR	Mina Array Bea	80.47	52	P	P	07 06 32.4	+0.1
L11A	Cat Creek Ranc	80.51	48	⇓P	P	07 06 32.5	+0.1
	baz=80,SNR=29						
G14A	Jackson	80.53	44	⇓P	P	07 06 32.2	-0.3
	baz=80						
Q08A	Gabbs	80.54	51	⇓P	P	07 06 32.4	-0.3
	baz=80,SNR=14						
HOMI	Horasan	80.63	310	*i* P	P	07 06 34.5	+1.4
B17A	L&G Farms, Che	80.63	40	⇑P	P	07 06 33.0	0.0
	baz=80,SNR=29						
SMMC	Simmler	80.64	55	⇑P	P	07 06 33.4	+0.1
	baz=80						
R08A	Mina	80.64	52	⇑P	P	07 06 33.5	+0.2
	baz=80						
N10A	Dunphy	80.67	49	⇑P	P	07 06 33.6	+0.2
	baz=80						
CUKT	Cukurca	80.71	307	*e*P	P	07 06 32.9	-0.7
HLID	Hailey	80.72	46	⇑P	P	07 06 33.4	-0.1
	baz=81,SNR=37						
HLID	Hailey	80.72	46	*e*P	P	07 06 33.8	+0.3
	comp=Z,35nm,1.0s,mb5.2						
HLID				LR	LR		
	comp=Z,7µm,22.0s,MS6.0						
I13A	Wildhorse Cree	80.75	45	⇓P	P	07 06 33.7	0.0
	baz=81,SNR=41						
RCTC	Rector, Farmer	80.75	54	⇓P	P	07 06 33.3	-0.6
	baz=81						
RBK	Rabkut	80.76	285	P	P	07 06 33.8	-0.4
	SNR=54						
P09A	Austin	80.77	50	⇓P	P	07 06 33.9	0.0
	baz=81						
HRY	Holter Researc	80.81	42	*e*P	P	07 06 33.8	-0.2
	comp=Z,53nm,0.8s,mb5.5						
SUMG	Summit	80.81	0	*e*P	P	07 06 35.1	+1.6
	comp=Z,630nm,2.0s,mb6.2						
D16A	Dana Ranch, Ca	80.82	42	⇓P	P	07 06 33.7	-0.4
	baz=81,SNR=18						
M11A	Holland Ranch,	80.82	48	⇑P	P	07 06 34.4	+0.2
	baz=81,SNR=26						
F15A	Butte	80.83	43	⇑P	P	07 06 33.9	-0.3
	baz=81,SNR=54						
K12A	Draper Farm, C	80.84	47	⇓P	P	07 06 34.7	+0.5
	baz=81,SNR=14						
A18A	Metzger Ranch,	80.86	40	⇑P	P	07 06 34.4	+0.1
	baz=81,SNR=27						
LRM	Limekiln Ridge	80.87	43	*e*P	P	07 06 34.1	-0.2
	comp=Z,639nm,1.0s,mb6.5						
O10A	Cortez Mining,	80.87	49	⇓P	P	07 06 34.6	+0.2
	baz=81						
J13A	Cove Ranch, Pi	80.96	46	⇓P	P	07 06 35.1	+0.2
	baz=81,SNR=20						
WHFO	Wadi Hawf	80.96	285	P	P	07 06 34.6	-0.6
	SNR=52						
C17A	Wharram Farm,	80.98	41	⇑P	P	07 06 34.5	-0.4
	baz=81,SNR=23						
E16A	East Helena	80.99	42	⇑P	P	07 06 34.9	0.0
	baz=81,SNR=35						
L12A	House Creek Ra	81.00	47	⇑P	P	07 06 35.4	+0.3
	baz=81,SNR=23						
DLMT	Dillon	81.00	44	*e*P	P	07 06 35.1	+0.1
	comp=Z,89nm,1.2s,mb5.6						
ERZM	Erzurum	81.07	310	*i* P	P	07 06 37.2	+1.7
EZM	Erzurum	81.07	310	*e*P	P	07 06 38.4	+2.9
VES	Vestal, Richgr	81.07	54	⇓P	P	07 06 34.4	-1.2
	baz=81,SNR=26						
Q09A	Carvers	81.07	51	⇑P	P	07 06 35.5	-0.1
	baz=81						
TATV	Tatvan	81.08	309	*i* P	P	07 06 36.2	+0.6
NSS	Namsos	81.10	341	*e*P	P	07 06 34.3	-0.8
NSS				*e*S	S	07 16 46.2	+4.3
NSS				*e*SS	SS	07 22 03.3	+7.3
NSS				AMS	AMS	07 48 45.1	
	comp=Z,16µm,22.0s,MS6.3						
MCMT	McKenzie Canyo	81.11	44	*e*P	P	07 06 36.2	+0.6
	comp=Z,14nm,1.0s,mb4.9						
TIN	Tinemaha	81.14	53	⇓P	P	07 06 35.9	-0.1
	baz=81						
N11A	Elko Archery C	81.14	49	⇑P	P	07 06 35.7	-0.2
	baz=81						
I14A	Mackay	81.16	45	⇑P	P	07 06 36.9	+1.0
	baz=81,SNR=54						
G15A	Dillon	81.17	44	⇓P	P	07 06 35.6	-0.3
	baz=81,SNR=22						
B18A	Beardsley Farm	81.17	40	⇑P	P	07 06 35.6	-0.2
	baz=81,SNR=23						
P10A	Eureka	81.20	50	⇑P	P	07 06 36.6	+0.3
	baz=81,SNR=7.6						
SBC	Santa Barbara	81.23	56	⇓P	P	07 06 36.3	-0.2
	baz=81						
D17A	Six Diamond Ra	81.27	41	⇓P	P	07 06 36.9	+0.5
	baz=81,SNR=27						
ANN	Anapa	81.31	316*c*	*i*P	P	07 06 36.9	+0.2
ANN				*i* *PP	pP	07 06 46.3	-1.5
ANN				*i* S	S	07 16 46.4	+1.5
ANN				pmax	pmax		
	comp=Z,214nm,1.3s,mb5.9						
ANN				MLR	MLR		
	comp=Z,21µm,18.0s,MS6.5						
H15A	Lima	81.34	44	⇓P	P	07 06 37.1	+0.2
	baz=81,SNR=7.3						
K13A	Stover Farm, H	81.37	47	⇓P	P	07 06 37.5	+0.5
	baz=81,SNR=18						
EGMT	Eagleton	81.37	40	⇓P	P	07 06 37.1	+0.1
	baz=81,SNR=32						
EGMT	Eagleton	81.37	40	*e*P	P	07 06 37.3	+0.3
	comp=Z,86nm,1.2s,mb5.5						
EGMT				LR	LR		
	comp=Z,8µm,20.0s,MS6.1						
F16A	Kennard Place,	81.39	43	⇑P	P	07 06 36.7	-0.4
	baz=81,SNR=13						
J14A	Carey	81.41	46	⇑P	P	07 06 37.7	+0.5
	baz=81,SNR=43						
R09A	Tonopah	81.42	52	⇑P	P	07 06 37.2	-0.2
	baz=81,SNR=39						
MICGM	Minsk	81.45	328	⇑*i*P	P	07 06 36.0	-1.2
BOZ	Bozeman (W)	81.46	43	*e*P	P	07 06 37.5	+0.1
BOZ				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
BOZ				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.8						
BOZ	Bozeman (W)	81.46	43	⇑P	P	07 06 37.8	+0.4
	baz=81,SNR=24						
BOZ	Bozeman (W)	81.46	43	*e*P	P	07 06 37.5	+0.1
	comp=Z,21nm,0.7s,mb5.2						
BOZ				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
MNK	Minsk	81.47	328*c*	*i*P	P	07 06 36.0	-1.3
MNK				*e*PPP		07 11 40.0	
MNK				*e*S	S	07 16 46.0	-0.2
MNK				pmax	pmax		
	comp=N,210nm,1.2s						
MNK				pmax	pmax		
	comp=Z,490nm,1.2s,mb6.3						
MNK				pmax	pmax		
	comp=Z,11µm,8.0s						
MNK				smax			
	comp=E,20µm,10.0s						
MNK				MLR	MLR		
	comp=E,38µm,14.0s,MS6.9						
MNK				MLR	MLR		
	comp=Z,78µm,14.0s,MS7.2						
MNK				MLR	MLR		
	comp=N,23µm,16.0s,MS6.9						
BSC	Santa Cruz Isl	81.49	56	⇑P	P	07 06 37.3	-0.6
	baz=81						
ELK	Elko	81.51	49	*e*P	P	07 06 38.6	+0.8
ELK				pmax	pmax		
	comp=Z,129nm,1.4s						
ELK				MLR	MLR		
	comp=Z,9µm,20.0s						
ELK	Elko	81.51	49	*e*P	P	07 06 38.6	+0.8
	comp=Z,129nm,1.4s,mb5.7						
ELK				LR	LR		
	comp=Z,9µm,20.0s,MS6.1						
E17A	Martinsdale	81.52	42	⇓P	P	07 06 38.0	+0.2
	baz=81,SNR=23						
O11A	Cowboy Ranch,	81.52	49	⇓P	P	07 06 37.9	+0.1
	baz=81,SNR=13						
CWC	Cottonwood Cre	81.53	54	⇑P	P	07 06 37.7	-0.3
	baz=81						
S09A	Goldfield	81.55	52	⇓P	P	07 06 37.5	-0.6
	baz=81,SNR=22						
G16A	Moss Hill, Enn	81.56	43	⇓P	P	07 06 38.1	+0.1
	baz=81,SNR=30						
ARVC	Arvin	81.58	55	⇓P	P	07 06 38.0	-0.3
	baz=82						
ISA	Isabella	81.59	54	*e*P	P	07 06 37.8	-0.6
ISA				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
ISA	Isabella	81.59	54	⇓P	P	07 06 37.2	-1.2
	baz=82,SNR=8.7						
ISA	Isabella	81.59	54	*e*P	P	07 06 37.8	-0.5
	comp=Z,36nm,1.1s,mb5.2						
N12A	Clover Valley,	81.59	48	⇓P	P	07 06 38.2	-0.1
	baz=82,SNR=16						
N12A	Clover Valley,	81.59	48	*e*P	P	07 06 38.5	+0.3
	comp=Z,84nm,1.1s,mb5.6						
KOPT	Kop Dagi	81.61	311	*i* P	P	07 06 40.0	+1.7
ABTO	Aybut	81.61	285	P	P	07 06 38.4	-0.3
	SNR=68						
Q10A	Clear Creek Ra	81.62	51	⇓P	P	07 06 38.1	-0.3
	baz=82,SNR=9.7						
KTUT	Trabzon	81.64	312	*e*P	P	07 06 38.3	-0.2
P11A	Circle Ranch,	81.72	50	⇓P	P	07 06 38.9	-0.1
	baz=82						
L13A	Double Diamond	81.73	47	⇑P	P	07 06 39.7	+0.7
	baz=82,SNR=21						
I15A	Monteview	81.74	45	⇓P	P	07 06 39.5	+0.6
	baz=82,SNR=9.3						
NACGM	Naroch	81.74	328	*e*P	P	07 06 36.0	-2.8
D18A	Linhart Farms,	81.77	41	⇓P	P	07 06 39.2	+0.1
	baz=82,SNR=7.3						
GRAC	Grapevine Rang	81.78	53	⇓P	P	07 06 39.3	0.0
	baz=82,SNR=10.0						
FFC	Flin Flon	81.80	32	*e*P	P	07 06 38.6	-0.5
FFC				pmax	pmax		
	comp=Z,78nm,0.9s,mb5.6						
FFC				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.1						
FFC	Flin Flon	81.80	32	*e*P	P	07 06 38.6	-0.5
	comp=Z,78nm,0.9s,mb5.6						
FFC				LR	LR		
	comp=Z,8µm,20.0s,MS6.1						
BLG	Laguna Peak	81.86	56	⇑P	P	07 06 39.2	-0.6
	baz=82						
OSI	Osito Adit	81.88	55	⇑P	P	07 06 39.8	-0.1
	baz=82						
OSI	Osito Adit	81.88	55	*e*P	P	07 06 40.3	+0.4
	comp=Z,53nm,1.0s,mb5.4						
S10A	Tonopah Range,	81.90	52	⇑P	P	07 06 40.1	+0.2
	baz=82,SNR=18						
SNCC	San Nicolas Is	81.91	57	⇓P	P	07 06 39.7	-0.3
	baz=82						
F17A	Fitzpatrick Pl	81.92	42	⇓P	P	07 06 40.2	+0.3
	baz=82,SNR=13						
M13A	Montello	81.93	48	⇓P	P	07 06 40.4	+0.3
	baz=82,SNR=37						
M13A	Montello	81.93	48	*e*P	P	07 06 40.1	+0.1
	comp=Z,71nm,1.0s,mb5.5						
R10A	Warm Springs	81.93	51	⇓P	P	07 06 39.8	-0.3
	baz=82,SNR=9.6						
DAC	Darwin (Calif)	81.95	53	PFAKE		07 06 50.0	+10
DAC				LR	LR		
	comp=Z,9µm,20.0s,MS6.1						
K14A	Jones Ranch, D	82.01	46	⇓P	P	07 06 40.6	+0.2
	baz=82,SNR=20						
E18A	Harlowton	82.03	42	⇓P	P	07 06 40.6	+0.2
	baz=82,SNR=22						
BEST	Besiri	82.06	308	*i* P	P	07 06 40.7	-0.1
J15A	Blackfoot	82.07	45	⇓P	P	07 06 41.6	+0.9
	baz=82,SNR=36						
O12A	Currie	82.07	49	⇑P	P	07 06 40.6	-0.2
	baz=82,SNR=40						
GUMT	Gumushane	82.08	311	*e*P	P	07 06 41.6	+0.8
Q11A	Duckwater	82.12	50	⇓P	P	07 06 40.8	-0.3
	baz=82,SNR=12						
MPMC	Manual Prospec	82.12	54	⇓P	P	07 06 40.6	-0.6
	baz=82,SNR=40						
N13A	Wendover, West	82.15	48	⇑P	P	07 06 41.4	+0.2
	baz=82						
N13A	Wendover, West	82.15	48	*e*P	P	07 06 41.7	+0.5
	comp=Z,62nm,1.0s,mb5.5						
G17A	Pierce Place,	82.16	43	⇑P	P	07 06 41.5	+0.3
	baz=82,SNR=8.2						
H16A	Russell Place,	82.16	44	⇑P	P	07 06 41.9	+0.7
	baz=82,SNR=28						
EZC	Erzincan	82.19	311	*e*P	P	07 06 44.6	+3.1
L14A	Malta	82.22	47	⇑P	P	07 06 41.8	+0.3
	baz=82,SNR=15						
LRMC	Laurel Mountai	82.25	54	⇓P	P	07 06 41.4	-0.4
	baz=82,SNR=11						
SCO	Scoresbysund	82.28	355	*i* P	P	07 06 42.1	+0.8
SCO				*i*		07 09 58.9	
SCO				*i*		07 16 58.8	
SCO				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
SCO				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.8						
SCO	Scoresbysund	82.28	355	*i* P	P	07 06 42.1	+0.8
	comp=Z,31nm,1.0s,mb5.2						
SCO				*i*		07 09 58.9	
SCO				*i*		07 16 58.8	
SCO							
	comp=Z,4µm,18.0s						
EDW2	Edwards Air Fo	82.30	55	⇓P	P	07 06 41.9	-0.2
	baz=82,SNR=14						
DECC	Green Verdugo	82.34	56	⇑P	P	07 06 42.0	-0.4
	baz=82						
YMR	Madison River	82.35	44	*e*P	P	07 06 43.6	+1.4
	comp=Z,89nm,0.9s,mb5.7						
K15A	Arbon	82.36	46	⇓P	P	07 06 43.2	+0.9
	baz=82,SNR=8.4						
ESPY	Espiye-Giresun	82.36	312	*e*P	P	07 06 41.2	-1.1
FURC	Furnace Creek,	82.39	53	⇑P	P	07 06 42.2	-0.3
	baz=82,SNR=22						
R11A	Troy Canyon, C	82.40	51	⇓P	P	07 06 42.7	+0.2
	baz=82,SNR=33						
M14A	Sheep Mountain	82.40	47	⇑P	P	07 06 43.1	+0.6
	baz=82,SNR=39						
I16A	Newdale	82.43	45	⇑P	P	07 06 43.0	+0.4
	baz=82,SNR=25						
F18A	Big Timber	82.48	42	⇑P	P	07 06 43.3	+0.5
	baz=82,SNR=19						
YNR	Norris Junctio	82.50	43	*e*P	P	07 06 44.3	+1.3
	comp=Z,158nm,1.4s,mb5.8						
YFT	Old Faithful	82.54	44	*e*P	P	07 06 45.7	+2.5
	comp=Z,267nm,1.5s,mb6.0						
MWC	Mount Wilson	82.55	56	*e*P	P	07 06 43.4	0.0
MWC				pmax	pmax		
	comp=Z,157nm,1.6s,mb5.8						
MWC	Mount Wilson	82.55	56	*e*P	P	07 06 43.4	0.0
	comp=Z,157nm,1.6s,mb5.8						
GCMT	Greycliff	82.57	42	*e*P	P	07 06 44.1	+0.8
	comp=Z,50nm,1.4s,mb5.4						
Q12A	Willow Creek R	82.60	50	⇑P	P	07 06 43.9	+0.3
	baz=82,SNR=9.0						
FMP	Fort Macarthur	82.61	56	⇑P	P	07 06 42.8	-1.0
	baz=82						
S11A	Rachel	82.62	52	⇓P	P	07 06 43.6	-0.1
	baz=82,SNR=5.9						
HVU	Hansel Valley	82.64	47	*e*P	P	07 06 44.3	+0.6
HVU				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.5						
HVU	Hansel Valley	82.64	47	*e*P	P	07 06 44.3	+0.5
	comp=Z,67nm,1.2s,mb5.5						
O13A	Hicks Ranch, I	82.65	49	⇓P	P	07 06 44.0	+0.2
	baz=82,SNR=12						
J16A	Bone	82.65	45	⇑P	P	07 06 44.6	+0.8
	baz=82,SNR=26						
GRSN	GIRESUNGRSN	82.67	312	*i* P	P	07 06 44.0	+0.1
CIS	Catalina Islan	82.67	56	⇑P	P	07 06 43.4	-0.6
	baz=82						
MARD	Mardin	82.68	308	*i* P	P	07 06 44.7	+0.7
FCC	Fort Churchill	82.70	26	*e*P	P	07 06 43.6	-0.1
FCC				pmax	pmax		
	comp=Z,2.0nm,1.4s						
FCC	Fort Churchill	82.70	26	*e*P	P	07 06 43.5	-0.1
	comp=Z,2.0nm,1.4s						
H17A	Grant Village	82.73	44	⇓P	P	07 06 46.1	+1.9
	baz=83,SNR=26						
LKWY	Lake	82.75	44	*e*P	P	07 06 46.0	+1.7
LKWY				pmax	pmax		
	comp=Z,96nm,1.0s,mb5.8						
LKWY				MLR	MLR		
	comp=Z,9µm,20.0s,MS6.1						
LKWY	Lake	82.75	44	*e*P	P	07 06 46.0	+1.7
	comp=Z,96nm,1.0s,mb5.8						
LKWY				LR	LR		
	comp=Z,9µm,20.0s,MS6.1						
DCID1	Drake Creek	82.76	45	*e*P	P	07 06 44.9	+0.6
	comp=Z,109nm,1.0s,mb5.8						
SCI	San Clemente I	82.76	57	⇑P	P	07 06 44.2	-0.3
	baz=83						
IMW	Indian Meadow	82.76	44	*e*P	P	07 06 45.3	+1.0
	comp=Z,77nm,0.9s,mb5.7						
L15A	Malad City	82.78	46	⇑P	P	07 06 44.5	+0.1
	baz=83,SNR=16						
U10A	Ash Meadows, A	82.79	53	⇓P	P	07 06 44.6	0.0
	baz=83,SNR=20						
RRI2	Red Ridge	82.80	45	*e*P	P	07 06 45.2	+0.7
	comp=Z,69nm,0.9s,mb5.7						
N14A	Grayback Hills	82.83	48	⇓P	P	07 06 44.8	0.0
	baz=83,SNR=31						
BFSC	Mount Baldy St	82.84	55	⇓P	P	07 06 44.7	-0.2
	baz=83						
DIYA	Diyarbakir	82.85	309	*i* P	P	07 06 45.8	+0.9
G18A	Lazy EL Ranch,	82.88	43	⇓P	P	07 06 45.0	+0.1
	baz=83,SNR=7.9						
K16A	Soda Springs	82.89	45	⇓P	P	07 06 45.7	+0.7
	baz=83,SNR=29						
BGU	Big Grassy Mou	82.89	48	*e*P	P	07 06 45.1	+0.1
	comp=Z,25nm,1.0s,mb5.2						
TAOE	Nuku Hiva Isla	82.89	104	*e*S	S	07 17 00.7	-1.4
	comp=Z,12µm,31.8s						
TAOE				*e*LQ		07 29 22.1	
	comp=Z,4µm,24.3s						
TAOE				*e*LR	LR	07 32 12.5	
	comp=Z,20µm,32.0s,baz=301						
AKASG	Malin Array Be	82.93	324	P	P	07 06 45.0	0.0
AKASG						07 09 58.6	
AKASG	Malin Array Be	82.93	324	P	P	07 06 45.0	-0.1
	comp=Z,91nm,0.8s,mb5.9,baz=50,slow=5.5,SNR=99						
AKASG				PP	PP	07 09 58.5	+3.3
	comp=Z,23nm,1.1s,baz=48,slow=8.8,SNR=4.3						
AKASG				LR	LR	07 46 44.0	
	comp=Z,28µm,18.2s,MS6.7,baz=50,slow=38						
AKASG	Malin Array Be	82.93	324	P	P	07 06 45.0	-0.1
AKASG				PP	PP	07 09 58.5	+3.3

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AKASG                                  LR       LR       07 46 44.0
KIEV  Kiev               82.94 324  eP       P        07 06 44.8  -0.3
KIEV                                   pmax     pmax
      comp=Z,94nm,0.8s,mb5.9
KIEV                                   MLR      MLR
      comp=Z,22µm,19.0s,MS6.5
KIEV  Kiev               82.94 324  eP       P        07 06 44.8  -0.3
      comp=Z,94nm,0.8s,mb5.9
KIEV                                   LR       LR
      comp=Z,22µm,19.0s,MS6.5
P13A  Bates Ranch, G     82.95  49  ⇑P       P        07 06 45.4   0.0
      baz=83,SNR=13
MOOW  Moose Ponds        82.95  44  eP       P        07 06 44.6  -0.7
      comp=Z,57nm,1.2s,mb5.5
TPAW  Teton Pass         82.96  45  eP       P        07 06 46.2  +0.8
      comp=Z,65nm,1.1s,mb5.6
GSC   Goldstone          82.97  54  eP       P        07 06 45.7  +0.1
GSC                                    pmax     pmax
      comp=Z,45nm,1.1s,mb5.4
GSC   Goldstone          82.97  54  ⇓P       P        07 06 45.2  -0.3
      baz=83,SNR=8.6
GSC   Goldstone          82.97  54  eP       P        07 06 45.6  +0.1
      comp=Z,45nm,1.1s,mb5.4
I17A  Pilgrim Ck.        82.97  44  ⇓P       P        07 06 46.6  +1.2
      baz=83,SNR=26
M15A  Larsen Ranch,      83.01  47  ⇑P       P        07 06 45.5  -0.2
      baz=83,SNR=17
RRX   Edison Barstow     83.02  55  ⇑P       P        07 06 45.8  -0.1
      baz=83
SHOC  Shoshone           83.07  53  ⇑P       P        07 06 46.0  -0.1
      baz=83
REDW  Red Top Meadow     83.08  45  eP       P        07 06 47.2  +1.2
      comp=Z,84nm,1.4s,mb5.6
SPUT  South Promonto     83.09  47  eP       P        07 06 46.6  +0.6
      comp=Z,106nm,1.5s,mb5.7
R12A  Pony Springs,      83.09  51  ⇑P       P        07 06 46.3  +0.2
      baz=83,SNR=17
SNOW  Snow King Moun     83.09  45  eP       P        07 06 46.9  +0.8
      comp=Z,50nm,1.0s,mb5.5
LOHW  Long Hollow        83.11  44  eP       P        07 06 46.9  +0.7
      comp=Z,55nm,1.2s,mb5.5
RLMT  Red Lodge          83.16  43  ⇑P       P        07 06 46.7  +0.3
      baz=83,SNR=24
RLMT  Red Lodge          83.16  43  eP       P        07 06 46.2  -0.1
      comp=Z,287nm,1.8s,mb6.0
RLMT                                   LR       LR
      comp=Z,7µm,19.0s,MS6.0
J17A  Brown Place, J     83.17  45  ⇓P       P        07 06 46.8  +0.3
      baz=83,SNR=9.6
T11A  Corn Creek, Al     83.18  52  ⇓P       P        07 06 46.2  -0.5
      baz=83,SNR=8.5
Q13A  Wheeler Ranch,     83.19  50  ⇑P       P        07 06 46.4  -0.2
      baz=83,SNR=8.5
AHID  Auburn Hatcher     83.23  45  eP       P        07 06 47.2  +0.5
AHID                                   LR       LR
      comp=Z,11µm,21.0s,MS6.2
N15A  Stansbury Isla     83.25  48  ⇓P       P        07 06 46.8  -0.1
      baz=83
S12A  Delamar Landin     83.27  51  ⇓P       P        07 06 47.2  +0.1
      baz=83
SIM   Simferopol’        83.27 317c iP       P        07 06 47.2  +0.3
SIM                                 e                 07 07 04.0
SIM                                 e                 07 09 53.0
SIM                                 eS       S        07 17 04.6  -0.4
SIM                                 ePS               07 18 06.0
SIM                                 eSS      SS       07 22 28.0  -1.4
SIM                                    pmax     pmax
      comp=Z,91nm,0.9s,mb5.8
SIM                                    pmax     pmax
      comp=Z,1µm,11.6s
SIM                                    MLR      MLR
      comp=Z,20µm,18.3s,MS6.5
KEMA  Kemaliye           83.32 311  i P      P        07 06 48.2  +0.9
K17A  Gardner Place,     83.35  45  ⇑P       P        07 06 47.6  +0.2
      baz=83
ELZG  Elazig             83.36 310  i P      P        07 06 48.8  +1.2
BBRC  Big Bear Sol-O     83.37  55  ⇑P       P        07 06 47.1  -0.6
      baz=83
L16A  Fish Haven         83.39  46  ⇓P       P        07 06 47.8  +0.2
      baz=83,SNR=26
DUG   Dugway             83.40  48  eP       P        07 06 47.9  +0.2
DUG                                    pmax     pmax
      comp=Z,92nm,1.1s,mb5.7
DUG                                    MLR      MLR
      comp=Z,9µm,19.0s,MS6.2
DUG   Dugway             83.40  48  ⇓P       P        07 06 47.6  -0.1
      baz=83,SNR=24
DUG   Dugway             83.40  48  eP       P        07 06 47.9  +0.2
      comp=Z,92nm,1.1s,mb5.7
DUG                                    LR       LR
      comp=Z,9µm,19.0s,MS6.2
U11A  Corn Creek         83.46  53  ⇑P       P        07 06 47.7  -0.4
      baz=83
MURC  Murrieta           83.47  56  ⇑P       P        07 06 47.6  -0.6
      baz=83
P14A  Drum Mountains     83.52  49  ⇑P       P        07 06 48.1  -0.2
      baz=83,SNR=24
HEC   Hector,Ludlow      83.53  54  ⇓P       P        07 06 47.9  -0.6
      baz=83,SNR=15
TUQ   Turquoise Moun     83.54  54  ⇓P       P        07 06 48.0  -0.5
      baz=83,SNR=10
I18A  Diamond G Ranc     83.56  44  ⇑P       P        07 06 48.9  +0.4
      baz=83
O15A  The Old Anders     83.58  48  ⇑P       P        07 06 48.7   0.0
      baz=83
R13A  O’Grain Ranch,     83.60  50  ⇓P       P        07 06 48.3  -0.5
      baz=84,SNR=8.3
M16A  Huntsville         83.62  47  ⇓P       P        07 06 48.3  -0.5
      baz=84
NOQ   North Oquirrh      83.63  48  eP       P        07 06 49.6  +0.7
      comp=Z,148nm,1.4s,mb5.9
Q14A  Sevier Lake (B     83.68  49  ⇑P       P        07 06 48.9  -0.2
      baz=84,SNR=19
J18A  Kendall Valley     83.68  45  ⇑P       P        07 06 48.9  -0.2
      baz=84,SNR=36
V11A  Goodsprings        83.70  53  ⇑P       P        07 06 48.7  -0.6
      baz=84,SNR=13
L17A  Cokeville          83.71  46  ⇑P       P        07 06 49.3   0.0
      baz=84,SNR=16
T12A  Moapa              83.78  52  ⇓P       P        07 06 49.6  -0.1
      baz=84
MYA   Malataya           83.83 310  eP       P        07 06 50.4  +0.5
DOMB  Dombas             83.83 340  eP       P        07 06 50.6  +1.1
MALT  Malatya            83.83 310  eP       P        07 06 50.4  +0.4
MALT  Malatya            83.83 310  eP       P        07 06 50.6  +0.6
MALT                                e*PP     pP       07 07 00.4  -0.7
MALT                                   pmax     pmax
      comp=Z,369nm,1.4s,mb6.3
MALT                                   MLR      MLR
      comp=Z,31µm,20.0s,MS6.7
MALT  Malatya            83.83 310⇓iP       P        07 06 51.4  +1.4
MALT  Malatya            83.83 310  eP       P        07 06 50.6  +0.6
      comp=Z,369nm,1.4s,mb6.3
MALT                                epP      pP       07 07 00.3  -0.7
MALT                                   LR       LR
      comp=Z,31µm,20.0s,MS6.7
109C  Camp Elliot, M     83.87  56  ⇑P       P        07 06 50.0  -0.2
      baz=84
MOL   Molde              83.88 341  eP       P        07 06 55.0  +5.3
MOL                                    AMb      AMB      07 07 06.7
      comp=Z,210nm,3.8s
MOL                                    AMS      AMS      07 48 23.0
      comp=Z,9µm,19.0s,MS6.2
NB2   NORSAR Subarra     83.90 338   P       P        07 06 49.5  -0.3
      comp=Z,62nm,0.7s,mb5.8,baz=44,slow=5.3
NOA   NORSAR Array B     83.90 338   P       P        07 06 49.6  -0.2
NOA                                                   07 10 02.0
NOA   NORSAR Array B     83.90 338   P       P        07 06 49.6  -0.2
      comp=Z,35nm,0.6s,mb5.7,baz=46,slow=4.9,SNR=59
NOA                                    PP       PP       07 10 02.0  -0.8
      comp=Z,14nm,0.9s,baz=47,slow=8.5,SNR=6.9
NOA                                    LR       LR       07 49 23.4
      comp=Z,9µm,18.9s,MS6.2,baz=40,slow=39
DARE  Darende-Malaty     83.94 311  eP       P        07 06 53.3  +2.8
SUW   Suwalki            83.95 329  eP       P        07 06 50.4  +0.1
SUW                                 ePcP     PcP      07 06 52.0  -2.2
SUW                                 e                 07 07 07.7
SUW                                 eS       S        07 17 12.0  +0.5
SUW                                    LMZ               07 44 32.8
      comp=Z,12µm,22.9s
SUW   Suwalki            83.95 329  eP       P        07 06 50.4  +0.1
SUW                                 ePcP     PcP      07 06 52.0  -2.2
SUW                                 e                 07 07 07.7
SUW                                 eS       S        07 17 12.0  +0.5
N16A  Rees Ranch, Co     83.96  47  ⇑P       P        07 06 50.3  -0.2
      baz=84
K18A  Toltan Ranch,      83.97  45  ⇑P       P        07 06 50.3  -0.2
      baz=84,SNR=12
S13A  Holt Ranch, En     83.97  51  ⇑P       P        07 06 50.3  -0.4
      baz=84,SNR=9.1
URFA  Urfa               83.99 309  eP       P        07 06 50.8   0.0
SVSK  Karacayir          84.01 312  eP       P        07 06 50.8   0.0
NLU   North Lily Min     84.01  48  eP       P        07 06 51.2  +0.4
      comp=Z,46nm,1.0s,mb5.6
PFO   Pinyon Flat Ob     84.02  55  eP       P        07 06 50.7  -0.3
PFO                                    pmax     pmax
      comp=Z,36nm,0.9s,mb5.5
PFO                                    MLR      MLR
      comp=Z,10µm,19.0s,MS6.2
PFO   Pinyon Flat Ob     84.02  55  ⇑P       P        07 06 50.5  -0.5
      baz=84,SNR=9.5
PFO   Pinyon Flat Ob     84.02  55  eP       P        07 06 50.7  -0.3
      comp=Z,36nm,0.9s,mb5.5
PFO                                    LR       LR
      comp=Z,10µm,19.0s,MS6.2
GMRC  Granite Mounta     84.04  54  ⇑P       P        07 06 51.0  -0.1
      baz=84,SNR=20
KVT   Kavak              84.05 313  eP       P        07 06 51.2  +0.2
U12A  Valley of Fire     84.05  52  ⇑P       P        07 06 51.2  +0.1
      baz=84
P15A  Leamington         84.06  49  ⇑P       P        07 06 50.6  -0.5
      baz=84
LAO   LASA Array         84.12  40  eP       P        07 06 51.0  -0.2
      comp=Z,120nm,1.0s,mb6.0
LAO                                    LR       LR
      comp=Z,9µm,20.0s,MS6.1
ARUT  Antelope Range     84.16  51  eP       P        07 06 52.2  +0.6
ARUT                                   pmax     pmax
      comp=Z,54nm,1.0s,mb5.6
ARUT  Antelope Range     84.16  51  eP       P        07 06 52.2  +0.5
      comp=Z,54nm,1.0s,mb5.6
M17A  Scullys Gap (B     84.16  46  ⇑P       P        07 06 51.2  -0.3
      baz=84,SNR=22
BELC  Belle Mtn.         84.17  55  ⇓P       P        07 06 51.1  -0.6
      baz=84,SNR=12
V12A  Nelson             84.17  53  ⇓P       P        07 06 51.9  +0.1
      baz=84,SNR=10
AKCD  Akcadag            84.19 310  i P      P        07 06 52.5  +0.8
R14A  James Farms, M     84.19  50  ⇑P       P        07 06 51.4  -0.4
      baz=84
BW06  Boulder Array      84.20  45  ⇓P       P        07 06 52.0  +0.3
      baz=84,SNR=33
BW06  Boulder Array      84.20  45     PFAKE             07 07 00.0  +8.2
BW06                                   LR       LR
      comp=Z,11µm,20.0s,MS6.2
PDAR  Pinedale Array     84.20  45   P       P        07 06 51.1  -0.7
      comp=Z,8.6nm,0.9s,mb4.9,baz=280,slow=2.9,SNR=34
PDAR                                   PP       PP       07 10 23.0  +17
      comp=Z,3.9nm,1.1s,baz=308,slow=5.5,SNR=3.7
PDAR                                   PKKPbc   PKKPbc   07 25 04.2  -0.5
      comp=Z,0.7nm,1.0s,baz=104,slow=3.7,SNR=3.7
PDAR                                   LR       LR       07 41 04.9
      comp=Z,10µm,19.6s,MS6.2,baz=313,slow=33
T13A  Saint George       84.21  51  ⇓P       P        07 06 51.9   0.0
      baz=84,SNR=11
DGMT  Dagmar             84.26  38  ⇑P       P        07 06 51.5  -0.4
      baz=84
DGMT  Dagmar             84.26  38  eP       P        07 06 51.3  -0.6
      comp=Z,59nm,0.9s,mb5.7
DGMT                                   LR       LR
      comp=Z,6µm,19.0s,MS6.0
MPU   Maple Canyon       84.27  48  eP       P        07 06 52.5  +0.4
      comp=Z,83nm,1.2s,mb5.7
Q15A  Fillmore           84.28  49  ⇑P       P        07 06 51.9  -0.4
      baz=84
BAR   Barrett            84.29  56  eP       P        07 06 52.0  -0.4
      comp=Z,33nm,1.1s,mb5.4
DAU   Daniels Canyon     84.32  47  eP       P        07 06 52.8  +0.4
DAU                                    pmax     pmax
      comp=Z,116nm,1.4s,mb5.8
DAU   Daniels Canyon     84.32  47  eP       P        07 06 52.8  +0.4
      comp=Z,116nm,1.4s,mb5.8
N17A  Moffit Pass        84.33  47  ⇓P       P        07 06 52.3  -0.1
      baz=84,SNR=8.1
CCUT  Cedar City         84.33  51  eP       P        07 06 53.2  +0.7
      comp=Z,91nm,1.5s,mb5.7
CCUT                                epP      pP       07 07 02.9  -0.7
L18A  Fontenelle, Gr     84.34  46  ⇑P       P        07 06 52.2  -0.2
      baz=84,SNR=15
ATAB  Bozova             84.34 309  i P      P        07 06 53.5  +1.0
S14A  Cedar City         84.36  50  ⇑P       P        07 06 52.1  -0.5
      baz=84
W12A  Cal Nev Ari        84.36  53  ⇓P       P        07 06 52.2  -0.5
      baz=84
MONP  Monument Peak      84.38  56  ⇓P       P        07 06 52.6  -0.3
      baz=84,SNR=8.6
P16A  Fountain Green     84.46  48  ⇑P       P        07 06 53.1   0.0
      baz=84
U13A  Pakoon Wash        84.46  52  ⇑P       P        07 06 53.2   0.0
      baz=84,SNR=21
M18A  Lyman              84.57  46  ⇑P       P        07 06 53.8  +0.1
      baz=84,SNR=7.6
K19A  Absolon Red Bu     84.62  44  ⇓P       P        07 06 53.6  -0.2
      baz=84,SNR=23
MVU   Marysvale          84.64  49     PFAKE             07 07 10.0  +16
MVU                                    LR       LR
      comp=Z,9µm,19.0s,MS6.2
MSU   Marysvale          84.66  49  eP       P        07 06 55.1  +0.9
MSU                                    pmax     pmax
      comp=Z,43nm,1.1s,mb5.5
MSU   Marysvale          84.66  49  eP       P        07 06 55.0  +0.9
      comp=Z,43nm,1.1s,mb5.5
L19A  Farson             84.68  45  ⇓P       P        07 06 54.4  +0.3
      baz=84,SNR=26
IRM   Iron Mountain      84.71  54  ⇓P       P        07 06 54.5   0.0
      baz=85,SNR=14
V13A  Grand Canyon W     84.72  52  ⇓P       P        07 06 54.4  -0.1
      baz=85,SNR=10.0
DVTC  Desert V Tower     84.73  56  ⇓P       P        07 06 54.4  -0.3
      baz=85
BC3   Big Chuckw Mtn     84.73  55  ⇑P       P        07 06 54.2  -0.4
      baz=85,SNR=16
R15A  Junction           84.75  50  ⇑P       P        07 06 54.5  -0.1
      baz=85,SNR=11
T14A  Hurricane          84.76  51  ⇓P       P        07 06 54.8  +0.1
      baz=85,SNR=15
O17A  Robinson Place     84.77  47  ⇓P       P        07 06 54.8  +0.1
      baz=85,SNR=16
NEE2  Needles Airpor     84.80  54  ⇑P       P        07 06 54.8  -0.1
      baz=85
SWSC  Sam W. Stewart     84.82  56  ⇑P       P        07 06 54.9  -0.1
      baz=85
SARI  SarD1z-Kayseri     84.83 311  eP       P        07 06 57.5  +2.5
OSL   Oslo               84.88 338  eP       P        07 06 55.2  +0.4
GZT   Gaziantep          84.90 309  i P      P        07 06 56.2  +0.8
BZK   Bozkurt            84.91 315  eP       P        07 06 55.0  -0.4
TMUT  Trail Mountain     84.92  48  eP       P        07 06 56.1  +0.6
      comp=Z,130nm,1.8s,mb5.8
S15A  Panguitch          84.95  50  ⇓P       P        07 06 55.9  +0.2
      baz=85
U14A  Mt Trumbull        85.01  52  ⇑P       P        07 06 56.0   0.0
      baz=85,SNR=15
K20A  Yellowstone Ra     85.02  44  ⇑P       P        07 06 55.4  -0.5
      baz=85
PINB  Pinarbasi          85.03 311  i P      P        07 06 56.8  +0.8
CTKT  Corum              85.10 313  i P      P        07 06 56.9  +0.6
M19A  Rock Springs       85.12  46  ⇑P       P        07 06 56.3  -0.1
      baz=85
Q16A  Castle Valley      85.14  49  ⇑P       P        07 06 57.0  +0.5
      baz=85,SNR=14
P17A  Butcher Ranch,     85.14  48  ⇑P       P        07 06 56.5   0.0
      baz=85
W13A  Hualapai Mount     85.16  53  ⇓P       P        07 06 56.6  -0.1
      baz=85
O18A  Roosevelt          85.21  47  ⇓P       P        07 06 57.1  +0.2
      baz=85
GAZ   Gaziantep          85.23 309  eP       P        07 06 56.6  -0.4
R16A  Teasdale           85.25  49  ⇑P       P        07 06 57.2  +0.1
      baz=85,SNR=20
KIS   Kishinev           85.25 321⇑iP       P        07 06 54.0  -2.9
      comp=Z,1µm,3.0s
KIS   Kishinev           85.25 321  i PcP    sP       07 07 12.0  -0.1
T15A  Red Dirt Ranch     85.27  51  ⇑P       P        07 06 57.2   0.0
      baz=85,SNR=20
KMRS  Kahramanmaras      85.28 310  eP       P        07 06 57.1  -0.2
BNN   Bunyan             85.31 311  eP       P        07 06 57.9  +0.5
Y12C  Blythe             85.36  55  ⇓P       P        07 06 57.5  -0.3
      baz=85
L20A  Wamsutter          85.37  45  ⇑P       P        07 06 57.6   0.0
      baz=85,SNR=11
PDMCI Parker Dam,Lak     85.37  54  ⇓P       P        07 06 57.3  -0.5
      baz=85,SNR=7.3
FOO   Floro              85.38 341  eP       P        07 06 58.5  +1.2
FOO                                    AMb      AMB      07 07 14.7
      comp=Z,366nm,6.4s
FOO                                    AMS      AMS      07 52 15.4
      comp=Z,12µm,21.8s,MS6.2
TOS   Tosya              85.38 314  eP       P        07 06 58.3  +0.6
HYA   Hoyanger           85.38 340  eP       P        07 06 59.7  +2.4
P18A  Preston Nutter     85.39  48  ⇑P       P        07 06 58.1  +0.4
      baz=85,SNR=16
N19A  John Jarvie Ra     85.42  46  ⇑P       P        07 06 57.6  -0.4
      baz=85
X13A  Yucca              85.45  54  ⇓P       P        07 06 57.9  -0.3
      baz=85,SNR=12
V14A  Boquillas Ranc     85.45  52  ⇓P       P        07 06 58.3  +0.1
      baz=85,SNR=21
SRU   San Rafael         85.47  48  eP       P        07 06 58.1  -0.1
SRU                                    pmax     pmax
      comp=Z,56nm,1.1s,mb5.6
SRU   San Rafael         85.47  48  ⇓P       P        07 06 57.9  -0.3
      baz=85,SNR=27
SRU   San Rafael         85.47  48  eP       P        07 06 58.1  -0.1
      comp=Z,56nm,1.1s,mb5.6
KONO  Kongsberg          85.47 338  eP       P        07 07 00.1  +2.3
KONO                                ePP      PP       07 10 18.5  +2.9
KONO                                eSKS              07 17 21.9
KONO                                   AMS      AMS      07 51 59.9
      comp=Z,10µm,15.8s,MS6.3
KONO  Kongsberg          85.47 338  eP       P        07 06 57.5  -0.3
KONO                                   LR       LR
      comp=Z,10µm,19.0s,MS6.2
GLA   Glamis             85.48  55  eP       P        07 06 58.7  +0.3
GLA                                    pmax     pmax
      comp=Z,59nm,1.1s,mb5.6
GLA   Glamis             85.48  55  ⇑P       P        07 06 58.2  -0.2
      baz=85
GLA   Glamis             85.48  55  eP       P        07 06 58.7  +0.3
      comp=Z,59nm,1.1s,mb5.6
BALT  Daday              85.52 315  i P      P        07 06 59.0  +0.6
KUZU  Kuzuini            85.53 309  i P      P        07 06 59.0  +0.5
ILGA  Ilgaz              85.57 314  i P      P        07 06 59.5  +0.8
W14A  Seligman           85.68  53  ⇑P       P        07 06 59.2  -0.2
      baz=86,SNR=20
R17A  Hanksville Air     85.70  49  ⇑P       P        07 06 58.8  -0.5
      baz=86,SNR=22
Q18A  Rafter H Ranch     85.73  48  ⇑P       P        07 06 59.1  -0.4
      baz=86
M20A  Sweetwater, Wa     85.74  45  ⇑P       P        07 06 59.6  +0.1
      baz=86,SNR=10
O19A  Miners Draw (B     85.77  47  ⇑P       P        07 06 58.9  -0.8
      baz=86,SNR=8.2
Y13A  Salome             85.83  54  ⇓P       P        07 06 59.7  -0.4
      baz=86,SNR=10
CANT  Cankiri            85.87 314  eP       P        07 07 00.4  +0.3
T16A  Glen Canyon Da     85.89  50  ⇓P       P        07 06 59.3  -1.0
      baz=86
CDAG  Cicekdag           85.89 313  i P      P        07 07 00.4  +0.1
SFJD  Kangerlussuaq      85.90   5  i P      P        07 06 59.3  -0.5
SFJD                                   pmax     pmax
      comp=Z,48nm,0.9s,mb5.7
SFJD                                   MLR      MLR
      comp=Z,6µm,18.0s,MS6.0
SFJD  Kangerlussuaq      85.90   5  i P      P        07 06 59.3  -0.5
      comp=Z,48nm,0.9s,mb5.7
SFJD
      comp=Z,6µm,18.0s
112A  Yuma               85.91  56  ⇓P       P        07 07 00.4  -0.2
      baz=86
L21A  Rawlins            86.00  45  ⇑P       P        07 07 00.7  -0.1
      baz=86,SNR=21
V15A  Kaibab Nationa     86.02  52  ⇓P       P        07 07 01.0   0.0
      baz=86,SNR=12
KOZT  Kozan              86.03 310  eP       P        07 07 01.2  +0.2
S17A  Black Ridge (B     86.04  50  ⇑P       P        07 07 00.2  -0.9
      baz=86,SNR=11
N20A  Spence Gulch,      86.05  46  ⇑P       P        07 07 01.0   0.0
      baz=86,SNR=19
ELDT  Eldivan            86.05 314  i P      P        07 07 00.8  -0.3
WAR   Warsaw             86.08 328  eP       P        07 07 02.7  +1.8
WAR                                    LMZ               07 49 50.4
      comp=Z,22µm,17.4s
WAR   Warsaw             86.08 328  eP       P        07 07 02.7  +1.7
WAR                                    LR       LR
      comp=Z,22µm,17.4s,MS6.6
SAFT  Safranbolu         86.12 315  eP       P        07 07 02.9  +1.5
LVV   L’vov              86.14 325  eP       P        07 07 00.9  -0.4
LVV                                 e                 07 10 22.0
LVV                                 e                 07 17 22.0
LVV                                 eS       S        07 17 32.0  -1.3
LVV                                    MLR      MLR
      comp=Z,40µm,18.0s,MS6.9
X14A  Yava               86.19  53  ⇑P       P        07 07 01.9  +0.1
      baz=86,SNR=17
M21A  Separation Pea     86.20  45  ⇑P       P        07 07 01.6  -0.1
      baz=86,SNR=11
P19A  Cripple Cowboy     86.22  47  ⇓P       P        07 07 01.9   0.0
      baz=86,SNR=30
ASK   Askoy              86.22 340  eP       P        07 07 02.3  +0.8
COBT  Iskenderun         86.23 309  i P      P        07 07 02.4  +0.4
ODD1  Odda               86.23 339  eP       P        07 07 00.8  -0.7
ODD1                                   AMb      AMB      07 07 06.2
      comp=Z,234nm,3.0s
RWWY  Rawlins            86.25  45  eP       P        07 07 02.4  +0.4
      comp=Z,133nm,1.3s,mb6.0
BER   Bergen             86.26 340  eP       P        07 07 02.7  +1.0
BER                                 eP                07 07 08.2
BER                                    AMS      AMS      07 52 46.8
      comp=Z,13µm,16.4s,MS6.4
Z13A  Yuma Proving G     86.26  55  ⇑P       P        07 07 02.1  -0.2
      baz=86,SNR=43
R18A  Canyonlands Na     86.27  49  ⇓P       P        07 07 01.3  -0.9
      baz=86,SNR=11
W15A  Williams           86.27  52  ⇓P       P        07 07 02.0  -0.3
      baz=86
BRTR  Keskin Array B     86.32 313   P       P        07 07 02.2  -0.2
      comp=Z,30nm,0.9s,mb5.5
BRTR                                   LR       LR       07 49 23.2
      comp=Z,9µm,20.2s,MS6.2,baz=216,slow=38
CEYT  Ceyhan             86.33 310  eP       P        07 07 02.5   0.0
T17A  Navajo Res., N     86.37  50  ⇓P       P        07 07 02.0  -0.7
      baz=86
Y14A  Wickenburg         86.37  54  ⇑P       P        07 07 02.3  -0.4
      baz=86,SNR=36
Q19A  Hogan Spring (     86.39  48  ⇓P       P        07 07 02.4  -0.4
      baz=86,SNR=9.4
113A  Mohawk Valley,     86.39  55  ⇓P       P        07 07 02.4  -0.5
      baz=86,SNR=19
O20A  White River Ci     86.43  46  ⇓P       P        07 07 02.8  -0.2
      baz=86
N21A  Black Mountain     86.56  46  ⇓P       P        07 07 03.7  +0.1
      baz=86,SNR=23
S18A  Hurst Farm, Bl     86.56  49  ⇓P       P        07 07 03.0  -0.7
      baz=86,SNR=10
U16A  Tuba City          86.58  51  ⇑P       P        07 07 03.6  -0.2
      baz=86,SNR=15
X15A  Humboldt           86.64  53  ⇑P       P        07 07 03.8  -0.3
      baz=86,SNR=39
KARA  Karaisali          86.67 310  eP       P        07 07 01.6  -2.5
U17A  Shonto             86.67  50  ⇓P       P        07 07 04.0  -0.2
      baz=86,SNR=28
BLS5  Blasjo             86.67 339  eP       P        07 07 04.8  +1.1
P20A  De Beque           86.67  47  ⇑P       P        07 07 03.7  -0.4
      baz=86
Z14A  Wintersburg        86.70  54  ⇑P       P        07 07 03.8  -0.5
      baz=87,SNR=7.9
WUAZ  Wupatki            86.73  52  ⇓P       P        07 07 04.6  +0.1
      baz=87,SNR=13
WUAZ  Wupatki            86.73  52  eP       P        07 07 05.0  +0.5
      comp=Z,141nm,1.6s,mb6.0
WUAZ                                   LR       LR
      comp=Z,5µm,19.0s,MS6.0
R19A  Curley Farm, L     86.74  48  ⇓P       P        07 07 04.2  -0.3
      baz=87,SNR=14
BALAT Bala               86.75 313  i P      P        07 07 04.9  +0.4
M22A  Cedar Creek Ra     86.79  45  ⇑P       P        07 07 04.7   0.0
      baz=87,SNR=7.1
LOD   Lodumlu            86.80 313  eP       P        07 07 02.0  -2.7
KRTS  Karatas            86.81 310  eP       P        07 07 04.1  -0.7
BSD   Bornholm Skovb     86.82 333  i P      P        07 07 04.8  +0.3
      comp=Z,82nm,0.9s,mb6.0
BSD                                 i                 07 10 26.8
BSD                                 i                 07 17 33.4
BSD                                 i                 07 23 17.9
BSD
      comp=Z,10µm,18.0s
BSD   Bornholm Skovb     86.82 333  i P      P        07 07 04.8  +0.3
      comp=Z,82nm,0.9s,mb6.0
BSD                                 i                 07 10 26.8
BSD                                 i                 07 17 33.4
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BSD				i		07 23 17.9	
RSSD	Black Hills	86.83	41	eP	P	07 07 04.6	-0.2
RSSD				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.5						
RSSD				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.9						
RSSD	Black Hills	86.83	41	eP	P	07 07 04.5	-0.3
	comp=Z,33nm,1.0s,mb5.5						
RSSD				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
W16A	Flagstaff	86.84	52	⇑P	P	07 07 04.9	-0.2
	baz=87						
Y15A	Casa Rosa Ranc	86.84	53	⇓P	P	07 07 05.2	+0.1
	baz=87,SNR=21						
BUR08	Bucovina Ar. S	86.86	323	eP	P	07 07 04.6	-0.3
BURAR	Bucovina Array	86.87	323	⇑iP	P	07 07 05.1	+0.2
BURAR	Bucovina Array	86.87	323	P	P	07 07 06.0	+1.0
KDZE	Karadeniz Ereo	86.87	315	eP	P	07 07 02.5	-2.6
O21A	Pagoda	86.89	46	⇑P	P	07 07 05.3	+0.1
	baz=87						
PV04	Paradox Valley	86.92	48	eP	P	07 07 05.8	+0.4
KWP	Kalwaria Pacla	86.93	326	eP	P	07 07 05.7	+0.5
KWP				epP	pP	07 07 14.2	-2.2
KWP				esP	sP	07 07 19.2	-1.1
KWP				eS	S	07 17 42.6	+1.6
KWP				LMZ		07 48 55.9	
	comp=Z,62µm,19.3s						
KWP	Kalwaria Pacla	86.93	326	eP	P	07 07 05.7	+0.5
KWP				e*SP	sP	07 07 19.2	-1.2
KWP				eS	S	07 17 42.6	+1.6
KWP				MLR	MLR		
	comp=Z,62µm,19.3s,MS7.0						
KWP	Kalwaria Pacla	86.93	326	⇓iP	P	07 07 06.0	+0.8
KWP	Kalwaria Pacla	86.93	326	eP	P	07 07 05.7	+0.5
KWP				epP	pP	07 07 14.2	-2.1
KWP				esP	sP	07 07 19.2	-1.2
KWP				eS	S	07 17 42.6	+1.6
T18A	Mexican Hat	86.93	50	⇑P	P	07 07 04.4	-1.0
	baz=87,SNR=9.0						
TIRR	Tirgusor	86.94	319	eP	P	07 07 05.0	-0.3
TIRR				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.5						
TIRR	Tirgusor	86.94	319	⇑iP	P	07 07 05.2	-0.1
TIRR	Tirgusor	86.94	319	eP	P	07 07 05.0	-0.3
	comp=Z,26nm,0.9s,mb5.5						
Q20A	Ridgley Place,	87.03	47	⇑P	P	07 07 05.6	-0.3
	baz=87,SNR=31						
114A	Black Gap (USA	87.05	55	⇓P	P	07 07 05.9	-0.2
	baz=87,SNR=16						
VRI	Vrincioaia	87.08	321	⇓iP	P	07 07 07.2	+1.2
VRI	Vrincioaia	87.08	321	P	P	07 07 06.4	+0.4
HARR	Harsova	87.09	319	⇓iP	P	07 07 06.4	+0.4
HARR	Harsova	87.09	319	P	P	07 07 06.4	+0.4
S19A	Harvey Farm, M	87.11	49	⇑P	P	07 07 05.6	-0.7
	baz=87						
GKP	Gorka Klasztor	87.12	331	eP	P	07 07 06.1	+0.1
GKP				epP	pP	07 07 19.4	+2.2
GKP				ePP	PP	07 10 32.1	+2.9
GKP				LMZ		07 50 47.6	
	comp=Z,36µm,16.6s						
GKP	Gorka Klasztor	87.12	331	eP	P	07 07 06.1	+0.1
GKP				e*PP	pP	07 07 19.4	+2.2
GKP				e		07 10 32.1	
GKP	Gorka Klasztor	87.12	331	eP	P	07 07 06.1	+0.1
GKP				epP	pP	07 07 19.4	+2.2
GKP				ePP	PP	07 10 32.1	+2.9
GKP				LR	LR		
	comp=Z,36µm,16.6s,MS6.9						
PLOR	Plostina	87.14	321	P	P	07 07 07.1	+0.8
PLOR	Plostina	87.14	321	⇑iP	P	07 07 08.0	+1.7
SULT	Sultanhani-AKS	87.21	312	eP	P	07 07 05.8	-1.0
N22A	Wattenberg Ran	87.21	45	⇓P	P	07 07 07.1	+0.3
	baz=87						
MERS	Mersin	87.24	310	eP	P	07 07 05.0	-2.0
X16A	Lo Mia Camp, P	87.25	53	⇓P	P	07 07 07.1	+0.1
	baz=87,SNR=13						
P21A	Newcastle	87.28	47	⇑P	P	07 07 07.1	+0.1
	baz=87						
PV01	Paradox Valley	87.28	48	eP	P	07 07 07.0	-0.1
	comp=Z,5µm,1.3s						
Z15A	Gila River Ind	87.31	54	⇓P	P	07 07 06.9	-0.4
	baz=87,SNR=6.6						
U18A	Rough Rock, Ch	87.31	50	⇓P	P	07 07 07.5	+0.2
	baz=87,SNR=15						
R20A	Redvale	87.38	48	⇓P	P	07 07 07.4	-0.2
	baz=87,SNR=17						
COP	Copenhagen	87.40	334	i P	P	07 07 08.4	+1.1
COP				pmax	pmax		
	comp=Z,67nm,0.8s,mb5.9						
COP				MLR	MLR		
	comp=Z,6µm,17.0s,MS6.1						
COP	Copenhagen	87.40	334	i P	P	07 07 08.4	+1.1
	comp=Z,67nm,0.8s,mb5.9						
COP				i S	SKSac	07 17 20.9	-11
COP							
	comp=Z,6µm,17.0s						
W17A	Winslow	87.42	52	⇓P	P	07 07 07.7	-0.2
	baz=87						
Y16A	Circle Bar Ran	87.49	53	⇓P	P	07 07 08.4	+0.2
	baz=87,SNR=8.8						
ULM	Lac du Bonnet	87.50	33	P	P	07 07 07.0	-0.9
	comp=Z,7.0nm,1.0s,mb4.9,baz=282,slow=4.5,SNR=10.0						
ULM				LR	LR	07 52 37.6	
	comp=Z,8µm,18.3s,MS6.2,baz=317,slow=40						
ULM	Lac du Bonnet	87.50	33	P	P	07 07 07.0	-0.9
ULM				LR	LR	07 52 37.6	
214A	Organ Pipe Nat	87.50	55	⇓P	P	07 07 08.1	-0.2
	baz=87,SNR=11						
PSN	Preselentsi	87.52	319	i P	P	07 07 08.3	+0.1
115A	Sonoran Desert	87.55	54	⇑P	P	07 07 08.5	-0.1
	baz=87,SNR=15						
PHWY	Pilot Hill	87.56	44	eP	P	07 07 08.9	+0.5
	comp=Z,101nm,1.6s,mb5.8						
Q21A	Lamborn Mesa,	87.57	47	⇓P	P	07 07 08.4	-0.1
	baz=87						
HWQ	Hawqa	87.59	307	eP	P	07 07 07.9	-0.8
KOLS	Kolonicke sedl	87.59	325	eP	P	07 07 08.5	+0.1
KOLS				e	pP	07 07 19.4	-0.2
KOLS				eS	SKSac	07 17 26.7	-6.9
KOLS				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.2						
KOLS				MLR	MLR		
	comp=Z,31µm,19.3s,MS6.7						
KOLS	Kolonicke sedl	87.59	325	eP	P	07 07 08.5	+0.1
KOLS				esP	sP	07 07 19.4	-4.2
KOLS				eS	SKSac	07 17 26.7	-6.9
KOLS	Kolonicke sedl	87.59	325	eP	P	07 07 08.5	+0.1
	comp=Z,24nm,1.4s,mb5.2						
KOLS				e	pP	07 07 19.4	-0.2
KOLS				eS	SKSac	07 17 26.7	-6.9
KOLS				LR	LR		
	comp=Z,31µm,19.3s,MS6.7						
V18A	Ganado	87.64	51	⇑P	P	07 07 08.9	+0.1
	baz=88,SNR=12						
T19A	Beclabito	87.67	50	⇓P	P	07 07 08.6	-0.4
	baz=88,SNR=8.1						
X17A	Forest Lakes	87.74	52	⇓P	P	07 07 09.8	+0.4
	baz=88,SNR=7.8						
MLR	Muntele Rosu	87.75	321	⇓iP	P	07 07 09.8	+0.6
MLR	Muntele Rosu	87.75	321	P	P	07 07 09.5	+0.3
BMR	Baia Mare	87.75	324	⇑iP	P	07 07 08.8	-0.4
BMR	Baia Mare	87.75	324	P	P	07 07 10.3	+1.1
UZH	Uzhgorod	87.78	325	⇓iP	P	07 07 09.2	-0.1
UZH				i	pP	07 07 17.0	-3.4
UZH				e		07 10 30.0	
UZH				ePPP		07 12 31.0	
UZH				eS	S	07 17 46.2	-3.0
UZH				ePS		07 18 47.0	
UZH				eSSS		07 27 07.0	
UZH				MLR	MLR		
	comp=N,14µm,18.0s,MS6.7						
UZH				MLR	MLR		
	comp=E,21µm,18.0s,MS6.7						
UZH				MLR	MLR		
	comp=Z,15µm,18.0s,MS6.5						
STHS	Stebnicka Huta	87.80	326	eP	P	07 07 10.5	+1.1
STHS				e	pP	07 07 21.4	+0.8
STHS				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.3						
STHS	Stebnicka Huta	87.80	326	eP	P	07 07 10.5	+1.1
	comp=Z,21nm,1.1s,mb5.3						
STHS				e	pP	07 07 21.4	+0.8
Z16A	Peralta Trail,	87.81	54	⇑P	P	07 07 09.9	+0.2
	baz=88						
MVCO	Mesa Verde	87.83	49	⇓P	P	07 07 09.8	+0.1
	baz=88						
MVCO	Mesa Verde	87.83	49	eP	P	07 07 09.9	+0.1
	comp=Z,46nm,1.2s,mb5.6						
MVCO				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
SVRH	Sivrihisar-ESK	87.85	314	eP	P	07 07 05.4	-4.4
TRPA	Tarpa	87.97	324	⇑iP	P	07 07 10.4	+0.2
KDHN	Kadinhani	87.97	313	i P	P	07 07 09.0	-1.4
ASF	Jabal al Asfar	87.98	305	LR	LR	07 51 53.8	
	comp=Z,6µm,19.6s,MS6.0,baz=95,slow=39						
Q22A	Crested Butte,	87.99	47	⇓P	P	07 07 10.8	+0.3
	baz=88,SNR=18						
OJC	Ojcow	87.99	327	i P	P	07 07 10.2	-0.1
OJC				epP	pP	07 07 23.6	+2.2
OJC				eS	S	07 17 47.6	-3.5
OJC				eSS	SS	07 23 35.9	-2.3
OJC				L		07 49 59.5	
	comp=Z,25nm,20.5s						
BHL	Bhannes	87.99	307	eP	P	07 07 09.3	-1.3
116A	Eloy	88.00	54	⇓P	P	07 07 10.6	-0.1
	baz=88,SNR=9.6						
CRVS	Cervenica-Dubn	88.03	326	eP	P	07 07 11.0	+0.5
CRVS				e	pP	07 07 21.6	0.0
CRVS				e		07 10 32.6	
CRVS				eS	SKSac	07 17 37.6	+1.4
CRVS				pmax	pmax		
	comp=Z,83nm,1.4s,mb5.8						
CRVS				MLR	MLR		
	comp=Z,24µm,19.5s,MS6.6						
CRVS	Cervenica-Dubn	88.03	326	eP	P	07 07 11.0	+0.5
CRVS				esP	sP	07 07 21.6	-4.1
CRVS				ePP	PP	07 10 32.6	-3.9
CRVS				eS	SKSac	07 17 37.6	+1.4
CRVS	Cervenica-Dubn	88.03	326	eP	P	07 07 11.0	+0.5
	comp=Z,83nm,1.4s,mb5.8						
CRVS				e	pP	07 07 21.6	0.0
CRVS				ePP	PP	07 10 32.6	-3.9
CRVS				eS	SKSac	07 17 37.6	+1.4
CRVS				LR	LR		
	comp=Z,24µm,19.5s,MS6.6						
Y17A	Roosevelt	88.04	53	⇓P	P	07 07 10.8	-0.1
	baz=88,SNR=9.3						
MUD	Monsted U'grnd	88.05	336	i P	P	07 07 10.8	+0.4
	comp=Z,63nm,1.0s,mb5.8						
MUD							
	comp=Z,12µm,17.0s						
W18A	Petrified Fore	88.08	51	⇓P	P	07 07 11.2	+0.2
	baz=88						
SILT	Sile	88.09	316	eP	P	07 07 10.0	-0.9
KONT	Konya--Tatoy	88.12	312	eP	P	07 07 07.9	-3.2
EREN	Erenkoy	88.18	309	eP	P	07 07 09.6	-1.9
X18A	Snowflake	88.24	52	⇓P	P	07 07 11.8	0.0
	baz=88						
V19A	Window Rock	88.25	51	⇓P	P	07 07 12.0	+0.2
	baz=88						
NIE	Niedzica	88.26	326	eP	P	07 07 12.0	+0.4
VOIR		88.28	321	⇑iP	P	07 07 12.9	+1.1
VOIR		88.28	321	P	P	07 07 12.3	+0.6
BORA	Eskisehir	88.29	314	i P	P	07 07 10.9	-1.0
ISCO	Idaho Springs	88.31	46	eP	P	07 07 12.4	+0.4
ISCO				pmax	pmax		
	comp=Z,117nm,1.9s,mb5.8						
ISCO				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.2						
ISCO	Idaho Springs	88.31	46	eP	P	07 07 12.4	+0.4
	comp=Z,117nm,1.9s,mb5.8						
ISCO				LR	LR		
	comp=Z,10µm,20.0s,MS6.2						
W19A	Sanders	88.33	51	⇓P	P	07 07 12.6	+0.4
	baz=88						
KLYT	Kilyos	88.40	316	eP	P	07 07 10.0	-2.4
ADVT	Abdulvahap	88.43	315	eP	P	07 07 12.1	-0.5
R22A	Saguache, Gunn	88.43	47	⇑P	P	07 07 12.9	+0.3
	baz=88						
216A	Three Points,	88.47	55	⇓P	P	07 07 13.1	+0.2
	baz=88,SNR=7.8						
CAVI	Cavuskoy	88.50	315	eP	P	07 07 12.1	-0.8
ISK	Istanbul-Kandi	88.50	316	eP	P	07 07 12.1	-0.8
Z17A	San Carlos Hig	88.51	53	⇑P	P	07 07 13.5	+0.4
	baz=88						
HDMB	Hadim	88.57	311	eP	P	07 07 10.8	-2.5
YLV	Yalova	88.59	315	eP	P	07 07 12.0	-1.3
BGKT	Bogazkoy	88.61	316	eP	P	07 07 12.5	-0.9
MMAI	Mount Meron Ar	88.63	307	LR	LR	07 51 56.5	
	comp=Z,6µm,18.2s,MS6.0,baz=40,slow=39						
117A	Oracle	88.70	54	⇓P	P	07 07 14.1	+0.2
	baz=89						
DRGR		88.72	323	⇓iP	P	07 07 13.8	0.0
DRGR		88.72	323	P	P	07 07 14.0	+0.2
CTYL	Yal??k??y-??at	88.74	317	eP	P	07 07 13.3	-0.7
LFK	Lefkose	88.76	309	eP	P	07 07 12.5	-1.7
AGMN	Agassiz Refuge	88.78	35	eP	P	07 07 14.2	+0.2
	comp=Z,39nm,0.9s,mb5.7						
AGMN				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
GEMT	Gemlik	88.78	315	eP	P	07 07 12.5	-1.7
KECS	Kecovo	88.79	326	eP	P	07 07 14.2	+0.1
KECS				e	pP	07 07 25.9	+0.6
KECS				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.4						
KECS	Kecovo	88.79	326	eP	P	07 07 14.2	+0.1
	comp=Z,22nm,1.1s,mb5.4						
KECS				e	pP	07 07 25.9	+0.6
TUC	Tucson	88.80	54	eP	P	07 07 14.8	+0.3
TUC				e*PP	pP	07 07 24.6	-1.1
TUC				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.3						
TUC				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.2						
TUC	Tucson	88.80	54	eP	P	07 07 14.8	+0.4
	comp=Z,21nm,1.2s,mb5.3						
TUC				epP	pP	07 07 24.6	-1.0
TUC				LR	LR		
	comp=Z,9µm,19.0s,MS6.2						
ELBA	Catalca	88.84	316	i P	P	07 07 13.9	-0.5
RAC	Raciborz	88.85	328	eP	P	07 07 14.9	+0.6
RAC				e		07 17 39.7	
RAC				MLR	MLR		
	comp=N,21µm,18.0s,MS6.7						
RAC				MLR	MLR		
	comp=Z,14µm,16.0s,MS6.5						
RAC				MLR	MLR		
	comp=E,13µm,16.0s,MS6.7						
RAC	Raciborz	88.85	328	eP	P	07 07 14.9	+0.6
RAC				eSKSac	SKSac	07 17 39.7	-1.4
RAC				LR	LR		
	comp=Z,14µm,16.0s,MS6.5						
SLVT	Silivri	88.93	317	eP	P	07 07 13.3	-1.6
Z18A	Geronimo	88.94	53	⇑P	P	07 07 15.5	+0.4
	baz=89						
W20A	Ramah	88.94	51	⇑P	P	07 07 15.2	+0.2
	baz=89						
SHUT	Suhut-Afyon	88.97	313	eP	P	07 07 13.3	-1.8
ALT	Altintas	88.97	314	eP	P	07 07 15.0	-0.2
ULDT	Uludag	88.98	315	i P	P	07 07 14.8	-0.3
T22A	Edith	89.00	49	⇑P	P	07 07 15.6	+0.3
	baz=89						
Y19A	Nutrioso	89.03	52	⇓P	P	07 07 16.2	+0.6
	baz=89,SNR=5.8						
OKC	Ostrava-Krasne	89.04	328	eP	P	07 07 15.0	-0.2
OKC				AMS	AMS	07 51 10.0	
	comp=Z,21µm,15.5s						
217A	Green Valley	89.05	55	⇑P	P	07 07 16.2	+0.5
	baz=89						
CSS	Prodhromos	89.07	309	eP	P	07 07 15.7	+0.1
	comp=Z,52nm,1.0s,mb5.8						
CSS				LR	LR		
	comp=Z,16µm,20.0s,MS6.4						
SZH	Strazhica	89.09	319	i P	P	07 07 15.1	-0.5
JMB	Yambol	89.19	318	P	P	07 07 16.6	+0.5
JMB	Yambol	89.19	318	i P	P	07 07 16.5	+0.4
118A	Homack Ranch,	89.22	54	⇑P	P	07 07 16.7	+0.3
	baz=89						
KSP	Ksiaz	89.22	329	eP	P	07 07 16.4	+0.3
KSP				epP	pP	07 07 24.7	-2.5
KSP				ePP	PP	07 10 45.4	-0.6
KSP				eS	S	07 17 57.3	-5.4
KSP				eSS	SS	07 24 02.1	+6.2
KSP				LMZ		07 51 25.4	
	comp=Z,51µm,17.9s						
KSP	Ksiaz	89.22	329	⇑eP	P	07 07 16.2	+0.2
KSP				e		07 10 43.0	
KSP				eS	SKSac	07 17 47.6	+4.3
KSP				eSS	SS	07 23 55.0	-0.9
KSP	Ksiaz	89.22	329	⇑eP	P	07 07 16.2	+0.2
KSP				ePP	PP	07 10 43.0	-3.0
KSP				eS	SKSac	07 17 47.6	+4.3
KSP				eSS	SS	07 23 55.0	-0.9
KSP				LR	LR		
	comp=Z,58µm,17.9s,MS7.0						
LEF	Lefka	89.29	309	eP	P	07 07 15.0	-1.7
GDZ	Gediz	89.36	314	i P	P	07 07 15.6	-1.3
MORC	Moravsky Berou	89.37	328	eP	P	07 07 16.0	-0.8
MORC				pmax	pmax		
	comp=Z,68nm,1.4s,mb5.8						
MORC	Moravsky Berou	89.37	328	⇓iP	P	07 07 16.4	-0.4
MORC	Moravsky Berou	89.37	328	eP	P	07 07 16.0	-0.8
	comp=Z,68nm,1.4s,mb5.8						
Z19A	T-Link Ranch,	89.38	53	⇑P	P	07 07 17.8	+0.6
	baz=89						
MSEY	Mahe Island	89.39	264	PFAKE		07 07 30.0	+13
MSEY				LR	LR		
	comp=Z,6µm,22.0s,MS6.0						
ISP	Isparta	89.39	313	eP	P	07 07 14.2	-3.0
ISP	Isparta	89.39	313	c iP	P	07 07 15.6	-1.6
ISP				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.2						
ISP	Isparta	89.39	313	P	P	07 07 16.1	-1.1
ISP				LR	LR		
	comp=Z,10µm,22.0s,MS6.2						
EDRB	Edirne	89.46	318	eP	P	07 07 17.1	-0.3
PSZ	Piszkesteto	89.46	325	eP	P	07 07 17.2	0.0
PSZ				pmax	pmax		
	comp=Z,112nm,1.3s,mb6.0						
PSZ				MLR	MLR		
	comp=Z,46µm,19.0s,MS6.9						
PSZ	Piszkesteto	89.46	325	⇑iP	P	07 07 17.5	+0.3
PSZ	Piszkesteto	89.46	325	⇑ePcP	PcP	07 07 17.7	-0.9
PSZ	Piszkesteto	89.46	325	eP	P	07 07 17.2	0.0
	comp=Z,112nm,1.3s,mb6.0						
PSZ				LR	LR		
	comp=Z,46µm,19.0s,MS6.9						
TKR	Tekirdag	89.48	317	eP	P	07 07 16.2	-1.3
218A	Dragoon	89.51	54	⇑P	P	07 07 18.1	+0.3
	baz=89,SNR=6.2						
BSEG	Bad Segeberg	89.52	334	eP	P	07 07 17.2	-0.2
BSEG				e		07 10 48.5	
BSEG				e		07 17 44.6	
BSEG				eS	S	07 18 00.7	-4.7
BSEG				eSP	SP	07 19 16.0	+6.5
BSEG				pmax	pmax		
	comp=Z,99nm,0.9s,mb6.1						
BSEG	Bad Segeberg	89.52	334	eP	P	07 07 17.2	-0.2
	comp=Z,99nm,0.9s,mb6.1						
BSEG				ePP	PP	07 10 48.5	+0.2
BSEG				eSKSac	SKSac	07 17 44.6	-0.3
BSEG				eS	S	07 18 00.7	-4.7
BSEG				eSP	SP	07 19 16.0	+6.5
BSEG				eSS	SS	07 23 52.8	-7.3
SDCO	Great Sand Dun	89.53	47	eP	P	07 07 18.6	+0.8
	comp=Z,296nm,2.6s,mb6.2						
SDCO				LR	LR		
	comp=Z,9µm,19.0s,MS6.2						
W21A	San Fidel	89.53	50	⇑P	P	07 07 18.1	+0.3
	baz=89						
DPC	Dobruska-Polom	89.55	329	eP	P	07 07 17.5	-0.1
DPC				epP	pP	07 07 26.1	-2.7
DPC				ePP	PP	07 10 47.9	-0.7
DPC				eSKS		07 17 46.8	
DPC				ePS	PS	07 19 21.3	+6.5
DPC				AMS	AMS	07 52 20.0	
	comp=Z,24µm,15.4s						
BCK	Bucak	89.56	312	eP	P	07 07 15.0	-2.9
GZR	Gura Zlata	89.57	322	⇑iP	P	07 07 18.5	+0.7
GZR	Gura Zlata	89.57	322	P	P	07 07 18.2	+0.4
UPC	Upice	89.58	329	eP	P	07 07 17.8	+0.1
UPC				epP	pP	07 07 25.9	-3.0
UPC				ePP	PP	07 10 48.7	-0.2
VYHS	Vyhne	89.61	326	eP	P	07 07 18.3	+0.4
VYHS				e	pP	07 07 28.3	-0.8
VYHS				e		07 10 50.2	
VYHS				eS	SKSac	07 17 46.6	+0.9
VYHS				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.7						
VYHS				MLR	MLR		
	comp=Z,22µm,18.4s,MS6.6						
VYHS	Vyhne	89.61	326	eP	P	07 07 18.3	+0.4
VYHS				esP	sP	07 07 28.3	-4.8
VYHS				ePP	PP	07 10 50.2	+1.0
VYHS				eS	SKSac	07 17 46.6	+0.9
VYHS	Vyhne	89.61	326	eP	P	07 07 18.3	+0.4
	comp=Z,43nm,1.1s,mb5.7						
VYHS				e	pP	07 07 28.3	-0.8
VYHS				ePP	PP	07 10 50.2	+1.0
VYHS				eS	SKSac	07 17 46.6	+0.9
VYHS				LR	LR		
	comp=Z,22µm,18.4s,MS6.6						
119A	Ashpeak Ranch,	89.63	53	⇑P	P	07 07 18.5	+0.1
	baz=90						
DURS	Dursunbey	89.71	315	i P	P	07 07 17.9	-0.7
KHAL	Karahalli	89.76	314	i P	P	07 07 18.0	-0.8
KOLL	Kolacno	89.76	327	eP	P	07 07 19.1	+0.5
KOLL				esP	sP	07 07 28.8	-5.1
KOLL	Kolacno	89.76	327	eP	P	07 07 19.2	+0.6
KOLL				e	pP	07 07 28.8	-1.0
318A	Bisbee	89.83	55	⇓P	P	07 07 19.8	+0.5
	baz=90						
SART	Tekirdag	89.88	317	i P	P	07 07 19.0	-0.3
OGNE	Ogallala	89.88	43	eP	P	07 07 19.3	-0.1
OGNE				epP	pP	07 07 31.8	+1.2
OGNE				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
Z20A	Nine Sixteen R	89.95	53	⇓P	P	07 07 20.7	+0.9
	baz=90,SNR=18						
BZS	Buzias	90.06	323	⇑iP	P	07 07 19.4	-0.7
BZS	Buzias	90.06	323	P	P	07 07 20.0	-0.1
BALB	Balikesir	90.06	315	eP	P	07 07 18.3	-1.9
W22A	Albuquerque	90.09	50	⇓P	P	07 07 21.1	+0.6
	baz=90						
VRAC	Vranov	90.14	328	⇑iP	P	07 07 20.6	+0.2
VRAC	Vranov	90.14	328	P	P	07 07 20.9	+0.5
BALY	Balya	90.16	316	i P	P	07 07 19.5	-1.2
BUD	Budapest	90.19	326	⇑ePcP	PcP	07 07 20.6	-1.2
KULA	Kula-Manisa	90.21	314	eP	P	07 07 19.6	-1.4
PVCC	Panska Ves	90.22	330	eP	P	07 07 20.8	+0.1
PVCC				ex	x	07 10 45.3	
PVCC				eSKS		07 17 53.0	
PVCC				ex	x	07 19 30.5	
PVCC				AMS	AMS	07 53 10.0	
	comp=Z,26µm,15.5s						
120A	U Bar Ranch, L	90.22	53	⇑P	P	07 07 21.6	+0.5
	baz=90						
BRG	Berggiesshubel	90.25	330	i P	P	07 07 20.7	-0.2
BRG						07 17 50.0	
BRG				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.5						
BRG				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.5						
BRG				MLR	MLR		
	comp=N,9µm,16.0s,MS6.4						
BRG				MLR	MLR		
	comp=E,7µm,15.9s,MS6.4						
BRG				MLR	MLR		
	comp=Z,14µm,15.3s,MS6.5						
BRG	Berggiesshubel	90.25	330	eP	P	07 07 20.6	-0.3
	comp=Z,43nm,1.0s,mb5.7						
BRG				ePP	PP	07 10 54.0	-0.2
BRG				eSKSac	SKSac	07 17 49.5	+0.2
BRG				eS	S	07 18 07.9	-4.4
BRG				eSP	SP	07 19 24.6	+6.8
BRG				eSS	SS	07 24 03.2	-7.7
BRG	Berggiesshubel	90.25	330	i P	P	07 07 20.7	-0.2
	comp=Z,43nm,1.0s,mb5.7						
BRG				PP	PP	07 10 45.0	-9.2
BRG				SKS		07 17 50.0	
BRG				S	SKSac	07 17 53.0	+3.7
BRG				SS	SS	07 23 57.0	-14
BRG				ePKPPKP		07 33 32.3	
	comp=Z,5.0nm,1.3s						
BRG							
	comp=N,15µm,16.0s						
BRG							
	comp=E,11µm,15.9s						
BRG							
	comp=Z,23µm,15.3s						
BRG	Berggiesshubel	90.25	330	i P	P	07 07 20.7	-0.2
	comp=Z,26nm,1.0s,mb5.5						
BRG				PP	PP	07 10 45.0	-9.2
BRG				SKS		07 17 50.0	

Sta	Name	Dist	Az	Phase	ISC	Time	Res
BRG				S	SKSac	07 17 53.0	+3.7
BRG				SS	SS	07 23 57.0	-14
BRG				eP'P'		07 33 32.3	
BRG				LR	LR		
	comp=Z,14µm,15.3s,MS6.5						
LAZ	**Ladron**	90.27	51	eP	P	07 07 21.9	+0.6
	comp=Z,29nm,1.6s,mb5.4						
LAZ				epP	pP	07 07 32.0	-0.5
SMOL	**Smolenice**	90.28	327	eP	P	07 07 23.0	+1.9
SMOL				esP	sP	07 07 32.1	-4.2
MANT	**Manisa**	90.29	314	i P	P	07 07 20.3	-1.0
X22A	**Bernardo**	90.30	51	⇓P	P	07 07 22.0	+0.5
	baz=90						
MPEP	**Malo Peshtene**	90.30	320	i P	P	07 07 21.0	-0.3
LPK	**Lapseki**	90.32	316	eP	P	07 07 19.6	-1.9
CLL	**Collm**	90.35	331	⇑iP	P	07 07 20.8	-0.5
CLL				e	pP	07 07 32.0	-0.5
CLL				e		07 10 57.0	
CLL				eS	SKSac	07 17 54.0	+4.1
CLL				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.9						
CLL				MLR	MLR		
	comp=Z,20µm,17.9s,MS6.6						
CLL	**Collm**	90.35	331	eP	P	07 07 20.8	-0.5
	comp=Z,64nm,1.1s,mb5.9						
CLL				ePP	PP	07 10 54.8	-0.2
CLL				eSKSac	SKSac	07 17 48.9	-1.0
CLL				eS	S	07 18 08.3	-4.9
CLL				eSP	SP	07 19 24.8	+5.9
CLL				eSS	SS	07 24 03.5	-8.8
CLL	**Collm**	90.35	331	⇑iP	P	07 07 20.8	-0.5
	comp=Z,64nm,1.1s,mb5.9						
CLL				Pmax		07 07 22.0	
CLL				esP	sP	07 07 28.0	-8.6
CLL				e	pP	07 07 32.0	-0.5
CLL				i		07 07 38.0	
CLL				ePP	PP	07 10 57.0	+2.0
CLL				e		07 11 08.0	
CLL				ePPPP		07 14 36.0	
CLL				eSKSac	SKSac	07 17 54.0	+4.1
CLL				eS	S	07 18 22.0	+8.8
CLL				ePS	PS	07 19 24.0	+0.3
CLL				ePPS		07 19 58.0	
CLL				eSS	SS	07 24 11.0	-1.3
CLL				e		07 25 28.0	
CLL				e(SSS)		07 28 30.0	
CLL				eSSSS		07 31 22.0	
CLL				Lmax		07 58 00.0	
CLL	**Collm**	90.35	331	⇑iP	P	07 07 20.8	-0.5
	comp=Z,64nm,1.1s,mb5.9						
CLL				e		07 07 28.0	
CLL				e	pP	07 07 32.0	-0.5
CLL				ePP	PP	07 10 57.0	+2.0
CLL				eS	SKSac	07 17 54.0	+4.1
CLL				LR	LR		
	comp=Z,20µm,17.9s,MS6.6						
GOLH	**Golhisar**	90.36	313	i P	P	07 07 20.6	-1.1
319A	**Douglas**	90.38	54	⇑P	P	07 07 22.5	+0.6
	baz=90						
ELL	**Elmali**	90.41	312	eP	P	07 07 20.4	-1.5
ANMO	**Albuquerque**	90.44	50	eP	P	07 07 23.0	+0.9
ANMO				pmax	pmax		
	comp=Z,64nm,1.1s						
ANMO				MLR	MLR		
	comp=Z,7µm,19.0s						
ANMO	**Albuquerque**	90.44	50	eP	P	07 07 23.0	+1.0
	comp=Z,64nm,1.1s,mb5.9						
ANMO				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
ALN	**Alexandroupoli**	90.45	317	P	P	07 07 21.2	-0.8
MODS	**Modra-Piesok**	90.45	327	eP	P	07 07 22.6	+0.7
MODS				ePP	PP	07 10 58.6	+2.7
MODS				eS	SKSac	07 17 51.2	+0.6
MODS	**Modra-Piesok**	90.45	327	eP	P	07 07 22.6	+0.7
	comp=Z,36nm,1.3s,mb5.5						
MODS				ePP	PP	07 10 58.6	+2.7
MODS				eS	SKSac	07 17 51.2	+0.6
MODS				LR	LR		
	comp=Z,14µm,20.1s,MS6.4						
ENEZ	**Enez**	90.48	317	eP	P	07 07 20.8	-1.3
PLD	**Plovdiv**	90.52	319	P	P	07 07 22.1	-0.2
PLD	**Plovdiv**	90.52	319	i P	P	07 07 22.0	-0.3
AKHS	**Akhisar**	90.54	315	i P	P	07 07 21.6	-0.8
PRU	**Pruhonice**	90.61	329	eP	P	07 07 22.6	0.0
PRU				epP	pP	07 07 31.4	-2.4
PRU				ePP	PP	07 10 55.5	-1.6
PRU				eSKS		07 17 54.1	
PRU				eSP	SP	07 19 25.9	+4.0
PRU				AMS	AMS	07 53 00.0	
	comp=Z,27µm,15.8s						
220A	**Playas Peak, P**	90.64	54	⇑P	P	07 07 23.7	+0.6
	baz=90						
ZST	**Bratislava**	90.66	327	eP	P	07 07 24.3	+1.5
ZST				e	pP	07 07 34.6	+0.6
ZST				eS	SKSac	07 17 53.2	+1.4
ZST				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.6						
ZST				MLR	MLR		
	comp=Z,10µm,18.5s,MS6.3						
ZST	**Bratislava**	90.66	327	eP	P	07 07 24.3	+1.5
ZST				esP	sP	07 07 34.6	-3.5
ZST				eS	SKSac	07 17 53.2	+1.4
ZST	**Bratislava**	90.66	327	eP	P	07 07 24.3	+1.5
	comp=Z,23nm,0.8s,mb5.6						
ZST				e	pP	07 07 34.6	+0.6
ZST				eS	SKSac	07 17 53.2	+1.4
ZST				LR	LR		
	comp=Z,10µm,18.5s,MS6.3						
TREC	**Trest**	90.67	328	eP	P	07 07 22.7	-0.1
TREC				e		07 17 55.5	
TREC				MLR	MLR		
	comp=Z,18µm,15.2s,MS6.6						
TREC	**Trest**	90.67	328	eP	P	07 07 22.7	-0.1
TREC				eSKS		07 17 55.5	
TREC				ex	x	07 19 37.3	
TREC				AMS	AMS	07 52 40.0	
	comp=Z,18µm,15.2s						
NRDL	**Niedersach Rie**	90.69	333	eP	P	07 07 23.4	+0.5
	comp=Z,30nm,0.9s,mb5.6						
NRDL				ePP	PP	07 10 57.5	-0.1
NRDL				eSKSac	SKSac	07 17 51.6	-0.2
NRDL				eS	S	07 18 11.2	-5.1
NRDL				eSP	SP	07 19 28.9	+6.4
NRDL				eSS	SS	07 24 07.7	-9.3
BNM	**Barren Site**	90.76	51	eP	P	07 07 24.1	+0.5
	comp=Z,57nm,1.7s,mb5.6						
RZN	**Rozhen**	90.76	318	i P	P	07 07 22.9	-0.6
121A	**Cookes Peak, D**	90.83	53	⇓P	P	07 07 24.3	+0.4
	baz=91,SNR=8.3						
AKAS	**Kas**	90.90	312	i P	P	07 07 22.6	-1.6
EZN	**Ezine**	90.92	316	eP	P	07 07 23.1	-1.1
320A	**Kipp Ranch, An**	90.94	54	⇑P	P	07 07 25.1	+0.6
	baz=91						
GADA	**Gvkgeada**	90.96	317	eP	P	07 07 22.5	-1.9
FETY	**Fethiye**	91.02	312	eP	P	07 07 22.5	-2.3
CLZ	**Clausthal**	91.07	333	eP	P	07 07 24.7	+0.1
CLZ				e		07 11 00.6	
CLZ				e		07 17 54.4	
CLZ				eS	S	07 18 15.6	-4.2
CLZ				eSP	SP	07 19 33.7	+6.9
CLZ				pmax	pmax		
	comp=Z,66nm,0.9s,mb6.0						
CLZ	**Clausthal**	91.07	333	eP	P	07 07 24.7	+0.1
	comp=Z,66nm,0.9s,mb6.0						
CLZ				ePP	PP	07 11 00.6	0.0
CLZ				eSKSac	SKSac	07 17 54.4	+0.4
CLZ				eS	S	07 18 15.6	-4.2
CLZ				eSP	SP	07 19 33.7	+6.9
CLZ				eSS	SS	07 24 15.4	-7.2
BOZC	**Bozcaada**	91.07	316	i P	P	07 07 23.7	-1.2
VTS	**Vitosha**	91.09	320	P	P	07 07 25.0	+0.1
VTS	**Vitosha**	91.09	320	i P	P	07 07 23.8	-1.1
VTS	**Vitosha**	91.09	320	i P	P	07 07 24.9	0.0
221A	**Mesquite Ranch**	91.12	53	⇑P	P	07 07 26.0	+0.7
	baz=91						
EYMN	**Ely**	91.18	33	eP	P	07 07 24.7	-0.5
	comp=Z,37nm,1.1s,mb5.6						
EYMN				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
TURN	**Turunc**	91.20	313	i P	P	07 07 25.8	+0.2
AYDN	**Tasoluk**	91.21	314	i P	P	07 07 25.4	-0.2
PKSM	**Moragy**	91.23	325	⇑iP	P	07 07 25.0	-0.5
PKSM	**Moragy**	91.23	325	P	P	07 07 25.4	-0.1
DALT	**Dalyan (Mudla)**	91.23	313	eP	P	07 07 23.7	-2.0
TANN	**Tannenbergstha**	91.24	331	eP	P	07 07 25.3	-0.2
	comp=Z,133nm,2.1s,mb5.9						
TANN				ePP	PP	07 11 01.7	-0.3
TANN				eSKSac	SKSac	07 17 55.5	+0.5
TANN				eS	S	07 18 17.8	-3.6
TANN				eSP	SP	07 19 34.9	+6.2
TANN				eSS	SS	07 24 17.8	-7.3
SOP	**Sopron**	91.28	327	⇑ePcP	PcP	07 07 25.8	-0.9
PRK	**Paraskevi**	91.30	316	P	P	07 07 25.4	-0.6
122A	**Conniff Cattle**	91.30	52	⇓P	P	07 07 27.0	+0.9
	baz=91						
BLCB	**Balcova**	91.32	315	eP	P	07 07 24.6	-1.6
BLCB	**Balcova**	91.32	315	P	P	07 07 25.3	-0.8
ECSD	**EROS Data Cent**	91.33	38	eP	P	07 07 25.4	-0.6
	comp=Z,37nm,1.1s,mb5.6						
ECSD				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
NKC	**Novy Kostel**	91.38	331	eP	P	07 07 26.1	0.0
NKC				eSKS		07 17 57.5	
NKC				ex	x	07 19 44.8	
NKC				AMS	AMS	07 52 10.0	
	comp=Z,22µm,17.1s						
NKC	**Novy Kostel**	91.38	331	eP	P	07 07 26.1	0.0
NKC				eSKS		07 17 57.5	
NKC				e		07 19 44.8	
MMB	**Musomiste**	91.41	319	i P	P	07 07 26.2	-0.2
MOX	**Moxa**	91.44	331	eP	P	07 07 26.0	-0.4
	comp=Z,77nm,1.6s,mb5.8						
MOX				ePP	PP	07 10 59.5	-4.1
MOX				eSKS		07 17 59.0	
MOX				eSS	SS	07 24 23.0	-4.9
MOX							
	comp=Z,11µm,18.0s						
MOX	**Moxa**	91.44	331	eP	P	07 07 26.0	-0.4
MOX				e		07 10 59.5	
MOX				e		07 17 59.0	
MOX				eSS	SS	07 24 23.0	-4.9
MOX				pmax	pmax		
	comp=Z,77nm,1.6s,mb5.8						
MOX				MLR	MLR		
	comp=Z,11µm,18.0s,MS6.3						
MOX	**Moxa**	91.44	331	eP	P	07 07 26.1	-0.3
	comp=Z,138nm,2.0s,mb5.9						
MOX				ePP	PP	07 11 03.2	-0.4
MOX				eSKSac	SKSac	07 17 56.6	+0.5
MOX				eS	S	07 18 19.2	-4.0
MOX				eSP	SP	07 19 36.7	+5.8
MOX				eSS	SS	07 24 20.4	-7.5
CONA	**Conrad Observa**	91.45	327	i PcP	PcP	07 07 26.7	-0.6
	comp=Z,137nm,1.7s,SNR=27						
CSNA	**Conrad Observa**	91.45	327	⇓iPcP	PcP	07 07 26.8	-0.6
	comp=Z,133nm,1.6s						
MDO	**Dochfour**	91.49	343	eP	P	07 07 27.1	+0.6
MLSB	**Milas**	91.49	314	eP	P	07 07 25.8	-1.1
222A	**Williams Famil**	91.55	53	⇑P	P	07 07 27.9	+0.6
	baz=91						
LIA	**Limnos Island**	91.57	317	P	P	07 07 26.3	-1.0
SIGR	**SIGRI**	91.57	316	P	P	07 07 26.1	-1.2
GCAM	**G?zelcaml?**	91.60	314	i P	P	07 07 26.8	-0.6
KKB	**Krupnik**	91.61	319	i P	P	07 07 28.7	+1.3
LOS	**Limnos**	91.61	317	P	P	07 07 26.8	-0.6
URLA	**Izmir**	91.62	315	i P	P	07 07 26.2	-1.3
KHC	**Kasperske Hory**	91.67	329	eP	P	07 07 27.1	-0.4
KHC				e	pP	07 07 39.0	+0.3
KHC				e		07 18 01.8	
KHC				MLR	MLR		
	comp=Z,27µm,15.8s,MS6.8						
KHC	**Kasperske Hory**	91.67	329	eP	P	07 07 27.1	-0.4
KHC				epP	pP	07 07 35.1	-3.6
KHC				ex	x	07 07 39.0	
KHC				ex	x	07 10 48.7	
KHC				eSKS		07 18 01.8	
KHC				AMS	AMS	07 52 50.0	
	comp=Z,27µm,15.8s						
KAC	**Achnashellach**	91.68	343	eP	P	07 07 27.5	+0.2
MANZ	**Manzenberg**	91.70	331	eP	P	07 07 27.6	0.0
	comp=Z,158nm,2.2s,mb6.0						
MANZ				ePP	PP	07 11 05.4	-0.3
MANZ				eSKSac	SKSac	07 17 59.5	+1.8
MANZ				eS	S	07 18 22.5	-3.1
MANZ				eSP	SP	07 19 40.3	+6.3
MANZ				eSS	SS	07 24 25.0	-6.8
IBBN	**Ibbenburen**	91.76	334	eP	P	07 07 29.0	+1.1
	comp=Z,280nm,2.0s,mb6.2						
IBBN				ePP	PP	07 11 05.6	-0.5
IBBN				eS	S	07 18 20.8	-5.2
IBBN				eSP	SP	07 19 41.2	+6.7
IBBN				eSS	SS	07 24 22.3	-10
SRS	**Serrai**	91.78	319	P	P	07 07 27.3	-0.9
GEC2	**GERESS Array S**	91.82	329	eP	P	07 07 27.8	-0.4
GEC2				e		07 11 06.1	
GEC2				e		07 17 59.5	
GEC2				eS	S	07 18 23.4	-3.3
GEC2				eSP	PS	07 20 04.8	+25
GEC2				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.7						
GEC2	**GERESS Array S**	91.82	329	eP	P	07 07 27.8	-0.4
	comp=Z,37nm,1.0s,mb5.7						
GEC2				ePP	PP	07 11 06.1	-0.5
GEC2				eSKSac	SKSac	07 17 59.5	+1.2
GEC2				eS	S	07 18 23.4	-3.3
GEC2				eSP	PS	07 20 04.8	+25
GEC2				eSS	SS	07 24 26.8	-6.7
GERES	**GERESS Array B**	91.82	329	P	P	07 07 27.8	-0.4
GERES						07 11 04.8	
GERES	**GERESS Array B**	91.82	329	P	P	07 07 27.8	-0.4
	comp=Z,18nm,0.8s,mb5.5,baz=51,slow=5.3,SNR=35						
GERES				PP	PP	07 11 04.8	-1.8
	comp=Z,2.3nm,0.8s,baz=40,slow=9.3,SNR=3.2						
GERES				LR	LR	07 53 06.8	
	comp=Z,25µm,18.3s,MS6.7,baz=45,slow=38						
ROTZ	**Rotzenmuhle**	91.82	330	eP	P	07 07 28.5	+0.3
	comp=Z,74nm,1.2s,mb5.9						
ROTZ				ePP	PP	07 11 06.8	+0.2
ROTZ				eSKSac	SKSac	07 18 00.0	+1.7
ROTZ				eS	S	07 18 23.8	-2.9
ROTZ				eSP	SP	07 19 41.9	+6.6
ROTZ				eSS	SS	07 24 27.5	-6.0
KPL	**Plockton**	91.91	343	eP	P	07 07 28.6	+0.2
KPL				AMb	AMB	07 07 32.0	
	comp=Z,152nm,1.6s,mb6.1						
DIVS	**Divibare**	91.92	323	P	P	07 07 28.3	-0.5
BODT	**Bodrum**	91.93	314	eP	P	07 07 27.5	-1.5
CHOS	**Chios island**	91.94	315	P	P	07 07 28.3	-0.7
DAT	**Datca**	91.95	313	eP	P	07 07 27.1	-2.0
WET	**Wettzell**	91.98	330	eP	P	07 07 28.9	0.0
WET				e		07 11 07.7	
WET				e		07 18 01.0	
WET				eS	S	07 18 25.3	-2.8
WET				eSP	SP	07 19 44.8	+7.8
WET				eSS	SS	07 24 29.8	-6.0
WET				pmax	pmax		
	comp=Z,99nm,2.0s,mb5.8						
WET	**Wettzell**	91.98	330	eP	P	07 07 28.9	0.0
	comp=Z,99nm,2.0s,mb5.8						
WET				ePP	PP	07 11 07.7	-0.2
WET				eSKSac	SKSac	07 18 01.0	+1.8
WET				eS	S	07 18 25.3	-2.8
WET				eSP	SP	07 19 44.8	+7.8
WET				eSS	SS	07 24 29.8	-6.0
UBBA	**Unterbreizbach**	91.99	332	eP	P	07 07 28.6	-0.3
	comp=Z,46nm,1.5s,mb5.6						
UBBA				ePP	PP	07 11 07.5	-0.4
UBBA				eSKSac	SKSac	07 18 00.2	+1.0
UBBA				eS	S	07 18 23.7	-4.5
UBBA				eSP	SP	07 19 44.2	+7.1
UBBA				eSS	SS	07 24 27.8	-8.1
ARSA	**Arzberg**	92.08	327	⇑iPcP	PcP	07 07 29.4	-0.8
	comp=Z,66nm,1.2s,SNR=18						
SOH	**Sokhos**	92.11	318	P	P	07 07 28.8	-0.9
KNT	**Kendrikon**	92.16	319	P	P	07 07 29.5	-0.4
VAY	**Valandovo**	92.25	319	P	P	07 07 29.4	-1.0
MOA	**Molln**	92.26	328	⇑iPcP	PcP	07 07 30.3	-0.7
	comp=Z,67nm,1.0s,SNR=16						
KOGS	**Kog**	92.28	326	eP	P	07 07 29.8	-0.6
GRA1	**Grafenberg Arr**	92.31	331	eP	P	07 07 30.6	+0.2
	comp=Z,102nm,1.0s,mb6.1						
GRA1				ePP	PP	07 11 10.1	-0.4
GRA1				eSKSac	SKSac	07 18 03.1	+2.0
GRA1				eS	S	07 18 27.3	-3.8
GRA1				eSP	SP	07 19 48.2	+7.5
GRA1				eSS	SS	07 24 32.4	-8.1
GRA1				LR	LR		
	comp=Z,11µm,18.8s,MS6.3						
GRF	**Grafenberg Arr**	92.31	331	eP	P	07 07 30.6	+0.2
GRF				e		07 11 10.1	
GRF				e		07 18 03.1	
GRF				eS	S	07 18 27.3	-3.8
GRF				eSP	SP	07 19 48.2	+7.5
GRF				pmax	pmax		
	comp=Z,102nm,1.0s,mb6.1						
GRF	**Grafenberg Arr**	92.31	331	eP	P	07 07 30.6	+0.2
GRF				e		07 11 10.1	
GRF				e		07 18 03.1	
GRF				eS	S	07 18 27.3	-3.8
GRF				eSP	SP	07 19 48.2	+7.5
GRF				pmax	pmax		
	comp=Z,102nm,1.0s,mb6.1						
GRF				MLR	MLR		
	comp=Z,11µm,18.8s,MS6.3						
GRF	**Grafenberg Arr**	92.31	331	eP	P	07 07 30.6	+0.2
	comp=Z,102nm,1.0s,mb6.1						
GRF				ePP	PP	07 11 10.1	-0.4
GRF				eSKSac	SKSac	07 18 03.1	+2.0
GRF				eS	S	07 18 27.3	-3.8
GRF				eSP	SP	07 19 48.2	+7.5
GRF				eSS	SS	07 24 32.5	-8.0
GRF				eL		07 55 52.0	
	comp=Z,11µm,18.8s						
ESY	**Stoneypath**	92.32	341	eP	P	07 07 30.5	+0.2
PLG	**Polygyros**	92.33	318	P	P	07 07 30.0	-0.7
HORT	**Hortiatis**	92.40	318	P	P	07 07 29.9	-1.1
PAIG	**Paliouri**	92.47	318	P	P	07 07 30.4	-1.0
SKO	**Skopje**	92.49	320	P	P	07 07 31.9	+0.4
EBL	**Broad Law**	92.57	341	eP	P	07 07 31.7	+0.2
CBKS	**Cedar Bluff**	92.58	44	eP	P	07 07 31.7	-0.2
CBKS				pmax	pmax		
	comp=Z,78nm,1.3s,mb6.0						
CBKS				MLR	MLR		
	comp=Z,7µm,21.0s,MS6.1						
CBKS	**Cedar Bluff**	92.58	44	eP	P	07 07 31.7	-0.2
	comp=Z,78nm,1.3s,mb6.0						
CBKS				LR	LR		
	comp=Z,7µm,21.0s,MS6.1						
EAB	**Aberfoyle**	92.58	342	eP	P	07 07 30.8	-0.7
GRG	**Griva**	92.58	319	P	P	07 07 30.9	-1.0
EAU	**Auchinoon**	92.62	342	eP	P	07 07 31.2	-0.6
BUG	**Bochum--Univer**	92.63	334	eP	P	07 07 31.2	-0.7
	comp=Z,57nm,1.2s,mb5.9						
BUG				ePP	PP	07 11 11.8	-1.1
BUG				eSKSac	SKSac	07 18 03.8	+1.0
BUG				eS	S	07 18 29.1	-4.7
BUG				eSP	SP	07 19 51.6	+7.5
BUG				eSS	SS	07 24 34.2	-11
PERS	**Pernice**	92.71	327	eP	P	07 07 31.8	-0.5
SOKA	**Soboth**	92.72	327	⇑iPcP	PcP	07 07 32.2	-0.9
	comp=Z,92nm,1.3s						
ESK	**Eskdalemuir**	93.01	341	PFAKE		07 07 40.0	+6.4
ESK				LR	LR		
	comp=Z,10µm,22.0s,MS6.2						
RJOB	**Jochberg**	93.03	329	eP	P	07 07 33.8	0.0
	comp=Z,48nm,0.9s,mb5.9						
RJOB				ePP	PP	07 11 16.6	+0.4
RJOB				eS	S	07 18 33.6	-4.0
RJOB				eSP	SP	07 19 55.4	+6.6
RJOB				eSS	SS	07 24 46.5	-4.5
LIT	**Litokhoron**	93.07	318	P	P	07 07 32.9	-1.3
OBKA	**Obir**	93.08	327	⇑iPcP	PcP	07 07 33.6	-1.1
	comp=Z,21nm,0.8s,SNR=7.5						
TNS	**Taunus Mts**	93.09	332	eP	P	07 07 33.9	-0.1
TNS				e		07 11 16.5	
TNS				e		07 18 07.3	
TNS				eS	S	07 18 35.0	-3.0
TNS				eSP	SP	07 19 56.9	+7.6
TNS				pmax	pmax		
	comp=Z,161nm,2.1s,mb6.1						
TNS	**Taunus Mts**	93.09	332	eP	P	07 07 33.9	-0.1
	comp=Z,161nm,2.1s,mb6.1						
TNS				ePP	PP	07 11 16.5	-0.1
TNS				eSKSac	SKSac	07 18 07.3	+1.9
TNS				eS	S	07 18 35.0	-3.0
TNS				eSP	SP	07 19 56.9	+7.6
TNS				eSS	SS	07 24 45.0	-6.6
XOR	**Xorichti**	93.11	317	P	P	07 07 32.9	-1.5
KBA	**Koelnbreinsper**	93.25	328	⇑iPcP	PcP	07 07 34.2	-1.2
	comp=Z,48nm,0.8s,SNR=9.9						
DRV	**Dumont d'Urvil**	93.27	181	P	P	07 07 34.0	-0.2
DRV				S	SKSac	07 18 04.0	-1.0
DRV				R		07 39 00.0	
FNA	**Florina**	93.29	319	P	P	07 07 34.1	-1.1
TOD	**Tromm**	93.41	332	eP	P	07 07 35.2	-0.3
FUR	**Furstenfeldbru**	93.42	330	eP	P	07 07 35.6	0.0
FUR				e		07 11 19.1	
FUR				e		07 18 07.0	
FUR				eS	S	07 18 36.6	-4.3
FUR				eSP	SP	07 19 59.4	+6.4
FUR				pmax	pmax		
	comp=Z,126nm,1.1s,mb6.3						
FUR	**Furstenfeldbru**	93.42	330	eP	P	07 07 35.6	0.0
	comp=Z,126nm,1.1s,mb6.3						
FUR				ePP	PP	07 11 19.1	-0.1
FUR				eSKSac	SKSac	07 18 07.0	-0.3
FUR				eS	S	07 18 36.6	-4.3
FUR				eSP	SP	07 19 59.4	+6.4
FUR				eSS	SS	07 24 50.8	-5.6
LJU	**Ljubljana**	93.42	327	eP	P	07 07 35.0	-0.7
LJU				ePP	PP	07 11 21.5	+2.2
LJU				eSKSac	SKSac	07 18 01.5	-5.8
LJU				e		07 20 04.5	
MYKA	**Terra Mystica**	93.43	327	⇑iPcP	PcP	07 07 34.7	-1.6
	comp=Z,37nm,0.7s						
BOJS	**Bojanci**	93.44	326	eP	P	07 07 35.4	-0.4
LKR	**Lokris**	93.68	317	P	P	07 07 35.1	-1.9
AMTX	**Amarillo**	93.69	48	eP	P	07 07 37.4	+0.2
	comp=Z,110nm,1.3s,mb6.1						
AMTX				LR	LR		
	comp=Z,11µm,20.0s,MS6.3						
THL	**Klokotos Trika**	93.69	318	P	P	07 07 34.7	-2.3
HPK	**Haverah Park**	93.71	340	eP	P	07 07 37.3	+0.5
HPK				AMb	AMB	07 07 47.6	
	comp=Z,118nm,1.8s,mb6.0						
ABH	**Alteburg**	93.72	333	eP	P	07 07 36.7	-0.2
PTCC	**Patocco-Chiusa**	93.73	327	P	P	07 07 35.6	-1.5
BEBN	**Eben Emael**	93.75	334	P	P	07 07 37.2	+0.1
MEM	**Membach**	93.77	334	P	P	07 07 37.4	+0.2
	comp=Z,52nm,2.1s,mb5.6						
TIR	**Tirane**	93.80	321	eP	P	07 07 37.9	+0.4
TIR				e*PP	pP	07 07 47.6	-1.1
TIR				MLR	MLR		
	comp=Z,25µm,19.0s,MS6.7						
GAL1	**Galloway**	93.83	342	eP	P	07 07 38.0	+0.6
GAL1				AMb	AMB	07 07 38.2	
	comp=Z,119nm,1.4s,mb6.1						
STU	**Stuttgart**	93.88	331	eP	P	07 07 38.4	+0.7
STU				pmax	pmax		
	comp=Z,71nm,0.9s,mb6.1						
STU	**Stuttgart**	93.88	331	eP	P	07 07 37.4	-0.3
	comp=Z,73nm,1.1s,mb6.0						
STU				ePP	PP	07 11 22.8	0.0
STU				eSKSac	SKSac	07 18 09.5	-0.3
STU				eS	S	07 18 41.5	-3.5
STU				eSS	SS	07 24 56.5	-6.5
STU	**Stuttgart**	93.88	331	eP	P	07 07 38.4	+0.7
	comp=Z,71nm,0.9s,mb6.1						
ABTA	**Abfaltersbach**	93.89	328	⇓iPcP	PcP	07 07 36.6	-1.7
	comp=Z,49nm,1.0s,SNR=11						
WATA	**Walderalm**	93.89	329	⇑ipP	pP	07 07 40.6	-8.4
	comp=Z,22nm,0.9s						
WTTA	**Wattenberg**	93.92	329	⇑iPcP	PcP	07 07 37.2	-1.2
	comp=Z,63nm,1.4s						
RKT	**Rikitea**	93.98	114	ePP	PP	07 11 20.9	-4.2
	comp=Z,530nm,26.2s						
RKT				eSKSac	SKSac	07 18 08.7	-2.2
	comp=Z,6µm,26.5s						
RKT				eSS	SS	07 25 06.8	-0.5
	comp=Z,5µm,26.8s						
RKT				eLR	LR	07 38 00.6	
	comp=Z,12µm,29.8s,baz=314						
SKDS	**Skadanscina**	94.03	327	eP	P	07 07 37.8	-0.7
RUP	**Ruppelstein**	94.06	333	eP	P	07 07 38.4	-0.1
LTK	**Loutraki**	94.09	316	P	P	07 07 36.5	-2.4
LHO	**Holmfirth**	94.13	340	eP	P	07 07 37.9	-0.8
RETA	**Reutte**	94.15	329	⇑iPcP	PcP	07 07 38.7	-0.7
	comp=Z,49nm,1.5s,SNR=12						

BCLA	**Clavier**	**94.20**	**334**	P	**P**	**07 07 38.8**	**-0.3**
	comp=Z,32nm,2.0s,mb5.4						
DID	**Didima**	**94.24**	**316**	P	**P**	**07 07 35.9**	**-3.7**
KSU1	**Kansas State U**	**94.30**	**42**	*e*P	**P**	**07 07 36.8**	**-3.0**
	comp=Z,47nm,0.9s,mb5.9						
KSU1				LR	LR		
	comp=Z,7µm,20.0s,MS6.1						
LANF	**Langenberg**	**94.31**	**332**	*e*P	**P**	**07 07 39.5**	**-0.2**
KALE	**Kalithea**	**94.36**	**317**	P	**P**	**07 07 38.2**	**-1.9**
SCIA	**State Center**	**94.41**	**38**	*e*P	**P**	**07 07 40.5**	**+0.3**
	comp=Z,76nm,1.3s,mb6.0						
SCIA				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
WLF	**Walferdange**	**94.46**	**333**	P	**P**	**07 07 40.2**	**-0.1**
	comp=Z,54nm,1.8s,mb5.7						
WLF	**Walferdange**	**94.46**	**333**	*e*P	**P**	**07 07 40.9**	**+0.6**
WLF				pmax	pmax		
	comp=Z,57nm,1.0s,mb6.0						
WLF				MLR	MLR		
	comp=Z,10µm,19.0s,MS6.3						
WLF	**Walferdange**	**94.46**	**333**	*e*P	**P**	**07 07 40.5**	**+0.2**
	comp=Z,75nm,1.3s,mb6.0						
WLF				*e*PP	PP	07 11 27.4	+0.2
WLF				*e*SKSac	SKSac	07 18 14.4	+1.5
WLF				*e*S	S	07 18 46.5	-3.5
WLF				*e*SS	SS	07 25 06.8	-4.3
WLF	**Walferdange**	**94.46**	**333**	*e*P	**P**	**07 07 40.9**	**+0.5**
	comp=Z,57nm,1.0s,mb6.0						
WLF				LR	LR		
	comp=Z,10µm,19.0s,MS6.3						
FETA	**Feichten**	**94.51**	**329**⇑	*i*PcP	PcP	07 07 40.3	-0.7
	comp=Z,32nm,1.2s,SNR=9.6						
SNF	**Seneffe**	**94.52**	**335**	P	**P**	**07 07 40.4**	**-0.2**
	comp=Z,51nm,3.1s						
LAKA	**Lakka**	**94.56**	**317**	P	**P**	**07 07 40.0**	**-1.0**
SPAK	**Spaichingen-Ko**	**94.57**	**331**	*e*P	**P**	**07 07 41.7**	**+0.8**
BFO	**Black Forest**	**94.59**	**331**	*e*P	**P**	**07 07 40.5**	**-0.5**
BFO				*e*		07 11 28.3	
BFO				*e*		07 18 13.1	
BFO				*e*S	S	07 18 47.6	-3.6
BFO				pmax	pmax		
	comp=Z,56nm,1.0s,mb6.0						
BFO	**Black Forest**	**94.59**	**331**	*e*P	**P**	**07 07 40.5**	**-0.5**
	comp=Z,56nm,1.0s,mb6.0						
BFO				*e*PP	PP	07 11 28.3	0.0
BFO				*e*SKSac	SKSac	07 18 13.1	-0.5
BFO				*e*S	S	07 18 47.6	-3.6
BFO				*e*SS	SS	07 25 05.5	-7.6
GIVF	**Givet**	**94.64**	**334**	*e*P	**P**	**07 07 40.6**	**-0.5**
CWF	**Charnwood Fore**	**94.65**	**339**	*e*P	**P**	**07 07 41.0**	**-0.1**
CWF				AMb	AMB	07 07 53.7	
	comp=Z,91nm,1.4s,mb6.0						
DAVA	**Damuels**	**94.70**	**330**	*i* PcP	PcP	07 07 41.4	-0.4
	comp=Z,68nm,1.1s,SNR=14						
DOU	**Dourbes**	**94.73**	**334**	P	**P**	**07 07 42.5**	**+0.9**
CTI	**Castel Tesino**	**94.81**	**328**	P	**P**	**07 07 40.5**	**-1.5**
SCHQ	**Schefferville**	**94.82**	**16**	P	**P**	**07 07 40.9**	**-1.0**
	comp=Z,4.9nm,0.8s,mb5.0,baz=359,slow=3.9,SNR=8.7						
SCHQ				PP	PP	07 11 32.0	+2.2
	comp=Z,4.8nm,0.9s,baz=33,slow=1.1,SNR=3.9						
SCHQ				LR	LR	07 56 49.0	
	comp=Z,5µm,18.3s,MS6.0,baz=341,slow=40						
BAIF	**Baives**	**94.91**	**334**	*e*P	**P**	**07 07 41.8**	**-0.6**
	comp=Z,50nm,1.2s,mb5.5						
BAIF	**Baives**	**94.91**	**334**	*e*P	**P**	**07 07 41.8**	**-0.6**
BAIF				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.5						
BAIF	**Baives**	**94.91**	**334**	*e*P	**P**	**07 07 41.8**	**-0.6**
	comp=Z,25nm,1.2s,mb5.5						
CDF	**Champ du Feu**	**94.97**	**332**	*e*P	**P**	**07 07 42.3**	**-0.4**
	comp=Z,98nm,0.9s,mb5.9						
CDF	**Champ du Feu**	**94.97**	**332**	*e*P	**P**	**07 07 42.3**	**-0.4**
CDF				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.9						
CDF	**Champ du Feu**	**94.97**	**332**	*e*P	**P**	**07 07 42.3**	**-0.4**
	comp=Z,49nm,0.9s,mb5.9						
LIBD	**Limburg**	**95.04**	**332**	*e*P	**P**	**07 07 42.8**	**-0.2**
LKD	**Levkas**	**95.06**	**318**	P	**P**	**07 07 42.4**	**-0.9**
FELD	**Feldberg im Sc**	**95.08**	**331**	*e*P	**P**	**07 07 42.8**	**-0.4**
ECH	**Echery**	**95.18**	**332**	*e*P	**P**	**07 07 43.4**	**-0.2**
ECH	**Echery**	**95.18**	**332**	*e*P	**P**	**07 07 42.4**	**-1.2**
ECH				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.9						
ECH				MLR	MLR		
	comp=Z,10µm,19.0s,MS6.3						
ECH	**Echery**	**95.18**	**332**	*e*P	**P**	**07 07 42.4**	**-1.3**
	comp=Z,53nm,1.0s,mb5.9						
ECH				LR	LR		
	comp=Z,10µm,19.0s,MS6.3						
JFWS	**Jewell Farm**	**95.31**	**36**	PFAKE		07 08 00.0	+16
JFWS				LR	LR		
	comp=Z,9µm,19.0s,MS6.3						
VLS	**Valsamata**	**95.44**	**318**	P	**P**	**07 07 44.2**	**-0.9**
MOF	**Molkenrain**	**95.47**	**332**	*e*P	**P**	**07 07 44.5**	**-0.5**
TXAR	**Lajitas Array**	**95.55**	**53**	P	**P**	**07 07 45.6**	**-0.1**
	comp=Z,4.5nm,0.8s,mb5.0,baz=297,slow=2.7,SNR=28						
TXAR				PKKPbc	PKKPbc	07 24 55.5	+19
	comp=Z,1.3nm,1.0s,baz=145,slow=4.6,SNR=4.8						
TXAR				LR	LR	07 52 31.8	
	comp=Z,6µm,18.6s,MS6.1,baz=355,slow=37						
PYL	**PYLOS**	**95.56**	**316**	P	**P**	**07 07 43.9**	**-1.7**
TUE	**Stuetta**	**95.56**	**330**	*e*P	**P**	**07 07 45.5**	**+0.1**
	comp=Z,100nm,1.4s,mb6.0						
TUE				LR	LR		
	comp=Z,15µm,20.0s,MS6.5						
HINF	**Hinteralfeld**	**95.62**	**332**	*e*P	**P**	**07 07 44.9**	**-0.8**
	comp=Z,42nm,0.9s,mb5.5						
HINF	**Hinteralfeld**	**95.62**	**332**	*e*P	**P**	**07 07 44.9**	**-0.8**
HINF				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.6						
HINF	**Hinteralfeld**	**95.62**	**332**	*e*P	**P**	**07 07 44.9**	**-0.8**
	comp=Z,21nm,0.9s,mb5.6						
THEF	**They Montfort**	**95.66**	**332**	*e*P	**P**	**07 07 46.4**	**+0.6**
HAU	**Haudompre**	**95.68**	**332**	*e*P	**P**	**07 07 45.2**	**-0.8**
	comp=Z,59nm,1.1s,mb5.6						
HAU				*e*MLR	MLR		
	comp=Z,18µm,21.2s,MS6.2						
HAU	**Haudompre**	**95.68**	**332**	*e*P	**P**	**07 07 45.2**	**-0.8**
HAU				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.6						
HAU				MLR	MLR		
	comp=Z,18µm,21.3s,MS6.5						
HAU	**Haudompre**	**95.68**	**332**	*e*P	**P**	**07 07 45.2**	**-0.8**
	comp=Z,29nm,1.1s,mb5.6						
HAU				LR	LR		
	comp=Z,18µm,21.3s,MS6.5						
WMOK	**Wichita Mounta**	**95.68**	**47**	*e*P	**P**	**07 07 45.9**	**-0.4**
WMOK				pmax	pmax		
	comp=Z,83nm,1.8s,mb5.9						
WMOK				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.3						
WMOK	**Wichita Mounta**	**95.68**	**47**	*e*P	**P**	**07 07 45.9**	**-0.3**
	comp=Z,83nm,1.8s,mb5.9						
WMOK				LR	LR		
	comp=Z,9µm,19.0s,MS6.3						
MCH1	**Michaelchurch**	**95.82**	**339**	*e*P	**P**	**07 07 46.7**	**+0.2**
MCH1				AMb	AMB	07 07 58.6	
	comp=Z,82nm,1.6s,mb5.9						
MEZF	**Maizieres J'vi**	**95.82**	**333**	*e*P	**P**	**07 07 46.5**	**-0.1**
	comp=Z,180nm,1.4s,mb6.0						
MEZF	**Maizieres J'vi**	**95.82**	**333**	*e*P	**P**	**07 07 46.5**	**-0.1**
	comp=Z,180nm,1.4s,mb6.3						
FSSB	**Fossombrone**	**95.97**	**326**	P	**P**	**07 07 48.1**	**+0.7**
	comp=Z,97nm,1.8s,mb5.9						
LOMF	**Lomont**	**95.99**	**331**	*e*P	**P**	**07 07 47.7**	**+0.3**
CASY	**Casey**	**96.00**	**192**	PFAKE		07 08 00.0	+13
CASY				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
LTRZ	**Laterza**	**96.00**	**322**	P	**P**	**07 07 47.1**	**-0.5**
	comp=Z,454nm,4.8s						
VAI	**Varese**	**96.28**	**329**	P	**P**	**07 07 47.3**	**-1.4**
TERO	**Teramo**	**96.32**	**325**	P	**P**	**07 07 48.7**	**-0.3**
	comp=Z,78nm,2.1s,mb5.8						
ACER	**Acerenza**	**96.36**	**322**	P	**P**	**07 07 49.0**	**-0.2**
	comp=Z,694nm,3.5s						
BADI	**Badiali**	**96.37**	**326**	P	**P**	**07 07 50.3**	**+1.1**
	comp=Z,559nm,3.9s						
MURB	**Monte Urbino**	**96.41**	**326**	P	**P**	**07 07 49.7**	**+0.3**
	comp=Z,59nm,1.0s,mb6.0						
NRCA	**Norcia**	**96.42**	**325**	P	**P**	**07 07 49.3**	**-0.1**
	comp=Z,28nm,1.5s,mb5.5						
PTRP	**Pietrapertosa**	**96.48**	**322**	P	**P**	**07 07 49.5**	**-0.3**
	comp=Z,126nm,1.3s,mb6.2						
ASS	**Assisi**	**96.49**	**325**	P	**P**	**07 07 50.4**	**+0.7**
ASS				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.4						
ASS	**Assisi**	**96.49**	**325**	P	**P**	**07 07 50.4**	**+0.7**
	comp=Z,13nm,0.9s,mb5.3						
RER	**Riviere de l'E**	**96.51**	**250**	PFAKE		07 08 00.0	+10
RER				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
MIDA	**Miranda**	**96.68**	**324**	P	**P**	**07 07 50.5**	**-0.1**
	comp=Z,1µm,4.6s						
RNI2	**Rionero Sannit**	**96.69**	**324**	P	**P**	**07 07 48.9**	**-1.8**
	comp=Z,606nm,2.8s,mb6.5						
GLMI	**Grayling**	**96.72**	**32**	PFAKE		07 08 00.0	+9.2
GLMI				LR	LR		
	comp=Z,7µm,19.0s,MS6.2						
SGG	**Gregorio Mates**	**96.79**	**323**	P	**P**	**07 07 50.5**	**-0.6**
	comp=Z,22nm,0.8s,mb5.6						
VLC	**Villacollemand**	**96.80**	**327**	PFAKE		07 08 00.0	+8.9
VLC				LR	LR		
	comp=Z,25µm,19.0s,MS6.7						
ORO	**Oropa**	**96.81**	**330**	P	**P**	**07 07 50.8**	**-0.4**
CABF	**La Chapelle**	**96.88**	**331**	*e*P	**P**	**07 07 51.0**	**-0.4**
	comp=Z,68nm,1.1s,mb5.7						
CABF	**La Chapelle**	**96.88**	**331**	*e*P	**P**	**07 07 51.0**	**-0.4**
CABF				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.7						
CABF	**La Chapelle**	**96.88**	**331**	*e*P	**P**	**07 07 51.0**	**-0.4**
	comp=Z,34nm,1.1s,mb5.7						
CUC	**Castrocucco**	**96.98**	**322**	*e*P	**P**	**07 07 51.7**	**-0.4**
	comp=Z,60nm,1.4s,mb5.8						
CUC				LR	LR		
	comp=Z,23µm,19.0s,MS6.7						
TRAV	**Traversella**	**97.01**	**330**	P	**P**	**07 07 50.3**	**-1.7**
TIP	**Timpagrande**	**97.01**	**321**	*e*P	**P**	**07 07 52.4**	**+0.2**
	comp=Z,167nm,1.5s,mb6.2						
TIP				LR	LR		
	comp=Z,16µm,19.0s,MS6.5						
LOR	**Lormes**	**97.29**	**333**	*e*P	**P**	**07 07 52.7**	**-0.6**
	comp=Z,74nm,1.2s,mb5.7						
LOR				*e*MLR	MLR		
	comp=Z,20µm,19.0s,MS6.3						
LOR	**Lormes**	**97.29**	**333**	*e*P	**P**	**07 07 52.7**	**-0.6**
LOR				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.7						
LOR				MLR	MLR		
	comp=Z,20µm,19.0s,MS6.6						
LOR	**Lormes**	**97.29**	**333**	*e*P	**P**	**07 07 52.7**	**-0.6**
	comp=Z,37nm,1.2s,mb5.7						
LOR				LR	LR		
	comp=Z,20µm,19.0s,MS6.6						
LPL	**La Plagne**	**97.46**	**330**	*e*P	**P**	**07 07 53.7**	**-0.4**
	comp=Z,46nm,0.9s,mb5.6						
LPL	**La Plagne**	**97.46**	**330**	*e*P	**P**	**07 07 53.7**	**-0.4**
LPL				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.6						
LPL	**La Plagne**	**97.46**	**330**	*e*P	**P**	**07 07 53.7**	**-0.4**
	comp=Z,23nm,0.9s,mb5.6						
LPG	**La Plagne**	**97.46**	**330**	*e*P	**P**	**07 07 53.9**	**-0.2**
	comp=Z,50nm,0.8s,mb5.7						
LPG	**La Plagne**	**97.46**	**330**	*e*P	**P**	**07 07 53.9**	**-0.2**
LPG				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.7						
LPG	**La Plagne**	**97.46**	**330**	*e*P	**P**	**07 07 53.9**	**-0.2**
	comp=Z,25nm,0.8s,mb5.7						
HDIL	**Hopedale**	**97.48**	**37**	PFAKE		07 08 10.0	+16
HDIL				LR	LR		
	comp=Z,6µm,20.0s,MS6.0						
JCT	**Junction City**	**97.59**	**50**	*e*P	**P**	**07 07 55.2**	**+0.2**
JCT				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb5.3						
JCT				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.1						
JCT	**Junction City**	**97.59**	**50**	*e*P	**P**	**07 07 55.2**	**+0.2**
	comp=Z,4.6nm,0.5s,mb5.3						
JCT				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
SSF	**Saint Saulge**	**97.60**	**333**	*e*P	**P**	**07 07 54.0**	**-0.7**
	comp=Z,32nm,0.9s,mb5.5						
SSF	**Saint Saulge**	**97.60**	**333**	*e*P	**P**	**07 07 54.0**	**-0.7**
SSF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.5						
SSF	**Saint Saulge**	**97.60**	**333**	*e*P	**P**	**07 07 54.0**	**-0.7**
	comp=Z,16nm,0.9s,mb5.5						
LDF	**La Druitiere**	**97.73**	**336**	*e*P	**P**	**07 07 54.5**	**-0.7**
SMF	**Signal de Mont**	**97.80**	**333**	*e*P	**P**	**07 07 54.9**	**-0.7**
	comp=Z,42nm,1.0s,mb5.6						
SMF	**Signal de Mont**	**97.80**	**333**	*e*P	**P**	**07 07 54.9**	**-0.7**
SMF				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.6						
SMF	**Signal de Mont**	**97.80**	**333**	*e*P	**P**	**07 07 54.9**	**-0.7**
	comp=Z,21nm,1.0s,mb5.6						
BNI	**Bardonecchia**	**97.84**	**330**	*e*P	**P**	**07 07 55.8**	**0.0**
BNI				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.7						
BNI				MLR	MLR		
	comp=Z,26µm,19.0s,MS6.7						
BNI	**Bardonecchia**	**97.84**	**330**	*e*P	**P**	**07 07 55.8**	**-0.1**
	comp=Z,21nm,0.9s,mb5.7						
BNI				LR	LR		
	comp=Z,26µm,19.0s,MS6.7						
AVF	**Avril sur Loir**	**97.88**	**333**	*e*P	**P**	**07 07 55.5**	**-0.4**
	comp=Z,132nm,1.3s,mb6.0						
AVF	**Avril sur Loir**	**97.88**	**333**	*e*P	**P**	**07 07 55.5**	**-0.4**
AVF				pmax	pmax		
	comp=Z,66nm,1.3s,mb6.0						
AVF	**Avril sur Loir**	**97.88**	**333**	*e*P	**P**	**07 07 55.5**	**-0.4**
	comp=Z,66nm,1.3s,mb6.0						
MBDF	**Montbardon**	**98.05**	**330**	*e*P	**P**	**07 07 55.7**	**-1.1**
	comp=Z,48nm,0.9s,mb5.7						
MBDF	**Montbardon**	**98.05**	**330**	*e*P	**P**	**07 07 55.7**	**-1.1**
MBDF				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.7						
MBDF	**Montbardon**	**98.05**	**330**	*e*P	**P**	**07 07 55.7**	**-1.1**
	comp=Z,24nm,0.9s,mb5.7						
CEL	**Celeste**	**98.13**	**320**	*e*P	**P**	**07 07 56.8**	**-0.4**
	comp=Z,99nm,0.8s,mb6.4						
CEL				LR	LR		
	comp=Z,9µm,19.0s,MS6.3						
CCM	**Cathedral Cave**	**98.14**	**40**	*e*P	**P**	**07 07 55.4**	**-1.9**
CCM				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.5						
CCM				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.1						
CCM	**Cathedral Cave**	**98.14**	**40**	*e*P	**P**	**07 07 55.4**	**-1.9**
	comp=Z,13nm,0.9s,mb5.5						
CCM				LR	LR		
	comp=Z,7µm,20.0s,MS6.1						
SOI	**Samo**	**98.17**	**320**	P	**P**	**07 07 57.4**	**0.0**
GRR	**Gorron**	**98.17**	**336**	*e*P	**P**	**07 07 56.8**	**-0.4**
SCLL	**Scilla**	**98.24**	**320**	P	**P**	**07 07 56.6**	**-1.1**
BGF	**Bois d'Agland**	**98.28**	**333**	*e*P	**P**	**07 07 57.2**	**-0.5**
	comp=Z,40nm,1.1s,mb5.6						
BGF	**Bois d'Agland**	**98.28**	**333**	*e*P	**P**	**07 07 57.2**	**-0.5**
BGF				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.6						
BGF	**Bois d'Agland**	**98.28**	**333**	*e*P	**P**	**07 07 57.2**	**-0.5**
	comp=Z,20nm,1.1s,mb5.6						
ORIF	**Oris-en-Rattie**	**98.30**	**330**	*e*P	**P**	**07 07 57.3**	**-0.6**
	comp=Z,42nm,1.0s,mb5.6						
ORIF				*e*MLR	MLR		
	comp=Z,30µm,17.8s,MS6.5						
ORIF	**Oris-en-Rattie**	**98.30**	**330**	*e*P	**P**	**07 07 57.3**	**-0.6**
ORIF				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.6						
ORIF	**Oris-en-Rattie**	**98.30**	**330**	*e*P	**P**	**07 07 57.3**	**-0.6**
	comp=Z,21nm,1.0s,mb5.6						
SBF	**Sospel**	**98.42**	**329**	*e*P	**P**	**07 07 56.9**	**-1.5**
PLDF	**La Plantade**	**98.43**	**332**	*e*P	**P**	**07 07 59.1**	**+0.7**
SSB	**Saint Sauveur**	**98.60**	**331**	PFAKE		07 08 10.0	+11
SSB				LR	LR		
	comp=Z,8µm,20.0s,MS6.2						
PGF	**Pioggiola**	**98.68**	**327**	*e*P	**P**	**07 07 58.6**	**-1.0**
	comp=Z,27nm,0.9s,mb5.5						
PGF	**Pioggiola**	**98.68**	**327**	*e*P	**P**	**07 07 58.6**	**-1.0**
PGF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.5						
PGF	**Pioggiola**	**98.68**	**327**	*e*P	**P**	**07 07 58.6**	**-1.0**
	comp=Z,14nm,0.9s,mb5.5						
TCF	**Toulx Ste Croi**	**98.75**	**333**	*e*P	**P**	**07 07 59.5**	**-0.3**
	comp=Z,30nm,1.1s,mb5.4						
TCF	**Toulx Ste Croi**	**98.75**	**333**	*e*P	**P**	**07 07 59.5**	**-0.3**
TCF				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.4						
TCF	**Toulx Ste Croi**	**98.75**	**333**	*e*P	**P**	**07 07 59.5**	**-0.3**
	comp=Z,15nm,1.1s,mb5.4						
VIVF	**Saint-Julien-l**	**98.88**	**331**	*e*P	**P**	**07 08 00.0**	**-0.4**
	comp=Z,22nm,0.9s,mb5.4						
VIVF	**Saint-Julien-l**	**98.88**	**331**	*e*P	**P**	**07 08 00.0**	**-0.4**
VIVF				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.4						
VIVF	**Saint-Julien-l**	**98.88**	**331**	*e*P	**P**	**07 08 00.0**	**-0.4**
	comp=Z,11nm,0.9s,mb5.4						
SGMF	**Saint Gilles**	**98.89**	**337**	*e*P	**P**	**07 07 59.3**	**-1.1**
	comp=Z,128nm,1.3s,mb6.0						
SGMF	**Saint Gilles**	**98.89**	**337**	*e*P	**P**	**07 07 59.3**	**-1.1**
SGMF				pmax	pmax		
	comp=Z,64nm,1.3s,mb6.0						
SGMF	**Saint Gilles**	**98.89**	**337**	*e*P	**P**	**07 07 59.3**	**-1.1**
	comp=Z,64nm,1.3s,mb6.0						
FRF	**La Foret Royal**	**99.02**	**329**	*e*P	**P**	**07 07 59.9**	**-1.2**
	comp=Z,30nm,0.9s,mb5.5						
FRF	**La Foret Royal**	**99.02**	**329**	*e*P	**P**	**07 07 59.9**	**-1.2**
FRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.5						
FRF	**La Foret Royal**	**99.02**	**329**	*e*P	**P**	**07 07 59.9**	**-1.2**
	comp=Z,15nm,0.9s,mb5.5						
ROSF	**Rostrenen**	**99.06**	**338**	*e*P	**P**	**07 08 00.7**	**-0.5**
	comp=Z,101nm,1.4s,mb5.9						
ROSF	**Rostrenen**	**99.06**	**338**	*e*P	**P**	**07 08 00.7**	**-0.5**
ROSF				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.9						
ROSF	**Rostrenen**	**99.06**	**338**	*e*P	**P**	**07 08 00.7**	**-0.5**
	comp=Z,51nm,1.4s,mb5.9						
AAM	**Ann Arbor**	**99.09**	**33**	PFAKE		07 08 10.0	+8.6
AAM				LR	LR		
	comp=Z,7µm,21.0s,MS6.1						
MIAR	**Mount Ida**	**99.11**	**44**	PFAKE		07 08 10.0	+8.3
MIAR				LR	LR		
	comp=Z,9µm,20.0s,MS6.2						
SMRF	**Simiane la Rot**	**99.18**	**330**	*e*P	**P**	**07 08 01.3**	**-0.5**
LMR	**La Mourre**	**99.25**	**329**	*e*P	**P**	**07 08 01.0**	**-1.2**
	comp=Z,47nm,1.2s,mb5.6						
LMR	**La Mourre**	**99.25**	**329**	*e*P	**P**	**07 08 01.0**	**-1.2**
LMR				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.6						
LMR	**La Mourre**	**99.25**	**329**	*e*P	**P**	**07 08 01.0**	**-1.2**
	comp=Z,24nm,1.2s,mb5.6						
MFF	**Saint Martin d**	**99.41**	**335**	*e*P	**P**	**07 08 02.3**	**-0.5**
	comp=Z,30nm,1.1s,mb5.5						
MFF	**Saint Martin d**	**99.41**	**335**	*e*P	**P**	**07 08 02.3**	**-0.5**
MFF				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.4						
MFF	**Saint Martin d**	**99.41**	**335**	*e*P	**P**	**07 08 02.3**	**-0.5**
	comp=Z,15nm,1.1s,mb5.4						
RAFF	**Raffo Rosso**	**99.72**	**320**	P	Pdif	07 08 04.7	+0.6
RJF	**Les Rejaudoux**	**99.83**	**333**	*e*P	Pdif	07 08 04.7	+0.1
RJF				*e*MLR	MLR		
	comp=Z,13µm,20.0s,MS6.1						
RJF	**Les Rejaudoux**	**99.83**	**333**	*e*P	Pdif	07 08 04.7	+0.1
RJF				LR	LR		
	comp=Z,13µm,20.0s,MS6.4						
LASF	**Ste Croix**	**99.85**	**331**	*e*P	Pdif	07 08 04.6	-0.1
	comp=Z,28nm,1.0s						
CAF	**Calviac**	**99.92**	**333**	*e*P	Pdif	07 08 05.2	+0.2
	comp=Z,31nm,1.1s						
CAF	**Calviac**	**99.92**	**333**	*e*P	Pdif	07 08 05.2	+0.2
CAF				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.4						
CAF	**Calviac**	**99.92**	**333**	*e*P	Pdif	07 08 05.2	+0.2
	comp=Z,16nm,1.1s						
NATX	**Nacogdoches**	**100.23**	**47**	PFAKE		07 08 20.0	+14
NATX				LR	LR		
	comp=Z,10µm,21.0s,MS6.3						
WDD	**Wield Dalam**	**100.58**	**319**	PFAKE		07 08 20.0	+12
WDD				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
HKT	**Hockley**	**100.62**	**49**	PFAKE		07 08 20.0	+12
HKT				LR	LR		
	comp=Z,8µm,19.0s,MS6.2						
KVTX	**Kingsville**	**100.70**	**52**	PFAKE		07 08 20.0	+12
KVTX				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
WCI	**Wyandotte Cave**	**100.77**	**37**	PFAKE		07 08 20.0	+11
WCI				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
ERPA	**Erie**	**100.95**	**31**	PFAKE		07 08 20.0	+10
ERPA				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
ACSO	**Alum Creek Sta**	**100.99**	**34**	PFAKE		07 08 20.0	+10
ACSO				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
MTLF	**Montolieu**	**101.15**	**332**	*e*P	Pdif	07 08 10.4	-0.1
LONY	**Lake Ozonia**	**101.21**	**26**	PFAKE		07 08 20.0	+9.2
LONY				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
WVT	**Waverly**	**101.43**	**39**	PFAKE		07 08 20.0	+8.3
WVT				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
OXF	**Oxford**	**101.65**	**42**	PFAKE		07 08 20.0	+7.3
OXF				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
NCB	**Newcomb**	**101.90**	**26**	PFAKE		07 08 30.0	+16
NCB				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
PLAL	**Pickwick Lake**	**102.10**	**40**	PFAKE		07 08 30.0	+15
PLAL				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
EPF	**Esparros**	**102.19**	**333**	*e*P	Pdif	07 08 15.4	+0.3
LBNH	**Lisbon**	**102.55**	**25**	PFAKE		07 08 30.0	+13
LBNH				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
VBMS	**Vicksburg**	**102.56**	**44**	PFAKE		07 08 30.0	+13
VBMS				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
BINY	**Binghamton**	**102.65**	**28**	PFAKE		07 08 30.0	+13
BINY				LR	LR		
	comp=Z,10µm,19.0s,MS6.3						
ETSF	**Etsaut**	**102.66**	**333**	*e*P	Pdif	07 08 17.5	+0.3
	comp=Z,9.7nm,0.7s						
ETSF	**Etsaut**	**102.66**	**333**	*e*P	Pdif	07 08 17.5	+0.3
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ETSF	**Etsaut**	**102.66**	**333**	*e*P	Pdif	07 08 17.5	+0.3
	comp=Z,4.8nm,0.7s						
ABPO	**Ambohimpanom**	**102.86**	**255**	PFAKE		07 08 30.0	+12
ABPO				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
MCWV	**Mont Chateau**	**102.96**	**32**	PFAKE		07 08 30.0	+11
MCWV				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
SSPA	**Standing Stone**	**103.09**	**30**	PFAKE		07 08 30.0	+11
SSPA				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
KEST	**Kesra**	**103.60**	**322**	Pdiff	Pdif	07 08 22.0	+0.6
	comp=Z,1.4nm,0.8s,baz=297,slow=3.0,SNR=5.5						
KMBO	**Kilima Mbogo**	**104.05**	**276**	Pdiff	Pdif	07 08 24.1	+0.8
	comp=Z,0.6nm,0.4s,baz=212,slow=23,SNR=3.2						
KMBO				PP	PP	07 12 39.9	-2.2
	comp=Z,1.0nm,0.5s,baz=53,slow=20,SNR=3.8						
BLA	**Blacksburg**	**104.59**	**34**	PFAKE		07 08 40.0	+14
BLA				LR	LR		
	comp=Z,7µm,19.0s,MS6.2						
CBN	**Corbin**	**105.28**	**32**	PFAKE		07 12 50.0	+7.0
CBN				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
SBA	**Scott Base**	**105.49**	**175**	PFAKE		07 12 50.0	+7.9
SBA				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
BRAL	**Brewton**	**105.52**	**43**	PFAKE		07 12 50.0	+6.3
BRAL				LR	LR		
	comp=Z,8µm,19.0s,MS6.3						
GOGA	**Godfrey**	**105.86**	**39**	PFAKE		07 13 00.0	+16
GOGA				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
MVO	**Moncorvo**	**106.62**	**336**	*e*PP	PP	07 13 07.8	+8.5
MVO				*e*SKS	SKSdf	07 19 21.1	-34
MVO				*e*LR	LR	07 49 16.8	
	comp=Z,12µm,18.0s						
ESDC	**Sonseca Array**	**106.76**	**334**	PP	PP	07 12 56.5	-3.8
	comp=Z,1.0nm,0.4s,baz=19,slow=6.0,SNR=5.1						
ESDC				PKKPbc	PKKPbc	07 24 28.4	+24
	comp=Z,0.3nm,0.3s,baz=216,slow=4.7,SNR=5.2						
ESLA	**Sonseca Array**	**106.76**	**334**	PFAKE		07 13 00.0	+14
ESLA				LR	LR		
	comp=Z,77µm,19.0s,MS7.3						
PAB	**San Pablo**	**107.02**	**334**	PFAKE		07 13 00.0	+14
PAB				LR	LR		
	comp=Z,12µm,19.0s,MS6.5						
CNNC	**Cliffs of the**	**107.40**	**34**	PFAKE		07 13 00.0	+13
CNNC				LR	LR		
	comp=Z,9µm,19.0s,MS6.3						
MTE	**Manteigas**	**107.48**	**336**	*e*PP	PP	07 13 11.8	+6.2
MTE				*e*SKS	SKSac	07 19 21.7	+5.3
MTE				*e*LR	LR	07 50 17.7	
	comp=Z,11µm,18.0s						
MTE	**Manteigas**	**107.48**	**336**	PFAKE		07 13 00.0	+13

MTE				LR	LR		
	comp=Z,11µm,19.0s,MS6.4						
OKGL	**Djebel Kef Gue**	**107.79**	**328**	P	PP	07 13 12.0	+3.9
NHSC	**New Hope**	**107.89**	**37**	PFAKE		07 13 00.0	+12
NHSC				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
OJGS	**Djebel Guires**	**108.17**	**328**	P	PP	07 13 05.5	-5.4
PMRV	**Marv??o**	**108.28**	**336**	*e*PP	PP	07 13 19.2	+7.7
PMRV				*e*SKS	SKSac	07 19 24.3	+4.5
PMRV				*e*LR	LR	07 49 58.1	
	comp=Z,12µm,20.0s						
ODJA	**Bouhanifia**	**108.74**	**328**	P	PP	07 13 14.5	-0.5
PESTR	**Estremoz**	**108.85**	**336**	*e*PP	PP	07 13 23.0	+7.4
PESTR				*e*SKS	SKSac	07 19 25.5	+3.2
PESTR				*e*LR	LR	07 50 07.3	
	comp=Z,20µm,20.0s						
EVO	**Evora**	**109.30**	**336**	*e*PP	PP	07 13 17.6	-1.3
PMAFR	**Mafra**	**109.38**	**337**	*e*PP	PP	07 13 23.4	+4.0
PMAFR				*e*SKS	SKSac	07 19 33.6	+9.1
PMAFR				*e*LR	LR	07 50 42.6	
	comp=Z,9µm,18.0s						
PBEJ	**Beja**	**109.69**	**335**	*e*PP	PP	07 13 28.8	+7.1
PVAQ	**Vaqueiros**	**110.18**	**335**	*e*PP	PP	07 13 30.7	+5.4
PVAQ				*e*SKS	SKSac	07 19 28.7	+0.8
PVAQ				*e*LR	LR	07 50 48.0	
	comp=Z,9µm,20.0s						
PBDV	**Barranco-do-Ve**	**110.41**	**335**	*e*PP	PP	07 13 34.0	+7.1
PBDV				*e*SKS	SKSac	07 19 34.7	+5.8
PBDV				*e*LR	LR	07 51 03.4	
	comp=Z,11µm,20.0s						
SFS	**San Fernando**	**110.42**	**333**	PFAKE		07 13 00.0	+7.3
SFS				LR	LR		
	comp=Z,26µm,19.0s,MS6.8						
MORF	**Marmelete**	**110.62**	**336**	*e*PP	PP	07 13 34.5	+6.1
MORF				*e*SKS	SKSac	07 19 39.8	+10
MORF				*e*LR	LR	07 51 56.0	
	comp=Z,13µm,16.0s						
PFVI	**Vila Bisbo**	**110.83**	**336**	*e*PP	PP	07 13 35.1	+5.1
PFVI				*e*SKS	SKSac	07 19 41.9	+11
PFVI				*e*LR	LR	07 51 56.1	
	comp=Z,13µm,16.0s						
DWPF	**Disney**	**110.97**	**41**	PFAKE		07 13 10.0	+16
DWPF				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
TEIG	**Tepich**	**112.12**	**52**	PFAKE		07 13 10.0	+14
TEIG				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
RTC	**Rabat Centre**	**112.83**	**333**	PFAKE		07 13 10.0	+13
RTC				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
CMLA	**Cha da Macela**	**114.72**	**350**	PFAKE		07 13 10.0	+9.2
CMLA				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
TAM	**Tamanrasset**	**115.40**	**316**	PFAKE		07 13 10.0	+7.5
TAM				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
BBSR	**BB Station**	**115.66**	**25**	PFAKE		07 13 10.0	+7.2
BBSR				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
QSPA	**South Pole Qui**	**116.65**	**180**	PFAKE		07 13 20.0	+17
QSPA				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
TGUH	**Tegucigalpa,Un**	**116.86**	**56**	PFAKE		07 13 20.0	+14
TGUH				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
RPN	**Rapa Nui**	**116.93**	**108**	PFAKE		07 13 20.0	+15
RPN				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
LSZ	**Lusaka**	**118.16**	**266**	*e*PKPdf	PKPdf	07 13 08.1	+0.2
LSZ				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
LSZ	**Lusaka**	**118.16**	**266**	*e*P	PKPdf	07 13 07.1	-0.8
LSZ				AMS	AMS	08 01 41.4	
	comp=Z,52µm,20.0s,MS7.2						
MSNA	**Messina**	**119.04**	**258**	*e*P	PKPdf	07 13 10.9	+1.5
MSNA				AMS	AMS	08 03 15.8	
	comp=Z,3µm,19.4s,MS5.9						
POGA	**Pongola**	**119.22**	**252**	*e*P	PKPdf	07 13 10.8	+1.1
POGA				AMS	AMS	08 00 28.4	
	comp=Z,3µm,20.1s,MS5.9						
MTDJ	**Mount Denham**	**120.71**	**45**	PFAKE		07 13 20.0	+7.2
MTDJ				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
GTBY	**Guantanamo Bay**	**120.92**	**42**	PFAKE		07 13 20.0	+6.8
GTBY				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
JTS	**JuntasAbangare**	**121.01**	**58**	PKP	PKPdf	07 13 13.3	-0.2
	comp=Z,3.0nm,0.6s,baz=345,slow=9.4,SNR=5.3						
JTS	**JuntasAbangare**	**121.01**	**58**	PKP	PKPdf	07 13 13.3	-0.2
JTS				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
SLR	**Silverton**	**121.60**	**255**	*e*P	PKPdf	07 13 16.1	+1.8
SLR				AMS	AMS	08 04 06.0	
	comp=Z,5µm,19.9s,MS6.2						
ERPM	**east rand prop**	**121.81**	**254**	*e*P	PKPdf	07 13 03.6	-11
ERPM				AMS	AMS	08 01 55.9	
	comp=Z,5µm,20.9s,MS6.2						
KSD	**Kokstad**	**121.93**	**249**	*e*P	PKPdf	07 13 06.2	-8.6
KSD				AMS	AMS	08 02 05.7	
	comp=Z,13µm,19.6s,MS6.6						
GRTK	**Grand Turk**	**121.94**	**37**	PFAKE		07 13 30.0	+15
GRTK				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
PRYS	**Parys**	**122.73**	**254**	*e*P	PKPdf	07 13 07.8	-8.6
PRYS				AMS	AMS	08 02 09.2	
	comp=Z,3µm,20.0s,MS6.0						
SEK	**Senekal**	**122.87**	**252**	*e*P	PKPdf	07 13 07.8	-8.9
PAYG	**Puerto Ayora**	**123.10**	**72**	PFAKE		07 13 30.0	+12
PAYG				LR	LR		
	comp=Z,5µm,22.0s,MS6.2						
SDDR	**Presa de Saban**	**123.89**	**39**	PFAKE		07 13 30.0	+11
SDDR				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
TORD	**Torodi Ar. Bea**	**124.90**	**311**	PKP	PKPdf	07 13 20.4	-0.6
	comp=Z,7.1nm,1.0s,baz=21,slow=1.9,SNR=22						
TORD				PP	PP	07 15 06.0	-2.5
	comp=Z,6.0nm,0.8s,baz=27,slow=6.5,SNR=5.0						
BOSA	**Boshof**	**124.96**	**253**	PKP	PKPdf	07 13 19.9	-0.7
	comp=Z,4.1nm,0.8s,baz=46,slow=3.8,SNR=7.6						
HVD	**Gariep Dam**	**125.23**	**250**	*e*P	PKPdf	07 13 18.5	-2.6
BCIP	**Isla Barro Col**	**125.54**	**55**	PFAKE		07 13 30.0	+7.8
BCIP				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
PKA	**Prieska**	**127.33**	**252**	*e*P	PKPdf	07 13 26.3	+1.1
PKA				AMS	AMS	08 04 12.7	
	comp=Z,880nm,20.5s,MS5.4						
SJG	**San Juan**	**127.37**	**35**	PFAKE		07 13 40.0	+14
SJG				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
NVL	**N'lazarevskaya**	**128.09**	**199**	PKIKP	PKPdf	07 13 24.1	-1.3
NVL				pmax	pmax		
	comp=Z,36nm,1.5s						
NVL				MLR	MLR		
	comp=N,4µm,26.0s,MS6.1						
NVL				MLR	MLR		
	comp=E,4µm,26.0s,MS6.1						
NVL				MLR	MLR		
	comp=Z,7µm,26.0s,MS6.2						
MAIT	**Maitri**	**128.12**	**199**	*e*PKPbc	PKPdf	07 13 19.8	-5.6
TSUM	**Tsumeb**	**129.01**	**266**	*e*PKPdf	PKPdf	07 13 29.1	+0.5
TSUM				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
TSUM	**Tsumeb**	**129.01**	**266**	*e*P	PKPdf	07 13 36.4	+7.7
TSUM				AMS	AMS	08 06 17.5	
	comp=Z,37µm,21.8s,MS7.0						
SUR	**Sutherland**	**129.50**	**249**	PFAKE		07 13 40.0	+11
SUR				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
ANWB	**Willy Bob**	**129.86**	**31**	PFAKE		07 13 40.0	+10
ANWB				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
CVNA	**Calvinia**	**130.22**	**250**	*e*P		07 16 51.6	
CVNA				AMS	AMS	08 06 59.8	
	comp=Z,6µm,19.7s,MS6.3						
ELIM	**Elim**	**130.71**	**246**	*e*P	PKPdf	07 13 44.8	+13
SDV	**Santo Domingo**	**132.11**	**47**	PKP	PKPdf	07 13 34.0	-0.7
	comp=Z,28nm,0.9s,baz=337,slow=1.4,SNR=33						
SDV				SKPab		07 17 00.0	
	comp=Z,9.9nm,1.0s,baz=11,slow=2.3,SNR=7.6						
SDV	**Santo Domingo**	**132.11**	**47**	*e*PKPdf	PKPdf	07 13 34.6	-0.1
SDV				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
OTAV	**Otavalo**	**132.32**	**62**	*e*PKPdf	PKPdf	07 13 35.9	+0.7
OTAV				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
ROSC	**El Rosal**	**132.46**	**54**	PKP	PKPdf	07 13 36.1	+0.7
	comp=Z,5.4nm,0.9s,baz=282,slow=18,SNR=11						
FDF	**Fort de France**	**132.71**	**32**	PFAKE		07 13 50.0	+14
FDF				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
DBIC	**Dimbokro**	**134.01**	**312**	PKP	PKPdf	07 13 39.0	+0.6
	comp=Z,8.6nm,0.9s,baz=12,slow=2.7,SNR=8.9						
DBIC				PP	PP	07 16 06.0	-2.0
	comp=Z,7.6nm,0.9s,baz=51,slow=12,SNR=4.4						
LIC	**Lamto**	**134.45**	**312**	*e*PKIKP	PKPdf	07 13 39.3	+0.1
	comp=Z,34nm,0.9s						
LIC				*e*MLR	MLR		
	comp=Z,17µm,21.0s,MS6.5						
LIC	**Lamto**	**134.45**	**312**	*e*PKPdf	PKPdf	07 13 39.3	+0.1
LIC				LR	LR		
	comp=Z,9µm,21.0s,MS6.5						
GRGR	**Grenville**	**134.71**	**34**	PFAKE		07 13 50.0	+10
GRGR				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
BBGH	**Gun Hill**	**134.84**	**31**	PFAKE		07 13 50.0	+10
BBGH				LR	LR		
	comp=Z,6µm,21.0s,MS6.3						
ATAH	**Atahualpa**	**136.49**	**71**	PKhKP		07 13 37.6	
	comp=Z,7.6nm,0.8s,baz=16,slow=4.6,SNR=4.1						
PMSA	**Palmer Station**	**138.49**	**163**	PFAKE		07 14 00.0	+15
PMSA				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
NNA	**Nana**	**140.28**	**76**	PKP	PKPdf	07 13 47.6	-2.2
	comp=Z,5.5nm,0.5s,baz=342,slow=16,SNR=2.6						
NNA	**Nana**	**140.28**	**76**	PKP	PKPdf	07 13 47.6	-2.2
NNA				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
COYC	**Coyhaique**	**146.82**	**133**	*e*P	PKPdf	07 14 00.1	-0.2
COYC	**Coyhaique**	**146.82**	**133**	*e*P	PKPdf	07 14 00.1	-0.2
ARE	**Arequipa**	**146.90**	**79**	*e*PKP2	PKPab	07 14 03.0	-1.7
SHEL	**Horse Pasture**	**148.54**	**284**	*e*PKP2	PKPbc	07 14 06.4	-1.3
SHEL				MLR	MLR		
	comp=Z,4µm,21.0s,MS6.2						
CCHI	**Chillan**	**149.22**	**117**	*e*P	PKPdf	07 13 56.4	-8.2
PLCA	**Paso Flores**	**149.49**	**125**	PKHKP	PKPdf	07 14 05.7	+0.8
PLCA						07 14 09.9	
PLCA	**Paso Flores**	**149.49**	**125**	PKP	PKPdf	07 14 05.7	+0.8
	comp=Z,20nm,0.9s,baz=224,slow=4.1,SNR=11						
PLCA				PKPbc	PKPbc	07 14 09.8	+0.4
	comp=Z,21nm,0.9s,baz=226,slow=5.4,SNR=31						
PLCA				PKKP		07 23 00.7	
	comp=Z,2.4nm,1.1s,baz=320,slow=2.7,SNR=2.8						
CEN1	**Los Morros**	**150.29**	**91**	*e*P	PKPbc	07 14 13.3	+1.4
TLL	**Tololo Astrono**	**150.66**	**104**	*e*P	PKPbc	07 14 12.2	-0.4
LCO	**Las Campanas**	**150.69**	**102**	*e*PKPbc	PKPbc	07 14 12.8	+0.1
LCO				LR	LR		
	comp=Z,6µm,19.0s,MS6.4						
EFI	**East Falkland**	**150.78**	**153**	*e*PKIKP	PKPdf	07 14 06.1	-0.5
EFI				MLR	MLR		
	comp=Z,5µm,19.0s,MS6.3						
FCH	**Farellones**	**151.04**	**111**	*e*P	PKPdf	07 14 09.4	+1.9
LVC	**Limon Verde**	**151.25**	**88**	PKPbc	PKPbc	07 14 13.3	-0.9
	comp=Z,27nm,0.8s,baz=279,slow=3.3,SNR=20						
LVC	**Limon Verde**	**151.25**	**88**	*e*PKPbc	PKPbc	07 14 15.1	+0.9
LVC				LR	LR		
	comp=Z,5µm,20.0s,MS6.4						
SIV	**San Ignacio**	**155.62**	**68**	PKP	PKPdf	07 14 15.0	+0.4
	comp=Z,6.8nm,0.9s,baz=290,slow=0.9,SNR=22						
RCBR	**Riachuelo**	**159.01**	**355**	PFAKE		07 14 30.0	+11
RCBR				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
LPA	**La Plata**	**160.79**	**120**	*c**e*PKP	PKPdf	07 14 19.0	-1.4
LPA				*e*sPKP		07 14 37.0	
LPA				*e*pPKP	pPKPab	07 15 17.0	+3.0
LPA				*e*PKS		07 17 53.0	
LPA				*e*PP	PP	07 18 41.0	-4.8
LPA				*e*SKKS	SKKSac	07 25 27.0	-4.5
LPA							
	comp=Z,6µm,20.0s						
CPUP	**Villa Florida**	**162.31**	**93**	PKP	PKPdf	07 14 21.7	-0.6
	comp=Z,6.4nm,0.9s,baz=260,slow=1.2,SNR=7.7						
CPUP				PKPab	PKPab	07 15 08.8	-0.8
	comp=Z,9.2nm,0.8s,baz=260,slow=4.5,SNR=6.6						
CPUP	**Villa Florida**	**162.31**	**93**	PKP	PKPdf	07 14 21.7	-0.6
CPUP				PKPab	PKPab	07 15 08.8	-0.8
SPB	**Sao Paulo**	**170.48**	**72**	PFAKE		07 14 40.0	+11
SPB				LR	LR		
	comp=Z,6µm,21.0s						

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*IDC **27** 06:55:27.6±1.6, 8°.37S×129°.15E, h0^{km}, mb4.1/2, mb1 4.3/6, mb1mx4.1/18, mbtmp4.2/6, ML4.1/4, Error ellipse: s-maj=51.1km s-min=22.2km az=62.0*

*ISCJB **27** 06:55:33.2±2.2, 8°.67S±0°.08×128°.82E±0°.09, h60^{km}±26^{km}, mb4.0/2, Error ellipse: s-maj=19.5km s-min=7.1km az=139.7*

*NEIC **27** 06:55:35.2±1.8, 8°.62S×128°.86E, h60^{km}±19^{km}, Error ellipse: s-maj=33.2km s-min=9.2km az=47.0*

ISC 27 06:55:34.9±1.5**, 8°.61S**±0°.09×**128°.90E**±0°.10**, h56**^{km}±20^{km}**, n12, σ0^{s}.64**/20**, mb4.0**/2**, Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAPI	**Kappang**	**9.76**	**291**	Pn	**Pn**	**06 57 52.3**	**-0.3**
	1.5nm,0.3s,baz=153,slow=15,SNR=6.5						
KAPI	**Kappang**	**9.76**	**291**	Pn	**Pn**	**06 57 52.3**	**-0.3**
KAPI				Sn	**Sn**	**06 59 40.4**	**-0.3**
FITZ	**Fitzroy Crossi**	**9.95**	**198**	*e*P	**Pn**	**06 57 55.8**	**+0.5**
	19nm,0.6s						
FITZ				*e*S	**Sn**	**06 59 45.6**	**+0.1**
FITZ	**Fitzroy Crossi**	**9.95**	**198**	Pn	**Pn**	**06 57 56.0**	**+0.8**
	1.5nm,0.3s,baz=51,slow=13,SNR=22						
FITZ				Sn	**Sn**	**06 59 45.6**	**+0.1**
	5.1nm,0.3s,baz=110,slow=14,SNR=9.9						
FITZ	**Fitzroy Crossi**	**9.95**	**198**	*e*Pn	**Pn**	**06 57 55.5**	**+0.3**
FITZ				Sn	**Sn**	**06 59 45.6**	**+0.1**
WRAB	**Tennant Creek**	**12.43**	**155**	*e*Pn	**Pn**	**06 58 29.7**	**+0.5**
	9.8nm,0.7s						
WRAB				*e*Sn	**Sn**	**07 00 46.2**	**0.0**
WRA	**Warramunga Arr**	**12.44**	**156**	Pn	**Pn**	**06 58 29.7**	**+0.5**
	1.3nm,0.3s,baz=337,slow=13,SNR=48						
WRA				Sn	**Sn**	**07 00 45.0**	**-1.3**
	1.5nm,0.3s,baz=336,slow=22,SNR=6.1						
WB2	**Warramunga Arr**	**12.44**	**155**	*e*Pn	**Pn**	**06 58 29.8**	**+0.5**
WB2				*e*Sn	**Sn**	**07 00 45.3**	**-1.1**
ASAR	**Alice Springs**	**15.72**	**163**	Pn	**Pn**	**06 59 12.2**	**-0.7**
	0.5nm,0.3s,baz=335,slow=10,SNR=32						
ASAR				Sn	**Sn**	**07 02 07.2**	**+1.1**
	0.6nm,0.3s,baz=345,slow=24,SNR=6.8						
STKA	**Stephens Creek**	**25.99**	**155**	P	**P**	**07 01 02.7**	**+0.2**
	0.5nm,0.3s,mb3.5,baz=323,slow=13,SNR=1.8						
STKA	**Stephens Creek**	**25.99**	**155**	P	**P**	**07 01 02.7**	**+0.2**
MKAR	**Makanchi Array**	**68.98**	**328**	P	**P**	**07 06 34.4**	**+0.1**
	4.8nm,0.9s,mb4.4,baz=113,slow=5.0,SNR=2.1						

IDC 27 07:15:55.9±13.0**, 3°.28S**×**102°.59E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/21**, mbtmp3.8**/3**, Error ellipse: s-maj=469.9km s-min=30.0km az=61.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**35.12**	**121**	P	P	07 22 51.3	-0.1
	2.3nm,1.0s,baz=308,slow=8.7,SNR=3.7						
ASAR	**Alice Springs**	**36.42**	**127**	P	P	07 23 02.5	+0.1
	0.4nm,0.4s,baz=301,slow=8.3,SNR=6.1						
SONM	**Songino Array**	**51.01**	**3**	P	P	07 24 59.6	+0.1
	0.7nm,0.5s,baz=186,slow=8.8,SNR=6.9						

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*NEIC **27** 07:22:03.0, 35°.86N×21°.64E, h5^{km}, MD3.7(ATH), After ATH.*

*ATH **27** 07:22:03.0, 35°.86N×21°.64E, h5^{km}, MD3.7/5*

*ISCJB **27** 07:22:05.6±1.0, 36°.05N±0°.04×21°.69E±0°.05, h7^{km}±5^{km}, mb3.8/6, Error ellipse: s-maj=7.6km s-min=5.1km az=138.3*

*CSEM **27** 07:22:06.1±0.6, 36°.05N×21°.71E, h2^{km}, ML4.1/2, Error ellipse: s-maj=14.5km s-min=7.1km az=41.0*

*THE **27** 07:22:09.7, 36°.15N×21°.94E, h2^{km}±4^{km}, ML4.1/2, Error ellipse: s-maj=8.3km s-min=2.0km az=246.0*

*IDC **27** 07:22:13.8±3.1, 36°.12N×22°.06E, h72^{km}±32^{km}, mb3.5/6, mb1 3.5/9, mb1mx3.3/27, mbtmp3.4/9, ML3.3/3, MS3.7/1, Ms1 3.7/1, ms1mx3.4/35, Error ellipse: s-maj=34.1km s-min=20.4km az=128.0*

ISC 27 07:22:07.0±1.0**, 36°.06N**±0°.04×**21°.76E**±0°.05**, h4**^{km}±6^{km}**, n60, σ1^{s}.40**/69**, mb3.8**/6**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.83**	**359**	P	**Pg**	**07 22 22.0**	**-1.0**
PYL				S	**Sg**	**07 22 34.5**	**+0.7**
PYL	**PYLOS**	**0.83**	**359**	P	**Pg**	**07 22 22.0**	**-1.0**
PYL				S	**Sg**	**07 22 34.5**	**+0.7**
KYTH	**Kithira**	**1.05**	**78**	*e*PG	**Pg**	**07 22 25.5**	**-1.8**
KYTH	**Kithira**	**1.05**	**78**	*e*Pg	**Pg**	**07 22 25.5**	**-1.8**
ITM	**Ithomi**	**1.12**	**7**	*e*PN	**Pg**	**07 22 27.5**	**-1.1**
ITM	**Ithomi**	**1.12**	**7**	*e*Pn	**Pg**	**07 22 27.5**	**-1.1**
VLI	**Veliai**	**1.15**	**55**	*e*PN	**Pn**	**07 22 27.7**	**-2.2**
VLI				*e*SB	**Sb**	**07 22 48.8**	**+4.0**
VLI	**Veliai**	**1.15**	**55**	*e*Pn	**Pn**	**07 22 27.7**	**-2.2**
VLI				*e*Sb	**Sb**	**07 22 48.8**	**+4.0**
DID	**Didima**	**1.86**	**39**	P	**Pn**	**07 22 39.5**	**-0.2**
DID				S	**Sn**	**07 23 03.5**	**-0.2**
DID	**Didima**	**1.86**	**39**	P	**Pn**	**07 22 39.5**	**-0.2**
DID				S	**Sn**	**07 23 03.5**	**-0.2**
KARN	**Karanos**	**1.87**	**110**	P	**Pn**	**07 22 39.6**	**-0.3**
KARN				S	**Sn**	**07 23 04.7**	**+0.8**
KARN	**Karanos**	**1.87**	**110**	P	**Pn**	**07 22 39.6**	**-0.3**
KARN				S	**Sn**	**07 23 04.7**	**+0.8**
VAM	**Vamos**	**2.09**	**108**	*e*PG	**Pn**	**07 22 42.5**	**-0.3**
VAM	**Vamos**	**2.09**	**108**	*e*Pg	**Pn**	**07 22 42.5**	**-0.3**
LAKA	**Lakka**	**2.18**	**4**	P	**Pn**	**07 22 46.2**	**+2.1**
LTK	**Loutraki**	**2.18**	**26**	P	**Pn**	**07 22 46.0**	**+1.9**
LTK	**Loutraki**	**2.18**	**26**	P	**Pn**	**07 22 46.0**	**+1.9**
VLS	**Valsamata**	**2.31**	**336**	*e*PG	**Pn**	**07 22 48.0**	**+2.2**
VLS	**Valsamata**	**2.31**	**336**	*e*Pg	**Pn**	**07 22 48.0**	**+2.2**
KALE	**Kalithea**	**2.34**	**7**	P	**Pn**	**07 22 47.8**	**+1.5**
KALE				S	**Sn**	**07 23 16.2**	**+0.7**
KALE	**Kalithea**	**2.34**	**7**	P	**Pn**	**07 22 47.8**	**+1.5**
KALE				S	**Sn**	**07 23 16.2**	**+0.7**
VLY	**Voula,Athens**	**2.42**	**42**	*e*PN	**Pn**	**07 22 50.1**	**+2.8**
VLY	**Voula,Athens**	**2.42**	**42**	*e*Pn	**Pn**	**07 22 50.1**	**+2.8**
IDI	**Anoyia**	**2.66**	**106**	P	**Pn**	**07 22 50.8**	**+0.1**
	2.8nm,0.3s,baz=304,slow=14,SNR=14						
IDI				LR	LR	07 23 39.0	
	comp=Z,1µm,18.6s,baz=302,slow=35						
IDI	**Anoyia**	**2.66**	**106**	P	**Pn**	**07 22 50.8**	**+0.1**
IDI				LR	LR	07 23 39.0	
IDI	**Anoyia**	**2.66**	**106**	P	**Pn**	**07 22 50.8**	**+0.1**
LKR	**Lokris**	**2.76**	**21**	P	**Pn**	**07 22 52.9**	**+0.8**
LKR				S	**Sn**	**07 23 25.8**	**-0.1**
LKR	**Lokris**	**2.76**	**21**	P	**Pn**	**07 22 52.9**	**+0.8**
LKR				S	**Sn**	**07 23 25.8**	**-0.1**
LKD	**Levkas**	**2.78**	**342**	P	**Pn**	**07 22 54.8**	**+2.4**
AGG	**Agios Georgios**	**2.99**	**9**	P	**Pn**	**07 22 56.5**	**+1.3**
AGG				S	**Sn**	**07 23 31.2**	**-0.2**
AGG	**Agios Georgios**	**2.99**	**9**	P	**Pn**	**07 22 56.5**	**+1.3**
AGG				S	**Sn**	**07 23 31.2**	**-0.2**
LAST	**Lasithi**	**3.16**	**105**	P	**Pn**	**07 22 57.5**	**0.0**
LAST	**Lasithi**	**3.16**	**105**	P	**Pn**	**07 22 57.5**	**0.0**
TIP	**Timpagrande**	**5.04**	**310**	*e*Pn	**Pn**	**07 23 22.5**	**-1.0**
	6.8nm,0.5s						
TIP				*e*Sn	**Sn**	**07 24 22.1**	**0.0**
TIP	**Timpagrande**	**5.04**	**310**	*e*Pn	**Pn**	**07 23 22.5**	**-0.9**
	6.8nm,0.5s						
TIP				*e*Sn	**Sn**	**07 24 22.1**	**0.0**
KRUS	**Krusevo**	**5.31**	**356**	*e*Pn	**Pn**	**07 23 26.9**	**-0.2**
KRUS				*e*Sn	**Sn**	**07 24 26.9**	**-1.9**
KRUS	**Krusevo**	**5.31**	**356**	*e*Pn	**Pn**	**07 23 26.9**	**-0.2**
KRUS				*e*Sn	**Sn**	**07 24 26.8**	**-2.0**
CUC	**Castrocucco**	**6.12**	**312**	*e*Pn	**Pn**	**07 23 40.4**	**+2.2**
	14nm,0.8s						
CUC				*e*Sn	**Sn**	**07 24 46.4**	**-2.2**
BARS	**Barje**	**6.74**	**0**	*i* Pn	**Pn**	**07 23 46.3**	**-0.5**
BBLS	**Lazići**	**8.00**	**348**	*e*Pn	**Pn**	**07 24 04.8**	**+0.8**
DIVS	**Divibare**	**8.14**	**351**	*e*Pn	**Pn**	**07 24 04.0**	**-1.9**
BRTR	**Keskin Array B**	**10.07**	**65**	P	**Pn**	**07 24 33.4**	**+0.9**
	0.1nm,0.3s,baz=251,slow=12,SNR=3.4						
BRTR	**Keskin Array B**	**10.07**	**65**	P	**Pn**	**07 24 33.4**	**+1.0**
EMHD	**Djebel Mahouad**	**15.20**	**276**	P		07 28 02.2	
EMHD	**Djebel Mahouad**	**15.20**	**276**	P		07 28 02.2	
AKASG	**Malin Array Be**	**15.59**	**18**	P	**Pn**	**07 25 48.9**	**+1.4**
	0.9nm,0.3s,baz=218,slow=7.3,SNR=4.2						
EBNR	**Beni Rached**	**16.34**	**277**	P		07 28 06.8	
EBNR	**Beni Rached**	**16.34**	**277**	P		07 28 06.8	
ECHA	**Ech Chlef**	**16.49**	**276**	P		07 28 11.8	
ECHA	**Ech Chlef**	**16.49**	**276**	P		07 28 11.8	
ETRT	**Tiaret**	**16.63**	**274**	P		07 28 12.3	
ETRT	**Tiaret**	**16.63**	**274**	P		07 28 12.3	
EANR	**'Ain N'Sour**	**16.72**	**276**	P		07 28 09.5	
EANR	**'Ain N'Sour**	**16.72**	**276**	P		07 28 09.5	
FINES	**FINESS Array B**	**25.55**	**5**	P	**P**	**07 27 34.6**	**-1.9**
	3.5nm,1.0s,mb3.8,baz=217,slow=6.6,SNR=3.0						
TORD	**Torodi Ar. Bea**	**29.09**	**223**	P	**P**	**07 28 09.8**	**+1.0**
	0.8nm,0.7s,mb3.6,baz=32,slow=8.7,SNR=3.7						
ARCES	**ARCESS Array B**	**33.59**	**2**	P	**P**	**07 28 45.7**	**-2.2**
	0.8nm,0.5s,mb3.9,baz=185,slow=9.1,SNR=7.9						
BVAR	**Borovoye Array**	**37.76**	**48**	P	**P**	**07 29 21.5**	**-2.4**
	0.3nm,0.5s,mb3.3,baz=288,slow=5.6,SNR=2.5						
MKAR	**Makanchi Array**	**45.59**	**57**	P	**P**	**07 30 25.2**	**-3.0**
	0.5nm,0.3s,mb3.9,baz=268,slow=7.7,SNR=15						
ZALV	**Zalesovo Beam**	**46.39**	**47**	P	**P**	**07 30 29.6**	**-4.7**
	0.6nm,0.3s,mb4.0,baz=284,slow=5.8,SNR=2.6						

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*NEIC **27** 07:37:19.3, 60°.12N×140°.72W, h1^{km}, ML2.6(PGC), After PGC.*

PGC 27 07:37:19.3±0.6**, 60°.12N**×**140°.72W, h1**^{km}**, ML2.6**/3**, 7D, 115km northwest of Yakutat, Ak Southeastern Alaska, Southeastern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNL	**Peninsula**	**0.81**	**124**	P	Pg	07 37 35.5	+0.7
PNL				S	Sg	07 37 47.9	+2.7
HYT	**Haines Junctio**	**1.74**	**65**	⇓Pn	Pn	07 37 50.3	-0.4
HYT				⇓Sg	Sg	07 38 13.8	-1.5
PLBC	**Pleasant Camp**	**2.30**	**105**	⇑Pn	Pn	07 37 58.5	+0.2
PLBC				⇓Sg	Sg	07 38 30.4	-2.8
EYAK	**Cordova Ski Ar**	**2.54**	**282**	P	Pn	07 38 00.8	-0.7
WHY	**Whitehorse**	**2.95**	**77**	⇓Pn	Pn	07 38 07.1	-0.1
WHY				⇑Sn	Sn	07 38 42.6	-0.6
WHY				⇓Sg	Sg	07 38 51.4	-2.5
WHY	**Whitehorse**	**2.95**	**77**	Pn	Pn	07 38 07.1	-0.1
WHY				Sn	Sn	07 38 42.6	-0.6
BCA3	**Beaver Creek A**	**3.00**	**351**	P	Pn	07 38 05.8	-2.0
DOT	**Dot Lake**	**3.87**	**337**	P	Pn	07 38 17.9	-2.0
DAWY	**Dawson**	**4.01**	**8**	⇓Pn	Pn	07 38 20.9	-0.8
DAWY				⇓Sn	Sn	07 39 07.4	-1.8
DAWY				⇑Sg	Sg	07 39 22.8	-5.1
DAWY	**Dawson**	**4.01**	**8**	Pn	Pn	07 38 20.9	-0.8
DAWY				Sn	Sn	07 39 07.4	-1.8
EGAK	**Eagle**	**4.68**	**358**	P	Pn	07 38 29.2	-1.7
DLBC	**Dease Lake**	**5.74**	**102**	⇑Sg	Sg	07 40 17.5	-6.0
KTH	**Kantishna Hill**	**5.93**	**310**	P	Pn	07 38 47.1	-0.9

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*NEIC **27** 07:37:27.1±5.7, 24°.90N×122°.58E, h10^{km}, Error ellipse: s-maj=53.7km s-min=20.0km az=51.0*

TAP 27 07:37:34.2, 24°.83N×121°.97E, h74^{km}**, ML3.7, 3D, D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TWB1	**Santiao Chiao**	**0.18**	**6**	*i* P	Pn	07 37 45.5	+0.3
	baz=8.0						
TWB1				*i* S	Sn	07 37 53.5	+0.3
	baz=8.0						
ILA	**Ilan**	**0.21**	**252**	P	Pn	07 37 46.5	+1.2
	baz=250						
ILA				S	Sn	07 37 54.1	+0.7
	baz=250						
TWC	**Suao**	**0.25**	**206**	*i* P	Pn	07 37 45.3	-0.1
	baz=204						
TWC				*e*S	Sn	07 37 53.2	-0.5
	baz=204						
NWF	**Wu-fen Shan**	**0.29**	**324**	*i* P	Pn	07 37 46.2	+0.4
	baz=324						
NWF				*i* S	Sn	07 37 54.4	+0.2
	baz=324						
TWE	**Neicheng**	**0.30**	**248**	P	Pn	07 37 46.1	+0.4
	baz=246						
TWE				S	Sn	07 37 54.5	+0.3
	baz=246						
TWA	**Mucha**	**0.38**	**293**	*e*P	Pn	07 37 46.6	+0.3
	baz=292						
TWA				*e*S	Sn	07 37 55.3	+0.1
	baz=292						
ENTT	**Nioudou**	**0.41**	**243**	*i* P	Pn	07 37 47.0	+0.4
	baz=241						

ENTT	baz=241			*e*S	Sn	07 37 57.1	+1.4
ENA	**Nanau** baz=206	**0.45**	**207**	⇓*i*P	Pn	07 37 47.3	+0.4
ENA	baz=206			S	Sn	07 37 57.3	+1.0
TATO	**Taipei**	**0.46**	**288**	*e*Pn	Pn	07 37 46.8	-0.1
TWY	**Chenhua** baz=323	**0.56**	**323**	*e*P	Pn	07 37 48.5	+0.7
YHNB	**Yeheng**	**0.56**	**253**	*e*Pn	Pn	07 37 48.0	0.0
YHNB				*e*Sn	Sn	07 37 55.6	-2.4
TWS1	**Kuangyinshan** baz=298	**0.57**	**298**	P	Pn	07 37 48.6	+0.6
TWS1	baz=298			*e*S	Sn	07 37 59.0	+0.8
NSK	**Sanguang** baz=253	**0.58**	**255**	⇓*i*P	Pn	07 37 48.4	+0.3
NSK	baz=253			S	Sn	07 37 58.1	-0.2
NNS	**Nan Shan** baz=233	**0.67**	**234**	⇓*i*P	Pn	07 37 49.6	+0.6
NNS	baz=233			S	Sn	07 38 00.8	+0.8
NCU	**National Centr** baz=280	**0.72**	**281**	P	Pn	07 37 50.2	+0.6
NCU	baz=280			S	Sn	07 38 02.5	+1.5
NACB	**Ninganchiao**	**0.74**	**208**	*e*Pn	Pn	07 37 49.7	-0.1
NACB				*e*Sn	Sn	07 37 59.7	-1.6
TWD	**Chiawan** baz=203	**0.82**	**204**	P	Pn	07 37 50.5	-0.3
TWD	baz=203			*e*S	Sn	07 38 02.6	-0.4
NSTT	**Nanjuang** baz=256	**0.90**	**257**	*i* P	Pn	07 37 51.9	+0.2
NSTT	baz=256			*i* S	Sn	07 38 05.1	+0.4
HSN	**Hsinchu** baz=269	**0.91**	**268**	*e*P	Pn	07 37 51.8	+0.1
HSN	baz=269			*e*S	Sn	07 38 05.1	+0.3
TWT	**Tachien** baz=231	**0.92**	**232**	*i* P	Pn	07 37 53.2	+1.3
TWT	baz=231			S	Sn	07 38 06.4	+1.3
WHF	**Hehuan Shan** baz=222	**0.94**	**223**	*i* P	Pn	07 37 52.8	+0.6
WHF	baz=222			*i* S	Sn	07 38 06.1	+0.6
ESL	**Shilin** baz=205	**1.12**	**206**	*e*P	Pn	07 37 54.9	+0.5
ESL	baz=205			*e*S	Sn	07 38 09.1	-0.5
NSY	**Sanyi** baz=249	**1.18**	**250**	P	Pn	07 37 55.7	+0.7
NSY	baz=249			S	Sn	07 38 11.5	+0.8
TWQ1	**Liyutan** baz=245	**1.19**	**246**	P	Pn	07 37 55.4	+0.2
TWQ1	baz=245			S	Sn	07 38 11.1	+0.1
SMLT	**Sun Moon Lake** baz=225	**1.36**	**226**	P	Pn	07 37 58.0	+0.5
SMLT	baz=225			S	Sn	07 38 15.9	+1.1
TYC	**Yuchr** baz=227	**1.37**	**228**	*i* P	Pn	07 37 58.0	+0.4
TYC	baz=227			S	Sn	07 38 16.0	+0.8
SSLB	**Suanglung**	**1.39**	**222**	*e*Pn	Pn	07 37 58.1	+0.2
SSLB				*e*Sn	Sn	07 38 15.5	-0.1
EHY	**Hungye** baz=203	**1.45**	**204**	*e*P	Pn	07 37 58.9	+0.3
EHY	baz=203			*e*S	Sn	07 38 17.3	+0.4
YULB	**Yu-li**	**1.56**	**203**	*e*Pn	Pn	07 38 00.2	+0.1
YULB				*e*Sn	Sn	07 38 18.8	-0.8
TWF1	**Yuli** baz=202	**1.60**	**203**	*e*P	Pn	07 38 00.8	+0.3
CHN5	**Tsauling** baz=223	**1.70**	**224**	P	Pn	07 38 02.3	+0.3
CHN5	baz=223			S	Sn	07 38 24.1	+1.1
ELDTW	**Lidau** baz=207	**1.85**	**208**	P	Pn	07 38 04.5	+0.6
ELDTW	baz=207			*e*S	Sn	07 38 26.1	-0.4
CHN4	**Tsaushan** baz=220	**1.94**	**221**	*e*P	Pn	07 38 06.5	+1.4
CHN4	baz=220			*e*S	Sn	07 38 29.9	+1.3
STYT	**Tauyuan** baz=213	**2.00**	**214**	*e*P	Pn	07 38 08.0	+2.1
STYT	baz=213			*e*S	Sn	07 38 31.4	+1.4
WTP	**Ta-pu** baz=217	**2.01**	**218**	P	Pn	07 38 06.9	+0.9
WTP	baz=217			*e*S	Sn	07 38 31.4	+1.1
TWK	**Hsinying** baz=220	**2.06**	**221**	*e*P	Pn	07 38 08.2	+1.4
TWK	baz=220			*e*S	Sn	07 38 32.8	+1.2
CHN1	**Nanshi** baz=218	**2.10**	**219**	*e*P	Pn	07 38 07.7	+0.4
CHN1	baz=218			*e*S	Sn	07 38 32.5	-0.1
SGST	**Jiashian** baz=215	**2.15**	**216**	P	Pn	07 38 09.2	+1.1
SGST	baz=215			*e*S	Sn	07 38 34.3	+0.4

IDC 27 07:52:20.4±3.5**,3°.36S**×**136°.29E,h0**^{km}**,mb3.5**/2**, mb1 3.9**/3**,mb1mx3.6**/14**,mbtmp3.7**/3**,ML3.7**/1**,Error ellipse: s-maj=150.0km s-min=30.1km az=81.0,Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr** 0.3nm,0.3s,baz=5.7,slow=12,SNR=9.7	**16.59**	**186**	Pn	Pn	07 56 16.3	+1.7
ASAR	**Alice Springs** 1.7nm,0.6s,baz=8.3,slow=11,SNR=21	**20.32**	**186**	P	P	07 56 57.6	-0.6
MKAR	**Makanchi Array** 0.2nm,0.5s,baz=119,slow=7.6,SNR=6.8	**68.84**	**323**	P	P	08 03 26.9	+0.2

IDC 27 07:55:50.0±5.3**,26°.34N**×**109°.33W,h0**^{km}**,mb2.9**/1**, mb1 3.7**/4**,mb1mx3.6**/23**,mbtmp3.3**/4**,ML3.5**/3**,Error ellipse: s-maj=71.5km s-min=22.1km az=178.0,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	**Lajitas Array** 0.2nm,0.3s,baz=230,slow=13,SNR=20	**5.83**	**58**	Pn	Pn	07 57 18.7	+1.0
TXAR	0.2nm,0.3s,baz=100,slow=22,SNR=3.9			Lg		07 58 53.0	
NVAR	**Mina Array Bea** 0.1nm,0.3s,baz=164,slow=13,SNR=8.9	**14.23**	**330**	Pn	Pn	07 59 16.0	+3.3
PDAR	**Pinedale Array** 0.0nm,0.3s,baz=177,slow=8.3,SNR=14	**16.39**	**359**	Pn	Pn	07 59 43.9	+2.6
YKA	**Yellowknife Ar** 0.3nm,1.0s,baz=184,slow=7.7,SNR=3.9	**36.32**	**356**	P	P	08 02 54.5	-0.6

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*ISCJB **27** 07:59:37.9±0.1, 41°.154N±0°.008×114°.86W±0°.01, h10^{km}, mb4.0/2, Error ellipse: s-maj=1.3km s-min=1.1km az=172.2*

*IDC **27** 07:59:37.8±0.8, 41°.12N×114°.73W, h0^{km}, mb3.5/1, mb1 4.2/5, mb1mx3.8/24, mbtmp3.8/5, ML4.2/4, Error ellipse: s-maj=13.8km s-min=5.3km az=143.0*

*BJI **27** 07:59:38.2, 41°.20N×114°.80W, h8^{km}, mb4.7/4, Ms4.7/1, Ms7 4.6/2*

*NEIC **27** 07:59:38.2, 41°.19N×114°.83W, h9^{km}, ML4.3, MW4.1(SLM), After REN.*

NEIC Felt [III] at Wells. Felt at Deeth, Elko, Mountain City and Spring Creek. Also felt at Brigham City and Wendover, Utah.

ISC 27 07:59:39.3±0.1**,41°.151N**±0°.008×**114°.87W**±0°.01**,h10**^{km}**, n380,**σ1ˢ.**15**/430**,mb4.0**/2**,143C-119D,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,** baz=0.4,SNR=1000	**0.32**	**203**	P	**Pg**	**07 59 45.3**	**-0.5**
N12A	baz=0.4			⇓S	**Sg**	**07 59 50.9**	**+0.8**
ELK	**Elko** 3µm,0.3s,baz=21,slow=14	**0.49**	**214**	Pg	**Pg**	**07 59 48.2**	**-0.7**
ELK	3µm,0.3s,baz=143,slow=18,SNR=50			Lg		07 59 55.5	
ELK	**Elko**	**0.49**	**214**	*e*Pg	**Pg**	**07 59 48.4**	**-0.5**
ELK				*e*Sg	**Sg**	**07 59 54.8**	**-0.6**
M13A	**Montello** baz=0.5,SNR=1000	**0.57**	**68**	⇑P	**Pg**	**07 59 48.2**	**-2.2**
M13A	**Montello**	**0.57**	**68**	*e*Pg	**Pg**	**07 59 48.1**	**-2.3**
M13A				*e*Sg	**Sg**	**07 59 56.3**	**-1.7**
N13A	**Wendover, West** baz=0.6,SNR=1000	**0.59**	**120**	P	**Pg**	**07 59 49.4**	**-1.3**
N13A	baz=0.6			⇓S	**Sg**	**07 59 57.2**	**-1.2**
N13A	**Wendover, West**	**0.59**	**120**	*e*Pg	**Pg**	**07 59 49.4**	**-1.3**
N11A	**Elko Archery C** baz=0.8,SNR=1000	**0.73**	**243**	⇓P	**Pg**	**07 59 52.6**	**-0.9**
N11A	baz=0.8			⇓S	**Sg**	**08 00 03.3**	**+0.3**
M11A	**Holland Ranch,** baz=0.7,SNR=1000	**0.74**	**292**	P	**Pg**	**07 59 52.4**	**-1.3**
M11A	baz=0.7			⇑S	**Sg**	**08 00 02.3**	**-1.2**
O12A	**Currie** baz=0.9,SNR=1000	**0.89**	**174**	P	**Pg**	**07 59 55.6**	**-0.8**
O12A	baz=0.9			⇑S	**Sg**	**08 00 08.0**	**0.0**
L12A	**House Creek Ra** baz=0.9,SNR=1000	**1.00**	**354**	⇑P	**Pg**	**07 59 56.2**	**-2.4**
L13A	**Double Diamond** baz=1.1,SNR=1000	**1.17**	**36**	⇑P	**Pb**	**07 59 58.6**	**-3.0**
O11A	**Cowboy Ranch,** baz=1.2,SNR=1000	**1.18**	**211**	P	**Pb**	**08 00 00.9**	**-0.8**
O11A	baz=1.2			⇓S	**Sb**	**08 00 17.8**	**+0.7**
M14A	**Sheep Mountain** baz=1.2,SNR=1000	**1.20**	**73**	⇑P	**Pb**	**07 59 59.4**	**-2.8**
M14A	baz=1.2			⇑S	**Sb**	**08 00 15.0**	**-2.8**
L11A	**Cat Creek Ranc** baz=1.2,SNR=1000	**1.21**	**327**	P	**Pn**	**07 59 59.8**	**-2.5**
L11A	baz=1.2			⇑S	**Sb**	**08 00 15.8**	**-2.2**
O13A	**Hicks Ranch, I** baz=1.3,SNR=1000	**1.23**	**146**	P	**Pn**	**08 00 01.0**	**-1.5**
O13A	baz=1.3			⇓S	**Sb**	**08 00 18.4**	**0.0**
M10A	**I.L. Ranch, Tu** baz=1.3,SNR=1000	**1.31**	**287**	P	**Pn**	**08 00 02.3**	**-1.3**
M10A	baz=1.3			⇑S	**Sb**	**08 00 20.1**	**-0.7**
N10A	**Dunphy** baz=1.3,SNR=188	**1.31**	**251**	⇓P	**Pn**	**08 00 02.3**	**-1.4**
N10A	baz=1.3			⇑S	**Sb**	**08 00 20.7**	**-0.2**
N14A	**Grayback Hills** baz=1.3,SNR=1000	**1.31**	**103**	P	**Pn**	**08 00 01.4**	**-2.2**
N14A	baz=1.3			⇑S	**Sb**	**08 00 19.2**	**-1.7**
BGU	**Big Grassy Mou**	**1.41**	**99**	*e*Pg	**Pg**	**08 00 03.2**	**-3.3**
BGU				*e*Sg	**Sg**	**08 00 19.7**	**-5.1**
K12A	**Draper Farm, C** baz=1.4,SNR=207	**1.48**	**359**	⇓P	**Pn**	**08 00 02.7**	**-3.3**
K12A	baz=1.4			⇑S	**Sn**	**08 00 22.5**	**-3.0**
O10A	**Cortez Mining,** baz=1.5,SNR=690	**1.50**	**236**	P	**Pn**	**08 00 05.7**	**-0.7**
L14A	**Malta** baz=1.5,SNR=1000	**1.51**	**54**	P	**Pn**	**08 00 04.3**	**-2.1**
L14A	baz=1.5			⇓Sb	**Sb**	**08 00 24.0**	**-2.6**
L10A	**Juniper Basin** baz=1.5,SNR=1000	**1.51**	**308**	P	**Pn**	**08 00 05.0**	**-1.5**
L10A	baz=1.5			⇑Sb	**Sb**	**08 00 25.7**	**-1.0**
K13A	**Stover Farm, H** baz=1.6,SNR=1000	**1.61**	**21**	⇑P	**Pn**	**08 00 05.3**	**-2.5**
K13A	baz=1.6			⇑Sb	**Sb**	**08 00 27.0**	**-2.5**
HVU	**Hansel Valley**	**1.70**	**68**	*e*Pn	**Pn**	**08 00 07.2**	**-1.8**
HVU				*e*Sn	**Sn**	**08 00 29.7**	**-1.1**
P11A	**Circle Ranch,** baz=1.8,SNR=344	**1.73**	**203**	⇓P	**Pn**	**08 00 08.9**	**-0.6**
P11A	baz=1.8			⇑S	**Sn**	**08 00 31.4**	**-0.2**
N15A	**Stansbury Isla** baz=1.8,SNR=1000	**1.80**	**98**	P	**Pn**	**08 00 08.7**	**-1.7**
P13A	**Bates Ranch, G** baz=1.9,SNR=1000	**1.82**	**159**	P	**Pn**	**08 00 09.1**	**-1.5**
P13A	baz=1.9			⇑Sb	**Sb**	**08 00 35.8**	**+0.4**
K11A	**Parker Ranch,** baz=1.8,SNR=1000	**1.83**	**332**	P	**Pn**	**08 00 09.8**	**-1.1**
K11A	baz=1.8			⇑Sb	**Sb**	**08 00 34.3**	**-1.7**
DUG	**Dugway** baz=1.8,SNR=1000	**1.84**	**121**	P	**Pn**	**08 00 08.7**	**-2.2**
DUG	baz=1.8			⇓Sb	**Sb**	**08 00 35.3**	**-0.6**
DUG	**Dugway**	**1.84**	**121**	*e*Pn	**Pn**	**08 00 09.0**	**-1.9**
DUG				*e*Sn	**Sn**	**08 00 34.1**	**0.0**
SPUT	**South Promonto**	**1.84**	**84**	*e*Pn	**Pn**	**08 00 09.2**	**-1.7**
M15A	**Larsen Ranch,** baz=1.8,SNR=1000	**1.85**	**80**	P	**Pn**	**08 00 09.1**	**-2.0**
K14A	**Jones Ranch, D** baz=1.8,SNR=1000	**1.88**	**42**	⇓P	**Pn**	**08 00 09.9**	**-1.7**
BMN	**Battle Mountai**	**1.92**	**249**	*e*Pn	**Pn**	**08 00 11.0**	**-1.1**
P10A	**Eureka** baz=2.0,SNR=576	**1.95**	**219**	P	**Pn**	**08 00 12.3**	**-0.2**
M09A	**Marrel Ranch,** baz=2.0,SNR=254	**1.96**	**279**	⇓P	**Pn**	**08 00 11.6**	**-1.0**
O09A	**Fish Creek Ran** baz=2.1,SNR=72	**2.02**	**242**	⇑P	**Pn**	**08 00 12.5**	**-0.9**
O15A	**The Old Anders** baz=2.0,SNR=145	**2.02**	**115**	⇑P	**Pn**	**08 00 11.5**	**-1.9**
N09A	**Rock Creek Ran** baz=2.0,SNR=122	**2.03**	**262**	⇓P	**Pn**	**08 00 12.2**	**-1.3**
N09A	baz=2.0			⇑Sb	**Sb**	**08 00 41.9**	**+0.4**
L15A	**Malad City** baz=2.0,SNR=1000	**2.05**	**65**	P	**Pn**	**08 00 12.2**	**-1.6**
P14A	**Drum Mountains** baz=2.1,SNR=819	**2.08**	**138**	⇓P	**Pn**	**08 00 12.7**	**-1.5**
J12A	**Stokes Ranch,** baz=2.1,SNR=1000	**2.10**	**356**	⇓P	**Pn**	**08 00 13.6**	**-1.0**
J12A	baz=2.1			⇑Sb	**Sb**	**08 00 41.6**	**-2.1**
Q12A	**Willow Creek R** baz=2.2,SNR=568	**2.11**	**179**	P	**Pn**	**08 00 13.9**	**-0.7**
NOQ	**North Oquirrh**	**2.15**	**103**	*e*Pn	**Pn**	**08 00 13.4**	**-1.8**
K10A	**MacKenzie Ranc** baz=2.2	**2.20**	**318**	⇓P	**Pn**	**08 00 15.3**	**-0.6**
L09A	**Wilkinson Ranc** baz=2.3	**2.27**	**293**	⇑P	**Pn**	**08 00 16.0**	**-0.8**
L09A	baz=2.3			⇑Sb	**Sb**	**08 00 48.1**	**-0.2**
Q13A	**Wheeler Ranch,** baz=2.3,SNR=406	**2.29**	**163**	P	**Pn**	**08 00 15.8**	**-1.3**
J13A	**Cove Ranch, Pi** baz=2.2,SNR=1000	**2.30**	**13**	P	**Pn**	**08 00 16.8**	**-0.6**
J13A	baz=2.2			⇑Sb	**Sb**	**08 00 47.3**	**-2.2**
K15A	**Arbon** baz=2.3,SNR=833	**2.33**	**48**	P	**Pn**	**08 00 16.6**	**-1.0**
P09A	**Austin** baz=2.4,SNR=38	**2.36**	**228**	⇑P	**Pn**	**08 00 17.6**	**-0.5**
MFID	**Camas Ranch** baz=2.3	**2.37**	**343**	⇑P	**Pn**	**08 00 17.6**	**-0.7**
MFID	baz=2.3			⇓Sb	**Sb**	**08 00 49.8**	**-1.6**
Q11A	**Duckwater** baz=2.4,SNR=417	**2.38**	**195**	⇑P	**Pn**	**08 00 17.8**	**-0.5**
J14A	**Carey** baz=2.3,SNR=1000	**2.39**	**24**	P	**Pn**	**08 00 18.0**	**-0.5**
J14A	baz=2.3			⇑Sb	**Sb**	**08 00 50.4**	**-1.6**
CTU	**Camp Tracy**	**2.41**	**100**	*e*Pn	**Pn**	**08 00 18.7**	**-0.1**
HLID	**Hailey** baz=2.4,SNR=1000	**2.43**	**8**	P	**Pn**	**08 00 18.7**	**-0.4**
HLID	baz=2.4			⇑Sb	**Sb**	**08 00 51.1**	**-2.1**
HLID	**Hailey**	**2.43**	**8**	*e*Pn	**Pn**	**08 00 18.9**	**-0.2**
NLU	**North Lily Min**	**2.44**	**118**	*e*Pn	**Pn**	**08 00 17.1**	**-2.1**
M16A	**Huntsville** baz=2.4,SNR=144	**2.45**	**85**	⇑P	**Pn**	**08 00 17.8**	**-1.6**
Q14A	**Sevier Lake (B** baz=2.5,SNR=613	**2.48**	**150**	P	**Pn**	**08 00 18.1**	**-1.7**
Q14A	baz=2.5			⇑Sb	**Sb**	**08 00 55.3**	**+0.6**
N08A	**GE Springer Mi** baz=2.5,SNR=94	**2.50**	**263**	⇑P	**Pn**	**08 00 18.6**	**-1.3**
P15A	**Leamington** baz=2.6,SNR=57	**2.54**	**128**	⇓P	**Pn**	**08 00 18.6**	**-1.9**
Q10A	**Clear Creek Ra** baz=2.7,SNR=1000	**2.60**	**207**	P	**Pn**	**08 00 21.0**	**-0.4**
N16A	**Rees Ranch, Co** baz=2.6	**2.61**	**95**	⇑P	**Pn**	**08 00 20.7**	**-0.9**
K09A	**Rome** baz=2.6	**2.63**	**307**	⇑P	**Pn**	**08 00 20.4**	**-1.4**
O08A	**Rochester Mine** baz=2.7,SNR=84	**2.64**	**252**	⇑P	**Pn**	**08 00 20.8**	**-1.1**
M08A	**Happy Creek Ra** baz=2.7,SNR=36	**2.66**	**278**	⇓P	**Pn**	**08 00 21.2**	**-1.0**
J10A	**Berg Farm, Mel** baz=2.6	**2.67**	**329**	⇑P	**Pn**	**08 00 21.7**	**-0.7**
J10A	baz=2.6			⇓Sb	**Sb**	**08 00 59.4**	**-0.7**
MPU	**Maple Canyon**	**2.72**	**114**	*e*Pn	**Pn**	**08 00 21.1**	**-1.9**
L16A	**Fish Haven** baz=2.7,SNR=139	**2.72**	**70**	⇓P	**Pn**	**08 00 22.0**	**-1.1**
L08A	**Fields** baz=2.8	**2.80**	**293**	⇓P	**Pn**	**08 00 23.4**	**-0.7**
I13A	**Wildhorse Cree** baz=2.8,SNR=537	**2.82**	**11**	P	**Pn**	**08 00 24.3**	**-0.1**
I13A	baz=2.8			⇓Sb	**Sb**	**08 01 02.4**	**-1.8**
R12A	**Pony Springs,** baz=2.9,SNR=85	**2.83**	**176**	P	**Pn**	**08 00 24.1**	**-0.4**
DAU	**Daniels Canyon**	**2.84**	**104**	*e*Pn	**Pn**	**08 00 23.7**	**-1.1**
P08A	**Dixie Valley** baz=2.9,SNR=63	**2.85**	**240**	P	**Pn**	**08 00 24.2**	**-0.6**
R11A	**Troy Canyon, C** baz=2.9,SNR=743	**2.85**	**191**	⇓P	**Pn**	**08 00 24.2**	**-0.7**
I11A	**Placerville** baz=2.8	**2.87**	**344**	⇑P	**Pn**	**08 00 24.9**	**-0.3**
I11A	baz=2.8			⇑Sb	**Sb**	**08 01 04.5**	**-1.3**
Q15A	**Fillmore** baz=2.9,SNR=122	**2.88**	**138**	P	**Pn**	**08 00 23.6**	**-1.6**
J15A	**Blackfoot** baz=2.8	**2.89**	**38**	⇑P	**Pn**	**08 00 24.0**	**-1.3**
P16A	**Fountain Green** baz=2.9,SNR=19	**2.90**	**121**	⇓P	**Pn**	**08 00 23.6**	**-1.9**
Q09A	**Carvers** baz=3.0,SNR=108	**2.92**	**218**	⇑P	**Pn**	**08 00 25.3**	**-0.4**
I14A	**Mackay** baz=2.9,SNR=80	**2.97**	**20**	⇑P	**Pn**	**08 00 26.3**	**-0.2**
I14A	baz=2.9			⇓Sb	**Sb**	**08 01 06.8**	**-1.7**
K16A	**Soda Springs** baz=2.9	**2.97**	**54**	⇑P	**Pn**	**08 00 25.9**	**-0.5**
R13A	**O'Grain Ranch,** baz=3.1,SNR=1000	**3.05**	**166**	P	**Pn**	**08 00 27.4**	**-0.2**
J09A	**Fry Pan Ranch,** baz=3.0	**3.06**	**317**	⇓P	**Pn**	**08 00 27.6**	**-0.1**
N17A	**Moffit Pass** baz=3.0	**3.06**	**93**	⇑P	**Pn**	**08 00 28.0**	**+0.3**
R10A	**Warm Springs** baz=3.1,SNR=92	**3.06**	**202**	⇑P	**Pn**	**08 00 27.4**	**-0.4**
WVOR	**Wild Horse Val**	**3.09**	**296**	*e*Pn	**Pn**	**08 00 28.8**	**+0.6**
WVOR				*e*Sn	**Sn**	**08 01 10.8**	**+5.7**
K08A	**Mann Creek Ran** baz=3.1	**3.12**	**302**	⇑P	**Pn**	**08 00 28.2**	**-0.4**
K08A	baz=3.1			⇓Sb	**Sb**	**08 01 13.4**	**+0.4**
N07B	**Gerlach** baz=3.1,SNR=19	**3.12**	**265**	⇓P	**Pn**	**08 00 27.7**	**-0.9**
L17A	**Cokeville** baz=3.1	**3.15**	**71**	⇑P	**Pn**	**08 00 28.5**	**-0.4**
M17A	**Scullys Gap (B** baz=3.2	**3.19**	**83**	⇑P	**Pn**	**08 00 30.3**	**+0.8**
R14A	**James Farms, M** baz=3.2,SNR=25	**3.19**	**153**	⇑P	**Pn**	**08 00 28.3**	**-1.2**
O07A	**Toulon** baz=3.2,SNR=180	**3.20**	**253**	P	**Pn**	**08 00 28.6**	**-1.1**
J16A	**Bone** baz=3.2	**3.22**	**48**	⇓P	**Pn**	**08 00 29.3**	**-0.6**
AHID	**Auburn Hatcher**	**3.24**	**59**	*e*Pn	**Pn**	**08 00 29.4**	**-0.8**
M07A	**Soldier Meadow** baz=3.2,SNR=167	**3.25**	**276**	P	**Pn**	**08 00 29.4**	**-0.9**
I10A	**Payette** baz=3.2	**3.26**	**335**	⇑P	**Pn**	**08 00 31.1**	**+0.6**
Q08A	**Gabbs** baz=3.3,SNR=17	**3.28**	**227**	⇓P	**Pn**	**08 00 30.1**	**-0.6**
O17A	**Robinson Place** baz=3.3,SNR=36	**3.29**	**106**	P	**Pn**	**08 00 30.0**	**-0.9**
I15A	**Monteview** baz=3.3,SNR=52	**3.35**	**31**	⇓P	**Pn**	**08 00 30.8**	**-0.9**
K17A	**Gardner Place,** baz=3.3	**3.35**	**60**	⇑P	**Pn**	**08 00 30.8**	**-0.9**
MSU	**Marysvale**	**3.35**	**141**	*e*Pn	**Pn**	**08 00 30.2**	**-1.6**
TMUT	**Trail Mountain**	**3.36**	**122**	*e*Pn	**Pn**	**08 00 31.7**	**-0.2**
R09A	**Tonopah** baz=3.4,SNR=70	**3.37**	**211**	⇑P	**Pn**	**08 00 31.5**	**-0.4**
H12A	**Diamond D Ranc** baz=3.3,SNR=36	**3.40**	**0**	⇑P	**Pn**	**08 00 32.8**	**+0.4**
RRI2	**Red Ridge**	**3.43**	**49**	*e*Pn	**Pn**	**08 00 32.3**	**-0.5**
H13A	**Challis** baz=3.4,SNR=79	**3.44**	**7**	⇓P	**Pn**	**08 00 33.7**	**+0.8**
L07A	**Adell** baz=3.5,SNR=34	**3.46**	**286**	⇑P	**Pn**	**08 00 32.4**	**-0.8**
J08A	**Circle Bar Ran** baz=3.4	**3.46**	**311**	⇑P	**Pn**	**08 00 33.3**	**0.0**
P07A	**Fallon** baz=3.5,SNR=32	**3.46**	**244**	⇑P	**Pn**	**08 00 32.6**	**-0.7**
S10A	**Tonopah Range,** baz=3.5,SNR=218	**3.49**	**203**	⇑P	**Pn**	**08 00 33.2**	**-0.4**
I09A	**Lost Marbles R** baz=3.5	**3.53**	**324**	⇓P	**Pn**	**08 00 34.6**	**+0.5**
ARUT	**Antelope Range**	**3.54**	**161**	*e*Pn	**Pn**	**08 00 33.9**	**-0.3**
S12A	**Delamar Landin** baz=3.6,SNR=34	**3.54**	**180**	⇓P	**Pn**	**08 00 34.1**	**-0.2**
R15A	**Junction** baz=3.6,SNR=52	**3.56**	**145**	⇑P	**Pn**	**08 00 33.8**	**-0.7**
S11A	**Rachel** baz=3.6,SNR=142	**3.57**	**191**	⇑P	**Pn**	**08 00 34.5**	**-0.2**
P17A	**Butcher Ranch,** baz=3.6	**3.58**	**117**	⇑P	**Pn**	**08 00 35.6**	**+0.8**
K07A	**Rock Creek Ran** baz=3.6	**3.61**	**297**	⇑P	**Pn**	**08 00 35.0**	**-0.2**
Q16A	**Castle Valley** baz=3.6,SNR=14	**3.61**	**127**	⇓P	**Pn**	**08 00 34.2**	**-1.1**
M18A	**Lyman** baz=3.6	**3.63**	**84**	⇓P	**Pn**	**08 00 36.3**	**+0.7**
S14A	**Cedar City** baz=3.7,SNR=123	**3.63**	**158**	P	**Pn**	**08 00 35.1**	**-0.5**
H11A	**Donnelly** baz=3.6	**3.65**	**347**	⇓P	**Pn**	**08 00 35.8**	**0.0**
S13A	**Holt Ranch, En** baz=3.7,SNR=399	**3.65**	**167**	P	**Pn**	**08 00 35.5**	**-0.4**
DCID1	**Drake Creek**	**3.67**	**47**	*e*Pn	**Pn**	**08 00 35.7**	**-0.4**
I16A	**Newdale** baz=3.6	**3.70**	**41**	⇓P	**Pn**	**08 00 35.9**	**-0.6**
H10A	**Noah's Angus R** baz=3.7	**3.70**	**339**	⇓P	**Pn**	**08 00 36.5**	**0.0**
L18A	**Fontenelle, Gr** baz=3.7	**3.71**	**76**	⇑P	**Pn**	**08 00 36.8**	**+0.1**
REDW	**Red Top Meadow**	**3.71**	**52**	*e*Pn	**Pn**	**08 00 36.1**	**-0.6**
TPAW	**Teton Pass**	**3.73**	**50**	*e*Pn	**Pn**	**08 00 36.6**	**-0.4**
Q07A	**Schurz** baz=3.8,SNR=25	**3.74**	**235**	⇓P	**Pn**	**08 00 36.3**	**-0.8**
R08A	**Mina** baz=3.8,SNR=9.9	**3.75**	**223**	⇓P	**Pn**	**08 00 36.7**	**-0.5**
N06A	**Buffalo Meadow** baz=3.8,SNR=32	**3.78**	**266**	P	**Pn**	**08 00 36.5**	**-1.1**
CCUT	**Cedar City**	**3.78**	**161**	*e*Pn	**Pn**	**08 00 37.1**	**-0.5**
NVAR	**Mina Array Bea** 26nm,0.3s,baz=35,slow=13,SNR=656	**3.79**	**225**	Pn	**Pn**	**08 00 37.2**	**-0.5**
NVAR	373nm,0.3s,baz=37,slow=18,SNR=119			Pg	**Pg**	**08 00 49.1**	**-2.9**
NVAR	207nm,0.3s,baz=61,slow=28,SNR=5.4			Lg		08 01 39.2	
NVAR	**Mina Array Bea**	**3.79**	**225**	Pn	**Pn**	**08 00 37.2**	**-0.5**
NVAR				Pg	**Pg**	**08 00 49.1**	**-2.9**
NVAR				Lg		08 01 39.2	
J17A	**Brown Place, J** baz=3.7	**3.80**	**53**	⇑P	**Pn**	**08 00 37.3**	**-0.5**
O18A	**Roosevelt** baz=3.8	**3.80**	**102**	⇓P	**Pn**	**08 00 38.0**	**+0.1**
SNOW	**Snow King Moun**	**3.83**	**52**	*e*Pn	**Pn**	**08 00 37.5**	**-0.8**

H15A	Lima	3.83	25	⇑P	Pn	08 00 37.9	-0.4
	baz=3.8,SNR=34						
P18A	Preston Nutter	3.85	112	⇓P	Pn	08 00 38.1	-0.5
	baz=3.8,SNR=13						
S09A	Goldfield	3.88	209	⇓P	Pn	08 00 38.9	0.0
	baz=3.9,SNR=26						
R16A	Teasdale	3.88	136	⇓P	Pn	08 00 37.9	-1.0
	baz=3.9						
I08A	Drewsey	3.88	317	⇓P	Pn	08 00 38.8	-0.2
	baz=3.8						
O06A	Flanigan	3.89	257	⇑P	Pn	08 00 38.3	-0.9
	baz=3.9,SNR=33						
K18A	Toltan Ranch,	3.90	66	⇓P	Pn	08 00 40.2	+0.9
	baz=3.9						
SRU	San Rafael	3.91	120	P	Pn	08 00 38.6	-0.8
	baz=3.9,SNR=15						
SRU	San Rafael	3.91	120	*e*Pn	Pn	08 00 39.4	0.0
T11A	Corn Creek, Al	3.91	184	P	Pn	08 00 39.0	-0.4
	baz=4.0,SNR=251						
MCMT	McKenzie Canyo	3.96	21	*e*Pn	Pn	08 00 40.5	+0.4
G13A	Cobalt	3.97	7	P	Pn	08 00 41.0	+0.8
	baz=3.9,SNR=52						
J07A	Hines	3.97	305	⇓P	Pn	08 00 40.3	+0.1
	baz=3.9						
S15A	Panguitch	3.98	150	P	Pn	08 00 39.9	-0.4
	baz=4.0,SNR=80						
IMW	Indian Meadow	4.00	45	*e*Pn	Pn	08 00 40.4	-0.3
LOHW	Long Hollow	4.01	51	*e*Pn	Pn	08 00 40.6	-0.1
MOOW	Moose Ponds	4.01	48	*e*Pn	Pn	08 00 40.2	-0.5
H09A	Durkee	4.07	331	⇓P	Pn	08 00 41.7	+0.1
	baz=4.0						
BMO	Blue Mountains	4.11	335	*e*Pn	Pn	08 00 42.9	+0.8
BMO				*e*Sn	Sn	08 01 34.7	+4.5
P06A	Stead Airport,	4.11	251	⇓P	Pn	08 00 40.9	-1.2
	baz=4.1,SNR=9.6						
MOD	Modoc	4.14	282	*e*Pn	Pn	08 00 41.4	-1.2
J18A	Kendall Valley	4.15	59	⇑P	Pn	08 00 42.6	-0.1
	baz=4.1						
WCN	Washoe City	4.17	245	P	Pn	08 00 42.2	-0.8
	baz=4.2,SNR=92						
Q18A	Rafter H Ranch	4.17	118	⇓P	Pn	08 00 42.3	-0.7
	baz=4.2						
T13A	Saint George	4.19	169	P	Pn	08 00 42.7	-0.6
	baz=4.2,SNR=94						
R17A	Hanksville Air	4.21	129	⇑P	Pn	08 00 43.0	-0.5
	baz=4.2,SNR=95						
I17A	Pilgrim Ck.	4.21	48	⇓P	Pn	08 00 43.9	+0.4
	baz=4.2						
G14A	Jackson	4.22	14	⇓P	Pn	08 00 44.3	+0.7
	baz=4.2,SNR=7.6						
L19A	Farson	4.24	75	⇑P	Pn	08 00 44.5	+0.5
	baz=4.2						
BW06	Boulder Array	4.28	66	⇓P	Pn	08 00 45.1	+0.7
	baz=4.2						
BW06	Boulder Array	4.28	66	*e*Pn	Pn	08 00 44.9	+0.5
BW06				*e*Sn	Sn	08 01 34.2	-0.2
PDAR	Pinedale Array	4.28	66	Pn	Pn	08 00 45.2	+0.7
	4.3nm,0.3s,baz=235,slow=12,SNR=224						
PDAR				Lg		08 01 49.9	
	22nm,0.3s,baz=228,slow=20,SNR=12						
T14A	Hurricane	4.32	161	⇑P	Pn	08 00 44.7	-0.3
	baz=4.4,SNR=23						
N19A	John Jarvie Ra	4.32	92	⇑P	Pn	08 00 46.1	+1.1
	baz=4.3						
M19A	Rock Springs	4.32	83	⇑P	Pn	08 00 45.6	+0.6
	baz=4.3						
H08A	Prairie City	4.37	322	⇑P	Pn	08 00 46.1	+0.3
	baz=4.3						
BEKR	Beckwourth	4.37	255	⇑P	Pn	08 00 45.0	-0.7
	baz=4.4						
G15A	Dillon	4.38	23	⇑P	Pn	08 00 45.7	-0.1
	baz=4.3,SNR=14						
R06C	Coleville	4.39	235	⇓P	Pn	08 00 45.1	-0.9
	baz=4.4,SNR=29						
T12A	Moapa	4.42	178	P	Pn	08 00 46.2	-0.3
	baz=4.5,SNR=10						
H16A	Russell Place,	4.44	36	⇑P	Pn	08 00 46.4	-0.3
	baz=4.4						
YFT	Old Faithful	4.44	41	*e*Pn	Pn	08 00 48.5	+1.9
J06A	Christmas Vall	4.45	300	⇑P	Pn	08 00 47.0	+0.2
	baz=4.4						
G10A	Bishop Farm, J	4.45	339	⇑P	Pn	08 00 47.4	+0.5
	baz=4.4						
O19A	Miners Draw (B	4.45	99	⇑P	Pn	08 00 48.8	+2.0
	baz=4.4						
I07A	Izee	4.50	312	⇑P	Pn	08 00 47.6	+0.1
	baz=4.5						
DLMT	Dillon	4.53	21	*e*Pn	Pn	08 00 48.1	+0.3
I18A	Diamond G Ranc	4.53	54	⇓P	Pn	08 00 48.4	+0.5
	baz=4.5						
H17A	Grant Village	4.53	43	⇓P	Pn	08 00 48.7	+0.8
	baz=4.5						
YMR	Madison River	4.54	38	*e*Pn	Pn	08 00 48.2	+0.2
T15A	Red Dirt Ranch	4.56	154	⇑P	Pn	08 00 47.8	-0.5
	baz=4.6,SNR=19						
GRAC	Grapevine Rang	4.58	206	⇑P	Pn	08 00 49.7	+1.1
	baz=4.6						
F12A	Elk City	4.61	357	P	Pn	08 00 50.2	+1.2
	baz=4.6,SNR=27						
G09A	Cove	4.64	334	⇓P	Pn	08 00 49.4	0.0
	baz=4.6						
MLAC	Mammoth Lakes	4.67	222	⇓P	Pn	08 00 49.7	-0.1
	baz=4.7						
YNR	Norris Junctio	4.71	39	*e*Pn	Pn	08 00 51.0	+0.6
S17A	Black Ridge (B	4.72	137	P	Pn	08 00 50.5	-0.1
	baz=4.7,SNR=15						
U12A	Valley of Fire	4.72	177	P	Pn	08 00 50.6	+0.1
	baz=4.8,SNR=14						
R18A	Canyonlands Na	4.73	124	⇓P	Pn	08 00 52.1	+1.4
	baz=4.7						
LKWY	Lake	4.74	42	*e*Pn	Pn	08 00 52.1	+1.3
U11A	Corn Creek	4.74	185	P	Pn	08 00 51.0	+0.2
	baz=4.8,SNR=13						
P19A	Cripple Cowboy	4.75	107	⇓P	Pn	08 00 52.1	+1.2
	baz=4.7						
K05A	Summer Lake	4.76	291	⇓P	Pn	08 00 51.9	+0.9
	baz=4.7						
U13A	Pakoon Wash	4.78	171	P	Pn	08 00 51.3	-0.1
	baz=4.8,SNR=58						
F14A	Wisdom	4.79	13	⇑P	Pn	08 00 52.0	+0.6
	baz=4.7,SNR=8.7						
K19A	Absolon Red Bu	4.79	68	⇑P	Pn	08 00 51.9	+0.4
	baz=4.7						
F11A	Grangeville	4.83	349	⇑P	Pn	08 00 51.8	-0.2
	baz=4.8						
I06A	Prineville	4.83	307	⇑P	Pn	08 00 53.0	+0.9
	baz=4.8						
Q19A	Hogan Spring (	4.83	115	⇓P	Pn	08 00 53.8	+1.7
	baz=4.8						
U10A	Ash Meadows, A	4.86	194	⇓P	Pn	08 00 53.5	+1.0
	baz=4.9						
H07A	Lands Inn, Kim	4.87	316	⇓P	Pn	08 00 52.9	+0.4
	baz=4.8						
U14A	Mt Trumbull	4.91	164	P	Pn	08 00 53.6	+0.5
	baz=5.0,SNR=85						
T16A	Glen Canyon Da	4.92	147	P	Pn	08 00 53.8	+0.5
	baz=5.0,SNR=47						
FURC	Furnace Creek,	4.92	199	⇓P	Pn	08 00 54.1	+0.7
	baz=5.0						
L20A	Wamsutter	4.97	78	⇑P	Pn	08 00 56.0	+1.9
	baz=4.9						
LRM	Limekiln Ridge	4.99	20	*e*Pn	Pn	08 00 55.1	+0.9
LRM				*e*Sn	Sb	08 02 09.0	+2.2
F15A	Butte	5.00	19	P	Pn	08 00 54.7	+0.4
	baz=4.9,SNR=6.4						
N20A	Spence Gulch,	5.01	91	⇓P	Pn	08 00 57.3	+2.7
	baz=5.0						
M20A	Sweetwater, Wa	5.05	84	⇓P	Pn	08 00 56.8	+1.7
	baz=5.0						
BOZ	Bozeman (W)	5.08	27	*e*Pn	Pn	08 00 56.0	+0.5
	45nm,0.7s						
G08A	Pilot Rock	5.10	326	⇑P	Pn	08 00 56.5	+0.8
	baz=5.1						
K20A	Yellowstone Ra	5.10	71	⇓P	Pn	08 00 56.1	+0.3
	baz=5.1						
F10A	Beach Ranch, E	5.11	341	⇑P	Pn	08 00 57.2	+1.3
	baz=5.1						
S18A	Hurst Farm, Bl	5.12	131	⇑P	Pn	08 00 58.3	+2.3
	baz=5.1						
O20A	White River Ci	5.15	99	⇑P	Pn	08 00 58.5	+2.1
	baz=5.1						
R19A	Curley Farm, L	5.18	122	⇓P	Pn	08 00 57.9	+0.9
	baz=5.2						
T17A	Navajo Res., N	5.22	141	⇑P	Pn	08 00 58.1	+0.7
	baz=5.3						
P20A	De Beque	5.22	106	⇑P	Pn	08 00 59.1	+1.7
	baz=5.2						
CMB	Columbia Colle	5.27	236	*e*Pn	Pn	08 00 57.5	-0.6
	280nm,0.6s						
CMB				*e*Pg	Pg	08 01 16.2	-4.1
CMB				*e*Sn	Sn	08 02 00.2	+1.2
CMB				*e*Sg	Sg	08 02 25.2	-3.4
E11A	Bogner Ranch,	5.29	350	⇑P	Pn	08 00 59.2	+0.8
	baz=5.2						
E13A	Victor	5.31	5	⇓P	Pn	08 00 59.2	+0.6
	baz=5.3,SNR=9.6						
V11A	Goodsprings	5.32	185	P	Pn	08 00 59.3	+0.5
	baz=5.4,SNR=66						
CWC	Cottonwood Cre	5.33	209	⇑P	Pn	08 01 00.9	+2.0
	baz=5.4						
V13A	Grand Canyon W	5.34	172	P	Pn	08 00 59.5	+0.5
	baz=5.4,SNR=46						
E14A	Clinton	5.36	10	⇓P	Pn	08 01 00.1	+0.9
	baz=5.3						
SHOC	Shoshone	5.36	192	⇑P	Pn	08 00 59.5	+0.2
	baz=5.4						
PV04	Paradox Valley	5.36	119	*e*Pn	Pn	08 01 01.0	+1.6
H06A	Lindquist Farm	5.37	314	⇓P	Pn	08 00 59.5	0.0
	baz=5.3						
G07A	Ruggs Ranch, H	5.40	321	⇓P	Pn	08 01 01.6	+1.7
	baz=5.4						
V12A	Nelson	5.42	180	P	Pn	08 01 00.3	+0.2
	baz=5.5,SNR=115						
F08A	Pendleton	5.44	330	⇓P	Pn	08 01 02.4	+1.9
	baz=5.4						
MPMC	Manual Prospec	5.48	203	P	Pn	08 01 01.4	+0.4
	baz=5.5,SNR=16						
Q20A	Ridgley Place,	5.50	111	⇑P	Pn	08 01 01.2	-0.2
	baz=5.5						
E15A	Deer Lodge	5.51	16	⇓P	Pn	08 01 01.9	+0.5
	baz=5.5						
E10A	Myers Farm, Un	5.57	344	⇓P	Pn	08 01 02.4	+0.2
	baz=5.5						
N21A	Black Mountain	5.58	92	⇑P	Pn	08 01 04.8	+2.4
	baz=5.6						
T18A	Mexican Hat	5.58	134	⇓P	Pn	08 01 03.8	+1.4
	baz=5.6						
S19A	Harvey Farm, M	5.59	126	⇓P	Pn	08 01 04.1	+1.6
	baz=5.6						
U17A	Shonto	5.61	143	⇑P	Pn	08 01 04.1	+1.3
	baz=5.6						
M21A	Separation Pea	5.67	83	⇑P	Pn	08 01 03.8	+0.2
	baz=5.6						
V14A	Boquillas Ranc	5.68	165	⇓P	Pn	08 01 04.5	+0.8
	baz=5.7						
L21A	Rawlins	5.69	79	⇓P	Pn	08 01 04.8	+1.0
	baz=5.6						
G18A	Lazy EL Ranch,	5.69	41	⇓P	Pn	08 01 05.6	+1.8
	baz=5.6						
O21A	Pagoda	5.71	97	⇓P	Pn	08 01 05.8	+1.8
	baz=5.7						
RLMT	Red Lodge	5.71	44	⇑P	Pn	08 01 05.1	+1.0
	baz=5.6						
RLMT	Red Lodge	5.71	44	*e*Pn	Pn	08 01 05.3	+1.3
MSO	Missoula	5.72	6	*e*Pn	Pn	08 01 04.7	+0.5
PV01	Paradox Valley	5.72	120	*e*Pn	Pn	08 01 05.4	+1.1
V15A	Kaibab Nationa	5.73	157	P	Pn	08 01 04.9	+0.5
	baz=5.8,SNR=23						
U16A	Tuba City	5.80	148	⇑P	Pn	08 01 06.2	+0.8
	baz=5.8						
R20A	Redvale	5.82	118	⇑P	Pn	08 01 07.2	+1.5
	baz=5.8						
W12A	Cal Nev Ari	5.84	180	⇑P	Pn	08 01 06.3	+0.3
	baz=5.9						
WDC	Whiskeytown Da	5.84	267	*e*Pn	Pn	08 01 09.4	+3.5
WDC				*e*Pg	Pg	08 01 25.4	-5.8
E16A	East Helena	5.86	22	⇓P	Pn	08 01 06.9	+0.8
	baz=5.8						
E09A	Wood Farm, Sta	5.86	337	⇑P	Pn	08 01 08.5	+2.4
	baz=5.8						
G06A	Carlson Farm,	5.86	316	⇓P	Pn	08 01 07.6	+1.3
	baz=5.8						
P21A	Newcastle	5.90	104	⇓P	Pn	08 01 08.4	+1.6
	baz=5.9						
D12A	Red Ives Fores	5.91	357	⇑P	Pn	08 01 07.2	+0.3
	baz=5.9						
RCTC	Rector, Farmer	5.92	217	⇑P	Pn	08 01 08.2	+1.2
	baz=6.0						
YBH	Yreka Blue Hor	5.92	278	Pn	Pn	08 01 11.1	+4.1
	0.4nm,0.3s,baz=93,slow=8.7,SNR=10						
YBH				Lg		08 02 48.3	
	2.3nm,0.3s,baz=326,slow=10,SNR=6.3						
YBH	Yreka Blue Hor	5.92	278	*e*Pn	Pn	08 01 09.9	+2.9
D13A	Huson	5.95	3	P	Pn	08 01 08.3	+0.9
	baz=5.9,SNR=10						
HRY	Holter Researc	5.98	21	*e*Pn	Pn	08 01 08.6	+0.8
HRY				*e*Sn	Sb	08 02 37.5	+2.4
GCMT	Greycliff	5.99	38	*e*Pn	Pn	08 01 10.0	+2.1
D11A	Klaveano Farm,	5.99	350	⇑P	Pn	08 01 09.0	+1.1
	baz=5.9						
D14A	Greenough	6.01	9	⇓P	Pn	08 01 06.0	-2.2
	baz=6.0,SNR=16						
GSC	Goldstone	6.04	195	⇑P	Pn	08 01 09.1	+0.5
	baz=6.1						
GSC	Goldstone	6.04	195	*e*Pn	Pn	08 01 08.9	+0.3
Q21A	Lamborn Mesa,	6.07	110	⇑P	Pn	08 01 10.4	+1.4
	baz=6.1						
LDFC	Landfair	6.07	182	*e*Pn	Pn	08 01 08.4	-0.7
LDFC				*e*Sg	Sg	08 02 51.6	-2.4
LRMC	Laurel Mountai	6.08	202	⇑P	Pn	08 01 10.6	+1.3
	baz=6.1						
W13A	Hualapai Mount	6.09	172	⇑P	Pn	08 01 09.4	0.0
	baz=6.2						
W14A	Seligman	6.09	166	⇑P	Pn	08 01 10.5	+1.0
	baz=6.2						
D15A	Lincoln	6.13	15	⇓P	Pn	08 01 10.1	+0.3
	baz=6.1						
U18A	Rough Rock, Ch	6.13	139	⇓P	Pn	08 01 11.6	+1.6
	baz=6.2						
E08A	Dider Farm, El	6.14	332	⇓P	Pn	08 01 12.2	+2.2
	baz=6.1						
D10A	Wagner Farm, O	6.15	344	⇓P	Pn	08 01 10.4	+0.2
	baz=6.1						
ISA	Isabella	6.17	208	⇑P	Pn	08 01 10.9	+0.5
	baz=6.2						
ISA	Isabella	6.17	208	*e*Pn	Pn	08 01 11.1	+0.7
ISA				*e*Pg	Pg	08 01 33.8	-3.5
ISA				*e*Sg	Sg	08 02 54.6	-2.6
HUMO	Hull Mountain	6.21	286	*e*Pn	Pn	08 01 14.4	+3.4
HAWA	Hanford	6.23	329	*e*Pn	Pn	08 01 13.2	+2.0
M22A	Cedar Creek Ra	6.24	85	⇓P	Pn	08 01 11.2	-0.3
	baz=6.2						
VES	Vestal, Richgr	6.25	213	⇑P	Pn	08 01 12.5	+1.0
	baz=6.3						
WUAZ	Wupatki	6.26	153	⇓P	Pn	08 01 12.3	+0.6
	baz=6.3						
WUAZ	Wupatki	6.26	153	*e*Pn	Pn	08 01 11.6	-0.2
T19A	Beclabito	6.27	132	⇓P	Pn	08 01 11.3	-0.6
	baz=6.3						
W15A	Williams	6.31	160	⇓P	Pn	08 01 13.1	+0.8
	baz=6.4						
MVCO	Mesa Verde	6.33	126	⇑P	Pn	08 01 13.2	+0.6
	baz=6.3						
MVCO	Mesa Verde	6.33	126	*e*Pn	Pn	08 01 14.3	+1.7
N22A	Wattenberg Ran	6.38	90	⇑P	Pn	08 01 12.9	-0.5
	baz=6.3						
SWMT	Swartz Lake	6.39	5	*e*Pn	Pn	08 01 13.5	+0.1
GMRC	Granite Mounta	6.39	186	P	Pn	08 01 13.1	-0.4
	baz=6.5,SNR=20						
HEC	Hector,Ludlow	6.42	191	⇓P	Pn	08 01 16.0	+2.1
	baz=6.5						
HOOD	Mount Hood Mea	6.47	312	*e*Pn	Pn	08 01 13.9	-0.7
E07A	Sunnyside	6.49	328	⇑P	Pn	08 01 16.9	+2.0
	baz=6.5						
Q22A	Crested Butte,	6.53	108	⇑P	Pn	08 01 16.6	+1.2
	baz=6.5						
C13A	Hot Springs	6.53	2	⇓P	Pn	08 01 15.4	0.0
	baz=6.5						
C12B	Naegeli Ranch,	6.57	356	⇓P	Pn	08 01 17.3	+1.4
	baz=6.5						
D08A	Wollman Farm,	6.58	335	⇑P	Pn	08 01 17.8	+1.7
	baz=6.5						
X13A	Yucca	6.60	172	⇑P	Pn	08 01 17.2	+0.9
	baz=6.7						
JTMT	Jette	6.61	3	*e*Pn	Pn	08 01 17.0	+0.5
V18A	Ganado	6.67	143	⇓P	Pn	08 01 18.6	+1.2
	baz=6.7						
BSMT	Bassoo Peak	6.70	1	*e*Pn	Pn	08 01 19.4	+1.7
D17A	Six Diamond Ra	6.71	25	⇑P	Pn	08 01 19.2	+1.3
	baz=6.7						
EDW2	Edwards Air Fo	6.73	202	⇑P	Pn	08 01 20.4	+2.3
	baz=6.8						
SAO	San Andreas Ge	6.74	232	*e*Pn	Pn	08 01 21.4	+3.1
YBMT	Yellow Bay	6.74	5	*e*Pn	Pn	08 01 18.8	+0.6
ARVC	Arvin	6.77	209	⇓P	Pn	08 01 22.5	+3.7
	baz=6.8						
C15A	Salmond Ranch,	6.82	13	⇓P	Pn	08 01 18.8	-0.6
	baz=6.8						
X14A	Yava	6.85	166	⇑P	Pn	08 01 20.2	+0.3
	baz=6.9,SNR=6.8						
PDMCI	Parker Dam,Lak	6.86	175	⇑P	Pn	08 01 19.8	-0.2
	baz=6.9						
C10A	Spilker Farm,	6.89	346	⇑P	Pn	08 01 21.9	+1.6
	baz=6.8						
R22A	Saguache, Gunn	6.91	112	⇑P	Pn	08 01 22.0	+1.4
	baz=6.9						
E06A	Yakima	6.96	323	⇓P	Pn	08 01 23.4	+2.1
	baz=6.9						
IRM	Iron Mountain	6.98	182	P	Pn	08 01 21.7	+0.1
	baz=7.1,SNR=8.8						
C16A	Fuhringer Ranc	7.01	18	⇑P	Pn	08 01 21.7	-0.3
	baz=7.0						
D07A	Quincy	7.06	330	⇑P	Pn	08 01 24.8	+2.1
	baz=7.0						
BBRC	Big Bear Sol-O	7.07	194	⇓P	Pn	08 01 25.0	+2.2
	baz=7.1						
C09A	Chrisman Ranch	7.08	341	⇑P	Pn	08 01 23.7	+0.8
	baz=7.0						
COR	Corvallis	7.08	302	*e*Pn	Pn	08 01 26.7	+3.8
PHWY	Pilot Hill	7.10	86	*e*Pn	Pn	08 01 24.1	+0.8
ISCO	Idaho Springs	7.19	98	*e*Pn	Pn	08 01 23.6	-0.9
BELC	Belle Mtn.	7.19	187	P	Pn	08 01 25.1	+0.6
	baz=7.3,SNR=12						
BFSC	Mount Baldy St	7.24	199	⇓P	Pn	08 01 28.1	+2.9
	baz=7.3						
C08A	Higginbotham F	7.27	337	⇑P	Pn	08 01 26.8	+1.3
	baz=7.2						
NEW	Newport	7.29	348	*e*Pn	Pn	08 01 26.2	+0.4
B10A	Chitwood Farm,	7.34	348	⇑P	Pn	08 01 28.3	+1.9
	baz=7.3						
B15A	Bradely Ranch,	7.35	12	⇓P	Pn	08 01 27.3	+0.7
	baz=7.3						
Y14A	Wickenburg	7.35	168	⇓P	Pn	08 01 26.8	+0.1
	baz=7.4						
B11A	Sandpoint	7.36	352	⇓P	Pn	08 01 28.4	+1.6
	baz=7.3						
Y12C	Blythe	7.39	178	⇓P	Pn	08 01 27.7	+0.4
	baz=7.5						
D06A	Cle Elum	7.41	327	⇑P	Pn	08 01 29.4	+2.0
	baz=7.4						
BC3	Big Chuckw Mtn	7.50	184	⇑P	Pn	08 01 29.2	+0.5
	baz=7.6						
C07A	Waterville	7.52	332	⇑P	Pn	08 01 31.2	+2.3
	baz=7.5						
B09A	Rice	7.63	343	⇑P	Pn	08 01 31.6	+1.1
	baz=7.6						
PFO	Pinyon Flat Ob	7.63	190	⇓P	Pn	08 01 31.2	+0.6
	baz=7.7						
PFO	Pinyon Flat Ob	7.63	190	*e*Pn	Pn	08 01 31.0	+0.5
X18A	Snowflake	7.67	148	⇓P	Pn	08 01 31.1	+0.1
	baz=7.7						
MURC	Murrieta	7.76	195	⇑P	Pn	08 01 32.6	+0.2
	baz=7.8						
EGMT	Eagleton	7.78	26	⇑P	Pn	08 01 34.2	+1.7
	baz=7.7						
EGMT	Eagleton	7.78	26	*e*Pn	Pn	08 01 34.3	+1.8
A13A	Flathead Natio	7.79	2	⇑P	Pn	08 01 33.3	+0.7
	baz=7.7						
A12A	Yaak River Ran	7.80	356	⇑P	Pn	08 01 34.1	+1.3
	baz=7.7						
W20A	Ramah	7.83	138	⇓P	Pn	08 01 34.2	+0.9
	baz=7.9						
B08A	Colville Reser	7.87	338	⇑P	Pn	08 01 35.1	+1.3
	baz=7.8						
A11A	Hall Mountain,	7.88	353	⇓P	Pn	08 01 32.7	-1.1
	baz=7.8						
Z13A	Yuma Proving G	8.00	173	P	Pn	08 01 36.1	+0.5
	baz=8.1,SNR=22						
C06A	Tall Timber Ra	8.02	330	⇑P	Pn	08 01 33.7	-2.1
	baz=8.0						
A10A	Northport	8.06	347	⇓P	Pn	08 01 37.7	+1.4
	baz=8.0,SNR=11						
GLA	Glamis	8.09	180	⇓P	Pn	08 01 37.6	+0.9
	baz=8.2						
GLA	Glamis	8.09	180	*e*Pn	Pn	08 01 37.4	+0.7
B07A	Winthrop	8.20	335	⇑P	Pn	08 01 38.3	0.0
	baz=8.2						
A09A	Danville	8.25	343	⇓P	Pn	08 01 40.7	+1.7
	baz=8.2						
LAO	LASA Array	8.34	46	*e*Pn	Pn	08 01 41.1	+0.9
113A	Mohawk Valley,	8.41	174	⇑P	Pn	08 01 41.4	+0.1
	baz=8.5						
109C	Camp Elliot, M	8.44	193	⇓P	Pn	08 01 43.1	+1.5
	baz=8.5						
RSSD	Black Hills	8.52	66	*e*Pn	Pn	08 01 41.8	-0.9
A07A	Ashnola River,	8.80	336	⇓P	Pn	08 01 48.8	+2.3
	baz=8.8						
ANMO	Albuquerque	9.07	130	Pn	Pn	08 01 51.8	+1.5
	0.2nm,0.3s,baz=347,slow=9.2,SNR=6.9						
TXAR	Lajitas Array	14.91	139	Pn	Pn	08 03 13.1	+3.0
	0.0nm,0.3s,baz=334,slow=12,SNR=16						
ULM	Lac du Bonnet	16.05	49	Pn	Pn	08 03 24.6	-0.4
	0.2nm,0.3s,baz=242,slow=12,SNR=3.8						
YKA	Yellowknife Ar	21.38	0	P	P	08 04 25.6	-1.0
	1.7nm,0.7s,mb3.5,baz=179,slow=10.0,SNR=36						
YKA	Yellowknife Ar	21.38	0	P	P	08 04 25.6	-1.0
MDJ	Mudanjiang	76.92	319	P	P	08 11 33.3	+1.6
MDJ				pmax	pmax		
	comp=Z,12nm,2.2s,mb4.4						
CN2	Changchun	79.55	320	*e*P	P	08 11 49.5	+3.2
BJI	Beijing	86.81	323	P	P	08 12 25.5	+1.6
BJI				PP	PP	08 15 46.5	+0.9
BJI				S	S	08 22 52.3	-9.4
BJI				SS	SS	08 28 44.3	+2.2
HHC	Hu-ho-hao-te	88.15	327	*e*P	P	08 12 31.3	+1.0
HHC				pP	pP	08 12 35.5	+1.9
HHC				PP	PP	08 15 59.5	+3.2
HHC				SKS		08 22 56.8	
HHC				S	S	08 23 12.5	-1.9
HHC				sS	sS	08 23 20.8	+0.8
HHC				SS	SS	08 29 03.8	+2.3
HHC				LR	LR		
	comp=Z,300nm,14.3s						
LZH	Lanzhou	95.33	329	*e*P	P	08 13 02.8	-0.9
CD2	Chengdu	99.90	327	P	Pdif	08 13 26.0	+1.7
GYA	Guiyang	102.49	322	*e*P	Pdif	08 13 37.8	+2.0
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s						

DJA 27 08:17:53, 8°.75S×110°.52E, h12^{km}, MLv3.4/4, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UGM	Wanagama	0.83	0	P	Pg	08 18 08.5	-0.6
UGM				S	Sg	08 18 20.6	+0.6
PWJI	Pagerwojo	1.46	60	P	Pn	08 18 17.1	-2.1
PWJI				S	Sn	08 18 35.7	-2.6
SJI	Sawahan	1.59	51	P	Pn	08 18 19.9	-1.1
SJI				S	Sn	08 18 41.5	-0.1
SMRI	Semarang	1.69	357	P	Pn	08 18 22.3	-0.1
SMRI				S	Sn	08 18 44.2	+0.2

IDC 27 08:23:35.1±2.4, 6°.15S×129°.85E, h0^{km}, mb3.4/1, mb1 3.5/3, mb1mx3.4/16, mbtmp3.3/3, ML3.3/2, Error ellipse: s-maj=154.0km s-min=32.1km az=69.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.39	163	Pn	Pn	08 26 58.4	-1.8
	0.1nm,0.3s,baz=346,slow=13,SNR=4.6						
WRA				Sn	Sn	08 29 31.1	-10
	0.1nm,0.3s,baz=334,slow=24,SNR=2.7						
ASAR	Alice Springs	17.85	168	P	Pn	08 27 46.2	+1.2
	0.1nm,0.3s,baz=346,slow=11,SNR=7.0						
MKAR	Makanchi Array	67.44	327	P	P	08 34 32.8	+0.1
	0.3nm,0.5s,baz=134,slow=8.2,SNR=4.4						

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*IDC **27** 08:36:54.0±1.0, 21°.60S×169°.84E, h0^{km}, mb4.1/9, mb1 4.3/9, mb1mx4.2/16, mbtmp4.1/9, MS4.1/1, Ms1 4.1/1, ms1mx3.6/20, Error ellipse: s-maj=31.6km s-min=24.5km az=125.0*

*NEIC **27** 08:36:55.8±0.8, 21°.57S×169°.74E, h10^{km}, mb4.3/2, Error ellipse: s-maj=22.3km s-min=13.3km az=152.0*

*NOU **27** 08:36:56.8±0.8, 21°.40S×169°.07E, h10^{km}±103^{km}, MD2.9, ML3.5*

*ISCJB **27** 08:36:57.9±0.8, 21°.6S±0°.2×169°.64E±0°.07, h33^{km}, mb4.1/11, Error ellipse: s-maj=24.8km s-min=6.9km az=162.9*
*LDG **27** 08:36:58.2±0.5, 20°.67S×169°.37E, h10^{km}, Mb4.3/2, Error ellipse: s-maj=64.8km s-min=3.6km az=144.0*
ISC 27 08:36:58.2±4.5, **21°.6S**±0°.2×**169°.64E**±0°.08, **h22**^{km}±31^{km}, **n38**, σ**0^{s}.74**/18, **mb4.1**/11, **1D**, **Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NORM	**Noumea**	**3.01**	**257**	*e*S	**Sn**	**08 38 19.6**	**-0.3**
DZM	**Mont Dzumac**	**3.01**	**260**	*e*P	**Pn**	**08 37 44.8**	**+0.2**
DZM				*e*S	**Sn**	**08 38 19.6**	**-0.5**
DZM				AMP		08 38 22.9	
	comp=Z,1μm,1.1s						
DZM	**Mont Dzumac**	**3.01**	**260**	*e*Pn	**Pn**	**08 37 44.9**	**+0.2**
DZM				*e*Sn	**Sn**	**08 38 18.7**	**-1.5**
NOUC	**Port Laguerre**	**3.15**	**259**	*e*P	**Pn**	**08 37 46.5**	**0.0**
NOUC				*e*S	**Sn**	**08 38 24.1**	**+0.7**
NOUC				AMP		08 38 25.6	
	comp=Z,79nm,1.2s						
CTAO	**Charters Tower**	**21.91**	**270**	*e*P	**P**	**08 41 49.0**	**-1.1**
	comp=Z,9.4nm,1.0s,mb4.2						
STKA	**Stephens Creek**	**27.01**	**242**	P	**P**	**08 42 40.0**	**+1.2**
	comp=Z,1.5nm,0.8s,mb3.6,baz=70,slow=12,SNR=3.2						
RAR	**Rarotonga**	**28.46**	**95**	LR	LR	08 51 11.3	
	comp=Z,380nm,18.4s,baz=190,slow=30						
WRAB	**Tennant Creek**	**33.00**	**266**	*e*P	**P**	**08 43 32.1**	**+0.2**
	comp=Z,6.4nm,1.1s,mb4.5						
ASAR	**Alice Springs**	**33.01**	**259**	P	**P**	**08 43 32.2**	**+0.3**
	comp=Z,0.6nm,0.7s,mb3.7,baz=77,slow=8.7,SNR=8.6						
WRA	**Warramunga Arr**	**33.01**	**266**	P	**P**	**08 43 32.2**	**+0.2**
	comp=Z,1.8nm,1.1s,mb3.9,baz=98,slow=7.6,SNR=4.0						
MJAR	**Matsushiro Arr**	**64.96**	**332**	P	**P**	**08 47 35.4**	**-0.9**
	comp=Z,2.0nm,0.8s,mb4.2,baz=148,slow=6.7,SNR=3.5						
QSPA	**South Pole Qui**	**68.51**	**180**	P	**P**	**08 47 57.7**	**-0.7**
	comp=Z,3.4nm,0.9s,mb4.3,baz=14,slow=3.3,SNR=7.5						
PETK	**Petropavlovsk-**	**75.07**	**353**	P	**P**	**08 48 38.4**	**+0.4**
	comp=Z,2.4nm,0.9s,mb4.1,baz=142,slow=4.8,SNR=6.1						
CMAR	**Chiang Mai Arr**	**79.80**	**294**	P	**P**	**08 49 06.7**	**+1.5**
	comp=Z,0.9nm,0.3s,mb4.2,baz=123,slow=4.5,SNR=5.8						
SONM	**Songino Array**	**89.28**	**323**	P	**P**	**08 49 52.7**	**+0.2**
	comp=Z,1.7nm,1.0s,mb4.3,baz=142,slow=4.4,SNR=6.6						
NVAR	**Mina Array Bea**	**90.05**	**48**	P	**P**	**08 49 55.5**	**-0.8**
	comp=Z,0.6nm,0.7s,mb4.1,baz=237,slow=7.4,SNR=4.1						
ARCES	**ARCESS Array B**	**127.39**	**345**	PKP	PKPdf	08 55 59.7	-0.8
	comp=Z,1.2nm,0.5s,baz=67,slow=2.7,SNR=14						
BRG	**Berggiesshubel**	**145.10**	**333**	*i* P	PKPbc	08 56 32.7	-0.5
	comp=Z,9.7nm,0.8s						
CLL	**Collm**	**145.16**	**334**	⇓*i*PKPdf	PKPdf	08 56 33.2	-0.6
	comp=Z,7.0nm,0.6s						
KHC	**Kasperske Hory**	**146.54**	**331**	*e*PKP	PKPdf	08 56 37.5	+1.2
GERES	**GERESS Array B**	**146.69**	**331**	PKPbc	PKPbc	08 56 37.7	-0.4
	comp=Z,3.2nm,0.8s,baz=29,slow=3.0,SNR=10						
GIVF	**Givet**	**149.09**	**341**	*e*PKP1	PKPbc	08 56 44.3	-0.3
BAIF	**Baives**	**149.31**	**341**	*e*PKP1	PKPbc	08 56 44.9	-0.2
CDF	**Champ du Feu**	**149.71**	**336**	*e*PKP1	PKPbc	08 56 45.8	-0.4
	comp=Z,18nm,1.0s						
HINF	**Hinteralfeld**	**150.36**	**336**	*e*PKP1	PKPbc	08 56 47.2	-0.6
HAU	**Haudompre**	**150.39**	**337**	*e*PKP1	PKPbc	08 56 47.4	-0.4
	comp=Z,21nm,0.9s						
MEZF	**Maizieres J'vi**	**150.41**	**339**	*e*PKP1	PKPbc	08 56 47.9	0.0
CABF	**La Chapelle**	**151.65**	**336**	*e*PKP1	PKPbc	08 56 49.9	-0.9
	comp=Z,20nm,0.9s						
FLN	**La Foliniere**	**151.73**	**346**	*e*PKP1	PKPbc	08 56 50.1	-0.8
LOR	**Lormes**	**151.88**	**339**	*e*PKP1	PKPbc	08 56 50.8	-0.5
	comp=Z,19nm,1.1s						
SSF	**Saint Saulge**	**152.18**	**339**	*e*PKP1	PKPbc	08 56 51.5	-0.5
	comp=Z,13nm,0.9s						
LPL	**La Plagne**	**152.29**	**334**	*e*PKP1	PKPbc	08 56 52.3	0.0
LPG	**La Plagne**	**152.30**	**334**	*e*PKP1	PKPbc	08 56 52.5	+0.2
MBDF	**Montbardon**	**152.91**	**333**	*e*PKP1	PKPbc	08 56 53.1	-0.6
ORIF	**Oris-en-Rattie**	**153.13**	**334**	*e*PKP1	PKPbc	08 56 53.8	-0.4
	comp=Z,17nm,1.0s						
MFF	**Saint Martin d**	**153.67**	**344**	*e*PKP1	PKPbc	08 56 55.4	+0.1
	comp=Z,72nm,1.5s						
SMRF	**Simiane la Rot**	**154.02**	**333**	*e*PKP1	PKPbc	08 56 56.0	-0.2
LMR	**La Mourre**	**154.13**	**331**	*e*PKP1	PKPbc	08 56 56.4	0.0
	comp=Z,22nm,1.0s						

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*IDC **27** 08:41:52.7±1.1, 41°.23N×114°.97W, h0^{km}, mb2.4/1, mb1 2.9/3, mb1mx2.9/22, mbtmp2.5/3, ML2.9/2, Error ellipse: s-maj=19.8km s-min=5.0km az=129.0*
*ISCJB **27** 08:41:53.8±0.2, 41°.17N±0°.01×114°.90W±0°.02, h10^{km}, Error ellipse: s-maj=2.1km s-min=1.9km az=142.7*
*NEIC **27** 08:41:53.5, 41°.18N×114°.91W, h0^{km}, ML2.6, After REN.*
ISC 27 08:41:54.2±0.2, **41°.18N**±0°.01×**114°.91W**±0°.02, **h10**^{km}, **n83**, σ**1^{s}.05**/119, **28C-33D**, **Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.34**	**196**	P	**Pg**	**08 42 00.4**	**-0.4**
	baz=0.3,SNR=319						
N12A				⇓S	**Sg**	**08 42 05.3**	**0.0**
	baz=0.3						
N12A	**Clover Valley,**	**0.34**	**196**	*e*Pg	**Pg**	**08 42 00.2**	**-0.6**
N12A				*e*Sg	**Sg**	**08 42 04.8**	**-0.5**
ELK	**Elko**	**0.50**	**210**	Pg	**Pg**	**08 42 03.1**	**-0.7**
	14nm,0.3s,baz=11,slow=16,SNR=51						
ELK				Lg		08 42 09.7	
	53nm,0.3s,baz=294,slow=20,SNR=93						
ELK	**Elko**	**0.50**	**210**	*e*Pg	**Pg**	**08 42 03.0**	**-0.8**
ELK				*e*Sg	**Sg**	**08 42 09.7**	**-0.6**
M13A	**Montello**	**0.59**	**72**	⇓P	**Pg**	**08 42 04.4**	**-1.3**
	baz=0.6,SNR=50						
M13A	**Montello**	**0.59**	**72**	*e*Pg	**Pg**	**08 42 04.6**	**-1.1**
M13A				*e*Sg	**Sg**	**08 42 12.7**	**-0.8**
N13A	**Wendover, West**	**0.62**	**121**	⇑P	**Pg**	**08 42 05.4**	**-0.9**
	baz=0.6,SNR=300						
N13A				⇑S	**Sg**	**08 42 13.5**	**-1.0**
	baz=0.6						
N13A	**Wendover, West**	**0.62**	**121**	*e*Pg	**Pg**	**08 42 05.1**	**-1.1**
M11A	**Holland Ranch,**	**0.71**	**291**	⇑P	**Pg**	**08 42 06.8**	**-1.0**
	baz=0.7,SNR=84						
M11A				⇑S	**Sg**	**08 42 17.2**	**+0.1**
	baz=0.7						
N11A	**Elko Archery C**	**0.72**	**240**	⇑P	**Pg**	**08 42 07.3**	**-0.7**
	baz=0.7,SNR=45						
O12A	**Currie**	**0.92**	**172**	⇑P	**Pg**	**08 42 11.0**	**-0.8**
	baz=0.9,SNR=12						
O12A				⇓S	**Sg**	**08 42 23.2**	**-0.5**
	baz=0.9						
L12A	**House Creek Ra**	**0.97**	**356**	⇑P	**Pg**	**08 42 11.8**	**-1.1**
	baz=1.0,SNR=31						
L12A				⇓S	**Sg**	**08 42 25.0**	**-0.5**
	baz=1.0						
L13A	**Double Diamond**	**1.17**	**38**	⇓P	**Pb**	**08 42 14.8**	**-1.6**
	baz=1.2,SNR=78						
L13A				⇓S	**Sb**	**08 42 30.7**	**-0.9**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.17**	**328**	⇓P	**Pb**	**08 42 15.2**	**-1.3**
	baz=1.2,SNR=98						
L11A				⇑S	**Sb**	**08 42 31.2**	**-0.6**
	baz=1.2						
O11A	**Cowboy Ranch,**	**1.19**	**209**	⇓P	**Pb**	**08 42 16.3**	**-0.5**
	baz=1.2,SNR=79						
M14A	**Sheep Mountain**	**1.22**	**74**	P	**Pn**	**08 42 15.8**	**-1.5**
	baz=1.2,SNR=220						
M14A				⇑S	**Sb**	**08 42 32.1**	**-1.1**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.26**	**145**	⇓P	**Pn**	**08 42 16.9**	**-0.9**
	baz=1.3						
O13A				⇑S	**Sb**	**08 42 34.9**	**+0.6**
	baz=1.3						
M10A	**I.L. Ranch, Tu**	**1.27**	**286**	⇓P	**Pn**	**08 42 17.2**	**-0.8**
	baz=1.3,SNR=159						
M10A				⇓S	**Sb**	**08 42 35.2**	**+0.6**
	baz=1.3						
N10A	**Dunphy**	**1.29**	**250**	⇑S	**Sb**	**08 42 35.5**	**+0.4**
	baz=1.3						
N14A	**Grayback Hills**	**1.35**	**103**	⇑P	**Pn**	**08 42 17.7**	**-1.2**
	baz=1.3,SNR=194						
N14A				⇓S	**Sb**	**08 42 36.5**	**-0.3**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.45**	**99**	*e*Pn	**Pn**	**08 42 19.4**	**-0.9**
BGU				*e*Sn	**Sn**	**08 42 37.2**	**-2.2**
K12A	**Draper Farm, C**	**1.46**	**0**	⇑P	**Pn**	**08 42 19.3**	**-1.3**
	baz=1.4,SNR=38						
K12A				⇓S	**Sn**	**08 42 38.8**	**-0.9**
	baz=1.4						
L10A	**Juniper Basin**	**1.48**	**308**	P	**Pn**	**08 42 20.1**	**-0.7**
	baz=1.5,SNR=260						
L10A				⇑S	**Sn**	**08 42 40.5**	**+0.5**
	baz=1.5						
O10A	**Cortez Mining,**	**1.49**	**234**	⇓P	**Pn**	**08 42 21.4**	**+0.4**
	baz=1.5,SNR=14						
O10A				⇑S	**Sn**	**08 42 41.9**	**+1.4**
	baz=1.5						
L14A	**Malta**	**1.52**	**55**	⇓P	**Pn**	**08 42 20.6**	**-0.8**
	baz=1.5,SNR=115						
L14A				⇓S	**Sn**	**08 42 41.1**	**-0.1**
	baz=1.5						
K13A	**Stover Farm, H**	**1.60**	**23**	⇑P	**Pn**	**08 42 21.8**	**-0.7**
	baz=1.6,SNR=37						
K13A				⇑S	**Sn**	**08 42 43.1**	**0.0**
	baz=1.6						
HVU	**Hansel Valley**	**1.72**	**69**	*e*Pn	**Pn**	**08 42 23.5**	**-0.6**
HVU				*e*Sn	**Sn**	**08 42 46.7**	**+0.6**
P11A	**Circle Ranch,**	**1.74**	**202**	⇓P	**Pn**	**08 42 24.5**	**+0.1**
	baz=1.8,SNR=11						
K11A	**Parker Ranch,**	**1.80**	**333**	⇓P	**Pn**	**08 42 25.2**	**-0.1**
	baz=1.8,SNR=59						
N15A	**Stansbury Isla**	**1.83**	**98**	⇑P	**Pn**	**08 42 25.0**	**-0.7**
	baz=1.8,SNR=35						
P13A	**Bates Ranch, G**	**1.85**	**158**	⇓P	**Pn**	**08 42 24.8**	**-1.1**
	baz=1.9,SNR=63						
SPUT	**South Promonto**	**1.86**	**85**	*e*Pn	**Pn**	**08 42 26.4**	**+0.3**
SPUT				*e*Sn	**Sn**	**08 42 51.9**	**+2.2**
DUG	**Dugway**	**1.87**	**121**	P	**Pn**	**08 42 25.1**	**-1.2**
	baz=1.9,SNR=142						
DUG	**Dugway**	**1.87**	**121**	*e*Pn	**Pn**	**08 42 26.4**	**+0.2**
DUG				*e*Sn	**Sn**	**08 42 51.9**	**+2.0**
M15A	**Larsen Ranch,**	**1.88**	**80**	⇓P	**Pn**	**08 42 25.5**	**-0.8**
	baz=1.9,SNR=85						
K14A	**Jones Ranch, D**	**1.89**	**43**	⇓P	**Pn**	**08 42 25.8**	**-0.6**
	baz=1.9,SNR=36						
BMN	**Battle Mountai**	**1.90**	**248**	*e*Pn	**Pn**	**08 42 28.9**	**+2.3**
BMN				*e*Sn	**Sn**	**08 42 53.7**	**+3.0**
M09A	**Marrel Ranch,**	**1.93**	**278**	⇑P	**Pn**	**08 42 26.6**	**-0.4**
	baz=1.9,SNR=24						
P10A	**Eureka**	**1.95**	**218**	⇓P	**Pn**	**08 42 27.5**	**+0.2**
	baz=2.0,SNR=13						
N09A	**Rock Creek Ran**	**2.00**	**262**	⇑P	**Pn**	**08 42 27.9**	**-0.1**
	baz=2.0,SNR=9.0						
O15A	**The Old Anders**	**2.06**	**115**	⇓P	**Pn**	**08 42 28.3**	**-0.5**
	baz=2.1						
L15A	**Malad City**	**2.07**	**66**	⇓P	**Pn**	**08 42 28.4**	**-0.5**
	baz=2.1,SNR=23						
J12A	**Stokes Ranch,**	**2.08**	**356**	⇓P	**Pn**	**08 42 29.5**	**+0.5**
	baz=2.1,SNR=36						
P14A	**Drum Mountains**	**2.12**	**138**	⇑P	**Pn**	**08 42 28.7**	**-0.9**
	baz=2.1,SNR=22						
Q12A	**Willow Creek R**	**2.13**	**178**	⇑P	**Pn**	**08 42 29.3**	**-0.5**
	baz=2.1,SNR=12						
K10A	**MacKenzie Ranc**	**2.17**	**318**	⇑P	**Pn**	**08 42 31.3**	**+1.0**
	baz=2.2						
NOQ	**North Oquirrh**	**2.18**	**103**	*e*Pn	**Pn**	**08 42 32.0**	**+1.5**
J13A	**Cove Ranch, Pi**	**2.29**	**14**	⇓P	**Pn**	**08 42 32.6**	**+0.7**
	baz=2.3,SNR=88						
Q13A	**Wheeler Ranch,**	**2.32**	**163**	P	**Pn**	**08 42 31.8**	**-0.6**
	baz=2.3,SNR=29						
K15A	**Arbon**	**2.33**	**49**	⇓P	**Pn**	**08 42 32.8**	**+0.3**
	baz=2.3,SNR=37						
J14A	**Carey**	**2.38**	**25**	⇑P	**Pn**	**08 42 34.1**	**+0.9**
	baz=2.4						
HLID	**Hailey**	**2.41**	**9**	⇓P	**Pn**	**08 42 34.5**	**+0.9**
	baz=2.4						
HLID	**Hailey**	**2.41**	**9**	*e*Pn	**Pn**	**08 42 34.4**	**+0.7**
NLU	**North Lily Min**	**2.48**	**118**	*e*Pn	**Pn**	**08 42 37.0**	**+2.4**
Q14A	**Sevier Lake (B**	**2.52**	**150**	⇑P	**Pn**	**08 42 34.5**	**-0.6**
	baz=2.5						
Q10A	**Clear Creek Ra**	**2.61**	**206**	⇑P	**Pn**	**08 42 37.2**	**+0.8**
	baz=2.6,SNR=13						
MPU	**Maple Canyon**	**2.75**	**114**	*e*Pn	**Pn**	**08 42 39.4**	**+1.0**
MPU				*e*Sn	**Sn**	**08 43 12.8**	**+1.2**
R11A	**Troy Canyon, C**	**2.87**	**191**	⇑P	**Pn**	**08 42 39.7**	**-0.3**
	baz=2.9,SNR=23						
DAU	**Daniels Canyon**	**2.88**	**104**	*e*Pn	**Pn**	**08 42 42.2**	**+2.2**
DAU				*e*Sn	**Sn**	**08 43 20.8**	**+6.0**
J15A	**Blackfoot**	**2.88**	**39**	⇑P	**Pn**	**08 42 40.6**	**+0.5**
	baz=2.9,SNR=20						
Q15A	**Fillmore**	**2.92**	**137**	⇓P	**Pn**	**08 42 39.8**	**-0.8**
	baz=2.9						
WVOR	**Wild Horse Val**	**3.05**	**296**	*e*Pn	**Pn**	**08 42 46.5**	**+4.0**
WVOR				*e*Sn	**Sn**	**08 43 27.6**	**+8.6**
R13A	**O'Grain Ranch,**	**3.08**	**166**	⇓P	**Pn**	**08 42 42.9**	**+0.1**
	baz=3.1,SNR=40						
M07A	**Soldier Meadow**	**3.21**	**275**	⇓P	**Pn**	**08 42 44.6**	**-0.1**
	baz=3.2,SNR=5.2						
MSU	**Marysvale**	**3.39**	**141**	*e*Pn	**Pn**	**08 42 46.8**	**-0.4**
TMUT	**Trail Mountain**	**3.40**	**122**	*e*Pn	**Pn**	**08 42 48.0**	**+0.8**
RRI2	**Red Ridge**	**3.44**	**50**	*e*Pn	**Pn**	**08 42 49.2**	**+1.5**
RRI2				*e*Sn	**Sb**	**08 43 40.5**	**+3.6**
ARUT	**Antelope Range**	**3.57**	**161**	*e*Pn	**Pn**	**08 42 50.0**	**+0.4**
S13A	**Holt Ranch, En**	**3.68**	**167**	⇓P	**Pn**	**08 42 51.1**	**0.0**
	baz=3.7,SNR=14						
REDW	**Red Top Meadow**	**3.72**	**53**	*e*Pn	**Pn**	**08 42 54.5**	**+2.9**
TPAW	**Teton Pass**	**3.74**	**50**	*e*Pn	**Pn**	**08 42 56.4**	**+4.5**
TPAW				*e*Sn	**Sb**	**08 43 49.0**	**+3.4**
NVAR	**Mina Array Bea**	**3.79**	**225**	Pn	**Pn**	**08 42 52.6**	**+0.1**
	0.4nm,0.3s,baz=40,slow=13,SNR=9.6						
NVAR				Pg	**Pg**	**08 43 03.4**	**-3.3**
	1.7nm,0.3s,baz=32,slow=14,SNR=20						
NVAR				Lg		08 43 50.5	
	1.4nm,0.3s,baz=57,slow=28,SNR=3.4						
NVAR	**Mina Array Bea**	**3.79**	**225**	Pn	**Pn**	**08 42 52.6**	**+0.1**
NVAR				Pg	**Pg**	**08 43 03.4**	**-3.3**
NVAR				Lg		08 43 50.5	
CCUT	**Cedar City**	**3.81**	**161**	*e*Pn	**Pn**	**08 42 55.0**	**+2.1**
CCUT				*e*Sn	**Sb**	**08 43 52.6**	**+4.8**
T11A	**Corn Creek, Al**	**3.94**	**184**	⇓P	**Pn**	**08 42 54.7**	**+0.1**
	baz=4.0,SNR=19						
SRU	**San Rafael**	**3.95**	**120**	*e*Pn	**Pn**	**08 42 56.5**	**+1.8**
MCMT	**McKenzie Canyo**	**3.95**	**22**	*e*Pn	**Pb**	**08 43 00.1**	**-3.8**
MCMT				*e*Sn	**Sb**	**08 43 53.1**	**+1.5**
IMW	**Indian Meadow**	**4.00**	**46**	*e*Pn	**Pn**	**08 42 57.4**	**+1.9**
IMW				*e*Sn	**Sb**	**08 43 53.6**	**+0.5**
LOHW	**Long Hollow**	**4.01**	**51**	*e*Pn	**Pn**	**08 43 00.2**	**+4.5**
BMO	**Blue Mountains**	**4.07**	**335**	*e*Pn	**Pn**	**08 43 02.4**	**+6.0**
BMO				*e*Sn	**Sn**	**08 43 53.3**	**+9.2**
MOD	**Modoc**	**4.11**	**282**	*e*Pn	**Pn**	**08 43 01.9**	**+4.9**
PDAR	**Pinedale Array**	**4.30**	**67**	Pn	**Pn**	**08 43 01.6**	**+2.1**
	0.1nm,0.3s,baz=259,slow=13,SNR=7.6						
PDAR				Pg	**Pg**	**08 43 09.8**	**-6.7**
	0.1nm,0.3s,baz=259,slow=15,SNR=5.9						
PDAR				Lg		08 44 07.3	
	0.5nm,0.3s,baz=233,slow=29,SNR=10						
YKA	**Yellowknife Ar**	**21.35**	**0**	P	**P**	**08 46 41.0**	**-0.2**
	0.1nm,0.7s,baz=176,slow=9.2,SNR=4.7						

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*ROM **27** 08:44:41.1±0.9, 43°.56N×17°.31E, h10^{km}, Ml3.2/7, Error ellipse: s-maj=14.7km s-min=5.0km az=71.0*
*ISCJB **27** 08:44:42.3±0.2, 43°.64N±0°.02×17°.11E±0°.02, h10^{km}, Error ellipse: s-maj=2.5km s-min=1.9km az=35.8*
*CSEM **27** 08:44:42.8±0.1, 43°.60N×17°.03E, h2^{km}, ML3.3, Error ellipse: s-maj=4.1km s-min=3.2km az=33.0*
*BEO **27** 08:44:43.3±1.2, 43°.65N×16°.98E, h13^{km}±7^{km}, ML3.3/9*
*NEIC **27** 08:44:44.0±0.5, 43°.56N×17°.04E, h10^{km}, ML3.3(PDG), Error ellipse: s-maj=8.3km s-min=5.3km az=203.0*
*VIE **27** 08:44:45.8±0.6, 43°.88N×17°.33E, h10^{km}, mb2.9/3, ML2.8/4, Error ellipse: s-maj=6.8km s-min=4.1km az=44.0 80 km ENE of Split*
*PDG **27** 08:44:46.9±0.2, 43°.47N×17°.24E, h2^{km}, MD3.3/4, ML3.3/10, Error ellipse: s-maj=1.0km s-min=1.3km az=0.0*
ISC 27 08:44:43.7±0.2, **43°.62N**±0°.02×**17°.07E**±0°.02, **h10**^{km}, **n113**, σ**1^{s}.30**/168, **25C-18D**, **Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STON	**Ston**	**0.88**	**148**	*e*Pg	**Pg**	**08 44 58.9**	**-1.8**
STON				Sg	**Sg**	**08 45 12.8**	**+0.7**
STON	**Ston**	**0.88**	**148**	*e*Pg	**Pg**	**08 44 58.9**	**-1.8**
STON				Sg	**Sg**	**08 45 12.8**	**+0.7**
BLY	**Banja Luka**	**1.13**	**4**	*e*Pg	**Pg**	**08 45 04.4**	**-1.0**
BLY				*e*Sg	**Sg**	**08 45 20.3**	**+0.2**
BLY	**Banja Luka**	**1.13**	**4**	*e*Pg	**Pg**	**08 45 04.4**	**-1.0**
BLY				*e*Sg	**Sg**	**08 45 20.3**	**+0.2**
BRY	**Bratogost**	**1.30**	**123**	⇑*i*Pg	**Pg**	**08 45 07.5**	**-1.1**
BRY				*e*Sg	**Sg**	**08 45 24.3**	**-1.1**
BRY	**Bratogost**	**1.30**	**123**	⇑*i*Pg	**Pg**	**08 45 07.5**	**-1.1**
BRY				*e*Sg	**Sg**	**08 45 24.3**	**-1.1**
UPM	**Unac-Piva**	**1.41**	**107**	⇓*i*Pg	**Pg**	**08 45 10.0**	**-0.7**
UPM				*e*Sg	**Sg**	**08 45 29.0**	**+0.1**
UPM	**Unac-Piva**	**1.41**	**107**	⇓*i*Pg	**Pg**	**08 45 10.0**	**-0.7**
UPM				*e*Sg	**Sg**	**08 45 29.0**	**+0.1**
HCY	**Herceg Novi**	**1.57**	**138**	⇑*i*Pg	**Pg**	**08 45 12.0**	**-1.9**
HCY				*e*Sg	**Sg**	**08 45 33.9**	**-0.4**
HCY	**Herceg Novi**	**1.57**	**138**	⇑*i*Pg	**Pg**	**08 45 12.0**	**-1.9**
HCY				*e*Sg	**Sg**	**08 45 33.9**	**-0.4**
NKY	**Niksic**	**1.63**	**119**	⇓*i*Pg	**Pg**	**08 45 13.4**	**-1.5**
NKY				*e*Sg	**Sg**	**08 45 36.2**	**+0.2**
NKY	**Niksic**	**1.63**	**119**	⇓*i*Pg	**Pg**	**08 45 13.4**	**-1.5**
NKY				*e*Sg	**Sg**	**08 45 36.2**	**+0.2**
BBLS	**Lazići**	**1.71**	**81**	⇑*i*Pg	**Pg**	**08 45 13.7**	**-2.8**
BBLS				*e*Sg	**Sg**	**08 45 40.2**	**+1.5**
BBLS	**Lazići**	**1.71**	**81**	⇑*i*Pg	**Pg**	**08 45 13.7**	**-2.8**
BBLS				*e*Sg	**Sg**	**08 45 40.2**	**+1.5**
PLE	**Pljevlja**	**1.72**	**99**	⇑*i*Pg	**Pg**	**08 45 15.2**	**-1.5**
PLE				*e*Sg	**Sg**	**08 45 39.9**	**+1.0**
PLE	**Pljevlja**	**1.72**	**99**	⇑*i*Pg	**Pg**	**08 45 15.2**	**-1.5**
PLE				*e*Sg	**Sg**	**08 45 39.9**	**+1.0**
NVLJ	**Novalja**	**1.84**	**301**	*e*Pn	**Pn**	**08 45 16.1**	**+0.8**
NVLJ				Sn	**Sn**	**08 45 41.0**	**+2.3**
NVLJ	**Novalja**	**1.84**	**301**	*e*Pn	**Pn**	**08 45 16.1**	**+0.7**
NVLJ				Sn	**Sn**	**08 45 41.0**	**+2.3**
BUM	**Brajici-Budva**	**1.88**	**134**	⇓*i*Pn	**Pn**	**08 45 18.1**	**+2.2**
BUM				*e*Sn	**Sn**	**08 45 43.1**	**+3.4**
BUM	**Brajici-Budva**	**1.88**	**134**	⇓*i*Pn	**Pn**	**08 45 18.1**	**+2.2**
BUM				*e*Sn	**Sn**	**08 45 43.1**	**+3.4**
SISC	**Sisak**	**1.92**	**345**	Sn	**Sn**	**08 45 44.0**	**+3.5**
SISC	**Sisak**	**1.92**	**345**	Sn	**Sn**	**08 45 44.0**	**+3.5**
PDG	**Podgorica**	**2.00**	**126**	⇑*i*Pn	**Pn**	**08 45 20.1**	**+2.5**
PDG				*e*Sn	**Sn**	**08 45 46.5**	**+3.9**
TTG	**Podgorica**	**2.00**	**126**	⇑*i*Pn	**Pn**	**08 45 20.1**	**+2.5**
TTG				*e*Sn	**Sn**	**08 45 46.5**	**+3.9**
TTG	**Podgorica**	**2.00**	**126**	⇑*i*Pn	**Pn**	**08 45 20.1**	**+2.5**
MS1	**Monte Sant'Ang**	**2.09**	**204**	*e*Pn	**Pn**	**08 45 17.1**	**-1.6**
MS1				*e*Sn	**Sn**	**08 45 47.3**	**+2.5**
MSAG	**Monte S. Angel**	**2.09**	**205**	Pn	**Pn**	**08 45 17.1**	**-1.7**
MSAG	**Monte S. Angel**	**2.09**	**205**	Pn	**Pn**	**08 45 17.1**	**-1.7**
SGRT	**San Giovanni R**	**2.11**	**208**	Pn	**Pn**	**08 45 17.2**	**-1.8**
	273nm,0.6s						
SGRT	**San Giovanni R**	**2.11**	**208**	Pn	**Pn**	**08 45 17.2**	**-1.8**
	273nm,0.6s						
SJES	**Sjenica**	**2.15**	**99**	*e*Sg	**Sg**	**08 45 52.0**	**-0.7**
DIVS	**Divibare**	**2.17**	**76**	⇑*i*Pn	**Pn**	**08 45 19.3**	**-0.5**
DIVS				*e*Sg	**Sg**	**08 45 53.8**	**+0.4**
BEY	**Berane**	**2.20**	**109**	⇑*i*Pn	**Pn**	**08 45 22.9**	**+2.6**
BEY				*e*Sn	**Sn**	**08 45 51.6**	**+4.1**
IVA	**Berane**	**2.20**	**109**	⇑*i*Pn	**Pn**	**08 45 22.9**	**+2.6**
IVA				*e*Sn	**Sn**	**08 45 51.6**	**+4.1**
IVA	**Berane**	**2.20**	**109**	⇑*i*Pn	**Pn**	**08 45 22.9**	**+2.6**
RGNG	**Rignano Grg**	**2.23**	**210**	Pn	**Pn**	**08 45 18.8**	**-1.9**
RGNG	**Rignano Grg**	**2.23**	**210**	Pn	**Pn**	**08 45 18.8**	**-1.9**
BOJS	**Bojanci**	**2.29**	**326**	*i* Pn	**Pn**	**08 45 22.8**	**+1.4**
BOJS	**Bojanci**	**2.29**	**326**	Pn	**Pn**	**08 45 22.8**	**+1.3**
ULC	**Ulcinj**	**2.31**	**135**	⇑*i*Pn	**Pn**	**08 45 24.9**	**+3.1**
ULC				*e*Sn	**Sn**	**08 45 53.4**	**+3.2**
ULC	**Ulcinj**	**2.31**	**135**	⇑*i*Pn	**Pn**	**08 45 24.9**	**+3.1**
ULC				*e*Sn	**Sn**	**08 45 53.4**	**+3.2**
PVY	**Plav**	**2.36**	**115**	⇑*i*Pn	**Pn**	**08 45 25.2**	**+2.7**
PVY				*e*Sn	**Sn**	**08 45 55.4**	**+3.9**
PVY	**Plav**	**2.36**	**115**	⇑*i*Pn	**Pn**	**08 45 25.2**	**+2.7**
PVY				*e*Sn	**Sn**	**08 45 55.4**	**+3.9**
GCIS	**Gornji Cirnik**	**2.47**	**336**	*i* Pn	**Pn**	**08 45 25.3**	**+1.3**
GCIS	**Gornji Cirnik**	**2.47**	**336**	*i* Pn	**Pn**	**08 45 25.3**	**+1.3**
TRUS	**Trudelj**	**2.49**	**75**	⇓*i*Pn	**Pn**	**08 45 23.1**	**-1.1**
TRUS				*e*Sg	**Sg**	**08 46 04.0**	**+0.4**
TRUS	**Trudelj**	**2.49**	**75**	⇓*i*Pn	**Pn**	**08 45 23.1**	**-1.1**
TRUS				*e*Sg	**Sg**	**08 46 04.0**	**+0.4**
GRUS	**Gruza**	**2.66**	**83**	⇓*i*Pn	**Pn**	**08 45 26.1**	**-0.5**
GRUS				*e*Sg	**Sg**	**08 46 11.6**	**+2.6**
GRUS	**Gruza**	**2.66**	**83**	⇓*i*Pn	**Pn**	**08 45 26.1**	**-0.5**
GRUS				*e*Sg	**Sg**	**08 46 11.6**	**+2.6**
KNDS	**Knezji Dol**	**2.71**	**316**	*i* Pn	**Pn**	**08 45 28.2**	**+1.0**
KNDS	**Knezji Dol**	**2.71**	**316**	*i* Pn	**Pn**	**08 45 28.2**	**+1.0**
TERO	**Teramo**	**2.73**	**250**	Pn	**Pn**	**08 45 26.3**	**-1.2**
	59nm,0.6s						
TERO	**Teramo**	**2.73**	**250**	Pn	**Pn**	**08 45 26.3**	**-1.2**
	59nm,0.6s						
PKSM	**Moragy**	**2.82**	**23**	*e*Pn	**Pn**	**08 45 27.0**	**-1.8**
PKSM				*e*Sg	**Sg**	**08 46 12.4**	**-1.9**
PKSM	**Moragy**	**2.82**	**23**	*e*Pn	**Pn**	**08 45 27.0**	**-1.8**
PKSM				*e*Sg	**Sg**	**08 46 12.4**	**-1.9**
PE1	**Pezze di Greco**	**2.83**	**175**	*e*Pn	**Pn**	**08 45 26.5**	**-2.4**
PE1				*e*Sn	**Sn**	**08 46 01.4**	**-1.6**
CAMP	**Campotosto**	**2.89**	**249**	Pn	**Pn**	**08 45 29.4**	**-0.4**
	14nm,0.6s						
CAMP	**Campotosto**	**2.89**	**249**	Pn	**Pn**	**08 45 29.4**	**-0.4**
	14nm,0.6s						
SKDS	**Skadanscina**	**2.91**	**312**	*i* Pn	**Pn**	**08 45 30.1**	**0.0**
SKDS	**Skadanscina**	**2.91**	**312**	*i* Pn	**Pn**	**08 45 30.0**	**0.0**
NRCA	**Norcia**	**3.00**	**256**	Pn	**Pn**	**08 45 30.8**	**-0.4**
	19nm,0.5s						
NRCA	**Norcia**	**3.00**	**256**	Pn	**Pn**	**08 45 30.8**	**-0.4**
	19nm,0.5s						
VAGA	**Valle Agricola**	**3.04**	**225**	Pn	**Pn**	**08 45 31.9**	**0.0**
VAGA	**Valle Agricola**	**3.04**	**225**	Pn	**Pn**	**08 45 31.9**	**0.0**
SDI	**San Donato**	**3.07**	**233**	Pn	**Pn**	**08 45 32.4**	**+0.1**
	51nm,0.8s						
SDI	**San Donato**	**3.07**	**233**	Pn	**Pn**	**08 45 32.4**	**+0.1**
	51nm,0.8s						
VVLD	**Villa Vallelon**	**3.08**	**237**	Pn	**Pn**	**08 45 32.0**	**-0.4**
VVLD	**Villa Vallelon**	**3.08**	**237**	Pn	**Pn**	**08 45 32.0**	**-0.4**
CESI	**CESI - Serrava**	**3.10**	**260**	Pn	**Pn**	**08 45 32.6**	**-0.1**
	39nm,0.7s						
CESI	**CESI - Serrava**	**3.10**	**260**	Pn	**Pn**	**08 45 32.6**	**-0.1**
	39nm,0.7s						
LNSS	**Leonessa**	**3.12**	**252**	Pn	**Pn**	**08 45 32.9**	**0.0**
	131nm,0.5s						
LNSS	**Leonessa**	**3.12**	**252**	Pn	**Pn**	**08 45 32.9**	**0.0**
	131nm,0.5s						
JAVS	**Javornik**	**3.12**	**318**	*i* Pn	**Pn**	**08 45 33.9**	**+0.9**
JAVS	**Javornik**	**3.12**	**318**	*i* Pn	**Pn**	**08 45 33.9**	**+1.0**
FIAM	**Fiamignano**	**3.20**	**246**	Pn	**Pn**	**08 45 34.9**	**+0.8**
	85nm,0.8s						
FIAM	**Fiamignano**	**3.20**	**246**	Pn	**Pn**	**08 45 34.9**	**+0.8**
	85nm,0.8s						
ASS	**Assisi**	**3.27**	**262**	Pn	**Pn**	**08 45 35.3**	**+0.3**
	33nm,0.4s						
ASS	**Assisi**	**3.27**	**262**	Pn	**Pn**	**08 45 35.3**	**+0.3**
	33nm,0.4s						
VOY	**Vojsko**	**3.30**	**318**	*e*Sn	**Sn**	**08 46 16.5**	**+1.8**
VOJS	**Vojsko**	**3.31**	**318**	*i* Pn	**Pn**	**08 45 36.4**	**+0.9**
VOJS	**Vojsko**	**3.31**	**318**	*i* Pn	**Pn**	**08 45 36.4**	**+0.9**
MURB	**Monte Urbino**	**3.33**	**265**	Pn	**Pn**	**08 45 36.3**	**+0.5**
	108nm,0.7s						
MURB	**Monte Urbino**	**3.33**	**265**	Pn	**Pn**	**08 45 36.3**	**+0.5**
	108nm,0.7s						
SOKA	**Soboth**	**3.38**	**335**	⇑*i*Pn	**Pn**	**08 45 36.7**	**+0.3**
SOKA				⇑*i*Sn	**Sn**	**08 46 15.4**	**-1.2**
SOKA	**Soboth**	**3.38**	**335**	Pn	**Pn**	**08 45 36.7**	**+0.2**
SOKA				Sn	**Sn**	**08 46 15.4**	**-1.2**
OBKA	**Obir**	**3.40**	**329**	⇑*i*Pn	**Pn**	**08 45 36.8**	**+0.1**
OBKA				⇑*i*Sn	**Sn**	**08 46 17.0**	**0.0**
OBKA	**Obir**	**3.40**	**329**	Pn	**Pn**	**08 45 36.8**	**+0.1**
OBKA				Sn	**Sn**	**08 46 17.0**	**0.0**
NISS		**3.56**	**92**	*e*Pn	**Pn**	**08 45 39.2**	**+0.3**
BARS	**Barje**	**3.56**	**101**	⇓*i*Pn	**Pn**	**08 45 39.7**	**+0.7**
BARS	**Barje**	**3.56**	**101**	⇓*i*Pn	**Pn**	**08 45 39.7**	**+0.7**
ARSA	**Arzberg**	**3.79**	**344**	⇑*i*Pn	**Pn**	**08 45 42.0**	**-0.2**
ARSA				⇓*i*Sn	**Sn**	**08 46 25.3**	**-1.4**
ARSA	**Arzberg**	**3.79**	**344**	⇓*i*Pn	**Pn**	**08 45 42.0**	**-0.1**
ARSA	**Arzberg**	**3.79**	**344**	Pn	**Pn**	**08 45 42.0**	**-0.1**
ARSA				Sn	**Sn**	**08 46 25.3**	**-1.4**
KRUS	**Krusevo**	**3.82**	**125**	*e*Pn	**Pn**	**08 45 43.3**	**+0.7**
KRUS				*e*Sn	**Sn**	**08 46 36.3**	**+8.7**
KRUS	**Krusevo**	**3.82**	**125**	*e*Pn	**Pn**	**08 45 43.2**	**+0.6**
PTCC	**Patocco-Chiusa**	**3.83**	**318**	Pn	**Pn**	**08 45 43.4**	**+0.7**
PTCC	**Patocco-Chiusa**	**3.83**	**318**	Pn	**Pn**	**08 45 43.4**	**+0.7**
ZAPS	**Zavoj**	**4.07**	**93**	⇓*i*Pn	**Pn**	**08 45 47.9**	**+1.9**
MOA	**Molln**	**4.66**	**336**	⇓*i*Pn	**Pn**	**08 45 53.7**	**-0.4**
MOA				⇑*i*Sn	**Sn**	**08 46 48.3**	**+0.1**
MOA	**Molln**	**4.66**	**336**	Pn	**Pn**	**08 45 53.7**	**-0.4**
MOA				Sn	**Sn**	**08 46 48.3**	**+0.1**
PSZ	**Piszkesteto**	**4.73**	**24**	⇓*e*Pn	**Pn**	**08 45 54.1**	**-0.9**
PSZ	**Piszkesteto**	**4.73**	**24**	⇓*e*P	**Pn**	**08 45 54.1**	**-0.9**
MODS	**Modra-Piesok**	**4.75**	**2**	*e*PN	**Pn**	**08 45 57.1**	**+1.7**
MODS				*e*SN	**Sn**	**08 46 51.1**	**+0.6**
MODS	**Modra-Piesok**	**4.75**	**2**	*e*Pn	**Pn**	**08 45 57.1**	**+1.7**
MODS				*e*Sn	**Sn**	**08 46 51.1**	**+0.6**
VYHS	**Vyhne**	**5.03**	**14**	*e*PN	**Pn**	**08 45 59.9**	**+0.8**
VYHS				*e*SN	**Sn**	**08 46 54.7**	**-2.5**
VYHS	**Vyhne**	**5.03**	**14**	*e*Pn	**Pn**	**08 45 59.9**	**+0.8**
VYHS				*e*Sn	**Sn**	**08 46 54.7**	**-2.5**
APPI	**Appiano**	**5.03**	**307**	Pn	**Pn**	**08 45 59.3**	**+0.2**
APPI	**Appiano**	**5.03**	**307**	Pn	**Pn**	**08 45 59.3**	**+0.2**

KOLL	Kolacno	5.04	10	*e*PN	Pn	08 45 59.4	0.0
KOLL				*e*PG	Pg	08 46 20.6	+0.3
KOLL	Kolacno	5.04	10	*e*Pn	Pn	08 45 59.4	0.0
KOLL				*e*Pg	Pg	08 46 20.6	+0.3
KOLL				*e*Sn	Sn	08 46 56.3	-1.3
KOLL	Kolacno	5.04	10	*e*Pn	Pn	08 45 59.4	0.0
KOLL	Kolacno	5.04	10	*e*Pg	Pg	08 46 20.6	+0.3
KOLL				*e*Sn	Sn	08 46 56.3	-1.3
STHS	Stebnicka Huta	6.47	25	*e*PG	Pg	08 46 44.6	-3.0
STHS				*e*SN	Sn	08 47 31.9	-0.9

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*ISCJB **27** 08:52:58.8±0.6, 33°.34N±0°.03×35°.42E±0°.05, h1^{km}±6^{km}, Error ellipse: s-maj=6.5km s-min=4.4km az=17.2*

*GII **27** 08:52:58.9±0.7, 33°.27N×35°.42E, h1^{km}±2^{km}, Md2.3/4*

*CSEM **27** 08:52:59.7, 33°.31N×35°.43E, h0^{km}, ML3.1, After GRAL*

*GRAL **27** 08:52:59.7±0.3, 33°.31N×35°.43E, h0^{km}±156^{km}, MD3.1*

ISC 27 08:52:59.2±0.6, **33°.34N**±0°.03×**35°.42E**±0°.05, **h0**^{km}±6^{km}, **n21, σ0^{s}.63**/31, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	332	*e*P	Pg	08 53 03.1	+0.7
MATL	Matirih	0.16	332	*e*P	Pg	08 53 03.1	+0.7
KSDI	Kefar Szold	0.25	127	Pg	Pg	08 53 03.6	-0.4
KSDI				Sg	Sg	08 53 07.9	+0.6
MMC2	Mount Meron ar	0.32	181	Pg	Pg	08 53 04.8	-0.5
MMA1	Mount Meron ar	0.33	182	Pg	Pg	08 53 04.8	-0.7
MMA0	Mount Meron ar	0.33	183	Pg	Pg	08 53 05.0	-0.5
MMA0				Sg	Sg	08 53 09.8	0.0
HNTI	Hanita	0.33	219	Pg	Pg	08 53 05.6	0.0
HNTI				Sg	Sg	08 53 10.9	+1.0
RCY	Rachaya	0.36	67	*e*P	Pg	08 53 06.5	+0.3
RCY	Rachaya	0.36	67	*e*P	Pg	08 53 06.5	+0.3
KSHT	Keshet	0.49	138	Pg	Pg	08 53 08.2	-0.4
KSHT				Sg	Sg	08 53 16.1	+1.2
BHL	Bhannes	0.59	19	*e*P	Pg	08 53 10.9	+0.3
BHL	Bhannes	0.59	19	*e*P	Pg	08 53 10.9	+0.3
BLGI	Bet Lehem HaGe	0.64	198	Pg	Pg	08 53 12.7	+1.2
BLGI				Sg	Sg	08 53 20.5	+0.7
OFRI	‘Ofer	0.81	207	Pg	Pg	08 53 14.6	-0.1
MMLI	Mount Malkishu	0.90	180	Pg	Pg	08 53 15.6	-1.0
MMLI				Sg	Sg	08 53 27.8	-0.5
HWQ	Hawqa	1.03	25	*e*P	Pg	08 53 18.6	-0.4
HWQ	Hawqa	1.03	25	*e*P	Pg	08 53 18.6	-0.4
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	08 53 19.3	-0.9
HMDT				Sg	Sg	08 53 34.6	+0.3
SLTI	Sal’it	1.15	196	Pg	Pg	08 53 20.3	-0.9
SLTI				Sg	Sg	08 53 36.1	0.0
DSI	Dead Sea	1.77	181	Pn	Pn	08 53 30.5	-0.6
DSI				Sn	Sn	08 53 54.1	-0.1
MZDA	Masada	2.03	181	Pn	Pn	08 53 34.4	-0.2
MZDA				Sn	Sn	08 54 01.4	+0.7

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*IDC **27** 09:02:13.0±2.7, 34°.65N×22°.78E, h0^{km}, mb4.0/5, mb1 4.0/9, mb1mx3.7/27, mbtmp3.8/9, ML3.9/4, MS4.2/1, Ms1 4.2/1, ms1mx3.2/56, Error ellipse: s-maj=50.2km s-min=27.8km az=22.0*

*ISCJB **27** 09:02:19.9±0.6, 34°.87N±0°.04×22°.96E±0°.05, h68^{km}±7^{km}, mb3.9/5, Error ellipse: s-maj=8.0km s-min=4.2km az=141.3*

*HLW **27** 09:02:21.3, 35°.04N×23°.59E, h16^{km}, Mb4.4*

*CSEM **27** 09:02:21.6±0.3, 34°.91N×23°.08E, h80^{km}, ML4.4, Error ellipse: s-maj=10.6km s-min=5.0km az=52.0*

*THE **27** 09:02:23.3, 35°.08N×23°.07E, h68^{km}±6^{km}, ML4.0/3, Error ellipse: s-maj=6.1km s-min=1.0km az=80.0*

*NEIC **27** 09:02:29.9, 35°.74N×23°.76E, h34^{km}, MD3.7(ATH), ML4.0(THE), After ATH.*

*ATH **27** 09:02:29.9, 35°.74N×23°.76E, h34^{km}±5^{km}, MD3.7/5*

*GII **27** 09:02:43.1±2.3, 34°.70N×24°.94E, h17^{km}±58^{km}, Md3.7/6*

ISC 27 09:02:21.6±0.5, **34°.91N**±0°.03×**23°.00E**±0°.05, **h55**^{km}±7^{km}, **n88, σ1^{s}.13**/114, **mb4.0**/5, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARN	Karanos	0.90	56	P	Pn	09 02 37.9	-0.3
KARN				S	Sn	09 02 50.4	+0.1
KARN	Karanos	0.90	56	P	Pn	09 02 37.9	-0.3
KARN				S	Sn	09 02 50.4	+0.1
VAM	Vamos	1.10	63	*e*PB	Pn	09 02 41.0	+0.2
VAM	Vamos	1.10	63	*e*Pb	Pn	09 02 41.0	+0.2
KYTH	Kithira	1.37	1	*e*PN	Pn	09 02 45.5	+1.0
KYTH	Kithira	1.37	1	*e*Pn	Pn	09 02 45.5	+1.0
SIVA	Sivas	1.49	85	P	Pn	09 02 46.9	+0.8
SIVA				S	Sn	09 03 05.5	+1.1
SIVA	Sivas	1.49	85	P	Pn	09 02 46.9	+0.8
SIVA				S	Sn	09 03 05.5	+1.1
IDI	Anoyia	1.59	76	Pn	Pn	09 02 48.1	+0.6
	6.3nm,0.3s,baz=268,slow=15,SNR=58						
IDI				Sn	Sn	09 03 06.7	-0.3
	77nm,0.3s,baz=317,slow=18,SNR=20						
VLI	Veliai	1.81	358	*e*PN	Pn	09 02 51.8	+1.4
VLI	Veliai	1.81	358	*e*Pn	Pn	09 02 51.8	+1.4
LAST	Lasithi	2.05	82	P	Pn	09 02 54.9	+1.2
LAST				S	Sn	09 03 18.4	+0.3
LAST	Lasithi	2.05	82	P	Pn	09 02 54.9	+1.2
LAST				S	Sn	09 03 18.4	+0.3
NPS	Neapolis	2.17	80	*e*PN	Pn	09 02 56.5	+1.2
NPS	Neapolis	2.17	80	*e*Pn	Pn	09 02 56.5	+1.2
PYL	PYLOS	2.23	333	P	Pn	09 02 56.3	+0.1
PYL	PYLOS	2.23	333	P	Pn	09 02 56.3	+0.1
THR6	Thira Island,	2.43	53	P	Pn	09 02 58.9	0.0
THR6				S	Sn	09 03 26.2	-1.2
THR6	Thira Island,	2.43	53	P	Pn	09 02 58.9	0.0
THR6				S	Sn	09 03 26.2	-1.2
ITM	Ithomi	2.43	339	*e*PN	Pn	09 03 02.1	+3.2
ITM	Ithomi	2.43	339	*e*Pn	Pn	09 03 02.1	+3.2
THR5	Thira Island,	2.43	51	P	Pn	09 02 58.8	-0.1
THR5	Thira Island,	2.43	51	P	Pn	09 02 58.8	-0.1
THR1	Thera Island	2.48	53	P	Pn	09 02 59.1	-0.4
THR1	Thera Island	2.48	53	P	Pn	09 02 59.1	-0.4
THR4	Thira Island,	2.49	51	P	Pn	09 02 58.9	-0.8
THR4	Thira Island,	2.49	51	P	Pn	09 02 58.9	-0.8
DID	Didima	2.60	4	P	Pn	09 03 01.4	+0.2
DID				S	Sn	09 03 30.8	-0.8
DID	Didima	2.60	4	*e*PB	Pn	09 03 01.6	+0.4
DID	Didima	2.60	4	P	Pn	09 03 01.4	+0.2
DID				S	Sn	09 03 30.8	-0.8
NAIG	Nisos Aigina	2.88	8	*e*PB	Pn	09 03 04.9	-0.1
NAIG	Nisos Aigina	2.88	8	*e*Pb	Pn	09 03 04.9	-0.1
VLY	Voula,Athens	3.01	12	*e*PB	Pn	09 03 06.8	0.0
VLY	Voula,Athens	3.01	12	*e*Pb	Pn	09 03 06.8	0.0
GUR	Goura	3.07	350	*e*PN	Pn	09 03 08.2	+0.5
GUR	Goura	3.07	350	*e*Pn	Pn	09 03 08.2	+0.5
LTK	Loutraki	3.11	359	*e*PN	Pn	09 03 08.9	+0.7
LTK	Loutraki	3.11	359	*e*Pn	Pn	09 03 08.9	+0.7
KARP	Karpathos	3.46	78	*e*PN	Pn	09 03 14.6	+1.6
KARP	Karpathos	3.46	78	*e*Pn	Pn	09 03 14.6	+1.6
KALE	Kalithea	3.55	349	P	Pn	09 03 14.6	+0.4
KALE	Kalithea	3.55	349	P	Pn	09 03 14.6	+0.4
LKR	Lokris	3.74	360	P	Pn	09 03 15.9	-0.9
LKR				S	Sn	09 03 56.7	-2.8
LKR	Lokris	3.74	360	*e*PN	Pn	09 03 17.7	+0.9
LKR	Lokris	3.74	360	P	Pn	09 03 15.9	-0.9
LKR	Lokris	3.74	360	*e*Pn	Pn	09 03 17.7	+0.9
LKR				S	Sn	09 03 56.7	-2.8
VLS	Valsamata	3.80	330	P	Pn	09 03 17.1	-0.5
VLS				S	Sn	09 04 00.5	-0.5
VLS	Valsamata	3.80	330	P	Pn	09 03 17.1	-0.5
VLS				S	Sn	09 04 00.5	-0.5
AGG	Agios Georgios	4.14	353	P	Pn	09 03 23.1	+0.7
AGG				S	Sn	09 04 08.2	-1.3
AGG	Agios Georgios	4.14	353	P	Pn	09 03 23.1	+0.7
AGG				S	Sn	09 04 08.2	-1.3
LKD	Levkas	4.24	334	P	Pn	09 03 24.4	+0.8
LKD				S	Sn	09 04 10.4	-1.4
LKD	Levkas	4.24	334	P	Pn	09 03 24.4	+0.8
LKD				S	Sn	09 04 10.4	-1.4
XOR	Xorichti	4.46	2	P	Pn	09 03 26.8	+0.2
XOR				S	Sn	09 04 14.8	-2.3
XOR	Xorichti	4.46	2	P	Pn	09 03 26.8	+0.2
XOR				S	Sn	09 04 14.8	-2.3
SWA2		6.02	159	P	Pn	09 03 49.3	+1.3
SWA2				S	Sn	09 04 53.5	-2.1
AWBH		8.27	141	P	Pn	09 04 18.6	-0.3
AWBH		8.27	141	P	Pn	09 04 18.6	-0.3
CSS	Prodhromos	8.48	87	Pn	Pn	09 04 24.9	+3.1
CSS				Sn	Sn	09 05 44.9	-11
HSAF	As Saff	8.95	124	P	Pn	09 04 26.1	-2.2
HSAF	As Saff	8.95	124	P	Pn	09 04 26.1	-2.2
HFRF	Wahat Farafira	8.97	148	P	Pn	09 04 28.3	-0.2
HFRF	Wahat Farafira	8.97	148	P	Pn	09 04 28.3	-0.2
GLL	Jalalah	9.09	123	P	Pn	09 04 28.1	-2.0
GLL	Jalalah	9.09	123	P	Pn	09 04 28.1	-2.0
SUZ		9.72	119	P	Pn	09 04 35.7	-3.1
SUZ		9.72	119	P	Pn	09 04 35.7	-3.1
BRTR	Keskin Array B	9.74	57	Pn	Pn	09 04 39.6	+0.6
	0.1nm,0.3s,baz=227,slow=16,SNR=11						
MMA0	Mount Meron ar	10.47	97	Sn	Sn	09 06 34.0	-11
MMAI	Mount Meron Ar	10.47	97	Pn	Pn	09 04 48.5	-0.5
	1.6nm,0.3s,baz=157,slow=43,SNR=3.8						
MMAI				Sn	Sn	09 06 35.0	-10
	4.7nm,0.3s,baz=308,slow=24,SNR=5.8						
HNKL	Nakhl	10.52	115	P	Pn	09 04 47.1	-2.6
HNKL	Nakhl	10.52	115	P	Pn	09 04 47.1	-2.6
MMLI	Mount Malkishu	10.64	100	Sn	Sn	09 06 37.7	-11
HMDT	Nahal Hemdat	10.78	101	Sn	Sn	09 06 41.6	-11
MLR	Muntele Rosu	10.81	11	Pn	Pn	09 04 55.6	+2.0
	0.2nm,0.3s,baz=226,slow=5.9,SNR=5.3						
HDK1	Dakhla	10.85	148	P	Pn	09 04 54.8	+0.6
HDK1	Dakhla	10.85	148	P	Pn	09 04 54.8	+0.6
DSI	Dead Sea	10.88	104	Pn	Pn	09 04 58.8	+4.1
DSI				Sn	Sn	09 06 44.6	-10
KRMI	Paran Flat	10.98	113	Sn	Sn	09 06 48.0	-9.4
PRNI	Paran	11.09	111	Pn	Pn	09 05 02.0	+4.5
PRNI				Sn	Sn	09 06 51.2	-8.7
MBRI	Mt Berech	11.29	114	Pn	Pn	09 05 05.1	+4.9
MBRI				Sn	Sn	09 06 56.8	-8.0
EIL	Elat	11.38	114	Sn	Sn	09 06 58.6	-8.4
	2.1nm,0.3s,baz=77,slow=9.9,SNR=5.6						
AKASG	Malin Array Be	16.42	14	Pn	Pn	09 06 07.8	-0.4
	1.2nm,0.3s,baz=202,slow=9.1,SNR=4.6						
AKTO	Aktyubinsk	29.73	48	LR	LR	09 22 44.3	
	comp=Z,462nm,19.2s,baz=85,slow=41						
ARCES	ARCESS Array B	34.71	2	P	P	09 09 05.5	-0.3
	2.9nm,0.9s,mb4.2,baz=180,slow=5.8,SNR=4.6						
MKAR	Makanchi Array	45.39	56	P	P	09 10 34.5	0.0
	2.2nm,0.6s,mb4.2,baz=282,slow=6.7,SNR=34						
ZALV	Zalesovo Beam	46.46	46	P	P	09 10 42.0	-0.8
	3.4nm,0.5s,mb4.5,baz=264,slow=9.6,SNR=11						
SONM	Songino Array	61.01	50	P	P	09 12 29.9	+0.7
	0.6nm,0.6s,mb3.9,baz=284,slow=6.0,SNR=4.2						
YKA	Yellowknife Ar	77.14	341	P	P	09 14 10.8	+2.0
	0.2nm,0.7s,mb3.2,baz=33,slow=5.7,SNR=5.4						

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*ISCJB **27** 09:17:53.7±0.8, 77°.16N±0°.09×19°.4E±0°.2, h10^{km}, Error ellipse: s-maj=13.6km s-min=5.7km az=17.3*

*NAO **27** 09:17:53.1±1.1, 77°.05N×19°.07E, ML2.5*

*CSEM **27** 09:17:54.4±0.5, 77°.07N×18°.86E, h20^{km}, ML2.5, Error ellipse: s-maj=27.0km s-min=9.9km az=48.0*

*BER **27** 09:17:56.3±4.2, 77°.08N×18°.87E, h23^{km}±57^{km}, ML2.5, ML2.5(NAO)*

ISC 27 09:17:54.5±0.8, **77°.12N**±0°.08×**19°.3E**±0°.2, **h10**^{km}, **n10, σ1^{s}.16**/15, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	0.84	264	*e*P	Pg	09 18 11.8	+1.0
HSP				*e*S	Sg	09 18 21.9	+0.1
SPA0	Spitsbergen Ar	1.23	331	Pg	Pg	09 18 19.1	+0.9
	baz=146,slow=22						
SPA0				Lg		09 18 33.2	
	baz=159,slow=22						
SPA0	Spitsbergen Ar	1.23	331	Pg	Pg	09 18 19.1	+0.9
	SNR=95						
SPA0				Lg		09 18 33.2	
	SNR=53						
HOPEN	Hopen	1.45	112	*e*P	Pn	09 18 21.3	+0.5
HOPEN				*e*Sg	Sg	09 18 41.6	+0.5
HOPEN				AML	AML	09 18 50.3	
	comp=Z,86nm,0.2s						
HOPEN	Hopen	1.45	112	*e*P	Pn	09 18 21.3	+0.6
	SNR=62						
HOPEN				*e*Sg	Sg	09 18 41.6	+0.5
	comp=Z,86nm,0.2s,SNR=94						
KBS	Kingsbay	2.37	323	Pn	Pn	09 18 30.9	-2.5
KBS				Lg		09 19 08.3	
KBS	Kingsbay	2.37	323	*e*Sg	Sg	09 19 06.5	-4.1
KBS				AML	AML	09 19 10.9	
	comp=Z,57nm,0.3s						
KBS	Kingsbay	2.37	323	Pn	Pn	09 18 30.9	-2.5
KBS				*e*Sg	Sg	09 19 06.5	-4.1
	comp=Z,57nm,0.3s,SNR=92						
KBS				Lg		09 19 08.3	
ARA0	ARCESS Array S	7.83	164	Pn	Pn	09 19 46.9	-1.3
	baz=330,slow=16						
ARA0				Sn	Sn	09 21 09.2	-7.4
	baz=357,slow=22						
ARA0	ARCESS Array S	7.83	164	Pn	Pn	09 19 46.8	-1.4
	SNR=62						

IDC 27 09:18:14.6±5.0, **33°.41S**×**179°.81W**, **h0**^{km}, **mb3.9**/2, **mb1 4.2**/2, **mb1mx3.8**/15, **mbtmp3.9**/2, **MS3.1**/1, **Ms1 3.1**/1, **ms1mx3.0**/32, **Error ellipse: s-maj=209.4km s-min=55.3km az=162.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	4.45	22	LR	LR	09 20 09.6	
	comp=Z,238nm,19.6s,baz=117,slow=26						
ASAR	Alice Springs	41.52	271	P	P	09 26 03.4	-0.4
	1.3nm,0.7s,baz=115,slow=7.6,SNR=17						
WRA	Warramunga Arr	42.79	276	P	P	09 26 14.4	+0.3
	1.0nm,0.6s,baz=117,slow=8.2,SNR=12						
FINES	FINESS Array B	147.38	337	PKPbc	PKPbc	09 37 58.7	-0.7
	3.4nm,1.0s,baz=43,slow=8.4,SNR=2.9						

IDC 27 09:24:21.2±3.3, **34°.68S**×**179°.29W**, **h0**^{km}, **mb3.9**/2, **mb1 4.2**/3, **mb1mx3.9**/16, **mbtmp4.0**/3, **ML4.0**/1, **MS4.0**/2, **Ms1 4.2**/2, **ms1mx3.4**/31, **Error ellipse: s-maj=73.5km s-min=36.6km az=119.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	4.61	218	Pn	Pn	09 25 32.1	0.0
	6.6nm,0.3s,baz=43,slow=1.8,SNR=32						
URZ				Sn	Sn	09 26 24.9	-1.3
	9.1nm,0.3s,baz=167,slow=20,SNR=15						
URZ				LR	LR	09 27 19.1	
	comp=Z,635nm,20.5s,baz=210,slow=39						
ASAR	Alice Springs	41.99	272	P	P	09 32 14.3	+0.1
	1.2nm,0.6s,baz=114,slow=7.7,SNR=17						
WRA	Warramunga Arr	43.37	277	P	P	09 32 25.5	+0.1
	1.2nm,0.5s,baz=117,slow=7.9,SNR=12						
CMAR	Chiang Mai Arr	93.80	290	LR	LR	10 17 49.0	
	comp=Z,205nm,19.2s,baz=178,slow=34						
FINES	FINESS Array B	148.71	337	PKPbc	PKPbc	09 44 08.7	-0.8
	1.3nm,0.8s,baz=5.7,slow=1.4,SNR=3.9						

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*ISCJB **27** 09:31:24.2±2.8, 34°.54S±0°.09×179°.0W±0°.2, h15^{km}±21^{km}, mb4.3/6, Error ellipse: s-maj=27.8km s-min=11.6km az=21.0*

*NEIC **27** 09:31:30.6±0.8, 34°.66S×179°.15W, mb4.4/1, Error ellipse: s-maj=22.6km s-min=8.9km az=112.0*

*IDC **27** 09:31:31.1±0.9, 34°.39S×179°.14W, h40^{km}±5^{km}, mb4.2/5, mb1 4.3/6, mb1mx4.0/17, mbtmp4.2/6, ML4.5/1, MS3.2/1, Ms1 3.2/1, ms1mx2.8/31, Error ellipse: s-maj=23.7km s-min=19.0km az=162.0*

ISC 27 09:31:31.1±2.0, **34°.7S**±0°.1×**179°.2W**±0°.2, **h36**^{km}±18^{km}, **h41**^{km}±2.2^{km}**:pP-P, n28, σ1^{s}.22**/25, **mb4.3**/6, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	Puketiti	3.98	210	P	Pn	09 32 29.3	-0.3
PUZ				S	Sn	09 33 18.4	+3.4
MWZ	Matawai	4.52	215	P	Pn	09 32 37.6	+0.6
MWZ				S	Sn	09 33 35.5	+7.2
URZ	Urewera	4.67	218	Pn	Pn	09 32 40.4	+1.4
	20nm,0.3s,baz=345,slow=1.4,SNR=87						
URZ				Sn	Sn	09 33 37.6	+5.7
	9.0nm,0.3s,baz=200,slow=21,SNR=6.8						
URZ	Urewera	4.67	218	P	Pn	09 32 40.4	+1.4
KNZ	Kokohu	5.03	209	P	Pn	09 32 43.6	-0.4
RAO	Raoul Island	5.49	12	LR	LR	09 34 23.5	
	comp=Z,224nm,18.0s,baz=316,slow=33						
BKZ	Black Stump Fm	5.67	216	P	Pn	09 32 53.1	+0.3
OUZ	Omahuta	5.94	262	*e*Pn	Pn	09 33 00.9	+4.4
	19nm,0.8s						
MRZ	Mangatainoka R	7.29	213	P	Pn	09 33 13.4	-1.6
SNZO	South Karori	8.20	214	*e*Pn	Pn	09 33 28.6	+1.1
SNZO				*e*Sn	Sn	09 34 57.1	-1.8
THZ	Tophouse	9.43	219	P	Pn	09 33 41.7	-2.6
RPZ	Rata Peaks	11.78	217	Pn	Pn	09 34 14.4	-2.1
	0.9nm,0.3s,baz=212,slow=1.1,SNR=6.2						
RPZ				Sn	Sn	09 36 22.9	-3.8
	1.2nm,0.3s,baz=11,slow=21,SNR=7.9						
STKA	Stephens Creek	32.75	264	P	P	09 38 01.4	+0.8
	1.6nm,0.8s,mb4.0,baz=113,slow=15,SNR=2.6						
ASAR	Alice Springs	42.05	272	P	P	09 39 19.8	+0.3
	5.8nm,0.7s,mb4.3,baz=115,slow=7.5,SNR=82						
ASAR				pP	pP	09 39 31.0	+1.1
	7.6nm,0.8s,baz=115,slow=8.0,SNR=14						
ASAR				S	S	09 45 35.9	-0.4
	0.7nm,0.8s,baz=115,slow=16,SNR=5.6						
WB2	Warramunga Arr	43.42	277	*e*P	P	09 39 30.2	-0.3
WRAB	Tennant Creek	43.42	277	*e*P	P	09 39 30.0	-0.5
	4.1nm,0.6s,mb4.3						
WRA	Warramunga Arr	43.43	277	P	P	09 39 30.7	+0.2
	3.0nm,0.6s,mb4.2,baz=118,slow=7.6,SNR=28						
WRA				pP	pP	09 39 42.9	+1.8
	3.9nm,0.5s,baz=118,slow=7.5,SNR=8.1						
QSPA	South Pole Qui	55.47	180	P	P	09 41 03.4	+1.8
	2.8nm,1.0s,mb4.2,baz=74,slow=3.7,SNR=7.8						
QSPA	South Pole Qui	55.47	180	P	P	09 41 03.4	+1.8
PETK	Petropavlovsk-	89.68	346	P	P	09 44 23.9	-0.8
	6.4nm,0.9s,mb5.0,baz=168,slow=8.3,SNR=5.7						
PETK				pP	pP	09 44 35.0	-1.0
	10nm,1.0s,baz=123,slow=7.8,SNR=6.4						
ARCES	ARCESS Array B	142.49	346	PKP	PKPdf	09 50 59.3	+0.3
	3.6nm,0.9s,baz=5.7,slow=0.9,SNR=2.3						
JOF	Joensuu	145.92	335	*e*p	PKPdf	09 51 03.5	-1.6
	4.1nm,0.7s						
KAF	Kangasniemi	148.14	337	*e*p	PKPdf	09 51 08.1	-0.8
	2.9nm,0.6s						
FINES	FINESS Array B	148.71	337	PKPbc	PKPbc	09 51 12.2	-1.4
	6.2nm,0.8s,baz=69,slow=6.3,SNR=10						
FINES				pPKPbc	pPKPbc	09 51 23.6	-1.7
	5.2nm,0.7s,baz=43,slow=3.4,SNR=3.9						
NOA	NORSAR Array B	152.75	349	PKPab	PKPab	09 51 32.3	-1.9
	0.8nm,0.7s,baz=21,slow=4.2,SNR=3.2						
NOA				pPKPab	pPKPab	09 51 43.5	-2.0
	3.6nm,1.0s,baz=20,slow=3.0,SNR=3.4						
BRTR	Keskin Array B	153.44	291	PKPbc	PKPbc	09 51 24.2	-1.2
AKASG	Malin Array Be	153.88	317	PKPbc	PKPbc	09 51 24.3	-1.6
	0.8nm,0.5s,baz=66,slow=2.5,SNR=3.4						
TORD	Torodi Ar. Bea	158.58	182	PKPab	PKPab	09 52 02.1	+1.9
	0.7nm,0.8s,baz=195,slow=4.4,SNR=3.9						

IDC 27 09:44:06.8±9.2, **19°.77N**×**141°.91E**, **h0**^{km}, **mb3.5**/3, **mb1 3.7**/3, **mb1mx3.4**/21, **mbtmp3.5**/3, **MS3.8**/1, **Ms1 3.8**/1, **ms1mx3.2**/29, **Error ellipse: s-maj=357.7km s-min=30.8km az=74.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	34.02	147	LR	LR	10 01 16.1	
	comp=Z,142nm,20.4s,baz=287,slow=30						
WRA	Warramunga Arr	40.16	191	P	P	09 51 45.4	+0.6
	1.8nm,0.7s,baz=12,slow=8.5,SNR=19						
ASAR	Alice Springs	43.87	191	P	P	09 52 14.2	-0.9
	0.2nm,0.8s,baz=17,slow=10,SNR=2.5						
MKAR	Makanchi Array	55.14	314	P	P	09 53 41.0	+0.1
	0.2nm,0.5s,baz=113,slow=5.6,SNR=4.9						

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*IDC **27** 09:47:03.6±2.6, 12°.77S×166°.70E, h0^{km}, mb4.2/7, mb1 4.2/8, mb1mx4.0/18, mbtmp4.2/8, ML4.6/1, MS3.9/3, Ms1 3.9/3, ms1mx3.4/34, Error ellipse: s-maj=66.7km s-min=30.8km az=116.0*

*NEIC **27** 09:47:12.4±2.5, 12°.63S×166°.44E, h55^{km}±19^{km}, mb3.9/1, Error ellipse: s-maj=32.0km s-min=16.9km az=70.0*

ISC 27 09:47:12.8±2.5, **12°.6S**±0°.1×**166°.3E**±0°.2, **h52**^{km}±18^{km}, **n11, σ1^{s}.01**/12, **mb4.1**/7, **MS4.1**/2, **Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	7.01	296	Pn	Pn	09 48 54.0	+1.0
	10nm,0.3s,baz=112,slow=4.8,SNR=3.9						
HNR				Sn	Sn	09 50 10.5	-0.9
	22nm,0.3s,baz=115,slow=14,SNR=3.7						
HNR				LR	LR	09 51 28.0	
	comp=Z,254nm,19.0s,baz=139,slow=36						
DZM	Mont Dzumac	9.41	179	*e*Pn	Pn	09 49 24.9	-0.9
	80nm,1.4s						
DZM				Sn	Sn	09 51 22.5	+12
EIDS	Eidsvold	19.18	226	*e*Pn	Pn	09 51 35.6	+2.0
	5.8nm,0.8s						
STKA	Stephens Creek	29.74	226	P	P	09 53 14.5	+0.2
	2.3nm,0.7s,mb4.0,baz=133,slow=4.5,SNR=4.2						
STKA				LR	LR	10 03 32.3	
	comp=Z,210nm,19.3s,MS3.8,baz=138,slow=33						
WRA	Warramunga Arr	31.52	252	P	P	09 53 29.3	-0.9
	0.5nm,0.6s,mb3.5,baz=85,slow=8.3,SNR=4.6						
ASAR	Alice Springs	32.64	246	P	P	09 53 38.9	-1.1
	0.3nm,0.5s,mb3.5,baz=67,slow=10.0,SNR=8.9						
CMAR	Chiang Mai Arr	73.25	294	P	P	09 58 40.4	+1.2
	1.7nm,0.7s,mb4.1,baz=125,slow=5.0,SNR=8.2						
SONM	Songino Array	80.25	324	P	P	09 59 18.4	+0.5
	0.9nm,0.4s,mb4.1,baz=135,slow=5.5,SNR=13						
MKAR	Makanchi Array	95.04	317	P	P	10 00 29.9	-0.1
	3.2nm,0.8s,mb4.8,baz=93,slow=6.3,SNR=21						
ZALV	Zalesovo Beam	95.14	324	P	P	10 00 29.3	-1.0
	0.6nm,0.4s,mb4.4,baz=107,slow=8.0,SNR=2.9						
TXAR	Lajitas Array	96.07	61	LR	LR	10 37 12.3	
	comp=Z,161nm,21.6s,MS4.5,baz=0.0,slow=31						

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*IDC **27** 09:51:04.2±0.7, 5°.95N×127°.68E, h0^{km}, mb4.1/11, mb1 4.1/12, mb1mx4.0/24, mbtmp4.1/12, ML4.7/1, MS3.2/1, Ms1 3.2/1, ms1mx3.0/44, Error ellipse: s-maj=35.8km s-min=14.3km az=64.0*

*NEIC **27** 09:51:08.5±5.7, 5°.94N×127°.64E, h27^{km}±40^{km}, mb4.1/2, Error ellipse: s-maj=32.6km s-min=9.8km az=65.0*

*MAN **27** 09:51:14, 5°.97N×127°.12E, h61^{km}, mb4.6, ML3.4, MS3.4*

ISC 27 09:51:10.0±1.9, **5°.83N**±0°.10×**127°.4E**±0°.2, **h35**^{km}±16^{km}, **n24, σ0^{s}.90**/25, **mb4.1**/14, **1C, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	1.59	314	*e*P	Pn	09 51 37.8	+2.2
MATI				*e*S	Sn	09 51 54.9	-0.1
DAV	Davao City (W)	2.19	304	Pn	Pn	09 51 44.9	+0.9
	174nm,0.3s,baz=267,slow=1.2,SNR=4.7						
DAV				Sn	Sn	09 52 15.5	+5.6
	106nm,0.3s,baz=293,slow=23,SNR=11						
DAV				LR	LR	09 52 20.9	
	comp=Z,515nm,19.8s,baz=274,slow=32						
GSPH	General Santos	2.46	276⇑	*e*P	Pn	09 51 45.9	-1.7
BUKP	Musuan	3.09	311	*e*P	Pn	09 52 00.8	+4.5
BUKP				*e*S	Sn	09 52 31.2	-0.8
MSLP	Maasin	4.96	330	*e*P	Pn	09 52 21.4	-0.6
WRAB	Tennant Creek	26.50	165	*e*P	P	09 56 44.3	+0.1
	1.4nm,0.5s,mb3.8						
WRA	Warramunga Arr	26.50	165	P	P	09 56 43.5	-0.7
	0.7nm,0.3s,mb3.6,baz=342,slow=10,SNR=16						
ASAR	Alice Springs	30.00	168	P	P	09 57 16.1	+0.7
	0.5nm,0.5s,mb3.5,baz=354,slow=8.4,SNR=8.6						
STKA	Stephens Creek	39.87	161	P	P	09 58 40.4	+0.1
	1.3nm,0.5s,mb3.9,baz=336,slow=9.3,SNR=2.7						
STKA	Stephens Creek	39.87	161	P	P	09 58 40.4	+0.1
GTA	Gaotai	41.68	327	*e*P	P	09 58 56.5	+1.3
GTA				pP	pP	09 59 00.0	-5.6
GTA				sP	sP	09 59 01.5	-8.3
GTA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
ULN	Ulaanbaatar	45.35	341	*e*P	P	09 59 16.7	-7.9
	comp=Z,2.6nm,0.6s,mb4.2						
SONM	Songino Array	45.55	340	P	P	09 59 26.5	+0.4
	comp=Z,0.6nm,0.6s,mb3.7,baz=164,slow=6.9,SNR=3.8						
SONM	Songino Array	45.55	340	P	P	09 59 26.5	+0.4
PETK	Petropavlovsk-	53.24	22	P	P	10 00 22.7	-2.1
	comp=Z,1.1nm,0.8s,mb3.8,baz=121,slow=2.5,SNR=3.1						
MKAR	Makanchi Array	56.24	324	P	P	10 00 47.1	+0.4
	comp=Z,3.3nm,0.6s,mb4.6,baz=124,slow=8.2,SNR=22						
ZALV	Zalesovo Beam	59.04	332	P	P	10 01 06.0	-0.2
	comp=Z,1.5nm,0.6s,mb4.2,baz=140,slow=7.8,SNR=4.7						
KURK	Kurchatov	60.35	327	P	P	10 01 15.7	+0.4
	comp=Z,6.2nm,0.5s,mb4.9,baz=123,slow=7.4,SNR=15						
BVAR	Borovoye Array	65.95	326	P	P	10 01 52.4	0.0

	comp=Z,2.2nm,0.5s,mb4.5,baz=126,slow=6.9,SNR=13						
AKTK	**Aktyubinsk**	**72.45**	**321**	P	**P**	**10 02 32.8**	**0.0**
AKTO	**Aktyubinsk**	**72.45**	**321**	P	**P**	**10 02 32.8**	**0.0**
	comp=Z,2.1nm,0.6s,mb4.2,baz=92,slow=8.7,SNR=11						
BRTR	**Keskin Array B**	**89.21**	**310**	P	**P**	**10 04 02.0**	**-0.4**
	comp=Z,0.5nm,0.6s,mb4.0						
TORD	**Torodi Ar. Bea**	**122.88**	**290**	PKP	PKPdf	10 10 01.8	-1.7
	comp=Z,0.2nm,0.5s,baz=55,slow=1.9,SNR=3.8						
DBIC	**Dimbokro**	**130.77**	**284**	PKP	PKPdf	10 10 20.8	+2.2
	comp=Z,3.4nm,1.1s,baz=128,slow=9.5,SNR=3.2						

IDC 27 09:52:27.9±3.0,34°.27S×178°.88W,h0^{km},mb3.7/2, mb1 3.9/3,mb1mx3.8/16,mbtmp3.7/3,ML3.6/1,Error ellipse: s-maj=75.1km s-min=44.8km az=129.0,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**5.14**	**218**	Pn	Pn	09 53 45.6	-0.4
	2.1nm,0.3s,baz=285,slow=4.5,SNR=11						
URZ				Sn	Sn	09 54 42.9	-3.1
	2.1nm,0.3s,baz=157,slow=19,SNR=6.9						
ASAR	**Alice Springs**	**42.32**	**272**	P	P	10 00 23.4	-0.1
	0.8nm,0.7s,baz=114,slow=7.2,SNR=12						
WRA	**Warramunga Arr**	**43.65**	**277**	P	P	10 00 34.3	-0.1
	0.3nm,0.4s,baz=116,slow=7.0,SNR=5.1						
FINES	**FINESS Array B**	**148.47**	**337**	PKPbc	PKPbc	10 12 15.2	-0.4
	4.8nm,1.0s,baz=177,slow=2.8,SNR=3.1						

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*NAO **27** 10:00:21.8±1.0,64°.59N×31°.40E,ML2.6*

*ISCJB **27** 10:00:22.5±0.6,64°.73N±0°.02×30°.8E±0°.1,h0^{km},Error ellipse: s-maj=6.9km s-min=3.3km az=2.6*

*IDC **27** 10:00:22.2±2.3,64°.64N×32°.06E,h0^{km},mb3.4/1, mb1 3.4/5,mb1mx3.2/25,mbtmp3.4/5,ML3.0/4,Error ellipse: s-maj=33.9km s-min=10.5km az=98.0*

*HEL **27** 10:00:24.2,64°.76N×31°.01E,h0^{km},ML2.2,Explosion*

*BER **27** 10:00:25.8±2.5,64°.68N×30°.79E,h0^{km},ML2.5, ML2.6(NAO),Suspected explosion*

*CSEM **27** 10:00:25.9±0.4,64°.83N×30°.49E,h2^{km},ML2.2,Error ellipse: s-maj=9.4km s-min=4.3km az=103.0,Mining explosion.*

ISC 27 10:00:24.0±0.6,64°.76N±0°.02×30°.8E±0°.1,h0^{km},n40, σ1^{s}.16/64,Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KU6	**Riekki**	**1.33**	**343**	*e*P	**Pg**	**10 00 48.4**	**-1.0**
KU6				*e*SB	**Sb**	**10 01 07.8**	**+0.5**
KU6				MSG		10 01 07.8	
	comp=Z,35nm,0.4s						
KU6	**Riekki**	**1.33**	**343**	Pg	**Pg**	**10 00 48.4**	**-1.0**
KU6				Sg	**Sb**	**10 01 07.8**	**+0.5**
MSF	**Maaselka**	**1.38**	**328**	*e*P	**Pg**	**10 00 49.4**	**-0.9**
MSF				*e*SB	**Sg**	**10 01 08.3**	**+0.1**
MSF				MSG		10 01 08.3	
	comp=Z,9.7nm,0.4s						
MSF	**Maaselka**	**1.38**	**328**	Pg	**Pg**	**10 00 49.4**	**-0.9**
MSF				Sg	**Sg**	**10 01 08.3**	**+0.1**
JOF	**Joensuu**	**1.86**	**173**	*e*P	**Pn**	**10 00 54.6**	**-2.4**
JOF				*e*S	**Sn**	**10 01 20.6**	**-0.6**
JOF				MSG		10 01 20.6	
	comp=Z,18nm,0.2s						
OUL	**Oulu**	**2.13**	**281**	*e*P	**Pn**	**10 01 00.8**	**+0.1**
	baz=97						
OUL				*e*S	**Sn**	**10 01 28.2**	**+0.4**
OUL				MSG		10 01 28.2	
	comp=Z,5.6nm,0.2s						
OUL	**Oulu**	**2.13**	**281**	Pn	**Pn**	**10 01 00.8**	**+0.1**
OUL				Sg	**Sn**	**10 01 28.2**	**+0.4**
RNF	**Rovaniemi**	**2.72**	**315**	*e*PB	**Pb**	**10 01 11.9**	**-1.6**
	baz=132						
RNF				MSG		10 01 47.1	
	comp=Z,10nm,0.4s						
RNF				*e*SB	**Sb**	**10 01 47.1**	**-0.3**
RNF	**Rovaniemi**	**2.72**	**315**	Sg	**Sb**	**10 01 47.1**	**-0.3**
SUF	**Sumiainen**	**2.92**	**228**	*e*P	**Pn**	**10 01 13.1**	**+1.5**
SUF	**Sumiainen**	**2.92**	**228**	Pn	**Pn**	**10 01 13.1**	**+1.5**
APA0	**Apatity Array**	**2.99**	**16**	Pn	**Pn**	**10 01 13.3**	**+0.9**
	baz=193,slow=12						
APA0				Sn	**Sn**	**10 01 50.4**	**+1.4**
	baz=195,slow=22						
APA0	**Apatity Array**	**2.99**	**16**	*e*P	**Pn**	**10 01 13.3**	**+0.9**
APA0				*e*S	**Sn**	**10 01 50.4**	**+1.4**
APA0	**Apatity Array**	**2.99**	**16**	Pn	**Pn**	**10 01 13.4**	**+0.9**
	baz=193,slow=12,SNR=50						
APA0				Sn	**Sn**	**10 01 50.3**	**+1.3**
	baz=195,slow=22,SNR=50						
VRF	**Varrio**	**3.04**	**351**	*e*P	**Pn**	**10 01 14.8**	**+1.5**
VRF				MSG		10 01 59.3	
	comp=Z,8.1nm,0.4s						
VRF				*e*SG	**Sg**	**10 01 59.3**	**-2.2**
VRF	**Varrio**	**3.04**	**351**	Pn	**Pn**	**10 01 14.7**	**+1.5**
VRF				Sg	**Sg**	**10 01 59.3**	**-2.2**
SGF	**Sodankyl**	**3.21**	**329**	*e*P	**Pn**	**10 01 16.4**	**+0.8**
	baz=134						
SGF				*e*SB	**Sb**	**10 02 01.2**	**-0.2**
SGF				MSG		10 02 01.2	
	comp=Z,6.8nm,0.4s						
SGF	**Sodankyl**	**3.21**	**329**	Pn	**Pn**	**10 01 16.3**	**+0.7**
KAF	**Kangasniemi**	**3.35**	**219**	*e*P	**Pn**	**10 01 19.2**	**+1.8**
KAF				*e*		10 02 11.4	
KAF				MSG		10 02 11.4	
	comp=Z,8.7nm,0.4s						
KAF	**Kangasniemi**	**3.35**	**219**	Pn	**Pn**	**10 01 19.2**	**+1.8**
KAF				Sg	**Sg**	**10 02 11.4**	**0.0**
KEF	**Keuruu**	**3.73**	**228**	*e*P	**Pn**	**10 01 23.1**	**+0.4**
KEF				*e*SB	**Sb**	**10 02 17.1**	**+0.7**
KEF				MSG		10 02 17.1	
	comp=Z,7.4nm,0.4s						
KEF	**Keuruu**	**3.73**	**228**	Pn	**Pn**	**10 01 23.1**	**+0.4**
FIA1	**FINESS Array S**	**3.97**	**215**	*e*SG	**Sg**	**10 02 26.1**	**-5.2**
FIA0	**FINESS Array S**	**3.97**	**215**	Pn	**Pn**	**10 01 24.1**	**-1.8**
	baz=24,slow=14						
FIA0				Sn	**Sn**	**10 02 09.4**	**-3.7**
FIA0	**FINESS Array S**	**3.97**	**215**	*e*P	**Pn**	**10 01 28.3**	**+2.3**
	baz=25						
FIA0				*e*SG	**Sg**	**10 02 24.2**	**-7.1**
FIA0				MSG		10 02 24.2	
	comp=Z,6.9nm,0.7s						
FIA0	**FINESS Array S**	**3.97**	**215**	Pn	**Pn**	**10 01 24.1**	**-1.9**
	baz=24,slow=13,SNR=50						
FIA0				Sn	**Sn**	**10 02 09.4**	**-3.7**
	SNR=50						
FINES	**FINESS Array B**	**3.97**	**215**	Pn	**Pn**	**10 01 26.7**	**+0.8**
	comp=Z,0.4nm,0.3s,baz=37,slow=14,SNR=7.7						
FINES				Pg	**Pg**	**10 01 35.6**	**-4.3**
	comp=Z,1.2nm,0.3s,baz=34,slow=15,SNR=18						
FINES				Lg		10 02 26.4	
	comp=Z,2.5nm,0.3s,baz=39,slow=27,SNR=12						
VAF	**Ylistaro**	**4.00**	**248**	*e*SG	**Sg**	**10 02 27.2**	**-5.0**
VAF				MSG		10 02 27.2	
	comp=Z,5.9nm,0.4s						
KTK1	**Kautokeino**	**5.21**	**328**	*e*P	**Pn**	**10 01 45.2**	**+2.2**
KTK1				AML	AML	10 03 08.2	
	comp=N,16nm,0.6s						
KTK1	**Kautokeino**	**5.21**	**328**	*e*P	**Pn**	**10 01 45.2**	**+2.2**
	SNR=49						
ARA0	**ARCESS Array S**	**5.22**	**339**	Pn	**Pn**	**10 01 42.1**	**-1.1**
	baz=152,slow=14						
ARA0				Sn	**Sn**	**10 02 42.3**	**-1.7**
	baz=158,slow=28						
ARA0	**ARCESS Array S**	**5.22**	**339**	*e*P	**Pn**	**10 01 42.1**	**-1.1**
ARA0				*e*S	**Sn**	**10 02 42.3**	**-1.7**
ARA0	**ARCESS Array S**	**5.22**	**339**	Pn	**Pn**	**10 01 42.1**	**-1.1**
	baz=152,slow=13,SNR=50						
ARA0				Sn	**Sn**	**10 02 42.3**	**-1.7**
	baz=158,slow=23,SNR=50						
ARCES	**ARCESS Array B**	**5.22**	**339**	Pn	**Pn**	**10 01 43.5**	**+0.4**
	comp=N,0.9nm,0.3s,baz=151,slow=14,SNR=52						
ARCES				Sn	**Sn**	**10 02 45.1**	**+1.1**
	comp=N,0.9nm,0.3s,baz=150,slow=22,SNR=6.5						
ARCES				Lg		10 03 03.4	
	comp=N,2.5nm,0.3s,baz=164,slow=32,SNR=11						
HFS	**Hagfors**	**9.18**	**248**	Pn	**Pn**	**10 02 36.7**	**-0.8**
	comp=N,0.5nm,0.3s,baz=56,slow=12,SNR=12						
HFS				Lg		10 05 08.1	
	comp=N,0.6nm,0.3s,baz=59,slow=30,SNR=4.0						
NB2	**NORSAR Subarra**	**9.68**	**256**	Pn	**Pn**	**10 02 44.4**	**+0.2**
	baz=62,slow=12						
NB2	**NORSAR Subarra**	**9.68**	**256**	*e*P	**Pn**	**10 02 44.4**	**+0.2**
NB2	**NORSAR Subarra**	**9.68**	**256**	Pn	**Pn**	**10 02 44.4**	**+0.1**
	baz=62,slow=12,SNR=50						
NOA	**NORSAR Array B**	**9.68**	**256**	Pn	**Pn**	**10 02 44.8**	**+0.5**
	comp=N,0.3nm,0.3s,baz=62,slow=12,SNR=5.6						
NOA				Lg		10 05 20.6	
	comp=N,0.5nm,0.3s,baz=135,slow=16,SNR=4.2						
TORD	**Torodi Ar. Bea**	**55.32**	**215**	P	**P**	**10 09 58.5**	**-0.6**
	comp=N,0.2nm,0.5s,baz=4.3,slow=6.6,SNR=4.5						

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*IDC **27** 10:07:48.9±1.0,1°.06N×97°.05E,h0^{km},mb4.2/11, mb1 4.3/13,mb1mx4.1/26,mbtmp4.2/13,ML4.5/1,Error ellipse: s-maj=35.1km s-min=16.0km az=56.0*

*DJA **27** 10:07:50,1°.08N×96°.93E,h18^{km},MLv4.3/4*

*BJI **27** 10:07:51.5,0°.82N×97°.32E,h51^{km},mB4.9/3,mb4.5/8*

*ISCJB **27** 10:07:54.9±1.2,1°.16N±0°.07×97°.3E±0°.1,h51^{km}±10^{km}, mb4.4/23,Error ellipse: s-maj=21.1km s-min=9.8km az=155.2*

*NEIC **27** 10:07:54.7±0.6,1°.09N×97°.24E,h35^{km},mb4.7/9,Error ellipse: s-maj=15.2km s-min=9.7km az=50.0*

ISC 27 10:07:56.2±1.3,1°.16N±0°.08×97°.3E±0°.1,h44^{km}±11^{km},n36, σ0^{s}.86/36,mb4.4/23,1D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSI	**Gunungsitoli**	**0.28**	**59**	P	**Pn**	**10 08 03.9**	**-0.7**
PSI	**Prapat**	**2.28**	**44**	Pn	**Pn**	**10 08 31.4**	**+0.1**
	8.6nm,0.3s,baz=260,slow=8.2,SNR=30						
PSI	**Prapat**	**2.28**	**44**	Pn	**Pn**	**10 08 31.4**	**+0.1**
SISI	**Saibi**	**3.03**	**145**	P	**Pn**	**10 08 40.7**	**-0.9**
PPI	**Padang Panjang**	**3.46**	**118**	P	**Pn**	**10 08 48.5**	**+1.0**
BSI	**Banda Aceh**	**4.77**	**335**	⇓*e*P	**Pn**	**10 09 14.0**	**+8.5**
BSI				*e*S	**Sn**	**10 09 53.0**	**-6.6**
IPM	**Ipoh**	**4.95**	**48**	P	**Pn**	**10 09 09.3**	**+1.2**
KULM	**Kulim**	**5.28**	**39**	*e*Pn	**Pn**	**10 09 12.6**	**+0.1**
	85nm,0.8s						
CMAR	**Chiang Mai Arr**	**17.27**	**5**	P	**Pn**	**10 11 52.5**	**-1.7**
	0.6nm,0.3s,baz=198,slow=12,SNR=11						
KMI	**Kunming**	**24.39**	**12**	P	**P**	**10 13 10.8**	**+0.3**
KMI				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.3						
SHL	**Shillong**	**24.83**	**348**	*e*PKP	**P**	**10 13 14.0**	**-0.5**
ODAN	**Odare**	**27.28**	**340**	*e*P	**P**	**10 13 37.3**	**+0.6**
	comp=Z,13nm,0.6s,mb4.6						
TAPN	**Taplejung**	**27.63**	**341**	*e*P	**P**	**10 13 40.6**	**+0.8**
	comp=Z,27nm,0.8s,mb4.9						
RAMN	**Ramite**	**27.64**	**339**	*e*P	**P**	**10 13 40.9**	**+1.0**
	comp=Z,15nm,0.8s,mb4.7						
JIRN	**Jiri**	**28.44**	**339**	*e*P	**P**	**10 13 47.6**	**+0.7**
	comp=Z,12nm,0.6s,mb4.7						
GUN	**Gumba**	**28.78**	**339**	*e*P	**P**	**10 13 50.6**	**+0.6**
	comp=Z,26nm,0.7s,mb5.0						
DMN	**Daman**	**28.80**	**337**	*e*P	**P**	**10 13 51.2**	**+1.1**
	comp=Z,7.9nm,0.6s,mb4.6						
GKN	**Gorkha**	**29.33**	**337**	*e*P	**P**	**10 13 55.2**	**+0.3**
KOLN	**Koldanda**	**29.55**	**335**	*e*P	**P**	**10 13 57.3**	**+0.4**
	comp=Z,12nm,0.6s,mb4.8						
LZH	**Lanzhou**	**35.28**	**9**	*e*P	**P**	**10 14 44.0**	**-2.8**
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
LZH				pmax	pmax		
	comp=Z,94nm,4.8s						
GTA	**Gaotai**	**38.14**	**3**	*e*P	**P**	**10 15 11.3**	**+0.1**
GTA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.0						
WRA	**Warramunga Arr**	**41.90**	**122**	P	**P**	**10 15 42.5**	**-0.2**
	comp=Z,2.1nm,0.6s,mb4.0,baz=301,slow=9.1,SNR=32						
ASAR	**Alice Springs**	**43.26**	**127**	P	**P**	**10 15 53.9**	**+0.1**
	comp=Z,1.4nm,0.9s,mb3.7,baz=298,slow=7.3,SNR=12						
UCH	**Uchtor**	**45.74**	**336**	*e*P	**P**	**10 16 13.9**	**+0.7**
	comp=Z,2.0nm,0.8s,mb4.1						
KSRS	**Korea Array**	**45.81**	**34**	P	**P**	**10 16 13.2**	**-0.6**
	comp=Z,5.5nm,0.8s,mb4.5,baz=224,slow=9.2,SNR=12						
AML	**Almayashu**	**46.00**	**336**	*e*P	**P**	**10 16 16.1**	**+0.9**
	comp=Z,2.0nm,0.5s,mb4.3						
SONM	**Songino Array**	**47.16**	**8**	P	**P**	**10 16 24.5**	**+0.4**
	comp=Z,1.2nm,0.4s,mb4.2,baz=191,slow=9.8,SNR=12						
SONM				PcP	PcP	10 17 54.9	-0.4
	comp=Z,1.0nm,0.7s,baz=181,slow=4.1,SNR=4.8						
MKAR	**Makanchi Array**	**47.32**	**346**	P	**P**	**10 16 25.5**	**0.0**
	comp=Z,2.2nm,0.6s,mb4.2,baz=159,slow=7.9,SNR=34						
KURK	**Kurchatov**	**51.87**	**345**	P	**P**	**10 16 58.7**	**-1.3**
	comp=Z,0.7nm,0.2s,mb4.2,baz=160,slow=7.5,SNR=4.6						
STKA	**Stephens Creek**	**53.23**	**132**	P	**P**	**10 17 11.3**	**+0.9**
	comp=Z,1.9nm,0.6s,mb4.2,baz=304,slow=9.6,SNR=4.5						
ZAA0	**Zalesovo Array**	**53.62**	**351**	*e*P	**P**	**10 17 12.8**	**-0.1**
ZALV	**Zalesovo Beam**	**53.62**	**351**	P	**P**	**10 17 12.2**	**-0.7**
	comp=Z,5.4nm,0.6s,mb4.6,baz=181,slow=5.9,SNR=19						
BVAR	**Borovoye Array**	**56.34**	**341**	P	**P**	**10 17 31.5**	**-1.1**
	comp=Z,1.6nm,0.7s,mb4.2,baz=141,slow=11,SNR=9.3						
FINES	**FINESS Array B**	**80.10**	**332**	P	**P**	**10 19 59.9**	**-1.3**
	comp=Z,2.0nm,0.9s,mb4.1,baz=119,slow=5.1,SNR=4.0						
ARCES	**ARCESS Array B**	**82.62**	**340**	P	**P**	**10 20 13.6**	**-0.9**
	comp=Z,7.9nm,1.1s,mb4.7,baz=97,slow=5.0,SNR=10						
TXAR	**Lajitas Array**	**143.64**	**32**	PKP	PKPdf	10 27 24.2	-2.8
	comp=Z,0.2nm,0.7s,baz=164,slow=1.3,SNR=4.7						

NOU 27 10:09:34.4±1.1,20°.81S×167°.61E,h10^{km}±381^{km},MD2.1, ML3.6,Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLUM	**Mont Dore**	**1.72**	**212**	*e*P	Pn	10 10 03.7	-0.7
PLUM				*e*S	Sn	10 10 26.7	+0.3
PLUM				AMP		10 10 27.6	
	comp=Z,2µm,0.3s						
NORM	**Noumea**	**1.76**	**216**	*e*P	Pn	10 10 04.8	-0.2
NORM				*e*S	Sn	10 10 26.7	-0.7
NOUC	**Port Laguerre**	**1.77**	**223**	*e*P	Pn	10 10 06.1	+1.0
NOUC				*e*S	Sn	10 10 28.7	+1.0
NOUC				AMP		10 10 30.8	
	comp=Z,282nm,1.3s						
ONTRN	**Noumea**	**1.84**	**216**	*e*P	Pn	10 10 06.0	0.0
ONTRN				*e*S	Sn	10 10 29.5	+0.1
ONTRN				AMP		10 10 32.7	
	comp=Z,2µm,0.8s						

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*ISCJB **27** 10:12:10.8±1.2,77°.1N±0°.1×18°.9E±0°.3,h6^{km}±14^{km},Error ellipse: s-maj=19.3km s-min=7.3km az=31.7*

*CSEM **27** 10:12:11.3±0.2,77°.05N×18°.61E,h2^{km},ML2.5,Error ellipse: s-maj=11.8km s-min=3.8km az=48.0*

*NAO **27** 10:12:11.8±1.0,76°.94N×17°.97E,ML2.3*

*BER **27** 10:12:14.3±3.4,77°.02N×18°.61E,h12^{km}±37^{km},MD2.4, ML2.5,ML2.3(NAO)*

ISC 27 10:12:12.6±0.8,77°.18N±0°.06×19°.0E±0°.2,h11^{km}±11^{km}, n11,σ0^{s}.77/18,Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	**Hornsund**	**0.80**	**259**	*e*P	**Pg**	**10 12 28.2**	**+0.1**
HSP				*e*S	**Sg**	**10 12 38.9**	**+0.3**
SPA0	**Spitsbergen Ar**	**1.16**	**331**	Pg	**Pg**	**10 12 35.6**	**+0.8**
	baz=149,slow=22						
SPA0				Lg		10 12 52.8	
	baz=162,slow=28						
SPA0	**Spitsbergen Ar**	**1.16**	**331**	Pg	**Pg**	**10 12 35.6**	**+0.8**
	SNR=90						
SPA0				Lg		10 12 52.8	
	SNR=50						
HOPEN	**Hopen**	**1.52**	**113**	*e*P	**Pn**	**10 12 40.0**	**+0.3**
HOPEN				*e*Sg	**Sg**	**10 13 01.6**	**+0.1**
HOPEN				AML	AML	10 13 03.9	
	comp=Z,80nm,0.3s						
HOPEN	**Hopen**	**1.52**	**113**	*e*P	**Pn**	**10 12 40.0**	**+0.3**
	SNR=55						
HOPEN				*e*Sg	**Sg**	**10 13 01.6**	**+0.1**
	comp=Z,80nm,0.3s,SNR=90						
KBS	**Kingsbay**	**2.29**	**323**	Pn	**Pn**	**10 12 50.8**	**+0.6**
KBS				Pg	**Pg**	**10 12 56.2**	**-0.2**
KBS				Lg		10 13 25.8	
KBS	**Kingsbay**	**2.29**	**323**	*e*P	**Pn**	**10 12 52.5**	**+2.2**
KBS				*e*Sg	**Sg**	**10 13 24.9**	**-1.2**
KBS				AML	AML	10 13 29.6	
	comp=Z,62nm,0.3s						
KBS	**Kingsbay**	**2.29**	**323**	Pn	**Pn**	**10 12 50.8**	**+0.6**
KBS	**Kingsbay**	**2.29**	**323**	Pg	**Pg**	**10 12 56.2**	**-0.3**
KBS				*e*Sg	**Sg**	**10 13 24.9**	**-1.2**
	comp=Z,62nm,0.3s,SNR=90						
KBS				Lg		10 13 25.8	
ARA0	**ARCESS Array S**	**7.90**	**163**	Pn	**Pn**	**10 14 06.0**	**-1.2**
	baz=352,slow=12						
ARA0				Sn	**Sn**	**10 15 27.0**	**-9.4**
	baz=2.7,slow=22						
ARA0	**ARCESS Array S**	**7.90**	**163**	Pn	**Pn**	**10 14 06.0**	**-1.2**
	SNR=55						

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*NEIC **27** 10:14:55.0±0.7,10°.19S×161°.41E,mb4.7/2,Error ellipse: s-maj=24.4km s-min=13.9km az=148.0*

*IDC **27** 10:14:55.3±0.9,10°.26S×161°.48E,h104^{km}±6^{km},mb3.9/11, mb1 4.1/12,mb1mx4.0/19,mbtmp3.9/12,MS4.0/2, Ms1 4.0/2,ms1mx3.2/31,Error ellipse: s-maj=17.0km s-min=10.5km az=23.0*

*ISCJB **27** 10:14:58.7±1.9,10°.1S±0°.1×161°.1E±0°.2,h137^{km}±12^{km}, mb4.1/13,Error ellipse: s-maj=32.4km s-min=16.9km az=39.2*

ISC 27 10:14:58.9±2.0,10°.1S±0°.1×161°.2E±0°.2,h127^{km}±13^{km}, h103^{km}±4.0^{km}:pP-P,n21,σ0^{s}.80/19,mb4.2/13, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**1.42**	**299**	P	**Pn**	**10 15 24.4**	**-1.5**
	284nm,0.3s,baz=133,slow=4.1,SNR=69						
HNR				S	**Sn**	**10 15 47.2**	**+0.9**
	445nm,0.3s,baz=160,slow=15,SNR=19						
CTA	**Charters Tower**	**17.49**	**234**	P	**Pn**	**10 18 55.8**	**+0.9**
	0.6nm,0.3s,baz=48,slow=12,SNR=5.9						
WRA	**Warramunga Arr**	**27.68**	**246**	P	**P**	**10 20 35.3**	**+0.1**
	1.6nm,0.7s,mb3.7,baz=77,slow=8.7,SNR=20						
WRA				pP	pP	10 20 59.4	-3.0
	1.7nm,0.8s,baz=75,slow=9.4,SNR=5.5						
ASAR	**Alice Springs**	**29.31**	**239**	P	**P**	**10 20 48.8**	**-0.8**
	0.5nm,0.4s,mb3.5,baz=64,slow=10,SNR=8.6						
ASAR				pP	pP	10 21 13.6	-3.5
	0.8nm,0.8s,baz=72,slow=9.7,SNR=4.9						
URZ	**Urewera**	**31.44**	**156**	LR	LR	10 30 38.1	
	comp=Z,168nm,21.4s,baz=102,slow=30						
MJAR	**Matsushiro Arr**	**51.22**	**336**	P	**P**	**10 23 49.3**	**-0.2**
	1.7nm,0.7s,mb4.2,baz=146,slow=11,SNR=3.7						
KSRS	**Korea Array**	**56.68**	**328**	P	**P**	**10 24 29.0**	**-0.1**
	1.5nm,0.8s,mb4.1,baz=134,slow=11,SNR=3.4						
SONM	**Songino Array**	**75.33**	**325**	P	**P**	**10 26 29.6**	**+1.4**
	5.9nm,0.7s,mb4.4,baz=141,slow=5.8,SNR=34						
SONM				pP	pP	10 26 53.9	-6.0
	0.8nm,0.6s,baz=130,slow=4.4,SNR=2.3						
SVW2	**Sparrevohn**	**78.70**	**20**	*e*P	**P**	**10 26 47.6**	**+0.9**
MCK	**McKinley**	**82.76**	**20**	*e*P	**P**	**10 27 08.0**	**-0.3**
	9.4nm,0.9s,mb4.6						
RPN	**Rapa Nui**	**84.98**	**117**	LR	LR	10 59 21.5	
	comp=Z,110nm,20.0s,baz=226,slow=32						
MWC	**Mount Wilson**	**88.08**	**55**	*e*P	**P**	**10 27 36.2**	**+0.8**
	2.9nm,0.4s,mb4.7						
NVAR	**Mina Array Bea**	**88.88**	**51**	P	**P**	**10 27 39.0**	**0.0**
	1.4nm,0.8s,mb4.0,baz=236,slow=7.5,SNR=8.5						
NVAR				pP	pP	10 28 05.6	-6.0
	0.2nm,0.5s,baz=88,slow=8.3,SNR=2.5						
NVAR	**Mina Array Bea**	**88.88**	**51**	P	**P**	**10 27 39.0**	**0.0**
NVAR				pP	pP	10 28 05.6	-6.0
MKAR	**Makanchi Array**	**89.82**	**318**	P	**P**	**10 27 43.3**	**+0.1**
	1.3nm,0.5s,mb4.4,baz=92,slow=6.0,SNR=28						
ZALV	**Zalesovo Beam**	**90.22**	**325**	P	**P**	**10 27 43.5**	**-1.4**
	0.5nm,0.3s,mb4.1,baz=123,slow=7.4,SNR=2.2						
KURK	**Kurchatov**	**93.10**	**321**	P	**P**	**10 27 57.9**	**-0.4**
	0.8nm,0.5s,mb4.3,baz=103,slow=4.0,SNR=2.7						
YKA	**Yellowknife Ar**	**96.23**	**28**	P	**P**	**10 28 11.5**	**-0.9**
	1.5nm,0.6s,mb4.6,baz=261,slow=4.7,SNR=31						
YKA				pP	pP	10 28 37.2	-7.8
	0.2nm,0.6s,baz=258,slow=4.6,SNR=2.5						
YKA	**Yellowknife Ar**	**96.23**	**28**	P	**P**	**10 28 11.5**	**-0.9**
YKA				pP	pP	10 28 37.2	-7.8
PDAR	**Pinedale Array**	**96.23**	**48**	P	**P**	**10 28 13.3**	**+0.4**
	0.3nm,0.8s,mb3.8,baz=129,slow=1.3,SNR=3.0						
ARCES	**ARCESS Array B**	**114.29**	**344**	PKP	PKiKP	10 33 22.1	-0.9
	3.5nm,1.0s,baz=65,slow=1.9,SNR=11						

CASC 27 10:24:25.2±1.8,12°.43N×87°.79W,h49^{km}±43^{km},MD3.6, ML3.5,Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRIN	**San Cristobal**	**0.77**	**69**	*e*P	Pn	10 24 40.7	+0.9
CRIN				*e*S	Sn	10 24 51.4	+0.9
CRIN				AML	AML	10 24 53.5	
	comp=E,2µm,0.3s						
CNCH	**Conchagua**	**0.84**	**357**	*e*P	Pn	10 24 41.1	+0.3
CNCH				*e*S	Sn	10 24 53.4	+1.2
TELN	**Telica**	**0.95**	**79**	*e*P	Pn	10 24 42.5	+0.3
MIRN	**Miramar**	**1.06**	**89**	*e*P	Pn	10 24 43.4	-0.2
CNGN	**Cerro Negro**	**1.07**	**86**	*e*P	Pn	10 24 44.6	+0.7
CNGN				*e*S	Sn	10 24 57.8	+0.1
BLLM	**Bellamira**	**1.10**	**337**	*e*P	Pn	10 24 44.4	+0.2
VSM	**San Miguel**	**1.10**	**335**	*e*P	Pn	10 24 45.1	+0.9
COPN	**Copaltepe**	**1.20**	**102**	*e*P	Pn	10 24 45.3	-0.3
COPN				*e*P		10 24 45.5	
COPN				*e*S	Sn	10 25 00.0	-0.8
COPN				AML	AML	10 25 06.8	
	comp=Z,462nm,0.4s						
MOMN	**Momotombo**	**1.22**	**91**	*e*P	Pn	10 24 46.3	+0.4
MOMN				*e*S	Sn	10 25 01.1	-0.3
CSAN		**1.36**	**100**	*e*P	Pn	10 24 48.4	+0.6
CAHU	**Cacacuatique**	**1.40**	**343**	*e*P	Pn	10 24 48.8	+0.5
CAHU				*e*S	Sn	10 25 07.5	+2.0
TISN	**Laguna Tiscapa**	**1.52**	**101**	*e*P	Pn	10 24 50.0	0.0
MGAN	**Managua**	**1.54**	**100**	*e*P	Pn	10 24 50.1	-0.1
HUEN		**1.59**	**93**	*e*P	Pn	10 24 51.0	+0.2
LFRS	**El Faro**	**1.71**	**314**	*e*P	Pn	10 24 52.4	-0.2
LFRS				*e*S	Sn	10 25 13.1	-0.3
LBRS	**Las Brisas**	**1.78**	**317**	*e*P	Pn	10 24 53.9	+0.3
LBRS				*e*S	Sn	10 25 14.8	-0.2
BOAB	**BOACO BROADBAN**	**2.08**	**89**	*e*P	Pn	10 24 57.2	-0.4
RBDL	**Robledal**	**2.49**	**312**	*e*P	Pn	10 25 04.2	+1.0
JTS	**JuntasAbangare**	**3.50**	**127**	*e*P	Pn	10 25 18.0	+0.8

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*IDC **27** 10:25:10.0±0.7,2°.41S×100°.12E,h0^{km},mb4.5/19, mb1 4.6/21,mb1mx4.4/29,mbtmp4.5/21,ML3.9/2,MS3.8/1, Ms1 3.8/1,ms1mx3.2/39,Error ellipse: s-maj=29.9km s-min=11.8km az=51.0*

*BJI **27** 10:25:12.6,2°.83S×100°.18E,h57^{km},mB5.2/10,mb4.8/19, Ms5.3/2,Ms7 4.9/2*

*MOS **27** 10:25:14.5±0.9,2°.32S×100°.19E,h43^{km},mb4.8/30,Error ellipse: s-maj=15.8km s-min=7.2km az=106.0*

*DJA **27** 10:25:14,2°.42S×99°.95E,h11^{km},MLv4.7/6*

*ISCJB **27** 10:25:14.5±0.7,2°.50S±0°.05×100°.01E±0°.05,h48^{km}±5^{km}, mb4.7/54,Error ellipse: s-maj=10.1km s-min=5.9km az=43.4*

*NEIC **27** 10:25:15.6±0.4,2°.38S×100°.24E,h35^{km},mb4.9/16,Error ellipse: s-maj=15.1km s-min=5.5km az=51.0*

ISC 27 10:25:15.8±0.7,2°.52S±0°.05×99°.98E±0°.05,h40^{km}±5^{km}, n127,σ1^{s}.16/124,mb4.7/54,6C-3D,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	**Pulau Pagai**	**0.25**	**172**	P	**Pn**	**10 25 21.8**	**-1.8**
SISI	**Saibi**	**1.48**	**323**	P	**Pn**	**10 25 38.8**	**-1.1**
SISI				S	**Sn**	**10 25 57.6**	**-0.4**
PDSI	**Padang**	**1.67**	**17**	P	**Pn**	**10 25 41.3**	**-1.2**
PPI	**Padang Panjang**	**2.09**	**12**	P	**Pn**	**10 25 48.0**	**-0.3**
KSI	**Kapahiang**	**2.85**	**113**	P	**Pn**	**10 26 01.5**	**+2.8**
KSI				S	**Sn**	**10 26 37.1**	**+5.3**
RGRI	**Rengat**	**3.19**	**48**	P	**Pn**	**10 26 04.1**	**+0.6**
MNAI	**Manna**	**3.49**	**122**	P	**Pn**	**10 26 09.3**	**+1.7**
GSI	**Gunungsitoli**	**4.49**	**328**	P	**Pn**	**10 26 19.9**	**-1.4**
PSI	**Prapat**	**5.38**	**349**	P	**Pn**	**10 26 31.1**	**-2.5**
PSI				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PSI				MLR	MLR		
	comp=Z,846nm,19.4s						
PSI	**Prapat**	**5.38**	**349**	Pn	**Pn**	**10 26 31.1**	**-2.6**
	comp=Z,1.7nm,0.3s,baz=164,slow=7.4,SNR=5.0						
PSI				LR	LR	10 29 04.5	
	comp=Z,846nm,19.4s,baz=196,slow=45						
KGM	**Kluang**	**5.61**	**37**	P	**Pn**	**10 26 37.4**	**+0.7**
MYKOM	**Kota Tinggi**	**5.77**	**42**	P	**Pn**	**10 26 39.6**	**+0.6**
FRIM	**Kepong**	**5.95**	**16**	P	**Pn**	**10 26 41.4**	**+0.1**
IPM	**Ipoh**	**7.03**	**9**	P	**Pn**	**10 26 57.4**	**+1.2**
TPI	**Tanjungpandan**	**7.67**	**92**	⇑*e*P	**Pn**	**10 27 06.0**	**+0.9**
KULM	**Kulim**	**7.78**	**5**	*e*Pn	**Pn**	**10 27 03.4**	**-3.2**
	comp=Z,15nm,0.6s						
KTGM	**Kuala Trenggan**	**8.41**	**22**	P	**Pn**	**10 27 16.9**	**+1.8**
SDKM	**Sandakan**	**19.01**	**65**	P	**Pn**	**10 29 34.8**	**-0.6**
KAPI	**Kappang**	**19.89**	**98**	P	**Pn**	**10 29 41.8**	**-4.0**
	comp=Z,0.8nm,0.3s,baz=342,slow=6.4,SNR=3.4						
KAPI	**Kappang**	**19.89**	**98**	P	**Pn**	**10 29 41.8**	**-4.0**

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MYLDM Lahad Datu        20.02  68  P        P        10 29 46.8 +1.4
CMAR  Chiang Mai Arr    20.87 357  P        P        10 29 52.7 -1.7
CMAR                               pmax     pmax
      comp=Z,6.0nm,0.4s
CMAR  Chiang Mai Arr    20.87 357  P        P        10 29 52.6 -1.8
      comp=Z,6.3nm,0.4s,baz=184,slow=9.9,SNR=28
SHL   Shillong          29.00 345 ePKP      P        10 31 12.0 +0.2
FITZ  Fitzroy Crossi    29.55 123  P        P        10 31 15.8 -1.1
      comp=Z,3.1nm,0.8s,mb4.1,baz=297,slow=11,SNR=3.4
ODAN  Odare             31.63 338 eP        P        10 31 36.2 +1.1
      comp=Z,12nm,0.6s,mb5.0
TAPN  Taplejung         31.96 339 eP        P        10 31 39.4 +1.4
      comp=Z,32nm,0.9s,mb5.2
RAMN  Ramite            32.01 337 eP        P        10 31 40.0 +1.5
      comp=Z,14nm,0.7s,mb4.9
JIRN  Jiri              32.81 337 eP        P        10 31 46.6 +1.2
      comp=Z,21nm,0.8s,mb5.2
LSA   Lhasa             33.13 346  P        P        10 31 49.8 +1.6
GUN   Gumba             33.15 337 eP        P        10 31 49.6 +1.2
      comp=Z,22nm,0.5s,mb5.3
DMN   Daman             33.20 335 eP        P        10 31 50.6 +1.8
KOLN  Koldanda          33.99 333 eP        P        10 31 56.7 +1.0
DANN  Dangsing          34.42 334 eP        P        10 32 00.4 +1.0
      comp=Z,16nm,0.4s,mb5.3
WHN   Wuhan             35.62  22 eP        P        10 32 11.5 +1.7
XAN   Xi'an             37.32  12  P        P        10 32 22.0 -2.2
XAN                                pmax     pmax
      comp=Z,4.0nm,0.9s,mb4.2
WRA   Warramunga Arr    37.76 120  P        P        10 32 27.4 -0.8
WRA                                                  10 34 44.3
WRA                                pmax     pmax
      comp=Z,7.0nm,0.5s
WRA   Warramunga Arr    37.76 120  P        P        10 32 27.4 -0.7
      comp=Z,6.7nm,0.5s,mb4.7,baz=304,slow=9.0,SNR=83
WRA                                PcP      PcP      10 34 44.3 -0.4
      comp=Z,0.3nm,0.5s,baz=313,slow=2.2,SNR=2.8
WRAB  Tennant Creek     37.76 120 eP        P        10 32 27.4 -0.8
WRAB                               pmax     pmax
      comp=Z,8.0nm,0.5s,mb4.7
WRAB  Tennant Creek     37.76 120 eP        P        10 32 27.4 -0.8
      comp=Z,8.2nm,0.5s,mb4.7
LZH   Lanzhou           38.57   5 eP        P        10 32 34.5 -0.2
LZH                                pmax     pmax
      comp=Z,19nm,1.4s,mb4.6
LZH                                pmax     pmax
      comp=Z,100nm,5.0s
NJ2   Nanjing           38.77  26 eP        P        10 32 34.5 -2.0
NJ2                                pmax     pmax
      comp=Z,10.0nm,0.6s,mb4.7
ASAR  Alice Springs     38.97 126  P        P        10 32 38.0 -0.3
ASAR                                                 10 34 49.3
ASAR                               pmax     pmax
      comp=Z,4.0nm,0.5s
ASAR                               pmax     pmax
      comp=Z,1.0nm,0.7s
ASAR  Alice Springs     38.97 126  P        P        10 32 38.0 -0.3
      comp=Z,3.8nm,0.5s,mb4.4,baz=301,slow=7.4,SNR=77
ASAR                               PcP      PcP      10 34 49.2 +0.9
      comp=Z,1.3nm,0.7s,baz=299,slow=2.7,SNR=5.0
GTA   Gaotai            41.72 360 eP        P        10 33 01.0 +0.2
GTA                                pmax     pmax
      comp=Z,3.0nm,1.0s,mb3.9
KSH   Kashi             47.28 335  P        P        10 33 44.5 -0.7
KSH                               epP       pP       10 33 57.3 +0.5
KSH                               esP       sP       10 34 02.8 +1.3
KSH                               eS        S        10 40 33.5 -2.4
KSH                               eScS      ScS      10 43 27.3 -8.8
KSH                                pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.6
KSH                                pmax     pmax
      comp=Z,150nm,4.0s
KSH                                LR       LR
      comp=N,410nm,5.9s
KSH                                LR       LR
      comp=E,490nm,9.2s
KSH                                LR       LR
      comp=Z,530nm,5.8s
WMQ   Urumqi            47.43 348⇓iP        P        10 33 47.3 +1.0
WMQ                                pmax     pmax
      comp=Z,16nm,0.8s,mb5.0
WMQ                                pmax     pmax
      comp=Z,130nm,5.4s
KSRS  Korea Array       47.47  30  P        P        10 33 45.3 -1.4
KSRS                               pmax     pmax
      comp=Z,5.0nm,0.8s,mb4.5
KSRS  Korea Array       47.47  30  P        P        10 33 45.2 -1.5
      comp=Z,4.7nm,0.8s,mb4.5,baz=226,slow=8.3,SNR=13
CTA   Charters Tower    48.40 115  P        P        10 33 53.5 -0.8
CTA                                pmax     pmax
      comp=Z,8.0nm,0.8s
CTA   Charters Tower    48.40 115  P        P        10 33 53.5 -0.8
      comp=Z,7.8nm,0.8s,mb4.8,baz=275,slow=11,SNR=5.7
STKA  Stephens Creek    48.83 131  P        P        10 33 57.8 +0.4
      comp=Z,2.8nm,0.6s,mb4.5,baz=316,slow=7.2,SNR=4.9
UCH   Uchtor            50.15 335  P        P        10 34 08.7 +1.5
      SNR=6.2
UCH   Uchtor            50.15 335 eP        P        10 34 08.6 +1.4
      comp=Z,4.1nm,0.7s,mb4.6
TKM2  Tokmak 2          50.29 337 eP        P        10 34 09.3 +1.0
TKM2                               pmax     pmax
      comp=Z,13nm,0.8s,mb5.0
TKM2  Tokmak 2          50.29 337  P        P        10 34 09.1 +0.9
      SNR=13
TKM2  Tokmak 2          50.29 337 eP        P        10 34 09.3 +1.1
      comp=Z,13nm,0.8s,mb5.0
AML   Almayashu         50.42 335  P        P        10 34 10.6 +1.3
      SNR=16
AML   Almayashu         50.42 335 eP        P        10 34 10.3 +1.1
      comp=Z,8.0nm,0.6s,mb4.9
SONM  Songino Array     50.46   6  P        P        10 34 10.0 +0.6
SONM                                                 10 35 27.4
SONM                               pmax     pmax
      comp=Z,18nm,0.7s
SONM                               pmax     pmax
      comp=Z,2.0nm,0.6s
SONM  Songino Array     50.46   6  P        P        10 34 10.0 +0.6
      comp=Z,18nm,0.7s,mb5.2,baz=188,slow=9.4,SNR=101
SONM                               PcP      PcP      10 35 27.4 +0.2
      comp=Z,1.8nm,0.6s,baz=181,slow=4.1,SNR=4.2
AAK   Ala-Archa         50.50 336⇑eP        P        10 34 10.8 +1.0
AAK                                pmax     pmax
      comp=Z,5.0nm,2.5s,mb4.1
AAK   Ala-Archa         50.50 336 eP        P        10 34 10.9 +1.1
      comp=Z,3.8nm,0.8s,mb4.5
ULN   Ulaanbaatar       50.55   6 eP        P        10 34 10.5 +0.4
ULN                                pmax     pmax
      comp=Z,14nm,1.0s,mb4.8
ULN   Ulaanbaatar       50.55   6 eP        P        10 34 10.5 +0.4
      comp=Z,14nm,1.0s,mb4.9
EKS2  Erkin-Say         50.82 335  P        P        10 34 13.6 +1.4
      SNR=17
EKS2  Erkin-Say         50.82 335 eP        P        10 34 13.4 +1.2
      comp=Z,11nm,0.7s,mb4.9
USP   Ospenovka         51.02 336  P        P        10 34 14.4 +0.7
      SNR=12
CN2   Changchun         51.47  23 eP        P        10 34 15.8 -1.3
CN2                                pmax     pmax
      comp=Z,20nm,0.8s,mb5.1
MK31  Makanchi Array    51.52 345 eP        P        10 34 17.4  0.0
MK31                               pmax     pmax
      comp=Z,7.0nm,0.5s,mb4.8
MK31  Makanchi Array    51.52 345 eP        P        10 34 17.7 +0.3
MKAR  Makanchi Array    51.52 345  P        P        10 34 17.8 +0.4
MKAR                               pmax     pmax
      comp=Z,9.0nm,0.5s
MKAR  Makanchi Array    51.52 345  P        P        10 34 17.8 +0.4
      comp=Z,8.9nm,0.5s,mb5.0,baz=159,slow=8.6,SNR=180
MKAR  Makanchi Array    51.52 345  P        P        10 34 17.8 +0.4
KK31  Karatay Array     52.60 333 i P       P        10 34 24.8 -0.7
KK31                               pmax     pmax
      comp=Z,1.0nm,0.5s,mb4.0
MJAR  Matsushiro Arr    52.69  39  P        P        10 34 24.0 -2.3
MJAR                               pmax     pmax
      comp=Z,1.0nm,0.5s
MJAR  Matsushiro Arr    52.69  39  P        P        10 34 24.0 -2.4
      comp=Z,0.8nm,0.5s,mb3.9,baz=167,slow=11,SNR=4.0
ZAK   Zakamensk         52.77   3 eP        P        10 34 26.4 -0.2
ZAK                                pmax     pmax
      comp=Z,3.0nm,1.0s,mb4.2
TLY   Talaya            54.08   3 eP        P        10 34 36.8 +0.6
TLY                                pmax     pmax
      comp=Z,7.0nm,1.4s,mb4.4
TLY   Talaya            54.08   3 eP        P        10 34 36.9 +0.6
      comp=Z,2.4nm,0.6s,mb4.3
KURK  Kurchatov         56.09 344  P        P        10 34 49.5 -1.3
KURK                               pmax     pmax
      comp=Z,8.0nm,0.7s,mb4.9
KURK  Kurchatov         56.09 344  P        P        10 34 49.5 -1.3
      comp=Z,7.5nm,0.7s,mb4.9,baz=165,slow=7.3,SNR=11
KURK  Kurchatov         56.09 344  P        P        10 34 49.5 -1.3
ZAA0  Zalesovo Array    57.67 349 eP        P        10 35 01.7 -0.2
ZALV  Zalesovo Beam     57.67 349  P        P        10 35 01.6 -0.3
ZALV                               pmax     pmax
      comp=Z,14nm,0.7s,mb5.1
ZALV  Zalesovo Beam     57.67 349  P        P        10 35 01.6 -0.3
      comp=Z,14nm,0.7s,mb5.1,baz=180,slow=6.5,SNR=18
KLR   Kul'dur           58.41  24 eP        P        10 35 02.9 -4.3
BVAR  Borovoye Array    60.66 340  P        P        10 35 21.9 -0.7
BVAR                               pmax     pmax
      comp=Z,4.0nm,0.8s
BVAR  Borovoye Array    60.66 340  P        P        10 35 21.9 -0.7
      comp=Z,3.6nm,0.8s,mb4.6,baz=134,slow=8.5,SNR=15
BRVK  Borovoye          60.72 340 eP        P        10 35 22.6 -0.4
BRVK                               pmax     pmax
      comp=Z,10.0nm,0.9s,mb5.0
BRVK  Borovoye          60.72 340 eP        P        10 35 22.6 -0.4
      comp=Z,9.9nm,0.9s,mb4.9
BOD   Bodaibo           61.19   9 eP        P        10 35 25.8 -0.3
BOD                                pmax     pmax
      comp=Z,7.0nm,0.9s,mb4.8
YSS   Yuzh-Sakhalins    61.93  32⇓eP        P        10 35 30.9 -0.4
YSS   Yuzh-Sakhalins    61.93  32 eP        P        10 35 30.3 -1.1
      comp=Z,19nm,1.0s,mb5.2
AB31  Akbulak array     62.08 332  P        P        10 35 31.6 -0.7
AB31                               pmax     pmax
      comp=Z,15nm,0.7s,mb5.2
AKTK  Aktyubinsk        63.80 332  P        P        10 35 43.2 -0.4
AKTO  Aktyubinsk        63.80 332  P        P        10 35 43.3 -0.4
AKTO                               pmax     pmax
      comp=Z,2.0nm,0.4s,mb4.5
AKTO  Aktyubinsk        63.80 332  P        P        10 35 43.2 -0.4
      comp=Z,1.8nm,0.4s,mb4.4,baz=120,slow=7.3,SNR=8.1
GNI   Garni             65.88 316c iP       P        10 35 57.2 -0.3
GNI                                pmax     pmax
      comp=Z,3.0nm,0.9s
ARU   Arti              67.67 337c iP       P        10 36 08.1 -0.4
ARU                                S        S        10 45 02.7 -0.1
ARU                                SS       SS       10 49 20.2 -4.3
ARU                                pmax     pmax
      comp=Z,4.0nm,0.5s,mb4.7
YAK   Yakutsk           68.24  15 eP        P        10 36 09.5 -2.5
YAK                                pmax     pmax
      comp=Z,17nm,0.9s,mb5.1
YAK                                pmax     pmax
      comp=N,3.0nm,0.8s
KIV   Kislovodsk        68.91 319 eP        P        10 36 18.1 +1.5
KIV                                pmax     pmax
      comp=Z,6.0nm,1.0s,mb4.5
PETK  Petropavlovsk-    73.33  32  P        P        10 36 41.9 -1.2
PETK                               pmax     pmax
      comp=Z,2.0nm,0.6s,mb4.2
PETK  Petropavlovsk-    73.33  32  P        P        10 36 41.9 -1.3
      comp=Z,2.1nm,0.6s,mb4.3,baz=353,slow=2.3,SNR=5.0
BRTR  Keskin Array B    73.65 313  P        P        10 36 45.3  0.0
BRTR                               pmax     pmax
      comp=Z,3.0nm,0.7s
BRTR  Keskin Array B    73.65 313  P        P        10 36 45.3 -0.1
      comp=Z,2.6nm,0.7s,mb4.3
VSR   Storozhevoye      74.18 325 eP        P        10 36 47.8 -0.4
VSR                                pmax     pmax
      comp=Z,6.0nm,0.4s,mb4.9
VSR                                pmax     pmax
      comp=N,5.0nm,0.5s
VSR                                pmax     pmax
      comp=E,10.0nm,0.7s
SEY   Seymchan          76.11  22⇑eP        P        10 36 58.7 -0.3
PRGR  Permogore         76.13 336  P        P        10 36 56.2 -2.9
PRGR                               pmax     pmax
      comp=Z,40nm,0.9s,mb5.3
TIXI  Tiksi             76.37   9 eP        P        10 36 57.9 -2.4
TIXI                               pmax     pmax
      comp=Z,9.0nm,1.1s,mb4.6
TIXI  Tiksi             76.37   9 eP        P        10 36 59.1 -1.2
      comp=Z,4.1nm,0.5s,mb4.6
OBN   Obninsk           77.22 328⇓eP        P        10 37 05.6 +0.2
OBN                               e                  10 37 25.1
OBN                                pmax     pmax
      comp=Z,17nm,1.2s,mb4.8
BURAR Bucovina Array    81.63 319⇑iP        P        10 37 31.2 +1.6
JOF   Joensuu           82.67 335 ep        P        10 37 33.6 -1.1
      comp=Z,1.9nm,0.6s,mb4.3
FINES FINESS Array B    84.55 332  P        P        10 37 45.0 +0.6
FINES                              pmax     pmax
      comp=Z,3.0nm,0.7s
FINES FINESS Array B    84.55 332  P        P        10 37 45.0 +0.6
      comp=Z,2.6nm,0.7s,mb4.5,baz=90,slow=7.6,SNR=7.5
KAF   Kangasniemi       84.63 333 eP        P        10 37 51.9 +7.1
KAF   Kangasniemi       84.63 333 ep        P        10 37 51.9 +7.1
ARCES ARCESS Array B    86.95 340  P        P        10 37 56.9 +0.7
ARCES                              pmax     pmax
      comp=Z,3.0nm,0.7s
ARCES ARCESS Array B    86.95 340  P        P        10 37 56.9 +0.7
      comp=Z,2.9nm,0.7s,mb4.6,baz=101,slow=5.4,SNR=18
GERES GERESS Array B    89.42 319  P        P        10 38 09.6 +1.2
      comp=Z,0.3nm,0.4s,mb4.0,baz=101,slow=10,SNR=2.5
YKA   Yellowknife Ar   114.87  17  PKP      PKiKP    10 43 49.7 -2.1
      comp=Z,0.1nm,0.3s,baz=358,slow=1.8,SNR=3.8
YKA   Yellowknife Ar   114.87  17  PKP      PKiKP    10 43 49.7 -2.1
NVAR  Mina Array Bea   130.01  39  PKP      PKPdf    10 44 23.1 +1.5
      comp=Z,0.3nm,0.5s,baz=249,slow=3.8,SNR=3.7
PDAR  Pinedale Array   132.04  29  PKP      PKPdf    10 44 25.2 -0.2
      comp=Z,0.3nm,0.8s,baz=359,slow=3.6,SNR=2.9
TXAR  Lajitas Array    145.12  38  PKIKP    PKPdf    10 44 49.9 +0.3
TXAR                               pmax     pmax
      comp=Z,8.0nm,0.7s
TXAR  Lajitas Array    145.12  38  PKP      PKPdf    10 44 49.9 +0.3
      comp=Z,8.2nm,0.7s,baz=215,slow=0.9,SNR=129
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GII ***27*** *10:29:23.2±0.0, 33°.91N×36°.85E, h1^{km}, Md2.3/3, Mining explosion.*
CSEM ***27*** *10:29:26.7, 33°.80N×36°.89E, h31^{km}, ML3.1, After GRAL*
GRAL ***27*** *10:29:26.7±0.3, 33°.80N×36°.89E, h31^{km}±3^{km}, MD3.1*
ISC 27 10:29:23.7±1.6**, 33°.83N**±0°.04×**37°.0E**±0°.1**, h0**^{km}**, n15, σ1^{s}07**/24**, Jordan - Syria region**

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Code  Station Name       Δ°  AZ°   Phase ID          Time     Res
                                  Op       ISC     h  m  s    ISC
FKH   Fakeheh            0.67 308 eP       Pg      10 29 38.0 +1.5
FKH                               eS       Sg      10 29 46.3 +1.2
FKH   Fakeheh            0.67 308 eP       Pg      10 29 38.0 +1.5
FKH                               eS       Sg      10 29 46.3 +1.2
HWQ   Hawqa              1.01 297 eP       Pg      10 29 42.7 -0.3
HWQ   Hawqa              1.01 297 eP       Pg      10 29 42.7 -0.4
RCY   Rachaya            1.07 252 eP       Pg      10 29 43.0 -1.2
RCY                               eS       Sg      10 29 54.9 -3.2
RCY   Rachaya            1.07 252 eP       Pg      10 29 43.0 -1.2
RCY                               eS       Sg      10 29 54.9 -3.2
BHL   Bhannes            1.15 274 eP       Pg      10 29 44.2 -1.6
BHL   Bhannes            1.15 274 eP       Pg      10 29 44.2 -1.6
KSDI  Kefar Szold        1.31 242  Pg      Pg      10 29 47.8 -1.1
KSDI                               Sg      Sg      10 30 07.0 +1.1
KSHT  Keshet             1.32 231  Pg      Pg      10 29 48.6 -0.5
MMC5  Mount Meron ar     1.58 239  Pn      Pn      10 29 52.1 -0.9
MMC5                               Sn      Sn      10 30 14.2  0.0
MMA0B Mount Meron ar     1.59 240  Pn      Pn      10 29 52.3 -0.7
MMA0B                              Sn      Sn      10 30 14.1 -0.1
MMLI  Mount Malkishu     1.94 225  Pn      Pn      10 29 58.0 +0.1
MMLI                               Sn      Sn      10 30 24.1 +1.2
HMDT  Nahal Hemdat       2.02 219  Pn      Pn      10 29 59.2 +0.2
HMDT                               Sn      Sn      10 30 26.1 +1.2
SLTI  Sal'it             2.30 227  Sn      Sn      10 30 33.3 +1.3
```

IDC ***27*** *10:39:10.5±0.9, 26°.75N×142°.61E, h0^{km}, mb3.9/9, mb1 4.0/10, mb1mx3.8/24, mbtmp3.9/10, ML3.4/1, Error ellipse: s-maj=25.8km s-min=14.3km az=56.0*
JMA ***27*** *10:39:11.2±0.3, 26°.85N×142°.95E, h48^{km}, M4.3*
ISCJB ***27*** *10:39:13.3±2.1, 26°.83N±0°.06×142°.8E±0°.2, h35^{km}±17^{km}, mb4.0/10, Error ellipse: s-maj=25.3km s-min=10.8km az=179.2*
NEIC ***27*** *10:39:13.9±4.7, 26°.70N×142°.73E, h24^{km}±33^{km}, mb4.6/1, Error ellipse: s-maj=27.3km s-min=12.3km az=89.0*
MOS ***27*** *10:39:13.3±1.2, 26°.74N×142°.58E, h33^{km}, mb4.7/1, Error ellipse: s-maj=35.7km s-min=12.8km az=101.7*
ISC 27 10:39:15.5±1.3**, 26°.76N**±0°.06×**142°.6E**±0°.1**, h35**^{km}±8^{km}**, n21, σ0^{s}95**/24**, mb4.0**/10**, Bonin Islands region**

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Code  Station Name       Δ°  AZ°   Phase ID          Time     Res
                                  Op       ISC     h  m  s    ISC
JHHJ  Haha-jima-NKT      0.43 252  P       Pb      10 39 25.2  0.0
CBIJ  Chichi jima        0.52 310  P       Pb      10 39 25.3 -1.2
CBIJ                              eS       Sb      10 39 35.3 +1.2
CBIJ  Chichi jima        0.52 310  Pn      Pn      10 39 25.4 -1.1
      614nm,0.3s,baz=99,slow=19,SNR=39
CBIJ                               Sn      Sn      10 39 33.9 -0.3
      1μm,0.3s,baz=300,slow=20,SNR=30
JHU   Hanno              9.50 343 eS       Sn      10 43 14.5 -0.9
JHO   Hitachi            9.97 350  P       Pn      10 41 32.8 -3.5
JHO                               eS       Sn      10 43 18.7 -8.3
JAG   Ashikaga          10.01 345 eS       Sn      10 43 21.7 -6.1
MJAR  Matsushiro Arr    10.45 340  Pn      Pn      10 41 42.8  0.0
      0.3nm,0.3s,baz=297,slow=43,SNR=3.2
MAJO  Matsushiro        10.45 340 eP       Pn      10 41 44.4 +1.5
PETK  Petropavlovsk-    28.62  19  P       P       10 45 08.4  0.0
      5.1nm,1.0s,mb4.2,baz=119,slow=9.2,SNR=3.6
WRAB  Tennant Creek     47.11 191 eP       P       10 47 43.9 -0.3
WRAB                               pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.5
WRAB  Tennant Creek     47.11 191 eP       P       10 47 43.9 -0.4
      comp=Z,3.7nm,0.6s,mb4.5
WRA   Warramunga Arr    47.12 191  P       P       10 47 44.2 -0.2
      comp=Z,3.2nm,0.7s,mb4.4,baz=11,slow=8.6,SNR=29
ASAR  Alice Springs     50.84 190  P       P       10 48 12.4 -0.3
      comp=Z,0.2nm,0.4s,mb3.4,baz=13,slow=9.4,SNR=4.2
MKAR  Makanchi Array    50.99 310  P       P       10 48 13.8 -0.1
      comp=Z,0.2nm,0.5s,mb3.3,baz=87,slow=9.1,SNR=4.0
NVS   Novosibirsk       51.05 320 eP       P       10 48 19.6 +5.5
KURK  Kurchatov         53.50 315  P       P       10 48 33.0 +0.6
      comp=Z,0.7nm,0.3s,mb4.0,baz=92,slow=8.3,SNR=4.4
BVAR  Borovoye Array    58.56 318  P       P       10 49 08.4 -0.1
      comp=Z,1.4nm,0.4s,mb4.3,baz=84,slow=7.0,SNR=8.1
YKA   Yellowknife Ar    72.24  28  P       P       10 50 36.0 -0.8
      comp=Z,0.4nm,0.6s,mb3.5,baz=292,slow=6.2,SNR=7.9
YKA   Yellowknife Ar    72.24  28  P       P       10 50 36.0 -0.9
ARCES ARCESS Array B    73.98 341  P       P       10 50 49.2 +2.2
      comp=Z,4.2nm,1.0s,mb4.3,baz=61,slow=9.9,SNR=5.4
FINES FINESS Array B    78.42 334  P       P       10 51 13.7 +1.3
      comp=Z,0.7nm,0.4s,mb4.0,baz=72,slow=6.2,SNR=7.5
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GEN ***27*** *11:07:38.3, 44°.05N×11°.90E, h2^{km}, ML2.5*
CSEM ***27*** *11:07:40.6±0.1, 44°.07N×11°.73E, h30^{km}, ML2.9/13, Error ellipse: s-maj=2.4km s-min=2.1km az=147.0*
ISCJB ***27*** *11:07:40.5±0.2, 44°.10N±0°.02×11°.71E±0°.02, h35^{km}±5^{km}, Error ellipse: s-maj=3.2km s-min=2.4km az=138.2*
ROM ***27*** *11:07:40.6±0.2, 44°.09N×11°.70E, h29^{km}±2^{km}, Md2.7/17, Ml2.6/14, Error ellipse: s-maj=2.1km s-min=1.3km az=39.0*
NEIC ***27*** *11:07:40.6, 44°.09N×11°.70E, h29^{km}, ML2.6(ROM), ML3.0(LDG), After ROM.*
LDG ***27*** *11:07:41.3±0.2, 44°.11N×11°.69E, h10^{km}, Ml3.0/8, Error ellipse: s-maj=4.8km s-min=3.4km az=42.0*
ISC 27 11:07:41.1±0.2**, 44°.09N**±0°.02×**11°.72E**±0°.02**, h30**^{km}±2^{km}**, n114, σ0^{s}91**/193**, 6C-11D, Northern Italy**

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Code  Station Name       Δ°  AZ°   Phase ID          Time     Res
                                  Op       ISC     h  m  s    ISC
VMG   Vicchio            0.18 225  Pg      Pb      11 07 46.3 -0.8
VMG                                Sg      Sb      11 07 51.3 +0.2
      698nm,0.2s
VMG   Vicchio            0.18 225  Pg      Pb      11 07 46.3 -0.8
VMG                                Sg      Sb      11 07 51.3 +0.2
      698nm,0.2s
SFI   Santa Sofia        0.21 155  Pg      Pb      11 07 46.6 -0.7
SFI                                Sg      Sb      11 07 51.4 -0.1
      2μm,0.5s
FAEN  Faenza             0.23  29  Pg      Pb      11 07 47.4 -0.2
FAEN                               Sg      Sb      11 07 53.6 +1.6
FAEN  Faenza             0.23  29  Pg      Pb      11 07 47.4 -0.2
FAEN                               Sg      Sb      11 07 53.6 +1.6
SEI   Scarperia          0.27 262  Pg      Pb      11 07 47.3 -0.7
SEI                                Sg      Sb      11 07 52.7 -0.1
      892nm,0.3s
SEI   Scarperia          0.27 262  Pg      Pb      11 07 47.3 -0.7
SEI                                Sg      Sb      11 07 52.7 -0.1
      892nm,0.3s
ASQU  Asqua              0.30 171  Pg      Pb      11 07 47.9 -0.5
ASQU                               Sg      Sb      11 07 53.3 -0.1
      561nm,0.4s
ASQU  Asqua              0.30 171  Pg      Pb      11 07 47.9 -0.5
ASQU                               Sg      Sb      11 07 53.3 -0.1
      561nm,0.4s
MTRZ  Monterenzio        0.34 327  Pg      Pb      11 07 48.6 -0.4
      2μm,0.5s
MTRZ  Monterenzio        0.34 327  Pg      Pb      11 07 48.6 -0.4
      2μm,0.5s
FNVD  Fontana Vidola     0.44 280  Pg      Pb      11 07 50.0 -0.5
FNVD                               Sg      Sb      11 07 57.4 +0.4
      797nm,0.5s
FNVD  Fontana Vidola     0.44 280  Pg      Pb      11 07 50.0 -0.5
FNVD                               Sg      Sb      11 07 57.4 +0.4
      797nm,0.5s
CRE   Caprese Michel     0.50 161  Pg      Pb      11 07 51.1 -0.3
CRE                                Sg      Sb      11 07 59.3 +0.8
      182nm,0.4s
CRE   Caprese Michel     0.50 161  Pg      Pb      11 07 51.1 -0.3
CRE                                Sg      Sb      11 07 59.3 +0.8
      182nm,0.4s
RSM   Repubblica di      0.55 107  Pg      Pb      11 07 51.9 -0.3
RSM   Repubblica di      0.55 107  Pg      Pb      11 07 51.9 -0.3
CRMI  Carmignano         0.62 241  Pg      Pb      11 07 52.8 -0.7
CRMI                               Sg      Sb      11 08 01.8 -0.1
      95nm,0.6s
CRMI  Carmignano         0.62 241  Pg      Pb      11 07 52.8 -0.7
CRMI                               Sg      Sb      11 08 01.8 -0.1
      95nm,0.6s
PZZT  Monte Pizzetto     0.62 274  Pg      Pb      11 07 53.3 -0.2
PZZT                               Sg      Sb      11 08 01.3 -0.6
      196nm,0.4s
PZZT  Monte Pizzetto     0.62 274  Pg      Pb      11 07 53.3 -0.2
PZZT                               Sg      Sb      11 08 01.3 -0.6
      196nm,0.4s
BADI  Badiali            0.69 147  Pg      Pb      11 07 54.4 -0.2
BADI                               Sg      Sb      11 08 04.5 +0.7
      261nm,0.6s
BADI  Badiali            0.69 147  Pg      Pb      11 07 54.4 -0.2
BADI                               Sg      Sb      11 08 04.5 +0.7
      261nm,0.6s
CSNT  Castellina Chi     0.69 207  Pg      Pb      11 07 54.5 -0.1
CSNT                               Sg      Sb      11 08 05.0 +1.1
      228nm,0.6s
CSNT  Castellina Chi     0.69 207  Pg      Pb      11 07 54.5 -0.1
CSNT                               Sg      Sb      11 08 05.0 +1.1
      228nm,0.6s
POPM  Popiglio           0.70 267  P       Pb      11 07 53.8 -0.9
CAFI  Castiglion Fio     0.78 167  Pg      Pn      11 07 56.0  0.0
CAFI                               Sg      Sb      11 08 07.9 +1.5
CAFI  Castiglion Fio     0.78 167  Pg      Pn      11 07 56.0  0.0
CAFI                               Sg      Sb      11 08 07.9 +1.5
BDI   Bagni Di Lucca     0.81 268  Pg      Pn      11 07 55.7 -0.8
      96nm,0.4s
BDI   Bagni Di Lucca     0.81 268  Pg      Pn      11 07 55.7 -0.8
      96nm,0.4s
MAIM  Mastiano           0.91 259  Pg      Pn      11 07 56.7 -1.0
      159nm,1.3s
MAIM  Mastiano           0.91 259  Pg      Pn      11 07 56.7 -1.0
      159nm,1.3s
MAIM  Mastiano           0.91 259  P       Pn      11 07 56.9 -0.8
PII   Pisa               0.94 247  Pg      Pn      11 07 57.5 -0.7
      75nm,0.2s
PII   Pisa               0.94 247  Pg      Pn      11 07 57.5 -0.7
      75nm,0.2s
SARO  Sassorosso         0.96 276  P       Pn      11 07 58.6 +0.2
VLC   Villacollemand     0.97 275  Pg      Pn      11 07 58.3 -0.3
      85nm,0.7s
VLC   Villacollemand     0.97 275  Pg      Pn      11 07 58.3 -0.3
      85nm,0.7s
MURB  Monte Urbino       1.01 145  Pg      Pn      11 08 00.3 +1.1
      343nm,0.3s
MURB  Monte Urbino       1.01 145  Pg      Pn      11 08 00.3 +1.1
      343nm,0.3s
VALM  Valbona            1.09 284  P       Pn      11 08 01.5 +1.2
VALM                               S       Sn      11 08 16.7 +2.3
SACS  San Casciano d     1.25 174  Pg      Pn      11 08 02.9 +0.5
      140nm,1.2s
GRAM  Graiana            1.26 289  P       Pn      11 08 03.5 +0.9
GRAM                               S       Sn      11 08 20.4 +2.0
TEOL  Teolo              1.27 358⇓iPg      Pn      11 08 02.4 -0.4
TEOL                              i Sg     Sn      11 08 18.3 -0.5
TEOL  Teolo              1.27 358 i Pg     Pn      11 08 02.4 -0.3
CODM  Codolo             1.38 283  P       Pn      11 08 05.6 +1.3
CODM                               S       Sn      11 08 24.0 +2.5
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CGRP	Cima Grappa	1.79	2	⇓ePg	Pn	11 08 09.6	-0.3
CGRP				eSg	Sn	11 08 31.3	-0.3
VARN	Col Varnada, M	1.92	8	⇓ePn	Pn	11 08 11.2	-0.5
VARN				eSn	Sn	11 08 34.8	0.0
VARN	Col Varnada, M	1.92	8	ePn	Pn	11 08 11.2	-0.5
VARN				eSn	Sn	11 08 34.8	0.0
MLNI	Malnisio	2.15	17	⇓ePn	Pn	11 08 14.2	-0.7
MLNI				eSn	Sn	11 08 40.8	+0.2
MLNI	Malnisio	2.15	17	ePn	Pn	11 08 14.2	-0.7
MLNI				eSn	Sn	11 08 40.8	+0.3
CIMO	Cimolais	2.28	13	ePn	Pn	11 08 15.7	-0.9
CIMO				eSn	Sn	11 08 42.6	-1.0
CIMO	Cimolais	2.28	13	ePn	Pn	11 08 15.7	-0.9
CIMO				eSn	Sn	11 08 42.6	-1.0
NVLJ	Novalja	2.31	77	ePn	Pn	11 08 16.2	-0.8
NVLJ				Sn	Sn	11 08 43.0	-1.4
NVLJ	Novalja	2.31	77	ePn	Pn	11 08 16.4	-0.6
NVLJ				Sn	Sn	11 08 43.0	-1.4
NVLJ				Sn	Sn	11 08 44.7	+0.3
NVLJ	Novalja	2.31	77	ePn	Pn	11 08 16.2	-0.8
NVLJ				Sn	Sn	11 08 43.0	-1.3
SABO	M.te Sabotino	2.31	34	⇓ePn	Pn	11 08 16.5	-0.6
SABO				eSn	Sn	11 08 44.4	0.0
SABO	M.te Sabotino	2.31	34	ePn	Pn	11 08 16.5	-0.5
SABO				eSn	Sn	11 08 44.4	0.0
PCP	Piancastagn	2.33	282	P	Pn	11 08 17.8	+0.5
PCP				S	Sn	11 08 44.6	-0.2
MPRI	Monte Prat	2.33	22	ePn	Pn	11 08 17.1	-0.1
MPRI				eSn	Sn	11 08 45.2	+0.3
MPRI	Monte Prat	2.33	22	ePn	Pn	11 08 17.1	-0.2
MPRI				eSn	Sn	11 08 45.2	+0.3
COLI	Coloredo	2.35	29	⇓iPn	Pn	11 08 17.1	-0.5
COLI				i Sn	Sn	11 08 45.7	+0.2
COLI	Coloredo	2.35	29	i Pn	Pn	11 08 17.1	-0.5
COLI				i Sn	Sn	11 08 45.7	+0.2
BAD	Bernadia	2.40	26	ePn	Pn	11 08 17.6	-0.7
BAD				eSn	Sn	11 08 46.7	0.0
BAD	Bernadia	2.40	26	ePn	Pn	11 08 17.6	-0.7
BAD				eSn	Sn	11 08 46.7	+0.1
VOY	Vojsko	2.48	38	ePn	Pn	11 08 18.4	-0.9
VOY				eSn	Sn	11 08 48.5	0.0
VOY	Vojsko	2.48	38	ePn	Pn	11 08 18.4	-0.9
VOY				eSn	Sn	11 08 48.5	0.0
DRE	Drenchia	2.49	32	⇓iPn	Pn	11 08 18.8	-0.7
DRE				i Sn	Sn	11 08 48.5	-0.3
DRE	Drenchia	2.49	32	i Pn	Pn	11 08 18.8	-0.7
DRE				i Sn	Sn	11 08 48.5	-0.3
PGF	Pioggiola	2.52	233	ePn	Pn	11 08 19.4	-0.5
PGF				eSn	Sn	11 08 49.1	-0.4
	12nm,0.3s						
PGF	Pioggiola	2.52	233	ePn	Pn	11 08 19.4	-0.5
ACOM	Acomizza, Ital	2.76	27	ePn	Pn	11 08 23.3	0.0
ACOM				eSn	Sn	11 08 57.0	+1.4
ACOM	Acomizza, Ital	2.76	27	ePn	Pn	11 08 23.3	+0.1
ACOM				eSn	Sn	11 08 57.0	+1.4
IMI	Imperia	2.77	268	P	Pn	11 08 22.9	-0.5
IMI				S	Sn	11 08 53.6	-2.2
FETA	Feichten	3.01	347	⇑iPn	Pn	11 08 28.8	+2.1
FETA				⇓iSn	Sn	11 09 04.3	+2.6
FETA	Feichten	3.01	347	Pn	Pn	11 08 28.8	+2.1
FETA				Sn	Sn	11 09 04.3	+2.6
SBF	Sospel	3.10	267	ePn	Pn	11 08 28.8	+0.8
SBF				eSn	Sn	11 09 03.3	-0.7
	7.7nm,0.3s						
SBF	Sospel	3.10	267	ePn	Pn	11 08 28.8	+0.8
SBF				eSn	Sn	11 09 03.3	-0.7
	3.8nm,0.3s						
WTTA	Wattenberg	3.17	359	⇓iPn	Pn	11 08 29.8	+0.9
WTTA				⇑iSn	Sn	11 09 08.5	+2.8
WTTA	Wattenberg	3.17	359	Pn	Pn	11 08 29.8	+0.9
WTTA				Sn	Sn	11 09 08.5	+2.8
KBA	Koelnbreinsper	3.20	20	⇑iPn	Pn	11 08 29.8	+0.6
KBA				⇓iSn	Sn	11 09 06.6	+0.4
KBA	Koelnbreinsper	3.20	20	Pn	Pn	11 08 29.8	+0.6
KBA				Sn	Sn	11 09 06.6	+0.3
MOTA	Moosalm	3.28	353	⇓iPn	Pn	11 08 31.4	+1.0
MOTA				⇑iSn	Sn	11 09 08.1	-0.3
MOTA	Moosalm	3.28	353	Pn	Pn	11 08 31.4	+1.0
MOTA				Sn	Sn	11 09 08.1	-0.3
MBDF	Montbardon	3.61	282	ePn	Pn	11 08 35.3	+0.5
MBDF				eSn	Sn	11 09 15.4	-1.0
	4.8nm,0.5s						
MBDF	Montbardon	3.61	282	ePn	Pn	11 08 35.3	+0.5
MBDF				eSn	Sn	11 09 15.4	-1.0
	2.4nm,0.5s						
FRF	La Foret Royal	3.71	264	ePn	Pn	11 08 36.1	-0.2
FRF	La Foret Royal	3.71	264	ePn	Pn	11 08 36.1	-0.2
LPG	La Plagne	3.81	293	eP	Pn	11 08 41.1	+3.5
LPG				eSn	Sn	11 09 20.7	-0.7
	2.8nm,0.3s						
LPG	La Plagne	3.81	293	eP	Pn	11 08 41.1	+3.5
LPG				eSn	Sn	11 09 20.7	-0.7
	1.4nm,0.3s						
LMR	La Mourre	3.86	260	ePn	Pn	11 08 39.1	+0.8
LMR	La Mourre	3.86	260	ePn	Pn	11 08 39.1	+0.8
MOA	Molln	4.16	24	⇑iPn	Pn	11 08 42.6	+0.2
MOA				⇑iSn	Sn	11 09 29.9	0.0
MOA	Molln	4.16	24	Pn	Pn	11 08 42.6	+0.2
MOA				Sn	Sn	11 09 29.9	0.0
ORIF	Oris-en-Rattie	4.26	283	ePn	Pn	11 08 44.8	+0.9
ORIF	Oris-en-Rattie	4.26	283	ePn	Pn	11 08 44.8	+0.9
STON	Ston	4.52	104	ePn	Pn	11 08 48.0	+0.7
STON				Sn	Sn	11 09 37.2	-1.6
STON	Ston	4.52	104	ePn	Pn	11 08 48.0	+0.6
STON				Sn	Sn	11 09 37.2	-1.6
CABF	La Chapelle	4.71	304	ePn	Pn	11 08 50.5	+0.6
CABF	La Chapelle	4.71	304	ePn	Pn	11 08 50.5	+0.6
HINF	Hinteralfeld	5.04	319	ePn	Pn	11 08 54.7	+0.1
HINF				eSn	Sn	11 09 48.5	-3.2
	5.8nm,0.4s						
HINF	Hinteralfeld	5.04	319	ePn	Pn	11 08 54.7	+0.1
HINF				eSn	Sn	11 09 48.5	-3.2
	2.9nm,0.4s						
VIVF	Saint-Julien-l	5.10	281	ePn	Pn	11 08 55.2	-0.2
VIVF	Saint-Julien-l	5.10	281	ePn	Pn	11 08 55.2	-0.2
CDF	Champ du Feu	5.31	326	ePn	Pn	11 08 58.4	+0.2
CDF				eSn	Sn	11 09 54.9	-3.4
	3.1nm,0.3s						
CDF	Champ du Feu	5.31	326	ePn	Pn	11 08 58.4	+0.2
CDF				eSn	Sn	11 09 54.9	-3.4
	1.5nm,0.3s						
HAU	Haudompre	5.42	318	ePn	Pn	11 09 00.5	+0.8
HAU				eSn	Sn	11 09 58.0	-2.9
	9.5nm,0.3s						
HAU	Haudompre	5.42	318	ePn	Pn	11 09 00.5	+0.8
SMF	Signal de Mont	6.11	297	ePn	Pn	11 09 08.8	-0.5
SMF	Signal de Mont	6.11	297	ePn	Pn	11 09 08.8	-0.5
LOR	Lormes	6.36	303	ePn	Pn	11 09 12.8	+0.1
LOR				eSn	Sn	11 10 20.9	-3.3
	3.2nm,0.3s						
LOR	Lormes	6.36	303	ePn	Pn	11 09 12.8	+0.1
BGF	Bois d’Agland	6.73	295	ePn	Pn	11 09 17.1	-0.6
BGF	Bois d’Agland	6.73	295	ePn	Pn	11 09 17.1	-0.6

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*THR **27** 11:10:11.6±1.0, 33°.06N×59°.43E, h15^{km}, ML4.2*

*IDC **27** 11:10:11.5±1.2, 33°.06N×59°.16E, h0^{km}, mb3.8/13, mb1 4.0/16, mb1mx3.9/29, mbtmp3.9/16, ML3.2/1, MS3.2/5, Ms1 3.2/5, ms1mx3.0/32, Error ellipse: s-maj=27.6km s-min=15.5km az=173.0*

*NEIC **27** 11:10:13.6, 33°.00N×59°.34E, h5^{km}, mb4.9/8, ML4.2(THR), MN4.2(TEH), After TEH.*

*TEH **27** 11:10:13.6, 33°.00N×59°.34E, h5^{km}*

*CSEM **27** 11:10:13.3±0.2, 33°.09N×59°.23E, h2^{km}, mb4.8/10, Error ellipse: s-maj=6.4km s-min=5.1km az=16.0*

*BJI **27** 11:10:13.6, 33°.00N×59°.30E, h5^{km}, mb4.2/2, Ms4.3/1, Ms7 4.3/1*

*ISCJB **27** 11:10:13.0±0.3, 33°.04N±0°.03×59°.16E±0°.03, h10^{km}, mb4.2/24, MS3.2/3, Error ellipse: s-maj=4.3km s-min=3.9km az=15.0*

*MOS **27** 11:10:16.1±1.5, 33°.24N×59°.21E, h33^{km}, mb4.7/4, Error ellipse: s-maj=13.0km s-min=9.3km az=101.5*

ISC 27 11:10:14.6±0.3**, 33°.05N**±0°.03×**59°.21E**±0°.03**, h10^{km}, n158,** σ**1^{s}.27**/163**, mb4.2**/24**, MS3.2**/3**, 11C-12D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDAH	Dahanechah	0.64	119	⇓ePg	Pg	11 10 22.7	-4.2
IDAH				e		11 10 23.0	
	comp=Z,18µm,0.0s						
IDAH				eSg	Sg	11 10 29.9	-5.3
IDAH	Dahanechah	0.64	119	⇓ePg	Pg	11 10 22.7	-4.2
IDAH				eSg	Sg	11 10 29.9	-5.3
IKOO	Kooshah	0.65	195	⇑ePg	Pg	11 10 25.4	-1.7
IKOO				e		11 10 38.5	
	comp=Z,98µm,0.1s						
IKOO	Kooshah	0.65	195	⇑ePg	Pg	11 10 25.4	-1.7
IMOG	Moghan	3.05	2	Pn	Pn	11 11 03.4	+0.5
IMOG	Moghan	3.05	2	ePn	Pn	11 11 03.5	+0.6
IMOG	Moghan	3.05	2	e	Pg	11 11 14.6	+1.5
	comp=Z,6µm,0.3s						
ISRO	Mashad	3.26	4	ePn	Pn	11 11 05.6	-0.1
ISRO	Mashad	3.26	4	ePn	Pn	11 11 05.6	-0.1
IMYA	Miami	3.37	12	Pn	Pn	11 11 06.8	-0.4
IMYA	Miami	3.37	12	ePn	Pn	11 11 06.8	-0.4
IMYA				e		11 12 10.4	
	comp=Z,6µm,0.3s						
IMYA	Miami	3.37	12	ePn	Pn	11 11 06.8	-0.4
IPAY	Payeh	3.40	357	Pn	Pn	11 11 07.7	+0.1
IPAY	Payeh	3.40	357	ePn	Pn	11 11 07.8	+0.2
IPAY	Payeh	3.40	357	e	Pg	11 11 22.6	+3.0
	comp=Z,5µm,0.2s						
IBAF	Bafgh	3.41	246	Pn	Pn	11 11 08.6	+0.8
IBAF	Bafgh	3.41	246	⇑ePn	Pn	11 11 08.6	+0.8
IBAF				e		11 12 11.0	
	comp=Z,9µm,0.3s						
IBAF	Bafgh	3.41	246	⇑ePn	Pn	11 11 08.6	+0.8
IAKL	Akhelmad	3.56	354	Pn	Pn	11 11 09.6	-0.3
IAKL	Akhelmad	3.56	354	ePn	Pn	11 11 09.7	-0.2
IAKL	Akhelmad	3.56	354	e	Sn	11 11 55.0	+3.0
	comp=Z,5µm,0.4s						
ZHSF	Zahedan	3.68	158	ePn	Pn	11 11 09.0	-2.5
ZHSF	Zahedan	3.68	158	ePn	Pn	11 11 09.1	-2.4
ZHSF	Zahedan	3.68	158	ePn	Pn	11 11 09.0	-2.5
KRBR	Kerman	3.71	215	ePn	Pn	11 11 12.0	+0.2
KRBR	Kerman	3.71	215	ePn	Pn	11 11 12.9	+1.1
KRBR				AML	AML	11 12 19.0	
	comp=E,452nm,0.4s						
KRBR				AML	AML	11 12 24.0	
	comp=N,646nm,0.6s						
KRBR	Kerman	3.71	215	ePn	Pn	11 11 12.9	+1.1
IKRD	Kardeh	3.76	351	Pn	Pn	11 11 12.1	-0.5
IKRD	Kardeh	3.76	351	⇓ePn	Pn	11 11 12.2	-0.4
IKRD				e		11 11 33.5	
	comp=Z,4µm,0.3s						
ISFR	Sfrayin	4.12	346	Pn	Pn	11 11 17.8	+0.3
ISFR	Sfrayin	4.12	346	⇓ePn	Pn	11 11 17.8	+0.3
ISFR				e		11 12 40.5	
	comp=Z,5µm,0.3s						
ICHK	Chekchek	4.13	260	Pn	Pn	11 11 18.0	+0.3
ICHK	Chekchek	4.13	260	ePn	Pn	11 11 18.1	+0.4
ICHK				e		11 12 37.8	
	comp=Z,6µm,0.2s						
ICHK	Chekchek	4.13	260	ePn	Pn	11 11 18.1	+0.4
IMEH	Mehriz	4.23	248	Pn	Pn	11 11 18.8	-0.3
IMEH	Mehriz	4.23	248	ePn	Pn	11 11 18.9	-0.2
IMEH				e		11 12 33.8	
	comp=Z,4µm,0.3s						
IMEH	Mehriz	4.23	248	ePn	Pn	11 11 18.9	-0.2
IEMG	Emamgholi	4.38	354	Pn	Pn	11 11 20.6	-0.5
IEMG	Emamgholi	4.38	354	⇓ePn	Pn	11 11 20.7	-0.4
IEMG				e		11 12 48.2	
	comp=Z,3µm,0.4s						
IEMG	Emamgholi	4.38	354	⇓ePn	Pn	11 11 20.7	-0.4
ISHV	Shirvan	4.64	345	Pn	Pn	11 11 24.8	+0.1
ISHV	Shirvan	4.64	345	⇑ePn	Pn	11 11 24.8	+0.1
ISHV				e		11 11 50.4	
	comp=Z,4µm,0.3s						
ISHV	Shirvan	4.64	345	⇑ePn	Pn	11 11 24.8	+0.1
BJRD	Bojnurd	4.87	343	ePn	Pn	11 11 27.6	-0.2
BJRD	Bojnurd	4.87	343	ePn	Pn	11 11 27.6	-0.2
VAN	Vannovskaya	4.97	350	eP	Pn	11 11 29.0	-0.2
VAN	Vannovskaya	4.97	350	eP	Pn	11 11 29.0	-0.2
IANJ	Anjilo	5.00	300	Pn	Pn	11 11 29.9	+0.2
IANJ	Anjilo	5.00	300	⇓ePn	Pn	11 11 30.0	+0.3
IANJ				e		11 11 55.4	
	comp=Z,2µm,0.2s						
IANJ	Anjilo	5.00	300	⇓ePn	Pn	11 11 30.0	+0.3
NASN	Na’in	5.39	269	ePn	Pn	11 11 35.9	+0.9
NASN				AML	AML	11 13 20.3	
	comp=N,94nm,0.6s						
NASN				AML	AML	11 13 27.3	
	comp=E,74nm,0.7s						
IKIA	Kiasar	5.54	306	Pn	Pn	11 11 37.7	+0.7
IKIA	Kiasar	5.54	306	⇑ePn	Pn	11 11 37.8	+0.8
IKIA				e		11 13 43.8	
	comp=Z,1µm,0.4s						
IKIA	Kiasar	5.54	306	⇑ePn	Pn	11 11 37.8	+0.8
ISHM	Shahmirzad	5.61	301	Pn	Pn	11 11 38.6	+0.6
ISHM	Shahmirzad	5.61	301	ePn	Pn	11 11 38.7	+0.7
ISHM				e		11 11 40.4	
	comp=Z,3µm,0.1s						
ISHM	Shahmirzad	5.61	301	ePn	Pn	11 11 38.7	+0.7
ILAS	Lasjerd	5.68	296	Pn	Pn	11 11 39.8	+0.9
ILAS	Lasjerd	5.68	296	ePn	Pn	11 11 39.8	+0.9
ILAS				e		11 13 39.2	
	comp=N,2µm,0.3s						
ILAS	Lasjerd	5.68	296	ePn	Pn	11 11 39.8	+0.9
IZEF	Zefreh	5.78	270	Pn	Pn	11 11 40.9	+0.5
IZEF	Zefreh	5.78	270	ePn	Pn	11 11 40.9	+0.5
IZEF				e		11 13 31.6	
	comp=Z,841nm,0.3s						
IZEF	Zefreh	5.78	270	ePn	Pn	11 11 40.9	+0.5
IFIR	Firoozkooh	5.93	298	Pn	Pn	11 11 43.0	+0.6
IFIR	Firoozkooh	5.93	298	⇓ePn	Pn	11 11 43.0	+0.6
IFIR				e		11 11 53.9	
	comp=Z,2µm,0.1s						
IFIR	Firoozkooh	5.93	298	⇓ePn	Pn	11 11 43.0	+0.6
IALA	Alasht	6.08	302	Pn	Pn	11 11 44.6	+0.1
IALA	Alasht	6.08	302	ePn	Pn	11 11 44.6	+0.1
IALA				e		11 11 50.8	
	comp=Z,1µm,0.2s						
IALA	Alasht	6.08	302	ePn	Pn	11 11 44.6	+0.1
BNDS	Bandar-Abbas	6.21	206	ePn	Pn	11 11 46.0	-0.3
BNDS	Bandar-Abbas	6.21	206	ePn	Pn	11 11 46.5	+0.2
BNDS	Bandar-Abbas	6.21	206	ePn	Pn	11 11 46.5	+0.2
IKLH	Kolahrood	6.40	274	Pn	Pn	11 11 49.9	+1.0
IKLH	Kolahrood	6.40	274	ePn	Pn	11 11 49.9	+1.0
IKLH				e		11 11 51.2	
	comp=Z,2µm,0.2s						
IKLH	Kolahrood	6.40	274	ePn	Pn	11 11 49.9	+1.0
IDMV	Damavand	6.45	295	Pn	Pn	11 11 50.4	+0.8
IDMV	Damavand	6.45	295	ePn	Pn	11 11 50.5	+0.9
IDMV				e		11 11 51.3	
	comp=Z,2µm,0.3s						
IDMV	Damavand	6.45	295	ePn	Pn	11 11 50.5	+0.9
IVRN	Varamin	6.51	289	Pn	Pn	11 11 50.9	+0.5
IVRN	Varamin	6.51	289	ePn	Pn	11 11 50.7	+0.3
IVRN				⇓ePn	Pn	11 11 50.9	+0.5
IVRN				e		11 11 58.6	
	comp=Z,626nm,0.2s						
IVRN				e		11 14 03.1	
	comp=Z,996nm,0.7s						
IVRN	Varamin	6.51	289	ePn	Pn	11 11 50.7	+0.3
DAMV	Damavand	6.52	295	ePn	Pn	11 11 51.0	+0.5
DAMV	Damavand	6.52	295	ePn	Pn	11 11 51.5	+1.0
DAMV	Damavand	6.52	295	ePn	Pn	11 11 51.5	+1.0
IR3	Iran Long-Peri	7.20	292	ePn	Pn	11 11 59.1	-0.7
IR3				e		11 14 48.5	
	comp=Z,99nm,0.7s						
IR3	Iran Long-Peri	7.20	292	ePn	Pn	11 11 59.1	-0.7
IRAZ	Razeghan	8.04	290	Pn	Pn	11 12 11.9	+0.6
IRAZ	Razeghan	8.04	290	ePn	Pn	11 12 11.9	+0.6
IRAZ				e		11 12 42.6	
	comp=Z,611nm,0.3s						
IRAZ	Razeghan	8.04	290	ePn	Pn	11 12 11.9	+0.6
GNI	Garni	13.60	305	c iP	Pn	11 13 26.8	-0.7
GNI	Garni	13.60	305	Pn	Pn	11 13 29.4	+1.8
	comp=Z,0.2nm,0.3s,baz=11,slow=23,SNR=3.1						
GNI	Garni	13.60	305	i P	Pn	11 13 26.8	-0.7
GNI	Garni	13.60	305	Pn	Pn	11 13 29.4	+1.9
KSH	Kashi	14.97	60	eP	Pn	11 13 48.0	+1.8
KSH				epP	pP	11 13 51.5	-3.1
KSH				esP	sP	11 13 55.0	-0.9
KSH				ePP		11 14 00.5	
KSH				eS	Sn	11 16 37.5	+5.4
KSH				esS	sS	11 16 43.0	-11
KSH				eSS		11 16 54.8	
KSH				eScP	ScP	11 22 27.3	-1.8
KSH				ePcS	PcS	11 22 29.0	-1.2
KSH				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KSH				LR	LR		
	comp=N,310nm,8.5s						
KSH				LR	LR		
	comp=E,350nm,5.2s						
KSH				LR	LR		
	comp=Z,490nm,6.1s						
AAK	Ala-Archa	15.38	47	⇓iP	Pn	11 13 47.8	-3.8
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AAK	Ala-Archa	15.38	47	Pn	Pn	11 13 49.0	-2.7
	comp=Z,0.0nm,0.3s,baz=216,slow=8.0,SNR=17						
AAK				LR	LR	11 20 46.0	
	comp=Z,39nm,18.6s,baz=299,slow=41						
KIV	Kislovodsk	16.87	315	eP	Pn	11 14 11.9	+1.1
KIV				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KIV	Kislovodsk	16.87	315	eP	Pn	11 14 11.9	+1.1
	comp=Z,5.0nm,0.9s						
AKTK	Aktyubinsk	17.39	357	P	Pn	11 14 17.1	-0.1
AKTK	Aktyubinsk	17.39	357	P	Pn	11 14 17.1	-0.1
AKTO	Aktyubinsk	17.39	357	P	Pn	11 14 17.1	-0.1
	comp=Z,0.5nm,0.3s,baz=176,slow=12,SNR=4.3						
MMAI	Mount Meron Ar	19.95	276	LR	LR	11 23 49.4	
	comp=Z,61nm,20.9s,baz=45,slow=41						
EIL	Elat	20.98	267	P	P	11 14 52.6	-5.3
	comp=Z,1.7nm,0.4s,baz=282,slow=23,SNR=2.4						
EIL				LR	LR	11 24 53.1	
	comp=Z,106nm,18.1s,MS3.3,baz=268,slow=42						
BVAR	Borovoye Array	21.52	19	P	P	11 15 01.0	-2.6
	comp=Z,1.6nm,0.6s,mb3.6,baz=196,slow=10,SNR=8.5						
BVAR				LR	LR	11 25 14.2	
	comp=Z,114nm,21.2s,MS3.2,baz=52,slow=42						
BVAR	Borovoye Array	21.52	19	P	P	11 15 01.0	-2.6
BR131	Keskin Array S	21.59	295	eP	P	11 15 04.9	+0.4
	comp=Z,1.6nm,0.7s,mb3.6						
BR131	Keskin Array S	21.59	295	eP	P	11 15 04.9	+0.4
	comp=Z,1.6nm,0.7s,mb3.6						
BRTR	Keskin Array B	21.59	295	P	P	11 15 03.7	-0.8
	comp=Z,1.5nm,0.8s,mb3.5						
BRTR	Keskin Array B	21.59	295	P	P	11 15 03.7	-0.8
DANN	Dangsing	21.61	96	eP	P	11 15 05.4	+0.7
	comp=Z,16nm,0.4s,mb4.8						
DANN	Dangsing	21.61	96	eP	P	11 15 05.4	+0.7
	comp=Z,16nm,0.4s,mb4.8						
KOLN	Koldanda	21.66	98	eP	P	11 15 06.0	+0.7
KOLN	Koldanda	21.66	98	eP	P	11 15 06.0	+0.7
MKAR	Makanchi Array	22.30	45	P	P	11 15 10.8	-1.1
	comp=Z,1.8nm,0.7s,mb3.6,baz=237,slow=11,SNR=14						
MKAR	Makanchi Array	22.30	45	P	P	11 15 10.9	-1.0
GKN	Gorkha	22.45	96	eP	P	11 15 15.1	+1.4
GKN	Gorkha	22.45	96	eP	P	11 15 15.1	+1.4
KURK	Kurchatov	22.70	33	P	P	11 15 14.1	-2.0
	comp=Z,3.6nm,1.0s,mb3.8,baz=232,slow=11,SNR=9.8						
KURK				LR	LR	11 25 16.3	
	comp=Z,62nm,19.6s,MS3.0,baz=280,slow=40						
KURK	Kurchatov	22.70	33	P	P	11 15 14.1	-2.0
DMN	Daman	22.97	97	eP	P	11 15 19.9	+0.6
	comp=Z,20nm,0.9s,mb4.6						
DMN	Daman	22.97	97	eP	P	11 15 19.9	+0.6
	comp=Z,20nm,0.9s,mb4.6						
KKN	Kakani	23.06	96	eP	P	11 15 21.5	+1.3
	comp=Z,25nm,0.7s,mb4.7						
KKN	Kakani	23.06	96	eP	P	11 15 21.5	+1.3
KKN				pmax	pmax		
	comp=Z,25nm,0.7s,mb4.8						
KKN	Kakani	23.06	96	eP	P	11 15 21.5	+1.3
	comp=Z,25nm,0.7s,mb4.8						
PKI	Pulchoki	23.24	97	eP	P	11 15 23.1	+1.0
	comp=Z,58nm,1.1s,mb4.9						
PKI	Pulchoki	23.24	97	eP	P	11 15 23.1	+1.0
PKI				pmax	pmax		
	comp=Z,58nm,1.1s,mb4.9						
PKI	Pulchoki	23.24	97	eP	P	11 15 23.1	+1.0
	comp=Z,58nm,1.1s,mb4.9						
ARU	Arti	23.38	359	c iP	P	11 15 20.8	-2.5
ARU				e		11 15 45.6	
ARU				S	S	11 19 34.2	-1.6
ARU				SS		11 20 09.0	
ARU				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.8						
ARU	Arti	23.38	359	i P	P	11 15 20.8	-2.5
	comp=Z,3.0nm,0.7s,mb3.8						
ARU				S	S	11 19 34.2	-1.6
GUN	Gumba	23.52	95	eP	P	11 15 26.4	+1.4
	comp=Z,66nm,1.0s,mb5.0						
GUN	Gumba	23.52	95	eP	P	11 15 26.4	+1.4
	comp=Z,66nm,1.0s,mb5.0						
JIRN	Jiri	23.86	96	eP	P	11 15 29.8	+1.6
JIRN	Jiri	23.86	96	eP	P	11 15 29.8	+1.6
RAMN	Ramite	24.45	97	eP	P	11 15 34.3	+0.7
	comp=Z,16nm,0.8s,mb4.5						
RAMN	Ramite	24.45	97	eP	P	11 15 34.3	+0.7
	comp=Z,16nm,0.8s,mb4.5						
ODAN	Odare	25.14	97	eP	P	11 15 42.0	+2.1
	comp=Z,58nm,1.0s,mb5.1						
ODAN	Odare	25.14	97	eP	P	11 15 42.0	+2.1
	comp=Z,58nm,1.0s,mb5.1						
TAPN	Taplejung	25.24	95	eP	P	11 15 42.2	+1.5
	comp=Z,26nm,0.8s,mb4.8						
TAPN	Taplejung	25.24	95	eP	P	11 15 42.2	+1.5
	comp=Z,26nm,0.8s,mb4.8						
OBN	Obninsk	27.18	331	⇑iP	P	11 15 55.5	-2.5
OBN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
OBN	Obninsk	27.18	331	i P	P	11 15 55.5	-2.5
	comp=Z,8.0nm,0.8s,mb4.3						
ZALV	Zalesovo Beam	27.69	33	P	P	11 16 00.7	-1.9
	comp=Z,0.7nm,0.4s,mb3.7,baz=265,slow=7.2,SNR=3.2						
AKASG	Malin Array Be	28.18	318	P	P	11 16 04.4	-2.5
	comp=Z,1.2nm,0.5s,mb3.8,baz=121,slow=7.9,SNR=3.8						
AKASG	Malin Array Be	28.18	318	P	P	11 16 04.4	-2.6
GTA	Gaotai	33.16	67	eP	P	11 16 54.3	+3.2
GTA				pP	pP	11 16 57.8	+3.7
GTA				sP	sP	11 16 59.3	+3.9
GTA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
FINES	FINESS Array B	35.51	333	P	P	11 17 10.4	-0.8
	comp=Z,2.9nm,0.9s,mb4.2,baz=112,slow=11,SNR=2.8						
FINES	FINESS Array B	35.51	333	P	P	11 17 10.4	-0.8
GERES	GERESS Array B	37.22	309	P	P	11 17 24.2	-1.8
	comp=Z,0.9nm,0.6s,mb3.8,baz=100,slow=7.5,SNR=4.9						
GERES	GERESS Array B	37.22	309	P	P	11 17 24.2	-1.8
SONM	Songino Array	38.22	53	P	P	11 17 32.8	-1.7
	comp=Z,0.2nm,0.5s,mb3.1,baz=346,slow=1.8,SNR=2.4						
SONM	Songino Array	38.22	53	P	P	11 17 32.8	-1.6
CMAR	Chiang Mai Arr	38.38	102	P	P	11 17 35.5	-0.6
	comp=Z,2.3nm,1.0s,mb3.9,baz=294,slow=8.6,SNR=8.8						
CMAR	Chiang Mai Arr	38.38	102	P	P	11 17 35.6	-0.5
WHN	Wuhan	46.48	77	P	P	11 18 39.8	-2.2
ESDC	Sonseca Array	50.38	297	P	P	11 19 09.6	-2.4
	comp=Z,0.2nm,0.3s,mb3.6,baz=70,slow=8.4,SNR=4.3						
ESDC	Sonseca Array	50.38	297	P	P	11 19 09.6	-2.3
TORD	Torodi Ar. Bea	55.80	263	P	P	11 19 50.1	-2.0
	comp=Z,2.0nm,0.7s,mb4.3,baz=57,slow=6.8,SNR=16						
YKA	Yellowknife Ar	84.66	357	P	P	11 22 46.1	-2.0
	comp=Z,0.8nm,0.8s,mb3.9,baz=358,slow=5.3,SNR=18						

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*CSEM **27** 11:30:10.6±0.4, 37°.54N×20°.91E, h0^{km}±1^{km}, MD3.7, Error ellipse: s-maj=7.8km s-min=4.7km az=44.0*

*ISCJB **27** 11:30:10.1±1.0, 37°.53N±0°.03×20°.86E±0°.04, h4^{km}±7^{km}, Error ellipse: s-maj=6.8km s-min=4.1km az=139.2*

*NEIC **27** 11:30:11.0, 37°.56N×20°.86E, h19^{km}, MD3.7(ATH), ML3.7(THE), After ATH.*

*ATH **27** 11:30:11.0, 37°.56N×20°.86E, h19^{km}±2^{km}, MD3.7/7*

*THE **27** 11:30:11.3, 37°.57N×20°.91E, h0^{km}±2^{km}, ML3.7/3, Error ellipse: s-maj=2.8km s-min=0.9km az=234.0*

*SKO **27** 11:30:24.1, 38°.58N×21°.16E, h0^{km}*

ISC 27 11:30:10.4±0.9**, 37°.50N**±0°.03×**20°.89E**±0°.04**, h2^{km}**±5^{km}**, n68,** σ**1^{s}.05**/86**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	Valsamata	0.71	340	P	Pg	11 30 23.6	-0.5
VLS				S	Sg	11 30 33.6	+0.3
VLS	Valsamata	0.71	340	ePN	Pg	11 30 23.7	-0.4
VLS	Valsamata	0.71	340	ePn	Pg	11 30 23.7	-0.4
RLS	Riolos of Patr	0.72	39	ePB	Pb	11 30 24.0	-1.6
RLS				eSN	Sg	11 30 35.2	+1.8
RLS	Riolos of Patr	0.72	39	ePb	Pb	11 30 24.0	-1.6
ITM	Ithomi	0.89	111	ePN	Pn	11 30 28.7	-1.1
ITM				eSN	Sn	11 30 42.3	-0.9
ITM	Ithomi	0.89	111	ePn	Pn	11 30 28.7	-1.1

ITM				eSn	Sn	11 30 42.3	-0.9
PYL	PYLOS	0.91	132	P	Pg	11 30 28.7	+0.9
PYL				S	Sg	11 30 43.0	+3.4
PYL	PYLOS	0.91	132	ePN	Pn	11 30 30.1	0.0
PYL	PYLOS	0.91	132	ePn	Pn	11 30 30.1	0.0
PYL				S	Sg	11 30 43.0	+3.4
LAKA	Lakka	1.13	49	P	Pg	11 30 31.9	-0.1
LAKA				S	Sg	11 30 47.9	+1.2
LAKA	Lakka	1.13	49	P	Pg	11 30 31.9	-0.1
LAKA				S	Sg	11 30 47.9	+1.2
VLX	Vlachokerasia	1.19	96	ePB	Pb	11 30 33.1	-0.5
VLX	Vlachokerasia	1.19	96	ePb	Pb	11 30 33.1	-0.5
LKD	Levkas	1.22	351	P	Pg	11 30 32.6	-1.1
LKD				S	Sg	11 30 50.1	+0.6
LKD	Levkas	1.22	351	P	Pg	11 30 32.6	-1.1
LKD				S	Sg	11 30 50.1	+0.6
EFP	Efpalio	1.22	41	ePN	Pn	11 30 33.8	-0.7
EFP	Efpalio	1.22	41	ePn	Pn	11 30 33.8	-0.7
GUR	Goura	1.23	69	ePB	Pb	11 30 33.5	-0.8
GUR	Goura	1.23	69	ePb	Pb	11 30 33.5	-0.8
TRIZ	Trizonia	1.27	47	P	Pg	11 30 33.8	-0.9
TRIZ	Trizonia	1.27	47	P	Pg	11 30 33.8	-0.9
KALE	Kalithea	1.33	48	P	Pg	11 30 34.6	-1.2
KALE				S	Sg	11 30 53.5	+0.5
KALE	Kalithea	1.33	48	P	Pg	11 30 34.6	-1.2
KALE				S	Sg	11 30 53.5	+0.5
EVR	Evrytania	1.58	27	ePN	Pn	11 30 40.3	+0.8
EVR	Evrytania	1.58	27	ePn	Pn	11 30 40.3	+0.8
LTK	Loutraki	1.72	72	ePN	Pn	11 30 42.0	+0.6
LTK	Loutraki	1.72	72	ePn	Pn	11 30 42.0	+0.6
VLI	Veliai	1.81	115	ePN	Pn	11 30 45.1	+2.5
VLI	Veliai	1.81	115	ePn	Pn	11 30 45.1	+2.5
DID	Didima	1.86	89	P	Pn	11 30 43.7	+0.4
DID	Didima	1.86	89	ePB	Pb	11 30 44.0	-1.1
DID	Didima	1.86	89	P	Pn	11 30 43.7	+0.4
AGG	Agios Georgios	1.89	36	P	Pn	11 30 43.2	-0.5
AGG				S	Sn	11 31 08.8	+0.7
AGG	Agios Georgios	1.89	36	ePN	Pn	11 30 45.0	+1.3
AGG	Agios Georgios	1.89	36	P	Pn	11 30 43.2	-0.5
AGG	Agios Georgios	1.89	36	ePn	Pn	11 30 45.0	+1.3
AGG				S	Sn	11 31 08.8	+0.7
LKR	Lokris	2.02	55	P	Pn	11 30 45.9	+0.5
LKR				S	Sn	11 31 10.9	-0.3
LKR	Lokris	2.02	55	ePN	Pn	11 30 46.1	+0.7
LKR	Lokris	2.02	55	ePn	Pn	11 30 46.1	+0.7
LKR				S	Sn	11 31 10.9	-0.3
NAIG	Nisos Aigina	2.08	82	ePB	Pb	11 30 46.7	-2.0
KYTH	Kithira	2.11	125	ePN	Pn	11 30 49.3	+2.7
KYTH	Kithira	2.11	125	ePn	Pn	11 30 49.3	+2.7
JAN	Janina	2.15	359	ePN	Pn	11 30 47.8	+0.6
JAN	Janina	2.15	359	ePn	Pn	11 30 47.8	+0.6
THL	Klokotos Trika	2.24	23	P	Pn	11 30 49.1	+0.7
THL	Klokotos Trika	2.24	23	ePN	Pn	11 30 49.0	+0.6
THL	Klokotos Trika	2.24	23	ePn	Pn	11 30 49.0	+0.6
MEV	Metsovon	2.29	6	P	Pn	11 30 50.1	+0.9
MEV	Metsovon	2.29	6	P	Pn	11 30 50.1	+0.9
VLY	Voula,Athens	2.33	80	ePN	Pn	11 30 49.9	+0.2
VLY	Voula,Athens	2.33	80	ePn	Pn	11 30 49.9	+0.2
KEK	Kerkira	2.37	339	ePN	Pn	11 30 50.4	+0.2
KEK	Kerkira	2.37	339	ePn	Pn	11 30 50.4	+0.2
XOR	Xorichti	2.59	43	P	Pn	11 30 53.2	-0.1
XOR	Xorichti	2.59	43	P	Pn	11 30 53.2	-0.1
LIT	Litokhoron	2.88	25	P	Pn	11 30 56.7	-0.5
LIT	Litokhoron	2.88	25	ePN	Pn	11 30 56.8	-0.4
LIT	Litokhoron	2.88	25	ePn	Pn	11 30 56.8	-0.4
BIA	Bitola	3.53	5	ePn	Pn	11 31 05.0	-1.1
BIA	Bitola	3.53	5	ePn	Pn	11 31 05.0	-1.2
SOH	Sokhos	3.83	29	ePN	Pn	11 31 09.9	-0.4
SOH	Sokhos	3.83	29	ePn	Pn	11 31 09.9	-0.4
KRUS	Krusevo	3.87	4	ePn	Pn	11 31 09.6	-1.3
KRUS	Krusevo	3.87	4	ePn	Pn	11 31 09.5	-1.4
SG1	Sgolgore (BA)	4.67	317	ePn	Pn	11 31 19.2	-2.7
CUC	Castrocucco	4.68	304	ePn	Pn	11 31 22.8	+0.8
CUC				eSn	Sn	11 32 18.1	+1.2
CUC	Castrocucco	4.68	304	ePn	Pn	11 31 22.8	+0.8
CUC				eSn	Sn	11 32 18.1	+1.2

NNC ***27*** *11:42:10.8±0.5, 42°.20N×76°.10E, h0km, mb3.0, mpv2.8, Error ellipse: s-maj=3.5km s-min=1.7km az=9.0*

KNET ***27*** *11:42:10.5±0.3, 42°.23N×76°.07E, h2km±7km, ml2.4, Error ellipse: s-maj=5.3km s-min=1.8km az=179.0*

ISCJB ***27*** *11:42:11.1±0.9, 42°.17N±0°.06×76°.13E±0°.04, h10km, Error ellipse: s-maj=8.7km s-min=4.1km az=162.2*

ISC 27 11:42:11.1±0.9**, 42°.18N**±0°.05×**76°.13E**±0°.04**, h10**km**, n14, σ0s.89**/23**, 14C-9D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULHL	Ulahol	0.10	53	⇑P	Pg	11 42 13.1	-0.7
	665nm,0.1s,SNR=5374						
ULHL				⇑S	Sg	11 42 15.1	-0.5
	4µm,0.2s						
KZA	Kyzart	0.66	261	⇑P	Pg	11 42 23.5	-0.4
	18nm,0.1s,SNR=26						
KZA				⇑S	Sg	11 42 32.8	+0.2
	80nm,0.1s						
TKM2	Tokmak 2	0.83	332	⇑P	Pg	11 42 26.5	-0.7
	1.5nm,0.1s						
TKM2				⇓S	Sg	11 42 37.9	-0.3
	60nm,0.4s						
TKM2	Tokmak 2	0.83	332	P	Pg	11 42 26.5	-0.7
	24nm,0.1s,SNR=36						
KBK	Karagaybulak	0.99	299	⇑P	Pg	11 42 29.6	-0.7
	18nm,0.1s,SNR=70						
KBK				⇓S	Sg	11 42 43.3	+0.1
	87nm,0.2s						
KNDC	Almaty	1.20	31	⇓P	Pb	11 42 33.5	-0.4
	7.8nm,0.1s						
KNDC				⇓S	Sb	11 42 50.1	+0.5
	50nm,0.3s						
UCH	Uchtor	1.20	273	⇑P	Pb	11 42 33.0	-1.0
	7.1nm,0.2s,SNR=13						
UCH				⇑S	Sb	11 42 48.8	-0.8
	32nm,0.2s						
AAK	Ala-Archa	1.29	291	⇑P	Pn	11 42 34.5	-0.7
	12nm,0.2s,SNR=14						
AAK				⇓S	Sb	11 42 51.7	-0.5
	62nm,0.2s						
CHMS	Chumysh	1.30	309	⇓P	Pn	11 42 35.2	-0.2
	7.7nm,0.1s,SNR=16						
CHMS				⇑S	Sb	11 42 52.4	-0.1
	33nm,0.1s						
USP	Ospenovka	1.62	313	⇓P	Pn	11 42 40.5	+0.8
	17nm,0.2s,SNR=7.8						
USP				⇑S	Sn	11 43 02.0	+1.4
	47nm,0.2s						
EKS2	Erkin-Say	1.81	286	⇑P	Pn	11 42 44.3	+2.0
	12nm,0.2s,SNR=28						
AML	Almayashu	1.81	269	⇓P	Pn	11 42 44.2	+1.8
	9.4nm,0.1s,SNR=54						
KK31	Karatay Array	4.25	284	⇑Pg	Pg	11 43 27.7	-4.7
	0.4nm,0.3s,baz=95,slow=15,SNR=30						
KK31				⇑Lg		11 44 23.9	
	3.6nm,0.5s,baz=102,slow=28,SNR=4.7						
MK31	Makanchi Array	6.37	42	Pn	Pn	11 43 48.6	+3.6
	0.2nm,0.5s,baz=219,slow=15,SNR=11						
MK31				⇓Lg		11 45 27.3	
	0.4nm,0.5s,baz=217,slow=27,SNR=3.7						

IDC 27 11:50:56.9±1.7**, 7°.35N×89°.79E, h0**km**, mb3.4**/3**, mb1 3.7**/5**, mb1mx3.5**/25**, mbtmp3.6**/5**, ML4.0**/2**, MS3.3**/4**, Ms1 3.3**/4**, ms1mx3.0**/33**, 1D, Error ellipse: s-maj=37.8km s-min=32.1km az=49.0, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	5.77	108	⇓eP	Pn	11 52 27.0	+3.1
BSI				eS	Sn	11 53 31.0	+0.1
PALK	Pallekele	9.02	270	Pn	Pn	11 53 08.3	-0.2
	4.6nm,0.3s,baz=85,slow=14,SNR=16						
PALK				Sn	Sn	11 54 41.3	-10
	3.2nm,0.3s,baz=358,slow=19,SNR=5.2						
PALK				LR	LR	11 56 15.7	
	comp=Z,118nm,18.7s,baz=296,slow=35						
CMAR	Chiang Mai Arr	14.18	38	Pn	Pn	11 54 18.8	-0.4
	0.1nm,0.3s,baz=229,slow=14,SNR=6.9						
AAK	Ala-Archa	37.64	341	LR	LR	12 16 17.6	
	comp=Z,27nm,19.3s,baz=228,slow=40						
MKAR	Makanchi Array	39.82	352	P	P	11 58 31.9	+0.1
	0.3nm,0.6s,baz=168,slow=9.3,SNR=4.9						
MKAR				LR	LR	12 15 15.1	
	comp=Z,29nm,18.3s,baz=356,slow=37						
SONM	Songino Array	42.75	16	P	P	11 58 56.0	+0.1
	0.7nm,0.6s,baz=196,slow=8.7,SNR=3.4						
ASAR	Alice Springs	52.97	127	P	P	12 00 15.6	+0.1
	0.2nm,0.8s,baz=294,slow=6.8,SNR=3.8						
CTA	Charters Tower	61.86	117	LR	LR	12 33 47.2	
	comp=Z,89nm,18.6s,baz=226,slow=42						

UPP ***27*** *11:55:54.2, 68°.14N×33°.13E, h0km, ML1.5, Suspected Mining explosion.*

CSEM ***27*** *11:55:56.7±0.6, 68°.08N×32°.59E, h2km, ML1.5, Error ellipse: s-maj=13.5km s-min=10.5km az=91.0, Mining explosion.*

HEL 27 11:55:54.1±0.6**, 68°.08N×33°.05E, h0**km**, ML1.5, ML1.5**(UPP)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRF	Varrio	1.34	257	ePN	Pn	11 56 19.3	-0.8
	baz=82						
VRF				eSN	Sn	11 56 38.4	-0.2
VRF				MSG		11 56 38.4	
	comp=Z,6.8nm,0.4s						
VRF	Varrio	1.34	257	Pg	Pg	11 56 19.3	-0.5
KU6	Riekki	2.41	212	ePB	Pb	11 56 35.8	-2.4
	baz=27						
KU6				eSB	Sb	11 57 06.8	-1.6
KU6				MSG		11 57 06.8	
	comp=Z,1.4nm,0.4s						
KU6	Riekki	2.41	212	Pn	Pn	11 56 35.8	+1.1
SGF	Sodankyl	2.56	258	eP	Pn	11 56 37.4	+0.6
	baz=62						
SGF				eSG	Sg	11 57 13.4	-3.0
SGF				MSG		11 57 13.4	
	comp=Z,2.7nm,0.4s						
SGF	Sodankyl	2.56	258	Pn	Pn	11 56 37.4	+0.6
SGF				Sg	Sg	11 57 13.4	-3.0
MSF	Maaselka	2.69	218	eSG	Sg	11 57 16.2	-4.2
MSF				MSG		11 57 16.2	
	comp=Z,0.4nm,0.4s						
KEV	Kevo	2.76	310	eP	Pn	11 56 40.7	+1.3
KEV				eSB	Sb	11 57 15.9	-2.5
KEV				MSG		11 57 15.9	
	comp=Z,2.9nm,0.4s						
KEV	Kevo	2.76	310	Pn	Pn	11 56 40.7	+1.3
RNF	Rovaniemi	3.10	245	eP	Pn	11 56 45.9	+1.7
RNF	Rovaniemi	3.10	245	Pn	Pn	11 56 45.9	+1.7
HEF	Hetta	3.51	280	eP	Pn	11 56 49.2	-0.6
HEF	Hetta	3.51	280	Pn	Pn	11 56 49.2	-0.6
PAJU	Pajala	3.96	259	eP	Pn	11 56 56.1	+0.2
PAJU	Pajala	3.96	259	P	Pn	11 56 56.1	+0.2
LANU	Lannavaara	4.15	275	eP	Pn	11 56 58.3	-0.3
LANU	Lannavaara	4.15	275	P	Pn	11 56 58.3	-0.3
KALU	Kalix	4.41	244	eP	Pn	11 57 02.3	+0.1
KALU	Kalix	4.41	244	P	Pn	11 57 02.3	+0.1
ERTU	Ertsjaerv	4.48	255	eP	Pn	11 57 03.0	0.0
ERTU				eS	Sn	11 57 55.3	-0.4
ERTU	Ertsjaerv	4.48	255	P	Pn	11 57 03.0	-0.1
ERTU				S	Sn	11 57 55.3	-0.4
KUA	Kurravaara	4.78	274	eP	Pn	11 57 07.0	-0.3
DUNU	Dundret	4.87	264	eP	Pn	11 57 09.0	+0.5
DUNU	Dundret	4.87	264	P	Pn	11 57 09.0	+0.5
SJUU	Sjulsmark	5.21	246	eP	Pn	11 57 13.0	-0.2
SJUU	Sjulsmark	5.21	246	P	Pn	11 57 13.0	-0.1

ISCJB ***27*** *11:56:29.7±1.7, 37°.6N±0°.1×72°.2E±0°.2, h167km±29km, Error ellipse: s-maj=27.3km s-min=7.0km az=143.3*

NNC ***27*** *11:56:34.6±2.9, 38°.36N×71°.57E, h0km, mb3.8, mpv3.7, Error ellipse: s-maj=22.6km s-min=17.1km az=5.0*

ISC 27 11:56:29.7±2.0**, 37°.5N**±0°.1×**72°.2E**±0°.2**, h142**km±40km**, n18, σ0s.71**/22**, 5C-1D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	4.76	14	P	Pn	11 57 39.8	+0.1
	SNR=24						
UCH	Uchtor	5.04	20	P	Pn	11 57 43.7	+0.3
	SNR=17						
KZA	Kyzart	5.14	27	P	Pn	11 57 45.2	+0.5
	SNR=11						
EKS2	Erkin-Say	5.29	13	P	Pn	11 57 47.1	+0.4
	SNR=6.7						
AAK	Ala-Archa	5.42	19	P	Pn	11 57 48.9	+0.5
	SNR=14						
KK31	Karatay Array	5.72	348	⇑Pn	Pn	11 57 51.6	-0.9
	12nm,0.4s,baz=166,slow=12,SNR=290						
KK31				Sn	Sn	11 58 51.3	-5.9
	11nm,0.3s,baz=171,slow=23,SNR=18						
TKM2	Tokmak 2	6.01	25	⇑Pn	Pn	11 57 56.8	+0.5
	1.7nm,0.5s						
TKM2				⇑Sn	Sn	11 59 02.9	-1.1
	7.9nm,1.2s						
DANN	Dangsing	13.35	130	eP	Pn	11 59 33.2	-0.4
	13nm,0.5s						
KOLN	Koldanda	13.68	132	eP	Pn	11 59 38.3	+0.5
	5.9nm,0.4s						
GKN	Gorkha	14.14	129	eP	Pn	11 59 42.7	-0.9
	10nm,0.3s						
KKN	Kakani	14.69	128	eP	Pn	11 59 50.4	-0.2
AB09	Akbulak array	14.71	327	⇑Pn	Pn	11 59 49.5	-1.1
	1.2nm,0.5s,baz=131,slow=15						
AB09				⇑Sn	Sn	12 02 21.1	-12
	1.9nm,0.6s,baz=129,slow=25						
PKIN	Phulchoki	14.91	128	eP	Pn	11 59 52.4	-0.9
JIRN	Jiri	15.36	126	eP	Pn	11 59 58.6	-0.3
	8.0nm,0.3s						
RAMN	Ramite	16.11	127	eP	Pn	12 00 08.6	+0.4
	10nm,0.5s						
AKTO	Aktyubinsk	16.41	326	Pn	Pn	12 00 12.9	+1.4
	0.2nm,0.5s						
AKTO				⇓Sn	Sn	12 03 06.2	-8.0
	0.3nm,0.7s						
TAPN	Taplejung	16.57	123	eP	Pn	12 00 14.0	+0.3
	4.6nm,0.4s						
ODAN	Odare	16.68	125	eP	Pn	12 00 16.1	+1.0
	6.8nm,0.4s						

IDC ***27*** *12:13:58.6±0.8, 42°.03S×83°.68W, h0km, mb4.8/9, mb1 4.8/10, mb1mx4.7/14, mbtmp4.7/10, ML3.8/2, MS4.0/12, Ms1 4.0/12, ms1mx3.9/24, Error ellipse: s-maj=25.9km s-min=21.0km az=7.0*

MOS ***27*** *12:14:00.4±1.1, 41°.77S×83°.45W, h10km, mb5.1/16, Error ellipse: s-maj=17.8km s-min=14.6km az=97.2*

ISCJB ***27*** *12:14:01.2±0.3, 41°.76S±0°.06×83°.43W±0°.06, h10km, mb4.8/29, MS4.0/9, Error ellipse: s-maj=9.3km s-min=5.7km az=26.2*

NEIC ***27*** *12:14:01.7±0.3, 41°.80S×83°.57W, h10km, mb4.8/22, Error ellipse: s-maj=10.4km s-min=8.0km az=224.0*

BJI ***27*** *12:14:01.7, 41°.80S×83°.60W, h10km, mB5.3/5, Ms5.2/3, Ms7 4.8/4*

ISC 27 12:14:02.7±0.3**, 41°.80S**±0°.06×**83°.51W**±0°.06**, h10**km**, n315, σ0s.51**/261**, mb4.8**/29**, MS4.0**/9**, 101C-97D, West Chile Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COYC	Coyhaique	9.10	118	eP	Pn	12 16 18.2	+4.3
COYC	Coyhaique	9.10	118	eP	Pn	12 16 18.2	+4.3
PLCA	Paso Flores	9.81	88	Pn	Pn	12 16 25.1	+1.3
	0.4nm,0.3s,baz=271,slow=8.3,SNR=10						
PLCA				Sn	Sn	12 18 16.1	+2.2
	baz=41,slow=19,SNR=1.9						
PLCA				LR	LR	12 19 25.8	
	comp=Z,1µm,19.6s,baz=187,slow=33						
TLL	Tololo Astrono	15.48	45	eP	Pn	12 17 40.4	-0.6
CFAA	Coronel Fontan	15.90	55	Pn	Pn	12 17 45.5	-0.9
	0.1nm,0.3s,baz=230,slow=11,SNR=8.2						
CFAA				LR	LR	12 22 45.7	
	comp=Z,104nm,18.5s,baz=206,slow=33						
USHA	Ushuaia	16.40	148	Pn	Pn	12 17 53.0	+0.3
	0.2nm,0.3s,baz=278,slow=11,SNR=6.0						
USHA				LR	LR	12 23 47.0	
	comp=Z,464nm,18.0s,baz=276,slow=36						
LCO	Las Campanas	16.46	43	eP	Pn	12 17 57.8	+4.1
	67nm,1.2s						
EFI	East Falkland	19.95	128	eP	Pn	12 18 35.3	-0.9
EFI				pmax	pmax		
	comp=Z,47nm,0.9s						
EFI	East Falkland	19.95	128	eP	Pn	12 18 35.3	-0.9
	comp=Z,47nm,0.9s						
LVC	Limon Verde	22.71	37	P	P	12 19 04.5	0.0
	comp=Z,21nm,1.1s,mb4.5,baz=206,slow=10,SNR=13						
LVC				LR	LR	12 25 32.7	
	comp=Z,425nm,21.9s,MS3.8,baz=205,slow=30						
LVC	Limon Verde	22.71	37	eP	P	12 19 06.0	+1.5
	comp=Z,92nm,1.4s,mb5.0						
RPN	Rapa Nui	25.71	296	LR	LR	12 26 40.8	
	comp=Z,280nm,19.4s,MS3.8,baz=313,slow=30						
CPUP	Villa Florida	26.47	63	P	P	12 19 39.1	-0.8
CPUP				pmax	pmax		
	comp=Z,16nm,0.9s						
CPUP				MLR	MLR		
	comp=Z,628nm,18.7s						
CPUP	Villa Florida	26.47	63	P	P	12 19 39.1	-0.8
	comp=Z,16nm,0.9s,mb4.5,baz=230,slow=8.9,SNR=20						
CPUP				LR	LR	12 29 48.3	
	comp=Z,628nm,18.7s,MS4.2,baz=202,slow=36						
NNA	Nana	30.26	13	eP	P	12 20 12.8	-1.0
	comp=Z,9.8nm,0.7s,mb4.7						
ATAH	Atahualpa	34.95	9	P	P	12 20 54.5	-0.3
	comp=Z,18nm,0.8s,mb5.0,baz=103,slow=12,SNR=8.5						
OTAV	Otavalo	42.09	8	eP	P	12 21 55.1	+0.2
	comp=Z,3.5nm,0.5s,mb4.2						
VNA3	Neumayer Olymp	45.92	154	eP	P	12 22 25.0	0.0
RKT	Rikitea	46.52	277	eLR	LR	12 35 31.6	
	comp=Z,261nm,25.5s						
RKT				eT		13 11 49.4	
	comp=Z,1.8nm,0.2s						
VNA2	Neumayer--Watz	46.68	154	eP	P	12 22 31.2	+0.3
ROSC	El Rosal	47.18	13	P	P	12 22 35.8	+0.3
	comp=Z,6.9nm,0.4s,mb4.9,baz=274,slow=23,SNR=7.0						
ROSC				LR	LR	12 41 21.8	
	comp=Z,154nm,18.4s,MS4.0,baz=221,slow=35						
QSPA	South Pole Qui	48.44	180	P	P	12 22 44.4	-0.1
	comp=Z,3.5nm,0.9s,mb4.4,baz=150,slow=3.9,SNR=8.3						
QSPA				PcP	PcP	12 24 08.2	-2.4
	comp=Z,3.1nm,1.0s,baz=314,slow=2.3,SNR=7.2						
QSPA	South Pole Qui	48.44	180	eP	P	12 22 44.6	+0.1
	comp=Z,7.7nm,1.1s,mb4.7						
SDV	Santo Domingo	51.80	16	eP	P	12 23 08.9	-1.7
	comp=Z,14nm,0.9s,mb4.9						
JTS	JuntasAbangare	51.85	358	eP	P	12 23 10.5	-0.5
JTS				pmax	pmax		
	comp=Z,5.0nm,0.9s						
JTS	JuntasAbangare	51.85	358	eP	P	12 23 10.5	-0.6
	comp=Z,4.7nm,0.9s,mb4.4						
VNDA	Vanda	54.53	194	LR	LR	12 43 22.4	
	comp=Z,206nm,19.6s,MS4.2,baz=103,slow=32						
RCBR	Riachuelo	55.35	63	eP	P	12 23 37.2	+0.3
	comp=Z,11nm,1.2s,mb4.8						
TGUH	Tegucigalpa,Un	55.68	356	eP	P	12 23 37.1	-2.0
	comp=Z,15nm,0.5s,mb5.3						
TAOE	Nuku Hiva Isla	59.48	287	eLR	LR	12 41 32.7	
	comp=Z,148nm,23.4s						
PPT	Papeete	60.76	272	eLR	LR	12 42 06.6	
	comp=Z,153nm,26.2s						
PPT	Papeete	60.76	272	LR	LR	12 44 54.6	
	comp=Z,86nm,20.2s,MS3.9,baz=106,slow=31						
TXAR	Lajitas Array	73.19	342	P	P	12 25 32.4	-1.0
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
TXAR	Lajitas Array	73.19	342	P	P	12 25 32.4	-1.0
	comp=Z,3.2nm,0.9s,mb4.3,baz=161,slow=7.6,SNR=27						
TXAR	Lajitas Array	73.19	342	P	P	12 25 32.4	-1.0
320A	Kipp Ranch, An	76.34	338	⇓P	P	12 25 51.5	-0.2
	baz=77						
319A	Douglas	76.59	338	⇓P	P	12 25 53.0	-0.1
	baz=77						
222A	Williams Famil	76.68	340	⇑P	P	12 25 53.8	+0.2
	baz=77						
220A	Playas Peak, P	76.88	338	⇓P	P	12 25 54.5	-0.2
	baz=77						
121A	Cookes Peak, D	77.27	339	⇓P	P	12 25 57.1	+0.2
	baz=78						
120A	U Bar Ranch, L	77.51	338	⇑P	P	12 25 58.3	+0.1
	baz=78						
119A	Ashpeak Ranch,	77.90	338	⇓P	P	12 26 00.7	+0.3
	baz=78						
118A	Homack Ranch,	77.97	337	⇑P	P	12 26 00.3	-0.5
	baz=78						
Z20A	Nine Sixteen R	78.03	339	⇑P	P	12 26 01.1	0.0
	baz=78						
117A	Oracle	78.14	337	⇓P	P	12 26 01.6	-0.1
	baz=78						
214A	Organ Pipe Nat	78.20	335	⇓P	P	12 26 02.2	+0.2
	baz=78						
LPM	Los Pinos Moun	78.66	341	eP	P	12 26 04.0	-0.5
115A	Sonoran Desert	78.70	336	⇑P	P	12 26 04.8	0.0
	baz=79						
LAZ	Ladron	78.87	340	eP	P	12 26 05.7	0.0
	comp=Z,5.9nm,1.4s,mb4.3						
X22A	Bernardo	78.94	340	⇓P	P	12 26 06.5	+0.4
	baz=79						
114A	Black Gap (USA	78.96	335	⇓P	P	12 26 06.4	+0.2
	baz=79						
Y19A	Nutrioso	79.01	338	⇑P	P	12 26 07.1	+0.6
	baz=79						
Y17A	Roosevelt	79.22	337	⇑P	P	12 26 07.8	+0.2
	baz=80						
ANMO	Albuquerque	79.23	341	eP	P	12 26 07.5	-0.1
ANMO				pmax	pmax		
	comp=Z,17nm,1.0s						
ANMO	Albuquerque	79.23	341	eP	P	12 26 07.5	-0.1
	comp=Z,17nm,1.0s,mb4.9						
Y16A	Circle Bar Ran	79.57	337	⇑P	P	12 26 09.8	+0.3
	baz=80						
AFI	Afiamalu	79.60	261	LR	LR	12 54 29.4	
	comp=Z,110nm,21.1s,MS4.2,baz=131,slow=31						
Z13A	Yuma Proving G	79.62	335	⇓P	P	12 26 09.9	0.0
	baz=80						
W21A	San Fidel	79.68	340	⇑P	P	12 26 10.5	+0.4
	baz=80						
X18A	Snowflake	79.74	338	⇑P	P	12 26 11.0	+0.6
	baz=80						
CCM	Cathedral Cave	79.79	354	eP	P	12 26 07.6	-3.0
CCM				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
CCM	Cathedral Cave	79.79	354	eP	P	12 26 07.6	-3.0
	comp=Z,7.3nm,0.7s,mb4.7						
X17A	Forest Lakes	79.81	337	⇑P	P	12 26 11.3	+0.5
	baz=80						
Y15A	Casa Rosa Ranc	79.90	336	⇑P	P	12 26 11.7	+0.4
	baz=80						
W20A	Ramah	79.91	339	⇑P	P	12 26 11.5	+0.1
	baz=80						
X16A	Lo Mia Camp, P	80.06	337	⇑P	P	12 26 12.6	+0.4
	baz=80						
SWSC	Sam W. Stewart	80.09	333	⇓P	P	12 26 12.5	+0.1
	baz=80						
Y14A	Wickenburg	80.09	335	⇑P	P	12 26 12.3	0.0
	baz=80						
X15A	Humboldt	80.37	336	⇑P	P	12 26 14.0	+0.1
	baz=81						
Y12C	Blythe	80.40	334	⇓P	P	12 26 14.5	+0.4
	baz=81						
BC3	Big Chuckw Mtn	80.62	333	⇑P	P	12 26 15.6	+0.4
	baz=81						
W16A	Flagstaff	80.72	337	⇓P	P	12 26 16.4	+0.6
	baz=81						
V18A	Ganado	80.85	338	⇓P	P	12 26 17.0	+0.6
	baz=81						
PFO	Pinyon Flat Ob	80.92	333	i P	P	12 26 18.2	+1.4
PFO	Pinyon Flat Ob	80.92	333	⇑P	P	12 26 17.2	+0.3
	baz=81						
X13A	Yucca	80.96	335	⇓P	P	12 26 16.9	-0.1
	baz=81,SNR=7.5						
IRM	Iron Mountain	80.98	334	⇓P	P	12 26 17.5	+0.4
	baz=81						
W15A	Williams	81.02	336	⇑P	P	12 26 17.8	+0.5
	baz=81						
BELC	Belle Mtn.	81.12	333	⇓P	P	12 26 18.4	+0.5
	baz=81						
MURC	Murrieta	81.17	332	⇑P	P	12 26 18.3	+0.2
	baz=82						
W14A	Seligman	81.30	336	⇓P	P	12 26 19.1	+0.3
	baz=82						
T22A	Edith	81.30	341	⇓P	P	12 26 19.2	+0.5
	baz=82,SNR=9.1						
W13A	Hualapai Mount	81.44	335	⇑P	P	12 26 19.9	+0.3
	baz=82						
U18A	Rough Rock, Ch	81.50	339	⇓P	P	12 26 20.1	+0.2
	baz=82						
U16A	Tuba City	81.58	338	⇓P	P	12 26 20.2	-0.1
	baz=82,SNR=5.4						
V15A	Kaibab Nationa	81.58	337	⇑P	P	12 26 20.6	+0.3
	baz=82						
T19A	Beclabito	81.66	340	⇓P	P	12 26 20.1	-0.6
	baz=82,SNR=6.4						

V14A	Boquillas Ranc	81.69	336	⇑P	P	12 26 20.7	-0.1
	baz=82,SNR=5.5						
GMRC	Granite Mounta	81.72	334	⇑P	P	12 26 20.8	-0.2
	baz=82,SNR=5.1						
MVCO	Mesa Verde	81.88	340	⇓P	P	12 26 22.0	+0.2
	baz=82						
MVCO	Mesa Verde	81.88	340	*e*P	P	12 26 21.9	0.0
U17A	Shonto	81.88	338	⇑P	P	12 26 22.1	+0.2
	baz=82						
BFSC	Mount Baldy St	81.91	332	⇓P	P	12 26 22.1	+0.1
	baz=82						
V13A	Grand Canyon W	82.16	335	⇑P	P	12 26 23.8	+0.5
	baz=82						
T18A	Mexican Hat	82.17	339	⇑P	P	12 26 23.2	-0.1
	baz=82,SNR=5.7						
T17A	Navajo Res., N	82.29	338	⇓P	P	12 26 24.2	+0.2
	baz=83,SNR=5.2						
V12A	Nelson	82.32	335	⇑P	P	12 26 24.2	+0.1
	baz=83						
TUQ	Turquoise Moun	82.41	334	⇑P	P	12 26 24.4	-0.2
	baz=83,SNR=7.0						
R22A	Saguache, Gunn	82.42	342	⇓P	P	12 26 25.4	+0.7
	baz=83						
U14A	Mt Trumbull	82.44	336	⇑P	P	12 26 24.8	0.0
	baz=83,SNR=6.3						
T16A	Glen Canyon Da	82.48	338	⇓P	P	12 26 25.4	+0.4
	baz=83						
S19A	Harvey Farm, M	82.55	340	⇑P	P	12 26 25.4	0.0
	baz=83,SNR=14						
GSC	Goldstone	82.58	333	*e*P	P	12 26 25.2	-0.3
GSC				pmax	pmax		
	comp=Z,14nm,0.3s,mb5.5						
GSC	Goldstone	82.58	333	*e*P	P	12 26 25.2	-0.4
	comp=Z,14nm,0.3s,mb5.5						
U13A	Pakoon Wash	82.68	336	⇑P	P	12 26 26.6	+0.6
	baz=83						
S18A	Hurst Farm, Bl	82.72	339	⇓P	P	12 26 26.0	-0.3
	baz=83,SNR=18						
T15A	Red Dirt Ranch	82.76	337	⇑P	P	12 26 27.0	+0.5
	baz=83						
PV01	Paradox Valley	82.77	340	*e*P	P	12 26 26.1	-0.3
	comp=Z,761nm,1.0s						
R20A	Redvale	82.78	340	⇓P	P	12 26 26.5	0.0
	baz=83,SNR=6.1						
U12A	Valley of Fire	82.87	335	⇓P	P	12 26 26.9	-0.2
	baz=83						
S17A	Black Ridge (B	82.89	338	⇑P	P	12 26 27.3	+0.2
	baz=83						
SHOC	Shoshone	82.95	334	⇑P	P	12 26 27.4	0.0
	baz=83						
T14A	Hurricane	83.01	337	⇓P	P	12 26 27.5	-0.2
	baz=83						
LRMC	Laurel Mountai	83.04	332	⇑P	P	12 26 28.0	+0.1
	baz=83						
R19A	Curley Farm, L	83.10	340	⇑P	P	12 26 27.7	-0.5
	baz=83,SNR=7.2						
PV04	Paradox Valley	83.10	340	*e*P	P	12 26 27.9	-0.3
SHPR	Sheep Range	83.14	335	*e*P	P	12 26 28.8	+0.4
Q21A	Lamborn Mesa,	83.19	341	⇑P	P	12 26 28.8	+0.2
	baz=84						
T13A	Saint George	83.22	336	⇑P	P	12 26 29.4	+0.6
	baz=84						
R18A	Canyonlands Na	83.35	339	⇓P	P	12 26 29.5	0.0
	baz=84						
S15A	Panguitch	83.37	337	⇑P	P	12 26 29.5	-0.1
	baz=84						
U10A	Ash Meadows, A	83.44	334	⇓P	P	12 26 29.8	-0.1
	baz=84						
ISA	Isabella	83.48	332	*e*P	P	12 26 30.7	+0.5
ISA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ISA	Isabella	83.48	332	⇑P	P	12 26 30.4	+0.2
	baz=84,SNR=7.1						
ISA	Isabella	83.48	332	*e*P	P	12 26 30.7	+0.5
	comp=Z,9.2nm,1.0s,mb4.8						
MPMC	Manual Prospec	83.50	333	⇓P	P	12 26 30.1	-0.2
	baz=84,SNR=5.3						
R17A	Hanksville Air	83.60	339	⇓P	P	12 26 30.0	-0.8
	baz=84,SNR=9.0						
FURC	Furnace Creek,	83.66	334	⇓P	P	12 26 31.2	+0.1
	baz=84,SNR=6.6						
S14A	Cedar City	83.68	337	⇑P	P	12 26 31.6	+0.4
	baz=84,SNR=6.5						
R16A	Teasdale	83.69	338	⇑P	P	12 26 31.3	+0.1
	baz=84						
S13A	Holt Ranch, En	83.72	336	⇓P	P	12 26 31.4	0.0
	baz=84,SNR=5.4						
Q19A	Hogan Spring (	83.72	340	⇑P	P	12 26 31.5	+0.1
	baz=84						
T11A	Corn Creek, Al	83.83	335	⇑P	P	12 26 32.0	+0.1
	baz=84,SNR=7.8						
R15A	Junction	83.84	338	⇓P	P	12 26 32.0	0.0
	baz=84						
VES	Vestal, Richgr	83.86	332	⇑P	P	12 26 32.4	+0.3
	baz=84						
BOSA	Boshof	83.98	123	P	P	12 26 31.6	-1.6
BOSA				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.2						
BOSA	Boshof	83.98	123	P	P	12 26 31.6	-1.6
	comp=Z,17nm,0.9s,mb5.2,baz=220,slow=5.0,SNR=17						
P20A	De Beque	84.02	341	⇑P	P	12 26 32.9	0.0
	baz=84,SNR=5.5						
S12A	Delamar Landin	84.05	335	⇓P	P	12 26 33.3	+0.2
	baz=84						
Q18A	Rafter H Ranch	84.09	339	⇑P	P	12 26 33.1	-0.1
	baz=84						
Q16A	Castle Valley	84.19	339	⇓P	P	12 26 33.8	+0.1
	baz=84,SNR=5.7						
SRU	San Rafael	84.20	339	*e*P	P	12 26 33.7	-0.1
SRU				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.6						
SRU	San Rafael	84.20	339	⇑P	P	12 26 33.1	-0.6
	baz=84,SNR=5.8						
SRU	San Rafael	84.20	339	*e*P	P	12 26 33.7	-0.1
	comp=Z,6.5nm,1.1s,mb4.7						
P19A	Cripple Cowboy	84.29	340	⇓P	P	12 26 33.8	-0.5
	baz=85,SNR=7.2						
R13A	O’Grain Ranch,	84.31	336	⇑P	P	12 26 34.1	-0.3
	baz=85						
GRAC	Grapevine Rang	84.31	333	⇑P	P	12 26 34.6	+0.2
	baz=85,SNR=5.8						
S11A	Rachel	84.36	335	⇓P	P	12 26 34.5	-0.2
	baz=85						
TMUT	Trail Mountain	84.56	339	*e*P	P	12 26 36.2	+0.6
	comp=Z,12nm,1.2s,mb4.9						
O20A	White River Ci	84.59	341	⇓P	P	12 26 35.3	-0.4
	baz=85						
P17A	Butcher Ranch,	84.60	339	⇓P	P	12 26 35.5	-0.3
	baz=85						
Q15A	Fillmore	84.60	338	⇓P	P	12 26 35.9	0.0
	baz=85						
P18A	Preston Nutter	84.61	340	⇓P	P	12 26 35.6	-0.3
	baz=85						
R12A	Pony Springs,	84.64	336	⇓P	P	12 26 36.5	+0.5
	baz=85						
N22A	Wattenberg Ran	84.81	343	⇑P	P	12 26 37.2	+0.4
	baz=85						
Q14A	Sevier Lake (B	84.85	337	⇑P	P	12 26 37.5	+0.4
	baz=85						
S10A	Tonopah Range,	84.89	334	⇓P	P	12 26 37.3	0.0
	baz=85						
S09A	Goldfield	84.92	334	⇓P	P	12 26 37.3	-0.1
	baz=85,SNR=11						
R11A	Troy Canyon, C	84.96	335	⇓P	P	12 26 38.1	+0.4
	baz=85						
Q13A	Wheeler Ranch,	85.04	337	⇑P	P	12 26 38.5	+0.5
	baz=85						
R10A	Warm Springs	85.13	335	⇑P	P	12 26 39.3	+0.8
	baz=85						
O18A	Roosevelt	85.15	340	⇓P	P	12 26 38.8	+0.3
	baz=86,SNR=6.2						
N20A	Spence Gulch,	85.25	341	⇓P	P	12 26 39.3	+0.2
	baz=86						
R09A	Tonopah	85.33	334	⇑P	P	12 26 39.3	-0.2
	baz=86,SNR=7.9						
MPU	Maple Canyon	85.34	339	*e*P	P	12 26 38.9	-0.6
	comp=Z,10nm,1.2s,mb4.8						
NLU	North Lily Min	85.41	338	*e*P	P	12 26 40.0	+0.2
	comp=Z,8.3nm,1.1s,mb4.8						
Q11A	Duckwater	85.44	335	⇓P	P	12 26 40.5	+0.4
	baz=86						
N19A	John Jarvie Ra	85.53	341	⇓P	P	12 26 40.1	-0.3
	baz=86						
M21A	Separation Pea	85.78	342	⇑P	P	12 26 42.1	+0.5
	baz=86						
DUG	Dugway	85.84	338	⇓P	P	12 26 42.3	+0.3
	baz=86						
ECSD	EROS Data Cent	85.96	351	*e*P	P	12 26 38.9	-3.6
N17A	Moffit Pass	86.00	340	⇓P	P	12 26 42.9	+0.1
	baz=86						
DBIC	Dimbokro	86.01	77	P	P	12 26 42.3	-1.3
	comp=Z,11nm,0.9s,mb5.1,baz=198,slow=4.6,SNR=14						
DBIC				LR	LR	12 59 12.0	
	comp=Z,69nm,18.7s,MS4.1,baz=207,slow=32						
L21A	Rawlins	86.12	342	⇑P	P	12 26 42.8	-0.5
	baz=86						
Q08A	Gabbs	86.18	334	⇓P	P	12 26 43.8	+0.1
	baz=86						
M17A	Scullys Gap (B	86.45	340	⇑P	P	12 26 44.5	-0.5
	baz=87						
O12A	Currie	86.46	337	⇓P	P	12 26 45.2	+0.1
	baz=87						
M16A	Huntsville	86.56	339	⇑P	P	12 26 45.7	+0.2
	baz=87						
O11A	Cowboy Ranch,	86.61	336	⇑P	P	12 26 45.9	+0.1
	baz=87						
L19A	Farson	86.72	341	⇑P	P	12 26 46.4	+0.2
	baz=87						
M15A	Larsen Ranch,	86.92	339	⇓P	P	12 26 47.1	-0.2
	baz=87						
L17A	Cokeville	87.09	340	⇓P	P	12 26 48.2	+0.1
	baz=87						
O09A	Fish Creek Ran	87.13	335	⇑P	P	12 26 48.6	+0.3
	baz=87						
L16A	Fish Haven	87.16	340	⇓P	P	12 26 48.3	-0.2
	baz=88						
WCN	Washoe City	87.19	333	⇓P	P	12 26 48.5	-0.2
	baz=88						
M14A	Sheep Mountain	87.20	338	⇓P	P	12 26 48.4	-0.2
	baz=88						
K19A	Absolon Red Bu	87.28	342	⇑P	P	12 26 48.5	-0.5
	baz=88						
M13A	Montello	87.30	337	⇑P	P	12 26 49.0	-0.1
	baz=88						
K18A	Toltan Ranch,	87.39	341	⇑P	P	12 26 49.5	0.0
	baz=88						
BW06	Boulder Array	87.39	341	⇑P	P	12 26 49.3	-0.2
	baz=88						
PDAR	Pinedale Array	87.39	341	P	P	12 26 48.5	-1.0
	comp=Z,3.8nm,0.9s,mb4.6,baz=151,slow=4.3,SNR=23						
L15A	Malad City	87.40	339	⇓P	P	12 26 49.7	+0.1
	baz=88						
RSSD	Black Hills	87.50	345	*e*P	P	12 26 49.0	-1.0
RSSD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
RSSD	Black Hills	87.50	345	*e*P	P	12 26 49.0	-1.0
	comp=Z,5.3nm,0.8s,mb4.8						
L14A	Malta	87.66	338	⇓P	P	12 26 50.6	-0.2
	baz=88						
O07A	Toulon	87.67	334	⇑P	P	12 26 51.1	+0.2
	baz=88						
M11A	Holland Ranch,	87.84	336	⇑P	P	12 26 51.7	-0.1
	baz=88						
N09A	Rock Creek Ran	87.85	335	⇓P	P	12 26 51.6	-0.2
	baz=88						
BEKR	Beckwourth	87.91	332	⇑P	P	12 26 52.6	+0.5
	baz=88						
L13A	Double Diamond	87.91	338	⇓P	P	12 26 52.3	+0.2
	baz=88						
J18A	Kendall Valley	87.93	341	⇓P	P	12 26 51.8	-0.3
	baz=88						
K16A	Soda Springs	87.97	340	⇑P	P	12 26 53.0	+0.7
	baz=88						
N08A	GE Springer Mi	87.98	334	⇑P	P	12 26 52.5	+0.1
	baz=88						
K14A	Jones Ranch, D	88.12	339	⇑P	P	12 26 52.9	-0.1
	baz=88						
N07B	Gerlach	88.25	334	⇓P	P	12 26 53.5	-0.2
	baz=89						
L12A	House Creek Ra	88.27	337	⇓P	P	12 26 53.7	0.0
	baz=89						
I18A	Diamond G Ranc	88.34	341	⇓P	P	12 26 54.3	+0.2
	baz=89						
M09A	Marrel Ranch,	88.35	335	⇓P	P	12 26 54.1	0.0
	baz=89						
J16A	Bone	88.39	340	⇓P	P	12 26 54.5	+0.2
	baz=89						
TPAW	Teton Pass	88.42	340	*e*P	P	12 26 54.4	0.0
K13A	Stover Farm, H	88.47	338	⇑P	P	12 26 54.6	-0.1
	baz=89						
L11A	Cat Creek Ranc	88.51	337	⇓P	P	12 26 55.1	+0.2
	baz=89						
N06A	Buffalo Meadow	88.52	333	⇑P	P	12 26 54.6	-0.3
	baz=89						
L10A	Juniper Basin	88.64	336	⇑P	P	12 26 55.7	+0.2
	baz=89						
K12A	Draper Farm, C	88.69	337	⇑P	P	12 26 55.9	+0.2
	baz=89						
J15A	Blackfoot	88.72	339	⇓P	P	12 26 56.2	+0.4
	baz=89						
IMW	Indian Meadow	88.80	341	*e*P	P	12 26 55.8	-0.4
M07A	Soldier Meadow	88.87	334	⇑P	P	12 26 56.8	+0.2
	baz=89						
J14A	Carey	88.94	339	⇓P	P	12 26 57.1	+0.3
	baz=89						
K11A	Parker Ranch,	89.14	337	⇓P	P	12 26 57.8	0.0
	baz=90						
J13A	Cove Ranch, Pi	89.19	338	⇓P	P	12 26 58.2	+0.1
	baz=90						
I15A	Monteview	89.29	340	⇓P	P	12 26 58.6	+0.1
	baz=90						
J12A	Stokes Ranch,	89.31	337	⇑P	P	12 26 58.6	0.0
	baz=90						
L08A	Fields	89.32	335	⇑P	P	12 26 58.7	0.0
	baz=90						
K10A	MacKenzie Ranc	89.40	336	⇑P	P	12 26 58.7	-0.3
	baz=90						
HLID	Hailey	89.41	338	⇑P	P	12 26 59.2	+0.1
	baz=90						
HLID	Hailey	89.41	338	*e*P	P	12 26 58.9	-0.2
	comp=Z,6.2nm,0.9s,mb4.9						
DZM	Mont Dzumac	89.41	241	*e*LR	LR	12 55 18.3	
	comp=Z,176nm,25.4s						
I14A	Mackay	89.48	339	⇓P	P	12 26 59.7	+0.3
	baz=90						
L07A	Adell	89.49	334	⇑P	P	12 26 59.6	+0.1
	baz=90						
RLMT	Red Lodge	89.55	342	⇑P	P	12 26 59.9	+0.2
	baz=90						
K09A	Rome	89.59	336	⇓P	P	12 27 00.1	+0.2
	baz=90						
H16A	Russell Place,	89.63	341	⇓P	P	12 27 00.3	+0.2
	baz=90						
I13A	Wildhorse Cree	89.65	338	⇓P	P	12 27 00.2	0.0
	baz=90						
MFID	Camas Ranch	89.67	337	⇑P	P	12 27 00.3	0.0
	baz=90						
MOD	Modoc	89.70	333	*e*P	P	12 26 60.0	-0.5
G18A	Lazy EL Ranch,	89.80	342	⇓P	P	12 27 00.7	-0.2
	baz=90						
I12A	Atlanta	89.82	338	⇓P	P	12 27 00.9	-0.1
	baz=90						
K08A	Mann Creek Ran	89.86	335	⇑P	P	12 27 01.5	+0.3
	baz=90						
H15A	Lima	89.91	340	⇓P	P	12 27 01.8	+0.4
	baz=90						
K07A	Rock Creek Ran	90.06	334	⇑P	P	12 27 02.9	+0.7
	baz=90						
MCMT	McKenzie Canyo	90.16	340	*e*P	P	12 27 02.9	+0.4
	comp=Z,4.4nm,1.4s,mb4.6						
I11A	Placerville	90.17	337	⇑P	P	12 27 02.3	-0.3
	baz=90						
J09A	Fry Pan Ranch,	90.19	336	⇓P	P	12 27 03.4	+0.7
	baz=90						
G16A	Moss Hill, Enn	90.26	340	⇑P	P	12 27 03.5	+0.5
	baz=91						
H13A	Challis	90.29	339	⇓P	P	12 27 03.2	0.0
	baz=91						
G15A	Dillon	90.38	340	⇑P	P	12 27 03.5	0.0
	baz=91						
YBH	Yreka Blue Hor	90.38	332	*e*P	P	12 27 03.2	-0.5
F18A	Big Timber	90.39	342	⇓P	P	12 27 04.1	+0.5
	baz=91						
DLMT	Dillon	90.59	340	*e*P	P	12 27 04.6	+0.1
F17A	Fitzpatrick Pl	90.62	341	⇑P	P	12 27 03.8	-0.9
	baz=91						
G14A	Jackson	90.70	339	⇑P	P	12 27 05.2	+0.2
	baz=91						
G13A	Cobalt	90.77	339	⇑P	P	12 27 05.3	-0.1
	baz=91						
H11A	Donnelly	90.91	337	⇑P	P	12 27 06.0	0.0
	baz=91						
LRM	Limekiln Ridge	90.98	340	*e*P	P	12 27 06.6	+0.3
F15A	Butte	91.01	340	⇓P	P	12 27 06.1	-0.4
	baz=91						
H10A	Noah’s Angus R	91.01	337	⇑P	P	12 27 06.3	-0.3
	baz=91						
G12A	Big Creek, Yel	91.10	338	⇓P	P	12 27 06.8	-0.1
	baz=91						
E17A	Martinsdale	91.19	341	⇓P	P	12 27 07.1	-0.2
	baz=92						
F14A	Wisdom	91.20	340	⇓P	P	12 27 08.0	+0.6
	baz=92						
I06A	Prineville	91.50	334	⇑P	P	12 27 09.3	+0.5
	baz=92						
DGMT	Dagmar	91.72	346	⇓P	P	12 27 08.2	-1.6
	baz=92						
D17A	Six Diamond Ra	91.80	342	⇓P	P	12 27 09.9	-0.2
	baz=92						
E13A	Victor	92.00	339	⇑P	P	12 27 11.1	+0.1
	baz=92						
ULM	Lac du Bonnet	92.31	352	P	P	12 27 08.4	-4.0
	comp=Z,2.3nm,0.7s,mb4.6,baz=233,slow=2.2,SNR=3.5						
KIP	Kipapa	93.16	296	*c i*P	P	12 27 15.4	-1.6
D10A	Wagner Farm, O	93.41	338	⇓P	P	12 27 16.9	-0.6
	baz=94						
TORD	Torodi Ar. Bea	95.11	77	P	P	12 27 24.6	-1.6
	comp=Z,6.2nm,1.0s,mb5.0,baz=230,slow=4.1,SNR=21						
TORD				PP	PP	12 31 15.9	-0.1
	comp=Z,1.4nm,1.0s,baz=238,slow=5.1,SNR=4.0						
TORD				LR	LR	13 10 09.1	
	comp=Z,70nm,18.6s,MS4.2,baz=335,slow=35						
GERES	GERESS Array B	124.09	52	PKIKP	PKPdf	12 32 59.1	-1.5
GERES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GERES	GERESS Array B	124.09	52	PKP	PKPdf	12 32 59.1	-1.5
	comp=Z,3.3nm,0.9s,baz=222,slow=1.8,SNR=7.5						
NOA	NORSAR Array B	127.59	38	PKIKP	PKPdf	12 33 02.8	-4.1
NOA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
NOA	NORSAR Array B	127.59	38	PKP	PKPdf	12 33 02.8	-4.1
	comp=Z,4.8nm,1.0s,baz=253,slow=1.6,SNR=4.4						
BRTR	Keskin Array B	133.30	71	PKIKP	PKPdf	12 33 16.7	-1.7
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	Keskin Array B	133.30	71	PKP	PKPdf	12 33 16.7	-1.7
	comp=Z,2.1nm,0.9s						
AKASG	Malin Array Be	134.12	55	PKP	PKPdf	12 33 17.2	-2.4
	comp=Z,0.4nm,0.3s,baz=279,slow=2.4,SNR=3.5						
AKASG	Malin Array Be	134.12	55	PKP	PKPdf	12 33 17.2	-2.4
ARCES	ARCESS Array B	135.01	28	PKIKP	PKPdf	12 33 18.1	-2.6
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	135.01	28	PKP	PKPdf	12 33 18.1	-2.6
	comp=Z,2.9nm,0.9s,baz=325,slow=11,SNR=3.6						
MALT	Malatya	136.14	74	*e*PKIKP	PKPdf	12 33 23.0	-0.8
KIV	Kislovodsk	141.09	68	*e*PKIKP	PKPdf	12 33 30.1	-2.6
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KLMR	Klimovskoe	141.12	41	*e*PKHKP		12 33 23.5	
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
GNI	Garni	141.38	75	⇑*i*PKIKP	PKPdf	12 33 29.4	-3.9
GNI				pmax	pmax		
	comp=Z,22nm,2.5s						
SEY	Seymchan	141.47	323	⇑*i*PKIKP	PKPdf	12 33 31.7	-1.1
PRGR	Permogore	143.97	39	⇓*i*PKIKP	PKPdf	12 33 34.3	-2.9
PRGR				pmax	pmax		
	comp=Z,87nm,0.8s						
TIXI	Tiksi	146.08	342	*i* PKIKP	PKPdf	12 33 37.3	-3.3
TIXI				pmax	pmax		
	comp=Z,15nm,1.0s						
TIXI	Tiksi	146.08	342	*e*PKPdf	PKPdf	12 33 38.2	-2.4
ASAJ	Asahikawa	146.52	290	PKP2	PKPdf	12 33 41.8	-0.4
ASAJ				pmax	pmax		
	comp=Z,21nm,1.1s						
ASAJ	Asahikawa	146.52	290	PKPbc	PKPbc	12 33 41.8	-1.9
	comp=Z,20nm,1.1s,baz=111,slow=6.4,SNR=3.6						
YSS	Yuzh-Sakhalins	146.92	295	*e*PKP2	PKPdf	12 33 42.9	+0.1
YSS				pmax	pmax		
	comp=Z,23nm,1.3s						
MJAR	Matsushiro Arr	147.47	275	PKIKP	PKPdf	12 33 43.7	-0.3
MJAR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
MJAR	Matsushiro Arr	147.47	275	PKPbc	PKPdf	12 33 43.7	-0.4
	comp=Z,6.0nm,1.0s,baz=155,slow=2.5,SNR=5.9						
SOKR	Solikamsk	149.81	40	⇑*i*PKP2	PKPbc	12 33 50.5	-1.4
SOKR				pmax	pmax		
	comp=Z,40nm,1.1s						
ARU	Arti	151.61	46	PKIKP	PKPbc	12 33 54.5	-1.7
YAK	Yakutsk	151.72	327	*e*PKIKP	PKPdf	12 33 53.4	+3.5
YAK				*e*		12 34 02.8	
YAK				pmax	pmax		
	comp=Z,32nm,0.9s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK	Yakutsk	151.72	327	*e*PKPbc	PKPbc	12 33 54.0	-2.3
YAK				*e*PKPab	PKPab	12 34 03.7	-1.5
MDJ	Mudanjiang	155.80	288	PKP	PKPdf	12 33 55.5	-0.8
MDJ				PP	PP	12 37 59.0	-1.8
MDJ				AMB	AMB		
	comp=Z,140nm,5.1s						
CN2	Changchun	158.71	285	*e*PKP	PKPdf	12 34 01.3	+1.3
NJ2	Nanjing	159.70	249	*e*PKP	PKPdf	12 33 57.3	-4.3
GYA	Guiyang	162.56	212	*e*PKP	PKPdf	12 34 01.5	-3.3
GYA				PKS		12 37 35.5	
GYA				PP	PP	12 38 39.0	+2.4
GYA				SKS	SKSdf	12 41 05.3	-4.3
GYA				SKKS	SKKSac	12 45 23.8	-1.6
GYA				SS	SS	12 58 56.0	-2.4
GYA				AMB	AMB		
	comp=Z,110nm,8.4s						
GYA				LR	LR		
	comp=N,190nm,23.8s						
GYA				LR	LR		
	comp=E,130nm,21.0s						
GYA				LR	LR		
	comp=Z,150nm,22.3s						
KMI	Kunming	162.58	199	PKP	PKPdf	12 34 04.0	-0.9
KURK	Kurchatov	164.79	48	*e*PKIKP	PKPdf	12 34 04.2	-1.9
BJI	Beijing	165.02	270	PKP	PKPdf	12 34 05.5	-1.1
BJI				PP	PP	12 38 48.5	-2.1
BJI				SS	SS	12 59 23.5	-2.2
BJI				LR	LR		
	comp=N,330nm,15.8s						
BJI				LR	LR		
	comp=E,350nm,15.8s						
BJI				LR	LR		
	comp=Z,46nm,17.8s						
ZALV	Zalesovo Beam	165.56	29	PKIKP	PKPdf	12 34 02.7	-3.9
ZALV						12 35 03.2	
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ZALV	Zalesovo Beam	165.56	29	PKP	PKPdf	12 34 02.7	-3.9
	comp=Z,0.5nm,0.3s,baz=253,slow=1.5,SNR=5.9						
ZALV				PKPab	PKPab	12 35 03.2	-2.0
	comp=Z,0.5nm,0.3s,baz=352,slow=8.7,SNR=2.4						
CD2	Chengdu	167.66	211	PKP	PKPdf	12 34 08.8	-0.2
HHC	Hu-ho-hao-te	168.62	270	*e*PKP	PKPdf	12 34 06.5	-2.8
HHC				PKPab	PKPab	12 35 17.8	-1.6
HHC				PKS		12 37 39.3	
HHC				PP	PP	12 39 06.8	-2.4
HHC				SKS	SKSdf	12 41 06.0	-6.9
HHC				AMB	AMB		
	comp=Z,200nm,6.3s						
HHC				LR	LR		
	comp=N,200nm,18.8s						
HHC				LR	LR		
	comp=E,170nm,20.0s						
HHC				LR	LR		
	comp=Z,120nm,20.2s						
MKAR	Makanchi Array	168.66	59	PKIKP	PKPdf	12 34 05.2	-3.9
MKAR						12 39 08.0	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	Makanchi Array	168.66	59	PKP	PKPdf	12 34 05.2	-4.0
	comp=Z,0.7nm,0.9s,baz=260,slow=3.6,SNR=5.3						
MKAR				PKPab	PKPab	12 35 17.8	-1.6
	comp=Z,1.5nm,0.9s,baz=336,slow=2.7,SNR=5.9						
MKAR				PP	PP	12 39 08.0	-1.1
	comp=Z,1.1nm,0.9s,baz=318,slow=3.4,SNR=5.9						
TLY	Talaya	168.97	336	*e*PKP2	PKPab	12 35 19.7	-0.7
TLY				pmax	pmax		
	comp=Z,5.0nm,1.4s						

ZAK	Zakamensk	170.21	334	ePKP2	PKPab	12 35 25.5	-0.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s						
SONM	Songino Array	170.74	314	PKP2	PKPab	12 35 25.2	-3.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	170.74	314	PKPab	PKPab	12 35 25.2	-3.2
	comp=Z,0.6nm,0.7s,baz=101,slow=3.8,SNR=5.0						
LZH	Lanzhou	171.92	227	ePKP	PKPdf	12 34 05.0	-6.3
LZH				sPKP		12 34 10.0	
WMQ	Urumqi	173.22	70	ePKP	PKPdf	12 34 06.0	-5.6
GTA	Gaotai	176.53	228	ePKP	PKPdf	12 34 13.8	+1.1

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*IDC **27** 12:22:40.1±0.7, 3°.43N×128°.08E, h0^{km}, mb4.1/12, mb1 4.2/12, mb1mx4.1/22, mbtmp4.1/12, Error ellipse: s-maj=33.2km s-min=13.7km az=80.0*

*NEIC **27** 12:22:45.1±0.4, 3°.43N×128°.14E, h35^{km}, mb4.5/2, Error ellipse: s-maj=20.6km s-min=7.6km az=75.0*

*ISCJB **27** 12:22:51.8±1.3, 3°.43N±0°.06×127°.99E±0°.10, h118^{km}±13^{km}, mb4.0/15, Error ellipse: s-maj=17.6km s-min=8.3km az=154.2*

*DJA **27** 12:22:52, 3°.58N×127°.78E, h128^{km}, MLv4.6/4*

ISC 27 12:22:52.8±1.3**, 3°.42N**±0°.07×**128°.01E**±0°.10**, h109**^{km}±13^{km}**, n33, σ1^{s}.07**/36**, mb4.0**/15**, 1C, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGSI	Sangihe	2.49	276	P	Sn	12 24 01.1	-1.2
SGSI	Sangihe	2.49	276	P	Pn	12 23 31.1	-1.0
TNTI	Ternate	2.71	194	P	Pn	12 23 35.7	+0.8
TNTI	Ternate	2.71	194	P	Pn	12 23 35.6	+0.7
TNTI				S	Sn	12 24 09.5	+2.2
MNI	Manado	3.73	238	P	Pn	12 23 48.1	-0.4
MNI	Manado	3.73	238	P	Pn	12 23 48.2	-0.3
MNI				S	Sn	12 24 31.6	0.0
LBMI	Labuha	4.06	187	P	Pn	12 23 53.7	+0.7
LBMI	Labuha	4.06	187	P	Pn	12 23 53.5	+0.5
LBMI				S	Sn	12 24 48.1	+8.5
KMSI	Cibinong	4.92	235	P	Pn	12 24 05.2	+0.6
KMSI	Cibinong	4.92	235	P	Pn	12 24 04.9	+0.3
APSI	Ampana	7.68	236	P	Pn	12 24 45.0	+3.0
APSI				S	Sn	12 25 17.7	-50
APSI	Ampana	7.68	236	P	Pn	12 24 42.6	+0.6
	177nm,0.6s						
KDI	Kendari	9.09	216	⇑eP	Pn	12 24 59.6	-1.6
KDI	Kendari	9.09	216	P	Pn	12 24 59.6	-1.6
KDI	Kendari	9.09	216	P	Pn	12 24 59.4	-1.8
	34nm,0.6s						
FITZ	Fitzroy Crossi	21.51	186	P	P	12 27 31.0	-2.1
	2.1nm,0.8s,mb3.5,baz=27,slow=8.1,SNR=2.8						
WRAB	Tennant Creek	24.02	165	eP	P	12 27 57.1	-0.6
	7.3nm,0.6s,mb4.2						
WRAB	Tennant Creek	24.02	165	P	P	12 27 57.9	+0.1
WRA	Warramunga Arr	24.03	165	P	P	12 27 56.2	-1.7
	9.1nm,0.6s,mb4.2,baz=345,slow=10,SNR=112						
ASAR	Alice Springs	27.52	168	P	P	12 28 28.7	-0.6
	0.3nm,0.4s,mb3.1,baz=349,slow=7.3,SNR=12						
CMAR	Chiang Mai Arr	32.13	300	P	P	12 29 11.2	+1.1
	1.4nm,0.7s,mb3.8,baz=118,slow=7.5,SNR=7.9						
KSRS	Korea Array	33.87	360	P	P	12 29 24.2	-0.9
	1.5nm,0.9s,mb3.8,baz=178,slow=9.4,SNR=4.8						
MJAR	Matsushiro Arr	34.28	15	P	P	12 29 27.5	-1.1
	0.8nm,0.5s,mb3.8,baz=18,slow=20,SNR=4.9						
STKA	Stephens Creek	37.40	161	P	P	12 29 55.4	+0.1
	1.8nm,0.3s,mb4.4,baz=344,slow=8.9,SNR=6.2						
ASAJ	Asahikawa	42.53	16	P	P	12 30 38.2	+0.6
	2.4nm,0.4s,mb4.3,baz=254,slow=14,SNR=8.4						
GTA	Gaotai	44.03	328	eP	P	12 30 51.0	+1.3
GTA				pP	pP	12 30 55.0	-20
GTA				sP	sP	12 30 57.0	-30
GTA				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
SONM	Songino Array	48.01	340	P	P	12 31 20.8	0.0
	comp=Z,0.7nm,0.5s,mb3.7,baz=147,slow=8.6,SNR=3.1						
PETK	Petropavlovsk-	55.24	21	P	P	12 32 14.8	+0.3
	comp=Z,3.1nm,0.9s,mb4.3,baz=177,slow=3.9,SNR=5.6						
PETK	Petropavlovsk-	55.24	21	P	P	12 32 14.8	+0.3
MK31	Makanchi Array	58.54	325	eP	P	12 32 38.8	+0.8
MKAR	Makanchi Array	58.54	325	P	P	12 32 38.8	+0.8
	comp=Z,4.7nm,0.6s,mb4.7,baz=114,slow=8.2,SNR=93						
ZALV	Zalesovo Beam	61.45	333	P	P	12 32 56.9	-0.8
	comp=Z,0.6nm,0.4s,mb4.0,baz=134,slow=8.5,SNR=3.7						
AML	Almayashu	61.79	317	eP	P	12 33 01.7	+1.5
	comp=Z,6.3nm,1.2s,mb4.5						

IDC 27 12:26:17.1±3.2**, 5°.84S×146°.87E, h0**^{km}**, mb3.7**/3**, mb1 4.0**/5**, mb1mx3.7**/17**, mbtmp3.8**/5**, ML3.7**/2**, MS3.5**/2**, Ms1 3.5**/2**, ms1mx2.7**/30**, Error ellipse: s-maj=63.2km s-min=49.5km az=94.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	14.18	182	Pn	Pn	12 29 40.0	+0.8
	0.3nm,0.3s,baz=355,slow=13,SNR=1.8						
WRA	Warramunga Arr	18.57	220	P	Pn	12 30 35.1	-0.9
	0.2nm,0.3s,baz=38,slow=11,SNR=7.0						
ASAR	Alice Springs	21.68	214	P	P	12 31 09.7	+0.1
	0.7nm,0.4s,baz=51,slow=9.5,SNR=12						
FITZ	Fitzroy Crossi	24.05	238	P	P	12 31 33.8	-0.3
	3.2nm,0.7s,baz=60,slow=9.8,SNR=4.7						
STKA	Stephens Creek	26.37	190	P	P	12 31 55.0	0.0
	1.0nm,0.4s,baz=35,slow=11,SNR=2.7						
KAPI	Kappang	27.01	270	LR	LR	12 44 41.5	
	comp=Z,30nm,18.8s,baz=320,slow=41						
URZ	Urewera	42.35	144	LR	LR	12 50 12.8	
	comp=Z,154nm,18.4s,baz=301,slow=34						
TORD	Torodi Ar. Bea	144.93	285	PKP	PKPdf	12 45 57.4	+0.1
	0.7nm,0.7s,baz=90,slow=1.4,SNR=5.2						

IDC 27 12:38:22.2±1.7**, 43°.33N×134°.56E, h435**^{km}±27^{km}**, mb2.9**/4**, mb1 2.9**/6**, mb1mx2.7**/24**, mbtmp2.8**/6**, Error ellipse: s-maj=31.4km s-min=20.6km az=48.0, Primorye**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	Asahikawa	5.88	80	P	P	12 39 54.6	+0.1
	1.2nm,0.3s,baz=279,slow=13,SNR=9.4						
KSRS	Korea Array	7.75	223	P	P	12 40 15.1	+0.4
	0.3nm,0.3s,baz=41,slow=11,SNR=8.0						
SONM	Songino Array	20.17	293	P	P	12 42 26.7	+1.0
	0.8nm,0.5s,baz=101,slow=10.0,SNR=4.5						
ZALV	Zalesovo Beam	33.88	306	P	P	12 44 26.4	-0.1
	0.7nm,0.4s,baz=82,slow=10,SNR=2.9						
MKAR	Makanchi Array	36.53	294	P	P	12 44 48.4	-0.5
	0.2nm,0.5s,baz=73,slow=8.3,SNR=4.9						
WRA	Warramunga Arr	62.95	180	P	P	12 48 04.9	+0.1
	0.2nm,0.5s,baz=355,slow=6.9,SNR=4.8						

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*IDC **27** 12:40:32.5±3.0, 34°.28S×179°.10W, h0^{km}, mb3.9/3, mb1 4.2/4, mb1mx3.9/17, mbtmp4.0/4, ML4.1/1, Error ellipse: s-maj=68.0km s-min=35.9km az=120.0*

*NEIC **27** 12:40:41.2±1.9, 34°.45S×179°.66W, h35^{km}, mb3.9/1, Error ellipse: s-maj=39.8km s-min=13.3km az=93.0*

ISC 27 12:40:32.9±4.3**, 34°.4S**±0°.2×**178°.9W**±1°.0**, h12**^{km}±60^{km}**, n11, σ0^{s}.78**/12**, mb3.8**/4**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	4.39	211	P	Pn	12 41 39.9	+0.6
PUZ				S	Sn	12 42 30.3	-0.1
MWZ	Matawai	4.93	215	P	Pn	12 41 47.6	+0.8
URZ	Urewera	5.08	219	Pn	Pn	12 41 49.3	+0.4
	7.4nm,0.3s,baz=69,slow=1.6,SNR=37						
URZ				Sn	Sn	12 42 47.5	+0.1
	5.9nm,0.3s,baz=172,slow=20,SNR=7.0						
URZ	Urewera	5.08	219	P	Pn	12 41 50.0	+1.2
MRZ	Mangatainoka R	7.70	213	P	Pn	12 42 24.3	-0.4
RPZ	Rata Peaks	12.20	217	Pn	Pn	12 43 24.0	-2.4
	0.4nm,0.3s,baz=87,slow=17,SNR=4.0						
ASAR	Alice Springs	42.33	272	P	P	12 48 26.9	+0.1
	0.6nm,0.5s,mb3.5,baz=116,slow=8.2,SNR=24						
WRAB	Tennant Creek	43.67	277	eP	P	12 48 38.2	+0.5
	2.4nm,0.9s,mb3.9						
WRA	Warramunga Arr	43.67	277	P	P	12 48 37.3	-0.5
	0.7nm,0.5s,mb3.7,baz=118,slow=7.5,SNR=15						
FITZ	Fitzroy Crossi	51.74	273	P	P	12 49 40.3	-0.1
	3.7nm,1.0s,mb4.2,baz=101,slow=5.2,SNR=2.4						
FINES	FINESS Array B	148.54	337	PKPbc	PKPbc	13 00 19.4	+0.6
	1.4nm,0.5s,baz=68,slow=1.8,SNR=6.5						

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*CSEM **27** 12:55:00.5, 64°.17N×27°.80E, h0^{km}, ML1.2, Mining explosion. After HEL*

HEL 27 12:55:00.5±0.2**, 64°.17N×27°.80E, h0**^{km}**, ML1.2, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUF	Sumiainen	1.63	208	SG	Sg	12 55 51.3	-1.6
SUF				MSG		12 55 51.3	
	comp=Z,0.7nm,0.2s						
SUF	Sumiainen	1.63	208	PG	Pg	12 55 29.7	-2.1
SUF				SG	Sg	12 55 51.3	-1.6
SUF				MSG		12 55 51.3	
	comp=Z,0.7nm,0.2s						
SUF	Sumiainen	1.63	208	Sg	Sg	12 55 51.3	-1.6
SUF	Sumiainen	1.63	208	Pg	Pg	12 55 29.7	-2.1
SUF				Sg	Sg	12 55 51.3	-1.6
MSF	Maaselka	1.83	16	PN	Pn	12 55 33.7	+0.6
MSF				SG	Sg	12 55 57.7	-1.4
MSF				MSG		12 55 57.7	
	comp=Z,1.4nm,0.4s						
MSF	Maaselka	1.83	16	Pn	Pn	12 55 33.7	+0.6
MSF				Sg	Sg	12 55 57.7	-1.4
JOF	Joensuu	2.01	127	SG	Sg	12 56 01.5	-3.6
JOF				MSG		12 56 01.5	
	comp=Z,2.7nm,0.4s						
JOF	Joensuu	2.01	127	Sg	Sg	12 56 01.5	-3.6
KU6	Riekki	2.06	24	PN	Pn	12 55 37.2	+0.9
	baz=198						
KU6				SG	Sg	12 56 02.5	-4.1
KU6				MSG		12 56 02.5	
	comp=Z,0.3nm,0.2s						
KU6	Riekki	2.06	24	Pn	Pn	12 55 37.2	+0.9
KU6				Sg	Sg	12 56 02.5	-4.2
KAF	Kangasniemi	2.17	199	SG	Sg	12 56 08.2	-2.1
KAF				MSG		12 56 08.2	
	comp=Z,0.5nm,0.1s						
KAF	Kangasniemi	2.17	199	Sg	Sg	12 56 08.1	-2.1
KEF	Keuruu	2.41	215	PN	Pn	12 55 42.6	+1.6
KEF				SG	Sg	12 56 13.1	-4.7
KEF				MSG		12 56 13.1	
	comp=Z,0.6nm,0.2s						
KEF	Keuruu	2.41	215	Pn	Pn	12 55 42.6	+1.5
KEF				Sg	Sg	12 56 13.0	-4.8
VAF	Ylistaro	2.56	246	SG	Sg	12 56 18.0	-4.5
VAF				MSG		12 56 18.0	
	comp=Z,1.8nm,0.4s						
VAF	Ylistaro	2.56	246	Sg	Sg	12 56 18.0	-4.5
RNF	Rovaniemi	2.56	344	SG	Sg	12 56 17.2	-5.5
RNF				MSG		12 56 17.2	
	comp=Z,1.1nm,0.4s						
RNF	Rovaniemi	2.56	344	Sg	Sg	12 56 17.2	-5.5
FIA0	FINESS Array S	2.85	197	PN	Pn	12 55 48.8	+1.7
	baz=20						
FIA0				SG	Sg	12 56 25.0	-6.9
FIA0				MSG		12 56 25.0	
	comp=Z,0.7nm,0.3s						
FIA0	FINESS Array S	2.85	197	Pn	Pn	12 55 48.8	+1.7
FIA0				Sg	Sg	12 56 25.0	-6.9

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*ISK **27** 13:15:07.8, 38°.37N×38°.08E, h4^{km}, MD2.7*

*CSEM **27** 13:15:08.8±0.2, 38°.29N×38°.10E, h5^{km}, MD3.0, Error ellipse: s-maj=7.1km s-min=4.4km az=178.0*

*DDA **27** 13:15:08.5, 38°.25N×38°.11E, h6^{km}±2^{km}, Md3.0*

*ISCJB **27** 13:15:09.3±0.6, 38°.28N±0°.05×38°.11E±0°.03, h6^{km}±5^{km}, Error ellipse: s-maj=7.7km s-min=4.2km az=0.8*

ISC 27 13:15:09.5±0.6**, 38°.28N**±0°.05×**38°.10E**±0°.03**, h8**^{km}±5^{km}**, n20, σ0^{s}.93**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKCD	Akcadag	0.14	276	i P	Pg	13 15 12.3	-0.3
AKCD				i S	Sg	13 15 15.2	+0.5
AKCD	Akcadag	0.14	276	i P	Pg	13 15 12.3	-0.3
AKCD				i S	Sg	13 15 15.2	+0.5
MALT	Malatya	0.26	83	PG	Pg	13 15 14.1	-0.4
MALT				eSG	Sg	13 15 18.6	+0.5
MALT	Malatya	0.26	83	i Pg	Pg	13 15 14.1	-0.5
MALT				eSg	Sg	13 15 18.6	+0.6
MYA	Malataya	0.26	80	PG	Pg	13 15 14.0	-0.6
MYA				eSG	Sg	13 15 18.6	+0.6
MYA	Malataya	0.26	80	i Pg	Pg	13 15 14.0	-0.6
MYA				eSg	Sg	13 15 18.6	+0.6
ELZG	Elazig	0.72	72	i P	Pg	13 15 22.2	-1.3
ELZG				i S	Sg	13 15 33.9	+1.0
ELZG	Elazig	0.72	72	i P	Pg	13 15 22.2	-1.2
ELZG				i S	Sg	13 15 33.9	+1.0
URFA	Urfa	1.01	146	ePN	Pn	13 15 29.2	-0.8
URFA				eSN	Sn	13 15 45.4	+1.0
URFA	Urfa	1.01	146	ePn	Pn	13 15 29.2	-0.7
URFA				eSn	Sn	13 15 45.4	+1.1
KEMA	Kemaliye	1.03	17	i P	Pg	13 15 27.7	-1.6
KEMA				i S	Sg	13 15 43.9	+1.2
KEMA	Kemaliye	1.03	17	i P	Pg	13 15 27.7	-1.6
KEMA				i S	Sg	13 15 43.9	+1.2
SARI	SarD1z-Kayseri	1.17	290	ePN	Pn	13 15 33.2	+1.0
SARI	SarD1z-Kayseri	1.17	290	ePn	Pn	13 15 33.2	+1.0
KMRS	Kahramanmaras	1.23	231	ePN	Pn	13 15 32.6	-0.3
KMRS	Kahramanmaras	1.23	231	ePn	Pn	13 15 32.6	-0.3
PINB	Pinarbasi	1.39	287	i P	Pn	13 15 34.7	-0.5
PINB				i S	Sb	13 15 54.8	+1.1
PINB	Pinarbasi	1.39	287	i P	Pn	13 15 34.7	-0.5
PINB				i S	Sb	13 15 54.8	+1.2
SVSK	Karacayir	1.85	333	ePN	Pn	13 15 39.9	-1.5
SVSK	Karacayir	1.85	333	ePn	Pn	13 15 39.9	-1.5

SKHL 27 13:18:52.3±0.4**, 54°.82N×125°.35E, h12**^{km}±3^{km}**, mb4.2**/6**, 1C, Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KROS	Kirovskiy	1.02	112	⇑ iPg	Pg	13 19 11.0	-0.9
KROS				AMB	AMB	13 19 11.4	
	120nm,0.4s						
KROS				AMB	AMB	13 19 11.4	
	220nm,0.4s						
KROS				AMB	AMB	13 19 11.4	
	250nm,0.4s						
KROS				i Sg	Sg	13 19 24.4	-0.8
KROS				A		13 19 26.9	
	420nm,0.5s						
KROS				A		13 19 26.9	
	360nm,0.5s						
ZEA	Zeya	1.56	133	ePg	Pg	13 19 21.4	-0.7
ZEA				AMB	AMB	13 19 22.2	
	110nm,0.4s						
ZEA				AMB	AMB	13 19 22.2	
	190nm,0.4s						
ZEA				pPg		13 19 24.3	
ZEA				i Sg	Sg	13 19 41.8	-0.5
ZEA				A		13 19 43.0	
	400nm,1.0s						
ZEA				A		13 19 43.0	
	84nm,0.4s						
ZEA				A		13 19 43.0	
	280nm,0.4s						
ZEA				A		13 19 43.0	
	92nm,0.4s						
BMKR	Bomnak	2.03	92	ePn	Pn	13 19 26.2	0.0
BMKR				ePg	Pg	13 19 29.2	-1.9
BMKR				AMB	AMB	13 19 29.7	
	16nm,0.4s						
BMKR				pPn		13 19 31.0	
BMKR				eSn	Sn	13 19 53.2	+1.8
BMKR				eSg	Sg	13 19 55.8	-1.6
BMKR				A		13 19 57.8	
	210nm,0.4s						
BMKR				A		13 19 57.8	
	83nm,0.4s						
BMKR				A		13 19 57.8	
	150nm,0.4s						
CLNS	Chul'man	2.04	353	ePg	Pg	13 19 30.8	-0.6
CLNS				AMB	AMB	13 19 33.2	
	31nm,0.3s						
CLNS				eSg	Sg	13 19 58.2	+0.4
CLNS				A		13 20 00.0	
	523nm,0.4s						
TUP	Tupik	3.16	265	ePn	Pn	13 19 44.4	+2.6
TUP				ePg	Pg	13 19 49.5	-3.3
TUP				AMB	AMB	13 19 53.0	
	16nm,0.2s						
TUP				eSg	Sg	13 20 31.5	-2.3
TUP				A		13 20 36.6	
	154nm,0.5s						
CRS	Chara	4.50	300	ePn	Pn	13 20 03.9	+3.7
CRS				sPn		13 20 09.0	
CRS				eSg	Sg	13 21 14.7	-2.0
EKMR	Ekimchan	4.82	108	ePn	Pn	13 20 04.7	+0.1
EKMR				sPn		13 20 11.6	
EKMR				ePg	Pg	13 20 19.5	-5.0
EKMR				AMB	AMB	13 20 26.0	
	5.0nm,0.4s						
EKMR				eSg	Sg	13 21 21.6	-5.3
EKMR				A		13 21 33.4	
	10.0nm,0.5s						
EKMR				A		13 21 33.4	
	20nm,0.5s						
KLR	Kul'dur	6.85	142	erx	rx	13 22 33.2	

IDC 27 13:37:31.4±1.4**, 1°.28N×97°.76E, h90**^{km}±6^{km}**, mb3.4**/5**, mb1 3.5**/6**, mb1mx3.3**/24**, mbtmp3.4**/6**, Error ellipse: s-maj=38.6km s-min=18.2km az=60.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	1.91	38	P	Pn	13 38 01.8	-0.7
	1.2nm,0.3s,baz=197,slow=13,SNR=6.3						
CMAR	Chiang Mai Arr	17.11	4	P	Pn	13 41 25.2	+0.3
	0.2nm,0.3s,baz=197,slow=11,SNR=8.2						
CMAR				pP	pP	13 41 47.1	+4.6
	0.1nm,0.3s,baz=205,slow=10,SNR=2.7						
WRA	Warramunga Arr	41.60	122	P	P	13 45 10.9	0.0
	0.4nm,0.6s,baz=308,slow=8.9,SNR=5.1						
ASAR	Alice Springs	43.00	128	P	P	13 45 21.9	-0.3
	0.1nm,0.3s,baz=306,slow=7.9,SNR=3.6						
MKAR	Makanchi Array	47.30	346	P	P	13 45 54.8	-0.9
	0.7nm,0.5s,baz=163,slow=8.6,SNR=8.4						
KURK	Kurchatov	51.86	345	P	P	13 46 30.5	+0.1
	0.3nm,0.3s,baz=165,slow=7.0,SNR=5.8						
KURK				pP	pP	13 46 50.3	-2.2
	0.5nm,0.4s,baz=165,slow=7.0,SNR=3.9						
ZALV	Zalesovo Beam	53.57	351	P	P	13 46 43.7	+0.8
	1.6nm,0.4s,baz=169,slow=8.6,SNR=7.7						
ZALV				pP	pP	13 47 05.2	+0.1
	0.9nm,0.4s,baz=160,slow=7.2,SNR=2.6						

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*IDC **27** 13:50:33.5±1.9, 34°.42S×179°.02W, h0^{km}, mb4.0/2, mb1 4.3/4, mb1mx4.0/17, mbtmp4.1/4, ML3.9/2, MS2.9/1, Ms1 2.9/1, ms1mx2.5/25, Error ellipse: s-maj=56.1km s-min=29.7km az=125.0*

*NEIC **27** 13:50:37.9±1.3, 34°.58S×178°.79W, h35^{km}, Error ellipse: s-maj=28.2km s-min=15.6km az=114.0*

ISC 27 13:50:38.2±3.7**, 34°.7S**±0°.2×**178°.7W**±0°.4**, h55**^{km}±28^{km}**, n8, σ0^{s}.44**/7**, mb3.9**/2**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	4.94	222	Pn	Pn	13 51 49.8	0.0
	7.4nm,0.3s,baz=337,slow=3.4,SNR=42						
URZ				Sn	Sn	13 52 45.6	0.0
	5.0nm,0.3s,baz=105,slow=23,SNR=10						
URZ				LR	LR	13 53 53.5	
	comp=Z,111nm,18.0s,baz=300,slow=40						
OUZ	Omahuta	6.37	263	ePn	Pn	13 52 09.4	0.0
KHZ	Kahutara	9.85	216	P	Pn	13 52 57.5	+0.5
RPZ	Rata Peaks	12.04	218	Pn	Pn	13 53 26.4	-0.6
	0.4nm,0.3s,baz=92,slow=2.3,SNR=4.1						
ASAR	Alice Springs	42.49	272	P	P	13 58 28.4	+0.3
	2.1nm,0.7s,mb3.9,baz=113,slow=8.1,SNR=59						
ASAR				PcP	PcP	14 00 21.6	+1.4
	0.3nm,0.5s,baz=112,slow=4.4,SNR=6.0						
WRA	Warramunga Arr	43.86	277	P	P	13 58 39.0	-0.2
	1.1nm,0.5s,mb3.8,baz=118,slow=8.0,SNR=13						
KURK	Kurchatov	123.52	312	PKP	PKPdf	14 09 30.9	+2.2
	0.2nm,0.4s,baz=106,slow=1.7,SNR=2.5						
FINES	FINESS Array B	148.89	337	PKPbc	PKPbc	14 10 21.6	+2.7
	4.1nm,1.0s,baz=51,slow=2.4,SNR=4.3						

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*NEIC **27** 14:41:33.2, 30°.69S×71°.34W, h46^{km}, MD4.0(GUC), After GUC.*

GUC 27 14:41:33.2±0.6**, 30°.69S×71°.34W, h46**^{km}±1^{km}**, MD4.0, ML3.9, 9C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.14	55	⇑ iP	Pn	14 41 41.0	+0.2
OVCH				i S	Sn	14 41 46.7	+0.6
OVCH	Ovalle	0.14	55	⇑ iP	Pn	14 41 41.0	+0.2
OVCH				i S	Sn	14 41 46.7	+0.6
OVCH				AML	AML	14 41 47.8	
	comp=N,12μm,0.4s						
CMCH	Combarbala	0.56	149	⇑ iP	Pn	14 41 44.8	-0.2
CMCH				i S	Sn	14 41 53.7	+0.3
CMCH	Combarbala	0.56	149	⇑ iP	Pn	14 41 44.8	-0.2
CMCH				i S	Sn	14 41 53.7	+0.3
CMCH				AML	AML	14 41 54.5	
	comp=E,27μm,0.4s						
TLL	Tololo Astrono	0.70	42	⇓ iP	Pn	14 41 47.9	+1.2
TLL				i S	Sn	14 41 58.8	+2.2
TLL	Tololo Astrono	0.70	42	⇓ iP	Pn	14 41 47.9	+1.2
TLL				i S	Sn	14 41 58.8	+2.2
CHNG	Los Chungos	1.20	187	i P	Pn	14 41 53.9	+0.4
CHNG				i S	Sn	14 42 09.6	+1.0
LCO	Las Campanas	1.76	18	⇓ iP	Pn	14 42 02.3	+1.0
LCO				i S	Sn	14 42 24.6	+2.1
LCO	Las Campanas	1.76	18	⇓ iP	Pn	14 42 02.3	+1.0
LCO				i S	Sn	14 42 24.6	+2.1
LCO				AML	AML	14 42 30.5	
	comp=E,588nm,0.3s						
JACH	Jahuel	2.08	162	i P	Pn	14 42 06.7	+1.1
JACH				i S	Sn	14 42 31.9	+1.5
JACH	Jahuel	2.08	162	i P	Pn	14 42 06.7	+1.1
JACH				i S	Sn	14 42 31.9	+1.5
ROCH	El Roble	2.29	173	i P	Pn	14 42 09.9	+1.4
ROCH				i S	Sn	14 42 37.4	+1.9
ROCH	El Roble	2.29	173	i P	Pn	14 42 09.9	+1.4
ROCH				i S	Sn	14 42 37.4	+1.9
PEL	Peldehue	2.51	167	⇑ iP	Pn	14 42 12.2	+0.7
PEL				i S	Sn	14 42 41.7	+0.9
PEL				AML	AML	14 42 55.9	
	comp=E,925nm,0.3s						
FCH	Farellones	2.77	162	i P	Pn	14 42 17.8	+2.7
FCH				i S	Sn	14 42 50.3	+2.9
FCH				AML	AML	14 43 00.7	
	comp=N,400nm,0.2s						
CLCH	Cerro Calan	2.78	166	AML	AML	14 43 02.5	
	comp=E,610nm,0.6s						
LCCH	Las Cruces	2.78	184	⇑ iP	Pn	14 42 15.7	+0.5
LCCH				i S	Sn	14 42 48.2	+0.7
LCCH	Las Cruces	2.78	184	⇑ iP	Pn	14 42 15.7	+0.5
LCCH				i S	Sn	14 42 48.2	+0.7
ANTU	Antumapu	2.93	168	AML	AML	14 43 04.1	
	comp=N,439nm,0.5s						
TACH	Talagante	2.97	174	⇑ iP	Pn	14 42 18.7	+0.8
TACH				i S	Sn	14 42 52.8	+0.6
TACH	Talagante	2.97	174	⇑ iP	Pn	14 42 18.7	+0.8
TACH				i S	Sn	14 42 52.8	+0.6
PCH	Pirque	3.00	167	i P	Pn	14 42 19.2	+0.9
PCH				i S	Sn	14 42 53.9	+0.9
PCH	Pirque	3.00	167	i P	Pn	14 42 19.2	+0.9
PCH				i S	Sn	14 42 53.9	+0.9
YECH	El Yeso	3.15	161	AML	AML	14 43 09.3	
	comp=N,281nm,0.3s						
CHCH	Chadas Angostu	3.28	170	i P	Pn	14 42 22.9	+0.8
CHCH				i S	Sn	14 43 00.4	+0.5
CHCH	Chadas Angostu	3.28	170	i P	Pn	14 42 22.9	+0.8
CHCH				i S	Sn	14 43 00.4	+0.5

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*IDC **27** 14:50:46.5±1.1, 41°.24N×114°.95W, h0^{km}, mb2.3/1, mb1 2.8/3, mb1mx2.8/22, mbtmp2.4/3, ML2.8/2, Error ellipse: s-maj=15.7km s-min=6.0km az=128.0*

*ISCJB **27** 14:50:47.2±0.7, 41°.18N±0°.02×114°.89W±0°.03, h2^{km}±6^{km}, Error ellipse: s-maj=3.8km s-min=3.2km az=17.0*

ISC 27 14:50:47.7±0.5**, 41°.19N**±0°.02×**114°.88W**±0°.03**, h4**^{km}±5^{km}**, n33, σ0^{s}.83**/38**, 20C-12D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

N12A	**Clover Valley,**	**0.35**	**199**	⇑P	**Pg**	**14 50 54.6**	**+0.1**
	baz=0.3						
N12A				⇓S	**Sg**	**14 50 59.5**	**+0.4**
	baz=0.3						
ELK	**Elko**	**0.52**	**212**	Pg	**Pg**	**14 50 57.5**	**-0.1**
	9.2nm,0.3s,baz=24,slow=19,SNR=20						
ELK				Lg		14 51 04.0	
	35nm,0.3s,baz=48,slow=17,SNR=43						
N13A	**Wendover, West**	**0.61**	**122**	⇓P	**Pg**	**14 50 59.6**	**+0.2**
	baz=0.6,SNR=25						
N13A				⇓S	**Sg**	**14 51 07.6**	**+0.2**
	baz=0.6						
M11A	**Holland Ranch,**	**0.73**	**290**	⇑S	**Sg**	**14 51 11.3**	**+0.3**
	baz=0.7						
O12A	**Currie**	**0.92**	**173**	⇑P	**Pg**	**14 51 05.4**	**0.0**
	baz=0.9,SNR=11						
O12A				⇑S	**Sg**	**14 51 17.6**	**+0.2**
	baz=0.9						
L11A	**Cat Creek Ranc**	**1.18**	**327**	⇑S	**Sg**	**14 51 25.2**	**-0.4**
	baz=1.2						
M14A	**Sheep Mountain**	**1.20**	**74**	⇑S	**Sg**	**14 51 26.2**	**-0.1**
	baz=1.2						
O11A	**Cowboy Ranch,**	**1.21**	**209**	⇑S	**Sg**	**14 51 25.8**	**-0.7**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.26**	**147**	⇑S	**Sg**	**14 51 28.9**	**+0.8**
	baz=1.2						
M10A	**I.L. Ranch, Tu**	**1.29**	**286**	⇓S	**Sg**	**14 51 29.6**	**+0.3**
	baz=1.3						
N10A	**Dunphy**	**1.31**	**250**	⇑S	**Sg**	**14 51 29.8**	**-0.2**
	baz=1.3						
N14A	**Grayback Hills**	**1.33**	**104**	⇑S	**Sg**	**14 51 30.4**	**+0.1**
	baz=1.3						
K12A	**Draper Farm, C**	**1.45**	**359**	⇑S	**Sb**	**14 51 32.6**	**-1.5**
	baz=1.5						
L10A	**Juniper Basin**	**1.49**	**307**	⇓S	**Sn**	**14 51 34.6**	**-0.6**
	baz=1.5						
O10A	**Cortez Mining,**	**1.52**	**235**	⇓S	**Sn**	**14 51 35.9**	**0.0**
	baz=1.5						
K13A	**Stover Farm, H**	**1.58**	**22**	⇑Sb	**Sb**	**14 51 37.4**	**-0.5**
	baz=1.6						
K11A	**Parker Ranch,**	**1.80**	**332**	⇑Sb	**Sb**	**14 51 43.9**	**-0.4**
	baz=1.8						
N15A	**Stansbury Isla**	**1.81**	**99**	⇑Sb	**Sb**	**14 51 44.8**	**+0.2**
	baz=1.8						
M15A	**Larsen Ranch,**	**1.86**	**81**	⇓Sb	**Sb**	**14 51 45.5**	**-0.3**
	baz=1.9						
P10A	**Eureka**	**1.97**	**218**	⇑P	**Pn**	**14 51 21.7**	**-0.2**
	baz=1.9,SNR=8.9						
P14A	**Drum Mountains**	**2.11**	**138**	⇑P	**Pn**	**14 51 22.7**	**-1.2**
	baz=2.1,SNR=16						
J13A	**Cove Ranch, Pi**	**2.27**	**13**	⇓P	**Pn**	**14 51 26.8**	**+0.7**
	baz=2.3,SNR=24						
K15A	**Arbon**	**2.31**	**49**	⇓P	**Pn**	**14 51 27.1**	**+0.5**
	baz=2.3,SNR=9.3						
Q13A	**Wheeler Ranch,**	**2.32**	**163**	⇓P	**Pn**	**14 51 26.0**	**-0.8**
	baz=2.3,SNR=9.8						
J14A	**Carey**	**2.37**	**25**	⇑P	**Pn**	**14 51 28.2**	**+0.9**
	baz=2.4,SNR=16						
HLID	**Hailey**	**2.40**	**8**	⇓P	**Pn**	**14 51 28.7**	**+0.9**
	baz=2.4,SNR=25						
K09A	**Rome**	**2.60**	**306**	⇑P	**Pn**	**14 51 32.6**	**+2.0**
	baz=2.6,SNR=14						
M08A	**Happy Creek Ra**	**2.65**	**277**	⇓P	**Pn**	**14 51 33.7**	**+2.5**
	baz=2.6,SNR=15						
R11A	**Troy Canyon, C**	**2.88**	**191**	⇑P	**Pn**	**14 51 33.9**	**-0.6**
	baz=2.8,SNR=6.7						
NVAR	**Mina Array Bea**	**3.81**	**225**	Pn	**Pn**	**14 51 45.7**	**-1.5**
	0.4nm,0.3s,baz=44,slow=18,SNR=7.9						
NVAR				Pg	**Pg**	**14 52 00.4**	**-0.3**
	1.2nm,0.3s,baz=36,slow=16,SNR=14						
NVAR				Lg		14 52 45.5	
	2.1nm,0.3s,baz=45,slow=26,SNR=6.4						
T11A	**Corn Creek, Al**	**3.95**	**184**	⇑P	**Pn**	**14 51 48.9**	**-0.2**
	baz=3.9,SNR=7.1						
PDAR	**Pinedale Array**	**4.27**	**67**	Pn	**Pn**	**14 51 54.8**	**+1.2**
	0.1nm,0.3s,baz=235,slow=11,SNR=4.2						
PDAR				Pg	**Pg**	**14 52 06.8**	**-2.8**
	0.2nm,0.3s,baz=234,slow=14,SNR=8.0						
PDAR				Lg		14 53 01.1	
	0.3nm,0.3s,baz=245,slow=29,SNR=8.3						
YKA	**Yellowknife Ar**	**21.34**	**0**	P	**P**	**14 55 36.1**	**+0.5**
	0.1nm,0.3s,baz=187,slow=9.7,SNR=3.6						

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*IDC **27** 14:54:28.0±0.9, 26°.65N×141°.98E, h0km, mb4.2/7, mb1 4.3/7, mb1mx3.8/23, mbtmp4.2/7, Error ellipse: s-maj=38.4km s-min=11.9km az=113.0*

*NEIC **27** 14:54:29.6±0.7, 26°.63N×141°.91E, h10km, mb4.2/2, Error ellipse: s-maj=31.7km s-min=12.9km az=93.0*

*ISCJB **27** 14:54:31.2±0.6, 26°.60N±0°.09×142°.0E±0°.2, h33km, mb4.3/7, Error ellipse: s-maj=26.3km s-min=7.8km az=23.2*

ISC 27 14:54:33.1±0.7, 26°.64N±0°.08×142°.0E±0°.2, h35km, n13, σ0ˢ.79/15, mb4.3/7, 1C, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**0.48**	**20**	Pn	**Pn**	**14 54 42.7**	**-0.7**
	190nm,0.3s,baz=253,slow=19,SNR=24						
CBIJ				Sn	**Sn**	**14 54 50.6**	**0.0**
	526nm,0.3s,baz=287,slow=20,SNR=33						
PETK	**Petropavlovsk-**	**28.91**	**20**	P	**P**	**15 00 29.2**	**+0.6**
	4.2nm,0.8s,mb4.2,baz=236,slow=2.6,SNR=3.9						
BKB	**Balikpapan**	**36.82**	**225**	⇑eP	**P**	**15 01 33.8**	**-4.2**
BKB				eS	**S**	**15 07 19.4**	**-0.7**
WRAB	**Tennant Creek**	**46.89**	**190**	eP	**P**	**15 03 00.3**	**+0.2**
	7.6nm,0.8s,mb4.7						
WB2	**Warramunga Arr**	**46.90**	**190**	eP	**P**	**15 03 00.1**	**0.0**
WRA	**Warramunga Arr**	**46.90**	**190**	P	**P**	**15 03 00.3**	**+0.1**
	5.4nm,0.6s,mb4.6,baz=12,slow=8.7,SNR=52						
PSI	**Prapat**	**47.58**	**248**	P	**P**	**15 03 06.3**	**+0.7**
	1.4nm,0.4s,mb4.4,baz=27,slow=6.8,SNR=3.8						
ASAR	**Alice Springs**	**50.62**	**190**	P	**P**	**15 03 28.3**	**-0.4**
	0.3nm,0.6s,baz=14,slow=6.2,SNR=8.0						
KURK	**Kurchatov**	**53.19**	**315**	P	**P**	**15 03 47.3**	**-0.3**
	0.3nm,0.5s,mb3.5,baz=91,slow=7.7,SNR=3.4						
KURK	**Kurchatov**	**53.19**	**315**	P	**P**	**15 03 47.1**	**-0.5**
	0.4nm,0.5s,mb3.6						
ARCES	**ARCESS Array B**	**73.91**	**341**	P	**P**	**15 06 06.0**	**+1.8**
	4.2nm,0.9s,mb4.3,baz=61,slow=8.5,SNR=4.7						
ARCES	**ARCESS Array B**	**73.91**	**341**	P	**P**	**15 06 06.0**	**+1.8**
FINES	**FINESS Array B**	**78.28**	**334**	P	**P**	**15 06 27.9**	**-1.2**
	2.0nm,0.8s,mb4.1,baz=46,slow=4.0,SNR=3.9						

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*IDC **27** 15:04:58.5±7.2, 26°.59N×97°.19E, h106km±81km, mb3.1/3, mb1 3.2/4, mb1mx2.9/25, mbtmp3.0/4, ML3.7/1, Error ellipse: s-maj=194.3km s-min=21.9km az=60.0*

ISC 27 15:04:55.9±5.7, 26°.9N±0°.4×97°.8E±0°.5, h74km±59km, n5, σ0ˢ.08/5, mb3.4/3, Myanmar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	**Shillong**	**5.45**	**257**	ePN	**Pn**	**15 06 14.5**	**0.0**
SHL				eSN	x	15 06 46.0	
CMAR	**Chiang Mai Arr**	**8.45**	**172**	P	**Pn**	**15 06 55.6**	**0.0**
	0.3nm,0.3s,baz=339,slow=12,SNR=8.7						
MKAR	**Makanchi Array**	**23.34**	**332**	P	**P**	**15 09 57.5**	**0.0**
	0.6nm,0.5s,mb3.2,baz=140,slow=9.7,SNR=15						
WRA	**Warramunga Arr**	**58.51**	**139**	P	**P**	**15 14 44.6**	**-0.1**
	0.7nm,0.7s,mb3.8,baz=328,slow=7.2,SNR=8.1						
ASAR	**Alice Springs**	**61.19**	**142**	P	**P**	**15 15 03.0**	**+0.1**
	0.1nm,0.4s,mb3.2,baz=324,slow=6.5,SNR=6.0						

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*ISCJB **27** 15:07:49.8±0.9, 44°.39N±0°.06×10°.96E±0°.05, h28km±8km, Error ellipse: s-maj=10.5km s-min=5.3km az=23.6*

*CSEM **27** 15:07:50.8±0.3, 44°.36N×10°.90E, h20km, ML2.6/4, Error ellipse: s-maj=5.5km s-min=2.8km az=30.0*

*GEN **27** 15:07:50.3, 44°.39N×10°.97E, h13km, ML1.7*

*ROM **27** 15:07:51.6±0.3, 44°.32N×10°.92E, h9km±2km, Md1.9/6, Ml2.0/2, Error ellipse: s-maj=4.1km s-min=2.0km az=20.0*

ISC 27 15:07:50.0±0.8, 44°.39N±0°.06×10°.95E±0°.05, h27km±6km, n20, σ0ˢ.76/37, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FNVD	**Fontana Vidola**	**0.25**	**151**	Pg	**Pb**	**15 07 56.2**	**-0.3**
FNVD				Sg	**Sb**	**15 08 00.1**	**-0.8**
FNVD	**Fontana Vidola**	**0.25**	**151**	Pg	**Pb**	**15 07 56.2**	**-0.3**
FNVD				Sg	**Sb**	**15 08 00.1**	**-0.8**
GSCL	**Gusciola**	**0.27**	**261**	Pg	**Pb**	**15 07 56.9**	**+0.3**
GSCL				Sg	**Sb**	**15 08 01.8**	**+0.7**
GSCL	**Gusciola**	**0.27**	**261**	Pg	**Pb**	**15 07 56.9**	**+0.3**
GSCL				Sg	**Sb**	**15 08 01.8**	**+0.7**
PZZT	**Monte Pizzetto**	**0.27**	**194**	Pg	**Pb**	**15 07 56.3**	**-0.3**
PZZT				Sg	**Sb**	**15 08 00.4**	**-0.8**
	198nm,0.2s						
PZZT	**Monte Pizzetto**	**0.27**	**194**	Pg	**Pb**	**15 07 56.3**	**-0.3**
PZZT				Sg	**Sb**	**15 08 00.4**	**-0.8**
	198nm,0.2s						
POPM	**Popiglio**	**0.37**	**202**	P	**Pb**	**15 07 57.7**	**-0.5**
BDI	**Bagni Di Lucca**	**0.42**	**218**	Pg	**Pb**	**15 07 58.5**	**-0.3**
BDI				Sg	**Sb**	**15 08 04.6**	**-0.3**
	193nm,0.4s						
BDI	**Bagni Di Lucca**	**0.42**	**218**	Pg	**Pb**	**15 07 58.5**	**-0.3**
BDI				Sg	**Sb**	**15 08 04.6**	**-0.3**
	193nm,0.4s						
SEI	**Scarperia**	**0.44**	**139**	Pg	**Pb**	**15 08 01.1**	**+1.8**
SEI				Sg	**Sb**	**15 08 07.2**	**+1.6**
	106nm,0.2s						
SEI	**Scarperia**	**0.44**	**139**	Pg	**Pb**	**15 08 01.1**	**+1.8**
SEI				Sg	**Sb**	**15 08 07.2**	**+1.6**
	106nm,0.2s						
SARO	**Sassorosso**	**0.45**	**243**	P	**Pb**	**15 07 59.1**	**-0.2**
VALM	**Valbona**	**0.51**	**266**	P	**Pb**	**15 08 00.3**	**-0.1**
VALM				S	**Sb**	**15 08 07.2**	**-0.2**
MAIM	**Mastiano**	**0.58**	**215**	P	**Pb**	**15 08 01.4**	**-0.2**
MAIM				S	**Sb**	**15 08 08.9**	**-0.5**
GRAM	**Graiana**	**0.64**	**279**	P	**Pb**	**15 08 02.7**	**+0.1**
GRAM				S	**Sb**	**15 08 11.1**	**-0.1**
PII	**Pisa**	**0.74**	**205**	Pg	**Pb**	**15 08 05.2**	**+1.0**
PII				Sg	**Sb**	**15 08 14.0**	**+0.2**
	18nm,0.2s						
PII	**Pisa**	**0.74**	**205**	Pg	**Pb**	**15 08 05.2**	**+1.0**
PII				Sg	**Sb**	**15 08 14.0**	**+0.2**
	18nm,0.2s						
SC2M	**Scurtabo**	**1.02**	**271**	P	**Pn**	**15 08 09.3**	**+0.8**
SC2M				S	**Sn**	**15 08 22.1**	**+0.2**
NVLJ	**Novalja**	**2.81**	**85**	ePn	**Pn**	**15 08 31.1**	**-2.0**
NVLJ				Sn	**Sn**	**15 08 57.6**	**-8.5**
NVLJ	**Novalja**	**2.81**	**85**	ePn	**Pn**	**15 08 31.1**	**-2.0**

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*CSEM **27** 15:15:44.5, 36°.13N×21°.76E, h6km, ML3.3, After ATH*

*NEIC **27** 15:15:44.5, 36°.13N×21°.76E, h6km, ML3.3(ATH), After ATH.*

*ATH **27** 15:15:44.5, 36°.13N×21°.76E, h6km±2km, MD3.8/10, ML3.3*

*ISCJB **27** 15:15:46.3±1.1, 36°.15N±0°.06×21°.75E±0°.09, h10km, Error ellipse: s-maj=10.5km s-min=7.9km az=156.2*

ISC 27 15:15:47.7±1.0, 36°.18N±0°.06×21°.83E±0°.08, h10km, n43, σ1ˢ.26/49, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	**0.72**	**354**	ePB	**Pg**	**15 15 59.3**	**-2.3**
PYL	**PYLOS**	**0.72**	**354**	ePb	**Pg**	**15 15 59.3**	**-2.3**
KYTH	**Kithira**	**0.98**	**84**	ePN	**Pg**	**15 16 04.6**	**-1.9**
KYTH	**Kithira**	**0.98**	**84**	ePn	**Pg**	**15 16 04.6**	**-1.9**
ITM	**Ithomi**	**1.00**	**4**	ePG	**Pg**	**15 16 03.8**	**-3.2**
ITM				eSB	**Sg**	**15 16 19.9**	**-0.1**
ITM	**Ithomi**	**1.00**	**4**	ePg	**Pg**	**15 16 03.8**	**-3.2**
ITM				eSb	**Sg**	**15 16 19.9**	**-0.1**
VLI	**Veliai**	**1.04**	**59**	ePG	**Pg**	**15 16 05.4**	**-2.3**
VLI	**Veliai**	**1.04**	**59**	ePg	**Pg**	**15 16 05.4**	**-2.3**
VLX	**Vlachokerasia**	**1.27**	**20**	ePN	**Pn**	**15 16 08.8**	**-2.7**
VLX				eSB	**Sb**	**15 16 28.0**	**-0.1**
VLX	**Vlachokerasia**	**1.27**	**20**	ePn	**Pn**	**15 16 08.8**	**-2.7**
VLX				eSb	**Sb**	**15 16 28.0**	**-0.1**
DID	**Didima**	**1.74**	**40**	ePG	**Pn**	**15 16 18.3**	**+0.3**
DID				eSN	**Sb**	**15 16 42.7**	**+1.1**
DID	**Didima**	**1.74**	**40**	ePg	**Pn**	**15 16 18.3**	**+0.3**
DID				eSn	**Sb**	**15 16 42.7**	**+1.1**
GUR	**Goura**	**1.80**	**13**	ePN	**Pn**	**15 16 18.3**	**-0.5**
GUR	**Goura**	**1.80**	**13**	ePn	**Pn**	**15 16 18.3**	**-0.5**
RLS	**Riolos of Patr**	**1.90**	**351**	ePN	**Pn**	**15 16 20.0**	**-0.1**
RLS	**Riolos of Patr**	**1.90**	**351**	ePn	**Pn**	**15 16 20.0**	**-0.1**
LTK	**Loutraki**	**2.05**	**26**	ePN	**Pn**	**15 16 22.0**	**-0.3**
LTK	**Loutraki**	**2.05**	**26**	ePn	**Pn**	**15 16 22.0**	**-0.3**
NAIG	**Nisos Aigina**	**2.06**	**40**	ePN	**Pn**	**15 16 22.7**	**+0.3**
NAIG	**Nisos Aigina**	**2.06**	**40**	ePn	**Pn**	**15 16 22.7**	**+0.3**
VAM	**Vamos**	**2.07**	**111**	ePN	**Pn**	**15 16 22.5**	**0.0**
VAM	**Vamos**	**2.07**	**111**	ePn	**Pn**	**15 16 22.5**	**0.0**
EFP	**Efpalio**	**2.25**	**1**	ePN	**Pn**	**15 16 25.9**	**+1.0**
EFP	**Efpalio**	**2.25**	**1**	ePn	**Pn**	**15 16 25.9**	**+1.0**
VLY	**Voula,Athens**	**2.29**	**43**	ePN	**Pn**	**15 16 26.4**	**+0.8**
VLY	**Voula,Athens**	**2.29**	**43**	ePn	**Pn**	**15 16 26.4**	**+0.8**
ATH	**Athens Observa**	**2.34**	**40**	ePN	**Pn**	**15 16 26.8**	**+0.6**
ATH	**Athens Observa**	**2.34**	**40**	ePn	**Pn**	**15 16 26.8**	**+0.6**
PTL	**Penteli**	**2.48**	**40**	ePN	**Pn**	**15 16 28.3**	**+0.2**
PTL	**Penteli**	**2.48**	**40**	ePn	**Pn**	**15 16 28.3**	**+0.2**
AGG	**Agios Georgios**	**2.87**	**8**	ePN	**Pn**	**15 16 35.0**	**+1.6**
AGG	**Agios Georgios**	**2.87**	**8**	ePn	**Pn**	**15 16 35.0**	**+1.6**
KEK	**Kerkira**	**3.88**	**336**	ePN	**Pn**	**15 16 47.7**	**+0.4**
KEK	**Kerkira**	**3.88**	**336**	ePn	**Pn**	**15 16 47.7**	**+0.4**
LIT	**Litokhoron**	**3.95**	**7**	ePN	**Pn**	**15 16 50.1**	**+1.8**
LIT	**Litokhoron**	**3.95**	**7**	ePn	**Pn**	**15 16 50.1**	**+1.8**
CHOS	**Chios island**	**4.03**	**56**	ePN	**Pn**	**15 16 51.2**	**+1.8**
CHOS	**Chios island**	**4.03**	**56**	ePn	**Pn**	**15 16 51.2**	**+1.8**
PLG	**Polygyros**	**4.38**	**16**	ePN	**Pn**	**15 16 55.5**	**+1.3**
PLG	**Polygyros**	**4.38**	**16**	ePn	**Pn**	**15 16 55.5**	**+1.3**
SOH	**Sokhos**	**4.79**	**14**	ePN	**Pn**	**15 16 59.9**	**+0.1**
SOH	**Sokhos**	**4.79**	**14**	ePn	**Pn**	**15 16 59.9**	**+0.1**
KRUS	**Krusevo**	**5.20**	**355**	ePn	**Pn**	**15 17 03.4**	**-2.1**

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*ISCJB **27** 15:17:54.2±0.6, 33°.34N±0°.03×35°.41E±0°.04, h6km±4km, Error ellipse: s-maj=6.3km s-min=3.8km az=26.2*

*GII **27** 15:17:54.0±0.4, 33°.25N×35°.43E, h1km, Md2.1/3*

*CSEM **27** 15:17:55.3, 33°.33N×35°.44E, h3km, ML3.0, After GRAL*

*GRAL **27** 15:17:55.3±0.3, 33°.33N×35°.44E, h3km±14km, MD3.0*

ISC 27 15:17:54.6±0.6, 33°.35N±0°.03×35°.41E±0°.04, h5km±5km, n21, σ0ˢ.67/35, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	**Matirih**	**0.15**	**334**	eP	**Pg**	**15 17 58.6**	**+1.0**
MATL	**Matirih**	**0.15**	**334**	eP	**Pg**	**15 17 58.6**	**+1.0**
KSDI	**Kefar Szold**	**0.26**	**127**	Pg	**Pg**	**15 17 59.3**	**-0.4**
KSDI				Sg	**Sg**	**15 18 03.5**	**+0.3**
HNTI	**Hanita**	**0.33**	**216**	Pg	**Pg**	**15 18 00.0**	**-1.0**
HNTI				Sg	**Sg**	**15 18 06.6**	**+1.2**
MMA0B	**Mount Meron ar**	**0.34**	**181**	Pg	**Pg**	**15 18 00.6**	**-0.5**
MMA0B				Sg	**Sg**	**15 18 05.0**	**-0.5**
MMB1	**Mount Meron ar**	**0.34**	**180**	Pg	**Pg**	**15 18 00.4**	**-0.7**
MMB1				Sg	**Sg**	**15 18 05.5**	**0.0**
RCY	**Rachaya**	**0.37**	**69**	eP	**Pg**	**15 18 02.0**	**+0.3**
RCY				eS	**Sg**	**15 18 07.0**	**+0.5**
RCY	**Rachaya**	**0.37**	**69**	eP	**Pg**	**15 18 02.0**	**+0.3**
RCY				eS	**Sg**	**15 18 06.9**	**+0.4**
KSHT	**Keshet**	**0.50**	**138**	Pg	**Pg**	**15 18 04.0**	**-0.2**
KSHT				Sg	**Sg**	**15 18 11.7**	**+1.0**
BHL	**Bhannes**	**0.59**	**20**	eP	**Pg**	**15 18 06.1**	**+0.2**
BHL	**Bhannes**	**0.59**	**20**	eP	**Pg**	**15 18 06.1**	**+0.2**
BLGI	**Bet Lehem HaGe**	**0.64**	**197**	Sg	**Sg**	**15 18 16.1**	**+0.8**
OFRI	**‘Ofer**	**0.81**	**206**	Pg	**Pg**	**15 18 09.5**	**-0.7**
OFRI				Sg	**Sg**	**15 18 22.0**	**+1.3**
MMLI	**Mount Malkishu**	**0.91**	**179**	Pg	**Pg**	**15 18 11.3**	**-0.8**
MMLI				Sg	**Sg**	**15 18 23.8**	**-0.1**
HWQ	**Hawqa**	**1.02**	**26**	eP	**Pg**	**15 18 14.0**	**-0.3**
HWQ	**Hawqa**	**1.02**	**26**	eP	**Pg**	**15 18 14.0**	**-0.3**
HMDT	**Nahal Hemdat**	**1.10**	**175**	Pg	**Pg**	**15 18 14.7**	**-1.0**
HMDT				Sg	**Sg**	**15 18 30.1**	**+0.1**
SLTI	**Sal’it**	**1.15**	**196**	Pg	**Pg**	**15 18 15.8**	**-0.9**
SLTI				Sg	**Sg**	**15 18 32.0**	**+0.4**
DSI	**Dead Sea**	**1.78**	**181**	Pn	**Pn**	**15 18 25.2**	**-0.8**
DSI				Sn	**Sn**	**15 18 48.8**	**-0.2**
MZDA	**Masada**	**2.04**	**181**	Pn	**Pn**	**15 18 29.3**	**-0.3**
MZDA				Sn	**Sn**	**15 18 55.7**	**+0.3**
PRNI	**Paran**	**3.01**	**187**	Pn	**Pn**	**15 18 42.8**	**-0.2**
PRNI				Sn	**Sn**	**15 19 20.6**	**+1.2**

SKHL 27 15:18:56.4±0.2, 54°.82N×125°.37E, h14km±3km, mb4.4/6, 2C, Southeastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KROS	**Kirovskiy**	**1.01**	**112**	⇑iPg	Pg	15 19 14.4	-1.4
KROS				AMB	AMB	15 19 14.9	
	160nm,0.4s						
KROS				AMB	AMB	15 19 14.9	
	440nm,0.4s						
KROS				AMB	AMB	15 19 14.9	
	410nm,0.4s						
KROS				pPg		15 19 19.0	
KROS				eSg	Sg	15 19 27.6	-1.4
KROS				A		15 19 29.7	
	400nm,0.5s						
KROS				A		15 19 29.7	
	520nm,0.5s						
KROS				A		15 19 29.7	
	350nm,0.5s						
ZEA	**Zeya**	**1.55**	**134**	ePn	Pn	15 19 23.5	0.0
ZEA				⇑iPg	Pg	15 19 24.7	-1.4
ZEA				AMB	AMB	15 19 25.5	
	360nm,0.3s						
ZEA				AMB	AMB	15 19 26.0	
	400nm,0.5s						
ZEA				sPg		15 19 30.9	
ZEA				i Sg	Sg	15 19 45.5	-0.6
ZEA				A		15 19 47.0	
	600nm,0.5s						
ZEA				A		15 19 47.0	
	450nm,0.3s						
ZEA				A		15 19 47.0	
	580nm,0.3s						
ZEA				A		15 19 47.0	
	130nm,0.3s						
BMKR	**Bomnak**	**2.02**	**92**	ePn	Pn	15 19 30.0	+0.1
BMKR				ePg	Pg	15 19 32.0	-3.0
BMKR				AMB	AMB	15 19 34.8	
	16nm,0.5s						
BMKR				AMB	AMB	15 19 34.8	
	46nm,0.5s						
BMKR				AMB	AMB	15 19 34.8	
	50nm,0.5s						
BMKR				pPg		15 19 37.1	
BMKR				eSn	Sn	15 19 55.9	+1.0
BMKR				eSg	Sg	15 19 59.0	-2.1
BMKR				A		15 20 01.9	
	385nm,0.4s						
BMKR				A		15 20 01.9	
	214nm,0.4s						
CLNS	**Chul’man**	**2.04**	**353**	ePn	Pn	15 19 32.9	+2.6
CLNS				ePg	Pg	15 19 35.7	+0.2
CLNS				AMB	AMB	15 19 36.6	
	82nm,0.4s						
CLNS				eSn	Sn	15 19 58.1	+2.6
CLNS				eSg	Sg	15 20 01.9	0.0
CLNS				A		15 20 04.0	
	1µm,0.5s						
CLNS				A		15 20 04.0	
	799nm,0.5s						
TUP	**Tupik**	**3.17**	**265**	ePn	Pn	15 19 47.7	+1.9
TUP				ePg	Pg	15 19 54.3	-2.9
TUP				AMB	AMB	15 19 56.8	
	19nm,0.3s						
TUP				eSg	Sg	15 20 34.8	-3.4
TUP				A		15 20 40.7	
	184nm,0.7s						
CRS	**Chara**	**4.51**	**300**	ePn	Pn	15 20 07.0	+2.8
CRS				sPn		15 20 14.5	
CRS				eSg	Sg	15 21 18.6	-2.5
CRS				A		15 21 26.9	
	67nm,0.9s						
EKMR	**Ekimchan**	**4.81**	**108**	ePn	Pn	15 20 07.7	-0.6
EKMR				sPn		15 20 15.0	
EKMR				ePg	Pg	15 20 22.5	-5.9
EKMR				AMB	AMB	15 20 28.6	
	4.0nm,0.3s						
EKMR				AMB	AMB	15 20 28.6	
	9.0nm,0.3s						
EKMR				eSg	Sg	15 21 25.2	-5.4
EKMR				A		15 21 38.0	
	37nm,0.5s						
EKMR				A		15 21 38.0	
	24nm,0.5s						
EKMR				A		15 21 38.0	
	22nm,0.5s						
KLR	**Kul’dur**	**6.84**	**142**	eSg	Sg	15 22 26.0	-10
GRNR	**Gornyy**	**7.83**	**117**	eSg	Sn	15 23 00.5	+42
NKL	**Nikolayevsk**	**9.18**	**94**	eSg	Sn	15 23 44.0	+53

IGQ 27 15:31:16.8, 1°.05S×78°.34W, h11km±2km, Mb4.0, Ms3.8, 8C-12D, Error ellipse: s-maj=1.5km s-min=0.7km az=8.0, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PISA	**Pisayambo**	**0.05**	**254**	⇓P	Pg	15 31 18.6	-0.2
MOV1	**Cotopaxi Vol s**	**0.34**	**343**	P	Pg	15 31 24.7	+1.0
TAMB	**Tambo**	**0.35**	**356**	⇑P	Pg	15 31 24.6	+0.8
RUN5	**Runtun**	**0.38**	**193**	S	Sg	15 31 29.1	-0.1
RUN5	**Runtun**	**0.38**	**193**	P	Pg	15 31 24.7	+0.4
COV1	**Cotopaxi Volc**	**0.38**	**360**	⇓S	Sg	15 31 32.1	+2.6
COV1	**Cotopaxi Volc**	**0.38**	**360**	⇓P	Pg	15 31 25.6	+1.3
JUI6	**Juive**	**0.40**	**199**	S	Sg	15 31 30.9	+0.9
JUI6	**Juive**	**0.40**	**199**	P	Pg	15 31 25.0	+0.3
CAMI	**Rancho Maria**	**0.40**	**336**	P	Pg	15 31 25.8	+1.1
ULBA	**Ulba**	**0.41**	**189**	P	Pg	15 31 25.0	+0.2
VC1	**Cotopaxi 1**	**0.41**	**351**	⇑P	Pg	15 31 25.7	+0.9
RETU	**Refugio**	**0.42**	**195**	P	Pg	15 31 27.6	+2.6
NAS2	**Nasa**	**0.42**	**342**	P	Pg	15 31 26.2	+1.2
PATA	**Patacocha**	**0.46**	**191**	⇑S	Sg	15 31 32.6	+0.5
PATA	**Patacocha**	**0.46**	**191**	⇑P	Pg	15 31 26.3	+0.4
ARRY	**Arrayan**	**0.47**	**194**	⇑P	Pg	15 31 26.0	0.0
PITA	**Cotopaxi Volc**	**0.49**	**349**	P	Pg	15 31 27.3	+0.8
IGUA	**Igualata**	**0.53**	**214**	⇓S	Sg	15 31 35.9	+1.7
IGUA	**Igualata**	**0.53**	**214**	⇓P	Pg	15 31 27.9	+0.7
QIL2	**Quilotoa**	**0.60**	**287**	⇓P	Pg	15 31 29.5	+1.1
ANTI	**Antisana**	**0.62**	**17**	⇓P	Pg	15 31 29.0	+0.1
JUA2	**San Juan 2**	**0.87**	**342**	P	Pg	15 31 34.0	+0.5
GGP	**Refugio Guagua**	**0.90**	**344**	S	Sg	15 31 46.9	+0.9
GGP	**Refugio Guagua**	**0.90**	**344**	P	Pg	15 31 34.6	+0.4
TERV	**Terraza Guagua**	**0.91**	**343**	P	Pg	15 31 34.8	+0.6
TERV	**Terraza Guagua**	**0.91**	**343**	S	Sg	15 31 48.1	+2.0
PINO	**Pino**	**0.92**	**343**	⇑P	Pg	15 31 35.2	+0.6
YANA	**Yana**	**0.95**	**346**	P	Pg	15 31 35.6	+0.5
YANA	**Yana**	**0.95**	**346**	S	Sg	15 31 48.2	+0.7
CAYR	**Refugio Cayamb**	**1.11**	**18**	S	Sb	15 31 53.9	+1.5
CAYR	**Refugio Cayamb**	**1.11**	**18**	P	Pb	15 31 38.3	+0.3
CAYA	**Cayambe**	**1.16**	**18**	⇑S	Sb	15 31 54.5	+0.4
CAYA	**Cayambe**	**1.16**	**18**	⇑P	Pb	15 31 39.4	+0.4
CHAR	**Charly**	**1.17**	**35**	⇓S	Sb	15 31 55.3	+1.2
CHAR	**Charly**	**1.17**	**35**	⇓P	Pb	15 31 39.6	+0.6
LAV3	**Lava3-Reventad**	**1.18**	**37**	S	Sb	15 31 55.2	+0.7
LAV3	**Lava3-Reventad**	**1.18**	**37**	P	Pb	15 31 39.6	+0.3
CONE	**Cono NE Rev Vo**	**1.20**	**36**	⇓P	Pb	15 31 39.8	+0.3
CONE	**Cono NE Rev Vo**	**1.20**	**36**	⇓S	Sb	15 31 56.0	+1.1
OTAV	**Otavalo**	**1.28**	**355**	⇓P	Pn	15 31 40.9	+0.2
COTA	**Cotacachi**	**1.37**	**0**	P	Pn	15 31 45.2	+3.2
CHIS	**Cerro-Chispas-**	**2.38**	**270**	P	Pn	15 31 57.3	+1.5

TAP 27 15:35:33.7, 22°.00N×120°.52E, h40km, ML3.6, 5D, C, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HEN	**Hengchun**	**0.20**	**89**	⇓iP	Pn	15 35 41.5	+0.5
	baz=89						
HEN				eS	Sn	15 35 47.5	+1.5
	baz=89						
TWK1	**Hengchun**	**0.27**	**103**	⇓iP	Pn	15 35 42.2	+0.6
	baz=103						
TWK1				S	Sn	15 35 48.7	+1.5
	baz=103						
TSEB	**Hengchuen, Pin**	**0.37**	**106**	P	Pn	15 35 43.0	+0.3
	baz=108						
TSEB				S	Sn	15 35 50.2	+1.2
	baz=108						
TWP	**Hsiaoliuchiu**	**0.37**	**337**	P	Pn	15 35 44.0	+1.2
	baz=337						
TWP				eS	Sn	15 35 52.4	+3.2
	baz=337						
SCZT	**Fangliau**	**0.38**	**14**	i P	Pn	15 35 43.3	+0.5
	baz=20						
SCZT				S	Sn	15 35 50.5	+1.2
	baz=20						
EAST	**Anshuo**	**0.48**	**39**	eP	Pn	15 35 45.2	+0.9
	baz=39						
EAST				eS	Sn	15 35 53.8	+2.1
	baz=39						
TAW	**Tawu**	**0.49**	**44**	⇓iP	Pn	15 35 45.2	+0.9
	baz=44						
KAU	**Kaohsiung**	**0.60**	**341**	eS	Sn	15 35 56.8	+2.6
	baz=341						
ECL	**Taimali**	**0.71**	**34**	⇓iP	Pn	15 35 48.1	+0.8
	baz=23						

ECL				*e*S	Sn	15 35 59.6	+2.4
	baz=23						
SGLT	**Jiouru**	**0.72**	**358**	*e*P	Pn	15 35 48.9	+1.5
	baz=358						
SGLT				*e*S	Sn	15 36 01.2	+4.0
	baz=358						
SSD	**Sandimen**	**0.75**	**8**	⇓*i*P	Pn	15 35 48.3	+0.6
	baz=19						
SSD				*e*S	Sn	15 35 58.4	+0.5
	baz=19						
TWM1	**Shoushan**	**0.82**	**354**	P	Pn	15 35 51.0	+2.2
	baz=354						
TWM1				*e*S	Sn	15 36 01.4	+1.6
	baz=354						
LAY	**Lan-yu**	**0.96**	**88**	P	Pn	15 35 50.6	0.0
	baz=78						
LAY				*e*S	Sn	15 36 03.5	+0.4
	baz=78						
TWG	**Pinlang**	**0.96**	**32**	P	Pn	15 35 51.7	+1.0
	baz=46						
TAI1	**Yung-k'ang**	**1.07**	**345**	*e*S	Sn	15 36 07.1	+1.3
	baz=345						
SGST	**Jiashian**	**1.07**	**3**	*e*P	Pn	15 35 53.4	+1.1
	baz=3.0						
SGST				*e*S	Sn	15 36 07.2	+1.2
	baz=3.0						
CHN3	**Shinhua**	**1.08**	**352**	*e*S	Sn	15 36 08.5	+2.4
	baz=339						
STYT	**Tauyuan**	**1.18**	**11**	P	Pn	15 35 54.6	+1.0
	baz=360						
STYT				*e*S	Sn	15 36 09.7	+1.3
	baz=360						
CHN1	**Nanshi**	**1.18**	**0**	P	Pn	15 35 54.5	+0.9
	baz=1.0						
SCLT	**Jiali**	**1.21**	**346**	*e*P	Pn	15 35 54.7	+0.6
	baz=345						
SCLT				*e*S	Sn	15 36 10.1	+0.9
	baz=345						
WTP	**Ta-pu**	**1.24**	**4**	P	Pn	15 35 55.2	+0.7
	baz=3.0						
WTP				*e*S	Sn	15 36 10.8	+0.8
	baz=3.0						
ELDTW	**Lidau**	**1.27**	**21**	P	Pn	15 35 55.9	+1.0
	baz=9.0						
ELDTW				*e*S	Sn	15 36 12.9	+2.3
	baz=9.0						
CHKT	**Chengkung**	**1.34**	**35**	*e*P	Pn	15 35 56.8	+0.8
	baz=35						
CHKT				*e*S	Sn	15 36 14.3	+1.7
	baz=35						
CHN4	**Tsaushan**	**1.34**	**3**	*e*P	Pn	15 35 56.7	+0.8
	baz=2.0						
CHN4				*e*S	Sn	15 36 13.4	+0.9
	baz=2.0						
CHN8	**Yiju**	**1.37**	**348**	*e*S	Sn	15 36 13.6	+0.5
	baz=348						
CHY	**Chiayi**	**1.49**	**357**	*e*S	Sn	15 36 16.8	+0.6
	baz=356						
CHN2	**Minshiung**	**1.52**	**358**	*e*S	Sn	15 36 18.2	+1.3
	baz=358						
TWF1	**Yuli**	**1.52**	**28**	P	Pn	15 35 59.6	+1.2
	baz=13						
TWF1				*e*S	Sn	15 36 18.7	+1.7
	baz=13						
CHN5	**Tsauling**	**1.59**	**5**	P	Pn	15 35 59.9	+0.5
	baz=353						
CHN5				*e*S	Sn	15 36 19.9	+1.2
	baz=353						
WSF	**Szhu**	**1.65**	**350**	*e*S	Sn	15 36 20.2	+0.1
	baz=350						
EHY	**Hungye**	**1.67**	**26**	*e*P	Pn	15 36 01.9	+1.5
	baz=14						
WGK	**Gukeng**	**1.68**	**1**	*e*S	Sn	15 36 22.2	+1.4
	baz=350						
PNG	**Penghu**	**1.79**	**330**	*e*P	Pn	15 36 02.7	+0.6
	baz=331						
WTCT	**Ta-ch'eng**	**1.86**	**353**	*e*S	Sn	15 36 25.7	+0.3
	baz=352						
WNT	**Mingjian**	**1.87**	**5**	*e*S	Sn	15 36 26.4	+0.8
	baz=3.0						
SMLT	**Sun Moon Lake**	**1.90**	**10**	*e*P	Pn	15 36 04.8	+1.2
	baz=357						
SMLT				*e*S	Sn	15 36 27.5	+1.1
	baz=357						
TYC	**Yuchr**	**1.92**	**9**	P	Pn	15 36 04.9	+1.1
	baz=357						
TYC				*e*S	Sn	15 36 28.4	+1.6
	baz=357						
ESL	**Shilin**	**1.99**	**25**	*e*P	Pn	15 36 06.0	+1.2
	baz=14						
ESL				*e*S	Sn	15 36 30.1	+1.6
	baz=14						
TCU	**Taichung**	**2.14**	**4**	*e*S	Sn	15 36 33.4	+1.2
	baz=352						
TWT	**Tachien**	**2.32**	**15**	*e*P	Pn	15 36 10.2	+0.8
	baz=4.0						
TWQ1	**Liyutan**	**2.35**	**6**	*e*P	Pn	15 36 10.7	+1.0
	baz=353						
TWQ1				*e*S	Sn	15 36 38.6	+1.4
	baz=353						
NNS	**Nan Shan**	**2.55**	**18**	*e*P	Pn	15 36 14.8	+2.3
	baz=16						
NNS				*e*S	Sn	15 36 43.9	+1.6
	baz=16						
NSTT	**Nanjuang**	**2.65**	**9**	P	Pn	15 36 15.1	+1.1
	baz=356						
NSTT				*e*S	Sn	15 36 45.6	+0.7
	baz=356						
NSK	**Sanguang**	**2.77**	**16**	*e*P	Pn	15 36 18.4	+2.9
	baz=14						
NSK				*e*S	Sn	15 36 48.9	+1.2
	baz=14						
ENTT	**Nioudou**	**2.79**	**20**	P	Pn	15 36 18.7	+2.8
	baz=34						
ENTT				*e*S	Sn	15 36 51.0	+2.6
	baz=34						
TWE	**Neicheng**	**2.90**	**21**	*e*P	Pn	15 36 19.7	+2.3
	baz=34						
TWE				*e*S	Sn	15 36 54.7	+3.7
	baz=34						

IGQ 27 15:36:53.4, 1.°05S×78.°34W, h12^{km}±1^{km}, Mb4.0, Ms3.8, 12C-11D, Error ellipse: s-maj=1.4km s-min=0.6km az=4.4, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PISA	**Pisayambo**	**0.05**	**256**	⇑P	Pg	15 36 56.6	+0.8
MOV1	**Cotopaxi Vol s**	**0.35**	**342**	⇑P	Pg	15 37 01.1	+0.8
TAMB	**Tambo**	**0.35**	**355**	⇑P	Pg	15 37 01.0	+0.6
RUN5	**Runtun**	**0.38**	**194**	⇓S	Sg	15 37 06.9	+0.8
RUN5	**Runtun**	**0.38**	**194**	⇓P	Pg	15 37 01.3	+0.4
COV1	**Cotopaxi Volc**	**0.38**	**359**	S	Sg	15 37 08.5	+2.4
COV1	**Cotopaxi Volc**	**0.38**	**359**	P	Pg	15 37 02.1	+1.1
JUI6	**Juive**	**0.40**	**199**	⇓P	Pg	15 37 01.4	+0.1
JUI6	**Juive**	**0.40**	**199**	⇓S	Sg	15 37 06.8	+0.1
CAMI	**Rancho Maria**	**0.40**	**335**	P	Pg	15 37 02.2	+0.8
ULBA	**Ulba**	**0.41**	**190**	⇑S	Sg	15 37 07.7	+0.7
ULBA	**Ulba**	**0.41**	**190**	⇑P	Pg	15 37 01.6	+0.2
VC1	**Cotopaxi 1**	**0.41**	**350**	⇑P	Pg	15 37 02.2	+0.7
RETU	**Refugio**	**0.42**	**195**	S	Sg	15 37 08.8	+1.6
RETU	**Refugio**	**0.42**	**195**	P	Pg	15 37 02.1	+0.4
NAS2	**Nasa**	**0.42**	**342**	P	Pg	15 37 02.7	+1.0
BIL2	**Estacion Bilba**	**0.44**	**202**	⇑S	Sg	15 37 09.5	+1.5
BIL2	**Estacion Bilba**	**0.44**	**202**	⇑P	Pg	15 37 02.6	+0.5
PATA	**Patacocha**	**0.47**	**192**	⇓P	Pg	15 37 02.9	+0.3
ARRY	**Arrayan**	**0.47**	**195**	P	Pg	15 37 02.5	-0.2
ARRY	**Arrayan**	**0.47**	**195**	S	Sg	15 37 09.1	+0.1
PITA	**Cotopaxi Volc**	**0.49**	**349**	⇑P	Pg	15 37 04.1	+1.0
IGUA	**Igualata**	**0.54**	**214**	⇓S	Sg	15 37 12.4	+1.4
IGUA	**Igualata**	**0.54**	**214**	⇓P	Pg	15 37 04.4	+0.5
QIL2	**Quilotoa**	**0.61**	**287**	⇓P	Pg	15 37 06.0	+0.8
ANTI	**Antisana**	**0.62**	**16**	⇑P	Pg	15 37 05.3	-0.2
JUA2	**San Juan 2**	**0.87**	**342**	S	Sg	15 37 22.3	+0.7
JUA2	**San Juan 2**	**0.87**	**342**	P	Pg	15 37 10.7	+0.4
GGP	**Refugio Guagua**	**0.90**	**343**	P	Pg	15 37 11.3	+0.4
TERV	**Terraza Guagua**	**0.91**	**343**	P	Pg	15 37 11.5	+0.6
TERV	**Terraza Guagua**	**0.91**	**343**	S	Sg	15 37 24.7	+1.9
PINO	**Pino**	**0.92**	**343**	⇓P	Pg	15 37 11.7	+0.4
YANA	**Yana**	**0.95**	**346**	S	Sg	15 37 25.0	+0.8
YANA	**Yana**	**0.95**	**346**	P	Pg	15 37 12.0	+0.2
CAYR	**Refugio Cayamb**	**1.10**	**17**	P	Pb	15 37 14.9	+0.5
CAYA	**Cayambe**	**1.16**	**17**	⇑S	Sb	15 37 31.9	+1.4
CAYA	**Cayambe**	**1.16**	**17**	⇑P	Pb	15 37 15.9	+0.4
CHAR	**Charly**	**1.16**	**35**	P	Pb	15 37 16.1	+0.7
CHAR	**Charly**	**1.16**	**35**	S	Sb	15 37 31.6	+1.2
LAV3	**Lava3-Reventad**	**1.18**	**37**	S	Sb	15 37 31.4	+0.5
LAV3	**Lava3-Reventad**	**1.18**	**37**	P	Pb	15 37 16.0	+0.3
CONE	**Cono NE Rev Vo**	**1.19**	**36**	⇓S	Sb	15 37 32.3	+1.0
CONE	**Cono NE Rev Vo**	**1.19**	**36**	⇓P	Pn	15 37 16.3	+0.4
OTAV	**Otavalo**	**1.28**	**355**	P	Pn	15 37 17.5	+0.3
COTA	**Cotacachi**	**1.37**	**360**	P	Pn	15 37 22.1	+3.7

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*IDC **27** 15:39:09.6±2.0, 10.°45N×91.°48E, h0^{km}, mb3.8/6, mb1 3.8/7, mb1mx3.6/24, mbtmp3.7/7, ML3.2/1, MS3.1/1, Ms1 3.1/1, ms1mx2.4/34, Error ellipse: s-maj=68.9km s-min=20.3km az=68.0*

*ISCJB **27** 15:39:13.7±0.9, 10.°5N±0.°1×91.°8E±0.°2, h33^{km}, mb3.9/6, Error ellipse: s-maj=26.8km s-min=8.3km az=149.6*

*NEIC **27** 15:39:15.7±0.6, 10.°50N×91.°66E, h35^{km}, mb4.1/5, Error ellipse: s-maj=19.0km s-min=6.0km az=60.0*

ISC 27 15:39:15.7±0.9**, 10.°5N**±0.°1×**91.°7E**±0.°2**, h35^{km}, n20, σ0.^{s}58**/19**, mb3.9**/6**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.61**	**41**	Pn	**Pn**	**15 41 45.6**	**+0.3**
	0.1nm,0.3s,baz=231,slow=15,SNR=4.5						
PALK	**Pallekele**	**11.28**	**254**	LR	LR	15 45 24.0	
	comp=Z,93nm,19.2s,baz=113,slow=34						
ODAN	**Odare**	**16.77**	**347**	*e*P	**Pn**	**15 43 08.2**	**+0.2**
RAMN	**Ramite**	**17.05**	**344**	*e*P	**Pn**	**15 43 12.2**	**+0.7**
TAPN	**Taplejung**	**17.18**	**348**	*e*P	**Pn**	**15 43 12.5**	**-0.6**
JIRN	**Jiri**	**17.84**	**344**	*e*P	**Pn**	**15 43 21.6**	**+0.4**
	4.0nm,0.3s						
PKI	**Pulchoki**	**17.98**	**342**	*e*P	**Pn**	**15 43 23.8**	**+0.8**
DMN	**Daman**	**18.11**	**341**	*e*P	**Pn**	**15 43 25.0**	**+0.4**
	11nm,0.7s						
GUN	**Gumba**	**18.16**	**343**	*e*P	**Pn**	**15 43 24.6**	**-0.6**
GKN	**Gorkha**	**18.63**	**340**	*e*P	**Pn**	**15 43 30.4**	**-0.5**
	6.6nm,0.3s						
KOLN	**Koldanda**	**18.79**	**337**	*e*P	**Pn**	**15 43 33.3**	**+0.5**
	7.9nm,0.5s						
MKAR	**Makanchi Array**	**37.05**	**349**	P	**P**	**15 46 21.6**	**-0.6**
	0.4nm,0.6s,baz=162,slow=7.7,SNR=4.9						
SONM	**Songino Array**	**39.24**	**16**	P	**P**	**15 46 40.4**	**-0.3**
	1.0nm,0.8s,mb3.6,baz=211,slow=7.5,SNR=3.8						
ZALV	**Zalesovo Beam**	**43.69**	**354**	P	**P**	**15 47 15.8**	**-1.2**
	0.4nm,0.3s,mb3.6,baz=167,slow=10.0,SNR=2.4						
ZALV	**Zalesovo Beam**	**43.69**	**354**	P	**P**	**15 47 15.8**	**-1.2**
WRA	**Warramunga Arr**	**51.77**	**126**	P	**P**	**15 48 19.9**	**-0.3**
	1.3nm,0.7s,mb4.0,baz=307,slow=8.1,SNR=18						
WRAB	**Tennant Creek**	**51.77**	**126**	*e*P	**P**	**15 48 20.5**	**+0.2**
	1.5nm,0.6s,mb4.1						
WB2	**Warramunga Arr**	**51.78**	**126**	*e*P	**P**	**15 48 20.2**	**-0.1**
ASAR	**Alice Springs**	**53.46**	**130**	P	**P**	**15 48 32.4**	**-0.3**
	1.7nm,0.8s,mb4.0,baz=303,slow=7.2,SNR=18						
STKA	**Stephens Creek**	**63.67**	**133**	P	**P**	**15 49 44.7**	**+0.9**
	1.9nm,0.9s,mb4.1,baz=315,slow=14,SNR=3.1						

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*CSEM **27** 15:39:17.5±1.0, 76.°88N×18.°09E, h10^{km}, ML2.5, Error ellipse: s-maj=37.5km s-min=13.0km az=46.0*

*NAO **27** 15:39:17.3±1.5, 76.°94N×18.°70E, ML2.2*

*ISCJB **27** 15:39:18.9±0.8, 77.°11N±0.°08×18.°9E±0.°2, h10^{km}, Error ellipse: s-maj=12.7km s-min=5.6km az=16.5*

*BER **27** 15:39:21.6±3.5, 77.°03N×18.°65E, h15^{km}±44^{km}, MD2.0, ML2.5, ML2.2(NAO)*

ISC 27 15:39:19.6±0.9**, 77.°12N**±0.°07×**18.°8E**±0.°2**, h6^{km}**±13^{km}**, n10, σ0.^{s}51**/14**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	**Hornsund**	**0.74**	**263**	*e*P	**Pg**	**15 39 33.9**	**+0.1**
HSP				*e*S	**Sg**	**15 39 43.4**	**-0.1**
SPA0	**Spitsbergen Ar**	**1.18**	**335**	Pg	**Pg**	**15 39 43.0**	**+0.8**
	baz=152,slow=16						
SPA0				Lg		15 39 59.7	
	baz=150,slow=37						
SPA0	**Spitsbergen Ar**	**1.18**	**335**	Pg	**Pg**	**15 39 43.0**	**+0.8**
	SNR=92						
SPA0				Lg		15 39 59.7	
	SNR=55						
HOPEN	**Hopen**	**1.55**	**110**	*e*P	**Pn**	**15 39 47.1**	**-0.5**
HOPEN				*e*Sg	**Sg**	**15 40 09.3**	**0.0**
HOPEN				AML	AML	15 40 12.8	
	comp=Z,146nm,0.3s						
HOPEN	**Hopen**	**1.55**	**110**	*e*P	**Pn**	**15 39 47.1**	**-0.5**
	SNR=55						
HOPEN				*e*Sg	**Sg**	**15 40 09.3**	**+0.1**
	comp=Z,146nm,0.3s,SNR=91						
KBS	**Kingsbay**	**2.31**	**325**	Pn	**Pn**	**15 39 58.6**	**+0.5**
KBS				Lg		15 40 32.3	
KBS	**Kingsbay**	**2.31**	**325**	*e*Sg	**Sg**	**15 40 32.8**	**-0.9**
KBS				AML	AML	15 40 43.3	
	comp=Z,33nm,0.6s						
KBS	**Kingsbay**	**2.31**	**325**	Pn	**Pn**	**15 39 58.6**	**+0.6**
KBS				Lg		15 40 32.3	
KBS				*e*Sg	**Sg**	**15 40 32.8**	**-0.8**
	comp=Z,33nm,0.6s,SNR=91						
ARA0	**ARCESS Array S**	**7.86**	**163**	Sn	**Sn**	**15 42 34.3**	**-9.0**
	baz=3.4,slow=22						
ARA0	**ARCESS Array S**	**7.86**	**163**	Sn	**Sn**	**15 42 34.3**	**-9.0**
	SNR=55						

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*ISCJB **27** 15:43:57.0±1.8, 35.°1S±0.°1×178.°7W±0.°2, h42^{km}±15^{km}, mb4.6/10, MS4.2/16, Error ellipse: s-maj=26.8km s-min=14.1km az=27.0*

*NEIC **27** 15:44:05.0±3.3, 35.°00S×179.°24W, h67^{km}±27^{km}, mb4.8/2, Error ellipse: s-maj=34.4km s-min=16.0km az=206.0*

*GCMT **27** 15:44:05.1±0.4, 34.°67S×178.°80W, h32^{km}±1^{km}, MW5.0/58, Moment Tensor Solution. s31,c36; s58,c74; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.62±.24; $M_{\theta\theta}$-0.32±.17; $M_{\phi\phi}$-2.30±.15; $M_{r\theta}$0.61±.23; $M_{\theta\phi}$-1.76±.14; $M_{\phi r}$2.35±.20; Best double couple: $M_0$3.85600×10^{16} NP1:ϕ_s225.00000°, δ27.00000°, λ114.00000°. NP2: ϕ_s19.00000°, δ65.00000°, λ78.00000°. Principal axes: T 3.5640, Plg68.0000°, Azm266.0000°; N 0.5850, Plg11.0000°, Azm24.0000°; P -4.1480, Plg19.0000°, Azm118.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **27** 15:44:05.2±2.9, 34.°87S×179.°43W, h62^{km}±24^{km}, mb4.2/8, mb1 4.3/9, mb1mx4.1/18, mbtmp4.3/9, ML4.4/1, MS4.1/16, Ms1 4.1/16, ms1mx3.9/30 Error ellipse: s-maj=21.4km s-min=17.4km az=174.0*

ISC 27 15:43:58.5±1.6**, 35.°0S**±0.°1×**178.°7W**±0.°2**, h36^{km}**±14^{km}**, n73, σ1.^{s}07**/43**, mb4.6**/10**, MS4.2**/16**, East of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**3.52**	**223**	P	**Pn**	**15 44 52.5**	**+1.9**
MXZ				S	**Sn**	**15 45 32.0**	**+1.1**
MWZ	**Matawai**	**4.50**	**222**	P	**Pn**	**15 45 05.1**	**+1.0**
MWZ				S	**Sn**	**15 45 55.9**	**+0.8**
URZ	**Urewera**	**4.68**	**225**	P	**Pn**	**15 45 07.2**	**+0.6**
	18nm,0.3s,baz=39,slow=7.6,SNR=115						
URZ				S	**Sn**	**15 45 58.9**	**-0.7**
	23nm,0.3s,baz=165,slow=23,SNR=9.9						
URZ				LR	LR	15 46 10.3	
	comp=Z,145nm,21.5s,baz=169,slow=29						
MARZ	**Manawahe**	**4.77**	**231**	P	**Pn**	**15 45 08.6**	**+0.7**
KNZ	**Kokohu**	**4.94**	**215**	P	**Pn**	**15 45 10.7**	**+0.5**
KNZ				S	**Sn**	**15 46 06.5**	**+0.5**
RAO	**Raoul Island**	**5.81**	**6**	S	Sx	15 46 21.9	
	67nm,0.3s,baz=105,slow=21,SNR=2.6						
MOVZ	**Moawhango**	**6.24**	**224**	P	**Pn**	**15 45 27.6**	**-0.4**
HIZ	**Hauiti**	**6.26**	**234**	P	**Pn**	**15 45 29.4**	**+1.2**
WNVZ	**Wahianoa**	**6.27**	**225**	P	**Pn**	**15 45 29.0**	**+0.5**
OUZ	**Omahuta**	**6.35**	**266**	*e*P	**Pn**	**15 45 29.3**	**-0.3**
	107nm,0.7s						
TSZ	**Takapari Road**	**6.59**	**219**	P	**Pn**	**15 45 31.7**	**-1.1**
BFZ	**Birch Farm**	**6.92**	**214**	P	**Pn**	**15 45 36.5**	**-0.9**
BFZ				S	Sx	15 46 50.2	
MRZ	**Mangatainoka R**	**7.23**	**217**	P	**Pn**	**15 45 40.5**	**-1.1**
CAW	**Cannon Point**	**7.82**	**217**	P	**Pn**	**15 45 48.7**	**-1.0**
SNZO	**South Karori**	**8.15**	**218**	*e*Pn	**Pn**	**15 45 58.6**	**+4.3**
	89nm,0.9s						
NNZ	**Nelson**	**8.80**	**223**	P	**Pn**	**15 46 00.2**	**-2.9**
THZ	**Tophouse**	**9.43**	**222**	P	**Pn**	**15 46 08.1**	**-3.6**
KHZ	**Kahutara**	**9.56**	**217**	P	**Pn**	**15 46 12.3**	**-1.2**
RPZ	**Rata Peaks**	**11.76**	**219**	P	**Pn**	**15 46 39.0**	**-4.6**
	0.5nm,0.3s,baz=39,slow=22,SNR=4.2						
RPZ				S	Sx	15 48 42.2	
	1.8nm,0.3s,baz=356,slow=16,SNR=9.9						
DZM	**Mont Dzumac**	**18.36**	**311**	*e*LR	LR	15 52 43.8	
	2µm,23.4s						
RAR	**Rarotonga**	**21.56**	**55**	LR	LR	15 54 52.8	
	comp=Z,339nm,21.1s,MS3.7,baz=265,slow=29						
EIDS	**Eidsvold**	**27.78**	**282**	*e*P	**P**	**15 49 44.4**	**+0.4**
CMSA	**Cobar Meteorol**	**29.91**	**266**	*e*P	**P**	**15 50 02.9**	**0.0**
PPT	**Papeete**	**31.18**	**64**	*e*LR	LR	15 58 30.7	
	621nm,26.0s						
PPT	**Papeete**	**31.18**	**64**	LR	LR	15 59 56.4	
	comp=Z,284nm,19.0s,MS4.0,baz=124,slow=30						
HNR	**Honiara**	**32.13**	**317**	LR	LR	16 01 24.7	
	comp=Z,256nm,19.5s,MS3.9,baz=62,slow=33						
STKA	**Stephens Creek**	**33.16**	**264**	*e*P	**P**	**15 50 32.4**	**+0.9**
	4.5nm,1.8s,mb4.1						
STKA	**Stephens Creek**	**33.16**	**264**	P	**P**	**15 50 31.6**	**+0.1**
	3.7nm,1.0s,mb4.3,baz=113,slow=7.7,SNR=4.0						
STKA				LR	LR	16 03 05.7	
	comp=Z,581nm,18.6s,MS4.3,baz=284,slow=35						
STKA	**Stephens Creek**	**33.16**	**264**	*e*P	**P**	**15 50 31.9**	**+0.4**
STKA				LR	LR	16 03 05.7	
CTA	**Charters Tower**	**34.29**	**286**	*e*P	**P**	**15 50 41.8**	**+0.4**
	11nm,0.9s,mb4.8						
CTA	**Charters Tower**	**34.29**	**286**	P	**P**	**15 50 41.3**	**-0.1**
	20nm,0.9s,mb5.0,baz=104,slow=8.8,SNR=7.8						
CTA				LR	LR	16 03 40.2	
	comp=Z,274nm,18.2s,MS4.0,baz=52,slow=35						
CTAO	**Charters Tower**	**34.29**	**286**	*e*P	**P**	**15 50 41.4**	**+0.1**
RKT	**Rikitea**	**39.69**	**85**	*e*LR	LR	16 02 37.4	
	485nm,27.8s						
COEN	**Coen**	**40.24**	**292**	*e*P	**P**	**15 51 32.2**	**+0.3**
COEN	**Coen**	**40.24**	**292**	*e*P	**P**	**15 51 32.1**	**+0.2**
ASAR	**Alice Springs**	**42.52**	**272**	P	**P**	**15 51 50.1**	**-0.5**
	8.4nm,0.8s,mb4.5,baz=114,slow=7.9,SNR=66						
ASAR				S	**S**	**15 58 03.4**	**-7.1**
	0.6nm,0.8s,baz=117,slow=15,SNR=4.8						
VNDA	**Vanda**	**43.44**	**186**	LR	LR	16 05 41.0	
	comp=Z,112nm,20.4s,MS3.8,baz=28,slow=30						
TAOE	**Nuku Hiva Isla**	**43.78**	**63**	*e*LR	LR	16 04 20.0	
	300nm,26.8s						
WB2	**Warramunga Arr**	**43.92**	**277**	*e*P	**P**	**15 52 00.7**	**-1.2**
WRAB	**Tennant Creek**	**43.92**	**277**	*e*P	**P**	**15 52 00.7**	**-1.2**
	22nm,1.3s,mb4.7						
WRA	**Warramunga Arr**	**43.93**	**277**	P	**P**	**15 52 01.1**	**-0.8**
	8.1nm,0.7s,mb4.6,baz=120,slow=7.0,SNR=98						
WRA				LR	LR	16 10 42.9	
	comp=Z,532nm,18.2s,MS4.5,baz=125,slow=37						
FITZ	**Fitzroy Crossi**	**51.96**	**274**	*e*P	**P**	**15 53 03.7**	**-0.4**
	12nm,0.9s,mb4.8						
NWAO	**Narrogin (SRO)**	**52.37**	**253**	P	**P**	**15 53 05.8**	**-1.2**
	4.2nm,0.6s,mb4.5,baz=122,slow=9.5,SNR=3.1						
QSPA	**South Pole Qui**	**55.08**	**180**	P	**P**	**15 53 33.4**	**+7.2**
	3.1nm,0.9s,mb4.3,baz=50,slow=4.0,SNR=10						
QSPA				LR	LR	16 14 00.2	
	comp=Z,196nm,18.8s,MS4.2,baz=217,slow=32						
QSPA	**South Pole Qui**	**55.08**	**180**	*e*P	**P**	**15 53 34.9**	**+8.7**
	8.8nm,0.9s,mb4.8						
QSPA				LR	LR	16 14 00.2	
PMSA	**Palmer Station**	**68.28**	**155**	LR	LR	16 19 35.1	
	comp=Z,160nm,19.1s,MS4.3,baz=34,slow=31						
USHA	**Ushuaia**	**72.42**	**145**	LR	LR	16 22 50.1	
	comp=Z,110nm,18.6s,MS4.2,baz=172,slow=32						
JOW	**Kunigami**	**79.40**	**313**	LR	LR	16 27 25.1	
	comp=Z,128nm,19.9s,MS4.3,baz=101,slow=33						
PLCA	**Paso Flores**	**79.76**	**133**	LR	LR	16 23 38.9	
	comp=Z,81nm,19.1s,MS4.1,baz=186,slow=30						
MJAR	**Matsushiro Arr**	**81.76**	**326**	LR	LR	16 30 24.9	
	comp=Z,135nm,18.0s,MS4.3,baz=200,slow=34						
PSI	**Prapat**	**85.39**	**277**	LR	LR	16 33 47.6	
	comp=Z,307nm,21.6s,MS4.7,baz=262,slow=35						
KSRS	**Korea Array**	**87.53**	**320**	LR	LR	16 31 13.0	
	comp=Z,53nm,19.3s,MS4.0,baz=146,slow=32						
PETK	**Petropavlovsk-**	**90.16**	**346**	P	**P**	**15 56 56.8**	**+2.5**
	6.5nm,1.0s,mb4.9,baz=170,slow=10,SNR=3.1						
CMAR	**Chiang Mai Arr**	**94.41**	**289**	P	**P**	**15 57 17.0**	**+2.2**
	0.3nm,0.6s,mb3.9,baz=121,slow=3.5,SNR=3.4						
CPUP	**Villa Florida**	**97.51**	**129**	LR	LR	16 34 13.5	
	comp=Z,101nm,18.9s,MS4.3,baz=191,slow=31						
MKAR	**Makanchi Array**	**120.27**	**308**	PKP	PKPdf	16 02 45.9	+0.7
	0.5nm,0.9s,baz=77,slow=1.6,SNR=4.5						
MKAR	**Makanchi Array**	**120.27**	**308**	PKP	PKPdf	16 02 45.9	+0.7
ZALV	**Zalesovo Beam**	**121.07**	**317**	PKP	PKPdf	16 02 47.6	+1.0
	0.6nm,0.7s,baz=72,slow=2.3,SNR=2.7						
AML	**Almayashu**	**124.55**	**301**	*e*PKPdf	PKPdf	16 02 56.4	+2.8
KEV	**Kevo**	**142.49**	**346**	*e*pkp	PKPdf	16 03 36.7	+10
ARCES	**ARCESS Array B**	**142.97**	**346**	PKP	PKPdf	16 03 28.4	+1.2
	1.2nm,0.7s,baz=349,slow=5.1,SNR=5.0						
JOF	**Joensuu**	**146.46**	**336**	*e*pkp	PKPdf	16 03 36.1	+2.7
KAF	**Kangasniemi**	**148.67**	**338**	*e*pkp	PKPbc	16 03 42.8	+2.0
FINES	**FINESS Array B**	**149.25**	**337**	PKPbc	PKPbc	16 03 43.9	+1.6
	3.0nm,0.6s,baz=46,slow=2.8,SNR=13						
MALT	**Malatya**	**150.21**	**287**	*e*PKPbc	PKPbc	16 03 48.5	+3.1
DBIC	**Dimbokro**	**151.19**	**167**	PKPbc	PKPbc	16 03 52.9	+4.4
	1.8nm,0.6s,baz=183,slow=9.4,SNR=3.7						
DBIC				PKPab	PKPab	16 04 00.6	+4.3
	5.3nm,1.0s,baz=155,slow=6.6,SNR=4.7						
NB2	**NORSAR Subarra**	**153.22**	**349**	PKP	PKPbc	16 03 55.8	+4.2
	comp=Z,4.8nm,0.7s,baz=17,slow=2.6						
NOA	**NORSAR Array B**	**153.22**	**349**	PKPbc	PKPbc	16 03 55.4	+3.8
	comp=Z,1.5nm,1.0s,baz=21,slow=4.0,SNR=3.1						
NOA				PKPab	PKPab	16 04 05.8	+2.4
	comp=Z,2.4nm,0.8s,baz=18,slow=5.3,SNR=4.5						
NOA	**NORSAR Array B**	**153.22**	**349**	PKPbc	PKPbc	16 03 55.4	+3.8
NOA				PKPab	PKPab	16 04 05.8	+2.4
NACGM	**Naroch**	**153.46**	**326**	*e*	PKPdf	16 03 45.0	+0.4
BRTR	**Keskin Array B**	**154.00**	**290**	PKPbc	PKPbc	16 03 56.7	+2.8
BRTR				PKPab	PKPab	16 04 08.5	+1.0
AKASG	**Malin Array Be**	**154.47**	**316**	PKPbc	PKPbc	16 03 56.9	+2.3
	comp=Z,1.3nm,0.5s,baz=64,slow=2.2,SNR=4.1						
AKASG				PKPab	PKPab	16 04 08.5	-0.6
	comp=Z,1.9nm,0.7s,baz=56,slow=2.2,SNR=6.1						
TORD	**Torodi Ar. Bea**	**158.20**	**181**	PKPab	PKPab	16 04 29.2	+3.3
	comp=Z,0.4nm,0.6s,baz=156,slow=2.3,SNR=2.8						

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*IDC **27** 15:52:36.5±1.2, 34.°67S×179.°44W, h0^{km}, mb4.1/4, mb1 4.2/5, mb1mx4.0/16, mbtmp4.1/5, ML3.8/1, MS2.9/1, Ms1 2.9/1, ms1mx2.6/31, Error ellipse: s-maj=32.4km s-min=23.3km az=38.0*

*ISCJB **27** 15:52:41.3±1.1, 34.°96S±0.°07×179.°7W±0.°2, h33^{km}, mb4.2/6, Error ellipse: s-maj=20.0km s-min=8.7km az=13.9*

*NEIC **27** 15:52:41.7±1.2, 34.°82S×179.°40W, h35^{km}, mb4.2/1, Error ellipse: s-maj=22.4km s-min=19.8km az=61.0*

ISC 27 15:52:43.1±1.1**, 34.°92S**±0.°07×**179.°7W**±0.°2**, h35^{km}, n19, σ1.^{s}25**/22**, mb4.2**/6**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MWZ	**Matawai**	**4.07**	**212**	P	**Pn**	**15 53 43.5**	**+0.7**
MWZ				S	**Sn**	**15 54 33.8**	**+4.6**
URZ	**Urewera**	**4.20**	**217**	Pn	**Pn**	**15 53 46.2**	**+1.6**
	4.3nm,0.3s,baz=31,slow=3.5,SNR=68						
URZ				Sn	**Sn**	**15 54 38.2**	**+5.7**
	12nm,0.3s,baz=268,slow=8.1,SNR=9.5						
URZ				LR	LR	15 54 57.8	
	comp=Z,132nm,18.6s,baz=186,slow=31						
KNZ	**Kokohu**	**4.60**	**206**	P	**Pn**	**15 53 49.2**	**-0.9**
KNZ				S	**Sn**	**15 54 44.1**	**+1.9**
OUZ	**Omahuta**	**5.50**	**265**	*e*P	**Pn**	**15 54 07.6**	**+5.2**
	19nm,0.7s						
WNVZ	**Wahianoa**	**5.78**	**219**	P	**Pn**	**15 53 58.6**	**-7.7**
TSZ	**Takapari Road**	**6.18**	**213**	P	**Pn**	**15 54 10.7**	**-1.1**
TSZ				S	**Sn**	**15 55 22.2**	**+1.1**
MRZ	**Mangatainoka R**	**6.84**	**212**	P	**Pn**	**15 54 19.0**	**-1.8**
MRZ				S	**Sn**	**15 55 36.6**	**-0.8**
THZ	**Tophouse**	**8.96**	**218**	P	**Pn**	**15 54 47.4**	**-2.5**
RPZ	**Rata Peaks**	**11.32**	**216**	Pn	**Pn**	**15 55 19.9**	**-2.3**
	0.4nm,0.3s,baz=55,slow=19,SNR=3.7						
RPZ				Sn	**Sn**	**15 57 20.8**	**-6.7**
	0.6nm,0.3s,baz=1.6,slow=23,SNR=7.5						
STKA	**Stephens Creek**	**32.31**	**264**	P	**P**	**15 59 10.5**	**+1.7**
	1.1nm,0.6s,mb3.9,baz=140,slow=7.9,SNR=2.5						
ASAR	**Alice Springs**	**41.65**	**273**	P	**P**	**16 00 28.4**	**+0.2**
	2.0nm,0.6s,mb3.9,baz=115,slow=7.7,SNR=17						
WB2	**Warramunga Arr**	**43.04**	**278**	*e*P	**P**	**16 00 39.4**	**-0.1**
WRAB	**Tennant Creek**	**43.05**	**278**	*e*P	**P**	**16 00 39.4**	**-0.2**
	3.1nm,0.7s,mb4.2						
WRA	**Warramunga Arr**	**43.05**	**278**	P	**P**	**16 00 39.5**	**-0.1**
	2.4nm,0.6s,mb4.1,baz=120,slow=7.6,SNR=12						
QSPA	**South Pole Qui**	**55.20**	**180**	P	**P**	**16 02 12.9**	**+1.1**
	1.4nm,0.7s,mb4.1,baz=162,slow=12,SNR=8.8						
PMSA	**Palmer Station**	**68.76**	**156**	P	**P**	**16 03 43.1**	**+0.2**
	16nm,0.4s,mb5.3,baz=0.0,slow=20,SNR=10						
KURK	**Kurchatov**	**123.06**	**312**	PKP	PKPdf	16 11 33.4	-1.8

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	1.3nm,0.6s,baz=118,slow=2.4,SNR=4.1						
FINES	FINESS Array B	148.79	336	PKPbc	PKPbc	16 12 23.9	-2.0
	1.9nm,0.9s,baz=54,slow=4.9,SNR=4.9						
TORD	Torodi Ar. Bea	158.29	184	PKPab	PKPab	16 13 09.8	-1.2
	0.3nm,0.7s,baz=162,slow=1.4,SNR=2.5						

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*IDC **27** 15:58:45.6±1.2, 34°.70S×179°.36W, h0^{km}, mb4.2/4, mb1 4.3/5, mb1mx4.1/17, mbtmp4.2/5, MS3.8/3, Ms1 3.7/3, ms1mx3.2/32, Error ellipse: s-maj=33.1km s-min=27.0km az=62.0*

*NEIC **27** 15:58:50.4±1.0, 34°.68S×179°.21W, h35^{km}, mb4.2/1, Error ellipse: s-maj=19.5km s-min=18.9km az=98.0*

ISC 27 15:58:52.6±3.7, 34°.8S±0°.1×179°.4W±0°.3, h45^{km}±27^{km}, n17, σ1^{s}09/12, mb4.2/4, MS3.6/3, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	4.42	218	Pn	Pn	15 59 55.4	-1.6
	baz=99,slow=19						
URZ				Sn	Sn	16 00 47.6	+0.4
	4.3nm,0.3s,baz=3.3,slow=23,SNR=3.6						
OUZ	Omahuta	5.74	264	eP	Pn	16 00 17.3	+2.2
	21nm,0.7s						
KHZ	Kahutara	9.36	214	P	Pn	16 01 04.9	0.0
RPZ	Rata Peaks	11.54	217	Pn	Pn	16 01 30.4	-4.2
	0.3nm,0.3s,baz=37,slow=5.1,SNR=2.7						
RPZ				Sn	Sn	16 03 29.4	-12
	0.6nm,0.3s,baz=1.8,slow=16,SNR=6.8						
RAR	Rarotonga	21.97	57	LR	LR	16 09 32.6	
	comp=Z,140nm,20.0s,MS3.4,baz=88,slow=30						
PPT	Papeete	31.66	65	LR	LR	16 15 15.5	
	comp=Z,292nm,18.2s,MS4.0,baz=208,slow=31						
STKA	Stephens Creek	32.55	264	LR	LR	16 17 43.3	
	comp=Z,108nm,18.0s,MS3.6,baz=26,slow=35						
CTA	Charters Tower	33.62	287	P	P	16 05 29.4	+0.6
	4.6nm,0.7s,mb4.5,baz=60,slow=8.1,SNR=2.8						
CTA	Charters Tower	33.62	287	P	P	16 05 29.4	+0.6
ASAR	Alice Springs	41.88	273	P	P	16 06 38.2	-0.4
	2.6nm,0.8s,baz=115,slow=7.7,SNR=32						
WRAB	Tennant Creek	43.27	278	eP	P	16 06 49.0	-0.8
	3.1nm,0.7s,mb4.2						
WRA	Warramunga Arr	43.27	278	P	P	16 06 49.1	-0.8
	3.2nm,0.8s,mb4.1,baz=120,slow=7.5,SNR=21						
QSPA	South Pole Qui	55.30	180	P	P	16 08 22.2	+1.3
	1.2nm,0.7s,mb4.0,baz=58,slow=2.5,SNR=10						
BVAR	Borovoye Array	128.65	313	PKP	PKPdf	16 17 53.4	-0.7
	0.4nm,0.7s,baz=116,slow=3.4,SNR=2.5						
FINES	FINESS Array B	148.80	336	PKPbc	PKPbc	16 18 33.2	-1.0
	3.7nm,0.9s,baz=64,slow=3.2,SNR=4.9						
BRTR	Keskin Array B	153.33	290	PKPbc	PKPbc	16 18 45.2	-0.4
TORD	Torodi Ar. Bea	158.40	183	PKPab	PKPab	16 19 19.9	0.0
	0.2nm,0.6s,baz=186,slow=2.6,SNR=3.1						

IDC 27 16:02:44.5±1.8, 33°.23S×178°.85W, h0^{km}, mb3.7/2, mb1 4.0/3, mb1mx3.8/16, mbtmp3.8/3, ML3.8/1, Error ellipse: s-maj=42.9km s-min=34.7km az=108.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	6.00	212	Pn	Pn	16 04 14.9	+0.4
	2.2nm,0.3s,baz=275,slow=5.5,SNR=16						
URZ				Sn	Sn	16 05 22.8	-1.1
	3.3nm,0.3s,baz=148,slow=22,SNR=7.0						
ASAR	Alice Springs	42.32	270	P	P	16 10 40.3	+0.1
	0.4nm,0.5s,baz=108,slow=7.2,SNR=9.2						
WRA	Warramunga Arr	43.56	276	P	P	16 10 50.3	0.0
	0.7nm,0.3s,baz=117,slow=7.8,SNR=31						
FINES	FINESS Array B	147.51	338	PKPbc	PKPbc	16 22 28.8	-1.0
	1.6nm,0.5s,baz=40,slow=5.1,SNR=13						
TORD	Torodi Ar. Bea	160.00	182	PKPab	PKPab	16 23 25.4	-0.2
	0.3nm,0.9s,baz=170,slow=2.6,SNR=2.7						

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*CSEM **27** 16:03:24.1±1.0, 50°.43N×18°.90E, h2^{km}, Error ellipse: s-maj=14.6km s-min=10.4km az=51.0*

PRU 27 16:03:26.7, 50°.38N×18°.81E, h0^{km}, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.65	104	ePg	Pg	16 03 38.8	-0.4
OJC				eSg	Sg	16 03 47.5	-0.2
OKC	Ostrava-Krasne	0.69	218	ePG	Pg	16 03 39.1	-0.8
OKC				eSG	Sg	16 03 50.0	+1.2
OKC	Ostrava-Krasne	0.69	218	Pg	Pg	16 03 39.1	-0.8
OKC				Sg	Sg	16 03 50.0	+1.2
MORC	Moravsky Berou	1.02	234	ePg	Pg	16 03 44.9	-1.2
MORC				eSg	Sg	16 03 57.8	-1.5
DPC	Dobruska-Polom	1.59	270	ePG	Pg	16 03 55.9	-1.3
DPC				eSG	Sg	16 04 17.7	-0.2
DPC	Dobruska-Polom	1.59	270	ePg	Pg	16 03 55.9	-1.3
DPC				eSg	Sg	16 04 17.7	-0.2
DPC	Dobruska-Polom	1.59	270	Pg	Pg	16 03 55.9	-1.3
DPC				Sg	Sg	16 04 17.7	-0.2
PRU	Pruhonice	2.77	264	eSG	Sg	16 04 56.1	+0.4
PRU	Pruhonice	2.77	264	Sg	Sg	16 04 56.1	+0.4
KHC	Kasperske Hory	3.62	252	eSG	Sg	16 05 22.4	-0.4
KHC	Kasperske Hory	3.62	252	Sg	Sg	16 05 22.4	-0.4

KRSC 27 16:19:01.7±0.6, 52°.80N×159°.93E, h30^{km}±20^{km}, ML3.6, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	0.30	11	i P	Pb	16 19 09.9	+0.7
SPN				i S	Sb	16 19 15.5	+1.2
NLC	Nalytchevo	0.51	317	i P	Pb	16 19 12.5	+0.2
NLC				i S	Sb	16 19 20.1	+0.5
PET	Petropavlovsk	0.81	287	i P	Pn	16 19 16.8	-0.2
PET				i S	Sb	16 19 28.2	+0.5
AVH	Avacha	0.86	303	i P	Pn	16 19 17.9	+0.2
AVH				eS	Sb	16 19 30.6	+1.4
RUS	Russkaya	0.94	248	i P	Pn	16 19 18.6	-0.2
RUS				i S	Sn	16 19 31.2	0.0
GRL	Gorelyy	1.16	258	eP	Pn	16 19 22.5	+0.7
GRL				i S	Sn	16 19 37.2	+0.6
GNL	Ganaly	1.49	308	i P	Pn	16 19 27.6	+1.2
GNL				i S	Sn	16 19 46.8	+1.9
TUMR	Tumrok	2.49	3	P	Pn	16 19 41.3	+1.2
TUMR				i S	Sn	16 20 09.8	+0.3
KMNR	Kamenistaya	2.97	3	P	Pn	16 19 48.5	+1.8
ZLN	Zelenaya	3.26	9	P	Pn	16 19 52.2	+1.5
ZLN				i S	Sn	16 20 30.1	+1.6
KBTR	Krutoberegovo	3.81	25	P	Pn	16 19 59.4	+1.2
KBTR				i S	Sn	16 20 42.4	+0.5

IDC 27 16:34:20.3±1.6, 4°.58N×123°.77E, h0^{km}, mb3.4/3, mb1 3.7/4, mb1mx3.5/23, mbtmp3.6/4, ML4.1/1, MS3.2/1, Ms1 3.2/1, ms1mx2.2/20, Error ellipse: s-maj=74.7km s-min=24.8km az=68.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	10.34	203	Pn	Pn	16 36 49.9	0.0
	1.5nm,0.3s,baz=80,slow=16,SNR=2.7						
FITZ	Fitzroy Crossi	22.61	175	LR	LR	16 48 25.0	
	comp=Z,56nm,18.6s,baz=259,slow=37						
WRA	Warramunga Arr	26.49	157	P	P	16 39 59.5	0.0
	0.3nm,0.3s,baz=336,slow=9.6,SNR=10						
ASAR	Alice Springs	29.76	161	P	P	16 40 28.9	+0.2
	0.1nm,0.4s,baz=338,slow=7.8,SNR=4.2						
MKAR	Makanchi Array	55.20	326	P	P	16 43 54.9	0.0
	0.2nm,0.3s,baz=123,slow=7.7,SNR=8.5						

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*ISCJB **27** 16:35:57.3±0.7, 20°.18S±0°.05×69°.1W±0°.1, h106^{km}±12^{km}, Error ellipse: s-maj=15.8km s-min=8.3km az=171.3*

*NEIC **27** 16:36:00.5±0.8, 20°.29S×68°.89W, h120^{km}±11^{km}, MD3.8(GUC), Error ellipse: s-maj=15.4km s-min=10.6km az=88.0*

*IDC **27** 16:36:00.6±3.9, 20°.35S×68°.83W, h114^{km}±27^{km}, mb3.3/2, mb1 3.2/6, mb1mx3.1/20, mbtmp3.1/6, Error ellipse: s-maj=62.8km s-min=20.7km az=121.0*

*GUC **27** 16:36:01.6±0.7, 20°.64S×69°.29W, h138^{km}±33^{km}, MD3.8, ML3.7*

ISC 27 16:35:58.5±0.7, 20°.19S±0°.05×69°.08W±0°.10, h100^{km}±13^{km}, n16, σ1^{s}14/22, 1C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MACH	Maria Elena	2.09	198	i P	Pn	16 36 32.7	+0.4
MACH				i S	Sn	16 36 55.9	-2.1
PB04	Plate Boundary	2.10	190	eP	Pn	16 36 34.6	+2.2
PB04				i S	Sn	16 36 59.8	+1.6
PB04				AML	AML	16 37 16.6	
	comp=E,554nm,0.4s						
LVC	Limon Verde	2.41	176	P	Pn	16 36 37.4	+0.9
	comp=E,35nm,0.3s,baz=25,slow=11,SNR=228						
LVC				S	Sn	16 37 05.7	+0.2
	comp=E,66nm,0.3s,baz=348,slow=12,SNR=29						
LVC	Limon Verde	2.41	176	ePn	Pn	16 36 37.2	+0.7
LVC				eSn	Sn	16 37 03.2	-2.3
LVC	Limon Verde	2.41	176	⇓iP	Pn	16 36 37.3	+0.8
LVC				i S	Sn	16 37 04.7	-0.9
LVC				AML	AML	16 37 10.7	
	comp=E,304nm,0.3s						
PECH	Pedro de Valdi	2.46	193	i P	Pn	16 36 36.8	-0.3
PECH				i S	Sn	16 37 03.6	-3.0
PECH				AML	AML	16 37 08.7	
	comp=E,976nm,0.3s						
CEN1	Los Morros	3.35	198	⇑iP	Pn	16 36 48.5	-0.4
CEN1				i S	Sn	16 37 28.5	+0.7
CEN1				AML	AML	16 37 51.7	
	comp=N,100nm,0.6s						
ARE	Arequipa	4.36	328	eP	Pn	16 37 08.0	+5.3
ARE				eS	Sn	16 37 52.0	-0.4
CPN1	Cerro Paranal	4.58	195	AML	AML	16 38 29.2	
	comp=E,95nm,0.3s						
SIV	San Ignacio	8.68	63	P	Pn	16 38 01.9	+0.5
	comp=E,0.6nm,0.3s,baz=256,slow=9.4,SNR=10						
CFAA	Coronel Fontan	11.39	176	P	Pn	16 38 38.5	+0.5
	comp=E,0.0nm,0.3s,baz=41,slow=29,SNR=3.4						
CFAA	Coronel Fontan	11.39	176	P	Pn	16 38 38.5	+0.4
CPUP	Villa Florida	12.40	122	P	Pn	16 38 50.3	-1.2
	comp=E,0.4nm,0.3s,baz=284,slow=9.9,SNR=5.2						
PLCA	Paso Flores	20.51	183	P	P	16 40 29.0	+0.4
	comp=E,2.4nm,0.9s,baz=3.9,slow=12,SNR=4.5						
TORD	Torodi Ar. Bea	77.07	71	P	P	16 47 41.0	-0.3
	comp=E,0.3nm,0.3s,baz=256,slow=5.2,SNR=11						
MKAR	Makanchi Array	144.66	35	PKP	PKPdf	16 55 21.6	-1.8
	comp=E,0.2nm,0.5s,baz=300,slow=2.7,SNR=4.6						

IDC 27 16:36:04.7±35.0, 5°.27N×126°.82E, h0^{km}, mb3.4/3, mb1 3.6/3, mb1mx3.3/20, mbtmp3.4/3, 1C, Error ellipse: s-maj=592.8km s-min=177.0km az=161.0, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	2.04	294	⇑eP	Pn	16 36 53.7	+13
GSPH				eS	Sn	16 37 18.4	+12
WRA	Warramunga Arr	26.12	164	P	P	16 41 41.5	+0.9
	0.3nm,0.4s,baz=344,slow=10,SNR=5.6						
ASAR	Alice Springs	29.58	167	P	P	16 42 10.4	-1.0
	0.3nm,0.7s,baz=350,slow=7.8,SNR=4.1						
STKA	Stephens Creek	39.53	160	P	P	16 43 37.5	0.0
	1.7nm,0.9s,baz=338,slow=5.4,SNR=3.0						

IDC 27 17:08:34.2±4.1, 5°.19S×148°.40E, h0^{km}, mb3.2/3, mb1 3.5/3, mb1mx3.4/15, mbtmp3.3/3, Error ellipse: s-maj=137.1km s-min=31.5km az=104.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.06	222	P	P	17 13 09.2	-0.1
	1.0nm,0.7s,baz=46,slow=12,SNR=19						
ASAR	Alice Springs	23.08	216	P	P	17 13 41.7	0.0
	0.7nm,0.8s,baz=41,slow=10.0,SNR=11						
MKAR	Makanchi Array	77.77	320	P	P	17 20 33.9	+0.6
	0.2nm,0.8s,baz=112,slow=6.1,SNR=3.5						
TORD	Torodi Ar. Bea	146.23	286	PKPbc	PKPbc	17 28 16.3	-1.4
	0.4nm,0.6s,baz=57,slow=3.9,SNR=3.2						

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*ISCJB **27** 17:47:30.4±0.8, 54°.3N±0°.2×170°.1E±0°.1, h33^{km}, mb3.6/11, Error ellipse: s-maj=29.3km s-min=8.7km az=172.7*

*NEIC **27** 17:47:32.7±1.8, 54°.32N×170°.22E, h37^{km}±17^{km}, mb4.1/3, Error ellipse: s-maj=22.5km s-min=10.0km az=181.0*

*IDC **27** 17:47:32.8±6.0, 54°.30N×170°.21E, h37^{km}±52^{km}, mb3.4/10, mb1 3.6/11, mb1mx3.5/28, mbtmp3.4/11, ML3.5/1, Error ellipse: s-maj=37.0km s-min=16.5km az=179.0*

ISC 27 17:47:32.7±0.8, 54°.3N±0°.2×170°.2E±0°.1, h35^{km}, n18, σ0^{s}47/19, mb3.6/11, Near Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	Petropavlovsk-	7.52	266	Pn	Pn	17 49 19.8	+0.2
	0.8nm,0.3s,baz=92,slow=20,SNR=6.3						
PETK				Sn	Sn	17 50 43.2	-0.3
	0.4nm,0.3s,baz=133,slow=38,SNR=3.8						
YKA	Yellowknife Ar	38.07	47	P	P	17 54 47.2	-0.2
	0.2nm,0.5s,mb3.1,baz=292,slow=7.9,SNR=3.2						
SONM	Songino Array	39.37	288	P	P	17 54 59.4	+1.1
	0.4nm,0.7s,mb3.2,baz=73,slow=7.9,SNR=3.5						
NVAR	Mina Array Bea	49.64	78	P	P	17 56 20.8	+0.4
	0.3nm,0.5s,mb3.6,baz=299,slow=9.2,SNR=4.5						
PDAR	Pinedale Array	51.59	68	P	P	17 56 34.6	-0.4
	0.9nm,0.9s,mb3.7,baz=308,slow=5.5,SNR=6.0						
KURK	Kurchatov	52.03	306	P	P	17 56 38.9	+0.7
	1.2nm,0.6s,mb4.0,baz=56,slow=7.7,SNR=9.1						
KURK	Kurchatov	52.03	306	eP	P	17 56 38.1	-0.1
	2.1nm,0.8s,mb4.1						
MKAR	Makanchi Array	52.88	301	P	P	17 56 43.8	-0.8
MKAR	Makanchi Array	52.88	301	P	P	17 56 43.8	-0.8
	0.2nm,0.6s,mb3.2,baz=33,slow=4.5,SNR=4.6						
BVAR	Borovoye Array	54.16	313	P	P	17 56 53.8	-0.1
	0.6nm,0.7s,mb3.7,baz=53,slow=8.4,SNR=6.3						
BRVK	Borovoye	54.18	313	eP	P	17 56 53.7	-0.3
	1.4nm,0.7s,mb4.0						
AAK	Ala-Archa	59.74	302	P	P	17 57 34.0	+0.4
AAK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
AAK	Ala-Archa	59.74	302	P	P	17 57 34.0	+0.4
	comp=Z,0.6nm,0.4s,mb4.0,baz=90,slow=6.1,SNR=3.4						
AAK	Ala-Archa	59.74	302	eP	P	17 57 34.0	+0.4
	comp=Z,0.9nm,0.5s,mb4.1						
TXAR	Lajitas Array	64.57	75	P	P	17 58 06.2	+0.1
	comp=Z,0.8nm,0.7s,mb3.9,baz=306,slow=4.3,SNR=9.2						
TXAR	Lajitas Array	64.57	75	P	P	17 58 06.2	+0.1
ASAR	Alice Springs	83.71	213	P	P	17 59 57.3	-0.2
ASAR	Alice Springs	83.71	213	P	P	17 59 57.3	-0.2
	comp=Z,0.3nm,0.6s,mb3.6,baz=17,slow=4.8,SNR=7.2						

IDC 27 18:03:51.5±2.5, 26°.73N×142°.60E, h41^{km}±21^{km}, mb3.4/5, mb1 3.6/5, mb1mx3.3/22, mbtmp3.4/5, Error ellipse: s-maj=45.3km s-min=20.9km az=86.0, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	0.52	314	P	Pn	18 04 03.5	+0.8
	91nm,0.3s,baz=296,slow=18,SNR=11						
CBIJ				S	Sn	18 04 12.8	+2.3
	334nm,0.3s,baz=287,slow=20,SNR=20						
WRA	Warramunga Arr	47.08	191	P	P	18 12 19.8	+0.4
	2.8nm,0.6s,baz=12,slow=8.6,SNR=26						
ASAR	Alice Springs	50.80	190	P	P	18 12 47.2	-0.6
	0.2nm,0.6s,baz=0.4,slow=5.4,SNR=6.2						
KURK	Kurchatov	53.51	315	P	P	18 13 07.1	-0.6
	0.2nm,0.4s,baz=90,slow=8.0,SNR=2.6						
YKA	Yellowknife Ar	72.28	28	P	P	18 15 12.3	-0.1
	0.1nm,0.6s,baz=294,slow=6.0,SNR=3.3						
FINES	FINESS Array B	78.44	334	P	P	18 15 48.6	+0.9
	3.8nm,0.9s,baz=100,slow=1.7,SNR=3.5						

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*NEIC **27** 18:23:30.2, 65°.68N×136°.18W, h1^{km}, ML2.8(AEIC), ML3.0(PGC), After PGC.*

PGC 27 18:23:30.2, 65°.68N×136°.18W, h1^{km}, ML3.0/3, 7D, 211km southwest of Fort McPherson, Nt Northern Yukon Territory, Canada, Northern Yukon Territory

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAWY	Dawson	2.12	222	⇓Pn	Pn	18 24 07.1	+0.4
DAWY				⇑Sg	Sg	18 24 35.5	-2.8
DAWY	Dawson	2.12	222	P	Pn	18 24 06.8	+0.1
DAWY				S	Sn	18 24 34.5	+0.9
EGAK	Eagle	2.28	249	P	Pn	18 24 09.4	+0.4
EGAK				S	Sn	18 24 39.2	+1.6
INK	Inuvik	2.84	20	⇑Pn	Pn	18 24 15.5	-1.2
INK				⇑Sn	Sn	18 24 49.9	-1.5
INK				⇓Sg	Sg	18 24 58.3	-3.1
BCA3	Beaver Creek A	3.58	225	P	Pn	18 24 27.2	+0.4
BM3	Burnt Mountain	3.80	301	P	Pn	18 24 30.9	+1.1
DOT	Dot Lake	3.95	243	P	Pn	18 24 32.0	+0.1
DOT				S	Sn	18 25 22.1	+3.3
IL1	Eielson Array	4.60	264	P	Pn	18 24 41.4	+0.6
HYT	Haines Junctio	4.91	188	⇓Pn	Pn	18 24 45.0	0.0
HYT				⇓Sg	Sg	18 26 03.0	-4.7
WHY	Whitehorse	5.07	173	⇓Pn	Pn	18 24 45.7	-1.6
WHY				⇓Sn	Sn	18 25 43.1	-3.2
WHY				⇑Sg	Sg	18 26 07.2	-5.7
YKW3	Yellowknife Ar	9.91	98	⇓Pn	Pn	18 25 50.9	-2.6

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*ISCJB **27** 18:29:56.7±0.8, 4°.75S±0°.06×129°.5E±0°.1, h199^{km}±5^{km}, mb4.0/14, Error ellipse: s-maj=22.1km s-min=5.0km az=158.7*

*NEIC **27** 18:29:57.0±1.4, 4°.71S×129°.44E, h182^{km}±14^{km}, mb4.5/7, Error ellipse: s-maj=17.7km s-min=7.7km az=64.0*

*DJA **27** 18:30:00, 3°.40S×130°.12E, h109^{km}, MLv4.0/4*

*IDC **27** 18:30:01.8±3.3, 4°.83S×129°.44E, h228^{km}±31^{km}, mb3.5/8, mb1 3.8/11, mb1mx3.6/19, mbtmp3.6/11, Error ellipse: s-maj=39.4km s-min=9.2km az=71.0*

ISC 27 18:29:57.6±0.8, 4°.77S±0°.06×129°.5E±0°.1, h191^{km}±5^{km}, n36, σ0^{s}85/46, mb4.1/14, 1D, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	1.68	310	⇓eP	Pn	18 30 32.8	+0.6
AAI				eS	Sn	18 30 57.8	-1.2
AAI	Ambon	1.68	310	P	Pn	18 30 32.5	+0.3
AAI				S	Sn	18 30 57.8	-1.2
NLAI	Namlea	2.83	302	P	Pn	18 30 45.5	+0.7
NLAI				S	Sn	18 31 23.6	+2.1
LBMI	Labuha	4.56	334	P	Pn	18 30 56.3	-10
LBMI				S	Sn	18 31 58.7	-1.4
KAKA	Kakadu	8.41	160	eP	Pn	18 31 56.2	-0.1
	14nm,0.3s						
KAKA				eS	Sn	18 33 24.0	-6.7
KAKA	Kakadu	8.41	160	ePn	Pn	18 31 55.7	-0.5
	40nm,0.5s						
KAKA				eSn	Sn	18 33 25.0	-5.7
KNA	Kununurra	10.93	184	eP	Pn	18 32 29.3	+0.2
	20nm,0.9s						
KNA				eS	Sn	18 34 26.6	-4.3
FITZ	Fitzroy Crossi	13.78	196	eP	Pn	18 33 09.2	+4.0
	20nm,0.4s						
FITZ				eS	Sn	18 35 28.9	-10
FITZ	Fitzroy Crossi	13.78	196	P	Pn	18 33 05.8	+0.7
	3.0nm,0.3s,baz=29,slow=8.6,SNR=46						
FITZ				S	Sn	18 35 29.9	-8.9
	0.3nm,0.3s,baz=75,slow=20,SNR=2.5						
WRAB	Tennant Creek	15.80	163	ePn	Pn	18 33 30.2	+0.3
	6.3nm,0.8s						
WRAB				eSn	Sn	18 36 20.3	-6.8
WRA	Warramunga Arr	15.80	163	P	Pn	18 33 30.2	+0.1
	1.0nm,0.3s,baz=344,slow=12,SNR=87						
WRA				S	S	18 36 18.6	-6.8
	1.1nm,0.3s,baz=330,slow=24,SNR=5.2						
ASAR	Alice Springs	19.26	168	P	P	18 34 09.8	+2.1
	3.4nm,0.3s,baz=351,slow=12,SNR=562						
ASAR				S	S	18 37 34.2	-1.5
	0.5nm,0.3s,baz=349,slow=21,SNR=16						
NWAO	Narrogin (SRO)	30.26	201	eP	P	18 35 52.0	+1.3
	6.0nm,0.8s,mb4.4						
CMAR	Chiang Mai Arr	37.94	308	P	P	18 36 57.8	+0.8
	1.4nm,0.5s,mb3.8,baz=134,slow=7.0,SNR=16						
ODAN	Odare	51.43	310	eP	P	18 38 41.9	-1.6
TAPN	Taplejung	51.44	311	eP	P	18 38 42.8	-0.8
	4.4nm,0.4s,mb4.4						
RAMN	Ramite	52.08	310	eP	P	18 38 48.7	+0.4
JIRN	Jiri	52.76	310	eP	P	18 38 52.2	-1.0
	3.7nm,0.5s,mb4.3						
GUN	Gumba	53.12	310	eP	P	18 38 55.7	-0.2
	8.4nm,0.6s,mb4.7						
PKI	Pulchoki	53.31	310	eP	P	18 38 56.8	-0.5
KKN	Kakani	53.52	310	eP	P	18 38 58.6	-0.2
DMN	Daman	53.56	310	eP	P	18 38 59.1	0.0
GKN	Gorkha	54.12	310	eP	P	18 39 02.8	-0.3
	9.5nm,0.7s,mb4.6						
KOLN	Koldanda	54.80	309	eP	P	18 39 08.2	+0.1
	7.1nm,0.5s,mb4.6						
DANN	Dangsing	54.96	310	eP	P	18 39 09.2	0.0
SONM	Songino Array	56.18	341	P	P	18 39 18.1	+0.6
	0.5nm,0.7s,mb3.4,baz=162,slow=9.8,SNR=4.6						
PETK	Petropavlovsk-	62.38	19	P	P	18 40 00.5	+0.6
	5.5nm,1.0s,mb4.3,baz=153,slow=9.7,SNR=2.6						
MK31	Makanchi Array	66.09	327	eP	P	18 40 24.3	+0.2
MKAR	Makanchi Array	66.09	327	P	P	18 40 24.4	+0.3
	2.2nm,0.6s,mb4.1,baz=123,slow=8.1,SNR=30						
ZALV	Zalesovo Beam	69.37	334	P	P	18 40 44.4	-0.1
	1.0nm,0.6s,mb3.7,baz=103,slow=6.4,SNR=6.2						
KURK	Kurchatov	70.36	328	P	P	18 40 50.4	-0.2
	2.8nm,0.6s,mb4.2,baz=129,slow=5.5,SNR=8.9						
KURK	Kurchatov	70.36	328	eP	P	18 40 50.5	-0.1
VNDA	Vanda	74.71	173	P	P	18 41 15.7	-0.1
	2.3nm,1.1s,mb3.7,baz=337,slow=7.7,SNR=3.3						
QSPA	South Pole Qui	85.19	180	P	P	18 42 12.8	+0.9
	0.4nm,0.4s,mb3.5,baz=94,slow=18,SNR=7.0						
TORD	Torodi Ar. Bea	127.85	283	PKP	PKPdf	18 48 42.1	+0.6
	0.4nm,0.6s,baz=86,slow=1.1,SNR=3.5						
TORD				SKPbc		18 51 41.9	
	0.4nm,0.8s,baz=65,slow=3.3,SNR=3.5						
CPUP	Villa Florida	148.39	168	PKPbc	PKPbc	18 49 22.2	0.0
	0.7nm,0.5s,baz=297,slow=4.5,SNR=3.7						

GUC 27 18:41:33.7±0.7, 32°.11S×71°.81W, h31^{km}±4^{km}, MD3.5, ML2.9, 3C-1D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.35	50	⇓iP	Pb	18 41 41.7	-0.2
CHNG				i S	Sb	18 41 47.6	+0.1
CMCH	Combarbala	1.16	37	i P	Pn	18 41 54.0	+0.3
CMCH				i S	Sn	18 42 09.9	+1.4
CMCH				AML	AML	18 42 18.6	
	comp=E,512nm,0.8s						
PEL	Peldehue	1.41	138	eP	Pn	18 41 58.5	+1.3
PEL				i S	Sn	18 42 16.3	+1.7
PEL				AML	AML	18 42 20.2	
	comp=N,369nm,0.3s						
TACH	Talagante	1.71	155	⇑iP	Pn	18 42 02.6	+1.3
TACH				i S	Sn	18 42 24.8	+2.7
FCH	Farellones	1.77	134	⇑iP	Pn	18 42 03.0	+0.9
FCH				i S	Sn	18 42 26.6	+3.1
FCH				AML	AML	18 42 29.1	
	comp=E,151nm,0.2s						
PCH	Pirque	1.86	144	⇑iP	Pn	18 42 05.3	+1.9
PCH				i S	Sn	18 42 28.7	+2.8

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*ISCJB **27** 18:52:33.5±0.2, 35°.81N±0°.02×26°.38E±0°.03, h102^{km}±4^{km}, mb3.4/2, Error ellipse: s-maj=3.8km s-min=3.4km az=14.3*

*CSEM **27** 18:52:35.3±0.1, 35°.83N×26°.34E, h80^{km}, ML3.2, Error ellipse: s-maj=3.8km s-min=3.3km az=10.0*

*IDC **27** 18:52:35.6±3.7, 35°.65N×26°.54E, h83^{km}±39^{km}, mb3.2/2, mb1 3.3/4, mb1mx3.0/23, mbtmp3.3/4, Error ellipse: s-maj=36.0km s-min=20.9km az=136.0*

*NEIC **27** 18:52:35.0, 35°.97N×26°.30E, h78^{km}, MG3.2(ATH), After ATH.*

*ATH **27** 18:52:35.0, 35°.97N×26°.30E, h78^{km}±4^{km}, ML3.2*

*HLW **27** 18:52:35.4, 35°.87N×26°.49E, h33^{km}, Mb3.4*

*ISK **27** 18:52:35.3, 35°.92N×26°.30E, h32^{km}, MD3.5*

*THE **27** 18:52:37.4, 35°.96N×26°.30E, h54^{km}±4^{km}, Error ellipse: s-maj=4.7km s-min=1.0km az=231.0*

*GII **27** 18:52:38.5±0.7, 35°.76N×26°.86E, h32^{km}±2^{km}, Md3.2/4*

*DDA **27** 18:52:38.1, 36°.15N×26°.61E, h28^{km}, Md3.4*

ISC 27 18:52:34.9±0.3, 35°.81N±0°.02×26°.39E±0°.02, h91^{km}±5^{km}, n150, σ1^{s}12/187, mb3.4/2, 8D, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.68	112	⇓iP	Pn	18 52 52.8	+1.5
KARP				eS	Sn	18 53 05.1	+1.6
KARP	Karpathos	0.68	112	⇓iP	Pn	18 52 52.8	+1.5
KARP				eS	Sn	18 53 05.1	+1.6
ZKR	Zakros	0.71	192	P	Pn	18 52 53.0	+1.4
ZKR				S	Sn	18 53 05.4	+1.4

ZKR	Zakros	0.71	192	eP	Pn	18 52 53.1	+1.5
ZKR	Zakros	0.71	192	P	Pn	18 52 53.0	+1.4
ZKR				S	Sn	18 53 05.4	+1.4
NPS	Neapolis	0.84	230	⇓iP	Pn	18 52 53.0	+0.2
NPS				eS	Sn	18 53 06.1	-0.2
NPS	Neapolis	0.84	230	⇓iP	Pn	18 52 53.0	+0.2
NPS				eS	Sn	18 53 06.1	-0.2
THR1	Thera Island	0.94	307	P	Pn	18 52 52.1	-1.8
THR1				S	Sn	18 53 03.0	-5.3
THR1	Thera Island	0.94	307	P	Pn	18 52 52.1	-1.8
THR1				S	Sn	18 53 03.0	-5.3
LAST	Lasithi	0.99	229	P	Pn	18 52 54.7	+0.2
LAST				S	Sn	18 53 08.5	-0.7
LAST	Lasithi	0.99	229	eP	Pn	18 52 54.7	+0.2
LAST	Lasithi	0.99	229	P	Pn	18 52 54.7	+0.2
LAST				S	Sn	18 53 08.5	-0.7
THR4	Thira Island,	1.03	309	P	Pn	18 52 53.4	-1.6
THR4				S	Sn	18 53 05.3	-4.8
THR4	Thira Island,	1.03	309	P	Pn	18 52 53.4	-1.6
THR4				S	Sn	18 53 05.3	-4.8
DAT	Datca	1.33	46	ePN	Pn	18 52 58.0	-0.5
DAT				eSN	Sn	18 53 14.2	-2.2
DAT	Datca	1.33	46	ePn	Pn	18 52 58.0	-0.5
DAT				eSn	Sn	18 53 14.2	-2.2
IDI	Anoyia	1.33	247	P	Pn	18 52 58.4	-0.1
IDI	Anoyia	1.33	247	P	Pn	18 52 58.4	-0.1
BODT	Bodrum	1.45	30	ePN	Pn	18 52 59.5	-0.6
BODT				eSN	Sn	18 53 16.5	-2.7
BODT	Bodrum	1.45	30	ePn	Pn	18 52 59.5	-0.6
BODT				eSn	Sn	18 53 16.5	-2.6
ARG	Arkhangelos	1.47	73	⇓iP	Pn	18 53 01.6	+1.4
ARG				eS	Sn	18 53 20.3	+0.9
ARG	Arkhangelos	1.47	73	⇓iP	Pn	18 53 01.6	+1.4
ARG				eS	Sn	18 53 20.3	+0.9
SIVA	Sivas	1.51	239	eP	Pn	18 53 01.9	+1.1
SIVA	Sivas	1.51	239	eP	Pn	18 53 01.9	+1.1
BDRM	Kayabasi	1.52	34	i P	Pn	18 53 00.6	-0.3
BDRM				i S	Sn	18 53 18.5	-2.0
BDRM	Kayabasi	1.52	34	i P	Pn	18 53 00.6	-0.2
BDRM				i S	Sn	18 53 18.5	-2.0
VAM	Vamos	1.83	258	eP	Pn	18 53 04.5	-0.4
VAM	Vamos	1.83	258	eP	Pn	18 53 04.5	-0.4
MLSB	Milas	1.86	37	ePN	Pn	18 53 05.0	-0.2
MLSB	Milas	1.86	37	ePn	Pn	18 53 05.0	-0.2
SMG	Samos	1.93	11	P	Pn	18 53 05.5	-0.7
SMG	Samos	1.93	11	P	Pn	18 53 05.5	-0.7
YER	Yerkesik	2.02	49	ePN	Pn	18 53 08.0	+0.6
YER	Yerkesik	2.02	49	ePn	Pn	18 53 08.0	+0.7
DALT	Dalyan (Mudla)	2.05	62	ePN	Pn	18 53 08.9	+1.2
DALT	Dalyan (Mudla)	2.05	62	ePn	Pn	18 53 08.9	+1.1
KARN	Karanos	2.06	259	eP	Pn	18 53 08.1	+0.3
KARN	Karanos	2.06	259	eP	Pn	18 53 08.1	+0.3
TURN	Turunc	2.08	59	i P	Pn	18 53 05.1	-3.0
TURN				i S	Sn	18 53 18.3	-15
TURN	Turunc	2.08	59	i P	Pn	18 53 05.1	-3.0
AYDN	Tasoluk	2.20	32	i P	Pn	18 53 10.2	+0.4
AYDN	Tasoluk	2.20	32	i P	Pn	18 53 10.2	+0.5
FETY	Fethiye	2.33	68	ePN	Pn	18 53 12.5	+1.1
FETY	Fethiye	2.33	68	ePn	Pn	18 53 12.5	+1.1
URLA	Izmir	2.55	4	i P	Pn	18 53 12.6	-1.8
URLA	Izmir	2.55	4	i P	Pn	18 53 12.6	-1.8
CHOS	Chios island	2.59	354	P	Pn	18 53 14.0	-0.8
CHOS	Chios island	2.59	354	eP	Pn	18 53 14.1	-0.7
CHOS	Chios island	2.59	354	eP	Pn	18 53 14.1	-0.7
KSL	Kastellorizon	2.61	82	⇓iP	Pn	18 53 17.0	+1.8
KSL	Kastellorizon	2.61	82	⇓iP	Pn	18 53 17.0	+1.8
BLCB	Balcova	2.62	11	ePN	Pn	18 53 14.9	-0.5
BLCB	Balcova	2.62	11	ePn	Pn	18 53 14.9	-0.4
AKAS	Kas	2.64	80	i P	Pn	18 53 17.3	+1.8
AKAS				i S	Sn	18 53 48.0	+1.2
AKAS	Kas	2.64	80	i P	Pn	18 53 17.3	+1.7
AKAS				i S	Sn	18 53 48.0	+1.2
IZM	Izmir	2.68	15	ePN	Pn	18 53 16.0	0.0
IZM	Izmir	2.68	15	ePn	Pn	18 53 16.0	0.0
GOLH	Golhisar	2.92	60	i P	Pn	18 53 21.5	+2.1
GOLH	Golhisar	2.92	60	i P	Pn	18 53 21.5	+2.1
VLI	Veliai	2.93	289	eP	Pn	18 53 18.8	-0.7
VLI	Veliai	2.93	289	eP	Pn	18 53 18.8	-0.7
ELL	Elmali	2.99	71	ePN	Pn	18 53 22.4	+2.1
ELL	Elmali	2.99	71	ePn	Pn	18 53 22.4	+2.1
ATHU	Athens Univers	3.00	317	P	Pn	18 53 20.2	-0.2
ATHU	Athens Univers	3.00	317	P	Pn	18 53 20.2	-0.2
ATH	Athens Observa	3.04	316	eP	Pn	18 53 20.1	-0.8
ATH	Athens Observa	3.04	316	eP	Pn	18 53 20.1	-0.8
DID	Didima	3.05	305	eP	Pn	18 53 20.5	-0.5
DID	Didima	3.05	305	P	Pn	18 53 20.5	-0.5
MANT	Manisa	3.19	32	i P	Pn	18 53 23.8	+0.9
MANT	Manisa	3.19	32	i P	Pn	18 53 23.8	+0.9
SIGR	SIGRI	3.42	353	P	Pn	18 53 25.1	-1.0
SIGR	SIGRI	3.42	353	P	Pn	18 53 25.1	-1.0
PRK	Paraskevi	3.43	358	P	Pn	18 53 25.4	-0.8
PRK	Paraskevi	3.43	358	P	Pn	18 53 25.4	-0.8
LTK	Loutraki	3.52	310	P	Pn	18 53 27.4	0.0
LTK	Loutraki	3.52	310	P	Pn	18 53 27.4	0.0
KHAL	Karahalli	3.56	43	i P	Pn	18 53 29.4	+1.5
KHAL	Karahalli	3.56	43	i P	Pn	18 53 29.4	+1.5
BCK	Bucak	3.76	63	ePN	Pn	18 53 32.5	+2.0
BCK	Bucak	3.76	63	ePn	Pn	18 53 32.6	+2.0
ITM	Ithomi	3.85	292	P	Pn	18 53 34.4	+2.6
ITM	Ithomi	3.85	292	P	Pn	18 53 34.4	+2.6
ISP	Isparta	3.88	57	P	Pn	18 53 33.5	+1.3
ISP	Isparta	3.88	57	P	Pn	18 53 34.1	+1.9
ISP	Isparta	3.88	57	P	Pn	18 53 33.5	+1.3
AOS	Alonnisos	3.90	330	P	Pn	18 53 32.5	-0.1
AOS	Alonnisos	3.90	330	P	Pn	18 53 32.5	-0.1
PYL	PYLOS	3.91	287	P	Pn	18 53 31.7	-0.9
PYL	PYLOS	3.91	287	P	Pn	18 53 31.7	-0.9
LKR	Lokris	3.92	317	P	Pn	18 53 32.8	0.0
LKR	Lokris	3.92	317	P	Pn	18 53 32.8	0.0
LIA	Limnos Island	4.19	347	P	Pn	18 53 36.9	+0.4
LIA	Limnos Island	4.19	347	P	Pn	18 53 36.9	+0.4
KALE	Kalithea	4.26	308	P	Pn	18 53 38.2	+0.8
KALE	Kalithea	4.26	308	P	Pn	18 53 38.2	+0.8
LAKA	Lakka	4.28	306	P	Pn	18 53 38.3	+0.6
LAKA	Lakka	4.28	306	P	Pn	18 53 38.3	+0.6
SHUT	Suhut-Afyon	4.31	49	ePN	Pn	18 53 39.4	+1.4
SHUT	Suhut-Afyon	4.31	49	ePn	Pn	18 53 39.4	+1.4
XOR	Xorichti	4.37	325	P	Pn	18 53 38.9	+0.1
XOR	Xorichti	4.37	325	P	Pn	18 53 38.9	+0.1
AGG	Agios Georgios	4.55	316	P	Pn	18 53 42.0	+0.6
AGG	Agios Georgios	4.55	316	P	Pn	18 53 42.0	+0.6
PAIG	Paliouri	4.64	333	P	Pn	18 53 42.5	0.0
PAIG	Paliouri	4.64	333	P	Pn	18 53 42.5	0.0
THL	Klokotos Trika	5.11	319	P	Pn	18 53 48.8	-0.1
THL	Klokotos Trika	5.11	319	P	Pn	18 53 48.8	-0.1
VLS	Valsamata	5.21	299	P	Pn	18 53 50.0	-0.3
VLS	Valsamata	5.21	299	P	Pn	18 53 50.0	-0.3
LKD	Levkas	5.42	304	P	Pn	18 53 52.5	-0.6
LKD	Levkas	5.42	304	P	Pn	18 53 52.5	-0.6
SWA2		6.59	187	P	Pn	18 54 09.9	+0.7
BRTR	Keskin Array B	6.95	54	P	Pn	18 54 15.7	+1.8
BRTR				S	Sn	18 55 32.4	+1.0
BRTR	Keskin Array B	6.95	54	P	Pn	18 54 15.7	+1.8
BRTR				S	Sn	18 55 32.4	+1.0
BRTR	Keskin Array B	6.95	54	P	Pn	18 54 15.7	+1.8
BRTR				S	Sn	18 55 32.3	+1.0
HSAF	As Saff	7.55	143	P	Pn	18 54 22.1	-0.1
HSAF	As Saff	7.55	143	P	Pn	18 54 22.1	-0.1
GLL	Jalalah	7.66	143	P	Pn	18 54 23.4	-0.4
GLL				S	Sn	18 55 44.1	-4.8
GLL	Jalalah	7.66	143	P	Pn	18 54 23.4	-0.3
GLL				S	Sn	18 55 44.1	-4.8
AWBH		7.76	163	P	Pn	18 54 25.3	+0.1
AWBH		7.76	163	P	Pn	18 54 25.3	+0.2
OFRI	‘Ofer	7.80	112	Sn	Sn	18 55 48.0	-4.2
MMA0B	Mount Meron ar	7.95	108	Pn	Pn	18 54 27.1	-0.6
MMA0B				Sn	Sn	18 55 51.3	-4.7
MMAI	Mount Meron Ar 2.8nm,0.3s,baz=311,slow=12,SNR=25	7.95	108	P	Pn	18 54 26.6	-1.1
MMAI	5.5nm,0.3s,baz=302,slow=25,SNR=13			S	Sn	18 55 52.7	-3.2
MMC4	Mount Meron ar	7.97	108	Pn	Pn	18 54 26.8	-1.1
MMC4				Sn	Sn	18 55 52.1	-4.2
SLTI	Sal’it	8.01	114	Sn	Sn	18 55 53.9	-3.6
KSDI	Kefar Szold	8.08	106	Pn	Pn	18 54 28.5	-1.0
KSDI				Sn	Sn	18 55 53.9	-5.3
MMLI	Mount Malkishu	8.21	112	Pn	Pn	18 54 29.6	-1.6
MMLI				Sn	Sn	18 55 57.8	-4.4
KZIT	Kziot	8.29	124	Pn	Pn	18 54 31.8	-0.5
ZAF		8.33	140	P	Pn	18 54 32.7	-0.1
ZAF		8.33	140	P	Pn	18 54 32.7	-0.1
HMDT	Nahal Hemdat	8.37	112	Pn	Pn	18 54 32.8	-0.6
HMDT				Sn	Sn	18 56 02.1	-4.1
YTIR	Yattir	8.52	119	Sn	Sn	18 56 07.0	-2.9
DSI	Dead Sea	8.60	117	Sn	Sn	18 56 08.6	-3.2
HNKL	Nakhl	8.66	130	P	Pn	18 54 36.8	-0.6
HNKL				S	Sn	18 56 07.0	-6.4
HNKL	Nakhl	8.66	130	P	Pn	18 54 36.8	-0.6
HNKL				S	Sn	18 56 07.0	-6.4
MZDA	Masada	8.73	118	Pn	Pn	18 54 38.3	+0.1
MZDA				Sn	Sn	18 56 11.1	-3.8
HFRF	Wahat Farafira	8.79	169	P	Pn	18 54 39.2	+0.1
HFRF	Wahat Farafira	8.79	169	P	Pn	18 54 39.2	+0.1
PRNI	Paran	9.04	125	Pn	Pn	18 54 42.0	-0.6
HRFI	Mount Harif	9.27	126	Pn	Pn	18 54 45.8	+0.2
MBRI	Mt Berech	9.35	128	Pn	Pn	18 54 46.8	+0.1
EIL	Elat	9.46	128	Pn	Pn	18 54 48.0	-0.2
HKAT	Jabal Katrina	9.71	136	P	Pn	18 54 51.0	-0.6
HKAT	Jabal Katrina	9.71	136	P	Pn	18 54 51.0	-0.6
HSFG		11.24	143	P	Pn	18 55 11.8	-0.7
HSFG		11.24	143	P	Pn	18 55 11.8	-0.7
TORD	Torodi Ar. Bea 0.3nm,0.3s,mb3.5,baz=33,slow=8.7,SNR=12	31.68	231	P	P	18 58 50.9	+1.2
MKAR	Makanchi Array 0.3nm,0.5s,mb3.3,baz=271,slow=8.5,SNR=10	42.58	57	P	P	19 00 23.3	+1.7

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*NIED **27** 18:54:00, 25°.00N×122°.10E, h5^{km}, Mw4.6 Best double couple: $M_0$8.54000×10^{15} NP1:ϕ_s59.00000°, δ76.00000°, λ-116.00000°. NP2:ϕ_s303.00000°, δ29.00000°, λ-29.00000°.*

*JMA **27** 18:54:03.4±0.5, 24°.97N×122°.15E, h0^{km}, M4.9*

*ISCJB **27** 18:54:07.9±0.5, 24°.96N±0°.02×122°.35E±0°.02, h12^{km}±3^{km}, mb4.5/49, MS3.8/16, Error ellipse: s-maj=2.9km s-min=2.2km az=144.5*

*TAP **27** 18:54:08.4, 24°.83N×122°.29E, h14^{km}, ML4.8, C*

*BJI **27** 18:54:08.8, 24°.82N×122°.16E, h17^{km}, mB4.7/16, mb4.2/28, ML4.7/6, Ms4.5/28, Ms7 4.3/25*

*NEIC **27** 18:54:10.6±0.3, 24°.81N×122°.29E, mb4.9/21, ML4.8(TAP), Error ellipse: s-maj=5.9km s-min=4.4km az=133.0*

NEIC Recorded [3 TAP] in I-lan; [2 TAP] in Hua-lien and T’ai-pei; [1 TAP] in Nan-t’ou.

*MOS **27** 18:54:10.1±1.2, 24°.85N×122°.30E, h33^{km}, mb4.8/30, Error ellipse: s-maj=10.5km s-min=6.6km az=110.5*

*IDC **27** 18:54:10.0±0.6, 24°.83N×122°.34E, h21^{km}±3^{km}, mb4.1/17, mb1 4.2/19, mb1mx4.1/26, mbtmp4.1/19, ML3.4/2, MS3.7/12, Ms1 3.7/12, ms1mx3.5/31, Error ellipse: s-maj=17.8km s-min=11.8km az=68.0*

*DJA **27** 18:54:11, 24°.94N×122°.19E, h10^{km}, mb5.2/6*

ISC 27 18:54:07.7±0.4, **24°.90N**±0°.02×**122°.36E**±0°.02, **h1**^{km}±2^{km}, **n200,** σ1^{s}.**28**/253, **mb4.6**/49, **MS3.8**/16, **15C-8D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWB1	Santiao Chiao baz=303	0.35	289	⇓iP	Pg	18 54 15.8	+1.4
TWB1	baz=303			eS	Sg	18 54 19.6	+0.5
TWC	Suao baz=243	0.54	238	⇓iP	Pg	18 54 17.6	-0.5
NWF	Wu-fen Shan baz=289	0.55	289	⇑iP	Pg	18 54 19.9	+1.7
NWF	baz=289			eS	Sg	18 54 26.9	+1.5
ILA	Ilan baz=263	0.57	257	P	Pg	18 54 19.2	+0.6
ILA	baz=263			S	Sg	18 54 27.1	+1.2
TWE	Neicheng baz=260	0.65	255	⇓iP	Pg	18 54 20.0	-0.2
TWE	baz=260			i S	Sg	18 54 27.8	-0.8
ENA	Nanau baz=231	0.73	230	⇓P	Pg	18 54 20.9	-0.7
ENA	baz=231			eS	Sg	18 54 28.7	-2.4
YOJ	Yonaguni jima	0.73	126	eS	Sg	18 54 34.4	+3.1
YOJ	Yonaguni jima baz=119	0.73	126	i P	Pg	18 54 23.3	+1.5
YOJ	baz=119			i S	Sg	18 54 33.6	+2.2
ENTT	Nioudou baz=261	0.76	251	P	Pg	18 54 21.8	-0.5
ENTT	baz=261			eS	Sg	18 54 31.0	-1.2
TAP1	Taipei baz=287	0.77	281	⇑iP	Pg	18 54 23.9	+1.5
TAP1	baz=287			S	Sg	18 54 34.1	+1.6
PCYT	Pengchaiyu baz=354	0.78	341	⇑eP	Pg	18 54 24.8	+2.2
TWY	Chenhua baz=305	0.78	299	⇑P	Pg	18 54 24.4	+1.6
TWY	baz=305			i S	Sg	18 54 35.3	+2.4
TATO	Taipei	0.79	276	eP	Pg	18 54 23.6	+0.7
EHP	Heping Village baz=231	0.81	224	eP	Pg	18 54 22.9	-0.3
EHP	baz=231			eS	Sg	18 54 32.2	-1.4
TWS1	Kuangyinshan baz=289	0.88	284	⇑iP	Pg	18 54 25.6	+1.1
TWS1	baz=289			eS	Sg	18 54 38.1	+2.2
YHNB	Yeheng	0.92	256	eP	Pg	18 54 24.9	-0.5
NSK	Sanguang baz=260	0.93	257	eP	Pg	18 54 24.9	-0.7
NSK	baz=260			eS	Sg	18 54 36.6	-1.1
NACB	Ninganchiao	1.00	224	eP	Pg	18 54 25.5	-1.3
NACB				eS	Sg	18 54 37.4	-2.4
NNS	Nan Shan baz=246	1.00	243	P	Pg	18 54 26.2	-0.7
NNS	baz=246			eS	Sg	18 54 38.4	-1.5
NCU	National Centr baz=278	1.06	274	eP	Pg	18 54 28.4	+0.3
NCU	baz=278			eS	Sg	18 54 43.6	+1.7
TWD	Chiawan baz=230	1.07	221	eP	Pg	18 54 27.0	-1.1
TWD	baz=230			eS	Sg	18 54 39.8	-2.2
HWA	Hwalien baz=224	1.14	217	eP	Pg	18 54 30.3	+0.7
HWA	baz=224			eS	Sg	18 54 46.5	+2.1
WHF	Hehuan Shan baz=235	1.24	233	eP	Pg	18 54 30.8	-0.7
WHF	baz=235			eS	Sg	18 54 45.5	-2.2
TWT	Tachien baz=233	1.25	240	eP	Pg	18 54 31.3	-0.4
TWT	baz=233			S	Sg	18 54 47.6	-0.3
NSTT	Nanjuang baz=261	1.26	258	⇑P	Pg	18 54 31.1	-0.8
NSTT	baz=261			S	Sg	18 54 48.4	+0.2
HSN	Hsinchu baz=271	1.26	266	eP	Pg	18 54 30.8	-1.1
HSN	baz=271			eS	Sg	18 54 46.2	-2.2
ESF	Shoufeng Towns baz=198	1.28	217	eP	Pg	18 54 30.9	-1.4
ESL	Shilin baz=236	1.37	218	⇓P	Pg	18 54 32.6	-1.3
ESL	baz=236			eS	Sg	18 54 49.2	-2.5
IRIF	Iriomote-Funau	1.37	114	P	Pn	18 54 32.6	-1.4
IRIF				eS	Sg	18 54 53.1	+1.4
NSY	Sanyi baz=255	1.53	252	eP	Pn	18 54 35.8	-0.4
NSY	baz=255			eS	Sn	18 54 57.7	+0.9
TWQ1	Liyutan baz=265	1.54	250	eP	Pn	18 54 36.1	-0.2
TWQ1	baz=265			eS	Sn	18 54 56.8	-0.3
HATJ	Hateruma jima	1.56	122	P	Pn	18 54 35.9	-0.7
HATJ				eS	Sn	18 54 59.2	+1.7
JKRS	Kuro-shima	1.64	113	P	Pn	18 54 36.9	-0.8
SMLT	Sun Moon Lake baz=235	1.67	233	⇓P	Pn	18 54 38.7	+0.6
SMLT	baz=235			eS	Sn	18 54 59.3	-0.9
EHY	Hungye baz=214	1.68	215	eP	Pn	18 54 36.8	-1.4
TYC	Yuchr baz=236	1.69	234	⇓iP	Pn	18 54 39.1	+0.7
TYC	baz=236			S	Sn	18 54 59.4	-1.2
SSLB	Suanglung	1.69	230	eP	Pn	18 54 38.4	0.0
SSLB				eS	Sn	18 54 58.8	-1.9
TCU	Taichung baz=246	1.70	244	eP	Pn	18 54 39.5	+0.9
TCU	baz=246			eS	Sn	18 55 02.9	+1.9
JIJ	Ishigaki jima	1.71	108	P	Pn	18 54 37.8	-0.9
JIJ				eS	Sn	18 55 03.3	+2.1
YULB	Yu-li	1.78	213	eP	Pn	18 54 38.2	-1.5
TWF1	Yuli baz=212	1.82	212	eP	Pn	18 54 38.4	-1.7
WNT	Mingjian baz=259	1.83	237	eP	Pn	18 54 40.8	+0.5
WNT	baz=259			eS	Sn	18 55 05.5	+1.3
ALS	Alishan baz=226	1.98	226	eP	Pn	18 54 43.3	+1.0
CHKT	Chengkung baz=190	2.00	207	eP	Pn	18 54 40.4	-2.3
CHN5	Tsauling baz=232	2.00	230	⇑P	Pn	18 54 43.9	+1.2
CHN5	baz=232			eS	Sn	18 55 10.1	+1.6
WGK	Gukeng baz=235	2.03	234	P	Pn	18 54 44.3	+1.2
WGK	baz=235			eS	Sn	18 55 10.7	+1.6
ELDTW	Lidau baz=201	2.09	216	eP	Pn	18 54 42.9	-1.1
JTJ	Tarama	2.15	96	P	Pn	18 54 44.5	-0.2
WTCT	Ta-ch’eng baz=243	2.15	242	eP	Pn	18 54 45.8	+1.0
CHN2	Minshiung baz=251	2.19	232	eP	Pn	18 54 46.5	+1.2
CHN4	Tsaushan baz=228	2.23	227	⇑P	Pn	18 54 47.4	+1.6
CHN4	baz=228			eS	Sn	18 55 16.6	+2.6
TPUB	Ta-pu	2.24	225	eP	Pn	18 54 46.9	+1.0
TPUB				eS	Sn	18 55 11.6	-2.7
CHY	Chiayi baz=250	2.25	232	eP	Pn	18 54 47.4	+1.3
STYT	Tauyuan baz=221	2.26	221	eP	Pn	18 54 47.1	+0.8
STYT	baz=221			eS	Sn	18 55 16.1	+1.3
WTP	Ta-pu baz=209	2.29	224	P	Pn	18 54 47.9	+1.3
WTP	baz=209			eS	Sn	18 55 18.1	+2.7
WSF	Szhu baz=255	2.32	238	eP	Pn	18 54 47.2	+0.2
WSF	baz=255			eS	Sn	18 55 16.3	+0.2
TWK	Hsinying baz=228	2.35	227	eP	Pn	18 54 48.6	+1.1
TWK	baz=228			eS	Sn	18 55 19.0	+1.8
TWG	Pinlang	2.38	210	eP	Pn	18 54 46.7	-1.2
TWG	Pinlang baz=195	2.38	210	eP	Pn	18 54 46.0	-1.8
CHN1	Nanshi baz=225	2.39	225	⇓eP	Pn	18 54 49.5	+1.5
CHN1	baz=225			eS	Sn	18 55 21.5	+3.6
TTN	Taitung baz=207	2.40	208	eP	Pn	18 54 46.0	-2.2
SGST	Jiashian baz=222	2.43	222	⇑P	Pn	18 54 49.9	+1.3
SGST	baz=222			eS	Sn	18 55 20.9	+2.0
CHN8	Yiju baz=232	2.50	232	eP	Pn	18 54 49.7	+0.2
CHN3	Shinhua baz=227	2.57	226	eP	Pn	18 54 51.9	+1.4
CHN3	baz=227			eS	Sn	18 55 25.3	+2.9
SCLT	Jiali baz=231	2.62	230	eP	Pn	18 54 53.4	+2.2
SCLT	baz=231			eS	Sn	18 55 24.7	+1.1
ECL	Taimali baz=208	2.62	210	eP	Pn	18 54 49.3	-2.0
SSD	Sandimen baz=201	2.66	217	eP	Pn	18 54 52.1	+0.4
JMJ	Miyako jima 2 baz=88	2.67	91	eP	Pn	18 54 52.5	+0.6
TAI1	Yung-k’ang baz=226	2.68	227	eP	Pn	18 54 54.7	+2.6
TWM1	Shoushan baz=220	2.72	221	eP	Pn	18 54 53.8	+1.2
SGLT	Jiouru baz=203	2.75	219	eP	Pn	18 54 55.7	+2.6
SGLT	baz=203			eS	Sn	18 55 30.7	+3.7
EAST	Anshuo baz=196	2.86	209	eP	Pn	18 54 53.3	-1.2
TAW	Tawu baz=207	2.86	208	eP	Pn	18 54 54.9	+0.4
PNG	Penghu baz=243	2.88	243	eP	Pn	18 54 54.2	-0.6
LAY	Lan-yu baz=193	2.94	195	eP	Pn	18 54 53.3	-2.3
SCZT	Fangliau baz=200	2.97	213	eP	Pn	18 54 57.6	+1.5
SCZT	baz=200			eS	Sn	18 55 33.2	+0.7
TWP	Hsiaoliuchiu baz=202	3.13	216	eP	Pn	18 54 59.8	+1.6
HEN	Hengchun baz=195	3.24	208	eP	Pn	18 55 00.5	+0.8
TWK1	Hengchun baz=195	3.27	206	eP	Pn	18 54 59.8	-0.2
TSEB	Hengchuen, Pin baz=194	3.27	204	eP	Pn	18 54 59.8	-0.3
QZH	Quanzhou	3.42	272	Pn	Pn	18 55 01.3	-0.9
QZH				Sn	Sn	18 55 40.3	-3.1
QZH	comp=N,840nm,0.7s			smax			
QZH	comp=E,700nm,1.0s			smax			
QZH	comp=N,5µm,7.9s			LR	LR		
QZH	comp=E,4µm,5.5s			LR	LR		
QZH	comp=Z,9µm,9.6s			LR	LR		
KNM	Kinmen baz=267	3.60	263	eP	Pn	18 55 04.6	-0.1
JOW	Kunigami comp=Z,2.6nm,0.3s,baz=120,slow=14,SNR=2.3	5.67	69	Pn	Pn	18 55 34.8	+1.6
SSE	Sheshan	6.26	351	P	Pn	18 55 45.5	+4.2
SSE	comp=N,510nm,1.0s			smax			
SSE	comp=E,240nm,1.1s			smax			
SSE	comp=N,2µm,10.0s			LR	LR		
SSE	comp=E,770nm,10.0s			LR	LR		
SSE	comp=Z,2µm,8.9s			LR	LR		
NJ2	Nanjing	7.77	337	eP	Pn	18 56 01.0	-0.9
NJ2				pP		18 56 08.0	
NJ2				sP		18 56 13.0	
NJ2				S	Sn	18 57 25.5	-5.1
NJ2	comp=Z,10.0nm,0.8s			pmax	pmax		
NJ2	comp=N,790nm,1.0s			smax			
NJ2	comp=E,720nm,1.1s			smax			
NJ2	comp=N,2µm,9.8s			LR	LR		
NJ2	comp=E,3µm,10.9s			LR	LR		

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
NJ2				LR	LR		
	comp=Z,2µm,9.2s						
GZH	**Guangzhou**	8.44	260	P	Pn	18 56 07.3	-3.8
GZH				S	Sn	18 57 45.3	-1.8
GZH				LR	LR		
	comp=N,3µm,8.7s						
GZH				LR	LR		
	comp=E,2µm,6.4s						
WHN	**Wuhan**	9.05	310	P	Pn	18 56 19.0	-0.6
WHN				S	Sn	18 58 02.0	-0.2
WHN				LR	LR		
	comp=N,7µm,13.3s						
WHN				LR	LR		
	comp=E,8µm,16.7s						
WHN				LR	LR		
	comp=Z,4µm,12.9s						
QIZ	**Qiongzhong**	12.99	246	P	Pn	18 57 09.3	-4.3
QIZ				S	Sn	18 59 31.5	-7.4
QIZ				LR	LR		
	comp=N,1µm,14.5s						
QIZ				LR	LR		
	comp=E,630nm,12.0s						
QIZ				LR	LR		
	comp=Z,670nm,8.4s						
KSRS	**Korea Array**	13.39	19	Pn	Pn	18 57 25.8	+6.9
	comp=Z,0.3nm,0.3s,baz=204,slow=13,SNR=5.2						
KSRS				LR	LR	19 02 51.3	
	comp=Z,419nm,19.0s,baz=170,slow=39						
XAN	**Xi'an**	14.82	311	P	Pn	18 57 44.5	+6.1
XAN				pP	pP	18 57 54.3	+10
XAN				sP	sP	18 57 59.3	+15
XAN				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MJAR	**Matsushiro Arr**	17.88	46	P	Pn	18 58 19.8	+2.1
	comp=Z,0.1nm,0.3s,baz=234,slow=9.4,SNR=2.8						
MJAR				LR	LR	19 05 58.9	
	comp=Z,275nm,20.5s,baz=245,slow=40						
HHC	**Hu-ho-hao-te**	18.29	333	*e*P	Pn	18 58 21.3	-1.4
HHC				pP	pP	18 58 29.0	+5.9
HHC				sP	sP	18 58 33.5	+10
HHC				PP		18 58 37.0	
HHC				*e*S	Sn	19 01 39.5	-7.9
HHC				sS	sS	19 01 52.8	-0.3
HHC				SS		19 02 03.8	
HHC				PcP	PcP	19 02 51.5	-3.6
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,110nm,3.9s						
HHC				LR	LR		
	comp=N,980nm,11.1s						
HHC				LR	LR		
	comp=E,530nm,10.3s						
HHC				LR	LR		
	comp=Z,850nm,11.1s						
CN2	**Changchun**	19.03	7	*e*P	Pn	18 58 33.5	+1.8
CN2				*e*pP	pP	18 58 41.8	+11
CN2				*e*sP	sP	18 58 46.3	+15
CN2				*e*S	Sn	19 02 02.8	-2.6
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,900nm,11.0s						
CN2				LR	LR		
	comp=E,600nm,11.0s						
CN2				LR	LR		
	comp=Z,1µm,11.0s						
LZH	**Lanzhou**	19.43	309	*e*P	Pn	18 58 33.3	-3.4
LZH				pP	pP	18 58 43.5	+7.8
LZH				sP	sP	18 58 45.0	+9.2
LZH				PP		18 58 51.0	
LZH				*e*S	Sn	19 02 05.3	-10
LZH				sS	sS	19 02 19.0	+2.7
LZH				SS		19 02 33.0	
LZH				pmax	pmax		
	comp=Z,28nm,1.5s						
LZH				pmax	pmax		
	comp=Z,130nm,4.2s						
LZH				LR	LR		
	comp=N,710nm,12.2s						
LZH				LR	LR		
	comp=Z,950nm,13.2s						
MDJ	**Mudanjiang**	20.54	15	P	P	18 58 47.3	-0.2
MDJ				pmax	pmax		
	comp=Z,11nm,1.5s						
MDJ				pmax	pmax		
	comp=Z,120nm,5.1s						
MDJ				LR	LR		
	comp=N,210nm,18.1s,MS3.9						
MDJ				LR	LR		
	comp=E,370nm,16.4s,MS3.9						
MDJ				LR	LR		
	comp=Z,200nm,21.4s,MS3.5						
MDJ	**Mudanjiang**	20.54	15	*e*P	P	18 58 48.5	+0.9
	comp=Z,22nm,1.0s						
CHTO	**Chiang Mai**	22.54	259	*e*P	P	18 59 08.6	-0.7
CHTO				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.5						
CHTO	**Chiang Mai**	22.54	259	*e*P	P	18 59 08.6	-0.7
	comp=Z,18nm,1.2s,mb4.5						
CMAR	**Chiang Mai Arr**	22.66	258	P	P	18 59 10.9	+0.3
CMAR						19 03 02.7	
CMAR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CMAR				MLR	MLR		
	comp=Z,310nm,20.4s						
CMAR	**Chiang Mai Arr**	22.66	258	P	P	18 59 10.9	+0.3
	comp=Z,6.5nm,1.0s,mb4.1,baz=61,slow=8.0,SNR=30						
CMAR				PcP	PcP	19 03 02.7	-0.9
	comp=Z,1.1nm,0.7s,baz=53,slow=1.2,SNR=9.6						
CMAR				LR	LR	19 08 38.5	
	comp=Z,310nm,20.4s,MS3.7,baz=75,slow=38						
GTA	**Gaotai**	23.86	313	*e*P	P	18 59 22.8	+0.1
GTA				pP		18 59 27.5	
GTA				sP	sP	18 59 30.0	+7.0
GTA				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.2						
GTA				pmax	pmax		
	comp=Z,70nm,4.5s						
GTA				LR	LR		
	comp=N,340nm,15.3s,MS4.0						
GTA				LR	LR		
	comp=E,280nm,16.5s,MS4.0						
GTA				LR	LR		
	comp=Z,230nm,15.3s,MS3.8						
GUMO	**Guam**	24.01	114	LR	LR	19 07 36.8	
	comp=Z,109nm,18.1s,MS3.4,baz=286,slow=34						
HIA	**Hailar**	24.41	356	*e*P	P	18 59 29.3	+1.7
ASAJ	**Asahikawa**	25.29	36	P	P	18 59 35.9	+0.2
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ASAJ	**Asahikawa**	25.29	36	P	P	18 59 35.9	+0.2
	comp=Z,5.1nm,0.7s,mb4.4,baz=224,slow=22,SNR=4.6						
KLR	**Kul'dur**	25.38	14	*e*P	P	18 59 33.8	-2.6
KLR				MLR	MLR		
	comp=Z,4µm,12.0s,MS5.1						
HABR	**Khabarovsk**	25.57	20	*e*P	P	18 59 37.2	-1.0
HABR				*e**PP		18 59 46.7	
HABR				*e**SP	sP	18 59 51.1	+13
HABR				*e*		19 00 15.0	
HABR				*e*PPP		19 00 23.2	
HABR				*e*S	S	19 04 04.7	-2.1
HABR				*e**SS	sS	19 04 20.9	+14
HABR				SS		19 05 02.4	
HABR				SSS		19 05 17.3	
HABR				*e*		19 10 32.4	
HABR				MLR	MLR		
	comp=Z,55nm,16.0s,MS3.2						
ULN	**Ulaanbaatar**	25.93	336	*e*P	P	18 59 41.8	+0.4
ULN				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	25.93	336	*e*P	P	18 59 41.8	+0.4
	comp=Z,22nm,1.0s,mb4.8						
SONM	**Songino Array**	26.15	335	P	P	18 59 44.5	+1.1
SONM				pmax	pmax		
	comp=Z,28nm,1.0s						
SONM				MLR	MLR		
	comp=Z,203nm,19.5s						
SONM	**Songino Array**	26.15	335	P	P	18 59 44.5	+1.0
	comp=Z,28nm,0.9s,mb4.9,baz=151,slow=9.3,SNR=162						
SONM				LR	LR	19 10 24.2	
	comp=Z,203nm,19.5s,MS3.7,baz=190,slow=37						
YSS	**Yuzh-Sakhalins**	27.37	31	*e*P	P	18 59 57.0	+2.6
YSS				*e*		19 00 03.7	
YSS				*e*		19 00 37.6	
YSS	**Yuzh-Sakhalins**	27.37	31	*e*P	P	18 59 56.2	+1.8
	comp=Z,84nm,1.4s,mb5.3						
SHL	**Shillong**	27.55	278	*e*PKP	P	18 59 56.0	-0.3
LSA	**Lhasa**	28.09	287	P	P	19 00 02.0	+0.9
LSA	**Lhasa**	28.09	287	*e*P	P	19 00 02.0	+0.9
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
LSA	**Lhasa**	28.09	287	*e*P	P	19 00 02.0	+0.9
	comp=Z,5.0nm,0.8s,mb4.4						
ZAK	**Zakamensk**	29.42	335	*e*P	P	19 00 11.8	-0.8
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.3						
KAPI	**Kappang**	29.84	185	LR	LR	19 13 36.1	
	comp=Z,64nm,19.7s,MS3.3,baz=198,slow=39						
TLY	**Talaya**	30.33	337	*e*P	P	19 00 21.2	+0.5
TLY				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.0						
TLY				MLR	MLR		
	comp=Z,272nm,12.0s,MS4.1						
TLY	**Talaya**	30.33	337	*e*P	P	19 00 21.5	+0.8
	comp=Z,17nm,0.9s,mb4.9						
IRK	**Irkutsk**	30.57	338	*e*P	P	19 00 21.2	-1.7
IRK				*e*		19 10 50.0	
IRK				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
TAPN	**Taplejung**	31.15	282	*e*P	P	19 00 28.6	+0.4
	comp=Z,20nm,0.8s,mb5.1						
MOY	**Mondy**	31.32	334	*e*P	P	19 00 29.4	0.0
ODAN	**Odare**	31.46	281	*e*P	P	19 00 31.2	+0.2
	comp=Z,24nm,0.9s,mb5.1						
PSI	**Prapat**	31.50	229	LR	LR	19 12 55.4	
	comp=Z,79nm,20.1s,MS3.4,baz=14,slow=36						
RAMN	**Ramite**	32.16	282	*e*P	P	19 00 37.2	0.0
JIRN	**Jiri**	32.48	283	*e*P	P	19 00 40.3	+0.4
GUN	**Gumba**	32.73	283	*e*P	P	19 00 42.3	+0.1
	comp=Z,26nm,0.9s,mb5.2						
PKI	**Pulchoki**	33.17	283	*e*P	P	19 00 45.6	-0.4
KKN	**Kakani**	33.27	283	*e*P	P	19 00 46.5	-0.4
	comp=Z,30nm,1.0s,mb5.2						
KKN	**Kakani**	33.27	283	*e*P	P	19 00 46.5	-0.4
KKN				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
DMN	**Daman**	33.44	283	*e*P	P	19 00 48.0	-0.3
GKN	**Gorkha**	33.83	284	*e*P	P	19 00 51.0	-0.7
	comp=Z,36nm,1.1s,mb5.2						
DANN	**Dangsing**	34.58	284	*e*P	P	19 00 58.1	-0.1
KOLN	**Koldanda**	34.76	283	*e*P	P	19 00 59.5	-0.3
	comp=Z,24nm,1.0s,mb5.1						
YAK	**Yakutsk**	37.45	6	*e*P	P	19 01 22.0	-0.4
YAK				pmax	pmax		
	comp=Z,23nm,2.5s,mb4.5						
MKAR	**Makanchi Array**	38.58	315	P	P	19 01 31.8	-0.4
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	**Makanchi Array**	38.58	315	P	P	19 01 31.8	-0.4
	comp=Z,3.3nm,0.7s,mb4.1,baz=100,slow=11,SNR=36						
MKAR	**Makanchi Array**	38.58	315	P	P	19 01 31.8	-0.4
PET	**Petropavlovsk**	39.12	35	*i* P	P	19 01 39.1	+2.5
PET				pmax	pmax		
	comp=Z,190nm,2.5s,mb5.3						
ZAA0	**Zalesovo Array**	40.24	326	*e*P	P	19 01 45.0	-0.9
ZALV	**Zalesovo Beam**	40.24	326	P	P	19 01 44.9	-1.0
ZALV				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
ZALV				MLR	MLR		
	comp=Z,83nm,21.1s,MS3.6						
ZALV	**Zalesovo Beam**	40.24	326	P	P	19 01 44.9	-1.0
	comp=Z,7.3nm,0.8s,mb4.3,baz=111,slow=8.4,SNR=27						
ZALV				LR	LR	19 19 18.9	
	comp=Z,82nm,21.1s,MS3.6,baz=72,slow=38						
KSH	**Kashi**	41.42	302	*e*P	P	19 01 59.0	+3.2
KSH				*e*pP		19 02 08.8	
KSH				*e*PP	PP	19 03 39.3	+8.0
KSH				*e*PcP	PcP	19 03 55.3	+1.4
KSH				*e*ScP	ScP	19 07 42.0	-3.2
KSH				*e*PcS	PcS	19 07 46.0	+0.9
KSH				*e*S	S	19 08 14.0	+2.2
KSH				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
KSH				pmax	pmax		
	comp=Z,170nm,4.5s						
KSH				LR	LR		
	comp=N,430nm,8.2s						
KSH				LR	LR		
	comp=E,340nm,6.3s						
KSH				LR	LR		
	comp=Z,430nm,5.9s						
NVS	**Novosibirsk**	41.49	327	*e*P	P	19 01 53.8	-2.4
NVS				pmax	pmax		
	comp=Z,15nm,1.8s,mb4.4						
NVS				pmax	pmax		
	comp=N,21nm,2.1s						
TKM2	**Tokmak 2**	42.18	307	*e*P	P	19 02 02.4	+0.4
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
TKM2	**Tokmak 2**	42.18	307	*e*P	P	19 02 02.4	+0.4
	comp=Z,5.6nm,0.9s,mb4.3						
KURK	**Kurchatov**	42.24	319	*e*P	P	19 02 01.3	-1.1
KURK				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.5						
KURK	**Kurchatov**	42.24	319	*e*P	P	19 02 01.3	-1.1
	comp=Z,14nm,1.4s,mb4.5						
UCH	**Uchtor**	42.86	306	*e*P	P	19 02 08.6	+1.0
	comp=Z,9.1nm,1.1s,mb4.4						
AAK	**Ala-Archa**	42.93	307	⇑*e*P	P	19 02 07.4	-0.8
AAK				pmax	pmax		
	comp=Z,2.0nm,1.5s,mb3.6						
AAK	**Ala-Archa**	42.93	307	P	P	19 02 08.5	+0.3
	baz=120,slow=8.1						
AAK	**Ala-Archa**	42.93	307	P	P	19 02 08.4	+0.3
SEY	**Seymchan**	42.95	20	⇑*i*P	P	19 02 07.6	-0.4
AML	**Almayashu**	43.45	306	*e*P	P	19 02 13.0	+0.7
WRAB	**Tennant Creek**	46.06	164	*e*P	P	19 02 31.9	-1.4
WRAB				pmax	pmax		
	comp=Z,62nm,0.8s,mb5.7						
WRAB	**Tennant Creek**	46.06	164	*e*P	P	19 02 31.9	-1.4
	comp=Z,62nm,0.8s,mb5.7						
WRA	**Warramunga Arr**	46.07	164	P	P	19 02 32.0	-1.4
WRA				*PP		19 02 37.8	
WRA				pmax	pmax		
	comp=Z,21nm,0.9s						
WRA				pmax	pmax		
	comp=Z,60nm,0.8s						
WRA	**Warramunga Arr**	46.07	164	P	P	19 02 32.0	-1.3
	comp=Z,21nm,0.9s,mb5.2,baz=346,slow=8.5,SNR=100						
WRA				pP		19 02 37.8	
	comp=Z,60nm,0.8s,baz=346,slow=8.4,SNR=57						
KBL	**Kabul**	46.83	295	*e*P	P	19 02 39.6	+0.2
KBL				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.2						
KBL	**Kabul**	46.83	295	*e*P	P	19 02 39.6	+0.2
	comp=Z,22nm,1.2s,mb5.2						
TIXI	**Tiksi**	46.93	3	⇑*e*P	P	19 02 39.0	-0.6
TIXI				pmax	pmax		
	comp=Z,31nm,1.7s,mb5.2						
TIXI	**Tiksi**	46.93	3	*e*P	P	19 02 38.8	-0.8
	comp=Z,21nm,1.2s,mb5.2						
BRVK	**Borovoye**	47.88	320	*e*P	P	19 02 46.9	-0.3
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
BRVK	**Borovoye**	47.88	320	*e*P	P	19 02 46.9	-0.4
	comp=Z,7.7nm,0.8s,mb4.9						
ASAR	**Alice Springs**	49.55	166	P	P	19 02 59.6	-0.8
ASAR				*PP		19 03 05.0	
ASAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ASAR	**Alice Springs**	49.55	166	P	P	19 02 59.6	-0.8
	comp=Z,5.7nm,0.8s,mb4.5,baz=345,slow=6.9,SNR=48						
ASAR				pP		19 03 05.0	
	comp=Z,17nm,0.8s,baz=343,slow=6.9,SNR=50						
AKTK	**Aktyubinsk**	55.02	315	P	P	19 03 40.2	-0.5
AKTO	**Aktyubinsk**	55.02	315	P	P	19 03 40.3	-0.5
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	**Aktyubinsk**	55.02	315	P	P	19 03 40.2	-0.5
	comp=Z,0.8nm,0.5s,mb4.0,baz=260,slow=24,SNR=4.0						
ARU	**Arti**	55.19	323	*c i*P	P	19 03 40.2	-1.7
ARU				*e*		19 05 46.4	
ARU				S	S	19 11 21.9	-4.1
ARU				SS	SS	19 15 01.3	-8.3
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
STKA	**Stephens Creek**	59.37	161	P	P	19 04 11.3	-0.4
	comp=Z,2.4nm,0.7s,mb4.3,baz=336,slow=12,SNR=3.4						
STKA				LR	LR	19 30 46.6	
	comp=Z,60nm,19.5s,MS3.7,baz=207,slow=37						
STKA	**Stephens Creek**	59.37	161	P	P	19 04 11.3	-0.4
STKA				LR	LR	19 30 46.6	
KLMR	**Klimovskoe**	65.14	328	*e*P	P	19 04 47.6	-2.4
KLMR				pmax	pmax		
	comp=Z,12nm,1.3s,mb5.0						
GNI	**Garni**	65.28	304	⇑*e*P	P	19 04 51.3	-0.1
GNI				pmax	pmax		
	comp=Z,7.0nm,1.3s						
KIV	**Kislovodsk**	65.97	309	*e*P	P	19 04 55.8	0.0
KIV				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.0						
KIV				MLR	MLR		
	comp=Z,139nm,19.0s,MS4.2						
KIV	**Kislovodsk**	65.97	309	*e*P	P	19 04 55.4	-0.4
	comp=Z,13nm,1.1s,mb5.1						
OBN	**Obninsk**	67.61	322	⇑*e*P	P	19 05 04.3	-1.7
OBN				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.2						
ARCES	**ARCESS Array B**	69.28	338	P	P	19 05 15.4	-0.8
ARCES				*PP		19 05 22.1	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	**ARCESS Array B**	69.28	338	P	P	19 05 15.4	-0.8
	comp=Z,3.0nm,0.9s,mb4.5,baz=50,slow=9.6,SNR=4.8						
ARCES				pP		19 05 22.1	
	comp=Z,4.4nm,0.9s,baz=59,slow=7.3,SNR=2.6						
MALT	**Malatya**	70.49	304	*e*P	P	19 05 24.4	+0.2
MALT				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
MALT	**Malatya**	70.49	304	*e*P	P	19 05 24.4	+0.2
	comp=Z,6.9nm,1.0s,mb4.7						
FINES	**FINESS Array B**	71.37	330	P	P	19 05 28.5	-0.6
FINES				*PP		19 05 35.8	
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES				MLR	MLR		
	comp=Z,151nm,21.0s						
FINES	**FINESS Array B**	71.37	330	P	P	19 05 28.5	-0.6
	comp=Z,1.5nm,0.6s,mb4.3,baz=90,slow=4.2,SNR=6.6						
FINES				pP		19 05 35.8	
	comp=Z,10nm,1.1s,baz=83,slow=6.0,SNR=4.0						
FINES				LR	LR	19 40 56.3	
	comp=Z,151nm,21.0s,MS4.2,baz=274,slow=39						
FINES	**FINESS Array B**	71.37	330	P	P	19 05 28.5	-0.6
FINES				pP		19 05 35.8	
FINES				LR	LR	19 40 56.3	
INK	**Inuvik**	72.17	22	P	P	19 05 33.1	-0.7
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	**Inuvik**	72.17	22	P	P	19 05 33.1	-0.7
	comp=Z,1.3nm,0.6s,mb4.3,baz=261,slow=10,SNR=5.7						
AKASG	**Malin Array Be**	73.05	318	P	P	19 05 37.2	-2.2
	comp=Z,0.2nm,0.3s,mb3.7,baz=318,slow=11,SNR=5.1						
BRTR	**Keskin Array B**	73.61	307	P	P	19 05 42.5	-0.4
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR	**Keskin Array B**	73.61	307	P	P	19 05 42.5	-0.4
	comp=Z,2.6nm,0.9s,mb4.3						
NB2	**NORSAR Subarra**	78.09	332	P	P	19 06 07.0	-1.1
	comp=Z,3.5nm,0.9s,mb4.5,baz=57,slow=5.6						
NOA	**NORSAR Array B**	78.09	332	P	P	19 06 07.2	-0.9
NOA				*PP		19 06 14.2	
NOA				pmax	pmax		
	comp=Z,3.0nm,1.2s						
NOA				MLR	MLR		
	comp=Z,81nm,19.4s						
NOA	**NORSAR Array B**	78.09	332	P	P	19 06 07.2	-1.0
	comp=Z,3.2nm,1.2s,mb4.3,baz=68,slow=4.9,SNR=4.0						
NOA				pP		19 06 14.2	
	comp=Z,2.4nm,0.8s,baz=58,slow=5.6,SNR=4.0						
NOA				LR	LR	19 44 09.9	
	comp=Z,81nm,19.4s,MS4.1,baz=90,slow=38						
YKA	**Yellowknife Ar**	81.90	23	P	P	19 06 27.0	-1.7
YKA				*PP		19 06 35.9	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	81.90	23	P	P	19 06 27.0	-1.7
	comp=Z,1.4nm,0.8s,mb4.1,baz=314,slow=4.8,SNR=22						
YKA				pP		19 06 35.9	
	comp=Z,1.1nm,0.8s,baz=312,slow=5.0,SNR=6.6						
GERES	**GERESS Array B**	82.97	321	P	P	19 06 33.4	-1.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES	**GERESS Array B**	82.97	321	P	P	19 06 33.4	-1.1
	comp=Z,0.5nm,0.8s,mb3.8,baz=28,slow=6.0,SNR=3.9						
KEST	**Kesra**	92.61	311	LR	LR	19 52 32.3	
	comp=Z,21nm,21.4s,MS3.6,baz=281,slow=38						
NVAR	**Mina Array Bea**	95.19	43	P	P	19 07 33.0	-0.3
	comp=Z,0.5nm,0.7s,mb4.1,baz=281,slow=6.3,SNR=4.9						

CSEM ***27*** *19:28:29.0±0.2, 50.°16N×18.°39E, h5km, ML2.5/6*
IPEC ***27*** *19:28:29.4±0.1, 50.°10N×18.°43E, h6km±1km, ML1.8/3,*
Error ellipse: s-maj=1.8km s-min=0.7km az=165.0
VIE ***27*** *19:28:30.5±1.2, 49.°70N×18.°50E, h0km, mb1.5/2, ML2.2/3,*
Error ellipse: s-maj=7.4km s-min=4.6km az=96.0 23 km
SE of Ostrava Suspected Mining induced.
PRU ***27*** *19:28:30.3, 50.°15N×18.°32E, h0km*
WAR 27 19:28:29.5, 50.°09N×18.°44E, ML2.4, 1C, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RAC	**Raciborz**	0.16	268	*e*Pg	Pg	19 28 33.4	+0.9
RAC				*e*Sg	Sg	19 28 36.3	+1.8
RAC	**Raciborz**	0.16	268	*e*Pg	Pg	19 28 33.4	+0.9
RAC				*e*Sg	Sg	19 28 36.3	+1.8
OKC	**Ostrava-Krasne**	0.31	217	*e*PG	Pg	19 28 35.8	+0.3
OKC				*e*SG	Sg	19 28 40.9	+1.4
	comp=Z,49nm,0.7s						
OKC	**Ostrava-Krasne**	0.31	217	Pg	Pg	19 28 35.8	+0.3
OKC				Sg	Sg	19 28 40.9	+1.4
	comp=Z,49nm,0.7s						
MORC	**Moravsky Berou**	0.66	242	*e*Pg	Pg	19 28 41.7	-0.4
	baz=61						
MORC				*e*Sg	Sg	19 28 50.8	+0.2
	comp=Z,19nm,0.2s,baz=61						
OJC	**Ojcow**	0.89	81	*e*Pg	Pg	19 28 46.1	-0.4
OJC				*e*Sg	Sg	19 28 58.0	+0.1
OJC	**Ojcow**	0.89	81	*e*Pg	Pg	19 28 45.9	-0.6
	baz=262						
OJC				*e*Sg	Sg	19 28 57.9	0.0
	baz=262						
JAVC	**Velka Javorina**	1.33	202	*e*Pn	Pn	19 28 55.4	+0.1
	baz=22						
DPC	**Dobruska-Polom**	1.38	282	*e*PG	Pg	19 28 55.1	-0.9
DPC				*e*SG	Sg	19 29 13.0	-0.9
	comp=Z,17nm,0.4s						
DPC	**Dobruska-Polom**	1.38	282	*e*Pn	Pn	19 28 54.9	-1.1
	baz=100						
DPC	**Dobruska-Polom**	1.38	282	Pg	Pg	19 28 55.1	-0.9
DPC				*e*Sg	Sg	19 29 12.6	-1.3
	baz=100						
NIE	**Niedzica**	1.39	118	*e*Pg	Pg	19 28 56.6	+0.5
NIE				*e*Sg	Sg	19 29 16.2	+2.1
NIE	**Niedzica**	1.39	118	*e*Pg	Pg	19 28 56.6	+0.5
NIE				*e*Sg	Sg	19 29 16.2	+2.1
VRAC	**Vranov**	1.43	238	*e*Pn	Pn	19 28 55.6	-1.0
	baz=56						
VRAC				*e*Sg	Sg	19 29 14.1	-1.3
	comp=Z,14nm,0.3s,baz=56						
KOLL	**Kolacno**	1.51	181	*e*PN	Pn	19 28 59.2	+1.4
KOLL				*e*SN	Sn	19 29 18.4	+0.2
KOLL	**Kolacno**	1.51	181	*e*Pn	Pn	19 28 59.2	+1.4
KOLL				*e*Sn	Sn	19 29 18.4	+0.2
KSP	**Ksiaz**	1.56	300	*e*Pn	Pn	19 28 57.3	-1.2
KSP				*e*Sn	Sn	19 29 18.9	-0.6
KSP	**Ksiaz**	1.56	300	*e*Pg	Pg	19 28 56.9	-2.5
KSP				*e*Sg	Sg	19 29 18.0	-1.7
VYHS	**Vyhne**	1.62	171	*e*PN	Pn	19 28 59.2	0.0
VYHS				*e*SN	Sn	19 29 21.8	+1.0
VYHS	**Vyhne**	1.62	171	*e*Pn	Pn	19 28 57.7	-1.5
	baz=351						
VYHS				*e*Sn	Sn	19 29 21.8	+1.0
KRUC	**Moravsky**	1.68	233	*e*Pn	Pn	19 28 59.5	-0.6
	baz=51						
KRUC				*e*Sg	Sg	19 29 21.4	-2.0
	comp=Z,5.4nm,0.3s,baz=51						
STHS	**Stebnicka Huta**	1.94	109	*e*PN	Pn	19 29 07.2	+3.5
STHS				*e*SN	Sn	19 29 34.0	+5.3
STHS	**Stebnicka Huta**	1.94	109	*e*Pn	Pn	19 29 07.2	+3.5
KECS	**Kecovo**	2.10	139	*e*PG	Pg	19 29 11.7	+2.1

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
KECS				eSN	Sn	19 29 35.4	+2.9
CRVS	Cervenica-Dubn	2.30	120	ePN	Pn	19 29 12.8	+4.1
CRVS	Cervenica-Dubn	2.30	120	ePn	Pn	19 29 12.8	+4.1
PRU	Pruhonice	2.51	269	ePG	Pg	19 29 13.7	-3.9
PRU				eSG	Sg	19 29 47.5	-2.7
	comp=Z,4.9nm,0.7s						
PRU	Pruhonice	2.51	269	Pg	Pg	19 29 13.7	-3.9
PRU				Sg	Sg	19 29 47.5	-2.7
	comp=Z,4.9nm,0.7s						
BRG	Berggiesshubel	2.98	287	SG	Sg	19 30 03.2	-1.8
	comp=Z,3.7nm,0.4s						
KHC	Kasperske Hory	3.30	255	ePG	Pg	19 29 29.1	-3.6
KHC				eSG	Sg	19 30 13.1	-2.4
	comp=Z,3.9nm,0.6s						
KHC	Kasperske Hory	3.30	255	Pg	Pg	19 29 29.1	-3.6
KHC				Sg	Sg	19 30 13.1	-2.4
	comp=Z,3.9nm,0.6s						
MOA	Molln	3.55	232	⇑iSg	Sg	19 30 20.6	-2.7
	comp=Z,3.0nm,0.4s						
MOA	Molln	3.55	232	Sg	Sg	19 30 20.6	-2.8
	comp=Z,3.0nm,0.4s						
NKC	Novy Kostel	3.85	274	eSG	Sg	19 30 30.5	-2.7
NKC	Novy Kostel	3.85	274	Sg	Sg	19 30 30.5	-2.7

CSEM ***27*** *19:40:23.7, 36°.31N×21°.87E, h11^{km}, MD3.5, After ATH*

ATH 27 19:40:23.7, 36°.31N×21°.87E, h11^{km}±1^{km}, MD3.5/3, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.59	350	ePB	Pb	19 40 35.3	-0.8
PYL				eSB	Sb	19 40 43.3	-1.2
PYL	PYLOS	0.59	350	ePb	Pb	19 40 35.3	-0.8
PYL				eSb	Sb	19 40 43.3	-1.2
KYTH	Kithira	0.94	91	ePB	Pb	19 40 41.4	-0.6
KYTH	Kithira	0.94	91	ePb	Pb	19 40 41.4	-0.6
VLX	Vlachokerasia	1.13	21	ePN	Pn	19 40 45.1	-0.4
VLX				eSB	Sb	19 41 00.8	+0.7
VLX	Vlachokerasia	1.13	21	ePn	Pn	19 40 45.1	-0.4
VLX				eSb	Sb	19 41 00.8	+0.7
DID	Didima	1.62	42	ePB	Pb	19 40 54.2	+0.6
DID	Didima	1.62	42	ePb	Pb	19 40 54.2	+0.6
GUR	Goura	1.67	13	ePB	Pb	19 40 54.9	+0.5
GUR	Goura	1.67	13	ePb	Pb	19 40 54.9	+0.5

NEIC ***27*** *19:42:47.9, 36°.09N×21°.72E, h4^{km}, MD3.7(ATH), After ATH.*

CSEM ***27*** *19:42:47.9, 36°.09N×21°.72E, h4^{km}, MD3.7, After ATH*

ATH 27 19:42:47.9, 36°.09N×21°.72E, h4^{km}, MD3.7/4, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.80	1	ePG	Pg	19 43 03.0	-0.3
PYL				eSG	Sg	19 43 13.3	-0.5
PYL	PYLOS	0.80	1	ePg	Pg	19 43 03.0	-0.3
PYL				eSg	Sg	19 43 13.3	-0.5
KYTH	Kithira	1.08	79	ePN	Pn	19 43 09.4	-0.4
KYTH	Kithira	1.08	79	ePn	Pn	19 43 09.4	-0.4
ITM	Ithomi	1.10	9	ePG	Pg	19 43 08.3	-0.7
ITM				eSG	Sg	19 43 23.5	+0.2
ITM	Ithomi	1.10	9	ePg	Pg	19 43 08.3	-0.7
ITM				eSg	Sg	19 43 23.5	+0.2
VLI	Veliai	1.17	57	ePB	Pb	19 43 09.9	-0.7
VLI	Veliai	1.17	57	ePb	Pb	19 43 09.9	-0.7
VLX	Vlachokerasia	1.38	22	ePB	Pb	19 43 13.0	-1.3
VLX	Vlachokerasia	1.38	22	ePb	Pb	19 43 13.0	-1.3
DID	Didima	1.87	40	ePG	Pg	19 43 22.3	-1.4
DID	Didima	1.87	40	ePg	Pg	19 43 22.3	-1.4
GUR	Goura	1.91	15	ePG	Pg	19 43 24.4	-0.1
GUR	Goura	1.91	15	ePg	Pg	19 43 24.4	-0.1
KARN	Karanos	1.92	110	ePN	Pn	19 43 23.3	+2.0
KARN	Karanos	1.92	110	ePn	Pn	19 43 23.3	+2.0
RLS	Riolos of Patr	1.98	354	ePG	Pg	19 43 24.8	-1.0
RLS	Riolos of Patr	1.98	354	ePg	Pg	19 43 24.8	-1.0
VAM	Vamos	2.13	108	ePB	Pb	19 43 25.0	-2.0
VAM	Vamos	2.13	108	ePb	Pb	19 43 25.0	-2.0
LTK	Loutraki	2.17	27	ePG	Pg	19 43 28.9	-0.6
LTK	Loutraki	2.17	27	ePg	Pg	19 43 28.9	-0.6
NAIG	Nisos Aigina	2.19	40	ePN	Pn	19 43 27.6	+2.6
NAIG	Nisos Aigina	2.19	40	ePn	Pn	19 43 27.6	+2.6
VLS	Valsamata	2.27	337	ePG	Pg	19 43 29.5	-1.9
VLS	Valsamata	2.27	337	ePg	Pg	19 43 29.5	-1.9

IDC 27 20:00:06.0±1.3, **29°.90S×178°.36W, h158^{km}**±20^{km}, **mb3.9**/3, **mb1 4.1**/3, **mb1mx3.7**/14, **mbtmp3.9**/3, **Error ellipse: s-maj=71.3km s-min=33.8km az=8.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	Raoul Island	0.75	31	P	Pn	20 00 29.4	-0.2
	260nm,0.3s,baz=246,slow=23,SNR=20						
RAO				S	Sn	20 00 48.6	+1.0
	395nm,0.3s,baz=85,slow=23,SNR=8.1						
PPT	Papeete	28.98	71	eLR	LR	20 05 37.7	
	133nm,25.8s						
STKA	Stephens Creek	34.29	256	P	P	20 06 37.9	+0.7
	3.0nm,0.5s,baz=97,slow=12,SNR=14						
ASAR	Alice Springs	42.83	267	P	P	20 07 48.0	-0.5
	1.4nm,0.5s,baz=104,slow=7.5,SNR=32						
WRA	Warramunga Arr	43.77	272	P	P	20 07 55.8	-0.3
	4.2nm,0.5s,baz=110,slow=8.1,SNR=144						
FINES	FINESS Array B	144.56	340	PKP	PKPdf	20 19 23.0	+0.2
	0.8nm,0.4s,baz=44,slow=3.8,SNR=11						
TORD	Torodi Ar. Bea	163.33	180	PKPab	PKPab	20 20 41.0	-0.6
	0.5nm,0.7s,baz=165,slow=4.6,SNR=4.3						

ISCJB ***27*** *20:06:31.8±0.5, 41°.07N±0°.02×114°.93W±0°.02, h7^{km}±4^{km}, Error ellipse: s-maj=2.7km s-min=2.5km az=35.6*

NEIC ***27*** *20:06:32.6, 41°.09N×114°.94W, h10^{km}, ML2.9, After REN.*

IDC ***27*** *20:06:32.1±1.1, 41°.12N×114°.95W, h0^{km}, mb2.8/1, mb1 3.4/3, mb1mx3.2/22, mbtmp3.0/3, ML3.0/1, Error ellipse: s-maj=23.7km s-min=5.9km az=131.0*

ISC 27 20:06:31.9±0.3, **41°.09N**±0°.01×**114°.94W**±0°.02, **h4^{km}**±3^{km}, **n87, σ0^{s}.91**/109, **24C-30D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
N12A	Clover Valley,	0.25	198	⇑P	Pg	20 06 38.1	+1.3
	baz=0.3						
N12A				⇓S	Sg	20 06 41.6	+1.6
	baz=0.3						
N12A	Clover Valley,	0.25	198	ePg	Pg	20 06 37.6	+0.8
ELK	Elko	0.42	214	Pg	Pg	20 06 40.6	+0.7
	40nm,0.3s,baz=18,slow=14,SNR=1263						
ELK				Lg		20 06 46.0	
	275nm,0.3s,baz=128,slow=19,SNR=404						
ELK	Elko	0.42	214	Pg	Pg	20 06 40.6	+0.7
ELK				Lg		20 06 46.0	
N13A	Wendover, West	0.60	113	P	Pg	20 06 44.2	+0.8
	baz=0.6,SNR=161						
N13A				⇑S	Sg	20 06 52.2	+0.9
	baz=0.6						
N13A	Wendover, West	0.60	113	ePg	Pg	20 06 43.7	+0.3
M13A	Montello	0.64	65	⇑P	Pg	20 06 44.6	+0.4
	baz=0.6,SNR=271						
M13A	Montello	0.64	65	ePg	Pg	20 06 44.3	+0.1
M11A	Holland Ranch,	0.73	298	⇑P	Pg	20 06 46.5	+0.6
	baz=0.7						
O12A	Currie	0.84	170	P	Pg	20 06 48.6	+0.7
	baz=0.8,SNR=716						
O12A				⇓S	Sg	20 06 59.6	+0.8
	baz=0.8						
O11A	Cowboy Ranch,	1.11	210	⇓P	Pg	20 06 53.4	+0.3
	baz=1.1,SNR=1000						
O11A				⇓S	Sg	20 07 07.8	+0.4
	baz=1.1						
O13A	Hicks Ranch, I	1.20	143	⇓P	Pg	20 06 54.8	-0.2
	baz=1.2,SNR=85						
O13A				⇓S	Sg	20 07 11.0	+0.4
	baz=1.2						
L11A	Cat Creek Ranc	1.24	331	⇓P	Pg	20 06 55.1	-0.5
	baz=1.2,SNR=603						
L11A				⇓S	Sg	20 07 12.2	+0.6
	baz=1.2						
L13A	Double Diamond	1.24	36	⇑P	Pg	20 06 55.5	-0.2
	baz=1.2,SNR=55						
L13A				⇓S	Sg	20 07 11.9	0.0
	baz=1.2						
N10A	Dunphy	1.25	253	⇑P	Pg	20 06 55.7	-0.1
	baz=1.2,SNR=23						
M14A	Sheep Mountain	1.27	71	P	Pg	20 06 55.6	-0.6
	baz=1.3,SNR=221						
M14A				⇑S	Sg	20 07 12.5	0.0
	baz=1.3						
M10A	I.L. Ranch, Tu	1.28	290	⇓P	Pg	20 06 55.8	-0.6
	baz=1.3,SNR=767						
N14A	Grayback Hills	1.35	100	⇑P	Pn	20 06 56.5	-1.0
	baz=1.3,SNR=192						
N14A				⇑S	Sg	20 07 15.0	-0.2
	baz=1.3						
O10A	Cortez Mining,	1.43	237	⇓P	Pn	20 06 57.8	-0.8
	baz=1.4,SNR=142						
BGU	Big Grassy Mou	1.45	96	ePn	Pn	20 06 57.9	-1.0
BGU				eSn	Sn	20 07 16.0	-2.4
L10A	Juniper Basin	1.52	311	⇑Pb	Pb	20 07 00.1	-0.5
	baz=1.5,SNR=1000						
L10A				⇓Sb	Sb	20 07 20.8	+0.7
	baz=1.5						
K12A	Draper Farm, C	1.54	1	⇑Pb	Pb	20 07 00.5	-0.5
	baz=1.5						
K12A				⇓Sb	Sb	20 07 21.6	+0.6
	baz=1.5						
L14A	Malta	1.58	53	⇓Pb	Pb	20 07 01.0	-0.7
	baz=1.6,SNR=56						
L14A				⇑Sb	Sb	20 07 22.6	+0.6
	baz=1.6						
P11A	Circle Ranch,	1.66	202	⇑Pb	Pb	20 07 02.0	-1.0
	baz=1.7,SNR=12						
P11A				⇓Sb	Sb	20 07 24.4	+0.1
	baz=1.7						
K13A	Stover Farm, H	1.68	22	⇓Pb	Pb	20 07 02.7	-0.6
	baz=1.7,SNR=26						
K13A				⇑Sb	Sb	20 07 25.6	+0.7
	baz=1.7						
HVU	Hansel Valley	1.76	66	ePn	Pn	20 07 02.9	-0.3
HVU				eSn	Sn	20 07 25.9	-0.2
P13A	Bates Ranch, G	1.78	156	P	Pn	20 07 02.5	-1.0
	baz=1.8,SNR=87						
N15A	Stansbury Isla	1.84	96	⇓Pb	Pb	20 07 05.1	-1.0
	baz=1.8						
DUG	Dugway	1.85	118	⇑P	Pn	20 07 03.6	-0.8
	baz=1.8,SNR=192						
DUG				⇓Sb	Sb	20 07 29.9	+0.2
	baz=1.8						
DUG	Dugway	1.85	118	ePn	Pn	20 07 02.4	-1.9
BMN	Battle Mountai	1.86	250	ePn	Pn	20 07 05.4	+0.9
K11A	Parker Ranch,	1.87	334	⇑Pb	Pb	20 07 06.1	-0.5
	baz=1.9,SNR=73						
P10A	Eureka	1.88	219	⇑Pb	Pb	20 07 05.2	-1.5
	baz=1.9,SNR=25						
SPUT	South Promonto	1.89	83	ePn	Pn	20 07 05.3	+0.4
M15A	Larsen Ranch,	1.91	78	⇑Pb	Pb	20 07 06.5	-0.8
	baz=1.9						
M09A	Marrel Ranch,	1.92	281	⇓Pb	Pb	20 07 06.9	-0.6
	baz=1.9,SNR=74						
N09A	Rock Creek Ran	1.98	264	⇑P	Pn	20 07 05.7	-0.4
	baz=2.0,SNR=62						
Q12A	Willow Creek R	2.05	178	⇑P	Pn	20 07 06.6	-0.5
	baz=2.1,SNR=14						
P14A	Drum Mountains	2.07	136	⇓P	Pn	20 07 06.7	-0.7
	baz=2.1,SNR=38						
NOQ	North Oquirrh	2.18	101	ePn	Pn	20 07 10.7	+1.8
K10A	MacKenzie Ranc	2.22	320	⇓Pb	Pb	20 07 11.8	-0.7
	baz=2.2						
Q13A	Wheeler Ranch,	2.25	161	P	Pn	20 07 09.4	-0.4
	baz=2.2,SNR=32						
L09A	Wilkinson Ranc	2.25	295	⇓Pb	Pb	20 07 12.4	-0.7
	baz=2.2						
Q11A	Duckwater	2.31	194	⇓P	Pn	20 07 10.9	+0.1
	baz=2.3,SNR=96						
CTU	Camp Tracy	2.45	98	ePn	Pn	20 07 13.8	+1.2
Q14A	Sevier Lake (B	2.46	148	P	Pn	20 07 11.9	-0.8
	baz=2.5,SNR=23						
NLU	North Lily Min	2.46	117	ePn	Pn	20 07 11.0	-1.8
HLID	Hailey	2.50	9	ePn	Pn	20 07 13.8	+0.5
Q10A	Clear Creek Ra	2.53	207	⇓P	Pn	20 07 13.5	-0.3
	baz=2.5,SNR=27						
P15A	Leamington	2.54	126	⇑P	Pn	20 07 13.1	-0.7
	baz=2.5						
MPU	Maple Canyon	2.74	112	ePn	Pn	20 07 18.3	+1.7
R11A	Troy Canyon, C	2.79	191	P	Pn	20 07 17.2	-0.1
	baz=2.8,SNR=205						
DAU	Daniels Canyon	2.88	102	ePn	Pn	20 07 21.2	+2.7
R13A	O'Grain Ranch,	3.00	165	⇓P	Pn	20 07 20.6	+0.3
	baz=3.0,SNR=47						
WVOR	Wild Horse Val	3.08	297	eP	Pn	20 07 25.4	+4.2
O07A	Toulon	3.14	254	P	Pn	20 07 22.0	-0.2
	baz=3.1,SNR=12						
MSU	Marysvale	3.34	140	ePn	Pn	20 07 24.8	-0.1
TMUT	Trail Mountain	3.37	121	ePn	Pn	20 07 26.4	+1.1
TMUT				ePg	Pg	20 07 37.0	+0.5
S12A	Delamar Landin	3.48	179	⇓P	Pn	20 07 27.0	+0.2
	baz=3.5,SNR=9.2						
ARUT	Antelope Range	3.50	160	ePn	Pn	20 07 25.4	-1.6
S11A	Rachel	3.50	191	⇑P	Pn	20 07 27.5	+0.4
	baz=3.5,SNR=15						
RRI2	Red Ridge	3.50	49	ePn	Pn	20 07 27.4	+0.2
NVAR	Mina Array Bea	3.72	225	Pn	Pn	20 07 30.4	+0.4
	1.1nm,0.3s,baz=35,slow=13,SNR=27						
NVAR				Sn	Sn	20 08 16.1	+1.8
	7.4nm,0.3s,baz=194,slow=12,SNR=7.4						
NVAR				Lg		20 08 28.7	
	25nm,0.3s,baz=51,slow=24,SNR=14						
CCUT	Cedar City	3.74	160	ePn	Pn	20 07 30.3	-0.1
TPAW	Teton Pass	3.80	50	eP	Pn	20 07 38.6	+7.4
T11A	Corn Creek, Al	3.85	183	P	Pn	20 07 32.1	+0.2
	baz=3.9,SNR=105						
MCMT	McKenzie Canyo	4.04	22	Pn	Pn	20 07 36.8	+2.4
LOHW	Long Hollow	4.08	50	eP	Pn	20 07 42.3	+7.3
MOOW	Moose Ponds	4.08	48	eP	Pn	20 07 43.1	+8.0
MOD	Modoc	4.11	283	ePn	Pn	20 07 35.5	0.0
BMO	Blue Mountains	4.14	336	Pn	Pn	20 07 36.0	+0.2
T13A	Saint George	4.14	169	⇑P	Pn	20 07 35.9	0.0
	baz=4.1,SNR=6.9						
T14A	Hurricane	4.28	160	⇓P	Pn	20 07 38.1	+0.3
	baz=4.3,SNR=5.7						
BEKR	Beckwourth	4.31	255	⇑P	Pn	20 07 38.2	0.0
	baz=4.3,SNR=16						
PDAR	Pinedale Array	4.35	66	Pn	Pn	20 07 41.3	+2.6
	baz=240,slow=12,SNR=3.9						
PDAR				Lg		20 08 48.6	
	0.6nm,0.3s,baz=227,slow=18,SNR=3.9						
DLMT	Dillon	4.60	21	ePg	Pg	20 07 55.7	-4.3
YMR	Madison River	4.61	38	Pn	Pn	20 07 42.0	-0.3
U13A	Pakoon Wash	4.73	170	⇓P	Pn	20 07 44.4	+0.4
	baz=4.7,SNR=6.1						
CMB	Columbia Colle	5.20	236	ePn	Pn	20 07 49.7	-0.7
	5.6nm,0.6s						
CMB				ePg	Pg	20 08 08.7	-2.9
V13A	Grand Canyon W	5.29	172	⇓P	Pn	20 07 52.4	+0.8
	baz=5.3,SNR=6.6						
V12A	Nelson	5.36	179	⇓P	Pn	20 07 53.3	+0.7
	baz=5.4,SNR=12						
PV04	Paradox Valley	5.37	118	ePg	Pg	20 08 15.6	+0.7
GSC	Goldstone	5.97	195	Pn	Pn	20 08 01.3	+0.3
GSC				ePg	Pg	20 08 24.9	-1.2
WUAZ	Wupatki	6.23	152	Pn	Pn	20 08 04.8	+0.2
WUAZ				ePg	Pg	20 08 28.3	-2.9
MVCO	Mesa Verde	6.33	126	ePg	Pg	20 08 31.5	-1.6
	9.6nm,0.6s						
YKA	Yellowknife Ar	21.43	0	P	P	20 11 22.1	+1.4
	0.3nm,0.7s,baz=179,slow=10,SNR=8.7						
YKA	Yellowknife Ar	21.43	0	P	P	20 11 22.1	+1.4

MOS ***27*** *20:10:58.2±1.2, 26°.54N×95°.85E, h76^{km}, mb4.1/7, Error ellipse: s-maj=18.5km s-min=9.4km az=124.4*

BJI ***27*** *20:10:58.3, 26°.78N×95°.96E, h60^{km}, mB4.8/6, mb4.4/13, ML3.7/4, Ms4.4/1, Ms7 4.3/1*

NEIC ***27*** *20:10:59.8±0.8, 26°.49N×95°.75E, h80^{km}±9^{km}, mb3.9/3, Error ellipse: s-maj=14.3km s-min=7.2km az=46.0*

IDC ***27*** *20:11:00.2±2.6, 26°.57N×96°.03E, h84^{km}±24^{km}, mb3.6/9, mb1 3.9/10, mb1mx3.5/28, mbtmp3.7/10, MS3.2/2, Ms1 3.2/2, ms1mx2.6/40, Error ellipse: s-maj=41.1km s-min=13.1km az=61.0*

ISCJB ***27*** *20:11:01.1±0.8, 26°.37N±0°.06×95°.53E±0°.05, h117^{km}±9^{km}, mb3.9/12, Error ellipse: s-maj=10.9km s-min=5.1km az=30.5*

ISC 27 20:11:02.1±0.7, **26°.38N**±0°.06×**95°.55E**±0°.05, **h108^{km}**±7^{km}, **n56, σ1^{s}.24**/72, **mb3.9**/12, **1C, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMP	Imphal	2.16	223	ePKP	Pn	20 11 39.0	+1.9
IMP				ex	x	20 12 15.0	
SHL	Shillong	3.40	257	i P	Pn	20 11 55.5	+2.1
SHL				ex	Sn	20 12 37.0	+3.9
AGT	Agartala	4.63	238	ePKP	Pn	20 12 09.0	-0.9
LSA	Lhasa	5.11	311	P	Pn	20 12 17.0	+0.7
LSA				S	Sn	20 13 14.0	-0.1
LSA				smax			
	comp=N,20nm,0.5s						
LSA				smax			
	comp=E,90nm,0.8s						
LSA	Lhasa	5.11	311	eP	Pn	20 12 16.8	+0.5
LSA				pmax	pmax		
	comp=Z,17nm,0.4s						
LSA	Lhasa	5.11	311	eP	Pn	20 12 16.8	+0.4
	comp=Z,17nm,0.4s						
KMI	Kunming	6.60	99	P	Pn	20 12 30.5	-6.1
KMI				S	Sn	20 13 44.5	-5.9
KMI				smax			
	comp=N,26nm,1.2s						
KMI				smax			
	comp=E,24nm,1.2s						
TAPN	Taplejung	7.07	280	ePn	Pn	20 12 43.3	+0.3
TAPN				eSn	Sn	20 14 02.4	+0.6
	comp=E,117nm,0.4s						
ODAN	Odare	7.32	276	ePn	Pn	20 12 46.9	+0.5
ODAN				eSn	Sn	20 14 10.3	+2.4
	comp=E,129nm,0.3s						
CHRT	Chiangrai	7.56	148	⇑P	Pn	20 12 49.0	-0.7
	comp=E,108nm,0.8s						
RAMN	Ramite	8.03	276	ePn	Pn	20 12 56.9	+0.9
RAMN				eSn	Sn	20 14 26.8	+1.7
	comp=E,55nm,0.3s						
CHG	Chiang Mai	8.16	157	P	Pn	20 12 57.9	+0.1
CHTO	Chiang Mai	8.16	157	eP	Pn	20 12 56.7	-1.1
CHTO				pmax	pmax		
	comp=Z,24nm,1.0s						
CHTO	Chiang Mai	8.16	157	eP	Pn	20 12 56.7	-1.1
	comp=Z,24nm,1.0s						
JIRN	Jiri	8.45	281	ePn	Pn	20 13 02.5	+0.8
JIRN				eSn	Sn	20 14 34.6	-0.7
	comp=Z,95nm,0.3s						
CMAR	Chiang Mai Arr	8.49	158	P	Pn	20 13 02.0	-0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	8.49	158	P	Pn	20 13 02.0	-0.3
	comp=Z,0.7nm,0.3s,baz=337,slow=12,SNR=135						
GUN	Gumba	8.75	282	ePn	Pn	20 13 05.8	0.0
GUN				eSn	Sn	20 14 41.3	-1.4
	comp=Z,73nm,0.3s						
PKI	Pulchoki	9.13	280	ePn	Pn	20 13 10.8	-0.1
PKI				eSn	Sn	20 14 50.4	-1.4
	comp=Z,34nm,0.3s						
PKI	Pulchoki	9.13	280	ePn	Pn	20 13 11.3	+0.4
PKI				eSn	Sn	20 14 51.1	-0.7
BOK	Bokaro	9.13	256	ePKP	Pn	20 13 10.7	-0.3
BOK				eS	Sn	20 14 47.4	-4.7
PKIN	Phulchoki	9.14	280	ePn	Pn	20 13 11.3	+0.2
PKIN				eSn	Sn	20 14 51.1	-1.0
	comp=Z,152nm,0.4s						
KKN	Kakani	9.26	281	ePn	Pn	20 13 12.8	0.0
KKN				eSn	Sn	20 14 54.4	-0.7
	comp=Z,34nm,0.2s						
DMN	Daman	9.40	280	ePn	Pn	20 13 14.4	-0.2
DMN				eSn	Sn	20 14 57.9	-0.5
	comp=Z,89nm,0.7s						
GKN	Gorkha	9.85	282	ePn	Pn	20 13 19.8	-1.0
GKN				eSn	Sn	20 15 07.8	-1.6
	comp=Z,69nm,0.3s						
DANN	Dangsing	10.66	283	ePn	Pn	20 13 29.2	-2.6
DANN				eSn	Sn	20 15 24.7	-4.5
	comp=Z,62nm,0.4s						
KOLN	Koldanda	10.74	280	ePn	Pn	20 13 31.3	-1.5
KOLN				eSn	Sn	20 15 28.0	-3.1
	comp=Z,39nm,0.5s						
LZH	Lanzhou	11.99	34	eP	Pn	20 13 39.8	-10
LZH				pP		20 13 44.0	
LZH				pmax	pmax		
	comp=Z,18nm,1.4s						
LZH				pmax	pmax		
	comp=Z,75nm,4.3s						
BHPL	Bhopal	16.75	263	ePKP	Pn	20 14 51.2	+1.0
BHPL				eS	S	20 17 58.3	+1.0
AJM	Ajmer	18.73	275	ePKP	P	20 15 15.1	+2.7
AJM				AMb	AMB	20 15 21.1	
	comp=Z,22nm,0.8s						
KSH	Kashi	20.96	314	eP	P	20 15 39.0	+2.7
KSH				pmax	pmax		
	comp=Z,5.0nm,0.7s						
KSH				pmax	pmax		
	comp=Z,110nm,2.9s						
KSH				LR	LR		
	comp=N,270nm,5.5s						
KSH				LR	LR		
	comp=E,240nm,7.5s						
KSH				LR	LR		
	comp=Z,300nm,5.3s						
POO	Poona	21.51	253	ex	P	20 15 42.3	-0.1
POO				AMb	AMB	20 16 02.3	
	comp=Z,9.9nm,2.1s,mb3.8						
MKAR	Makanchi Array	22.93	336	P	P	20 15 56.2	-0.5
	comp=Z,0.9nm,0.8s,mb3.2,baz=144,slow=12,SNR=9.9						
MKAR				ScP	ScP	20 23 15.5	+4.1
	comp=Z,0.2nm,0.6s,baz=138,slow=5.3,SNR=4.6						
SONM	Songino Array	23.05	19	P	P	20 15 55.6	-2.3
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,49nm,18.3s						
SONM	Songino Array	23.05	19	P	P	20 15 55.6	-2.2
	comp=Z,1.4nm,0.8s,mb3.3,baz=202,slow=11,SNR=10						
SONM				LR	LR	20 24 51.2	
	comp=Z,49nm,18.3s,baz=244,slow=37						
TKM2	Tokmak 2	23.18	320	P	P	20 16 01.0	+1.8
UCH	Uchtor	23.40	318	epP	pP	20 16 19.4	-3.8
	comp=Z,2.3nm,0.9s						
PALK	Pallekele	23.68	219	LR	LR	20 26 59.0	
	comp=Z,62nm,19.5s,baz=311,slow=40						
KBL	Kabul	24.20	296	eP	P	20 16 12.2	+3.6
KBL				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.0						
KBL	Kabul	24.20	296	eP	P	20 16 12.2	+3.6
	comp=Z,6.9nm,0.8s,mb4.0						
ZAK	Zakamensk	24.69	12	eP	P	20 16 10.5	-2.3
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb3.6						
KURK	Kurchatov	27.54	336	eP	P	20 16 38.2	-0.3
KURK				e*PP	pP	20 16 57.5	-4.8
KURK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.9						
KURK	Kurchatov	27.54	336	P	P	20 16 39.2	+0.7
	comp=Z,0.4nm,0.7s,mb3.1,baz=149,slow=9.4,SNR=3.3						
KURK	Kurchatov	27.54	336	eP	P	20 16 38.1	-0.3
	comp=Z,4.4nm,1.0s,mb3.9						
KURK				epP	pP	20 16 57.5	-4.8
BVAR	Borovoye Array	32.58	332	P	P	20 17 23.7	+0.8
BVAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BVAR	Borovoye Array	32.58	332	P	P	20 17 23.7	+0.8
	comp=Z,0.5nm,0.4s,mb3.7,baz=152,slow=5.4,SNR=4.8						
BRVK	Borovoye	32.65	331	eP	P	20 17 25.1	+1.6
BRTR	Keskin Array B	52.62	301	P	P	20 20 07.8	+2.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	52.62	301	P	P	20 20 07.8	+2.8
	comp=Z,0.6nm,0.6s,mb3.8,baz=94,slow=8.7,SNR=3.9						
FITZ	Fitzroy Crossi	53.00	143	P	P	20 20 07.2	-0.7
	comp=Z,2.6nm,0.8s,mb4.3,baz=342,slow=7.0,SNR=6.8						
WRA	Warramunga Arr	59.47	137	P	P	20 20 53.4	-0.5
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA	Warramunga Arr	59.47	137	P	P	20 20 53.4	-0.5
	comp=Z,5.4nm,0.7s,mb4.7,baz=325,slow=7.5,SNR=40						
ASAR	Alice Springs	62.06	140	P	P	20 21 11.5	+0.2
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ASAR	Alice Springs	62.06	140	P	P	20 21 11.5	+0.2
	comp=Z,1.6nm,0.5s,mb4.3,baz=322,slow=6.5,SNR=34						
STKA	Stephens Creek	72.69	140	P	P	20 22 18.2	-0.1
	comp=Z,2.6nm,0.7s,mb4.2,baz=307,slow=5.1,SNR=6.1						
STKA	Stephens Creek	72.69	140	P	P	20 22 18.2	-0.1

*IDC **27** 20:39:05.5±1.6, 2°.56S×141°.06E, h0^{km}, mb3.7/6, mb1 3.9/7, mb1mx3.7/19, mbtmp3.8/7, ML3.9/1, MS3.6/5, Ms1 3.6/5, ms1mx3.1/29, Error ellipse: s-maj=61.0km s-min=22.0km az=99.0*

*NEIC **27** 20:39:12.0±3.5, 2°.70S×141°.07E, h49^{km}±28^{km}, mb3.4/1, Error ellipse: s-maj=35.0km s-min=14.8km az=85.0*

ISC 27 20:39:12.3±5.7**, 2°.7S**±0°.2×**141°.1E**±0°.4**, h53^{km}**±49^{km}**, n14,** σ**0^s.31**/10**, mb3.9**/4**, MS3.8**/3**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	13.11	220	*e*P	Pn	20 42 16.0	+0.2
CTA	Charters Tower	17.97	164	LR	LR	20 49 49.4	
	comp=Z,63nm,19.1s,baz=49,slow=36						
WRAB	Tennant Creek	18.32	201	*e*P	Pn	20 43 22.3	-0.5
	1.9nm,0.6s						
WRA	Warramunga Arr	18.34	201	P	Pn	20 43 22.7	-0.2
	0.4nm,0.3s,baz=21,slow=12,SNR=26						
WRA				LR	LR	20 50 28.5	
	comp=Z,72nm,19.6s,baz=30,slow=37						
FITZ	Fitzroy Crossi	21.52	224	P	P	20 43 57.1	0.0
	2.6nm,0.7s,mb3.8,baz=49,slow=13,SNR=5.6						
FITZ				LR	LR	20 51 42.5	
	comp=Z,56nm,19.1s,MS3.0,baz=39,slow=35						
ASAR	Alice Springs	21.95	198	P	P	20 44 02.1	+0.6
	0.6nm,0.5s,baz=30,slow=11,SNR=11						
JOW	Kunigami	31.89	338	LR	LR	20 55 04.2	
	comp=Z,646nm,21.6s,MS4.3,baz=342,slow=30						
MK31	Makanchi Array	71.27	322	*e*P	P	20 50 26.3	+0.1
MKAR	Makanchi Array	71.27	322	P	P	20 50 26.4	+0.2
	0.2nm,0.5s,baz=121,slow=4.7,SNR=6.7						
KURK	Kurchatov	75.11	324	P	P	20 50 48.8	0.0
	0.5nm,0.8s,mb3.5,baz=115,slow=4.6,SNR=2.4						
BVAR	Borovoye Array	80.70	325	P	P	20 51 19.2	-0.5
	0.8nm,0.5s,mb3.9,baz=119,slow=7.2,SNR=8.7						
INK	Inuvik	90.80	22	P	P	20 52 09.6	+0.1
	1.3nm,0.6s,mb4.4,baz=194,slow=8.3,SNR=4.0						
SPITS	Spitsbergen Ar	99.42	350	LR	LR	21 40 16.1	
	comp=Z,66nm,19.4s,MS4.2,baz=130,slow=37						
DBIC	Dimbokro	145.85	278	PKPbc	PKPbc	20 58 47.3	+0.3
	1.3nm,0.6s,baz=90,slow=2.0,SNR=6.1						

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*NEIC **27** 20:55:19.3, 52°.26N×167°.29W, h12^{km}, ML3.1(PMR), ML3.2(AEIC), After AEIC.*

*IDC **27** 20:55:19.8±1.3, 52°.55N×167°.64W, h0^{km}, mb3.9/9, mb1 4.0/9, mb1mx3.8/25, mbtmp3.9/9, MS3.6/1, Ms1 3.6/1, ms1mx2.9/42, Error ellipse: s-maj=36.6km s-min=24.6km az=7.0*

ISC 27 20:55:24.3±0.8**, 52°.49N**±0°.09×**167°.37W**±0°.09**, h35^{km}, n24,** σ**1^s.23**/27**, mb3.9**/13**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKFG	Magazine Ridge	0.98	340	P	Pn	20 55 40.9	-0.5
OKFG				S	Sn	20 55 59.2	+5.1
NIKO	Nikolski	1.03	299	P	Pn	20 55 40.6	-1.5
NIKO				S	Sn	20 55 56.1	+0.8
UNV	Unalaska Valle	1.46	21	P	Pn	20 55 47.3	-0.7
UNV				S	Sn	20 56 08.7	+2.8
AKLV	Akutan Long Va	1.88	26	P	Pn	20 55 53.4	-0.4
AKUT	Akutan	1.91	29	*e*P	Pn	20 55 53.8	-0.4
SDPT	Sand Point	4.98	52	*e*P	Pn	20 56 36.2	-0.2
KDAK	Kodiak Island	9.98	52	Pn	Pn	20 57 44.2	-0.7
	0.4nm,0.3s,baz=60,slow=8.1,SNR=2.2						
IMA2	Indian Mountai	15.25	22	*e*P	Pn	20 59 02.5	+5.9
PETK	Petropavlovsk-	21.01	286	P	P	21 00 07.3	+2.9
	3.3nm,0.5s,mb4.0,baz=77,slow=14,SNR=7.9						
PETK				LR	LR	21 07 56.7	
	comp=Z,151nm,18.3s,baz=303,slow=36						
PETK	Petropavlovsk-	21.01	286	P	P	21 00 07.3	+2.9
PETK				LR	LR	21 07 56.7	
INK	Inuvik	22.58	33	P	P	21 00 18.9	-2.2
	2.0nm,0.5s,mb3.8,baz=243,slow=7.3,SNR=5.6						
YKA	Yellowknife Ar	29.24	49	P	P	21 01 24.0	+1.7
	0.2nm,0.4s,mb3.2,baz=275,slow=7.9,SNR=5.0						
NVAR	Mina Array Bea	36.44	93	P	P	21 02 27.7	+2.3
	1.1nm,0.6s,mb4.0,baz=306,slow=9.0,SNR=7.6						
SONM	Songino Array	52.29	302	P	P	21 04 32.1	+0.3
	0.6nm,0.8s,mb3.6,baz=57,slow=4.1,SNR=5.1						
SONM				PcP	PcP	21 05 43.9	+1.2
	0.1nm,0.3s,baz=65,slow=2.1,SNR=2.6						
KEV	Kevo	57.62	354	*e*p	P	21 05 08.4	-1.6
ARCES	ARCESS Array B	57.92	355	P	P	21 05 13.0	+0.9
	2.2nm,0.9s,mb4.2,baz=21,slow=6.5,SNR=13						
ARCES	ARCESS Array B	57.92	355	P	P	21 05 13.0	+0.8
JOF	Joensuu	64.00	351	*e*p	P	21 05 52.2	-1.3
	1.1nm,0.4s,mb4.2						
MKAR	Makanchi Array	64.61	315	P	P	21 05 57.3	-0.4
	0.4nm,0.6s,mb3.7,baz=52,slow=6.7,SNR=8.4						
KAF	Kangasniemi	65.23	353	*e*p	P	21 06 00.8	-0.7
	3.1nm,0.5s,mb4.6						
FINES	FINESS Array B	65.91	353	P	P	21 06 05.3	-0.6
	1.7nm,0.5s,mb4.4,baz=13,slow=6.5,SNR=20						
NOA	NORSAR Array B	66.82	1	P	P	21 06 11.9	+0.2
	0.9nm,0.7s,mb3.9,baz=0.9,slow=6.4,SNR=2.9						
BRTR	Keskin Array B	86.36	344	P	P	21 08 04.4	+1.9
	0.3nm,0.3s,mb4.0						
ASAR	Alice Springs	91.42	232	P	P	21 08 26.5	+0.1
	0.3nm,0.7s,mb3.7,baz=32,slow=5.5,SNR=3.6						

IDC 27 21:03:24.9±4.5**, 2°.50S**×**100°.15E, h0^{km}, mb3.3**/4**, mb1 3.5**/4**, mb1mx3.4**/22**, mbtmp3.3**/4**, Error ellipse: s-maj=184.3km s-min=24.6km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	37.62	120	P	P	21 10 41.1	-0.6
	0.3nm,0.3s,baz=308,slow=8.9,SNR=10						
ASAR	Alice Springs	38.84	126	P	P	21 10 52.8	+0.7
	0.2nm,0.3s,baz=301,slow=8.3,SNR=3.1						
SONM	Songino Array	50.42	5	P	P	21 12 24.7	+0.6
	0.1nm,0.4s,baz=189,slow=9.0,SNR=5.1						
MKAR	Makanchi Array	51.54	344	P	P	21 12 32.2	-0.4
	0.1nm,0.3s,baz=162,slow=9.1,SNR=6.7						
TXAR	Lajitas Array	145.00	38	PKPbc	PKPbc	21 23 03.8	-0.4
	0.4nm,0.5s,baz=14,slow=0.4,SNR=4.1						

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*CSEM **27** 21:09:30.2, 36°.28N×21°.76E, h13^{km}, MD3.6, After ATH*

*NEIC **27** 21:09:30.2, 36°.28N×21°.76E, h13^{km}, MD3.6(ATH), After ATH.*

ATH 27 21:09:30.2, 36°.28N×**21°.76E, h13^{km}**±3^{km}**, MD3.6**/5**, 2C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.61	359	*e*PB	Pb	21 09 41.6	-1.2
PYL				*e*SB	Sb	21 09 51.1	-0.3
PYL	PYLOS	0.61	359	*e*Pb	Pb	21 09 41.6	-1.2
PYL				*e*Sb	Sb	21 09 51.1	-0.3
ITM	Ithomi	0.91	8	*e*PB	Pb	21 09 47.4	-0.4
ITM				*e*SB	Sb	21 09 59.7	-0.1
ITM	Ithomi	0.91	8	*e*Pb	Pb	21 09 47.4	-0.4
ITM				*e*Sb	Sb	21 09 59.7	-0.1
KYTH	Kithira	1.03	90	*e*PN	Pn	21 09 50.5	+0.2
KYTH	Kithira	1.03	90	*e*Pn	Pn	21 09 50.5	+0.2
VLI	Veliai	1.04	65	⇑*i*PB	Pb	21 09 50.2	+0.1
VLI				*e*SB	Sb	21 10 04.3	+0.6
VLI	Veliai	1.04	65	⇑*i*Pb	Pb	21 09 50.2	+0.1
VLI				*e*Sb	Sb	21 10 04.3	+0.6
VLX	Vlachokerasia	1.20	24	*e*PN	Pn	21 09 52.3	-0.3
VLX				*e*SB	Sb	21 10 09.7	+1.6
VLX	Vlachokerasia	1.20	24	*e*Pn	Pn	21 09 52.3	-0.3
VLX				*e*Sb	Sb	21 10 09.7	+1.6
DID	Didima	1.70	44	*e*PN	Pn	21 10 01.1	+1.5
DID	Didima	1.70	44	*e*Pn	Pn	21 10 01.1	+1.5
GUR	Goura	1.72	16	*e*PN	Pn	21 10 01.3	+1.5
GUR	Goura	1.72	16	*e*Pn	Pn	21 10 01.3	+1.5
RLS	Riolos of Patr	1.79	353	*e*PG	Pg	21 10 03.4	-1.2
RLS	Riolos of Patr	1.79	353	*e*Pg	Pg	21 10 03.4	-1.2
KARN	Karanos	1.96	116	*e*PN	Pn	21 10 05.5	+2.4
KARN	Karanos	1.96	116	*e*Pn	Pn	21 10 05.5	+2.4
LTK	Loutraki	1.99	29	*e*PG	Pg	21 10 06.6	-1.8
LTK	Loutraki	1.99	29	*e*Pg	Pg	21 10 06.6	-1.8
NAIG	Nisos Aigina	2.02	43	*e*PG	Pg	21 10 07.3	-1.7
NAIG	Nisos Aigina	2.02	43	*e*Pg	Pg	21 10 07.3	-1.7
VLS	Valsamata	2.11	334	*e*PN	Pn	21 10 04.6	-0.6
VLS	Valsamata	2.11	334	*e*Pn	Pn	21 10 04.6	-0.6
VAM	Vamos	2.17	113	*e*PB	Pb	21 10 07.5	-1.7
VAM	Vamos	2.17	113	*e*Pb	Pb	21 10 07.5	-1.7
VLY	Voula,Athens	2.26	45	*e*PN	Pn	21 10 09.7	+2.5
VLY	Voula,Athens	2.26	45	*e*Pn	Pn	21 10 09.7	+2.5
PTL	Penteli	2.44	43	*e*PN	Pn	21 10 12.4	+2.7
PTL	Penteli	2.44	43	*e*Pn	Pn	21 10 12.4	+2.7
NPS	Neapolis	3.29	107	*e*PN	Pn	21 10 23.3	+1.9
NPS	Neapolis	3.29	107	*e*Pn	Pn	21 10 23.3	+1.9

KRSC 27 21:16:49.6±1.1**, 54°.34N**×**160°.33E, h72^{km}**±71^{km}**, ML3.5, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TUMR	Tumrok	0.95	354	P	Pn	21 17 09.4	+1.9
SPN	Mys Shipunski	1.26	188	*e*P	Pn	21 17 13.2	+1.8
SPN				*e*S	Sn	21 17 31.0	+3.2
NLC	Nalytchevo	1.31	207	P	Pn	21 17 14.4	+2.3
NLC				*e*S	Sn	21 17 32.3	+3.4
SDLR	Sedlovina	1.37	219	P	Pn	21 17 15.9	+3.1
GNL	Ganaly	1.55	246	P	Pn	21 17 16.2	+1.0
PET	Petropavlovsk	1.65	218	S	Sn	21 17 39.4	+2.4
KBTR	Krutoberegovo	2.35	36	P	Pn	21 17 29.0	+3.1
BKI	Bering	3.38	73	*e*S	Sn	21 18 19.5	+0.7

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*ISCJB **27** 21:17:07.3±0.5, 50°.11N±0°.04×18°.38E±0°.03, h0^{km}, Error ellipse: s-maj=5.5km s-min=2.8km az=2.8*

*CSEM **27** 21:17:07.8±0.2, 50°.11N×18°.38E, h2^{km}, ML2.5/5, Error ellipse: s-maj=5.6km s-min=3.5km az=178.0*

*IPEC **27** 21:17:08.6±0.1, 50°.07N×18°.42E, h7^{km}±1^{km}, ML1.5/3, Error ellipse: s-maj=1.6km s-min=0.7km az=162.0*

*WAR **27** 21:17:09.0, 50°.06N×18°.43E, ML2.2, Mining Induced*

*PRU **27** 21:17:11.2, 50°.02N×18°.24E, h0^{km}*

ISC 27 21:17:08.4±0.5**, 50°.08N**±0°.04×**18°.37E**±0°.03**, h0^{km}, n22,** σ**1^s.01**/41**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.12	270	*e*Pg	Pg	21 17 12.0	+1.4
RAC				*e*Sg	Sg	21 17 15.2	+3.1
RAC	Raciborz	0.12	270	*e*Pg	Pg	21 17 12.0	+1.4
RAC				*e*Sg	Sg	21 17 15.2	+3.1
OKC	Ostrava-Krasne	0.29	211	*e*PG	Pg	21 17 14.3	+0.4
OKC				*e*SG	Sg	21 17 18.6	+1.0
	comp=Z,36nm,0.5s						
OKC	Ostrava-Krasne	0.29	211	*e*Pg	Pg	21 17 14.0	+0.1
	baz=36						
OKC				*e*Sg	Sg	21 17 18.3	+0.7
	baz=36						
MORC	Moravsky Berou	0.62	241	*e*Pg	Pg	21 17 20.4	+0.1
	baz=62						
MORC				*e*Sg	Sg	21 17 29.3	+1.0
	comp=Z,11nm,0.2s,baz=62						
OJC	Ojcow	0.93	81	*e*Pg	Pg	21 17 25.0	-1.2
	baz=261						
OJC				*e*Sg	Sg	21 17 37.9	-0.3
	baz=261						
DPC	Dobruska-Polom	1.34	282	*e*PG	Pg	21 17 34.0	-0.2
DPC				*e*SG	Sg	21 17 52.8	+1.2
	comp=Z,12nm,0.4s						
DPC	Dobruska-Polom	1.34	282	*e*Pn	Pn	21 17 33.8	-0.6
	baz=101						
DPC	Dobruska-Polom	1.34	282	Pg	Pg	21 17 34.0	-0.2
DPC				*e*Sg	Sg	21 17 52.2	+0.6
	baz=101						
VRAC	Vranov	1.39	237	*e*Pn	Pn	21 17 34.4	-0.7
VRAC				*e*Sg	Sg	21 17 52.7	-0.4
	comp=Z,5.2nm,0.2s,baz=56						
NIE	Niedzica	1.42	117	*e*Pg	Pg	21 17 35.1	-0.6
NIE				*e*Sg	Sg	21 17 55.3	+1.2
KOLL	Kolacno	1.51	179	*e*PN	Pn	21 17 37.1	+0.5
KOLL				*e*SN	Sn	21 17 56.5	-0.4
KOLL	Kolacno	1.51	179	*e*Pn	Pn	21 17 37.1	+0.5
KOLL				*e*Sn	Sn	21 17 56.5	-0.4
VYHS	Vyhne	1.62	169	*e*PN	Pn	21 17 37.9	-0.3
VYHS				*e*SN	Sn	21 18 00.0	+0.3
VYHS	Vyhne	1.62	169	*e*Pn	Pn	21 17 37.4	-0.8
	baz=350						
VYHS				*e*Sn	Sn	21 18 00.0	+0.3
KRUC	Moravsky	1.64	232	*e*Pn	Pn	21 17 38.2	-0.3
KRUC				*e*Sg	Sg	21 18 00.0	-1.2
	comp=Z,5.7nm,0.2s,baz=52						
STHS	Stebnicka Huta	1.98	109	*e*PN	Pg	21 17 45.9	-0.4
STHS				*e*SN	Sg	21 18 13.2	+1.3
STHS	Stebnicka Huta	1.98	109	*e*Pn	Pg	21 17 45.9	-0.4
PRU	Pruhonice	2.47	269	*e*x	Sn	21 18 09.9	-11
PRU				*e*SG	Sg	21 18 26.8	-1.0
	comp=Z,3.1nm,0.5s						
BRG	Berggiesshubel	2.94	287	*e*(P)	Sg	21 18 45.1	+2.3
	comp=Z,11nm,1.3s						
KHC	Kasperske Hory	3.26	255	*e*PG	Pg	21 18 08.5	-2.4
KHC				*e*SG	Sg	21 18 52.3	-0.8
	comp=Z,2.7nm,0.4s						
KHC	Kasperske Hory	3.26	255	Pg	Pg	21 18 08.5	-2.4
KHC				Sg	Sg	21 18 52.3	-0.8
	comp=Z,2.7nm,0.4s						

IDC 27 21:30:57.1±1.7**, 4°.56N**×**89°.11E, h0^{km}, mb3.6**/3**, mb1 3.8**/6**, mb1mx3.5**/26**, mbtmp3.7**/6**, ML3.8**/3**, MS3.0**/1**, Ms1 3.0**/1**, ms1mx2.4**/38**, Error ellipse: s-maj=43.2km s-min=26.1km az=39.0, North Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	8.79	288	Pn	Pn	21 33 04.5	-1.1
	1.4nm,0.3s,baz=108,slow=12,SNR=8.8						
PALK				Sn	Sn	21 34 28.3	-17
	0.9nm,0.3s,baz=193,slow=19,SNR=6.0						
PALK				LR	LR	21 36 02.6	
	comp=Z,104nm,19.9s,baz=106,slow=35						
PSI	Prapat	9.95	100	Pn	Pn	21 33 23.8	+2.3
	0.8nm,0.3s,baz=318,slow=13,SNR=2.1						
CMAR	Chiang Mai Arr	16.82	34	Pn	Pn	21 34 53.0	-1.3
	0.1nm,0.3s,baz=225,slow=14,SNR=3.8						
MKAR	Makanchi Array	42.48	353	P	P	21 38 53.7	-0.2
	0.4nm,0.7s,baz=167,slow=7.2,SNR=5.9						
MKAR				PcP	PcP	21 40 48.6	+1.7
	0.4nm,0.9s,baz=173,slow=2.5,SNR=3.3						
SONM	Songino Array	45.60	16	P	P	21 39 18.7	-0.2
	1.1nm,0.7s,baz=196,slow=7.3,SNR=12						
WRA	Warramunga Arr	50.67	120	P	P	21 39 57.5	-1.2
	0.9nm,0.8s,baz=296,slow=8.5,SNR=5.3						

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*CSEM **27** 21:48:09.2±0.2, 43°.42N×7°.00W, h15^{km}, ML2.9/16, Error ellipse: s-maj=4.7km s-min=2.5km az=135.0*

*MDD **27** 21:48:10.7±0.4, 43°.43N×7°.01W, h11^{km}, mbLg2.6/19, Error ellipse: s-maj=6.1km s-min=2.5km az=156.0, PRIMO*

*LDG **27** 21:48:10.6±0.1, 43°.42N×7°.04W, h10^{km}, Ml2.7/7, Error ellipse: s-maj=2.8km s-min=1.5km az=148.0*

*NEIC **27** 21:48:11.0, 43°.39N×7°.01W, h11^{km}, MN2.6(MDD), After MDD.*

*INMG **27** 21:48:11.0±1.3, 43°.38N×7°.01W, h11^{km}±3^{km}, ML2.5, Error ellipse: s-maj=3.7km s-min=1.7km az=126.0*

ISC 27 21:48:09.7±0.5**, 43°.39N**±0°.02×**6°.98W**±0°.03**, h19^{km}**±3^{km}**, n110,** σ**1^s.08**/175**, 1C, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EPON	Pontenova	0.14	245	⇑Pg	Pg	21 48 13.9	0.0
	118nm,0.0s,SNR=18						
EPON				Lg		21 48 16.0	
	154nm,0.1s,SNR=7.9						
EPON	Pontenova	0.14	245	Pg	Pg	21 48 13.9	0.0
	118nm,0.0s,SNR=18						
ERUA	La Rua	1.00	187	Pg	Pg	21 48 29.6	+0.4
	7.7nm,0.2s,SNR=7.9						
ERUA				Lg		21 48 42.3	
	85nm,0.1s,SNR=7.9						
ERUA	La Rua	1.00	187	Pg	Pg	21 48 29.6	+0.5
	7.7nm,0.2s,SNR=7.9						
STS	Santiago	1.25	247	Pg	Pg	21 48 33.5	-0.5
	8.1nm,0.2s,SNR=15						
STS				Lg		21 48 49.2	
	45nm,0.3s,SNR=18						
STS	Santiago	1.25	247	Pg	Pg	21 48 33.5	-0.5
	8.1nm,0.2s,SNR=15						
EARI	Arriondas	1.29	93	Pn	Pn	21 48 34.1	+1.3
	1.6nm,0.2s,SNR=127						
EARI				Pg	Pg	21 48 34.9	+0.2
	14nm,0.2s,SNR=7.9						
EARI				Lg		21 48 52.6	
	33nm,0.2s,SNR=13						
EARI	Arriondas	1.29	93	Pn	Pn	21 48 34.1	+1.3
EARI				Pg	Pg	21 48 34.9	+0.2
EARI				Sn	Sn	21 48 50.6	+1.0
EARI				Lg		21 48 52.2	
EARI	Arriondas	1.29	93	Pn	Pn	21 48 34.1	+1.3
	1.6nm,0.2s,SNR=127						
EARI	Arriondas	1.29	93	Pg	Pg	21 48 34.9	+0.2
	14nm,0.2s,SNR=7.9						
ECAL	Calabor	1.45	173	Pn	Pn	21 48 36.2	+1.2
	0.3nm,0.1s,SNR=7.9						
ECAL				Pg	Pg	21 48 38.4	+0.7
	8.2nm,0.2s,SNR=18						
ECAL				Lg		21 48 57.9	
	124nm,0.2s,SNR=36						
ECAL	Calabor	1.45	173	Pn	Pn	21 48 36.2	+1.2
	0.3nm,0.1s,SNR=7.9						
EMAZ	Mazaricos	1.53	254	Pn	Pn	21 48 36.5	+0.5
	0.1nm,0.0s,SNR=7.9						
EMAZ				Pg	Pg	21 48 38.6	-0.5
	8.6nm,0.1s,SNR=24						
EMAZ				Lg		21 48 57.7	
	64nm,0.2s,SNR=21						
EMAZ	Mazaricos	1.53	254	Pn	Pn	21 48 36.3	+0.3
EMAZ				Pg	Pg	21 48 38.6	-0.5
EMAZ				Lg		21 48 57.7	
EMAZ	Mazaricos	1.53	254	Pn	Pn	21 48 36.3	+0.3
PBRG	Braganca	1.59	174	*e*Pg	Pg	21 48 41.0	+0.7
PBRG				*e*Sn	Sn	21 48 57.9	+1.0
PBRG				*e*Sg	Sg	21 49 01.8	+0.8
PBRG				A		21 49 04.1	
	22nm,0.3s						
PBRG	Braganca	1.59	174	Pg	Pg	21 48 41.0	+0.7
PBRG				Sn	Sn	21 48 57.9	+1.0
PBRG				Lg		21 49 01.8	
	11nm,0.3s						
PBRG	Braganca	1.59	174	*e*Pg	Pg	21 48 41.0	+0.7
PBRG				*e*Sn	Sn	21 48 57.9	+1.0
PBRG				*e*Sg	Sg	21 49 01.8	+0.8
	22nm,0.3s						
ELOB	Lobios	1.71	208	Pn	Pn	21 48 38.8	+0.2
	0.5nm,0.1s,SNR=7.9						
ELOB				Pg	Pg	21 48 42.8	+0.1
	2.8nm,0.1s,SNR=29						
ELOB				Sn	Sn	21 48 58.8	-1.1
	5.1nm,0.1s,SNR=5.7						
ELOB				Lg		21 49 04.8	
	11nm,0.1s,SNR=18						
ELOB	Lobios	1.71	208	Pn	Pn	21 48 38.8	+0.2
ELOB				Pg	Pg	21 48 42.8	+0.1
ELOB				Sn	Sn	21 48 59.1	-0.9
ELOB				Lg		21 49 04.8	
ELOB	Lobios	1.71	208	Pn	Pn	21 48 38.8	+0.2
	0.5nm,0.1s,SNR=7.9						
EZAM	Zamans	1.77	226	Pn	Pn	21 48 39.5	+0.2
	0.7nm,0.1s,SNR=7.9						
EZAM				Pg	Pg	21 48 43.4	-0.3
	7.8nm,0.2s,SNR=7.9						
EZAM				Sn	Sn	21 48 59.9	-1.3
	3.4nm,0.2s,SNR=7.9						
EZAM				Lg		21 49 06.4	
	9.9nm,0.1s,SNR=7.9						
EZAM	Zamans	1.77	226	Pn	Pn	21 48 39.0	-0.3
EZAM				Pg	Pg	21 48 43.4	-0.3
EZAM				Sn	Sn	21 48 60.0	-1.3
EZAM				Lg		21 49 06.4	
EZAM	Zamans	1.77	226	Pn	Pn	21 48 39.5	+0.2
	0.7nm,0.1s,SNR=7.9						
PCAB	Cabril	1.84	205	*e*Pn	Pn	21 48 40.7	+0.3
PCAB	Cabril	1.84	205	*e*Pg	Pg	21 48 44.9	-0.3
PCAB				*e*Sn	Sn	21 49 03.3	+0.1
PCAB				*e*Sg	Sg	21 49 09.4	+0.3
PCAB				A		21 49 11.5	
	35nm,0.3s						
PCAB	Cabril	1.84	205	Pn	Pn	21 48 40.7	+0.3
PCAB				Pg	Pg	21 48 44.9	-0.3
PCAB				Sn	Sn	21 49 03.3	+0.1
PCAB				Lg		21 49 09.4	
	17nm,0.3s						
PCAB	Cabril	1.84	205	*e*Pn	Pn	21 48 40.7	+0.3
PCAB	Cabril	1.84	205	*e*Pg	Pg	21 48 44.9	-0.3
PCAB				*e*Sn	Sn	21 49 03.3	+0.1
PCAB				*e*Sg	Sg	21 49 09.4	+0.3
	35nm,0.3s						
PVRL	Vila Real	2.18	195	*e*Pg	Pg	21 48 51.9	+0.4
PVRL				*e*Sg	Sg	21 49 19.7	-0.1
PVRL				A		21 49 24.0	
	32nm,0.3s						
PVRL	Vila Real	2.18	195	Pg	Pg	21 48 51.9	+0.4
PVRL				Lg		21 49 19.7	
	16nm,0.3s						
PVRL	Vila Real	2.18	195	*e*Pg	Pg	21 48 51.9	+0.4
PVRL				*e*Sg	Sg	21 49 19.7	-0.1
	32nm,0.3s						
MVO	Moncorvo	2.22	181	*e*Pg	Pg	21 48 52.0	-0.3
MVO				*e*Sg	Sg	21 49 20.2	-0.9
MVO				A		21 49 25.0	
	26nm,0.2s						
MVO	Moncorvo	2.22	181	Pg	Pg	21 48 52.0	-0.3
MVO				Lg		21 49 20.2	
	13nm,0.2s						
MVO	Moncorvo	2.22	181	*e*Pg	Pg	21 48 52.0	-0.3
MVO				*e*Sg	Sg	21 49 20.2	-0.9
	26nm,0.2s						
ELAN	Lanestosa	2.59	92	Pn	Pn	21 48 52.1	+1.5
	0.9nm,0.2s,SNR=7.9						
ELAN				Pg	Pg	21 48 58.6	-0.8
	1.9nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	21 49 22.7	+1.1
	3.5nm,0.2s,SNR=7.9						
ELAN				Lg		21 49 33.3	
	9.5nm,0.2s,SNR=7.9						
ELAN	Lanestosa	2.59	92	Pn	Pn	21 48 52.1	+1.5
	0.9nm,0.2s,SNR=7.9						
PVIS	Viseu	2.75	195	*e*Pn	Pn	21 48 54.3	+1.4
PVIS				*e*Sg	Sg	21 49 38.1	-0.1
PVIS				A		21 49 39.3	
	16nm,0.3s						
PVIS	Viseu	2.75	195	Pn	Pn	21 48 54.3	+1.4
PVIS				Lg		21 49 38.1	
	8.1nm,0.3s						
PVIS	Viseu	2.75	195	*e*Pn	Pn	21 48 54.3	+1.4
PVIS				*e*Sg	Sg	21 49 38.1	-0.1
	16nm,0.3s						
MTE	Manteigas	3.01	188	*e*Sn	Sn	21 49 33.6	+1.6
MTE				*e*Sg	Sg	21 49 46.4	-0.1
MTE				A		21 49 50.8	
	19nm,0.6s						
MTE	Manteigas	3.01	188	*e*Sn	Sn	21 49 33.6	+1.6
MTE				*e*Sg	Sg	21 49 46.4	-0.1
	19nm,0.6s						
ECRI	Cripan	3.37	102	Pn	Pn	21 49 03.1	+1.8
	0.3nm,0.2s,SNR=7.9						
ECRI				Sn	Sn	21 49 41.3	+0.6
	1.1nm,0.2s,SNR=7.9						
ECRI				Lg		21 49 55.9	
	4.1nm,0.2s,SNR=7.9						
ECRI	Cripan	3.37	102	Pn	Pn	21 49 03.1	+1.8
ECRI				Pg	Pg	21 49 14.7	+0.4
ECRI				Sn	Sn	21 49 41.3	+0.6
ECRI				Lg		21 49 55.9	
ECRI	Cripan	3.37	102	Pn	Pn	21 49 03.1	+1.8
	0.3nm,0.2s,SNR=7.9						
ECRI	Cripan	3.37	102	Pg	Pg	21 49 14.7	+0.5
ECRI				Sn	Sn	21 49 41.3	+0.5
	1.1nm,0.2s,SNR=7.9						
GUD	Guadarrama	3.46	142	Pg	Pg	21 49 14.0	-1.9
	1.7nm,0.2s,SNR=7.9						
GUD				Sn	Sn	21 49 41.0	-1.9
	1.6nm,0.2s,SNR=7.9						
GUD				Lg		21 49 59.4	
	4.4nm,0.3s,SNR=7.9						
GUD	Guadarrama	3.46	142	Pg	Pg	21 49 14.0	-1.9
GUD				Sn	Sn	21 49 41.0	-1.9
GUD				Lg		21 49 59.4	
GUD	Guadarrama	3.46	142	Pg	Pg	21 49 14.0	-1.9
	1.7nm,0.2s,SNR=7.9						
PCBR	Castelo Branco	3.56	186	*e*Sn	Sn	21 49 45.8	+0.3
PCBR				*e*Sg	Sg	21 50 03.3	-0.8
PCBR	Castelo Branco	3.56	186	*e*Sn	Sn	21 49 45.8	+0.3
PCBR				*e*Sg	Sg	21 50 03.3	-0.8
ELIZ	Elizondo	3.99	91	Pn	Pn	21 49 11.6	+1.8
	0.6nm,0.3s,SNR=7.9						
ELIZ				Sn	Sn	21 49 55.6	-0.4

	0.5nm,0.1s,SNR=7.9						
ELIZ	Elizondo	3.99	91	Pn	Pn	21 49 11.6	+1.8
	0.6nm,0.3s,SNR=7.9						
ELIZ				Sn	Sn	21 49 55.6	-0.4
	0.5nm,0.1s,SNR=7.9						
EALK	Alkurruntz	4.00	90	Pn	Pn	21 49 11.3	+1.4
	0.2nm,0.1s,SNR=7.9						
EALK				Sn	Sn	21 49 56.3	+0.1
	0.4nm,0.1s,SNR=7.9						
EALK	Alkurruntz	4.00	90	Pn	Pn	21 49 11.3	+1.4
	0.2nm,0.1s,SNR=7.9						
EALK				Sn	Sn	21 49 56.3	0.0
	0.4nm,0.1s,SNR=7.9						
EORO	Oroz-Betelu	4.18	95	Pn	Pn	21 49 14.4	+2.0
	0.1nm,0.1s,SNR=4.0						
EORO				Sn	Sn	21 50 00.3	-0.4
	0.5nm,0.1s,SNR=7.9						
EORO	Oroz-Betelu	4.18	95	Pn	Pn	21 49 14.4	+2.0
	0.1nm,0.1s,SNR=4.0						
EORO				Sn	Sn	21 50 00.3	-0.4
	0.5nm,0.1s,SNR=7.9						
SJPF	Ste Jean	4.21	92	ePn	Pn	21 49 13.6	+0.7
SJPF				eSn	Sn	21 49 59.4	-2.2
	2.3nm,0.3s						
SJPF	Ste Jean	4.21	92	Pn	Pn	21 49 13.6	+0.7
SJPF				Sn	Sn	21 49 59.4	-2.2
	1.2nm,0.3s						
SJPF	Ste Jean	4.21	92	ePn	Pn	21 49 13.6	+0.7
SJPF				eSn	Sn	21 49 59.4	-2.2
	1.1nm,0.3s						
ESDC	Sonseca Array	4.34	148	Lg		21 50 27.3	
	1.2nm,0.3s,baz=323,slow=29,SNR=9.2						
ETOR	Torete	4.47	123	Pn	Pn	21 49 16.7	+0.3
	0.5nm,0.1s,SNR=4.0						
ETOR				Pg	Pg	21 49 32.1	-3.2
	0.8nm,0.1s,SNR=7.9						
ETOR				Lg		21 50 29.4	
	3.1nm,0.2s,SNR=7.9						
ETOR	Torete	4.47	123	Pn	Pn	21 49 16.7	+0.3
ETOR				Pg	Pg	21 49 32.1	-3.2
ETOR				Lg		21 50 29.4	
ETOR	Torete	4.47	123	Pn	Pn	21 49 16.7	+0.2
	0.5nm,0.1s,SNR=4.0						
PESTR	Estremoz	4.54	186	eSg	Sg	21 50 33.7	-1.6
PESTR	Estremoz	4.54	186	eSg	Sg	21 50 33.7	-1.6
EBAD	Badajoz	4.62	180	Sn	Sn	21 50 10.5	-1.3
	0.2nm,0.1s,SNR=4.0						
EBAD				Lg		21 50 36.4	
	10nm,0.5s,SNR=7.9						
EBAD	Badajoz	4.62	180	Pn	Pn	21 49 19.9	+1.3
EBAD				Sn	Sn	21 50 10.5	-1.3
EBAD	Badajoz	4.62	180	Pn	Pn	21 49 19.9	+1.3
EBAD				Sn	Sn	21 50 10.5	-1.3
	0.2nm,0.1s,SNR=4.0						
ETSF	Etsaut	4.72	94	eSn	Sn	21 50 12.2	-1.9
	2.7nm,0.3s						
ETSF	Etsaut	4.72	94	Sn	Sn	21 50 12.2	-1.9
	1.4nm,0.3s						
ETSF	Etsaut	4.72	94	eSn	Sn	21 50 12.2	-1.9
	1.4nm,0.3s						
QUIF	Quistinic	5.26	29	ePn	Pn	21 49 25.9	-1.4
QUIF	Quistinic	5.26	29	ePn	Pn	21 49 25.9	-1.4
EBIE	Bielsa	5.27	95	Pn	Pn	21 49 29.0	+1.6
	0.0nm,0.1s,SNR=7.9						
EBIE				Sn	Sn	21 50 26.6	-0.9
	0.2nm,0.1s,SNR=7.9						
EBIE	Bielsa	5.27	95	Pn	Pn	21 49 29.0	+1.6
	SNR=7.9						
EBIE				Sn	Sn	21 50 26.6	-1.0
	0.2nm,0.1s,SNR=7.9						
EPF	Esparros	5.36	91	ePn	Pn	21 49 29.7	+1.0
EPF				eSn	Sn	21 50 28.3	-1.6
	2.0nm,0.4s						
EPF	Esparros	5.36	91	Pn	Pn	21 49 29.7	+1.0
EPF				Sn	Sn	21 50 28.3	-1.6
	1.0nm,0.4s						
EPF	Esparros	5.36	91	ePn	Pn	21 49 29.7	+1.0
EPF				eSn	Sn	21 50 28.3	-1.6
	1.0nm,0.4s						
ECAB	El Cabril	5.43	167	Pn	Pn	21 49 31.4	+1.6
	0.3nm,0.0s,SNR=7.9						
ECAB				Sn	Sn	21 50 29.9	-1.9
	0.3nm,0.1s,SNR=7.9						
ECAB				Lg		21 51 01.0	
	10nm,0.6s,SNR=7.9						
ECAB	El Cabril	5.43	167	Pn	Pn	21 49 31.4	+1.6
ECAB				Sn	Sn	21 50 29.9	-1.9
ECAB	El Cabril	5.43	167	Pn	Pn	21 49 31.4	+1.7
	0.3nm,0.0s,SNR=7.9						
ECAB				Sn	Sn	21 50 29.9	-1.8
	0.3nm,0.1s,SNR=7.9						
EADA	Adamuz	5.52	160	Lg		21 51 03.9	
	0.0nm,0.1s,SNR=7.9						
ROSF	Rostrenen	5.59	26	ePn	Pn	21 49 29.7	-2.1
ROSF	Rostrenen	5.59	26	ePn	Pn	21 49 29.7	-2.1
EMIN	Mina Concepcio	5.62	178	Lg		21 51 07.5	
	0.3nm,0.1s,SNR=7.9						
LFF	La Frestale	5.77	72	ePn	Pn	21 49 34.4	+0.2
LFF	La Frestale	5.77	72	ePn	Pn	21 49 34.4	+0.2
SGMF	Saint Gilles	5.77	31	ePn	Pn	21 49 32.1	-2.1
SGMF	Saint Gilles	5.77	31	ePn	Pn	21 49 32.1	-2.1
MFF	Saint Martin d	5.81	54	ePn	Pn	21 49 33.8	-1.1
MFF	Saint Martin d	5.81	54	ePn	Pn	21 49 33.8	-1.1
RJF	Les Rejaudoux	6.39	70	eSn	Sn	21 50 51.2	-3.9
	2.6nm,0.3s						
RJF	Les Rejaudoux	6.39	70	Sn	Sn	21 50 51.2	-3.9
	1.3nm,0.3s						
CAF	Calviac	6.69	74	ePn	Pn	21 49 46.2	-0.7
CAF				eSn	Sn	21 50 58.7	-3.8
	0.9nm,0.2s						
CAF	Calviac	6.69	74	Pn	Pn	21 49 46.2	-0.7
CAF				Sn	Sn	21 50 58.7	-3.8
	0.4nm,0.2s						
CAF	Calviac	6.69	74	ePn	Pn	21 49 46.2	-0.7
MTLF	Montolieu	6.70	87	ePn	Pn	21 49 48.1	+1.0
MTLF				eSn	Sn	21 50 58.6	-4.3
	0.8nm,0.3s						
MTLF	Montolieu	6.70	87	Pn	Pn	21 49 48.1	+1.0
MTLF				Sn	Sn	21 50 58.6	-4.3
	0.4nm,0.3s						
MTLF	Montolieu	6.70	87	ePn	Pn	21 49 48.1	+1.0
LDF	La Druitiere	7.07	40	ePn	Pn	21 49 52.1	0.0
LDF	La Druitiere	7.07	40	ePn	Pn	21 49 52.1	0.0
TCF	Toulx Ste Croi	7.15	63	ePn	Pn	21 49 52.8	-0.4
TCF	Toulx Ste Croi	7.15	63	ePn	Pn	21 49 52.8	-0.4
BGF	Bois d'Agland	7.66	62	ePn	Pn	21 49 59.9	-0.3
BGF	Bois d'Agland	7.66	62	ePn	Pn	21 49 59.9	-0.3
HYF	Humbligny	7.81	57	ePn	Pn	21 50 02.5	+0.2
HYF	Humbligny	7.81	57	ePn	Pn	21 50 02.5	+0.2
LASF	Ste Croix	7.88	81	ePn	Pn	21 50 03.8	+0.6
LASF	Ste Croix	7.88	81	ePn	Pn	21 50 03.8	+0.6

ISCJB ***27*** *22:00:09.4±0.7, 18°.97N±0°.08×65°.11W±0°.02, h82km±8km, Error ellipse: s-maj=12.6km s-min=3.2km az=2.7*

RSPR ***27*** *22:00:11.1, 18°.97N×65°.11W, h76km±2km, MD3.8/18, MD3.8/18*

NEIC ***27*** *22:00:11.1, 18°.97N×65°.11W, h76km, MD3.8(RSPR), After RSPR.*

NEIC Felt on Saint Thomas.

ISC 27 22:00:10.4±0.7**, 18°.98N**±0°.08×**65°.12W**±0°.02**, h74**km±10km**, n39, σ0s.78**/69**, 15C-11D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STVI	Saint Thomas	0.65	166⇓	eP	Pn	22 00 25.2	+0.2
STVI				eSn	Sn	22 00 33.2	-2.5
STVI				eS	Sn	22 00 36.3	+0.6
TBVI	Tortola	0.73	140⇑	eP	Pn	22 00 25.7	-0.2
TBVI				eS	Sn	22 00 37.2	-0.2
ABV	Anegada	0.78	108⇑	eP	Pn	22 00 25.9	-0.5
ABV				eS	Sn	22 00 39.1	+0.7
MTP	Monte Pirata	0.97	205⇓	eP	Pn	22 00 29.2	+0.5
MTP				eS	Sn	22 00 43.3	+1.0
CBYP	Canovanas	0.99	225⇓	eP	Pn	22 00 29.1	+0.1
CBYP	Canovanas	0.99	225⇓	eP	Pn	22 00 29.6	+0.6
HUMP	Col San Antoni	1.09	220⇓	eP	Pn	22 00 30.3	+0.2
HUMP				eSn	Sn	22 00 44.5	-0.3
HUMP				eS	Sn	22 00 44.9	+0.1
CPD	Cerro la Pandu	1.21	219⇓	eP	Pn	22 00 31.9	+0.3
CPD				eS	Sn	22 00 47.8	+0.3
CDVI	St. Croix	1.27	165	ePn	Pn	22 00 33.3	+0.8
CDVI				eSn	Sn	22 00 48.8	-0.1
SJG	San Juan	1.31	229⇑	eP	Pn	22 00 32.9	-0.1
SJG	San Juan	1.31	229⇑	eP	Pn	22 00 33.1	+0.2
SJG	San Juan	1.31	229⇑	eP	Pn	22 00 33.1	+0.2
SJG				eS	Sn	22 00 50.3	+0.4
SJG	San Juan	1.31	229	ePn	Pn	22 00 32.9	0.0
SJG				eSn	Sn	22 00 50.1	+0.2
CELP	Cerrillos	1.65	237⇓	iP	Pn	22 00 37.9	+0.4
CELP				eSn	Sn	22 00 56.4	-1.6
CELP				eS	Sn	22 00 58.2	+0.2
AOPR	Arecibo Observ	1.68	248⇓	eP	Pn	22 00 37.7	-0.1
AOPR				eSn	Sn	22 00 57.2	-1.3
AOPR				eS	Sn	22 00 58.5	0.0
OBIP	Obispado Ponce	1.69	237⇑	eP	Pn	22 00 38.5	+0.5
OBIP				eS	Sn	22 00 59.5	+0.6
OBIP	Obispado Ponce	1.69	237⇑	eP	Pn	22 00 38.5	+0.5
OBIP				eS	Sn	22 00 59.0	+0.1
ICM	Isla Caja Muer	1.72	231⇑	eP	Pn	22 00 37.7	-0.6
ICM				eS	Sn	22 00 59.3	-0.2
LRS	Lares	1.78	248⇓	iP	Pn	22 00 39.6	+0.5
LRS				eSn	Sn	22 01 00.0	-0.9
GBPR	Guanica, Bosqu	1.95	239⇑	eP	Pn	22 00 42.3	+0.9
GBPR				eS	Sn	22 01 06.3	+1.3
AGPR	Aguadilla, PR	1.96	255⇓	eP	Pn	22 00 41.4	-0.1
AGPR				eS	Sn	22 01 05.5	+0.2
AGP	Aguadilla	2.00	254	ePn	Pn	22 00 41.4	-0.7
AGP				eSn	Sn	22 01 03.9	-2.4
LSP	Las Mesas	2.03	247⇓	eP	Pn	22 00 42.9	+0.4
LSP				eSn	Sn	22 01 05.6	-1.5
LSP				eS	Sn	22 01 07.6	+0.6
MPR	Mayaguez	2.06	249	ePn	Pn	22 00 43.2	+0.2
MPR				eSn	Sn	22 01 06.0	-1.9
CRPR	Cabo Rojo, PR	2.12	243⇑	eP	Pn	22 00 43.1	-0.7
CRPR	Cabo Rojo, PR	2.12	243⇑	eP	Pn	22 00 43.6	-0.2
CRPR				eS	Sn	22 01 09.3	0.0
CRPR	Cabo Rojo, PR	2.12	243⇑	eP	Pn	22 00 43.1	-0.7
CRPR				eS	Sn	22 01 09.3	0.0
SMRT	St. Maarten	2.15	115⇑	eP	Pn	22 00 43.9	-0.2
SMRT				eS	Sn	22 01 09.3	-0.5
SABA	Saba	2.24	127⇑	eP	Pn	22 00 45.5	+0.2
SABA				eS	Sn	22 01 12.4	+0.5
SEUS	St. Eustatius	2.51	126	eS	Sn	22 01 18.5	-0.1
SEUS	St. Eustatius	2.51	126	eS	Sn	22 01 18.5	-0.1
IMO	Isla Mona	2.79	252⇑	eP	Pn	22 00 53.8	+1.1
BPA	Boggy Peak	3.65	121	eP	Pn	22 01 03.5	-0.9
BPA				eS	Sn	22 01 43.7	-2.6
LZG	Guadaloupe-1	4.26	131	eP	Pn	22 01 13.2	+0.4
SCG	Saint Claude	4.40	131	eP	Pn	22 01 15.3	+0.6
BCG	Bois Riant Cap	4.41	130	eP	Pn	22 01 15.1	+0.3
HMG	Houelmont	4.42	132	eP	Pn	22 01 15.7	+0.7
MGG	Marie-Galante	4.74	129	eP	Pn	22 01 18.4	-0.9
SDDR	Presa de Saban	5.84	271	ePn	Pn	22 01 35.3	+1.0

IDC 27 22:06:38.8±2.1**, 1°.89N**×**127°.75E, h0**km**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, Error ellipse: s-maj=147.8km s-min=26.4km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	22.64	164	P	P	22 11 42.2	+0.7
	0.8nm,0.4s,baz=344,slow=12,SNR=12						
ASAR	Alice Springs	26.10	167	P	P	22 12 14.1	-0.3
	0.1nm,0.3s,baz=345,slow=11,SNR=3.4						
MKAR	Makanchi Array	59.64	325	P	P	22 16 44.8	0.0
	0.2nm,0.5s,baz=120,slow=8.2,SNR=4.6						

ISCJB ***27*** *22:07:17.9±0.5, 22°.59S±0°.05×66°.13W±0°.06, h250km±6km, mb4.3/44, Error ellipse: s-maj=10.0km s-min=7.5km az=154.6*

NEIC ***27*** *22:07:18.2±0.5, 22°.60S×66°.07W, h242km±5km, mb4.4/27, Error ellipse: s-maj=7.4km s-min=6.9km az=57.0*

IDC ***27*** *22:07:18.2±0.8, 22°.62S×66°.06W, h245km±7km, mb4.1/9, mb1 4.1/13, mb1mx4.0/19, mbtmp4.1/13, Error ellipse: s-maj=14.7km s-min=12.6km az=176.0*

GUC ***27*** *22:07:21.2±0.6, 22°.56S×66°.52W, h250km, MD4.0, ML4.2*

LDG ***27*** *22:07:28.5±0.3, 21°.78S×65°.72W, h310km, Mb4.4/12, Error ellipse: s-maj=43.4km s-min=14.7km az=123.0*

ISC 27 22:07:18.6±0.5**, 22°.59S**±0°.05×**66°.11W**±0°.06**, h243**km±6km**, n95, σ0s.98**/104**, mb4.3**/44**, 8C-2D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.59	269	P	Pn	22 08 08.5	+2.3
	186nm,0.3s,baz=92,slow=5.9,SNR=1259						
LVC				S	S	22 08 45.1	+1.4
	90nm,0.3s,baz=240,slow=21,SNR=24						
LVC	Limon Verde	2.59	269	P	Pn	22 08 08.5	+2.3
LVC				S	S	22 08 45.1	+1.4
LVC	Limon Verde	2.59	269⇑	iP	Pn	22 08 08.6	+2.4
LVC				iS	S	22 08 44.3	+0.6
LVC				AML	AML	22 08 47.1	
	comp=E,522nm,0.5s						
PB04	Plate Boundary	3.14	275⇑	iP	Pn	22 08 20.3	+8.1
PB04				iS	S	22 09 05.3	+11
PECH	Pedro de Valdi	3.29	269⇓	iP	Pn	22 08 15.5	+1.7
PECH				iS	S	22 08 56.7	-0.8
MACH	Maria Elena	3.40	276⇑	iP	Pn	22 08 16.9	+1.9
MACH				iS	S	22 08 59.2	-0.5
PB01	Plate Boundary	3.49	295⇑	iP	Pn	22 08 17.6	+1.5
PB01				iS	S	22 09 00.2	-1.5
TOCH	Tocopilla	3.82	277⇓	iP	Pn	22 08 20.9	+1.0
TOCH				iS	S	22 09 06.2	-2.2
CEN1	Los Morros	3.85	257	iP	Pn	22 08 23.6	+3.3
CEN1				iS	S	22 09 11.0	+1.9
ANCH	Antofagasta	4.10	254⇑	iP	Pn	22 08 24.1	+0.8
ANCH				iS	S	22 09 12.3	-2.2
ANCH	Antofagasta	4.10	254⇑	iP	Pn	22 08 24.1	+0.8
ANCH				iS	S	22 09 12.3	-2.2
HMBC	Humberston	4.20	302⇑	iP	Pn	22 08 24.9	+0.5
HMBC				iS	S	22 09 14.4	-2.3
MNMC	Miæe Miæ	4.74	316⇑	iP	Pn	22 08 32.2	+1.2
MNMC				iS	S	22 09 27.6	-0.8
LCO	Las Campanas	7.62	212	ePn	Pn	22 09 06.3	-0.6
	comp=E,20nm,0.5s						
LCO				eS	S	22 10 21.8	-12
ARE	Arequipa	7.93	319	eP	Pn	22 09 10.0	-1.0
ARE				eS	S	22 10 37.0	-4.4
SIV	San Ignacio	8.10	37	P	Pn	22 09 13.6	+0.4
	comp=E,14nm,0.3s,baz=229,slow=13,SNR=68						
CPUP	Villa Florida	8.83	117	P	Pn	22 09 21.4	-0.9
	comp=E,0.4nm,0.3s,baz=357,slow=3.2,SNR=3.5						
CPUP	Villa Florida	8.83	117	ePn	Pn	22 09 21.0	-1.3
CFAA	Coronel Fontan	9.18	191	P	Pn	22 09 25.3	-1.4
	comp=E,0.7nm,0.3s,baz=9.9,slow=12,SNR=21						
CFAA				S	S	22 11 01.2	-9.1
	comp=E,1.2nm,0.3s,baz=269,slow=21,SNR=14						
SPB	Sao Paulo	17.22	97	eP	P	22 11 02.1	-1.1
	comp=E,16nm,0.6s						
PLCA	Paso Flores	18.48	191	P	P	22 11 16.6	0.0
	comp=E,0.8nm,0.3s,baz=15,slow=14,SNR=15						
ROSC	El Rosal	28.43	343	P	P	22 12 51.5	+0.4
SDV	Santo Domingo	31.59	351	eP	P	22 13 17.9	-0.9
	comp=E,4.8nm,0.8s,mb4.1						
RCBR	Riachuelo	33.58	65	eP	P	22 13 35.8	-0.3
	comp=E,11nm,0.8s,mb4.5						
ANWB	Willy Bob	40.23	6	eP	P	22 14 29.3	-2.6
TXAR	Lajitas Array	63.02	323	P	P	22 17 19.8	-0.2
	comp=E,0.2nm,0.6s,mb3.0,baz=148,slow=7.5,SNR=3.6						
LIC	Lamto	66.22	72	eP	P	22 17 39.8	-1.2
	comp=E,2.4nm,0.3s,mb4.0						
LIC	Lamto	66.22	72	eP	P	22 17 39.8	-1.2
	comp=E,1.2nm,0.3s,mb4.0						
DBIC	Dimbokro	66.58	72	P	P	22 17 41.9	-1.4
	comp=E,6.4nm,0.7s,mb4.3,baz=223,slow=6.0,SNR=11						
TUC	Tucson	69.30	320	eP	P	22 17 58.7	-1.1
	comp=E,54nm,1.4s,mb5.0						
WUAZ	Wupatki	71.95	322	eP	P	22 18 17.1	+1.5
	comp=E,13nm,0.9s,mb4.6						
TOA0	Torodi Ar. Sit	75.30	69	eP	P	22 18 34.2	-1.3
TORD	Torodi Ar. Bea	75.30	69	P	P	22 18 34.2	-1.3
	comp=E,11nm,0.5s,mb4.8,baz=255,slow=5.7,SNR=425						
TORD				pP	pP	22 19 36.7	+4.2
	comp=E,3.6nm,0.8s,baz=254,slow=5.9,SNR=5.0						
TORD	Torodi Ar. Bea	75.30	69	P	P	22 18 34.2	-1.3
TORD				pP	pP	22 19 36.7	+4.2
SCHQ	Schefferville	77.10	360	P	P	22 18 43.8	-1.0
	comp=E,3.2nm,0.6s,mb4.1,baz=200,slow=4.8,SNR=11						
ULM	Lac du Bonnet	77.16	341	P	P	22 18 44.2	-0.9
	comp=E,3.0nm,0.5s,mb4.2,baz=134,slow=5.4,SNR=5.5						
TSUM	Tsumeb	77.25	106	eP	P	22 18 46.1	-0.4
	comp=E,3.7nm,0.6s,mb4.2						
BOSA	Boshof	80.65	117	P	P	22 19 03.7	-1.1
	comp=E,1.5nm,0.5s,mb3.9,baz=262,slow=7.1,SNR=9.5						
BOSA	Boshof	80.65	117	P	P	22 19 03.7	-1.1
PVAQ	Vaqueiros	81.10	43	eP	P	22 19 07.4	+0.6
	comp=E,32nm,1.6s,mb4.7						
PBEJ	Beja	81.38	43	eP	P	22 19 08.8	+0.5
	comp=E,19nm,1.6s,mb4.5						
EVO	Evora	81.60	42	eP	P	22 19 08.7	-0.7
	comp=E,5.7nm,0.5s,mb4.1						
EJIF	Jimena Fronter	81.98	45	P	P	22 19 12.2	+0.8
	comp=E,1.6nm,0.4s,mb4.0						
PBAR	Barrancos	81.99	43	eP	P	22 19 11.8	+0.4
	comp=E,24nm,1.8s,mb4.5						
PTOM	Tomar	82.02	41	eP	P	22 19 12.2	+0.7
	comp=E,38nm,1.2s,mb4.9						
PCBR	Castelo Branco	82.72	42	eP	P	22 19 15.6	+0.4
	comp=E,15nm,1.6s,mb4.5						
TAM	Tamanrasset	83.01	62	eP	P	22 19 17.0	-0.1
	comp=E,5.1nm,1.2s,mb4.1						
TAM				ePP	PP	22 22 31.1	-0.7
ELOJ	Sierra Loja	83.25	45	P	P	22 19 18.8	+0.9
	comp=E,0.9nm,0.2s,mb4.2						
ERON	Agron	83.40	46	P	P	22 19 19.2	+0.5
	comp=E,2.1nm,0.6s,mb4.0						
ELUQ	Luque	83.41	45	P	P	22 19 19.3	+0.5
	comp=E,0.6nm,0.2s,mb4.0						
PVRL	Vila Real	83.45	40	eP	P	22 19 19.4	+0.6
	comp=E,21nm,1.1s,mb4.8						
PCAB	Cabril	83.53	40	eP	P	22 19 19.7	+0.5
	comp=E,33nm,1.7s,mb4.8						
MVO	Moncorvo	83.79	41	eP	P	22 19 21.1	+0.5
	comp=E,16nm,1.4s,mb4.5						
EBAN	Banos Encina	84.07	45	P	P	22 19 23.0	+0.9
PBRG	Braganca	84.35	40	eP	P	22 19 23.8	+0.4
	comp=E,18nm,1.6s,mb4.5						
ERUA	La Rua	84.47	40	P	P	22 19 24.4	+0.5
	comp=E,5.6nm,0.6s,mb4.5						
ESDC	Sonseca Array	84.81	43	P	P	22 19 25.9	+0.1
	comp=E,3.2nm,0.7s,mb4.2,baz=246,slow=4.4,SNR=18						
ESDC	Sonseca Array	84.81	43	P	P	22 19 26.1	+0.3
	comp=E,4.4nm,0.8s,mb4.2						
ESLA	Sonseca Array	84.81	43	eP	P	22 19 26.2	+0.5
	comp=E,2.3nm,1.1s,mb3.8						
EVIA	Vianos	85.17	45	P	P	22 19 27.7	+0.1
	comp=E,5.9nm,0.7s,mb4.4						
GUD	Guadarrama	85.25	42	P	P	22 19 28.4	+0.6
	comp=E,5.1nm,0.6s,mb4.4						
ETOR	Torete	86.66	43	P	P	22 19 35.7	+0.9
	comp=E,12nm,0.7s,mb4.7						
SJPF	Ste Jean	88.44	42	eP	P	22 19 42.8	-0.4
ETSF	Etsaut	88.73	42	eP	P	22 19 45.2	+0.7
	comp=E,12nm,0.9s,mb4.4						
ETSF	Etsaut	88.73	42	eP	P	22 19 45.2	+0.7
	comp=E,6.3nm,0.9s,mb4.5						
EPF	Esparros	89.36	42	eP	P	22 19 47.8	+0.3
	comp=E,11nm,0.9s,mb4.4						
EPF	Esparros	89.36	42	eP	P	22 19 47.8	+0.3
	comp=E,5.6nm,0.9s,mb4.4						
LFF	La Frestale	90.62	41	eP	P	22 19 53.1	-0.2
	comp=E,4.6nm,0.4s,mb4.4						
LFF	La Frestale	90.62	41	eP	P	22 19 53.1	-0.2
	comp=E,2.3nm,0.4s,mb4.5						
MTLF	Montolieu	90.70	43	eP	P	22 19 53.3	-0.4
	comp=E,6.3nm,0.9s,mb4.2						
MTLF	Montolieu	90.70	43	eP	P	22 19 53.3	-0.4
	comp=E,3.2nm,0.9s,mb4.2						
MFF	Saint Martin d	90.98	39	eP	P	22 19 54.7	-0.2
	comp=E,16nm,0.9s,mb4.7						
MFF	Saint Martin d	90.98	39	eP	P	22 19 54.7	-0.2
	comp=E,7.9nm,0.9s,mb4.6						
CAF	Calviac	91.41	41	eP	P	22 19 56.7	-0.3
GRR	Gorron	91.53	37	eP	P	22 19 56.8	-0.6
	comp=E,9.3nm,0.8s,mb4.5						
GRR	Gorron	91.53	37	eP	P	22 19 56.8	-0.6
	comp=E,4.7nm,0.8s,mb4.5						
KEST	Kesra	91.90	52	P	P	22 19 59.9	+0.5
	comp=E,1.2nm,0.9s,mb3.8,baz=302,slow=5.2,SNR=4.7						
FLN	La Foliniere	91.95	37	eP	P	22 19 59.5	+0.2
LASF	Ste Croix	92.09	43	eP	P	22 20 00.1	0.0
BGF	Bois d'Agland	92.72	40	eP	P	22 20 02.6	-0.3
YKA	Yellowknife Ar	93.08	340	P	P	22 20 04.0	-0.3
	comp=E,2.3nm,0.6s,mb4.4,baz=128,slow=4.4,SNR=5.6						
YKA				pP	pP	22 21 08.4	+5.1
	comp=E,0.4nm,0.8s,baz=116,slow=4.4,SNR=1.6						
ORIF	Oris-en-Rattie	93.77	43	eP	P	22 20 08.6	+0.8
LPL	La Plagne	94.58	42	eP	P	22 20 12.4	+0.9
	comp=E,2.9nm,0.4s,mb4.5						
LPL	La Plagne	94.58	42	eP	P	22 20 12.4	+0.9
	comp=E,1.5nm,0.4s,mb4.5						
LPG	La Plagne	94.58	42	eP	P	22 20 12.4	+0.9
	comp=E,6.8nm,0.8s,mb4.5						
LPG	La Plagne	94.58	42	eP	P	22 20 12.4	+0.9
	comp=E,3.4nm,0.8s,mb4.5						
BAIF	Baives	95.24	38	eP	P	22 20 13.5	-0.9
DAVOX	Davos/Dischmat	97.10	42	P	P	22 20 22.9	0.0
	comp=E,1.3nm,0.6s,mb4.3,baz=212,slow=9.7,SNR=3.6						
ASAR	Alice Springs	130.08	204	PKP	PKPdf	22 25 59.9	-0.3
	comp=E,0.3nm,0.6s,baz=186,slow=3.4,SNR=2.8						
ASAR				SKPbc	SKPbc	22 28 57.9	-2.0
	comp=E,1.0nm,0.8s,baz=143,slow=3.3,SNR=6.0						
WRA	Warramunga Arr	133.25	207	PKP	PKPdf	22 26 06.8	+0.6
	comp=E,0.8nm,1.0s,baz=150,slow=1.8,SNR=4.7						
WRA				SKPbc	SKPbc	22 29 08.6	-2.8
	comp=E,1.6nm,1.0s,baz=149,slow=3.5,SNR=4.0						
ZALV	Zalesovo Beam	141.77	28	PKhKP		22 26 16.4	
	comp=E,1.2nm,0.5s,baz=338,slow=5.4,SNR=4.1						
ZALV				PKP	PKPdf	22 26 20.4	-0.3
	comp=E,1.0nm,0.5s,baz=280,slow=3.0,SNR=5.1						
ZALV				SKPbc	SKPbc	22 29 34.1	-0.8
	comp=E,1.0nm,0.5s,baz=312,slow=4.0,SNR=5.0						
ZALV	Zalesovo Beam	141.77	28	PKP		22 26 16.4	
ZALV				PKP	PKPdf	22 26 20.4	-0.3
ZALV				SKPbc	SKPbc	22 29 34.1	-0.8
MKAR	Makanchi Array	144.92	39	PKP	PKPdf	22 26 26.8	+0.2
	comp=E,8.5nm,0.7s,baz=309,slow=3.4,SNR=110						
MKAR				SKPbc	SKPbc	22 29 41.1	-1.6
	comp=E,0.8nm,1.0s,baz=322,slow=2.3,SNR=4.7						
SONM	Songino Array	154.10	12	PKP	PKPdf	22 26 41.5	+0.5
	comp=E,0.5nm,0.7s,baz=286,slow=0.7,SNR=5.2						
SONM				PKPbc	PKPbc	22 26 49.1	-0.2
	comp=E,0.5nm,0.3s,baz=294,slow=1.4,SNR=17						
SONM				PKPab	PKPab	22 27 04.2	+0.3
	comp=E,1.0nm,0.7s,baz=326,slow=4.1,SNR=7.7						
CMAR	Chiang Mai Arr	165.41	104	PKPab	PKPab	22 27 53.1	-1.0
	comp=E,0.5nm,0.3s,baz=248,slow=6.1,SNR=4.8						

IDC ***27*** *22:26:52.0±8.2, 8°.04N×126°.35E, h131km±77km, mb3.5/7, mb1 3.6/7, mb1mx3.4/21, mbtmp3.5/7, Error ellipse: s-maj=166.4km s-min=17.0km az=68.0*

ISCJB ***27*** *22:26:52.6±0.9, 8°.02N±0°.07×126°.3E±0°.1, h152km±8km, mb3.6/7, Error ellipse: s-maj=24.0km s-min=9.8km az=168.1*

MAN ***27*** *22:26:55, 8°.10N×126°.44E, h100km, mb4.4, ML3.3, MS3.2*

ISC 27 22:26:53.5±0.9**, 8°.03N**±0°.07×**126°.4E**±0°.1**, h145**km±8km**, n14, σ0s.62**/17**, mb3.6**/7**, 1C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	1.08	186	eP	Pn	22 27 18.5	-0.1
MATI				eS	Sn	22 27 32.1	-5.7
DAV	Davao City (W)	1.24	219	S	Sn	22 27 40.2	-0.1
	29nm,0.3s,baz=20,slow=8.1,SNR=4.1						
BUKP	Musuan	1.30	263	eP	Pn	22 27 20.9	+0.2
BUKP				eS	Sn	22 27 42.1	+0.7
CGP	Cagayan de Oro	1.71	284⇓	eP	Pn	22 27 24.6	-0.4
CGP				iS	Sn	22 27 48.4	-0.7
SCPH	Surigao	1.94	333⇑	eP	Pn	22 27 27.2	-0.5
SCPH				eS	Sn	22 27 54.1	+0.1
MSLP	Maasin	2.57	325	eP	Pn	22 27 38.5	+3.3
WRA	Warramunga Arr	28.88	164	P	P	22 32 37.9	-0.9
	0.6nm,0.7s,mb3.5,baz=341,slow=9.7,SNR=3.5						
ASAR	Alice Springs	32.35	167	P	P	22 33 09.2	0.0
	0.4nm,0.5s,mb3.4,baz=347,slow=7.4,SNR=6.7						
STKA	Stephens Creek	42.27	161	P	P	22 34 32.9	+0.3
	1.2nm,0.6s,mb3.7,baz=321,slow=13,SNR=3.3						
SONM	Songino Array	43.14	340	P	P	22 34 39.3	-0.2
	0.2nm,0.7s,mb2.9,baz=160,slow=9.2,SNR=3.6						
MKAR	Makanchi Array	53.87	324	P	P	22 36 01.6	0.0
	1.0nm,0.6s,mb3.7,baz=122,slow=8.3,SNR=21						
MKAR				PcP	PcP	22 37 05.4	+0.1
	0.3nm,0.7s,baz=121,slow=2.9,SNR=3.6						
VNDA	Vanda	87.71	173	P	P	22 39 26.1	+0.9
	1.6nm,0.6s,mb4.0,baz=326,slow=4.8,SNR=4.1						
FINES	FINESS Array B	87.90	332	P	P	22 39 26.4	-0.1
	3.3nm,1.0s,mb4.1,baz=113,slow=11,SNR=4.2						
TORD	Torodi Ar. Bea	121.16	291	PKP	PKPdf	22 45 29.5	-0.7

0.5nm,0.6s,baz=67,slow=1.6,SNR=12

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*MOS **27** 22:56:57.7±0.9, 13°.42N×120°.79E, h35km, mb5.2/35, MS4.5/6, Error ellipse: s-maj=11.1km s-min=5.4km az=125.0*

*BJI **27** 22:56:57.5, 13°.00N×120°.85E, h58km, mB5.1/31, mb4.7/42, Ms4.8/48, Ms7 4.5/43*

*MAN **27** 22:56:59, 13°.13N×120°.36E, h32km, mb5.7, ML4.7, MS5.2*

MAN INTENSITY V - MAMURAO OCC. MINDORO; INTENSITY IV - LOOC LUBANG ISLAND; ABRA DE ILOG; INTENSITY III - ILIJAN BATANGAS.

*GCMT **27** 22:56:59.1±0.2, 13°.41N×120°.55E, h35km±1km, MW5.3/89, Moment Tensor Solution. s60,c83; s89,c142; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.01±.02; M$_{\theta\theta}$0.83±.02; M$_{\phi\phi}$-0.84±.02; M$_{r\theta}$0.25±.02; M$_{\theta\phi}$-0.27±.02; M$_{\phi r}$-0.22±.03; Best double couple: M$_0$0.94300×10^{17} NP1:ϕ_s53.00000°,δ70.00000°,λ176.00000°. NP2: ϕ_s144.00000°,δ86.00000°,λ20.00000°. Principal axes: T 0.9600, Plg17.0000°, Azm10.0000°; N -0.0350, Plg69.0000°, Azm155.0000°; P -0.9260, Plg11.0000°, Azm277.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **27** 22:56:59.1±1.4, 13°.41N×120°.73E, h29km±10km, mb5.2/50, MS4.9/3 Error ellipse: s-maj=6.0km s-min=4.3km az=72.0*

NEIC Felt [V PIVS] at Mamburao, [IV PIVS] at Abra de Ilog and [III PIVS] at Calapan, Puerto Galera and Victoria. Felt [IV PIVS] at Looc, Lubang Island. Felt [III PIVS] at Batangas and Ilijan; [II PIVS] at Quezon City, Santa Cruz and Tagaytay, Luzon. Felt [II] at Manila.

*ISCJB **27** 22:57:00.4±0.2, 13°.23N±0°.02×120°.59E±0°.03, h54km, mb5.0/110, MS4.5/47, Error ellipse: s-maj=3.8km s-min=2.6km az=164.5*

*IDC **27** 22:57:02.1±0.6, 13°.25N×120°.64E, h63km±4km, mb4.2/26, mb1 4.3/27, mb1mx4.3/31, mbtmp4.2/27, MS4.4/30, Ms1 4.4/30, ms1mx4.2/48, Error ellipse: s-maj=11.8km s-min=7.8km az=97.0*

*SZGRF **27** 22:57:10.6, 13°.59N×121°.40E, h33km, mb5.3, MS4.9, Mindoro, Philippine Islands*

*DJA **27** 22:57:21, 13°.14N×120°.36E, h247km, Mw5.0/17*

ISC 27 22:57:02.3±0.2**, 13°.28N**±0°.02×**120°.62E**±0°.03**, h56km, h56km**±2.5km**: pP-P, n360,** σ1^s**18**/347**, mb5.0**/110**, MS4.5**/47**, 36C-21D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	**0.58**	**321**	*e*P	**Pn**	**22 57 12.0**	**-2.9**
TGY	**Tagaytay City**	**0.87**	**21**	P	**Pn**	**22 57 18.6**	**0.0**
	10µm,0.3s,baz=226,slow=2.7,SNR=579						
TGY				S	**Sn**	**22 57 32.5**	**+2.0**
	9µm,0.3s,baz=104,slow=19,SNR=18						
TGY	**Tagaytay City**	**0.87**	**21**	⇑*i*P	**Pn**	**22 57 18.8**	**+0.3**
TGY				*i* S	**Sn**	**22 57 31.1**	**+0.6**
SJMP	**San Jose**	**0.95**	**149**	*e*P	**Pn**	**22 57 18.2**	**-1.4**
BUSP	**Coron**	**1.33**	**198**	*e*P	**Pn**	**22 57 21.3**	**-3.4**
GQP	**Guinayangan**	**1.88**	**71**	*e*P	**Pn**	**22 57 33.7**	**+1.6**
GQP				*e*S	**Sn**	**22 58 00.3**	**+5.6**
AUQP	**San Andres**	**2.00**	**89**	*e*P	**Pn**	**22 57 38.9**	**+5.2**
PCPH	**Palayan**	**2.31**	**11**	⇑*i*P	**Pn**	**22 57 37.5**	**-0.6**
PCPH				*i* S	**Sn**	**22 58 06.7**	**+1.4**
CUYO	**Cuyo Island**	**2.45**	**171**	*e*P	**Pn**	**22 57 36.8**	**-3.1**
SCZP	**Santa Cruz**	**2.57**	**345**	*e*P	**Pn**	**22 57 41.0**	**-0.6**
BALP	**Baler**	**2.62**	**21**	*e*P	**Pn**	**22 57 44.2**	**+2.0**
RCP	**Roxas**	**2.69**	**129**	⇑*e*P	**Pn**	**22 57 43.1**	**-0.1**
RCP				*e*S	Px	22 57 49.5	
BOLP	**Bolinao**	**3.16**	**348**	*e*P	**Pn**	**22 57 50.4**	**+0.8**
GUIM	**Jordan**	**3.27**	**144**	*e*P	**Pn**	**22 57 50.6**	**-0.5**
PVCP	**Virac**	**3.45**	**84**	*e*P	**Pn**	**22 57 56.7**	**+3.1**
CAUP	**Cauayan**	**3.82**	**18**	*e*P	**Pn**	**22 58 00.3**	**+1.7**
PPR	**Puerto Princes**	**3.94**	**208**	⇑*i*P	**Pn**	**22 57 57.2**	**-3.1**
PPR				*i* S	**Sn**	**22 58 40.0**	**-5.4**
PALP	**Palanan**	**4.14**	**25**	*e*P	**Pn**	**22 58 05.8**	**+2.7**
ABRA	**Dolores**	**4.34**	**1**	*e*P	**Pn**	**22 58 10.8**	**+4.9**
LLP	**Lapu-Lapu**	**4.41**	**132**	⇑*e*P	**Pn**	**22 58 13.3**	**+6.7**
LLP				*e*S	**Sn**	**22 59 05.2**	**+8.5**
SIPP	**Brgy, Tapao**	**4.62**	**358**	⇓*e*P	**Pn**	**22 58 11.0**	**+1.4**
SIPP				*e*S	Px	22 58 33.4	
PLP	**Palo**	**4.75**	**116**	⇓*e*P	**Pn**	**22 58 10.9**	**-0.5**
TBP	**Tagbilaran**	**4.78**	**138**	*e*P	**Pn**	**22 58 12.6**	**+0.8**
MSLP	**Maasin**	**5.20**	**127**	*e*P	**Pn**	**22 58 19.2**	**+1.7**
BATP	**Bataraza**	**5.24**	**212**	*e*P	**Pn**	**22 58 14.2**	**-4.0**
IPIL	**Ipil**	**5.79**	**160**	*e*P	**Pn**	**22 58 24.3**	**-1.3**
SCPH	**Surigao**	**5.90**	**126**	⇑*e*P	**Pn**	**22 58 27.4**	**+0.2**
PAGZ	**Pagadian**	**6.04**	**153**	*e*P	**Pn**	**22 58 30.0**	**+0.8**
BUKP	**Musuan**	**6.92**	**140**	*e*P	**Pn**	**22 58 50.9**	**+10**
KDM	**Kudat**	**7.34**	**211**	P	**Pn**	**22 58 46.9**	**0.0**
DAV	**Davao City (W)**	**7.87**	**141**	*e*Pn	**Pn**	**22 58 53.7**	**-0.4**
SDKM	**Sandakan**	**8.31**	**204**	P	**Pn**	**22 58 59.8**	**-0.4**
KKM	**Kota Kinabalu**	**8.40**	**212**	P	**Pn**	**22 59 01.5**	**+0.1**
KKM	**Kota Kinabalu**	**8.40**	**212**	*e*Pn	**Pn**	**22 59 04.7**	**+3.3**
	31nm,0.7s						
KKM				S	**Sn**	**23 00 24.1**	**-11**
TSM	**Tawau**	**9.33**	**197**	P	**Pn**	**22 59 13.8**	**-0.4**
TWG	**Pinlang**	**9.50**	**3**	Pn	**Pn**	**22 59 10.9**	**-5.5**
TPUB	**Ta-pu**	**9.97**	**0**	Pn	**Pn**	**22 59 16.9**	**-6.0**
YULB	**Yu-li**	**10.08**	**4**	*e*Pn	**Pn**	**22 59 19.7**	**-4.7**
	42nm,0.9s						
SSLB	**Suanglung**	**10.46**	**2**	*e*Pn	**Pn**	**22 59 27.0**	**-2.5**
	23nm,0.6s						
NACB	**Ninganchiao**	**10.88**	**5**	*e*Pn	**Pn**	**22 59 30.9**	**-4.3**
YHNB	**Yeheng**	**11.35**	**3**	*e*Pn	**Pn**	**22 59 36.2**	**-5.5**
	120nm,1.4s						
TATO	**Taipei**	**11.66**	**4**	Pn	**Pn**	**22 59 41.1**	**-4.9**
QZH	**Quanzhou**	**11.76**	**351**	⇑*i*P	**Pn**	**22 59 48.5**	**+1.2**
QZH				*e*S	**Sn**	**23 01 59.3**	**+2.3**
QZH				LR	LR		
	comp=N,3µm,11.2s						
QZH				LR	LR		
	comp=E,910nm,5.2s						
QZH				LR	LR		
	comp=Z,4µm,15.6s						
QIZ	**Qiongzhong**	**11.82**	**300**	P	**Pn**	**22 59 46.5**	**-1.7**
QIZ				S	**Sn**	**23 02 00.5**	**+1.8**
QIZ				LR	LR		
	comp=E,2µm,14.9s						
QIZ				LR	LR		
	comp=Z,2µm,16.1s						
QIZ	**Qiongzhong**	**11.82**	**300**	*e*Pn	**Pn**	**22 59 46.2**	**-2.0**
	comp=Z,188nm,1.4s						
QIZ				*e*Sn	**Sn**	**23 01 55.4**	**-3.3**
GZH	**Guangzhou**	**11.95**	**326**	P	**Pn**	**22 59 55.5**	**+5.5**
GZH				S	**Sn**	**23 02 12.3**	**+11**
GZH				LR	LR		
	comp=N,3µm,12.5s						
GZH				LR	LR		
	comp=E,2µm,10.3s						
JOW	**Kunigami**	**15.27**	**27**	P	**Pn**	**23 00 34.6**	**+0.2**
	comp=E,0.5nm,0.3s,baz=193,slow=11,SNR=9.2						
JOW				LR	LR	23 05 47.1	
	comp=E,1µm,21.2s,baz=98,slow=34						
KSM	**Kuching**	**15.55**	**222**	P	**Pn**	**23 00 38.4**	**+0.2**
KSM	**Kuching**	**15.55**	**222**	*e*Pn	**Pn**	**23 00 38.2**	**+0.1**
	comp=E,65nm,1.2s						
KDI	**Kendari**	**17.24**	**173**	⇓*e*P	**Pn**	**23 01 02.0**	**+2.7**
KDI				*e*S	**S**	**23 04 20.1**	**+3.3**
SSE	**Sheshan**	**17.74**	**2**	P	**Pn**	**23 01 04.3**	**-1.0**
SSE				pP	pP	23 01 15.8	-2.0
SSE				S	**S**	**23 04 25.5**	**-1.2**
SSE				pmax	pmax		
	comp=Z,33nm,0.7s						
SSE				pmax	pmax		
	comp=Z,500nm,6.1s						
SSE				LR	LR		
	comp=N,1µm,17.4s						
SSE				LR	LR		
	comp=E,470nm,17.4s						
SSE				LR	LR		
	comp=Z,2µm,17.4s						
WHN	**Wuhan**	**18.13**	**342**	⇑P	**Pn**	**23 01 10.8**	**+0.7**
WHN				pP	pP	23 01 22.3	+0.1
WHN				PP		23 01 26.0	
WHN				S	**S**	**23 04 31.5**	**-3.1**
WHN				pmax	pmax		
	comp=Z,1µm,7.2s						
WHN				LR	LR		
	comp=N,1µm,12.0s						
WHN				LR	LR		
	comp=E,3µm,11.6s						
WHN				LR	LR		
	comp=Z,3µm,16.4s						
KAPI	**Kappang**	**18.20**	**183**	P	**Pn**	**23 01 12.7**	**+1.7**
	comp=Z,0.7nm,0.3s,baz=20,slow=15,SNR=3.9						
GYA	**Guiyang**	**18.53**	**317**	⇑*i*P	**Pn**	**23 01 16.0**	**+1.0**
GYA				pP	pP	23 01 27.5	+0.9
GYA				sP	sP	23 01 36.0	+2.2
GYA				S	**S**	**23 04 37.8**	**-4.5**
GYA				sS	sS	23 04 55.8	-6.9
GYA				SS		23 05 05.0	
GYA				pmax	pmax		
	comp=Z,30nm,1.0s						
GYA				pmax	pmax		
	comp=Z,230nm,5.7s						
GYA				LR	LR		
	comp=N,1µm,13.1s						
GYA				LR	LR		
	comp=E,2µm,14.0s						
GYA				LR	LR		
	comp=Z,2µm,14.5s						
NJ2	**Nanjing**	**18.75**	**355**	*e*P	**Pn**	**23 01 19.3**	**+1.7**
NJ2				pP	pP	23 01 30.8	+1.8
NJ2				PP		23 01 37.8	
NJ2				sP	sP	23 01 39.0	+2.8
NJ2				S	**S**	**23 04 46.0**	**-1.2**
NJ2				sS	sS	23 05 01.0	-6.2
NJ2				SS		23 05 14.0	
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NJ2				pmax	pmax		
	comp=Z,910nm,7.9s						
NJ2				LR	LR		
	comp=N,2µm,17.6s						
NJ2				LR	LR		
	comp=E,3µm,23.5s						
NJ2				LR	LR		
	comp=Z,2µm,16.8s						
NST	**Nakhon Sawan**	**19.98**	**279**	P	**Pn**	**23 01 31.0**	**-1.3**
MYKOM	**Kota Tinggi**	**20.14**	**237**	P	**P**	**23 01 33.1**	**+1.1**
KGM	**Kluang**	**20.45**	**238**	P	**P**	**23 01 36.7**	**+1.3**
TPI	**Tanjungpandan**	**20.48**	**220**	⇑*e*P	**P**	**23 01 40.0**	**+4.4**
KMI	**Kunming**	**20.56**	**308**	P	**P**	**23 01 39.0**	**+2.6**
KMI				pP		23 01 52.8	
KMI				sP	sP	23 01 59.5	+3.5
KMI				PP		23 02 02.3	
KMI				S	**S**	**23 05 21.8**	**-1.6**
KMI				sS	sS	23 05 43.5	-0.2
KMI				pmax	pmax		
	comp=Z,9.0nm,1.8s						
KMI				pmax	pmax		
	comp=Z,610nm,5.9s						
KMI				LR	LR		
	comp=N,1µm,15.4s,MS4.5						
KMI				LR	LR		
	comp=E,1µm,14.4s,MS4.5						
KMI				LR	LR		
	comp=Z,1µm,15.4s,MS4.3						
CHRT	**Chiangrai**	**21.01**	**291**	⇓P	**P**	**23 01 42.5**	**+1.2**
BDT	**Bhumibol Dam**	**21.22**	**283**	P	**P**	**23 01 45.0**	**+1.4**
	comp=Z,24nm,1.0s,mb4.5						
IPM	**Ipoh**	**21.23**	**247**	P	**P**	**23 01 44.0**	**+0.3**
KULM	**Kulim**	**21.23**	**250**	P	**P**	**23 01 44.8**	**+1.0**
KULM	**Kulim**	**21.23**	**250**	*e*P	**P**	**23 01 44.5**	**+0.7**
	comp=Z,98nm,1.4s,mb5.0						
FRIM	**Kepong**	**21.26**	**244**	P	**P**	**23 01 43.9**	**-0.2**
CMAR	**Chiang Mai Arr**	**21.47**	**287**	P	**P**	**23 01 47.3**	**+1.0**
	comp=Z,17nm,0.9s,mb4.4,baz=97,slow=8.4,SNR=91						
CHG	**Chiang Mai**	**21.54**	**288**	P	**P**	**23 01 47.5**	**+0.5**
	comp=Z,36nm,0.7s,mb4.9						
CHTO	**Chiang Mai**	**21.54**	**288**	*e*P	**P**	**23 01 47.3**	**+0.3**
CHTO				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.7						
CHTO	**Chiang Mai**	**21.54**	**288**	*e*P	**P**	**23 01 47.3**	**+0.3**
	comp=Z,33nm,1.0s,mb4.7						
CHTO	**Chiang Mai**	**21.54**	**288**	P	**P**	**23 01 47.9**	**+0.9**
	SNR=9.9						
CHTO				P		23 01 47.9	
	SNR=9.9						
XAN	**Xi'an**	**23.24**	**335**	P	**P**	**23 02 02.5**	**-2.3**
XAN				S	**S**	**23 06 09.0**	**-3.5**
XAN				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.0						
XAN				LR	LR		
	comp=N,2µm,15.0s,MS5.1						
XAN				LR	LR		
	comp=E,4µm,14.0s,MS5.1						
XAN				LR	LR		
	comp=Z,1µm,15.0s,MS4.5						
CD2	**Chengdu**	**23.44**	**321**	P	**P**	**23 02 07.0**	**+0.3**
CD2				pP		23 02 21.3	
CD2				sP	sP	23 02 28.8	+2.0
CD2				PP		23 02 40.3	
CD2				S	**S**	**23 06 13.3**	**-2.5**
CD2				sS	sS	23 06 35.5	-3.9
CD2				SS		23 07 01.5	
CD2				pmax	pmax		
	comp=Z,80nm,0.7s,mb5.3						
CD2				pmax	pmax		
	comp=Z,380nm,4.5s						
CD2				LR	LR		
	comp=N,2µm,11.9s						
CD2				LR	LR		
	comp=Z,2µm,14.9s,MS4.6						
GUMO	**Guam**	**23.59**	**86**	LR	LR	23 09 38.5	
	comp=Z,1µm,21.6s,MS4.3,baz=269,slow=32						
PSI	**Prapat**	**23.84**	**246**	P	**P**	**23 02 10.4**	**-0.1**
	comp=Z,4.9nm,0.5s,mb4.2,baz=42,slow=4.8,SNR=9.3						
PSI				LR	LR	23 10 39.0	
	comp=Z,653nm,21.8s,MS4.1,baz=253,slow=34						
CBIJ	**Chichi jima**	**24.41**	**52**	LR	LR	23 10 23.5	
	comp=Z,1µm,19.4s,MS4.4,baz=295,slow=33						
KSRS	**Korea Array**	**24.94**	**14**	P	**P**	**23 02 20.8**	**+0.4**
	comp=Z,1.4nm,0.5s,mb3.7,baz=199,slow=10.0,SNR=3.5						
KSRS				LR	LR	23 14 00.1	
	comp=Z,1µm,18.6s,MS4.4,baz=198,slow=41						
JHJ	**Hachijo jima 2**	**26.38**	**38**	LR	LR	23 11 22.4	
	comp=Z,986nm,19.7s,MS4.4,baz=116,slow=33						
BJT	**Baijiatuau**	**26.92**	**352**	*e*P	**P**	**23 02 37.5**	**-0.7**
BJT				pmax	pmax		
	comp=Z,18nm,0.6s						
BJT	**Baijiatuau**	**26.92**	**352**	*e*P	**P**	**23 02 37.5**	**-0.6**
	comp=Z,18nm,0.6s,mb4.8						
LZH	**Lanzhou**	**27.26**	**329**	⇑P	**P**	**23 02 41.8**	**+0.5**
LZH				pP	pP	23 02 58.0	+2.7
LZH				sP	sP	23 03 05.0	+3.0
LZH				PP		23 03 31.0	
LZH				*e*S	**S**	**23 07 17.0**	**+0.4**
LZH				SS		23 08 36.0	
LZH				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.5						
LZH				pmax	pmax		
	comp=Z,120nm,5.0s						
LZH				LR	LR		
	comp=E,2µm,12.5s						
LZH				LR	LR		
	comp=Z,2µm,13.9s,MS4.8						
MAT	**Matsushiro**	**28.03**	**31**	*e*S	**S**	**23 07 41.2**	**+13**
MJAR	**Matsushiro Arr**	**28.03**	**31**	P	**P**	**23 02 46.1**	**-2.0**
MJAR				*PP	pP	23 03 02.1	-0.1
MJAR	**Matsushiro Arr**	**28.03**	**31**	P	**P**	**23 02 46.1**	**-2.0**
	comp=Z,1.4nm,0.8s,mb3.7,baz=204,slow=6.2,SNR=3.4						
MJAR				pP	pP	23 03 02.1	-0.1
	comp=Z,5.0nm,1.1s,baz=228,slow=10,SNR=4.7						
MJAR				LR	LR	23 12 30.6	
	comp=Z,494nm,19.8s,MS4.1,baz=135,slow=33						
KAKA	**Kakadu**	**28.36**	**155**	*e*P	**P**	**23 02 50.8**	**-0.4**
	comp=Z,26nm,0.9s,mb4.9						
HHC	**Hu-ho-hao-te**	**28.59**	**346**	*e*P	**P**	**23 02 53.3**	**+0.3**
HHC				pP	pP	23 03 07.5	+0.4
HHC				sP	sP	23 03 15.5	+1.7
HHC				PP	PP	23 03 47.3	-11
HHC				PcP	PcP	23 06 03.5	+0.4
HHC				*e*S	**S**	**23 07 35.0**	**-2.4**
HHC				sS	sS	23 08 00.3	-1.0
HHC				PcS	PcS	23 09 44.5	-1.0
HHC				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.6						
HHC				pmax	pmax		
	comp=Z,160nm,3.8s						
HHC				LR	LR		
	comp=N,810nm,16.4s						
HHC				LR	LR		
	comp=E,500nm,11.2s						
HHC				LR	LR		
	comp=Z,830nm,13.5s,MS4.5						
SHL	**Shillong**	**29.65**	**299**	*e*PKP	**P**	**23 03 03.5**	**+0.8**
SHL				*e*S	**S**	**23 07 56.9**	**+2.4**
CN2	**Changchun**	**30.70**	**7**	*e*P	**P**	**23 03 14.5**	**+2.8**
CN2				*e*pP	pP	23 03 29.0	+3.2
CN2				*e*S	**S**	**23 08 12.3**	**+1.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,700nm,20.0s,MS4.5						
CN2				LR	LR		
	comp=E,1µm,20.0s,MS4.5						
CN2				LR	LR		
	comp=Z,700nm,21.0s,MS4.3						
FITZ	**Fitzroy Crossi**	**31.57**	**171**	*e*P	**P**	**23 03 18.9**	**-0.7**
	comp=Z,23nm,1.2s,mb4.9						
FITZ	**Fitzroy Crossi**	**31.57**	**171**	P	**P**	**23 03 18.9**	**-0.7**
	comp=Z,5.7nm,1.1s,mb4.3,baz=7.8,slow=9.7,SNR=2.5						
FITZ	**Fitzroy Crossi**	**31.57**	**171**	*e*P	**P**	**23 03 21.4**	**+1.7**
LSA	**Lhasa**	**31.79**	**306**	P	**P**	**23 03 21.0**	**-0.5**
LSA				S	**S**	**23 08 28.8**	**+0.9**
LSA				LR	LR		
	comp=N,210nm,18.3s,MS4.1						
LSA				LR	LR		
	comp=E,370nm,19.7s,MS4.1						
LSA				LR	LR		
	comp=Z,640nm,19.7s,MS4.3						
LSA	**Lhasa**	**31.79**	**306**	*e*P	**P**	**23 03 23.4**	**+1.9**
LSA				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.8						
LSA	**Lhasa**	**31.79**	**306**	*e*P	**P**	**23 03 23.4**	**+1.9**
	comp=Z,8.8nm,0.6s,mb4.8						
GTA	**Gaotai**	**31.85**	**329**	⇑P	**P**	**23 03 22.3**	**+0.4**
GTA				pP	pP	23 03 37.8	+1.7
GTA				sP	sP	23 03 45.0	+2.2
GTA				PP	PP	23 04 31.0	-3.8
GTA				S	**S**	**23 08 29.8**	**+1.2**
GTA				sS	sS	23 08 55.5	+2.8
GTA				SS	SS	23 10 27.0	-20
GTA				pmax	pmax		
	comp=Z,9.0nm,1.5s,mb4.4						
GTA				pmax	pmax		
	comp=Z,54nm,5.1s						
GTA				LR	LR		
	comp=N,520nm,19.6s,MS4.4						
GTA				LR	LR		
	comp=E,540nm,20.2s,MS4.4						
GTA				LR	LR		
	comp=Z,630nm,19.6s,MS4.3						
MDJ	**Mudanjiang**	**32.16**	**12**	P	**P**	**23 03 25.5**	**+1.0**
MDJ				pP	pP	23 03 38.8	+0.1
MDJ				PcP	PcP	23 06 13.3	+0.9
MDJ				S	**S**	**23 08 33.3**	**+0.1**
MDJ				sS	sS	23 08 58.8	+1.5
MDJ				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.4						
MDJ				pmax	pmax		
	comp=Z,120nm,5.6s						
MDJ				LR	LR		
	comp=E,1µm,28.9s						
MDJ				LR	LR		
	comp=Z,690nm,27.6s,MS4.2						
TAPN	**Taplejung**	**33.76**	**300**	*e*P	**P**	**23 03 39.3**	**+0.5**
	comp=Z,23nm,0.5s,mb5.3						
ODAN	**Odare**	**33.89**	**299**	*e*P	**P**	**23 03 40.3**	**+0.4**
	comp=Z,55nm,0.7s,mb5.6						
MBWA	**Marble Bar**	**34.23**	**181**	*e*P	**P**	**23 03 43.0**	**+0.2**
BOK	**Bokaro**	**34.47**	**293**	*e*PKP	**P**	**23 03 44.7**	**-0.3**
RAMN	**Ramite**	**34.59**	**298**	*e*P	**P**	**23 03 46.7**	**+0.7**
	comp=Z,51nm,0.6s,mb5.6						
JIRN	**Jiri**	**35.15**	**299**	*e*P	**P**	**23 03 51.6**	**+0.8**
	comp=Z,96nm,0.5s,mb6.0						
GUN	**Gumba**	**35.48**	**300**	*e*P	**P**	**23 03 54.3**	**+0.7**
	comp=Z,85nm,0.4s,mb6.0						
WRAB	**Tennant Creek**	**35.66**	**157**	P	**P**	**23 03 54.0**	**-1.2**
	comp=Z,221nm,0.6s,mb6.3,SNR=23						
WRAB	**Tennant Creek**	**35.66**	**157**	*e*P	**P**	**23 03 54.4**	**-0.8**
WRAB				*e*S	**S**	**23 09 37.0**	**+9.2**
WRAB				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
WRAB	**Tennant Creek**	**35.66**	**157**	*e*P	**P**	**23 03 54.4**	**-0.8**
	comp=Z,30nm,0.8s,mb5.3						
WRAB				*e*S	**S**	**23 09 37.0**	**+9.1**
WRA	**Warramunga Arr**	**35.67**	**158**	P	**P**	**23 03 54.4**	**-0.8**
	comp=Z,14nm,0.6s,mb5.1,baz=336,slow=9.5,SNR=42						
WRA				S	**S**	**23 09 30.2**	**+2.3**
	comp=Z,1.4nm,0.9s,baz=341,slow=14,SNR=3.8						
PKI	**Pulchoki**	**35.78**	**299**	*e*P	**P**	**23 03 56.4**	**+0.2**
	comp=Z,32nm,0.5s,mb5.5						
PKI	**Pulchoki**	**35.78**	**299**	*e*P	**P**	**23 03 56.8**	**+0.6**
PKI				pmax	pmax		
	comp=Z,81nm,0.7s,mb5.8						
PKI	**Pulchoki**	**35.78**	**299**	*e*P	**P**	**23 03 56.8**	**+0.6**
	comp=Z,81nm,0.7s,mb5.8						
PKIN	**Phulchoki**	**35.80**	**299**	*e*P	**P**	**23 03 56.8**	**+0.5**
	comp=Z,81nm,0.7s,mb5.8						
HIA	**Hailar**	**35.89**	**359**	P	**P**	**23 03 53.1**	**-3.7**
KKN	**Kakani**	**35.95**	**299**	*e*P	**P**	**23 03 57.8**	**+0.1**
	comp=Z,28nm,0.7s,mb5.3						
KKN	**Kakani**	**35.95**	**299**	*e*P	**P**	**23 03 57.8**	**+0.1**
KKN				pmax	pmax		
	comp=Z,28nm,0.6s,mb5.4						
DMN	**Daman**	**36.05**	**299**	*e*P	**P**	**23 03 58.6**	**+0.1**
	comp=Z,54nm,0.7s,mb5.6						
SONM	**Songino Array**	**36.44**	**344**	P	**P**	**23 04 00.6**	**-0.9**
	comp=Z,10nm,0.5s,mb5.0,baz=167,slow=8.7,SNR=4.9						
GKN	**Gorkha**	**36.56**	**299**	*e*P	**P**	**23 04 02.6**	**-0.3**
	comp=Z,26nm,0.6s,mb5.2						
KLR	**Kul'dur**	**37.00**	**12**	*e*P	**P**	**23 04 05.8**	**-0.5**
KLR				MLR	MLR		
	comp=E,500nm,14.0s						
KLR				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.0						
KOLN	**Koldanda**	**37.38**	**299**	*e*P	**P**	**23 04 10.0**	**+0.1**
	comp=Z,30nm,0.8s,mb5.2						
DANN	**Dangsing**	**37.40**	**299**	*e*P	**P**	**23 04 10.1**	**+0.1**
	comp=Z,41nm,0.6s,mb5.4						
ALBI	**Allahabad**	**38.40**	**294**	*e*x	x	23 05 30.5	
ASAR	**Alice Springs**	**38.95**	**160**	P	**P**	**23 04 22.8**	**-0.2**
	comp=Z,13nm,0.5s,mb4.9,baz=339,slow=7.1,SNR=127						
ASAR				S	**S**	**23 10 15.8**	**-1.9**
	comp=Z,0.8nm,1.0s,baz=355,slow=16,SNR=3.7						
MDRS	**Chennai**	**39.28**	**274**	*e*PKP	**P**	**23 04 26.6**	**+0.6**
ZAK	**Zakamensk**	**39.62**	**343**	*e*P	**P**	**23 04 19.4**	**-8.8**
ZAK				*e*		23 06 39.3	
ZAK				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.5						
PALK	**Pallekele**	**39.69**	**265**	P	**P**	**23 04 29.2**	**-0.2**
	comp=Z,6.5nm,0.8s,mb4.4,baz=95,slow=8.7,SNR=3.1						
PALK				LR	LR	23 20 59.0	
	comp=Z,332nm,18.3s,MS4.2,baz=73,slow=36						
TLY	**Talaya**	**40.68**	**344**	*e*P	pP	23 04 53.6	+2.1
TLY				*e*SS	SS	23 13 45.6	+0.4
TLY				pmax	pmax		
	comp=Z,32nm,1.8s,mb4.7						
TLY				MLR	MLR		
	comp=Z,596nm,19.0s,MS4.5						
HYB	**Hyderabad**	**40.72**	**281**	*i* P	**P**	**23 04 37.5**	**-0.3**
HYB	**Hyderabad**	**40.72**	**281**	*e*P	**P**	**23 04 38.0**	**+0.2**
WMQ	**Urumqi**	**41.49**	**324**	P	**P**	**23 04 44.5**	**+0.6**
WMQ				pP	pP	23 05 01.3	+2.9
WMQ				sP	sP	23 05 08.0	+3.0
WMQ				PcP	PcP	23 06 41.0	+0.4
WMQ				*e*S	**S**	**23 10 56.0**	**+0.6**
WMQ				pmax	pmax		
	comp=Z,29nm,1.5s,mb4.7						
WMQ				pmax	pmax		
	comp=Z,430nm,6.7s						
WMQ				LR	LR		
	comp=N,2µm,14.0s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,13.8s,MS5.2						
WMQ				LR	LR		
	comp=Z,1µm,24.0s						
CTA	**Charters Tower**	**41.66**	**142**	*e*P	**P**	**23 04 45.8**	**+0.3**
	comp=Z,18nm,1.1s,mb4.6						
CTA	**Charters Tower**	**41.66**	**142**	P	**P**	**23 04 44.2**	**-1.3**
	comp=Z,11nm,0.9s,mb4.5,baz=329,slow=9.5,SNR=5.9						
CTA	**Charters Tower**	**41.66**	**142**	P	**P**	**23 04 44.2**	**-1.3**
CTAO	**Charters Tower**	**41.66**	**142**	*e*P	**P**	**23 04 46.7**	**+1.2**
CTAO				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.8						
CTAO	**Charters Tower**	**41.66**	**142**	*e*P	**P**	**23 04 46.7**	**+1.2**
	comp=Z,25nm,1.0s,mb4.8						
BHPL	**Bhopal**	**42.06**	**290**	*e*PKP	**P**	**23 04 46.2**	**-2.6**

FORT	Forrest	44.38	171	eP	P	23 05 08.8	+1.5
	comp=Z,30nm,0.8s,mb5.1						
FORT	Forrest	44.38	171	eP	P	23 05 08.7	+1.3
	comp=Z,38nm,0.8s,mb5.2						
KAD	Karad	44.89	281	ePKP	P	23 05 12.6	+0.9
AJM	Ajmer	44.96	294	ePKP	P	23 05 12.9	+0.8
HNR	Honiara	45.10	118	LR	LR	23 20 23.8	
	comp=Z,379nm,21.1s,MS4.3,baz=260,slow=31						
POO	Poona	45.19	283	ePKP	P	23 05 13.5	-0.5
POO				AMb	AMB	23 05 33.5	
	comp=Z,54nm,1.7s,mb5.1						
NWAO	Narrogin (SRO)	46.06	184	P	P	23 05 25.9	+5.3
NWAO				pmax	pmax		
	comp=Z,108nm,1.4s						
NWAO	Narrogin (SRO)	46.06	184	LR	LR	23 27 60.0	
	comp=Z,272nm,20.1s,MS4.2,baz=175,slow=40						
NWAO	Narrogin (SRO)	46.06	184	P	P	23 05 25.9	+5.3
	comp=Z,108nm,1.4s,mb5.6						
MK31	Makanchi Array	46.32	324	P	P	23 05 22.5	0.0
MK31				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
MK31	Makanchi Array	46.32	324	eP	P	23 05 22.9	+0.4
MKAR	Makanchi Array	46.32	324	P	P	23 05 22.6	0.0
	comp=Z,11nm,0.7s,mb4.9,baz=119,slow=8.9,SNR=76						
MKAR				LR	LR	23 26 24.4	
	comp=Z,839nm,18.5s,MS4.7,baz=115,slow=38						
KSH	Kashi	47.12	312	P	P	23 05 31.0	+2.1
KSH				epP	pP	23 05 46.3	+2.6
KSH				esP	sP	23 05 54.0	+3.8
KSH				ePcP	PcP	23 07 02.0	+2.0
KSH				ePP	PP	23 07 22.0	+1.9
KSH				eScP	ScP	23 10 48.0	-1.3
KSH				ePcS	PcS	23 10 56.0	+0.9
KSH				eS	S	23 12 18.0	+0.7
KSH				esS	sS	23 12 45.0	+2.8
KSH				eScS	ScS	23 15 17.3	-0.9
KSH				eSS	SS	23 15 39.5	-5.5
KSH				pmax	pmax		
	comp=Z,41nm,1.7s,mb5.1						
KSH				pmax	pmax		
	comp=Z,140nm,3.2s						
KSH				LR	LR		
	comp=N,1µm,18.2s						
KSH				LR	LR		
	comp=E,720nm,11.1s						
KSH				LR	LR		
	comp=Z,620nm,11.4s						
ULHL	Ulahol	47.97	316	P	P	23 05 36.6	+1.2
	SNR=20						
EIDS	Eidsvold	48.55	142	eP	P	23 05 40.5	+0.5
	comp=Z,59nm,1.1s,mb5.5						
EIDS				e	pP	23 05 52.3	-2.6
KZA	Kyzart	48.58	315	P	P	23 05 42.0	+1.9
	SNR=5.3						
TKM2	Tokmak 2	48.67	316	eP	P	23 05 41.6	+0.8
TKM2				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.3						
TKM2	Tokmak 2	48.67	316	P	P	23 05 41.8	+0.9
	SNR=11						
TKM2	Tokmak 2	48.67	316	eP	P	23 05 41.6	+0.7
	comp=Z,44nm,1.3s,mb5.3						
KBK	Karagaybulak	49.01	316	P	P	23 05 44.7	+1.3
	SNR=16						
YAK	Yakutsk	49.11	6	i P	P	23 05 42.3	-1.6
YAK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
UCH	Uchtor	49.14	315	P	P	23 05 46.1	+1.6
	SNR=15						
UCH	Uchtor	49.14	315	eP	P	23 05 46.1	+1.6
	comp=Z,75nm,1.2s,mb5.6						
BHJ	Bhuj	49.19	289	ePKP	P	23 05 45.5	+0.3
STKA	Stephens Creek	49.20	156	eP	P	23 05 45.3	+0.4
	comp=Z,7.4nm,1.5s,mb4.5						
STKA				e	pP	23 05 56.1	-3.7
STKA	Stephens Creek	49.20	156	P	P	23 05 44.6	-0.3
	comp=Z,3.6nm,0.7s,mb4.5,baz=310,slow=6.5,SNR=7.9						
FRU	Bishkek	49.30	316	eP	pP	23 06 00.0	-0.5
FRU				pmax	pmax		
	comp=Z,100nm,2.3s,mb5.4						
AAK	Ala-Archa	49.31	315	⇑eP	P	23 05 47.0	+1.3
AAK				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.6						
AAK	Ala-Archa	49.31	315	P	P	23 05 47.2	+1.5
	SNR=7.2						
AAK	Ala-Archa	49.31	315	P	P	23 05 46.4	+0.7
	comp=Z,2.5nm,0.7s,mb4.4,baz=112,slow=9.5,SNR=12						
AAK				LR	LR	23 28 06.2	
	comp=Z,645nm,21.3s,MS4.6,baz=95,slow=38						
AAK	Ala-Archa	49.31	315	eP	P	23 05 46.5	+0.7
	comp=Z,47nm,1.3s,mb5.4						
AAK	Ala-Archa	49.31	315	⇑P	P	23 05 46.9	+1.2
	SNR=9.9						
AAK				⇑P		23 05 46.9	
	SNR=9.9						
ZAA0	Zalesovo Array	49.39	333	eP	P	23 05 44.9	-1.2
ZALV	Zalesovo Beam	49.39	333	P	P	23 05 45.1	-1.1
ZALV				*PP	pP	23 06 01.4	+0.4
ZALV	Zalesovo Beam	49.39	333	P	P	23 05 45.1	-1.1
	comp=Z,7.5nm,0.5s,mb5.0,baz=130,slow=7.2,SNR=38						
ZALV				pP	pP	23 06 01.4	+0.4
	comp=Z,12nm,0.8s,baz=101,slow=5.3,SNR=6.8						
ZALV				LR	LR	23 28 14.3	
	comp=Z,361nm,18.1s,MS4.4,baz=131,slow=38						
PETK	Petropavlovsk-	49.43	29	P	P	23 05 46.0	-0.5
	comp=Z,6.2nm,0.9s,mb4.7,baz=214,slow=4.9,SNR=2.7						
PETK				LR	LR	23 28 24.0	
	comp=Z,355nm,19.9s,MS4.4,baz=14,slow=38						
USP	Ospenovka	49.55	316	P	P	23 05 48.0	+0.5
	SNR=11						
AML	Almayashu	49.67	315	P	P	23 05 50.0	+1.5
	SNR=14						
AML	Almayashu	49.67	315	eP	P	23 05 49.8	+1.3
	comp=Z,70nm,1.3s,mb5.5						
EKS2	Erkin-Say	49.81	315	P	P	23 05 50.5	+1.0
	SNR=12						
EKS2	Erkin-Say	49.81	315	eP	P	23 05 50.1	+0.5
	comp=Z,47nm,1.3s,mb5.4						
EKS2				ePcP	PcP	23 07 11.9	+2.3
KURK	Kurchatov	50.49	327	P	P	23 05 54.9	+0.3
	comp=Z,1µm,0.6s						
KURK	Kurchatov	50.49	327	eP	P	23 05 54.8	+0.2
KURK				e	pP	23 06 12.5	+3.0
KURK				pmax	pmax		
	comp=Z,121nm,0.7s,mb6.0						
KURK	Kurchatov	50.49	327	P	P	23 05 54.6	0.0
	comp=Z,35nm,0.6s,mb5.5,baz=136,slow=7.4,SNR=138						
KURK				LR	LR	23 28 00.1	
	comp=Z,304nm,19.8s,MS4.3,baz=110,slow=37						
KURK	Kurchatov	50.49	327	eP	P	23 05 54.8	+0.2
	comp=Z,121nm,0.7s,mb6.0						
KURK				e	pP	23 06 12.5	+3.0
KURK	Kurchatov	50.49	327	P	P	23 05 55.1	+0.5
	SNR=29						
KURK				P		23 05 55.1	
	SNR=29						
NVS	Novosibirsk	50.68	333	⇑iP	P	23 05 54.7	-1.2
NVS				e*PP	pP	23 06 06.3	-4.5
NVS				eS	S	23 13 12.1	+5.3
NVS				pmax	pmax		
	comp=N,7.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,10.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
NVS				smax			
	comp=N,26nm,2.6s						
NVS				smax			
	comp=E,9.0nm,1.6s						
KBL	Kabul	51.08	304	eP	P	23 05 59.6	+0.4
KBL				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
KBL	Kabul	51.08	304	eP	P	23 05 59.6	+0.4
	comp=Z,13nm,0.8s,mb4.9						
KK31	Karatay Array	52.21	315	P	P	23 06 07.1	-0.5
KK31				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.4						
ARMA	Armidale	52.71	146	eP	P	23 06 12.5	+1.1
ARMA				e	pP	23 06 24.0	-2.4
ARMA	Armidale	52.71	146	eP	P	23 06 12.2	+0.8
ARMA				e	pP	23 06 23.3	-3.0
SEY	Seymchan	54.43	17	⇑eP	P	23 06 21.7	-1.8
VOSK	Vostochnaya	55.62	326	P	P	23 06 31.2	-1.1
VOSK				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.3						
BVA0	Borovoye Array	56.08	326	i P	P	23 06 35.4	-0.1
BVA0				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.8						
BVAR	Borovoye Array	56.08	326	P	P	23 06 35.2	-0.3
	comp=Z,4.4nm,0.4s,mb4.8,baz=125,slow=8.9,SNR=44						
BVAR				LR	LR	23 30 09.1	
	comp=Z,257nm,21.3s,MS4.3,baz=107,slow=35						
BRVK	Borovoye	56.15	326	P	P	23 06 36.6	+0.6
	comp=Z,199nm,0.9s,mb6.1,SNR=16						
BRVK	Borovoye	56.15	326	eP	P	23 06 36.0	0.0
BRVK				e	pP	23 06 53.9	+2.7
BRVK				pmax	pmax		
	comp=Z,83nm,1.0s,mb5.7						
BRVK	Borovoye	56.15	326	eP	P	23 06 36.0	0.0
	comp=Z,83nm,1.0s,mb5.7						
BRVK				e	pP	23 06 53.9	+2.7
BRVK	Borovoye	56.15	326	P	P	23 06 36.4	+0.4
	SNR=14						
BRVK				P		23 06 36.4	
	SNR=14						
TIXI	Tiksi	58.55	3	⇑eP	P	23 06 50.3	-2.4
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
TIXI	Tiksi	58.55	3	eP	P	23 06 53.1	+0.4
ABKT	Ailbek	60.32	306	P	P	23 07 06.1	+0.7
	comp=Z,118nm,1.0s,mb5.9,SNR=6.4						
AB31	Akbulak array	61.00	319	P	P	23 07 09.0	-0.9
AB31				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.2						
BILL	Bilibino	62.13	18	⇑eP	P	23 07 16.0	-1.1
BILL				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.9						
BILL				MLR	MLR		
	comp=Z,300nm,20.0s,MS4.5						
BILL	Bilibino	62.13	18	eP	P	23 07 16.0	-1.1
	comp=Z,8.9nm,0.7s,mb5.0						
AKTO	Aktyubinsk	62.48	320	P	P	23 07 18.9	-0.9
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
SVE	Sverdlovsk	62.72	328	⇓eP	P	23 07 20.4	-0.8
SVE				eS	S	23 15 43.1	-2.5
SVE				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.4						
SVE				MLR	MLR		
	comp=Z,409nm,17.0s,MS4.7						
ARU	Arti	63.69	327	P	P	23 07 26.2	-1.5
	comp=Z,138nm,0.5s,mb6.2,SNR=8.5						
ARU	Arti	63.69	327	c iP	P	23 07 26.4	-1.3
ARU				e		23 09 45.3	
ARU				S	S	23 15 55.9	-1.9
ARU				SS	SS	23 20 08.8	+2.7
ARU				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
ARU	Arti	63.69	327	eP	P	23 07 26.6	-1.1
	comp=Z,14nm,0.6s,mb5.2						
RBK	Rabkut	63.90	283	⇓P	P	23 07 29.5	-0.3
	SNR=6.8						
RDF	Al-Radifah	69.00	296	eP	P	23 08 01.6	-0.6
RDF				AMb	AMB	23 08 08.6	
	comp=Z,47nm,1.2s,mb5.3						
MIB	Mutribah	69.13	297	eP	P	23 08 02.4	-0.6
MIB				AMb	AMB	23 08 05.1	
	comp=Z,31nm,0.6s,mb5.4						
NAY	Al-Naaiem	69.25	296	eP	P	23 08 02.9	-0.9
NAY				AMb	AMB	23 08 06.2	
	comp=Z,13nm,1.2s,mb4.7						
UNV	Unalaska Valle	69.29	37	eP	P	23 08 04.8	+1.4
MTA	Mtatsminda	70.75	310	P	P	23 08 13.0	+0.3
TBLG	Delisi	70.78	310	eP	P	23 08 13.3	+0.4
TBLG	Delisi	70.78	310	P	P	23 08 13.3	+0.4
GNI	Garni	70.81	308	⇑eP	P	23 08 14.1	+1.0
GNI				pmax	pmax		
	comp=Z,29nm,1.3s						
GNI	Garni	70.81	308	eP	P	23 08 13.7	+0.5
	comp=Z,45nm,1.3s,mb5.2						
GNI	Garni	70.81	308	P	P	23 08 15.1	+2.0
	SNR=6.3						
GNI				P		23 08 15.1	
	SNR=6.3						
GOR	Gori	71.25	310	P	P	23 08 15.9	+0.1
PRGR	Permogore	71.28	331	P	Px	23 08 25.8	
PRGR				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.4						
ONI	Oni	71.73	311	P	P	23 08 18.8	+0.2
KIV	Kislovodsk	72.25	312	P	P	23 08 22.2	+0.5
	comp=Z,178nm,0.6s,mb6.2,SNR=15						
KIV	Kislovodsk	72.25	312	eP	P	23 08 21.5	-0.2
KIV				e*PP	pP	23 08 40.6	+3.2
KIV				e		23 11 03.6	
KIV				eS	S	23 17 38.8	-1.6
KIV				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
KIV				MLR	MLR		
	comp=Z,147nm,20.0s,MS4.2						
KIV	Kislovodsk	72.25	312	eP	P	23 08 22.1	+0.4
	comp=Z,22nm,0.8s,mb5.1						
KIV	Kislovodsk	72.25	312	P	P	23 08 22.4	+0.7
	SNR=6.6						
KIV				P		23 08 22.4	
	SNR=6.6						
KLMR	Klimovskoe	74.17	330	eP	P	23 08 30.1	-2.6
KLMR				pmax	pmax		
	comp=Z,74nm,1.6s,mb5.4						
VORD	Divnogorie	74.36	320	eP	P	23 08 32.0	-2.0
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,0.9s						
VSR	Storozhevoye	74.43	320	eP	P	23 08 32.8	-1.6
VSR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
VSR				pmax	pmax		
	comp=N,8.0nm,1.0s						
VSR				pmax	pmax		
	comp=E,5.0nm,0.6s						
MOS	Moscow	75.20	325	eP	P	23 08 48.5	+10
MOS				e	pP	23 09 02.2	+7.7
MOS				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.3						
MALT	Malatya	75.82	306	eP	P	23 08 43.7	+1.0
MALT				e	pP	23 08 59.2	+0.7
MALT				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
MALT	Malatya	75.82	306	⇓iP	P	23 08 43.9	+1.2
MALT	Malatya	75.82	306	eP	P	23 08 43.7	+1.0
	comp=Z,23nm,1.4s,mb4.9						
MALT				ePcP	PcP	23 08 59.2	+4.1
OBN	Obninsk	75.83	324	⇓eP	P	23 08 40.6	-1.8
OBN				e	pP	23 08 53.7	-4.4
OBN				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
OBN				MLR	MLR		
	comp=Z,400nm,17.0s,MS4.8						
OBN	Obninsk	75.83	324	eP	P	23 08 43.1	+0.7
IMA2	Indian Mountai	76.22	25	eP	P	23 08 44.0	-0.3
APA	Apatity	76.77	337	⇓eP	P	23 08 50.0	+2.6
APA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
APA				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
COLD	Coldfoot	77.55	23	eP	P	23 08 54.1	+2.3
	comp=Z,6.2nm,0.9s,mb4.5						
JOF	Joensuu	77.98	332	eP	P	23 08 52.3	-2.0
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
JOF	Joensuu	77.98	332	ep	P	23 08 52.3	-2.0
	comp=Z,3.2nm,0.4s,mb4.6						
SIM	Simferopol’	78.30	314	c iP	P	23 08 55.4	-1.0
SIM				e	pP	23 09 13.0	+0.7
SIM				e		23 11 51.0	
SIM				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
SIM				pmax	pmax		
	comp=Z,130nm,13.5s						
PUL	Pulkovo	78.80	329	i P	P	23 08 59.4	+0.5
PUL				pmax	pmax		
	comp=Z,138nm,0.6s,mb6.1						
KEV	Kevo	78.89	339	ep	P	23 08 57.2	-2.0
ABPO	Ambohimpanom	79.09	247	P	P	23 09 02.4	+1.2
BRTR	Keskin Array B	79.35	308	P	P	23 09 01.8	-0.5
	comp=Z,2.6nm,0.7s,mb4.3						
BRTR				LR	LR	23 50 36.7	
	comp=Z,114nm,18.4s,MS4.2,baz=180,slow=40						
BRTR	Keskin Array B	79.35	308	P	P	23 09 01.8	-0.5
BRTR				LR	LR	23 50 36.7	
ARCES	ARCESS Array B	79.45	339	P	P	23 09 00.7	-1.6
	comp=Z,2.3nm,0.5s,mb4.3,baz=80,slow=7.7,SNR=22						
CSS	Prodhromos	80.33	304	eP	P	23 09 08.0	+0.3
	comp=Z,25nm,1.0s,mb5.1						
KAF	Kangasniemi	80.39	332	eP	P	23 09 06.2	-1.3
KAF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KAF	Kangasniemi	80.39	332	ep	P	23 09 06.2	-1.3
	comp=Z,4.3nm,0.8s,mb4.4						
FINES	FINESS Array B	80.61	331	P	P	23 09 07.3	-1.4
	comp=Z,1.7nm,0.7s,mb4.1,baz=64,slow=4.4,SNR=12						
FINES				LR	LR	23 49 56.9	
	comp=Z,271nm,18.0s,MS4.6,baz=92,slow=39						
FINES	FINESS Array B	80.61	331	P	P	23 09 07.3	-1.4
FINES				LR	LR	23 49 56.9	
AKASG	Malin Array Be	80.73	320	P	P	23 09 07.5	-2.0
AKASG				*PP	pP	23 09 24.7	-0.8
AKASG	Malin Array Be	80.73	320	P	P	23 09 07.5	-2.0
	comp=Z,0.2nm,0.3s,baz=76,slow=4.5,SNR=9.7						
AKASG				pP	pP	23 09 24.7	-0.7
	comp=Z,2.3nm,0.8s,baz=70,slow=4.4,SNR=5.6						
AKASG				LR	LR	23 49 39.6	
	comp=Z,260nm,20.3s,MS4.6,baz=80,slow=39						
AKBB	Malin Array Si	80.73	320	eP	P	23 09 11.0	+1.5
KIEV	Kiev	80.74	320	eP	P	23 09 11.9	+2.3
KIEV				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
KIEV	Kiev	80.74	320	eP	P	23 09 11.9	+2.3
	comp=Z,13nm,1.0s,mb4.8						
NACGM	Naroch	81.45	324	e	P	23 09 08.0	-5.3
EGAK	Eagle	81.57	25	eP	P	23 09 13.1	-0.6
	comp=Z,127nm,3.0s						
TLCR		81.97	314	⇑iP	P	23 09 14.6	-1.6
TLCR		81.97	314	⇑P	P	23 09 14.6	-1.6
TIRR	Tirgusor	82.39	314	⇑iP	P	23 09 12.7	-5.7
TIRR	Tirgusor	82.39	314	⇑P	P	23 09 12.7	-5.7
HARR	Harsova	82.68	314	⇓iP	pP	23 09 34.4	-1.5
VRI	Vrincioaia	83.28	315	⇑iP	P	23 09 23.8	+0.8
VRI	Vrincioaia	83.28	315	⇑P	P	23 09 23.8	+0.8
INK	Inuvik	83.51	21	eP	P	23 09 22.7	-1.1
INK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
INK	Inuvik	83.51	21	P	P	23 09 22.1	-1.6
	comp=Z,1.4nm,0.6s,mb4.3,baz=288,slow=5.7,SNR=6.8						
INK				pP	pP	23 09 39.6	-0.1
	comp=Z,9.8nm,1.1s,baz=272,slow=6.2,SNR=7.2						
INK	Inuvik	83.51	21	eP	P	23 09 22.7	-1.1
	comp=Z,10.0nm,1.1s,mb4.9						
KMBO	Kilima Mbogo	83.80	267	P	P	23 09 26.7	+0.4
KMBO				*PP	pP	23 09 43.3	+1.0
KMBO	Kilima Mbogo	83.80	267	P	P	23 09 26.7	+0.4
	comp=Z,1.0nm,0.3s,mb4.4,baz=58,slow=7.7,SNR=5.5						
KMBO				pP	pP	23 09 43.3	+1.0
	comp=Z,7.2nm,1.0s,baz=43,slow=9.0,SNR=7.6						
KMBO				LR	LR	23 45 23.1	
	comp=Z,109nm,18.9s,MS4.2,baz=93,slow=35						
MLR	Muntele Rosu	83.89	315	⇓iP	P	23 09 26.0	-0.2
MLR	Muntele Rosu	83.89	315	LR	LR	23 50 00.8	
	comp=Z,429nm,20.9s,MS4.8,baz=195,slow=38						
MLR	Muntele Rosu	83.89	315	⇓P	P	23 09 26.1	-0.1
BURAR	Bucovina Array	83.91	317	⇓iP	P	23 09 25.5	-0.7
BURAR	Bucovina Array	83.91	317	⇓P	P	23 09 25.5	-0.7
BUR08	Bucovina Ar. S	83.92	317	eP	P	23 09 26.6	+0.3
LVV	L’vov	84.17	320	⇓iP	P	23 09 34.0	+6.5
LVV				i	pP	23 09 46.8	+3.3
VOIR		84.52	315	⇓iP	P	23 09 28.6	-0.7
VOIR		84.52	315	⇓P	P	23 09 28.6	-0.7
KWP	Kalwaria Pacla	85.05	320	eP	P	23 09 31.9	0.0
KOLS	Kolonicke sedl	85.50	319	eP	pP	23 09 45.6	-4.6
KOLS	Kolonicke sedl	85.50	319	epP	pP	23 09 45.6	-4.6
UZH	Uzhgorod	85.57	319	⇓iP	P	23 09 34.0	-0.5
UZH				i	pP	23 09 46.8	-3.8
DRGR		85.77	317	⇑iP	P	23 09 38.4	+2.8
DRGR		85.77	317	⇑P	P	23 09 38.4	+2.9
STHS	Stebnicka Huta	86.03	320	eP	P	23 09 37.0	+0.2
STHS				e		23 09 47.3	
STHS				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.5						
STHS	Stebnicka Huta	86.03	320	eP	P	23 09 37.0	+0.2
	comp=Z,5.4nm,1.5s,mb4.6						
STHS				e		23 09 47.3	
CRVS	Cervenica-Dubn	86.03	319	eP	P	23 09 36.7	-0.1
CRVS				e	pP	23 09 49.1	-3.8
CRVS				pmax	pmax		
	comp=Z,25nm,1.5s,mb5.2						
CRVS	Cervenica-Dubn	86.03	319	eP	P	23 09 36.7	-0.1
	comp=Z,25nm,1.5s,mb5.2						
CRVS				e	pP	23 09 49.1	-3.8
GZR	Gura Zlata	86.08	316	⇓iP	P	23 09 46.8	+10
GZR	Gura Zlata	86.08	316	⇓P	P	23 09 46.8	+10
NIE	Niedzica	86.61	320	eP	P	23 09 39.8	+0.1
OJC	Ojcow	86.70	321	eP	P	23 09 39.5	-0.6
KECS	Kecovo	86.77	319	eP	P	23 09 39.8	-0.6
KECS				e	pP	23 09 54.6	-1.9
KECS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.3						
KECS	Kecovo	86.77	319	eP	P	23 09 39.8	-0.6
	comp=Z,2.2nm,0.9s,mb4.4						
KECS				e	pP	23 09 54.6	-1.9
BZS	Buzias	86.81	316	⇓iP	P	23 09 40.3	-0.4
IDI	Anoyia	87.03	305	LR	LR	23 50 55.5	
	comp=Z,90nm,19.9s,MS4.2,baz=241,slow=37						
PSZ	Piszkesteto	87.31	319	eP	P	23 09 44.2	+1.1
NOA	NORSAR Array B	87.60	333	P	P	23 09 42.0	-2.2
	comp=Z,2.4nm,0.7s,mb4.6,baz=68,slow=4.6,SNR=9.4						
NOA				LR	LR	23 51 53.9	
	comp=Z,217nm,19.8s,MS4.6,baz=55,slow=38						
VYHS	Vyhne	87.81	319	eP	P	23 09 44.7	-0.8
VYHS				e	pP	23 09 58.8	-2.8
VYHS				pmax	pmax		
	comp=Z,19nm,2.3s,mb4.9						
VYHS	Vyhne	87.81	319	eP	P	23 09 44.7	-0.8
	comp=Z,19nm,2.3s,mb4.9						
VYHS				e	pP	23 09 58.8	-2.8
OKC	Ostrava-Krasne	87.83	321	epP	pP	23 09 57.3	-4.4
OKC				AMS	AMS	23 53 20.0	
	comp=Z,700nm,5.8s						
KOLL	Kolacno	88.06	320	eP	P	23 09 46.8	+0.1
KOLL				epP	pP	23 09 57.2	-5.6
MORC	Moravsky Berou	88.22	321	eP	P	23 09 46.1	-1.3
MORC				pmax	pmax		
	comp=Z,16nm,1.4s,mb5.1						
MORC	Moravsky Berou	88.22	321	eP	P	23 09 46.1	-1.3
	comp=Z,16nm,1.4s,mb5.0						
PKSM	Moragy	88.63	317	⇑iP	P	23 09 58.7	+9.3
PKSM	Moragy	88.63	317	⇑P	P	23 09 58.7	+9.3
KSP	Ksiaz	88.64	322	eP	pP	23 10 03.8	-1.7
DPC	Dobruska-Polom	88.78	322	epP	pP	23 10 01.6	-4.6
DPC				AMS	AMS	23 51 20.0	
	comp=Z,400nm,6.4s						
UPC	Upice	88.92	322	eP	pP	23 10 05.0	-1.8
RES	Resolute Bay	89.46	9	eP	P	23 09 51.5	-1.2
TREC	Trest	89.65	321	epP	pP	23 10 07.9	-2.4
TREC				AMS	AMS	23 51 00.0	
	comp=Z,600nm,5.7s						
PVCC	Panska Ves	89.78	322	epP	pP	23 10 08.9	-1.9
PVCC				AMS	AMS	23 52 20.0	
	comp=Z,600nm,23.2s						
PRU	Pruhonice	89.98	322	epP	pP	23 10 09.4	-2.4
PRU				AMS	AMS	23 52 30.0	
	comp=Z,400nm,18.8s						
BRG	Berggiesshubel	90.03	323	eP	pP	23 10 08.1	-3.9
	comp=Z,16nm,1.2s						
BRG	Berggiesshubel	90.03	323	eP	pP	23 10 07.6	-4.3
	comp=Z,14nm,1.3s						
BRG				e		23 10 12.6	
	comp=Z,17nm,1.2s						
CLL	Collm	90.42	323	eP	pP	23 10 09.5	-4.3
	comp=Z,11nm,1.1s						
CLL	Collm	90.42	323	e(P)	P	23 10 03.0	+5.3
CLL				esP	sP	23 10 11.0	-9.0
CLL				i		23 10 13.8	
CLL				i		23 10 24.7	
CLL	Collm	90.42	323	i	pP	23 10 13.8	0.0
CLL				i		23 10 24.7	
MAW	Mawson	90.67	199	LR	LR	23 45 48.1	
	comp=Z,195nm,18.8s,MS4.6,baz=201,slow=32						
KHC	Kasperske Hory	90.88	321	epP	pP	23 10 13.2	-2.8
KHC				AMS	AMS	23 53 00.0	
	comp=Z,400nm,7.8s						
GEC2	GERESS Array S	90.91	321	eP	pP	23 10 12.9	-3.2
	comp=Z,22nm,1.5s						
GERES	GERESS Array B	90.91	321	P	P	23 09 59.0	-1.0
	comp=Z,0.5nm,0.7s,mb4.0,baz=57,slow=4.9,SNR=5.3						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
GERES				LR	LR	23 51 30.8	
	comp=Z,141nm,19.9s,MS4.4,baz=255,slow=36						
MOA	**Molln**	**90.91**	**320**	⇑*i*pP	**P**	**23 10 06.0**	**+6.0**
	comp=Z,16nm,1.2s,mb5.2						
NKC	**Novy Kostel**	**91.15**	**322**	*e*pP	pP	23 10 15.0	-2.2
NKC				AMS	AMS	23 53 20.0	
	comp=Z,600nm,7.7s						
MOX	**Moxa**	**91.48**	**323**	*e*P	pP	23 10 15.8	-3.0
	comp=Z,16nm,1.5s						
MOX	**Moxa**	**91.48**	**323**	*e*P	pP	23 10 16.0	-2.8
	comp=Z,30nm,1.9s						
GRA1	**Grafenberg Arr**	**92.09**	**322**	*e*P	pP	23 10 17.2	-4.4
GRA1				LR	LR		
	comp=Z,400nm,18.0s,MS4.9						
GRF	**Grafenberg Arr**	**92.09**	**322**	*e*P	pP	23 10 17.2	-4.4
	comp=Z,143nm,2.4s						
GRF				*e*L		23 53 59.5	
	comp=Z,371nm,18.0s						
TIP	**Timpagrande**	**92.16**	**311**	*e*P	**P**	**23 10 05.8**	**-0.2**
CUC	**Castrocucco**	**92.58**	**312**	*e*P	**P**	**23 10 09.6**	**+1.7**
	comp=Z,21nm,1.5s,mb5.3						
WTTA	**Wattenberg**	**92.78**	**320**	⇑*i*PcP	PcP	23 10 08.6	-0.7
	comp=Z,28nm,1.3s						
MOTA	**Moosalm**	**93.09**	**320**	⇑*i*PcP	PcP	23 10 10.6	-0.1
	comp=Z,13nm,1.0s						
YKA	**Yellowknife Ar**	**93.19**	**22**	P	**P**	**23 10 08.9**	**-1.4**
	comp=Z,1.2nm,0.6s,mb4.5,baz=307,slow=4.3,SNR=26						
YKA				LR	LR	23 52 09.7	
	comp=Z,135nm,19.0s,MS4.4,baz=210,slow=36						
FETA	**Feichten**	**93.45**	**320**	⇑*i*PcP	PcP	23 10 11.7	-0.6
	comp=Z,20nm,1.1s						
VNDA	**Vanda**	**93.64**	**172**	LR	LR	23 50 35.3	
	comp=Z,204nm,18.4s,MS4.6,baz=331,slow=34						
PPT	**Papeete**	**93.74**	**107**	LR	LR	23 44 08.3	
	comp=Z,183nm,20.9s,MS4.5,baz=280,slow=30						
DAVOX	**Davos/Dischmat**	**94.08**	**320**	LR	LR	23 59 33.4	
	comp=Z,177nm,19.0s,MS4.5,baz=61,slow=40						
VAE	**Valguarnera**	**94.47**	**310**	LR	LR	00 00 12.3	
	comp=Z,175nm,18.3s,MS4.6,baz=89,slow=40						
CDF	**Champ du Feu**	**94.98**	**322**	*e*P	**P**	**23 10 17.3**	**-1.5**
	comp=Z,17nm,1.1s,mb5.1						
CDF	**Champ du Feu**	**94.98**	**322**	*e*P	**P**	**23 10 17.3**	**-1.5**
CDF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
CDF	**Champ du Feu**	**94.98**	**322**	*e*P	**P**	**23 10 17.3**	**-1.5**
	comp=Z,8.6nm,1.1s,mb5.1						
PGF	**Pioggiola**	**96.39**	**316**	*e*P	**P**	**23 10 24.8**	**-0.5**
	comp=Z,91nm,1.2s,mb5.8						
PGF	**Pioggiola**	**96.39**	**316**	*e*P	**P**	**23 10 24.8**	**-0.5**
PGF				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.8						
PGF	**Pioggiola**	**96.39**	**316**	*e*P	**P**	**23 10 24.8**	**-0.5**
	comp=Z,46nm,1.2s,mb5.8						
LPG	**La Plagne**	**96.59**	**320**	*e*P	**P**	**23 10 25.2**	**-1.0**
	comp=Z,20nm,1.1s,mb5.1						
LPG	**La Plagne**	**96.59**	**320**	*e*P	**P**	**23 10 25.2**	**-1.0**
LPG				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.2						
LPG	**La Plagne**	**96.59**	**320**	*e*P	**P**	**23 10 25.2**	**-1.0**
	comp=Z,9.8nm,1.1s,mb5.2						
LPL	**La Plagne**	**96.60**	**320**	*e*P	**P**	**23 10 25.0**	**-1.2**
	comp=Z,12nm,0.9s,mb5.0						
LPL	**La Plagne**	**96.60**	**320**	*e*P	**P**	**23 10 25.0**	**-1.2**
LPL				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb5.0						
LPL	**La Plagne**	**96.60**	**320**	*e*P	**P**	**23 10 25.0**	**-1.2**
	comp=Z,5.8nm,0.9s,mb5.0						
FRF	**La Foret Royal**	**97.52**	**318**	*e*P	**P**	**23 10 29.9**	**-0.5**
SMF	**Signal de Mont**	**97.86**	**322**	*e*P	**P**	**23 10 30.0**	**-1.9**
NVAR	**Mina Array Bea**	**104.68**	**44**	Pdiff	Pdif	23 11 04.4	+2.4
	comp=Z,0.3nm,0.7s,baz=300,slow=4.0,SNR=2.8						
ESDC	**Sonseca Array**	**106.34**	**319**	PP	PP	23 15 35.0	+0.8
	comp=Z,0.3nm,0.5s,baz=38,slow=7.3,SNR=3.0						
TORD	**Torodi Ar. Bea**	**114.03**	**291**	PKP	PKiKP	23 15 34.7	-1.4
	comp=Z,0.5nm,0.6s,baz=83,slow=2.0,SNR=5.8						
TORD				PP	PP	23 16 35.3	+4.6
	comp=Z,0.7nm,0.8s,baz=65,slow=7.6,SNR=5.3						
TORD	**Torodi Ar. Bea**	**114.03**	**291**	PKP	PKiKP	23 15 34.7	-1.4
TORD				PP	PP	23 16 35.3	+4.6
TXAR	**Lajitas Array**	**119.82**	**45**	PKP	PKPdf	23 15 46.2	-0.7
	comp=Z,0.8nm,0.6s,baz=277,slow=0.5,SNR=14						
TXAR	**Lajitas Array**	**119.82**	**45**	PKP	PKPdf	23 15 46.2	-0.7
DBIC	**Dimbokro**	**122.34**	**287**	PKP	PKPdf	23 15 50.9	-1.3
	comp=Z,1.5nm,0.6s,baz=75,slow=3.6,SNR=5.6						
PLCA	**Paso Flores**	**150.95**	**162**	PKPbc	PKPbc	23 16 48.1	-0.9
	comp=Z,1.9nm,0.9s,baz=208,slow=2.2,SNR=4.0						

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*MOS **27** 23:01:00.1±1.3, 53°.20N×107°.70E, h15^{km}, mb4.4/1, Error ellipse: s-maj=20.1km s-min=7.8km az=57.0*

BYKL 27 23:01:00.3±0.2**, 53°.20N×107°.67E, h14^{km}**±4^{km}**, 11C-15D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OGRR	**Ongureny**	**0.45**	**354**	⇓*i*PG	Pg	23 01 09.9	+0.7
OGRR				*e*		23 01 16.3	
OGRR				pmax	pmax		
	comp=Z,198nm,0.3s						
OGRR				smax			
	comp=E,2µm,0.6s						
OGRR	**Ongureny**	**0.45**	**354**	⇓*i*Pg	Pg	23 01 09.9	+0.7
OGRR				*e*Sg	Sg	23 01 16.1	+0.9
OGRR				Pmax			
	comp=E,83nm,0.1s						
OGRR				Smax			
	comp=E,2µm,0.5s						
KELR	**Kotokel**	**0.51**	**150**	⇑*i*Pg	Pg	23 01 09.9	-0.3
KELR				*e*Sg	Sg	23 01 16.5	-0.5
KELR				Pmax			
	comp=E,1µm,0.1s						
KELR				Smax			
	comp=E,7µm,0.3s						
MXMB	**Maximikha**	**0.65**	**84**	⇑*i*Pg	Pg	23 01 12.0	-1.0
MXMB				*i* Sg	Sg	23 01 21.2	-0.3
MXMB				*e*		23 01 24.7	
MXMB				Pmax			
	comp=E,717nm,0.4s						
MXMB				max			
	comp=E,3µm,0.9s						
ZRHB	**Zarechye**	**0.72**	**206**	⇑*i*Pg	Pg	23 01 14.3	0.0
ZRHB				*e*Sg	Sg	23 01 24.0	+0.3
ZRHB				Pmax			
	comp=E,356nm,0.2s						
ZRHB				Smax			
	comp=E,5µm,0.7s						
TRG	**Tyrgan**	**0.91**	**242**	⇑*i*PG	Pg	23 01 17.0	-0.9
TRG				*e*		23 01 29.8	
TRG				pmax	pmax		
	comp=Z,584nm,0.2s						
TRG				smax			
	comp=N,2µm,0.2s						
TRG	**Tyrgan**	**0.91**	**242**	⇓*i*Pg	Pg	23 01 17.0	-0.9
	comp=N,116nm,0.4s						
TRG				⇓*i*Pg	Pg	23 01 17.0	-0.9
	comp=N,61nm,0.4s						
TRG				⇑*i*Pg	Pg	23 01 17.0	-0.9
	comp=N,122nm,0.4s						
TRG				*e*Sg	Sg	23 01 29.7	-0.2
TRG				Pmax			
	comp=N,588nm,0.2s						
TRG				Smax			
	comp=N,2µm,0.2s						
TRG	**Tyrgan**	**0.91**	**242**	⇓*i*Pg	Pg	23 01 17.0	-0.9
	comp=N,116nm,0.4s						
TRG				⇓*i*Pg	Pg	23 01 17.0	-0.9
	comp=N,61nm,0.4s						
TRG				⇑*i*Pg	Pg	23 01 17.0	-0.9
	comp=N,122nm,0.4s						
TRG				*e*Sg	Sg	23 01 29.7	-0.2
TRG				Pmax			
	comp=N,588nm,0.2s						
TRG				Smax			
	comp=N,2µm,0.2s						
TRTB	**Turuntaevo**	**0.97**	**181**	⇓*i*Pg	Pg	23 01 17.8	-1.2
TRTB				*e*Pb	Pb	23 01 19.1	+0.2
TRTB				*e*Sg	Sg	23 01 30.5	-1.2
TRTB				*e*Sb	Sb	23 01 31.7	+0.2
TRTB				max			
	comp=N,319nm,0.3s						
TRTB				max			
	comp=N,1µm,0.4s						
FFNB	**Fofonovo**	**1.28**	**206**	⇑*i*Pg	Pg	23 01 23.3	-1.6
FFNB				*e*Sg	Sg	23 01 40.5	-1.0
FFNB				Pmax			
	comp=N,2µm,0.2s						
FFNB				Smax			
	comp=N,3µm,0.4s						
KAB	**Kabansk**	**1.31**	**209**	⇓*i*PG	Pg	23 01 24.5	-0.9
KAB				*i*		23 01 42.3	
KAB				pmax	pmax		
	comp=Z,1µm,0.4s						
KAB				smax			
	comp=N,3µm,0.4s						
KAB	**Kabansk**	**1.31**	**209**	⇓*i*Pg	Pg	23 01 24.4	-1.0
KAB				*e*Sg	Sg	23 01 42.4	0.0
KAB				Pmax			
	comp=N,1µm,0.3s						
KAB				Smax			
	comp=N,3µm,0.5s						
UUDB	**Ulan-Yde**	**1.33**	**180**	*e*Pg	Pg	23 01 24.1	-1.9
UUDB				*e*Sg	Sg	23 01 41.6	-1.7
UUDB				Pmax			
	comp=N,303nm,0.5s						
UUDB				Smax			
	comp=N,1µm,0.4s						
SYVR	**Suvo**	**1.47**	**71**	*e*PN	Pn	23 01 25.8	-0.5
SYVR				*e*		23 01 45.6	
SYVR				pmax	pmax		
	comp=Z,151nm,0.5s						
SYVR				smax			
	comp=E,376nm,0.5s						
SYVR	**Suvo**	**1.47**	**71**	*e*Pg	Pg	23 01 25.9	-2.6
SYVR				⇓*i*		23 01 26.6	
SYVR				*e*Sg	Sg	23 01 46.1	-1.4
SYVR				max			
	comp=E,135nm,0.7s						
SYVR				Smax			
	comp=E,371nm,0.5s						
LSTR	**Listvyanka**	**2.19**	**234**	⇑*i*PN	Pn	23 01 36.6	+0.4
LSTR				*e*		23 01 39.2	
LSTR				*e*S	Sn	23 02 03.4	+0.4
LSTR				*e*		23 02 07.7	
LSTR				pmax	pmax		
	comp=Z,64nm,0.2s						
LSTR				smax			
	comp=N,387nm,0.4s						
LSTR	**Listvyanka**	**2.19**	**234**	⇓*i*Pn	Pn	23 01 36.5	+0.3
	comp=N,39nm,0.6s						
LSTR				⇓*i*Pn	Pn	23 01 36.5	+0.3
	comp=N,81nm,0.6s						
LSTR				⇑*i*Pn	Pn	23 01 36.5	+0.3
	comp=N,68nm,0.6s						
LSTR				*e*Pg	Pg	23 01 39.1	-3.1
LSTR				*e*Sn	Sn	23 02 03.2	+0.2
LSTR				*e*Sg	Sg	23 02 07.3	-3.3
LSTR				Pmax			
	comp=N,62nm,0.3s						
LSTR				Smax			
	comp=N,389nm,0.5s						
LSTR	**Listvyanka**	**2.19**	**234**	⇓*i*Pn	Pn	23 01 36.5	+0.3
	comp=N,39nm,0.6s						
LSTR				⇓*i*Pn	Pn	23 01 36.5	+0.3
	comp=N,81nm,0.6s						
LSTR				⇑*i*Pn	Pn	23 01 36.5	+0.3
	comp=N,68nm,0.6s						
LSTR				*e*Pg	Pg	23 01 39.1	-3.1
LSTR				*e*Sn	Sn	23 02 03.2	+0.2
LSTR				*e*Sg	Sg	23 02 07.3	-3.3
LSTR				Pmax			
	comp=N,62nm,0.3s						
LSTR				Smax			
	comp=N,389nm,0.5s						
IRK	**Irkutsk**	**2.28**	**246**	*e*PN	Pn	23 01 36.0	-1.4
IRK				*e*		23 01 40.3	
IRK				*e*		23 02 10.6	
IRK				pmax	pmax		
	comp=Z,277nm,0.1s						
IRK				smax			
	comp=N,1µm,0.3s						
IRK	**Irkutsk**	**2.28**	**246**	*e*Sg	Sg	23 02 11.1	-2.4
IRK				Smax			
	comp=N,1µm,0.5s						
YLYR	**Ulyunkhan**	**2.66**	**49**	*e*PN	Pn	23 01 43.0	+0.4
YLYR				*e*		23 01 47.6	
YLYR				*e*S	Sn	23 02 15.0	+0.4
YLYR				*e*		23 02 21.7	
YLYR				pmax	pmax		
	comp=Z,28nm,0.4s						
YLYR				smax			
	comp=N,255nm,0.7s						
YLYR	**Ulyunkhan**	**2.66**	**49**	*e*Pn	Pn	23 01 42.9	+0.3
YLYR				*e*Pg	Pg	23 01 47.2	-4.0
YLYR				*e*Sg	Sg	23 02 22.0	-3.6
YLYR				Pmax			
	comp=N,37nm,0.7s						
YLYR				Smax			
	comp=N,252nm,0.7s						
NIZ	**Nizh Angarsk**	**2.80**	**22**	⇑*i*PN	Pn	23 01 45.7	+1.1
NIZ				*e*		23 01 50.2	
NIZ				*e*S	Sn	23 02 18.0	-0.2
NIZ				*e*		23 02 26.0	
NIZ				pmax	pmax		
	comp=Z,32nm,0.4s						
NIZ				smax			
	comp=N,227nm,0.6s						
NIZ	**Nizh Angarsk**	**2.80**	**22**	*e*Pn	Pn	23 01 45.7	+1.1
NIZ				*e*Pg	Pg	23 01 51.2	-2.8
NIZ				*e*Sn	Sn	23 02 19.1	+0.9
NIZ				*e*Sg	Sg	23 02 26.3	-3.9
NIZ				Pmax			
	comp=N,31nm,0.4s						
NIZ				Smax			
	comp=N,228nm,0.6s						
TLY	**Talaya**	**2.90**	**240**	*e*PN	Pn	23 01 46.3	+0.4
TLY				*e*		23 01 51.6	
TLY				*e*		23 02 28.8	
TLY				pmax	pmax		
	comp=Z,59nm,0.3s						
TLY				smax			
	comp=E,216nm,0.4s						
TLY	**Talaya**	**2.90**	**240**	*e*Pn	Pn	23 01 46.1	+0.2
TLY				*e*Pg	Pg	23 01 51.6	-4.2
TLY				*e*Sg	Sg	23 02 28.8	-4.5
TLY				Pmax			
	comp=E,59nm,0.4s						
TLY				Smax			
	comp=E,204nm,0.5s						
KMO	**Kumora**	**3.39**	**36**	*e*PN	Pn	23 01 54.7	+2.0
KMO				*e*		23 02 01.5	
KMO				*e*		23 02 42.9	
KMO				pmax	pmax		
	comp=Z,29nm,0.4s						
KMO				smax			
	comp=N,254nm,1.1s						
KMO	**Kumora**	**3.39**	**36**	*e*Pn	Pn	23 01 53.4	+0.7
KMO				*e*Pg	Pg	23 02 01.6	-3.5
KMO				*e*Sg	Sg	23 02 44.4	-4.6
KMO				Pmax			
	comp=N,46nm,0.5s						
KMO				Smax			
	comp=N,254nm,1.1s						
ARS	**Arshan**	**3.45**	**250**	*e*PN	Pn	23 01 55.3	+1.8
ARS				*e*		23 02 02.5	
ARS				*e*		23 02 47.7	
ARS				pmax	pmax		
	comp=Z,54nm,0.1s						
ARS				smax			
	comp=E,745nm,0.5s						
ARS	**Arshan**	**3.45**	**250**	*e*Pn	Pn	23 01 54.7	+1.2
ARS				*e*Pg	Pg	23 02 01.7	-4.6
ARS				*e*Sg	Sg	23 02 44.3	-6.7
ARS				Pmax			
	comp=E,69nm,0.6s						
ARS				Smax			
	comp=E,742nm,0.5s						
YOA	**Uoyan**	**3.77**	**37**	*e*PN	Pn	23 02 09.0	+11
YOA				*e*		23 02 56.9	
YOA				pmax	pmax		
	comp=Z,84nm,0.6s						
YOA				smax			
	comp=N,467nm,1.5s						
YOA	**Uoyan**	**3.77**	**37**	*e*Pg	Pg	23 02 09.6	-2.8
YOA				*e*Sg	Sg	23 02 58.0	-3.1
YOA				Pmax			
	comp=N,71nm,0.8s						
YOA				Smax			
	comp=N,464nm,1.7s						
ZAK	**Zakamensk**	**3.92**	**226**	*e*Pn	Pn	23 02 00.8	+0.8
ZAK				*e*Pg	Pg	23 02 10.3	-5.1
ZAK				*e*Sg	Sg	23 03 01.7	-4.5
ZAK				Pmax			
	comp=N,36nm,0.7s						
ZAK				Smax			
	comp=N,76nm,0.5s						
UKT	**Uakit**	**4.17**	**54**	*e*PN	Pn	23 02 14.2	+11
UKT				*e*		23 03 07.5	
UKT				pmax	pmax		
	comp=Z,14nm,0.6s						
UKT				smax			
	comp=N,77nm,0.7s						
UKT	**Uakit**	**4.17**	**54**	*e*Pn	Pn	23 02 04.0	+0.6
UKT				*e*Pg	Pg	23 02 15.4	-4.7
UKT				*e*Sg	Sg	23 03 07.8	-6.3
UKT				Pmax			
	comp=N,12nm,0.6s						
UKT				Smax			
	comp=N,92nm,1.7s						
MOY	**Mondy**	**4.37**	**252**	*e*PN	Pn	23 02 08.0	+1.9
MOY				*e*		23 02 17.0	
MOY				*e*		23 03 14.9	
MOY				smax			
	comp=N,136nm,0.7s						
MOY	**Mondy**	**4.37**	**252**	⇓*i*Pn	Pn	23 02 08.9	+2.8
MOY				*e*Pg	Pg	23 02 16.8	-7.0
MOY				*e*Sn	Sn	23 02 58.7	+2.0
MOY				*e*Sg	Sg	23 03 13.7	-6.6
MOY				Pmax			
	comp=N,50nm,0.6s						
MOY				Smax			
	comp=N,136nm,0.8s						
SVKR	**Severomuysk**	**4.50**	**47**	*e*Sg	Sg	23 03 19.0	-5.6
SVKR				Smax			
	comp=N,341nm,1.0s						
ORL	**Orlik**	**4.81**	**265**	*e*PN	Pn	23 02 14.6	+2.4
ORL				*e*		23 02 27.5	
ORL				*e*		23 03 28.3	
ORL				pmax	pmax		
	comp=Z,12nm,0.4s						
ORL				smax			
	comp=N,99nm,1.1s						
ORL	**Orlik**	**4.81**	**265**	*e*Pn	Pn	23 02 14.5	+2.3
ORL				*e*Sn	Sn	23 03 09.1	+1.5
ORL				*e*Sg	Sg	23 03 28.8	-5.7
ORL				max			
	comp=N,20nm,0.6s						
ORL				Smax			
	comp=N,99nm,0.8s						
BOD	**Bodaibo**	**5.86**	**35**	*e*PN	Pn	23 02 26.1	-0.5
BOD				*e*		23 02 44.7	
BOD				*e*		23 04 00.5	
BOD				pmax	pmax		
	comp=Z,4.0nm,0.3s						
BOD				smax			
	comp=E,50nm,0.8s						
BOD	**Bodaibo**	**5.86**	**35**	*e*Sg	Sg	23 04 00.9	-7.3
BOD				Smax			
	comp=E,50nm,1.6s						
TDJR	**Todzha**	**7.06**	**268**	*e*Sg	Sn	23 04 40.2	+37
TUP	**Tupik**	**7.38**	**76**	*e*PN	Pn	23 02 46.7	-0.7
TUP				*e*		23 03 11.3	
TUP				*e*		23 04 47.5	
TUP				pmax	pmax		
	comp=Z,3.0nm,0.5s						
TUP				smax			
	comp=N,76nm,1.4s						
TUP	**Tupik**	**7.38**	**76**	*e*Pn	Pn	23 02 46.9	-0.5
TUP				*e*Pg	Pn	23 03 13.3	+26
TUP				*e*Sg	Sn	23 04 47.9	+37
TUP				Smax			
	comp=N,81nm,1.4s						

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*JMA **27** 23:10:28.7±0.2, 24°.91N×122°.12E, h0^{km}, M3.1*

*ISCJB **27** 23:10:34.6±0.4, 24°.88N±0°.02×122°.32E±0°.02, h10^{km}, Error ellipse: s-maj=3.6km s-min=2.7km az=13.4*

*TAP **27** 23:10:34.6, 24°.84N×122°.23E, h14^{km}, ML3.4, C*

ISC 27 23:10:35.0±0.4**, 24°.86N**±0°.02×**122°.31E**±0°.02**, h10^{km}, n37, σ1^{s}.36**/66**, 1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	**Santiao Chiao**	**0.32**	**297**	*i* P	**Pg**	**23 10 41.0**	**-0.5**
	baz=306						
TWB1				S	**Sg**	**23 10 45.1**	**-0.8**
	baz=306						
TWC	**Suao**	**0.48**	**239**	*e*S	**Sg**	**23 10 49.2**	**-1.7**
	baz=237						
NWF	**Wu-fen Shan**	**0.52**	**294**	*e*P	**Pg**	**23 10 45.6**	**+0.5**
	baz=289						
NWF				*e*S	**Sg**	**23 10 51.6**	**-0.4**
	baz=289						
TWE	**Neicheng**	**0.60**	**257**	⇓*i*P	**Pg**	**23 10 45.4**	**-1.3**
	baz=256						
TWE				*e*S	**Sg**	**23 10 53.2**	**-1.2**
	baz=256						
ENA	**Nanau**	**0.67**	**230**	P	**Pg**	**23 10 46.4**	**-1.6**
	baz=220						
ENA				*e*S	**Sg**	**23 10 54.5**	**-2.3**
	baz=220						
ENTT	**Nioudou**	**0.71**	**252**	P	**Pg**	**23 10 47.5**	**-1.2**
	baz=258						
ENTT				*e*S	**Sg**	**23 10 57.1**	**-0.8**
	baz=258						
TAP1	**Taipei**	**0.73**	**284**	*e*P	**Pg**	**23 10 49.4**	**+0.2**
	baz=286						
TAP1				*e*S	**Sg**	**23 10 58.9**	**+0.2**
	baz=286						
YOJ	**Yonaguni jima**	**0.76**	**122**	*e*S	**Sg**	**23 10 59.3**	**-0.2**
TWY	**Chenhua**	**0.76**	**303**	P	**Pg**	**23 10 49.5**	**-0.3**
	baz=306						
TWY				*e*S	**Sg**	**23 11 00.5**	**+0.8**
	baz=306						
PCYT	**Pengchaiyu**	**0.79**	**345**	P	**Pg**	**23 10 49.9**	**-0.4**
	baz=356						
PCYT				*e*S	**Sg**	**23 11 02.9**	**+2.1**
	baz=356						
TWS1	**Kuangyinshan**	**0.84**	**287**	P	**Pg**	**23 10 51.0**	**-0.3**
	baz=288						
TWS1				*e*S	**Sg**	**23 11 02.7**	**+0.5**
	baz=288						
NSK	**Sanguang**	**0.88**	**258**	*i* P	**Pg**	**23 10 50.8**	**-1.2**
	baz=258						
NSK				*e*S	**Sg**	**23 11 01.6**	**-1.9**
	baz=258						
NNS	**Nan Shan**	**0.95**	**244**	P	**Pg**	**23 10 52.0**	**-1.3**
	baz=235						
NNS				*e*S	**Sg**	**23 11 04.3**	**-1.2**
	baz=235						
TWD	**Chiawan**	**1.01**	**220**	P	**Pg**	**23 10 52.8**	**-1.7**
	baz=227						
TWD				*e*S	**Sg**	**23 11 05.3**	**-2.3**
	baz=227						
WHF	**Hehuan Shan**	**1.19**	**233**	P	**Pb**	**23 10 56.3**	**-1.3**
	baz=233						
WHF				*e*S	**Sb**	**23 11 11.8**	**-1.2**
	baz=233						
TWT	**Tachien**	**1.19**	**240**	*e*P	**Pb**	**23 10 57.0**	**-0.8**
	baz=239						
TWT				*e*S	**Sb**	**23 11 12.9**	**-0.3**
	baz=239						
NSTT	**Nanjuang**	**1.21**	**259**	*e*P	**Pn**	**23 10 57.6**	**-0.3**
	baz=259						
NSTT				*e*S	**Sb**	**23 11 13.2**	**-0.4**
	baz=259						
ESL	**Shilin**	**1.31**	**218**	*e*P	**Pn**	**23 10 58.2**	**-1.1**
	baz=227						
IRIF	**Iriomote-Funau**	**1.40**	**112**	P	**Pn**	**23 10 57.8**	**-2.8**
IRIF				*e*S	**Sn**	**23 11 18.9**	**-0.2**
NSY	**Sanyi**	**1.47**	**253**	*e*P	**Pn**	**23 11 03.7**	**+2.0**
	baz=269						
TWQ1	**Liyutan**	**1.48**	**250**	*e*P	**Pn**	**23 11 03.4**	**+1.6**
	baz=267						
TWQ1				*e*S	**Sn**	**23 11 23.2**	**+1.9**
	baz=267						
SMLT	**Sun Moon Lake**	**1.61**	**233**	*e*P	**Pn**	**23 11 04.2**	**+0.7**
	baz=233						
SMLT				*e*S	**Sn**	**23 11 25.5**	**+1.1**
	baz=233						
EHY	**Hungye**	**1.62**	**214**	*e*P	**Pn**	**23 11 03.5**	**-0.1**
	baz=214						
EHY				*e*S	**Sn**	**23 11 25.9**	**+1.4**
	baz=214						
TYC	**Yuchr**	**1.63**	**234**	P	**Pn**	**23 11 04.2**	**+0.5**
	baz=228						
TYC				*e*S	**Sn**	**23 11 25.6**	**+0.8**
	baz=228						

JKRS	**Kuro-shima**	1.67	111	P	Pn	23 11 02.1	-2.3
JIJ	**Ishigaki jima**	1.74	106	P	Pn	23 11 03.2	-2.2
JIJ				eS	Sn	23 11 28.0	+0.3
TWF1	**Yuli**	1.76	212	eP	Pn	23 11 03.9	-1.7
	baz=212						
CHN5	**Tsauling**	1.95	230	P	Pn	23 11 09.6	+1.5
	baz=231						
CHN5				eS	Sn	23 11 37.3	+4.6
	baz=231						
CHKT	**Chengkung**	1.95	206	eP	Pn	23 11 08.0	-0.3
	baz=193						
ELDTW	**Lidau**	2.04	216	eP	Pn	23 11 08.7	-0.8
	baz=204						
CHN4	**Tsaushan**	2.17	227	eP	Pn	23 11 13.4	+2.1
	baz=211						
CHN4				eS	Sn	23 11 41.0	+2.8
	baz=211						
STYT	**Tauyuan**	2.21	220	P	Pn	23 11 12.1	+0.4
	baz=222						
STYT				eS	Sn	23 11 40.7	+1.7
	baz=222						
WTP	**Ta-pu**	2.23	224	eP	Pn	23 11 13.1	+1.1
	baz=211						
WTP				eS	Sn	23 11 43.1	+3.5
	baz=211						
TWK	**Hsinying**	2.30	227	eP	Pn	23 11 15.0	+2.0
	baz=212						
TWK				eS	Sn	23 11 44.3	+3.0
	baz=212						
CHN1	**Nanshi**	2.33	225	P	Pn	23 11 15.1	+1.7
	baz=225						
CHN1				eS	Sn	23 11 44.5	+2.5
	baz=225						
SGST	**Jiashian**	2.37	222	eP	Pn	23 11 14.8	+0.8
	baz=223						
SGST				eS	Sn	23 11 46.1	+3.0
	baz=223						
SSD	**Sandimen**	2.60	216	eP	Pn	23 11 18.7	+1.5
	baz=203						
SSD				eS	Sn	23 11 50.7	+1.9
	baz=203						

JMA 27 23:33:13.5±0.2**, 44°.08N×139°.12E, h23^{km}, M3.5, Eastern Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSK	**Shakotan**	1.22	126	P	Pn	23 33 35.1	0.0
JSH	**Shimam**	1.59	155	P	Pn	23 33 40.2	0.0
JSH				eS	Sn	23 33 59.8	-0.1
JHR	**Hokuryu**	1.91	99	P	Pn	23 33 45.4	+0.8
JSS	**Shosan**	1.99	80	P	Pn	23 33 46.4	+0.7
JSS				eS	Sn	23 34 10.1	+0.2
JYM2	**Yakumo 2**	2.17	155	eS	Sn	23 34 15.4	+1.2
JWK2	**Keihoku**	2.33	57	P	Pn	23 33 51.6	+1.2
JWK2				eS	Sn	23 34 20.2	+1.8
JKK2	**Kamakawa 2**	2.63	93	P	Pn	23 33 55.6	+1.1
JTKR	**Abashiri--Toko**	3.46	90	P	Pn	23 34 06.3	+0.5

FUNV 27 23:40:52.8, 8°.49N×71°.34W, h5^{km}, MW3.5, 1D, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	**Capacho**	1.14	237	⇓iP	Pg	23 41 13.8	-0.9
CAPV				eS	Sg	23 41 30.4	+0.8
QARV	**Quebrada Arrib**	1.89	25	eP	Pn	23 41 25.4	-0.4
QARV				eS	Sn	23 41 49.9	-0.2
CURV	**Curarigua**	2.04	42	eS	Sn	23 41 53.0	-0.7
SANV	**Sanarito**	2.05	60	eS	Sn	23 41 52.9	-1.0
VIRV	**Villa del Rosa**	2.26	332	eP	Pn	23 41 29.7	-1.2
VIRV				eS	Sn	23 41 57.5	-1.7
DABV	**Dabajuro**	2.52	16	eP	Pn	23 41 33.6	-0.8
DABV				eS	Sn	23 42 04.2	-1.3
TEPV	**Terepaima**	2.58	55	eP	Pn	23 41 34.8	-0.5
TEPV				eS	Sn	23 42 05.0	-2.1
SIQV	**Siquisique**	2.63	35	eS	Sn	23 42 06.9	-1.4
BAUV	**El Baul**	3.29	82	eP	Pn	23 41 43.5	-1.6
BAUV				eS	Sn	23 42 21.6	-3.0
MONV	**Montecano**	3.70	21	eP	Pn	23 41 49.2	-1.5
MONV				eS	Sn	23 42 31.1	-3.6
TURV	**Turiamo**	3.97	60	eP	Pn	23 41 53.1	-1.2
TURV				eS	Sn	23 42 37.7	-3.6
PAYV	**Puerto Ayacuch**	4.76	130	eP	Pn	23 42 03.5	-1.8
PAYV				eS	Sn	23 42 56.4	-4.4
CAOV	**Caicara del Or**	5.10	103	eP	Pn	23 42 08.2	-1.8

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*DDA **27** 23:45:58.1, 37°.15N×35°.62E, h26^{km}±1^{km}, Md3.3*
*ISK **27** 23:45:58.7, 37°.14N×35°.53E, h20^{km}, MD3.5*
*ISCJB **27** 23:45:59.4±0.4, 37°.10N±0°.03×35°.56E±0°.03, h26^{km}±4^{km}, Error ellipse: s-maj=4.6km s-min=4.0km az=36.5*
*CSEM **27** 23:45:59.4±0.1, 37°.10N×35°.55E, h20^{km}, MD3.5, Error ellipse: s-maj=4.3km s-min=3.4km az=175.0*
*NSSC **27** 23:46:01, 37°.00N×35°.70E, h11^{km}±2^{km}*
ISC 27 23:45:59.7±0.4**, 37°.09N**±0°.03×**35°.56E**±0°.03**, h22**^{km}±4^{km}**, n50, σ0^{s}.85**/74**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEYT	**Ceyhan**	0.17	118	PG	Pb	23 46 04.1	-0.7
CEYT				eSG	Sb	23 46 08.7	+0.5
CEYT	**Ceyhan**	0.17	118	i Pg	Pb	23 46 04.1	-0.6
CEYT				eSg	Sb	23 46 08.7	+0.6
KARA	**Karaisali**	0.43	293	ePG	Pb	23 46 07.3	-1.5
KARA				eSG	Sb	23 46 13.8	-1.1
KARA	**Karaisali**	0.43	293	ePg	Pb	23 46 07.3	-1.4
KARA				eSg	Sb	23 46 13.8	-1.1
KOZT	**Kozan**	0.44	29	ePG	Pb	23 46 08.6	-0.3
KRTS	**Karatas**	0.54	196	ePG	Pb	23 46 11.3	+0.8
KRTS	**Karatas**	0.54	196	ePg	Pb	23 46 11.3	+0.8
COBT	**Iskenderun**	0.80	135	i P	Pb	23 46 13.9	-1.1
COBT				i S	Sb	23 46 25.7	+0.4
COBT	**Iskenderun**	0.80	135	i P	Pb	23 46 13.9	-1.0
COBT				i S	Sb	23 46 25.7	+0.4
MERS	**Mersin**	0.86	255	ePG	Pb	23 46 15.5	-0.4
MERS				eSG	Sb	23 46 27.7	+0.7
MERS	**Mersin**	0.86	255	ePg	Pb	23 46 15.5	-0.4
MERS				eSg	Sb	23 46 27.7	+0.7
HTY	**Hatay**	1.08	154	ePN	Pn	23 46 20.3	+0.9
HTY				eSN	Sb	23 46 35.8	+2.5
HTY	**Hatay**	1.08	154	ePn	Pn	23 46 20.3	+0.9
HTY				eSn	Sb	23 46 35.8	+2.6
KMRS	**Kahramanmaras**	1.15	69	ePN	Pn	23 46 19.6	-0.8
KMRS	**Kahramanmaras**	1.15	69	ePn	Pn	23 46 19.6	-0.8
KUZU	**Kuzuini**	1.26	104	i P	Pn	23 46 22.1	+0.2
KUZU				i S	Sn	23 46 39.2	+1.1
KUZU	**Kuzuini**	1.26	104	i P	Pn	23 46 22.1	+0.2
KUZU				i S	Sn	23 46 39.2	+1.1
BTCH	**Batrach**	1.28	145	⇑P	Pn	23 46 22.0	-0.2
BTCH				⇑S	Sn	23 46 37.0	-1.6
GAZ	**Gaziantep**	1.32	86	ePN	Pn	23 46 22.3	-0.5
GAZ	**Gaziantep**	1.32	86	ePn	Pn	23 46 22.3	-0.6
SLNF	**Slenfeh**	1.59	160	⇑P	Pn	23 46 27.0	+0.5
SLNF				⇑S	Sn	23 46 46.0	-0.3
PINB	**Pinarbasi**	1.72	23	i P	Pn	23 46 28.8	+0.6
PINB				i S	Sn	23 46 54.0	+4.5
PINB	**Pinarbasi**	1.72	23	i P	Pn	23 46 28.8	+0.5
PINB				i S	Sn	23 46 54.0	+4.5
WRDH	**Warideh**	1.73	156	⇑P	Pn	23 46 29.0	+0.6
WRDH				⇑S	Sn	23 46 49.0	-0.7
IKL	**Isikli**	1.73	241	ePN	Pn	23 46 28.0	-0.4
IKL	**Isikli**	1.73	241	ePn	Pn	23 46 28.0	-0.4
BNN	**Bunyan**	1.77	7	ePN	Pn	23 46 29.5	+0.5
BNN	**Bunyan**	1.77	7	ePn	Pn	23 46 29.5	+0.5
SARI	**SarD1z-Kayseri**	1.82	29	ePN	Pn	23 46 24.1	-5.6
SULT	**Sultanhani-AKS**	1.96	305	ePN	Pn	23 46 31.7	+0.1
SULT	**Sultanhani-AKS**	1.96	305	ePn	Pn	23 46 31.7	+0.1
SLMH	**Al Salmeh**	2.10	114	⇑P	Pn	23 46 34.0	+0.5
SLMH				⇑S	Sn	23 46 58.0	-0.9
BIDA	**Albida**	2.16	163	⇑P	Pn	23 46 35.0	+0.6
BIDA				⇑S	Sn	23 46 59.0	-1.5
ATAB	**Bozova**	2.22	79	eP	Pn	23 46 33.4	-1.8
ATAB				eS	Sn	23 47 01.2	-0.6
ATAB	**Bozova**	2.22	79	eP	Pn	23 46 33.3	-1.8
ATAB				eS	Sn	23 47 01.2	-0.6
AKCD	**Akcadag**	2.23	57	i P	Pn	23 46 35.3	0.0
AKCD				eS	Sn	23 47 03.4	+1.3
AKCD	**Akcadag**	2.23	57	i P	Pn	23 46 35.3	0.0
AKCD				eS	Sn	23 47 03.4	+1.3
LFK	**Lefkose**	2.44	223	ePN	Pn	23 46 38.8	+0.6
LFK	**Lefkose**	2.44	223	ePn	Pn	23 46 38.8	+0.6
HDMB	**Hadim**	2.46	268	ePN	Pn	23 46 39.5	+1.0
HDMB	**Hadim**	2.46	268	ePn	Pn	23 46 39.5	+1.0
MALT	**Malatya**	2.58	61	ePN	Pn	23 46 40.1	0.0
MALT	**Malatya**	2.58	61	ePn	Pn	23 46 40.1	-0.1
URFA	**Urfa**	2.63	81	ePN	Pn	23 46 41.6	+0.8
URFA	**Urfa**	2.63	81	ePn	Pn	23 46 41.6	+0.8
CDAG	**Cicekdag**	2.69	340	i P	Pn	23 46 42.1	+0.4
CDAG				i S	Sn	23 47 24.4	+11
CDAG	**Cicekdag**	2.69	340	i P	Pn	23 46 42.1	+0.4
JHLN	**Al Jahlan**	2.73	120	⇓P	Pn	23 46 42.0	-0.1
SVSK	**Karacayir**	3.04	21	ePN	Pn	23 46 46.7	+0.2
SVSK	**Karacayir**	3.04	21	ePn	Pn	23 46 46.7	+0.3

IDC 28 00:00:41.6±3.2**, 34°.71S×179°.11W, h0**^{km}**, mb3.8**/2**, mb1 4.1**/3**, mb1mx3.9**/16**, mbtmp3.8**/3**, ML3.8**/1**, MS3.8**/2**, Ms1 3.7**/2**, ms1mx3.0**/30**, Error ellipse: s-maj=76.9km s-min=36.8km az=122.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	4.67	220	Pn	Pn	00 01 54.1	+0.8
	3.9nm,0.3s,baz=345,slow=17,SNR=46						
URZ				Sn	Sn	00 02 47.9	-0.4
	3.9nm,0.3s,baz=73,slow=15,SNR=8.2						
STKA	**Stephens Creek**	32.83	264	LR	LR	00 20 22.0	
	comp=Z,68nm,18.4s,baz=204,slow=36						
ASAR	**Alice Springs**	42.14	272	P	P	00 08 35.9	0.0
	1.0nm,0.7s,baz=116,slow=7.5,SNR=13						
WRA	**Warramunga Arr**	43.52	277	P	P	00 08 46.9	-0.2
	0.9nm,0.5s,baz=119,slow=7.3,SNR=5.2						
ELK	**Elko**	95.33	43	LR	LR	00 47 19.7	
	comp=Z,84nm,21.8s,baz=102,slow=29						
FINES	**FINESS Array B**	148.80	337	PKPbc	PKPbc	00 20 29.6	-0.7
	2.4nm,0.8s,baz=333,slow=3.1,SNR=4.6						

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*IDC **28** 00:30:07.5±0.6, 7°.11S×106°.69E, h0^{km}, mb4.1/18, mb1 4.3/18, mb1mx4.2/25, mbtmp4.1/18, MS3.3/7, Ms1 3.4/7, ms1mx3.0/46, Error ellipse: s-maj=35.1km s-min=13.3km az=54.0*
*NEIC **28** 00:30:12.8±0.3, 7°.05S×106°.75E, h35^{km}, mb4.2/8, Error ellipse: s-maj=12.2km s-min=6.2km az=51.0*
*DJA **28** 00:30:16, 7°.49S×106°.57E, h89^{km}, MLv4.6/12*
*ISCJB **28** 00:30:19.2±0.5, 6°.97S±0°.08×106°.87E±0°.06, h111^{km}±3^{km}, mb4.2/27, Error ellipse: s-maj=14.7km s-min=6.0km az=31.1*
ISC 28 00:30:19.8±0.5**, 7°.06S**±0°.08×**106°.82E**±0°.06**, h100**^{km}±4^{km}**, n75, σ1^{s}.09**/61**, mb4.2**/27**, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBJI	**Dramaga**	0.51	353	P	Pn	00 30 33.9	+2.5
DBJI				S	Sn	00 30 50.2	+2.7
CBJI	**Citeko**	0.64	3	P	Pn	00 30 37.8	+4.6
LEM	**Lembang**	0.83	74	P	Pn	00 30 36.8	+1.1
TNG	**Tangerang**	0.90	349	P	Pn	00 30 39.3	+2.6
SBJI	**Serang**	1.16	324	P	Pn	00 30 41.5	+1.3
RBSI	**Rajabasa**	1.61	318	P	Pn	00 30 47.1	+0.7
KASI	**Kota Agung**	2.76	303	P	Pn	00 31 01.8	-0.3
XMIS	**Christmas Isla**	3.59	199	ePn	x	00 31 01.1	
XMIS				eSn	x	00 31 35.2	
XMIS	**Christmas Isla**	3.59	199	P	x	00 31 01.3	
SMRI	**Semarang**	3.60	90	P	Pn	00 31 15.5	+2.1
MDSI	**Maura Dua**	3.66	314	P	Pn	00 31 15.5	+1.2
TPI	**Tanjungpandan**	4.36	11	P	Pn	00 31 26.7	+2.9
SJI	**Sawahan**	4.96	98	P	Pn	00 31 32.5	+0.6
PWJI	**Pagerwojo**	5.04	101	P	Pn	00 31 33.3	+0.3
ABJI	**Asem Bagus**	7.39	96	P	Px	00 32 08.3	
PPSI	**Pulau Pagai**	8.01	302	P	Pn	00 32 10.9	-2.6
SRBI	**Singaraja**	8.39	98	P	Pn	00 32 18.7	+0.1
KKM	**Kota Kinabalu**	16.04	36	Pn	Pn	00 33 56.5	-3.2
KMSI	**Cibinong**	18.73	67	P	P	00 34 31.0	+0.1
NLAI	**Namlea**	20.55	80	P	P	00 34 50.0	-0.7
FITZ	**Fitzroy Crossi**	21.38	123	P	P	00 34 58.8	-0.6
	1.8nm,0.7s,mb3.5,baz=250,slow=8.5,SNR=1.7						
FITZ				S	S	00 38 46.8	-4.4
	2.9nm,1.0s,baz=346,slow=17,SNR=1.8						
FITZ	**Fitzroy Crossi**	21.38	123	eP	P	00 34 58.4	-1.0
	3.4nm,0.6s,mb3.9						
FITZ				S	S	00 38 46.8	-4.4
CMAR	**Chiang Mai Arr**	26.52	343	P	P	00 35 48.1	-0.1
	1.0nm,0.5s,mb3.6,baz=180,slow=8.0,SNR=5.5						
CMAR				LR	LR	00 45 16.8	
	comp=Z,46nm,21.9s,baz=140,slow=34						
NWAO	**Narrogin (SRO)**	27.50	161	LR	LR	00 44 44.1	
	comp=Z,102nm,20.7s,baz=233,slow=32						
WRA	**Warramunga Arr**	29.61	118	P	P	00 36 15.6	-0.1
	1.0nm,0.4s,mb3.8,baz=287,slow=9.6,SNR=4.6						
WRA				PcP	PcP	00 39 18.4	0.0
	0.3nm,0.3s,baz=302,slow=1.9,SNR=2.3						
WRA	**Warramunga Arr**	29.61	118	P	P	00 36 15.6	-0.1
WRA				PcP	PcP	00 39 18.4	0.0
WRAB	**Tennant Creek**	29.61	118	eP	P	00 36 15.4	-0.4
	1.5nm,0.6s,mb3.8						
PALK	**Pallekele**	29.68	298	LR	LR	00 47 29.7	
	comp=Z,46nm,18.3s,baz=90,slow=35						
ASAR	**Alice Springs**	30.80	125	P	P	00 36 26.6	+0.3
	0.7nm,0.6s,mb3.6,baz=303,slow=8.9,SNR=9.4						
ASAR				PcP	PcP	00 39 21.8	+0.3
	0.3nm,0.6s,baz=309,slow=3.0,SNR=4.4						
LSA	**Lhasa**	39.53	338	P	P	00 37 40.5	-0.5
STKA	**Stephens Creek**	40.74	132	P	P	00 37 50.5	-0.6
	11nm,0.5s,mb5.0,baz=308,slow=7.9,SNR=35						
KSRS	**Korea Array**	48.48	23	LR	LR	00 58 57.3	
	comp=Z,13nm,19.3s,baz=330,slow=36						
TAU	**Tasmania Unive**	50.41	142	eP	P	00 39 06.7	-0.4
	8.2nm,0.6s,mb4.8						
SONM	**Songino Array**	54.66	360	P	P	00 39 39.6	+1.4
	0.6nm,0.8s,mb3.7,baz=178,slow=6.6,SNR=4.1						
SONM				PcP	PcP	00 40 41.1	+1.2
	1.1nm,0.5s,baz=182,slow=4.1,SNR=11						
SONM				LR	LR	01 05 30.9	
	comp=Z,48nm,18.2s,baz=180,slow=39						
TKM2	**Tokmak 2**	57.27	333	eP	P	00 39 56.4	-0.6
	2.0nm,0.6s,mb4.3						
AML	**Almayashu**	57.54	331	eP	P	00 39 58.9	0.0
	1.4nm,0.6s,mb4.2						
AAK	**Ala-Archa**	57.55	332	PcP	PcP	00 40 53.6	+2.4
	0.8nm,0.5s,baz=182,slow=8.5,SNR=4.9						
AAK	**Ala-Archa**	57.55	332	P	P	00 39 57.6	-1.3
MK31	**Makanchi Array**	57.88	340	eP	P	00 40 00.1	-1.1
MKAR	**Makanchi Array**	57.88	340	P	P	00 40 00.3	-0.8
	0.9nm,0.5s,mb4.0,baz=146,slow=7.5,SNR=20						
EKS2	**Erkin-Say**	57.91	332	eP	P	00 40 00.4	-1.0
	0.9nm,0.6s,mb4.0						
KURK	**Kurchatov**	62.49	340	P	P	00 40 31.7	-0.8
	0.5nm,0.3s,mb4.1,baz=146,slow=6.7,SNR=5.5						
KURK				PcP	PcP	00 41 11.4	+0.5
	0.6nm,0.3s,baz=145,slow=4.2,SNR=5.0						
KURK				LR	LR	01 13 25.4	
	comp=Z,41nm,18.2s,baz=315,slow=42						
KURK	**Kurchatov**	62.49	340	eP	P	00 40 31.7	-0.9
	3.5nm,1.1s,mb4.3						
KURK				PcP	PcP	00 41 11.4	+0.5
KURK				LR	LR	01 13 25.4	
ZALV	**Zalesovo Beam**	63.54	346	P	P	00 40 38.9	-0.6
	0.7nm,0.4s,mb3.9,baz=169,slow=5.7,SNR=4.2						
RDF	**Al-Radifah**	67.30	305	eP	P	00 41 04.8	+0.5
RDF				AMb	AMB	00 41 15.2	
	comp=Z,35nm,1.4s,mb5.0						
BVAR	**Borovoye Array**	67.35	337	P	P	00 41 03.5	-0.5
	comp=Z,0.8nm,0.5s,mb3.8,baz=139,slow=8.1,SNR=7.5						
BVAR	**Borovoye Array**	67.35	337	P	P	00 41 03.5	-0.6
BRVK	**Borovoye**	67.42	337	eP	P	00 41 03.8	-0.7
NAY	**Al-Naaiem**	67.67	305	eP	P	00 41 06.9	+0.4
NAY				AMb	AMB	00 41 12.6	
	comp=Z,14nm,1.8s,mb4.5						
MIB	**Mutribah**	67.80	306	eP	P	00 41 07.7	+0.3
MIB				AMb	AMB	00 41 10.0	
	comp=Z,13nm,1.5s,mb4.5						
AKTK	**Aktyubinsk**	71.08	329	P	P	00 41 28.1	+1.0
AKTO	**Aktyubinsk**	71.08	329	P	P	00 41 28.1	+1.0
	comp=Z,1.0nm,0.3s,mb4.1,baz=129,slow=4.0,SNR=4.5						
GNI	**Garni**	73.87	315	P	P	00 41 44.0	+0.1
ARU	**Arti**	74.59	335	eP	P	00 41 47.3	-0.5
VNDA	**Vanda**	75.94	169	P	P	00 41 55.1	-0.1
	comp=Z,1.2nm,0.7s,mb3.8,baz=326,slow=7.1,SNR=7.0						
KIV	**Kislovodsk**	76.80	318	P	P	00 42 00.3	-0.3
ASF	**Jabal al Asfar**	77.04	305	LR	LR	01 19 27.5	
	comp=Z,25nm,18.5s,baz=152,slow=38						
LBTB	**Lobatse**	79.12	246	eP	P	00 42 14.0	+0.1
BOSA	**Boshof**	79.27	242	P	P	00 42 15.6	+1.0
	comp=Z,2.0nm,0.9s,mb3.9,baz=113,slow=4.1,SNR=1.8						
CSS	**Prodhromos**	80.67	307	eP	P	00 42 22.7	+0.7
	comp=Z,9.1nm,0.8s,mb4.7						
BRTR	**Keskin Array B**	81.73	312	P	P	00 42 28.0	+0.4
	comp=Z,1.6nm,0.6s,mb4.0						
OBN	**Obninsk**	84.67	327	P	P	00 42 42.3	0.0
AKASG	**Malin Array Be**	87.63	322	P	P	00 42 57.4	+0.5
	comp=Z,0.8nm,0.5s,mb4.0,baz=110,slow=10,SNR=2.5						
MLR	**Muntele Rosu**	88.62	316	P	P	00 43 03.5	+1.7
	comp=Z,2.1nm,0.5s,mb4.4,baz=106,slow=18,SNR=4.0						
FINES	**FINESS Array B**	91.74	332	P	P	00 43 17.5	+1.6
	comp=Z,1.5nm,0.9s,mb4.2,baz=96,slow=7.1,SNR=1.3						
ARCES	**ARCESS Array B**	93.53	340	P	P	00 43 26.6	+2.6
	comp=Z,2.0nm,0.8s,mb4.5,baz=60,slow=5.3,SNR=1.7						
YKA	**Yellowknife Ar**	116.98	20	PKP	PKPdf	00 48 53.6	+1.0
	comp=Z,0.1nm,0.3s,baz=334,slow=1.9,SNR=4.7						
SCHQ	**Schefferville**	132.09	355	PKP	PKPdf	00 49 23.8	+2.1
	comp=Z,0.9nm,0.5s,baz=27,slow=4.5,SNR=4.5						
SCHQ				SKPbc	SKPbc	00 52 43.9	+4.8
	comp=Z,1.6nm,0.8s,baz=30,slow=8.1,SNR=4.1						
TXAR	**Lajitas Array**	143.74	48	PKP	PKPdf	00 49 43.4	-0.5
	comp=Z,0.7nm,0.6s,baz=270,slow=1.8,SNR=21						
CCM	**Cathedral Cave**	145.07	25	ePKPbc	PKPbc	00 49 45.4	-0.1
JCT	**Junction City**	145.86	44	ePKPdf	PKPdf	00 49 49.5	+2.0
MIAR	**Mount Ida**	146.81	32	ePKPdf	PKPdf	00 49 50.8	+1.8
WVT	**Waverly**	148.11	23	ePKPbc	PKPbc	00 49 55.4	+1.0
TKL	**Tuckaleechee C**	149.92	17	PKPbc	PKPbc	00 50 00.2	+1.2
	comp=Z,6.3nm,0.6s,baz=70,slow=11,SNR=12						
TKL	**Tuckaleechee C**	149.92	17	ePKPdf	PKPdf	00 49 54.9	+0.8
TKL				PKPbc	PKPbc	00 50 00.2	+1.2
TKL				ePKPbc	PKPbc	00 50 00.4	+1.4

IDC 28 00:36:51.3±2.6**, 32°.59S×57°.23E, h0**^{km}**, mb3.7**/4**, mb1 4.0**/5**, mb1mx3.6**/23**, mbtmp3.9**/5**, ML5.0**/1**, MS3.4**/5**, Ms1 3.4**/5**, ms1mx3.1**/37**, Error ellipse: s-maj=90.5km s-min=34.3km az=41.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	**Ambohidratompo**	16.63	325	Pn	Pn	00 40 46.1	+0.3
	5.6nm,0.3s,baz=159,slow=12,SNR=116						
OPO				Sn	Sn	00 43 38.3	-13
	0.3nm,0.3s,baz=134,slow=15,SNR=2.2						
NWAO	**Narrogin (SRO)**	49.84	108	LR	LR	01 00 46.4	
	comp=Z,61nm,20.7s,baz=114,slow=29						
CMAR	**Chiang Mai Arr**	64.57	44	P	P	00 47 30.6	+0.2
	0.5nm,0.4s,baz=238,slow=6.2,SNR=4.6						
CMAR				LR	LR	01 12 16.6	
	comp=Z,23nm,18.4s,baz=295,slow=33						
EIL	**Elat**	65.43	339	LR	LR	01 13 40.7	
	comp=Z,22nm,19.4s,baz=263,slow=34						
ASAR	**Alice Springs**	66.90	104	P	P	00 47 45.3	-0.3
	0.2nm,0.5s,baz=229,slow=6.1,SNR=1.6						
MMAI	**Mount Meron Ar**	68.42	340	LR	LR	01 15 12.2	
	comp=Z,17nm,18.6s,baz=285,slow=34						
WRA	**Warramunga Arr**	68.97	101	P	P	00 47 59.1	+0.4
	0.7nm,0.7s,baz=233,slow=4.7,SNR=2.3						
DBIC	**Dimbokro**	70.69	292	LR	LR	01 15 25.0	
	comp=Z,31nm,20.3s,baz=357,slow=33						
MKAR	**Makanchi Array**	82.19	17	P	P	00 49 13.6	-0.1
	0.4nm,0.9s,baz=174,slow=3.5,SNR=3.1						
YKA	**Yellowknife Ar**	149.63	353	PKPbc	PKPbc	00 56 42.4	+0.4
	0.2nm,0.6s,baz=0.1,slow=2.1,SNR=2.4						
YKA				PKPab	PKPab	00 56 46.0	-1.0
	0.2nm,0.6s,baz=8.5,slow=2.5,SNR=5.1						
YKA	**Yellowknife Ar**	149.63	353	PKPbc	PKPbc	00 56 42.4	+0.4
YKA				PKPab	PKPab	00 56 46.0	-1.0

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*ISCJB **28** 00:38:15.7±1.5, 6°.72S±0°.08×127°.9E±0°.1, h205^{km}±16^{km}, mb4.5/3, Error ellipse: s-maj=21.3km s-min=10.5km az=156.7*
*IDC **28** 00:38:18.7±4.5, 6°.89S×127°.93E, h215^{km}±45^{km}, mb3.1/2, mb1 3.3/5, mb1mx3.1/17, mbtmp3.1/5, Error ellipse: s-maj=57.2km s-min=19.6km az=66.0*
*NEIC **28** 00:38:19.1±1.8, 6°.91S×127°.85E, h218^{km}±20^{km}, mb4.9/2, Error ellipse: s-maj=28.0km s-min=12.6km az=60.0*
ISC 28 00:38:18.8±1.2**, 6°.87S**±0°.07×**128°.0E**±0°.1**, h219**^{km}±13^{km}**, n18, σ0^{s}.93**/23**, mb4.5**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	7.28	143	Pn	Pn	00 40 00.9	-1.9
KAKA				eS	S	00 41 25.3	-0.5
FITZ	**Fitzroy Crossi**	11.39	191	P	Pn	00 40 55.4	-0.1
	0.4nm,0.3s,baz=5.1,slow=13,SNR=11						
FITZ				S	S	00 43 02.6	-0.3
	0.2nm,0.3s,baz=331,slow=19,SNR=1.4						
FITZ	**Fitzroy Crossi**	11.39	191	ePn	Pn	00 40 55.2	-0.3
FITZ				eS	S	00 42 57.4	-5.5
WRAB	**Tennant Creek**	14.38	155	eP	Pn	00 41 33.0	+0.3
WRA	**Warramunga Arr**	14.39	155	P	Pn	00 41 34.6	+1.8
	0.5nm,0.3s,baz=337,slow=13,SNR=5.2						
WRA				S	S	00 44 12.1	-0.4
	0.2nm,0.3s,baz=328,slow=21,SNR=4.8						
WB2	**Warramunga Arr**	14.39	155	ePn	Pn	00 41 35.5	+2.7
KKM	**Kota Kinabalu**	17.39	317	ePn	Pn	00 42 09.8	+1.0
ASAR	**Alice Springs**	17.64	162	P	P	00 42 10.2	+0.7
	0.8nm,0.3s,baz=332,slow=11,SNR=28						
ASAR				S	S	00 45 21.3	0.0
	0.1nm,0.3s,baz=319,slow=17,SNR=4.9						
STKA	**Stephens Creek**	27.94	155	P	P	00 43 49.0	+0.1
	1.6nm,0.6s,mb3.8,baz=342,slow=6.4,SNR=3.7						
KULM	**Kulim**	29.83	293	P	P	00 44 05.3	-0.6
MDJ	**Mudanjiang**	51.27	1	P	P	00 47 00.2	0.0
MKAR	**Makanchi Array**	67.03	328	P	P	00 48 48.2	0.0
	0.1nm,0.4s,baz=126,slow=6.7,SNR=1.7						
TKM2	**Tokmak 2**	68.62	321	P	P	00 48 58.3	+0.1
AAK	**Ala-Archa**	69.16	321	P	P	00 49 00.7	-0.9
KURK	**Kurchatov**	71.37	329	eP	P	00 49 13.8	-1.0
SBA	**Scott Base**	73.73	172	eP	P	00 49 27.9	-0.5
	64nm,1.4s,mb5.1						
BILL	**Bilibino**	79.45	14	eP	P	00 50 04.0	+3.6
	17nm,1.4s,mb4.5						
BOSA	**Boshof**	97.80	240	P	P	00 51 29.6	0.0

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*ISCJB **28** 00:44:23.0±0.2, 41°.20N±0°.01×114°.88W±0°.02, h10^{km}, Error ellipse: s-maj=1.9km s-min=1.9km az=29.3*
*IDC **28** 00:44:22.6±0.9, 41°.28N×114°.98W, h0^{km}, mb2.6/1, mb1 3.1/3, mb1mx3.1/22, mbtmp2.7/3, ML3.1/2, Error ellipse: s-maj=14.0km s-min=5.0km az=130.0*
*NEIC **28** 00:44:23.1, 41°.22N×114°.88W, h8^{km}, ML2.6, After REN.*
ISC 28 00:44:22.6±0.3**, 41°.23N**±0°.01×**114°.90W**±0°.02**, h1**^{km}±2^{km}**, n84, σ1^{s}.01**/140**, 27C-26D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.39	196	⇑P	Pg	00 44 30.6	+0.5
	baz=0.4,SNR=537						
N12A				⇓S	Sg	00 44 36.3	+1.1
	baz=0.4						
N12A	**Clover Valley,**	0.39	196	eP	Pg	00 44 30.6	+0.5
N12A				eS	Sg	00 44 36.2	+1.0
ELK	**Elko**	0.55	208	Pg	Pg	00 44 33.4	+0.3
	17nm,0.3s,baz=14,slow=16,SNR=207						
ELK				Lg		00 44 41.0	
	68nm,0.3s,baz=54,slow=14,SNR=50						
ELK	**Elko**	0.55	208	Pg	Pg	00 44 33.4	+0.3
ELK				Lg		00 44 41.0	
M13A	**Montello**	0.57	77	P	Pg	00 44 33.6	+0.1
	baz=0.6,SNR=192						
M13A	**Montello**	0.57	77	eP	Pg	00 44 33.4	-0.1
M13A				eS	Sg	00 44 42.7	+1.9
N13A	**Wendover, West**	0.65	125	P	Pg	00 44 35.0	0.0
	baz=0.6,SNR=464						
N13A				⇓S	Sg	00 44 43.1	-0.2
	baz=0.6						
N13A	**Wendover, West**	0.65	125	eP	Pg	00 44 34.9	-0.1
N13A				eS	Sg	00 44 46.3	+3.0
M11A	**Holland Ranch,**	0.70	287	⇓P	Pg	00 44 36.7	+0.7
	baz=0.7,SNR=83						
M11A				⇓S	Sg	00 44 46.9	+1.8
	baz=0.7						
L12A	**House Creek Ra**	0.92	355	⇑P	Pg	00 44 41.2	+0.9
	baz=0.9,SNR=19						
O12A	**Currie**	0.97	173	P	Pg	00 44 41.3	+0.1
	baz=1.0,SNR=41						
O12A				⇓S	Sg	00 44 53.9	+0.2
	baz=1.0						
L13A	**Double Diamond**	1.12	40	⇑P	Pg	00 44 43.9	-0.2
	baz=1.1,SNR=59						

L13A				⇓S	Sg	00 44 58.9	+0.4
	baz=1.1						
L11A	**Cat Creek Ranc**	1.13	326	⇓P	Pg	00 44 44.8	+0.4
	baz=1.2,SNR=168						
L11A				⇑S	Sg	00 45 00.5	+1.5
	baz=1.2						
M14A	**Sheep Mountain**	1.20	76	⇓P	Pg	00 44 44.9	-0.7
	baz=1.2,SNR=765						
M14A				⇓S	Sg	00 45 01.1	0.0
	baz=1.2						
O11A	**Cowboy Ranch,**	1.24	208	P	Pg	00 44 46.6	+0.2
	baz=1.2,SNR=434						
O11A				⇑S	Sg	00 45 02.8	+0.4
	baz=1.2						
M10A	**I.L. Ranch, Tu**	1.27	284	⇑P	Pg	00 44 47.2	+0.2
	baz=1.3,SNR=236						
O13A	**Hicks Ranch, I**	1.30	147	P	Pg	00 44 46.8	-0.7
	baz=1.3,SNR=114						
O13A				⇓S	Sg	00 45 04.1	-0.3
	baz=1.3						
N10A	**Dunphy**	1.32	248	⇑S	Sg	00 45 05.9	+0.9
	baz=1.3						
N14A	**Grayback Hills**	1.35	106	P	Pg	00 44 47.3	-1.2
	baz=1.3,SNR=314						
N14A				⇓S	Sg	00 45 05.3	-0.7
	baz=1.3						
K12A	**Draper Farm, C**	1.40	360	⇑P	Pn	00 44 48.5	-0.9
	baz=1.4,SNR=13						
K12A				⇑S	Sg	00 45 07.5	-0.2
	baz=1.4						
BGU	**Big Grassy Mou**	1.45	102	*e*Pn	Pn	00 44 48.9	-1.1
BGU				*e*S	Sg	00 45 09.1	+0.1
L10A	**Juniper Basin**	1.45	306	⇑P	Pn	00 44 49.7	-0.3
	baz=1.5,SNR=328						
L10A				⇑Sb	Sb	00 45 10.2	+0.8
	baz=1.5						
L14A	**Malta**	1.48	57	⇑P	Pn	00 44 49.9	-0.5
	baz=1.5,SNR=166						
L14A				⇑Sb	Sb	00 45 09.6	-0.6
	baz=1.5						
O10A	**Cortez Mining,**	1.54	233	⇑P	Pn	00 44 51.0	-0.1
	baz=1.5,SNR=51						
O10A				⇓Sb	Sb	00 45 12.4	+0.6
	baz=1.5						
K13A	**Stover Farm, H**	1.54	23	⇑P	Pn	00 44 51.1	-0.2
	baz=1.5,SNR=15						
K13A				⇑Sb	Sb	00 45 11.9	-0.1
	baz=1.5						
HVU	**Hansel Valley**	1.69	70	*e*Pn	Pn	00 44 52.3	-1.0
HVU				*e*Sn	Sn	00 45 15.2	-0.3
K11A	**Parker Ranch,**	1.76	332	P	Pn	00 44 54.9	+0.7
	baz=1.8,SNR=114						
K11A				⇓Sb	Sb	00 45 19.0	+0.9
	baz=1.8						
P11A	**Circle Ranch,**	1.80	202	⇓Sb	Sb	00 45 19.2	-0.2
	baz=1.8						
N15A	**Stansbury Isla**	1.83	100	⇑P	Pn	00 44 54.2	-1.0
	baz=1.8,SNR=101						
K14A	**Jones Ranch, D**	1.84	44	⇓P	Pn	00 44 55.4	+0.1
	baz=1.8,SNR=27						
SPUT	**South Promonto**	1.85	87	*e*Pn	Pn	00 44 54.6	-0.8
SPUT				*e*Sn	Sn	00 45 22.0	+2.5
M15A	**Larsen Ranch,**	1.86	82	⇑P	Pn	00 44 54.7	-1.0
	baz=1.8,SNR=145						
DUG	**Dugway**	1.89	122	⇓P	Pn	00 44 54.7	-1.4
	baz=1.9,SNR=270						
DUG	**Dugway**	1.89	122	*e*Pn	Pn	00 44 54.6	-1.4
DUG				*e*S	Sn	00 45 21.3	+0.7
P13A	**Bates Ranch, G**	1.90	159	⇓P	Pn	00 44 54.7	-1.4
	baz=1.9,SNR=72						
M09A	**Marrel Ranch,**	1.93	277	⇓P	Pn	00 44 56.8	+0.2
	baz=1.9,SNR=15						
BMN	**Battle Mountai**	1.94	246	*e*Pn	Pn	00 44 56.0	-0.6
BMN				*e*Sn	Sn	00 45 20.4	-1.1
P10A	**Eureka**	2.00	217	⇑P	Pn	00 44 57.5	0.0
	baz=2.0,SNR=29						
J12A	**Stokes Ranch,**	2.02	356	⇑P	Pn	00 44 58.6	+0.7
	baz=2.0,SNR=49						
L15A	**Malad City**	2.04	67	P	Pn	00 44 57.7	-0.3
	baz=2.0,SNR=57						
O15A	**The Old Anders**	2.08	116	P	Pn	00 44 57.5	-1.1
	baz=2.1,SNR=165						
P14A	**Drum Mountains**	2.15	139	P	Pn	00 44 58.5	-1.1
	baz=2.1,SNR=74						
NOQ	**North Oquirrh**	2.18	104	*e*Pn	Pn	00 44 59.4	-0.7
NOQ				*e*Sn	Sn	00 45 29.3	+1.6
Q12A	**Willow Creek R**	2.19	179	⇓P	Pn	00 44 59.6	-0.6
	baz=2.2,SNR=11						
J13A	**Cove Ranch, Pi**	2.23	14	⇑P	Pn	00 45 01.8	+1.0
	baz=2.2,SNR=60						
J14A	**Carey**	2.33	26	⇑P	Pn	00 45 03.1	+1.1
	baz=2.3,SNR=45						
HLID	**Hailey**	2.36	9	⇑P	Pn	00 45 03.6	+1.2
	baz=2.4,SNR=52						
HLID	**Hailey**	2.36	9	P	Pn	00 45 03.8	+1.3
Q13A	**Wheeler Ranch,**	2.37	163	⇓P	Pn	00 45 01.6	-1.0
	baz=2.4,SNR=32						
Q11A	**Duckwater**	2.45	194	⇓P	Pn	00 45 03.4	-0.3
	baz=2.4,SNR=8.4						
N08A	**GE Springer Mi**	2.49	261	⇑P	Pn	00 45 03.7	-0.6
	baz=2.5,SNR=5.3						
NLU	**North Lily Min**	2.50	120	*e*Pn	Pn	00 45 02.7	-1.7
NLU				*e*Pg	Pg	00 45 09.3	-1.2
NLU				*e*Sn	Sn	00 45 37.8	+2.3
Q14A	**Sevier Lake (B**	2.56	150	⇑P	Pn	00 45 03.8	-1.5
	baz=2.5,SNR=56						
P15A	**Leamington**	2.60	129	⇓P	Pn	00 45 04.3	-1.5
	baz=2.6,SNR=16						
O08A	**Rochester Mine**	2.65	250	⇓P	Pn	00 45 06.0	-0.4
	baz=2.6,SNR=9.7						
Q10A	**Clear Creek Ra**	2.67	206	⇓P	Pn	00 45 06.6	-0.1
	baz=2.7,SNR=39						
MPU	**Maple Canyon**	2.77	115	*e*Pn	Pn	00 45 07.3	-0.8
MPU				*e*Pg	Pg	00 45 15.1	-0.5
MPU				*e*S	Sn	00 45 44.1	+2.0
DAU	**Daniels Canyon**	2.88	105	*e*Pn	Pn	00 45 09.3	-0.4
DAU				*e*Pg	Pg	00 45 18.5	+0.6
DAU				*e*Sn	Sn	00 45 44.6	-0.3
R11A	**Troy Canyon, C**	2.93	191	P	Pn	00 45 09.8	-0.4
	baz=2.9,SNR=30						
WVOR	**Wild Horse Val**	3.04	295	*e*Pn	Pn	00 45 09.3	-2.5
WVOR				*e*Pg	Pg	00 45 18.7	-2.2
WVOR				*e*Sg	Sg	00 45 59.8	-0.5
R13A	**O'Grain Ranch,**	3.13	166	P	Pn	00 45 13.1	0.0
	baz=3.1,SNR=88						
O07A	**Toulon**	3.21	252	⇓P	Pn	00 45 13.6	-0.6
	baz=3.2						
RRI2	**Red Ridge**	3.40	50	*e*Pn	Pn	00 45 17.6	+0.9
RRI2				*e*Sg	Sg	00 46 11.5	-0.1
TMUT	**Trail Mountain**	3.42	123	*e*Pn	Pn	00 45 17.6	+0.6
TMUT				*e*Pg	Pg	00 45 29.5	+1.3
TMUT				*e*Sg	Sg	00 46 14.6	+2.1
MSU	**Marysvale**	3.43	141	*e*Pn	Pn	00 45 16.3	-0.9
MSU				*e*Pg	Pg	00 45 30.3	+1.9
MSU				Sn	Sn	00 45 59.9	+1.5
ARUT	**Antelope Range**	3.62	161	*e*Pn	Pn	00 45 19.5	-0.3
ARUT				*e*Pg	Pg	00 45 32.3	+0.3
ARUT				*e*Sg	Sg	00 46 20.7	+1.9
REDW	**Red Top Meadow**	3.68	53	*e*Pn	Pn	00 45 20.4	-0.3
REDW				*e*Sg	Sg	00 46 20.2	-0.7
TPAW	**Teton Pass**	3.70	51	*e*Pn	Pn	00 45 20.8	0.0
TPAW				*e*Pg	Pg	00 45 28.0	-5.4
TPAW				*e*Sg	Sg	00 46 19.1	-2.2
SNOW	**Snow King Moun**	3.80	53	*e*Pn	Pn	00 45 23.5	+1.3
NVAR	**Mina Array Bea**	3.83	224	Pn	Pn	00 45 22.6	-0.2
	0.8nm,0.3s,baz=36,slow=12,SNR=17						
NVAR				Pg	Pg	00 45 31.1	-5.0
	1.8nm,0.3s,baz=34,slow=13,SNR=13						
NVAR				Lg		00 46 24.3	
	5.1nm,0.3s,baz=32,slow=32,SNR=9.0						
CCUT	**Cedar City**	3.86	162	*e*Pn	Pn	00 45 23.0	-0.2
CCUT				*e*Pg	Pg	00 45 36.5	-0.1
CCUT				*e*Sg	Sg	00 46 25.6	-1.1
MCMT	**McKenzie Canyo**	3.90	22	*e*Pn	Pn	00 45 22.8	-0.8
MCMT				*e*Pg	Pg	00 45 31.3	-5.9
MCMT				*e*Sg	Sg	00 46 24.2	-3.6
IMW	**Indian Meadow**	3.96	46	*e*Pn	Pn	00 45 26.7	+2.3
IMW				*e*Pg	Pg	00 45 31.2	-7.2
IMW				*e*Sg	Sg	00 46 25.1	-4.6
SRU	**San Rafael**	3.96	121	*e*Pn	Pn	00 45 26.4	+1.8
SRU				*e*Pg	Pg	00 45 36.6	-2.0
SRU				Sn	Sn	00 46 13.5	+1.8
LOHW	**Long Hollow**	3.97	52	*e*Pn	Pn	00 45 24.9	+0.2
T11A	**Corn Creek, Al**	3.99	184	⇑P	Pn	00 45 24.8	-0.2
	baz=4.0,SNR=43						
BMO	**Blue Mountains**	4.03	335	*e*Pn	Pn	00 45 24.8	-0.6
BMO				*e*Pg	Pg	00 45 33.0	-6.8
BMO				*e*Sg	Sg	00 46 27.9	-4.1
PDAR	**Pinedale Array**	4.27	67	Pn	Pn	00 45 31.0	+2.3
	0.1nm,0.3s,baz=241,slow=11,SNR=7.0						
PDAR				Pg	Pg	00 45 39.7	-4.7
	0.5nm,0.3s,baz=238,slow=14,SNR=7.2						
PDAR				Lg		00 46 37.2	
	0.5nm,0.3s,baz=236,slow=32,SNR=9.1						
R17A	**Hanksville Air**	4.28	130	P	Pn	00 45 27.8	-1.1
	baz=4.3,SNR=10						
YMR	**Madison River**	4.49	39	*e*Pn	Pn	00 45 32.4	+0.7
YMR				*e*Pg	Pg	00 45 44.3	-4.3
YMR				*e*Sg	Sg	00 46 41.8	-4.9
U13A	**Pakoon Wash**	4.86	171	⇑P	Pn	00 45 36.8	-0.1
	baz=4.9,SNR=6.1						
U14A	**Mt Trumbull**	4.99	164	⇓P	Pn	00 45 39.3	+0.7
	baz=5.0,SNR=8.7						
YBH	**Yreka Blue Hor**	5.89	277	Lg		00 47 30.0	
	0.1nm,0.3s,baz=159,slow=14,SNR=1.9						
YKA	**Yellowknife Ar**	21.30	0	P	P	00 49 10.5	+0.2
	0.1nm,0.4s,baz=182,slow=9.9,SNR=4.5						

IDC 28 00:55:08.7±1.8**,26°.32N×142°.12E,h0^{km},mb3.8**/3**,
mb1 4.0**/3**,mb1mx3.5**/21**,mbtmp3.8**/3**,Error ellipse:
s-maj=69.2km s-min=17.9km az=97.0,Bonin Islands
region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	0.78	4	Pn	Pn	00 55 27.1	+0.1
	29nm,0.3s,baz=295,slow=18,SNR=5.1						
CBIJ				Sn	Sg	00 55 40.5	+6.7
	112nm,0.3s,baz=293,slow=23,SNR=13						
WRA	**Warramunga Arr**	46.60	190	P	P	01 03 38.7	+0.1
	2.2nm,0.9s,baz=12,slow=8.7,SNR=7.0						
MKAR	**Makanchi Array**	50.93	310	P	P	01 04 11.8	0.0
	0.2nm,0.7s,baz=78,slow=4.6,SNR=3.7						
FINES	**FINESS Array B**	78.62	334	P	P	01 07 12.1	-0.1
	1.6nm,0.5s,baz=67,slow=4.7,SNR=19						

*NEIC **28** 00:55:53.2,16°.72N×95°.09W,h94^{km},MD3.9(MEX),After MEX.*
MEX 28 00:55:53.2±1.1**,16°.73N×95°.10W,h93^{km}**±12^{km}**,MD3.9,
Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	0.42	30	*e*P	Pn	00 56 05.8	-1.9
CMIG				*i* S	Sn	00 56 17.2	-1.4
HUIG	**Huatulco**	1.36	226	*e*P	Pn	00 56 15.1	-2.2
HUIG				*i* S	Sn	00 56 34.3	-1.3
OXX	**Oaxaca**	1.59	283	*i* P	Pn	00 56 19.7	-0.6
OXX				*i* S	Sn	00 56 40.5	-0.3
VHO	**Vista Hermosa**	1.60	283	*i* P	Pn	00 56 19.5	-0.8
VHO				*i* S	Sn	00 56 40.7	-0.3
PCIG		2.07	119	*i* P	Pn	00 56 25.8	-0.7
PCIG				*i* S	Sn	00 56 51.6	-0.3
UTMO	**Huajuapan**	2.81	293	*i* P	Pn	00 56 35.6	-0.6
UTMO				*i* S	Sn	00 57 08.3	-1.0

*IDC **28** 01:01:42.9±2.6,29°.26N×51°.75E,h0^{km},mb3.9/5,
mb1 3.9/8,mb1mx3.6/29,mbtmp3.8/8,ML3.6/1,Error
ellipse: s-maj=48.5km s-min=42.1km az=129.0*
*THR **28** 01:01:45.9±0.5,29°.54N×51°.60E,h14^{km}±6^{km},ML3.5*
*NEIC **28** 01:01:45.9,29°.53N×51°.60E,h15^{km},ML3.5(THR),After
THR.*
*CSEM **28** 01:01:46.8±0.5,29°.61N×51°.69E,h15^{km},mb4.1/4,Error
ellipse: s-maj=13.8km s-min=11.4km az=136.0*
*TEH **28** 01:01:46.8,29°.38N×51°.65E,h12^{km}*
*KISR **28** 01:01:46.9±0.9,29°.61N×51°.70E,h38^{km}±786^{km},ML3.1*
ISC 28 01:01:46.9±0.9**,29°.46N**±0°.04×**51°.65E**±0°.04**,h16^{km}**±7^{km}**,
n104,**σ**1^{s}.48**/113**,mb4.0**/14**,3C-2D,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHI	**Shiraz**	0.78	76	*e*Pg	Pg	01 02 01.3	-0.7
SHI				*e*Sg	Sg	01 02 12.0	-0.3
SHI				*e*		01 02 19.7	
	comp=Z,12μm,0.1s						
IMOK	**Mouk**	1.02	113	*e*	Sx	01 02 33.6	
	comp=Z,11μm,0.2s						
IMOK				*e*Pg	Pg	01 02 05.3	-1.3
IPAR	**Pars**	1.28	72	*e*	Sx	01 02 35.0	
	comp=Z,10μm,0.4s						
IPAR				*e*Pn	Pn	01 02 08.5	-1.6
ISRV	**Sarvestan**	1.28	93	*e*Pn	Pn	01 02 10.6	+0.5
ISRV				*e*		01 02 39.2	
	comp=Z,10μm,0.2s						
GHIR	**Ghir-Karzin**	1.66	134	*e*Pg	Pg	01 02 17.7	-1.0
GHIR				AML	AML	01 02 55.9	
	comp=E,483nm,0.5s						
RMKL	**Ramhormoz**	2.20	314	*e*Pg	Pb	01 02 24.4	-1.9
RMKL				*e*Sg	Sb	01 02 52.4	-0.9
RMKL				AML	AML	01 03 03.8	
	comp=N,396nm,0.5s						
ISAD	**Sadrabad**	3.02	35	*e*Pn	Pn	01 02 35.5	+1.6
ISAD				*e*		01 03 27.0	
	comp=Z,2μm,0.3s						
IMEH	**Mehriz**	3.21	52	*e*Pn	Pn	01 02 37.6	+1.0
IMEH				*e*		01 02 47.7	
	comp=Z,863nm,0.3s						
IPIR	**Pirpir**	3.28	349	*e*Pn	Pn	01 02 38.7	+1.1
IPIR				*e*Sn	Sn	01 03 18.4	+2.0
IPIR				*e*		01 03 44.7	
	comp=Z,890nm,0.3s						
QRN	**Al-Qurain**	3.34	259	*e*P	Pn	01 02 41.0	+2.6
QRN				*e*S	Sn	01 03 21.6	+3.8
QRN				AML	AML	01 03 23.7	
	comp=Z,64nm,0.2s						
QRN	**Al-Qurain**	3.34	259	*e*P	Pn	01 02 41.0	+2.6
QRN				*e*S	Sn	01 03 21.6	+3.9
KBD	**Kabd**	3.46	266	*e*P	Pn	01 02 42.8	+2.7
KBD				*e*S	Sn	01 03 23.7	+2.9
KBD				AML	AML	01 03 28.7	
	comp=Z,34nm,0.3s						
KBD	**Kabd**	3.46	266	*e*P	Pn	01 02 42.8	+2.7
KBD				*e*S	Sn	01 03 23.7	+2.9
NASN	**Na'in**	3.48	16	*e*Pn	Pn	01 02 40.8	+0.5
NASN	**Na'in**	3.48	16	*e*Pn	Pn	01 02 40.9	+0.6
IZEF	**Zefreh**	3.48	10	*e*Pn	Pn	01 02 41.0	+0.7
IZEF				*e*		01 02 56.8	
	comp=Z,536nm,0.2s						
SHGR	**Shooshtar-Gavs**	3.60	318	*e*Pn	Pn	01 02 42.1	+0.1
SHGR				AML	AML	01 03 49.3	
	comp=N,81nm,0.4s						
SHGR				AML	AML	01 03 53.4	
	comp=E,87nm,0.6s						
SHGR	**Shooshtar-Gavs**	3.60	318	*e*Pn	Pn	01 02 42.0	0.0
RDF	**Al-Radifah**	3.62	263	*e*P	Pn	01 02 44.4	+2.1
RDF	**Al-Radifah**	3.62	263	*e*P	Pn	01 02 44.4	+2.1
ICHK	**Chekchek**	3.66	40	*e*Pn	Pn	01 02 43.6	+0.8
ICHK				*e*		01 02 58.9	
	comp=Z,719nm,0.3s						
MIB	**Mutribah**	3.77	276	*e*P	Pn	01 02 46.2	+1.9
MIB	**Mutribah**	3.77	276	*e*P	Pn	01 02 46.2	+1.9
NAY	**Al-Naaiem**	3.85	268	*e*P	Pn	01 02 48.0	+2.6
NAY				*e*S	Sn	01 03 34.0	+3.7
NAY				AML	AML	01 03 35.1	
	comp=Z,15nm,0.3s						
NAY	**Al-Naaiem**	3.85	268	*e*P	Pn	01 02 48.0	+2.6
NAY				*e*S	Sn	01 03 34.0	+3.6
IKLH	**Kolahrood**	3.85	359	*e*Pn	Pn	01 02 46.3	+0.8
IKLH				*e*		01 03 51.4	
	comp=Z,441nm,0.2s						
IBAF	**Bafgh**	4.00	57	*e*Pn	Pn	01 02 48.0	+0.6
IBAF				*e*		01 03 06.1	
	comp=Z,475nm,0.2s						
KRBR	**Kerman**	4.48	82	*e*Pn	Pn	01 02 56.3	+2.2
KRBR				AML	AML	01 04 19.1	
	comp=E,36nm,0.7s						
KRBR				AML	AML	01 04 19.9	
	comp=N,32nm,0.6s						
KRBR	**Kerman**	4.48	82	*e*Pn	Pn	01 02 56.2	+2.1
SLWS		4.72	191	P	Pn	01 02 59.7	+2.2
SLWS		4.72	191	P	Pn	01 02 59.7	+2.2
ASAO	**Ashtian**	5.26	345	*e*Pn	Pn	01 03 05.4	+0.6
ASAO	**Ashtian**	5.26	345	*e*Pn	Pn	01 03 05.3	+0.5
BTHS		5.43	188	P	Pn	01 03 09.2	+2.0
BTHS		5.43	188	P	Pn	01 03 09.2	+2.0
ASYS		6.72	255	S	Sn	01 04 37.7	-3.3
ASYS		6.72	255	P	Pn	01 03 24.8	-0.1
ASYS		6.72	255	P	Pn	01 03 24.8	0.0
IDHR	**Dehrash**	6.87	321	*e*Pn	Pn	01 03 28.3	+1.3
IDHR				*e*		01 04 49.5	
	comp=N,654nm,0.2s						
ASF	**Jabal al Asfar**	12.96	286	Pn	Pn	01 04 51.9	+1.5
	comp=N,0.3nm,0.3s,baz=305,slow=12,SNR=2.3						
MMAI	**Mount Meron Ar**	14.34	288	Pn	Pn	01 05 09.6	+0.4
	baz=111,slow=16,SNR=3.1						
BRTR	**Keskin Array B**	17.99	309	P	Pn	01 05 55.6	-0.6
BRTR	**Keskin Array B**	17.99	309	P	Pn	01 05 55.6	-0.6
AML	**Almayashu**	21.83	49	*e*P	P	01 06 39.5	+1.1
	comp=N,1.5nm,0.5s,mb3.7						
IDI	**Anoyia**	23.30	291	P	P	01 06 54.1	0.0
	comp=N,2.5nm,0.7s,mb3.8,baz=102,slow=14,SNR=4.5						
IDI	**Anoyia**	23.30	291	*e*P	P	01 06 52.4	-1.8
IDI	**Anoyia**	23.30	291	*e*P	P	01 06 52.3	-1.8
MLR	**Muntele Rosu**	25.77	315	⇑*i*P	P	01 07 20.0	+3.2
MLR	**Muntele Rosu**	25.77	315	P	P	01 07 17.1	+0.3
	comp=N,1.7nm,0.5s,mb3.8,baz=145,slow=16,SNR=3.4						
MLR	**Muntele Rosu**	25.77	315	P	P	01 07 17.1	+0.3
VOIR		26.30	315	⇑*i*P	P	01 07 22.8	+1.2
BZS	**Buzias**	28.55	313	⇑*i*P	P	01 07 45.2	+3.5
PKSM	**Moragy**	30.69	312	⇓*i*P	P	01 08 01.0	+0.3
PKSM	**Moragy**	30.69	312	⇓*i*P	P	01 08 01.0	+0.3
PGF	**Pioggiola**	36.52	303	*e*P	P	01 08 48.8	-2.7
PGF	**Pioggiola**	36.52	303	*e*P	P	01 08 48.8	-2.7
FRF	**La Foret Royal**	38.35	304	*e*P	P	01 09 03.3	-3.7
	comp=N,11nm,0.9s,mb4.3						
FRF	**La Foret Royal**	38.35	304	*e*P	P	01 09 03.3	-3.7
	comp=N,5.7nm,0.9s,mb4.3						
FRF	**La Foret Royal**	38.35	304	*e*P	P	01 09 03.3	-3.7
	comp=N,5.7nm,0.9s,mb4.3						
MBDF	**Montbardon**	38.40	306	*e*P	P	01 09 05.5	-1.9
	comp=N,4.4nm,0.6s,mb4.1						
MBDF	**Montbardon**	38.40	306	*e*P	P	01 09 05.5	-1.9
	comp=N,2.2nm,0.6s,mb4.1						
MBDF	**Montbardon**	38.40	306	*e*P	P	01 09 05.5	-1.9
	comp=N,2.2nm,0.6s,mb4.1						
BNI	**Bardonecchia**	38.51	306	*e*P	P	01 09 06.9	-1.4
	comp=N,1.5nm,0.7s,mb3.8						
BNI	**Bardonecchia**	38.51	306	*e*P	P	01 09 06.9	-1.4
	comp=N,1.5nm,0.7s,mb3.8						
LPG	**La Plagne**	38.53	307	*e*P	P	01 09 08.2	-0.3
	comp=N,7.4nm,0.8s,mb4.1						
LPG	**La Plagne**	38.53	307	*e*P	P	01 09 08.2	-0.3
	comp=N,3.7nm,0.8s,mb4.2						
LPG	**La Plagne**	38.53	307	*e*P	P	01 09 08.2	-0.3
	comp=N,3.7nm,0.8s,mb4.2						
LPL	**La Plagne**	38.54	307	*e*P	P	01 09 08.3	-0.3
LPL	**La Plagne**	38.54	307	*e*P	P	01 09 08.3	-0.3
CABF	**La Chapelle**	39.16	309	*e*P	P	01 09 12.1	-1.7
CABF	**La Chapelle**	39.16	309	*e*P	P	01 09 12.1	-1.7
SMRF	**Simiane la Rot**	39.16	305	*e*P	P	01 09 09.6	-4.2
SMRF	**Simiane la Rot**	39.16	305	*e*P	P	01 09 09.6	-4.2
MEZF	**Maizieres J'vi**	40.19	312	*e*P	P	01 09 27.3	+5.0
	comp=N,8.9nm,0.6s,mb4.4						
MEZF	**Maizieres J'vi**	40.19	312	*e*P	P	01 09 27.3	+5.0
	comp=N,8.9nm,0.6s,mb4.7						
SMF	**Signal de Mont**	40.70	308	*e*P	P	01 09 25.3	-1.2
	comp=N,5.3nm,0.7s,mb4.0						
SMF	**Signal de Mont**	40.70	308	*e*P	P	01 09 25.3	-1.2
	comp=N,2.7nm,0.7s,mb4.0						
SMF	**Signal de Mont**	40.70	308	*e*P	P	01 09 25.3	-1.2
	comp=N,2.7nm,0.7s,mb4.0						
LOR	**Lormes**	40.77	309	*e*P	P	01 09 26.2	-0.9
LOR	**Lormes**	40.77	309	*e*P	P	01 09 26.2	-0.9
SSF	**Saint Saulge**	40.98	309	*e*P	P	01 09 27.3	-1.6
SSF	**Saint Saulge**	40.98	309	*e*P	P	01 09 27.3	-1.6
BGF	**Bois d'Agland**	41.37	308	*e*P	P	01 09 29.1	-2.9
BGF	**Bois d'Agland**	41.37	308	*e*P	P	01 09 29.1	-2.9
LFF	**La Frestale**	42.69	306	*e*P	P	01 09 40.9	-2.0
LFF	**La Frestale**	42.69	306	*e*P	P	01 09 40.9	-2.0
EPF	**Esparros**	42.91	303	*e*P	P	01 09 40.8	-3.9
EPF	**Esparros**	42.91	303	*e*P	P	01 09 40.8	-3.9
LDF	**La Druitiere**	43.60	311	*e*P	P	01 09 48.3	-1.9
	comp=N,5.6nm,0.6s,mb4.1						
LDF	**La Druitiere**	43.60	311	*e*P	P	01 09 48.3	-1.9
	comp=N,2.8nm,0.6s,mb4.2						
LDF	**La Druitiere**	43.60	311	*e*P	P	01 09 48.3	-1.9
	comp=N,2.8nm,0.6s,mb4.2						
SJPF	**Ste Jean**	44.06	303	*e*P	P	01 09 50.0	-3.9
	comp=N,7.4nm,0.8s,mb4.2						
SJPF	**Ste Jean**	44.06	303	*e*P	P	01 09 50.0	-3.9
	comp=N,3.7nm,0.8s,mb4.2						
SJPF	**Ste Jean**	44.06	303	*e*P	P	01 09 50.0	-3.9
	comp=N,3.7nm,0.8s,mb4.2						
GRR	**Gorron**	44.06	310	*e*P	P	01 09 52.3	-1.6
GRR	**Gorron**	44.06	310	*e*P	P	01 09 52.3	-1.6
SGMF	**Saint Gilles**	45.18	310	*e*P	P	01 10 01.6	-1.2
SGMF	**Saint Gilles**	45.18	310	*e*P	P	01 10 01.6	-1.2
TORD	**Torodi Ar. Bea**	48.91	262	P	P	01 10 31.8	-0.6
	comp=N,0.9nm,0.5s,mb4.0,baz=52,slow=9.2,SNR=16						
TORD	**Torodi Ar. Bea**	48.91	262	P	P	01 10 31.8	-0.6
DBIC	**Dimbokro**	57.69	259	P	P	01 11 35.0	-1.9
	comp=N,2.4nm,0.8s,mb4.3,baz=21,slow=8.8,SNR=4.8						
DBIC	**Dimbokro**	57.69	259	P	P	01 11 35.0	-2.0
YKA	**Yellowknife Ar**	87.71	354	P	P	01 14 34.5	0.0
	comp=N,0.2nm,0.6s,mb3.5,baz=8.1,slow=4.5,SNR=4.5						
YKA	**Yellowknife Ar**	87.71	354	P	P	01 14 34.5	0.0

*ISCJB **28** 01:09:25.1±0.7,36°.51N±0°.05×21°.20E±0°.04,h4^{km}±6^{km},
Error ellipse: s-maj=8.6km s-min=4.5km az=158.4*
*THE **28** 01:09:25.6,36°.38N×21°.23E,h14^{km}±2^{km},ML3.4/4,Error
ellipse: s-maj=4.5km s-min=1.6km az=179.0*
*CSEM **28** 01:09:27.7±0.3,36°.59N×21°.26E,h10^{km},MD3.5,Error
ellipse: s-maj=7.9km s-min=4.1km az=177.0*
*NEIC **28** 01:09:27.3,36°.62N×21°.20E,h22^{km},MD3.5(ATH),After
ATH.*
*ATH **28** 01:09:27.3,36°.62N×21°.20E,h22^{km}±4^{km},MD3.5/4*
ISC 28 01:09:26.6±0.8**,36°.51N**±0°.05×**21°.25E**±0°.04**,h7^{km}**±6^{km}**,
n77,**σ**0^{s}.96**/100**,4D,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.56	46	P	Pg	01 09 38.0	+0.7
PYL	**PYLOS**	0.56	46	*e*PN	Pg	01 09 37.9	+0.6
PYL				*e*SN	Sg	01 09 44.8	+0.2
PYL	**PYLOS**	0.56	46	*e*Pn	Pg	01 09 37.9	+0.6
ITM	**Ithomi**	0.86	39	*e*PN	Pg	01 09 42.8	-0.4
ITM				*e*SN	Sg	01 09 54.8	+0.4
ITM	**Ithomi**	0.86	39	*e*Pn	Pg	01 09 42.8	-0.4
ITM				*e*Sn	Sg	01 09 54.8	+0.4
VLX	**Vlachokerasia**	1.25	46	*e*PN	Pn	01 09 50.2	-0.3
VLX	**Vlachokerasia**	1.25	46	*e*Pn	Pn	01 09 50.2	-0.3
VLI	**Veliai**	1.38	81	⇓*i*PN	Pg	01 09 53.8	+0.8
VLI	**Veliai**	1.38	81	⇓*i*Pn	Pg	01 09 53.8	+0.8
KYTH	**Kithira**	1.46	98	*e*PN	Pg	01 09 55.6	+0.9
KYTH	**Kithira**	1.46	98	*e*Pn	Pg	01 09 55.6	+0.9
RLS	**Riolos of Patr**	1.56	6	*e*PN	Pn	01 09 54.4	-0.3
RLS	**Riolos of Patr**	1.56	6	*e*Pn	Pn	01 09 54.4	-0.3
GUR	**Goura**	1.67	31	*e*PN	Pn	01 09 56.1	-0.2
GUR	**Goura**	1.67	31	*e*Pn	Pn	01 09 56.1	-0.2
VLS	**Valsamata**	1.75	343	P	Pn	01 09 56.1	-1.2
VLS	**Valsamata**	1.75	343	*e*PN	Pn	01 09 56.5	-0.8
VLS	**Valsamata**	1.75	343	*e*Pn	Pn	01 09 56.5	-0.8
LAKA	**Lakka**	1.82	18	P	Pn	01 09 58.2	-0.2
LAKA				S	Sn	01 10 22.6	+0.8
LAKA	**Lakka**	1.82	18	P	Pn	01 09 58.2	-0.2
LAKA				S	Sn	01 10 22.6	+0.8
EFP	**Efpalio**	1.98	15	*e*PN	Pn	01 10 01.0	+0.4
EFP	**Efpalio**	1.98	15	*e*Pn	Pn	01 10 01.0	+0.4
KALE	**Kalithea**	2.01	20	P	Pn	01 10 00.9	-0.1
KALE				S	Sn	01 10 27.1	+0.7
KALE	**Kalithea**	2.01	20	P	Pn	01 10 00.9	-0.1
KALE				S	Sn	01 10 27.1	+0.7
LTK	**Loutraki**	2.04	42	P	Pn	01 10 00.8	-0.6
LTK				S	Sn	01 10 26.9	-0.3
LTK	**Loutraki**	2.04	42	P	Pn	01 10 00.8	-0.6
LTK				S	Sn	01 10 26.9	-0.3
LKD	**Levkas**	2.24	348	P	Pn	01 10 04.0	-0.2
LKD				S	Sn	01 10 32.8	+0.6
LKD	**Levkas**	2.24	348	P	Pn	01 10 04.0	-0.2
LKD				S	Sn	01 10 32.8	+0.6
VLY	**Voula,Athens**	2.44	56	⇓*i*PN	Pn	01 10 05.6	-1.3
VLY	**Voula,Athens**	2.44	56	⇓*i*Pn	Pn	01 10 05.6	-1.3
ATHU	**Athens Univers**	2.49	54	P	Pn	01 10 06.2	-1.4
ATHU	**Athens Univers**	2.49	54	P	Pn	01 10 06.2	-1.4
LKR	**Lokris**	2.55	33	P	Pn	01 10 07.2	-1.2
LKR				S	Sn	01 10 40.9	+1.1

LKR	Lokris	2.55	33	P	Pn	01 10 07.2	-1.2
LKR				S	Sn	01 10 40.9	+1.1
PTL	Penteli	2.59	53	ePN	Pn	01 10 08.0	-1.0
PTL	Penteli	2.59	53	ePn	Pn	01 10 08.0	-1.0
AGG	Agios Georgios	2.65	19	P	Pn	01 10 09.6	-0.2
AGG				S	Sn	01 10 43.3	+1.1
AGG	Agios Georgios	2.65	19	P	Pn	01 10 09.6	-0.2
AGG				S	Sn	01 10 43.3	+1.1
IGT	Igoumenitsa	3.10	347	P	Pn	01 10 15.0	-1.0
IGT	Igoumenitsa	3.10	347	P	Pn	01 10 15.0	-1.0
THL	Klokotos Trika	3.11	11	P	Pn	01 10 15.6	-0.5
THL				S	Sn	01 10 54.9	+1.4
THL	Klokotos Trika	3.11	11	P	Pn	01 10 15.6	-0.5
THL				S	Sn	01 10 54.9	+1.4
IDI	Anoyia	3.20	111	ePn	Pn	01 10 18.6	+1.3
IDI	Anoyia	3.20	111	ePn	Pn	01 10 18.6	+1.3
XOR	Xorichti	3.24	28	P	Pn	01 10 17.0	-0.9
XOR	Xorichti	3.24	28	P	Pn	01 10 17.0	-0.9
MEV	Metsovon	3.27	360	P	Pn	01 10 18.9	+0.6
MEV	Metsovon	3.27	360	P	Pn	01 10 18.9	+0.6
LIT	Litokhoron	3.72	15	P	Pn	01 10 24.0	-0.4
LIT	Litokhoron	3.72	15	P	Pn	01 10 24.0	-0.4
FNA	Florina	4.27	1	P	Pn	01 10 31.1	-0.9
FNA	Florina	4.27	1	P	Pn	01 10 31.1	-0.9
SOI	Samo	4.42	292	Pn	Pn	01 10 36.4	+2.2
SOI				Sn	Sn	01 11 21.1	-4.8
SOI	Samo	4.42	292	Pn	Pn	01 10 36.4	+2.2
SOI				Sn	Sn	01 11 21.1	-4.8
TIP	Timpagrande	4.44	308	ePn	Pn	01 10 33.3	-1.1
TIP	Timpagrande	4.44	308	ePn	Pn	01 10 33.3	-1.1
GRI	Girifalco	4.47	303	Pn	Pn	01 10 35.6	+0.8
GRI	Girifalco	4.47	303	Pn	Pn	01 10 35.6	+0.8
CEL	Celeste	4.61	294	Pn	Pn	01 10 37.9	+1.2
CEL				Sn	Sn	01 11 26.1	-4.3
CEL	Celeste	4.61	294	Pn	Pn	01 10 37.9	+1.2
CEL				Sn	Sn	01 11 26.1	-4.3
MTTG	Motta San Giov	4.67	290	Pn	Pn	01 10 39.6	+2.0
MTTG	Motta San Giov	4.67	290	Pn	Pn	01 10 39.6	+2.0
HAVL	Avola	4.94	277	Pn	Pn	01 10 42.1	+0.9
HAVL	Avola	4.94	277	Pn	Pn	01 10 42.1	+0.9
SSY	Sortino	4.99	279	Pn	Pn	01 10 42.1	+0.1
SSY	Sortino	4.99	279	Pn	Pn	01 10 42.1	+0.1
TAR1	Taranto	5.07	323	ePn	Pn	01 10 43.0	-0.1
PE1	Pezze di Greco	5.23	326	ePn	Pn	01 10 43.4	-1.8
LTRZ	Laterza	5.36	321	Pn	Pn	01 10 46.1	-0.9
LTRZ	Laterza	5.36	321	Pn	Pn	01 10 46.1	-0.9
SG1	Sgolgore (BA)	5.61	322	ePn	Pn	01 10 49.9	-0.5
MS1	Monte Sant'Ang	6.63	323	ePn	Pn	01 11 03.9	-0.5
RGNG	Rignano Grg	6.78	321	Pn	Pn	01 11 06.5	0.0
RGNG	Rignano Grg	6.78	321	Pn	Pn	01 11 06.5	0.0
STON	Ston	6.92	338	ePn	Pn	01 11 05.2	-3.2
STON				Sn	Sn	01 12 17.3	-10
NVLJ	Novalja	9.39	331	ePn	Pn	01 11 44.5	+2.2
NVLJ				Sn	Sn	01 13 19.6	-8.6
NVLJ	Novalja	9.39	331	ePn	Pn	01 11 44.4	+2.1

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*ISCJB **28** 01:16:13.5±0.2, 43°.89N±0°.01×6°.66W±0°.02, h10^{km}, mb3.6/3, Error ellipse: s-maj=2.6km s-min=1.5km az=38.9*

*IDC **28** 01:16:13.4±2.3, 43°.88N×7°.10W, h0^{km}, mb3.5/3, mb1 3.6/8, mb1mx3.4/29, mbtmp3.5/8, ML3.7/5, Error ellipse: s-maj=53.1km s-min=18.0km az=86.0*

*MDD **28** 01:16:16.6±0.4, 43°.96N×6°.77W, h11^{km}, mbLg3.4/31, Error ellipse: s-maj=5.4km s-min=2.6km az=144.0, PRIMO*

MDD EMS: II INTENSIDAD MIMA.

*CSEM **28** 01:16:16.5±0.1, 43°.93N×6°.76W, h20^{km}, ML4.2/25, Error ellipse: s-maj=3.3km s-min=1.6km az=131.0*

*NEIC **28** 01:16:18.8, 43°.86N×6°.79W, h23^{km}, ML4.1(LDG), ML4.1(STR), MN3.4(MDD), After MDD.*

*LDG **28** 01:16:19.0±0.1, 43°.94N×6°.78W, h25^{km}, Md3.9/2, Ml4.1/41, Error ellipse: s-maj=2.6km s-min=1.5km az=119.0*

*INMG **28** 01:16:19.3±1.4, 43°.79N×6°.64W, h21^{km}±3^{km}, MD3.4, ML3.3, Error ellipse: s-maj=4.0km s-min=2.6km az=143.0*

*BGS **28** 01:16:20.4±0.4, 44°.20N×6°.54W, h10^{km}, ML3.8*

*STR **28** 01:16:25.8±1.2, 44°.09N×5°.75W, h10^{km}, Ml4.1, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 28 01:16:15.8±0.2, **43°.89N**±0°.01×**6°.69W**±0°.02, **h10^{km}, n376, σ1§14**/602, **mb3.6**/3, **9C-4D, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EPON	Pontenova	0.65	211	⇑Pg	Pg	01 16 30.4	+2.0
	70nm,0.1s,SNR=18						
EPON				Lg	Sg	01 16 38.1	+1.1
	529nm,0.1s,SNR=7.9						
EPON	Pontenova	0.65	211	P	Pg	01 16 30.3	+1.9
EPON				S	Sg	01 16 38.1	+1.1
EPON	Pontenova	0.65	211	Pg	Pg	01 16 30.4	+2.0
	70nm,0.1s,SNR=18						
EPON				Lg	Sg	01 16 38.1	+1.2
	529nm,0.1s,SNR=7.9						
EARI	Arriondas	1.22	118	⇑Pg	Pg	01 16 40.3	+1.0
	366nm,0.3s,SNR=18						
EARI				Lg		01 16 55.8	
	418nm,0.2s						
EARI	Arriondas	1.22	118	P	Pn	01 16 40.2	+1.2
EARI				S	Sb	01 16 55.8	+1.0
EARI	Arriondas	1.22	118	Pg	Pg	01 16 40.3	+1.0
	366nm,0.3s,SNR=18						
EARI				Lg		01 16 55.8	
	418nm,0.2s						
ERUA	La Rua	1.53	193	Pn	Pn	01 16 43.6	+0.5
	13nm,0.2s,SNR=7.9						
ERUA				Pg	Pg	01 16 48.5	+3.4
	46nm,0.2s,SNR=7.9						
ERUA				Lg		01 17 07.7	
	SNR=7.9						
ERUA	La Rua	1.53	193	P	Pn	01 16 44.3	+1.2
ERUA	La Rua	1.53	193	Pn	Pn	01 16 43.6	+0.5
	13nm,0.2s,SNR=7.9						
ERUA	La Rua	1.53	193	P	Pn	01 16 44.3	+1.2
STS	Santiago	1.69	234	Pn	Pn	01 16 44.7	-0.6
	16nm,0.1s,SNR=54						
STS				Pg	Pg	01 16 49.7	+1.6
	30nm,0.2s,SNR=7.9						
STS				Sn	Sn	01 17 02.8	-4.1
	72nm,0.2s						
STS				Lg		01 17 08.7	
	198nm,0.4s,SNR=7.9						
STS	Santiago	1.69	234	P	Pn	01 16 44.7	-0.6
STS				S	Sn	01 17 06.6	-0.3
STS	Santiago	1.69	234	Pn	Pn	01 16 44.7	-0.6
	16nm,0.1s,SNR=54						
STS	Santiago	1.69	234	Pg	Pg	01 16 49.7	+1.6
	30nm,0.2s,SNR=7.9						
STS				Sn	Sn	01 17 02.8	-4.1
	72nm,0.2s						
STS				S	Sn	01 17 06.6	-0.3
STS				Lg		01 17 13.0	
	198nm,0.4s,SNR=7.9						
EMAZ	Mazaricos	1.91	241	Pn	Pn	01 16 47.7	-0.7
	14nm,0.2s,SNR=41						
EMAZ				Pg	Pg	01 16 52.2	-0.3
	41nm,0.2s,SNR=7.9						
EMAZ				Sn	Sn	01 17 09.6	-2.9
	95nm,0.1s						
EMAZ				Lg		01 17 16.6	
	278nm,0.2s,SNR=7.9						
EMAZ	Mazaricos	1.91	241	P	Pn	01 16 47.9	-0.5
EMAZ				S	Sn	01 17 09.6	-2.9
EMAZ	Mazaricos	1.91	241	Pn	Pn	01 16 47.7	-0.7
	14nm,0.2s,SNR=41						
EMAZ	Mazaricos	1.91	241	Pg	Pg	01 16 52.2	-0.3
	41nm,0.2s,SNR=7.9						
EMAZ				Sn	Sn	01 17 09.6	-2.9
	95nm,0.1s						
EMAZ				Lg		01 17 18.4	
	278nm,0.2s,SNR=7.9						
ECAL	Calabor	1.94	181	Pn	Pn	01 16 48.9	+0.1
	7.1nm,0.1s,SNR=38						
ECAL				Pg	Pg	01 16 55.3	+2.2
	280nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	01 17 11.6	-1.7
	137nm,0.3s						
ECAL				Lg		01 17 19.0	
	875nm,0.5s,SNR=7.9						
ECAL	Calabor	1.94	181	P	Pn	01 16 48.9	+0.1
ECAL				S	Sn	01 17 13.2	-0.1
ECAL	Calabor	1.94	181	Pn	Pn	01 16 48.9	0.0
	7.1nm,0.1s,SNR=38						
ECAL	Calabor	1.94	181	Pg	Pg	01 16 55.3	+2.2
	280nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	01 17 11.6	-1.7
	137nm,0.3s						
ECAL				S	Sn	01 17 13.2	-0.1
ECAL				Lg		01 17 19.0	
	875nm,0.5s,SNR=7.9						
PBRG	Braganca	2.08	181	ePn	Pn	01 16 51.2	+0.5
PBRG				eSg	Sg	01 17 24.7	+2.1
PBRG				A		01 17 29.4	
	156nm,0.6s						
PBRG	Braganca	2.08	181	Pn	Pn	01 16 51.2	+0.5
PBRG				Lg		01 17 24.7	
	78nm,0.6s						
PBRG	Braganca	2.08	181	ePn	Pn	01 16 51.2	+0.5
PBRG				eSg	Sg	01 17 24.7	+2.1
	156nm,0.6s						
ELOB	Lobios	2.26	207	Pn	Pn	01 16 52.2	-0.9
	10nm,0.1s,SNR=102						
ELOB				Pg	Pg	01 17 01.2	+2.2
	6.1nm,0.1s,SNR=7.9						
ELOB				Sn	Sn	01 17 17.9	-3.1
	40nm,0.2s,SNR=13						
ELOB				Lg		01 17 29.1	
	162nm,0.4s,SNR=7.9						
ELOB	Lobios	2.26	207	P	Pn	01 16 52.2	-0.9
ELOB				S	Sn	01 17 17.4	-3.6
ELOB	Lobios	2.26	207	Pn	Pn	01 16 52.2	-0.9
	10nm,0.1s,SNR=102						
EZAM	Zamans	2.28	221	Pn	Pn	01 16 53.0	-0.4
	3.4nm,0.1s,SNR=7.9						
EZAM				Pg	Pg	01 17 00.3	+0.8
	25nm,0.2s,SNR=7.9						
EZAM				Sn	Sn	01 17 20.3	-1.2
	39nm,0.2s,SNR=7.9						
EZAM				Lg		01 17 28.8	
	307nm,0.6s,SNR=7.9						
EZAM	Zamans	2.28	221	P	Pn	01 16 52.4	-1.0
EZAM	Zamans	2.28	221	P	Pn	01 16 52.4	-1.0
EZAM	Zamans	2.28	221	Pn	Pn	01 16 53.0	-0.4
	3.4nm,0.1s,SNR=7.9						
EZAM	Zamans	2.28	221	Pg	Pg	01 17 01.4	+2.0
	25nm,0.2s,SNR=7.9						
EZAM				Sn	Sn	01 17 18.3	-3.2
	39nm,0.2s,SNR=7.9						
EZAM				Lg		01 17 28.8	
	307nm,0.6s,SNR=7.9						
PCAB	Cabril	2.39	205	ePn	Pn	01 16 54.5	-0.4
PCAB				eSn	Sn	01 17 21.9	-2.3
PCAB				eSg	Sg	01 17 31.8	-0.7
PCAB				A		01 17 40.9	
	161nm,0.4s						
PCAB	Cabril	2.39	205	Pn	Pn	01 16 54.5	-0.4
PCAB				Sn	Sn	01 17 21.9	-2.3
PCAB				Lg		01 17 31.8	
	80nm,0.4s						
PCAB	Cabril	2.39	205	ePn	Pn	01 16 54.5	-0.4
PCAB				eSn	Sn	01 17 21.9	-2.3
ELAN	Lanestosa	2.45	104	⇑Pn	Pn	01 16 57.3	+1.4
	71nm,0.2s,SNR=18						
ELAN				Sn	Sn	01 17 26.0	+0.1
	163nm,0.3s,SNR=6.6						
ELAN				Lg		01 17 36.0	
	93nm,0.3s,SNR=7.9						
ELAN	Lanestosa	2.45	104	P	Pn	01 16 57.3	+1.4
ELAN				S	Sn	01 17 26.0	+0.1
ELAN	Lanestosa	2.45	104	Pn	Pn	01 16 57.3	+1.4
	71nm,0.2s,SNR=18						
ELAN				Sn	Sn	01 17 26.0	+0.1
	163nm,0.3s,SNR=6.6						
ELAN				Lg		01 17 36.0	
	93nm,0.3s,SNR=7.9						
PVRL	Vila Real	2.72	197	ePn	Pn	01 16 59.6	+0.1
PVRL				eSn	Sn	01 17 30.4	-2.0
PVRL				eSg	Sg	01 17 42.6	-0.5
PVRL				A		01 17 47.6	
	141nm,0.4s						
PVRL	Vila Real	2.72	197	Pn	Pn	01 16 59.6	+0.1
PVRL				Sn	Sn	01 17 30.4	-2.0
PVRL				Lg		01 17 42.6	
	71nm,0.4s						
PVRL	Vila Real	2.72	197	ePn	Pn	01 16 59.6	+0.1
PVRL				eSg	Sg	01 17 42.6	-0.5
	141nm,0.4s						
MVO	Moncorvo	2.73	185	ePn	Pn	01 16 59.8	+0.1
MVO				eSg	Sg	01 17 42.9	-0.6
MVO				A		01 17 52.7	
	149nm,0.3s						
MVO	Moncorvo	2.73	185	Pn	Pn	01 16 59.8	+0.1
MVO				Lg		01 17 42.9	
	75nm,0.3s						
MVO	Moncorvo	2.73	185	ePn	Pn	01 16 59.8	+0.1
MVO				eSg	Sg	01 17 42.9	-0.6
	149nm,0.3s						
PVIS	Viseu	3.29	196	ePn	Pn	01 17 06.9	-0.5
PVIS				eSn	Sn	01 17 43.8	-2.8
PVIS				A		01 18 05.8	
	81nm,0.7s						
PVIS	Viseu	3.29	196	Pn	Pn	01 17 06.9	-0.5
PVIS				Sn	Sn	01 17 43.8	-2.8
	41nm,0.7s						
PVIS	Viseu	3.29	196	ePn	Pn	01 17 06.9	-0.5
PVIS				eSn	Sn	01 17 43.8	-2.8
	81nm,0.7s						
ECRI	Cripan	3.31	111	⇑Pn	Pn	01 17 09.4	+1.7
	11nm,0.2s,SNR=18						
ECRI				Sn	Sn	01 17 46.9	-0.1
	22nm,0.2s,SNR=7.9						
ECRI	Cripan	3.31	111	P	Pn	01 17 09.2	+1.6
ECRI				S	Sn	01 17 46.9	-0.1
ECRI	Cripan	3.31	111	Pn	Pn	01 17 09.4	+1.8
	11nm,0.2s,SNR=18						
ECRI				Sn	Sn	01 17 46.9	-0.1
	22nm,0.2s,SNR=7.9						
MTE	Manteigas	3.54	191	ePn	Pn	01 17 10.5	-0.3
MTE				eSn	Sn	01 17 50.7	-2.0
MTE				eSg	Sg	01 18 08.7	-0.8
MTE				A		01 18 16.1	
	111nm,0.5s						
MTE	Manteigas	3.54	191	ePn	Pn	01 17 11.1	+0.3
MTE	Manteigas	3.54	191	ePn	Pn	01 17 11.1	+0.3
MTE				eSn	Sn	01 17 50.7	-2.0
MTE				eSg	Sg	01 18 08.7	-0.8
	111nm,0.5s						
GUD	Guadarrama	3.75	149	⇓Pn	Pn	01 17 13.9	+0.2
	26nm,0.2s,SNR=18						
GUD				Sn	Sn	01 17 54.1	-3.6
	56nm,0.2s,SNR=7.9						
GUD				Lg		01 18 17.4	
	80nm,0.5s,SNR=7.9						
GUD	Guadarrama	3.75	149	P	Pn	01 17 14.0	+0.4
GUD				S	Sn	01 17 53.9	-3.9
GUD	Guadarrama	3.75	149	Sn	Sn	01 17 53.9	-3.9
	56nm,0.2s,SNR=7.9						
GUD	Guadarrama	3.75	149	Pn	Pn	01 17 13.9	+0.3
	26nm,0.2s,SNR=18						
GUD				Lg		01 18 17.4	
	80nm,0.5s,SNR=7.9						
ELIZ	Elizondo	3.82	99	Pn	Pn	01 17 15.6	+0.9
	40nm,0.2s,SNR=115						
ELIZ				Sn	Sn	01 17 58.5	-1.1
	41nm,0.2s						
ELIZ	Elizondo	3.82	99	Pn	Pn	01 17 15.6	+0.9
	40nm,0.2s,SNR=115						
ELIZ				Sn	Sn	01 17 58.5	-1.1
	41nm,0.2s						
EALK	Alkurruntz	3.83	98	⇑Pn	Pn	01 17 15.7	+1.0
	31nm,0.3s,SNR=18						
EALK				Sn	Sn	01 17 57.3	-2.4
	96nm,0.2s,SNR=14						
EALK	Alkurruntz	3.83	98	Pn	Pn	01 17 15.7	+1.0
	31nm,0.3s,SNR=18						
EALK				Sn	Sn	01 17 57.3	-2.4
	96nm,0.2s,SNR=14						
IUSE	Utxeti	3.86	102	Pn	Pn	01 17 17.2	+2.0
	15nm,0.2s,SNR=35						
IUSE				Sn	Sn	01 18 01.1	+0.5
	20nm,0.1s,SNR=4.7						
IUSE	Utxeti	3.86	102	Pn	Pn	01 17 17.2	+2.0
	15nm,0.2s,SNR=35						
IUSE				Sn	Sn	01 18 01.1	+0.5
	20nm,0.1s,SNR=4.7						
EARA	Aranguren	3.89	105	Pn	Pn	01 17 17.1	+1.5
	10nm,0.3s,SNR=7.6						
EARA				Sn	Sn	01 18 01.7	+0.4
	11nm,0.1s,SNR=5.4						
EARA	Aranguren	3.89	105	Pn	Pn	01 17 17.1	+1.5
	10nm,0.3s,SNR=7.6						
EARA				Sn	Sn	01 18 01.7	+0.4
	11nm,0.1s,SNR=5.4						
IZUN	Zunzarren	3.95	103	Sn	Sn	01 18 02.6	-0.2
	SNR=7.9						
IUNC	Unciti	3.95	105	Pn	Pn	01 17 18.7	+2.2
	39nm,0.4s,SNR=39						
IUNC				Sn	Sn	01 18 03.8	+1.0
	28nm,0.2s,SNR=7.9						
IUNC	Unciti	3.95	105	Pn	Pn	01 17 18.7	+2.3
	39nm,0.4s,SNR=39						
IUNC				Sn	Sn	01 18 03.8	+1.0
	28nm,0.2s,SNR=7.9						
OSSF	Osses	3.99	97	P	Pn	01 17 17.5	+0.5
OSSF	Osses	3.99	97	P	Pn	01 17 17.5	+0.5
EORO	Oroz-Betelu	4.04	102	Pn	Pn	01 17 19.5	+1.8
	12nm,0.1s,SNR=7.9						
EORO				Sn	Sn	01 18 04.8	-0.3
	64nm,0.2s,SNR=7.9						
EORO	Oroz-Betelu	4.04	102	Pn	Pn	01 17 19.5	+1.8
	12nm,0.1s,SNR=7.9						
EORO				Sn	Sn	01 18 05.8	+0.7
	64nm,0.2s,SNR=7.9						
SJPF	Ste Jean	4.05	99	ePn	Pn	01 17 18.2	+0.4
	SNR=1.0						
SJPF				eSn	Sn	01 18 03.0	-2.2
	66nm,0.2s						
SJPF	Ste Jean	4.05	99	Pn	Pn	01 17 18.2	+0.4
SJPF				Sn	Sn	01 18 03.0	-2.2
	33nm,0.2s						
SJPF	Ste Jean	4.05	99	ePn	Pn	01 17 18.2	+0.4
	SNR=1.0						
SJPF				eSn	Sn	01 18 03.0	-2.2
	33nm,0.2s						
PCBR	Castelo Branco	4.08	189	ePn	Pn	01 17 18.4	+0.1
PCBR				eSn	Sn	01 18 03.3	-2.8
PCBR				eSg	Sg	01 18 27.6	+0.6
PCBR				A		01 18 35.8	
	45nm,0.5s						
PCBR	Castelo Branco	4.08	189	Pn	Pn	01 17 18.4	+0.1
PCBR				Sn	Sn	01 18 03.3	-2.8
PCBR				Lg		01 18 27.6	
	22nm,0.5s						
PCBR	Castelo Branco	4.08	189	ePn	Pn	01 17 18.4	+0.1
PCBR				eSn	Sn	01 18 03.3	-2.8
PCBR				eSg	Sg	01 18 27.6	+0.6
	45nm,0.5s						
ORDF	Ordiarp	4.24	97	P	Pn	01 17 20.3	0.0
ORDF	Ordiarp	4.24	97	P	Pn	01 17 20.3	0.0
ATE	Arette	4.43	98	P	Pn	01 17 23.6	+0.6
ATE	Arette	4.43	98	P	Pn	01 17 23.6	+0.6
PTOM	Tomar	4.46	197	ePn	Pn	01 17 23.9	+0.5
PTOM				eSn	Sn	01 18 11.9	-3.3
PTOM				eSg	Sg	01 18 39.5	+0.7
PTOM				A		01 18 47.5	
	131nm,0.6s						
PTOM	Tomar	4.46	197	Pn	Pn	01 17 23.9	+0.5
PTOM				Sn	Sn	01 18 11.9	-3.3
PTOM				Lg		01 18 39.5	
	66nm,0.6s						
PTOM	Tomar	4.46	197	ePn	Pn	01 17 23.9	+0.5
PTOM				eSn	Sn	01 18 11.9	-3.3
PTOM				eSg	Sg	01 18 39.5	+0.7
	131nm,0.6s						
PMRV	Marv??o	4.49	187	ePn	Pn	01 17 24.2	+0.4
PMRV				eSn	Sn	01 18 13.6	-2.4
PMRV				eSg	Sg	01 18 39.2	-0.6
PMRV				A		01 18 49.1	
	45nm,0.6s						
PMRV	Marv??o	4.49	187	Pn	Pn	01 17 24.2	+0.4
PMRV				Sn	Sn	01 18 13.6	-2.4
PMRV				Lg		01 18 39.2	
	22nm,0.6s						
PMRV	Marv??o	4.49	187	ePn	Pn	01 17 24.2	+0.4
PMRV				eSn	Sn	01 18 13.6	-2.4
PMRV				eSg	Sg	01 18 39.2	-0.6
	45nm,0.6s						
ETSF	Etsaut	4.57	100	ePn	Pn	01 17 26.7	+1.7
	SNR=1.0						
ETSF				eSn	Sn	01 18 15.9	-2.3
	82nm,0.3s						
ETSF	Etsaut	4.57	100	Pn	Pn	01 17 26.7	+1.7
ETSF				Sn	Sn	01 18 15.9	-2.3
	41nm,0.3s						
ETSF	Etsaut	4.57	100	ePn	Pn	01 17 26.7	+1.7
	SNR=1.0						
ETSF				eSn	Sn	01 18 15.9	-2.3
	41nm,0.3s						
ETOR	Torete	4.60	130	⇓Pn	Pn	01 17 26.6	+1.2
	32nm,0.3s,SNR=18						
ETOR				Sn	Sn	01 18 16.2	-2.6
	39nm,0.3s,SNR=7.9						
ETOR				Lg		01 18 43.1	
	72nm,0.4s,SNR=7.9						
ETOR	Torete	4.60	130	P	Pn	01 17 26.6	+1.2
ETOR				S	Sn	01 18 16.2	-2.6
ETOR	Torete	4.60	130	Pn	Pn	01 17 26.6	+1.2
	32nm,0.3s,SNR=18						
ETOR				Sn	Sn	01 18 16.2	-2.7
	39nm,0.3s,SNR=7.9						
ETOR				Lg		01 18 43.1	
	72nm,0.4s,SNR=7.9						
REYF	Montagne du Re	4.65	98	P	Pn	01 17 26.3	+0.2
REYF	Montagne du Re	4.65	98	P	Pn	01 17 26.3	+0.2
ESDC	Sonseca Array	4.67	153	⇑Pn	Pn	01 17 26.3	-0.1
	8.1nm,0.2s,baz=335,slow=12,SNR=18						
ESDC				Sn	Sn	01 18 16.2	-4.5
	5µm,0.1s,baz=328,slow=22,SNR=8.9						
ESDC				Lg		01 18 43.0	
	19nm,0.5s,baz=332,slow=30,SNR=7.9						
ESDC	Sonseca Array	4.67	153	Pn	Pn	01 17 26.3	-0.1
	5.4nm,0.3s,baz=336,slow=12,SNR=70						
ESDC				Sn	Sn	01 18 16.2	-4.5
	7.2nm,0.3s,baz=334,slow=17,SNR=5.6						
ESDC				Lg		01 18 46.1	
	13nm,0.3s,baz=329,slow=30,SNR=9.1						
ESDC	Sonseca Array	4.67	153	P	Pn	01 17 26.4	0.0
ESDC				S	Sn	01 18 16.2	-4.5
ESDC	Sonseca Array	4.67	153	Pn	Pn	01 17 26.3	-0.1
	8.1nm,0.2s,baz=335,slow=12,SNR=18						
ESDC				Lg		01 18 43.0	
	19nm,0.5s,baz=332,SNR=7.9						
ESLA	Sonseca Array	4.67	153	ePn	Pn	01 17 26.4	0.0
ESLA	Sonseca Array	4.67	153	ePn	Pn	01 17 26.4	0.0
PAB	San Pablo	4.68	157	ePn	Pn	01 17 26.6	+0.2
PAB	San Pablo	4.68	157	ePn	Pn	01 17 26.6	+0.2
QUIF	Quistinic	4.72	30	ePn	Pn	01 17 26.7	-0.3
	SNR=1.0						
QUIF				eSn	Sn	01 18 14.9	-6.9
	38nm,0.3s,SNR=1.0						
QUIF	Quistinic	4.72	30	Pn	Pn	01 17 26.7	-0.3
QUIF				Sn	Sn	01 18 14.9	-6.9
	0.0nm,0.3s						
QUIF	Quistinic	4.72	30	eSn	Sn	01 18 14.9	-6.9
	19nm,0.3s,SNR=1.0						
QUIF	Quistinic	4.72	30	ePn	Pn	01 17 26.7	-0.3
	SNR=1.0						
CHIF	Chize	4.99	61	P	Pn	01 17 30.8	+0.1
CHIF	Chize	4.99	61	P	Pn	01 17 30.8	+0.1
LABF	Labassere	4.99	97	P	Pn	01 17 31.2	+0.4
LABF	Labassere	4.99	97	P	Pn	01 17 31.2	+0.4
VIEF	Viey	4.99	99	P	Pn	01 17 33.0	+2.2
VIEF				S	Sn	01 18 29.4	+0.9
VIEF	Viey	4.99	99	P	Pn	01 17 33.0	+2.2
VIEF				S	Sn	01 18 29.4	+0.9
ROSF	Rostrenen	5.04	27	ePn	Pn	01 17 30.9	-0.5
	SNR=1.0						
ROSF				eSn	Sn	01 18 22.4	-7.3
	27nm,0.3s,SNR=1.0						
ROSF	Rostrenen	5.04	27	Pn	Pn	01 17 30.9	-0.5
ROSF				Sn	Sn	01 18 22.4	-7.3
	14nm,0.3s						
ROSF	Rostrenen	5.04	27	eSn	Sn	01 18 22.4	-7.3
	14nm,0.3s,SNR=1.0						
ROSF	Rostrenen	5.04	27	ePn	Pn	01 17 30.9	-0.5
	SNR=1.0						
ESAC	San Caprasio	5.06	113	⇑Pn	Pn	01 17 33.0	+1.3
	88nm,0.2s,SNR=18						
ESAC				Sn	Sn	01 18 28.7	-1.5
	98nm,0.3s						
ESAC	San Caprasio	5.06	113	Pn	Pn	01 17 33.0	+1.3
	88nm,0.2s,SNR=18						
ESAC				Sn	Sn	01 18 28.7	-1.5
	98nm,0.3s						
PESTR	Estremoz	5.06	188	ePn	Pn	01 17 32.0	+0.3
PESTR				eSg	Sg	01 18 56.1	-2.1

PESTR				A		01 19 03.5	
	35nm,0.7s						
PESTR	**Estremoz**	5.06	188	Pn	Pn	01 17 32.0	+0.3
PESTR				Lg		01 18 56.1	
	17nm,0.7s						
PESTR	**Estremoz**	5.06	188	*e*Sg	Sg	01 18 56.1	-2.1
	35nm,0.7s						
PESTR	**Estremoz**	5.06	188	*e*Pn	Pn	01 17 32.0	+0.3
EBIE	**Bielsa**	5.13	101	⇓Pn	Pn	01 17 34.8	+2.2
	44nm,0.4s,SNR=18						
EBIE				Sn	Sn	01 18 30.7	-1.2
	12nm,0.2s						
EBIE	**Bielsa**	5.13	101	P	Pn	01 17 34.8	+2.2
EBIE				S	Sn	01 18 32.1	+0.2
EBIE	**Bielsa**	5.13	101	Pn	Pn	01 17 34.8	+2.2
	44nm,0.4s,SNR=18						
EBIE				Sn	Sn	01 18 30.7	-1.1
	12nm,0.2s						
EBIE				S	Sn	01 18 32.1	+0.3
EBAD	**Badajoz**	5.13	183	Pn	Pn	01 17 33.1	+0.5
	0.7nm,0.1s,SNR=14						
EBAD				Sn	Sn	01 18 28.5	-3.5
	9.7nm,0.2s						
EBAD				Lg		01 19 00.4	
	53nm,0.7s,SNR=7.9						
EBAD	**Badajoz**	5.13	183	P	Pn	01 17 33.1	+0.5
EBAD				S	Sn	01 18 28.5	-3.5
EBAD	**Badajoz**	5.13	183	Pn	Pn	01 17 33.1	+0.4
	0.7nm,0.1s,SNR=14						
EBAD				Sn	Sn	01 18 28.5	-3.4
	9.7nm,0.2s						
EBAD				Lg		01 19 00.4	
	53nm,0.7s,SNR=7.9						
EPF	**Esparros**	5.19	97	*e*Pn	Pn	01 17 33.6	+0.2
	SNR=1.0						
EPF				*e*Sn	Sn	01 18 30.5	-2.8
	61nm,0.3s						
EPF	**Esparros**	5.19	97	Pn	Pn	01 17 33.6	+0.2
EPF				Sn	Sn	01 18 30.5	-2.8
	31nm,0.3s						
EPF	**Esparros**	5.19	97	*e*Pn	Pn	01 17 33.6	+0.2
	SNR=1.0						
EPF				*e*Sn	Sn	01 18 30.5	-2.8
	31nm,0.3s						
SGMF	**Saint Gilles**	5.23	32	*e*Pn	Pn	01 17 33.3	-0.7
	SNR=1.0						
SGMF				*e*Sn	Sn	01 18 26.9	-7.4
	17nm,0.3s,SNR=1.0						
SGMF	**Saint Gilles**	5.23	32	Pn	Pn	01 17 33.3	-0.7
SGMF				Sn	Sn	01 18 26.9	-7.4
	8.6nm,0.3s						
SGMF	**Saint Gilles**	5.23	32	*e*Pn	Pn	01 17 33.3	-0.7
	SNR=1.0						
RESF	**Ens**	5.24	99	P	Pn	01 17 36.5	+2.4
RESF	**Ens**	5.24	99	P	Pn	01 17 36.5	+2.4
PMAFR	**Mafra**	5.30	202	*e*Pn	Pn	01 17 35.1	+0.1
PMAFR				*e*Sn	Sn	01 18 33.7	-2.3
PMAFR				A		01 19 11.6	
	25nm,0.6s						
PMAFR	**Mafra**	5.30	202	Pn	Pn	01 17 35.1	+0.1
PMAFR				Sn	Sn	01 18 33.7	-2.3
	12nm,0.6s						
PMAFR	**Mafra**	5.30	202	*e*Pn	Pn	01 17 35.1	+0.1
PMAFR				*e*Sn	Sn	01 18 33.7	-2.3
	25nm,0.6s						
MFF	**Saint Martin d**	5.36	57	*e*Pn	Pn	01 17 35.4	-0.4
	SNR=1.0						
MFF				*e*Sn	Sn	01 18 31.8	-5.7
	38nm,0.3s,SNR=1.0						
MFF	**Saint Martin d**	5.36	57	Pn	Pn	01 17 35.4	-0.4
MFF				Sn	Sn	01 18 31.8	-5.7
	19nm,0.3s						
MFF	**Saint Martin d**	5.36	57	*e*Pn	Pn	01 17 35.4	-0.4
	SNR=1.0						
MFF				*e*Sn	Sn	01 18 31.8	-5.7
	19nm,0.3s,SNR=1.0						
LFF	**La Frestale**	5.42	76	*e*Pn	Pn	01 17 36.8	+0.1
	SNR=1.0						
LFF				*e*Sn	Sn	01 18 33.5	-5.6
	52nm,0.3s,SNR=1.0						
LFF	**La Frestale**	5.42	76	Pn	Pn	01 17 36.8	+0.1
LFF				Sn	Sn	01 18 33.5	-5.6
	26nm,0.3s						
LFF	**La Frestale**	5.42	76	*e*Pn	Pn	01 17 36.8	+0.1
	SNR=1.0						
EVO	**Evora**	5.44	191	*e*Pn	Pn	01 17 36.8	-0.1
EVO	**Evora**	5.44	191	*e*Pg	Pg	01 18 00.3	+0.3
EVO				*e*Sn	Sn	01 18 35.5	-4.1
EVO				*e*Sg	Sg	01 19 11.6	+1.1
	46nm,0.5s						
EVO	**Evora**	5.44	191	*e*Pn	Pn	01 17 37.7	+0.8
EVO				A		01 19 21.4	
	22nm,0.5s						
EVO	**Evora**	5.44	191	*e*Pn	Pn	01 17 37.7	+0.8
	22nm,0.5s						
EVOP	**Sao Brissos**	5.46	192	*e*Pn	Pn	01 17 36.8	-0.4
EVOP	**Sao Brissos**	5.46	192	*e*Pg	Pg	01 18 00.3	-0.1
PBAR	**Barrancos**	5.71	183	*e*Pn	Pn	01 17 41.3	+0.7
PBAR				A		01 19 24.6	
	41nm,0.5s						
PBAR	**Barrancos**	5.71	183	*e*Pn	Pn	01 17 41.3	+0.7
	41nm,0.5s						
MLS	**Moulis**	5.74	97	P	Pn	01 17 41.4	+0.3
MLS				S	Sn	01 18 43.4	-3.6
MLS	**Moulis**	5.74	97	P	Pn	01 17 41.4	+0.3
EMOS	**Mosqueruela**	5.81	125	⇑Pn	Pn	01 17 43.9	+1.9
	32nm,0.3s,SNR=18						
EMOS				Sn	Sn	01 18 47.4	-1.2
	6.1nm,0.3s						
EMOS	**Mosqueruela**	5.81	125	P	Pn	01 17 44.0	+2.1
EMOS				S	Sn	01 18 47.4	-1.2
EMOS	**Mosqueruela**	5.81	125	Pn	Pn	01 17 43.9	+1.9
	32nm,0.3s,SNR=18						
SALF	**Salau**	5.86	98	P	Pn	01 17 45.1	+2.5
SALF	**Salau**	5.86	98	P	Pn	01 17 45.1	+2.5
ECAB	**El Cabril**	5.88	170	Pn	Pn	01 17 43.1	+0.1
	2.1nm,0.2s,SNR=7.9						
ECAB				Sn	Sn	01 18 46.4	-4.1
	20nm,0.2s,SNR=7.9						
ECAB				Lg		01 19 21.6	
	47nm,0.4s,SNR=7.9						
ECAB	**El Cabril**	5.88	170	P	Pn	01 17 44.0	+1.0
ECAB				S	Sn	01 18 46.4	-4.1
ECAB	**El Cabril**	5.88	170	Pn	Pn	01 17 43.1	+0.1
	2.1nm,0.2s,SNR=7.9						
ECAB	**El Cabril**	5.88	170	P	Pn	01 17 44.0	+1.0
PBEJ	**Beja**	5.92	189	*e*Sn	Sn	01 18 48.0	-3.4
EADA	**Adamuz**	5.93	164	Pn	Pn	01 17 43.4	-0.3
	0.5nm,0.2s,SNR=7.9						
EADA				Sn	Sn	01 18 45.5	-6.2
	3.5nm,0.2s,SNR=7.9						
EADA				Lg		01 19 25.6	
	33nm,0.7s,SNR=7.9						
EADA	**Adamuz**	5.93	164	P	Pn	01 17 43.4	-0.3
EADA				S	Sn	01 18 45.5	-6.2
EADA	**Adamuz**	5.93	164	Pn	Pn	01 17 43.4	-0.3
	0.5nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	5.96	117	⇑Pn	Pn	01 17 45.2	+1.1
	15nm,0.3s,SNR=18						
ERTA				Sn	Sn	01 18 50.4	-2.0
	17nm,0.2s						
ERTA	**Horta de San J**	5.96	117	Pn	Pn	01 17 45.2	+1.1
	15nm,0.3s,SNR=18						
RJF	**Les Rejaudoux**	6.03	74	*e*Pn	Pn	01 17 44.4	-0.6
	SNR=1.0						
RJF				*e*Sn	Sn	01 18 48.6	-5.4
	95nm,0.3s						
RJF	**Les Rejaudoux**	6.03	74	Pn	Pn	01 17 44.4	-0.6
RJF				Sn	Sn	01 18 48.6	-5.4
	48nm,0.3s						
RJF	**Les Rejaudoux**	6.03	74	*e*Pn	Pn	01 17 44.4	-0.6
	SNR=1.0						
GRR	**Gorron**	6.06	40	*e*Pn	Pn	01 17 44.6	-0.7
	SNR=1.0						
GRR				*e*Sn	Sn	01 18 46.7	-7.9
	18nm,0.2s						
GRR	**Gorron**	6.06	40	Pn	Pn	01 17 44.6	-0.7
GRR				Sn	Sn	01 18 46.7	-7.9
	8.9nm,0.2s						
GRR	**Gorron**	6.06	40	*e*Pn	Pn	01 17 44.6	-0.7
	SNR=1.0						
ECHE	**Chera**	6.06	133	Pn	Pn	01 17 46.5	+1.1
	3.4nm,0.3s,SNR=8.6						
ECHE				Sn	Sn	01 18 53.4	-1.4
	7.9nm,0.3s,SNR=6.8						
ECHE	**Chera**	6.06	133	P	Pn	01 17 46.6	+1.1
ECHE				S	Sn	01 18 53.4	-1.4
ECHE	**Chera**	6.06	133	Pn	Pn	01 17 46.5	+1.1
	3.4nm,0.3s,SNR=8.6						
EMIN	**Mina Concepcio**	6.11	180	Pn	Pn	01 17 45.5	-0.6
	0.1nm,0.2s,SNR=7.9						
EMIN				Sn	Sn	01 18 52.3	-3.8
	0.9nm,0.2s,SNR=7.9						
EMIN				Lg		01 19 30.9	
	76nm,1.1s,SNR=9.8						
EMIN	**Mina Concepcio**	6.11	180	Pn	Pn	01 17 45.5	-0.6
	0.1nm,0.2s,SNR=7.9						
EVIA	**Vianos**	6.12	148	Pn	Pn	01 17 46.1	-0.1
	1.2nm,0.1s,SNR=6.6						
EVIA				Sn	Sn	01 18 49.0	-7.2
	3.0nm,0.2s,SNR=7.9						
EVIA				Lg		01 19 32.8	
	38nm,0.6s,SNR=7.9						
EVIA	**Vianos**	6.12	148	P	Pn	01 17 46.1	-0.1
EVIA				S	Sn	01 18 49.0	-7.2
EVIA	**Vianos**	6.12	148	Pn	Pn	01 17 46.1	-0.1
	1.2nm,0.1s,SNR=6.6						
EBAN	**Banos Encina**	6.12	158	Pn	Pn	01 17 46.0	-0.3
	1.9nm,0.1s,SNR=7.1						
EBAN				Sn	Sn	01 18 50.3	-6.0
	1.7nm,0.2s,SNR=7.9						
EBAN				Lg		01 19 30.7	
	17nm,0.5s,SNR=7.9						
EBAN	**Banos Encina**	6.12	158	P	Pn	01 17 46.0	-0.3
EBAN				S	Sn	01 18 50.3	-6.0
EBAN	**Banos Encina**	6.12	158	Pn	Pn	01 17 46.0	-0.3
	1.9nm,0.1s,SNR=7.1						
JSA	**Saint Aubin**	6.15	29	*e*P	Pn	01 17 41.1	-5.5
JSA				*e*P		01 17 46.5	
JSA				*e*S	Sn	01 18 49.0	-7.9
JSA				AML	AML	01 18 55.2	
	comp=N,28nm,0.2s						
JSA				AML	AML	01 18 56.3	
	comp=E,18nm,0.7s						
JSA	**Saint Aubin**	6.15	29	P	Pn	01 17 46.5	-0.1
JSA				S	Sn	01 18 49.0	-7.9
JSA				AML	AML	01 18 55.2	
	comp=E,28nm,0.2s						
JSA				AML	AML	01 18 56.3	
	comp=E,18nm,0.7s						
JRS	**Jersey**	6.18	29	AML	AML	01 18 51.5	
	comp=E,16nm,0.2s						
JRS	**Jersey**	6.18	29	AML	AML	01 18 51.5	
	comp=E,16nm,0.2s						
EPOB	**Poblet**	6.26	111	⇓Pn	Pn	01 17 49.1	+0.9
	comp=E,7.3nm,0.2s,SNR=18						
EPOB				Sn	Sn	01 18 56.0	-3.9
	comp=E,11nm,0.2s,SNR=5.6						
EPOB	**Poblet**	6.26	111	Pn	Pn	01 17 49.1	+0.9
	comp=E,7.3nm,0.2s,SNR=18						
CPZ	**Penzance**	6.32	6	*e*P	Pn	01 17 48.8	-0.2
CPZ				*e*S	Sn	01 18 53.3	-7.7
CPZ	**Penzance**	6.32	6	*e*S	Sn	01 18 53.3	-7.8
EMIR	**Miracle**	6.35	105	Pn	Pn	01 17 50.9	+1.6
	SNR=7.9						
EMIR				Sn	Sn	01 18 59.6	-2.2
	comp=E,45nm,0.4s,SNR=7.9						
EMIR	**Miracle**	6.35	105	Pn	Pn	01 17 50.9	+1.6
	SNR=7.9						
CAF	**Calviac**	6.36	78	*e*Pn	Pn	01 17 49.0	-0.5
	SNR=1.0						
CAF				*e*Sn	Sn	01 18 54.5	-7.6
	comp=E,48nm,0.3s,SNR=1.0						
CAF	**Calviac**	6.36	78	Pn	Pn	01 17 49.0	-0.5
CAF				Sn	Sn	01 18 54.5	-7.6
	comp=E,24nm,0.3s						
CAF	**Calviac**	6.36	78	*e*Pn	Pn	01 17 49.0	-0.5
	SNR=1.0						
EGRO	**El Granado**	6.37	186	Pn	Pn	01 17 49.9	+0.2
	comp=E,0.3nm,0.2s,SNR=7.9						
EGRO				Sn	Sn	01 18 57.4	-5.2
	comp=E,0.3nm,0.1s,SNR=4.0						
EGRO				Lg		01 19 37.9	
	comp=E,29nm,0.6s,SNR=5.0						
EGRO	**El Granado**	6.37	186	Sn	Sn	01 18 57.4	-5.1
	comp=E,0.3nm,0.1s,SNR=4.0						
EGRO	**El Granado**	6.37	186	Pn	Pn	01 17 49.9	+0.2
	comp=E,0.3nm,0.2s,SNR=7.9						
CCA1	**Carnmenellis**	6.38	8	*e*P	Pn	01 17 49.6	-0.2
CCA1				*e*S	Sn	01 18 55.0	-7.7
MTLF	**Montolieu**	6.49	92	*e*Pn	Pn	01 17 51.4	+0.1
	SNR=1.0						
MTLF				*e*Sn	Sn	01 19 00.0	-5.3
	comp=E,46nm,0.3s						
MTLF	**Montolieu**	6.49	92	Pn	Pn	01 17 51.4	+0.1
MTLF				Sn	Sn	01 19 00.0	-5.3
	comp=E,23nm,0.3s						
MTLF	**Montolieu**	6.49	92	*e*Pn	Pn	01 17 51.4	+0.1
	SNR=1.0						
FLN	**La Foliniere**	6.50	39	*e*Pn	Pn	01 17 50.8	-0.6
	baz=225,SNR=1.0						
FLN				*e*Sn	Sn	01 18 58.0	-7.5
	comp=E,16nm,0.2s,SNR=1.0						
FLN	**La Foliniere**	6.50	39	Pn	Pn	01 17 50.8	-0.6
FLN				Sn	Sn	01 18 58.0	-7.5
	comp=E,8.2nm,0.2s						
FLN	**La Foliniere**	6.50	39	*e*Pn	Pn	01 17 50.8	-0.6
	baz=225,SNR=1.0						
ETOB	**Tobarra**	6.51	142	Pn	Pn	01 17 52.1	+0.5
	comp=E,5.2nm,0.1s,SNR=73						
ETOB				Sn	Sn	01 19 01.9	-4.1
	comp=E,3.0nm,0.2s,SNR=7.9						
ETOB				Lg		01 19 43.0	
	comp=E,34nm,0.7s,SNR=7.9						
ETOB	**Tobarra**	6.51	142	P	Pn	01 17 52.1	+0.5
ETOB				S	Sn	01 19 00.6	-5.4
ETOB	**Tobarra**	6.51	142	Pn	Pn	01 17 52.1	+0.5
	comp=E,5.2nm,0.1s,SNR=73						
PTEO	**Sao Teotonio**	6.52	194	*e*Sg	Sg	01 19 42.5	-2.5
PTEO				A		01 19 55.5	
	comp=E,25nm,0.7s						
PTEO	**Sao Teotonio**	6.52	194	Lg		01 19 42.5	
	comp=E,13nm,0.7s						
CARF	**Carcanieres**	6.52	97	P	Pn	01 17 53.3	+1.5
CARF	**Carcanieres**	6.52	97	P	Pn	01 17 53.3	+1.5
PVAQ	**Vaqueiros**	6.52	187	*e*Pn	Pn	01 17 52.0	+0.2
PVAQ				*e*Sn	Sn	01 19 01.9	-4.3
PVAQ				A		01 19 50.8	
	comp=E,22nm,0.7s						
PVAQ	**Vaqueiros**	6.52	187	Pn	Pn	01 17 52.0	+0.2
PVAQ				Sn	Sn	01 19 01.9	-4.3
	comp=E,22nm,0.7s						
PVAQ	**Vaqueiros**	6.52	187	*e*Sn	Sn	01 19 01.9	-4.3
	comp=E,22nm,0.7s						
PVAQ	**Vaqueiros**	6.52	187	*e*Pn	Pn	01 17 52.0	+0.2
LDF	**La Druitiere**	6.55	42	*e*Pn	Pn	01 17 50.8	-1.3
	SNR=1.0						
LDF				*e*Sn	Sn	01 18 58.7	-8.1
	comp=E,16nm,0.2s						
LDF	**La Druitiere**	6.55	42	*e*Pn	Pn	01 17 50.8	-1.3
	SNR=1.0						
ELUQ	**Luque**	6.58	163	Pn	Pn	01 17 54.9	+2.3
	SNR=7.9						
ELUQ				Sn	Sn	01 19 01.4	-6.2
	comp=E,1.1nm,0.2s,SNR=7.9						
CSA1	**St Austell**	6.58	10	*e*P	Pn	01 17 52.2	-0.3
CSA1				*e*S	Sn	01 18 58.9	-8.7
EQES	**Quesada**	6.67	155	Pn	Pn	01 17 55.1	+1.4
	comp=E,0.5nm,0.1s,SNR=16						
EQES				Sn	Sn	01 19 03.4	-6.4
	comp=E,0.6nm,0.1s,SNR=7.9						
EQES				Lg		01 19 49.6	
	comp=E,30nm,0.7s,SNR=5.0						
EQES	**Quesada**	6.67	155	P	Pn	01 17 55.1	+1.4
EQES				S	Sn	01 19 03.4	-6.4
EQES	**Quesada**	6.67	155	Pn	Pn	01 17 55.1	+1.3
	comp=E,0.5nm,0.1s,SNR=16						
MORF	**Marmelete**	6.74	193	*e*Pn	Pn	01 17 55.5	+0.7
MORF				A		01 20 06.1	
	comp=E,8.7nm,1.0s						
MORF	**Marmelete**	6.74	193	*e*Pn	Pn	01 17 55.5	+0.7
	comp=E,8.7nm,1.0s						
TCF	**Toulx Ste Croi**	6.74	66	*e*Pn	Pn	01 17 54.3	-0.4
	SNR=1.0						
TCF				*e*Sn	Sn	01 19 03.8	-7.7
	comp=E,54nm,0.3s						
TCF	**Toulx Ste Croi**	6.74	66	Pn	Pn	01 17 54.3	-0.4
TCF				Sn	Sn	01 19 03.8	-7.7
	comp=E,27nm,0.3s						
TCF	**Toulx Ste Croi**	6.74	66	*e*Pn	Pn	01 17 54.3	-0.4
	SNR=1.0						
LRDF	**Laroque-de-Fa**	6.79	95	P	Pn	01 17 56.0	+0.6
LRDF	**Laroque-de-Fa**	6.79	95	P	Pn	01 17 56.0	+0.6
EHUE	**Huescar**	6.81	152	Pn	Pn	01 17 56.6	+0.9
	comp=E,2.1nm,0.3s,SNR=7.9						
EHUE				Sn	Sn	01 19 07.6	-5.8
	comp=E,1.6nm,0.2s,SNR=7.9						
EHUE				Lg		01 19 52.4	
	comp=E,22nm,0.9s,SNR=7.9						
EHUE	**Huescar**	6.81	152	P	Pn	01 17 56.6	+0.9
EHUE				S	Sn	01 19 07.6	-5.8
EHUE	**Huescar**	6.81	152	Pn	Pn	01 17 56.6	+0.8
	comp=E,2.1nm,0.3s,SNR=7.9						
DYA	**Yadsworthy**	6.82	15	*e*P	Pn	01 17 55.6	-0.2
DYA				*e*S	Sn	01 19 04.9	-8.4
DYA				AML	AML	01 19 08.8	
	comp=E,20nm,0.4s						
DYA				AML	AML	01 19 08.9	
	comp=N,25nm,0.5s						
ELOJ	**Sierra Loja**	7.00	163	Lg		01 20 00.1	
	comp=N,4.3nm,0.4s,SNR=7.9						
ESPR	**Espera**	7.04	175	Sn	Sn	01 19 14.4	-4.5
	comp=N,3.6nm,0.3s,SNR=7.9						
ESPR				Lg		01 20 01.3	
	comp=N,14nm,0.5s,SNR=7.9						
EBEN	**Beniarda**	7.10	135	Pn	Pn	01 17 59.2	-0.6
	comp=N,0.4nm,0.1s,SNR=10						
EBEN				Sn	Sn	01 19 16.0	-4.5
	comp=N,1.1nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	7.10	135	P	Pn	01 17 59.2	-0.6
EBEN				S	Sn	01 19 16.8	-3.7
EBEN	**Beniarda**	7.10	135	Pn	Pn	01 17 59.2	-0.6
	comp=N,0.4nm,0.1s,SNR=10						
EQUE	**Quentar**	7.12	159	Pn	Pn	01 18 01.8	+1.9
	comp=N,4.7nm,0.4s,SNR=14						
EQUE				Sn	Sn	01 19 15.5	-5.3
	comp=N,0.2nm,0.2s,SNR=5.6						
EQUE				Lg		01 20 03.7	
	comp=N,12nm,0.5s,SNR=7.9						
EQUE	**Quentar**	7.12	159	Pn	Pn	01 18 01.8	+1.9
	comp=N,4.7nm,0.4s,SNR=14						
SJAF	**Saint Jean de**	7.13	98	P	Pn	01 18 00.7	+0.5
SJAF	**Saint Jean de**	7.13	98	P	Pn	01 18 00.7	+0.5
EJON	**La Jonquera**	7.15	98	Pn	Pn	01 18 01.2	+0.9
	comp=N,6.7nm,0.2s,SNR=39						
EJON				Sn	Sn	01 19 19.0	-2.6
	comp=N,5.8nm,0.3s,SNR=7.9						
EJON	**La Jonquera**	7.15	98	P	Pn	01 18 01.8	+1.5
EJON				S	Sn	01 19 19.0	-2.6
EJON	**La Jonquera**	7.15	98	Pn	Pn	01 18 01.2	+0.8
	comp=N,6.7nm,0.2s,SNR=39						
LBL	**Lubilhac**	7.22	76	P	Pn	01 18 01.6	+0.2
LBL	**Lubilhac**	7.22	76	P	Pn	01 18 01.6	+0.2
BGF	**Bois d’Agland**	7.24	65	*e*Pn	Pn	01 18 01.3	-0.3
	SNR=1.0						
BGF				*e*Sn	Sn	01 19 16.5	-7.4
	comp=N,86nm,0.3s						
BGF	**Bois d’Agland**	7.24	65	Pn	Pn	01 18 01.3	-0.3
BGF				Sn	Sn	01 19 16.5	-7.4
	comp=N,43nm,0.3s						
BGF	**Bois d’Agland**	7.24	65	*e*Pn	Pn	01 18 01.3	-0.3
	SNR=1.0						
HTL	**Hartland**	7.27	11	*e*P	Pn	01 18 02.0	+0.1
HTL				*e*S	Sn	01 19 16.7	-7.7
HTL				AML	AML	01 19 19.7	
	comp=E,22nm,0.4s						
HTL				AML	AML	01 19 21.6	
	comp=N,16nm,0.5s						
AGO	**Saint Agoulin**	7.29	69	P	Pn	01 18 01.9	-0.4
AGO	**Saint Agoulin**	7.29	69	P	Pn	01 18 01.9	-0.4
EMUR	**La Murta**	7.31	144	Pn	Pn	01 18 03.5	+0.9
	comp=N,0.6nm,0.1s,SNR=9.4						
EMUR				Sn	Sn	01 19 21.1	-4.6
	comp=N,1.1nm,0.2s,SNR=7.9						
EMUR	**La Murta**	7.31	144	P	Pn	01 18 03.5	+0.9
EMUR				S	Sn	01 19 18.2	-7.5
EMUR	**La Murta**	7.31	144	Pn	Pn	01 18 03.5	+0.9
	comp=N,0.6nm,0.1s,SNR=9.4						
HYF	**Humbligny**	7.37	59	*e*Pn	Pn	01 18 02.8	-0.5
HYF				*e*Sn	Sn	01 19 19.1	-7.8
HYF	**Humbligny**	7.37	59	*e*Pn	Pn	01 18 02.8	-0.5
EGUA	**Guajares**	7.44	160	Pn	Pn	01 18 05.6	+1.3
	comp=N,1.2nm,0.2s,SNR=7.9						
EGUA	**Guajares**	7.44	160	P	Pn	01 18 05.6	+1.3
EGUA	**Guajares**	7.44	160	Pn	Pn	01 18 05.6	+1.3
	comp=N,1.2nm,0.2s,SNR=7.9						
HEX	**Exmoor**	7.45	14	*e*P	Pn	01 18 03.9	-0.5
EMIJ	**Mijas**	7.46	168	Pn	Pn	01 18 05.8	+1.2
	comp=N,0.6nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	7.46	168	Pn	Pn	01 18 05.8	+1.2
	comp=N,0.6nm,0.2s,SNR=7.9						
EBER	**Berja**	7.56	156	Pn	Pn	01 18 08.2	+2.2
	comp=N,8.5nm,0.4s,SNR=22						
EBER				Sn	Sn	01 19 26.8	-4.9
	comp=N,0.5nm,0.2s,SNR=7.9						
EBER				Lg		01 20 16.3	
	SNR=7.9						
EBER	**Berja**	7.56	156	P	Pn	01 18 08.4	+2.4
EBER				S	Sn	01 19 26.8	-4.9
EBER	**Berja**	7.56	156	Pn	Pn	01 18 08.2	+2.2
	comp=N,8.5nm,0.4s,SNR=22						
PLDF	**La Plantade**	7.61	71	P	Pn	01 18 06.3	-0.3
PLDF	**La Plantade**	7.61	71	P	Pn	01 18 06.3	-0.3
LASF	**Ste Croix**	7.61	85	*e*Pn	Pn	01 18 06.2	-0.5
	SNR=1.0						
LASF				*e*Sn	Sn	01 19 25.8	-7.1
	comp=N,45nm,0.3s						
LASF	**Ste Croix**	7.61	85	Pn	Pn	01 18 06.2	-0.5
LASF				Sn	Sn	01 19 25.8	-7.1
	comp=N,22nm,0.3s						
LASF	**Ste Croix**	7.61	85	*e*Pn	Pn	01 18 06.2	-0.5
	SNR=1.0						
AVF	**Avril sur Loir**	7.65	64	*e*Pn	Pn	01 18 06.6	-0.6
	SNR=1.0						
AVF				*e*Sn	Sn	01 19 24.6	-9.2
	comp=N,29nm,0.4s,SNR=1.0						
AVF	**Avril sur Loir**	7.65	64	Pn	Pn	01 18 06.6	-0.6
AVF				Sn	Sn	01 19 24.6	-9.2
	comp=N,15nm,0.4s						
AVF	**Avril sur Loir**	7.65	64	*e*Pn	Pn	01 18 06.6	-0.6
	SNR=1.0						
EIBI	**Ibiza**	7.74	126	Pn	Pn	01 18 08.8	+0.3
	comp=N,4.8nm,0.2s,SNR=26						
EIBI				Sn	Sn	01 19 30.2	-5.9
	comp=N,4.5nm,0.3s,SNR=7.9						
EIBI	**Ibiza**	7.74	126	Pn	Pn	01 18 08.8	+0.3
	comp=N,4.8nm,0.2s,SNR=26						
SSF	**Saint Saulge**	7.84	63	*e*Pn	Pn	01 18 08.9	-0.9
	SNR=1.0						
SSF				*e*Sn	Sn	01 19 31.2	-7.3
	comp=N,24nm,0.4s						
SSF	**Saint Saulge**	7.84	63	Pn	Pn	01 18 08.9	-0.9
SSF				Sn	Sn	01 19 31.2	-7.3
	comp=N,12nm,0.4s						
SSF	**Saint Saulge**	7.84	63	*e*Pn	Pn	01 18 08.9	-0.9
	SNR=1.0						
SMF	**Signal de Mont**	7.92	66	*e*Pn	Pn	01 18 10.3	-0.7
SMF				*e*Sn	Sn	01 19 33.4	-7.2
	comp=N,13nm,0.2s						
SMF	**Signal de Mont**	7.92	66	Pn	Pn	01 18 10.3	-0.7
SMF				Sn	Sn	01 19 33.4	-7.2
	comp=N,6.5nm,0.2s						
SMF	**Signal de Mont**	7.92	66	*e*Pn	Pn	01 18 10.3	-0.7
LOR	**Lormes**	8.13	62	*e*Pn	Pn	01 18 13.6	-0.3
	baz=238,SNR=1.0						
LOR				*e*Sn	Sn	01 19 36.9	-8.9
	comp=N,18nm,0.3s						
LOR	**Lormes**	8.13	62	Pn	Pn	01 18 13.6	-0.3
LOR				Sn	Sn	01 19 36.9	-8.9
	comp=N,8.8nm,0.3s						
LOR	**Lormes**	8.13	62	*e*Pn	Pn	01 18 13.6	-0.3
	baz=238,SNR=1.0						
SSB	**Saint Sauveur**	8.14	76	*e*Pn	Pn	01 18 13.5	-0.4
	comp=N,4.0nm,0.4s						
SSB	**Saint Sauveur**	8.14	76	*e*Pn	Pn	01 18 13.5	-0.4
	comp=N,4.0nm,0.4s						
HGH	**Gray Hill**	8.18	17	*e*P	Pn	01 18 14.7	+0.2
VIVF	**Saint-Julien-l**	8.20	79	*e*Pn	Pn	01 18 14.3	-0.4
	SNR=1.0						
VIVF				*e*Sn	Sn	01 19 41.6	-5.8
	comp=N,47nm,0.3s						
VIVF	**Saint-Julien-l**	8.20	79	Pn	Pn	01 18 14.3	-0.4
VIVF				Sn	Sn	01 19 41.6	-5.8
	comp=N,23nm,0.3s						
VIVF	**Saint-Julien-l**	8.20	79	*e*Pn	Pn	01 18 14.3	-0.4
	SNR=1.0						
ETOS	**Mallorca**	8.20	117	Pn	Pn	01 18 15.6	+0.8
	comp=N,0.5nm,0.2s,SNR=6.4						

ETOS				Sn	Sn	01 19 42.2	-5.3
	comp=N,1.0nm,0.2s,SNR=7.9						
ETOS	**Mallorca**	8.20	117	Pn	Pn	01 18 15.6	+0.8
	comp=N,0.5nm,0.2s,SNR=6.4						
MCH1	**Michaelchurch**	8.48	16	*e*P	Pn	01 18 18.6	0.0
MCH1				*e*S	Sn	01 19 45.1	-9.3
MCH1				AML	AML	01 19 50.2	
	comp=N,16nm,0.4s						
MCH1				AML	AML	01 19 50.8	
	comp=E,13nm,0.6s						
HTR	**Trewern Hill**	8.51	14	*e*P	Pn	01 18 18.9	-0.1
SMRF	**Simiane la Rot**	8.85	85	*e*Pn	Pn	01 18 24.2	+0.5
	SNR=1.0						
SMRF				*e*Sn	Sn	01 19 56.6	-6.9
	comp=E,5.6nm,0.4s						
SMRF	**Simiane la Rot**	8.85	85	Pn	Pn	01 18 24.2	+0.5
SMRF				Sn	Sn	01 19 56.6	-6.9
	comp=E,5.6nm,0.4s						
SMRF	**Simiane la Rot**	8.85	85	*e*Pn	Pn	01 18 24.2	+0.5
	SNR=1.0						
ORIF	**Oris-en-Rattie**	9.06	79	*e*Pn	Pn	01 18 26.9	+0.4
	SNR=1.0						
ORIF				*e*Sn	Sn	01 20 00.6	-7.9
	comp=E,6.3nm,0.4s,SNR=1.0						
ORIF	**Oris-en-Rattie**	9.06	79	Pn	Pn	01 18 26.9	+0.4
ORIF				Sn	Sn	01 20 00.6	-7.9
	comp=E,3.2nm,0.4s						
ORIF	**Oris-en-Rattie**	9.06	79	*e*Pn	Pn	01 18 26.9	+0.4
	SNR=1.0						
SFTF	**Sexfontaines**	9.23	58	*e*Pn	Pn	01 18 28.1	-0.7
	baz=233						
SFTF				*e*Sn	Sn	01 20 04.4	-8.2
	comp=E,13nm,0.3s						
SFTF	**Sexfontaines**	9.23	58	Pn	Pn	01 18 28.1	-0.7
SFTF				Sn	Sn	01 20 04.4	-8.2
	comp=E,13nm,0.3s						
SFTF	**Sexfontaines**	9.23	58	*e*Pn	Pn	01 18 28.1	-0.7
	baz=233						
MEZF	**Maizieres J’vi**	9.36	56	*e*Pn	Pn	01 18 29.8	-0.8
	baz=245,SNR=1.0						
MEZF				*e*Sn	Sn	01 20 04.8	-11
	comp=E,10nm,0.3s,SNR=1.0						
MEZF	**Maizieres J’vi**	9.36	56	Pn	Pn	01 18 29.8	-0.8
MEZF				Sn	Sn	01 20 04.8	-11
	comp=E,10nm,0.3s						
MEZF	**Maizieres J’vi**	9.36	56	*e*Pn	Pn	01 18 29.8	-0.8
	baz=245,SNR=1.0						
CABF	**La Chapelle**	9.41	69	*e*Pn	Pn	01 18 30.9	-0.5
	SNR=1.0						
CABF				*e*Sn	Sn	01 20 09.8	-7.5
	comp=E,3.7nm,0.3s						
CABF	**La Chapelle**	9.41	69	Pn	Pn	01 18 30.9	-0.5
CABF				Sn	Sn	01 20 09.8	-7.5
	comp=E,1.9nm,0.3s						
CABF	**La Chapelle**	9.41	69	*e*Pn	Pn	01 18 30.9	-0.5
	SNR=1.0						
DLF	**Lyons Farm**	9.42	1	*e*P	Pn	01 18 30.5	-0.9
DLF				*e*S	Sn	01 20 06.5	-11
LMR	**La Mourre**	9.59	89	*e*Pn	Pn	01 18 34.3	+0.5
	SNR=1.0						
LMR				*e*Sn	Sn	01 20 12.8	-8.8
	comp=E,7.4nm,0.3s,SNR=1.0						
LMR	**La Mourre**	9.59	89	Pn	Pn	01 18 34.3	+0.5
LMR				Sn	Sn	01 20 12.8	-8.8
	comp=E,3.7nm,0.3s						
LMR	**La Mourre**	9.59	89	*e*Pn	Pn	01 18 34.3	+0.5
	SNR=1.0						
FRF	**La Foret Royal**	9.66	87	*e*Pn	Pn	01 18 34.6	-0.2
	SNR=1.0						
FRF				*e*Sn	Sn	01 20 15.8	-7.6
	comp=E,5.3nm,0.3s,SNR=1.0						
FRF	**La Foret Royal**	9.66	87	Pn	Pn	01 18 34.6	-0.2
FRF				Sn	Sn	01 20 15.8	-7.6
	comp=E,2.7nm,0.3s						
FRF	**La Foret Royal**	9.66	87	*e*Pn	Pn	01 18 34.6	-0.2
	SNR=1.0						
RFYF	**Reffroy**	9.66	56	*e*Pn	Pn	01 18 33.9	-0.9
	baz=239						
RFYF				*e*Sn	Sn	01 20 14.7	-8.7
	comp=E,11nm,0.3s						
RFYF	**Reffroy**	9.66	56	Pn	Pn	01 18 33.9	-0.9
RFYF				Sn	Sn	01 20 14.7	-8.7
	comp=E,11nm,0.3s						
RFYF	**Reffroy**	9.66	56	*e*Pn	Pn	01 18 33.9	-0.9
	baz=239						
BAIF	**Baives**	9.67	47	*e*Pn	Pn	01 18 33.7	-1.2
	SNR=1.0						
BAIF				*e*Sn	Sn	01 20 11.6	-12
	comp=E,12nm,0.4s,SNR=1.0						
BAIF	**Baives**	9.67	47	Pn	Pn	01 18 33.7	-1.2
BAIF				Sn	Sn	01 20 11.6	-12
	comp=E,6.1nm,0.4s						
BAIF	**Baives**	9.67	47	*e*Pn	Pn	01 18 33.7	-1.2
	SNR=1.0						
MBDF	**Montbardon**	9.69	80	*e*Pn	Pn	01 18 35.2	0.0
MBDF				*e*Sn	Sn	01 20 17.5	-6.5
	comp=E,6.7nm,0.5s						
MBDF	**Montbardon**	9.69	80	Pn	Pn	01 18 35.2	0.0
MBDF				Sn	Sn	01 20 17.5	-6.5
	comp=E,3.3nm,0.5s						
MBDF	**Montbardon**	9.69	80	*e*Pn	Pn	01 18 35.2	0.0
LPL	**La Plagne**	9.70	76	*e*Pn	Pn	01 18 36.0	+0.7
LPL	**La Plagne**	9.70	76	*e*Pn	Pn	01 18 36.0	+0.7
LPG	**La Plagne**	9.71	76	*e*Pn	Pn	01 18 35.7	+0.3
LPG				*e*Sn	Sn	01 20 17.8	-6.7
	comp=E,3.1nm,0.4s						
LPG	**La Plagne**	9.71	76	Pn	Pn	01 18 35.7	+0.3
LPG				Sn	Sn	01 20 17.8	-6.7
	comp=E,1.6nm,0.4s						
LPG	**La Plagne**	9.71	76	*e*Pn	Pn	01 18 35.7	+0.3
DOU	**Dourbes**	9.89	47	P	Pn	01 18 37.2	-0.8
DOU	**Dourbes**	9.89	47	P	Pn	01 18 37.1	-0.9
HAU	**Haudompre**	9.97	61	*e*Pn	Pn	01 18 37.5	-1.5
	SNR=1.0						
HAU				*e*Sn	Sn	01 20 20.8	-10
	comp=E,14nm,0.4s,SNR=1.0						
HAU	**Haudompre**	9.97	61	Pn	Pn	01 18 37.5	-1.5
HAU				Sn	Sn	01 20 20.8	-10
	comp=E,6.8nm,0.4s						
HAU	**Haudompre**	9.97	61	*e*Pn	Pn	01 18 37.5	-1.5
	SNR=1.0						
GIVF	**Givet**	10.02	48	*e*Pn	Pn	01 18 38.4	-1.3
	SNR=1.0						
GIVF				*e*Sn	Sn	01 20 22.3	-10
	comp=E,16nm,0.3s,SNR=1.0						
GIVF	**Givet**	10.02	48	Pn	Pn	01 18 38.4	-1.3
GIVF				Sn	Sn	01 20 22.3	-10
	comp=E,7.9nm,0.3s						
GIVF	**Givet**	10.02	48	*e*Pn	Pn	01 18 38.4	-1.3
	SNR=1.0						
TOUF	**Mont Tournerai**	10.05	84	P	Pn	01 18 41.7	+1.5
TOUF	**Mont Tournerai**	10.05	84	P	Pn	01 18 41.7	+1.5
LUCF	**Luceram**	10.13	85	P	Pn	01 18 41.6	+0.3
LUCF	**Luceram**	10.13	85	P	Pn	01 18 41.6	+0.3
SBF	**Sospel**	10.20	85	*e*Sn	Sn	01 20 30.0	-6.6
	comp=E,6.8nm,0.3s						
SBF	**Sospel**	10.20	85	Sn	Sn	01 20 30.0	-6.6
	comp=E,3.4nm,0.3s						
HINF	**Hinteralfeld**	10.23	63	*e*Pn	Pn	01 18 41.5	-1.1
HINF				*e*Sn	Sn	01 20 28.4	-8.9
	comp=E,6.0nm,0.4s						
HINF	**Hinteralfeld**	10.23	63	Pn	Pn	01 18 41.5	-1.1
HINF				Sn	Sn	01 20 28.4	-8.9
	comp=E,3.0nm,0.4s						
HINF	**Hinteralfeld**	10.23	63	*e*Pn	Pn	01 18 41.5	-1.1
SAOF	**Saorge**	10.28	85	P	Pn	01 18 45.1	+1.9
BCLA	**Clavier**	10.45	47	P	Pn	01 18 45.4	-0.2
WLF	**Walferdange**	10.53	52	P	Pn	01 18 45.9	-0.7
CDF	**Champ du Feu**	10.69	60	*e*Pn	Pn	01 18 46.9	-2.0
	SNR=1.0						
CDF				*e*Sn	Sn	01 20 40.1	-8.4
	comp=E,5.5nm,0.4s						
CDF	**Champ du Feu**	10.69	60	Pn	Pn	01 18 46.9	-2.0
CDF				Sn	Sn	01 20 40.1	-8.4
	comp=E,2.8nm,0.4s						
MDT	**Midelt**	11.17	171	Pn	Pn	01 18 55.3	-0.2
	comp=E,0.1nm,0.3s,baz=351,slow=9.4,SNR=4.1						
MDT				Sn	Sn	01 20 51.5	-9.0
	comp=E,0.3nm,0.3s,baz=182,slow=16,SNR=6.0						
MDT	**Midelt**	11.17	171	Pn	Pn	01 18 55.3	-0.2
PGF	**Pioggiola**	11.53	91	*e*Pn	Pn	01 19 00.0	-0.4
	SNR=1.0						
PGF				*e*Sn	Sn	01 21 02.0	-7.1
	comp=E,5.6nm,0.4s						
PGF	**Pioggiola**	11.53	91	Pn	Pn	01 19 00.0	-0.4
PGF				Sn	Sn	01 21 02.0	-7.1
	comp=E,2.8nm,0.4s						
EKA	**Eskdalemuir Ar**	11.68	10	Pn	Pn	01 19 02.4	0.0
	baz=193,slow=14,SNR=4.6						
EKA	**Eskdalemuir Ar**	11.68	10	Pn	Pn	01 19 02.4	0.0
KEST	**Kesra**	14.75	118	Pn	Pn	01 19 48.6	+4.1
	comp=E,0.1nm,0.3s,baz=203,slow=9.4,SNR=12						
GERES	**GERESS Array B**	14.91	63	Pn	Pn	01 19 46.8	+0.4
	comp=E,0.3nm,0.3s,baz=261,slow=14,SNR=10						
GERES	**GERESS Array B**	14.91	63	Pn	Pn	01 19 46.8	+0.3
FINES	**FINESS Array B**	26.11	36	P	P	01 21 50.0	+0.6
	comp=E,8.0nm,1.2s,mb4.1,baz=224,slow=8.0,SNR=4.3						
FINES	**FINESS Array B**	26.11	36	P	P	01 21 50.0	+0.6
TORD	**Torodi Ar. Bea**	31.47	164	P	P	01 22 37.6	+0.1
	comp=E,0.2nm,0.4s,mb3.3,baz=348,slow=8.6,SNR=6.2						
MKAR	**Makanchi Array**	59.28	53	P	P	01 26 18.3	+1.0
	comp=E,0.2nm,0.7s,mb3.3,baz=280,slow=7.3,SNR=3.1						

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*ISCJB **28** 01:24:33.0±0.8, 37°.33N±0°.05×44°.69E±0°.05, h5^{km}±7^{km}, Error ellipse: s-maj=8.1km s-min=6.1km az=0.2*

*CSEM **28** 01:24:33.1, 37°.29N×44°.60E, h5^{km}, MD3.4, After ISK*

*ISK **28** 01:24:33.1, 37°.29N×44°.60E, h5^{km}, MD3.4*

*TEH **28** 01:24:34.0, 37°.36N×44°.69E, h14^{km}*

ISC 28 01:24:34.1±0.8, **37°.33N**±0°.05×**44°.69E**±0°.05, **h10**^{km}±7^{km}, **n19**, σ**1^s.06**/27, **2D, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CUKT	**Cukurca**	0.86	265	*e*PG	Pg	01 24 48.8	-1.9
CUKT				*e*SG	Sg	01 25 02.0	+0.1
CUKT	**Cukurca**	0.86	265	*e*Pg	Pg	01 24 48.8	-1.9
CUKT				*e*Sg	Sg	01 25 02.0	+0.1
IAZR	**Azarshahr**	1.08	71⇓	*e*Pg	Pg	01 24 53.7	-1.2
IAZR				*e*		01 24 54.6	
	comp=Z,14µm,0.1s						
ISHB	**Shabestar**	1.20	38⇓	*e*Pg	Pn	01 24 55.4	-1.5
ISHB				*e*Sg	Sn	01 25 12.2	-1.1
ISHB				*e*		01 25 15.6	
	comp=Z,7µm,0.2s						
ITBZ	**Tabriz**	1.47	52	*e*Pn	Pn	01 24 59.9	-0.7
ITBZ				*e*	Pg	01 25 02.9	+0.7
	comp=Z,3µm,0.1s						
ITBZ				*e*Sg	Sn	01 25 19.1	-0.7
VANT	**Van**	1.51	318	*e*PN	Pg	01 25 03.4	+0.4
IFTB	**Fath-abad**	1.52	63	*e*	Pg	01 25 04.4	+1.2
	comp=Z,66µm,0.1s						
IFTB				*e*Pn	Pn	01 25 01.0	-0.3
MSL	**Mosul**	1.57	234	*e*x	x	01 25 11.0	
MSL				*e*x	x	01 25 32.0	
IMRD	**Marand**	1.59	30	*e*	Pg	01 25 10.2	+5.6
	comp=Z,2µm,0.1s						
VANB	**Van**	1.62	321	*e*PN	Pn	01 25 03.2	+0.5
VANB				*e*SN	Sg	01 25 26.0	-0.3
VANB	**Van**	1.62	321	*e*Pn	Pn	01 25 03.3	+0.5
VANB				*e*Sn	Sg	01 25 26.0	-0.3
IBST	**Bostanabad**	1.79	78	*e*	Pn	01 25 06.8	+1.8
	comp=Z,2µm,0.1s						
IBST				*e*Pg	Pn	01 25 05.4	+0.3
CLDR	**Caldiran**	1.91	342	*e*PN	Pn	01 25 08.6	+2.0
CLDR	**Caldiran**	1.91	342	*e*Pn	Pn	01 25 08.6	+2.0
IHRS	**Heris**	2.11	62	*e*Pn	Pn	01 25 10.3	+0.9
IHRS				*e*		01 25 14.8	
	comp=Z,2µm,0.1s						
GNI	**Garni**	2.81	1	*e*PN	Pn	01 25 22.5	+3.4
GNI	**Garni**	2.81	1	*e*Pn	Pn	01 25 22.5	+3.4
IVIS	**Veis**	3.31	147	*e*Pn	Pn	01 25 25.7	-0.2
IVIS				*e*		01 26 33.8	
	comp=Z,354nm,0.4s						
IGHG	**Ghaleghazi**	3.37	152	*e*Pn	Pn	01 25 27.1	+0.4
IGHG				*e*		01 26 35.5	
	comp=Z,683nm,0.3s						

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*ISCJB **28** 01:53:45.5±0.5, 35°.74N±0°.03×0°.99W±0°.03, h10^{km}, Error ellipse: s-maj=3.9km s-min=3.5km az=164.6*

*CRAAG **28** 01:53:45.8, 35°.45N×0°.72W, Ml3.5*

*CSEM **28** 01:53:46.5±0.2, 35°.69N×1°.02W, h10^{km}, ML2.2, Error ellipse: s-maj=4.6km s-min=3.7km az=22.0*

*MDD **28** 01:53:46.5±0.3, 35°.69N×1°.00W, h0^{km}, mbLg2.2/22, Error ellipse: s-maj=4.8km s-min=3.5km az=34.0, PRIMO*

*INMG **28** 01:53:47.3±1.3, 35°.72N×1°.01W, h9^{km}±11^{km}, ML2.1, Error ellipse: s-maj=9.6km s-min=3.7km az=146.0*

ISC 28 01:53:46.6±0.4, **35°.73N**±0°.03×**1°.00W**±0°.03, **h10**^{km}, **n78**, σ**1^s.19**/131, **1D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USTO	**Oran**	0.37	89	P	Pg	01 53 53.0	-0.8
ODZI	**Dziouia**	0.47	203	P	Pg	01 53 54.0	-1.8
OLHC	**Oulhaca**	0.59	216	P	Pg	01 53 59.0	+1.1
ODJA	**Bouhanifia**	0.80	119	P	Pg	01 54 02.0	0.0
ENIJ	**Nijar**	1.58	322	P	Pn	01 54 14.0	-0.6
	4.1nm,0.1s,SNR=9.0						
ENIJ				S	Sn	01 54 34.5	-0.6
	6.1nm,0.2s,SNR=6.6						
ENIJ	**Nijar**	1.58	322	P	Pn	01 54 14.0	-0.6
	4.1nm,0.1s,SNR=9.0						
ENIJ				S	Sn	01 54 34.5	-0.6
	6.1nm,0.2s,SNR=6.6						
ZAI	**Zaio**	1.61	243	P	Pn	01 54 15.0	-0.1
ZAI				S	Sn	01 54 31.5	-4.4
ZAI	**Zaio**	1.61	243	*e*P	Pn	01 54 15.0	-0.1
ZAI				*i* S	Sn	01 54 31.5	-4.4
EALB	**Alboran**	1.67	278	P	Pn	01 54 14.7	-1.1
	6.3nm,0.1s,SNR=26						
EALB				S	Sn	01 54 36.0	-1.2
	12nm,0.2s						
EALB				T		01 55 44.3	
EALB	**Alboran**	1.67	278	P	Pn	01 54 14.7	-1.1
	6.3nm,0.1s,SNR=26						
EALB				S	Sn	01 54 36.0	-1.2
	12nm,0.2s						
EBER	**Berja**	1.92	308	P	Pn	01 54 19.1	-0.2
	4.2nm,0.2s,SNR=13						
EBER				S	Sn	01 54 43.1	-0.4
	13nm,0.3s						
EBER	**Berja**	1.92	308	P	Pn	01 54 19.1	-0.2
	4.2nm,0.2s,SNR=13						
EBER				S	Sn	01 54 43.1	-0.5
	13nm,0.3s						
EMUR	**La Murta**	2.12	355	P	Pn	01 54 21.4	-0.7
	1.7nm,0.2s,SNR=9.1						
EMUR				S	Sn	01 54 46.9	-1.5
	7.7nm,0.2s						
EMUR				T		01 56 05.3	
	SNR=9.0						
EMUR	**La Murta**	2.12	355	P	Pn	01 54 21.4	-0.7
	1.7nm,0.2s,SNR=9.1						
EMUR				S	Sn	01 54 46.9	-1.6
	7.7nm,0.2s						
EGUA	**Guajares**	2.35	299	P	Pn	01 54 24.0	-1.2
	10.0nm,0.2s,SNR=7.9						
EGUA				S	Sn	01 54 52.8	-1.3
	12nm,0.3s,SNR=7.9						
EGUA	**Guajares**	2.35	299	P	Pn	01 54 24.0	-1.2
	10.0nm,0.2s,SNR=7.9						
EGUA				S	Sn	01 54 52.8	-1.3
	12nm,0.3s,SNR=7.9						
EHUE	**Huescar**	2.44	329	P	Pn	01 54 27.8	+1.3
	2.4nm,0.2s,SNR=7.9						
EHUE				S	Sn	01 54 58.0	+1.6
	1.3nm,0.2s,SNR=7.9						
EHUE	**Huescar**	2.44	329	P	Pn	01 54 27.8	+1.3
	2.4nm,0.2s,SNR=7.9						
EHUE				S	Sn	01 54 58.0	+1.5
	1.3nm,0.2s,SNR=7.9						
EQUE	**Quentar**	2.46	308	P	Pn	01 54 27.9	+1.2
	3.8nm,0.2s,SNR=7.9						
EQUE				S	Sn	01 54 57.9	+1.1
	3.4nm,0.3s,SNR=7.9						
EQUE	**Quentar**	2.46	308	P	Pn	01 54 27.9	+1.2
	3.8nm,0.2s,SNR=7.9						
EQUE				S	Sn	01 54 57.9	+1.1
	3.4nm,0.3s,SNR=7.9						
ECOG	**Cogollos-Vega**	2.58	308	P	Pn	01 54 30.1	+1.7
	1.3nm,0.2s,SNR=7.9						
ECOG				S	Sn	01 55 01.2	+1.3
	1.1nm,0.2s,SNR=4.0						
ECOG	**Cogollos-Vega**	2.58	308	P	Pn	01 54 30.1	+1.7
	1.3nm,0.2s,SNR=7.9						
ERON	**Agron**	2.61	300	P	Pn	01 54 29.5	+0.8
	7.3nm,0.2s,SNR=4.0						
ERON				S	Sn	01 55 01.1	+0.7
	2.1nm,0.4s,SNR=4.0						
ERON	**Agron**	2.61	300	P	Pn	01 54 29.5	+0.8
	7.3nm,0.2s,SNR=4.0						
ERON				S	Sn	01 55 01.1	+0.7
	2.1nm,0.4s,SNR=4.0						
EQES	**Quesada**	2.66	322	P	Pn	01 54 31.5	+2.1
	4.1nm,0.1s,SNR=104						
EQES				S	Sn	01 55 03.3	+1.6
	3.4nm,0.2s,SNR=9.1						
EQES	**Quesada**	2.66	322	P	Pn	01 54 31.5	+2.1
	4.1nm,0.1s,SNR=104						
EQES				S	Sn	01 55 03.3	+1.6
	3.4nm,0.2s,SNR=9.1						
ELOJ	**Sierra Loja**	2.91	300	P	Pn	01 54 33.5	+0.6
	1.2nm,0.2s,SNR=5.3						
ELOJ				S	Sn	01 55 08.9	+1.0
	1.5nm,0.4s,SNR=4.0						
ELOJ	**Sierra Loja**	2.91	300	P	Pn	01 54 33.5	+0.6
	1.2nm,0.2s,SNR=5.3						
ELOJ				S	Sn	01 55 08.9	+1.0
	1.5nm,0.4s,SNR=4.0						
ETOB	**Tobarra**	2.95	352	P	Pn	01 54 34.5	+1.1
	2.4nm,0.1s,SNR=36						
ETOB				S	Sn	01 55 08.0	-0.8
	3.9nm,0.2s						
ETOB				T		01 56 19.1	
	SNR=5.5						
ETOB	**Tobarra**	2.95	352	P	Pn	01 54 34.5	+1.1
	2.4nm,0.1s,SNR=36						
ETOB				S	Sn	01 55 08.0	-0.8
	3.9nm,0.2s						
EBEN	**Beniarda**	3.04	12	P	Pn	01 54 34.6	-0.1
	0.8nm,0.2s,SNR=5.0						
EBEN				S	Sn	01 55 10.4	-0.7
	2.0nm,0.3s						
EBEN	**Beniarda**	3.04	12	P	Pn	01 54 34.6	0.0
	0.8nm,0.2s,SNR=5.0						
EBEN				S	Sn	01 55 10.4	-0.6
	2.0nm,0.3s						
EVIA	**Vianos**	3.15	338	P	Pn	01 54 37.2	+1.1
	2.8nm,0.2s,SNR=8.0						
EVIA				S	Sn	01 55 13.7	0.0
	2.8nm,0.3s						
EVIA	**Vianos**	3.15	338	P	Pn	01 54 37.2	+1.1
	2.8nm,0.2s,SNR=8.0						
EVIA				S	Sn	01 55 13.7	0.0
	2.8nm,0.3s						
EMIJ	**Mijas**	3.17	286	P	Pn	01 54 34.5	-1.9
	1.1nm,0.1s,SNR=14						
EMIJ				S	Sn	01 55 10.8	-3.4
	3.0nm,0.2s						
EMIJ	**Mijas**	3.17	286	P	Pn	01 54 34.5	-1.9
	1.1nm,0.1s,SNR=14						
ELUQ	**Luque**	3.20	306	P	Pn	01 54 39.3	+2.3
	1.5nm,0.2s,SNR=7.9						
ELUQ				S	Sn	01 55 16.1	+1.0
	1.0nm,0.2s,SNR=4.0						
ELUQ	**Luque**	3.20	306	P	Pn	01 54 39.3	+2.4
	1.5nm,0.2s,SNR=7.9						
ELUQ				S	Sn	01 55 16.1	+1.0
	1.0nm,0.2s,SNR=4.0						
EBAN	**Banos Encina**	3.30	318	P	Pn	01 54 41.9	+3.6
	1.8nm,0.1s,SNR=9.8						
EBAN				S	Sn	01 55 17.9	+0.3
	1.0nm,0.3s						
ECEU	**Ceuta**	3.56	274	P	Pn	01 54 42.2	+0.3
	1.7nm,0.2s,SNR=4.0						
ECEU				S	Sn	01 55 21.8	-2.2
	1.0nm,0.3s,SNR=4.0						
ECEU	**Ceuta**	3.56	274	P	Pn	01 54 42.2	+0.3
	1.7nm,0.2s,SNR=4.0						
ECEU				S	Sn	01 55 21.8	-2.2
	1.0nm,0.3s,SNR=4.0						
EADA	**Adamuz**	3.76	311	P	Pn	01 54 45.6	+1.0
	0.4nm,0.1s,SNR=5.0						
EADA				S	Sn	01 55 29.4	+0.5
	0.9nm,0.1s,SNR=7.9						
EADA	**Adamuz**	3.76	311	P	Pn	01 54 45.6	+1.0
	0.4nm,0.1s,SNR=5.0						
EADA				S	Sn	01 55 29.4	+0.5
	0.9nm,0.1s,SNR=7.9						
EIBI	**Ibiza**	3.79	29	⇓P	Pn	01 54 44.9	0.0
	3.3nm,0.2s,SNR=18						
EIBI				S	Sn	01 55 27.4	-2.2
	8.7nm,0.2s						
EIBI	**Ibiza**	3.79	29	P	Pn	01 54 44.9	-0.1
	3.3nm,0.2s,SNR=18						
ECHE	**Chera**	3.86	0	S	Sn	01 55 31.9	+0.6
	0.5nm,0.2s,SNR=7.9						
ECHE	**Chera**	3.86	0	S	Sn	01 55 31.9	+0.6
	0.5nm,0.2s,SNR=7.9						
ECAB	**El Cabril**	4.25	305	P	Pn	01 54 51.4	+0.1
	0.9nm,0.2s,SNR=7.9						
ECAB				S	Sn	01 55 39.5	-1.4
	0.7nm,0.4s,SNR=7.9						
ECAB	**El Cabril**	4.25	305	P	Pn	01 54 51.4	+0.1
	0.9nm,0.2s,SNR=7.9						
ECAB				S	Sn	01 55 39.5	-1.4
	0.7nm,0.4s,SNR=7.9						
ESDC	**Sonseca Array**	4.59	330	P	Pn	01 54 56.6	+0.6
	1.7nm,0.1s,baz=149,slow=13,SNR=6.5						
ESDC				S	Sn	01 55 47.2	-2.1
	0.6nm,0.3s,baz=143,slow=24,SNR=7.9						
ESDC	**Sonseca Array**	4.59	330	P	Pn	01 54 56.6	+0.6
	1.7nm,0.1s,baz=149,slow=13,SNR=6.5						
EMOS	**Mosqueruela**	4.65	5	P	Pn	01 54 58.3	+1.5
	0.7nm,0.2s,SNR=7.9						
EMOS				S	Sn	01 55 50.4	-0.4
	0.9nm,0.3s,SNR=7.9						
EMOS	**Mosqueruela**	4.65	5	P	Pn	01 54 58.3	+1.5
	0.7nm,0.2s,SNR=7.9						
EMOS				S	Sn	01 55 50.4	-0.4
	0.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	4.99	296	P	Pn	01 55 01.2	-0.3
	0.2nm,0.1s,SNR=7.9						
EMIN				S	Sn	01 55 56.6	-2.6
	0.4nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	4.99	296	P	Pn	01 55 01.2	-0.3
	0.2nm,0.1s,SNR=7.9						
ETOS	**Mallorca**	5.04	36	P	Pn	01 55 02.6	+0.4
	0.4nm,0.1s,SNR=7.9						
ETOS				S	Sn	01 55 58.7	-1.7
	2.9nm,0.4s,SNR=7.9						
ETOS	**Mallorca**	5.04	36	P	Pn	01 55 02.6	+0.4
	0.4nm,0.1s,SNR=7.9						
ETOS				S	Sn	01 55 58.7	-1.8
	2.9nm,0.4s,SNR=7.9						
ERTA	**Horta de San J**	5.33	11	P	Pn	01 55 07.4	+1.3
	0.4nm,0.1s,SNR=7.9						
ERTA				S	Sn	01 56 05.1	-2.3
	3.3nm,0.4s,SNR=7.9						
ERTA	**Horta de San J**	5.33	11	P	Pn	01 55 07.4	+1.3
	0.4nm,0.1s,SNR=7.9						
PBAR	**Barrancos**	5.42	299	*e*Pn	Pn	01 55 07.4	0.0
PBAR				A		01 56 06.9	
	1.3nm,0.6s						
PBAR				*e*Sn	Sn	01 56 09.0	-0.8
PBAR	**Barrancos**	5.42	299	*e*Pn	Pn	01 55 07.4	0.0
	1.3nm,0.6s						
PBAR				*e*Sn	Sn	01 56 09.0	-0.8
GUD	**Guadarrama**	5.50	334	P	Pn	01 55 10.3	+1.8
	0.6nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	5.50	334	P	Pn	01 55 10.3	+1.8
	0.6nm,0.2s,SNR=7.9						
EGRO	**El Granado**	5.52	291	P	Pn	01 55 09.7	+1.0
	0.3nm,0.1s,SNR=7.9						
EGRO	**El Granado**	5.52	291	P	Pn	01 55 09.7	+1.0
	0.3nm,0.1s,SNR=7.9						
PVAQ	**Vaqueiros**	5.66	289	*e*Pn	Pn	01 55 10.8	+0.1
PVAQ				*e*Sn	Sn	01 56 13.3	-2.4
PVAQ				A		01 56 15.5	
	1.5nm,0.2s						
PVAQ	**Vaqueiros**	5.66	289	P	Pn	01 55 10.8	+0.1
PVAQ				S	Sn	01 56 13.3	-2.4
	1.5nm,0.2s						
PVAQ	**Vaqueiros**	5.66	289	*e*Pn	Pn	01 55 10.8	+0.1
EBAD	**Badajoz**	5.67	304	P	Pn	01 55 10.4	-0.5
	0.2nm,0.1s,SNR=5.3						
EBAD				S	Sn	01 56 12.2	-3.8
	2.7nm,0.3s						
EBAD	**Badajoz**	5.67	304	P	Pn	01 55 10.4	-0.4
	0.2nm,0.1s,SNR=5.3						
PBDV	**Barranco-do-Ve**	5.79	287	*e*Pn	Pn	01 55 12.8	+0.4
PBDV				A		01 56 16.1	
	2.3nm,0.8s						
PBDV	**Barranco-do-Ve**	5.79	287	*e*Pn	Pn	01 55 12.8	+0.4
	2.3nm,0.8s						
EPOB	**Poblet**	5.85	16	P	Pn	01 55 14.2	+0.9
	0.3nm,0.1s,SNR=7.9						

EPOB				S	Sn	01 56 15.7	-4.6
	1.4nm,0.3s,SNR=7.9						
EPOB	Poblet	5.85	16	P	Pn	01 55 14.2	+0.9
	0.3nm,0.1s,SNR=7.9						
PESTR	Estremoz	6.12	303	ePn	Pn	01 55 17.0	0.0
PESTR	Estremoz	6.12	303	ePn	Pn	01 55 17.0	0.0
EVO	Evora	6.26	299	ePn	Pn	01 55 18.8	-0.2
EVO	Evora	6.26	299	ePn	Pn	01 55 18.8	-0.2

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*NEIC **28** 02:12:24.8, 36°.02N×21°.83E, h5^{km}, MD3.7(ATH), After ATH.*
*ATH **28** 02:12:24.2, 36°.00N×21°.79E, h5^{km}, MD3.7/5*
*ISCJB **28** 02:12:28.0±0.8, 36°.29N±0°.06×22°.02E±0°.06, h10^{km}, Error ellipse: s-maj=10.0km s-min=5.8km az=34.5*
*CSEM **28** 02:12:27.4±0.7, 36°.18N×21°.98E, h2^{km}, MD3.7, Error ellipse: s-maj=15.4km s-min=10.3km az=29.0*
ISC 28 02:12:29.0±0.8, 36°.27N±0°.06×22°.03E±0°.06, h10^{km}, n42, σ1ˢ.04/42, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.66	340	ePG	Pg	02 12 41.2	-0.7
PYL	PYLOS	0.66	340	ePg	Pg	02 12 41.2	-0.7
KYTH	Kithira	0.81	89	ePN	Pg	02 12 44.5	-0.2
KYTH	Kithira	0.81	89	ePn	Pg	02 12 44.5	-0.2
VLI	Veliai	0.86	58	ePB	Pg	02 12 46.5	+1.0
VLI	Veliai	0.86	58	ePb	Pg	02 12 46.5	+1.0
ITM	Ithomi	0.91	355	ePB	Pg	02 12 46.7	+0.2
ITM	Ithomi	0.91	355	ePn	Pg	02 12 46.7	+0.2
VLX	Vlachokerasia	1.13	14	ePB	Pg	02 12 51.5	+0.7
VLX	Vlachokerasia	1.13	14	ePg	Pg	02 12 51.5	+0.7
DID	Didima	1.57	38	ePG	Pg	02 12 59.0	-0.1
DID	Didima	1.57	38	ePg	Pg	02 12 59.0	-0.1
GUR	Goura	1.68	8	ePN	Pg	02 13 01.4	+0.2
GUR	Goura	1.68	8	ePn	Pg	02 13 01.4	+0.2
RLS	Riolos of Patr	1.84	346	ePG	Pg	02 13 03.6	-0.7
RLS	Riolos of Patr	1.84	346	ePg	Pg	02 13 03.6	-0.7
NAIG	Nisos Aigina	1.89	38	ePn	Pn	02 12 58.9	-2.4
NAIG	Nisos Aigina	1.89	38	ePn	Pn	02 12 58.9	-2.4
VAM	Vamos	1.96	115	ePN	Pn	02 13 02.5	+0.2
VAM	Vamos	1.96	115	ePn	Pn	02 13 02.5	+0.2
VLY	Voula,Athens	2.12	41	ePN	Pg	02 13 08.5	-1.1
VLY	Voula,Athens	2.12	41	ePn	Pg	02 13 08.5	-1.1
EFP	Efpalio	2.15	357	ePG	Pg	02 13 10.5	+0.2
EFP	Efpalio	2.15	357	ePg	Pg	02 13 10.5	+0.2
VLS	Valsamata	2.22	329	ePN	Pn	02 13 06.2	+0.3
VLS	Valsamata	2.22	329	ePb	Pn	02 13 06.2	+0.3
PTL	Penteli	2.30	39	ePG	Pg	02 13 12.4	-0.7
PTL	Penteli	2.30	39	ePg	Pg	02 13 12.4	-0.7
IDI	Anoyia	2.52	112	P	Pn	02 13 10.6	+0.6
IDI	Anoyia	2.52	112	P	Pn	02 13 10.6	+0.6
NPS	Neapolis	3.08	108	ePN	Pn	02 13 17.7	0.0
NPS	Neapolis	3.08	108	ePb	Pn	02 13 17.7	0.0
JAN	Janina	3.50	345	P	Pn	02 13 25.7	+2.2
JAN	Janina	3.50	345	P	Pn	02 13 25.7	+2.2
TIP	Timpagrande	5.09	306	ePn	Pn	02 13 44.8	-0.4
TIP	Timpagrande	5.09	306	ePn	Pn	02 13 44.8	-0.4
CEL	Celeste	5.28	294	ePn	Pn	02 13 45.4	-2.5
CEL	Celeste	5.28	294	ePn	Pn	02 13 45.4	-2.5
TIR	Tirane	5.34	342	ePn	Pn	02 13 51.3	+2.5
TIR	Tirane	5.34	342	ePn	Pn	02 13 51.3	+2.5
CUC	Castrocucco	6.15	309	ePn	Pn	02 14 00.3	+0.5
CUC	Castrocucco	6.15	309	ePn	Pn	02 14 00.3	+0.5

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*ISCJB **28** 02:17:40.9±0.4, 2°.32N±0°.05×124°.13E±0°.06, h372^{km}±5^{km}, mb3.9/30, Error ellipse: s-maj=10.0km s-min=7.4km az=149.3*
*NEIC **28** 02:17:40.5±1.1, 2°.39N×124°.22E, h350^{km}±11^{km}, mb4.0/8, Error ellipse: s-maj=14.7km s-min=5.4km az=59.0*
*MOS **28** 02:17:40.0±0.8, 2°.44N×124°.22E, h367^{km}, mb3.9/16, Error ellipse: s-maj=28.9km s-min=11.0km az=120.0*
*IDC **28** 02:17:40.0±2.9, 2°.41N×124°.19E, h345^{km}±32^{km}, mb3.5/12, mb1 3.6/13, mb1mx3.5/23, mbtmp3.5/13, Error ellipse: s-maj=25.5km s-min=11.3km az=64.0*
*DJA **28** 02:17:42, 2°.35N×124°.06E, h359^{km}, MLv4.5/7*
ISC 28 02:17:41.9±0.4, 2°.34N±0°.06×124°.10E±0°.06, h363^{km}±5^{km}, n67, σ0ˢ.82/65, mb3.9/30, 1C, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	1.16	140	P	Pn	02 18 29.9	+0.2
KMSI	Cibinong	1.76	184	P	Pn	02 18 33.3	+0.4
SGSI	Sangihe	1.96	47	P	Pn	02 18 34.2	+0.1
TNTI	Ternate	3.62	115	P	Pn	02 18 48.4	+0.4
APSI	Ampana	4.05	217	P	Pn	02 18 51.6	-0.6
LBMI	Labuha	4.51	131	P	Pn	02 18 57.4	+0.5
PCI	Palu	5.34	233	P	Pn	02 19 05.3	-0.6
	113nm,0.9s,1µm0.4nm						
KDI	Kendari	6.43	193	⇑eP	Pn	02 19 17.6	-0.4
KDI				eS	S	02 20 32.3	-3.9
KDI	Kendari	6.43	193	P	Pn	02 19 18.0	0.0
	35nm,0.8s						
TTSI	Tana Toraja	6.85	219	P	Pn	02 19 23.3	+0.4
BNSI	Bone	7.79	211	P	Pn	02 19 35.2	+1.3
	144nm,1.1s,1µm						
KAPI	Kappang	8.50	211	P	Pn	02 19 41.0	-1.1
	1.6nm,0.3s,baz=40,slow=6.5,SNR=11						
KAPI	Kappang	8.50	211	ePn	Pn	02 19 41.4	-0.7
KKM	Kota Kinabalu	8.68	295	ePn	Pn	02 19 44.1	-0.1
KKM				eS	S	02 21 23.6	-0.8
KBKI	Kotabaru	9.71	235	P	Pn	02 19 55.7	-0.7
FITZ	Fitzroy Crossi	20.37	176	P	P	02 21 51.8	-0.5
	10.0nm,0.5s,baz=5.3,slow=6.7,SNR=35						
WRAB	Tennant Creek	24.31	156	eP	P	02 22 28.4	+0.2
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.5						
WRAB	Tennant Creek	24.31	156	eP	P	02 22 28.4	+0.3
	comp=Z,1.5nm,0.7s,mb3.3						
WRA	Warramunga Arr	24.32	156	P	P	02 22 28.0	-0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
WRA	Warramunga Arr	24.32	156	P	P	02 22 28.0	-0.2
	comp=Z,0.6nm,0.3s,mb3.4,baz=336,slow=10,SNR=8.0						
PSI	Prapat	25.15	272	P	P	02 22 36.1	+0.3
PSI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb3.9						
PSI	Prapat	25.15	272	P	P	02 22 36.1	+0.3
	comp=Z,5.2nm,0.7s,mb3.9,baz=80,slow=5.6,SNR=5.4						
ASAR	Alice Springs	27.55	160	P	P	02 22 56.9	0.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	27.55	160	P	P	02 22 56.9	-0.1
	comp=Z,0.5nm,0.6s,mb3.0,baz=337,slow=7.1,SNR=7.9						
CMAR	Chiang Mai Arr	29.40	305	P	P	02 23 13.6	+0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	29.40	305	P	P	02 23 13.6	+0.3
	comp=Z,0.5nm,0.3s,mb3.2,baz=134,slow=7.1,SNR=4.9						
MJAR	Matsushiro Arr	36.45	19	P	P	02 24 11.5	-2.0
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MJAR	Matsushiro Arr	36.45	19	P	P	02 24 11.5	-2.0
	comp=Z,2.1nm,0.6s,mb3.5,baz=197,slow=10,SNR=4.9						
MJAR	Matsushiro Arr	36.45	19	P	P	02 24 11.5	-2.0
STKA	Stephens Creek	37.87	155	P	P	02 24 25.9	+0.5
	comp=Z,0.9nm,0.3s,mb3.5,baz=296,slow=9.4,SNR=4.1						
TAPN	Taplejung	42.78	309	ePn	P	02 25 05.9	+0.6
	comp=Z,8.0nm,0.5s,mb4.1						
ODAN	Odare	42.79	308	eP	P	02 25 06.6	+1.1
	comp=Z,10.0nm,0.7s,mb4.0						
RAMN	Ramite	43.46	308	eP	P	02 25 11.5	+0.8
	comp=Z,27nm,1.0s,mb4.3						
JIRN	Jiri	44.11	308	eP	P	02 25 16.5	+0.6
	comp=Z,8.7nm,0.4s,mb4.2						
GUN	Gumba	44.47	309	eP	P	02 25 19.3	+0.6
	comp=Z,19nm,0.5s,mb4.5						
KOLN	Koldanda	46.21	307	eP	P	02 25 32.7	+0.5
	comp=Z,25nm,0.7s,mb4.4						
DANN	Dangsing	46.34	308	eP	P	02 25 33.6	+0.5
	comp=Z,24nm,0.6s,mb4.5						
HYB	Hyderabad	47.14	292	i P	P	02 25 40.0	+0.5
SONM	Songino Array	47.83	344	P	P	02 25 44.6	+0.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	47.83	344	P	P	02 25 44.6	+0.4
	comp=Z,0.9nm,0.7s,mb3.1,baz=158,slow=9.0,SNR=7.2						
MK31	Makanchi Array	57.24	327	eP	P	02 26 52.4	-0.1
MK31				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb3.8						
MK31	Makanchi Array	57.24	327	eP	P	02 26 52.8	+0.3
MKAR	Makanchi Array	57.24	327	P	P	02 26 52.6	+0.1
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
MKAR	Makanchi Array	57.24	327	P	P	02 26 52.5	+0.1
	comp=Z,2.8nm,0.3s,mb4.0,baz=123,slow=8.2,SNR=89						
TKM2	Tokmak 2	59.08	320	eP	P	02 27 07.0	+1.8
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
TKM2	Tokmak 2	59.08	320	eP	P	02 27 07.0	+1.8
	comp=Z,3.0nm,0.6s,mb3.9						
UCH	Uchtor	59.45	319	eP	P	02 27 09.1	+1.4
AML	Almayashu	59.95	319	eP	P	02 27 12.2	+1.1
	comp=Z,1.3nm,0.5s,mb3.6						
EKS2	Erkin-Say	60.13	319	eP	P	02 27 13.2	+0.9
	comp=Z,2.5nm,0.7s,mb3.8						
ZALV	Zalesovo Beam	60.67	335	P	P	02 27 14.9	-0.8
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.5						
ZALV	Zalesovo Beam	60.67	335	P	P	02 27 14.9	-0.8
	comp=Z,0.9nm,0.5s,mb3.4,baz=134,slow=6.4,SNR=5.2						
KURK	Kurchatov	61.53	329	P	P	02 27 20.2	-1.3
KURK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.3						
KURK	Kurchatov	61.53	329	eP	P	02 27 21.2	-0.3
	comp=Z,10nm,0.7s,mb4.5						
NVS	Novosibirsk	61.95	335	eP	P	02 27 22.7	-1.5
NVS				pmax	pmax		
	comp=N,2.0nm,0.6s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.6s						
NVS				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
VOSK	Vostochnaya	66.61	328	P	P	02 27 52.8	-1.4
VOSK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
BRVK	Borovoye	67.15	328	eP	P	02 27 57.3	-0.2
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
BRVK	Borovoye	67.15	328	eP	P	02 27 57.3	-0.2
	comp=Z,3.7nm,0.8s,mb4.2						
BILL	Bilibino	71.57	15	eP	Px	02 28 40.6	
BILL				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.2						
AB31	Akbulak array	71.58	322	P	P	02 28 23.3	-1.2
AB31				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
AKTO	Aktyubinsk	73.13	322	P	P	02 28 32.6	-0.9
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ARCES	ARCESS Array B	90.83	340	P	P	02 30 03.2	-1.2
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	90.83	340	P	P	02 30 03.2	-1.2
	comp=Z,3.2nm,0.9s,mb4.3,baz=57,slow=4.5,SNR=3.7						
FINES	FINESS Array B	91.80	332	P	P	02 30 08.2	-0.8
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FINES	FINESS Array B	91.80	332	P	P	02 30 08.2	-0.9
	comp=Z,3.1nm,1.0s,mb4.2,baz=99,slow=8.6,SNR=3.0						
TORD	Torodi Ar. Bea	120.83	287	PKP	PKPdf	02 35 52.0	-0.4
	comp=Z,0.4nm,0.6s,baz=81,slow=1.8,SNR=7.0						
TORD	Torodi Ar. Bea	120.83	287	PKP	PKPdf	02 35 52.0	-0.4
SCHQ	Schefferville	122.31	7	PKP	PKPdf	02 35 54.6	+0.5
	comp=Z,0.6nm,0.4s,baz=62,slow=15,SNR=3.1						

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*CSEM **28** 02:30:20.4, 50°.57N×5°.45E, h1^{km}, ML1.0, Suspected Mining explosion.*
UCC 28 02:30:20.4±0.9, 50°.57N×5°.45E, h1^{km}, ML1.0, Suspected Mining explosion., Belgium

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BCLA	Clavier	0.18	213	P	Pg	02 30 23.1	-0.7
BCLA	Clavier	0.18	213	P	Pg	02 30 23.0	-0.8
DOU	Dourbes	0.72	230	P	Pg	02 30 36.0	+1.8
DOU	Dourbes	0.72	230	P	Pg	02 30 36.0	+1.7

MAN 28 02:30:45, 13°.19N×120°.43E, h15^{km}, mb4.5, ML3.4, MS3.3, 1D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	Lubang	0.57	342	eP	Pg	02 30 57.5	+1.2
LUBP				eS	Sg	02 31 04.6	+0.5
PGP	Puerto Galera	0.60	58	eP	Pg	02 30 56.5	-0.2
SJMP	San Jose	0.98	137	eP	Pb	02 31 05.4	+1.6
SJMP				eS	Sb	02 31 16.0	-0.6
TGY	Tagaytay City	1.04	28	⇓iP	Pb	02 31 04.6	-0.1
TGY				i S	Sb	02 31 20.5	+2.4
BUSP	Coron	1.20	191	eP	Pn	02 31 06.5	-0.7
BUSP				eS	Sb	02 31 19.1	-3.5

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*ATH **28** 02:33:21.5, 36°.19N×21°.77E, h7^{km}±4^{km}, MD3.6/5*
*ISCJB **28** 02:33:23.3±0.7, 36°.22N±0°.04×21°.81E±0°.06, h10^{km}, Error ellipse: s-maj=8.2km s-min=5.0km az=148.8*
*CSEM **28** 02:33:23.9±0.6, 36°.33N×21°.86E, h8^{km}, ML3.5/4, Error ellipse: s-maj=13.3km s-min=8.9km az=37.0*
*NEIC **28** 02:33:24.0, 36°.20N×21°.75E, h10^{km}, MD3.6(ATH), After ATH.*
*THE **28** 02:33:24.6, 36°.28N×21°.91E, h0^{km}±4^{km}, ML3.5/4, Error ellipse: s-maj=7.4km s-min=2.5km az=216.0*
ISC 28 02:33:24.2±0.7, 36°.21N±0°.04×21°.84E±0°.06, h10^{km}, n56, σ1ˢ.35/64, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.69	354	ePB	Pg	02 33 34.2	-3.3
PYL				eSB	Sg	02 33 44.0	-2.5
PYL	PYLOS	0.69	354	ePb	Pg	02 33 34.2	-3.3
PYL				eSb	Sg	02 33 44.0	-2.5
ITM	Ithomi	0.97	4	ePG	Pg	02 33 39.8	-3.1
ITM				eSB	Sg	02 33 54.3	-1.1
ITM	Ithomi	0.97	4	ePg	Pg	02 33 39.8	-3.1
ITM				eSb	Sg	02 33 54.3	-1.1
KYTH	Kithira	0.97	86	ePN	Pg	02 33 41.6	-1.3
KYTH	Kithira	0.97	86	ePn	Pg	02 33 41.6	-1.3
VLI	Veliai	1.02	60	ePG	Pg	02 33 41.9	-1.9
VLI	Veliai	1.02	60	ePg	Pg	02 33 41.9	-1.9
VLX	Vlachokerasia	1.23	20	ePN	Pn	02 33 45.0	-2.5
VLX	Vlachokerasia	1.23	20	ePn	Pn	02 33 45.0	-2.5
DID	Didima	1.71	41	P	Pn	02 33 53.7	-0.4
DID	Didima	1.71	41	ePG	Pn	02 33 53.9	-0.2
DID	Didima	1.71	41	ePg	Pn	02 33 53.9	-0.2
GUR	Goura	1.77	13	ePG	Pn	02 33 54.3	-0.6
GUR	Goura	1.77	13	ePg	Pn	02 33 54.3	-0.6
RLS	Riolos of Patr	1.86	351	ePG	Pn	02 33 57.0	+0.8
RLS	Riolos of Patr	1.86	351	ePg	Pn	02 33 57.0	+0.8
KARN	Karanos	1.87	115	P	Pn	02 33 56.7	+0.4
KARN	Karanos	1.87	115	ePN	Pn	02 33 56.5	+0.2
KARN	Karanos	1.87	115	ePn	Pn	02 33 56.5	+0.2
LTK	Loutraki	2.02	26	P	Pn	02 33 58.5	+0.2
LTK	Loutraki	2.02	26	ePG	Pn	02 34 00.3	+2.0
LTK	Loutraki	2.02	26	P	Pn	02 33 58.5	+0.2
LTK	Loutraki	2.02	26	ePg	Pn	02 34 00.3	+2.0
LAKA	Lakka	2.03	3	P	Pn	02 33 58.9	+0.5
LAKA	Lakka	2.03	3	P	Pn	02 33 58.9	+0.5
NAIG	Nisos Aigina	2.03	40	ePG	Pn	02 34 00.1	+1.6
NAIG	Nisos Aigina	2.03	40	ePg	Pn	02 34 00.1	+1.6
VAM	Vamos	2.08	112	ePN	Pn	02 33 59.0	-0.2
VAM	Vamos	2.08	112	ePn	Pn	02 33 59.0	-0.2
VLS	Valsamata	2.20	333	P	Pn	02 34 01.0	+0.2
VLS	Valsamata	2.20	333	ePG	Pn	02 34 01.9	+1.1
VLS	Valsamata	2.20	333	P	Pn	02 34 01.0	+0.2
VLS	Valsamata	2.20	333	ePg	Pn	02 34 01.9	+1.1
EFP	Efpalio	2.21	1	ePG	Pn	02 34 02.7	+1.7
EFP	Efpalio	2.21	1	ePg	Pn	02 34 02.7	+1.7
VLY	Voula,Athens	2.26	43	ePB	Pn	02 34 01.5	-0.2
VLY	Voula,Athens	2.26	43	ePb	Pn	02 34 01.5	-0.2
PTL	Penteli	2.44	41	ePN	Pn	02 34 04.1	-0.1
PTL	Penteli	2.44	41	ePn	Pn	02 34 04.1	-0.1
LKR	Lokris	2.60	20	P	Pn	02 34 05.7	-0.6
LKR				S	Sn	02 34 38.8	+0.8
LKR	Lokris	2.60	20	P	Pn	02 34 05.7	-0.6
LKD	Levkas	2.66	340	P	Pn	02 34 08.6	+1.4
LKD				S	Sn	02 34 42.1	+2.6
LKD	Levkas	2.66	340	P	Pn	02 34 08.6	+1.4
AGG	Agios Georgios	2.83	8	P	Pn	02 34 10.2	+0.7
AGG				S	Sn	02 34 45.0	+1.4
AGG	Agios Georgios	2.83	8	P	Pn	02 34 10.2	+0.7
LAST	Lasithi	3.14	108	P	Pn	02 34 15.3	+1.5
LAST	Lasithi	3.14	108	P	Pn	02 34 15.3	+1.5
THL	Klokotos Trika	3.35	2	P	Pn	02 34 17.0	+0.4
THL				S	Sn	02 34 57.8	+1.4
THL	Klokotos Trika	3.35	2	P	Pn	02 34 17.0	+0.4
TIP	Timpagrande	5.00	308	ePn	Pn	02 34 37.6	-1.6
TIP	Timpagrande	5.00	308	ePn	Pn	02 34 37.7	-1.6
CEL	Celeste	5.16	295	ePn	Pn	02 34 39.2	-2.3
CEL	Celeste	5.16	295	ePn	Pn	02 34 39.2	-2.4
CUC	Castrocucco	6.07	310	ePn	Pn	02 34 53.9	-0.1
CUC	Castrocucco	6.07	310	ePn	Pn	02 34 53.9	0.0

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*NIED **28** 02:37:00, 34°.10N×140°.80E, h50^{km}, Mw3.9 Best double couple: M₀6.80000×10^{14} NP1:ϕ_s239.00000°, δ53.00000°, λ-121.00000°. NP2:ϕ_s104.00000°, δ47.00000°, λ-56.00000°.*
*ISCJB **28** 02:37:39.0±0.7, 34°.07N±0°.04×140°.76E±0°.06, h52^{km}±6^{km}, mb3.6/8, Error ellipse: s-maj=8.6km s-min=6.1km az=5.4*
*NEIC **28** 02:37:38.9, 34°.10N×140°.79E, h52^{km}, MG3.9(JMA), After JMA.*
*JMA **28** 02:37:38.8±0.2, 34°.10N×140°.79E, h52^{km}±3^{km}, M3.9*
*IDC **28** 02:37:41.0±2.3, 34°.03N×140°.70E, h56^{km}±20^{km}, mb3.4/8, mb1 3.7/9, mb1mx3.5/24, mbtmp3.4/9, ML4.0/1, Error ellipse: s-maj=28.0km s-min=8.8km az=83.0*
ISC 28 02:37:39.6±0.8, 34°.06N±0°.04×140°.79E±0°.07, h41^{km}±8^{km}, n25, σ0ˢ.82/32, mb3.6/8, 1D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO1	Boso 1	0.61	15	P	Pn	02 37 51.0	-0.8
BSO1				S	Sn	02 37 59.6	-1.0
BSO3	Boso 3	0.77	343	P	Pn	02 37 53.7	-0.3
BSO3				eS	Sn	02 38 05.6	+1.1
BSO4	Boso 4	1.00	338	P	Pn	02 37 57.0	-0.1
KTR	Katsuura	1.15	340	S	Sn	02 38 13.3	-0.4
TATJ	Tateyama 2	1.22	323	eS	Sn	02 38 15.5	+0.1
JHJ2	Mitsune	1.25	221	P	Pn	02 38 01.6	+1.1
JHJ	Hachijo jima 2	1.26	222	P	Pn	02 38 01.3	+0.6
	161nm,0.3s,baz=244,slow=23,SNR=14						
JHJ				S	Sn	02 38 15.9	-0.5
	395nm,0.3s,baz=66,slow=19,SNR=24						
JIM2	Oshima 3	1.30	301	P	Pn	02 38 00.5	-0.7
JKO	Kozu shima	1.37	276	P	Pn	02 38 02.3	+0.1
KTJJ	Kamata 2	1.66	302	P	Pn	02 38 05.6	-0.6
KTJJ				S	Sn	02 38 24.1	-2.2
JIZS	Izushimoda	1.71	293	⇓P	Pn	02 38 06.8	0.0
JIZS				S	Sn	02 38 26.5	-0.9
JOD2	Odawara 2	1.84	311	P	Pn	02 38 08.4	-0.3
MJAR	Matsushiro Arr	3.25	320	P	Pn	02 38 29.2	+1.1
	18nm,0.3s,baz=148,slow=14,SNR=37						
MJAR				S	Sn	02 39 06.5	+1.1
	17nm,0.3s,baz=144,slow=24,SNR=20						
MAJO	Matsushiro	3.25	320	ePn	Pn	02 38 29.2	+1.2
MAJO				eSn	Sn	02 39 06.9	+1.4
MAT	Matsushiro	3.25	320	P	Pn	02 38 28.7	+0.6
MAT				S	Sn	02 39 05.5	0.0
SONM	Songino Array	29.13	309	P	P	02 43 36.9	+0.5
	0.6nm,0.7s,mb3.5,baz=105,slow=8.3,SNR=4.9						
ZALV	Zalesovo Beam	43.59	315	P	P	02 45 38.4	-1.0
	0.3nm,0.3s,mb3.5,baz=128,slow=12,SNR=2.6						
MKAR	Makanchi Array	45.32	305	P	P	02 45 53.1	-0.3
	0.5nm,0.6s,mb3.5,baz=90,slow=8.9,SNR=7.6						
WRA	Warramunga Arr	54.05	187	P	P	02 46 59.7	-0.3
	0.9nm,0.4s,mb4.0,baz=5.5,slow=7.8,SNR=6.1						
ASAR	Alice Springs	57.78	187	P	P	02 47 26.6	0.0
	0.6nm,0.5s,mb3.9,baz=17,slow=12,SNR=12						
YKA	Yellowknife Ar	66.64	29	P	P	02 48 24.4	-1.1
	0.3nm,0.8s,mb3.4,baz=292,slow=6.2,SNR=3.6						
YKA	Yellowknife Ar	66.64	29	P	P	02 48 24.4	-1.1
NVAR	Mina Array Bea	77.19	52	P	P	02 49 30.4	+1.1
	0.5nm,0.7s,mb3.5,baz=305,slow=6.7,SNR=3.7						
TXAR	Lajitas Array	92.34	52	P	P	02 50 46.3	+0.4
	0.6nm,1.1s,mb3.8,baz=305,slow=1.5,SNR=3.6						
TORD	Torodi Ar. Bea	119.02	313	PKP	PKPdf	02 56 23.5	-1.0
	0.1nm,0.5s,baz=27,slow=1.6,SNR=3.9						

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*ISCJB **28** 03:19:33.7±0.6, 37°.79N±0°.03×72°.89E±0°.09, h137^{km}±9^{km}, mb3.5/5, Error ellipse: s-maj=11.7km s-min=4.4km az=161.5*
*IDC **28** 03:19:33.8±4.8, 37°.86N×72°.79E, h112^{km}±36^{km}, mb3.4/5, mb1 3.4/10, mb1mx3.2/29, mbtmp3.3/10, Error ellipse: s-maj=45.6km s-min=30.0km az=139.0*
*NEIC **28** 03:19:35.0±0.6, 37°.79N×72°.99E, h139^{km}±8^{km}, mb4.0/1, Error ellipse: s-maj=9.1km s-min=5.1km az=69.0*
*NNC **28** 03:19:36.4±8.0, 37°.98N×72°.35E, h92^{km}±146^{km}, mb3.2, mpv3.6, Error ellipse: s-maj=67.7km s-min=44.5km az=179.0*
ISC 28 03:19:34.9±0.6, 37°.79N±0°.03×72°.92E±0°.08, h134^{km}±8^{km}, n49, σ1ˢ.13/60, mb3.5/5, 4C-2D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	2.94	53	⇑iPn	Pn	03 20 18.5	-2.3
KSH				Sn	Sn	03 20 48.3	-8.0
KSH				smax			
	comp=N,680nm,0.3s						
KSH				smax			
	comp=E,550nm,0.4s						
CEP	Cherat	4.04	192	P	Pn	03 20 38.5	+3.2
CEP				S	Sn	03 21 15.0	-7.2
AML	Almayashu	4.38	8	P	Pn	03 20 39.5	-0.1
	SNR=50						
AML	Almayashu	4.38	8	ePn	Pn	03 20 39.4	-0.2
KBL	Kabul	4.51	225	ePn	Pn	03 20 43.5	+2.0
UCH	Uchtor	4.60	15	P	Pn	03 20 43.2	+0.6
	SNR=44						
UCH	Uchtor	4.60	15	ePn	Pn	03 20 43.2	+0.6
KZA	Kyzart	4.64	22	P	Pn	03 20 43.3	+0.2
	SNR=11						
EKS2	Erkin-Say	4.91	7	P	Pn	03 20 47.0	+0.3
	SNR=17						
EKS2	Erkin-Say	4.91	7	ePn	Pn	03 20 47.1	+0.4
AAK	Ala-Archa	4.98	13	P	Pn	03 20 48.7	+1.0
	SNR=30						
AAK	Ala-Archa	4.98	13	P	Pn	03 20 47.8	+0.1
	comp=E,0.2nm,0.3s,baz=181,slow=7.2,SNR=85						
AAK				S	Sn	03 21 42.1	-2.3
	comp=E,0.1nm,0.3s,baz=335,slow=21,SNR=18						
AAK	Ala-Archa	4.98	13	ePn	Pn	03 20 48.4	+0.7
KBK	Karagaybulak	5.10	17	P	Pn	03 20 50.7	+1.5
	SNR=14						
ULHL	Ulahol	5.13	29	P	Pn	03 20 50.2	+0.6
	SNR=14						
CHMS	Chumysh	5.38	14	P	Pn	03 20 53.5	+0.4
	SNR=12						
TKM2	Tokmak 2	5.51	21	⇑Pn	Pn	03 20 54.8	0.0
	comp=E,1.9nm,0.4s						
TKM2				⇓Sn	Sn	03 21 58.8	+1.7
	comp=E,7.8nm,0.7s						
TKM2	Tokmak 2	5.51	21	P	Pn	03 20 55.0	+0.2
	SNR=6.9						
TKM2	Tokmak 2	5.51	21	ePn	Pn	03 20 55.0	+0.1
	comp=E,3.8nm,0.4s						
USP	Ospenovka	5.60	12	P	Pn	03 20 55.9	-0.1
	SNR=5.7						
KK31	Karatay Array	5.62	342	⇑Pn	Pn	03 20 54.9	-1.3
	comp=E,3.6nm,0.3s,baz=166,slow=13,SNR=90						
KK31				Sn	Sn	03 21 53.2	-6.3
	comp=E,31nm,0.3s,baz=168,slow=23,SNR=37						
THN	Thein Dam	5.81	156	ePKP	Pn	03 21 00.9	+2.0
THN				eS	Sn	03 22 04.0	-0.5
KLP	Kalpa	7.63	143	ePKP	Pn	03 21 25.3	+1.9
KLP				eS	Sn	03 22 46.9	-1.4
KLP				AML	AML	03 22 57.2	
	comp=N,51nm,0.3s						
KLP				AML	AML	03 22 58.7	
	comp=E,59nm,0.6s						
JOSI	Joshimath	9.07	141	ePKP	Pn	03 21 45.1	+2.4
JOSI				eS	Sn	03 23 19.2	-3.9
JOSI				AML	AML	03 23 27.8	
	comp=E,66nm,0.3s						
JOSI				AML	AML	03 23 30.2	
	comp=N,50nm,0.4s						
KHET	Khetri	9.99	165	eS	Sn	03 23 38.7	-6.7
KUDL	Kundal	10.07	162	ePKP	Pn	03 21 55.7	-0.4
KUDL				eS	Sn	03 23 39.4	-8.0
MK31	Makanchi Array	11.35	35	ePn	Pn	03 22 13.8	+0.9
MKAR	Makanchi Array	11.35	35	P	Pn	03 22 12.5	-0.4
	comp=N,0.1nm,0.3s,baz=221,slow=14,SNR=6.0						

DANN	Dangsing	13.07	133	eP	Pn	03 22 35.0	-0.6
	comp=N,20nm,0.4s						
KOLN	Koldanda	13.43	135	eP	Pn	03 22 39.2	-0.9
	comp=N,6.0nm,0.2s						
KURK	Kurchatov	13.54	16	P	Pn	03 22 37.3	-4.1
	comp=N,0.1nm,0.3s,baz=207,slow=12,SNR=4.0						
GKN	Gorkha	13.85	131	eP	Pn	03 22 44.9	-0.6
	comp=N,8.0nm,0.2s						
KKN	Kakani	14.39	130	eP	Pn	03 22 52.0	-0.3
	comp=N,4.7nm,0.2s						
PKI	Pulchoki	14.63	131	eP	Pn	03 22 55.2	-0.1
	comp=N,4.3nm,0.2s						
AB09	Akbulak array	14.82	325	⇑P	Pn	03 22 54.5	-3.0
	comp=N,1.4nm,0.3s						
JIRN	Jiri	15.04	128	eP	Pn	03 23 00.2	-0.3
	comp=N,12nm,0.3s						
RAMN	Ramite	15.80	129	eP	Pn	03 23 09.9	-0.1
	comp=N,9.2nm,0.4s						
TAPN	Taplejung	16.22	126	eP	Pn	03 23 15.2	+0.1
	comp=N,12nm,0.5s						
ODAN	Odare	16.36	128	eP	Pn	03 23 17.2	+0.4
	comp=N,4.9nm,0.4s						
AKTK	Aktyubinsk	16.52	325	P	Pn	03 23 16.8	-1.8
AKTK				S	S	03 26 08.1	-14
AKTO	Aktyubinsk	16.52	325	⇓P	Pn	03 23 18.4	-0.2
	comp=N,0.3nm,0.7s						
AKTO	Aktyubinsk	16.52	325	P	Pn	03 23 16.8	-1.8
	comp=N,0.5nm,0.3s,baz=139,slow=13,SNR=10						
AKTO				S	S	03 26 08.1	-14
	comp=N,0.1nm,0.3s,baz=162,slow=19,SNR=5.3						
ZALV	Zalesovo Beam	18.11	23	P	P	03 23 36.2	0.0
	comp=N,0.5nm,0.3s,baz=206,slow=13,SNR=4.8						
ZALV	Zalesovo Beam	18.11	23	P	P	03 23 36.2	0.0
FINES	FINESS Array B	37.30	325	P	P	03 26 34.1	+0.5
	comp=N,0.8nm,0.4s,mb3.7,baz=127,slow=9.5,SNR=7.4						
ARCES	ARCESS Array B	40.56	337	P	P	03 27 00.6	+0.1
	comp=N,2.8nm,0.9s,mb3.9,baz=106,slow=9.5,SNR=3.5						
NOA	NORSAR Array B	44.29	322	P	P	03 27 31.1	+0.3
	comp=N,1.6nm,0.9s,mb3.6,baz=94,slow=7.8,SNR=3.3						
TORD	Torodi Ar. Bea	67.28	269	P	P	03 30 15.7	+0.3
	comp=N,0.4nm,0.3s,mb3.7,baz=49,slow=6.1,SNR=21						
YKA	Yellowknife Ar	79.88	4	P	P	03 31 29.5	+1.3
	comp=N,0.1nm,0.5s,mb2.7,baz=353,slow=5.6,SNR=3.5						

IDC 28 03:22:55.1±13.0**, 26°.41S**×**68°.21E, h0**^{km}**, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.6**/22**, mbtmp3.8**/4**, Error ellipse: s-maj=432.4km s-min=38.4km az=50.0, Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	59.00	103	P	P	03 32 57.5	+0.6
	0.9nm,0.8s,baz=250,slow=6.4,SNR=8.0						
WRA	Warramunga Arr	60.57	99	P	P	03 33 07.0	-0.7
	0.3nm,0.3s,baz=252,slow=7.3,SNR=4.6						
ZALV	Zalesovo Beam	81.31	10	P	P	03 35 12.5	-0.4
	0.3nm,0.3s,baz=193,slow=5.9,SNR=3.5						
SONM	Songino Array	81.49	25	P	P	03 35 14.8	+0.8
	0.9nm,0.8s,baz=205,slow=4.0,SNR=6.1						

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*ISK **28** 03:53:39.5, 37°.02N×29°.15E, h7^{km}, MD3.0*
*ISCJB **28** 03:53:40.8±0.5, 36°.96N±0°.03×29°.17E±0°.03, h10^{km}, Error ellipse: s-maj=4.2km s-min=3.8km az=138.8*
*CSEM **28** 03:53:40.5±0.1, 36°.97N×29°.16E, h5^{km}, MD3.0, Error ellipse: s-maj=2.7km s-min=2.5km az=118.0*
*DDA **28** 03:53:40.6, 37°.00N×29°.17E, h7^{km}±4^{km}, Md2.9*
ISC 28 03:53:40.9±0.5**, 36°.99N**±0°.03×**29°.16E**±0°.03**, h3**^{km}±7^{km}**, n26, σ0^s.99**/43**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.36	190	ePG	Pg	03 53 47.2	-0.6
FETY				eSG	Sg	03 53 52.6	+0.1
FETY	Fethiye	0.36	190	ePg	Pg	03 53 47.2	-0.6
FETY				eSg	Sg	03 53 52.6	+0.1
GOLH	Golhisar	0.40	53	i P	Pg	03 53 48.3	-0.4
GOLH				i S	Sg	03 53 55.4	+1.5
GOLH	Golhisar	0.40	53	i P	Pg	03 53 48.3	-0.3
GOLH				i S	Sg	03 53 55.4	+1.5
DALT	Dalyan (Mudla)	0.47	242	ePG	Pg	03 53 49.5	-0.5
DALT				eSG	Sg	03 53 56.8	+0.6
DALT	Dalyan (Mudla)	0.47	242	ePg	Pg	03 53 49.5	-0.5
DALT				eSg	Sg	03 53 56.8	+0.7
ELL	Elmali	0.65	112	ePG	Pg	03 53 52.8	-0.5
ELL				eSG	Sg	03 54 03.2	+1.5
ELL	Elmali	0.65	112	ePg	Pg	03 53 52.8	-0.5
ELL				eSg	Sg	03 54 03.2	+1.5
YER	Yerkesik	0.72	282	ePG	Pg	03 53 54.3	-0.3
YER	Yerkesik	0.72	282	ePg	Pg	03 53 54.3	-0.3
DENT	Denizli	0.77	352	ePG	Pg	03 53 53.6	-2.0
DENT	Denizli	0.77	352	ePg	Pg	03 53 53.6	-2.0
AKAS	Kas	0.84	155	i P	Pg	03 53 56.7	-0.2
AKAS				i S	Sg	03 54 12.9	+5.2
AKAS	Kas	0.84	155	i P	Pg	03 53 56.7	-0.2
AYDN	Tasoluk	1.22	304	i P	Pg	03 54 04.2	-0.1
AYDN				i S	Sg	03 54 20.6	+0.6
AYDN	Tasoluk	1.22	304	i P	Pg	03 54 04.2	-0.1
AYDN				i S	Sg	03 54 20.6	+0.5
DAT	Datca	1.29	259	ePN	Pn	03 54 05.0	-0.9
DAT	Datca	1.29	259	ePn	Pn	03 54 05.0	-0.9
BDRM	Kayabasi	1.38	274	i P	Pn	03 54 07.7	+0.7
BDRM				i S	Sb	03 54 28.0	+2.8
BDRM	Kayabasi	1.38	274	i P	Pn	03 54 07.7	+0.7
BDRM				i S	Sb	03 54 28.0	+2.8
KHAL	Karahalli	1.40	11	i P	Pn	03 54 07.2	-0.1
KHAL				i S	Sb	03 54 26.4	+0.4
KHAL	Karahalli	1.40	11	i P	Pn	03 54 07.2	-0.2
KHAL				i S	Sb	03 54 26.4	+0.4
MANT	Manisa	1.57	342	i P	Pn	03 54 09.1	-0.6
MANT				i S	Sn	03 54 31.5	+0.9
MANT	Manisa	1.57	342	i P	Pn	03 54 09.1	-0.6
MANT				i S	Sn	03 54 31.5	+0.9
SHUT	Suhut-Afyon	1.91	35	ePN	Pn	03 54 12.4	-2.0
SHUT	Suhut-Afyon	1.91	35	ePn	Pn	03 54 12.4	-1.9

PRE 28 04:16:49.1±1.5**, 28°.73S**×**30°.90E, h5**^{km}**, ML3.6, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
POGA	Pongola	1.49	25	eP	Pn	04 17 17.9	+1.4
POGA				eS	Sn	04 17 39.3	+2.9
POGA				AML	AML	04 17 48.1	
	comp=Z,291nm,0.4s						
KSD	Kokstad	2.22	215	eP	Pn	04 17 26.8	+0.2
KSD				eS	Sn	04 17 53.7	-0.7
KSD				AML	AML	04 18 01.7	
	comp=Z,958nm,0.4s						
SEK	Senekal	2.91	277	eP	Pn	04 17 36.6	+0.5
SEK				eS	Sn	04 18 11.3	-0.1
SEK				AML	AML	04 18 23.9	
	comp=Z,70nm,0.3s						
ERPM	east rand prop	3.35	315	eP	Pn	04 17 43.3	+1.2
ERPM				eS	Sn	04 18 23.4	+1.3
ERPM				AML	AML	04 18 40.0	
	comp=Z,73nm,0.6s						
PRYS	Parys	3.61	299	eP	Pn	04 17 46.8	+1.1
PRYS				eS	Sn	04 18 28.8	+0.1
PRYS				AML	AML	04 18 43.9	
	comp=Z,62nm,0.8s						
SLR	Silverton	3.78	321	eP	Pn	04 17 48.4	+0.3
SLR				eS	Sn	04 18 32.4	-0.5
SLR				AML	AML	04 18 49.2	
	comp=Z,123nm,0.4s						
KSR	Koster	4.57	308	eP	Pn	04 17 58.9	0.0
KSR				eS	Sn	04 18 51.0	-1.4
KSR				AML	AML	04 19 21.0	
	comp=Z,84nm,0.3s						
GRM	Grahamstown	5.92	218	eP	Pn	04 18 18.1	+0.6
GRM				eS	Sn	04 19 23.4	-2.3
GRM				AML	AML	04 20 08.0	
	comp=Z,39nm,0.5s						
MSNA	Messina	6.40	353	eP	Pn	04 18 22.9	-1.2
MSNA				eS	Sn	04 19 32.6	-5.0
MSNA				AML	AML	04 20 12.4	
	comp=Z,31nm,0.5s						
PKA	Prieska	7.18	261	eP	Pn	04 18 35.7	+0.9
PKA				eS	Sn	04 19 52.9	-3.8
PKA				AML	AML	04 20 51.8	
	comp=Z,12nm,0.5s						
UPI	Upington	8.49	270	eP	Pn	04 18 53.2	+0.5
UPI				eS	Sn	04 20 25.6	-3.4
UPI				AML	AML	04 21 22.9	
	comp=Z,10nm,0.6s						
SUR	Sutherland	9.43	245	eP	Pn	04 19 07.7	+2.2
SUR				eS	Sn	04 20 48.1	-3.8

CASC 28 04:21:20.7±1.0**, 12°.17N**×**87°.18W, h57**^{km}±11^{km}**, MD3.8, ML3.3, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIRN	Miramar	0.53	59	eP	Pn	04 21 32.6	-0.1
CRIN	San Cristobal	0.54	13	eP	Pn	04 21 33.1	+0.2
TELN	Telica	0.55	38	eP	Pn	04 21 33.3	+0.3
CNGN	Cerro Negro	0.57	55	eP	Pn	04 21 33.0	-0.2
COPN	Copaltepe	0.57	89	eP	Pn	04 21 32.8	-0.4
MOMN	Momotombo	0.66	69	eP	Pn	04 21 34.6	+0.3
CSAN		0.74	89	eP	Pn	04 21 36.1	+0.9
CRUN	El Crucero	0.88	102	eP	Pn	04 21 36.6	-0.4
TISN	Laguna Tiscapa	0.89	92	eP	Pn	04 21 37.0	-0.1
MGAN	Managua	0.91	91	eP	Pn	04 21 37.6	+0.2
MGAN				eS	Sn	04 21 49.8	+0.1
MGAN				AML	AML	04 21 51.0	
	comp=N,666nm,0.2s						
TICN	Ticuantepe	0.93	98	eP	Pn	04 21 38.0	+0.3
WILN	Americas 2	0.97	91	eP	Pn	04 21 37.7	-0.5
HUEN		0.99	80	eP	Pn	04 21 38.7	+0.2
APON	Apoyo	1.11	103	eP	Pn	04 21 40.1	0.0
CNCH	Conchagua	1.27	330	eP	Pn	04 21 42.2	-0.1
CNCH				eS	Sn	04 21 59.9	+1.5
BOAB	BOACO BROADBAN	1.50	79	eP	Pn	04 21 44.9	-0.4
BOAB				eS	Sn	04 22 03.6	-0.2
BLLM	Bellamira	1.64	321	eP	Pn	04 21 47.4	+0.2
BLLM				eS	Sn	04 22 07.9	+0.8

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*ISCJB **28** 04:26:00.1±0.4, 0°.02N±0°.03×124°.84E±0°.03, h100^{km}±4^{km}, mb4.5/31, Error ellipse: s-maj=5.9km s-min=5.2km az=142.2*
*DJA **28** 04:26:00, 0°.11S×124°.84E, h16^{km}, MLv4.8/12*
*IDC **28** 04:26:01.6±3.3, 0°.11N×124°.68E, h91^{km}±31^{km}, mb4.0/12, mb1 4.0/14, mb1mx3.9/22, mbtmp3.9/14, MS3.0/2, Ms1 3.0/2, ms1mx2.8/31, Error ellipse: s-maj=25.5km s-min=13.3km az=69.0*
*NEIC **28** 04:26:02.3±1.3, 0°.01N×124°.68E, h102^{km}±12^{km}, mb4.5/9, Error ellipse: s-maj=16.1km s-min=6.1km az=56.0*
*BJI **28** 04:26:02.3, 0°.00N×124°.70E, h102^{km}, mB5.1/2, mb4.5/7*
ISC 28 04:26:01.4±0.4**, 0°.02N**±0°.03×**124°.86E**±0°.03**, h96**^{km}±4^{km}**, n60, σ1^s.11**/62**, mb4.5**/31**, 1C-1D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMSI	Cibinong	1.04	302	P	Pn	04 26 18.3	-3.6
MNI	Manado	1.42	359	P	Pn	04 26 26.7	+0.3
MNI				S	Sn	04 26 46.4	+1.1
TNTI	Ternate	2.62	73	P	Pn	04 26 41.9	-0.1
TNE	Ternate	2.62	73	⇓eP	Pn	04 26 39.0	-3.1
TNE				eS	Sn	04 27 12.0	-1.3
LBMI	Labuha	2.72	104	P	Pn	04 26 43.4	0.0
LBMI				S	Sn	04 27 15.9	+0.3
APSI	Ampana	3.34	254	P	Pn	04 27 01.4	+10
NLAI	Namlea	3.94	145	P	Pn	04 26 59.1	-0.6
KDI	Kendari	4.54	209	⇑eP	Pn	04 27 06.4	-1.5
KDI				eS	Sn	04 27 57.9	-1.6
KDI	Kendari	4.54	209	P	Pn	04 27 05.9	-2.0
AAI	Ambon	4.97	138	P	Pn	04 27 14.7	+1.0
PCI	Palu	5.10	260	P	Pn	04 27 17.2	+1.7
	265nm,0.8s,4µm1.7nm						
TTSI	Tana Toraja	5.88	239	P	Pn	04 27 26.8	+0.6
	220nm,0.5s,3µm0.9nm						
TTSI				S	Sn	04 28 32.4	+0.1
	220nm,0.5s,3µm0.9nm						
SWI	Sorong	6.46	98	P	Pn	04 27 33.9	-0.1
	39nm,0.7s,0.1nm						
BNSI	Bone	6.46	227	P	Pn	04 27 32.9	-1.2
	45nm,0.7s,706nm0.2nm						
KAPI	Kappang	7.14	225	P	Pn	04 27 40.7	-2.6
	2.8nm,0.3s,baz=16,slow=14,SNR=7.8						
KAPI				S	Sn	04 29 05.8	+2.9
	4.1nm,0.3s,baz=197,slow=19,SNR=2.8						
KAPI	Kappang	7.14	225	ePn	Pn	04 27 41.0	-2.2
KAPI				S	Sn	04 29 05.8	+2.9
MYLDM	Lahad Datu	8.16	309	P	Pn	04 27 58.1	+0.9
	141nm,0.8s						
KKM	Kota Kinabalu	10.50	305	ePn	Pn	04 28 29.0	0.0
	17nm,0.4s						
KKM	Kota Kinabalu	10.50	305	P	Pn	04 28 33.2	+4.2
SBUM	Sibu	12.86	281	P	Pn	04 29 09.2	+8.4
KAKA	Kakadu	14.71	150	ePn	Pn	04 29 26.1	+1.4
FITZ	Fitzroy Crossi	18.02	178	P	Pn	04 30 05.7	-0.1
	0.2nm,0.3s,baz=70,slow=2.4,SNR=3.8						
FITZ				LR	LR	04 38 02.4	
	comp=Z,33nm,18.1s,baz=276,slow=40						
PMBI	Palembang	20.29	262	P	Px	04 30 42.3	
WRA	Warramunga Arr	21.90	155	P	P	04 30 48.1	+1.2
	4.6nm,0.9s,mb3.8,baz=335,slow=9.3,SNR=5.7						
ASAR	Alice Springs	25.13	160	P	P	04 31 18.7	+1.1
	0.6nm,0.4s,mb3.3,baz=338,slow=7.7,SNR=6.2						
ASAR				PcP	PcP	04 34 52.0	+2.3
	0.6nm,0.5s,baz=350,slow=2.0,SNR=7.2						
PSI	Prapat	26.07	276	LR	LR	04 41 06.1	
	comp=Z,44nm,19.3s,baz=60,slow=35						
CMAR	Chiang Mai Arr	31.37	307	P	P	04 32 12.3	-0.9
	0.7nm,0.3s,mb3.9,baz=134,slow=7.7,SNR=5.2						
CMAR				PcP	PcP	04 35 07.0	+1.9
	1.3nm,0.5s,baz=128,slow=1.5,SNR=4.3						
STKA	Stephens Creek	35.46	155	P	P	04 32 50.5	+1.9
	2.0nm,0.5s,mb4.2,baz=317,slow=10,SNR=7.0						
KSRS	Korea Array	37.36	4	P	P	04 33 06.3	+1.6
	1.0nm,0.6s,mb3.9,baz=180,slow=9.2,SNR=4.0						
MJAR	Matsushiro Arr	38.39	17	P	P	04 33 14.8	+1.4
	1.3nm,0.7s,mb3.8,baz=184,slow=9.9,SNR=4.1						
LZH	Lanzhou	40.86	334	eP	P	04 33 36.5	+2.6
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.0						
LZH				pmax	pmax		
	comp=Z,100nm,6.0s						
ODAN	Odare	44.83	310	eP	P	04 34 06.4	+0.2
	comp=Z,14nm,0.9s,mb4.7						
TAPN	Taplejung	44.84	310	eP	P	04 34 05.6	-0.6
	comp=Z,4.6nm,0.4s,mb4.6						
GTA	Gaotai	45.41	333	eP	P	04 34 11.8	+1.3
GTA				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
JIRN	Jiri	46.16	310	eP	P	04 34 16.8	+0.1
	comp=Z,13nm,0.7s,mb4.8						
GUN	Gumba	46.52	310	eP	P	04 34 19.3	-0.2
	comp=Z,20nm,0.6s,mb5.0						
DMN	Daman	46.97	309	eP	P	04 34 22.9	-0.1
	comp=Z,7.9nm,0.7s,mb4.5						
GKN	Gorkha	47.52	309	eP	P	04 34 26.9	-0.4
	comp=Z,9.0nm,0.6s,mb4.8						
KOLN	Koldanda	48.22	308	eP	P	04 34 32.6	-0.1
	comp=Z,27nm,0.9s,mb5.1						
DANN	Dangsing	48.37	309	eP	P	04 34 33.7	-0.1
	comp=Z,28nm,0.6s,mb5.3						
ULN	Ulaanbaatar	50.11	344	eP	P	04 34 46.3	-0.4
	comp=Z,0.9nm,0.4s,mb4.0						
SONM	Songino Array	50.26	344	P	P	04 34 47.4	-0.5
	comp=Z,4.5nm,0.8s,mb4.5,baz=160,slow=9.3,SNR=26						
MKAR	Makanchi Array	59.59	327	P	P	04 35 54.0	-1.1
	comp=Z,3.5nm,0.5s,mb4.6,baz=120,slow=8.0,SNR=53						
MKAR				PcP	PcP	04 36 42.0	+0.5
	comp=Z,1.2nm,0.7s,baz=114,slow=5.4,SNR=5.2						
TKM2	Tokmak 2	61.34	321	eP	P	04 36 06.8	-0.3
	comp=Z,2.1nm,0.7s,mb4.3						
UCH	Uchtor	61.69	319	eP	P	04 36 10.3	+0.8
	comp=Z,3.5nm,0.8s,mb4.4						
AAK	Ala-Archa	61.90	320	eP	P	04 36 12.6	+1.7
	comp=Z,2.1nm,0.8s,mb4.2						
AML	Almayashu	62.18	319	eP	P	04 36 13.8	+1.0
	comp=Z,4.1nm,0.7s,mb4.6						
EKS2	Erkin-Say	62.38	320	eP	P	04 36 13.9	-0.3
	comp=Z,1.5nm,0.6s,mb4.2						
ZALV	Zalesovo Beam	63.08	335	P	P	04 36 17.0	-1.5
	comp=Z,2.3nm,0.5s,mb4.3,baz=116,slow=6.8,SNR=10						
ZALV	Zalesovo Beam	63.08	335	P	P	04 36 17.0	-1.5
KURK	Kurchatov	63.90	329	eP	P	04 36 22.6	-1.4
	comp=Z,13nm,0.6s,mb4.9						
BRVK	Borovoye	69.50	328	eP	P	04 36 59.1	-0.5
	comp=Z,4.4nm,0.9s,mb4.3						
TIXI	Tiksi	71.56	1	eP	P	04 37 11.8	+0.1
	comp=Z,4.9nm,0.3s,mb4.8						
AKTK	Aktyubinsk	75.42	323	P	P	04 37 33.5	-1.2
AKTO	Aktyubinsk	75.42	323	P	P	04 37 33.5	-1.2
	comp=Z,6.3nm,0.4s,mb4.7,baz=102,slow=8.8,SNR=30						
ARCES	ARCESS Array B	93.26	340	P	P	04 39 04.4	-0.5
	comp=Z,2.8nm,0.9s,mb4.6,baz=87,slow=4.5,SNR=9.9						
ARCES				LR	LR	05 21 11.4	
	comp=Z,223nm,19.3s,baz=189,slow=36						
FINES	FINESS Array B	94.19	332	P	P	04 39 07.7	-1.7
	comp=Z,2.0nm,0.8s,mb4.5,baz=12,slow=7.1,SNR=4.1						
TORD	Torodi Ar. Bea	122.19	286	PKP	PKPdf	04 44 46.3	+0.1
	comp=Z,0.6nm,0.7s,baz=100,slow=0.8,SNR=5.7						
SCHQ	Schefferville	124.49	8	PKP	PKPdf	04 44 50.2	+0.8
	comp=Z,2.3nm,0.9s,baz=292,slow=11,SNR=4.0						
SCHQ	Schefferville	124.49	8	PKP	PKPdf	04 44 50.2	+0.7

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*IDC **28** 04:35:39.2±1.4, 36°.28N×21°.80E, h0^{km}, mb3.8/8, mb1 3.7/9, mb1mx3.6/27, mbtmp3.7/9, Error ellipse: s-maj=26.1km s-min=24.9km az=16.0*
*NEIC **28** 04:35:40.5, 36°.17N×21°.76E, h5^{km}, MD4.0(ATH), After ATH.*
*ATH **28** 04:35:40.5, 36°.17N×21°.76E, h5^{km}, MD4.0/3, ML3.5*
*ISCJB **28** 04:35:41.1±0.5, 36°.18N±0°.03×21°.71E±0°.04, h10^{km}, mb3.7/8, Error ellipse: s-maj=5.2km s-min=3.8km az=38.0*
*CSEM **28** 04:35:42.5±0.4, 36°.24N×21°.85E, h2^{km}, ML4.0/3, Error ellipse: s-maj=8.9km s-min=6.0km az=37.0*
*THE **28** 04:35:43.5, 36°.26N×21°.85E, h1^{km}±4^{km}, ML4.0/3, Error ellipse: s-maj=6.5km s-min=1.9km az=225.0*
ISC 28 04:35:42.8±0.5**, 36°.20N**±0°.03×**21°.78E**±0°.04**, h10**^{km}**, n104, σ1^s.42**/122**, mb3.7**/8**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.69	358	P	Pg	04 35 54.1	-2.1
PYL	PYLOS	0.69	358	ePB	Pg	04 35 54.5	-1.7
PYL	PYLOS	0.69	358	P	Pg	04 35 54.1	-2.1
PYL	PYLOS	0.69	358	ePb	Pg	04 35 54.5	-1.7
ITM	Ithomi	0.98	7	ePG	Pg	04 35 59.0	-2.7
ITM	Ithomi	0.98	7	ePg	Pg	04 35 59.0	-2.7
KYTH	Kithira	1.02	85	ePN	Pg	04 36 00.9	-1.5
KYTH	Kithira	1.02	85	ePn	Pg	04 36 00.9	-1.5
VLI	Veliai	1.07	61	ePN	Pg	04 36 01.3	-2.0
VLI	Veliai	1.07	61	ePn	Pg	04 36 01.3	-2.0
VLX	Vlachokerasia	1.26	22	ePG	Pg	04 36 04.6	-2.4
VLX	Vlachokerasia	1.26	22	ePg	Pg	04 36 04.6	-2.4
DID	Didima	1.75	41	P	Pn	04 36 13.0	-0.2
DID				S	Sn	04 36 36.7	+1.2
DID	Didima	1.75	41	ePG	Pn	04 36 13.8	+0.6
DID	Didima	1.75	41	P	Pn	04 36 13.0	-0.2
DID	Didima	1.75	41	ePg	Pn	04 36 13.8	+0.6
DID				S	Sn	04 36 36.7	+1.2
GUR	Goura	1.79	14	ePN	Pn	04 36 14.7	+1.0
GUR	Goura	1.79	14	ePn	Pn	04 36 14.7	+1.0
RLS	Riolos of Patr	1.87	352	ePN	Pn	04 36 16.1	+1.3
RLS	Riolos of Patr	1.87	352	ePn	Pn	04 36 16.1	+1.3
KARN	Karanos	1.91	114	P	Pn	04 36 15.8	+0.4
KARN	Karanos	1.91	114	P	Pn	04 36 15.8	+0.4
LAKA	Lakka	2.04	4	P	Pn	04 36 18.8	+1.6
LAKA	Lakka	2.04	4	P	Pn	04 36 18.8	+1.6
LTK	Loutraki	2.05	27	P	Pn	04 36 18.1	+0.8
LTK				S	Sn	04 36 43.4	+0.4
LTK	Loutraki	2.05	27	ePG	Pg	04 36 20.7	-1.4
LTK	Loutraki	2.05	27	P	Pn	04 36 18.1	+0.8
LTK	Loutraki	2.05	27	ePg	Pg	04 36 20.7	-1.4
LTK				S	Sn	04 36 43.4	+0.4
NAIG	Nisos Aigina	2.07	41	ePN	Pn	04 36 19.0	+1.4
NAIG	Nisos Aigina	2.07	41	ePn	Pn	04 36 19.0	+1.4
VAM	Vamos	2.12	111	ePN	Pn	04 36 19.0	+0.8
VAM	Vamos	2.12	111	ePn	Pn	04 36 19.0	+0.8
TRIZ	Trizonia	2.17	6	P	Pn	04 36 19.9	+0.9
TRIZ	Trizonia	2.17	6	P	Pn	04 36 19.9	+0.9
VLS	Valsamata	2.19	335	P	Pn	04 36 19.2	0.0
VLS	Valsamata	2.19	335	P	Pn	04 36 19.2	0.0
EFP	Efpalio	2.23	3	ePG	Pg	04 36 23.1	-2.3
EFP	Efpalio	2.23	3	ePg	Pg	04 36 23.1	-2.3
VLY	Voula,Athens	2.31	44	ePN	Pn	04 36 21.9	+1.1
VLY	Voula,Athens	2.31	44	ePn	Pn	04 36 21.9	+1.1
ATH	Athens Observa	2.35	41	ePB	Pn	04 36 20.4	-1.0
ATH	Athens Observa	2.35	41	ePb	Pn	04 36 20.4	-1.0
PTL	Penteli	2.49	41	ePG	Pg	04 36 27.5	-2.9
PTL	Penteli	2.49	41	ePg	Pg	04 36 27.5	-2.9
LKR	Lokris	2.63	21	P	Pn	04 36 25.1	-0.2
LKR				S	Sn	04 36 57.8	+0.5
LKR	Lokris	2.63	21	ePG	Pn	04 36 28.6	+3.3
LKR	Lokris	2.63	21	P	Pn	04 36 25.1	-0.2
LKR	Lokris	2.63	21	ePg	Pn	04 36 28.6	+3.3
LKR				S	Sn	04 36 57.8	+0.5
LKD	Levkas	2.66	341	P	Pn	04 36 27.6	+2.0
LKD				S	Sn	04 36 59.6	+1.7
LKD	Levkas	2.66	341	P	Pn	04 36 27.6	+2.0
LKD				S	Sn	04 36 59.6	+1.7
IDI	Anoyia	2.69	109	Pn	Pn	04 36 25.4	-0.6
	baz=303,slow=18,SNR=1.2						
IDI				Sn	Sn	04 36 58.9	+0.2
	4.9nm,0.3s,baz=109,slow=21,SNR=4.3						
IDI	Anoyia	2.69	109	ePn	Pn	04 36 26.5	+0.4
IDI				Sn	Sn	04 36 58.9	+0.2
IDI	Anoyia	2.69	109	ePn	Pn	04 36 26.5	+0.4
IDI				Sn	Sn	04 36 58.8	+0.1
SIVA	Sivas	2.74	115	P	Pn	04 36 27.5	+0.8
SIVA	Sivas	2.74	115	P	Pn	04 36 27.5	+0.8
AGG	Agios Georgios	2.85	9	P	Pn	04 36 28.3	0.0
AGG				S	Sn	04 37 03.2	+0.5
AGG	Agios Georgios	2.85	9	P	Pn	04 36 28.3	0.0
AGG				S	Sn	04 37 03.2	+0.5
LAST	Lasithi	3.19	108	P	Pn	04 36 33.0	+0.1
LAST	Lasithi	3.19	108	P	Pn	04 36 33.0	+0.1
MEV	Metsovon	3.61	353	P	Pn	04 36 40.9	+2.2
MEV	Metsovon	3.61	353	P	Pn	04 36 40.9	+2.2
KEK	Kerkira	3.84	337	ePN	Pn	04 36 42.2	+0.3
KEK	Kerkira	3.84	337	ePn	Pn	04 36 42.2	+0.3
KZN	Kozani	4.10	360	ePN	Pn	04 36 48.4	+2.9
KZN	Kozani	4.10	360	ePn	Pn	04 36 48.4	+2.9
FNA	Florina	4.59	356	P	Pn	04 36 52.8	+0.7
FNA	Florina	4.59	356	P	Pn	04 36 52.8	+0.7
BIA	Bitola	4.83	356	ePn	Pn	04 36 56.7	+1.3
BIA				eSg	Sn	04 37 50.7	-0.7
BIA	Bitola	4.83	356	ePn	Pn	04 36 56.7	+1.3
SOI	Samo	4.94	294	Pn	Pn	04 36 59.7	+2.7
SOI	Samo	4.94	294	Pn	Pn	04 36 59.7	+2.7
OHR	Ohrid	4.96	351	ePn	Pn	04 36 59.6	+2.3
OHR				eSg	Sn	04 37 55.2	+0.4
OHR	Ohrid	4.96	351	ePn	Pn	04 36 59.6	+2.3
TIP	Timpagrande	4.97	308	ePn	Pn	04 36 56.9	-0.5
TIP	Timpagrande	4.97	308	ePn	Pn	04 36 56.9	-0.5
KNT	Kendrikon	5.03	10	P	Pn	04 36 59.3	+1.1
KNT	Kendrikon	5.03	10	P	Pn	04 36 59.3	+1.1
CEL	Celeste	5.13	295	ePn	Pn	04 36 58.4	-1.1
	11nm,0.6s						
CEL				Sn	Sn	04 37 56.3	-2.5
CEL	Celeste	5.13	295	ePn	Pn	04 36 58.4	-1.2
	11nm,0.6s						
CEL				Sn	Sn	04 37 56.3	-2.5
VAY	Valandovo	5.15	7	ePn	Pn	04 36 59.5	-0.4
VAY	Valandovo	5.15	7	ePn	Pn	04 36 59.5	-0.4
KRUS	Krusevo	5.18	356	ePn	Pn	04 36 59.8	-0.5
KRUS				eSg	Sn	04 37 58.2	-1.8
KRUS	Krusevo	5.18	356	ePn	Pn	04 36 59.7	-0.6
TIR	Tirane	5.35	344	ePn	Pn	04 37 03.0	+0.4
TIR	Tirane	5.35	344	ePn	Pn	04 37 03.0	+0.3
HAVL	Avola	5.41	280	Pn	Pn	04 37 05.4	+2.0
HAVL	Avola	5.41	280	Pn	Pn	04 37 05.4	+2.0
LTRZ	Laterza	5.87	320	Pn	Pn	04 37 09.0	-0.8
	27nm,0.8s						
LTRZ	Laterza	5.87	320	Pn	Pn	04 37 09.0	-0.8
	27nm,0.8s						
CUC	Castrocucco	6.04	311	ePn	Pn	04 37 11.6	-0.5
	13nm,0.6s						
CUC	Castrocucco	6.04	311	ePn	Pn	04 37 11.6	-0.5
	13nm,0.6s						
BRTR	Keskin Array B	10.00	66	Pn	Pn	04 38 08.6	+2.1
	baz=270,slow=13,SNR=3.3						
BRTR	Keskin Array B	10.00	66	Pn	Pn	04 38 08.6	+2.1
HFS	Hagfors	24.51	350	P	P	04 40 58.9	-3.1
	3.6nm,1.0s,mb3.9,baz=178,slow=10,SNR=3.7						
FINES	FINESS Array B	25.41	5	P	P	04 41 07.5	-2.7
	2.7nm,0.8s,mb3.8,baz=194,slow=34,SNR=3.0						
TORD	Torodi Ar. Bea	29.20	223	P	P	04 41 43.1	-1.5
	0.4nm,0.7s,mb3.2,baz=30,slow=7.8,SNR=3.9						

ARCES	**ARCESS Array B**	**33.45**	**2**	P	P	04 42 20.4	-1.1
	1.8nm,0.8s,mb4.0,baz=177,slow=9.4,SNR=4.5						
ARCES	**ARCESS Array B**	**33.45**	**2**	P	P	04 42 20.4	-1.1
ARCES	**ARCESS Array B**	**33.45**	**2**	P	P	04 42 20.4	-1.1
BVAR	**Borovoye Array**	**37.66**	**48**	P	P	04 42 56.2	-1.6
	0.4nm,0.4s,mb3.5,baz=268,slow=6.8,SNR=3.8						
BVAR	**Borovoye Array**	**37.66**	**48**	P	P	04 42 56.2	-1.6
KURK	**Kurchatov**	**42.68**	**52**	P	P	04 43 34.9	-4.6
	0.3nm,0.6s,mb3.2,baz=284,slow=8.5,SNR=2.8						
MKAR	**Makanchi Array**	**45.51**	**57**	P	P	04 43 58.8	-3.4
	0.3nm,0.3s,mb3.7,baz=269,slow=8.2,SNR=9.2						
ZALV	**Zalesovo Beam**	**46.29**	**47**	P	P	04 44 05.6	-2.6
	0.8nm,0.3s,mb4.2,baz=283,slow=7.2,SNR=3.4						

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*NEIC **28** 04:42:03.4,15°.79N×94°.56W,h13^{km},MD4.1(MEX),After MEX.*

MEX 28 04:42:03.1±0.8,15°.79N×94°.56W,h10^{km}±8^{km},MD4.1, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.29**	**94**	*i* P	Pn	04 42 23.3	-3.9
PCIG				*i* S	Sb	04 42 39.1	-5.1
CMIG	**Matias Romero**	**1.33**	**347**	*e*P	Pn	04 42 23.4	-4.3
CMIG				*i* S	Sb	04 42 40.5	-4.7
HUIG	**Huatulco**	**1.49**	**269**	*i* P	Pn	04 42 26.8	-3.0
HUIG				*i* S	Sn	04 42 44.0	-5.4
TGIG		**1.69**	**54**	*i* P	Pn	04 42 29.4	-3.3
TGIG				*i* S	Sn	04 42 50.1	-4.3
CCIG	**Comitan**	**2.38**	**78**	*e*P	Pn	04 42 39.9	-2.2
CCIG				*i* S	Sn	04 43 07.7	-3.6
VHO	**Vista Hermosa**	**2.44**	**302**	*i* P	Pn	04 42 41.7	-1.4
VHO				*i* S	Sn	04 43 10.1	-2.9
PNIG	**Pinotepa**	**3.48**	**280**	*i* P	Pn	04 42 54.9	-2.4
PNIG				*i* S	Sn	04 43 33.9	-4.6
UTMO	**Huajuapan**	**3.71**	**304**	*i* P	Pn	04 42 58.1	-2.3
UTMO				*i* S	Sn	04 43 40.8	-3.4

IGQ 28 04:44:18.6,2°.54S×79°.31W,h36^{km}±2^{km},Mb4.2,Ms4.0, 3C-9D,Error ellipse: s-maj=3.9km s-min=2.2km az=72.9, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGUA	**Igualata**	**1.24**	**33**	S	Sn	04 44 59.4	+4.5
IGUA	**Igualata**	**1.24**	**33**	P	Pn	04 44 42.5	+3.0
ARRY	**Arrayan**	**1.33**	**40**	⇑S	Sn	04 44 59.8	+2.5
ARRY	**Arrayan**	**1.33**	**40**	⇑P	Pn	04 44 43.0	+2.3
BIL2	**Estacion Bilba**	**1.34**	**37**	P	Pn	04 44 43.8	+2.9
PATA	**Patacocha**	**1.35**	**40**	⇑P	Pn	04 44 43.6	+2.7
RETU	**Refugio**	**1.38**	**38**	⇓S	Sn	04 45 03.4	+4.9
RETU	**Refugio**	**1.38**	**38**	⇓P	Pn	04 44 44.5	+3.1
JUI6	**Juive**	**1.39**	**37**	⇓S	Sn	04 45 02.6	+3.9
JUI6	**Juive**	**1.39**	**37**	⇓P	Pn	04 44 44.2	+2.7
ULBA	**Ulba**	**1.41**	**40**	S	Sn	04 45 04.4	+5.3
ULBA	**Ulba**	**1.41**	**40**	P	Pn	04 44 44.6	+2.8
RUN5	**Runtun**	**1.42**	**38**	P	Pn	04 44 44.1	+2.2
QIL2	**Quilotoa**	**1.71**	**13**	P	Pn	04 44 49.0	+3.1
QIL2	**Quilotoa**	**1.71**	**13**	S	Sn	04 45 12.7	+6.2
PISA	**Pisayambo**	**1.73**	**32**	⇓S	Sn	04 45 14.8	+7.6
PISA	**Pisayambo**	**1.73**	**32**	⇓P	Pn	04 44 49.2	+2.9
MOV1	**Cotopaxi Vol s**	**2.01**	**25**	P	Pn	04 44 52.9	+2.8
CAMI	**Rancho Maria**	**2.02**	**23**	P	Pn	04 44 53.3	+3.1
CHIS	**Cerro-Chispas-**	**2.05**	**316**	P	Pn	04 44 52.1	+1.5
TAMB	**Tambo**	**2.06**	**27**	P	Pn	04 44 54.1	+3.4
NAS2	**Nasa**	**2.06**	**24**	P	Pn	04 44 53.3	+2.5
VC1	**Cotopaxi 1**	**2.09**	**26**	P	Pn	04 44 54.3	+3.2
COV1	**Cotopaxi Volc**	**2.10**	**27**	P	Pn	04 44 54.4	+3.1
PITA	**Cotopaxi Volc**	**2.15**	**24**	⇓P	Pn	04 44 55.2	+3.2
ANTI	**Antisana**	**2.37**	**29**	P	Pn	04 44 57.6	+2.5
JUA2	**San Juan 2**	**2.41**	**17**	P	Pn	04 44 58.2	+2.6
TERV	**Terraza Guagua**	**2.45**	**17**	S	Sn	04 45 32.7	+7.8
TERV	**Terraza Guagua**	**2.45**	**17**	P	Pn	04 44 59.6	+3.5
GGP	**Refugio Guagua**	**2.46**	**17**	P	Pn	04 44 59.0	+2.8
PINO	**Pino**	**2.47**	**16**	⇓P	Pn	04 44 59.6	+3.2
PINO	**Pino**	**2.47**	**16**	⇓S	Sn	04 45 34.0	+8.7
YANA	**Yana**	**2.52**	**17**	P	Pn	04 44 59.7	+2.7
CAYR	**Refugio Cayamb**	**2.85**	**27**	P	Pn	04 45 05.5	+3.9
CAYA	**Cayambe**	**2.91**	**27**	P	Pn	04 45 05.6	+3.1
COTA	**Cotacachi**	**3.02**	**19**	P	Pn	04 45 07.4	+3.5

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*MDD **28** 04:48:07.0±1.8,35°.51N×11°.41W,h0^{km},mb3.6/6,Error ellipse: s-maj=17.1km s-min=15.1km az=146.0,PRIMO*

*INMG **28** 04:48:07.9±0.9,35°.45N×11°.50W,h10^{km},ML2.1,Error ellipse: s-maj=5.9km s-min=4.2km az=110.0*

*CSEM **28** 04:48:09.8±0.4,35°.61N×11°.16W,h10^{km},ML2.9/14,Error ellipse: s-maj=8.4km s-min=7.1km az=157.0*

ISC 28 04:48:09.8±1.0,35°.60N±0°.05×11°.15W±0°.06,h10^{km},n74, $\sigma 1^{s}.03$/128,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**2.42**	**50**	*e*Pn	Pn	04 48 49.7	+0.3
PFVI				*e*Sn	Sn	04 49 21.1	+2.0
PFVI				A		04 49 21.6	
	4.7nm,0.2s						
PFVI	**Vila Bisbo**	**2.42**	**50**	P	Pn	04 48 49.7	+0.3
PFVI				S	Sn	04 49 21.1	+2.0
	2.3nm,0.2s						
PFVI	**Vila Bisbo**	**2.42**	**50**	*e*Pn	Pn	04 48 49.7	+0.3
PFVI				*e*Sn	Sn	04 49 21.1	+2.0
	4.7nm,0.2s						
MORF	**Marmelete**	**2.64**	**49**	*e*Pn	Pn	04 48 52.8	+0.4
MORF				*e*Sn	Sn	04 49 26.6	+2.1
MORF				A		04 49 28.7	
	7.6nm,0.1s						
MORF	**Marmelete**	**2.64**	**49**	P	Pn	04 48 52.8	+0.4
MORF				S	Sn	04 49 26.6	+2.1
	7.6nm,0.1s						
MORF	**Marmelete**	**2.64**	**49**	*e*Pn	Pn	04 48 52.8	+0.4
MORF				*e*Sn	Sn	04 49 26.6	+2.1
	7.6nm,0.1s						
PTEO	**Sao Teotonio**	**2.75**	**45**	*e*Pn	Pn	04 48 54.2	+0.2
PTEO				*e*Sn	Sn	04 49 29.2	+1.9
PTEO				A		04 49 50.0	
	7.1nm,0.6s						
PTEO	**Sao Teotonio**	**2.75**	**45**	P	Pn	04 48 54.2	+0.2
PTEO				S	Sn	04 49 29.2	+1.9
	3.6nm,0.6s						
PTEO	**Sao Teotonio**	**2.75**	**45**	*e*Pn	Pn	04 48 54.2	+0.2
PTEO				*e*Sn	Sn	04 49 29.2	+1.9
	7.1nm,0.6s						
PBDV	**Barranco-do-Ve**	**3.07**	**57**	*e*Pn	Pn	04 48 59.0	+0.6
PBDV				*e*Sn	Sn	04 49 37.3	+2.2
PBDV				A		04 50 01.6	
	3.6nm,0.7s						
PBDV	**Barranco-do-Ve**	**3.07**	**57**	P	Pn	04 48 59.0	+0.6
PBDV				S	Sn	04 49 37.3	+2.2
	3.6nm,0.7s						
PBDV	**Barranco-do-Ve**	**3.07**	**57**	*e*Pn	Pn	04 48 59.0	+0.6
PBDV				*e*Sn	Sn	04 49 37.3	+2.2
	3.6nm,0.7s						
PVAQ	**Vaqueiros**	**3.30**	**56**	*e*Pn	Pn	04 49 01.9	+0.4
PVAQ				*e*Sn	Sn	04 49 42.1	+1.3
PVAQ				A		04 49 47.1	
	4.4nm,0.1s						
PVAQ	**Vaqueiros**	**3.30**	**56**	P	Pn	04 49 01.9	+0.4
PVAQ				S	Sn	04 49 42.1	+1.3
	4.4nm,0.1s						
PVAQ	**Vaqueiros**	**3.30**	**56**	*e*Pn	Pn	04 49 01.9	+0.4
PVAQ				*e*Sn	Sn	04 49 42.1	+1.3
	4.4nm,0.1s						
EGRO	**El Granado**	**3.53**	**56**	P	Pn	04 49 05.2	+0.6
	0.6nm,0.1s,SNR=7.9						
EGRO				S	Sn	04 49 48.1	+1.7
	1.7nm,0.2s,SNR=7.9						
EGRO	**El Granado**	**3.53**	**56**	P	Pn	04 49 05.2	+0.6
	0.6nm,0.1s,SNR=7.9						
EGRO				S	Sn	04 49 48.1	+1.7
	1.7nm,0.2s,SNR=7.9						
PBEJ	**Beja**	**3.58**	**47**	*e*Pn	Pn	04 49 05.3	0.0
PBEJ				*e*Sn	Sn	04 49 48.8	+1.2
PBEJ				A		04 49 50.6	
	1.9nm,0.2s						
PBEJ	**Beja**	**3.58**	**47**	P	Pn	04 49 05.3	0.0
PBEJ				S	Sn	04 49 48.8	+1.2
	0.9nm,0.2s						
PBEJ	**Beja**	**3.58**	**47**	*e*Pn	Pn	04 49 05.3	0.0
PBEJ				*e*Sn	Sn	04 49 48.8	+1.2
	1.9nm,0.2s						
PMAFR	**Mafra**	**3.66**	**23**	*e*Pn	Pn	04 49 05.9	-0.6
PMAFR				*e*Sn	Sn	04 49 49.9	+0.2
PMAFR				A		04 49 53.7	
	14nm,0.8s						
PMAFR	**Mafra**	**3.66**	**23**	P	Pn	04 49 05.9	-0.6
PMAFR				S	Sn	04 49 49.9	+0.2
	7.1nm,0.8s						
PMAFR	**Mafra**	**3.66**	**23**	*e*Pn	Pn	04 49 05.9	-0.6
PMAFR				*e*Sn	Sn	04 49 49.9	+0.2
	14nm,0.8s						
MOE	**Montemor**	**3.68**	**37**	*e*Sn	Sn	04 49 50.9	+0.8
MOE	**Montemor**	**3.68**	**37**	*e*Sn	Sn	04 49 50.9	+0.8
EVO	**Evora**	**3.85**	**40**	*e*Pn	Pn	04 49 09.0	-0.1
EVO				*e*Sn	Sn	04 49 55.1	+0.7
EVO				A		04 49 56.1	
	5.0nm,0.1s						
EVO	**Evora**	**3.85**	**40**	P	Pn	04 49 09.0	-0.1
EVO				S	Sn	04 49 55.1	+0.7
	5.0nm,0.1s						
EVO	**Evora**	**3.85**	**40**	*e*Pn	Pn	04 49 09.0	-0.1
EVO				*e*Sn	Sn	04 49 55.1	+0.7
	5.0nm,0.1s						
PBAR	**Barrancos**	**4.18**	**51**	*e*Pn	Pn	04 49 14.1	+0.5
PBAR				*e*Sn	Sn	04 50 03.7	+1.2
PBAR				A		04 50 06.6	
	2.0nm,0.5s						
PBAR	**Barrancos**	**4.18**	**51**	P	Pn	04 49 14.1	+0.5
PBAR				S	Sn	04 50 03.7	+1.2
	2.0nm,0.5s						
PBAR	**Barrancos**	**4.18**	**51**	*e*Pn	Pn	04 49 14.1	+0.5
PBAR				*e*Sn	Sn	04 50 03.7	+1.2
	2.0nm,0.5s						
EMIN	**Mina Concepcio**	**4.20**	**58**	P	Pn	04 49 13.8	0.0
	0.3nm,0.2s,SNR=7.9						
EMIN				S	Sn	04 50 03.2	+0.2
	1.1nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.20**	**58**	P	Pn	04 49 13.8	-0.1
	0.3nm,0.2s,SNR=7.9						
EMIN				S	Sn	04 50 03.2	+0.2
	1.1nm,0.1s,SNR=7.9						
PESTR	**Estremoz**	**4.32**	**40**	*e*Pn	Pn	04 49 16.0	+0.4
PESTR				*e*Sn	Sn	04 50 06.2	+0.2
PESTR				A		04 50 23.3	
	2.0nm,0.5s						
PESTR	**Estremoz**	**4.32**	**40**	P	Pn	04 49 16.0	+0.4
PESTR				S	Sn	04 50 06.2	+0.2
	2.0nm,0.5s						
PESTR	**Estremoz**	**4.32**	**40**	*e*Pn	Pn	04 49 16.0	+0.4
PESTR				*e*Sn	Sn	04 50 06.2	+0.2
	2.0nm,0.5s						
ESPR	**Espera**	**4.46**	**72**	P	Pn	04 49 17.9	+0.4
	1.1nm,0.1s,SNR=7.9						
ESPR				S	Sn	04 50 09.0	-0.6
	8.2nm,0.3s,SNR=5.9						
ESPR	**Espera**	**4.46**	**72**	P	Pn	04 49 17.9	+0.4
	1.1nm,0.1s,SNR=7.9						
ESPR				S	Sn	04 50 09.0	-0.5
	8.2nm,0.3s,SNR=5.9						
PTOM	**Tomar**	**4.56**	**28**	*e*Pn	Pn	04 49 19.2	+0.4
PTOM				*e*Sn	Sn	04 50 11.8	-0.1
PTOM				A		04 50 16.8	
	2.5nm,0.3s						
PTOM	**Tomar**	**4.56**	**28**	P	Pn	04 49 19.2	+0.4
PTOM				S	Sn	04 50 11.8	-0.1
	1.2nm,0.3s						
PTOM	**Tomar**	**4.56**	**28**	*e*Pn	Pn	04 49 19.2	+0.4
PTOM				*e*Sn	Sn	04 50 11.8	-0.1
	2.5nm,0.3s						
EBAD	**Badajoz**	**4.56**	**45**	P	Pn	04 49 18.6	-0.2
	0.7nm,0.1s,SNR=11						
EBAD				S	Sn	04 50 11.6	-0.3
	0.1nm,0.2s,SNR=6.0						
EBAD	**Badajoz**	**4.56**	**45**	P	Pn	04 49 18.6	-0.3
	0.7nm,0.1s,SNR=11						
EBAD				S	Sn	04 50 11.6	-0.3
	0.1nm,0.2s,SNR=6.0						
PMRV	**Marv??o**	**4.85**	**37**	*e*Pn	Pn	04 49 22.7	-0.1
PMRV				*e*Sn	Sn	04 50 18.4	-0.6
PMRV				A		04 50 22.8	
	1.6nm,0.8s						
PMRV	**Marv??o**	**4.85**	**37**	P	Pn	04 49 22.7	-0.1
PMRV				S	Sn	04 50 18.4	-0.6
	0.8nm,0.8s						
PMRV	**Marv??o**	**4.85**	**37**	*e*Pn	Pn	04 49 22.7	-0.1
PMRV				*e*Sn	Sn	04 50 18.4	-0.6
	1.6nm,0.8s						
PCBR	**Castelo Branco**	**5.14**	**33**	*e*Pn	Pn	04 49 26.6	-0.1
PCBR				*e*Sn	Sn	04 50 24.7	-1.3
PCBR				A		04 50 51.4	
	1.3nm,0.8s						
PCBR	**Castelo Branco**	**5.14**	**33**	P	Pn	04 49 26.6	-0.1
PCBR				S	Sn	04 50 24.7	-1.3
	0.6nm,0.8s						
PCBR	**Castelo Branco**	**5.14**	**33**	*e*Pn	Pn	04 49 26.6	-0.1
PCBR				*e*Sn	Sn	04 50 24.7	-1.3
	1.3nm,0.8s						
ECAB	**El Cabril**	**5.22**	**60**	P	Pn	04 49 27.5	-0.4
	0.9nm,0.2s,SNR=4.0						
ECAB				S	Sn	04 50 26.9	-1.2
	1.2nm,0.2s,SNR=5.1						
ECAB	**El Cabril**	**5.22**	**60**	P	Pn	04 49 27.5	-0.4
	0.9nm,0.2s,SNR=4.0						
ECAB				S	Sn	04 50 26.9	-1.2
	1.2nm,0.2s,SNR=5.1						
EMIJ	**Mijas**	**5.26**	**78**	S	Sn	04 50 27.3	-1.7
	0.8nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	**5.26**	**78**	S	Sn	04 50 27.3	-1.7
	0.8nm,0.3s,SNR=7.9						
PVIS	**Viseu**	**5.71**	**26**	*e*Sn	Sn	04 50 38.5	-1.8
PVIS	**Viseu**	**5.71**	**26**	*e*Sn	Sn	04 50 38.5	-1.8
EADA	**Adamuz**	**5.86**	**62**	P	Pn	04 49 36.6	-0.1
	0.2nm,0.1s,SNR=7.9						
EADA				S	Sn	04 50 42.9	-1.0
	1.1nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**5.86**	**62**	P	Pn	04 49 36.6	-0.1
	0.2nm,0.1s,SNR=7.9						
EADA				S	Sn	04 50 42.9	-1.0
	1.1nm,0.1s,SNR=7.9						
MVO	**Moncorvo**	**6.43**	**29**	*e*Pn	Pn	04 49 43.7	-0.8
MVO				*e*Sn	Sn	04 50 56.2	-1.6
MVO				A		04 51 06.8	
	2.0nm,0.6s						
MVO	**Moncorvo**	**6.43**	**29**	P	Pn	04 49 43.7	-0.8
MVO				S	Sn	04 50 56.2	-1.6
	1.0nm,0.6s						
MVO	**Moncorvo**	**6.43**	**29**	*e*Pn	Pn	04 49 43.7	-0.8
MVO				*e*Sn	Sn	04 50 56.2	-1.6
	2.0nm,0.6s						
EBAN	**Banos Encina**	**6.43**	**64**	S	Sn	04 50 56.7	-1.3
	1.4nm,0.1s,SNR=7.9						
EBAN	**Banos Encina**	**6.43**	**64**	S	Sn	04 50 56.7	-1.4
	1.4nm,0.1s,SNR=7.9						
ELOB	**Lobios**	**6.71**	**20**	S	Sn	04 51 00.0	-4.7
	0.8nm,0.2s,SNR=7.9						
EQES	**Quesada**	**6.85**	**69**	S	Sn	04 51 08.3	-0.1
	0.1nm,0.1s,SNR=7.9						
EQES	**Quesada**	**6.85**	**69**	S	Sn	04 51 08.3	-0.1
	0.1nm,0.1s,SNR=7.9						
ECAL	**Calabor**	**7.21**	**27**	S	Sn	04 51 13.7	-3.3
	1.1nm,0.3s,SNR=7.9						
ECAL	**Calabor**	**7.21**	**27**	S	Sn	04 51 13.7	-3.3
	1.1nm,0.3s,SNR=7.9						
EHUE	**Huescar**	**7.22**	**70**	S	Sn	04 51 16.3	-1.2
	0.3nm,0.2s,SNR=7.9						
EHUE	**Huescar**	**7.22**	**70**	S	Sn	04 51 16.3	-1.1
	0.3nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**7.46**	**46**	S	Sn	04 51 22.4	-1.0
	0.4nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**7.46**	**46**	S	Sn	04 51 22.4	-1.0
	0.4nm,0.2s,SNR=7.9						
EMAZ	**Mazaricos**	**7.53**	**12**	S	Sn	04 51 19.2	-5.7
	0.9nm,0.1s,SNR=7.9						
ETOB	**Tobarra**	**8.25**	**66**	S	Sn	04 51 40.3	-2.4
	0.3nm,0.1s,SNR=7.9						
ETOB	**Tobarra**	**8.25**	**66**	S	Sn	04 51 40.3	-2.5
	0.3nm,0.1s,SNR=7.9						

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*ISCJB **28** 04:48:35.2±0.4,10°.57N±0°.03×62°.72W±0°.02,h82^{km}±6^{km}, Error ellipse: s-maj=5.7km s-min=3.4km az=150.1*

*FUNV **28** 04:48:36.6,10°.58N×62°.60W,h72^{km},MW3.8*

*NEIC **28** 04:48:38.6,10°.66N×62°.60W,h72^{km},MD3.7(TRN),After TRN.*

*TRN **28** 04:48:39.1,10°.69N×62°.58W,h70^{km},MD3.7*

ISC 28 04:48:36.3±0.5,10°.59N±0°.03×62°.71W±0°.02,h74^{km}±6^{km}, n29,$\sigma 0^{s}.94$/54,4C,Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	**Guiria**	**0.48**	**83**	*e*P	Pn	04 48 48.7	-0.6
GUIV				*e*S	Sn	04 48 57.2	-1.6
GUNV	**Guanoco**	**0.48**	**209**	⇑*i*P	Pn	04 48 50.2	+0.8
GUNV				*e*S	Sn	04 48 59.2	+0.2
CRUV	**Carupano**	**0.53**	**279**	⇑*i*P	Pn	04 48 50.2	+0.5
CRUV				*e*S	Sn	04 49 00.1	+0.5
ITEV	**Isla Los Testi**	**0.87**	**331**	*e*P	Pn	04 48 53.9	+0.5
ITEV				*e*S	Sn	04 49 06.2	+0.1
TCE	**Chacachacare**	**0.94**	**83**	⇑*i*P	Pn	04 48 55.8	+1.5
TCE				*e*S	Sn	04 49 07.2	-0.5
TPP	**Pointe-a-Pierr**	**1.27**	**102**	*e*P	Pn	04 49 00.4	+2.0
TPP				*e*S	Sn	04 49 16.0	+1.1
TPP	**Pointe-a-Pierr**	**1.27**	**102**	*e*P	Pn	04 49 00.6	+2.3
TPP				*e*S	Sn	04 49 16.1	+1.2
TRN	**Trinidad (W)**	**1.28**	**87**	*e*P	Pn	04 48 59.6	+1.0
TRN				*e*S	Sn	04 49 14.3	-1.0
TBH	**Brigand Hill**	**1.62**	**94**	*e*P	Pn	04 49 04.0	+1.1
TBH				*e*S	Sn	04 49 22.2	-0.9
ORIV	**Oritupano**	**1.66**	**205**	⇑*i*P	Pn	04 49 03.9	+0.4
ORIV				*e*S	Sn	04 49 24.5	+0.3
GRGR	**Grenville**	**1.85**	**34**	*e*Pn	Pn	04 49 06.1	0.0
GRGR				*e*Sn	Sn	04 49 28.0	-0.6
GRW	**Mount Saint Ca**	**1.87**	**33**	*e*P	Pn	04 49 06.8	+0.5
GRW				*e*S	Sn	04 49 28.5	-0.6
GRHS	**Sauteurs**	**1.93**	**33**	*e*P	Pn	04 49 08.2	+1.1
GRHS				*e*S	Sn	04 49 29.8	-0.8
GRHS	**Sauteurs**	**1.93**	**33**	*e*P	Pn	04 49 07.5	+0.3
GRHS				*e*S	Sn	04 49 29.8	-0.8
PCRV	**Puerto La Cruz**	**1.94**	**258**	*e*P	Pn	04 49 07.9	+0.6
PCRV				*e*S	Sn	04 49 30.6	-0.2
TPR	**Prospect**	**1.99**	**72**	*e*P	Pn	04 49 09.4	+1.5
TPR				*e*S	Sn	04 49 30.5	-1.4
GRSS	**Sisters**	**2.01**	**32**	*e*P	Pn	04 49 08.6	+0.4
GRSS				*e*S	Sn	04 49 30.3	-2.2
GRSS	**Sisters**	**2.01**	**32**	*e*P	Pn	04 49 08.6	+0.4
GRSS				*e*S	Sn	04 49 32.8	+0.4
GRIC	**Isle de Caille**	**2.01**	**33**	*e*P	Pn	04 49 08.3	+0.1
GRIC				*e*S	Sn	04 49 31.9	-0.6
BOT	**Bacolet**	**2.04**	**73**	*e*P	Pn	04 49 10.2	+1.7
RIOV	**Rio Grande**	**2.66**	**161**	*e*P	Pn	04 49 16.1	-0.8
RIOV				*e*S	Sn	04 49 44.4	-3.7
GURV	**El Guri**	**2.84**	**188**	*e*P	Pn	04 49 18.3	-1.1
CUPV	**Cœpira**	**3.08**	**260**	*e*P	Pn	04 49 24.0	+1.3
CUPV				*e*S	Sn	04 49 58.2	-0.2
MERV	**Las Mercedes**	**3.78**	**250**	*e*P	Pn	04 49 32.6	+0.4
MERV				*e*S	Sn	04 50 14.4	-1.1
CAOV	**Caicara del Or**	**4.82**	**228**	*e*P	Pn	04 49 46.0	-0.5
CAOV				*e*S	Sn	04 50 37.1	-3.9
BAUV	**El Baul**	**5.51**	**253**	*e*P	Pn	04 49 55.4	-0.4
BAUV				*e*S	Sn	04 50 53.9	-3.9
SANV	**Sanarito**	**6.81**	**261**	*e*P	Pn	04 50 13.3	-0.3
PAYV	**Puerto Ayacuch**	**7.10**	**224**	*e*P	Pn	04 50 16.6	-0.9
PAYV				*e*S	Sn	04 51 30.3	-6.5
SOCV	**Socops**	**8.36**	**255**	*e*P	Pn	04 50 33.7	-1.1

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*ISCJB **28** 04:54:33.1±0.2,36°.04N±0°.01×21°.73E±0°.01,h10^{km}, mb4.6/85,MS4.2/31,Error ellipse: s-maj=2.2km s-min=1.6km az=20.3*

*NEIC **28** 04:54:33.5,36°.03N×21°.70E,h11^{km},mb4.3/49, ML4.7(ATH),After ATH.*

*HLW **28** 04:54:33.4,36°.50N×21°.83E,h33^{km},Mb4.5*

*BJI **28** 04:54:33.2,36°.31N×21°.80E,h11^{km},mB5.2/23,mb4.7/31, Ms4.9/17,Ms7 4.7/16*

*IDC **28** 04:54:33.4±0.5,36°.14N×21°.99E,h0^{km},mb4.2/27, mb1 4.3/37,mb1mx4.3/43,mbtmp4.2/37,ML4.0/8,MS4.0/23, Ms1 4.0/23,ms1mx3.8/38,Error ellipse: s-maj=13.0km s-min=10.6km az=171.0*

*ATH **28** 04:54:34.2,36°.05N×21°.74E,h14^{km}±2^{km},MD4.5/22, ML4.7*

*CSEM **28** 04:54:35.2±0.1,36°.07N×21°.67E,h10^{km},mb4.8/40,Ms3.7, Error ellipse: s-maj=4.3km s-min=2.7km az=25.0*

*THE **28** 04:54:36.5,36°.13N×21°.88E,h0^{km}±2^{km},ML5.0/6,Error ellipse: s-maj=4.4km s-min=1.2km az=218.0*

*SOF **28** 04:54:36.9,36°.21N×21°.35E,h19^{km},MD4.0*

*PDG **28** 04:54:36.5±0.1,36°.17N×20°.94E,h11^{km}±11^{km},ML4.6/10, Error ellipse: s-maj=138.4km s-min=34.6km az=90.0*

*MOS **28** 04:54:36.6±1.3,36°.17N×21°.74E,h33^{km},mb4.7/39, MS3.9/24,Error ellipse: s-maj=4.4km s-min=2.3km az=99.0*

*GII **28** 04:54:44.7±0.9,35°.47N×22°.60E,h31^{km},Mb4.8/7,Md4.8/7*

ISC 28 04:54:34.9±0.5,36°.03N±0°.01×21°.79E±0°.02,h8^{km}±3^{km}, h16^{km}±2.0^{km}:pP-P,n916,$\sigma 1^{s}.50$/984,mb4.6/84,MS4.2/31, 43C-35D,Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**0.86**	**358**	P	Pg	04 54 50.1	-1.4
PYL	**PYLOS**	**0.86**	**358**	*e*PB	Pg	04 54 50.2	-1.3
PYL				*e*SB	Sg	04 55 01.9	-0.9
PYL	**PYLOS**	**0.86**	**358**	*e*Pb	Pg	04 54 50.2	-1.3
PYL				*e*Sb	Sg	04 55 01.9	-0.9
KYTH	**Kithira**	**1.04**	**76**	*e*PN	Pg	04 54 55.0	+0.1
KYTH	**Kithira**	**1.04**	**76**	*e*Pn	Pg	04 54 55.0	+0.1
ITM	**Ithomi**	**1.15**	**5**	*e*PB	Pg	04 54 55.7	-1.4
ITM				*e*SB	Sg	04 55 12.5	+0.5
ITM	**Ithomi**	**1.15**	**5**	*e*Pb	Pg	04 54 55.7	-1.4
ITM				*e*Sb	Sg	04 55 12.5	+0.5
VLI	**Veliai**	**1.15**	**53**	⇓*i*PN	Pn	04 54 55.8	-1.5
VLI	**Veliai**	**1.15**	**53**	⇓*i*Pn	Pn	04 54 55.8	-1.5
VLX	**Vlachokerasia**	**1.42**	**19**	*e*PG	Pn	04 55 00.1	-0.9
VLX				*e*SB	Sn	04 55 20.3	+0.5
KARN	**Karanos**	**1.84**	**109**	P	Pg	04 55 08.9	-1.3
KARN	**Karanos**	**1.84**	**109**	*e*PG	Pg	04 55 09.0	-1.2
KARN	**Karanos**	**1.84**	**109**	P	Pg	04 55 08.9	-1.3
DID	**Didima**	**1.88**	**38**	P	Pn	04 55 07.8	+0.5
DID				S	Sn	04 55 31.6	+0.5
DID	**Didima**	**1.88**	**38**	*e*PN	Pg	04 55 08.5	-2.4
DID				*e*SN	Sg	04 55 34.6	-0.6
DID	**Didima**	**1.88**	**38**	P	Pn	04 55 07.8	+0.5
DID	**Didima**	**1.88**	**38**	*e*Pn	Pg	04 55 08.5	-2.4
DID				S	Sn	04 55 31.6	+0.5
DID				*e*Sn	Sg	04 55 34.6	-0.6
GUR	**Goura**	**1.95**	**13**	*e*PN	Pn	04 55 09.2	+0.9
GUR	**Goura**	**1.95**	**13**	*e*Pn	Pn	04 55 09.2	+0.9
RLS	**Riolos of Patr**	**2.04**	**353**	*e*PG	Pg	04 55 11.0	-3.0
VAM	**Vamos**	**2.06**	**107**	*e*PN	Pg	04 55 12.0	-2.3
VAM	**Vamos**	**2.06**	**107**	*e*Pn	Pg	04 55 12.0	-2.3
NAIG	**Nisos Aigina**	**2.20**	**38**	*e*PN	Pn	04 55 12.2	+0.5
NAIG	**Nisos Aigina**	**2.20**	**38**	*e*Pn	Pn	04 55 12.2	+0.5
LTK	**Loutraki**	**2.20**	**25**	P	Pn	04 55 12.6	+0.9
LTK	**Loutraki**	**2.20**	**25**	*e*PN	Pn	04 55 12.2	+0.5
LTK	**Loutraki**	**2.20**	**25**	*e*Pn	Pn	04 55 12.2	+0.5
LTK	**Loutraki**	**2.20**	**25**	P	Pn	04 55 12.6	+0.9
LAKA	**Lakka**	**2.21**	**4**	P	Pn	04 55 13.4	+1.5
LAKA				S	Sn	04 55 40.0	+0.6
LAKA	**Lakka**	**2.21**	**4**	P	Pn	04 55 13.4	+1.5
TRIZ	**Trizonia**	**2.34**	**5**	P	Pn	04 55 13.8	+0.1
TRIZ	**Trizonia**	**2.34**	**5**	P	Pn	04 55 13.8	+0.1
VLS	**Valsamata**	**2.35**	**336**	P	Pn	04 55 14.7	+1.0
VLS	**Valsamata**	**2.35**	**336**	*e*PB	Pn	04 55 13.8	+0.1
VLS	**Valsamata**	**2.35**	**336**	*e*Pn	Pn	04 55 13.8	+0.1
VLS	**Valsamata**	**2.35**	**336**	P	Pn	04 55 14.7	+1.0
KALE	**Kalithea**	**2.37**	**7**	P	Pn	04 55 15.8	+1.7
KALE	**Kalithea**	**2.37**	**7**	P	Pn	04 55 15.8	+1.7
EFP	**Efpalio**	**2.40**	**2**	*e*PN	Pn	04 55 16.5	+2.1
VLY	**Voula,Athens**	**2.43**	**41**	*e*PB	Pn	04 55 14.9	+0.1
ATH	**Athens Observa**	**2.48**	**38**	*e*PB	Pn	04 55 16.0	+0.5
ATHU	**Athens Univers**	**2.51**	**39**	P	Pn	04 55 16.5	+0.6
ATHU	**Athens Univers**	**2.51**	**39**	P	Pn	04 55 16.5	+0.6
PTL	**Penteli**	**2.61**	**39**	*e*PN	Pn	04 55 17.6	+0.2
PTL	**Penteli**	**2.61**	**39**	*e*Pn	Pn	04 55 17.6	+0.2
IDI	**Anoyia**	**2.63**	**105**	*e*PB	Pn	04 55 19.6	+2.0
IDI	**Anoyia**	**2.63**	**105**	Pn	Pn	04 55 18.8	+1.1
	39nm,0.3s,baz=284,slow=14,SNR=115						
IDI				LR	LR	04 55 51.3	
	comp=Z,428nm,21.8s,baz=32,slow=31						
IDI				Sn	Sg	04 55 55.8	-3.6
	69nm,0.3s,baz=76,slow=23,SNR=11						
IDI	**Anoyia**	**2.63**	**105**	*e*Pn	Pn	04 55 19.6	+2.0
SIVA	**Sivas**	**2.66**	**111**	*e*PN	Pn	04 55 19.4	+1.3
LKR	**Lokris**	**2.79**	**20**	P	Pn	04 55 19.9	+0.1
LKR				S	Sn	04 55 53.9	+0.3
LKR	**Lokris**	**2.79**	**20**	*e*PN	Pn	04 55 19.4	-0.4

LKR	**Lokris**	**2.79**	**20**	*e*Pn	**Pn**	**04 55 19.4**	**-0.4**
LKR	**Lokris**	**2.79**	**20**	P	**Pn**	**04 55 19.9**	**+0.1**
LKR				S	**Sn**	**04 55 53.9**	**+0.3**
LKD	**Levkas**	**2.82**	**342**	P	**Pn**	**04 55 21.7**	**+1.5**
LKD				S	**Sn**	**04 55 56.4**	**+2.0**
LKD	**Levkas**	**2.82**	**342**	P	**Pn**	**04 55 21.7**	**+1.5**
EVR	**Evrytania**	**2.88**	**0**	*e*PB	**Pn**	**04 55 23.5**	**+2.4**
EVR	**Evrytania**	**2.88**	**0**	*e*Pb	**Pn**	**04 55 23.5**	**+2.4**
THR1	**Thera Island**	**2.99**	**82**	P	**Pn**	**04 55 23.3**	**+0.8**
THR1	**Thera Island**	**2.99**	**82**	P	**Pn**	**04 55 23.3**	**+0.8**
AGG	**Agios Georgios**	**3.02**	**8**	P	**Pn**	**04 55 23.6**	**+0.7**
AGG				S	**Sn**	**04 56 00.7**	**+1.4**
AGG	**Agios Georgios**	**3.02**	**8**	*e*PB	**Pb**	**04 55 25.2**	**-3.7**
AGG	**Agios Georgios**	**3.02**	**8**	P	**Pn**	**04 55 23.6**	**+0.7**
LAST	**Lasithi**	**3.13**	**105**	P	**Pn**	**04 55 25.4**	**+0.9**
LAST	**Lasithi**	**3.13**	**105**	*e*PN	**Pn**	**04 55 26.8**	**+2.3**
LAST	**Lasithi**	**3.13**	**105**	P	**Pn**	**04 55 25.4**	**+0.9**
NPS	**Neapolis**	**3.21**	**103**	*e*PN	**Pn**	**04 55 26.4**	**+0.9**
NPS	**Neapolis**	**3.21**	**103**	*e*Pn	**Pn**	**04 55 26.4**	**+0.9**
NEO	**Neokhori**	**3.46**	**19**	*e*PN	**Pn**	**04 55 29.0**	**-0.1**
NEO	**Neokhori**	**3.46**	**19**	*e*Pn	**Pn**	**04 55 29.0**	**-0.1**
XOR	**Xorichti**	**3.51**	**18**	P	**Pn**	**04 55 29.4**	**-0.3**
XOR	**Xorichti**	**3.51**	**18**	P	**Pn**	**04 55 30.1**	**+0.4**
XOR	**Xorichti**	**3.51**	**18**	P	**Pn**	**04 55 30.1**	**+0.4**
THL	**Klokotos Trika**	**3.53**	**3**	P	**Pn**	**04 55 31.0**	**+1.0**
THL				S	**Sn**	**04 56 13.6**	**+1.6**
THL	**Klokotos Trika**	**3.53**	**3**	*e*PN	**Pn**	**04 55 30.9**	**+0.9**
THL	**Klokotos Trika**	**3.53**	**3**	*e*Pn	**Pn**	**04 55 30.9**	**+0.9**
AOS	**Alonnisos**	**3.55**	**27**	P	**Pn**	**04 55 30.0**	**-0.2**
AOS	**Alonnisos**	**3.55**	**27**	P	**Pn**	**04 55 30.0**	**-0.2**
IGT	**Igoumenitsa**	**3.68**	**342**	P	**Pn**	**04 55 32.6**	**+0.5**
IGT	**Igoumenitsa**	**3.68**	**342**	P	**Pn**	**04 55 32.6**	**+0.5**
JAN	**Janina**	**3.70**	**349**	*e*PN	**Pn**	**04 55 33.6**	**+1.3**
JAN	**Janina**	**3.70**	**349**	*e*Pn	**Pn**	**04 55 33.6**	**+1.3**
ZKR	**Zakros**	**3.72**	**103**	P	**Pn**	**04 55 34.5**	**+1.9**
ZKR	**Zakros**	**3.72**	**103**	*e*PN	**Pn**	**04 55 34.8**	**+2.2**
ZKR	**Zakros**	**3.72**	**103**	*e*Pn	**Pn**	**04 55 34.8**	**+2.2**
MEV	**Metsovon**	**3.77**	**353**	P	**Pn**	**04 55 35.7**	**+2.4**
MEV	**Metsovon**	**3.77**	**353**	P	**Pn**	**04 55 35.7**	**+2.4**
KEK	**Kerkira**	**4.00**	**337**	*e*PN	**Pn**	**04 55 36.4**	**0.0**
KEK	**Kerkira**	**4.00**	**337**	*e*Pn	**Pn**	**04 55 36.4**	**0.0**
LIT	**Litokhoron**	**4.10**	**8**	P	**Pn**	**04 55 39.3**	**+1.5**
LIT				S	**Sn**	**04 56 27.5**	**+1.5**
LIT	**Litokhoron**	**4.10**	**8**	*e*PN	**Pn**	**04 55 38.2**	**+0.4**
LIT	**Litokhoron**	**4.10**	**8**	*e*Pn	**Pn**	**04 55 38.2**	**+0.4**
LIT	**Litokhoron**	**4.10**	**8**	P	**Pn**	**04 55 39.3**	**+1.5**
CHOS	**Chios island**	**4.14**	**54**	P	**Pn**	**04 55 38.8**	**+0.5**
CHOS				S	**Sn**	**04 56 28.1**	**+1.2**
CHOS	**Chios island**	**4.14**	**54**	*e*PN	**Pn**	**04 55 39.1**	**+0.8**
CHOS	**Chios island**	**4.14**	**54**	*e*Pn	**Pn**	**04 55 39.1**	**+0.8**
CHOS				S	**Sn**	**04 56 28.1**	**+1.2**
PAIG	**Paliouri**	**4.17**	**20**	P	**Pn**	**04 55 38.9**	**+0.2**
PAIG	**Paliouri**	**4.17**	**20**	P	**Pn**	**04 55 41.2**	**+2.5**
PAIG	**Paliouri**	**4.17**	**20**	P	**Pn**	**04 55 38.9**	**+0.2**
KZN	**Kozani**	**4.27**	**360**	*e*PN	**Pn**	**04 55 41.0**	**+0.9**
KZN	**Kozani**	**4.27**	**360**	*e*Pn	**Pn**	**04 55 41.0**	**+0.9**
LTBQ	**Tobruq**	**4.34**	**155**	*i* P	**Pn**	**04 55 44.7**	**+3.6**
	SNR=23						
LTBQ				*e*S	**Sn**	**04 56 33.1**	**+1.2**
	24nm,0.8s,SNR=23						
SMG	**Samos**	**4.38**	**66**	*e*PN	**Pn**	**04 55 42.7**	**+1.0**
SMG	**Samos**	**4.38**	**66**	*e*Pn	**Pn**	**04 55 42.7**	**+1.0**
KARP	**Karpathos**	**4.39**	**95**	*e*PN	**Pn**	**04 55 42.2**	**+0.3**
KARP	**Karpathos**	**4.39**	**95**	*e*Pn	**Pn**	**04 55 42.2**	**+0.3**
URLA	**Izmir**	**4.49**	**57**	*e*P	**Pn**	**04 55 44.4**	**+1.2**
URLA	**Izmir**	**4.49**	**57**	*e*P	**Pn**	**04 55 44.3**	**+1.2**
PLG	**Polygyros**	**4.53**	**16**	*e*PN	**Pn**	**04 55 45.1**	**+1.4**
PLG	**Polygyros**	**4.53**	**16**	*e*Pn	**Pn**	**04 55 45.1**	**+1.4**
BODT	**Bodrum**	**4.56**	**75**	*e*PN	**Pn**	**04 55 45.0**	**+0.8**
BODT	**Bodrum**	**4.56**	**75**	*e*Pn	**Pn**	**04 55 45.0**	**+0.8**
BDRM	**Kayabasi**	**4.67**	**76**	*e*P	**Pn**	**04 55 46.2**	**+0.5**
BDRM	**Kayabasi**	**4.67**	**76**	*e*P	**Pn**	**04 55 46.2**	**+0.6**
GCAM	**G?zelcaml?**	**4.67**	**67**	*e*P	**Pb**	**04 55 52.5**	**-4.6**
HORT	**Hortiatis**	**4.68**	**12**	P	**Pn**	**04 55 46.7**	**+1.0**
HORT				S	**Sn**	**04 56 41.5**	**+1.4**
HORT	**Hortiatis**	**4.68**	**12**	P	**Pn**	**04 55 46.7**	**+1.0**
LIA	**Limnos Island**	**4.70**	**34**	P	**Pn**	**04 55 47.4**	**+1.3**
LIA	**Limnos Island**	**4.70**	**34**	*e*PN	**Pn**	**04 55 47.8**	**+1.7**
LIA	**Limnos Island**	**4.70**	**34**	*e*Pn	**Pn**	**04 55 47.8**	**+1.7**
DAT	**Datca**	**4.72**	**80**	*e*PN	**Pn**	**04 55 47.4**	**+1.0**
DAT	**Datca**	**4.72**	**80**	*e*Pn	**Pn**	**04 55 47.4**	**+1.0**
FNA	**Florina**	**4.76**	**356**	P	**Pn**	**04 55 47.5**	**+0.7**
FNA	**Florina**	**4.76**	**356**	P	**Pn**	**04 55 46.9**	**+0.1**
FNA	**Florina**	**4.76**	**356**	P	**Pn**	**04 55 46.9**	**+0.1**
PRK	**Paraskevi**	**4.79**	**47**	*e*PN	**Pn**	**04 55 49.5**	**+2.2**
PRK	**Paraskevi**	**4.79**	**47**	*e*Pn	**Pn**	**04 55 49.5**	**+2.2**
BLCB	**Balcova**	**4.81**	**59**	*e*PN	**Pn**	**04 55 48.2**	**+0.7**
BLCB	**Balcova**	**4.81**	**59**	*e*Pn	**Pn**	**04 55 48.2**	**+0.7**
SCTE	**Santa Cesarea**	**4.81**	**328**	*e*PN	**Pn**	**04 55 47.1**	**-0.5**
SCTE	**Santa Cesarea**	**4.81**	**328**	*e*Pn	**Pn**	**04 55 47.1**	**-0.5**
SOH	**Sokhos**	**4.94**	**14**	P	**Pn**	**04 55 50.8**	**+1.5**
SOH	**Sokhos**	**4.94**	**14**	*e*PN	**Pn**	**04 55 49.7**	**+0.4**
SOH	**Sokhos**	**4.94**	**14**	*e*Pn	**Pn**	**04 55 49.7**	**+0.4**
SOH	**Sokhos**	**4.94**	**14**	P	**Pn**	**04 55 50.8**	**+1.5**
GRG	**Griva**	**4.94**	**5**	P	**Pn**	**04 55 49.9**	**+0.5**
GRG	**Griva**	**4.94**	**5**	P	**Pn**	**04 55 49.3**	**-0.1**
GRG	**Griva**	**4.94**	**5**	P	**Pn**	**04 55 49.3**	**-0.1**
IZM	**Izmir**	**4.97**	**60**	*e*PN	**Pn**	**04 55 50.6**	**+0.9**
IZM	**Izmir**	**4.97**	**60**	*e*Pn	**Pn**	**04 55 50.6**	**+0.9**
MLSB	**Milas**	**4.98**	**74**	*e*PN	**Pn**	**04 55 52.2**	**+2.4**
MLSB	**Milas**	**4.98**	**74**	*e*Pn	**Pn**	**04 55 52.2**	**+2.3**
BIA	**Bitola**	**5.00**	**356**	*e*Pn	**Pn**	**04 55 50.2**	**+0.1**
BIA				*e*Sg	**Sn**	**04 56 46.9**	**-1.1**
BIA	**Bitola**	**5.00**	**356**	*e*Pn	**Pn**	**04 55 50.2**	**+0.1**
SOI	**Samo**	**5.02**	**296**	P	**Pn**	**04 55 51.6**	**+1.2**
SOI	**Samo**	**5.02**	**296**	P	**Pn**	**04 55 51.6**	**+1.2**
AYVA	**Ayvalik**	**5.08**	**48**	*i* P	**Pn**	**04 55 52.9**	**+1.6**
AYVA	**Ayvalik**	**5.08**	**48**	*i* P	**Pn**	**04 55 52.9**	**+1.6**
TIP	**Timpagrande**	**5.08**	**310**	*e*Pn	**Pn**	**04 55 51.3**	**0.0**
TIP	**Timpagrande**	**5.08**	**310**	*e*Pn	**Pn**	**04 55 51.3**	**0.0**
GRI	**Girifalco**	**5.10**	**305**	P	**Pn**	**04 55 52.8**	**+1.2**
GRI	**Girifalco**	**5.10**	**305**	P	**Pn**	**04 55 52.8**	**+1.2**
OHR	**Ohrid**	**5.13**	**352**	*e*Pn	**Pn**	**04 55 52.1**	**+0.1**
OHR	**Ohrid**	**5.13**	**352**	*e*Pn	**Pn**	**04 55 52.1**	**+0.1**
ARG	**Arkhangelos**	**5.13**	**86**	*e*PN	**Pn**	**04 55 53.5**	**+1.5**
ARG	**Arkhangelos**	**5.13**	**86**	*e*Pn	**Pn**	**04 55 53.5**	**+1.5**
AYDN	**Tasoluk**	**5.15**	**70**	*e*P	**Pn**	**04 55 55.1**	**+2.9**
AYDN	**Tasoluk**	**5.15**	**70**	*e*P	**Pn**	**04 55 55.1**	**+2.9**
KNT	**Kendrikon**	**5.20**	**9**	P	**Pn**	**04 55 53.2**	**+0.3**
KNT	**Kendrikon**	**5.20**	**9**	P	**Pn**	**04 55 53.2**	**+0.3**
CEL	**Celeste**	**5.21**	**297**	*e*Pn	**Pn**	**04 55 53.2**	**+0.2**
CEL	**Celeste**	**5.21**	**297**	*e*Pn	**Pn**	**04 55 53.2**	**+0.2**
MTTG	**Motta San Giov**	**5.26**	**294**	P	**Pn**	**04 55 55.1**	**+1.4**
MTTG	**Motta San Giov**	**5.26**	**294**	P	**Pn**	**04 55 55.1**	**+1.4**
GADA	**Gvkgeada**	**5.27**	**37**	*e*PN	**Pn**	**04 55 58.0**	**+4.1**
GADA	**Gvkgeada**	**5.27**	**37**	*e*Pn	**Pn**	**04 55 58.0**	**+4.1**
SRS	**Serrai**	**5.27**	**15**	P	**Pn**	**04 55 55.0**	**+1.1**
SRS	**Serrai**	**5.27**	**15**	P	**Pn**	**04 55 54.1**	**+0.2**
SRS	**Serrai**	**5.27**	**15**	P	**Pn**	**04 55 54.1**	**+0.2**
VAY	**Valandovo**	**5.32**	**6**	*e*Pn	**Pn**	**04 55 54.6**	**+0.1**
VAY	**Valandovo**	**5.32**	**6**	*e*Pn	**Pn**	**04 55 54.6**	**+0.1**
VAY				S	**Sn**	**04 56 54.5**	**-1.5**
SCLL	**Scilla**	**5.34**	**296**	P	**Pn**	**04 55 57.3**	**+2.5**
SCLL	**Scilla**	**5.34**	**296**	P	**Pn**	**04 55 57.3**	**+2.5**
YER	**Yerkesik**	**5.34**	**76**	*e*PN	**Pn**	**04 55 56.8**	**+1.9**
YER	**Yerkesik**	**5.34**	**76**	*e*Pn	**Pn**	**04 55 56.8**	**+1.9**
KRUS	**Krusevo**	**5.35**	**356**	*e*Pn	**Pn**	**04 55 54.5**	**-0.5**
KRUS	**Krusevo**	**5.35**	**356**	*e*Pn	**Pn**	**04 55 54.4**	**-0.6**
AGST	**Augusta-Monte**	**5.42**	**285**	Pn	**Pn**	**04 55 56.3**	**+0.4**
AGST	**Augusta-Monte**	**5.42**	**285**	Pn	**Pn**	**04 55 56.3**	**+0.4**
HAVL	**Avola**	**5.45**	**282**	P	**Pn**	**04 55 59.2**	**+2.9**
HAVL	**Avola**	**5.45**	**282**	P	**Pn**	**04 55 59.2**	**+2.9**
TIR	**Tirane**	**5.52**	**345**	*e*PN	**Pn**	**04 55 58.1**	**+0.8**
TIR	**Tirane**	**5.52**	**345**	*e*Pn	**Pn**	**04 55 58.1**	**+0.8**
SSY	**Sortino**	**5.52**	**284**	Pn	**Pn**	**04 55 59.1**	**+1.8**
NVR	**Nevrokopi**	**5.55**	**16**	*e*PN	**Pn**	**04 55 58.8**	**+1.0**
NVR	**Nevrokopi**	**5.55**	**16**	*e*Pn	**Pn**	**04 55 58.8**	**+1.0**
TURN	**Turunc**	**5.56**	**79**	*e*P	**Pn**	**04 55 56.8**	**-1.0**
AKHS	**Akhisar**	**5.57**	**58**	*e*P	**Pg**	**04 56 19.1**	**-2.5**
AKS	**Akhisar**	**5.57**	**58**	*e*PN	**Pn**	**04 55 59.5**	**+1.5**
AKS	**Akhisar**	**5.57**	**58**	*e*Pn	**Pn**	**04 55 59.5**	**+1.5**
DALT	**Dalyan (Mudla)**	**5.57**	**80**	*e*PN	**Pn**	**04 56 00.3**	**+2.3**
DALT	**Dalyan (Mudla)**	**5.57**	**80**	*e*Pn	**Pn**	**04 56 00.3**	**+2.2**
TAR1	**Taranto**	**5.72**	**323**	*e*Pn	**Pn**	**04 55 59.8**	**-0.2**
TAR1				*e*Sn	**Sn**	**04 57 01.8**	**-4.0**
HMDC	**Modica**	**5.72**	**281**	P	**Pn**	**04 56 02.5**	**+2.4**
MMB	**Musomiste**	**5.75**	**15**	P	**Pn**	**04 56 02.2**	**+1.7**
MMB	**Musomiste**	**5.75**	**15**	P	**Pn**	**04 56 02.2**	**+1.7**
HVZN	**Vizzini**	**5.80**	**283**	P	**Pn**	**04 56 04.1**	**+2.9**
ENEZ	**Enez**	**5.82**	**35**	*e*PN	**Pn**	**04 56 07.6**	**+6.2**
ORI	**Oriolo Calabro**	**5.83**	**315**	P	**Pn**	**04 56 04.1**	**+2.6**
ORI				pmax	pmax		
	comp=Z,161nm,0.5s						
ORI	**Oriolo Calabro**	**5.83**	**315**	Pn	**Pn**	**04 56 04.1**	**+2.6**
	comp=Z,161nm,0.5s						
LPK	**Lapseki**	**5.84**	**41**	*e*PN	**Pn**	**04 56 05.7**	**+4.0**
PE1	**Pezze di Greco**	**5.87**	**326**	*e*Pn	**Pn**	**04 56 01.4**	**-0.7**
PE1				*e*Sn	**Sn**	**04 57 05.3**	**-4.3**
RDO	**Rodhopi**	**5.89**	**29**	*e*PN	**Pn**	**04 56 05.7**	**+3.3**
WDD	**Wield Dalam**	**5.90**	**271**	*e*Pn	**Pn**	**04 56 03.3**	**+0.8**
	comp=Z,87nm,0.6s						
WDD				*e*Sn	**Sn**	**04 57 11.0**	**+0.8**
WDD	**Wield Dalam**	**5.90**	**271**	*e*Pn	**Pn**	**04 56 03.3**	**+0.8**
	comp=Z,87nm,0.6s						
ALN	**Alexandroupoli**	**5.90**	**33**	*e*PN	**Pn**	**04 56 04.1**	**+1.6**
ALN	**Alexandroupoli**	**5.90**	**33**	*e*Pn	**Pn**	**04 56 04.1**	**+1.6**
BALY	**Balya**	**5.92**	**49**	*e*P	**Pn**	**04 56 07.5**	**+4.8**
KKB	**Krupnik**	**5.92**	**9**	*e*P	**Pn**	**04 56 09.6**	**+6.9**
FETY	**Fethiye**	**5.92**	**82**	*e*PN	**Pn**	**04 56 06.0**	**+3.2**
FETY	**Fethiye**	**5.92**	**82**	*e*Pn	**Pn**	**04 56 06.0**	**+3.2**
SKO	**Skopje**	**5.94**	**357**	*e*Pn	**Pn**	**04 56 03.5**	**+0.4**
SKO	**Skopje**	**5.94**	**357**	P	**Pn**	**04 56 03.6**	**+0.5**
SKO	**Skopje**	**5.94**	**357**	*e*Pn	**Pn**	**04 56 03.4**	**+0.3**
LTRZ	**Laterza**	**6.01**	**321**	P	**Pn**	**04 56 03.4**	**-0.6**
LTRZ	**Laterza**	**6.01**	**321**	P	**Pn**	**04 56 03.4**	**-0.6**
DENT	**Denizli**	**6.06**	**71**	*e*PN	**Pn**	**04 56 06.8**	**+2.1**
DENT	**Denizli**	**6.06**	**71**	*e*Pn	**Pn**	**04 56 06.8**	**+2.1**
RAFF	**Raffo Rosso**	**6.09**	**283**	P	**Pn**	**04 56 08.2**	**+3.0**
RZN	**Rozhen**	**6.09**	**21**	P	**Pn**	**04 56 09.3**	**+4.1**
VAE	**Valguarnera**	**6.10**	**286**	Pn	**Pn**	**04 56 09.1**	**+3.9**
	comp=Z,6.9nm,0.3s,baz=152,slow=1.2,SNR=9.6						
VAE				Sn	**Sn**	**04 57 18.7**	**+3.6**
	comp=Z,3.1nm,0.3s,baz=76,slow=8.3,SNR=1.7						
CUC	**Castrocucco**	**6.16**	**312**	*e*Pn	**Pn**	**04 56 07.8**	**+1.8**
	comp=Z,123nm,0.6s						
ULC	**Ulcinj**	**6.25**	**342**	⇑*i*Pn	**Pn**	**04 56 06.1**	**-1.2**
ULC				*e*Sn	**Sn**	**04 57 13.3**	**-5.5**
ULC	**Ulcinj**	**6.25**	**342**	⇑*i*Pn	**Pn**	**04 56 06.1**	**-1.2**
SG1	**Sgolgore (BA)**	**6.26**	**322**	*e*Pn	**Pn**	**04 56 07.5**	**+0.1**
SG1				*e*Sn	**Sn**	**04 57 13.7**	**-5.4**
KDZ	**Kurdzhali**	**6.29**	**26**	P	**Pn**	**04 56 08.8**	**+1.0**
KDZ	**Kurdzhali**	**6.29**	**26**	P	**Pn**	**04 56 08.8**	**+1.0**
AKAS	**Kas**	**6.33**	**86**	*i* P	**Pn**	**04 56 08.8**	**+0.4**
AKAS	**Kas**	**6.33**	**86**	*i* P	**Pn**	**04 56 08.8**	**+0.4**
PTRP	**Pietrapertosa**	**6.36**	**317**	Pn	**Pn**	**04 56 11.4**	**+2.6**
BAI	**Bari**	**6.36**	**324**	*e*Pn	**Pn**	**04 56 08.6**	**-0.3**
GOLH	**Golhisar**	**6.37**	**77**	*i* P	**Pn**	**04 56 12.6**	**+3.6**
GOLH	**Golhisar**	**6.37**	**77**	*i* P	**Pn**	**04 56 12.6**	**+3.7**
DURS	**Dursunbey**	**6.38**	**54**	*e*P	**Pn**	**04 56 11.8**	**+2.6**
DURS	**Dursunbey**	**6.38**	**54**	*e*P	**Pn**	**04 56 11.8**	**+2.7**
CSLB	**Castelbuono**	**6.47**	**289**	P	**Pn**	**04 56 13.9**	**+3.5**
PLD	**Plovdiv**	**6.48**	**20**	*e*P	**Pn**	**04 56 18.2**	**+7.8**
GIB	**Gibilmanna**	**6.51**	**290**	P	**Pn**	**04 56 15.0**	**+4.1**
KHAL	**Karahalli**	**6.58**	**67**	*i* P	**Pn**	**04 56 13.0**	**+1.2**
KHAL	**Karahalli**	**6.58**	**67**	*i* P	**Pn**	**04 56 13.0**	**+1.2**
ELL	**Elmali**	**6.59**	**81**	*e*PN	**Pn**	**04 56 13.3**	**+1.2**
ELL	**Elmali**	**6.59**	**81**	*e*Pn	**Pn**	**04 56 13.3**	**+1.3**
ACER	**Acerenza**	**6.60**	**318**	P	**Pn**	**04 56 13.4**	**+1.2**
ACER	**Acerenza**	**6.60**	**318**	P	**Pn**	**04 56 13.4**	**+1.2**
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**04 56 13.0**	**+0.2**
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**04 56 14.7**	**+1.9**
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**04 56 13.0**	**+0.2**
BUM	**Brajici-Budva**	**6.65**	**341**	⇓*i*Pn	**Pn**	**04 56 11.3**	**-1.6**
BUM				*e*Sn	**Sn**	**04 57 22.7**	**-6.1**
BUM	**Brajici-Budva**	**6.65**	**341**	⇓*i*Pn	**Pn**	**04 56 11.3**	**-1.6**
DIM	**Dimitrovgrad**	**6.68**	**25**	P	**Pn**	**04 56 16.0**	**+2.8**
DIM	**Dimitrovgrad**	**6.68**	**25**	P	**Pn**	**04 56 16.0**	**+2.8**
PDG	**Podgorica**	**6.69**	**344**	⇑*i*Pn	**Pn**	**04 56 12.3**	**-1.0**
TTG	**Podgorica**	**6.69**	**344**	⇑*i*Pn	**Pn**	**04 56 12.3**	**-1.0**
TTG				*e*Sn	**Sn**	**04 57 24.0**	**-5.6**
TTG	**Podgorica**	**6.69**	**344**	⇑*i*Pn	**Pn**	**04 56 12.3**	**-1.0**
PVY	**Plav**	**6.71**	**348**	⇓*i*Pn	**Pn**	**04 56 13.5**	**-0.1**
PVY				*e*Sn	**Sn**	**04 57 25.9**	**-4.2**
PVY	**Plav**	**6.71**	**348**	⇓*i*Pn	**Pn**	**04 56 13.5**	**-0.1**
PVY				*e*Sn	**Sn**	**04 57 25.9**	**-4.2**
PGB	**Panagyurishte**	**6.77**	**15**	P	**Pn**	**04 56 18.3**	**+3.9**
BARS	**Barje**	**6.78**	**0**	⇓*i*Pn	**Pn**	**04 56 14.2**	**-0.4**
SGO	**Sicignano**	**6.81**	**314**	P	**Pn**	**04 56 17.1**	**+2.0**
GDZ	**Gediz**	**6.83**	**61**	*e*P	**Pn**	**04 56 16.4**	**+1.1**
GDZ	**Gediz**	**6.83**	**61**	*e*P	**Pn**	**04 56 16.4**	**+1.1**
HCY	**Herceg Novi**	**6.90**	**339**	⇓*i*Pn	**Pn**	**04 56 14.2**	**-2.0**
HCY				*e*Sn	**Sn**	**04 57 28.1**	**-6.8**
HCY	**Herceg Novi**	**6.90**	**339**	⇓*i*Pn	**Pn**	**04 56 14.2**	**-2.0**
BEY	**Berane**	**6.99**	**349**	⇑*i*Pn	**Pn**	**04 56 17.1**	**-0.4**
BEY				*e*Sn	**Sn**	**04 57 32.6**	**-4.5**
IVA	**Berane**	**6.99**	**349**	⇑*i*Pn	**Pn**	**04 56 17.1**	**-0.4**
IVA				*e*Sn	**Sn**	**04 57 32.6**	**-4.5**
IVA	**Berane**	**6.99**	**349**	⇑*i*Pn	**Pn**	**04 56 17.1**	**-0.4**
IVA				*e*Sn	**Sn**	**04 57 32.6**	**-4.5**
ULDT	**Uludag**	**7.10**	**52**	*e*P	**Pn**	**04 56 17.2**	**-1.8**
NKY	**Niksic**	**7.11**	**343**	⇓*i*Pn	**Pn**	**04 56 17.8**	**-1.3**
NKY				*e*Sn	**Sn**	**04 57 34.1**	**-6.0**
NKY	**Niksic**	**7.11**	**343**	⇓*i*Pn	**Pn**	**04 56 17.8**	**-1.3**
CSSN	**Cassano Irpino**	**7.17**	**314**	P	**Pn**	**04 56 21.5**	**+1.5**
CSSN	**Cassano Irpino**	**7.17**	**314**	P	**Pn**	**04 56 21.5**	**+1.5**
ANTB	**Antalya**	**7.20**	**80**	*e*PN	**Pn**	**04 56 21.4**	**+1.0**
ANTB	**Antalya**	**7.20**	**80**	*e*Pn	**Pn**	**04 56 21.4**	**+1.1**
BCK	**Bucak**	**7.21**	**76**	*e*PN	**Pn**	**04 56 23.0**	**+2.5**
BCK	**Bucak**	**7.21**	**76**	*e*Pn	**Pn**	**04 56 23.0**	**+2.5**
ISP	**Isparta**	**7.21**	**73**	*e*PN	**Pn**	**04 56 22.3**	**+1.7**
ISP	**Isparta**	**7.21**	**73**	*e*P	**Pn**	**04 56 22.7**	**+2.1**
ISP				pmax	pmax		
	comp=Z,64nm,1.0s						
ISP	**Isparta**	**7.21**	**73**	*e*Pn	**Pn**	**04 56 22.7**	**+2.1**
	comp=Z,64nm,1.0s						
ISP	**Isparta**	**7.21**	**73**	*e*Pn	**Pn**	**04 56 22.7**	**+2.1**
	comp=Z,64nm,1.0s						
ALT	**Altintas**	**7.27**	**63**	*e*PN	**Pn**	**04 56 22.2**	**+0.8**
ALT	**Altintas**	**7.27**	**63**	*e*Pn	**Pn**	**04 56 22.2**	**+0.9**
MS1	**Monte Sant’Ang**	**7.27**	**323**	*e*Pn	**Pn**	**04 56 20.7**	**-0.7**
MS1				*e*Sn	**Sn**	**04 57 39.0**	**-5.1**
MSAG	**Monte S. Angel**	**7.29**	**323**	P	**Pn**	**04 56 21.0**	**-0.7**
MSAG	**Monte S. Angel**	**7.29**	**323**	P	**Pn**	**04 56 21.0**	**-0.7**
BRY	**Bratogost**	**7.31**	**341**	⇓*i*Pn	**Pn**	**04 56 19.9**	**-1.9**
BRY				*e*Sn	**Sn**	**04 57 38.2**	**-6.7**
BRY	**Bratogost**	**7.31**	**341**	⇓*i*Pn	**Pn**	**04 56 19.9**	**-1.9**
FG5	**Orsara di Pugl**	**7.32**	**318**	P	**Pn**	**04 56 23.1**	**+1.1**
FG5	**Orsara di Pugl**	**7.32**	**318**	P	**Pn**	**04 56 23.1**	**+1.1**
USI	**Ustica**	**7.36**	**294**	P	**Pn**	**04 56 23.7**	**+1.1**
USI	**Ustica**	**7.36**	**294**	P	**Pn**	**04 56 23.7**	**+1.1**
NISS		**7.37**	**1**	⇓*i*Pn	**Pn**	**04 56 20.8**	**-1.8**
MRB1	**Monte Rocchett**	**7.37**	**316**	P	**Pn**	**04 56 24.3**	**+1.5**
MRB1	**Monte Rocchett**	**7.37**	**316**	P	**Pn**	**04 56 24.3**	**+1.5**
CTKS	**Kestanelik-??a**	**7.39**	**43**	*e*PN	**Pn**	**04 56 25.8**	**+2.8**
CTKS	**Kestanelik-??a**	**7.39**	**43**	*e*Pn	**Pn**	**04 56 25.8**	**+2.8**
SGRT	**San Giovanni R**	**7.41**	**322**	P	**Pn**	**04 56 22.7**	**-0.5**
SGRT	**San Giovanni R**	**7.41**	**322**	P	**Pn**	**04 56 22.7**	**-0.5**
SHUT	**Suhut-Afyon**	**7.42**	**68**	*e*PN	**Pn**	**04 56 26.3**	**+2.8**
SHUT	**Suhut-Afyon**	**7.42**	**68**	*e*Pn	**Pn**	**04 56 26.3**	**+2.8**
RGNG	**Rignano Grg**	**7.43**	**321**	P	**Pn**	**04 56 22.9**	**-0.6**
RGNG	**Rignano Grg**	**7.43**	**321**	P	**Pn**	**04 56 22.9**	**-0.6**
CTYL	**Yal??k??y-??at**	**7.44**	**41**	*e*PN	**Pn**	**04 56 26.2**	**+2.5**
CTYL	**Yal??k??y-??at**	**7.44**	**41**	*e*Pn	**Pn**	**04 56 26.2**	**+2.5**
SWA2		**7.44**	**154**	P	**Pn**	**04 56 23.9**	**+0.2**
SWA2				S	**Sn**	**04 57 46.4**	**-1.9**
YLV	**Yalova**	**7.49**	**50**	*e*PN	**Pn**	**04 56 28.1**	**+3.8**
UPM	**Unac-Piva**	**7.50**	**344**	⇑*i*Pn	**Pn**	**04 56 23.8**	**-0.7**
UPM				*e*Sn	**Sn**	**04 57 43.7**	**-6.0**
UPM	**Unac-Piva**	**7.50**	**344**	⇑*i*Pn	**Pn**	**04 56 23.8**	**-0.7**
BGKT	**Bogazkoy**	**7.51**	**45**	*e*PN	**Pn**	**04 56 27.4**	**+2.9**
BGKT	**Bogazkoy**	**7.51**	**45**	*e*Pn	**Pn**	**04 56 27.5**	**+2.9**
PLE	**Pljevlja**	**7.52**	**347**	⇑*i*Pn	**Pn**	**04 56 24.1**	**-0.7**
PLE				*e*Sn	**Sn**	**04 57 44.8**	**-5.4**
PLE	**Pljevlja**	**7.52**	**347**	⇑*i*Pn	**Pn**	**04 56 24.1**	**-0.7**
STON	**Ston**	**7.53**	**336**	*e*Pn	**Pn**	**04 56 23.7**	**-1.2**
STON				Sn	**Sn**	**04 57 43.9**	**-6.5**
STON	**Ston**	**7.53**	**336**	*e*Pn	**Pn**	**04 56 23.7**	**-1.2**
PSB1	**Pescosannita**	**7.53**	**316**	P	**Pn**	**04 56 28.2**	**+3.3**
ISK	**Istanbul-Kandi**	**7.60**	**46**	*e*PN	**Pn**	**04 56 27.8**	**+2.0**
ISK	**Istanbul-Kandi**	**7.60**	**46**	*e*Pn	**Pn**	**04 56 27.8**	**+2.0**
FG2	**Serracapriola**	**7.74**	**320**	P	**Pn**	**04 56 28.5**	**+0.7**
FG2	**Serracapriola**	**7.74**	**320**	P	**Pn**	**04 56 28.5**	**+0.7**
CIGN	**Sant’Elia a Pi**	**7.77**	**318**	P	**Pn**	**04 56 29.6**	**+1.4**
CIGN	**Sant’Elia a Pi**	**7.77**	**318**	P	**Pn**	**04 56 29.6**	**+1.4**
BOLS	**Boljevac**	**7.79**	**1**	⇓*i*Pn	**Pn**	**04 56 27.0**	**-1.5**
BORA	**Eskisehir**	**7.85**	**58**	*e*P	Px	04 56 41.4	
SGG	**Gregorio Mates**	**7.88**	**315**	P	**Pn**	**04 56 31.5**	**+1.8**
GRUS	**Gruza**	**7.89**	**354**	⇓*i*Pn	**Pn**	**04 56 27.8**	**-2.1**
SZH	**Strazhica**	**7.90**	**23**	P	**Pn**	**04 56 35.7**	**+5.7**
ESKT	**Eskisehir**	**7.98**	**61**	*e*P	**Pn**	**04 56 34.0**	**+3.0**
SEYT	**Eskypehyr**	**7.98**	**61**	*e*P	**Pn**	**04 56 34.0**	**+3.0**
SILT	**Sile**	**8.00**	**48**	*e*PN	**Pn**	**04 56 32.7**	**+1.3**
SILT	**Sile**	**8.00**	**48**	*e*Pn	**Pn**	**04 56 32.7**	**+1.4**
BBLS	**Lazići**	**8.04**	**348**	⇓*i*Pn	**Pn**	**04 56 30.0**	**-1.9**
RFI	**Roccamonfina**	**8.06**	**313**	P	**Pn**	**04 56 35.2**	**+3.1**
MIDA	**Miranda**	**8.12**	**316**	P	**Pn**	**04 56 37.2**	**+4.2**
DIVS	**Divibare**	**8.18**	**351**	⇓*i*Pn	**Pn**	**04 56 31.8**	**-2.0**
GHAR	**Gharyan**	**8.20**	**244**	*i* P	**Pn**	**04 56 35.1**	**+0.9**
	SNR=22						
RNI2	**Rionero Sannit**	**8.22**	**316**	P	**Pn**	**04 56 36.5**	**+2.2**
PRD	**Provadia**	**8.37**	**29**	P	**Pn**	**04 56 40.3**	**+3.9**
SDI	**San Donato**	**8.42**	**315**	P	**Pn**	**04 56 37.6**	**+0.5**
SDI	**San Donato**	**8.42**	**315**	P	**Pn**	**04 56 37.6**	**+0.5**
LJFR	**Jufra**	**8.55**	**218**	*i* P	**Pn**	**04 56 39.4**	**+0.4**
	SNR=22						
INTR	**Introdacqua**	**8.56**	**317**	P	**Pn**	**04 56 40.8**	**+1.8**
KDHN	**Kadinhani**	**8.60**	**70**	*i* P	**Pn**	**04 56 42.0**	**+2.4**
KDHN	**Kadinhani**	**8.60**	**70**	*i* P	**Pn**	**04 56 42.0**	**+2.4**
VVLD	**Villa Vallelon**	**8.63**	**315**	P	**Pn**	**04 56 42.4**	**+2.4**
HDMB	**Hadim**	**8.67**	**81**	*e*PN	**Pn**	**04 56 40.8**	**+0.3**
HDMB	**Hadim**	**8.67**	**81**	*e*Pn	**Pn**	**04 56 40.8**	**+0.3**
KONT	**Konya--Tatoy**	**8.67**	**74**	*e*PN	**Pn**	**04 56 42.4**	**+1.8**
KONT	**Konya--Tatoy**	**8.67**	**74**	*e*Pn	**Pn**	**04 56 42.4**	**+1.8**
GZR	**Gura Zlata**	**9.38**	**4**	⇓*i*P	**Pn**	**04 56 49.7**	**-0.6**
GZR	**Gura Zlata**	**9.38**	**4**	P	**Pn**	**04 56 51.7**	**+1.4**
GZR	**Gura Zlata**	**9.38**	**4**	P	**Pn**	**04 56 49.7**	**-0.6**
CSS	**Prodhromos**	**9.47**	**93**	*e*Pn	**Pn**	**04 56 54.3**	**+2.7**
	comp=Z,14nm,0.6s						
CSS	**Prodhromos**	**9.47**	**93**	Sn	**Sn**	**04 58 28.4**	**-10**
CSS	**Prodhromos**	**9.47**	**93**	*e*Pn	**Pn**	**04 56 54.3**	**+2.7**
	comp=Z,14nm,0.6s						
MANS	**Anshas**	**9.57**	**119**	P	**Pn**	**04 56 54.8**	**+1.9**
BZS	**Buzias**	**9.58**	**359**	⇑*i*P	**Pn**	**04 56 51.7**	**-1.3**
BZS	**Buzias**	**9.58**	**359**	⇑P	**Pn**	**04 56 51.7**	**-1.2**
BZS	**Buzias**	**9.58**	**359**	P	**Pn**	**04 56 51.7**	**-1.3**
VOIR		**9.72**	**14**	⇑*i*P	**Pn**	**04 56 54.8**	**-0.1**
VOIR		**9.72**	**14**	⇑P	**Pn**	**04 56 54.8**	**-0.1**
VOIR		**9.72**	**14**	P	**Pn**	**04 56 54.8**	**-0.1**
AWBH		**9.77**	**140**	P	**Pn**	**04 56 54.7**	**-0.9**
HMYD	**Mayadein**	**9.79**	**127**	P	**Pn**	**04 56 54.0**	**-2.1**
TIRR	**Tirgusor**	**9.82**	**29**	P	**Pn**	**04 56 55.0**	**-1.3**
TIRR				pmax	pmax		
	comp=Z,60nm,1.4s						
TIRR	**Tirgusor**	**9.82**	**29**	⇓*i*P	**Pn**	**04 56 58.3**	**+2.0**
TIRR	**Tirgusor**	**9.82**	**29**	Pn	**Pn**	**04 56 55.0**	**-1.3**
	comp=Z,60nm,1.4s						
TIRR	**Tirgusor**	**9.82**	**29**	Pn	**Pn**	**04 56 55.0**	**-1.3**
	comp=Z,60nm,1.4s						
HARR	**Harsova**	**9.84**	**27**	⇓*i*P	**Pn**	**04 56 56.3**	**-0.2**
HARR	**Harsova**	**9.84**	**27**	P	**Pn**	**04 56 56.3**	**-0.2**
AANS		**9.88**	**123**	P	**Pn**	**04 56 54.8**	**-2.4**
DEV	**Deva**	**9.88**	**5**	⇑*i*P	**Pn**	**04 57 04.3**	**+7.2**
MLR	**Muntele Rosu**	**9.96**	**17**	⇑*i*P	**Pn**	**04 56 59.8**	**+1.6**
MLR	**Muntele Rosu**	**9.96**	**17**	Pn	**Pn**	**04 56 59.5**	**+1.2**
	baz=140,slow=14,SNR=4.7						
MLR	**Muntele Rosu**	**9.96**	**17**	⇑P	**Pn**	**04 56 59.8**	**+1.5**
MLR	**Muntele Rosu**	**9.96**	**17**	P	**Pn**	**04 56 59.5**	**+1.3**
NVLJ	**Novalja**	**10.02**	**330**	*e*Pn	**Pn**	**04 56 58.6**	**-0.5**
NVLJ				Sn	**Sn**	**04 58 44.8**	**-6.8**
NVLJ	**Novalja**	**10.02**	**330**	*e*Pn	**Pn**	**04 56 58.5**	**-0.6**
BRTR	**Keskin Array B**	**10.07**	**65**	Pn	**Pn**	**04 57 01.4**	**+1.7**
	comp=Z,0.1nm,0.3s,baz=268,slow=10,SNR=11						
BRTR	**Keskin Array B**	**10.07**	**65**	P	**Pn**	**04 57 01.4**	**+1.7**
KEST	**Kesra**	**10.10**	**272**	Pn	**Pn**	**04 57 01.8**	**+1.6**
	comp=Z,0.1nm,0.3s,baz=198,slow=10,SNR=5.1						
KEST				LR	LR	05 01 43.3	
	comp=Z,181nm,20.7s,baz=184,slow=42						
KOT	**Kottamia**	**10.39**	**123**	P	**Pn**	**04 57 01.8**	**-2.5**
VSL	**Villasalto**	**10.42**	**293**	*e*Pn	**Pn**	**04 57 07.4**	**+2.9**
PKSM	**Moragy**	**10.45**	**348**	⇓*i*P	**Pn**	**04 57 02.0**	**-2.8**
PKSM	**Moragy**	**10.45**	**348**	P	**Pn**	**04 57 02.0**	**-2.9**
PKSM	**Moragy**	**10.45**	**348**	P	**Pn**	**04 57 02.0**	**-2.8**
HFRF	**Wahat Farafira**	**10.45**	**146**	P	**Pn**	**04 57 04.0**	**-1.0**
PLOR	**Plostina**	**10.47**	**19**	P	**Pn**	**04 57 09.7**	**+4.4**
PLOR	**Plostina**	**10.47**	**19**	⇓*i*P	**Pn**	**04 57 13.1**	**+7.8**
VRI	**Vrincioaia**	**10.51**	**19**	⇓*i*P	**Pn**	**04 57 07.0**	**+1.3**
VRI	**Vrincioaia**	**10.51**	**19**	P	**Pn**	**04 57 09.8**	**+4.0**
VRI	**Vrincioaia**	**10.51**	**19**	P	**Pn**	**04 57 07.0**	**+1.3**
GLL	**Jalalah**	**10.54**	**125**	P	**Pn**	**04 57 03.6**	**-2.5**
GLL				S	**Sn**	**04 58 55.5**	**-8.8**
CDAG	**Cicekdag**	**10.58**	**66**	*e*P	**Pn**	**04 57 08.8**	**+2.1**
CDAG	**Cicekdag**	**10.58**	**66**	*e*P	**Pn**	**04 57 08.8**	**+2.1**
BALT	**Daday**	**10.59**	**55**	*e*P	**Pn**	**04 57 11.3**	**+4.5**
BOJS	**Bojanci**	**10.68**	**334**	*i* Pn	**Pn**	**04 57 06.7**	**-1.4**
BOJS				*i* Sn	**Sn**	**04 59 00.3**	**-7.4**
BOJS	**Bojanci**	**10.68**	**334**	*i* Pn	**Pn**	**04 57 06.7**	**-1.4**
DRGR		**10.78**	**3**	⇓*i*P	**Pn**	**04 57 09.3**	**-0.1**
DRGR		**10.78**	**3**	⇓P	**Pn**	**04 57 09.3**	**-0.1**
DRGR		**10.78**	**3**	P	**Pn**	**04 57 09.3**	**-0.1**
VISS	**Visnje**	**11.08**	**334**	*e*Pn	**Pn**	**04 57 12.9**	**-0.7**
VISS	**Visnje**	**11.08**	**334**	*e*Pn	**Pn**	**04 57 12.9**	**-0.7**
BEHE	**Becsehely**	**11.09**	**342**	*e*Pn	**Pn**	**04 57 12.4**	**-1.3**
SUZ		**11.14**	**121**	P	**Pn**	**04 57 11.4**	**-3.0**
CEY	**Cerknica**	**11.18**	**332**	P	**Pn**	**04 57 14.5**	**-0.4**
CEY	**Cerknica**	**11.18**	**332**	P	**Pn**	**04 57 14.5**	**-0.4**
JAVS	**Javornik**	**11.45**	**332**	*i* Pn	**Pn**	**04 57 18.2**	**-0.4**
JAVS				*e*Sn	**Sn**	**04 59 17.3**	**-9.2**
JAVS	**Javornik**	**11.45**	**332**	*i* Pn	**Pn**	**04 57 18.2**	**-0.4**
ZNM		**11.45**	**122**	P	**Pn**	**04 57 15.8**	**-2.8**
MMAI	**Mount Meron Ar**	**11.62**	**101**	Pn	**Pn**	**04 57 18.1**	**-2.9**
	comp=Z,3.8nm,0.3s,baz=291,slow=10,SNR=7.7						
MMAI				Sn	**Sn**	**04 59 21.6**	**-9.4**
	comp=Z,1.9nm,0.3s,baz=319,slow=15,SNR=2.5						
VOY	**Vojsko**	**11.63**	**332**	*e*Pn	**Pn**	**04 57 20.3**	**-0.7**
VOY				*e*		04 57 23.2	
VOY				*e*Sn	**Sn**	**04 59 20.9**	**-10**
VOY	**Vojsko**	**11.63**	**332**	*e*Pn	**Pn**	**04 57 20.3**	**-0.7**
BUD	**Budapest**	**11.63**	**351**	*e*Pn	**Pn**	**04 57 19.4**	**-1.6**
PKSG		**11.63**	**348**	⇑*e*Pn	**Pn**	**04 57 18.6**	**-2.5**
COBT	**Iskenderun**	**11.69**	**83**	*e*P	**Pn**	**04 57 18.7**	**-3.2**
KZIT	**Kziot**	**11.70**	**112**	Pn	**Pn**	**04 57 20.3**	**-1.8**
KZIT				Sn	**Sn**	**04 59 20.6**	**-12**
BMR	**Baia Mare**	**11.70**	**6**	P	**Pn**	**04 57 23.8**	**+1.7**
BMR	**Baia Mare**	**11.70**	**6**	P	**Pn**	**04 57 23.8**	**+1.7**
PERS	**Pernice**	**11.72**	**337**	*i* Pn	**Pn**	**04 57 19.6**	**-2.6**
PERS				*i* Sn	**Sn**	**04 59 24.0**	**-9.1**
PERS	**Pernice**	**11.72**	**337**	*i* Pn	**Pn**	**04 57 19.6**	**-2.6**
SOKA	**Soboth**	**11.78**	**337**	⇓*i*Pn	**Pn**	**04 57 20.6**	**-2.5**
SOKA				⇑*i*Sn	**Sn**	**04 59 24.9**	**-10**
SOKA	**Soboth**	**11.78**	**337**	Pn	**Pn**	**04 57 20.6**	**-2.5**
OBKA	**Obir**	**11.79**	**335**	⇑*i*Pn	**Pn**	**04 57 21.1**	**-2.2**
OBKA				⇑*i*Sn	**Sn**	**04 59 26.5**	**-8.5**
OBKA	**Obir**	**11.79**	**335**	Pn	**Pn**	**04 57 21.1**	**-2.2**
BURAR	**Bucovina Array**	**11.85**	**11**	⇑*i*P	**Pn**	**04 57 25.2**	**+1.1**
BURAR	**Bucovina Array**	**11.85**	**11**	⇑P	**Pn**	**04 57 25.2**	**+1.1**
BURAR	**Bucovina Array**	**11.85**	**11**	⇑P	**Pn**	**04 57 25.2**	**+1.1**
BUR08	**Bucovina Ar. S**	**11.88**	**11**	*e*Pn	**Pn**	**04 57 25.0**	**+0.6**
BUR08	**Bucovina Ar. S**	**11.88**	**11**	*e*Pn	**Pn**	**04 57 25.0**	**+0.5**
HNKL	**Nakhl**	**11.90**	**117**	P	**Pn**	**04 57 21.2**	**-3.7**
HNKL				S	**Sn**	**04 59 26.8**	**-11**
PSZ	**Piszkesteto**	**11.96**	**354**	⇑*i*P	**Pn**	**04 57 24.1**	**-1.5**
PSZ	**Piszkesteto**	**11.96**	**354**	*e*PP		04 57 24.1	
PSZ				*e*S	**Sn**	**04 59 32.2**	**-6.9**
PSZ	**Piszkesteto**	**11.96**	**354**	*e*Pn	**Pn**	**04 57 23.9**	**-1.7**
PSZ				*e*Sn	**Sn**	**04 59 37.5**	**-1.6**
PSZ	**Piszkesteto**	**11.96**	**354**	*e*P	**Pn**	**04 57 23.9**	**-1.7**
PSZ				*e*S	**Sn**	**04 59 37.5**	**-1.6**
HMDT	**Nahal Hemdat**	**11.99**	**104**	Pn	**Pn**	**04 57 24.1**	**-1.9**
HMDT				Sn	**Sn**	**04 59 28.8**	**-11**
TRPA	**Tarpa**	**12.11**	**2**	*e*Pn	**Pn**	**04 57 27.2**	**-0.3**
ARSA	**Arzberg**	**12.15**	**339**	⇑*i*Pn	**Pn**	**04 57 26.3**	**-1.8**
ARSA	**Arzberg**	**12.15**	**339**	P	**Pn**	**04 57 27.6**	**-0.5**
ARSA	**Arzberg**	**12.15**	**339**	Pn	**Pn**	**04 57 26.3**	**-1.8**
ARSA	**Arzberg**	**12.15**	**339**	P	**Pn**	**04 57 27.6**	**-0.5**
DSI	**Dead Sea**	**12.15**	**108**	Pn	**Pn**	**04 57 26.0**	**-2.2**
DSI				Sn	**Sn**	**04 59 33.5**	**-10**
MZDA	**Masada**	**12.25**	**109**	Pn	**Pn**	**04 57 26.7**	**-2.9**
MZDA				Sn	**Sn**	**04 59 34.9**	**-11**
HDK1	**Dakhla**	**12.33**	**146**	P	**Pn**	**04 57 29.7**	**-0.9**
KRMI	**Paran Flat**	**12.34**	**115**	Pn	**Pn**	**04 57 28.1**	**-2.8**
KRMI				Sn	**Sn**	**04 59 36.8**	**-12**
PRNI	**Paran**	**12.43**	**113**	Pn	**Pn**	**04 57 29.0**	**-3.1**
PRNI				Sn	**Sn**	**04 59 39.5**	**-11**
KECS	**Kecovo**	**12.48**	**356**	*e*PN	**Pn**	**04 57 31.3**	**-1.4**
KECS				*e*		04 57 39.2	
UZH	**Uzhgorod**	**12.60**	**2**	*e*P	**Pn**	**04 57 34.0**	**-0.3**
UZH				*e*S	**Sn**	**04 59 54.0**	**-0.7**
UZH	**Uzhgorod**	**12.60**	**2**	*e*P	**Pn**	**04 57 34.0**	**-0.3**
UZH				*e*S	**Sn**	**04 59 54.0**	**-0.7**
HRFI	**Mount Harif**	**12.62**	**115**	Pn	**Pn**	**04 57 31.8**	**-2.8**

VYHS	**Vyhne**	**12.64**	**351**	*e*P	**Pn**	**04 57 32.5**	**-2.4**
VYHS				*e*		04 59 44.7	
VYHS				MLR	MLR		
	comp=Z,500nm,18.8s						
VYHS	**Vyhne**	**12.64**	**351**	*e*PN	**Pn**	**04 57 32.5**	**-2.4**
VYHS				*e*		04 59 44.7	
VYHS	**Vyhne**	**12.64**	**351**	*e*P	**Pn**	**04 57 32.5**	**-2.4**
	comp=Z,500nm,18.8s						
MBRI	**Mt Berech**	**12.65**	**116**	Pn	**Pn**	**04 57 32.5**	**-2.7**
MBRI				Sn	**Sn**	**04 59 44.3**	**-12**
CONA	**Conrad Observa**	**12.68**	**342**	⇑*i*Pn	**Pn**	**04 57 32.9**	**-2.5**
CONA	**Conrad Observa**	**12.68**	**342**	Pn	**Pn**	**04 57 32.9**	**-2.4**
CSNA	**Conrad Observa**	**12.68**	**342**	⇑*i*Pn	**Pn**	**04 57 32.5**	**-2.8**
CSNA	**Conrad Observa**	**12.68**	**342**	Pn	**Pn**	**04 57 32.5**	**-2.8**
KBA	**Koelnbreinsper**	**12.71**	**333**	⇓*i*Pn	**Pn**	**04 57 34.1**	**-1.8**
KBA				⇑*i*Sn	**Sn**	**04 59 56.0**	**-1.5**
KBA	**Koelnbreinsper**	**12.71**	**333**	Pn	**Pn**	**04 57 34.1**	**-1.7**
KBA				Sn	**Sn**	**04 59 56.0**	**-1.5**
EIL	**Elat**	**12.75**	**116**	Pn	**Pn**	**04 57 33.2**	**-3.2**
	comp=Z,0.8nm,0.3s,baz=322,slow=8.9,SNR=6.2						
EIL				Sn	**Sn**	**04 59 49.5**	**-9.1**
	comp=Z,0.9nm,0.3s,baz=72,slow=19,SNR=5.5						
EIL	**Elat**	**12.75**	**116**	Pn	**Pn**	**04 57 33.2**	**-3.2**
EIL				Sn	**Sn**	**04 59 49.5**	**-9.1**
EIL	**Elat**	**12.75**	**116**	Pn	**Pn**	**04 57 33.7**	**-2.7**
MODS	**Modra-Piesok**	**12.78**	**346**	*e*PN	**Pn**	**04 57 36.0**	**-0.7**
MODS	**Modra-Piesok**	**12.78**	**346**	*e*P	**Pn**	**04 57 36.0**	**-0.7**
KOLL	**Kolacno**	**12.79**	**350**	*e*PN	**Pn**	**04 57 35.2**	**-1.6**
KOLL				*e*		04 59 47.9	
KOLL	**Kolacno**	**12.79**	**350**	*e*Pn	**Pn**	**04 57 35.3**	**-1.6**
KOLL				*e*		04 59 47.9	
KOLL	**Kolacno**	**12.79**	**350**	*e*P	**Pn**	**04 57 35.3**	**-1.6**
CRVS	**Cervenica-Dubn**	**12.87**	**359**	*e*P	**Pn**	**04 57 36.8**	**-1.1**
CRVS				MLR	MLR		
	comp=Z,200nm,27.5s						
CRVS	**Cervenica-Dubn**	**12.87**	**359**	*e*PN	**Pn**	**04 57 36.8**	**-1.1**
CRVS				*e*		04 57 45.5	
CRVS	**Cervenica-Dubn**	**12.87**	**359**	*e*P	**Pn**	**04 57 36.8**	**-1.1**
	comp=Z,200nm,27.5s						
AKRG	**Al Kharijah**	**12.88**	**142**	P	**Pn**	**04 57 37.2**	**-1.1**
KOLS	**Kolonicke sedl**	**12.90**	**1**	*e*P	**Pn**	**04 57 39.0**	**+0.6**
KOLS				MLR	MLR		
	comp=Z,400nm,16.8s						
KOLS	**Kolonicke sedl**	**12.90**	**1**	*e*PN	**Pn**	**04 57 39.0**	**+0.6**
KOLS				*e*		04 57 45.0	
KOLS	**Kolonicke sedl**	**12.90**	**1**	*e*P	**Pn**	**04 57 39.0**	**+0.6**
	comp=Z,400nm,16.8s						
SIM	**Simferopol'**	**12.93**	**43**	*e*P	Px	04 57 50.3	
SIM				S	**Sn**	**05 00 07.2**	**+4.5**
HDHB	**Dhahab**	**13.06**	**120**	P	**Pn**	**04 57 37.7**	**-3.0**
MOA	**Molln**	**13.06**	**337**	⇑*i*Pn	**Pn**	**04 57 38.7**	**-1.9**
MOA	**Molln**	**13.06**	**337**	Sn	**Sn**	**04 59 59.2**	**-6.8**
MOA	**Molln**	**13.06**	**337**	Pn	**Pn**	**04 57 38.7**	**-1.9**
ASF	**Jabal al Asfar**	**13.10**	**103**	Pn	**Pn**	**04 57 37.5**	**-3.7**
	comp=Z,0.4nm,0.3s,baz=159,slow=5.9,SNR=5.7						
ASF				Sn	**Sn**	**05 00 02.1**	**-4.9**
	comp=Z,0.3nm,0.3s,baz=306,slow=19,SNR=2.0						
ASF				LR	LR	05 04 20.5	
	comp=Z,182nm,18.5s,baz=347,slow=45						
HHRG	**Al Ghardaqah**	**13.33**	**128**	P	**Pn**	**04 57 42.4**	**-2.0**
STHS	**Stebnicka Huta**	**13.39**	**358**	*e*PN	**Pn**	**04 57 48.3**	**+3.3**
STHS				*e*		04 57 55.6	
MALT	**Malatya**	**13.47**	**75**	*e*P	**Pn**	**04 57 47.8**	**+1.6**
MALT				pmax	pmax		
	comp=Z,23nm,1.3s						
MALT	**Malatya**	**13.47**	**75**	⇓*i*P	**Pn**	**04 57 48.5**	**+2.3**
MALT	**Malatya**	**13.47**	**75**	*e*Pn	**Pn**	**04 57 47.8**	**+1.6**
	comp=Z,23nm,1.3s						
MALT	**Malatya**	**13.47**	**75**	Pn	**Pn**	**04 57 49.2**	**+3.0**
MALT	**Malatya**	**13.47**	**75**	*e*P	**Pn**	**04 57 47.8**	**+1.6**
	comp=Z,23nm,1.3s						
RJOB	**Jochberg**	**13.47**	**333**	*e*Pn	**Pn**	**04 57 46.6**	**+0.4**
VRAC	**Vranov**	**13.80**	**346**	⇑*i*P	**Pn**	**04 57 49.6**	**-1.1**
VRAC	**Vranov**	**13.80**	**346**	Pn	**Pn**	**04 57 48.0**	**-2.8**
	comp=Z,0.2nm,0.3s,baz=173,slow=11,SNR=4.2						
VRAC	**Vranov**	**13.80**	**346**	⇑P	**Pn**	**04 57 49.6**	**-1.1**
MOTA	**Moosalm**	**13.82**	**328**	⇓*i*Pn	**Pn**	**04 57 51.2**	**+0.2**
	SNR=5.8						
MOTA	**Moosalm**	**13.82**	**328**	Sn	**Sn**	**05 00 17.8**	**-6.8**
MOTA	**Moosalm**	**13.82**	**328**	Pn	**Pn**	**04 57 51.2**	**+0.2**
	SNR=5.8						
LVV	**L'vov**	**13.88**	**6**	*e*P	**Pn**	**04 57 51.5**	**-0.3**
LVV				*e*S	**Sn**	**05 00 26.3**	**+0.4**
LVV				MLR	MLR		
	comp=Z,350nm,11.8s						
DAVOX	**Davos/Dischmat**	**13.96**	**324**	Pn	**Pn**	**04 57 53.4**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=338,slow=19,SNR=2.4						
DAVOX				Sn	**Sn**	**05 00 19.4**	**-8.4**
	comp=Z,0.3nm,0.3s,baz=325,slow=19,SNR=4.0						
DAVOX	**Davos/Dischmat**	**13.96**	**324**	Pn	**Pn**	**04 57 53.4**	**+0.6**
TUE	**Stuetta**	**14.00**	**322**	*e*Pn	**Pn**	**04 57 53.7**	**+0.4**
TUE	**Stuetta**	**14.00**	**322**	*e*Pn	**Pn**	**04 57 53.7**	**+0.3**
HSFG		**14.01**	**129**	P	**Pn**	**04 57 51.7**	**-2.0**
TREC	**Trest**	**14.04**	**343**	AMS	AMS	05 04 00.0	
	comp=Z,2µm,11.5s						
DAVOS	**Davos**	**14.04**	**324**	P	**Pn**	**04 57 53.4**	**-0.5**
DAVOS						05 00 19.4	
OKC	**Ostrava-Krasne**	**14.05**	**350**	*e*P	**Pn**	**04 57 54.6**	**+0.5**
OKC				*e*x	x	04 58 02.6	
OKC				AMS	AMS	05 04 10.0	
	comp=Z,900nm,11.1s						
MORC	**Moravsky Berou**	**14.08**	**349**	*e*P	**Pn**	**04 57 53.3**	**-1.2**
MORC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MORC	**Moravsky Berou**	**14.08**	**349**	⇑*i*P	Px	04 58 02.8	
MORC	**Moravsky Berou**	**14.08**	**349**	*e*Pn	**Pn**	**04 57 53.3**	**-1.2**
	comp=Z,9.9nm,0.7s						
MORC	**Moravsky Berou**	**14.08**	**349**	*e*Pn	**Pn**	**04 57 53.3**	**-1.2**
	comp=Z,9.9nm,0.7s						
MORC	**Moravsky Berou**	**14.08**	**349**	⇑*i*P	Px	04 58 02.8	
GERES	**GERESS Array B**	**14.12**	**338**	Pn	**Pn**	**04 57 53.3**	**-1.7**
	comp=Z,0.4nm,0.3s,baz=156,slow=14,SNR=8.0						
GERES				Sn	**Sn**	**05 00 24.4**	**-7.4**
	comp=Z,0.3nm,0.3s,baz=151,slow=22,SNR=5.2						
GERES	**GERESS Array B**	**14.12**	**338**	Pn	**Pn**	**04 57 53.3**	**-1.7**
OJC	**Ojcow**	**14.26**	**355**	*e*P	**Pn**	**04 58 04.4**	**+7.5**
OJC	**Ojcow**	**14.26**	**355**	*e*P	**Pn**	**04 58 04.4**	**+7.5**
DAVA	**Damuels**	**14.32**	**325**	⇓*i*Pn	**Pn**	**04 57 55.6**	**-2.2**
DAVA	**Damuels**	**14.32**	**325**	Sn	**Sn**	**05 00 28.5**	**-8.3**
DAVA	**Damuels**	**14.32**	**325**	Pn	**Pn**	**04 57 55.6**	**-2.2**
MBDF	**Montbardon**	**14.35**	**312**	*e*P	**Pn**	**04 57 56.3**	**-1.9**
	comp=Z,26nm,0.9s						
MBDF	**Montbardon**	**14.35**	**312**	*e*P	**Pn**	**04 57 56.3**	**-1.9**
MBDF				pmax	pmax		
	comp=Z,13nm,0.9s						
MBDF	**Montbardon**	**14.35**	**312**	*e*P	**Pn**	**04 57 56.3**	**-1.9**
	comp=Z,13nm,0.9s						
KHC	**Kasperske Hory**	**14.41**	**338**	*e*P	**Pn**	**04 57 57.6**	**-1.4**
KHC				*e*x	x	04 58 04.7	
KHC				*e*x	x	04 58 15.5	
KHC				*e*x	x	04 58 22.5	
KHC				*e*S	**Sn**	**05 00 31.5**	**-7.4**
KHC				AMS	AMS	05 04 20.0	
	comp=Z,2µm,10.8s						
WET	**Wettzell**	**14.64**	**336**	*e*Pn	**Pn**	**04 58 03.8**	**+1.6**
WET	**Wettzell**	**14.64**	**336**	*e*Pn	**Pn**	**04 58 03.8**	**+1.6**
SMRF	**Simiane la Rot**	**14.73**	**308**	*e*P	**Pn**	**04 58 00.9**	**-2.5**
ANN	**Anapa**	**14.77**	**49**	*e*P	**Pn**	**04 58 00.1**	**-3.8**
ANN				*e*S	**Sn**	**05 00 36.8**	**-11**
ANN				pmax	pmax		
	comp=Z,53nm,1.0s						
LPG	**La Plagne**	**14.79**	**314**	*e*P	**Pn**	**04 58 03.0**	**-1.2**
	comp=Z,17nm,1.0s						
LPG	**La Plagne**	**14.79**	**314**	*e*P	**Pn**	**04 58 03.0**	**-1.2**
LPG				pmax	pmax		
	comp=Z,8.0nm,1.0s						
LPG	**La Plagne**	**14.79**	**314**	*e*P	**Pn**	**04 58 03.0**	**-1.2**
	comp=Z,8.4nm,1.0s						
LPL	**La Plagne**	**14.81**	**314**	*e*P	**Pn**	**04 58 02.3**	**-2.2**
DPC	**Dobruska-Polom**	**14.85**	**346**	*e*P	**Pn**	**04 58 03.5**	**-1.5**
DPC				*e*x	x	04 58 10.4	
DPC				AMS	AMS	05 05 20.0	
	comp=Z,1µm,16.5s						
DPC	**Dobruska-Polom**	**14.85**	**346**	*e*P	**Pn**	**04 58 03.5**	**-1.5**
DPC				*e*		04 58 10.4	
PRU	**Pruhonice**	**14.91**	**342**	*e*P	**Pn**	**04 58 04.4**	**-1.4**
PRU				*e*x	x	04 58 13.9	
PRU				AMS	AMS	05 04 40.0	
	comp=Z,2µm,11.9s						
PRU	**Pruhonice**	**14.91**	**342**	*e*P	**Pn**	**04 58 04.4**	**-1.4**
PRU				*e*		04 58 13.9	
ORIF	**Oris-en-Rattie**	**14.99**	**311**	*e*P	**Pn**	**04 58 02.8**	**-4.2**
	comp=Z,9.8nm,0.8s						
ORIF				*e*MLR	MLR		
	comp=Z,1000nm,19.8s						
ORIF	**Oris-en-Rattie**	**14.99**	**311**	*e*P	**Pn**	**04 58 02.8**	**-4.2**
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ORIF	**Oris-en-Rattie**	**14.99**	**311**	*e*P	**Pn**	**04 58 02.8**	**-4.2**
	comp=Z,4.9nm,0.8s						
UPC	**Upice**	**15.06**	**346**	*e*P	**Pn**	**04 58 13.6**	**+5.7**
UPC	**Upice**	**15.06**	**346**	*e*P	**Pn**	**04 58 13.6**	**+5.7**
KSP	**Ksiaz**	**15.33**	**347**	*e*P	**Pn**	**04 58 16.8**	**+5.4**
KSP	**Ksiaz**	**15.33**	**347**	*e*P	**Pn**	**04 58 16.8**	**+5.4**
PVCC	**Panska Ves**	**15.40**	**342**	AMS	AMS	05 04 50.0	
	comp=Z,1µm,11.8s						
SPAK	**Spaichingen-Ko**	**15.42**	**325**	*e*P	**Pn**	**04 58 16.7**	**+4.1**
SPAK	**Spaichingen-Ko**	**15.42**	**325**	*e*P	**Pn**	**04 58 16.7**	**+4.1**
BBS	**Basel-Blauen**	**15.59**	**321**	*e*P	**Pn**	**04 58 20.8**	**+5.9**
AKASG	**Malin Array Be**	**15.62**	**18**	P	**Pn**	**04 58 11.5**	**-3.6**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	**Malin Array Be**	**15.62**	**18**	Pn	**Pn**	**04 58 11.5**	**-3.6**
	comp=Z,0.9nm,0.3s,baz=208,slow=13,SNR=5.4						
AKASG	**Malin Array Be**	**15.62**	**18**	Pn	**Pn**	**04 58 11.5**	**-3.6**
FELD	**Feldberg im Sc**	**15.63**	**323**	*e*P	**Pn**	**04 58 18.2**	**+2.8**
FELD	**Feldberg im Sc**	**15.63**	**323**	*e*P	**Pn**	**04 58 18.2**	**+2.8**
GRA1	**Grafenberg Arr**	**15.68**	**334**	*e*Pn	**Pn**	**04 58 14.9**	**-1.0**
	comp=Z,16nm,1.6s						
GRA1	**Grafenberg Arr**	**15.68**	**334**	*e*Pn	**Pn**	**04 58 14.9**	**-1.0**
	comp=Z,16nm,1.6s						
GRF	**Grafenberg Arr**	**15.68**	**334**	*e*P	**Pn**	**04 58 14.9**	**-1.0**
GRF				pmax	pmax		
	comp=Z,16nm,1.6s						
GRF				MLR	MLR		
	comp=Z,2µm,20.2s						
GRF	**Grafenberg Arr**	**15.68**	**334**	*e*Pn	**Pn**	**04 58 14.9**	**-1.0**
	comp=Z,16nm,1.6s						
GRF				*e*L		05 05 42.7	
	comp=Z,2µm,20.2s						
GRF	**Grafenberg Arr**	**15.68**	**334**	*e*Pn	**Pn**	**04 58 14.9**	**-1.0**
	comp=Z,16nm,1.6s						
NKC	**Novy Kostel**	**15.73**	**337**	AMS	AMS	05 05 10.0	
	comp=Z,2µm,12.5s						
BFO	**Black Forest**	**15.80**	**325**	*e*P	**Pn**	**04 58 19.5**	**+2.0**
BFO				pmax	pmax		
	comp=Z,13nm,1.1s						
BFO	**Black Forest**	**15.80**	**325**	*e*Pn	**Pn**	**04 58 19.5**	**+2.0**
	comp=Z,13nm,1.1s						
BFO	**Black Forest**	**15.80**	**325**	*e*P	**Pn**	**04 58 19.5**	**+2.0**
	comp=Z,13nm,1.1s						
CABF	**La Chapelle**	**15.81**	**317**	*e*P	**Pn**	**04 58 15.0**	**-2.7**
BRG	**Berggiesshubel**	**15.88**	**342**	*e*P	**Pn**	**04 58 20.1**	**+1.6**
BRG				pmax	pmax		
	comp=Z,12nm,1.9s						
BRG				pmax	pmax		
	comp=Z,9.0nm,1.1s						
BRG				MLR	MLR		
	comp=N,518nm,14.0s						
BRG				MLR	MLR		
	comp=E,642nm,11.7s						
BRG				MLR	MLR		
	comp=Z,1µm,9.1s						
BRG	**Berggiesshubel**	**15.88**	**342**	*e*Pn	**Pn**	**04 58 19.8**	**+1.3**
BRG	**Berggiesshubel**	**15.88**	**342**	*e*P	**Pn**	**04 58 20.1**	**+1.5**
	comp=Z,20nm,1.9s						
BRG				*e*		04 58 48.2	
	comp=Z,15nm,1.1s						
BRG							
	comp=N,865nm,14.0s						
BRG							
	comp=E,1µm,11.7s						
BRG							
	comp=Z,2µm,9.1s						
BRG	**Berggiesshubel**	**15.88**	**342**	*e*P	**Pn**	**04 58 20.1**	**+1.5**
	comp=Z,12nm,1.9s						
BRG				*e*		04 58 48.2	
BRG	**Berggiesshubel**	**15.88**	**342**	*e*P	**Pn**	**04 58 20.1**	**+1.6**
	comp=Z,1µm,9.1s						
LASF	**Ste Croix**	**15.89**	**306**	*e*P	**Pn**	**04 58 15.4**	**-3.3**
MOF	**Molkenrain**	**16.04**	**322**	*e*P	**Pn**	**04 58 24.6**	**+3.9**
MOF	**Molkenrain**	**16.04**	**322**	*e*P	**Pn**	**04 58 24.6**	**+3.9**
HINF	**Hinteralfeld**	**16.16**	**321**	*e*P	**Pn**	**04 58 19.1**	**-3.1**
	comp=Z,94nm,1.7s						
HINF	**Hinteralfeld**	**16.16**	**321**	*e*P	**Pn**	**04 58 19.1**	**-3.1**
HINF				pmax	pmax		
	comp=Z,47nm,1.7s						
HINF	**Hinteralfeld**	**16.16**	**321**	*e*P	**Pn**	**04 58 19.1**	**-3.1**
	comp=Z,47nm,1.7s						
ECH	**Echery**	**16.28**	**323**	*e*P	**Pn**	**04 58 24.3**	**+0.6**
ECH	**Echery**	**16.28**	**323**	*e*P	**Pn**	**04 58 24.3**	**+0.6**
MOX	**Moxa**	**16.35**	**336**	*e*P	**Pn**	**04 58 25.6**	**+1.0**
	comp=Z,12nm,1.3s						
MOX							
	comp=Z,1µm,16.0s						
MOX	**Moxa**	**16.35**	**336**	*e*P	**Pn**	**04 58 25.6**	**+1.0**
MOX				pmax	pmax		
	comp=Z,12nm,1.3s						
MOX				MLR	MLR		
	comp=Z,1µm,16.0s						
MOX	**Moxa**	**16.35**	**336**	*e*P	**Pn**	**04 58 25.6**	**+1.0**
	comp=Z,12nm,1.3s						
MOX	**Moxa**	**16.35**	**336**	*e*P	**Pn**	**04 58 25.6**	**+1.0**
	comp=Z,12nm,1.3s						
CDF	**Champ du Feu**	**16.36**	**324**	*e*P	**Pn**	**04 58 21.6**	**-3.1**
	comp=Z,35nm,1.2s						
CDF	**Champ du Feu**	**16.36**	**324**	*e*P	**Pn**	**04 58 21.6**	**-3.1**
CDF				pmax	pmax		
	comp=Z,18nm,1.2s						
CDF	**Champ du Feu**	**16.36**	**324**	*e*P	**Pn**	**04 58 21.6**	**-3.1**
	comp=Z,18nm,1.2s						
LANF	**Langenberg**	**16.51**	**326**	*e*P	**Pn**	**04 58 32.3**	**+5.6**
CLL	**Collm**	**16.52**	**340**	*e*P	**Pn**	**04 58 32.0**	**+5.2**
CLL				MLR	MLR		
	comp=Z,1µm,16.3s						
CLL	**Collm**	**16.52**	**340**	*e*P	**Pn**	**04 58 25.0**	**-1.8**
CLL				*e*(PP)		04 58 32.0	
CLL				*e*sPP		04 58 38.0	
CLL				*i*		04 58 55.0	
	comp=Z,40nm,1.3s						
CLL				*e*		04 59 03.0	
CLL				*e*S	**Sn**	**05 01 36.0**	**+5.8**
CLL				Lmax		05 05 41.0	
CLL	**Collm**	**16.52**	**340**	*e*P	**Pn**	**04 58 32.0**	**+5.2**
CLL				*e*		04 58 38.0	
CLL				*e*S	**Sn**	**05 01 39.0**	**+8.8**
HAU	**Haudompre**	**16.54**	**321**	*e*P	**Pn**	**04 58 24.1**	**-3.0**
	comp=Z,61nm,1.1s						
HAU				*e*MLR	MLR		
	comp=Z,716nm,19.2s						
HAU	**Haudompre**	**16.54**	**321**	*e*P	**Pn**	**04 58 24.1**	**-3.0**
HAU				pmax	pmax		
	comp=Z,30nm,1.1s						
HAU	**Haudompre**	**16.54**	**321**	*e*P	**Pn**	**04 58 24.1**	**-3.0**
	comp=Z,30nm,1.1s						
TOD	**Tromm**	**16.54**	**329**	*e*P	**Pn**	**04 58 32.7**	**+5.6**
MTLF	**Montolieu**	**16.72**	**302**	*e*P	**Pn**	**04 58 26.5**	**-2.9**
LBL	**Lubilhac**	**16.78**	**309**	*e*P	**Pn**	**04 58 29.6**	**-0.5**
LBL	**Lubilhac**	**16.78**	**309**	*e*P	**Pn**	**04 58 29.6**	**-0.5**
THEF	**They Montfort**	**16.87**	**321**	*e*P	**Pn**	**04 58 37.5**	**+6.3**
SMF	**Signal de Mont**	**17.11**	**314**	*e*P	**Pn**	**04 58 32.1**	**-2.2**
	comp=Z,29nm,1.3s						
SMF	**Signal de Mont**	**17.11**	**314**	*e*P	**Pn**	**04 58 32.1**	**-2.2**
SMF				pmax	pmax		
	comp=Z,14nm,1.3s						
SMF	**Signal de Mont**	**17.11**	**314**	*e*P	**Pn**	**04 58 32.1**	**-2.2**
	comp=Z,14nm,1.3s						
TNS	**Taunus Mts**	**17.17**	**330**	*e*Pn	**Pn**	**04 58 34.0**	**-0.9**
TNS	**Taunus Mts**	**17.17**	**330**	*e*P	**Pn**	**04 58 34.0**	**-0.9**
MSL	**Mosul**	**17.21**	**82**	*e*x	x	04 58 45.0	
MSL				*e*x	x	05 02 11.0	
RUP	**Ruppelstein**	**17.37**	**326**	*e*P	**Pn**	**04 58 39.9**	**+2.4**
RUP	**Ruppelstein**	**17.37**	**326**	*e*P	**Pn**	**04 58 39.9**	**+2.4**
CAF	**Calviac**	**17.41**	**307**	*e*P	**Pn**	**04 58 35.8**	**-2.2**
	comp=Z,58nm,1.7s						
CAF	**Calviac**	**17.41**	**307**	*e*P	**Pn**	**04 58 35.8**	**-2.2**
CAF				pmax	pmax		
	comp=Z,29nm,1.7s						
CAF	**Calviac**	**17.41**	**307**	*e*P	**Pn**	**04 58 35.8**	**-2.2**
	comp=Z,29nm,1.7s						
CAF	**Calviac**	**17.41**	**307**	*e*P	**Pn**	**04 58 35.8**	**-2.2**
	comp=Z,29nm,1.7s						
LOR	**Lormes**	**17.44**	**316**	*e*P	**Pn**	**04 58 34.3**	**-4.0**
	comp=Z,26nm,1.1s						
LOR				*e*MLR	MLR		
	comp=Z,776nm,17.2s						
LOR	**Lormes**	**17.44**	**316**	*e*P	**Pn**	**04 58 34.3**	**-4.0**
LOR				pmax	pmax		
	comp=Z,13nm,1.1s						
LOR	**Lormes**	**17.44**	**316**	*e*P	**Pn**	**04 58 34.3**	**-4.0**
	comp=Z,13nm,1.1s						
AVF	**Avril sur Loir**	**17.47**	**314**	*e*P	**Pn**	**04 58 35.3**	**-3.5**
MEZF	**Maizieres J'vi**	**17.52**	**320**	*e*P	**Pn**	**04 58 37.4**	**-2.0**
MEZF	**Maizieres J'vi**	**17.52**	**320**	*e*P	**Pn**	**04 58 37.4**	**-2.0**
SSF	**Saint Saulge**	**17.53**	**315**	*e*P	**Pn**	**04 58 38.2**	**-1.2**
	comp=Z,24nm,1.4s						
SSF	**Saint Saulge**	**17.53**	**315**	*e*P	**Pn**	**04 58 38.2**	**-1.2**
SSF				pmax	pmax		
	comp=Z,12nm,1.4s						
SSF	**Saint Saulge**	**17.53**	**315**	*e*P	**Pn**	**04 58 38.2**	**-1.2**
	comp=Z,12nm,1.4s						
SSF	**Saint Saulge**	**17.53**	**315**	*e*P	**Pn**	**04 58 38.2**	**-1.2**
	comp=Z,12nm,1.4s						
BGF	**Bois d'Agland**	**17.65**	**312**	*e*P	**Pn**	**04 58 39.4**	**-1.6**
	comp=Z,23nm,1.0s						
BGF	**Bois d'Agland**	**17.65**	**312**	*e*P	**Pn**	**04 58 39.4**	**-1.6**
BGF				pmax	pmax		
	comp=Z,11nm,1.0s						
BGF	**Bois d'Agland**	**17.65**	**312**	*e*P	**Pn**	**04 58 39.4**	**-1.6**
	comp=Z,11nm,1.0s						
BGF	**Bois d'Agland**	**17.65**	**312**	*e*P	**Pn**	**04 58 39.4**	**-1.6**
	comp=Z,11nm,1.0s						
WLF	**Walferdange**	**17.76**	**325**	P	**Pn**	**04 58 47.9**	**+5.6**
WLF	**Walferdange**	**17.76**	**325**	*e*P	**Pn**	**04 58 43.2**	**+0.9**
WLF				pmax	pmax		
	comp=Z,34nm,1.3s						
WLF	**Walferdange**	**17.76**	**325**	*e*P	**Pn**	**04 58 43.2**	**+0.9**
	comp=Z,34nm,1.3s						
WLF	**Walferdange**	**17.76**	**325**	*e*P	**Pn**	**04 58 43.2**	**+0.9**
	comp=Z,34nm,1.3s						
KIV	**Kislovodsk**	**17.83**	**57**	⇑*i*P	**Pn**	**04 58 43.3**	**0.0**
KIV				*e*S	**Sn**	**05 01 57.2**	**-4.9**
KIV				pmax	pmax		
	comp=Z,34nm,1.7s						
KIV	**Kislovodsk**	**17.83**	**57**	*e*P	**Pn**	**04 58 43.8**	**+0.5**
	comp=Z,41nm,1.2s						
KIV	**Kislovodsk**	**17.83**	**57**	P	**Pn**	**04 58 48.1**	**+4.9**
	SNR=9.9						
KIV				P		04 58 48.1	
	SNR=9.9						
KIV	**Kislovodsk**	**17.83**	**57**	*e*P	**Pn**	**04 58 43.8**	**+0.5**
	comp=Z,41nm,1.2s						
KIV	**Kislovodsk**	**17.83**	**57**	P	**Pn**	**04 58 48.1**	**+4.8**
	SNR=9.9						
TCF	**Toulx Ste Croi**	**17.91**	**311**	*e*P	**Pn**	**04 58 42.7**	**-1.5**
	comp=Z,24nm,1.2s						
TCF	**Toulx Ste Croi**	**17.91**	**311**	*e*P	**Pn**	**04 58 42.7**	**-1.5**
TCF				pmax	pmax		
	comp=Z,12nm,1.3s						
TCF	**Toulx Ste Croi**	**17.91**	**311**	*e*P	**Pn**	**04 58 42.7**	**-1.5**
	comp=Z,12nm,1.3s						
TCF	**Toulx Ste Croi**	**17.91**	**311**	*e*P	**Pn**	**04 58 42.7**	**-1.5**
	comp=Z,12nm,1.2s						
RJF	**Les Rejaudoux**	**17.91**	**307**	*e*P	**Pn**	**04 58 41.4**	**-2.9**
	comp=Z,27nm,1.3s						
RJF				*e*MLR	MLR		
	comp=Z,348nm,19.8s						
RJF	**Les Rejaudoux**	**17.91**	**307**	*e*P	**Pn**	**04 58 41.4**	**-2.9**
RJF				pmax	pmax		
	comp=Z,13nm,1.3s						
RJF	**Les Rejaudoux**	**17.91**	**307**	*e*P	**Pn**	**04 58 41.4**	**-2.9**
	comp=Z,13nm,1.3s						
RJF	**Les Rejaudoux**	**17.91**	**307**	*e*P	**Pn**	**04 58 41.4**	**-2.9**
	comp=Z,13nm,1.3s						
EPF	**Esparros**	**17.94**	**299**	*e*P	**Pn**	**04 58 41.7**	**-2.9**
EPF	**Esparros**	**17.94**	**299**	*e*P	**Pn**	**04 58 41.7**	**-2.9**
ONI	**Oni**	**17.97**	**62**	P	**Pn**	**04 58 45.0**	**0.0**
EBIE	**Bielsa**	**17.99**	**298**	P	**Pn**	**04 58 50.8**	**+5.6**
	comp=Z,251nm,4.4s						
SUW	**Suwalki**	**18.01**	**3**	*e*P	**Pn**	**04 58 43.6**	**-1.8**
SUW	**Suwalki**	**18.01**	**3**	*e*P	**Pn**	**04 58 43.6**	**-1.7**
SUW	**Suwalki**	**18.01**	**3**	*e*P	**Pn**	**04 58 43.6**	**-1.7**
HYF	**Humbligny**	**18.14**	**314**	*e*P	**Pn**	**04 58 42.9**	**-4.1**
LFF	**La Frestale**	**18.28**	**306**	*e*P	**Pn**	**04 58 46.4**	**-2.3**
LFF	**La Frestale**	**18.28**	**306**	*e*P	**Pn**	**04 58 46.4**	**-2.3**
GOR	**Gori**	**18.32**	**64**	P	**Pn**	**04 58 50.5**	**+1.2**
MEM	**Membach**	**18.49**	**327**	P	**Pn**	**04 58 54.9**	**+3.6**
GNI	**Garni**	**18.52**	**70**	⇑*e*P	**Pn**	**04 58 51.7**	**0.0**
GNI				pmax	pmax		
	comp=Z,51nm,1.7s						
GNI	**Garni**	**18.52**	**70**	P	**Pn**	**04 58 49.6**	**-2.1**
	comp=Z,1.1nm,0.3s,baz=277,slow=6.4,SNR=13						
GNI				LR	LR	05 05 57.1	
	comp=Z,285nm,18.1s,baz=88,slow=37						
GNI	**Garni**	**18.52**	**70**	*e*P	**Pn**	**04 58 51.5**	**-0.2**
	comp=Z,52nm,1.2s						
GNI	**Garni**	**18.52**	**70**	P	**Pn**	**04 58 52.9**	**+1.2**
	SNR=12						
GNI				P		04 58 52.9	
	SNR=12						
GNI	**Garni**	**18.52**	**70**	*e*P	**Pn**	**04 58 51.7**	**0.0**
	comp=Z,51nm,1.7s						
GNI	**Garni**	**18.52**	**70**	P	**Pn**	**04 58 52.9**	**+1.2**
	SNR=12						
ETSF	**Etsaut**	**18.54**	**299**	*e*P	**Pn**	**04 58 50.1**	**-1.8**
	comp=Z,14nm,1.1s						
ETSF	**Etsaut**	**18.54**	**299**	*e*P	**Pn**	**04 58 50.1**	**-1.8**
ETSF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
ETSF	**Etsaut**	**18.54**	**299**	*e*P	**Pn**	**04 58 50.1**	**-1.8**
	comp=Z,7.2nm,1.0s						
ETSF	**Etsaut**	**18.54**	**299**	*e*P	**Pn**	**04 58 50.1**	**-1.8**
	comp=Z,7.2nm,1.1s						
BUG	**Bochum--Univer**	**18.58**	**331**	*e*Pn	**Pn**	**04 58 54.1**	**+1.7**
HGN	**Heimansgroeve**	**18.64**	**327**	*e*P	**Pn**	**04 58 58.1**	**+5.0**
HGN	**Heimansgroeve**	**18.64**	**327**	*e*S	**Sn**	**05 02 30.2**	**+8.7**
BCLA	**Clavier**	**18.68**	**325**	P	**Pn**	**04 58 57.6**	**+4.1**
GIVF	**Givet**	**18.68**	**324**	*e*P	**Pn**	**04 58 54.1**	**+0.5**
	comp=Z,111nm,1.4s						
GIVF	**Givet**	**18.68**	**324**	*e*P	**Pn**	**04 58 54.1**	**+0.5**
GIVF				pmax	pmax		
	comp=Z,55nm,1.4s						
GIVF	**Givet**	**18.68**	**324**	*e*P	**Pn**	**04 58 54.1**	**+0.5**
	comp=Z,56nm,1.4s						
GIVF	**Givet**	**18.68**	**324**	*e*P	**Pn**	**04 58 54.1**	**+0.5**
	comp=Z,56nm,1.4s						
TBLG	**Delisi**	**18.73**	**65**	*e*P	**Pn**	**04 58 59.0**	**+4.7**
TBLG	**Delisi**	**18.73**	**65**	P	**Pn**	**04 58 59.0**	**+4.8**
BEBN	**Eben Emael**	**18.77**	**327**	P	**Pn**	**04 59 00.0**	**+5.3**
DOU	**Dourbes**	**18.79**	**324**	P	**Pn**	**04 58 56.6**	**+1.7**
	comp=Z,17nm,1.7s						
BAIF	**Baives**	**18.95**	**323**	*e*P	**Pn**	**04 58 54.6**	**-2.3**
BAIF	**Baives**	**18.95**	**323**	*e*P	**Pn**	**04 58 54.6**	**-2.3**
SJPF	**Ste Jean**	**19.07**	**299**	*e*P	**Pn**	**04 58 56.3**	**-2.0**
	comp=Z,95nm,1.5s						
SJPF	**Ste Jean**	**19.07**	**299**	*e*P	**Pn**	**04 58 56.3**	**-2.0**
SJPF				pmax	pmax		
	comp=Z,47nm,1.5s						
SJPF	**Ste Jean**	**19.07**	**299**	*e*P	**Pn**	**04 58 56.3**	**-2.0**
	comp=Z,48nm,1.5s						
SJPF	**Ste Jean**	**19.07**	**299**	*e*P	**Pn**	**04 58 56.3**	**-2.0**
	comp=Z,48nm,1.5s						
WTSB	**Winterswijk**	**19.18**	**331**	*e*P	**Pn**	**04 59 04.1**	**+4.6**
NACGM	**Naroch**	**19.18**	**9**	*e*	**Pn**	**04 58 53.0**	**-6.6**
SNF	**Seneffe**	**19.21**	**324**	P	**Pn**	**04 59 05.0**	**+5.0**
	comp=Z,17nm,2.5s						
ETOR	**Torete**	**19.26**	**292**	P	**Pn**	**04 59 05.2**	**+4.5**
EALK	**Alkurruntz**	**19.29**	**299**	P	**Pn**	**04 59 10.6**	**+10**
ELIZ	**Elizondo**	**19.29**	**299**	P	**Pn**	**04 59 06.2**	**+5.1**
ELIZ				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ELIZ	**Elizondo**	**19.29**	**299**	P	**Pn**	**04 59 06.2**	**+5.1**
	comp=Z,6.1nm,0.7s						
ENIJ	**Nijar**	**19.31**	**280**	P	**Pn**	**04 59 04.6**	**+3.3**
TAM	**Tamanrasset**	**19.32**	**231**	*e*P	**Pn**	**04 59 05.3**	**+3.8**
TAM				pmax	pmax		
	comp=Z,13nm,1.4s						
TAM	**Tamanrasset**	**19.32**	**231**	*e*P	**Pn**	**04 59 05.3**	**+3.8**
	comp=Z,13nm,1.4s						
UCC	**Uccle**	**19.37**	**325**	P	**Pn**	**04 59 06.6**	**+4.6**
MFF	**Saint Martin d**	**19.51**	**310**	*e*P	**Pn**	**04 59 00.0**	**-3.6**
	comp=Z,23nm,1.1s						
MFF	**Saint Martin d**	**19.51**	**310**	*e*P	**Pn**	**04 59 00.0**	**-3.6**
MFF				pmax	pmax		
	comp=Z,11nm,1.1s						
MFF	**Saint Martin d**	**19.51**	**310**	*e*P	**Pn**	**04 59 00.0**	**-3.6**
	comp=Z,11nm,1.1s						
MFF	**Saint Martin d**	**19.51**	**310**	*e*P	**Pn**	**04 59 00.0**	**-3.6**
	comp=Z,11nm,1.1s						
EHUE	**Huescar**	**19.57**	**282**	P	**Pn**	**04 59 08.5**	**+4.1**
EHUE				pmax	pmax		
	comp=Z,6.0nm,1.2s						
EHUE	**Huescar**	**19.57**	**282**	P	**Pn**	**04 59 08.5**	**+4.1**
	comp=Z,5.6nm,1.2s						

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BSEG  Bad Segeberg      19.61 339 ePn    Pn    04 59 05.5 +0.7
BSEG  Bad Segeberg      19.61 339 ePn    Pn    04 59 05.5 +0.7
VSR   Storozhevoye      19.64  34 eP     Pn    04 59 03.2 -1.9
VSR                                pmax  pmax
      comp=N,2.0nm,0.5s
VSR                                pmax  pmax
      comp=Z,6.0nm,0.5s
VSR                                pmax  pmax
      comp=E,9.0nm,0.6s
VSR   Storozhevoye      19.64  34 eP     Pn    04 59 03.2 -1.9
EBER  Berja             19.86 280  P     Pn    04 59 13.2 +5.4
      comp=E,8.4nm,0.8s
ECOG  Cogollos-Vega     20.37 281  P     P     04 59 18.5 +6.7
ECOG                               pmax  pmax
      comp=Z,5.0nm,0.9s
ECOG  Cogollos-Vega     20.37 281  P     P     04 59 18.5 +6.6
      comp=Z,5.3nm,0.9s
EGUA  Guajares          20.40 280  P     P     04 59 21.3 +9.1
LDF   La Druitiere      20.41 315 eP     P     04 59 10.2 -2.0
      comp=Z,19nm,0.7s
LDF   La Druitiere      20.41 315 eP     P     04 59 10.2 -2.0
LDF                                pmax  pmax
      comp=Z,9.0nm,0.7s
LDF   La Druitiere      20.41 315 eP     P     04 59 10.2 -2.0
      comp=Z,9.4nm,0.7s
LDF   La Druitiere      20.41 315 eP     P     04 59 10.2 -2.0
      comp=Z,9.4nm,0.7s
ERON  Agron             20.58 280  P     P     04 59 19.1 +5.0
ESDC  Sonseca Array     20.63 288  P     P     04 59 16.5 +1.8
      comp=Z,4.8nm,0.7s,baz=82,slow=10.0,SNR=13
ESDC  Sonseca Array     20.63 288  P     P     04 59 18.4 +3.7
      comp=Z,2.7nm,0.7s
FLN   La Foliniere      20.70 315 eP     P     04 59 13.3 -2.1
      comp=Z,25nm,0.8s
FLN                               eMLR   MLR
      comp=Z,443nm,20.5s,MS3.5
FLN   La Foliniere      20.70 315 eP     P     04 59 13.3 -2.1
FLN                                pmax  pmax
      comp=Z,13nm,0.8s
FLN                                MLR   MLR
      comp=Z,440nm,20.5s,MS3.8
FLN   La Foliniere      20.70 315 eP     P     04 59 13.3 -2.1
      comp=Z,13nm,0.8s
FLN                                LR    LR
      comp=Z,440nm,20.5s,MS3.8
FLN   La Foliniere      20.70 315 eP     P     04 59 13.3 -2.1
      comp=Z,13nm,0.8s
VRHR  Novokhopersk      20.72  37 eP     P     04 59 15.1 -0.4
VRHR                               pmax  pmax
      comp=Z,20nm,0.5s
VRHR                               pmax  pmax
      comp=N,4.0nm,0.4s
VRHR  Novokhopersk      20.72  37 eP     P     04 59 15.1 -0.4
      comp=N,4.0nm,0.4s
GRR   Gorron            20.74 314 eP     P     04 59 14.8 -1.0
GRR   Gorron            20.74 314 eP     P     04 59 14.8 -1.0
GUD   Guadarrama        20.83 291  P     P     04 59 21.6 +4.7
GUD                                pmax  pmax
      comp=Z,8.0nm,0.9s
GUD   Guadarrama        20.83 291  P     P     04 59 21.6 +4.7
      comp=Z,7.5nm,0.9s
ELOJ  Sierra Loja       20.84 281  P     P     04 59 23.0 +6.0
ELUQ  Luque             20.90 282  P     P     04 59 21.1 +3.5
MAK   Makhachkala       20.97  63 eP     P     04 59 17.8 -0.5
MAK                               i            04 59 36.0
MAK                               eS     S     05 03 05.8 -6.2
MAK                               eSS          05 03 26.8
MAK                                pmax  pmax
      comp=Z,136nm,1.5s
MAK                                MLR   MLR
      comp=Z,496nm,19.0s,MS3.9
MAK   Makhachkala       20.97  63 eP     P     04 59 17.8 -0.5
      comp=Z,136nm,1.5s
EMIJ  Mijas             21.40 279  P     P     04 59 26.9 +4.0
      comp=Z,62nm,2.3s,mb4.5
OBN   Obninsk           21.62  23d iP    P     04 59 23.5 -1.7
OBN                               e            04 59 41.8
OBN                               eS     S     05 03 17.0 -7.6
OBN                               e            05 03 28.0
OBN                                pmax  pmax
      comp=Z,18nm,0.6s,mb4.7
OBN   Obninsk           21.62  23 eP     P     04 59 23.7 -1.5
      comp=Z,96nm,1.3s,mb5.1
OBN   Obninsk           21.62  23 eP     P     04 59 23.7 -1.5
      comp=Z,96nm,1.3s,mb5.1
SGMF  Saint Gilles      21.69 312 eP     P     04 59 24.3 -1.7
      comp=Z,15nm,0.7s,mb4.2
SGMF  Saint Gilles      21.69 312 eP     P     04 59 24.3 -1.7
SGMF                               pmax  pmax
      comp=Z,7.0nm,0.7s,mb4.2
SGMF  Saint Gilles      21.69 312 eP     P     04 59 24.3 -1.7
      comp=Z,7.3nm,0.7s,mb4.2
SGMF  Saint Gilles      21.69 312 eP     P     04 59 24.3 -1.7
      comp=Z,7.3nm,0.7s,mb4.2
ECAB  El Cabril         21.79 284  P     P     04 59 32.9 +5.8
      comp=Z,136nm,2.1s,mb5.0
MDT   Midelt            21.99 269  P     P     04 59 31.4 +2.0
      comp=Z,5.8nm,0.8s,mb4.0,baz=85,slow=9.6,SNR=15
MDT                                LR    LR    05 10 07.7
      comp=Z,297nm,18.4s,MS3.7,baz=82,slow=42
MOS   Moscow            22.48  24 eP     P     04 59 30.9 -3.5
MOS                               e            04 59 56.3
MOS                               e            05 00 08.8
MOS                               eS     S     05 03 28.9  -12
MOS                                pmax  pmax
      comp=Z,107nm,1.0s,mb5.2
RSA   Sarsar            22.50 275 eP     P     04 59 35.0 +0.2
VSU   Vasula            22.68   7c iP    P     04 59 36.2 -0.3
VSU                                pmax  pmax
      comp=Z,53nm,1.1s,mb4.9
VSU   Vasula            22.68   7 i P    P     04 59 36.2 -0.3
      comp=Z,53nm,1.1s,mb4.9
PBRG  Braganca          22.88 293 eP     P     04 59 42.3 +3.6
      comp=Z,14nm,1.2s,mb4.3
PBRG  Braganca          22.88 293 eP     P     04 59 42.3 +3.6
      comp=Z,14nm,1.2s,mb4.3
MVO   Moncorvo          23.04 292 eP     P     04 59 42.7 +2.2
      comp=Z,17nm,1.5s,mb4.3
MVO   Moncorvo          23.04 292 eP     P     04 59 42.7 +2.2
      comp=Z,17nm,1.5s,mb4.3
PBAR  Barrancos         23.05 284 eLR    LR    05 11 59.5
      comp=Z,156nm,17.8s
PMRV  Marv??o           23.28 287 eP     P     04 59 45.4 +2.4
      comp=Z,30nm,1.2s,mb4.6
PMRV  Marv??o           23.28 287 eP     P     04 59 45.4 +2.4
      comp=Z,30nm,1.2s,mb4.6
PCBR  Castelo Branco    23.34 288 eP     P     04 59 46.2 +2.5
      comp=Z,19nm,1.4s,mb4.3
PCBR  Castelo Branco    23.34 288 eP     P     04 59 46.2 +2.5
      comp=Z,19nm,1.4s,mb4.3
MTE   Manteigas         23.40 290 eP     P     04 59 47.9 +3.6
      comp=Z,28nm,1.3s,mb4.5
PESTR Estremoz          23.45 286 eP     P     04 59 47.0 +2.2
      comp=Z,18nm,1.3s,mb4.3
PESTR Estremoz          23.45 286 eP     P     04 59 47.0 +2.2
      comp=Z,18nm,1.3s,mb4.3
PBEJ  Beja              23.72 284 eP     P     04 59 51.5 +4.1
      comp=Z,11nm,1.4s,mb4.1
PBEJ  Beja              23.72 284 eP     P     04 59 51.5 +4.1
      comp=Z,11nm,1.4s,mb4.1
PTEO  Sao Teotonio      24.44 283 eP     P     04 59 58.0 +4.1
      comp=Z,97nm,1.8s,mb4.9
PTEO  Sao Teotonio      24.44 283 eP     P     04 59 58.0 +4.1
      comp=Z,97nm,1.8s,mb4.9
HFS   Hagfors           24.68 350  P     P     04 59 54.1 -1.8
HFS                                pmax  pmax
      comp=Z,7.0nm,0.6s
HFS   Hagfors           24.68 350  P     P     04 59 54.1 -1.8
      comp=Z,6.8nm,0.6s,mb4.4,baz=155,slow=12,SNR=16
HFS   Hagfors           24.68 350  P     P     04 59 54.1 -1.8
      comp=Z,7.0nm,0.6s,mb4.4
PMAFR Mafra             24.77 286 eP     P     04 59 51.3 -5.6
PMAFR Mafra             24.77 286 eP     P     04 59 51.3 -5.6
FINES FINESS Array B    25.58   5  P     P     05 00 03.2 -0.9
FINES                              pmax  pmax
      comp=Z,2.0nm,0.4s
FINES                              MLR   MLR
      comp=Z,395nm,18.1s
FINES FINESS Array B    25.58   5  P     P     05 00 03.2 -0.9
      comp=Z,2.2nm,0.4s,mb4.0,baz=169,slow=11,SNR=10
FINES                              LR    LR    05 11 44.2
      comp=Z,395nm,18.1s,MS4.0,baz=303,slow=40
FINES FINESS Array B    25.58   5  P     P     05 00 03.2 -0.9
FINES                              LR    LR    05 11 44.2
FINES FINESS Array B    25.58   5  P     P     05 00 03.2 -0.9
      comp=Z,395nm,18.1s
EKA   Eskdalemuir Ar    25.77 326  P     P     05 00 05.4 -0.5
EKA                                pmax  pmax
      comp=Z,5.0nm,0.8s
EKA   Eskdalemuir Ar    25.77 326  P     P     05 00 05.3 -0.5
      comp=Z,4.5nm,0.8s,mb4.0,baz=131,slow=7.8,SNR=11
EKA   Eskdalemuir Ar    25.77 326  P     P     05 00 05.3 -0.6
NB2   NORSAR Subarra    25.92 348  P     P     05 00 06.1 -1.1
      comp=Z,9.0nm,0.8s,mb4.3,baz=159,slow=10
NB2   NORSAR Subarra    25.92 348  P     P     05 00 06.1 -1.1
      comp=Z,9.0nm,0.8s,mb4.3,baz=159,slow=10,SNR=4.0
NOA   NORSAR Array B    25.92 348  P     P     05 00 05.7 -1.5
NOA                                pmax  pmax
      comp=Z,2.0nm,0.7s
NOA                                MLR   MLR
      comp=Z,215nm,18.3s
NOA   NORSAR Array B    25.92 348  P     P     05 00 05.7 -1.5
      comp=Z,2.0nm,0.7s,mb3.8,baz=158,slow=9.5,SNR=7.9
NOA                                LR    LR    05 12 06.0
      comp=Z,215nm,18.3s,MS3.7,baz=160,slow=41
NOA   NORSAR Array B    25.92 348  P     P     05 00 05.7 -1.5
      comp=Z,215nm,18.3s
KAF   Kangasniemi       26.26   5 eP     P     05 00 08.7 -1.5
KAF                                pmax  pmax
      comp=Z,11nm,0.8s,mb4.4
KAF   Kangasniemi       26.26   5 ep     P     05 00 08.7 -1.5
      comp=Z,11nm,0.8s,mb4.4
KAF   Kangasniemi       26.26   5 eP     P     05 00 08.7 -1.5
      comp=Z,11nm,0.8s,mb4.4
KLMR  Klimovskoe        27.30  19 eP     P     05 00 20.6 +1.0
KLMR                               pmax  pmax
      comp=Z,40nm,1.6s,mb4.7
KLMR  Klimovskoe        27.30  19 eP     P     05 00 20.6 +1.0
      comp=Z,40nm,1.6s,mb4.7
JOF   Joensuu           27.56   9 eP     P     05 00 21.0 -0.9
JOF                                pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.2
JOF   Joensuu           27.56   9 ep     P     05 00 21.0 -0.9
      comp=Z,4.0nm,0.6s,mb4.2
JOF   Joensuu           27.56   9 eP     P     05 00 21.0 -0.9
      comp=Z,4.0nm,0.6s,mb4.2
TORD  Torodi Ar. Bea    29.08 224  P     P     05 00 37.7 +1.8
      comp=Z,5.6nm,0.8s,mb4.3,baz=35,slow=8.4,SNR=40
TORD                               LR    LR    05 13 45.6
      comp=Z,434nm,18.5s,MS4.1,baz=30,slow=39
PRGR  Permogore         29.70  23 eP     P     05 00 37.5 -3.5
PRGR                              e*PP   pP    05 00 47.0 +3.5
PRGR                              eS     S     05 05 26.7  -10
PRGR                               pmax  pmax
      comp=Z,15nm,0.6s,mb4.9
AKTK  Aktyubinsk        29.73  50  P     P     05 00 40.1 -1.2
AKTK                               LR    LR    05 14 44.7
AKTK  Aktyubinsk        29.73  50  P     P     05 00 40.1 -1.3
      comp=Z,168nm,21.6s
AKTO  Aktyubinsk        29.73  50  P     P     05 00 40.1 -1.3
AKTO                               pmax  pmax
      comp=Z,2.0nm,0.7s,mb4.0
AKTO                               MLR   MLR
      comp=Z,168nm,21.6s,MS3.6
AKTO  Aktyubinsk        29.73  50  P     P     05 00 40.1 -1.3
      comp=Z,2.1nm,0.7s,mb4.0,baz=255,slow=8.0,SNR=6.3
AKTO                               LR    LR    05 14 44.7
      comp=Z,168nm,21.6s,MS3.6,baz=259,slow=41
ARU   Arti              32.05  39d iP    P     05 00 59.6 -2.1
ARU                                S     S     05 06 06.7 -6.9
ARU                                pmax  pmax
      comp=Z,14nm,1.2s,mb4.7
ARU   Arti              32.05  39 eP     P     05 01 03.3 +1.6
      comp=Z,11nm,1.0s,mb4.6
APA   Apatity           32.28   8⇓eP     P     05 01 08.2 +4.6
APA                                pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.7
APA                                MLR   MLR
      comp=Z,2μm,14.0s,MS5.0
SOKR  Solikamsk         32.64  33⇑iP     P     05 01 06.6 -0.3
SOKR                               pmax  pmax
      comp=Z,40nm,1.5s,mb5.1
SVE   Sverdlovsk        33.26  39 eP     P     05 01 12.6 +0.3
SVE                                pmax  pmax
      comp=Z,20nm,0.9s,mb5.0
ARCES ARCESS Array B    33.62   2  P     P     05 01 14.6 -0.8
ARCES                              pmax  pmax
      comp=Z,4.0nm,0.6s
ARCES ARCESS Array B    33.62   2  P     P     05 01 14.6 -0.8
      comp=Z,4.0nm,0.6s,mb4.5,baz=187,slow=8.8,SNR=26
KEV   Kevo              33.90   3 eP     P     05 01 15.8 -2.0
KEV                                pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.6
KEV   Kevo              33.90   3 ep     P     05 01 15.8 -2.0
      comp=Z,5.6nm,0.8s,mb4.5
RBK   Rabkut            34.10 114  P     P     05 01 20.7 +0.6
      SNR=6.0
RBK   Rabkut            34.10 114  P     P     05 01 20.7 +0.6
      SNR=6.0
JMDO  Jabal Madar       34.29 103  P     P     05 01 21.6 -0.2
      SNR=5.2
JMDO  Jabal Madar       34.29 103  P     P     05 01 21.5 -0.2
      SNR=5.2
WBK   Wadi Bani Khal    34.85 102 ⇑P     P     05 01 27.0 +0.5
      SNR=6.2
BRVK  Borovoye          37.71  48 eP     P     05 01 50.5 -0.1
BRVK                               pmax  pmax
      comp=Z,8.0nm,0.7s,mb4.6
BRVK  Borovoye          37.71  48 eP     P     05 01 50.5 -0.1
      comp=Z,8.1nm,0.7s,mb4.6
BVAR  Borovoye Array    37.77  48  P     P     05 01 50.4 -0.7
BVAR                               pmax  pmax
      comp=Z,4.0nm,0.6s
BVAR  Borovoye Array    37.77  48  P     P     05 01 50.4 -0.7
      comp=Z,4.2nm,0.6s,mb4.3,baz=256,slow=5.7,SNR=15
DBIC  Dimbokro          38.07 226  P     P     05 01 55.6 +1.5
DBIC                               pmax  pmax
      comp=Z,7.0nm,0.9s
DBIC                               MLR   MLR
      comp=Z,246nm,19.0s
DBIC  Dimbokro          38.07 226  P     P     05 01 55.6 +1.5
      comp=Z,7.4nm,0.9s,mb4.4,baz=13,slow=11,SNR=12
DBIC                               LR    LR    05 19 40.4
      comp=Z,246nm,19.0s,MS4.0,baz=14,slow=39
LIC   Lamto             38.53 226 eP     P     05 01 59.6 +1.6
      comp=Z,22nm,0.7s,mb4.7
LIC                               eMLR   MLR
      comp=Z,342nm,18.2s,MS3.9
LIC   Lamto             38.53 226 eP     P     05 01 59.6 +1.6
      comp=Z,11nm,0.7s,mb4.7
LIC                                LR    LR
      comp=Z,170nm,18.3s,MS3.9
AAK   Ala-Archa         40.74  64  P     P     05 02 15.9 -0.2
AAK                                pmax  pmax
      comp=Z,3.0nm,0.6s,mb4.1
AAK   Ala-Archa         40.74  64  P     P     05 02 15.9 -0.2
      comp=Z,2.7nm,0.6s,mb4.1,baz=177,slow=8.8,SNR=9.2
AAK   Ala-Archa         40.74  64 eP     P     05 02 16.2 +0.1
      comp=Z,11nm,0.9s,mb4.5
FRU   Bishkek           40.80  64 eP     P     05 02 15.6 -1.0
FRU                                pmax  pmax
      comp=Z,64nm,1.8s,mb5.0
KURK  Kurchatov         42.78  52  P     P     05 02 31.5 -1.2
KURK                               pmax  pmax
      comp=Z,3.0nm,0.6s,mb4.2
KURK  Kurchatov         42.78  52  P     P     05 02 31.4 -1.2
      comp=Z,2.6nm,0.6s,mb4.2,baz=278,slow=8.7,SNR=14
KURK  Kurchatov         42.78  52 eP     P     05 02 32.0 -0.7
      comp=Z,10nm,1.1s,mb4.5
NVS   Novosibirsk       45.43  46 eP     P     05 02 52.6 -1.3
NVS                               e            05 09 27.9
NVS                                pmax  pmax
      comp=N,4.0nm,1.1s
NVS                                pmax  pmax
      comp=E,10.0nm,1.1s
NVS                                pmax  pmax
      comp=Z,20nm,1.1s,mb4.9
MKAR  Makanchi Array    45.59  57  P     P     05 02 53.4 -1.9
MKAR                               pmax  pmax
      comp=Z,3.0nm,0.5s
MKAR                               MLR   MLR
      comp=Z,163nm,19.1s
MKAR  Makanchi Array    45.59  57  P     P     05 02 53.4 -1.9
      comp=Z,3.3nm,0.5s,mb4.5,baz=269,slow=7.6,SNR=49
MKAR                               LR    LR    05 25 06.6
      comp=Z,163nm,19.1s,MS4.0,baz=268,slow=40
MKAR  Makanchi Array    45.59  57  P     P     05 02 53.4 -1.9
MKAR                               LR    LR    05 25 06.6
ZALV  Zalesovo Beam     46.40  47  P     P     05 02 58.7 -2.8
ZALV                               pmax  pmax
      comp=Z,6.0nm,0.6s,mb4.7
ZALV                               MLR   MLR
      comp=Z,63nm,19.5s,MS3.6
ZALV  Zalesovo Beam     46.40  47  P     P     05 02 58.7 -2.8
      comp=Z,5.5nm,0.6s,mb4.7,baz=273,slow=8.2,SNR=13
ZALV                               LR    LR    05 22 53.9
      comp=Z,62nm,19.5s,MS3.6,baz=18,slow=37
NDI   New Delhi         46.86  83 ex     x     05 03 04.0
WMQ   Urumqi            49.94  60 eP     P     05 03 29.5 +0.4
WMQ                                pP    pP    05 03 34.0 +2.3
WMQ                                sP    sP    05 03 36.5 +3.8
WMQ                                PcP   PcP   05 04 51.0 +1.8
WMQ                               eS     S     05 10 38.0 -1.5
WMQ                                pmax  pmax
      comp=Z,12nm,1.1s,mb4.8
WMQ                                pmax  pmax
      comp=Z,130nm,4.9s
WMQ                                LR    LR
      comp=N,560nm,28.0s,MS4.5
WMQ                                LR    LR
      comp=E,450nm,29.0s,MS4.5
WMQ                                LR    LR
      comp=Z,280nm,19.9s
DANN  Dangsing          52.24  80 eP     P     05 03 46.2 -0.4
      comp=Z,37nm,0.5s,mb5.6
DANN  Dangsing          52.24  80 eP     P     05 03 46.2 -0.4
      comp=Z,37nm,0.5s,mb5.6
KOLN  Koldanda          52.36  81 eP     P     05 03 46.4 -1.1
      comp=Z,28nm,0.9s,mb5.2
KOLN  Koldanda          52.36  81 eP     P     05 03 46.4 -1.1
      comp=Z,28nm,0.9s,mb5.2
GKN   Gorkha            53.09  80 eP     P     05 03 51.6 -1.3
      comp=Z,29nm,0.6s,mb5.4
GKN   Gorkha            53.09  80 eP     P     05 03 51.6 -1.3
      comp=Z,29nm,0.6s,mb5.4
DMN   Daman             53.63  80 eP     P     05 03 56.1 -0.8
      comp=Z,32nm,0.7s,mb5.4
DMN   Daman             53.63  80 eP     P     05 03 56.1 -0.8
      comp=Z,32nm,0.7s,mb5.4
KKN   Kakani            53.69  80 eP     P     05 03 56.0 -1.3
      comp=Z,22nm,0.6s,mb5.3
KKN   Kakani            53.69  80 eP     P     05 03 56.0 -1.3
KKN                                pmax  pmax
      comp=Z,22nm,0.6s,mb5.3
KKN   Kakani            53.69  80 eP     P     05 03 56.0 -1.3
      comp=Z,22nm,0.6s,mb5.3
PKI   Pulchoki          53.89  80 eP     P     05 03 57.6 -1.2
      comp=Z,52nm,1.1s,mb5.4
PKI   Pulchoki          53.89  80 eP     P     05 03 57.6 -1.2
PKI                                pmax  pmax
      comp=Z,52nm,1.1s,mb5.4
PKI   Pulchoki          53.89  80 eP     P     05 03 57.6 -1.2
      comp=Z,52nm,1.1s,mb5.4
GUN   Gumba             54.12  79 eP     P     05 03 59.4 -1.0
      comp=Z,98nm,1.2s,mb5.6
GUN   Gumba             54.12  79 eP     P     05 03 59.4 -1.0
      comp=Z,98nm,1.2s,mb5.6
JIRN  Jiri              54.47  79 eP     P     05 04 01.9 -1.1
      comp=Z,20nm,0.7s,mb5.2
JIRN  Jiri              54.47  79 eP     P     05 04 01.9 -1.1
      comp=Z,20nm,0.7s,mb5.2
RAMN  Ramite            55.12  80 eP     P     05 04 06.2 -1.5
      comp=Z,64nm,1.2s,mb5.5
RAMN  Ramite            55.12  80 eP     P     05 04 06.2 -1.5
      comp=Z,64nm,1.2s,mb5.5
ODAN  Odare             55.79  80 eP     P     05 04 10.9 -1.6
      comp=Z,9.7nm,0.6s,mb5.0
ODAN  Odare             55.79  80 eP     P     05 04 10.9 -1.6
      comp=Z,9.7nm,0.6s,mb5.0
TAPN  Taplejung         55.82  79 eP     P     05 04 11.4 -1.4
      comp=Z,53nm,1.2s,mb5.5
TAPN  Taplejung         55.82  79 eP     P     05 04 11.4 -1.4
      comp=Z,53nm,1.2s,mb5.5
LSA   Lhasa             57.50  75  P     P     05 04 24.3 -0.4
LSA   Lhasa             57.50  75 eP     P     05 04 24.8 +0.1
LSA                                pmax  pmax
      comp=Z,9.0nm,0.6s,mb5.0
LSA   Lhasa             57.50  75 eP     P     05 04 24.8 +0.1
      comp=Z,8.6nm,0.6s,mb5.0
LSA   Lhasa             57.50  75 eP     P     05 04 24.8 +0.1
      comp=Z,8.6nm,0.6s,mb5.0
TLY   Talaya            58.01  47 eP     P     05 04 35.8 +7.9
TLY                                pmax  pmax
      comp=Z,8.0nm,1.4s,mb4.6
TLY                                MLR   MLR
      comp=Z,103nm,15.0s,MS4.1
ZAK   Zakamensk         58.22  48 eP     P     05 04 29.1 -0.3
ZAK                                pmax  pmax
      comp=Z,4.0nm,1.3s,mb4.3
ZAK   Zakamensk         58.22  48 eP     P     05 04 29.1 -0.3
      comp=Z,4.0nm,1.3s,mb4.3
GTA   Gaotai            59.96  61 eP     P     05 04 42.0 +0.3
GTA                                pP    pP    05 04 46.5 +2.2
GTA                                sP    sP    05 04 49.0 +3.7
GTA                                PP    PP    05 06 56.3 +2.6
GTA                                S     S     05 12 52.5 -1.6
GTA                                sS    sS    05 13 00.3 +1.8
GTA                                SS    SS    05 16 49.8 -0.4
GTA                                pmax  pmax
      comp=Z,2.0nm,0.9s,mb4.2
GTA                                pmax  pmax
      comp=Z,39nm,5.0s
GTA                                LR    LR
      comp=N,130nm,17.8s,MS4.2
GTA                                LR    LR
      comp=E,110nm,17.2s,MS4.2
GTA                                LR    LR
      comp=Z,100nm,16.7s,MS4.0
SCHQ  Schefferville     60.73 318  P     P     05 04 46.8 +0.1
      comp=Z,4.1nm,0.7s,mb4.6,baz=51,slow=5.8,SNR=8.3
SCHQ                               LR    LR    05 28 33.3
      comp=Z,174nm,21.4s,MS4.2,baz=23,slow=34
SCHQ  Schefferville     60.73 318  P     P     05 04 46.8 +0.1
SONM  Songino Array     61.05  50  P     P     05 04 47.7 -1.2
SONM                               pmax  pmax
      comp=Z,2.0nm,0.7s
SONM                               MLR   MLR
      comp=Z,181nm,18.2s
SONM  Songino Array     61.05  50  P     P     05 04 47.7 -1.3
      comp=Z,1.5nm,0.7s,mb4.2,baz=280,slow=7.3,SNR=13
SONM                               LR    LR    05 34 34.6
      comp=Z,181nm,18.2s,MS4.3,baz=44,slow=40
SONM  Songino Array     61.05  50  P     P     05 04 47.7 -1.2
      comp=Z,181nm,18.2s
TIXI  Tiksi             61.31  20 eP     P     05 04 48.5 -1.8
TIXI                               pmax  pmax
      comp=Z,8.0nm,1.3s,mb4.7
TIXI  Tiksi             61.31  20 eP     P     05 04 48.5 -1.8
      comp=Z,8.0nm,1.3s,mb4.7
ULN   Ulaanbaatar       61.45  50 eP     P     05 04 52.6 +1.0
ULN                                pmax  pmax
      comp=Z,3.0nm,0.6s,mb4.6
ULN   Ulaanbaatar       61.45  50 eP     P     05 04 52.6 +1.0
      comp=Z,2.6nm,0.6s,mb4.5
ULN   Ulaanbaatar       61.45  50 eP     P     05 04 52.6 +1.0
      comp=Z,2.6nm,0.6s,mb4.5
RES   Resolute Bay      62.11 344  P     P     05 04 55.0 -0.7
RES                                pmax  pmax
      comp=Z,1.0nm,0.6s,mb4.1
RES   Resolute Bay      62.11 344  P     P     05 04 55.0 -0.7
      comp=Z,0.5nm,0.6s,mb3.8,baz=40,slow=10,SNR=3.2
RES   Resolute Bay      62.11 344  P     P     05 04 55.0 -0.7
      comp=Z,1.0nm,0.6s,mb4.1
LZH   Lanzhou           64.27  63 eP     P     05 05 08.5 -2.1
LZH                                pP    pP    05 05 12.5 -0.8
LZH                               eS     S     05 13 44.5 -4.1
LZH                                sS    sS    05 13 52.0 -1.0
LZH                                SS    SS    05 17 56.0 -1.7
LZH                                pmax  pmax
      comp=Z,21nm,1.5s,mb5.0
LZH                                pmax  pmax
      comp=Z,54nm,4.6s
LZH                                LR    LR
      comp=E,270nm,15.3s
LZH                                LR    LR
      comp=Z,510nm,16.0s,MS4.8
BOSA  Boshof            64.38 177  P     P     05 05 11.8 +0.6
BOSA                               pmax  pmax
      comp=Z,3.0nm,0.7s,mb4.4
BOSA                               MLR   MLR
      comp=Z,246nm,18.4s,MS4.4
BOSA  Boshof            64.38 177  P     P     05 05 11.8 +0.5
      comp=Z,2.5nm,0.7s,mb4.4,baz=30,slow=11,SNR=5.3
BOSA                               LR    LR    05 35 17.6
      comp=Z,246nm,18.4s,MS4.4,baz=359,slow=38
BOSA  Boshof            64.38 177  P     P     05 05 11.8 +0.6
      comp=Z,246nm,18.4s
YAK   Yakutsk           66.48  29 i P    P     05 05 23.2 -1.3
YAK                                pmax  pmax
      comp=Z,17nm,0.9s,mb5.1
```

YAK	Yakutsk	66.48	29	iP	P	05 05 23.2	-1.3
	comp=Z,17nm,0.9s,mb5.1						
CD2	Chengdu	66.63	68	P	P	05 05 27.5	+1.5
CD2				pP	pP	05 05 31.3	+2.6
CD2				sP	sP	05 05 33.5	+3.8
CD2				PP	PP	05 07 55.8	+3.3
CD2				S	S	05 14 16.0	-1.7
CD2				sS	sS	05 14 23.5	+1.4
CD2				SS	SS	05 18 33.5	-1.1
CD2				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.4						
CD2				pmax	pmax		
	comp=Z,200nm,4.7s						
CD2				LR	LR		
	comp=N,350nm,5.3s						
CD2				LR	LR		
	comp=Z,420nm,5.6s						
HHC	Hu-ho-hao-te	67.42	55	eP	P	05 05 30.5	-0.4
HHC				pP	pP	05 05 35.0	+1.5
HHC				PP	PP	05 07 59.5	+0.4
HHC				PcS		05 10 02.0	
HHC				eS	S	05 14 21.5	-5.4
HHC				sS	sS	05 14 30.0	-1.3
HHC				SS	SS	05 18 42.5	-3.9
HHC				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
HHC				pmax	pmax		
	comp=Z,210nm,5.1s						
HHC				LR	LR		
	comp=N,250nm,21.4s,MS4.8						
HHC				LR	LR		
	comp=E,440nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,160nm,14.3s,MS4.4						
KMI	Kunming	68.73	74	P	P	05 05 41.5	+2.2
KMI				pP	pP	05 05 44.8	+2.8
KMI				sP	sP	05 05 45.8	+2.8
KMI				PP	PP	05 08 14.3	+3.4
KMI				S	S	05 14 42.5	-0.5
KMI				sS	sS	05 14 47.3	-0.1
KMI				SS	SS	05 19 07.0	-0.3
KMI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
KMI				pmax	pmax		
	comp=Z,82nm,5.6s						
KMI				LR	LR		
	comp=N,220nm,24.4s,MS4.4						
KMI				LR	LR		
	comp=E,160nm,23.5s,MS4.4						
KMI				LR	LR		
	comp=Z,160nm,24.4s,MS4.2						
XAN	Xi’an	68.90	63	P	P	05 05 48.0	+7.7
XAN				pP	pP	05 05 54.5	+12
XAN				sP	sP	05 05 57.8	+14
XAN				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
CMAR	Chiang Mai Arr	69.19	82	P	P	05 05 39.8	-2.5
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,58nm,19.7s						
CMAR	Chiang Mai Arr	69.19	82	P	P	05 05 39.8	-2.5
	comp=Z,1.3nm,0.3s,mb4.3,baz=297,slow=7.5,SNR=7.4						
CMAR				LR	LR	05 40 30.2	
	comp=Z,58nm,19.7s,MS3.8,baz=109,slow=40						
CMAR	Chiang Mai Arr	69.19	82	P	P	05 05 39.8	-2.5
	comp=Z,58nm,19.7s						
BJI	Beijing	70.87	54	P	P	05 05 51.8	-0.5
BJI				S	S	05 15 07.8	0.0
BJI				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.5						
BJI				pmax	pmax		
	comp=Z,170nm,4.5s						
BJI				LR	LR		
	comp=N,270nm,22.2s						
BJI				LR	LR		
	comp=E,170nm,32.9s						
BJI				LR	LR		
	comp=Z,100nm,34.6s						
GYA	Guiyang	71.07	71	P	P	05 05 52.5	-1.2
GYA				PP	PP	05 08 30.5	-0.5
GYA				S	S	05 15 04.0	-6.5
GYA				SKS		05 15 49.5	
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
GYA				pmax	pmax		
	comp=Z,50nm,5.8s						
GYA				LR	LR		
	comp=N,160nm,15.1s,MS4.5						
GYA				LR	LR		
	comp=E,100nm,14.6s,MS4.5						
GYA				LR	LR		
	comp=Z,160nm,15.0s,MS4.4						
BILL	Bilibino	72.88	13	⇑iP	P	05 06 04.5	+0.7
BILL				e		05 06 21.2	
BILL				eS	S	05 15 25.1	-4.8
BILL				eSS	SS	05 20 04.3	-4.6
BILL				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
BILL	Bilibino	72.88	13	iP	P	05 06 04.5	+0.7
	comp=Z,14nm,1.3s,mb4.7						
BILL	Bilibino	72.88	13	ePcP	PcP	05 06 21.2	+0.3
SEY	Seymchan	73.77	21	⇓iP	P	05 06 10.1	+0.9
SEY	Seymchan	73.77	21	iP	P	05 06 10.1	+0.9
INK	Inuvik	74.35	351	P	P	05 06 12.4	-0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	74.35	351	P	P	05 06 12.4	-0.1
	comp=Z,0.7nm,0.6s,mb3.8,baz=53,slow=4.3,SNR=3.3						
INK	Inuvik	74.35	351	P	P	05 06 12.4	-0.1
	comp=Z,1.0nm,0.6s,mb3.9						
CN2	Changchun	74.61	47	eP	P	05 06 14.8	+0.3
CN2				esP	sP	05 06 21.0	+2.8
CN2				eS	S	05 15 46.5	-3.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,700nm,18.0s,MS5.0						
CN2				LR	LR		
	comp=E,300nm,18.0s,MS5.0						
CN2				LR	LR		
	comp=Z,500nm,19.0s,MS4.8						
KLR	Kul’dur	74.88	40	eP	P	05 06 13.7	-2.2
KLR	Kul’dur	74.88	40	eP	P	05 06 13.7	-2.2
YKA	Yellowknife Ar	75.75	341	P	P	05 06 20.8	+0.1
	comp=Z,0.4nm,0.6s,mb3.5,baz=34,slow=5.7,SNR=12						
YKA				LR	LR	05 43 27.7	
	comp=Z,132nm,18.2s,MS4.3,baz=240,slow=39						
YKA	Yellowknife Ar	75.75	341	P	P	05 06 20.8	+0.1
	comp=Z,132nm,18.2s						
NJ2	Nanjing	77.02	60	eP	P	05 06 31.3	+2.8
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
FFC	Flin Flon	77.55	330	⇑eP	P	05 06 35.4	+4.4
ULM	Lac du Bonnet	78.03	324	LR	LR	05 40 37.8	
	comp=Z,213nm,18.8s,MS4.5,baz=36,slow=35						
IMA2	Indian Mountai	78.17	358	eP	P	05 06 35.3	+1.1
IMA2	Indian Mountai	78.17	358	eP	P	05 06 35.3	+1.1
KSRS	Korea Array	79.90	51	P	P	05 06 43.3	-1.0
	comp=Z,2.4nm,0.6s,mb4.3,baz=305,slow=4.4,SNR=6.6						
KSRS				LR	LR	05 49 07.1	
	comp=Z,85nm,18.6s,MS4.1,baz=137,slow=41						
KSRS	Korea Array	79.90	51	P	P	05 06 43.3	-1.0
	comp=Z,2.0nm,0.6s,mb4.2						
PPLA	Purkeypile	81.30	357	eP	P	05 06 52.0	+0.8
	comp=Z,1.8nm,0.6s,mb4.2						
PPLA	Purkeypile	81.30	357	eP	P	05 06 52.0	+0.8
	comp=Z,1.8nm,0.6s,mb4.2						
YSS	Yuzh-Sakhalins	81.90	36	iP	P	05 06 55.6	+0.8
YSS				pmax	pmax		
	comp=Z,38nm,1.8s,mb5.0						
YSS	Yuzh-Sakhalins	81.90	36	iP	P	05 06 55.6	+0.8
	comp=Z,38nm,1.8s,mb5.0						
MJAR	Matsushiro Arr	86.75	46	P	P	05 07 18.7	-0.9
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MJAR				MLR	MLR		
	comp=Z,68nm,18.9s						
MJAR	Matsushiro Arr	86.75	46	P	P	05 07 18.7	-0.9
	comp=Z,1.3nm,0.6s,mb4.3,baz=334,slow=8.1,SNR=2.8						
MJAR				LR	LR	05 49 47.1	
	comp=Z,68nm,18.9s,MS4.1,baz=325,slow=38						
MJAR	Matsushiro Arr	86.75	46	P	P	05 07 18.7	-0.9
	comp=Z,68nm,18.9s						
SDV	Santo Domingo	86.79	279	P	P	05 07 20.0	-0.1
	comp=Z,1.9nm,0.8s,mb4.4,baz=8.7,slow=13,SNR=3.0						
SDV	Santo Domingo	86.79	279	P	P	05 07 20.0	-0.1
SWMT	Swartz Lake	87.90	332	eP	P	05 07 24.9	0.0
SWMT	Swartz Lake	87.90	332	eP	P	05 07 24.9	0.0
PDAR	Pinedale Array	89.89	326	P	P	05 07 33.7	-0.7
	comp=Z,0.5nm,0.9s,mb3.8,baz=49,slow=2.7,SNR=3.7						
PDAR				LR	LR	05 47 43.0	
	comp=Z,182nm,20.2s,MS4.5,baz=42,slow=36						
PDAR	Pinedale Array	89.89	326	P	P	05 07 33.7	-0.7
CPUP	Villa Florida	96.95	243	LR	LR	05 54 32.9	
	comp=Z,154nm,20.0s,MS4.5,baz=31,slow=37						
TXAR	Lajitas Array	97.19	314	P	P	05 08 09.8	+1.6
	comp=Z,0.3nm,0.9s,mb3.7,baz=30,slow=15,SNR=2.5						
TXAR				LR	LR	05 52 10.4	
	comp=Z,87nm,21.0s,MS4.2,baz=5.0,slow=36						
TXAR	Lajitas Array	97.19	314	P	P	05 08 09.8	+1.5
TXAR				LR	LR	05 52 10.4	
WRA	Warramunga Arr	119.41	94	PKIKP	PKPdf	05 13 24.2	-1.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	119.41	94	PKP	PKPdf	05 13 24.2	-1.1
	comp=Z,0.5nm,0.8s,baz=317,slow=1.9,SNR=3.6						
ASAR	Alice Springs	120.90	98	PKP	PKPdf	05 13 27.4	-0.6
	comp=Z,0.3nm,0.5s,baz=325,slow=1.8,SNR=4.9						
VNDA	Vanda	134.97	169	PKIKP	PKPdf	05 13 52.7	-0.6
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
VNDA	Vanda	134.97	169	PKP	PKPdf	05 13 52.7	-0.6
	comp=Z,0.9nm,0.8s,baz=81,slow=9.7,SNR=5.4						
VNDA	Vanda	134.97	169	PKP	PKPdf	05 13 52.7	-0.6

NEIC 28 04:55:20.3, 38°.89S×175°.40E, h162km, MG3.9(WEL), After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWVZ	Taurewa	0.18	171	P	Pn	04 55 42.0	+0.1
TWVZ				S	Sn	04 55 57.9	-0.7
KATZ	Kakaramea	0.24	111	P	Pn	04 55 42.2	+0.1
WTVZ	West Tongariro	0.27	147	P	Pn	04 55 42.3	+0.2
WTVZ				S	Sn	04 55 58.4	-0.5
NGZ	Ngauruhoe	0.33	151	P	Pn	04 55 42.6	+0.3
TUVZ	Tukino	0.43	153	P	Pn	04 55 43.1	+0.5
WNVZ	Wahianoa	0.46	161	P	Pn	04 55 43.1	+0.3
VRZ	Vera Road	0.55	245	P	Pn	04 55 42.9	-0.3
HIZ	Hauiti	0.57	311	P	Pn	04 55 43.2	-0.1
MOVZ	Moawhango	0.59	152	P	Pn	04 55 43.3	-0.1
BKZ	Black Stump Fm	0.90	108	P	Pn	04 55 45.5	+0.1
WAZ	Wanganui	0.92	200	P	Pn	04 55 45.6	0.0
TSZ	Takapari Road	1.25	160	P	Pn	04 55 48.3	0.0
URZ	Urewera	1.48	65	ePn	Pn	04 55 50.1	-0.5
URZ				eSn	Sn	04 56 11.9	-1.9
MWZ	Matawai	1.76	72	P	Pn	04 55 53.5	+0.1
MRZ	Mangatainoka R	1.78	176	P	Pn	04 55 52.8	-0.8
KNZ	Kokohu	1.78	95	P	Pn	04 55 53.9	+0.3
BFZ	Birch Farm	1.90	160	P	Pn	04 55 54.4	-0.6
KIW	Kapiti Island	2.01	191	P	Pn	04 55 54.9	-1.3
CAW	Cannon Point	2.23	186	P	Pn	04 55 57.6	-1.1
MTW	Mount Morrison	2.27	178	P	Pn	04 55 57.8	-1.4
PUZ	Puketiti	2.39	71	P	Pn	04 56 00.3	-0.3
MRW	Makara Radio	2.40	193	P	Pn	04 55 59.3	-1.4
SNZO	South Karori	2.48	192	ePn	Pn	04 56 00.1	-1.6
SNZO				eSn	Sn	04 56 29.5	-4.2
TCW	Tory Channel	2.48	200	P	Pn	04 56 00.1	-1.5
PAWZ	Paruwai Farm	2.49	180	P	Pn	04 56 00.3	-1.5
MSWZ	Moikau Station	2.53	183	P	Pn	04 56 00.6	-1.6
BHW	Baring Head	2.55	189	P	Pn	04 56 00.8	-1.7
MXZ	Matakaoa Point	2.64	61	P	Pn	04 56 03.7	0.0
NNZ	Nelson	2.80	213	P	Pn	04 56 03.6	-1.9
QRZ	Quartz Range	2.94	228	P	Pn	04 56 04.7	-2.6
BSWZ	Blackbirch Sta	3.05	202	P	Pn	04 56 06.8	-1.9
THZ	Tophouse	3.45	213	P	Pn	04 56 11.8	-1.9
KHZ	Kahutara	3.80	201	P	Pn	04 56 16.0	-2.2
DSZ	Denniston Nort	3.96	223	P	Pn	04 56 17.6	-2.7
LTZ	Lake Taylor	4.56	210	P	Pn	04 56 24.9	-3.1
MQZ	McQueen’s Vall	5.24	202	P	Pn	04 56 32.6	-4.3

*ISCJB **28** 05:05:22.5±0.4, 36°.11N±0°.03×21°.83E±0°.03, h10km, mb3.7/14, MS3.5/2, Error ellipse: s-maj=4.1km s-min=3.4km az=174.5*

*IDC **28** 05:05:22.5±1.0, 36°.23N×21°.94E, h0km, mb3.7/13, mb1 3.8/17, mb1mx3.7/32, mbtmp3.6/17, ML3.4/4, MS3.3/2, Ms1 3.3/2, ms1mx2.7/36, Error ellipse: s-maj=20.8km s-min=17.0km az=177.0*

*CSEM **28** 05:05:25.2±0.5, 36°.18N×21°.79E, h2km, ML3.7, Error ellipse: s-maj=9.9km s-min=5.7km az=176.0*

*NEIC **28** 05:05:25.9, 36°.19N×21°.83E, h5km, ML3.7(ATH), After ATH.*

*ATH **28** 05:05:25.9, 36°.19N×21°.83E, h5km, MD3.9/15, ML3.7*

*PDG **28** 05:05:25.7±0.1, 36°.14N×20°.38E, h2km±11km, ML4.1/10, Error ellipse: s-maj=125.1km s-min=20.2km az=90.0*

*THE **28** 05:05:26.3, 36°.11N×21°.82E, h0km±5km, ML4.2/5, Error ellipse: s-maj=8.1km s-min=2.5km az=214.0*

ISC 28 05:05:24.6±0.4, 36°.13N±0°.03×21°.87E±0°.03, h10km, n153, σ1s.28/198, mb3.7/14, MS3.5/2, 15C-8D, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.77	352	P	Pg	05 05 39.5	-0.1
PYL	PYLOS	0.77	352	ePG	Pg	05 05 39.4	-0.2
PYL				eSB	Sg	05 05 50.5	+0.8
PYL	PYLOS	0.77	352	ePg	Pg	05 05 39.4	-0.2
PYL				eSb	Sg	05 05 50.5	+0.8
KYTH	Kithira	0.95	80	ePG	Pg	05 05 44.5	+1.5
KYTH	Kithira	0.95	80	ePg	Pg	05 05 44.5	+1.5
VLI	Veliai	1.04	55	ePG	Pg	05 05 45.3	+0.7
VLI				eSB	Sg	05 06 00.5	+2.3
VLI	Veliai	1.04	55	ePg	Pg	05 05 45.3	+0.7
VLI				eSb	Sg	05 06 00.5	+2.3
ITM	Ithomi	1.05	2	ePB	Pg	05 05 45.0	+0.2
ITM				eSB	Sg	05 05 59.4	+0.9
ITM	Ithomi	1.05	2	ePb	Pg	05 05 45.0	+0.2
ITM				eSb	Sg	05 05 59.4	+0.9
VLX	Vlachokerasia	1.31	18	ePG	Pg	05 05 49.5	-0.2
VLX				eSB	Sg	05 06 08.0	+1.3
VLX	Vlachokerasia	1.31	18	ePg	Pg	05 05 49.5	-0.2
VLX				eSb	Sg	05 06 08.0	+1.3
DID	Didima	1.76	38	P	Pg	05 05 57.8	-0.6
DID				S	Sg	05 06 22.3	+1.1
DID	Didima	1.76	38	ePG	Pg	05 05 58.3	-0.1
DID				eSN	Sg	05 06 22.3	+1.1
DID	Didima	1.76	38	P	Pg	05 05 57.8	-0.6
DID	Didima	1.76	38	ePg	Pg	05 05 58.3	-0.1
DID				eSn	Sg	05 06 22.3	+1.1
KARN	Karanos	1.81	113	P	Pn	05 05 57.8	+1.9
KARN	Karanos	1.81	113	P	Pn	05 05 57.8	+1.9
GUR	Goura	1.84	12	ePG	Pg	05 05 59.4	-0.6
GUR	Goura	1.84	12	ePg	Pg	05 05 59.4	-0.6
RLS	Riolos of Patr	1.95	351	ePG	Pg	05 06 01.0	-1.1
RLS	Riolos of Patr	1.95	351	ePg	Pg	05 06 01.0	-1.1
LTK	Loutraki	2.08	25	P	Pb	05 06 03.0	+0.5
LTK	Loutraki	2.08	25	ePN	Pb	05 06 02.8	+0.3
LTK	Loutraki	2.08	25	ePn	Pb	05 06 02.8	+0.3
LAKA	Lakka	2.11	2	P	Pb	05 06 03.6	+0.6
TRIZ	Trizonia	2.24	4	P	Pb	05 06 05.4	+0.2
TRIZ	Trizonia	2.24	4	P	Pb	05 06 05.4	+0.2
KALE	Kalithea	2.27	5	P	Pb	05 06 05.7	0.0
KALE	Kalithea	2.27	5	P	Pb	05 06 05.7	0.0
VLS	Valsamata	2.29	334	P	Pn	05 06 03.5	+1.1
VLS	Valsamata	2.29	334	ePB	Pb	05 06 05.0	-1.0
EFP	Efpalio	2.30	1	ePG	Pg	05 06 07.6	-1.0
EFP	Efpalio	2.30	1	ePg	Pg	05 06 07.6	-1.0
VLY	Voula,Athens	2.31	41	ePG	Pg	05 06 08.8	-0.1
VLY	Voula,Athens	2.31	41	ePg	Pg	05 06 08.8	-0.1
ATH	Athens Observa	2.36	38	ePG	Pg	05 06 09.2	-0.6
ATH	Athens Observa	2.36	38	ePg	Pg	05 06 09.2	-0.6
PTL	Penteli	2.49	39	ePG	Pg	05 06 11.3	-1.1
PTL	Penteli	2.49	39	ePg	Pg	05 06 11.3	-1.1
IDI	Anoyia	2.59	108	Pn	Pn	05 06 05.9	-0.7
	6.2nm,0.3s,baz=280,slow=11,SNR=102						
IDI				Sn	Sn	05 06 35.9	-2.3
	5.5nm,0.3s,baz=279,slow=20,SNR=6.6						
IDI				LR	LR	05 06 51.5	
	comp=Z,391nm,21.0s,baz=326,slow=34						
IDI	Anoyia	2.59	108	Pn	Pn	05 06 05.9	-0.7
IDI				Sn	Sn	05 06 35.9	-2.3
IDI				LR	LR	05 06 51.5	
IDI	Anoyia	2.59	108	Pn	Pn	05 06 05.9	-0.7
LKR	Lokris	2.67	19	P	Pn	05 06 09.1	+1.4
LKR				S	Sn	05 06 45.1	+5.0
LKR	Lokris	2.67	19	ePN	Pn	05 06 12.1	+4.4
LKR	Lokris	2.67	19	P	Pn	05 06 09.1	+1.4
LKR				S	Sn	05 06 45.1	+5.0
LKD	Levkas	2.75	340	P	Pn	05 06 12.0	+3.2
LKD				S	Sn	05 06 46.4	+4.3
LKD	Levkas	2.75	340	P	Pn	05 06 12.0	+3.2
LKD				S	Sn	05 06 46.4	+4.3
EVR	Evrytania	2.79	359	ePN	Pn	05 06 13.0	+3.8
AGG	Agios Georgios	2.91	7	P	Pn	05 06 14.8	+3.8
AGG				S	Sn	05 06 51.1	+5.1
AGG	Agios Georgios	2.91	7	ePN	Pn	05 06 15.9	+4.9
AGG	Agios Georgios	2.91	7	P	Pn	05 06 14.8	+3.8
AGG				S	Sn	05 06 51.1	+5.1
NPS	Neapolis	3.16	105	P	Pn	05 06 08.3	-6.1
NEO	Neokhori	3.35	18	ePN	Pn	05 06 22.5	+5.5
THL	Klokotos Trika	3.43	2	P	Pn	05 06 20.3	+2.2
THL				S	Sn	05 07 03.1	+4.2
THL	Klokotos Trika	3.43	2	ePN	Pn	05 06 22.0	+3.9
THL	Klokotos Trika	3.43	2	P	Pn	05 06 20.3	+2.2
THL				S	Sn	05 07 03.1	+4.2
JAN	Janina	3.62	347	ePN	Pn	05 06 23.2	+2.6
JAN	Janina	3.62	347	ePn	Pn	05 06 23.2	+2.6
MEV	Metsovon	3.69	352	P	Pn	05 06 24.9	+3.3
MEV	Metsovon	3.69	352	P	Pn	05 06 24.9	+3.3
LIT	Litokhoron	4.00	7	P	Pn	05 06 28.9	+3.0
LIT				S	Sn	05 07 16.9	+4.1
LIT	Litokhoron	4.00	7	ePN	Pn	05 06 30.3	+4.4
LIT	Litokhoron	4.00	7	P	Pn	05 06 28.9	+3.0
LIT				S	Sn	05 07 16.9	+4.1
KZN	Kozani	4.17	359	ePN	Pn	05 06 31.5	+3.2
KZN	Kozani	4.17	359	ePn	Pn	05 06 31.5	+3.2
PLG	Polygyros	4.42	16	ePN	Pn	05 06 35.8	+4.1
FNA	Florina	4.67	355	P	Pn	05 06 37.3	+2.2
BIA	Bitola	4.90	355	ePn	Pn	05 06 37.7	-0.6
BIA				eSg	Sn	05 07 34.6	-0.5
BIA	Bitola	4.90	355	ePn	Pn	05 06 37.7	-0.6
SOI	Samo	5.04	294	Pn	Pn	05 06 40.5	+0.3
SOI	Samo	5.04	294	Pn	Pn	05 06 40.5	+0.3
OHR	Ohrid	5.05	351	ePn	Pn	05 06 40.9	+0.6
OHR	Ohrid	5.05	351	ePn	Pn	05 06 40.8	+0.5
TIP	Timpagrande	5.07	308	P	Pn	05 06 41.9	+1.2
	24nm,0.4s						
TIP	Timpagrande	5.07	308	P	Pn	05 06 41.9	+1.2
	24nm,0.4s						
VAY	Valandovo	5.21	6	ePn	Pn	05 06 45.0	+2.4
VAY	Valandovo	5.21	6	ePn	Pn	05 06 45.0	+2.4
CEL	Celeste	5.23	296	Pn	Pn	05 06 42.9	+0.1
	59nm,0.4s						
CEL	Celeste	5.23	296	Pn	Pn	05 06 42.9	+0.1
	59nm,0.4s						
KRUS	Krusevo	5.26	355	ePn	Pn	05 06 44.1	+0.9
KRUS				eSg	Sn	05 07 42.5	-1.3
KRUS	Krusevo	5.26	355	ePn	Pn	05 06 44.1	+0.9
MTTG	Motta San Giov	5.28	293	Pn	Pn	05 06 43.3	-0.3
	148nm,1.0s						
MTTG	Motta San Giov	5.28	293	Pn	Pn	05 06 43.3	-0.3
	148nm,1.0s						
TAR1	Taranto	5.68	322	ePn	Pn	05 06 49.2	+0.2
PE1	Pezze di Greco	5.83	325	ePn	Pn	05 06 51.8	+0.7
SKO	Skopje	5.85	357	ePn	Pn	05 06 52.1	+0.8
SKO	Skopje	5.85	357	ePn	Pn	05 06 52.1	+0.8
LTRZ	Laterza	5.98	320	Pn	Pn	05 06 53.0	-0.1
LTRZ				Sn	Sn	05 07 55.1	-6.5
LTRZ	Laterza	5.98	320	Pn	Pn	05 06 53.0	-0.1
VAE	Valguarnera	6.14	285	Sn	Sn	05 08 06.9	+1.4
	3.4nm,0.3s,baz=144,slow=19,SNR=2.5						
CUC	Castrocucco	6.14	311	ePn	Pn	05 06 56.8	+1.4
CUC				eSn	Sn	05 08 03.5	-2.1
CUC	Castrocucco	6.14	311	ePn	Pn	05 06 56.8	+1.4
CUC				eSn	Sn	05 08 03.5	-2.1
ULC	Ulcinj	6.17	342	⇑iPn	Pn	05 06 55.6	-0.2
ULC				eSn	Sn	05 08 03.1	-3.3
ULC	Ulcinj	6.17	342	⇑iPn	Pn	05 06 55.6	-0.2
SG1	Sgolgore (BA)	6.22	321	ePn	Pn	05 06 56.6	+0.1
BAI	Bari	6.32	323	ePn	Pn	05 06 59.0	+1.1
PTRP	Pietrapertosa	6.33	316	Pn	Pn	05 06 59.5	+1.5
	38nm,0.8s						
PTRP	Pietrapertosa	6.33	316	Pn	Pn	05 06 59.5	+1.5
	38nm,0.8s						
ACER	Acerenza	6.58	317	Pn	Pn	05 07 02.8	+1.5
	25nm,0.3s						
ACER	Acerenza	6.58	317	Pn	Pn	05 07 02.8	+1.5
	25nm,0.3s						
BUM	Brajici-Budva	6.58	340	⇑iPn	Pn	05 07 00.8	-0.6
BUM				eSn	Sn	05 08 12.4	-4.1
BUM	Brajici-Budva	6.58	340	⇑iPn	Pn	05 07 00.8	-0.6
PDG	Podgorica	6.61	343	⇑iPn	Pn	05 07 01.7	-0.1
TTG	Podgorica	6.61	343	⇑iPn	Pn	05 07 01.7	-0.1
TTG				eSn	Sn	05 08 14.2	-3.0
TTG	Podgorica	6.61	343	⇑iPn	Pn	05 07 01.7	-0.1
PVY	Plav	6.62	348	⇑iPn	Pn	05 07 03.3	+1.3
PVY				eSn	Sn	05 08 17.0	-0.5
PVY	Plav	6.62	348	⇑iPn	Pn	05 07 03.3	+1.3
PVY				eSn	Sn	05 08 17.0	-0.5
BARS	Barje	6.68	360	iPn	Pn	05 07 03.8	+1.1
HCY	Herceg Novi	6.83	339	⇑iPn	Pn	05 07 03.3	-1.5
HCY				eSn	Sn	05 08 17.3	-5.3
HCY	Herceg Novi	6.83	339	⇑iPn	Pn	05 07 03.3	-1.5
BEY	Berane	6.91	348	⇓iPn	Pn	05 07 07.3	+1.5
BEY				eSn	Sn	05 08 23.7	-0.7
IVA	Berane	6.91	348	⇓iPn	Pn	05 07 07.3	+1.5
IVA				eSn	Sn	05 08 23.7	-0.7
IVA	Berane	6.91	348	⇓iPn	Pn	05 07 07.3	+1.5
IVA				eSn	Sn	05 08 23.7	-0.7
NKY	Niksic	7.04	342	⇑iPn	Pn	05 07 07.3	-0.3
NKY				eSn	Sn	05 08 24.1	-3.5
NKY	Niksic	7.04	342	⇑iPn	Pn	05 07 07.3	-0.3
BRY	Bratogost	7.24	340	⇓iPn	Pn	05 07 09.4	-1.0
BRY				eSn	Sn	05 08 27.6	-5.0
BRY	Bratogost	7.24	340	⇓iPn	Pn	05 07 09.4	-1.0
MS1	Monte Sant’Ang	7.24	322	ePn	Pn	05 07 11.0	+0.6
UPM	Unac-Piva	7.43	343	⇑iPn	Pn	05 07 13.0	0.0
UPM				eSn	Sn	05 08 33.5	-3.7
UPM	Unac-Piva	7.43	343	⇑iPn	Pn	05 07 13.0	0.0
PLE	Pljevlja	7.44	346	⇓iPn	Pn	05 07 14.4	+1.2
PLE				eSn	Sn	05 08 35.4	-2.2
PLE	Pljevlja	7.44	346	⇓iPn	Pn	05 07 14.4	+1.2
STON	Ston	7.47	336	ePn	Pn	05 07 14.0	+0.4
STON				Sn	Sn	05 08 30.2	-8.1
STON	Ston	7.47	336	ePn	Pn	05 07 14.0	+0.5
BOLS	Boljevac	7.69	0	ePn	Pn	05 07 16.3	-0.3
GRUS	Gruza	7.80	354	ePn	Pn	05 07 17.1	-1.0
BBLS	Lazići	7.96	347	ePn	Pn	05 07 19.0	-1.3
DIVS	Divibare	8.09	350	⇓iPn	Pn	05 07 21.4	-0.7
BRTR	Keskin Array B	9.96	65	Pn	Pn	05 07 46.0	-1.8
	0.1nm,0.3s,baz=240,slow=14,SNR=3.3						
NVLJ	Novalja	9.97	330	Sn	Sn	05 09 32.4	-7.5
BOJS	Bojanci	10.62	334	ePn	Pn	05 08 00.3	+3.6
BOJS				iSn	Sn	05 09 50.9	-4.8
JAVS	Javornik	11.39	331	ePn	Pn	05 08 08.1	+0.8
JAVS				iSn	Sn	05 10 05.6	-9.0
JAVS	Javornik	11.39	331	ePn	Pn	05 08 08.1	+0.8
PERS	Pernice	11.65	336	ePn	Pn	05 08 09.1	-1.8
PERS				eSn	Sn	05 10 15.8	-5.2
PERS	Pernice	11.65	336	ePn	Pn	05 08 09.1	-1.8
GERES	GERESS Array B	14.05	337	Pn	Pn	05 08 42.4	-1.3
	0.1nm,0.3s,baz=161,slow=12,SNR=2.6						
AKASG	Malin Array Be	15.50	18	Pn	Pn	05 09 00.9	-2.3
	0.2nm,0.3s,baz=208,slow=14,SNR=2.9						
MDT	Midelt	22.06	269	P	P	05 10 20.4	+0.8
	1.6nm,0.9s,mb3.5,baz=86,slow=6.1,SNR=3.9						
HFS	Hagfors	24.60	350	P	P	05 10 42.9	-1.7
	4.6nm,0.9s,mb4.0,baz=161,slow=9.2,SNR=5.4						
FINES	FINESS Array B	25.48	5	P	P	05 10 51.4	-1.2
	3.8nm,0.9s,mb3.9,baz=172,slow=11,SNR=3.0						
EKA	Eskdalemuir Ar	25.73	326	P	P	05 10 53.3	-1.6
	0.9nm,0.6s,mb3.5,baz=122,slow=9.1,SNR=5.0						
TORD	Torodi Ar. Bea	29.20	224	P	P	05 11 26.8	+0.4
	0.9nm,0.7s,mb3.6,baz=32,slow=8.9,SNR=7.9						
TORD				LR	LR	05 24 01.0	
	comp=Z,70nm,18.2s,MS3.3,baz=20,slow=38						
ARCES	ARCESS Array B	33.52	2	P	P	05 12 02.5	-1.5
	2.0nm,0.8s,mb4.1,baz=185,slow=8.6,SNR=8.1						
BVAR	Borovoye Array	37.65	48	P	P	05 12 39.1	-0.5
	0.4nm,0.5s,mb3.4,baz=258,slow=7.2,SNR=2.7						
KURK	Kurchatov	42.67	52	P	P	05 13 19.1	-2.1
	0.7nm,0.7s,mb3.5,baz=282,slow=8.6,SNR=3.8						
MKAR	Makanchi Array	45.48	57	P	P	05 13 42.3	-1.6
	0.4nm,0.5s,mb3.5,baz=272,slow=7.7,SNR=12						

MKAR	Makanchi Array	45.48	57	P	P	05 13 42.3	-1.5
ZALV	Zalesovo Beam	46.28	47	P	P	05 13 47.5	-2.6
	1.2nm,0.5s,mb4.1,baz=289,slow=9.0,SNR=4.5						
ZALV	Zalesovo Beam	46.28	47	P	P	05 13 47.5	-2.6
SONM	Songino Array	60.93	50	P	P	05 15 36.5	-1.0
	0.2nm,0.4s,mb3.6,baz=292,slow=9.8,SNR=3.1						
KMI	Kunming	68.63	74	P	P	05 16 29.5	+1.3
KMI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
KMI				LR	LR		
	comp=Z,54nm,25.7s,MS3.7						
CMAR	Chiang Mai Arr	69.11	82	P	P	05 16 30.4	-0.7
	comp=Z,0.6nm,0.3s,mb4.0,baz=300,slow=8.2,SNR=4.0						
YKA	Yellowknife Ar	75.68	341	P	P	05 17 09.1	-0.6
	comp=Z,0.3nm,0.7s,mb3.3,baz=36,slow=5.5,SNR=5.9						

ISCJB ***28*** *05:20:53.0±0.8, 30°.9S±0°.1×179°.9W±0°.3, h322^{km}±14^{km}, mb3.3/2, Error ellipse: s-maj=42.7km s-min=10.9km az=19.9*

IDC ***28*** *05:20:53.5±0.8, 30°.91S×179°.78W, h315^{km}±9^{km}, mb3.3/2, mb1 3.6/4, mb1mx3.2/17, mbtmp3.5/4, Error ellipse: s-maj=28.4km s-min=13.9km az=109.0*

NEIC ***28*** *05:20:54.2±0.9, 30°.89S×179°.88W, h326^{km}±11^{km}, Error ellipse: s-maj=37.7km s-min=11.6km az=111.0*

ISC 28 05:20:54.0±0.8, **30°.9S**±0°.1×**180°.0W**±0°.3, **h308**^{km}±14^{km}, **n22, σ1^{s}.27**/16, **mb3.4**/2, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	2.42	47	P	Pn	05 21 45.5	+0.5
	62nm,0.3s,baz=217,slow=20,SNR=4.6						
RAO				S	S	05 22 24.7	-1.0
	110nm,0.3s,baz=246,slow=20,SNR=5.6						
MXZ	Matakaoa Point	6.79	192	P	Pn	05 22 35.8	+3.0
PUZ	Puketiti	7.29	191	P	Pn	05 22 41.3	+2.4
PUZ				S	S	05 23 59.1	-4.8
URZ	Urewera	7.72	197	P	Pn	05 22 45.1	+1.0
	3.4nm,0.3s,baz=66,slow=20,SNR=23						
URZ				S	S	05 24 12.1	-1.2
	7.6nm,0.3s,baz=50,slow=16,SNR=24						
URZ	Urewera	7.72	197	P	Pn	05 22 46.2	+2.1
KNZ	Kokohu	8.32	193	P	Pn	05 22 53.3	+1.9
BFZ	Birch Farm	10.22	197	P	Pn	05 23 14.7	+0.1
MRZ	Mangatainoka R	10.38	199	P	Pn	05 23 15.4	-1.1
KIW	Kapiti Island	10.77	201	P	Pn	05 23 20.2	-1.0
CAW	Cannon Point	10.94	200	P	Pn	05 23 22.5	-0.9
KHZ	Kahutara	12.61	203	P	Pn	05 23 42.4	-1.1
WRA	Warramunga Arr	42.45	274	P	P	05 28 19.8	+0.3
	0.5nm,0.3s,mb3.2,baz=111,slow=8.0,SNR=9.2						
QSPA	South Pole Qui	59.20	180	P	P	05 30 22.2	-0.4
	1.4nm,0.6s,mb3.6,baz=127,slow=18,SNR=10						
MKAR	Makanchi Array	116.82	310	PKP	PKPdf	05 38 59.7	-1.9
	0.1nm,0.5s,baz=96,slow=1.4,SNR=3.3						
FINES	FINESS Array B	145.03	338	PKPbc	PKPbc	05 39 52.4	-1.6
	2.9nm,0.5s,baz=53,slow=4.0,SNR=18						
FINES	FINESS Array B	145.03	338	PKPbc	PKPbc	05 39 52.4	-1.6
NOA	NORSAR Array B	148.97	349	PKPbc	PKPbc	05 40 03.1	-1.7
	1.1nm,0.8s,baz=18,slow=4.2,SNR=3.3						
HFS	Hagfors	149.38	347	PKPbc	PKPbc	05 40 04.0	-1.8
	1.1nm,0.6s,baz=49,slow=6.7,SNR=4.4						
AKASG	Malin Array Be	150.66	321	PKPbc	PKPbc	05 40 07.7	-1.5
	0.6nm,0.4s,baz=50,slow=3.5,SNR=3.9						
BRTR	Keskin Array B	151.35	297	PKPbc	PKPbc	05 40 09.5	-1.7
	0.5nm,0.6s,baz=113,slow=3.9,SNR=2.7						
BRTR	Keskin Array B	151.35	297	PKPbc	PKPbc	05 40 09.5	-1.7
TORD	Torodi Ar. Bea	162.25	185	PKPab	PKPab	05 41 06.6	-1.4
	0.1nm,0.4s,baz=173,slow=4.7,SNR=3.8						

DDA ***28*** *05:34:12.9, 39°.42N×26°.30E, h7^{km}±2^{km}, Md2.7*

ISCJB ***28*** *05:34:13.1±0.6, 39°.40N±0°.03×26°.28E±0°.04, h6^{km}±6^{km}, Error ellipse: s-maj=5.4km s-min=4.9km az=173.6*

CSEM ***28*** *05:34:13.0±0.1, 39°.39N×26°.30E, h8^{km}, ML2.6/4, Error ellipse: s-maj=2.6km s-min=2.2km az=151.0*

THE ***28*** *05:34:13.8, 39°.36N×26°.27E, h10^{km}±1^{km}, ML2.6/4, Error ellipse: s-maj=1.6km s-min=0.5km az=206.0*

ISC 28 05:34:13.3±0.5, **39°.40N**±0°.03×**26°.29E**±0°.04, **h8**^{km}±8^{km}, **n15, σ0^{s}.37**/28, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.15	185	P	Pg	05 34 16.4	-0.2
PRK				S	Sg	05 34 19.1	+0.4
PRK	Paraskevi	0.15	185	P	Pg	05 34 16.4	-0.2
PRK				S	Sg	05 34 19.1	+0.4
AYVA	Ayvalik	0.33	106	*e*P	Pg	05 34 19.5	-0.2
AYVA				*i* S	Sg	05 34 24.2	+0.2
AYVA	Ayvalik	0.33	106	*e*P	Pg	05 34 19.5	-0.2
AYVA				*i* S	Sg	05 34 24.2	+0.2
SIGR	SIGRI	0.38	241	P	Pg	05 34 20.8	0.0
SIGR				S	Sg	05 34 26.5	+0.6
SIGR	SIGRI	0.38	241	P	Pg	05 34 20.8	0.0
SIGR				S	Sg	05 34 26.5	+0.6
BOZC	Bozcaada	0.48	338	*i* P	Pg	05 34 22.4	-0.2
BOZC				*i* S	Sg	05 34 28.9	0.0
LIA	Limnos Island	0.99	301	P	Pg	05 34 32.1	-0.2
LIA	Limnos Island	0.99	301	P	Pg	05 34 32.1	-0.2
CHOS	Chios island	1.03	190	P	Pg	05 34 32.4	-0.6
CHOS				S	Sg	05 34 46.3	0.0
CHOS	Chios island	1.03	190	P	Pg	05 34 32.4	-0.6
CHOS				S	Sg	05 34 46.3	0.0
BALY	Balya	1.08	71	*i* P	Pg	05 34 33.8	-0.4
BALY				*i* S	Sg	05 34 48.8	+0.5
BALY	Balya	1.08	71	*i* P	Pg	05 34 33.8	-0.4
BALY				*i* S	Sg	05 34 48.8	+0.6
ALN	Alexandroupoli	1.51	353	P	Pn	05 34 40.2	-0.4
ALN				S	Sn	05 35 01.0	+0.6
ALN	Alexandroupoli	1.51	353	P	Pn	05 34 40.2	-0.4
ALN				S	Sn	05 35 01.0	+0.6

ISCJB ***28*** *06:30:37.0±1.3, 11°.39N±0°.07×125°.5E±0°.1, h75^{km}±11^{km}, mb4.2/18, Error ellipse: s-maj=22.6km s-min=8.2km az=157.8*

NEIC ***28*** *06:30:36.2±0.4, 11°.30N×125°.40E, mb4.6/4, Error ellipse: s-maj=28.2km s-min=9.0km az=66.0*

NEIC Felt [III PIVS] at Borongan. Felt [II PIVS] at Tacloban, Leyte.

IDC ***28*** *06:30:36.3±0.7, 11°.34N×125°.40E, h54^{km}±6^{km}, mb3.9/13, mb1 4.0/13, mb1mx3.9/22, mbtmp3.9/13, MS3.1/1, Ms1 3.1/1, ms1mx2.6/34, Error ellipse: s-maj=35.1km s-min=11.7km az=68.0*

MAN ***28*** *06:30:37, 11°.47N×125°.44E, h50^{km}, mb5.1, ML4.0, MS4.1*

MAN INTENSITY III - BORONGAN EASTERN SAMAR; PALO LEYTE; INTENSITY II - TACLOBAN LEYTE.

ISC 28 06:30:37.8±1.3, **11°.40N**±0°.07×**125°.5E**±0°.1, **h65**^{km}±12^{km}, **h55**^{km}±1.4^{km}**:pP-P, n34, σ0^{s}.86**/34, **mb4.2**/18, **1C-4D, Samar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLP	Palo	0.56	245⇓	*i*P	Pn	06 30 48.7	-2.0
PLP				*i* S	Sn	06 30 56.3	-4.0
SCPH	Surigao	1.61	180⇑	*e*P	Pn	06 31 03.9	-0.2
SCPH				*e*S	Sn	06 31 24.0	+0.1
LLP	Lapu-Lapu	1.85	235⇓	*e*P	Pn	06 31 06.7	-0.6
LLP				*e*S	Sn	06 31 22.8	-6.9
MMPH	Masbate	2.06	298	*e*P	Pn	06 31 10.9	+0.7
TBP	Tagbilaran	2.34	224	*e*P	Pn	06 31 14.0	+0.1
RCP	Roxas	2.70	274⇓	*i*P	Pn	06 31 19.1	+0.2
CGP	Cagayan de Oro	3.03	195⇓	*e*P	Pn	06 31 24.4	+1.0
CGP				*e*S	Sn	06 32 00.5	+2.0
DAV	Davao City (W)	4.30	179	LR	LR	06 33 40.6	
	comp=Z,229nm,18.2s,baz=139,slow=43						
KSRS	Korea Array	26.03	4	P	P	06 36 05.3	+0.5
	1.9nm,0.8s,mb3.6,baz=184,slow=12,SNR=6.3						
CMAR	Chiang Mai Arr	26.58	288	P	P	06 36 09.8	-0.2
	2.6nm,0.5s,mb4.0,baz=102,slow=7.3,SNR=11						
WRA	Warramunga Arr	32.34	164	P	P	06 36 59.7	-1.2
	0.3nm,0.4s,mb3.4,baz=345,slow=9.3,SNR=2.6						
WRA				pP	pP	06 37 12.8	-4.1
	0.9nm,0.6s,baz=348,slow=9.3,SNR=3.3						
WRA				PcP	PcP	06 39 47.2	-0.5
	1.0nm,0.6s,baz=342,slow=3.0,SNR=5.9						
ASAR	Alice Springs	35.81	167	P	P	06 37 30.2	-0.8
	1.3nm,0.4s,mb4.2,baz=350,slow=8.4,SNR=21						
ASAR				pP	pP	06 37 44.6	-2.5
	1.2nm,0.4s,baz=350,slow=7.4,SNR=6.8						
ASAR				PcP	PcP	06 39 56.9	-0.6
	0.8nm,0.4s,baz=356,slow=3.7,SNR=7.1						
ASAR				pPcP		06 40 12.4	
	0.6nm,0.6s,baz=348,slow=2.4,SNR=5.2						
GTA	Gaotai	36.02	325	*e*P	P	06 37 33.5	+0.8
GTA				pP	pP	06 37 37.0	-12
GTA				sP	sP	06 37 38.8	-18
GTA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
ULN	Ulaanbaatar	39.51	340	*e*P	P	06 38 03.3	+1.3
	comp=Z,8.9nm,0.8s,mb4.7						
SONM	Songino Array	39.70	340	P	P	06 38 04.7	+1.1
	comp=Z,4.3nm,0.7s,mb4.4,baz=158,slow=9.4,SNR=35						
SONM				PcP	PcP	06 40 08.3	-0.8
	comp=Z,0.3nm,0.5s,baz=165,slow=3.4,SNR=2.6						
TLY	Talaya	43.92	340	*e*P	P	06 38 39.1	+1.2
	comp=Z,8.8nm,0.8s,mb4.5						
STKA	Stephens Creek	45.71	161	P	P	06 38 52.7	+0.3
	comp=Z,2.9nm,0.5s,mb4.3,baz=343,slow=9.2,SNR=10						
STKA				pP	pP	06 39 06.5	-2.5
	comp=Z,4.1nm,0.7s,baz=323,slow=3.5,SNR=4.9						
STKA	Stephens Creek	45.71	161	P	P	06 38 52.7	+0.3
STKA				pP	pP	06 39 06.5	-2.5
MK31	Makanchi Array	50.67	323	*e*P	P	06 39 31.0	+0.4
MKAR	Makanchi Array	50.67	323	P	P	06 39 30.8	+0.3
	comp=Z,2.8nm,0.6s,mb4.5,baz=120,slow=8.0,SNR=45						
ZAA0	Zalesovo Array	53.28	331	*e*P	P	06 39 49.4	-0.4
ZALV	Zalesovo Beam	53.28	331	P	P	06 39 49.6	-0.1
	comp=Z,2.6nm,0.8s,mb4.3,baz=110,slow=8.1,SNR=9.9						
KURK	Kurchatov	54.71	325	*e*P	P	06 40 00.5	+0.2
	comp=Z,8.1nm,1.0s,mb4.7						
BRVK	Borovoye	60.38	325	*e*P	P	06 40 39.3	-0.8
	comp=Z,3.1nm,0.8s,mb4.4						
AKTK	Aktyubinsk	66.97	320	P	P	06 41 23.2	-0.4
AKTO	Aktyubinsk	66.97	320	P	P	06 41 23.2	-0.4
	comp=Z,0.5nm,0.4s,mb3.7,baz=75,slow=16,SNR=3.2						
ARCES	ARCESS Array B	82.88	340	P	P	06 42 53.7	-1.2
	comp=Z,1.3nm,0.5s,mb4.0,baz=82,slow=5.6,SNR=12						
ARCES				pP	pP	06 43 09.6	-3.4
	comp=Z,2.3nm,0.8s,baz=76,slow=5.1,SNR=1.8						
FINES	FINESS Array B	84.54	332	P	P	06 43 03.0	-0.6
	comp=Z,2.6nm,0.6s,mb4.3,baz=81,slow=3.9,SNR=9.0						
AKASG	Malin Array Be	85.21	321	P	P	06 43 05.7	-1.4
	comp=Z,2.6nm,0.7s,mb4.2,baz=65,slow=4.8,SNR=9.0						
AKASG	Malin Array Be	85.21	321	P	P	06 43 05.7	-1.4
YKA	Yellowknife Ar	93.04	24	P	P	06 43 44.6	+0.6
	comp=Z,0.3nm,0.6s,mb3.8,baz=299,slow=4.6,SNR=10						
TORD	Torodi Ar. Bea	119.14	292	PKP	PKPdf	06 49 18.8	-1.5
	comp=Z,0.2nm,0.3s,baz=91,slow=2.1,SNR=4.6						
TORD	Torodi Ar. Bea	119.14	292	PKP	PKPdf	06 49 18.8	-1.5
PLCA	Paso Flores	147.54	157	PKPbc	PKPbc	06 50 15.1	+0.2
	comp=Z,3.3nm,0.8s,baz=104,slow=0.8,SNR=8.8						
PLCA				pPKPbc	pPKPbc	06 50 30.9	-2.8
	comp=Z,1.7nm,0.8s,baz=277,slow=3.2,SNR=2.7						

IDC ***28*** *06:33:56.2±0.8, 18°.52N×144°.71E, h0^{km}, mb4.1/13, mb1 4.2/14, mb1mx4.1/24, mbtmp4.1/14, ML3.2/1, MS3.5/10, Ms1 3.5/10, ms1mx3.2/31, Error ellipse: s-maj=28.7km s-min=18.1km az=85.0*

NEIC ***28*** *06:33:57.7±0.4, 18°.48N×144°.71E, h10^{km}, mb4.7/5, Error ellipse: s-maj=14.6km s-min=8.7km az=89.0*

ISCJB ***28*** *06:33:58.2±7.6, 18°.48N±0°.09×144°.6E±0°.2, h23^{km}±53^{km}, mb4.2/18, MS3.5/8, Error ellipse: s-maj=26.8km s-min=14.6km az=176.8*

ISC 28 06:33:59.8±7.6, **18°.49N**±0°.09×**144°.7E**±0°.2, **h22**^{km}±53^{km}, **n32, σ0^{s}.55**/23, **mb4.2**/18, **MS3.5**/8, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOW	Kunigami	17.26	302	LR	LR	06 43 32.7	
	comp=Z,94nm,19.9s,baz=108,slow=33						
MJAR	Matsushiro Arr	18.87	344	P	Pn	06 38 18.6	-0.6
	0.1nm,0.3s,baz=161,slow=7.7,SNR=3.1						
MJAR				LR	LR	06 45 02.2	
	comp=Z,102nm,20.5s,baz=175,slow=35						
DAV	Davao City (W)	21.79	241	LR	LR	06 45 56.2	
	comp=Z,146nm,19.4s,MS3.4,baz=22,slow=33						
KSRS	Korea Array	23.93	326	P	P	06 39 12.6	+0.3
	2.8nm,0.8s,mb3.7,baz=147,slow=9.7,SNR=10						
KSRS				LR	LR	06 48 13.0	
	comp=Z,19nm,19.1s,MS2.6,baz=125,slow=36						
WRAB	Tennant Creek	39.51	195	*e*P	P	06 41 28.7	-0.2
	18nm,1.3s,mb4.6						
WRA	Warramunga Arr	39.52	195	P	P	06 41 28.9	-0.1
	1.2nm,0.7s,mb3.7,baz=17,slow=9.3,SNR=5.4						
FITZ	Fitzroy Crossi	40.90	208	LR	LR	06 55 49.3	
	comp=Z,45nm,21.5s,MS3.3,baz=19,slow=32						
SONM	Songino Array	42.71	322	P	P	06 41 55.9	+0.8
	0.6nm,0.7s,mb3.4,baz=142,slow=8.6,SNR=4.8						
ASAR	Alice Springs	43.20	195	P	P	06 41 59.5	+0.3
	0.6nm,0.6s,mb3.5,baz=12,slow=9.5,SNR=8.0						
ASAR				PcP	PcP	06 43 49.8	+1.3
	0.7nm,0.9s,baz=34,slow=1.8,SNR=4.5						
CMAR	Chiang Mai Arr	43.29	278	LR	LR	06 57 52.0	
	comp=Z,36nm,18.6s,MS3.3,baz=230,slow=33						
STKA	Stephens Creek	50.16	183	LR	LR	07 03 37.3	
	comp=Z,85nm,18.9s,MS3.8,baz=205,slow=36						
ZALV	Zalesovo Beam	57.60	323	P	P	06 43 47.8	0.0
	5.2nm,0.8s,mb4.6,baz=99,slow=7.7,SNR=14						
MKAR	Makanchi Array	57.92	314	P	P	06 43 50.8	+0.6
	2.6nm,0.8s,mb4.3,baz=94,slow=9.1,SNR=22						
MKAR				PcP	PcP	06 44 41.7	-0.6
	0.7nm,0.8s,baz=88,slow=4.1,SNR=2.7						
MKAR	Makanchi Array	57.92	314	P	P	06 43 50.8	+0.6
MKAR				PcP	PcP	06 44 41.7	-0.6
KURK	Kurchatov	60.79	318	*e*P	P	06 44 10.5	+0.6
	10nm,1.0s,mb4.9						
BRVK	Borovoye	66.09	321	*e*P	P	06 44 45.9	+0.9
	8.8nm,0.4s,mb5.1						
INK	Inuvik	69.94	23	P	P	06 45 08.6	-0.4
	2.8nm,0.9s,mb4.2,baz=276,slow=7.3,SNR=6.1						
INK	Inuvik	69.94	23	P	P	06 45 08.6	-0.4
AKTK	Aktyubinsk	73.88	318	P	P	06 45 32.5	-0.4
AKTO	Aktyubinsk	73.88	318	P	P	06 45 32.5	-0.4
	1.0nm,0.6s,mb3.9,baz=82,slow=9.6,SNR=3.6						
PPT	Papeete	73.89	115	LR	LR	07 16 40.3	
	comp=Z,111nm,18.3s,MS4.2,baz=314,slow=35						
YKA	Yellowknife Ar	78.62	28	P	P	06 45 59.7	+0.1
	1.9nm,0.7s,mb4.2,baz=291,slow=5.5,SNR=35						
YKA				LR	LR	07 25 07.7	
	comp=Z,60nm,18.3s,MS4.0,baz=355,slow=39						
YKA	Yellowknife Ar	78.62	28	P	P	06 45 59.7	+0.1
YKA				LR	LR	07 25 07.7	
ARCES	ARCESS Array B	82.40	342	P	P	06 46 19.1	-0.6
	1.9nm,0.9s,mb4.0,baz=35,slow=4.4,SNR=4.7						
NVAR	Mina Array Bea	84.02	52	P	P	06 46 29.6	+0.9
	0.9nm,0.7s,mb4.0,baz=283,slow=5.9,SNR=6.9						
M13A	Montello	86.02	48	*e*P	P	06 46 38.8	+0.1
	1.9nm,1.0s,mb4.3						
FINES	FINESS Array B	86.67	335	P	P	06 46 40.4	-1.2
	4.9nm,1.0s,mb4.7,baz=95,slow=3.2,SNR=5.7						
FFC	Flin Flon	87.78	32	*e*P	P	06 46 47.2	+0.2
	4.0nm,1.0s,mb4.6						
NOA	NORSAR Array B	92.43	339	LR	LR	07 29 27.5	
	comp=Z,34nm,20.4s,MS3.8,baz=175,slow=36						
BRTR	Keskin Array B	93.57	314	P	P	06 47 13.6	-0.8
	1.4nm,0.8s,mb4.5,baz=64,slow=6.7,SNR=6.8						
JTS	JuntasAbangare	123.29	64	*e*PKPdf	PKPdf	06 52 59.5	+3.6
TORD	Torodi Ar. Bea	131.84	308	PKP	PKPdf	06 53 12.6	+0.4
	0.2nm,0.8s,baz=29,slow=1.5,SNR=4.3						

ISCJB ***28*** *06:35:53.2±0.5, 31°.42S±0°.04×69°.02W±0°.05, h120^{km}±5^{km}, mb3.6/5, Error ellipse: s-maj=7.3km s-min=6.4km az=2.7*

IDC ***28*** *06:35:53.9±1.2, 31°.44S×69°.10W, h111^{km}±11^{km}, mb3.5/5, mb1 3.6/7, mb1mx3.5/16, mbtmp3.4/7, Error ellipse: s-maj=32.0km s-min=27.2km az=19.0*

GUC ***28*** *06:35:54.7±1.0, 31°.48S×69°.31W, h145^{km}±25^{km}, MD4.3, ML4.1*

NEIC ***28*** *06:35:54.7, 31°.48S×69°.31W, h145^{km}, MD4.3(GUC), After GUC.*

ISC 28 06:35:54.2±0.5, **31°.41S**±0°.04×**69°.02W**±0°.05, **h114**^{km}±5^{km}, **n32, σ0^{s}.83**/38, **mb3.6**/5, **3C-2D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	0.70	106	P	Pn	06 36 13.4	+0.5
	14nm,0.3s,baz=302,slow=6.2,SNR=1792						
CFAA				S	Sn	06 36 27.5	+0.5
	baz=53,slow=20						
CFAA	Coronel Fontan	0.70	106	P	Pn	06 36 13.4	+0.5
CFAA				S	Sn	06 36 27.5	+0.5
CMCH	Combarbala	1.71	278⇓	*i*P	Pn	06 36 24.1	+0.3
CMCH				*i* S	Sn	06 36 47.0	+0.7
CMCH	Combarbala	1.71	278⇓	*i*P	Pn	06 36 24.1	+0.3
CMCH				*i* S	Sn	06 36 47.0	+0.7
CMCH				AML	AML	06 36 49.2	
	comp=E,10µm,0.8s						
OVCH	Ovalle	2.04	293⇑	*e*P	Pn	06 36 27.8	0.0
OVCH				*i* S	Sn	06 36 53.0	-0.5
OVCH	Ovalle	2.04	293⇑	*e*P	Pn	06 36 27.8	0.0
OVCH				*i* S	Sn	06 36 53.0	-0.5
CHNG	Los Chungos	2.17	257	*e*P	Pn	06 36 29.1	-0.4
CHNG				*i* S	Sn	06 36 54.5	-1.9
FCH	Farellones	2.19	209	*e*P	Pn	06 36 29.7	-0.1
FCH				*i* S	Sn	06 36 56.9	-0.1
PEL	Peldehue	2.23	219	*e*P	Pn	06 36 30.2	0.0
PEL				*i* S	Sn	06 36 57.2	-0.7
PEL				AML	AML	06 37 00.2	
	comp=N,570nm,0.5s						
ANTU	Antumapu	2.54	212	*e*P	Pn	06 36 35.1	+0.8
ANTU				*i* S	Sn	06 37 05.9	+0.7
ANTU	Antumapu	2.54	212	*e*P	Pn	06 36 35.1	+0.8
ANTU				*i* S	Sn	06 37 05.9	+0.7
ANTU				AML	AML	06 37 09.6	
	comp=E,372nm,0.4s						
LCO	Las Campanas	2.80	328⇑	*i*Pn	Pn	06 36 38.2	+0.5
LCO				*e*Sn	Sn	06 37 11.7	+0.5
CHCH	Chadas Angostu	2.86	208	*e*P	Pn	06 36 38.9	+0.4
CHCH	Chadas Angostu	2.86	208	*e*P	Pn	06 36 38.9	+0.4
CACH	El Canelo	3.00	206	*e*P	Pn	06 36 41.2	+0.9
CACH	El Canelo	3.00	206	*e*P	Pn	06 36 41.2	+0.9
LVC	Limon Verde	8.77	1	*e*Pn	Pn	06 37 48.3	-10
PLCA	Paso Flores	9.38	187	P	Pn	06 38 04.8	-1.5
	comp=E,0.1nm,0.3s,baz=2.3,slow=11,SNR=2.8						
CPUP	Villa Florida	11.43	67	P	Pn	06 38 32.0	-1.9
	comp=E,1.0nm,0.3s,baz=218,slow=9.2,SNR=8.1						
SIV	San Ignacio	16.98	27	P	Pn	06 39 43.4	-1.4
	comp=E,0.2nm,0.3s,baz=242,slow=9.5,SNR=3.9						
TXAR	Lajitas Array	68.81	328	P	P	06 46 47.1	+1.0
	comp=E,0.3nm,0.6s,mb3.3,baz=144,slow=6.1,SNR=6.6						
DBIC	Dimbokro	71.92	70	P	P	06 47 05.8	+0.4
	comp=E,1.2nm,0.5s,mb4.0,baz=197,slow=9.3,SNR=4.3						
TORD	Torodi Ar. Bea	80.92	69	P	P	06 47 56.6	+0.5
	comp=E,1.3nm,0.6s,mb3.9,baz=280,slow=6.3,SNR=15						
TORD				pP	pP	06 48 22.2	-3.1
	comp=E,0.3nm,0.4s,baz=247,slow=5.0,SNR=7.6						
TORD	Torodi Ar. Bea	80.92	69	P	P	06 47 56.6	+0.5
TORD				pP	pP	06 48 22.2	-3.1
PDAR	Pinedale Array	82.67	331	P	P	06 48 04.0	-0.6
	comp=E,0.2nm,0.5s,mb3.2,baz=162,slow=6.2,SNR=3.3						
NVAR	Mina Array Bea	83.28	323	P	P	06 48 08.8	+0.9
	comp=E,0.4nm,0.5s,mb3.5,baz=141,slow=7.3,SNR=3.7						
YKA	Yellowknife Ar	100.46	340	P	Pdif	06 49 25.4	-2.9
	comp=E,0.4nm,0.4s,baz=132,slow=4.8,SNR=15						
YKA	Yellowknife Ar	100.46	340	P	Pdif	06 49 25.4	-2.9
ZALV	Zalesovo Beam	150.69	32	PKPbc	PKPbc	06 55 33.0	+0.7
	comp=E,3.3nm,0.5s,baz=300,slow=3.3,SNR=13						
ZALV	Zalesovo Beam	150.69	32	PKPbc	PKPbc	06 55 33.0	+0.7
MKAR	Makanchi Array	153.15	47	PKPbc	PKPbc	06 55 38.1	0.0
	comp=E,0.7nm,0.8s,baz=308,slow=2.3,SNR=8.9						
MKAR				PKPab	PKPab	06 55 50.5	+0.2
	comp=E,0.7nm,0.6s,baz=296,slow=4.3,SNR=9.1						
MKAR	Makanchi Array	153.15	47	PKPbc	PKPbc	06 55 38.1	0.0
MKAR				PKPab	PKPab	06 55 50.5	+0.2

NEIC ***28*** *06:38:54.4, 36°.08N×21°.82E, h6^{km}, ML3.2(ATH), After ATH.*

ATH ***28*** *06:38:54.4, 36°.08N×21°.82E, h6^{km}±2^{km}, MD3.7/15, ML3.2*

CSEM ***28*** *06:38:55.9±0.7, 36°.09N×21°.95E, h2^{km}, ML3.7/3, Error ellipse: s-maj=17.2km s-min=7.6km az=46.0*

ISCJB ***28*** *06:38:57.4±0.7, 36°.17N±0°.04×21°.94E±0°.05, h10^{km}, Error ellipse: s-maj=6.6km s-min=4.5km az=143.3*

THE ***28*** *06:38:57.3, 36°.18N×22°.00E, h0^{km}±4^{km}, ML3.7/3, Error ellipse: s-maj=6.8km s-min=2.3km az=216.0*

ISC 28 06:38:57.7±0.7, **36°.15N**±0°.04×**21°.91E**±0°.05, **h10**^{km}**, n69, σ1^{s}.22**/86, **1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.76	350	P	Pg	06 39 09.5	-2.8
PYL	PYLOS	0.76	350	*e*PG	Pg	06 39 09.6	-2.7
PYL				*e*SB	Sg	06 39 21.2	-1.0
PYL	PYLOS	0.76	350	*e*Pg	Pg	06 39 09.6	-2.7
PYL				*e*Sb	Sg	06 39 21.2	-1.0
KYTH	Kithira	0.92	82	*e*PN	Pg	06 39 14.3	-1.2
KYTH	Kithira	0.92	82	*e*Pn	Pg	06 39 14.3	-1.2
VLI	Veliai	1.00	55	*e*PN	Pg	06 39 15.5	-1.5
VLI				*e*SB	Sg	06 39 30.2	+0.1
VLI	Veliai	1.00	55	*e*Pn	Pg	06 39 15.5	-1.5
VLI				*e*Sb	Sg	06 39 30.2	+0.1
ITM	Ithomi	1.03	1	*e*PB	Pg	06 39 15.2	-2.3
ITM				*e*SB	Sg	06 39 30.3	-0.6
ITM	Ithomi	1.03	1	*e*Pb	Pg	06 39 15.2	-2.3
ITM				*e*Sb	Sg	06 39 30.3	-0.6
VLX	Vlachokerasia	1.27	17	*e*PN	Pn	06 39 19.4	-2.2
VLX	Vlachokerasia	1.27	17	*e*Pn	Pn	06 39 19.4	-2.2
DID	Didima	1.72	38	P	Pn	06 39 27.2	-0.5
DID				S	Sn	06 39 49.6	-0.2
DID	Didima	1.72	38	*e*PG	Pn	06 39 27.9	+0.2
DID				*e*SN	Sg	06 39 53.4	+0.3
DID	Didima	1.72	38	*e*Pg	Pn	06 39 27.9	+0.2
DID				S	Sn	06 39 49.6	-0.2
DID				*e*Sn	Sg	06 39 53.4	+0.3
KARN	Karanos	1.80	114	P	Pn	06 39 27.9	-0.8
KARN	Karanos	1.80	114	*e*PG	Pn	06 39 27.7	-1.1
KARN	Karanos	1.80	114	*e*Pg	Pn	06 39 27.7	-1.1
GUR	Goura	1.81	11	*e*PN	Pn	06 39 29.1	+0.1
GUR	Goura	1.81	11	*e*Pn	Pn	06 39 29.1	+0.1
RLS	Riolos of Patr	1.94	350	*e*PN	Pn	06 39 30.5	-0.2
RLS	Riolos of Patr	1.94	350	*e*Pn	Pn	06 39 30.5	-0.2
VAM	Vamos	2.00	111	*e*PG	Pn	06 39 32.5	+0.9
VAM	Vamos	2.00	111	*e*Pg	Pn	06 39 32.5	+0.9
NAIG	Nisos Aigina	2.04	38	*e*PN	Pn	06 39 33.5	+1.3
NAIG	Nisos Aigina	2.04	38	*e*Pn	Pn	06 39 33.5	+1.3
LTK	Loutraki	2.05	24	P	Pn	06 39 32.2	-0.1
LTK	Loutraki	2.05	24	*e*PN	Pn	06 39 33.2	+0.9
LTK	Loutraki	2.05	24	*e*Pn	Pn	06 39 33.2	+0.9
LAKA	Lakka	2.09	2	P	Pn	06 39 32.9	+0.2
LAKA	Lakka	2.09	2	P	Pn	06 39 32.9	+0.2
TRIZ	Trizonia	2.21	3	P	Pn	06 39 34.5	0.0
TRIZ	Trizonia	2.21	3	P	Pn	06 39 34.5	0.0
KALE	Kalithea	2.24	5	P	Pn	06 39 35.7	+0.8
KALE	Kalithea	2.24	5	P	Pn	06 39 35.7	+0.8
EFP	Efpalio	2.27	360	*e*PN	Pn	06 39 36.3	+1.0
EFP	Efpalio	2.27	360	*e*Pn	Pn	06 39 36.3	+1.0
VLY	Voula,Athens	2.27	41	*e*PN	Pn	06 39 36.7	+1.4
VLY	Voula,Athens	2.27	41	*e*Pn	Pn	06 39 36.7	+1.4
VLS	Valsamata	2.28	333	*e*PN	Pn	06 39 34.8	-0.6
VLS	Valsamata	2.28	333	*e*Pn	Pn	06 39 34.8	-0.6
ATH	Athens Observa	2.32	38	*e*PN	Pn	06 39 37.6	+1.6
ATH	Athens Observa	2.32	38	*e*Pn	Pn	06 39 37.6	+1.6
PTL	Penteli	2.46	39	*e*PN	Pn	06 39 39.2	+1.4
PTL	Penteli	2.46	39	*e*Pn	Pn	06 39 39.2	+1.4
IDI	Anoyia	2.57	109	*e*PB	Pn	06 39 38.7	-0.8
IDI	Anoyia	2.57	109	*e*Pb	Pn	06 39 38.7	-0.8
SIVA	Sivas	2.62	115	*e*PN	Pn	06 39 40.0	-0.1
SIVA	Sivas	2.62	115	*e*Pn	Pn	06 39 40.0	-0.1
LKR	Lokris	2.64	19	P	Pn	06 39 39.6	-0.8
LKR				S	Sn	06 40 12.7	+0.2
LKR	Lokris	2.64	19	*e*PN	Pn	06 39 41.4	+1.0
LKR	Lokris	2.64	19	P	Pn	06 39 39.6	-0.8
LKR	Lokris	2.64	19	*e*Pn	Pn	06 39 41.4	+1.0
LKR				S	Sn	06 40 12.7	+0.2
LKD	Levkas	2.74	339	P	Pn	06 39 42.1	+0.4
LKD				S	Sn	06 40 17.3	+2.4
LKD	Levkas	2.74	339	P	Pn	06 39 42.1	+0.4
LKD				S	Sn	06 40 17.3	+2.4
EVR	Evrytania	2.76	358	*e*PN	Pn	06 39 43.5	+1.5
EVR	Evrytania	2.76	358	*e*Pn	Pn	06 39 43.5	+1.5
AGG	Agios Georgios	2.89	7	P	Pn	06 39 43.1	-0.6
AGG				S	Sn	06 40 20.4	+1.9
AGG	Agios Georgios	2.89	7	*e*PN	Pn	06 39 44.8	+1.1
AGG	Agios Georgios	2.89	7	P	Pn	06 39 43.1	-0.6
AGG	Agios Georgios	2.89	7	*e*Pn	Pn	06 39 44.8	+1.1
AGG				S	Sn	06 40 20.4	+1.9
XOR	Xorichti	3.37	17	P	Pn	06 39 49.6	-0.7
XOR	Xorichti	3.37	17	P	Pn	06 39 49.6	-0.7
MEV	Metsovon	3.67	352	P	Pn	06 39 55.1	+0.6
MEV	Metsovon	3.67	352	P	Pn	06 39 55.1	+0.6
LIT	Litokhoron	3.97	6	*e*PN	Pn	06 40 00.3	+1.7
LIT	Litokhoron	3.97	6	*e*Pn	Pn	06 40 00.3	+1.7
KRUS	Krusevo	5.24	355	*e*Pn	Pn	06 40 13.2	-2.8
KRUS				*e*Sg	Sn	06 41 13.5	-2.9

KRUS	Krusevo	5.24	355	*e*Pn	Pn	06 40 13.2	-2.8
BARS	Barje	6.66	359	⇑*i*Pn	Pn	06 40 33.8	-1.7

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*NEIC **28** 06:46:53.1, 32°.29S×71°.84W, h32^{km}, ML3.6(GUC), After GUC.*

GUC 28 06:46:53.1±0.5**, 32°.29S×71°.84W, h32**^{km}±3^{km}**, MD4.1, ML3.6, 3C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHNG	Los Chungos	0.49	36	⇓*i*P	Pb	06 47 03.4	-0.1
CHNG				*i* S	Sb	06 47 10.9	+0.2
IHA	Instituto Hidr	0.76	167	*e*P	Pn	06 47 06.3	-1.2
IHA				*i* S	Sn	06 47 17.1	-0.8
IHA	Instituto Hidr	0.76	167	*e*P	Pn	06 47 06.3	-1.2
IHA				*i* S	Sn	06 47 17.1	-0.8
PEL	Peldehue	1.29	132	*e*P	Pn	06 47 15.5	+0.6
PEL				*i* S	Sn	06 47 33.1	+2.0
PEL				AML	AML	06 47 36.4	
	comp=N,2µm,0.2s						
CMCH	Combarbala	1.32	33	⇑*i*P	Pn	06 47 16.1	+0.8
CMCH				*i* S	Sn	06 47 33.7	+2.0
CMCH	Combarbala	1.32	33	⇑*i*P	Pn	06 47 16.1	+0.8
CMCH				*i* S	Sn	06 47 33.7	+2.0
CMCH				AML	AML	06 47 41.4	
	comp=N,4µm,0.6s						
ANTU	Antumapu	1.63	142	*e*P	Pn	06 47 21.3	+1.7
ANTU				*i* S	Sn	06 47 42.1	+2.7
ANTU	Antumapu	1.63	142	*e*P	Pn	06 47 21.3	+1.7
ANTU				*i* S	Sn	06 47 42.1	+2.7
ANTU				AML	AML	06 47 47.4	
	comp=N,614nm,0.5s						
OVCH	Ovalle	1.76	18	⇓*e*P	Pn	06 47 22.8	+1.5
OVCH				S	Sn	06 47 47.7	+5.1
OVCH	Ovalle	1.76	18	⇓*e*P	Pn	06 47 22.8	+1.5
OVCH				*i* S	Sn	06 47 47.7	+5.1
CHCH	Chadas Angostu	1.92	149	*e*P	Pn	06 47 25.0	+1.4
CHCH				*i* S	Sn	06 47 49.5	+2.9
CHCH	Chadas Angostu	1.92	149	*e*P	Pn	06 47 25.0	+1.4
CHCH				*i* S	Sn	06 47 49.5	+2.9
CACH	El Canelo	2.10	151	*e*P	Pn	06 47 28.5	+2.5
CACH				S	Sn	06 47 55.8	+4.8
CACH	El Canelo	2.10	151	*e*P	Pn	06 47 28.5	+2.5
CACH				*i* S	Sn	06 47 55.8	+4.8
LCO	Las Campanas	3.41	17	⇑*i*Pn	Pn	06 47 45.4	+1.3
LCO				*e*Sn	Sn	06 48 27.2	+3.9

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*CSEM **28** 07:00:38.6, 40°.42N×28°.37E, h7^{km}, MD2.8*

*DDA **28** 07:00:38.6, 40°.42N×28°.37E, h7^{km}±6^{km}, Md2.8*

ISC 28 07:00:39.1±2.6**, 40°.39N**±0°.09×**28°.4E**±0°.1**, h12**^{km}±15^{km}**, n6, σ0^{s}15**/11**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCT	Karacabey	0.13	178	*e*PG	Pg	07 00 42.3	0.0
KCT				*e*SG	Sg	07 00 44.5	0.0
ULDT	Uludag	0.65	112	*i* P	Pg	07 00 51.6	-0.2
ULDT				*i* S	Sg	07 01 00.3	0.0
ULDT	Uludag	0.65	112	*i* P	Pg	07 00 51.6	-0.2
ULDT				*i* S	Sg	07 01 00.3	-0.1
DURS	Dursunbey	0.80	173	*i* P	Pg	07 00 54.4	-0.2
DURS				*i* S	Sg	07 01 05.2	+0.2
DURS	Dursunbey	0.80	173	*i* P	Pg	07 00 54.4	-0.2
DURS				*i* S	Sg	07 01 05.2	+0.2
YLV	Yalova	0.80	77	*e*PG	Pg	07 00 54.8	+0.2

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*IDC **28** 07:17:15.6±1.5, 36°.78N×21°.35E, h0^{km}, mb3.6/5, mb1 3.6/6, mb1mx3.4/26, mbtmp3.6/6, ML2.5/1, Error ellipse: s-maj=137.5km s-min=22.2km az=138.0*

*NEIC **28** 07:17:18.0, 36°.04N×21°.90E, h5^{km}, MD3.8(ATH), After ATH.*

*ATH **28** 07:17:18.0, 36°.04N×21°.90E, h5^{km}, MD3.8/8*

*ISCJB **28** 07:17:19.4±0.6, 36°.04N±0°.03×21°.80E±0°.05, h10^{km}, mb3.6/5, Error ellipse: s-maj=6.5km s-min=4.5km az=155.8*

*THE **28** 07:17:20.0, 36°.10N×21°.86E, h0^{km}±4^{km}, ML3.9/3, Error ellipse: s-maj=7.7km s-min=2.2km az=227.0*

*CSEM **28** 07:17:20.1±0.5, 36°.13N×21°.89E, h2^{km}, ML3.9/3, Error ellipse: s-maj=10.2km s-min=6.4km az=46.0*

ISC 28 07:17:20.7±0.6**, 36°.06N**±0°.03×**21°.90E**±0°.05**, h10**^{km}**, n76, σ1^{s}39**/93**, mb3.6**/5**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.84	351	P	Pg	07 17 33.2	-3.8
PYL	PYLOS	0.84	351	*e*PG	Pg	07 17 33.8	-3.2
PYL				*e*SB	Sg	07 17 46.6	-1.4
PYL	PYLOS	0.84	351	P	Pg	07 17 33.2	-3.8
PYL	PYLOS	0.84	351	*e*Pg	Pg	07 17 33.8	-3.2
PYL				*e*Sb	Sg	07 17 46.6	-1.4
KYTH	Kithira	0.95	76	*e*PN	Pg	07 17 36.5	-2.4
KYTH	Kithira	0.95	76	*e*Pn	Pg	07 17 36.5	-2.4
VLI	Veliai	1.06	52	*e*PB	Pg	07 17 38.8	-2.4
VLI				*e*SB	Sg	07 17 53.5	-1.5
VLI	Veliai	1.06	52	*e*Pb	Pg	07 17 38.8	-2.4
VLI				*e*Sb	Sg	07 17 53.5	-1.5
ITM	Ithomi	1.12	1	*e*PG	Pg	07 17 39.1	-3.1
ITM				*e*SB	Sg	07 17 55.7	-1.0
ITM	Ithomi	1.12	1	*e*Pg	Pg	07 17 39.1	-3.1
ITM				*e*Sb	Sg	07 17 55.7	-1.0
VLX	Vlachokerasia	1.36	16	*e*PN	Pn	07 17 43.2	-2.6
VLX				*e*SB	Sb	07 18 03.7	-0.1
VLX	Vlachokerasia	1.36	16	*e*Pn	Pn	07 17 43.2	-2.6
VLX				*e*Sb	Sb	07 18 03.7	-0.1
KARN	Karanos	1.77	111	P	Pn	07 17 51.0	-0.3
KARN	Karanos	1.77	111	P	Pn	07 17 51.0	-0.3
DID	Didima	1.80	36	P	Pn	07 17 51.1	-0.7
DID				S	Sn	07 18 15.7	+1.0
DID	Didima	1.80	36	*e*PG	Pn	07 17 51.8	0.0
DID	Didima	1.80	36	P	Pn	07 17 51.1	-0.7
DID	Didima	1.80	36	*e*Pg	Pn	07 17 51.8	0.0
DID				S	Sn	07 18 15.7	+1.0
GUR	Goura	1.91	11	*e*PN	Pn	07 17 54.5	+1.3
GUR	Goura	1.91	11	*e*Pn	Pn	07 17 54.5	+1.3
VAM	Vamos	1.98	109	*e*PG	Pn	07 17 53.5	-0.8
VAM	Vamos	1.98	109	*e*Pg	Pn	07 17 53.5	-0.8
RLS	Riolos of Patr	2.02	350	*e*PG	Pn	07 17 56.8	+1.9
RLS	Riolos of Patr	2.02	350	*e*Pg	Pn	07 17 56.8	+1.9
NAIG	Nisos Aigina	2.12	36	*e*PG	Pn	07 17 58.6	+2.4
NAIG	Nisos Aigina	2.12	36	*e*Pg	Pn	07 17 58.6	+2.4
LTK	Loutraki	2.14	23	P	Pn	07 17 56.6	+0.2
LTK	Loutraki	2.14	23	*e*PG	Pn	07 17 59.2	+2.8
LTK	Loutraki	2.14	23	P	Pn	07 17 56.6	+0.2
LTK	Loutraki	2.14	23	*e*Pg	Pn	07 17 59.2	+2.8
LAKA	Lakka	2.18	2	P	Pn	07 17 56.3	-0.7
LAKA	Lakka	2.18	2	P	Pn	07 17 56.3	-0.7
TRIZ	Trizonia	2.31	3	P	Pn	07 17 59.4	+0.7
TRIZ	Trizonia	2.31	3	P	Pn	07 17 59.4	+0.7
KALE	Kalithea	2.33	5	P	Pn	07 17 59.3	+0.2
KALE	Kalithea	2.33	5	P	Pn	07 17 59.3	+0.2
VLY	Voula,Athens	2.35	40	*e*PG	Pn	07 18 01.6	+2.3
VLY	Voula,Athens	2.35	40	*e*Pg	Pn	07 18 01.6	+2.3
VLS	Valsamata	2.36	334	*e*PN	Pn	07 17 59.9	+0.4
VLS	Valsamata	2.36	334	*e*Pn	Pn	07 17 59.9	+0.4
EFP	Efpalio	2.36	0	*e*PG	Pn	07 18 01.6	+2.1
EFP	Efpalio	2.36	0	*e*Pg	Pn	07 18 01.6	+2.1
PTL	Penteli	2.53	38	*e*PN	Pn	07 18 02.5	+0.6
PTL	Penteli	2.53	38	*e*Pn	Pn	07 18 02.5	+0.6
SIVA	Sivas	2.59	113	P	Pn	07 18 04.6	+1.9
SIVA	Sivas	2.59	113	P	Pn	07 18 04.6	+1.9
LKR	Lokris	2.73	18	P	Pn	07 18 04.7	+0.1
LKR				S	Sn	07 18 38.3	+0.7
LKR	Lokris	2.73	18	*e*PN	Pn	07 18 06.9	+2.3
LKR	Lokris	2.73	18	P	Pn	07 18 04.7	+0.1
LKR	Lokris	2.73	18	*e*Pn	Pn	07 18 06.9	+2.3
LKR				S	Sn	07 18 38.3	+0.7
LKD	Levkas	2.82	340	P	Pn	07 18 04.8	-1.1
LKD				S	Sn	07 18 40.3	+0.4
LKD	Levkas	2.82	340	P	Pn	07 18 04.8	-1.1
LKD				S	Sn	07 18 40.3	+0.4
AGG	Agios Georgios	2.98	6	P	Pn	07 18 08.1	+0.1
AGG				S	Sn	07 18 45.4	+1.7
AGG	Agios Georgios	2.98	6	*e*PN	Pn	07 18 10.4	+2.4
AGG	Agios Georgios	2.98	6	P	Pn	07 18 08.1	+0.1
AGG	Agios Georgios	2.98	6	*e*Pn	Pn	07 18 10.4	+2.4
AGG				S	Sn	07 18 45.4	+1.7
LAST	Lasithi	3.05	106	P	Pn	07 18 08.8	-0.2
LAST	Lasithi	3.05	106	P	Pn	07 18 08.8	-0.2
NPS	Neapolis	3.13	104	*e*PN	Pn	07 18 11.5	+1.5
NPS	Neapolis	3.13	104	*e*Pn	Pn	07 18 11.5	+1.5
JAN	Janina	3.69	347	*e*PN	Pn	07 18 19.0	+1.3
JAN	Janina	3.69	347	*e*Pn	Pn	07 18 19.0	+1.3
KEK	Kerkira	4.01	336	*e*PN	Pn	07 18 21.9	-0.2
KEK	Kerkira	4.01	336	*e*Pn	Pn	07 18 21.9	-0.2
TIP	Timpagrande	5.13	309	*e*Pn	Pn	07 18 36.4	-1.2
	6.8nm,0.8s						
TIP	Timpagrande	5.13	309	*e*Pn	Pn	07 18 36.4	-1.2
	6.8nm,0.8s						
KRUS	Krusevo	5.33	355	*e*Pn	Pn	07 18 39.4	-0.8
KRUS				*e*Pn	Sn	07 19 36.8	-4.9
KRUS	Krusevo	5.33	355	*e*Pn	Pn	07 18 39.4	-0.8
CUC	Castrocucco	6.20	311	*e*Pn	Pn	07 18 51.5	-0.7
	12nm,0.6s						
CUC	Castrocucco	6.20	311	*e*Pn	Pn	07 18 51.5	-0.8
	12nm,0.6s						
BRTR	Keskin Array B	9.97	65	Pn	Pn	07 19 42.5	-1.5
	0.0nm,0.3s,baz=240,slow=13,SNR=2.6						
TORD	Torodi Ar. Bea	29.17	224	P	P	07 23 20.7	-1.5
	1.2nm,0.7s,mb3.7,baz=33,slow=9.0,SNR=10						
BVAR	Borovoye Array	37.68	48	P	P	07 24 31.0	-4.9
	0.6nm,0.7s,mb3.4,baz=268,slow=6.6,SNR=2.9						
KURK	Kurchatov	42.69	52	P	P	07 25 12.0	-5.5
	0.4nm,0.6s,mb3.3,baz=280,slow=9.0,SNR=2.0						
MKAR	Makanchi Array	45.50	57	P	P	07 25 36.3	-3.8
	0.2nm,0.3s,mb3.5,baz=268,slow=8.2,SNR=8.6						
ZALV	Zalesovo Beam	46.31	47	P	P	07 25 42.0	-4.4
	0.6nm,0.3s,mb4.0,baz=263,slow=12,SNR=2.1						

IDC 28 07:31:01.6±1.4**, 2°.16N×127°.43E, h0**^{km}**, mb3.6**/6**, mb1 3.7**/6**, mb1mx3.6**/20**, mbtmp3.6**/6**, MS3.1**/2**, Ms1 3.1**/2**, ms1mx2.4**/30**, Error ellipse: s-maj=112.6km s-min=17.7km az=72.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	20.21	185	P	P	07 35 39.2	+1.0
	2.1nm,0.8s,baz=0.0,slow=8.1,SNR=2.4						
WRA	Warramunga Arr	22.98	163	P	P	07 36 08.2	+0.2
	0.5nm,0.4s,baz=343,slow=10,SNR=3.6						
JOW	Kunigami	24.55	2	LR	LR	07 44 50.3	
	comp=Z,29nm,18.2s,baz=84,slow=34						
ASAR	Alice Springs	26.43	167	P	P	07 36 39.6	-0.7
	0.2nm,0.6s,baz=338,slow=7.1,SNR=3.3						
SONM	Songino Array	49.00	341	P	P	07 39 51.3	+1.3
	0.2nm,0.4s,baz=148,slow=8.5,SNR=2.7						
MKAR	Makanchi Array	59.24	325	P	P	07 41 04.7	-0.1
	0.9nm,0.4s,baz=119,slow=8.0,SNR=31						
KURK	Kurchatov	63.43	328	P	P	07 41 32.5	-0.6
	1.4nm,0.5s,baz=130,slow=6.0,SNR=7.7						
KURK				LR	LR	08 11 01.2	
	comp=Z,16nm,18.1s,baz=15,slow=38						

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*ISCJB **28** 07:41:47.2±0.9, 24°.58S±0°.07×179°.96E±0°.09, h493^{km}±13^{km}, mb4.1/14, Error ellipse: s-maj=14.6km s-min=9.0km az=37.8*

*NEIC **28** 07:41:48.2±1.6, 24°.62S×180°.00W, h495^{km}±20^{km}, mb4.6/3, Error ellipse: s-maj=18.6km s-min=11.5km az=152.0*

*IDC **28** 07:41:48.0±1.9, 24°.66S×180°.00W, h489^{km}±20^{km}, mb3.6/12, mb1 3.9/13, mb1mx3.7/20, mbtmp3.6/13, Error ellipse: s-maj=17.2km s-min=14.6km az=168.0*

ISC 28 07:41:48.3±1.0**, 24°.67S**±0°.09×**179°.97E**±0°.10**, h490**^{km}±13^{km}**, n30, σ0^{s}88**/27**, mb4.1**/14**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	4.94	158	S	S	07 44 24.8	+0.8
	40nm,0.3s,baz=105,slow=22,SNR=3.4						
AFI	Afiamalu	13.23	38	P	P	07 44 39.1	-1.0
	2.4nm,0.3s,baz=104,slow=19,SNR=4.7						
AFI				S	S	07 46 55.9	-5.9
	2.4nm,0.3s,baz=294,slow=21,SNR=4.4						
URZ	Urewera	13.76	190	S	S	07 47 09.8	-1.7
	1.2nm,0.3s,baz=78,slow=22,SNR=14						
RPZ	Rata Peaks	20.35	199	P	P	07 45 49.8	-0.6
	9.6nm,0.5s,baz=343,slow=3.6,SNR=10.0						
ARMA	Armidale	25.73	251	*e*P	P	07 46 40.7	+1.9
EIDS	Eidsvold	26.17	262	*e*P	P	07 46 43.0	+0.3
	8.7nm,0.8s,mb4.2						
CMSA	Cobar Meteorol	30.91	249	*e*P	P	07 47 24.5	+0.4
CTA	Charters Tower	31.46	272	*e*P	P	07 47 29.7	+0.8
	17nm,0.4s,mb4.8						
CTA	Charters Tower	31.46	272	P	P	07 47 29.7	+0.8
	24nm,0.4s,mb5.0,baz=95,slow=11,SNR=39						
CTAO	Charters Tower	31.46	272	*e*P	P	07 47 29.5	+0.6
	16nm,0.4s,mb4.8						
STKA	Stephens Creek	34.42	249	*e*P	P	07 47 54.3	+0.4
	4.7nm,0.4s,mb4.3						
STKA	Stephens Creek	34.42	249	P	P	07 47 54.5	+0.6
	5.2nm,0.4s,mb4.3,baz=94,slow=9.8,SNR=26						
STKA	Stephens Creek	34.42	249	P	P	07 47 54.5	+0.6
ASAR	Alice Springs	41.89	261	P	P	07 48 54.9	-0.2
	6.2nm,0.8s,mb4.1,baz=101,slow=7.8,SNR=48						
ASAR				ScP	ScP	07 53 42.7	-0.4
	0.5nm,0.8s,baz=91,slow=5.6,SNR=3.5						
WB2	Warramunga Arr	42.32	267	*e*P	P	07 48 57.7	-0.9
WRAB	Tennant Creek	42.33	267	*e*P	P	07 48 57.5	-1.1
	24nm,1.1s,mb4.5						
WRA	Warramunga Arr	42.33	267	P	P	07 48 57.9	-0.7
	13nm,0.6s,mb4.5,baz=104,slow=8.0,SNR=34						
WRA				ScP	ScP	07 53 44.8	-0.1
	3.2nm,0.9s,baz=103,slow=4.0,SNR=11						
KAKA	Kakadu	46.36	276	*e*P	P	07 49 28.9	-0.9
	12nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	50.75	266	*e*P	P	07 50 02.4	-0.2
	17nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	50.75	266	P	P	07 50 02.2	-0.3
	8.2nm,0.6s,mb4.2,baz=130,slow=5.2,SNR=13						
VNDA	Vanda	53.61	185	P	P	07 50 23.0	+0.7
	0.6nm,0.7s,mb3.0,baz=14,slow=4.2,SNR=3.5						
QSPA	South Pole Qui	65.42	180	P	P	07 51 41.7	+0.5
	1.1nm,0.9s,mb3.5,baz=235,slow=4.3,SNR=4.9						
NVAR	Mina Array Bea	85.32	44	P	P	07 53 33.2	+0.3
	0.7nm,0.7s,mb3.4,baz=231,slow=6.8,SNR=6.8						
CMAR	Chiang Mai Arr	89.77	290	P	P	07 53 55.7	+1.4
	1.0nm,0.3s,mb4.1,baz=126,slow=3.8,SNR=4.6						
TXAR	Lajitas Array	90.86	58	P	P	07 53 59.7	+0.6
	1.3nm,0.8s,mb3.9,baz=213,slow=6.4,SNR=16						
PDAR	Pinedale Array	93.26	44	P	P	07 54 08.9	-0.9
	0.5nm,0.8s,mb3.6,baz=180,slow=1.5,SNR=3.7						
HFS	Hagfors	143.29	349	PKP	PKPdf	08 00 22.6	-3.1
	2.0nm,0.4s,baz=52,slow=2.4,SNR=5.4						
MMAI	Mount Meron Ar	147.99	293	PKPbc	PKPbc	08 00 38.6	+0.3
	1.2nm,0.4s,baz=90,slow=4.3,SNR=3.1						
BRTR	Keskin Array B	148.01	306	PKPbc	PKPbc	08 00 37.0	-1.2
TORD	Torodi Ar. Bea	168.42	188	PKPab	PKPab	08 02 09.2	-2.0
	0.4nm,0.8s,baz=202,slow=1.6,SNR=2.8						

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*SOF **28** 07:52:21.8, 31°.98N×19°.54E, h10^{km}, MD3.4*

*BJI **28** 07:53:17.6, 36°.20N×21°.65E, h7^{km}, mB5.2/18, mb4.9/25, Ms5.1/14, Ms7 4.7/14*

*ISCJB **28** 07:53:19.4±0.2, 35°.99N±0°.02×21°.83E±0°.02, h10^{km}, mb4.6/71, MS4.1/9, Error ellipse: s-maj=2.6km s-min=2.3km az=34.0*

*ATH **28** 07:53:20.6, 36°.03N×21°.76E, h7^{km}±2^{km}, MD4.3/21, ML4.3*

*NEIC **28** 07:53:20.6, 36°.03N×21°.76E, h7^{km}, mb4.7/30, ML4.3(ATH), After ATH.*

NEIC Felt at Platanos.

*IDC **28** 07:53:20.2±0.6, 36°.16N×22°.04E, h0^{km}, mb4.2/22, mb1 4.2/30, mb1mx4.2/38, mbtmp4.1/30, ML3.9/7, MS3.3/9, Ms1 3.3/9, ms1mx3.0/44, Error ellipse: s-maj=14.3km s-min=12.3km az=170.0*

*PDG **28** 07:53:21.7±0.1, 35°.97N×20°.71E, h14^{km}±11^{km}, ML4.5/9, Error ellipse: s-maj=162.3km s-min=34.1km az=90.0*

*CSEM **28** 07:53:22.0±0.2, 36°.00N×21°.85E, h10^{km}, mb4.9/26, Ms2.8, Error ellipse: s-maj=5.1km s-min=4.0km az=46.0*

*MOS **28** 07:53:25.4±1.4, 36°.19N×21°.73E, h60^{km}, mb4.6/31, Error ellipse: s-maj=5.5km s-min=3.2km az=98.6*

*THE **28** 07:53:25.2, 36°.23N×22°.04E, h0^{km}±3^{km}, ML4.7/7, Error ellipse: s-maj=5.0km s-min=1.4km az=223.0*

*HLW **28** 07:53:25.1, 36°.07N×22°.31E, h26^{km}, Mb4.3*

ISC 28 07:53:21.9±0.2**, 36°.02N**±0°.02×**21°.86E**±0°.02**, h10**^{km}**, (h15**^{km}±2.2^{km}**:pP-P), n513, σ1^{s}39**/563**, mb4.6**/71**, MS4.1**/9**, 20C-28D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.88	354	*e*PG	Pg	07 53 36.9	-1.8
PYL				*e*SB	Sg	07 53 49.5	-0.7
PYL	PYLOS	0.88	354	*e*Pg	Pg	07 53 36.9	-1.8
PYL				*e*Sb	Sg	07 53 49.5	-0.7
KYTH	Kithira	0.98	75	*e*PG	Pg	07 53 40.5	-0.3
KYTH	Kithira	0.98	75	*e*Pg	Pg	07 53 40.5	-0.3
VLI	Veliai	1.11	51	*e*PB	Pg	07 53 43.0	-0.2
VLI				*e*SB	Sg	07 53 59.3	+1.6
VLI	Veliai	1.11	51	*e*Pb	Pg	07 53 43.0	-0.2
VLI				*e*Sb	Sg	07 53 59.3	+1.6
ITM	Ithomi	1.16	3	*e*PG	Pg	07 53 42.0	-2.1
ITM				*e*SB	Sg	07 53 58.5	-0.6
ITM	Ithomi	1.16	3	*e*Pg	Pg	07 53 42.0	-2.1
ITM				*e*Sb	Sg	07 53 58.5	-0.6
VLX	Vlachokerasia	1.41	17	*e*PN	Pn	07 53 46.4	-1.1
VLX				*e*SB	Sn	07 54 06.8	+0.7
VLX	Vlachokerasia	1.41	17	*e*Pn	Pn	07 53 46.4	-1.1
VLX				*e*Sb	Sn	07 54 06.8	+0.7
KARN	Karanos	1.78	110	P	Pg	07 53 55.0	-1.1
KARN	Karanos	1.78	110	P	Pg	07 53 55.0	-1.1
DID	Didima	1.85	36	P	Pn	07 53 54.5	+0.9
DID				S	Sn	07 54 16.2	-0.8
DID	Didima	1.85	36	*e*PN	Pn	07 53 54.6	+1.0
DID				*e*SN	Sg	07 54 20.4	-0.8
DID	Didima	1.85	36	*e*Pn	Pn	07 53 54.6	+1.0
DID				S	Sn	07 54 16.2	-0.8
DID				*e*Sn	Sg	07 54 20.4	-0.8
GUR	Goura	1.95	11	*e*PN	Pn	07 53 56.3	+1.3
GUR				*e*SN	Sg	07 54 23.1	-1.4
GUR	Goura	1.95	11	*e*Pn	Pn	07 53 56.3	+1.3
GUR				*e*Sn	Sg	07 54 23.1	-1.4
VAM	Vamos	2.00	107	*e*PN	Pn	07 53 58.0	+2.3
VAM	Vamos	2.00	107	*e*Pn	Pn	07 53 58.0	+2.3
RLS	Riolos of Patr	2.06	351	*e*PG	Pn	07 53 58.3	+1.9
RLS	Riolos of Patr	2.06	351	*e*Pg	Pn	07 53 58.3	+1.9
NAIG	Nisos Aigina	2.17	36	*e*PN	Pn	07 53 59.2	+1.2
NAIG	Nisos Aigina	2.17	36	*e*Pn	Pn	07 53 59.2	+1.2
LTK	Loutraki	2.18	24	P	Pn	07 53 59.6	+1.4
LTK	Loutraki	2.18	24	*e*PN	Pn	07 53 59.7	+1.5
LTK				*e*SN	Sn	07 54 28.6	+3.3
LTK	Loutraki	2.18	24	*e*Pn	Pn	07 53 59.7	+1.5
LTK				*e*Sn	Sn	07 54 28.6	+3.3
LAKA	Lakka	2.21	2	P	Pn	07 54 00.7	+2.1
LAKA	Lakka	2.21	2	P	Pn	07 54 00.7	+2.1
TRIZ	Trizonia	2.34	4	P	Pn	07 54 01.2	+0.8
TRIZ	Trizonia	2.34	4	P	Pn	07 54 01.2	+0.8
KALE	Kalithea	2.37	5	P	Pn	07 54 02.5	+1.7
KALE	Kalithea	2.37	5	P	Pn	07 54 02.5	+1.7
VLS	Valsamata	2.38	335	*e*PN	Pn	07 54 02.3	+1.4
VLS	Valsamata	2.38	335	*e*Pn	Pn	07 54 02.3	+1.4
VLY	Voula,Athens	2.39	40	*e*PB	Pn	07 54 01.7	+0.6
VLY	Voula,Athens	2.39	40	*e*Pb	Pn	07 54 01.7	+0.6
ATH	Athens Observa	2.45	37	*e*PN	Pn	07 54 05.0	+3.2
ATH	Athens Observa	2.45	37	*e*Pn	Pn	07 54 05.0	+3.2
ATHU	Athens Univers	2.48	38	P	Pn	07 54 02.8	+0.6
ATHU	Athens Univers	2.48	38	P	Pn	07 54 02.8	+0.6
IDI	Anoyia	2.57	106	Pn	Pn	07 54 05.9	+2.4
	17nm,0.3s,baz=296,slow=16,SNR=116						
IDI	Anoyia	2.57	106	Pn	Pn	07 54 05.9	+2.3
PTL	Penteli	2.58	38	*e*PN	Pn	07 54 07.0	+3.3
PTL	Penteli	2.58	38	*e*Pn	Pn	07 54 07.0	+3.3
SIVA	Sivas	2.61	112	P	Pn	07 54 08.4	+4.4
LKR	Lokris	2.77	19	P	Pn	07 54 06.9	+0.6
LKR				S	Sn	07 54 39.6	-0.3
LKR	Lokris	2.77	19	*e*PB	Pn	07 54 06.7	+0.4
LKR	Lokris	2.77	19	P	Pn	07 54 06.9	+0.6
LKR				S	Sn	07 54 39.6	-0.3
LKD	Levkas	2.85	341	P	Pn	07 54 09.9	+2.6
LKD				S	Sn	07 54 44.1	+2.4
LKD	Levkas	2.85	341	P	Pn	07 54 09.9	+2.6
LKD				S	Sn	07 54 44.1	+2.4
AGG	Agios Georgios	3.02	7	P	Pn	07 54 11.1	+1.4
AGG				S	Sn	07 54 46.5	+0.7
AGG	Agios Georgios	3.02	7	*e*PB	Pn	07 54 12.3	+2.6
AGG	Agios Georgios	3.02	7	P	Pn	07 54 11.1	+1.4
AGG	Agios Georgios	3.02	7	*e*Pb	Pn	07 54 12.3	+2.6
AGG				S	Sn	07 54 46.5	+0.7
NPS	Neapolis	3.15	103	*e*PB	Pn	07 54 15.2	+3.7
NPS	Neapolis	3.15	103	*e*Pb	Pn	07 54 15.2	+3.7
NEO	Neokhori	3.45	18	*e*PN	Pn	07 54 16.0	+0.4
NEO	Neokhori	3.45	18	*e*Pn	Pn	07 54 16.0	+0.4
XOR	Xorichti	3.50	17	P	Pn	07 54 16.6	+0.3
XOR				S	Sn	07 54 58.1	+0.3
XOR	Xorichti	3.50	17	P	Pn	07 54 16.6	+0.3
XOR				S	Sn	07 54 58.1	+0.3
AOS	Alonnisos	3.53	26	P	Pn	07 54 16.7	0.0
AOS	Alonnisos	3.53	26	P	Pn	07 54 16.7	0.0
THL	Klokotos Trika	3.54	2	P	Pn	07 54 18.4	+1.6
THL				S	Sn	07 54 59.2	+0.5
THL	Klokotos Trika	3.54	2	*e*PN	Pn	07 54 18.6	+1.8
THL	Klokotos Trika	3.54	2	*e*Pn	Pn	07 54 18.6	+1.8
THL				S	Sn	07 54 59.2	+0.5
ZKR	Zakros	3.66	103	P	Pn	07 54 21.1	+2.5
ZKR	Zakros	3.66	103	P	Pn	07 54 21.1	+2.5
JAN	Janina	3.71	348	*e*PN	Pn	07 54 21.0	+1.7
JAN	Janina	3.71	348	*e*Pn	Pn	07 54 21.0	+1.7
MEV	Metsovon	3.79	353	P	Pn	07 54 23.0	+2.7
MEV	Metsovon	3.79	353	P	Pn	07 54 23.0	+2.7
KEK	Kerkira	4.03	337	*e*PN	Pn	07 54 24.5	+0.9
KEK	Kerkira	4.03	337	*e*Pn	Pn	07 54 24.5	+0.9
CHOS	Chios island	4.09	54	P	Pn	07 54 25.0	+0.5
CHOS	Chios island	4.09	54	*e*PN	Pn	07 54 27.7	+3.2
CHOS	Chios island	4.09	54	P	Pn	07 54 25.0	+0.5
CHOS	Chios island	4.09	54	*e*Pn	Pn	07 54 27.7	+3.2
LIT	Litokhoron	4.10	7	P	Pn	07 54 26.6	+2.0
LIT				S	Sn	07 55 12.6	0.0
LIT	Litokhoron	4.10	7	*e*PN	Pn	07 54 27.3	+2.7
LIT	Litokhoron	4.10	7	P	Pn	07 54 26.6	+2.0
LIT	Litokhoron	4.10	7	*e*Pn	Pn	07 54 27.3	+2.7
LIT				S	Sn	07 55 12.6	0.0
PAIG	Paliouri	4.15	20	P	Pn	07 54 26.8	+1.5
PAIG	Paliouri	4.15	20	P	Pn	07 54 26.8	+1.5
KZN	Kozani	4.28	359	*e*PN	Pn	07 54 29.3	+2.3
KZN	Kozani	4.28	359	*e*Pn	Pn	07 54 29.3	+2.3
LTBQ	Tobruq	4.31	156	*i* P	Pn	07 54 30.8	+3.3
	SNR=76						
SMG	Samos	4.33	66	*e*PN	Pn	07 54 29.8	+2.1
SMG	Samos	4.33	66	*e*Pn	Pn	07 54 29.8	+2.1
KARP	Karpathos	4.33	95	*e*PN	Pn	07 54 30.7	+2.9
KARP	Karpathos	4.33	95	*e*Pn	Pn	07 54 30.7	+2.9
PLG	Polygyros	4.52	16	*e*PN	Pn	07 54 33.0	+2.7
PLG	Polygyros	4.52	16	*e*Pn	Pn	07 54 33.0	+2.7
HORT	Hortiatis	4.67	12	P	Pn	07 54 33.7	+1.3
HORT	Hortiatis	4.67	12	P	Pn	07 54 33.7	+1.3
LIA	Limnos Island	4.67	33	*e*PN	Pn	07 54 37.1	+4.7
LIA	Limnos Island	4.67	33	*e*Pn	Pn	07 54 37.1	+4.7
FNA	Florina	4.77	356	P	Pn	07 54 34.8	+1.1
FNA	Florina	4.77	356	P	Pn	07 54 34.8	+1.1
SOH	Sokhos	4.93	13	P	Pn	07 54 37.5	+1.5
SOH	Sokhos	4.93	13	P	Pn	07 54 37.5	+1.5
GRG	Griva	4.94	5	P	Pn	07 54 37.4	+1.3
GRG				S	Sn	07 55 34.0	+0.6
GRG	Griva	4.94	5	P	Pn	07 54 37.4	+1.3
GRG				S	Sn	07 55 34.0	+0.6
BIA	Bitola	5.01	355	*e*Pn	Pn	07 54 38.0	+1.0
BIA				*e*Sg	Sn	07 55 33.7	-1.2
BIA	Bitola	5.01	355	*e*Pn	Pn	07 54 38.0	+1.0
SOI	Samo	5.08	295	P	Pn	07 54 38.2	+0.2
SOI	Samo	5.08	295	Pn	Pn	07 54 38.2	+0.2
AYDN	Tasoluk	5.09	70	*i* P	Pn	07 54 40.3	+2.0
AYDN	Tasoluk	5.09	70	*i* P	Pn	07 54 40.3	+2.1
TIP	Timpagrande	5.13	309	*e*Pn	Pn	07 54 39.0	+0.3
TIP				*e*Sn	Sn	07 55 37.6	-0.4
TIP	Timpagrande	5.13	309	*e*Pn	Pn	07 54 39.0	+0.3
TIP				*e*Sn	Sn	07 55 37.6	-0.4
OHR	Ohrid	5.15	351	*e*Pn	Pn	07 54 40.0	+1.0
OHR	Ohrid	5.15	351	*e*Pn	Pn	07 54 39.9	+1.0
KNT	Kendrikon	5.20	9	P	Pn	07 54 41.2	+1.6
KNT	Kendrikon	5.20	9	P	Pn	07 54 41.2	+1.6
CEL	Celeste	5.26	297	*e*Pn	Pn	07 54 41.2	+0.7
	40nm,0.6s						
CEL				*e*Sn	Sn	07 55 37.4	-3.8
CEL	Celeste	5.26	297	*e*Pn	Pn	07 54 41.2	+0.7
	40nm,0.6s						
CEL				*e*Sn	Sn	07 55 37.4	-3.9
SRS	Serrai	5.26	14	P	Pn	07 54 41.2	+0.7
SRS	Serrai	5.26	14	P	Pn	07 54 41.2	+0.7
LJBD	Adjabya	5.28	196	*i* P	Pn	07 54 41.3	+0.5

	SNR=76						
MTTG	**Motta San Giov**	**5.32**	**294**	Pn	**Pn**	**07 54 41.6**	**+0.3**
	300nm,1.0s						
MTTG	**Motta San Giov**	**5.32**	**294**	Pn	**Pn**	**07 54 41.6**	**+0.3**
	300nm,1.0s						
VAY	**Valandovo**	**5.32**	**6**	*e*Pn	**Pn**	**07 54 42.3**	**+1.0**
VAY	**Valandovo**	**5.32**	**6**	P	**Pn**	**07 54 41.5**	**+0.2**
VAY	**Valandovo**	**5.32**	**6**	P	**Pn**	**07 54 41.5**	**+0.2**
VAY	**Valandovo**	**5.32**	**6**	*e*Pn	**Pn**	**07 54 42.3**	**+1.0**
KRUS	**Krusevo**	**5.36**	**355**	*e*Pn	**Pn**	**07 54 42.1**	**+0.3**
KRUS				*e*Sg	**Sn**	**07 55 42.3**	**-1.3**
KRUS	**Krusevo**	**5.36**	**355**	*e*Pn	**Pn**	**07 54 42.1**	**+0.3**
HAVL	**Avola**	**5.51**	**282**	Pn	**Pn**	**07 54 44.5**	**+0.6**
	112nm,0.7s						
TIR	**Tirane**	**5.54**	**344**	P	**Pn**	**07 54 43.5**	**-0.8**
TIR				*e*		07 55 45.0	
TIR				pmax	pmax		
	comp=Z,107nm,0.5s						
TIR	**Tirane**	**5.54**	**344**	Pn	**Pn**	**07 54 43.5**	**-0.9**
	comp=Z,107nm,0.5s						
TIR				*e*Sn	**Sn**	**07 55 45.0**	**-3.1**
MMB	**Musomiste**	**5.75**	**14**	P	**Pn**	**07 54 48.2**	**+1.1**
MMB	**Musomiste**	**5.75**	**14**	P	**Pn**	**07 54 48.2**	**+1.1**
HMDC	**Modica**	**5.78**	**281**	Pn	**Pn**	**07 54 53.1**	**+5.5**
HVZN	**Vizzini**	**5.86**	**283**	Pn	**Pn**	**07 54 54.7**	**+5.9**
RDO	**Rodhopi**	**5.87**	**28**	*e*PN	**Pn**	**07 54 51.3**	**+2.5**
ORI	**Oriolo Calabro**	**5.87**	**315**	P	**Pn**	**07 54 50.1**	**+1.2**
ORI				pmax	pmax		
	comp=Z,152nm,0.5s						
ORI	**Oriolo Calabro**	**5.87**	**315**	Pn	**Pn**	**07 54 50.1**	**+1.2**
	comp=Z,152nm,0.5s						
PE1	**Pezze di Greco**	**5.91**	**325**	*e*Pn	**Pn**	**07 54 48.2**	**-1.2**
KKB	**Krupnik**	**5.91**	**9**	*e*P	**Pn**	**07 54 55.2**	**+5.8**
KKB	**Krupnik**	**5.91**	**9**	*e*P	**Pn**	**07 54 55.2**	**+5.8**
SKO	**Skopje**	**5.95**	**357**	*e*Pn	**Pn**	**07 54 51.4**	**+1.4**
SKO	**Skopje**	**5.95**	**357**	*e*Pn	**Pn**	**07 54 51.3**	**+1.3**
LTRZ	**Laterza**	**6.05**	**321**	Pn	**Pn**	**07 54 51.0**	**-0.4**
	comp=Z,41nm,0.6s						
RZN	**Rozhen**	**6.08**	**21**	P	**Pn**	**07 54 55.8**	**+4.1**
RZN	**Rozhen**	**6.08**	**21**	P	**Pn**	**07 54 55.8**	**+4.1**
RAFF	**Raffo Rosso**	**6.15**	**283**	Pn	**Pn**	**07 54 53.9**	**+1.2**
VAE	**Valguarnera**	**6.16**	**286**	Pn	**Pn**	**07 54 57.4**	**+4.6**
	comp=Z,2.4nm,0.3s,baz=126,slow=6.1,SNR=8.5						
VAE				Sn	**Sn**	**07 56 08.5**	**+5.2**
	comp=Z,7.7nm,0.3s,baz=23,slow=15,SNR=3.7						
CUC	**Castrocucco**	**6.20**	**312**	*e*Pn	**Pn**	**07 54 54.9**	**+1.4**
	comp=Z,101nm,0.7s						
CUC				*e*Sn	**Sn**	**07 56 02.6**	**-1.8**
KDZ	**Kurdzhali**	**6.26**	**25**	P	**Pn**	**07 54 56.5**	**+2.2**
KDZ	**Kurdzhali**	**6.26**	**25**	P	**Pn**	**07 54 56.5**	**+2.2**
ULC	**Ulcinj**	**6.27**	**342**	⇑*i*Pn	**Pn**	**07 54 53.0**	**-1.4**
ULC				*e*Sn	**Sn**	**07 56 01.7**	**-4.3**
AKAS	**Kas**	**6.27**	**86**	*i* P	**Pn**	**07 54 55.3**	**+0.9**
AKAS	**Kas**	**6.27**	**86**	*i* P	**Pn**	**07 54 55.3**	**+0.9**
SG1	**Sgolgore (BA)**	**6.30**	**321**	*e*Pn	**Pn**	**07 54 54.2**	**-0.5**
GOLH	**Golhisar**	**6.31**	**77**	*i* P	**Pn**	**07 54 58.6**	**+3.7**
PTRP	**Pietrapertosa**	**6.40**	**316**	Pn	**Pn**	**07 54 57.2**	**+1.0**
	comp=Z,119nm,0.5s						
BAI	**Bari**	**6.40**	**324**	*e*Pn	**Pn**	**07 54 56.6**	**+0.4**
CSLB	**Castelbuono**	**6.53**	**289**	Pn	**Pn**	**07 55 03.1**	**+5.1**
GIB	**Gibilmanna**	**6.57**	**290**	P	**Pn**	**07 55 01.8**	**+3.3**
GIB				pmax	pmax		
	comp=Z,20nm,0.4s						
GIB	**Gibilmanna**	**6.57**	**290**	Pn	**Pn**	**07 55 01.8**	**+3.3**
	comp=Z,20nm,0.4s						
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**07 55 03.9**	**+4.4**
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**07 55 02.0**	**+2.5**
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**07 55 03.9**	**+4.4**
VTS	**Vitosha**	**6.64**	**9**	P	**Pn**	**07 55 02.0**	**+2.5**
ACER	**Acerenza**	**6.65**	**317**	Pn	**Pn**	**07 55 00.8**	**+1.2**
	comp=Z,89nm,0.5s						
BUM	**Brajici-Budva**	**6.68**	**341**	⇓*i*Pn	**Pn**	**07 54 58.5**	**-1.4**
BUM				*e*Sn	**Sn**	**07 56 10.9**	**-5.2**
TTG	**Podgorica**	**6.71**	**343**	⇓*i*Pn	**Pn**	**07 54 59.4**	**-1.0**
TTG				*e*Sn	**Sn**	**07 56 12.4**	**-4.4**
PVY	**Plav**	**6.72**	**348**	⇓*i*Pn	**Pn**	**07 55 01.0**	**+0.4**
PVY				*e*Sn	**Sn**	**07 56 14.9**	**-2.3**
BARS	**Barje**	**6.78**	**360**	⇑*i*Pn	**Pn**	**07 55 01.6**	**+0.2**
SGO	**Sicignano**	**6.86**	**313**	P	**Pn**	**07 55 04.4**	**+1.9**
SGO				pmax	pmax		
	comp=Z,39nm,0.4s						
SGO	**Sicignano**	**6.86**	**313**	Pn	**Pn**	**07 55 04.4**	**+1.9**
	comp=Z,39nm,0.4s						
HCY	**Herceg Novi**	**6.92**	**339**	⇓*i*Pn	**Pn**	**07 55 01.2**	**-2.1**
HCY				*e*Sn	**Sn**	**07 56 16.2**	**-6.0**
IVA	**Berane**	**7.01**	**348**	⇓*i*Pn	**Pn**	**07 55 04.4**	**-0.1**
IVA				*e*Sn	**Sn**	**07 56 21.6**	**-2.5**
NKY	**Niksic**	**7.13**	**343**	⇑*i*Pn	**Pn**	**07 55 05.4**	**-0.8**
NKY				*e*Sn	**Sn**	**07 56 22.8**	**-4.5**
CSSN	**Cassano Irpino**	**7.22**	**314**	Pn	**Pn**	**07 55 10.0**	**+2.6**
	comp=Z,42nm,0.6s						
CSSN	**Cassano Irpino**	**7.22**	**314**	Pn	**Pn**	**07 55 10.0**	**+2.6**
	comp=Z,42nm,0.6s						
MS1	**Monte Sant'Ang**	**7.31**	**323**	*e*Pn	**Pn**	**07 55 10.3**	**+1.6**
BRY	**Bratogost**	**7.33**	**341**	⇓*i*Pn	**Pn**	**07 55 07.2**	**-1.7**
BRY				*e*Sn	**Sn**	**07 56 26.0**	**-6.1**
NISS		**7.37**	**0**	*i* Pn	**Pn**	**07 55 09.2**	**-0.3**
SWA2		**7.41**	**155**	P	**Pn**	**07 55 09.9**	**-0.1**
MRB1	**Monte Rocchett**	**7.42**	**315**	Pn	**Pn**	**07 55 11.2**	**+1.1**
	comp=Z,183nm,0.6s						
MRB1	**Monte Rocchett**	**7.42**	**315**	Pn	**Pn**	**07 55 11.2**	**+1.1**
	comp=Z,183nm,0.6s						
RGNG	**Rignano Grg**	**7.47**	**321**	Pn	**Pn**	**07 55 10.3**	**-0.5**
RGNG	**Rignano Grg**	**7.47**	**321**	Pn	**Pn**	**07 55 10.3**	**-0.5**
UPM	**Unac-Piva**	**7.52**	**343**	⇑*i*Pn	**Pn**	**07 55 11.1**	**-0.4**
UPM				*e*Sn	**Sn**	**07 56 32.2**	**-4.7**
UPM	**Unac-Piva**	**7.52**	**343**	⇑*i*Pn	**Pn**	**07 55 11.1**	**-0.4**
PLE	**Pljevlja**	**7.54**	**346**	⇑*i*Pn	**Pn**	**07 55 11.2**	**-0.6**
PLE				*e*Sn	**Sn**	**07 56 33.4**	**-3.9**
PLE	**Pljevlja**	**7.54**	**346**	⇑*i*Pn	**Pn**	**07 55 11.2**	**-0.6**
STON	**Ston**	**7.56**	**336**	*e*Pn	**Pn**	**07 55 10.3**	**-1.7**
STON				Sn	**Sn**	**07 56 30.5**	**-7.2**
CIGN	**Sant'Elia a Pi**	**7.81**	**318**	Pn	**Pn**	**07 55 16.2**	**+0.7**
	comp=Z,63nm,0.8s						
CIGN	**Sant'Elia a Pi**	**7.81**	**318**	Pn	**Pn**	**07 55 16.2**	**+0.7**
	comp=Z,63nm,0.8s						
SZH	**Strazhica**	**7.88**	**22**	P	Px	07 55 29.8	
SZH	**Strazhica**	**7.88**	**22**	P	Px	07 55 29.8	
GRUS	**Gruza**	**7.91**	**354**	⇑*i*Pn	**Pn**	**07 55 15.6**	**-1.2**
SGG	**Gregorio Mates**	**7.93**	**315**	Pn	**Pn**	**07 55 18.0**	**+0.9**
	comp=Z,57nm,0.6s						
SGG	**Gregorio Mates**	**7.93**	**315**	Pn	**Pn**	**07 55 18.0**	**+0.9**
	comp=Z,57nm,0.6s						
MIDA	**Miranda**	**8.17**	**316**	Pn	**Pn**	**07 55 22.6**	**+2.2**
	comp=Z,147nm,1.5s						
MIDA	**Miranda**	**8.17**	**316**	Pn	**Pn**	**07 55 22.6**	**+2.2**
	comp=Z,147nm,1.5s						
RNI2	**Rionero Sannit**	**8.26**	**316**	Pn	**Pn**	**07 55 23.9**	**+2.2**
	comp=Z,69nm,0.7s						
RNI2	**Rionero Sannit**	**8.26**	**316**	Pn	**Pn**	**07 55 23.9**	**+2.2**
	comp=Z,69nm,0.7s						
SDI	**San Donato**	**8.46**	**315**	P	**Pn**	**07 55 24.9**	**+0.4**
SDI				pmax	pmax		
	comp=Z,11nm,0.5s						
SDI	**San Donato**	**8.46**	**315**	Pn	**Pn**	**07 55 24.9**	**+0.4**
	comp=Z,11nm,0.5s						
SDI	**San Donato**	**8.46**	**315**	Pn	**Pn**	**07 55 24.9**	**+0.4**
	comp=Z,11nm,0.5s						
VVLD	**Villa Vallelon**	**8.68**	**315**	Pn	**Pn**	**07 55 28.1**	**+0.7**
	comp=Z,62nm,0.8s						
VVLD	**Villa Vallelon**	**8.68**	**315**	Pn	**Pn**	**07 55 28.1**	**+0.7**
	comp=Z,62nm,0.8s						
BZS	**Buzias**	**9.59**	**359**	⇓*i*P	**Pn**	**07 55 41.2**	**+1.4**
BZS	**Buzias**	**9.59**	**359**	⇓P	**Pn**	**07 55 41.1**	**+1.3**
BZS	**Buzias**	**9.59**	**359**	P	**Pn**	**07 55 41.2**	**+1.4**
VOIR		**9.71**	**13**	⇓*i*P	**Pn**	**07 55 42.8**	**+1.3**
VOIR		**9.71**	**13**	⇓P	**Pn**	**07 55 42.8**	**+1.3**
VOIR		**9.71**	**13**	P	**Pn**	**07 55 42.8**	**+1.3**
AWBH		**9.72**	**140**	⇓P	**Pn**	**07 55 41.0**	**-0.8**
AWBH		**9.72**	**140**	P	**Pn**	**07 55 41.0**	**-0.8**
TIRR	**Tirgusor**	**9.80**	**29**	*e*P	**Pn**	**07 55 50.2**	**+7.5**
TIRR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
TIRR	**Tirgusor**	**9.80**	**29**	⇓*i*P	**Pn**	**07 55 51.1**	**+8.4**
TIRR	**Tirgusor**	**9.80**	**29**	*e*Pn	**Pn**	**07 55 50.2**	**+7.5**
	comp=Z,9.3nm,0.8s						
HARR	**Harsova**	**9.81**	**26**	⇓*i*P	**Pn**	**07 55 49.6**	**+6.6**
HARR	**Harsova**	**9.81**	**26**	⇓P	**Pn**	**07 55 49.6**	**+6.7**
MLR	**Muntele Rosu**	**9.95**	**17**	P	**Pn**	**07 55 43.9**	**-0.9**
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR				MLR	MLR		
	comp=Z,246nm,18.8s						
MLR	**Muntele Rosu**	**9.95**	**17**	⇓*i*P	**Pn**	**07 55 48.5**	**+3.7**
MLR	**Muntele Rosu**	**9.95**	**17**	Pn	**Pn**	**07 55 43.9**	**-1.0**
	comp=Z,0.5nm,0.3s,baz=192,slow=9.3,SNR=2.4						
MLR				LR	LR	07 59 59.4	
	comp=Z,246nm,18.8s,baz=167,slow=41						
MLR	**Muntele Rosu**	**9.95**	**17**	Pn	**Pn**	**07 55 43.9**	**-0.9**
BRTR	**Keskin Array B**	**10.02**	**65**	Pn	**Pn**	**07 55 47.8**	**+2.0**
BRTR	**Keskin Array B**	**10.02**	**65**	P	**Pn**	**07 55 47.8**	**+2.1**
KEST	**Kesra**	**10.16**	**272**	Pn	**Pn**	**07 55 50.5**	**+2.8**
	comp=Z,0.1nm,0.3s,baz=51,slow=2.6,SNR=3.7						
HFRF	**Wahat Farafira**	**10.41**	**146**	⇑*e*P	**Pn**	**07 55 50.8**	**-0.4**
HFRF				S	**Sn**	**07 57 37.4**	**-11**
HFRF	**Wahat Farafira**	**10.41**	**146**	P	**Pn**	**07 55 50.8**	**-0.4**
PLOR	**Plostina**	**10.46**	**19**	⇑*i*P	**Pn**	**07 55 56.4**	**+4.6**
PKSM	**Moragy**	**10.46**	**348**	⇓*i*P	**Pn**	**07 55 52.0**	**+0.2**
PKSM	**Moragy**	**10.46**	**348**	⇓P	**Pn**	**07 55 52.0**	**+0.1**
PKSM	**Moragy**	**10.46**	**348**	*e*P	**Pn**	**07 55 52.0**	**+0.2**
VRI	**Vrincioaia**	**10.50**	**19**	⇓*i*P	**Pn**	**07 55 57.4**	**+5.1**
VRI	**Vrincioaia**	**10.50**	**19**	⇓P	**Pn**	**07 55 57.4**	**+5.1**
BOJS	**Bojanci**	**10.71**	**334**	*e*Pn	**Pn**	**07 55 53.9**	**-1.4**
BOJS	**Bojanci**	**10.71**	**334**	*e*Pn	**Pn**	**07 55 53.9**	**-1.3**
MMAI	**Mount Meron Ar**	**11.57**	**101**	Pn	**Pn**	**07 56 04.7**	**-2.3**
	comp=Z,1.2nm,0.3s,baz=294,slow=11,SNR=3.4						
BUD	**Budapest**	**11.64**	**350**	*e*	**Pn**	**07 56 08.0**	**0.0**
BUD	**Budapest**	**11.64**	**350**	*e*P	**Pn**	**07 56 08.0**	**0.0**
VOY	**Vojsko**	**11.66**	**331**	*e*Pn	**Pn**	**07 56 07.8**	**-0.4**
VOY				*e*Sn	**Sn**	**07 58 08.8**	**-10**
VOY	**Vojsko**	**11.66**	**331**	*e*Pn	**Pn**	**07 56 07.8**	**-0.4**
SOKA	**Soboth**	**11.81**	**336**	⇑*i*Pn	**Pn**	**07 56 08.8**	**-1.4**
SOKA				⇑*i*Sn	**Sn**	**07 58 11.8**	**-10**
SOKA	**Soboth**	**11.81**	**336**	Pn	**Pn**	**07 56 08.8**	**-1.5**
OBKA	**Obir**	**11.83**	**335**	⇑*i*Pn	**Pn**	**07 56 08.2**	**-2.3**
OBKA				⇑*i*Sn	**Sn**	**07 58 14.6**	**-7.9**
HNKL	**Nakhl**	**11.85**	**117**	P	**Pn**	**07 56 08.8**	**-2.0**
HNKL	**Nakhl**	**11.85**	**117**	P	**Pn**	**07 56 08.8**	**-2.1**
BURAR	**Bucovina Array**	**11.85**	**11**	⇑*i*P	**Pn**	**07 56 14.0**	**+3.2**
BURAR	**Bucovina Array**	**11.85**	**11**	⇑P	**Pn**	**07 56 14.0**	**+3.2**
BURAR	**Bucovina Array**	**11.85**	**11**	⇑P	**Pn**	**07 56 14.0**	**+3.2**
PSZ	**Piszkesteto**	**11.98**	**354**	⇓*i*P	**Pn**	**07 56 11.7**	**-0.8**
PSZ	**Piszkesteto**	**11.98**	**354**	*e*P	**Pn**	**07 56 12.2**	**-0.3**
PSZ	**Piszkesteto**	**11.98**	**354**	*e*Pn	**Pn**	**07 56 11.0**	**-1.5**
PSZ	**Piszkesteto**	**11.98**	**354**	⇓*i*P	**Pn**	**07 56 11.7**	**-0.8**
HDK1	**Dakhla**	**12.29**	**146**	P	**Pn**	**07 56 16.7**	**-0.2**
HDK1	**Dakhla**	**12.29**	**146**	P	**Pn**	**07 56 16.7**	**-0.2**
KECS	**Kecovo**	**12.49**	**356**	*e*PN	**Pn**	**07 56 20.7**	**+1.1**
KECS				*e*		07 56 26.5	
KECS	**Kecovo**	**12.49**	**356**	*e*SN	**Sn**	**07 58 34.5**	**-4.2**
KECS	**Kecovo**	**12.49**	**356**	*e*Pn	**Pn**	**07 56 20.7**	**+1.1**
KECS				*e*Sn	**Sn**	**07 58 34.5**	**-4.2**
UZH	**Uzhgorod**	**12.60**	**1**	*e*P	**Pn**	**07 56 27.0**	**+5.9**
VYHS	**Vyhne**	**12.66**	**351**	*e*PN	**Pn**	**07 56 21.5**	**-0.4**
VYHS				*e*		07 56 31.0	
VYHS	**Vyhne**	**12.66**	**351**	*e*SN	**Sn**	**07 58 39.5**	**-3.3**
VYHS	**Vyhne**	**12.66**	**351**	*e*Pn	**Pn**	**07 56 21.5**	**-0.4**
VYHS				*e*Sn	**Sn**	**07 58 39.5**	**-3.3**
VYHS	**Vyhne**	**12.66**	**351**	*e*P	**Pn**	**07 56 21.5**	**-0.4**
EIL	**Elat**	**12.69**	**116**	Pn	**Pn**	**07 56 20.8**	**-1.6**
	comp=Z,0.6nm,0.3s,baz=326,slow=15,SNR=4.3						
EIL	**Elat**	**12.69**	**116**	Pn	**Pn**	**07 56 20.8**	**-1.6**
EIL	**Elat**	**12.69**	**116**	Pn	**Pn**	**07 56 20.8**	**-1.6**
KOLL	**Kolacno**	**12.80**	**350**	*e*SN	**Sn**	**07 58 41.9**	**-4.4**
CRVS	**Cervenica-Dubn**	**12.87**	**359**	*e*PN	**Pn**	**07 56 33.0**	**+8.2**
CRVS				*e*		07 56 44.0	
KOLS	**Kolonicke sedl**	**12.91**	**1**	*e*PN	**Pn**	**07 56 33.4**	**+8.2**
ASF	**Jabal al Asfar**	**13.04**	**103**	Pn	**Pn**	**07 56 27.3**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=148,slow=15,SNR=2.5						
MALT	**Malatya**	**13.41**	**75**	*e*P	**Pn**	**07 56 32.3**	**+0.1**
MALT				pmax	pmax		
	comp=Z,13nm,1.0s						
MALT	**Malatya**	**13.41**	**75**	*e*Pn	**Pn**	**07 56 32.3**	**+0.2**
	comp=Z,13nm,1.0s						
MALT	**Malatya**	**13.41**	**75**	*e*P	**Pn**	**07 56 32.3**	**+0.1**
	comp=Z,13nm,1.0s						
FRF	**La Foret Royal**	**13.90**	**307**	*e*P	**Pn**	**07 56 37.3**	**-1.5**
FRF	**La Foret Royal**	**13.90**	**307**	*e*P	**Pn**	**07 56 37.3**	**-1.5**
DAVOX	**Davos/Dischmat**	**13.99**	**324**	Pn	**Pn**	**07 56 40.9**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=342,slow=20,SNR=2.3						
DAVOX				Sn	**Sn**	**07 59 12.4**	**-3.0**
	comp=Z,0.4nm,0.3s,baz=330,slow=20,SNR=4.2						
DAVOS	**Davos**	**14.08**	**324**	P	**Pn**	**07 56 40.9**	**-0.3**
DAVOS						07 59 12.4	
MORC	**Moravsky Berou**	**14.10**	**348**	⇓P	**Pn**	**07 56 45.6**	**+4.1**
MORC	**Moravsky Berou**	**14.10**	**348**	⇓*i*P	**Pn**	**07 56 45.5**	**+4.0**
MORC	**Moravsky Berou**	**14.10**	**348**	*e*P	**Pn**	**07 56 49.7**	**+8.2**
MORC	**Moravsky Berou**	**14.10**	**348**	⇓*i*P	**Pn**	**07 56 45.5**	**+4.0**
GERES	**GERESS Array B**	**14.15**	**337**	Pn	**Pn**	**07 56 41.8**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=170,slow=11,SNR=6.3						
OJC	**Ojcow**	**14.27**	**355**	*e*P	Px	07 56 53.4	
MBDF	**Montbardon**	**14.40**	**312**	*e*P	**Pn**	**07 56 44.8**	**-0.8**
	comp=Z,23nm,1.0s						
MBDF	**Montbardon**	**14.40**	**312**	*e*P	**Pn**	**07 56 44.8**	**-0.8**
MBDF				pmax	pmax		
	comp=Z,11nm,1.0s						
MBDF	**Montbardon**	**14.40**	**312**	*e*P	**Pn**	**07 56 44.8**	**-0.8**
	comp=Z,11nm,1.0s						
KHC	**Kasperske Hory**	**14.44**	**338**	*e*P	**Pn**	**07 56 47.5**	**+1.4**
KHC				*e*x	x	07 57 12.0	
ANN	**Anapa**	**14.73**	**49**	*e*P	**Pn**	**07 56 51.7**	**+1.6**
ANN				*e*S	**Sn**	**07 59 40.1**	**+6.7**
ANN				pmax	pmax		
	comp=Z,76nm,1.6s						
SMRF	**Simiane la Rot**	**14.78**	**307**	*e*P	**Pn**	**07 56 48.8**	**-2.0**
DPC	**Dobruska-Polom**	**14.87**	**346**	*e*P	**Pn**	**07 56 58.4**	**+6.4**
DPC				*e*x	x	07 57 05.2	
DPC	**Dobruska-Polom**	**14.87**	**346**	*e*P	**Pn**	**07 56 58.4**	**+6.4**
DPC				*e*		07 57 05.2	
DPC	**Dobruska-Polom**	**14.87**	**346**	P	**Pn**	**07 56 58.4**	**+6.4**
PRU	**Pruhonice**	**14.94**	**341**	*e*P	**Pn**	**07 56 57.2**	**+4.3**
PRU				pmax	pmax		
	comp=Z,5.0nm,0.4s						
PRU	**Pruhonice**	**14.94**	**341**	*e*P	**Pn**	**07 56 57.2**	**+4.3**
	comp=Z,4.9nm,0.4s						
PRU	**Pruhonice**	**14.94**	**341**	P	**Pn**	**07 56 57.2**	**+4.3**
ORIF	**Oris-en-Rattie**	**15.04**	**311**	*e*P	**Pn**	**07 56 51.0**	**-3.4**
	comp=Z,24nm,1.2s						
ORIF				*e*MLR	MLR		
	comp=Z,155nm,20.2s						
ORIF	**Oris-en-Rattie**	**15.04**	**311**	*e*P	**Pn**	**07 56 51.0**	**-3.4**
ORIF				pmax	pmax		
	comp=Z,12nm,1.2s						
ORIF	**Oris-en-Rattie**	**15.04**	**311**	*e*P	**Pn**	**07 56 51.0**	**-3.4**
	comp=Z,12nm,1.2s						
UPC	**Upice**	**15.08**	**346**	*e*P	**Pn**	**07 57 01.1**	**+6.2**
UPC	**Upice**	**15.08**	**346**	P	**Pn**	**07 57 01.1**	**+6.2**
AKASG	**Malin Array Be**	**15.60**	**18**	P	**Pn**	**07 56 57.6**	**-4.1**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	**Malin Array Be**	**15.60**	**18**	Pn	**Pn**	**07 56 57.5**	**-4.2**
	comp=Z,0.8nm,0.3s,baz=208,slow=12,SNR=2.1						
CABF	**La Chapelle**	**15.86**	**317**	*e*P	**Pn**	**07 57 01.0**	**-4.0**
BRG	**Berggiesshubel**	**15.90**	**341**	*e*P	Px	07 57 18.1	
	comp=Z,6.8nm,1.0s						
BRG				*e*		07 57 23.4	
	comp=Z,8.3nm,1.1s						
CDF	**Champ du Feu**	**16.39**	**324**	*e*P	**Pn**	**07 57 09.5**	**-2.4**
	comp=Z,12nm,0.8s						
CDF	**Champ du Feu**	**16.39**	**324**	*e*P	**Pn**	**07 57 09.5**	**-2.4**
CDF				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CDF	**Champ du Feu**	**16.39**	**324**	*e*P	**Pn**	**07 57 09.5**	**-2.4**
	comp=Z,6.2nm,0.8s						
CLL	**Collm**	**16.55**	**340**	*e*P	**Pn**	**07 57 22.0**	**+8.1**
CLL				MLR	MLR		
	comp=Z,200nm,14.5s						
CLL	**Collm**	**16.55**	**340**	*e*PP		07 57 22.0	
	comp=Z,10.0nm,1.0s						
CLL				*e*		07 57 36.0	
CLL				LmH		08 02 00.0	
	comp=N,200nm,20.9s						
CLL				LmH		08 02 00.0	
	comp=E,300nm,19.2s						
HAU	**Haudompre**	**16.58**	**321**	*e*P	**Pn**	**07 57 12.3**	**-2.0**
HAU				*e*MLR	MLR		
	comp=Z,89nm,21.0s						
SMF	**Signal de Mont**	**17.16**	**314**	*e*P	**Pn**	**07 57 17.5**	**-4.1**
LOR	**Lormes**	**17.48**	**316**	*e*P	**Pn**	**07 57 21.9**	**-3.7**
	comp=Z,11nm,0.7s						
LOR				*e*MLR	MLR		
	comp=Z,49nm,17.0s						
LOR	**Lormes**	**17.48**	**316**	*e*P	**Pn**	**07 57 21.9**	**-3.7**
LOR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LOR	**Lormes**	**17.48**	**316**	*e*P	**Pn**	**07 57 21.9**	**-3.7**
	comp=Z,5.3nm,0.7s						
BGF	**Bois d'Agland**	**17.70**	**312**	*e*P	**Pn**	**07 57 25.4**	**-3.0**
KIV	**Kislovodsk**	**17.79**	**57**	⇑*e*P	**Pn**	**07 57 29.7**	**+0.3**
KIV				*e*S	**Sn**	**08 00 52.6**	**+5.0**
KIV				pmax	pmax		
	comp=Z,34nm,1.2s						
KIV	**Kislovodsk**	**17.79**	**57**	*e*Pn	**Pn**	**07 57 29.3**	**-0.1**
	comp=Z,44nm,1.3s						
TCF	**Toulx Ste Croi**	**17.96**	**311**	*e*P	**Pn**	**07 57 28.8**	**-2.7**
RJF	**Les Rejaudoux**	**17.96**	**307**	*e*P	**Pn**	**07 57 29.8**	**-1.8**
RJF				*e*MLR	MLR		
	comp=Z,75nm,17.5s						
GOF	**Gofitskoye**	**18.41**	**54**	*e*P	**Pn**	**07 57 38.3**	**+1.3**
GOF				pmax	pmax		
	comp=Z,866nm,1.3s						
GNI	**Garni**	**18.46**	**70**	⇓*e*P	**Pn**	**07 57 38.4**	**+0.6**
GNI				pmax	pmax		
	comp=Z,30nm,1.5s						
GNI	**Garni**	**18.46**	**70**	P	**Pn**	**07 57 37.5**	**-0.2**
	comp=Z,1.1nm,0.3s,baz=335,slow=1.3,SNR=7.7						
GNI				LR	LR	08 06 04.5	
	comp=Z,61nm,18.1s,baz=99,slow=42						
GNI	**Garni**	**18.46**	**70**	*e*Pn	**Pn**	**07 57 38.8**	**+1.1**
	comp=Z,12nm,0.8s						
ETSF	**Etsaut**	**18.59**	**298**	*e*P	**Pn**	**07 57 38.4**	**-0.9**
GIVF	**Givet**	**18.72**	**324**	*e*P	**Pn**	**07 57 41.8**	**+1.0**
	comp=Z,24nm,0.7s						
GIVF	**Givet**	**18.72**	**324**	*e*P	**Pn**	**07 57 41.8**	**+1.0**
GIVF				pmax	pmax		
	comp=Z,12nm,0.7s						
GIVF	**Givet**	**18.72**	**324**	*e*P	**Pn**	**07 57 41.8**	**+1.0**
	comp=Z,12nm,0.7s						
DOU	**Dourbes**	**18.83**	**324**	P	**Pn**	**07 57 44.3**	**+2.2**
DOU	**Dourbes**	**18.83**	**324**	P	**Pn**	**07 57 44.2**	**+2.1**
BAIF	**Baives**	**18.99**	**323**	*e*P	**Pn**	**07 57 43.2**	**-0.9**
	comp=Z,21nm,0.9s						
BAIF	**Baives**	**18.99**	**323**	*e*P	**Pn**	**07 57 43.2**	**-0.9**
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BAIF	**Baives**	**18.99**	**323**	*e*P	**Pn**	**07 57 43.2**	**-0.9**
	comp=Z,10nm,0.9s						
SJPF	**Ste Jean**	**19.12**	**299**	*e*P	**Pn**	**07 57 43.9**	**-1.8**
NACGM	**Naroch**	**19.18**	**9**	*e*	**Pn**	**07 57 41.0**	**-5.3**
VSR	**Storozhevoye**	**19.61**	**34**	*e*P	**Pn**	**07 57 49.4**	**-2.1**
VSR				pmax	pmax		
	comp=Z,8.0nm,0.5s						
VSR				pmax	pmax		
	comp=N,4.0nm,0.6s						
VSR				pmax	pmax		
	comp=E,6.0nm,0.5s						
LDF	**La Druitiere**	**20.46**	**315**	*e*P	**P**	**07 57 57.4**	**-2.0**
VRHR	**Novokhopersk**	**20.69**	**37**	*e*P	**P**	**07 58 01.7**	**-0.2**
VRHR				pmax	pmax		
	comp=Z,20nm,0.6s						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.4s						
ESDC	**Sonseca Array**	**20.69**	**288**	P	**P**	**07 58 04.1**	**+2.1**
	comp=N,3.8nm,0.8s,baz=81,slow=11,SNR=9.4						
FLN	**La Foliniere**	**20.75**	**315**	*e*P	**P**	**07 58 01.7**	**-0.9**
	comp=N,37nm,1.1s						
FLN				*e*MLR	MLR		
	comp=Z,49nm,19.2s						
FLN	**La Foliniere**	**20.75**	**315**	*e*P	**P**	**07 58 01.7**	**-0.9**
FLN				pmax	pmax		
	comp=Z,18nm,1.1s						
FLN				MLR	MLR		
	comp=Z,50nm,19.3s						
FLN	**La Foliniere**	**20.75**	**315**	*e*P	**P**	**07 58 01.7**	**-0.9**
	comp=Z,18nm,1.1s						
FLN				LR	LR		
	comp=Z,50nm,19.3s						
OBN	**Obninsk**	**21.61**	**23**	*e*P	**P**	**07 58 10.6**	**-1.1**
OBN				*e*		07 58 29.9	
OBN				*e*		08 02 06.9	
OBN				*e*S	**S**	**08 02 11.7**	**+0.9**
OBN				pmax	pmax		
	comp=Z,30nm,1.3s,mb4.6						
MDT	**Midelt**	**22.05**	**269**	P	**P**	**07 58 17.3**	**+0.6**
	comp=Z,1.6nm,0.8s,mb3.5,baz=102,slow=8.8,SNR=5.0						
MDT				LR	LR	08 07 37.9	
	comp=Z,40nm,19.3s,baz=94,slow=39						
MOS	**Moscow**	**22.46**	**24**	*e*P	**P**	**07 58 18.7**	**-2.2**
MOS				pmax	pmax		
	comp=Z,74nm,0.8s,mb5.2						
MVO	**Moncorvo**	**23.10**	**292**	*e*P	**P**	**07 58 29.1**	**+1.3**
	comp=Z,20nm,1.9s,mb4.2						
MVO	**Moncorvo**	**23.10**	**292**	*e*P	**P**	**07 58 29.1**	**+1.3**
	comp=Z,20nm,1.9s,mb4.2						
PBAR	**Barrancos**	**23.11**	**284**	*e*P	**P**	**07 58 31.4**	**+3.4**
	comp=Z,25nm,1.5s,mb4.4						
PBAR	**Barrancos**	**23.11**	**284**	*e*P	**P**	**07 58 31.4**	**+3.4**
	comp=Z,25nm,1.5s,mb4.4						
PMRV	**Marv??o**	**23.34**	**287**	*e*P	**P**	**07 58 33.4**	**+3.1**
PMRV	**Marv??o**	**23.34**	**287**	*e*P	**P**	**07 58 33.4**	**+3.1**
PVAQ	**Vaqueiros**	**23.71**	**282**	*e*P	**P**	**07 58 37.3**	**+3.3**
	comp=Z,22nm,1.6s,mb4.3						
PVAQ	**Vaqueiros**	**23.71**	**282**	*e*P	**P**	**07 58 37.3**	**+3.3**
	comp=Z,22nm,1.6s,mb4.3						
PVIS	**Viseu**	**23.74**	**290**	*e*P	**P**	**07 58 35.0**	**+0.8**
	comp=Z,33nm,2.2s,mb4.4						
PVIS	**Viseu**	**23.74**	**290**	*e*P	**P**	**07 58 35.0**	**+0.8**
	comp=Z,33nm,2.2s,mb4.4						
PBEJ	**Beja**	**23.78**	**284**	*e*P	**P**	**07 58 38.1**	**+3.5**
	comp=Z,16nm,1.3s,mb4.3						
PBEJ	**Beja**	**23.78**	**284**	*e*P	**P**	**07 58 38.1**	**+3.5**
	comp=Z,16nm,1.3s,mb4.3						
PBDV	**Barranco-do-Ve**	**23.90**	**282**	*e*P	**P**	**07 58 39.5**	**+3.8**
	comp=Z,31nm,1.4s,mb4.5						
PBDV	**Barranco-do-Ve**	**23.90**	**282**	*e*P	**P**	**07 58 39.5**	**+3.8**
	comp=Z,31nm,1.4s,mb4.5						
HFS	**Hagfors**	**24.70**	**350**	P	**P**	**07 58 40.5**	**-2.3**
HFS				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HFS	**Hagfors**	**24.70**	**350**	P	**P**	**07 58 40.5**	**-2.2**
	comp=Z,3.0nm,0.5s,mb4.1,baz=161,slow=10,SNR=12						
HFS	**Hagfors**	**24.70**	**350**	P	**P**	**07 58 40.5**	**-2.2**
FINES	**FINESS Array B**	**25.58**	**5**	P	**P**	**07 58 49.3**	**-1.5**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
FINES				MLR	MLR		
	comp=Z,118nm,18.0s						
FINES	**FINESS Array B**	**25.58**	**5**	P	**P**	**07 58 49.3**	**-1.5**
	comp=Z,2.7nm,0.5s,mb4.0,baz=160,slow=12,SNR=12						
FINES				LR	LR	08 10 09.9	
	comp=Z,118nm,18.0s,MS3.5,baz=204,slow=40						
EKA	**Eskdalemuir Ar**	**25.81**	**326**	P	**P**	**07 58 52.5**	**-0.4**
EKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
EKA	**Eskdalemuir Ar**	**25.81**	**326**	P	**P**	**07 58 52.5**	**-0.5**
	comp=Z,1.9nm,0.6s,mb3.8,baz=126,slow=9.4,SNR=6.2						
EKA	**Eskdalemuir Ar**	**25.81**	**326**	P	**P**	**07 58 52.5**	**-0.4**
NAO01	**NORSAR Array S**	**25.81**	**348**	*e*P	**P**	**07 58 51.8**	**-1.1**
	comp=Z,7.2nm,0.7s,mb4.3						
NAO01	**NORSAR Array S**	**25.81**	**348**	*e*P	**P**	**07 58 51.8**	**-1.1**
	comp=Z,7.2nm,0.7s,mb4.3						
NB2	**NORSAR Subarra**	**25.94**	**348**	P	**P**	**07 58 54.4**	**+0.4**
	comp=Z,12nm,0.9s,mb4.4,baz=160,slow=10						
NB2	**NORSAR Subarra**	**25.94**	**348**	P	**P**	**07 58 54.4**	**+0.4**
	comp=Z,12nm,0.9s,mb4.4,baz=160,slow=9.6,SNR=5.7						
NOA	**NORSAR Array B**	**25.94**	**348**	P	**P**	**07 58 52.7**	**-1.3**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,65nm,18.8s						
NOA	**NORSAR Array B**	**25.94**	**348**	P	**P**	**07 58 52.6**	**-1.4**
	comp=Z,1.1nm,0.5s,mb3.6,baz=159,slow=9.5,SNR=4.7						
NOA				LR	LR	08 10 53.3	
	comp=Z,65nm,18.8s,baz=10.0,slow=41						
NOA	**NORSAR Array B**	**25.94**	**348**	P	**P**	**07 58 52.7**	**-1.3**
KAF	**Kangasniemi**	**26.26**	**5**	*e*P	**P**	**07 58 55.1**	**-1.8**
KAF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.4						
KAF	**Kangasniemi**	**26.26**	**5**	*e*p	**P**	**07 58 55.1**	**-1.8**
	comp=Z,11nm,0.8s,mb4.4						
KAF	**Kangasniemi**	**26.26**	**5**	*e*P	**P**	**07 58 55.1**	**-1.8**
	comp=Z,11nm,0.8s,mb4.4						
KLMR	**Klimovskoe**	**27.29**	**19**	*e*P	**P**	**07 59 01.2**	**-5.0**
KLMR				pmax	pmax		
	comp=Z,24nm,1.3s,mb4.6						
JOF	**Joensuu**	**27.55**	**9**	*e*P	**P**	**07 59 05.9**	**-2.6**
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
JOF	**Joensuu**	**27.55**	**9**	*e*p	**P**	**07 59 05.9**	**-2.6**
	comp=Z,2.0nm,0.5s,mb4.0						
TORD	**Torodi Ar. Bea**	**29.12**	**224**	P	**P**	**07 59 24.6**	**+1.7**
	comp=Z,3.6nm,0.7s,mb4.2,baz=34,slow=8.6,SNR=24						

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TORD                              LR     LR     08 12 39.2
      comp=Z,67nm,19.0s,baz=30,slow=40
PRGR  Permogore         29.69  23 eP     P      07 59 24.0 -3.5
PRGR                              eS     S      08 04 19.5 -3.5
PRGR                              pmax   pmax
      comp=Z,39nm,1.1s,mb5.0
AKTK  Aktyubinsk        29.69  50 P      P      07 59 25.9 -1.7
AKTK                              LR     LR     08 14 30.1
AKTK  Aktyubinsk        29.69  50 P      P      07 59 26.0 -1.7
AKTO  Aktyubinsk        29.69  50 P      P      07 59 26.0 -1.7
AKTO                              pmax   pmax
      comp=Z,2.0nm,0.7s
AKTO                              MLR    MLR
      comp=Z,47nm,19.6s,MS3.1
AKTO  Aktyubinsk        29.69  50 P      P      07 59 25.9 -1.7
      comp=Z,2.4nm,0.7s,mb4.0,baz=254,slow=9.3,SNR=8.9
AKTO                              LR     LR     08 14 30.1
      comp=Z,47nm,19.6s,baz=176,slow=43
ARU   Arti              32.01 39d iP     P      07 59 46.9 -1.2
ARU                               e             08 00 48.5
ARU                               S      S      08 05 00.8 +1.2
ARU                               SS     SS     08 06 50.9  -26
ARU                               pmax   pmax
      comp=Z,16nm,1.2s,mb4.7
ARU   Arti              32.01  39 eP     P      07 59 46.7 -1.4
      comp=Z,26nm,1.4s,mb4.9
ARU   Arti              32.01  39 eP     P      07 59 46.7 -1.4
      comp=Z,26nm,1.4s,mb4.9
SOKR  Solikamsk         32.62 33⇓ iP     P      07 59 53.5 +0.1
SOKR                              pmax   pmax
      comp=Z,20nm,1.2s,mb4.9
SVE   Sverdlovsk        33.22 39⇓ eP     P      07 59 57.9 -0.8
SVE                               pmax   pmax
      comp=Z,21nm,1.1s,mb5.0
ARCES ARCESS Array B    33.63   2 P      P      08 00 00.6 -1.5
ARCES                             pmax   pmax
      comp=Z,2.0nm,0.5s
ARCES                             MLR    MLR
      comp=Z,84nm,20.4s
ARCES ARCESS Array B    33.63   2 P      P      08 00 00.6 -1.5
      comp=Z,1.8nm,0.5s,mb4.3,baz=185,slow=8.7,SNR=32
ARCES                             LR     LR     08 12 38.9
      comp=Z,84nm,20.4s,MS3.5,baz=9.7,slow=35
ARCES ARCESS Array B    33.63   2 P      P      08 00 00.6 -1.5
KEV   Kevo              33.91   3 eP     P      08 00 03.4 -1.1
KEV                               pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.6
KEV   Kevo              33.91   3 ep     P      08 00 03.4 -1.1
      comp=Z,5.0nm,0.6s,mb4.6
KEV   Kevo              33.91   3 eP     P      08 00 03.4 -1.1
      comp=Z,5.0nm,0.6s,mb4.6
BRVK  Borovoye          37.67  48 eP     P      08 00 36.4 -0.6
BRVK                              pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.5
BRVK  Borovoye          37.67  48 eP     P      08 00 36.4 -0.5
      comp=Z,7.6nm,0.8s,mb4.5
BRVK  Borovoye          37.67  48 eP     P      08 00 36.4 -0.6
      comp=Z,7.6nm,0.8s,mb4.5
DBIC  Dimbokro          38.11 226 P      P      08 00 42.2 +1.1
DBIC                              pmax   pmax
      comp=Z,4.0nm,0.7s
DBIC                              MLR    MLR
      comp=Z,42nm,18.8s
DBIC  Dimbokro          38.11 226 P      P      08 00 42.2 +1.1
      comp=Z,3.9nm,0.7s,mb4.3,baz=355,slow=8.8,SNR=4.7
DBIC                              LR     LR     08 17 32.2
      comp=Z,42nm,18.8s,baz=44,slow=38
DBIC  Dimbokro          38.11 226 P      P      08 00 42.2 +1.1
DBIC                              LR     LR     08 17 32.2
DBIC  Dimbokro          38.11 226 P      P      08 00 42.2 +1.1
AML   Almayashu         40.19  65 eP     P      08 00 58.1 -0.1
      comp=Z,1.8nm,0.6s,mb4.0
AML   Almayashu         40.19  65 eP     P      08 00 58.1 -0.1
      comp=Z,1.8nm,0.6s,mb4.0
AAK   Ala-Archa         40.69 64⇑ eP     P      08 01 02.2 -0.2
AAK                               pmax   pmax
      comp=Z,4.0nm,1.3s,mb3.9
AAK   Ala-Archa         40.69  64 eP     P      08 01 02.5 +0.1
      comp=Z,12nm,1.1s,mb4.5
AAK   Ala-Archa         40.69  64 eP     P      08 01 02.5 +0.1
      comp=Z,12nm,1.1s,mb4.5
SCO   Scoresbysund      41.58 339 eP     P      08 01 10.8 +1.5
SCO                               pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.3
SCO   Scoresbysund      41.58 339 iP     P      08 01 10.8 +1.5
      comp=Z,6.0nm,0.8s,mb4.3
SCO   Scoresbysund      41.58 339 eP     P      08 01 10.8 +1.5
      comp=Z,6.0nm,0.8s,mb4.3
SCO   Scoresbysund      41.58 339 eP     P      08 01 10.8 +1.5
      comp=Z,6.0nm,0.8s,mb4.3
KURK  Kurchatov         42.74  52 eP     P      08 01 17.3 -1.7
KURK                              pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.2
KURK  Kurchatov         42.74  52 P      P      08 01 16.7 -2.3
      comp=Z,2.1nm,0.5s,mb4.1,baz=274,slow=8.6,SNR=11
KURK  Kurchatov         42.74  52 eP     P      08 01 17.3 -1.7
      comp=Z,4.7nm,0.9s,mb4.2
KURK  Kurchatov         42.74  52 eP     P      08 01 17.3 -1.7
      comp=Z,4.7nm,0.9s,mb4.2
NVS   Novosibirsk       45.39  45 eP     P      08 01 38.7 -1.5
NVS                               pmax   pmax
      comp=N,2.0nm,0.6s
NVS                               pmax   pmax
      comp=E,5.0nm,0.6s
NVS                               pmax   pmax
      comp=Z,11nm,0.6s,mb4.9
MKAR  Makanchi Array    45.55  57 P      P      08 01 40.3 -1.3
MKAR                              pmax   pmax
      comp=Z,4.0nm,0.4s
MKAR  Makanchi Array    45.55  57 P      P      08 01 40.3 -1.4
      comp=Z,3.5nm,0.4s,mb4.7,baz=268,slow=7.7,SNR=28
MKAR  Makanchi Array    45.55  57 P      P      08 01 40.3 -1.3
ZAA0  Zalesovo Array    46.36  47 eP     P      08 01 46.0 -1.9
ZAA0  Zalesovo Array    46.36  47 eP     P      08 01 46.0 -1.9
ZALV  Zalesovo Beam     46.36  47 P      P      08 01 46.0 -1.9
ZALV                              pmax   pmax
      comp=Z,3.0nm,0.3s,mb4.7
ZALV  Zalesovo Beam     46.36  47 P      P      08 01 46.0 -1.9
      comp=Z,2.6nm,0.3s,mb4.6,baz=270,slow=8.1,SNR=17
ZALV  Zalesovo Beam     46.36  47 P      P      08 01 46.0 -1.9
WMQ   Urumqi            49.89  60 eP     P      08 02 16.5 +1.1
WMQ                               pP     pP     08 02 24.0 +5.4
WMQ                               pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.8
WMQ                               pmax   pmax
      comp=Z,150nm,5.3s
WMQ                               LR     LR
      comp=Z,120nm,18.2s,MS3.9
DANN  Dangsing          52.18  80 eP     P      08 02 32.7 -0.1
      comp=Z,59nm,0.6s,mb5.7
DANN  Dangsing          52.18  80 eP     P      08 02 32.7 -0.1
      comp=Z,59nm,0.6s,mb5.7
KOLN  Koldanda          52.30  81 eP     P      08 02 32.7 -1.0
      comp=Z,22nm,0.9s,mb5.1
KOLN  Koldanda          52.30  81 eP     P      08 02 32.7 -1.0
      comp=Z,22nm,0.9s,mb5.1
GKN   Gorkha            53.03  80 eP     P      08 02 38.1 -1.0
      comp=Z,36nm,0.6s,mb5.5
GKN   Gorkha            53.03  80 eP     P      08 02 38.1 -1.0
      comp=Z,36nm,0.6s,mb5.5
DMN   Daman             53.58  80 eP     P      08 02 42.4 -0.7
      comp=Z,46nm,0.7s,mb5.5
DMN   Daman             53.58  80 eP     P      08 02 42.4 -0.7
      comp=Z,46nm,0.7s,mb5.5
KKN   Kakani            53.63  80 eP     P      08 02 42.6 -1.0
      comp=Z,22nm,0.6s,mb5.3
KKN   Kakani            53.63  80 eP     P      08 02 42.6 -1.0
KKN                               pmax   pmax
      comp=Z,22nm,0.6s,mb5.3
KKN   Kakani            53.63  80 eP     P      08 02 42.6 -1.0
      comp=Z,22nm,0.6s,mb5.3
PKI   Pulchoki          53.83  80 eP     P      08 02 43.8 -1.2
      comp=Z,44nm,1.0s,mb5.3
PKI   Pulchoki          53.83  80 eP     P      08 02 43.8 -1.2
PKI                               pmax   pmax
      comp=Z,44nm,1.0s,mb5.3
PKI   Pulchoki          53.83  80 eP     P      08 02 43.8 -1.2
      comp=Z,44nm,1.0s,mb5.3
GUN   Gumba             54.06  79 eP     P      08 02 46.0 -0.7
      comp=Z,42nm,0.9s,mb5.3
GUN   Gumba             54.06  79 eP     P      08 02 46.0 -0.7
      comp=Z,42nm,0.9s,mb5.4
JIRN  Jiri              54.42  79 eP     P      08 02 48.3 -1.0
      comp=Z,20nm,0.7s,mb5.2
JIRN  Jiri              54.42  79 eP     P      08 02 48.3 -1.0
      comp=Z,20nm,0.7s,mb5.2
RAMN  Ramite            55.06  80 eP     P      08 02 52.4 -1.5
      comp=Z,29nm,0.8s,mb5.4
RAMN  Ramite            55.06  80 eP     P      08 02 52.4 -1.5
      comp=Z,29nm,0.8s,mb5.4
ODAN  Odare             55.73  80 eP     P      08 02 57.6 -1.2
      comp=Z,8.7nm,0.7s,mb4.9
ODAN  Odare             55.73  80 eP     P      08 02 57.6 -1.2
      comp=Z,8.7nm,0.7s,mb4.9
TAPN  Taplejung         55.76  79 eP     P      08 02 57.8 -1.2
      comp=Z,5.4nm,0.3s,mb5.1
TAPN  Taplejung         55.76  79 eP     P      08 02 57.8 -1.2
      comp=Z,5.4nm,0.3s,mb5.1
LSA   Lhasa             57.45  75 P      P      08 03 11.5 +0.5
LSA   Lhasa             57.45  75 eP     P      08 03 11.3 +0.3
LSA                               pmax   pmax
      comp=Z,13nm,0.7s,mb5.1
LSA   Lhasa             57.45  75 eP     P      08 03 11.3 +0.3
      comp=Z,13nm,0.7s,mb5.1
LSA   Lhasa             57.45  75 eP     P      08 03 11.3 +0.3
      comp=Z,13nm,0.7s,mb5.1
TLY   Talaya            57.97  47 eP     P      08 03 13.5 -0.8
TLY                               pmax   pmax
      comp=Z,2.0nm,0.8s,mb4.2
ZAK   Zakamensk         58.18  48 eP     P      08 03 14.8 -1.0
ZAK                               pmax   pmax
      comp=Z,3.0nm,1.0s,mb4.3
SHL   Shillong          59.90  79 ePKP   P      08 03 28.5 +0.4
GTA   Gaotai            59.91  61 eP     P      08 03 27.3 -0.7
GTA                               pP     pP     08 03 32.0 +0.8
GTA                               sP     sP     08 03 34.5 +2.1
GTA                               PP     PP     08 05 41.5 +1.6
GTA                               S      S      08 11 38.0 -2.0
GTA                               sS     sS     08 11 46.0 +0.7
GTA                               SS     SS     08 15 35.0 -0.9
GTA                               pmax   pmax
      comp=Z,3.0nm,0.9s,mb4.3
GTA                               pmax   pmax
      comp=Z,33nm,4.5s
GTA                               LR     LR
      comp=N,42nm,14.3s,MS4.0
GTA                               LR     LR
      comp=E,74nm,13.7s,MS4.0
GTA                               LR     LR
      comp=Z,51nm,14.9s,MS3.8
SCHQ  Schefferville     60.77 318 P      P      08 03 34.2 +0.5
      comp=Z,2.1nm,0.7s,mb4.4,baz=58,slow=10,SNR=6.5
SCHQ  Schefferville     60.77 318 P      P      08 03 34.2 +0.5
SCHQ  Schefferville     60.77 318 P      P      08 03 34.2 +0.6
SONM  Songino Array     61.01  50 P      P      08 03 34.0 -1.3
SONM                                            08 04 18.9
SONM                              pmax   pmax
      comp=Z,2.0nm,0.7s
SONM                              pmax   pmax
      comp=Z,1.0nm,0.6s
SONM  Songino Array     61.01  50 P      P      08 03 34.0 -1.3
      comp=Z,1.5nm,0.7s,mb4.3,baz=282,slow=8.6,SNR=14
SONM                              PcP    PcP    08 04 18.9 +0.4
      comp=Z,0.9nm,0.6s,baz=260,slow=2.1,SNR=3.9
SONM  Songino Array     61.01  50 P      P      08 03 34.0 -1.3
SONM  Songino Array     61.01  50 PcP    PcP    08 04 18.9 +0.4
TIXI  Tiksi             61.30 20⇑ eP     P      08 03 36.0 -0.9
TIXI                              pmax   pmax
      comp=Z,6.0nm,1.3s,mb4.6
TIXI  Tiksi             61.30  20 eP     P      08 03 36.2 -0.7
      comp=Z,4.2nm,0.8s,mb4.6
TIXI  Tiksi             61.30  20 eP     P      08 03 36.2 -0.7
      comp=Z,4.2nm,0.8s,mb4.6
ULN   Ulaanbaatar       61.40  50 eP     P      08 03 37.3 -0.7
ULN                               pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.6
ULN   Ulaanbaatar       61.40  50 eP     P      08 03 37.3 -0.7
      comp=Z,2.9nm,0.6s,mb4.6
ULN   Ulaanbaatar       61.40  50 eP     P      08 03 37.3 -0.7
      comp=Z,2.8nm,0.6s,mb4.6
BOD   Bodaibo           61.42  38 eP     P      08 03 34.8 -3.1
BOD                               pmax   pmax
      comp=Z,3.0nm,0.8s,mb4.5
LZH   Lanzhou           64.22  63 eP     P      08 03 56.5 -0.5
LZH                               pP     pP     08 03 59.0 -1.2
LZH                               PP     PP     08 06 17.0 -0.9
LZH                               eS     S      08 12 24.0  -10
LZH                               SS     SS     08 16 40.0 -3.4
LZH                               pmax   pmax
      comp=Z,25nm,1.0s,mb5.2
LZH                               pmax   pmax
      comp=Z,170nm,5.8s
LZH                               LR     LR
      comp=N,870nm,15.8s
LZH                               LR     LR
      comp=Z,980nm,16.7s,MS5.1
CD2   Chengdu           66.58  68 P      P      08 04 11.8 -0.5
CD2                               pP     pP     08 04 15.8 +0.2
CD2                               sP     sP     08 04 17.5 +0.7
CD2                               PP     PP     08 06 40.0 +1.3
CD2                               S      S      08 12 59.8 -3.7
CD2                               SS     SS     08 17 16.8 -3.5
CD2                               pmax   pmax
      comp=Z,30nm,0.8s,mb5.4
CD2                               pmax   pmax
      comp=Z,150nm,5.3s
CD2                               LR     LR
      comp=N,290nm,5.3s
CD2                               LR     LR
      comp=Z,320nm,7.0s
HHC   Hu-ho-hao-te      67.38  55 eP     P      08 04 16.5 -0.8
HHC                               pP     pP     08 04 20.5  0.0
HHC                               PP     PP     08 06 45.8 +0.4
HHC                               PcS           08 08 47.8
HHC                               S      S      08 13 07.0 -5.9
HHC                               sS     sS     08 13 17.3 -0.9
HHC                               ScS    ScS    08 14 10.0 -5.4
HHC                               SS     SS     08 17 28.3 -3.9
HHC                               pmax   pmax
      comp=Z,13nm,0.9s,mb5.0
HHC                               pmax   pmax
      comp=Z,83nm,6.2s
HHC                               LR     LR
      comp=N,250nm,13.9s,MS4.9
HHC                               LR     LR
      comp=E,470nm,16.6s,MS4.9
HHC                               LR     LR
      comp=Z,100nm,14.3s,MS4.2
KMI   Kunming           68.67  74 P      P      08 04 25.0 -0.7
KMI                               pP     pP     08 04 29.8 +0.9
KMI                               sP     sP     08 04 31.3 +1.2
KMI                               PP     PP     08 07 00.0 +2.9
KMI                               S      S      08 13 28.3 -0.5
KMI                               SS     SS     08 17 51.8 -1.2
KMI                               pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.7
KMI                               pmax   pmax
      comp=Z,53nm,3.4s
KMI                               LR     LR
      comp=N,210nm,27.9s,MS4.3
KMI                               LR     LR
      comp=E,180nm,31.4s,MS4.3
KMI                               LR     LR
      comp=Z,160nm,24.4s
CMAR  Chiang Mai Arr    69.13  82 P      P      08 04 28.0 -0.6
CMAR                              pmax   pmax
      comp=Z,4.0nm,0.7s
CMAR  Chiang Mai Arr    69.13  82 P      P      08 04 27.9 -0.6
      comp=Z,3.5nm,0.7s,mb4.4,baz=301,slow=7.8,SNR=16
CMAR  Chiang Mai Arr    69.13  82 P      P      08 04 28.0 -0.6
BJI   Beijing           70.83  54 P      P      08 04 37.5 -1.2
BJI                               pmax   pmax
      comp=Z,15nm,0.8s,mb5.0
GYA   Guiyang           71.02  71 P      P      08 04 38.8 -1.3
GYA                               pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.7
BILL  Bilibino          72.87  13 eP     P      08 04 45.1 -5.4
BILL                              eS     S      08 14 16.7 +0.4
BILL                              pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.3
INK   Inuvik            74.36 351 P      P      08 04 58.4 -0.8
INK                               pmax   pmax
      comp=Z,1.0nm,1.0s
INK   Inuvik            74.36 351 P      P      08 04 58.4 -0.8
      comp=Z,1.3nm,0.9s,mb3.8,baz=42,slow=12,SNR=2.2
INK   Inuvik            74.36 351 P      P      08 04 58.4 -0.8
INK   Inuvik            74.36 351 P      P      08 04 58.4 -0.8
CN2   Changchun         74.58  47 eP     P      08 05 00.0 -0.9
CN2                               esP    sP     08 05 06.8 +1.4
CN2                               eS     S      08 14 31.8 -4.6
CN2                               pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.8
CN2                               pmax   pmax
      comp=Z,200nm,4.0s
CN2                               LR     LR
      comp=N,600nm,18.0s,MS5.0
CN2                               LR     LR
      comp=E,200nm,18.0s,MS5.0
CN2                               LR     LR
      comp=Z,400nm,19.0s,MS4.7
KLR   Kul'dur           74.85  40 eP     P      08 04 56.9 -5.5
YKA   Yellowknife Ar    75.78 341 P      P      08 05 07.5  0.0
YKA                               pmax   pmax
      comp=Z,1.0nm,0.6s
YKA   Yellowknife Ar    75.78 341 P      P      08 05 07.5  0.0
      comp=Z,0.5nm,0.6s,mb3.6,baz=31,slow=5.4,SNR=15
YKA   Yellowknife Ar    75.78 341 P      P      08 05 07.5  0.0
YKA   Yellowknife Ar    75.78 341 P      P      08 05 07.5  0.0
NJ2   Nanjing           76.97  60 eP     P      08 05 17.5 +2.7
NJ2                               pmax   pmax
      comp=Z,10.0nm,0.6s,mb4.9
FFC   Flin Flon         77.58 330 iP     P      08 05 20.2 +2.4
DAWY  Dawson            79.15 352 eP     P      08 05 27.4 +1.1
DAWY  Dawson            79.15 352 eP     P      08 05 27.4 +1.1
KSRS  Korea Array       79.86  51 P      P      08 05 29.6 -1.1
KSRS                              pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
KSRS  Korea Array       79.86  51 P      P      08 05 29.6 -1.1
      comp=Z,4.1nm,0.8s,mb4.4,baz=304,slow=4.6,SNR=9.9
KDAK  Kodiak Island     86.44 357 P      P      08 06 03.6 -0.7
KDAK                              pmax   pmax
      comp=Z,9.0nm,0.7s,mb5.1
KDAK  Kodiak Island     86.44 357 P      P      08 06 03.6 -0.7
      comp=Z,8.8nm,0.7s,mb5.1,baz=304,slow=8.7,SNR=3.4
KDAK  Kodiak Island     86.44 357 P      P      08 06 03.6 -0.7
MJAR  Matsushiro Arr    86.71  46 P      P      08 06 04.2 -1.9
MJAR                              pmax   pmax
      comp=Z,3.0nm,0.7s
MJAR  Matsushiro Arr    86.71  46 P      P      08 06 04.2 -1.9
      comp=Z,2.6nm,0.7s,mb4.5,baz=297,slow=4.4,SNR=4.7
MJAR  Matsushiro Arr    86.71  46 P      P      08 06 04.2 -1.9
PDAR  Pinedale Array    89.93 326 P      P      08 06 21.0 -0.2
      comp=Z,0.5nm,1.0s,mb3.8,baz=22,slow=4.8,SNR=4.4
PDAR  Pinedale Array    89.93 326 P      P      08 06 21.0 -0.2
WRA   Warramunga Arr   119.35  94 PKIKP  PKPdf  08 12 10.8 -1.0
WRA                               pmax   pmax
      comp=Z,1.0nm,1.0s
WRA   Warramunga Arr   119.35  94 PKP    PKPdf  08 12 10.8 -1.0
      comp=Z,0.7nm,1.0s,baz=291,slow=2.9,SNR=5.1
WRA   Warramunga Arr   119.35  94 PKIKP  PKPdf  08 12 10.8 -1.0
ASAR  Alice Springs    120.84  98 PKIKP  PKPdf  08 12 14.3 -0.3
ASAR                              pmax   pmax
      comp=Z,1.0nm,0.7s
ASAR  Alice Springs    120.84  98 PKP    PKPdf  08 12 14.3 -0.3
      comp=Z,0.8nm,0.7s,baz=301,slow=1.2,SNR=7.2
ASAR  Alice Springs    120.84  98 PKIKP  PKPdf  08 12 14.3 -0.3
QSPA  South Pole Qui   125.88 180 PKP    PKPdf  08 12 22.9 +0.3
      comp=Z,2.3nm,1.0s,baz=316,slow=6.5,SNR=16
QSPA  South Pole Qui   125.88 180 PKIKP  PKPdf  08 12 22.9 +0.3
```

ISK ***28*** *07:57:13.9, 37°.85N×38°.39E, h17^{km}, MD2.9*

ISCJB ***28*** *07:57:14.3±0.5, 37°.84N±0°.03×38°.32E±0°.04, h2^{km}±6^{km}, Error ellipse: s-maj=5.4km s-min=4.3km az=178.6*

CSEM ***28*** *07:57:14.2±0.3, 37°.86N×38°.30E, h5^{km}, MD2.8, Error ellipse: s-maj=8.3km s-min=5.9km az=90.0*

DDA ***28*** *07:57:14.6, 37°.84N×38°.30E, h7^{km}±2^{km}, Md2.8*

ISC 28 07:57:14.8±0.5**, 37°.84N**±0°.03×**38°.31E**±0°.04**, h4**^{km}±6^{km}**, n24, σ0^{s}.76**/36**, Turkey**

```
Code  Station Name       Δ°   AZ°   Phase ID          Time      Res
                                  Op     ISC       h  m  s      ISC
ATAB  Bozova             0.37 181 iP     Pg     07 57 22.3 +0.3
ATAB                              iS     Sg     07 57 27.5 +0.7
ATAB  Bozova             0.37 181 iP     Pg     07 57 22.3 +0.3
ATAB                              iS     Sg     07 57 27.5 +0.7
MALT  Malatya            0.48  12 ePG    Pg     07 57 23.8 -0.3
MALT                              eSG    Sg     07 57 30.6 +0.2
MALT  Malatya            0.48  12 ePg    Pg     07 57 23.8 -0.3
MALT                              eSg    Sg     07 57 30.6 +0.2
MYA   Malataya           0.49  11 ePG    Pg     07 57 24.0 -0.3
MYA   Malataya           0.49  11 ePg    Pg     07 57 24.0 -0.3
AKCD  Akcadag            0.55 326 iP     Pg     07 57 25.2 -0.1
AKCD                              iS     Sg     07 57 33.0 +0.6
AKCD  Akcadag            0.55 326 iP     Pg     07 57 25.2 -0.1
AKCD                              iS     Sg     07 57 33.0 +0.6
URFA  Urfa               0.57 134 ePG    Pg     07 57 24.9 -0.9
URFA                              eSG    Sg     07 57 32.9 -0.4
URFA  Urfa               0.57 134 ePg    Pg     07 57 24.9 -0.9
URFA                              eSg    Sg     07 57 32.9 -0.3
ELZG  Elazig             0.85  39 iP     Pg     07 57 30.8 -0.3
ELZG                              iS     Sg     07 57 43.4 +1.3
ELZG  Elazig             0.85  39 iP     Pg     07 57 30.8 -0.3
ELZG                              iS     Sg     07 57 43.4 +1.3
GAZ   Gaziantep          1.10 233 ePN    Pg     07 57 35.9 +0.1
GAZ   Gaziantep          1.10 233 ePn    Pg     07 57 35.9 +0.1
KMRS  Kahramanmaras      1.16 254 ePN    Pn     07 57 36.8 -1.1
KMRS  Kahramanmaras      1.16 254 ePn    Pn     07 57 36.8 -1.1
DARE  Darende-Malaty     1.18 341 ePG    Pg     07 57 33.9 -3.5
DARE  Darende-Malaty     1.18 341 ePg    Pg     07 57 33.9 -3.5
KUZU  Kuzuini            1.45 223 iP     Pn     07 57 42.4 +0.6
KUZU                              iS     Sb     07 58 01.9 +0.8
KUZU  Kuzuini            1.45 223 iP     Pn     07 57 42.3 +0.5
SARI  SarD1z-Kayseri     1.52 304 ePN    Pn     07 57 43.2 +0.5
SARI  SarD1z-Kayseri     1.52 304 ePn    Pn     07 57 43.2 +0.5
KOZT  Kozan              2.00 260 ePN    Pn     07 57 48.4 -1.0
MARD  Mardin             2.04 104 iP     Pn     07 57 48.9 -0.9
MARD                              iS     Sn     07 58 16.5 +0.8
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NIED ***28*** *07:59:00, 26°.80N×142°.90E, h11^{km}, Mw4.4 Best double couple: $M_0$4.07000×10^{15} NP1:ϕ_s31.00000°, δ74.00000°, λ100.00000°. NP2:ϕ_s179.00000°, δ19.00000°, λ59.00000°.*

IDC ***28*** *07:59:49.0±0.6, 26°.84N×142°.68E, h0^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.2/25, mbtmp4.1/18, ML3.7/1, MS3.6/9, Ms1 3.7/9, ms1mx3.3/38, Error ellipse: s-maj=17.9km s-min=12.7km az=41.0*

NEIC ***28*** *07:59:50.5±0.5, 26°.78N×142°.66E, h10^{km}, mb4.6/2, MW4.3(NIED), Error ellipse: s-maj=17.2km s-min=9.3km az=81.0*

BJI ***28*** *07:59:50.4, 26°.80N×142°.70E, h10^{km}, mB4.9/7, mb4.5/10, Ms4.8/2, Ms7 4.3/2*

ISCJB ***28*** *07:59:54.1±1.2, 26°.83N±0°.08×142°.6E±0°.1, h50^{km}±8^{km}, mb4.2/22, MS3.8/6, Error ellipse: s-maj=20.1km s-min=13.0km az=176.0*

ISC 28 07:59:55.0±1.5**, 26°.81N**±0°.08×**142°.6E**±0°.1**, h41**^{km}±11^{km}**, n38, σ0^{s}.86**/32**, mb4.2**/22**, MS3.8**/6**, Bonin Islands region**

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Code  Station Name       Δ°   AZ°   Phase ID          Time      Res
                                  Op     ISC       h  m  s      ISC
CBIJ  Chichi jima        0.47 307 Pn     Pn     08 00 04.0 -1.5
      633nm,0.3s,baz=297,slow=22,SNR=57
CBIJ                              Sn     Sn     08 00 14.3 +1.4
      1μm,0.3s,baz=280,slow=19,SNR=30
MJAR  Matsushiro Arr    10.40 340 Pn     Pn     08 02 21.0 -0.6
      0.6nm,0.3s,baz=160,slow=12,SNR=4.4
MAJO  Matsushiro        10.40 340 ePn    Pn     08 02 22.0 +0.5
JOW   Kunigami          12.80 273 LR     LR     08 06 60.0
      comp=Z,189nm,19.6s,baz=152,slow=34
GUMO  Guam              13.32 170 LR     LR     08 07 52.1
      comp=Z,59nm,19.3s,baz=347,slow=36
KSRS  Korea Array       16.33 314 LR     LR     08 09 39.7
      comp=Z,265nm,18.4s,baz=266,slow=36
XAN   Xi'an             29.83 292 P      P      08 05 57.5 -0.8
XAN                               pP     pP     08 06 09.5  0.0
XAN                               sP     sP     08 06 15.5 +1.0
XAN                               pmax   pmax
      comp=Z,3.0nm,0.9s,mb4.0
CD2   Chengdu           34.16 286 P      P      08 06 35.8 -0.4
CD2                               pmax   pmax
      comp=Z,10.0nm,0.5s,mb5.0
SONM  Songino Array     35.18 316 P      P      08 06 44.4 -0.5
      comp=Z,0.7nm,0.7s,mb3.7,baz=112,slow=7.3,SNR=5.3
SONM                              LR     LR     08 20 25.5
      comp=Z,88nm,21.4s,MS3.5,baz=120,slow=35
CMAR  Chiang Mai Arr    40.99 268 P      P      08 07 33.0 -1.2
      comp=Z,1.0nm,0.3s,mb3.9,baz=58,slow=8.1,SNR=6.2
WRAB  Tennant Creek     47.15 191 eP     P      08 08 23.4 +0.1
      comp=Z,13nm,0.8s,mb4.9
WRA   Warramunga Arr    47.16 191 P      P      08 08 23.3 -0.2
      comp=Z,10nm,0.8s,mb4.8,baz=13,slow=8.7,SNR=5.5
FITZ  Fitzroy Crossi    47.58 202 LR     LR     08 26 30.4
      comp=Z,172nm,19.2s,MS4.0,baz=157,slow=34
```

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	Zalesovo Beam	49.95	319	PcP	PcP	08 10 04.9	+0.6
	comp=Z,1.0nm,0.6s,baz=108,slow=4.7,SNR=3.1						
ZALV				LR	LR	08 30 29.4	
	comp=Z,55nm,18.4s,MS3.6,baz=72,slow=37						
ASAR	Alice Springs	50.88	190	P	P	08 08 52.9	+1.1
	comp=Z,1.1nm,0.7s,mb3.9,baz=14,slow=8.5,SNR=13						
MKAR	Makanchi Array	50.95	310	P	P	08 08 51.3	-1.0
	comp=Z,0.5nm,0.6s,mb3.6,baz=79,slow=9.0,SNR=4.2						
KURK	Kurchatov	53.46	315	P	P	08 09 10.3	-0.5
	comp=Z,1.2nm,0.4s,mb4.2,baz=91,slow=8.1,SNR=6.0						
KURK	Kurchatov	53.46	315	eP	P	08 09 09.8	-0.9
	comp=Z,2.2nm,0.8s,mb4.1						
KSH	Kashi	56.05	301	P	P	08 09 34.0	+4.2
KSH				epP	pP	08 09 43.8	+2.1
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
KSH				pmax	pmax		
	comp=Z,260nm,3.7s						
KSH				LR	LR		
	comp=N,240nm,7.6s						
KSH				LR	LR		
	comp=E,180nm,6.8s						
KSH				LR	LR		
	comp=Z,230nm,8.0s						
STKA	Stephens Creek	58.36	181	P	P	08 09 46.9	+0.9
	comp=Z,1.6nm,0.7s,mb4.1,baz=338,slow=11,SNR=2.3						
STKA	Stephens Creek	58.36	181	P	P	08 09 46.1	+0.1
INK	Inuvik	63.13	24	P	P	08 10 17.4	-0.6
	comp=Z,1.6nm,0.3s,mb4.6,baz=286,slow=6.8,SNR=3.1						
INK	Inuvik	63.13	24	P	P	08 10 17.4	-0.7
AKTK	Aktyubinsk	66.50	316	P	P	08 10 40.5	+0.2
AKTO	Aktyubinsk	66.50	316	P	P	08 10 40.5	+0.2
	comp=Z,2.1nm,0.7s,mb4.2,baz=74,slow=16,SNR=8.7						
YKA	Yellowknife Ar	72.22	28	P	P	08 11 15.7	+0.3
	comp=Z,0.9nm,0.8s,mb3.8,baz=292,slow=5.9,SNR=15						
YKA	Yellowknife Ar	72.22	28	P	P	08 11 15.7	+0.3
ARCES	ARCESS Array B	73.94	341	P	P	08 11 26.8	+1.3
	comp=Z,2.9nm,0.8s,mb4.2,baz=76,slow=6.8,SNR=7.8						
ARCES	ARCESS Array B	73.94	341	P	P	08 11 26.8	+1.3
JOF	Joensuu	75.51	334	ep	P	08 11 35.0	+0.4
	comp=Z,3.9nm,0.7s,mb4.5						
FINES	FINESS Array B	78.37	334	P	P	08 11 51.4	+0.6
	comp=Z,3.1nm,0.8s,mb4.3,baz=85,slow=4.0,SNR=7.4						
NVAR	Mina Array Bea	80.40	52	P	P	08 12 01.2	-1.1
	comp=Z,0.2nm,0.5s,mb3.3,baz=300,slow=7.2,SNR=2.4						
AKASG	Malin Array Be	83.07	324	P	P	08 12 16.6	+0.5
	comp=Z,0.3nm,0.3s,mb3.8,baz=46,slow=6.1,SNR=5.6						
HFS	Hagfors	83.84	337	P	P	08 12 20.4	+0.5
	comp=Z,2.7nm,0.8s,mb4.5,baz=72,slow=6.2,SNR=3.3						
NOA	NORSAR Array B	84.02	338	P	P	08 12 22.9	+2.1
	comp=Z,1.1nm,0.7s,mb4.1,baz=47,slow=4.8,SNR=2.9						
NOA				LR	LR	08 54 03.8	
	comp=Z,42nm,18.7s,MS3.9,baz=20,slow=39						
BRTR	Keskin Array B	86.47	313	LR	LR	08 55 05.8	
	comp=Z,25nm,18.6s,MS3.6,baz=294,slow=38						
GERES	GERESS Array B	91.95	329	LR	LR	08 59 27.8	
	comp=Z,84nm,18.3s,MS4.2,baz=34,slow=39						
TXAR	Lajitas Array	95.47	53	P	P	08 13 15.0	-0.8
	comp=Z,0.2nm,0.8s,mb3.6,baz=234,slow=3.1,SNR=2.9						

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*IDC **28** 08:00:08.7±1.5, 36°.12N×22°.03E, h0^{km}, mb3.8/3, mb1 3.9/3, mb1mx3.5/23, mbtmp3.8/3, Error ellipse: s-maj=65.8km s-min=27.4km az=129.0*

*NEIC **28** 08:00:09.6, 36°.06N×21°.74E, h5^{km}, MD3.7(ATH), ML3.9(THE), After ATH.*

*ATH **28** 08:00:09.6, 36°.06N×21°.74E, h5^{km}±4^{km}, MD3.7/16*

*ISCJB **28** 08:00:11.7±0.7, 36°.07N±0°.04×21°.81E±0°.05, h10^{km}, mb3.8/3, Error ellipse: s-maj=5.7km s-min=5.6km az=136.5*

*CSEM **28** 08:00:11.4±0.5, 36°.06N×21°.77E, h2^{km}, ML3.9/3, Error ellipse: s-maj=9.9km s-min=8.4km az=43.0*

*THE **28** 08:00:12.1, 36°.09N×21°.78E, h0^{km}±3^{km}, ML3.9/3, Error ellipse: s-maj=6.2km s-min=1.9km az=218.0*

ISC 28 08:00:12.5±0.7**, 36°.07N**±0°.04×**21°.83E**±0°.05**, h10**^{km}**, n76, σ1^s.35**/97**, mb3.8**/3**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.83	355	P	Pg	08 00 25.6	-2.9
PYL	PYLOS	0.83	355	ePB	Pg	08 00 25.8	-2.7
PYL				eSB	Sg	08 00 37.7	-1.7
PYL	PYLOS	0.83	355	ePb	Pg	08 00 25.8	-2.7
PYL				eSb	Sg	08 00 37.7	-1.7
KYTH	Kithira	1.00	77	ePB	Pg	08 00 30.4	-1.3
KYTH	Kithira	1.00	77	ePb	Pg	08 00 30.4	-1.3
VLI	Veliai	1.10	54	ePN	Pg	08 00 31.4	-2.3
VLI				eSB	Sg	08 00 48.0	0.0
VLI	Veliai	1.10	54	ePn	Pg	08 00 31.4	-2.3
VLI				eSb	Sg	08 00 48.0	0.0
ITM	Ithomi	1.11	4	ePB	Pg	08 00 31.3	-2.6
ITM				eSB	Sg	08 00 47.0	-1.4
ITM	Ithomi	1.11	4	ePb	Pg	08 00 31.3	-2.6
ITM				eSb	Sg	08 00 47.0	-1.4
VLX	Vlachokerasia	1.37	18	ePG	Pn	08 00 35.4	-2.3
VLX				eSB	Sn	08 00 55.4	-0.6
VLX	Vlachokerasia	1.37	18	ePg	Pn	08 00 35.4	-2.3
VLX				eSb	Sn	08 00 55.4	-0.6
KARN	Karanos	1.82	111	P	Pn	08 00 44.0	+0.1
KARN	Karanos	1.82	111	P	Pn	08 00 44.0	+0.1
DID	Didima	1.82	38	P	Pn	08 00 44.0	+0.1
DID				S	Sg	08 01 09.9	-1.3
DID	Didima	1.82	38	ePG	Pn	08 00 44.2	+0.3
DID				eSN	Sg	08 01 11.5	+0.3
DID	Didima	1.82	38	P	Pn	08 00 44.0	+0.1
DID	Didima	1.82	38	ePg	Pn	08 00 44.2	+0.3
DID				S	Sg	08 01 09.9	-1.3
DID				eSn	Sg	08 01 11.5	+0.3
GUR	Goura	1.91	12	ePN	Pn	08 00 45.7	+0.6
GUR	Goura	1.91	12	ePn	Pn	08 00 45.7	+0.6
RLS	Riolos of Patr	2.01	352	ePN	Pn	08 00 46.9	+0.4
RLS	Riolos of Patr	2.01	352	ePn	Pn	08 00 46.9	+0.4
NAIG	Nisos Aigina	2.15	38	ePG	Pn	08 00 50.1	+1.7
NAIG	Nisos Aigina	2.15	38	ePg	Pn	08 00 50.1	+1.7
LTK	Loutraki	2.15	25	P	Pn	08 00 48.6	+0.2
LTK	Loutraki	2.15	25	ePG	Pn	08 00 50.3	+1.9
LTK	Loutraki	2.15	25	P	Pn	08 00 48.6	+0.2
LTK	Loutraki	2.15	25	ePg	Pn	08 00 50.3	+1.9
LAKA	Lakka	2.17	3	P	Pn	08 00 48.8	+0.1
LAKA				S	Sn	08 01 17.4	+1.7
LAKA	Lakka	2.17	3	P	Pn	08 00 48.8	+0.1
LAKA				S	Sn	08 01 17.4	+1.7
TRIZ	Trizonia	2.30	5	P	Pn	08 00 51.2	+0.7
TRIZ	Trizonia	2.30	5	P	Pn	08 00 51.2	+0.7
VLS	Valsamata	2.33	335	ePN	Pn	08 00 51.1	+0.2
VLS	Valsamata	2.33	335	ePn	Pn	08 00 51.1	+0.2
KALE	Kalithea	2.33	6	P	Pn	08 00 51.3	+0.4
KALE	Kalithea	2.33	6	P	Pn	08 00 51.3	+0.4
EFP	Efpalio	2.36	1	ePG	Pn	08 00 53.4	+2.1
EFP	Efpalio	2.36	1	ePg	Pn	08 00 53.4	+2.1
VLY	Voula,Athens	2.38	41	ePN	Pn	08 00 53.2	+1.7
VLY	Voula,Athens	2.38	41	ePn	Pn	08 00 53.2	+1.7
LKR	Lokris	2.74	19	P	Pn	08 00 57.3	+0.8
LKR	Lokris	2.74	19	ePN	Pn	08 00 57.9	+1.4
LKR	Lokris	2.74	19	ePn	Pn	08 00 57.9	+1.4
LKD	Levkas	2.80	341	P	Pn	08 00 57.5	+0.2
LKD				S	Sn	08 01 32.5	+1.4
LKD	Levkas	2.80	341	P	Pn	08 00 57.5	+0.2
LKD				S	Sn	08 01 32.5	+1.4
AGG	Agios Georgios	2.98	7	P	Pn	08 01 00.2	+0.4
AGG				S	Sn	08 01 37.1	+1.6
AGG	Agios Georgios	2.98	7	ePN	Pn	08 01 02.0	+2.2
AGG	Agios Georgios	2.98	7	P	Pn	08 01 00.2	+0.4
AGG	Agios Georgios	2.98	7	ePn	Pn	08 01 02.0	+2.2
AGG				S	Sn	08 01 37.1	+1.6
THL	Klokotos Trika	3.50	2	P	Pn	08 01 07.4	+0.5
THL				S	Sn	08 01 49.4	+1.1
THL	Klokotos Trika	3.50	2	ePN	Pn	08 01 07.1	+0.2
THL	Klokotos Trika	3.50	2	ePn	Pn	08 01 07.1	+0.2
THL	Klokotos Trika	3.50	2	P	Pn	08 01 07.4	+0.5
THL				S	Sn	08 01 49.4	+1.1
JAN	Janina	3.67	348	ePN	Pn	08 01 09.3	0.0
JAN	Janina	3.67	348	ePn	Pn	08 01 09.3	0.0
MEV	Metsovon	3.74	353	P	Pn	08 01 11.3	+1.0
MEV	Metsovon	3.74	353	P	Pn	08 01 11.3	+1.0
KEK	Kerkira	3.98	337	ePN	Pn	08 01 13.4	-0.2
KEK	Kerkira	3.98	337	ePn	Pn	08 01 13.4	-0.2
LIT	Litokhoron	4.06	7	P	Pn	08 01 15.1	+0.4
LIT	Litokhoron	4.06	7	ePN	Pn	08 01 15.6	+0.9
LIT	Litokhoron	4.06	7	P	Pn	08 01 15.1	+0.4
LIT	Litokhoron	4.06	7	ePn	Pn	08 01 15.6	+0.9
CHOS	Chios island	4.09	54	ePN	Pn	08 01 17.5	+2.5
CHOS	Chios island	4.09	54	ePn	Pn	08 01 17.5	+2.5
HORT	Hortiatis	4.63	12	P	Pn	08 01 22.6	+0.1
HORT	Hortiatis	4.63	12	P	Pn	08 01 22.6	+0.1
KRUS	Krusevo	5.31	355	ePn	Pn	08 01 29.6	-2.3
KRUS				eSg	Sn	08 02 29.2	-4.0
KRUS	Krusevo	5.31	355	ePn	Pn	08 01 29.5	-2.4
CUC	Castrocucco	6.16	311	ePn	Pn	08 01 43.4	-0.1
CUC	Castrocucco	6.16	311	ePn	Pn	08 01 43.4	-0.1
BARS	Barje	6.74	360	⇑iPn	Pn	08 01 50.1	-1.4
BBLS	Lazići	8.01	347	ePn	Pn	08 02 06.7	-2.2
TORD	Torodi Ar. Bea	29.14	224	P	P	08 06 12.8	-0.9
	1.0nm,0.8s,mb3.6,baz=36,slow=7.6,SNR=6.9						
TORD	Torodi Ar. Bea	29.14	224	P	P	08 06 12.8	-0.9
ARCES	ARCESS Array B	33.59	2	P	P	08 06 49.6	-2.7
	3.8nm,1.0s,mb4.3,baz=193,slow=8.7,SNR=5.1						
MKAR	Makanchi Array	45.54	57	P	P	08 08 28.7	-3.6
	0.2nm,0.3s,mb3.5,baz=275,slow=7.7,SNR=9.0						

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*ISCJB **28** 08:02:03.3±0.4, 47°.44N±0°.02×14°.80E±0°.03, h10^{km}, Error ellipse: s-maj=3.7km s-min=3.0km az=150.8*

*CSEM **28** 08:02:03.8±0.2, 47°.47N×14°.78E, h5^{km}, ML2.6/8, Error ellipse: s-maj=4.2km s-min=3.7km az=126.0*

*VIE **28** 08:02:03.9±0.1, 47°.43N×14°.80E, h6^{km}±2^{km}, mb1.4/8, ML2.1/9, Error ellipse: s-maj=1.0km s-min=0.9km az=165.0 4 km NW of Mautern*

*PRU **28** 08:02:08.2, 47°.67N×14°.84E, h0^{km}*

ISC 28 08:02:04.2±0.4**, 47°.46N**±0°.02×**14°.81E**±0°.03**, h10**^{km}**, n24, σ0^s.99**/41**, 12C-3D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARSA	Arzberg	0.53	113	⇑ePg	Pg	08 02 14.5	+0.1
	3.7nm,0.1s,SNR=12						
ARSA				⇑iSg	Sg	08 02 21.1	-0.2
	23nm,0.1s						
ARSA	Arzberg	0.53	113	Pg	Pg	08 02 14.5	+0.1
	3.7nm,0.1s,SNR=12						
MOA	Molln	0.54	317	⇑ePg	Pg	08 02 15.2	+0.5
	5.0nm,0.1s,SNR=11						
MOA				⇑iSg	Sg	08 02 22.6	+0.9
	7.7nm,0.1s						
MOA	Molln	0.54	317	Pg	Pg	08 02 15.2	+0.5
	5.0nm,0.1s,SNR=11						
SOKA	Soboth	0.79	169	⇑iPg	Pg	08 02 19.2	-0.3
	2.8nm,0.1s						
SOKA				⇑iSg	Sg	08 02 29.7	-0.1
	2.8nm,0.1s						
SOKA	Soboth	0.79	169	Pg	Pg	08 02 19.2	-0.3
	2.8nm,0.1s						
SOKA				Sg	Sg	08 02 29.7	-0.1
	2.8nm,0.1s						
CSNA	Conrad Observa	0.85	56	⇑iPg	Pg	08 02 20.7	+0.1
	6.5nm,0.1s						
CSNA				⇑iSg	Sg	08 02 32.9	+1.2
	9.5nm,0.1s						
CSNA	Conrad Observa	0.85	56	Pg	Pg	08 02 20.7	+0.2
	6.5nm,0.1s						
CSNA				Sg	Sg	08 02 32.8	+1.2
	9.5nm,0.1s						
CONA	Conrad Observa	0.85	56	ePg	Pg	08 02 20.8	+0.3
	5.8nm,0.1s,SNR=14						
CONA				⇓iSg	Sg	08 02 32.8	+1.2
	6.3nm,0.2s						
CONA	Conrad Observa	0.85	56	Pg	Pg	08 02 20.8	+0.2
	5.8nm,0.1s,SNR=14						
CONA				Sg	Sg	08 02 32.8	+1.1
	6.3nm,0.2s						
OBKA	Obir	0.96	191	⇑iPg	Pg	08 02 22.2	-0.6
	2.5nm,0.1s						
OBKA				⇑iSg	Sg	08 02 34.9	-0.3
	4.6nm,0.2s						
OBKA	Obir	0.96	191	Pg	Pg	08 02 22.2	-0.5
	2.5nm,0.1s						
OBKA				Sg	Sg	08 02 34.9	-0.4
	4.6nm,0.2s						
KBA	Koelnbreinsper	1.07	250	⇓iPg	Pg	08 02 24.3	-0.4
	1.2nm,0.1s						
KBA				⇓iSg	Sg	08 02 38.8	+0.2
	3.4nm,0.1s						
KBA	Koelnbreinsper	1.07	250	Pg	Pg	08 02 24.3	-0.4
	1.2nm,0.1s						
KBA				Sg	Sg	08 02 38.8	+0.2
	3.4nm,0.1s						
KHC	Kasperske Hory	1.87	334	ePG	Pn	08 02 37.8	+1.6
KHC				eSG	Sg	08 03 02.3	-1.9
	comp=Z,7.4nm,0.5s						
KHC	Kasperske Hory	1.87	334	Pg	Pn	08 02 37.8	+1.6
KHC				Sg	Sg	08 03 02.3	-1.9
	comp=Z,7.4nm,0.5s						
MODS	Modra-Piesok	1.90	60	ePN	Pg	08 02 39.2	-1.3
MODS				eSN	Sg	08 03 04.4	-0.7
WTTA	Wattenberg	2.17	266	⇑iPg	Pg	08 02 45.0	-0.7
	comp=Z,3.5nm,0.2s						
WTTA				⇑iSg	Sg	08 03 15.1	+1.3
	comp=Z,4.2nm,0.3s						
WTTA	Wattenberg	2.17	266	Pg	Pg	08 02 45.0	-0.7
	comp=Z,3.5nm,0.2s						
WTTA				Sg	Sg	08 03 15.1	+1.3
	comp=Z,4.2nm,0.3s						
VRAC	Vranov	2.20	32	eSg	Sn	08 03 10.0	+2.0
PRU	Pruhonice	2.54	356	eSG	Sg	08 03 24.7	-1.1
	comp=Z,4.9nm,0.4s						
PRU	Pruhonice	2.54	356	Sg	Sg	08 03 24.7	-1.1
	comp=Z,4.9nm,0.4s						
DPC	Dobruska-Polom	3.06	18	eSG	Sg	08 03 40.6	-1.9
DPC	Dobruska-Polom	3.06	18	Sg	Sg	08 03 40.6	-1.9

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*ISCJB **28** 08:03:53.0±2.0, 21°.39S±0°.10×177°.6W±0°.1, h255^{km}±23^{km}, mb3.6/6, Error ellipse: s-maj=20.1km s-min=13.1km az=33.6*

*NEIC **28** 08:03:55.3±1.5, 21°.44S×177°.55W, h266^{km}±18^{km}, mb4.3/1, Error ellipse: s-maj=17.7km s-min=10.9km az=146.0*

*IDC **28** 08:03:55.8±2.9, 21°.49S×177°.55W, h270^{km}±30^{km}, mb3.3/7, mb1 3.5/9, mb1mx3.4/20, mbtmp3.4/9, Error ellipse: s-maj=22.2km s-min=14.8km az=138.0*

ISC 28 08:03:55.3±2.0**, 21°.50S**±0°.10×**177°.6W**±0°.1**, h264**^{km}±23^{km}**, n16, σ0^s.65**/19**, mb3.6**/6**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.34	37	P	Pn	08 06 05.5	-0.1
	1.5nm,0.3s,baz=211,slow=18,SNR=3.1						
AFI				S	S	08 07 42.5	-8.8
	4.6nm,0.3s,baz=172,slow=21,SNR=9.7						
AFI	Afiamalu	9.34	37	ePn	Pn	08 06 05.0	-0.6
AFI				S	S	08 07 42.5	-8.8
AFI				eSn	S	08 07 43.8	-7.5
URZ	Urewera	17.33	194	P	P	08 07 40.1	+0.5
	1.0nm,0.3s,baz=78,slow=8.4,SNR=7.7						
URZ				S	S	08 10 45.3	-0.7
	0.6nm,0.3s,baz=162,slow=20,SNR=6.9						
EIDS	Eidsvold	28.99	256	eP	P	08 09 31.6	+0.7
CTA	Charters Tower	33.81	266	P	P	08 10 14.0	+1.0
	4.8nm,0.7s,mb4.1,baz=88,slow=9.7,SNR=3.9						
CTAO	Charters Tower	33.81	266	eP	P	08 10 13.9	+0.9
	7.6nm,0.8s,mb4.3						
STKA	Stephens Creek	37.73	245	P	P	08 10 46.7	+0.6
	0.8nm,0.3s,mb3.6,baz=63,slow=11,SNR=5.5						
COEN	Coen	38.06	275	eP	P	08 10 48.0	-1.0
	203nm,1.3s						
ASAR	Alice Springs	44.70	258	P	P	08 11 42.4	-0.3
	1.4nm,0.7s,mb3.3,baz=100,slow=7.8,SNR=13						
WRA	Warramunga Arr	44.87	263	P	P	08 11 43.0	-1.0
	0.9nm,0.8s,baz=96,slow=8.2,SNR=5.2						
QSPA	South Pole Qui	68.58	180	P	P	08 14 29.6	+0.5
	1.5nm,0.8s,mb3.8,baz=36,slow=2.2,SNR=6.4						
QSPA	South Pole Qui	68.58	180	P	P	08 14 29.6	+0.4
NVAR	Mina Array Bea	81.47	43	P	P	08 15 43.3	+0.2
	0.5nm,0.8s,mb3.3,baz=230,slow=12,SNR=3.2						
TXAR	Lajitas Array	87.25	57	P	P	08 16 12.3	+0.1
	0.5nm,0.8s,mb3.4,baz=224,slow=5.2,SNR=5.3						
TXAR	Lajitas Array	87.25	57	P	P	08 16 12.3	+0.1
TORD	Torodi Ar. Bea	171.67	175	PKPab	PKPab	08 24 55.3	-0.6
	0.3nm,0.8s,baz=165,slow=4.4,SNR=2.6						

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*ISCJB **28** 08:07:13.6±3.4, 10°.6S±0°.1×162°.2E±0°.2, h65^{km}±28^{km}, mb3.8/10, Error ellipse: s-maj=29.0km s-min=19.4km az=13.3*

*IDC **28** 08:07:14.0±4.7, 10°.49S×162°.15E, h55^{km}±40^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.8/19, mbtmp3.7/10, ML4.5/1, MS3.5/1, Ms1 3.5/1, ms1mx2.7/32, Error ellipse: s-maj=35.3km s-min=21.4km az=105.0*

*NEIC **28** 08:07:15.0±3.4, 10°.39S×162°.21E, h64^{km}±28^{km}, mb3.8/2, Error ellipse: s-maj=31.9km s-min=16.4km az=115.0*

ISC 28 08:07:14.8±3.3**, 10°.5S**±0°.1×**162°.2E**±0°.2**, h62**^{km}±28^{km}**, n17, σ0^s.85**/19**, mb3.9**/10**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	2.46	295	P	Pn	08 07 51.0	-1.6
	110nm,0.3s,baz=159,slow=5.9,SNR=27						
HNR				S	Sn	08 08 22.9	+1.4
	303nm,0.3s,baz=288,slow=22,SNR=6.1						
HNR	Honiara	2.46	295	ePn	Pn	08 07 51.5	-1.1
HNR				eSn	Sn	08 08 21.3	-0.3
HNR				S	Sn	08 08 22.9	+1.3
CTA	Charters Tower	18.11	236	P	Pn	08 11 24.3	+2.2
	0.4nm,0.3s,baz=63,slow=15,SNR=3.8						
CTAO	Charters Tower	18.11	236	eP	Pn	08 11 24.5	+2.3
	2.2nm,0.5s						
WRAB	Tennant Creek	28.44	247	eP	P	08 13 03.6	-0.5
	4.8nm,0.9s,mb4.1						
WRA	Warramunga Arr	28.46	247	P	P	08 13 03.6	-0.6
	2.7nm,0.6s,mb4.0,baz=76,slow=9.2,SNR=11						
STKA	Stephens Creek	28.59	219	P	P	08 13 05.4	+0.2
	1.8nm,0.7s,mb3.9,baz=42,slow=7.7,SNR=3.7						
GUMO	Guam	29.45	324	LR	LR	08 23 35.1	
	comp=Z,101nm,21.2s,baz=127,slow=33						
ASAR	Alice Springs	30.00	240	P	P	08 13 16.7	-1.1
	1.2nm,0.4s,mb4.0,baz=63,slow=9.8,SNR=22						
VNDA	Vanda	67.03	180	P	P	08 18 00.7	-0.3
	0.9nm,0.8s,mb3.9,baz=5.2,slow=4.2,SNR=4.8						
SONM	Songino Array	76.18	325	P	P	08 18 56.4	+0.1
	1.0nm,0.7s,mb3.9,baz=139,slow=5.8,SNR=6.4						
QSPA	South Pole Qui	79.53	180	P	P	08 19 14.6	+0.2
	1.2nm,1.1s,mb3.8,baz=62,slow=3.2,SNR=3.2						
NVAR	Mina Array Bea	88.33	51	P	P	08 20 00.6	+0.6
	0.3nm,0.6s,mb3.7,baz=272,slow=2.5,SNR=2.7						
MKAR	Makanchi Array	90.74	317	P	P	08 20 11.0	0.0
	0.4nm,0.6s,mb4.0,baz=91,slow=6.1,SNR=3.6						
MKAR	Makanchi Array	90.74	317	P	P	08 20 11.0	-0.1
YKA	Yellowknife Ar	96.07	28	P	P	08 20 35.5	+0.3
	0.1nm,0.3s,mb3.7,baz=248,slow=2.6,SNR=4.1						
YKA	Yellowknife Ar	96.07	28	P	P	08 20 35.5	+0.3

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*CSEM **28** 08:17:32.3, 36°.09N×21°.47E, h5^{km}, MD3.7, After ATH*

*NEIC **28** 08:17:32.3, 36°.09N×21°.47E, h5^{km}, MD3.7(ATH), After ATH.*

ATH 28 08:17:32.3, 36°.09N×21°.47E, h5^{km}±2^{km}**, MD3.7**/9**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.83	15	ePB	Pb	08 17 48.4	-0.9
PYL				eSB	Sb	08 17 59.1	-1.7
PYL	PYLOS	0.83	15	ePb	Pb	08 17 48.4	-0.9
PYL				eSb	Sb	08 17 59.1	-1.7
ITM	Ithomi	1.15	19	ePB	Pb	08 17 54.2	-0.4
ITM	Ithomi	1.15	19	ePb	Pb	08 17 54.2	-0.4
KYTH	Kithira	1.28	81	ePB	Pb	08 17 57.2	+0.3
KYTH	Kithira	1.28	81	ePb	Pb	08 17 57.2	+0.3
VLI	Veliai	1.34	62	ePG	Pg	08 17 57.3	-0.7
VLI	Veliai	1.34	62	ePg	Pg	08 17 57.3	-0.7
VLX	Vlachokerasia	1.47	29	ePG	Pg	08 17 59.3	-1.2
VLX				eSB	Sb	08 18 20.1	+0.9
VLX	Vlachokerasia	1.47	29	ePg	Pg	08 17 59.3	-1.2
VLX				eSb	Sb	08 18 20.1	+0.9
RLS	Riolos of Patr	1.96	360	ePG	Pg	08 18 08.7	-1.3
RLS	Riolos of Patr	1.96	360	ePg	Pg	08 18 08.7	-1.3
GUR	Goura	1.97	20	ePN	Pn	08 18 08.4	+2.1
GUR	Goura	1.97	20	ePn	Pn	08 18 08.4	+2.1
DID	Didima	2.00	45	ePN	Pn	08 18 08.4	+1.6
DID				eSN	Sn	08 18 36.3	+4.1
DID	Didima	2.00	45	ePn	Pn	08 18 08.4	+1.6
DID				eSn	Sn	08 18 36.3	+4.1
KARN	Karanos	2.11	108	ePN	Pn	08 18 10.6	+2.4
KARN	Karanos	2.11	108	ePn	Pn	08 18 10.6	+2.4
LTK	Loutraki	2.27	31	ePN	Pn	08 18 12.1	+1.6
LTK	Loutraki	2.27	31	ePn	Pn	08 18 12.1	+1.6
NAIG	Nisos Aigina	2.32	44	ePN	Pn	08 18 13.9	+2.8
NAIG	Nisos Aigina	2.32	44	ePn	Pn	08 18 13.9	+2.8
EFP	Efpalio	2.36	8	ePN	Pn	08 18 14.6	+2.9
EFP	Efpalio	2.36	8	ePn	Pn	08 18 14.6	+2.9
IDI	Anoyia	2.90	105	ePB	Pb	08 18 20.9	-3.5
IDI	Anoyia	2.90	105	ePb	Pb	08 18 20.9	-3.5
AGG	Agios Georgios	3.01	13	ePN	Pn	08 18 23.1	+2.5
AGG	Agios Georgios	3.01	13	ePn	Pn	08 18 23.1	+2.5
LAST	Lasithi	3.39	105	ePN	Pn	08 18 28.4	+2.5
LAST	Lasithi	3.39	105	ePn	Pn	08 18 28.4	+2.5

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*ISCJB **28** 08:18:47.9±1.3, 11°.4N±0°.2×124°.7E±0°.1, h33^{km}, mb3.8/4, MS3.8/3, Error ellipse: s-maj=29.1km s-min=10.6km az=21.8*

*IDC **28** 08:18:48.1±1.3, 10°.42N×122°.79E, h0^{km}, mb3.6/5, mb1 3.8/5, mb1mx3.6/21, mbtmp3.6/5, MS3.5/5, Ms1 3.5/5, ms1mx3.1/47, Error ellipse: s-maj=158.7km s-min=20.3km az=67.0*

ISC 28 08:18:50.0±1.3**, 11°.5N**±0°.2×**124°.7E**±0°.1**, h35**^{km}**, n11, σ1^s.40**/8**, mb3.8**/4**, MS3.8**/3**, 1D, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCP	Roxas	1.89	272	⇓eP	Pn	08 19 18.2	-1.6
RCP				eS	Sn	08 19 42.8	+0.4
TBP	Tagbilaran	1.96	204	eP	Pn	08 19 23.8	+3.0
DAV	Davao City (W)	4.49	168	LR	LR	08 22 25.2	
	comp=Z,164nm,18.9s,baz=78,slow=50						
JOW	Kunigami	15.63	12	LR	LR	08 29 19.2	
	comp=Z,63nm,18.8s,baz=160,slow=37						
JHJ	Hachijo jima 2	25.60	30	LR	LR	08 34 15.5	
	comp=Z,219nm,18.2s,MS3.7,baz=54,slow=34						
WRA	Warramunga Arr	32.66	163	P	P	08 25 18.3	-0.6
	0.5nm,0.4s,mb3.8,baz=342,slow=9.3,SNR=3.3						
ASAR	Alice Springs	36.09	166	P	P	08 25 46.9	-1.7
	0.6nm,0.5s,mb3.8,baz=341,slow=7.4,SNR=12						
SONM	Songino Array	39.34	341	P	P	08 26 23.4	+7.6
	0.3nm,0.6s,baz=167,slow=10,SNR=3.7						
STKA	Stephens Creek	46.07	160	P	P	08 27 12.0	+1.4
	2.5nm,1.1s,mb4.1,baz=336,slow=12,SNR=3.4						
MKAR	Makanchi Array	50.11	323	P	P	08 27 42.5	+0.9
	0.5nm,0.8s,mb3.6,baz=128,slow=8.0,SNR=6.2						
MKAR				LR	LR	08 48 42.5	
	comp=Z,99nm,19.1s,MS3.8,baz=176,slow=36						
KURK	Kurchatov	54.18	326	LR	LR	08 52 08.6	
	comp=Z,75nm,18.3s,MS3.8,baz=155,slow=37						

IDC 28 08:18:57.6±1.9**, 33°.01S×178°.54W, h0**^{km}**, mb4.2**/3**, mb1 4.3**/5**, mb1mx4.0**/18**, mbtmp4.2**/5**, ML4.0**/2**, MS3.3**/2**, Ms1 3.3**/2**, ms1mx2.9**/34**, Error ellipse: s-maj=40.9km s-min=35.6km az=73.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	6.33	213	Pn	Pn	08 20 31.5	-0.5
	1.9nm,0.3s,baz=34,slow=8.9,SNR=16						
URZ				Sn	Sn	08 21 41.9	-3.1
	4.3nm,0.3s,baz=133,slow=19,SNR=7.5						
URZ				LR	LR	08 22 54.4	
	comp=Z,80nm,19.6s,baz=139,slow=38						
RPZ	Rata Peaks	13.44	214	Pn	Pn	08 22 10.7	+1.2
	1.2nm,0.3s,baz=149,slow=12,SNR=3.7						
STKA	Stephens Creek	33.52	261	LR	LR	08 37 03.5	
	comp=Z,125nm,19.3s,baz=206,slow=32						
CTA	Charters Tower	33.86	283	P	P	08 25 42.8	+0.9
	4.0nm,0.7s,baz=114,slow=10.0,SNR=4.3						
ASAR	Alice Springs	42.58	270	P	P	08 26 55.0	-0.4
	1.2nm,0.6s,baz=109,slow=7.5,SNR=17						
WRA	Warramunga Arr	43.80	275	P	P	08 27 04.8	-0.5
	2.5nm,0.6s,baz=114,slow=7.7,SNR=9.8						
FINES	FINESS Array B	147.41	338	PKPbc	PKPbc	08 38 42.2	-0.3
	1.3nm,0.7s,baz=57,slow=5.1,SNR=3.3						
TORD	Torodi Ar. Bea	160.23	181	PKPab	PKPab	08 39 38.9	-0.7
	0.4nm,0.7s,baz=167,slow=3.6,SNR=2.9						

IDC 28 08:27:26.2±1.4**, 37°.10S×78°.22E, h0**^{km}**, mb3.9**/5**, mb1 4.0**/5**, mb1mx3.8**/21**, mbtmp3.9**/5**, MS4.2**/15**, Ms1 4.2**/15**, ms1mx3.9**/39**, Error ellipse: s-maj=42.8km**

s-min=33.8km az=78.0,Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	**Mawson**	**31.77**	**191**	LR	LR	08 44 50.6	
	comp=Z,668nm,18.2s,baz=358,slow=33						
PSI	**Prapat**	**44.12**	**30**	LR	LR	08 49 51.3	
	comp=Z,503nm,21.0s,baz=183,slow=31						
PALK	**Pallekele**	**44.20**	**4**	LR	LR	08 49 52.5	
	comp=Z,264nm,19.6s,baz=7.1,slow=30						
BOSA	**Boshof**	**44.80**	**265**	LR	LR	08 50 03.1	
	comp=Z,168nm,20.4s,baz=137,slow=30						
ASAR	**Alice Springs**	**49.23**	**91**	P	P	08 36 16.1	-0.5
	0.5nm,1.0s,baz=221,slow=8.2,SNR=4.5						
WRA	**Warramunga Arr**	**51.47**	**87**	P	P	08 36 33.9	+0.4
	1.3nm,0.8s,baz=240,slow=8.2,SNR=4.4						
WRA				LR	LR	08 56 08.7	
	comp=Z,267nm,20.2s,baz=250,slow=34						
STKA	**Stephens Creek**	**51.65**	**104**	LR	LR	08 54 36.7	
	comp=Z,222nm,19.9s,baz=205,slow=32						
VNDA	**Vanda**	**52.74**	**164**	LR	LR	08 56 26.7	
	comp=Z,133nm,18.1s,baz=261,slow=33						
QSPA	**South Pole Qui**	**53.06**	**180**	P	P	08 36 44.9	+0.4
	3.3nm,0.9s,baz=348,slow=2.7,SNR=4.9						
QSPA				LR	LR	08 57 55.3	
	comp=Z,634nm,18.8s,baz=292,slow=34						
CMAR	**Chiang Mai Arr**	**58.61**	**23**	LR	LR	08 58 48.4	
	comp=Z,137nm,19.5s,baz=46,slow=32						
CTA	**Charters Tower**	**60.91**	**94**	LR	LR	09 01 42.4	
	comp=Z,363nm,19.9s,baz=235,slow=34						
PMSA	**Palmer Station**	**74.24**	**196**	LR	LR	09 10 15.0	
	comp=Z,261nm,18.1s,baz=73,slow=35						
EIL	**Elat**	**77.82**	**322**	LR	LR	09 11 14.3	
	comp=Z,36nm,20.2s,baz=45,slow=34						
AAK	**Ala-Archa**	**79.42**	**357**	LR	LR	09 09 23.6	
	comp=Z,102nm,20.8s,baz=290,slow=32						
MKAR	**Makanchi Array**	**83.59**	**3**	P	P	08 39 55.9	+0.1
	1.7nm,0.9s,baz=175,slow=6.5,SNR=11						
TORD	**Torodi Ar. Bea**	**87.38**	**289**	LR	LR	09 18 36.4	
	comp=Z,143nm,18.2s,baz=125,slow=35						
KURK	**Kurchatov**	**87.44**	**0**	P	P	08 40 14.5	-0.4
	1.8nm,1.0s,baz=193,slow=4.8,SNR=4.1						
DBIC	**Dimbokro**	**88.48**	**279**	LR	LR	09 17 57.7	
	comp=Z,95nm,18.4s,baz=102,slow=34						

NIED ***28*** *08:35:00,24°.80N×125°.90E,h35^{km},Mw4.1 Best double couple: $M_0$1.37000×10^{15} NP1:ϕ_s12.00000°,δ88.00000°, λ175.00000°. NP2:ϕ_s102.00000°,δ85.00000°,λ2.00000°.*

ISCJB ***28*** *08:35:05.3±0.5,24°.87N±0°.07×125°.90E±0°.05,h58^{km}±5^{km}, mb3.8/11,Error ellipse: s-maj=12.9km s-min=5.1km az=146.9*

JMA ***28*** *08:35:05.4±0.1,24°.84N×125°.95E,h61^{km}±1^{km},M4.3*

JMA Felt I J1.

IDC ***28*** *08:35:06.6±0.6,24°.91N×125°.90E,h48^{km}±6^{km},mb3.6/11, mb1 3.8/14,mb1mx3.8/24,mbtmp3.7/14,Error ellipse: s-maj=20.0km s-min=12.2km az=73.0*

NEIC ***28*** *08:35:06.3±0.4,24°.84N×125°.83E,MG4.2(JMA),Error ellipse: s-maj=9.8km s-min=6.6km az=153.0*

NEIC Recorded [1 JMA] on Miyako-jima.

ISC 28 08:35:06.0±0.5**,24°.83N**±0°.07×**125°.94E**±0°.05**,h46**^{km}±6^{km}**, h49**^{km}±1.8^{km}**:pP-P,n42,σ0^s.97**/47**,mb3.8**/11**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	**Gusukube**	**0.49**	**261**	P	**Pn**	**08 35 17.5**	**+0.6**
JOGS				S	**Sn**	**08 35 26.2**	**+1.6**
JMJ	**Miyako jima 2**	**0.58**	**268**	P	**Pn**	**08 35 18.6**	**+0.7**
JMJ				S	**Sn**	**08 35 28.2**	**+1.5**
JTJ	**Tarama**	**1.14**	**261**	P	**Pn**	**08 35 26.0**	**+0.5**
JTJ				S	**Sn**	**08 35 40.8**	**+0.8**
JKE	**Kume jima 2**	**1.67**	**27**	P	**Pn**	**08 35 32.6**	**-0.2**
JIJ	**Ishigaki jima**	**1.70**	**254**	P	**Pn**	**08 35 33.3**	**+0.1**
JIJ				*e*S	**Sn**	**08 35 53.2**	**-0.5**
JKRS	**Kuro-shima**	**1.85**	**252**	P	**Pn**	**08 35 35.3**	**0.0**
IRIF	**Iriomote-Funau**	**2.07**	**257**	P	**Pn**	**08 35 37.9**	**-0.4**
HATJ	**Hateruma jima**	**2.09**	**249**	P	**Pn**	**08 35 38.8**	**+0.2**
JAGN	**Aguni-jima**	**2.11**	**34**	P	**Pn**	**08 35 39.3**	**+0.5**
YOJ	**Yonaguni jima**	**2.69**	**263**	P	**Pn**	**08 35 46.6**	**-0.1**
JIH	**Iheya**	**2.85**	**39**	P	**Pn**	**08 35 49.2**	**+0.2**
JOW	**Kunigami**	**2.90**	**46**	P	**Pn**	**08 35 49.7**	**+0.1**
JOW	**Kunigami**	**2.90**	**46**	P	**Pn**	**08 35 49.8**	**+0.2**
	21nm,0.3s,baz=198,slow=14,SNR=37						
JTK	**Tokunoshima**	**4.00**	**42**	P	**Pn**	**08 36 03.8**	**-0.9**
NACB	**Ninganchiao**	**4.01**	**261**	*e*Pn	**Pn**	**08 36 03.9**	**-1.0**
TATO	**Taipei**	**4.04**	**273**	*e*Pn	**Pn**	**08 36 05.8**	**+0.4**
YHNB	**Yeheng**	**4.15**	**269**	Pn	**Pn**	**08 36 05.9**	**-0.9**
YULB	**Yu-li**	**4.47**	**252**	*e*Pn	**Pn**	**08 36 09.1**	**-2.2**
YULB				*e*Sn	**Sn**	**08 36 57.1**	**-5.0**
SSLB	**Suanglung**	**4.66**	**258**	*e*Pn	**Pn**	**08 36 12.7**	**-1.2**
SSLB				*e*Sn	**Sn**	**08 37 03.9**	**-2.8**
JAM	**Amami Oshima**	**4.84**	**42**	P	**Pn**	**08 36 15.1**	**-1.3**
JMZ	**Minamidaito 2**	**4.88**	**77**	P	**Pn**	**08 36 13.9**	**-3.0**
TWG	**Pinlang**	**4.88**	**247**	*e*Pn	**Pn**	**08 36 14.4**	**-2.6**
TWG				*e*Sn	**Sn**	**08 37 06.8**	**-5.4**
TPUB	**Ta-pu**	**5.08**	**254**	*e*Pn	**Pn**	**08 36 19.7**	**0.0**
TPUB				*e*Sn	**Sn**	**08 37 17.7**	**+0.6**
KSRS	**Korea Array**	**12.70**	**7**	P	**Pn**	**08 38 04.6**	**+0.8**
	0.1nm,0.3s,baz=148,slow=16,SNR=2.9						
MJAR	**Matsushiro Arr**	**15.72**	**39**	P	**Pn**	**08 38 45.6**	**+1.3**
	0.3nm,0.3s,baz=231,slow=11,SNR=3.1						
CMAR	**Chiang Mai Arr**	**25.85**	**261**	P	**P**	**08 40 34.5**	**+1.1**
	0.6nm,0.4s,mb3.5,baz=69,slow=8.1,SNR=4.5						
CMAR				pP	pP	08 40 47.9	+2.4
	1.1nm,0.6s,baz=62,slow=8.4,SNR=2.5						
SONM	**Songino Array**	**27.68**	**331**	P	**P**	**08 40 48.9**	**-0.6**
	0.3nm,0.5s,mb3.2,baz=143,slow=12,SNR=2.6						
MKAR	**Makanchi Array**	**40.96**	**314**	P	**P**	**08 42 43.8**	**-0.2**
	0.3nm,0.4s,mb3.3,baz=103,slow=7.2,SNR=3.7						
MKAR				pP	pP	08 42 56.0	-0.6
	0.5nm,0.5s,baz=97,slow=11,SNR=5.1						
MKAR	**Makanchi Array**	**40.96**	**314**	P	**P**	**08 42 43.8**	**-0.2**
MKAR				pP	pP	08 42 56.0	-0.6
ZALV	**Zalesovo Beam**	**42.14**	**325**	P	**P**	**08 42 53.0**	**-0.7**
	2.0nm,0.5s,mb4.0,baz=108,slow=8.0,SNR=6.0						
ZALV				pP	pP	08 43 05.1	-1.1
	1.5nm,0.4s,baz=105,slow=8.0,SNR=3.4						
ZALV	**Zalesovo Beam**	**42.14**	**325**	P	**P**	**08 42 53.0**	**-0.7**
ZALV				pP	pP	08 43 05.1	-1.1
FITZ	**Fitzroy Crossi**	**42.68**	**180**	P	**P**	**08 42 58.1**	**-0.3**
	5.6nm,1.0s,mb4.3,baz=33,slow=3.2,SNR=4.2						
KURK	**Kurchatov**	**44.44**	**318**	P	**P**	**08 43 12.0**	**-0.3**
	0.5nm,0.4s,mb3.6,baz=108,slow=9.6,SNR=2.6						
KURK				pP	pP	08 43 24.8	0.0
	0.5nm,0.4s,baz=108,slow=9.0,SNR=3.8						
WRA	**Warramunga Arr**	**45.25**	**169**	P	**P**	**08 43 19.7**	**+0.7**
	4.5nm,0.9s,mb4.3,baz=349,slow=8.8,SNR=16						
ASAR	**Alice Springs**	**48.83**	**170**	P	**P**	**08 43 47.9**	**+1.1**
	0.9nm,0.5s,mb4.0,baz=355,slow=14,SNR=15						
ASAR				pP	pP	08 44 02.0	+2.5
	0.6nm,0.6s,baz=356,slow=8.1,SNR=4.6						
STKA	**Stephens Creek**	**58.34**	**164**	P	**P**	**08 44 57.1**	**+0.7**
	2.5nm,0.6s,mb4.4,baz=337,slow=9.9,SNR=5.8						
FINES	**FINESS Array B**	**73.05**	**330**	P	**P**	**08 46 31.6**	**+0.7**
	1.2nm,0.5s,mb4.1,baz=72,slow=6.2,SNR=7.4						
FINES				pP	pP	08 46 44.1	-0.2
	1.9nm,0.5s,baz=63,slow=5.9,SNR=2.6						
AKASG	**Malin Array Be**	**75.24**	**319**	pP	pP	08 46 56.9	-0.4
	0.6nm,0.4s,baz=70,slow=5.7,SNR=2.0						
BRTR	**Keskin Array B**	**76.25**	**307**	pP	pP	08 47 04.0	+0.7
YKA	**Yellowknife Ar**	**80.65**	**24**	P	**P**	**08 47 14.5**	**+0.8**
	0.3nm,0.7s,mb3.4,baz=305,slow=5.6,SNR=5.5						
YKA				pP	pP	08 47 27.7	+0.5
	0.7nm,0.8s,baz=304,slow=4.9,SNR=7.2						
YKA	**Yellowknife Ar**	**80.65**	**24**	P	**P**	**08 47 14.5**	**+0.8**
YKA				pP	pP	08 47 27.7	+0.5
GERES	**GERESS Array B**	**85.04**	**322**	pP	pP	08 47 51.8	+1.5
	0.5nm,0.6s,baz=101,slow=2.9,SNR=2.1						

IDC ***28*** *08:46:54.7±1.5,27°.83N×55°.24E,h0^{km},mb3.6/5, mb1 3.7/5,mb1mx3.4/25,mbtmp3.6/5,Error ellipse: s-maj=48.2km s-min=34.4km az=31.0*

CSEM ***28*** *08:46:58.8±0.3,28°.40N×55°.34E,h2^{km},ML3.5,Error ellipse: s-maj=10.5km s-min=7.3km az=34.0*

THR ***28*** *08:46:58.7±1.2,28°.36N×55°.27E,h15^{km}±13^{km},ML3.5*

ISCJB ***28*** *08:46:59.0±0.5,28°.45N±0°.06×55°.35E±0°.06,h10^{km}, mb3.7/4,Error ellipse: s-maj=9.7km s-min=5.2km az=35.9*

TEH ***28*** *08:46:59.7,28°.39N×55°.30E,h8^{km}*

ISC 28 08:46:59.9±0.5**,28°.38N**±0°.06×**55°.32E**±0°.06**,h10**^{km}**,n31, σ1^s.19**/35**,mb3.7**/4**,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDS	**Bandar-Abbas**	**1.23**	**142**	*e*Pg	**Pg**	**08 47 22.0**	**-1.6**
BNDS				AML	AML	08 47 47.4	
	comp=N,588nm,0.7s						
BNDS	**Bandar-Abbas**	**1.23**	**142**	*e*Pg	**Pg**	**08 47 22.0**	**-1.6**
IBND	**Bandar-abas**	**1.42**	**130**	*e*Pn	**Pn**	**08 47 25.8**	**0.0**
IBND				*e*Pn	**Pn**	**08 47 26.1**	**+0.3**
IBND				*e*Sn	**Sn**	**08 47 45.8**	**+1.2**
IBND				*e*		08 48 00.3	
	comp=Z,10μm,0.3s						
IBND	**Bandar-abas**	**1.42**	**130**	*e*Pn	**Pn**	**08 47 25.8**	**0.0**
KRBR	**Kerman**	**2.03**	**38**	*e*Pg	**Pg**	**08 47 36.1**	**-2.8**
KRBR				AML	AML	08 48 09.1	
	comp=N,375nm,0.5s						
KRBR				AML	AML	08 48 16.7	
	comp=E,382nm,0.6s						
KRBR	**Kerman**	**2.03**	**38**	*e*Pg	**Pg**	**08 47 36.1**	**-2.8**
GHIR	**Ghir-Karzin**	**2.06**	**268**	*e*Pg	**Pg**	**08 47 35.0**	**-4.3**
GHIR				AML	AML	08 48 15.5	
	comp=E,309nm,0.5s						
GHIR	**Ghir-Karzin**	**2.06**	**268**	*e*Pn	**Pn**	**08 47 35.0**	**+0.5**
ISRV	**Sarvestan**	**2.18**	**298**	*e*Pn	**Pn**	**08 47 36.1**	**-0.1**
ISRV				*e*Sn	**Sn**	**08 48 02.8**	**-0.4**
ISRV				*e*		08 48 26.3	
	comp=Z,3μm,0.4s						
ISRV	**Sarvestan**	**2.18**	**298**	*e*Pn	**Pn**	**08 47 36.1**	**-0.1**
ISRV				*e*Sn	**Sn**	**08 48 02.8**	**-0.4**
IMOK	**Mouk**	**2.38**	**287**	*e*Pn	**Pn**	**08 47 39.5**	**+0.5**
IMOK				*e*		08 48 34.9	
	comp=Z,2μm,0.3s						
IMOK	**Mouk**	**2.38**	**287**	*e*Pn	**Pn**	**08 47 39.5**	**+0.5**
IPAR	**Pars**	**2.46**	**307**	*e*Pn	**Pn**	**08 47 39.5**	**-0.6**
IPAR				*e*		08 48 28.5	
	comp=Z,1μm,0.3s						
IPAR	**Pars**	**2.46**	**307**	*e*Pn	**Pn**	**08 47 39.5**	**-0.6**
IMEH	**Mehriz**	**3.06**	**349**	*e*Pn	**Pn**	**08 47 48.2**	**-0.1**
IMEH				*e*		08 48 01.0	
	comp=Z,633nm,0.2s						
IMEH	**Mehriz**	**3.06**	**349**	*e*Pn	**Pn**	**08 47 48.2**	**-0.1**
IBAF	**Bafgh**	**3.21**	**4**	*e*Pn	**Pn**	**08 47 50.1**	**-0.2**
IBAF				*e*		08 48 06.0	
	comp=Z,680nm,0.3s						
IBAF	**Bafgh**	**3.21**	**4**	*e*Pn	**Pn**	**08 47 50.1**	**-0.2**
ISAD	**Sadrabad**	**3.79**	**339**	*e*Pn	**Pn**	**08 47 58.0**	**-0.4**
ISAD				*e*		08 49 13.4	
	comp=Z,670nm,0.4s						
ISAD	**Sadrabad**	**3.79**	**339**	*e*Pn	**Pn**	**08 47 58.0**	**-0.4**
NASN	**Na'in**	**4.91**	**334**	*e*Pn	**Pn**	**08 48 15.1**	**+1.3**
NASN	**Na'in**	**4.91**	**334**	*e*Pn	**Pn**	**08 48 15.1**	**+1.4**
ZHSF	**Zahedan**	**4.93**	**74**	*e*Pn	**Pn**	**08 48 15.5**	**+1.4**
ZHSF	**Zahedan**	**4.93**	**74**	*e*Pn	**Pn**	**08 48 15.5**	**+1.4**
ASAO	**Ashtian**	**7.63**	**325**	*e*Pn	**Pn**	**08 48 52.4**	**+1.2**
ASAO	**Ashtian**	**7.63**	**325**	*e*Pn	**Pn**	**08 48 52.4**	**+1.3**
BRTR	**Keskin Array B**	**21.17**	**308**	P	**P**	**08 51 44.4**	**-0.9**
	comp=Z,0.8nm,0.7s						
FINES	**FINESS Array B**	**38.36**	**338**	P	**P**	**08 54 22.7**	**+1.9**
	comp=Z,7.1nm,1.1s,mb4.3,baz=156,slow=10.0,SNR=3.3						
TORD	**Torodi Ar. Bea**	**51.98**	**265**	P	**P**	**08 56 05.2**	**-4.5**
	comp=Z,0.3nm,0.3s,mb3.6,baz=59,slow=7.8,SNR=6.3						
YKA	**Yellowknife Ar**	**89.08**	**355**	P	**P**	**08 59 52.8**	**-2.2**
	comp=Z,0.1nm,0.6s,mb3.3,baz=359,slow=5.1,SNR=2.8						
ASAR	**Alice Springs**	**91.65**	**116**	P	**P**	**09 00 03.8**	**-3.8**
	comp=Z,0.3nm,0.8s,mb3.7,baz=303,slow=5.2,SNR=4.7						

NEIC ***28*** *08:53:10.6±1.3,19°.71N×145°.34E,h472^{km}±14^{km},mb4.0/4, Error ellipse: s-maj=46.9km s-min=10.1km az=83.0*

IDC ***28*** *08:53:10.8±2.4,19°.67N×145°.11E,h464^{km}±24^{km}, mb3.5/10,mb1 3.5/12,mb1mx3.3/26,mbtmp3.4/12,Error ellipse: s-maj=63.0km s-min=11.7km az=80.0*

ISC 28 08:53:10.6±1.8**,19°.7N**±0°.1×**145°.4E**±0°.4**,h471**^{km}±18^{km}**, n18,σ0^s.71**/18**,mb3.9**/14**,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**6.12**	**184**	P	**P**	**08 54 47.6**	**+0.7**
	8.8nm,0.3s,baz=132,slow=15,SNR=7.6						
MJAR	**Matsushiro Arr**	**17.89**	**341**	P	**P**	**08 56 49.8**	**-1.6**
	0.5nm,0.3s,baz=169,slow=10,SNR=5.5						
MAJO	**Matsushiro**	**17.89**	**341**	*e*P	**P**	**08 56 51.3**	**-0.1**
	5.6nm,0.8s						
KSRS	**Korea Array**	**23.31**	**323**	P	**P**	**08 57 39.8**	**-0.8**
	2.6nm,0.5s,mb3.9,baz=141,slow=9.1,SNR=12						
WRAB	**Tennant Creek**	**40.86**	**196**	*e*P	**P**	**09 00 09.9**	**-0.5**
	4.1nm,0.3s,mb4.3						
WRA	**Warramunga Arr**	**40.87**	**196**	P	**P**	**09 00 10.1**	**-0.4**
	2.5nm,0.3s,mb4.1,baz=13,slow=8.4,SNR=41						
ULN	**Ulaanbaatar**	**41.77**	**321**	*e*P	**P**	**09 00 17.5**	**+0.1**
	1.9nm,0.7s,mb3.6						
SONM	**Songino Array**	**42.15**	**321**	P	**P**	**09 00 20.9**	**+0.5**
	3.6nm,0.6s,mb4.0,baz=139,slow=8.7,SNR=21						
ASAR	**Alice Springs**	**44.55**	**195**	P	**P**	**09 00 38.9**	**-0.5**
	0.7nm,0.3s,mb3.5,baz=12,slow=6.9,SNR=24						
ZALV	**Zalesovo Beam**	**57.01**	**322**	P	**P**	**09 02 09.8**	**-0.5**
	0.4nm,0.3s,mb3.2,baz=57,slow=11,SNR=4.4						
MKAR	**Makanchi Array**	**57.53**	**313**	P	**P**	**09 02 14.2**	**+0.2**
	1.6nm,0.4s,mb3.7,baz=92,slow=7.8,SNR=24						
KURK	**Kurchatov**	**60.30**	**318**	P	**P**	**09 02 33.0**	**+0.5**
	3.8nm,0.5s,mb4.1,baz=94,slow=7.8,SNR=9.5						
AML	**Almayashu**	**63.60**	**308**	*e*P	**P**	**09 02 55.3**	**+1.0**
	1.4nm,0.4s,mb3.8						
BVAR	**Borovoye Array**	**65.49**	**320**	P	**P**	**09 03 06.2**	**+0.1**
	4.1nm,0.5s,mb4.3,baz=91,slow=7.4,SNR=19						
ARCES	**ARCESS Array B**	**81.43**	**342**	P	**P**	**09 04 38.8**	**+1.7**
	2.0nm,0.8s,mb3.7,baz=81,slow=8.2,SNR=7.0						
JOF	**Joensuu**	**82.96**	**335**	*e*p	**P**	**09 04 45.1**	**+0.1**
	2.9nm,0.5s,mb4.1						
KAF	**Kangasniemi**	**85.36**	**336**	*e*p	**P**	**09 04 56.3**	**-0.6**
FINES	**FINESS Array B**	**85.83**	**335**	P	**P**	**09 04 59.2**	**+0.1**
	1.1nm,0.3s,mb3.9,baz=73,slow=4.0,SNR=12						

IGQ 28 09:00:07.5,1°.69S×77°.44W,h224^{km}±4^{km}**,Mb4.0,Ms3.8, 2C-9D,Error ellipse: s-maj=6.2km s-min=1.0km az=34.8, Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PATA	**Patacocha**	**1.01**	**281**	P	Pn	09 00 40.2	+0.4
RUN5	**Runtun**	**1.02**	**286**	P	Pn	09 00 40.0	0.0
ARRY	**Arrayan**	**1.03**	**280**	⇑S	S	09 01 03.3	-2.0
ARRY	**Arrayan**	**1.03**	**280**	⇑P	Pn	09 00 40.3	+0.3
PISA	**Pisayambo**	**1.14**	**304**	S	S	09 01 05.8	-0.8
PISA	**Pisayambo**	**1.14**	**304**	P	Pn	09 00 41.5	+0.8
IGUA	**Igualata**	**1.22**	**280**	P	Pn	09 00 42.2	+1.0
TAMB	**Tambo**	**1.36**	**317**	P	Pn	09 00 42.9	+0.6
COV1	**Cotopaxi Volc**	**1.37**	**319**	P	Pn	09 00 44.2	+1.9
MOV1	**Cotopaxi Vol s**	**1.40**	**314**	P	Pn	09 00 44.2	+1.6
VC1	**Cotopaxi 1**	**1.42**	**317**	P	Pn	09 00 43.5	+0.8
ANTI	**Antisana**	**1.43**	**330**	⇓P	Pn	09 00 43.8	+0.9
CAMI	**Rancho Maria**	**1.47**	**313**	P	Pn	09 00 44.4	+1.2
PITA	**Cotopaxi Volc**	**1.50**	**319**	P	Pn	09 00 44.3	+0.8
LAV3	**Lava3-Reventad**	**1.60**	**353**	⇓P	Pn	09 00 44.5	+0.3
LAV3	**Lava3-Reventad**	**1.60**	**353**	⇓S	S	09 01 11.7	-1.4
CHAR	**Charly**	**1.61**	**352**	P	Pn	09 00 45.0	+0.6
CONE	**Cono NE Rev Vo**	**1.63**	**353**	⇓P	Pn	09 00 45.0	+0.5
QIL2	**Quilotoa**	**1.69**	**299**	P	Pn	09 00 46.8	+1.8
CAYR	**Refugio Cayamb**	**1.79**	**341**	P	Pn	09 00 47.2	+1.2
CAYA	**Cayambe**	**1.84**	**343**	⇓P	Pn	09 00 47.7	+1.3
JUA2	**San Juan 2**	**1.88**	**322**	⇓P	Pn	09 00 47.5	+0.8
GGP	**Refugio Guagua**	**1.90**	**323**	⇓P	Pn	09 00 47.9	+0.9
TERV	**Terraza Guagua**	**1.91**	**322**	P	Pn	09 00 48.0	+1.0
PINO	**Pino**	**1.92**	**323**	⇓P	Pn	09 00 48.2	+1.0
YANA	**Yana**	**1.93**	**324**	P	Pn	09 00 47.8	+0.5
OTAV	**Otavalo**	**2.17**	**332**	⇓P	Pn	09 00 50.1	+0.5
COTA	**Cotacachi**	**2.21**	**336**	P	Pn	09 00 51.0	+1.1
JAMA	**Jama**	**3.11**	**297**	P	Pn	09 01 00.1	+0.3

ISCJB ***28*** *09:12:52.4±0.9,12°.65N±0°.03×141°.76E±0°.02,h6^{km}±5^{km}, mb5.3/179,MS5.1/219,Error ellipse: s-maj=5.3km s-min=4.0km az=6.9*

IDC ***28*** *09:12:52.4±0.4,12°.66N×141°.84E,h0^{km},mb4.9/29, mb1 5.0/31,mb1mx5.0/34,mbtmp4.9/31,ML4.2/2,MS4.8/40, Ms1 4.9/40,ms1mx4.8/43,Error ellipse: s-maj=15.5km s-min=10.7km az=72.0*

BJI ***28*** *09:12:53.6,12°.38N×142°.18E,h36^{km},mB5.5/43,mb5.0/53, Ms5.2/61,Ms7 4.9/51*

NEIC ***28*** *09:12:54.7±0.1,12°.68N×141°.77E,h10^{km},mb5.6/104, MS5.2/167,MW5.5,MW5.6,Error ellipse: s-maj=4.8km s-min=4.4km az=161.0,Moment Tensor Solution. s59 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.77; $M_{\theta\theta}$1.62; $M_{\phi\phi}$0.15; $M_{r\theta}$-0.55; $M_{\theta\phi}$-0.61; $M_{\phi r}$0.40; Best double couple: $M_0$1.90000×10^{17} NP1:ϕ_s284.00000°,δ35.00000°, λ-100.00000°. NP2:ϕ_s116.00000°,δ55.00000°, λ-83.00000°. Principal axes: T 1.9600, Plg10.0000°, Azm200.0000°; N -0.0600, Plg5.0000°, Azm291.0000°; P -1.9100, Plg78.0000°, Azm51.0000°;*

GCMT ***28*** *09:12:54.7±0.1,12°.56N×141°.68E,h12^{km},MW5.6/113, Moment Tensor Solution. s86,c167; s113,c325; Duration: 1^s.6 Moment tensor: Scale 10^{17}Nm; M_{rr}-3.08±.03; $M_{\theta\theta}$3.21±.03; $M_{\phi\phi}$-0.12±.03; $M_{r\theta}$1.43±.09; $M_{\theta\phi}$-0.67±.03; $M_{\phi r}$0.49±.10; Best double couple: $M_0$3.55400×10^{17} NP1:ϕ_s114.00000°,δ35.00000°, λ-69.00000°. NP2:ϕ_s268.00000°,δ57.00000°, λ-104.00000°. Principal axes: T 3.6010, Plg11.0000°, Azm9.0000°; N -0.0930, Plg12.0000°, Azm276.0000°; P -3.5070, Plg73.0000°, Azm140.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***28*** *09:12:56.7±1.1,12°.69N×141°.72E,h36^{km},mb5.7/62, MS5.1/37 Error ellipse: s-maj=7.7km s-min=5.4km az=107.8*

DJA ***28*** *09:13:03,12°.66N×142°.23E,h88^{km},Mw5.5/12*

ISC 28 09:12:56.1±1.1**,12°.66N**±0°.03×**141°.82E**±0°.03**,h18**^{km}±6^{km}**, h23**^{km}±1.2^{km}**:pP-P,n589,σ0^s.98**/439**,mb5.3**/179**,MS5.1**/219**, 47C-33D,South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**3.11**	**72**	Pn	**Pn**	**09 13 44.2**	**0.0**
	76nm,0.3s,baz=196,slow=9.7,SNR=18						
GUMO				Sn	**Sn**	**09 14 25.4**	**+4.5**
	74nm,0.3s,baz=61,slow=21,SNR=4.1						
GUMO	**Guam**	**3.11**	**72**	*e*Pn	**Pn**	**09 13 44.3**	**+0.1**
CBIJ	**Chichi jima**	**14.37**	**1**	LR	LR	09 21 15.2	
	comp=Z,3μm,19.9s,baz=173,slow=35						
DAV	**Davao City (W)**	**16.93**	**252**	LR	LR	09 22 17.3	
	comp=Z,2μm,19.1s,baz=74,slow=33						
DAV	**Davao City (W)**	**16.93**	**252**	⇑*e*P	**Pn**	**09 16 53.7**	**+1.4**
JOW	**Kunigami**	**18.98**	**320**	P	**Pn**	**09 17 14.5**	**-2.9**
	0.7nm,0.3s,baz=79,slow=16,SNR=2.0						
JOW				LR	LR	09 23 49.9	
	comp=Z,1μm,20.8s,baz=141,slow=35						
TGY	**Tagaytay City**	**20.37**	**276**	P	**P**	**09 17 30.7**	**-1.2**
	121nm,0.3s,baz=146,slow=18,SNR=2.4						
JHJ	**Hachijo jima 2**	**20.45**	**355**	LR	LR	09 24 04.2	
	comp=Z,2μm,18.1s,MS4.6,baz=152,slow=33						
YHNB	**Yeheng**	**22.72**	**305**	PFAKE		09 18 10.0	+13
YHNB				LR	LR		
	comp=Z,2μm,19.0s,MS4.6						
TATO	**Taipei**	**22.77**	**305**	PFAKE		09 18 10.0	+12
TATO				LR	LR		
	comp=Z,2μm,19.0s,MS4.7						
MJAR	**Matsushiro Arr**	**24.00**	**353**	P	**P**	**09 18 07.2**	**-2.5**
	comp=Z,3.1nm,0.6s,baz=189,slow=6.8,SNR=12						
MJAR				LR	LR	09 26 28.3	
	comp=Z,3μm,20.5s,baz=170,slow=34						
MAJO	**Matsushiro**	**24.00**	**353**	*e*P	**P**	**09 18 07.7**	**-2.0**
MAJO				pmax	pmax		
	comp=Z,503nm,2.5s,mb5.5						
MAJO				MLR	MLR		
	comp=Z,4μm,20.0s,MS4.9						
MAJO	**Matsushiro**	**24.00**	**353**	*e*P	**P**	**09 18 07.7**	**-2.1**
	comp=Z,503nm,2.5s,mb5.5						
MAJO				LR	LR		
	comp=Z,4μm,20.0s,MS4.9						
MAT	**Matsushiro**	**24.00**	**353**	P	**P**	**09 18 06.9**	**-2.8**
MAT				S	**S**	**09 22 26.0**	**+0.1**
MYLDM	**Lahad Datu**	**24.19**	**254**	P	**P**	**09 18 15.6**	**+3.8**
QZH	**Quanzhou**	**25.11**	**302**	⇑*i*P	**P**	**09 18 21.0**	**+1.0**
QZH				S	**S**	**09 22 40.0**	**-4.0**
QZH				LR	LR		
	comp=N,2μm,10.2s						
QZH				LR	LR		
	comp=E,2μm,8.1s						
QZH				LR	LR		
	comp=Z,4μm,14.8s,MS5.0						
KDI	**Kendari**	**25.23**	**230**	⇑*e*P	**P**	**09 18 24.3**	**+3.1**
KDI				*e*S	**P**	**09 18 24.3**	**+3.1**
SDKM	**Sandakan**	**25.28**	**256**	P	pP	09 18 29.8	+2.6
KKM	**Kota Kinabalu**	**26.09**	**258**	P	**P**	**09 18 30.8**	**+1.7**
KKM	**Kota Kinabalu**	**26.09**	**258**	PFAKE		09 18 40.0	+11
KKM				LR	LR		
	comp=Z,1μm,21.0s,MS4.4						
SSE	**Sheshan**	**26.43**	**317**	P	**P**	**09 18 32.3**	**+0.4**
SSE				S	**S**	**09 23 03.3**	**-1.5**
SSE				pmax	pmax		
	comp=Z,34nm,0.6s,mb5.0						
SSE				pmax	pmax		
	comp=Z,270nm,7.3s						
SSE				LR	LR		
	comp=N,2μm,16.9s,MS4.9						
SSE				LR	LR		
	comp=E,2μm,17.4s,MS4.9						
SSE				LR	LR		
	comp=Z,1μm,17.4s,MS4.5						
KAKA	**Kakadu**	**26.87**	**201**	*e*P	**P**	**09 18 36.7**	**+0.7**
	comp=Z,36nm,0.7s,mb5.0						
KAKA	**Kakadu**	**26.87**	**201**	*e*P	**P**	**09 18 36.7**	**+0.7**
	comp=Z,101nm,0.8s,mb5.4						
KSRS	**Korea Array**	**27.64**	**336**	P	**P**	**09 18 42.2**	**-0.5**
	comp=Z,5.1nm,0.9s,mb4.1,baz=162,slow=11,SNR=11						
KSRS				LR	LR	09 27 47.3	
	comp=Z,2μm,19.9s,MS4.8,baz=7.5,slow=32						
KAPI	**Kappang**	**28.10**	**233**	P	**P**	**09 18 44.7**	**-2.3**
	comp=Z,6.3nm,0.7s,mb4.3,baz=93,slow=17,SNR=3.0						
KAPI				LR	LR	09 29 37.0	
	comp=Z,936nm,18.3s,MS4.4,baz=73,slow=36						
INCN	**Inchon**	**28.21**	**334**	PFAKE		09 19 00.0	+12
INCN				LR	LR		
	comp=Z,2μm,20.0s,MS4.8						
HNR	**Honiara**	**28.39**	**140**	LR	LR	09 28 08.5	
	comp=Z,1μm,21.3s,MS4.5,baz=162,slow=32						
HNR	**Honiara**	**28.39**	**140**	PFAKE		09 19 00.0	+10
HNR				LR	LR		
	comp=Z,2μm,22.0s,MS4.7						
NJ2	**Nanjing**	**28.59**	**316**	*e*P	**P**	**09 18 53.8**	**+2.6**
NJ2				pP	pP	09 19 00.0	+3.2
NJ2				PP	PP	09 19 46.0	-10
NJ2				S	**S**	**09 23 41.5**	**+2.7**
NJ2				sS	sS	09 23 53.0	+5.0
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
NJ2				pmax	pmax		
	comp=Z,400nm,10.2s						
NJ2				LR	LR		
	comp=N,3μm,15.2s						
NJ2				LR	LR		
	comp=E,2μm,20.6s						
NJ2				LR	LR		
	comp=Z,2μm,22.6s						
ERM	**Erimo**	**29.27**	**2**	PFAKE		09 19 10.0	+13
ERM				LR	LR		
	comp=Z,3μm,22.0s,MS4.8						
WHN	**Wuhan**	**31.00**	**309**	*e*P	**P**	**09 19 12.5**	**-0.1**
WHN				S	**S**	**09 24 07.8**	**-8.9**
WHN				LR	LR		
	comp=N,3μm,8.8s						
WHN				LR	LR		
	comp=E,970nm,7.4s						
WHN				LR	LR		
	comp=Z,3μm,12.9s,MS5.2						
SBUM	**Sibu**	**31.01**	**253**	P	**P**	**09 19 16.8**	**+3.9**
QIZ	**Qiongzhong**	**31.38**	**286**	P	**P**	**09 19 14.0**	**-2.1**
QIZ				PP	PP	09 20 25.3	-1.7
QIZ				S	**S**	**09 24 18.8**	**-4.0**
QIZ				LR	LR		
	comp=N,1μm,20.8s,MS4.7						
QIZ				LR	LR		
	comp=E,1μm,22.2s,MS4.7						
QIZ				LR	LR		
	comp=Z,1μm,21.5s,MS4.6						
QIZ	**Qiongzhong**	**31.38**	**286**	PFAKE		09 19 30.0	+14
QIZ				LR	LR		
	comp=Z,2μm,22.0s,MS4.6						
DL2	**Dalian**	**31.69**	**329**	⇑P	**P**	**09 19 22.0**	**+3.4**
DL2				S	**S**	**09 24 33.5**	**+6.2**
DL2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.2						
DL2				pmax	pmax		
	comp=Z,280nm,9.5s						
DL2				LR	LR		
	comp=N,830nm,15.4s,MS4.6						

DL2				LR	LR		
	comp=E,610nm,15.8s,MS4.6						
DL2				LR	LR		
	comp=Z,1µm,13.4s,MS4.7						
CTA	**Charters Tower**	**32.83**	**172**	*e*P	**P**	**09 19 29.6**	**+0.8**
	comp=Z,19nm,1.4s,mb4.8						
CTAO	**Charters Tower**	**32.83**	**172**	*e*P	**P**	**09 19 30.0**	**+1.2**
CTAO				pmax	pmax		
	comp=Z,483nm,2.8s,mb5.9						
CTAO				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.2						
CTAO	**Charters Tower**	**32.83**	**172**	*e*P	**P**	**09 19 30.0**	**+1.3**
	comp=Z,483nm,2.8s,mb5.9						
CTAO				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
SNY	**Shenyang**	**33.13**	**335**	⇑P	**P**	**09 19 31.5**	**+0.3**
SNY				S	**S**	**09 24 52.0**	**+2.4**
SNY				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
SNY				pmax	pmax		
	comp=Z,290nm,6.5s						
SNY				LR	LR		
	comp=N,2µm,20.4s,MS5.0						
SNY				LR	LR		
	comp=E,2µm,25.2s,MS5.0						
SNY				LR	LR		
	comp=Z,4µm,28.2s,MS5.0						
KSM	**Kuching**	**33.14**	**253**	P	**P**	**09 19 35.7**	**+4.1**
KSM	**Kuching**	**33.14**	**253**	PFAKE		09 19 40.0	+8.4
KSM				LR	LR		
	comp=Z,663nm,20.0s,MS4.3						
WRAB	**Tennant Creek**	**33.21**	**193**	P	**P**	**09 19 31.0**	**-1.1**
	comp=Z,504nm,0.6s,mb6.6,SNR=62						
WRAB	**Tennant Creek**	**33.21**	**193**	*e*P	**P**	**09 19 30.9**	**-1.2**
WRAB				pmax	pmax		
	comp=Z,212nm,1.5s,mb5.8						
WRAB				MLR	MLR		
	comp=Z,8µm,21.0s,MS5.4						
WRAB	**Tennant Creek**	**33.21**	**193**	*e*P	**P**	**09 19 30.9**	**-1.1**
	comp=Z,212nm,1.5s,mb5.8						
WRAB				LR	LR		
	comp=Z,8µm,21.0s,MS5.4						
WRA	**Warramunga Arr**	**33.22**	**193**	P	**P**	**09 19 31.4**	**-0.8**
	comp=Z,29nm,0.6s,mb5.4,baz=11,slow=9.7,SNR=85						
WRA				LR	LR	09 32 36.8	
	comp=Z,6µm,21.4s,MS5.3,baz=20,slow=36						
MDJ	**Mudanjiang**	**33.52**	**344**	P	**P**	**09 19 35.3**	**+0.7**
MDJ				pP	pP	09 19 41.3	+1.1
MDJ				sP	sP	09 19 44.5	+2.0
MDJ				PP	PP	09 20 50.5	-0.1
MDJ				PcP	PcP	09 22 14.0	-1.2
MDJ				S	**S**	**09 24 55.8**	**+0.1**
MDJ				ScP	ScP	09 25 55.5	-3.5
MDJ				PcS	PcS	09 26 00.0	-0.8
MDJ				pmax	pmax		
	comp=Z,350nm,7.7s						
MDJ				LR	LR		
	comp=N,1µm,16.4s,MS4.9						
MDJ				LR	LR		
	comp=E,2µm,18.0s,MS4.9						
MDJ				LR	LR		
	comp=Z,4µm,27.5s						
MDJ	**Mudanjiang**	**33.52**	**344**	PFAKE		09 19 50.0	+15
MDJ				LR	LR		
	comp=Z,3µm,22.0s,MS4.9						
CN2	**Changchun**	**34.08**	**339**	*e*P	**P**	**09 19 41.8**	**+2.4**
CN2				*e*sP	sP	09 19 50.5	+3.1
CN2				*e*S	**S**	**09 25 05.8**	**+1.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,3µm,17.0s,MS5.3						
CN2				LR	LR		
	comp=E,4µm,17.0s,MS5.3						
CN2				LR	LR		
	comp=Z,2µm,18.0s,MS4.9						
YSS	**Yuzh-Sakhalins**	**34.19**	**1**	*e*P	**P**	**09 19 44.0**	**+3.7**
YSS				*e*		09 19 53.2	
YSS				*e*S	**S**	**09 25 09.0**	**+3.0**
YSS				*e*SSS		09 27 34.0	
YSS				MLR	MLR		
	comp=N,2µm,16.0s						
YSS				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.8						
FITZ	**Fitzroy Crossi**	**34.49**	**208**	*e*P	**P**	**09 19 41.9**	**-1.3**
	comp=Z,16nm,0.9s,mb5.0						
FITZ	**Fitzroy Crossi**	**34.49**	**208**	*e*P	**P**	**09 19 42.4**	**-0.8**
	comp=Z,60nm,1.7s,mb5.2						
BJT	**Baijiatuau**	**35.40**	**325**	*e*P	**P**	**09 19 51.1**	**+0.2**
BJT				pmax	pmax		
	comp=Z,83nm,0.8s						
BJT				MLR	MLR		
	comp=Z,3µm,22.0s						
BJT	**Baijiatuau**	**35.40**	**325**	*e*P	**P**	**09 19 51.0**	**+0.2**
	comp=Z,84nm,0.8s,mb5.7						
BJT				LR	LR		
	comp=Z,3µm,22.0s,MS5.0						
BJI	**Beijing**	**35.41**	**325**	P	**P**	**09 19 51.0**	**0.0**
BJI				PP	PP	09 21 10.8	-0.7
BJI				S	**S**	**09 25 24.5**	**-0.5**
BJI				pmax	pmax		
	comp=Z,72nm,0.8s,mb5.7						
BJI				pmax	pmax		
	comp=Z,440nm,4.3s						
BJI				LR	LR		
	comp=N,4µm,22.8s,MS5.2						
BJI				LR	LR		
	comp=E,2µm,21.1s,MS5.2						
BJI				LR	LR		
	comp=Z,3µm,28.0s						
GYA	**Guiyang**	**35.73**	**298**	⇓*i*P	**P**	**09 19 55.5**	**+1.6**
GYA				pP	pP	09 20 01.5	+1.9
GYA				sP	sP	09 20 04.3	+2.5
GYA				PP	PP	09 21 20.5	+5.3
GYA				S	**S**	**09 25 31.5**	**+1.3**
GYA				sS	sS	09 25 46.3	+6.8
GYA				ScP	ScP	09 26 07.3	0.0
GYA				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
GYA				pmax	pmax		
	comp=Z,500nm,7.6s						
GYA				LR	LR		
	comp=N,1µm,12.0s,MS5.1						
GYA				LR	LR		
	comp=E,1µm,12.5s,MS5.1						
GYA				LR	LR		
	comp=Z,2µm,12.8s,MS5.0						
HABR	**Khabarovsk**	**36.15**	**352**	*e*P	**P**	**09 19 56.5**	**-0.7**
HABR				*e**PP	pP	09 20 04.8	+2.0
HABR				*e*		09 21 17.4	
HABR				*e*S	**S**	**09 25 35.0**	**-1.0**
HABR				*e**SS	sS	09 25 50.3	+5.0
HABR				*e*SS	SS	09 28 03.2	-11
HABR				*e*SSS		09 28 20.4	
HABR				*e*		09 30 09.6	
HABR				pmax	pmax		
	comp=N,114nm,2.5s						
HABR				pmax	pmax		
	comp=Z,164nm,2.0s,mb5.6						
HABR				pmax	pmax		
	comp=E,75nm,2.4s						
HABR				MLR	MLR		
	comp=Z,1µm,17.0s,MS4.7						
XAN	**Xi'an**	**36.70**	**311**	P	**P**	**09 20 01.5**	**-0.6**
XAN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
ASAR	**Alice Springs**	**36.92**	**192**	P	**P**	**09 20 03.8**	**-0.3**
	comp=Z,6.5nm,0.6s,mb4.7,baz=20,slow=12,SNR=47						
ASAR				PP	PP	09 21 28.6	+0.1
	comp=Z,5.7nm,1.0s,baz=0.6,slow=10,SNR=4.7						
KLR	**Kul'dur**	**37.40**	**349**	*e*P	**P**	**09 20 04.2**	**-3.6**
KLR				*e*		09 22 31.5	
KLR				*e*S	**S**	**09 25 51.0**	**-4.1**
KLR				*e*SS	SS	09 28 27.0	-12
KLR				pmax	pmax		
	comp=Z,200nm,2.0s,mb5.6						
KLR				pmax	pmax		
	comp=Z,1µm,11.0s						
KLR				smax			
	comp=N,2µm,11.5s						
KLR				smax			
	comp=E,1µm,11.5s						
HHC	**Hu-ho-hao-te**	**38.61**	**322**	*e*P	**P**	**09 20 19.0**	**+0.8**
HHC				pP	pP	09 20 24.3	+0.4
HHC				PP	PP	09 21 50.0	+3.3
HHC				*e*S	**S**	**09 26 12.5**	**-1.2**
HHC				PcS	PcS	09 26 19.8	+0.2
HHC				ScS	ScS	09 30 27.0	-1.1
HHC				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.9						
HHC				pmax	pmax		
	comp=Z,520nm,7.1s						
HHC				LR	LR		
	comp=N,1µm,12.2s,MS5.0						
HHC				LR	LR		
	comp=E,880nm,13.2s,MS5.0						
HHC				LR	LR		
	comp=Z,1µm,11.5s,MS4.9						
KMI	**Kunming**	**38.86**	**294**	P	**P**	**09 20 22.3**	**+1.8**
KMI				pP	pP	09 20 28.0	+1.8
KMI				sP	sP	09 20 30.8	+2.3
KMI				PP	PP	09 21 53.3	+3.7
KMI				S	**S**	**09 26 16.5**	**-1.3**
KMI				SS	SS	09 29 00.5	-8.9
KMI				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.7						
KMI				pmax	pmax		
	comp=Z,540nm,8.3s						
KMI				LR	LR		
	comp=N,1µm,16.7s,MS4.8						
KMI				LR	LR		
	comp=E,590nm,19.8s,MS4.8						
KMI				LR	LR		
	comp=Z,1µm,26.0s						
EIDS	**Eidsvold**	**38.86**	**167**	*e*P	**P**	**09 20 21.1**	**+0.7**
	comp=Z,53nm,1.5s,mb5.0						
BTO	**Baotou**	**39.40**	**321**	*e*P	**P**	**09 20 24.5**	**-0.3**
CD2	**Chengdu**	**39.49**	**304**	P	**P**	**09 20 26.3**	**+0.6**
CD2				pP	pP	09 20 32.0	+0.6
CD2				PP	PP	09 22 01.0	+4.5
CD2				S	**S**	**09 26 26.5**	**-0.7**
CD2				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.4						
CD2				pmax	pmax		
	comp=Z,630nm,11.4s						
CD2				LR	LR		
	comp=N,2µm,14.9s						
CD2				LR	LR		
	comp=Z,1µm,13.7s,MS4.9						
MBWA	**Marble Bar**	**40.01**	**213**	PFAKE		09 20 40.0	+10
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
HIA	**Hailar**	**40.80**	**338**	*e*P	**P**	**09 20 37.2**	**+0.9**
HIA				pmax	pmax		
	comp=Z,13nm,0.8s						
HIA				MLR	MLR		
	comp=Z,2µm,20.0s						
HIA	**Hailar**	**40.80**	**338**	*e*P	**P**	**09 20 37.2**	**+0.9**
	comp=Z,13nm,0.8s,mb4.6						
HIA				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
KULM	**Kulim**	**41.28**	**264**	P	**P**	**09 20 41.1**	**+0.4**
KULM	**Kulim**	**41.28**	**264**	*e*P	**P**	**09 20 41.2**	**+0.5**
	comp=Z,64nm,1.4s,mb5.1						
KULM				LR	LR		
	comp=Z,577nm,19.0s,MS4.5						
LZH	**Lanzhou**	**41.33**	**311**	⇑P	**P**	**09 20 42.0**	**+1.1**
LZH				pP	pP	09 20 48.0	+1.4
LZH				PP	PP	09 22 21.0	+4.5
LZH				S	**S**	**09 26 55.3**	**+0.7**
LZH				SS	SS	09 29 58.0	-0.6
LZH				pmax	pmax		
	comp=Z,89nm,1.4s,mb5.2						
LZH				pmax	pmax		
	comp=Z,280nm,4.0s						
LZH				LR	LR		
	comp=E,1µm,14.0s						
LZH				LR	LR		
	comp=Z,1µm,15.8s,MS5.0						
CMAR	**Chiang Mai Arr**	**41.63**	**284**	P	**P**	**09 20 44.6**	**+1.0**
	comp=Z,12nm,0.6s,mb4.7,baz=86,slow=6.5,SNR=55						
CMAR				LR	LR	09 37 06.1	
	comp=Z,776nm,18.0s,MS4.6,baz=291,slow=35						
CHG	**Chiang Mai**	**41.65**	**284**	P	sP	09 20 53.7	+2.0
CHTO	**Chiang Mai**	**41.65**	**284**	*e*P	**P**	**09 20 44.3**	**+0.6**
CHTO				pmax	pmax		
	comp=Z,108nm,2.4s,mb5.0						
CHTO				MLR	MLR		
	comp=Z,762nm,22.0s,MS4.5						
CHTO	**Chiang Mai**	**41.65**	**284**	*e*P	**P**	**09 20 44.3**	**+0.6**
	comp=Z,108nm,2.4s,mb5.0						
CHTO				LR	LR		
	comp=Z,762nm,22.0s,MS4.5						
DZM	**Mont Dzumac**	**42.13**	**145**	*e*S	**S**	**09 27 05.9**	**-0.6**
	comp=Z,2µm,24.6s						
DZM				*e*LQ		09 30 44.4	
	comp=Z,4µm,30.9s						
DZM				*e*LR	LR	09 32 32.3	
	comp=Z,4µm,33.4s						
DZM	**Mont Dzumac**	**42.13**	**145**	*e*P	**P**	**09 20 50.0**	**+2.5**
	comp=Z,89nm,1.2s,mb5.3						
PETK	**Petropavlovsk-**	**42.29**	**14**	P	**P**	**09 20 48.4**	**-0.1**
	comp=Z,8.9nm,0.9s,mb4.4,baz=168,slow=7.4,SNR=2.7						
PETK				LR	LR	09 35 15.4	
	comp=Z,2µm,20.7s,MS5.0,baz=210,slow=32						
FUNA	**Funafuti**	**42.69**	**118**	PFAKE		09 21 00.0	+7.8
FUNA				LR	LR		
	comp=Z,12µm,19.0s,MS5.8						
ARMA	**Armidale**	**43.86**	**168**	*e*P	**P**	**09 21 00.7**	**-0.7**
ARMA	**Armidale**	**43.86**	**168**	*e*P	**P**	**09 21 02.3**	**+1.0**
STKA	**Stephens Creek**	**44.28**	**180**	*e*P	**P**	**09 21 03.7**	**-1.1**
	comp=Z,7.9nm,0.4s,mb4.8						
STKA	**Stephens Creek**	**44.28**	**180**	P	**P**	**09 21 03.7**	**-1.1**
	comp=Z,11nm,0.7s,mb4.7,baz=354,slow=7.3,SNR=29						
STKA				LR	LR	09 40 28.4	
	comp=Z,4µm,19.0s,MS5.3,baz=340,slow=37						
STKA	**Stephens Creek**	**44.28**	**180**	P	**P**	**09 21 03.7**	**-1.1**
STKA				LR	LR	09 40 28.4	
FORT	**Forrest**	**45.17**	**197**	*e*P	**P**	**09 21 11.6**	**-0.3**
	comp=Z,54nm,0.9s,mb5.4						
FORT	**Forrest**	**45.17**	**197**	*e*P	**P**	**09 21 12.9**	**+1.0**
	comp=Z,223nm,1.5s,mb5.8						
ULN	**Ulaanbaatar**	**45.50**	**327**	*e*P	**P**	**09 21 15.4**	**+1.0**
ULN				pmax	pmax		
	comp=Z,188nm,2.2s,mb5.6						
ULN				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.0						
ULN	**Ulaanbaatar**	**45.50**	**327**	*e*P	**P**	**09 21 15.4**	**+1.1**
	comp=Z,188nm,2.2s,mb5.6						
ULN				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
ULN	**Ulaanbaatar**	**45.50**	**327**	P	**P**	**09 21 15.7**	**+1.4**
	SNR=18						
ULN				P		09 21 15.7	
	SNR=18						
GTA	**Gaotai**	**45.61**	**313**	⇓P	**P**	**09 21 16.3**	**+0.9**
GTA				pP	pP	09 21 22.5	+1.4
GTA				PcP	PcP	09 22 54.3	+0.7
GTA				PP	PP	09 23 04.0	+1.7
GTA				S	**S**	**09 27 58.0**	**+0.9**
GTA				SS	SS	09 31 13.8	-7.6
GTA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
GTA				pmax	pmax		
	comp=Z,290nm,6.2s						
GTA				LR	LR		
	comp=N,810nm,22.3s,MS4.7						
GTA				LR	LR		
	comp=E,380nm,21.4s,MS4.7						
GTA				LR	LR		
	comp=Z,470nm,20.8s,MS4.4						
SONM	**Songino Array**	**45.83**	**327**	P	**P**	**09 21 17.8**	**+0.8**
SONM						09 22 53.7	
SONM	**Songino Array**	**45.83**	**327**	P	**P**	**09 21 17.8**	**+0.9**
	comp=Z,11nm,0.9s,mb4.8,baz=135,slow=6.1,SNR=42						
SONM				PcP	PcP	09 22 53.7	-0.5
	comp=Z,7.1nm,0.9s,baz=146,slow=3.2,SNR=4.2						
SONM				LR	LR	09 39 10.3	
	comp=Z,1µm,18.9s,MS4.8,baz=131,slow=34						
NRGR	**Nerungri**	**45.84**	**347**	*e*P	**P**	**09 21 18.0**	**+1.2**
NRGR				S	**S**	**09 28 08.9**	**+9.1**
NRGR				smax			
	comp=N,368nm,2.6s						
CLNS	**Chul'man**	**45.96**	**347**	*e*P	**P**	**09 21 17.6**	**-0.2**
CLNS				*e**PP	pP	09 21 23.9	+0.3
CLNS				*e*		09 22 53.2	
CLNS				*e*		09 23 03.3	
CLNS				*e*PPP		09 23 45.3	
CLNS				*e*S	**S**	**09 28 01.4**	**-0.3**
CLNS				*e*SS	SS	09 31 12.8	-14
CLNS				pmax	pmax		
	comp=Z,49nm,1.3s,mb5.3						
CLNS				pmax	pmax		
	comp=N,28nm,1.0s						
CLNS				pmax	pmax		
	comp=E,11nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.4s						
CLNS				pmax	pmax		
	comp=E,7.0nm,1.0s						
CLNS				smax			
	comp=N,2µm,13.4s						
CLNS				smax			
	comp=E,520nm,13.4s						
CAN	**Canberra**	**48.20**	**172**	PFAKE		09 21 50.0	+14
CAN				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
CNB	**Canberra Magne**	**48.24**	**172**	*e*P	**P**	**09 21 36.8**	**+0.9**
SHL	**Shillong**	**48.64**	**293**	*e*PKP	**P**	**09 21 41.5**	**+2.3**
SHL				*e*x	x	09 28 44.0	
ZAK	**Zakamensk**	**49.00**	**328**	⇑*e*P	**P**	**09 21 41.8**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
AGT	**Agartala**	**49.07**	**291**	*e*x	**P**	**09 21 41.0**	**-1.6**
TLY	**Talaya**	**49.60**	**330**	P	**P**	**09 21 47.3**	**+1.2**
	comp=Z,77nm,2.2s,mb5.3,SNR=6.4						
TLY	**Talaya**	**49.60**	**330**	*e*P	**P**	**09 21 46.7**	**+0.6**
TLY				*e*		09 23 35.7	
TLY				*e*S	**S**	**09 28 55.3**	**+1.8**
TLY				pmax	pmax		
	comp=Z,45nm,1.9s,mb5.2						
TLY	**Talaya**	**49.60**	**330**	*e*P	**P**	**09 21 47.2**	**+1.0**
	comp=Z,117nm,2.1s,mb5.5						
TLY				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
TLY	**Talaya**	**49.60**	**330**	P	**P**	**09 21 47.3**	**+1.1**
	SNR=20						
TLY				P		09 21 47.3	
	SNR=20						
IRK	**Irkutsk**	**49.64**	**331**	*e*P	**P**	**09 21 43.8**	**-2.7**
IRK				*e*		09 24 43.2	
IRK				pmax	pmax		
	comp=Z,75nm,2.0s,mb5.4						
BOD	**Bodaibo**	**49.77**	**341**	⇑*i*P	**P**	**09 21 46.7**	**-0.6**
BOD				pmax	pmax		
	comp=Z,29nm,1.9s,mb5.0						
LSA	**Lhasa**	**49.80**	**298**	P	**P**	**09 21 49.0**	**+1.0**
LSA	**Lhasa**	**49.80**	**298**	*e*P	**P**	**09 21 49.8**	**+1.8**
LSA				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
LSA				MLR	MLR		
	comp=Z,545nm,20.0s,MS4.5						
LSA	**Lhasa**	**49.80**	**298**	*e*P	**P**	**09 21 49.8**	**+1.8**
	comp=Z,13nm,0.8s,mb5.0						
LSA				LR	LR		
	comp=Z,545nm,20.0s,MS4.5						
YAK	**Yakutsk**	**50.07**	**353**	*d i*P	**P**	**09 21 49.2**	**-0.3**
YAK				*e**PP	pP	09 21 59.3	+4.0
YAK				*e*		09 23 10.4	
YAK				*e*S	**S**	**09 28 59.1**	**-0.5**
YAK				*e*SS	SS	09 32 27.7	-5.0
YAK				pmax	pmax		
	comp=Z,113nm,0.9s,mb5.9						
YAK				pmax	pmax		
	comp=N,51nm,1.1s						
YAK				pmax	pmax		
	comp=E,16nm,1.2s						
YAK				smax			
	comp=N,745nm,5.7s						
YAK				smax			
	comp=E,379nm,5.2s						
YAK	**Yakutsk**	**50.07**	**353**	*e*P	**P**	**09 21 49.4**	**-0.1**
	comp=E,100nm,0.8s,mb5.9						
YAK				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
TOO	**Toolangi**	**50.08**	**176**	*e*P	**P**	**09 21 50.6**	**+0.7**
MUN	**Mundaring**	**50.72**	**208**	*e*P	**P**	**09 21 54.1**	**-0.7**
SEY	**Seymchan**	**50.76**	**6**	⇑*e*P	**P**	**09 21 54.3**	**-0.4**
MOY	**Mondy**	**50.93**	**328**	*e*P	**P**	**09 21 59.9**	**+3.7**
MOY				pmax	pmax		
	comp=Z,113nm,2.4s,mb5.4						
NWAO	**Narrogin (SRO)**	**51.05**	**207**	*e*P	**P**	**09 21 56.6**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,79nm,1.6s						
NWAO				MLR	MLR		
	comp=Z,1µm,19.0s						
NWAO	**Narrogin (SRO)**	**51.05**	**207**	*e*P	**P**	**09 21 56.6**	**-0.8**
	comp=Z,79nm,1.6s,mb5.4						
NWAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
ADK	**Adak**	**51.39**	**32**	*e*P	**P**	**09 22 01.0**	**+1.3**
ADK				pmax	pmax		
	comp=Z,82nm,0.9s,mb5.7						
ADK	**Adak**	**51.39**	**32**	*e*P	**P**	**09 22 01.0**	**+1.3**
	comp=Z,82nm,0.9s,mb5.7						
TAPN	**Taplejung**	**52.52**	**295**	*e*P	**P**	**09 22 08.9**	**+0.3**
	comp=Z,84nm,1.1s,mb5.6						
ODAN	**Odare**	**52.77**	**294**	*e*P	**P**	**09 22 10.5**	**+0.1**
	comp=Z,380nm,2.0s,mb6.0						
AFI	**Afiamalu**	**53.02**	**118**	P	**P**	**09 22 12.2**	**-0.1**
	comp=Z,28nm,0.8s,mb5.2,baz=274,slow=16,SNR=5.4						
RAMN	**Ramite**	**53.48**	**294**	*e*P	**P**	**09 22 15.6**	**0.0**
	comp=Z,198nm,1.5s,mb5.8						
JIRN	**Jiri**	**53.90**	**295**	*e*P	**P**	**09 22 19.1**	**+0.4**
	comp=Z,190nm,1.5s,mb5.8						
GUN	**Gumba**	**54.19**	**295**	*e*P	**P**	**09 22 21.3**	**+0.5**
	comp=Z,196nm,1.1s,mb6.0						
PKI	**Pulchoki**	**54.58**	**295**	*e*P	**P**	**09 22 23.5**	**-0.2**
	comp=Z,149nm,1.5s,mb5.8						
PKI	**Pulchoki**	**54.58**	**295**	*e*P	**P**	**09 22 23.5**	**-0.2**
PKI				pmax	pmax		
	comp=Z,149nm,1.5s,mb5.8						
KKN	**Kakani**	**54.71**	**295**	*e*P	**P**	**09 22 24.4**	**-0.2**
	comp=Z,97nm,1.1s,mb5.7						
KKN	**Kakani**	**54.71**	**295**	*e*P	**P**	**09 22 24.4**	**-0.2**
KKN				pmax	pmax		
	comp=Z,97nm,1.1s,mb5.8						
DMN	**Daman**	**54.85**	**295**	*e*P	**P**	**09 22 25.4**	**-0.2**
	comp=Z,393nm,1.9s,mb6.1						
GKN	**Gorkha**	**55.29**	**295**	*e*P	**P**	**09 22 28.6**	**-0.2**
	comp=Z,208nm,1.6s,mb5.9						
TAU	**Tasmania Unive**	**55.52**	**175**	PFAKE		09 22 40.0	+10
TAU				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
WMQ	**Urumqi**	**55.65**	**315**	P	**P**	**09 22 32.0**	**+0.9**
WMQ				pP	pP	09 22 38.0	+1.0
WMQ				PcP	PcP	09 23 31.0	+0.5
WMQ				S	**S**	**09 30 15.0**	**-1.4**
WMQ				ScS	ScS	09 32 17.0	-2.6
WMQ				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.3						
WMQ				pmax	pmax		
	comp=Z,510nm,5.3s						
WMQ				LR	LR		
	comp=N,3µm,16.8s,MS5.5						
WMQ				LR	LR		
	comp=E,1µm,14.2s,MS5.5						
WMQ				LR	LR		
	comp=Z,1µm,22.0s						
DANN	**Dangsing**	**56.09**	**296**	*e*P	**P**	**09 22 34.6**	**+0.1**
	comp=Z,385nm,1.7s,mb6.2						
KOLN	**Koldanda**	**56.19**	**295**	*e*P	**P**	**09 22 35.2**	**-0.1**
	comp=Z,66nm,0.9s,mb5.7						
OUZ	**Omahuta**	**56.34**	**149**	*e*P	**P**	**09 22 37.8**	**+1.8**
	comp=Z,107nm,1.3s,mb5.7						
BILL	**Bilibino**	**57.59**	**11**	⇑*e*P	**P**	**09 22 44.1**	**-0.3**
BILL				*e*		09 22 54.9	
BILL				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
TIXI	**Tiksi**	**59.48**	**355**	*e*P	**P**	**09 22 56.2**	**-1.4**
TIXI				*e*S	**S**	**09 31 08.3**	**+2.5**
TIXI				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,486nm,14.0s,MS4.8						
TIXI	**Tiksi**	**59.48**	**355**	*e*P	**P**	**09 22 56.9**	**-0.7**
	comp=Z,14nm,1.0s,mb4.9						
TIXI				LR	LR		
	comp=Z,542nm,20.0s,MS4.7						
MKAR	**Makanchi Array**	**60.12**	**317**	P	**P**	**09 23 03.0**	**+0.6**
	comp=Z,23nm,0.9s,mb5.2,baz=95,slow=8.0,SNR=147						
MKAR				LR	LR	09 49 08.4	
	comp=Z,661nm,18.6s,MS4.8,baz=100,slow=36						
PALK	**Pallekele**	**60.33**	**271**	*i* P	**P**	**09 23 08.5**	**+4.1**

GAMB	Gambell	60.41	22	*e*P	P	09 23 04.0	-0.2
	comp=Z,45nm,1.3s,mb5.3						
URZ	Urewera	60.47	148	P	P	09 23 03.8	-1.0
	comp=Z,19nm,0.8s,mb5.2,baz=312,slow=1.3,SNR=12						
ZAA0	Zalesovo Array	60.67	325	*e*P	P	09 23 05.5	-0.6
ZALV	Zalesovo Beam	60.67	325	P	P	09 23 05.8	-0.2
ZALV						09 23 48.7	
ZALV	Zalesovo Beam	60.67	325	P	P	09 23 05.8	-0.3
	comp=Z,4.3nm,0.6s,mb4.8,baz=110,slow=6.5,SNR=18						
ZALV				PcP	PcP	09 23 48.7	-1.4
	comp=Z,11nm,0.9s,baz=124,slow=3.9,SNR=6.1						
ZALV				LR	LR	09 52 10.6	
	comp=Z,612nm,18.1s,MS4.8,baz=121,slow=39						
ZALV	Zalesovo Beam	60.67	325	P	P	09 23 05.8	-0.3
ZALV				PcP	PcP	09 23 48.7	-1.4
ZALV				LR	LR	09 52 10.6	
HYB	Hyderabad	61.06	283	*i* P	P	09 23 09.5	+0.2
HYB	Hyderabad	61.06	283	*e*P	P	09 23 09.5	+0.2
SNZO	South Karori	61.69	152	*e*P	P	09 23 11.7	-1.3
	comp=Z,52nm,0.6s,mb5.8						
SNZO				LR	LR		
	comp=Z,958nm,20.0s,MS5.0						
NVS	Novosibirsk	61.84	326	*e*P	P	09 23 13.5	-0.5
NVS				*e*S	S	09 31 40.8	+4.3
NVS				pmax	pmax		
	comp=N,28nm,1.5s						
NVS				pmax	pmax		
	comp=E,64nm,1.5s						
NVS				pmax	pmax		
	comp=Z,72nm,1.5s,mb5.6						
NVS				smax			
	comp=N,25nm,2.2s						
NVS				smax			
	comp=E,44nm,2.6s						
NDI	New Delhi	61.85	296	*e*x	x	09 23 12.0	
RPZ	Rata Peaks	62.12	156	P	P	09 23 14.6	-1.3
	comp=E,77nm,0.9s,mb5.8,baz=91,slow=1.8,SNR=16						
RPZ				LR	LR	09 44 06.4	
	comp=E,979nm,19.0s,MS5.0,baz=324,slow=30						
TNA	Tin City	62.76	21	*e*P	P	09 23 19.9	0.0
	comp=E,46nm,1.4s,mb5.4						
KURK	Kurchatov	63.40	321	P	P	09 23 24.8	+0.4
	comp=E,314nm,1.3s,mb6.3,SNR=31						
KURK	Kurchatov	63.40	321	P	P	09 23 24.0	-0.4
KURK				pmax	pmax		
	comp=Z,87nm,1.3s,mb5.7						
KURK	Kurchatov	63.40	321	LR	LR	09 50 50.2	
	comp=Z,683nm,18.7s,MS4.8,baz=95,slow=36						
KURK	Kurchatov	63.40	321	*e*P	P	09 23 24.4	0.0
	comp=Z,72nm,1.1s,mb5.7						
KURK				LR	LR		
	comp=Z,841nm,20.0s,MS4.9						
KURK	Kurchatov	63.40	321	P	P	09 23 24.6	+0.1
	SNR=37						
KURK				P		09 23 24.6	
	SNR=37						
KSH	Kashi	63.45	308	P	P	09 23 27.5	+2.5
KSH				*e*pP	pP	09 23 34.0	+3.0
KSH				*e*sP	sP	09 23 36.3	+3.1
KSH				*e*PcP	PcP	09 24 03.3	+1.5
KSH				*e*PP	PP	09 25 49.5	+4.9
KSH				*e*ScP	ScP	09 28 03.3	-0.2
KSH				*e*PcS	PcS	09 28 05.0	-0.4
KSH				*e*S	S	09 31 57.5	+0.1
KSH				*e*ScS	ScS	09 33 16.3	-1.4
KSH				SS	SS	09 36 07.5	+3.1
KSH				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
KSH				LR	LR		
	comp=N,890nm,13.5s,MS5.3						
KSH				LR	LR		
	comp=E,1µm,14.1s,MS5.3						
KSH				LR	LR		
	comp=Z,790nm,13.7s,MS5.0						
TKM2	Tokmak 2	64.10	312	*e*P	P	09 23 29.9	+0.7
TKM2				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
TKM2				MLR	MLR		
	comp=Z,585nm,20.0s,MS4.8						
TKM2	Tokmak 2	64.10	312	P	P	09 23 29.9	+0.7
	SNR=7.5						
TKM2	Tokmak 2	64.10	312	*e*P	P	09 23 29.9	+0.6
	comp=Z,16nm,1.1s,mb5.0						
TKM2				LR	LR		
	comp=Z,585nm,20.0s,MS4.8						
KZA	Kyzart	64.26	311	P	P	09 23 32.0	+1.8
	SNR=22						
KBK	Karagaybulak	64.55	311	P	P	09 23 32.8	+0.7
	SNR=7.7						
CHMS	Chumysh	64.73	312	P	P	09 23 33.6	+0.2
	SNR=6.0						
FRU	Bishkek	64.81	311	*e*P	P	09 23 35.0	+1.2
FRU				pmax	pmax		
	comp=Z,184nm,2.5s,mb5.7						
UCH	Uchtor	64.82	311	P	P	09 23 35.5	+1.5
	SNR=26						
UCH	Uchtor	64.82	311	*e*P	P	09 23 35.3	+1.4
	comp=Z,96nm,1.7s,mb5.5						
UCH				LR	LR		
	comp=Z,613nm,19.0s,MS4.8						
AAK	Ala-Archa	64.88	311	P	P	09 23 34.3	0.0
	comp=Z,44nm,1.2s,mb5.4,SNR=5.7						
AAK	Ala-Archa	64.88	311	⇑*e*P	P	09 23 34.4	+0.1
AAK				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.5						
AAK	Ala-Archa	64.88	311	P	sP	09 23 49.0	+6.5
	SNR=7.2						
AAK	Ala-Archa	64.88	311	LR	LR	09 56 02.5	
	comp=Z,719nm,18.3s,MS4.9,baz=66,slow=40						
AAK	Ala-Archa	64.88	311	*e*P	P	09 23 34.7	+0.4
	comp=Z,8.0nm,0.9s,mb4.8						
AAK				LR	LR		
	comp=Z,924nm,22.0s,MS4.9						
AAK	Ala-Archa	64.88	311	⇑P	P	09 23 34.4	+0.1
	SNR=11						
AAK				⇑P		09 23 34.4	
	SNR=11						
USP	Ospenovka	64.94	312	P	P	09 23 34.9	+0.2
	SNR=9.4						
NIL	Nilore	65.32	301	PFAKE		09 23 50.0	+13
NIL				LR	LR		
	comp=Z,64nm,22.0s,MS3.8						
EKS2	Erkin-Say	65.41	311	P	P	09 23 38.6	+0.9
	SNR=6.9						
EKS2	Erkin-Say	65.41	311	*e*P	P	09 23 38.4	+0.7
	comp=Z,8.4nm,0.9s,mb4.8						
EKS2				LR	LR		
	comp=Z,980nm,22.0s,MS5.0						
AML	Almayashu	65.42	311	P	P	09 23 39.1	+1.2
	SNR=11						
AML	Almayashu	65.42	311	*e*P	P	09 23 39.0	+1.2
	comp=Z,16nm,0.8s,mb5.1						
AML				LR	LR		
	comp=Z,709nm,19.0s,MS4.9						
SVW2	Sparrevohn	65.88	28	*e*P	P	09 23 40.9	+0.4
OHAK	Old Harbor	65.92	33	*e*P	P	09 23 42.8	+2.0
	comp=Z,110nm,1.3s,mb5.7						
TTA	Tatalina	66.29	26	*e*P	P	09 23 42.9	-0.1
KDAK	Kodiak Island	66.43	32	P	P	09 23 42.2	-1.8
	comp=Z,30nm,1.1s,mb5.2,baz=315,slow=3.9,SNR=2.7						
KK31	Karatay Array	67.83	311	*i* P	P	09 23 53.2	0.0
KK31				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
PPLA	Purkeypile	67.95	27	*e*P	P	09 23 53.9	+0.3
	comp=Z,131nm,1.5s,mb5.7						
CHUM	Lake Minchumin	68.17	26	*e*P	P	09 23 55.5	+0.6
	comp=Z,26nm,0.8s,mb5.3						
IMA2	Indian Mountai	68.27	23	*e*P	P	09 23 54.9	-0.6
KTH	Kantishna Hill	68.67	26	*e*P	P	09 23 57.8	-0.3
	comp=Z,93nm,1.4s,mb5.5						
BPAW	Bear Paw Mtn.	68.79	26	*e*P	P	09 23 58.5	-0.3
	comp=Z,106nm,1.5s,mb5.5						
KBL	Kabul	68.81	302	*e*P	P	09 23 59.4	-0.2
KBL				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
KBL	Kabul	68.81	302	*e*P	P	09 23 59.4	-0.2
	comp=Z,28nm,1.1s,mb5.1						
BVA0	Borovoye Array	68.82	322	P	P	09 23 59.2	0.0
BVA0				pmax	pmax		
	comp=Z,17nm,1.9s,mb4.7						
BVAR	Borovoye Array	68.82	322	LR	LR	09 54 06.0	
	comp=Z,1µm,19.6s,MS5.1,baz=94,slow=36						
BRVK	Borovoye	68.89	322	P	P	09 23 59.8	+0.1
	comp=Z,231nm,0.8s,mb6.2,SNR=28						
BRVK	Borovoye	68.89	322	*e*P	P	09 23 59.5	-0.2
BRVK				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
BRVK	Borovoye	68.89	322	*e*P	P	09 23 59.5	-0.2
	comp=Z,29nm,0.8s,mb5.3						
BRVK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
BRVK	Borovoye	68.89	322	P	P	09 24 00.1	+0.5
	SNR=28						
BRVK				P		09 24 00.1	
	SNR=28						
TRF	Thorofare Moun	68.92	26	*e*P	P	09 23 59.1	-0.6
	comp=Z,133nm,1.5s,mb5.7						
PMR	Palmer	69.01	29	*e*P	P	09 23 58.6	-1.6
PMR				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.1						
PMR	Palmer	69.01	29	*e*P	P	09 23 58.6	-1.7
	comp=Z,19nm,0.7s,mb5.1						
MCK	McKinley	69.58	26	*e*P	P	09 24 03.0	-0.7
MCK				pmax	pmax		
	comp=Z,130nm,1.5s,mb5.6						
MCK	McKinley	69.58	26	*e*P	P	09 24 03.0	-0.7
	comp=Z,130nm,1.5s,mb5.6						
COLD	Coldfoot	69.94	23	*e*P	P	09 24 05.8	-0.1
	comp=Z,40nm,1.0s,mb5.3						
COLA	College	70.29	25	*e*P	P	09 24 07.3	-0.8
COLA				pmax	pmax		
	comp=Z,70nm,1.5s,mb5.4						
COLA				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
COLA	College	70.29	25	*e*P	P	09 24 07.3	-0.8
	comp=Z,70nm,1.5s,mb5.4						
COLA				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
PAX	Paxson	70.96	27	*e*P	P	09 24 12.0	-0.2
PAX				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
PAX	Paxson	70.96	27	*e*P	P	09 24 12.0	-0.2
	comp=Z,16nm,0.7s,mb5.0						
MENT	Mentasta	71.74	28	*e*P	P	09 24 17.1	+0.1
EGAK	Eagle	73.10	26	*e*P	P	09 24 24.9	-0.1
	comp=Z,111nm,1.7s,mb5.5						
EGAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
PPT	Papeete	74.08	113	*e*LR	LR	09 46 52.6	
	comp=Z,581nm,22.8s						
PPT	Papeete	74.08	113	LR	LR	09 52 52.8	
	comp=Z,459nm,18.4s,MS4.8,baz=70,slow=32						
HYT	Haines Junctio	74.49	30	*e*P	P	09 24 33.9	+0.7
SVE	Sverdlovsk	74.69	326	⇑*e*P	P	09 24 34.3	-0.1
SVE				*e*SS	SS	09 38 58.6	+1.9
SVE				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.3						
SVE				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.2						
AB31	Akbulak array	75.23	318	P	P	09 24 37.3	-0.5
AB31				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
SKAG	Skagway	75.56	32	*e*P	P	09 24 40.0	+0.6
	comp=Z,652nm,2.8s,mb6.1						
ARU	Arti	75.83	325	c *i*P	P	09 24 40.5	-0.5
ARU				*e*		09 27 30.4	
ARU				S	S	09 34 21.5	-0.9
ARU				SS	SS	09 39 09.1	-5.1
ARU				pmax	pmax		
	comp=Z,108nm,2.5s,mb5.3						
ARU	Arti	75.83	325	*e*P	P	09 24 40.6	-0.4
	comp=Z,28nm,0.6s,mb5.4						
ARU				LR	LR		
	comp=Z,953nm,19.0s,MS5.1						
INK	Inuvik	76.35	22	*e*P	P	09 24 43.0	-0.8
INK				pmax	pmax		
	comp=Z,63nm,1.3s						
INK	Inuvik	76.35	22	LR	LR	09 54 42.4	
	comp=Z,701nm,21.8s,MS4.9,baz=291,slow=33						
INK	Inuvik	76.35	22	*e*P	P	09 24 43.0	-0.7
	comp=Z,63nm,1.3s,mb5.4						
AKTK	Aktyubinsk	76.42	319	P	P	09 24 44.0	-0.5
AKTK				LR	LR	09 58 26.4	
AKTO	Aktyubinsk	76.42	319	P	P	09 24 43.6	-0.9
AKTO				pmax	pmax		
	comp=Z,12nm,1.8s,mb4.5						
AKTO	Aktyubinsk	76.42	319	P	P	09 24 44.0	-0.5
	comp=Z,10.0nm,0.7s,mb4.9,baz=93,slow=8.0,SNR=19						
AKTO				LR	LR	09 58 26.4	
	comp=Z,776nm,20.6s,MS5.0,baz=305,slow=36						
SOKR	Solikamsk	76.67	329	⇑*i*P	P	09 24 43.4	-2.4
SOKR				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
WRAK	Wrangell Islan	77.26	35	*e*P	P	09 24 49.8	+0.7
	comp=Z,137nm,1.2s,mb5.8						
WRAK				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
ABKT	Ailbek	77.41	306	P	P	09 24 51.2	+0.8
	comp=Z,155nm,1.2s,mb5.8,SNR=12						
DLBC	Dease Lake	78.36	32	LR	LR	09 54 53.2	
	comp=Z,477nm,21.4s,MS4.8,baz=286,slow=32						
DLBC	Dease Lake	78.36	32	*e*P	P	09 24 56.2	+1.0
WBK	Wadi Bani Khal	78.73	291	P	P	09 24 58.1	+0.1
	SNR=7.2						
BIDO	Bidbid	79.35	292	P	P	09 25 01.4	0.0
	SNR=6.7						
HOQ	Hoqain	80.08	292	P	P	09 25 05.3	0.0
	SNR=12						
BBB	Bella Bella	80.16	39	LR	LR	09 52 41.2	
	comp=Z,1µm,21.5s,MS5.3,baz=268,slow=30						
BSY	Bisya	80.32	291	P	P	09 25 06.5	-0.2
	SNR=8.0						
TAOE	Nuku Hiva Isla	80.40	101	*e*LR	LR	09 50 10.4	
	comp=Z,345nm,22.7s						
BANOM	Banah	80.60	294	P	P	09 25 08.7	+0.6
	SNR=16						
ARQ	Araqi	80.83	292	P	P	09 25 09.6	+0.2
	SNR=9.7						
HATD	Hatta, Dubai	80.93	293	P	P	09 25 09.7	-0.2
	SNR=16						
FAQ	Al Faqa, Dubai	81.43	293	⇑P	P	09 25 12.6	+0.1
	SNR=5.7						
PRGR	Permogore	81.89	331	⇑*i*P	P	09 25 17.0	+2.8
PRGR				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.7						
CASY	Casey	82.05	192	PFAKE		09 25 30.0	+15
CASY				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
NLWA	Neilton Lookou	83.69	43	⇓P	P	09 25 24.2	+0.3
	baz=84						
NLWA	Neilton Lookou	83.69	43	*e*P	P	09 25 24.8	+0.9
	comp=Z,138nm,1.4s,mb5.9						
NLWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PGC	Sidney	83.70	42	*e*P	P	09 25 24.3	+0.4
	comp=Z,1.4nm,1.0s,mb4.0						
RBK	Rabkut	84.04	287	P	P	09 25 25.6	-0.7
	SNR=14						
E03A	Lebam	84.07	44	⇑P	P	09 25 25.6	-0.2
	baz=84						
F03A	Seaside	84.20	44	⇑P	P	09 25 26.7	+0.2
	baz=84,SNR=5.3						
KEBM	Edson Butte	84.29	47	*e*P	P	09 25 28.5	+1.5
ALE	Alert	84.32	3	P	P	09 25 26.3	-0.2
	comp=Z,109nm,1.6s,mb5.7,SNR=10						
WHFO	Wadi Hawf	84.36	287	P	P	09 25 26.5	-1.4
	SNR=12						
D04A	Dobbs Creek Ra	84.45	43	⇓P	P	09 25 28.1	+0.3
	baz=84						
SPITS	Spitsbergen Ar	84.47	350	P	P	09 25 25.9	-1.4
	comp=Z,3.0nm,0.6s,mb4.6,baz=95,slow=4.9,SNR=5.5						
SPITS				LR	LR	10 02 43.6	
	comp=Z,1µm,21.8s,MS5.2,baz=65,slow=35						
A05A	Maple Falls	84.51	41	⇑P	P	09 25 28.0	0.0
	baz=84						
MAK	Makhachkala	84.61	313	*e*P	P	09 25 26.0	-2.6
MAK				*i*		09 28 46.9	
MAK				*i* PPP		09 30 39.4	
MAK				*e*S	S	09 35 46.4	-8.7
MAK				pmax	pmax		
	comp=Z,26nm,0.3s,mb5.8						
MAK				MLR	MLR		
	comp=Z,600nm,14.0s,MS5.1						
COR	Corvallis	84.66	46	*e*P	P	09 25 28.5	-0.3
COR				pmax	pmax		
	comp=Z,262nm,1.7s,mb6.1						
COR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
COR	Corvallis	84.66	46	*e*P	P	09 25 28.5	-0.4
	comp=Z,262nm,1.7s,mb6.1						
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
KBS	Kingsbay	84.68	351	PFAKE		09 25 40.0	+12
KBS				LR	LR		
	comp=Z,715nm,22.0s,MS5.0						
LVZ	Lovozero	84.69	339	PFAKE		09 25 40.0	+11
LVZ				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
JCW	Jim Creek	84.79	42	*e*P	P	09 25 29.8	+0.4
ABTO	Aybut	84.92	287	P	P	09 25 29.9	-0.8
	SNR=18						
KLMR	Klimovskoe	84.95	331	⇑*i*P	P	09 25 27.8	-2.1
KLMR				*e*		09 28 46.5	
KLMR				pmax	pmax		
	comp=Z,68nm,1.5s,mb5.6						
D05A	Enumclaw	84.98	43	⇑P	P	09 25 30.5	+0.1
	baz=85,SNR=11						
RPW	Rockport	85.00	42	*e*P	P	09 25 30.5	0.0
B06A	Marblemount	85.01	42	⇑P	P	09 25 30.6	+0.1
	baz=85						
TDL	Tradedollar La	85.02	44	P	P	09 25 31.4	+0.8
YKA	Yellowknife Ar	85.04	27	P	P	09 25 30.2	-0.2
	comp=Z,19nm,0.8s,mb5.2,baz=289,slow=5.2,SNR=135						
YKA				PKKPbc	PKKPbc	09 43 35.4	-4.1
	comp=Z,0.2nm,0.7s,baz=113,slow=2.5,SNR=4.9						
YKA				LR	LR	10 02 12.3	
	comp=Z,831nm,21.1s,MS5.1,baz=305,slow=35						
YKA	Yellowknife Ar	85.04	27	P	P	09 25 30.2	-0.2
YKA				PKKPbc	PKKPbc	09 43 35.4	-4.1
YKA				LR	LR	10 02 12.3	
G04A	Mulino	85.09	45	⇓P	P	09 25 31.3	+0.3
	baz=85,SNR=21						
KHMM	Horse Mountain	85.15	49	*e*P	P	09 25 32.9	+1.5
LON	Longmire	85.20	43	*e*P	P	09 25 31.4	-0.1
LON				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.3						
LON	Longmire	85.20	43	*e*P	P	09 25 31.4	-0.1
	comp=Z,37nm,1.3s,mb5.4						
APA	Apatity	85.25	339	⇓*e*P	P	09 25 30.5	-0.8
APA				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.3						
APA				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.5						
HUMO	Hull Mountain	85.34	48	*e*P	P	09 25 32.5	+0.2
	comp=Z,69nm,1.3s,mb5.6						
HUMO				LR	LR		
	comp=Z,707nm,21.0s,MS5.0						
H04A	Detroit Lake	85.42	45	⇓P	P	09 25 32.4	-0.2
	baz=85,SNR=25						
C06A	Tall Timber Ra	85.53	42	⇓P	P	09 25 33.1	-0.1
	baz=85,SNR=7.9						
A07A	Ashnola River,	85.59	41	⇑P	P	09 25 33.2	-0.2
	baz=86,SNR=23						
HOOD	Mount Hood Mea	85.64	45	*e*P	P	09 25 34.0	+0.3
	comp=Z,116nm,1.3s,mb6.0						
YBH	Yreka Blue Hor	85.71	48	*e*P	P	09 25 35.0	+0.8
YBH				pmax	pmax		
	comp=Z,70nm,1.3s						
YBH				MLR	MLR		
	comp=Z,865nm,22.0s						
YBH	Yreka Blue Hor	85.71	48	*e*P	P	09 25 35.0	+0.8
	comp=Z,70nm,1.3s,mb5.7						
YBH				LR	LR		
	comp=Z,865nm,22.0s,MS5.1						
D06A	Cle Elum	85.74	43	⇓P	P	09 25 33.9	-0.3
	baz=86,SNR=27						
E06A	Yakima	85.81	43	⇓P	P	09 25 34.4	-0.1
	baz=86,SNR=33						
NLW	Nelson Butte	85.86	42	P	P	09 25 34.9	+0.1
G05A	Wamic	85.89	45	⇓P	P	09 25 34.7	-0.2
	baz=86,SNR=11						
B07A	Winthrop	85.90	41	⇑P	P	09 25 34.5	-0.4
	baz=86,SNR=25						
TBM	Table Mountain	85.91	43	P	P	09 25 35.4	+0.3
BUOR	Burton Butte	85.92	48	P	P	09 25 35.9	+0.7
ETW	Entiat	85.98	42	*e*P	P	09 25 35.3	-0.1
HOPS	Hopland	86.06	51	PFAKE		09 25 50.0	+14
HOPS				LR	LR		
	comp=Z,376nm,19.0s,MS4.8						
WDC	Whiskeytown Da	86.09	49	*e*P	P	09 25 36.6	+0.5
WDC				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.6						
WDC				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.4						
WDC	Whiskeytown Da	86.09	49	*e*P	P	09 25 36.6	+0.5
	comp=Z,54nm,1.4s,mb5.6						
WDC				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
RES	Resolute Bay	86.12	13	*e*P	P	09 25 35.3	-0.3
RES				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.6						
RES	Resolute Bay	86.12	13	*e*P	P	09 25 35.3	-0.3
	comp=Z,48nm,1.2s,mb5.6						
F06A	Goldendale	86.12	44	⇓P	P	09 25 36.0	-0.1
	baz=86,SNR=22						
C07A	Waterville	86.13	42	⇓P	P	09 25 35.8	-0.3
	baz=86,SNR=27						
WTV	Waterville	86.20	42	P	P	09 25 36.3	-0.2
D07A	Quincy	86.31	43	⇑P	P	09 25 36.0	-1.1
	baz=86,SNR=14						
G06A	Carlson Farm,	86.35	45	⇑P	P	09 25 36.9	-0.4
	baz=86,SNR=10						
MCCM	Marconi Confer	86.39	52	PFAKE		09 25 50.0	+12
MCCM				LR	LR		
	comp=Z,790nm,19.0s,MS5.1						
B08A	Colville Reser	86.44	41	⇑P	P	09 25 37.2	-0.5
	baz=86,SNR=58						
KEV	Kevo	86.47	342	*e*P	P	09 25 30.8	-6.5
KEV	Kevo	86.47	342	*e*p	P	09 25 30.8	-6.5
KEV	Kevo	86.47	342	PFAKE		09 25 50.0	+13
KEV				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
EPH	Ephrata	86.52	42	P	P	09 25 38.0	0.0
E07A	Sunnyside	86.55	43	⇓P	P	09 25 37.7	-0.5
	baz=86,SNR=23						
VRHR	Novokhopersk	86.56	322	*e*P	P	09 25 36.1	-2.0
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.4						
VRHR				pmax	pmax		
	comp=N,40nm,0.9s						
F07A	Phinny Hill Vi	86.67	44	⇓P	P	09 25 38.8	0.0
	baz=87,SNR=12						
H06A	Lindquist Farm	86.69	45	⇑P	P	09 25 38.4	-0.5
	baz=87,SNR=36						
A09A	Danville	86.75	41	⇓P	P	09 25 38.4	-0.7
	baz=87,SNR=36						
C08A	Higginbotham F	86.77	42	⇑P	P	09 25 38.7	-0.6
	baz=87,SNR=69						
RSW	Rattlesnake Hi	86.77	43	*e*P	P	09 25 39.9	+0.6
K05A	Summer Lake	86.79	47	⇓P	P	09 25 38.8	-0.6
	baz=87,SNR=36						
HAWA	Hanford	86.81	43	*e*P	P	09 25 39.9	+0.4
	comp=N,23nm,0.8s,mb5.5						
HAWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
LBCM	Butte Creek Ri	86.92	49	P	P	09 25 40.6	+0.5
WRD	Warden	86.96	43	P	P	09 25 40.1	-0.1
I06A	Prineville	86.97	46	⇓P	P	09 25 40.2	-0.1
	baz=87,SNR=54						
G07A	Ruggs Ranch, H	87.01	44	⇓P	P	09 25 39.7	-0.8
	baz=87,SNR=26						
ARCES	ARCESS Array B	87.04	342	P	P	09 25 38.5	-1.7
	comp=Z,9.0nm,0.9s,mb5.0,baz=60,slow=7.2,SNR=15						
ARCES				LR	LR	10 05 49.6	
	comp=Z,784nm,21.8s,MS5.1,baz=60,slow=36						
ARCES	ARCESS Array B	87.04	342	P	P	09 25 38.5	-1.7
ARCES				LR	LR	10 05 49.6	
D08A	Wollman Farm,	87.04	43	⇑P	P	09 25 40.1	-0.5
	baz=87,SNR=25						
OD2	Odessa Site #2	87.09	42	P	P	09 25 40.6	-0.2
E08A	Dider Farm, El	87.10	43	⇑P	P	09 25 40.4	-0.5
	baz=87,SNR=25						
OHCM	Honcut	87.18	50	*e*P	P	09 25 41.4	0.0
B09A	Rice	87.18	41	⇑P	P	09 25 40.6	-0.6
	baz=87,SNR=29						
J06A	Christmas Vall	87.18	46	⇓P	P	09 25 40.7	-0.7
	baz=87,SNR=32						
H07A	Lands Inn, Kim	87.25	45	⇑P	P	09 25 41.2	-0.5
	baz=87						
C09A	Chrisman Ranch	87.27	42	⇓P	P	09 25 41.0	-0.7
	baz=87,SNR=16						
GNI	Garni	87.27	310	⇑*e*P	P	09 25 42.6	+0.7
GNI				pmax	pmax		
	comp=Z,66nm,2.2s						
GNI	Garni	87.27	310	P	P	09 25 43.4	+1.5
	comp=Z,2.8nm,0.4s,mb4.8,baz=242,slow=7.4,SNR=8.9						
GNI				LR	LR	10 08 04.4	
	comp=Z,270nm,21.3s,MS4.6,baz=66,slow=38						

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QRN    Al-Quraín          87.37 299  eP       P        09 25 42.4  -0.2
QRN                                   AMb     AMB      09 25 43.9
       comp=Z,95nm,1.1s,mb5.9
A10A   Northport          87.40  40 ⇑P       P        09 25 42.2  -0.1
       baz=87,SNR=34
MOD    Modoc              87.42  48  eP       P        09 25 43.0 +0.4
       comp=Z,78nm,1.3s,mb5.8
MOD                                   LR      LR
       comp=Z,897nm,21.0s,MS5.2
I07A   Izee               87.43  45 ⇑P       P        09 25 42.6 +0.1
       baz=87,SNR=41
D09A   Jones Farm, Ri     87.44  42 ⇑P       P        09 25 42.2  -0.4
       baz=87,SNR=18
MSEY   Mahe Island        87.45 265   PFAKE            09 25 50.0 +6.7
MSEY                                  LR      LR
       comp=Z,281nm,20.0s,MS4.7
MOS    Moscow             87.47 327  eP       P        09 25 40.3  -2.2
F08A   Pendleton          87.47  44 ⇓P       P        09 25 41.8  -0.9
       baz=87,SNR=38
G08A   Pilot Rock         87.48  44 ⇓P       P        09 25 42.2  -0.6
       baz=87,SNR=24
MIB    Mutribah           87.63 300  eP       P        09 25 43.8  -0.1
MIB                                   AMb     AMB      09 25 47.3
       comp=Z,85nm,0.8s,mb6.0
E09A   Wood Farm, Sta     87.70  43 ⇑P       P        09 25 42.4  -1.4
       baz=88,SNR=9.1
J07A   Hines              87.75  46 ⇑P       P        09 25 43.2  -0.9
       baz=88,SNR=15
KIV    Kislovodsk         87.78 314⇑eP       P        09 25 43.3  -0.9
KIV                                   pmax    pmax
       comp=Z,14nm,1.1s,mb5.1
KIV    Kislovodsk         87.78 314   PFAKE            09 26 00.0  +16
KIV                                   LR      LR
       comp=Z,403nm,19.0s,MS4.8
LNOR   Lincton Mounta     87.78  44  eP       P        09 25 44.6 +0.4
B10A   Chitwood Farm,     87.81  41 ⇓P       P        09 25 43.1  -1.1
       baz=88,SNR=6.2
SAO    San Andreas Ge     87.83  53   PFAKE            09 26 00.0  +15
SAO                                   LR      LR
       comp=Z,480nm,19.0s,MS4.9
JOF    Joensuu            87.87 335  eP       P        09 25 41.4  -2.9
JOF                                   pmax    pmax
       comp=Z,12nm,0.7s,mb5.2
JOF    Joensuu            87.87 335  ep       P        09 25 41.4  -2.9
       comp=Z,12nm,0.7s,mb5.2
NEW    Newport            87.88  41  eP       P        09 25 44.7 +0.1
NEW                                   pmax    pmax
       comp=Z,42nm,1.3s
NEW                                   MLR     MLR
       comp=Z,1µm,19.0s
NEW    Newport            87.88  41  eP       P        09 25 44.7   0.0
       comp=Z,42nm,1.3s,mb5.5
NEW                                   LR      LR
       comp=Z,1µm,19.0s,MS5.3
BEKR   Beckwourth         87.89  50 ⇓P       P        09 25 44.6  -0.2
       baz=88,SNR=48
C10A   Spilker Farm,      87.89  41 ⇓P       P        09 25 44.0  -0.6
       baz=88,SNR=9.4
K07A   Rock Creek Ran     87.97  47 ⇑P       P        09 25 44.9  -0.3
       baz=88,SNR=34
VORD   Divnogorie         88.00 322  eP       P        09 25 42.8  -2.3
VORD                                  pmax    pmax
       comp=Z,10.0nm,0.6s,mb5.2
VORD                                  pmax    pmax
       comp=N,10.0nm,0.9s
VORD                                  pmax    pmax
       comp=E,9.0nm,0.6s
VSR    Storozhevoye       88.00 322  eP       P        09 25 43.0  -2.1
VSR                                   pmax    pmax
       comp=N,5.0nm,0.6s
VSR                                   pmax    pmax
       comp=Z,10.0nm,0.6s,mb5.2
VSR                                   pmax    pmax
       comp=E,10.0nm,1.0s
N06A   Buffalo Meadow     88.05  49 ⇓P       P        09 25 45.3  -0.3
       baz=88,SNR=35
L07A   Adell              88.08  47 ⇑P       P        09 25 45.6  -0.1
       baz=88,SNR=48
I08A   Drewsey            88.12  45 ⇓P       P        09 25 45.7  -0.2
       baz=88,SNR=18
D10A   Wagner Farm, O     88.13  42 ⇓P       P        09 25 45.2  -0.6
       baz=88,SNR=13
A11A   Hall Mountain,     88.16  40 ⇓P       P        09 25 46.3 +0.4
       baz=88,SNR=27
O06A   Flanigan           88.21  49 ⇓P       P        09 25 46.3  -0.1
       baz=88,SNR=54
OBN    Obninsk            88.24 326⇑iP       P        09 25 44.9  -1.3
OBN                                  eSS      SS       09 42 16.4  -2.0
OBN                                   pmax    pmax
       comp=Z,62nm,1.2s,mb5.7
OBN    Obninsk            88.24 326   PFAKE            09 26 00.0  +14
OBN                                   LR      LR
       comp=Z,1µm,20.0s,MS5.3
G09A   Cove               88.29  44 ⇓P       P        09 25 46.3  -0.3
       baz=88,SNR=34
CMB    Columbia Colle     88.33  52  eP       P        09 25 47.4 +0.4
CMB                                   pmax    pmax
       comp=Z,39nm,1.3s,mb5.5
CMB                                   MLR     MLR
       comp=Z,560nm,22.0s,MS4.9
CMB    Columbia Colle     88.33  52  eP       P        09 25 47.4 +0.4
       comp=Z,39nm,1.3s,mb5.5
CMB                                   LR      LR
       comp=Z,560nm,22.0s,MS4.9
WVOR   Wild Horse Val     88.47  47  eP       P        09 25 47.1  -0.5
WVOR                                  MLR     MLR
       comp=Z,907nm,22.0s,MS5.2
PAHR   Pah Rah Range      88.66  50  eP       P        09 25 49.1 +0.6
BMO    Blue Mountains     88.73  44  eP       P        09 25 48.8 +0.1
BMO                                   pmax    pmax
       comp=Z,54nm,1.4s,mb5.7
BMO                                   MLR     MLR
       comp=Z,831nm,22.0s,MS5.1
BMO    Blue Mountains     88.73  44  eP       P        09 25 48.8 +0.1
       comp=Z,54nm,1.4s,mb5.7
BMO                                   LR      LR
       comp=Z,831nm,22.0s,MS5.1
WAKR   Walker             88.93  51  eP       P        09 25 50.9 +1.1
BSMT   Bassoo Peak        89.50  41  eP       P        09 25 52.6 +0.4
       comp=Z,38nm,1.4s,mb5.5
WALA   Waterton Lakes     89.67  40  eP       P        09 25 56.5 +3.5
NVAR   Mina Array Bea     89.81  51   P       P        09 25 54.2 +0.3
       comp=Z,12nm,0.7s,mb5.3,baz=272,slow=5.6,SNR=31
MTUM   Tungsten Hills     89.90  52  eP       P        09 25 55.3 +0.9
SOC    Sochi              89.95 315  eP       P        09 25 51.0  -3.5
SOC                                  e                 09 29 25.5
SOC                                  ePPP              09 31 21.2
SOC                                  eS       SKSac    09 36 18.5  -6.1
SOC                                  e                 09 36 42.9
SOC                                   MLR     MLR
       comp=Z,384nm,19.0s,MS4.8
YBMT   Yellow Bay         89.99  41  eP       P        09 25 53.4  -1.2
BMN    Battle Mountai     90.05  49  eP       P        09 25 55.7 +0.7
BMN                                   pmax    pmax
       comp=Z,38nm,1.3s,mb5.6
BMN                                   MLR     MLR
       comp=Z,899nm,22.0s,MS5.2
BMN    Battle Mountai     90.05  49  eP       P        09 25 55.7 +0.6
       comp=Z,38nm,1.3s,mb5.6
BMN                                   LR      LR
       comp=Z,899nm,22.0s,MS5.2
SWMT   Swartz Lake        90.11  41  eP       P        09 25 57.3 +2.2
KAF    Kangasniemi        90.31 335  eP       P        09 25 52.6  -3.2
KAF                                   pmax    pmax
       comp=Z,12nm,0.7s,mb5.3
KAF    Kangasniemi        90.31 335  ep       P        09 25 52.6  -3.2
       comp=Z,12nm,0.7s,mb5.3
MSO    Missoula           90.37  42   PFAKE            09 26 10.0  +14
MSO                                   LR      LR
       comp=Z,436nm,22.0s,MS4.8
ISA    Isabella           90.43  53  eP       P        09 25 57.3 +0.4
SLMT   Seeley Lake        90.53  41  eP       P        09 25 57.1   0.0
FINES  FINESS Array B     90.73 334   P       P        09 25 55.9  -1.8
       comp=Z,15nm,0.6s,mb5.5,baz=73,slow=5.1,SNR=52
FINES                                 LR      LR       10 12 04.2
       comp=Z,678nm,18.5s,MS5.1,baz=306,slow=39
VNDA   Vanda              90.75 176   P       P        09 25 56.5  -0.8
       comp=Z,3.3nm,0.9s,mb4.7,baz=328,slow=4.8,SNR=6.1
VNDA                                  LR      LR       10 06 02.3
       comp=Z,855nm,18.3s,MS5.2,baz=347,slow=35
DAC    Darwin (Calif)     90.95  53   PFAKE            09 26 10.0  +11
DAC                                   LR      LR
       comp=Z,729nm,22.0s,MS5.1
HLID   Hailey             91.10  45   PFAKE            09 26 10.0  +10
HLID                                  LR      LR
       comp=Z,1µm,21.0s,MS5.3
ANN    Anapa              91.13 316  eP       P        09 25 59.1  -0.8
ANN                                   pmax    pmax
       comp=Z,123nm,2.1s,mb5.9
ANN                                   MLR     MLR
       comp=Z,973nm,19.0s,MS5.3
MWC    Mount Wilson       91.16  55  eP       P        09 26 03.3 +3.0
MWC                                   pmax    pmax
       comp=Z,33nm,1.4s,mb5.5
MWC    Mount Wilson       91.16  55  eP       P        09 26 03.3 +3.0
       comp=Z,33nm,1.4s,mb5.5
ELK    Elko               91.40  48  eP       P        09 26 02.0 +0.7
ELK                                   MLR     MLR
       comp=Z,578nm,21.0s
SBA    Scott Base         91.45 175  eP       P        09 26 02.0 +1.4
SBA                                   pmax    pmax
       comp=Z,48nm,1.7s,mb5.5
SBA                                   MLR     MLR
       comp=Z,669nm,19.0s,MS5.1
SBA    Scott Base         91.45 175  eP       P        09 26 02.0 +1.4
       comp=Z,48nm,1.7s,mb5.5
SBA                                   LR      LR
       comp=Z,669nm,19.0s,MS5.1
N12A   Clover Valley,     91.51  48  eP       P        09 26 01.4  -0.4
LRM    Limekiln Ridge     91.68  42  eP       P        09 26 02.2  -0.3
DLMT   Dillon             91.74  43  eP       P        09 26 02.7  -0.1
       comp=Z,17nm,1.3s,mb5.2
MCMT   McKenzie Canyo     91.75  43  eP       P        09 26 03.1 +0.2
       comp=Z,2.5nm,0.9s,mb4.5
HRY    Holter Researc     91.78  41  eP       P        09 26 02.6  -0.3
       comp=Z,14nm,1.2s,mb5.2
GSC    Goldstone          91.84  53  eP       P        09 26 04.5 +1.0
GSC                                   pmax    pmax
       comp=Z,114nm,1.9s,mb5.9
GSC    Goldstone          91.84  53  eP       P        09 26 04.5 +1.1
       comp=Z,114nm,1.9s,mb5.9
M13A   Montello           91.98  47  eP       P        09 26 04.4 +0.5
BOZ    Bozeman (W)        92.28  42  eP       P        09 26 05.2   0.0
BOZ                                   pmax    pmax
       comp=Z,21nm,1.5s,mb5.2
BOZ                                   MLR     MLR
       comp=Z,561nm,22.0s,MS5.0
BOZ    Bozeman (W)        92.28  42  eP       P        09 26 05.2   0.0
       comp=Z,21nm,1.5s,mb5.2
BOZ                                   LR      LR
       comp=Z,561nm,22.0s,MS5.0
MALT   Malatya            92.49 310  eP       P        09 26 05.8  -0.6
MALT                                  pmax    pmax
       comp=Z,30nm,1.6s,mb5.4
MALT                                  MLR     MLR
       comp=Z,453nm,21.0s,MS4.9
MALT   Malatya            92.49 310  eP       P        09 26 05.8  -0.6
       comp=Z,30nm,1.6s,mb5.4
MALT                                  LR      LR
       comp=Z,453nm,21.0s,MS4.9
PFO    Pinyon Flat Ob     92.61  55   P       P        09 26 05.6  -1.4
PFO                                   pmax    pmax
       comp=Z,31nm,1.6s,mb5.5
PFO                                   MLR     MLR
       comp=Z,471nm,19.0s,MS5.0
PFO    Pinyon Flat Ob     92.61  55   P       P        09 26 05.6  -1.4
       comp=Z,31nm,1.6s,mb5.5
PFO                                   LR      LR
       comp=Z,471nm,19.0s,MS5.0
EGMT   Eagleton           92.62  40   PFAKE            09 26 20.0  +13
EGMT                                  LR      LR
       comp=Z,1µm,21.0s,MS5.3
HVU    Hansel Valley      92.83  46  eP       P        09 26 07.9   0.0
BGU    Big Grassy Mou     92.93  47  eP       P        09 26 08.4 +0.1
YMR    Madison River      93.07  43  eP       P        09 26 09.9 +1.0
       comp=Z,51nm,1.3s,mb5.8
SPUT   South Promonto     93.22  47  eP       P        09 26 09.9 +0.3
YFT    Old Faithful       93.23  43  eP       P        09 26 11.9 +2.3
       comp=Z,52nm,1.4s,mb5.8
LDFC   Landfair           93.23  53  eP       P        09 26 11.0 +1.1
       comp=Z,67nm,1.5s,mb5.8
YNR    Norris Junctio     93.24  43  eP       P        09 26 11.4 +1.7
       comp=Z,70nm,1.3s,mb5.9
RRI2   Red Ridge          93.30  44  eP       P        09 26 09.5  -0.5
       comp=Z,31nm,1.3s,mb5.6
DCID1  Drake Creek        93.30  44  eP       P        09 26 11.8 +1.8
       comp=Z,47nm,1.2s,mb5.8
DUG    Dugway             93.33  48  eP       P        09 26 10.5 +0.3
DUG                                   MLR     MLR
       comp=Z,807nm,22.0s,MS5.1
IMW    Indian Meadow      93.36  44  eP       P        09 26 11.3 +1.0
       comp=Z,24nm,1.2s,mb5.5
LKWY   Lake               93.48  43  eP       P        09 26 13.2 +2.4
LKWY                                  pmax    pmax
       comp=Z,62nm,1.6s,mb5.8
LKWY                                  MLR     MLR
       comp=Z,815nm,19.0s,MS5.2
LKWY   Lake               93.48  43  eP       P        09 26 13.2 +2.3
       comp=Z,62nm,1.6s,mb5.8
LKWY                                  LR      LR
       comp=Z,815nm,19.0s,MS5.2
REDW   Red Top Meadow     93.61  44  eP       P        09 26 12.3 +0.9
       comp=Z,44nm,1.8s,mb5.6
SNOW   Snow King Moun     93.64  44  eP       P        09 26 12.6 +1.0
       comp=Z,41nm,1.8s,mb5.6
AHID   Auburn Hatcher     93.65  45  eP       P        09 26 11.9 +0.3
       comp=Z,32nm,1.2s,mb5.6
AHID                                  LR      LR
       comp=Z,568nm,21.0s,MS5.0
ARUT   Antelope Range     93.66  50  eP       P        09 26 12.9 +1.1
ARUT                                  pmax    pmax
       comp=Z,14nm,1.4s,mb5.2
ARUT   Antelope Range     93.66  50  eP       P        09 26 12.9 +1.1
       comp=Z,14nm,1.4s,mb5.2
LOHW   Long Hollow        93.69  44  eP       P        09 26 12.2 +0.4
       comp=Z,19nm,1.4s,mb5.3
CCUT   Cedar City         93.80  50  eP       P        09 26 13.7 +1.3
       comp=Z,13nm,1.4s,mb5.2
NLU    North Lily Min     93.94  48  eP       P        09 26 13.7 +0.7
       comp=Z,14nm,1.3s,mb5.2
RLMT   Red Lodge          94.02  42  eP       P        09 26 14.1 +0.8
       comp=Z,33nm,1.4s,mb5.6
RLMT                                  LR      LR
       comp=Z,643nm,20.0s,MS5.1
AKASG  Malin Array Be     94.04 324   P       P        09 26 10.8  -2.4
       comp=Z,2.5nm,0.8s,mb4.7,baz=54,slow=3.9,SNR=9.3
AKASG                                 LR      LR       10 09 37.7
       comp=Z,972nm,21.7s,MS5.2,baz=60,slow=36
GLA    Glamis             94.08  55  eP       P        09 26 13.7  -0.1
GLA                                   pmax    pmax
       comp=Z,10.0nm,0.9s,mb5.2
GLA    Glamis             94.08  55  eP       P        09 26 13.7  -0.1
       comp=Z,10nm,0.9s,mb5.2
JMIC   Jan Mayen          94.14 351   LR      LR       10 07 36.3
       comp=Z,289nm,19.2s,MS4.8,baz=197,slow=35
FFC    Flin Flon          94.16  31   P       P        09 26 13.6  -0.1
       comp=Z,109nm,1.1s,mb6.2,SNR=11
FFC    Flin Flon          94.16  31  eP       P        09 26 13.2  -0.5
FFC                                   pmax    pmax
       comp=Z,31nm,1.3s,mb5.6
FFC                                   MLR     MLR
       comp=Z,2µm,21.0s,MS5.5
FFC    Flin Flon          94.16  31  eP       P        09 26 13.2  -0.5
       comp=Z,31nm,1.3s,mb5.6
FFC                                   LR      LR
       comp=Z,2µm,21.0s,MS5.5
MVU    Marysvale          94.34  49   PFAKE            09 26 30.0  +15
MVU                                   LR      LR
       comp=Z,620nm,19.0s,MS5.1
MSU    Marysvale          94.36  49  eP       P        09 26 15.6 +0.6
MSU                                   pmax    pmax
       comp=Z,11nm,1.3s,mb5.1
MSU    Marysvale          94.36  49  eP       P        09 26 15.6 +0.6
       comp=Z,12nm,1.3s,mb5.2
DAU    Daniels Canyon     94.38  47  eP       P        09 26 15.5 +0.5
DAU                                   pmax    pmax
       comp=Z,21nm,1.3s,mb5.4
DAU    Daniels Canyon     94.38  47  eP       P        09 26 15.5 +0.4
       comp=Z,21nm,1.3s,mb5.4
BW06   Boulder Array      94.71  44   PFAKE            09 26 30.0  +13
BW06                                  LR      LR
       comp=Z,852nm,21.0s,MS5.2
PDAR   Pinedale Array     94.71  44   P       P        09 26 15.5  -1.0
       comp=Z,0.9nm,0.7s,mb4.3,baz=268,slow=4.5,SNR=12
PDAR                                  PP      PP       09 30 01.4  -3.2
       comp=Z,0.8nm,1.1s,baz=273,slow=2.5,SNR=3.9
PDAR                                  LR      LR       10 01 21.7
       comp=Z,493nm,21.9s,MS4.9,baz=301,slow=31
PDAR   Pinedale Array     94.71  44   P       P        09 26 15.5  -1.0
PDAR                                  PP      PP       09 30 01.4  -3.2
PDAR                                  LR      LR       10 01 21.7
LAO    LASA Array         95.35  40  eP       P        09 26 19.3   0.0
       comp=Z,33nm,1.1s,mb5.7
LAO                                   LR      LR
       comp=Z,909nm,22.0s,MS5.2
SRU    San Rafael         95.36  48  eP       P        09 26 19.4  -0.2
SRU                                   pmax    pmax
       comp=Z,4.0nm,0.9s,mb4.8
SRU    San Rafael         95.36  48  eP       P        09 26 19.4  -0.2
       comp=Z,4.1nm,0.9s,mb4.9
BRTR   Keskin Array B     95.52 313   P       P        09 26 18.4  -1.9
       comp=Z,4.0nm,1.1s,mb4.8
BRTR                                  LR      LR       10 14 33.8
       comp=Z,231nm,20.7s,MS4.6,baz=47,slow=39
FCC    Fort Churchill     95.69  26  eP       P        09 26 19.6  -1.0
FCC                                   pmax    pmax
       comp=Z,1.0nm,1.3s,mb4.1
FCC    Fort Churchill     95.69  26  eP       P        09 26 19.6  -1.1
       comp=Z,0.8nm,1.3s,mb4.0
DGMT   Dagmar             95.82  38   PFAKE            09 26 30.0 +8.6
DGMT                                  LR      LR
       comp=Z,2µm,22.0s,MS5.5
WUAZ   Wupatki            95.98  52   PFAKE            09 26 30.0 +7.5
WUAZ                                  LR      LR
       comp=Z,610nm,19.0s,MS5.1
HFS    Hagfors            96.49 337   LR      LR       10 11 31.1
       comp=Z,604nm,18.7s,MS5.1,baz=50,slow=36
MMAI   Mount Meron Ar     96.53 306   P       P        09 26 23.7  -1.3
       comp=Z,4.0nm,0.8s,mb4.9,baz=81,slow=12,SNR=3.8
MMAI                                  LR      LR       10 17 34.8
       comp=Z,205nm,19.2s,MS4.6,baz=45,slow=40
NOA    NORSAR Array B     96.83 338   P       P        09 26 24.1  -1.6
       comp=Z,2.2nm,0.9s,mb4.6,baz=59,slow=4.3,SNR=3.3
NOA                                   LR      LR       10 16 06.2
       comp=Z,466nm,19.5s,MS5.0,baz=30,slow=39
PV01   Paradox Valley     97.14  48  eP       P        09 26 27.5  -0.2
       comp=Z,665nm,1.1s
LVV    L'vov              97.40 325  eP       P        09 26 36.0 +7.4
MAW    Mawson             97.44 202   LR      LR       10 08 15.2
       comp=Z,605nm,19.2s,MS5.1,baz=78,slow=34
CSS    Prodhromos         97.47 308   PFAKE            09 26 40.0  +11
CSS                                   LR      LR
       comp=Z,315nm,20.0s,MS4.8
TUC    Tucson             97.54  55   PFAKE            09 26 40.0  +10
TUC                                   LR      LR
       comp=Z,528nm,20.0s,MS5.0
MVCO   Mesa Verde         97.54  49   PFAKE            09 26 40.0  +10
MVCO                                  LR      LR
       comp=Z,440nm,20.0s,MS4.9
BUR08  Bucovina Ar. S     97.78 322  eP       P        09 26 29.6  -0.7
EIL    Elat               98.01 303   LR      LR       10 12 59.9
       comp=Z,250nm,20.0s,MS4.7,baz=69,slow=37
KWP    Kalwaria Pacla     98.24 325   PFAKE            09 26 40.0 +7.6
KWP                                   LR      LR
       comp=Z,1µm,21.0s,MS5.3
ABPO   Ambohimpanom       98.31 252   PFAKE            09 26 40.0 +6.7
ABPO                                  LR      LR
       comp=Z,334nm,19.0s,MS4.8
KONO   Kongsberg          98.37 338   PFAKE            09 26 40.0 +7.3
KONO                                  LR      LR
       comp=Z,939nm,22.0s,MS5.2
ISP    Isparta            98.50 312   PFAKE            09 26 40.0 +6.2
ISP                                   LR      LR
       comp=Z,329nm,19.0s,MS4.8
ISCO   Idaho Springs      98.61  46   PFAKE            09 26 50.0  +16
ISCO                                  LR      LR
       comp=Z,846nm,22.0s,MS5.2
UZH    Uzhgorod           98.98 324  eP       P        09 26 36.0 +0.3
SDCO   Great Sand Dun     99.53  48   PFAKE            09 26 50.0  +12
SDCO                                  LR      LR
       comp=Z,802nm,22.0s,MS5.2
ULM    Lac du Bonnet      99.66  33   LR      LR       10 08 56.2
       comp=Z,858nm,21.6s,MS5.2,baz=140,slow=34
ANMO   Albuquerque        99.93  51   PFAKE            09 26 50.0  +10
ANMO                                  LR      LR
       comp=Z,503nm,19.0s,MS5.0
SFJD   Kangerlussuaq     100.04   5   PFAKE            09 26 50.0  +10
SFJD                                  LR      LR
       comp=Z,808nm,21.0s,MS5.2
OGNE   Ogallala          100.58  44   PFAKE            09 26 50.0 +7.3
OGNE                                  LR      LR
       comp=Z,696nm,22.0s,MS5.1
OKC    Ostrava-Krasne    100.63 327   AMS     AMS      10 18 10.0
       comp=Z,1µm,18.4s
PSZ    Piszkesteto       100.72 324   PFAKE            09 26 50.0 +6.7
PSZ                                   LR      LR
       comp=Z,1µm,21.0s,MS5.4
AGMN   Agassiz Refuge    100.74  35   PFAKE            09 26 50.0 +6.7
AGMN                                  LR      LR
       comp=Z,937nm,19.0s,MS5.3
DPC    Dobruska-Polom    101.30 328  ePDIFF   Pdif     09 26 45.6  -0.2
DPC                                  ePP      PP       09 30 55.8 +1.2
DPC                                   AMS     AMS      10 13 40.0
       comp=Z,1µm,19.5s
UPC    Upice             101.36 328  ePP      PP       09 30 58.8 +3.7
BSEG   Bad Segeberg      101.94 333  eSP      SP       09 39 56.0  -5.7
BSEG                                 eSS      SS       09 45 46.9  +14
PVCC   Panska Ves        102.09 329   AMS     AMS      10 12 20.0
       comp=Z,1µm,26.0s
BRG    Berggiesshubel    102.19 329  eSP      SP       09 40 00.3  -4.3
BRG                                  eSS      SS       09 45 53.6  +17
BRG    Berggiesshubel    102.19 329  ePKP     PKiKP    09 31 13.7 +1.7
       comp=Z,5.3nm,1.0s
BRG                                  e                 09 31 22.1
       comp=Z,14nm,1.5s
BRG                                  e                 09 41 05.0
BRG
       comp=N,848nm,16.5s
BRG
       comp=E,860nm,14.2s
BRG
       comp=Z,1µm,24.0s
TREC   Trest             102.36 327   AMS     AMS      10 14 10.0
       comp=Z,1µm,24.6s
CLL    Collm             102.39 330  eSP      SP       09 40 02.4  -4.3
CLL                                  eSS      SS       09 45 55.1  +16
CLL    Collm             102.39 330  ePdif    Pdif     09 26 54.0 +3.3
CLL                                  ePP      PP       09 31 12.0 +9.2
CLL                                  ePS      PS       09 40 12.0 +2.5
CLL                                  ePPS              09 41 00.0
CLL                                  ePSS              09 45 54.0
CLL                                  eSSS              09 49 48.0
PRU    Pruhonice         102.43 328  ePDIFF   Pdif     09 26 50.3  -0.6
PRU                                  ex       x        09 45 52.9
PRU                                   AMS     AMS      10 12 50.0
       comp=Z,700nm,21.0s
QSPA   South Pole Qui    102.51 180   PFAKE            09 27 00.0 +8.8
QSPA                                  LR      LR
       comp=Z,2µm,22.0s,MS5.5
ECSD   EROS Data Cent    102.73  39   PFAKE            09 27 00.0 +7.8
ECSD                                  LR      LR
       comp=Z,926nm,21.0s,MS5.3
CONA   Conrad Observa    102.96 326⇑iPdiff    Pdif     09 26 53.2  -0.1
       comp=Z,10nm,1.2s
CSNA   Conrad Observa    102.96 326⇑iPdiff    Pdif     09 26 53.1  -0.1
       comp=Z,7.5nm,0.9s
CBKS   Cedar Bluff       103.13  45   PFAKE            09 27 10.0  +16
CBKS                                  LR      LR
       comp=Z,707nm,22.0s,MS5.2
TANN   Tannenbergstha    103.22 329  eSP      SP       09 40 12.9  -2.5
TANN                                 eSS      SS       09 46 08.3  +18
CLZ    Clausthal         103.30 331  eSP      SP       09 40 13.9  -2.3
CLZ                                  eSS      SS       09 46 07.9  +16
NKC    Novy Kostel       103.34 329   AMS     AMS      10 13 50.0
       comp=Z,900nm,15.6s
EYMN   Ely               103.34  34   PFAKE            09 27 10.0  +15
EYMN                                  LR      LR
       comp=Z,1µm,22.0s,MS5.3
KHC    Kasperske Hory    103.45 328  ePDIFF   Pdif     09 26 57.3 +1.9
KHC                                  ePP      PP       09 31 07.2  -3.6
KHC                                  ex       x        09 41 15.2
KHC                                  ex       x        09 46 07.0
KHC                                   AMS     AMS      10 17 00.0
       comp=Z,700nm,18.9s
MOX    Moxa              103.49 330  eSP      SP       09 40 15.5  -2.8
MOX                                  eSS      SS       09 46 11.4  +17
AMTX   Amarillo          103.53  49   PFAKE            09 27 10.0  +14
AMTX                                  LR      LR
       comp=Z,615nm,20.0s,MS5.1
GERES  GERESS Array B    103.56 328   Pdiff   Pdif     09 26 53.8  -2.1
       comp=Z,0.7nm,0.7s,baz=28,slow=3.2,SNR=6.2
MANZ   Manzenberg        103.66 329  eSP      SP       09 40 18.1  -2.1
MANZ                                 eSS      SS       09 46 15.2  +18
ROTZ   Rotzenmuhle       103.75 329  eSP      SP       09 40 19.7  -1.4
ROTZ                                 eSS      SS       09 46 16.7  +19
WET    Wettzell          103.81 328  eSP      SP       09 40 20.5  -1.2
WET                                  eSS      SS       09 46 18.6  +20
IBBN   Ibbenburen        104.18 333  eSP      SP       09 40 24.7  -0.7
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TIR	Tirane	104.22	319	PFAKE		09 27 10.0	+11
TIR				LR	LR		
	comp=Z,619nm,19.0s,MS5.2						
GRF	Grafenberg Arr	104.29	329	*e*SP	SP	09 40 26.1	-0.7
GRF				*e*SS	SS	09 46 23.8	+18
GRF				*e*L		10 15 21.6	
	comp=Z,774nm,21.1s						
TXAR	Lajitas Array	104.33	55	Pdiff	Pdif	09 27 01.5	+2.2
	comp=Z,0.2nm,0.7s,baz=266,slow=2.7,SNR=2.3						
RJOB	Jochberg	104.72	327	*e*SP	SP	09 40 32.2	+0.8
BUG	Bochum--Univer	105.00	333	*e*SP	SP	09 40 33.5	-0.4
BUG				*e*SS	SS	09 46 30.7	+16
KSU1	Kansas State U	105.12	43	PFAKE		09 31 30.0	+12
KSU1				LR	LR		
	comp=Z,802nm,22.0s,MS5.2						
FUR	Furstenfeldbru	105.25	328	*e*SP	SP	09 40 37.7	+0.9
FUR				*e*SS	SS	09 46 36.9	+18
TNS	Taunus Mts	105.29	331	*e*SP	SP	09 40 36.6	-0.5
TNS				*e*SS	SS	09 46 36.9	+18
TRI	Trieste	105.44	325	PFAKE		09 31 30.0	+12
TRI				LR	LR		
	comp=Z,991nm,22.0s,MS5.3						
SCIA	State Center	105.82	39	PFAKE		09 31 30.0	+11
SCIA				LR	LR		
	comp=Z,750nm,19.0s,MS5.3						
STU	Stuttgart	105.90	330	*e*SP	SP	09 40 44.6	+1.1
STU				*e*SS	SS	09 46 42.7	+15
ESK	Eskdalemuir	106.17	340	PFAKE		09 31 30.0	+11
ESK				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
BFO	Black Forest	106.62	330	*e*SP	SP	09 40 52.7	+1.7
BFO				*e*SS	SS	09 46 51.7	+15
BFO	Black Forest	106.62	330	PFAKE		09 31 30.0	+10
BFO				LR	LR		
	comp=Z,928nm,19.0s,MS5.4						
WLF	Walferdange	106.75	332	*e*SP	SP	09 40 54.7	+2.5
WLF				*e*SS	SS	09 46 58.6	+20
WLF	Walferdange	106.75	332	PFAKE		09 31 30.0	+10
WLF				LR	LR		
	comp=Z,967nm,21.0s,MS5.3						
JCT	Junction City	106.89	53	PFAKE		09 31 30.0	+8.7
JCT				LR	LR		
	comp=Z,501nm,20.0s,MS5.1						
JFWS	Jewell Farm	107.04	37	PFAKE		09 31 30.0	+8.8
JFWS				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ECH	Echery	107.28	330	PFAKE		09 31 30.0	+8.5
ECH				LR	LR		
	comp=Z,796nm,22.0s,MS5.2						
TUE	Stuetta	107.34	328	PFAKE		09 31 30.0	+8.4
TUE				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
TIP	Timpagrande	107.39	318	PFAKE		09 31 30.0	+8.1
TIP				LR	LR		
	comp=Z,635nm,22.0s,MS5.1						
CUC	Castrocucco	107.54	319	PFAKE		09 31 30.0	+7.8
CUC				LR	LR		
	comp=Z,631nm,19.0s,MS5.2						
VLC	Villacollemand	108.28	325	PFAKE		09 31 30.0	+6.5
VLC				LR	LR		
	comp=Z,834nm,19.0s,MS5.3						
CEL	Celeste	108.45	318	PFAKE		09 31 40.0	+16
CEL				LR	LR		
	comp=Z,525nm,22.0s,MS5.1						
GLMI	Grayling	109.00	33	PFAKE		09 31 40.0	+15
GLMI				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
HDIL	Hopedale	109.01	39	PFAKE		09 31 40.0	+15
HDIL				LR	LR		
	comp=Z,737nm,20.0s,MS5.2						
CCM	Cathedral Cave	109.22	42	PFAKE		09 31 40.0	+15
CCM				LR	LR		
	comp=Z,540nm,19.0s,MS5.1						
MIAR	Mount Ida	109.55	46	PFAKE		09 31 40.0	+14
MIAR				LR	LR		
	comp=Z,663nm,20.0s,MS5.2						
BNI	Bardonecchia	109.68	328	PFAKE		09 31 40.0	+14
BNI				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
KVTX	Kingsville	109.69	55	PFAKE		09 31 40.0	+13
KVTX				LR	LR		
	comp=Z,615nm,19.0s,MS5.2						
HKT	Hockley	110.18	51	PFAKE		09 31 40.0	+13
HKT				LR	LR		
	comp=Z,512nm,21.0s,MS5.1						
SSB	Saint Sauveur	110.61	329	PFAKE		09 31 40.0	+12
SSB				LR	LR		
	comp=Z,481nm,21.0s,MS5.0						
MBAR	Mbarara	110.69	274	PFAKE		09 31 40.0	+11
MBAR				LR	LR		
	comp=Z,588nm,22.0s,MS5.1						
WDD	Wield Dalam	110.69	316	PFAKE		09 31 40.0	+12
WDD				LR	LR		
	comp=Z,307nm,22.0s,MS4.8						
AAM	Ann Arbor	111.20	35	PFAKE		09 31 40.0	+11
AAM				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
VSL	Villasalto	111.82	322	PFAKE		09 31 40.0	+10
VSL				LR	LR		
	comp=Z,411nm,20.0s,MS5.0						
WCI	Wyandotte Cave	112.27	39	PFAKE		09 31 40.0	+8.8
WCI				LR	LR		
	comp=Z,992nm,22.0s,MS5.4						
OXF	Oxford	112.45	44	PFAKE		09 31 40.0	+8.4
OXF				LR	LR		
	comp=Z,666nm,22.0s,MS5.2						
WVT	Waverly	112.56	42	PFAKE		09 31 40.0	+8.2
WVT				LR	LR		
	comp=Z,623nm,21.0s,MS5.2						
VBMS	Vicksburg	112.95	47	PFAKE		09 31 40.0	+7.4
VBMS				LR	LR		
	comp=Z,726nm,22.0s,MS5.2						
ACSO	Alum Creek Sta	112.96	36	PFAKE		09 31 40.0	+7.6
ACSO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
PLAL	Pickwick Lake	113.08	43	PFAKE		09 31 40.0	+7.2
PLAL				LR	LR		
	comp=Z,574nm,22.0s,MS5.1						
ERPA	Erie	113.31	33	PFAKE		09 31 40.0	+7.0
ERPA				LR	LR		
	comp=Z,811nm,19.0s,MS5.3						
LONY	Lake Ozonia	114.11	28	PFAKE		09 31 50.0	+16
LONY				LR	LR		
	comp=Z,648nm,20.0s,MS5.2						
NCB	Newcomb	114.78	28	PFAKE		09 31 50.0	+14
NCB				LR	LR		
	comp=Z,647nm,21.0s,MS5.2						
MCWV	Mont Chateau	115.11	35	PFAKE		09 31 50.0	+13
MCWV				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
BINY	Binghamton	115.29	30	PFAKE		09 31 50.0	+13
BINY				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
SSPA	Standing Stone	115.47	33	PFAKE		09 31 50.0	+13
SSPA				LR	LR		
	comp=Z,805nm,21.0s,MS5.3						
LBNH	Lisbon	115.59	26	PFAKE		09 31 50.0	+13
LBNH				LR	LR		
	comp=Z,784nm,21.0s,MS5.3						
BRAL	Brewton	116.07	46	PFAKE		09 31 50.0	+11
BRAL				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
BLA	Blacksburg	116.47	37	PFAKE		09 31 50.0	+11
BLA				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
GOGA	Godfrey	117.06	42	PFAKE		09 31 50.0	+9.5
GOGA				LR	LR		
	comp=Z,603nm,20.0s,MS5.2						
CBN	Corbin	117.50	34	PFAKE		09 31 50.0	+8.8
CBN				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
PAB	San Pablo	119.26	330	PFAKE		09 32 00.0	+15
PAB				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
CNNC	Cliffs of the	119.31	37	PFAKE		09 32 00.0	+15
CNNC				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
NHSC	New Hope	119.37	40	PFAKE		09 32 00.0	+15
NHSC				LR	LR		
	comp=Z,914nm,21.0s,MS5.4						
MTE	Manteigas	120.05	333	PFAKE		09 32 00.0	+14
MTE				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
TEIG	Tepich	120.87	57	PFAKE		09 32 00.0	+12
TEIG				LR	LR		
	comp=Z,714nm,19.0s,MS5.3						
DWPF	Disney	121.72	45	PFAKE		09 32 00.0	+10
DWPF				LR	LR		
	comp=Z,799nm,22.0s,MS5.3						
TAM	Tamanrasset	124.56	309	PFAKE		09 32 10.0	+15
TAM				LR	LR		
	comp=Z,250nm,21.0s,MS4.8						
MDT	Midelt	124.57	326	PKP	PKPdf	09 31 54.2	-0.8
	comp=Z,1.9nm,1.0s,baz=342,slow=3.2,SNR=2.9						
TGUH	Tegucigalpa,Un	124.58	63	PFAKE		09 32 10.0	+15
TGUH				LR	LR		
	comp=Z,411nm,22.0s,MS5.0						
RTC	Rabat Centre	124.86	328	PFAKE		09 32 10.0	+15
RTC				LR	LR		
	comp=Z,457nm,22.0s,MS5.1						
TSUM	Tsumeb	126.17	255	PFAKE		09 32 10.0	+12
TSUM				LR	LR		
	comp=Z,295nm,22.0s,MS4.9						
JTS	JuntasAbangare	128.25	66	PFAKE		09 32 10.0	+7.5
JTS				LR	LR		
	comp=Z,598nm,21.0s,MS5.2						
BBSR	BB Station	128.53	29	PFAKE		09 32 10.0	+7.4
BBSR				LR	LR		
	comp=Z,359nm,20.0s,MS5.1						
GTBY	Guantanamo Bay	131.32	49	PFAKE		09 32 20.0	+12
GTBY				LR	LR		
	comp=Z,703nm,19.0s,MS5.4						
TORD	Torodi Ar. Bea	132.88	302	PKP	PKPdf	09 32 10.3	-0.9
	comp=Z,1.6nm,0.9s,baz=47,slow=1.0,SNR=8.1						
TORD				PP	PP	09 34 28.9	-7.1
	comp=Z,1.4nm,0.9s,baz=57,slow=4.2,SNR=4.1						
TORD	Torodi Ar. Bea	132.88	302	PKP	PKPdf	09 32 10.3	-0.9
TORD				PP	PP	09 34 28.9	-7.1
BCIP	Isla Barro Col	133.28	64	PFAKE		09 32 20.0	+8.0
BCIP				LR	LR		
	comp=Z,317nm,19.0s,MS5.0						
SDDR	Presa de Saban	134.68	47	PFAKE		09 32 30.0	+15
SDDR				LR	LR		
	comp=Z,441nm,21.0s,MS5.2						
EFI	East Falkland	137.89	162	PFAKE		09 32 30.0	+11
EFI				LR	LR		
	comp=Z,343nm,19.0s,MS5.1						
OTAV	Otavalo	138.05	75	PFAKE		09 32 30.0	+9.1
OTAV				LR	LR		
	comp=Z,385nm,21.0s,MS5.1						
SJG	San Juan	138.81	43	PFAKE		09 32 30.0	+7.8
SJG				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
PLCA	Paso Flores	140.17	141	PKP	PKPdf	09 32 22.9	-1.0
	comp=Z,6.4nm,1.1s,baz=201,slow=2.9,SNR=6.8						
SDV	Santo Domingo	141.30	58	PFAKE		09 32 40.0	+13
SDV				LR	LR		
	comp=Z,189nm,21.0s,MS4.8						
DBIC	Dimbokro	141.72	298	PKP	PKPdf	09 32 26.6	-1.0
	comp=Z,4.2nm,0.8s,baz=81,slow=3.1,SNR=5.2						
ANWB	Willy Bob	141.90	38	PFAKE		09 32 40.0	+12
ANWB				LR	LR		
	comp=Z,668nm,22.0s,MS5.3						
FCH	Farellones	144.21	130	*e*P	PKPdf	09 32 29.5	-1.9
FDF	Fort de France	144.53	41	PFAKE		09 32 40.0	+7.5
FDF				LR	LR		
	comp=Z,663nm,20.0s,MS5.4						
GRGR	Grenville	146.10	44	PFAKE		09 32 50.0	+15
GRGR				LR	LR		
	comp=Z,646nm,22.0s,MS5.4						
CPUP	Villa Florida	157.44	130	PKPab	PKPab	09 33 23.4	0.0
	comp=Z,2.6nm,0.7s,baz=300,slow=4.2,SNR=6.9						
SPB	Sao Paulo	166.02	142	PFAKE		09 33 10.0	+9.2
SPB				LR	LR		
	comp=Z,549nm,21.0s						
RCBR	Riachuelo	172.85	341	PFAKE		09 33 20.0	+15
RCBR				LR	LR		
	comp=Z,423nm,21.0s						

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*NEIC **28** 09:20:44.3, 35°.99N×21°.78E, h5^{km}, MD3.5(ATH), After ATH.*

*CSEM **28** 09:20:44.3, 35°.99N×21°.78E, h5^{km}, MD3.5, After ATH*

ATH 28 09:20:44.3, 35°.99N×21°.78E, h5^{km}±3^{km}**, MD3.5**/9**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.90	358	*e*PB	Pb	09 21 01.4	-1.1
PYL				*e*SB	Sb	09 21 14.1	-0.7
PYL	PYLOS	0.90	358	*e*Pb	Pb	09 21 01.4	-1.1
PYL				*e*Sb	Sb	09 21 14.1	-0.7
KYTH	Kithira	1.06	74	*e*PN	Pn	09 21 04.5	-1.3
KYTH	Kithira	1.06	74	*e*Pn	Pn	09 21 04.5	-1.3
VLI	Veliai	1.18	52	*e*PG	Pg	09 21 06.6	-0.4
VLI	Veliai	1.18	52	*e*Pg	Pg	09 21 06.6	-0.4
ITM	Ithomi	1.19	6	*e*PN	Pn	09 21 06.3	-1.3
ITM				*e*SB	Sb	09 21 23.2	+0.1
ITM	Ithomi	1.19	6	*e*Pn	Pn	09 21 06.3	-1.3
ITM				*e*Sb	Sb	09 21 23.2	+0.1
VLX	Vlachokerasia	1.46	19	*e*PG	Pg	09 21 10.9	-1.4
VLX				*e*SB	Sb	09 21 32.3	+1.5
VLX	Vlachokerasia	1.46	19	*e*Pg	Pg	09 21 10.9	-1.4
VLX				*e*Sb	Sb	09 21 32.3	+1.5
KARN	Karanos	1.84	108	*e*PG	Pg	09 21 18.0	-1.5
KARN	Karanos	1.84	108	*e*Pg	Pg	09 21 18.0	-1.5
DID	Didima	1.91	37	*e*PN	Pn	09 21 19.7	+2.2
DID	Didima	1.91	37	*e*Pn	Pn	09 21 19.7	+2.2
GUR	Goura	1.99	13	*e*PN	Pn	09 21 20.6	+1.9
GUR	Goura	1.99	13	*e*Pn	Pn	09 21 20.6	+1.9
RLS	Riolos of Patr	2.08	353	*e*PG	Pg	09 21 22.9	-1.3
RLS	Riolos of Patr	2.08	353	*e*Pg	Pg	09 21 22.9	-1.3
LTK	Loutraki	2.24	25	*e*PN	Pn	09 21 24.1	+2.1
LTK	Loutraki	2.24	25	*e*Pn	Pn	09 21 24.1	+2.1
EFP	Efpalio	2.44	2	*e*PN	Pn	09 21 27.1	+2.4
EFP	Efpalio	2.44	2	*e*Pn	Pn	09 21 27.1	+2.4
LAST	Lasithi	3.13	104	*e*PB	Pb	09 21 37.3	-3.0
LAST	Lasithi	3.13	104	*e*Pb	Pb	09 21 37.3	-3.0

IDC 28 09:26:07.2±9.5**, 2°.29N×95°.66E, h22**^{km}±6^{km}**, mb3.8**/3**, mb1 4.0**/4**, mb1mx3.5**/23**, mbtmp3.8**/4**, ML4.5**/1**, 1C, Error ellipse: s-maj=179.8km s-min=91.0km az=161.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	3.21	354⇑	*e*P	Pn	09 26 54.0	-2.3
BSI				*e*S	Sn	09 27 26.0	-7.9
CMAR	Chiang Mai Arr	16.39	11	Pn	Pn	09 29 56.0	+0.1
	0.7nm,0.3s,baz=201,slow=12,SNR=7.5						
MKAR	Makanchi Array	45.84	347	P	P	09 34 27.4	0.0
	1.8nm,0.7s,baz=161,slow=8.0,SNR=21						
MKAR				pP	pP	09 34 34.3	0.0
	2.3nm,0.7s,baz=164,slow=7.8,SNR=14						
SONM	Songino Array	46.31	10	P	P	09 34 31.2	0.0
	0.5nm,0.8s,baz=192,slow=5.3,SNR=4.4						
SONM				pP	pP	09 34 38.1	0.0
	0.8nm,0.8s,baz=188,slow=8.4,SNR=6.2						
ZALV	Zalesovo Beam	52.26	352	P	P	09 35 16.6	0.0
	1.9nm,0.6s,baz=184,slow=5.9,SNR=7.4						
ZALV				pP	pP	09 35 23.6	+0.1
	1.2nm,0.5s,baz=180,slow=7.4,SNR=2.6						

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*NEIC **28** 09:30:15.4, 52°.32N×167°.35W, h16^{km}, ML2.9(AEIC), After AEIC.*

*IDC **28** 09:30:17.2±5.2, 53°.24N×167°.68W, h0^{km}, mb3.8/8, mb1 3.9/8, mb1mx3.6/29, mbtmp3.8/8, MS4.2/3, Ms1 4.2/3, ms1mx3.4/52, Error ellipse: s-maj=125.0km s-min=26.7km az=167.0*

ISC 28 09:30:12.7±2.4**, 52°.38N**±0°.09×**167°.2W**±0°.1**, h5**^{km}±12^{km}**, n17, σ0.^{s}99**/17**, mb3.9**/7**, MS4.2**/3**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKFG	Magazine Ridge	1.11	339	P	Pg	09 30 34.5	+0.5
OKFG				S	Sg	09 30 48.9	+0.4
NIKO	Nikolski	1.15	302	P	Pg	09 30 34.2	-0.6
NIKO				S	Sg	09 30 49.1	-0.6
UNV	Unalaska Valle	1.54	16	P	Pn	09 30 40.7	+0.1
UNV				S	Sn	09 31 00.6	-0.3
AKLV	Akutan Long Va	1.94	23	P	Pn	09 30 47.2	+0.9
KDAK	Kodiak Island	9.98	51	Pn	Pn	09 32 35.5	-1.0
	0.2nm,0.3s,baz=212,slow=15,SNR=3.2						
PETK	Petropavlovsk-	21.12	286	P	P	09 34 59.8	+1.9
	2.3nm,0.6s,mb3.7,baz=85,slow=12,SNR=5.3						
INK	Inuvik	22.63	32	P	P	09 35 12.4	-1.5
	0.9nm,0.6s,mb3.4,baz=238,slow=15,SNR=5.0						
YKA	Yellowknife Ar	29.25	49	P	P	09 36 17.7	+2.7
	0.1nm,0.5s,baz=276,slow=8.1,SNR=4.4						
YBH	Yreka Blue Hor	31.67	92	LR	LR	09 45 42.6	
	comp=Z,158nm,21.8s,MS3.6,baz=120,slow=29						
ARCES	ARCESS Array B	58.04	355	P	P	09 40 06.8	+0.9
	3.0nm,0.9s,mb4.3,baz=23,slow=6.6,SNR=5.7						
BVAR	Borovoye Array	64.45	326	P	P	09 40 48.8	-0.6
	0.8nm,0.5s,mb4.0,baz=53,slow=7.6,SNR=6.0						
MKAR	Makanchi Array	64.74	315	P	P	09 40 50.6	-0.9
	0.3nm,0.8s,mb3.4,baz=34,slow=3.6,SNR=2.9						
FINES	FINESS Array B	66.03	353	P	P	09 40 59.2	-0.4
	1.1nm,0.4s,mb4.2,baz=7.6,slow=5.8,SNR=6.0						
FINES	FINESS Array B	66.03	353	P	P	09 40 59.2	-0.4
HFS	Hagfors	67.84	359	P	P	09 41 10.7	-0.4
	3.1nm,0.9s,mb4.4,baz=0.0,slow=4.4,SNR=5.7						
KEST	Kesra	92.21	3	LR	LR	10 24 27.1	
	comp=Z,168nm,20.7s,MS4.5,baz=330,slow=36						
ATAH	Atahualpa	94.78	95	LR	LR	10 19 52.0	
	comp=Z,203nm,21.9s,MS4.5,baz=344,slow=31						

IDC 28 09:43:12.5±11.0**, 6°.06S×128°.22E, h399**^{km}±155^{km}**, mb2.9**/2**, mb1 3.0**/5**, mb1mx2.9**/17**, mbtmp2.8**/5**, Error ellipse: s-maj=84.2km s-min=59.9km az=55.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.23	192	P	P	09 45 54.1	-0.7
	0.3nm,0.3s,baz=8.6,slow=7.1,SNR=6.3						
WRA	Warramunga Arr	15.03	157	P	P	09 46 25.2	-0.1
	0.3nm,0.3s,baz=342,slow=14,SNR=24						
ASAR	Alice Springs	18.34	163	P	P	09 47 01.1	+0.5
	0.3nm,0.3s,baz=341,slow=11,SNR=19						
SONM	Songino Array	57.01	343	P	P	09 52 19.0	+0.8
	0.3nm,0.4s,baz=170,slow=6.1,SNR=3.3						
MKAR	Makanchi Array	66.48	327	P	P	09 53 20.2	-0.4
	0.4nm,0.4s,baz=116,slow=8.7,SNR=9.4						

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*MOS **28** 09:54:12.2±1.2, 50°.47N×157°.04E, h64^{km}, mb4.2/1, Error ellipse: s-maj=23.3km s-min=10.5km az=74.0*

*ISCJB **28** 09:54:13.6±0.9, 50°.53N±0°.07×157°.2E±0°.1, h71^{km}±7^{km}, mb3.5/8, Error ellipse: s-maj=14.3km s-min=6.9km az=139.2*

*NEIC **28** 09:54:13.7±2.7, 50°.40N×156°.99E, h60^{km}±18^{km}, Error ellipse: s-maj=32.9km s-min=12.2km az=184.0*

*IDC **28** 09:54:14.0±4.5, 50°.41N×156°.92E, h61^{km}±35^{km}, mb3.2/8, mb1 3.4/9, mb1mx3.3/27, mbtmp3.2/9, ML3.4/1, Error ellipse: s-maj=34.0km s-min=16.6km az=177.0*

*KRSC **28** 09:54:14.4±0.8, 50°.74N×157°.63E, h5^{km}±5^{km}, ML4.2*

ISC 28 09:54:14.9±0.9**, 50°.54N**±0°.07×**157°.13E**±0°.10**, h64**^{km}±7^{km}**, n28, σ1.^{s}06**/41**, mb3.6**/8**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.66	283	*e*PN	Pn	09 54 28.2	-0.7
SKR				*e*S	Sn	09 54 39.0	-0.2
SKR				pmax	pmax		
	comp=N,390nm,0.5s						
SKR				pmax	pmax		
	comp=Z,1µm,0.5s						
SKR				pmax	pmax		
	comp=E,710nm,0.2s						
SKR				smax			
	comp=N,460nm,0.5s						
SKR				smax			
	comp=E,2µm,0.3s						
MIPR	Malaya Ipel'ka	1.75	353	*e*P	Pn	09 54 44.1	+1.0
MIPR				*e*S	Sn	09 55 05.5	+1.1
RUS	Russkaya	2.08	24	*e*P	Pn	09 54 46.4	-1.1
RUS				*e*S	Sn	09 55 10.1	-2.3
GRL	Gorelyy	2.10	16	*e*P	Pn	09 54 48.2	+0.5
GRL				*e*S	Sn	09 55 12.5	-0.2
PEA0B	Petropavlovsk-	2.60	8	*e*Pn	Pn	09 54 55.9	+1.4
PEA0B				*e*Sn	Sn	09 55 29.1	+4.3
PETK	Petropavlovsk-	2.60	8	PN	Pn	09 54 55.8	+1.3
PETK				S	Sn	09 55 28.5	+3.7
PETK				pmax	pmax		
	comp=Z,6.0nm,0.3s						
PETK				smax			
	comp=N,5.0nm,0.3s						
PETK	Petropavlovsk-	2.60	8	P	Pn	09 54 55.8	+1.4
	comp=N,6.4nm,0.3s,baz=178,slow=14,SNR=43						
PETK				S	Sn	09 55 28.5	+3.6
	comp=N,5.2nm,0.3s,baz=168,slow=16,SNR=6.6						
PET	Petropavlovsk	2.66	20	*e*PN	Pn	09 54 56.1	+0.7
PET				*e*S	Sn	09 55 26.1	-0.3
PET				smax			
	comp=N,478nm,0.5s						
PET	Petropavlovsk	2.66	20	*e*P	Pn	09 54 55.7	+0.3
PET				*e*S	Sn	09 55 25.8	-0.6
PET	Petropavlovsk	2.66	20	*e*Pn	Pn	09 54 56.1	+0.7
PET				*e*Sn	Sn	09 55 26.9	+0.5
SDLR	Sedlovina	2.95	21	*e*P	Pn	09 54 59.8	+0.5
SDLR				*e*S	Sn	09 55 32.6	-0.9
NLC	Nalytchevo	2.97	27	*e*S	Sn	09 55 30.4	-3.6
SPN	Mys Shipunski	3.13	34	*e*P	Pn	09 55 01.3	-0.4
SPN				*e*S	Sn	09 55 36.1	-1.7
GNL	Ganaly	3.20	9	*e*P	Pn	09 55 03.6	+0.9
GNL				*e*S	Sn	09 55 39.9	+0.3
KBTR	Krutoberegovo	6.62	29	*e*P	Pn	09 55 48.9	-0.5
FX1	Attu Island--F	10.22	71	P	Pn	09 56 38.6	-0.1
	baz=285,slow=12						
SONM	Songino Array	32.75	285	P	P	10 00 41.4	+0.1
	comp=N,0.2nm,0.4s,mb3.4,baz=49,slow=8.2,SNR=3.6						
INK	Inuvik	37.02	35	P	P	10 01 17.8	0.0
	comp=N,0.3nm,0.4s,mb3.5,baz=244,slow=9.9,SNR=3.4						
INK	Inuvik	37.02	35	P	P	10 01 17.8	-0.1
YKA	Yellowknife Ar	46.30	40	P	P	10 02 34.0	+0.4
	comp=N,0.2nm,0.5s,mb3.3,baz=294,slow=7.6,SNR=4.9						
YKA	Yellowknife Ar	46.30	40	P	P	10 02 34.0	+0.4
KURK	Kurchatov	47.53	302	P	P	10 02 42.7	-0.8
	comp=N,0.3nm,0.3s,mb3.8,baz=62,slow=7.4,SNR=2.7						
MKAR	Makanchi Array	47.62	296	P	P	10 02 42.4	-1.7
	comp=N,0.2nm,0.4s,mb3.5,baz=65,slow=7.6,SNR=4.7						
MKAR	Makanchi Array	47.62	296	P	P	10 02 42.4	-1.7
BVAR	Borovoye Array	50.54	309	P	P	10 03 04.7	-1.6
	comp=N,0.3nm,0.6s,mb3.4,baz=38,slow=9.5,SNR=2.3						
PDAR	Pinedale Array	60.41	58	P	P	10 04 18.8	+1.4
	comp=N,0.6nm,0.7s,mb3.8,baz=312,slow=2.5,SNR=7.3						
TXAR	Lajitas Array	73.37	64	P	P	10 05 41.2	+1.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	73.37	64	P	P	10 05 41.2	+1.4
	comp=Z,0.7nm,0.5s,mb3.9,baz=298,slow=4.8,SNR=20						

IDC 28 09:59:53.7±1.2**, 6°.85S×155°.50E, h0**^{km}**, mb3.7**/7**, mb1 4.0**/7**, mb1mx3.9**/16**, mbtmp3.7**/7**, MS3.1**/1**, Ms1 3.1**/1**, ms1mx2.6**/29**, Error ellipse: s-maj=44.4km s-min=25.9km az=133.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	5.09	121	LR	LR	10 02 32.1	
	comp=Z,207nm,21.2s,baz=284,slow=31						
WRA	Warramunga Arr	24.31	236	P	P	10 05 13.0	-0.2
	0.7nm,0.5s,baz=59,slow=9.2,SNR=11						
WRA				PcP	PcP	10 08 54.0	+0.7
	0.4nm,0.5s,baz=58,slow=2.8,SNR=5.9						
ASAR	Alice Springs	26.65	229	P	P	10 05 34.5	+0.1
	0.5nm,0.8s,baz=70,slow=8.0,SNR=4.1						
CMAR	Chiang Mai Arr	61.18	295	P	P	10 10 11.2	+0.5
	2.4nm,0.7s,baz=119,slow=5.0,SNR=8.4						
SONM	Songino Array	69.49	327	P	P	10 11 03.8	-0.2
	0.3nm,0.6s,baz=92,slow=4.3,SNR=3.2						
MKAR	Makanchi Array	83.63	319	P	P	10 12 23.7	-0.4
	0.2nm,0.6s,baz=91,slow=6.1,SNR=3.9						
NVAR	Mina Array Bea	91.23	52	P	P	10 13 00.3	-0.8
	0.4nm,0.7s,baz=219,slow=5.6,SNR=2.1						
YKA	Yellowknife Ar	95.97	28	P	P	10 13 24.0	+1.6
	0.3nm,0.6s,baz=263,slow=4.7,SNR=8.1						
TORD	Torodi Ar. Bea	153.47	286	PKPbc	PKPbc	10 19 54.3	-0.9
	0.6nm,0.8s,baz=22,slow=1.4,SNR=4.0						
TORD				PKPab	PKPab	10 20 07.4	-0.1
	0.4nm,0.7s,baz=75,slow=2.9,SNR=3.7						

GUC 28 10:02:05.4±0.7**, 31°.99S×71°.45W, h41**^{km}±3^{km}**, MD3.6, ML2.9, 2C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

CHNG	**Los Chungos**	**0.12**	**337**	*e*P	Pn	10 02 12.2	0.0
CHNG				*i* S	Sn	10 02 16.9	0.0
CMCH	**Combarbala**	**0.90**	**25⇑**	*i*P	Pn	10 02 22.4	+0.8
CMCH				*i* S	Sn	10 02 34.9	+1.6
CMCH				AML	AML	10 02 36.6	
	comp=N,1μm,0.5s						
JACH	**Jahuel**	**1.00**	**134**	*i* P	Pn	10 02 24.1	+1.1
JACH				*i* S	Sn	10 02 37.8	+2.0
PEL	**Peldehue**	**1.32**	**151**	*e*P	Pn	10 02 28.5	+1.2
PEL				*i* S	Sn	10 02 45.9	+2.3
PEL				AML	AML	10 02 47.8	
	comp=E,240nm,0.4s						
FCH	**Farellones**	**1.65**	**144⇓**	*e*P	Pn	10 02 33.4	+1.5
FCH				*i* S	Sn	10 02 54.9	+3.0
TACH	**Talagante**	**1.71**	**166⇑**	*i*P	Pn	10 02 34.2	+1.4

ISCJB **28** *10:08:11.4±3.0, 15°.39S±0°.09×74°.0W±0°.1, h15*^{km}*±25*^{km}*, mb3.6/4, Error ellipse: s-maj=21.2km s-min=7.3km az=136.9*

NEIC **28** *10:08:15.5±0.5, 15°.36S×73°.90W, h35*^{km}*, mb3.6/1, Error ellipse: s-maj=15.5km s-min=7.3km az=53.0*

IDC **28** *10:08:15.9±3.4, 15°.40S×73°.92W, h35*^{km}*±28*^{km}*, mb3.5/4, mb1 3.8/9, mb1mx3.6/22, mbtmp3.7/9, ML3.9/3, Error ellipse: s-maj=37.7km s-min=16.0km az=59.0*

ISC 28 10:08:15.5±3.0**, 15°.39S**±0°.09×**73°.9W**±0°.1**, h34**^{km}±25^{km}**, n16, σ0ˢ.77**/15**, mb3.6**/4**, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	**Arequipa**	**2.58**	**115**	*e*P	**Pn**	**10 08 55.0**	**0.0**
ARE				*e*S	**Sn**	**10 09 29.0**	**+3.8**
NNA	**Nana**	**4.41**	**320**	Pn	**Pn**	**10 09 20.9**	**+0.9**
	20nm,0.3s,baz=162,slow=12,SNR=24						
NNA				Sn	**Sn**	**10 10 09.1**	**-1.0**
	25nm,0.3s,baz=200,slow=12,SNR=4.3						
LVC	**Limon Verde**	**8.61**	**147**	Pn	**Pn**	**10 10 17.6**	**-0.2**
	2.9nm,0.3s,baz=326,slow=8.0,SNR=33						
LVC				Sn	**Sn**	**10 11 52.3**	**-1.4**
	3.3nm,0.3s,baz=89,slow=16,SNR=6.3						
ATAH	**Atahualpa**	**9.41**	**332**	Pn	**Pn**	**10 10 29.1**	**+0.2**
	0.5nm,0.3s,baz=76,slow=8.3,SNR=3.0						
SIV	**San Ignacio**	**12.41**	**94**	Pn	**Pn**	**10 11 09.2**	**-0.6**
	0.2nm,0.3s,baz=293,slow=12,SNR=5.9						
OTAV	**Otavalo**	**16.16**	**344**	*e*Pn	**Pn**	**10 11 59.6**	**-0.6**
	4.5nm,0.9s						
CFAA	**Coronel Fontan**	**16.96**	**163**	Pn	**Pn**	**10 12 10.2**	**+0.1**
	0.0nm,0.3s,baz=292,slow=19,SNR=2.4						
PLCA	**Paso Flores**	**25.42**	**174**	P	**P**	**10 13 41.0**	**+1.1**
	1.2nm,0.8s,mb3.5,baz=342,slow=3.2,SNR=2.3						
TXAR	**Lajitas Array**	**52.93**	**327**	P	**P**	**10 17 28.8**	**+0.3**
	0.2nm,0.4s,mb3.4,baz=154,slow=8.2,SNR=9.7						
TORD	**Torodi Ar. Bea**	**80.01**	**73**	P	**P**	**10 20 22.8**	**+0.7**
	1.4nm,0.7s,mb4.0,baz=255,slow=5.0,SNR=4.4						
YKA	**Yellowknife Ar**	**83.91**	**342**	P	**P**	**10 20 41.3**	**-0.2**
	0.3nm,0.7s,mb3.5,baz=138,slow=6.1,SNR=4.2						
YKA	**Yellowknife Ar**	**83.91**	**342**	P	**P**	**10 20 41.3**	**-0.2**
ASAR	**Alice Springs**	**132.59**	**216**	PKP	PKPdf	10 27 26.1	-1.3
	0.3nm,0.8s,baz=125,slow=2.1,SNR=5.0						
WRA	**Warramunga Arr**	**135.21**	**219**	PKP	PKPdf	10 27 32.3	-0.1
	1.1nm,1.0s,baz=133,slow=2.0,SNR=4.8						
MKAR	**Makanchi Array**	**142.96**	**27**	PKP	PKPdf	10 27 43.9	-1.8
	0.2nm,0.7s,baz=0.0,slow=2.9,SNR=3.0						
SONM	**Songino Array**	**147.65**	**360**	PKPbc	PKPbc	10 27 57.2	+0.8
	0.3nm,0.5s,baz=92,slow=0.5,SNR=4.0						

BJI **28** *10:08:24.8, 12°.55N×141°.99E, h14*^{km}*, mB5.2/27, mb4.8/38, Ms4.9/20, Ms7 4.3/22*

GCMT **28** *10:08:26.8±0.3, 12°.56N×141°.64E, h13*^{km}*±1*^{km}*, MW5.0/64, Moment Tensor Solution. s29,c30; s64,c95; Duration: 0 Moment tensor: Scale 10*^{16}*Nm;* M_{rr}*-3.06±.23;* $M_{\theta\theta}$*2.80±.15;* $M_{\phi\phi}$*0.25±.14;* $M_{r\theta}$*1.05±.30;* $M_{\theta\phi}$*-0.65±.09;* $M_{\phi r}$*0.75±.43; Best double couple:* M_0*3.25900×10*^{16} *NP1:*ϕ_s*118.00000°, δ39.00000°, λ-66.00000°. NP2:* ϕ_s*268.00000°, δ55.00000°, λ-108.00000°. Principal axes: T 3.0790, Plg8.0000°, Azm11.0000°; N 0.3550, Plg15.0000°, Azm279.0000°; P -3.4400, Plg73.0000°, Azm129.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **28** *10:08:26.8±0.3, 12°.52N×141°.76E, h10*^{km}*, mb4.9/40 Error ellipse: s-maj=8.0km s-min=6.2km az=183.0*

ISCJB **28** *10:08:27.7±0.3, 12°.57N±0°.06×141°.69E±0°.03, h23*^{km}*, mb4.8/80, MS4.1/24, Error ellipse: s-maj=8.5km s-min=4.5km az=11.8*

MOS **28** *10:08:28.6±1.0, 12°.62N×141°.77E, h33*^{km}*, mb5.0/38, MS4.0/5, Error ellipse: s-maj=11.9km s-min=7.5km az=106.4*

IDC **28** *10:08:30.1±5.8, 12°.59N×141°.93E, h33*^{km}*±44*^{km}*, mb4.3/17, mb1 4.4/18, mb1mx4.3/26, mbtmp4.3/18, ML3.8/1, MS4.0/17, Ms1 4.1/17, ms1mx3.9/33, Error ellipse: s-maj=21.6km s-min=12.9km az=75.0*

ISC 28 10:08:26.9±1.7**, 12°.57N**±0°.06×**141°.79E**±0°.03**, h8**^{km}±10^{km}**, h24**^{km}±1.6^{km}**:pP-P, n325, σ0ˢ.68**/322**, mb4.8**/80**, MS4.1**/24**, 93C-74D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**3.17**	**71**	P	**Pn**	**10 09 17.3**	**+0.2**
GUMO				pmax	pmax		
	comp=Z,14nm,0.3s						
GUMO				pmax	pmax		
	comp=Z,118nm,0.3s						
GUMO	**Guam**	**3.17**	**71**	Pn	**Pn**	**10 09 17.3**	**+0.2**
	comp=Z,14nm,0.3s,baz=234,slow=8.4,SNR=5.7						
GUMO				T		10 12 13.2	
	comp=Z,118nm,0.3s,baz=212,slow=22,SNR=7.2						
GUMO	**Guam**	**3.17**	**71**	*e*Pn	**Pn**	**10 09 19.2**	**+2.1**
DAV	**Davao City (W)**	**16.88**	**253**	LR	LR	10 19 19.9	
	comp=Z,292nm,18.0s,baz=184,slow=38						
JOW	**Kunigami**	**19.03**	**320**	LR	LR	10 18 01.6	
	comp=Z,373nm,20.7s,baz=133,slow=30						
JHJ	**Hachijo jima 2**	**20.54**	**355**	LR	LR	10 19 07.3	
	comp=Z,617nm,20.9s,MS4.0,baz=78,slow=31						
SSLB	**Suanglung**	**22.69**	**302**	*e*P	**P**	**10 13 30.0**	**+1.0**
	comp=Z,57nm,1.1s,mb4.9						
TATO	**Taipei**	**22.80**	**306**	*e*P	**P**	**10 13 24.7**	**-5.5**
	comp=Z,210nm,1.6s,mb5.3						
MJAR	**Matsushiro Arr**	**24.08**	**353**	P	**P**	**10 13 40.4**	**-2.5**
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MJAR				MLR	MLR		
	comp=Z,229nm,20.8s						
MJAR	**Matsushiro Arr**	**24.08**	**353**	P	**P**	**10 13 40.4**	**-2.5**
	comp=Z,2.1nm,0.8s,mb3.6,baz=330,slow=22,SNR=4.0						
MJAR				LR	LR	10 21 48.5	
	comp=Z,229nm,20.8s,MS3.6,baz=145,slow=33						
MJAR	**Matsushiro Arr**	**24.08**	**353**	P	**P**	**10 13 40.4**	**-2.5**
MJAR				LR	LR	10 21 48.5	
MAT	**Matsushiro**	**24.09**	**353**	P	**P**	**10 13 40.5**	**-2.4**
MAT				S	**S**	**10 18 01.0**	**+0.3**
KSRS	**Korea Array**	**27.71**	**336**	P	**P**	**10 14 14.8**	**-1.0**
	comp=Z,1.6nm,0.8s,mb3.7,baz=149,slow=9.9,SNR=4.7						
KSRS				LR	LR	10 22 54.4	
	comp=Z,271nm,21.3s,MS3.8,baz=150,slow=31						
HNR	**Honiara**	**28.34**	**140**	LR	LR	10 23 37.3	
	comp=Z,279nm,20.3s,MS3.9,baz=306,slow=32						
NJ2	**Nanjing**	**28.63**	**316**	*e*P	**P**	**10 14 26.3**	**+2.3**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
WRAB	**Tennant Creek**	**33.12**	**193**	*e*P	**P**	**10 15 03.4**	**-0.3**
WRAB				*e*		10 15 10.9	
WRAB				pmax	pmax		
	comp=Z,87nm,2.0s,mb5.3						
WRAB	**Tennant Creek**	**33.12**	**193**	*e*P	**P**	**10 15 03.4**	**-0.3**
	comp=Z,87nm,2.0s,mb5.3						
WRAB				*e*		10 15 10.9	
WRA	**Warramunga Arr**	**33.13**	**193**	P	**P**	**10 15 03.4**	**-0.4**
WRA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
WRA				MLR	MLR		
	comp=Z,475nm,20.1s						
WRA	**Warramunga Arr**	**33.13**	**193**	P	**P**	**10 15 03.4**	**-0.4**
	comp=Z,5.6nm,0.8s,mb4.6,baz=12,slow=9.6,SNR=24						
WRA				LR	LR	10 28 06.0	
	comp=Z,474nm,20.1s,MS4.2,baz=40,slow=35						
MDJ	**Mudanjiang**	**33.60**	**344**	P	**P**	**10 15 08.5**	**+0.8**
MDJ				pP	pP	10 15 14.5	+4.4
MDJ				sP	sP	10 15 18.0	+7.0
MDJ				PcP	PcP	10 17 47.5	-0.5
MDJ				S	**S**	**10 20 34.3**	**+4.0**
MDJ				ScP	ScP	10 21 29.3	-3.8
MDJ				PcS	PcS	10 21 34.8	+1.2
MDJ				ScS	ScS	10 25 34.0	-0.1
MDJ				pmax	pmax		
	comp=Z,6.0nm,2.1s,mb4.2						
MDJ				pmax	pmax		
	comp=Z,130nm,5.1s						
MDJ				LR	LR		
	comp=Z,270nm,29.0s,MS3.8						
CN2	**Changchun**	**34.15**	**339**	*e*P	**P**	**10 15 16.3**	**+3.8**
CN2				*e*sP	sP	10 15 25.0	+9.2
CN2				*e*S	**S**	**10 20 41.0**	**+2.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,300nm,14.0s,MS4.4						
CN2				LR	LR		
	comp=E,400nm,14.0s,MS4.4						
CN2				LR	LR		
	comp=Z,300nm,15.0s,MS4.2						
BJT	**Baijiatuau**	**35.45**	**325**	*e*P	**P**	**10 15 23.8**	**0.0**
BJT				pmax	pmax		
	comp=Z,30nm,0.8s						
BJT	**Baijiatuau**	**35.45**	**325**	*e*P	**P**	**10 15 23.8**	**0.0**
	comp=Z,30nm,0.8s,mb5.3						
BJI	**Beijing**	**35.46**	**325**	P	**P**	**10 15 24.0**	**+0.1**
BJI				PP	PP	10 16 44.0	-0.4
BJI				S	**S**	**10 20 55.3**	**-4.0**
BJI				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
BJI				pmax	pmax		
	comp=Z,180nm,5.5s						
BJI				LR	LR		
	comp=N,340nm,20.4s,MS4.2						
BJI				LR	LR		
	comp=E,250nm,24.1s,MS4.2						
BJI				LR	LR		
	comp=Z,190nm,27.2s,MS3.7						
GYA	**Guiyang**	**35.74**	**298⇑**	*i*P	**P**	**10 15 28.0**	**+1.6**
GYA				pP	pP	10 15 34.0	+5.2
GYA				sP	sP	10 15 37.0	+7.2
GYA				PP	PP	10 16 50.0	+2.4
GYA				S	**S**	**10 21 06.0**	**+2.2**
GYA				sS	sS	10 21 15.0	+7.2
GYA				ScP	ScP	10 21 39.0	-2.2
GYA				SS	SS	10 23 27.8	-12
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
GYA				pmax	pmax		
	comp=Z,180nm,6.0s						
GYA				LR	LR		
	comp=N,970nm,11.7s,MS4.8						
GYA				LR	LR		
	comp=E,380nm,11.4s,MS4.8						
GYA				LR	LR		
	comp=Z,1μm,12.1s,MS4.8						
XAN	**Xi'an**	**36.73**	**311**	P	**P**	**10 15 33.8**	**-1.0**
XAN				pP	pP	10 15 42.5	+5.3
XAN				sP	sP	10 15 46.8	+8.6
XAN				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
ASAR	**Alice Springs**	**36.83**	**192**	P	**P**	**10 15 36.0**	**+0.3**
ASAR						10 17 57.1	
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	**36.83**	**192**	P	**P**	**10 15 36.0**	**+0.2**
	comp=Z,1.1nm,0.7s,mb3.8,baz=20,slow=12,SNR=14						
ASAR				PcP	PcP	10 17 57.1	-0.7
	comp=Z,0.3nm,0.7s,baz=44,slow=2.8,SNR=4.1						
KLR	**Kul'dur**	**37.48**	**349**	*e*P	**P**	**10 15 36.7**	**-4.3**
KLR				pmax	pmax		
	comp=Z,34nm,1.6s,mb4.9						
HHC	**Hu-ho-hao-te**	**38.66**	**322**	*e*P	**P**	**10 15 51.8**	**+0.8**
HHC				sP	sP	10 16 00.5	+6.1
HHC				PP	PP	10 17 24.0	+4.5
HHC				S	**S**	**10 21 47.0**	**-0.9**
HHC				sS	sS	10 21 56.3	+4.4
HHC				SS	SS	10 24 28.0	-10
HHC				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.7						
HHC				pmax	pmax		
	comp=Z,100nm,4.7s						
HHC				LR	LR		
	comp=N,310nm,14.9s,MS4.4						
HHC				LR	LR		
	comp=E,270nm,11.7s,MS4.4						
HHC				LR	LR		
	comp=Z,170nm,17.8s						
KMI	**Kunming**	**38.86**	**294**	P	**P**	**10 15 55.0**	**+2.0**
KMI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.6						
KMI				LR	LR		
	comp=Z,93nm,22.8s,MS3.5						
CD2	**Chengdu**	**39.51**	**304**	P	**P**	**10 15 58.8**	**+0.5**
CD2				pP	pP	10 16 04.5	+3.8
CD2				sP	sP	10 16 07.8	+6.1
CD2				PP	PP	10 17 36.0	+7.0
CD2				PcP	PcP	10 18 01.3	-4.8
CD2				S	**S**	**10 22 07.0**	**+6.0**
CD2				sS	sS	10 22 17.0	+12
CD2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.0						
CD2				pmax	pmax		
	comp=Z,260nm,6.7s						
CD2				LR	LR		
	comp=N,390nm,10.1s						
CD2				LR	LR		
	comp=Z,250nm,9.5s						
LZH	**Lanzhou**	**41.37**	**311**	*e*P	**P**	**10 16 14.0**	**+0.4**
LZH				pP	pP	10 16 22.0	+5.9
LZH				sP	sP	10 16 26.0	+9.0
LZH				PP	PP	10 17 53.0	+3.9
LZH				S	**S**	**10 22 27.0**	**-1.6**
LZH				sS	sS	10 22 38.3	+5.7
LZH				SS	SS	10 25 23.0	-9.4
LZH				pmax	pmax		
	comp=Z,42nm,1.5s,mb4.8						
LZH				pmax	pmax		
	comp=Z,200nm,7.6s						
LZH				LR	LR		
	comp=N,330nm,14.4s						
LZH				LR	LR		
	comp=Z,520nm,15.9s,MS4.5						
CMAR	**Chiang Mai Arr**	**41.62**	**284**	P	**P**	**10 16 17.6**	**+1.6**
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CMAR				MLR	MLR		
	comp=Z,77nm,18.2s						
CMAR	**Chiang Mai Arr**	**41.62**	**284**	P	**P**	**10 16 17.6**	**+1.6**
	comp=Z,6.1nm,0.8s,mb4.3,baz=84,slow=6.4,SNR=35						
CMAR				LR	LR	10 33 24.9	
	comp=Z,76nm,18.2s,MS3.6,baz=260,slow=36						
PETK	**Petropavlovsk-**	**42.39**	**14**	LR	LR	10 31 49.3	
	comp=Z,391nm,19.9s,MS4.3,baz=233,slow=33						
STKA	**Stephens Creek**	**44.19**	**180**	P	**P**	**10 16 35.6**	**-0.9**
	comp=Z,4.4nm,0.9s,mb4.2,baz=354,slow=8.6,SNR=4.4						
STKA				LR	LR	10 35 48.8	
	comp=Z,311nm,19.3s,MS4.2,baz=255,slow=37						
STKA	**Stephens Creek**	**44.19**	**180**	*e*P	**P**	**10 16 34.2**	**-2.3**
	comp=Z,0.7nm,0.8s,mb3.4						
STKA				LR	LR	10 35 48.8	
ULN	**Ulaanbaatar**	**45.56**	**327**	*e*P	**P**	**10 16 47.9**	**+0.6**
ULN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
ULN	**Ulaanbaatar**	**45.56**	**327**	*e*P	**P**	**10 16 47.9**	**+0.6**
	comp=Z,11nm,1.0s,mb4.8						
GTA	**Gaotai**	**45.65**	**314**	P	**P**	**10 16 48.3**	**+0.2**
GTA				pP	pP	10 16 54.5	+3.9
GTA				sP	sP	10 16 57.3	+5.8
GTA				PcP	PcP	10 18 26.8	+0.5
GTA				PP	PP	10 18 36.0	+1.0
GTA				S	**S**	**10 23 30.0**	**-1.2**
GTA				sS	sS	10 23 40.0	+4.8
GTA				SS	SS	10 26 46.0	-9.4
GTA				pmax	pmax		
	comp=Z,110nm,6.8s						
GTA				LR	LR		
	comp=N,160nm,17.8s,MS4.1						
GTA				LR	LR		
	comp=E,69nm,15.5s,MS4.1						
GTA				LR	LR		
	comp=Z,74nm,15.8s,MS3.7						
SONM	**Songino Array**	**45.89**	**327**	P	**P**	**10 16 50.7**	**+0.8**
SONM						10 18 26.5	
SONM				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM	**Songino Array**	**45.89**	**327**	P	**P**	**10 16 50.7**	**+0.8**
	comp=Z,4.3nm,0.9s,mb4.4,baz=146,slow=7.2,SNR=26						
SONM				PcP	PcP	10 18 26.5	-0.4
	comp=Z,1.5nm,0.7s,baz=146,slow=3.2,SNR=4.7						
SONM				LR	LR	10 33 55.3	
	comp=Z,212nm,20.4s,MS4.1,baz=357,slow=33						
ZAK	**Zakamensk**	**49.06**	**328**	*e*P	**P**	**10 17 14.7**	**+0.2**
ZAK				*e*		10 18 36.3	
ZAK				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
TLY	**Talaya**	**49.66**	**330**	*e*P	**P**	**10 17 19.7**	**+0.6**
TLY				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.6						
TLY				MLR	MLR		
	comp=Z,122nm,17.0s,MS4.0						
TLY	**Talaya**	**49.66**	**330**	*e*P	**P**	**10 17 19.6**	**+0.6**
	comp=Z,11nm,1.4s,mb4.7						
BOD	**Bodaibo**	**49.84**	**341**	*e*P	**P**	**10 17 19.5**	**-0.8**
BOD				*e*		10 18 39.1	
BOD				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
BOD				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.3						
YAK	**Yakutsk**	**50.15**	**353**	*e*P	**P**	**10 17 21.2**	**-1.4**
YAK				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.4						
YAK				pmax	pmax		
	comp=N,22nm,1.2s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.3s						
YAK	**Yakutsk**	**50.15**	**353**	*e*P	**P**	**10 17 22.3**	**-0.4**
	comp=E,42nm,0.8s,mb5.5						
SEY	**Seymchan**	**50.85**	**6⇑**	*e*P	**P**	**10 17 27.3**	**-0.6**
MOY	**Mondy**	**50.98**	**328**	*e*P	**P**	**10 17 29.8**	**+0.7**
TAPN	**Taplejung**	**52.53**	**295**	*e*P	**P**	**10 17 41.6**	**+0.5**
	comp=E,21nm,1.0s,mb5.0						
ODAN	**Odare**	**52.78**	**294**	*e*P	**P**	**10 17 42.8**	**-0.1**
	comp=E,56nm,1.5s,mb5.3						
RAMN	**Ramite**	**53.49**	**294**	*e*P	**P**	**10 17 48.1**	**-0.1**
	comp=E,53nm,1.4s,mb5.3						
JIRN	**Jiri**	**53.90**	**295**	*e*P	**P**	**10 17 51.1**	**-0.1**
	comp=E,45nm,1.2s,mb5.3						
GUN	**Gumba**	**54.20**	**295**	*e*P	**P**	**10 17 53.3**	**0.0**
	comp=E,53nm,1.0s,mb5.4						
DMN	**Daman**	**54.86**	**295**	*e*P	**P**	**10 17 57.7**	**-0.5**
	comp=E,26nm,1.1s,mb5.2						
GKN	**Gorkha**	**55.30**	**295**	*e*P	**P**	**10 18 00.6**	**-0.7**
	comp=E,49nm,1.2s,mb5.4						
WMQ	**Urumqi**	**55.69**	**315**	P	**P**	**10 18 04.5**	**+0.6**
WMQ				pP	pP	10 18 13.0	+6.6
WMQ				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
WMQ				pmax	pmax		
	comp=Z,150nm,4.0s						
DANN	**Dangsing**	**56.09**	**296**	*e*P	**P**	**10 18 06.5**	**-0.6**
	comp=Z,68nm,1.4s,mb5.5						
KOLN	**Koldanda**	**56.20**	**295**	*e*P	**P**	**10 18 07.4**	**-0.4**
BILL	**Bilibino**	**57.68**	**11**	*e*P	**P**	**10 18 13.0**	**-4.6**
BILL				*e*		10 20 23.5	
BILL				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
BILL				MLR	MLR		
	comp=Z,32μm,20.0s						
BILL	**Bilibino**	**57.68**	**11**	*e*P	**P**	**10 18 12.2**	**-5.5**
TIXI	**Tiksi**	**59.56**	**355⇑**	*e*P	**P**	**10 18 29.0**	**-1.7**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
MKAR	**Makanchi Array**	**60.16**	**317**	P	**P**	**10 18 35.8**	**+0.6**
MKAR				pmax	pmax		
	comp=Z,12nm,1.0s						
MKAR	**Makanchi Array**	**60.16**	**317**	P	**P**	**10 18 35.8**	**+0.6**
	comp=Z,12nm,1.0s,mb4.9,baz=94,slow=8.6,SNR=38						
ZAA0	**Zalesovo Array**	**60.72**	**325**	*e*P	**P**	**10 18 38.0**	**-0.9**
ZALV	**Zalesovo Beam**	**60.72**	**325**	P	**P**	**10 18 38.5**	**-0.4**
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
ZALV	**Zalesovo Beam**	**60.72**	**325**	P	**P**	**10 18 38.5**	**-0.4**
	comp=Z,1.6nm,0.5s,mb4.4,baz=100,slow=6.5,SNR=6.5						
NVS	**Novosibirsk**	**61.90**	**326**	*e*P	**P**	**10 18 45.1**	**-1.8**
NVS				pmax	pmax		
	comp=N,10.0nm,1.4s						
NVS				pmax	pmax		
	comp=E,19nm,1.4s						
NVS				pmax	pmax		
	comp=Z,18nm,1.4s,mb5.0						
RPZ	**Rata Peaks**	**62.05**	**156**	P	**P**	**10 18 46.6**	**-1.4**
	comp=Z,12nm,0.7s,mb5.1,baz=291,slow=10,SNR=5.4						
KURK	**Kurchatov**	**63.44**	**321**	P	**P**	**10 18 57.7**	**+0.5**
	comp=Z,151nm,0.9s,mb6.1,SNR=12						
KURK	**Kurchatov**	**63.44**	**321**	P	**P**	**10 18 57.5**	**+0.3**
KURK				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
KURK	**Kurchatov**	**63.44**	**321**	P	**P**	**10 18 57.5**	**+0.3**
	comp=Z,16nm,0.9s,mb5.2,baz=104,slow=6.8,SNR=26						
KURK	**Kurchatov**	**63.44**	**321**	*e*P	**P**	**10 18 57.4**	**+0.1**
	comp=Z,25nm,1.0s,mb5.3						
KSH	**Kashi**	**63.48**	**308**	P	**P**	**10 19 00.5**	**+2.8**
KSH				*e*pP	pP	10 19 06.3	+6.0
KSH				*e*sP	sP	10 19 09.3	+8.1
KSH				*e*PcP	PcP	10 19 36.5	+2.0
KSH				*e*PP	PP	10 21 22.5	+5.2
KSH				*e*ScP	ScP	10 23 36.3	-1.2
KSH				*e*PcS	PcS	10 23 38.5	+0.4
KSH				*e*S	**S**	**10 27 32.0**	**+0.7**
KSH				*e*sS	sS	10 27 41.8	+6.3
KSH				*e*ScS	ScS	10 28 48.8	-2.9
KSH				*e*SS	SS	10 31 40.5	+2.2
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.8						
KSH				pmax	pmax		
	comp=Z,190nm,4.2s						
KSH				LR	LR		
	comp=N,340nm,6.5s						
KSH				LR	LR		
	comp=E,380nm,5.7s						
KSH				LR	LR		
	comp=Z,480nm,6.2s						
TKM2	**Tokmak 2**	**64.14**	**312**	*e*P	**P**	**10 19 02.6**	**+0.6**
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
TKM2	**Tokmak 2**	**64.14**	**312**	*e*P	**P**	**10 19 02.6**	**+0.7**
	comp=Z,3.9nm,0.8s,mb4.5						
UCH	**Uchtor**	**64.85**	**311**	*e*P	**P**	**10 19 07.7**	**+1.0**
	comp=Z,8.7nm,1.0s,mb4.7						
AAK	**Ala-Archa**	**64.91**	**311**	*e*P	**P**	**10 19 06.8**	**-0.2**
AAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
AAK	**Ala-Archa**	**64.91**	**311**	P	**P**	**10 19 07.0**	**0.0**
	comp=Z,0.8nm,0.5s,mb4.0,baz=78,slow=3.3,SNR=4.3						
AAK	**Ala-Archa**	**64.91**	**311**	*e*P	**P**	**10 19 06.8**	**-0.3**
	comp=Z,3.2nm,0.9s,mb4.3						
EKS2	**Erkin-Say**	**65.44**	**311**	*e*P	**P**	**10 19 10.9**	**+0.4**
	comp=Z,3.9nm,1.1s,mb4.3						
AML	**Almayashu**	**65.45**	**311**	*e*P	**P**	**10 19 11.5**	**+1.0**
	comp=Z,6.6nm,0.9s,mb4.7						
RSO	**Redoubt South**	**67.12**	**29**	*e*P	**P**	**10 19 22.6**	**+1.6**
KTH	**Kantishna Hill**	**68.77**	**26**	*e*P	**P**	**10 19 30.6**	**-0.6**
	comp=Z,8.2nm,1.0s,mb4.6						
KBL	**Kabul**	**68.83**	**302**	*e*P	**P**	**10 19 32.2**	**0.0**
KBL				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
KBL	**Kabul**	**68.83**	**302**	*e*P	**P**	**10 19 32.2**	**0.0**
	comp=Z,3.0nm,0.6s,mb4.4						
BVAR	**Borovoye Array**	**68.87**	**322**	P	**P**	**10 19 32.1**	**0.0**
BVAR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BVAR				MLR	MLR		
	comp=Z,128nm,19.6s						
BVAR	**Borovoye Array**	**68.87**	**322**	P	**P**	**10 19 32.1**	**+0.1**
	comp=Z,6.7nm,0.6s,mb4.8,baz=101,slow=7.7,SNR=35						
BVAR				LR	LR	10 51 08.0	
	comp=Z,128nm,19.6s,MS4.2,baz=165,slow=37						
BRVK	**Borovoye**	**68.94**	**322**	P	**P**	**10 19 32.4**	**-0.1**
	comp=Z,94nm,0.6s,mb5.9,SNR=7.4						
BRVK	**Borovoye**	**68.94**	**322**	*e*P	**P**	**10 19 32.7**	**+0.2**
BRVK				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
BRVK	**Borovoye**	**68.94**	**322**	*e*P	**P**	**10 19 32.6**	**+0.2**
	comp=Z,16nm,0.9s,mb5.0						
TRF	**Thorofare Moun**	**69.02**	**26**	*e*P	**P**	**10 19 31.8**	**-0.9**
	comp=Z,17nm,1.2s,mb4.8						

PMR	Palmer	69.11	29	eP	P	10 19 32.1	-1.3
PMR				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
PMR	Palmer	69.11	29	eP	P	10 19 32.1	-1.3
	comp=Z,4.8nm,0.6s,mb4.6						
SML	Sawmill	69.52	28	eP	P	10 19 35.3	-0.6
SML				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
SML	Sawmill	69.52	28	eP	P	10 19 35.3	-0.6
	comp=Z,7.1nm,1.2s,mb4.5						
MCK	McKinley	69.67	26	eP	P	10 19 35.7	-1.1
MCK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
MCK	McKinley	69.67	26	eP	P	10 19 35.7	-1.1
	comp=Z,7.6nm,1.0s,mb4.6						
COLD	Coldfoot	70.03	23	eP	P	10 19 39.4	+0.4
	comp=Z,4.9nm,0.8s,mb4.5						
COLA	College	70.39	25	eP	P	10 19 40.0	-1.2
COLA				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
COLA	College	70.39	25	eP	P	10 19 40.0	-1.2
	comp=Z,8.6nm,1.2s,mb4.6						
DAWY	Dawson	73.89	27	eP	P	10 20 02.3	+0.1
HYT	Haines Junctio	74.59	30	eP	P	10 20 06.9	+0.6
ARU	Arti	75.89	325	d iP	P	10 20 13.0	-0.9
ARU				S	S	10 29 53.3	-3.3
ARU				SS	SS	10 34 41.0	-7.5
ARU				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
ARU	Arti	75.89	325	eP	P	10 20 13.3	-0.6
INK	Inuvik	76.45	22	eP	P	10 20 15.9	-1.0
INK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
INK	Inuvik	76.45	22	eP	P	10 20 15.9	-0.9
	comp=Z,9.8nm,1.1s,mb4.7						
AKTO	Aktyubinsk	76.47	319	LR	LR	10 54 03.9	
	comp=Z,72nm,18.7s,MS4.0,baz=294,slow=36						
DLBC	Dease Lake	78.45	32	eP	P	10 20 28.7	+0.4
JCW	Jim Creek	84.88	42	eP	P	10 21 02.9	+0.4
KLMR	Klimovskoe	85.01	331	eP	P	10 21 00.1	-2.7
KLMR				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.9						
D05A	Enumclaw	85.07	43	⇑P	P	10 21 03.9	+0.5
	baz=85						
YKA	Yellowknife Ar	85.13	27	P	P	10 21 02.5	-0.9
YKA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
YKA	Yellowknife Ar	85.13	27	P	P	10 21 02.5	-0.9
	comp=Z,2.8nm,0.6s,mb4.5,baz=288,slow=5.3,SNR=52						
G04A	Mulino	85.18	45	⇑P	P	10 21 04.0	0.0
	baz=85						
HUMO	Hull Mountain	85.42	48	eP	P	10 21 06.2	+0.9
H04A	Detroit Lake	85.50	45	⇑P	P	10 21 05.1	-0.5
	baz=86						
C06A	Tall Timber Ra	85.62	42	⇑P	P	10 21 06.2	0.0
	baz=86						
A07A	Ashnola River,	85.68	41	⇑P	P	10 21 06.2	-0.2
	baz=86,SNR=6.6						
HOOD	Mount Hood Mea	85.72	45	eP	P	10 21 07.3	+0.6
YBH	Yreka Blue Hor	85.79	48	eP	P	10 21 08.1	+0.9
D06A	Cle Elum	85.83	43	⇑P	P	10 21 07.2	0.0
	baz=86,SNR=6.0						
E06A	Yakima	85.89	43	⇑P	P	10 21 07.5	0.0
	baz=86,SNR=5.6						
G05A	Wamic	85.97	45	⇓P	P	10 21 08.0	+0.1
	baz=86						
B07A	Winthrop	85.99	41	⇑P	P	10 21 07.7	-0.3
	baz=86,SNR=5.4						
TBM	Table Mountain	86.00	43	P	P	10 21 08.1	0.0
ETW	Entiat	86.06	42	eP	P	10 21 08.2	-0.1
F06A	Goldendale	86.21	44	⇑P	P	10 21 09.5	+0.3
	baz=86						
RES	Resolute Bay	86.22	13	eP	P	10 21 08.3	-0.3
C07A	Waterville	86.22	42	⇓P	P	10 21 08.5	-0.6
	baz=86,SNR=5.6						
WTV	Waterville	86.29	42	P	P	10 21 08.9	-0.5
D07A	Quincy	86.40	43	⇓P	P	10 21 10.0	0.0
	baz=86						
G06A	Carlson Farm,	86.44	45	⇓P	P	10 21 10.2	-0.1
	baz=86						
B08A	Colville Reser	86.52	41	⇓P	P	10 21 10.2	-0.4
	baz=86,SNR=15						
EPH	Ephrata	86.61	42	P	P	10 21 10.6	-0.5
E07A	Sunnyside	86.64	43	⇑P	P	10 21 11.2	0.0
	baz=87,SNR=6.2						
F07A	Phinny Hill Vi	86.76	44	⇑P	P	10 21 11.8	-0.1
	baz=87						
H06A	Lindquist Farm	86.77	45	⇑P	P	10 21 11.6	-0.3
	baz=87,SNR=11						
A09A	Danville	86.84	41	⇓P	P	10 21 11.9	-0.3
	baz=87,SNR=8.3						
RSW	Rattlesnake Hi	86.86	43	eP	P	10 21 12.6	+0.3
C08A	Higginbotham F	86.86	42	⇓P	P	10 21 12.1	-0.2
	baz=87,SNR=14						
K05A	Summer Lake	86.87	47	⇓P	P	10 21 12.4	-0.1
	baz=87,SNR=12						
HAWA	Hanford	86.90	43	eP	P	10 21 12.9	+0.4
I06A	Prineville	87.06	46	⇓P	P	10 21 13.1	-0.2
	baz=87,SNR=9.8						
G07A	Ruggs Ranch, H	87.09	44	⇑P	P	10 21 13.0	-0.4
	baz=87,SNR=6.1						
ARCES	ARCESS Array B	87.11	342	P	P	10 21 11.8	-1.3
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ARCES				MLR	MLR		
	comp=Z,108nm,18.4s						
ARCES	ARCESS Array B	87.11	342	P	P	10 21 11.8	-1.3
	comp=Z,2.4nm,0.9s,mb4.4,baz=61,slow=5.8,SNR=5.9						
ARCES				LR	LR	11 00 32.1	
	comp=Z,108nm,18.4s,MS4.3,baz=172,slow=36						
D08A	Wollman Farm,	87.13	43	⇑P	P	10 21 13.4	-0.2
	baz=87,SNR=6.5						
OD2	Odessa Site #2	87.18	42	P	P	10 21 13.7	-0.1
E08A	Dider Farm, El	87.19	43	⇑P	P	10 21 14.1	+0.2
	baz=87						
OHCM	Honcut	87.26	50	eP	P	10 21 14.5	+0.1
B09A	Rice	87.27	41	⇓P	P	10 21 14.0	-0.3
	baz=87,SNR=6.5						
J06A	Christmas Vall	87.27	46	⇑P	P	10 21 13.8	-0.6
	baz=87,SNR=7.6						
GNI	Garni	87.30	310	⇑eP	P	10 21 14.4	-0.2
GNI				pmax	pmax		
	comp=Z,19nm,1.6s						
H07A	Lands Inn, Kim	87.34	45	⇑P	P	10 21 14.3	-0.3
	baz=87,SNR=7.6						
A10A	Northport	87.49	40	⇓P	P	10 21 15.0	-0.3
	baz=88,SNR=7.7						
MOD	Modoc	87.50	48	eP	P	10 21 15.8	+0.3
I07A	Izee	87.51	45	⇓P	P	10 21 15.7	+0.1
	baz=88,SNR=6.7						
D09A	Jones Farm, Ri	87.53	42	⇑P	P	10 21 15.7	+0.2
	baz=88						
F08A	Pendleton	87.56	44	⇑P	P	10 21 15.5	-0.2
	baz=88,SNR=9.8						
G08A	Pilot Rock	87.57	44	⇓P	P	10 21 15.3	-0.5
	baz=88,SNR=5.4						
E09A	Wood Farm, Sta	87.79	43	⇑P	P	10 21 17.1	+0.3
	baz=88						
KIV	Kislovodsk	87.82	314	⇑eP	P	10 21 15.6	-1.4
KIV				e		10 21 22.4	
KIV				e		10 24 41.5	
KIV				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.8						
J07A	Hines	87.83	46	⇓P	P	10 21 16.8	-0.3
	baz=88,SNR=8.1						
B10A	Chitwood Farm,	87.89	41	⇓P	P	10 21 17.2	-0.1
	baz=88						
JOF	Joensuu	87.94	335	ep	P	10 21 12.5	-4.7
	comp=Z,2.7nm,0.6s,mb4.7						
NEW	Newport	87.97	41	eP	P	10 21 17.1	-0.5
NEW				pmax	pmax		
	comp=Z,8.0nm,0.9s						
NEW	Newport	87.97	41	eP	P	10 21 17.1	-0.5
	comp=Z,7.5nm,0.9s,mb4.9						
BEKR	Beckwourth	87.97	50	⇑P	P	10 21 17.7	-0.2
	baz=88,SNR=14						
H08A	Prairie City	87.97	45	⇓P	P	10 21 17.4	-0.4
	baz=88,SNR=5.2						
C10A	Spilker Farm,	87.98	41	⇓P	P	10 21 17.8	+0.2
	baz=88						
K07A	Rock Creek Ran	88.06	47	⇑P	P	10 21 18.4	+0.2
	baz=88,SNR=12						
N06A	Buffalo Meadow	88.14	49	⇓P	P	10 21 18.5	0.0
	baz=88,SNR=6.7						
L07A	Adell	88.17	47	⇑P	P	10 21 19.2	+0.5
	baz=88,SNR=11						
I08A	Drewsey	88.21	45	⇓P	P	10 21 18.7	-0.1
	baz=88,SNR=5.1						
D10A	Wagner Farm, O	88.21	42	⇑P	P	10 21 18.7	-0.1
	baz=88						
A11A	Hall Mountain,	88.25	40	⇑P	P	10 21 19.1	+0.2
	baz=88						
O06A	Flanigan	88.29	49	⇓P	P	10 21 19.4	+0.1
	baz=88,SNR=12						
OBN	Obninsk	88.30	326	⇓eP	P	10 21 17.8	-1.2
OBN				eS	S	10 31 42.7	-22
OBN				ePS		10 33 06.1	
OBN				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.4						
G09A	Cove	88.38	44	⇓P	P	10 21 19.5	-0.1
	baz=88,SNR=11						
CMB	Columbia Colle	88.41	51	eP	P	10 21 20.5	+0.6
J08A	Circle Bar Ran	88.42	46	⇑P	P	10 21 20.1	+0.2
	baz=88,SNR=13						
M07A	Soldier Meadow	88.45	48	⇓P	P	10 21 19.8	-0.3
	baz=88,SNR=8.6						
E10A	Myers Farm, Un	88.48	43	⇑P	P	10 21 20.1	0.0
	baz=88						
F10A	Beach Ranch, E	88.55	43	⇓P	P	10 21 20.3	-0.1
	baz=88						
WVOR	Wild Horse Val	88.56	47	eP	P	10 21 20.3	-0.2
WVOR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.0						
WVOR	Wild Horse Val	88.56	47	eP	P	10 21 20.2	-0.3
	comp=Z,6.6nm,0.9s,mb5.0						
WCN	Washoe City	88.56	50	⇑P	P	10 21 21.1	+0.4
	baz=88						
K08A	Mann Creek Ran	88.58	47	⇑P	P	10 21 20.5	-0.2
	baz=89,SNR=15						
H09A	Durkee	88.63	45	⇓P	P	10 21 20.8	0.0
	baz=89						
PAHR	Pah Rah Range	88.74	50	eP	P	10 21 22.2	+0.7
N07B	Gerlach	88.76	49	⇓P	P	10 21 21.6	+0.1
	baz=89,SNR=15						
I09A	Lost Marbles R	88.77	45	⇓P	P	10 21 21.3	-0.1
	baz=89						
G10A	Bishop Farm, J	88.82	44	⇓P	P	10 21 20.7	-1.0
	baz=89,SNR=12						
D11A	Klaveano Farm,	88.83	42	⇑P	P	10 21 21.2	-0.5
	baz=89						
L08A	Fields	88.83	47	⇓P	P	10 21 22.2	+0.3
	baz=89,SNR=22						
J09A	Fry Pan Ranch,	88.93	46	⇑P	P	10 21 22.2	0.0
	baz=89,SNR=15						
O07A	Toulon	88.99	49	⇑P	P	10 21 22.8	+0.2
	baz=89,SNR=8.1						
R06C	Coleville	89.00	51	⇑P	P	10 21 22.5	-0.2
	baz=89						
M08A	Happy Creek Ra	89.01	48	⇓P	P	10 21 23.3	+0.6
	baz=89						
E11A	Bogner Ranch,	89.12	43	⇓P	P	10 21 23.0	-0.1
	baz=89						
K09A	Rome	89.13	46	⇓P	P	10 21 22.9	-0.3
	baz=89,SNR=9.0						
C12B	Naegeli Ranch,	89.19	41	⇑P	P	10 21 22.8	-0.6
	baz=89						
H10A	Noah’s Angus R	89.28	44	⇓P	P	10 21 23.1	-0.8
	baz=89,SNR=8.8						
L09A	Wilkinson Ranc	89.36	47	⇓P	P	10 21 24.5	+0.2
	baz=89,SNR=8.6						
N08A	GE Springer Mi	89.37	48	⇑P	P	10 21 24.1	-0.3
	baz=89,SNR=8.9						
I10A	Payette	89.38	45	⇑P	P	10 21 24.8	+0.5
	baz=89						
D12A	Red Ives Fores	89.47	42	⇓P	P	10 21 24.7	0.0
	baz=89						
A13A	Flathead Natio	89.48	40	⇑P	P	10 21 24.9	+0.1
	baz=89						
O08A	Rochester Mine	89.49	49	⇓P	P	10 21 25.4	+0.4
	baz=90,SNR=10						
BSMT	Bassoo Peak	89.59	41	eP	P	10 21 26.2	+0.9
	comp=Z,4.5nm,0.9s,mb4.8						
B13A	Whitefish	89.63	40	⇓P	P	10 21 25.9	+0.5
	baz=90						
M09A	Marrel Ranch,	89.69	48	⇑P	P	10 21 26.2	+0.3
	baz=90,SNR=6.0						
P08A	Dixie Valley	89.71	49	⇑P	P	10 21 26.4	+0.4
	baz=90						
K10A	MacKenzie Ranc	89.72	46	⇑P	P	10 21 26.2	+0.2
	baz=90,SNR=8.4						
H11A	Donnelly	89.74	44	⇓P	P	10 21 25.6	-0.4
	baz=90						
N09A	Rock Creek Ran	89.80	48	⇓P	P	10 21 26.3	-0.1
	baz=90,SNR=7.3						
NVAR	Mina Array Bea	89.89	51	P	P	10 21 26.9	+0.1
	comp=Z,4.1nm,0.8s,mb4.8,baz=269,slow=5.8,SNR=17						
F12A	Elk City	89.93	43	⇓P	P	10 21 26.6	-0.3
	baz=90						
I11A	Placerville	90.02	45	⇓P	P	10 21 26.9	-0.4
	baz=90,SNR=8.4						
Q08A	Gabbs	90.05	50	⇑P	P	10 21 27.8	+0.1
	baz=90						
L10A	Juniper Basin	90.20	47	⇑P	P	10 21 28.2	-0.1
	baz=90,SNR=7.1						
MFID	Camas Ranch	90.26	45	⇑P	P	10 21 28.4	-0.1
	baz=90,SNR=12						
K11A	Parker Ranch,	90.31	46	⇓P	P	10 21 28.3	-0.5
	baz=90,SNR=7.8						
KAF	Kangasniemi	90.38	335	eP	P	10 21 25.6	-3.0
KAF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.8						
KAF	Kangasniemi	90.38	335	ep	P	10 21 25.6	-3.0
	comp=Z,3.9nm,0.8s,mb4.8						
I12A	Atlanta	90.62	45	⇑P	P	10 21 30.3	+0.2
	baz=91						
VNDA	Vanda	90.66	176	LR	LR	11 01 01.4	
	comp=Z,113nm,19.0s,MS4.3,baz=256,slow=35						
L11A	Cat Creek Ranc	90.68	47	⇑P	P	10 21 30.4	-0.1
	baz=91						
FINES	FINESS Array B	90.80	334	P	P	10 21 28.5	-2.1
FINES				pmax	pmax		
	comp=Z,4.0nm,0.4s						
FINES	FINESS Array B	90.80	334	P	P	10 21 28.4	-2.1
	comp=Z,4.2nm,0.4s,mb5.1,baz=62,slow=4.4,SNR=23						
J12A	Stokes Ranch,	90.81	45	⇑P	P	10 21 31.0	-0.1
	baz=91						
G13A	Cobalt	90.83	43	⇓P	P	10 21 30.8	-0.3
	baz=91						
B15A	Bradely Ranch,	90.85	40	⇓P	P	10 21 30.8	-0.3
	baz=91						
R09A	Tonopah	90.87	51	⇑P	P	10 21 31.5	0.0
	baz=91,SNR=6.1						
S09A	Goldfield	90.91	51	⇑P	P	10 21 31.6	0.0
	baz=91,SNR=6.5						
H13A	Challis	90.98	44	⇑P	P	10 21 31.9	0.0
	baz=91						
GRAC	Grapevine Rang	91.00	52	⇑P	P	10 21 32.0	-0.1
	baz=91						
MPMC	Manual Prospec	91.17	53	⇑P	P	10 21 33.3	+0.3
	baz=91						
HLID	Hailey	91.19	45	⇓P	P	10 21 32.9	0.0
	baz=91						
HLID	Hailey	91.19	45	eP	P	10 21 32.4	-0.4
	comp=Z,4.3nm,1.1s,mb4.7						
Q10A	Clear Creek Ra	91.21	50	⇑P	P	10 21 33.1	+0.1
	baz=91						
L12A	House Creek Ra	91.21	46	⇑P	P	10 21 33.1	+0.1
	baz=91						
I13A	Wildhorse Cree	91.28	45	⇓P	P	10 21 33.6	+0.4
	baz=91						
S10A	Tonopah Range,	91.33	51	⇑P	P	10 21 34.1	+0.5
	baz=91						
J13A	Cove Ranch, Pi	91.41	45	⇑P	P	10 21 34.4	+0.5
	baz=91						
FURC	Furnace Creek,	91.54	52	⇓P	P	10 21 34.8	+0.2
	baz=92						
K13A	Stover Farm, H	91.71	46	⇓P	P	10 21 35.8	+0.5
	baz=92						
I14A	Mackay	91.73	44	⇓P	P	10 21 35.7	+0.4
	baz=92						
F15A	Butte	91.73	42	⇑P	P	10 21 35.2	-0.1
	baz=92						
Q11A	Duckwater	91.76	50	⇑P	P	10 21 35.7	+0.1
	baz=92						
A17A	Triple J Farms	91.78	39	⇑P	P	10 21 35.1	-0.3
	baz=92						
J14A	Carey	91.89	45	⇑P	P	10 21 36.3	+0.3
	baz=92						
GSC	Goldstone	91.92	53	⇓P	P	10 21 36.8	+0.4
	baz=92						
D16A	Dana Ranch, Ca	91.93	41	⇓P	P	10 21 36.5	+0.3
	baz=92						
B17A	L&G Farms, Che	91.96	40	⇓P	P	10 21 35.9	-0.3
	baz=92						
R11A	Troy Canyon, C	91.96	50	⇑P	P	10 21 36.6	+0.1
	baz=92						
U10A	Ash Meadows, A	91.97	52	⇓P	P	10 21 37.2	+0.6
	baz=92						
G15A	Dillon	91.97	43	⇑P	P	10 21 36.2	-0.2
	baz=92						
E16A	East Helena	92.03	41	⇓P	P	10 21 36.4	-0.2
	baz=92						
H15A	Lima	92.05	44	⇓P	P	10 21 36.8	0.0
	baz=92						
M13A	Montello	92.06	47	⇑P	P	10 21 36.9	0.0
	baz=92						
C17A	Wharram Farm,	92.22	40	⇑P	P	10 21 37.5	0.0
	baz=92						
Q12A	Willow Creek R	92.31	49	⇓P	P	10 21 38.4	+0.3
	baz=92						
A18A	Metzger Ranch,	92.31	39	⇑P	P	10 21 37.8	-0.1
	baz=92						
F16A	Kennard Place,	92.32	42	⇑P	P	10 21 38.0	0.0
	baz=92						
I15A	Monteview	92.37	44	⇑P	P	10 21 38.3	0.0
	baz=92						
K14A	Jones Ranch, D	92.38	46	⇓P	P	10 21 38.3	0.0
	baz=92						
G16A	Moss Hill, Enn	92.40	43	⇑P	P	10 21 38.5	+0.1
	baz=92						
D17A	Six Diamond Ra	92.44	41	⇑P	P	10 21 38.7	+0.1
	baz=92						
L14A	Malta	92.50	46	⇑P	P	10 21 38.9	0.0
	baz=92						
MALT	Malatya	92.52	310	eP	P	10 21 36.9	-2.2
MALT				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.8						
MALT	Malatya	92.52	310	eP	P	10 21 36.9	-2.3
	comp=Z,3.9nm,1.0s,mb4.8						
T11A	Corn Creek, Al	92.57	51	⇑P	P	10 21 39.4	+0.1
	baz=92						
E17A	Martinsdale	92.58	41	⇑P	P	10 21 39.1	-0.1
	baz=92						
M14A	Sheep Mountain	92.60	47	⇓P	P	10 21 39.5	+0.1
	baz=93						
J15A	Blackfoot	92.61	45	⇑P	P	10 21 39.9	+0.5
	baz=93						
R12A	Pony Springs,	92.70	50	⇑P	P	10 21 40.2	+0.3
	baz=93						
K15A	Arbon	92.78	45	⇓P	P	10 21 40.5	+0.3
	baz=93						
P13A	Bates Ranch, G	92.78	49	⇓P	P	10 21 40.1	-0.2
	baz=93						
BELC	Belle Mtn.	92.94	54	⇑P	P	10 21 41.4	+0.3
	baz=93						
Q13A	Wheeler Ranch,	92.94	49	⇑P	P	10 21 40.8	-0.2
	baz=93						
H16A	Russell Place,	92.95	43	⇓P	P	10 21 41.6	+0.6
	baz=93						
GMRC	Granite Mounta	92.97	54	⇑P	P	10 21 41.2	-0.1
	baz=93						
I16A	Newdale	93.08	44	⇓P	P	10 21 42.4	+0.8
	baz=93						
L15A	Malad City	93.11	46	⇑P	P	10 21 42.0	+0.2
	baz=93						
E18A	Harlowton	93.15	41	⇑P	P	10 21 42.2	+0.4
	baz=93						
J16A	Bone	93.21	45	⇓P	P	10 21 42.5	+0.3
	baz=93						
M15A	Larsen Ranch,	93.25	46	⇑P	P	10 21 42.6	+0.2
	baz=93						
V12A	Nelson	93.32	52	⇓P	P	10 21 43.1	+0.3
	baz=93						
K16A	Soda Springs	93.38	45	⇑P	P	10 21 43.4	+0.5
	baz=93						
RRI2	Red Ridge	93.38	44	eP	P	10 21 43.8	+0.9
DUG	Dugway	93.42	48	eP	P	10 21 43.5	+0.3
DUG				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.6						
DUG	Dugway	93.42	48	⇑P	P	10 21 43.2	+0.1
	baz=93						
DUG	Dugway	93.42	48	eP	P	10 21 43.5	+0.3
	comp=Z,3.1nm,1.1s,mb4.7						
P14A	Drum Mountains	93.43	48	⇓P	P	10 21 43.6	+0.3
	baz=93						
IMW	Indian Meadow	93.45	44	eP	P	10 21 44.4	+1.1
Q14A	Sevier Lake (B	93.47	49	⇓P	P	10 21 43.8	+0.3
	baz=93						
H17A	Grant Village	93.51	43	⇓P	P	10 21 44.6	+1.1
	baz=94						
O15A	The Old Anders	93.63	48	⇑P	P	10 21 44.2	+0.1
	baz=94						
I17A	Pilgrim Ck.	93.69	44	⇑P	P	10 21 44.8	+0.4
	baz=94						
L16A	Fish Haven	93.78	46	⇓P	P	10 21 44.9	+0.1
	baz=94						
V13A	Grand Canyon W	93.95	52	⇓P	P	10 21 46.0	+0.3
	baz=94						
AKASG	Malin Array Be	94.09	324	LR	LR	11 04 20.5	
	comp=Z,72nm,19.2s,MS4.2,baz=20,slow=36						
RLMT	Red Lodge	94.11	42	⇑P	P	10 21 46.3	+0.1
	baz=94						
RLMT	Red Lodge	94.11	42	eP	P	10 21 47.0	+0.7
	comp=Z,18nm,1.8s,mb5.2						
T14A	Hurricane	94.25	51	⇓P	P	10 21 47.7	+0.6
	baz=94						
FFC	Flin Flon	94.25	31	eP	P	10 21 45.9	-0.8
FFC				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb5.0						
FFC	Flin Flon	94.25	31	eP	P	10 21 45.9	-0.8
	comp=Z,7.5nm,1.3s,mb5.0						
J18A	Kendall Valley	94.32	44	⇓P	P	10 21 47.0	-0.3
	baz=94						
U14A	Mt Trumbull	94.38	51	⇓P	P	10 21 48.3	+0.6
	baz=94						
K18A	Toltan Ranch,	94.52	45	⇑P	P	10 21 48.8	+0.7
	baz=94						
V14A	Boquillas Ranc	94.69	52	⇑P	P	10 21 49.9	+0.7
	baz=95						
L18A	Fontenelle, Gr	94.78	45	⇑P	P	10 21 49.4	0.0
	baz=95						
PDAR	Pinedale Array	94.80	44	P	P	10 21 51.4	+2.0
	comp=Z,0.6nm,0.9s,mb4.0,baz=24,slow=4.9,SNR=3.4						
O17A	Robinson Place	94.91	47	⇑P	P	10 21 50.5	+0.5
	baz=95						
K20A	Yellowstone Ra	95.67	44	⇓P	P	10 21 53.6	+0.1
	baz=96						
FCC	Fort Churchill	95.79	26	eP	P	10 21 52.4	-1.2
	comp=Z,0.2nm,1.1s,mb3.5						
NOA	NORSAR Array B	96.90	338	LR	LR	11 05 06.4	
	comp=Z,80nm,20.3s,MS4.2,baz=60,slow=35						
TORD	Torodi Ar. Bea	132.90	301	PKP	PKPdf	10 27 41.4	-2.5
	comp=Z,0.5nm,0.9s,baz=5.0,slow=3.3,SNR=3.3						
NNA	Nana	142.27	93	ePKPdf	PKPdf	10 27 58.2	-2.9
CFAA	Coronel Fontan	146.52	129	PKPbc	PKPbc	10 28 08.1	-1.4
	comp=Z,0.4nm,0.5s,baz=285,slow=2.2,SNR=4.0						
LVC	Limon Verde	149.14	113	ePKPdf	PKPdf	10 28 12.4	-0.2
LVC				ePKPbc	PKPbc	10 28 17.2	+0.4
LVC				ePKPab	PKPab	10 28 22.7	+1.6

ISCJB ***28*** *10:19:55.5±2.0, 33°.35N±0°.04×35°.42E±0°.05, h12^{km}±25^{km}, Error ellipse: s-maj=8.6km s-min=5.4km az=35.2*

CSEM ***28*** *10:19:55.2±0.2, 33°.37N×35°.41E, h10^{km}, ML2.6, Error ellipse: s-maj=4.7km s-min=3.5km az=96.0*

GII ***28*** *10:19:55.0±0.8, 33°.30N×35°.43E, h1^{km}±3^{km}, Md2.0/3*

GRAL ***28*** *10:19:55.9±0.3, 33°.32N×35°.42E, h10^{km}±8^{km}, MD2.6*

ISC 28 10:19:56.0±2.1, **33°.35N**±0°.04×**35°.42E**±0°.05, **h9**^{km}±37^{km}, **n14,** σ**0^{s}.64**/24, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	331	eP	Pg	10 19 59.6	+0.3
MATL	Matirih	0.16	331	eP	Pg	10 19 59.6	+0.2
KSDI	Kefar Szold	0.26	128	Pg	Pg	10 20 00.3	-0.8
KSDI				Sg	Sg	10 20 04.5	0.0
KSDI	Kefar Szold	0.26	128	Pg	Pg	10 20 00.3	-0.8
KSDI				Sg	Sg	10 20 04.5	0.0
MMA0	Mount Meron ar	0.34	182	Pg	Pg	10 20 01.9	-0.7
MMA0				Sg	Sg	10 20 06.9	-0.1
MMA0	Mount Meron ar	0.34	182	Pg	Pg	10 20 01.9	-0.7
MMA0				Sg	Sg	10 20 06.9	-0.1
MMB1	Mount Meron ar	0.34	181	Pg	Pg	10 20 01.8	-0.8
MMB1				Sg	Sg	10 20 07.0	0.0
MMB1	Mount Meron ar	0.34	181	Pg	Pg	10 20 01.8	-0.8
MMB1				Sg	Sg	10 20 07.0	0.0
HNTI	Hanita	0.34	218	Pg	Pg	10 20 02.2	-0.4
HNTI				Sg	Sg	10 20 07.6	+0.5
HNTI	Hanita	0.34	218	Pg	Pg	10 20 02.2	-0.4
HNTI				Sg	Sg	10 20 07.6	+0.5

RCY	**Rachaya**	0.36	68	*e*P	Pg	10 20 03.1	+0.1
RCY				*e*S	Sg	10 20 08.4	+0.6
RCY	**Rachaya**	0.36	68	*e*P	Pg	10 20 03.1	+0.1
RCY				*e*S	Sg	10 20 08.4	+0.6
MMLI	**Mount Malkishu**	0.91	180	Sg	Sg	10 20 26.9	+1.6
MMLI	**Mount Malkishu**	0.91	180	Sg	Sg	10 20 26.9	+1.6

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*ISK **28** 10:21:33.7, 37°.27N×28°.25E, h9^{km}, MD2.7*

*ISCJB **28** 10:21:34.4±0.6, 37°.22N±0°.05×28°.20E±0°.06, h12^{km}±7^{km}, Error ellipse: s-maj=11.0km s-min=5.4km az=43.6*

*CSEM **28** 10:21:34.4±0.1, 37°.24N×28°.24E, h12^{km}, MD2.7, Error ellipse: s-maj=3.0km s-min=1.9km az=37.0*

*DDA **28** 10:21:34.5, 37°.23N×28°.18E, h7^{km}±2^{km}, Md2.8*

ISC 28 10:21:34.9±0.6, **37°.21N**±0°.05×**28°.19E**±0°.06, **h11**^{km}±7^{km}, **n20**, σ**0^{s}.81**/27, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	**Yerkesik**	0.10	137	*e*PG	Pg	10 21 37.2	-0.5
YER				*e*SG	Sg	10 21 39.8	+0.2
YER	**Yerkesik**	0.10	137	*e*Pg	Pg	10 21 37.2	-0.5
YER				*e*Sg	Sg	10 21 39.8	+0.2
MLSB	**Milas**	0.34	284	*e*PG	Pg	10 21 41.6	-0.2
MLSB	**Milas**	0.34	284	*e*Pg	Pg	10 21 41.6	-0.2
TURN	**Turunc**	0.47	136	*i* P	Pg	10 21 43.7	-0.4
TURN				*i* S	Sg	10 21 51.8	+1.5
TURN	**Turunc**	0.47	136	*i* P	Pg	10 21 43.7	-0.4
TURN				*i* S	Sg	10 21 51.8	+1.4
AYDN	**Tasoluk**	0.51	331	*i* P	Pg	10 21 44.7	-0.3
AYDN				*i* S	Sg	10 21 51.2	-0.5
AYDN	**Tasoluk**	0.51	331	*i* P	Pg	10 21 44.7	-0.3
DALT	**Dalyan (Mudla)**	0.57	141	*e*PG	Pg	10 21 45.8	-0.1
DALT	**Dalyan (Mudla)**	0.57	141	*e*Pg	Pg	10 21 45.8	-0.1
DAT	**Datca**	0.69	226	*e*PG	Pg	10 21 48.9	+0.7
DAT	**Datca**	0.69	226	*e*Pg	Pg	10 21 48.9	+0.7
BODT	**Bodrum**	0.72	258	*e*PG	Pg	10 21 49.4	+0.5
BODT	**Bodrum**	0.72	258	*e*Pg	Pg	10 21 49.4	+0.5
FETY	**Fethiye**	0.92	129	*e*PG	Pg	10 21 51.9	-0.7
FETY	**Fethiye**	0.92	129	*e*Pg	Pg	10 21 51.9	-0.7
MANT	**Manisa**	1.31	13	*i* P	Pn	10 21 58.7	-0.5
MANT				*i* S	Sb	10 22 18.3	+2.0
MANT	**Manisa**	1.31	13	*i* P	Pn	10 21 58.7	-0.5
MANT				*i* S	Sb	10 22 18.3	+1.9
ELL	**Elmali**	1.45	108	*e*PN	Pn	10 21 59.8	-1.3
ELL	**Elmali**	1.45	108	*e*Pn	Pn	10 21 59.8	-1.2

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*CSEM **28** 10:25:21.6, 36°.12N×21°.78E, h15^{km}, MD3.5, After ATH*

*NEIC **28** 10:25:21.6, 36°.12N×21°.78E, h15^{km}, MD3.5(ATH), After ATH.*

*ATH **28** 10:25:21.6, 36°.12N×21°.78E, h15^{km}±2^{km}, MD3.5/9*

*ISCJB **28** 10:25:22.7±1.9, 36°.2N±0°.1×21°.8E±0°.1, h10^{km}±21^{km}, Error ellipse: s-maj=24.2km s-min=9.0km az=137.3*

ISC 28 10:25:23.2±1.5, **36°.20N**±0°.07×**21°.9E**±0°.1, **h3**^{km}±11^{km}, **n28**, σ**1^{s}.06**/36, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	0.71	347	*e*PN	Pg	10 25 36.4	-0.6
PYL				*e*SN	Sg	10 25 47.4	+1.2
PYL	**PYLOS**	0.71	347	*e*Pn	Pg	10 25 36.4	-0.6
PYL				*e*Sn	Sg	10 25 47.4	+1.2
KYTH	**Kithira**	0.89	84	*e*PN	Pn	10 25 41.4	-1.2
KYTH	**Kithira**	0.89	84	*e*Pn	Pn	10 25 41.4	-1.2
VLI	**Veliai**	0.96	57	*e*PN	Pn	10 25 42.4	-1.1
VLI				*e*SN	Sn	10 25 58.3	+0.6
VLI	**Veliai**	0.96	57	*e*Pn	Pn	10 25 42.4	-1.1
VLI				*e*Sn	Sn	10 25 58.3	+0.6
ITM	**Ithomi**	0.98	359	*e*PN	Pn	10 25 41.7	-2.2
ITM				*e*SN	Sn	10 25 57.1	-1.1
ITM	**Ithomi**	0.98	359	*e*Pn	Pn	10 25 41.7	-2.2
ITM				*e*Sn	Sn	10 25 57.1	-1.1
VLX	**Vlachokerasia**	1.22	17	*e*PN	Pn	10 25 46.2	-1.0
VLX				*e*SN	Sn	10 26 04.7	+0.5
VLX	**Vlachokerasia**	1.22	17	*e*Pn	Pn	10 25 46.2	-1.0
VLX				*e*Sn	Sn	10 26 04.7	+0.5
DID	**Didima**	1.67	38	*e*PN	Pn	10 25 53.9	+0.6
DID	**Didima**	1.67	38	*e*Pn	Pn	10 25 53.9	+0.6
GUR	**Goura**	1.77	10	*e*PN	Pn	10 25 55.8	+1.2
GUR	**Goura**	1.77	10	*e*Pn	Pn	10 25 55.8	+1.2
KARN	**Karanos**	1.79	116	*e*PN	Pn	10 25 55.7	+0.7
KARN	**Karanos**	1.79	116	*e*Pn	Pn	10 25 55.7	+0.7
RLS	**Riolos of Patr**	1.90	349	*e*PN	Pn	10 25 56.7	+0.3
RLS	**Riolos of Patr**	1.90	349	*e*Pn	Pn	10 25 56.7	+0.3
NAIG	**Nisos Aigina**	1.99	38	*e*PN	Pn	10 25 58.9	+1.1
NAIG	**Nisos Aigina**	1.99	38	*e*Pn	Pn	10 25 58.9	+1.1
LTK	**Loutraki**	2.00	24	*e*PB	Pb	10 25 58.2	-2.0
LTK	**Loutraki**	2.00	24	*e*Pb	Pb	10 25 58.2	-2.0
EFP	**Efpalio**	2.23	359	*e*PN	Pn	10 26 02.0	+1.0
EFP	**Efpalio**	2.23	359	*e*Pn	Pn	10 26 02.0	+1.0
AGG	**Agios Georgios**	2.84	6	*e*PN	Pn	10 26 10.2	+0.8
AGG	**Agios Georgios**	2.84	6	*e*Pn	Pn	10 26 10.2	+0.8
LAST	**Lasithi**	3.06	109	*e*PN	Pn	10 26 13.0	+0.5
LAST	**Lasithi**	3.06	109	*e*Pn	Pn	10 26 13.0	+0.5

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*CSEM **28** 10:32:58.7±0.7, 51°.39N×16°.14E, h2^{km}, ML3.0/5, Error ellipse: s-maj=9.7km s-min=6.4km az=17.0*

*WAR **28** 10:32:58.8, 51°.45N×16°.18E, ML2.4, Mining Induced*

*PRU **28** 10:32:59.3, 51°.37N×16°.20E, h0^{km}*

ISC 28 10:32:58.3±1.3, **51°.40N**±0°.05×**16°.18E**±0°.06, **h0**^{km}, **n21**, σ**0^{s}.93**/38, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.56	173	*e*Pg	Pg	10 33 09.9	+1.0
KSP				*e*Sg	Sg	10 33 18.1	+1.9
KSP	**Ksiaz**	0.56	173	*e*Pg	Pg	10 33 10.0	+1.0
KSP				*e*Sg	Sg	10 33 18.1	+1.9
KSP	**Ksiaz**	0.56	173	*e*Pg	Pg	10 33 10.0	+1.0
UPC	**Upice**	0.90	187	*e*PG	Pg	10 33 16.4	+0.9
UPC				*e*SG	Sg	10 33 28.2	+1.1
UPC	**Upice**	0.90	187	Pg	Pg	10 33 16.4	+0.9
UPC				Sg	Sg	10 33 28.2	+1.1
DPC	**Dobruska-Polom**	1.05	175	*e*PG	Pg	10 33 18.8	+0.4
DPC				*e*SG	Sg	10 33 32.6	+0.6
	comp=Z,24nm,0.7s						
DPC	**Dobruska-Polom**	1.05	175	Pg	Pg	10 33 18.8	+0.4
DPC				Sg	Sg	10 33 32.6	+0.6
	comp=Z,24nm,0.7s						
PVCC	**Panska Ves**	1.34	230	*e*PG	Pg	10 33 24.3	+0.3
PVCC				*e*SG	Sg	10 33 42.3	+1.0
	comp=Z,65nm,0.5s						
PVCC	**Panska Ves**	1.34	230	Pg	Pg	10 33 24.3	+0.3
PVCC				Sg	Sg	10 33 42.3	+1.0
	comp=Z,65nm,0.5s						
BRG	**Berggiesshubel**	1.50	251	PG	Pg	10 33 26.7	-0.4
BRG				SG	Sg	10 33 47.2	+0.6
	comp=Z,30nm,0.5s						
PRU	**Pruhonice**	1.75	217	*e*PG	Pg	10 33 31.7	-0.2
PRU				*e*SG	Sg	10 33 54.4	-0.2
	comp=Z,18nm,0.5s						
PRU	**Pruhonice**	1.75	217	Pg	Pg	10 33 31.7	-0.2
PRU				Sg	Sg	10 33 54.4	-0.2
	comp=Z,18nm,0.5s						
MORC	**Moravsky Berou**	1.84	151	*e*Pn	Pn	10 33 31.0	-0.1
MORC				*e*Sg	Sg	10 33 54.5	-2.8
CLL	**Collm**	2.00	269	*e*Pg	Pg	10 33 36.0	-0.6
CLL				*e*Sg	Sg	10 34 02.0	-0.4
	comp=Z,11nm,0.5s						
VRAC	**Vranov**	2.11	173	*e*Sg	Sg	10 34 04.2	-1.8
KRUC	**Moravsky**	2.34	177	*e*Sg	Sg	10 34 12.9	-0.6
NKC	**Novy Kostel**	2.64	245	*e*SG	Sg	10 34 22.3	-0.8
	comp=Z,15nm,0.4s						
NKC	**Novy Kostel**	2.64	245	Sg	Sg	10 34 22.3	-0.8
	comp=Z,15nm,0.4s						
KHC	**Kasperske Hory**	2.82	217	*e*PN	Pn	10 33 45.1	+0.6
KHC				*e*PG	Pg	10 33 51.2	-1.1
KHC				*e*SN	Sn	10 34 18.5	-0.7
KHC				*e*SG	Sg	10 34 27.4	-1.4
	comp=Z,5.5nm,0.4s						
KHC	**Kasperske Hory**	2.82	217	Pn	Pn	10 33 45.1	+0.6
MOX	**Moxa**	2.98	257	*e*PG	Pg	10 33 55.8	+0.4
MOX				*e*SG	Sg	10 34 34.8	+0.8

IDC 28 10:40:19.8±39.0, **30°.53S**×**176°.20W**, **h0**^{km}, **mb3.8**/3, **mb1 4.0**/3, **mb1mx3.8**/15, **mbtmp3.8**/3, **Error ellipse: s-maj=724.4km s-min=187.7km az=98.0**, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	35.96	257	P	P	10 47 22.1	-0.3
	1.4nm,0.6s,baz=96,slow=10,SNR=3.0						
ASAR	**Alice Springs**	44.66	266	P	P	10 48 34.5	0.0
	0.3nm,0.4s,baz=105,slow=7.5,SNR=8.4						
WRA	**Warramunga Arr**	45.66	271	P	P	10 48 42.4	0.0
	0.9nm,0.4s,baz=111,slow=8.0,SNR=33						

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*IDC **28** 10:42:05.1±0.9, 28°.15N×55°.24E, h0^{km}, mb3.9/14, mb1 4.0/15, mb1mx3.9/29, mbtmp3.9/15, Error ellipse: s-maj=24.7km s-min=17.2km az=22.0*

*ISCJB **28** 10:42:06.1±0.4, 28°.12N±0°.04×55°.04E±0°.03, h10^{km}, mb3.8/14, Error ellipse: s-maj=6.3km s-min=4.1km az=16.9*

*KISR **28** 10:42:07.1±1.2, 28°.54N×54°.77E, h34^{km}±997^{km}, ML3.7*

*CSEM **28** 10:42:09.0±0.3, 28°.13N×55°.14E, h20^{km}, ML3.8, Error ellipse: s-maj=11.4km s-min=6.9km az=22.0*

*THR **28** 10:42:09.1±0.3, 28°.29N×55°.19E, h18^{km}±3^{km}, ML3.8*

*NEIC **28** 10:42:09.7, 28°.28N×55°.25E, h18^{km}, ML3.8(THR), After THR.*

*TEH **28** 10:42:12.0, 28°.30N×55°.28E, h25^{km}*

ISC 28 10:42:07.9±0.4, **28°.13N**±0°.05×**55°.12E**±0°.03, **h10**^{km}, **n72**, σ**1^{s}.29**/80, **mb3.8**/14, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDS	**Bandar-Abbas**	1.18	128	*e*Pg	Pg	10 42 32.3	+1.6
BNDS				AML	AML	10 42 57.8	
	comp=N,2μm,0.4s						
BNDS	**Bandar-Abbas**	1.18	128	*e*Pg	Pg	10 42 32.1	+1.5
IBND	**Bandar-abas**	1.43	118	*e*Pn	Pn	10 42 35.7	+1.8
IBND				*e*Sn	Sn	10 42 54.0	+1.3
IBND				*e*		10 43 10.1	
	comp=Z,32μm,0.2s						
IBND	**Bandar-abas**	1.43	118	*e*Pn	Pn	10 42 35.7	+1.8
GHIR	**Ghir-Karzin**	1.89	275	*e*Pg	Pg	10 42 44.6	+0.4
GHIR				AML	AML	10 43 23.0	
	comp=E,657nm,0.5s						
GHIR	**Ghir-Karzin**	1.89	275	*e*Pn	Pn	10 42 44.7	+4.5
ISRV	**Sarvestan**	2.16	306	*e*Pn	Pn	10 42 47.0	+3.1
ISRV				*e*Sn	Sn	10 43 12.7	+1.9
ISRV				*e*		10 43 37.5	
	comp=Z,8μm,0.4s						
ISRV	**Sarvestan**	2.16	306	*e*Pn	Pn	10 42 47.0	+3.1
IMOK	**Mouk**	2.30	294	*e*Pn	Pn	10 42 49.6	+3.7
IMOK				*e*		10 43 48.2	
	comp=Z,6μm,0.4s						
IMOK	**Mouk**	2.30	294	*e*Pn	Pn	10 42 49.6	+3.7
KRBR	**Kerman**	2.34	37	*e*Pn	Pn	10 42 46.7	+0.2
KRBR				*e*Sg	Sg	10 43 17.9	-5.3
KRBR				AML	AML	10 43 25.5	
	comp=N,792nm,0.5s						
KRBR				AML	AML	10 43 27.2	
	comp=E,756nm,0.5s						
KRBR	**Kerman**	2.34	37	*e*Pn	Pn	10 42 46.9	+0.4
IPAR	**Pars**	2.49	314	*e*Pn	Pn	10 42 51.3	+2.8
IPAR				*e*		10 43 39.4	
	comp=Z,3μm,0.4s						
IPAR	**Pars**	2.49	314	*e*Pn	Pn	10 42 51.3	+2.8
IMEH	**Mehriz**	3.28	352	*e*Pn	Pn	10 42 59.6	+0.2
IMEH				*e*		10 43 56.1	
	comp=Z,2μm,0.4s						
IMEH	**Mehriz**	3.28	352	*e*Pn	Pn	10 42 59.6	+0.2
IBAF	**Bafgh**	3.47	6	*e*Pn	Pn	10 43 01.9	-0.1
IBAF				*e*		10 43 16.8	
	comp=Z,1μm,0.3s						
IBAF	**Bafgh**	3.47	6	*e*Pn	Pn	10 43 01.9	-0.1
ISAD	**Sadrabad**	3.97	342	*e*Pn	Pn	10 43 10.1	+1.2
ISAD				*e*		10 44 23.4	
	comp=Z,1μm,0.5s						
ISAD	**Sadrabad**	3.97	342	*e*Pn	Pn	10 43 10.1	+1.2
ICHK	**Chekchek**	4.15	352	*e*	Sg	10 44 25.3	+4.1
	comp=Z,780nm,0.3s						
ZHSF	**Zahedan**	5.18	72	*e*Pn	Pn	10 43 26.6	+1.2
ZHSF	**Zahedan**	5.18	72	*e*Pn	Pn	10 43 26.5	+1.1
IZEF	**Zefreh**	5.33	334	*e*Pn	Pn	10 43 27.9	+0.4
IZEF	**Zefreh**	5.33	334	*e*Pn	Pn	10 43 27.9	+0.4
IKOO	**Kooshah**	5.44	37	*e*Pn	Pn	10 43 31.3	+2.2
IKOO	**Kooshah**	5.44	37	*e*Pn	Pn	10 43 31.3	+2.2
ITEG	**Tejag**	5.69	32	*e*Pn	Pn	10 43 39.3	+6.8
IPIR	**Pirpir**	5.83	322	*e*Pn	Pn	10 43 35.4	+1.0
IPIR	**Pirpir**	5.83	322	*e*Pn	Pn	10 43 35.4	+1.0
QRN	**Al-Qurain**	6.37	277	*e*P	Pn	10 43 43.4	+1.5
QRN				*e*S	Sn	10 44 54.3	-0.3
QRN				AML	AML	10 44 57.3	
	comp=Z,27nm,0.6s						
QRN	**Al-Qurain**	6.37	277	*e*P	Pn	10 43 43.4	+1.6
QRN				*e*S	Sn	10 44 54.3	-0.3
	comp=Z,27nm,0.6s						
NAY	**Al-Naaiem**	7.01	281	*e*P	Pn	10 43 50.9	+0.3
NAY				*e*S	Sn	10 45 09.3	-1.0
NAY				AML	AML	10 45 13.2	
	comp=Z,10nm,0.5s						
NAY	**Al-Naaiem**	7.01	281	*e*P	Pn	10 43 50.9	+0.3
NAY				*e*S	Sn	10 45 09.3	-1.1
MIB	**Mutribah**	7.02	286	*e*P	Pn	10 43 50.9	+0.2
MIB				*e*S	Sn	10 45 09.5	-1.1
MIB				AML	AML	10 45 14.4	
	comp=Z,22nm,0.6s						
MIB	**Mutribah**	7.02	286	*e*S	Sn	10 45 09.5	-1.1
	comp=Z,11nm,0.5s						
ISHM	**Shahmirzad**	7.81	349	*e*Pn	Pn	10 44 01.1	-0.5
ISHM	**Shahmirzad**	7.81	349	*e*Pn	Pn	10 44 01.1	-0.5
IGHG	**Ghaleghazi**	9.58	312	*e*Pn	Pn	10 44 25.9	+0.1
IGHG	**Ghaleghazi**	9.58	312	*e*Pn	Pn	10 44 25.9	+0.1
IDHR	**Dehrash**	9.93	313	*e*Pn	Pn	10 44 30.6	0.0
IDHR	**Dehrash**	9.93	313	*e*Pn	Pn	10 44 30.6	0.0
MMAI	**Mount Meron Ar**	17.66	291	P	Pn	10 46 15.5	+1.5
	baz=82,slow=11,SNR=3.0						
BRTR	**Keskin Array B**	21.19	309	P	P	10 46 53.8	+0.3
	comp=Z,1.8nm,0.7s,mb3.5						
BRTR	**Keskin Array B**	21.19	309	P	P	10 46 53.8	+0.3
BVAR	**Borovoye Array**	27.33	20	P	P	10 47 51.1	-1.6
	comp=Z,0.6nm,0.7s,baz=216,slow=7.1,SNR=3.0						
BVAR	**Borovoye Array**	27.33	20	P	P	10 47 51.1	-1.6
AKASG	**Malin Array Be**	29.87	326	P	P	10 48 13.9	-1.4
	comp=Z,0.3nm,0.3s,mb3.5,baz=138,slow=8.7,SNR=5.1						
AKASG	**Malin Array Be**	29.87	326	P	P	10 48 13.9	-1.5
ZALV	**Zalesovo Beam**	33.72	32	P	P	10 48 47.2	-2.0
	comp=Z,1.0nm,0.4s,mb4.1,baz=270,slow=10,SNR=2.5						
GERES	**GERESS Array B**	37.85	315	P	P	10 49 24.0	-0.7
	comp=Z,0.5nm,0.7s,mb3.4,baz=108,slow=6.4,SNR=4.0						
GERES	**GERESS Array B**	37.85	315	P	P	10 49 24.0	-0.7
GTA	**Gaotai**	38.47	61	*e*P	P	10 49 29.8	-0.3
GTA				pP	pP	10 49 34.5	+1.3
GTA				sP	sP	10 49 36.8	+2.4
GTA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
HFS	**Hagfors**	42.48	331	P	P	10 50 01.5	-1.5
	comp=Z,2.4nm,0.5s,mb4.1,baz=123,slow=11,SNR=10						
HFS	**Hagfors**	42.48	331	P	P	10 50 01.5	-1.5
NB2	**NORSAR Subarra**	44.00	331	P	P	10 50 13.2	-2.0
	comp=Z,0.8nm,0.5s,mb3.7,baz=118,slow=8.6						
NB2	**NORSAR Subarra**	44.00	331	P	P	10 50 13.2	-2.0
	comp=Z,0.8nm,0.5s,mb3.7,baz=118,slow=8.0,SNR=3.7						
NOA	**NORSAR Array B**	44.00	331	P	P	10 50 13.4	-1.7
	comp=Z,1.3nm,0.6s,mb3.8,baz=117,slow=7.9,SNR=4.0						
NOA	**NORSAR Array B**	44.00	331	P	P	10 50 13.4	-1.8
SONM	**Songino Array**	44.05	49	P	P	10 50 14.5	-1.2
	comp=Z,0.2nm,0.3s,mb3.3,baz=261,slow=5.3,SNR=4.3						
SONM	**Songino Array**	44.05	49	P	P	10 50 14.5	-1.3
TORD	**Torodi Ar. Bea**	51.78	265	P	P	10 51 15.5	-0.6
	comp=Z,1.1nm,0.6s,mb4.0,baz=58,slow=7.6,SNR=13						
TORD	**Torodi Ar. Bea**	51.78	265	P	P	10 51 15.5	-0.6
KSRS	**Korea Array**	60.54	61	P	P	10 52 15.8	-2.8
	comp=Z,0.7nm,0.5s,mb4.0,baz=272,slow=7.2,SNR=4.1						
NWAO	**Narrogin (SRO)**	84.62	132	P	P	10 54 39.4	-2.3
	comp=Z,5.3nm,0.8s,mb4.8,baz=225,slow=4.3,SNR=3.3						
NWAO	**Narrogin (SRO)**	84.62	132	P	P	10 54 39.4	-2.3
YKA	**Yellowknife Ar**	89.32	355	P	P	10 55 03.1	-1.1
	comp=Z,0.3nm,0.7s,mb3.8,baz=2.7,slow=5.1,SNR=7.1						
YKA	**Yellowknife Ar**	89.32	355	P	P	10 55 03.1	-1.1
WRA	**Warramunga Arr**	90.21	112	P	P	10 55 07.9	-1.1
	comp=Z,0.3nm,0.6s,mb3.8,baz=318,slow=4.5,SNR=5.3						
WRA	**Warramunga Arr**	90.21	112	P	P	10 55 07.9	-1.1
ASAR	**Alice Springs**	91.70	116	P	P	10 55 15.1	-0.8
	comp=Z,0.4nm,0.5s,mb4.0,baz=303,slow=4.9,SNR=9.5						
ASAR	**Alice Springs**	91.70	116	P	P	10 55 15.1	-0.8

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*ISCJB **28** 10:44:14.7±0.6, 33°.32N±0°.03×35°.41E±0°.05, h8^{km}±7^{km}, Error ellipse: s-maj=7.0km s-min=4.1km az=25.8*

*CSEM **28** 10:44:14.9±0.1, 33°.33N×35°.40E, h5^{km}, ML3.2, Error ellipse: s-maj=3.4km s-min=1.8km az=110.0*

*GII **28** 10:44:15.3±0.4, 33°.24N×35°.43E, h2^{km}±1^{km}, Md2.2/5*

*GRAL **28** 10:44:15.7±0.3, 33°.32N×35°.42E, h0^{km}±122^{km}, MD3.2*

ISC 28 10:44:15.1±0.6, **33°.33N**±0°.03×**35°.41E**±0°.05, **h8**^{km}±7^{km}, **n30**, σ**0^{s}.42**/46, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	**Matirih**	0.17	338	*e*P	Pg	10 44 19.0	+0.3
MATL	**Matirih**	0.17	338	*e*P	Pg	10 44 19.0	+0.3
KSDI	**Kefar Szold**	0.25	123	Pg	Pg	10 44 20.0	-0.1
KSDI				Sg	Sg	10 44 23.6	+0.2
KSDI	**Kefar Szold**	0.25	123	Pg	Pg	10 44 20.0	-0.1
KSDI				Sg	Sg	10 44 23.6	+0.2
MMC7	**Mount Meron ar**	0.31	183	Pg	Pg	10 44 20.8	-0.3
MMC7	**Mount Meron ar**	0.31	183	Pg	Pg	10 44 20.8	-0.3
MMA0	**Mount Meron ar**	0.31	181	Pg	Pg	10 44 20.8	-0.4
MMA0				Sg	Sg	10 44 25.0	-0.4
MMA0	**Mount Meron ar**	0.31	181	Pg	Pg	10 44 20.8	-0.4
MMA0				Sg	Sg	10 44 25.0	-0.4
HNTI	**Hanita**	0.31	219	Pg	Pg	10 44 21.0	-0.3
HNTI				Sg	Sg	10 44 26.5	+1.1
HNTI	**Hanita**	0.31	219	Pg	Pg	10 44 21.0	-0.3
HNTI				Sg	Sg	10 44 26.5	+1.1
RCY	**Rachaya**	0.38	65	*e*P	Pg	10 44 22.7	+0.2
RCY				*e*S	Sg	10 44 28.0	+0.6
RCY	**Rachaya**	0.38	65	*e*P	Pg	10 44 22.7	+0.2
RCY				*e*S	Sg	10 44 28.0	+0.5
KSHT	**Keshet**	0.48	136	Pg	Pg	10 44 24.6	+0.1
KSHT	**Keshet**	0.48	136	Pg	Pg	10 44 24.6	+0.1
BHL	**Bhannes**	0.61	19	*e*P	Pg	10 44 26.8	-0.1
BHL	**Bhannes**	0.61	19	*e*P	Pg	10 44 26.8	-0.1
BLGI	**Bet Lehem HaGe**	0.62	197	Pg	Pg	10 44 27.5	+0.4
BLGI	**Bet Lehem HaGe**	0.62	197	Pg	Pg	10 44 27.5	+0.4
OFRI	**‘Ofer**	0.79	207	Pg	Pg	10 44 30.3	0.0
OFRI	**‘Ofer**	0.79	207	Pg	Pg	10 44 30.3	0.0
MMLI	**Mount Malkishu**	0.89	179	Pg	Pg	10 44 31.6	-0.6
MMLI				Sg	Sg	10 44 44.0	+0.3
MMLI	**Mount Malkishu**	0.89	179	Pg	Pg	10 44 31.6	-0.6
MMLI				Sg	Sg	10 44 44.0	+0.3
HWQ	**Hawqa**	1.05	25	*e*P	Pg	10 44 34.7	-0.6
HWQ	**Hawqa**	1.05	25	*e*P	Pg	10 44 34.7	-0.6
HMDT	**Nahal Hemdat**	1.08	175	Pg	Pg	10 44 35.3	-0.5
HMDT				Sg	Sg	10 44 49.9	+0.1
HMDT	**Nahal Hemdat**	1.08	175	Pg	Pg	10 44 35.3	-0.5
HMDT				Sg	Sg	10 44 49.9	+0.1
SLTI	**Sal’it**	1.13	196	Pg	Pg	10 44 36.0	-0.8
SLTI				Sg	Sg	10 44 51.7	+0.3
SLTI	**Sal’it**	1.13	196	Pg	Pg	10 44 36.0	-0.8
SLTI				Sg	Sg	10 44 51.7	+0.3
DSI	**Dead Sea**	1.75	181	Pn	Pn	10 44 45.9	0.0
DSI				Sn	Sn	10 45 08.7	+0.3
DSI	**Dead Sea**	1.75	181	Pn	Pn	10 44 45.9	0.0
DSI				Sn	Sn	10 45 08.7	+0.3

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*CSEM **28** 10:45:26.5, 36°.22N×21°.82E, h5^{km}, MD3.7, After ATH*

*NEIC **28** 10:45:26.5, 36°.22N×21°.82E, h5^{km}, MD3.7(ATH), After ATH.*

*ATH **28** 10:45:26.5, 36°.22N×21°.82E, h5^{km}±4^{km}, MD3.7/10*

ISC 28 10:45:24.2±2.0, **36°.14N**±0°.06×**21°.7E**±0°.1, **h10**^{km}, **n26**, σ**0^{s}.71**/32, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	0.76	3	*e*PB	Pg	10 45 39.0	+0.2
PYL				*e*SB	Sg	10 45 49.5	+0.8
PYL	**PYLOS**	0.76	3	*e*Pb	Pg	10 45 39.0	+0.2
PYL				*e*Sb	Sg	10 45 49.5	+0.8
ITM	**Ithomi**	1.06	10	*e*PG	Pg	10 45 44.5	0.0
ITM				*e*SB	Sg	10 45 59.3	+1.1
ITM	**Ithomi**	1.06	10	*e*Pg	Pg	10 45 44.5	0.0
ITM				*e*Sb	Sg	10 45 59.3	+1.1
KYTH	**Kithira**	1.09	82	*e*PN	Pg	10 45 45.8	+0.6
KYTH	**Kithira**	1.09	82	*e*Pn	Pg	10 45 45.8	+0.6
VLI	**Veliai**	1.16	60	*e*PG	Pg	10 45 45.9	-0.5
VLI	**Veliai**	1.16	60	*e*Pg	Pg	10 45 45.9	-0.5
VLX	**Vlachokerasia**	1.35	24	*e*PG	Pg	10 45 49.5	-0.5
VLX				*e*SB	Sg	10 46 07.2	-0.3
VLX	**Vlachokerasia**	1.35	24	*e*Pg	Pg	10 45 49.5	-0.5
VLX				*e*Sb	Sg	10 46 07.2	-0.3
DID	**Didima**	1.84	42	*e*PG	Pg	10 45 58.6	-0.9
DID	**Didima**	1.84	42	*e*Pg	Pg	10 45 58.6	-0.9
GUR	**Goura**	1.87	16	*e*PN	Pg	10 46 00.1	+0.1
GUR	**Goura**	1.87	16	*e*Pn	Pg	10 46 00.1	+0.1
KARN	**Karanos**	1.95	111	*e*PG	Pg	10 46 01.8	+0.2
KARN	**Karanos**	1.95	111	*e*Pg	Pg	10 46 01.8	+0.2
LTK	**Loutraki**	2.14	28	*e*PN	Pg	10 46 04.6	-0.6
LTK	**Loutraki**	2.14	28	*e*Pn	Pg	10 46 04.6	-0.6
VAM	**Vamos**	2.16	109	*e*PG	Pg	10 46 06.0	+0.4
VAM	**Vamos**	2.16	109	*e*Pg	Pg	10 46 06.0	+0.4
EFP	**Efpalio**	2.29	4	*e*PG	Pg	10 46 07.0	-1.1
EFP	**Efpalio**	2.29	4	*e*Pg	Pg	10 46 07.0	-1.1
VLY	**Voula,Athens**	2.40	44	*e*PN	Pn	10 46 07.1	+3.6
VLY	**Voula,Athens**	2.40	44	*e*Pn	Pn	10 46 07.1	+3.6
EVR	**Evrytania**	2.77	2	*e*PN	Pn	10 46 13.5	+4.8
EVR	**Evrytania**	2.77	2	*e*Pn	Pn	10 46 13.5	+4.8

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*ISCJB **28** 10:51:37.2±0.8, 25°.41S±0°.08×179°.52E±0°.08, h509^{km}±10^{km}, mb4.1/22, Error ellipse: s-maj=13.2km s-min=9.4km az=145.3*

*NEIC **28** 10:51:37.3±1.0, 25°.44S×179°.58E, h505^{km}±12^{km}, mb4.5/9, Error ellipse: s-maj=13.2km s-min=10.3km az=155.0*

*IDC **28** 10:51:37.8±1.1, 25°.41S×179°.64E, h510^{km}±12^{km}, mb3.6/15, mb1 3.8/17, mb1mx3.7/20, mbtmp3.6/17, Error ellipse: s-maj=13.2km s-min=10.9km az=175.0*

ISC 28 10:51:38.0±0.8, **25°.49S**±0°.08×**179°.56E**±0°.08, **h508**^{km}±10^{km}, **n62**, σ**0^{s}.92**/42, **mb4.1**/21, **6C-1D**, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	4.36	150	P	P	10 52 58.9	-0.9
	227nm,0.3s,baz=74,slow=15,SNR=23						
RAO				S	S	10 54 08.3	+1.7
	78nm,0.3s,baz=96,slow=22,SNR=5.9						
OUZ	**Omahuta**	10.98	207	*e*P	P	10 54 09.4	+3.8
	12nm,0.7s						
URZ	**Urewera**	12.90	189	P	P	10 54 24.7	-1.1
	18nm,0.3s,baz=43,slow=2.1,SNR=108						
URZ				S	S	10 56 42.8	-1.3
	4.6nm,0.3s,baz=254,slow=23,SNR=10.0						
AFI	**Afiamalu**	14.11	37	S	S	10 56 52.4	-16
	5.0nm,0.3s,baz=34,slow=23,SNR=6.2						
KHZ	**Kahutara**	17.60	195	*e*P	P	10 55 13.4	-0.6
	22nm,0.4s						
RPZ	**Rata Peaks**	19.46	199	P	P	10 55 30.9	-0.2
	2.5nm,0.3s,baz=300,slow=1.3,SNR=10						
RPZ	**Rata Peaks**	19.46	199	*e*P	P	10 55 31.3	+0.2
	12nm,0.6s						
HNR	**Honiara**	24.55	307	P	P	10 56 15.5	-1.7
	57nm,0.5s,mb5.3,baz=157,slow=4.9,SNR=6.2						
CTA	**Charters Tower**	31.12	273	*e*P	P	10 57 15.8	+1.1
	9.7nm,0.7s,mb4.3						
CTA	**Charters Tower**	31.12	273	P	P	10 57 15.9	+1.2
	9.8nm,0.5s,mb4.5,baz=97,slow=10,SNR=17						
ASAR	**Alice Springs**	41.41	262	P	P	10 58 40.4	+0.7
	2.0nm,0.7s,mb3.6,baz=105,slow=8.3,SNR=13						
ASAR				S	S	11 04 18.6	+0.8
	1.1nm,0.8s,baz=100,slow=16,SNR=6.4						
WRA	**Warramunga Arr**	41.93	268	P	P	10 58 43.7	-0.2
	2.8nm,0.5s,mb3.9,baz=104,slow=8.0,SNR=11						
WRA				S	S	11 04 25.6	+0.2
	1.1nm,0.8s,baz=101,slow=14,SNR=3.7						
FITZ	**Fitzroy Crossi**	50.33	267	P	P	10 59 48.8	+0.9
	3.9nm,0.7s,mb3.9,baz=83,slow=8.1,SNR=1.7						
VNDA	**Vanda**	52.77	185	P	P	11 00 06.1	+1.5
	0.8nm,0.7s,mb3.2,baz=9.8,slow=8.7,SNR=3.7						
MJAR	**Matsushiro Arr**	72.99	326	P	P	11 02 14.7	-0.9
	2.6nm,0.8s,mb3.8,baz=159,slow=5.3,SNR=4.6						
MAW	**Mawson**	76.13	201	P	P	11 02 32.3	-0.5
	2.3nm,0.7s,mb3.8,baz=108,slow=6.4,SNR=3.8						
KSRS	**Korea Array**	79.21	321	P	P	11 02 50.2	+0.2
	2.2nm,0.7s,mb3.8,baz=133,slow=5.5,SNR=9.0						
PETK	**Petropavlovsk-**	80.55	347	P	P	11 02 55.8	-0.9
	2.5nm,0.5s,mb4.0,baz=120,slow=7.8,SNR=6.5						

GSC	Goldstone	85.29	47	eP	P	11 03 20.7	-0.2
GLA	Glamis	85.35	50	eP	P	11 03 22.2	+0.9
NVAR	Mina Array Bea	86.17	44	P	P	11 03 24.7	-0.3
	4.1nm,0.8s,mb4.1,baz=226,slow=8.2,SNR=29						
LDFC	Landfair	86.30	48	eP	P	11 03 26.3	+0.6
	9.4nm,0.6s,mb4.6						
MOD	Modoc	87.07	40	eP	P	11 03 29.0	-0.2
PLCA	Paso Flores	87.44	134	P	P	11 03 31.0	-0.2
	0.7nm,0.5s,mb3.6,baz=222,slow=12,SNR=3.2						
TUC	Tucson	87.80	53	eP	P	11 03 33.8	+0.9
	5.1nm,0.9s,mb4.2						
WVOR	Wild Horse Val	88.37	41	eP	P	11 03 35.2	-0.1
	8.1nm,1.0s,mb4.4						
RSO	Redoubt South	88.58	13	eP	P	11 03 33.3	-2.5
ELK	Elko	89.44	44	eP	P	11 03 39.9	-0.4
	2.2nm,0.9s,mb4.0						
N12A	Clover Valley,	89.63	44	eP	P	11 03 40.2	-1.0
	3.3nm,0.7s,mb4.3						
CMAR	Chiang Mai Arr	89.71	291	P	P	11 03 43.8	+1.7
	0.6nm,0.6s,mb3.6,baz=152,slow=3.9,SNR=4.6						
MSU	Marysvale	90.16	47	eP	P	11 03 44.6	+0.9
TMUT	Trail Mountain	91.22	47	eP	P	11 03 49.4	+0.9
	9.2nm,0.6s,mb4.9						
MPU	Maple Canyon	91.33	46	eP	P	11 03 49.4	+0.4
SPUT	South Promonto	91.50	44	eP	P	11 03 50.1	+0.2
SRU	San Rafael	91.57	47	eP	P	11 03 50.4	+0.2
TXAR	Lajitas Array	91.60	58	P	P	11 03 50.9	+0.3
	2.9nm,0.8s,mb4.3,baz=213,slow=6.5,SNR=34						
PV01	Paradox Valley	92.37	49	eP	P	11 03 53.5	-0.4
PDAR	Pinedale Array	94.10	44	P	P	11 04 00.7	-1.1
	0.5nm,0.8s,mb3.6,baz=161,slow=4.3,SNR=5.4						
INK	Inuvik	99.66	16	P	Pdif	11 04 24.3	-2.4
	1.1nm,0.9s,baz=229,slow=6.4						
BOSA	Boshof	120.81	206	PKP	PKPdf	11 09 31.9	-0.7
	1.5nm,0.7s,baz=220,slow=6.2,SNR=3.7						
BOSA	Boshof	120.81	206	PKP	PKPdf	11 09 31.9	-0.7
BVAR	Borovoye Array	121.36	318	PKP	PKPdf	11 09 31.6	-1.2
	2.1nm,0.4s,baz=121,slow=1.3,SNR=10						
ARCES	ARCESS Array B	133.35	348	PKhKP		11 09 46.9	
	6.5nm,1.1s,baz=275,slow=0.5,SNR=7.2						
ARCES				PKP	PKPdf	11 09 54.0	-1.1
	2.3nm,0.6s,baz=78,slow=2.9,SNR=12						
FINES	FINESS Array B	139.81	341	PKhKP		11 09 58.8	
	1.3nm,0.5s,baz=94,slow=3.1,SNR=8.0						
FINES				PKP	PKPdf	11 10 08.7	+1.4
	1.3nm,0.4s,baz=110,slow=3.0,SNR=5.9						
NB2	NORSAR Subarra	143.58	350	PKP	PKPdf	11 10 11.0	-3.0
	comp=Z,9.3nm,0.6s,baz=16,slow=3.3						
NOA	NORSAR Array B	143.58	350	PKP	PKPdf	11 10 11.2	-2.9
	comp=Z,5.9nm,0.6s,baz=15,slow=2.4,SNR=23						
HFS	Hagfors	144.02	348	PKP	PKPdf	11 10 12.5	-2.3
	comp=Z,24nm,0.6s,baz=60,slow=3.6,SNR=71						
NACGM	Naroch	144.45	333	e	PKPdf	11 10 12.0	-3.7
AKASG	Malin Array Be	146.07	326	PKPbc	PKPbc	11 10 19.2	-1.4
	comp=Z,5.3nm,0.6s,baz=42,slow=4.1,SNR=12						
AKASG	Malin Array Be	146.07	326	PKPbc	PKPbc	11 10 19.2	-1.4
BRTR	Keskin Array B	148.19	305	PKPbc	PKPbc	11 10 26.2	-0.3
TIRR	Tirgusor	149.96	316	⇑iP	PKPbc	11 10 30.0	-0.6
BURAR	Bucovina Array	150.04	324	⇑iP	PKPbc	11 10 31.3	+0.6
HARR	Harsova	150.14	317	⇑iP	PKPbc	11 10 30.9	-0.2
MLR	Muntele Rosu	150.90	320	⇓iP	PKPbc	11 10 30.9	-1.9
TRPA	Tarpa	151.07	327	⇑iP	PKPbc	11 10 32.1	-1.0
VOIR		151.44	321	⇑iP	PKPbc	11 10 33.6	-0.4
KSP	Ksiaz	151.61	337	eP	PKPbc	11 10 34.1	-0.1
CLL	Collm	152.25	342	⇑iPKPbc	PKPbc	11 10 35.0	-0.6
	comp=Z,9.0nm,0.7s						
CLL				i PKPab	PKPab	11 10 47.0	-0.9
	comp=Z,7.0nm,0.7s						
GERES	GERESS Array B	154.19	338	PKPbc	PKPbc	11 10 38.6	-1.3
	comp=Z,0.2nm,0.5s,baz=98,slow=7.0,SNR=4.3						
TORD	Torodi Ar. Bea	167.56	190	PKP	PKPdf	11 10 45.1	-1.2
	comp=Z,0.8nm,0.8s,baz=324,slow=1.0,SNR=5.6						
TORD				PKPab	PKPab	11 11 55.4	0.0
	comp=Z,0.8nm,0.6s,baz=176,slow=2.8,SNR=6.1						
TORD	Torodi Ar. Bea	167.56	190	PKP	PKPdf	11 10 45.1	-1.2
TORD				PKPab	PKPab	11 11 55.4	0.0

JSN 28 10:52:03.6±1.2**, 19°.19N×75°.75W, h45km**±13km**, MD4.2, 6C-2D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMJ	Castle Mountai	1.20	209	⇓eP	Pn	10 52 23.6	-0.4
GWJ	Greenwich	1.45	220	⇑eP	Pn	10 52 26.2	-1.1
STH	Stony Hill	1.49	222	⇑eP	Pn	10 52 26.8	-1.2
STH				eS	Sn	10 52 45.9	-0.4
HOJ	Hope	1.51	219	⇑eP	Pn	10 52 28.6	+0.4
BBJ	Bamboo Saint A	1.64	241	⇓eP	Pn	10 52 29.9	-0.1
PCJ	Portland Cotta	1.96	223	⇑eP	Pn	10 52 34.4	0.0
PCJ				eS	Sn	10 52 57.1	-0.7
MCJ	Malvern	2.22	236	⇑eP	Pn	10 52 38.6	+0.6
MCJ				eS	Sn	10 53 02.7	-1.6
NEJ	Negril	2.61	249	⇑eP	Pn	10 52 42.8	-0.5

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*ISCJB **28** 10:53:43.8±1.7, 9°.4S±0°.2×124°.0E±0°.3, h102km±24km, mb3.7/3, Error ellipse: s-maj=59.4km s-min=10.4km az=141.8*

*IDC **28** 10:53:43.8±3.7, 9°.10S×124°.28E, h75km±43km, mb3.5/3, mb1 3.9/7, mb1mx3.7/18, mbtmp3.8/7, ML4.1/4, Error ellipse: s-maj=97.1km s-min=23.0km az=56.0*

*NEIC **28** 10:53:46.0±1.2, 9°.44S×123°.78E, h104km±16km, Error ellipse: s-maj=32.2km s-min=11.3km az=51.0*

ISC 28 10:53:45.0±1.4**, 9°.3S**±0°.2×**124°.1E**±0°.3**, h91km**±21km**, n12, σ1s.06**/11**, mb3.7**/3**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	6.03	315	P	Pn	10 55 11.5	-0.2
	1.3nm,0.3s,baz=146,slow=12,SNR=4.6						
KNA	Kununurra	7.89	145	eP	Pn	10 55 38.6	+1.6
	14nm,0.4s						
KNA				eS	Sn	10 57 03.5	-1.1
FITZ	Fitzroy Crossi	8.87	170	eP	Pn	10 55 49.7	-0.7
	12nm,0.3s						
FITZ				eS	Sx	10 57 21.8	
FITZ	Fitzroy Crossi	8.87	170	P	Pn	10 55 50.2	-0.3
	2.5nm,0.3s,baz=6.9,slow=8.8,SNR=43						
FITZ				S	Sx	10 57 23.1	
	7.1nm,0.3s,baz=343,slow=10,SNR=19						
KAKA	Kakadu	8.91	113	eP	Px	10 55 55.0	
	6.5nm,0.4s						
KAKA				eS	Sx	10 57 31.1	
KAKA	Kakadu	8.91	113	ePn	Px	10 55 54.4	
KAKA				eSn	Sx	10 57 30.0	
WRA	Warramunga Arr	14.51	138	P	Pn	10 57 05.7	-0.3
	1.2nm,0.3s,baz=321,slow=13,SNR=44						
WRA				S	Sx	10 59 40.5	
	1.0nm,0.3s,baz=304,slow=27,SNR=6.1						
WRAB	Tennant Creek	14.51	138	ePn	Pn	10 57 05.2	-0.7
WRAB				eSn	Sx	10 59 39.1	
ASAR	Alice Springs	17.11	148	P	Pn	10 57 40.7	+2.3
	1.1nm,0.3s,baz=317,slow=12,SNR=72						
ASAR				S	Sx	11 00 45.2	
	0.4nm,0.3s,baz=324,slow=24,SNR=10						
SONM	Songino Array	59.01	346	P	P	11 03 35.3	+0.2
	0.2nm,0.5s,mb3.4,baz=164,slow=9.3,SNR=2.8						
MKAR	Makanchi Array	67.10	330	P	P	11 04 29.4	+0.6
	0.9nm,0.5s,mb3.9,baz=136,slow=7.4,SNR=25						
ZALV	Zalesovo Beam	71.20	337	P	P	11 04 52.5	-1.3
	0.6nm,0.4s,mb3.8,baz=152,slow=6.5,SNR=2.6						

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*BJI **28** 10:58:50.3, 18°.04N×147°.36E, h10km, mB5.0/26, mb4.9/35, Ms4.5/27, Ms7 4.3/25*

*NEIC **28** 10:58:56.8±0.2, 18°.29N×146°.67E, h10km, mb4.9/54, Error ellipse: s-maj=7.1km s-min=6.1km az=130.0*

*ISCJB **28** 10:59:00.3±1.4, 18°.25N±0°.04×146°.57E±0°.05, h47km±12km, mb4.8/96, MS4.2/24, Error ellipse: s-maj=7.3km s-min=6.4km az=170.3*

*MOS **28** 10:59:00.6±1.0, 18°.29N×146°.47E, h51km, mb5.0/29, Error ellipse: s-maj=12.2km s-min=6.4km az=101.8*

*IDC **28** 10:59:05.7±2.5, 18°.26N×146°.53E, h84km±22km, mb4.4/26, mb1 4.5/28, mb1mx4.5/32, mbtmp4.4/28, MS4.1/15, Ms1 4.2/15, ms1mx3.9/39, Error ellipse: s-maj=16.6km s-min=9.6km az=85.0*

ISC 28 10:59:03.4±1.1**, 18°.27N**±0°.04×**146°.60E**±0°.05**, h59km**±10km**, n183, σ1s.01**/176**, mb4.8**/96**, MS4.2**/24**, 2C-4D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	4.94	200	P	Pn	11 00 16.9	+1.7
	66nm,0.3s,baz=74,slow=3.1,SNR=23						
GUMO				S	Sn	11 01 13.8	+2.9
	38nm,0.3s,baz=131,slow=20,SNR=3.7						
GUMO	Guam	4.94	200	ePn	Pn	11 00 15.2	0.0
GUMO				eSn	Sn	11 01 13.3	+2.3
JOW	Kunigami	18.94	300	P	Pn	11 03 22.7	+1.9
	4.0nm,0.3s,baz=132,slow=13,SNR=9.2						
JOW				LR	LR	11 09 40.9	
	comp=Z,618nm,19.8s,baz=0.2,slow=34						
MJAR	Matsushiro Arr	19.65	340	P	Pn	11 03 27.5	-1.7
	2.0nm,0.3s,baz=338,slow=24,SNR=13						
MAJO	Matsushiro	19.66	340	eP	Pn	11 03 26.8	-2.5
MAJO				pmax	pmax		
	comp=Z,52nm,0.9s						
MAJO	Matsushiro	19.66	340	eP	Pn	11 03 26.8	-2.5
	comp=Z,52nm,0.9s						
MAT	Matsushiro	19.66	340	P	Pn	11 03 26.5	-2.8
MAT				S	S	11 07 08.2	+2.3
DAV	Davao City (W)	23.30	244	LR	LR	11 11 26.1	
	comp=Z,456nm,20.0s,MS3.9,baz=47,slow=32						
YULB	Yu-li	24.18	287	eP	P	11 04 19.4	+5.0
	comp=Z,17nm,0.9s,mb4.5						
YHNB	Yeheng	24.30	290	P	P	11 04 16.7	+1.2
	comp=Z,33nm,0.8s,mb4.8						
SSLB	Suanglung	24.55	287	eP	P	11 04 18.9	+1.1
	comp=Z,35nm,0.8s,mb4.9						
KSRS	Korea Array	25.17	323	P	P	11 04 22.7	-0.6
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,710nm,21.2s,MS4.2						
KSRS	Korea Array	25.17	323	P	P	11 04 22.6	-0.6
	comp=Z,6.1nm,0.6s,mb4.3,baz=141,slow=8.5,SNR=20						
KSRS				LR	LR	11 13 44.6	
	comp=Z,710nm,21.2s,MS4.2,baz=135,slow=35						
ASAJ	Asahikawa	25.99	353	P	P	11 04 31.4	+0.8
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ASAJ	Asahikawa	25.99	353	P	P	11 04 31.4	+0.8
	comp=Z,9.2nm,0.5s,mb4.5,baz=223,slow=11,SNR=9.6						
NJ2	Nanjing	28.52	304	eP	P	11 04 55.5	+2.1
NJ2				PP	PP	11 05 49.0	-10
NJ2				S	S	11 09 37.5	+0.3
NJ2				sS	sS	11 09 54.0	-8.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
NJ2				pmax	pmax		
	comp=Z,120nm,10.7s						
NJ2				LR	LR		
	comp=N,450nm,21.5s,MS4.1						
NJ2				LR	LR		
	comp=E,290nm,19.1s,MS4.1						
NJ2				LR	LR		
	comp=Z,300nm,17.5s,MS4.0						
MDJ	Mudanjiang	29.89	335	P	P	11 05 05.8	+0.4
MDJ				PcP	PcP	11 08 08.3	+1.2
MDJ				S	S	11 09 59.8	+1.5
MDJ				ScP	ScP	11 11 45.5	+1.3
MDJ				ScS	ScS	11 15 40.5	+1.1
MDJ				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.7						
MDJ				pmax	pmax		
	comp=Z,220nm,5.9s						
MDJ				LR	LR		
	comp=N,200nm,23.2s,MS3.8						
MDJ				LR	LR		
	comp=E,160nm,23.2s,MS3.8						
MDJ				LR	LR		
	comp=Z,340nm,18.8s,MS4.0						
MDJ	Mudanjiang	29.89	335	eP	P	11 05 05.6	+0.3
	comp=Z,8.3nm,0.7s,mb4.6						
HNR	Honiara	30.51	153	LR	LR	11 17 26.2	
	comp=Z,435nm,18.0s,MS4.2,baz=148,slow=36						
CN2	Changchun	31.07	330	eP	P	11 05 17.5	+1.7
CN2				eS	S	11 10 17.3	+0.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.9						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.3						
CN2				LR	LR		
	comp=E,300nm,15.0s,MS4.3						
CN2				LR	LR		
	comp=Z,500nm,17.0s,MS4.2						
KKM	Kota Kinabalu	32.03	252	eP	P	11 05 25.9	+1.3
	comp=Z,41nm,0.9s,mb5.2						
KLR	Kul'dur	33.14	342	⇓iP	P	11 05 29.6	-4.3
KLR				pmax	pmax		
	comp=E,34nm,1.6s						
KLR				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.5						
KAKA	Kakadu	33.80	205	eP	P	11 05 38.0	-2.0
	comp=Z,11nm,0.6s,mb5.0						
BJI	Beijing	34.04	316	P	P	11 05 41.0	-0.8
BJI				PP	PP	11 07 02.5	+2.7
BJI				S	S	11 11 02.5	-0.7
BJI				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
BJI				LR	LR		
	comp=N,400nm,26.5s						
BJI				LR	LR		
	comp=E,380nm,20.5s						
BJI				LR	LR		
	comp=Z,350nm,23.3s,MS4.0						
QIZ	Qiongzhong	34.80	277	P	P	11 05 53.0	+4.3
QIZ				PP	PP	11 07 11.5	+3.0
QIZ				S	S	11 11 24.5	+9.1
QIZ				LR	LR		
	comp=E,430nm,5.0s						
QIZ				LR	LR		
	comp=Z,470nm,15.2s,MS4.3						
KAPI	Kappang	35.16	231	eP	P	11 05 51.1	-0.7
	comp=Z,41nm,1.1s,mb5.3						
HHC	Hu-ho-hao-te	37.52	314	eP	P	11 06 11.8	+0.2
HHC				PP	PP	11 07 40.8	+2.7
HHC				PcS	PcS	11 12 17.8	+0.5
HHC				ScS	ScS	11 16 17.3	-2.2
HHC				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.7						
HHC				pmax	pmax		
	comp=Z,240nm,5.8s						
HHC				LR	LR		
	comp=N,300nm,17.8s,MS4.4						
HHC				LR	LR		
	comp=E,430nm,15.5s,MS4.4						
HHC				LR	LR		
	comp=Z,380nm,12.9s,MS4.4						
HIA	Hailar	37.75	331	eP	P	11 06 13.0	-0.5
HIA				pmax	pmax		
	comp=Z,27nm,0.8s						
HIA	Hailar	37.75	331	eP	P	11 06 13.0	-0.5
	comp=Z,27nm,0.8s,mb5.0						
CTA	Charters Tower	38.12	181	eP	P	11 06 16.6	-0.2
	comp=Z,10nm,1.5s,mb4.3						
CTA	Charters Tower	38.12	181	P	P	11 06 16.6	-0.2
	comp=Z,4.2nm,0.6s,mb4.4,baz=345,slow=10.0,SNR=4.6						
CTA				LR	LR	11 20 21.8	
	comp=Z,253nm,18.2s,MS4.1,baz=3.9,slow=34						
KSM	Kuching	39.32	249	eP	P	11 06 27.4	+0.2
	comp=Z,25nm,1.0s,mb4.9						
WRAB	Tennant Creek	39.82	198	eP	P	11 06 30.6	-0.5
WRAB				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.9						
WRAB	Tennant Creek	39.82	198	eP	P	11 06 30.6	-0.4
	comp=Z,15nm,0.6s,mb4.9						
WRA	Warramunga Arr	39.83	198	P	P	11 06 30.2	-1.0
	comp=Z,10nm,0.7s,mb4.7,baz=32,slow=9.1,SNR=62						
CD2	Chengdu	40.71	296	P	P	11 06 38.5	+0.1
CD2				PP	PP	11 08 16.5	+3.4
CD2				PcP	PcP	11 08 40.3	+1.2
CD2				sS	sS	11 13 09.5	-0.7
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.7						
CD2				pmax	pmax		
	comp=Z,170nm,4.9s						
CD2				LR	LR		
	comp=N,340nm,7.3s						
CD2				LR	LR		
	comp=Z,360nm,10.7s,MS4.5						
KMI	Kunming	41.19	287	P	P	11 06 41.3	-1.1
KMI				PP	PP	11 08 24.0	+5.6
KMI				sS	sS	11 13 17.3	-0.1
KMI				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.1						
KMI				pmax	pmax		
	comp=Z,130nm,4.8s						
KMI				LR	LR		
	comp=N,150nm,23.5s,MS4.0						
KMI				LR	LR		
	comp=E,180nm,21.7s,MS4.0						
KMI				LR	LR		
	comp=Z,220nm,27.2s						
LZH	Lanzhou	41.60	304	eP	P	11 06 46.0	+0.3
LZH				PP	PP	11 08 26.0	+3.3
LZH				pmax	pmax		
	comp=Z,17nm,1.6s,mb4.4						
LZH				pmax	pmax		
	comp=Z,69nm,4.3s						
FITZ	Fitzroy Crossi	41.60	211	eP	P	11 06 45.7	-0.1
	comp=Z,8.0nm,0.5s,mb4.6						
FITZ	Fitzroy Crossi	41.60	211	P	P	11 06 45.3	-0.5
	comp=Z,4.2nm,0.3s,mb4.6,baz=32,slow=9.4,SNR=49						
CLNS	Chul'man	41.80	342	eP	P	11 06 46.9	-0.1
CLNS				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.6						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.9s						
ASAR	Alice Springs	43.48	197	P	P	11 06 59.9	-1.1
	comp=E,4.3nm,0.5s,mb4.4,baz=23,slow=6.8,SNR=52						
ASAR				PcP	PcP	11 08 48.4	+0.1
	comp=E,1.1nm,0.6s,baz=21,slow=4.2,SNR=4.4						
ULN	Ulaanbaatar	43.64	322	eP	P	11 07 02.0	0.0
ULN				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
ULN	Ulaanbaatar	43.64	322	eP	P	11 07 02.0	0.0
	comp=Z,7.2nm,0.7s,mb4.5						
SONM	Songino Array	44.02	321	P	P	11 07 04.8	-0.2
SONM						11 08 49.5	
SONM	Songino Array	44.02	321	P	P	11 07 04.8	-0.3
	comp=Z,4.4nm,0.4s,mb4.6,baz=137,slow=8.6,SNR=51						
SONM				PcP	PcP	11 08 49.5	-0.2
	comp=Z,2.1nm,0.7s,baz=142,slow=4.0,SNR=4.3						
SONM				LR	LR	11 26 44.3	
	comp=Z,380nm,18.4s,MS4.3,baz=300,slow=38						
DZM	Mont Dzumac	44.54	153	eLR	LR	11 19 57.9	
	comp=Z,973nm,24.9s						
SEY	Seymchan	44.80	4	⇓iP	P	11 07 11.4	+0.3
CMAR	Chiang Mai Arr	45.13	278	P	P	11 07 14.4	+0.1
CMAR						11 08 54.0	
CMAR	Chiang Mai Arr	45.13	278	P	P	11 07 14.3	0.0
	comp=Z,3.9nm,0.8s,mb4.3,baz=70,slow=6.8,SNR=11						
CMAR				PcP	PcP	11 08 54.0	-0.2
	comp=Z,2.7nm,0.9s,baz=102,slow=1.9,SNR=5.1						
CMAR				LR	LR	11 24 14.5	
	comp=Z,134nm,18.0s,MS3.9,baz=278,slow=34						
YAK	Yakutsk	45.30	349	eP	P	11 07 14.5	-0.6
YAK				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,3.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,2.0nm,0.9s						
YAK	Yakutsk	45.30	349	eP	P	11 07 14.9	-0.2
	comp=E,61nm,0.7s,mb5.5						
GTA	Gaotai	45.49	308	eP	P	11 07 20.5	+3.6
GTA				PcP	PcP	11 08 55.5	+0.5
GTA				PP	PP	11 09 10.3	+6.0
GTA				S	S	11 14 01.5	+7.0
GTA				SS	SS	11 17 19.0	0.0
GTA				pmax	pmax		
	comp=Z,58nm,5.1s						
GTA				LR	LR		
	comp=N,100nm,17.5s,MS4.1						
GTA				LR	LR		
	comp=E,150nm,16.1s,MS4.1						
GTA				LR	LR		
	comp=Z,170nm,16.6s,MS4.1						
BOD	Bodaibo	46.24	336	eP	P	11 07 21.1	-1.4
BOD				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
ZAK	Zakamensk	47.01	323	eP	P	11 07 28.3	-0.3
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
MBWA	Marble Bar	47.20	215	eP	P	11 07 30.1	-0.4
	comp=Z,12nm,0.8s,mb4.9						
TLY	Talaya	47.41	325	eP	P	11 07 31.7	0.0
TLY				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
TLY				MLR	MLR		
	comp=Z,296nm,21.0s,MS4.2						
TLY	Talaya	47.41	325	eP	P	11 07 31.0	-0.8
	comp=Z,8.1nm,1.0s,mb4.6						
ARMA	Armidale	48.64	174	eP	P	11 07 41.4	0.0
MOY	Mondy	48.87	324	eP	P	11 07 42.8	-0.2
XMIS	Christmas Isla	49.49	238	eP	P	11 07 47.0	-1.3
	comp=Z,72nm,0.7s,mb5.8						
STKA	Stephens Creek	50.09	186	eP	P	11 07 51.9	-0.5
	comp=Z,12nm,0.8s,mb5.0						
STKA	Stephens Creek	50.09	186	P	P	11 07 51.9	-0.6
	comp=Z,20nm,0.9s,mb5.2,baz=1.1,slow=7.4,SNR=15						
STKA				LR	LR	11 28 44.0	
	comp=Z,233nm,21.7s,MS4.2,baz=23,slow=36						
STKA	Stephens Creek	50.09	186	eP	P	11 07 52.1	-0.3
	comp=Z,6.9nm,1.1s,mb4.6						
STKA				LR	LR	11 28 44.0	
BILL	Bilibino	51.30	9	⇓iP	P	11 08 00.8	-0.4
BILL				e*PP	pP	11 08 14.0	-2.7
BILL				e		11 09 16.4	
BILL				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
BILL	Bilibino	51.30	9	eP	P	11 08 01.2	0.0
	comp=Z,11nm,0.9s,mb4.8						
FORT	Forrest	51.92	200	eP	P	11 08 05.5	-0.7
	comp=Z,12nm,0.6s,mb5.0						
CNB	Canberra Magne	53.35	177	eP	P	11 08 17.0	+0.3
TIXI	Tiksi	54.40	353	eP	P	11 08 22.2	-1.7
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
TIXI	Tiksi	54.40	353	eP	P	11 08 23.3	-0.6
	comp=Z,3.3nm,0.6s,mb4.4						
TAPN	Taplejung	54.62	291	eP	P	11 08 26.9	+0.6
	comp=Z,30nm,1.2s,mb5.2						
ODAN	Odare	54.94	290	eP	P	11 08 29.4	+0.8
	comp=Z,15nm,0.8s,mb5.1						
TOO	Toolangi	55.55	181	eP	P	11 08 33.1	+0.5
RAMN	Ramite	55.63	291	eP	P	11 08 34.5	+0.9
	comp=Z,6.9nm,0.6s,mb4.9						
JIRN	Jiri	55.94	291	eP	P	11 08 37.2	+1.4
	comp=Z,10nm,0.6s,mb5.0						
GUN	Gumba	56.20	292	eP	P	11 08 38.6	+1.0
	comp=Z,20nm,0.9s,mb5.2						
DMN	Daman	56.91	291	eP	P	11 08 43.4	+0.7
	comp=Z,4.5nm,0.4s,mb4.9						
GKN	Gorkha	57.29	292	eP	P	11 08 46.0	+0.6
	comp=Z,13nm,0.7s,mb5.1						
MUN	Mundaring	57.83	211	eP	P	11 08 48.3	-0.7
DANN	Dangsing	58.03	292	eP	P	11 08 51.2	+0.6
	comp=Z,27nm,0.5s,mb5.6						
NWAO	Narrogin (SRO)	58.13	209	eP	P	11 08 51.2	+0.2
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.5s						
NWAO	Narrogin (SRO)	58.13	209	P	P	11 08 50.6	-0.4
	comp=Z,9.2nm,0.7s,mb5.0,baz=38,slow=7.7,SNR=7.5						
NWAO	Narrogin (SRO)	58.13	209	eP	P	11 08 51.2	+0.2
	comp=Z,5.9nm,0.5s,mb4.9						
ZAA0	Zalesovo Array	58.88	323	eP	P	11 08 55.3	-0.7
ZALV	Zalesovo Beam	58.88	323	P	P	11 08 55.2	-0.8
ZALV						11 09 43.6	
ZALV	Zalesovo Beam	58.88	323	P	P	11 08 55.2	-0.8
	comp=Z,14nm,0.6s,mb5.2,baz=107,slow=7.6,SNR=55						
ZALV				PcP	PcP	11 09 43.6	-1.3
	comp=Z,2.7nm,0.7s,baz=119,slow=4.0,SNR=2.7						
ZALV				LR	LR	11 34 45.9	
	comp=Z,145nm,20.5s,MS4.1,baz=64,slow=36						
ZALV	Zalesovo Beam	58.88	323	P	P	11 08 55.2	-0.8
ZALV				PcP	PcP	11 09 43.6	-1.3
ZALV				LR	LR	11 34 45.9	
MKAR	Makanchi Array	59.38	314	P	P	11 08 59.1	-0.5
	comp=Z,9.4nm,0.7s,mb4.9,baz=90,slow=8.6,SNR=103						
MKAR				LR	LR	11 34 57.2	
	comp=Z,113nm,21.4s,MS4.0,baz=208,slow=36						
NVS	Novosibirsk	59.97	323	i P	P	11 09 02.9	-0.6
NVS				e		11 09 47.3	
NVS				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
NVS				pmax	pmax		
	comp=N,4.0nm,1.0s						
NVS				pmax	pmax		

	comp=E,11nm,1.0s						
TRF	Thorofare Moun	61.87	27	eP	P	11 09 15.9	-0.4
	comp=E,13nm,1.0s,mb5.0						
KURK	Kurchatov	62.16	318	P	P	11 09 18.5	0.0
KURK				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.4						
KURK	Kurchatov	62.16	318	P	P	11 09 18.5	0.0
	comp=Z,21nm,0.6s,mb5.4,baz=87,slow=5.5,SNR=41						
KURK	Kurchatov	62.16	318	eP	P	11 09 17.9	-0.6
	comp=Z,9.4nm,0.3s,mb5.4						
SML	Sawmill	62.33	29	eP	P	11 09 19.5	+0.2
SML				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
SML	Sawmill	62.33	29	eP	P	11 09 19.5	+0.1
	comp=Z,4.0nm,0.9s,mb4.5						
COLA	College	63.28	26	eP	P	11 09 26.1	+0.5
COLA				eP		11 09 26.2	
KSH	Kashi	63.82	306	P	P	11 09 33.0	+3.3
KSH				ePcP	PcP	11 10 04.0	-1.1
KSH				ePP	PP	11 11 55.0	+4.5
KSH				eScP		11 14 04.3	
KSH				ePcS		11 14 11.0	
KSH				eS	S	11 18 01.8	+1.3
KSH				eScS	ScS	11 19 17.0	-1.3
KSH				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
KSH				pmax	pmax		
	comp=Z,220nm,4.8s						
KSH				LR	LR		
	comp=N,170nm,7.2s						
KSH				LR	LR		
	comp=E,250nm,6.9s						
KSH				LR	LR		
	comp=Z,260nm,3.1s						
TKM2	Tokmak 2	63.99	309	eP	P	11 09 31.3	+0.6
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
TKM2	Tokmak 2	63.99	309	eP	P	11 09 31.3	+0.6
	comp=Z,6.7nm,0.6s,mb4.8						
AAK	Ala-Archa	64.81	309	eP	P	11 09 36.2	+0.1
UCH	Uchtor	64.81	309	eP	P	11 09 37.3	+1.2
	comp=Z,5.9nm,0.6s,mb4.8						
EKS2	Erkin-Say	65.33	309	eP	P	11 09 40.6	+1.1
AML	Almayashu	65.42	309	eP	P	11 09 41.1	+1.0
	comp=Z,5.4nm,0.7s,mb4.7						
DAWY	Dawson	66.74	27	eP	P	11 09 48.8	+0.7
BVAR	Borovoye Array	67.35	321	P	P	11 09 51.8	-0.4
	comp=Z,24nm,0.5s,mb5.5,baz=95,slow=8.1,SNR=85						
BVAR				LR	LR	11 39 58.5	
	comp=Z,207nm,21.3s,MS4.3,baz=72,slow=36						
BRVK	Borovoye	67.42	321	eP	P	11 09 52.4	-0.2
BRVK				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.2						
BRVK	Borovoye	67.42	321	eP	P	11 09 52.4	-0.2
	comp=Z,16nm,0.6s,mb5.2						
INK	Inuvik	69.43	23	P	P	11 10 04.4	-0.5
	comp=Z,5.5nm,0.8s,mb4.5,baz=267,slow=6.8,SNR=21						
INK	Inuvik	69.43	23	eP	P	11 10 04.8	-0.2
KBL	Kabul	69.83	301	eP	P	11 10 07.5	-0.5
KBL				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
KBL	Kabul	69.83	301	eP	P	11 10 07.5	-0.5
	comp=Z,3.4nm,0.5s,mb4.5						
PPT	Papeete	72.15	116	eLR	LR	11 32 32.9	
	comp=Z,403nm,24.2s,baz=301						
PPT	Papeete	72.15	116	LR	LR	11 35 11.6	
	comp=Z,297nm,20.5s,MS4.5,baz=63,slow=30						
SVE	Sverdlovsk	72.72	325⇓	eP	P	11 10 24.6	-0.4
SVE				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
ARU	Arti	73.91	325c	iP	P	11 10 31.5	-0.5
ARU				S	S	11 20 02.4	+3.1
ARU				SS	SS	11 24 47.7	+3.6
ARU				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
ARU	Arti	73.91	325	eP	P	11 10 31.8	-0.2
	comp=Z,8.7nm,0.4s,mb5.0						
TAOE	Nuku Hiva Isla	77.11	104	eLR	LR	11 34 16.4	
	comp=Z,284nm,31.5s						
JCW	Jim Creek	77.57	43	eP	P	11 10 54.2	+1.1
YKA	Yellowknife Ar	77.97	28	P	P	11 10 54.4	-0.6
	comp=Z,4.6nm,0.7s,mb4.5,baz=288,slow=5.6,SNR=82						
YBH	Yreka Blue Hor	78.58	50	P	P	11 10 59.7	+0.9
	comp=Z,3.4nm,0.9s,mb4.3,baz=266,slow=5.0,SNR=6.5						
ETW	Entiat	78.76	44	eP	P	11 11 00.4	+0.7
PRGR	Permogore	79.20	331⇑	iP	P	11 10 59.5	-2.3
PRGR				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						
RES	Resolute Bay	79.64	14	eP	P	11 11 04.2	+0.2
RES				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
RES	Resolute Bay	79.64	14	eP	P	11 11 04.2	+0.2
	comp=Z,13nm,0.9s,mb4.8						
OD2	Odessa Site #2	79.87	43	eP	P	11 11 05.8	0.0
MOD	Modoc	80.27	49	eP	P	11 11 08.6	+0.6
	comp=Z,4.2nm,0.9s,mb4.4						
NEW	Newport	80.66	42	eP	P	11 11 10.4	+0.5
NEW				pmax	pmax		
	comp=Z,8.0nm,1.0s						
NEW	Newport	80.66	42	eP	P	11 11 10.4	+0.4
	comp=Z,7.9nm,1.0s,mb4.6						
CMB	Columbia Colle	81.27	53	eP	P	11 11 13.9	+0.4
CMB				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
CMB	Columbia Colle	81.27	53	eP	P	11 11 13.9	+0.4
	comp=Z,2.8nm,0.9s,mb4.2						
WVOR	Wild Horse Val	81.31	48	eP	P	11 11 14.2	+0.6
WVOR				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
WVOR	Wild Horse Val	81.31	48	eP	P	11 11 14.2	+0.6
	comp=Z,8.1nm,1.1s,mb4.6						
KLMR	Klimovskoe	82.24	332	eP	P	11 11 15.2	-2.9
KLMR				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.2						
BSMT	Bassoo Peak	82.27	42	eP	P	11 11 19.6	+1.1
	comp=Z,5.1nm,1.0s,mb4.4						
WALA	Waterton Lakes	82.44	41	eP	P	11 11 20.4	+1.0
	comp=Z,0.3nm,1.4s						
KEV	Kevo	82.61	342	eP	P	11 11 17.5	-2.3
KEV				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.1						
KEV	Kevo	82.61	342	ep	P	11 11 17.5	-2.3
	comp=Z,13nm,0.6s,mb5.1						
NVAR	Mina Array Bea	82.73	52	P	P	11 11 21.8	+0.7
	comp=Z,2.9nm,0.7s,mb4.4,baz=270,slow=6.1,SNR=21						
NVAR	Mina Array Bea	82.73	52	P	P	11 11 21.8	+0.7
ARCES	ARCESS Array B	83.17	342	P	P	11 11 22.6	-0.1
	comp=Z,18nm,0.6s,mb5.3,baz=65,slow=6.8,SNR=64						
ARE0	ARCESS Array S	83.17	342	eP	P	11 11 22.3	-0.4
HLID	Hailey	83.91	46	eP	P	11 11 27.5	+0.5
	comp=Z,1.4nm,0.7s,mb4.2						
ELK	Elko	84.26	49	eP	P	11 11 29.8	+0.9
ELK				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ELK	Elko	84.26	49	eP	P	11 11 29.8	+0.9
	comp=Z,6.1nm,0.9s,mb4.7						
HRY	Holter Researc	84.55	43	eP	P	11 11 30.6	+0.4
	comp=Z,7.7nm,0.7s,mb4.9						
JOF	Joensuu	84.77	335	ep	P	11 11 28.1	-2.9
	comp=Z,25nm,0.6s,mb5.5						
YMR	Madison River	85.86	44	eP	P	11 11 38.3	+1.5
	comp=Z,6.5nm,0.8s,mb4.9						
DUG	Dugway	86.18	49	eP	P	11 11 39.0	+0.5
DUG				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.2						
DUG	Dugway	86.18	49	eP	P	11 11 39.0	+0.5
	comp=Z,1.1nm,0.7s,mb4.2						
FFC	Flin Flon	86.99	33	eP	P	11 11 42.1	-0.1
FFC				pmax	pmax		
	comp=Z,15nm,1.4s,mb5.0						
FFC	Flin Flon	86.99	33	eP	P	11 11 42.1	-0.1
	comp=Z,15nm,1.4s,mb5.0						
KIV	Kislovodsk	87.11	315	eP	P	11 11 42.4	-0.6
KIV				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.4						
KAF	Kangasniemi	87.16	336	eP	P	11 11 40.2	-2.6
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.0						
KAF	Kangasniemi	87.16	336	ep	P	11 11 40.2	-2.6
	comp=Z,5.6nm,0.6s,mb5.0						
BW06	Boulder Array	87.51	46	eP	P	11 11 44.5	-0.4
	comp=Z,1.9nm,1.1s,mb4.2						
PDAR	Pinedale Array	87.51	46	P	P	11 11 44.2	-0.7
	comp=Z,0.7nm,0.7s,mb4.0,baz=303,slow=1.6,SNR=7.3						
FINES	FINESS Array B	87.63	336	P	P	11 11 43.5	-1.6
	comp=Z,10.0nm,0.6s,mb5.2,baz=57,slow=4.6,SNR=17						
FCC	Fort Churchill	88.66	27	eP	P	11 11 49.8	-0.2
	comp=Z,0.3nm,1.1s						
WUAZ	Wupatki	88.93	53	eP	P	11 11 53.0	+1.3
	comp=Z,9.2nm,1.0s,mb5.1						
SUMG	Summit	89.32	2	eP	P	11 11 52.0	-0.9
PV01	Paradox Valley	90.01	50	eP	P	11 11 57.5	+0.7
	comp=Z,252nm,0.8s						
AKASG	Malin Array Be	92.15	326	LR	LR	11 57 24.9	
	comp=Z,97nm,19.0s,MS4.3,baz=40,slow=38						
SDCO	Great Sand Dun	92.38	49	eP	P	11 12 08.4	+0.6
	comp=Z,1.6nm,0.9s,mb4.3						
ULM	Lac du Bonnet	92.47	35	P	P	11 12 07.3	-0.6
	comp=Z,2.7nm,0.8s,mb4.6,baz=320,slow=8.4,SNR=4.8						
ULM	Lac du Bonnet	92.47	35	P	P	11 12 07.3	-0.6
ANMO	Albuquerque	92.85	52	eP	P	11 12 10.6	+0.6
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ANMO	Albuquerque	92.85	52	eP	P	11 12 10.6	+0.6
	comp=Z,1.2nm,0.9s,mb4.3						
HFS	Hagfors	93.10	338	P	P	11 12 09.5	-1.2
	comp=Z,2.8nm,0.5s,mb5.0,baz=90,slow=3.0,SNR=8.5						
NB2	NORSAR Subarra	93.27	340	P	P	11 12 10.1	-1.3
	comp=Z,1.6nm,0.6s,mb4.6,baz=54,slow=5.1						
NOA	NORSAR Array B	93.27	340	P	P	11 12 09.6	-1.8
NOA						11 15 54.1	
NOA	NORSAR Array B	93.27	340	P	P	11 12 09.6	-1.9
	comp=Z,3.0nm,0.8s,mb4.8,baz=51,slow=4.3,SNR=5.2						
NOA				PP	PP	11 15 54.1	-0.9
	comp=Z,2.3nm,0.9s,baz=41,slow=7.8,SNR=3.4						
NOA				LR	LR	11 58 11.3	
	comp=Z,101nm,18.5s,MS4.3,baz=30,slow=38						
BRTR	Keskin Array B	95.03	315	P	P	11 12 17.6	-2.3
	comp=Z,1.0nm,0.7s,mb4.4						
BRTR				LR	LR	12 02 53.4	
	comp=Z,32nm,18.6s,MS3.8,baz=194,slow=40						
TXAR	Lajitas Array	97.37	56	P	P	11 12 31.1	+0.3
	comp=Z,0.5nm,0.9s,mb3.9,baz=321,slow=1.8,SNR=4.5						
VNA2	Neumayer--Watz	125.10	190	ePKPdf	PKPdf	11 17 56.9	+0.5
	baz=360,slow=2.5						
TORD	Torodi Ar. Bea	133.39	310	PKP	PKPdf	11 18 13.7	-0.1
	comp=Z,0.5nm,0.4s,baz=71,slow=0.9,SNR=8.3						
TORD				PP	PP	11 20 41.1	0.0
	comp=Z,0.6nm,0.8s,baz=33,slow=5.0,SNR=3.5						
SDV	Santo Domingo	134.41	57	ePKPdf	PKPdf	11 18 16.3	+0.5
PLCA	Paso Flores	141.08	133	PKP		11 18 23.9	
	comp=Z,2.5nm,0.8s,baz=182,slow=5.2,SNR=4.2						
DBIC	Dimbokro	142.49	309	PKhKP		11 18 22.9	
	comp=Z,3.5nm,0.7s,baz=78,slow=1.7,SNR=5.4						
DBIC	Dimbokro	142.49	309	PKP		11 18 22.9	
LCO	Las Campanas	144.33	114	ePKPdf	PKPdf	11 18 32.5	-0.9
LVC	Limon Verde	146.49	104	ePKPdf	PKPdf	11 18 36.6	-0.6
LVC				ePKPbc	PKPbc	11 18 39.2	+0.5
LVC				ePKPab	PKPab	11 18 40.5	+0.7
CPUP	Villa Florida	156.47	114	PKP	PKPdf	11 18 52.5	+0.2
	comp=Z,0.3nm,0.4s,baz=264,slow=20,SNR=3.2						
CPUP				PKPab	PKPab	11 19 21.0	-0.1
	comp=Z,2.3nm,0.8s,baz=242,slow=12,SNR=4.1						
CPUP	Villa Florida	156.47	114	PKP	PKPdf	11 18 52.5	+0.2
CPUP				PKPab	PKPab	11 19 21.0	-0.1

IDC 28 11:31:47.6±7.0**,21°.06N**×**144°.50E,h168**^{km}±65^{km}**, mb3.4**/11**,mb1 3.5**/12**,mb1mx3.4**/27**,mbtmp3.4**/12**,Error ellipse: s-maj=29.1km s-min=14.0km az=77.0,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	16.38	342	P	Pn	11 35 26.7	-1.2
	0.3nm,0.3s,baz=151,slow=9.9,SNR=4.3						
KSRS	Korea Array	21.77	322	P	P	11 36 26.4	+0.5
	2.4nm,0.7s,baz=148,slow=8.2,SNR=8.2						
SONM	Songino Array	40.61	320	P	P	11 39 10.8	0.0
	0.2nm,0.3s,baz=131,slow=6.5,SNR=5.1						
WRA	Warramunga Arr	41.95	194	P	P	11 39 22.3	+0.4
	0.6nm,1.0s,baz=11,slow=8.4,SNR=5.6						
ASAR	Alice Springs	45.64	194	P	P	11 39 51.2	-0.1
	0.2nm,0.7s,baz=14,slow=7.8,SNR=3.1						
MKAR	Makanchi Array	56.03	313	P	P	11 41 09.0	+0.2
	0.7nm,0.7s,baz=91,slow=7.8,SNR=9.5						
KURK	Kurchatov	58.78	317	P	P	11 41 28.2	+0.3
	1.7nm,0.5s,baz=91,slow=7.4						
BVAR	Borovoye Array	63.95	320	P	P	11 42 02.6	0.0
	1.1nm,0.5s,baz=102,slow=7.7,SNR=6.2						
URZ	Urewera	66.48	152	P	P	11 42 18.4	-0.6
	8.3nm,0.9s,baz=16,slow=1.7,SNR=4.2						
YKA	Yellowknife Ar	76.44	28	P	P	11 43 18.3	0.0
	0.5nm,0.6s,baz=292,slow=5.6,SNR=8.3						
ARCES	ARCESS Array B	79.91	342	P	P	11 43 37.0	-0.3
	2.2nm,0.8s,baz=72,slow=8.6,SNR=3.6						
NVAR	Mina Array Bea	82.57	52	P	P	11 43 52.9	+0.9
	0.9nm,0.6s,baz=285,slow=5.8,SNR=7.8						

CSEM ***28*** *11:39:09.5,36°.31N×21°.78E,h2*^{km}*,MD3.5,After ATH*

NEIC ***28*** *11:39:09.5,36°.31N×21°.78E,h2*^{km}*,MD3.5(ATH),After ATH.*

ATH ***28*** *11:39:09.5,36°.31N×21°.78E,h2*^{km}*,MD3.5/5*

ISC 28 11:39:08.2±2.0**,36°.27N**±0°.08×**21°.73E**±0°.10**,h2**^{km}±12^{km}**, n18,**σ0^{s}.**75**/26**,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PYL	PYLOS	0.63	1	ePG	Pg	11 39 20.0	-0.2
PYL				eSG	Sg	11 39 28.5	+0.1
PYL	PYLOS	0.63	1	ePg	Pg	11 39 20.0	-0.2
PYL				eSg	Sg	11 39 28.5	+0.1
ITM	Ithomi	0.93	10	ePG	Pg	11 39 25.5	-0.4
ITM				eSG	Sg	11 39 39.0	+1.0
ITM	Ithomi	0.93	10	ePg	Pg	11 39 25.5	-0.4
ITM				eSg	Sg	11 39 39.0	+1.0
KYTH	Kithira	1.06	89	ePG	Pg	11 39 28.6	+0.1
KYTH	Kithira	1.06	89	ePg	Pg	11 39 28.6	+0.1
VLI	Veliai	1.08	65	ePG	Pg	11 39 29.4	+0.6
VLI				eSG	Sg	11 39 42.7	0.0
VLI	Veliai	1.08	65	ePg	Pg	11 39 29.4	+0.6
VLI				eSg	Sg	11 39 42.7	0.0
VLX	Vlachokerasia	1.22	25	ePB	Pb	11 39 30.6	-1.4
VLX				eSB	Sb	11 39 47.8	-0.4
VLX	Vlachokerasia	1.22	25	ePb	Pb	11 39 30.6	-1.4
VLX				eSb	Sb	11 39 47.8	-0.4
DID	Didima	1.73	44	ePB	Pb	11 39 41.6	+0.9
DID	Didima	1.73	44	ePb	Pb	11 39 41.6	+0.9
GUR	Goura	1.74	16	ePG	Pg	11 39 40.5	-1.0
GUR	Goura	1.74	16	ePg	Pg	11 39 40.5	-1.0
RLS	Riolos of Patr	1.80	353	ePB	Pb	11 39 43.1	+1.2
RLS	Riolos of Patr	1.80	353	ePb	Pb	11 39 43.1	+1.2
LTK	Loutraki	2.02	29	ePG	Pg	11 39 46.3	-0.5
LTK	Loutraki	2.02	29	ePg	Pg	11 39 46.3	-0.5

BJI ***28*** *11:46:37.5,3°.62N×128°.35E,h35*^{km}*,mB5.2/9,mb4.7/18*

MOS ***28*** *11:46:44.7±0.8,4°.48N×127°.68E,h38*^{km}*,mb5.0/14,Error ellipse: s-maj=20.0km s-min=8.2km az=98.5*

NEIC ***28*** *11:46:46.2±0.3,4°.56N×128°.11E,h35*^{km}*,mb4.9/10,Error ellipse: s-maj=9.7km s-min=6.2km az=83.0*

ISCJB ***28*** *11:46:53.5±0.9,4°.48N±0°.04×127°.83E±0°.07,h116*^{km}*±8*^{km}*, mb4.6/41,Error ellipse: s-maj=11.5km s-min=5.5km az=168.2*

IDC ***28*** *11:46:54.3±0.8,4°.43N×127°.84E,h110*^{km}*±7*^{km}*,mb4.2/22, mb1 4.3/24,mb1mx4.2/33,mbtmp4.2/24,MS3.3/2, Ms1 3.4/2,ms1mx2.8/31,Error ellipse: s-maj=22.1km s-min=8.7km az=81.0*

DJA ***28*** *11:47:01,4°.12N×127°.61E,h108*^{km}*,mb4.9/5*

ISC 28 11:46:54.4±0.8**,4°.46N**±0°.04×**127°.86E**±0°.07**,h109**^{km}±8^{km}**, n115,**σ0^{s}.**92**/104**,mb4.6**/41**,5C-2D,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SGSI	Sangihe	2.45	252	P	Pn	11 47 33.6	+0.4
GSPH	General Santos	3.32	299⇑	eP	Pn	11 47 43.3	-1.3
GSPH				i S	Sn	11 48 22.3	-1.1
DAV	Davao City (W)	3.44	319	P	Pn	11 47 47.6	+1.2
	43nm,0.3s,baz=151,slow=10,SNR=3.1						
DAV	Davao City (W)	3.44	319	Pn	Pn	11 47 40.8	-5.6
DAV	Davao City (W)	3.44	319	P	Sx	11 48 31.2	
DAV	Davao City (W)	3.44	319	P	Px	11 47 54.9	
TNE	Ternate	3.69	188⇓	eP	Pn	11 47 50.0	+0.4
TNE				eS	Sn	11 48 34.0	+1.7
TNTI	Ternate	3.70	188	P	Px	11 47 52.1	
TNTI	Ternate	3.70	188	P	Px	11 47 52.7	
MNI	Manado	4.25	225⇓	eP	Px	11 47 49.3	
MNI				eS	Sx	11 48 37.0	
MNI	Manado	4.25	225	P	Pn	11 47 57.0	-0.2
MNI	Manado	4.25	225	P	Pn	11 47 57.3	+0.1
LBMI	Labuha	5.08	184	P	Px	11 48 11.2	
LBMI	Labuha	5.08	184	P	Px	11 48 11.3	
KMSI	Cibinong	5.47	225	P	Pn	11 48 14.2	+0.5
KMSI	Cibinong	5.47	225	P	Pn	11 48 14.5	+0.8
	3µm,0.9s						
SWI	Sorong	6.29	147	P	Px	11 48 27.3	
	0.4nm2µm63nm,0.9s						
SWI	Sorong	6.29	147	P	Px	11 48 27.3	
	0.4nm2µm63nm,0.9s						
APSI	Ampana	8.19	229	P	Px	11 48 54.1	
	0.7nm2µm280nm,1.4s						
APSI	Ampana	8.19	229	P	Pn	11 48 51.6	+1.1
	235nm,1.3s						
PCI	Palu	9.63	237	P	Pn	11 49 11.2	+1.1
	69nm,0.9s						
PCI	Palu	9.63	237	P	Pn	11 49 11.2	+1.1
	69nm,0.9s						
KDI	Kendari	9.87	212⇑	eP	Pn	11 49 11.6	-1.8
KDI				eS	Sn	11 51 01.2	-1.1
KDI	Kendari	9.87	212	P	Pn	11 49 11.4	-2.0
	33nm,1.0s						
KDI	Kendari	9.87	212	P	Pn	11 49 11.4	-2.0
TTSI	Tana Toraja	10.96	227	P	Pn	11 49 27.4	-0.8
KKM	Kota Kinabalu	11.70	278	ePn	Pn	11 49 33.9	-4.1
SMKI	Samarinda	11.71	246	P	Pn	11 49 39.7	+1.6
BNSI	Bone	11.73	221	P	Px	11 49 43.1	
KAPI	Kappang	12.42	221	P	Pn	11 49 44.9	-2.6
	1.1nm,0.3s,baz=64,slow=8.5,SNR=5.0						
KAPI				LR	LR	11 54 43.5	
	comp=Z,56nm,20.5s,baz=202,slow=38						
KAKA	Kakadu	17.66	165	ePn	Pn	11 50 49.3	-4.4
KSM	Kuching	17.78	261	eP	Pn	11 50 54.5	-0.7
GUMO	Guam	19.07	61	LR	LR	11 56 52.2	
	comp=Z,151nm,20.5s,baz=263,slow=31						
SSLB	Suanglung	20.33	342	eP	P	11 51 20.8	-1.3
	11nm,0.7s						
JOW	Kunigami	22.25	1	P	P	11 51 44.0	+1.6
	21nm,0.6s,mb4.6,baz=186,slow=11,SNR=9.1						
FITZ	Fitzroy Crossi	22.53	186	eP	P	11 51 45.9	+0.4
	25nm,1.2s,mb4.4						
FITZ	Fitzroy Crossi	22.53	186	P	P	11 51 45.2	-0.3
	11nm,0.8s,mb4.2,baz=16,slow=9.2,SNR=10						
FITZ	Fitzroy Crossi	22.53	186	eP	P	11 51 46.1	+0.6
WRAB	Tennant Creek	25.07	165	eP	P	11 52 08.4	-0.5
WRAB				pmax	pmax		
	comp=Z,24nm,0.8s,mb4.7						
WRAB	Tennant Creek	25.07	165	eP	P	11 52 08.4	-0.5
	comp=Z,24nm,0.8s,mb4.7						
WRA	Warramunga Arr	25.07	165	P	P	11 52 08.5	-0.4
	comp=Z,6.7nm,0.5s,mb4.3,baz=346,slow=9.5,SNR=39						
ASAR	Alice Springs	28.57	168	P	P	11 52 40.2	-0.1
ASAR						11 55 48.9	
ASAR	Alice Springs	28.57	168	P	P	11 52 40.2	-0.1
	comp=Z,2.8nm,0.5s,mb4.1,baz=358,slow=8.8,SNR=50						
ASAR				PcP	PcP	11 55 48.9	-0.3
	comp=Z,1.4nm,0.5s,baz=348,slow=2.4,SNR=9.5						
ASAR				ScP	ScP	11 59 19.5	-1.1
	comp=Z,0.5nm,0.6s,baz=352,slow=2.9,SNR=4.7						
CMAR	Chiang Mai Arr	31.50	299	LR	LR	12 07 33.7	
	comp=Z,35nm,18.8s,baz=105,slow=39						
KSRS	Korea Array	32.83	0	P	P	11 53 17.7	+0.1
KSRS				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.7						
KSRS	Korea Array	32.83	0	P	P	11 53 17.6	0.0
	comp=Z,6.9nm,0.6s,mb4.6,baz=174,slow=9.7,SNR=24						
MJAR	Matsushiro Arr	33.31	15	P	P	11 53 20.7	-1.1
	comp=Z,2.6nm,0.6s,mb4.2,baz=183,slow=9.5,SNR=8.0						
XAN	Xi’an	34.29	331	P	P	11 53 30.5	+0.1
XAN				pP	pP	11 53 40.3	-14
XAN				sP	sP	11 53 45.3	-22
XAN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
COCO	West Island	35.00	241	i P	P	11 53 33.0	-3.7
FORT	Forrest	35.04	180	eP	P	11 53 36.8	0.0
	comp=Z,15nm,0.7s,mb4.9						
BJI	Beijing	36.96	345	P	P	11 53 52.5	-0.5
BJI				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
BJI				pmax	pmax		
	comp=Z,120nm,4.9s						
STKA	Stephens Creek	38.43	161	eP	P	11 54 05.6	0.0
	comp=Z,15nm,0.8s,mb4.9						
STKA	Stephens Creek	38.43	161	P	P	11 54 05.5	0.0
	comp=Z,12nm,0.6s,mb4.9,baz=334,slow=7.7,SNR=28						
LZH	Lanzhou	38.46	328	P	P	11 54 07.3	+1.5
LZH				pP	pP	11 54 16.5	-14
LZH				sP	sP	11 54 18.8	-24
LZH				pmax	pmax		
	comp=Z,62nm,1.2s,mb5.3						
LZH				pmax	pmax		
	comp=Z,260nm,5.6s						
NWAO	Narrogin (SRO)	38.53	194	P	P	11 54 06.2	-0.1
	comp=Z,9.2nm,0.8s,mb4.7,baz=1.0,slow=9.2,SNR=4.0						
ARMA	Armidale	41.47	148	eP	P	11 54 31.6	+0.8
ASAJ	Asahikawa	41.57	16	P	P	11 54 32.3	+0.9
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ASAJ	Asahikawa	41.57	16	P	P	11 54 32.3	+0.9
	comp=Z,6.0nm,0.5s,mb4.6,baz=203,slow=10,SNR=10						
GTA	Gaotai	43.07	328	eP	P	11 54 44.8	+1.2
GTA				pP	pP	11 54 55.0	-14
GTA				sP	sP	11 54 58.8	-22
GTA				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
YSS	Yuzh-Sakhalins	44.24	15	i P	P	11 54 52.7	-0.2
KLR	Kul’dur	44.73	4	eP	P	11 54 52.5	-4.2
ULN	Ulaanbaatar	46.79	341	eP	P	11 55 13.1	+0.2
ULN				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
ULN	Ulaanbaatar	46.79	341	eP	P	11 55 13.1	+0.2
	comp=Z,8.8nm,0.8s,mb4.5						
SONM	Songino Array	46.98	340	P	P	11 55 14.8	+0.5
	comp=Z,3.1nm,0.5s,mb4.3,baz=156,slow=8.8,SNR=34						
SONM				PcP	PcP	11 56 45.1	0.0
	comp=Z,0.8nm,0.6s,baz=151,slow=2.9,SNR=3.4						
ZAK	Zakamensk	50.22	340	eP	P	11 55 38.5	-0.7
TLY	Talaya	51.20	341	eP	P	11 55 47.1	+0.6
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
BOD	Bodaibo	54.31	351	eP	P	11 56 07.9	-1.4
BOD				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
YAK	Yakutsk	57.45	1	eP	P	11 56 31.1	-0.5
YAK				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.3						
YAK				pmax	pmax		
	comp=N,6.0nm,0.8s						
YAK	Yakutsk	57.45	1	eP	P	11 56 31.2	-0.4
	comp=N,37nm,0.6s,mb5.6						
MKAR	Makanchi Array	57.61	324	P	P	11 56 33.4	+0.4
	comp=N,7.0nm,0.5s,mb5.0,baz=118,slow=8.2,SNR=147						
KSH	Kashi	58.33	314	P	P	11 56 40.0	+1.8
KSH				ePP	PP	11 58 50.0	+1.5
KSH				eScP	ScP	12 01 25.0	+6.5
KSH				eS	S	12 04 33.0	+0.6
KSH				esS	sS	12 05 00.3	-18
KSH				eScS	ScS	12 06 20.3	+2.7
KSH				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
KSH				pmax	pmax		
	comp=Z,130nm,4.5s						
KZA	Kyzart	59.85	317	P	P	11 56 49.3	+0.7
	SNR=5.1						
TKM2	Tokmak 2	59.95	318	P	P	11 56 50.1	+0.8
	SNR=7.3						
UCH	Uchtor	60.41	317	P	P	11 56 54.4	+1.9
	SNR=10						
ZALV	Zalesovo Beam	60.46	332	P	P	11 56 51.5	-1.0
	comp=Z,2.3nm,0.5s,mb4.4,baz=131,slow=6.7,SNR=9.0						
ZALV				pP	pP	11 57 18.4	-0.8
	comp=Z,0.9nm,0.4s,baz=79,slow=7.7,SNR=1.8						
AAK	Ala-Archa	60.58	317⇑	eP	P	11 56 54.0	+0.4
AAK				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.3						
AAK	Ala-Archa	60.58	317	P	P	11 56 54.3	+0.7
	comp=Z,1.4nm,0.5s,mb4.2,baz=103,slow=10,SNR=6.4						
AAK	Ala-Archa	60.58	317	eP	P	11 56 54.3	+0.7
USP	Ospenovka	60.83	318	P	P	11 56 55.7	+0.4
	SNR=8.4						
AML	Almayashu	60.93	316	P	P	11 56 57.3	+1.3
	SNR=9.0						
SEY	Seymchan	61.07	13⇑	eP	P	11 56 57.9	+1.4
EKS2	Erkin-Say	61.08	317	P	P	11 56 58.0	+1.0
	SNR=7.3						

NVS	Novosibirsk	61.74	333	*i* P	P	11 57 00.4	-0.8
NVS				pmax	pmax		
	comp=N,9.0nm,1.5s						
NVS				pmax	pmax		
	comp=E,11nm,1.5s						
NVS				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.8						
KURK	Kurchatov	61.74	327	P	P	11 57 01.2	-0.1
KURK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
KURK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
KURK	Kurchatov	61.74	327	P	P	11 57 01.2	-0.1
	comp=Z,12nm,0.6s,mb5.1,baz=126,slow=6.3,SNR=41						
KURK				pP	pP	11 57 28.8	+0.8
	comp=Z,8.4nm,0.8s,baz=125,slow=5.9,SNR=7.2						
KURK	Kurchatov	61.74	327	*e*P	P	11 57 00.9	-0.4
	comp=Z,20nm,0.6s,mb5.3						
TIXI	Tiksi	67.10	0	⇑*e*P	P	11 57 35.2	-0.6
TIXI				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.9						
TIXI	Tiksi	67.10	0	*e*P	P	11 57 34.9	-0.9
	comp=Z,12nm,0.6s,mb4.9						
BVAR	Borovoye Array	67.33	326	P	P	11 57 37.2	-0.3
	comp=Z,5.4nm,0.8s,mb4.4,baz=111,slow=8.1,SNR=18						
BVAR				pP	pP	11 58 01.9	-2.8
	comp=Z,1.6nm,0.7s,baz=125,slow=7.4,SNR=3.2						
BRVK	Borovoye	67.40	327	*e*P	P	11 57 37.5	-0.5
BRVK				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.6						
BRVK	Borovoye	67.40	327	*e*P	P	11 57 37.5	-0.5
	comp=Z,14nm,1.3s,mb4.6						
BILL	Bilibino	68.56	15	*e*P	P	11 57 45.5	+0.5
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
GAMB	Gambell	73.27	24	*e*P	P	11 58 12.6	-1.0
AKTK	Aktyubinsk	73.79	321	P	P	11 58 16.7	-0.2
AKTO	Aktyubinsk	73.79	321	P	P	11 58 16.7	-0.2
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
AKTO	Aktyubinsk	73.79	321	P	P	11 58 16.7	-0.2
	comp=Z,2.4nm,0.6s,mb4.1						
KDAK	Kodiak Island	80.67	32	P	P	11 58 55.0	-0.2
	comp=Z,12nm,0.8s,mb4.8,baz=308,slow=22,SNR=8.4						
KDAK	Kodiak Island	80.67	32	P	P	11 58 55.0	-0.2
IMA2	Indian Mountai	81.26	24	*e*P	P	11 58 59.0	+0.9
PPLA	Purkeypile	81.47	27	*e*P	P	11 58 59.1	-0.1
	comp=Z,9.5nm,0.7s,mb4.7						
COLD	Coldfoot	82.78	23	*e*P	P	11 59 05.6	-0.4
MCK	McKinley	83.01	26	*e*P	P	11 59 06.9	-0.4
MCK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.6						
MCK	McKinley	83.01	26	*e*P	P	11 59 06.9	-0.4
	comp=Z,7.4nm,0.7s,mb4.6						
VNDA	Vanda	84.01	173	P	P	11 59 11.7	-0.5
	comp=Z,1.8nm,1.0s,mb3.8,baz=0.0,slow=4.0,SNR=3.9						
MENT	Mentasta	85.33	27	*e*P	P	11 59 19.1	-0.1
EGAK	Eagle	86.41	25	*e*P	P	11 59 23.9	-0.5
	comp=Z,2.1nm,0.6s,mb4.2						
OBN	Obninsk	87.11	325	*e*P	P	11 59 27.3	-0.7
OBN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
FINES	FINESS Array B	91.72	332	P	P	11 59 48.0	-1.5
	comp=Z,2.4nm,0.9s,mb4.4,baz=76,slow=2.4,SNR=3.7						
FINES	FINESS Array B	91.72	332	P	P	11 59 48.0	-1.5
QSPA	South Pole Qui	94.36	180	P	P	12 00 01.1	-0.1
	comp=Z,1.1nm,0.8s,mb4.2,baz=335,slow=6.7,SNR=8.7						
RES	Resolute Bay	96.89	10	P	P	12 00 12.2	-0.7
	comp=Z,3.1nm,0.6s,mb4.9,baz=306,slow=5.5,SNR=26						
YKA	Yellowknife Ar	98.37	25	P	P	12 00 19.1	-0.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	98.37	25	P	P	12 00 19.1	-0.6
	comp=Z,1.0nm,0.7s,mb4.5,baz=300,slow=4.5,SNR=24						
SCHQ	Schefferville	119.66	10	PKP	PKPdf	12 05 31.4	-0.2
	comp=Z,0.6nm,0.4s,baz=18,slow=3.2,SNR=3.8						
TORD	Torodi Ar. Bea	123.76	289	PKP	PKPdf	12 05 39.4	-1.1
	comp=Z,0.6nm,0.7s,baz=59,slow=2.2,SNR=5.1						
TORD				pPKP	pPKPdf	12 06 08.5	-1.7
	comp=Z,0.8nm,0.8s,baz=23,slow=1.0,SNR=4.2						

IDC ***28*** *11:54:59.7±3.2, 49°.42N×155°.56E, h10^{km}±19^{km}, mb5.1/46, mb1 5.2/47, mb1mx5.2/48, mbtmp5.1/47, ML4.9/1, MS4.3/30, Ms1 4.3/30, ms1mx4.3/38, Error ellipse: s-maj=12.5km s-min=9.1km az=129.0*

DJA ***28*** *11:55:00, 49°.35N×155°.86E, h10^{km}, mb5.4/21*

MOS ***28*** *11:55:01.8±0.8, 49°.32N×155°.60E, h38^{km}, mb5.5/114, MS4.5/30, Error ellipse: s-maj=6.5km s-min=3.4km az=91.4*

MOS Felt (III) at Severo-Kuril'sk.

SZGRF ***28*** *11:55:04.1, 49°.28N×155°.76E, h33^{km}, mb5.3, MS4.5, Kuril Islands, Russia*

BJI ***28*** *11:55:04.3, 49°.46N×155°.63E, h68^{km}, mB5.0/32, mb5.2/53, Ms4.6/43, Ms7 4.5/41*

ISCJB ***28*** *11:55:05.5±0.1, 49°.41N±0°.02×155°.64E±0°.02, h66^{km}, mb5.2/363, Error ellipse: s-maj=3.2km s-min=1.6km az=170.1*

GCMT ***28*** *11:55:06.1±0.3, 49°.27N×155°.98E, h43^{km}, MW5.1/76, Moment Tensor Solution. s58,c86; s76,c119; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.97±.19; M$_{\theta\theta}$-1.81±.13; M$_{\phi\phi}$-3.16±.13; M$_{r\theta}$0.51±.12; M$_{\theta\phi}$-3.08±.09; M$_{\phi r}$2.10±.11; Best double couple: M$_0$5.74000×10^{16} NP1:ϕ_s230.00000°,δ36.00000°,λ108.00000°. NP2: ϕ_s29.00000°,δ56.00000°,λ78.00000°. Principal axes: T 5.4890, Plg75.0000°, Azm262.0000°; N 0.5030, Plg10.0000°, Azm36.0000°; P -5.9920, Plg10.0000°, Azm127.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***28*** *11:55:06.1±0.5, 49°.37N×155°.54E, h60^{km}±4^{km}, mb5.3/234 Error ellipse: s-maj=3.7km s-min=2.1km az=162.0*

BGS ***28*** *11:55:07.8±1.9, 49°.92N×157°.26E, h60^{km}±999^{km}, mb5.3*

KRSC ***28*** *11:55:07.2±0.6, 49°.47N×156°.68E, h72^{km}±77^{km}, ML5.4*

ISC 28 11:55:07.6±0.1**, 49°.46N**±0°.02×**155°.52E**±0°.02**, h68**^{km}**, h68**^{km}±2.6^{km}**:pP-P, n1300, σ0^{s}.74**/1300**, mb5.2**/363**, 368C-201D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.28	17	*e*PN	Pn	11 55 25.5	-4.1
SKR				*e*S	Sn	11 55 44.0	-2.1
SKR				pmax	pmax		
	comp=N,15μm,4.0s						
SKR				pmax	pmax		
	comp=Z,10μm,4.0s						
SKR				smax			
	comp=N,46μm,2.0s						
SKR				smax			
	comp=E,45μm,4.0s						
MIPR	Malaya Ipel'ka	2.93	15	*e*P	Pn	11 55 52.0	+0.3
MIPR				*e*S	Sn	11 56 25.3	-0.4
GRL	Gorelyy	3.49	27	P	Pn	11 55 58.1	-1.3
GRL				*i* S	Sn	11 56 34.1	-5.3
RUS	Russkaya	3.53	31	*e*P	Pn	11 55 57.9	-2.0
RUS				*e*S	Sn	11 56 33.9	-6.4
PEA0B	Petropavlovsk-	3.90	20	*e*Pn	Pn	11 56 05.0	+0.1
PETK	Petropavlovsk-	3.90	20	PN	Pn	11 56 05.6	+0.7
PETK						11 56 51.4	
PETK				pmax	pmax		
	comp=Z,54nm,0.3s						
PETK				smax			
	comp=N,42nm,0.3s						
PETK				MLR	MLR		
	comp=Z,4μm,19.9s						
PETK	Petropavlovsk-	3.90	20	Pn	Pn	11 56 05.6	+0.7
	comp=Z,54nm,0.3s,baz=170,slow=11,SNR=557						
PETK				Sn	Sn	11 56 51.4	+1.9
	comp=Z,42nm,0.3s,baz=213,slow=16,SNR=5.8						
PETK				LR	LR	11 57 57.2	
	comp=Z,4μm,19.9s,baz=202,slow=45						
PET	Petropavlovsk	4.08	28	P	Pn	11 56 06.1	-1.2
PET				*i* S	Sn	11 56 48.8	-4.9
PET	Petropavlovsk	4.08	28	*e*Pn	Pn	11 56 06.5	-0.8
PET				*e*Sn	Sn	11 56 52.9	-0.8
INSR	Institute	4.10	27	*e*P	Pn	11 56 06.0	-1.6
INSR				*i* S	Sn	11 56 49.2	-5.1
SMAR	Somma	4.33	27	*e*P	Pn	11 56 09.4	-1.4
SMAR				*e*S	Sn	11 56 55.3	-4.6
NLC	Nalytchevo	4.42	31	*e*P	Pn	11 56 09.4	-2.7
NLC				*i* S	Sn	11 56 56.1	-6.1
GNL	Ganaly	4.50	19	*e*P	Pn	11 56 14.0	+0.8
SPN	Mys Shipunski	4.61	36	*e*P	Pn	11 56 12.3	-2.3
SPN				*i* S	Sn	11 56 59.7	-7.1
MKZ	Mys Kozlova	6.38	35	*e*P	Pn	11 56 35.4	-3.4
TUMR	Tumrok	6.48	24	*e*P	Pn	11 56 40.0	-0.2
KUR	Kuril'sk	6.70	234	*e*PN	Pn	11 56 39.0	-4.2
KMNR	Kamenistaya	6.93	23	*e*P	Pn	11 56 45.9	-0.4
KPT	Kopyto	7.12	22	*e*P	Pn	11 56 48.7	-0.1
KOZ	Kozyrevsk	7.12	20	*e*P	Pn	11 56 48.2	-0.7
KOZR	Kozyr	7.13	20	PN	Pn	11 56 48.2	-0.8
KIRR	Kirishev	7.13	22	P	Pn	11 56 48.7	-0.4
BZMR	Bezymyannaya	7.15	23	*e*P	Pn	11 56 49.0	-0.3
ZLN	Zelenaya	7.31	24	P	Pn	11 56 50.1	-1.4
SRDR	Sredinnyy	7.32	19	*e*P	Pn	11 56 51.6	-0.1
KRSR	Krestovskiy	7.42	22	*e*P	Pn	11 56 52.4	-0.7
KLY	Klyuchi	7.53	22	*e*P	Pn	11 56 54.6	+0.1
BDR	Baidarnaya	7.90	24	*e*P	Pn	11 56 58.6	-1.0
SRKR	Sorokina	7.97	23	*e*P	Pn	11 56 59.6	-0.9
SMKR	Semkarok	7.98	24	*e*P	Pn	11 56 59.3	-1.4
KBTR	Krutoberegovo	8.07	30	*e*P	Pn	11 56 59.6	-2.3
YUK	Yuzh-Kuril'sk	8.56	234	⇑*i*PN	Pn	11 57 05.7	-3.0
YUK				pmax	pmax		
	comp=Z,3μm,0.7s						
YUK				pmax	pmax		
	comp=E,2μm,1.0s						
YUK				pmax	pmax		
	comp=Z,2μm,0.5s						
YUK				pmax	pmax		
	comp=N,790nm,0.8s						
YUK				pmax	pmax		
	comp=E,1μm,0.6s						
YUK	Yuzh-Kuril'sk	8.56	234	*e*P	Pn	11 57 05.0	-3.7
YSS	Yuzh-Sakhalins	8.89	258	⇑*i*PN	Pn	11 57 14.4	+1.3
YSS				pmax	pmax		
	comp=Z,200nm,0.9s						
YSS				MLR	MLR		
	comp=Z,1μm,16.0s						
YSS				MLR	MLR		
	comp=E,1μm,13.0s						
YSS	Yuzh-Sakhalins	8.89	258	*e*Pn	Pn	11 57 13.7	+0.7
YSS				*e*Sn	Sn	11 58 52.7	+1.2
ASAJ	Asahikawa	10.34	244	Pn	Pn	11 57 33.8	+0.8
	comp=E,36nm,0.3s,baz=74,slow=14,SNR=116						
ASAJ				Sn	Sn	11 59 25.9	-1.2
	comp=E,0.7nm,0.3s,baz=296,slow=29,SNR=1.1						
ASAJ				LR	LR	12 01 01.4	
	comp=E,2μm,21.7s,baz=90,slow=35						
ERM	Erimo	11.39	234	Pn	Pn	11 57 44.0	-3.3
	comp=E,2μm,0.5s,SNR=14						
ERM	Erimo	11.39	234	*i* PN	Pn	11 57 44.4	-2.9
ERM	Erimo	11.39	234	*e*Pn	Pn	11 57 44.5	-2.8
SMY	Shemya	12.13	67	*e*PN	Pn	11 57 51.9	-5.3
HABR	Khabarovsk	13.48	274	*ce*P	Pn	11 58 18.8	+3.2
HABR				*e*S	Sn	12 00 47.6	+4.0
HABR				pmax	pmax		
	comp=Z,119nm,1.0s						
HABR				pmax	pmax		
	comp=E,118nm,1.0s						
HABR				pmax	pmax		
	comp=N,35nm,1.2s						
HABR				MLR	MLR		
	comp=Z,2μm,15.0s						
SEY	Seymchan	13.62	354	⇑*e*P	Pn	11 58 19.2	+1.9
KLR	Kul'dur	15.48	278	*e*P	Pn	11 58 40.7	-0.9
KLR				pmax	pmax		
	comp=E,110nm,1.8s						
KLR				pmax	pmax		
	comp=Z,140nm,1.8s						
KLR				MLR	MLR		
	comp=Z,4μm,13.0s						
MAJO	Matsushiro	18.03	231	*e*P	Pn	11 59 09.2	-4.0
MAJO				pmax	pmax		
	comp=Z,109nm,0.6s						
MAJO	Matsushiro	18.03	231	*e*P	Pn	11 59 09.2	-4.0
	comp=Z,109nm,0.6s						
MAT	Matsushiro	18.03	231	P	Pn	11 59 08.3	-4.9
MAT				S	S	12 02 32.0	-2.6
MJAR	Matsushiro Arr	18.03	231	P	Pn	11 59 09.0	-4.2
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MJAR	Matsushiro Arr	18.03	231	P	Pn	11 59 09.0	-4.2
	comp=Z,3.5nm,0.3s,baz=30,slow=13,SNR=34						
MDJ	Mudanjiang	18.28	265	P	Pn	11 59 14.3	-2.0
MDJ				S	S	12 02 37.5	-3.0
MDJ				PcP	PcP	12 03 45.0	+0.3
MDJ				ScP	ScP	12 07 13.5	-0.3
MDJ				PcS	PcS	12 07 23.8	+2.6
MDJ				ScS	ScS	12 10 57.5	+3.0
MDJ				pmax	pmax		
	comp=Z,62nm,0.6s						
MDJ				pmax	pmax		
	comp=Z,340nm,6.4s						
MDJ				LR	LR		
	comp=N,480nm,24.0s						
MDJ				LR	LR		
	comp=E,850nm,21.4s						
MDJ				LR	LR		
	comp=Z,1μm,18.7s						
MDJ	Mudanjiang	18.28	265	*e*P	Pn	11 59 14.1	-2.2
	comp=Z,128nm,1.1s						
YAK	Yakutsk	19.07	321	*c i*P	Pn	11 59 24.0	-1.5
YAK				*e*S	S	12 02 58.8	+2.4
YAK				pmax	pmax		
	comp=Z,193nm,1.0s						
YAK				pmax	pmax		
	comp=N,38nm,1.0s						
YAK				pmax	pmax		
	comp=E,62nm,1.1s						
YAK				smax			
	comp=N,242nm,1.6s						
YAK				smax			
	comp=E,191nm,2.1s						
YAK				MLR	MLR		
	comp=Z,1μm,24.0s						
YAK				MLR	MLR		
	comp=N,618nm,20.0s						
YAK				MLR	MLR		
	comp=E,631nm,22.0s						
YAK	Yakutsk	19.07	321	*e*P	Pn	11 59 24.7	-0.8
	comp=E,194nm,0.9s						
BILL	Bilibino	19.39	12	P	Pn	11 59 27.0	-2.3
BILL				pmax	pmax		
	comp=Z,36nm,0.7s						
BILL				MLR	MLR		
	comp=Z,2μm,21.0s						
BILL	Bilibino	19.39	12	*e*P	Pn	11 59 26.7	-2.6
	comp=Z,61nm,0.6s						
CLNS	Chul'man	19.67	304	*e*P	Pn	11 59 33.4	+0.8
CLNS				*e*S	S	12 03 07.6	-0.9
CLNS				pmax	pmax		
	comp=Z,142nm,1.0s						
CLNS				pmax	pmax		
	comp=E,87nm,1.1s						
CLNS				pmax	pmax		
	comp=N,58nm,1.0s						
CLNS				smax			
	comp=E,262nm,11.5s						
CLNS				smax			
	comp=N,715nm,15.6s						
CLNS				MLR	MLR		
	comp=N,452nm,15.0s						
CLNS				MLR	MLR		
	comp=Z,1μm,16.0s						
CLNS				MLR	MLR		
	comp=E,764nm,14.0s						
NRGR	Nerungri	19.73	303	*i* P	Pn	11 59 36.3	+2.9
NRGR				S	S	12 03 06.4	-3.4
NRGR				smax			
	comp=N,42nm,1.0s						
JHJ	Hachijo jima 2	20.09	221	P	P	11 59 34.5	-1.0
	comp=N,215nm,0.8s,baz=61,slow=22,SNR=4.1						
JHJ				LR	LR	12 06 36.4	
	comp=N,415nm,19.2s,baz=1.7,slow=35						
CN2	Changchun	21.32	266	⇑P	P	11 59 45.5	-3.1
CN2				*e*sP	sP	12 00 12.0	+0.4
CN2				*e*S	S	12 03 31.5	-10
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
CN2				pmax	pmax		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,700nm,21.0s						
CN2				LR	LR		
	comp=E,700nm,21.0s						
CN2				LR	LR		
	comp=Z,800nm,22.0s						
GAMB	Gambell	22.69	39	*e*P	P	12 00 01.5	-1.4
	comp=Z,60nm,0.9s,mb4.9						
HIA	Hailar	23.17	283	*e*P	P	12 00 07.8	-0.2
HIA				pmax	pmax		
	comp=Z,39nm,0.8s						
HIA	Hailar	23.17	283	*e*P	P	12 00 07.8	-0.2
	comp=Z,39nm,0.8s,mb4.8						
KSRS	Korea Array	23.21	249	P	P	12 00 07.5	-1.0
KSRS						12 00 33.3	
KSRS						12 03 55.0	
KSRS				S	S	12 04 21.0	+6.1
KSRS				pmax	pmax		
	comp=Z,64nm,1.0s,mb4.9						
KSRS				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.2						
KSRS				MLR	MLR		
	comp=Z,838nm,20.2s						
KSRS	Korea Array	23.21	249	P	P	12 00 07.5	-1.0
	comp=Z,64nm,1.0s,mb4.9,baz=53,slow=8.6,SNR=66						
KSRS				PP		12 00 33.2	
	comp=Z,9.7nm,0.7s,baz=47,slow=10,SNR=5.4						
KSRS				PcP	PcP	12 03 55.0	+0.8
	comp=Z,6.2nm,0.9s,baz=15,slow=1.6,SNR=8.8						
KSRS				S	S	12 04 21.0	+6.1
	comp=Z,0.4nm,0.4s,baz=272,slow=25,SNR=2.7						
KSRS				LR	LR	12 08 34.8	
	comp=Z,838nm,20.2s,baz=55,slow=35						
SNY	Shenyang	23.46	263	⇓P	P	12 00 10.0	-0.8
SNY				pmax	pmax		
	comp=Z,30nm,1.1s,mb4.5						
SNY				pmax	pmax		
	comp=Z,100nm,3.5s						
SNY				LR	LR		
	comp=N,740nm,16.9s						
SNY				LR	LR		
	comp=E,690nm,17.0s						
INCN	Inchon	23.98	251	*e*P	P	12 00 15.0	-0.5
	comp=E,49nm,0.7s,mb5.0						
CBIJ	Chichi jima	24.59	210	LR	LR	12 07 25.0	
	comp=E,505nm,21.1s,baz=21,slow=30						
TNA	Tin City	24.89	36	*e*P	P	12 00 23.3	-0.2
	comp=E,128nm,0.9s,mb5.3						
TIXI	Tiksi	25.38	341	⇑*e*P	P	12 00 26.3	-1.6
TIXI				pmax	pmax		
	comp=Z,23nm,0.6s,mb4.8						
TIXI	Tiksi	25.38	341	*e*P	P	12 00 26.4	-1.5
	comp=Z,58nm,1.0s,mb5.0						
BOD	Bodaibo	25.63	305	*e*P	P	12 00 28.9	-1.4
BOD				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.3						
BJI	Beijing	29.19	266	P	P	12 01 01.3	-1.0
BJI				S	S	12 05 49.3	-0.4
BJI				pmax	pmax		
	comp=Z,24nm,0.8s,mb4.9						
BJI				pmax	pmax		
	comp=Z,280nm,4.9s						
BJI				LR	LR		
	comp=N,690nm,22.3s						
BJI				LR	LR		
	comp=E,440nm,23.6s						
TTA	Tatalina	29.34	44	*e*P	P	12 01 03.3	-0.1
SVW2	Sparrevohn	29.46	48	*e*P	P	12 01 04.6	+0.2
IMA2	Indian Mountai	30.67	38	*e*P	P	12 01 15.0	-0.1
JOW	Kunigami	30.84	233	P	P	12 01 15.9	-1.1
	comp=E,20nm,0.5s,mb5.1,baz=345,slow=6.6,SNR=11						
JOW				LR	LR	12 14 15.9	
	comp=E,216nm,20.8s,baz=44,slow=38						
CHUM	Lake Minchumin	31.06	43	*e*P	P	12 01 18.8	+0.2
	comp=E,17nm,0.8s,mb4.8						
PPLA	Purkeypile	31.09	45	*e*P	P	12 01 19.1	+0.4
	comp=E,36nm,1.1s,mb5.0						
KDAK	Kodiak Island	31.18	55	P	P	12 01 17.2	-2.5
KDAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.7						
KDAK	Kodiak Island	31.18	55	P	P	12 01 17.2	-2.4
	comp=Z,12nm,0.7s,mb4.7,baz=136,slow=2.5,SNR=6.5						
SSE	Sheshan	31.61	247	P	P	12 01 24.0	+0.3
SSE				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.3						
SSE				pmax	pmax		
	comp=Z,85nm,3.6s						
SSE				LR	LR		
	comp=N,170nm,20.5s						
SSE				LR	LR		
	comp=E,230nm,20.5s						
SSE				LR	LR		
	comp=Z,320nm,20.9s						
ULN	Ulaanbaatar	31.62	286	*e*P	P	12 01 23.5	-0.1
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
ULN	Ulaanbaatar	31.62	286	*e*P	P	12 01 23.5	-0.1
	comp=Z,4.6nm,0.8s,mb4.3						
BPAW	Bear Paw Mtn.	31.65	42	*e*P	P	12 01 23.4	-0.4
	comp=Z,38nm,0.9s,mb5.1						
KTH	Kantishna Hill	31.67	43	*e*P	P	12 01 24.1	+0.2
	comp=Z,100nm,1.3s,mb5.4						
HHC	Hu-ho-hao-te	31.78	271	*e*P	P	12 01 25.0	-0.1
HHC				pP	pP	12 01 42.5	+0.9
HHC				sP	sP	12 01 51.8	+2.2
HHC				S	S	12 06 28.0	-2.2
HHC				sS	sS	12 06 58.0	-0.3
HHC				PcS	PcS	12 07 59.3	0.0
HHC				SS	SS	12 08 19.5	-29
HHC				ScS	ScS	12 11 47.3	-2.8
HHC				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.1						
HHC				pmax	pmax		
	comp=Z,120nm,4.0s						
HHC				LR	LR		
	comp=N,740nm,17.8s						
HHC				LR	LR		
	comp=E,600nm,17.8s						
HHC				LR	LR		
	comp=Z,780nm,19.4s						
TRF	Thorofare Moun	31.95	44	*e*P	P	12 01 26.2	-0.1
	comp=Z,32nm,0.8s,mb5.1						
SONM	Songino Array	32.04	286	P	P	12 01 26.1	-1.2
	comp=Z,0.3nm,0.3s,baz=26,slow=26,SNR=5.2						
SONM				PcP	PcP	12 04 15.5	+0.2
	comp=Z,5.9nm,0.9s,baz=74,slow=2.3,SNR=6.7						
COLD	Coldfoot	32.19	36	*e*P	P	12 01 28.2	-0.2
	comp=Z,43nm,0.6s,mb5.3						
NJ2	Nanjing	32.37	251	*e*P	P	12 01 30.5	+0.1
NJ2				pP	pP	12 01 48.3	+1.5
NJ2				sP	sP	12 01 57.0	+2.2
NJ2				PP	PP	12 02 41.5	-3.0
NJ2				S	S	12 06 38.0	-1.4
NJ2				sS	sS	12 07 09.0	+1.4
NJ2				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.3						
NJ2				pmax	pmax		
	comp=Z,130nm,6.8s						
NJ2				LR	LR		
	comp=N,870nm,28.0s						
NJ2				LR	LR		
	comp=E,630nm,24.7s						
NJ2				LR	LR		
	comp=Z,620nm,19.8s						
TLY	Talaya	32.46	294	P	P	12 01 31.7	+0.8
	comp=Z,177nm,1.0s,mb5.8,SNR=13						
TLY	Talaya	32.46	294	*e*P	P	12 01 31.6	+0.7
TLY				*e*		12 01 40.8	
TLY				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.0						
TLY				MLR	MLR		
	comp=Z,613nm,18.0s						
TLY	Talaya	32.46	294	*e*P	P	12 01 31.0	0.0
	comp=Z,42nm,1.2s,mb5.0						
TLY				*e*PcP	PcP	12 04 16.7	+0.3
TLY	Talaya	32.46	294	P	P	12 01 32.3	+1.3
	SNR=13						
TLY				P		12 01 32.3	
	SNR=13						
PMR	Palmer	32.55	47	*e*P	P	12 01 31.3	-0.3
PMR				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.0						
PMR	Palmer	32.55	47	*e*P	P	12 01 31.3	-0.3
	comp=Z,18nm,0.8s,mb5.0						
MCK	McKinley	32.55	43	*e*P	P	12 01 31.3	-0.4
MCK				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
MCK	McKinley	32.55	43	*e*P	P	12 01 31.3	-0.3
	comp=Z,71nm,1.0s,mb5.5						
BTO	Baotou	32.91	272	*e*P	P	12 01 32.0	-3.1
COLA	College	33.02	41	*e*P	P	12 01 35.8	+0.1
COLA				pmax	pmax		

	comp=Z,120nm,0.8s,mb5.8						
COLA	**College**	**33.02**	**41**	*e*P	**P**	**12 01 35.8**	**+0.1**
	comp=Z,120nm,0.8s,mb5.8						
ZAK	**Zakamensk**	**33.08**	**292**	⇓*e*P	**P**	**12 01 36.5**	**+0.1**
ZAK				*e*	pP	12 01 50.6	-2.3
ZAK				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.8						
MOY	**Mondy**	**34.03**	**295**	*e*P	**P**	**12 01 45.5**	**+0.8**
MOY				pmax	pmax		
	comp=Z,24nm,1.5s,mb4.8						
PAX	**Paxson**	**34.15**	**44**	*e*P	**P**	**12 01 45.4**	**-0.2**
PAX				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.8						
PAX	**Paxson**	**34.15**	**44**	*e*P	**P**	**12 01 45.4**	**-0.2**
	comp=Z,12nm,0.8s,mb4.8						
MENT	**Mentasta**	**34.95**	**44**	*e*P	**P**	**12 01 52.7**	**+0.2**
EGAK	**Eagle**	**35.88**	**41**	*e*P	**P**	**12 01 59.6**	**-0.8**
	comp=Z,87nm,0.7s,mb5.8						
WHN	**Wuhan**	**36.20**	**254**	⇓P	**P**	**12 02 03.0**	**-0.5**
WHN				*e*S	**S**	**12 07 41.8**	**+3.2**
WHN				pmax	pmax		
	comp=Z,250nm,0.6s,mb6.3						
WHN				LR	LR		
	comp=Z,700nm,24.4s						
DAWY	**Dawson**	**36.73**	**42**	*e*P	**P**	**12 02 07.7**	**0.0**
SSLB	**Suanglung**	**37.24**	**239**	*e*P	**P**	**12 02 12.7**	**+0.3**
	comp=Z,27nm,0.9s,mb5.2						
YULB	**Yu-li**	**37.36**	**238**	*e*P	**P**	**12 02 14.8**	**+1.4**
	comp=Z,11nm,0.6s,mb5.0						
XAN	**Xi’an**	**37.39**	**263**	P	**P**	**12 02 12.5**	**-1.1**
QZH	**Quanzhou**	**37.69**	**243**	P	**P**	**12 02 16.8**	**+0.6**
QZH				pmax	pmax		
	comp=Z,200nm,1.1s,mb5.9						
TPUB	**Ta-pu**	**37.80**	**239**	*e*P	**P**	**12 02 15.8**	**-1.3**
	comp=Z,62nm,0.9s,mb5.4						
TWG	**Pinlang**	**37.94**	**238**	*e*P	**P**	**12 02 19.0**	**+0.7**
	comp=Z,36nm,0.8s,mb5.2						
HYT	**Haines Junctio**	**38.22**	**47**	*e*P	**P**	**12 02 21.2**	**+0.9**
INK	**Inuvik**	**38.50**	**34**	*e*P	**P**	**12 02 23.0**	**+0.5**
INK				pmax	pmax		
	comp=Z,65nm,1.0s						
INK	**Inuvik**	**38.50**	**34**	*e*P	**P**	**12 02 23.0**	**+0.5**
	comp=Z,65nm,1.0s,mb5.4						
LZH	**Lanzhou**	**39.45**	**270**	⇑P	**P**	**12 02 31.0**	**+0.1**
LZH				pP	pP	12 02 49.5	+1.8
LZH				sP	sP	12 02 57.0	+1.4
LZH				PP	PP	12 04 09.0	+6.6
LZH				*e*S	**S**	**12 08 28.0**	**+0.3**
LZH				sS	sS	12 08 56.3	0.0
LZH				SS	SS	12 11 16.0	-8.1
LZH				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,190nm,5.7s						
LZH				LR	LR		
	comp=N,490nm,13.2s						
LZH				LR	LR		
	comp=Z,770nm,15.1s						
SKAG	**Skagway**	**39.64**	**48**	*e*P	**P**	**12 02 32.3**	**+0.2**
	comp=Z,90nm,2.5s,mb5.2						
GTA	**Gaotai**	**40.18**	**277**	⇓P	**P**	**12 02 37.5**	**+0.6**
GTA				pP	pP	12 02 56.5	+2.8
GTA				sP	sP	12 03 05.3	+3.7
GTA				PP	PP	12 04 15.0	+4.7
GTA				PcP	PcP	12 04 41.0	+1.2
GTA				S	**S**	**12 08 38.5**	**0.0**
GTA				sS	sS	12 09 10.0	+2.8
GTA				SS	SS	12 11 34.0	-4.5
GTA				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
GTA				pmax	pmax		
	comp=Z,73nm,4.8s						
GTA				LR	LR		
	comp=N,180nm,15.8s						
GTA				LR	LR		
	comp=E,430nm,16.9s						
GTA				LR	LR		
	comp=Z,590nm,16.1s						
ZAA0	**Zalesovo Array**	**42.38**	**304**	*e*P	**P**	**12 02 53.6**	**-1.1**
ZALV	**Zalesovo Beam**	**42.38**	**304**	P	**P**	**12 02 53.7**	**-1.0**
	comp=Z,3.5nm,0.4s,mb4.4,baz=60,slow=7.1,SNR=15						
ZALV				PcP	PcP	12 04 47.2	+0.5
	comp=Z,30nm,0.8s,baz=62,slow=3.5,SNR=23						
ZALV				ScP	ScP	12 08 37.2	+6.1
	comp=Z,1.0nm,0.3s,baz=24,slow=4.9,SNR=3.5						
ZALV				LR	LR	12 21 37.4	
	comp=Z,316nm,18.9s,baz=272,slow=38						
ZALV	**Zalesovo Beam**	**42.38**	**304**	P	**P**	**12 02 53.7**	**-1.0**
ZALV				PcP	PcP	12 04 47.2	+0.5
ZALV				ScP	ScP	12 08 37.2	+6.0
ZALV				LR	LR	12 21 37.4	
DLBC	**Dease Lake**	**42.57**	**49**	*e*P	**P**	**12 02 57.9**	**+1.7**
CD2	**Chengdu**	**42.74**	**264**	P	**P**	**12 02 57.8**	**-0.1**
CD2				pP	pP	12 03 16.3	+1.4
CD2				sP	sP	12 03 25.3	+2.6
CD2				PP	PP	12 04 40.5	+2.5
CD2				S	**S**	**12 09 15.0**	**-1.5**
CD2				sS	sS	12 09 46.5	+1.1
CD2				SS	SS	12 12 20.3	-8.9
CD2				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.3						
CD2				pmax	pmax		
	comp=Z,320nm,5.7s						
CD2				LR	LR		
	comp=N,450nm,20.2s						
CD2				LR	LR		
	comp=Z,520nm,20.2s						
NVS	**Novosibirsk**	**42.86**	**306**	*i* P	**P**	**12 02 58.0**	**-0.6**
NVS				*e*	pP	12 03 12.3	-3.3
NVS				*i*		12 04 48.5	
NVS				pmax	pmax		
	comp=N,9.0nm,1.2s						
NVS				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.7						
NVS				pmax	pmax		
	comp=E,16nm,1.4s						
GYA	**Guiyang**	**43.89**	**257**	⇑*i*P	**P**	**12 03 07.0**	**-0.2**
GYA				pP	pP	12 03 25.5	+1.3
GYA				sP	sP	12 03 34.5	+2.4
GYA				PP	PP	12 04 52.0	+1.6
GYA				ScP	ScP	12 08 37.3	-0.4
GYA				PcS	PcS	12 08 45.3	-0.1
GYA				S	**S**	**12 09 30.0**	**-3.4**
GYA				sS	sS	12 10 02.0	-0.4
GYA				SS	SS	12 12 39.5	-12
GYA				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.3						
GYA				pmax	pmax		
	comp=Z,180nm,4.8s						
GYA				LR	LR		
	comp=N,480nm,13.0s						
GYA				LR	LR		
	comp=E,360nm,12.8s						
GYA				LR	LR		
	comp=Z,500nm,13.2s						
WMQ	**Urumqi**	**45.48**	**290**	P	**P**	**12 03 20.8**	**+1.1**
WMQ				pP	pP	12 03 40.0	+3.2
WMQ				sP	sP	12 03 49.0	+4.4
WMQ				PcP	PcP	12 04 59.0	+1.5
WMQ				*e*S	**S**	**12 09 55.0**	**-1.1**
WMQ				SS	SS	12 13 09.0	-11
WMQ				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.8						
WMQ				pmax	pmax		
	comp=Z,120nm,3.9s						
WMQ				LR	LR		
	comp=N,970nm,15.0s						
WMQ				LR	LR		
	comp=E,820nm,15.4s						
WMQ				LR	LR		
	comp=Z,580nm,20.6s						
ALE	**Alert**	**46.88**	**6**	P	**P**	**12 03 30.9**	**+0.7**
	comp=Z,196nm,0.5s,mb6.1,SNR=19						
MKAR	**Makanchi Array**	**47.16**	**296**	P	**P**	**12 03 31.8**	**-1.0**
	comp=Z,8.7nm,0.7s,mb4.6,baz=62,slow=7.7,SNR=78						
MKAR				PcP	PcP	12 05 03.7	+0.4
	comp=Z,7.8nm,0.8s,baz=55,slow=4.6,SNR=7.3						
MKAR				ScP	ScP	12 08 56.9	+6.0
	comp=Z,1.6nm,0.8s,baz=83,slow=2.3,SNR=3.5						
MKAR				LR	LR	12 24 55.4	
	comp=Z,1µm,18.4s,baz=47,slow=38						
MKAR	**Makanchi Array**	**47.16**	**296**	P	**P**	**12 03 31.8**	**-1.0**
MKAR				PcP	PcP	12 05 03.7	+0.4
MKAR				ScP	ScP	12 08 56.9	+6.0
MKAR				LR	LR	12 24 55.4	
KURK	**Kurchatov**	**47.24**	**303**	P	**P**	**12 03 32.7**	**-0.6**
	comp=Z,250nm,0.7s,mb6.0,SNR=18						
KURK	**Kurchatov**	**47.24**	**303**	P	**P**	**12 03 33.4**	**+0.1**
KURK						12 05 04.1	
KURK				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.1						
KURK	**Kurchatov**	**47.24**	**303**	P	**P**	**12 03 33.4**	**+0.1**
	comp=Z,26nm,0.7s,mb5.1,baz=66,slow=8.3,SNR=66						
KURK				PcP	PcP	12 05 04.1	+0.6
	comp=Z,22nm,0.7s,baz=60,slow=3.5,SNR=17						
KURK	**Kurchatov**	**47.24**	**303**	*e*P	**P**	**12 03 32.0**	**-1.3**
	comp=Z,34nm,0.8s,mb5.1						
KURK				*e*PcP	PcP	12 05 03.3	-0.2
KURK	**Kurchatov**	**47.24**	**303**	P	**P**	**12 03 33.5**	**+0.2**
	SNR=15						
KURK				P		12 03 33.5	
	SNR=15						
KMI	**Kunming**	**47.33**	**259**	P	**P**	**12 03 34.3**	**-0.1**
KMI				pP	pP	12 03 50.5	-1.1
KMI				sP	sP	12 03 59.3	-0.1
KMI				PcP	PcP	12 05 05.0	+0.7
KMI				PP	PP	12 05 26.3	+0.4
KMI				PcS	PcS	12 09 02.3	+2.6
KMI				S	**S**	**12 10 22.5**	**-0.5**
KMI				sS	sS	12 10 53.8	+1.6
KMI				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.4						
KMI				pmax	pmax		
	comp=Z,190nm,3.1s						
KMI				LR	LR		
	comp=N,260nm,18.7s						
KMI				LR	LR		
	comp=E,280nm,22.3s						
KMI				LR	LR		
	comp=Z,350nm,21.2s						
QIZ	**Qiongzhong**	**47.40**	**247**	*e*P	**P**	**12 03 35.9**	**+1.0**
	comp=Z,45nm,0.7s,mb5.3						
RES	**Resolute Bay**	**47.75**	**20**	P	**P**	**12 03 37.1**	**+0.1**
RES						12 05 05.3	
RES				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.1						
RES				MLR	MLR		
	comp=Z,229nm,21.9s						
RES	**Resolute Bay**	**47.75**	**20**	P	**P**	**12 03 37.1**	**+0.1**
	comp=Z,18nm,0.6s,mb5.1,baz=299,slow=6.8,SNR=128						
RES				PcP	PcP	12 05 05.3	+0.4
	comp=Z,9.8nm,0.8s,baz=281,slow=4.5,SNR=5.6						
RES				LR	LR	12 25 20.2	
	comp=Z,229nm,21.9s,baz=193,slow=38						
YKA	**Yellowknife Ar**	**47.79**	**39**	P	**P**	**12 03 37.5**	**0.0**
YKA						12 05 05.4	
YKA				pmax	pmax		
	comp=Z,11nm,0.7s						
YKA				MLR	MLR		
	comp=Z,177nm,18.3s						
YKA	**Yellowknife Ar**	**47.79**	**39**	P	**P**	**12 03 37.5**	**+0.1**
	comp=Z,11nm,0.7s,mb4.8,baz=298,slow=7.4,SNR=138						
YKA				PcP	PcP	12 05 05.4	+0.2
	comp=Z,3.4nm,0.6s,baz=300,slow=3.7,SNR=8.1						
YKA				LR	LR	12 24 40.1	
	comp=Z,177nm,18.3s,baz=305,slow=37						
YKA	**Yellowknife Ar**	**47.79**	**39**	P	**P**	**12 03 37.5**	**+0.1**
YKA				PcP	PcP	12 05 05.5	+0.2
YKA				LR	LR	12 24 40.1	
BVAR	**Borovoye Array**	**50.41**	**309**	P	**P**	**12 03 56.8**	**-0.7**
BVAR						12 05 15.2	
BVAR				pmax	pmax		
	comp=Z,17nm,0.5s						
BVAR	**Borovoye Array**	**50.41**	**309**	P	**P**	**12 03 56.8**	**-0.7**
	comp=Z,16nm,0.5s,mb5.2,baz=61,slow=8.2,SNR=114						
BVAR				PcP	PcP	12 05 15.2	+0.2
	comp=Z,13nm,0.7s,baz=64,slow=3.4,SNR=10						
BRVK	**Borovoye**	**50.44**	**309**	P	**P**	**12 03 57.9**	**+0.1**
	comp=Z,194nm,0.5s,mb6.3,SNR=13						
BRVK	**Borovoye**	**50.44**	**309**	*e*P	**P**	**12 03 57.0**	**-0.8**
BRVK				*e*		12 05 15.2	
BRVK				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.2						
BRVK	**Borovoye**	**50.44**	**309**	*e*P	**P**	**12 03 57.0**	**-0.8**
	comp=Z,19nm,0.6s,mb5.2						
BRVK				*e*PcP	PcP	12 05 15.2	+0.1
NLWA	**Neilton Lookou**	**51.08**	**60**	⇓P	**P**	**12 04 02.7**	**0.0**
	baz=51						
A05A	**Maple Falls**	**51.16**	**57**	⇓P	**P**	**12 04 03.4**	**+0.1**
	baz=51						
JCW	**Jim Creek**	**51.70**	**58**	*e*P	**P**	**12 04 06.3**	**-1.0**
LSA	**Lhasa**	**51.75**	**273**	P	**P**	**12 04 09.5**	**+1.6**
LSA	**Lhasa**	**51.75**	**273**	*e*P	**P**	**12 04 09.2**	**+1.3**
LSA				pmax	pmax		
	comp=Z,16nm,0.5s,mb5.3						
LSA	**Lhasa**	**51.75**	**273**	*e*P	**P**	**12 04 09.2**	**+1.2**
	comp=Z,16nm,0.5s,mb5.3						
B06A	**Marblemount**	**51.76**	**57**	⇓P	**P**	**12 04 07.6**	**-0.2**
	baz=52						
A07A	**Ashnola River,**	**52.06**	**56**	⇓P	**P**	**12 04 09.5**	**-0.4**
	baz=52,SNR=14						
F03A	**Seaside**	**52.08**	**61**	⇑P	**P**	**12 04 09.7**	**-0.4**
	baz=52						
D05A	**Enumclaw**	**52.24**	**59**	⇓P	**P**	**12 04 11.4**	**0.0**
	baz=52						
C06A	**Tall Timber Ra**	**52.43**	**57**	⇑P	**P**	**12 04 12.4**	**-0.3**
	baz=52						
B07A	**Winthrop**	**52.54**	**57**	⇑P	**P**	**12 04 12.9**	**-0.7**
	baz=52,SNR=9.2						
D06A	**Cle Elum**	**52.88**	**58**	⇓P	**P**	**12 04 15.8**	**-0.3**
	baz=53						
CHRT	**Chiangrai**	**53.00**	**257**	⇑P	**P**	**12 04 18.0**	**+0.7**
C07A	**Waterville**	**53.02**	**57**	⇓P	**P**	**12 04 16.5**	**-0.5**
	baz=53,SNR=8.8						
B08A	**Colville Reser**	**53.03**	**56**	⇓P	**P**	**12 04 16.9**	**-0.2**
	baz=53,SNR=24						
A09A	**Danville**	**53.07**	**55**	⇓P	**P**	**12 04 17.2**	**-0.2**
	baz=53,SNR=38						
WTV	**Waterville**	**53.07**	**57**	P	**P**	**12 04 17.1**	**-0.3**
G04A	**Mulino**	**53.12**	**61**	⇑P	**P**	**12 04 17.7**	**-0.2**
	baz=53						
E06A	**Yakima**	**53.18**	**59**	⇑P	**P**	**12 04 18.5**	**+0.2**
	baz=53						
TKM2	**Tokmak 2**	**53.27**	**296**	*e*P	**P**	**12 04 18.7**	**-0.3**
TKM2				*e*		12 05 26.1	
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
TKM2	**Tokmak 2**	**53.27**	**296**	*e*P	**P**	**12 04 18.7**	**-0.3**
	comp=Z,4.3nm,0.5s,mb4.7						
TKM2				*e*PcP	PcP	12 05 26.1	+0.2
D07A	**Quincy**	**53.36**	**58**	⇑P	**P**	**12 04 19.1**	**-0.5**
	baz=53,SNR=5.4						
C08A	**Higginbotham F**	**53.52**	**57**	⇓P	**P**	**12 04 20.2**	**-0.6**
	baz=53,SNR=16						
HOOD	**Mount Hood Mea**	**53.52**	**61**	*e*P	**P**	**12 04 20.9**	**+0.1**
	comp=Z,12nm,0.7s,mb5.0						
H04A	**Detroit Lake**	**53.60**	**61**	⇓P	**P**	**12 04 21.2**	**-0.2**
	baz=53						
A10A	**Northport**	**53.62**	**55**	⇓P	**P**	**12 04 21.3**	**-0.1**
	baz=53,SNR=17						
B09A	**Rice**	**53.63**	**56**	⇓P	**P**	**12 04 21.5**	**-0.1**
	baz=53,SNR=15						
VFP	**Flag Point**	**53.63**	**60**	P	**P**	**12 04 21.8**	**+0.2**
F06A	**Goldendale**	**53.75**	**60**	⇑P	**P**	**12 04 22.7**	**+0.3**
	baz=54						
G05A	**Wamic**	**53.76**	**60**	⇑P	**P**	**12 04 22.6**	**0.0**
	baz=54						
E07A	**Sunnyside**	**53.80**	**58**	⇑P	**P**	**12 04 22.7**	**-0.1**
	baz=54						
C09A	**Chrisman Ranch**	**53.93**	**56**	⇑P	**P**	**12 04 23.1**	**-0.7**
	baz=54,SNR=5.7						
OD2	**Odessa Site #2**	**53.94**	**57**	P	**P**	**12 04 23.1**	**-0.7**
D08A	**Wollman Farm,**	**54.02**	**57**	⇑P	**P**	**12 04 23.7**	**-0.7**
	baz=54,SNR=9.3						
SHL	**Shillong**	**54.06**	**268**	*e*PKP	**P**	**12 04 23.6**	**-1.4**
SHL				AMb	AMB	12 04 24.5	
	comp=Z,70nm,1.1s,mb5.6						
AAK	**Ala-Archa**	**54.09**	**296**	P	**P**	**12 04 25.3**	**+0.3**
	comp=Z,65nm,0.5s,mb5.9,SNR=6.3						
AAK	**Ala-Archa**	**54.09**	**296**	⇑*e*P	**P**	**12 04 24.5**	**-0.5**
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**54.09**	**296**	*e*P	**P**	**12 04 24.9**	**-0.1**
	comp=Z,7.2nm,0.8s,mb4.8						
ARU	**Arti**	**54.11**	**317**	P	**P**	**12 04 24.9**	**0.0**
	comp=Z,929nm,0.5s,SNR=26						
ARU	**Arti**	**54.11**	**317**	*d i*P	**P**	**12 04 23.4**	**-1.5**
ARU				*PP	pP	12 04 38.0	-4.5
ARU				*e*		12 05 26.7	
ARU				*e*		12 06 24.1	
ARU				S	**S**	**12 11 56.5**	**+0.5**
ARU				SS	SS	12 15 36.4	-1.3
ARU				pmax	pmax		
	comp=Z,96nm,0.8s,mb5.9						
ARU	**Arti**	**54.11**	**317**	*e*P	**P**	**12 04 23.8**	**-1.1**
	comp=Z,70nm,0.5s,mb6.0						
ARU				*e*PcP	PcP	12 05 28.3	-0.5
G06A	**Carlson Farm,**	**54.15**	**60**	⇑P	**P**	**12 04 24.9**	**-0.5**
	baz=54						
F07A	**Phinny Hill Vi**	**54.15**	**59**	⇑P	**P**	**12 04 25.2**	**-0.3**
	baz=54,SNR=18						
A11A	**Hall Mountain,**	**54.27**	**54**	⇑P	**P**	**12 04 26.4**	**+0.2**
	baz=54,SNR=16						
NEW	**Newport**	**54.28**	**55**	*e*P	**P**	**12 04 25.7**	**-0.6**
NEW				pmax	pmax		
	comp=Z,15nm,1.0s						
NEW	**Newport**	**54.28**	**55**	*e*P	**P**	**12 04 25.7**	**-0.5**
	comp=Z,15nm,1.0s,mb5.0						
E08A	**Dider Farm, El**	**54.28**	**58**	⇓P	**P**	**12 04 26.0**	**-0.3**
	baz=54						
CHG	**Chiang Mai**	**54.31**	**257**	⇑P	**P**	**12 04 27.8**	**+0.9**
	comp=Z,295nm,0.9s,mb6.3						
CHTO	**Chiang Mai**	**54.31**	**257**	*e*P	**P**	**12 04 27.6**	**+0.7**
CHTO				pmax	pmax		
	comp=Z,259nm,0.9s,mb6.3						
CHTO	**Chiang Mai**	**54.31**	**257**	*e*P	**P**	**12 04 27.6**	**+0.7**
	comp=Z,259nm,0.9s,mb6.3						
CHTO	**Chiang Mai**	**54.31**	**257**	P	**P**	**12 04 28.0**	**+1.2**
	SNR=50						
CHTO				P		12 04 28.0	
	SNR=50						
D09A	**Jones Farm, Ri**	**54.35**	**57**	⇓P	**P**	**12 04 26.1**	**-0.7**
	baz=54,SNR=6.1						
C10A	**Spilker Farm,**	**54.44**	**56**	⇑P	**P**	**12 04 27.3**	**-0.2**
	baz=54,SNR=6.5						
EKS2	**Erkin-Say**	**54.49**	**296**	*e*P	**P**	**12 04 28.1**	**+0.2**
	comp=Z,6.2nm,0.8s,mb4.7						
EKS2				*e*PcP	PcP	12 05 31.2	+0.7
CMAR	**Chiang Mai Arr**	**54.58**	**256**	P	**P**	**12 04 29.8**	**+1.0**
CMAR						12 05 30.9	
CMAR				pmax	pmax		
	comp=Z,135nm,0.8s						
CMAR				MLR	MLR		
	comp=Z,206nm,19.0s						
CMAR	**Chiang Mai Arr**	**54.58**	**256**	P	**P**	**12 04 29.8**	**+1.0**
	comp=Z,135nm,0.8s,mb6.0,baz=32,slow=7.2,SNR=549						
CMAR				PcP	PcP	12 05 30.9	-0.3
	comp=Z,10nm,0.8s,baz=11,slow=2.7,SNR=2.7						
CMAR				LR	LR	12 29 02.2	
	comp=Z,206nm,19.0s,baz=48,slow=37						
B11A	**Sandpoint**	**54.58**	**55**	⇓P	**P**	**12 04 28.4**	**0.0**
	baz=54						
KTRM	**Thompson Ridge**	**54.58**	**65**	P	**P**	**12 04 29.6**	**+1.0**
H06A	**Lindquist Farm**	**54.62**	**60**	⇑P	**P**	**12 04 29.0**	**+0.2**
	baz=54						
A12A	**Yaak River Ran**	**54.66**	**54**	⇓P	**P**	**12 04 29.1**	**+0.1**
	baz=54,SNR=9.5						
G07A	**Ruggs Ranch, H**	**54.68**	**60**	⇑P	**P**	**12 04 29.0**	**-0.2**
	baz=54						
E09A	**Wood Farm, Sta**	**54.77**	**58**	⇑P	**P**	**12 04 29.0**	**-0.9**
	baz=55,SNR=6.5						
F08A	**Pendleton**	**54.86**	**59**	⇑P	**P**	**12 04 30.2**	**-0.3**
	baz=55						
AML	**Almayashu**	**54.87**	**296**	*e*P	**P**	**12 04 31.0**	**+0.4**
	comp=Z,4.4nm,0.7s,mb4.6						
D10A	**Wagner Farm, O**	**54.92**	**57**	⇑P	**P**	**12 04 30.6**	**-0.3**
	baz=55,SNR=19						
G08A	**Pilot Rock**	**55.06**	**59**	⇑P	**P**	**12 04 31.4**	**-0.6**
	baz=55,SNR=6.9						
KSH	**Kashi**	**55.12**	**292**	P	**P**	**12 04 36.3**	**+3.8**
KSH				*e*pP	pP	12 04 55.0	+4.9
KSH				*e*sP	sP	12 05 03.8	+6.0
KSH				*e*PcP	PcP	12 05 36.0	+3.0
KSH				*e*PP	PP	12 06 41.3	+5.2
KSH				*e*ScP	ScP	12 09 26.8	+1.4
KSH				*e*PcS	PcS	12 09 35.0	+2.1
KSH				*e*S	**S**	**12 12 11.0**	**+0.9**
KSH				*e*sS	sS	12 12 43.5	+3.6
KSH				*e*ScS	ScS	12 14 14.0	-1.1
KSH				*e*SS	SS	12 15 54.8	+0.5
KSH				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
KSH				pmax	pmax		
	comp=Z,240nm,6.3s						
KSH				LR	LR		
	comp=N,1µm,18.2s						
KSH				LR	LR		
	comp=E,380nm,12.4s						
KSH				LR	LR		
	comp=Z,850nm,13.0s						
H07A	**Lands Inn, Kim**	**55.15**	**60**	⇓P	**P**	**12 04 32.6**	**0.0**
	baz=55						
I06A	**Prineville**	**55.17**	**61**	⇑P	**P**	**12 04 32.9**	**+0.1**
	baz=55,SNR=7.8						
KEV	**Kevo**	**55.32**	**341**	*e*P	**P**	**12 04 29.0**	**-4.5**
KEV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
KEV	**Kevo**	**55.32**	**341**	*e*p	**P**	**12 04 29.0**	**-4.5**
	comp=Z,4.0nm,0.6s,mb4.6						
E10A	**Myers Farm, Un**	**55.36**	**57**	⇑P	**P**	**12 04 33.4**	**-0.7**
	baz=55,SNR=14						
D11A	**Klaveano Farm,**	**55.44**	**56**	⇑P	**P**	**12 04 33.9**	**-0.7**
	baz=55,SNR=22						
BDT	**Bhumibol Dam**	**55.44**	**255**	P	**P**	**12 04 35.5**	**+0.5**
	comp=Z,22nm,1.0s,mb5.2						
I07A	**Izee**	**55.49**	**61**	⇑P	**P**	**12 04 35.4**	**+0.3**
	baz=55,SNR=6.5						
C12B	**Naegeli Ranch,**	**55.49**	**55**	⇓P	**P**	**12 04 34.9**	**-0.1**
	baz=55,SNR=16						
K05A	**Summer Lake**	**55.53**	**63**	⇑P	**P**	**12 04 36.0**	**+0.6**
	baz=55,SNR=12						
TAPN	**Taplejung**	**55.56**	**273**	*e*P	**P**	**12 04 36.4**	**+0.6**
	comp=Z,56nm,0.8s,mb5.6						
F10A	**Beach Ranch, E**	**55.61**	**58**	⇑P	**P**	**12 04 35.5**	**-0.4**
	baz=55,SNR=8.2						
B13A	**Whitefish**	**55.62**	**54**	⇑P	**P**	**12 04 35.8**	**-0.2**
	baz=55,SNR=33						
J06A	**Christmas Vall**	**55.63**	**62**	⇓P	**P**	**12 04 36.1**	**-0.1**
	baz=55,SNR=18						
H08A	**Prairie City**	**55.70**	**60**	⇓P	**P**	**12 04 36.4**	**-0.1**
	baz=56,SNR=8.4						
G09A	**Cove**	**55.73**	**59**	⇓P	**P**	**12 04 36.0**	**-0.8**
	baz=56,SNR=7.0						
BSMT	**Bassoo Peak**	**55.77**	**55**	*e*P	**P**	**12 04 37.4**	**+0.3**
	comp=Z,32nm,1.1s,mb5.3						
BSMT				*e*pP	pP	12 04 53.9	-0.7
A14A	**Double T Ranch**	**55.80**	**53**	⇑P	**P**	**12 04 36.4**	**-0.8**
	baz=56,SNR=19						
ARCES	**ARCESS Array B**	**55.82**	**341**	P	**P**	**12 04 35.7**	**-1.4**
ARCES						12 05 35.5	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,404nm,19.6s						
ARCES	**ARCESS Array B**	**55.82**	**341**	P	**P**	**12 04 35.6**	**-1.4**
	comp=Z,2.9nm,0.6s,mb4.5,baz=39,slow=7.4,SNR=10						
ARCES				PcP	PcP	12 05 35.5	+0.3
	comp=Z,9.4nm,0.6s,baz=46,slow=4.0,SNR=9.6						
ARCES				LR	LR	12 30 46.8	
	comp=Z,404nm,19.6s,baz=29,slow=38						
WDC	**Whiskeytown Da**	**55.90**	**66**	*e*P	**P**	**12 04 37.7**	**-0.3**
WDC				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
WDC	**Whiskeytown Da**	**55.90**	**66**	*e*P	**P**	**12 04 37.7**	**-0.3**
	comp=Z,11nm,1.0s,mb4.8						
NST	**Nakhon Sawan**	**55.91**	**253**	P	**P**	**12 04 36.2**	**-2.2**
	comp=Z,44nm,0.4s,mb5.8						
E11A	**Bogner Ranch,**	**55.93**	**57**	⇓P	**P**	**12 04 37.5**	**-0.7**
	baz=56,SNR=14						
PRGR	**Permogore**	**55.96**	**327**	⇓*i*P	**P**	**12 04 35.7**	**-2.5**
PRGR				pmax	pmax		
	comp=Z,32nm,0.5s,mb5.6						
D12A	**Red Ives Fores**	**55.96**	**56**	⇑P	**P**	**12 04 37.8**	**-0.6**
	baz=56						
C13A	**Hot Springs**	**55.99**	**55**	⇑P	**P**	**12 04 38.4**	**-0.3**
	baz=56,SNR=7.2						
J07A	**Hines**	**56.04**	**61**	⇑P	**P**	**12 04 39.1**	**+0.1**
	baz=56,SNR=8.0						
G10A	**Bishop Farm, J**	**56.09**	**58**	⇑P	**P**	**12 04 38.9**	**-0.4**
	baz=56,SNR=27						
ODAN	**Odare**	**56.10**	**273**	*e*P	**P**	**12 04 40.7**	**+1.0**
	comp=Z,30nm,0.5s,mb5.5						
JTMT	**Jette**	**56.11**	**54**	*e*P	**P**	**12 04 39.5**	**0.0**
	comp=Z,5.0nm,0.7s,mb4.7						
I08A	**Drewsey**	**56.13**	**60**	⇓P	**P**	**12 04 39.8**	**+0.2**
	baz=56,SNR=27						
A15A	**Johnson Ranch,**	**56.16**	**52**	⇓P	**P**	**12 04 38.8**	**-0.9**
	baz=56,SNR=19						

H09A	Durkee	56.17	59	⇓P	P	12 04 40.1	+0.1
	baz=56,SNR=16						
F11A	Grangeville	56.25	57	⇑P	P	12 04 40.0	-0.4
	baz=56,SNR=10						
BMO	Blue Mountains	56.26	59	*e*P	P	12 04 40.2	-0.4
	comp=Z,23nm,1.3s,mb5.0						
JIRN	Jiri	56.34	274	*e*P	P	12 04 42.2	+0.8
	comp=Z,76nm,0.5s,mb6.0						
GUN	Gumba	56.38	275	*e*P	P	12 04 42.2	+0.6
	comp=Z,68nm,0.5s,mb5.9						
MOD	Modoc	56.38	63	*e*P	P	12 04 41.7	+0.2
	comp=Z,14nm,0.8s,mb5.1						
SWMT	Swartz Lake	56.41	54	*e*P	P	12 04 41.6	+0.1
	comp=Z,14nm,1.0s,mb5.0						
D13A	Huson	56.42	55	⇓P	P	12 04 41.3	-0.4
	baz=56,SNR=12						
K07A	Rock Creek Ran	56.50	62	⇓P	P	12 04 42.8	+0.4
	baz=56,SNR=14						
J08A	Circle Bar Ran	56.53	61	⇓P	P	12 04 42.8	+0.3
	baz=56,SNR=15						
RAMN	Ramite	56.56	273	*e*P	P	12 04 43.4	+0.5
	comp=Z,203nm,0.7s,mb6.2						
I09A	Lost Marbles R	56.56	60	⇑P	P	12 04 43.0	+0.3
	baz=56,SNR=15						
B15A	Bradely Ranch,	56.66	53	⇓P	P	12 04 42.8	-0.6
	baz=56,SNR=15						
H10A	Noah's Angus R	56.73	59	⇓P	P	12 04 43.5	-0.4
	baz=56,SNR=22						
A16A	West Butte Ran	56.76	52	⇓P	P	12 04 43.5	-0.6
	baz=56,SNR=24						
F12A	Elk City	56.82	57	⇓P	P	12 04 44.6	+0.1
	baz=57,SNR=22						
SLMT	Seeley Lake	56.84	54	*e*P	P	12 04 45.0	+0.3
	comp=Z,29nm,0.9s,mb5.3						
KKN	Kakani	56.85	275	*e*P	P	12 04 45.6	+0.6
	comp=Z,86nm,0.6s,mb5.9						
KKN	Kakani	56.85	275	*e*P	P	12 04 45.6	+0.6
KKN				pmax	pmax		
	comp=Z,86nm,0.6s,mb6.0						
MSO	Missoula	56.86	55	*e*P	P	12 04 44.5	-0.3
	comp=Z,25nm,1.2s,mb5.1						
MSO				*e*pP	pP	12 05 00.6	-1.9
L07A	Adell	56.87	62	⇑P	P	12 04 45.4	+0.5
	baz=57,SNR=9.4						
PKI	Pulchoki	56.91	275	*e*P	P	12 04 46.0	+0.6
	comp=Z,48nm,0.6s,mb5.7						
PKI	Pulchoki	56.91	275	*e*P	P	12 04 46.6	+1.2
PKI				pmax	pmax		
	comp=Z,56nm,0.6s,mb5.8						
PKI	Pulchoki	56.91	275	*e*P	P	12 04 46.6	+1.2
	comp=Z,56nm,0.6s,mb5.8						
K08A	Mann Creek Ran	56.91	61	⇓P	P	12 04 45.7	+0.4
	baz=57,SNR=18						
PKIN	Phulchoki	56.91	275	*e*P	P	12 04 46.6	+1.1
	comp=Z,56nm,0.6s,mb5.8						
D14A	Greenough	56.93	55	⇓P	P	12 04 45.2	-0.1
	baz=57,SNR=48						
J09A	Fry Pan Ranch,	56.94	60	⇑P	P	12 04 45.8	+0.4
	baz=57,SNR=32						
E13A	Victor	56.97	56	⇓P	P	12 04 46.1	+0.5
	baz=57,SNR=16						
C15A	Salmond Ranch,	56.97	54	⇑P	P	12 04 46.0	+0.5
	baz=57,SNR=34						
I10A	Payette	57.02	59	⇓P	P	12 04 46.3	+0.4
	baz=57,SNR=9.7						
WVOR	Wild Horse Val	57.02	62	*e*P	P	12 04 45.8	-0.2
WVOR				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
WVOR	Wild Horse Val	57.02	62	*e*P	P	12 04 45.8	-0.1
	comp=Z,17nm,1.0s,mb5.0						
B16A	M & M Farms, S	57.04	52	⇑P	P	12 04 45.6	-0.4
	baz=57,SNR=11						
H11A	Donnelly	57.07	58	⇓P	P	12 04 46.1	-0.2
	baz=57,SNR=65						
DMN	Daman	57.08	275	*e*P	P	12 04 47.5	+0.9
	comp=Z,116nm,0.7s,mb6.0						
GKN	Gorkha	57.12	276	*e*P	P	12 04 47.3	+0.4
	comp=Z,70nm,0.6s,mb5.9						
CHMT	Chamberlain Mo	57.17	55	*e*P	P	12 04 46.4	-0.6
	comp=Z,5.8nm,0.6s,mb4.8						
A17A	Triple J Farms	57.22	51	⇑P	P	12 04 47.0	-0.3
	baz=57,SNR=22						
L08A	Fields	57.34	62	⇑P	P	12 04 48.6	+0.3
	baz=57,SNR=9.7						
E14A	Clinton	57.36	55	⇑P	P	12 04 48.3	0.0
	baz=57,SNR=28						
M07A	Soldier Meadow	57.37	63	⇑P	P	12 04 48.7	+0.2
	baz=57,SNR=17						
K09A	Rome	57.37	61	⇑P	P	12 04 48.4	-0.1
	baz=57,SNR=11						
N06A	Buffalo Meadow	57.39	64	⇑P	P	12 04 48.5	-0.1
	baz=57,SNR=7.9						
C16A	Fuhringer Ranc	57.41	53	⇑P	P	12 04 48.5	-0.2
	baz=57,SNR=28						
J10A	Berg Farm, Mel	57.45	60	⇑P	P	12 04 49.3	+0.3
	baz=57						
DANN	Dangsing	57.45	277	*e*P	P	12 04 50.1	+0.8
	comp=Z,89nm,0.5s,mb6.0						
D15A	Lincoln	57.48	54	⇓P	P	12 04 49.0	-0.1
	baz=57,SNR=11						
B17A	L&G Farms, Che	57.59	52	⇑P	P	12 04 49.7	-0.2
	baz=57,SNR=11						
I11A	Placerville	57.60	59	⇑P	P	12 04 50.0	0.0
	baz=57,SNR=20						
FFC	Flin Flon	57.64	42	P	P	12 04 50.7	+0.6
	comp=Z,169nm,1.0s,mb6.0,SNR=16						
FFC	Flin Flon	57.64	42	*e*P	P	12 04 50.1	0.0
FFC				*e*		12 05 42.4	
FFC				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
FFC	Flin Flon	57.64	42	*e*P	P	12 04 50.1	0.0
	comp=Z,45nm,1.3s,mb5.3						
FFC				*e*PcP	PcP	12 05 42.4	-0.1
BEKR	Beckwourth	57.64	65	⇓P	P	12 04 50.3	-0.1
	baz=57						
A18A	Metzger Ranch,	57.67	51	⇓P	P	12 04 49.9	-0.6
	baz=57,SNR=18						
O06A	Flanigan	57.76	64	⇑P	P	12 04 51.4	+0.2
	baz=58,SNR=7.9						
M08A	Happy Creek Ra	57.79	62	⇑P	P	12 04 51.6	+0.2
	baz=58						
G13A	Cobalt	57.80	57	⇑P	P	12 04 51.5	+0.1
	baz=58,SNR=28						
H12A	Diamond D Ranc	57.80	58	⇑P	P	12 04 51.3	-0.2
	baz=58,SNR=11						
K10A	MacKenzie Ranc	57.80	60	⇓P	P	12 04 51.7	+0.2
	baz=58,SNR=16						
E15A	Deer Lodge	57.81	55	⇑P	P	12 04 51.5	0.0
	baz=58,SNR=18						
F14A	Wisdom	57.81	56	⇓P	P	12 04 51.5	0.0
	baz=58,SNR=8.0						
L09A	Wilkinson Ranc	57.84	62	⇓P	P	12 04 51.8	+0.1
	baz=58						
N07B	Gerlach	57.87	63	⇓P	P	12 04 52.1	+0.1
	baz=58,SNR=6.9						
SUMG	Summit	57.87	5	*e*P	P	12 04 51.9	+0.3
	comp=Z,65nm,0.8s,mb5.7						
KOLN	Koldanda	57.95	276	*e*P	P	12 04 53.4	+0.7
	comp=Z,75nm,1.0s,mb5.7						
MFID	Camas Ranch	57.99	59	⇓P	P	12 04 52.9	+0.1
	baz=58,SNR=12						
D16A	Dana Ranch, Ca	58.00	54	⇓P	P	12 04 52.9	+0.1
	baz=58,SNR=14						
C17A	Wharram Farm,	58.03	53	⇑P	P	12 04 52.9	-0.1
	baz=58,SNR=38						
P06A	Stead Airport,	58.03	65	⇓P	P	12 04 53.6	+0.4
	baz=58						
B18A	Beardsley Farm	58.05	52	⇓P	P	12 04 53.0	-0.1
	baz=58,SNR=21						
HRY	Holter Researc	58.06	54	*e*P	P	12 04 53.5	+0.3
	comp=Z,42nm,1.1s,mb5.4						
G14A	Jackson	58.12	56	⇑P	P	12 04 53.1	-0.6
	baz=58						
AKTK	Aktyubinsk	58.12	312	P	P	12 04 53.0	-0.6
AKTK				PcP	PcP	12 05 45.1	+0.6
AKTO	Aktyubinsk	58.12	312	P	P	12 04 53.1	-0.5
AKTO						12 05 45.1	
AKTO				pmax	pmax		
	comp=Z,13nm,0.5s,mb5.2						
AKTO	Aktyubinsk	58.12	312	P	P	12 04 53.0	-0.6
	comp=Z,13nm,0.5s,mb5.2,baz=69,slow=8.6,SNR=58						
AKTO				PcP	PcP	12 05 45.1	+0.6
	comp=Z,12nm,0.9s,baz=7.5,slow=6.0,SNR=4.5						
H13A	Challis	58.12	57	⇓P	P	12 04 54.0	+0.3
	baz=58,SNR=27						
E16A	East Helena	58.25	54	⇓P	P	12 04 54.7	+0.1
	baz=58,SNR=17						
F15A	Butte	58.26	55	⇓P	P	12 04 54.7	0.0
	baz=58,SNR=23						
K11A	Parker Ranch,	58.28	60	⇓P	P	12 04 54.9	0.0
	baz=58,SNR=13						
EGMT	Eagleton	58.30	52	⇓P	P	12 04 54.5	-0.3
	baz=58,SNR=7.4						
LRM	Limekiln Ridge	58.30	55	*e*P	P	12 04 55.4	+0.4
	comp=Z,86nm,1.0s,mb5.7						
O07A	Toulon	58.32	64	⇑P	P	12 04 55.4	+0.3
	baz=58,SNR=9.9						
M09A	Marrel Ranch,	58.34	62	⇓P	P	12 04 55.5	+0.2
	baz=58,SNR=6.1						
N08A	GE Springer Mi	58.36	63	⇓P	P	12 04 55.3	-0.1
	baz=58,SNR=8.6						
WCN	Washoe City	58.36	65	⇓P	P	12 04 55.6	+0.2
	baz=58						
D17A	Six Diamond Ra	58.38	53	⇑P	P	12 04 55.5	+0.1
	baz=58,SNR=27						
L10A	Juniper Basin	58.48	61	⇑P	P	12 04 56.5	+0.3
	baz=58,SNR=13						
J12A	Stokes Ranch,	58.50	59	⇓P	P	12 04 56.6	+0.2
	baz=58,SNR=36						
DLMT	Dillon	58.52	56	*e*P	P	12 04 56.7	+0.3
	comp=Z,26nm,1.3s,mb5.1						
I13A	Wildhorse Cree	58.62	58	⇑P	P	12 04 57.2	+0.1
	baz=58,SNR=35						
KLMR	Klimovskoe	58.62	329	⇑*i*P	P	12 04 55.9	-1.0
KLMR				*e*		12 05 44.8	
KLMR				pmax	pmax		
	comp=Z,16nm,0.5s,mb5.3						
O08A	Rochester Mine	58.66	63	⇓P	P	12 04 57.9	+0.4
	baz=58,SNR=12						
N09A	Rock Creek Ran	58.67	62	⇓P	P	12 04 57.8	+0.2
	baz=58,SNR=9.9						
HLID	Hailey	58.68	58	⇓P	P	12 04 57.8	+0.2
	baz=58,SNR=25						
HLID	Hailey	58.68	58	*e*P	P	12 04 57.9	+0.3
	comp=Z,27nm,1.2s,mb5.2						
G15A	Dillon	58.70	56	⇑P	P	12 04 57.9	+0.1
	baz=58,SNR=20						
MCMT	McKenzie Canyo	58.72	56	*e*P	P	12 04 58.0	+0.1
	comp=Z,5.3nm,0.8s,mb4.6						
E17A	Martinsdale	58.73	54	⇑P	P	12 04 58.6	+0.7
	baz=58,SNR=35						
F16A	Kennard Place,	58.76	55	⇑P	P	12 04 58.4	+0.2
	baz=58,SNR=15						
M10A	I.L. Ranch, Tu	58.80	61	⇓P	P	12 04 59.0	+0.6
	baz=59,SNR=11						
CMB	Columbia Colle	58.80	67	*e*P	P	12 04 58.5	-0.1
CMB				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
CMB	Columbia Colle	58.80	67	*e*P	P	12 04 58.5	0.0
	comp=Z,4.8nm,0.9s,mb4.5						
D18A	Linhart Farms,	58.81	53	⇓P	P	12 04 58.7	+0.3
	baz=59,SNR=8.7						
L11A	Cat Creek Ranc	58.83	60	⇑P	P	12 04 59.1	+0.4
	baz=59,SNR=19						
BOZ	Bozeman (W)	58.85	55	*e*P	P	12 04 59.1	+0.4
BOZ				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.3						
BOZ	Bozeman (W)	58.85	55	⇓P	P	12 04 59.2	+0.5
	baz=59,SNR=38						
BOZ	Bozeman (W)	58.85	55	*e*P	P	12 04 59.1	+0.4
	comp=Z,35nm,1.2s,mb5.3						
J13A	Cove Ranch, Pi	58.92	58	⇑P	P	12 04 59.5	+0.2
	baz=59,SNR=28						
H15A	Lima	58.97	56	⇑P	P	12 04 59.5	-0.1
	baz=59,SNR=14						
I14A	Mackay	58.98	57	⇑P	P	12 05 00.2	+0.6
	baz=59,SNR=48						
K12A	Draper Farm, C	59.01	59	⇓P	P	12 05 00.0	+0.1
	baz=59,SNR=17						
G16A	Moss Hill, Enn	59.03	55	⇑P	P	12 05 00.4	+0.4
	baz=59,SNR=43						
R06C	Coleville	59.05	66	⇓P	P	12 05 00.4	+0.2
	baz=59,SNR=8.5						
P08A	Dixie Valley	59.09	64	⇑P	P	12 05 00.9	+0.4
	baz=59						
BMN	Battle Mountai	59.11	63	*e*P	P	12 05 00.9	+0.2
BMN				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
BMN	Battle Mountai	59.11	63	*e*P	P	12 05 00.9	+0.2
	comp=Z,6.5nm,0.7s,mb4.8						
E18A	Harlowton	59.16	53	⇓P	P	12 05 01.3	+0.5
	baz=59,SNR=14						
F17A	Fitzpatrick Pl	59.20	54	⇑P	P	12 05 01.5	+0.4
	baz=59,SNR=23						
BOK	Bokaro	59.20	271	*e*PKP	P	12 05 01.5	+0.1
BOK				AMb	AMB	12 05 04.2	
	comp=Z,16nm,0.2s,mb5.6						
L12A	House Creek Ra	59.26	60	⇑P	P	12 05 02.4	+0.8
	baz=59,SNR=25						
M11A	Holland Ranch,	59.29	61	⇓P	P	12 05 02.4	+0.6
	baz=59,SNR=13						
J14A	Carey	59.33	58	⇑P	P	12 05 03.1	+1.0
	baz=59,SNR=39						
K13A	Stover Farm, H	59.46	59	⇑P	P	12 05 03.5	+0.5
	baz=59						
I15A	Monteview	59.46	57	⇓P	P	12 05 03.5	+0.6
	baz=59,SNR=5.2						
G17A	Pierce Place,	59.54	55	⇓P	P	12 05 04.5	+1.0
	baz=59,SNR=31						
JOF	Joensuu	59.61	334	*e*P	P	12 05 01.6	-2.1
JOF				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.1						
JOF	Joensuu	59.61	334	*e*p	P	12 05 01.6	-2.1
	comp=Z,8.8nm,0.5s,mb5.0						
H16A	Russell Place,	59.67	56	⇓P	P	12 05 05.3	+0.9
	baz=59,SNR=42						
F18A	Big Timber	59.70	54	⇓P	P	12 05 05.2	+0.6
	baz=60,SNR=34						
N11A	Elko Archery C	59.72	61	⇓P	P	12 05 04.8	0.0
	baz=60						
Q08A	Gabbs	59.72	64	⇓P	P	12 05 05.1	+0.2
	baz=60,SNR=15						
P09A	Austin	59.74	63	⇑P	P	12 05 05.7	+0.8
	baz=60						
NVAR	Mina Array Bea	59.79	65	P	P	12 05 05.7	+0.3
	comp=Z,7.8nm,0.7s,mb4.8,baz=296,slow=7.8,SNR=74						
NVAR	Mina Array Bea	59.79	65	P	P	12 05 05.7	+0.3
DDI	Dehra Dun	59.79	282	*e*PKP	P	12 05 04.3	-1.2
GCMT	Greycliff	59.80	54	*e*P	P	12 05 06.3	+1.0
	comp=Z,36nm,1.2s,mb5.3						
YMR	Madison River	59.84	55	*e*P	P	12 05 06.5	+0.9
	comp=Z,54nm,1.3s,mb5.4						
J15A	Blackfoot	59.88	57	⇑P	P	12 05 07.1	+1.2
	baz=60,SNR=14						
L13A	Double Diamond	59.90	59	⇓P	P	12 05 06.9	+0.9
	baz=60,SNR=18						
YNR	Norris Junctio	59.97	55	*e*P	P	12 05 07.6	+1.1
	comp=Z,42nm,1.3s,mb5.3						
K14A	Jones Ranch, D	60.03	59	⇑P	P	12 05 07.8	+0.9
	baz=60,SNR=20						
ELK	Elko	60.05	61	*e*P	P	12 05 07.5	+0.4
ELK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ELK	Elko	60.05	61	*e*P	P	12 05 07.5	+0.4
	comp=Z,4.6nm,0.8s,mb4.6						
YFT	Old Faithful	60.06	56	*e*P	P	12 05 08.4	+1.3
	comp=Z,39nm,1.0s,mb5.4						
P10A	Eureka	60.08	63	⇓P	P	12 05 08.0	+0.6
	baz=60						
I16A	Newdale	60.09	56	⇓P	P	12 05 08.1	+0.8
	baz=60,SNR=19						
N12A	Clover Valley,	60.09	61	⇓P	P	12 05 08.1	+0.7
	baz=60,SNR=8.4						
N12A	Clover Valley,	60.09	61	*e*P	P	12 05 07.9	+0.5
	comp=Z,6.2nm,0.8s,mb4.7						
G18A	Lazy EL Ranch,	60.16	54	⇑P	P	12 05 07.9	+0.1
	baz=60,SNR=16						
Q09A	Carvers	60.18	64	⇑P	P	12 05 08.6	+0.5
	baz=60,SNR=5.9						
O11A	Cowboy Ranch,	60.22	62	⇑P	P	12 05 08.6	+0.3
	baz=60,SNR=7.5						
LKWY	Lake	60.22	55	*e*P	P	12 05 09.8	+1.6
LKWY				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.3						
LKWY	Lake	60.22	55	*e*P	P	12 05 09.8	+1.7
	comp=Z,34nm,1.1s,mb5.3						
H17A	Grant Village	60.23	55	⇑P	P	12 05 10.5	+2.3
	baz=60,SNR=41						
M13A	Montello	60.26	60	⇓P	P	12 05 09.0	+0.5
	baz=60,SNR=16						
M13A	Montello	60.26	60	*e*P	P	12 05 08.6	+0.1
	comp=Z,22nm,1.1s,mb5.1						
K15A	Arbon	60.30	58	⇓P	P	12 05 09.5	+0.7
	baz=60,SNR=16						
L14A	Malta	60.33	59	⇓P	P	12 05 09.6	+0.6
	baz=60,SNR=22						
SCO	Scoresbysund	60.36	359	*i* P	P	12 05 08.8	+0.1
SCO				*i*		12 05 53.7	
SCO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
SCO	Scoresbysund	60.36	359	*i* P	P	12 05 08.8	+0.1
	comp=Z,6.4nm,0.9s,mb4.7						
SCO				*i*		12 05 53.7	
IMW	Indian Meadow	60.37	56	*e*P	P	12 05 09.9	+0.7
	comp=Z,28nm,1.1s,mb5.2						
J16A	Bone	60.41	57	⇓P	P	12 05 10.6	+1.1
	baz=60,SNR=28						
DCID1	Drake Creek	60.44	57	*e*P	P	12 05 10.4	+0.7
	comp=Z,34nm,1.1s,mb5.3						
RLMT	Red Lodge	60.45	54	⇑P	P	12 05 10.5	+0.7
	baz=60,SNR=59						
RLMT	Red Lodge	60.45	54	*e*P	P	12 05 09.9	+0.2
	comp=Z,69nm,1.1s,mb5.6						
RRI2	Red Ridge	60.52	57	*e*P	P	12 05 11.5	+1.2
	comp=Z,24nm,0.8s,mb5.3						
P11A	Circle Ranch,	60.54	63	⇑P	P	12 05 11.1	+0.6
	baz=60						
I17A	Pilgrim Ck.	60.55	56	⇓P	P	12 05 11.6	+1.2
	baz=60,SNR=20						
N13A	Wendover, West	60.57	61	⇓P	P	12 05 11.3	+0.7
	baz=60						
N13A	Wendover, West	60.57	61	*e*P	P	12 05 11.3	+0.7
	comp=Z,31nm,1.2s,mb5.2						
M14A	Sheep Mountain	60.62	60	⇓P	P	12 05 11.3	+0.3
	baz=60,SNR=10						
TPAW	Teton Pass	60.63	56	*e*P	P	12 05 12.2	+1.1
	comp=Z,56nm,1.2s,mb5.5						
R09A	Tonopah	60.64	64	⇑P	P	12 05 11.0	-0.2
	baz=60,SNR=18						
Q10A	Clear Creek Ra	60.65	64	⇑P	P	12 05 11.2	0.0
	baz=60,SNR=14						
O12A	Currie	60.65	61	⇑P	P	12 05 11.4	+0.2
	baz=60,SNR=26						
K16A	Soda Springs	60.72	57	⇓P	P	12 05 12.8	+1.2
	baz=60,SNR=26						
LOHW	Long Hollow	60.74	56	*e*P	P	12 05 12.4	+0.7
	comp=Z,36nm,1.2s,mb5.3						
SNOW	Snow King Moun	60.76	56	*e*P	P	12 05 12.7	+0.8
	comp=Z,41nm,1.2s,mb5.3						
REDW	Red Top Meadow	60.77	57	*e*P	P	12 05 12.3	+0.3
	comp=Z,48nm,1.2s,mb5.4						
DGMT	Dagmar	60.79	49	⇓P	P	12 05 11.9	0.0
	baz=60,SNR=30						
DGMT	Dagmar	60.79	49	*e*P	P	12 05 12.1	+0.1
	comp=Z,88nm,1.0s,mb5.8						
L15A	Malad City	60.83	59	⇑P	P	12 05 12.7	+0.4
	baz=61,SNR=9.6						
J17A	Brown Place, J	60.85	56	⇓P	P	12 05 13.9	+1.4
	baz=61,SNR=37						
S09A	Goldfield	60.89	65	⇓P	P	12 05 13.2	+0.3
	baz=61,SNR=7.9						
LAO	LASA Array	60.98	51	*e*P	P	12 05 13.8	+0.5
	comp=Z,75nm,0.9s,mb5.7						
VES	Vestal, Richgr	61.03	68	⇓P	P	12 05 13.0	-0.8
	baz=61						
R10A	Warm Springs	61.06	64	⇑P	P	12 05 14.0	0.0
	baz=61,SNR=7.5						
Q11A	Duckwater	61.07	63	⇓P	P	12 05 13.8	-0.2
	baz=61,SNR=5.6						
I18A	Diamond G Ranc	61.10	56	⇑P	P	12 05 15.1	+0.9
	baz=61,SNR=18						
S10A	Tonopah Range,	61.13	64	⇓P	P	12 05 14.3	-0.2
	baz=61,SNR=6.4						
K17A	Gardner Place,	61.14	57	⇓P	P	12 05 14.5	+0.1
	baz=61,SNR=6.4						
N14A	Grayback Hills	61.15	60	⇑P	P	12 05 14.6	0.0
	baz=61,SNR=12						
M15A	Larsen Ranch,	61.16	59	⇓P	P	12 05 14.8	+0.3
	baz=61,SNR=35						
BGU	Big Grassy Mou	61.19	60	*e*P	P	12 05 13.7	-1.1
	comp=Z,3.4nm,0.9s,mb4.4						
SPUT	South Promonto	61.26	59	*e*P	P	12 05 15.7	+0.4
	comp=Z,28nm,1.3s,mb5.1						
GRAC	Grapevine Rang	61.29	66	⇓P	P	12 05 15.8	+0.3
	baz=61,SNR=9.9						
J18A	Kendall Valley	61.32	56	⇓P	P	12 05 16.2	+0.5
	baz=61,SNR=14						
L16A	Fish Haven	61.35	58	⇓P	P	12 05 16.4	+0.5
	baz=61,SNR=12						
Q12A	Willow Creek R	61.42	62	⇑P	P	12 05 16.5	+0.1
	baz=61,SNR=8.0						
R11A	Troy Canyon, C	61.44	64	⇓P	P	12 05 16.5	-0.1
	baz=61,SNR=16						
NDI	New Delhi	61.44	282	*e*PKP	P	12 05 16.0	-0.7
N15A	Stansbury Isla	61.50	60	⇓P	P	12 05 16.8	-0.1
	baz=61,SNR=16						
ISA	Isabella	61.52	68	⇓P	P	12 05 16.5	-0.7
	baz=61						
L17A	Cokeville	61.60	58	⇑P	P	12 05 17.8	+0.2
	baz=61,SNR=18						
P13A	Bates Ranch, G	61.61	62	⇓P	P	12 05 17.8	+0.1
	baz=61,SNR=8.7						
KAF	Kangasniemi	61.65	336	*e*P	P	12 05 15.5	-2.1
KAF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
KAF	Kangasniemi	61.65	336	*e*p	P	12 05 15.5	-2.1
	comp=Z,5.2nm,0.6s,mb4.7						
K18A	Toltan Ranch,	61.70	57	⇓P	P	12 05 18.8	+0.6
	baz=62,SNR=29						
M16A	Huntsville	61.71	59	⇑P	P	12 05 18.5	+0.1
	baz=62,SNR=13						
DUG	Dugway	61.80	60	*e*P	P	12 05 19.0	+0.1
DUG				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.2						
DUG	Dugway	61.80	60	⇓P	P	12 05 19.0	+0.1
	baz=62,SNR=22						
DUG	Dugway	61.80	60	*e*P	P	12 05 19.0	+0.1
	comp=Z,34nm,1.3s,mb5.2						
S11A	Rachel	61.82	64	⇑P	P	12 05 19.0	-0.1
	baz=62,SNR=8.9						
MPMC	Manual Prospec	61.85	67	⇑P	P	12 05 18.9	-0.5
	baz=62,SNR=6.2						
BW06	Boulder Array	61.87	56	⇓P	P	12 05 19.6	+0.2
	baz=62,SNR=52						
PDAR	Pinedale Array	61.87	56	P	P	12 05 19.8	+0.4
	comp=Z,32nm,1.0s,mb5.3,baz=303,slow=3.0,SNR=98						
PDAR				LR	LR	12 31 00.9	
	comp=Z,118nm,20.0s,baz=339,slow=35						
PDAR	Pinedale Array	61.87	56	P	P	12 05 19.8	+0.4
PDAR				LR	LR	12 31 00.9	
O15A	The Old Anders	61.94	60	⇑P	P	12 05 20.0	+0.2
	baz=62,SNR=5.8						
Q13A	Wheeler Ranch,	61.94	62	⇑P	P	12 05 20.0	+0.1
	baz=62,SNR=26						
FURC	Furnace Creek,	61.95	66	⇓P	P	12 05 19.8	-0.3
	baz=62,SNR=18						
R12A	Pony Springs,	62.02	63	⇑P	P	12 05 20.4	-0.1
	baz=62,SNR=14						
P14A	Drum Mountains	62.06	61	⇑P	P	12 05 20.9	+0.2
	baz=62,SNR=14						
N16A	Rees Ranch, Co	62.11	59	⇓P	P	12 05 20.9	-0.1
	baz=62						
LRMC	Laurel Mountai	62.12	67	⇓P	P	12 05 20.5	-0.7
	baz=62						
M17A	Scullys Gap (B	62.14	58	⇑P	P	12 05 21.2	0.0
	baz=62,SNR=9.5						
L18A	Fontenelle, Gr	62.18	57	⇑P	P	12 05 21.7	+0.2
	baz=62,SNR=11						
SFJD	Kangerlussuaq	62.19	11	P	P	12 05 20.6	-0.5
SFJD				pmax	pmax		
	comp=Z,28nm,0.6s,mb5.5						
SFJD	Kangerlussuaq	62.19	11	*i* P	P	12 05 20.6	-0.5
	comp=Z,24nm,0.8s,mb5.3						
SFJD	Kangerlussuaq	62.19	11	P	P	12 05 20.6	-0.6
	comp=Z,28nm,0.6s,mb5.5,baz=318,slow=6.4,SNR=23						
K19A	Absolon Red Bu	62.22	56	⇓P	P	12 05 21.5	-0.2
	baz=62,SNR=18						
FINES	FINESS Array B	62.27	335	P	P	12 05 20.5	-1.2
FINES						12 06 00.7	
FINES				pmax	pmax		
	comp=Z,10.0nm,0.4s						
FINES				MLR	MLR		
	comp=Z,604nm,18.4s						
FINES	FINESS Array B	62.27	335	P	P	12 05 20.4	-1.3
	comp=Z,10nm,0.4s,mb5.2,baz=29,slow=6.6,SNR=53						
FINES				PcP	PcP	12 06 00.7	-0.3
	comp=Z,7.8nm,0.6s,baz=43,slow=3.6,SNR=5.4						
FINES				LR	LR	12 35 35.3	
	comp=Z,604nm,18.4s,baz=187,slow=39						
FINES	FINESS Array B	62.27	335	P	P	12 05 20.4	-1.3
FINES				PcP	PcP	12 06 00.7	-0.3
FINES				LR	LR	12 35 35.3	
U10A	Ash Meadows, A	62.30	66	⇓P	P	12 05 22.6	+0.2
	baz=62,SNR=5.6						

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EDW2  Edwards Air Fo   62.34  68 ⇑P      P      12 05 22.3 -0.3
      baz=62,SNR=6.0
Q14A  Sevier Lake (B   62.35  62 ⇑P      P      12 05 22.7 +0.1
      baz=62,SNR=18
S12A  Delamar Landin   62.37  64 ⇓P      P      12 05 23.1 +0.3
      baz=62,SNR=21
NLU   North Lily Min   62.38  60 eP      P      12 05 22.7 -0.1
      comp=Z,9.5nm,0.8s,mb4.9
T11A  Corn Creek, Al   62.40  64 ⇑P      P      12 05 22.9 -0.1
      baz=62,SNR=14
N17A  Moffit Pass      62.41  59 ⇑P      P      12 05 23.1 +0.1
      baz=62,SNR=17
L19A  Farson           62.43  57 ⇑P      P      12 05 23.4 +0.2
      baz=62
R13A  O'Grain Ranch,   62.49  63 ⇓P      P      12 05 23.6  0.0
      baz=62
M18A  Lyman            62.50  58 ⇓P      P      12 05 23.5 -0.1
      baz=62,SNR=6.9
KAPI  Kappang          62.51 221  P      P      12 05 21.8 -2.1
      comp=Z,5.4nm,0.5s,mb4.8,baz=187,slow=6.0,SNR=4.3
MPU   Maple Canyon     62.59  60 eP      P      12 05 24.3 +0.1
      comp=Z,5.9nm,0.6s,mb4.7
K20A  Yellowstone Ra   62.60  56 ⇑P      P      12 05 23.8 -0.5
      baz=62,SNR=13
SHOC  Shoshone         62.68  66 ⇑P      P      12 05 24.7 -0.2
      baz=62
GSC   Goldstone        62.77  67 eP      P      12 05 25.1 -0.4
GSC                                pmax   pmax
      comp=Z,8.0nm,1.0s,mb4.6
GSC   Goldstone        62.77  67 ⇑P      P      12 05 25.3 -0.2
      baz=63
GSC   Goldstone        62.77  67 eP      P      12 05 25.1 -0.5
      comp=Z,8.2nm,1.0s,mb4.6
P16A  Fountain Green   62.85  60 ⇓P      P      12 05 26.1 +0.2
      baz=63,SNR=5.9
Q15A  Fillmore         62.85  61 ⇑P      P      12 05 26.1 +0.1
      baz=63,SNR=8.3
M19A  Rock Springs     62.95  57 ⇑P      P      12 05 26.6  0.0
      baz=63
R14A  James Farms, M   62.96  62 ⇑P      P      12 05 27.0 +0.2
      baz=63
S13A  Holt Ranch, En   62.96  63 ⇑P      P      12 05 26.8  0.0
      baz=63,SNR=11
O17A  Robinson Place   62.97  59 ⇓P      P      12 05 27.3 +0.5
      baz=63,SNR=11
BFSC  Mount Baldy St   62.98  68 ⇑P      P      12 05 26.4 -0.5
      baz=63
T12A  Moapa            63.04  64 ⇓P      P      12 05 27.1 -0.2
      baz=63,SNR=5.2
L20A  Wamsutter        63.05  56 ⇓P      P      12 05 27.2 -0.1
      baz=63,SNR=13
ARUT  Antelope Range   63.07  63 eP      P      12 05 27.6 +0.2
ARUT                               pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
ARUT  Antelope Range   63.07  63 eP      P      12 05 27.6 +0.1
      comp=Z,6.0nm,0.8s,mb4.6
TUQ   Turquoise Moun   63.20  66 ⇓P      P      12 05 27.8 -0.6
      baz=63,SNR=9.1
V11A  Goodsprings      63.23  66 ⇑P      P      12 05 28.6 +0.1
      baz=63
S14A  Cedar City       63.24  63 ⇑P      P      12 05 28.6  0.0
      baz=63,SNR=9.2
CCUT  Cedar City       63.27  63 eP      P      12 05 28.9 +0.1
      comp=Z,7.4nm,0.9s,mb4.6
MSU   Marysvale        63.30  61 eP      P      12 05 28.6 -0.4
MSU                                pmax   pmax
      comp=Z,12nm,1.2s,mb4.7
MSU   Marysvale        63.30  61 eP      P      12 05 28.6 -0.4
      comp=Z,12nm,1.2s,mb4.7
TMUT  Trail Mountain   63.32  60 eP      P      12 05 29.4 +0.3
      comp=Z,10nm,0.8s,mb4.8
T13A  Saint George     63.32  64 ⇓P      P      12 05 29.4 +0.3
      baz=63,SNR=12
O18A  Roosevelt        63.33  59 ⇑P      P      12 05 29.8 +0.6
      baz=63,SNR=13
U12A  Valley of Fire   63.35  64 ⇓P      P      12 05 29.4 +0.1
      baz=63
N19A  John Jarvie Ra   63.36  58 ⇑P      P      12 05 29.2 -0.1
      baz=63,SNR=7.9
HEC   Hector,Ludlow    63.38  67 ⇑P      P      12 05 29.1 -0.5
      baz=63,SNR=5.2
BBRC  Big Bear Sol-O   63.41  68 ⇓P      P      12 05 29.6 -0.2
      baz=63
ULM   Lac du Bonnet    63.43  43  P      P      12 05 29.2 -0.4
      comp=Z,13nm,0.8s,mb4.9,baz=318,slow=6.6,SNR=18
ULM                                LR     LR     12 36 13.2
      comp=Z,189nm,19.0s,baz=316,slow=39
R15A  Junction         63.45  62 ⇑P      P      12 05 30.1 +0.1
      baz=63
P17A  Butcher Ranch,   63.46  60 ⇓P      P      12 05 30.3 +0.3
      baz=63,SNR=9.0
M20A  Sweetwater, Wa   63.49  57 ⇓P      P      12 05 30.7 +0.6
      baz=63,SNR=12
Q16A  Castle Valley    63.60  60 ⇓P      P      12 05 31.1 +0.2
      baz=63,SNR=11
L21A  Rawlins          63.60  56 ⇑P      P      12 05 30.9 -0.1
      baz=63,SNR=19
P18A  Preston Nutter   63.63  59 ⇓P      P      12 05 31.4 +0.3
      baz=63,SNR=10
V12A  Nelson           63.65  65 ⇑P      P      12 05 31.2 -0.1
      baz=63,SNR=5.4
KULM  Kulim            63.68 245 eP      P      12 05 31.7 -0.1
      comp=Z,38nm,0.8s,mb5.3
MURC  Murrieta         63.69  68 ⇑P      P      12 05 30.8 -0.9
      baz=64
U13A  Pakoon Wash      63.70  64 ⇑P      P      12 05 31.8 +0.2
      baz=64,SNR=14
S15A  Panguitch        63.77  62 ⇓P      P      12 05 32.6 +0.5
      baz=64
O19A  Miners Draw (B   63.80  58 ⇑P      P      12 05 32.2  0.0
      baz=64,SNR=16
GMRC  Granite Mounta   63.81  67 ⇑P      P      12 05 31.9 -0.5
      baz=64,SNR=8.9
SRU   San Rafael       63.83  60 eP      P      12 05 32.3 -0.2
SRU                                pmax   pmax
      comp=Z,23nm,0.8s,mb5.1
SRU   San Rafael       63.83  60 ⇓P      P      12 05 32.6 +0.2
      baz=64,SNR=26
SRU   San Rafael       63.83  60 eP      P      12 05 32.3 -0.2
      comp=Z,23nm,0.8s,mb5.0
R16A  Teasdale         63.85  61 ⇓P      P      12 05 33.2 +0.6
      baz=64,SNR=17
M21A  Separation Pea   63.86  56 ⇓P      P      12 05 32.4 -0.2
      baz=64,SNR=16
RSSD  Black Hills      63.86  52 eP      P      12 05 32.3 -0.3
RSSD                               pmax   pmax
      comp=Z,44nm,0.9s,mb5.3
RSSD  Black Hills      63.86  52 eP      P      12 05 32.3 -0.3
      comp=Z,44nm,0.9s,mb5.3
N20A  Spence Gulch,    63.90  57 ⇑P      P      12 05 33.2 +0.3
      baz=64,SNR=24
OBN   Obninsk          63.98 326⇓eP      P      12 05 32.0 -1.1
OBN                              e              12 06 06.2
OBN                              eSS     SS     12 18 13.1 +0.9
OBN                                pmax   pmax
      comp=Z,35nm,1.0s,mb5.1
OBN                                MLR    MLR
      comp=Z,300nm,19.0s
OBN   Obninsk          63.98 326⇓eP      P      12 05 32.1 -1.0
Q18A  Rafter H Ranch   64.06  60 ⇓P      P      12 05 34.1 +0.2
      baz=64
V13A  Grand Canyon W   64.07  65 ⇑P      P      12 05 34.1  0.0
      baz=64,SNR=17
BELC  Belle Mtn.       64.14  67 ⇑P      P      12 05 34.4 -0.2
      baz=64
U14A  Mt Trumbull      64.15  64 ⇓P      P      12 05 34.9 +0.3
      baz=64,SNR=20
S16A  Weppner Ranch,   64.17  62 ⇓P      P      12 05 35.5 +0.7
      baz=64
R17A  Hanksville Air   64.20  61 ⇓P      P      12 05 35.0 +0.1
      baz=64,SNR=20
T15A  Red Dirt Ranch   64.21  63 ⇓P      P      12 05 35.4 +0.4
      baz=64,SNR=8.9
P19A  Cripple Cowboy   64.33  59 ⇓P      P      12 05 36.0 +0.3
      baz=64,SNR=26
N21A  Black Mountain   64.36  57 ⇑P      P      12 05 36.0 +0.1
      baz=64,SNR=13
O20A  White River Ci   64.40  58 ⇓P      P      12 05 36.0 -0.1
      baz=64
M22A  Cedar Creek Ra   64.41  56 ⇓P      P      12 05 36.4 +0.2
      baz=64,SNR=28
IRM   Iron Mountain    64.54  67 ⇓P      P      12 05 36.8 -0.4
      baz=64,SNR=11
AJM   Ajmer            64.61 282 ePKP    P      12 05 37.6 -0.1
AJM                                AMb    AMB    12 05 40.8
      comp=Z,17nm,0.7s,mb5.0
Q19A  Hogan Spring (   64.65  59 ⇓P      P      12 05 37.5 -0.3
      baz=64
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W13A  Hualapai Mount   64.65  65 ⇓P      P      12 05 37.4 -0.5
      baz=64,SNR=8.2
R18A  Canyonlands Na   64.69  60 ⇓P      P      12 05 37.6 -0.4
      baz=64,SNR=24
S17A  Black Ridge (B   64.69  61 ⇑P      P      12 05 38.1  0.0
      baz=64,SNR=37
BC3   Big Chuckw Mtn   64.71  67 ⇓P      P      12 05 37.6 -0.7
      baz=64,SNR=6.1
T16A  Glen Canyon Da   64.74  62 ⇑P      P      12 05 37.9 -0.5
      baz=64
V14A  Boquillas Ranc   64.74  64 ⇓P      P      12 05 38.9 +0.5
      baz=64,SNR=14
P20A  De Beque         64.75  58 ⇑P      P      12 05 38.1 -0.4
      baz=64,SNR=13
O21A  Pagoda           64.76  57 ⇑P      P      12 05 39.0 +0.5
      baz=64,SNR=13
AGMN  Agassiz Refuge   64.85  44 eP      P      12 05 38.0 -1.0
      comp=Z,38nm,1.2s,mb5.1
N22A  Wattenberg Ran   64.91  56 ⇑P      P      12 05 39.8 +0.3
      baz=65,SNR=12
X13A  Yucca            65.03  66 ⇑P      P      12 05 39.9 -0.5
      baz=65,SNR=8.8
W14A  Seligman         65.04  65 ⇓P      P      12 05 40.4  0.0
      baz=65,SNR=12
PDMCI Parker Dam,Lak   65.05  66 ⇑P      P      12 05 40.5  0.0
      baz=65
BHPL  Bhopal           65.09 277 ePKP    P      12 05 41.3 +0.4
BHPL                               AMb    AMB    12 05 44.8
      comp=Z,32nm,1.1s,mb5.1
R19A  Curley Farm, L   65.11  60 ⇓P      P      12 05 40.5 -0.3
      baz=65,SNR=19
S18A  Hurst Farm, Bl   65.11  61 ⇓P      P      12 05 40.7 -0.2
      baz=65,SNR=20
T17A  Navajo Res., N   65.13  62 ⇑P      P      12 05 40.4 -0.6
      baz=65,SNR=7.6
V15A  Kaibab Nationa   65.16  63 ⇓P      P      12 05 41.7 +0.6
      baz=65,SNR=20
KAKA  Kakadu           65.16 205 eP      P      12 05 39.6 -1.7
      comp=Z,20nm,0.7s,mb5.1
KAKA  Kakadu           65.16 205 eP      P      12 05 39.6 -1.7
      comp=Z,54nm,0.8s,mb5.4
Q20A  Ridgley Place,   65.19  59 ⇓P      P      12 05 41.0 -0.3
      baz=65,SNR=6.7
VIS   Vishakhapatnam   65.20 269 ePKP    P      12 05 42.2 +0.5
VIS                                AMb    AMB    12 05 43.3
      comp=Z,81nm,0.6s,mb5.7
Y12C  Blythe           65.20  67 ⇑P      P      12 05 41.0 -0.4
      baz=65
PV04  Paradox Valley   65.24  59 eP      P      12 05 41.9 +0.2
U17A  Shonto           65.49  62 ⇓P      P      12 05 43.2 -0.1
      baz=65
GLA   Glamis           65.50  67 eP      P      12 05 43.1 -0.3
GLA                                pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.5
GLA   Glamis           65.50  67 ⇑P      P      12 05 43.5 +0.1
      baz=65
GLA   Glamis           65.50  67 eP      P      12 05 43.1 -0.4
      comp=Z,8.3nm,0.9s,mb4.6
U16A  Tuba City        65.54  63 ⇓P      P      12 05 43.8 +0.2
      baz=65,SNR=10
W15A  Williams         65.55  64 ⇑P      P      12 05 44.0 +0.3
      baz=65,SNR=8.9
S19A  Harvey Farm, M   65.56  60 ⇓P      P      12 05 43.3 -0.4
      baz=65,SNR=27
T18A  Mexican Hat      65.57  61 ⇓P      P      12 05 43.3 -0.5
      baz=65,SNR=13
Y13A  Salome           65.57  66 ⇓P      P      12 05 43.5 -0.3
      baz=65,SNR=5.3
PV01  Paradox Valley   65.61  59 eP      P      12 05 43.7 -0.3
      comp=Z,2µm,1.2s
Q21A  Lamborn Mesa,    65.67  58 ⇑P      P      12 05 45.1 +0.6
      baz=65,SNR=26
X14A  Yava             65.67  65 ⇑P      P      12 05 45.0 +0.5
      baz=66
R20A  Redvale          65.68  59 ⇑P      P      12 05 44.4 -0.1
      baz=66,SNR=14
Y14A  Wickenburg       65.98  65 ⇑P      P      12 05 46.1 -0.4
      baz=66,SNR=8.6
VSR   Storozhevoye     65.99 322 eP      P      12 05 45.4 -0.8
VSR                                pmax   pmax
      comp=E,10.0nm,0.5s
VSR                                pmax   pmax
      comp=Z,10.0nm,0.5s,mb4.9
VSR                                pmax   pmax
      comp=N,20nm,0.9s
Q22A  Crested Butte,   66.02  58 ⇓P      P      12 05 46.8 +0.1
      baz=66,SNR=22
W16A  Flagstaff        66.04  64 ⇓P      P      12 05 46.9 +0.1
      baz=66,SNR=7.2
X15A  Humboldt         66.05  65 ⇓P      P      12 05 47.2 +0.2
      baz=66,SNR=15
ISCO  Idaho Springs    66.07  56 eP      P      12 05 47.5 +0.5
ISCO                               pmax   pmax
      comp=Z,31nm,1.0s,mb5.1
ISCO  Idaho Springs    66.07  56 eP      P      12 05 47.5 +0.5
      comp=Z,31nm,1.0s,mb5.1
U18A  Rough Rock, Ch   66.07  62 ⇑P      P      12 05 47.1  0.0
      baz=66,SNR=8.2
Z13A  Yuma Proving G   66.10  66 ⇑P      P      12 05 46.9 -0.4
      baz=66,SNR=11
NB2   NORSAR Subarra   66.17 342  P      P      12 05 46.0 -1.3
      comp=Z,9.5nm,0.6s,mb4.8,baz=25,slow=6.5
NOA   NORSAR Array B   66.17 342  P      P      12 05 46.6 -0.7
NOA                                              12 06 16.8
NOA                                pmax   pmax
      comp=Z,10.0nm,0.6s
NOA                                MLR    MLR
      comp=Z,398nm,18.8s
NOA   NORSAR Array B   66.17 342  P      P      12 05 46.5 -0.7
      comp=Z,10.0nm,0.6s,mb4.8,baz=25,slow=6.4,SNR=28
NOA                               PcP    PcP    12 06 16.8 -0.2
      comp=Z,2.1nm,0.5s,baz=25,slow=3.3,SNR=3.7
NOA                               LR     LR     12 39 18.9
      comp=Z,398nm,18.8s,baz=30,slow=40
NOA   NORSAR Array B   66.17 342  P      P      12 05 46.5 -0.7
NOA                               PcP    PcP    12 06 16.8 -0.2
NOA                               LR     LR     12 39 18.9
T19A  Beclabito        66.27  61 ⇓P      P      12 05 48.1 -0.1
      baz=66,SNR=7.8
113A  Mohawk Valley,   66.34  67 ⇓P      P      12 05 48.1 -0.7
      baz=66
Y15A  Casa Rosa Ranc   66.36  65 ⇑P      P      12 05 49.0  0.0
      baz=66,SNR=7.2
HFS   Hagfors          66.47 340  P      P      12 05 48.5 -0.7
HFS                                pmax   pmax
      comp=Z,10.0nm,0.5s
HFS   Hagfors          66.47 340  P      P      12 05 48.5 -0.6
      comp=Z,9.8nm,0.5s,mb4.9,baz=29,slow=3.4,SNR=52
V18A  Ganado           66.53  62 ⇑P      P      12 05 50.2 +0.2
      baz=66,SNR=15
R22A  Saguache, Gunn   66.55  58 ⇑P      P      12 05 51.1 +1.0
      baz=66,SNR=25
X16A  Lo Mia Camp, P   66.56  64 ⇑P      P      12 05 50.4 +0.2
      baz=66,SNR=12
PSI   Prapat           66.70 245  P      P      12 05 51.6 +0.3
PSI                                              12 06 20.2
PSI                                pmax   pmax
      comp=Z,28nm,0.8s,mb5.1
PSI   Prapat           66.70 245  P      P      12 05 51.6 +0.3
      comp=Z,28nm,0.8s,mb5.1,baz=0.8,slow=5.2,SNR=24
PSI                               PcP    PcP    12 06 20.2 +0.3
      comp=Z,18nm,0.8s,baz=58,slow=2.3,SNR=5.2
114A  Black Gap (USA   66.88  66 ⇑P      P      12 05 52.2 -0.1
      baz=67,SNR=9.6
Y16A  Circle Bar Ran   66.92  65 ⇓P      P      12 05 52.6 +0.1
      baz=67
X17A  Forest Lakes     66.99  64 ⇑P      P      12 05 53.2 +0.2
      baz=67,SNR=7.7
EYMN  Ely              67.07  42 eP      P      12 05 52.4 -0.8
      comp=Z,40nm,1.0s,mb5.2
OGNE  Ogallala         67.16  53 eP      P      12 05 54.1 +0.1
      comp=Z,110nm,1.0s,mb5.6
115A  Sonoran Desert   67.31  66 ⇓P      P      12 05 54.9 -0.1
      baz=67,SNR=6.4
T22A  Edith            67.33  59 ⇑P      P      12 05 55.5 +0.4
      baz=67,SNR=15
X18A  Snowflake        67.36  63 ⇓P      P      12 05 55.5 +0.2
      baz=67,SNR=11
Y17A  Roosevelt        67.42  64 ⇓P      P      12 05 55.7  0.0
      baz=67,SNR=9.7
214A  Organ Pipe Nat   67.48  67 ⇓P      P      12 05 56.1  0.0
      baz=67,SNR=7.5
SDCO  Great Sand Dun   67.59  58 eP      P      12 05 57.0 +0.3
      comp=Z,20nm,1.3s,mb4.8
116A  Eloy             67.72  66 ⇑P      P      12 05 57.2 -0.3
      baz=68
W20A  Ramah            67.77  62 ⇓P      P      12 05 57.8 -0.1
      baz=68,SNR=5.1
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ECSD  EROS Data Cent   67.86  48 eP      P      12 05 57.6 -0.7
      comp=Z,36nm,0.9s,mb5.2
Z17A  San Carlos Hig   67.92  64 ⇓P      P      12 05 59.2 +0.4
      baz=68
Y19A  Nutrioso         68.17  63 ⇑P      P      12 06 01.1 +0.7
      baz=68,SNR=11
216A  Three Points,    68.26  66 ⇓P      P      12 06 00.8 -0.2
      baz=68,SNR=6.0
117A  Oracle           68.28  65 ⇑P      P      12 06 00.8 -0.3
      baz=68,SNR=5.7
TUC   Tucson           68.44  65 eP      P      12 06 01.5 -0.6
TUC                                pmax   pmax
      comp=Z,6.0nm,1.1s,mb4.3
TUC   Tucson           68.44  65 eP      P      12 06 01.5 -0.6
      comp=Z,5.9nm,1.1s,mb4.3
HYB   Hyderabad        68.53 272 i P     P      12 06 03.0 +0.1
HYB   Hyderabad        68.53 272 eP      P      12 06 03.0 +0.1
Z19A  T-Link Ranch,    68.64  64 ⇑P      P      12 06 03.5 +0.2
      baz=68
217A  Green Valley     68.80  66 ⇓P      P      12 06 04.2 -0.2
      baz=69
119A  Ashpeak Ranch,   68.99  64 ⇑P      P      12 06 05.7 +0.2
      baz=69
LAZ   Ladron           69.07  61 eP      P      12 06 06.0  0.0
      comp=Z,8.6nm,1.0s,mb4.5
X22A  Bernardo         69.07  61 ⇑P      P      12 06 06.9 +0.9
      baz=69,SNR=7.9
218A  Dragoon          69.12  65 ⇓P      P      12 06 06.6 +0.3
      baz=69,SNR=11
120A  U Bar Ranch, L   69.54  64 ⇓P      P      12 06 09.0 +0.1
      baz=69,SNR=9.2
BNM   Barren Site      69.55  61 eP      P      12 06 09.0 +0.1
      comp=Z,4.2nm,1.1s,mb4.2
CBKS  Cedar Bluff      69.92  54 eP      P      12 06 09.9 -1.3
CBKS                               pmax   pmax
      comp=Z,48nm,1.2s,mb5.2
CBKS  Cedar Bluff      69.92  54 eP      P      12 06 09.8 -1.3
      comp=Z,48nm,1.2s,mb5.2
319A  Douglas          70.00  65 ⇑P      P      12 06 11.8  0.0
      baz=70,SNR=15
121A  Cookes Peak, D   70.05  63 ⇑P      P      12 06 12.5 +0.5
      baz=70,SNR=5.3
KIV   Kislovodsk       70.05 315c iP     P      12 06 12.7 +0.9
KIV                              e              12 06 20.5
KIV                              e       pP     12 06 32.2 +2.1
KIV                              e              12 08 46.5
KIV                              eS      S      12 15 18.7 +1.8
KIV                              eSS     SS     12 19 51.8 +5.3
KIV                                pmax   pmax
      comp=Z,19nm,0.7s,mb5.0
KIV                                MLR    MLR
      comp=Z,200nm,24.0s
KIV   Kislovodsk       70.05 315 eP      P      12 06 12.3 +0.5
      comp=Z,23nm,0.7s,mb5.1
220A  Playas Peak, P   70.06  64 ⇓P      P      12 06 11.8 -0.4
      baz=70,SNR=9.5
BHJ   Bhuj             70.08 283 ePKP    P      12 06 10.9 -1.5
BHJ                                AMb    AMB    12 06 21.0
      comp=Z,39nm,0.7s,mb5.3
AKASG Malin Array Be   70.17 327  P      P      12 06 11.4 -1.1
AKASG                              pmax   pmax
      comp=Z,13nm,0.4s
AKASG                              MLR    MLR
      comp=Z,418nm,21.9s
AKASG Malin Array Be   70.17 327  P      P      12 06 11.4 -1.1
      comp=Z,13nm,0.4s,mb5.1,baz=31,slow=6.2,SNR=31
AKASG                             LR     LR     12 39 07.6
      comp=Z,418nm,21.9s,baz=25,slow=38
SCHQ  Schefferville    70.18  24  P      P      12 06 12.5  0.0
      comp=Z,27nm,0.7s,mb5.2,baz=343,slow=6.7,SNR=48
SCHQ                              LR     LR     12 39 38.0
      comp=Z,208nm,20.8s,baz=25,slow=38
122A  Conniff Cattle   70.38  63 ⇓P      P      12 06 14.8 +0.7
      baz=70,SNR=5.1
221A  Mesquite Ranch   70.43  64 ⇓P      P      12 06 14.6 +0.2
      baz=70
320A  Kipp Ranch, An   70.47  65 ⇓P      P      12 06 14.9 +0.3
      baz=70
MDRS  Chennai          70.62 268 ex      x      12 06 08.2
MDRS                             ex      x      12 13 56.2
222A  Williams Famil   70.75  63 ⇓P      P      12 06 16.3  0.0
      baz=70,SNR=9.8
POO   Poona            70.79 276 ePKP    P      12 06 16.8 +0.1
POO                                AMb    AMB    12 06 18.9
      comp=Z,144nm,1.1s,mb5.7
SCIA  State Center     70.88  47 eP      P      12 06 16.8 -0.2
      comp=Z,92nm,1.0s,mb5.6
KSU1  Kansas State U   71.33  51 eP      P      12 06 17.9 -1.8
      comp=Z,30nm,1.0s,mb5.1
KAD   Karad            71.46 275 ePKP    P      12 06 21.3 +0.6
WRAB  Tennant Creek    71.60 201  P      P      12 06 19.6 -1.7
      comp=Z,131nm,1.2s,mb5.6,SNR=7.2
WRAB  Tennant Creek    71.60 201 eP      P      12 06 18.9 -2.4
WRAB                               pmax   pmax
      comp=Z,23nm,1.0s,mb5.0
WRAB  Tennant Creek    71.60 201 eP      P      12 06 18.9 -2.5
      comp=Z,23nm,1.0s,mb5.0
WRA   Warramunga Arr   71.61 201  P      P      12 06 19.8 -1.6
      comp=Z,14nm,0.8s,mb4.8,baz=18,slow=6.5,SNR=38
WRA                               LR     LR     12 34 04.1
      comp=Z,157nm,20.7s,baz=60,slow=33
SOC   Sochi            71.69 316 eP      P      12 06 21.5 -0.3
SOC                              e*PP    pP     12 06 35.7 -4.4
SOC                              e              12 09 00.7
SOC                              ePPP           12 10 47.9
SOC                              eS      S      12 15 36.7 +0.7
SOC                              e*SS    sS     12 16 06.0 -1.0
SOC                              eSS     SS     12 20 13.3 +1.6
SOC                                pmax   pmax
      comp=Z,42nm,0.6s,mb5.5
ANN   Anapa            71.73 319 eP      P      12 06 21.8 -0.2
ANN                                pmax   pmax
      comp=Z,87nm,1.4s,mb5.4
AMTX  Amarillo         71.79  58 eP      P      12 06 22.5  0.0
      comp=Z,34nm,1.4s,mb5.0
DZM   Mont Dzumac      71.87 169 eLR     LR     12 28 26.8
      comp=Z,401nm,25.8s
GNI   Garni            71.99 311 eP      P      12 06 24.9 +1.3
GNI   Garni            71.99 311  P      P      12 06 25.4 +1.8
GNI                                pmax   pmax
      comp=Z,15nm,0.5s
GNI   Garni            71.99 311  P      P      12 06 25.4 +1.8
      comp=Z,15nm,0.5s,mb5.0,baz=336,slow=1.4,SNR=16
GNI   Garni            71.99 311 eP      P      12 06 25.3 +1.6
      comp=Z,27nm,0.7s,mb5.2
324A  Moseley Ranch,   72.17  62 ⇓P      P      12 06 24.6 -0.3
      baz=72
MDO   Dochfour         72.18 349 eP      P      12 06 23.6 -0.8
KAC   Achnashellach    72.23 349 eP      P      12 06 24.6 -0.2
FITZ  Fitzroy Crossi   72.30 210 eP      P      12 06 24.9 -0.7
      comp=Z,27nm,0.8s,mb5.1
FITZ  Fitzroy Crossi   72.30 210  P      P      12 06 25.0 -0.5
      comp=Z,15nm,0.7s,mb4.9,baz=26,slow=1.3,SNR=20
FITZ                              LR     LR     12 32 56.2
      comp=Z,78nm,21.2s,baz=40,slow=32
FITZ  Fitzroy Crossi   72.30 210 eP      P      12 06 24.7 -0.9
      comp=Z,15nm,0.8s,mb4.9
KAR1  Arisaig          72.87 349 eP      P      12 06 28.3 -0.2
CLDR  Caldiran         73.17 311 eP      P      12 06 31.8 +1.2
EBH   Black Hill       73.22 348 eP      P      12 06 30.5 -0.2
KWP   Kalwaria Pacla   73.30 330 eP      P      12 06 31.9 +0.6
KWP   Kalwaria Pacla   73.30 330⇓iP      P      12 06 31.6 +0.3
KWP   Kalwaria Pacla   73.30 330 eP      P      12 06 31.9 +0.6
EAB   Aberfoyle        73.39 348 eP      P      12 06 31.5 -0.2
ESY   Stoneypath       73.42 347 eP      P      12 06 31.5 -0.4
WMOK  Wichita Mounta   73.48  56 eP      P      12 06 31.6 -1.0
WMOK                               pmax   pmax
      comp=Z,20nm,0.9s,mb5.0
WMOK  Wichita Mounta   73.48  56 eP      P      12 06 31.6 -0.9
      comp=Z,20nm,0.9s,mb4.9
OJC   Ojcow            73.70 332 eP      P      12 06 33.3 -0.3
PGBU  Gleniﬀerbraes    73.78 348 eP      P      12 06 33.2 -0.7
PGBU                               AMb    AMB    12 06 37.4
      comp=Z,82nm,1.7s,mb5.2
HDIL  Hopedale         73.79  46 eP      P      12 06 33.3 -1.0
      comp=Z,94nm,1.2s,mb5.4
EZM   Erzurum          73.81 313 eP      P      12 06 37.8 +3.3
STHS  Stebnicka Huta   73.96 331 eP      P      12 06 35.9 +0.8
STHS                               pmax   pmax
      comp=Z,40nm,0.6s,mb5.3
STHS  Stebnicka Huta   73.96 331 eP      P      12 06 35.9 +0.8
      comp=Z,40nm,0.6s,mb5.3
KOLS  Kolonicke sedl   74.05 330 eP      P      12 06 35.8 +0.2
KOLS                               pmax   pmax
      comp=Z,23nm,0.6s,mb5.1
KOLS  Kolonicke sedl   74.05 330 eP      P      12 06 35.8 +0.2
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KOLS				*e*		13 20 53.7	
KOLS	**Kolonicke sedl**	**74.05**	**330**	*e*P	**P**	**12 06 35.8**	**+0.2**
	comp=Z,23nm,0.6s,mb5.1						
EKA	**Eskdalemuir Ar**	**74.06**	**348**	P	**P**	**12 06 35.5**	**-0.1**
EKA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
EKA	**Eskdalemuir Ar**	**74.06**	**348**	P	**P**	**12 06 35.5**	**-0.2**
	comp=Z,6.6nm,0.6s,mb4.5,baz=18,slow=5.5,SNR=25						
ESK	**Eskdalemuir**	**74.09**	**348**	*e*P	**P**	**12 06 34.6**	**-1.2**
ESK				AMb	AMB	12 06 36.0	
	comp=Z,45nm,1.5s,mb5.0						
BUR08	**Bucovina Ar. S**	**74.17**	**328**	*e*P	**P**	**12 06 36.2**	**-0.2**
KSP	**Ksiaz**	**74.17**	**335**	*e*P	**P**	**12 06 36.7**	**+0.3**
KSP	**Ksiaz**	**74.17**	**335**	*e*P	**P**	**12 06 36.5**	**+0.2**
BURAR	**Bucovina Array**	**74.19**	**328**	⇓*i*P	**P**	**12 06 36.4**	**-0.1**
BURAR	**Bucovina Array**	**74.19**	**328**	⇓P	**P**	**12 06 36.4**	**-0.1**
ECK	**Cauldkaine Hil**	**74.21**	**347**	*e*P	**P**	**12 06 36.3**	**-0.1**
NIE	**Niedzica**	**74.25**	**331**	*e*P	**P**	**12 06 37.6**	**+0.8**
GUMT	**Gumushane**	**74.26**	**315**	*e*P	**P**	**12 06 38.1**	**+1.1**
UZH	**Uzhgorod**	**74.31**	**330**	*e*P	**P**	**12 06 37.0**	**-0.1**
UZH				*e*		12 06 45.0	
CRVS	**Cervenica-Dubn**	**74.34**	**330**	*e*P	**P**	**12 06 37.5**	**+0.2**
CRVS				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.9						
CRVS	**Cervenica-Dubn**	**74.34**	**330**	*e*P	**P**	**12 06 37.5**	**+0.2**
	comp=Z,16nm,0.6s,mb4.9						
OKC	**Ostrava-Krasne**	**74.54**	**333**	*e*P	**P**	**12 06 38.6**	**+0.1**
UPC	**Upice**	**74.56**	**335**	*e*P	**P**	**12 06 39.0**	**+0.4**
DPC	**Dobruska-Polom**	**74.61**	**334**	*e*P	**P**	**12 06 39.2**	**+0.3**
DPC				AMS	AMS	12 43 10.0	
	comp=Z,700nm,21.3s						
CLL	**Collm**	**74.64**	**337**	*e*P	**P**	**12 06 38.3**	**-0.7**
	comp=Z,26nm,0.9s,mb5.0						
CLL	**Collm**	**74.64**	**337**	*i* P	**P**	**12 06 38.7**	**-0.3**
	comp=Z,25nm,0.9s,mb4.9						
CLL				*e*(SS)		12 21 54.0	
CLL				Lm		12 44 00.0	
	comp=N,300nm,18.1s						
CLL				Lm		12 44 00.0	
	comp=E,100nm,18.4s						
CLL				Lm		12 44 00.0	
	comp=Z,300nm,18.4s						
PALK	**Pallekele**	**74.64**	**263**	*i* P	**P**	**12 06 40.4**	**+0.8**
PALK	**Pallekele**	**74.64**	**263**	P	**P**	**12 06 40.1**	**+0.5**
	comp=Z,48nm,0.8s,mb5.3,baz=25,slow=4.5,SNR=25						
TRPA	**Tarpa**	**74.66**	**329**	⇑*i*P	**P**	**12 06 39.3**	**+0.1**
MORC	**Moravsky Berou**	**74.77**	**333**	*e*P	**P**	**12 06 39.6**	**-0.2**
MORC				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.1						
MORC	**Moravsky Berou**	**74.77**	**333**	⇓*i*P	**P**	**12 06 40.0**	**+0.2**
MORC	**Moravsky Berou**	**74.77**	**333**	*e*P	**P**	**12 06 39.6**	**-0.2**
	comp=Z,34nm,0.8s,mb5.1						
TXAR	**Lajitas Array**	**74.79**	**63**	P	**P**	**12 06 40.2**	**-0.1**
TXAR				pmax	pmax		
	comp=Z,12nm,0.7s						
TXAR	**Lajitas Array**	**74.79**	**63**	P	**P**	**12 06 40.1**	**-0.1**
	comp=Z,12nm,0.7s,mb4.8,baz=300,slow=4.2,SNR=7.0						
CUKT	**Cukurca**	**74.79**	**310**	*e*P	**P**	**12 06 41.5**	**+1.3**
BRG	**Berggiesshubel**	**74.79**	**336**	*e*P	**P**	**12 06 40.0**	**+0.1**
BRG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
BRG	**Berggiesshubel**	**74.79**	**336**	*e*P	**P**	**12 06 39.6**	**-0.3**
	comp=Z,10.0nm,1.0s,mb4.5						
BRG	**Berggiesshubel**	**74.79**	**336**	*e*P	**P**	**12 06 40.0**	**+0.1**
	comp=Z,9.7nm,1.0s,mb4.5						
CLZ	**Clausthal**	**74.81**	**338**	*e*P	**P**	**12 06 39.8**	**-0.2**
CLZ				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.0						
CLZ	**Clausthal**	**74.81**	**338**	*e*P	**P**	**12 06 39.8**	**-0.2**
	comp=Z,27nm,0.9s,mb5.0						
CCM	**Cathedral Cave**	**74.82**	**49**	*e*P	**P**	**12 06 39.1**	**-1.2**
CCM				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.9						
CCM	**Cathedral Cave**	**74.82**	**49**	*e*P	**P**	**12 06 39.0**	**-1.2**
	comp=Z,23nm,1.0s,mb4.9						
FBE	**Freiberg**	**74.90**	**336**	*e*P	**P**	**12 06 40.9**	**+0.3**
	comp=Z,16nm,0.9s,mb4.8						
AAM	**Ann Arbor**	**74.93**	**41**	*e*P	**P**	**12 06 40.0**	**-0.9**
AAM				pmax	pmax		
	comp=Z,14nm,0.4s,mb5.0						
AAM	**Ann Arbor**	**74.93**	**41**	*e*P	**P**	**12 06 40.0**	**-0.8**
	comp=Z,14nm,0.4s,mb5.0						
PVCC	**Panska Ves**	**74.94**	**335**	*e*P	**P**	**12 06 41.0**	**+0.3**
PVCC				AMS	AMS	12 42 50.0	
	comp=Z,800nm,20.6s						
KECS	**Kecovo**	**75.02**	**331**	*e*P	**P**	**12 06 41.3**	**0.0**
KECS				pmax	pmax		
	comp=Z,12nm,0.5s,mb4.9						
KECS	**Kecovo**	**75.02**	**331**	*e*P	**P**	**12 06 41.3**	**0.0**
KECS				*e*		13 20 36.2	
KECS	**Kecovo**	**75.02**	**331**	*e*P	**P**	**12 06 41.3**	**0.0**
	comp=Z,12nm,0.5s,mb4.9						
VRI	**Vrincioaia**	**75.14**	**326**	⇑*i*P	**P**	**12 06 42.4**	**+0.4**
VRI	**Vrincioaia**	**75.14**	**326**	⇑P	**P**	**12 06 42.4**	**+0.3**
HPK	**Haverah Park**	**75.17**	**346**	*e*P	**P**	**12 06 42.2**	**+0.1**
HPK				AMb	AMB	12 06 44.6	
	comp=Z,101nm,2.3s,mb5.1						
PLOR	**Plostina**	**75.18**	**326**	⇑*i*P	**P**	**12 06 42.4**	**+0.1**
FVM	**French Village**	**75.27**	**48**	*e*P	**P**	**12 06 41.6**	**-1.3**
FVM				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.9						
FVM	**French Village**	**75.27**	**48**	*e*P	**P**	**12 06 41.5**	**-1.4**
	comp=Z,14nm,0.6s,mb4.9						
ASAR	**Alice Springs**	**75.30**	**200**	P	**P**	**12 06 42.4**	**-0.6**
ASAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ASAR	**Alice Springs**	**75.30**	**200**	P	**P**	**12 06 42.4**	**-0.7**
	comp=Z,9.9nm,0.6s,mb4.7,baz=12,slow=5.6,SNR=72						
KVT	**Kavak**	**75.33**	**317**	*e*P	**P**	**12 06 43.8**	**+0.7**
PRU	**Pruhonice**	**75.43**	**335**	*e*P	**P**	**12 06 44.3**	**+0.7**
PRU				AMS	AMS	12 43 00.0	
	comp=Z,800nm,18.0s						
VRAC	**Vranov**	**75.47**	**334**	P	**P**	**12 06 44.5**	**+0.7**
VRAC				pmax	pmax		
	comp=Z,32nm,0.6s						
VRAC	**Vranov**	**75.47**	**334**	⇑*i*P	**P**	**12 06 44.3**	**+0.5**
VRAC	**Vranov**	**75.47**	**334**	P	**P**	**12 06 44.5**	**+0.7**
	comp=Z,32nm,0.6s,mb5.2,baz=24,slow=5.3,SNR=28						
VRAC	**Vranov**	**75.47**	**334**	P	**P**	**12 06 44.4**	**+0.6**
WTSB	**Winterswijk**	**75.50**	**341**	*e*P	**P**	**12 06 44.4**	**+0.4**
VYHS	**Vyhne**	**75.52**	**332**	*e*P	**P**	**12 06 44.6**	**+0.4**
VYHS				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.9						
VYHS	**Vyhne**	**75.52**	**332**	*e*P	**P**	**12 06 44.6**	**+0.4**
	comp=Z,16nm,0.6s,mb4.9						
KOLL	**Kolacno**	**75.58**	**332**	*e*P	**P**	**12 06 45.2**	**+0.7**
TANN	**Tannenbergstha**	**75.60**	**337**	*e*P	**P**	**12 06 43.9**	**-0.7**
	comp=Z,79nm,2.6s,mb5.0						
MOX	**Moxa**	**75.60**	**337**	*e*P	**P**	**12 06 44.2**	**-0.4**
	comp=Z,29nm,1.4s,mb4.8						
MOX	**Moxa**	**75.60**	**337**	*e*P	**P**	**12 06 44.2**	**-0.4**
MOX				pmax	pmax		
	comp=Z,29nm,1.4s,mb4.8						
MOX	**Moxa**	**75.60**	**337**	*e*P	**P**	**12 06 44.4**	**-0.2**
	comp=Z,19nm,1.0s,mb4.8						
LHO	**Holmfirth**	**75.61**	**346**	*e*P	**P**	**12 06 44.4**	**-0.1**
WERD	**Werda**	**75.61**	**337**	*e*P	**P**	**12 06 44.2**	**-0.4**
	comp=Z,15nm,1.0s,mb4.7						
GUNZ	**Gunzen**	**75.68**	**337**	*e*P	**P**	**12 06 45.5**	**+0.5**
	comp=Z,19nm,0.8s,mb4.9						
HARR	**Harsova**	**75.69**	**324**	P	**P**	**12 06 45.7**	**+0.5**
TIRR	**Tirgusor**	**75.70**	**324**	*e*P	**P**	**12 06 44.8**	**-0.5**
TIRR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
TIRR	**Tirgusor**	**75.70**	**324**	*e*P	**P**	**12 06 44.8**	**-0.5**
	comp=Z,8.0nm,0.8s,mb4.5						
PSZ	**Piszkesteto**	**75.70**	**331**	*e*P	**P**	**12 06 45.8**	**+0.6**
PSZ				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
PSZ	**Piszkesteto**	**75.70**	**331**	⇑*i*P	**P**	**12 06 46.1**	**+0.9**
PSZ	**Piszkesteto**	**75.70**	**331**	⇓*e*P	**P**	**12 06 46.4**	**+1.2**
PSZ	**Piszkesteto**	**75.70**	**331**	*e*P	**P**	**12 06 45.8**	**+0.6**
	comp=Z,10nm,0.6s,mb4.7						
WERN	**Wernitzgruen**	**75.74**	**337**	*e*P	**P**	**12 06 46.0**	**+0.7**
	comp=Z,24nm,0.7s,mb5.0						
MLR	**Muntele Rosu**	**75.75**	**326**	P	**P**	**12 06 45.9**	**+0.4**
MLR				pmax	pmax		
	comp=Z,21nm,0.5s						
MLR	**Muntele Rosu**	**75.75**	**326**	⇓*i*P	**P**	**12 06 45.9**	**+0.4**
MLR	**Muntele Rosu**	**75.75**	**326**	P	**P**	**12 06 45.9**	**+0.4**
	comp=Z,21nm,0.5s,mb5.1,baz=5.8,slow=5.0,SNR=26						
MLR	**Muntele Rosu**	**75.75**	**326**	P	**P**	**12 06 46.0**	**+0.5**
DRGR		**75.77**	**329**	⇑*i*P	**P**	**12 06 45.8**	**+0.2**
DRGR		**75.77**	**329**	P	**P**	**12 06 46.1**	**+0.5**
NKC	**Novy Kostel**	**75.77**	**337**	*e*P	**P**	**12 06 45.7**	**+0.2**
OLIL	**Olney**	**75.79**	**46**	*e*P	**P**	**12 06 45.5**	**-0.4**
	comp=Z,31nm,1.0s,mb5.0						
TREC	**Trest**	**75.80**	**334**	*e*P	**P**	**12 06 46.5**	**+0.8**
TREC				AMS	AMS	12 42 00.0	
	comp=Z,500nm,22.8s						
KBI1	**Birley Grange**	**75.84**	**346**	*e*P	**P**	**12 06 45.7**	**-0.2**
SVSK	**Karacayir**	**75.84**	**316**	*e*P	**P**	**12 06 46.9**	**+0.8**
BUG	**Bochum--Univer**	**75.89**	**340**	*e*P	**P**	**12 06 46.6**	**+0.4**
	comp=Z,22nm,0.9s,mb4.9						
SMOL	**Smolenice**	**75.93**	**333**	*e*P	**P**	**12 06 48.3**	**+1.8**
SIUC	**Southern Illin**	**76.07**	**48**	*e*P	**P**	**12 06 46.9**	**-0.6**
	comp=Z,36nm,1.0s,mb5.0						
MANZ	**Manzenberg**	**76.08**	**337**	*e*P	**P**	**12 06 47.7**	**+0.4**
	comp=Z,14nm,0.9s,mb4.7						
MODS	**Modra-Piesok**	**76.10**	**333**	*e*P	**P**	**12 06 48.9**	**+1.4**
MODS				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
MODS	**Modra-Piesok**	**76.10**	**333**	*e*P	**P**	**12 06 48.9**	**+1.4**
	comp=Z,13nm,0.9s,mb4.7						
KWE	**Weaver Farm**	**76.11**	**346**	*e*P	**P**	**12 06 47.8**	**+0.3**
VOIR		**76.12**	**327**	⇓*i*P	**P**	**12 06 48.1**	**+0.5**
VOIR		**76.12**	**327**	P	**P**	**12 06 48.0**	**+0.4**
JCT	**Junction City**	**76.13**	**59**	*e*P	**P**	**12 06 47.1**	**-0.9**
JCT				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.0						
JCT	**Junction City**	**76.13**	**59**	*e*P	**P**	**12 06 47.1**	**-0.9**
	comp=Z,40nm,1.3s,mb5.0						
ROTZ	**Rotzenmuhle**	**76.26**	**336**	*e*P	**P**	**12 06 48.9**	**+0.6**
	comp=Z,19nm,1.0s,mb4.8						
CWF	**Charnwood Fore**	**76.30**	**346**	*e*P	**P**	**12 06 48.4**	**-0.1**
CWF				AMb	AMB	12 06 50.5	
	comp=Z,63nm,1.5s,mb5.1						
ZST	**Bratislava**	**76.31**	**333**	*e*P	**P**	**12 06 50.3**	**+1.6**
ZST				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.9						
ZST	**Bratislava**	**76.31**	**333**	*e*P	**P**	**12 06 50.3**	**+1.6**
	comp=Z,22nm,0.9s,mb4.9						
BUD	**Budapest**	**76.36**	**331**	⇓*e*P	**P**	**12 06 50.1**	**+1.1**
MIAR	**Mount Ida**	**76.38**	**53**	*e*P	**P**	**12 06 48.5**	**-0.8**
MIAR				*e*		12 07 00.7	
MIAR				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.1						
MIAR	**Mount Ida**	**76.38**	**53**	*e*P	**P**	**12 06 48.5**	**-0.8**
	comp=Z,29nm,0.8s,mb5.1						
MIAR				*e*PcP	PcP	12 07 00.7	-0.1
PSN	**Preselentsi**	**76.44**	**324**	P	**P**	**12 06 51.0**	**+1.5**
MYA	**Malataya**	**76.45**	**314**	*e*P	**P**	**12 06 51.6**	**+2.0**
MALT	**Malatya**	**76.46**	**314**	*e*P	**P**	**12 06 50.1**	**+0.4**
MALT	**Malatya**	**76.46**	**314**	*e*P	**P**	**12 06 50.9**	**+1.2**
MALT				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.8						
MALT	**Malatya**	**76.46**	**314**	⇑*i*P	**P**	**12 06 51.2**	**+1.5**
MALT	**Malatya**	**76.46**	**314**	*e*P	**P**	**12 06 50.9**	**+1.2**
	comp=Z,16nm,0.8s,mb4.8						
KHC	**Kasperske Hory**	**76.47**	**335**	*e*P	**P**	**12 06 49.9**	**+0.3**
KHC				*e*x	x	12 06 55.1	
KHC				*e*pP	pP	12 07 04.0	-4.0
KHC				AMS	AMS	12 43 50.0	
	comp=Z,700nm,17.5s						
DLF	**Lyons Farm**	**76.50**	**349**	*e*P	**P**	**12 06 46.8**	**-2.8**
DLF	**Lyons Farm**	**76.50**	**349**	⇑*i*P	**P**	**12 06 49.9**	**+0.3**
DSB	**Dublin**	**76.53**	**349**	*e*P	**P**	**12 06 49.3**	**-0.5**
	comp=Z,18nm,0.6s,mb5.0						
DCN	**Croghan**	**76.54**	**349**	*e*P	**P**	**12 06 47.0**	**-2.9**
DCN	**Croghan**	**76.54**	**349**	⇑*i*P	**P**	**12 06 50.0**	**+0.1**
GRA1	**Grafenberg Arr**	**76.58**	**337**	*e*P	**P**	**12 06 50.9**	**+0.8**
	comp=Z,53nm,0.8s,mb5.3						
GRA1				LR	LR		
	comp=Z,300nm,21.3s						
GRF	**Grafenberg Arr**	**76.58**	**337**	*e*P	**P**	**12 06 50.9**	**+0.8**
GRF				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.3						
GRF				MLR	MLR		
	comp=Z,300nm,21.3s						
GRF	**Grafenberg Arr**	**76.58**	**337**	*e*P	**P**	**12 06 50.9**	**+0.8**
GRF				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.3						
GRF				MLR	MLR		
	comp=Z,300nm,21.3s						
GRF	**Grafenberg Arr**	**76.58**	**337**	*e*P	**P**	**12 06 50.9**	**+0.8**
	comp=Z,53nm,0.8s,mb5.3						
GRF				*e*L		12 42 57.7	
	comp=Z,280nm,21.3s						
PARMO	**Parma**	**76.64**	**49**	*e*P	**P**	**12 06 50.1**	**-0.7**
WET	**Wettzell**	**76.65**	**336**	*e*P	**P**	**12 06 51.4**	**+0.8**
WET				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.1						
WET	**Wettzell**	**76.65**	**336**	*e*P	**P**	**12 06 51.4**	**+0.8**
	comp=Z,29nm,0.8s,mb5.1						
SAFT	**Safranbolu**	**76.66**	**319**	*e*P	**P**	**12 06 53.0**	**+2.3**
CORM	**Corum**	**76.69**	**317**	*e*P	**P**	**12 06 53.0**	**+2.1**
GERES	**GERESS Array B**	**76.70**	**335**	P	**P**	**12 06 51.1**	**+0.3**
GERES				pmax	pmax		
	comp=Z,13nm,0.5s						
GERES				MLR	MLR		
	comp=Z,747nm,20.6s						
GERES	**GERESS Array B**	**76.70**	**335**	P	**P**	**12 06 51.1**	**+0.2**
	comp=Z,13nm,0.5s,mb4.9,baz=35,slow=5.6,SNR=96						
GERES				LR	LR	12 44 36.2	
	comp=Z,747nm,20.6s,baz=23,slow=39						
TNS	**Taunus Mts**	**76.77**	**339**	*e*P	**P**	**12 06 51.7**	**+0.5**
TNS				pmax	pmax		
	comp=Z,69nm,0.7s,mb5.5						
TNS	**Taunus Mts**	**76.77**	**339**	*e*P	**P**	**12 06 51.7**	**+0.5**
	comp=Z,69nm,0.7s,mb5.5						
HGN	**Heimansgroeve**	**76.82**	**341**	⇑*e*P	**P**	**12 06 51.1**	**-0.4**
	comp=Z,41nm,1.0s,mb5.1						
ACSO	**Alum Creek Sta**	**76.91**	**42**	*e*P	**P**	**12 06 51.3**	**-0.9**
	comp=Z,24nm,1.2s,mb4.8						
CONA	**Conrad Observa**	**76.92**	**333**	⇑*i*P	**P**	**12 06 52.7**	**+0.6**
	comp=Z,35nm,0.7s,mb5.2						
CSNA	**Conrad Observa**	**76.92**	**333**	⇑*i*P	**P**	**12 06 52.9**	**+0.7**
	comp=Z,34nm,0.7s,mb5.2						
MEM	**Membach**	**76.95**	**341**	P	**P**	**12 06 52.8**	**+0.6**
	comp=Z,68nm,1.1s,mb5.3						
GZR	**Gura Zlata**	**76.96**	**328**	⇓*i*P	**P**	**12 06 52.5**	**+0.1**
GZR	**Gura Zlata**	**76.96**	**328**	P	**P**	**12 06 52.9**	**+0.5**
SARI	**SarD1z-Kayseri**	**76.97**	**315**	*e*P	**P**	**12 06 55.7**	**+3.1**
WCI	**Wyandotte Cave**	**77.04**	**45**	*e*P	**P**	**12 06 52.2**	**-0.8**
WCI				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.2						
WCI	**Wyandotte Cave**	**77.04**	**45**	*e*P	**P**	**12 06 52.2**	**-0.8**
	comp=Z,38nm,0.8s,mb5.2						
UCC	**Uccle**	**77.12**	**342**	P	**P**	**12 06 53.6**	**+0.4**
BZS	**Buzias**	**77.16**	**329**	⇓*i*P	**P**	**12 06 53.3**	**-0.2**
BZS	**Buzias**	**77.16**	**329**	P	**P**	**12 06 53.6**	**+0.1**
WBK	**Wadi Bani Khal**	**77.24**	**290**	⇑P	**P**	**12 06 55.2**	**+0.9**
	SNR=5.8						
TOD	**Tromm**	**77.25**	**339**	⇑*e*P	**P**	**12 06 53.6**	**-0.3**
MCH1	**Michaelchurch**	**77.28**	**347**	*e*P	**P**	**12 06 53.8**	**-0.3**
MCH1				AMb	AMB	12 06 57.4	
	comp=Z,40nm,1.5s,mb4.9						
BCLA	**Clavier**	**77.28**	**341**	P	**P**	**12 06 54.7**	**+0.6**
	comp=Z,17nm,1.1s,mb4.7						
ABH	**Alteburg**	**77.29**	**339**	⇑*e*P	**P**	**12 06 54.2**	**+0.1**
HATD	**Hatta, Dubai**	**77.31**	**293**	P	**P**	**12 06 55.4**	**+0.7**
	SNR=12						
SNF	**Seneffe**	**77.41**	**342**	P	**P**	**12 06 55.2**	**+0.4**
MOA	**Molln**	**77.45**	**334**	⇓*i*P	**P**	**12 06 55.2**	**+0.2**
	comp=Z,20nm,0.7s,mb5.0						
BRTR	**Keskin Array B**	**77.49**	**318**	P	**P**	**12 06 56.0**	**+0.5**
BRTR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BRTR	**Keskin Array B**	**77.49**	**318**	P	**P**	**12 06 56.0**	**+0.6**
	comp=Z,9.8nm,0.9s,mb4.5						
SWN1	**Swindon**	**77.56**	**346**	*e*P	**P**	**12 06 56.2**	**+0.6**
SWN1				AMb	AMB	12 06 57.9	
	comp=Z,204nm,1.1s,mb5.8						
RUP	**Ruppelstein**	**77.57**	**340**	⇑*e*P	**P**	**12 06 55.7**	**0.0**
HGH	**Gray Hill**	**77.60**	**346**	*e*P	**P**	**12 06 55.7**	**-0.2**
PKSM	**Moragy**	**77.61**	**331**	⇓*i*P	**P**	**12 06 55.6**	**-0.4**
PKSM	**Moragy**	**77.61**	**331**	P	**P**	**12 06 55.9**	**-0.1**
ARSA	**Arzberg**	**77.63**	**333**	⇑*i*P	**P**	**12 06 56.7**	**+0.7**
	comp=Z,21nm,0.6s,mb5.0						
SZH	**Strazhica**	**77.66**	**325**	P	**P**	**12 06 56.1**	**-0.2**
WOL	**Wolverton**	**77.66**	**345**	*e*P	**P**	**12 06 56.0**	**-0.2**
WOL				AMb	AMB	12 06 59.6	
	comp=Z,178nm,1.5s,mb5.6						
GIVF	**Givet**	**77.68**	**341**	⇑*i*P	**P**	**12 06 56.3**	**0.0**
	comp=Z,71nm,1.1s,mb5.0						
GIVF	**Givet**	**77.68**	**341**	⇑*i*P	**P**	**12 06 56.3**	**0.0**
GIVF				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.0						
GIVF	**Givet**	**77.68**	**341**	⇑*i*P	**P**	**12 06 56.3**	**0.0**
	comp=Z,36nm,1.1s,mb5.0						
DOU	**Dourbes**	**77.74**	**341**	P	**P**	**12 06 56.8**	**+0.2**
	comp=Z,16nm,1.3s,mb4.6						
MENF	**Mencas**	**77.79**	**343**	⇑*e*P	**P**	**12 06 57.1**	**+0.2**
WLF	**Walferdange**	**77.81**	**340**	P	**P**	**12 06 57.7**	**+0.7**
WLF	**Walferdange**	**77.81**	**340**	*e*P	**P**	**12 06 57.7**	**+0.7**
	comp=Z,19nm,0.8s,mb4.9						
KMRS	**Kahramanmaras**	**77.83**	**314**	*e*P	**P**	**12 06 58.2**	**+0.8**
BAIF	**Baives**	**77.85**	**342**	⇑*i*P	**P**	**12 06 57.4**	**+0.1**
	comp=Z,58nm,0.9s,mb5.0						
BAIF	**Baives**	**77.85**	**342**	⇑*i*P	**P**	**12 06 57.4**	**+0.1**
BAIF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.0						
BAIF	**Baives**	**77.85**	**342**	⇑*i*P	**P**	**12 06 57.4**	**+0.1**
	comp=Z,29nm,0.9s,mb5.0						
STU	**Stuttgart**	**77.94**	**338**	*e*P	**P**	**12 06 58.2**	**+0.4**
	comp=Z,29nm,0.7s,mb5.1						
JMDO	**Jabal Madar**	**77.95**	**290**	P	**P**	**12 06 58.8**	**+0.5**
	SNR=15						
RJOB	**Jochberg**	**77.96**	**335**	*e*P	**P**	**12 06 58.8**	**+0.9**
	comp=Z,23nm,1.1s,mb4.8						
FUR	**Furstenfeldbru**	**77.97**	**336**	*e*P	**P**	**12 06 58.8**	**+0.8**
FUR				pmax	pmax		
	comp=Z,54nm,1.2s,mb5.2						
FUR	**Furstenfeldbru**	**77.97**	**336**	*e*P	**P**	**12 06 58.8**	**+0.8**
	comp=Z,54nm,1.2s,mb5.2						
WVT	**Waverly**	**78.00**	**48**	*e*P	**P**	**12 06 57.6**	**-0.8**
WVT				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
WVT	**Waverly**	**78.00**	**48**	*e*P	**P**	**12 06 57.6**	**-0.8**
	comp=Z,9.7nm,0.8s,mb4.6						
LANF	**Langenberg**	**78.08**	**339**	⇑*e*P	**P**	**12 06 58.8**	**+0.3**
KLYT	**Kilyos**	**78.16**	**322**	*e*P	**P**	**12 06 58.8**	**-0.3**
ARQ	**Araqi**	**78.19**	**292**	P	**P**	**12 07 00.2**	**+0.6**
	SNR=7.3						
BSY	**Bisya**	**78.22**	**291**	P	**P**	**12 07 00.7**	**+0.9**
	SNR=8.6						
SOKA	**Soboth**	**78.29**	**333**	⇑*i*P	**P**	**12 07 00.1**	**+0.4**
	comp=Z,47nm,0.6s,mb5.4						
KOZT	**Kozan**	**78.35**	**315**	*e*P	**P**	**12 07 03.5**	**+3.3**
MPEP	**Malo Peshtene**	**78.39**	**326**	P	**P**	**12 07 00.8**	**+0.4**
KBA	**Koelnbreinsper**	**78.41**	**335**	⇑*i*P	**P**	**12 07 01.6**	**+1.2**
	comp=Z,163nm,0.6s,mb6.0						
HTL	**Hartland**	**78.48**	**347**	*e*P	**P**	**12 07 00.8**	**+0.1**
HTL				AMb	AMB	12 07 04.0	
	comp=Z,72nm,2.1s,mb5.0						
OXF	**Oxford**	**78.52**	**50**	*e*P	**P**	**12 07 00.5**	**-0.7**
OXF				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.3						
OXF	**Oxford**	**78.52**	**50**	*e*P	**P**	**12 07 00.5**	**-0.7**
	comp=Z,61nm,1.2s,mb5.3						
BFO	**Black Forest**	**78.56**	**338**	P	**P**	**12 07 01.9**	**+0.7**
	comp=Z,227nm,0.6s,mb6.2,SNR=10						
BFO	**Black Forest**	**78.56**	**338**	*e*P	**P**	**12 07 01.2**	**0.0**
BFO				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.2						
BFO	**Black Forest**	**78.56**	**338**	*e*P	**P**	**12 07 01.2**	**0.0**
	comp=Z,29nm,0.8s,mb5.2						
EDRB	**Edirne**	**78.56**	**324**	*e*P	**P**	**12 07 01.2**	**-0.1**
OBKA	**Obir**	**78.59**	**334**	⇑*i*P	**P**	**12 07 01.8**	**+0.4**
	comp=Z,44nm,0.5s,mb5.5						
MIB	**Mutribah**	**78.59**	**303**	*e*P	**P**	**12 07 01.8**	**0.0**
MIB				AMb	AMB	12 07 03.6	
	comp=Z,172nm,0.5s,mb6.1						
WATA	**Walderalm**	**78.66**	**336**	⇑*i*P	**P**	**12 07 02.7**	**+0.9**
	comp=Z,33nm,0.6s,mb5.3						
SPAK	**Spaichingen-Ko**	**78.66**	**338**	⇑*e*P	**P**	**12 07 01.8**	**0.0**
WTTA	**Wattenberg**	**78.71**	**336**	⇑*i*P	**P**	**12 07 02.8**	**+0.8**
	comp=Z,129nm,1.3s,mb5.6						
CDF	**Champ du Feu**	**78.73**	**339**	⇑*i*P	**P**	**12 07 02.4**	**+0.3**
	comp=Z,89nm,0.9s,mb5.3						
CDF	**Champ du Feu**	**78.73**	**339**	⇑*i*P	**P**	**12 07 02.4**	**+0.3**
CDF				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.3						
CDF	**Champ du Feu**	**78.73**	**339**	⇑*i*P	**P**	**12 07 02.4**	**+0.3**
	comp=Z,44nm,0.9s,mb5.3						
RETA	**Reutte**	**78.73**	**336**	⇑*i*P	**P**	**12 07 02.7**	**+0.5**
	comp=Z,21nm,0.7s,mb5.1						
MYKA	**Terra Mystica**	**78.74**	**334**	⇑*i*P	**P**	**12 07 02.4**	**+0.2**
	comp=Z,26nm,0.5s,mb5.3						
MOTA	**Moosalm**	**78.77**	**336**	⇓*i*P	**P**	**12 07 03.2**	**+0.8**
	comp=Z,48nm,0.8s,mb5.4						
PLAL	**Pickwick Lake**	**78.80**	**49**	*e*P	**P**	**12 07 01.7**	**-1.1**
	comp=Z,33nm,1.4s,mb5.0						
SULT	**Sultanhani-AKS**	**78.80**	**317**	*e*P	**P**	**12 07 03.3**	**+0.6**
KBD	**Kabd**	**78.88**	**302**	*e*P	**P**	**12 07 03.4**	**+0.1**
KBD				AMb	AMB	12 07 05.3	
	comp=Z,53nm,0.7s,mb5.5						
LIBD	**Limburg**	**78.90**	**339**	⇑*e*P	**P**	**12 07 03.3**	**+0.2**
PGB	**Panagyurishte**	**78.93**	**326**	P	**P**	**12 07 03.3**	**-0.1**
DYA	**Yadsworthy**	**78.94**	**347**	*e*P	**P**	**12 07 03.2**	**0.0**
DYA				AMb	AMB	12 07 04.6	
	comp=Z,123nm,1.4s,mb5.5						
ECH	**Echery**	**78.94**	**339**	⇑*e*P	**P**	**12 07 03.3**	**0.0**
ECH	**Echery**	**78.94**	**339**	*e*P	**P**	**12 07 03.1**	**-0.2**
ECH				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.3						
ECH	**Echery**	**78.94**	**339**	*e*P	**P**	**12 07 03.1**	**-0.2**
	comp=Z,46nm,1.0s,mb5.3						
ABTA	**Abfaltersbach**	**78.94**	**335**	⇓*i*P	**P**	**12 07 03.3**	**-0.1**
	comp=Z,36nm,0.6s,mb5.4						
LJU	**Ljubljana**	**79.02**	**333**	*i* P	**P**	**12 07 03.6**	**-0.2**
PTCC	**Patocco-Chiusa**	**79.02**	**334**	P	**P**	**12 07 03.5**	**-0.3**
DIVS	**Divibare**	**79.05**	**329**	P	**P**	**12 07 03.6**	**-0.4**
FELD	**Feldberg im Sc**	**79.06**	**338**	⇑*e*P	**P**	**12 07 04.0**	**0.0**
NAY	**Al-Naaiem**	**79.08**	**302**	*e*P	**P**	**12 07 04.2**	**-0.2**
NAY				AMb	AMB	12 07 06.5	
	comp=Z,81nm,0.7s,mb5.6						
QRN	**Al-Qurain**	**79.09**	**302**	*e*P	**P**	**12 07 04.3**	**-0.1**
QRN				AMb	AMB	12 07 06.1	
	comp=Z,109nm,0.7s,mb5.8						
VISS	**Visnje**	**79.14**	**333**	*i* P	**P**	**12 07 04.1**	**-0.4**
DAVA	**Damuels**	**79.14**	**337**	⇑*i*P	**P**	**12 07 05.1**	**+0.6**
	comp=Z,46nm,0.8s,mb5.4						
MEZF	**Maizieres J’vi**	**79.15**	**340**	⇑*i*P	**P**	**12 07 04.8**	**+0.4**
	comp=Z,90nm,0.9s,mb5.3						
MEZF	**Maizieres J’vi**	**79.15**	**340**	⇑*i*P	**P**	**12 07 04.8**	**+0.4**
	comp=Z,90nm,0.9s,mb5.6						
RDF	**Al-Radifah**	**79.16**	**302**	*e*P	**P**	**12 07 05.0**	**+0.2**
RDF				AMb	AMB	12 07 06.9	
	comp=Z,179nm,0.7s,mb6.0						
CSA1	**St Austell**	**79.16**	**347**	*e*P	**P**	**12 07 03.9**	**-0.6**
FETA	**Feichten**	**79.17**	**336**	⇓*i*P	**P**	**12 07 05.3**	**+0.7**
	comp=Z,27nm,0.7s,mb5.2						
THEF	**They Montfort**	**79.20**	**340**	⇑*e*P	**P**	**12 07 04.8**	**+0.1**
VOY	**Vojsko**	**79.21**	**334**	*e*P	**P**	**12 07 04.0**	**-0.8**
VOY				*e*		12 07 09.2	
KDZ	**Kurdzhali**	**79.24**	**324**	P	**P**	**12 07 05.7**	**+0.6**
VTS	**Vitosha**	**79.25**	**326**	P	**P**	**12 07 04.9**	**-0.2**
VTS	**Vitosha**	**79.25**	**326**	P	**P**	**12 07 04.9**	**-0.2**
VTS	**Vitosha**	**79.25**	**326**	P	**P**	**12 07 05.3**	**+0.2**
JAVS	**Javornik**	**79.29**	**334**	*i* P	**P**	**12 07 04.6**	**-0.6**
MOF	**Molkenrain**	**79.29**	**339**	⇑*e*P	**P**	**12 07 05.0**	**-0.2**
BOJS	**Bojanci**	**79.29**	**333**	*i* P	**P**	**12 07 05.2**	**-0.1**
KRTS	**Karatas**	**79.29**	**315**	*e*P	**P**	**12 07 06.5**	**+1.0**
HAU	**Haudompre**	**79.33**	**340**	⇑*i*P	**P**	**12 07 05.5**	**+0.1**
	comp=Z,63nm,0.8s,mb5.2						
HAU				*e*MLR	MLR		
	comp=Z,231nm,21.2s						
HAU	**Haudompre**	**79.33**	**340**	⇑*i*P	**P**	**12 07 05.5**	**+0.1**
HAU				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.2						
HAU				MLR	MLR		
	comp=Z,230nm,21.3s						
HAU	**Haudompre**	**79.33**	**340**	⇑*i*P	**P**	**12 07 05.5**	**+0.1**
	comp=Z,32nm,0.8s,mb5.2						
HAU				LR	LR		
	comp=Z,230nm,21.3s						
HINF	**Hinteralfeld**	**79.39**	**339**	⇑*i*P	**P**	**12 07 05.6**	**-0.1**
	comp=Z,19nm,0.6s,mb4.8						
HINF	**Hinteralfeld**	**79.39**	**339**	⇑*i*P	**P**	**12 07 05.6**	**-0.1**
HINF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
HINF	**Hinteralfeld**	**79.39**	**339**	⇑*i*P	**P**	**12 07 05.6**	**-0.1**
	comp=Z,9.7nm,0.6s,mb4.8						
MERS	**Mersin**	**79.44**	**316**	*e*P	**P**	**12 07 06.6**	**+0.3**
RZN	**Rozhen**	**79.47**	**325**	P	**P**	**12 07 06.8**	**+0.5**
APPI	**Appiano**	**79.54**	**336**	P	**P**	**12 07 06.5**	**-0.1**
ALT	**Altintas**	**79.56**	**320**	*e*P	**P**	**12 07 06.5**	**-0.3**
BBS	**Basel-Blauen**	**79.56**	**339**	⇑*e*P	**P**	**12 07 06.9**	**+0.2**
DAVOS	**Davos**	**79.58**	**337**	P	**P**	**12 07 08.0**	**+1.2**
ARMA	**Armidale**	**79.59**	**183**	*e*P	**P**	**12 07 06.6**	**-0.2**
DAVOX	**Davos/Dischmat**	**79.61**	**337**	P	**P**	**12 07 08.0**	**+1.0**
	comp=Z,41nm,0.7s,mb5.4,baz=360,slow=3.4,SNR=42						
ALN	**Alexandroupoli**	**79.65**	**323**	P	**P**	**12 07 07.1**	**-0.2**
ALN	**Alexandroupoli**	**79.65**	**323**	*e*P	**P**	**12 07 07.3**	**0.0**

SWET	Sewanee	79.65	47	eP	P	12 07 06.3	-1.1
SHUT	Suhut-Afyon	79.80	319	eP	P	12 07 09.1	+0.9
LPK	Lapseki	79.81	323	eP	P	12 07 08.2	0.0
CTI	Castel Tesino	79.82	335	P	P	12 07 08.0	-0.1
LOMF	Lomont	79.83	339⇑	eP	P	12 07 08.3	+0.1
JSA	Saint Aubin	79.88	345	eP	P	12 07 08.3	-0.1
JSA				AMb	AMB	12 07 09.8	
	comp=Z,142nm,1.4s,mb5.6						
MMB	Musomiste	79.93	325	P	P	12 07 08.9	+0.1
PLE	Pljevlja	79.93	329⇑	iP	P	12 07 09.2	+0.4
PLE	Pljevlja	79.93	329⇑	iP	P	12 07 09.2	+0.5
FLN	La Foliniere	80.00	344⇑	iP	P	12 07 09.1	+0.1
	comp=Z,201nm,0.9s,mb5.7						
FLN				eMLR	MLR		
	comp=Z,346nm,20.8s						
FLN	La Foliniere	80.00	344⇑	iP	P	12 07 09.1	+0.1
FLN				pmax	pmax		
	comp=Z,101nm,0.9s,mb5.7						
FLN				MLR	MLR		
	comp=Z,350nm,20.8s						
FLN	La Foliniere	80.00	344⇑	iP	P	12 07 09.1	+0.1
	comp=Z,101nm,0.9s,mb5.7						
FLN				LR	LR		
	comp=Z,350nm,20.8s						
TUE	Stuetta	80.04	337	eP	P	12 07 10.1	+0.8
	comp=Z,71nm,0.8s,mb5.5						
LDF	La Druitiere	80.09	344⇑	iP	P	12 07 09.6	+0.1
	comp=Z,66nm,0.4s,mb5.5						
MABI	Malga Bissina	80.12	336	P	P	12 07 08.9	-0.8
IVA	Berane	80.16	329⇑	iP	P	12 07 10.2	+0.2
IVA	Berane	80.16	329⇑	iP	P	12 07 10.3	+0.2
UPM	Unac-Piva	80.20	329⇑	iP	P	12 07 09.6	-0.6
UPM	Unac-Piva	80.20	329⇑	iP	P	12 07 09.7	-0.6
HDMB	Hadim	80.28	317	eP	P	12 07 10.8	0.0
TKL	Tuckaleechee C	80.30	45	LR	LR	12 42 47.7	
	comp=Z,185nm,19.5s,baz=81,slow=36						
IKL	Isikli	80.34	316	eP	P	12 07 11.0	-0.1
PVY	Plav	80.38	328⇑	iP	P	12 07 09.8	-1.4
PVY	Plav	80.38	328⇑	iP	P	12 07 09.8	-1.4
SRS	Serrai	80.39	325	P	P	12 07 11.0	-0.3
ISP	Isparta	80.41	319 ⇑	P	P	12 07 12.1	+0.6
ISP	Isparta	80.41	319⇑	iP	P	12 07 12.1	+0.6
ISP	Isparta	80.41	319 ⇑	P	P	12 07 12.1	+0.7
GRR	Gorron	80.42	344⇑	iP	P	12 07 11.7	+0.4
	comp=Z,283nm,0.8s,mb5.9						
GRR	Gorron	80.42	344⇑	iP	P	12 07 11.7	+0.4
GRR				pmax	pmax		
	comp=Z,142nm,0.8s,mb5.8						
GRR	Gorron	80.42	344⇑	iP	P	12 07 11.7	+0.4
	comp=Z,142nm,0.8s,mb5.8						
EZN	Ezine	80.45	323	eP	P	12 07 11.0	-0.6
NKY	Niksic	80.52	329⇑	iP	P	12 07 10.7	-1.2
NKY	Niksic	80.52	329⇑	iP	P	12 07 10.7	-1.2
LOR	Lormes	80.58	341⇑	iP	P	12 07 12.3	+0.1
	comp=Z,121nm,0.9s,mb5.4						
LOR				eMLR	MLR		
	comp=Z,402nm,21.5s						
LOR	Lormes	80.58	341⇑	iP	P	12 07 12.3	+0.1
LOR				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.4						
LOR				MLR	MLR		
	comp=Z,400nm,21.5s						
LOR	Lormes	80.58	341⇑	iP	P	12 07 12.3	+0.1
	comp=Z,61nm,0.9s,mb5.4						
LOR				LR	LR		
	comp=Z,400nm,21.5s						
VAY	Valandovo	80.59	326	i P	P	12 07 12.0	-0.3
BRY	Bratogost	80.59	329⇑	iP	P	12 07 11.4	-0.9
BRY	Bratogost	80.59	329⇑	iP	P	12 07 11.5	-0.9
TAOE	Nuku Hiva Isla	80.59	115	eLR	LR	12 32 24.6	
	comp=Z,716nm,23.5s						
KNT	Kendrikon	80.61	326	P	P	12 07 12.5	+0.1
AKS	Akhisar	80.67	321	eP	P	12 07 12.6	-0.2
CABF	La Chapelle	80.70	339⇑	iP	P	12 07 13.3	+0.5
	comp=Z,57nm,0.9s,mb5.1						
CABF	La Chapelle	80.70	339⇑	iP	P	12 07 13.3	+0.5
CABF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.1						
CABF	La Chapelle	80.70	339⇑	iP	P	12 07 13.3	+0.5
	comp=Z,28nm,0.9s,mb5.1						
EREN	Erenkoy	80.71	315	eP	P	12 07 13.1	0.0
SOH	Sokhos	80.73	325	eP	P	12 07 13.0	-0.1
TTG	Podgorica	80.77	329⇑	iP	P	12 07 12.5	-0.8
TTG	Podgorica	80.77	329⇑	iP	P	12 07 12.5	-0.8
RAR	Rarotonga	80.79	138	LR	LR	12 35 39.6	
	comp=Z,202nm,21.0s,baz=277,slow=30						
OG01	Vacheresse	80.83	339⇑	eP	P	12 07 14.1	+0.6
HYF	Humbligny	80.83	342⇑	iP	P	12 07 14.1	+0.6
LIA	Limnos Island	80.84	324	P	P	12 07 13.4	-0.3
LIA	Limnos Island	80.84	324	eP	P	12 07 12.2	-1.5
SGMF	Saint Gilles	80.84	345⇑	iP	P	12 07 14.0	+0.4
	comp=Z,242nm,0.6s,mb5.9						
SGMF	Saint Gilles	80.84	345⇑	iP	P	12 07 14.0	+0.4
SGMF				pmax	pmax		
	comp=Z,121nm,0.6s,mb5.9						
SGMF	Saint Gilles	80.84	345⇑	iP	P	12 07 14.0	+0.4
	comp=Z,121nm,0.6s,mb5.9						
SSF	Saint Saulge	80.85	341⇑	iP	P	12 07 13.8	+0.2
	comp=Z,52nm,0.8s,mb5.1						
SSF	Saint Saulge	80.85	341⇑	iP	P	12 07 13.8	+0.2
SSF				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.1						
SSF	Saint Saulge	80.85	341⇑	iP	P	12 07 13.8	+0.2
	comp=Z,26nm,0.8s,mb5.1						
LOS	Limnos	80.85	324	P	P	12 07 13.6	-0.2
ROSF	Rostrenen	80.88	346⇑	iP	P	12 07 14.2	+0.4
	comp=Z,279nm,0.9s,mb5.8						
ROSF	Rostrenen	80.88	346⇑	iP	P	12 07 14.2	+0.4
ROSF				pmax	pmax		
	comp=Z,140nm,0.9s,mb5.8						
ROSF	Rostrenen	80.88	346⇑	iP	P	12 07 14.2	+0.4
	comp=Z,140nm,0.9s,mb5.8						
PUK	Puka	80.90	328	i P	P	12 07 13.7	-0.3
OUR	Ouranopolis	80.92	325	P	P	12 07 13.6	-0.5
GRG	Griva	80.97	326	P	P	12 07 13.9	-0.5
BUM	Brajici-Budva	81.01	329⇑	iP	P	12 07 13.3	-1.3
BUM	Brajici-Budva	81.01	329⇑	iP	P	12 07 13.4	-1.2
HCY	Herceg Novi	81.01	329⇑	iP	P	12 07 13.5	-1.1
KRUS	Krusevo	81.02	327	i P	P	12 07 14.1	-0.6
HORT	Hortiatis	81.02	325	P	P	12 07 13.0	-1.7
BST	Brest	81.04	346	eP	P	12 07 15.2	+0.6
PLG	Polygyros	81.09	325	eP	P	12 07 14.5	-0.5
AVF	Avril sur Loir	81.14	341⇑	iP	P	12 07 15.4	+0.2
	comp=Z,135nm,1.0s,mb5.5						
AVF	Avril sur Loir	81.14	341⇑	iP	P	12 07 15.4	+0.2
AVF				pmax	pmax		
	comp=Z,68nm,1.0s,mb5.4						
AVF	Avril sur Loir	81.14	341⇑	iP	P	12 07 15.4	+0.2
	comp=Z,68nm,1.0s,mb5.4						
SMF	Signal de Mont	81.17	341⇑	iP	P	12 07 15.6	+0.3
	comp=Z,154nm,0.9s,mb5.5						
SMF	Signal de Mont	81.17	341⇑	iP	P	12 07 15.6	+0.3
SMF				pmax	pmax		
	comp=Z,77nm,0.9s,mb5.5						
SMF	Signal de Mont	81.17	341⇑	iP	P	12 07 15.6	+0.3
	comp=Z,77nm,0.9s,mb5.5						
ULC	Ulcinj	81.19	329⇓	iP	P	12 07 15.0	-0.5
ULC	Ulcinj	81.19	329⇓	iP	P	12 07 15.1	-0.5
LFK	Lefkose	81.21	315	eP	P	12 07 16.0	+0.3
QUIF	Quistinic	81.27	346⇑	iP	P	12 07 16.2	+0.4
	comp=Z,109nm,0.9s,mb5.4						
QUIF	Quistinic	81.27	346⇑	iP	P	12 07 16.2	+0.4
QUIF				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.4						
QUIF	Quistinic	81.27	346⇑	iP	P	12 07 16.2	+0.4
	comp=Z,54nm,0.9s,mb5.4						
IZM	Izmir	81.30	321	eP	P	12 07 16.2	0.0
OG05	Jujurieux	81.38	339⇑	eP	P	12 07 16.8	+0.3
PAIG	Paliouri	81.39	325	P	P	12 07 16.0	-0.6
OHR	Ohrid	81.41	327	i P	P	12 07 15.8	-0.9
RSL	Roselend	81.44	339⇑	eP	P	12 07 17.6	+0.8
BGF	Bois d’Agland	81.47	341⇑	iP	P	12 07 17.2	+0.3
	comp=Z,47nm,0.6s,mb5.2						
BGF	Bois d’Agland	81.47	341⇑	iP	P	12 07 17.2	+0.3
BGF				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.2						
BGF	Bois d’Agland	81.47	341⇑	iP	P	12 07 17.2	+0.3
	comp=Z,24nm,0.6s,mb5.2						
FNA	Florina	81.49	327	P	P	12 07 16.7	-0.4
FNA	Florina	81.49	327	P	P	12 07 16.7	-0.4
TIR	Tirane	81.53	328	P	P	12 07 16.8	-0.5
LPL	La Plagne	81.58	338⇑	iP	P	12 07 18.8	+1.3
	comp=Z,173nm,0.6s,mb5.7						
LPL	La Plagne	81.58	338⇑	iP	P	12 07 18.8	+1.3
LPL				pmax	pmax		
	comp=Z,86nm,0.6s,mb5.8						
LPL	La Plagne	81.58	338⇑	iP	P	12 07 18.8	+1.3
	comp=Z,86nm,0.6s,mb5.8						
LPG	La Plagne	81.59	338⇑	iP	P	12 07 19.0	+1.4
	comp=Z,183nm,0.6s,mb5.8						
LPG	La Plagne	81.59	338⇑	iP	P	12 07 19.0	+1.4
LPG				pmax	pmax		
	comp=Z,92nm,0.6s,mb5.8						
LPG	La Plagne	81.59	338⇑	iP	P	12 07 19.0	+1.4
	comp=Z,92nm,0.6s,mb5.8						
BOB	Bobbio (Coli)	81.60	336	P	P	12 07 16.9	-0.7
LEF	Lefka	81.63	316	eP	P	12 07 17.9	-0.1
LIT	Litokhoron	81.68	325	P	P	12 07 17.1	-1.1
LIT	Litokhoron	81.68	325	eP	P	12 07 17.3	-0.9
FNVD	Fontana Vidola	81.70	335	P	P	12 07 19.6	+1.4
KZN	Kozani	81.77	326	eP	P	12 07 17.9	-0.7
CHOS	Chios island	81.80	322	P	P	12 07 17.4	-1.4
CHOS	Chios island	81.80	322	eP	P	12 07 18.7	-0.1
CING	Cingoli	81.84	333	P	P	12 07 19.4	+0.5
TCF	Toulx Ste Croi	81.86	342⇑	iP	P	12 07 19.5	+0.5
	comp=Z,91nm,1.0s,mb5.3						
TCF	Toulx Ste Croi	81.86	342⇑	iP	P	12 07 19.5	+0.5
TCF				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.3						
TCF	Toulx Ste Croi	81.86	342⇑	iP	P	12 07 19.5	+0.5
	comp=Z,46nm,1.0s,mb5.3						
RAO	Raoul Island	81.86	157	LR	LR	12 37 20.6	
	comp=Z,229nm,21.5s,baz=112,slow=31						
AGO	Saint Agoulin	81.89	341⇑	eP	P	12 07 20.0	+0.9
VLC	Villacollemand	81.91	335	eP	P	12 07 18.8	-0.5
	comp=Z,61nm,0.6s,mb5.6						
STKA	Stephens Creek	81.92	192	eP	P	12 07 18.0	-1.2
	comp=Z,6.8nm,1.1s,mb4.4						
STKA	Stephens Creek	81.92	192	P	P	12 07 18.4	-0.7
	comp=Z,6.4nm,0.9s,mb4.5,baz=335,slow=11,SNR=6.8						
STKA				LR	LR	12 42 42.7	
	comp=Z,174nm,19.4s,baz=25,slow=35						
AOS	Alonnisos	81.97	324	P	P	12 07 19.3	-0.4
MFF	Saint Martin d	82.02	343⇑	iP	P	12 07 20.4	+0.6
	comp=Z,125nm,0.9s,mb5.5						
MFF	Saint Martin d	82.02	343⇑	iP	P	12 07 20.4	+0.6
MFF				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.4						
MFF	Saint Martin d	82.02	343⇑	iP	P	12 07 20.4	+0.6
	comp=Z,62nm,0.9s,mb5.4						
GDM	Grand’Maison	82.02	339⇑	eP	P	12 07 21.1	+1.3
BNI	Bardonecchia	82.03	338	eP	P	12 07 20.8	+0.9
BNI				pmax	pmax		
	comp=Z,46nm,0.6s,mb5.5						
BNI	Bardonecchia	82.03	338	eP	P	12 07 20.8	+0.9
	comp=Z,46nm,0.6s,mb5.5						
FETY	Fethiye	82.04	319	eP	P	12 07 19.4	-0.7
XOR	Xorichti	82.06	325	P	P	12 07 19.3	-0.9
GRN	Grenoble	82.07	339⇑	eP	P	12 07 21.5	+1.4
MURB	Monte Urbino	82.14	334	P	P	12 07 21.3	+0.8
ASF	Jabal al Asfar	82.16	311	P	P	12 07 21.8	+1.0
ASF				pmax	pmax		
	comp=Z,24nm,0.8s						
ASF	Jabal al Asfar	82.16	311	P	P	12 07 21.8	+1.0
	comp=Z,24nm,0.8s,mb5.1,baz=259,slow=4.6,SNR=41						
MMAI	Mount Meron Ar	82.19	313	P	P	12 07 22.0	+1.0
	comp=Z,80nm,0.5s,mb5.8,baz=36,slow=7.2,SNR=156						
PYM	Petit Puy Mans	82.20	341⇑	eP	P	12 07 21.6	+0.8
COLF	Collangettes	82.27	340⇑	eP	P	12 07 22.2	+1.0
PII	Pisa	82.28	335	P	P	12 07 20.8	-0.4
PII				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.2						
PII	Pisa	82.28	335	P	P	12 07 20.8	-0.4
	comp=Z,26nm,0.6s,mb5.2						
QLNO	Quiliano	82.30	337	P	P	12 07 21.2	-0.1
CSNT	Castellina Chi	82.30	335	P	P	12 07 20.7	-0.6
MBDF	Montbardon	82.31	338⇑	iP	P	12 07 22.0	+0.6
	comp=Z,56nm,0.5s,mb5.3						
MBDF	Montbardon	82.31	338⇑	iP	P	12 07 22.0	+0.6
MBDF				pmax	pmax		
	comp=Z,28nm,0.5s,mb5.3						
MBDF	Montbardon	82.31	338⇑	iP	P	12 07 22.0	+0.6
	comp=Z,28nm,0.5s,mb5.3						
SSB	Saint Sauveur	82.31	340⇑	eP	P	12 07 21.9	+0.5
SSB	Saint Sauveur	82.31	340	eP	P	12 07 21.8	+0.4
SSB				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.3						
SSB	Saint Sauveur	82.31	340	eP	P	12 07 21.8	+0.5
	comp=Z,39nm,0.8s,mb5.3						
THL	Klokotos Trika	82.33	326	eP	P	12 07 20.0	-1.6
ORIF	Oris-en-Rattie	82.34	339⇑	iP	P	12 07 22.6	+1.1
	comp=Z,103nm,0.6s,mb5.5						
ORIF				eMLR	MLR		
	comp=Z,237nm,21.5s						
ORIF	Oris-en-Rattie	82.34	339⇑	iP	P	12 07 22.6	+1.1
ORIF				pmax	pmax		
	comp=Z,51nm,0.6s,mb5.5						
ORIF	Oris-en-Rattie	82.34	339⇑	iP	P	12 07 22.6	+1.1
	comp=Z,51nm,0.6s,mb5.5						
PPT	Papeete	82.50	128	eT		13 38 12.9	
	comp=Z,3.0nm,0.3s						
PPT	Papeete	82.50	128	LR	LR	12 42 21.4	
	comp=Z,181nm,18.2s,baz=276,slow=34						
SURF	Saint Ours	82.53	338⇑	eP	P	12 07 23.7	+1.2
FRNF	Fournols	82.64	341⇑	eP	P	12 07 24.2	+1.1
LBL	Lubilhac	82.64	341⇑	eP	P	12 07 23.9	+0.8
RGNG	Rignano Grg	82.66	331	P	P	12 07 22.9	-0.3
VIVF	Saint-Julien-l	82.68	340⇑	iP	P	12 07 24.2	+0.9
	comp=Z,125nm,0.9s,mb5.4						
VIVF	Saint-Julien-l	82.68	340⇑	iP	P	12 07 24.2	+0.9
VIVF				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.5						
VIVF	Saint-Julien-l	82.68	340⇑	iP	P	12 07 24.2	+0.9
	comp=Z,63nm,0.9s,mb5.4						
AGG	Agios Georgios	82.69	325	eP	P	12 07 21.9	-1.5
AQU	L’Aquila	82.71	333	P	P	12 07 24.9	+1.4
AQU				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.5						
AQU	L’Aquila	82.71	333	P	P	12 07 24.9	+1.4
	comp=Z,50nm,0.6s,mb5.5						
LKR	Lokris	82.76	324	eP	P	12 07 22.4	-1.4
IMI	Imperia	82.80	337	P	P	12 07 24.2	+0.3
OCF	Saint Nazaire	82.80	339⇑	eP	P	12 07 25.0	+1.1
OG26	St.-Nazaire-De	82.80	339⇑	eP	P	12 07 25.0	+1.1
SAOF	Saorge	82.81	337⇑	eP	P	12 07 24.0	0.0
AUTN	L’Aution	82.83	337⇑	eP	P	12 07 24.3	+0.2
TOUF	Mont Tournerai	82.86	338⇑	eP	P	12 07 24.6	+0.3
RJF	Les Rejaudoux	82.94	342⇑	iP	P	12 07 25.1	+0.5
	comp=Z,130nm,1.1s,mb5.4						
RJF				eMLR	MLR		
	comp=Z,330nm,21.0s						
RJF	Les Rejaudoux	82.94	342⇑	iP	P	12 07 25.1	+0.5
RJF				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.4						
RJF				MLR	MLR		
	comp=Z,330nm,21.0s						
RJF	Les Rejaudoux	82.94	342⇑	iP	P	12 07 25.1	+0.5
	comp=Z,65nm,1.1s,mb5.4						
RJF				LR	LR		
	comp=Z,330nm,21.0s						
LUCF	Luceram	82.95	337⇑	eP	P	12 07 25.0	+0.3
SBF	Sospel	82.96	337⇑	iP	P	12 07 24.9	+0.2
	comp=Z,164nm,0.8s,mb5.6						
SBF	Sospel	82.96	337⇑	iP	P	12 07 24.9	+0.2
SBF				pmax	pmax		
	comp=Z,82nm,0.8s,mb5.6						
SBF	Sospel	82.96	337⇑	iP	P	12 07 24.9	+0.2
	comp=Z,82nm,0.8s,mb5.6						
EVR	Evrytania	82.97	325	eP	P	12 07 27.0	+2.1
MVIF	Mont Vial	83.00	338⇑	eP	P	12 07 25.5	+0.5
KEK	Kerkira	83.00	327	eP	P	12 07 24.2	-0.8
PTQR	Pietraquaria	83.02	333	P	P	12 07 26.0	+0.9
	comp=Z,106nm,0.5s,mb5.9						
REVF	Revere	83.09	337⇑	eP	P	12 07 25.6	+0.2
MIDA	Miranda	83.10	332	P	P	12 07 26.1	+0.6
CAF	Calviac	83.19	341⇑	iP	P	12 07 26.9	+1.0
	comp=Z,73nm,0.7s,mb5.3						
CAF	Calviac	83.19	341⇑	iP	P	12 07 26.9	+1.0
CAF				pmax	pmax		
	comp=Z,37nm,0.7s,mb5.3						
CAF	Calviac	83.19	341⇑	iP	P	12 07 26.9	+1.0
	comp=Z,36nm,0.7s,mb5.3						
CALN	Calern	83.20	338⇑	eP	P	12 07 26.4	+0.4
STOF	St-Etienne Org	83.21	338⇑	eP	P	12 07 27.1	+1.1
SMRF	Simiane la Rot	83.31	339⇑	iP	P	12 07 27.8	+1.3
	comp=Z,75nm,0.8s,mb5.3						
SMRF	Simiane la Rot	83.31	339⇑	iP	P	12 07 27.8	+1.3
	comp=Z,75nm,0.8s,mb5.6						
KALE	Kalithea	83.31	325	P	P	12 07 27.2	+0.5
LTK	Loutraki	83.32	324	eP	P	12 07 24.6	-2.1
VILF	Villemus	83.39	339⇑	eP	P	12 07 27.8	+0.8
FRF	La Foret Royal	83.44	338⇑	iP	P	12 07 27.3	+0.1
	comp=Z,121nm,1.2s,mb5.3						
FRF	La Foret Royal	83.44	338⇑	iP	P	12 07 27.3	+0.1
FRF				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.3						
FRF	La Foret Royal	83.44	338⇑	iP	P	12 07 27.3	+0.1
	comp=Z,60nm,1.2s,mb5.3						
LFF	La Frestale	83.44	342⇑	iP	P	12 07 28.0	+0.8
	comp=Z,144nm,0.9s,mb5.5						
LFF	La Frestale	83.44	342⇑	iP	P	12 07 28.0	+0.8
LFF				pmax	pmax		
	comp=Z,72nm,0.9s,mb5.5						
LFF	La Frestale	83.44	342⇑	iP	P	12 07 28.0	+0.8
	comp=Z,72nm,0.9s,mb5.5						
RFI	Roccamonfina	83.50	332	P	P	12 07 27.9	+0.3
	comp=Z,9.7nm,1.2s,mb4.5						
TAVF	Tavernes	83.53	338⇑	eP	P	12 07 28.6	+0.9
FORT	Forrest	83.54	204	eP	P	12 07 27.2	-0.5
	comp=Z,108nm,0.6s,mb5.8						
FORT	Forrest	83.54	204	eP	P	12 07 27.1	-0.6
	comp=Z,121nm,0.6s,mb5.9						
PRAF	Pradon	83.56	339⇑	eP	P	12 07 29.3	+1.4
LKD	Levkas	83.58	326	P	P	12 07 27.2	-0.9
LKD	Levkas	83.58	326	P	P	12 07 27.2	-0.9
LASF	Ste Croix	83.61	340⇑	iP	P	12 07 29.1	+1.0
	comp=Z,72nm,1.1s,mb5.1						
GUR	Goura	83.64	325	eP	P	12 07 27.4	-0.9
DID	Didima	83.67	324	P	P	12 07 25.9	-2.6
DID	Didima	83.67	324	eP	P	12 07 26.8	-1.7
TREF	Trevaresse	83.68	339⇑	eP	P	12 07 29.5	+1.0
LMR	La Mourre	83.69	338⇑	iP	P	12 07 28.9	+0.4
	comp=Z,235nm,1.0s,mb5.7						
LMR	La Mourre	83.69	338⇑	iP	P	12 07 28.9	+0.4
LMR				pmax	pmax		
	comp=Z,117nm,1.0s,mb5.7						
LMR	La Mourre	83.69	338⇑	iP	P	12 07 28.9	+0.4
	comp=Z,117nm,1.0s,mb5.7						
KARP	Karpathos	83.78	320	eP	P	12 07 27.9	-1.2
PGF	Pioggiola	83.78	336⇑	iP	P	12 07 29.2	+0.2
	comp=Z,105nm,0.7s,mb5.5						
PGF	Pioggiola	83.78	336⇑	iP	P	12 07 29.2	+0.2
PGF				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.5						
PGF	Pioggiola	83.78	336⇑	iP	P	12 07 29.2	+0.2
	comp=Z,52nm,0.7s,mb5.5						
RLS	Riolos of Patr	83.86	325	eP	P	12 07 29.0	-0.5
RLS	Riolos of Patr	83.86	325	P	P	12 07 31.1	+1.6
GELF	Grande-Etoile	83.90	339⇑	eP	P	12 07 30.6	+1.0
BERF	Bertagne	83.90	338⇑	eP	P	12 07 30.4	+0.8
WHFO	Wadi Hawf	83.96	290	P	P	12 07 30.1	-0.2
	SNR=29						
RBK	Rabkut	84.01	290	P	P	12 07 30.7	+0.1
	SNR=9.5						
VLS	Valsamata	84.08	326	P	P	12 07 31.3	+0.7
VLS	Valsamata	84.08	326	eP	P	12 07 30.1	-0.5
VLS	Valsamata	84.08	326	P	P	12 07 31.3	+0.7
CUC	Castrocucco	84.10	330	eP	P	12 07 25.3	-5.4
	comp=Z,34nm,0.8s,mb5.2						
ITM	Ithomi	84.46	324	eP	P	12 07 31.2	-1.3
ITM	Ithomi	84.46	324	P	P	12 07 32.5	0.0
VLI	Veliai	84.47	324	eP	P	12 07 30.9	-1.7
TIP	Timpagrande	84.53	329	eP	P	12 07 30.5	-2.4
	comp=Z,106nm,1.1s,mb5.7						
ZKR	Zakros	84.55	320	P	P	12 07 32.4	-0.6
ZKR	Zakros	84.55	320	P	P	12 07 32.4	-0.6
OSPF	L’Ospedale	84.55	335⇑	eP	P	12 07 33.1	+0.2
MTLF	Montolieu	84.67	341	eP	P	12 07 33.6	+0.1
	comp=Z,51nm,0.8s,mb5.2						
MTLF	Montolieu	84.67	341	eP	P	12 07 33.6	+0.1
MTLF				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.2						
MTLF	Montolieu	84.67	341	eP	P	12 07 33.6	+0.1
	comp=Z,26nm,0.8s,mb5.2						
ABTO	Aybut	84.68	290	P	P	12 07 34.1	+0.1
	SNR=18						
PYL	PYLOS	84.78	324	P	P	12 07 32.5	-1.6
PYL	PYLOS	84.78	324	eP	P	12 07 32.7	-1.4
LAST	Lasithi	84.81	321	P	P	12 07 33.2	-1.2
LAST	Lasithi	84.81	321	P	P	12 07 33.2	-1.2
IDI	Anoyia	84.94	321	P	P	12 07 33.4	-1.6
	comp=Z,43nm,0.6s,mb5.6,baz=21,slow=8.2,SNR=58						
LRDF	Laroque-de-Fa	84.98	340	eP	P	12 07 35.6	+0.5
EIL	Elat	85.16	311	P	P	12 07 36.5	+0.3
	comp=Z,41nm,0.7s,mb5.5,baz=8.0,slow=4.1,SNR=50						
SIVA	Sivas	85.21	321	P	P	12 07 35.7	-0.6
SIVA	Sivas	85.21	321	P	P	12 07 35.7	-0.6
KARN	Karanos	85.23	322	P	P	12 07 35.6	-0.9
MLS	Moulis	85.27	341	eP	P	12 07 36.5	0.0
SJAF	Saint Jean de	85.34	340	eP	P	12 07 36.8	-0.1
EPF	Esparros	85.36	342⇑	iP	P	12 07 37.3	+0.4
	comp=Z,34nm,0.7s,mb5.1						
EPF	Esparros	85.36	342⇑	iP	P	12 07 37.3	+0.4
EPF				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
EPF	Esparros	85.36	342⇑	iP	P	12 07 37.3	+0.4
	comp=Z,17nm,0.7s,mb5.1						
EJON	La Jonquera	85.37	340	P	P	12 07 38.9	+1.8
	comp=Z,11nm,0.5s,mb5.0						
EALK	Alkurruntz	85.53	343	P	P	12 07 39.0	+1.1
	comp=Z,16nm,0.5s,mb5.2						
RESF	Ens	85.57	342	eP	P	12 07 38.6	+0.6
SJPF	Ste Jean	85.58	343⇑	iP	P	12 07 39.0	+0.9
	comp=Z,23nm,0.7s,mb4.9						
SJPF	Ste Jean	85.58	343⇑	iP	P	12 07 39.0	+0.9
SJPF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
SJPF	Ste Jean	85.58	343⇑	iP	P	12 07 39.0	+0.9
	comp=Z,11nm,0.7s,mb4.9						
ETSF	Etsaut	85.66	343⇑	iP	P	12 07 38.5	0.0
	comp=Z,36nm,0.6s,mb5.2						
ETSF	Etsaut	85.66	343⇑	iP	P	12 07 38.5	0.0
ETSF				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
ETSF	Etsaut	85.66	343⇑	iP	P	12 07 38.5	0.0
	comp=Z,18nm,0.6s,mb5.2						
EBIE	Bielsa	85.73	342	P	P	12 07 40.4	+1.6
	comp=Z,19nm,0.8s,mb5.1						
ELAN	Lanestosa	85.87	345	P	P	12 07 39.0	-0.5
	comp=Z,10nm,0.6s,mb4.9						
EARI	Arriondas	86.09	346	P	P	12 07 40.3	-0.3
	comp=Z,6.2nm,0.6s,mb4.7						
EPON	Pontenova	86.36	347	P	P	12 07 40.8	-1.0
	comp=Z,6.6nm,0.8s,mb4.6						
VSL	Villasalto	86.52	334	eP	P	12 07 42.9	+0.2
	comp=Z,97nm,1.0s,mb5.7						
EMAZ	Mazaricos	86.98	349	P	P	12 07 43.9	-1.0
	comp=Z,147nm,1.7s,mb5.6						
ECAL	Calabor	87.66	347	P	P	12 07 47.7	-0.5
	comp=Z,6.8nm,0.5s,mb4.9						
PBRG	Braganca	87.79	347	eP	P	12 07 48.5	-0.3
	comp=Z,19nm,1.5s,mb4.9						
ELOB	Lobios	87.92	348	P	P	12 07 47.5	-1.9
	comp=Z,9.3nm,0.8s,mb4.9						
ETOS	Mallorca	87.94	339	P	P	12 07 49.4	-0.2
	comp=Z,9.0nm,0.6s,mb5.0						
ETOR	Torete	87.96	343	P	P	12 07 49.4	-0.3
ETOR				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.2						
ETOR	Torete	87.96	343	P	P	12 07 49.4	-0.2
	comp=Z,12nm,0.5s,mb5.2						
PCAB	Cabril	88.07	348	eP	P	12 07 49.9	-0.3
	comp=Z,40nm,1.7s,mb5.2						
EMOS	Mosqueruela	88.09	342	P	P	12 07 50.4	+0.1
	comp=Z,9.5nm,0.6s,mb5.0						
MUN	Mundaring	88.30	213	eP	P	12 07 49.8	-1.3
PVRL	Vila Real	88.45	347	eP	P	12 07 51.7	-0.3
	comp=Z,49nm,1.0s,mb5.5						
MVO	Moncorvo	88.46	347	eP	P	12 07 51.4	-0.6
	comp=Z,26nm,2.2s,mb4.9						
NWAO	Narrogin (SRO)	88.81	211	P	P	12 07 52.7	-0.8
NWAO				pmax	pmax		
	comp=Z,21nm,0.9s						
NWAO	Narrogin (SRO)	88.81	211	P	P	12 07 52.7	-0.7
	comp=Z,21nm,0.9s,mb5.2,baz=42,slow=5.1,SNR=6.5						
NWAO	Narrogin (SRO)	88.81	211	P	P	12 07 52.7	-0.7
PVIS	Viseu	89.03	347	eP	P	12 07 54.2	-0.5
	comp=Z,26nm,1.1s,mb5.2						
MTE	Manteigas	89.28	347	eP	P	12 07 55.3	-0.6
	comp=Z,30nm,1.2s,mb5.2						
URZ	Urewera	89.41	163	LR	LR	12 39 08.5	
	comp=Z,220nm,20.6s,baz=343,slow=30						
ESDC	Sonseca Array	89.42	344	P	P	12 07 56.2	-0.4
	comp=Z,14nm,0.8s,mb5.0,baz=6.8,slow=4.1,SNR=32						
ESDC				LR	LR	12 53 06.2	

	comp=Z,216nm,20.9s,baz=345,slow=39						
ESDC	**Sonseca Array**	89.42	344	P	P	12 07 56.2	-0.4
	comp=Z,7.5nm,0.6s,mb4.9						
PAB	**San Pablo**	89.61	345	eP	P	12 07 56.5	-1.0
PAB				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
PAB	**San Pablo**	89.61	345	eP	P	12 07 56.5	-1.0
	comp=Z,10nm,0.8s,mb5.0						
PCBR	**Castelo Branco**	89.82	347	eP	P	12 07 57.6	-0.8
	comp=Z,16nm,1.5s,mb4.9						
ETOB	**Tobarra**	89.96	342	P	P	12 07 59.3	+0.2
	comp=Z,11nm,0.7s,mb5.1						
KEST	**Kesra**	90.03	333	P	P	12 08 00.2	+0.8
	comp=Z,8.6nm,0.5s,mb5.1,baz=350,slow=1.3,SNR=22						
KEST				LR	LR	12 52 11.4	
	comp=Z,178nm,21.8s,baz=320,slow=38						
EVIA	**Vianos**	90.15	343	P	P	12 08 00.1	+0.1
EVIA				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.3						
EVIA	**Vianos**	90.15	343	P	P	12 08 00.1	+0.1
	comp=Z,16nm,0.7s,mb5.2						
EBAD	**Badajoz**	90.82	346	P	P	12 08 01.9	-1.2
	comp=Z,5.9nm,0.5s,mb5.0						
EBAN	**Banos Encina**	90.85	344	P	P	12 08 03.1	-0.2
EBAN				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
EBAN	**Banos Encina**	90.85	344	P	P	12 08 03.1	-0.2
	comp=Z,10nm,0.8s,mb5.0						
EHUE	**Huescar**	90.97	343	P	P	12 08 02.4	-1.4
EADA	**Adamuz**	90.99	344	P	P	12 08 04.5	+0.6
	comp=Z,5.6nm,0.7s,mb4.8						
EQES	**Quesada**	91.07	343	P	P	12 08 03.8	-0.5
	comp=Z,6.8nm,0.8s,mb4.8						
ECAB	**El Cabril**	91.22	345	P	P	12 08 05.8	+0.9
	comp=Z,11nm,0.8s,mb5.0						
PBAR	**Barrancos**	91.39	346	eP	P	12 08 05.0	-0.8
	comp=Z,16nm,1.2s,mb5.0						
EMIN	**Mina Concepcio**	91.73	346	P	P	12 08 06.6	-0.7
	comp=Z,6.0nm,0.7s,mb4.9						
ELOJ	**Sierra Loja**	91.91	344	P	P	12 08 07.8	-0.4
ELOJ				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
ELOJ	**Sierra Loja**	91.91	344	P	P	12 08 07.8	-0.4
	comp=Z,7.5nm,0.8s,mb5.0						
ERON	**Agron**	91.97	344	P	P	12 08 07.9	-0.5
EGUA	**Guajares**	92.10	343	P	P	12 08 07.6	-1.5
PVAQ	**Vaqueiros**	92.25	347	eP	P	12 08 09.3	-0.4
	comp=Z,24nm,1.6s,mb5.2						
ESPR	**Espera**	92.48	345	P	P	12 08 10.9	+0.1
	comp=Z,9.9nm,0.7s,mb5.2						
MORF	**Marmelete**	92.48	347	eP	P	12 08 09.5	-1.3
	comp=Z,49nm,1.2s,mb5.6						
EMIJ	**Mijas**	92.59	344	P	P	12 08 10.1	-1.2
EJIF	**Jimena Fronter**	92.82	345	P	P	12 08 12.1	-0.3
RPZ	**Rata Peaks**	93.78	169	LR	LR	12 46 20.0	
	comp=Z,302nm,19.1s,baz=357,slow=33						
MDT	**Midelt**	96.20	343	P	P	12 08 26.2	-1.7
	comp=Z,1.1nm,0.4s,mb4.6,baz=59,slow=6.2,SNR=5.0						
TORD	**Torodi Ar. Bea**	113.53	332	Pdiff	Pdif	12 09 46.9	+1.7
	comp=Z,0.4nm,0.5s,baz=26,slow=3.1,SNR=6.0						
TORD				PKiKP	PKiKP	12 13 37.9	-0.1
	comp=Z,1.1nm,0.5s,baz=24,slow=1.5,SNR=12						
TORD				PKKPbc	PKKPbc	12 24 19.6	-0.3
	comp=Z,0.5nm,0.7s,baz=223,slow=3.1,SNR=4.5						
DBIC	**Dimbokro**	121.54	337	PKIKP	PKPdf	12 13 53.1	-0.4
DBIC				pmax	pmax		
	comp=Z,7.0nm,0.8s						
DBIC	**Dimbokro**	121.54	337	PKP	PKPdf	12 13 53.0	-0.4
	comp=Z,7.2nm,0.8s,baz=337,slow=4.6,SNR=12						
LIC	**Lamto**	122.01	337	⇑iPKIKP	PKPdf	12 13 53.7	-0.7
	comp=Z,10nm,0.7s						
LIC				eMLR	MLR		
	comp=Z,171nm,22.0s						
LIC	**Lamto**	122.01	337	⇑iPKPdf	PKPdf	12 13 53.7	-0.7
LIC				LR	LR		
	comp=Z,90nm,22.0s						
VNDA	**Vanda**	126.77	178	PKIKP	PKPdf	12 14 00.9	-0.6
VNDA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VNDA	**Vanda**	126.77	178	PKP	PKPdf	12 14 00.9	-0.6
	comp=Z,4.3nm,0.9s,baz=309,slow=3.4,SNR=6.6						
SIV	**San Ignacio**	135.35	55	PKhKP		12 14 05.7	
	comp=Z,1.1nm,0.7s,baz=66,slow=2.9,SNR=4.2						
SIV				PKP	PKPdf	12 14 19.0	-0.5
	comp=Z,1.3nm,0.7s,baz=159,slow=2.5,SNR=6.3						
SIV	**San Ignacio**	135.35	55	PKP	PKPdf	12 14 19.0	-0.5
LVC	**Limon Verde**	136.08	69	PKP	PKPdf	12 14 21.0	+0.3
	comp=Z,1.7nm,0.3s,baz=70,slow=23,SNR=7.6						
LVC	**Limon Verde**	136.08	69	PKP	PKPdf	12 14 21.0	+0.3
BOSA	**Boshof**	137.04	280	PKHKP		12 14 10.0	
BOSA						12 14 22.2	
BOSA						12 17 08.3	
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BOSA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BOSA	**Boshof**	137.04	280	PKhKP		12 14 10.0	
	comp=Z,2.4nm,0.9s,baz=64,slow=8.0,SNR=3.2						
BOSA				PKP	PKPdf	12 14 22.1	-0.2
	comp=Z,3.2nm,0.8s,baz=62,slow=1.5,SNR=5.5						
BOSA				PP	PP	12 17 08.2	+1.1
	comp=Z,3.2nm,1.0s,baz=32,slow=10,SNR=3.1						
BOSA	**Boshof**	137.04	280	PKP	PKPdf	12 14 22.1	-0.2
BOSA				PP	PP	12 17 08.2	+1.1
QSPA	**South Pole Qui**	139.20	180	PKhKP		12 14 13.8	
	comp=Z,5.0nm,1.1s,baz=218,slow=2.0,SNR=19						
QSPA				PKP	PKPdf	12 14 25.9	+1.1
	comp=Z,12nm,0.8s,baz=57,slow=1.2,SNR=18						
QSPA	**South Pole Qui**	139.20	180	PKP	PKPdf	12 14 25.9	+1.2
SHEL	**Horse Pasture**	143.27	329	iPKIKP	PKPdf	12 14 38.2	+4.3
SYO	**Syowa Base**	144.06	214	⇓iPKPdf	PKPdf	12 14 30.4	-3.3
SYO	**Syowa Base**	144.06	214	⇓iPKiKP	PKiKP	12 14 39.6	+2.3
CPUP	**Villa Florida**	145.72	60	PKP2	PKPab	12 14 37.6	-1.2
CPUP				pmax	pmax		
	comp=Z,17nm,0.9s						
CPUP	**Villa Florida**	145.72	60	PKPbc	PKPbc	12 14 37.6	-0.9
	comp=Z,17nm,0.9s,baz=314,slow=3.5,SNR=23						
VNA2	**Neumayer--Watz**	157.03	194	ePKPdf	PKPab	12 15 23.6	-0.8
VNA3	**Neumayer Olymp**	157.09	192	ePKPdf	PKPab	12 15 23.0	-1.7

GUC ***28*** *12:12:22.7±0.4, 33°.60S×69°.99W, h4^{km}±1^{km}, ML3.8*
NEIC ***28*** *12:12:22.7, 33°.60S×69°.99W, h4^{km}, ML3.8(GUC), After GUC.*
ISCJB ***28*** *12:12:23.5±0.5, 33°.59S±0°.03×70°.00W±0°.04, h10^{km}, mb4.0/7, MS3.9/2, Error ellipse: s-maj=4.8km s-min=4.2km az=31.4*
IDC ***28*** *12:12:29.4±2.9, 33°.53S×69°.63W, h26^{km}±19^{km}, mb3.9/7, mb1 4.1/10, mb1mx4.0/17, mbtmp3.9/10, ML4.1/3, MS3.9/5, Ms1 3.9/5, ms1mx3.4/25, Error ellipse: s-maj=28.1km s-min=14.8km az=101.0*
ISC 28 12:12:24.2±0.5**, 33°.61S**±0°.03×**70°.03W**±0°.04**, h10^{km}, n41, σ1^s.16**/53**, mb4.0**/7**, MS3.9**/2**, 3C-4D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YECH	**El Yeso**	0.07	219	eP	Pg	12 12 25.2	-1.1
YECH				iS	Sg	12 12 27.6	-0.3
YECH				AML	AML	12 12 28.4	
	comp=N,110μm,0.3s						
FCH	**Farellones**	0.36	323	eP	Pg	12 12 30.7	-0.6
FCH				iS	Sg	12 12 36.5	+0.5
FCH				AML	AML	12 12 40.2	
	comp=N,8μm,0.7s						
PCH	**Pirque**	0.40	269	P	Pg	12 12 32.1	+0.1
PCH	**Pirque**	0.40	269	⇑iP	Pg	12 12 32.1	+0.1
ANTU	**Antumapu**	0.50	275	⇓iP	Pg	12 12 33.9	-0.1
ANTU				iS	Sg	12 12 41.6	+1.0
ANTU	**Antumapu**	0.50	275	⇓iP	Pg	12 12 33.9	-0.1
ANTU				iS	Sg	12 12 41.6	+1.0
ANTU				AML	AML	12 12 43.4	
	comp=N,6μm,0.5s						
SAN	**Santiago**	0.55	287	eP	Pg	12 12 34.8	-0.1
SAN				iS	Sg	12 12 43.2	+1.2
SAN	**Santiago**	0.55	287	eP	Pg	12 12 34.8	-0.1
SAN				iS	Sg	12 12 43.2	+1.2
CHCH	**Chadas Angostu**	0.61	238	eP	Pg	12 12 35.0	-0.9
CHCH	**Chadas Angostu**	0.61	238	eP	Pg	12 12 35.0	-0.9
CACH	**El Canelo**	0.69	223	⇓eP	Pg	12 12 36.9	-0.6
CACH	**El Canelo**	0.69	223	⇓eP	Pg	12 12 36.9	-0.6
PEL	**Peldehue**	0.72	311	eP	Pg	12 12 37.3	-0.7
PEL				iS	Sg	12 12 47.5	0.0
PEL				AML	AML	12 12 59.5	
	comp=E,4μm,0.7s						
TACH	**Talagante**	0.76	267	eP	Pg	12 12 37.7	-1.0
TACH				S	Sg	12 12 49.9	+1.3
TACH	**Talagante**	0.76	267	eP	Pg	12 12 37.7	-1.0
TACH				iS	Sg	12 12 49.9	+1.3
ROCH	**El Roble**	1.04	308	P	Pg	12 12 43.5	-0.7
ROCH	**El Roble**	1.04	308	eP	Pg	12 12 43.5	-0.7
JACH	**Jahuel**	1.04	333	eP	Pg	12 12 42.4	-1.8
JACH				iS	Sg	12 12 57.5	-0.2
JACH	**Jahuel**	1.04	333	eP	Pg	12 12 42.4	-1.8
JACH				iS	Sg	12 12 57.5	-0.2
IHA	**Instituto Hidr**	1.47	293	eP	Pn	12 12 50.2	-0.5
IHA				S	Sn	12 13 10.5	+0.6
IHA	**Instituto Hidr**	1.47	293	eP	Pn	12 12 50.2	-0.5
IHA				iS	Sn	12 13 10.5	+0.6
CHNG	**Los Chungos**	2.12	324	eP	Pn	12 13 01.2	+1.5
CHNG				iS	Sg	12 13 29.8	-2.6
TALC	**Talca**	2.22	216	⇑eP	Pn	12 13 03.0	+2.0
TALC				iS	Sg	12 13 33.7	-1.8
TALC	**Talca**	2.22	216	⇑eP	Pn	12 13 03.0	+2.0
TALC				iS	Sg	12 13 33.7	-1.8
TALC				AML	AML	12 13 35.7	
	comp=E,5μm,0.4s						
CFAA	**Coronel Fontan**	2.51	38	Pg	Pg	12 13 09.0	-3.4
	comp=E,12nm,0.3s,baz=206,slow=14,SNR=583						
CFAA				Lg		12 13 42.8	
	comp=E,7.7nm,0.3s,baz=112,slow=15,SNR=17						
LCO	**Las Campanas**	4.62	353	ePn	Pn	12 13 38.1	+4.0
PLCA	**Paso Flores**	7.12	183	Pn	Pn	12 14 14.0	+5.7
	comp=E,0.4nm,0.3s,baz=353,slow=14,SNR=7.2						
PLCA				Lg		12 16 19.4	
	comp=E,0.8nm,0.3s,baz=110,slow=17,SNR=2.8						
PLCA				LR	LR	12 17 13.0	
	comp=E,2μm,18.1s,baz=8.6,slow=39						
LVC	**Limon Verde**	11.01	5	Lg		12 18 15.4	
	comp=E,0.4nm,0.3s,baz=260,slow=12,SNR=3.6						
LVC				LR	LR	12 19 20.3	
	comp=E,309nm,20.5s,baz=207,slow=38						
CPUP	**Villa Florida**	13.18	60	Pn	Pn	12 15 30.6	-0.8
	comp=E,0.5nm,0.3s,baz=198,slow=8.7,SNR=1.9						
CPUP				Lg		12 19 12.2	
	comp=E,0.6nm,0.3s,baz=89,slow=5.2,SNR=3.1						
CPUP				LR	LR	12 20 49.1	
	comp=E,197nm,18.4s,baz=224,slow=39						
SIV	**San Ignacio**	19.32	27	P	Pn	12 16 51.2	+0.6
	comp=E,0.3nm,0.3s,baz=216,slow=14,SNR=9.2						
USHA	**Ushuaia**	21.24	177	P	P	12 17 14.7	+4.5
	comp=E,14nm,0.8s,mb4.3,baz=359,slow=7.6,SNR=4.4						
USHA				LR	LR	12 26 28.1	
	comp=E,430nm,19.2s,MS3.9,baz=196,slow=39						
PCRV	**Puerto La Cruz**	43.85	8	LR	LR	12 42 06.4	
	comp=E,178nm,18.5s,MS4.0,baz=245,slow=41						
TXAR	**Lajitas Array**	70.24	329	P	P	12 23 40.2	+2.8
	comp=E,0.5nm,0.6s,mb3.6,baz=152,slow=8.7,SNR=7.2						
TXAR	**Lajitas Array**	70.24	329	P	P	12 23 40.2	+2.8
DBIC	**Dimbokro**	73.48	70	P	P	12 23 58.4	+1.1
	comp=E,3.3nm,1.0s,mb4.2,baz=233,slow=7.4,SNR=4.0						
BOSA	**Boshof**	78.76	117	P	P	12 24 27.9	+0.7
	comp=E,3.0nm,1.0s,mb4.2,baz=248,slow=5.4,SNR=3.6						
TORD	**Torodi Ar. Bea**	82.51	69	P	P	12 24 47.5	+0.1
	comp=E,1.6nm,0.9s,mb4.0,baz=265,slow=3.1,SNR=6.9						
PDAR	**Pinedale Array**	84.19	332	P	P	12 24 58.5	+3.1
	comp=E,1.1nm,1.1s,mb3.9,baz=149,slow=3.5,SNR=5.9						
NVAR	**Mina Array Bea**	84.54	324	P	P	12 25 01.8	+4.5
	comp=E,0.9nm,0.8s,mb3.9,baz=144,slow=3.9,SNR=6.9						
ZALV	**Zalesovo Beam**	153.00	34	PKPbc	PKPbc	12 32 23.6	+2.5
	comp=E,1.0nm,0.4s,baz=318,slow=2.0,SNR=7.1						
MKAR	**Makanchi Array**	155.25	50	PKPbc	PKPdf	12 32 28.2	+11
	comp=E,0.6nm,1.0s,baz=349,slow=1.2,SNR=4.8						

IDC ***28*** *12:32:05.8±1.3, 6°.15S×152°.02E, h0^{km}, mb4.0/9, mb1 4.1/9, mb1mx4.0/17, mbtmp4.0/9, Error ellipse: s-maj=50.4km s-min=20.2km az=116.0*
NEIC ***28*** *12:32:07.4±0.5, 6°.19S×152°.00E, h10^{km}, mb3.9/1, Error ellipse: s-maj=13.2km s-min=9.7km az=129.0*
ISCJB ***28*** *12:32:08.9±0.7, 6°.28S±0°.10×152°.1E±0°.1, h33^{km}, mb3.8/9, Error ellipse: s-maj=16.3km s-min=12.3km az=40.8*
ISC 28 12:32:10.9±0.7**, 6°.26S**±0°.10×**152°.0E**±0°.1**, h35^{km}, n14, σ0^s.82**/13**, mb3.8**/9**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	8.45	112	Pn	Pn	12 34 10.8	-0.2
CTAO	**Charters Tower**	14.85	202	Pn	Pn	12 35 37.7	-0.7
WRAB	**Tennant Creek**	21.90	230	P	P	12 37 00.6	-0.7
	4.5nm,0.9s,mb3.9						
WB2	**Warramunga Arr**	21.91	230	eP	P	12 37 00.8	-0.5
WRA	**Warramunga Arr**	21.92	230	P	P	12 37 01.2	-0.2
	1.7nm,0.6s,mb3.6,baz=53,slow=10,SNR=8.4						
ASAR	**Alice Springs**	24.56	223	P	P	12 37 28.6	+0.9
	2.9nm,0.8s,mb3.9,baz=59,slow=9.1,SNR=29						
STKA	**Stephens Creek**	27.29	200	P	P	12 37 53.7	+1.5
	1.7nm,0.7s,mb3.7,baz=326,slow=19,SNR=4.0						
FITZ	**Fitzroy Crossi**	28.31	243	P	P	12 38 01.5	0.0
	2.9nm,0.5s,mb4.2,baz=81,slow=5.6,SNR=10.0						
SONM	**Songino Array**	67.15	328	P	P	12 43 01.2	0.0
	0.4nm,0.5s,mb3.7,baz=144,slow=4.8,SNR=4.6						
MKAR	**Makanchi Array**	80.92	319	P	P	12 44 23.3	+1.6
	0.2nm,0.5s,baz=96,slow=6.6,SNR=3.3						
ZALV	**Zalesovo Beam**	81.94	327	P	P	12 44 25.6	-1.3
	0.8nm,0.5s,mb3.9,baz=84,slow=5.7,SNR=4.3						
INK	**Inuvik**	90.08	21	P	P	12 45 06.2	-0.7
	0.7nm,0.6s,mb4.2,baz=286,slow=7.4,SNR=4.1						
YKA	**Yellowknife Ar**	97.07	28	P	P	12 45 39.4	+0.3
	0.1nm,0.5s,mb3.5,baz=273,slow=4.5,SNR=4.0						
TORD	**Torodi Ar. Bea**	149.99	285	PKPbc	PKPbc	12 51 58.1	-0.7
	0.8nm,0.7s,baz=66,slow=3.4,SNR=6.2						

CSEM ***28*** *12:33:30.0, 36°.16N×21°.76E, h4^{km}, MD3.5, After ATH*
ATH 28 12:33:30.0, 36°.16N×21°.76E, h4^{km}, MD3.5/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.73	359	ePG	Pg	12 33 43.4	-0.7
PYL				eSG	Sg	12 33 54.3	+0.7
PYL	**PYLOS**	0.73	359	ePg	Pg	12 33 43.4	-0.7
PYL				eSg	Sg	12 33 54.3	+0.7
ITM	**Ithomi**	1.03	7	ePG	Pg	12 33 48.8	-0.9
ITM				eSG	Sg	12 34 03.7	+0.7
ITM	**Ithomi**	1.03	7	ePg	Pg	12 33 48.8	-0.9
ITM				eSg	Sg	12 34 03.7	+0.7
VLI	**Veliai**	1.10	59	ePB	Pb	12 33 51.0	-0.6
VLI				eSB	Sb	12 34 06.1	-0.2
VLI	**Veliai**	1.10	59	ePb	Pb	12 33 51.0	-0.6
VLI				eSb	Sb	12 34 06.1	-0.2
VLX	**Vlachokerasia**	1.31	22	ePB	Pb	12 33 54.5	-0.6
VLX				eSB	Sb	12 34 12.5	+0.3
VLX	**Vlachokerasia**	1.31	22	ePb	Pb	12 33 54.5	-0.6
VLX				eSb	Sb	12 34 12.5	+0.3
DID	**Didima**	1.79	41	ePB	Pb	12 34 04.1	+0.7
DID	**Didima**	1.79	41	ePb	Pb	12 34 04.1	+0.7
GUR	**Goura**	1.83	15	ePB	Pb	12 34 05.3	+1.2
GUR	**Goura**	1.83	15	ePb	Pb	12 34 05.3	+1.2

IDC 28 12:36:45.0±1.8**, 3°.67S**×**149°.60E, h0^{km}, mb3.7**/5**, mb1 4.0**/5**, mb1mx3.7**/16**, mbtmp3.7**/5**, MS3.4**/5**, Ms1 3.4**/5**, ms1mx3.0**/23**, Error ellipse: s-maj=70.7km s-min=25.3km az=117.0, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	16.64	191	LR	LR	12 46 04.8	
	comp=Z,96nm,19.5s,baz=6.7,slow=34						
GUMO	**Guam**	17.78	345	LR	LR	12 46 01.2	
	comp=Z,129nm,19.8s,baz=89,slow=31						
WRA	**Warramunga Arr**	21.98	221	P	P	12 41 40.4	-0.4
	1.0nm,0.8s,baz=50,slow=9.9,SNR=3.6						
WRA				LR	LR	12 50 42.1	
	comp=Z,71nm,20.8s,baz=245,slow=38						
ASAR	**Alice Springs**	25.01	216	P	P	12 42 10.7	0.0
	1.7nm,0.8s,baz=50,slow=8.4,SNR=11						
FITZ	**Fitzroy Crossi**	27.50	237	P	P	12 42 33.6	+0.3
	4.2nm,1.0s,baz=49,slow=9.3,SNR=3.8						
STKA	**Stephens Creek**	29.05	194	LR	LR	12 53 47.2	
	comp=Z,108nm,18.1s,baz=206,slow=35						
KSRS	**Korea Array**	45.61	336	LR	LR	13 01 49.3	
	comp=Z,34nm,20.5s,baz=125,slow=33						
MKAR	**Makanchi Array**	77.39	319	P	P	12 48 40.9	-1.0
	0.3nm,0.9s,baz=103,slow=6.5,SNR=3.1						
YKA	**Yellowknife Ar**	95.91	28	P	P	12 50 13.7	+0.3
	0.2nm,0.8s,baz=294,slow=5.2,SNR=3.5						
TORD	**Torodi Ar. Bea**	146.93	288	PKPbc	PKPbc	12 56 31.1	+0.6
	0.3nm,0.7s,baz=18,slow=0.5,SNR=2.9						

IDC ***28*** *12:36:44.3±1.0, 41°.24N×115°.02W, h0^{km}, mb2.6/1, mb1 3.2/3, mb1mx3.1/22, mbtmp2.8/3, ML3.3/2, Error ellipse: s-maj=17.0km s-min=5.4km az=125.0*
ISCJB ***28*** *12:36:45.4±0.2, 41°.15N±0°.01×114°.90W±0°.02, h10^{km}, Error ellipse: s-maj=2.2km s-min=2.0km az=37.2*
NEIC ***28*** *12:36:45.4, 41°.17N×114°.91W, h6^{km}, ML2.7, After REN.*
ISC 28 12:36:45.9±0.2**, 41°.16N**±0°.01×**114°.91W**±0°.02**, h10^{km}, n83, σ1^s.00**/112**, 28C-34D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
N12A	**Clover Valley,**	0.33	198	⇑P	Pg	12 36 52.1	-0.3
	baz=0.3						
N12A				⇑S	Sg	12 36 56.9	+0.2
	baz=0.3						
ELK	**Elko**	0.49	211	Pg	Pg	12 36 54.8	-0.6
	22nm,0.3s,baz=14,slow=12,SNR=30						
ELK				Lg		12 37 01.1	
	74nm,0.3s,baz=121,slow=23,SNR=59						
M13A	**Montello**	0.59	70	⇓S	Sg	12 37 05.3	0.0
	baz=0.6						
N13A	**Wendover, West**	0.61	120	⇑P	Pg	12 36 57.2	-0.7
	baz=0.6						
N13A				⇑S	Sg	12 37 05.5	-0.5
	baz=0.6						
N13A	**Wendover, West**	0.61	120	ePg	Pg	12 36 57.0	-0.9
N11A	**Elko Archery C**	0.71	241	⇑P	Pg	12 36 58.9	-0.9
	baz=0.7,SNR=29						
N11A				⇓S	Sg	12 37 08.6	-0.5
	baz=0.7						
M11A	**Holland Ranch,**	0.72	292	⇓P	Pg	12 36 58.7	-1.1
	baz=0.7,SNR=21						
M11A				⇓S	Sg	12 37 09.3	+0.1
	baz=0.7						
O12A	**Currie**	0.90	172	⇓P	Pg	12 37 02.5	-0.8
	baz=0.9						
O12A				⇓S	Sg	12 37 14.9	-0.2
	baz=0.9						
L12A	**House Creek Ra**	0.99	355	⇑P	Pg	12 37 03.6	-1.4
	baz=1.0						
L12A				⇓S	Sg	12 37 16.9	-0.8
	baz=1.0						
L13A	**Double Diamond**	1.18	38	⇑P	Pb	12 37 06.6	-1.7
	baz=1.2,SNR=21						
L13A				⇓S	Sb	12 37 22.6	-1.0
	baz=1.2						
O11A	**Cowboy Ranch,**	1.18	209	⇓P	Pb	12 37 07.8	-0.6
	baz=1.2						
O11A				⇑S	Sb	12 37 22.6	-1.0
	baz=1.2						
L11A	**Cat Creek Ranc**	1.19	328	⇑P	Pb	12 37 07.2	-1.4
	baz=1.2						
L11A				⇑S	Sb	12 37 23.0	-1.0
	baz=1.2						
M14A	**Sheep Mountain**	1.23	73	⇓P	Pn	12 37 07.6	-1.5
	baz=1.2,SNR=40						
M14A				⇓S	Sb	12 37 24.4	-0.6
	baz=1.2						
O13A	**Hicks Ranch, I**	1.25	145	⇓P	Pn	12 37 08.6	-0.8
	baz=1.3,SNR=28						
M10A	**I.L. Ranch, Tu**	1.28	287	⇓P	Pn	12 37 08.9	-0.9
	baz=1.3						
K12A	**Draper Farm, C**	1.47	0	⇓P	Pn	12 37 11.6	-0.9
	baz=1.5,SNR=8.4						
K12A				⇑S	Sn	12 37 30.2	-1.6
	baz=1.5						
L10A	**Juniper Basin**	1.48	308	⇓Sb	Sb	12 37 32.0	-0.5
	baz=1.5						
L14A	**Malta**	1.53	55	⇓P	Pn	12 37 12.4	-0.8
	baz=1.5,SNR=32						
L14A				⇑Sb	Sb	12 37 33.2	-0.5
	baz=1.5						
K13A	**Stover Farm, H**	1.61	22	⇓P	Pn	12 37 13.9	-0.5
	baz=1.6,SNR=11						
HVU	**Hansel Valley**	1.72	68	ePn	Pn	12 37 15.7	-0.2
HVU				eSn	Sn	12 37 39.0	+1.1
K11A	**Parker Ranch,**	1.81	333	⇑Sb	Sb	12 37 41.5	-0.5
	baz=1.8						
P13A	**Bates Ranch, G**	1.84	158	⇓P	Pn	12 37 16.6	-0.9
	baz=1.8						
SPUT	**South Promonto**	1.86	85	ePn	Pn	12 37 17.9	+0.1
SPUT				eSn	Sn	12 37 42.5	+1.1
BMN	**Battle Mountai**	1.90	248	ePn	Pn	12 37 18.9	+0.5
BMN				eSn	Sn	12 37 44.9	+2.5
P10A	**Eureka**	1.94	218	⇓P	Pn	12 37 19.0	0.0
	baz=1.9						
O09A	**Fish Creek Ran**	2.00	241	⇑P	Pn	12 37 19.2	-0.6
	baz=2.0,SNR=13						
N09A	**Rock Creek Ran**	2.00	262	⇓P	Pn	12 37 18.9	-0.9
	baz=2.0						
L15A	**Malad City**	2.07	65	⇓P	Pn	12 37 20.3	-0.5
	baz=2.1,SNR=21						
J12A	**Stokes Ranch,**	2.09	356	⇓P	Pn	12 37 21.3	+0.3
	baz=2.1,SNR=31						
P14A	**Drum Mountains**	2.11	138	⇑P	Pn	12 37 20.5	-0.7
	baz=2.1						
Q12A	**Willow Creek R**	2.12	178	⇓P	Pn	12 37 20.9	-0.5
	baz=2.1						
NOQ	**North Oquirrh**	2.17	103	ePn	Pn	12 37 23.7	+1.5
NOQ				eSg	Sg	12 37 55.2	-0.6
K10A	**MacKenzie Ranc**	2.18	318	⇑P	Pn	12 37 23.3	+1.1
	baz=2.2,SNR=18						
L09A	**Wilkinson Ranc**	2.24	293	P	Pn	12 37 24.6	+1.6
	baz=2.2,SNR=29						
J13A	**Cove Ranch, Pi**	2.30	13	P	Pn	12 37 24.6	+0.7
	baz=2.3,SNR=44						
Q13A	**Wheeler Ranch,**	2.31	163	⇓P	Pn	12 37 23.5	-0.5
	baz=2.3						
K15A	**Arbon**	2.34	49	⇑P	Pn	12 37 24.6	+0.2
	baz=2.3,SNR=38						
MFID	**Camas Ranch**	2.35	343	⇓P	Pn	12 37 26.2	+1.6
	baz=2.3,SNR=14						
Q11A	**Duckwater**	2.38	194	⇑P	Pn	12 37 24.9	-0.1
	baz=2.4						
J14A	**Carey**	2.39	25	⇑P	Pn	12 37 25.9	+0.7
	baz=2.4,SNR=53						
HLID	**Hailey**	2.43	9	⇑P	Pn	12 37 26.3	+0.7
	baz=2.4,SNR=38						
HLID	**Hailey**	2.43	9	P	Pn	12 37 26.4	+0.8
CTU	**Camp Tracy**	2.44	100	ePn	Pn	12 37 27.2	+1.4
CTU				eSg	Sg	12 38 02.7	-1.6
NLU	**North Lily Min**	2.47	118	ePn	Pn	12 37 26.6	+0.4
NLU				eSn	Sn	12 37 56.4	-0.1
Q14A	**Sevier Lake (B**	2.51	149	⇑P	Pn	12 37 25.4	-1.4
	baz=2.5,SNR=8.5						
Q10A	**Clear Creek Ra**	2.60	207	⇓P	Pn	12 37 28.1	+0.1
	baz=2.6,SNR=24						
L16A	**Fish Haven**	2.74	71	⇑P	Pn	12 37 30.5	+0.5
	baz=2.7,SNR=8.5						
MPU	**Maple Canyon**	2.75	114	ePn	Pn	12 37 33.9	+3.9
I13A	**Wildhorse Cree**	2.81	12	P	Pn	12 37 32.0	+1.1
	baz=2.8,SNR=38						
DAU	**Daniels Canyon**	2.87	104	ePn	Pn	12 37 31.7	-0.1
DAU				eSg	Sg	12 38 15.2	-3.0
J15A	**Blackfoot**	2.89	39	⇑P	Pn	12 37 32.3	+0.3
	baz=2.9,SNR=29						
Q09A	**Carvers**	2.91	218	⇓P	Pn	12 37 32.6	+0.3
	baz=2.9,SNR=8.7						
K16A	**Soda Springs**	2.98	55	⇑P	Pn	12 37 34.0	+0.7
	baz=3.0,SNR=20						
WVOR	**Wild Horse Val**	3.06	296	ePn	Pn	12 37 37.7	+3.3
WVOR				eSg	Sg	12 38 20.8	-3.5
R10A	**Warm Springs**	3.06	201	⇓P	Pn	12 37 35.3	+1.0
	baz=3.1,SNR=9.4						
R13A	**O'Grain Ranch,**	3.07	166	P	Pn	12 37 34.8	+0.4
	baz=3.1,SNR=32						
N07B	**Gerlach**	3.10	264	⇓P	Pn	12 37 34.6	-0.3
	baz=3.1,SNR=8.1						
M07A	**Soldier Meadow**	3.22	275	⇑P	Pn	12 37 36.3	-0.2
	baz=3.2,SNR=6.6						
J16A	**Bone**	3.23	48	⇑P	Pn	12 37 37.5	+0.8
	baz=3.2,SNR=7.0						
RRI2	**Red Ridge**	3.44	49	ePn	Pn	12 37 40.4	+0.8
RRI2				eSg	Sg	12 38 33.3	-3.2
S12A	**Delamar Landin**	3.55	179	⇓P	Pn	12 37 41.5	+0.4
	baz=3.6,SNR=6.4						
ARUT	**Antelope Range**	3.56	161	ePn	Pn	12 37 43.2	+2.0
S11A	**Rachel**	3.57	191	P	Pn	12 37 41.9	+0.5
	baz=3.6,SNR=8.6						
K07A	**Rock Creek Ran**	3.58	297	⇓P	Pn	12 37 41.8	+0.3

	baz=3.6,SNR=9.3						
S14A	Cedar City	3.66	158	P	Pn	12 37 42.6	+0.1
	baz=3.7,SNR=14						
S13A	Holt Ranch, En	3.67	167	⇑P	Pn	12 37 42.7	0.0
	baz=3.7,SNR=22						
REDW	Red Top Meadow	3.73	53	ePn	Pn	12 37 44.3	+0.7
REDW				eSg	Sg	12 38 44.4	-1.2
TPAW	Teton Pass	3.75	50	ePn	Pn	12 37 45.4	+1.6
TPAW				eSn	Sn	12 38 37.0	+9.2
NVAR	Mina Array Bea	3.78	225	Pn	Pn	12 37 43.9	-0.3
	1.0nm,0.3s,baz=37,slow=11,SNR=14						
NVAR				Pg	Pg	12 37 54.9	-3.5
	2.3nm,0.3s,baz=42,slow=18,SNR=27						
NVAR				Sn	Sn	12 38 28.4	-0.3
	2.0nm,0.3s,baz=30,slow=15,SNR=3.2						
NVAR				Lg		12 38 41.5	
	2.9nm,0.3s,baz=106,slow=19,SNR=2.8						
NVAR	Mina Array Bea	3.78	225	Pn	Pn	12 37 43.9	-0.3
NVAR				Pg	Pg	12 37 54.9	-3.5
NVAR				Sn	Sn	12 38 28.4	-0.3
NVAR				Lg		12 38 41.5	
CCUT	Cedar City	3.80	161	ePn	Pn	12 37 44.6	0.0
T11A	Corn Creek, Al	3.92	184	⇑P	Pn	12 37 46.2	0.0
	baz=3.9,SNR=17						
MCMT	McKenzie Canyo	3.96	22	ePn	Pn	12 37 48.7	+2.0
MCMT				eSn	Sn	12 38 44.5	+11
IMW	Indian Meadow	4.01	46	ePn	Pn	12 37 48.8	+1.4
LOHW	Long Hollow	4.02	51	ePn	Pn	12 37 49.0	+1.5
BMO	Blue Mountains	4.08	335	ePn	Pn	12 37 54.4	+6.0
BMO				eSn	Sn	12 38 46.2	+10
MOD	Modoc	4.12	282	ePn	Pn	12 37 51.7	+2.9
PDAR	Pinedale Array	4.30	66	Pn	Pn	12 37 53.9	+2.5
	0.3nm,0.3s,baz=240,slow=12,SNR=16						
PDAR				Lg		12 38 59.1	
	0.6nm,0.3s,baz=242,slow=27,SNR=6.6						
YMR	Madison River	4.55	38	ePn	Pn	12 37 55.7	+1.0
U14A	Mt Trumbull	4.93	164	⇓P	Pn	12 38 00.8	+0.9
	baz=4.9,SNR=11						
V11A	Goodsprings	5.33	185	⇓P	Pn	12 38 06.2	+0.7
	baz=5.3,SNR=6.6						
V12A	Nelson	5.43	179	⇓P	Pn	12 38 07.3	+0.4
	baz=5.4,SNR=8.7						
YKA	Yellowknife Ar	21.36	0	P	P	12 41 32.9	-0.3
	0.3nm,0.7s,baz=178,slow=10,SNR=9.8						

MAN 28 12:53:31,13°.42N×120°.55E,h33^{km},mb4.5,ML3.4,MS3.3, 1D,Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PGP	Puerto Galera	0.40	78	eP	Pb	12 53 41.6	+1.6
LUBP	Lubang	0.43	316	eP	Pb	12 53 42.6	+2.1
LUBP				eS	Sb	12 53 49.8	+2.7
TGY	Tagaytay City	0.77	29	⇓iP	Pn	12 53 45.9	+0.3
SJMP	San Jose	1.10	150	eP	Pn	12 53 51.5	+1.4
SJMP				eS	Sn	12 54 04.7	+0.5
BUSP	Coron	1.45	194	eP	Pn	12 53 55.6	+0.7
BUSP				eS	Sn	12 54 08.9	-3.9
ENPP	El Nido	2.46	207	eP	Pn	12 54 09.3	+0.5

IDC 28 12:53:42.0±8.8,6°.07S×127°.94E,h420^{km}±123^{km},mb3.1/3, mb1 3.2/6,mb1mx3.1/17,mbtmp3.1/6,Error ellipse: s-maj=81.1km s-min=50.8km az=57.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	12.16	190	P	P	12 56 22.9	-0.2
	0.3nm,0.3s,baz=19,slow=10,SNR=5.0						
WRA	Warramunga Arr	15.12	156	P	P	12 56 55.2	-0.1
	0.6nm,0.3s,baz=336,slow=11,SNR=21						
ASAR	Alice Springs	18.41	162	P	P	12 57 30.2	+0.2
	0.6nm,0.3s,baz=343,slow=12,SNR=55						
SONM	Songino Array	56.94	343	P	P	13 02 46.4	+1.0
	0.5nm,0.7s,baz=163,slow=6.1,SNR=4.2						
MKAR	Makanchi Array	66.34	328	P	P	13 03 47.4	0.0
	0.8nm,0.4s,baz=128,slow=6.9,SNR=27						
ZALV	Zalesovo Beam	69.86	335	P	P	13 04 08.2	-0.6
	0.5nm,0.3s,baz=116,slow=6.6,SNR=3.5						

ISCJB 28 13:05:55.3±1.0,36°.12N±0°.04×21°.74E±0°.06,h10^{km},Error ellipse: s-maj=7.8km s-min=4.4km az=145.6

NEIC 28 13:05:57.5,36°.15N×21°.75E,h4^{km},MD3.7(ATH),After ATH.

ATH 28 13:05:57.5,36°.15N×21°.75E,h4^{km},MD3.7/7

CSEM 28 13:06:00.2±0.6,36°.03N×22°.00E,h2^{km},MD3.7,Error ellipse: s-maj=14.4km s-min=6.5km az=43.0

THE 28 13:06:01.9,36°.12N×21°.92E,h0^{km}±5^{km},ML3.7/2,Error ellipse: s-maj=8.3km s-min=1.8km az=240.0

ISC 28 13:05:55.6±1.3,36°.09N±0°.05×21°.68E±0°.07,h11^{km}±14^{km}, n31,σ0^{s}.87/41,Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.81	4	P	Px	13 06 17.6	
PYL				S	Sx	13 06 28.1	
PYL	PYLOS	0.81	4	ePG	Pg	13 06 11.1	-0.1
PYL				eSG	Sg	13 06 22.1	+0.3
PYL	PYLOS	0.81	4	P	Px	13 06 17.6	
PYL				S	Sx	13 06 28.1	
ITM	Ithomi	1.11	10	ePG	Pg	13 06 17.1	+0.2
ITM				eSG	Sg	13 06 31.5	+0.1
KYTH	Kithira	1.12	80	ePG	Pg	13 06 18.1	+1.1
KYTH	Kithira	1.12	80	ePg	Pg	13 06 18.1	+1.1
VLI	Veliai	1.20	58	ePB	Pg	13 06 19.1	+0.5
VLI				eSB	Sg	13 06 33.8	-0.3
VLI	Veliai	1.20	58	ePb	Pg	13 06 19.1	+0.5
VLI				eSb	Sg	13 06 33.8	-0.3
VLX	Vlachokerasia	1.40	24	ePG	Pg	13 06 21.8	-0.7
DID	Didima	1.89	41	P	Pg	13 06 31.4	-0.5
DID				S	Sg	13 06 56.6	+0.2
DID	Didima	1.89	41	ePB	Pb	13 06 31.3	+1.2
DID	Didima	1.89	41	P	Pg	13 06 31.4	-0.5
DID				S	Sg	13 06 56.6	+0.2
KARN	Karanos	1.94	110	P	Pg	13 06 33.1	+0.2
KARN				S	Sg	13 06 57.6	-0.5
KARN	Karanos	1.94	110	ePG	Pg	13 06 33.0	+0.1
KARN	Karanos	1.94	110	ePg	Pg	13 06 33.0	+0.1
KARN				S	Sg	13 06 57.6	-0.5
RLS	Riolos of Patr	1.98	355	ePG	Pg	13 06 33.5	0.0
VAM	Vamos	2.16	108	ePB	Pb	13 06 35.0	+0.3
VAM	Vamos	2.16	108	ePb	Pb	13 06 35.0	+0.3
LAKA	Lakka	2.16	6	P	Pg	13 06 36.3	-0.8
LAKA				S	Sg	13 07 06.4	+1.3
LAKA	Lakka	2.16	6	P	Pg	13 06 36.3	-0.8
LAKA				S	Sg	13 07 06.4	+1.3
LTK	Loutraki	2.19	28	P	Pg	13 06 37.3	-0.3
LTK				S	Sg	13 07 05.8	-0.2
LTK	Loutraki	2.19	28	ePG	Pg	13 06 37.0	-0.6
LTK	Loutraki	2.19	28	P	Pg	13 06 37.3	-0.3
LTK				S	Sg	13 07 05.8	-0.2
VLS	Valsamata	2.26	338	P	Pg	13 06 41.6	+2.7
VLS	Valsamata	2.26	338	P	Pg	13 06 41.6	+2.7
KALE	Kalithea	2.33	9	P	Pg	13 06 39.8	-0.5
KALE	Kalithea	2.33	9	P	Pg	13 06 39.8	-0.5
AGG	Agios Georgios	2.98	10	P	Pg	13 06 49.9	-2.7
AGG	Agios Georgios	2.98	10	P	Pg	13 06 49.9	-2.7
MEV	Metsovon	3.71	355	P	Pb	13 06 59.8	-1.3
MEV	Metsovon	3.71	355	P	Pb	13 06 59.8	-1.3

ISCJB 28 13:11:26.4±0.7,16°.1S±0°.1×71°.9W±0°.1,h127^{km}±6^{km}, mb4.1/8,Error ellipse: s-maj=21.5km s-min=10.7km az=136.2

NEIC 28 13:11:26.8±1.2,16°.11S×71°.90W,h115^{km}±14^{km},mb4.3/6, Error ellipse: s-maj=21.0km s-min=11.5km az=220.0

IDC 28 13:11:27.5±2.2,15°.83S×71°.65W,h100^{km}±23^{km},mb3.7/4, mb1 3.6/8,mb1mx3.4/21,mbtmp3.6/8,Error ellipse: s-maj=29.4km s-min=21.8km az=55.0

ISC 28 13:11:27.4±0.6,16°.1S±0°.1×71°.9W±0°.1,h120^{km}±6^{km},n18, σ1^{s}.12/24,mb4.1/8,1D,Southern Peru

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	Arequipa	0.57	133	⇓iP	Pn	13 11 46.8	+1.0
ARE				iS	Sn	13 12 00.0	+0.3
NNA	Nana	6.26	310	P	Pn	13 12 58.2	+0.8
	7.6nm,0.3s,baz=133,slow=14,SNR=7.9						
NNA				S	Sn	13 14 04.9	-2.7
	8.2nm,0.3s,baz=222,slow=21,SNR=5.7						
NNA	Nana	6.26	310	ePn	Pn	13 12 57.5	+0.1
NNA				eSn	Sn	13 14 03.6	-4.0
LVC	Limon Verde	7.11	157	P	Pn	13 13 09.4	+0.6
	4.0nm,0.3s,baz=341,slow=9.8,SNR=14						
LVC				S	Sn	13 14 23.4	-4.7
	1.3nm,0.3s,baz=273,slow=22,SNR=2.6						
LVC	Limon Verde	7.11	157	ePn	Pn	13 13 09.1	+0.3
LVC				ePn	Pn	13 13 09.3	+0.5
LVC				eSn	Sn	13 14 27.1	-1.0
SIV	San Ignacio	10.44	91	P	Pn	13 13 51.8	-2.0
	0.6nm,0.3s,baz=284,slow=11,SNR=13						
CFAA	Coronel Fontan	15.83	168	P	Pn	13 15 08.2	+4.8
	0.1nm,0.3s,baz=332,slow=17,SNR=3.9						
PAYG	Puerto Ayora	23.70	308	P	P	13 16 28.2	-0.3
	7.3nm,0.8s,mb4.1						
PLCA	Paso Flores	24.61	177	P	P	13 16 40.8	+4.4
	2.2nm,0.8s,mb3.6,baz=352,slow=10,SNR=3.5						
PLCA	Paso Flores	24.61	177	eP	P	13 16 34.1	-2.2
	5.8nm,1.3s,mb3.9						
JTS	JuntasAbangare	29.19	333	P	P	13 17 16.8	-1.0
	11nm,1.0s,mb4.5						
RCBR	Riachuelo	36.74	78	P	P	13 18 23.3	-0.2
	32nm,1.8s,mb5.0						
VBMS	Vicksburg	51.21	340	eP	P	13 20 19.5	+1.0
	34nm,0.6s						
DBIC	Dimbokro	70.10	77	P	P	13 22 27.4	+0.2
	1.9nm,0.5s,mb4.2,baz=244,slow=8.6,SNR=5.5						
DBIC	Dimbokro	70.10	77	P	P	13 22 27.4	+0.2
BOZ	Bozeman (W)	71.16	332	eP	P	13 22 25.5	-7.4
	1.7nm,0.8s,mb3.9						
TORD	Torodi Ar. Bea	78.35	73	P	P	13 23 15.6	+0.5
	2.5nm,0.7s,mb4.1,baz=253,slow=5.7,SNR=16						
YKA	Yellowknife Ar	85.15	342	P	P	13 23 51.8	+2.1
	0.2nm,0.7s,mb3.2,baz=135,slow=4.9,SNR=5.1						

SKHL 28 13:15:13.5±1.0,54°.19N×141°.77E,h10^{km},2C,Sakhalin Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKH	Okha	0.94	132	⇑iPg	Pg	13 15 33.0	+1.4
OKH				AMB	AMB	13 15 33.1	
	1µm,0.1s						
OKH				⇑iSg	Sg	13 15 46.0	+2.2
OKH				A		13 15 47.1	
	2µm,0.4s						
OKH				A		13 15 47.1	
	900nm,0.4s						
NKL	Nikolayevsk	1.23	212	i Pg	Pg	13 15 37.2	+0.2
NKL				AMB	AMB	13 15 38.0	
	17nm,0.5s						
NKL				AMB	AMB	13 15 38.0	
	60nm,0.5s						
NKL				AMB	AMB	13 15 38.0	
	43nm,0.5s						
NKL				eSg	Sg	13 15 54.5	+1.6
NKL				A		13 15 57.0	
	160nm,0.5s						
NKL				A		13 15 57.0	
	210nm,0.5s						
TYV	Tymovskoe	3.38	170	eS	Sn	13 16 47.6	+1.3
TYV				eSg	Sg	13 17 07.0	+5.2
TYV				A		13 17 09.0	
	8.0nm,0.5s						
GRNR	Gornyy	4.74	226	eSg	Sg	13 17 46.0	+0.6
GRNR				A		13 17 47.0	
	9.0nm,0.8s						
GRNR				A		13 17 47.0	
	14nm,0.8s						
EKMR	Ekimchan	5.37	262	ePg	Pg	13 17 01.5	+5.3
EKMR				AMB	AMB	13 17 10.5	
	2.0nm,0.3s						
EKMR				eSg	Sg	13 18 18.7	+13
EKMR				A		13 18 25.0	
	5.0nm,0.5s						
EKMR				A		13 18 25.0	
	4.0nm,0.5s						
BMKR	Bomnak	7.56	279	eSg	Sg	13 19 42.0	+26
BMKR				A		13 19 46.5	
	2.0nm,0.4s						

DDA 28 13:16:31.8,35°.71N×36°.16E,h14^{km}±8^{km},Md3.1

ISCJB 28 13:16:33.8±0.7,35°.74N±0°.04×36°.4E±0°.1,h15^{km}±6^{km}, Error ellipse: s-maj=14.6km s-min=4.9km az=13.9

CSEM 28 13:16:33.4±0.1,35°.75N×36°.37E,h17^{km},Mc1.7,Error ellipse: s-maj=6.3km s-min=1.6km az=95.0

NSSC 28 13:16:34,35°.75N×36°.34E,h10^{km}

ISC 28 13:16:33.5±0.6,35°.75N±0°.03×36°.4E±0°.1,h19^{km}±4^{km},n12, σ0^{s}.36/23,8D,Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLNF	Slenfeh	0.18	214	⇑P	Pg	13 16 38.0	-0.3
SLNF				⇑S	Sg	13 16 41.0	-0.5
SLNF	Slenfeh	0.18	214	⇑iP	Pg	13 16 38.9	+0.6
WRDH	Warideh	0.24	167	⇓P	Pg	13 16 39.0	-0.2
WRDH				⇓S	Sg	13 16 43.0	0.0
WRDH	Warideh	0.24	167	⇓iP	Pg	13 16 39.9	+0.7
WRDH				⇓iS	Sg	13 16 43.2	+0.2
BTCH	Batrach	0.31	18	⇑P	Pg	13 16 40.0	-0.3
BTCH				⇑S	Sg	13 16 45.0	+0.2
BTCH	Batrach	0.31	18	⇑iP	Pg	13 16 40.4	+0.1
BTCH				⇑iS	Sg	13 16 45.0	+0.2
BIDA	Albida	0.73	182	⇓P	Pb	13 16 47.0	-0.6
BIDA				⇓S	Sb	13 16 57.0	-0.2
BIDA	Albida	0.73	182	⇓iP	Pb	13 16 47.9	+0.3
BIDA				⇓iS	Sb	13 16 57.9	+0.7
COBT	Iskenderun	0.78	355	eP	Pb	13 16 48.5	+0.1
COBT				eS	Sb	13 16 58.9	+0.3
COBT	Iskenderun	0.78	355	eP	Pb	13 16 48.5	+0.1
COBT				eS	Sb	13 16 58.9	+0.3
KUZU	Kuzuini	1.18	30	eP	Pn	13 16 54.7	-0.3
KUZU				eS	Sb	13 17 10.1	-0.2
KUZU	Kuzuini	1.18	30	eP	Pn	13 16 54.7	-0.4
KUZU				eS	Sb	13 17 10.1	-0.2

ISCJB 28 13:19:50.3±0.8,13°.53N±0°.07×90°.65W±0°.05,h75^{km}±6^{km}, mb3.7/5,Error ellipse: s-maj=13.6km s-min=4.4km az=31.8

CASC 28 13:19:51.9±1.9,13°.58N×90°.58W,h30^{km}±5^{km},MD3.9, ML4.5

IDC 28 13:19:52.4±1.8,13°.81N×90°.27W,h63^{km}±8^{km},mb3.5/5, mb1 3.8/8,mb1mx3.6/22,mbtmp3.5/8,MS3.2/2,Ms1 3.2/2, ms1mx2.7/21,Error ellipse: s-maj=38.4km s-min=21.7km az=23.0

NEIC 28 13:19:53.3±1.5,13°.65N×90°.46W,h81^{km}±15^{km}, MD3.8(SNET),Error ellipse: s-maj=26.8km s-min=12.2km az=213.0

NEIC Felt [II] at San Salvador, El Salvador.

ISC 28 13:19:51.2±0.7,13°.54N±0°.07×90°.64W±0°.05,h68^{km}±7^{km}, h66^{km}±4.1^{km}:pP-P,n41,σ0^{s}.97/53,mb3.7/5,1C-6D,Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSG	Pto de San Jos	0.44	340	⇓eP	Pn	13 20 03.0	-0.2
PCG	Pacaya	0.85	2	eP	Pn	13 20 07.1	-0.7
SONS		0.91	77	eP	Pn	13 20 07.2	-1.4
SONS				eS	Sn	13 20 18.8	-2.6
SONS				AML	AML	13 20 19.6	
	comp=N,18µm,0.1s						
RTR	El Retiro	1.03	69	⇓iP	Pn	13 20 09.4	-0.5
SBLS	San Blas	1.03	73	eP	Pn	13 20 09.2	-0.8
FG6		1.04	347	eP	Pn	13 20 09.6	-0.6
GCG	Guatemala City	1.05	5	eP	Pn	13 20 09.8	-0.5
GCG				eS	Sn	13 20 23.8	-0.6
SNJE	San Jose	1.05	72	eP	Pn	13 20 09.7	-0.6
NBG	Las Nubes	1.08	15	⇓eP	Pn	13 20 11.3	+0.7
NBG				eS	Sn	13 20 26.4	+1.3
RBDL	Robledal	1.08	58	eP	Pn	13 20 09.9	-0.8
JAT	Jato	1.25	309	⇑eP	Pn	13 20 12.8	0.0
TP2	Tecpan 2	1.29	343	⇓eP	Pn	13 20 14.0	+0.6
TP2				eS	Sn	13 20 30.6	+0.6
BOQS	Boqueron	1.33	81	eP	Pn	13 20 13.9	0.0
BOQS				eS	Sn	13 20 30.6	-0.3
SNET	Serv Nac Est T	1.37	84	eP	Pn	13 20 14.3	-0.1
SNET				eS	Sn	13 20 31.2	-0.7
LFU	La Fuente	1.49	82	eP	Pn	13 20 15.8	-0.3
MTO2	Montecristo 2	1.50	55	⇓iP	Pn	13 20 15.7	-0.5
LFRS	El Faro	1.53	87	eP	Pn	13 20 16.4	-0.2
LBRS	Las Brisas	1.56	82	eP	Pn	13 20 16.9	0.0
SNVI	San Vicente	1.75	87	eP	Pn	13 20 19.8	+0.4
SNVI				eS	Sn	13 20 42.5	+1.7
MRL	Marmol	1.77	31	⇓eP	Pn	13 20 20.8	+1.0
VSM	San Miguel	2.30	92	eP	Pn	13 20 28.1	+1.2
BLLM	Bellamira	2.33	92	eP	Pn	13 20 28.0	+0.7
BLLM				eS	Sn	13 20 56.3	+1.3
CAHU	Cacacuatique	2.37	84	eP	Pn	13 20 27.9	+0.1
CNCH	Conchagua	2.74	95	eP	Pn	13 20 33.2	+0.4
CNCH				eS	Sn	13 21 07.4	+2.5
TGUH	Tegucigalpa,Un	3.31	81	ePn	Pn	13 20 40.4	-0.3
COPN	Copaltepe	4.17	108	eP	Pn	13 20 52.5	+0.1
CMIG	Matias Romero	5.41	311	P	Pn	13 21 10.4	+1.0
	comp=N,5.0nm,0.3s,baz=128,slow=10,SNR=38						
CMIG				S	Sn	13 22 09.9	-0.5
	comp=N,3.3nm,0.3s,baz=36,slow=7.9,SNR=4.7						
JTS	JuntasAbangare	6.43	120	P	Pn	13 21 25.3	+2.0
	comp=N,3.6nm,0.3s,baz=311,slow=22,SNR=8.2						
JTS				S	Sn	13 22 32.7	-2.6
	baz=280,slow=22,SNR=1.3						
JTS	JuntasAbangare	6.43	120	ePn	Pn	13 21 24.9	+1.5
	comp=N,68nm,0.8s						
JTS				eSn	Sn	13 22 31.8	-3.5
TEIG	Tepich	7.02	18	P	Pn	13 21 32.3	+0.9
	comp=N,12nm,0.3s,baz=180,slow=4.3,SNR=40						
TEIG				LR	LR	13 24 28.1	
	comp=N,155nm,21.7s,baz=210,slow=41						
TEIG	Tepich	7.02	18	ePn	Pn	13 21 32.0	+0.6
TEIG				e		13 21 40.3	
TEIG				Sn	Sn	13 23 02.5	+13
TXAR	Lajitas Array	19.83	325	P	Pn	13 24 19.3	+0.7
	comp=N,0.2nm,0.3s,baz=152,slow=12,SNR=14						
SDV	Santo Domingo	20.15	101	P	P	13 24 19.1	-1.1
	comp=N,0.5nm,0.3s,baz=20,slow=9.6,SNR=3.0						
TKL	Tuckaleechee C	22.88	14	P	P	13 24 48.6	-0.5
	comp=N,4.1nm,0.6s,mb3.9,baz=220,slow=16,SNR=6.5						
TKL				LR	LR	13 33 46.2	
	comp=N,75nm,20.0s,baz=262,slow=37						
PDAR	Pinedale Array	33.40	334	P	P	13 26 24.0	+0.8
	comp=N,0.2nm,0.6s,mb3.1,baz=126,slow=9.1,SNR=2.5						
PDAR				PcP	PcP	13 29 04.5	+1.1
	comp=N,0.3nm,0.3s,baz=119,slow=3.3,SNR=4.4						
NVAR	Mina Array Bea	34.87	320	P	P	13 26 39.5	+3.5
	comp=N,2.7nm,0.7s,mb4.2,baz=131,slow=8.3,SNR=27						
NVAR				pP	pP	13 26 54.0	+1.4
	comp=N,1.1nm,0.6s,baz=130,slow=8.1,SNR=5.1						
NVAR				PcP	PcP	13 29 10.3	+2.5
	comp=N,1.1nm,0.7s,baz=126,slow=3.8,SNR=6.5						
NVAR	Mina Array Bea	34.87	320	P	P	13 26 39.5	+3.4
NVAR				pP	pP	13 26 54.0	+1.4
NVAR				PcP	PcP	13 29 10.3	+2.5
SCHQ	Schefferville	45.21	19	P	P	13 27 59.4	-2.0
	comp=N,1.0nm,0.5s,mb3.9,baz=206,slow=6.5,SNR=8.0						
SCHQ				pP	pP	13 28 16.6	-1.8
	comp=N,1.4nm,0.5s,baz=218,slow=8.6,SNR=2.9						
YKA	Yellowknife Ar	51.78	346	P	P	13 28 50.6	-1.2
	comp=N,0.1nm,0.3s,mb3.3,baz=146,slow=7.6,SNR=7.2						
YKA				pP	pP	13 29 07.7	-1.4
	comp=N,0.4nm,0.7s,baz=145,slow=8.0,SNR=4.3						
YKA				PcP	PcP	13 30 04.3	+0.3
	comp=N,0.2nm,0.5s,baz=147,slow=4.0,SNR=5.2						
YKA	Yellowknife Ar	51.78	346	P	P	13 28 50.6	-1.2
YKA				pP	pP	13 29 07.7	-1.4
YKA				PcP	PcP	13 30 04.3	+0.3
CMAR	Chiang Mai Arr	146.84	343	PKPbc	PKPbc	13 39 27.3	+0.7
	comp=N,2.4nm,0.6s,baz=343,slow=3.5,SNR=18						

CSEM 28 13:20:00.9±0.2,50°.08N×18°.45E,h1^{km},ML2.7/7,Error ellipse: s-maj=4.2km s-min=2.8km az=1.0

IPEC 28 13:20:01.5±0.1,50°.05N×18°.46E,h0^{km},ML2.1/4,Error ellipse: s-maj=1.8km s-min=0.7km az=160.0

PRU 28 13:20:02.1,50°.08N×18°.40E,h0^{km}

WAR 28 13:20:01.6,50°.04N×18°.46E,ML2.3,Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	Raciborz	0.18	284	ePg	Pg	13 20 05.4	+0.4
RAC				eSg	Sg	13 20 08.5	+1.2
RAC	Raciborz	0.18	284	ePg	Pg	13 20 05.4	+0.4
RAC				eSg	Sg	13 20 08.5	+1.2
OKC	Ostrava-Krasne	0.29	225	ePG	Pg	13 20 07.3	+0.2
OKC				eSG	Sg	13 20 11.2	+0.4
	comp=Z,80nm,0.5s						
OKC	Ostrava-Krasne	0.29	225	Pg	Pg	13 20 07.3	+0.2
OKC				Sg	Sg	13 20 11.2	+0.4
	comp=Z,80nm,0.5s						
MORC	Moravsky Berou	0.65	246	ePg	Pg	13 20 13.9	-0.2
	baz=65						
MORC				eSg	Sg	13 20 22.8	+0.3
	comp=Z,37nm,0.5s,baz=65						
OJC	Ojcow	0.88	78	ePg	Pg	13 20 17.1	-1.3
OJC				eSg	Sg	13 20 30.0	+0.2
OJC	Ojcow	0.88	78	ePg	Pg	13 20 17.4	-1.0
	baz=259						
OJC				eSg	Sg	13 20 29.8	0.0
	baz=259						
JAVC	Velka Javorina	1.29	204	ePg	Pg	13 20 26.3	0.0
JAVC				eSg	Sg	13 20 45.4	+2.3
	comp=Z,30nm,0.5s						
NIE	Niedzica	1.35	117	ePg	Pg	13 20 26.7	-0.8
NIE				eSg	Sg	13 20 46.9	+1.9
NIE	Niedzica	1.35	117	eSg	Sg	13 20 45.8	+0.8
DPC	Dobruska-Polom	1.41	283	ePG	Pg	13 20 27.3	-1.3
DPC				eSG	Sg	13 20 46.4	-0.4
	comp=Z,22nm,0.7s						
DPC	Dobruska-Polom	1.41	283	Pg	Pg	13 20 27.3	-1.3
DPC				eSg	Sg	13 20 45.9	-0.9
	baz=102						
VRAC	Vranov	1.42	240	ePg	Pg	13 20 28.0	-0.8
VRAC				eSg	Sg	13 20 46.0	-1.1
	comp=Z,28nm,0.6s,baz=58						
KOLL	Kolacno	1.47	182	ePN	Pn	13 20 29.6	+0.4
KOLL				eSN	Sn	13 20 49.1	0.0
VYHS	Vyhne	1.57	171	ePN	Pn	13 20 30.0	-0.7
VYHS				eSN	Sn	13 20 51.8	+0.2
KSP	Ksiaz	1.60	301	ePg	Pg	13 20 32.7	+0.4
KSP				eSg	Sg	13 20 51.0	-2.0
UPC	Upice	1.64	287	ePG	Pg	13 20 31.8	-1.2
UPC				eSG	Sg	13 20 52.0	-2.2
UPC	Upice	1.64	287	Pg	Pg	13 20 31.8	-1.2
UPC				Sg	Sg	13 20 52.0	-2.2
KRUC	Moravsky	1.67	235	ePn	Pn	13 20 31.3	-0.7
KRUC				eSg	Sg	13 20 53.1	-2.0
	comp=Z,16nm,0.4s,baz=53						
MODS	Modra-Piesok	1.84	205	ePN	Pn	13 20 35.8	+1.4
MODS				eSN	Sn	13 20 57.1	-1.3
STHS	Stebnicka Huta	1.91	108	ePN	Pn	13 20 38.0	+2.6
STHS	Stebnicka Huta	1.91	108	ePn	Pn	13 20 38.0	+2.6
KECS	Kecovo	2.05	139	ePG	Pg	13 20 42.6	+1.8
KECS				e		13 21 01.4	
CRVS	Cervenica-Dubn	2.27	119	ePN	Pn	13 20 43.3	+3.1
CRVS	Cervenica-Dubn	2.27	119	ePn	Pn	13 20 43.3	+3.1
PRU	Pruhonice	2.53	270	eSG	Sg	13 21 20.6	-2.2
	comp=Z,5.8nm,0.4s						
PRU	Pruhonice	2.53	270	Sg	Sg	13 21 20.6	-2.2
	comp=Z,5.8nm,0.4s						
KHC	Kasperske Hory	3.31	256	ePG	Pg	13 21 01.0	-3.9
KHC				eSG	Sg	13 21 45.8	-1.9
	comp=Z,6.6nm,0.4s						

NEIC 28 13:24:18.2±0.7,26°.86N×142°.58E,h10^{km},mb4.6/3,Error ellipse: s-maj=18.9km s-min=10.1km az=82.0

MOS 28 13:24:19.5±1.4,26°.97N×142°.58E,h33^{km},mb4.5/4,Error ellipse: s-maj=32.3km s-min=13.5km az=105.7

ISCJB 28 13:24:21.9±1.0,26°.93N±0°.06×142°.5E±0°.1,h58^{km}±5^{km}, mb3.9/9,Error ellipse: s-maj=21.0km s-min=9.7km az=179.7

IDC 28 13:24:21.9±4.2,26°.87N×142°.72E,h35^{km}±32^{km},mb3.5/7, mb1 3.7/8,mb1mx3.6/22,mbtmp3.5/8,ML3.4/1,MS3.0/3, Ms1 3.0/3,ms1mx2.7/37,Error ellipse: s-maj=28.7km s-min=19.8km az=79.0

JMA 28 13:24:24.7,26°.89N×142°.56E,h21^{km}±2^{km}

ISC 28 13:24:23.2±1.0,26°.91N±0°.06×142°.5E±0°.1,h48^{km}±6^{km}, n28,σ1^{s}.17/30,mb3.9/9,Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	0.32	307	P	Pn	13 24 32.8	+0.5

CBIJ	Chichi jima	0.32	307	Pn	Pn	13 24 33.0	+0.7
	1µm,0.3s,baz=287,slow=22,SNR=217						
CBIJ				Sn	Sn	13 24 42.1	+3.4
	739nm,0.3s,baz=275,slow=23,SNR=18						
JHHJ	Haha-jima-NKT	0.38	224	P	Pn	13 24 33.4	+0.5
JHHJ				S	Sn	13 24 39.5	-0.3
JHJ	Hachijo jima 2	6.62	340	LR	LR	13 27 54.3	
	comp=Z,109nm,18.2s,baz=237,slow=32						
JHO	Hitachi	9.81	351	P	Pn	13 26 40.2	-1.4
JHO				eS	Sn	13 28 23.0	-7.3
JAG	Ashikaga	9.83	346	P	Pn	13 26 42.8	+1.0
JAG				eS	Sn	13 28 24.6	-6.2
MJAR	Matsushiro Arr	10.27	340	Pn	Pn	13 26 47.7	-0.1
	0.3nm,0.3s,baz=139,slow=12,SNR=3.7						
MAJO	Matsushiro	10.27	340	P	Pn	13 26 44.9	-2.9
MAJO				pmax	pmax		
	comp=Z,51nm,1.8s						
MAJO	Matsushiro	10.27	340	Pn	Pn	13 26 44.9	-2.9
	comp=Z,51nm,1.8s						
JOW	Kunigami	12.68	273	LR	LR	13 31 17.1	
	comp=Z,60nm,19.6s,baz=273,slow=32						
KSRS	Korea Array	16.18	314	LR	LR	13 33 55.8	
	comp=Z,67nm,20.5s,baz=335,slow=35						
TATO	Taipei	18.97	269	P	Pn	13 28 39.3	-2.3
	comp=Z,82nm,1.3s						
YHNB	Yeheng	19.13	268	eP	Pn	13 28 43.3	-0.2
	comp=Z,9.0nm,0.5s						
SONM	Songino Array	35.03	316	P	P	13 31 12.9	+1.8
	comp=Z,0.3nm,0.4s,mb3.5,baz=117,slow=1.6,SNR=2.9						
BOD	Bodaibo	36.84	335	eP	P	13 31 25.5	-0.9
CMAR	Chiang Mai Arr	40.87	267	P	P	13 32 02.2	+1.5
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CMAR	Chiang Mai Arr	40.87	267	P	P	13 32 02.2	+1.5
	comp=Z,0.6nm,0.6s,mb3.4,baz=74,slow=7.6,SNR=5.1						
WRAB	Tennant Creek	47.22	190	eP	P	13 32 51.3	-0.1
WRAB				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
WRAB	Tennant Creek	47.22	190	eP	P	13 32 51.3	-0.1
	comp=Z,3.2nm,0.5s,mb4.5						
WB2	Warramunga Arr	47.23	190	eP	P	13 32 50.3	-1.2
WRA	Warramunga Arr	47.23	190	P	P	13 32 51.9	+0.4
WRA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
WRA	Warramunga Arr	47.23	190	P	P	13 32 51.9	+0.4
	comp=Z,3.6nm,0.6s,mb4.5,baz=12,slow=8.6,SNR=21						
MKAR	Makanchi Array	50.79	310	P	P	13 33 19.0	+0.4
	comp=Z,0.1nm,0.3s,mb3.2,baz=83,slow=11,SNR=5.5						
ASAR	Alice Springs	50.95	190	P	P	13 33 19.8	-0.1
	comp=Z,0.3nm,0.4s,mb3.6,baz=21,slow=11,SNR=5.4						
KSH	Kashi	55.90	301	eP	P	13 34 01.3	+5.2
KSH				epP	pP	13 34 20.0	+11
KSH				esP	sP	13 34 28.8	+14
KSH				ePcP	PcP	13 35 01.3	+6.9
KSH				ePP	PP	13 36 06.5	+5.5
KSH				eScP	ScP	13 38 52.3	+2.7
KSH				ePcS	PcS	13 39 00.5	+5.8
KSH				eS	S	13 41 36.5	-3.9
KSH				esS	sS	13 42 08.5	+5.8
KSH				eScS	ScS	13 43 39.3	-2.1
KSH				eSS	SS	13 45 19.8	-6.6
KSH				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
KSH				pmax	pmax		
	comp=Z,190nm,3.7s						
KSH				LR	LR		
	comp=N,240nm,6.6s						
KSH				LR	LR		
	comp=E,320nm,5.1s						
KSH				LR	LR		
	comp=Z,310nm,5.4s						
YKA	Yellowknife Ar	72.19	28	P	P	13 35 42.6	-0.1
	comp=Z,0.3nm,0.5s,mb3.4,baz=293,slow=6.3,SNR=8.2						
FINES	FINESS Array B	78.23	334	P	P	13 36 19.1	+1.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FINES	FINESS Array B	78.23	334	P	P	13 36 19.1	+1.7
	comp=Z,3.1nm,0.9s,mb4.2,baz=72,slow=8.9,SNR=4.7						

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*CSEM **28** 13:31:04.9, 36°.06N×21°.94E, h6^{km}, MD3.5, After ATH*

ATH 28 13:31:04.9, 36°.06N×21°.94E, h6^{km}±3^{km}, MD3.5/5, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.85	349	ePG	Pg	13 31 20.7	-0.5
PYL				eSB	Sb	13 31 33.1	-0.6
PYL	PYLOS	0.85	349	ePg	Pg	13 31 20.7	-0.5
PYL				eSb	Sb	13 31 33.1	-0.6
KYTH	Kithira	0.91	76	ePB	Pb	13 31 22.7	-0.4
KYTH	Kithira	0.91	76	ePb	Pb	13 31 22.7	-0.4
VLI	Veliai	1.04	50	ePB	Pb	13 31 24.6	-0.7
VLI				eSB	Sb	13 31 38.8	-0.3
VLI	Veliai	1.04	50	ePb	Pb	13 31 24.6	-0.7
VLI				eSb	Sb	13 31 38.8	-0.3
ITM	Ithomi	1.12	359	ePG	Pg	13 31 25.6	-0.8
ITM				eSB	Sb	13 31 41.9	+0.5
ITM	Ithomi	1.12	359	ePg	Pg	13 31 25.6	-0.8
ITM				eSb	Sb	13 31 41.9	+0.5
VLX	Vlachokerasia	1.35	15	ePN	Pn	13 31 29.5	-0.8
VLX	Vlachokerasia	1.35	15	ePn	Pn	13 31 29.5	-0.8
DID	Didima	1.78	35	ePG	Pg	13 31 37.9	-1.1
DID	Didima	1.78	35	ePg	Pg	13 31 37.9	-1.1
GUR	Goura	1.90	10	ePN	Pn	13 31 39.8	+2.0
GUR	Goura	1.90	10	ePn	Pn	13 31 39.8	+2.0
LTK	Loutraki	2.12	22	ePG	Pg	13 31 44.1	-1.5
LTK	Loutraki	2.12	22	ePg	Pg	13 31 44.1	-1.5

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*ISCJB **28** 13:39:45.5±0.5, 33°.32N±0°.02×35°.42E±0°.03, h5^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=2.8km az=36.1*

*CSEM **28** 13:39:45.5±0.1, 33°.34N×35°.40E, h2^{km}, ML3.5, Error ellipse: s-maj=3.2km s-min=1.7km az=115.0*

*GII **28** 13:39:45.6±0.6, 33°.24N×35°.43E, h1^{km}±1^{km}, Md3.0/11, Mm2.5/6*

*GRAL **28** 13:39:46.4±0.4, 33°.32N×35°.43E, h0^{km}±6^{km}, MD3.5*

*NSSC **28** 13:39:46, 33°.29N×35°.47E, h9^{km}±2^{km}*

ISC 28 13:39:45.9±0.5, 33°.33N±0°.02×35°.42E±0°.03, h6^{km}±4^{km}, n47, σ0^s.60/71, 11D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATL	Matirih	0.18	336	eP	Pg	13 39 49.8	+0.3
MATL	Matirih	0.18	336	eP	Pg	13 39 49.8	+0.3
KSDI	Kefar Szold	0.24	123	Pg	Pg	13 39 50.2	-0.5
KSDI	Kefar Szold	0.24	123	Pg	Pg	13 39 50.2	-0.5
MMA0	Mount Meron ar	0.31	182	Pg	Pg	13 39 51.3	-0.6
MMA0				Sg	Sg	13 39 56.4	+0.4
MMA0	Mount Meron ar	0.31	182	Pg	Pg	13 39 51.3	-0.6
HNTI	Hanita	0.32	220	Pg	Pg	13 39 51.8	-0.2
HNTI				Sg	Sg	13 39 57.0	+0.8
HNTI	Hanita	0.32	220	Pg	Pg	13 39 51.8	-0.2
RCY	Rachaya	0.37	65	eP	Pg	13 39 53.2	+0.1
RCY				eS	Sg	13 39 58.3	+0.3
RCY	Rachaya	0.37	65	eP	Pg	13 39 53.2	+0.1
RCY				eS	Sg	13 39 58.3	+0.3
BRBR	Barbar	0.46	79	⇑P	Pg	13 39 54.0	-0.7
BRBR				⇓S	Sg	13 40 01.0	+0.3
BRBR	Barbar	0.46	79	⇑iP	Pg	13 39 54.8	+0.1
BRBR				⇓iS	Sg	13 40 01.3	+0.6
KSHT	Keshet	0.48	136	Pg	Pg	13 39 54.9	-0.2
KSHT	Keshet	0.48	136	Pg	Pg	13 39 54.9	-0.2
BHL	Bhannes	0.61	19	eP	Pg	13 39 57.2	-0.4
BHL	Bhannes	0.61	19	eP	Pg	13 39 57.2	-0.4
BLGI	Bet Lehem HaGe	0.62	198	Pg	Pg	13 39 57.6	-0.2
BLGI				Sg	Sg	13 40 06.8	+0.9
QASN	Qassioun	0.75	74	⇓P	Pg	13 40 01.0	+0.7
QASN				⇓S	Sg	13 40 10.0	0.0
OFRI	‘Ofer	0.79	207	Pg	Pg	13 40 00.8	-0.3
TCHB	Talchebab	0.80	144	⇑P	Pg	13 40 01.0	-0.3
TCHB				⇑S	Sg	13 40 11.0	-0.8
TCHB	Talchebab	0.80	144	⇑iP	Pg	13 40 01.1	-0.2
TCHB				⇑iS	Sg	13 40 11.6	-0.2
TOTH	TOTAH	0.85	87	⇓P	Pg	13 40 02.0	-0.2
TOTH				⇓S	Sg	13 40 14.0	+0.8
MMLI	Mount Malkishu	0.89	180	Pg	Pg	13 40 01.9	-1.0
MMLI				Sg	Sg	13 40 14.5	+0.1
HWQ	Hawqa	1.05	25	eP	Pg	13 40 05.4	-0.6
HWQ	Hawqa	1.05	25	eP	Pg	13 40 05.4	-0.6
HMDT	Nahal Hemdat	1.07	175	Pg	Pg	13 40 05.8	-0.7
HMDT				Sg	Sg	13 40 21.2	+0.8
SLTI	Sal’it	1.13	196	Pg	Pg	13 40 06.6	-0.9
SLTI				Sg	Sg	13 40 22.8	+0.6
SLTI	Sal’it	1.13	196	Pg	Pg	13 40 06.6	-0.9
SLTI				Sg	Sg	13 40 22.8	+0.6
MARH	Ras Al Marh	1.13	52	⇑P	Pg	13 40 07.0	-0.6
MARH				⇑S	Sg	13 40 24.0	+1.7
MARH	Ras Al Marh	1.13	52	⇑iP	Pg	13 40 07.4	-0.2
MARH				⇑iS	Sg	13 40 24.1	+1.8
FKH	Fakeheh	1.22	42	eP	Pg	13 40 08.7	-0.6
FKH	Fakeheh	1.22	42	eP	Pg	13 40 08.7	-0.7
SALA	Sala	1.27	119	⇓P	Pn	13 40 09.0	-1.1
SALA				⇑S	Sg	13 40 26.0	-0.6
ZALF	Zalf	1.66	104	⇓P	Pn	13 40 15.0	-0.5
ZALF				⇑S	Sn	13 40 37.0	-0.1
ZALF	Zalf	1.66	104	⇓iP	Pn	13 40 15.8	+0.3
ZALF				⇑iS	Sn	13 40 37.7	+0.6
DSI	Dead Sea	1.75	181	Pn	Pn	13 40 16.6	-0.1
DSI				Sn	Sn	13 40 39.4	+0.1
DSI	Dead Sea	1.75	181	Pn	Pn	13 40 16.6	-0.1
DSI				Sn	Sn	13 40 39.4	+0.1
ROOS	tl_alroos	1.77	61	⇑P	Pn	13 40 17.0	0.0
ROOS				⇑S	Sn	13 40 39.0	-0.9
ROOS	tl_alroos	1.77	61	⇑iP	Pn	13 40 17.5	+0.5
ROOS				⇑iS	Sn	13 40 40.0	+0.1
BIDA	Albida	1.84	24	⇓P	Pn	13 40 18.0	0.0
BIDA	Albida	1.84	24	⇓iP	Pn	13 40 18.3	+0.3
YTIR	Yattir	1.97	187	Pn	Pn	13 40 20.6	+0.8
YTIR	Yattir	1.97	187	Pn	Pn	13 40 20.6	+0.8
MZDA	Masada	2.01	181	Pn	Pn	13 40 20.7	+0.4
MZDA	Masada	2.01	181	Pn	Pn	13 40 20.7	+0.4
PRNI	Paran	2.99	187	Pn	Pn	13 40 34.1	+0.4
PRNI	Paran	2.99	187	Pn	Pn	13 40 34.1	+0.4

MAN 28 13:42:31, 13°.28N×120°.51E, h32^{km}, mb3.8, ML2.6, MS2.2, 1D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PGP	Puerto Galera	0.49	63	eP	Pb	13 42 42.7	+1.4
LUBP	Lubang	0.52	331	eP	Pb	13 42 43.5	+1.6
LUBP				eS	Sb	13 42 50.8	+1.5
TGY	Tagaytay City	0.92	27	⇓iP	Pn	13 42 47.5	-0.2
SJMP	San Jose	1.00	144	eP	Pn	13 42 50.0	+1.1
SJMP				eS	Sn	13 43 01.9	0.0
BUSP	Coron	1.30	194	eP	Pn	13 42 52.8	-0.2
BUSP				eS	Sn	13 43 04.6	-4.7

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*ISCJB **28** 13:47:43.8±1.4, 37°.7N±0°.1×70°.08E±0°.08, h10^{km}, Error ellipse: s-maj=16.1km s-min=9.6km az=3.1*

*NNC **28** 13:47:46.1±4.9, 37°.93N×69°.41E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=39.2km s-min=34.1km az=169.0*

*NEIC **28** 13:47:58.0±5.5, 38°.31N×70°.27E, h94^{km}±25^{km}, Error ellipse: s-maj=66.1km s-min=18.1km az=190.0*

*IDC **28** 13:48:01.2±13.0, 38°.54N×70°.30E, h108^{km}±70^{km}, mb2.8/1, mb1 3.2/6, mb1mx3.0/29, mbtmp3.1/6, ML3.3/5, Error ellipse: s-maj=150.9km s-min=52.9km az=9.0*

ISC 28 13:47:45.3±1.4, 37°.7N±0°.1×70°.04E±0°.09, h10^{km}, n19, σ1^s.59/22, 5C-3D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	Kashi	5.00	67	ePn	Pn	13 48 59.3	-1.1
KSH				Sn	Sn	13 49 56.5	-1.7
KSH				smax			
	comp=N,56nm,0.7s						
KSH				smax			
	comp=E,40nm,0.7s						
AML	Almayashu	5.27	31	ePn	Pn	13 49 05.8	+1.7
KK31	Karatay Array	5.44	4	⇓Pn	Pn	13 49 06.0	-0.4
	comp=E,0.4nm,0.2s,baz=199,slow=15,SNR=20						
KK31				⇑Pg	Pg	13 49 24.7	-4.8
	comp=E,1.3nm,0.4s,baz=191,slow=15,SNR=4.0						
KK31				⇓Sn	Sn	13 50 07.3	-1.7
	comp=E,1.6nm,0.4s,baz=197,slow=32,SNR=4.5						
KK31				⇓Lg		13 50 34.1	
	comp=E,10nm,0.6s,baz=191,slow=29,SNR=9.7						
UCH	Uchtor	5.71	36	ePn	Pn	13 49 11.9	+1.9
	comp=E,8.0nm,0.8s						
EKS2	Erkin-Say	5.75	29	ePn	Pn	13 49 13.3	+2.7
AAK	Ala-Archa	6.02	33	P	Pn	13 49 17.2	+2.9
	comp=E,0.1nm,0.3s,baz=194,slow=5.2,SNR=29						
AAK	Ala-Archa	6.02	33	ePn	Pn	13 49 16.6	+2.2
	comp=E,7.2nm,0.4s						
TKM2	Tokmak 2	6.75	37	⇑Pn	Pn	13 49 26.5	+2.1
	comp=E,1.8nm,0.6s						
TKM2				⇑Lg		13 51 18.8	
	comp=E,4.0nm,0.6s						
TKM2	Tokmak 2	6.75	37	eP	Pn	13 49 25.5	+1.2
	comp=E,2.7nm,0.6s						
MKAR	Makanchi Array	12.85	41	P	Pn	13 50 48.4	+0.4
	comp=E,0.1nm,0.3s,baz=232,slow=14,SNR=8.0						
AB09	Akbulak array	13.71	331	⇑P	Pn	13 50 54.1	-5.4
	comp=E,0.4nm,0.4s						
BVAR	Borovoye Array	15.36	1	P	Pn	13 51 21.0	-0.9
	comp=E,0.1nm,0.3s,baz=160,slow=9.7,SNR=3.6						
AKTK	Aktyubinsk	15.39	330	P	Pn	13 51 23.6	+1.4
AKTO	Aktyubinsk	15.39	330	⇑P	Pn	13 51 20.0	-2.2
	comp=E,0.2nm,0.5s						
AKTO	Aktyubinsk	15.39	330	P	Pn	13 51 23.6	+1.4
	comp=E,0.2nm,0.3s,baz=122,slow=13,SNR=5.9						
ZALV	Zalesovo Beam	19.20	27	P	Pn	13 52 07.2	-2.7
	comp=E,0.3nm,0.3s,baz=232,slow=11,SNR=2.7						
BFO	Black Forest	45.24	304	eP	P	13 56 01.5	-1.1
YKA	Yellowknife Ar	80.11	2	P	P	13 59 53.9	-1.0
	comp=E,0.1nm,0.5s,baz=352,slow=5.4,SNR=6.0						
YKA	Yellowknife Ar	80.11	2	P	P	13 59 53.9	-1.0

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*NEIC **28** 13:49:10.5±1.2, 7°.46S×155°.01E, h35^{km}, mb3.9/1, Error ellipse: s-maj=41.9km s-min=15.9km az=122.0*

IDC 28 13:49:05.2±1.9, 7°.38S×155°.04E, h0^{km}, mb3.8/6, mb1 4.0/6, mb1mx3.8/16, mbtmp3.8/6, MS3.2/1, Ms1 3.2/1, ms1mx2.5/25, Error ellipse: s-maj=61.9km s-min=27.9km az=122.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	15.23	213	LR	LR	13 57 42.8	
	comp=Z,78nm,18.5s,baz=156,slow=34						
WRAB	Tennant Creek	23.62	236	eP	P	13 54 17.4	-1.0
	2.6nm,0.6s						
WRA	Warramunga Arr	23.64	236	P	P	13 54 18.2	-0.3
	0.9nm,0.6s,baz=57,slow=9.4,SNR=4.6						
ASAR	Alice Springs	25.95	229	P	P	13 54 39.8	+0.2
	0.4nm,0.6s,baz=60,slow=9.3,SNR=12						
CMAR	Chiang Mai Arr	60.99	296	P	P	13 59 21.6	+0.7
	0.8nm,0.7s,baz=116,slow=5.0,SNR=6.3						
SONM	Songino Array	69.68	327	P	P	14 00 16.5	-0.2
	0.5nm,0.5s,baz=147,slow=6.0,SNR=4.4						
MKAR	Makanchi Array	83.72	319	P	P	14 01 35.9	-0.2
	1.0nm,0.7s,baz=102,slow=5.6,SNR=9.8						
MKAR	Makanchi Array	83.72	319	P	P	14 01 35.9	-0.2
YKA	Yellowknife Ar	96.65	28	P	P	14 02 37.3	+0.3
	0.3nm,0.6s,baz=266,slow=4.6,SNR=9.3						
TORD	Torodi Ar. Bea	153.17	285	PKPbc	PKPbc	14 09 05.8	-0.3
	0.5nm,0.7s,baz=53,slow=2.4,SNR=3.4						

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*ISCJB **28** 13:57:16.0±1.0, 2°.56N±0°.10×95°.8E±0°.2, h33^{km}, mb3.7/8, Error ellipse: s-maj=24.4km s-min=8.9km az=151.8*

*NEIC **28** 13:57:17.8±0.8, 2°.49N×95°.77E, h35^{km}, mb3.9/1, Error ellipse: s-maj=21.3km s-min=9.3km az=52.0*

*IDC **28** 13:57:21.6±10.0, 2°.69N×96°.03E, h59^{km}±79^{km}, mb3.4/7, mb1 3.5/9, mb1mx3.3/25, mbtmp3.4/9, ML3.5/2, Error ellipse: s-maj=124.6km s-min=18.3km az=59.0*

ISC 28 13:57:18.3±1.0, 2°.6N±0°.1×95°.8E±0°.2, h35^{km}, n14, σ0^s.75/15, mb3.7/8, 1C, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.92	350	⇑eP	Pn	13 58 02.0	-0.4
BSI				eS	Sn	13 58 35.0	-1.3
PSI	Prapat	3.11	86	P	Pn	13 58 05.0	0.0
	1.7nm,0.3s,baz=161,slow=14,SNR=5.6						
CMAR	Chiang Mai Arr	16.05	11	P	Pn	14 01 03.6	+2.1
	0.2nm,0.3s,baz=196,slow=12,SNR=4.5						
WRA	Warramunga Arr	43.95	122	P	P	14 05 22.1	-0.2
	0.2nm,0.4s,mb3.2,baz=302,slow=9.5,SNR=3.0						
WRAB	Tennant Creek	43.95	122	eP	P	14 05 21.1	-1.2
	1.7nm,0.8s,mb3.8						
ASAR	Alice Springs	45.34	127	P	P	14 05 33.5	+0.1
	0.1nm,0.5s,mb2.9,baz=299,slow=8.0,SNR=7.2						
MK31	Makanchi Array	45.57	347	eP	P	14 05 35.0	+0.2
MKAR	Makanchi Array	45.57	347	P	P	14 05 35.2	+0.5
	0.7nm,0.4s,mb3.9,baz=160,slow=8.2,SNR=10.0						
MKAR	Makanchi Array	45.57	347	P	P	14 05 35.2	+0.5
SONM	Songino Array	45.98	10	P	P	14 05 37.7	-0.3
	0.6nm,0.6s,mb3.7,baz=190,slow=9.0,SNR=6.3						
KURK	Kurchatov	50.10	346	P	P	14 06 10.1	+0.3
	0.5nm,0.5s,mb3.8,baz=162,slow=6.8,SNR=4.5						
KURK	Kurchatov	50.10	346	P	P	14 06 10.1	+0.3
ZALV	Zalesovo Beam	51.97	352	P	P	14 06 24.0	+0.1
	0.8nm,0.4s,mb4.0,baz=180,slow=4.2,SNR=3.5						
ARCES	ARCESS Array B	80.76	340	P	P	14 09 28.0	+0.2
	3.2nm,0.9s,mb4.2,baz=94,slow=7.2,SNR=4.0						

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*NEIC **28** 13:57:33.7, 14°.92N×60°.62W, h21^{km}, MD3.6(TRN), After TRN.*

TRN 28 13:57:31.9, 15°.05N×60°.42W, h51^{km}, MD3.6, M2.9(FDF), 5C-5D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MVM	Montagne Vaucl	0.67	223	⇑iP	Pn	13 57 46.0	+0.7
FDF	Fort de France	0.77	246	⇓eP	Pn	13 57 47.3	+0.7
FDF				⇓eS	Sn	13 57 58.7	+1.4
FDF	Fort de France	0.77	246	eP	Pn	13 57 47.1	+0.5
FDF				eS	Sn	13 57 58.7	+1.4
BIM	Bigot	0.82	230	⇓eP	Pn	13 57 48.1	+0.8
DSTT	Stowe	0.88	283	⇑iP	Pn	13 57 49.9	+1.9
DSTT				eS	Sn	13 58 02.5	+2.7
DBCT	Belle View Cho	0.92	284	eP	Pn	13 57 50.2	+1.6
DBCT	Belle View Cho	0.92	284	e	Pn	13 58 04.0	+15
DBCT				eS	Sn	13 58 04.0	+3.2
DBCT	Belle View Cho	0.92	284	eP	Pn	13 57 51.3	+2.8
DBCT				eS	Sn	13 58 04.0	+3.2
DFBT	Forest Bistro	0.92	282	eP	Pn	13 57 50.4	+1.8
DFBT				eS	Sn	13 58 03.1	+2.2
DSHT	Scott’s Head	0.94	280	eP	Pn	13 57 50.9	+2.1
DSHT				eS	Sn	13 58 04.1	+3.0
DPMT	Pointe Michel	0.95	283	eP	Pn	13 57 51.1	+2.2
DPMT				eS	Sn	13 58 04.2	+2.7
MDN	Morne-Daniel	0.98	286	eP	Pn	13 57 51.0	+1.7
MDN				eS	Sn	13 58 05.1	+2.9
MDN	Morne-Daniel	0.98	286	eP	Pn	13 57 52.1	+2.8
MDN				eS	Sn	13 58 05.1	+2.9
SLW	Petit Monier	1.14	206	⇓eP	Pn	13 57 52.2	+0.7
SLW	Petit Monier	1.14	206	eP	Pn	13 57 53.1	+1.6
SLW				eS	Sn	13 58 07.9	+1.9
SLW	Petit Monier	1.14	206	eP	Pn	13 57 53.1	+1.6
SLW				eS	Sn	13 58 07.9	+1.9
MGG	Marie-Galante	1.22	315	eP	Pn	13 57 53.6	+0.9
SLPE	Piton Saint Es	1.32	205	eP	Pn	13 57 56.4	+2.5
SLPE				eS	Sn	13 58 13.2	+2.7
SLPE	Piton Saint Es	1.32	205	eP	Pn	13 57 56.4	+2.5
SLPE				eS	Sn	13 58 11.4	+0.9
SLB	Belfond	1.35	206	⇑iP	Pn	13 57 56.4	+2.0
SLB				eS	Sn	13 58 13.1	+1.8
SLDE	Delcer	1.38	207	eP	Pn	13 57 56.9	+2.1
SLDE				eS	Sn	13 58 14.6	+2.6
SLDE	Delcer	1.38	207	eP	Pn	13 57 56.9	+2.1
SLDE				eS	Sn	13 58 14.4	+2.5
DOG	Dongo Capester	1.51	310	eP	Pn	13 57 57.7	+1.1
PHG	Guadaloupe-2	1.52	309	eP	Pn	13 57 57.8	+1.1
BCG	Bois Riant Cap	1.55	312	eP	Pn	13 57 58.2	+1.1
SCG	Saint Claude	1.56	309	eP	Pn	13 57 58.4	+1.2
SCG				eS	Sn	13 58 17.6	+1.3
LZG	Guadaloupe-1	1.70	310	eP	Pn	13 58 00.4	+1.3
SEG	Port Louis	1.71	322	eP	Pn	13 58 01.1	+1.9
SSV	Crater Summit	1.87	204	eP	Pn	13 58 03.5	+2.0
SSV				eS	Sn	13 58 25.1	+1.3
SSV	Crater Summit	1.87	204	eP	Pn	13 58 03.5	+2.0
SSV				eS	Sn	13 58 25.6	+1.7
BHS	Barnard House	1.87	202	eP	Pn	13 58 05.5	+4.0
BHS				eS	Sn	13 58 26.5	+2.6
BHS	Barnard House	1.87	202	eP	Pn	13 58 03.6	+2.1
BHS				eS	Sn	13 58 26.5	+2.6
SVV	Soufriere Volc	1.88	204	⇓eP	Pn	13 58 04.0	+2.3
SVV				eS	Sn	13 58 26.2	+2.0
GRCU	Cariacou	2.75	202	⇑eP	Pn	13 58 14.5	+1.0
GRCU				eS	Sn	13 58 47.2	+1.7
GRCU	Cariacou	2.75	202	⇑iP	Pn	13 58 16.8	+3.2
GRCU				eS	Sn	13 58 47.6	+2.1
GRSS	Sisters	2.97	203	eP	Pn	13 58 17.7	+1.1
GRSS				eS	Sn	13 58 51.7	+0.8
GRSS	Sisters	2.97	203	eP	Pn	13 58 21.2	+4.6
GRSS				eS	Sn	13 58 51.5	+0.6
GRIC	Isle de Caille	2.97	203	eP	Pn	13 58 18.2	+1.7
GRIC				eS	Sn	13 58 52.0	+1.1
GRW	Mount Saint Ca	3.11	203	eP	Pn	13 58 21.5	+3.0
GRW				eS	Sn	13 58 55.8	+1.3
GRW	Mount Saint Ca	3.11	203	eP	Pn	13 58 21.5	+3.0
GRW				eS	Sn	13 58 53.2	-1.3

IGQ 28 14:30:04.8, 1°.11S×78°.41W, h10^{km}±1^{km}, Mb4.0, Ms3.8, 23C-1D, Error ellipse: s-maj=1.1km s-min=0.5km az=5.2, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PISA	Pisayambo	0.06	22	⇑P	Pg	14 30 07.7	+0.9
RUN5	Runtun	0.30	184	⇑P	Pg	14 30 11.3	+0.4
JUI6	Juive	0.32	191	⇑S	Sg	14 30 15.8	+0.4
JUI6	Juive	0.32	191	⇑P	Pg	14 30 11.4	+0.2
ULBA	Ulba	0.34	180	⇑P	Pg	14 30 11.6	+0.1
RETU	Refugio	0.34	187	⇑P	Pg	14 30 12.0	+0.4
RETU	Refugio	0.34	187	⇑S	Sg	14 30 16.9	+0.8
BIL2	Estacion Bilba	0.36	196	⇑S	Sg	14 30 17.8	+1.2
BIL2	Estacion Bilba	0.36	196	⇑P	Pg	14 30 12.1	+0.3
PATA	Patacocha	0.39	184	⇑P	Pg	14 30 12.9	+0.4
MOV1	Cotopaxi Vol s	0.40	355	⇑P	Pg	14 30 13.3	+0.8
ARRY	Arrayan	0.40	187	⇑P	Pg	14 30 12.6	0.0
TAMB	Tambo	0.41	5	⇑P	Pg	14 30 13.7	+0.7
CAMI	Rancho Maria	0.44	347	⇑P	Pg	14 30 14.4	+1.0
IGUA	Igualata	0.44	212	S	Sg	14 30 21.1	+1.7
IGUA	Igualata	0.44	212	P	Pg	14 30 14.2	+0.7
COV1	Cotopaxi Volc	0.45	8	⇑S	Sg	14 30 22.1	+2.5
COV1	Cotopaxi Volc	0.45	8	⇑P	Pg	14 30 14.5	+0.9
VC1	Cotopaxi 1	0.47	0	⇑P	Pg	14 30 14.7	+0.8
NAS2	Nasa	0.47	352	⇑P	Pg	14 30 15.0	+1.2
PITA	Cotopaxi Volc	0.55	357	⇑P	Pg	14 30 16.2	+0.8
QIL2	Quilotoa	0.56	295	S	Sg	14 30 24.7	+1.6
QIL2	Quilotoa	0.56	295	P	Pg	14 30 16.8	+1.0
ANTI	Antisana	0.70	20	⇑S	Sg	14 30 27.3	-0.2
ANTI	Antisana	0.70	20	⇑P	Pg	14 30 18.3	-0.1
JUA2	San Juan 2	0.91	347	S	Sg	14 30 36.0	+1.7
JUA2	San Juan 2	0.91	347	P	Pg	14 30 22.7	+0.4
GGP	Refugio Guagua	0.95	348	S	Sg	14 30 37.5	+2.1
GGP	Refugio Guagua	0.95	348	P	Pg	14 30 23.1	+0.1
TERV	Terraza Guagua	0.95	348	⇓P	Pg	14 30 23.6	+0.6
PINO	Pino	0.97	348	⇑P	Pg	14 30 23.7	+0.3
YANA	Yana	1.00	350	S	Sg	14 30 37.9	+0.8
YANA	Yana	1.00	350	P	Pg	14 30 24.1	+0.1
CAYR	Refugio Cayamb	1.19	20	P	Pb	14 30 28.5	+1.2
CAYA	Cayambe	1.25	19	P	Pn	14 30 29.0	+0.8
CHAR	Charly	1.25	36	S	Sb	14 30 46.3	+1.6
CHAR	Charly	1.25	36	P	Pn	14 30 29.4	+1.1
LAV3	Lava3-Reventad	1.27	38	S	Sb	14 30 45.9	+0.7
LAV3	Lava3-Reventad	1.27	38	P	Pn	14 30 29.4	+0.8
CONE	Cono NE Rev Vo	1.28	36	P	Pn	14 30 29.8	+1.0
CONE	Cono NE Rev Vo	1.28	36	S	Sb	14 30 47.0	+1.4
OTAV	Otavalo	1.34	358	⇑P	Pn	14 30 29.9	+0.4
COTA	Cotacachi	1.44	3	P	Pn	14 30 32.7	+1.9

IDC 28 14:52:21.4±3.4, 6°.44S×151°.58E, h0^{km}, mb3.5/3, mb1 3.8/3, mb1mx3.4/16, mbtmp3.6/3, Error ellipse: s-maj=127.5km s-min=46.3km az=124.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	21.46	230	P	P	14 57 11.8	+0.3
	0.6nm,0.6s,baz=56,slow=11,SNR=4.6						
ASAR	Alice Springs	24.13	223	P	P	14 57 39.4	+0.3
	0.4nm,0.4s,baz=56,slow=8.9,SNR=22						
FITZ	Fitzroy Crossi	27.82	243	P	P	14 58 12.1	-0.5

	0.9nm,0.4s,baz=58,slow=9.5,SNR=4.0						
TORD	**Torodi Ar. Bea**	**149.61**	**285**	PKPbc	PKPbc	15 12 13.6	-0.3
	0.4nm,0.7s,baz=82,slow=3.1,SNR=3.8						

ISCJB ***28*** *15:10:37.4±0.1, 41°.10N±0°.01×114°.89W±0°.01, h10^{km}, mb3.7/2, MS3.3/2, Error ellipse: s-maj=1.6km s-min=1.4km az=137.4*

IDC ***28*** *15:10:37.5±0.7, 41°.13N×114°.87W, h0^{km}, mb3.7/2, mb1 4.0/6, mb1mx3.7/24, mbtmp3.6/6, ML3.8/3, MS3.2/4, Ms1 3.2/4, ms1mx2.9/37, Error ellipse: s-maj=12.3km s-min=5.2km az=135.0*

NEIC ***28*** *15:10:37.7, 41°.16N×114°.93W, h5^{km}, ML3.9, MW4.0(SLM), After REN.*

NEIC Felt [V] at Wells. Also felt at Elko.

ISC 28 15:10:38.2±0.1**, 41°.115N**±0°.010×**114°.89W**±0°.01**, h10^{km}, n172, σ1^{s}21**/281**, mb3.7**/2**, MS3.3**/2**, 51C-49D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	**0.28**	**203**	⇓P	**Pg**	**15 10 43.8**	**-0.1**
	baz=0.3,SNR=1000						
N12A				⇑S	**Sg**	**15 10 48.5**	**+0.7**
	baz=0.3						
N12A	**Clover Valley,**	**0.28**	**203**	*e*Pn	**Pg**	**15 10 43.8**	**-0.1**
ELK	**Elko**	**0.45**	**215**	Pg	**Pg**	**15 10 46.5**	**-0.6**
	214nm,0.3s,baz=22,slow=14,SNR=2539						
ELK				Lg		15 10 52.9	
	1μm,0.3s,baz=144,slow=17,SNR=114						
ELK	**Elko**	**0.45**	**215**	*e*Pn	**Pg**	**15 10 46.5**	**-0.5**
ELK				*e*Sn	**Sg**	**15 10 52.9**	**-0.2**
N13A	**Wendover, West**	**0.58**	**116**	P	**Pg**	**15 10 49.7**	**+0.2**
	baz=0.6,SNR=1000						
N13A				⇑S	**Sg**	**15 10 57.7**	**+0.6**
	baz=0.6						
N13A	**Wendover, West**	**0.58**	**116**	*e*Pn	**Pg**	**15 10 49.6**	**+0.1**
M13A	**Montello**	**0.60**	**66**	⇑P	**Pg**	**15 10 49.2**	**-0.6**
	baz=0.6,SNR=1000						
M13A				⇑S	**Sg**	**15 10 57.8**	**+0.1**
	baz=0.6						
M13A	**Montello**	**0.60**	**66**	*e*Pn	**Pg**	**15 10 49.1**	**-0.8**
N11A	**Elko Archery C**	**0.70**	**245**	⇑P	**Pg**	**15 10 51.1**	**-0.7**
	baz=0.7,SNR=602						
N11A				⇑S	**Sg**	**15 11 00.8**	**-0.3**
	baz=0.7						
M11A	**Holland Ranch,**	**0.75**	**295**	⇓P	**Pg**	**15 10 51.3**	**-1.4**
	baz=0.7						
M11A				⇑S	**Sg**	**15 11 01.0**	**-1.4**
	baz=0.7						
O12A	**Currie**	**0.85**	**172**	⇑P	**Pg**	**15 10 54.5**	**-0.2**
	baz=0.9,SNR=410						
O12A				⇑S	**Sg**	**15 11 06.3**	**+0.6**
	baz=0.9						
L12A	**House Creek Ra**	**1.03**	**355**	⇓P	**Pg**	**15 10 56.6**	**-1.5**
	baz=1.0						
L12A				⇑S	**Sg**	**15 11 10.7**	**-0.9**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.14**	**211**	P	**Pb**	**15 10 59.7**	**-0.3**
	baz=1.2,SNR=1000						
O11A				⇓S	**Sb**	**15 11 14.8**	**-0.1**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.20**	**144**	⇓P	**Pn**	**15 11 00.8**	**-0.2**
	baz=1.3,SNR=818						
O13A				⇑S	**Sb**	**15 11 18.6**	**+2.0**
	baz=1.3						
L13A	**Double Diamond**	**1.21**	**36**	⇑P	**Pb**	**15 10 59.7**	**-1.4**
	baz=1.2						
L13A				⇓S	**Sb**	**15 11 16.0**	**-0.7**
	baz=1.2						
M14A	**Sheep Mountain**	**1.23**	**71**	⇑P	**Pn**	**15 11 00.4**	**-1.0**
	baz=1.2,SNR=1000						
M14A				⇓S	**Sb**	**15 11 17.5**	**+0.2**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.23**	**329**	⇑P	**Pn**	**15 10 59.7**	**-1.8**
	baz=1.2						
L11A				⇓S	**Sb**	**15 11 16.2**	**-1.4**
	baz=1.2						
N10A	**Dunphy**	**1.29**	**253**	⇑P	**Pn**	**15 11 01.2**	**-1.0**
	baz=1.3,SNR=28						
M10A	**I.L. Ranch, Tu**	**1.31**	**289**	⇑P	**Pn**	**15 11 01.5**	**-0.9**
	baz=1.3						
N14A	**Grayback Hills**	**1.32**	**101**	⇓P	**Pn**	**15 11 02.0**	**-0.6**
	baz=1.4,SNR=462						
N14A				⇑S	**Sb**	**15 11 20.6**	**+0.7**
	baz=1.4						
BGU	**Big Grassy Mou**	**1.42**	**97**	*e*Pn	**Pn**	**15 11 03.4**	**-0.7**
BGU				*e*Sn	**Sn**	**15 11 20.7**	**-2.1**
O10A	**Cortez Mining,**	**1.47**	**237**	⇑P	**Pn**	**15 11 04.5**	**-0.3**
	baz=1.5,SNR=68						
K12A	**Draper Farm, C**	**1.52**	**360**	⇓P	**Pn**	**15 11 04.1**	**-1.3**
	baz=1.5						
K12A				⇑S	**Sn**	**15 11 24.0**	**-1.3**
	baz=1.5						
L10A	**Juniper Basin**	**1.52**	**310**	⇓P	**Pn**	**15 11 04.6**	**-0.9**
	baz=1.5						
L14A	**Malta**	**1.54**	**53**	P	**Pn**	**15 11 05.4**	**-0.3**
	baz=1.5,SNR=693						
L14A				⇑S	**Sn**	**15 11 26.6**	**+0.8**
	baz=1.5						
K13A	**Stover Farm, H**	**1.65**	**21**	⇑P	**Pn**	**15 11 06.6**	**-0.6**
	baz=1.6,SNR=251						
K13A				⇓S	**Sn**	**15 11 28.8**	**+0.4**
	baz=1.6						
P11A	**Circle Ranch,**	**1.69**	**203**	⇓P	**Pn**	**15 11 07.9**	**+0.1**
	baz=1.7,SNR=86						
P11A				⇑S	**Sn**	**15 11 31.4**	**+1.9**
	baz=1.7						
HVU	**Hansel Valley**	**1.73**	**67**	*e*Pn	**Pn**	**15 11 08.0**	**-0.3**
HVU				*e*Sn	**Sn**	**15 11 30.9**	**+0.6**
P13A	**Bates Ranch, G**	**1.79**	**158**	⇓P	**Pn**	**15 11 08.7**	**-0.4**
	baz=1.8						
N15A	**Stansbury Isla**	**1.81**	**96**	⇑P	**Pn**	**15 11 09.2**	**-0.2**
	baz=1.8,SNR=173						
DUG	**Dugway**	**1.83**	**119**	⇓P	**Pn**	**15 11 08.9**	**-0.8**
	baz=1.9,SNR=176						
DUG	**Dugway**	**1.83**	**119**	*e*Pn	**Pn**	**15 11 08.9**	**-0.8**
DUG				*e*Sg	**Sg**	**15 11 34.8**	**-2.2**
SPUT	**South Promonto**	**1.85**	**83**	*e*Pn	**Pn**	**15 11 09.9**	**-0.1**
SPUT				*e*Sn	**Sn**	**15 11 34.5**	**+1.0**
K11A	**Parker Ranch,**	**1.86**	**333**	⇑P	**Pn**	**15 11 09.5**	**-0.6**
	baz=1.8,SNR=1000						
M15A	**Larsen Ranch,**	**1.88**	**79**	⇑P	**Pn**	**15 11 10.1**	**-0.2**
	baz=1.9,SNR=422						
M15A				⇑S	**Sn**	**15 11 35.6**	**+1.6**
	baz=1.9						
BMN	**Battle Mountai**	**1.90**	**250**	*e*Pn	**Pn**	**15 11 09.5**	**-1.1**
BMN				*e*Sg	**Sg**	**15 11 36.1**	**-3.0**
P10A	**Eureka**	**1.92**	**219**	⇑P	**Pn**	**15 11 11.2**	**+0.3**
	baz=1.9,SNR=136						
P10A				⇑S	**Sn**	**15 11 36.8**	**+1.8**
	baz=1.9						
K14A	**Jones Ranch, D**	**1.92**	**41**	⇓P	**Pn**	**15 11 10.8**	**-0.2**
	baz=1.9,SNR=168						
M09A	**Marrel Ranch,**	**1.95**	**280**	⇑P	**Pn**	**15 11 10.6**	**-0.7**
	baz=1.9						
O09A	**Fish Creek Ran**	**1.99**	**242**	⇓P	**Pn**	**15 11 11.3**	**-0.6**
	baz=2.0						
N09A	**Rock Creek Ran**	**2.01**	**263**	⇑P	**Pn**	**15 11 11.2**	**-0.9**
	baz=2.0,SNR=43						
N09A				⇓S	**Sn**	**15 11 37.5**	**+0.2**
	baz=2.0						
O15A	**The Old Anders**	**2.02**	**114**	⇑P	**Pn**	**15 11 11.9**	**-0.4**
	baz=2.1,SNR=109						
P14A	**Drum Mountains**	**2.06**	**137**	P	**Pn**	**15 11 12.7**	**-0.2**
	baz=2.1,SNR=274						
Q12A	**Willow Creek R**	**2.07**	**179**	P	**Pn**	**15 11 13.2**	**+0.1**
	baz=2.1,SNR=121						
Q12A				⇑Sb	**Sb**	**15 11 44.7**	**+3.0**
	baz=2.1						
L15A	**Malad City**	**2.08**	**64**	⇑P	**Pn**	**15 11 12.8**	**-0.4**
	baz=2.1,SNR=434						
J12A	**Stokes Ranch,**	**2.14**	**356**	⇓P	**Pn**	**15 11 14.2**	**+0.3**
	baz=2.1,SNR=606						
NOQ	**North Oquirrh**	**2.15**	**101**	*e*Pn	**Pn**	**15 11 14.2**	**+0.1**
NOQ				*e*Sg	**Sg**	**15 11 47.2**	**-0.2**
K10A	**MacKenzie Ranc**	**2.22**	**319**	⇑P	**Pn**	**15 11 14.9**	**-0.1**
	baz=2.2,SNR=193						
Q13A	**Wheeler Ranch,**	**2.26**	**162**	⇑P	**Pn**	**15 11 15.5**	**-0.1**
	baz=2.3,SNR=231						
L09A	**Wilkinson Ranc**	**2.27**	**294**	⇑P	**Pn**	**15 11 15.9**	**+0.2**
	baz=2.2,SNR=59						
P09A	**Austin**	**2.32**	**228**	⇓P	**Pn**	**15 11 16.4**	**0.0**
	baz=2.3,SNR=19						
Q11A	**Duckwater**	**2.34**	**195**	⇓P	**Pn**	**15 11 16.9**	**+0.2**
	baz=2.4,SNR=26						
J13A	**Cove Ranch, Pi**	**2.34**	**13**	⇓P	**Pn**	**15 11 17.4**	**+0.7**
	baz=2.3,SNR=645						
K15A	**Arbon**	**2.36**	**48**	⇑P	**Pn**	**15 11 17.6**	**+0.6**
	baz=2.3,SNR=105						
K15A				⇑Sb	**Sb**	**15 11 51.3**	**+1.4**
	baz=2.3						
CTU	**Camp Tracy**	**2.42**	**99**	*e*Pn	**Pn**	**15 11 18.6**	**+0.8**
CTU				*e*Sg	**Sg**	**15 11 57.0**	**+1.1**
J14A	**Carey**	**2.43**	**24**	⇓P	**Pn**	**15 11 18.9**	**+1.0**
	baz=2.4,SNR=597						
NLU	**North Lily Min**	**2.44**	**117**	*e*Pn	**Pn**	**15 11 17.2**	**-0.9**
NLU				*e*Pb	**Pb**	**15 11 22.2**	**+0.1**
NLU				*e*Pg	**Pg**	**15 11 25.9**	**+0.9**
Q14A	**Sevier Lake (B**	**2.46**	**149**	⇑P	**Pn**	**15 11 17.9**	**-0.5**
	baz=2.5,SNR=77						
M16A	**Huntsville**	**2.47**	**84**	⇑P	**Pn**	**15 11 18.2**	**-0.2**
	baz=2.5						
HLID	**Hailey**	**2.47**	**8**	P	**Pn**	**15 11 19.5**	**+1.0**
	baz=2.4,SNR=402						
HLID	**Hailey**	**2.47**	**8**	*e*Pn	**Pn**	**15 11 19.5**	**+0.9**
HLID				*e*Sn	**Sn**	**15 11 50.7**	**+2.0**
N08A	**GE Springer Mi**	**2.48**	**263**	P	**Pn**	**15 11 17.6**	**-0.9**
	baz=2.4,SNR=29						
P15A	**Leamington**	**2.52**	**127**	P	**Pn**	**15 11 18.8**	**-0.4**
	baz=2.6,SNR=131						
Q10A	**Clear Creek Ra**	**2.56**	**207**	⇑P	**Pn**	**15 11 20.1**	**+0.3**
	baz=2.6,SNR=318						
O08A	**Rochester Mine**	**2.61**	**253**	⇑P	**Pn**	**15 11 19.7**	**-0.7**
	baz=2.6,SNR=49						
K09A	**Rome**	**2.64**	**308**	⇓P	**Pn**	**15 11 22.7**	**+1.8**
	baz=2.6,SNR=622						
M08A	**Happy Creek Ra**	**2.65**	**278**	⇑P	**Pn**	**15 11 20.0**	**-0.9**
	baz=2.6						
MPU	**Maple Canyon**	**2.71**	**113**	*e*Pn	**Pn**	**15 11 21.7**	**-0.2**
MPU				*e*Pb	**Pb**	**15 11 25.6**	**-1.2**
MPU				*e*Pg	**Pg**	**15 11 29.6**	**-0.6**
MPU				*e*Sg	**Sg**	**15 12 04.5**	**-0.9**
R12A	**Pony Springs,**	**2.79**	**175**	⇓P	**Pn**	**15 11 23.1**	**+0.2**
	baz=2.8,SNR=36						
R11A	**Troy Canyon, C**	**2.81**	**191**	P	**Pn**	**15 11 23.4**	**+0.2**
	baz=2.9,SNR=549						
P08A	**Dixie Valley**	**2.82**	**241**	⇓P	**Pn**	**15 11 23.1**	**-0.1**
	baz=2.8,SNR=21						
DAU	**Daniels Canyon**	**2.85**	**103**	*e*Pn	**Pn**	**15 11 24.3**	**+0.6**
DAU				*e*Pg	**Pg**	**15 11 32.7**	**-0.1**
DAU				*e*Sg	**Sg**	**15 12 08.1**	**-1.6**
I13A	**Wildhorse Cree**	**2.86**	**11**	⇓P	**Pn**	**15 11 25.0**	**+1.2**
	baz=2.8						
Q15A	**Fillmore**	**2.86**	**137**	⇓P	**Pn**	**15 11 23.4**	**-0.4**
	baz=2.9,SNR=18						
Q09A	**Carvers**	**2.88**	**218**	⇓P	**Pn**	**15 11 24.4**	**+0.3**
	baz=2.9,SNR=32						
J15A	**Blackfoot**	**2.92**	**38**	⇓P	**Pn**	**15 11 25.4**	**+0.7**
	baz=2.9,SNR=80						
K16A	**Soda Springs**	**3.00**	**54**	⇓P	**Pn**	**15 11 27.0**	**+1.2**
	baz=3.0,SNR=26						
I14A	**Mackay**	**3.01**	**20**	⇓P	**Pn**	**15 11 27.0**	**+1.1**
	baz=3.0,SNR=28						
R13A	**O'Grain Ranch,**	**3.02**	**166**	⇓P	**Pn**	**15 11 26.8**	**+0.8**
	baz=3.1,SNR=28						
WVOR	**Wild Horse Val**	**3.10**	**296**	*e*Pn	**Pn**	**15 11 29.8**	**+2.7**
WVOR				*e*Sg	**Sg**	**15 12 13.0**	**-4.6**
N07B	**Gerlach**	**3.11**	**265**	⇑P	**Pn**	**15 11 26.5**	**-0.8**
	baz=3.1,SNR=23						
R14A	**James Farms, M**	**3.16**	**152**	⇓P	**Pn**	**15 11 28.2**	**+0.2**
	baz=3.2						
O07A	**Toulon**	**3.18**	**254**	P	**Pn**	**15 11 27.4**	**-0.8**
	baz=3.2,SNR=52						
M07A	**Soldier Meadow**	**3.24**	**276**	⇓P	**Pn**	**15 11 28.2**	**-0.9**
	baz=3.2						
Q08A	**Gabbs**	**3.24**	**227**	⇓P	**Pn**	**15 11 29.0**	**-0.1**
	baz=3.2,SNR=30						
J16A	**Bone**	**3.25**	**47**	⇑P	**Pn**	**15 11 30.5**	**+1.3**
	baz=3.2						
AHID	**Auburn Hatcher**	**3.27**	**59**	*e*Pn	**Pn**	**15 11 29.8**	**+0.2**
AHID				*e*Pb	**Pb**	**15 11 38.0**	**+1.6**
AHID				*e*Pg	**Pg**	**15 11 42.4**	**+1.4**
AHID				*e*Sg	**Sg**	**15 12 18.7**	**-4.7**
I10A	**Payette**	**3.29**	**335**	⇑P	**Pn**	**15 11 32.2**	**+2.4**
	baz=3.2,SNR=12						
R09A	**Tonopah**	**3.33**	**211**	⇓P	**Pn**	**15 11 30.3**	**0.0**
	baz=3.4,SNR=24						
MSU	**Marysvale**	**3.34**	**140**	*e*Pn	**Pn**	**15 11 30.6**	**+0.2**
MSU				*e*Pg	**Pg**	**15 11 40.8**	**-1.4**
MSU				*e*Sg	**Sg**	**15 12 24.9**	**-0.4**
TMUT	**Trail Mountain**	**3.35**	**122**	*e*Pn	**Pn**	**15 11 29.7**	**-1.0**
TMUT				*e*Pg	**Pg**	**15 11 40.6**	**-1.8**
S10A	**Tonopah Range,**	**3.45**	**203**	⇓P	**Pn**	**15 11 32.6**	**+0.6**
	baz=3.5,SNR=48						
L07A	**Adell**	**3.46**	**287**	⇓P	**Pn**	**15 11 31.8**	**-0.3**
	baz=3.4,SNR=22						
RRI2	**Red Ridge**	**3.47**	**49**	*e*Pn	**Pn**	**15 11 33.3**	**+1.1**
RRI2				*e*Sg	**Sg**	**15 12 27.0**	**-2.5**
J08A	**Circle Bar Ran**	**3.48**	**311**	P	**Pn**	**15 11 34.5**	**+2.1**
	baz=3.4,SNR=35						
S12A	**Delamar Landin**	**3.50**	**179**	⇑P	**Pn**	**15 11 33.3**	**+0.6**
	baz=3.5,SNR=8.1						
ARUT	**Antelope Range**	**3.51**	**161**	*e*Pn	**Pn**	**15 11 33.3**	**+0.5**
ARUT				*e*Pg	**Pg**	**15 11 44.6**	**-0.8**
ARUT				*e*Sg	**Sg**	**15 12 31.8**	**+0.9**
S11A	**Rachel**	**3.53**	**191**	⇓P	**Pn**	**15 11 33.9**	**+0.8**
	baz=3.6,SNR=19						
R15A	**Junction**	**3.53**	**144**	⇑P	**Pn**	**15 11 33.7**	**+0.6**
	baz=3.6						
S14A	**Cedar City**	**3.61**	**158**	⇓P	**Pn**	**15 11 34.7**	**+0.6**
	baz=3.7,SNR=19						
S13A	**Holt Ranch, En**	**3.62**	**167**	P	**Pn**	**15 11 34.9**	**+0.6**
	baz=3.7,SNR=140						
DCID1	**Drake Creek**	**3.70**	**47**	*e*Pn	**Pn**	**15 11 36.7**	**+1.3**
DCID1				*e*Sb	**Sb**	**15 12 32.5**	**+4.0**
DCID1				*e*Sg	**Sg**	**15 12 39.1**	**+2.1**
REDW	**Red Top Meadow**	**3.75**	**52**	*e*Pn	**Pn**	**15 11 37.9**	**+1.8**
REDW				*e*Sg	**Sg**	**15 12 36.0**	**-2.6**
CCUT	**Cedar City**	**3.75**	**161**	*e*Pn	**Pn**	**15 11 36.5**	**+0.4**
CCUT				*e*Pg	**Pg**	**15 11 49.0**	**-1.0**
CCUT				*e*Sg	**Sg**	**15 12 36.1**	**-2.6**
NVAR	**Mina Array Bea**	**3.75**	**226**	Pn	**Pn**	**15 11 36.2**	**0.0**
	13nm,0.3s,baz=36,slow=12,SNR=246						
NVAR				Pg	**Pg**	**15 11 47.4**	**-2.8**
	42nm,0.3s,baz=36,slow=17,SNR=30						
NVAR				Lg		15 12 38.0	
	111nm,0.3s,baz=48,slow=34,SNR=11						
N06A	**Buffalo Meadow**	**3.76**	**266**	⇓P	**Pn**	**15 11 35.5**	**-0.7**
	baz=3.7,SNR=12						
TPAW	**Teton Pass**	**3.77**	**50**	*e*Pn	**Pn**	**15 11 37.4**	**+1.1**
TPAW				*e*Pb	**Pb**	**15 11 44.0**	**-0.7**
TPAW				*e*Sg	**Sg**	**15 12 31.6**	**-7.5**
S09A	**Goldfield**	**3.84**	**209**	⇑P	**Pn**	**15 11 37.4**	**+0.1**
	baz=3.9,SNR=18						
SNOW	**Snow King Moun**	**3.86**	**51**	*e*Pn	**Pn**	**15 11 36.7**	**-1.0**
SNOW				*e*Pb	**Pb**	**15 11 44.8**	**-1.6**
SNOW				*e*Sg	**Sg**	**15 12 41.3**	**-1.0**
O06A	**Flanigan**	**3.87**	**257**	P	**Pn**	**15 11 37.3**	**-0.5**
	baz=3.8,SNR=9.1						
T11A	**Corn Creek, Al**	**3.88**	**184**	P	**Pn**	**15 11 38.5**	**+0.7**
	baz=3.9,SNR=104						
SRU	**San Rafael**	**3.90**	**119**	*e*Pn	**Pn**	**15 11 38.8**	**+0.6**
MCMT	**McKenzie Canyo**	**4.00**	**21**	*e*Pn	**Pn**	**15 11 41.2**	**+1.7**
MCMT				*e*Sg	**Sg**	**15 12 42.5**	**-4.2**
IMW	**Indian Meadow**	**4.03**	**45**	*e*Pn	**Pn**	**15 11 41.2**	**+1.2**
IMW				*e*Sg	**Sg**	**15 12 40.7**	**-7.0**
LOHW	**Long Hollow**	**4.04**	**50**	*e*Pn	**Pn**	**15 11 41.4**	**+1.3**
MOOW	**Moose Ponds**	**4.04**	**48**	*e*Pn	**Pn**	**15 11 41.2**	**+1.1**
MOOW				*e*Sg	**Sg**	**15 12 41.3**	**-6.7**
BMO	**Blue Mountains**	**4.13**	**335**	*e*Pn	**Pn**	**15 11 43.1**	**+1.7**
BMO				*e*Pb	**Pb**	**15 11 52.0**	**+1.0**
BMO				*e*Pg	**Pg**	**15 11 59.2**	**+1.8**
BMO				*e*Sg	**Sg**	**15 12 42.5**	**-8.5**
MOD	**Modoc**	**4.14**	**283**	*e*Pn	**Pn**	**15 11 40.1**	**-1.3**
MOD				*e*Sg	**Sg**	**15 12 48.0**	**-3.1**
WCN	**Washoe City**	**4.14**	**246**	⇓P	**Pn**	**15 11 40.9**	**-0.5**
	baz=4.1,SNR=11						
T13A	**Saint George**	**4.16**	**169**	⇓P	**Pn**	**15 11 42.0**	**+0.3**
	baz=4.2,SNR=14						
T14A	**Hurricane**	**4.29**	**160**	⇓P	**Pn**	**15 11 44.2**	**+0.8**
	baz=4.3,SNR=41						
BW06	**Boulder Array**	**4.31**	**66**	*e*Pn	**Pn**	**15 11 46.1**	**+2.3**
BW06				*e*Sg	**Sg**	**15 12 51.8**	**-4.7**
PDAR	**Pinedale Array**	**4.31**	**66**	Pn	**Pn**	**15 11 46.6**	**+2.9**
	1.1nm,0.3s,baz=236,slow=12,SNR=44						
PDAR				Pg	**Pg**	**15 11 56.1**	**-4.6**
	2.7nm,0.3s,baz=242,slow=14,SNR=24						
PDAR				Lg		15 12 52.0	
	12nm,0.3s,baz=230,slow=26,SNR=13						
BEKR	**Beckwourth**	**4.35**	**255**	⇑P	**Pn**	**15 11 43.8**	**-0.6**
	baz=4.3,SNR=22						
R06C	**Coleville**	**4.36**	**235**	⇓P	**Pn**	**15 11 44.1**	**-0.4**
	baz=4.4,SNR=16						
T12A	**Moapa**	**4.38**	**178**	⇓P	**Pn**	**15 11 45.3**	**+0.4**
	baz=4.4,SNR=12						
YFT	**Old Faithful**	**4.47**	**40**	*e*Pn	**Pn**	**15 11 49.9**	**+3.8**
YFT				*e*Sg	**Sg**	**15 13 01.7**	**-0.2**
DLMT	**Dillon**	**4.56**	**21**	*e*Pn	**Pn**	**15 11 47.2**	**-0.1**
DLMT				*e*Pb	**Pb**	**15 11 56.9**	**-1.5**
DLMT				*e*Pg	**Pg**	**15 12 03.0**	**-2.7**
DLMT				*e*Sg	**Sg**	**15 12 59.9**	**-4.8**
YMR	**Madison River**	**4.58**	**38**	*e*Pn	**Pn**	**15 11 47.5**	**+0.1**
YMR				*e*Pb	**Pb**	**15 11 58.1**	**-0.4**
YMR				*e*Pg	**Pg**	**15 12 03.6**	**-2.2**
YNR	**Norris Junctio**	**4.75**	**39**	Pn	**Pn**	**15 11 58.7**	**+9.0**
YNR				*e*Sg	**Sg**	**15 13 09.3**	**-1.2**
U13A	**Pakoon Wash**	**4.75**	**171**	⇓P	**Pn**	**15 11 50.5**	**+0.7**
	baz=4.8,SNR=34						
LKWY	**Lake**	**4.78**	**42**	*e*Pn	**Pn**	**15 11 50.2**	**0.0**
LKWY				*e*Pb	**Pb**	**15 12 00.2**	**-1.7**
U14A	**Mt Trumbull**	**4.88**	**164**	⇑P	**Pn**	**15 11 52.7**	**+1.1**
	baz=4.9,SNR=28						
LRM	**Limekiln Ridge**	**5.03**	**20**	*e*Pn	**Pn**	**15 11 54.8**	**+1.1**
LRM				*e*Pb	**Pb**	**15 12 06.3**	**0.0**
LRM				*e*Sg	**Sg**	**15 13 13.4**	**-6.2**
BOZ	**Bozeman (W)**	**5.12**	**27**	Pn	**Pn**	**15 11 58.8**	**+3.9**
BOZ				*e*Sg	**Sg**	**15 13 11.9**	**-10**
CMB	**Columbia Colle**	**5.24**	**236**	*e*Pn	**Pn**	**15 11 56.1**	**-0.5**
CMB				*e*Sn	**Sn**	**15 12 59.3**	**+2.2**
CMB				*e*Sg	**Sg**	**15 13 20.9**	**-5.6**
V11A	**Goodsprings**	**5.29**	**185**	⇓P	**Pn**	**15 11 58.3**	**+1.1**
	baz=5.3,SNR=9.1						
PV04	**Paradox Valley**	**5.36**	**119**	*e*Pn	**Pn**	**15 11 56.7**	**-1.4**
PV04				*e*Pg	**Pg**	**15 12 18.8**	**-2.0**
PV04				*e*Sg	**Sg**	**15 13 25.4**	**-4.6**
V12A	**Nelson**	**5.38**	**180**	P	**Pn**	**15 11 59.7**	**+1.2**
	baz=5.4,SNR=57						
PV01	**Paradox Valley**	**5.72**	**119**	*e*Pn	**Pn**	**15 12 05.5**	**+2.4**
PV01				*e*Pg	**Pg**	**15 12 25.0**	**-2.6**
PV01				*e*Sg	**Sg**	**15 13 42.4**	**+0.7**
RLMT	**Red Lodge**	**5.74**	**44**	*e*Pn	**Pn**	**15 12 01.9**	**-1.5**
RLMT				*e*Pb	**Pb**	**15 12 15.9**	**-2.5**
MSO	**Missoula**	**5.75**	**7**	*e*Pn	**Pn**	**15 12 04.4**	**+0.8**
MSO				*e*Pg	**Pg**	**15 12 26.4**	**-1.9**
RWWY	**Rawlins**	**5.81**	**82**	*e*Pn	**Pn**	**15 12 02.5**	**-1.8**
RWWY				*e*Sg	**Sg**	**15 13 35.6**	**-8.9**
YBH	**Yreka Blue Hor**	**5.91**	**279**	Pn	**Pn**	**15 12 09.6**	**+3.8**
	0.1nm,0.3s,baz=90,slow=9.1,SNR=2.1						
YBH				Lg		15 13 41.5	
	0.5nm,0.3s,baz=356,slow=19,SNR=3.6						
CHMT	**Chamberlain Mo**	**5.92**	**11**	*e*Pn	**Pn**	**15 12 07.4**	**+1.6**
CHMT				*e*Sg	**Sg**	**15 13 40.1**	**-8.0**
GSC	**Goldstone**	**6.00**	**195**	*e*Pn	**Pn**	**15 12 07.4**	**+0.4**
GSC				*e*Pg	**Pg**	**15 12 31.2**	**-1.9**
GSC				*e*Sg	**Sg**	**15 13 46.7**	**-4.0**
HRY	**Holter Researc**	**6.01**	**21**	*e*Pn	**Pn**	**15 12 09.7**	**+2.5**
HRY				*e*Sg	**Sg**	**15 13 43.0**	**-8.2**
ISA	**Isabella**	**6.13**	**208**	*e*Pn	**Pn**	**15 12 09.9**	**+1.2**
ISA				*e*Pg	**Pg**	**15 12 32.8**	**-2.8**
ISA				*e*Sg	**Sg**	**15 13 51.4**	**-3.5**
HUMO	**Hull Mountain**	**6.20**	**287**	Pn	**Pn**	**15 12 11.8**	**+2.1**
HUMO				*e*Pb	**Pb**	**15 12 27.8**	**+1.5**
HUMO				*e*Pg	**Pg**	**15 12 38.1**	**+1.2**
HUMO				*e*Pg	**Sg**	**15 13 52.5**	**-4.8**
SLMT	**Seeley Lake**	**6.21**	**9**	*e*Pn	**Pn**	**15 12 11.3**	**+1.5**
SLMT				*e*Pg	**Pg**	**15 12 33.4**	**-3.6**
SLMT				*e*Sg	**Sg**	**15 13 50.6**	**-6.7**
WUAZ	**Wupatki**	**6.24**	**153**	Pn	**Pn**	**15 12 09.6**	**-0.7**
WUAZ				*e*Pg	**Pg**	**15 12 35.9**	**-1.7**
HAWA	**Hanford**	**6.25**	**329**	Pn	**Pn**	**15 12 13.1**	**+2.6**
HAWA				*e*Sg	**Sg**	**15 13 48.7**	**-10**
MVCO	**Mesa Verde**	**6.32**	**126**	*e*Pn	**Pn**	**15 12 14.8**	**+3.5**
MVCO				*e*Pg	**Pg**	**15 12 34.5**	**-4.6**
MVCO				*e*Sg	**Sg**	**15 13 58.4**	**-2.5**
SWMT	**Swartz Lake**	**6.42**	**5**	*e*Pn	**Pn**	**15 12 14.7**	**+1.9**
SWMT				*e*Pg	**Pg**	**15 12 38.9**	**-2.3**
SWMT				*e*Sg	**Sg**	**15 13 57.9**	**-6.5**
HOOD	**Mount Hood Mea**	**6.48**	**313**	*e*Pg	**Pg**	**15 12 37.8**	**-4.5**
JTMT	**Jette**	**6.64**	**4**	*e*Pn	**Pn**	**15 12 17.2**	**+1.4**
JTMT				*e*Pg	**Pg**	**15 12 43.2**	**-2.2**
JTMT				*e*Sg	**Sg**	**15 14 03.5**	**-7.9**
BSMT	**Bassoo Peak**	**6.74**	**1**	*e*Pn	**Pn**	**15 12 19.6**	**+2.5**
BSMT				*e*Pg	**Pg**	**15 12 47.8**	**+0.6**
BSMT				*e*Sg	**Sg**	**15 14 11.0**	**-3.3**
YBMT	**Yellow Bay**	**6.78**	**5**	*e*Pn	**Pn**	**15 12 19.2**	**+1.5**
YBMT				*e*Sg	**Sg**	**15 14 08.7**	**-6.9**
PHWY	**Pilot Hill**	**7.12**	**85**	*e*Pn	**Pn**	**15 12 23.8**	**+1.4**
ISCO	**Idaho Springs**	**7.20**	**97**	*e*Pn	**Pn**	**15 12 26.6**	**+3.2**
ISCO				*e*Pg	**Pg**	**15 12 51.1**	**-4.9**
ISCO				*e*Sg	**Sg**	**15 14 25.7**	**-3.5**
NEW	**Newport**	**7.32**	**348**	*e*Pn	**Pn**	**15 12 27.2**	**+2.1**
NEW				*e*Sg	**Sg**	**15 14 24.9**	**-8.2**
EGMT	**Eagleton**	**7.82**	**26**	*e*Pn	**Pn**	**15 12 32.3**	**+0.4**
EGMT				*e*S	Sn	15 14 38.5	+38
SDCO	**Great Sand Dun**	**8.01**	**112**	*e*Pn	**Pn**	**15 12 38.9**	**+4.3**
RSSD	**Black Hills**	**8.55**	**66**	*e*Pn	**Pn**	**15 12 42.8**	**+0.8**
ANMO	**Albuquerque**	**9.06**	**130**	Pg	Px	15 13 25.5	
	0.1nm,0.3s,baz=323,slow=16,SNR=5.4						
ANMO				Lg		15 15 18.5	
	0.1nm,0.3s,baz=47,slow=19,SNR=2.0						
ANMO				LR	LR	15 15 32.6	
	comp=Z,44nm,21.4s,baz=148,slow=33						
ECSD	**EROS Data Cent**	**13.76**	**73**	*e*Pn	**Pn**	**15 13 51.6**	**-1.6**
TXAR	**Lajitas Array**	**14.89**	**139**	Pn	**Pn**	**15 14 12.8**	**+4.0**
	baz=326,slow=7.9,SNR=11						
TXAR				LR	LR	15 20 29.3	
	comp=Z,102nm,19.4s,baz=180,slow=40						
TXAR	**Lajitas Array**	**14.89**	**139**	Pn	**Pn**	**15 14 12.8**	**+4.0**
TXAR				LR	LR	15 20 29.3	
YKA	**Yellowknife Ar**	**21.41**	**0**	P	**P**	**15 15 26.1**	**+0.2**
	2.8nm,0.8s,mb3.7,baz=180,slow=10,SNR=66						
YKA				LR	LR	15 23 45.5	
	comp=Z,67nm,21.1s,MS3.0,baz=45,slow=37						
SONM	**Songino Array**	**84.17**	**333**	P	**P**	**15 23 10.9**	**+1.5**
	0.5nm,0.8s,mb3.7,baz=29,slow=3.3,SNR=3.8						
JOW	**Kunigami**	**90.61**	**307**	LR	LR	15 59 23.0	
	comp=Z,24nm,19.7s,MS3.6,baz=285,slow=32						
ASAR	**Alice Springs**	**120.80**	**264**	PKP	PKPdf	15 29 29.9	-0.8
	0.4nm,0.8s,baz=64,slow=2.2,SNR=4.9						

IDC 28 15:19:10.2±3.6**, 6°.55S**×**155°.30E, h0^{km}, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.5**/16**, mbtmp3.5**/3**, Error ellipse: s-maj=96.0km s-min=42.7km az=106.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**24.32**	**235**	P	P	15 24 30.1	+0.4
	0.5nm,0.4s,baz=58,slow=9.3,SNR=3.4						
ASAR	**Alice Springs**	**26.69**	**228**	P	P	15 24 51.1	-0.2
	0.2nm,0.4s,baz=58,slow=9.5,SNR=6.9						
CMAR	**Chiang Mai Arr**	**60.86**	**295**	P	P	15 29 25.9	+0.8
	0.8nm,0.6s,baz=119,slow=6.7,SNR=7.5						
TORD	**Torodi Ar. Bea**	**153.19**	**286**	PKPbc	PKPbc	15 39 11.0	-0.2
	0.4nm,0.8s,baz=87,slow=1.8,SNR=2.9						
TORD				PKPab	PKPab	15 39 21.1	-1.7
	0.4nm,0.7s,baz=68,slow=2.8,SNR=2.6						

IDC ***28*** *15:19:27.3±1.0, 31°.19N×103°.92E, h0^{km}, mb3.7/8, mb1 3.8/9, mb1mx3.7/24, mbtmp3.7/9, ML3.3/1, MS3.4/3, Ms1 3.4/3, ms1mx2.7/41, Error ellipse: s-maj=38.8km s-min=17.4km az=57.0*

NEIC ***28*** *15:19:29.3±0.6, 31°.30N×104°.14E, h10^{km}, mb4.5/1, Error ellipse: s-maj=19.0km s-min=9.1km az=85.0*

BJI ***28*** *15:19:31.0, 31°.07N×103°.92E, h12^{km}, ML3.6/14*

ISC 28 15:19:28.7±0.8**, 31°.21N**±0°.04×**103°.95E**±0°.06**, h6^{km}**±6^{km}**, n17, σ0^{s}81**/20**, mb3.8**/7**, MS3.7**/2**, 1D, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CD2	**Chengdu**	**0.34**	**209**	⇓Pg	**Pg**	**15 19 34.8**	**-0.5**
CD2				Sg	**Sg**	**15 19 39.8**	**+0.1**
CD2				smax			
	comp=N,11μm,0.6s						
CD2				smax			
	comp=E,13μm,0.5s						
LZH	**Lanzhou**	**4.87**	**359**	Pg	**Pg**	**15 21 02.8**	**+0.8**
LZH				Sg	**Sg**	**15 22 05.0**	**-0.1**
LZH				smax			
	comp=N,43nm,0.9s						
LZH				smax			

	comp=E,190nm,1.8s						
XAN	Xi'an	5.06	55	Pn	Pn	15 20 48.3	+3.3
XAN				Pg	Pg	15 21 05.5	-0.1
XAN				Sn	Sn	15 21 44.5	+0.7
XAN				Sg	Sg	15 22 10.5	-0.7
XAN				smax			
	comp=N,54nm,0.9s						
XAN				smax			
	comp=E,30nm,0.8s						
CMAR	Chiang Mai Arr	13.48	201	Pn	Pn	15 22 43.7	+3.1
	baz=14,slow=11,SNR=2.7						
SONM	Songino Array	16.71	6	Pn	Pn	15 23 23.6	+0.2
	comp=E,0.1nm,0.3s,baz=186,slow=7.6,SNR=3.7						
SONM				LR	LR	15 29 41.5	
	comp=E,35nm,20.9s,baz=260,slow=37						
ULN	Ulaanbaatar	16.81	7	P	Pn	15 23 24.0	-0.6
KSRS	Korea Array	20.73	66	P	P	15 24 10.2	+0.3
	comp=E,1.8nm,0.7s,baz=262,slow=10,SNR=9.4						
MKAR	Makanchi Array	22.82	319	P	P	15 24 32.4	+0.3
	comp=E,0.8nm,0.7s,mb3.2,baz=124,slow=12,SNR=5.8						
ZALV	Zalesovo Beam	26.57	334	P	P	15 25 07.7	+0.4
	comp=E,0.4nm,0.3s,mb3.4,baz=134,slow=8.3,SNR=2.9						
KURK	Kurchatov	27.09	323	P	P	15 25 11.7	-0.3
	comp=E,0.7nm,0.7s,mb3.3,baz=127,slow=9.7,SNR=6.9						
BRVK	Borovoye	32.70	322	P	P	15 26 02.1	+0.4
	comp=E,11nm,1.6s,mb4.5						
GUMO	Guam	41.41	106	LR	LR	15 43 18.5	
	comp=E,49nm,18.3s,MS3.4,baz=301,slow=34						
ARCES	ARCESS Array B	57.11	336	P	P	15 29 14.2	-1.3
	comp=E,2.2nm,0.9s,mb4.2,baz=81,slow=8.3,SNR=3.3						
WRA	Warramunga Arr	58.63	146	P	P	15 29 26.0	-0.7
	comp=E,2.5nm,0.7s,mb4.4,baz=337,slow=7.5,SNR=10						
ASAR	Alice Springs	61.65	149	P	P	15 29 47.4	0.0
	comp=E,0.5nm,0.8s,mb3.7,baz=350,slow=7.3,SNR=8.0						
IDI	Anoyia	64.56	297	LR	LR	15 59 16.7	
	comp=E,93nm,19.6s,MS4.0,slow=37						
YKA	Yellowknife Ar	81.64	17	P	P	15 31 46.1	-1.2
	comp=E,0.1nm,0.5s,baz=330,slow=4.8,SNR=3.2						

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*ISCJB **28** 15:33:19.8±0.6, 33.°35N±0.°03×35.°39E±0.°04, h10^{km}, Error ellipse: s-maj=5.5km s-min=3.3km az=29.0*

*GII **28** 15:33:19.7±0.5, 33.°32N×35.°41E, h5^{km}±1^{km}, Md2.0/7*

*CSEM **28** 15:33:20.0±0.2, 33.°35N×35.°39E, h12^{km}, ML3.1, Error ellipse: s-maj=4.3km s-min=2.5km az=118.0*

*GRAL **28** 15:33:20.7±0.4, 33.°32N×35.°43E, h15^{km}±7^{km}, MD3.1*

ISC 28 15:33:20.0±0.7, **33.°36N**±0.°03×**35.°39E**±0.°05, **h17**^{km}±7^{km}, **n27**, σ**0.^{s}60**/47, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.14	337	*e*P	Pg	15 33 24.8	+0.9
MATL	Matirih	0.14	337	*e*P	Pg	15 33 24.8	+0.9
KSDI	Kefar Szold	0.28	127	Pg	Pg	15 33 25.4	-0.6
KSDI				Sg	Sg	15 33 29.8	-0.3
KSDI	Kefar Szold	0.28	127	Pg	Pg	15 33 25.4	-0.6
KSDI				Sg	Sg	15 33 29.8	-0.3
HNTI	Hanita	0.33	214	Pg	Pg	15 33 26.6	-0.4
HNTI				Sg	Sg	15 33 32.3	+0.6
HNTI	Hanita	0.33	214	Pg	Pg	15 33 26.6	-0.4
HNTI				Sg	Sg	15 33 32.3	+0.6
MMA0	Mount Meron ar	0.34	179	Pg	Pg	15 33 26.5	-0.7
MMA0				Sg	Sg	15 33 31.9	-0.1
MMA0	Mount Meron ar	0.34	179	Pg	Pg	15 33 26.5	-0.7
MMA0				Sg	Sg	15 33 31.9	-0.1
RCY	Rachaya	0.38	71	*e*P	Pg	15 33 28.1	+0.3
RCY				*e*S	Sg	15 33 33.3	+0.3
RCY	Rachaya	0.38	71	*e*P	Pg	15 33 28.1	+0.4
RCY				*e*S	Sg	15 33 33.3	+0.3
KSHT	Keshet	0.51	137	Pg	Pg	15 33 29.9	-0.3
KSHT				Sg	Sg	15 33 38.0	+0.9
KSHT	Keshet	0.51	137	Pg	Pg	15 33 29.9	-0.3
KSHT				Sg	Sg	15 33 38.0	+0.9
BHL	Bhannes	0.58	22	*e*P	Pg	15 33 31.7	+0.2
BHL	Bhannes	0.58	22	*e*P	Pg	15 33 31.7	+0.2
BLGI	Bet Lehem HaGe	0.65	195	Pg	Pg	15 33 32.5	-0.2
BLGI				Sg	Sg	15 33 41.8	+0.5
BLGI	Bet Lehem HaGe	0.65	195	Pg	Pg	15 33 32.5	-0.2
BLGI				Sg	Sg	15 33 41.8	+0.5
OFRI	'Ofer	0.81	205	Pg	Pg	15 33 34.8	-1.0
OFRI				Sg	Sg	15 33 46.8	+0.2
OFRI	'Ofer	0.81	205	Pg	Pg	15 33 34.8	-1.0
OFRI				Sg	Sg	15 33 46.8	+0.2
MMLI	Mount Malkishu	0.92	179	Pg	Pg	15 33 37.1	-0.7
MMLI				Sg	Sg	15 33 49.9	0.0
MMLI	Mount Malkishu	0.92	179	Pg	Pg	15 33 37.1	-0.7
MMLI				Sg	Sg	15 33 49.9	0.0
HWQ	Hawqa	1.02	26	*e*P	Pb	15 33 38.6	-0.6
HMDT	Nahal Hemdat	1.11	174	Pg	Pg	15 33 40.7	-0.7
HMDT				Sg	Sg	15 33 56.5	+0.6
HMDT	Nahal Hemdat	1.11	174	Pg	Pg	15 33 40.7	-0.7
HMDT				Sg	Sg	15 33 56.5	+0.6
SLTI	Sal'it	1.16	195	Pg	Pg	15 33 41.7	-0.6
SLTI				Sg	Sg	15 33 57.8	+0.4
SLTI	Sal'it	1.16	195	Pg	Pg	15 33 41.7	-0.6
SLTI				Sg	Sg	15 33 57.8	+0.4
DSI	Dead Sea	1.79	180	Pn	Pn	15 33 51.4	+1.4
DSI	Dead Sea	1.79	180	Pn	Pn	15 33 51.4	+1.4

IDC 28 15:45:33.7±11.0, **24.°40S**×**177.°00W**, **h540**^{km}±98^{km}, **mb2.9**/3, **mb1 3.1**/4, **mb1mx2.9**/17, **mbtmp2.9**/4, **Error ellipse: s-maj=105.5km s-min=32.5km az=40.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	14.70	199	P	P	15 48 40.3	+0.4
	0.2nm,0.3s,baz=21,slow=17,SNR=2.1						
URZ				S	S	15 51 10.8	-2.6
	0.5nm,0.3s,baz=70,slow=19,SNR=9.0						
STKA	Stephens Creek	37.09	249	P	P	15 51 57.8	-0.6
	1.5nm,0.5s,baz=90,slow=9.7,SNR=4.5						
ASAR	Alice Springs	44.66	260	P	P	15 52 58.8	+0.1
	0.3nm,0.3s,baz=91,slow=7.0,SNR=14						
WRA	Warramunga Arr	45.10	266	P	P	15 53 02.1	0.0
	0.6nm,0.3s,baz=100,slow=7.2,SNR=7.7						
TORD	Torodi Ar. Bea	168.74	173	PKPab	PKPab	16 05 52.9	-0.4
	0.3nm,0.9s,baz=207,slow=2.9,SNR=3.2						

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*ISCJB **28** 15:53:38.1±0.7, 36.°5N±0.°2×33.°85W±0.°08, h10^{km}, mb3.9/23, MS3.6/22, Error ellipse: s-maj=23.9km s-min=9.5km az=6.9*

*IDC **28** 15:53:38.5±1.2, 36.°57N×33.°77W, h0^{km}, mb3.8/14, mb1 4.0/14, mb1mx3.9/27, mbtmp3.8/14, MS3.7/22, Ms1 3.7/22, ms1mx3.5/38, Error ellipse: s-maj=34.8km s-min=17.7km az=4.0*

*NEIC **28** 15:53:39.7±0.7, 36.°50N×33.°77W, h10^{km}, mb4.3/9, Error ellipse: s-maj=23.3km s-min=9.1km az=187.0*

ISC 28 15:53:39.9±0.7, **36.°5N**±0.°2×**33.°78W**±0.°08, **h10**^{km}, **n47**, σ**1.^{s}01**/32, **mb3.9**/23, **MS3.6**/22, **Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESDC	Sonseca Array	23.62	73	P	P	15 58 50.4	-0.8
	0.2nm,0.3s,mb3.1,baz=273,slow=8.5,SNR=4.4						
ESDC				LR	LR	16 06 06.8	
	comp=Z,108nm,19.3s,MS3.3,baz=175,slow=32						
MDT	Midelt	24.23	90	LR	LR	16 06 03.0	
	comp=Z,138nm,18.6s,MS3.5,baz=149,slow=31						
BBTS	Babate	26.67	140	LR	LR	16 06 45.6	
	comp=Z,113nm,20.2s,MS3.4,baz=27,slow=30						
SCHQ	Schefferville	29.08	320	LR	LR	16 10 18.9	
	comp=Z,208nm,19.5s,MS3.8,baz=70,slow=34						
SFJD	Kangerlussuaq	32.02	348	LR	LR	16 09 17.7	
	comp=Z,66nm,20.3s,MS3.3,baz=114,slow=29						
KEST	Kesra	34.63	78	LR	LR	16 12 38.6	
	comp=Z,19nm,18.6s,MS2.9,baz=201,slow=33						
GERES	GERESS Array B	36.44	55	P	P	16 00 43.0	-1.6
	0.2nm,0.3s,mb3.5,baz=269,slow=6.4,SNR=2.7						
GERES				LR	LR	16 12 50.9	
	comp=Z,45nm,19.8s,MS3.2,baz=290,slow=32						
GERES	GERESS Array B	36.44	55	P	P	16 00 43.0	-1.7
GERES				LR	LR	16 12 50.9	
TAM	Tamanrasset	36.54	101	P	P	16 00 46.4	+0.7
	6.1nm,1.3s,mb4.3						
NOA	NORSAR Array B	37.35	35	LR	LR	16 13 02.1	
	comp=Z,43nm,21.5s,MS3.2,baz=215,slow=31						
ACSO	Alum Creek Sta	38.36	291	P	P	16 01 00.4	-0.6
	18nm,0.5s,mb5.1						
TORD	Torodi Ar. Bea	39.38	117	P	P	16 01 11.6	+1.8
	0.6nm,0.7s,mb3.4,baz=321,slow=5.3,SNR=3.7						
TIP	Timpagrande	39.58	70	*e*P	P	16 01 11.5	+0.2
	4.9nm,1.1s,mb4.2						
DBIC	Dimbokro	39.76	131	LR	LR	16 15 40.2	
	comp=Z,117nm,19.6s,MS3.7,baz=357,slow=33						
TKL	Tuckaleechee C	40.04	284	LR	LR	16 14 24.5	
	comp=Z,84nm,19.4s,MS3.6,baz=48,slow=31						
TKL	Tuckaleechee C	40.04	284	*e*P	P	16 01 13.6	-1.6
FCC	Fort Churchill	44.46	320	*e*P	P	16 01 53.5	+2.6
	0.2nm,1.3s						
ARCES	ARCESS Array B	45.62	25	P	P	16 02 00.2	+0.3
	4.5nm,1.0s,mb4.4,baz=221,slow=6.4,SNR=5.4						
ULM	Lac du Bonnet	45.87	308	LR	LR	16 20 08.3	
	comp=Z,121nm,21.3s,MS3.8,baz=82,slow=35						
AKASG	Malin Array Be	46.38	52	P	P	16 02 06.8	+0.6
	1.2nm,0.6s,mb4.0,baz=275,slow=7.9,SNR=8.1						
RES	Resolute Bay	47.57	342	P	P	16 02 16.9	+1.7
	0.8nm,0.4s,mb4.2,baz=97,slow=8.1,SNR=2.9						
RES	Resolute Bay	47.57	342	P	P	16 02 16.9	+1.7
RES				*e*P		16 02 17.3	
ROSC	El Rosal	48.72	240	LR	LR	16 20 14.4	
	comp=Z,34nm,20.1s,MS3.3,baz=5.1,slow=33						
YKA	Yellowknife Ar	54.23	326	P	P	16 03 06.5	+1.0
	0.7nm,0.8s,mb3.6,baz=79,slow=7.3,SNR=10						
YKA				LR	LR	16 23 27.4	
	comp=Z,55nm,21.1s,MS3.6,baz=295,slow=33						
YKA	Yellowknife Ar	54.23	326	P	P	16 03 06.5	+1.0
YKA				LR	LR	16 23 27.4	
MALT	Malatya	55.98	65	*e*P	P	16 03 16.5	-2.0
	3.0nm,1.0s,mb4.3						
PDAR	Pinedale Array	56.86	302	P	P	16 03 25.5	+0.8
	1.0nm,1.0s,mb3.8,baz=78,slow=7.7,SNR=6.2						
PDAR				LR	LR	16 24 48.4	
	comp=Z,106nm,20.1s,MS3.9,baz=90,slow=33						
WALA	Waterton Lakes	57.51	310	*e*P	P	16 03 29.9	+0.8
	0.1nm,0.9s,mb2.9						
ANMO	Albuquerque	57.66	292	LR	LR	16 28 47.5	
	comp=Z,87nm,19.8s,MS3.9,baz=253,slow=37						
TXAR	Lajitas Array	57.95	285	P	P	16 03 32.0	-0.6
	0.6nm,0.8s,mb3.7,baz=92,slow=8.8,SNR=4.0						
TXAR				LR	LR	16 26 05.3	
	comp=Z,82nm,21.2s,MS3.8,baz=75,slow=34						
INK	Inuvik	60.04	335	P	P	16 03 46.4	-0.1
	1.3nm,1.0s,mb3.9,baz=63,slow=6.8,SNR=2.2						
INK				LR	LR	16 27 31.4	
	comp=Z,70nm,18.0s,MS3.8,baz=142,slow=34						
INK	Inuvik	60.04	335	*e*P	P	16 03 46.0	-0.4
	6.4nm,1.3s,mb4.5						
INK				LR	LR	16 27 31.4	
DUG	Dugway	60.11	300	*e*P	P	16 03 47.6	+0.2
	9.2nm,1.4s,mb4.6						
ELK	Elko	61.56	301	LR	LR	16 30 15.4	
	comp=Z,86nm,19.8s,MS3.9,baz=97,slow=36						
BBB	Bella Bella	64.57	317	LR	LR	16 30 16.7	
	comp=Z,165nm,18.2s,MS4.3,baz=141,slow=34						
NVAR	Mina Array Bea	64.71	300	P	P	16 04 16.8	-1.4
	0.6nm,0.8s,mb3.7,baz=68,slow=5.0,SNR=3.5						
YBH	Yreka Blue Hor	66.16	305	LR	LR	16 31 35.2	
	comp=Z,161nm,18.2s,MS4.3,baz=43,slow=34						
COLA	College	66.70	335	*e*P	P	16 04 29.9	-0.7
KURK	Kurchatov	74.79	38	*e*P	P	16 05 19.7	-0.4
	2.1nm,0.9s,mb4.1						
ZALV	Zalesovo Beam	75.52	32	P	P	16 05 23.6	-0.6
	0.6nm,0.3s,mb3.9,baz=290,slow=9.0,SNR=3.5						
EKS2	Erkin-Say	77.24	46	*e*P	P	16 05 34.9	+0.7
	5.1nm,1.3s,mb4.3						
EKS2				*e*		16 05 44.1	
AAK	Ala-Archa	77.67	46	P	P	16 05 35.9	-0.8
UCH	Uchtor	77.94	46	*e*P	P	16 05 38.6	+0.5
	1.6nm,0.8s,mb4.0						
TKM2	Tokmak 2	78.12	45	P	P	16 05 39.8	+0.7
MKAR	Makanchi Array	79.20	39	P	P	16 05 44.8	-0.3
	1.7nm,0.8s,mb4.0,baz=318,slow=5.2,SNR=18						
MKAR				LR	LR	16 40 14.9	
	comp=Z,34nm,18.7s,MS3.7,baz=97,slow=35						
BOSA	Boshof	85.29	131	LR	LR	16 42 19.6	
	comp=Z,47nm,18.8s,MS3.9,baz=358,slow=34						
SONM	Songino Array	88.79	26	P	P	16 06 33.7	-0.1
	0.1nm,0.4s,mb3.5,baz=316,slow=4.0,SNR=3.7						

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*ISK **28** 16:01:58.9, 37.°26N×28.°22E, h3^{km}, MD2.7*

*ISCJB **28** 16:01:60.0±0.5, 37.°21N±0.°05×28.°21E±0.°04, h6^{km}±10^{km}, Error ellipse: s-maj=8.5km s-min=4.5km az=30.4*

*CSEM **28** 16:01:59.8±0.1, 37.°23N×28.°23E, h10^{km}, MD2.7, Error ellipse: s-maj=3.7km s-min=1.7km az=34.0*

ISC 28 16:02:00.2±0.6, **37.°22N**±0.°04×**28.°22E**±0.°04, **h8**^{km}±9^{km}, **n19**, σ**0.^{s}48**/26, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.10	149	*e*PG	Pg	16 02 02.1	-0.5
YER				*e*SG	Sg	16 02 04.4	+0.2
YER	Yerkesik	0.10	149	*e*Pg	Pg	16 02 02.1	-0.5
YER				*e*Sg	Sg	16 02 04.4	+0.2
MLSB	Milas	0.36	282	*e*PG	Pg	16 02 06.7	-0.6
MLSB				*e*SG	Sg	16 02 12.6	+0.6
MLSB	Milas	0.36	282	*e*Pg	Pg	16 02 06.7	-0.6
MLSB				*e*Sg	Sg	16 02 12.6	+0.5
TURN	Turunc	0.46	138	*i* P	Pg	16 02 08.8	-0.4
TURN	Turunc	0.46	138	*i* P	Pg	16 02 08.9	-0.3
TURN				*i* S	Sg	16 02 16.1	+0.8
AYDN	Tasoluk	0.52	329	*i* P	Pg	16 02 09.8	-0.4
AYDN	Tasoluk	0.52	329	*i* P	Pg	16 02 09.8	-0.4
AYDN				*i* S	Sg	16 02 17.1	+0.1
DALT	Dalyan (Mudla)	0.56	143	*e*PG	Pg	16 02 11.1	+0.1
DALT	Dalyan (Mudla)	0.56	143	*e*Pg	Pg	16 02 11.1	0.0
BDRM	Kayabasi	0.64	256	*i* P	Pg	16 02 07.1	-5.5
BDRM	Kayabasi	0.64	256	*i* S	Sg	16 02 21.2	+0.4
DAT	Datca	0.71	227	*e*PG	Pg	16 02 13.9	0.0
DAT	Datca	0.71	227	*e*Pg	Pg	16 02 13.9	0.0
BODT	Bodrum	0.74	258	*e*PG	Pg	16 02 14.4	-0.2
BODT	Bodrum	0.74	258	*e*Pg	Pg	16 02 14.4	-0.1
FETY	Fethiye	0.91	130	*e*PG	Pg	16 02 17.4	-0.2
FETY	Fethiye	0.91	130	*e*Pg	Pg	16 02 17.4	-0.2
MANT	Manisa	1.30	12	*i* P	Pn	16 02 23.9	-0.7
MANT				*i* S	Sb	16 02 42.6	+0.9

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*NEIC **28** 16:07:45.7, 36.°09N×21.°80E, h6^{km}, MD3.7(ATH), After ATH.*

*ATH **28** 16:07:45.7, 36.°09N×21.°80E, h6^{km}±3^{km}, MD3.7/8*

*CSEM **28** 16:07:46.7±0.9, 36.°14N×21.°93E, h0^{km}±1^{km}, ML3.5/1, Error ellipse: s-maj=18.2km s-min=10.1km az=38.0*

*ISCJB **28** 16:07:48.3±0.8, 36.°18N±0.°04×21.°91E±0.°05, h10^{km}, Error ellipse: s-maj=6.9km s-min=5.0km az=142.0*

*THE **28** 16:07:48.1, 36.°16N×21.°79E, h0^{km}±5^{km}, ML3.5/1, Error ellipse: s-maj=7.2km s-min=2.3km az=231.0*

ISC 28 16:07:48.7±0.8, **36.°15N**±0.°04×**21.°90E**±0.°06, **h10**^{km}, **n41**, σ**1.^{s}26**/57, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.75	350	P	Pg	16 08 00.5	-2.8
PYL				S	Sg	16 08 12.2	-0.9
PYL	PYLOS	0.75	350	*e*PB	Pg	16 08 00.8	-2.5
PYL				*e*SB	Sg	16 08 12.1	-1.0
PYL	PYLOS	0.75	350	*e*Pb	Pg	16 08 00.8	-2.5
PYL				*e*Sb	Sg	16 08 12.1	-1.0
KYTH	Kithira	0.93	82	*e*PN	Pg	16 08 05.5	-1.1
KYTH	Kithira	0.93	82	*e*Pn	Pg	16 08 05.5	-1.1
VLI	Veliai	1.01	56	*e*PG	Pg	16 08 06.5	-1.7
VLI				*e*SB	Sg	16 08 22.2	+0.9
VLI	Veliai	1.01	56	*e*Pg	Pg	16 08 06.5	-1.7
VLI				*e*Sb	Sg	16 08 22.2	+0.9
ITM	Ithomi	1.03	1	*e*PB	Pg	16 08 06.2	-2.3
ITM				*e*SB	Sg	16 08 21.4	-0.4
ITM	Ithomi	1.03	1	*e*Pb	Pg	16 08 06.2	-2.3
ITM				*e*Sb	Sg	16 08 21.4	-0.4
VLX	Vlachokerasia	1.27	17	*e*PG	Pn	16 08 10.6	-2.0
VLX				*e*SB	Sg	16 08 29.1	-0.7
VLX	Vlachokerasia	1.27	17	*e*Pg	Pn	16 08 10.6	-2.0
VLX				*e*Sb	Sg	16 08 29.1	-0.7
DID	Didima	1.73	38	P	Pn	16 08 18.8	0.0
DID				S	Sg	16 08 43.9	-0.3
DID	Didima	1.73	38	*e*PG	Pn	16 08 18.9	+0.1
DID				*e*SN	Sg	16 08 44.4	+0.2
DID	Didima	1.73	38	*e*Pg	Pn	16 08 18.9	+0.1
DID				*e*Sn	Sg	16 08 44.4	+0.2
KARN	Karanos	1.80	114	P	Pn	16 08 20.5	+0.6
KARN	Karanos	1.80	114	*e*PG	Pn	16 08 20.6	+0.7
KARN	Karanos	1.80	114	*e*Pg	Pn	16 08 20.6	+0.7
RLS	Riolos of Patr	1.93	350	*e*PG	Pn	16 08 22.3	+0.6
RLS	Riolos of Patr	1.93	350	*e*Pg	Pn	16 08 22.3	+0.6
VAM	Vamos	2.01	111	*e*PB	Pn	16 08 22.0	-0.7
VAM	Vamos	2.01	111	*e*Pb	Pn	16 08 22.0	-0.7
LTK	Loutraki	2.05	24	P	Pn	16 08 23.4	+0.1
LTK				S	Sn	16 08 51.5	+2.5
LTK	Loutraki	2.05	24	*e*PG	Pn	16 08 25.4	+2.1
LTK	Loutraki	2.05	24	P	Pn	16 08 23.4	+0.1
LTK	Loutraki	2.05	24	*e*Pg	Pn	16 08 25.4	+2.1
LTK				S	Sn	16 08 51.5	+2.5
LAKA	Lakka	2.08	2	P	Pn	16 08 23.4	-0.3
LAKA	Lakka	2.08	2	P	Pn	16 08 23.4	-0.3
KALE	Kalithea	2.24	5	P	Pn	16 08 27.1	+1.2
KALE	Kalithea	2.24	5	P	Pn	16 08 27.1	+1.2
EFP	Efpalio	2.27	0	*e*PN	Pn	16 08 27.6	+1.3
EFP	Efpalio	2.27	0	*e*Pn	Pn	16 08 27.6	+1.3
VLS	Valsamata	2.28	333	*e*PB	Pn	16 08 25.3	-1.1
VLS	Valsamata	2.28	333	P	Pn	16 08 25.3	-1.1
LKD	Levkas	2.74	339	P	Pn	16 08 32.4	-0.3
LKD	Levkas	2.74	339	P	Pn	16 08 32.4	-0.3
EVR	Evrytania	2.76	359	*e*PN	Pn	16 08 34.5	+1.5
EVR	Evrytania	2.76	359	*e*Pn	Pn	16 08 34.5	+1.5
AGG	Agios Georgios	2.88	7	P	Pn	16 08 35.9	+1.2
AGG	Agios Georgios	2.88	7	P	Pn	16 08 35.9	+1.2
MEV	Metsovon	3.67	352	P	Pn	16 08 46.2	+0.7
MEV				S	Sn	16 09 30.8	+2.1
MEV	Metsovon	3.67	352	P	Pn	16 08 46.2	+0.7
MEV				S	Sn	16 09 30.8	+2.1

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*IDC **28** 16:20:35.5±2.9, 3.°13N×94.°96E, h0^{km}, mb3.5/5, mb1 3.7/6, mb1mx3.5/24, mbtmp3.5/6, ML3.7/1, Error ellipse: s-maj=109.8km s-min=22.2km az=61.0*

*ISCJB **28** 16:20:36.8±6.5, 2.°96N±0.°10×94.°7E±0.°3, h31^{km}±46^{km}, mb3.7/4, Error ellipse: s-maj=43.6km s-min=16.1km az=174.9*

ISC 28 16:20:37.0±6.2, **2.°98N**±0.°09×**94.°7E**±0.°3, **h17**^{km}±41^{km}, **n7**, σ**0.^{s}83**/8, **mb3.7**/4, **1D**, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	2.57	13⇓	*e*P	Pn	16 21 18.0	+0.1
BSI				*e*S	Sn	16 21 49.0	+0.2
CMAR	Chiang Mai Arr	15.93	15	Pn	Pn	16 24 20.7	+0.1
	0.1nm,0.3s,baz=202,slow=11,SNR=10						
MKAR	Makanchi Array	44.96	348	P	P	16 28 52.1	+0.8
	0.6nm,0.6s,mb3.6,baz=166,slow=8.0,SNR=10						
WRA	Warramunga Arr	45.07	122	P	P	16 28 52.9	+0.3
	0.3nm,0.3s,mb3.5,baz=299,slow=9.2,SNR=3.3						
SONM	Songino Array	45.81	11	P	P	16 28 56.5	-1.4
	0.5nm,0.7s,mb3.6,baz=191,slow=8.3,SNR=5.4						
ASAR	Alice Springs	46.44	127	P	P	16 29 03.4	0.0
	0.1nm,0.6s,baz=310,slow=8.0,SNR=4.2						
ZALV	Zalesovo Beam	51.45	353	P	P	16 29 41.2	0.0
	1.4nm,0.5s,mb4.1,baz=187,slow=8.4,SNR=5.5						

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*IDC **28** 16:45:30.8±0.6, 21.°57S×169.°73E, h0^{km}, mb4.3/12, mb1 4.4/15, mb1mx4.4/21, mbtmp4.4/15, ML3.6/3, MS3.9/10, Ms1 3.9/10, ms1mx3.5/25, Error ellipse: s-maj=20.2km s-min=16.7km az=171.0*

*ISCJB **28** 16:45:32.5±2.8, 21.°57S±0.°07×169.°72E±0.°05, h23^{km}±21^{km}, mb4.5/20, MS4.0/7, Error ellipse: s-maj=11.9km s-min=7.7km az=177.5*

*SZGRF **28** 16:45:33.7, 22.°59S×169.°64E, h33^{km}, Southeast of Loyalty Islands*

*LDG **28** 16:45:34.1±0.3, 20.°84S×169.°42E, h10^{km}, Mb4.8/4, Error ellipse: s-maj=25.6km s-min=4.8km az=145.0*

*NEIC **28** 16:45:35.8±2.8, 21.°60S×169.°72E, h34^{km}±19^{km}, mb4.9/8, Error ellipse: s-maj=10.1km s-min=8.0km az=201.0*

*BJI **28** 16:45:35.7, 21.°60S×169.°70E, h34^{km}, mB5.4/2, mb4.5/3*

ISC 28 16:45:34.3±2.8, **21.°59S**±0.°07×**169.°71E**±0.°05, **h22**^{km}±21^{km}, **n109**, σ**1.^{s}03**/42, **mb4.5**/20, **MS4.0**/7, **22C**, **Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.07	260	*e*P	Pn	16 46 20.4	-1.1
DZM				*e*S	Sn	16 46 55.9	-1.7
DZM	Mont Dzumac	3.07	260	*e*Pn	Pn	16 46 21.2	-0.3
	90nm,0.4s						
DZM				*e*Sn	Sn	16 46 55.6	-1.9
	472nm,0.4s						
NOUC	Port Laguerre	3.20	260	*e*P	Pn	16 46 22.3	-1.0
NOUC				*e*S	Sn	16 47 00.5	-0.3
HNR	Honiara	15.30	321	Pn	Pn	16 49 09.4	+0.4
	1.4nm,0.3s,baz=135,slow=2.9,SNR=1.7						
HNR				LR	LR	16 53 26.9	
	comp=Z,228nm,21.0s,baz=122,slow=31						
EIDS	Eidsvold	17.50	254	*e*Pn	Pn	16 49 38.2	+1.2
	5.3nm,0.8s						
URZ	Urewera	17.80	161	P	Pn	16 49 41.0	+0.4
	0.3nm,0.3s,baz=348,slow=9.8,SNR=3.7						
URZ				LR	LR	16 55 06.8	
	comp=Z,258nm,18.1s,baz=346,slow=32						
AFI	Afiamalu	19.20	70	P	Pn	16 49 56.4	-1.5
	1.1nm,0.3s,baz=255,slow=20,SNR=3.0						
AFI				LR	LR	16 55 03.5	
	comp=Z,86nm,21.1s,baz=285,slow=30						
RMQ	Roma	19.74	252	*e*P	Pn	16 50 05.6	+1.4
	26nm,1.1s						
SNZO	South Karori	20.11	169	*e*P	P	16 50 05.9	-0.7
	33nm,1.0s						
CTA	Charters Tower	21.97	270	*e*P	P	16 50 29.6	+2.8
	6.1nm,0.7s,mb4.1						
CTA	Charters Tower	21.97	270	P	P	16 50 28.0	+1.3
	10nm,1.0s,mb4.2,baz=103,slow=11,SNR=4.5						
CTA				LR	LR	16 58 14.7	
	comp=Z,210nm,20.7s,MS3.5,baz=203,slow=35						
CTA	Charters Tower	21.97	270	P	P	16 50 28.0	+1.3
CTA				LR	LR	16 58 14.7	
CTAO	Charters Tower	21.97	270	*e*P	P	16 50 27.9	+1.1
	48nm,1.5s,mb4.7						
RPZ	Rata Peaks	22.10	177	P	P	16 50 27.8	-0.1
	6.0nm,0.8s,mb4.1,baz=351,slow=13,SNR=1.9						
RPZ				LR	LR	16 57 37.0	
	comp=Z,292nm,19.4s,MS3.7,baz=290,slow=33						
CMSA	Cobar Meteorol	23.61	240	*e*P	P	16 50 45.1	+1.2
QLP	Quilpie	23.76	253	*e*P	P	16 50 47.0	+1.7
STKA	Stephens Creek	27.05	242	*e*P	P	16 51 16.1	+1.0
	3.8nm,0.8s,mb4.0						
STKA	Stephens Creek	27.05	242	P	P	16 51 15.4	+0.3
	4.3nm,0.7s,mb4.1,baz=72,slow=7.9,SNR=8.0						
STKA				LR	LR	17 01 14.6	
	comp=Z,274nm,19.5s,MS3.8,baz=24,slow=35						
RAR	Rarotonga	28.40	95	P	P	16 51 27.6	+0.3
	16nm,0.8s,mb4.7,baz=261,slow=13,SNR=2.1						
ASAR	Alice Springs	33.06	259	P	P	16 52 08.4	0.0
	2.0nm,0.7s,mb4.2,baz=87,slow=9.2,SNR=30						
WRAB	Tennant Creek	33.06	266	*e*P	P	16 52 05.9	-2.6
	26nm,1.6s,mb4.9						
WRA	Warramunga Arr	33.07	266	P	P	16 52 07.5	-1.1
	2.4nm,0.9s,mb4.1,baz=95,slow=9.5,SNR=5.9						
WRA				LR	LR	17 06 00.4	
	comp=Z,374nm,18.0s,MS4.1,baz=105,slow=37						
PPT	Papeete	38.49	91	*e*LR	LR	17 03 39.6	
	93nm,23.0s						
FITZ	Fitzroy Crossi	41.50	267	*e*P	P	16 53 20.6	+0.6
	14nm,0.7s,mb4.7						
FITZ	Fitzroy Crossi	41.50	267	LR	LR	17 11 05.6	
	comp=Z,378nm,18.5s,MS4.3,baz=8.0,slow=37						
NWAO	Narrogin (SRO)	47.57	245	*e*P	P	16 54 07.6	-0.8
	19nm,1.1s,mb5.0						
KAPI	Kappang	51.08	281	P	P	16 54 39.3	+3.8
	5.8nm,0.8s,mb4.5,baz=90,slow=17,SNR=3.9						
VNDA	Vanda	56.11	182	LR	LR	17 16 44.6	
	comp=Z,107nm,18.9s,MS4.0,baz=243,slow=33						
KKM	Kota Kinabalu	59.18	291	*e*P	P	16 55 34.4	+0.4
	13nm,0.9s,mb5.0						
KSM	Kuching	62.34	284	*e*P	P	16 55 55.2	-0.3
	7.8nm,0.8s,mb4.9						
MJAR	Matsushiro Arr	65.02	332	P	P	16 56 12.0	-0.7
	3.6nm,0.8s,mb4.4,baz=174,slow=8.1,SNR=7.2						
MAJO	Matsushiro	65.02	332	P	P	16 56 10.7	-2.0
	11nm,0.8s,mb4.9						
KSRS	Korea Array	70.68	326	P	P	16 56 49.2	+0.9
	1.1nm,0.8s,mb3.8,baz=158,slow=4.9,SNR=4.1						
YSS	Yuzh-Sakhalins	72.43	341	P	P	16 56 58.8	+0.2
	6.1nm,0.6s,mb4.7						
PETK	Petropavlovsk-	75.11	353	P	P	16 57 14.2	0.0
	3.0nm,0.6s,mb4.4,baz=127,slow=6.5,SNR=6.8						
CMAR	Chiang Mai Arr	79.87	294	P	P	16 57 43.4	+1.8
	1.3nm,0.6s,mb4.1,baz=137,slow=3.9,SNR=14						

VNA3	Neumayer Olymp	87.42	180	e	P	16 58 18.8	-0.7
VNA2	Neumayer--Watz	87.72	181	e	P	16 58 20.5	-0.4
	baz=184,slow=3.4						
GTA	Gaotai	89.05	313	eP	P	16 58 34.3	+6.7
GTA				pP	pP	16 58 39.5	+4.5
GTA				sP	sP	16 58 42.8	+5.2
SONM	Songino Array	89.35	323	P	P	16 58 29.1	+0.3
	2.5nm,1.1s,mb4.5,baz=138,slow=4.8,SNR=11						
NVAR	Mina Array Bea	90.02	48	P	P	16 58 32.6	+0.4
	1.1nm,0.6s,mb4.3,baz=225,slow=8.7,SNR=6.1						
NVAR	Mina Array Bea	90.02	48	P	P	16 58 32.6	+0.4
TXAR	Lajitas Array	97.49	62	LR	LR	17 34 09.3	
	comp=Z,95nm,21.4s,MS4.2,baz=245,slow=30						
YKA	Yellowknife Ar	102.54	27	P	Pdif	16 59 28.6	-0.3
	0.2nm,0.7s,baz=264,slow=4.7,SNR=4.3						
MKAR	Makanchi Array	103.70	315	Pdiff	Pdif	16 59 35.3	+1.2
	0.2nm,0.6s,baz=99,slow=4.5,SNR=3.6						
MKAR				PKiKP	PKiKP	17 03 52.2	0.0
	0.4nm,0.8s,baz=80,slow=1.5,SNR=4.0						
AKTK	Aktyubinsk	120.08	317	PKP	PKPdf	17 04 21.3	-1.7
AKTO	Aktyubinsk	120.08	317	PKP	PKPdf	17 04 21.3	-1.7
	0.7nm,0.5s,baz=117,slow=4.5,SNR=4.2						
ARCES	ARCESS Array B	127.44	345	PKP	PKPdf	17 04 35.9	-0.8
	2.0nm,0.5s,baz=59,slow=1.7,SNR=23						
FINES	FINESS Array B	132.91	337	PKP	PKPdf	17 04 46.5	-0.7
	2.6nm,0.9s,baz=343,slow=2.0,SNR=7.2						
AKASG	Malin Array Be	137.63	323	PKP	PKPdf	17 05 00.4	+4.1
	0.2nm,0.3s,baz=58,slow=2.4,SNR=3.0						
BSEG	Bad Segeberg	144.10	339	ePKPbc	PKPdf	17 05 07.7	-0.2
VYHS	Vyhne	144.48	326	ePKP	PKPdf	17 05 07.4	-1.3
DPC	Dobruska-Polom	144.48	330	ePKP	PKPdf	17 05 07.8	-0.9
UPC	Upice	144.51	331	ePKP	PKPdf	17 05 07.6	-1.1
PVCC	Panska Ves	145.14	332	ePKP	PKPdf	17 05 09.0	-0.8
BRG	Berggiesshubel	145.15	333	ePKPbc	PKPbc	17 05 09.3	-0.1
BRG	Berggiesshubel	145.15	333	i P	PKPbc	17 05 09.2	-0.2
	13nm,0.7s						
BRG				i		17 05 19.7	
	7.7nm,0.8s						
CLL	Collm	145.22	334	ePKPbc	PKPbc	17 05 09.3	-0.3
CLL	Collm	145.22	334	⇑iPKPdf	PKPdf	17 05 09.3	-0.6
	comp=Z,11nm,0.7s						
CLL				ePKiKP	PKiKP	17 05 15.0	+1.2
CLL				epPKPdf	pPKPdf	17 05 20.0	+2.5
CLL	Collm	145.22	334	⇑iP	PKPbc	17 05 09.3	-0.3
CLL				e		17 05 15.0	
MODS	Modra-Piesok	145.35	327	ePKP	PKPdf	17 05 11.0	+0.7
FBE	Freiberg	145.37	333	ePKPbc	PKPbc	17 05 10.3	+0.2
PRU	Pruhonice	145.54	331	ePKP	PKPdf	17 05 10.7	+0.2
NEUB	Neuenburg	145.78	335	ePKPbc	PKPbc	17 05 11.6	+0.2
CLZ	Clausthal	145.80	337	ePKPbc	PKPbc	17 05 11.3	-0.1
TANN	Tannenbergstha	146.12	334	ePKPbc	PKPbc	17 05 12.6	+0.2
WERD	Werda	146.16	334	ePKPbc	PKPbc	17 05 12.6	0.0
PLN	Plauen	146.19	334	ePKPbc	PKPbc	17 05 12.7	+0.1
GUNZ	Gunzen	146.21	334	ePKPbc	PKPbc	17 05 13.1	+0.4
NKC	Novy Kostel	146.26	333	ePKPbc	PKPbc	17 05 13.2	+0.3
NKC	Novy Kostel	146.26	333	ePKP	PKPdf	17 05 13.1	+1.3
NKC				epPKP	pPKPdf	17 05 18.3	-1.0
MOX	Moxa	146.28	335	eP	PKPdf	17 05 13.0	+1.2
CONA	Conrad Observa	146.36	328	⇑iPKPab	PKPab	17 05 14.1	0.0
	comp=Z,12nm,1.6s						
CSNA	Conrad Observa	146.36	328	⇑iPKPab	PKPab	17 05 13.9	-0.1
	comp=Z,11nm,1.6s						
IDI	Anoyia	146.37	302	PKPbc	PKPbc	17 05 14.8	+1.0
	comp=Z,4.7nm,0.8s,baz=11,slow=5.2,SNR=4.5						
MANZ	Manzenberg	146.59	333	ePKPbc	PKPbc	17 05 14.3	+0.4
KHC	Kasperske Hory	146.60	331	ePKP	PKPdf	17 05 14.1	+1.7
KHC				epPKP	pPKPdf	17 05 20.0	+0.1
KHC				ex	x	17 05 24.5	
ROTZ	Rotzenmuhle	146.72	333	ePKPbc	PKPbc	17 05 14.6	+0.4
GERES	GERESS Array B	146.75	331	PKPbc	PKPbc	17 05 14.2	-0.1
	comp=Z,3.3nm,0.6s,baz=32,slow=2.9,SNR=32						
WET	Wettzell	146.90	332	ePKPbc	PKPbc	17 05 15.0	+0.2
GRF	Grafenberg Arr	147.19	334	ePKPbc	PKPbc	17 05 15.5	-0.1
KBA	Koelnbreinsper	148.18	329	⇑iPKiKP	PKiKP	17 05 18.6	-1.5
	comp=Z,9.6nm,1.4s						
MEM	Membach	148.33	340	P	PKPbc	17 05 18.5	-0.1
STU	Stuttgart	148.73	335	ePKPbc	PKPbc	17 05 19.9	+0.2
WLF	Walferdange	149.10	339	P	PKPbc	17 05 21.6	+1.0
WLF	Walferdange	149.10	339	ePKPbc	PKPbc	17 05 21.4	+0.8
GIVF	Givet	149.14	341	⇑iPKP1	PKPbc	17 05 20.7	0.0
	comp=Z,33nm,0.9s						
DOU	Dourbes	149.22	341	P	PKPbc	17 05 21.0	+0.1
BAIF	Baives	149.36	342	⇑iPKP1	PKPbc	17 05 21.3	0.0
	comp=Z,30nm,1.2s						
BFO	Black Forest	149.43	335	ePKPbc	PKPbc	17 05 21.1	-0.4
FETA	Feichten	149.44	331	⇑iPKiKP	PKiKP	17 05 21.7	-1.0
	comp=Z,11nm,1.0s						
CDF	Champ du Feu	149.76	336	ePKP1	PKPbc	17 05 22.3	0.0
	comp=Z,16nm,0.9s						
HINF	Hinteralfeld	150.41	336	ePKP1	PKPbc	17 05 23.7	-0.2
	comp=Z,13nm,0.7s						
HAU	Haudompre	150.44	337	⇑iPKP1	PKPbc	17 05 23.8	-0.1
	comp=Z,26nm,0.9s						
MEZF	Maizieres J'vi	150.47	339	⇑iPKP1	PKPbc	17 05 24.3	+0.3
	comp=Z,84nm,1.1s						
CABF	La Chapelle	151.71	336	⇑iPKP1	PKPbc	17 05 27.2	+0.3
	comp=Z,12nm,0.7s						
FLN	La Foliniere	151.77	346	⇑iPKP1	PKPbc	17 05 26.6	-0.4
	comp=Z,22nm,0.7s						
LDF	La Druitiere	151.85	346	⇑iPKP1	PKPbc	17 05 26.6	-0.6
	comp=Z,9.5nm,0.7s						
LOR	Lormes	151.94	339	⇑iPKP1	PKPbc	17 05 27.2	-0.3
	comp=Z,9.5nm,0.6s						
GRR	Gorron	152.21	346	⇑iPKP1	PKPbc	17 05 27.5	-0.5
	comp=Z,10nm,0.6s						
SSF	Saint Saulge	152.23	340	⇑iPKP1	PKPbc	17 05 27.9	-0.2
	comp=Z,14nm,0.9s						
LPL	La Plagne	152.35	334	⇑iPKP1	PKPbc	17 05 28.8	+0.4
	comp=Z,11nm,0.7s						
LPG	La Plagne	152.36	334	⇑iPKP1	PKPbc	17 05 28.9	+0.4
	comp=Z,12nm,0.7s						
BGF	Bois d'Agland	152.89	340	⇑iPKP1	PKPbc	17 05 29.3	-0.3
	comp=Z,12nm,0.7s						
MBDF	Montbardon	152.97	333	⇑iPKP1	PKPbc	17 05 29.6	-0.2
	comp=Z,7.3nm,0.7s						
ORIF	Oris-en-Rattie	153.19	334	ePKP1	PKPbc	17 05 29.6	-0.7
	comp=Z,18nm,0.9s						
TCF	Toulx Ste Croi	153.33	340	⇑iPKP1	PKPbc	17 05 30.2	-0.4
	comp=Z,13nm,1.0s						
VIVF	Saint-Julien-l	153.72	335	⇑iPKP1	PKPbc	17 05 31.3	-0.2
TORD	Torodi Ar. Bea	165.82	236	PKP	PKPdf	17 05 38.1	-0.1
	comp=Z,0.9nm,1.1s,baz=248,slow=1.6,SNR=3.2						
TORD				PKPab	PKPab	17 06 36.8	-0.9
	comp=Z,0.8nm,1.0s,baz=115,slow=3.6,SNR=3.1						

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*IDC **28** 16:48:23.7±4.8,36°.79N×72°.24E,h182^{km}±35^{km},mb3.2/6, mb1 3.4/11,mb1mx3.2/28,mbtmp3.4/11,MS3.6/1, Ms1 3.6/1,ms1mx2.2/23,Error ellipse: s-maj=51.9km s-min=25.2km az=145.0*

*NEIC **28** 16:48:30.3±1.3,37°.44N×71°.98E,h199^{km}±10^{km},mb4.3/3, Error ellipse: s-maj=15.3km s-min=9.9km az=209.0*

*ISCJB **28** 16:48:32.8±1.4,37°.73N±0°.10×72°.0E±0°.1,h225^{km}±12^{km}, mb3.2/6,Error ellipse: s-maj=17.6km s-min=10.4km az=33.7*

*NNC **28** 16:48:37.9±4.7,38°.10N×71°.98E,h239^{km}±36^{km},mb2.3, mpv3.5,Error ellipse: s-maj=43.5km s-min=27.9km az=9.0*

ISC 28 16:48:32.7±1.5,**37°.6N**±0°.1×**72°.0E**±0°.1,**h208**^{km}±13^{km}**,n38,** σ**0^{s}.94**/49**,mb3.2**/6**,3C-6D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	3.61	58	Pn	Pn	16 49 24.3	-5.6
KSH				Sn	Sn	16 50 04.0	-11
KSH				smax			
	comp=N,170nm,0.4s						
KSH				smax			
	comp=E,140nm,0.3s						
AML	Almayashu	4.66	15	P	Pn	16 49 43.3	+0.4
	SNR=160						
AML	Almayashu	4.66	15	ePn	Pn	16 49 43.1	+0.2
AML				eSn	Sn	16 50 38.4	0.0
UCH	Uchtor	4.96	22	P	Pn	16 49 47.2	+0.6
	SNR=43						
UCH	Uchtor	4.96	22	ePn	Pn	16 49 46.8	+0.1
	comp=E,24nm,0.5s						
UCH				eSn	Sn	16 50 42.9	-2.3
KZA	Kyzart	5.07	28	P	Pn	16 49 47.7	-0.4
	SNR=8.4						
EKS2	Erkin-Say	5.19	14	P	Pn	16 49 50.2	+0.6
	SNR=30						
EKS2	Erkin-Say	5.19	14	ePn	Pn	16 49 49.5	-0.1
	comp=E,15nm,0.6s						
EKS2				eSn	Sn	16 50 39.4	-11
AAK	Ala-Archa	5.33	20	P	Pn	16 49 52.2	+0.8
	SNR=53						
AAK	Ala-Archa	5.33	20	P	Pn	16 49 52.1	+0.7
	comp=E,0.2nm,0.3s,baz=194,slow=7.4,SNR=116						
AAK				S	Sn	16 50 55.1	+1.4
	comp=E,0.1nm,0.3s,baz=312,slow=22,SNR=32						
AAK	Ala-Archa	5.33	20	ePn	Pn	16 49 51.8	+0.4
AAK				eSn	Sn	16 50 51.8	-1.9
KBK	Karagaybulak	5.48	23	P	Pn	16 49 54.8	+1.4
	SNR=11						
KK31	Karatay Array	5.58	348	⇓P	Pn	16 49 54.2	-0.3
	comp=E,1.5nm,0.2s,baz=167,slow=12,SNR=25						
KK31				⇓S	Sn	16 50 57.6	-1.8
	comp=E,6.7nm,0.2s,baz=169,slow=23,SNR=14						
ULHL	Ulahol	5.62	34	P	Pn	16 49 54.8	-0.3
	SNR=13						
CHMS	Chumysh	5.74	20	P	Pn	16 49 57.6	+1.0
	SNR=6.8						
USP	Ospenovka	5.92	18	P	Pn	16 49 59.7	+0.8
	SNR=8.4						
TKM2	Tokmak 2	5.93	26	⇑P	Pn	16 49 59.1	-0.1
	comp=E,2.5nm,0.4s						
TKM2				⇓S	Sn	16 51 06.3	-1.4
	comp=E,6.5nm,0.9s						
TKM2	Tokmak 2	5.93	26	P	Pn	16 49 59.6	+0.5
	SNR=6.3						
TKM2	Tokmak 2	5.93	26	ePn	Pn	16 49 59.3	+0.2
TKM2				eSn	Sn	16 51 01.2	-6.5
MKAR	Makanchi Array	11.88	36	P	Pn	16 51 06.0	-10
	comp=E,0.1nm,0.3s,baz=207,slow=14,SNR=6.3						
KURK	Kurchatov	13.89	18	P	Pn	16 51 41.2	+0.4
	comp=E,0.2nm,0.3s,baz=205,slow=11,SNR=2.5						
AB09	Akbulak array	14.55	327	⇓P	Pn	16 51 49.6	+0.7
	comp=E,0.7nm,0.5s						
AB09				⇑S	S	16 54 21.9	-8.3
	comp=E,1.9nm,0.5s						
BVA0	Borovoye Array	15.43	356	⇓P	Pn	16 52 00.9	+1.4
	comp=E,0.2nm,0.5s,baz=166,slow=14,SNR=8.3						
BVA0				S	S	16 54 39.8	-10
	comp=E,0.5nm,0.9s,baz=275,slow=37,SNR=3.5						
BVAR	Borovoye Array	15.43	356	P	Pn	16 52 00.5	+1.0
	comp=E,0.6nm,0.3s,baz=161,slow=10,SNR=10						
AKTK	Aktyubinsk	16.25	326	P	P	16 52 08.9	+0.3
AKTO	Aktyubinsk	16.25	326	⇑P	P	16 52 09.2	+0.6
	comp=E,0.7nm,0.4s						
AKTO				⇓S	S	16 55 00.8	-7.2
	comp=E,0.5nm,0.8s						
AKTO	Aktyubinsk	16.25	326	P	P	16 52 08.9	+0.3
	comp=E,2.3nm,0.3s,baz=131,slow=9.7,SNR=34						
LSA	Lhasa	17.75	111	P	P	16 52 23.9	-1.4
	comp=E,2.2nm,0.8s						
ZAA0	Zalesovo Array	18.54	24	eP	P	16 52 34.1	+0.6
ZALV	Zalesovo Beam	18.54	24	P	P	16 52 34.1	+0.5
	comp=E,2.5nm,0.3s,baz=213,slow=9.9,SNR=26						
BRTR	Keskin Array B	29.89	286	P	P	16 54 19.7	-1.2
	comp=E,0.3nm,0.4s,mb3.3						
FINES	FINESS Array B	37.01	325	P	P	16 55 21.5	-0.5
	comp=E,0.8nm,0.5s,mb3.5,baz=113,slow=15,SNR=4.3						
ARCES	ARCESS Array B	40.41	337	P	P	16 55 50.3	+0.2
	comp=E,1.3nm,0.5s,mb3.6,baz=119,slow=9.2,SNR=19						
NOA	NORSAR Array B	43.98	322	P	P	16 56 17.9	-1.1
	comp=E,0.8nm,0.8s,mb3.1,baz=95,slow=7.7,SNR=3.4						
JOW	Kunigami	48.15	86	LR	LR	17 18 39.2	
	comp=E,58nm,18.9s,baz=156,slow=38						
TORD	Torodi Ar. Bea	66.57	269	P	P	16 58 54.4	-6.4
	comp=E,0.2nm,0.6s,mb3.0,baz=59,slow=4.9,SNR=3.0						
YKA	Yellowknife Ar	80.07	3	P	P	17 00 17.8	-1.0
	comp=E,0.1nm,0.4s,mb2.8,baz=349,slow=5.5,SNR=4.3						
YKA	Yellowknife Ar	80.07	3	P	P	17 00 17.8	-1.0

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*ISCJB **28** 17:05:34.8±0.5,45°.18N±0°.05×106°.92W±0°.06,h0^{km},Error ellipse: s-maj=6.9km s-min=5.6km az=30.3*

*NEIC **28** 17:05:35.5±0.5,45°.18N×106°.82W,h0^{km},ML2.8,Error ellipse: s-maj=6.7km s-min=5.8km az=46.0,Suspected Mining explosion.*

NEIC 45 km [30 miles] NNE of Sheridan.

*IDC **28** 17:05:35.5±1.1,44°.68N×106°.43W,h0^{km},mb1 3.6/3, mb1mx3.3/24,mbtmp3.4/3,ML3.2/3,Error ellipse: s-maj=41.3km s-min=8.0km az=139.0*

ISC 28 17:05:35.8±0.5,**45°.20N**±0°.04×**106°.85W**±0°.05,**h0**^{km}**,n29,** σ**1^{s}.22**/30**,Montana**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LAO	LASA Array	1.55	16	eP	Pn	17 06 04.3	-0.3
RLMT	Red Lodge	1.71	268	eP	Pn	17 06 05.1	-1.7
GCMT	Greycliff	2.07	288	eP	Pn	17 06 11.0	-0.7
RSSD	Black Hills	2.28	117	eP	Pn	17 06 15.5	+0.8
RSSD				eS	Sn	17 06 45.2	+1.8
PDAR	Pinedale Array	3.12	220	Pn	Pn	17 06 27.5	+1.3
	3.4nm,0.3s,baz=54,slow=17,SNR=48						
PDAR				Lg		17 07 07.0	
	4.4nm,0.3s,baz=54,slow=32,SNR=16						
LOHW	Long Hollow	3.12	241	eP	Pn	17 06 25.3	-0.9
IMW	Indian Meadow	3.20	247	eP	Pn	17 06 28.9	+1.7
SNOW	Snow King Moun	3.29	240	Pn	Pn	17 06 31.3	+2.7
TPAW	Teton Pass	3.40	241	ePn	Pn	17 06 28.5	-1.5
REDW	Red Top Meadow	3.41	239	ePn	Pn	17 06 31.0	+0.8
EGMT	Eagleton	3.46	326	eP	Pn	17 06 30.4	-0.4
RWWY	Rawlins	3.52	184	eP	Pn	17 06 31.9	+0.3
RRI2	Red Ridge	3.71	242	ePn	Pn	17 06 33.9	-0.4
DGMT	Dagmar	3.74	28	eP	Pn	17 06 36.1	+1.4
HRY	Holter Researc	3.79	295	eP	Pn	17 06 34.3	-1.0
PHWY	Pilot Hill	4.03	165	Pn	Pn	17 06 37.8	-0.9
DLMT	Dillon	4.06	274	ePn	Pn	17 06 43.0	+3.9
MCMT	McKenzie Canyo	4.27	267	ePn	Pn	17 06 43.7	+1.8
MSO	Missoula	5.20	291	ePg	Pg	17 07 17.1	+1.8
	4.7nm,0.9s						
SWMT	Swartz Lake	5.46	298	Pn	Pn	17 06 57.9	-0.4
	2.9nm,0.5s						
OGNE	Ogallala	5.53	139	ePg	Pg	17 07 18.9	-2.8
	14nm,0.6s						
BSMT	Bassoo Peak	6.08	299	ePg	Pg	17 07 31.7	-0.6
	4.0nm,0.7s						
SRU	San Rafael	6.67	205	eP	Pn	17 07 14.1	-0.8
	4.2nm,0.4s						
PV04	Paradox Valley	6.97	193	Pn	Pn	17 07 19.2	+0.1
PV01	Paradox Valley	7.18	191	eP	Pn	17 07 21.1	-0.8
	405nm,0.5s						
ECSD	EROS Data Cent	7.47	98	ePg	Pg	17 07 54.2	-4.6
	3.3nm,0.6s						
ULM	Lac du Bonnet	8.96	52	Pn	Pn	17 07 45.2	-1.0
	1.1nm,0.3s,baz=241,slow=12,SNR=17						
ULM				Lg		17 10 15.1	
	0.2nm,0.3s,baz=144,slow=19,SNR=4.1						
YKA	Yellowknife Ar	17.90	348	P	Pn	17 09 53.0	+7.2
YKA	Yellowknife Ar	17.90	348	P	Pn	17 09 53.0	+7.2
	0.1nm,0.3s,baz=153,slow=13,SNR=3.8						

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*IDC **28** 17:07:34.9±1.7,7°.59S×119°.17E,h0^{km},mb3.3/2, mb1 3.5/5,mb1mx3.4/21,mbtmp3.4/5,ML3.2/3,Error ellipse: s-maj=65.7km s-min=21.3km az=64.0*

*ISCJB **28** 17:07:37.9±1.4,7°.55S±0°.08×119°.4E±0°.3,h33^{km},mb3.4/2, Error ellipse: s-maj=38.5km s-min=8.6km az=169.3*

ISC 28 17:07:40.4±1.4,**7°.50S**±0°.08×**119°.5E**±0°.3,**h35**^{km}**,n6,** σ**0^{s}.57**/8**,mb3.4**/2**,1C,Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKS	Makassar	2.26	359	⇑eP	Pn	17 08 16.1	+0.8
KAPI	Kappang	2.48	6	Pn	Pn	17 08 18.3	0.0
	9.7nm,0.3s,baz=190,slow=5.7,SNR=31						
KAPI				Sn	Sn	17 08 47.0	-0.4
	7.4nm,0.3s,baz=234,slow=19,SNR=7.3						
FITZ	Fitzroy Crossi	12.12	151	Pn	Pn	17 10 30.0	-0.6
	0.1nm,0.3s,baz=356,slow=14,SNR=2.5						
FITZ				Sn	Sn	17 12 36.7	-7.9
	0.1nm,0.3s,baz=193,slow=18,SNR=2.4						
WRA	Warramunga Arr	18.98	132	P	Pn	17 11 59.6	-0.2
	0.1nm,0.3s,baz=302,slow=12,SNR=2.6						
ASAR	Alice Springs	21.21	141	P	P	17 12 24.1	+1.0
	0.3nm,0.3s,mb3.1,baz=312,slow=9.8,SNR=13						
MKAR	Makanchi Array	63.35	332	P	P	17 18 05.6	-0.4
	0.4nm,0.6s,mb3.7,baz=144,slow=6.9,SNR=7.6						

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*ISCJB **28** 17:07:40.7±0.5,33°.34N±0°.03×35°.41E±0°.04,h3^{km}±6^{km}, Error ellipse: s-maj=6.0km s-min=3.6km az=27.5*

*CSEM **28** 17:07:40.9±0.2,33°.35N×35°.41E,h2^{km},MD2.3/10,Error ellipse: s-maj=4.1km s-min=2.2km az=112.0*

*GII **28** 17:07:41.3±0.6,33°.24N×35°.44E,h1^{km}±1^{km},Md2.3/10, Mm1.9/3*

*GRAL **28** 17:07:41.8±0.3,33°.32N×35°.43E,h0^{km}±5^{km},MD3.3*

ISC 28 17:07:41.2±0.5,**33°.35N**±0°.03×**35°.41E**±0°.04,**h3**^{km}±6^{km}**, n38,** σ**0^{s}.57**/59**,Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATL	Matirih	0.16	334	eP	Pg	17 07 45.1	+0.9
MATL	Matirih	0.16	334	eP	Pg	17 07 45.1	+0.8
KSDI	Kefar Szold	0.26	126	Pg	Pg	17 07 45.8	-0.3
KSDI				Sg	Sg	17 07 49.6	+0.2
KSDI	Kefar Szold	0.26	126	Pg	Pg	17 07 45.8	-0.3
KSDI				Sg	Sg	17 07 49.6	+0.2
HNTI	Hanita	0.33	218	Pg	Pg	17 07 47.4	-0.1
HNTI				Sg	Sg	17 07 52.5	+0.7
HNTI	Hanita	0.33	218	Pg	Pg	17 07 47.4	-0.1
HNTI				Sg	Sg	17 07 52.5	+0.7
MMA0	Mount Meron ar	0.33	181	Pg	Pg	17 07 47.0	-0.5
MMA0				Sg	Sg	17 07 51.4	-0.3
MMA0	Mount Meron ar	0.33	181	Pg	Pg	17 07 47.0	-0.5
MMA0				Sg	Sg	17 07 51.4	-0.3
RCY	Rachaya	0.37	68	eP	Pg	17 07 48.6	+0.4
RCY				eS	Sg	17 07 53.8	+0.9
RCY	Rachaya	0.37	68	eP	Pg	17 07 48.6	+0.4
KSHT	Keshet	0.49	137	Pg	Pg	17 07 50.4	-0.2
KSHT				Sg	Sg	17 07 57.8	+0.8
KSHT	Keshet	0.49	137	Pg	Pg	17 07 50.4	-0.2
KSHT				Sg	Sg	17 07 57.8	+0.8
BHL	Bhannes	0.59	20	eP	Pg	17 07 52.5	0.0
BHL	Bhannes	0.59	20	eP	Pg	17 07 52.5	0.0
BLGI	Bet Lehem HaGe	0.64	197	Pg	Pg	17 07 53.1	-0.3
BLGI				Sg	Sg	17 08 02.0	+0.3
BLGI	Bet Lehem HaGe	0.64	197	Pg	Pg	17 07 53.1	-0.3
BLGI				Sg	Sg	17 08 02.0	+0.3
OFRI	‘Ofer	0.81	207	Pg	Pg	17 07 56.2	-0.4
OFRI				Sg	Sg	17 08 08.3	+1.2
OFRI	‘Ofer	0.81	207	Pg	Pg	17 07 56.2	-0.4
OFRI				Sg	Sg	17 08 08.3	+1.2
MMLI	Mount Malkishu	0.91	180	Pg	Pg	17 07 57.6	-0.9
MMLI				Sg	Sg	17 08 10.1	-0.1
MMLI	Mount Malkishu	0.91	180	Pg	Pg	17 07 57.6	-0.9
MMLI				Sg	Sg	17 08 10.1	-0.1
HWQ	Hawqa	1.03	25	eP	Pg	17 08 00.5	-0.4
HWQ	Hawqa	1.03	25	eP	Pg	17 08 00.5	-0.4
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	17 08 00.9	-1.2
HMDT				Sg	Sg	17 08 16.6	+0.3
HMDT	Nahal Hemdat	1.09	175	Pg	Pg	17 08 00.9	-1.2
HMDT				Sg	Sg	17 08 16.6	+0.3
SLTI	Sal'it	1.15	196	Pg	Pg	17 08 02.2	-0.9
SLTI				Sg	Sg	17 08 18.3	+0.3
SLTI	Sal'it	1.15	196	Pg	Pg	17 08 02.2	-0.9
SLTI				Sg	Sg	17 08 18.3	+0.3
FKH	Fakeheh	1.21	43	eP	Pg	17 08 03.9	-0.5
FKH	Fakeheh	1.21	43	eP	Pg	17 08 03.9	-0.5
DSI	Dead Sea	1.77	181	Pn	Pn	17 08 12.0	-0.7
DSI				Sn	Sn	17 08 36.1	+0.3
DSI	Dead Sea	1.77	181	Pn	Pn	17 08 12.0	-0.7
DSI				Sn	Sn	17 08 36.1	+0.3
YTIR	Yattir	1.99	187	Pn	Pn	17 08 16.1	+0.3
YTIR	Yattir	1.99	187	Pn	Pn	17 08 16.1	+0.3
MZDA	Masada	2.03	181	Pn	Pn	17 08 16.4	+0.1
MZDA	Masada	2.03	181	Pn	Pn	17 08 16.4	+0.1
KZIT	Kziot	2.58	200	Pn	Pn	17 08 24.1	+0.2
KZIT	Kziot	2.58	200	Pn	Pn	17 08 24.1	+0.2
PRNI	Paran	3.00	187	Pn	Pn	17 08 29.6	-0.1
PRNI	Paran	3.00	187	Pn	Pn	17 08 29.6	-0.1

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*NIED **28** 17:19:00,23°.90N×122°.50E,h38^{km},Mw3.8 Best double couple: $M_0$6.28000×10^{14} NP1:ϕ_s227.00000°,δ87.00000°, λ-19.00000°. NP2:ϕ_s318.00000°,δ71.00000°, λ-176.00000°.*

*IDC **28** 17:19:37.1±0.9,23°.96N×122°.52E,h0^{km},mb3.7/8, mb1 3.8/9,mb1mx3.7/24,mbtmp3.7/9,ML3.3/1,MS3.2/1, Ms1 3.2/1,ms1mx1.9/42,Error ellipse: s-maj=29.3km s-min=19.2km az=67.0*

*NEIC **28** 17:19:40.3±1.9,23°.86N×122°.50E,h20^{km}±14^{km},mb4.2/2, Error ellipse: s-maj=11.0km s-min=9.3km az=123.0*

*ISCJB **28** 17:19:40.3±0.7,23°.78N±0°.02×122°.53E±0°.02,h15^{km}±4^{km}, mb3.7/8,Error ellipse: s-maj=3.2km s-min=2.3km az=155.6*

*TAP **28** 17:19:41.2,23°.85N×122°.48E,h23^{km},ML4.1,D*

*JMA **28** 17:19:42.1±0.4,23°.89N×122°.53E,h22^{km},M3.5*

ISC 28 17:19:39.4±0.4,**23°.80N**±0°.02×**122°.52E**±0°.01,**h5**^{km}±2^{km}**, n88,** σ**1^{s}.12**/138**,mb3.7**/8**,2C-5D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.80	34	P	Pg	17 19 55.9	+1.2
YOJ				S	Sg	17 20 05.2	+0.1
HWA	Hwalien	0.86	282	eP	Pg	17 19 56.5	+0.7
	baz=264						
HWA				eS	Sg	17 20 08.5	+1.5
	baz=264						
TWD	Chiawan	0.89	289	⇓iP	Pg	17 19 56.7	+0.2
	baz=269						
TWD				S	Sg	17 20 08.2	+0.1
	baz=269						
NACB	Ninganchiao	0.93	294	eP	Pg	17 19 56.9	-0.3
ENA	Nanau	0.95	312	i P	Pg	17 19 58.1	+0.4
	baz=309						
ENA				eS	Sg	17 20 10.4	+0.4
	baz=309						
ESL	Shilin	1.00	271	i P	Pg	17 19 57.9	-0.6
	baz=266						
ESL				eS	Sg	17 20 09.4	-2.1
	baz=266						
TWC	Suao	1.02	323	i P	Pg	17 19 58.8	-0.1
	baz=321						
TWC				eS	Sg	17 20 11.5	-0.6
	baz=321						
EHY	Hungye	1.14	256	i P	Pg	17 20 00.9	-0.3
	baz=251						
YULB	Yu-li	1.19	251	eP	Pg	17 20 01.1	-1.1
YULB				eS	Sg	17 20 14.8	-2.9
ILA	Ilan	1.20	324	P	Pg	17 20 02.6	+0.3
	baz=322						
ILA				eS	Sg	17 20 20.3	+2.5
	baz=322						
WHF	Hehuan Shan	1.20	287	P	Pg	17 20 01.7	-0.7
	baz=270						
WHF				eS	Sg	17 20 16.8	-1.2
	baz=270						
HATJ	Hateruma jima	1.20	77	P	Pg	17 20 03.1	+0.7
HATJ				S	Sg	17 20 18.3	+0.2
TWE	Neicheng	1.21	320	i P	Pg	17 20 02.2	-0.3
	baz=318						
TWE				eS	Sg	17 20 18.8	+0.6
	baz=318						
TWF1	Yuli	1.21	249	⇑iP	Pg	17 20 02.0	-0.5
	baz=244						
TWF1				eS	Sg	17 20 17.0	-1.2
	baz=244						
ENTT	Nioudou	1.21	314	i P	Pg	17 20 02.2	-0.4
	baz=296						
ENTT				eS	Sg	17 20 17.1	-1.2
	baz=296						
IRIF	Iriomote-Funau	1.23	64	P	Pg	17 20 03.6	+0.7
IRIF				S	Sg	17 20 19.3	+0.4
NNS	Nan Shan	1.23	302	⇓iP	Pg	17 20 02.2	-0.8
	baz=288						
CHKT	Chengkung	1.27	237	P	Pg	17 20 02.2	-1.5
	baz=232						
CHKT				eS	Sg	17 20 17.2	-2.9
	baz=232						
TWB1	Santiao Chiao	1.30	338	eP	Pn	17 20 03.8	-0.4
	baz=338						
TWB1				eS	Sg	17 20 21.1	-0.2
	baz=338						
TWT	Tachien	1.31	291	P	Pn	17 20 03.9	-0.5
	baz=276						
YHNB	Yeheng	1.36	310	eP	Pn	17 20 04.2	-0.9
NSK	Sanguang	1.38	310	⇓iP	Pn	17 20 04.7	-0.6
	baz=290						
NSK				eS	Sb	17 20 23.0	-0.5
	baz=290						
JKRS	Kuro-shima	1.43	72	P	Pn	17 20 06.5	+0.5
JKRS				S	Sb	17 20 25.4	+0.4
SSLB	Suanglung	1.44	270	eP	Pn	17 20 03.9	-2.2
NWF	Wu-fen Shan	1.44	332	P	Pn	17 20 05.6	-0.6
	baz=331						
NWF				eS	Sb	17 20 24.9	-0.4

	baz=331						
SMLT	Sun Moon Lake	1.49	274	⇓iP	Pn	17 20 06.4	-0.4
	baz=270						
TATO	Taipei	1.51	321	eP	Pn	17 20 06.7	-0.4
ELDTW	Lidau	1.51	247	P	Pn	17 20 06.1	-0.9
	baz=243						
TYC	Yuchr	1.53	274	P	Pn	17 20 06.9	-0.5
	baz=271						
TAP1	Taipei	1.54	324	eP	Pn	17 20 07.4	0.0
	baz=322						
TAP1				eS	Sn	17 20 26.9	-1.0
	baz=322						
JIJ	Ishigaki jima	1.59	69	P	Pn	17 20 08.0	-0.1
JIJ				S	Sn	17 20 27.9	-1.1
NSTT	Nanjuang	1.62	301	P	Pn	17 20 09.2	+0.6
	baz=284						
NSTT				eS	Sn	17 20 29.1	-0.7
	baz=284						
TTN	Taitung	1.64	231	eP	Pn	17 20 08.5	-0.3
	baz=227						
TTN				eS	Sn	17 20 28.7	-1.6
	baz=227						
TWS1	Kuangyinshan	1.64	322	eP	Pn	17 20 09.1	+0.1
	baz=304						
TWG	Pinlang	1.65	234	eP	Pn	17 20 07.5	-1.5
TWG	Pinlang	1.65	234	P	Pn	17 20 08.3	-0.7
	baz=242						
TWG				eS	Sn	17 20 28.0	-2.6
	baz=242						
WNT	Mingjian	1.69	273	P	Pn	17 20 10.4	+0.9
	baz=268						
WNT				eS	Sn	17 20 31.3	-0.1
	baz=268						
NCU	National Centr	1.69	314	eP	Pn	17 20 10.2	+0.7
	baz=312						
TWQ1	Liyutan	1.69	289	⇓iP	Pn	17 20 10.6	+1.0
	baz=284						
TWQ1				eS	Sn	17 20 32.0	+0.4
	baz=284						
TWY	Chenhua	1.70	331	eP	Pn	17 20 10.4	+0.8
	baz=330						
CHN5	Tsauling	1.70	264	P	Pn	17 20 10.3	+0.6
	baz=259						
CHN5				S	Sn	17 20 31.2	-0.7
	baz=259						
NSY	Sanyi	1.72	291	P	Pn	17 20 11.1	+1.1
	baz=286						
NSY				eS	Sn	17 20 32.9	+0.5
	baz=286						
TCU	Taichung	1.72	282	P	Pn	17 20 11.3	+1.3
	baz=277						
TCU				S	Sn	17 20 33.1	+0.7
	baz=277						
HSN	Hsinchu	1.73	306	eP	Pn	17 20 11.2	+1.0
	baz=304						
STYT	Tauyuan	1.74	249	P	Pn	17 20 10.3	+0.1
	baz=234						
STYT				eS	Sn	17 20 31.2	-1.6
	baz=234						
WGK	Gukeng	1.80	267	eP	Pn	17 20 12.1	+1.0
	baz=262						
WGK				eS	Sn	17 20 34.8	+0.5
	baz=262						
TPUB	Ta-pu	1.81	255	eP	Pn	17 20 11.6	+0.5
CHN4	Tsaushan	1.82	256	eP	Pn	17 20 12.9	+1.5
	baz=252						
CHN4				S	Sn	17 20 35.6	+0.7
	baz=252						
WTP	Ta-pu	1.83	253	P	Pn	17 20 12.3	+0.7
	baz=248						
WTP				eS	Sn	17 20 35.6	+0.4
	baz=248						
PCYT	Pengchaiyu	1.87	347	eP	Pn	17 20 11.5	-0.6
	baz=333						
ECL	Taimali	1.87	231	P	Pn	17 20 10.9	-1.1
	baz=227						
ECL				eS	Sn	17 20 32.5	-3.6
	baz=227						
CHN2	Minshiung	1.90	262	eP	Pn	17 20 14.0	+1.6
	baz=258						
CHN2				eS	Sn	17 20 37.5	+0.8
	baz=258						
SGST	Jiashian	1.92	249	P	Pn	17 20 14.1	+1.4
	baz=236						
SGST				eS	Sn	17 20 37.6	+0.4
	baz=236						
CHN1	Nanshi	1.93	252	P	Pn	17 20 14.1	+1.3
	baz=247						
CHN1				S	Sn	17 20 38.3	+0.8
	baz=247						
TWK	Hsinying	1.94	255	eP	Pn	17 20 14.4	+1.4
	baz=250						
TWK				eS	Sn	17 20 38.3	+0.5
	baz=250						
CHY	Chiayi	1.95	262	eP	Pn	17 20 14.2	+1.1
	baz=257						
CHY				eS	Sn	17 20 37.8	-0.1
	baz=257						
LAY	Lan-yu	1.96	207	P	Pn	17 20 11.7	-1.6
	baz=205						
SSD	Sandimen	2.03	239	P	Pn	17 20 14.4	+0.2
	baz=229						
WTCT	Ta-ch’eng	2.05	272	eP	Pn	17 20 15.8	+1.2
	baz=267						
WTCT				eS	Sn	17 20 41.3	+0.7
	baz=267						
CHN3	Shinhua	2.11	251	eP	Pn	17 20 18.2	+2.9
	baz=245						
CHN3				eS	Sn	17 20 44.7	+2.8
	baz=245						
WSF	Szhu	2.11	266	eP	Pn	17 20 16.7	+1.3
	baz=261						
WSF				eS	Sn	17 20 43.2	+1.1
	baz=261						
SGLT	Jiouru	2.15	241	eP	Pn	17 20 20.2	+4.3
	baz=231						
TWM1	Shoushan	2.16	244	eP	Pn	17 20 19.2	+3.2
	baz=241						
JTJ	Tarama	2.16	67	P	Pn	17 20 17.1	+1.0
JTJ				eS	Sn	17 20 42.5	-0.8
CHN8	Yiju	2.17	259	eP	Pn	17 20 17.2	+1.0
	baz=253						
CHN8				eS	Sn	17 20 44.2	+0.8
	baz=253						
SCLT	Jiali	2.23	254	eS	Sn	17 20 46.4	+1.6
	baz=249						
SCZT	Fangliau	2.25	231	eP	Pn	17 20 18.4	+1.1
	baz=221						
TSEB	Hengchuen, Pin	2.41	219	eP	Pn	17 20 21.9	+2.5
	baz=217						
TSEB				eS	Sn	17 20 49.4	+0.1
	baz=217						
HEN	Hengchun	2.42	223	eP	Pn	17 20 20.5	+0.9
	baz=221						
TWK1	Hengchun	2.43	221	eP	Pn	17 20 20.8	+1.0
	baz=218						
TWK1				eS	Sn	17 20 48.2	-1.7
	baz=218						
TWP	Hsiaoliuchiu	2.46	234	eP	Pn	17 20 24.8	+4.7
	baz=247						
PNG	Penghu	2.73	266	eP	Pn	17 20 24.2	+0.3
	baz=260						
PNG				eS	Sn	17 20 55.9	-1.3
	baz=260						
JOGS	Gusukube	2.80	69	P	Pn	17 20 25.5	+0.6
QZH	Quanzhou	3.76	288	⇑iPn	Pn	17 20 38.5	+0.4
QZH				Sn	Sn	17 21 19.5	-3.2
QZH				smax			
	comp=N,120nm,0.8s						
QZH				smax			
	comp=E,80nm,0.7s						
KNM	Kinmen	3.79	280	P	Pn	17 20 39.5	+1.1
	baz=272						
KNM				eS	Sn	17 21 21.6	-1.7
	baz=272						
JOW	Kunigami	6.02	59	Pn	Pn	17 21 07.6	-1.5
	comp=E,1.7nm,0.3s,baz=256,slow=16,SNR=6.3						
JOW				Sn	Sn	17 22 15.8	-2.7
	comp=E,0.5nm,0.3s,baz=90,slow=19,SNR=1.7						
KSRS	Korea Array	14.38	18	Pn	Pn	17 23 05.7	+2.1
	comp=E,0.2nm,0.3s,baz=198,slow=11,SNR=7.5						
SONM	Songino Array	27.21	336	P	P	17 25 21.4	-2.6
	comp=E,0.4nm,0.5s,baz=155,slow=11,SNR=4.9						
MKAR	Makanchi Array	39.47	316	P	P	17 27 08.9	-1.7
	comp=E,1.6nm,0.9s,mb3.8,baz=100,slow=9.4,SNR=15						
ZALV	Zalesovo Beam	41.24	327	P	P	17 27 21.9	-3.3
	comp=E,0.3nm,0.3s,mb3.4,baz=138,slow=12,SNR=4.2						
ZALV				LR	LR	17 46 20.8	
	comp=E,30nm,18.2s,baz=66,slow=39						
WRA	Warramunga Arr	44.97	164	P	P	17 27 55.2	-0.5
	comp=E,0.9nm,0.7s,mb3.7,baz=346,slow=9.0,SNR=4.1						
ASAR	Alice Springs	48.45	166	P	P	17 28 22.9	-0.1
	comp=E,0.4nm,0.8s,mb3.5,baz=345,slow=7.2,SNR=6.4						
BRVK	Borovoye	48.82	321	eP	P	17 28 24.5	-1.0
	comp=E,1.1nm,0.7s,mb4.0						
FINES	FINESS Array B	72.40	330	P	P	17 31 03.3	-3.0
	comp=E,2.1nm,0.8s,mb4.1,baz=90,slow=5.7,SNR=4.2						
INK	Inuvik	73.12	22	P	P	17 31 07.8	-2.7
	comp=E,1.1nm,0.9s,mb3.8,baz=282,slow=9.3,SNR=3.2						
INK	Inuvik	73.12	22	eP	P	17 31 09.2	-1.3
	comp=E,4.5nm,1.2s,mb4.3						
YKA	Yellowknife Ar	82.85	23	P	P	17 32 02.4	-2.2
	comp=E,0.3nm,0.8s,mb3.4,baz=316,slow=5.0,SNR=4.2						
YKA	Yellowknife Ar	82.85	23	P	P	17 32 02.4	-2.2

ISCJB ***28*** *17:29:44.9±0.8, 23°.78N±0°.02×122°.49E±0°.02, h3^{km}±6^{km}, Error ellipse: s-maj=4.0km s-min=2.7km az=158.3*
TAP ***28*** *17:29:46.7, 23°.85N×122°.48E, h22^{km}, ML3.5, D*
JMA ***28*** *17:29:47.1±0.4, 23°.86N×122°.52E, h16^{km}, M2.9*
ISC 28 17:29:44.9±0.5**, 23°.77N**±0°.02×**122°.50E**±0°.02**, h2**^{km}±3^{km}**, n44, σ1^{s}03**/77**, 1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.83	34	P	Pg	17 30 01.4	+0.5
YOJ				S	Sg	17 30 11.1	-0.6
TWD	Chiawan	0.88	291	i P	Pg	17 30 02.3	+0.5
	baz=270						
TWD				S	Sg	17 30 13.7	+0.5
	baz=270						
ENA	Nanau	0.95	314	P	Pg	17 30 03.7	+0.6
	baz=310						
ESL	Shilin	0.97	273	⇓iP	Pg	17 30 03.6	0.0
	baz=267						
ESL				eS	Sg	17 30 14.9	-1.3
	baz=267						
TWC	Suao	1.02	325	i P	Pg	17 30 04.6	0.0
	baz=321						
TWC				S	Sg	17 30 16.6	-1.2
	baz=321						
EHY	Hungye	1.11	256	P	Pg	17 30 06.5	+0.3
	baz=252						
TWF1	Yuli	1.18	249	i P	Pg	17 30 07.6	+0.1
	baz=244						
TWF1				eS	Sg	17 30 22.1	-0.7
	baz=244						
WHF	Hehuan Shan	1.19	288	P	Pg	17 30 07.3	-0.4
	baz=271						
ILA	Ilan	1.20	326	eP	Pg	17 30 09.0	+1.0
	baz=322						
ILA				eS	Sg	17 30 25.7	+2.1
	baz=322						
TWE	Neicheng	1.21	322	P	Pg	17 30 08.1	0.0
	baz=318						
TWE				eS	Sg	17 30 23.7	-0.1
	baz=318						
ENTT	Nioudou	1.21	316	i P	Pg	17 30 08.0	-0.2
	baz=298						
NNS	Nan Shan	1.22	303	eP	Pg	17 30 08.0	-0.4
	baz=287						
HATJ	Hateruma jima	1.23	76	P	Pg	17 30 08.6	0.0
HATJ				eS	Sg	17 30 24.9	+0.4
CHKT	Chengkung	1.23	237	P	Pg	17 30 08.0	-0.6
	baz=233						
CHKT				S	Sg	17 30 22.7	-2.0
	baz=233						
IRIF	Iriomote-Funau	1.26	63	P	Pg	17 30 09.4	+0.3
IRIF				eS	Sg	17 30 25.4	-0.1
TWT	Tachien	1.30	292	eP	Pg	17 30 10.1	+0.3
	baz=275						
TWB1	Santiao Chiao	1.31	340	P	Pg	17 30 10.2	0.0
	baz=338						
TWB1				eS	Sg	17 30 26.9	-0.3
	baz=338						
NSK	Sanguang	1.37	311	P	Pn	17 30 10.3	-0.8
	baz=308						
NWF	Wu-fen Shan	1.45	333	eP	Pn	17 30 11.2	-0.9
	baz=330						
NWF				S	Sb	17 30 30.5	-1.0
	baz=330						
JKRS	Kuro-shima	1.46	71	P	Pn	17 30 12.0	-0.3
JKRS				eS	Sb	17 30 30.5	-1.3
SMLT	Sun Moon Lake	1.47	275	P	Pn	17 30 11.9	-0.4
	baz=269						
SMLT				eS	Sb	17 30 29.9	-2.1
	baz=269						
ELDTW	Lidau	1.48	247	P	Pn	17 30 11.7	-0.8
	baz=242						
ELDTW				eS	Sb	17 30 29.4	-2.9
	baz=242						
TYC	Yuchr	1.51	275	P	Pn	17 30 12.5	-0.4
	baz=270						
TYC				eS	Sn	17 30 31.6	-1.4
	baz=270						
TTN	Taitung	1.60	231	eP	Pn	17 30 14.1	-0.1
	baz=227						
TTN				eS	Sn	17 30 34.7	-0.7
	baz=227						
NSTT	Nanjuang	1.61	302	P	Pn	17 30 14.8	+0.4
	baz=284						
NSTT				eS	Sn	17 30 34.6	-1.0
	baz=284						
TWG	Pinlang	1.61	234	P	Pn	17 30 13.6	-0.8
	baz=242						
TWG				eS	Sn	17 30 33.0	-2.8
	baz=242						
JIJ	Ishigaki jima	1.62	68	P	Pn	17 30 13.8	-0.6
JIJ				S	Sn	17 30 34.5	-1.3
CHN5	Tsauling	1.68	264	P	Pn	17 30 16.1	+0.8
	baz=259						
CHN5				eS	Sn	17 30 37.2	-0.1
	baz=259						
TWQ1	Liyutan	1.68	290	P	Pn	17 30 16.1	+0.9
	baz=285						
TWQ1				eS	Sn	17 30 37.4	+0.2
	baz=285						
STYT	Tauyuan	1.71	250	eP	Pn	17 30 16.1	+0.4
	baz=234						
STYT				eS	Sn	17 30 36.8	-1.3
	baz=234						
WGK	Gukeng	1.77	268	eP	Pn	17 30 17.7	+1.1
	baz=262						
WGK				S	Sn	17 30 40.2	+0.5
	baz=262						
CHN4	Tsaushan	1.79	257	eP	Pn	17 30 19.0	+2.2
	baz=252						
CHN4				eS	Sn	17 30 40.5	+0.3
	baz=252						
WTP	Ta-pu	1.80	253	P	Pn	17 30 17.9	+0.9
	baz=240						
WTP				S	Sn	17 30 41.3	+0.9
	baz=240						
ECL	Taimali	1.84	231	P	Pn	17 30 16.5	-1.0
	baz=227						
ECL				eS	Sn	17 30 37.0	-4.3
	baz=227						
SGST	Jiashian	1.89	249	eP	Pn	17 30 19.6	+1.4
	baz=235						
SGST				eS	Sn	17 30 42.9	+0.5
	baz=235						
PCYT	Pengchaiyu	1.89	348	eP	Pn	17 30 19.2	+1.1
	baz=333						
CHN1	Nanshi	1.90	252	eP	Pn	17 30 19.8	+1.5
	baz=247						
CHN1				eS	Sn	17 30 43.8	+1.1
	baz=247						
TWK	Hsinying	1.91	255	eP	Pn	17 30 19.4	+1.0
	baz=250						
TWK				eS	Sn	17 30 44.4	+1.4
	baz=250						
LAY	Lan-yu	1.93	207	P	Pn	17 30 17.4	-1.4
	baz=205						
LAY				eS	Sn	17 30 40.3	-3.3
	baz=205						
SSD	Sandimen	2.00	240	eP	Pn	17 30 20.3	+0.7
	baz=229						
TWM1	Shoushan	2.13	244	eP	Pn	17 30 25.6	+4.1
	baz=229						
TWM1				eS	Sn	17 30 53.2	+4.8
	baz=229						
JTJ	Tarama	2.19	66	P	Pn	17 30 23.3	+0.9
SCZT	Fangliau	2.22	231	eP	Pn	17 30 24.4	+1.6
	baz=227						
SCZT				eS	Sn	17 30 53.3	+2.6
	baz=227						
TWK1	Hengchun	2.40	221	eP	Pn	17 30 28.3	+3.1
	baz=219						

IDC 28 17:36:21.7±1.8**, 2°.08N**×**126°.67E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.6**/4**, Error ellipse: s-maj=163.9km s-min=22.7km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.14	161	P	P	17 41 31.2	+1.4
	0.5nm,0.3s,baz=339,slow=11,SNR=5.0						
ASAR	Alice Springs	26.54	165	P	P	17 42 02.1	+0.8
	0.3nm,0.4s,baz=350,slow=7.6,SNR=19						
STKA	Stephens Creek	36.62	158	P	P	17 43 28.1	-1.8
	0.5nm,0.3s,baz=340,slow=8.1,SNR=4.9						
MKAR	Makanchi Array	58.87	326	P	P	17 46 22.4	0.0
	0.3nm,0.5s,baz=121,slow=7.0,SNR=10.0						

ISCJB ***28*** *17:57:58.9±1.5, 53°.53N±0°.06×163°.40W±0°.04, h3^{km}±9^{km}, mb4.7/125, MS3.8/26, Error ellipse: s-maj=10.5km s-min=4.2km az=171.7*
IDC ***28*** *17:57:59.8±0.7, 53°.63N×163°.49W, h0^{km}, mb4.3/25, mb1 4.5/27, mb1mx4.4/31, mbtmp4.3/27, ML4.1/2, MS3.7/15, Ms1 3.7/15, ms1mx3.5/43, Error ellipse: s-maj=20.3km s-min=11.3km az=171.0*
MOS ***28*** *17:58:00.5±0.9, 53°.59N×163°.66W, h12^{km}, mb4.9/56, Error ellipse: s-maj=13.4km s-min=4.9km az=94.1*
NEIC ***28*** *17:58:02.1, 53°.46N×163°.37W, h14^{km}, mb4.8/63, MS3.9/2, ML4.0(AEIC), ML4.4(PMR), After AEIC.*
BJI ***28*** *17:58:04.0, 54°.14N×164°.34W, h14^{km}, mB5.2/19, mb4.8/36, Ms4.6/11, Ms7 4.2/11*
SZGRF ***28*** *17:58:10.6, 54°.66N×164°.16W, h33^{km}, mb4.9, Unimak Island, Alaska, United States, region*
ISC 28 17:58:01.2±1.6**, 53°.57N**±0°.06×**163°.44W**±0°.05**, h6**^{km}±9^{km}**, h20**^{km}±3.8^{km}**: pP-P, n308, σ0^{s}86**/303**, mb4.7**/125**, MS3.8**/26**, 26C-13D, Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKUT	Akutan	1.49	293	eP	Pn	17 58 29.2	+0.8
AKLV	Akutan Long Va	1.60	293	P	Pn	17 58 30.6	+0.7
AKLV				S	Sn	17 58 51.8	+0.9
AKGG	Akutan Green G	1.64	294	P	Pn	17 58 31.3	+0.9
UNV	Unalaska Valle	1.84	280	P	Pn	17 58 33.5	+0.2
UNV				S	Sn	17 58 57.1	+0.3
SDPT	Sand Point	2.48	43	eP	Pn	17 58 42.7	+0.7
OKFG	Magazine Ridge	2.68	268	P	Pn	17 58 45.3	+0.6
CHGN	Chignik	3.98	45	eP	Pn	17 59 03.6	+1.0
SII	Sitkinak Islan	6.10	57	P	Pn	17 59 31.1	-0.7
ATKA	Atka Island	6.65	262	P	Pn	17 59 40.0	+0.7
OHAK	Old Harbor	6.84	54	P	Pn	17 59 40.7	-1.1
KDAK	Kodiak Island	7.44	51	Pn	Pn	17 59 48.8	-1.4
	1.6nm,0.3s,baz=232,slow=7.0,SNR=13						
KDAK				Sn	Sn	18 01 08.3	-6.4
	2.4nm,0.3s,baz=331,slow=21,SNR=6.6						
KDAK	Kodiak Island	7.44	51	Pn	Pn	17 59 48.8	-1.3
KDAK				Sn	Sn	18 01 08.3	-6.4
SVW2	Sparrevohn	8.65	26	eP	Pn	18 00 07.6	+0.9
TTA	Tatalina	10.16	20	eP	Pn	18 00 31.1	+3.8
AMKA	Amchitka	10.76	265	eP	Pn	18 00 35.2	-0.3
	42nm,1.0s						
IMA2	Indian Mountai	13.43	17	eP	Pn	18 01 13.9	+1.9
MENT	Mentasta	13.93	40	eP	Pn	18 01 17.4	-1.4
EGAK	Eagle	15.90	36	eP	Pn	18 01 42.7	-2.5
	15nm,0.9s						
DAWY	Dawson	16.18	40	eP	Pn	18 01 53.8	+5.1
DLBC	Dease Lake	19.17	62	P	Pn	18 02 24.4	-1.5
	0.4nm,0.3s,baz=266,slow=16,SNR=2.1						
BILL	Bilibino	20.37	327	eP	P	18 02 38.7	+0.7
BILL				pmax	pmax		
	comp=Z,26nm,1.1s						
BILL	Bilibino	20.37	327	eP	P	18 02 38.7	+0.6
	comp=Z,26nm,1.1s						
INK	Inuvik	20.39	32	P	P	18 02 35.6	-2.6
	comp=Z,7.4nm,0.9s,baz=248,slow=13,SNR=17						
INK				PcP	PcP	18 06 50.0	-0.3
	comp=Z,1.0nm,0.6s,baz=141,slow=4.3,SNR=4.0						
BBB	Bella Bella	21.24	79	LR	LR	18 10 31.1	
	comp=Z,101nm,18.9s,MS3.2,baz=266,slow=35						
PETK	Petropavlovsk-	23.02	285	P	P	18 03 05.6	-0.9
	comp=Z,7.1nm,0.5s,mb4.3,baz=79,slow=14,SNR=16						
PETK				LR	LR	18 10 40.4	
	comp=Z,213nm,19.8s,MS3.6,baz=282,slow=33						
SEY	Seymchan	24.57	310	⇑eP	P	18 03 19.5	-1.8
YKA	Yellowknife Ar	26.72	51	P	P	18 03 40.9	+0.1
YKA						18 07 02.9	
YKA	Yellowknife Ar	26.72	51	P	P	18 03 40.9	+0.1
	comp=Z,4.0nm,0.6s,mb4.1,baz=271,slow=8.4,SNR=54						
YKA				PcP	PcP	18 07 02.9	-0.9
	comp=Z,0.7nm,0.7s,baz=286,slow=2.6,SNR=4.7						
YKA				LR	LR	18 15 27.4	
	comp=Z,203nm,19.8s,MS3.7,baz=290,slow=39						
YKA	Yellowknife Ar	26.72	51	P	P	18 03 40.9	+0.1
YKA				PcP	PcP	18 07 02.9	-0.9
YKA				LR	LR	18 15 27.4	
YBH	Yreka Blue Hor	29.47	97	LR	LR	18 12 27.9	
	comp=Z,176nm,21.6s,MS3.6,baz=290,slow=29						
HLID	Hailey	33.33	87	eP	P	18 04 40.7	+1.2
	comp=Z,6.6nm,1.2s,mb4.4						
MCMT	McKenzie Canyo	33.55	84	eP	P	18 04 42.5	+1.1
	comp=Z,1.9nm,0.9s,mb4.0						
TIXI	Tiksi	33.58	328	eP	P	18 04 39.1	-2.3
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,347nm,14.0s,MS4.2						
TIXI	Tiksi	33.58	328	eP	P	18 04 40.2	-1.3
	comp=Z,8.9nm,1.0s,mb4.7						
RES	Resolute Bay	33.71	26	P	P	18 04 41.4	-1.1
	comp=Z,2.4nm,0.6s,mb4.3,baz=258,slow=12,SNR=20						
NVAR	Mina Array Bea	34.18	98	P	P	18 04 47.3	+0.3
	comp=Z,0.9nm,0.7s,mb3.8,baz=304,slow=8.4,SNR=4.9						
YAK	Yakutsk	35.09	311	eP	P	18 04 52.6	-1.9
YAK				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
DUG	Dugway	36.31	91	eP	P	18 05 05.3	0.0
DUG				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.7						
DUG	Dugway	36.31	91	eP	P	18 05 05.2	0.0
	comp=Z,13nm,1.4s,mb4.7						
PDAR	Pinedale Array	36.69	85	P	P	18 05 09.3	+0.8
	comp=Z,0.5nm,0.6s,mb3.5,baz=292,slow=4.9,SNR=6.2						
FCC	Fort Churchill	37.38	53	eP	P	18 05 14.5	+0.4
	comp=Z,0.3nm,1.0s						
HABR	Khabarovsk	37.96	288	ceP	P	18 05 17.9	-1.3
HABR				e		18 06 46.2	
HABR				e		18 07 33.5	
HABR				eSS	SS	18 13 42.9	-14
HABR				pmax	pmax		
	comp=Z,26nm,1.1s,mb4.9						
HABR				pmax	pmax		
	comp=E,52nm,2.1s						
HABR				pmax	pmax		
	comp=N,9.0nm,0.9s						
HABR				MLR	MLR		
	comp=Z,86nm,17.0s,MS3.6						
KLR	Kul’dur	39.41	291	eP	P	18 05 25.3	-6.1
ULM	Lac du Bonnet	40.40	66	P	P	18 05 37.8	-1.8
	comp=Z,1.9nm,0.6s,mb4.0,baz=248,slow=4.6,SNR=3.5						
ULM				LR	LR	18 23 57.4	
	comp=Z,108nm,19.0s,MS3.7,baz=49,slow=39						
MJAR	Matsushiro Arr	43.29	271	P	P	18 06 01.9	-1.5
	comp=Z,6.6nm,1.1s,mb4.3,baz=37,slow=7.1,SNR=7.8						
MJAR	Matsushiro Arr	43.29	271	P	P	18 06 01.9	-1.5
MAJO	Matsushiro	43.29	271	eP	P	18 06 03.9	+0.5
MAT	Matsushiro	43.29	271	P	P	18 06 03.6	+0.2
BOD	Bodaibo	43.99	310	eP	P	18 06 06.6	-2.2
BOD				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.2						
FRB	Frobisher Bay	45.87	38	P	P	18 06 23.2	-0.4
	comp=Z,12nm,0.8s,mb4.9,baz=306,slow=8.7,SNR=36						
FRB	Frobisher Bay	45.87	38	P	P	18 06 23.2	-0.4
HIA	Hailar	45.93	297	eP	P	18 06 22.9	-1.4
HIA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HIA	Hailar	45.93	297	eP	P	18 06 22.9	-1.3
	comp=Z,9.7nm,0.8s,mb4.8						
CN2	Changchun	46.10	288	⇑P	P	18 06 25.0	-0.7
CN2				esP	sP	18 06 31.8	+3.5

CN2				eS	S	18 13 08.8	-2.7
CN2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
CN2				pmax	pmax		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,300nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=E,200nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=Z,200nm,15.0s,MS4.2						
DAG	Danmarks Havn	48.02	10	⇓iP	P	18 06 39.5	-0.8
DAG				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
DAG	Danmarks Havn	48.02	10	⇓iP	P	18 06 39.5	-0.8
	comp=Z,13nm,0.8s,mb5.0						
SUMG	Summit	48.52	19	eP	P	18 06 44.6	+0.5
	comp=Z,24nm,1.0s,mb5.2						
KSRS	Korea Array	48.78	280	P	P	18 06 46.9	+0.3
KSRS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
KSRS				MLR	MLR		
	comp=Z,36nm,18.1s,MS3.4						
KSRS	Korea Array	48.78	280	P	P	18 06 46.9	+0.2
	comp=Z,9.7nm,0.9s,mb4.8,baz=55,slow=7.6,SNR=18						
KSRS				LR	LR	18 26 36.0	
	comp=Z,36nm,18.1s,MS3.4,baz=186,slow=35						
TXAR	Lajitas Array	49.20	95	P	P	18 06 50.1	+0.2
	comp=Z,0.9nm,0.6s,mb4.0,baz=300,slow=5.2,SNR=12						
TXAR				LR	LR	18 27 09.7	
	comp=Z,60nm,19.5s,MS3.6,baz=120,slow=36						
SFJD	Kangerlussuaq	49.67	28	i P	P	18 06 53.5	+0.5
SFJD				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
SFJD	Kangerlussuaq	49.67	28	i P	P	18 06 53.5	+0.5
	comp=Z,15nm,1.1s,mb4.9						
SFJD				i		18 08 06.8	
HDIL	Hopedale	49.91	73	eP	P	18 06 54.0	-1.2
	comp=Z,21nm,0.6s,mb5.3						
SCHQ	Schefferville	52.05	47	P	P	18 07 10.2	-0.9
	comp=Z,4.4nm,0.8s,mb4.4,baz=305,slow=7.3,SNR=6.4						
TLY	Talaya	52.47	308	eP	P	18 07 13.5	-0.7
TLY				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
TLY				MLR	MLR		
	comp=Z,164nm,17.0s,MS4.1						
SCO	Scoresbysund	53.19	15	eP	P	18 07 19.8	+0.5
SCO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
SCO	Scoresbysund	53.19	15	i P	P	18 07 19.8	+0.5
	comp=Z,1.7nm,0.7s,mb4.1						
SCO	Scoresbysund	53.19	15	eP	P	18 07 19.8	+0.5
	comp=Z,1.7nm,0.7s,mb4.1						
ULN	Ulaanbaatar	53.35	303	eP	P	18 07 20.2	-0.6
ULN				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
ULN	Ulaanbaatar	53.35	303	eP	P	18 07 20.2	-0.6
	comp=Z,15nm,0.9s,mb4.9						
ZAK	Zakamensk	53.50	307	⇑iP	P	18 07 21.2	-0.7
ZAK				e		18 08 29.1	
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.1						
SONM	Songino Array	53.70	303	P	P	18 07 23.4	0.0
	comp=Z,8.2nm,0.9s,mb4.7,baz=45,slow=8.1,SNR=50						
SONM				PcP	PcP	18 08 29.5	0.0
	comp=Z,1.6nm,0.8s,baz=4.6,slow=0.4,SNR=3.6						
MOY	Mondy	53.70	310	eP	P	18 07 23.0	-0.4
HHC	Hu-ho-hao-te	55.77	294	eP	P	18 07 38.5	0.0
HHC				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
HHC				pmax	pmax		
	comp=Z,100nm,4.6s						
HHC				LR	LR		
	comp=N,150nm,13.4s,MS4.5						
HHC				LR	LR		
	comp=E,180nm,13.1s,MS4.5						
HHC				LR	LR		
	comp=Z,91nm,15.5s,MS4.0						
KEV	Kevo	56.74	356	eP	P	18 07 43.4	-1.7
KEV				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
KEV	Kevo	56.74	356	ep	P	18 07 43.4	-1.7
	comp=Z,7.3nm,0.6s,mb4.9						
BTO	Baotou	56.78	295	eP	P	18 07 45.3	-0.4
ARCES	ARCESS Array B	57.03	356	P	P	18 07 45.6	-1.4
	comp=Z,3.8nm,0.8s,mb4.5,baz=16,slow=8.4,SNR=17						
NVS	Novosibirsk	58.79	322	eP	P	18 07 53.3	-6.3
NVS				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.6						
NVS				pmax	pmax		
	comp=N,10.0nm,2.0s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.6s						
ZAA0	Zalesovo Array	58.88	320	eP	P	18 07 58.6	-1.6
ZALV	Zalesovo Beam	58.88	320	P	P	18 07 59.3	-0.9
ZALV						18 08 49.3	
ZALV	Zalesovo Beam	58.88	320	P	P	18 07 59.3	-0.9
	comp=E,3.8nm,0.8s,mb4.5,baz=35,slow=8.1,SNR=15						
ZALV				PcP	PcP	18 08 49.3	-0.2
	comp=E,2.5nm,0.6s,baz=33,slow=3.4,SNR=6.7						
ZALV				LR	LR	18 35 57.4	
	comp=E,94nm,18.9s,MS3.9,baz=7.0,slow=39						
XAN	Xi’an	62.12	290	P	P	18 08 22.3	-0.4
XAN				pP	pP	18 08 32.0	+7.4
XAN				pmax	pmax		
	comp=Z,2.0nm,1.5s,mb4.0						
PRGR	Permogore	62.85	345	eP	P	18 08 23.9	-3.2
PRGR				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.5						
GTA	Gaotai	63.05	300	P	P	18 08 28.5	-0.3
GTA				pP	pP	18 08 33.0	+2.2
GTA				sP	sP	18 08 35.5	+4.0
GTA				S	S	18 16 58.0	-1.5
GTA				sS	sS	18 17 06.3	+3.5
GTA				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.5						
GTA				pmax	pmax		
	comp=Z,25nm,4.5s						
GTA				LR	LR		
	comp=N,86nm,14.9s,MS4.3						
GTA				LR	LR		
	comp=E,120nm,15.5s,MS4.3						
GTA				LR	LR		
	comp=Z,75nm,16.4s,MS4.0						
JOF	Joensuu	63.27	353	ep	P	18 08 26.7	-3.2
	comp=Z,4.1nm,0.7s,mb4.7						
LZH	Lanzhou	63.40	295	eP	P	18 08 31.0	-0.2
LZH				pP	pP	18 08 35.0	+1.9
LZH				sP	sP	18 08 37.5	+3.6
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.3						
LZH				pmax	pmax		
	comp=Z,71nm,4.0s						
KURK	Kurchatov	63.77	321	eP	P	18 08 32.6	-0.8
KURK				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
KURK	Kurchatov	63.77	321	eP	P	18 08 32.6	-0.8
	comp=Z,18nm,1.1s,mb5.0						
SVE	Sverdlovsk	64.22	335	⇑eP	P	18 08 36.4	+0.2
SVE				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
KAF	Kangasniemi	64.40	355	eP	P	18 08 35.8	-1.6
KAF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
KAF	Kangasniemi	64.40	355	ep	P	18 08 35.8	-1.6
	comp=Z,9.8nm,0.7s,mb5.0						
KLMR	Klimovskoe	64.46	348	eP	P	18 08 36.1	-1.7
KLMR				pmax	pmax		
	comp=Z,23nm,1.6s,mb5.0						
BRVK	Borovoye	64.72	327	eP	P	18 08 39.3	-0.3
BRVK				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
BRVK	Borovoye	64.72	327	eP	P	18 08 39.3	-0.3
	comp=Z,17nm,1.0s,mb5.0						
FINES	FINESS Array B	65.08	355	P	P	18 08 40.8	-1.0
	comp=Z,10nm,0.8s,mb4.9,baz=28,slow=8.6,SNR=16						
ARU	Arti	65.09	336	c iP	P	18 08 40.8	-1.1
ARU				e		18 09 11.7	
ARU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
ARU	Arti	65.09	336	eP	P	18 08 41.1	-0.9
	comp=Z,15nm,0.9s,mb5.0						
MKAR	Makanchi Array	65.49	316	P	P	18 08 43.6	-1.1
	comp=Z,2.9nm,0.8s,mb4.4,baz=48,slow=6.1,SNR=31						
MKAR				LR	LR	18 38 57.5	
	comp=Z,73nm,18.2s,MS3.9,baz=26,slow=38						
MKAR	Makanchi Array	65.49	316	P	P	18 08 43.6	-1.1
MKAR				LR	LR	18 38 57.5	
NB2	NORSAR Subarra	65.66	3	P	P	18 08 45.2	-0.3
	comp=Z,3.9nm,0.8s,mb4.5,baz=358,slow=6.9						
NOA	NORSAR Array B	65.66	3	P	P	18 08 45.4	-0.2
	comp=Z,8.2nm,0.8s,mb4.8,baz=358,slow=6.5,SNR=16						
CD2	Chengdu	67.34	292	P	P	18 08 57.0	+0.2
CD2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
CD2				pmax	pmax		
	comp=Z,180nm,7.1s						
GYA	Guiyang	69.10	286	eP	P	18 09 08.8	+0.9
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
OBN	Obninsk	70.42	348	⇓eP	P	18 09 14.5	-1.1
OBN				e		18 09 36.5	
OBN				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
TKM2	Tokmak 2	71.38	318	P	P	18 09 23.2	+1.6
	SNR=9.1						
USP	Ospenovka	71.52	319	P	P	18 09 23.2	+0.7
	SNR=6.5						
CHMS	Chumysh	71.65	319	P	P	18 09 24.8	+1.6
	SNR=7.0						
FRU	Bishkek	71.84	319	eP	P	18 09 25.0	+0.6
PPT	Papeete	71.85	166	LR	LR	18 33 14.7	
	comp=Z,49nm,20.6s,MS3.8,baz=244,slow=29						
KBK	Karagaybulak	71.86	319	P	P	18 09 26.2	+1.7
	SNR=8.0						
AAK	Ala-Archa	72.06	319	⇑eP	P	18 09 25.8	+0.1
AAK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
AAK	Ala-Archa	72.06	319	P	P	18 09 26.6	+0.9
	SNR=9.8						
AAK	Ala-Archa	72.06	319	LR	LR	18 44 44.6	
	comp=Z,109nm,18.4s,MS4.2,baz=171,slow=39						
AAK	Ala-Archa	72.06	319	eP	P	18 09 26.0	+0.3
KZA	Kyzart	72.23	318	P	P	18 09 28.0	+1.2
	SNR=7.3						
EKS2	Erkin-Say	72.31	319	P	P	18 09 27.9	+0.7
	SNR=15						
KMI	Kunming	72.37	288	P	P	18 09 27.5	-0.3
KMI				pP	pP	18 09 33.5	+3.7
KMI				sP	sP	18 09 35.5	+5.0
KMI				S	S	18 18 48.5	-3.2
KMI				SKS		18 19 26.3	
KMI				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.3						
KMI				pmax	pmax		
	comp=Z,100nm,4.2s						
KMI				LR	LR		
	comp=N,200nm,17.4s						
KMI				LR	LR		
	comp=E,160nm,23.8s						
KMI				LR	LR		
	comp=Z,120nm,20.1s,MS4.2						
AML	Almayashu	72.80	319	P	P	18 09 31.3	+1.2
	SNR=14						
VSR	Storozhevoye	73.87	345	eP	P	18 09 35.7	-0.6
VSR				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
VSR				pmax	pmax		
	comp=N,9.0nm,0.9s						
VSR				pmax	pmax		
	comp=E,1.0nm,0.3s						
VORD	Divnogorie	74.10	345	eP	P	18 09 36.4	-1.2
VORD				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
VORD				pmax	pmax		
	comp=N,7.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,4.0nm,0.6s						
KSH	Kashi	74.10	316	P	P	18 09 41.0	+3.2
KSH				ePP	PP	18 12 24.0	+1.4
KSH				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
KSH				pmax	pmax		
	comp=Z,130nm,3.8s						
KSH				LR	LR		
	comp=N,340nm,7.0s						
KSH				LR	LR		
	comp=E,220nm,7.2s						
KSH				LR	LR		
	comp=Z,380nm,5.8s						
CLZ	Clausthal	74.83	4	eP	P	18 09 42.3	+0.4
CLZ				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
CLZ	Clausthal	74.83	4	eP	P	18 09 42.3	+0.4
	comp=Z,16nm,1.0s,mb4.9						
LSA	Lhasa	75.06	300	P	P	18 09 45.0	+1.4
LSA	Lhasa	75.06	300	eP	P	18 09 44.6	+1.0
LSA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
LSA	Lhasa	75.06	300	eP	P	18 09 44.6	+1.0
	comp=Z,14nm,0.8s,mb5.0						
BUG	Bochum--Univer	75.07	6	eP	P	18 09 43.4	+0.2
	comp=Z,30nm,1.4s,mb5.0						
CLL	Collm	75.45	2	i P	P	18 09 45.2	-0.2
CLL				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
CLL	Collm	75.45	2	eP	P	18 09 45.2	-0.2
	comp=Z,11nm,1.1s,mb4.7						
CLL	Collm	75.45	2	i P	P	18 09 45.2	-0.2
	comp=Z,11nm,1.1s,mb4.7						
CLL				ePcP	PcP	18 09 59.0	+0.5
AKASG	Malin Array Be	75.55	352	P	P	18 09 44.9	-1.2
	comp=Z,7.5nm,0.6s,mb4.8,baz=9.1,slow=5.6,SNR=26						
FBE	Freiberg	75.84	2	eP	P	18 09 47.9	+0.2
	comp=Z,19nm,1.1s,mb4.9						
BRG	Berggiesshubel	75.90	2	eP	P	18 09 48.2	+0.2
BRG				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
BRG	Berggiesshubel	75.90	2	eP	P	18 09 48.1	+0.1
	comp=Z,13nm,1.2s,mb4.7						
BRG	Berggiesshubel	75.90	2	eP	P	18 09 48.2	+0.2
	comp=Z,5.5nm,1.3s,mb4.3						
MOX	Moxa	76.07	3	eP	P	18 09 49.1	+0.1
	comp=Z,19nm,1.2s,mb4.9						
MOX	Moxa	76.07	3	eP	P	18 09 49.1	+0.1
MOX				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
MOX	Moxa	76.07	3	eP	P	18 09 49.2	+0.2
	comp=Z,13nm,1.2s,mb4.7						
BAIF	Baives	76.22	8	eP	P	18 09 50.2	+0.4
GIVF	Givet	76.22	8	eP	P	18 09 50.1	+0.2
PVCC	Panska Ves	76.26	1	eP	P	18 09 50.3	+0.2
UPC	Upice	76.29	0	eP	P	18 09 50.3	0.0
TANN	Tannenbergstha	76.33	3	eP	P	18 09 50.7	+0.2
	comp=Z,3.0nm,0.9s,mb4.2						
TNS	Taunus Mts	76.35	5	eP	P	18 09 50.6	0.0
TNS				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
TNS	Taunus Mts	76.35	5	eP	P	18 09 50.6	0.0
	comp=Z,14nm,1.2s,mb4.8						
DPC	Dobruska-Polom	76.45	0	eP	P	18 09 51.5	+0.3
WERN	Wernitzgruen	76.45	3	eP	P	18 09 51.0	-0.2
	comp=Z,8.0nm,0.9s,mb4.7						
NKC	Novy Kostel	76.51	3	eP	P	18 09 52.1	+0.6
WLF	Walferdange	76.76	7	eP	P	18 09 53.5	+0.6
	comp=Z,24nm,1.3s,mb5.0						
PRU	Pruhonice	76.80	1	eP	P	18 09 53.7	+0.6
OKC	Ostrava-Krasne	76.95	359	eP	P	18 09 54.4	+0.4
ROTZ	Rotzenmuhle	76.97	3	eP	P	18 09 54.5	+0.4
	comp=Z,12nm,1.2s,mb4.7						
GRA1	Grafenberg Arr	77.01	4	eP	P	18 09 54.9	+0.6
	comp=Z,23nm,1.2s,mb5.0						
GRF	Grafenberg Arr	77.01	4	eP	P	18 09 54.9	+0.6
GRF				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
GRF	Grafenberg Arr	77.01	4	eP	P	18 09 54.9	+0.6
GRF				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
GRF	Grafenberg Arr	77.01	4	eP	P	18 09 54.9	+0.6
	comp=Z,23nm,1.2s,mb5.0						
MORC	Moravsky Berou	77.02	359	eP	P	18 09 54.4	0.0
MORC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
MORC	Moravsky Berou	77.02	359	⇓iP	P	18 09 54.8	+0.4
MORC	Moravsky Berou	77.02	359	eP	P	18 09 54.4	0.0
	comp=Z,2.7nm,0.9s,mb4.2						
FLN	La Foliniere	77.02	11	eP	P	18 09 54.3	-0.1
	comp=Z,10.0nm,0.9s,mb4.5						
FLN				eMLR	MLR		
	comp=Z,61nm,20.2s,MS3.6						
FLN	La Foliniere	77.02	11	eP	P	18 09 54.3	-0.1
FLN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
FLN				MLR	MLR		
	comp=Z,60nm,20.3s,MS3.9						
FLN	La Foliniere	77.02	11	eP	P	18 09 54.3	-0.1
	comp=Z,5.0nm,0.9s,mb4.4						
FLN				LR	LR		
	comp=Z,60nm,20.3s,MS3.9						
KWP	Kalwaria Pacla	77.04	356	eP	P	18 09 55.4	+0.9
KWP	Kalwaria Pacla	77.04	356	⇓iP	P	18 09 54.7	+0.2
KWP	Kalwaria Pacla	77.04	356	eP	P	18 09 55.4	+0.9
LDF	La Druitiere	77.23	11	eP	P	18 09 55.4	-0.2
STHS	Stebnicka Huta	77.31	357	eP	P	18 09 57.2	+1.2
STHS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
STHS	Stebnicka Huta	77.31	357	eP	P	18 09 57.2	+1.2
	comp=Z,9.1nm,0.8s,mb4.8						
VRAC	Vranov	77.49	360	⇑iP	P	18 09 57.3	+0.2
VRAC	Vranov	77.49	360	⇑P	P	18 09 57.3	+0.3
TREC	Trest	77.50	1	eP	P	18 09 57.2	+0.1
WET	Wettzell	77.61	2	eP	P	18 09 57.9	+0.2
WET				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
WET	Wettzell	77.61	2	eP	P	18 09 57.9	+0.2
	comp=Z,9.0nm,1.3s,mb4.5						
KHC	Kasperske Hory	77.64	2	eP	P	18 09 58.3	+0.4
KOLS	Kolonicke sedl	77.75	356	eP	P	18 09 59.2	+0.7
KOLS				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
KOLS	Kolonicke sedl	77.75	356	eP	P	18 09 59.2	+0.7
	comp=Z,7.3nm,1.1s,mb4.5						
CRVS	Cervenica-Dubn	77.81	357	eP	P	18 09 59.5	+0.6
CRVS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
CRVS	Cervenica-Dubn	77.81	357	eP	P	18 09 59.5	+0.6
CRVS	Cervenica-Dubn	77.81	357	eP	P	18 09 59.5	+0.6
	comp=Z,5.2nm,1.0s,mb4.4						
MEZF	Maizieres J’vi	77.83	8	eP	P	18 09 59.4	+0.4
GEC2	GERESS Array S	77.93	2	eP	P	18 09 59.7	+0.2
GEC2				pmax	pmax		
	comp=Z,2µm,1.2s						
GEC2	GERESS Array S	77.93	2	eP	P	18 09 59.7	+0.2
	comp=Z,2µm,1.2s						
GERES	GERESS Array B	77.93	2	P	P	18 09 59.5	0.0
	comp=Z,3.3nm,0.7s,mb4.3,baz=0.0,slow=4.7,SNR=27						
SHL	Shillong	77.99	297	ePKP	P	18 10 01.5	+1.3
CDF	Champ du Feu	78.09	6	eP	P	18 09 59.9	-0.5
	comp=Z,8.6nm,0.9s,mb4.4						
CDF	Champ du Feu	78.09	6	eP	P	18 09 59.9	-0.5
CDF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
CDF	Champ du Feu	78.09	6	eP	P	18 09 59.9	-0.5
	comp=Z,4.3nm,0.9s,mb4.4						
KOLL	Kolacno	78.21	359	eP	P	18 10 02.2	+1.1
BFO	Black Forest	78.23	6	eP	P	18 10 01.4	+0.2
BFO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BFO	Black Forest	78.23	6	eP	P	18 10 01.4	+0.2
	comp=Z,6.0nm,0.9s,mb4.5						
KECS	Kecovo	78.27	357	eP	P	18 10 01.6	+0.2
KECS				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
KECS	Kecovo	78.27	357	eP	P	18 10 01.6	+0.2
	comp=Z,5.8nm,1.1s,mb4.4						
SMOL	Smolenice	78.29	359	eP	P	18 10 03.1	+1.6
VYHS	Vyhne	78.29	358	eP	P	18 10 02.1	+0.6
VYHS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
VYHS	Vyhne	78.29	358	eP	P	18 10 02.1	+0.6
	comp=Z,4.0nm,0.9s,mb4.3						
HAU	Haudompre	78.43	7	eP	P	18 10 02.5	+0.2
	comp=Z,12nm,0.8s,mb4.6						
HAU				eMLR	MLR		
	comp=Z,65nm,22.5s,MS3.6						
HAU	Haudompre	78.43	7	eP	P	18 10 02.5	+0.2
HAU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
HAU				MLR	MLR		
	comp=Z,60nm,22.5s,MS3.9						
HAU	Haudompre	78.43	7	eP	P	18 10 02.5	+0.2
	comp=Z,5.9nm,0.8s,mb4.6						
HAU				LR	LR		
	comp=Z,60nm,22.5s,MS3.9						
MODS	Modra-Piesok	78.43	360	eP	P	18 10 03.1	+0.8
MODS				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
MODS	Modra-Piesok	78.43	360	eP	P	18 10 03.1	+0.8
	comp=Z,4.8nm,1.0s,mb4.4						
HINF	Hinteralfeld	78.65	7	eP	P	18 10 03.5	0.0
	comp=Z,12nm,0.8s,mb4.6						
HINF	Hinteralfeld	78.65	7	eP	P	18 10 03.5	0.0
HINF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
HINF	Hinteralfeld	78.65	7	eP	P	18 10 03.5	0.0
	comp=Z,5.8nm,0.8s,mb4.6						
TAPN	Taplejung	78.73	301	eP	P	18 10 04.3	0.0
	comp=Z,40nm,1.0s,mb5.3						
PSZ	Piszkesteto	78.84	358	eP	P	18 10 05.1	+0.5
PSZ				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
PSZ	Piszkesteto	78.84	358	⇓iP	P	18 10 05.1	+0.5
PSZ	Piszkesteto	78.84	358	eP	P	18 10 05.1	+0.5
	comp=Z,5.3nm,0.9s,mb4.5						
CONA	Conrad Observa	78.87	0	⇑iP	P	18 10 05.6	+0.8
	comp=Z,8.3nm,0.8s,mb4.7						
CSNA	Conrad Observa	78.87	0	⇑iP	P	18 10 05.6	+0.8
	comp=Z,7.4nm,0.8s,mb4.7						
BUR08	Bucovina Ar. S	78.89	354	eP	P	18 10 04.7	-0.1
BURAR	Bucovina Array	78.92	354	⇓iP	P	18 10 05.1	+0.1
BURAR	Bucovina Array	78.92	354	⇓P	P	18 10 05.1	+0.1
LOR	Lormes	78.95	9	eP	P	18 10 05.5	+0.3
	comp=Z,16nm,1.0s,mb4.6						
LOR				eMLR	MLR		
	comp=Z,57nm,21.5s,MS3.6						
LOR	Lormes	78.95	9	eP	P	18 10 05.5	+0.3
LOR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
LOR				MLR	MLR		
	comp=Z,60nm,21.5s,MS3.9						
LOR	Lormes	78.95	9	eP	P	18 10 05.5	+0.3
	comp=Z,7.8nm,1.0s,mb4.6						
LOR				LR	LR		
	comp=Z,60nm,21.5s,MS3.9						
RJOB	Jochberg	79.02	3	eP	P	18 10 06.0	+0.5
	comp=Z,8.0nm,0.8s,mb4.7						
SSF	Saint Saulge	79.13	9	eP	P	18 10 06.4	+0.3
MFF	Saint Martin d	79.19	12	eP	P	18 10 06.8	+0.3
GUN	Gumba	79.20	303	eP	P	18 10 07.3	+0.4
	comp=Z,82nm,1.0s,mb5.6						
JIRN	Jiri	79.25	302	eP	P	18 10 07.8	+0.7
	comp=Z,71nm,0.7s,mb5.7						
ODAN	Odare	79.29	301	eP	P	18 10 07.3	-0.1
	comp=Z,22nm,1.0s,mb5.1						
MOTA	Moosalm	79.35	4	⇑iP	P	18 10 07.7	+0.4
	comp=Z,7.0nm,0.7s,mb4.7						
AVF	Avril sur Loir	79.38	9	eP	P	18 10 07.6	+0.1
	comp=Z,7.6nm,0.8s,mb4.4						
AVF	Avril sur Loir	79.38	9	eP	P	18 10 07.6	+0.1
AVF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
AVF	Avril sur Loir	79.38	9	eP	P	18 10 07.6	+0.1
	comp=Z,3.8nm,0.8s,mb4.4						
WTTA	Wattenberg	79.45	3	⇑iP	P	18 10 08.6	+0.7
	comp=Z,10nm,0.7s,mb4.8						
BGF	Bois d’Agland	79.56	10	eP	P	18 10 08.7	+0.2
	comp=Z,11nm,0.8s,mb4.5						
BGF	Bois d’Agland	79.56	10	eP	P	18 10 08.7	+0.2
BGF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BGF	Bois d’Agland	79.56	10	eP	P	18 10 08.7	+0.2
	comp=Z,5.4nm,0.8s,mb4.5						
SMF	Signal de Mont	79.57	9	eP	P	18 10 08.6	0.0
	comp=Z,30nm,1.3s,mb4.8						
SMF	Signal de Mont	79.57	9	eP	P	18 10 08.6	0.0
SMF				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
SMF	Signal de Mont	79.57	9	eP	P	18 10 08.6	0.0
	comp=Z,15nm,1.3s,mb4.8						
KKN	Kakani	79.60	303	eP	P	18 10 09.0	0.0
	comp=Z,37nm,1.0s,mb5.3						
KKN	Kakani	79.60	303	eP	P	18 10 09.0	0.0
KKN				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
RAMN	Ramite	79.62	301	eP	P	18 10 09.2	0.0
	comp=Z,59nm,0.8s,mb5.5						
FETA	Feichten	79.66	4	⇑iP	P	18 10 09.9	+0.8
	comp=Z,12nm,0.9s,mb4.8						

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KBA   Koelnbreinsper    79.69    2⇓iPP    pP      18 10 10.5  -0.7
        comp=Z,19nm,1.0s
PKI   Pulchoki          79.72 303  eP     P       18 10 09.6  -0.1
        comp=Z,47nm,1.1s,mb5.3
PKI   Pulchoki          79.72 303  eP     P       18 10 09.6  -0.1
PKI                                 pmax  pmax
        comp=Z,47nm,1.1s,mb5.3
PKIN  Phulchoki         79.72 303  eP     P       18 10 09.5  -0.2
        comp=Z,32nm,0.8s,mb5.3
GKN   Gorkha            79.75 304  eP     P       18 10 09.8   0.0
        comp=Z,75nm,1.1s,mb5.5
TCF   Toulx Ste Croi    79.77  10  eP     P       18 10 09.8  +0.2
CMAR  Chiang Mai Arr    79.77 287   P     P       18 10 09.8  -0.2
        comp=Z,8.0nm,1.1s,mb4.6,baz=19,slow=5.3,SNR=37
CMAR                                LR    LR      18 47 07.6
        comp=Z,31nm,18.7s,MS3.7,baz=40,slow=37
CABF  La Chapelle       79.79   7  eP     P       18 10 10.5  +0.7
        comp=Z,20nm,1.1s,mb4.7
CABF  La Chapelle       79.79   7  eP     P       18 10 10.5  +0.7
CABF                                pmax  pmax
        comp=Z,10.0nm,1.1s,mb4.7
CABF  La Chapelle       79.79   7  eP     P       18 10 10.5  +0.7
        comp=Z,9.9nm,1.1s,mb4.7
DMN   Daman             79.84 303  eP     P       18 10 10.5  +0.2
        comp=Z,55nm,1.1s,mb5.4
KLP   Kalpa             79.85 310  ePKP   P       18 10 10.6  +0.2
KLP                                 AMb   AMB     18 10 13.1
        comp=Z,15nm,0.9s,mb5.0
DRGR                    79.87 356⇑iP      P       18 10 10.6  +0.4
DRGR                    79.87 356 ⇑P      P       18 10 10.6  +0.3
DANN  Dangsing          79.89 304  eP     P       18 10 11.2  +0.6
        comp=Z,121nm,0.8s,mb5.9
JOSI  Joshimath         80.07 309  ePKP   P       18 10 11.5  -0.1
SOKA  Soboth            80.12    1⇑iP     P       18 10 12.0  +0.5
        comp=Z,17nm,1.1s,mb4.9
OBKA  Obir              80.28    1⇑iP     P       18 10 13.1  +0.7
        comp=Z,18nm,0.8s,mb5.1
KIV   Kislovodsk        80.30 341  eP     P       18 10 13.1  +0.5
KIV                                e              18 10 23.1
KIV                                e              18 13 14.6
KIV                                 pmax  pmax
        comp=Z,10.0nm,0.8s,mb4.8
KIV   Kislovodsk        80.30 341  eP     P       18 10 13.0  +0.4
        comp=Z,6.2nm,0.6s,mb4.7
KOLN  Koldanda          80.45 304  eP     P       18 10 13.6  -0.1
        comp=Z,48nm,0.9s,mb5.4
PKSM  Moragy            80.58 359⇓iP      P       18 10 13.7  -0.3
PLOR  Plostina          80.58 353⇑iP      P       18 10 13.9  -0.1
MLR   Muntele Rosu      80.99 353⇑iP      P       18 10 07.5  -8.7
BZS   Buzias            81.09 356⇑iP      P       18 10 16.6  -0.2
BZS   Buzias            81.09 356 ⇑P      P       18 10 16.6  -0.2
CAF   Calviac           81.10  10  eP     P       18 10 17.1  +0.3
        comp=Z,5.8nm,0.9s,mb4.2
CAF   Calviac           81.10  10  eP     P       18 10 17.1  +0.3
CAF                                 pmax  pmax
        comp=Z,3.0nm,0.9s,mb4.2
CAF   Calviac           81.10  10  eP     P       18 10 17.1  +0.3
        comp=Z,2.9nm,0.9s,mb4.2
VOIR                    81.10 354⇓iP      P       18 10 16.7  -0.1
VOIR                    81.10 354 ⇓P      P       18 10 16.7  -0.2
KBL   Kabul             81.19 319  eP     P       18 10 16.2  -1.3
KBL                                 pmax  pmax
        comp=Z,5.0nm,0.8s,mb4.5
KBL   Kabul             81.19 319  eP     P       18 10 16.2  -1.2
        comp=Z,4.5nm,0.8s,mb4.5
GZR   Gura Zlata        81.27 356⇑iP      P       18 10 17.6  -0.1
GZR   Gura Zlata        81.27 356 ⇑P      P       18 10 17.6  -0.1
BNI   Bardonecchia      81.39   7  eP     P       18 10 19.5  +1.1
BNI                                 pmax  pmax
        comp=Z,11nm,1.1s,mb4.7
BNI   Bardonecchia      81.39   7  eP     P       18 10 19.5  +1.2
        comp=Z,11nm,1.1s,mb4.7
VIVF  Saint-Julien-l    81.42   9  eP     P       18 10 19.2  +0.7
        comp=Z,4.9nm,0.6s,mb4.3
VIVF  Saint-Julien-l    81.42   9  eP     P       18 10 19.2  +0.7
VIVF                                pmax  pmax
        comp=Z,2.0nm,0.6s,mb4.2
VIVF  Saint-Julien-l    81.42   9  eP     P       18 10 19.2  +0.7
        comp=Z,2.5nm,0.6s,mb4.3
ORIF  Oris-en-Rattie    81.46   8  eP     P       18 10 19.4  +0.7
ORIF                               eMLR   MLR
        comp=Z,67nm,17.8s,MS3.8
HARR  Harsova           81.63 352⇑iP      P       18 10 19.8  +0.2
HARR  Harsova           81.63 352 ⇑P      P       18 10 19.8  +0.1
MBDF  Montbardon        81.72   7  eP     P       18 10 20.6  +0.5
        comp=Z,12nm,0.9s,mb4.5
MBDF  Montbardon        81.72   7  eP     P       18 10 20.6  +0.5
MBDF                                pmax  pmax
        comp=Z,6.0nm,0.9s,mb4.5
MBDF  Montbardon        81.72   7  eP     P       18 10 20.6  +0.5
        comp=Z,6.3nm,0.9s,mb4.5
LASF  Ste Croix         82.12   9  eP     P       18 10 22.7  +0.5
MTLF  Montolieu         82.68  10  eP     P       18 10 25.5  +0.3
ETSF  Etsaut            82.78  13  eP     P       18 10 26.8  +1.1
FRF   La Foret Royal    82.87   7  eP     P       18 10 25.7  -0.5
AYAN  Aya Nagar         82.94 309  ePKP   P       18 10 26.4  -0.4
SONA  Sohna             83.16 309  ePKP   P       18 10 26.6  -1.3
KUDL  Kundal            83.53 310  ePKP   P       18 10 29.4  -0.4
GNI   Garni             83.53 339  eP     P       18 10 31.9  +2.2
GNI                                 pmax  pmax
        comp=Z,9.0nm,0.9s
GNI   Garni             83.53 339  LR     LR      18 52 10.0
        comp=Z,48nm,19.0s,MS3.9,baz=3.0,slow=39
GNI   Garni             83.53 339  eP     P       18 10 31.9  +2.2
        comp=Z,8.9nm,0.9s,mb4.9
AGRA  Agra              83.63 308  ePKP   P       18 10 29.2  -1.2
KHET  Khetri            83.90 310  ePKP   P       18 10 31.3  -0.4
KHET                                AMb   AMB     18 10 32.9
        comp=Z,12nm,1.0s,mb5.0
ESDC  Sonseca Array     85.45  16   P     P       18 10 39.5  +0.2
        comp=Z,0.8nm,0.6s,mb4.0,baz=328,slow=4.7,SNR=4.2
BRTR  Keskin Array B    85.91 347   P     P       18 10 41.9  +0.3
        comp=Z,7.9nm,1.0s,mb4.9
BRTR                                LR    LR      18 58 08.1
        comp=Z,35nm,18.5s,MS3.8,baz=201,slow=42
MALT  Malatya           86.55 343  eP     P       18 10 44.2  -0.6
MALT                                pmax  pmax
        comp=Z,4.0nm,1.3s,mb4.5
MALT  Malatya           86.55 343⇓iP      P       18 10 44.8   0.0
MALT  Malatya           86.55 343  eP     P       18 10 44.2  -0.7
        comp=Z,4.3nm,1.3s,mb4.5
BHPL  Bhopal            87.26 306  ePKP   P       18 10 48.2  -0.3
WRA   Warramunga Arr    90.61 236   P     P       18 11 02.3  -1.8
        comp=Z,0.3nm,0.3s,mb4.1,baz=29,slow=4.7,SNR=4.1
IDI   Anoyia            91.21 353  LR     LR      18 54 16.0
        comp=Z,22nm,19.4s,MS3.6,baz=58,slow=37
ASAR  Alice Springs     93.97 235   P     P       18 11 18.5  -1.1
        comp=Z,0.8nm,1.0s,mb4.1,baz=36,slow=4.8,SNR=3.8
TORD  Torodi Ar. Bea   112.34  16  PKiKP  PKiKP   18 16 36.2  -1.8
        comp=Z,0.2nm,0.6s,baz=334,slow=3.0,SNR=2.9
QSPA  South Pole Qui   143.34 180  PKhKP          18 17 30.5
        comp=Z,0.9nm,0.6s,baz=317,slow=1.7,SNR=8.9
QSPA                               PKP    PKPdf   18 17 35.1  +0.7
        comp=Z,1.9nm,0.9s,baz=296,slow=4.5,SNR=7.0
QSPA  South Pole Qui   143.34 180  PKP            18 17 30.5
QSPA                               PKP    PKPdf   18 17 35.1  +0.6
BOSA  Boshof           154.25 342  PKPbc  PKPbc   18 18 01.4  -0.4
        comp=Z,4.0nm,0.9s,baz=98,slow=3.9,SNR=6.0
```

ISCJB ***28*** *18:01:00.1±2.2, 36°.62N±0°.09×71°.4E±0°.2, h95km±43km, Error ellipse: s-maj=26.3km s-min=6.6km az=147.6*

NNC ***28*** *18:01:12.9±6.8, 37°.68N×69°.95E, h0km, mb3.3, mpv3.2, Error ellipse: s-maj=98.5km s-min=42.0km az=114.0*

ISC 28 18:01:02.2±1.2**, 36°.66N**±0°.09×**71°.4E**±0°.2**, h113**km±22km**, n19, σ0ˢ67**/22**, 1C-2D, Afghanistan-Tajikistan border region**

```
Code  Station Name       Δ°  AZ°   Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
THN   Thein Dam         5.53 138  ePKP   Pn      18 02 28.2  +6.1
THN                               ex     x       18 03 30.7
KK31  Karatay Array     6.47 354   Pn    Pn      18 02 34.9   0.0
        1.2nm,0.4s,baz=192,slow=13,SNR=23
KK31                              ⇓Sn    Sn      18 03 39.7  -7.5
        2.4nm,0.3s,baz=187,slow=28,SNR=14
KLP   Kalpa             7.65 130  ePKP   Pn      18 02 54.9  +4.0
KLP                               eS     Sn      18 04 16.0   0.0
KLP                                AML   AML     18 04 21.9
        comp=E,127nm,0.6s
KLP                                AML   AML     18 04 21.9
        comp=N,94nm,0.7s
JOSI  Joshimath         9.13 129  ePKP   Pn      18 03 14.4  +3.3
JOSI                              eS     Sn      18 04 50.8  -1.3
JOSI                               AML   AML     18 04 58.4
        comp=E,45nm,0.6s
JOSI                               AML   AML     18 04 59.3
        comp=N,63nm,0.4s
KHET  Khetri            9.34 155  eS     Sn      18 04 57.0   0.0
KHET                               AML   AML     18 05 03.3
        comp=N,9.6nm,0.3s
KHET                               AML   AML     18 05 03.6
        comp=E,8.2nm,0.1s
AYAN  Aya Nagar         9.48 148  eS     Sn      18 05 01.2  +0.8
SONA  Sohna             9.66 149  eS     Sn      18 05 03.9  -1.0
SONA                               AML   AML     18 05 06.8
        comp=N,8.6nm,0.3s
SONA                               AML   AML     18 05 07.7
        comp=E,13nm,0.5s
DANN  Dangsing         13.32 125  eP     Pn      18 04 07.2  +0.4
        comp=E,7.2nm,0.3s
KOLN  Koldanda         13.61 127  eP     Pn      18 04 10.8  +0.3
        comp=E,8.5nm,0.4s
GKN   Gorkha           14.13 124  eP     Pn      18 04 17.4  +0.2
        comp=E,11nm,0.4s
KKN   Kakani           14.70 123  eP     Pn      18 04 24.0  -0.5
        comp=E,6.1nm,0.2s
PKI   Pulchoki         14.93 123  eP     Pn      18 04 28.0  +0.6
        comp=E,12nm,0.7s
GUN   Gumba            15.03 121  eP     Pn      18 04 28.1  -0.6
        comp=E,6.3nm,0.4s
AB09  Akbulak array    15.11 330  ⇑P     Pn      18 04 29.3  -0.2
        comp=E,0.3nm,0.5s
JIRN  Jiri             15.40 121  eP     Pn      18 04 33.2  -0.1
        comp=E,36nm,0.6s
RAMN  Ramite           16.14 123  eP     Pn      18 04 42.5  +0.1
        comp=E,6.1nm,0.3s
TAPN  Taplejung        16.65 119  eP     Pn      18 04 48.7  -0.1
        comp=E,4.1nm,0.4s
ODAN  Odare            16.73 121  eP     Pn      18 04 50.4  +0.6
        comp=E,8.0nm,0.5s
AKTO  Aktyubinsk       16.80 329  ⇓P     Pn      18 04 50.0  -0.4
        comp=E,0.1nm,0.5s
```

ISCJB ***28*** *18:02:47.3±1.3, 36°.92N±0°.06×141°.12E±0°.09, h58km±9km, Error ellipse: s-maj=13.6km s-min=7.5km az=31.1*

JMA ***28*** *18:02:47.5±0.1, 36°.91N×141°.04E, h63km±1km, M3.4 Broadband fault plane solution: P waves. NP1: φs338.00000°, δ39.00000°, λ87.00000°. NP2: φs162.00000°, δ51.00000°, λ92.00000°. Principal axes: T Plg84.0000°, Azm88.0000°; N Plg2.0000°, Azm340.0000°; P Plg6.0000°, Azm250.0000°;*

JMA Felt I J1.

ISC 28 18:02:47.7±1.3**, 36°.91N**±0°.06×**141°.14E**±0°.10**, h55**km±10km**, n10, σ0ˢ39**/19**, 7C-2D, Near east coast of eastern Honshu**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
ONAJ  Iwakimizuishiy    0.33 305  ⇑P     Pn      18 02 57.7  +0.2
ONAJ                               S     Sn      18 03 05.1  +0.5
JFK   Kawauchi          0.50 335  ⇑P     Pn      18 02 59.4  +0.2
JFK                                S     Sn      18 03 07.7  +0.1
JHO   Hitachi           0.55 237  ⇑P     Pn      18 02 59.6  -0.2
JHO                                S     Sn      18 03 08.0  -0.5
JFT   Otama             0.88 314  ⇑P     Pn      18 03 04.0  +0.1
JFT                                S     Sn      18 03 15.7  -0.2
JMM   Marumori          0.99 344  ⇑P     Pn      18 03 05.3  -0.1
JMM                                S     Sn      18 03 18.5   0.0
JFY   Yanaizu           1.25 294  ⇓P     Pn      18 03 08.4  -0.4
JFY                               eS     Sn      18 03 23.7  -0.9
JOU   Okura             1.50 346  ⇑P     Pn      18 03 12.3  +0.1
JIO   Ouri              1.55   6  ⇓P     Pn      18 03 12.9   0.0
JIO                                S     Sn      18 03 31.7  -0.2
JYS   Shirataka         1.56 327  ⇑P     Pn      18 03 13.1  +0.1
JYS                                S     Sn      18 03 32.4  +0.2
MAT   Matsushiro        2.39 262   P     Pn      18 03 24.4  +0.1
MAT                               eS     Sn      18 03 53.4  +1.1
```

DJA 28 18:36:32, 6°.00S×106°.83E, h99km**, MLv3.1**/6**, 1C, Jawa**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
CBJI  Citeko            0.42 177   P     Pn      18 36 48.7  +1.5
DBJI  Dramaga           0.56 188   P     Pn      18 36 49.6  +1.5
DBJI                               S     Sn      18 37 03.3  +3.1
SBJI  Serang            0.71 260   P     Pn      18 36 50.5  +1.1
RBSI  Rajabasa          1.09 278   P     Pn      18 36 53.8  +0.4
LEM   Lembang           1.13 136⇑eP      Pn      18 36 51.9  -2.0
LEM   Lembang           1.13 136   P     Pn      18 36 53.9   0.0
LEM                                S     Sn      18 37 11.3  +1.0
TPI   Tanjungpandan     3.33  14   P     Pn      18 37 22.0  -0.1
PMBI  Palembang         3.68 326   P     Pn      18 37 23.2  -3.7
PLKI  Palangkaraya      8.03  62   P     Pn      18 38 25.8  -0.1
```

IDC 28 18:39:36.2±16.0**, 14°.26S×176°.92W, h0**km**, mb4.3**/5**, mb1 4.4**/5**, mb1mx3.9**/19**, mbtmp4.3**/5**, Error ellipse: s-maj=324.7km s-min=47.6km az=49.0, Fiji Islands region**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
URZ   Urewera          24.48 191   P     P       18 44 57.1  +0.1
        4.3nm,0.4s,baz=347,slow=4.2,SNR=6.9
CTA   Charters Tower   35.61 255   P     P       18 46 36.3  +0.4
        1.2nm,0.5s,baz=77,slow=14,SNR=3.1
STKA  Stephens Creek   41.71 238   P     P       18 47 27.2  +0.2
        1.6nm,0.3s,baz=78,slow=8.9,SNR=13
WRA   Warramunga Arr   46.81 256   P     P       18 48 07.4  -0.6
        0.4nm,0.3s,baz=93,slow=7.1,SNR=8.7
ASAR  Alice Springs    47.25 251   P     P       18 48 11.2  -0.2
        7.2nm,0.3s,baz=84,slow=8.6,SNR=153
```

ATH ***28*** *19:12:51.0, 39°.42N×19°.54E, h30km±4km, MD3.2/3*

CSEM ***28*** *19:12:52.3±0.4, 40°.07N×19°.77E, h20km, MD3.2, Error ellipse: s-maj=9.9km s-min=6.7km az=125.0*

SKO ***28*** *19:12:52.2, 39°.97N×19°.91E, h0km*

ISC 28 19:12:51.5±0.7**, 40°.12N**±0°.04×**19°.69E**±0°.06**, h17**km±7km**, n16, σ0ˢ90**/28**, Albania**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
KEK   Kerkira           0.41 168  ePB    Pg      19 12 58.8  -1.1
KEK                               eSB    Sg      19 13 05.9  +0.4
KEK   Kerkira           0.41 168  ePb    Pg      19 12 58.8  -1.1
KEK                               eSb    Sg      19 13 05.9  +0.4
SCTE  Santa Cesarea     0.94 268  ePN    Pg      19 13 10.7  +1.0
SCTE                              eSN    Sg      19 13 26.0  +3.9
SCTE  Santa Cesarea     0.94 268  ePn    Pg      19 13 10.7  +1.0
SCTE                              eSn    Sg      19 13 26.0  +3.9
JAN   Janina            1.00 117  ePN    Pg      19 13 10.5  -0.4
JAN   Janina            1.00 117  ePn    Pg      19 13 10.5  -0.4
OHR   Ohrid             1.30  40  ePg    Pg      19 13 16.9  +0.2
OHR                               eSg    Sg      19 13 34.6  +1.0
OHR   Ohrid             1.30  40  ePg    Pg      19 13 16.8  +0.2
OHR                               eSg    Sg      19 13 34.6  +1.0
BIA   Bitola            1.54  54  ePn    Pn      19 13 19.8  +1.7
BIA                               eSg    Sg      19 13 40.3  -0.7
BIA   Bitola            1.54  54  ePn    Pn      19 13 19.8  +1.7
BIA                               eSg    Sg      19 13 40.3  -0.8
KRUS  Krusevo           1.72  43  ePn    Pn      19 13 22.1  +1.5
KRUS                              eSg    Sg      19 13 46.3  -0.7
KRUS  Krusevo           1.72  43  ePn    Pn      19 13 22.1  +1.5
KRUS                              eSg    Sg      19 13 46.2  -0.8
THL   Klokotos Trika    1.87 106  ePB    Pb      19 13 24.7  -0.5
THL   Klokotos Trika    1.87 106  ePb    Pb      19 13 24.7  -0.5
STON  Ston              3.13 332  ePn    Pn      19 13 39.3  -0.8
STON                               Sn    Sn      19 14 16.8  -0.2
NVLJ  Novalja           5.70 323  ePn    Pn      19 14 15.2  -0.1
NVLJ                               Sn    Sn      19 15 19.2  -1.1
```

NEIC ***28*** *19:29:32.0, 34°.55N×24°.85E, h5km, MD3.6(ATH), After ATH.*

CSEM ***28*** *19:29:32.0, 34°.55N×24°.85E, h5km, MD3.6, After ATH*

ATH 28 19:29:32.0, 34°.55N×24°.85E, h5km**, MD3.6**/6**, Crete**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
SIVA  Sivas             0.47 356  ePB    Pg      19 29 41.9  +0.9
SIVA                              eSB    Sg      19 29 48.1  +1.0
SIVA  Sivas             0.47 356  ePb    Pg      19 29 41.9  +0.9
SIVA                              eSb    Sg      19 29 48.1  +1.0
LAST  Lasithi           0.80  40  ePG    Pg      19 29 47.0  -0.4
LAST  Lasithi           0.80  40  ePg    Pg      19 29 47.0  -0.4
NPS   Neapolis          0.95  41  ePN    Pn      19 29 50.4  -1.6
NPS                               eSB    Sb      19 30 02.7  -1.1
NPS   Neapolis          0.95  41  ePn    Pn      19 29 50.4  -1.6
NPS                               eSb    Sb      19 30 02.7  -1.1
VAM   Vamos             1.01 328  ePG    Pg      19 29 51.0  -0.3
VAM   Vamos             1.01 328  ePg    Pg      19 29 51.0  -0.3
KARN  Karanos           1.14 318  ePB    Pb      19 29 54.1  -0.2
KARN  Karanos           1.14 318  ePb    Pb      19 29 54.1  -0.2
ZKR   Zakros            1.26  63  ePG    Pg      19 29 55.6  -0.5
ZKR   Zakros            1.26  63  ePg    Pg      19 29 55.6  -0.5
KARP  Karpathos         2.14  62  ePG    Pg      19 30 12.0  -1.0
KARP  Karpathos         2.14  62  ePg    Pg      19 30 12.0  -1.0
VLI   Veliai            2.67 325  ePN    Pn      19 30 18.0  +2.4
VLI   Veliai            2.67 325  ePn    Pn      19 30 18.0  +2.4
```

ISCJB ***28*** *19:33:15.7±0.6, 13°.78N±0°.06×145°.0E±0°.1, h121km±5km, mb4.2/27, Error ellipse: s-maj=16.9km s-min=10.4km az=176.3*

IDC ***28*** *19:33:15.8±0.7, 13°.79N×145°.14E, h110km±4km, mb3.8/16, mb1 4.0/16, mb1mx4.0/24, mbtmp3.8/16, MS3.2/1, Ms1 3.2/1, ms1mx2.3/32, Error ellipse: s-maj=23.1km s-min=12.6km az=85.0*

NEIC ***28*** *19:33:16.6±0.7, 13°.79N×145°.11E, h118km±6km, mb4.5/8, Error ellipse: s-maj=11.5km s-min=8.6km az=89.0*

NEIC Felt at Tamuning.

ISC 28 19:33:16.6±0.6**, 13°.80N**±0°.06×**145°.1E**±0°.1**, h115**km±5km**, n36, σ0ˢ79**/35**, mb4.2**/27**, Mariana Islands**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
GUMO  Guam              0.31 228   P     Pn      19 33 33.3  +0.2
        2μm,0.3s,baz=156,slow=2.5,SNR=1021
GUMO                               S     Sn      19 33 45.1  -0.3
        3μm,0.3s,baz=253,slow=19,SNR=120
MJAR  Matsushiro Arr   23.48 346   P     P       19 38 16.9  +1.0
        0.8nm,0.4s,mb3.4,baz=162,slow=8.9,SNR=4.3
MJAR                               LR    LR      19 46 04.1
        comp=Z,67nm,20.5s,baz=215,slow=33
KSRS  Korea Array      28.10 330   P     P       19 38 57.7  +0.2
        1.2nm,0.7s,mb3.6,baz=144,slow=8.3,SNR=4.1
CTAO  Charters Tower   33.69 178  eP     P       19 39 46.8  -0.1
        16nm,1.1s,mb4.8
WRA   Warramunga Arr   35.16 198   P     P       19 39 59.0  -0.5
        4.3nm,0.6s,mb4.4,baz=22,slow=9.5,SNR=22
FITZ  Fitzroy Crossi   37.06 212  eP     P       19 40 15.6  -0.1
        5.8nm,0.8s,mb4.6
ASAR  Alice Springs    38.81 197   P     P       19 40 30.1  -0.3
        1.6nm,0.6s,mb4.0,baz=21,slow=12,SNR=35
ASAR                               PP    PP      19 42 03.1  +1.4
        0.7nm,0.8s,baz=20,slow=11,SNR=4.5
ARMA  Armidale         44.41 172  eP     P       19 41 16.2  +0.3
CMAR  Chiang Mai Arr   44.50 282   P     P       19 41 17.7  +0.8
        0.3nm,0.5s,mb3.3,baz=78,slow=6.8,SNR=4.2
CMAR                               PcP   PcP     19 42 60.0  +1.5
        2.2nm,0.6s,baz=96,slow=1.7,SNR=22
STKA  Stephens Creek   45.54 184  eP     P       19 41 24.1  -0.7
        3.0nm,0.4s,mb4.4
STKA  Stephens Creek   45.54 184   P     P       19 41 24.1  -0.7
        3.9nm,0.4s,mb4.5,baz=354,slow=6.5,SNR=19
SONM  Songino Array    46.70 325   P     P       19 41 34.2  +0.4
        1.0nm,0.6s,mb3.7,baz=142,slow=8.5,SNR=8.8
SONM                               PcP   PcP     19 43 05.6  +0.1
        0.5nm,0.5s,baz=146,slow=2.0,SNR=8.4
GTA   Gaotai           47.21 311  eP     P       19 41 39.8  +1.9
GTA                               pP     pP      19 41 43.3   -21
GTA                               sP     sP      19 41 44.8   -33
GTA                                pmax  pmax
        comp=Z,2.0nm,1.1s,mb3.8
FORT  Forrest          47.26 200  eP     P       19 41 38.2  -0.1
        comp=Z,13nm,0.9s,mb4.7
TOO   Toolangi         51.09 180  eP     P       19 42 08.8  +1.4
LSA   Lhasa            52.11 297  eP     P       19 42 16.6  +1.3
        comp=Z,4.3nm,0.6s,mb4.7
UNV   Unalaska Valle   55.03  33  eP     P       19 42 35.5  -0.6
MKAR  Makanchi Array   61.50 316   P     P       19 43 21.4  +0.1
        comp=Z,0.9nm,0.3s,mb4.2,baz=90,slow=8.8,SNR=33
ZALV  Zalesovo Beam    61.59 324   P     P       19 43 20.8  -1.0
        comp=Z,1.0nm,0.6s,mb4.0,baz=98,slow=6.6,SNR=4.5
ZALV                               PcP   PcP     19 44 01.4  -0.9
        comp=Z,1.3nm,0.4s,baz=124,slow=3.5,SNR=5.7
KURK  Kurchatov        64.57 320  eP     P       19 43 40.4  -1.1
        comp=Z,2.4nm,0.6s,mb4.2
PPLA  Purkeypile       65.50  27  eP     P       19 43 46.8  -0.4
BVAR  Borovoye Array   69.91 322   P     P       19 44 14.5  -0.6
        comp=Z,5.0nm,0.6s,mb4.6,baz=103,slow=7.8,SNR=32
BRVK  Borovoye         69.97 322  eP     P       19 44 15.4  -0.1
        comp=Z,3.6nm,0.6s,mb4.4
AKTK  Aktyubinsk       77.66 319   P     P       19 44 59.7  -0.7
AKTO  Aktyubinsk       77.66 319   P     P       19 44 59.7  -0.7
        comp=Z,0.9nm,0.5s,mb3.8,baz=60,slow=6.2,SNR=4.8
YKA   Yellowknife Ar   82.57  27   P     P       19 45 25.5  -1.0
        comp=Z,1.4nm,0.5s,mb4.0,baz=286,slow=5.2,SNR=21
BMO   Blue Mountains   85.68  45  eP     P       19 45 42.6   0.0
        comp=Z,9.3nm,1.0s,mb4.7
BSMT  Bassoo Peak      86.54  42  eP     P       19 45 47.5  +0.7
        comp=Z,18nm,0.8s,mb5.1
NVAR  Mina Array Bea   86.61  51   P     P       19 45 48.0  +0.7
        comp=Z,1.9nm,0.5s,mb4.3,baz=280,slow=5.6,SNR=19
ARCES ARCESS Array B   86.96 342   P     P       19 45 47.8  -0.7
        comp=Z,4.2nm,0.9s,mb4.4,baz=51,slow=9.6,SNR=6.7
ELK   Elko             88.26  49  eP     P       19 45 56.1  +0.9
        comp=Z,4.2nm,0.9s,mb4.5
M13A  Montello         88.86  48  eP     P       19 45 58.7  +0.7
        comp=Z,3.4nm,0.8s,mb4.4
FINES FINESS Array B   91.07 335   P     P       19 46 05.9  -2.0
        comp=Z,3.0nm,0.9s,mb4.4,baz=108,slow=6.2,SNR=5.2
PDAR  Pinedale Array   91.65  45   P     P       19 46 11.3  +0.3
        comp=Z,0.5nm,0.6s,mb3.9,baz=248,slow=1.6,SNR=5.5
TORD  Torodi Ar. Bea  134.94 305   PKP   PKPdf   19 52 24.4  +1.3
        comp=Z,1.1nm,0.5s,baz=40,slow=2.0,SNR=19
TORD                               SKPbc SKPbc   19 55 42.9  -0.3
        comp=Z,0.4nm,0.7s,baz=50,slow=2.1,SNR=3.2
DBIC  Dimbokro        143.91 302   PKP   PKPdf   19 52 37.2  -2.2
        comp=Z,9.2nm,0.5s,baz=34,slow=4.2,SNR=36
```

IDC ***28*** *19:42:26.8±3.0, 8°.69N×127°.00E, h0km, mb3.5/4, mb1 3.7/4, mb1mx3.4/21, mbtmp3.5/4, Error ellipse: s-maj=253.6km s-min=25.3km az=65.0*

MAN ***28*** *19:42:34, 8°.48N×126°.70E, h67km, mb4.1, ML2.9, MS2.6*

ISCJB ***28*** *19:42:35.4±1.4, 8°.47N±0°.10×126°.6E±0°.1, h82km±15km, mb3.5/4, Error ellipse: s-maj=24.9km s-min=14.1km az=158.9*

ISC 28 19:42:36.4±1.4**, 8°.47N**±0°.09×**126°.6E**±0°.1**, h70**km±16km**, n10, σ0ˢ44**/11**, mb3.5**/4**, 2D, Mindanao**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
BUTP  Butuan            1.12 297  eP     Pn      19 42 55.6  -0.7
MATI  Mati              1.56 194  eP     Pn      19 43 02.1   0.0
BUKP  Musuan            1.66 250  eP     Pn      19 43 03.5   0.0
SCPH  Surigao           1.73 319⇓eP      Pn      19 43 04.5  +0.2
CGP   Cagayan de Oro    1.92 270⇓iP      Pn      19 43 06.9   0.0
CGP                               i S    Sn      19 43 30.4  +0.2
MSLP  Maasin            2.41 314  eP     Pn      19 43 14.2  +0.6
WRA   Warramunga Arr   29.23 165   P     P       19 48 31.2  -0.5
        0.3nm,0.3s,mb3.5,baz=349,slow=9.2,SNR=4.4
ASAR  Alice Springs    32.72 168   P     P       19 49 02.2  -0.2
        0.1nm,0.3s,mb3.1,baz=345,slow=7.3,SNR=6.0
STKA  Stephens Creek   42.59 161   P     P       19 50 26.5  +0.9
        1.6nm,0.8s,mb3.8,baz=339,slow=8.6,SNR=3.1
MKAR  Makanchi Array   53.68 323   P     P       19 51 50.6  -0.3
        0.2nm,0.4s,mb3.5,baz=119,slow=7.5,SNR=6.9
```

IDC ***28*** *19:50:05.5±1.4, 33°.32S×178°.44W, h0km, mb4.5/3, mb1 4.6/4, mb1mx4.1/17, mbtmp4.5/4, ML4.1/1, MS3.6/1, Ms1 3.5/1, ms1mx2.9/20, Error ellipse: s-maj=36.6km s-min=32.4km az=138.0*

NEIC ***28*** *19:50:20.1±4.8, 34°.05S×178°.72W, h119km±36km, mb4.4/2, Error ellipse: s-maj=60.9km s-min=27.2km az=212.0*

ISC 28 19:50:09.9±5.1**, 33°.4S**±0°.2×**178°.4W**±0°.7**, h35**km**, n12, σ1ˢ00**/6**, mb4.4**/4**, South of Kermadec Islands**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time      Res
                                    Op     ISC      h  m  s    ISC
RAO   Raoul Island      4.13   5   Sn    Sx      19 51 52.2
        101nm,0.3s,baz=72,slow=21,SNR=6.6
URZ   Urewera           6.11 216   Pn    Pn      19 51 37.9  +0.3
        4.6nm,0.3s,baz=290,slow=4.5,SNR=32
URZ                                Sn    Sn      19 52 46.1  -0.1
```

	3.3nm,0.3s,baz=136,slow=21,SNR=6.4						
OUZ	Omahuta	6.91	252	eP	Px	19 51 52.7	
	18nm,0.7s						
STKA	Stephens Creek	33.62	261	LR	LR	20 09 46.9	
	comp=Z,91nm,18.1s,baz=25,slow=35						
CTA	Charters Tower	34.09	284	P	P	19 56 52.6	+1.4
	4.1nm,0.5s,mb4.7,baz=139,slow=8.7,SNR=9.1						
ASAR	Alice Springs	42.73	270	P	P	19 58 03.7	-0.1
	4.8nm,0.6s,mb4.4,baz=110,slow=7.4,SNR=55						
WRAB	Tennant Creek	43.98	275	eP	P	19 58 13.3	-0.6
	3.6nm,0.6s,mb4.3						
WRA	Warramunga Arr	43.98	275	P	P	19 58 13.2	-0.8
	3.0nm,0.5s,mb4.3,baz=116,slow=7.6,SNR=12						
MKAR	Makanchi Array	119.42	309	PKP	PKPdf	20 08 55.7	+0.5
	0.1nm,0.5s,baz=79,slow=2.3,SNR=3.8						
FINES	FINESS Array B	147.80	338	PKPbc	PKPbc	20 09 50.5	+0.3
	3.7nm,0.8s,baz=57,slow=3.9,SNR=13						
BRTR	Keskin Array B	153.61	293	PKPbc	PKPbc	20 10 06.0	+1.2
TORD	Torodi Ar. Bea	159.87	180	PKPab	PKPab	20 10 46.3	+1.5
	0.5nm,0.8s,baz=184,slow=2.6,SNR=3.0						

CSEM ***28*** *20:18:48.4±0.8, 37°.14N×20°.47E, h2^{km}, MD3.6, Error ellipse: s-maj=19.3km s-min=7.8km az=48.0*

NEIC ***28*** *20:18:49.8, 37°.15N×20°.49E, h23^{km}, MD3.6(ATH), After ATH.*

ATH ***28*** *20:18:49.8, 37°.15N×20°.49E, h23^{km}±1^{km}, MD3.6/9*

SKO ***28*** *20:19:03.4, 38°.33N×20°.49E, h0^{km}*

ISC 28 20:18:49.6±1.4**, 37°.14N**±0°.06×**20°.42E**±0°.08**, h16**^{km}±6^{km}**, n33, σ1^{s}21**/47**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	Valsamata	1.04	7	ePN	Pg	20 19 09.4	-0.4
VLS				eSN	Sg	20 19 24.8	+1.4
VLS	Valsamata	1.04	7	ePn	Pg	20 19 09.4	-0.4
VLS				eSn	Sg	20 19 24.8	+1.4
PYL	PYLOS	1.09	103	ePN	Pg	20 19 09.4	-1.2
PYL				eSN	Sg	20 19 24.7	-0.1
PYL	PYLOS	1.09	103	ePn	Pg	20 19 09.4	-1.2
PYL				eSn	Sg	20 19 24.7	-0.1
ITM	Ithomi	1.20	88	ePN	Pn	20 19 11.5	-0.3
ITM				eSN	Sn	20 19 27.7	-0.1
ITM	Ithomi	1.20	88	ePn	Pn	20 19 11.5	-0.3
ITM				eSn	Sn	20 19 27.7	-0.1
RLS	Riolos of Patr	1.24	42	ePN	Pn	20 19 12.4	+0.1
RLS				eSN	Sn	20 19 28.8	+0.2
RLS	Riolos of Patr	1.24	42	ePn	Pn	20 19 12.4	+0.1
RLS				eSn	Sn	20 19 28.8	+0.2
VLX	Vlachokerasia	1.58	81	ePN	Pn	20 19 18.0	+1.0
VLX	Vlachokerasia	1.58	81	ePn	Pn	20 19 18.0	+1.0
GUR	Goura	1.72	62	ePN	Pn	20 19 19.8	+0.9
GUR	Goura	1.72	62	ePn	Pn	20 19 19.8	+0.9
EFP	Efpalio	1.74	42	ePB	Pb	20 19 19.6	-1.6
EFP	Efpalio	1.74	42	ePb	Pb	20 19 19.6	-1.6
VLI	Veliai	2.06	101	ePN	Pn	20 19 24.7	+1.1
VLI	Veliai	2.06	101	ePn	Pn	20 19 24.7	+1.1
EVR	Evrytania	2.08	31	ePN	Pn	20 19 25.5	+1.6
EVR	Evrytania	2.08	31	ePn	Pn	20 19 25.5	+1.6
LTK	Loutraki	2.21	66	ePN	Pn	20 19 26.2	+0.6
LTK	Loutraki	2.21	66	ePn	Pn	20 19 26.2	+0.6
KYTH	Kithira	2.27	111	ePB	Pb	20 19 27.8	-2.4
KYTH	Kithira	2.27	111	ePb	Pb	20 19 27.8	-2.4
DID	Didima	2.27	80	ePN	Pn	20 19 27.3	+0.8
DID	Didima	2.27	80	ePn	Pn	20 19 27.3	+0.8
THL	Klokotos Trika	2.73	27	ePN	Pn	20 19 34.0	+1.3
THL	Klokotos Trika	2.73	27	ePn	Pn	20 19 34.0	+1.3
BIA	Bitola	3.94	10	ePn	Pn	20 19 50.1	+0.8
BIA				eSg	Sn	20 20 31.5	-3.7
BIA	Bitola	3.94	10	ePn	Pn	20 19 50.1	+0.7
BIA				eSg	Sn	20 20 31.4	-3.8
KRUS	Krusevo	4.27	8	ePn	Pn	20 19 52.5	-1.5
KRUS				eSg	Sn	20 20 40.6	-2.8
KRUS	Krusevo	4.27	8	ePn	Pn	20 19 52.5	-1.5
KRUS				eSg	Sn	20 20 40.6	-2.9
STON	Ston	6.09	341	ePn	Pn	20 20 17.1	-1.8
STON				Sn	Sn	20 21 21.5	-6.8
NVLJ	Novalja	8.52	332	ePn	Pn	20 20 53.6	+1.3
NVLJ				Sn	Sn	20 22 22.2	-5.9
NVLJ	Novalja	8.52	332	ePn	Pn	20 20 53.7	+1.4

ISCJB ***28*** *20:23:30.1±0.5, 19°.04S±0°.04×69°.23W±0°.09, h109^{km}±6^{km}, mb4.3/9, Error ellipse: s-maj=13.9km s-min=6.1km az=165.2*

NEIC ***28*** *20:23:31.6±0.8, 19°.01S×69°.14W, h106^{km}±10^{km}, mb4.9/3, Error ellipse: s-maj=13.8km s-min=9.3km az=79.0*

NEIC Felt [III] at Arica.

GUC ***28*** *20:23:31.8±0.7, 19°.18S×69°.28W, h103^{km}±5^{km}, ML4.5*

IDC ***28*** *20:23:32.4±0.7, 19°.11S×69°.15W, h112^{km}±5^{km}, mb4.0/7, mb1 4.0/10, mb1mx3.8/21, mbtmp4.0/10, Error ellipse: s-maj=23.4km s-min=10.6km az=88.0*

ISC 28 20:23:31.2±0.5**, 19°.05S**±0°.04×**69°.25W**±0°.08**, h106**^{km}±6^{km}**, n26, σ1^{s}06**/31**, mb4.3**/9**, 3C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNMC	Miæe Miæ	0.34	256	⇓eP	Pn	20 23 47.4	+0.7
MNMC				i S	Sn	20 23 59.1	+0.9
MNMC				AML	AML	20 24 01.8	
	comp=E,27µm,0.4s						
MNMC				AML	AML	20 24 03.7	
	comp=E,27µm,0.1s						
PSGC	Pisagua	0.99	236	⇑iP	Pn	20 23 51.8	-0.2
PSGC				i S	Sn	20 24 06.5	-1.1
HMBC	Humberston	1.36	206	⇑iP	Pn	20 23 56.0	-0.2
HMBC				i S	Sn	20 24 13.9	-1.2
HMBC				AML	AML	20 24 18.1	
	comp=N,6µm,0.3s						
PB01	Plate Boundary	2.00	186	⇑eP	Pn	20 24 04.3	+0.3
PB01				i S	Sn	20 24 28.5	-0.5
PB01				AML	AML	20 24 32.4	
	comp=E,4µm,0.3s						
PB04	Plate Boundary	3.21	184	eP	Pn	20 24 22.5	+2.6
PB04				i S	Sn	20 24 56.7	-0.8
PB04				AML	AML	20 25 18.7	
	comp=E,1µm,0.5s						
ARE	Arequipa	3.35	320	eP	Pn	20 24 23.0	+1.2
ARE				eS	Sn	20 25 00.0	-0.8
LVC	Limon Verde	3.56	175	P	Pn	20 24 26.6	+2.0
	comp=E,25nm,0.3s,baz=351,slow=9.6,SNR=68						
LVC				S	Sn	20 25 05.5	-0.4
	comp=E,50nm,0.3s,baz=111,slow=20,SNR=5.6						
LVC	Limon Verde	3.56	175	eP	Pn	20 24 25.6	+1.0
LVC				i S	Sn	20 25 05.5	-0.3
LVC				AML	AML	20 25 16.5	
	comp=E,518nm,0.4s						
SIV	San Ignacio	8.37	70	P	Pn	20 25 29.7	-0.1
	comp=E,13nm,0.3s,baz=267,slow=10,SNR=103						
LCO	Las Campanas	10.01	187	eP	Pn	20 25 52.6	+0.7
	comp=E,14nm,0.6s						
CFAA	Coronel Fontan	12.54	176	P	Pn	20 26 26.5	+0.7
	comp=E,0.1nm,0.3s,baz=352,slow=12,SNR=6.1						
CFAA	Coronel Fontan	12.54	176	P	Pn	20 26 26.5	+0.7
CPUP	Villa Florida	13.16	126	P	Pn	20 26 32.4	-1.7
	comp=E,0.8nm,0.3s,baz=290,slow=8.0,SNR=4.9						
PLCA	Paso Flores	21.64	183	P	P	20 28 13.6	+0.6
	comp=E,12nm,0.9s,mb4.2,baz=3.3,slow=10,SNR=17						
SDV	Santo Domingo	27.79	357	P	P	20 29 09.9	-0.5
	comp=E,3.0nm,0.3s,mb4.3,baz=279,slow=3.3,SNR=6.4						
MTP	Monte Pirata	37.09	6	P	P	20 30 29.4	-2.1
	comp=E,7.2nm,0.6s,mb4.8						
PLAL	Pickwick Lake	56.63	341	P	P	20 32 59.9	-3.4
	comp=E,20nm,1.4s,mb5.0						
DBIC	Dimbokro	68.36	74	P	P	20 34 21.5	-0.4
	comp=E,2.6nm,0.5s,mb4.3,baz=226,slow=8.0,SNR=7.7						
ULM	Lac du Bonnet	72.89	342	P	P	20 34 48.9	+0.4
	comp=E,1.8nm,0.5s,mb4.2,baz=148,slow=7.0,SNR=4.0						
TOA0	Torodi Ar. Sit	76.84	71	eP	P	20 35 11.4	-0.7
TORD	Torodi Ar. Bea	76.84	71	P	P	20 35 11.8	-0.3
	comp=E,2.2nm,0.4s,mb4.2,baz=254,slow=5.3,SNR=38						
TORD				pP	pP	20 35 41.8	+2.7
	comp=E,0.8nm,0.6s,baz=251,slow=5.5,SNR=1.6						
ESDC	Sonseca Array	84.32	45	P	P	20 35 53.5	+2.0
	comp=E,0.2nm,0.3s,mb3.4,baz=250,slow=6.1,SNR=3.7						
YKA	Yellowknife Ar	88.78	341	P	P	20 36 13.8	+1.2
	comp=E,1.3nm,0.7s,mb4.1,baz=133,slow=4.7,SNR=20						
YKA				pP	pP	20 36 42.1	+1.8
	comp=E,1.1nm,0.6s,baz=134,slow=4.8,SNR=5.8						
YKA				sP	sP	20 36 53.6	+2.1
	comp=E,0.9nm,0.8s,baz=134,slow=4.6,SNR=3.4						
MKAR	Makanchi Array	143.81	34	PKP	PKPdf	20 42 51.7	-2.2
	comp=E,0.2nm,0.7s,baz=352,slow=2.9,SNR=3.0						
MKAR	Makanchi Array	143.81	34	PKP	PKPdf	20 42 51.7	-2.2
SONM	Songino Array	151.07	6	PKPbc	PKPbc	20 43 13.4	+1.6
	comp=E,0.6nm,0.6s,baz=331,slow=1.4,SNR=7.0						
SONM				PKPab	PKPab	20 43 20.8	+1.1
	comp=E,0.4nm,0.5s,baz=332,slow=0.4,SNR=3.8						
SONM				pPKPbc	pPKPbc	20 43 43.3	+2.7
	comp=E,0.7nm,0.6s,baz=312,slow=1.9,SNR=4.6						

MEX 28 20:24:12.8±0.4**, 22°.95N×102°.48W, h15**^{km}±3^{km}**, MD3.9, Central Mexico**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAIG	Zacatecas	0.20	204	i P	Pg	20 24 17.2	-0.2
ZAIG				i S	Sg	20 24 20.4	-0.1
SFJM	Santa Fe	2.51	192	i P	Pn	20 24 49.6	-3.4
SFJM				i S	Sn	20 25 20.0	-3.4
ANIG	Ahuacatlan	2.68	225	i P	Pn	20 24 52.7	-2.7
ANIG				i S	Sn	20 25 23.5	-4.1
LNIG	Linares	3.37	54	eP	Pn	20 25 02.9	-2.0
LNIG				i S	Sn	20 25 40.3	-4.4
HPIG		4.91	325	i P	Pn	20 25 23.6	-2.5
HPIG				i S	Sn	20 26 19.2	-3.4

CASC 28 20:41:45.1±1.8**, 13°.68N×90°.22W, h88**^{km}±7^{km}**, MD3.6, 1C-1D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IXG	Ixpaco	0.55	335	⇓eP	Pn	20 41 59.7	-0.4
IXG				eS	Sn	20 42 11.4	+0.3
RTR	El Retiro	0.59	68	eP	Pn	20 42 00.4	-0.1
SBLS	San Blas	0.60	74	eP	Pn	20 42 00.4	0.0
PSG	Pto de San Jos	0.62	296	eP	Pn	20 42 01.3	+0.6
SNJE	San Jose	0.62	72	eP	Pn	20 42 00.6	-0.1
SNJE				eS	Sn	20 42 14.5	+2.2
RBDL	Robledal	0.67	50	eP	Pn	20 42 01.9	+0.7
PCG	Pacaya	0.81	332	eP	Pn	20 42 03.5	+1.0
BOQS	Boqueron	0.91	86	eS	Sn	20 42 19.0	+1.4
NBG	Las Nubes	0.91	352	eP	Pn	20 42 04.3	+0.6
FUG	Fuego 3	0.98	322	eP	Pn	20 42 04.3	-0.1
FG6		1.09	324	eP	Pn	20 42 05.9	+0.2
FG6				eS	Sn	20 42 23.5	+2.3
MTO2	Montecristo 2	1.10	49	eP	Pn	20 42 05.2	-0.6
MTO2				eS	Sn	20 42 22.4	+1.1
LFRS	El Faro	1.12	93	eP	Pn	20 42 06.1	0.0
LFRS				eS	Sn	20 42 23.7	+1.8
SNVI	San Vicente	1.34	93	eP	Pn	20 42 09.4	+0.6
SNVI				eS	Sn	20 42 28.3	+1.7
TP2	Tecpan 2	1.35	325	eP	Pn	20 42 09.4	+0.6
TP2				eS	Sn	20 42 30.7	+3.9
MRL	Marmol	1.47	20	⇑eP	Pn	20 42 11.3	+0.9
MRL				eS	Sn	20 42 30.6	+1.1
JAT	Jato	1.52	295	eP	Pn	20 42 11.8	+0.8
VSM	San Miguel	1.90	97	eP	Pn	20 42 15.9	-0.1
BLLM	Bellamira	1.94	97	eP	Pn	20 42 17.5	+1.1
CAHU	Cacacuatique	1.95	87	eP	Pn	20 42 17.0	+0.4
CNCH	Conchagua	2.35	100	eP	Pn	20 42 22.7	+0.8

ISK ***28*** *21:15:42.0, 37°.53N×43°.64E, h2^{km}, MD3.2*

TEH ***28*** *21:15:46.5, 37°.37N×44°.39E, h15^{km}*

CSEM ***28*** *21:15:48.5±0.3, 37°.78N×43°.38E, h10^{km}, MD3.2, Error ellipse: s-maj=19.2km s-min=2.4km az=89.0*

DDA ***28*** *21:16:01.2, 37°.83N×43°.50E, h16^{km}, Md3.0*

ISC 28 21:15:45.1±1.0**, 37°.62N**±0°.04×**44°.24E**±0°.05**, h6**^{km}±8^{km}**, n28, σ1^{s}37**/37**, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HAKT	HAKKARI	0.43	263	i P	Px	21 16 08.0	
HAKT				i S	Sx	21 16 12.6	
CUKT	Cukurca	0.62	234	ePG	Pg	21 15 48.0	-9.1
CUKT				eSG	Sg	21 15 53.5	-12
VANT	Van	1.07	321	ePG	Pn	21 16 01.6	-5.0
VANB	Van	1.19	326	ePN	Pn	21 16 03.0	-5.2
VANB				eSN	Sn	21 16 19.1	-5.5
ISHB	Shabestar	1.28	58	e	Pn	21 16 14.1	+4.6
	comp=Z,3µm,0.2s						
ISHB				ePg	Pg	21 16 09.4	-0.2
IAZR	Azarshahr	1.38	87	ePg	Pn	21 16 10.1	-0.8
IAZR				e		21 16 23.2	
	comp=Z,7µm,0.2s						
MSL	Mosul	1.51	217	i x	Pg	21 16 14.0	-0.1
MSL				i x	x	21 16 15.2	
MSL				i x	Sn	21 16 33.0	+0.4
MSL				i x	x	21 16 33.7	
MSL				i x	x	21 16 34.0	
MSL	Mosul	1.51	217	i P	Pg	21 16 14.0	-0.1
MSL	Mosul	1.51	217	i Pg	Pg	21 16 15.2	+1.1
MSL				i S	Sn	21 16 33.0	+0.4
MSL				i Sn	Sn	21 16 33.7	+1.1
MSL				i Sg	Sg	21 16 34.0	+0.3
IMRD	Marand	1.59	46	ePn	Pn	21 16 15.4	+1.6
IMRD				e		21 16 56.8	
	comp=Z,4µm,0.3s						
ITBZ	Tabriz	1.63	67	ePn	Pn	21 16 15.0	+0.7
ITBZ				e		21 16 21.8	
	comp=Z,1µm,0.2s						
IFTB	Fath-abad	1.75	76	ePn	Pn	21 16 16.5	+0.5
IFTB				e		21 17 25.9	
	comp=Z,36µm,0.0s						
TATV	Tatvan	1.79	300	i P	Pn	21 16 15.3	-1.2
TATV				i S	Sn	21 16 40.2	+0.6
TATV	Tatvan	1.79	300	i P	Pn	21 16 15.3	-1.2
DYDN	Diyadin	1.97	348	i P	Pn	21 16 20.4	+1.4
DYDN				i S	Sg	21 16 54.6	+6.0
DYDN	Diyadin	1.97	348	i P	Pn	21 16 20.4	+1.4
AGRB	Hanur-Agry	2.19	334	ePN	Pn	21 16 19.9	-2.1
AGRB	Hanur-Agry	2.19	334	ePn	Pn	21 16 19.9	-2.1
IHRS	Heris	2.32	72	ePn	Pn	21 16 24.3	+0.5
IHRS				e		21 16 39.5	
	comp=Z,1µm,0.2s						
GNI	Garni	2.56	9	ePN	Pn	21 16 29.4	+2.3
GNI	Garni	2.56	9	ePn	Pn	21 16 29.4	+2.3
ISRB	Sarab	2.73	85	ePn	Pn	21 16 29.2	-0.1
ISRB				e		21 16 42.3	
	comp=Z,832nm,0.3s						
EZM	Erzurum	3.21	316	ePN	Pn	21 16 32.3	-3.7
IDHR	Dehrash	3.39	149	eSn	Sn	21 17 10.6	-8.3
ILIN	Lien	3.48	140	ePn	Pn	21 16 36.6	-3.1
ILIN				e		21 17 40.4	
	comp=Z,1µm,0.4s						
IVIS	Veis	3.74	145	ePn	Pn	21 16 40.6	-2.7
IVIS				e		21 17 54.6	
	comp=Z,712nm,0.4s						
IGHG	Ghaleghazi	3.78	149	ePn	Pn	21 16 40.5	-3.4
IGHG				e		21 18 03.6	
	comp=Z,2µm,0.5s						
BHD	Baghdad	4.34	178	ex	Pb	21 17 05.0	+3.3
BHD				ex	Sb	21 17 55.0	+0.8

ISCJB ***28*** *21:47:30.6±0.7, 39°.56N±0°.03×26°.02E±0°.05, h1^{km}±10^{km}, Error ellipse: s-maj=7.0km s-min=4.5km az=172.8*

CSEM ***28*** *21:47:30.7±0.1, 39°.56N×26°.04E, h2^{km}, ML2.5/2, Error ellipse: s-maj=3.5km s-min=2.8km az=57.0*

THE ***28*** *21:47:31.0, 39°.55N×26°.01E, h2^{km}±3^{km}, ML2.5/2, Error ellipse: s-maj=3.6km s-min=0.8km az=42.0*

DDA ***28*** *21:47:32.0, 39°.62N×26°.10E, h9^{km}, Md2.8*

ISC 28 21:47:31.0±0.5**, 39°.56N**±0°.03×**26°.03E**±0°.05**, h8**^{km}±7^{km}**, n15, σ0^{s}53**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	Bozcaada	0.29	3	i P	Pg	21 47 36.6	-0.1
BOZC				i S	Sg	21 47 41.1	+0.6
PRK	Paraskevi	0.36	149	P	Pg	21 47 37.7	-0.3
PRK				S	Sg	21 47 43.0	+0.3
PRK	Paraskevi	0.36	149	P	Pg	21 47 37.7	-0.3
PRK				S	Sg	21 47 43.0	+0.3
SIGR	SIGRI	0.37	202	P	Pg	21 47 37.5	-0.6
SIGR				S	Sg	21 47 42.8	-0.2
SIGR	SIGRI	0.37	202	P	Pg	21 47 37.5	-0.6
SIGR				S	Sg	21 47 42.8	-0.2
LIA	Limnos Island	0.74	298	P	Pg	21 47 44.7	-0.5
LIA				S	Sg	21 47 55.0	+0.2
LIA	Limnos Island	0.74	298	P	Pg	21 47 44.7	-0.5
LIA				S	Sg	21 47 55.0	+0.2
LOS	Limnos	0.82	298	P	Pg	21 47 47.1	+0.3
LOS	Limnos	0.82	298	P	Pg	21 47 47.1	+0.3
CHOS	Chios island	1.17	179	P	Pb	21 47 52.9	-0.5
CHOS				S	Sb	21 48 10.1	+1.5
CHOS	Chios island	1.17	179	P	Pb	21 47 52.9	-0.5
CHOS				S	Sb	21 48 10.1	+1.5
BALY	Balya	1.24	81	i P	Pn	21 47 54.1	-0.5
BALY				i S	Sb	21 48 10.8	0.0
BALY	Balya	1.24	81	i P	Pn	21 47 54.1	-0.5
BALY				i S	Sb	21 48 10.8	0.0
ALN	Alexandroupoli	1.34	0	P	Pn	21 47 55.7	-0.3
ALN	Alexandroupoli	1.34	0	P	Pn	21 47 55.7	-0.3

ISCJB ***28*** *21:49:36.8±0.8, 37°.54N±0°.04×72°.26E±0°.10, h131^{km}±10^{km}, mb3.6/9, Error ellipse: s-maj=13.6km s-min=4.0km az=155.6*

IDC ***28*** *21:49:37.5±4.3, 37°.50N×72°.17E, h116^{km}±37^{km}, mb3.5/6, mb1 3.7/10, mb1mx3.3/27, mbtmp3.5/10, Error ellipse: s-maj=33.0km s-min=22.9km az=23.0*

NEIC ***28*** *21:49:38.7±1.1, 37°.54N×72°.38E, h137^{km}±13^{km}, mb4.5/17, Error ellipse: s-maj=15.0km s-min=4.6km az=59.0*

NNC ***28*** *21:49:45.4±3.7, 38°.16N×71°.98E, h170^{km}±36^{km}, mb3.1, mpv4.2, Error ellipse: s-maj=33.6km s-min=20.2km az=17.0*

BJI ***28*** *21:49:46.6, 37°.92N×73°.00E, h136^{km}*

ISC 28 21:49:37.4±0.8**, 37°.51N**±0°.04×**72°.23E**±0°.10**, h121**^{km}±9^{km}**, n65, σ1^{s}14**/83**, mb3.7**/9**, 5C-7D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	3.56	55	⇑iP	Pn	21 50 29.5	-1.5
KSH				S	Sn	21 51 06.3	-6.2
KSH				smax			
	comp=N,900nm,0.3s						
KSH				smax			
	comp=E,480nm,0.2s						
AML	Almayashu	4.75	13	P	Pn	21 50 48.1	+1.1
	SNR=81						
AML	Almayashu	4.75	13	ePn	Pn	21 50 48.0	+1.1
AML				eSn	Sn	21 51 33.9	-7.1
UCH	Uchtor	5.03	20	P	Pn	21 50 52.0	+1.4
	SNR=45						
UCH	Uchtor	5.03	20	⇓iPn	Pn	21 50 52.0	+1.3
UCH				eSn	Sn	21 51 42.5	-5.2
KZA	Kyzart	5.12	26	P	Pn	21 50 53.0	+1.1
	SNR=13						
EKS2	Erkin-Say	5.28	13	P	Pn	21 50 55.0	+0.9
	SNR=88						
EKS2	Erkin-Say	5.28	13	ePn	Pn	21 50 55.2	+1.1
	comp=E,41nm,0.4s						
EKS2				eSn	Sn	21 51 45.7	-8.1
AAK	Ala-Archa	5.41	18	P	Pn	21 50 57.3	+1.6
	SNR=62						
AAK	Ala-Archa	5.41	18	P	Pn	21 50 57.3	+1.6
	comp=E,0.4nm,0.3s,baz=156,slow=4.2,SNR=299						
AAK				S	Sn	21 51 54.7	-2.1
	comp=E,0.1nm,0.3s,baz=313,slow=21,SNR=20						
AAK	Ala-Archa	5.41	18	P	Pn	21 50 57.3	+1.6
AAK				eSn	Sn	21 51 54.0	-2.8
AAK				S	Sn	21 51 54.7	-2.1
KBK	Karagaybulak	5.55	21	P	Pn	21 50 59.4	+1.7
	SNR=14						
ULHL	Ulahol	5.65	32	P	Pn	21 51 00.1	+1.1
	SNR=24						
KK31	Karatay Array	5.74	347	⇓P	Pn	21 51 00.4	+0.1
	comp=E,28nm,0.4s,baz=165,slow=12,SNR=498						
KK31				⇓S	Sn	21 51 59.5	-5.3
	comp=E,16nm,0.3s,baz=169,slow=22,SNR=14						
CHMS	Chumysh	5.81	19	P	Pn	21 51 02.4	+1.1
	SNR=31						
THN	Thein Dam	5.82	149	ePKP	Pn	21 51 06.5	+5.2
THN				eS	Sn	21 52 07.6	+0.8
TKM2	Tokmak 2	5.99	24	⇓P	Pn	21 51 05.1	+1.5
	comp=E,9.2nm,0.5s						
TKM2				⇓S	Sn	21 52 08.8	-2.1
	comp=E,10nm,0.5s						
TKM2	Tokmak 2	5.99	24	P	Pn	21 51 05.0	+1.4
	SNR=25						
TKM2	Tokmak 2	5.99	24	ePn	Pn	21 51 05.2	+1.6
	comp=E,12nm,0.5s						
TKM2				eSn	Sn	21 51 51.0	-20
USP	Ospenovka	6.01	16	P	Pn	21 51 04.3	+0.5
	SNR=37						
BHK	Bhakra	6.99	149	eS	Sn	21 52 32.0	-3.2
SDNR	Sundarnagar	7.16	145	ePKP	Pn	21 51 22.1	+2.6
SDNR				eS	Sn	21 52 37.1	-2.2
KLP	Kalpa	7.76	138	ex	Sn	21 52 55.9	+2.1
DDI	Dehra Dun	8.65	144	ex	Sn	21 53 14.7	-0.7
JOSI	Joshimath	9.22	137	eS	Sn	21 53 24.4	-4.9
JOSI				AML	AML	21 53 35.7	
	comp=N,216nm,0.8s						
JOSI				AML	AML	21 53 36.1	
	comp=E,180nm,0.6s						
NDI	New Delhi	9.74	153	eS	Sn	21 53 35.0	-6.9
KHET	Khetri	9.88	161	eS	Sn	21 53 40.4	-4.8
SONA	Sohna	10.09	155	eS	Sn	21 53 45.6	-4.8
LGTI	Lohaghat	10.46	138	eS	Sn	21 53 52.1	-7.1
MKAR	Makanchi Array	11.90	36	P	Pn	21 52 23.1	+0.1
	comp=E,0.1nm,0.3s,baz=223,slow=12,SNR=15						
DANN	Dangsing	13.30	130	eP	Pn	21 52 41.5	+0.1
	comp=E,21nm,0.5s						
KOLN	Koldanda	13.63	132	eP	Pn	21 52 46.0	+0.3
	comp=E,9.8nm,0.3s						
KURK	Kurchatov	13.97	17	P	Pn	21 52 45.1	-4.7
	comp=E,0.0nm,0.3s,baz=206,slow=12,SNR=4.9						
GKN	Gorkha	14.09	129	eP	Pn	21 52 51.1	-0.5
	comp=E,16nm,0.4s						
KKN	Kakani	14.64	128	eP	Pn	21 52 57.7	-0.9
	comp=E,16nm,0.6s						
DMN	Daman	14.66	129	eP	Pn	21 52 58.7	-0.1
	comp=E,13nm,0.5s						
AB09	Akbulak array	14.74	327	⇑P	Pn	21 52 57.0	-2.6
	comp=E,2.0nm,0.3s						
AB09				⇑S	Sn	21 55 29.0	-14
	comp=E,5.0nm,0.5s						
PKIN	Phulchoki	14.87	128	eP	Pn	21 53 01.7	+0.3
	comp=E,11nm,0.5s						
PKI	Pulchoki	14.88	128	eP	Pn	21 53 01.6	+0.1
	comp=E,10nm,0.5s						
PKI	Pulchoki	14.88	128	eP	Pn	21 53 01.7	+0.2
	comp=E,11nm,0.5s						
GUN	Gumba	14.94	126	eP	Pn	21 53 01.4	-0.9
	comp=E,7.0nm,0.3s						
VOSK	Vostochnaya	15.24	357	⇓P	Pn	21 53 02.7	-3.1
	comp=E,2.3nm,0.7s						
JIRN	Jiri	15.31	126	eP	Pn	21 53 06.7	-0.3
	comp=E,24nm,0.4s						
BVA0	Borovoye Array	15.57	356	⇑P	Pn	21 53 10.2	+0.2
	comp=E,0.5nm,0.4s,baz=170,slow=14,SNR=40						
BVA0				S	S	21 55 52.8	-16
	comp=E,0.3nm,0.7s,baz=173,slow=23,SNR=5.0						
BVAR	Borovoye Array	15.57	356	P	Pn	21 53 07.9	-2.0
	comp=E,2.0nm,0.3s,baz=166,slow=14,SNR=41						
BVAR				S	S	21 55 53.2	-16
	comp=E,0.2nm,0.3s,baz=172,slow=22,SNR=5.5						
BRVK	Borovoye	15.61	356	ePn	Pn	21 53 09.1	-1.4
	comp=E,6.2nm,0.7s						
RAMN	Ramite	16.07	127	eP	Pn	21 53 16.9	+0.6
	comp=E,13nm,0.4s						
AKTK	Aktyubinsk	16.44	326	P	Pn	21 53 20.0	-0.7
AKTK				S	S	21 56 10.3	-14
AKTO	Aktyubinsk	16.44	326	⇑P	Pn	21 53 20.1	-0.7
	comp=E,0.6nm,0.6s						
AKTO				⇓S	S	21 56 17.2	-6.8
	comp=E,0.3nm,0.7s						
AKTO	Aktyubinsk	16.44	326	P	Pn	21 53 20.0	-0.7
	comp=E,0.9nm,0.3s,baz=138,slow=12,SNR=9.0						
AKTO				S	S	21 56 10.3	-14
	comp=E,0.5nm,0.3s,baz=1.9,slow=18,SNR=6.3						
TAPN	Taplejung	16.52	123	eP	Pn	21 53 21.7	-0.2
	comp=E,12nm,0.6s						
ODAN	Odare	16.64	125	eP	Pn	21 53 23.1	-0.2
	comp=E,12nm,0.5s						
LSA	Lhasa	17.56	111	eP	Pn	21 53 41.0	+6.4
	comp=E,1.9nm,0.5s						
ZAA0	Zalesovo Array	18.59	24	eP	P	21 53 44.9	0.0
ZALV	Zalesovo Beam	18.59	24	P	P	21 53 45.1	+0.2
	comp=E,0.5nm,0.3s,baz=217,slow=11,SNR=16						
ARU	Arti	21.03	339	eP	P	21 54 11.7	+0.6
	comp=E,3.1nm,0.6s,mb3.8						
GNI	Garni	21.54	286	P	P	21 54 20.8	+4.0
	comp=E,1.8nm,0.6s,mb3.6,baz=334,slow=11,SNR=4.1						
FINES	FINESS Array B	37.21	325	P	P	21 56 36.9	+0.4

	comp=E,2.6nm,0.7s,mb4.2,baz=106,slow=12,SNR=5.9						
MORC	Moravsky Berou	40.57	306	*e*P	P	21 57 04.5	-0.2
	comp=E,1.9nm,0.6s,mb4.1						
ARCES	ARCESS Array B	40.60	337	P	P	21 57 05.6	+1.0
	comp=E,3.3nm,1.0s,mb4.1,baz=110,slow=10,SNR=5.6						
NB2	NORSAR Subarra	44.18	322	P	P	21 57 34.0	+0.3
	comp=Z,0.7nm,0.5s,mb3.6,baz=91,slow=7.9						
NOA	NORSAR Array B	44.18	322	P	P	21 57 34.2	+0.6
	comp=Z,0.7nm,0.6s,mb3.6,baz=112,slow=7.8,SNR=3.1						
TORD	Torodi Ar. Bea	66.72	269	P	P	22 00 16.1	+0.4
	comp=Z,0.5nm,0.5s,mb3.6,baz=47,slow=5.9,SNR=14						
YKA	Yellowknife Ar	80.19	3	P	P	22 01 34.7	+0.9
	comp=Z,0.2nm,0.4s,mb3.3,baz=349,slow=5.3,SNR=7.5						
WRA	Warramunga Arr	81.70	123	P	P	22 01 43.5	+1.1
	comp=Z,0.2nm,0.4s,mb3.3,baz=328,slow=5.3,SNR=2.7						

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*NEIC **28** 22:05:37.7, 39.°39N×26.°42E, h20km, MD3.2(ISK), MD3.3(ATH), After ATH.*

*ATH **28** 22:05:37.7, 39.°39N×26.°42E, h20km±4km, MD3.3/3*

*DDA **28** 22:05:38.7, 39.°40N×26.°33E, h26km±2km, Md3.1*

*ISCJB **28** 22:05:38.8±0.3, 39.°41N±0.°02×26.°28E±0.°03, h10km±3km, Error ellipse: s-maj=4.6km s-min=2.6km az=170.2*

*ISK **28** 22:05:38.3, 39.°40N×26.°30E, h12km, MD3.2*

*CSEM **28** 22:05:39.0±0.1, 39.°39N×26.°29E, h12km, ML3.3/4, Error ellipse: s-maj=2.3km s-min=1.8km az=75.0*

*THE **28** 22:05:40.1, 39.°36N×26.°25E, h14km±1km, ML3.3/4, Error ellipse: s-maj=2.5km s-min=1.0km az=241.0*

ISC 28 22:05:39.2±0.3, **39.°40N**±0.°02×**26.°30E**±0.°03, **h11**km±3km, **n86, σ0.s66**/122, **4C-6D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.15	188	⇑*i*PB	Pg	22 05 42.8	+0.1
PRK				*e*SB	Sg	22 05 45.7	+0.6
PRK	Paraskevi	0.15	188	⇑*i*Pb	Pg	22 05 42.8	+0.1
PRK				*e*Sb	Sg	22 05 45.7	+0.6
AYVA	Ayvalik	0.32	106	*i* P	Pg	22 05 45.7	+0.2
AYVA				*i* S	Sg	22 05 55.7	+5.8
AYVA	Ayvalik	0.32	106	*i* P	Pg	22 05 45.7	+0.1
SIGR	SIGRI	0.39	242	P	Pg	22 05 47.1	+0.2
SIGR				S	Sg	22 05 52.7	+0.6
SIGR	SIGRI	0.39	242	P	Pg	22 05 47.1	+0.2
SIGR				S	Sg	22 05 52.7	+0.6
EZN	Ezine	0.43	3	*e*PG	Pg	22 05 47.3	-0.3
EZN				*e*SG	Sg	22 05 53.7	+0.4
EZN	Ezine	0.43	3	*e*Pg	Pg	22 05 47.3	-0.3
EZN				*e*Sg	Sg	22 05 53.7	+0.4
BOZC	Bozcaada	0.48	337	*i* P	Pg	22 05 48.6	0.0
BOZC				*i* S	Sg	22 05 54.8	-0.2
GADA	Gvkgeada	0.85	339	*e*PG	Pg	22 05 55.1	-0.5
GADA				*e*SG	Sg	22 06 06.3	-0.3
GADA	Gvkgeada	0.85	339	*e*Pg	Pg	22 05 55.1	-0.5
GADA				*e*Sg	Sg	22 06 06.3	-0.4
LIA	Limnos Island	0.99	300	P	Pg	22 05 58.0	-0.4
LIA				S	Sg	22 06 10.8	-0.5
LIA	Limnos Island	0.99	300	*e*PN	Pg	22 05 58.4	0.0
LIA	Limnos Island	0.99	300	*e*Pn	Pg	22 05 58.4	0.0
LIA				S	Sg	22 06 10.8	-0.5
CHOS	Chios island	1.03	191	P	Pg	22 05 58.5	-0.5
CHOS				S	Sg	22 06 12.6	+0.2
CHOS	Chios island	1.03	191	*e*PN	Pg	22 05 58.4	-0.6
CHOS				*e*SN	Sg	22 06 12.6	+0.2
CHOS	Chios island	1.03	191	*e*Pn	Pg	22 05 58.4	-0.6
CHOS				*e*Sn	Sg	22 06 12.6	+0.2
LPK	Lapseki	1.04	20	*e*PG	Pg	22 05 58.6	-0.5
LPK	Lapseki	1.04	20	*e*Pg	Pg	22 05 58.7	-0.4
URLA	Izmir	1.06	167	*i* P	Pg	22 05 59.1	-0.5
URLA				*i* S	Sg	22 06 13.8	+0.3
URLA	Izmir	1.06	167	*i* P	Pg	22 05 59.1	-0.5
URLA				*i* S	Sg	22 06 13.8	+0.3
BALY	Balya	1.08	71	*i* P	Pb	22 05 59.9	0.0
BALY				*i* S	Sg	22 06 14.9	+1.0
BALY	Balya	1.08	71	*i* P	Pb	22 05 59.9	0.0
BALY				*i* S	Sg	22 06 14.9	+1.0
LOS	Limnos	1.08	300	P	Pb	22 06 00.3	+0.4
LOS	Limnos	1.08	300	P	Pb	22 06 00.3	+0.4
BLCB	Balcova	1.17	150	*e*PN	Pn	22 06 01.1	-0.3
BLCB				*e*SN	Sn	22 06 17.6	+0.2
BLCB	Balcova	1.17	150	P	Pb	22 06 00.9	-0.5
BLCB				S	Sb	22 06 16.4	-0.1
BLCB	Balcova	1.17	150	*e*Pn	Pn	22 06 01.1	-0.4
BLCB				S	Sb	22 06 16.4	-0.1
BLCB				*e*Sn	Sn	22 06 17.6	+0.2
IZM	Izmir	1.25	143	*e*PN	Pn	22 06 02.5	-0.1
IZM	Izmir	1.25	143	*e*Pn	Pn	22 06 02.5	-0.1
AKHS	Akhisar	1.29	113	*i* P	Pn	22 06 02.8	-0.4
AKHS				*i* S	Sb	22 06 20.2	+0.2
AKHS	Akhisar	1.29	113	*i* P	Pn	22 06 02.8	-0.4
AKHS				*i* S	Sb	22 06 20.2	+0.2
AKS	Akhisar	1.29	113	*e*PN	Pn	22 06 02.5	-0.6
AKS	Akhisar	1.29	113	*e*Pn	Pn	22 06 02.5	-0.6
ENEZ	Enez	1.34	355	*e*PN	Pn	22 06 03.7	-0.2
ENEZ	Enez	1.34	355	*e*Pn	Pn	22 06 03.7	-0.2
SART	Tekirdag	1.46	27	*i* P	Pn	22 06 05.4	-0.1
SART				*i* S	Sn	22 06 25.2	+0.7
SART	Tekirdag	1.46	27	*i* P	Pn	22 06 05.4	-0.1
SART				*i* S	Sn	22 06 25.2	+0.7
ALN	Alexandroupoli	1.51	353	P	Pn	22 06 06.0	-0.2
ALN				S	Sn	22 06 26.9	+1.0
ALN	Alexandroupoli	1.51	353	*e*PN	Pn	22 06 06.2	0.0
ALN	Alexandroupoli	1.51	353	*e*Pn	Pn	22 06 06.2	0.0
ALN				S	Sn	22 06 26.9	+1.0
EDC	Edincik	1.53	51	*e*PN	Pn	22 06 06.3	-0.2
EDC	Edincik	1.53	51	*e*Pn	Pn	22 06 06.3	-0.2
BNT	Bandirma	1.57	52	*e*PN	Pn	22 06 06.4	-0.7
DURS	Dursunbey	1.70	82	*i* P	Pn	22 06 09.0	+0.2
DURS				*i* S	Sn	22 06 30.3	-0.2
DURS	Dursunbey	1.70	82	*i* P	Pn	22 06 09.0	+0.2
DURS				*i* S	Sn	22 06 30.3	-0.2
SMG	Samos	1.74	166	*e*PN	Pn	22 06 08.3	-1.1
SMG	Samos	1.74	166	*e*Pn	Pn	22 06 08.3	-1.1
KCT	Karacabey	1.81	61	*e*PN	Pn	22 06 09.3	-0.9
KCT	Karacabey	1.81	61	*e*Pn	Pn	22 06 09.3	-1.0
DST	Dursunbey	1.81	83	*e*PN	Pn	22 06 10.2	-0.2
DST	Dursunbey	1.81	83	*e*Pn	Pn	22 06 10.2	-0.2
RDO	Rodhopi	1.84	342	*e*PN	Pn	22 06 10.9	+0.2
RDO	Rodhopi	1.84	342	*e*Pn	Pn	22 06 10.9	+0.2
GCAM	G?zelcaml?	1.85	156	*i* P	Pn	22 06 13.6	+2.7
GCAM				*i* S	Sn	22 06 37.6	+3.4
GCAM	G?zelcaml?	1.85	156	*i* P	Pn	22 06 13.6	+2.8
GCAM				*i* S	Sn	22 06 37.6	+3.4
TKR	Tekirdag	1.85	30	*e*PN	Pn	22 06 11.4	+0.5
TKR	Tekirdag	1.85	30	*e*Pn	Pn	22 06 11.4	+0.5
OUR	Ouranopolis	2.01	298	P	Pn	22 06 13.0	-0.1
OUR	Ouranopolis	2.01	298	P	Pn	22 06 13.0	-0.1
KULA	Kula-Manisa	2.04	115	*e*PN	Pn	22 06 13.2	-0.3
KULA	Kula-Manisa	2.04	115	*e*Pn	Pn	22 06 13.2	-0.3
AYDN	Tasoluk	2.13	144	*i* P	Pn	22 06 13.4	-1.4
AYDN				*i* S	Sn	22 06 47.1	+5.8
AYDN	Tasoluk	2.13	144	*i* P	Pn	22 06 13.4	-1.4
ELBA	Catalca	2.39	42	*e*P	Pn	22 06 18.1	-0.2
ELBA				*e*S	Sn	22 06 47.2	-0.4
ELBA	Catalca	2.39	42	*e*P	Pn	22 06 18.1	-0.2
ELBA				*e*S	Sn	22 06 47.2	-0.4
EDRB	Edirne	2.47	8	*e*PN	Pn	22 06 18.8	-0.6
EDRB	Edirne	2.47	8	*e*Pn	Pn	22 06 18.8	-0.6
CTKS	Kestanelik-??a	2.49	42	*e*PN	Pn	22 06 20.0	+0.3
CTKS	Kestanelik-??a	2.49	42	*e*Pn	Pn	22 06 20.0	+0.3
CTYL	Yal??k??y-??at	2.57	36	*e*PN	Pn	22 06 20.9	+0.1
CTYL	Yal??k??y-??at	2.57	36	*e*Pn	Pn	22 06 20.9	+0.1
BGKT	Bogazkoy	2.60	46	*e*PN	Pn	22 06 21.8	+0.7
BGKT	Bogazkoy	2.60	46	*e*Pn	Pn	22 06 21.8	+0.6
KLYT	Kilyos	2.80	48	*e*PN	Pn	22 06 24.2	+0.3
KLYT	Kilyos	2.80	48	*e*Pn	Pn	22 06 24.3	+0.4
TIRR	Tirgusor	5.29	17	⇓*i*P	Pn	22 06 58.3	+0.1
TIRR	Tirgusor	5.29	17	*e*Pn	Pn	22 06 57.4	-0.8
TIRR	Tirgusor	5.29	17	*e*Pn	Pn	22 06 57.4	-0.8
TIRR	Tirgusor	5.29	17	⇓*i*P	Pn	22 06 58.3	+0.1
MLR	Muntele Rosu	6.09	358	⇑*i*P	Pn	22 07 12.0	+2.8
VRI	Vrincioaia	6.47	3	⇑*i*P	Pn	22 07 18.0	+3.6
GZR	Gura Zlata	6.53	338	⇓*i*P	Pn	22 07 15.0	-0.2
GZR	Gura Zlata	6.53	338	⇓*i*P	Pn	22 07 15.0	-0.2
BZS	Buzias	7.11	332	⇓*i*P	Pn	22 07 23.1	0.0
BZS	Buzias	7.11	332	⇓*i*P	Pn	22 07 23.1	0.0

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*IDC **28** 22:12:44.3±2.4, 47.°05N×153.°58E, h0km, mb3.5/3, mb1 3.8/4, mb1mx3.4/24, mbtmp3.5/4, ML3.3/1, Error ellipse: s-maj=66.8km s-min=32.9km az=172.0*

*ISCJB **28** 22:12:49.0±1.8, 47.°4N±0.°2×153.°5E±0.°3, h33km, mb3.5/3, Error ellipse: s-maj=40.9km s-min=22.0km az=141.9*

*MOS **28** 22:12:48.2±0.9, 47.°38N×153.°35E, h33km, mb4.3/1, Error ellipse: s-maj=93.9km s-min=28.0km az=71.1*

ISC 28 22:12:50.9±1.8, **47.°4N**±0.°3×**153.°5E**±0.°3, **h35**km, **n8, σ1.s05**/8, **mb3.5**/3, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	3.73	26	*e*PN	Pn	22 13 44.1	-1.7
SKR				*e*		22 14 39.2	
PETK	Petropavlovsk-	6.33	23	PN	Pn	22 14 23.3	+1.7
PETK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PETK	Petropavlovsk-	6.33	23	Pn	Pn	22 14 23.3	+1.7
	comp=Z,0.6nm,0.3s,baz=180,slow=11,SNR=11						
MKAR	Makanchi Array	46.91	297	P	P	22 21 17.5	-0.1
MKAR	Makanchi Array	46.91	297	P	P	22 21 17.5	-0.1
	comp=Z,0.1nm,0.4s,mb3.1,baz=66,slow=7.1,SNR=3.1						
YKA	Yellowknife Ar	50.26	37	P	P	22 21 43.0	-0.1
	comp=Z,0.3nm,0.6s,mb3.5,baz=295,slow=7.4,SNR=4.7						
TXAR	Lajitas Array	76.94	61	P	P	22 24 39.8	+0.2
TXAR				*PP	pP	22 24 56.6	+6.0
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	76.94	61	P	P	22 24 39.8	+0.2
	comp=Z,0.8nm,0.5s,mb3.9,baz=296,slow=4.5,SNR=13						
TXAR				pP	pP	22 24 56.6	+6.1
	comp=Z,0.1nm,0.4s,baz=298,slow=5.8,SNR=1.4						

GUC 28 22:25:11.4±0.6, **22.°16S**×**68.°57W**, **h99**km±3km, **ML3.7, 4C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	0.55	216	⇑*i*P	Pn	22 25 28.3	+0.9
LVC				*i* S	Sn	22 25 40.8	+1.4
PB04	Plate Boundary	0.86	263	⇑*i*P	Pn	22 25 38.1	+7.8
PB04				*i* S	Sn	22 25 58.2	+14
PB04				AML	AML	22 26 03.0	
	comp=N,879nm,0.3s						
MACH	Maria Elena	1.11	268	⇑*i*P	Pn	22 25 34.2	+1.4
MACH				*i* S	Sn	22 25 50.9	+1.8
PECH	Pedro de Valdi	1.11	247	⇑*i*P	Pn	22 25 34.0	+1.1
PECH				*i* S	Sn	22 25 50.6	+1.4
PECH				AML	AML	22 25 51.6	
	comp=E,3µm,0.3s						
TOCH	Tocopilla	1.52	272	*e*P	Pn	22 25 38.7	+0.9
TOCH				*i* S	Sn	22 25 58.7	+0.8
TOCH				AML	AML	22 26 04.6	
	comp=N,1µm,0.1s						
CEN1	Los Morros	1.94	231	*e*P	Pn	22 25 46.8	+3.7
CEN1				*i* S	Sn	22 26 13.6	+6.2
ANCH	Antofagasta	2.27	228	*e*P	Pn	22 25 48.0	+0.5
ANCH				*i* S	Sn	22 26 16.4	+1.3
ANCH				AML	AML	22 26 23.1	
	comp=E,693nm,0.1s						
PSGC	Pisagua	2.94	330	*e*P	Pn	22 25 57.2	+0.9
PSGC				*i* S	Sn	22 26 32.2	+1.3
PSGC				AML	AML	22 26 41.6	
	comp=N,92nm,0.2s						
MNMC	Miæe Miæ	3.17	342	*e*P	Pn	22 26 01.2	+1.8
MNMC				*i* S	Sn	22 26 38.8	+2.4
MNMC				AML	AML	22 26 52.2	
	comp=E,236nm,0.6s						

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*ISCJB **28** 22:28:57.2±0.4, 37.°84N±0.°02×8.°76W±0.°03, h11km±2km, Error ellipse: s-maj=4.6km s-min=2.4km az=166.9*

*SFS **28** 22:28:57.9, 37.°81N×8.°90W, h0km, ML3.1*

*LDG **28** 22:28:57.7±0.2, 37.°77N×8.°95W, h2km, Md3.4/1, Ml3.5/1, Error ellipse: s-maj=3.5km s-min=2.1km az=75.0*

*CSEM **28** 22:28:57.6±0.2, 37.°81N×8.°80W, h5km, ML3.2/22, Error ellipse: s-maj=4.2km s-min=2.2km az=72.0*

*MDD **28** 22:28:58.7±0.4, 37.°77N×8.°86W, h10km, mbLg2.6/30, Error ellipse: s-maj=5.0km s-min=2.4km az=75.0, PRIMO*

*NEIC **28** 22:28:58.5, 37.°85N×8.°85W, h4km, MN2.6(MDD), After MDD.*

*INMG **28** 22:28:58.8±1.3, 37.°76N×8.°87W, h6km±2km, MD2.3, ML2.6, Error ellipse: s-maj=2.2km s-min=1.9km az=62.0*

*IGIL **28** 22:28:59.2, 37.°76N×8.°89W, h5km, ML2.8*

ISC 28 22:28:58.0±0.4, **37.°80N**±0.°01×**8.°83W**±0.°03, **h13**km±2km, **n148, σ1.s00**/245, **2C-1D, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	0.27	162	*i* Pg	Pg	22 29 03.5	-0.1
PTEO				*e*Sg	Sg	22 29 06.9	-0.5
PTEO				A		22 29 07.2	
	540nm,0.3s						
PTEO	Sao Teotonio	0.27	162	⇓Pg	Pg	22 29 03.5	-0.1
PTEO				Lg		22 29 06.9	
	270nm,0.3s						
MORF	Marmelete	0.52	164	*e*Pg	Pg	22 29 07.8	-0.3
MORF				*e*Sg	Sg	22 29 14.4	-0.6
MORF				A		22 29 15.1	
	251nm,0.1s						
MORF	Marmelete	0.52	164	Pg	Pg	22 29 07.8	-0.3
MORF				Lg		22 29 14.4	
	251nm,0.1s						
MORF	Marmelete	0.52	164	*e*Pg	Pg	22 29 07.8	-0.3
MORF				*e*Sg	Sg	22 29 14.4	-0.6
	251nm,0.1s						
PFVI	Vila Bisbo	0.67	180	*e*Pg	Pg	22 29 10.4	-0.6
PFVI				*e*Sg	Sg	22 29 18.6	-1.2
PFVI				A		22 29 20.8	
	140nm,0.6s						
PFVI	Vila Bisbo	0.67	180	Pg	Pg	22 29 10.4	-0.6
PFVI				Lg		22 29 18.6	
	70nm,0.6s						
PFVI	Vila Bisbo	0.67	180	*e*Pg	Pg	22 29 10.4	-0.6
PFVI				*e*Sg	Sg	22 29 18.6	-1.2
	140nm,0.6s						
MOE	Montemor	0.81	27	*e*P	Pg	22 29 15.1	+1.4
MOE				*e*S	Sg	22 29 27.0	+2.6
MOE	Montemor	0.81	27	*e*P	Pg	22 29 15.1	+1.4
PBDV	Barranco-do-Ve	0.91	128	*e*P	Pb	22 29 15.0	-0.5
PBDV				*e*S	Sg	22 29 28.0	+0.7
PBDV				A		22 29 30.0	
	108nm,0.4s						
PBDV	Barranco-do-Ve	0.91	128	Pg	Pb	22 29 15.0	-0.5
PBDV				Lg		22 29 28.0	
	108nm,0.4s						
PBDV	Barranco-do-Ve	0.91	128	*e*P	Pb	22 29 15.0	-0.5
PBDV				*e*S	Sg	22 29 28.0	+0.7
	108nm,0.4s						
EVOP	Sao Brissos	0.91	37	*e*Pg	Pg	22 29 16.4	+0.8
EVOP				*e*Sg	Sg	22 29 28.9	+1.3
	60nm,0.2s						
LIS	Lisbon	0.95	345	*e*S	Sb	22 29 29.9	+1.2
LIS				AML	AML	22 29 30.8	
	comp=E,70nm,0.2s						
LIS	Lisbon	0.95	345	Lg		22 29 29.9	
LIS	Lisbon	0.95	345	*e*S	Sb	22 29 29.9	+1.2
PVAQ	Vaqueiros	0.97	114	*e*P	Pb	22 29 16.4	-0.2
PVAQ				*e*S	Sb	22 29 30.3	+1.0
PVAQ				A		22 29 31.7	
	comp=E,177nm,0.2s						
PVAQ	Vaqueiros	0.97	114	Pg	Pb	22 29 16.4	-0.2
PVAQ				Lg		22 29 30.3	
	comp=E,177nm,0.2s						
PVAQ	Vaqueiros	0.97	114	*e*P	Pb	22 29 16.4	-0.2
PVAQ				*e*S	Sb	22 29 30.3	+1.0
	comp=E,177nm,0.2s						
EVO	Evora	0.97	41	*e*Pg	Pg	22 29 16.4	-0.3
EVO				*e*Sg	Sg	22 29 28.9	-0.5
	comp=E,121nm,0.2s						
EVO	Evora	0.97	41	*e*P	Pg	22 29 17.5	+0.8
EVO				*e*S	Sb	22 29 31.6	+2.2
EVO				A		22 29 34.1	
	comp=E,150nm,0.1s						
EVO	Evora	0.97	41	Pg	Pg	22 29 17.5	+0.8
EVO				Lg		22 29 31.6	
	comp=E,150nm,0.1s						
EVO	Evora	0.97	41	*e*P	Pg	22 29 17.5	+0.8
EGRO	El Granado	1.10	104	⇑Pg	Pg	22 29 18.8	-0.4
	comp=E,1.9nm,0.1s,SNR=18						
EGRO				Lg		22 29 34.9	
	comp=E,165nm,0.2s,SNR=33						
EGRO	El Granado	1.10	104	Pg	Pg	22 29 18.8	-0.4
	comp=E,1.9nm,0.1s,SNR=18						
EGRO				Lg		22 29 34.9	
	comp=E,165nm,0.2s,SNR=33						
PMAFR	Mafra	1.21	343	*e*Pn	Pn	22 29 21.1	+0.6
PMAFR	Mafra	1.21	343	*e*Pg	Pg	22 29 21.8	+0.6
PMAFR				*e*Sn	Sn	22 29 37.5	+0.8
PMAFR				A		22 29 39.2	
	comp=E,146nm,0.3s						
PMAFR	Mafra	1.21	343	Pn	Pn	22 29 21.1	+0.6
PMAFR				Pg	Pg	22 29 21.8	+0.6
PMAFR				Sn	Sn	22 29 37.5	+0.8
	comp=E,146nm,0.3s						
PMAFR	Mafra	1.21	343	*e*Pn	Pn	22 29 21.1	+0.6
PMAFR	Mafra	1.21	343	*e*Pg	Pg	22 29 21.8	+0.6
PMAFR				*e*Sn	Sn	22 29 37.5	+0.8
	comp=E,146nm,0.3s						
ERIP	Rio Piedras	1.32	108	Pn	Pn	22 29 22.0	-0.1
	comp=E,1.1nm,0.1s,SNR=7.9						
ERIP				Pg	Pg	22 29 23.2	-0.2
	comp=E,11nm,0.1s,SNR=7.9						
ERIP				Lg		22 29 41.5	
	comp=E,152nm,0.2s,SNR=7.9						
ERIP	Rio Piedras	1.32	108	Pn	Pn	22 29 22.0	-0.1
	comp=E,1.1nm,0.1s,SNR=7.9						
ALMR	Almeirim	1.36	8	*e*P	Pn	22 29 23.6	+0.9
ALMR				*e*S	Sn	22 29 41.9	+1.3
ALMR				*e*S	Sn	22 29 41.9	+1.3
ALMR				AML	AML	22 29 43.7	
	comp=N,199nm,0.2s						
ALMR	Almeirim	1.36	8	*e*P	Pn	22 29 23.6	+0.9
ALMR				*e*S	Sn	22 29 41.9	+1.3
ALMR	Almeirim	1.36	8	*e*P	Pn	22 29 23.6	+0.9
ALMR				*e*S	Sn	22 29 41.9	+1.3
PESTR	Estremoz	1.44	42	*e*Pn	Pn	22 29 23.8	0.0
PESTR	Estremoz	1.44	42	*e*Pg	Pg	22 29 25.7	0.0
PESTR				*e*Sg	Sg	22 29 46.1	+1.7
PESTR				A		22 29 49.4	
	comp=N,29nm,0.3s						
PESTR	Estremoz	1.44	42	Pn	Pn	22 29 23.8	0.0
PESTR				Pg	Pg	22 29 25.7	0.0
PESTR				Lg		22 29 46.1	
	comp=N,14nm,0.3s						
PESTR	Estremoz	1.44	42	*e*Pn	Pn	22 29 23.8	0.0
PESTR	Estremoz	1.44	42	*e*Pg	Pg	22 29 25.7	0.0
PESTR				*e*Sg	Sg	22 29 46.1	+1.7
	comp=N,29nm,0.3s						
PBAR	Barrancos	1.46	75	*e*Pn	Pn	22 29 24.6	+0.6
PBAR	Barrancos	1.46	75	*e*Pg	Pg	22 29 26.0	-0.1
PBAR				*e*Sn	Sn	22 29 45.4	+2.4
PBAR				A		22 29 47.4	
	comp=N,76nm,0.3s						
PBAR	Barrancos	1.46	75	Pn	Pn	22 29 24.6	+0.6
PBAR				Pg	Pg	22 29 26.0	-0.1
PBAR				Sn	Sn	22 29 45.4	+2.4
	comp=N,76nm,0.3s						
PBAR	Barrancos	1.46	75	*e*Pn	Pn	22 29 24.6	+0.6
PBAR	Barrancos	1.46	75	*e*Pg	Pg	22 29 26.0	-0.1
EMIN	Mina Concepcio	1.71	91	Pn	Pn	22 29 27.3	-0.1
	comp=N,0.6nm,0.1s,SNR=7.9						
EMIN				Pg	Pg	22 29 29.9	-0.9
	comp=N,3.6nm,0.1s,SNR=46						
EMIN				Lg		22 29 52.7	
	comp=N,8.6nm,0.1s,SNR=19						
EMIN	Mina Concepcio	1.71	91	Pn	Pn	22 29 27.3	-0.1
EMIN				Pg	Pg	22 29 29.9	-0.9
EMIN				Sn	Sn	22 29 52.3	+3.2
EMIN	Mina Concepcio	1.71	91	Pn	Pn	22 29 27.3	-0.1
	comp=N,0.6nm,0.1s,SNR=7.9						
EBAD	Badajoz	1.72	56	⇑Pn	Pn	22 29 27.2	-0.3
	comp=N,0.5nm,0.1s,SNR=18						
EBAD				Pg	Pg	22 29 30.1	-0.8
	comp=N,12nm,0.1s,SNR=120						
EBAD				Lg		22 29 52.6	
	comp=N,33nm,0.1s,SNR=5.0						
EBAD	Badajoz	1.72	56	Pn	Pn	22 29 27.2	-0.3
	comp=N,0.5nm,0.1s,SNR=18						
PTOM	Tomar	1.84	10	*e*Pn	Pn	22 29 29.7	+0.4
PTOM	Tomar	1.84	10	*e*Pg	Pg	22 29 33.7	+0.4
PTOM				*e*Sg	Sg	22 29 56.1	-1.1
PTOM				A		22 29 56.7	
	comp=N,88nm,0.3s						
PTOM	Tomar	1.84	10	Pn	Pn	22 29 29.7	+0.4
PTOM				Pg	Pg	22 29 33.7	+0.4
PTOM				Lg		22 29 56.1	
	comp=N,44nm,0.3s						
PTOM	Tomar	1.84	10	*e*Pn	Pn	22 29 29.7	+0.4
PTOM	Tomar	1.84	10	*e*Pg	Pg	22 29 33.7	+0.4
PTOM				*e*Sg	Sg	22 29 56.1	-1.1
	comp=N,88nm,0.3s						
PMRV	Marv??o	1.98	34	*e*Pn	Pn	22 29 31.3	+0.2
PMRV	Marv??o	1.98	34	*e*Pg	Pg	22 29 35.1	-0.8
PMRV				*e*Sn	Sn	22 29 54.8	-0.9
PMRV				A		22 30 04.1	
	comp=N,26nm,0.3s						
PMRV	Marv??o	1.98	34	Pn	Pn	22 29 31.3	+0.2
PMRV				Pg	Pg	22 29 35.1	-0.8
PMRV				Sn	Sn	22 29 54.8	-0.9
	comp=N,13nm,0.3s						
PMRV	Marv??o	1.98	34	*e*Pn	Pn	22 29 31.3	+0.2
PMRV	Marv??o	1.98	34	*e*Pg	Pg	22 29 35.1	-0.8
PMRV				*e*Sn	Sn	22 29 54.8	-0.9
	comp=N,26nm,0.3s						
PCBR	Castelo Branco	2.29	27	*e*Pn	Pn	22 29 35.8	+0.4
PCBR	Castelo Branco	2.29	27	*e*Pg	Pg	22 29 41.6	-0.3
PCBR				*e*Sg	Sg	22 30 10.2	-1.5
PCBR				A		22 30 15.1	
	comp=N,15nm,0.3s						
PCBR	Castelo Branco	2.29	27	Pn	Pn	22 29 35.8	+0.4
PCBR				Pg	Pg	22 29 41.6	-0.3
PCBR				Lg		22 30 10.2	
	comp=N,7.3nm,0.3s						
PCBR	Castelo Branco	2.29	27	*e*Pn	Pn	22 29 35.8	+0.4
PCBR	Castelo Branco	2.29	27	*e*Pg	Pg	22 29 41.6	-0.3
PCBR				*e*Sg	Sg	22 30 10.2	-1.5
	comp=N,15nm,0.3s						
ESPR	Espera	2.55	111	Pn	Pn	22 29 40.3	+1.3
	comp=N,0.6nm,0.1s,SNR=7.9						
ESPR				Pg	Pg	22 29 46.4	-0.4
	comp=N,5.8nm,0.2s,SNR=4.8						
ESPR				Sn	Sn	22 30 12.0	+2.3
	comp=N,11nm,0.2s,SNR=7.9						
ESPR				Lg		22 30 21.2	
	comp=N,39nm,0.4s,SNR=5.6						
ESPR	Espera	2.55	111	Pn	Pn	22 29 41.1	+2.1
ESPR				Pg	Pg	22 29 46.4	-0.4
ESPR				Sn	Sn	22 30 12.0	+2.3
ESPR				Lg		22 30 21.2	
ESPR	Espera	2.55	111	Pn	Pn	22 29 40.3	+1.4
	comp=N,0.6nm,0.1s,SNR=7.9						
ECAB	El Cabril	2.71	83	Pn	Pn	22 29 41.9	+0.7
	comp=N,2.1nm,0.1s,SNR=15						
ECAB				Sn	Sn	22 30 14.5	+0.7
	comp=N,4.2nm,0.1s,SNR=7.9						
ECAB				Lg		22 30 24.5	
	comp=N,22nm,0.2s,SNR=6.3						
ECAB	El Cabril	2.71	83	Pn	Pn	22 29 41.9	+0.7
	comp=N,2.1nm,0.1s,SNR=15						
ECAB				Sn	Sn	22 30 14.5	+0.7
	comp=N,4.2nm,0.1s,SNR=7.9						
ECAB				Lg		22 30 24.5	
	comp=N,22nm,0.2s,SNR=6.3						
MTE	Manteigas	2.78	21	*e*Pn	Pn	22 29 42.5	+0.4
MTE				*e*Sn	Sn	22 30 15.7	+0.2
MTE				*e*Sg	Sg	22 30 28.5	+1.2
MTE				A		22 30 30.1	
	comp=N,22nm,0.3s						
MTE	Manteigas	2.78	21	*e*Pn	Pn	22 29 42.5	+0.4
MTE				*e*Sn	Sn	22 30 15.2	-0.4
MTE	Manteigas	2.78	21	*e*Pn	Pn	22 29 42.5	+0.4
MTE				*e*Sn	Sn	22 30 15.7	+0.2
MTE				*e*Sg	Sg	22 30 28.5	+1.2
	comp=N,22nm,0.3s						
LIJA	Lijar	2.87	107	Pg	Pg	22 29 52.0	-1.0
LIJA				Lg		22 30 30.0	
LIJA	Lijar	2.87	107	*i* P	Pg	22 29 52.0	-1.0
LIJA				*e*S	Sn	22 30 30.0	+12
PVIS	Viseu	3.00	14	*e*Pn	Pn	22 29 45.7	+0.5
PVIS				*e*Sn	Sn	22 30 20.4	-0.5
PVIS				*e*Sg	Sg	22 30 33.9	-0.4
PVIS				A		22 30 35.6	
	comp=N,12nm,0.6s						
PVIS	Viseu	3.00	14	Pn	Pn	22 29 45.7	+0.5
PVIS				Sn	Sn	22 30 20.4	-0.5
PVIS				Lg		22 30 33.9	
	comp=N,5.9nm,0.6s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
PVIS	Viseu	3.00	14	*e*Pn	Pn	22 29 45.7	+0.5
PVIS				*e*Sn	Sn	22 30 20.4	-0.5
PVIS				*e*Sg	Sg	22 30 33.9	-0.4
	comp=N,12nm,0.6s						
EJIF	Jimena Fronter	3.00	116	Pg	Pg	22 29 55.7	+0.1
	comp=N,0.6nm,0.2s,SNR=4.0						
EJIF				Lg		22 30 36.7	
	comp=N,2.6nm,0.3s,SNR=7.9						
EJIF	Jimena Fronter	3.00	116	Pg	Pg	22 29 55.7	+0.1
	comp=N,0.6nm,0.2s,SNR=4.0						
EJIF				Lg		22 30 36.7	
	comp=N,2.6nm,0.3s,SNR=7.9						
EADA	Adamuz	3.38	83	Pn	Pn	22 29 50.2	-0.1
	comp=N,1.0nm,0.2s,SNR=7.9						
EADA				Sn	Sn	22 30 30.0	-0.3
	comp=N,2.2nm,0.2s,SNR=7.9						
EADA				Lg		22 30 45.7	
	comp=N,11nm,0.2s,SNR=9.8						
EADA	Adamuz	3.38	83	Pn	Pn	22 29 50.2	-0.2
	comp=N,1.0nm,0.2s,SNR=7.9						
EADA				Sn	Sn	22 30 30.0	-0.3
	comp=N,2.2nm,0.2s,SNR=7.9						
EADA				Lg		22 30 45.7	
	comp=N,11nm,0.2s,SNR=9.8						
EMIJ	Mijas	3.47	110	Sn	Sn	22 30 32.5	0.0
	comp=N,2.7nm,0.4s,SNR=7.9						
EMIJ	Mijas	3.47	110	Sn	Sn	22 30 32.5	0.0
	comp=N,2.7nm,0.4s,SNR=7.9						
PVRL	Vila Real	3.57	14	*e*Pn	Pn	22 29 53.5	+0.4
PVRL				*e*Sn	Sn	22 30 34.1	-1.0
PVRL				A		22 30 54.0	
	comp=N,14nm,0.5s						
PVRL	Vila Real	3.57	14	Pn	Pn	22 29 53.5	+0.4
PVRL				Sn	Sn	22 30 34.1	-1.0
	comp=N,7.2nm,0.5s						
PVRL	Vila Real	3.57	14	*e*Pn	Pn	22 29 53.5	+0.4
PVRL				*e*Sn	Sn	22 30 34.1	-1.0
	comp=N,14nm,0.5s						
ELUQ	Luque	3.63	92	Sn	Sn	22 30 37.1	+0.7
	comp=N,1.5nm,0.2s,SNR=7.9						
ELUQ				Lg		22 30 54.1	
	comp=N,2.8nm,0.2s,SNR=7.9						
ELUQ	Luque	3.63	92	Sn	Sn	22 30 37.1	+0.7
	comp=N,1.5nm,0.2s,SNR=7.9						
ELUQ				Lg		22 30 54.1	
	comp=N,2.8nm,0.2s,SNR=7.9						
MVO	Moncorvo	3.63	22	*e*Pn	Pn	22 29 53.9	0.0
MVO				*e*Sn	Sn	22 30 35.4	-1.2
MVO				*e*Sg	Sg	22 30 54.1	-0.6
MVO				A		22 30 56.4	
	comp=N,13nm,0.4s						
MVO	Moncorvo	3.63	22	Pn	Pn	22 29 53.9	0.0
MVO				Sn	Sn	22 30 35.4	-1.2
MVO				Lg		22 30 54.1	
	comp=N,6.7nm,0.4s						
MVO	Moncorvo	3.63	22	*e*Pn	Pn	22 29 53.9	0.0
MVO				*e*Sn	Sn	22 30 35.4	-1.2
MVO				*e*Sg	Sg	22 30 54.1	-0.6
	comp=N,13nm,0.4s						
ELOJ	Sierra Loja	3.78	99	Lg		22 30 59.9	
	comp=N,1.8nm,0.3s,SNR=7.9						
ELOJ	Sierra Loja	3.78	99	Lg		22 30 59.9	
	comp=N,1.8nm,0.3s,SNR=7.9						
PAB	San Pablo	3.91	62	*e*Pn	Pn	22 29 57.5	-0.2
PAB				*e*Sg	Sg	22 31 00.5	-3.2
PAB	San Pablo	3.91	62	*e*Pn	Pn	22 29 57.5	-0.2
PAB				*e*Sg	Sg	22 31 00.5	-3.2
PCAB	Cabril	3.95	9	*e*Pn	Pn	22 29 58.6	+0.4
PCAB				*e*Sn	Sn	22 30 43.2	-1.2
PCAB				A		22 31 06.3	
	comp=N,6.8nm,0.5s						
PCAB	Cabril	3.95	9	Pn	Pn	22 29 58.6	+0.4
PCAB				Sn	Sn	22 30 43.2	-1.2
	comp=N,3.4nm,0.5s						
PCAB	Cabril	3.95	9	*e*Pn	Pn	22 29 58.6	+0.4
PCAB				*e*Sn	Sn	22 30 43.2	-1.2
	comp=N,6.8nm,0.5s						
EBAN	Banos Encina	4.00	83	Pn	Pn	22 29 59.3	+0.4
	comp=N,0.7nm,0.2s,SNR=7.9						
EBAN				Sn	Sn	22 30 44.3	-1.3
	SNR=7.9						
EBAN				Lg		22 31 05.9	
	comp=N,10nm,0.4s,SNR=11						
EBAN	Banos Encina	4.00	83	Pn	Pn	22 29 59.3	+0.4
	comp=N,0.7nm,0.2s,SNR=7.9						
EBAN				Lg		22 31 05.9	
	comp=N,10nm,0.4s,SNR=11						
ELOB	Lobios	4.10	8	Pn	Pn	22 30 00.5	+0.2
	comp=N,1.1nm,0.1s,SNR=14						
ELOB				Sn	Sn	22 30 45.9	-2.3
	comp=N,6.0nm,0.2s,SNR=8.0						
ELOB				Lg		22 31 08.0	
	comp=N,2.4nm,0.2s,SNR=5.0						
ELOB	Lobios	4.10	8	Pn	Pn	22 30 00.5	+0.2
	comp=N,1.1nm,0.1s,SNR=14						
ELOB				Sn	Sn	22 30 45.9	-2.2
	comp=N,6.0nm,0.2s,SNR=8.0						
ELOB				Lg		22 31 08.0	
	comp=N,2.4nm,0.2s,SNR=5.0						
ESDC	Sonseca Array	4.24	62	Pn	Pn	22 30 02.3	+0.1
	comp=N,2.4nm,0.1s,baz=248,slow=13,SNR=5.1						
ESDC				Pg	Pg	22 30 16.7	-2.4
	comp=N,0.3nm,0.1s,baz=247,slow=13,SNR=6.0						
ESDC				Sn	Sn	22 30 49.1	-2.5
	comp=N,0.6nm,0.1s,baz=248,slow=23,SNR=4.0						
ESDC				Lg		22 31 13.6	
	comp=N,3.0nm,0.2s,baz=244,slow=27,SNR=5.8						
ESDC	Sonseca Array	4.24	62	Pn	Pn	22 30 02.3	+0.1
	comp=N,2.4nm,0.1s,baz=248,slow=13,SNR=5.1						
ESDC	Sonseca Array	4.24	62	Pg	Pg	22 30 16.7	-2.5
	comp=N,0.3nm,0.1s,baz=247,SNR=6.0						
ESDC				Sn	Sn	22 30 49.1	-2.4
	comp=N,0.6nm,0.1s,baz=248,slow=23,SNR=4.0						
ESDC				Lg		22 31 13.6	
	comp=N,3.0nm,0.2s,baz=244,SNR=5.8						
PBRG	Braganca	4.31	21	*e*Pn	Pn	22 30 03.4	+0.2
PBRG				*e*Sn	Sn	22 30 51.0	-2.2
PBRG				*e*Sg	Sg	22 31 16.9	+0.6
PBRG				A		22 31 20.8	
	comp=N,5.1nm,0.5s						
PBRG	Braganca	4.31	21	Pn	Pn	22 30 03.4	+0.2
PBRG				Sn	Sn	22 30 51.0	-2.2
PBRG				Lg		22 31 16.9	
	comp=N,2.6nm,0.5s						
PBRG	Braganca	4.31	21	*e*Pn	Pn	22 30 03.4	+0.2
PBRG				*e*Sg	Sg	22 31 16.9	+0.6
	comp=N,5.1nm,0.5s						
EQUE	Quentar	4.33	96	Pn	Pn	22 30 04.5	+1.1
	comp=N,0.2nm,0.1s,SNR=7.9						
EQUE				Sn	Sn	22 30 54.5	+0.8
	comp=N,0.2nm,0.5s,SNR=7.9						
EQUE				Lg		22 31 18.7	
	comp=N,3.2nm,0.4s,SNR=7.9						
EQUE	Quentar	4.33	96	Pn	Pn	22 30 04.5	+1.1
	comp=N,0.2nm,0.1s,SNR=7.9						
EQUE				Sn	Sn	22 30 54.5	+0.8
	comp=N,0.2nm,0.5s,SNR=7.9						
EQUE				Lg		22 31 18.7	
	comp=N,3.2nm,0.4s,SNR=7.9						
ECAL	Calabor	4.43	21	Pn	Pn	22 30 05.3	+0.4
	comp=N,4.6nm,0.2s,SNR=11						
ECAL				Sn	Sn	22 30 54.1	-2.3
	comp=N,4.6nm,0.3s,SNR=6.2						
ECAL				Lg		22 31 19.5	
	comp=N,4.9nm,0.3s,SNR=5.0						
ECAL	Calabor	4.43	21	Pn	Pn	22 30 05.3	+0.4
	comp=N,4.6nm,0.2s,SNR=11						
ECAL				Sn	Sn	22 30 54.1	-2.3
	comp=N,4.6nm,0.3s,SNR=6.2						
ECAL				Lg		22 31 19.5	
	comp=N,4.9nm,0.3s,SNR=5.0						
EQES	Quesada	4.56	88	Pn	Pn	22 30 06.5	-0.1
	comp=N,0.3nm,0.1s,SNR=7.9						
EQES				Sn	Sn	22 30 58.7	-0.8
	comp=N,2.4nm,0.4s,SNR=7.9						
EQES				Lg		22 31 24.4	
	comp=N,4.7nm,0.5s,SNR=5.1						
EQES	Quesada	4.56	88	Pn	Pn	22 30 06.5	-0.1
EQES				Sn	Sn	22 30 59.1	-0.3
EQES				Lg		22 31 24.4	
EQES	Quesada	4.56	88	Pn	Pn	22 30 06.5	-0.1
	comp=N,0.3nm,0.1s,SNR=7.9						
EQES				Sn	Sn	22 30 59.1	-0.3
EQES				Lg		22 31 24.4	
	comp=N,4.7nm,0.5s,SNR=5.1						
GUD	Guadarrama	4.61	51	Pn	Pn	22 30 07.1	-0.2
	comp=N,0.6nm,0.2s,SNR=7.9						
GUD				Sn	Sn	22 30 58.6	-1.9
	SNR=7.9						
GUD				Lg		22 31 25.7	
	comp=N,2.9nm,0.3s,SNR=7.9						
GUD	Guadarrama	4.61	51	Pn	Pn	22 30 07.1	-0.2
	comp=N,0.6nm,0.2s,SNR=7.9						
GUD				Sn	Sn	22 30 58.7	-1.9
GUD				Lg		22 31 25.7	
	comp=N,2.9nm,0.3s,SNR=7.9						
ERUA	La Rua	4.76	15	Pn	Pn	22 30 09.7	+0.3
	comp=N,2.9nm,0.1s,SNR=7.9						
ERUA	La Rua	4.76	15	Pn	Pn	22 30 09.7	+0.3
	comp=N,2.9nm,0.1s,SNR=7.9						
EBER	Berja	4.82	99	Sn	Sn	22 31 07.2	+1.4
	comp=N,1.0nm,0.2s,SNR=7.9						
EBER				Lg		22 31 32.6	
	comp=N,3.7nm,0.4s,SNR=7.9						
EBER	Berja	4.82	99	Sn	Sn	22 31 07.2	+1.4
	comp=N,1.0nm,0.2s,SNR=7.9						
EBER				Lg		22 31 32.6	
	comp=N,3.7nm,0.4s,SNR=7.9						
EHUE	Huescar	4.94	88	Sn	Sn	22 31 08.4	-0.3
	comp=N,0.4nm,0.2s,SNR=7.9						
EHUE				Lg		22 31 37.2	
	comp=N,0.7nm,0.2s,SNR=4.0						
EHUE	Huescar	4.94	88	Sn	Sn	22 31 08.4	-0.4
	comp=N,0.4nm,0.2s,SNR=7.9						
EHUE				Lg		22 31 37.2	
	comp=N,0.7nm,0.2s,SNR=4.0						
EVIA	Vianos	5.05	79	Pn	Pn	22 30 13.1	-0.3
	comp=N,0.6nm,0.1s,SNR=7.9						
EVIA				Lg		22 31 39.4	
	comp=N,2.4nm,0.2s,SNR=6.2						
EVIA	Vianos	5.05	79	Pn	Pn	22 30 13.1	-0.3
	comp=N,0.6nm,0.1s,SNR=7.9						
EVIA				Lg		22 31 39.3	
	comp=N,2.4nm,0.2s,SNR=6.2						
EMAZ	Mazaricos	5.14	359	Pn	Pn	22 30 14.9	+0.3
	comp=N,0.5nm,0.1s,SNR=7.9						
EMAZ				Sn	Sn	22 31 09.6	-4.2
	comp=N,0.8nm,0.1s,SNR=7.9						
EMAZ	Mazaricos	5.14	359	Pn	Pn	22 30 14.9	+0.3
EMAZ				Sn	Sn	22 31 10.5	-3.3
EMAZ	Mazaricos	5.14	359	Pn	Pn	22 30 14.9	+0.3
	comp=N,0.5nm,0.1s,SNR=7.9						
EMAZ				Sn	Sn	22 31 09.6	-4.2
	comp=N,0.8nm,0.1s,SNR=7.9						
EPON	Pontenova	5.66	13	Lg		22 31 58.3	
	comp=N,1.5nm,0.3s,SNR=7.9						
ETOB	Tobarra	5.79	79	Pn	Pn	22 30 23.1	-0.4
	comp=N,0.2nm,0.2s,SNR=6.3						
ETOB				Sn	Sn	22 31 29.6	-0.3
	comp=N,1.4nm,0.6s,SNR=4.0						
ETOB				Lg		22 32 04.4	
	comp=N,2.4nm,0.4s,SNR=5.0						
ETOB	Tobarra	5.79	79	Pn	Pn	22 30 23.1	-0.4
ETOB				Sn	Sn	22 31 32.2	+2.4
ETOB				Lg		22 32 04.4	
ETOB	Tobarra	5.79	79	Pn	Pn	22 30 23.1	-0.5
	comp=N,0.2nm,0.2s,SNR=6.3						
ETOB				Sn	Sn	22 31 29.6	-0.3
	comp=N,1.4nm,0.6s,SNR=4.0						
EMUR	La Murta	6.01	87	Lg		22 32 12.4	
	comp=N,1.2nm,0.3s,SNR=7.9						
ETOR	Torete	6.05	58	Pn	Pn	22 30 27.1	0.0
	comp=N,2.1nm,0.3s,SNR=7.9						
ETOR				Sn	Sn	22 31 34.0	-2.2
	comp=N,2.4nm,0.2s,SNR=7.9						
ETOR				Lg		22 32 11.7	
	comp=N,8.6nm,0.5s,SNR=7.9						
ETOR	Torete	6.05	58	Pn	Pn	22 30 27.1	0.0
ETOR				Sn	Sn	22 31 34.0	-2.2
ETOR	Torete	6.05	58	Pn	Pn	22 30 27.1	0.0
	comp=N,2.1nm,0.3s,SNR=7.9						
ETOR				Sn	Sn	22 31 34.0	-2.3
	comp=N,2.4nm,0.2s,SNR=7.9						
EARI	Arriondas	6.14	25	Pn	Pn	22 30 30.1	+1.8
	comp=N,0.1nm,0.2s,SNR=7.9						
EARI				Lg		22 32 12.9	
	comp=N,0.3nm,0.2s,SNR=7.9						
EARI	Arriondas	6.14	25	Pn	Pn	22 30 30.1	+1.7
	comp=N,0.1nm,0.2s,SNR=7.9						
SJPF	Ste Jean	7.86	45	*e*Pn	Pn	22 30 51.9	0.0
SJPF	Ste Jean	7.86	45	*e*Pn	Pn	22 30 51.9	0.0
ETSF	Etsaut	8.11	49	*e*Pn	Pn	22 30 55.3	0.0
ETSF	Etsaut	8.11	49	*e*Pn	Pn	22 30 55.3	0.0
EPF	Esparros	8.72	50	*e*Pn	Pn	22 31 03.8	0.0
EPF	Esparros	8.72	50	*e*Pn	Pn	22 31 03.8	0.0
MFF	Saint Martin d	10.89	33	*e*Pn	Pn	22 31 32.6	-0.8
MFF	Saint Martin d	10.89	33	*e*Pn	Pn	22 31 32.6	-0.8

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*NEIC **28** 22:47:57.3, 32°.60S×71°.53W, h15^{km}, ML3.1(GUC), After GUC.*

GUC 28 22:47:57.3±0.6**, 32°.60S×71°.53W, h15**^{km}±3^{km}**, MD3.7, ML3.1, 10C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IHA	Instituto Hidr	0.43	193	⇑*i*P	Pg	22 48 05.8	-0.2
IHA				*i* S	Sg	22 48 12.1	+0.2
IHA	Instituto Hidr	0.43	193	⇑*i*P	Pg	22 48 05.8	-0.2
IHA				*i* S	Sg	22 48 12.1	+0.2
ROCH	El Roble	0.57	130	⇓*i*P	Pg	22 48 08.7	+0.2
ROCH				*i* S	Sg	22 48 16.8	+0.6
ROCH	El Roble	0.57	130	⇓*i*P	Pg	22 48 08.7	+0.2
ROCH				*i* S	Sg	22 48 16.8	+0.6
CHNG	Los Chungos	0.72	2	⇑*i*P	Pg	22 48 10.6	-0.8
CHNG				*i* S	Sg	22 48 20.1	-0.7
JACH	Jahuel	0.79	96	*e*P	Pg	22 48 11.9	-0.8
JACH				*i* S	Sg	22 48 23.3	+0.1
JACH	Jahuel	0.79	96	*e*P	Pg	22 48 11.9	-0.8
JACH				*i* S	Sg	22 48 23.3	+0.1
LCCH	Las Cruces	0.87	182	*e*P	Pb	22 48 13.2	-0.9
LCCH	Las Cruces	0.87	182	*e*P	Pb	22 48 13.2	-0.9
PEL	Peldehue	0.89	128	⇑*i*P	Pb	22 48 13.3	-1.1
PEL				*i* S	Sb	22 48 25.5	-0.6
PEL				AML	AML	22 48 26.6	
	comp=E,2µm,0.8s						
RCDM	Rinconada Maip	1.07	146	⇑*i*P	Pb	22 48 16.1	-1.4
RCDM				*i* S	Sb	22 48 30.3	-1.0
RCDM	Rinconada Maip	1.07	146	⇑*i*P	Pb	22 48 16.1	-1.4
RCDM				*i* S	Sb	22 48 30.3	-1.0
RCDM				AML	AML	22 48 30.8	
	comp=E,2µm,0.1s						
CLCH	Cerro Calan	1.15	134	*e*P	Pn	22 48 17.5	-1.3
CLCH				*i* S	Sb	22 48 32.8	-0.7
CLCH	Cerro Calan	1.15	134	*e*P	Pn	22 48 17.5	-1.3
CLCH				*i* S	Sb	22 48 32.8	-0.7
CLCH				AML	AML	22 48 35.8	
	comp=E,511nm,0.9s						
TACH	Talagante	1.16	155	⇓*i*P	Pn	22 48 17.7	-1.2
TACH				*i* S	Sb	22 48 32.9	-0.9
TACH	Talagante	1.16	155	⇓*i*P	Pn	22 48 17.7	-1.2
TACH				*i* S	Sb	22 48 32.9	-0.9
ANTU	Antumapu	1.22	142	*i* S	Sb	22 48 34.7	-0.9
ANTU				AML	AML	22 48 37.2	
	comp=E,326nm,0.2s						
FCH	Farellones	1.27	125	⇓*i*P	Pn	22 48 18.1	-2.3
FCH				*i* S	Sb	22 48 34.7	-2.2
FCH				AML	AML	22 48 35.7	
	comp=E,513nm,0.2s						
PCH	Pirque	1.32	140	⇑*i*P	Pn	22 48 20.3	-0.9
PCH				*i* S	Sn	22 48 37.7	-0.9
PCH	Pirque	1.32	140	⇑*i*P	Pn	22 48 20.3	-0.9
PCH				*i* S	Sn	22 48 37.7	-0.9
CMCH	Combarbala	1.49	18	*e*P	Pn	22 48 23.0	-0.6
CMCH				*e*S	Sn	22 48 42.5	-0.2
CMCH	Combarbala	1.49	18	*e*P	Pn	22 48 23.0	-0.6
CMCH				*e*S	Sn	22 48 42.5	-0.2
CMCH				AML	AML	22 48 46.3	
	comp=N,2µm,0.5s						
CHCH	Chadas Angostu	1.52	151	⇑*i*P	Pn	22 48 23.5	-0.3
CHCH				*i* S	Sn	22 48 43.1	-0.2
CHCH	Chadas Angostu	1.52	151	⇑*i*P	Pn	22 48 23.5	-0.3
CHCH				*i* S	Sn	22 48 43.1	-0.2
CACH	El Canelo	1.70	153	*e*P	Pn	22 48 27.3	+1.0
CACH	El Canelo	1.70	153	*e*P	Pn	22 48 27.3	+1.0

JMA 28 22:48:16.4±0.1**, 26°.81N×129°.94E, h49**^{km}**, M3.6, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTK	Tokunoshima	1.31	318	P	Pn	22 48 38.7	+0.4
JTK				*e*S	Sn	22 48 55.6	+0.9
JOW	Kunigami	1.49	271	P	Pn	22 48 41.5	+0.8
JOW				S	Sn	22 48 59.7	+0.7
JZK	Kikaishima	1.50	1	P	Pn	22 48 41.8	+0.9
JZK				S	Sn	22 49 01.0	+1.7
JMZ	Minamidaito 2	1.52	130	P	Pn	22 48 41.7	+0.6
JMZ				*e*S	Sn	22 48 59.8	+0.1
JAM	Amami Oshima	1.62	350	P	Pn	22 48 42.9	+0.3
JAM				S	Sn	22 49 02.1	-0.2
JIH	Iheya	1.78	278	P	Pn	22 48 45.5	+0.9
JIH				S	Sn	22 49 07.2	+1.1
JJT2	Tamagusuku 2	2.08	252	P	Pn	22 48 49.9	+1.2
JJT2				*e*S	Sn	22 49 14.2	+0.8
NAH1	Naha	2.10	254	S	Sn	22 49 14.1	0.0
JAGN	Aguni-jima	2.42	265	P	Pn	22 48 54.6	+1.1
JAGN				S	Sn	22 49 22.0	0.0
JKE	Kume jima 2	2.87	261	P	Pn	22 49 00.1	+0.5
JKE				S	Sn	22 49 32.8	-0.1

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*ATH **28** 22:52:22.4, 39°.40N×26°.34E, h22^{km}±2^{km}, MD3.4/3*
*NEIC **28** 22:52:22.4, 39°.40N×26°.34E, h22^{km}, MD3.3(ISK), MD3.4(ATH), After ATH.*
*ISK **28** 22:52:23.2, 39°.42N×26°.28E, h14^{km}, MD3.4*
*CSEM **28** 22:52:23.4±0.1, 39°.39N×26°.28E, h10^{km}, ML3.4/3, Error ellipse: s-maj=1.7km s-min=1.5km az=41.0*
*DDA **28** 22:52:23.1, 39°.40N×26°.30E, h15^{km}±3^{km}, Md3.2*
*ISCJB **28** 22:52:23.4±0.3, 39°.41N±0°.01×26°.27E±0°.02, h11^{km}±2^{km}, Error ellipse: s-maj=2.9km s-min=2.4km az=167.3*
*THE **28** 22:52:24.3, 39°.38N×26°.26E, h12^{km}±1^{km}, ML3.4/3, Error ellipse: s-maj=1.8km s-min=0.7km az=230.0*

ISC 28 22:52:23.8±0.3**, 39°.39N**±0°.02×**26°.27E**±0°.02**, h12**^{km}±2^{km}**, n112,** σ**0^{s}.73**/158**, 4C-5D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRK	Paraskevi	0.14	181	P	Pg	22 52 27.2	0.0
PRK				S	Sg	22 52 29.8	+0.2
PRK	Paraskevi	0.14	181	*e*PB	Pg	22 52 27.2	0.0
PRK				*e*SB	Sg	22 52 30.4	+0.8
PRK	Paraskevi	0.14	181	P	Pg	22 52 27.2	0.0
PRK				S	Sg	22 52 29.8	+0.2
AYVA	Ayvalik	0.33	104	*i* P	Pg	22 52 30.0	-0.5
AYVA				*i* S	Sg	22 52 34.7	-0.3
AYVA	Ayvalik	0.33	104	*i* P	Pg	22 52 30.0	-0.5
AYVA				*i* S	Sg	22 52 34.7	-0.3
SIGR	SIGRI	0.37	241	P	Pg	22 52 31.5	+0.3
SIGR				S	Sg	22 52 37.0	+0.9
SIGR	SIGRI	0.37	241	P	Pg	22 52 31.5	+0.3
SIGR				S	Sg	22 52 37.0	+0.9
EZN	Ezine	0.44	5	*e*PG	Pg	22 52 31.8	-0.6
EZN				*e*SG	Sg	22 52 38.3	0.0
EZN	Ezine	0.44	5	*e*Pg	Pg	22 52 31.8	-0.6
EZN				*e*Sg	Sg	22 52 38.3	0.0
BOZC	Bozcaada	0.48	339	*i* P	Pg	22 52 32.8	-0.5
BOZC				*i* S	Sg	22 52 40.1	+0.5
GADA	Gvkgeada	0.85	340	*e*PG	Pg	22 52 39.3	-1.0
GADA				*e*SG	Sg	22 52 51.4	0.0
GADA	Gvkgeada	0.85	340	*e*Pg	Pg	22 52 39.3	-0.9
GADA				*e*Sg	Sg	22 52 51.4	+0.1
LIA	Limnos Island	0.98	301	P	Pg	22 52 42.8	+0.1
LIA				S	Sg	22 52 55.8	+0.2
LIA	Limnos Island	0.98	301	*e*PN	Pn	22 52 42.5	-0.9
LIA				*e*SN	Sn	22 52 56.0	-1.2
LIA	Limnos Island	0.98	301	*e*Pn	Pn	22 52 42.5	-0.9
LIA	Limnos Island	0.98	301	P	Pg	22 52 42.8	+0.1
LIA				S	Sg	22 52 55.8	+0.2
LIA				*e*Sn	Sn	22 52 56.0	-1.2
CHOS	Chios island	1.02	190	P	Pb	22 52 42.9	-0.4
CHOS				S	Sg	22 52 56.6	0.0
CHOS	Chios island	1.02	190	*e*PN	Pn	22 52 42.8	-1.0
CHOS				*e*SN	Sn	22 52 56.9	-1.1
CHOS	Chios island	1.02	190	*e*Pn	Pn	22 52 42.8	-1.0
CHOS				*e*Sn	Sn	22 52 56.9	-1.1
LPK	Lapseki	1.05	21	*e*PG	Pg	22 52 43.0	-1.0
LPK				*e*SG	Sg	22 52 58.4	+0.7
LPK	Lapseki	1.05	21	*e*Pg	Pg	22 52 43.0	-1.0
LPK				*e*Sg	Sg	22 52 58.4	+0.7
URLA	Izmir	1.06	166	*i* P	Pb	22 52 43.6	-0.5
URLA				*i* S	Sb	22 52 56.9	-0.9
URLA	Izmir	1.06	166	*i* P	Pb	22 52 43.6	-0.4
URLA				*i* S	Sb	22 52 56.9	-0.9
LOS	Limnos	1.07	301	P	Pb	22 52 44.6	+0.4
LOS				S	Sb	22 52 59.5	+1.4
LOS	Limnos	1.07	301	P	Pb	22 52 44.6	+0.4
LOS				S	Sb	22 52 59.5	+1.4
BALY	Balya	1.10	71	*i* P	Pb	22 52 44.2	-0.5
BALY				*i* S	Sb	22 52 58.9	-0.1
BALY	Balya	1.10	71	*i* P	Pb	22 52 44.2	-0.5
BALY				*i* S	Sb	22 52 58.9	0.0
BLCB	Balcova	1.17	149	*e*PN	Pn	22 52 46.4	+0.5
BLCB	Balcova	1.17	149	P	Pb	22 52 45.7	-0.2
BLCB				S	Sb	22 53 01.6	+0.6
BLCB	Balcova	1.17	149	P	Pb	22 52 45.7	-0.2
BLCB	Balcova	1.17	149	*e*Pn	Pn	22 52 46.4	+0.5
BLCB				S	Sb	22 53 01.6	+0.6
IZM	Izmir	1.26	142	*e*PN	Pn	22 52 47.5	+0.3
IZM	Izmir	1.26	142	*e*Pn	Pn	22 52 47.5	+0.4
AKHS	Akhisar	1.30	113	*e*P	Pn	22 52 47.1	-0.6
AKHS				*e*S	Sb	22 53 05.1	+0.3
AKHS	Akhisar	1.30	113	*e*P	Pn	22 52 47.1	-0.7
AKHS				*e*S	Sb	22 53 05.1	+0.3
AKS	Akhisar	1.30	113	*e*PN	Pn	22 52 48.0	+0.3
AKS	Akhisar	1.30	113	*e*Pn	Pn	22 52 48.0	+0.2
ENEZ	Enez	1.35	356	*e*PN	Pn	22 52 48.5	+0.1
ENEZ	Enez	1.35	356	*e*Pn	Pn	22 52 48.6	+0.2
SART	Tekirdag	1.47	28	*i* P	Pn	22 52 49.9	-0.2
SART				*i* S	Sn	22 53 10.6	+1.3
SART	Tekirdag	1.47	28	*i* P	Pn	22 52 49.9	-0.2
SART				*i* S	Sn	22 53 10.6	+1.3
ALN	Alexandroupoli	1.52	353	P	Pn	22 52 50.4	-0.3
ALN				S	Sn	22 53 09.6	-0.8
ALN	Alexandroupoli	1.52	353	*e*PN	Pn	22 52 51.0	+0.3
ALN				*e*SN	Sn	22 53 09.6	-0.8
ALN	Alexandroupoli	1.52	353	P	Pn	22 52 50.4	-0.3
ALN	Alexandroupoli	1.52	353	*e*Pn	Pn	22 52 51.0	+0.3
ALN				*e*Sn	Sn	22 53 09.6	-0.8
EDC	Edincik	1.55	52	*e*PN	Pn	22 52 51.0	-0.2
EDC	Edincik	1.55	52	*e*Pn	Pn	22 52 51.0	-0.2
BNT	Bandirma	1.59	52	*e*PN	Pn	22 52 51.1	-0.6
DURS	Dursunbey	1.72	82	*i* P	Pn	22 52 53.2	-0.2
DURS				*i* S	Sn	22 53 15.1	-0.2
DURS	Dursunbey	1.72	82	*i* P	Pn	22 52 53.2	-0.3
DURS				*i* S	Sn	22 53 15.1	-0.2
SMG	Samos	1.74	165	*e*PN	Pn	22 52 53.4	-0.3
SMG	Samos	1.74	165	*e*Pn	Pn	22 52 53.4	-0.3
KCT	Karacabey	1.83	61	*e*PN	Pn	22 52 54.9	-0.1
KCT	Karacabey	1.83	61	*e*Pn	Pn	22 52 54.9	-0.1
DST	Dursunbey	1.83	83	*e*PN	Pn	22 52 55.4	+0.3
RDO	Rodhopi	1.84	342	*e*PN	Pn	22 52 55.2	0.0
RDO	Rodhopi	1.84	342	*e*Pn	Pn	22 52 55.2	0.0
GCAM	G?zelcaml?	1.85	156	*i* P	Pn	22 52 57.9	+2.6
GCAM				*i* S	Sn	22 53 23.1	+4.5
GCAM	G?zelcaml?	1.85	156	*i* P	Pn	22 52 57.8	+2.5
GCAM				*i* S	Sn	22 53 23.1	+4.6
TKR	Tekirdag	1.87	31	*e*PN	Pn	22 52 55.8	+0.2
TKR	Tekirdag	1.87	31	*e*Pn	Pn	22 52 55.8	+0.2
AOS	Alonnisos	1.87	264	P	Pn	22 52 55.3	-0.3
AOS	Alonnisos	1.87	264	P	Pn	22 52 55.3	-0.3
OUR	Ouranopolis	2.00	299	P	Pn	22 52 57.4	0.0
OUR	Ouranopolis	2.00	299	P	Pn	22 52 57.4	0.0
KULA	Kula-Manisa	2.06	114	*e*PN	Pn	22 52 58.4	+0.2
KULA	Kula-Manisa	2.06	114	*e*Pn	Pn	22 52 58.4	+0.3
AYDN	Tasoluk	2.14	143	*i* P	Pn	22 53 01.8	+2.5
AYDN				*i* S	Sn	22 53 30.6	+4.9
AYDN	Tasoluk	2.14	143	*i* P	Pn	22 53 01.8	+2.6
AYDN				*i* S	Sn	22 53 30.6	+4.9
SLVT	Silivri	2.36	38	*e*PN	Pn	22 53 01.8	-0.6
SLVT	Silivri	2.36	38	*e*Pn	Pn	22 53 01.8	-0.5
XOR	Xorichti	2.39	270	P	Pn	22 53 02.2	-0.5
XOR	Xorichti	2.39	270	P	Pn	22 53 02.2	-0.5
EDRB	Edirne	2.48	8	*e*PN	Pn	22 53 03.2	-0.8
EDRB	Edirne	2.48	8	*e*Pn	Pn	22 53 03.2	-0.8
GDZ	Gediz	2.51	96	*i* P	Pn	22 53 05.2	+0.9
GDZ				*i* S	Sn	22 53 38.7	+3.8
GDZ	Gediz	2.51	96	*i* P	Pn	22 53 05.2	+0.8
GDZ				*i* S	Sn	22 53 38.7	+3.8

CTKS	Kestanelik-??a	2.51	42	ePN	Pn	22 53 04.4	-0.1
CTKS	Kestanelik-??a	2.51	42	ePn	Pn	22 53 04.4	0.0
CTYL	Yal??k??y-??at	2.59	36	ePN	Pn	22 53 04.9	-0.6
CTYL	Yal??k??y-??at	2.59	36	ePn	Pn	22 53 04.9	-0.6
BGKT	Bogazkoy	2.62	46	ePN	Pn	22 53 05.1	-0.7
BGKT	Bogazkoy	2.62	46	ePn	Pn	22 53 05.1	-0.8
YLV	Yalova	2.66	63	ePN	Pn	22 53 06.0	-0.4
YLV	Yalova	2.66	63	ePn	Pn	22 53 06.0	-0.4
ISK	Istanbul-Kandi	2.71	51	ePN	Pn	22 53 07.5	+0.4
ISK	Istanbul-Kandi	2.71	51	ePn	Pn	22 53 07.5	+0.4
KLYT	Kilyos	2.82	48	ePN	Pn	22 53 08.1	-0.5
KLYT	Kilyos	2.82	48	ePn	Pn	22 53 08.1	-0.5
ADVT	Abdulvahap	2.86	68	ePN	Pn	22 53 09.7	+0.5
ADVT	Abdulvahap	2.86	68	ePn	Pn	22 53 09.7	+0.5
LTK	Loutraki	2.92	243	P	Pn	22 53 09.9	-0.2
LTK	Loutraki	2.92	243	P	Pn	22 53 09.9	-0.2
AGG	Agios Georgios	3.08	264	ePN	Pn	22 53 12.6	+0.3
AGG	Agios Georgios	3.08	264	ePn	Pn	22 53 12.6	+0.3
SILT	Sile	3.12	55	ePN	Pn	22 53 12.3	-0.4
SILT	Sile	3.12	55	ePn	Pn	22 53 12.4	-0.4
KNT	Kendrikon	3.13	306	P	Pn	22 53 13.8	+0.9
KNT	Kendrikon	3.13	306	P	Pn	22 53 13.8	+0.9
BORA	Eskisehir	3.26	80	i P	Pn	22 53 15.0	+0.2
BORA				eS	Sn	22 53 54.2	+0.7
BORA	Eskisehir	3.26	80	i P	Pn	22 53 15.0	+0.3
BORA				eS	Sn	22 53 54.2	+0.7
IDI	Anoyia	4.24	195	ePn	Pn	22 53 27.7	-0.5
IDI	Anoyia	4.24	195	ePn	Pn	22 53 27.7	-0.5
TIRR	Tirgusor	5.31	17	⇓iP	Pn	22 53 42.9	+0.1
TIRR	Tirgusor	5.31	17	⇓iP	Pn	22 53 42.9	+0.1
VOIR		6.11	352	⇑iP	Pn	22 53 58.9	+5.1
PLOR	Plostina	6.46	2	⇑iP	Pn	22 54 01.9	+3.2
VRI	Vrincioaia	6.48	3	⇓iP	Pn	22 54 01.4	+2.5
GZR	Gura Zlata	6.53	338	⇑iP	Pn	22 53 59.5	-0.1
GZR	Gura Zlata	6.53	338	⇑iP	Pn	22 53 59.5	-0.1
BZS	Buzias	7.11	333	⇓iP	Pn	22 54 07.4	-0.1
BZS	Buzias	7.11	333	⇓iP	Pn	22 54 07.4	-0.1

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*IDC **28** 22:58:47.0±1.2, 36°.60N×21°.81E, h0^{km}, mb3.7/4, mb1 3.6/6, mb1mx3.4/24, mbtmp3.6/6, ML2.7/2, Error ellipse: s-maj=31.3km s-min=19.6km az=169.0*

*ISCJB **28** 22:58:48.4±0.5, 36°.26N±0°.03×21°.75E±0°.04, h10^{km}, mb3.8/3, Error ellipse: s-maj=4.9km s-min=3.8km az=39.1*

*ATH **28** 22:58:49.0, 36°.22N×21°.86E, h16^{km}±2^{km}, MD3.6/15, ML3.1*

*NEIC **28** 22:58:49.0, 36°.22N×21°.86E, h16^{km}, ML3.1(ATH), After ATH.*

*CSEM **28** 22:58:49.5±0.4, 36°.24N×21°.80E, h10^{km}, ML3.5/3, Error ellipse: s-maj=9.2km s-min=6.1km az=31.0*

*THE **28** 22:58:50.4, 36°.36N×21°.94E, h4^{km}±2^{km}, ML3.5/3, Error ellipse: s-maj=4.3km s-min=1.7km az=238.0*

ISC 28 22:58:49.4±1.0**, 36°.28N**±0°.03×**21°.83E**±0°.04**, h8**^{km}±6^{km}**, n72,** σ1^{s}.**34**/98**, mb3.8**/3**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.62	353	S	Sg	22 59 09.3	-0.2
PYL	PYLOS	0.62	353	P	Pg	22 59 00.0	-1.4
PYL	PYLOS	0.62	353	S	Sg	22 59 09.3	-0.2
ITM	Ithomi	0.90	5	ePN	Pn	22 59 07.1	-1.3
ITM				eSN	Sn	22 59 20.3	-1.3
ITM	Ithomi	0.90	5	ePn	Pn	22 59 07.1	-1.3
ITM				eSn	Sn	22 59 20.3	-1.3
KYTH	Kithira	0.97	90	ePN	Pn	22 59 07.6	-1.8
KYTH	Kithira	0.97	90	ePn	Pn	22 59 07.6	-1.8
VLI	Veliai	0.99	64	ePN	Pn	22 59 08.1	-1.5
VLI				eSN	Sn	22 59 21.9	-1.9
VLI	Veliai	0.99	64	ePn	Pn	22 59 08.1	-1.5
VLI				eSn	Sn	22 59 21.9	-1.9
VLX	Vlachokerasia	1.17	22	ePB	Pb	22 59 11.0	-1.0
VLX				eSN	Sn	22 59 28.4	+0.1
VLX	Vlachokerasia	1.17	22	ePb	Pb	22 59 11.0	-1.0
VLX				eSn	Sn	22 59 28.4	+0.1
DID	Didima	1.66	42	ePN	Pn	22 59 19.9	+1.0
DID	Didima	1.66	42	ePn	Pn	22 59 19.9	+1.0
GUR	Goura	1.70	14	ePN	Pn	22 59 21.6	+2.2
GUR	Goura	1.70	14	ePn	Pn	22 59 21.6	+2.2
RLS	Riolos of Patr	1.80	351	ePN	Pn	22 59 23.5	+2.8
RLS	Riolos of Patr	1.80	351	ePn	Pn	22 59 23.5	+2.8
KARN	Karanos	1.91	117	P	Pn	22 59 22.6	+0.4
KARN				S	Sn	22 59 47.2	+0.8
KARN	Karanos	1.91	117	P	Pn	22 59 22.6	+0.4
KARN				S	Sn	22 59 47.2	+0.8
LTK	Loutraki	1.96	27	P	Pn	22 59 23.4	+0.4
LTK				S	Sn	22 59 47.5	-0.2
LTK	Loutraki	1.96	27	ePN	Pn	22 59 24.4	+1.4
LTK	Loutraki	1.96	27	P	Pn	22 59 23.4	+0.4
LTK	Loutraki	1.96	27	ePn	Pn	22 59 24.4	+1.4
LTK				S	Sn	22 59 47.5	-0.2
NAIG	Nisos Aigina	1.98	41	ePN	Pn	22 59 25.0	+1.7
NAIG	Nisos Aigina	1.98	41	ePn	Pn	22 59 25.0	+1.7
VAM	Vamos	2.11	114	ePN	Pn	22 59 25.0	0.0
VAM	Vamos	2.11	114	ePn	Pn	22 59 25.0	0.0
VLS	Valsamata	2.14	333	P	Pn	22 59 25.5	+0.1
VLS				S	Sn	22 59 52.5	+0.5
VLS	Valsamata	2.14	333	ePN	Pn	22 59 27.2	+1.8
VLS	Valsamata	2.14	333	P	Pn	22 59 25.5	+0.1
VLS	Valsamata	2.14	333	ePn	Pn	22 59 27.2	+1.8
VLS				S	Sn	22 59 52.5	+0.5
EFP	Efpalio	2.14	2	ePN	Pn	22 59 28.2	+2.7
EFP	Efpalio	2.14	2	ePn	Pn	22 59 28.2	+2.7
ATH	Athens Observa	2.26	41	ePN	Pn	22 59 28.5	+1.4
ATH	Athens Observa	2.26	41	ePn	Pn	22 59 28.5	+1.4
PTL	Penteli	2.40	42	ePN	Pn	22 59 29.5	+0.5
PTL	Penteli	2.40	42	ePn	Pn	22 59 29.5	+0.5
LKR	Lokris	2.54	21	ePN	Pn	22 59 32.5	+1.6
LKR	Lokris	2.54	21	ePn	Pn	22 59 32.5	+1.6
LKD	Levkas	2.60	339	P	Pn	22 59 32.8	+1.1
LKD				S	Sn	23 00 05.7	+2.3
LKD	Levkas	2.60	339	P	Pn	22 59 32.8	+1.1
LKD				S	Sn	23 00 05.7	+2.3
IDI	Anoyia	2.68	111	Pn	Pn	22 59 33.7	+1.0
	1.1nm,0.3s,baz=298,slow=17,SNR=12						
IDI				Sn	Sn	23 00 09.9	+4.5
	4.2nm,0.3s,baz=333,slow=18,SNR=3.8						
IDI	Anoyia	2.68	111	Pn	Pn	22 59 33.7	+0.9
IDI				Sn	Sn	23 00 09.9	+4.5
AGG	Agios Georgios	2.77	8	ePB	Pb	22 59 36.7	-2.4
AGG	Agios Georgios	2.77	8	ePb	Pb	22 59 36.7	-2.4
XOR	Xorichti	3.26	19	P	Pn	22 59 39.7	-1.2
XOR				S	Sn	23 00 19.4	-0.5
XOR	Xorichti	3.26	19	P	Pn	22 59 39.7	-1.2
XOR				S	Sn	23 00 19.4	-0.5
THL	Klokotos Trika	3.28	2	P	Pn	22 59 42.1	+1.0
THL				S	Sn	23 00 19.9	-0.4
THL	Klokotos Trika	3.28	2	ePN	Pn	22 59 42.2	+1.1
THL	Klokotos Trika	3.28	2	ePn	Pn	22 59 42.2	+1.1
THL				S	Sn	23 00 19.9	-0.4
JAN	Janina	3.46	347	ePN	Pn	22 59 44.6	+1.1
JAN	Janina	3.46	347	ePn	Pn	22 59 44.6	+1.1
LIT	Litokhoron	3.85	8	ePN	Pn	22 59 51.2	+2.3
LIT	Litokhoron	3.85	8	ePn	Pn	22 59 51.2	+2.3
KARP	Karpathos	4.39	98	ePN	Pn	22 59 56.5	+0.2
KARP	Karpathos	4.39	98	ePn	Pn	22 59 56.5	+0.2
TIP	Timpagrande	4.95	307	ePn	Pn	23 00 03.3	-0.8
	9.4nm,0.8s						
TIP				eSn	Sn	23 00 58.6	-2.9
TIP	Timpagrande	4.95	307	ePn	Pn	23 00 03.3	-0.8
	9.4nm,0.8s						
TIP				eSn	Sn	23 00 58.6	-2.9
VAY	Valandovo	5.07	6	ePn	Pn	23 00 05.6	-0.1
VAY	Valandovo	5.07	6	ePn	Pn	23 00 05.5	-0.1
KRUS	Krusevo	5.10	355	ePn	Pn	23 00 06.7	+0.6
KRUS	Krusevo	5.10	355	ePn	Pn	23 00 06.7	+0.6
CEL	Celeste	5.13	294	ePn	Pn	23 00 05.7	-0.8
	7.3nm,0.6s						
CEL				eSn	Sn	23 00 57.9	-7.9
CEL	Celeste	5.13	294	ePn	Pn	23 00 05.7	-0.8
	7.3nm,0.6s						
CUC	Castrocucco	6.02	310	ePn	Pn	23 00 18.6	-0.1
	5.3nm,0.3s						
CUC				eSn	Sn	23 01 14.6	-13
CUC	Castrocucco	6.02	310	ePn	Pn	23 00 18.6	-0.1
	5.3nm,0.3s						
VAE	Valguarnera	6.07	284	Pn	Pn	23 00 18.1	-1.2
	0.3nm,0.3s,baz=293,slow=7.7,SNR=2.4						
VAE				Sn	Sn	23 01 29.0	+0.1
	0.5nm,0.3s,baz=83,slow=17,SNR=5.0						
VAE	Valguarnera	6.07	284	Pn	Pn	23 00 18.1	-1.3
VAE				Sn	Sn	23 01 29.0	+0.1
TORD	Torodi Ar. Bea	29.29	223	P	P	23 04 52.9	+0.6
	0.5nm,0.9s,baz=33,slow=8.7,SNR=3.2						
MKAR	Makanchi Array	45.43	57	P	P	23 07 06.0	-2.5
	0.6nm,0.5s,mb3.7,baz=272,slow=7.5,SNR=10						
ZALV	Zalesovo Beam	46.20	47	P	P	23 07 12.0	-2.6
	0.7nm,0.3s,mb4.0,baz=269,slow=9.8,SNR=4.2						
SONM	Songino Array	60.86	50	P	P	23 08 59.7	-2.5
	0.2nm,0.5s,mb3.5,baz=274,slow=6.0,SNR=2.3						

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*IDC **28** 23:02:45.5±3.9, 6°.17S×149°.43E, h0^{km}, mb3.5/3, mb1 3.8/3, mb1mx3.4/16, mbtmp3.6/3, Error ellipse: s-maj=137.0km s-min=47.5km az=119.0*

NEIC 28 23:02:53.1±5.3**, 6°.36S**×**149°.49E, h62**^{km}±37^{km}**, mb3.4**/2**, Error ellipse: s-maj=111.7km s-min=44.3km az=125.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COEN	Coen	9.78	219	ePn	Pn	23 05 11.1	0.0
WRAB	Tennant Creek	19.96	226	eP	Pn	23 07 20.6	-1.9
	0.9nm,0.4s						
WB2	Warramunga Arr	19.96	226	eP	Pn	23 07 20.2	-2.4
WRA	Warramunga Arr	19.97	226	P	Pn	23 07 20.0	-2.7
	1.1nm,0.4s,baz=50,slow=11,SNR=4.6						
ASAR	Alice Springs	22.82	219	P	P	23 07 51.4	+0.5
	0.3nm,0.5s,baz=52,slow=9.5,SNR=6.1						
FITZ	Fitzroy Crossi	26.03	241	P	P	23 08 21.4	+0.8
	0.8nm,0.3s,baz=67,slow=12,SNR=3.8						
FITZ	Fitzroy Crossi	26.03	241	eP	P	23 08 21.0	+0.3
	0.5nm,0.4s						
TORD	Torodi Ar. Bea	147.58	284	PKPbc	PKPbc	23 22 31.8	+0.3
	0.2nm,0.7s,baz=69,slow=2.4,SNR=3.9						

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*ISCJB **28** 23:09:36.8±0.4, 37°.82N±0°.02×8°.76W±0°.04, h13^{km}±2^{km}, Error ellipse: s-maj=4.8km s-min=2.7km az=169.9*

*LDG **28** 23:09:37.6±0.2, 37°.77N×8°.91W, h2^{km}, Md3.5/1, Ml3.3/1, Error ellipse: s-maj=3.2km s-min=2.0km az=77.0*

*CSEM **28** 23:09:37.9±0.2, 37°.78N×8°.78W, h15^{km}, ML2.9/24, Error ellipse: s-maj=3.6km s-min=2.1km az=74.0*

*INMG **28** 23:09:38.4±1.4, 37°.76N×8°.86W, h6^{km}±3^{km}, MD2.2, ML2.3, Error ellipse: s-maj=3.0km s-min=1.5km az=75.0*

*IGIL **28** 23:09:38.9, 37°.75N×8°.89W, h2^{km}, ML2.5*

*MDD **28** 23:09:38.1±0.5, 37°.77N×8°.88W, h10^{km}, mbLg2.6/24, Error ellipse: s-maj=5.4km s-min=2.5km az=77.0, PRIMO*

ISC 28 23:09:37.7±0.4**, 37°.79N**±0°.02×**8°.82W**±0°.03**, h14**^{km}±2^{km}**, n117,** σ1^{s}.**05**/195**, 2D, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	0.26	164	i Pg	Pg	23 09 43.1	0.0
PTEO				eSg	Sg	23 09 46.5	-0.3
PTEO				A		23 09 46.8	
	342nm,0.3s						
PTEO	Sao Teotonio	0.26	164	⇓Pg	Pg	23 09 43.1	0.0
PTEO				Lg		23 09 46.5	
	171nm,0.3s						
MORF	Marmelete	0.50	165	ePg	Pg	23 09 47.4	-0.2
MORF				eSg	Sg	23 09 53.9	-0.4
MORF				A		23 09 54.6	
	237nm,0.1s						
MORF	Marmelete	0.50	165	Pg	Pg	23 09 47.4	-0.2
MORF				Lg		23 09 53.9	
	237nm,0.1s						
MORF	Marmelete	0.50	165	ePg	Pg	23 09 47.4	-0.2
MORF				eSg	Sg	23 09 53.9	-0.4
	237nm,0.1s						
PFVI	Vila Bisbo	0.66	181	ePg	Pg	23 09 50.1	-0.4
PFVI				eSg	Sg	23 09 58.1	-1.1
PFVI				A		23 10 01.8	
	86nm,0.1s						
PFVI	Vila Bisbo	0.66	181	Pg	Pg	23 09 50.1	-0.4
PFVI				Lg		23 09 58.1	
	43nm,0.1s						
PFVI	Vila Bisbo	0.66	181	ePg	Pg	23 09 50.1	-0.4
PFVI				eSg	Sg	23 09 58.1	-1.1
	86nm,0.1s						
MOE	Montemor	0.82	27	eP	Pg	23 09 54.9	+1.4
MOE				eS	Sg	23 10 07.1	+2.8
MOE	Montemor	0.82	27	eP	Pg	23 09 54.9	+1.4
PBDV	Barranco-do-Ve	0.89	128	eP	Pg	23 09 54.6	-0.3
PBDV				eS	Sg	23 10 08.6	+2.0
PBDV				A		23 10 10.9	
	53nm,0.3s						
PBDV	Barranco-do-Ve	0.89	128	Pg	Pg	23 09 54.6	-0.3
PBDV				Lg		23 10 08.6	
	53nm,0.3s						
PBDV	Barranco-do-Ve	0.89	128	eP	Pg	23 09 54.6	-0.3
EVOP	Sao Brissos	0.92	36	ePg	Pg	23 09 56.0	+0.6
EVOP				eSg	Sg	23 10 09.0	+1.6
	38nm,0.2s						
PVAQ	Vaqueiros	0.95	114	eP	Pb	23 09 55.9	-0.1
PVAQ				eS	Sb	23 10 10.2	+1.7
PVAQ				A		23 10 12.5	
	82nm,0.1s						
PVAQ	Vaqueiros	0.95	114	Pg	Pb	23 09 55.9	-0.1
PVAQ				Lg		23 10 10.2	
	82nm,0.1s						
PVAQ	Vaqueiros	0.95	114	eP	Pb	23 09 55.9	-0.1
LIS	Lisbon	0.96	344	eS	Sb	23 10 10.0	+1.3
LIS				eS	Sb	23 10 10.0	+1.3
LIS				AML	AML	23 10 10.3	
	comp=N,65nm,0.3s						
LIS	Lisbon	0.96	344	Lg		23 10 10.0	
LIS	Lisbon	0.96	344	eS	Sb	23 10 10.0	+1.3
EVO	Evora	0.97	40	ePg	Pg	23 09 56.0	-0.5
EVO				eSg	Sg	23 10 09.0	-0.2
	comp=N,75nm,0.2s						
EVO	Evora	0.97	40	eP	Pg	23 09 57.0	+0.5
EVO				eS	Sb	23 10 11.3	+2.2
EVO				A		23 10 12.9	
	comp=N,101nm,0.1s						
EVO	Evora	0.97	40	Pg	Pg	23 09 57.0	+0.5
EVO				Lg		23 10 11.3	
	comp=N,101nm,0.1s						
EVO	Evora	0.97	40	eP	Pg	23 09 57.0	+0.5
EGRO	El Granado	1.09	103	⇓Pg	Pg	23 09 58.4	-0.2
	comp=N,18nm,0.1s,SNR=18						
EGRO				Lg		23 10 14.3	
	comp=N,114nm,0.2s,SNR=5.0						
EGRO	El Granado	1.09	103	Pg	Pg	23 09 58.4	-0.3
	comp=N,18nm,0.1s,SNR=18						
EGRO				Lg		23 10 14.3	
	comp=N,114nm,0.2s,SNR=5.0						
PMAFR	Mafra	1.22	343	eP	Pn	23 10 00.7	+0.4
PMAFR				eS	Sb	23 10 17.2	+1.1
PMAFR				A		23 10 19.2	
	comp=N,94nm,0.4s						
PMAFR	Mafra	1.22	343	Pg	Pn	23 10 00.7	+0.4
PMAFR				Lg		23 10 17.2	
	comp=N,94nm,0.4s						
PMAFR	Mafra	1.22	343	eP	Pn	23 10 00.7	+0.4
PMAFR				eS	Sb	23 10 17.2	+1.1
	comp=N,94nm,0.4s						
ERIP	Rio Piedras	1.31	108	Pg	Pg	23 10 02.3	-0.5
	comp=N,11nm,0.1s,SNR=7.9						
ERIP				Lg		23 10 20.3	
	comp=N,68nm,0.2s,SNR=7.9						
ERIP	Rio Piedras	1.31	108	Pg	Pg	23 10 02.3	-0.6
	comp=N,11nm,0.1s,SNR=7.9						
ERIP				Lg		23 10 20.3	
	comp=N,68nm,0.2s,SNR=7.9						
ALMR	Almeirim	1.38	8	eP	Pn	23 10 03.5	+1.0
ALMR				eS	Sn	23 10 22.2	+1.8
ALMR				eS	Sn	23 10 22.2	+1.8
ALMR				AML	AML	23 10 23.3	
	comp=N,81nm,0.1s						
ALMR	Almeirim	1.38	8	eP	Pn	23 10 03.5	+1.0
ALMR				eS	Sn	23 10 22.2	+1.7
ALMR	Almeirim	1.38	8	eP	Pn	23 10 03.5	+1.0
ALMR				eS	Sn	23 10 22.2	+1.7
PESTR	Estremoz	1.44	42	ePn	Pn	23 10 03.5	+0.1
PESTR	Estremoz	1.44	42	ePg	Pg	23 10 05.3	-0.1
PESTR				eSn	Sn	23 10 24.1	+1.9
PESTR				A		23 10 25.9	
	comp=N,28nm,0.6s						
PESTR	Estremoz	1.44	42	Pn	Pn	23 10 03.5	+0.1
PESTR				Pg	Pg	23 10 05.3	-0.1
PESTR				Sn	Sn	23 10 24.1	+1.9
	comp=N,14nm,0.6s						
PESTR	Estremoz	1.44	42	ePn	Pn	23 10 03.5	+0.1
PESTR	Estremoz	1.44	42	ePg	Pg	23 10 05.3	-0.1
PESTR				eSn	Sn	23 10 24.1	+1.9
	comp=N,28nm,0.6s						
PBAR	Barrancos	1.46	74	eP	Pn	23 10 04.1	+0.5
PBAR				eSg	Sg	23 10 26.1	+1.5
PBAR				A		23 10 27.0	
	comp=N,45nm,0.3s						
PBAR	Barrancos	1.46	74	Pn	Pn	23 10 04.1	+0.5
PBAR				Lg		23 10 26.1	
	comp=N,45nm,0.3s						
PBAR	Barrancos	1.46	74	eP	Pn	23 10 04.1	+0.5
PBAR				eSg	Sg	23 10 26.1	+1.5
	comp=N,45nm,0.3s						
EMIN	Mina Concepcio	1.70	90	Pn	Pn	23 10 06.9	0.0
	comp=N,0.4nm,0.1s,SNR=7.9						
EMIN				Pg	Pg	23 10 09.6	-0.7
	comp=N,3.0nm,0.1s,SNR=57						
EMIN				Lg		23 10 32.0	
	comp=N,14nm,0.2s,SNR=5.0						
EMIN	Mina Concepcio	1.70	90	Pn	Pn	23 10 06.9	0.0
	comp=N,0.4nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	1.70	90	Pg	Pg	23 10 09.6	-0.7
	comp=N,3.0nm,0.1s,SNR=57						
EMIN				Lg		23 10 32.0	
	comp=N,14nm,0.2s,SNR=5.0						
EBAD	Badajoz	1.71	55	Pn	Pn	23 10 06.8	-0.3
	comp=N,0.6nm,0.1s,SNR=7.9						
EBAD				Pg	Pg	23 10 09.8	-0.8
	comp=N,8.6nm,0.1s,SNR=55						
EBAD				Lg		23 10 33.3	
	comp=N,27nm,0.1s,SNR=11						
EBAD	Badajoz	1.71	55	Pn	Pn	23 10 06.8	-0.3
	comp=N,0.6nm,0.1s,SNR=7.9						
EBAD	Badajoz	1.71	55	Pg	Pg	23 10 09.8	-0.8
	comp=N,8.6nm,0.1s,SNR=55						
EBAD				Lg		23 10 32.3	
	comp=N,27nm,0.1s,SNR=11						
PTOM	Tomar	1.85	10	ePn	Pn	23 10 09.5	+0.5
PTOM				eSg	Sg	23 10 36.0	-1.2
PTOM				A		23 10 37.7	
	comp=N,28nm,0.1s						
PTOM	Tomar	1.85	10	Pn	Pn	23 10 09.5	+0.5
PTOM				Lg		23 10 36.0	
	comp=N,14nm,0.1s						
PTOM	Tomar	1.85	10	ePn	Pn	23 10 09.5	+0.5
PTOM				eSg	Sg	23 10 36.0	-1.2
	comp=N,28nm,0.1s						
PMRV	Marv??o	1.98	34	ePn	Pn	23 10 10.8	0.0
PMRV				eSn	Sn	23 10 34.6	-0.8
PMRV				eSg	Sg	23 10 40.2	-1.1
PMRV				A		23 10 43.1	
	comp=N,16nm,0.6s						
PMRV	Marv??o	1.98	34	Pn	Pn	23 10 10.8	0.0
PMRV				Sn	Sn	23 10 34.6	-0.8
PMRV				Lg		23 10 40.2	
	comp=N,7.9nm,0.6s						
PMRV	Marv??o	1.98	34	ePn	Pn	23 10 10.8	0.0
PMRV				eSn	Sn	23 10 34.6	-0.8
PMRV				eSg	Sg	23 10 40.2	-1.1
	comp=N,16nm,0.6s						
PCBR	Castelo Branco	2.30	27	ePn	Pn	23 10 15.4	+0.2
PCBR				eSg	Sg	23 10 51.3	-0.2
PCBR				A		23 10 55.4	
	comp=N,7.1nm,0.5s						
PCBR	Castelo Branco	2.30	27	Pn	Pn	23 10 15.4	+0.2
PCBR				Lg		23 10 51.3	
	comp=N,3.6nm,0.5s						
PCBR	Castelo Branco	2.30	27	ePn	Pn	23 10 15.4	+0.2
PCBR				eSg	Sg	23 10 51.3	-0.2
	comp=N,7.1nm,0.5s						
ESPR	Espera	2.53	110	Pn	Pn	23 10 20.6	+2.2
	comp=N,0.6nm,0.1s,SNR=7.9						
ESPR				Pg	Pg	23 10 25.9	-0.3
	comp=N,2.6nm,0.1s,SNR=19						
ESPR				Sn	Sn	23 10 51.2	+2.1
	comp=N,7.0nm,0.2s,SNR=7.9						
ESPR				Lg		23 10 59.8	
	comp=N,13nm,0.3s,SNR=7.9						
ESPR	Espera	2.53	110	Pn	Pn	23 10 20.6	+2.2
	comp=N,0.6nm,0.1s,SNR=7.9						
ESPR	Espera	2.53	110	Pg	Pg	23 10 26.0	-0.2
	comp=N,2.6nm,0.1s,SNR=19						
ESPR				Sn	Sn	23 10 51.2	+2.2
	comp=N,7.0nm,0.2s,SNR=7.9						
ESPR				Lg		23 10 59.8	
	comp=N,13nm,0.3s,SNR=7.9						
ECAB	El Cabril	2.70	83	Pn	Pn	23 10 21.3	+0.6
	comp=N,0.7nm,0.1s,SNR=8.6						
ECAB				Pg	Pg	23 10 29.1	-0.3
	comp=N,2.1nm,0.1s,SNR=7.1						
ECAB				Sn	Sn	23 10 53.1	-0.1
	comp=N,3.3nm,0.2s,SNR=4.6						
ECAB				Lg		23 11 03.2	
	comp=N,12nm,0.2s,SNR=5.6						
ECAB	El Cabril	2.70	83	Pn	Pn	23 10 21.3	+0.6
	comp=N,0.7nm,0.1s,SNR=8.6						
ECAB	El Cabril	2.70	83	Pg	Pg	23 10 29.1	-0.4
	comp=N,2.1nm,0.1s,SNR=7.1						
ECAB				Sn	Sn	23 10 53.1	-0.1
	comp=N,3.3nm,0.2s,SNR=4.6						
ECAB				Lg		23 11 02.0	
	comp=N,12nm,0.2s,SNR=5.6						
MTE	Manteigas	2.79	20	ePn	Pn	23 10 21.9	0.0
MTE				eSn	Sn	23 10 55.3	0.0
MTE				eSg	Sg	23 11 08.4	+1.2
MTE				A		23 11 11.1	
	comp=N,10nm,0.6s						
MTE	Manteigas	2.79	20	ePn	Pn	23 10 21.9	0.0
MTE				eSn	Sn	23 10 55.3	0.0
MTE				eSg	Sg	23 11 08.4	+1.2
	comp=N,10nm,0.6s						
LIJA	Lijar	2.86	107	Pg	Pg	23 10 31.0	-1.5
LIJA				Lg		23 11 11.0	
PVIS	Viseu	3.01	13	ePn	Pn	23 10 25.2	+0.3
PVIS				eSn	Sn	23 11 00.7	0.0
PVIS				eSg	Sg	23 11 12.5	-1.8
PVIS				A		23 11 17.4	
	comp=N,4.9nm,0.2s						
PVIS	Viseu	3.01	13	Pn	Pn	23 10 25.2	+0.3
PVIS				Sn	Sn	23 11 00.7	0.0
PVIS				Lg		23 11 12.5	
	comp=N,2.5nm,0.2s						
PVIS	Viseu	3.01	13	ePn	Pn	23 10 25.2	+0.3
PVIS				eSn	Sn	23 11 00.7	0.0
PVIS				eSg	Sg	23 11 12.5	-1.8
	comp=N,4.9nm,0.2s						
EADA	Adamuz	3.37	82	Pn	Pn	23 10 29.9	0.0
	comp=N,0.3nm,0.2s,SNR=7.9						
EADA				Sn	Sn	23 11 09.5	-0.2
	comp=N,2.8nm,0.2s,SNR=7.9						
EADA				Lg		23 11 24.3	
	comp=N,4.0nm,0.2s,SNR=7.9						
EADA	Adamuz	3.37	82	Pn	Pn	23 10 29.9	0.0
	comp=N,0.3nm,0.2s,SNR=7.9						
EADA				Sn	Sn	23 11 09.5	-0.2
	comp=N,2.8nm,0.2s,SNR=7.9						
EADA				Lg		23 11 24.3	
	comp=N,4.0nm,0.2s,SNR=7.9						
EMIJ	Mijas	3.45	110	Pn	Pn	23 10 35.2	+4.1
	comp=N,0.5nm,0.2s,SNR=4.0						
EMIJ				Sn	Sn	23 11 12.2	+0.4
	comp=N,3.2nm,0.3s,SNR=7.9						
EMIJ				Lg		23 11 29.3	
	comp=N,1.8nm,0.3s,SNR=4.0						
EMIJ	Mijas	3.45	110	Pn	Pn	23 10 35.2	+4.2
	comp=N,0.5nm,0.2s,SNR=4.0						
EMIJ				Sn	Sn	23 11 12.2	+0.4
	comp=N,3.2nm,0.3s,SNR=7.9						
EMIJ				Lg		23 11 29.3	
	comp=N,1.8nm,0.3s,SNR=4.0						
PVRL	Vila Real	3.58	13	ePn	Pn	23 10 32.8	0.0
PVRL				eSn	Sn	23 11 14.1	-0.8
PVRL				A		23 11 34.0	
	comp=N,5.9nm,0.5s						
PVRL	Vila Real	3.58	13	Pn	Pn	23 10 32.8	0.0
PVRL				Sn	Sn	23 11 14.1	-0.8
	comp=N,3.0nm,0.5s						
PVRL	Vila Real	3.58	13	ePn	Pn	23 10 32.8	0.0
PVRL				eSn	Sn	23 11 14.1	-0.8
	comp=N,5.9nm,0.5s						
MVO	Moncorvo	3.64	22	ePn	Pn	23 10 33.5	-0.1
MVO				eSn	Sn	23 11 15.6	-0.8
MVO				eSg	Sg	23 11 34.0	-0.6
MVO				A		23 11 37.9	
	comp=N,7.6nm,0.7s						

MVO	**Moncorvo**	**3.64**	**22**	Pn	**Pn**	**23 10 33.5**	**-0.1**
MVO				Sn	**Sn**	**23 11 15.6**	**-0.8**
MVO				Lg		23 11 34.0	
	comp=N,3.8nm,0.7s						
MVO	**Moncorvo**	**3.64**	**22**	*e*Pn	**Pn**	**23 10 33.5**	**-0.1**
MVO				*e*Sn	**Sn**	**23 11 15.6**	**-0.8**
MVO				*e*Sg	**Sg**	**23 11 34.0**	**-0.6**
	comp=N,7.6nm,0.7s						
ELOJ	**Sierra Loja**	**3.77**	**98**	Sn	**Sn**	**23 11 22.4**	**+3.0**
	comp=N,0.5nm,0.2s,SNR=4.0						
ELOJ				Lg		23 11 40.9	
	comp=N,1.4nm,0.3s,SNR=4.0						
ELOJ	**Sierra Loja**	**3.77**	**98**	Sn	**Sn**	**23 11 22.4**	**+3.0**
	comp=N,0.5nm,0.2s,SNR=4.0						
ELOJ				Lg		23 11 40.9	
	comp=N,1.4nm,0.3s,SNR=4.0						
PCAB	**Cabril**	**3.96**	**9**	*e*Pn	**Pn**	**23 10 38.1**	**+0.1**
PCAB				*e*Sn	**Sn**	**23 11 22.2**	**-2.1**
PCAB	**Cabril**	**3.96**	**9**	*e*Pn	**Pn**	**23 10 38.1**	**+0.1**
PCAB				*e*Sn	**Sn**	**23 11 22.2**	**-2.1**
EBAN	**Banos Encina**	**3.99**	**83**	Sn	**Sn**	**23 11 23.7**	**-1.3**
	comp=N,1.5nm,0.2s,SNR=7.9						
EBAN				Lg		23 11 46.4	
	comp=N,2.4nm,0.2s,SNR=6.8						
EBAN	**Banos Encina**	**3.99**	**83**	Sn	**Sn**	**23 11 23.7**	**-1.3**
	comp=N,1.5nm,0.2s,SNR=7.9						
EBAN				Lg		23 11 46.4	
	comp=N,2.4nm,0.2s,SNR=6.8						
ELOB	**Lobios**	**4.11**	**8**	Pn	**Pn**	**23 10 40.1**	**0.0**
	comp=N,2.0nm,0.2s,SNR=7.9						
ELOB				Sn	**Sn**	**23 11 25.6**	**-2.4**
	comp=N,0.9nm,0.1s,SNR=7.9						
ELOB				Lg		23 11 46.8	
	comp=N,2.0nm,0.2s,SNR=4.0						
ELOB	**Lobios**	**4.11**	**8**	Pn	**Pn**	**23 10 40.1**	**0.0**
	comp=N,2.0nm,0.2s,SNR=7.9						
ELOB				Sn	**Sn**	**23 11 25.6**	**-2.4**
	comp=N,0.9nm,0.1s,SNR=7.9						
ELOB				Lg		23 11 46.8	
	comp=N,2.0nm,0.2s,SNR=4.0						
ESDC	**Sonseca Array**	**4.23**	**62**	Pn	**Pn**	**23 10 41.8**	**+0.1**
	comp=N,1.1nm,0.2s,baz=248,slow=13,SNR=3.9						
ESDC				Sn	**Sn**	**23 11 29.7**	**-1.4**
	comp=N,1.5nm,0.2s,baz=246,slow=22,SNR=4.7						
ESDC				Lg		23 11 50.4	
	comp=N,2.3nm,0.2s,baz=251,slow=26,SNR=7.9						
ESDC	**Sonseca Array**	**4.23**	**62**	Pn	**Pn**	**23 10 41.8**	**0.0**
	comp=N,1.1nm,0.2s,baz=248,slow=13,SNR=3.9						
ESDC				Sn	**Sn**	**23 11 29.7**	**-1.3**
	comp=N,1.5nm,0.2s,baz=246,SNR=4.7						
ESDC				Lg		23 11 50.4	
	comp=N,2.3nm,0.2s,SNR=7.9						
EQUE	**Quentar**	**4.32**	**96**	Pn	**Pn**	**23 10 45.1**	**+2.2**
	comp=N,0.1nm,0.1s,SNR=4.0						
EQUE				Pg	**Pg**	**23 10 58.6**	**-1.7**
	comp=N,0.3nm,0.3s,SNR=7.9						
EQUE				Sn	**Sn**	**23 11 32.9**	**-0.1**
	comp=N,0.5nm,0.2s,SNR=7.9						
EQUE				Lg		23 11 58.6	
	comp=N,0.7nm,0.2s,SNR=4.0						
EQUE	**Quentar**	**4.32**	**96**	Pn	**Pn**	**23 10 45.1**	**+2.2**
	comp=N,0.1nm,0.1s,SNR=4.0						
ECAL	**Calabor**	**4.44**	**20**	Pn	**Pn**	**23 10 44.8**	**+0.2**
	comp=N,2.2nm,0.2s,SNR=7.9						
ECAL				Sn	**Sn**	**23 11 36.0**	**-0.2**
	comp=N,1.2nm,0.2s,SNR=7.9						
ECAL				Lg		23 11 59.6	
	comp=N,2.1nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**4.44**	**20**	Pn	**Pn**	**23 10 44.8**	**+0.2**
	comp=N,2.2nm,0.2s,SNR=7.9						
ECAL				Sn	**Sn**	**23 11 36.0**	**-0.1**
	comp=N,1.2nm,0.2s,SNR=7.9						
ECAL				Lg		23 11 59.6	
	comp=N,2.1nm,0.2s,SNR=7.9						
EQES	**Quesada**	**4.55**	**88**	Pn	**Pn**	**23 10 46.5**	**+0.3**
	comp=N,0.3nm,0.2s,SNR=7.9						
EQES				Sn	**Sn**	**23 11 38.1**	**-0.7**
	comp=N,0.7nm,0.2s,SNR=7.9						
EQES				Lg		23 12 04.3	
	comp=N,1.0nm,0.2s,SNR=7.9						
EQES	**Quesada**	**4.55**	**88**	Pn	**Pn**	**23 10 46.5**	**+0.4**
	comp=N,0.3nm,0.2s,SNR=7.9						
EQES				Sn	**Sn**	**23 11 38.1**	**-0.7**
	comp=N,0.7nm,0.2s,SNR=7.9						
EQES				Lg		23 12 04.3	
	comp=N,1.0nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**4.61**	**50**	Pn	**Pn**	**23 10 46.8**	**0.0**
	comp=N,0.2nm,0.2s,SNR=4.0						
GUD				Sn	**Sn**	**23 11 37.4**	**-2.7**
	comp=N,0.6nm,0.3s,SNR=7.9						
GUD				Lg		23 12 03.8	
	comp=N,4.1nm,0.4s,SNR=7.9						
GUD	**Guadarrama**	**4.61**	**50**	Pn	**Pn**	**23 10 46.8**	**-0.1**
	comp=N,0.2nm,0.2s,SNR=4.0						
GUD				Sn	**Sn**	**23 11 37.4**	**-2.8**
	comp=N,0.6nm,0.3s,SNR=7.9						
GUD				Lg		23 12 03.8	
	comp=N,4.1nm,0.4s,SNR=7.9						
EBER	**Berja**	**4.80**	**99**	Sn	**Sn**	**23 11 45.2**	**+0.1**
	comp=N,0.5nm,0.2s,SNR=4.0						
EBER	**Berja**	**4.80**	**99**	Sn	**Sn**	**23 11 45.2**	**+0.1**
	comp=N,0.5nm,0.2s,SNR=4.0						
EHUE	**Huescar**	**4.93**	**88**	Sn	**Sn**	**23 11 47.0**	**-1.1**
	comp=N,0.3nm,0.2s,SNR=7.9						
EHUE				Lg		23 12 14.1	
	comp=N,0.4nm,0.2s,SNR=4.0						
EHUE	**Huescar**	**4.93**	**88**	Sn	**Sn**	**23 11 47.0**	**-1.1**
	comp=N,0.3nm,0.2s,SNR=7.9						
EHUE				Lg		23 12 14.1	
	comp=N,0.4nm,0.2s,SNR=4.0						
EVIA	**Vianos**	**5.04**	**78**	Sn	**Sn**	**23 11 48.2**	**-2.7**
	comp=N,0.6nm,0.2s,SNR=7.9						
EVIA				Lg		23 12 18.9	
	comp=N,1.5nm,0.3s,SNR=7.9						
EVIA	**Vianos**	**5.04**	**78**	Sn	**Sn**	**23 11 48.2**	**-2.8**
	comp=N,0.6nm,0.2s,SNR=7.9						
EVIA				Lg		23 12 18.9	
	comp=N,1.5nm,0.3s,SNR=7.9						
EMAZ	**Mazaricos**	**5.15**	**359**	Pn	**Pn**	**23 10 53.9**	**-0.5**
	comp=N,0.3nm,0.2s,SNR=7.9						
EMAZ				Sn	**Sn**	**23 11 49.9**	**-3.7**
	comp=N,0.5nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	**5.15**	**359**	Pn	**Pn**	**23 10 53.9**	**-0.5**
	comp=N,0.3nm,0.2s,SNR=7.9						
EMAZ				Sn	**Sn**	**23 11 49.9**	**-3.7**
	comp=N,0.5nm,0.1s,SNR=7.9						
ETOB	**Tobarra**	**5.79**	**79**	Pn	**Pn**	**23 11 02.5**	**-0.6**
	comp=N,0.6nm,0.2s,SNR=7.9						
ETOB				Lg		23 12 44.2	
	comp=N,1.6nm,0.4s,SNR=4.0						
ETOB	**Tobarra**	**5.79**	**79**	Pn	**Pn**	**23 11 02.5**	**-0.6**
	comp=N,0.6nm,0.2s,SNR=7.9						
ETOR	**Torete**	**6.05**	**58**	Pn	**Pn**	**23 11 06.8**	**0.0**
	comp=N,1.2nm,0.2s,SNR=7.9						
ETOR				Sn	**Sn**	**23 12 12.2**	**-3.6**
	comp=N,2.0nm,0.4s,SNR=7.9						
ETOR				Lg		23 12 50.1	
	comp=N,2.2nm,0.2s,SNR=7.9						
ETOR	**Torete**	**6.05**	**58**	Pn	**Pn**	**23 11 06.8**	**+0.1**
	comp=N,1.2nm,0.2s,SNR=7.9						
EARI	**Arriondas**	**6.15**	**25**	Pn	**Pn**	**23 11 08.9**	**+0.8**
	comp=N,0.1nm,0.2s,SNR=7.9						
EARI	**Arriondas**	**6.15**	**25**	Pn	**Pn**	**23 11 08.9**	**+0.8**
	comp=N,0.1nm,0.2s,SNR=7.9						
SJPF	**Ste Jean**	**7.86**	**45**	*e*Pn	**Pn**	**23 11 31.5**	**0.0**
SJPF	**Ste Jean**	**7.86**	**45**	*e*Pn	**Pn**	**23 11 31.5**	**0.0**
ETSF	**Etsaut**	**8.11**	**48**	*e*Pn	**Pn**	**23 11 34.8**	**-0.1**
ETSF	**Etsaut**	**8.11**	**48**	*e*Pn	**Pn**	**23 11 34.8**	**-0.1**
EPF	**Esparros**	**8.72**	**50**	*e*Pn	**Pn**	**23 11 43.0**	**-0.4**
EPF	**Esparros**	**8.72**	**50**	*e*Pn	**Pn**	**23 11 43.0**	**-0.4**

*IDC **28** 23:10:56.8±1.5, 8°.84S×157°.39E, h0^{km}, mb3.6/4, mb1 3.8/5, mb1mx3.6/17, mbtmp3.7/5, ML3.9/1, Error ellipse: s-maj=38.7km s-min=23.5km az=176.0*

*NEIC **28** 23:10:58.4±1.0, 8°.86S×157°.48E, h10^{km}, mb3.7/1, Error ellipse: s-maj=30.6km s-min=14.0km az=174.0*

*ISCJB **28** 23:11:01.1±1.2, 8°.9S±0°.2×157°.32E±0°.07, h33^{km}, mb3.6/4, Error ellipse: s-maj=33.3km s-min=9.8km az=0.7*

ISC 28 23:11:02.8±1.2, **8°.8S**±0°.2×**157°.32E**±0°.07, **h35**^{km}, **n7**, σ**0^{s}.90**/9, **mb3.6**/4, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**2.66**	**103**	Pn	**Pn**	**23 11 39.4**	**-3.8**
	23nm,0.3s,baz=179,slow=3.1,SNR=7.4						
HNR				Sn	**Sn**	**23 12 14.9**	**+0.8**
	63nm,0.3s,baz=44,slow=22,SNR=7.6						
HNR	**Honiara**	**2.66**	**103**	Pn	**Pn**	**23 11 39.4**	**-3.8**
HNR				Sn	**Sn**	**23 12 14.9**	**+0.8**
WRAB	**Tennant Creek**	**24.80**	**241**	*e*P	**P**	**23 16 23.3**	**+1.6**
	1.0nm,0.6s,mb3.5						
WRA	**Warramunga Arr**	**24.81**	**241**	P	**P**	**23 16 21.8**	**-0.1**
	0.9nm,0.4s,mb3.7,baz=68,slow=8.8,SNR=4.1						
ASAR	**Alice Springs**	**26.82**	**234**	P	**P**	**23 16 39.8**	**-0.3**
	0.2nm,0.4s,baz=65,slow=9.3,SNR=2.7						
STKA	**Stephens Creek**	**27.18**	**210**	P	**P**	**23 16 42.4**	**-0.8**
	0.9nm,0.4s,mb3.7,baz=39,slow=13,SNR=1.9						
MKAR	**Makanchi Array**	**86.31**	**318**	P	**P**	**23 23 41.0**	**-0.1**
	0.2nm,0.6s,mb3.5,baz=104,slow=5.8,SNR=2.6						

GUC 28 23:23:41.8±1.1, **24°.07S**×**67°.54W**, **h219**^{km}±16^{km}, **ML3.7**, **2C-1D**, **Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**1.92**	**319**	⇑*i*P	Pn	23 24 22.6	+1.7
LVC				*i* S	S	23 24 54.0	+2.4
LVC				AML	AML	23 24 56.2	
	comp=E,89nm,0.3s						
PECH	**Pedro de Valdi**	**2.44**	**306**	*e*P	Pn	23 24 28.6	+2.2
PECH				*i* S	S	23 25 03.7	+2.5
PECH				AML	AML	23 25 05.3	
	comp=E,306nm,0.4s						
CEN1	**Los Morros**	**2.53**	**285**	⇓*i*P	Pn	23 24 31.9	+4.7
CEN1				*i* S	S	23 25 08.7	+6.0
CEN1				AML	AML	23 25 11.2	
	comp=N,139nm,0.5s						
PB04	**Plate Boundary**	**2.53**	**315**	*e*P	Pn	23 24 35.0	+7.7
PB04				*i* S	S	23 25 14.4	+11
PB04				AML	AML	23 25 15.8	
	comp=N,144nm,0.4s						
ANCH	**Antofagasta**	**2.65**	**278**	⇑*i*P	Pn	23 24 31.3	+2.7
ANCH				*i* S	S	23 25 07.4	+2.2
CPN1	**Cerro Paranal**	**2.67**	**257**	*e*P	Pn	23 24 30.7	+2.0
CPN1				AML	AML	23 25 08.5	
	comp=E,152nm,0.3s						
PB01	**Plate Boundary**	**3.50**	**329**	*e*P	Pn	23 24 40.4	+2.0
PB01				*i* S	S	23 25 25.1	+2.1
PB01				AML	AML	23 25 27.7	
	comp=N,51nm,0.3s						
HMBC	**Humberston**	**4.35**	**330**	*e*P	Pn	23 24 49.9	+1.2
HMBC				*e*S	S	23 25 42.9	+1.4

*NEIC **28** 23:53:09.1±2.2, 35°.29N×143°.01E, h10^{km}, MG3.4(JMA), Error ellipse: s-maj=31.5km s-min=13.8km az=120.0*

*MOS **28** 23:53:12.3±0.7, 35°.51N×142°.90E, h33^{km}, mb4.0/5, Error ellipse: s-maj=28.1km s-min=17.9km az=128.4*

*ISCJB **28** 23:53:13.3±0.8, 35°.61N±0°.04×142°.72E±0°.06, h33^{km}, mb3.8/5, Error ellipse: s-maj=7.6km s-min=5.1km az=22.2*

*JMA **28** 23:53:13.6±0.2, 35°.61N×142°.70E, h67^{km}, M3.4*

*IDC **28** 23:53:18.2±3.0, 35°.24N×142°.43E, h47^{km}±8^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.4/24, mbtmp3.5/6, ML3.5/1, Error ellipse: s-maj=100.9km s-min=16.7km az=63.0*

ISC 28 23:53:15.3±0.8, **35°.62N**±0°.04×**142°.67E**±0°.06, **h35**^{km}, **(h49**^{km}±4.6^{km}**:pP-P)**, **n29**, σ**1^{s}.04**/40, **mb3.8**/5, **Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOJ	**Chosi**	**1.48**	**274**	P	**Pn**	**23 53 39.2**	**-0.1**
CHOJ				S	**Sn**	**23 53 57.5**	**+0.1**
BSO1	**Boso 1**	**1.69**	**236**	P	**Pn**	**23 53 40.7**	**-1.5**
BSO1				S	**Sn**	**23 54 01.7**	**-0.9**
BSO2	**Boso 2**	**1.79**	**242**	*e*S	**Sn**	**23 54 04.9**	**-0.2**
BSO3	**Boso 3**	**1.94**	**246**	P	**Pn**	**23 53 46.0**	**+0.2**
BSO3				S	**Sn**	**23 54 08.3**	**-0.7**
JHO	**Hitachi**	**1.97**	**301**	P	**Pn**	**23 53 45.4**	**-0.7**
JHO				S	**Sn**	**23 54 08.7**	**-0.8**
JFK	**Kawauchi**	**2.27**	**321**	P	**Pn**	**23 53 49.7**	**-0.5**
JFK				S	**Sn**	**23 54 16.5**	**-0.4**
JMM	**Marumori**	**2.70**	**327**	P	**Pn**	**23 53 55.7**	**-0.5**
JMM				S	**Sn**	**23 54 27.2**	**-0.4**
JAG	**Ashikaga**	**2.73**	**288**	P	**Pn**	**23 53 56.3**	**-0.2**
JOD2	**Odawara 2**	**2.94**	**264**	P	**Pn**	**23 53 59.1**	**-0.4**
JOD2				S	**Sn**	**23 54 32.9**	**-0.7**
JRY	**Ryogami san**	**3.09**	**279**	P	**Pn**	**23 54 02.1**	**+0.6**
JRY				S	**Sn**	**23 54 38.7**	**+1.6**
JYN	**Shimob**	**3.36**	**269**	P	**Pn**	**23 54 05.3**	**0.0**
JHJ2	**Mitsune**	**3.44**	**224**	*e*Pn	**Pn**	**23 54 02.4**	**-3.9**
JMK	**Ichinoseki**	**3.52**	**341**	P	**Pn**	**23 54 07.8**	**+0.3**
JMK				S	**Sn**	**23 54 46.8**	**-1.1**
MJAR	**Matsushiro Arr**	**3.73**	**286**	P	**Pn**	**23 54 11.6**	**+1.3**
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MJAR	**Matsushiro Arr**	**3.73**	**286**	P	**Pn**	**23 54 11.6**	**+1.4**
	comp=Z,3.5nm,0.3s,baz=97,slow=7.5,SNR=17						
MAJO	**Matsushiro**	**3.73**	**286**	*e*P	**Pn**	**23 54 11.8**	**+1.5**
MAT	**Matsushiro**	**3.73**	**286**	P	**Pn**	**23 54 11.6**	**+1.3**
MAT				*e*S	**Sn**	**23 55 01.7**	**+8.7**
ERM	**Erimo**	**6.40**	**3**	*e*Pn	**Pn**	**23 54 47.6**	**+0.6**
ERM				*e*Sn	**Sn**	**23 55 56.2**	**-2.5**
BOD	**Bodaibo**	**29.27**	**328**	*e*P	**P**	**23 59 19.3**	**+5.5**
SONM	**Songino Array**	**29.42**	**306**	P	**P**	**23 59 17.1**	**+1.8**
SONM				*PP	pP	23 59 30.8	+5.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SONM	**Songino Array**	**29.42**	**306**	P	**P**	**23 59 17.1**	**+1.8**
	comp=Z,0.9nm,0.7s,mb3.6,baz=110,slow=8.8,SNR=6.7						
SONM				pP	pP	23 59 30.8	+5.4
	comp=Z,1.0nm,0.9s,baz=97,slow=8.4,SNR=4.7						
ZALV	**Zalesovo Beam**	**43.62**	**313**	P	**P**	**00 01 18.1**	**+2.2**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
ZALV	**Zalesovo Beam**	**43.62**	**313**	P	**P**	**00 01 18.1**	**+2.2**
	comp=Z,0.5nm,0.4s,mb3.6,baz=104,slow=6.1,SNR=3.2						
MKAR	**Makanchi Array**	**45.74**	**303**	P	**P**	**00 01 34.7**	**+1.8**
MKAR				*PP	pP	00 01 49.0	+5.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	**Makanchi Array**	**45.74**	**303**	P	**P**	**00 01 34.7**	**+1.8**
	comp=Z,0.5nm,0.7s,mb3.5,baz=89,slow=10,SNR=5.4						
MKAR				pP	pP	00 01 49.0	+5.7
	comp=Z,0.8nm,0.8s,baz=90,slow=10,SNR=5.6						
WRA	**Warramunga Arr**	**55.82**	**189**	P	**P**	**00 02 48.3**	**-0.7**
WRA				*PP	pP	00 03 00.3	+0.7
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	**Warramunga Arr**	**55.82**	**189**	P	**P**	**00 02 48.3**	**-0.7**
	comp=Z,1.6nm,0.6s,mb4.2,baz=11,slow=7.6,SNR=8.0						
WRA				pP	pP	00 03 00.3	+0.7
	comp=Z,0.5nm,0.4s,baz=342,slow=8.2,SNR=2.4						
ASAR	**Alice Springs**	**59.54**	**189**	P	**P**	**00 03 14.2**	**-0.9**
ASAR				*PP	pP	00 03 26.3	+0.5
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	**59.54**	**189**	P	**P**	**00 03 14.2**	**-1.0**
	comp=Z,0.8nm,0.8s,mb3.8,baz=10,slow=6.9,SNR=6.7						
ASAR				pP	pP	00 03 26.3	+0.5
	comp=Z,0.3nm,0.7s,baz=7.7,slow=14,SNR=2.2						

*ISCJB **28** 23:57:48.2±0.9, 37°.89N±0°.04×20°.93E±0°.04, h0^{km}±7^{km}, Error ellipse: s-maj=7.4km s-min=4.5km az=37.5*

*CSEM **28** 23:57:48.3±0.3, 37°.87N×20°.91E, h2^{km}, MD3.3, Error ellipse: s-maj=6.5km s-min=4.0km az=48.0*

*ATH **28** 23:57:48.7, 37°.87N×20°.90E, h11^{km}, MD3.3/3*

*THE **28** 23:57:48.9, 37°.90N×20°.95E, h1^{km}±2^{km}, ML2.6/2, Error ellipse: s-maj=2.5km s-min=0.7km az=203.0*

ISC 28 23:57:48.7±0.7, **37°.87N**±0°.03×**20°.91E**±0°.05, **h4**^{km}±7^{km}, **n22**, σ**0^{s}.72**/37, **Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	**Valsamata**	**0.40**	**321**	P	**Pg**	**23 57 56.3**	**-0.1**
VLS				S	**Sg**	**23 58 02.5**	**+0.9**
VLS	**Valsamata**	**0.40**	**321**	*e*PB	**Pg**	**23 57 56.3**	**-0.1**
VLS				*e*SB	**Sg**	**23 58 02.7**	**+1.1**
VLS	**Valsamata**	**0.40**	**321**	*e*Pb	**Pg**	**23 57 56.3**	**-0.1**
VLS				*e*Sb	**Sg**	**23 58 02.7**	**+1.1**
RLS	**Riolos of Patr**	**0.48**	**66**	*e*PB	**Pg**	**23 57 57.8**	**-0.1**
RLS				*e*SB	**Sg**	**23 58 05.0**	**+0.9**
RLS	**Riolos of Patr**	**0.48**	**66**	*e*Pb	**Pg**	**23 57 57.8**	**-0.1**
RLS				*e*Sb	**Sg**	**23 58 05.0**	**+0.9**
LKD	**Levkas**	**0.86**	**346**	P	**Pg**	**23 58 04.3**	**-1.0**
LKD				S	**Sg**	**23 58 16.7**	**+0.2**
LKD	**Levkas**	**0.86**	**346**	P	**Pg**	**23 58 04.3**	**-1.0**
LKD				S	**Sg**	**23 58 16.7**	**+0.2**
EFP	**Efpalio**	**0.96**	**54**	*e*PG	**Pg**	**23 58 06.6**	**-0.5**
EFP				*e*SB	**Sb**	**23 58 21.1**	**+0.1**
EFP	**Efpalio**	**0.96**	**54**	*e*Pg	**Pg**	**23 58 06.6**	**-0.5**
EFP				*e*Sb	**Sb**	**23 58 21.1**	**+0.1**
TRIZ	**Trizonia**	**1.04**	**61**	P	**Pg**	**23 58 07.7**	**-1.0**
TRIZ				S	**Sg**	**23 58 22.1**	**-0.1**
TRIZ	**Trizonia**	**1.04**	**61**	P	**Pg**	**23 58 07.7**	**-1.0**
TRIZ				S	**Sg**	**23 58 22.1**	**-0.1**
ITM	**Ithomi**	**1.06**	**130**	*e*PN	**Pn**	**23 58 09.7**	**-0.6**
ITM	**Ithomi**	**1.06**	**130**	*e*Pn	**Pn**	**23 58 09.7**	**-0.6**
GUR	**Goura**	**1.13**	**86**	*e*PG	**Pg**	**23 58 09.7**	**-0.7**
GUR	**Goura**	**1.13**	**86**	*e*Pg	**Pg**	**23 58 09.7**	**-0.7**
PYL	**PYLOS**	**1.17**	**146**	P	**Pg**	**23 58 10.6**	**-0.6**
PYL				S	**Sg**	**23 58 27.9**	**+1.5**
PYL	**PYLOS**	**1.17**	**146**	*e*PB	**Pb**	**23 58 11.0**	**-0.5**
PYL	**PYLOS**	**1.17**	**146**	P	**Pg**	**23 58 10.6**	**-0.6**
PYL				S	**Sg**	**23 58 27.9**	**+1.5**
LTK	**Loutraki**	**1.63**	**84**	*e*PB	**Pb**	**23 58 20.6**	**+1.3**
LTK	**Loutraki**	**1.63**	**84**	*e*Pb	**Pb**	**23 58 20.6**	**+1.3**
IGT	**Igoumenitsa**	**1.72**	**345**	P	**Pn**	**23 58 19.7**	**+0.3**
IGT				S	**Sn**	**23 58 41.9**	**0.0**
IGT	**Igoumenitsa**	**1.72**	**345**	P	**Pn**	**23 58 19.7**	**+0.3**
IGT				S	**Sn**	**23 58 41.9**	**0.0**

*IDC **29** 00:08:30.0±1.0, 26°.73N×143°.06E, h0^{km}, mb3.7/9, mb1 4.0/10, mb1mx3.8/22, mbtmp3.8/10, ML3.9/1, MS3.0/1, Ms1 3.0/1, ms1mx2.2/35, Error ellipse: s-maj=24.3km s-min=18.2km az=45.0*

*ISCJB **29** 00:08:30.7±2.4, 26°.83N±0°.07×143°.31E±0°.09, h24^{km}±16^{km}, mb3.8/12, Error ellipse: s-maj=14.2km s-min=11.0km az=29.5*

*NEIC **29** 00:08:31.2±0.7, 26°.72N×143°.07E, h10^{km}, mb4.4/2, Error ellipse: s-maj=20.5km s-min=11.3km az=76.0*

*JMA **29** 00:08:32.1±0.1, 26°.72N×142°.81E, h110^{km}±4^{km}, M4.1*

ISC 29 00:08:32.2±2.6, **26°.75N**±0°.07×**143°.19E**±0°.07, **h18**^{km}±16^{km}, **n25**, σ**0^{s}.86**/25, **mb3.8**/12, **Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	**Haha-jima-NKT**	**0.92**	**263**	P	**Pb**	**00 08 49.6**	**0.0**
CBIJ	**Chichi jima**	**0.97**	**291**	P	**Pb**	**00 08 50.4**	**0.0**
CBIJ				S	**Sb**	**00 09 04.2**	**+1.4**
CBIJ	**Chichi jima**	**0.97**	**291**	Pn	**Pn**	**00 08 50.2**	**-0.7**
	188nm,0.3s,baz=265,slow=20,SNR=43						
CBIJ				Sn	**Sn**	**00 09 03.7**	**-0.5**
	459nm,0.3s,baz=279,slow=21,SNR=22						
CBIJ	**Chichi jima**	**0.97**	**291**	*e*Pn	**Pn**	**00 08 50.7**	**-0.1**
BSO1	**Boso 1**	**8.11**	**347**	P	**Pn**	**00 10 28.7**	**-0.3**
BSO1				*e*S	Sx	00 11 57.4	
BSO3	**Boso 3**	**8.35**	**345**	*e*S	Sx	00 12 01.2	
JOD2	**Odawara 2**	**9.19**	**338**	P	**Pn**	**00 10 45.0**	**+1.2**
JHU	**Hanno**	**9.67**	**341**	P	**Pn**	**00 10 49.6**	**-0.9**
JHU				*e*S	Sx	00 12 30.7	
JRY	**Ryogami san**	**9.94**	**339**	P	**Pn**	**00 10 54.2**	**+0.1**
JRY				*e*S	Sx	00 12 42.2	
JAG	**Ashikaga**	**10.16**	**343**	P	**Pn**	**00 10 56.6**	**-0.5**
JAG				*e*S	Sx	00 12 46.5	
MJAR	**Matsushiro Arr**	**10.65**	**338**	Pn	**Pn**	**00 11 03.9**	**+0.1**
	0.8nm,0.3s,baz=158,slow=11,SNR=4.6						
GUMO	**Guam**	**13.18**	**173**	LR	LR	00 16 11.9	
	comp=Z,65nm,19.9s,baz=257,slow=35						
SONM	**Songino Array**	**35.59**	**316**	P	**P**	**00 15 28.0**	**-0.5**
	0.1nm,0.3s,mb3.2,baz=90,slow=7.6,SNR=3.8						
CMAR	**Chiang Mai Arr**	**41.51**	**268**	P	**P**	**00 16 16.8**	**-1.8**
	0.4nm,0.4s,mb3.5,baz=46,slow=8.7,SNR=4.4						
WRAB	**Tennant Creek**	**47.19**	**191**	*e*P	**P**	**00 17 03.4**	**-0.5**
	2.3nm,0.6s,mb4.3						
WRA	**Warramunga Arr**	**47.20**	**191**	P	**P**	**00 17 04.0**	**+0.1**
	1.9nm,0.7s,mb4.2,baz=12,slow=8.6,SNR=4.8						
ZALV	**Zalesovo Beam**	**50.34**	**319**	P	**P**	**00 17 27.4**	**-0.4**
	0.7nm,0.4s,mb4.0,baz=98,slow=7.6,SNR=6.1						
ASAR	**Alice Springs**	**50.91**	**191**	P	**P**	**00 17 33.7**	**+1.3**
	0.3nm,0.6s,mb3.4,baz=12,slow=6.9,SNR=2.8						
MKAR	**Makanchi Array**	**51.39**	**310**	P	**P**	**00 17 34.9**	**-0.9**
	0.5nm,0.6s,mb3.6,baz=90,slow=9.1,SNR=9.8						
YKA	**Yellowknife Ar**	**72.02**	**28**	P	**P**	**00 19 55.0**	**+0.4**
	0.4nm,0.6s,mb3.5,baz=291,slow=6.1,SNR=8.6						
YKA	**Yellowknife Ar**	**72.02**	**28**	P	**P**	**00 19 55.0**	**+0.4**
ARCES	**ARCESS Array B**	**74.16**	**341**	P	**P**	**00 20 08.3**	**+1.2**
	1.9nm,0.8s,mb4.1,baz=326,slow=7.9,SNR=3.7						
JOF	**Joensuu**	**75.79**	**334**	*e*p	**P**	**00 20 15.9**	**-0.8**
	1.6nm,0.8s,mb4.0						
KAF	**Kangasniemi**	**78.18**	**335**	*e*p	**P**	**00 20 30.3**	**+0.2**
	1.7nm,0.6s,mb4.2						
FINES	**FINESS Array B**	**78.66**	**334**	P	**P**	**00 20 35.0**	**+2.2**
	0.9nm,0.3s,mb4.2,baz=63,slow=5.4,SNR=16						

*ISCJB **29** 00:18:57.4±1.2, 52°.9N±0°.3×152°.7E±0°.8, h551^{km}±33^{km}, mb3.1/4, Error ellipse: s-maj=82.8km s-min=32.6km az=156.9*

*NEIC **29** 00:18:58.2±0.9, 52°.78N×152°.58E, h544^{km}±25^{km}, Error ellipse: s-maj=61.0km s-min=23.0km az=68.0*

*IDC **29** 00:18:58.2±1.6, 52°.78N×152°.63E, h544^{km}±31^{km}, mb2.8/4, mb1 2.9/5, mb1mx2.5/24, mbtmp2.7/5, Error ellipse: s-maj=58.4km s-min=23.5km az=67.0*

ISC 29 00:18:58.3±1.2, **52°.8N**±0°.3×**152°.6E**±0°.9, **h545**^{km}±34^{km}, **n7**, σ**0^{s}.16**/7, **mb3.1**/4, **Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PEA0B	**Petropavlovsk-**	**3.10**	**82**	*e*P	**P**	**00 20 13.5**	**+0.1**
PETK	**Petropavlovsk-**	**3.10**	**82**	P	**P**	**00 20 13.2**	**-0.1**
	0.6nm,0.3s,baz=277,slow=5.7,SNR=11						
MKAR	**Makanchi Array**	**44.12**	**292**	P	**P**	**00 26 18.3**	**0.0**
	0.2nm,0.4s,mb3.0,baz=63,slow=7.3,SNR=8.3						
MKAR	**Makanchi Array**	**44.12**	**292**	P	**P**	**00 26 18.3**	**0.0**
FINES	**FINESS Array B**	**58.46**	**333**	P	**P**	**00 28 01.6**	**0.0**
	3.0nm,1.1s,mb3.5,baz=43,slow=7.6,SNR=5.6						
WRA	**Warramunga Arr**	**74.14**	**198**	P	**P**	**00 29 39.1**	**-0.1**
	0.6nm,0.9s,mb3.0,baz=18,slow=6.3,SNR=3.3						
ASAR	**Alice Springs**	**77.86**	**197**	P	**P**	**00 29 59.8**	**+0.1**
	0.3nm,0.4s,mb3.0,baz=9.4,slow=5.8,SNR=5.4						

*ISCJB **29** 00:25:40.9±0.5, 21°.37S±0°.04×66°.66W±0°.05, h224^{km}±5^{km}, mb4.2/15, Error ellipse: s-maj=8.2km s-min=6.8km az=0.8*

*IDC **29** 00:25:40.9±1.0, 21°.37S×66°.49W, h208^{km}±10^{km}, mb4.0/9, mb1 4.0/14, mb1mx3.9/21, mbtmp3.9/14, Error ellipse: s-maj=14.4km s-min=13.8km az=54.0*

*NEIC **29** 00:25:41.6±0.7, 21°.39S×66°.66W, h217^{km}±8^{km}, mb4.2/6, Error ellipse: s-maj=11.7km s-min=9.2km az=89.0*

*GUC **29** 00:25:43.6±0.6, 21°.39S×67°.09W, h239^{km}±9^{km}, ML4.9*

ISC 29 00:25:41.6±0.5, **21°.36S**±0°.05×**66°.60W**±0°.05, **h212**^{km}±5^{km}, **n42**, σ**1^{s}.28**/48, **mb4.2**/15, **1C-2D**, **Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.48**	**239**	P	**Pn**	**00 26 27.8**	**+1.9**
	12nm,0.3s,baz=56,slow=7.8,SNR=121						
LVC				S	**S**	**00 27 01.7**	**+0.9**
	120nm,0.3s,baz=236,slow=21,SNR=68						
LVC	**Limon Verde**	**2.48**	**239**	P	**Pn**	**00 26 27.8**	**+1.9**
LVC				S	**S**	**00 27 01.7**	**+0.9**
LVC	**Limon Verde**	**2.48**	**239**	*e*P	**Pn**	**00 26 27.9**	**+2.0**
LVC				*i* S	**S**	**00 27 01.7**	**+0.9**
PB01	**Plate Boundary**	**2.71**	**276**	⇓*e*P	**Pn**	**00 26 29.4**	**+0.9**
PB01				*i* S	**S**	**00 27 05.5**	**+0.2**
PB01				AML	AML	00 27 07.4	
	comp=N,1μm,0.1s						
MACH	**Maria Elena**	**3.05**	**253**	*e*P	**Pn**	**00 26 34.0**	**+1.6**
MACH				*i* S	**S**	**00 27 11.8**	**-0.5**
PECH	**Pedro de Valdi**	**3.11**	**246**	*e*P	**Pn**	**00 26 34.4**	**+1.4**
PECH				*i* S	**S**	**00 27 11.5**	**-1.9**
HMBC	**Humberston**	**3.25**	**289**	⇓*e*P	**Pn**	**00 26 35.7**	**+0.9**
HMBC				*i* S	**S**	**00 27 15.6**	**-1.0**
HMBC				AML	AML	00 27 20.2	
	comp=N,2μm,0.3s						
TOCH	**Tocopilla**	**3.42**	**257**	*e*P	**Pn**	**00 26 37.2**	**+0.4**
TOCH				*i* S	**S**	**00 27 17.9**	**-2.3**
MNMC	**Miæe Miæ**	**3.58**	**308**	⇑*e*P	**Pn**	**00 26 40.8**	**+2.1**
MNMC				*i* S	**S**	**00 27 24.6**	**+1.0**
MNMC				AML	AML	00 27 27.1	

	comp=N,3µm,0.2s						
PSGC	Pisagua	3.73	297	*e*P	Pn	00 26 40.7	+0.1
PSGC				*i* S	S	00 27 24.8	-2.2
PSGC				AML	AML	00 27 28.2	
	comp=N,901nm,0.2s						
ARE	Arequipa	6.71	316	*e*P	Pn	00 27 17.0	-1.2
ARE				*e*S	S	00 28 32.0	-3.1
SIV	San Ignacio	7.48	45	P	Pn	00 27 28.3	+0.2
	comp=N,39nm,0.3s,baz=226,slow=14,SNR=683						
SIV				S	S	00 28 51.3	-1.8
	comp=N,1.3nm,0.3s,baz=244,slow=11,SNR=3.2						
LCO	Las Campanas	8.48	205	*e*Pn	Pn	00 27 38.4	-2.5
	comp=N,53nm,0.5s						
LCO				*e*Sn	S	00 29 10.9	-5.6
CPUP	Villa Florida	9.83	122	P	Pn	00 28 00.4	+2.0
	comp=N,0.6nm,0.3s,baz=291,slow=9.0,SNR=5.4						
CFAA	Coronel Fontan	10.31	188	P	Pn	00 28 03.1	-1.4
	comp=N,0.9nm,0.3s,baz=1.3,slow=13,SNR=17						
CFAA				S	S	00 29 50.6	-9.4
	comp=N,0.5nm,0.3s,baz=248,slow=20,SNR=5.8						
ATAH	Atahualpa	18.27	320	P	P	00 29 40.8	+1.2
	comp=N,0.1nm,0.3s,baz=332,slow=23,SNR=2.5						
PLCA	Paso Flores	19.61	189	P	P	00 29 54.4	+0.6
	comp=N,0.2nm,0.3s,baz=18,slow=9.4,SNR=6.8						
SDV	Santo Domingo	30.31	352	P	P	00 31 34.9	+1.6
	comp=N,2.4nm,0.4s,mb4.2						
RCBR	Riachuelo	33.49	67	*e*P	P	00 32 01.3	+0.1
	comp=N,1.4nm,0.4s,mb3.8						
GRGR	Grenville	33.63	9	*e*P	P	00 32 01.3	-0.9
	comp=N,26nm,0.3s,mb5.2						
SDDR	Presa de Saban	40.35	353	*e*P	P	00 33 00.7	+1.9
	comp=N,2.8nm,0.3s,mb4.2						
WVT	Waverly	60.60	340	*e*P	P	00 35 28.4	-1.5
	comp=N,7.8nm,0.8s,mb4.4						
TXAR	Lajitas Array	61.77	323	P	P	00 35 38.1	+0.3
	comp=N,0.5nm,0.5s,mb3.4,baz=148,slow=8.1,SNR=11						
DBIC	Dimbokro	66.64	72	P	P	00 36 08.7	-1.1
	comp=N,5.9nm,0.6s,mb4.4,baz=218,slow=5.9,SNR=15						
TORD	Torodi Ar. Bea	75.29	69	P	P	00 37 00.7	-1.1
	comp=N,17nm,0.4s,mb5.0,baz=257,slow=5.5,SNR=701						
TORD				pP	pP	00 37 55.5	+3.3
	comp=N,2.7nm,0.6s,baz=252,slow=5.6,SNR=5.2						
ULM	Lac du Bonnet	75.85	341	P	P	00 37 03.5	-0.7
	comp=N,4.1nm,0.5s,mb4.3,baz=152,slow=6.2,SNR=11						
ULM	Lac du Bonnet	75.85	341	P	P	00 37 03.5	-0.7
SCHQ	Schefferville	75.87	360	P	P	00 37 03.5	-0.7
	comp=N,2.4nm,0.6s,mb4.0,baz=182,slow=2.9,SNR=7.6						
SCHQ	Schefferville	75.87	360	P	P	00 37 03.5	-0.7
NVAR	Mina Array Bea	76.72	321	P	P	00 37 10.9	+1.6
	comp=N,1.0nm,0.7s,mb3.5,baz=151,slow=5.3,SNR=6.5						
BOSA	Boshof	81.61	117	P	P	00 37 35.8	-0.4
	comp=N,5.1nm,0.7s,mb4.3,baz=268,slow=4.3,SNR=17						
TAM	Tamanrasset	82.84	62	*e*P	P	00 37 42.8	+0.3
	comp=N,2.7nm,0.9s,mb4.0						
ESDC	Sonseca Array	84.23	44	P	P	00 37 49.2	0.0
	comp=N,0.2nm,0.4s,mb3.2,baz=238,slow=6.0,SNR=4.4						
YKA	Yellowknife Ar	91.78	340	P	P	00 38 24.6	0.0
	comp=N,3.2nm,0.7s,mb4.4,baz=128,slow=4.5,SNR=67						
YKA				pP	pP	00 39 21.7	+4.9
	comp=N,0.7nm,0.7s,baz=131,slow=4.6,SNR=4.0						
ASAR	Alice Springs	131.00	205	PKP	PKPdf	00 44 28.0	-0.6
	comp=N,1.1nm,0.5s,baz=134,slow=2.0,SNR=11						
WRA	Warramunga Arr	134.13	208	PKP	PKPdf	00 44 33.9	-0.7
	comp=N,0.7nm,0.4s,baz=156,slow=1.7,SNR=3.7						
WRA	Warramunga Arr	134.13	208	PKP	PKPdf	00 44 33.9	-0.7
BVAR	Borovoye Array	134.45	35	PKP	PKPdf	00 44 33.6	-0.5
	comp=N,0.2nm,0.4s,baz=270,slow=1.4,SNR=2.5						
ZALV	Zalesovo Beam	140.88	27	PKhKP		00 44 41.3	
	comp=N,1.1nm,0.6s,baz=282,slow=2.9,SNR=4.0						
ZALV				PKP	PKPdf	00 44 45.3	-0.5
	comp=N,2.0nm,0.7s,baz=280,slow=2.9,SNR=9.0						
MKAR	Makanchi Array	144.23	37	PKP	PKPdf	00 44 51.1	-0.9
	comp=N,8.1nm,0.7s,baz=316,slow=3.8,SNR=96						
MKAR				SKPbc	SKPbc	00 48 10.3	-0.6
	comp=N,0.5nm,0.7s,baz=18,slow=1.7,SNR=5.1						
SONM	Songino Array	152.99	10	PKP	PKPdf	00 45 06.9	+0.8
	comp=N,1.4nm,0.8s,baz=282,slow=1.0,SNR=8.9						
SONM				PKPbc	PKPbc	00 45 13.9	+0.4
	comp=N,2.0nm,0.6s,baz=284,slow=1.5,SNR=13						
SONM				PKPab	PKPab	00 45 24.1	-1.5
	comp=N,0.6nm,0.6s,baz=305,slow=2.7,SNR=4.6						
CBIJ	Chichi jima	153.17	288	PKP	PKPdf	00 45 08.4	+1.4
	comp=N,32nm,0.3s,baz=318,slow=21,SNR=6.8						

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*ISCJB **29** 00:38:00.9±0.6, 33°.34N±0°.03×35°.40E±0°.05, h10^{km}, Error ellipse: s-maj=6.6km s-min=3.5km az=22.5*
*CSEM **29** 00:38:01.3±0.3, 33°.34N×35°.45E, h2^{km}, ML3.3, Error ellipse: s-maj=11.3km s-min=4.5km az=98.0*
*GRAL **29** 00:38:01.8±0.3, 33°.32N×35°.42E, h4^{km}±3^{km}, MD3.2*
*GII **29** 00:38:01.4±1.1, 33°.27N×35°.43E, h1^{km}, Md2.3/4*
ISC 29 00:38:01.4±0.6**, 33°.35N**±0°.03×**35°.41E**±0°.05**, h10**^{km}**, n21, σ0^{s}.82**/29**, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATL	Matirih	0.16	334	*e*P	Pg	00 38 05.3	+0.4
MATL	Matirih	0.16	334	*e*P	Pg	00 38 05.3	+0.4
KSDI	Kefar Szold	0.26	127	Pg	Pg	00 38 05.9	-0.8
KSDI				Sg	Sg	00 38 10.5	+0.3
MMC3	Mount Meron ar	0.33	180	Pg	Pg	00 38 07.2	-0.8
MMA0B	Mount Meron ar	0.33	181	Pg	Pg	00 38 07.1	-0.9
MMA0B				Sg	Sg	00 38 13.0	+0.5
RCY	Rachaya	0.37	68	*e*P	Pg	00 38 08.8	+0.2
RCY				*e*S	Sg	00 38 14.1	+0.6
RCY	Rachaya	0.37	68	*e*P	Pg	00 38 08.8	+0.1
RCY				*e*S	Sg	00 38 14.1	+0.5
KSHT	Keshet	0.49	138	Pg	Pg	00 38 10.8	-0.3
BHL	Bhannes	0.59	20	*e*P	Pg	00 38 12.8	-0.1
BHL	Bhannes	0.59	20	*e*P	Pg	00 38 12.8	-0.1
BLGI	Bet Lehem HaGe	0.64	197	Pg	Pg	00 38 13.7	-0.2
BLGI				Sg	Sg	00 38 22.4	+0.1
OFRI	‘Ofer	0.81	206	Pg	Pg	00 38 16.6	-0.5
MMLI	Mount Malkishu	0.91	180	Pg	Pg	00 38 17.8	-1.1
MMLI				Sg	Sg	00 38 30.7	-0.1
HWQ	Hawqa	1.03	25	*e*P	Pg	00 38 20.7	-0.5
HWQ	Hawqa	1.03	25	*e*P	Pg	00 38 20.7	-0.5
HMDT	Nahal Hemdat	1.10	175	Pg	Pg	00 38 21.4	-1.1
HMDT				Sg	Sg	00 38 37.8	+1.0
SLTI	Sal’it	1.15	196	Pg	Pg	00 38 22.2	-1.3
SLTI				Sg	Sg	00 38 38.8	+0.4
DSI	Dead Sea	1.77	181	Pn	Pn	00 38 32.1	-0.1
YTIR	Yattir	2.00	187	Pn	Pn	00 38 36.6	+1.4
RTMI	Retamim	2.37	195	Pn	Pn	00 38 42.4	+2.1
PRNI	Paran	3.01	187	Pn	Pn	00 38 50.4	+1.3

IDC 29 00:44:57.2±8.1**, 21°.60N×143°.07E, h324**^{km}±80^{km}**, mb3.1**/8**, mb1 3.2**/8**, mb1mx3.0**/24**, mbtmp3.1**/8**, Error ellipse: s-maj=44.1km s-min=18.0km az=79.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	20.53	324	P	P	00 49 11.7	-0.1
	1.0nm,0.6s,baz=154,slow=9.5,SNR=3.4						
WRA	Warramunga Arr	42.16	192	P	P	00 52 19.1	+0.2
	0.6nm,0.5s,baz=16,slow=9.6,SNR=3.1						
ASAR	Alice Springs	45.87	192	P	P	00 52 47.8	-0.3
	0.1nm,0.4s,baz=20,slow=8.0,SNR=3.3						
MKAR	Makanchi Array	54.69	313	P	P	00 53 53.6	+0.1
	0.2nm,0.6s,baz=81,slow=9.9,SNR=4.1						
BVAR	Borovoye Array	62.68	320	P	P	00 54 48.3	+0.3
	1.3nm,0.3s,baz=99,slow=8.1,SNR=14						
YKA	Yellowknife Ar	76.59	28	P	P	00 56 12.3	+0.2
	0.4nm,0.5s,baz=290,slow=5.6,SNR=7.1						
ARCES	ARCESS Array B	78.98	341	P	P	00 56 25.3	+0.2
	1.7nm,0.9s,baz=75,slow=9.2,SNR=4.8						
FINES	FINESS Array B	83.22	334	P	P	00 56 46.8	-0.6
	0.9nm,0.5s,baz=46,slow=4.9,SNR=8.6						

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*ISCJB **29** 00:48:47.6±0.5, 28°.68N±0°.08×128°.5E±0°.1, h154^{km}±9^{km}, mb3.4/7, Error ellipse: s-maj=20.4km s-min=6.9km az=37.3*
*IDC **29** 00:48:48.9±2.4, 28°.55N×128°.43E, h161^{km}±36^{km}, mb3.3/7, mb1 3.5/7, mb1mx3.3/24, mbtmp3.3/7, Error ellipse: s-maj=54.1km s-min=28.6km az=23.0*
*NEIC **29** 00:48:49.4, 28°.75N×128°.43E, h131^{km}, MG3.5(JMA), After JMA.*
*JMA **29** 00:48:49.4±0.1, 28°.75N×128°.43E, h131^{km}, M3.5*
ISC 29 00:48:48.5±0.5**, 28°.68N**±0°.08×**128°.5E**±0°.1**, h150**^{km}±9^{km}**, n17, σ0^{s}.83**/25**, mb3.4**/7**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTK	Tokunoshima	0.97	157	P	Pn	00 49 13.3	+0.2
JTK				*e*S	Sn	00 49 31.2	-0.5
JAM	Amami Oshima	0.99	105	P	Pn	00 49 12.9	-0.3
JAM				*e*S	Sn	00 49 30.9	-1.1
JZK	Kikaishima	1.33	106	P	Pn	00 49 17.4	+1.1
JZK				*e*S	Sn	00 49 38.4	+0.9
JNN	Nakanoshima	1.66	45	P	Pn	00 49 20.0	+0.3
JNN				*e*S	Sn	00 49 43.0	-0.7
JIH	Iheya	1.71	197	P	Pn	00 49 21.0	+0.6
JIH				*e*S	Sn	00 49 44.5	-0.3
JOW	Kunigami	1.85	187	P	Pn	00 49 22.1	+0.1
JOW				*e*S	Sn	00 49 47.2	-0.4
JOW	Kunigami	1.85	187	P	Pn	00 49 22.2	+0.2
	40nm,0.3s,baz=81,slow=20,SNR=37						
JOW				S	Sn	00 49 46.8	-0.9
	40nm,0.3s,baz=118,slow=25,SNR=5.2						
JAGN	Aguni-jima	2.37	209	P	Pn	00 49 28.5	+0.4
JAGN				*e*S	Sn	00 49 58.4	-0.1
JKE	Kume jima 2	2.81	214	P	Pn	00 49 34.1	+0.7
JSJ	Shimokoshiki	3.16	19	P	Pn	00 49 38.5	+0.6
SONM	Songino Array	25.68	324	P	P	00 54 06.4	+2.0
	0.4nm,0.4s,mb3.4,baz=139,slow=11,SNR=4.9						
MKAR	Makanchi Array	40.13	310	P	P	00 56 08.4	-1.1
	0.6nm,0.6s,mb3.4,baz=96,slow=10,SNR=9.5						
MKAR				pP	pP	00 56 45.5	+3.0
	0.6nm,0.8s,baz=104,slow=10,SNR=5.4						
ZALV	Zalesovo Beam	40.48	321	P	P	00 56 12.4	+0.2
	0.3nm,0.4s,mb3.3,baz=120,slow=5.7,SNR=3.2						
BVAR	Borovoye Array	48.65	317	P	P	00 57 14.7	-2.2
	0.4nm,0.5s,mb3.3,baz=64,slow=10,SNR=2.8						
BVAR				PcP	PcP	00 58 40.0	-0.1
	1.3nm,0.5s,baz=118,slow=2.2,SNR=10						
FINES	FINESS Array B	70.87	330	P	P	00 59 48.0	-0.7
	1.7nm,0.9s,mb3.8,baz=72,slow=6.3,SNR=3.3						
YKA	Yellowknife Ar	76.21	25	P	P	01 00 19.6	-0.2
	1.1nm,0.7s,mb3.6,baz=300,slow=5.6,SNR=19						
GERES	GERESS Array B	83.41	323	P	P	01 00 59.6	+0.7
	0.5nm,0.7s,mb3.4,baz=27,slow=6.3,SNR=4.6						

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*ISCJB **29** 01:32:52.7±1.3, 37°.53N±0°.04×43°.84E±0°.09, h2^{km}±8^{km}, Error ellipse: s-maj=12.6km s-min=6.3km az=15.8*
*ISK **29** 01:32:52.1, 37°.51N×43°.87E, h6^{km}, MD3.1*
*CSEM **29** 01:32:53.1±0.5, 37°.50N×43°.78E, h15^{km}, MD3.1, Error ellipse: s-maj=24.7km s-min=5.3km az=99.0*
*DDA **29** 01:33:01.8, 37°.24N×43°.04E, h7^{km}±4^{km}, Md3.4*
ISC 29 01:32:52.5±1.6**, 37°.49N**±0°.05×**43°.9E**±0°.1**, h3**^{km}±8^{km}**, n14, σ0^{s}.88**/17**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAKT	HAKKARI	0.19	290	*i* P	Px	01 33 19.1	
HAKT				*i* S	Sx	01 33 23.2	
HAKT	HAKKARI	0.19	290	*i* P	Px	01 33 19.1	
HAKT				*i* S	Sx	01 33 23.2	
CUKT	Cukurca	0.35	226	*e*Pg	Pg	01 32 59.0	-0.3
CUKT				*e*Sg	Sg	01 33 04.4	+0.4
VANT	Van	1.04	336	*e*PG	Pg	01 33 12.9	+0.4
VANB	Van	1.18	339	*e*PN	Pg	01 33 14.3	-0.8
VANB				*e*SN	Sg	01 33 30.4	-0.1
VANB	Van	1.18	339	*e*Pn	Pg	01 33 14.3	-0.8
VANB				*e*Sn	Sg	01 33 30.4	0.0
MSL	Mosul	1.27	211	*e*x	x	01 33 26.0	
MSL				*e*x	x	01 33 43.5	
MSL	Mosul	1.27	211	*e*P	Px	01 33 26.0	
MSL				*e*S	Sx	01 33 43.5	
CLDR	Caldiran	1.65	360	*e*PN	Pn	01 33 22.2	-0.1
CLDR	Caldiran	1.65	360	*e*Pn	Pn	01 33 22.2	-0.1
TATV	Tatvan	1.66	308	*e*P	Pg	01 33 26.3	+2.0
TATV				*i* S	Sg	01 33 50.3	+4.5
TATV	Tatvan	1.66	308	*e*P	Pg	01 33 26.3	+2.0
TATV				*i* S	Sg	01 33 50.3	+4.5
BEST	Besiri	2.15	281	*i* P	Pg	01 33 31.8	-1.9
BEST				*i* S	Sg	01 34 01.5	0.0
MARD	Mardin	2.52	267	*i* P	Pn	01 33 34.8	+0.6
MARD				*i* S	Sn	01 34 05.1	-0.3

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*NEIC **29** 01:42:05.7, 34°.54N×24°.86E, h5^{km}, MD3.7(ATH), After ATH.*
*ATH **29** 01:42:05.7, 34°.54N×24°.86E, h5^{km}±4^{km}, MD3.7/6*
*ISCJB **29** 01:42:06.3±0.8, 34°.57N±0°.05×24°.89E±0°.05, h10^{km}, Error ellipse: s-maj=6.9km s-min=5.6km az=11.3*
*IDC **29** 01:42:06.8±1.5, 34°.61N×24°.90E, h0^{km}, mb3.3/2, mb1 3.4/4, mb1mx3.2/24, mbtmp3.3/4, ML3.5/2, Error ellipse: s-maj=19.9km s-min=11.8km az=90.0*
*CSEM **29** 01:42:07.3±1.1, 34°.64N×24°.91E, h2^{km}, MD3.7, Error ellipse: s-maj=22.2km s-min=8.1km az=8.0*
ISC 29 01:42:07.9±0.8**, 34°.62N**±0°.05×**24°.90E**±0°.05**, h10**^{km}**, n24, σ1^{s}.31**/32**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.41	350	*e*PB	Pg	01 42 15.7	-0.3
SIVA				*e*SB	Sg	01 42 22.1	+0.7
SIVA	Sivas	0.41	350	*e*Pb	Pg	01 42 15.7	-0.3
SIVA				*e*Sb	Sg	01 42 22.1	+0.7
IDI	Anoyia	0.67	359	Pg	Pg	01 42 19.9	-1.1
	17nm,0.3s,baz=177,slow=19,SNR=176						
IDI				Lg		01 42 29.2	
	70nm,0.3s,baz=260,slow=22,SNR=47						
IDI	Anoyia	0.67	359	Pg	Pg	01 42 19.9	-1.1
IDI				Lg		01 42 29.1	
LAST	Lasithi	0.72	41	*e*PG	Pg	01 42 21.0	-1.0
LAST				*e*SB	Sg	01 42 32.2	+0.8
LAST	Lasithi	0.72	41	*e*Pg	Pg	01 42 21.0	-1.0
LAST				*e*Sb	Sg	01 42 32.2	+0.8
NPS	Neapolis	0.87	42	*e*PG	Pg	01 42 23.5	-1.3
NPS				*e*SB	Sg	01 42 36.7	+0.5
NPS	Neapolis	0.87	42	*e*Pg	Pg	01 42 23.5	-1.3
NPS				*e*Sb	Sg	01 42 36.7	+0.5
VAM	Vamos	0.98	324	*e*PG	Pg	01 42 25.0	-1.7
VAM				*e*SB	Sg	01 42 40.5	+1.0
VAM	Vamos	0.98	324	*e*Pg	Pg	01 42 25.0	-1.7
VAM				*e*Sb	Sg	01 42 40.5	+1.0
KARN	Karanos	1.12	315	*e*PB	Pg	01 42 27.9	-1.7
KARN	Karanos	1.12	315	*e*Pb	Pg	01 42 27.9	-1.7
ZKR	Zakros	1.19	65	*e*PB	Pn	01 42 30.0	-0.7
ZKR	Zakros	1.19	65	*e*Pb	Pn	01 42 30.0	-0.7
KARP	Karpathos	2.08	63	*e*PG	Pg	01 42 45.4	-2.4
KARP	Karpathos	2.08	63	*e*Pg	Pg	01 42 45.4	-2.4
VLI	Veliai	2.64	323	*e*PN	Pn	01 42 51.8	+1.3
VLI	Veliai	2.64	323	*e*Pn	Pn	01 42 51.8	+1.3
ARG	Arkhangelos	3.08	58	*e*PN	Pn	01 42 58.9	+2.2
ARG	Arkhangelos	3.08	58	*e*Pn	Pn	01 42 58.9	+2.2
MMAI	Mount Meron Ar	8.89	97	Pn	Pn	01 44 18.4	+2.1
	0.4nm,0.3s,baz=281,slow=15,SNR=4.1						
GERES	GERESS Array B	16.46	333	Pn	Pn	01 46 01.2	+2.3
	0.1nm,0.3s,baz=144,slow=12,SNR=9.3						
TORD	Torodi Ar. Bea	29.98	230	P	P	01 48 16.6	-0.1
	0.2nm,0.5s,baz=33,slow=8.9,SNR=5.9						
MKAR	Makanchi Array	44.26	56	P	P	01 50 17.3	-0.1
	0.2nm,0.5s,baz=279,slow=6.2,SNR=4.4						

TIF 29 01:47:28.9, 42°.50N×43°.52E, h10^{km}**, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONI	Oni	0.10	327	P	Pg	01 47 31.3	-0.1
ONI	Oni	0.10	327	P	Pg	01 47 31.3	-0.1
ONI				S	Sg	01 47 33.6	+0.4

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*NEIC **29** 01:48:05.0, 18°.10N×103°.53W, h25^{km}, MD3.8(MEX), After MEX.*
MEX 29 01:48:03.9±1.5**, 18°.14N×103°.50W, h5**^{km}±17^{km}**, MD3.8, Near coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
R15V		1.12	336	*i* P	Pg	01 48 21.7	-3.8
R15V				*i* S	Sg	01 48 37.2	-2.9
EZ5V		1.34	356	*e*P	Pn	01 48 25.0	-4.3
EZ5V				*i* S	Sb	01 48 42.4	-4.5
CJM	Chamela	1.99	313	*i* P	Pn	01 48 36.2	-2.0
CJM				*i* S	Sn	01 48 59.1	-4.5
ZIIG	Zihuatanejo	2.01	105	*i* P	Pn	01 48 35.5	-3.0
ZIIG				*i* S	Sn	01 48 59.7	-4.3
SFJM	Santa Fe	2.38	11	*i* P	Pn	01 48 41.7	-1.8
SFJM				*i* S	Sn	01 49 10.8	-2.3
MOIG	Morelia	2.67	55	*i* P	Pn	01 48 44.2	-3.4
MOIG				*i* S	Sn	01 49 15.5	-4.9
ANIG	Ahuacatlan	3.06	342	*i* P	Pn	01 48 51.5	-1.4
ANIG				*i* S	Sn	01 49 24.9	-5.0
CAIG	El Cayaco	3.27	109	*i* P	Pn	01 48 53.3	-2.5
CAIG				*i* S	Sn	01 49 30.8	-4.4
CAIG	El Cayaco	3.27	109	*i* P	Pn	01 48 53.8	-2.1
CAIG				*i* S	Sn	01 49 41.4	+6.2
MEIG	Mezcala	3.70	93	*i* P	Pn	01 49 00.6	-1.2
MEIG				*i* S	Sn	01 49 41.4	-4.4
ZAIG	Zacatecas	4.69	11	*i* S	Sn	01 50 07.4	-2.8
PNIG	Pinotepa	5.42	108	*i* P	Pn	01 49 32.1	+6.7

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*NEIC **29** 01:51:58.7, 17°.42N×95°.80W, h113^{km}, MD4.2(MEX), After MEX.*
MEX 29 01:51:58.7±1.0**, 17°.42N×95°.80W, h113**^{km}±9^{km}**, MD4.2, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.94	110	*i* P	Pn	01 52 18.6	-1.0
CMIG				*i* S	Sn	01 52 32.7	-2.6
OXX	Oaxaca	0.94	249	*e*P	Pn	01 52 19.4	-0.1
OXX				*i* P		01 52 19.6	
OXX				*i* S	Sn	01 52 33.8	-1.6
OXX				*i* S	Sn	01 52 34.1	-1.2
OXX	Oaxaca	0.94	249	*i* P	Pn	01 52 19.6	0.0
OXX				*i* S	Sn	01 52 33.8	-1.6
VHO	Vista Hermosa	0.95	249	*e*P	Pn	01 52 18.9	-0.8
VHO				*i* S	Sn	01 52 34.1	-1.5
TUIG	Tuzandepetl	1.45	65	*i* P	Pn	01 52 24.5	-0.6
TUIG				*i* S	Sn	01 52 43.5	-1.7
HUIG	Huatulco	1.67	190	*i* P	Pn	01 52 26.5	-1.3
HUIG				*i* S	Sn	01 52 47.9	-2.0
TPIG	Tehuac#an	1.79	304	*i* P	Pn	01 52 28.8	-0.4
TPIG				*i* S	Sn	01 52 50.0	-2.4
UTMO	Huajuapan	1.95	282	*i* P	Pn	01 52 30.6	-0.6
UTMO				*i* S	Sn	01 52 54.6	-1.5
LVIG	Laguna Verde	2.36	346	*i* P	Pn	01 52 34.2	-2.3
LVIG				*i* S	Sn	01 52 58.7	-6.8
PNIG	Pinotepa	2.45	246	*i* P	Pn	01 52 35.0	-2.6
PNIG				*i* S	Sn	01 53 05.2	-2.2
TGIG		2.64	104	*i* P	Pn	01 52 39.2	-0.9
TGIG				*i* S	Sn	01 53 09.7	-2.3
PCIG		3.01	124	*i* P	Pn	01 52 43.8	-1.2
PCIG				*i* S	Sn	01 53 18.5	-2.1
PPM	Popocatepetl	3.14	302	*i* P	Pn	01 52 46.7	0.0
PPM				*i* S	Sn	01 53 21.2	-2.5
CCIG	Comitan	3.69	107	*e*P	Pn	01 52 54.0	+0.1
CCIG				*i* S	Sn	01 53 35.2	-1.5
CAIG	El Cayaco	4.28	266	*i* P	Pn	01 53 00.1	-1.9
CAIG				*i* S	Sn	01 53 47.8	-3.2
TEIG	Tepich	7.65	67	*e*P	Pn	01 53 45.3	-2.2
TEIG				*i* S	Sn	01 55 08.4	-4.2

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*CSEM **29** 02:20:05.8, 36°.14N×35°.63E, h7^{km}, MD2.5*
*DDA **29** 02:20:05.8, 36°.14N×35°.63E, h7^{km}±2^{km}, Md2.5*
*NSSC **29** 02:20:12, 36°.16N×35°.88E, h24^{km}±5^{km}*
ISC 29 02:20:08.7±2.4**, 36°.23N**±0°.06×**35°.7E**±0°.1**, h14**^{km}±11^{km}**, n7, σ0^{s}.72**/13**, 3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COBT	Iskenderun	0.55	58	*i* P	Pg	02 20 18.6	-0.8
COBT				*i* S	Sg	02 20 27.5	+0.8
COBT	Iskenderun	0.55	58	*i* P	Pg	02 20 18.6	-0.8
COBT				*i* S	Sg	02 20 27.5	+0.8
BTCH	Batrach	0.66	107	⇓P	Pg	02 20 22.0	+0.5
BTCH				⇑S	Sg	02 20 29.0	-1.2
SLNF	Slenfeh	0.77	145	⇓P	Pg	02 20 24.0	+0.4
WRDH	Warideh	0.93	140	⇑P	Pb	02 20 27.0	+0.4
WRDH				⇓S	Sg	02 20 39.0	+0.1
KUZU	Kuzuini	1.25	64	*e*P	Pn	02 20 30.6	-1.0
KUZU				*i* S	Sb	02 20 48.5	+0.7
KUZU	Kuzuini	1.25	64	*e*P	Pn	02 20 30.6	-1.0
KUZU				*i* S	Sb	02 20 48.5	+0.6

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*ISCJB **29** 02:30:05.8±0.7, 39°.37N±0°.03×43°.24E±0°.04, h0^{km}±9^{km}, Error ellipse: s-maj=5.9km s-min=4.9km az=156.4*
*CSEM **29** 02:30:05.5±0.2, 39°.38N×43°.23E, h8^{km}, MD2.9, Error ellipse: s-maj=5.3km s-min=4.7km az=63.0*
*DDA **29** 02:30:05.9, 39°.39N×43°.25E, h7^{km}±3^{km}, Md2.9*
*ISK **29** 02:30:05.2, 39°.37N×43°.21E, h8^{km}, MD2.9*
ISC 29 02:30:06.2±0.5**, 39°.39N**±0°.03×**43°.24E**±0°.04**, h1**^{km}±8^{km}**, n20, σ1^{s}.09**/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGRB	Hanur-Agry	0.27	315	PG	Pg	02 30 11.0	-0.3
AGRB				*e*SG	Sg	02 30 15.2	+0.3
AGRB	Hanur-Agry	0.27	315	*i* Pg	Pg	02 30 11.0	-0.3
AGRB				*e*Sg	Sg	02 30 15.2	+0.3
DYDN	Diyadin	0.38	65	*i* P	Pg	02 30 13.1	-0.4
DYDN				*i* S	Sg	02 30 19.3	+0.8
DYDN	Diyadin	0.38	65	*i* P	Pg	02 30 13.1	-0.4
DYDN				*i* S	Sg	02 30 19.3	+0.8
CLDR	Caldiran	0.58	114	*e*PG	Pg	02 30 16.8	-0.5
CLDR				*e*SG	Sg	02 30 26.2	+1.4
CLDR	Caldiran	0.58	114	*e*Pg	Pg	02 30 16.8	-0.4
CLDR				*e*Sg	Sg	02 30 26.2	+1.5
VANB	Van	0.80	172	*e*PG	Pg	02 30 20.8	-0.7
VANB	Van	0.80	172	*e*Pg	Pg	02 30 20.8	-0.6
TVAN	Van	0.86	171	*i* P	Pg	02 30 22.5	-0.2
TVAN				*i* S	Sg	02 30 35.8	+1.8
TVAN	Van	0.86	171	*i* P	Pg	02 30 22.5	-0.2
TVAN				*i* S	Sg	02 30 35.8	+1.9
VANT	Van	0.95	173	*e*PG	Pg	02 30 23.9	-0.4
TATV	Tatvan	1.16	221	*i* P	Pg	02 30 26.9	-1.5
TATV				*i* S	Sg	02 30 43.1	-0.2
TATV	Tatvan	1.16	221	*i* P	Pg	02 30 26.9	-1.4
TATV				*i* S	Sg	02 30 43.1	-0.2
HOMI	Horasan	1.22	303	*i* P	Pg	02 30 28.5	-1.0
HOMI				*i* S	Sg	02 30 48.2	+2.8
KARS	Kars	1.23	355	*e*PN	Pn	02 30 29.3	-1.2
GNI	Garni	1.39	56	*e*PN	Pn	02 30 31.6	-1.1
GNI	Garni	1.39	56	*e*Pn	Pn	02 30 31.6	-1.1
ERZM	Erzurum	1.54	290	*i* P	Pn	02 30 35.5	+0.7
ERZM				*i* S	Sn	02 30 57.4	+2.1
ERZM	Erzurum	1.54	290	*i* P	Pn	02 30 35.5	+0.8
ERZM				*i* S	Sn	02 30 57.4	+2.0
EZM	Erzurum	1.54	290	*e*PN	Pn	02 30 34.0	-0.7

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*MAN **29** 02:32:39, 8°.38N×126°.82E, h28^{km}, mb5.2, ML4.1, MS4.3*
*ISCJB **29** 02:32:40.3±0.9, 8°.42N±0°.04×126°.81E±0°.07, h67^{km}±7^{km}, mb4.4/40, Error ellipse: s-maj=11.3km s-min=6.3km az=160.6*
*NEIC **29** 02:32:42.1±1.9, 8°.40N×126°.69E, h66^{km}±17^{km}, mb4.4/12, Error ellipse: s-maj=17.4km s-min=7.0km az=59.0*
*IDC **29** 02:32:42.2±2.3, 8°.40N×126°.47E, h67^{km}±20^{km}, mb3.9/17, mb1 4.0/17, mb1mx4.0/24, mbtmp3.9/17, MS3.3/1, Ms1 3.3/1, ms1mx2.4/27, Error ellipse: s-maj=27.8km s-min=11.9km az=76.0*
ISC 29 02:32:41.7±0.9**, 8°.41N**±0°.04×**126°.78E**±0°.07**, h63**^{km}±7^{km}**, n67, σ1^{s}.07**/71**, mb4.5**/40**, 3C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	Butuan	1.28	296	*e*P	Pn	02 33 01.7	-1.7
MATI	Mati	1.55	200	*e*P	Pn	02 33 05.7	-1.4
BUKP	Musuan	1.78	253	*e*P	Pn	02 33 10.5	+0.2
DAV	Davao City (W)	1.79	222	P	Pn	02 33 09.0	-1.3
	148nm,0.3s,baz=168,slow=2.0,SNR=13						
DAV				S	Sn	02 33 37.2	+5.4
	222nm,0.3s,baz=84,slow=23,SNR=12						
DMPH	Davao City--Mi	1.83	224	⇑*e*P	Pn	02 33 12.3	+1.5
DMPH				*i* S	Px	02 33 14.8	
SCPH	Surigao	1.87	317	⇓*e*P	Pn	02 33 09.2	-2.2
CGP	Cagayan de Oro	2.07	271	*i* P	Pn	02 33 13.3	-0.8
CGP				*i* S	Sn	02 33 39.2	+0.5
MSLP	Maasin	2.56	312	*e*P	Pn	02 33 21.4	+0.6
CTBH	Cotabato--PC H	2.78	245	⇑*e*P	Pn	02 33 23.6	-0.2
CTBH				*i* S	Sn	02 33 56.8	+0.7
GSPH	General Santos	2.94	218	⇑*i*P	Pn	02 33 23.0	-3.0

TBP	Tagbilaran	3.15	294	eP	Pn	02 33 29.0	+0.1
TBP				eS	Sn	02 34 03.3	-2.1
LLP	Lapu-Lapu	3.36	304	⇓eP	Pn	02 33 33.0	+1.2
LLP				eS	Sn	02 34 13.2	+2.6
PAGZ	Pagadian	3.41	261	eP	Pn	02 33 34.5	+2.1
CNP	Catarman	4.58	333	eP	Pn	02 33 49.1	+0.7
GUIM	Jordan	4.69	298	eP	Pn	02 33 50.3	+0.4
RCP	Roxas	5.06	309	eP	Pn	02 33 55.5	+0.4
PVCP	Virac	5.76	334	eP	Pn	02 34 11.9	+7.3
CUYO	Cuyo Island	6.18	294	eP	Pn	02 34 10.6	+0.2
GUMO	Guam	18.48	72	LR	LR	02 42 43.0	
	comp=Z,93nm,21.4s,baz=286,slow=32						
FITZ	Fitzroy Crossi	26.37	182	P	P	02 38 12.8	+0.6
	5.3nm,0.5s,mb4.3,baz=8.1,slow=6.9,SNR=24						
CMAR	Chiang Mai Arr	28.82	293	P	P	02 38 31.9	-2.2
	3.7nm,0.7s,mb4.2,baz=110,slow=6.8,SNR=17						
CHTO	Chiang Mai	28.92	294	eP	P	02 38 34.7	-0.3
	3.3nm,0.7s,mb4.2						
KSRS	Korea Array	28.93	2	P	P	02 38 35.6	+0.7
	0.5nm,0.4s,mb3.6,baz=180,slow=11,SNR=3.4						
WRAB	Tennant Creek	29.13	165	eP	P	02 38 38.0	+1.1
	3.9nm,0.5s,mb4.4						
WRA	Warramunga Arr	29.14	165	P	P	02 38 37.1	+0.2
	3.5nm,0.5s,mb4.3,baz=349,slow=10,SNR=4.7						
ASAR	Alice Springs	32.63	168	P	P	02 39 07.7	+0.1
	0.7nm,0.4s,mb3.9,baz=348,slow=6.8,SNR=11						
ASAR				ScP	ScP	02 45 33.4	+2.0
	0.5nm,0.6s,baz=345,slow=2.9,SNR=5.0						
SHL	Shillong	37.32	302	EPKP	P	02 39 51.5	+3.4
SHL				ES	S	02 45 36.0	+4.5
FORT	Forrest	38.98	178	eP	P	02 40 02.5	+0.6
	15nm,0.6s,mb4.9						
GTA	Gaotai	39.19	326	eP	P	02 40 03.0	-0.6
GTA				pP	pP	02 40 06.5	-13
GTA				sP	sP	02 40 09.0	-18
GTA				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.9						
TAPN	Taplejung	41.44	302	eP	P	02 40 23.3	+0.8
	comp=Z,20nm,0.4s,mb5.1						
ODAN	Odare	41.55	301	eP	P	02 40 24.0	+0.6
	comp=Z,32nm,0.5s,mb5.2						
NWAO	Narrogin (SRO)	42.10	192	P	P	02 40 27.0	-0.6
	comp=Z,7.2nm,0.8s,mb4.3,baz=346,slow=4.2,SNR=5.3						
RAMN	Ramite	42.25	301	eP	P	02 40 31.0	+2.0
	comp=Z,18nm,0.5s,mb5.0						
STKA	Stephens Creek	42.49	161	P	P	02 40 31.3	+0.5
	comp=Z,1.8nm,0.5s,mb3.9,baz=322,slow=2.9,SNR=6.1						
ULN	Ulaanbaatar	42.73	340	eP	P	02 40 32.5	-0.1
	comp=Z,2.6nm,0.5s,mb4.2						
JIRN	Jiri	42.82	302	eP	P	02 40 34.6	+0.9
	comp=Z,35nm,0.4s						
SONM	Songino Array	42.93	340	P	P	02 40 33.6	-0.6
	comp=Z,0.7nm,0.5s,mb3.6,baz=151,slow=9.6,SNR=5.9						
GUN	Gumba	43.16	302	eP	P	02 40 37.3	+0.9
	comp=Z,42nm,0.4s						
PKI	Pulchoki	43.45	301	eP	P	02 40 39.0	+0.2
	comp=Z,11nm,0.5s,mb4.9						
PKIN	Phulchoki	43.46	301	eP	P	02 40 38.9	+0.1
	comp=Z,9.1nm,0.4s,mb4.9						
KKN	Kakani	43.63	302	eP	P	02 40 40.2	0.0
	comp=Z,14nm,0.5s,mb5.0						
DMN	Daman	43.72	301	eP	P	02 40 41.3	+0.4
	comp=Z,12nm,0.5s,mb4.8						
GKN	Gorkha	44.23	302	eP	P	02 40 44.7	-0.3
	comp=Z,15nm,0.4s,mb5.1						
KOLN	Koldanda	45.04	301	eP	P	02 40 51.9	+0.4
	comp=Z,25nm,0.4s,mb5.4						
DANN	Dangsing	45.08	302	eP	P	02 40 51.9	+0.2
	comp=Z,57nm,0.4s						
MKAR	Makanchi Array	53.81	323	P	P	02 41 57.5	-0.5
	comp=Z,2.3nm,0.5s,mb4.3,baz=120,slow=7.6,SNR=41						
ZALV	Zalesovo Beam	56.49	332	P	P	02 42 15.9	-1.2
	comp=Z,0.8nm,0.3s,mb4.2,baz=116,slow=6.6,SNR=3.8						
UCH	Uchtor	56.84	315	eP	P	02 42 20.5	+0.6
	comp=Z,1.4nm,0.5s,mb4.2						
EKS2	Erkin-Say	57.50	316	eP	P	02 42 24.6	+0.1
	comp=Z,1.6nm,0.7s,mb4.2						
KURK	Kurchatov	57.88	326	eP	P	02 42 26.8	-0.2
	comp=Z,3.5nm,0.4s,mb4.7						
BRVK	Borovoye	63.55	326	eP	P	02 43 05.1	-0.4
	comp=Z,4.1nm,0.6s,mb4.6						
ARU	Arti	71.05	327	eP	P	02 43 51.8	-1.1
	comp=Z,6.3nm,0.4s,mb4.9						
KDAK	Kodiak Island	77.94	33	P	P	02 44 34.6	+1.8
	comp=Z,9.9nm,1.0s,mb4.7,baz=191,slow=16,SNR=3.5						
MCK	McKinley	79.98	27	eP	P	02 44 45.9	+2.0
	comp=Z,4.9nm,0.6s,mb4.6						
MALT	Malatya	83.57	308	eP	P	02 45 03.6	+0.3
	comp=Z,1.9nm,0.8s,mb4.3						
JOF	Joensuu	85.06	333	ep	P	02 45 09.3	-1.1
	comp=Z,1.4nm,0.5s,mb4.3						
ARCES	ARCESS Array B	86.10	340	P	P	02 45 14.8	-0.6
	comp=Z,1.2nm,0.4s,mb4.5,baz=82,slow=6.1,SNR=23						
ARCES	ARCESS Array B	86.10	340	P	P	02 45 14.8	-0.6
BRTR	Keskin Array B	87.10	310	P	P	02 45 19.3	-1.6
	comp=Z,0.6nm,0.4s,mb4.2						
BRTR	Keskin Array B	87.10	310	P	P	02 45 19.3	-1.6
KAF	Kangasniemi	87.50	332	ep	P	02 45 20.4	-1.9
	comp=Z,1.1nm,0.5s,mb4.3						
FINES	FINESS Array B	87.76	332	P	P	02 45 23.0	-0.6
	comp=Z,1.3nm,0.4s,mb4.5,baz=84,slow=4.5,SNR=30						
AKASG	Malin Array Be	88.32	321	P	P	02 45 25.4	-1.1
	comp=Z,0.6nm,0.4s,mb4.2,baz=65,slow=4.5,SNR=5.6						
YKA	Yellowknife Ar	95.24	24	P	P	02 45 59.0	+0.7
	comp=Z,0.2nm,0.6s,mb3.7,baz=302,slow=4.4,SNR=5.7						
YKA	Yellowknife Ar	95.24	24	P	P	02 45 59.0	+0.7
GERES	GERESS Array B	98.46	322	P	P	02 46 11.4	-1.7
	comp=Z,0.3nm,0.6s,mb4.0,baz=64,slow=6.8,SNR=3.4						
TORD	Torodi Ar. Bea	121.41	291	PKP	PKPdf	02 51 27.9	-1.0
	comp=Z,0.2nm,0.3s,baz=54,slow=2.0,SNR=17						

ISCJB ***29*** *02:38:28.6±0.3, 34.°93S±0.°05×108.°88W±0.°06, h10^{km}, mb5.0/119, MS5.4/182, Error ellipse: s-maj=8.8km s-min=6.1km az=43.9*

IDC ***29*** *02:38:28.1±0.5, 34.°95S×109.°06W, h0^{km}, mb4.8/23, mb1 4.9/24, mb1mx4.8/27, mbtmp4.8/24, ML4.9/1, MS5.2/21, Ms1 5.2/21, ms1mx5.2/22, Error ellipse: s-maj=14.7km s-min=14.4km az=62.0*

GCMT ***29*** *02:38:29.5±0.1, 35.°09S×108.°93W, h19^{km}, MW5.7/110, Moment Tensor Solution. s97,c173; s110,c298; Duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.34±.05; $M_{\theta\theta}$3.85±.05; $M_{\phi\phi}$-3.51±.05; $M_{r\theta}$1.53±.12; $M_{\theta\phi}$-2.01±.04; $M_{\phi r}$-0.09±.12; Best double couple: $M_0$4.42600×10^{17} NP1:ϕ_s151.00000°, δ75.00000°, λ8.00000°. NP2:ϕ_s58.00000°, δ82.00000°, λ165.00000°. Principal axes: T 4.8030, Plg16.0000°, Azm14.0000°; N -0.7580, Plg73.0000°, Azm211.0000°; P -4.0490, Plg5.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***29*** *02:38:29.0±0.9, 34.°84S×108.°83W, h11^{km}, mb5.4/31, MS5.2/28 Error ellipse: s-maj=19.3km s-min=7.4km az=89.2*

NEIC ***29*** *02:38:29.5±0.2, 35.°07S×108.°97W, h10^{km}, mb5.2/96, MS5.4/158, MW5.7, Error ellipse: s-maj=7.2km s-min=5.5km az=63.0, Moment Tensor Solution. s38 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.05; $M_{\theta\theta}$3.35; $M_{\phi\phi}$-3.30; $M_{r\theta}$0.91; $M_{\theta\phi}$-1.27; $M_{\phi r}$0.83; Best double couple: $M_0$3.80000×10^{17} NP1:ϕ_s236.00000°, δ88.00000°, λ-161.00000°. NP2:ϕ_s145.00000°, δ71.00000°, λ-2.00000°. Principal axes: T 3.7400, Plg11.0000°, Azm8.0000°; N 0.0600, Plg70.0000°, Azm242.0000°; P -3.8000, Plg14.0000°, Azm102.0000°;*

BJI ***29*** *02:38:29.5, 35.°10S×109.°00W, h10^{km}, mB5.7/16, Ms5.7/19, Ms7 5.4/19*

ISC 29 02:38:30.3±0.3**, 34.°98S**±0.°05×**108.°92W**±0.°06**, h10**^{km}**, n786, σ0^{s}56**/592**, mb5.0**/119**, MS5.4**/182**, 205C-190D, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RPN	Rapa Nui	7.83	357	eP	Pn	02 40 26.3	+2.0
RPN				pmax	pmax		
	comp=Z,948nm,1.4s						
RPN	Rapa Nui	7.83	357	Pn	Pn	02 40 23.8	-0.5
	comp=Z,19nm,0.3s,baz=166,slow=8.7,SNR=7.8						
RPN				LR	LR	02 42 34.9	
	comp=Z,34µm,18.1s,baz=171,slow=32						
RPN	Rapa Nui	7.83	357	ePn	Pn	02 40 26.3	+2.0
	comp=Z,948nm,1.4s						
PTCN	Pitcairn Islan	20.78	293	PFAKE		02 43 20.0	+8.4
PTCN				LR	LR		
	comp=Z,19µm,21.0s,MS5.5						
RKT	Rikitea	25.58	291	eLR	LR	02 50 21.1	
	comp=Z,19µm,27.2s,baz=123						
PLCA	Paso Flores	30.66	112	P	P	02 44 45.5	+0.5
	comp=Z,14nm,1.1s,mb4.7,baz=270,slow=9.1,SNR=18						
PLCA	Paso Flores	30.66	112	P	P	02 44 45.5	+0.5
FCH	Farellones	31.88	98	eP	P	02 44 56.8	+1.0
LCO	Las Campanas	32.82	90	eP	P	02 45 04.4	+0.4
	comp=Z,33nm,1.0s,mb5.2						
LCO				LR	LR		
	comp=Z,12µm,21.0s,MS5.6						
CFAA	Coronel Fontan	34.01	96	P	P	02 45 13.9	-0.5
	comp=Z,3.5nm,1.0s,mb4.3,baz=254,slow=8.7,SNR=44						
CFAA				LR	LR	02 55 38.7	
	comp=Z,2µm,19.5s,MS4.8,baz=272,slow=30						
USHA	Ushuaia	34.23	138	P	P	02 45 16.4	+0.4
	comp=Z,12nm,0.9s,mb4.8,baz=263,slow=7.8,SNR=3.1						
USHA				LR	LR	02 55 37.5	
	comp=Z,2µm,20.6s,MS4.9,baz=271,slow=30						
LVC	Limon Verde	36.93	81	P	P	02 45 41.4	+1.8
	comp=Z,47nm,1.0s,mb5.3,baz=246,slow=8.6,SNR=17						
LVC				LR	LR	02 56 42.8	
	comp=Z,8µm,21.8s,MS5.5,baz=241,slow=30						
LVC	Limon Verde	36.93	81	eP	P	02 45 41.2	+1.6
	comp=Z,60nm,1.0s,mb5.4						
LVC				LR	LR		
	comp=Z,9µm,22.0s,MS5.5						
NNA	Nana	37.01	60	P	P	02 45 41.6	+1.4
	comp=Z,9.6nm,0.8s,mb4.7,baz=235,slow=16,SNR=2.5						
NNA				LR	LR	02 57 09.0	
	comp=Z,2µm,18.1s,MS5.0,baz=230,slow=30						
ARE	Arequipa	38.15	71	eP	P	02 45 50.0	+0.1
TAOE	Nuku Hiva Isla	38.62	305	eS	S	02 51 50.3	-0.1
	comp=Z,1µm,26.4s						
TAOE				eLR	LR	02 56 19.2	
	comp=Z,9µm,26.5s,baz=148						
ATAH	Atahualpa	39.53	52	P	P	02 46 02.7	+1.2
	comp=Z,16nm,0.8s,mb4.8,baz=271,slow=8.4,SNR=9.9						
ATAH				LR	LR	02 58 01.8	
	comp=Z,4µm,20.7s,MS5.2,baz=44,slow=30						
EFI	East Falkland	39.71	131	PFAKE		02 46 10.0	+7.4
EFI				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
TIAR	Tiarei	39.87	285	eP	P	02 46 05.5	+1.2
	comp=Z,91nm,0.9s,mb5.5						
PPT	Papeete	40.05	285	eP	P	02 46 06.3	+0.5
	comp=Z,72nm,1.1s,mb5.3						
PPT				eS	S	02 52 10.7	-1.1
	comp=Z,1µm,26.2s						
PPT				eLR	LR	02 56 55.0	
	comp=Z,20µm,25.5s,baz=120						
PPT	Papeete	40.05	285	P	P	02 46 05.7	-0.2
	comp=Z,75nm,0.9s,mb5.4,baz=124,slow=8.8,SNR=6.7						
PPT				LR	LR	02 58 14.5	
	comp=Z,8µm,18.2s,MS5.6,baz=79,slow=30						
PMSA	Palmer Station	40.10	152	PFAKE		02 46 20.0	+14
PMSA				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
CPUP	Villa Florida	44.80	94	P	P	02 46 43.5	-1.0
	comp=Z,1.7nm,0.7s,mb4.0,baz=248,slow=7.5,SNR=4.1						
CPUP				LR	LR	03 02 36.5	
	comp=Z,6µm,18.3s,MS5.5,baz=232,slow=32						
OTAV	Otavalo	45.14	46	eP	P	02 46 47.8	+0.6
	comp=Z,56nm,1.5s,mb5.2						
OTAV				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
RAR	Rarotonga	46.45	273	PFAKE		02 47 10.0	+12
RAR				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
SIV	San Ignacio	46.67	79	P	P	02 46 58.5	-0.8
	comp=Z,20nm,1.1s,mb5.0,baz=245,slow=12						
JTS	JuntasAbangare	50.42	31	PFAKE		02 47 40.0	+12
JTS				LR	LR		
	comp=Z,8µm,20.0s,MS5.7						
ROSC	El Rosal	51.27	46	P	P	02 47 35.7	+1.1
	comp=Z,29nm,1.0s,mb5.2,baz=106,slow=6.9,SNR=24						
ROSC				LR	LR	03 05 13.3	
	comp=Z,1µm,20.1s,MS4.9,baz=200,slow=31						
BCIP	Isla Barro Col	51.81	38	PFAKE		02 47 50.0	+11
BCIP				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
TGUH	Tegucigalpa,Un	52.92	27	eP	P	02 47 46.3	-0.4
	comp=Z,112nm,0.9s,mb5.8						
TGUH				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
CMIG	Matias Romero	53.47	17	P	P	02 47 49.9	-0.8
	comp=Z,5.7nm,0.9s,mb4.5,baz=218,slow=11,SNR=3.8						
CMIG				LR	LR	03 05 09.5	
	comp=Z,4µm,18.1s,MS5.6,baz=186,slow=30						
CMIG	Matias Romero	53.47	17	P	P	02 47 49.9	-0.8
CMIG				LR	LR	03 05 09.5	
SPB	Sao Paulo	54.08	95	PFAKE		02 48 10.0	+15
SPB				LR	LR		
	comp=Z,4µm,21.0s,MS5.4						
SBA	Scott Base	54.91	195	PFAKE		02 48 10.0	+9.4
SBA				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
QSPA	South Pole Qui	55.23	180	P	P	02 48 03.3	+0.4
	comp=Z,20nm,1.1s,mb5.1,baz=118,slow=4.6,SNR=23						
VNDA	Vanda	55.99	195	P	P	02 48 07.8	-0.6
	comp=Z,2.9nm,1.0s,mb4.3,baz=90,slow=6.1,SNR=3.1						
VNDA				LR	LR	03 06 52.2	
	comp=Z,5µm,21.1s,MS5.5,baz=82,slow=30						
VNDA	Vanda	55.99	195	P	P	02 48 07.8	-0.6
VNDA				LR	LR	03 06 52.2	
SDV	Santo Domingo	56.68	47	P	P	02 48 12.5	-1.6
	comp=Z,10.0nm,1.0s,mb4.8,baz=268,slow=3.5,SNR=7.5						
SDV	Santo Domingo	56.68	47	eP	P	02 48 12.3	-1.8
	comp=Z,30nm,1.2s,mb5.2						
SDV				LR	LR		
	comp=Z,662nm,22.0s,MS4.7						
RAO	Raoul Island	57.68	255	PFAKE		02 48 30.0	+8.9
RAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
TEIG	Tepich	58.30	23	PFAKE		02 48 40.0	+15
TEIG				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
XMAS	Kiritimati	58.44	299	PFAKE		02 48 40.0	+13
XMAS				LR	LR		
	comp=Z,6µm,19.0s,MS5.7						
SNZO	South Karori	58.60	239	PFAKE		02 48 40.0	+13
SNZO				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
AFI	Afiamalu	59.99	274	PFAKE		02 48 50.0	+13
AFI				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
VNA3	Neumayer Olymp	60.18	158	eP	P	02 48 37.9	+0.1
VNA3				e	pP	02 48 42.0	+0.9
VNA2	Neumayer--Watz	60.99	158	eP	P	02 48 43.8	+0.4
VNA2				e		02 48 48.8	
PCRV	Puerto La Cruz	61.41	52	P	P	02 48 47.6	+0.7
	comp=Z,24nm,1.0s,mb5.3,baz=329,slow=8.6,SNR=3.0						
KVTX	Kingsville	63.05	11	PFAKE		02 49 10.0	+12
KVTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
GTBY	Guantanamo Bay	63.34	36	PFAKE		02 49 10.0	+10
GTBY				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
TXAR	Lajitas Array	64.16	5	P	P	02 49 04.7	-0.2
	comp=Z,3.9nm,0.9s,mb4.5,baz=187,slow=9.3,SNR=37						
TXAR				LR	LR	03 12 14.6	
	comp=Z,2µm,19.1s,MS5.2,baz=85,slow=32						
SDDR	Presa de Saban	64.48	40	eP	P	02 49 09.0	+1.8
	comp=Z,15µm,1.0s						
SDDR				LR	LR		
	comp=Z,1µm,21.0s						
GRGR	Grenville	64.80	53	PFAKE		02 49 20.0	+11
GRGR				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
JCT	Junction City	65.67	9	eP	P	02 49 14.0	-0.7
JCT				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.5						
JCT				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
JCT	Junction City	65.67	9	eP	P	02 49 14.0	-0.8
	comp=Z,52nm,1.0s,mb5.5						
JCT				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
HKT	Hockley	65.75	12	eP	P	02 49 13.9	-1.3
HKT				pmax	pmax		
	comp=Z,29nm,1.6s,mb5.1						
HKT				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
HKT	Hockley	65.75	12	eP	P	02 49 13.9	-1.4
	comp=Z,29nm,1.6s,mb5.1						
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
320A	Kipp Ranch, An	65.96	0	⇑P	P	02 49 16.6	0.0
	baz=66,SNR=8.5						
319A	Douglas	66.00	360	⇑P	P	02 49 16.6	-0.3
	baz=66,SNR=6.6						
318A	Bisbee	66.07	359	⇓P	P	02 49 16.9	-0.4
	baz=67,SNR=27						
324A	Moseley Ranch,	66.14	3	⇓P	P	02 49 17.2	-0.6
	baz=67						
217A	Green Valley	66.42	358	⇓P	P	02 49 19.2	-0.4
	baz=67,SNR=10						
220A	Playas Peak, P	66.53	0	⇑P	P	02 49 20.1	-0.1
	baz=67,SNR=13						
218A	Dragoon	66.60	359	⇑P	P	02 49 20.5	-0.2
	baz=67						
SJG	San Juan	66.61	45	PFAKE		02 49 30.0	+9.0
SJG				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
219A	White Tail Can	66.62	360	⇑P	P	02 49 20.9	0.0
	baz=67,SNR=11						
221A	Mesquite Ranch	66.64	1	⇑P	P	02 49 21.4	+0.4
	baz=67						
216A	Three Points,	66.67	358	⇑P	P	02 49 20.9	-0.2
	baz=67,SNR=7.2						
214A	Organ Pipe Nat	66.68	356	⇓P	P	02 49 21.1	-0.1
	baz=67,SNR=11						
222A	Williams Famil	66.75	2	⇓P	P	02 49 21.7	0.0
	baz=67						
CBYP	Canovanas	66.91	45	eP	P	02 49 22.0	-0.9
	comp=Z,47nm,1.3s,mb5.4						
BBGH	Gun Hill	66.92	53	PFAKE		02 49 30.0	+6.9
BBGH				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
TUC	Tucson	66.95	358	eP	P	02 49 22.0	-0.9
TUC				pmax	pmax		
	comp=Z,92nm,2.3s,mb5.4						
TUC				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.6						
TUC	Tucson	66.95	358	eP	P	02 49 22.0	-1.0
	comp=Z,92nm,2.3s,mb5.4						
TUC				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
GDL2	Guadalupe Moun	66.96	4	eP	P	02 49 22.5	-0.4
FDF	Fort de France	67.06	51	PFAKE		02 49 40.0	+16
FDF				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
121A	Cookes Peak, D	67.16	1	⇑P	P	02 49 24.2	0.0
	baz=68,SNR=8.4						
120A	U Bar Ranch, L	67.17	0	⇓P	P	02 49 24.2	-0.1
	baz=68,SNR=8.4						
117A	Oracle	67.21	358	⇓P	P	02 49 24.4	-0.1
	baz=68,SNR=8.4						
116A	Eloy	67.23	357	⇓P	P	02 49 24.5	-0.2
	baz=68,SNR=7.4						
118A	Homack Ranch,	67.27	359	⇓P	P	02 49 24.6	-0.3
	baz=68,SNR=11						
122A	Conniff Cattle	67.34	2	⇑P	P	02 49 25.8	+0.5
	baz=68						
112A	Yuma	67.36	355	⇓P	P	02 49 25.6	+0.1
	baz=68						
119A	Ashpeak Ranch,	67.39	360	⇓P	P	02 49 25.3	-0.3
	baz=68,SNR=6.6						
115A	Sonoran Desert	67.39	357	⇓P	P	02 49 25.4	-0.3
	baz=68,SNR=9.4						
114A	Black Gap (USA	67.47	356	⇑P	P	02 49 25.8	-0.5
	baz=68,SNR=6.7						
113A	Mohawk Valley,	67.54	356	⇑P	P	02 49 26.6	-0.1
	baz=68,SNR=7.3						
DVTC	Desert V Tower	67.61	353	⇑P	P	02 49 27.2	+0.1
	baz=68,SNR=8.2						
NATX	Nacogdoches	67.72	13	eP	P	02 49 27.7	-0.1
	comp=Z,97nm,1.3s,mb5.7						
NATX				LR	LR		
	comp=Z,777nm,19.0s,MS5.0						
Z20A	Nine Sixteen R	67.73	0	⇓P	P	02 49 28.1	+0.3
	baz=68						
SWSC	Sam W. Stewart	67.87	354	⇓P	P	02 49 28.5	-0.2
	baz=68						
MONP	Monument Peak	67.87	353	⇑P	P	02 49 28.9	+0.2
	baz=68,SNR=9.9						
GLA	Glamis	67.90	355	eP	P	02 49 29.1	+0.2
GLA				pmax	pmax		
	comp=Z,70nm,1.9s,mb5.4						
GLA	Glamis	67.90	355	⇑P	P	02 49 29.0	+0.2
	baz=68						
GLA	Glamis	67.90	355	eP	P	02 49 29.1	+0.2
	comp=Z,70nm,1.9s,mb5.4						
Z19A	T-Link Ranch,	67.91	360	⇓P	P	02 49 29.1	+0.1
	baz=68						
DWPF	Disney	67.91	26	PFAKE		02 49 40.0	+11
DWPF				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
Z17A	San Carlos Hig	67.93	359	⇑P	P	02 49 29.2	+0.1
	baz=68						
109C	Camp Elliot, M	67.94	353	⇑P	P	02 49 29.1	-0.1
	baz=68						
Z13A	Yuma Proving G	67.96	356	⇑P	P	02 49 29.0	-0.3
	baz=68,SNR=11						
Z15A	Gila River Ind	67.97	357	⇑P	P	02 49 29.2	-0.1
	baz=68						
Z16A	Peralta Trail,	68.00	358	⇑P	P	02 49 29.1	-0.4
	baz=68,SNR=5.1						
Z14A	Wintersburg	68.08	356	⇑P	P	02 49 29.9	-0.1
	baz=69						
SCI	San Clemente I	68.20	351	⇓P	P	02 49 30.7	-0.1
	baz=69						
Y17A	Roosevelt	68.33	358	⇑P	P	02 49 31.4	-0.2
	baz=69,SNR=8.1						
Y16A	Circle Bar Ran	68.54	358	⇓P	P	02 49 33.1	+0.2
	baz=69,SNR=11						
BC3	Big Chuckw Mtn	68.55	354	⇑P	P	02 49 32.9	-0.1
	baz=69,SNR=16						
Y12C	Blythe	68.57	355	⇓P	P	02 49 33.0	-0.1
	baz=69,SNR=6.6						
Y19A	Nutrioso	68.57	360	⇑P	P	02 49 33.5	+0.4
	baz=69,SNR=29						
Y13A	Salome	68.58	356	⇓P	P	02 49 33.0	-0.1
	baz=69,SNR=12						
PFO	Pinyon Flat Ob	68.59	353	eP	P	02 49 34.2	+1.0
PFO				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
PFO				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
PFO	Pinyon Flat Ob	68.59	353	⇓P	P	02 49 33.5	+0.3
	baz=69,SNR=11						
PFO	Pinyon Flat Ob	68.59	353	eP	P	02 49 34.1	+0.9
	comp=Z,34nm,1.2s,mb5.2						
PFO				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
CIS	Catalina Islan	68.60	351	⇑P	P	02 49 33.0	-0.3
	baz=69						
Y15A	Casa Rosa Ranc	68.64	357	⇓P	P	02 49 33.1	-0.4
	baz=69,SNR=11						
MURC	Murrieta	68.66	353	⇓P	P	02 49 33.8	+0.1
	baz=69						
Y14A	Wickenburg	68.66	356	⇑P	P	02 49 33.4	-0.2
	baz=69						
Y22D	IRIS PASSCAL I	68.72	2	⇓P	P	02 49 34.4	+0.4
	baz=69						
BRAL	Brewton	68.79	20	PFAKE		02 49 50.0	+15
BRAL				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
BNM	Barren Site	68.80	2	eP	P	02 49 34.0	-0.5
	comp=Z,9.3nm,1.1s,mb4.6						
LENM	Lemitar	68.81	2	eP	P	02 49 35.2	+0.7
ANWB	Willy Bob	68.87	49	PFAKE		02 49 50.0	+15
ANWB				LR	LR		
	comp=Z,774nm,20.0s,MS4.9						
FMP	Fort Macarthur	68.89	352	⇑P	P	02 49 35.1	0.0
	baz=69						
BELC	Belle Mtn.	68.94	354	⇓P	P	02 49 35.7	+0.3
	baz=69,SNR=13						
LPM	Los Pinos Moun	68.96	2	eP	P	02 49 35.8	+0.3
X17A	Forest Lakes	68.97	358	⇓P	P	02 49 35.7	+0.1
	baz=70,SNR=8.8						
IRM	Iron Mountain	69.02	354	⇓P	P	02 49 35.6	-0.3
	baz=70,SNR=9.4						
LAZ	Ladron	69.04	2	eP	P	02 49 36.1	+0.1
	comp=Z,8.7nm,1.2s,mb4.6						
VBMS	Vicksburg	69.04	17	PFAKE		02 49 50.0	+14
VBMS				LR	LR		
	comp=Z,921nm,20.0s,MS5.0						
X16A	Lo Mia Camp, P	69.07	358	⇑P	P	02 49 35.9	-0.3
	baz=70,SNR=12						
PDMCI	Parker Dam,Lak	69.09	355	⇓P	P	02 49 35.9	-0.4
	baz=70,SNR=6.3						
X22A	Bernardo	69.14	2	⇑P	P	02 49 37.0	+0.4

	baz=70,SNR=11						
X18A	Snowflake	69.15	359	⇑P	P	02 49 36.7	+0.1
	baz=70,SNR=14						
X15A	Humboldt	69.17	357	⇑P	P	02 49 36.9	0.0
	baz=70,SNR=24						
X14A	Yava	69.18	356	⇓P	P	02 49 37.3	+0.4
	baz=70						
BBRC	Big Bear Sol-O	69.28	353	⇓P	P	02 49 38.3	+0.8
	baz=70						
BFSC	Mount Baldy St	69.34	352	⇓P	P	02 49 37.8	0.0
	baz=70,SNR=7.5						
X13A	Yucca	69.36	356	⇓P	P	02 49 37.8	-0.1
	baz=70,SNR=8.5						
MWC	Mount Wilson	69.37	352	*e*P	P	02 49 38.9	+0.9
MWC				pmax	pmax		
	comp=Z,256nm,2.6s,mb5.7						
MWC	Mount Wilson	69.37	352	*e*P	P	02 49 38.9	+0.8
	comp=Z,256nm,2.6s,mb5.7						
BLG	Laguna Peak	69.38	351	⇓P	P	02 49 37.8	-0.3
	baz=70						
DECC	Green Verdugo	69.43	352	⇑P	P	02 49 38.5	+0.1
	baz=70						
NEE2	Needles Airpor	69.58	355	⇑P	P	02 49 39.6	+0.3
	baz=70						
ANMO	Albuquerque	69.60	2	*e*P	P	02 49 39.0	-0.5
ANMO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ANMO				MLR	MLR		
	comp=Z,2µm,20.0s						
ANMO	Albuquerque	69.60	2	*e*P	P	02 49 39.0	-0.5
	comp=Z,4.0nm,0.9s,mb4.3						
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
GMRC	Granite Mounta	69.68	354	⇑P	P	02 49 40.4	+0.4
	baz=70,SNR=8.6						
W22A	Albuquerque	69.71	2	⇓P	P	02 49 40.2	+0.1
	baz=70						
W17A	Winslow	69.71	358	⇓P	P	02 49 40.1	0.0
	baz=70						
W19A	Sanders	69.73	360	⇑P	P	02 49 40.0	-0.3
	baz=70						
W18A	Petrified Fore	69.73	359	⇑P	P	02 49 40.2	-0.1
	baz=70						
W20A	Ramah	69.74	0	⇑P	P	02 49 40.5	+0.2
	baz=70,SNR=15						
W21A	San Fidel	69.74	1	⇑P	P	02 49 40.5	+0.2
	baz=70						
W16A	Flagstaff	69.75	358	⇑P	P	02 49 40.8	+0.4
	baz=70,SNR=10						
HEC	Hector,Ludlow	69.79	354	⇑P	P	02 49 41.1	+0.5
	baz=70						
AMTX	Amarillo	69.83	6	*e*P	P	02 49 40.6	-0.3
	comp=Z,98nm,1.9s,mb5.4						
AMTX				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
W15A	Williams	69.86	357	⇓P	P	02 49 41.6	+0.5
	baz=70						
W13A	Hualapai Mount	69.87	356	⇑P	P	02 49 41.4	+0.3
	baz=70,SNR=7.4						
LDFC	Landfair	69.93	355	*e*P	P	02 49 43.2	+1.7
W14A	Seligman	69.93	356	⇑P	P	02 49 42.2	+0.7
	baz=70,SNR=30						
WMOK	Wichita Mounta	70.00	9	*e*P	P	02 49 40.4	-1.5
WMOK				pmax	pmax		
	comp=Z,64nm,2.6s,mb5.1						
WMOK	Wichita Mounta	70.00	9	*e*P	P	02 49 40.4	-1.5
	comp=Z,64nm,2.6s,mb5.1						
EDW2	Edwards Air Fo	70.01	352	⇑P	P	02 49 41.8	-0.2
	baz=70,SNR=9.0						
W12A	Cal Nev Ari	70.13	355	⇓P	P	02 49 42.9	+0.2
	baz=71						
POHA	Pohakuloa	70.15	313	PFAKE		02 49 50.0	+6.8
POHA				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
WUAZ	Wupatki	70.17	358	⇑P	P	02 49 42.9	0.0
	baz=71,SNR=6.9						
WUAZ	Wupatki	70.17	358	*e*P	P	02 49 43.5	+0.5
	comp=Z,70nm,2.0s,mb5.2						
WUAZ				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
GSC	Goldstone	70.30	353	*e*P	P	02 49 44.4	+0.6
GSC				pmax	pmax		
	comp=Z,68nm,1.4s,mb5.4						
GSC	Goldstone	70.30	353	⇓P	P	02 49 43.9	+0.1
	baz=71,SNR=12						
GSC	Goldstone	70.30	353	*e*P	P	02 49 44.4	+0.6
	comp=Z,68nm,1.4s,mb5.4						
FUNA	Funafuti	70.33	273	PFAKE		02 50 00.0	+15
FUNA				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
V19A	Window Rock	70.33	360	⇓P	P	02 49 43.7	-0.3
	baz=71,SNR=5.5						
V18A	Ganado	70.33	359	⇑P	P	02 49 44.0	+0.1
	baz=71,SNR=10						
ARVC	Arvin	70.35	351	⇓P	P	02 49 44.2	+0.1
	baz=71						
TUQ	Turquoise Moun	70.35	354	⇓P	P	02 49 44.6	+0.5
	baz=71,SNR=16						
V14A	Boquillas Ranc	70.35	356	⇓P	P	02 49 44.4	+0.3
	baz=71,SNR=19						
V15A	Kaibab Nationa	70.50	357	⇑P	P	02 49 45.3	+0.4
	baz=71,SNR=14						
V12A	Nelson	70.56	355	⇑P	P	02 49 45.4	+0.1
	baz=71						
LRMC	Laurel Mountai	70.57	352	⇑P	P	02 49 45.6	+0.2
	baz=71,SNR=21						
V13A	Grand Canyon W	70.62	356	⇑P	P	02 49 45.7	-0.1
	baz=71,SNR=16						
MIAR	Mount Ida	70.64	13	*e*P	P	02 49 45.3	-0.5
MIAR				pmax	pmax		
	comp=Z,67nm,1.9s,mb5.2						
MIAR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
MIAR	Mount Ida	70.64	13	*e*P	P	02 49 45.3	-0.6
	comp=Z,67nm,1.9s,mb5.2						
MIAR				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
SMMC	Simmler	70.68	350	⇑P	P	02 49 46.6	+0.5
	baz=71						
V11A	Goodsprings	70.71	354	⇓P	P	02 49 46.4	+0.2
	baz=71,SNR=6.6						
U16A	Tuba City	70.78	358	⇓P	P	02 49 46.7	+0.1
	baz=71,SNR=9.3						
ISA	Isabella	70.84	352	*e*P	P	02 49 48.0	+1.0
ISA				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.2						
ISA	Isabella	70.84	352	⇑P	P	02 49 47.3	+0.3
	baz=71,SNR=14						
ISA	Isabella	70.84	352	*e*P	P	02 49 48.0	+1.0
	comp=Z,42nm,1.3s,mb5.2						
SHOC	Shoshone	70.84	354	⇑P	P	02 49 47.1	0.0
	baz=71,SNR=9.9						
U18A	Rough Rock, Ch	71.03	359	⇑P	P	02 49 47.9	-0.3
	baz=72,SNR=12						
VES	Vestal, Richgr	71.09	351	⇓P	P	02 49 48.5	0.0
	baz=72,SNR=7.9						
UALR	University of	71.10	14	*e*P	P	02 49 50.4	+1.8
	comp=Z,35nm,1.4s,mb5.1						
MPMC	Manual Prospec	71.12	353	⇑P	P	02 49 48.9	+0.1
	baz=72,SNR=29						
U14A	Mt Trumbull	71.14	356	⇓P	P	02 49 48.9	0.0
	baz=72,SNR=17						
U13A	Pakoon Wash	71.18	356	⇑P	P	02 49 49.2	+0.1
	baz=72,SNR=9.0						
U17A	Shonto	71.23	359	⇓P	P	02 49 49.3	-0.1
	baz=72,SNR=7.4						
U12A	Valley of Fire	71.23	355	⇓P	P	02 49 49.6	+0.2
	baz=72						
U11A	Corn Creek	71.29	355	⇑P	P	02 49 50.2	+0.5
	baz=72						
U10A	Ash Meadows, A	71.36	354	⇑P	P	02 49 50.4	+0.2
	baz=72,SNR=14						
T19A	Beclabito	71.44	360	⇓P	P	02 49 50.1	-0.6
	baz=72,SNR=13						
FURC	Furnace Creek,	71.46	353	⇓P	P	02 49 51.0	+0.2
	baz=72,SNR=6.1						
OXF	Oxford	71.50	17	*e*P	P	02 49 50.0	-1.1
OXF				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
OXF				MLR	MLR		
	comp=Z,825nm,19.0s,MS5.0						
OXF	Oxford	71.50	17	*e*P	P	02 49 50.0	-1.1
	comp=Z,26nm,1.1s,mb5.1						
OXF				LR	LR		
	comp=Z,825nm,19.0s,MS5.0						
T12A	Moapa	71.54	355	⇓P	P	02 49 51.4	+0.1
	baz=72						
CWC	Cottonwood Cre	71.56	352	⇑P	P	02 49 52.1	+0.7
	baz=72						
T17A	Navajo Res., N	71.63	358	⇓P	P	02 49 51.9	+0.1
	baz=72,SNR=16						
T16A	Glen Canyon Da	71.63	358	⇑P	P	02 49 52.0	+0.2
	baz=72						
T22A	Edith	71.65	2	⇓P	P	02 49 52.1	+0.2
	baz=72,SNR=15						
T15A	Red Dirt Ranch	71.70	357	⇓P	P	02 49 52.2	0.0
	baz=72,SNR=10						
T18A	Mexican Hat	71.75	359	⇑P	P	02 49 52.4	-0.1
	baz=72,SNR=22						
T14A	Hurricane	71.78	356	⇑P	P	02 49 52.5	-0.1
	baz=72,SNR=6.5						
T13A	Saint George	71.78	356	⇓P	P	02 49 52.9	+0.2
	baz=72,SNR=12						
MVCO	Mesa Verde	71.82	0	⇑P	P	02 49 52.7	-0.2
	baz=72,SNR=14						
MVCO	Mesa Verde	71.82	0	*e*P	P	02 49 52.6	-0.3
	comp=Z,31nm,1.1s,mb5.2						
MVCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
GRAC	Grapevine Rang	72.04	353	⇑P	P	02 49 54.7	+0.4
	baz=72,SNR=7.9						
T11A	Corn Creek, Al	72.09	355	⇑P	P	02 49 55.0	+0.5
	baz=73,SNR=18						
GOGA	Godfrey	72.09	22	*e*P	P	02 49 56.1	+1.4
GOGA				pmax	pmax		
	comp=Z,57nm,1.1s,mb5.4						
GOGA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
GOGA	Godfrey	72.09	22	*e*P	P	02 49 56.1	+1.4
	comp=Z,57nm,1.1s,mb5.4						
GOGA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
TIN	Tinemaha	72.19	352	⇓P	P	02 49 55.6	+0.5
	baz=73,SNR=7.3						
S17A	Black Ridge (B	72.26	358	⇑P	P	02 49 55.2	-0.4
	baz=73,SNR=10						
PLAL	Pickwick Lake	72.27	18	*e*P	P	02 49 53.6	-2.1
	comp=Z,17nm,1.1s,mb4.9						
PLAL				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
CCUT	Cedar City	72.28	356	*e*P	P	02 49 56.3	+0.7
	comp=Z,22nm,1.0s,mb5.0						
S18A	Hurst Farm, Bl	72.31	359	⇑P	P	02 49 55.9	+0.1
	baz=73,SNR=18						
SAO	San Andreas Ge	72.32	349	PFAKE		02 50 10.0	+14
SAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
S13A	Holt Ranch, En	72.33	356	⇓P	P	02 49 56.2	+0.2
	baz=73,SNR=26						
S15A	Panguitch	72.35	357	⇓P	P	02 49 56.4	+0.3
	baz=73						
S19A	Harvey Farm, M	72.35	360	⇑P	P	02 49 55.6	-0.5
	baz=73,SNR=14						
SDCO	Great Sand Dun	72.42	3	*e*P	P	02 49 56.6	0.0
	comp=Z,13nm,1.2s,mb4.7						
SDCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
S12A	Delamar Landin	72.43	355	⇓P	P	02 49 57.1	+0.6
	baz=73,SNR=13						
S14A	Cedar City	72.47	356	⇑P	P	02 49 57.1	+0.3
	baz=73,SNR=6.6						
ARUT	Antelope Range	72.52	356	*e*P	P	02 49 57.5	+0.4
ARUT				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
ARUT	Antelope Range	72.52	356	*e*P	P	02 49 57.5	+0.4
	comp=Z,15nm,1.1s,mb4.8						
S11A	Rachel	72.53	354	⇑P	P	02 49 57.9	+0.7
	baz=73,SNR=12						
PV01	Paradox Valley	72.74	0	*e*P	P	02 49 58.0	-0.4
	comp=Z,976nm,1.0s						
S09A	Goldfield	72.74	353	⇓P	P	02 49 58.7	+0.3
	baz=73,SNR=45						
RCBR	Riachuelo	72.78	85	*e*P	P	02 50 00.5	+1.2
	comp=Z,35nm,1.4s,mb5.1						
RCBR				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
R20A	Redvale	72.80	0	⇑P	P	02 49 58.3	-0.4
	baz=73,SNR=15						
MLAC	Mammoth Lakes	72.82	352	⇑P	P	02 49 59.2	+0.3
	baz=73						
R22A	Saguache, Gunn	72.86	2	⇓P	P	02 49 59.2	+0.1
	baz=73,SNR=17						
S10A	Tonopah Range,	72.88	354	⇑P	P	02 49 59.2	-0.1
	baz=73,SNR=11						
R15A	Junction	72.88	357	⇑P	P	02 49 59.5	+0.3
	baz=73						
NHSC	New Hope	72.90	25	PFAKE		02 50 10.0	+11
NHSC				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
R19A	Curley Farm, L	72.90	360	⇑P	P	02 49 59.1	-0.3
	baz=73,SNR=28						
R16A	Teasdale	72.93	358	⇓P	P	02 49 59.2	-0.3
	baz=73,SNR=16						
R13A	O'Grain Ranch,	72.94	356	⇓P	P	02 49 59.9	+0.3
	baz=73,SNR=9.2						
R18A	Canyonlands Na	73.00	359	⇓P	P	02 49 59.4	-0.5
	baz=74,SNR=18						
PV04	Paradox Valley	73.00	0	*e*P	P	02 50 00.1	+0.2
R14A	James Farms, M	73.00	357	⇑P	P	02 50 00.3	+0.3
	baz=74						
R17A	Hanksville Air	73.04	359	⇓P	P	02 49 59.3	-0.9
	baz=74,SNR=7.1						
SWET	Sewanee	73.06	20	*e*P	P	02 49 59.8	-0.5
R12A	Pony Springs,	73.12	355	⇑P	P	02 50 01.1	+0.4
	baz=74,SNR=21						
MVU	Marysvale	73.17	357	PFAKE		02 50 10.0	+9.0
MVU				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
MSU	Marysvale	73.18	357	*e*P	P	02 50 01.6	+0.6
R10A	Warm Springs	73.22	354	⇑P	P	02 50 01.9	+0.6
	baz=74						
R11A	Troy Canyon, C	73.22	355	⇓P	P	02 50 01.7	+0.5
	baz=74,SNR=17						
R09A	Tonopah	73.24	353	⇑P	P	02 50 01.7	+0.3
	baz=74,SNR=11						
CMB	Columbia Colle	73.42	351	*e*P	P	02 50 03.1	+0.7
CMB				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.2						
CMB				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
CMB	Columbia Colle	73.42	351	*e*P	P	02 50 03.1	+0.6
	comp=Z,43nm,1.4s,mb5.2						
CMB				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
WVT	Waverly	73.42	18	*e*P	P	02 50 01.4	-1.1
WVT				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
WVT				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.3						
WVT	Waverly	73.42	18	*e*P	P	02 50 01.4	-1.1
	comp=Z,8.8nm,0.9s,mb4.7						
WVT				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
Q21A	Lamborn Mesa,	73.45	1	⇓P	P	02 50 02.7	+0.1
	baz=74,SNR=7.4						
R08A	Mina	73.45	352	⇓P	P	02 50 03.1	+0.5
	baz=74						
DZM	Mont Dzumac	73.47	254	*e*S	S	02 59 31.3	-1.8
	comp=Z,570nm,24.4s						
DZM				*e*LR	LR	03 12 33.7	
	comp=Z,2µm,23.4s						
Q22A	Crested Butte,	73.49	2	⇑P	P	02 50 03.1	+0.2
	baz=74						
NVAR	Mina Array Bea	73.55	352	P	P	02 50 03.7	+0.5
	comp=Z,19nm,0.9s,mb5.0,baz=183,slow=8.0,SNR=36						
NVAR	Mina Array Bea	73.55	352	P	P	02 50 03.7	+0.5
Q16A	Castle Valley	73.55	358	⇓P	P	02 50 02.9	-0.3
	baz=74,SNR=7.1						
Q19A	Hogan Spring (	73.56	360	⇓P	P	02 50 03.1	-0.2
	baz=74,SNR=26						
Q20A	Ridgley Place,	73.56	1	⇓P	P	02 50 03.0	-0.3
	baz=74,SNR=9.5						
JSC	Jenkinsville	73.60	24	*e*P	P	02 50 03.9	+0.3
CPCT	Cooper Cave	73.67	21	*e*P	P	02 50 03.8	-0.3
Q15A	Fillmore	73.67	357	⇓P	P	02 50 04.0	+0.1
	baz=74,SNR=11						
Q14A	Sevier Lake (B	73.70	356	⇑P	P	02 50 04.1	0.0
	baz=74,SNR=13						
Q13A	Wheeler Ranch,	73.71	356	⇓P	P	02 50 04.5	+0.3
	baz=74,SNR=36						
Q11A	Duckwater	73.72	355	⇓P	P	02 50 04.5	+0.3
	baz=74,SNR=18						
Q18A	Rafter H Ranch	73.72	359	⇓P	P	02 50 03.3	-0.8
	baz=74,SNR=13						
SRU	San Rafael	73.73	359	*e*P	P	02 50 03.4	-0.8
SRU				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
SRU	San Rafael	73.73	359	⇑P	P	02 50 03.7	-0.5
	baz=74,SNR=21						
SRU	San Rafael	73.73	359	*e*P	P	02 50 03.4	-0.9
	comp=Z,22nm,0.9s,mb5.1						
SYO	Syowa Base	73.74	169	⇓*e*P	P	02 50 03.4	-0.7
SYO	Syowa Base	73.74	169	⇓*e*P	P	02 50 07.0	+2.9
Q10A	Clear Creek Ra	73.76	354	⇑P	P	02 50 04.5	+0.1
	baz=74,SNR=8.2						
WAKR	Walker	73.76	351	*e*P	P	02 50 05.8	+1.4
R06C	Coleville	73.78	351	⇑P	P	02 50 05.2	+0.7
	baz=74,SNR=13						
Q09A	Carvers	73.84	353	⇑P	P	02 50 05.4	+0.5
	baz=74						
Q12A	Willow Creek R	73.85	355	⇑P	P	02 50 05.1	+0.2
	baz=74						
MCCM	Marconi Confer	73.89	349	PFAKE		02 50 20.0	+15
MCCM				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
CBKS	Cedar Bluff	73.91	7	*e*P	P	02 50 04.7	-0.6
CBKS				pmax	pmax		
	comp=Z,45nm,1.2s,mb5.3						
CBKS				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.7						
CBKS	Cedar Bluff	73.91	7	*e*P	P	02 50 04.7	-0.7
	comp=Z,45nm,1.2s,mb5.3						
CBKS				LR	LR		
	comp=Z,5µm,21.0s,MS5.7						
TMUT	Trail Mountain	73.93	358	*e*P	P	02 50 04.5	-1.0
	comp=Z,27nm,0.9s,mb5.2						
Q08A	Gabbs	73.94	353	⇓P	P	02 50 05.8	+0.4
	baz=74,SNR=21						
TKL	Tuckaleechee C	74.09	21	P	P	02 50 05.2	-1.3
	comp=Z,6.0nm,0.9s,mb4.5,baz=167,slow=11,SNR=5.5						
P17A	Butcher Ranch,	74.10	359	⇓P	P	02 50 05.9	-0.5
	baz=75						
P20A	De Beque	74.11	0	⇑P	P	02 50 06.5	+0.1
	baz=75,SNR=13						
P13A	Bates Ranch, G	74.21	356	⇓P	P	02 50 07.2	+0.2
	baz=75,SNR=20						
P19A	Cripple Cowboy	74.24	360	⇑P	P	02 50 06.9	-0.3
	baz=75,SNR=10						
P15A	Leamington	74.24	357	⇓P	P	02 50 07.2	0.0
	baz=75						
P18A	Preston Nutter	74.24	359	⇓P	P	02 50 07.0	-0.3
	baz=75,SNR=8.0						
P16A	Fountain Green	74.26	358	⇑P	P	02 50 07.5	+0.2
	baz=75						
P14A	Drum Mountains	74.29	357	⇓P	P	02 50 07.6	0.0
	baz=75,SNR=14						
P11A	Circle Ranch,	74.43	355	⇑P	P	02 50 08.8	+0.5
	baz=75						
ISCO	Idaho Springs	74.47	3	*e*P	P	02 50 09.1	+0.6
ISCO				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
ISCO				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
ISCO	Idaho Springs	74.47	3	*e*P	P	02 50 09.1	+0.6
	comp=Z,7.6nm,1.0s,mb4.6						
ISCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
CCM	Cathedral Cave	74.49	14	*e*P	P	02 50 08.1	-0.6
CCM				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
CCM				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
CCM	Cathedral Cave	74.49	14	*e*P	P	02 50 08.1	-0.6
	comp=Z,18nm,1.1s,mb4.9						
CCM				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
P09A	Austin	74.54	353	⇑P	P	02 50 09.3	+0.3
	baz=75						
P10A	Eureka	74.55	354	⇑P	P	02 50 09.5	+0.5
	baz=75						
KSU1	Kansas State U	74.58	10	*e*P	P	02 50 09.5	+0.2
	comp=Z,18nm,1.0s,mb5.0						
KSU1				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
WCN	Washoe City	74.58	351	⇓P	P	02 50 09.8	+0.6
	baz=75,SNR=6.5						
FVM	French Village	74.59	15	*e*P	P	02 50 08.8	-0.5
FVM				pmax	pmax		
	comp=Z,158nm,2.3s,mb5.5						
FVM	French Village	74.59	15	*e*P	P	02 50 08.8	-0.5
	comp=Z,158nm,2.3s,mb5.5						
CASY	Casey	74.61	195	PFAKE		02 50 20.0	+11
CASY				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
NLU	North Lily Min	74.62	357	*e*P	P	02 50 09.2	-0.2
	comp=Z,21nm,1.0s,mb5.0						
P07A	Fallon	74.72	352	⇓P	P	02 50 10.9	+0.9
	baz=75						
O20A	White River Ci	74.74	1	⇓P	P	02 50 10.0	-0.1
	baz=75,SNR=12						
HOPS	Hopland	74.75	349	PFAKE		02 50 20.0	+10
HOPS				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
P08A	Dixie Valley	74.78	353	⇓P	P	02 50 10.9	+0.5
	baz=75						
O17A	Robinson Place	74.82	359	⇑P	P	02 50 10.1	-0.4
	baz=75,SNR=7.6						
O21A	Pagoda	74.83	1	⇓P	P	02 50 10.8	+0.1
	baz=75,SNR=7.5						
O16A	Springville	74.85	358	⇑P	P	02 50 10.5	-0.2
	baz=75,SNR=6.5						
O18A	Roosevelt	74.88	359	⇓P	P	02 50 10.9	+0.1
	baz=75,SNR=8.9						
O13A	Hicks Ranch, I	74.88	356	⇑P	P	02 50 11.2	+0.3
	baz=75						
DUG	Dugway	74.89	357	*e*P	P	02 50 11.3	+0.4
DUG				pmax	pmax		
	comp=Z,91nm,2.3s,mb5.3						
DUG				MLR	MLR		
	comp=Z,880nm,19.0s,MS5.1						
DUG	Dugway	74.89	357	⇓P	P	02 50 10.8	-0.1
	baz=75,SNR=11						
DUG	Dugway	74.89	357	*e*P	P	02 50 11.3	+0.4
	comp=Z,91nm,2.3s,mb5.3						
DUG				LR	LR		
	comp=Z,880nm,19.0s,MS5.1						
O19A	Miners Draw (B	74.90	360	⇑P	P	02 50 10.5	-0.5
	baz=75,SNR=7.0						
PAHR	Pah Rah Range	74.94	352	*e*P	P	02 50 12.4	+1.2
	comp=Z,39nm,1.3s,mb5.2						
O15A	The Old Anders	74.96	357	⇓P	P	02 50 11.5	+0.1
	baz=76						
P06A	Stead Airport,	74.97	351	⇓P	P	02 50 12.0	+0.5
	baz=76						
TZTN	Tazewell	74.98	21	*e*P	P	02 50 11.7	+0.1
	comp=Z,181nm,2.3s,mb5.6						
O11A	Cowboy Ranch,	74.99	355	⇑P	P	02 50 11.9	+0.3
	baz=76,SNR=7.9						
DAU	Daniels Canyon	75.05	358	*e*P	P	02 50 12.3	+0.4
O12A	Currie	75.06	355	⇓P	P	02 50 12.2	+0.2
	baz=76						
O09A	Fish Creek Ran	75.16	353	⇑P	P	02 50 13.0	+0.5
	baz=76						
USIN	University of	75.21	17	*e*P	P	02 50 12.6	-0.2
	comp=Z,32nm,1.0s,mb5.2						
BEKR	Beckwourth	75.22	351	⇑P	P	02 50 13.3	+0.4
	baz=76,SNR=7.9						
O10A	Cortez Mining,	75.22	354	⇓P	P	02 50 13.2	+0.3
	baz=76,SNR=5.8						
JLU	Jordanelle	75.24	358	*e*P	P	02 50 13.4	+0.4
	comp=Z,27nm,1.2s,mb5.1						
O07A	Toulon	75.33	352	⇑P	P	02 50 14.3	+0.8
	baz=76,SNR=20						
N21A	Black Mountain	75.38	1	⇓P	P	02 50 14.0	+0.2
	baz=76,SNR=9.8						
O08A	Rochester Mine	75.38	353	⇑P	P	02 50 14.2	+0.5
	baz=76,SNR=6.4						
BMN	Battle Mountai	75.42	353	*e*P	P	02 50 14.8	+0.8
BMN				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.2						
BMN				MLR	MLR		
	comp=Z,970nm,20.0s,MS5.1						
BMN	Battle Mountai	75.42	353	*e*P	P	02 50 14.8	+0.8
	comp=Z,39nm,1.1s,mb5.2						
BMN				LR	LR		
	comp=Z,970nm,20.0s,MS5.1						
N20A	Spence Gulch,	75.44	1	⇓P	P	02 50 14.0	-0.1
	baz=76,SNR=8.8						
N22A	Wattenberg Ran	75.44	2	⇓P	P	02 50 14.4	+0.3
	baz=76,SNR=12						
O06A	Flanigan	75.44	351	⇑P	P	02 50 14.7	+0.5
	baz=76,SNR=16						
N19A	John Jarvie Ra	75.50	360	⇓P	P	02 50 13.6	-0.8
	baz=76,SNR=9.8						

N16A	**Rees Ranch, Co**	75.53	358	⇓P	P	02 50 14.4	-0.2
	baz=76						
N14A	**Grayback Hills**	75.56	357	⇑P	P	02 50 14.4	-0.4
	baz=76,SNR=18						
N15A	**Stansbury Isla**	75.57	357	⇑P	P	02 50 14.3	-0.6
	baz=76,SNR=6.9						
N17A	**Moffit Pass**	75.57	359	⇓P	P	02 50 14.5	-0.4
	baz=76,SNR=28						
ELK	**Elko**	75.57	355	*e*P	P	02 50 15.0	+0.1
ELK				pmax	pmax		
	comp=Z,30nm,1.5s						
ELK				MLR	MLR		
	comp=Z,2µm,20.0s						
ELK	**Elko**	75.57	355	*e*P	P	02 50 15.0	+0.1
	comp=Z,30nm,1.5s,mb5.0						
ELK				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
N13A	**Wendover, West**	75.61	356	⇑P	P	02 50 14.8	-0.3
	baz=76						
N13A	**Wendover, West**	75.61	356	*e*P	P	02 50 15.5	+0.4
	comp=Z,34nm,1.0s,mb5.2						
BGU	**Big Grassy Mou**	75.62	357	*e*P	P	02 50 14.8	-0.4
	comp=Z,42nm,1.8s,mb5.1						
CNNC	**Cliffs of the**	75.63	26	PFAKE		02 50 30.0	+15
CNNC				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
N12A	**Clover Valley,**	75.67	355	⇓P	P	02 50 15.6	+0.2
	baz=76,SNR=13						
N12A	**Clover Valley,**	75.67	355	*e*P	P	02 50 16.1	+0.6
	comp=Z,30nm,1.1s,mb5.1						
N11A	**Elko Archery C**	75.68	355	⇑P	P	02 50 15.5	0.0
	baz=76						
WCI	**Wyandotte Cave**	75.80	18	PFAKE		02 50 30.0	+14
WCI				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
OGNE	**Ogallala**	75.81	5	*e*P	P	02 50 17.0	+0.7
	comp=Z,42nm,0.9s,mb5.4						
OGNE				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
N08A	**GE Springer Mi**	75.86	353	⇑P	P	02 50 17.0	+0.5
	baz=76,SNR=17						
N09A	**Rock Creek Ran**	75.87	353	⇓P	P	02 50 16.9	+0.3
	baz=76						
TAU	**Tasmania Unive**	75.90	227	PFAKE		02 50 30.0	+13
TAU				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
N07B	**Gerlach**	75.95	352	⇑P	P	02 50 17.5	+0.4
	baz=76,SNR=19						
M16A	**Huntsville**	75.96	358	⇓P	P	02 50 16.4	-0.7
	baz=76,SNR=8.6						
PHWY	**Pilot Hill**	75.97	3	*e*P	P	02 50 17.6	+0.4
	comp=Z,100nm,2.4s,mb5.3						
N06A	**Buffalo Meadow**	76.02	351	⇑P	P	02 50 17.8	+0.4
	baz=76,SNR=20						
M22A	**Cedar Creek Ra**	76.04	2	⇓P	P	02 50 17.7	+0.1
	baz=76,SNR=7.4						
M18A	**Lyman**	76.04	359	⇓P	P	02 50 16.5	-1.1
	baz=76,SNR=10.0						
M17A	**Scullys Gap (B**	76.09	359	⇑P	P	02 50 17.3	-0.5
	baz=77						
M20A	**Sweetwater, Wa**	76.10	1	⇓P	P	02 50 17.8	0.0
	baz=77,SNR=13						
M19A	**Rock Springs**	76.11	360	⇓P	P	02 50 17.1	-0.8
	baz=77						
M13A	**Montello**	76.12	356	⇓P	P	02 50 17.4	-0.5
	baz=77,SNR=7.7						
M13A	**Montello**	76.12	356	*e*P	P	02 50 16.5	-1.4
	comp=Z,8.2nm,0.9s,mb4.7						
M15A	**Larsen Ranch,**	76.14	357	⇓P	P	02 50 17.2	-0.8
	baz=77,SNR=7.7						
M14A	**Sheep Mountain**	76.21	357	⇑P	P	02 50 17.9	-0.6
	baz=77,SNR=6.9						
M21A	**Separation Pea**	76.22	1	⇑P	P	02 50 18.1	-0.5
	baz=77						
WDC	**Whiskeytown Da**	76.22	349	*e*P	P	02 50 18.5	-0.1
WDC				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.2						
WDC				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
WDC	**Whiskeytown Da**	76.22	349	*e*P	P	02 50 18.5	-0.1
	comp=Z,44nm,1.4s,mb5.2						
WDC				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
M11A	**Holland Ranch,**	76.30	355	⇓P	P	02 50 18.9	-0.1
	baz=77,SNR=6.0						
RWWY	**Rawlins**	76.31	1	*e*P	P	02 50 19.1	+0.1
	comp=Z,16nm,1.0s,mb4.9						
M09A	**Marrel Ranch,**	76.43	353	⇑P	P	02 50 20.0	+0.2
	baz=77,SNR=7.8						
M10A	**I.L. Ranch, Tu**	76.45	354	⇓P	P	02 50 19.8	0.0
	baz=77,SNR=8.2						
ELN	**Prospectdale**	76.46	23	*e*P	P	02 50 20.0	-0.1
HVU	**Hansel Valley**	76.46	357	*e*P	P	02 50 20.2	+0.3
HVU				pmax	pmax		
	comp=Z,3.0nm,1.7s,mb4.0						
HVU	**Hansel Valley**	76.46	357	*e*P	P	02 50 20.2	+0.2
	comp=Z,3.2nm,1.7s,mb4.0						
L18A	**Fontenelle, Gr**	76.53	359	⇓P	P	02 50 19.3	-1.1
	baz=77,SNR=6.5						
M08A	**Happy Creek Ra**	76.55	353	⇑P	P	02 50 21.0	+0.6
	baz=77,SNR=9.3						
BLA	**Blacksburg**	76.55	23	*e*P	P	02 50 20.4	-0.2
BLA				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
BLA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
BLA	**Blacksburg**	76.55	23	*e*P	P	02 50 20.4	-0.2
	comp=Z,38nm,1.1s,mb5.2						
BLA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
M07A	**Soldier Meadow**	76.57	352	⇓P	P	02 50 21.0	+0.4
	baz=77,SNR=11						
L21A	**Rawlins**	76.58	1	⇑P	P	02 50 19.7	-0.9
	baz=77,SNR=8.7						
L20A	**Wamsutter**	76.61	0	⇓P	P	02 50 20.4	-0.3
	baz=77,SNR=11						
L16A	**Fish Haven**	76.65	358	⇓P	P	02 50 19.9	-1.1
	baz=77,SNR=24						
L15A	**Malad City**	76.67	357	⇓P	P	02 50 20.1	-1.0
	baz=77,SNR=6.7						
KHMM	**Horse Mountain**	76.70	349	*e*P	P	02 50 22.5	+1.2
	comp=Z,80nm,1.3s,mb5.5						
L19A	**Farson**	76.70	360	⇑P	P	02 50 20.6	-0.7
	baz=77,SNR=12						
L17A	**Cokeville**	76.72	359	⇑P	P	02 50 20.4	-1.0
	baz=77,SNR=13						
VWCC	**Virginia Weste**	76.73	23	*e*P	P	02 50 21.7	+0.1
L14A	**Malta**	76.74	357	⇓P	P	02 50 21.0	-0.5
	baz=77,SNR=14						
L13A	**Double Diamond**	76.83	356	⇓P	P	02 50 21.7	-0.3
	baz=77,SNR=13						
L12A	**House Creek Ra**	76.95	355	⇓P	P	02 50 22.5	-0.2
	baz=78,SNR=9.6						
L10A	**Juniper Basin**	76.99	354	⇓P	P	02 50 22.9	0.0
	baz=78,SNR=12						
L11A	**Cat Creek Ranc**	77.02	355	⇑P	P	02 50 23.3	+0.2
	baz=78,SNR=20						
L09A	**Wilkinson Ranc**	77.04	353	⇓P	P	02 50 23.5	+0.3
	baz=78,SNR=11						
LASM	**Arnica Sink**	77.08	350	P	P	02 50 24.1	+0.6
L07A	**Adell**	77.21	352	⇑P	P	02 50 24.8	+0.7
	baz=78,SNR=14						
MOD	**Modoc**	77.21	351	*e*P	P	02 50 24.9	+0.7
	comp=Z,50nm,1.4s,mb5.2						
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
K14A	**Jones Ranch, D**	77.25	357	⇓P	P	02 50 23.6	-0.7
	baz=78,SNR=9.8						
K18A	**Toltan Ranch,**	77.25	359	⇑P	P	02 50 23.7	-0.6
	baz=78,SNR=7.9						
K20A	**Yellowstone Ra**	77.26	0	⇓P	P	02 50 23.6	-0.8
	baz=78						
L08A	**Fields**	77.28	353	⇓P	P	02 50 24.7	+0.2
	baz=78,SNR=16						
HDIL	**Hopedale**	77.31	15	*e*P	P	02 50 25.0	+0.3
	comp=Z,22nm,0.9s,mb5.1						
HDIL				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
K15A	**Arbon**	77.36	357	⇑P	P	02 50 24.3	-0.7
	baz=78						
BW06	**Boulder Array**	77.37	360	⇓P	P	02 50 24.2	-0.8
	baz=78,SNR=41						
BW06	**Boulder Array**	77.37	360	*e*P	P	02 50 23.4	-1.6
	comp=Z,20nm,0.9s,mb5.0						
BW06				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
PDAR	**Pinedale Array**	77.37	360	P	P	02 50 23.3	-1.7
	comp=Z,14nm,0.8s,mb4.9,baz=164,slow=4.4,SNR=100						
PDAR				LR	LR	03 19 11.7	
	comp=Z,2µm,18.1s,MS5.6,baz=184,slow=32						
K17A	**Gardner Place,**	77.37	358	⇓P	P	02 50 24.3	-0.8
	baz=78						
YBH	**Yreka Blue Hor**	77.38	349	PFAKE		02 50 40.0	+15
YBH				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
AHID	**Auburn Hatcher**	77.39	358	PFAKE		02 50 40.0	+15
AHID				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
K13A	**Stover Farm, H**	77.40	356	⇑P	P	02 50 25.0	-0.1
	baz=78,SNR=9.4						
K19A	**Absolon Red Bu**	77.43	0	⇓P	P	02 50 24.3	-1.1
	baz=78,SNR=20						
K12A	**Draper Farm, C**	77.43	355	⇑P	P	02 50 25.2	-0.2
	baz=78,SNR=5.3						
K16A	**Soda Springs**	77.47	358	⇑P	P	02 50 25.2	-0.4
	baz=78,SNR=8.5						
WVOR	**Wild Horse Val**	77.55	353	*e*P	P	02 50 26.2	+0.2
WVOR				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
WVOR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
WVOR	**Wild Horse Val**	77.55	353	*e*P	P	02 50 26.2	+0.2
	comp=Z,31nm,1.2s,mb5.1						
WVOR				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
MAW	**Mawson**	77.55	177	LR	LR	03 20 34.3	
	comp=Z,1µm,20.8s,MS5.2,baz=194,slow=33						
K11A	**Parker Ranch,**	77.65	355	⇑P	P	02 50 26.5	-0.1
	baz=78,SNR=14						
K09A	**Rome**	77.72	353	⇑P	P	02 50 27.2	+0.2
	baz=78,SNR=19						
K10A	**MacKenzie Ranc**	77.72	354	⇑P	P	02 50 27.0	0.0
	baz=78,SNR=13						
J18A	**Kendall Valley**	77.82	359	⇑P	P	02 50 26.6	-0.9
	baz=78,SNR=31						
K08A	**Mann Creek Ran**	77.83	353	⇓P	P	02 50 28.3	+0.8
	baz=78,SNR=19						
SCIA	**State Center**	77.86	12	*e*P	P	02 50 28.2	+0.5
SCIA				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
K07A	**Rock Creek Ran**	77.87	352	⇑P	P	02 50 28.3	+0.5
	baz=78,SNR=13						
J16A	**Bone**	77.91	358	⇓P	P	02 50 27.8	-0.2
	baz=78,SNR=13						
RRI2	**Red Ridge**	77.98	358	*e*P	P	02 50 27.7	-0.7
	comp=Z,72nm,2.0s,mb5.3						
REDW	**Red Top Meadow**	77.98	359	*e*P	P	02 50 28.2	-0.2
	comp=Z,21nm,1.1s,mb5.0						
J14A	**Carey**	78.04	357	⇑P	P	02 50 29.1	+0.3
	baz=78,SNR=24						
J12A	**Stokes Ranch,**	78.06	355	⇑P	P	02 50 28.7	-0.2
	baz=79,SNR=13						
J15A	**Blackfoot**	78.07	357	⇑P	P	02 50 28.8	-0.1
	baz=79,SNR=12						
SNOW	**Snow King Moun**	78.08	359	*e*P	P	02 50 29.1	+0.1
	comp=Z,13nm,0.9s,mb4.8						
K05A	**Summer Lake**	78.10	351	⇑P	P	02 50 29.7	+0.6
	baz=79,SNR=18						
TPAW	**Teton Pass**	78.11	358	*e*P	P	02 50 28.5	-0.6
	comp=Z,22nm,1.0s,mb5.0						
J13A	**Cove Ranch, Pi**	78.15	356	⇓P	P	02 50 29.4	+0.1
	baz=79,SNR=14						
DCID1	**Drake Creek**	78.22	358	*e*P	P	02 50 30.0	+0.3
	comp=Z,34nm,1.0s,mb5.2						
LOHW	**Long Hollow**	78.23	359	*e*P	P	02 50 28.7	-1.1
	comp=Z,19nm,1.2s,mb4.9						
HUMO	**Hull Mountain**	78.27	349	*e*P	P	02 50 30.4	+0.3
	comp=Z,26nm,1.2s,mb5.0						
HUMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MFID	**Camas Ranch**	78.27	355	⇓P	P	02 50 29.7	-0.3
	baz=79,SNR=6.8						
I18A	**Diamond G Ranc**	78.31	359	⇓P	P	02 50 29.9	-0.3
	baz=79,SNR=14						
HLID	**Hailey**	78.32	356	⇓P	P	02 50 30.6	+0.2
	baz=79,SNR=44						
HLID	**Hailey**	78.32	356	*e*P	P	02 50 29.8	-0.5
	comp=Z,32nm,1.0s,mb5.2						
HLID				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
J10A	**Berg Farm, Mel**	78.36	354	⇓P	P	02 50 30.1	-0.4
	baz=79						
J09A	**Fry Pan Ranch,**	78.36	353	⇑P	P	02 50 31.1	+0.5
	baz=79,SNR=17						
J08A	**Circle Bar Ran**	78.45	353	⇑P	P	02 50 31.6	+0.6
	baz=79,SNR=14						
CBN	**Corbin**	78.47	25	PFAKE		02 50 40.0	+8.7
CBN				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
I16A	**Newdale**	78.51	358	⇑P	P	02 50 31.2	-0.1
	baz=79						
IMW	**Indian Meadow**	78.52	359	*e*P	P	02 50 31.5	+0.1
	comp=Z,18nm,1.0s,mb5.0						
J06A	**Christmas Vall**	78.53	352	⇓P	P	02 50 31.8	+0.3
	baz=79,SNR=21						
I17A	**Pilgrim Ck.**	78.54	359	⇑P	P	02 50 31.7	+0.2
	baz=79						
J07A	**Hines**	78.55	352	⇑P	P	02 50 32.1	+0.6
	baz=79,SNR=11						
ACSO	**Alum Creek Sta**	78.57	20	PFAKE		02 50 40.0	+8.3
ACSO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
I12A	**Atlanta**	78.60	355	⇓P	P	02 50 32.1	+0.2
	baz=79,SNR=12						
I14A	**Mackay**	78.64	357	⇓P	P	02 50 32.5	+0.5
	baz=79,SNR=30						
I13A	**Wildhorse Cree**	78.66	356	⇑P	P	02 50 32.5	+0.3
	baz=79,SNR=13						
I15A	**Monteview**	78.67	357	⇓P	P	02 50 32.5	+0.3
	baz=79						
I11A	**Placerville**	78.78	355	⇓P	P	02 50 32.7	-0.1
	baz=79,SNR=13						
BBSR	**BB Station**	78.82	37	PFAKE		02 50 40.0	+6.7
BBSR				LR	LR		
	comp=Z,929nm,19.0s,MS5.1						
RSSD	**Black Hills**	78.85	4	*e*P	P	02 50 32.9	-0.3
RSSD				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.0						
RSSD				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.5						
RSSD	**Black Hills**	78.85	4	*e*P	P	02 50 32.9	-0.3
	comp=Z,24nm,1.3s,mb5.0						
RSSD				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
MCWV	**Mont Chateau**	78.97	22	PFAKE		02 50 50.0	+16
MCWV				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
I09A	**Lost Marbles R**	78.98	354	⇑P	P	02 50 34.3	+0.3
	baz=80						
I10A	**Payette**	79.01	354	⇑P	P	02 50 34.6	+0.5
	baz=80						
ECSD	**EROS Data Cent**	79.14	9	*e*P	P	02 50 34.4	-0.4
	comp=Z,24nm,1.3s,mb5.0						
ECSD				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
CAN	**Canberra**	79.17	235	PFAKE		02 50 50.0	+15
CAN				LR	LR		
	comp=Z,831nm,20.0s,MS5.1						
LKWY	**Lake**	79.18	359	*e*P	P	02 50 36.2	+1.2
LKWY				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
LKWY				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.7						
LKWY	**Lake**	79.18	359	*e*P	P	02 50 36.2	+1.2
	comp=Z,14nm,1.2s,mb4.8						
LKWY				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
I06A	**Prineville**	79.22	352	⇓P	P	02 50 35.8	+0.6
	baz=80,SNR=23						
I07A	**Izee**	79.27	352	⇑P	P	02 50 36.1	+0.6
	baz=80,SNR=43						
H15A	**Lima**	79.29	357	⇓P	P	02 50 35.8	+0.1
	baz=80						
YMR	**Madison River**	79.29	359	*e*P	P	02 50 36.1	+0.5
	comp=Z,21nm,1.2s,mb5.0						
H13A	**Challis**	79.31	356	⇑P	P	02 50 35.6	-0.1
	baz=80,SNR=7.7						
H16A	**Russell Place,**	79.33	358	⇓P	P	02 50 36.2	+0.3
	baz=80,SNR=11						
H12A	**Diamond D Ranc**	79.33	356	⇓P	P	02 50 35.8	0.0
	baz=80,SNR=16						
JFWS	**Jewell Farm**	79.37	14	PFAKE		02 50 50.0	+14
JFWS				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
QLMT	**Earthquake Lak**	79.47	358	*e*P	P	02 50 37.5	+1.0
H10A	**Noah’s Angus R**	79.51	354	⇓P	P	02 50 36.4	-0.4
	baz=80,SNR=11						
MCMT	**McKenzie Canyo**	79.51	357	*e*P	P	02 50 37.1	+0.3
	comp=Z,8.9nm,1.1s,mb4.6						
IRO	**Indian Ridge**	79.54	350	P	P	02 50 37.3	+0.3
H11A	**Donnelly**	79.57	355	⇑P	P	02 50 36.8	-0.4
	baz=80,SNR=6.8						
H08A	**Prairie City**	79.61	353	⇓P	P	02 50 37.6	+0.2
	baz=80,SNR=21						
H09A	**Durkee**	79.66	354	⇑P	P	02 50 37.7	+0.1
	baz=80						
RLMT	**Red Lodge**	79.72	360	⇓P	P	02 50 37.7	-0.2
	baz=80,SNR=13						
RLMT	**Red Lodge**	79.72	360	*e*P	P	02 50 38.1	+0.1
	comp=Z,11nm,1.0s,mb4.8						
RLMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
H07A	**Lands Inn, Kim**	79.78	352	⇓P	P	02 50 38.4	+0.2
	baz=80						
BMO	**Blue Mountains**	79.82	354	*e*P	P	02 50 38.7	+0.2
	comp=Z,24nm,1.3s,mb5.0						
BMO				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
VIPM	**Ingram Point**	79.82	352	P	P	02 50 39.1	+0.6
G15A	**Dillon**	79.83	357	⇓P	P	02 50 38.6	+0.1
	baz=80,SNR=5.5						
G13A	**Cobalt**	79.84	356	⇓P	P	02 50 38.3	-0.3
	baz=80,SNR=22						
G16A	**Moss Hill, Enn**	79.87	358	⇓P	P	02 50 38.5	-0.3
	baz=80,SNR=7.1						
G18A	**Lazy EL Ranch,**	79.92	360	⇓P	P	02 50 38.7	-0.3
	baz=80,SNR=18						
G17A	**Pierce Place,**	79.94	359	⇑P	P	02 50 39.5	+0.4
	baz=80						
G12A	**Big Creek, Yel**	79.94	355	⇑P	P	02 50 39.0	-0.1
	baz=80,SNR=20						
G14A	**Jackson**	79.95	357	⇓P	P	02 50 39.0	-0.2
	baz=80						
H06A	**Lindquist Farm**	80.01	352	⇑P	P	02 50 39.7	+0.2
	baz=80,SNR=13						
DLMT	**Dillon**	80.03	357	*e*P	P	02 50 39.9	+0.3
	comp=Z,14nm,1.1s,mb4.8						
H04A	**Detroit Lake**	80.19	350	⇑P	P	02 50 39.6	-0.9
	baz=81,SNR=6.4						
G10A	**Bishop Farm, J**	80.24	354	⇑P	P	02 50 40.7	-0.1
	baz=81,SNR=25						
COR	**Corvallis**	80.26	350	PFAKE		02 50 50.0	+9.1
COR				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
G09A	**Cove**	80.28	354	⇑P	P	02 50 40.8	-0.2
	baz=81,SNR=14						
BOZ	**Bozeman (W)**	80.29	358	*e*P	P	02 50 40.5	-0.5
BOZ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
BOZ				MLR	MLR		
	comp=Z,952nm,19.0s,MS5.2						
BOZ	**Bozeman (W)**	80.29	358	⇓P	P	02 50 40.7	-0.3
	baz=81,SNR=12						
BOZ	**Bozeman (W)**	80.29	358	*e*P	P	02 50 40.5	-0.5
	comp=Z,5.9nm,1.0s,mb4.5						
BOZ				LR	LR		
	comp=Z,952nm,19.0s,MS5.2						
AAM	**Ann Arbor**	80.31	19	PFAKE		02 50 50.0	+8.8
AAM				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
GCMT	**Greycliff**	80.39	359	*e*P	P	02 50 39.9	-1.7
	comp=Z,5.8nm,1.1s,mb4.4						
G08A	**Pilot Rock**	80.41	353	⇑P	P	02 50 42.0	+0.3
	baz=81,SNR=23						
F16A	**Kennard Place,**	80.42	358	⇑P	P	02 50 41.7	0.0
	baz=81,SNR=12						
MVL	**Millersville**	80.43	25	*e*P	P	02 50 41.8	-0.1
	comp=Z,22nm,1.0s,mb5.0						
G07A	**Ruggs Ranch, H**	80.46	352	⇓P	P	02 50 42.2	+0.3
	baz=81,SNR=7.9						
LCCM	**Lewis and Clar**	80.48	358	P	P	02 50 42.4	+0.4
SSPA	**Standing Stone**	80.48	23	PFAKE		02 50 50.0	+7.8
SSPA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
LRM	**Limekiln Ridge**	80.49	358	*e*P	P	02 50 42.5	+0.4
F15A	**Butte**	80.51	357	⇑P	P	02 50 42.1	0.0
	baz=81,SNR=5.4						
F18A	**Big Timber**	80.51	359	⇓P	P	02 50 41.8	-0.4
	baz=81,SNR=8.3						
F14A	**Wisdom**	80.51	357	⇑P	P	02 50 42.4	+0.2
	baz=81,SNR=5.9						
F17A	**Fitzpatrick Pl**	80.52	359	⇓P	P	02 50 42.7	+0.4
	baz=81,SNR=9.8						
G06A	**Carlson Farm,**	80.54	352	⇑P	P	02 50 42.5	+0.1
	baz=81,SNR=9.8						
F12A	**Elk City**	80.56	356	⇑P	P	02 50 42.4	-0.1
	baz=81,SNR=16						
G05A	**Wamic**	80.63	351	⇓P	P	02 50 43.1	+0.3
	baz=81						
ALLY	**Alegheny Colle**	80.70	21	*e*P	P	02 50 43.6	+0.3
	comp=Z,37nm,1.0s,mb5.3						
G04A	**Mulino**	80.75	350	⇑P	P	02 50 43.6	+0.1
	baz=81						
HOOD	**Mount Hood Mea**	80.75	351	*e*P	P	02 50 43.9	+0.4
	comp=Z,30nm,1.3s,mb5.1						
F11A	**Grangeville**	80.75	355	⇑P	P	02 50 43.3	-0.1
	baz=81,SNR=19						
F08A	**Pendleton**	80.89	353	⇓P	P	02 50 44.1	-0.2
	baz=81,SNR=24						
LNOR	**Lincton Mounta**	80.92	353	*e*P	P	02 50 44.1	-0.3
F10A	**Beach Ranch, E**	80.92	354	⇓P	P	02 50 43.8	-0.6
	baz=81,SNR=11						
TARA	**Tarawa**	81.08	278	PFAKE		02 51 00.0	+14
TARA				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
F06A	**Goldendale**	81.08	352	⇓P	P	02 50 45.4	+0.2
	baz=82,SNR=14						
E17A	**Martinsdale**	81.08	359	⇓P	P	02 50 45.4	+0.2
	baz=82						
E15A	**Deer Lodge**	81.09	357	⇓P	P	02 50 45.3	0.0
	baz=82						
F07A	**Phinny Hill Vi**	81.11	352	⇓P	P	02 50 45.7	+0.4
	baz=82						
E14A	**Clinton**	81.12	357	⇓P	P	02 50 45.6	+0.2
	baz=82,SNR=5.9						
E16A	**East Helena**	81.17	358	⇑P	P	02 50 45.8	+0.1
	baz=82,SNR=11						
E18A	**Harlowton**	81.17	359	⇓P	P	02 50 45.9	+0.2
	baz=82,SNR=11						
ERPA	**Erie**	81.17	21	PFAKE		02 51 00.0	+14
ERPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
E13A	**Victor**	81.18	356	⇓P	P	02 50 45.5	-0.3
	baz=82,SNR=8.2						
E11A	**Bogner Ranch,**	81.22	355	⇓P	P	02 50 45.7	-0.3
	baz=82,SNR=31						
LAO	**LASA Array**	81.33	2	*e*P	P	02 50 46.4	-0.2
	comp=Z,13nm,0.9s,mb4.9						
LAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
HRY	**Holter Researc**	81.36	358	*e*P	P	02 50 46.6	0.0
E10A	**Myers Farm, Un**	81.42	354	⇑P	P	02 50 46.2	-0.8
	baz=82						
F04A	**Amboy**	81.45	351	⇓P	P	02 50 46.6	-0.6
	baz=82,SNR=8.4						
E09A	**Wood Farm, Sta**	81.54	354	⇓P	P	02 50 47.6	-0.1
	baz=82						
MSO	**Missoula**	81.56	357	*e*P	P	02 50 48.0	+0.2
MSO				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
HAWA	**Hanford**	81.56	353	*e*P	P	02 50 48.2	+0.4
	comp=Z,16nm,1.1s,mb4.9						
HAWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
ASR	**Mount Adams--S**	81.56	351	P	P	02 50 48.4	+0.7
RSW	**Rattlesnake Hi**	81.56	353	*e*P	P	02 50 48.6	+0.8
E08A	**Dider Farm, El**	81.61	353	⇑P	P	02 50 48.2	+0.2
	baz=82						
CHMT	**Chamberlain Mo**	81.61	357	*e*P	P	02 50 48.0	0.0
D16A	**Dana Ranch, Ca**	81.67	358	⇑P	P	02 50 48.3	0.0
	baz=82,SNR=6.2						
D15A	**Lincoln**	81.71	358	⇑P	P	02 50 49.0	+0.5
	baz=82,SNR=8.4						
E07A	**Sunnyside**	81.76	352	⇑P	P	02 50 49.0	+0.2
	baz=82						
D17A	**Six Diamond Ra**	81.77	359	⇓P	P	02 50 49.2	+0.3
	baz=82,SNR=9.8						
D14A	**Greenough**	81.79	357	⇑P	P	02 50 49.1	+0.2
	baz=82,SNR=12						
D18A	**Linhart Farms,**	81.80	359	⇑P	P	02 50 49.4	+0.3
	baz=82						
D13A	**Huson**	81.85	356	⇑P	P	02 50 48.9	-0.4
	baz=82,SNR=7.5						
D12A	**Red Ives Fores**	81.86	356	⇑P	P	02 50 48.8	-0.5

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      baz=82
E06A  Yakima            81.87 352 ⇑P      P        02 50 49.3 -0.1
      baz=82
D11A  Klaveano Farm,    81.92 355 ⇑P      P        02 50 49.3 -0.3
      baz=82,SNR=26
SLMT  Seeley Lake       81.95 357 eP      P        02 50 49.9 +0.1
D10A  Wagner Farm, O    82.00 354 ⇑P      P        02 50 49.2 -0.9
      baz=82,SNR=13
D09A  Jones Farm, Ri    82.10 354 ⇑P      P        02 50 50.3 -0.3
      baz=83
D08A  Wollman Farm,     82.15 353 ⇑P      P        02 50 50.8 -0.1
      baz=83
EBG   Ellensburg        82.18 352  P      P        02 50 51.3 +0.3
E03A  Lebam             82.21 350 ⇓P      P        02 50 51.2  0.0
      baz=83
SWMT  Swartz Lake       82.24 357 eP      P        02 50 51.5 +0.2
C17A  Wharram Farm,     82.25 359 ⇑P      P        02 50 51.6 +0.3
      baz=83,SNR=10
D07A  Quincy            82.40 352 ⇑P      P        02 50 52.2 +0.1
      baz=83,SNR=7.3
GLMI  Grayling          82.43  17  PFAKE           02 51 00.0 +7.6
GLMI                               LR     LR
      comp=Z,2µm,21.0s,MS5.4
C13A  Hot Springs       82.44 356 ⇑P      P        02 50 52.3 -0.1
      baz=83,SNR=13
C16A  Fuhringer Ranc    82.44 358 ⇑P      P        02 50 52.9 +0.6
      baz=83,SNR=6.6
C15A  Salmond Ranch,    82.44 357 ⇓P      P        02 50 52.8 +0.4
      baz=83
OD2   Odessa Site #2    82.46 353 eP      P        02 50 52.4 -0.1
JTMT  Jette             82.49 356 eP      P        02 50 52.9 +0.3
D06A  Cle Elum          82.49 352 ⇑P      P        02 50 53.2 +0.6
      baz=83
BINY  Binghamton        82.52  24  PFAKE           02 51 00.0 +7.1
BINY                               LR     LR
      comp=Z,2µm,20.0s,MS5.5
C12B  Naegeli Ranch,    82.52 356 ⇓P      P        02 50 53.5 +0.7
      baz=83
BSMT  Bassoo Peak       82.62 356 eP      P        02 50 53.6 +0.3
D05A  Enumclaw          82.63 351 ⇑P      P        02 50 53.9 +0.5
      baz=83
EGMT  Eagleton          82.63 359 ⇓P      P        02 50 53.9 +0.6
      baz=83
EGMT  Eagleton          82.63 359 eP      P        02 50 54.1 +0.8
      comp=Z,28nm,1.4s,mb5.1
EGMT                               LR     LR
      comp=Z,2µm,21.0s,MS5.5
COWI  Conover           82.66  14 eP      P        02 50 53.0 -0.5
      comp=Z,17nm,1.0s,mb5.0
COWI                               LR     LR
      comp=Z,1µm,19.0s,MS5.4
C10A  Spilker Farm,     82.76 354 ⇓P      P        02 50 54.2 +0.1
      baz=83
C09A  Chrisman Ranch    82.83 354 ⇑P      P        02 50 54.2 -0.1
      baz=83,SNR=6.0
ETW   Entiat            82.84 352 eP      P        02 50 54.6 +0.2
C08A  Higginbotham F    82.89 353 ⇑P      P        02 50 54.2 -0.5
      baz=83,SNR=7.5
WTV   Waterville        82.89 353  P      P        02 50 54.9 +0.2
C07A  Waterville        82.90 352 ⇑P      P        02 50 54.4 -0.3
      baz=83,SNR=10
B17A  L&G Farms, Che    82.91 359 ⇓P      P        02 50 55.3 +0.6
      baz=83,SNR=5.3
B15A  Bradely Ranch,    82.98 358 ⇓P      P        02 50 55.2 +0.1
      baz=84,SNR=5.3
B18A  Beardsley Farm    83.00 359 ⇓P      P        02 50 55.6 +0.4
      baz=84,SNR=7.4
B16A  M & M Farms, S    83.05 358 ⇑P      P        02 50 55.8 +0.3
      baz=84
NLWA  Neilton Lookou    83.08 350 ⇑P      P        02 50 55.7  0.0
      baz=84
NLWA  Neilton Lookou    83.08 350  PFAKE           02 51 10.0  +14
NLWA                               LR     LR
      comp=Z,2µm,21.0s,MS5.4
B13A  Whitefish         83.12 356 ⇓P      P        02 50 56.0 +0.1
      baz=84
DGMT  Dagmar            83.18   3 ⇑P      P        02 50 56.2  0.0
      baz=84
DGMT  Dagmar            83.18   3 eP      P        02 50 55.9 -0.3
      comp=Z,34nm,1.3s,mb5.2
DGMT                               LR     LR
      comp=Z,3µm,21.0s,MS5.7
NEW   Newport           83.19 354 eP      P        02 50 55.0 -1.2
NEW                                pmax   pmax
      comp=Z,19nm,1.0s
NEW                                MLR    MLR
      comp=Z,1µm,20.0s
NEW   Newport           83.19 354 eP      P        02 50 55.0 -1.2
      comp=Z,19nm,1.0s,mb5.1
NEW                                LR     LR
      comp=Z,1µm,20.0s,MS5.2
C06A  Tall Timber Ra    83.22 352 ⇑P      P        02 50 56.1 -0.3
      baz=84
B10A  Chitwood Farm,    83.23 354 ⇑P      P        02 50 56.2 -0.3
      baz=84
B12A  Libby             83.28 356 ⇓P      P        02 50 56.7  0.0
      baz=84
B11A  Sandpoint         83.31 355 ⇑P      P        02 50 56.5 -0.4
      baz=84
B09A  Rice              83.43 354 ⇑P      P        02 50 57.3 -0.2
      baz=84,SNR=9.7
B08A  Colville Reser    83.48 353 ⇑P      P        02 50 57.3 -0.4
      baz=84
A18A  Metzger Ranch,    83.53 359 ⇑P      P        02 50 58.2 +0.2
      baz=84
A17A  Triple J Farms    83.56 359 ⇓P      P        02 50 58.8 +0.6
      baz=84,SNR=11
A16A  West Butte Ran    83.58 358 ⇓P      P        02 50 58.7 +0.4
      baz=84
JCW   Jim Creek         83.61 351 eP      P        02 50 57.8 -0.6
A15A  Johnson Ranch,    83.65 357 ⇑P      P        02 50 58.5 -0.1
      baz=84,SNR=7.6
B07A  Winthrop          83.66 353 ⇑P      P        02 50 57.9 -0.8
      baz=84
A14A  Double T Ranch    83.67 357 ⇑P      P        02 50 59.1 +0.4
      baz=84,SNR=13
A13A  Flathead Natio    83.68 356 ⇓P      P        02 50 59.0 +0.3
      baz=84
AGMN  Agassiz Refuge    83.72   9 eP      P        02 50 58.5 -0.5
      comp=Z,34nm,1.6s,mb5.2
AGMN                               LR     LR
      comp=Z,2µm,22.0s,MS5.4
A12A  Yaak River Ran    83.75 356 ⇑P      P        02 50 58.6 -0.5
      baz=84
WALA  Waterton Lakes    83.78 357 eP      P        02 50 59.8 +0.5
A11A  Hall Mountain,    83.82 355 ⇑P      P        02 50 59.0 -0.5
      baz=84,SNR=7.2
B06A  Marblemount       83.88 352 ⇓P      P        02 50 59.1 -0.7
      baz=84
A10A  Northport         83.94 354 ⇑P      P        02 50 59.7 -0.4
      baz=84,SNR=6.9
EYMN  Ely               84.01  12 eP      P        02 50 59.3 -1.2
      comp=Z,13nm,1.1s,mb5.0
EYMN                               LR     LR
      comp=Z,2µm,20.0s,MS5.5
A09A  Danville          84.02 354 ⇓P      P        02 51 00.3 -0.2
      baz=84,SNR=8.0
PGC   Sidney            84.26 350 eP      P        02 51 01.8 +0.1
      comp=Z,1.7nm,1.1s,mb4.1
A07A  Ashnola River,    84.27 352 ⇑P      P        02 51 01.4 -0.3
      baz=85,SNR=12
A05A  Maple Falls       84.42 351 ⇑P      P        02 51 02.1 -0.5
      baz=85
NCB   Newcomb           84.68  24 eP      P        02 51 02.6 -1.4
      comp=Z,24nm,1.0s,mb5.3
NCB                                LR     LR
      comp=Z,1µm,20.0s,MS5.4
LONY  Lake Ozonia       85.14  24 eP      P        02 51 04.7 -1.6
      comp=Z,40nm,1.3s,mb5.4
LONY                               LR     LR
      comp=Z,1µm,19.0s,MS5.4
ULM   Lac du Bonnet     85.64   8  P      P        02 51 07.3 -1.3
      comp=Z,12nm,1.0s,mb5.1,baz=203,slow=6.2,SNR=18
ULM                                LR     LR       03 24 57.4
      comp=Z,1µm,18.7s,MS5.2,baz=9.7,slow=33
ULM   Lac du Bonnet     85.64   8  P      P        02 51 07.3 -1.3
ULM                                LR     LR       03 24 57.4
LBNH  Lisbon            85.72  26  PFAKE           02 51 20.0  +11
LBNH                               LR     LR
      comp=Z,2µm,21.0s,MS5.4
STKA  Stephens Creek    86.17 234  LR     LR       03 23 34.5
      comp=Z,1µm,20.6s,MS5.3,baz=123,slow=31
FFC   Flin Flon         89.54   4  P      P        02 51 26.5 -0.7
      comp=Z,42nm,1.1s,mb5.7,SNR=5.1
FFC   Flin Flon         89.54   4 eP      P        02 51 25.8 -1.4
FFC                                pmax   pmax
      comp=Z,10.0nm,1.2s,mb5.0
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FFC                                MLR    MLR
      comp=Z,4µm,21.0s,MS5.8
FFC   Flin Flon         89.54   4 eP      P        02 51 25.8 -1.5
      comp=Z,10nm,1.2s,mb5.0
FFC                                LR     LR
      comp=Z,4µm,21.0s,MS5.8
CTA   Charters Tower    90.15 245  LR     LR       03 24 55.0
      comp=Z,436nm,20.8s,MS4.9,baz=65,slow=31
CTAO  Charters Tower    90.15 245  PFAKE           02 51 40.0 +8.8
CTAO                               LR     LR
      comp=Z,510nm,19.0s,MS5.0
SHEL  Horse Pasture     91.39 110  PFAKE           02 51 50.0  +13
SHEL                               LR     LR
      comp=Z,1µm,19.0s,MS5.4
WRAK  Wrangell Islan    93.19 347  PFAKE           02 51 50.0 +5.8
WRAK                               LR     LR
      comp=Z,2µm,20.0s,MS5.6
FCC   Fort Churchill    94.20   8 eP      P        02 51 47.0 -1.8
      comp=Z,0.3nm,1.2s
SCHQ  Schefferville     96.48  23  P      P        02 51 57.6 -1.7
      comp=Z,4.2nm,1.0s,mb4.8,baz=215,slow=12,SNR=3.6
SCHQ                               LR     LR       03 30 25.8
      comp=Z,903nm,21.5s,MS5.2,baz=215,slow=32
ASAR  Alice Springs     96.67 235  P      P        02 51 58.7 -2.4
      comp=Z,0.5nm,1.0s,mb3.9,baz=162,slow=8.7,SNR=3.2
YKA   Yellowknife Ar    97.24 357  P      P        02 52 00.7 -1.8
      comp=Z,0.9nm,0.9s,mb4.2,baz=172,slow=3.8,SNR=14
YKA                                LR     LR       03 31 23.3
      comp=Z,1µm,18.7s,MS5.4,baz=170,slow=33
YKA   Yellowknife Ar    97.24 357  P      P        02 52 00.7 -1.8
YKA                                LR     LR       03 31 23.4
SUR   Sutherland        98.05 139  LR     LR       03 29 10.3
      comp=Z,593nm,19.7s,MS5.1,baz=148,slow=31
SUR   Sutherland        98.05 139  PFAKE           02 52 20.0  +13
SUR                                LR     LR
      comp=Z,724nm,20.0s,MS5.2
WRAB  Tennant Creek     98.86 238  PFAKE           02 52 20.0 +8.9
WRAB                               LR     LR
      comp=Z,1µm,19.0s,MS5.4
WRA   Warramunga Arr    98.86 238  LR     LR       03 34 10.5
      comp=Z,939nm,18.1s,MS5.3,baz=155,slow=34
KDAK  Kodiak Island     99.42 338  PFAKE           02 52 20.0 +7.6
KDAK                               LR     LR
      comp=Z,877nm,21.0s,MS5.2
NWAO  Narrogin (SRO)    99.77 218  PFAKE           02 52 20.0 +5.3
NWAO                               LR     LR
      comp=Z,858nm,19.0s,MS5.3
EGAK  Eagle            102.59 346  PFAKE           02 52 40.0  +13
EGAK                               LR     LR
      comp=Z,1µm,20.0s,MS5.3
BOSA  Boshof           103.38 140  Pdiff  Pdif     02 52 31.1 +0.4
      comp=Z,1.1nm,0.6s,baz=53,slow=5.1,SNR=6.0
COLA  College          104.08 344  PFAKE           02 52 40.0 +6.2
COLA                               LR     LR
      comp=Z,1µm,20.0s,MS5.5
ADK   Adak             104.78 324  PFAKE           02 52 50.0  +13
ADK                                LR     LR
      comp=Z,1µm,20.0s,MS5.5
TSUM  Tsumeb           105.97 128  PFAKE           02 57 10.0  +15
TSUM                               LR     LR
      comp=Z,951nm,20.0s,MS5.3
MBWA  Marble Bar       107.55 227  PFAKE           02 57 10.0  +12
MBWA                               LR     LR
      comp=Z,825nm,19.0s,MS5.3
SFJD  Kangerlussuaq    110.80  21  PFAKE           02 57 10.0 +7.5
SFJD                               LR     LR
      comp=Z,1µm,22.0s,MS5.4
GUMO  Guam             110.86 272  PFAKE           02 57 10.0 +5.8
GUMO                               LR     LR
      comp=Z,1µm,20.0s,MS5.4
TORD  Torodi Ar. Bea   114.25  91  PKP    PKiKP    02 57 10.1 -0.5
      comp=Z,0.2nm,0.7s,baz=320,slow=6.6,SNR=3.9
TORD                               PP     PP       02 58 09.1 +3.0
      comp=Z,3.6nm,1.1s,baz=246,slow=5.6,SNR=7.8
RTC   Rabat Centre     117.40  66  PFAKE           02 57 30.0  +14
RTC                                LR     LR
      comp=Z,950nm,19.0s,MS5.4
MTE   Manteigas        119.48  59  PFAKE           02 57 30.0  +10
MTE                                LR     LR
      comp=Z,984nm,20.0s,MS5.4
PAB   San Pablo        121.44  61  PFAKE           02 57 30.0 +6.2
PAB                                LR     LR
      comp=Z,671nm,20.0s,MS5.3
ABPO  Ambohimpanom     121.72 153  PFAKE           02 57 40.0  +15
ABPO                               LR     LR
      comp=Z,662nm,21.0s,MS5.3
ESDC  Sonseca Array    121.77  61  PKP    PKPdf    02 57 24.9 +0.6
      comp=Z,1.4nm,0.7s,baz=258,slow=1.6,SNR=6.0
ESDC                               PP     PP       02 58 57.9 -0.2
      comp=Z,0.8nm,0.7s,baz=254,slow=6.9,SNR=5.0
ESDC  Sonseca Array    121.77  61  PKP    PKPdf    02 57 24.9 +0.5
ESDC                               PP     PP       02 58 57.9 -0.2
TAM   Tamanrasset      122.24  83  PFAKE           02 57 40.0  +14
TAM                                LR     LR
      comp=Z,1µm,19.0s,MS5.5
DAV   Davao City (W)   122.89 254  PFAKE           02 57 40.0  +13
DAV                                LR     LR
      comp=Z,942nm,22.0s,MS5.4
SEY   Seymchan         124.35 327⇓iPKIKP  PKPdf    02 57 27.5 -1.1
ERM   Erimo            124.67 300  PFAKE           02 57 40.0  +10
ERM                                LR     LR
      comp=Z,2µm,22.0s,MS5.8
SJPF  Ste Jean         124.85  58 ePKIKP  PKPdf    02 57 28.4 -1.8
      comp=Z,26nm,1.3s
ETSF  Etsaut           125.25  59 ePKIKP  PKPdf    02 57 29.2 -1.7
      comp=Z,13nm,1.1s
EPF   Esparros         125.92  59 ePKIKP  PKPdf    02 57 30.7 -1.5
      comp=Z,17nm,1.2s
YSS   Yuzh-Sakhalins   126.34 306  PFAKE           02 57 40.0 +7.1
YSS                                LR     LR
      comp=Z,300nm,20.0s,MS5.0
MAJO  Matsushiro       126.53 293  PFAKE           02 57 40.0 +6.4
MAJO                               LR     LR
      comp=Z,1µm,21.0s,MS5.6
ESK   Eskdalemuir      126.54  43  PFAKE           02 57 40.0 +7.0
ESK                                LR     LR
      comp=Z,886nm,21.0s,MS5.4
FLN   La Foliniere     126.85  52 ePKIKP  PKPdf    02 57 32.7 -1.1
      comp=Z,46nm,1.4s
MTLF  Montolieu        127.33  59 ePKIKP  PKPdf    02 57 33.8 -1.1
SMF   Signal de Mont   129.24  55 ePKIKP  PKPdf    02 57 37.2 -1.2
      comp=Z,18nm,1.1s
SSB   Saint Sauveur    129.42  57  PFAKE           02 57 50.0  +11
SSB                                LR     LR
      comp=Z,881nm,22.0s,MS5.4
KKM   Kota Kinabalu    129.48 246  PFAKE           02 57 50.0  +10
KKM                                LR     LR
      comp=Z,213nm,21.0s,MS4.8
KBS   Kingsbay         129.89  12  PFAKE           02 57 50.0  +11
KBS                                LR     LR
      comp=Z,1µm,20.0s,MS5.6
KEST  Kesra            130.41  70  PKP    PKPdf    02 57 42.6 +1.6
      comp=Z,0.7nm,0.8s,baz=309,slow=6.1,SNR=4.0
KSM   Kuching          130.58 236  PFAKE           02 57 50.0 +7.9
KSM                                LR     LR
      comp=Z,542nm,21.0s,MS5.2
BNI   Bardonecchia     130.85  58  PFAKE           02 57 50.0 +8.5
BNI                                LR     LR
      comp=Z,881nm,21.0s,MS5.4
VSL   Villasalto       131.51  65  PFAKE           02 57 50.0 +7.0
VSL                                LR     LR
      comp=Z,853nm,21.0s,MS5.4
ECH   Echery           131.74  54  PFAKE           02 57 50.0 +6.9
ECH                                LR     LR
      comp=Z,701nm,20.0s,MS5.4
PGF   Pioggiola        131.96  61 ePKIKP  PKPdf    02 57 42.4 -1.3
      comp=Z,17nm,1.0s
BFO   Black Forest     132.53  54  PFAKE           02 58 00.0  +15
BFO                                LR     LR
      comp=Z,496nm,20.0s,MS5.2
TIXI  Tiksi            132.84 339 i PKIKP PKPdf    02 57 42.9 -1.6
TIXI  Tiksi            132.84 339 ePKPdf  PKPdf    02 57 43.1 -1.4
TIXI                               LR     LR
      comp=Z,636nm,20.0s,MS5.3
TUE   Stuetta          132.94  56  PFAKE           02 58 00.0  +15
TUE                                LR     LR
      comp=Z,693nm,20.0s,MS5.4
VLC   Villacollemand   133.28  60  PFAKE           02 58 00.0  +14
VLC                                LR     LR
      comp=Z,488nm,19.0s,MS5.2
FETA  Feichten         133.96  56⇓iPKiKP  PKPdf    02 57 49.2 +1.8
      comp=Z,7.3nm,1.0s
KLR   Kul'dur          133.99 307 ePKIKP  PKPdf    02 57 45.0 -2.3
MOTA  Moosalm          134.25  55⇑iPKPdf  PKPdf    02 57 47.6 -0.3
      comp=Z,7.6nm,0.9s
WDD   Wield Dalam      134.47  72  PFAKE           02 58 00.0  +11
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WDD                                LR     LR
      comp=Z,2µm,21.0s,MS5.7
GRA1  Grafenberg Arr   134.57  52 ePKP    PKPdf    02 57 50.2 +1.8
GRF   Grafenberg Arr   134.57  52 ePKIKP  PKPdf    02 57 50.2 +1.8
YAK   Yakutsk          134.82 325  PFAKE           02 58 00.0  +12
YAK                                LR     LR
      comp=Z,1µm,21.0s,MS5.5
MDJ   Mudanjiang       134.89 301  PKP    PKPdf    02 57 49.3 +0.1
MDJ                                LR     LR
      comp=N,360nm,17.9s,MS5.5
MDJ                                LR     LR
      comp=E,750nm,17.9s,MS5.5
MDJ                                LR     LR
      comp=Z,1µm,19.8s,MS5.6
YHNB  Yeheng           135.57 271  PFAKE           02 58 00.0 +8.9
YHNB                               LR     LR
      comp=Z,1µm,22.0s,MS5.5
TATO  Taipei           135.61 271  PFAKE           02 58 00.0 +8.9
TATO                               LR     LR
      comp=Z,808nm,20.0s,MS5.5
INCN  Inchon           135.66 290  PFAKE           02 58 00.0 +9.1
INCN                               LR     LR
      comp=Z,930nm,22.0s,MS5.5
CLL   Collm            135.79  50 e(PKiKP) PKPdf   02 57 54.0 +3.4
      comp=Z,6.0nm,1.1s
CLL                               eSS     SS       03 18 32.0 +4.0
CLL                               e                03 20 18.0
CLL                               eSSS             03 23 40.0
CLL                               e(SSSS)          03 26 42.0
CLL                               e                03 33 48.0
CLL                                LmV             04 08 00.0
      comp=Z,400nm,19.4s
GERES GERESS Array B   136.13  53  PKP    PKPdf    02 57 52.1 +0.8
      comp=Z,1.0nm,0.7s,baz=222,slow=1.8,SNR=8.0
BRG   Berggiesshubel   136.37  50 ePKIKP  PKPdf    02 57 55.8 +4.1
BRG                               i                03 18 38.0
BRG                                MLR    MLR
      comp=Z,390nm,18.0s,MS5.2
BRG   Berggiesshubel   136.37  50 eP      PKPdf    02 57 55.8 +4.1
      comp=Z,3.8nm,0.9s
BRG                               i                03 18 38.0
BRG                               i                03 23 51.0
BRG
      comp=N,319nm,17.0s
BRG
      comp=E,414nm,17.4s
BRG
      comp=Z,656nm,18.0s
BRG   Berggiesshubel   136.37  50 eP      PKPdf    02 57 55.8 +4.1
BRG                               i                03 18 38.0
BRG                               i                03 23 51.0
BRG                                LR     LR
      comp=Z,390nm,18.0s,MS5.2
CUC   Castrocucco      136.45  66  PFAKE           02 58 00.0 +7.7
CUC                                LR     LR
      comp=Z,1µm,21.0s,MS5.6
CN2   Changchun        137.73 299 ePKP    PKPdf    02 57 56.8 +2.3
KEV   Kevo             137.76  21  PFAKE           02 58 00.0 +6.2
KEV                                LR     LR
      comp=Z,727nm,20.0s,MS5.4
MSEY  Mahe Island      137.92 156  PFAKE           02 58 10.0  +14
MSEY                               LR     LR
      comp=Z,1µm,19.0s,MS5.7
CLNS  Chul'man         138.00 318 ePKIKP  PKPdf    02 57 52.7 -1.9
CLNS                               pmax   pmax
      comp=Z,19nm,0.9s
CLNS                               pmax   pmax
      comp=N,5.0nm,0.9s
CLNS                               pmax   pmax
      comp=E,6.0nm,0.8s
PSZ   Piszkesteto      140.22  55  PFAKE           02 58 10.0  +11
PSZ                                LR     LR
      comp=Z,576nm,20.0s,MS5.3
NJ2   Nanjing          140.35 280 ePKP    PKPdf    02 57 54.3 -5.4
NJ2                                sPKP            02 58 08.5
NJ2                                PP     PP       03 00 56.0 -2.5
NJ2                                AMB    AMB
      comp=Z,470nm,8.2s
NJ2                                LR     LR
      comp=N,380nm,18.8s,MS5.9
NJ2                                LR     LR
      comp=E,2µm,17.4s,MS5.9
NJ2                                LR     LR
      comp=Z,590nm,21.1s,MS5.3
FINES FINESS Array B   141.21  33  PKP    PKPdf    02 57 57.6 -2.7
      comp=Z,3.1nm,0.9s,baz=194,slow=3.9,SNR=3.5
KWP   Kalwaria Pacla   142.02  52⇑iP      PKPdf    02 58 04.1 +2.0
KWP   Kalwaria Pacla   142.02  52 ePKPdf  PKPdf    02 58 02.2 +0.2
BOD   Bodaibo          143.50 322 ePKHKP           02 57 58.5
BOD                                pmax   pmax
      comp=Z,19nm,1.3s
VOIR                   143.77  59⇓iP      PKPdf    02 58 10.0 +4.7
BUR08 Bucovina Ar. S   143.80  55 ePKPdf  PKPdf    02 58 02.8 -2.5
BURAR Bucovina Array   143.82  55⇑iP      PKPdf    02 58 03.5 -1.8
BJI   Beijing          144.16 292  PKP    PKPdf    02 58 02.5 -3.7
BJI                                PP     PP       03 01 20.0 -1.4
BJI                                SKKS   SKKSac   03 08 12.0 -1.6
BJI                                SS     SS       03 20 01.0 -5.9
BJI                                AMB    AMB
      comp=Z,230nm,4.7s
BJI                                LR     LR
      comp=N,350nm,25.7s,MS5.3
BJI                                LR     LR
      comp=E,570nm,30.1s,MS5.3
BJI                                LR     LR
      comp=Z,830nm,27.2s,MS5.4
MLR   Muntele Rosu     144.40  59⇑iP      PKPdf    02 58 04.2 -2.2
VRI   Vrincioaia       144.94  58⇑iP      PKPdf    02 58 11.4 +4.1
CIT   Chita            145.38 313 ePKIKP  PKPdf    02 58 06.7 -1.2
CIT                                pmax   pmax
      comp=Z,167nm,2.5s
HARR  Harsova          145.82  60⇓iP      PKPab    02 58 13.2 +3.3
AKASG Malin Array Be   146.03  49  PKPbc  PKPbc    02 58 08.1 -1.8
      comp=Z,9.9nm,1.0s,baz=272,slow=3.9,SNR=12
TIRR  Tirgusor         146.17  61⇑iP      PKPdf    02 58 10.7 +1.2
TIRR  Tirgusor         146.17  61 ePKPbc  PKPbc    02 58 09.9 -0.6
KIS   Kishinev         146.31  56 ePKP    PKPdf    02 58 10.0 +0.4
KIS                               eL               03 51 38.0
KIS                                LRM             04 06 46.0
      comp=Z,600nm,20.0s
KLMR  Klimovskoe       147.16  28⇑iPKP2   PKPab    02 58 13.1 -1.4
KLMR                               pmax   pmax
      comp=Z,57nm,1.0s
HHC   Hu-ho-hao-te     147.74 293 ePKPbc  PKPbc    02 58 14.0 -1.1
HHC                                PKPab  PKPab    02 58 21.5 +4.0
HHC                                PKS             03 01 47.3
HHC                                PP     PP       03 01 48.0 +5.4
HHC                                SKS    SKSdf    03 05 17.3 -3.5
HHC                                SS     SS       03 20 47.0 -0.5
HHC                                AMB    AMB
      comp=Z,110nm,6.7s
HHC                                LR     LR
      comp=N,480nm,15.5s,MS5.5
HHC                                LR     LR
      comp=E,510nm,17.8s,MS5.5
HHC                                LR     LR
      comp=Z,520nm,16.7s,MS5.4
GYA   Guiyang          148.38 264  PKPbc  PKPbc    02 58 15.0 -2.3
GYA                                PKPab  PKPab    02 58 21.3 +0.8
GYA                                PP     PP       03 01 48.3 +1.7
GYA                                SKKS   SKKSac   03 08 32.3 -5.7
GYA                                SS     SS       03 20 53.3 -1.9
GYA                                AMB    AMB
      comp=Z,280nm,6.2s
GYA                                LR     LR
      comp=N,630nm,22.5s,MS5.4
GYA                                LR     LR
      comp=E,520nm,25.2s,MS5.4
GYA                                LR     LR
      comp=Z,630nm,23.8s,MS5.3
PRGR  Permogore        148.81  23 ePKP2   PKPdf    02 58 15.0 +1.7
PRGR                               pmax   pmax
      comp=Z,33nm,1.4s
OBN   Obninsk          148.85  39 i PKP2  PKPdf    02 58 15.8 +2.2
OBN                               e                03 01 46.8
OBN                               eSS     SS       03 21 00.7 +2.0
OBN                                pmax   pmax
      comp=Z,33nm,0.9s
OBN   Obninsk          148.85  39 ePKPbc  PKPbc    02 58 16.3 -1.2
OBN                               ePKPab  PKPab    02 58 20.6 -0.9
OBN                                LR     LR
      comp=Z,620nm,19.0s,MS5.4
BTO   Baotou           148.90 292 ePKPbc  PKPbc    02 58 17.0 -1.1
XAN   Xi'an            148.92 279  PKPbc  PKPbc    02 58 17.0 -1.4
MOS   Moscow           149.11  37 ePKIKP  PKPdf    02 58 15.9 +1.9
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MOS				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.6						
CSS	Prodhromos	149.19	79	ePKPbc	PKPbc	02 58 18.3	-0.7
CSS				ePKPab	PKPab	02 58 22.8	-0.7
BDT	Bhumibol Dam	149.48	242	P	PKPbc	02 58 20.0	-0.3
BRTR	Keskin Array B	150.01	70	PKPbc	PKPbc	02 58 19.7	-1.2
CMAR	Chiang Mai Arr	150.30	244	PKPbc	PKPbc	02 58 21.3	-0.9
	comp=Z,16nm,0.9s,baz=181,slow=1.6,SNR=29						
ULN	Ulaanbaatar	150.39	307	ePKIKP	PKPbc	02 58 20.4	-1.1
CHG	Chiang Mai	150.53	244	P	PKPbc	02 58 21.5	-1.3
	comp=Z,40nm,1.2s						
CHTO	Chiang Mai	150.53	244	ePKIKP	PKPbc	02 58 21.1	-1.7
CHTO				e		02 58 27.8	
CHTO				MLR	MLR		
	comp=Z,399nm,19.0s,MS5.2						
CHRT	Chiangrai	150.54	247	P	PKPbc	02 58 21.0	-1.8
	comp=Z,132nm,0.8s						
IRK	Irkutsk	150.76	316	ePKIKP	PKPbc	02 58 20.8	-1.5
IRK				pmax	pmax		
	comp=Z,70nm,1.4s						
SONM	Songino Array	150.82	307	PKIKP	PKPdf	02 58 15.6	-1.4
SONM						02 58 21.1	
SONM	Songino Array	150.82	307	PKP	PKPdf	02 58 15.6	-1.4
	comp=Z,1.7nm,0.9s,baz=111,slow=1.9,SNR=8.6						
SONM				PKPbc	PKPbc	02 58 21.1	-1.5
	comp=Z,28nm,1.1s,baz=105,slow=1.7,SNR=9.6						
SONM				PKKP		03 07 09.0	
	comp=Z,0.2nm,0.5s,baz=64,slow=3.4,SNR=3.9						
KMI	Kunming	150.99	259	PKPbc	PKPdf	02 58 16.3	-1.7
TLY	Talaya	151.33	316	i PKIKP	PKPbc	02 58 22.9	-0.7
TLY				pmax	pmax		
	comp=Z,31nm,1.0s						
TLY	Talaya	151.33	316	ePKPbc	PKPbc	02 58 22.4	-1.2
VSR	Storozhevoye	151.90	45	ePKIKP	PKPbc	02 58 27.1	+2.2
VSR				pmax	pmax		
	comp=Z,20nm,1.0s						
VSR				pmax	pmax		
	comp=N,10.0nm,1.2s						
VSR				pmax	pmax		
	comp=E,7.0nm,1.0s						
VORD	Divnogorie	152.06	45	ePKIKP	PKPbc	02 58 27.4	+2.1
VORD				pmax	pmax		
	comp=Z,10.0nm,1.1s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.6s						
CD2	Chengdu	152.34	271	PKPbc	PKPdf	02 58 20.0	+0.2
CD2				PKPab	PKPab	02 58 39.3	+2.6
CD2				PKS		03 01 53.0	
CD2				PP	PP	03 02 12.5	+3.0
CD2				SKS	SKSdf	03 05 25.8	-1.4
CD2				SKKS	SKKSac	03 09 00.5	+0.8
CD2				SS	SS	03 21 40.5	+1.2
CD2				AMB	AMB		
	comp=Z,220nm,5.4s						
CD2				LR	LR		
	comp=N,1µm,21.4s						
CD2				LR	LR		
	comp=Z,1µm,22.6s,MS5.6						
VRHR	Novokhopersk	153.35	44	ePKIKP	PKPbc	02 58 31.4	+3.2
VRHR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
VRHR				pmax	pmax		
	comp=N,6.0nm,0.5s						
LZH	Lanzhou	153.38	282	ePKPbc	PKPdf	02 58 19.3	-1.9
LZH				pPKP	pPKPdf	02 58 24.8	+0.2
LZH				sPKP		02 58 28.0	
LZH				PP	PP	03 02 13.0	-2.2
LZH				SKKS	SKKSac	03 09 00.0	-5.1
LZH				SS	SS	03 21 45.3	-5.2
LZH				AMB	AMB		
	comp=Z,200nm,8.2s						
LZH				LR	LR		
	comp=N,640nm,17.3s						
LZH				LR	LR		
	comp=Z,810nm,20.2s,MS5.5						
MALT	Malatya	153.67	73	⇓iP	PKPdf	02 58 22.9	+1.4
MALT	Malatya	153.67	73	ePKPdf	PKPdf	02 58 20.6	-1.0
MALT				LR	LR		
	comp=Z,525nm,21.0s,MS5.3						
MALT	Malatya	153.67	73	⇓iP	PKPdf	02 58 22.9	+1.4
GTA	Gaotai	156.73	289	ePKP	PKPdf	02 58 25.3	-0.3
GTA				PKPab	PKPab	02 58 56.0	+0.8
GTA				PKS		03 01 57.8	
GTA				PP	PP	03 02 35.0	+1.1
GTA				SKS	SKSdf	03 05 29.5	-2.2
GTA				SKKS	SKKSac	03 09 22.5	-0.4
GTA				SS	SS	03 22 24.0	-2.7
GTA				AMB	AMB		
	comp=Z,95nm,6.0s						
GTA				LR	LR		
	comp=N,280nm,20.2s,MS5.3						
GTA				LR	LR		
	comp=E,350nm,19.0s,MS5.3						
GTA				LR	LR		
	comp=Z,290nm,18.4s,MS5.1						
ARU	Arti	156.91	18	i PKP2	PKPab	02 58 56.2	+1.0
ARU				SS	SS	03 22 27.2	+1.2
ARU	Arti	156.91	18	ePKPab	PKPab	02 58 54.5	-0.7
NVS	Novosibirsk	158.41	341	ePKIKP	PKPdf	02 58 24.7	-2.5
GNI	Garni	158.53	68	ePKIKP	PKPdf	02 58 27.6	-0.3
ZAA0	Zalesovo Array	158.72	337	ePKPdf	PKPdf	02 58 25.9	-1.7
ZAA0				ePKPab	PKPab	02 59 01.6	-1.5
ZALV	Zalesovo Beam	158.72	337	PKP	PKPdf	02 58 25.8	-1.8
	comp=Z,1.3nm,0.7s,baz=108,slow=1.9,SNR=5.2						
ZALV				PKPab	PKPab	02 59 02.4	-0.7
	comp=Z,6.0nm,0.9s,baz=34,slow=5.6,SNR=8.8						
MAK	Makhachkala	160.06	59	ePKIKP	PKPdf	02 58 38.0	+8.5
BRVK	Borovoye	161.91	2	ePKP2	PKPab	02 59 16.4	-0.7
KURK	Kurchatov	163.34	343	ePKIKP	PKPdf	02 58 31.8	-0.9
KURK				e		02 59 21.9	
POO	Poona	163.43	189	ePKP	PKPab	02 59 22.0	-2.6
MKAR	Makanchi Array	165.48	328	PKIKP	PKPdf	02 58 32.2	-2.5
MKAR				e		02 59 32.6	
MKAR				PP	PP	03 03 16.4	-3.4
MKAR	Makanchi Array	165.48	328	PKP	PKPdf	02 58 32.2	-2.5
	comp=Z,0.7nm,0.8s,baz=49,slow=1.7,SNR=3.5						
MKAR				PKPab	PKPab	02 59 32.6	-0.4
	comp=Z,2.0nm,1.0s,baz=44,slow=3.7,SNR=5.3						
MKAR				PP	PP	03 03 16.4	-3.4
	comp=Z,1.3nm,1.1s,baz=69,slow=6.6,SNR=5.0						
TKM2	Tokmak 2	171.32	337	ePKIKP	PKPdf	02 58 39.2	+0.5
TKM2				e		02 59 58.0	
AAK	Ala-Archa	171.90	342	ePKIKP	PKPdf	02 58 38.2	-0.8
AAK				e		03 00 00.0	
EKS2	Erkin-Say	172.04	345	ePKPdf	PKPdf	02 58 38.0	-1.1
UCH	Uchtor	172.28	341	ePKPdf	PKPdf	02 58 38.9	-0.3
AML	Almayashu	172.57	345	ePKPdf	PKPdf	02 58 39.0	-0.3

MAN 29 02:42:31, 10°.68N×122°.38E, h27^{km}, mb4.5, ML3.3, MS3.2, 2C, Panay

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIM	Jordan	0.21	104	eP	Pb	02 42 37.9	+0.9
RCP	Roxas	0.95	22	⇑eP	Pn	02 42 49.2	+0.7
RCP				eS	Sb	02 43 04.0	+3.0
KALP	Kalibo	0.99	358	⇑eP	Sb	02 43 05.6	+3.3
CUYO	Cuyo Island	1.35	277	eP	Pn	02 42 54.2	+0.2
LLP	Lapu-Lapu	1.60	103	eP	Pn	02 42 58.5	+1.0
LLP				eS	Sn	02 43 18.1	+0.7
TBP	Tagbilaran	1.76	124	eP	Pn	02 43 00.2	+0.5
TBP				eS	Sn	02 43 19.5	-1.8
ENPP	El Nido	2.95	281	eP	Pn	02 43 16.9	+0.8
PAGZ	Pagadian	2.98	161	eP	Pn	02 43 19.1	+2.5

BJI ***29*** *02:46:25.7, 8°.30N×83°.00W, h0^{km}, mB5.2/2, Ms5.2/4,*
Ms7 5.0/4
IDC ***29*** *02:46:26.9±1.1, 8°.39N×83°.02W, h0^{km}, mb4.2/9,*
mb1 4.4/10, mb1mx4.2/19, mbtmp4.2/10, ML4.3/1, MS3.5/1,
Ms1 3.5/1, ms1mx3.2/24, Error ellipse: s-maj=36.9km
s-min=13.9km az=43.0
NEIC ***29*** *02:46:27.7, 8°.29N×83°.02W, h0^{km}, mb4.7/37,*
MD4.5(CASC), After CASC.
NEIC Felt at Puerto Armuelles, Panama.
CASC ***29*** *02:46:27.7±2.2, 8°.32N×82°.96W, h0^{km}±6^{km}, MD4.5,*
mb4.7(NEIC)
ISCJB ***29*** *02:46:30.7±2.1, 8°.43N±0°.08×82°.83W±0°.04, h15^{km}±11^{km},*
mb4.4/46, MS5.2/4, Error ellipse: s-maj=12.7km
s-min=5.9km az=3.8

ISC 29 02:46:29.8±1.4, 8°.46N±0°.08×82°.82W±0°.04, h10^{km}±6^{km}, n276, σ1^{s}.21/272, mb4.4/46, MS5.2/4, 94C-96D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRU2	Volcan	0.36	21	eP	Pg	02 46 39.3	+2.4
BRU2				eS	Sg	02 46 49.0	+7.3
ACR	Cerro Adams	0.40	300	⇓iP	Pg	02 46 35.9	-1.7
ACR	Cerro Adams	0.40	300	⇓iP	Pg	02 46 35.9	-1.7
BAR1		0.92	328	⇑iP	Pg	02 46 46.1	-1.5
CNI	Changuinola	1.00	17	⇓iP	Pg	02 46 50.1	+1.0
CNI	Changuinola	1.00	17	⇓iP	Pg	02 46 50.1	+1.0
BUS	Buena Vista	1.43	320	⇓eP	Pn	02 46 54.4	-1.4
BUS	Buena Vista	1.43	320	⇓eP	Pn	02 46 54.4	-1.4
LIO	Limon	1.56	352	eP	Pn	02 46 58.2	+0.7
LIO	Limon	1.56	352	eP	Pn	02 46 58.2	+0.7
LCR2	La Lucha 2	1.73	318	⇑eP	Pn	02 46 58.3	-1.7
LCR2	La Lucha 2	1.73	318	⇑eP	Pn	02 46 58.3	-1.7
LAJ	Bijagual	1.90	318	⇑eP	Pn	02 47 03.4	+1.1
LAJ				eS	Sn	02 47 33.4	+7.0
LAJ	Bijagual	1.90	318	⇑eP	Pn	02 47 03.4	+1.1
LAJ				eS	Sn	02 47 33.4	+7.0
SJS	Escuela Geolog	1.91	321	eP	Pn	02 47 03.0	+0.6
SJS	Escuela Geolog	1.91	321	eP	Pn	02 47 03.0	+0.6
PRS1	Puriscal	2.12	316	⇑eP	Pn	02 47 04.3	-1.0
PRS1	Puriscal	2.12	316	⇑eP	Pn	02 47 04.3	-1.0
CGA2	Cerro Gallo 2	2.25	314	⇑eP	Pn	02 47 06.8	-0.3
CGA2	Cerro Gallo 2	2.25	314	⇑eP	Pn	02 47 06.8	-0.3
TRTC	Tortuguero	2.28	337	eP	Pn	02 47 08.7	+1.1
TRTC				eS	Sn	02 47 40.9	+5.1
JCR	Jicaral	2.65	302	eP	Pn	02 47 10.1	-2.5
JCR	Jicaral	2.65	302	eP	Pn	02 47 10.1	-2.5
FORC	Fortuna	2.71	318	eP	Pn	02 47 11.7	-1.7
FORC	Fortuna	2.71	318	eP	Pn	02 47 11.7	-1.7
JTS	JuntasAbangare	2.79	311	P	Pn	02 47 12.9	-1.6
	6µm,1.0s,SNR=54						
JTS	JuntasAbangare	2.79	311	Pn	Pn	02 47 12.8	-1.7
	51nm,0.3s,baz=114,slow=7.2,SNR=118						
JTS				Pg	Pg	02 47 15.4	-7.8
	92nm,0.3s,baz=136,slow=4.7,SNR=117						
JTS				Sn	Sn	02 47 47.7	-0.5
	112nm,0.3s,baz=7.4,slow=21,SNR=9.2						
JTS				Lg		02 47 52.6	
	85nm,0.3s,baz=340,slow=21,SNR=12						
JTS	JuntasAbangare	2.79	311	ePn	Pn	02 47 12.7	-1.8
JTS				eSn	Sn	02 47 52.4	+4.2
BCIP	Isla Barro Col	3.03	76	ePn	Pn	02 47 18.5	+0.7
BCIP	Isla Barro Col	3.03	76	⇑eP	Pn	02 47 19.9	+2.0
BCIP				eS	Sn	02 47 55.3	+1.0
VCR	Vista de Mar	3.23	301	eP	Pn	02 47 18.9	-1.7
VCR	Vista de Mar	3.23	301	eP	Pn	02 47 18.9	-1.7
UPIG		3.29	80	⇑eP	Pn	02 47 18.7	-2.8
UPIG				eS	Sn	02 48 04.7	+4.0
ROSC	El Rosal	9.16	112	LR	LR	02 51 52.8	
	comp=Z,329nm,20.6s,baz=284,slow=35						
TEIG	Tepich	12.84	336	Pn	Pn	02 49 39.9	+7.4
	2.1nm,0.3s,baz=140,slow=7.8,SNR=5.9						
CMIG	Matias Romero	14.56	307	Pn	Pn	02 49 57.8	+1.8
	1.0nm,0.3s,baz=92,slow=5.6,SNR=8.0						
CBYP	Canovanas	19.16	58	eP	Pn	02 50 56.1	+1.7
	42nm,1.2s						
BRAL	Brewton	22.79	351	eP	P	02 51 34.5	+1.9
	190nm,1.3s,mb5.4						
GOGA	Godfrey	24.84	359	eP	P	02 51 52.9	+0.5
	51nm,1.1s,mb5.0						
OXF	Oxford	26.63	348	eP	P	02 52 08.9	+0.2
	24nm,1.1s,mb4.6						
SWET	Sewanee	26.79	354	eP	P	02 52 10.8	+0.7
PLAL	Pickwick Lake	26.84	350	eP	P	02 52 11.6	+1.1
	22nm,1.3s,mb4.5						
CPCT	Cooper Cave	26.91	357	eP	P	02 52 12.6	+1.5
JCT	Junction City	27.06	326	eP	P	02 52 10.6	-2.0
	12nm,1.1s,mb4.3						
UALR	University of	27.62	343	eP	P	02 52 18.0	+0.5
	18nm,1.0s,mb4.7						
MIAR	Mount Ida	27.78	341	eP	P	02 52 17.9	-1.1
WVT	Waverly	27.92	351	eP	P	02 52 20.1	-0.2
	21nm,1.5s,mb4.5						
SIUC	Southern Illin	29.70	350	eP	P	02 52 37.1	+1.1
	21nm,0.9s,mb4.9						
WCI	Wyandotte Cave	29.81	354	eP	P	02 52 35.8	-1.2
	36nm,1.4s,mb4.9						
WMOK	Wichita Mounta	29.98	333	eP	P	02 52 38.5	-0.1
	5.1nm,1.1s,mb4.2						
FVM	French Village	30.19	348	eP	P	02 52 41.3	+0.9
	18nm,1.0s,mb4.8						
CCM	Cathedral Cave	30.44	347	eP	P	02 52 41.1	-1.4
	28nm,1.0s,mb5.0						
OLIL	Olney	30.52	352	eP	P	02 52 42.7	-0.5
	47nm,1.2s,mb5.2						
AMTX	Amarillo	31.48	329	eP	P	02 52 50.6	-1.3
	5.4nm,0.9s,mb4.4						
KSU1	Kansas State U	32.93	340	eP	P	02 53 03.2	-1.3
	17nm,0.8s,mb5.0						
320A	Kipp Ranch, An	33.04	317	⇑P	P	02 53 06.5	+1.0
	baz=33,SNR=6.3						
121A	Cookes Peak, D	33.30	320	⇑P	P	02 53 09.7	+1.9
	baz=34						
220A	Playas Peak, P	33.39	318	⇑P	P	02 53 10.0	+1.4
	baz=34,SNR=8.4						
319A	Douglas	33.57	316	⇓P	P	02 53 11.4	+1.2
	baz=34						
120A	U Bar Ranch, L	33.86	319	⇑P	P	02 53 14.2	+1.5
	baz=34						
219A	White Tail Can	33.94	317	⇓P	P	02 53 14.8	+1.5
	baz=34						
318A	Bisbee	34.10	316	⇑P	P	02 53 16.0	+1.3
	baz=34						
Z20A	Nine Sixteen R	34.20	320	⇑P	P	02 53 17.0	+1.4
	baz=35						
218A	Dragoon	34.45	317	⇑P	P	02 53 19.7	+1.9
	baz=35						
118A	Homack Ranch,	34.80	318	⇓P	P	02 53 22.2	+1.3
	baz=35						
217A	Green Valley	34.86	316	⇑P	P	02 53 22.0	+0.6
	baz=35,SNR=5.8						
TUC	Tucson	35.16	316	eP	P	02 53 17.6	-6.3
	2.8nm,1.0s,mb4.2						
Y19A	Nutrioso	35.16	320	⇑P	P	02 53 25.8	+1.9
	baz=36						
SDCO	Great Sand Dun	35.65	328	eP	P	02 53 26.1	-2.0
	2.4nm,0.9s,mb4.1						
X18A	Snowflake	35.97	320	⇑P	P	02 53 33.1	+2.2
	baz=36						
W18A	Petrified Fore	36.22	321	⇓P	P	02 53 35.0	+2.0
	baz=37						
214A	Organ Pipe Nat	36.36	314	⇓P	P	02 53 35.0	+0.7
	baz=37,SNR=6.9						
115A	Sonoran Desert	36.37	316	⇑P	P	02 53 35.7	+1.3
	baz=37						
X17A	Forest Lakes	36.40	319	⇑P	P	02 53 36.8	+2.2
	baz=37						
Y16A	Circle Bar Ran	36.56	318	⇓P	P	02 53 37.5	+1.6
	baz=37						
114A	Black Gap (USA	36.86	315	⇓P	P	02 53 40.0	+1.5
	baz=37,SNR=5.2						
X16A	Lo Mia Camp, P	36.86	319	⇓P	P	02 53 39.7	+1.2
	baz=37						
ECSD	EROS Data Cent	37.15	343	eP	P	02 53 39.1	-1.7
	12nm,1.0s,mb4.7						
U18A	Rough Rock, Ch	37.16	323	⇓P	P	02 53 42.9	+1.9
	baz=38						
Y15A	Casa Rosa Ranc	37.17	317	⇑P	P	02 53 42.6	+1.5
	baz=38						
Q22A	Crested Butte,	37.22	328	⇓P	P	02 53 44.2	+2.8
	baz=38						
W16A	Flagstaff	37.34	319	⇓P	P	02 53 44.0	+1.5
	baz=38						
X15A	Humboldt	37.43	318	⇓P	P	02 53 44.9	+1.6
	baz=38						
113A	Mohawk Valley,	37.48	315	⇓P	P	02 53 44.9	+1.1
	baz=38						
WUAZ	Wupatki	37.50	320	⇓P	P	02 53 45.6	+1.7
	baz=38						
Z13A	Yuma Proving G	37.65	315	⇓P	P	02 53 46.4	+1.2
	baz=38						
X14A	Yava	37.85	318	⇓P	P	02 53 48.6	+1.7
	baz=38						
X14A				⇓P		02 53 48.6	
	baz=38						
T17A	Navajo Res., N	38.10	322	⇑P	P	02 53 50.7	+1.7
	baz=38						
Y13A	Salome	38.11	316	⇑P	P	02 53 50.4	+1.3
	baz=38,SNR=5.4						
V15A	Kaibab Nationa	38.20	320	⇑P	P	02 53 51.8	+2.0
	baz=39,SNR=7.1						
GLA	Glamis	38.39	314	⇓P	P	02 53 52.7	+1.3
	baz=39						
W14A	Seligman	38.42	318	⇑P	P	02 53 53.6	+1.9
	baz=39						
X13A	Yucca	38.55	317	⇑P	P	02 53 53.8	+1.0
	baz=39						
Y12C	Blythe	38.55	315	⇑P	P	02 53 54.3	+1.4
	baz=39						
PDMCI	Parker Dam,Lak	38.60	316	⇓P	P	02 53 54.1	+1.0
	baz=39						
V14A	Boquillas Ranc	38.68	319	⇓P	P	02 53 55.8	+1.9
	baz=39						
O20A	White River Ci	38.85	328	⇑P	P	02 53 58.2	+3.0
	baz=39						
W13A	Hualapai Mount	38.88	318	⇑P	P	02 53 56.8	+1.2
	baz=39						
N21A	Black Mountain	38.95	330	⇓P	P	02 53 59.4	+3.4
	baz=40						
R17A	Hanksville Air	38.99	324	⇓P	P	02 53 59.1	+2.6
	baz=40						
SWSC	Sam W. Stewart	39.02	313	⇓P	P	02 53 57.9	+1.2
	baz=39						
BC3	Big Chuckw Mtn	39.15	315	⇓P	P	02 53 58.9	+1.1
	baz=40						
U14A	Mt Trumbull	39.21	320	⇓P	P	02 54 00.1	+1.8
	baz=40						
R16A	Teasdale	39.35	323	⇓P	P	02 54 01.6	+2.2
	baz=40						
BELC	Belle Mtn.	39.72	315	⇑P	P	02 54 03.8	+1.2
	baz=40,SNR=5.3						
PFO	Pinyon Flat Ob	39.84	314	⇑P	P	02 54 05.3	+1.7
	baz=40						
V12A	Nelson	39.89	318	⇓P	P	02 54 05.0	+1.1
	baz=40						
GMRC	Granite Mounta	39.91	316	⇓P	P	02 54 05.2	+1.1
	baz=40						
EYMN	Ely	40.04	351	eP	P	02 54 03.2	-1.8
	5.8nm,1.0s,mb4.3						
O17A	Robinson Place	40.23	326	⇑P	P	02 54 09.9	+3.2
	baz=41						
S13A	Holt Ranch, En	40.35	321	⇑P	P	02 54 09.8	+2.0
	baz=41						
MURC	Murrieta	40.37	313	⇓P	P	02 54 09.1	+1.1
	baz=41						
TUQ	Turquoise Moun	40.45	317	⇑P	P	02 54 09.7	+1.1
	baz=41						
N17A	Moffit Pass	40.80	327	⇓P	P	02 54 13.7	+2.3
	baz=41						
L19A	Farson	40.87	329	⇓P	P	02 54 15.0	+3.0
	baz=41						
Q14A	Sevier Lake (B	40.88	323	⇑P	P	02 54 13.8	+1.7
	baz=41						
SHOC	Shoshone	40.94	317	⇑P	P	02 54 14.0	+1.3
	baz=41						
GSC	Goldstone	40.98	316	⇑P	P	02 54 14.4	+1.4
	baz=41						
GSC	Goldstone	40.98	316	eP	P	02 54 09.7	-3.3
	6.4nm,1.0s,mb4.2						
S12A	Delamar Landin	40.99	320	⇓P	P	02 54 14.7	+1.7
	baz=41						
T11A	Corn Creek, Al	41.01	319	⇓P	P	02 54 14.4	+1.2
	baz=41						
L18A	Fontenelle, Gr	41.08	329	⇑P	P	02 54 14.5	+0.7
	baz=42						
M17A	Scullys Gap (B	41.09	328	⇑P	P	02 54 14.5	+0.7
	baz=42						
P14A	Drum Mountains	41.14	324	⇓P	P	02 54 14.7	+0.4
	baz=42						
K19A	Absolon Red Bu	41.15	331	⇓P	P	02 54 15.6	+1.3
	baz=42						
AGMN	Agassiz Refuge	41.21	347	eP	P	02 54 12.8	-1.9
	28nm,1.3s,mb4.7						
Q13A	Wheeler Ranch,	41.30	322	⇑P	P	02 54 16.2	+0.6
	baz=42						
DUG	Dugway	41.39	325	⇓P	P	02 54 17.1	+0.7
	baz=42						
BW06	Boulder Array	41.46	330	⇓P	P	02 54 17.2	+0.3
	baz=42						
BW06	Boulder Array	41.46	330	eP	P	02 54 16.6	-0.3
	2.1nm,0.9s,mb3.8						
PDAR	Pinedale Array	41.46	330	P	P	02 54 14.2	-2.7
	1.2nm,0.9s,mb3.5,baz=123,slow=11,SNR=5.0						
EDW2	Edwards Air Fo	41.58	314	⇑P	P	02 54 18.2	+0.3
	baz=42						
S11A	Rachel	41.59	319	⇑P	P	02 54 18.2	+0.2
	baz=42						
K18A	Toltan Ranch,	41.61	329	⇓P	P	02 54 19.2	+1.1
	baz=42						
P13A	Bates Ranch, G	41.62	323	⇓P	P	02 54 19.3	+1.1
	baz=42						
LRMC	Laurel Mountai	41.68	315	⇓P	P	02 54 19.3	+0.6
	baz=42,SNR=5.5						
MPMC	Manual Prospec	41.85	316	⇑P	P	02 54 20.4	+0.2
	baz=42						
J18A	Kendall Valley	42.02	330	⇓P	P	02 54 21.2	-0.2
	baz=42						
M15A	Larsen Ranch,	42.04	326	⇑P	P	02 54 22.0	+0.4
	baz=42						
N14A	Grayback Hills	42.04	325	⇑P	P	02 54 22.3	+0.6
	baz=42						
Q11A	Duckwater	42.24	321	⇓P	P	02 54 24.7	+1.4
	baz=43						
S10A	Tonopah Range,	42.29	319	⇓P	P	02 54 24.7	+0.9
	baz=43						
ISA	Isabella	42.32	315	⇑P	P	02 54 24.2	+0.2
	baz=43						
K16A	Soda Springs	42.54	328	⇑P	P	02 54 24.6	-1.0
	baz=43						
REDW	Red Top Meadow	42.54	330	eP	P	02 54 24.2	-1.4
M14A	Sheep Mountain	42.57	326	⇑P	P	02 54 25.6	-0.3
	baz=43						
S09A	Goldfield	42.59	319	⇑P	P	02 54 25.5	-0.7
	baz=43						
LOHW	Long Hollow	42.60	330	eP	P	02 54 24.5	-1.6
	1.3nm,0.6s,mb3.8						
N13A	Wendover, West	42.63	324	eP	P	02 54 23.6	-2.8
	7.1nm,0.6s,mb4.6						
TPAW	Teton Pass	42.68	330	eP	P	02 54 25.4	-1.4
	1.8nm,0.6s,mb4.0						
Q10A	Clear Creek Ra	42.69	320	⇓P	P	02 54 28.0	+1.0
	baz=43						
R09A	Tonopah	42.78	319	⇓P	P	02 54 27.6	-0.1
	baz=43						
I17A	Pilgrim Ck.	42.81	330	⇓P	P	02 54 27.4	-0.4
	baz=43						
J16A	Bone	42.86	329	⇓P	P	02 54 27.7	-0.6
	baz=43						
L14A	Malta	42.86	326	⇑P	P	02 54 27.8	-0.5
	baz=43						
M13A	Montello	42.93	325	⇓P	P	02 54 28.0	-0.9
	baz=43						
ULM	Lac du Bonnet	43.06	348	P	P	02 54 27.7	-2.0
	35nm,1.1s,mb5.0,baz=158,slow=7.4,SNR=21						
RLMT	Red Lodge	43.09	333	⇑P	P	02 54 29.2	-1.0
	baz=44						
N12A	Clover Valley,	43.11	324	⇑P	P	02 54 29.3	-1.1
	baz=44						
K14A	Jones Ranch, D	43.18	327	⇓P	P	02 54 29.9	-0.9
	baz=44						
J15A	Blackfoot	43.38	328	⇑P	P	02 54 31.5	-0.9
	baz=44						
G18A	Lazy EL Ranch,	43.38	332	⇑P	P	02 54 31.7	-0.7
	baz=44						
NVAR	Mina Array Bea	43.69	319	P	P	02 54 34.2	-0.8
	2.6nm,1.0s,mb3.9,baz=138,slow=6.6,SNR=4.5						
DGMT	Dagmar	43.77	339	⇑P	P	02 54 35.0	-0.6
	baz=44						
DGMT	Dagmar	43.77	339	eP	P	02 54 34.2	-1.3
	15nm,0.9s,mb4.7						
J14A	Carey	43.89	327	⇓P	P	02 54 36.3	-0.3
	baz=44						
F18A	Big Timber	43.90	333	⇓P	P	02 54 36.1	-0.5
	baz=44						
G17A	Pierce Place,	43.93	332	⇑P	P	02 54 38.0	+1.1
	baz=44						
I14A	Mackay	44.27	328	⇓P	P	02 54 39.7	0.0
	baz=45						
J13A	Cove Ranch, Pi	44.29	327	⇓P	P	02 54 39.7	-0.1
	baz=45						
F17A	Fitzpatrick Pl	44.33	332	⇑P	P	02 54 40.0	0.0
	baz=45						
H15A	Lima	44.34	329	⇑P	P	02 54 40.3	+0.2
	baz=45						
L11A	Cat Creek Ranc	44.36	325	⇓P	P	02 54 39.6	-0.7
	baz=45						
G16A	Moss Hill, Enn	44.37	331	⇑P	P	02 54 40.3	-0.1

	baz=45						
R06C	Coleville	44.49	318	⇑P	P	02 54 41.3	-0.2
	baz=45						
HLID	Hailey	44.53	327	*e*P	P	02 54 41.0	-0.7
	3.1nm,1.0s,mb4.1						
BOZ	Bozeman (W)	44.59	331	⇑P	P	02 54 41.6	-0.5
	baz=45						
BOZ	Bozeman (W)	44.59	331	*e*P	P	02 54 40.8	-1.4
	3.9nm,1.1s,mb4.2						
I13A	Wildhorse Cree	44.61	328	⇓P	P	02 54 41.4	-0.9
	baz=45						
G15A	Dillon	44.66	330	⇓P	P	02 54 42.4	-0.3
	baz=45						
F16A	Kennard Place,	44.69	331	⇓P	P	02 54 43.1	+0.2
	baz=45						
J12A	Stokes Ranch,	44.70	326	⇑P	P	02 54 42.3	-0.7
	baz=45						
L10A	Juniper Basin	44.72	324	⇑P	P	02 54 41.9	-1.3
	baz=45						
E17A	Martinsdale	44.84	333	⇑P	P	02 54 44.5	+0.5
	baz=45						
DLMT	Dillon	44.85	330	*e*P	P	02 54 42.6	-1.7
K11A	Parker Ranch,	44.91	325	⇑P	P	02 54 44.1	-0.6
	baz=45						
D18A	Linhart Farms,	44.92	334	⇑P	P	02 54 45.1	+0.4
	baz=46						
I12A	Atlanta	45.08	327	⇓P	P	02 54 45.5	-0.5
	baz=46						
LRM	Limekiln Ridge	45.11	331	*e*P	P	02 54 45.7	-0.6
H13A	Challis	45.13	328	⇑P	P	02 54 46.5	0.0
	baz=46						
F15A	Butte	45.15	331	⇓P	P	02 54 46.2	-0.4
	baz=46						
MFID	Camas Ranch	45.21	326	⇑P	P	02 54 46.2	-0.9
	baz=46						
E16A	East Helena	45.27	332	⇓P	P	02 54 47.1	-0.4
	baz=46						
D17A	Six Diamond Ra	45.28	333	⇑P	P	02 54 47.0	-0.6
	baz=46						
K10A	MacKenzie Ranc	45.39	325	⇑P	P	02 54 47.0	-1.5
	baz=46						
H12A	Diamond D Ranc	45.43	328	⇓P	P	02 54 48.4	-0.4
	baz=46						
G13A	Cobalt	45.48	329	⇓P	P	02 54 48.5	-0.7
	baz=46						
EGMT	Eagleton	45.55	335	⇓P	P	02 54 49.5	-0.2
	baz=46						
D16A	Dana Ranch, Ca	45.58	333	⇑P	P	02 54 49.4	-0.6
	baz=46						
O06A	Flanigan	45.63	320	⇑P	P	02 54 49.4	-1.1
	baz=46						
E15A	Deer Lodge	45.64	331	⇑P	P	02 54 50.3	-0.2
	baz=46						
C17A	Wharram Farm,	45.68	334	⇓P	P	02 54 49.9	-0.8
	baz=46						
K09A	Rome	45.83	324	⇓P	P	02 54 51.8	-0.3
	baz=46,SNR=7.0						
B18A	Beardsley Farm	45.84	335	⇑P	P	02 54 51.7	-0.3
	baz=46						
L08A	Fields	45.89	323	⇑P	P	02 54 51.5	-1.0
	baz=46,SNR=5.9						
M07A	Soldier Meadow	45.91	322	⇓P	P	02 54 51.7	-1.0
	baz=46						
D15A	Lincoln	46.03	332	⇓P	P	02 54 52.7	-0.9
	baz=47						
E14A	Clinton	46.04	331	⇑P	P	02 54 53.0	-0.7
	baz=47						
H11A	Donnelly	46.15	327	⇑P	P	02 54 53.1	-1.4
	baz=47						
B17A	L&G Farms, Che	46.20	334	⇑P	P	02 54 54.2	-0.7
	baz=47						
WVOR	Wild Horse Val	46.21	323	*e*P	P	02 54 53.2	-1.8
	8.0nm,1.0s,mb4.6						
C16A	Fuhringer Ranc	46.24	333	⇓P	P	02 54 54.7	-0.5
	baz=47						
A18A	Metzger Ranch,	46.28	336	⇓P	P	02 54 55.0	-0.6
	baz=47						
K08A	Mann Creek Ran	46.30	324	⇓P	P	02 54 55.5	-0.2
	baz=47						
L07A	Adell	46.38	322	⇓P	P	02 54 56.1	-0.4
	baz=47						
E13A	Victor	46.40	330	⇓P	P	02 54 55.5	-1.0
	baz=47						
F12A	Elk City	46.46	329	⇑P	P	02 54 56.2	-0.7
	baz=47						
H10A	Noah’s Angus R	46.47	327	⇓P	P	02 54 56.1	-1.0
	baz=47						
C15A	Salmond Ranch,	46.61	333	⇑P	P	02 54 57.7	-0.4
	baz=47						
B16A	M & M Farms, S	46.68	334	⇑P	P	02 54 57.6	-1.1
	baz=47						
K07A	Rock Creek Ran	46.72	323	⇑P	P	02 54 57.4	-1.6
	baz=47						
BMO	Blue Mountains	46.95	327	*e*P	P	02 54 58.1	-2.7
	1.6nm,0.9s,mb4.0						
B15A	Bradely Ranch,	46.99	333	⇑P	P	02 55 00.6	-0.4
	baz=48						
D13A	Huson	46.99	331	⇑P	P	02 55 00.4	-0.7
	baz=48						
E11A	Bogner Ranch,	47.36	329	⇓P	P	02 55 03.0	-0.9
	baz=48						
D12A	Red Ives Fores	47.40	330	⇓P	P	02 55 03.4	-0.9
	baz=48						
C13A	Hot Springs	47.46	331	⇓P	P	02 55 03.7	-1.0
	baz=48						
A15A	Johnson Ranch,	47.56	334	⇓P	P	02 55 04.4	-1.0
	baz=48,SNR=5.8						
J06A	Christmas Vall	47.59	323	⇓P	P	02 55 04.4	-1.4
	baz=48						
F10A	Beach Ranch, E	47.63	328	⇑P	P	02 55 05.5	-0.7
	baz=48						
I07A	Izee	47.70	324	⇓P	P	02 55 05.5	-1.2
	baz=48						
A14A	Double T Ranch	47.86	333	⇓P	P	02 55 07.5	-0.4
	baz=48						
D11A	Klaveano Farm,	47.89	329	⇓P	P	02 55 07.2	-0.9
	baz=48						
B13A	Whitefish	47.90	332	⇓P	P	02 55 08.1	-0.1
	baz=48						
C12B	Naegeli Ranch,	47.91	331	⇓P	P	02 55 07.9	-0.4
	baz=48						
SCHQ	Schefferville	47.98	12	P	P	02 55 08.0	-0.6
	3.4nm,1.0s,mb4.3,baz=196,slow=7.4,SNR=4.0						
SCHQ	Schefferville	47.98	12	P	P	02 55 08.0	-0.6
H07A	Lands Inn, Kim	48.04	325	⇓P	P	02 55 08.5	-0.9
	baz=48						
A13A	Flathead Natio	48.28	332	⇓P	P	02 55 10.8	-0.3
	baz=49						
D10A	Wagner Farm, O	48.37	329	⇑P	P	02 55 10.9	-0.9
	baz=49						
E09A	Wood Farm, Sta	48.47	328	⇑P	P	02 55 11.9	-0.7
	baz=49						
B12A	Libby	48.50	331	⇑P	P	02 55 12.3	-0.5
	baz=49						
FFC	Flin Flon	48.62	345	*e*P	P	02 55 12.4	-1.2
	16nm,1.1s,mb5.0						
B11A	Sandpoint	48.85	331	⇓P	P	02 55 14.8	-0.6
	baz=49						
NEW	Newport	49.10	330	*e*P	P	02 55 14.9	-2.5
	4.9nm,1.2s,mb4.4						
A11A	Hall Mountain,	49.21	331	⇓P	P	02 55 17.6	-0.6
	baz=50						
F06A	Goldendale	49.44	325	⇓P	P	02 55 19.3	-0.7
	baz=50						
B09A	Rice	49.72	330	⇓P	P	02 55 21.3	-0.8
	baz=50						
C07A	Waterville	50.23	328	⇑P	P	02 55 25.5	-0.5
	baz=51						
PLCA	Paso Flores	50.23	168	P	P	02 55 24.4	-1.7
	1.5nm,0.9s,mb4.0,baz=324,slow=23,SNR=4.4						
B08A	Colville Reser	50.27	329	⇓P	P	02 55 25.2	-1.1
	baz=51						
A09A	Danville	50.30	330	⇑P	P	02 55 25.6	-0.9
	baz=51						
FCC	Fort Churchill	50.93	352	*e*P	P	02 55 29.5	-1.6
	0.5nm,1.1s,mb3.4						
A07A	Ashnola River,	51.25	329	⇑P	P	02 55 33.1	-0.6
	baz=52						
YKA	Yellowknife Ar	58.68	343	P	P	02 56 25.7	-1.5
	7.6nm,0.9s,mb4.7,baz=136,slow=7.1,SNR=38						
YKA	Yellowknife Ar	58.68	343	P	P	02 56 25.7	-1.5
RES	Resolute Bay	66.55	357	*e*P	P	02 57 17.6	-2.0
	4.8nm,0.9s,mb4.5						
INK	Inuvik	68.37	342	*e*P	P	02 57 30.3	-0.9
	17nm,1.2s,mb5.0						
SUMG	Summit	69.37	13	*e*P	P	02 57 35.6	-1.7
	9.5nm,1.0s,mb4.7						
MCK	McKinley	72.00	335	*e*P	P	02 57 51.3	-2.2
	25nm,1.6s,mb4.9						
ESDC	Sonseca Array	76.09	51	P	P	02 58 18.8	+0.8
	0.4nm,0.5s,mb3.6,baz=278,slow=6.3,SNR=3.5						
DBIC	Dimbokro	77.19	85	P	P	02 58 25.3	+0.6
	2.6nm,0.9s,mb4.1,baz=126,slow=9.5,SNR=3.6						
DBIC	Dimbokro	77.19	85	P	P	02 58 25.3	+0.6
TORD	Torodi Ar. Bea	82.81	78	P	P	02 58 54.8	-0.2
	0.9nm,0.9s,mb3.8,baz=279,slow=5.5,SNR=4.0						
CN2	Changchun	122.02	336	*e*PKP	PKPdf	03 05 21.5	-3.4
WMQ	Urumqi	127.27	9	*e*P	PKPdf	03 05 27.0	-8.0
BJI	Beijing	128.65	341	PKP	PKPdf	03 05 28.5	-9.2
BJI	Beijing	128.65	341	P	PKPdf	03 05 28.5	-9.2
BJI				PP	PP	03 07 38.5	-3.7
BJI				SS	SS	03 24 57.8	-1.0
BJI				LR	LR		
	comp=N,410nm,19.9s,MS5.3						
BJI				LR	LR		
	comp=E,500nm,19.4s,MS5.3						
BJI				LR	LR		
	comp=Z,310nm,19.4s,MS5.0						
HHC	Hu-ho-hao-te	129.18	346	*e*PKP	PKPdf	03 05 30.3	-8.4
HHC				sPKP		03 05 44.3	
HHC				PP	PP	03 07 45.3	-0.3
HHC				PKS		03 09 05.3	
HHC				SKS	SKSdf	03 12 36.3	-14
HHC				SKKS	SKKSac	03 14 33.5	-11
HHC				SS	SS	03 25 05.0	-0.2
HHC				AMB	AMB		
	comp=Z,210nm,7.6s						
HHC				LR	LR		
	comp=N,230nm,17.8s,MS5.5						
HHC				LR	LR		
	comp=E,900nm,20.2s,MS5.5						
HHC				LR	LR		
	comp=Z,590nm,20.2s,MS5.3						
NJ2	Nanjing	134.71	334	*e*P	PKPdf	03 05 40.8	-8.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
LZH	Lanzhou	135.26	352	*e*PKP	PKPdf	03 05 44.0	-6.3
LZH				sPKP		03 05 49.5	
CD2	Chengdu	140.36	351	PKP	PKPdf	03 05 56.0	-3.9
CD2				PP	PP	03 08 59.8	+3.5
CD2				PKS		03 09 30.3	
CD2				SKS	SKSdf	03 13 04.5	-6.1
CD2				SKKS	SKKSac	03 15 50.0	-2.0
CD2				SS	SS	03 27 24.5	+5.0
CD2				AMB	AMB		
	comp=Z,210nm,6.0s						
CD2				LR	LR		
	comp=N,610nm,16.6s						
CD2				LR	LR		
	comp=Z,600nm,19.0s,MS5.4						
ASAR	Alice Springs	141.75	242	PKP	PKPdf	03 06 00.5	-2.1
	comp=Z,1.1nm,0.9s,baz=112,slow=1.7,SNR=6.9						
WRA	Warramunga Arr	142.30	248	PKP	PKPdf	03 06 01.1	-2.5
	comp=Z,1.5nm,0.9s,baz=98,slow=2.3,SNR=3.8						
GYA	Guiyang	144.09	345	*e*PKP	PKPdf	03 06 04.5	-2.1
GYA				PKS		03 09 34.5	
GYA				SKS	SKSdf	03 13 08.5	-8.2
GYA				SKKS	SKKSac	03 16 09.0	-4.8
GYA				SS	SS	03 28 03.5	+0.5
GYA				AMB	AMB		
	comp=Z,60nm,9.5s						
GYA				LR	LR		
	comp=N,130nm,22.8s,MS4.8						
GYA				LR	LR		
	comp=E,120nm,25.3s,MS4.8						
GYA				LR	LR		
	comp=Z,130nm,23.5s,MS4.6						
CMAR	Chiang Mai Arr	153.20	356	PKPab	PKPab	03 06 38.2	-2.1
	comp=Z,1.1nm,0.3s,baz=335,slow=4.0,SNR=3.6						

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*IDC **29** 02:49:10.6±1.1, 38°.52N×21°.97E, h0^{km}, mb3.8/5, mb1 3.8/5, mb1mx3.5/23, mbtmp3.8/5, Error ellipse: s-maj=63.4km s-min=19.1km az=132.0*

*NEIC **29** 02:49:11.7, 38°.41N×22°.00E, h17^{km}, ML3.2(ATH), After ATH.*

*ISCJB **29** 02:49:11.8±0.3, 38°.44N±0°.02×21°.98E±0°.02, h10^{km}±2^{km}, mb3.7/4, Error ellipse: s-maj=3.0km s-min=2.5km az=36.4*

*ATH **29** 02:49:11.7, 38°.41N×22°.01E, h17^{km}±1^{km}, MD3.7/11, ML3.2*

*CSEM **29** 02:49:12.3±0.1, 38°.42N×22°.03E, h5^{km}, ML3.2, Error ellipse: s-maj=3.7km s-min=2.9km az=42.0*

*THE **29** 02:49:12.0, 38°.43N×21°.99E, h0^{km}±2^{km}, ML3.8/5, Error ellipse: s-maj=2.1km s-min=0.7km az=308.0*

*SKO **29** 02:49:15.2, 38°.71N×21°.94E, h0^{km}*

ISC 29 02:49:12.6±0.3**, 38°.42N**±0°.01×**22°.00E**±0°.02**, h6**^{km}±2^{km}**, n185,** $\sigma 1^{s}.11$/236**, mb3.7**/4**, 12C-8D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TRIZ	Trizonia	0.08	135	P	Pg	02 49 14.5	+0.1
TRIZ				S	Sg	02 49 16.1	+0.4
TRIZ	Trizonia	0.08	135	P	Pg	02 49 14.5	+0.1
TRIZ				S	Sg	02 49 16.1	+0.4
KALE	Kalithea	0.12	106	P	Pg	02 49 15.1	+0.1
KALE				S	Sg	02 49 17.5	+0.9
KALE	Kalithea	0.12	106	P	Pg	02 49 15.1	+0.1
KALE				S	Sg	02 49 17.5	+0.9
LAKA	Lakka	0.18	185	P	Pg	02 49 16.0	-0.2
LAKA				S	Sg	02 49 18.5	-0.2
LAKA	Lakka	0.18	185	P	Pg	02 49 16.0	-0.2
LAKA				S	Sg	02 49 18.5	-0.2
EVR	Evrytania	0.51	343	*e*PN	Pg	02 49 22.0	-0.5
EVR	Evrytania	0.51	343	*e*Pn	Pg	02 49 22.0	-0.5
RLS	Riolos of Patr	0.56	229	*e*PN	Pg	02 49 22.5	-0.7
RLS				*e*SN	Sg	02 49 30.9	+0.4
RLS	Riolos of Patr	0.56	229	*e*Pn	Pg	02 49 22.5	-0.7
RLS				*e*Sn	Sg	02 49 30.9	+0.4
GUR	Goura	0.56	151	*e*PN	Pg	02 49 22.4	-0.9
GUR				*e*SN	Sg	02 49 30.8	+0.3
GUR	Goura	0.56	151	*e*Pn	Pg	02 49 22.4	-0.9
GUR				*e*Sn	Sg	02 49 30.8	+0.3
AGG	Agios Georgios	0.65	23	P	Pg	02 49 24.4	-0.7
AGG				S	Sg	02 49 34.1	+0.5
AGG	Agios Georgios	0.65	23	*e*PN	Pg	02 49 24.4	-0.7
AGG				*e*SN	Sg	02 49 34.4	+0.8
AGG	Agios Georgios	0.65	23	*e*Pn	Pg	02 49 24.4	-0.7
AGG				S	Sg	02 49 34.1	+0.5
AGG				*e*Sn	Sg	02 49 34.4	+0.8
LKR	Lokris	0.82	74	P	Pg	02 49 27.1	-1.2
LKR				S	Sg	02 49 39.8	+0.9
LKR	Lokris	0.82	74	P	Pg	02 49 27.1	-1.2
LKR				S	Sg	02 49 39.8	+0.9
LKD	Levkas	1.09	285	P	Pg	02 49 32.3	-1.2
LKD				S	Sg	02 49 48.6	+0.9
LKD	Levkas	1.09	285	P	Pg	02 49 32.3	-1.2
LKD				S	Sg	02 49 48.6	+0.9
VLX	Vlachokerasia	1.09	164	*e*PN	Pg	02 49 31.8	-1.7
VLX				*e*SN	Sg	02 49 47.8	+0.1
VLX	Vlachokerasia	1.09	164	*e*Pn	Pg	02 49 31.8	-1.7
VLX				*e*Sn	Sg	02 49 47.8	+0.1
VLS	Valsamata	1.14	258	P	Pg	02 49 32.3	-2.0
VLS				S	Sg	02 49 49.0	0.0
VLS	Valsamata	1.14	258	*e*PB	Pg	02 49 32.3	-2.0
VLS				*e*SN	Sg	02 49 49.7	+0.7
VLS	Valsamata	1.14	258	P	Pg	02 49 28.1	-6.2
VLS				*e*Pb	Pg	02 49 32.3	-2.0
VLS				*e*Sn	Sg	02 49 49.7	+0.7
VLS	Valsamata	1.14	258	*e*Pb	Pg	02 49 32.3	-2.0
VLS				S	Sg	02 49 49.0	0.0
VLS				*e*Sn	Sg	02 49 49.7	+0.7
THL	Klokotos Trika	1.14	1	P	Pg	02 49 33.5	-0.9
THL				S	Sg	02 49 49.5	+0.3
THL	Klokotos Trika	1.14	1	*e*PN	Pg	02 49 33.1	-1.3
THL				*e*SN	Sg	02 49 49.5	+0.3
THL	Klokotos Trika	1.14	1	*e*Pn	Pg	02 49 33.1	-1.3
THL				*e*Sn	Sg	02 49 49.5	+0.3
ITM	Ithomi	1.24	183	*e*PN	Pn	02 49 34.5	-2.0
ITM				*e*SN	Sn	02 49 52.3	-1.2
ITM	Ithomi	1.24	183	*e*Pn	Pn	02 49 34.5	-2.0
ITM				*e*Sn	Sn	02 49 52.3	-1.2
XOR	Xorichti	1.32	44	P	Pn	02 49 37.0	-0.6
XOR				S	Sb	02 49 56.4	+1.4
XOR	Xorichti	1.32	44	P	Pn	02 49 37.0	-0.6
XOR				S	Sb	02 49 56.4	+1.4
DID	Didima	1.34	133	P	Pn	02 49 37.3	-0.5
DID				S	Sb	02 49 56.3	+0.8
DID	Didima	1.34	133	*e*PN	Pn	02 49 37.2	-0.6
DID	Didima	1.34	133	*e*Pn	Pn	02 49 37.2	-0.6
DID				S	Sb	02 49 56.3	+0.8
NAIG	Nisos Aigina	1.35	119	*e*PN	Pn	02 49 37.0	-0.9
NAIG	Nisos Aigina	1.35	119	*e*Pn	Pn	02 49 37.0	-0.9
ATH	Athens Observa	1.43	108	*e*PN	Pn	02 49 38.8	-0.2
ATH	Athens Observa	1.43	108	*e*Pn	Pn	02 49 38.8	-0.2
ATHU	Athens Univers	1.48	107	P	Pn	02 49 38.7	-1.0
ATHU				S	Sn	02 50 00.2	+0.8
ATHU	Athens Univers	1.48	107	P	Pn	02 49 38.7	-1.0
ATHU				S	Sn	02 50 00.2	+0.8
MEV	Metsovon	1.48	336	P	Pn	02 49 39.3	-0.5
MEV	Metsovon	1.48	336	P	Pn	02 49 39.3	-0.5
PTL	Penteli	1.52	104	*e*PN	Pn	02 49 40.1	-0.1
PTL	Penteli	1.52	104	*e*Pn	Pn	02 49 40.1	-0.1
JAN	Janina	1.52	324	*e*PN	Pn	02 49 40.8	+0.5
JAN	Janina	1.52	324	*e*Pn	Pn	02 49 40.8	+0.5
VLY	Voula,Athens	1.53	111	*e*PN	Pn	02 49 39.8	-0.6
VLY	Voula,Athens	1.53	111	*e*Pn	Pn	02 49 39.8	-0.6
PYL	PYLOS	1.54	188	P	Pn	02 49 39.9	-0.6
PYL				S	Sn	02 50 02.4	+1.6
PYL	PYLOS	1.54	188	*e*PN	Pn	02 49 39.8	-0.7
PYL	PYLOS	1.54	188	*e*Pn	Pn	02 49 39.8	-0.7
PYL				S	Sn	02 50 02.4	+1.6
AOS	Alonnisos	1.65	63	P	Pn	02 49 40.8	-1.2
AOS	Alonnisos	1.65	63	P	Pn	02 49 40.8	-1.2
IGT	Igoumenitsa	1.71	311	P	Pn	02 49 44.2	+1.4
IGT	Igoumenitsa	1.71	311	P	Pn	02 49 44.2	+1.4
LIT	Litokhoron	1.72	13	P	Pn	02 49 42.5	-0.5
LIT	Litokhoron	1.72	13	*e*PN	Pn	02 49 42.8	-0.2
LIT	Litokhoron	1.72	13	*e*Pn	Pn	02 49 42.8	-0.2
VLI	Veliai	1.86	156	*e*PN	Pn	02 49 44.7	-0.2
VLI	Veliai	1.86	156	*e*Pn	Pn	02 49 44.7	-0.2
KZN	Kozani	1.89	355	*e*PN	Pn	02 49 45.9	+0.6
KZN	Kozani	1.89	355	*e*Pn	Pn	02 49 45.9	+0.6
PAIG	Paliouri	1.99	41	P	Pn	02 49 45.3	-1.4
PAIG	Paliouri	1.99	41	P	Pn	02 49 45.3	-1.4
KEK	Kerkira	2.14	308	*e*PN	Pn	02 49 49.9	+1.1
KEK	Kerkira	2.14	308	*e*Pn	Pn	02 49 49.9	+1.1
PLG	Polygyros	2.25	29	*e*PB	Pb	02 49 50.5	-3.0
PLG	Polygyros	2.25	29	*e*Pb	Pb	02 49 50.5	-3.0
KYTH	Kithira	2.29	159	*e*PN	Pn	02 49 52.2	+1.3
KYTH	Kithira	2.29	159	*e*Pn	Pn	02 49 52.2	+1.3
GRG	Griva	2.55	7	P	Pn	02 49 53.7	-0.7
GRG	Griva	2.55	7	P	Pn	02 49 53.7	-0.7
SOH	Sokhos	2.61	23	P	Pn	02 49 55.1	-0.2
SOH	Sokhos	2.61	23	*e*PN	Pn	02 49 55.3	0.0
SOH	Sokhos	2.61	23	*e*Pn	Pn	02 49 55.3	0.0
BIA	Bitola	2.64	349	*e*Pn	Pn	02 49 54.6	-1.1
BIA	Bitola	2.64	349	*e*Pn	Pn	02 49 54.6	-1.1
KNT	Kendrikon	2.82	14	P	Pn	02 49 58.2	0.0
KNT	Kendrikon	2.82	14	P	Pn	02 49 58.2	0.0
LIA	Limnos Island	2.88	58	*e*PN	Pn	02 49 58.1	-0.9
LIA	Limnos Island	2.88	58	*e*Pn	Pn	02 49 58.1	-0.9
VAY	Valandovo	2.93	8	*e*Pn	Pn	02 49 59.4	-0.2
VAY	Valandovo	2.93	8	*e*Pn	Pn	02 49 59.3	-0.3
SRS	Serrai	2.96	24	P	Pn	02 49 59.7	-0.3
SRS	Serrai	2.96	24	P	Pn	02 49 59.7	-0.3
KRUS	Krusevo	3.00	349	*e*Pn	Pn	02 50 00.6	0.0
KRUS	Krusevo	3.00	349	*e*Pn	Pn	02 50 00.6	0.0
CHOS	Chios island	3.19	89	*e*PN	Pn	02 50 03.2	0.0
CHOS	Chios island	3.19	89	*e*Pn	Pn	02 50 03.2	0.0
SCTE	Santa Cesarea	3.20	302	*e*PN	Pn	02 50 04.4	+1.1
SCTE	Santa Cesarea	3.20	302	*e*Pn	Pn	02 50 04.4	+1.1
TIR	Tirane	3.35	331	*e*Pn	Pn	02 50 04.8	-0.6
TIR				*e*Pb	Pb	02 50 11.3	-1.0
TIR				*e*Pg	Pg	02 50 14.9	-1.9
TIR				*e*Sg	Sg	02 50 59.9	-0.2
TIR	Tirane	3.35	331	*e*Pn	Pn	02 50 04.8	-0.6
KARN	Karanos	3.39	152	P	Pn	02 50 06.0	+0.1
KARN	Karanos	3.39	152	*e*PN	Pn	02 50 06.1	+0.2
KARN	Karanos	3.39	152	*e*Pn	Pn	02 50 06.1	+0.2
PRK	Paraskevi	3.44	75	*e*PN	Pn	02 50 05.5	-1.1
PRK	Paraskevi	3.44	75	*e*Pn	Pn	02 50 05.5	-1.1
RDO	Rodhopi	3.85	44	*e*PN	Pn	02 50 13.4	+1.1
RDO	Rodhopi	3.85	44	*e*Pn	Pn	02 50 13.4	+1.1
SMG	Samos	3.88	99	*e*PN	Pn	02 50 12.9	+0.1
SMG	Samos	3.88	99	*e*Pn	Pn	02 50 12.9	+0.1
IDI	Anoyia	3.90	143	P	Pn	02 50 13.4	+0.5
IDI	Anoyia	3.90	143	P	Pn	02 50 13.4	+0.5
SIVA	Sivas	4.08	146	*e*PN	Pn	02 50 16.5	+1.0
SIVA	Sivas	4.08	146	*e*Pn	Pn	02 50 16.5	+1.0
TIP	Timpagrande	4.16	282	Pn	Pn	02 50 17.2	+0.6
TIP	Timpagrande	4.16	282	Pn	Pn	02 50 17.2	+0.6
TAR1	Taranto	4.21	301	*e*Pn	Pn	02 50 17.8	+0.6
PE1	Pezze di Greco	4.26	305	*e*Pn	Pn	02 50 18.3	+0.4
VTS	Vitosha	4.26	12	P	Pn	02 50 19.9	+1.9
VTS	Vitosha	4.26	12	P	Pn	02 50 19.9	+1.9
NPS	Neapolis	4.29	136	*e*PN	Pn	02 50 18.5	+0.2
NPS	Neapolis	4.29	136	*e*Pn	Pn	02 50 18.5	+0.2
LAST	Lasithi	4.29	138	*e*PN	Pn	02 50 18.1	-0.3
LAST	Lasithi	4.29	138	*e*Pn	Pn	02 50 18.1	-0.3
BARS	Barje	4.39	358	*e*Pn	Pn	02 50 21.3	+1.6
ORI	Oriolo Calabro	4.61	293	Pn	Pn	02 50 24.6	+1.9
ORI	Oriolo Calabro	4.61	293	Pn	Pn	02 50 24.6	+1.9
SG1	Sgolgore (BA)	4.76	302	*e*Pn	Pn	02 50 25.6	+0.8
SG1				*e*Sn	Sn	02 51 18.6	-1.7
BAI	Bari	4.77	306	*e*Pn	Pn	02 50 25.3	+0.4
CEL	Celeste	4.80	270	*e*Pn	Pn	02 50 25.3	-0.1
CEL				*e*Sn	Sn	02 51 19.8	-1.5
CEL	Celeste	4.80	270	*e*Pn	Pn	02 50 25.3	-0.1
CEL				*e*Sn	Sn	02 51 19.8	-1.5
NISS		4.97	360	*e*Pn	Pn	02 50 28.7	+0.9
PTRP	Pietrapertosa	5.05	296	Pn	Pn	02 50 30.4	+1.6
	107nm,1.8s						
PTRP	Pietrapertosa	5.05	296	Pn	Pn	02 50 30.4	+1.6
	107nm,1.8s						
CUC	Castrocucco	5.05	290	*e*Pn	Pn	02 50 31.4	+2.6
CUC	Castrocucco	5.05	290	*e*Pn	Pn	02 50 31.4	+2.6
ACER	Acerenza	5.24	299	Pn	Pn	02 50 32.6	+1.2
	31nm,0.4s						
ACER	Acerenza	5.24	299	Pn	Pn	02 50 32.6	+1.2
	31nm,0.4s						
STON	Ston	5.51	325	*e*Pn	Pn	02 50 35.1	-0.1
STON				Sn	Sn	02 51 37.6	-1.3
STON	Ston	5.51	325	*e*Pn	Pn	02 50 35.1	-0.1
STON				Sn	Sn	02 51 37.6	-1.3
GRUS	Gruza	5.54	350	*e*Pn	Pn	02 50 36.4	+0.8
MS1	Monte Sant’Ang	5.69	307	*e*Sn	Sn	02 51 41.4	-1.7
BBLS	Lazići	5.78	341	*e*Pn	Pn	02 50 39.7	+0.9
DIVS	Divibare	5.87	346	*e*Pn	Pn	02 50 38.1	-1.9
RGNG	Rignano Grg	5.89	305	Pn	Pn	02 50 39.9	-0.5
RGNG	Rignano Grg	5.89	305	Pn	Pn	02 50 39.9	-0.5
FG5	Orsara di Pugl	5.91	301	Pn	Pn	02 50 42.3	+1.7
	8.8nm,0.6s						
FG5	Orsara di Pugl	5.91	301	Pn	Pn	02 50 42.3	+1.7
	8.8nm,0.6s						
SGG	Gregorio Mates	6.56	299	Pn	Pn	02 50 51.7	+2.1
	15nm,0.6s						
SGG	Gregorio Mates	6.56	299	Pn	Pn	02 50 51.7	+2.1
	15nm,0.6s						
GZR	Gura Zlata	6.99	5	⇑*i*P	Pn	02 50 55.2	-0.2
GZR	Gura Zlata	6.99	5	⇑P	Pn	02 50 55.2	-0.2
GZR	Gura Zlata	6.99	5	⇑P	Pn	02 50 55.2	-0.2
SDI	San Donato	7.08	300	Pn	Pn	02 50 58.8	+2.1
	1.9nm,0.3s						
SDI	San Donato	7.08	300	Pn	Pn	02 50 58.8	+2.1
	1.9nm,0.3s						
VVLD	Villa Vallelon	7.28	301	Pn	Pn	02 51 01.9	+2.5
	12nm,0.6s						
VVLD	Villa Vallelon	7.28	301	Pn	Pn	02 51 01.9	+2.5
	12nm,0.6s						
VOIR		7.37	17	⇓*i*P	Pn	02 51 01.8	+1.2
VOIR		7.37	17	⇓P	Pn	02 51 01.8	+1.2
VOIR		7.37	17	⇓*i*P	Pn	02 51 01.8	+1.2
PTQR	Pietraquaria	7.50	301	Pn	Pn	02 51 05.7	+3.3
	1.9nm,0.3s						
MLR	Muntele Rosu	7.65	21	⇓*i*P	Pn	02 51 07.9	+3.5
MLR	Muntele Rosu	7.65	21	⇓P	Pn	02 51 07.9	+3.4
NRCA	Norcia	8.06	306	Pn	Pn	02 51 11.6	+1.5
	11nm,0.8s						
NRCA	Norcia	8.06	306	Pn	Pn	02 51 11.6	+1.5
	11nm,0.8s						
NVLJ	Novalja	8.14	321	*e*Pn	Pn	02 51 10.8	-0.3
NVLJ				Sn	Sn	02 52 41.0	-2.3
NVLJ	Novalja	8.14	321	*e*Pn	Pn	02 51 10.7	-0.4
NVLJ				Sn	Sn	02 52 41.0	-2.4
PKSM	Moragy	8.17	343	⇑*i*P	Pn	02 51 12.2	+0.6
PKSM	Moragy	8.17	343	⇑P	Pn	02 51 12.2	+0.6
PKSM	Moragy	8.17	343	⇑P	Pn	02 51 12.2	+0.6
PLOR	Plostina	8.19	23	⇓*i*P	Pn	02 51 14.6	+2.8
VRI	Vrincioaia	8.22	24	⇑*i*P	Pn	02 51 15.8	+3.5
VRI	Vrincioaia	8.22	24	⇑P	Pn	02 51 15.8	+3.4

BRTR	**Keskin Array B**	9.15	78	Pn	Pn	02 51 26.3	+1.3
BRTR	**Keskin Array B**	9.15	78	Pn	Pn	02 51 26.3	+1.3
PSZ	**Piszkesteto**	9.61	351	⇑*i*P	Pn	02 51 30.4	-1.0
PSZ	**Piszkesteto**	9.61	351	⇑P	Pn	02 51 30.4	-1.0
PSZ	**Piszkesteto**	9.61	351	⇑P	Pn	02 51 30.4	-1.0
SOKA	**Soboth**	9.71	330	⇓*i*Pn	Pn	02 51 33.1	+0.4
SOKA	**Soboth**	9.71	330	Pn	Pn	02 51 33.1	+0.3
OBKA	**Obir**	9.77	328	⇓*i*Pn	Pn	02 51 34.1	+0.6
OBKA				⇑*i*Sn	Sn	02 53 21.8	-1.7
OBKA	**Obir**	9.77	328	Pn	Pn	02 51 34.1	+0.6
OBKA				Sn	Sn	02 53 21.8	-1.7
FINES	**FINESS Array B**	23.18	5	P	P	02 54 17.8	-2.0
	2.1nm,0.8s,mb3.6,baz=199,slow=12,SNR=3.4						
FINES	**FINESS Array B**	23.18	5	P	P	02 54 17.8	-2.0
FINES	**FINESS Array B**	23.18	5	P	P	02 54 17.8	-1.9
TORD	**Torodi Ar. Bea**	30.96	221	P	P	02 55 30.0	-0.6
	1.1nm,0.5s,mb4.0,baz=30,slow=9.1,SNR=23						
DBIC	**Dimbokro**	39.87	224	P	P	02 56 46.5	-0.6
	0.9nm,0.6s,mb3.7,baz=8.1,slow=7.1,SNR=2.7						
DBIC	**Dimbokro**	39.87	224	P	P	02 56 46.5	-0.6
MKAR	**Makanchi Array**	44.18	59	P	P	02 57 21.0	-1.0
	0.5nm,0.5s,baz=278,slow=7.0,SNR=12						
MKAR	**Makanchi Array**	44.18	59	P	P	02 57 21.0	-1.0
ZALV	**Zalesovo Beam**	44.66	48	P	P	02 57 23.7	-2.0
	0.6nm,0.5s,mb3.7,baz=280,slow=8.6,SNR=2.6						
ZALV	**Zalesovo Beam**	44.66	48	P	P	02 57 23.7	-2.1

CASC 29 03:06:10.1±2.4, 8°.35N×82°.95W, h1^{km}±19^{km}, MD3.5, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACR	**Cerro Adams**	0.37	325	*e*P	Pg	03 06 17.5	+0.3
ACR				*e*S	Sg	03 06 23.6	+1.6
BAR1		0.95	338	*e*P	Pg	03 06 27.8	-0.6
BUS	**Buena Vista**	1.44	326	*e*P	Pn	03 06 37.9	+0.6
BUS				*e*S	Sg	03 06 57.9	+1.6
LCR2	**La Lucha 2**	1.73	323	*e*P	Pn	03 06 42.5	+1.2
LCR2				*e*S	Sn	03 07 06.5	+2.5
PRS1	**Puriscal**	2.10	321	*e*P	Pn	03 06 47.5	+1.0
PRS1				*e*S	Sn	03 07 12.9	-0.4

*NEIC **29** 03:09:26.1, 33°.85S×71°.01W, h68^{km}, MD4.1(GUC), After GUC.*

GUC 29 03:09:26.1±0.7, 33°.85S×71°.01W, h71^{km}±5^{km}, MD3.7, ML3.4, 3C-2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHCH	**Chadas Angostu**	0.31	106	⇑*i*P	Pn	03 09 37.4	0.0
CHCH	**Chadas Angostu**	0.31	106	⇑*i*P	Pn	03 09 37.4	0.0
RCDM	**Rinconada Maip**	0.40	26	*e*P	Pn	03 09 38.1	+0.1
RCDM				*i* S	Sn	03 09 46.9	+0.1
RCDM	**Rinconada Maip**	0.40	26	*e*P	Pn	03 09 38.1	+0.1
RCDM				*i* S	Sn	03 09 46.9	+0.1
RCDM				AML	AML	03 09 47.3	
	comp=N,4µm,0.2s						
ANTU	**Antumapu**	0.42	49	*i* P	Pn	03 09 38.3	+0.1
ANTU				*i* S	Sn	03 09 47.7	+0.5
ANTU	**Antumapu**	0.42	49	*i* P	Pn	03 09 38.3	+0.1
ANTU				*i* S	Sn	03 09 47.7	+0.5
ANTU				AML	AML	03 09 48.4	
	comp=N,3µm,0.3s						
CACH	**El Canelo**	0.44	128	*e*P	Pn	03 09 38.8	+0.5
CACH	**El Canelo**	0.44	128	*e*P	Pn	03 09 38.8	+0.5
SJCH	**San Jose de Ma**	0.59	70	*e*P	Pn	03 09 39.9	+0.1
SJCH				*i* S	Sn	03 09 50.4	+0.5
SJCH	**San Jose de Ma**	0.59	70	*e*P	Pn	03 09 39.9	+0.1
SJCH				*i* S	Sn	03 09 50.4	+0.5
SJCH				AML	AML	03 09 51.3	
	comp=E,1µm,0.2s						
PEL	**Peldehue**	0.75	21	⇑*i*P	Pn	03 09 42.1	+0.4
PEL				*i* S	Sn	03 09 53.9	+0.8
PEL				AML	AML	03 09 54.5	
	comp=N,3µm,0.2s						
FCH	**Farellones**	0.80	49	⇓*i*P	Pn	03 09 42.1	0.0
FCH				*i* S	Sn	03 09 54.5	+0.6
FCH				AML	AML	03 09 55.9	
	comp=N,2µm,0.1s						
YECH	**El Yeso**	0.80	77	*e*P	Pn	03 09 43.2	+1.1
YECH				*i* S	Sn	03 09 55.7	+1.7
CHNG	**Los Chungos**	2.00	348	*e*P	Pn	03 09 58.1	+0.3
CHNG				*i* S	Sn	03 10 22.1	+0.3
CMCH	**Combarbala**	2.67	0	P	Pn	03 10 06.6	-0.2
CMCH				S	Sn	03 10 37.1	-0.9
CMCH	**Combarbala**	2.67	0	⇓*i*P	Pn	03 10 06.6	-0.2
CMCH				*i* S	Sn	03 10 37.1	-0.9
CMCH				AML	AML	03 10 47.8	
	comp=E,547nm,0.6s						

IDC 29 03:21:55.3±1.3, 8°.59S×157°.55E, h0^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.7/17, mbtmp3.6/6, ML3.9/1, Error ellipse: s-maj=35.4km s-min=23.8km az=173.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	2.51	110	Pn	Pn	03 22 37.4	0.0
	26nm,0.3s,baz=263,slow=8.1,SNR=4.1						
HNR				Sn	Sn	03 23 11.5	+2.8
	25nm,0.3s,baz=257,slow=21,SNR=3.8						
WRA	**Warramunga Arr**	25.13	241	P	P	03 27 22.1	-0.1
	0.5nm,0.3s,baz=67,slow=9.2,SNR=4.8						
ASAR	**Alice Springs**	27.15	234	P	P	03 27 40.1	-0.3
	0.3nm,0.8s,baz=62,slow=9.9,SNR=2.9						
STKA	**Stephens Creek**	27.51	210	P	P	03 27 43.7	+0.1
	1.0nm,0.5s,baz=22,slow=15,SNR=2.6						
MKAR	**Makanchi Array**	86.27	318	P	P	03 34 40.6	+1.6
	0.3nm,0.8s,baz=92,slow=6.7,SNR=3.1						
YKA	**Yellowknife Ar**	96.56	28	P	P	03 35 25.1	-1.5
	0.4nm,1.0s,baz=254,slow=4.6,SNR=3.9						

*ISCJB **29** 03:27:18.6±0.6, 56°.31N±0°.05×163°.04E±0°.06, h10^{km}, mb3.5/6, Error ellipse: s-maj=6.8km s-min=4.6km az=166.8*

*KRSC **29** 03:27:18.1±0.8, 56°.31N×163°.01E, h11^{km}±10^{km}, ML4.1*

*IDC **29** 03:27:18.9±1.4, 56°.52N×162°.60E, h0^{km}, mb3.4/4, mb1 3.7/5, mb1mx3.4/25, mbtmp3.3/5, ML3.0/1, Error ellipse: s-maj=55.0km s-min=25.8km az=158.0*

*MOS **29** 03:27:20.2±2.3, 56°.22N×162°.83E, h22^{km}, mb4.1/1, Error ellipse: s-maj=0.1km s-min=0.0km az=70.8*

*NEIC **29** 03:27:25.4±4.9, 56°.35N×162°.60E, h57^{km}±62^{km}, mb3.9/1, Error ellipse: s-maj=67.4km s-min=22.2km az=180.0*

ISC 29 03:27:20.2±0.6, 56°.32N±0°.05×162°.95E±0°.06, h10^{km}, n28, σ0^{s}.96/40, mb3.5/6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	**Krutoberegovo**	0.14	214	*i* P	Pg	03 27 22.5	-0.7
SRKR	**Sorokina**	1.04	289	*i* P	Pg	03 27 39.2	-1.0
SRKR				*i* S	Sg	03 27 54.6	+0.8
ZLN	**Zelenaya**	1.24	257	*i* P	Pn	03 27 42.2	-1.3
ZLN				*i* S	Sb	03 27 59.2	-0.4
KLY	**Klyuchi**	1.28	271	*i* P	Pn	03 27 40.5	-3.6
KLY				*e*S	Sb	03 27 56.4	-4.4
BZGR	**Bezymyannyi-Gr**	1.32	254	*e*P	Pn	03 27 43.1	-1.5
BZGR				*e*S	Sb	03 28 01.4	-0.5
KRSR	**Krestovskiy**	1.34	267	*e*P	Pn	03 27 43.2	-1.6
KRSR				*e*S	Sb	03 28 01.7	-0.7
KPT	**Kopyto**	1.57	258	*i* P	Pn	03 27 47.5	-0.5
KPT				*e*S	Sn	03 28 09.2	+0.8
KMNR	**Kamenistaya**	1.63	251	*e*P	Pn	03 27 48.8	0.0
KMNR				*e*S	Sn	03 28 11.0	+1.3
KOZR	**Kozyr**	1.73	263	PN	Pn	03 27 50.3	+0.1
KOZR				S	Sn	03 28 13.6	+1.3
KOZ	**Kozyrevsk**	1.74	263	*i* P	Pn	03 27 50.3	-0.1
KOZ				*e*S	Sn	03 28 13.6	+1.0
SRDR	**Sredinnyy**	1.80	271	*e*P	Pn	03 27 50.8	-0.4
SRDR				*e*S	Sn	03 28 15.1	+1.0
TUMR	**Tumrok**	1.90	238	*i* P	Pn	03 27 52.2	-0.3
TUMR				*e*S	Sn	03 28 17.4	+1.0
SPN	**Mys Shipunski**	3.65	209	S	Sn	03 28 55.7	-3.9
NLC	**Nalytchevo**	3.79	215	S	Sn	03 29 03.1	+0.1
GNL	**Ganaly**	3.90	230	*e*P	Pn	03 28 20.5	+0.4
AVH	**Avacha**	3.91	220	P	Pn	03 28 20.5	+0.3
PET	**Petropavlovsk**	4.14	219	*e*PN	Pn	03 28 24.7	+1.4
PET	**Petropavlovsk**	4.14	219	S	Sn	03 29 11.2	-0.5
PETK	**Petropavlovsk-**	4.43	226	Pn	Pn	03 28 28.3	+1.0
	0.7nm,0.3s,baz=61,slow=16,SNR=7.8						
PETK				Sn	Sb	03 29 30.6	-0.7
	0.4nm,0.3s,baz=31,slow=20,SNR=3.5						
YKA	**Yellowknife Ar**	39.69	46	P	P	03 34 52.6	+0.7
	0.4nm,0.6s,mb3.3,baz=299,slow=8.0,SNR=5.8						
GTA	**Gaotai**	43.94	275	*e*P	P	03 35 31.8	+4.9
GTA				pP	pP	03 35 35.5	+5.5
GTA				sP	sP	03 35 36.8	+5.5
GTA				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.5						
MKAR	**Makanchi Array**	48.28	295	P	P	03 35 58.8	-2.2
	comp=Z,0.1nm,0.4s,mb3.2,baz=52,slow=6.8,SNR=4.7						
MKAR	**Makanchi Array**	48.28	295	P	P	03 35 58.8	-2.2
ELK	**Elko**	53.11	70	*e*P	P	03 36 37.1	-0.4
ELK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ELK	**Elko**	53.11	70	*e*P	P	03 36 37.1	-0.5
	comp=Z,0.7nm,0.6s,mb3.8						
PDAR	**Pinedale Array**	54.56	65	P	P	03 36 49.0	+0.9
	comp=Z,0.3nm,0.5s,mb3.6,baz=346,slow=5.4,SNR=3.6						
TXAR	**Lajitas Array**	67.91	70	P	P	03 38 19.9	+1.2
	comp=Z,0.3nm,0.6s,mb3.5,baz=297,slow=4.2,SNR=5.3						
TXAR	**Lajitas Array**	67.91	70	P	P	03 38 19.9	+1.2

*ISCJB **29** 03:29:02.8±0.8, 37°.47N±0°.03×20°.79E±0°.05, h10^{km}, Error ellipse: s-maj=6.4km s-min=3.4km az=145.9*

*CSEM **29** 03:29:03.4±0.4, 37°.53N×20°.85E, h2^{km}, MD3.4, Error ellipse: s-maj=8.0km s-min=4.3km az=59.0*

*NEIC **29** 03:29:03.6, 37°.53N×20°.83E, h12^{km}, MD3.4(ATH), After ATH.*

*ATH **29** 03:29:03.6, 37°.53N×20°.83E, h12^{km}±2^{km}, MD3.4/6*

*THE **29** 03:29:04.0, 37°.55N×20°.89E, h0^{km}±2^{km}, ML3.2/5, Error ellipse: s-maj=2.6km s-min=1.0km az=229.0*

ISC 29 03:29:03.3±0.8, 37°.51N±0°.03×20°.83E±0°.05, h0^{km}±4^{km}, n46, σ0^{s}.95/78, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	**Valsamata**	0.69	344	P	Pg	03 29 16.5	-0.1
VLS				S	Sg	03 29 26.4	+0.9
VLS	**Valsamata**	0.69	344	*e*PB	Pg	03 29 16.7	+0.1
VLS				*e*SB	Sg	03 29 26.6	+1.1
VLS	**Valsamata**	0.69	344	*e*Pb	Pg	03 29 16.7	+0.1
VLS				*e*Sb	Sg	03 29 26.6	+1.1
RLS	**Riolos of Patr**	0.74	43	*e*PB	Pg	03 29 16.9	-0.6
RLS				*e*SB	Sg	03 29 27.5	+0.3
RLS	**Riolos of Patr**	0.74	43	*e*Pb	Pg	03 29 16.9	-0.6
RLS				*e*Sb	Sg	03 29 27.5	+0.3
ITM	**Ithomi**	0.93	111	*e*PG	Pg	03 29 21.3	+0.1
ITM				*e*SB	Sg	03 29 34.8	+1.5
ITM	**Ithomi**	0.93	111	*e*Pg	Pg	03 29 21.3	+0.1
ITM				*e*Sb	Sg	03 29 34.8	+1.5
PYL	**PYLOS**	0.95	130	P	Pg	03 29 21.8	+0.2
PYL				S	Sg	03 29 35.5	+1.6
PYL	**PYLOS**	0.95	130	*e*PG	Pg	03 29 21.7	+0.1
PYL				*e*SB	Sg	03 29 35.5	+1.6
PYL	**PYLOS**	0.95	130	*e*Pg	Pg	03 29 21.7	+0.1
PYL				*e*Sb	Sg	03 29 35.5	+1.6
LAKA	**Lakka**	1.16	51	P	Pg	03 29 25.0	-0.6
LAKA				S	Sg	03 29 41.1	+0.4
LAKA	**Lakka**	1.16	51	P	Pg	03 29 25.0	-0.6
LAKA				S	Sg	03 29 41.1	+0.4
LKD	**Levkas**	1.20	353	P	Pg	03 29 25.4	-1.0
LKD				S	Sg	03 29 44.0	+2.1
LKD	**Levkas**	1.20	353	P	Pg	03 29 25.4	-1.0
LKD				S	Sg	03 29 44.0	+2.1
VLX	**Vlachokerasia**	1.24	96	*e*PN	Pn	03 29 26.5	-1.4
VLX				*e*SB	Sb	03 29 44.6	+0.5
VLX	**Vlachokerasia**	1.24	96	*e*Pn	Pn	03 29 26.5	-1.4
VLX				*e*Sb	Sb	03 29 44.6	+0.5
EFP	**Efpalio**	1.25	43	*e*PG	Pg	03 29 26.5	-0.7
EFP				*e*SB	Sb	03 29 44.5	+0.2
EFP	**Efpalio**	1.25	43	*e*Pg	Pg	03 29 26.5	-0.7
EFP				*e*Sb	Sb	03 29 44.5	+0.2
GUR	**Goura**	1.27	70	*e*PN	Pn	03 29 26.8	-1.5
GUR	**Goura**	1.27	70	*e*Pn	Pn	03 29 26.8	-1.5
TRIZ	**Trizonia**	1.30	49	P	Pg	03 29 26.0	-2.2
TRIZ				S	Sg	03 29 45.4	+0.3
TRIZ	**Trizonia**	1.30	49	P	Pg	03 29 26.0	-2.2
TRIZ				S	Sg	03 29 45.4	+0.3
KALE	**Kalithea**	1.36	49	P	Pg	03 29 27.5	-1.8
KALE				S	Sg	03 29 47.3	+0.4
KALE	**Kalithea**	1.36	49	P	Pg	03 29 27.5	-1.8
KALE				S	Sg	03 29 47.3	+0.4
EVR	**Evrytania**	1.60	28	*e*PB	Pb	03 29 34.0	+0.3
EVR	**Evrytania**	1.60	28	*e*Pb	Pb	03 29 34.0	+0.3
VLI	**Veliai**	1.86	115	*e*PG	Pg	03 29 38.7	-0.3
VLI	**Veliai**	1.86	115	*e*Pg	Pg	03 29 38.7	-0.3
DID	**Didima**	1.91	89	P	Pn	03 29 36.8	-0.3
DID				S	Sn	03 30 01.7	-0.2
DID	**Didima**	1.91	89	*e*PB	Pb	03 29 36.6	-2.5
DID	**Didima**	1.91	89	P	Pn	03 29 36.8	-0.3
DID				S	Sn	03 30 01.7	-0.2
AGG	**Agios Georgios**	1.91	38	P	Pn	03 29 37.7	+0.6
AGG				S	Sn	03 30 01.8	-0.1
AGG	**Agios Georgios**	1.91	38	*e*PN	Pn	03 29 38.0	+0.9
AGG	**Agios Georgios**	1.91	38	P	Pn	03 29 37.7	+0.6
AGG	**Agios Georgios**	1.91	38	*e*Pn	Pn	03 29 38.0	+0.9
AGG				S	Sn	03 30 01.8	-0.1
LKR	**Lokris**	2.05	56	P	Pn	03 29 38.9	-0.2
LKR				S	Sn	03 30 05.7	+0.4
LKR	**Lokris**	2.05	56	P	Pn	03 29 38.9	-0.2
LKR				S	Sn	03 30 05.7	+0.4
IGT	**Igoumenitsa**	2.05	349	P	Pn	03 29 38.6	-0.5
IGT				S	Sn	03 30 05.8	+0.4
IGT	**Igoumenitsa**	2.05	349	P	Pn	03 29 38.6	-0.5
IGT				S	Sn	03 30 05.8	+0.4
KYTH	**Kithira**	2.15	124	*e*PN	Pn	03 29 42.2	+1.8
KYTH	**Kithira**	2.15	124	*e*Pn	Pn	03 29 42.2	+1.8
THL	**Klokotos Trika**	2.25	24	P	Pn	03 29 42.0	+0.3
THL				S	Sn	03 30 10.2	0.0
THL	**Klokotos Trika**	2.25	24	*e*PB	Pn	03 29 42.0	+0.3
THL	**Klokotos Trika**	2.25	24	P	Pn	03 29 42.0	+0.3
THL				S	Sn	03 30 10.2	0.0
MEV	**Metsovon**	2.29	8	P	Pn	03 29 42.8	+0.5
MEV	**Metsovon**	2.29	8	P	Pn	03 29 42.8	+0.5

*ISCJB **29** 03:33:23.8±0.8, 37°.55N±0°.03×20°.86E±0°.05, h3^{km}±4^{km}, Error ellipse: s-maj=6.8km s-min=4.2km az=146.9*

*CSEM **29** 03:33:24.2±0.4, 37°.56N×20°.89E, h2^{km}, MD3.5, Error ellipse: s-maj=7.7km s-min=4.4km az=62.0*

*NEIC **29** 03:33:24.1, 37°.56N×20°.83E, h14^{km}, MD3.5(ATH), After ATH.*

*ATH **29** 03:33:24.1, 37°.56N×20°.83E, h14^{km}±2^{km}, MD3.5/7*

*THE **29** 03:33:24.8, 37°.56N×20°.92E, h1^{km}±2^{km}, ML2.9/5, Error ellipse: s-maj=3.0km s-min=1.1km az=221.0*

ISC 29 03:33:24.5±0.8, 37°.54N±0°.03×20°.86E±0°.05, h7^{km}±4^{km}, n55, σ1^{s}.01/84, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	**Valsamata**	0.67	341	P	Pg	03 33 37.0	-0.4
VLS				S	Sg	03 33 47.0	+0.9
VLS	**Valsamata**	0.67	341	*e*PB	Pg	03 33 37.0	-0.4
VLS				*e*SB	Sg	03 33 46.3	+0.2
VLS	**Valsamata**	0.67	341	*e*Pb	Pg	03 33 37.0	-0.4
VLS				*e*Sb	Sg	03 33 46.3	+0.2
RLS	**Riolos of Patr**	0.70	43	*e*PG	Pg	03 33 37.4	-0.6
RLS				*e*SB	Sg	03 33 47.1	-0.1
RLS	**Riolos of Patr**	0.70	43	*e*Pg	Pg	03 33 37.4	-0.6
RLS				*e*Sb	Sg	03 33 47.1	-0.1
ITM	**Ithomi**	0.92	113	*e*PG	Pg	03 33 41.9	-0.3
ITM				*e*SB	Sg	03 33 56.1	+1.9
ITM	**Ithomi**	0.92	113	*e*Pg	Pg	03 33 41.9	-0.3
PYL	**PYLOS**	0.95	132	P	Pg	03 33 42.2	-0.7
PYL				S	Sg	03 33 56.2	+1.0
PYL	**PYLOS**	0.95	132	*e*PG	Pg	03 33 42.2	-0.7
PYL				*e*SB	Sg	03 33 56.8	+1.6
PYL	**PYLOS**	0.95	132	*e*Pg	Pg	03 33 42.2	-0.7
PYL				*e*Sb	Sg	03 33 56.8	+1.6
LAKA	**Lakka**	1.12	51	P	Pg	03 33 45.5	-0.6
LAKA				S	Sg	03 34 01.0	+0.3
LAKA	**Lakka**	1.12	51	P	Pg	03 33 45.5	-0.6
LAKA				S	Sg	03 34 01.0	+0.3
LKD	**Levkas**	1.17	352	P	Pg	03 33 46.0	-1.1
LKD				S	Sg	03 34 03.5	+1.2
LKD	**Levkas**	1.17	352	P	Pg	03 33 46.0	-1.1
LKD				S	Sg	03 34 03.5	+1.2
EFP	**Efpalio**	1.21	43	*e*PB	Pb	03 33 47.1	-0.6
EFP				*e*SB	Sb	03 34 04.6	+1.0
EFP	**Efpalio**	1.21	43	*e*Pb	Pb	03 33 47.1	-0.6
EFP				*e*Sb	Sb	03 34 04.6	+1.0
VLX	**Vlachokerasia**	1.22	98	*e*PN	Pn	03 33 46.7	-1.3
VLX	**Vlachokerasia**	1.22	98	*e*Pn	Pn	03 33 46.7	-1.3
GUR	**Goura**	1.24	71	*e*PN	Pn	03 33 47.2	-1.1
GUR	**Goura**	1.24	71	*e*Pn	Pn	03 33 47.2	-1.1
TRIZ	**Trizonia**	1.26	49	P	Pn	03 33 46.7	-1.9
TRIZ				S	Sg	03 34 05.2	+0.1
TRIZ	**Trizonia**	1.26	49	P	Pn	03 33 46.7	-1.9
TRIZ				S	Sg	03 34 05.2	+0.1
KALE	**Kalithea**	1.32	50	P	Pn	03 33 47.9	-1.5
KALE				S	Sb	03 34 07.5	+0.8
KALE	**Kalithea**	1.32	50	P	Pn	03 33 47.9	-1.5
KALE				S	Sb	03 34 07.5	+0.8
EVR	**Evrytania**	1.56	28	*e*PB	Pb	03 33 54.0	+0.2
EVR	**Evrytania**	1.56	28	*e*Pb	Pb	03 33 54.0	+0.2
VLI	**Veliai**	1.85	116	*e*PN	Pn	03 33 58.5	+1.8
VLI	**Veliai**	1.85	116	*e*Pn	Pn	03 33 58.5	+1.8
AGG	**Agios Georgios**	1.87	38	P	Pn	03 33 58.0	+0.9
AGG				S	Sn	03 34 21.8	+0.8
AGG	**Agios Georgios**	1.87	38	*e*PN	Pn	03 33 58.1	+1.0
AGG	**Agios Georgios**	1.87	38	*e*Pn	Pn	03 33 58.1	+1.0
AGG				S	Sn	03 34 21.8	+0.8
DID	**Didima**	1.89	90	P	Pn	03 33 56.9	-0.3
DID	**Didima**	1.89	90	*e*PB	Pb	03 33 57.2	-2.1
DID	**Didima**	1.89	90	P	Pn	03 33 56.9	-0.3
LKR	**Lokris**	2.02	56	P	Pn	03 33 57.1	-1.9
LKR				S	Sn	03 34 24.6	+0.1
LKR	**Lokris**	2.02	56	P	Pn	03 33 57.1	-1.9
LKR				S	Sn	03 34 24.6	+0.1
IGT	**Igoumenitsa**	2.03	348	P	Pn	03 34 00.0	+0.8
IGT				S	Sn	03 34 25.8	+1.0
IGT	**Igoumenitsa**	2.03	348	P	Pn	03 34 00.0	+0.8
IGT				S	Sn	03 34 25.8	+1.0
KYTH	**Kithira**	2.15	125	*e*PN	Pn	03 34 02.7	+1.9
KYTH	**Kithira**	2.15	125	*e*Pn	Pn	03 34 02.7	+1.9
THL	**Klokotos Trika**	2.21	24	P	Pn	03 34 02.2	+0.5
THL				S	Sn	03 34 29.0	-0.3
THL	**Klokotos Trika**	2.21	24	*e*PN	Pn	03 34 02.3	+0.6
THL	**Klokotos Trika**	2.21	24	*e*Pn	Pn	03 34 02.3	+0.6
THL				S	Sn	03 34 29.0	-0.3
MEV	**Metsovon**	2.26	7	P	Pn	03 34 03.5	+1.2
MEV	**Metsovon**	2.26	7	P	Pn	03 34 03.5	+1.2
XOR	**Xorichti**	2.58	44	P	Pn	03 34 06.1	-0.7
XOR				S	Sn	03 34 37.8	-0.6
XOR	**Xorichti**	2.58	44	P	Pn	03 34 06.1	-0.7
XOR				S	Sn	03 34 37.8	-0.6
LIT	**Litokhoron**	2.85	26	P	Pn	03 34 10.9	+0.4
LIT	**Litokhoron**	2.85	26	P	Pn	03 34 10.9	+0.4
PAIG	**Paliouri**	3.24	42	P	Pn	03 34 15.2	-0.7
PAIG	**Paliouri**	3.24	42	P	Pn	03 34 15.2	-0.7
FNA	**Florina**	3.26	7	P	Pn	03 34 16.4	+0.3
FNA	**Florina**	3.26	7	P	Pn	03 34 16.4	+0.3
GRG	**Griva**	3.61	19	P	Pn	03 34 20.3	-0.6
GRG	**Griva**	3.61	19	P	Pn	03 34 20.3	-0.6

*NIED **29** 03:46:00, 26°.80N×142°.70E, h35^{km}, Mw4.8 Best double couple: M$_0$1.72000×10^{16} NP1:φ$_s$327.00000°, δ55.00000°, λ-49.00000°. NP2:φ$_s$90.00000°, δ52.00000°, λ-133.00000°.*

*IDC **29** 03:46:51.4±0.6, 26°.78N×142°.70E, h0^{km}, mb4.0/19, mb1 4.2/20, mb1mx4.2/25, mbtmp4.0/20, ML3.6/1, Error ellipse: s-maj=16.1km s-min=11.9km az=52.0*

*JMA **29** 03:46:53.0±0.6, 26°.84N×142°.69E, h82^{km}, M3.5*

*MOS **29** 03:46:55.4±1.1, 26°.79N×142°.55E, h37^{km}, mb4.4/12, Error ellipse: s-maj=17.9km s-min=9.8km az=105.3*

*BJI **29** 03:46:56.0, 26°.80N×142°.60E, h29^{km}, mb4.3/3*

*NEIC **29** 03:46:56.1±4.2, 26°.76N×142°.65E, h29^{km}±29^{km}, mb4.3/12, Error ellipse: s-maj=11.4km s-min=7.5km az=95.0*

*ISCJB **29** 03:46:56.1±1.2, 26°.78N±0°.06×142°.65E±0°.10, h42^{km}±9^{km}, mb4.2/35, Error ellipse: s-maj=14.8km s-min=9.3km az=5.8*

ISC 29 03:46:56.9±1.0, 26°.77N±0°.05×142°.67E±0°.08, h34^{km}±6^{km}, n58, σ0^{s}.88/59, mb4.2/35, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	**Haha-jima-NKT**	0.46	253	P	Pb	03 47 06.9	0.0
JHHJ				S	Sb	03 47 17.5	+3.7
CBIJ	**Chichi jima**	0.54	307	P	Pb	03 47 07.3	-0.9
CBIJ				*e*S	Sb	03 47 16.6	+0.7
CBIJ	**Chichi jima**	0.54	307	Pn	Pn	03 47 07.2	-0.9
	463nm,0.3s,baz=257,slow=12,SNR=64						
CBIJ				Sn	Sn	03 47 16.8	+0.7
	2µm,0.3s,baz=277,slow=22,SNR=47						
BSO1	**Boso 1**	7.99	350	P	Pn	03 48 50.0	-0.6
BSO3	**Boso 3**	8.22	347	P	Pn	03 48 53.7	0.0
MJAR	**Matsushiro Arr**	10.46	340	Pn	Pn	03 49 23.7	-0.6
	0.5nm,0.3s,baz=159,slow=4.9,SNR=5.1						
SONM	**Songino Array**	35.25	316	P	P	03 53 48.4	+0.3
	0.3nm,0.5s,mb3.5,baz=113,slow=9.6,SNR=3.6						
BOD	**Bodaibo**	37.04	335	*e*P	P	03 54 04.0	+0.7
BOD				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
ZAK	**Zakamensk**	38.14	319	*e*P	P	03 54 11.0	-1.7
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.9						
CMAR	**Chiang Mai Arr**	41.04	268	P	P	03 54 37.6	+0.4
	comp=Z,1.4nm,0.3s,mb4.1,baz=49,slow=9.3,SNR=4.4						
BILL	**Bilibino**	43.68	13	*e*P	P	03 54 58.1	0.0
BILL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
WRAB	**Tennant Creek**	47.12	191	*e*P	P	03 55 25.7	-0.1
WRAB				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
WRAB	**Tennant Creek**	47.12	191	*e*P	P	03 55 25.7	-0.1
	comp=Z,36nm,0.8s,mb5.4						
WB2	**Warramunga Arr**	47.13	191	*e*P	P	03 55 25.7	-0.2
WRA	**Warramunga Arr**	47.13	191	P	P	03 55 25.6	-0.3
	comp=Z,35nm,0.8s,mb5.3,baz=12,slow=8.6,SNR=76						
FITZ	**Fitzroy Crossi**	47.57	202	P	P	03 55 29.9	+0.6
	comp=Z,7.7nm,1.0s,mb4.7,baz=14,slow=6.2,SNR=5.7						
PSI	**Prapat**	48.17	248	P	P	03 55 34.8	+0.6
	comp=Z,2.1nm,0.4s,mb4.5,baz=64,slow=12,SNR=4.4						
ZALV	**Zalesovo Beam**	50.02	319	P	P	03 55 47.1	-0.7
	comp=Z,0.5nm,0.4s,mb3.9,baz=108,slow=9.3,SNR=2.9						
ZALV				PcP	PcP	03 57 06.8	-0.5
	comp=Z,0.5nm,0.3s,baz=153,slow=4.4,SNR=2.8						
ASAR	**Alice Springs**	50.85	190	P	P	03 55 54.2	-0.1
	comp=Z,1.5nm,0.6s,mb4.1,baz=7.9,slow=5.3,SNR=15						
MKAR	**Makanchi Array**	51.02	310	P	P	03 55 54.6	-0.9
	comp=Z,0.3nm,0.4s,mb3.6,baz=88,slow=9.6,SNR=9.0						
MKAR				PcP	PcP	03 57 09.9	-1.2
	comp=Z,0.3nm,0.5s,baz=98,slow=4.9,SNR=2.6						
KURK	**Kurchatov**	53.52	315	P	P	03 56 13.3	-0.7
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KURK	**Kurchatov**	53.52	315	P	P	03 56 13.3	-0.7
	comp=Z,1.2nm,0.5s,mb4.1,baz=91,slow=8.1,SNR=7.2						
KURK	**Kurchatov**	53.52	315	*e*P	P	03 56 13.1	-0.9
	comp=Z,2.6nm,0.6s,mb4.3						
AML	**Almayashu**	57.45	305	*e*P	P	03 56 43.5	+1.0
	comp=Z,4.7nm,0.9s,mb4.5						
STKA	**Stephens Creek**	58.33	181	P	P	03 56 47.0	-1.5
	comp=Z,2.5nm,0.9s,mb4.2,baz=148,slow=3.1,SNR=3.8						
BRVK	**Borovoye**	58.64	318	*e*P	P	03 56 49.7	-0.8
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BRVK	**Borovoye**	58.64	318	*e*P	P	03 56 49.7	-0.8
	comp=Z,2.4nm,0.6s,mb4.4						
INK	**Inuvik**	63.15	24	*e*P	P	03 57 20.8	-0.1
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	**Inuvik**	63.15	24	P	P	03 57 20.4	-0.6
	comp=Z,0.8nm,0.6s,mb4.0,baz=258,slow=4.6,SNR=4.7						
INK	**Inuvik**	63.15	24	*e*P	P	03 57 20.8	-0.1
	comp=Z,1.6nm,0.6s,mb4.3						
YKA	**Yellowknife Ar**	72.22	28	P	P	03 58 18.1	-0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	72.22	28	P	P	03 58 18.1	-0.1
	comp=Z,0.9nm,0.6s,mb3.9,baz=293,slow=6.2,SNR=19						
KEV	**Kevo**	73.43	341	*e*P	P	03 58 27.1	+1.8
KEV				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KEV	**Kevo**	73.43	341	*e*p	P	03 58 27.1	+1.8

	comp=Z,5.3nm,0.8s,mb4.5						
ARCES	**ARCESS Array B**	**73.99**	**341**	P	**P**	**03 58 30.1**	**+1.5**
	comp=Z,2.2nm,0.8s,mb4.1,baz=72,slow=8.7,SNR=5.8						
JOF	**Joensuu**	**75.57**	**334**	ep	**P**	**03 58 37.5**	**-0.3**
	comp=Z,4.3nm,0.8s,mb4.4						
KAF	**Kangasniemi**	**77.95**	**334**	eP	**P**	**03 58 52.1**	**+0.8**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
KAF	**Kangasniemi**	**77.95**	**334**	ep	**P**	**03 58 52.1**	**+0.8**
	comp=Z,1.5nm,0.5s,mb4.2						
FINES	**FINESS Array B**	**78.43**	**334**	P	**P**	**03 58 54.1**	**+0.2**
	comp=Z,1.1nm,0.5s,mb4.0,baz=99,slow=6.0,SNR=7.8						
NVAR	**Mina Array Bea**	**80.38**	**52**	P	**P**	**03 59 05.7**	**+0.7**
	comp=Z,0.9nm,0.3s,mb4.2,baz=279,slow=7.1,SNR=7.3						
NVAR	**Mina Array Bea**	**80.38**	**52**	P	**P**	**03 59 05.7**	**+0.7**
HLID	**Hailey**	**80.66**	**46**	eP	**P**	**03 59 07.3**	**+0.9**
	comp=Z,1.6nm,0.9s,mb4.0						
LRM	**Limekiln Ridge**	**80.81**	**43**	eP	**P**	**03 59 08.0**	**+0.8**
	comp=Z,21nm,0.9s,mb5.1						
BOZ	**Bozeman (W)**	**81.40**	**43**	eP	**P**	**03 59 09.9**	**-0.4**
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
BOZ	**Bozeman (W)**	**81.40**	**43**	eP	**P**	**03 59 09.9**	**-0.4**
	comp=Z,1.7nm,0.9s,mb4.0						
ELK	**Elko**	**81.44**	**49**	eP	**P**	**03 59 11.6**	**+1.0**
ELK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ELK	**Elko**	**81.44**	**49**	eP	**P**	**03 59 11.6**	**+1.0**
	comp=Z,2.0nm,0.8s,mb4.1						
FFC	**Flin Flon**	**81.79**	**32**	eP	**P**	**03 59 11.0**	**-1.2**
FFC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
FFC	**Flin Flon**	**81.79**	**32**	eP	**P**	**03 59 11.0**	**-1.2**
	comp=Z,2.4nm,0.8s,mb4.2						
AKASG	**Malin Array Be**	**83.14**	**324**	P	**P**	**03 59 18.5**	**-0.8**
	comp=Z,0.6nm,0.5s,mb3.9,baz=53,slow=5.3,SNR=3.7						
NB2	**NORSAR Subarra**	**84.07**	**338**	P	**P**	**03 59 26.2**	**+2.3**
	comp=Z,3.5nm,0.8s,mb4.5,baz=44,slow=5.6						
NOA	**NORSAR Array B**	**84.07**	**338**	P	**P**	**03 59 23.8**	**-0.1**
	comp=Z,0.9nm,0.8s,mb4.0,baz=46,slow=5.0,SNR=3.0						
BW06	**Boulder Array**	**84.14**	**45**	eP	**P**	**03 59 26.1**	**+1.5**
	comp=Z,1.5nm,0.8s,mb4.2						
PDAR	**Pinedale Array**	**84.14**	**45**	P	**P**	**03 59 23.5**	**-1.1**
	comp=Z,0.7nm,0.9s,mb3.8,baz=282,slow=1.4,SNR=4.3						
GERES	**GERESS Array B**	**92.01**	**329**	P	**P**	**04 00 00.5**	**-1.7**
	comp=Z,0.2nm,0.6s,mb3.6,baz=57,slow=4.9,SNR=4.1						
TXAR	**Lajitas Array**	**95.45**	**53**	P	**P**	**04 00 18.6**	**+0.1**
	comp=Z,0.3nm,0.8s,mb3.8,baz=1.8,slow=1.5,SNR=3.6						
TORD	**Torodi Ar. Bea**	**125.12**	**311**	PKP	PKPdf	04 05 53.8	-0.8
	comp=Z,0.9nm,1.2s,baz=31,slow=1.7,SNR=3.3						
PLCA	**Paso Flores**	**149.27**	**125**	PKPbc	PKPbc	04 06 42.2	+0.2
	comp=Z,1.2nm,0.6s,baz=218,slow=8.2,SNR=6.0						

IDC 29 03:57:57.1±2.1**, 6°.47S×129°.77E, h0^{km}, mb3.7**/1**, mb1 3.9**/4**, mb1mx3.7**/17**, mbtmp3.7**/4**, ML3.9**/3**, Error ellipse: s-maj=89.6km s-min=27.6km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.24**	**199**	Pn	Pn	04 00 54.1	+1.2
	0.6nm,0.3s,baz=22,slow=9.7,SNR=20						
FITZ				Sn	Sn	04 02 58.8	-11
	0.8nm,0.3s,baz=102,slow=20,SNR=7.5						
WRA	**Warramunga Arr**	**14.11**	**162**	Pn	Pn	04 01 18.7	+0.3
	0.6nm,0.3s,baz=343,slow=13,SNR=8.7						
WRA				Sn	Sn	04 03 42.5	-13
	1.1nm,0.3s,baz=331,slow=21,SNR=6.5						
ASAR	**Alice Springs**	**17.55**	**167**	P	Pn	04 02 02.2	-1.1
	0.2nm,0.3s,baz=338,slow=9.2,SNR=9.5						
ASAR				S	Sn	04 05 08.1	-11
	0.3nm,0.3s,baz=331,slow=14,SNR=6.0						
MKAR	**Makanchi Array**	**67.66**	**327**	P	P	04 08 56.1	+0.1
	0.3nm,0.4s,baz=117,slow=7.8,SNR=8.4						

NEIC 29 04:03:48.3, 45°.38S×166°.90E, h12^{km}, ML3.7(WEL)**, After WEL., Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**0.20**	**119**	P	Pg	04 03 54.1	+1.4
WHZ	**Wether Hill Ro**	**0.90**	**125**	P	Pg	04 04 04.7	-0.9
MLZ	**Mavora Lakes**	**0.90**	**88**	P	Pg	04 04 03.8	-1.8
MLZ				S	Sg	04 04 15.2	-2.1
MSZ	**Milford Sound**	**1.01**	**46**	P	Pb	04 04 04.6	-3.2
WKZ	**Wanaka**	**1.60**	**71**	P	Pn	04 04 15.3	-1.0
EAZ	**Earnscleugh**	**1.71**	**86**	P	Pn	04 04 17.1	-0.7
JCZ	**Jackson Bay**	**1.86**	**46**	P	Pn	04 04 20.5	+0.6
SYZ	**Scrubby Hill**	**1.94**	**127**	P	Pn	04 04 20.5	-0.6
TUZ	**Tuapeka**	**2.00**	**108**	P	Pn	04 04 21.3	-0.6
LBZ	**Lake Benmore**	**2.54**	**68**	P	Pn	04 04 27.2	-2.0
ODZ	**Otahua Downs**	**2.67**	**84**	P	Pn	04 04 29.2	-1.8
FOZ	**Fox Glacier**	**2.70**	**49**	P	Pn	04 04 31.1	-0.4
RPZ	**Rata Peaks**	**3.40**	**62**	P	Pn	04 04 40.1	-1.1
WVZ	**Waitaha Valley**	**3.59**	**51**	P	Pn	04 04 42.0	-1.8
LTZ	**Lake Taylor**	**4.66**	**58**	P	Pn	04 04 56.7	-1.7
DSZ	**Denniston Nort**	**5.09**	**46**	P	Pn	04 05 03.8	-0.5
QRZ	**Quartz Range**	**6.14**	**44**	P	Pn	04 05 16.6	-2.1

MEX 29 04:16:33.2±1.5**, 19°.02N×103°.97W, h15^{km}**±5^{km}**, MD3.5, Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
R15V		**0.15**	**356**	i P	Pg	04 16 36.5	-0.7
R15V				i S	Sg	04 16 39.0	-0.7
EZ5V		**0.57**	**37**	i P	Pg	04 16 42.5	-2.1
EZ5V				i S	Sg	04 16 49.4	-2.9
CJM	**Chamela**	**1.12**	**295**	eP	Pb	04 16 50.6	-3.7
CJM				i S	Sb	04 17 03.5	-5.1
SFJM	**Santa Fe**	**1.70**	**31**	eP	Pn	04 17 00.8	-1.5
SFJM				i S	Sn	04 17 20.3	-3.5
ANIG	**Ahuacatlan**	**2.09**	**346**	i P	Pn	04 17 04.8	-2.8
ANIG				i S	Sn	04 17 29.4	-4.0

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*IDC **29** 04:28:51.8±1.1, 10°.26S×161°.37E, h91^{km}±8^{km}, mb3.9/9, mb1 4.1/9, mb1mx3.9/18, mbtmp3.9/9, Error ellipse: s-maj=17.8km s-min=12.3km az=34.0*

*ISCJB **29** 04:28:53.7±1.2, 10°.20S±0°.10×161°.1E±0°.1, h116^{km}±9^{km}, mb4.0/10, Error ellipse: s-maj=18.5km s-min=15.7km az=168.1*

*NEIC **29** 04:28:54.2±1.8, 10°.14S×161°.17E, h109^{km}±13^{km}, mb4.3/1, Error ellipse: s-maj=25.2km s-min=13.0km az=127.0*

ISC 29 04:28:54.3±1.2**, 10°.16S**±0°.09×**161°.2E**±0°.1**, h108^{km}**±10^{km}**, h91^{km}**±2.9^{km}**:pP-P, n18,** σ**0^{s}.70**/17**, mb4.0**/10**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**1.43**	**300**	P	**Pn**	**04 29 19.6**	**-0.6**
	73nm,0.3s,baz=184,slow=3.0,SNR=16						
HNR				S	**Sn**	**04 29 40.2**	**+0.3**
	130nm,0.3s,baz=131,slow=20,SNR=15						
DZM	**Mont Dzumac**	**12.87**	**158**	eP	**Pn**	**04 31 53.1**	**-0.2**
CTA	**Charters Tower**	**17.47**	**234**	P	**Pn**	**04 32 52.5**	**+1.3**
	0.4nm,0.3s,baz=52,slow=15,SNR=3.8						
WRAB	**Tennant Creek**	**27.66**	**246**	eP	**P**	**04 34 32.1**	**0.0**
	4.6nm,0.6s,mb4.2						
WB2	**Warramunga Arr**	**27.66**	**246**	eP	**P**	**04 34 31.8**	**-0.4**
WRA	**Warramunga Arr**	**27.67**	**246**	P	**P**	**04 34 32.1**	**-0.1**
	4.0nm,0.5s,mb4.2,baz=74,slow=9.1,SNR=51						
WRA				pP	pP	04 34 53.6	-2.4
	1.2nm,0.6s,baz=77,slow=9.6,SNR=2.7						
STKA	**Stephens Creek**	**28.22**	**217**	P	**P**	**04 34 38.0**	**+0.9**
	1.7nm,0.8s,mb3.6,baz=105,slow=10.0,SNR=2.9						
STKA	**Stephens Creek**	**28.22**	**217**	P	**P**	**04 34 38.0**	**+0.9**
ASAR	**Alice Springs**	**29.30**	**239**	P	**P**	**04 34 45.6**	**-1.0**
	0.9nm,0.4s,mb3.8,baz=62,slow=10,SNR=20						
FITZ	**Fitzroy Crossi**	**35.33**	**253**	P	**P**	**04 35 39.0**	**-0.5**
	4.0nm,0.5s,mb4.5,baz=90,slow=4.7,SNR=13						
VNDA	**Vanda**	**67.34**	**180**	P	**P**	**04 39 36.9**	**-0.4**
	1.5nm,0.6s,mb4.0,baz=356,slow=5.1,SNR=5.5						
SONM	**Songino Array**	**75.36**	**325**	P	**P**	**04 40 26.8**	**+0.9**
	1.5nm,0.5s,mb3.9,baz=146,slow=5.5,SNR=14						
SONM				pP	pP	04 40 49.9	-3.5
	1.8nm,1.0s,baz=142,slow=7.5,SNR=4.5						
NVAR	**Mina Array Bea**	**88.90**	**51**	P	**P**	**04 41 37.8**	**+1.1**
	0.9nm,0.8s,mb3.9,baz=240,slow=7.0,SNR=6.0						
MKAR	**Makanchi Array**	**89.84**	**318**	P	**P**	**04 41 40.5**	**-0.5**
	0.3nm,0.4s,mb3.8,baz=91,slow=6.7,SNR=9.7						
MKAR				pP	pP	04 42 03.9	-5.3
	0.4nm,0.7s,baz=112,slow=5.6,SNR=3.0						
MKAR	**Makanchi Array**	**89.84**	**318**	P	**P**	**04 41 40.5**	**-0.5**
MKAR				pP	pP	04 42 03.9	-5.3
YKA	**Yellowknife Ar**	**96.25**	**28**	P	**P**	**04 42 09.4**	**-0.7**
	0.3nm,0.4s,mb4.0,baz=259,slow=4.6,SNR=6.9						
ARCES	**ARCESS Array B**	**114.32**	**344**	PKP	PKiKP	04 47 19.4	-1.4
	3.7nm,1.0s,baz=29,slow=2.1,SNR=6.5						
TORD	**Torodi Ar. Bea**	**159.71**	**280**	PKPab	PKPab	04 49 20.2	-0.5
	0.2nm,0.8s,baz=100,slow=3.6,SNR=3.6						

IDC 29 04:30:05.6±1.7**, 2°.62N×127°.16E, h0^{km}, mb3.7**/5**, mb1 3.9**/5**, mb1mx3.7**/20**, mbtmp3.7**/5**, Error ellipse: s-maj=100.2km s-min=22.6km az=68.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.64**	**184**	P	P	04 34 47.2	+0.2
	3.5nm,0.9s,baz=14,slow=8.3,SNR=3.4						
WRA	**Warramunga Arr**	**23.50**	**163**	P	P	04 35 17.3	-0.2
	1.5nm,0.3s,baz=343,slow=11,SNR=9.3						
ASAR	**Alice Springs**	**26.94**	**166**	P	P	04 35 48.4	-0.5
	0.3nm,0.6s,baz=353,slow=7.9,SNR=5.4						
STKA	**Stephens Creek**	**36.94**	**159**	P	P	04 37 17.1	+0.6
	1.5nm,0.7s,baz=330,slow=12,SNR=3.6						
MKAR	**Makanchi Array**	**58.71**	**325**	P	P	04 40 05.0	-0.1
	0.2nm,0.4s,baz=114,slow=7.3,SNR=8.3						

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*IDC **29** 04:33:12.1±3.5, 6°.27S×154°.09E, h0^{km}, mb3.9/6, mb1 4.1/6, mb1mx3.9/17, mbtmp3.9/6, MS3.7/1, Ms1 3.7/1, ms1mx2.9/36, Error ellipse: s-maj=112.6km s-min=25.7km az=113.0*

*NEIC **29** 04:33:17.4±2.4, 6°.26S×154°.03E, h35^{km}, mb4.3/2, Error ellipse: s-maj=80.6km s-min=16.2km az=114.0*

ISC 29 04:33:17.6±5.0**, 6°.3S**±0°.4×**15°4E**±°**, h35^{km}, n11,** σ**0^{s}.67**/9**, mb4.0**/7**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**23.45**	**233**	P	**P**	**04 38 24.5**	**+0.3**
	1.5nm,0.8s,baz=57,slow=10,SNR=5.6						
WRA	**Warramunga Arr**	**23.45**	**233**	P	**P**	**04 38 24.5**	**+0.3**
ASAR	**Alice Springs**	**25.95**	**226**	P	**P**	**04 38 47.2**	**+0.4**
	2.1nm,0.8s,mb3.7,baz=60,slow=9.1,SNR=21						
FITZ	**Fitzroy Crossi**	**30.06**	**244**	P	**P**	**04 39 23.1**	**-0.7**
	2.8nm,0.7s,mb4.1,baz=101,slow=6.2,SNR=4.8						
URZ	**Urewera**	**38.15**	**150**	LR	LR	04 53 05.6	
	comp=Z,89nm,18.1s,baz=307,slow=31						
SONM	**Songino Array**	**68.17**	**328**	P	**P**	**04 44 15.5**	**+1.2**
	0.3nm,0.4s,mb3.6,baz=137,slow=6.9,SNR=3.5						
MKAR	**Makanchi Array**	**82.19**	**319**	P	**P**	**04 45 35.4**	**+0.4**
	1.1nm,0.8s,mb3.8,baz=103,slow=5.3,SNR=12						
ZALV	**Zalesovo Beam**	**83.01**	**326**	P	**P**	**04 45 39.1**	**0.0**
	0.4nm,0.3s,mb3.9,baz=111,slow=3.2,SNR=4.2						
KURK	**Kurchatov**	**85.63**	**322**	eP	**P**	**04 45 51.5**	**-1.0**
	2.0nm,0.9s,mb4.3						
BRVK	**Borovoye**	**91.17**	**323**	eP	**P**	**04 46 18.4**	**-0.5**
	0.6nm,0.5s,mb4.2						
TORD	**Torodi Ar. Bea**	**151.87**	**286**	PKPbc	PKPbc	04 53 10.0	+0.1
	2.2nm,0.8s,baz=60,slow=1.9,SNR=16						

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*CSEM **29** 04:37:36.3±0.3, 29°.71N×34°.55E, h2^{km}, ML2.8, Error ellipse: s-maj=6.1km s-min=3.4km az=112.0*

SGS 29 04:37:38.9, 29°.66N×34°.64E, h3^{km}, Egypt

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HQLS		**0.52**	**134**	P	Pg	04 37 48.9	0.0
HQLS		**0.52**	**134**	P	Pg	04 37 48.9	+0.1
JLOS		**1.19**	**141**	P	Pg	04 38 00.5	-1.2
JLOS		**1.19**	**141**	P	Pg	04 38 00.5	-1.2
JLOS				S	Sg	04 38 16.7	-0.4
BDAS	**Al Bad‘**	**1.29**	**162**	P	Pg	04 38 01.9	-1.7
BDAS	**Al Bad‘**	**1.29**	**162**	P	Pg	04 38 01.9	-1.8
RSHS		**1.37**	**174**	P	Pn	04 38 02.9	-1.9
RSHS		**1.37**	**174**	P	Pn	04 38 02.9	-1.9

NEIC 29 04:46:00.0, 3°.70S×40°.35W, h10^{km}, mb4.3/1**, Macroseismic location., Brazil**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RCBR	**Riachuelo**	**4.91**	**116**	ePn	Pn	04 47 12.9	-1.0
RCBR				ePg	Pg	04 47 30.5	-3.7
RCBR				eSn	Sn	04 48 11.8	+0.9
RCBR				eSg	Sg	04 48 36.7	-1.1
SDV	**Santo Domingo**	**32.68**	**293**	P	P	04 52 36.3	+3.5
	3.6nm,0.9s						
ROSC	**El Rosal**	**34.99**	**284**	P	P	04 52 51.1	-1.9

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*IDC **29** 05:05:29.5±5.0, 37°.44N×72°.14E, h189^{km}±51^{km}, mb2.9/2, mb1 2.9/7, mb1mx2.7/28, mbtmp2.9/7, Error ellipse: s-maj=65.0km s-min=43.1km az=109.0*

*ISCJB **29** 05:05:31.8±2.1, 37°.7N±0°.1×72°.0E±0°.2, h215^{km}±20^{km}, mb3.0/2, Error ellipse: s-maj=26.9km s-min=15.6km az=35.5*

*NNC **29** 05:05:35.9±13.0, 37°.86N×71°.72E, h196^{km}±133^{km}, mb2.2, mpv3.1, Error ellipse: s-maj=131.7km s-min=95.8km az=17.0*

ISC 29 05:05:34.4±2.1**, 37°.8N**±0°.2×**72°.0E**±0°.2**, h216^{km}**±19^{km}**, n16,** σ**1^{s}.07**/18**, mb3.0**/2**, 2C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AML	**Almayashu**	**4.52**	**17**	P	**Pn**	**05 06 43.1**	**0.0**
	SNR=11						
UCH	**Uchtor**	**4.83**	**23**	P	**Pn**	**05 06 46.9**	**0.0**
	SNR=7.5						
KZA	**Kyzart**	**4.95**	**30**	P	**Pn**	**05 06 48.0**	**-0.5**
	SNR=7.1						
EKS2	**Erkin-Say**	**5.04**	**15**	P	**Pn**	**05 06 50.3**	**+0.7**
	SNR=8.9						
AAK	**Ala-Archa**	**5.19**	**21**	P	**Pn**	**05 06 52.1**	**+0.5**
	SNR=7.1						
AAK	**Ala-Archa**	**5.19**	**21**	P	**Pn**	**05 06 50.8**	**-0.7**
	0.0nm,0.3s,baz=181,slow=8.8,SNR=26						
AAK				S	**S**	**05 07 53.3**	**+0.6**
	0.0nm,0.3s,baz=301,slow=23,SNR=23						
KK31	**Karatay Array**	**5.40**	**349**	P	**Pn**	**05 06 53.8**	**-0.5**
	1.2nm,0.5s,baz=163,slow=12,SNR=30						
KK31				⇓S	**S**	**05 07 57.0**	**-0.6**
	3.6nm,0.3s,baz=171,slow=23,SNR=17						
MKAR	**Makanchi Array**	**11.78**	**37**	P	**Pn**	**05 08 14.6**	**-1.3**
	0.0nm,0.3s,baz=210,slow=8.3,SNR=2.6						
KURK	**Kurchatov**	**13.75**	**18**	P	**Pn**	**05 08 39.7**	**-0.7**
	0.1nm,0.3s,baz=206,slow=10,SNR=5.0						
AB01	**Akbulak array**	**14.36**	**327**	⇑P	**Pn**	**05 08 49.3**	**+1.3**
	0.4nm,0.5s						
AB31	**Akbulak array**	**14.36**	**327**	S	**S**	**05 11 24.2**	**-3.0**
	0.9nm,0.3s,baz=150,slow=24,SNR=4.7						
BVAR	**Borovoye Array**	**15.26**	**356**	P	**Pn**	**05 09 00.4**	**+1.6**
	0.4nm,0.3s,baz=156,slow=11,SNR=4.9						
AKTO	**Aktyubinsk**	**16.08**	**326**	⇑P	**P**	**05 09 10.0**	**+2.1**
	0.2nm,0.5s						
AKTO	**Aktyubinsk**	**16.08**	**326**	P	**P**	**05 09 09.4**	**+1.5**
	0.6nm,0.3s,baz=129,slow=11,SNR=9.9						
ARCES	**ARCESS Array B**	**40.24**	**337**	P	**P**	**05 12 50.5**	**+0.8**
	0.7nm,0.7s,mb3.2,baz=123,slow=9.2,SNR=6.3						
TORD	**Torodi Ar. Bea**	**66.52**	**269**	P	**P**	**05 15 59.9**	**-1.5**
	0.2nm,0.9s,mb2.8,baz=46,slow=4.4,SNR=2.5						

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*HLW **29** 05:22:04.9, 37°.56N×22°.98E, h33^{km}, Mb3.7*

*ISCJB **29** 05:22:06.9±0.4, 37°.61N±0°.02×22°.59E±0°.03, h57^{km}±6^{km}, Error ellipse: s-maj=4.4km s-min=3.4km az=154.0*

*CSEM **29** 05:22:06.6±0.2, 37°.56N×22°.62E, h60^{km}, ML3.3/6, Error ellipse: s-maj=5.9km s-min=4.2km az=66.0*

*ATH **29** 05:22:06.4, 37°.61N×22°.57E, h57^{km}±1^{km}, MD3.3/19, ML2.8*

*THE **29** 05:22:07.3, 37°.61N×22°.60E, h54^{km}±4^{km}, ML3.3/6, Error ellipse: s-maj=4.2km s-min=1.0km az=104.0*

ISC 29 05:22:07.5±0.4**, 37°.61N**±0°.02×**22°.58E**±0°.03**, h54^{km}**±6^{km}**, n68,** σ**0^{s}.72**/107**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VLX	**Vlachokerasia**	**0.29**	**214**	eP	**Pn**	**05 22 16.6**	**-0.3**
VLX				eS	**Sn**	**05 22 23.4**	**-0.3**
GUR	**Goura**	**0.38**	**330**	eP	**Pn**	**05 22 17.8**	**0.0**
GUR				eS	**Sn**	**05 22 25.1**	**0.0**
DID	**Didima**	**0.53**	**101**	P	**Pn**	**05 22 19.4**	**0.0**
DID				S	**Sn**	**05 22 28.5**	**+0.5**
DID	**Didima**	**0.53**	**101**	eP	**Pn**	**05 22 19.4**	**0.0**
DID				eS	**Sn**	**05 22 28.8**	**+0.8**
DID	**Didima**	**0.53**	**101**	P	**Pn**	**05 22 19.4**	**0.0**
DID				S	**Sn**	**05 22 28.5**	**+0.5**
ITM	**Ithomi**	**0.67**	**231**	eP	**Pn**	**05 22 21.1**	**0.0**
ITM				eS	**Sn**	**05 22 31.4**	**+0.4**
NAIG	**Nisos Aigina**	**0.74**	**78**	eP	**Pn**	**05 22 22.0**	**+0.1**
LAKA	**Lakka**	**0.79**	**323**	P	**Pn**	**05 22 22.2**	**-0.4**
LAKA				S	**Sn**	**05 22 33.6**	**0.0**
LAKA	**Lakka**	**0.79**	**323**	P	**Pn**	**05 22 22.2**	**-0.4**
LAKA				S	**Sn**	**05 22 33.6**	**0.0**
KALE	**Kalithea**	**0.85**	**336**	P	**Pn**	**05 22 22.9**	**-0.6**
KALE				S	**Sn**	**05 22 34.9**	**-0.2**
KALE	**Kalithea**	**0.85**	**336**	P	**Pn**	**05 22 22.9**	**-0.6**
KALE				S	**Sn**	**05 22 34.9**	**-0.2**
TRIZ	**Trizonia**	**0.86**	**332**	P	**Pn**	**05 22 23.0**	**-0.5**
TRIZ				S	**Sn**	**05 22 34.7**	**-0.4**
TRIZ	**Trizonia**	**0.86**	**332**	P	**Pn**	**05 22 23.0**	**-0.5**
TRIZ				S	**Sn**	**05 22 34.7**	**-0.4**
VLI	**Veliai**	**0.93**	**162**	eP	**Pn**	**05 22 23.8**	**-0.7**
ATH	**Athens Observa**	**0.97**	**68**	eP	**Pn**	**05 22 25.1**	**+0.1**
ATH				eS	**Sn**	**05 22 38.4**	**+0.6**
EFP	**Efpalio**	**0.97**	**327**	eP	**Pn**	**05 22 24.5**	**-0.5**
EFP				eS	**Sn**	**05 22 38.0**	**+0.1**
PYL	**PYLOS**	**0.98**	**223**	P	**Pn**	**05 22 24.9**	**-0.1**
PYL				S	**Sn**	**05 22 37.4**	**-0.5**
PYL	**PYLOS**	**0.98**	**223**	eP	**Pn**	**05 22 24.9**	**-0.1**
PYL				eS	**Sn**	**05 22 38.2**	**+0.3**
PYL	**PYLOS**	**0.98**	**223**	P	**Pn**	**05 22 24.9**	**-0.1**
PYL				S	**Sn**	**05 22 37.4**	**-0.5**
RLS	**Riolos of Patr**	**0.99**	**297**	eP	**Pn**	**05 22 25.2**	**0.0**
ATHU	**Athens Univers**	**1.02**	**69**	P	**Pn**	**05 22 25.6**	**0.0**
ATHU				S	**Sn**	**05 22 38.4**	**-0.6**
ATHU	**Athens Univers**	**1.02**	**69**	P	**Pn**	**05 22 25.6**	**0.0**
ATHU				S	**Sn**	**05 22 38.4**	**-0.6**
LKR	**Lokris**	**1.09**	**18**	P	**Pn**	**05 22 26.5**	**-0.1**
LKR				S	**Sn**	**05 22 41.2**	**+0.5**
LKR	**Lokris**	**1.09**	**18**	eP	**Pn**	**05 22 26.5**	**-0.1**
LKR	**Lokris**	**1.09**	**18**	P	**Pn**	**05 22 26.5**	**-0.1**
LKR				S	**Sn**	**05 22 41.2**	**+0.5**
PTL	**Penteli**	**1.11**	**66**	eP	**Pn**	**05 22 26.9**	**+0.1**
KYTH	**Kithira**	**1.38**	**164**	eP	**Pn**	**05 22 30.2**	**-0.2**
KYTH	**Kithira**	**1.38**	**164**	eP	**Pn**	**05 22 30.3**	**-0.1**
AGG	**Agios Georgios**	**1.43**	**352**	P	**Pn**	**05 22 30.9**	**-0.2**
AGG				S	**Sn**	**05 22 48.9**	**+0.2**
AGG	**Agios Georgios**	**1.43**	**352**	eP	**Pn**	**05 22 31.0**	**-0.1**
AGG	**Agios Georgios**	**1.43**	**352**	P	**Pn**	**05 22 30.9**	**-0.2**
AGG				S	**Sn**	**05 22 48.9**	**+0.2**
EVR	**Evrytania**	**1.44**	**335**	eP	**Pn**	**05 22 31.7**	**+0.4**
VLS	**Valsamata**	**1.67**	**290**	P	**Pn**	**05 22 34.7**	**+0.3**
VLS				S	**Sn**	**05 22 55.8**	**+1.0**
VLS	**Valsamata**	**1.67**	**290**	eP	**Pn**	**05 22 35.1**	**+0.7**
VLS	**Valsamata**	**1.67**	**290**	P	**Pn**	**05 22 34.7**	**+0.3**
VLS				S	**Sn**	**05 22 55.8**	**+1.0**
XOR	**Xorichti**	**1.82**	**15**	P	**Pn**	**05 22 36.3**	**-0.1**
XOR				S	**Sn**	**05 22 57.5**	**-0.8**
XOR	**Xorichti**	**1.82**	**15**	P	**Pn**	**05 22 36.3**	**-0.1**
XOR				S	**Sn**	**05 22 57.5**	**-0.8**
AOS	**Alonnisos**	**1.86**	**33**	P	**Pn**	**05 22 36.9**	**-0.1**
AOS	**Alonnisos**	**1.86**	**33**	P	**Pn**	**05 22 36.9**	**-0.1**
LKD	**Levkas**	**1.88**	**306**	P	**Pn**	**05 22 37.8**	**+0.6**
LKD				S	**Sn**	**05 23 01.1**	**+1.4**
LKD	**Levkas**	**1.88**	**306**	P	**Pn**	**05 22 37.8**	**+0.6**
LKD				S	**Sn**	**05 23 01.1**	**+1.4**
THL	**Klokotos Trika**	**2.00**	**347**	P	**Pn**	**05 22 38.4**	**-0.5**
THL				S	**Sn**	**05 23 02.9**	**+0.1**
THL	**Klokotos Trika**	**2.00**	**347**	eP	**Pn**	**05 22 38.5**	**-0.4**
THL				eS	**Sn**	**05 23 02.9**	**+0.1**
THL	**Klokotos Trika**	**2.00**	**347**	P	**Pn**	**05 22 38.4**	**-0.5**
THL				S	**Sn**	**05 23 02.9**	**+0.1**
MEV	**Metsovon**	**2.42**	**334**	P	**Pn**	**05 22 46.4**	**+1.8**
MEV	**Metsovon**	**2.42**	**334**	P	**Pn**	**05 22 46.4**	**+1.8**
KARN	**Karanos**	**2.45**	**154**	P	**Pn**	**05 22 44.5**	**-0.6**
KARN				S	**Sn**	**05 23 13.7**	**-0.1**
KARN	**Karanos**	**2.45**	**154**	eP	**Pn**	**05 22 45.3**	**+0.2**
KARN	**Karanos**	**2.45**	**154**	P	**Pn**	**05 22 44.5**	**-0.6**
KARN				S	**Sn**	**05 23 13.7**	**-0.1**
PAIG	**Paliouri**	**2.47**	**20**	P	**Pn**	**05 22 44.7**	**-0.6**
PAIG	**Paliouri**	**2.47**	**20**	P	**Pn**	**05 22 44.7**	**-0.6**
LIT	**Litokhoron**	**2.49**	**358**	P	**Pn**	**05 22 45.3**	**-0.3**
LIT				S	**Sn**	**05 23 14.5**	**-0.2**
LIT	**Litokhoron**	**2.49**	**358**	eP	**Pn**	**05 22 45.4**	**-0.2**
LIT	**Litokhoron**	**2.49**	**358**	P	**Pn**	**05 22 45.3**	**-0.3**
LIT				S	**Sn**	**05 23 14.5**	**-0.2**
VAM	**Vamos**	**2.56**	**149**	eP	**Pn**	**05 22 46.5**	**0.0**
PLG	**Polygyros**	**2.84**	**13**	eP	**Pn**	**05 22 50.2**	**-0.2**
CHOS	**Chios island**	**2.85**	**73**	eP	**Pn**	**05 22 51.1**	**+0.6**
IDI	**Anoyia**	**2.97**	**140**	eP	**Pn**	**05 22 53.2**	**+1.0**
SOH	**Sokhos**	**3.27**	**10**	eP	**Pn**	**05 22 57.1**	**+0.9**
NPS	**Neapolis**	**3.38**	**133**	eP	**Pn**	**05 22 58.9**	**+1.1**
KARP	**Karpathos**	**4.22**	**118**	eP	**Pn**	**05 23 10.6**	**+1.3**
STON	**Ston**	**6.45**	**326**	ePn	**Pn**	**05 23 37.3**	**-2.4**
STON				Sn	**Sn**	**05 24 45.0**	**-7.0**
SWA2		**8.68**	**163**	P	**Pn**	**05 24 07.2**	**-3.2**
SWA2				S	**Sn**	**05 25 36.5**	**-10**
NVLJ	**Novalja**	**9.06**	**322**	ePn	**Pn**	**05 24 11.8**	**-3.8**
NVLJ				Sn	**Sn**	**05 25 48.5**	**-7.5**
AWBH		**10.67**	**148**	P	**Pn**	**05 24 34.1**	**-3.6**
AWBH		**10.67**	**148**	P	**Pn**	**05 24 34.1**	**-3.6**
HFRF	**Wahat Farafira**	**11.49**	**153**	⇑eP	**Pn**	**05 24 45.1**	**-3.8**
HFRF	**Wahat Farafira**	**11.49**	**153**	P	**Pn**	**05 24 45.1**	**-3.8**

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*ISCJB **29** 05:48:34.2±0.8, 10°.83N±0°.06×62°.29W±0°.03, h87^{km}±7^{km}, Error ellipse: s-maj=10.8km s-min=5.0km az=2.4*

*NEIC **29** 05:48:36.1, 10°.76N×62°.15W, h91^{km}, MD3.0(TRN), After TRN.*

*FUNV **29** 05:48:36.5, 10°.85N×62°.28W, h73^{km}, MW2.9*

*TRN **29** 05:48:36.1, 10°.76N×62°.15W, h91^{km}, MD3.0*

ISC 29 05:48:35.2±0.8**, 10°.84N**±0°.06×**62°.29W**±0°.03**, h80^{km}**±7^{km}**, n18,** σ**0^{s}.81**/29**, 3D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUIV	**Guiria**	**0.21**	**162**	⇓eP	**Pn**	**05 48 47.4**	**+0.3**
GUIV				eS	**Sn**	**05 48 56.0**	**+0.2**
TCE	**Chacachacare**	**0.54**	**106**	eP	**Pn**	**05 48 49.5**	**+0.1**
TCE				eS	**Sn**	**05 49 01.5**	**+1.7**
TRN	**Trinidad (W)**	**0.89**	**103**	eP	**Pn**	**05 48 53.2**	**+0.3**
TRN				eS	**Sn**	**05 49 05.3**	**-0.9**
GUNV	**Guanoco**	**0.94**	**224**	eP	**Pn**	**05 48 54.7**	**+1.2**
GUNV				eS	**Sn**	**05 49 07.1**	**-0.1**
CRUV	**Carupano**	**0.95**	**260**	⇓eP	**Pn**	**05 48 54.1**	**+0.5**
CRUV				eS	**Sn**	**05 49 06.4**	**-1.0**
ITEV	**Isla Los Testi**	**0.97**	**302**	⇓eP	**Pn**	**05 48 54.1**	**+0.2**
ITEV				eS	**Sn**	**05 49 07.4**	**-0.5**
TPP	**Pointe-a-Pierr**	**0.97**	**122**	eP	**Pn**	**05 48 54.3**	**+0.3**
TPP				eS	**Sn**	**05 49 07.4**	**-0.6**
TBH	**Brigand Hill**	**1.25**	**107**	eP	**Pn**	**05 48 58.0**	**+0.6**
TBH				eS	**Sn**	**05 49 12.1**	**-1.9**
TBH	**Brigand Hill**	**1.25**	**107**	eP	**Pn**	**05 48 58.0**	**+0.6**
TBH				eS	**Sn**	**05 49 12.1**	**-1.9**
GRW	**Mount Saint Ca**	**1.44**	**25**	eP	**Pn**	**05 49 08.2**	**+8.4**
TPR	**Prospect**	**1.52**	**77**	eP	**Pn**	**05 49 01.0**	**+0.2**
TPR				eS	**Sn**	**05 49 19.6**	**-0.5**
PCRV	**Puerto La Cruz**	**2.40**	**254**	eP	**Pn**	**05 49 13.3**	**+0.8**
RIOV	**Rio Grande**	**2.80**	**170**	eP	**Pn**	**05 49 18.7**	**+0.9**
GURV	**El Guri**	**3.16**	**194**	eP	**Pn**	**05 49 22.6**	**-0.2**
CUPV	**Cœpira**	**3.53**	**258**	eP	**Pn**	**05 49 28.5**	**+0.7**
CUPV				eS	**Sn**	**05 50 06.6**	**-1.8**
LUEV	**Luepa**	**5.04**	**171**	eP	**Pn**	**05 49 47.3**	**-0.9**
CAOV	**Caicara del Or**	**5.30**	**229**	eP	**Pn**	**05 49 51.9**	**+0.1**
BAUV	**El Baul**	**5.98**	**252**	eP	**Pn**	**05 50 01.1**	**0.0**

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*IDC **29** 05:52:25.1±1.3, 0°.64S×122°.21E, h0^{km}, mb3.5/4, mb1 3.6/4, mb1mx3.5/19, mbtmp3.5/4, Error ellipse: s-maj=166.8km s-min=21.0km az=64.0*

*ISCJB **29** 05:52:29.1±0.6, 0°.75S±0°.05×122°.15E±0°.05, h39^{km}±10^{km}, mb3.6/4, Error ellipse: s-maj=8.8km s-min=8.1km az=136.4*

*DJA **29** 05:52:29, 0°.74S×122°.14E, h11^{km}, MLv4.3/10*

ISC 29 05:52:30.1±1.0**, 0°.74S**±0°.05×**122°.11E**±0°.06**, h30^{km}**±10^{km}**, n19,** σ**1^{s}.17**/21**, mb3.6**/4**, 1C-1D, Minahassa Peninsula,**

Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APSI	**Ampana**	**0.49**	**250**	P	**Pb**	**05 52 38.4**	**-2.0**
APSI				S	**Sb**	**05 52 48.3**	**+0.8**
MRSI	**Marisa**	**1.22**	**352**	P	**Pn**	**05 52 49.4**	**-1.8**
KMSI	**Cibinong**	**2.28**	**55**	P	**Pn**	**05 53 06.9**	**+1.2**
PCI	**Palu**	**2.28**	**266**	⇑*e*P	**Pn**	**05 53 06.5**	**+0.8**
PCI	**Palu**	**2.28**	**266**	P	**Pn**	**05 53 06.7**	**+1.0**
KDI	**Kendari**	**3.23**	**171**	⇓*e*P	**Pn**	**05 53 17.9**	**-0.9**
KDI				*e*S	**Sn**	**05 53 55.0**	**-1.3**
KDI	**Kendari**	**3.23**	**171**	P	**Pn**	**05 53 18.3**	**-0.5**
TTSI	**Tana Toraja**	**3.24**	**225**	P	**Pn**	**05 53 20.0**	**+1.1**
MNI	**Manado**	**3.49**	**51**	P	**Pn**	**05 53 24.7**	**+2.4**
BNSI	**Bone**	**4.15**	**209**	P	**Pn**	**05 53 31.8**	**+0.4**
LBMI	**Labuha**	**5.39**	**89**	P	**Pn**	**05 53 46.7**	**-1.8**
	97nm,0.6s,2μm0.4nm						
NLAI	**Namlea**	**5.57**	**117**	P	**Pn**	**05 53 51.2**	**+0.3**
	56nm,0.7s,1μm0.3nm						
SWI	**Sorong**	**9.15**	**91**	P	**Pn**	**05 54 40.2**	**+0.1**
	36nm,0.7s						
FITZ	**Fitzroy Crossi**	**17.59**	**169**	P	**Pn**	**05 56 34.4**	**+1.2**
	16nm,2.2s						
WRAB	**Tennant Creek**	**22.52**	**149**	P	**P**	**05 57 29.2**	**+1.7**
WRA	**Warramunga Arr**	**22.52**	**149**	P	**P**	**05 57 27.1**	**-0.5**
	2.3nm,0.8s,mb3.7,baz=331,slow=9.8,SNR=17						
ASAR	**Alice Springs**	**25.50**	**154**	P	**P**	**05 57 55.4**	**-0.6**
	1.0nm,0.6s,mb3.5,baz=331,slow=7.4,SNR=5.8						
SONM	**Songino Array**	**50.28**	**346**	P	**P**	**06 01 23.2**	**-0.4**
	0.3nm,0.4s,mb3.7,baz=167,slow=8.2,SNR=6.3						
MKAR	**Makanchi Array**	**58.78**	**329**	P	**P**	**06 02 24.9**	**-0.6**
	0.2nm,0.3s,mb3.6,baz=128,slow=8.6,SNR=8.7						

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*ISCJB **29** 06:12:51.5±0.6, 51.°43N±0.°03×16.°15E±0.°03, h0^{km}, Error ellipse: s-maj=4.4km s-min=2.2km az=15.8*

*IPEC **29** 06:12:51.6±0.3, 51.°56N×16.°24E, h0^{km}, ML2.6/4, Error ellipse: s-maj=1.9km s-min=1.5km az=41.0*

*CSEM **29** 06:12:52.8±0.3, 51.°47N×16.°09E, h2^{km}, ML3.4/10, Error ellipse: s-maj=5.3km s-min=2.9km az=18.0*

*WAR **29** 06:12:53.4, 51.°51N×16.°12E, ML2.8, Mining Induced*

*NEIC **29** 06:12:54.1, 51.°42N×16.°13E, h1^{km}, ML2.9(SZGRF), After SZGRF.*

*PRU **29** 06:12:54.0, 51.°46N×16.°12E, h0^{km}*

*VIE **29** 06:12:54.5±0.4, 51.°29N×16.°05E, h0^{km}, mb2.4/4, ML2.9/4, Error ellipse: s-maj=2.8km s-min=1.9km az=14.0 70 km WNW of Wroclaw Suspected Mining induced.*

ISC 29 06:12:52.8±0.6**, 51.°48N**±0.°03×**16.°12E**±0.°03**, h0^{km}, n57, σ1ˢ04**/101**, 5C-1D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.65**	**170**	*e*Pg	**Pg**	**06 13 05.7**	**+0.6**
KSP				*e*Sg	**Sg**	**06 13 15.0**	**+1.6**
KSP	**Ksiaz**	**0.65**	**170**	*i* Pgd		06 13 05.8	
KSP				*e*Sg	**Sg**	**06 13 15.0**	**+1.6**
KSP				*e*L		06 13 18.8	
KSP	**Ksiaz**	**0.65**	**170**	*e*Pg	**Pg**	**06 13 05.4**	**+0.3**
	baz=357						
KSP				*e*Sg	**Sg**	**06 13 14.1**	**+0.7**
	baz=357						
UPC	**Upice**	**0.97**	**184**	*e*Pg	**Pg**	**06 13 11.8**	**+0.4**
UPC	**Upice**	**0.97**	**184**	Pg	**Pg**	**06 13 11.8**	**+0.4**
DPC	**Dobruska-Polom**	**1.14**	**173**	*e*PG	**Pg**	**06 13 14.5**	**0.0**
DPC				*e*SG	**Sg**	**06 13 29.5**	**+0.3**
	comp=Z,52nm,0.4s						
DPC	**Dobruska-Polom**	**1.14**	**173**	*e*Pg	**Pg**	**06 13 14.5**	**0.0**
DPC				Sg	**Sg**	**06 13 29.5**	**+0.3**
	comp=Z,52nm,0.4s						
PVCC	**Panska Ves**	**1.36**	**226**	*e*PG	**Pg**	**06 13 18.7**	**-0.2**
PVCC				*e*SG	**Sg**	**06 13 37.7**	**+1.1**
	comp=Z,184nm,0.3s						
PVCC	**Panska Ves**	**1.36**	**226**	*e*Pg	**Pg**	**06 13 18.8**	**-0.1**
	baz=45						
PVCC				*e*Sg	**Sg**	**06 13 37.7**	**+1.1**
BRG	**Berggiesshubel**	**1.50**	**247**	PN	**Pn**	**06 13 20.3**	**-0.5**
BRG				PG	**Pg**	**06 13 21.3**	**-0.1**
BRG				SG	**Sg**	**06 13 41.8**	**+1.0**
	comp=Z,61nm,0.6s						
BRG	**Berggiesshubel**	**1.50**	**247**	Pn	**Pn**	**06 13 20.3**	**-0.5**
PRU	**Pruhonice**	**1.80**	**215**	*e*PN	**Pn**	**06 13 24.9**	**-0.1**
PRU				*e*PG	**Pg**	**06 13 26.4**	**-0.8**
PRU				*e*SG	**Sg**	**06 13 50.5**	**+0.1**
	comp=Z,55nm,0.4s						
PRU	**Pruhonice**	**1.80**	**215**	Pn	**Pn**	**06 13 24.9**	**-0.1**
MORC	**Moravsky Berou**	**1.93**	**151**	*e*Pn	**Pn**	**06 13 25.6**	**-1.2**
MORC				*e*Sg	**Sg**	**06 13 54.0**	**-0.7**
MORC	**Moravsky Berou**	**1.93**	**151**	*e*Pn	**Pn**	**06 13 26.1**	**-0.7**
	baz=336						
MORC				*e*Sg	**Sg**	**06 13 54.0**	**-0.7**
CLL	**Collm**	**1.96**	**266**	*e*Pn	**Pn**	**06 13 26.0**	**-1.2**
CLL				*e*Pg	**Pg**	**06 13 29.0**	**-1.3**
CLL				*i*		06 13 32.9	
CLL				*i* Sg	**Sg**	**06 13 56.3**	**+0.6**
	comp=Z,49nm,0.9s						
CLL	**Collm**	**1.96**	**266**	*e*Pn	**Pn**	**06 13 26.0**	**-1.2**
CLL				*e*Pg	**Pg**	**06 13 29.0**	**-1.3**
CLL				*i* Sg	**Sg**	**06 13 56.3**	**+0.6**
CLL	**Collm**	**1.96**	**266**	*e*Pn	**Pn**	**06 13 26.0**	**-1.2**
OKC	**Ostrava-Krasne**	**2.09**	**141**	*e*PG	**Pg**	**06 13 31.7**	**-1.1**
OKC				*e*SG	**Sg**	**06 13 58.2**	**-1.6**
	comp=Z,66nm,0.8s						
OKC	**Ostrava-Krasne**	**2.09**	**141**	Pg	**Pg**	**06 13 31.7**	**-1.1**
OKC				Sg	**Sg**	**06 13 58.2**	**-1.6**
	comp=Z,66nm,0.8s						
VRAC	**Vranov**	**2.19**	**172**	*e*Pn	**Pn**	**06 13 30.6**	**+0.2**
VRAC				*e*Sg	**Sg**	**06 14 02.4**	**-0.8**
	comp=Z,20nm,0.3s,baz=354						
TREC	**Trest**	**2.22**	**191**	*e*PG	**Pg**	**06 13 34.6**	**-0.7**
TREC	**Trest**	**2.22**	**191**	Pg	**Pg**	**06 13 34.6**	**-0.7**
KRUC	**Moravsky**	**2.42**	**176**	*e*Pn	**Pn**	**06 13 33.4**	**-0.2**
	baz=358						
KRUC				*e*Sg	**Sg**	**06 14 09.9**	**-0.7**
	comp=Z,28nm,0.5s,baz=358						
NKC	**Novy Kostel**	**2.64**	**243**	*e*PN	**Pn**	**06 13 37.1**	**+0.6**
NKC				*e*PG	**Pg**	**06 13 42.9**	**-0.4**
NKC				*e*SG	**Sg**	**06 14 18.9**	**+1.4**
	comp=Z,38nm,0.3s						
NKC	**Novy Kostel**	**2.64**	**243**	Pn	**Pn**	**06 13 37.1**	**+0.6**
OJC	**Ojcow**	**2.65**	**117**	*e*Pg	**Pg**	**06 13 42.6**	**-0.9**
OJC				*e*Sn	**Sn**	**06 14 06.5**	**-3.0**
OJC				*e*Sg	**Sg**	**06 14 18.1**	**+0.2**
OJC	**Ojcow**	**2.65**	**117**	*e*Pg	**Pg**	**06 13 42.6**	**-0.9**
OJC				*e*Sn	**Sn**	**06 14 06.5**	**-3.0**
OJC				*e*Sg	**Sg**	**06 14 18.1**	**+0.2**
JAVC	**Velka Javorina**	**2.81**	**159**	*e*Pn	**Pn**	**06 13 39.9**	**+1.1**
JAVC				*e*Sg	**Sg**	**06 14 23.4**	**+0.6**
	comp=Z,32nm,0.8s						
KHC	**Kasperske Hory**	**2.86**	**216**	*e*PN	**Pn**	**06 13 39.5**	**-0.1**
KHC				*e*PG	**Pg**	**06 13 45.6**	**-1.9**
KHC				*e*SG	**Sg**	**06 14 24.2**	**-0.3**
KHC	**Kasperske Hory**	**2.86**	**216**	Pn	**Pn**	**06 13 39.5**	**-0.1**
MOX	**Moxa**	**2.96**	**255**	*e*PG	**Pg**	**06 13 41.4**	**-8.1**
MOX	**Moxa**	**2.96**	**255**	*e*PG	**Pg**	**06 13 49.1**	**-0.4**
MOX				*e*SG	**Sg**	**06 14 28.8**	**+1.0**
GEC2	**GERESS Array S**	**3.06**	**211**	*e*Pn	**Pn**	**06 13 43.2**	**+0.9**
GEC2	**GERESS Array S**	**3.06**	**211**	*e*Pn	**Pn**	**06 13 43.2**	**+0.9**
SMOL	**Smolenice**	**3.08**	**164**	*e*SG	**Sg**	**06 14 34.5**	**+2.7**
SMOL	**Smolenice**	**3.08**	**164**	*e*Sg	**Sg**	**06 14 34.5**	**+2.7**
WET	**Wettzell**	**3.13**	**223**	*e*Pn	**Pn**	**06 13 43.5**	**+0.3**
WET	**Wettzell**	**3.13**	**223**	*e*Pn	**Pn**	**06 13 43.5**	**+0.3**
MODS	**Modra-Piesok**	**3.20**	**166**	*e*PG	**Pg**	**06 13 55.1**	**+1.1**
MODS				*e*SG	**Sg**	**06 14 39.3**	**+3.9**
MODS	**Modra-Piesok**	**3.20**	**166**	*e*Pg	**Pg**	**06 13 55.1**	**+1.1**
MODS				*e*Sg	**Sg**	**06 14 39.3**	**+3.9**
KOLL	**Kolacno**	**3.25**	**152**	*e*PN	**Pn**	**06 13 47.1**	**+2.1**
KOLL				*e*PG	**Pg**	**06 13 55.1**	**0.0**
KOLL				*e*SG	**Sg**	**06 14 37.0**	**-0.2**
KOLL	**Kolacno**	**3.25**	**152**	*e*Pn	**Pn**	**06 13 47.1**	**+2.1**
ZST	**Bratislava**	**3.35**	**169**	*e*SG	**Sg**	**06 14 39.6**	**-0.6**
ZST	**Bratislava**	**3.35**	**169**	*e*Sg	**Sg**	**06 14 39.6**	**-0.6**
NIE	**Niedzica**	**3.38**	**126**	*e*P	**Pg**	**06 13 56.9**	**-0.6**
NIE				*e*S	**Sg**	**06 14 40.2**	**-1.1**
VYHS	**Vyhne**	**3.46**	**149**	*e*PG	**Pg**	**06 14 01.0**	**+1.9**
VYHS				*e*SG	**Sg**	**06 14 45.4**	**+1.4**
CONA	**Conrad Observa**	**3.56**	**183**	⇓*i*Pn	**Pn**	**06 13 48.4**	**-0.7**
CONA				⇑*i*Sg	**Sg**	**06 14 45.9**	**-1.0**
	comp=Z,18nm,0.5s						
CONA	**Conrad Observa**	**3.56**	**183**	Pn	**Pn**	**06 13 48.4**	**-0.8**
CONA				Sg	**Sg**	**06 14 45.9**	**-1.1**
	comp=Z,18nm,0.5s						
CSNA	**Conrad Observa**	**3.56**	**183**	⇑*i*Pn	**Pn**	**06 13 48.7**	**-0.4**
CSNA				⇑*i*Sg	**Sg**	**06 14 45.9**	**-1.0**
	comp=Z,14nm,0.4s						
CSNA	**Conrad Observa**	**3.56**	**183**	Pn	**Pn**	**06 13 48.7**	**-0.5**
CSNA				Sg	**Sg**	**06 14 45.9**	**-1.1**
	comp=Z,14nm,0.4s						
MOA	**Molln**	**3.83**	**199**	⇑*i*Pn	**Pn**	**06 13 52.8**	**-0.1**
MOA				⇑*i*Sg	**Sg**	**06 14 54.1**	**-1.5**
	comp=Z,18nm,0.4s						
MOA	**Molln**	**3.83**	**199**	Pn	**Pn**	**06 13 52.8**	**0.0**
MOA				Sg	**Sg**	**06 14 54.1**	**-1.5**
	comp=Z,18nm,0.4s						
STHS	**Stebnicka Huta**	**3.87**	**120**	*e*PG	**Pg**	**06 14 07.5**	**+0.6**
STHS				*e*SG	**Sg**	**06 14 59.4**	**+2.4**
STHS	**Stebnicka Huta**	**3.87**	**120**	*e*Pg	**Pg**	**06 14 07.5**	**+0.6**
STHS				*e*Sg	**Sg**	**06 14 59.4**	**+2.4**
CRVS	**Cervenica-Dubn**	**4.29**	**125**	*e*SG	**Sg**	**06 15 13.2**	**+2.6**
CRVS	**Cervenica-Dubn**	**4.29**	**125**	*e*Sg	**Sg**	**06 15 13.2**	**+2.6**

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*TIR **29** 06:12:57.9, 42.°42N×19.°87E, h6^{km}, ML2.7*

*ISCJB **29** 06:12:57.9±0.3, 42.°41N±0.°02×19.°83E±0.°02, h10^{km}, Error ellipse: s-maj=2.6km s-min=2.0km az=140.6*

*BEO **29** 06:12:58.2±1.2, 42.°34N×19.°81E, h8^{km}±5^{km}, ML2.3/5*

*CSEM **29** 06:12:58.3±0.1, 42.°43N×19.°81E, h2^{km}, ML2.3/9, Error ellipse: s-maj=3.4km s-min=2.6km az=44.0*

*PDG **29** 06:12:58.8±0.2, 42.°43N×19.°80E, h0^{km}±11^{km}, MD2.4/2, ML2.3/9, Error ellipse: s-maj=0.4km s-min=0.7km az=0.0*

*SKO **29** 06:12:59.8, 42.°44N×19.°82E, h0^{km}*

ISC 29 06:12:58.9±0.3**, 42.°42N**±0.°02×**19.°82E**±0.°02**, h0^{km}**±5^{km}**, n46, σ1ˢ10**/90**, 10C-10D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVY	**Plav**	**0.20**	**33**	⇓*i*Pg	**Pg**	**06 13 02.0**	**-0.8**
PVY				*e*Sg	**Sg**	**06 13 05.7**	**+0.2**
PVY	**Plav**	**0.20**	**33**	⇓*i*Pg	**Pg**	**06 13 02.0**	**-0.8**
PVY				*e*Sg	**Sg**	**06 13 05.7**	**+0.2**
PUK	**Puka**	**0.38**	**172**	*e*PG	**Pg**	**06 13 05.3**	**-0.9**
PUK				*i* SG	**Sg**	**06 13 11.6**	**+0.4**
PUK	**Puka**	**0.38**	**172**	*e*Pg	**Pg**	**06 13 05.3**	**-0.9**
	SNR=93						
PUK				*i* Sg	**Sg**	**06 13 11.6**	**+0.4**
	SNR=93						
PDG	**Podgorica**	**0.42**	**271**	⇑*i*Pg	**Pg**	**06 13 05.4**	**-1.5**
PDG				*e*Sg	**Sg**	**06 13 12.0**	**-0.2**
TTG	**Podgorica**	**0.42**	**271**	⇑*i*Pg	**Pg**	**06 13 05.4**	**-1.5**
TTG				*e*Sg	**Sg**	**06 13 12.0**	**-0.2**
BEY	**Berane**	**0.45**	**7**	⇑*i*Pg	**Pg**	**06 13 06.9**	**-0.7**
BEY				*e*Sg	**Sg**	**06 13 14.2**	**+0.8**
IVA	**Berane**	**0.45**	**7**	⇑*i*Pg	**Pg**	**06 13 06.9**	**-0.7**
IVA				*e*Sg	**Sg**	**06 13 14.2**	**+0.8**
ULC	**Ulcinj**	**0.63**	**223**	⇑*i*Pg	**Pg**	**06 13 10.3**	**-0.6**
ULC				*e*Sg	**Sg**	**06 13 20.1**	**+1.1**
ULC	**Ulcinj**	**0.63**	**223**	⇑*i*Pg	**Pg**	**06 13 10.3**	**-0.6**
ULC				*e*Sg	**Sg**	**06 13 20.1**	**+1.1**
BUM	**Brajici-Budva**	**0.70**	**260**	⇑*i*Pg	**Pg**	**06 13 11.4**	**-0.8**
BUM				*e*Sg	**Sg**	**06 13 22.0**	**+0.8**
BUM	**Brajici-Budva**	**0.70**	**260**	⇑*i*Pg	**Pg**	**06 13 11.4**	**-0.8**
BUM				*e*Sg	**Sg**	**06 13 22.0**	**+0.8**
NKY	**Niksic**	**0.72**	**303**	⇑*i*Pg	**Pg**	**06 13 11.4**	**-1.3**
NKY				*e*Sg	**Sg**	**06 13 23.1**	**+1.0**
NKY	**Niksic**	**0.72**	**303**	⇑*i*Pg	**Pg**	**06 13 11.4**	**-1.3**
NKY				*e*Sg	**Sg**	**06 13 23.1**	**+1.0**
SJES	**Sjenica**	**0.85**	**7**	*e*Pg	**Pg**	**06 13 14.4**	**-0.7**
SJES				*e*Sg	**Sg**	**06 13 26.0**	**-0.1**
SJES	**Sjenica**	**0.85**	**7**	*e*Pg	**Pg**	**06 13 14.4**	**-0.7**
SJES				*e*Sg	**Sg**	**06 13 26.0**	**-0.1**
PHP	**Peshkopia**	**0.87**	**148**	*e*PG	**Pg**	**06 13 14.1**	**-1.4**
PHP				*i* SG	**Sg**	**06 13 27.7**	**+0.9**
PHP	**Peshkopia**	**0.87**	**148**	*e*Pg	**Pg**	**06 13 14.1**	**-1.4**
	SNR=91						
PHP				*i* Sg	**Sg**	**06 13 27.7**	**+0.9**
	SNR=91						
PLE	**Pljevlja**	**0.96**	**341**	⇓*i*Pg	**Pg**	**06 13 16.3**	**-1.0**
PLE				*e*Sg	**Sg**	**06 13 31.0**	**+1.3**
PLE	**Pljevlja**	**0.96**	**341**	⇓*i*Pg	**Pg**	**06 13 16.3**	**-1.0**
PLE				*e*Sg	**Sg**	**06 13 31.0**	**+1.3**
HCY	**Herceg Novi**	**0.98**	**272**	⇓*i*Pg	**Pg**	**06 13 16.2**	**-1.5**
HCY				*e*Sg	**Sg**	**06 13 31.8**	**+1.4**
HCY	**Herceg Novi**	**0.98**	**272**	⇓*i*Pg	**Pg**	**06 13 16.2**	**-1.5**
HCY				*e*Sg	**Sg**	**06 13 31.8**	**+1.4**
UPM	**Unac-Piva**	**1.03**	**320**	*e*Pg	**Pg**	**06 13 17.5**	**-1.1**
UPM				*e*Sg	**Sg**	**06 13 33.3**	**+1.3**
UPM	**Unac-Piva**	**1.03**	**320**	*e*Pg	**Pg**	**06 13 17.5**	**-1.1**
UPM				*e*Sg	**Sg**	**06 13 33.3**	**+1.3**
BRY	**Bratogost**	**1.06**	**297**	⇓*i*Pg	**Pg**	**06 13 18.0**	**-1.2**
BRY				*e*Sg	**Sg**	**06 13 34.1**	**+1.2**
BRY	**Bratogost**	**1.06**	**297**	⇓*i*Pg	**Pg**	**06 13 18.0**	**-1.2**
BRY				*e*Sg	**Sg**	**06 13 34.1**	**+1.2**
SKO	**Skopje**	**1.28**	**110**	*e*Pg	**Pg**	**06 13 23.4**	**0.0**
SKO				*e*Sg	**Sg**	**06 13 41.8**	**+1.7**
SKO	**Skopje**	**1.28**	**110**	*e*Pg	**Pg**	**06 13 23.4**	**-0.1**
SKO				*e*Sg	**Sg**	**06 13 41.7**	**+1.6**
BBLS	**Lazići**	**1.48**	**348**	⇓*i*Pn	**Pn**	**06 13 26.2**	**-0.5**
BBLS				*i* Sg	**Sg**	**06 13 48.9**	**+2.6**
BBLS	**Lazići**	**1.48**	**348**	⇓*i*Pn	**Pn**	**06 13 26.2**	**-0.5**
BBLS				*i* Sg	**Sg**	**06 13 48.9**	**+2.6**
KRUS	**Krusevo**	**1.50**	**134**	*e*Pg	**Pg**	**06 13 26.4**	**-1.2**
KRUS				*e*Sg	**Sg**	**06 13 47.3**	**+0.4**
KRUS	**Krusevo**	**1.50**	**134**	*e*Pg	**Pg**	**06 13 26.3**	**-1.3**
KRUS				*e*Sg	**Sg**	**06 13 47.3**	**+0.3**
OHR	**Ohrid**	**1.50**	**151**	*e*Pg	**Pg**	**06 13 27.1**	**-0.5**
OHR				*e*Sg	**Sg**	**06 13 48.0**	**+1.0**
OHR	**Ohrid**	**1.50**	**151**	*e*Pg	**Pg**	**06 13 27.1**	**-0.5**
OHR				*e*Sg	**Sg**	**06 13 48.0**	**+1.0**
BARS	**Barje**	**1.52**	**74**	*e*Pn	**Pn**	**06 13 26.0**	**-1.3**
BARS				*e*Sg	**Sg**	**06 13 47.7**	**-0.1**
GRUS	**Gruza**	**1.60**	**24**	*e*Pn	**Pn**	**06 13 28.2**	**-0.3**
GRUS				*e*Sg	**Sg**	**06 13 52.7**	**+2.3**
STON	**Ston**	**1.63**	**287**	*e*Pn	**Pn**	**06 13 27.5**	**-1.3**
STON				Sn	**Sn**	**06 13 53.7**	**+3.2**
STON	**Ston**	**1.63**	**287**	*e*Pn	**Pn**	**06 13 27.5**	**-1.3**
STON				Sn	**Sn**	**06 13 53.6**	**+3.1**
DIVS	**Divibare**	**1.68**	**4**	*e*Pn	**Pn**	**06 13 28.4**	**-1.1**
DIVS				*e*Sn	**Sn**	**06 13 51.4**	**-0.3**
DIVS	**Divibare**	**1.68**	**4**	*e*Pn	**Pn**	**06 13 28.4**	**-1.1**
DIVS				*e*Sn	**Sn**	**06 13 51.4**	**-0.3**
BIA	**Bitola**	**1.80**	**141**	*e*Pn	**Pn**	**06 13 32.8**	**+1.8**
BIA				*e*Sg	**Sg**	**06 13 57.5**	**+0.9**
BIA	**Bitola**	**1.80**	**141**	*e*Pn	**Pn**	**06 13 32.8**	**+1.7**
BIA				*e*Sg	**Sg**	**06 13 57.4**	**+0.8**
BOLS	**Boljevac**	**2.10**	**47**	*e*Pg	**Pg**	**06 13 38.1**	**-1.0**
BOLS	**Boljevac**	**2.10**	**47**	*e*Pg	**Pg**	**06 13 38.1**	**-1.0**
VAY	**Valandovo**	**2.33**	**117**	*e*Pn	**Pn**	**06 13 40.0**	**+1.6**
VAY				*e*Sg	**Sg**	**06 14 13.3**	**-0.4**
VAY	**Valandovo**	**2.33**	**117**	*e*Pn	**Pn**	**06 13 40.0**	**+1.6**
VAY				*e*Sg	**Sg**	**06 14 13.2**	**-0.5**

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*IDC **29** 06:24:38.6±0.8, 13.°05N×123.°31E, h0^{km}, mb3.9/9, mb1 4.1/9, mb1mx3.9/21, mbtmp3.9/9, ML5.2/1, MS3.8/17, Ms1 3.8/17, ms1mx3.6/41, Error ellipse: s-maj=28.2km s-min=12.7km az=47.0*

*ISCJB **29** 06:24:41.6±0.7, 13.°15N±0.°03×123.°32E±0.°04, h27^{km}±6^{km}, mb4.1/14, MS3.8/15, Error ellipse: s-maj=7.8km s-min=4.6km az=154.9*

*MOS **29** 06:24:41.8±1.3, 12.°98N×123.°25E, h33^{km}, mb4.2/8, Error ellipse: s-maj=31.4km s-min=12.6km az=125.2*

*MAN **29** 06:24:41, 13.°11N×123.°27E, h11^{km}, mb5.2, ML4.2, MS4.4*

MAN INTENSITY III - LEGASPI CITY; INTENSITY II - SAN PASCUAL BURIAS ISLAND.

*NEIC **29** 06:24:43.8±0.4, 13.°00N×123.°22E, h35^{km}, mb4.7/3, Error ellipse: s-maj=18.5km s-min=8.2km az=59.0*

NEIC Felt [III PIVS] at Legaspi, Luzon. Felt [II PIVS] at San Pascual, Burias Island.

ISC 29 06:24:40.9±0.7**, 13.°14N**±0.°03×**123.°30E**±0.°04**, h10^{km}**±5^{km}**, n59, σ1ˢ17**/51**, mb4.1**/14**, MS3.8**/15**, 3C-2D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUQP	**San Andres**	**0.64**	**287**	*e*P	**Pg**	**06 24 53.3**	**+0.1**
MMPH	**Masbate**	**0.84**	**158**	*e*P	**Pg**	**06 24 56.6**	**-0.5**
MMPH				*e*S	**Sg**	**06 25 08.9**	**+1.0**
PVCP	**Virac**	**0.95**	**61**	*e*P	**Pg**	**06 24 58.7**	**-0.5**
GQP	**Guinayangan**	**1.13**	**313**	⇓*i*P	**Pb**	**06 24 58.5**	**-4.0**
GQP				*i* S	**Sg**	**06 25 17.5**	**+0.2**
BOAC	**Boac**	**1.45**	**283**	*e*P	**Pn**	**06 25 06.7**	**-0.5**
OTRP	**Odiongan**	**1.47**	**238**	*e*P	**Pn**	**06 25 06.2**	**-1.2**
RCP	**Roxas**	**1.66**	**199**	⇑*e*P	**Pn**	**06 25 08.9**	**-1.2**
RCP				*e*S	**Sn**	**06 25 31.2**	**-0.3**
KALP	**Kalibo**	**1.73**	**213**	⇓*e*P	**Pn**	**06 25 11.1**	**+0.1**
POLP	**Polilio Island**	**2.06**	**320**	*e*P	**Pn**	**06 25 16.6**	**+1.0**
SJMP	**San Jose**	**2.23**	**253**	*e*P	**Pn**	**06 25 19.1**	**+1.2**
TGY	**Tagaytay City**	**2.49**	**293**	P	**Pn**	**06 25 22.0**	**+0.5**
TGY						06 25 58.6	
TGY				pmax	pmax		
	comp=Z,438nm,0.3s						
TGY				pmax	pmax		
	comp=Z,438nm,0.3s						
TGY	**Tagaytay City**	**2.49**	**293**	Pn	**Pn**	**06 25 22.0**	**+0.6**
	comp=Z,438nm,0.3s,baz=141,slow=3.0,SNR=38						
TGY				Pg	**Pg**	**06 25 25.6**	**-3.0**
	comp=Z,438nm,0.3s,baz=136,slow=4.7,SNR=39						
TGY				Lg		06 25 58.6	
	comp=Z,115nm,0.3s,baz=168,slow=17,SNR=3.6						
GUIM	**Jordan**	**2.59**	**196**	*e*P	**Pn**	**06 25 24.9**	**+2.0**
LLP	**Lapu-Lapu**	**2.88**	**167**	⇑*e*P	**Pn**	**06 25 29.3**	**+2.5**
LLP				*e*S	**Sn**	**06 26 03.2**	**+1.7**
LUBP	**Lubang**	**3.03**	**282**	*e*P	**Pn**	**06 25 28.9**	**-0.1**
CUYO	**Cuyo Island**	**3.19**	**225**	*e*P	**Pn**	**06 25 30.6**	**-0.5**
BUSP	**Coron**	**3.23**	**250**	*e*P	**Pn**	**06 25 32.1**	**+0.4**
MSLP	**Maasin**	**3.35**	**153**	*e*P	**Pn**	**06 25 42.3**	**+9.0**
TBP	**Tagbilaran**	**3.47**	**171**	*e*P	**Pn**	**06 25 34.1**	**-0.9**
TBP				*e*S	**Sn**	**06 26 13.5**	**-2.7**
SCPH	**Surigao**	**3.97**	**147**	⇑*e*P	**Pn**	**06 25 42.3**	**+0.5**
PAGZ	**Pagadian**	**5.26**	**179**	*e*P	**Pn**	**06 26 03.7**	**+4.1**
BUKP	**Musuan**	**5.50**	**161**	*e*P	**Pn**	**06 26 11.4**	**+8.5**
BATP	**Bataraza**	**6.91**	**232**	*e*P	**Pn**	**06 26 23.5**	**+1.2**
JOW	**Kunigami**	**14.40**	**18**	LR	LR	06 33 15.5	
	comp=Z,352nm,18.9s,baz=195,slow=36						
KAPI	**Kappang**	**18.37**	**191**	LR	LR	06 35 51.2	
	comp=Z,303nm,21.9s,baz=23,slow=37						
CMAR	**Chiang Mai Arr**	**24.02**	**286**	P	**P**	**06 29 55.3**	**-0.8**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR				MLR	MLR		
	comp=Z,142nm,21.5s						
CMAR	**Chiang Mai Arr**	**24.02**	**286**	P	**P**	**06 29 55.3**	**-0.8**
	comp=Z,1.3nm,0.4s,mb3.8,baz=96,slow=7.5,SNR=5.5						
CMAR				LR	LR	06 38 16.7	
	comp=Z,142nm,21.5s,MS3.4,baz=242,slow=34						
KSRS	**Korea Array**	**24.57**	**9**	LR	LR	06 38 50.3	
	comp=Z,139nm,20.4s,MS3.4,baz=81,slow=35						
XAN	**Xi'an**	**24.57**	**330**	P	**P**	**06 30 03.5**	**+2.5**
XAN				pP		06 30 09.5	
XAN				sP	sP	06 30 12.8	+7.5
XAN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
JHJ	**Hachijo jima 2**	**24.94**	**34**	LR	LR	06 39 29.4	
	comp=Z,121nm,18.8s,MS3.4,baz=284,slow=36						
MJAR	**Matsushiro Arr**	**26.87**	**27**	LR	LR	06 38 37.4	
	comp=Z,159nm,21.6s,MS3.5,baz=180,slow=31						
WRA	**Warramunga Arr**	**34.62**	**162**	P	**P**	**06 31 28.7**	**-1.7**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	**Warramunga Arr**	**34.62**	**162**	P	**P**	**06 31 28.7**	**-1.7**
	comp=Z,1.6nm,0.7s,mb4.0,baz=345,slow=9.2,SNR=8.8						
ULN	**Ulaanbaatar**	**37.18**	**342**	*e*P	**P**	**06 31 52.9**	**+0.8**
	comp=Z,6.0nm,0.8s,mb4.5						
SONM	**Songino Array**	**37.36**	**341**	P	**P**	**06 31 54.0**	**+0.4**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SONM	**Songino Array**	**37.36**	**341**	P	**P**	**06 31 54.0**	**+0.4**
	comp=Z,2.6nm,0.8s,mb4.1,baz=162,slow=9.3,SNR=20						
ASAR	**Alice Springs**	**38.02**	**164**	P	**P**	**06 31 58.2**	**-1.2**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	**Alice Springs**	**38.02**	**164**	P	**P**	**06 31 58.2**	**-1.2**
	comp=Z,1.1nm,0.5s,mb3.8,baz=351,slow=7.3,SNR=15						
CTA	**Charters Tower**	**40.00**	**145**	LR	LR	06 49 49.6	
	comp=Z,91nm,20.8s,MS3.6,baz=54,slow=38						
PALK	**Pallekele**	**42.28**	**266**	LR	LR	06 50 14.6	
	comp=Z,56nm,18.5s,MS3.5,baz=94,slow=36						
MOY	**Mondy**	**42.44**	**339**	*e*P	**P**	**06 32 39.0**	**+3.3**
MKAR	**Makanchi Array**	**48.00**	**323**	P	**P**	**06 33 19.5**	**-0.5**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR				MLR	MLR		
	comp=Z,89nm,19.1s						
MKAR	**Makanchi Array**	**48.00**	**323**	P	**P**	**06 33 19.5**	**-0.5**
	comp=Z,1.1nm,0.7s,mb4.0,baz=124,slow=8.4,SNR=16						
MKAR				LR	LR	06 54 44.9	
	comp=Z,89nm,19.1s,MS3.8,baz=168,slow=38						
STKA	**Stephens Creek**	**48.07**	**159**	P	**P**	**06 33 19.1**	**-1.5**
	comp=Z,1.7nm,0.7s,mb4.2,baz=304,slow=11,SNR=2.8						
PETK	**Petropavlovsk-**	**48.33**	**27**	LR	LR	06 53 51.9	
	comp=Z,81nm,20.1s,MS3.7,baz=49,slow=36						
ZALV	**Zalesovo Beam**	**50.73**	**332**	P	**P**	**06 33 40.3**	**-0.5**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
ZALV				MLR	MLR		
	comp=Z,64nm,18.7s,MS3.7						
ZALV	**Zalesovo Beam**	**50.73**	**332**	P	**P**	**06 33 40.3**	**-0.5**
	comp=Z,0.7nm,0.3s,mb4.0,baz=127,slow=8.4,SNR=3.6						
ZALV				LR	LR	06 55 16.8	
	comp=Z,64nm,18.7s,MS3.7,baz=27,slow=36						
AAK	**Ala-Archa**	**51.25**	**315**	LR	LR	06 56 52.5	
	comp=Z,231nm,20.6s,MS4.2,baz=80,slow=38						
KURK	**Kurchatov**	**52.07**	**325**	*e*P	**P**	**06 33 50.4**	**-0.5**
	comp=Z,9.8nm,0.8s,mb4.8						
BVAR	**Borovoye Array**	**57.67**	**325**	LR	LR	07 01 39.3	
	comp=Z,99nm,18.7s,MS4.0,baz=214,slow=38						
BRVK	**Borovoye**	**57.74**	**325**	*e*P	**P**	**06 34 32.0**	**+0.2**
	comp=Z,5.5nm,0.8s,mb4.6						
BILL	**Bilibino**	**61.49**	**17**	*e*P	**P**	**06 35 05.0**	**+7.5**
BILL				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
AKTO	**Aktyubinsk**	**64.27**	**320**	LR	LR	07 03 05.6	
	comp=Z,76nm,18.6s,MS3.9,baz=284,slow=36						
ARCES	**ARCESS Array B**	**80.51**	**339**	P	**P**	**06 36 51.4**	**-1.4**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	**ARCESS Array B**	**80.51**	**339**	P	**P**	**06 36 51.4**	**-1.4**
	comp=Z,2.3nm,0.8s,mb4.2,baz=70,slow=6.2,SNR=3.1						
FINES	**FINESS Array B**	**82.00**	**331**	LR	LR	07 15 53.8	
	comp=Z,76nm,21.4s,MS4.0,baz=121,slow=38						
NOA	**NORSAR Array B**	**88.91**	**333**	LR	LR	07 19 14.0	
	comp=Z,66nm,21.0s,MS4.0,baz=295,slow=37						
PPT	**Papeete**	**91.21**	**108**	LR	LR	07 16 51.2	
	comp=Z,187nm,18.2s,MS4.6,baz=272,slow=34						
YKA	**Yellowknife Ar**	**92.31**	**23**	P	**P**	**06 37 51.9**	**+0.7**
	comp=Z,0.2nm,0.7s,mb3.6,baz=301,slow=4.4,SNR=5.8						

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*ISCJB **29** 06:36:40.2±0.7, 1.°41S±0.°07×99.°59E±0.°08, h60^{km}±8^{km}, mb3.8/5, Error ellipse: s-maj=15.1km s-min=8.9km az=139.7*

*DJA **29** 06:36:41, 1.°38S×99.°61E, h25^{km}, MLv4.0/7*

*IDC **29** 06:36:41.5±2.3, 1.°35S×99.°87E, h44^{km}±7^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.4/22, mbtmp3.5/6, ML3.0/1, MS2.8/1, Ms1 2.8/1, ms1mx2.3/41, Error ellipse: s-maj=102.2km s-min=14.7km az=57.0*

ISC 29 06:36:41.6±0.7**, 1.°39S**±0.°07×**99.°61E**±0.°08**, h50^{km}**±9^{km}**, h47^{km}**±.9^{km}**:pP-P, n18, σ1ˢ09**/16**, mb3.8**/5**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	**Saibi**	**0.53**	**276**	P	**Pn**	**06 36 51.7**	**-1.4**
PDSI	**Padang**	**0.97**	**61**	P	**Pn**	**06 36 58.2**	**-0.7**
PPI	**Padang Panjang**	**1.21**	**40**	P	**Pn**	**06 37 02.1**	**-0.1**
PPSI	**Pulau Pagai**	**1.43**	**164**	P	**Pn**	**06 37 06.8**	**+1.7**
SDSI	**Sungai Dareh**	**1.87**	**76**	P	**Pn**	**06 37 12.0**	**+0.8**
GSI	**Gunungsitoli**	**3.36**	**323**	P	**Pn**	**06 37 34.1**	**+2.5**
PSI	**Prapat**	**4.21**	**351**	P	**Pn**	**06 37 43.0**	**-0.3**
	0.8nm,0.3s,baz=200,slow=12,SNR=2.9						
PSI				LR	LR	06 39 46.3	
	comp=Z,122nm,18.7s,baz=52,slow=45						
MNAI	**Manna**	**4.46**	**132**	P	**Pn**	**06 37 46.0**	**-0.7**
MDSI	**Maura Dua**	**5.50**	**124**	P	**Pn**	**06 38 02.2**	**+1.2**
	16nm,1.2s,0.1nm						
KASI	**Kota Agung**	**6.38**	**130**	P	**Pn**	**06 38 12.7**	**-0.3**
	45nm,1.4s						
BSI	**Banda Aceh**	**8.08**	**328**	P	**Pn**	**06 38 35.0**	**-1.4**
WRA	**Warramunga Arr**	**38.64**	**121**	P	**P**	**06 43 58.9**	**-1.5**
	0.4nm,0.5s,mb3.4,baz=302,slow=9.0,SNR=7.4						
WRA				pP	pP	06 44 11.1	-2.6
	0.7nm,0.6s,baz=303,slow=9.0,SNR=3.7						
ASAR	**Alice Springs**	**39.93**	**126**	P	**P**	**06 44 10.2**	**-0.9**
	0.4nm,0.5s,mb3.4,baz=301,slow=7.7,SNR=6.8						
ASAR				pP	pP	06 44 23.1	-1.3
	0.4nm,0.5s,baz=297,slow=7.9,SNR=3.7						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	49.38	6	P	P	06 45 26.2	+0.2
	0.4nm,0.5s,mb3.7,baz=181,slow=9.4,SNR=7.3						
SONM				pP	pP	06 45 38.1	-1.6
	0.3nm,0.4s,baz=177,slow=11,SNR=4.2						
STKA	**Stephens Creek**	49.85	132	pP	pP	06 45 41.6	-2.0
	1.0nm,0.6s,baz=277,slow=5.8,SNR=1.5						
MKAR	**Makanchi Array**	50.34	345	P	P	06 45 34.4	+1.0
	1.0nm,0.6s,mb4.0,baz=150,slow=8.3,SNR=14						
MKAR				pP	pP	06 45 46.9	-0.1
	1.8nm,0.6s,baz=150,slow=7.7,SNR=10.0						
ZALV	**Zalesovo Beam**	56.50	350	P	P	06 46 18.9	+0.5
	1.4nm,0.4s,mb4.4,baz=160,slow=4.7,SNR=8.6						
ZALV				pP	pP	06 46 31.3	-0.9
	1.7nm,0.3s,baz=176,slow=5.9,SNR=5.4						
TXAR	**Lajitas Array**	144.45	36	PKP	PKPdf	06 56 12.7	-0.4
	0.7nm,0.5s,baz=202,slow=0.9,SNR=16						
TXAR				pPKP	pPKPdf	06 56 25.7	-2.6
	0.2nm,0.4s,baz=205,slow=1.6,SNR=3.7						

CASC 29 06:58:06.2±2.3, 8°.26N×83°.09W, h0^{km}±11^{km}, MD3.8, 1D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACR	**Cerro Adams**	0.40	349	⇓*e*P	Pg	06 58 14.6	+0.7
ACR				*e*S	Sg	06 58 22.2	+3.2
BAR1		1.00	348	*e*P	Pg	06 58 24.8	-0.6
BAR1				*e*S	Sg	06 58 40.6	+2.3
CNI	**Changuinola**	1.28	26	*e*P	Pg	06 58 28.9	-1.9
CNI				*e*S	Sg	06 58 50.3	+2.8
BUS	**Buena Vista**	1.44	333	*e*P	Pn	06 58 33.2	-0.4
BUS				*e*S	Sg	06 58 54.2	+1.5
LCR2	**La Lucha 2**	1.72	329	*e*P	Pn	06 58 38.1	+0.6
LCR2				*e*S	Sn	06 59 02.0	+1.8
LAJ	**Bijagual**	1.89	328	*e*P	Pn	06 58 43.0	+3.2
PRS1	**Puriscal**	2.09	325	*e*P	Pn	06 58 43.3	+0.8
PRS1				*e*S	Sn	06 59 13.1	+3.8

MAN 29 07:04:22, 8°.52N×125°.73E, h63^{km}, mb4.5, ML3.3, MS3.2, 1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUTP	**Butuan**	0.46	347	*e*P	Pn	07 04 36.7	+2.9
BUKP	**Musuan**	0.92	226	*e*P	Pn	07 04 41.3	+2.2
BUKP				*e*S	Sn	07 04 54.6	+2.8
CGP	**Cagayan de Oro**	1.02	266	⇑*i*P	Pn	07 04 42.2	+1.8
CGP				*i* S	Sn	07 04 56.3	+2.1

IDC 29 07:16:39.1±1.2, 48°.41S×31°.30E, h0^{km}, mb3.8/5, mb1 3.9/6, mb1mx3.8/20, mbtmp3.9/6, ML4.0/1, MS3.6/5, Ms1 3.6/5, ms1mx3.3/24, Error ellipse: s-maj=64.3km s-min=21.9km az=66.0, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SUR	**Sutherland**	17.86	330	P	Pn	07 20 48.0	-0.9
	0.6nm,0.3s,baz=136,slow=15,SNR=7.4						
SUR				LR	LR	07 26 15.0	
	comp=Z,116nm,21.6s,baz=51,slow=32						
BOSA	**Boshof**	20.31	345	P	P	07 21 16.1	-0.5
	4.9nm,1.0s,baz=181,slow=12,SNR=5.7						
BOSA				LR	LR	07 27 23.0	
	comp=Z,127nm,18.6s,baz=333,slow=32						
LBTB	**Lobatse**	23.78	347	P	P	07 21 52.8	-0.6
	2.0nm,0.5s,baz=193,slow=12,SNR=6.2						
LBTB				LR	LR	07 29 25.5	
	comp=Z,96nm,18.9s,baz=152,slow=32						
MAW	**Mawson**	25.00	152	LR	LR	07 29 03.2	
	comp=Z,166nm,20.0s,baz=114,slow=30						
QSPA	**South Pole Qui**	41.81	180	P	P	07 24 29.6	-0.3
	3.3nm,0.8s,baz=186,slow=13,SNR=2.8						
VNDA	**Vanda**	50.69	168	LR	LR	07 46 04.7	
	comp=Z,122nm,18.3s,baz=46,slow=35						
TORD	**Torodi Ar. Bea**	66.69	328	P	P	07 27 33.2	+1.5
	0.4nm,0.6s,baz=164,slow=5.8,SNR=4.4						
ASAR	**Alice Springs**	80.54	115	P	P	07 28 53.5	+0.1
	0.7nm,0.7s,baz=220,slow=4.7,SNR=11						

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*ISCJB **29** 07:19:12.1±0.2, 41°.19N±0°.01×114°.83W±0°.02, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.6km az=151.8*

*NEIC **29** 07:19:12.1, 41°.21N×114°.82W, h5^{km}, ML2.9, After REN.*

*IDC **29** 07:19:12.8±1.4, 41°.14N×114°.79W, h7^{km}±13^{km}, mb2.6/1, mb1 3.2/3, mb1mx3.1/22, mbtmp2.8/3, ML3.2/2, Error ellipse: s-maj=38.7km s-min=5.7km az=144.0*

ISC 29 07:19:12.4±0.2, 41°.21N±0°.01×114°.82W±0°.01, h10^{km}, n114, σ1^{s}03/176, 36C-33D, Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N12A	**Clover Valley,**	0.39	205	⇑P	Pg	07 19 19.8	-0.3
	baz=0.4,SNR=1000						
N12A				⇓S	Sg	07 19 25.1	-0.2
	baz=0.4						
N12A	**Clover Valley,**	0.39	205	*e*Pg	Pg	07 19 19.6	-0.5
N12A				*e*Sg	Sg	07 19 24.1	-1.2
M13A	**Montello**	0.52	72	⇓P	Pg	07 19 22.0	-0.5
	baz=0.5,SNR=371						
M13A	**Montello**	0.52	72	*e*Pg	Pg	07 19 21.9	-0.6
M13A				*e*Sg	Sg	07 19 28.9	-0.4
ELK	**Elko**	0.56	215	Pg	Pg	07 19 22.6	-0.7
	42nm,0.3s,baz=18,slow=14,SNR=618						
ELK				Lg		07 19 29.6	
	110nm,0.3s,baz=111,slow=14,SNR=134						
ELK	**Elko**	0.56	215	*e*Pg	Pg	07 19 22.4	-0.8
ELK				*e*Sg	Sg	07 19 29.5	-1.1
N13A	**Wendover, West**	0.58	127	P	Pg	07 19 23.6	-0.1
	baz=0.6,SNR=724						
N13A				⇑S	Sg	07 19 31.5	+0.1
	baz=0.6						
N13A	**Wendover, West**	0.58	127	*e*Pg	Pg	07 19 23.4	-0.3
M11A	**Holland Ranch,**	0.77	287	⇓P	Pg	07 19 25.9	-1.3
	baz=0.8,SNR=340						
M11A				⇑S	Sg	07 19 36.2	-1.0
	baz=0.8						
N11A	**Elko Archery C**	0.79	241	⇓P	Pg	07 19 26.8	-0.9
	baz=0.8,SNR=51						
N11A				⇑S	Sg	07 19 37.8	-0.3
	baz=0.8						
O12A	**Currie**	0.94	176	P	Pg	07 19 29.9	-0.6
	baz=0.9,SNR=1000						
O12A				⇓S	Sg	07 19 42.8	+0.2
	baz=0.9						
L12A	**House Creek Ra**	0.95	351	⇑P	Pg	07 19 29.6	-1.2
	baz=1.0,SNR=365						
L12A				⇑S	Sg	07 19 42.1	-1.1
	baz=1.0						
L13A	**Double Diamond**	1.10	36	⇑P	Pb	07 19 32.5	-1.0
	baz=1.1,SNR=197						
L13A				⇓S	Sg	07 19 47.4	-0.5
	baz=1.1						
M14A	**Sheep Mountain**	1.15	74	⇑P	Pb	07 19 33.4	-0.9
	baz=1.2,SNR=957						
M14A				⇑S	Sb	07 19 49.4	0.0
	baz=1.2						
L11A	**Cat Creek Ranc**	1.19	324	⇑P	Pb	07 19 33.6	-1.5
	baz=1.2,SNR=798						
L11A				⇑S	Sb	07 19 49.5	-1.0
	baz=1.2						
O11A	**Cowboy Ranch,**	1.25	211	P	Pn	07 19 35.5	-0.4
	baz=1.2,SNR=376						
O11A				⇓S	Sb	07 19 51.5	-0.6
	baz=1.2						
O13A	**Hicks Ranch, I**	1.25	149	⇑P	Pn	07 19 35.5	-0.5
	baz=1.2,SNR=198						
O13A				⇓S	Sb	07 19 52.9	+0.7
	baz=1.2						
N14A	**Grayback Hills**	1.29	105	⇑P	Pn	07 19 35.9	-0.5
	baz=1.3,SNR=526						
N14A				⇓S	Sb	07 19 54.0	+0.8
	baz=1.3						
M10A	**I.L. Ranch, Tu**	1.33	284	⇓P	Pn	07 19 36.2	-0.8
	baz=1.3,SNR=453						
M10A				⇓S	Sb	07 19 54.7	+0.1
	baz=1.3						
N10A	**Dunphy**	1.37	250	⇓S	Sb	07 19 55.4	-0.2
	baz=1.4						
BGU	**Big Grassy Mou**	1.38	101	*e*Pn	Pn	07 19 37.3	-0.4
BGU				*e*Sg	Sg	07 19 56.4	-0.5
K12A	**Draper Farm, C**	1.43	358	⇑P	Pn	07 19 37.3	-1.1
	baz=1.4,SNR=90						
K12A				⇓S	Sn	07 19 56.5	-0.8
	baz=1.4						
L14A	**Malta**	1.45	55	P	Pn	07 19 38.3	-0.3
	baz=1.5,SNR=605						
L14A				⇓S	Sn	07 19 57.9	+0.2
	baz=1.5						
L10A	**Juniper Basin**	1.51	306	⇑P	Pn	07 19 38.8	-0.7
	baz=1.5,SNR=1000						
L10A				⇑S	Sn	07 19 59.3	0.0
	baz=1.5						
K13A	**Stover Farm, H**	1.54	21	⇑P	Pn	07 19 39.6	-0.4
	baz=1.6,SNR=102						
K13A				⇑S	Sn	07 20 00.2	+0.1
	baz=1.6						
O10A	**Cortez Mining,**	1.57	235	⇑P	Pn	07 19 40.5	+0.2
	baz=1.6,SNR=51						
O10A				⇑S	Sn	07 20 00.8	+0.1
	baz=1.6						
HVU	**Hansel Valley**	1.64	69	*e*Pn	Pn	07 19 41.0	-0.4
HVU				*e*Sg	Sg	07 20 03.8	-1.4
N15A	**Stansbury Isla**	1.77	99	⇑P	Pn	07 19 42.9	-0.2
	baz=1.8,SNR=134						
SPUT	**South Promonto**	1.79	86	*e*Pn	Pn	07 19 43.2	-0.2
SPUT				*e*Sg	Sg	07 20 07.8	-2.2
P11A	**Circle Ranch,**	1.80	204	⇓P	Pn	07 19 43.6	+0.1
	baz=1.8,SNR=18						
M15A	**Larsen Ranch,**	1.81	81	⇓P	Pn	07 19 43.2	-0.4
	baz=1.8,SNR=164						
M15A				⇓Sb	Sb	07 20 08.6	+0.4
	baz=1.8						
K11A	**Parker Ranch,**	1.81	330	⇓P	Pn	07 19 43.6	0.0
	baz=1.8,SNR=318						
K11A				⇓Sb	Sb	07 20 08.1	-0.2
	baz=1.8						
K14A	**Jones Ranch, D**	1.82	42	⇓P	Pn	07 19 43.8	+0.1
	baz=1.8,SNR=142						
K14A				⇑Sb	Sb	07 20 09.2	+0.6
	baz=1.8						
DUG	**Dugway**	1.83	123	⇑P	Pn	07 19 43.2	-0.7
	baz=1.8,SNR=145						
DUG				⇑S	Sn	07 20 07.6	+0.4
	baz=1.8						
DUG	**Dugway**	1.83	123	*e*Pn	Pn	07 19 43.1	-0.8
DUG				*e*Sg	Sg	07 20 09.9	-1.3
P13A	**Bates Ranch, G**	1.85	160	⇓P	Pn	07 19 43.5	-0.7
	baz=1.9,SNR=86						
P13A				⇑Sb	Sb	07 20 10.7	+1.1
	baz=1.9						
BMN	**Battle Mountai**	1.98	248	*e*Pn	Pn	07 19 47.0	+1.0
BMN				*e*Sg	Sg	07 20 14.0	-2.1
M09A	**Marrel Ranch,**	1.99	277	⇓P	Pn	07 19 45.7	-0.5
	baz=2.0,SNR=33						
M09A				⇓Sb	Sb	07 20 13.7	+0.1
	baz=2.0						
L15A	**Malad City**	1.99	66	P	Pn	07 19 46.3	+0.1
	baz=2.0,SNR=78						
L15A				⇑Sb	Sb	07 20 14.4	+0.8
	baz=2.0						
O15A	**The Old Anders**	2.01	117	⇑P	Pn	07 19 48.4	+2.0
	baz=2.0						
P10A	**Eureka**	2.02	219	⇑P	Pn	07 19 47.5	+0.9
	baz=2.0						
J12A	**Stokes Ranch,**	2.05	354	⇑P	Pn	07 19 47.6	+0.6
	baz=2.1,SNR=134						
J12A				⇑Sb	Sb	07 20 15.2	-0.2
	baz=2.1						
N09A	**Rock Creek Ran**	2.08	261	⇓P	Pn	07 19 46.4	-0.9
	baz=2.1						
N09A				⇓Sb	Sb	07 20 16.0	0.0
	baz=2.1						
O09A	**Fish Creek Ran**	2.08	241	⇑P	Pn	07 19 47.9	+0.6
	baz=2.1						
O09A				⇑Sb	Sb	07 20 17.0	+0.9
	baz=2.1						
P14A	**Drum Mountains**	2.10	140	P	Pn	07 19 47.2	-0.4
	baz=2.1,SNR=91						
P14A				⇓Sb	Sb	07 20 18.4	+1.8
	baz=2.1						
NOQ	**North Oquirrh**	2.12	104	*e*Pn	Pn	07 19 49.8	+1.9
NOQ				*e*Sg	Sg	07 20 16.8	-3.7
Q12A	**Willow Creek R**	2.16	180	P	Pn	07 19 48.3	-0.2
	baz=2.2,SNR=57						
K10A	**MacKenzie Ranc**	2.19	316	⇑P	Pn	07 19 49.4	+0.5
	baz=2.2						
J13A	**Cove Ranch, Pi**	2.24	12	P	Pn	07 19 50.6	+1.0
	baz=2.2,SNR=134						
K15A	**Arbon**	2.26	48	P	Pn	07 19 50.6	+0.8
	baz=2.3,SNR=92						
L09A	**Wilkinson Ranc**	2.28	292	⇓P	Pn	07 19 51.6	+1.4
	baz=2.3						
J14A	**Carey**	2.33	24	P	Pn	07 19 52.0	+1.2
	baz=2.3,SNR=176						
Q13A	**Wheeler Ranch,**	2.33	164	P	Pn	07 19 50.5	-0.3
	baz=2.3,SNR=35						
MFID	**Camas Ranch**	2.33	342	⇓P	Pn	07 19 52.3	+1.5
	baz=2.3						
HLID	**Hailey**	2.38	7	⇓P	Pn	07 19 52.5	+1.1
	baz=2.4,SNR=227						
HLID	**Hailey**	2.38	7	*e*Pn	Pn	07 19 52.2	+0.8
HLID				*e*Sg	Sg	07 20 23.9	-4.8
M16A	**Huntsville**	2.41	86	⇑P	Pn	07 19 52.3	+0.5
	baz=2.4						
NLU	**North Lily Min**	2.44	120	*e*Pg	Pg	07 19 55.4	-3.7
Q11A	**Duckwater**	2.44	195	P	Pn	07 19 52.5	+0.2
	baz=2.4,SNR=19						
Q14A	**Sevier Lake (B**	2.51	151	P	Pn	07 19 52.6	-0.6
	baz=2.5,SNR=67						
P15A	**Leamington**	2.54	129	P	Pn	07 19 53.0	-0.6
	baz=2.5,SNR=14						
L16A	**Fish Haven**	2.67	71	P	Pn	07 19 56.3	+0.9
	baz=2.7,SNR=17						
O08A	**Rochester Mine**	2.69	251	P	Pn	07 19 55.1	-0.6
	baz=2.7,SNR=14						
MPU	**Maple Canyon**	2.70	115	*e*Pn	Pn	07 19 56.4	+0.5
MPU				*e*Pg	Pg	07 20 03.7	-0.5
MPU				*e*Sg	Sg	07 20 38.0	-1.2
DAU	**Daniels Canyon**	2.82	105	*e*Pn	Pn	07 19 59.0	+1.5
DAU				*e*Pg	Pg	07 20 06.4	0.0
DAU				*e*Sg	Sg	07 20 39.2	-3.8
J15A	**Blackfoot**	2.82	38	P	Pn	07 19 58.5	+1.0
	baz=2.8,SNR=44						
R12A	**Pony Springs,**	2.88	177	P	Pn	07 19 58.6	+0.2
	baz=2.9,SNR=10						
Q15A	**Fillmore**	2.89	139	P	Pn	07 19 58.2	-0.3
	baz=2.9,SNR=8.8						
K16A	**Soda Springs**	2.91	55	⇑P	Pn	07 19 59.9	+1.2
	baz=2.9,SNR=21						
R11A	**Troy Canyon, C**	2.91	192	P	Pn	07 19 58.6	-0.2
	baz=2.9,SNR=56						
R13A	**O'Grain Ranch,**	3.09	167	P	Pn	07 20 01.8	+0.6
	baz=3.1,SNR=78						
WVOR	**Wild Horse Val**	3.10	295	*e*Pn	Pn	07 20 04.6	+3.2
WVOR				*e*Sg	Sg	07 20 47.6	-4.6
J16A	**Bone**	3.15	48	P	Pn	07 20 03.5	+1.4
	baz=3.2,SNR=15						
O07A	**Toulon**	3.26	253	P	Pn	07 20 02.9	-0.7
	baz=3.2,SNR=14						
M07A	**Soldier Meadow**	3.28	275	P	Pn	07 20 03.6	-0.3
	baz=3.3,SNR=19						
TMUT	**Trail Mountain**	3.36	123	*e*Pg	Pg	07 20 10.8	-6.0
TMUT				*e*Sg	Sg	07 20 59.3	-1.0
RRI2	**Red Ridge**	3.37	49	*e*Pn	Pn	07 20 06.3	+1.2
RRI2				*e*Sg	Sg	07 20 58.1	-2.4
MSU	**Marysvale**	3.37	142	*e*Pn	Pn	07 20 04.9	-0.2
S10A	**Tonopah Range,**	3.55	203	⇓P	Pn	07 20 08.9	+1.3
	baz=3.5,SNR=5.9						
ARUT	**Antelope Range**	3.58	162	*e*Pn	Pn	07 20 08.5	+0.5
ARUT				*e*Pg	Pg	07 20 19.9	-1.1
R15A	**Junction**	3.58	146	⇓P	Pn	07 20 08.5	+0.5
	baz=3.6						
S12A	**Delamar Landin**	3.59	180	P	Pn	07 20 08.6	+0.5
	baz=3.6,SNR=7.5						
DCID1	**Drake Creek**	3.60	47	*e*Pn	Pn	07 20 09.6	+1.3
DCID1				*e*Sg	Sg	07 21 05.5	-2.4
S11A	**Rachel**	3.63	192	P	Pn	07 20 09.5	+0.8
	baz=3.6,SNR=13						
REDW	**Red Top Meadow**	3.65	52	*e*Pn	Pn	07 20 10.8	+1.9
TPAW	**Teton Pass**	3.67	50	*e*Pn	Pn	07 20 10.1	+0.9
TPAW				*e*Sg	Sg	07 21 07.7	-2.4
S14A	**Cedar City**	3.67	159	⇓P	Pn	07 20 09.7	+0.5
	baz=3.7						
S13A	**Holt Ranch, En**	3.69	168	P	Pn	07 20 10.1	+0.6
	baz=3.7,SNR=13						
SNOW	**Snow King Moun**	3.76	52	*e*Pn	Pn	07 20 14.8	+4.3
SNOW				*e*Sg	Sg	07 21 08.6	-4.7
CCUT	**Cedar City**	3.82	162	*e*Pn	Pn	07 20 11.3	0.0
CCUT				*e*Pg	Pg	07 20 24.2	-1.4
CCUT				*e*Sg	Sg	07 21 13.1	-2.0
NVAR	**Mina Array Bea**	3.86	225	Pn	Pn	07 20 12.7	+0.9
	1.1nm,0.3s,baz=38,slow=12,SNR=32						
NVAR				Pg	Pg	07 20 21.7	-4.6
	4.9nm,0.3s,baz=36,slow=14,SNR=49						
NVAR				Lg		07 21 12.5	
	3.1nm,0.3s,baz=37,slow=23,SNR=17						
MCMT	**McKenzie Canyo**	3.90	21	*e*Pn	Pn	07 20 14.1	+1.8
MCMT				*e*Sg	Sg	07 21 12.2	-5.4
IMW	**Indian Meadow**	3.93	46	*e*Pn	Pn	07 20 14.9	+2.1
IMW				*e*Sg	Sg	07 21 15.0	-3.6
LOHW	**Long Hollow**	3.94	51	*e*Pn	Pn	07 20 14.6	+1.7
MOOW	**Moose Ponds**	3.94	49	*e*Pn	Pn	07 20 13.9	+1.0
O06A	**Flanigan**	3.95	256	⇑P	Pn	07 20 12.6	-0.5
	baz=3.9						
T11A	**Corn Creek, Al**	3.97	185	P	Pn	07 20 13.5	+0.2
	baz=4.0,SNR=26						
S15A	**Panguitch**	4.00	151	P	Pn	07 20 14.4	+0.6
	baz=4.0,SNR=8.1						
BMO	**Blue Mountains**	4.08	334	*e*Pn	Pn	07 20 20.2	+5.4
BMO				*e*Sg	Sg	07 21 16.9	-6.4
MOD	**Modoc**	4.17	281	*e*Pn	Pn	07 20 17.0	+0.9
MOD				*e*Sg	Sg	07 21 22.7	-3.7
PDAR	**Pinedale Array**	4.22	67	Pn	Pn	07 20 19.4	+2.7
	0.2nm,0.3s,baz=245,slow=12,SNR=12						
PDAR				Pg	Pg	07 20 29.1	-4.2
	0.6nm,0.3s,baz=243,slow=14,SNR=11						
PDAR				Lg		07 21 24.4	
	1.3nm,0.3s,baz=257,slow=26,SNR=11						
T14A	**Hurricane**	4.35	161	P	Pn	07 20 19.2	+0.6
	baz=4.4,SNR=13						
BEKR	**Beckwourth**	4.43	254	P	Pn	07 20 19.3	-0.4
	baz=4.4,SNR=11						
DLMT	**Dillon**	4.46	21	*e*Pn	Pn	07 20 23.1	+3.0
DLMT				*e*Sg	Sg	07 21 33.9	-1.8
YMR	**Madison River**	4.47	38	*e*Pn	Pn	07 20 24.6	+4.4
U13A	**Pakoon Wash**	4.83	172	P	Pn	07 20 25.8	+0.6
	baz=4.8,SNR=9.9						
U14A	**Mt Trumbull**	4.95	164	P	Pn	07 20 28.1	+1.3
	baz=5.0,SNR=7.1						
PV04	**Paradox Valley**	5.35	120	Pn	Pn	07 20 35.5	+3.2
PV04				*e*Pg	Pg	07 20 49.8	-5.2
PV04				*e*Sg	Sg	07 22 01.5	-2.7
V13A	**Grand Canyon W**	5.38	173	⇓P	Pn	07 20 33.6	+0.8
	baz=5.4,SNR=5.7						
V12A	**Nelson**	5.47	180	P	Pn	07 20 34.7	+0.8
	baz=5.5,SNR=12						
PV01	**Paradox Valley**	5.71	120	*e*Pg	Pg	07 20 56.9	-4.9
	179nm,0.6s						
PV01				*e*Sg	Sg	07 22 08.6	-7.3
WUAZ	**Wupatki**	6.29	153	*e*Pg	Pg	07 21 10.4	-2.5
	11nm,0.7s						
MVCO	**Mesa Verde**	6.33	127	*e*Pg	Pg	07 21 07.9	-5.6
	4.7nm,0.8s						
YKA	**Yellowknife Ar**	21.32	0	P	P	07 23 59.9	+0.8
	0.3nm,0.8s,baz=180,slow=9.8,SNR=8.4						

IDC 29 07:20:25.2±3.4, 10°.38N×92°.15E, h0^{km}, mb3.5/4, mb1 3.7/4, mb1mx3.5/23, mbtmp3.5/4, Error ellipse: s-maj=131.7km s-min=23.2km az=66.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	37.25	349	P	P	07 27 38.4	-0.1
	0.2nm,0.5s,baz=165,slow=9.0,SNR=3.1						
SONM	**Songino Array**	39.22	15	P	P	07 27 55.4	+0.3
	0.2nm,0.3s,baz=210,slow=8.3,SNR=2.6						
WRA	**Warramunga Arr**	51.31	126	P	P	07 29 31.5	-0.1
	0.5nm,0.3s,baz=307,slow=8.2,SNR=16						
ASAR	**Alice Springs**	53.02	130	P	P	07 29 44.2	0.0
	0.5nm,0.5s,baz=307,slow=7.3,SNR=8.9						

IDC 29 07:23:17.8±0.8, 57°.73N×32°.34W, h0^{km}, mb3.7/13, mb1 3.9/14, mb1mx3.7/30, mbtmp3.7/14, ML3.2/1, MS3.4/11, Ms1 3.4/11, ms1mx3.1/43, Error ellipse: s-maj=28.6km s-min=15.4km az=9.0, Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFJD	**Kangerlussuaq**	12.53	325	LR	LR	07 30 17.2	
	comp=Z,184nm,18.6s,baz=33,slow=34						
FRB	**Frobisher Bay**	18.49	304	P	Pn	07 27 33.7	-1.3
	0.1nm,0.3s,baz=77,slow=10,SNR=3.4						
FRB				LR	LR	07 33 35.4	
	comp=Z,97nm,20.1s,baz=88,slow=33						
SCHQ	**Schefferville**	19.24	276	LR	LR	07 33 38.7	
	comp=Z,101nm,18.9s,baz=306,slow=32						
ESDC	**Sonseca Array**	25.72	122	P	P	07 28 48.8	-0.7
	0.3nm,0.3s,baz=320,slow=12,SNR=2.9						
DAVOX	**Davos/Dischmat**	27.61	95	LR	LR	07 38 49.7	
	comp=Z,56nm,19.9s,baz=260,slow=34						
VRAC	**Vranov**	29.69	85	LR	LR	07 39 48.1	
	comp=Z,56nm,20.0s,baz=134,slow=33						
KEST	**Kesra**	35.25	110	LR	LR	07 45 49.8	
	comp=Z,17nm,18.3s,baz=334,slow=38						
AKASG	**Malin Array Be**	35.54	74	P	P	07 30 16.3	+0.3
	1.5nm,0.6s,baz=309,slow=8.4,SNR=6.8						
YKA	**Yellowknife Ar**	38.66	313	P	P	07 30 41.8	-0.6
	0.8nm,0.7s,baz=60,slow=9.1,SNR=6.3						
YKA				LR	LR	07 45 59.5	
	comp=Z,112nm,18.7s,baz=215,slow=35						
TKL	**Tuckaleechee C**	40.35	260	LR	LR	07 47 16.9	
	comp=Z,26nm,21.6s,baz=70,slow=36						
INK	**Inuvik**	41.87	327	LR	LR	07 48 16.7	
	comp=Z,50nm,18.4s,baz=1.1,slow=36						
BRTR	**Keskin Array B**	45.12	84	P	P	07 31 34.7	-0.8
	0.9nm,0.7s						
PDAR	**Pinedale Array**	48.83	287	P	P	07 32 04.1	-0.4
	0.8nm,0.8s,baz=59,slow=7.4,SNR=2.8						
PDAR				LR	LR	07 51 32.6	
	comp=Z,61nm,19.6s,baz=231,slow=35						
AKTO	**Aktyubinsk**	49.71	57	P	P	07 32 11.6	+0.5
	1.5nm,0.7s,baz=302,slow=8.1,SNR=6.1						
TORD	**Torodi Ar. Bea**	51.40	136	P	P	07 32 24.8	+0.5
	1.2nm,0.6s,baz=335,slow=7.4,SNR=8.0						
BVAR	**Borovoye Array**	53.05	48	P	P	07 32 35.9	-0.1
	0.8nm,0.6s,baz=292,slow=7.8,SNR=5.6						
TXAR	**Lajitas Array**	55.85	272	P	P	07 32 56.8	-0.1
	0.5nm,0.9s,baz=61,slow=5.9,SNR=4.2						
TXAR				LR	LR	07 58 02.5	
	comp=Z,42nm,18.4s,baz=0.0,slow=37						
NVAR	**Mina Array Bea**	56.50	290	P	P	07 33 03.4	+2.1
	0.3nm,0.6s,baz=46,slow=8.5,SNR=3.5						
KURK	**Kurchatov**	58.04	44	P	P	07 33 12.3	+0.4
	1.1nm,0.7s,baz=325,slow=6.8,SNR=3.2						
MKAR	**Makanchi Array**	62.64	45	P	P	07 33 44.0	+0.4
	0.6nm,0.6s,baz=0.8,slow=8.5,SNR=4.1						
SONM	**Songino Array**	69.40	28	P	P	07 34 27.2	+0.3
	0.5nm,0.8s,baz=323,slow=3.9,SNR=3.7						
ASAR	**Alice Springs**	144.55	22	PKP	PKPdf	07 42 54.4	-1.4
	0.4nm,0.8s,baz=349,slow=2.4,SNR=4.6						

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*STR **29** 07:25:12.0±0.2, 43°.99N×6°.64E, h5^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*LDG **29** 07:25:12.8±0.2, 43°.89N×6°.75E, h2^{km}, Md1.7/2, Ml1.6/1, Error ellipse: s-maj=4.2km s-min=2.0km az=77.0*

CSEM 29 07:25:13.0±0.1, 43°.88N×6°.71E, h5^{km}, ML1.2/6, Error ellipse: s-maj=2.4km s-min=2.1km az=126.0, Near south coast of France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FRF	**La Foret Royal**	0.33	188	*e*Pg	Pg	07 25 19.6	+0.3
FRF				*e*Sg	Sg	07 25 24.3	+0.7
	12nm,0.2s						
FRF	**La Foret Royal**	0.33	188	*e*Pg	Pg	07 25 19.5	+0.2
FRF				*e*Sg	Sg	07 25 24.5	+0.9
	12nm,0.2s						
FRF	**La Foret Royal**	0.33	188	*e*Pg	Pg	07 25 19.5	+0.2
FRF				*e*Sg	Sg	07 25 24.5	+0.9
	6.2nm,0.2s						
TOUF	**Mont Tournerai**	0.41	72	Pg	Pg	07 25 20.6	-0.3
TOUF				Sg	Sg	07 25 26.7	+0.4
TOUF	**Mont Tournerai**	0.41	72	Pg	Pg	07 25 20.6	-0.3
LUCF	**Luceram**	0.46	89	Pg	Pg	07 25 21.9	0.0
SBF	**Sospel**	0.53	92	*e*Pg	Pg	07 25 23.5	+0.4
SBF				*e*Sg	Sg	07 25 30.7	+0.7
	4.0nm,0.3s						
SBF	**Sospel**	0.53	92	*e*Pg	Pg	07 25 23.5	+0.4
SBF				*e*Sg	Sg	07 25 30.7	+0.7
	2.0nm,0.3s						
AUTN	**L'Aution**	0.53	78	Pg	Pg	07 25 22.9	-0.3

AUTN				Sg	Sg	07 25 31.0	+0.9
LMR	La Mourre	0.57	195	ePg	Pg	07 25 23.9	0.0
LMR				eSg	Sg	07 25 31.1	-0.2
	3.1nm,0.2s						
LMR	La Mourre	0.57	195	ePg	Pg	07 25 23.8	-0.1
LMR				eSg	Sg	07 25 30.5	-0.8
	3.1nm,0.2s						
LMR	La Mourre	0.57	195	ePg	Pg	07 25 23.8	-0.1
LMR				eSg	Sg	07 25 30.5	-0.8
	1.5nm,0.2s						
SMRF	Simiane la Rot	0.82	277	ePg	Pg	07 25 28.9	+0.1
SMRF				eSg	Sg	07 25 40.4	+0.9
	1.7nm,0.2s						
SMRF	Simiane la Rot	0.82	277	ePg	Pg	07 25 28.9	+0.1
SMRF				eSg	Sg	07 25 40.0	+0.5
	2.3nm,0.3s						
SMRF	Simiane la Rot	0.82	277	ePg	Pg	07 25 28.9	+0.1
SMRF				eSg	Sg	07 25 40.0	+0.5
	1.1nm,0.3s						
MBDF	Montbardon	0.84	3	eSg	Sg	07 25 39.5	-0.6
	1.6nm,0.4s						
MBDF	Montbardon	0.84	3	ePg	Pg	07 25 29.5	+0.3
MBDF				eSg	Sg	07 25 40.6	+0.5
	0.8nm,0.2s						
MBDF	Montbardon	0.84	3	ePg	Pg	07 25 29.5	+0.3
MBDF				eSg	Sg	07 25 40.6	+0.5
	0.4nm,0.2s						
ORIF	Oris-en-Rattie	1.19	330	eSg	Sg	07 25 51.4	+0.1
	0.9nm,0.2s						
ORIF	Oris-en-Rattie	1.19	330	eSg	Sg	07 25 51.4	+0.1
	0.4nm,0.2s						

IDC 29 07:29:21.1±1.5, 10°.36N×92°.06E, h0km, mb4.0/7, mb1 4.2/8, mb1mx3.8/25, mbtmp4.0/8, ML4.6/1, MS3.2/1, Ms1 3.2/1, ms1mx2.4/42, Error ellipse: s-maj=57.3km s-min=18.3km az=63.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.45	39	Pn	Pn	07 31 53.1	+0.8
	1.2nm,0.3s,baz=226,slow=14,SNR=3.7						
AAK	Ala-Archa	35.63	338	LR	LR	07 52 42.5	
	comp=Z,32nm,18.3s,baz=67,slow=39						
MKAR	Makanchi Array	37.25	349	P	P	07 36 34.6	+0.2
	0.9nm,0.7s,baz=166,slow=7.4,SNR=9.5						
SONM	Songino Array	39.26	15	P	P	07 36 51.2	-0.2
	0.5nm,0.3s,baz=203,slow=8.0,SNR=5.0						
KURK	Kurchatov	41.73	347	P	P	07 37 10.9	-0.9
	0.6nm,0.7s,baz=161,slow=7.7,SNR=5.2						
WRA	Warramunga Arr	51.37	126	P	P	07 38 27.4	-0.5
	2.0nm,0.4s,baz=307,slow=8.2,SNR=62						
ASAR	Alice Springs	53.08	130	P	P	07 38 40.4	-0.2
	2.6nm,0.7s,baz=306,slow=6.8,SNR=41						
STKA	Stephens Creek	63.30	134	P	P	07 39 53.1	+1.1
	1.7nm,0.7s,baz=312,slow=12,SNR=2.9						
ARCES	ARCESS Array B	72.25	340	P	P	07 40 48.1	+0.2
	2.2nm,0.9s,baz=101,slow=1.2,SNR=4.0						

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*DDA **29** 07:50:33.4, 35°.07N×30°.50E, h27km, Md3.4*
*IDC **29** 07:50:39.6±1.7, 35°.50N×30°.19E, h0km, mb3.5/3, mb1 3.4/4, mb1mx3.3/22, mbtmp3.4/4, Error ellipse: s-maj=111.1km s-min=23.6km az=137.0*
*ISK **29** 07:50:41.8, 35°.52N×29°.84E, h19km, MD3.6*
*CSEM **29** 07:50:42.9±0.2, 35°.59N×29°.88E, h15km, MD3.4, Error ellipse: s-maj=6.1km s-min=3.9km az=63.0*
*NEIC **29** 07:50:42.7, 35°.63N×29°.81E, h13km, MD3.5(ISK), After ISK.*
*HLW **29** 07:50:46.0, 35°.36N×29°.95E, h14km, Mb3.6*
ISC 29 07:50:43.1±1.0, 35°.59N±0°.03×29°.90E±0°.06, h17km±7km, n62, σ1s.00/78, mb3.5/3, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKAS	Kas	0.68	340	i P	Pg	07 50 56.6	+0.2
AKAS				i S	Sg	07 51 10.0	+4.5
AKAS	Kas	0.68	340	i P	Pg	07 50 56.7	+0.3
AKAS				i S	Sg	07 51 10.0	+4.5
ELL	Elmali	1.15	0	ePN	Pn	07 51 04.5	+0.1
ELL				eSN	Sn	07 51 21.6	+1.8
ELL	Elmali	1.15	0	Pn	Pn	07 51 04.6	+0.2
ELL				Sg	Sg	07 51 20.6	+0.2
ELL	Elmali	1.15	0	Pn	Pn	07 51 04.6	+0.2
ELL				Sg	Sg	07 51 20.6	+0.2
ELL				eSn	Sn	07 51 21.6	+1.8
FETY	Fethiye	1.23	328	ePN	Pn	07 51 05.1	-0.4
FETY				eSN	Sn	07 51 21.9	+0.2
FETY	Fethiye	1.23	328	Pn	Pn	07 51 05.5	0.0
FETY				Sg	Sg	07 51 21.5	-1.4
FETY	Fethiye	1.23	328	Pn	Pn	07 51 05.5	0.0
FETY				Sg	Sg	07 51 21.5	-1.4
FETY				eSn	Sn	07 51 21.9	+0.2
ANTB	Antalya	1.44	25	ePN	Pn	07 51 07.8	-0.6
ANTB	Antalya	1.44	25	ePn	Pn	07 51 07.8	-0.6
DALT	Dalyan (Mudla)	1.55	319	ePN	Pn	07 51 10.4	+0.5
DALT	Dalyan (Mudla)	1.55	319	Pn	Pn	07 51 09.9	-0.1
DALT	Dalyan (Mudla)	1.55	319	ePn	Pn	07 51 10.4	+0.5
TURN	Turunc	1.65	321	i P	Pn	07 51 17.2	+5.9
GOLH	Golhisar	1.66	351	i P	Pn	07 51 12.2	+0.8
GOLH	Golhisar	1.66	351	i P	Pn	07 51 12.2	+0.8
BCK	Bucak	1.94	16	ePN	Pn	07 51 15.9	+0.6
BCK	Bucak	1.94	16	Pn	Pn	07 51 16.6	+1.3
BCK	Bucak	1.94	16	ePn	Pn	07 51 15.9	+0.6
YER	Yerkesik	2.02	320	ePN	Pn	07 51 16.6	+0.3
YER	Yerkesik	2.02	320	Pn	Pn	07 51 16.6	+0.4
YER	Yerkesik	2.02	320	ePn	Pn	07 51 16.6	+0.3
DAT	Datca	2.19	302	ePN	Pn	07 51 17.8	-0.9
DAT	Datca	2.19	302	ePn	Pn	07 51 17.8	-0.9
DENT	Denizli	2.27	342	ePN	Pn	07 51 20.5	+0.8
DENT	Denizli	2.27	342	Pn	Pn	07 51 19.2	-0.5
DENT	Denizli	2.27	342	ePn	Pn	07 51 20.5	+0.8
MLSB	Milas	2.41	315	ePN	Pn	07 51 22.1	+0.5
MLSB	Milas	2.41	315	Pn	Pn	07 51 22.1	+0.4
BDRM	Kayabasi	2.47	307	i P	Pn	07 51 32.2	+10
HDMB	Hadim	2.50	56	ePN	Pn	07 51 24.0	+1.1
HDMB	Hadim	2.50	56	Pn	Pn	07 51 24.4	+1.4
HDMB	Hadim	2.50	56	ePn	Pn	07 51 24.0	+1.1
BODT	Bodrum	2.55	306	ePN	Pn	07 51 22.6	-1.0
BODT	Bodrum	2.55	306	Pn	Pn	07 51 23.6	0.0
BODT	Bodrum	2.55	306	Pn	Pn	07 51 23.6	0.0
AYDN	Tasoluk	2.62	322	i P	Pn	07 51 25.3	+0.6
AYDN				eS	Sn	07 52 03.2	+7.1
AYDN	Tasoluk	2.62	322	i P	Pn	07 51 25.3	+0.6
KHAL	Karahalli	2.79	353	i P	Pn	07 51 26.5	-0.4
KHAL	Karahalli	2.79	353	i P	Pn	07 51 26.5	-0.4
LFK	Lefkose	2.98	95	Pn	Pn	07 51 32.6	+3.0
KULA	Kula-Manisa	3.08	342	ePN	Pn	07 51 31.4	+0.6
KULA	Kula-Manisa	3.08	342	ePn	Pn	07 51 31.4	+0.5
KDHN	Kadinhani	3.42	31	i P	Pn	07 51 35.9	+0.3
KDHN	Kadinhani	3.42	31	i P	Pn	07 51 35.9	+0.3
MERS	Mersin	3.95	70	ePN	Pn	07 51 45.0	+2.2
MERS	Mersin	3.95	70	ePn	Pn	07 51 45.0	+2.2
BRTR	Keskin Array B	5.08	35	Pn	Pn	07 51 57.0	-1.4
BRTR				Sn	Sn	07 52 55.2	-1.4
BRTR	Keskin Array B	5.08	35	Pn	Pn	07 51 57.0	-1.4
BRTR				Sn	Sn	07 52 55.2	-1.4
KOT	Kottamia	5.88	163	P	Pn	07 52 09.4	0.0
KOT				S	Sn	07 53 10.3	-6.1
KOT	Kottamia	5.88	163	P	Pn	07 52 09.4	0.0
GLL	Jalalah	6.19	165	P	Pn	07 52 13.7	0.0
GLL				S	Sn	07 53 17.6	-6.5
GLL	Jalalah	6.19	165	P	Pn	07 52 13.7	0.0
SUZ		6.25	156	P	Pn	07 52 14.4	0.0
SUZ		6.25	156	P	Pn	07 52 14.4	-0.1
HNKL	Nakhl	6.61	148	P	Pn	07 52 19.5	0.0
HNKL				S	Sn	07 53 28.4	-6.1
HNKL	Nakhl	6.61	148	P	Pn	07 52 19.5	0.0
AKTK	Aktyubinsk	25.16	45	P	P	07 56 05.6	-1.6
AKTO	Aktyubinsk	25.16	45	P	P	07 56 05.6	-1.6
	0.8nm,0.4s,mb3.6,baz=214,slow=6.4,SNR=5.0						
TORD	Torodi Ar. Bea	33.84	236	P	P	07 57 24.9	+0.3
	0.5nm,0.8s,mb3.5,baz=36,slow=9.6,SNR=4.3						
TORD	Torodi Ar. Bea	33.84	236	P	P	07 57 24.9	+0.3
MKAR	Makanchi Array	40.29	57	P	P	07 58 16.9	-2.2
	0.4nm,0.6s,mb3.3,baz=273,slow=6.3,SNR=5.3						

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*ISK **29** 08:00:28.4, 37°.17N×27°.88E, h15km, MD2.7*
*ISCJB **29** 08:00:29.0±0.8, 37°.16N±0°.04×27°.89E±0°.04, h12km±10km, Error ellipse: s-maj=7.5km s-min=5.9km az=173.8*
*CSEM **29** 08:00:29.0±0.1, 37°.15N×27°.87E, h12km, MD2.7, Error ellipse: s-maj=2.1km s-min=1.8km az=17.0*
*DDA **29** 08:00:31.4, 37°.34N×27°.57E, h7km±6km, Md2.8*
ISC 29 08:00:29.3±0.7, 37°.16N±0°.04×27°.89E±0°.04, h13km±9km, n16, σ0s.52/24, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLSB	Milas	0.16	327	ePG	Pg	08 00 32.5	-0.6
MLSB				eSG	Sg	08 00 35.6	-0.2
MLSB	Milas	0.16	327	ePg	Pg	08 00 32.5	-0.6
MLSB				eSg	Sg	08 00 35.6	-0.2
YER	Yerkesik	0.32	95	ePG	Pg	08 00 35.5	-0.3
YER				eSG	Sg	08 00 40.8	+0.6
YER	Yerkesik	0.32	95	ePg	Pg	08 00 35.5	-0.3
YER				eSg	Sg	08 00 40.8	+0.6
BDRM	Kayabasi	0.37	255	i P	Pg	08 00 36.4	-0.3
BDRM				i S	Sg	08 00 42.9	+1.3
BDRM	Kayabasi	0.37	255	i P	Pg	08 00 36.3	-0.4
BDRM				i S	Sg	08 00 42.9	+1.3
BODT	Bodrum	0.47	258	ePG	Pg	08 00 38.0	-0.6
BODT	Bodrum	0.47	258	ePg	Pg	08 00 38.0	-0.6
AYDN	Tasoluk	0.50	359	i P	Pg	08 00 39.4	+0.2
AYDN				i S	Sg	08 00 46.0	+0.3
AYDN	Tasoluk	0.50	359	i P	Pg	08 00 39.4	+0.3
AYDN				i S	Sg	08 00 46.0	+0.2
DAT	Datca	0.50	210	ePG	Pg	08 00 38.9	-0.3
DAT	Datca	0.50	210	ePg	Pg	08 00 38.9	-0.2
DALT	Dalyan (Mudla)	0.72	123	ePG	Pg	08 00 43.0	-0.2
DALT	Dalyan (Mudla)	0.72	123	ePg	Pg	08 00 43.1	-0.2
FETY	Fethiye	1.09	118	ePN	Pn	08 00 50.5	+0.1
FETY	Fethiye	1.09	118	ePn	Pn	08 00 50.5	+0.1

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*MOS **29** 08:16:03.1±1.6, 77°.10N×19°.83E, h10km, mb4.3/7, Error ellipse: s-maj=53.5km s-min=6.4km az=94.5*
*IDC **29** 08:16:03.9±0.5, 77°.17N×19°.50E, h0km, mb3.9/15, mb1 4.1/18, mb1mx4.0/29, mbtmp4.0/18, ML4.4/3, MS3.3/5, Ms1 3.3/5, ms1mx2.9/46, Error ellipse: s-maj=18.6km s-min=5.2km az=62.0*
*CSEM **29** 08:16:04.4±0.1, 77°.19N×19°.71E, h10km, mb4.2/7, ML4.3, Error ellipse: s-maj=8.5km s-min=3.9km az=63.0*
*NAO **29** 08:16:04.9±1.9, 77°.25N×19°.98E, h16km±16km, ML4.3*
*NEIC **29** 08:16:05.2±0.4, 77°.23N×19°.90E, h10km, mb4.2/10, Error ellipse: s-maj=12.1km s-min=6.3km az=60.0*
*BJI **29** 08:16:05.2, 77°.20N×19°.90E, h10km, mB5.1/3, mb4.3/4, Ms4.4/2, Ms7 4.3/2*
*BER **29** 08:16:06.7±3.5, 77°.30N×20°.25E, h15km±24km, MD2.4, ML3.9, ML4.3(NAO)*
ISC 29 08:16:04.8±0.9, 77°.21N±0°.03×20°.1E±0°.2, h8km±6km, n128, σ1s.20/141, mb4.0/25, MS4.2/3, 2C-3D, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	1.04	261	eP	Pg	08 16 25.3	+0.6
HSP				eS	Sg	08 16 38.1	-0.1
SPA0	Spitsbergen Ar	1.26	323	Pg	Pg	08 16 27.8	-1.2
	baz=138,slow=28						
SPA0				Lg		08 16 43.3	
	baz=138,slow=37						
SPA0	Spitsbergen Ar	1.26	323	Pg	Pg	08 16 27.8	-1.2
	SNR=999						
SPA0				Lg		08 16 43.3	
	SNR=109						
SPITS	Spitsbergen Ar	1.26	323	Pg	Pg	08 16 28.7	-0.3
	baz=311,slow=18,SNR=5957						
SPITS				Lg		08 16 43.0	
	baz=313,slow=34,SNR=39						
SPITS	Spitsbergen Ar	1.26	323	Pg	Pg	08 16 28.7	-0.3
SPITS				S	Sb	08 16 43.0	-2.2
SPITS				Lg		08 16 43.0	
HOPEN	Hopen	1.32	119	eP	Pn	08 16 29.5	0.0
HOPEN				eS	Sb	08 16 46.8	-0.1
HOPEN				AML	AML	08 16 50.1	
	comp=Z,8μm,0.5s						
HOPEN	Hopen	1.32	119	eP	Pn	08 16 29.5	0.0
	SNR=62						
HOPEN				eS	Sb	08 16 46.8	0.0
	comp=Z,8μm,0.5s,SNR=62						
KBS	Kingsbay	2.42	319	Pn	Pn	08 16 43.4	-1.1
KBS				Lg		08 17 17.2	
KBS	Kingsbay	2.42	319	eP	Pn	08 16 43.4	-1.2
KBS				eSg	Sg	08 17 16.9	-5.6
KBS				AML	AML	08 17 26.5	
	comp=Z,3μm,0.5s						
KBS	Kingsbay	2.42	319	ePn	Pn	08 16 43.3	-1.3
KBS				eSg	Sg	08 17 18.4	-4.1
KBS	Kingsbay	2.42	319	ePn	Pn	08 16 43.3	-1.3
KBS	Kingsbay	2.42	319	i Pg	Pg	08 16 53.4	+2.3
	SNR=94						
KBS				eSg	Sg	08 17 16.9	-5.6
	comp=Z,3μm,0.5s,SNR=92						
BJO	Bjornoya	2.73	185	eP	Pn	08 16 50.0	+1.2
BJO				ePg	Pg	08 16 56.9	0.0
BJO				eSg	Sg	08 17 31.3	-0.9
BJO				AML	AML	08 17 36.1	
	comp=Z,2μm,0.6s						
BJO	Bjornoya	2.73	185	eP	Pn	08 16 50.0	+1.3
	SNR=62						
TRO	Tromso	7.62	183	ePn	Pn	08 17 55.7	-0.2
TRO				eSn	Sn	08 19 16.7	-5.5
TRO				AML	AML	08 19 22.3	
	comp=Z,34nm,0.8s						
KEV	Kevo	7.74	162	eP	Pn	08 17 56.3	-1.2
KEV				pmax	pmax		
	comp=Z,17nm,0.5s						
KEV	Kevo	7.74	162	ep	Pn	08 17 56.3	-1.2
	comp=Z,17nm,0.5s						
ARA0	ARCESS Array S	7.86	166	Pn	Pn	08 17 57.9	-1.3
	baz=356,slow=14						
ARA0				Sn	Sn	08 19 20.4	-7.7
	baz=3.6,slow=28						
ARA0	ARCESS Array S	7.86	166	Pn	Pn	08 17 57.9	-1.3
	SNR=386						
ARCES	ARCESS Array B	7.86	166	P	Pn	08 17 58.4	-0.8
ARCES						08 19 22.1	
ARCES	ARCESS Array B	7.86	166	Pn	Pn	08 17 58.4	-0.8
	comp=Z,18nm,0.3s,baz=352,slow=13,SNR=315						
ARCES				Sn	Sn	08 19 22.1	-6.1
	comp=Z,17nm,0.3s,baz=3.0,slow=19,SNR=4.3						
ARCES				LR	LR	08 21 14.9	
	comp=Z,73nm,20.8s,baz=344,slow=40						
ARCES	ARCESS Array B	7.86	166	Pn	Pn	08 17 58.4	-0.8
ARCES				Sn	Sn	08 19 22.1	-6.1
ARCES				LR	LR	08 21 14.9	
KTK1	Kautokeino	8.29	172	ePn	Pn	08 18 05.1	+0.1
KTK1				eSn	Sn	08 19 33.6	-5.0
KTK1				AML	AML	08 20 39.5	
	comp=N,139nm,0.5s						
DAG	Danmarks Havn	8.63	286⇓	iP	Pn	08 18 12.7	+3.0
DAG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
DAG	Danmarks Havn	8.63	286⇓	iP	Pn	08 18 12.7	+3.0
	comp=Z,4.2nm,0.4s						
LANU	Lannavaara	9.22	176	P	Pn	08 18 17.7	-0.1
LOF	Lofoten	9.32	195	ePn	Pn	08 18 22.7	+3.6
LOF				AML	AML	08 20 09.3	
	comp=Z,17nm,0.5s						
STEI	Steigen	9.43	191	ePn	Pn	08 18 22.2	+1.6
MASU	Masugnsbyn	9.82	176	P	Pn	08 18 25.7	-0.3
SALU	Saltoluokta	9.89	184	P	Pn	08 18 27.7	+0.8
DUNU	Dundret	10.14	179	P	Pn	08 18 30.3	-0.1
LVZ	Lovozero	10.27	148	i P	Pn	08 18 30.6	-1.5
PAJU	Pajala	10.28	173	P	Pn	08 18 31.5	-0.7
APA0	Apatity Array	10.36	152	Pn	Pn	08 18 31.8	-1.6
	baz=338,slow=14						
APA0	Apatity Array	10.36	152	Pn	Pn	08 18 31.8	-1.6
	SNR=7.7						
APA	Apatity	10.44	151⇑	iP	Pn	08 18 32.8	-1.7
APA				i		08 20 22.5	
APA				pmax	pmax		
	comp=Z,100nm,1.0s						
ERTU	Ertsjaerv	10.73	176	P	Pn	08 18 37.7	-0.7
KONS	Konsvik	10.96	195	ePn	Pn	08 18 43.6	+1.9
FLOS	Flostrand	11.11	194	ePn	Pn	08 18 45.9	+2.2
STOK	Stokkvaagen	11.14	195	ePn	Pn	08 18 45.4	+1.4
MOR8	Moi Rana	11.22	192	ePn	Pn	08 18 46.0	+0.8
KALU	Kalix	11.45	173	P	Pn	08 18 48.1	-0.2
SJUU	Sjulsmark	11.77	177	P	Pn	08 18 51.3	-1.3
LILU	Lilltraesk	11.98	181	P	Pn	08 18 55.1	-0.5
BURU	Burvik	12.69	177	P	Pn	08 19 04.2	-1.1
NSS	Namsos	12.99	196	ePn	Pn	08 19 11.2	+1.9
JOF	Joensuu	14.80	160	ep	Pn	08 19 27.2	-6.8
	comp=Z,7.9nm,0.4s						
SUMG	Summit	15.29	283	eP	Pn	08 19 40.0	-0.6
	comp=Z,23nm,0.8s						
KAF	Kangasniemi	15.30	169	eP	Pn	08 19 36.7	-4.0
KAF				pmax	pmax		
	comp=Z,13nm,0.4s						
KAF	Kangasniemi	15.30	169	ep	Pn	08 19 36.7	-4.0
	comp=Z,12nm,0.4s						
FIA0	FINESS Array S	15.96	170	Pn	Pn	08 19 45.7	-3.5
	baz=358,slow=12						
FINES	FINESS Array B	15.96	170	Pn	Pn	08 19 45.6	-3.6
	comp=Z,4.2nm,0.3s,baz=2.6,slow=11,SNR=107						
FINES				Sn	Sn	08 22 35.9	-10
	comp=Z,1.5nm,0.3s,baz=8.5,slow=22,SNR=4.5						
NB2	NORSAR Subarra	16.51	195	P	Pn	08 19 58.6	+2.3
	baz=7.1,slow=12						
NB2	NORSAR Subarra	16.51	195	P	Pn	08 19 58.6	+2.3
NOA	NORSAR Array B	16.51	195	Pn	Pn	08 19 59.0	+2.7
	comp=Z,0.9nm,0.3s,baz=13,slow=13,SNR=14						
NOA				LR	LR	08 27 14.4	
	comp=Z,48nm,19.6s,baz=260,slow=41						
HFS	Hagfors	17.29	191	P	Pn	08 20 06.3	+0.2
	baz=19,slow=12						
HFS	Hagfors	17.29	191	P	Pn	08 20 07.3	+1.2
	comp=Z,1.2nm,0.3s,baz=16,slow=12,SNR=32						
HFS				LR	LR	08 27 08.3	
	comp=Z,61nm,18.4s,baz=50,slow=39						
HFS	Hagfors	17.29	191	P	Pn	08 20 06.3	+0.2
	SNR=9.4						
KLMR	Klimovskoe	17.64	148⇑	iP	Pn	08 20 09.1	-1.4
KLMR				pmax	pmax		
	comp=Z,20nm,1.5s						
PRGR	Permogore	17.72	137	eP	Pn	08 20 03.4	-8.0
PRGR				eS	Sn	08 23 15.7	-13
PRGR				pmax	pmax		
	comp=Z,13nm,0.7s						
NACGM	Naroch	22.53	170	e	P	08 21 03.0	-1.6
OBN	Obninsk	22.97	155	eP	P	08 21 10.0	+0.8
OBN				e		08 24 53.8	
OBN				eS	S	08 25 19.1	-0.2
OBN				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.2						
SUW	Suwalki	23.32	175	eP	P	08 21 17.7	+4.8
SUW				e		08 21 18.7	
SUW	Suwalki	23.32	175	eP	P	08 21 17.7	+4.8
SUW				e		08 21 18.7	
ARU	Arti	24.83	125d	iP	sP	08 21 37.6	+7.2
ARU				e		08 22 13.9	
ARU	Arti	24.83	125	eP	sP	08 21 38.1	+7.7
AKASG	Malin Array Be	26.84	167	P	P	08 21 45.5	+0.3
	comp=Z,1.1nm,0.3s,mb3.8,baz=354,slow=9.2,SNR=5.8						
AKASG	Malin Array Be	26.84	167	P	P	08 21 45.5	+0.3
AKASG	Malin Array Be	26.84	167	P	P	08 21 45.5	+0.3
GERES	GERESS Array B	28.58	189	P	P	08 22 00.7	0.0
	comp=Z,0.2nm,0.3s,mb3.4,baz=8.9,slow=7.0,SNR=3.3						
GERES	GERESS Array B	28.58	189	P	P	08 22 00.7	0.0
FRB	Frobisher Bay	28.90	293	P	P	08 22 01.6	-1.8
	comp=Z,0.5nm,0.4s,mb3.6,baz=32,slow=7.1,SNR=3.9						
FRB	Frobisher Bay	28.90	293	P	P	08 22 01.6	-1.9
BILL	Bilibino	33.53	22	i P	P	08 22 45.7	+1.6
BILL				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
BILL				MLR	MLR		
	comp=Z,6μm,24.0s,MS5.3						
INK	Inuvik	33.83	343	P	P	08 22 45.8	-0.9
INK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
INK				MLR	MLR		
	comp=Z,99nm,20.6s						
INK	Inuvik	33.83	343	P	P	08 22 45.8	-1.0
	comp=Z,2.4nm,0.9s,mb4.1,baz=8.5,slow=12,SNR=9.0						
INK				LR	LR	08 36 54.8	
	comp=Z,99nm,20.6s,MS3.5,baz=318,slow=37						
INK	Inuvik	33.83	343	eP	P	08 22 45.9	-0.8
	comp=Z,2.6nm,0.8s,mb4.2						
INK	Inuvik	33.83	343	eP	P	08 22 45.9	-0.8
	comp=Z,2.6nm,0.8s,mb4.2						
KURK	Kurchatov	34.26	106	eP	P	08 22 55.4	+4.7
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KURK	Kurchatov	34.26	106	P	P	08 22 52.9	+2.2
	comp=Z,2.0nm,0.6s,mb4.2,baz=343,slow=7.6,SNR=13						
KURK	Kurchatov	34.26	106	eP	P	08 22 55.4	+4.8
	comp=Z,1.8nm,0.6s,mb4.2						
MAK	Makhachkala	36.17	145	eP	P	08 23 00.8	-6.4
MAK				eS	S	08 28 43.4	-3.4
MAK				pmax	pmax		
	comp=Z,186nm,1.1s						
SCHQ	Schefferville	36.68	285	P	P	08 23 09.7	-1.7
	comp=Z,1.3nm,0.4s,mb4.1,baz=23,slow=9.3,SNR=10						
SCHQ	Schefferville	36.68	285	P	P	08 23 09.7	-1.7
YKA	Yellowknife Ar	37.76	327	P	P	08 23 19.5	-1.0
	comp=Z,0.5nm,0.7s,mb3.3,baz=11,slow=8.4,SNR=12						
YKA				PcP	PcP	08 25 37.0	+0.1
	comp=Z,0.7nm,0.7s,baz=6.1,slow=2.9,SNR=13						
YKA	Yellowknife Ar	37.76	327	P	P	08 23 19.5	-1.0
YKA				PcP	PcP	08 25 37.0	+0.1
YKA	Yellowknife Ar	37.76	327	P	P	08 23 19.5	-1.0
YKA	Yellowknife Ar	37.76	327	PcP	PcP	08 25 37.0	+0.1
BRTR	Keskin Array B	38.03	163	P	P	08 23 23.7	+0.7
	comp=Z,0.9nm,0.8s,mb3.6						
BRTR	Keskin Array B	38.03	163	P	P	08 23 23.7	+0.7
FCC	Fort Churchill	38.34	310	eP	P	08 23 23.7	-1.7
	comp=Z,0.1nm,0.5s						
FCC	Fort Churchill	38.34	310	eP	P	08 23 23.7	-1.7
	comp=Z,0.1nm,0.5s						
MKAR	Makanchi Array	38.76	104	P	P	08 23 30.8	+1.7
	comp=Z,1.9nm,0.8s,mb3.9,baz=0.2,slow=5.4,SNR=21						
AML	Almayashu	41.42	115	eP	P	08 23 56.1	+5.0
	comp=Z,1.3nm,0.4s,mb3.9						
SONM	Songino Array	43.11	80	P	P	08 24 06.3	+1.5
	comp=Z,0.9nm,0.7s,mb3.6,baz=337,slow=9.4,SNR=4.6						
SONM	Songino Array	43.11	80	P	P	08 24 06.3	+1.5
ULN	Ulaanbaatar	43.22	79	eP	P	08 24 07.0	+1.2
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
ULN	Ulaanbaatar	43.22	79	eP	P	08 24 07.0	+1.3
	comp=Z,1.9nm,0.8s,mb3.9						
ULN	Ulaanbaatar	43.22	79	eP	P	08 24 07.0	+1.2
	comp=Z,1.9nm,0.8s,mb3.9						
KDAK	Kodiak Island	45.19	354	P	P	08 24 21.6	+0.1
	comp=Z,5.0nm,0.9s,mb4.4,baz=225,slow=8.6,SNR=3.1						
KDAK	Kodiak Island	45.19	354	P	P	08 24 21.5	+0.1
ULM	Lac du Bonnet	46.78	308	P	P	08 24 33.1	-0.9
	comp=Z,1.3nm,0.5s,mb4.1,baz=38,slow=7.3,SNR=2.7						
ULM	Lac du Bonnet	46.78	308	P	P	08 24 33.2	-0.9
SKR	Severo-Kuril's	49.45	36	i P	P	08 24 47.0	-7.6
SKR				e		08 24 51.5	
SKR				pmax	pmax		
	comp=Z,570nm,0.5s						
SKR				pmax	pmax		
	comp=N,240nm,0.4s						
SKR				pmax	pmax		
	comp=E,160nm,0.4s						
QUE	Quetta	51.70	126	eP	P	08 25 08.0	-3.9
NEW	Newport	51.98	325	eP	P	08 25 15.1	+1.4
NEW				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NEW	Newport	51.98	325	eP	P	08 25 15.1	+1.3
	comp=Z,2.5nm,0.9s,mb4.1						
NEW	Newport	51.98	325	eP	P	08 25 15.1	+1.4
	comp=Z,2.5nm,0.9s,mb4.1						
SWMT	Swartz Lake	52.30	322	eP	P	08 25 16.0	-0.2
SWMT	Swartz Lake	52.30	322	eP	P	08 25 16.0	-0.2
SLMT	Seeley Lake	52.50	322	eP	P	08 25 17.7	+0.1
	comp=Z,2.5nm,0.8s,mb4.2						
SLMT	Seeley Lake	52.50	322	eP	P	08 25 17.7	+0.1
	comp=Z,2.5nm,0.8s,mb4.2						
HRY	Holter Researc	52.78	320	eP	P	08 25 19.5	-0.2
	comp=Z,5.4nm,0.9s,mb4.5						
HRY	Holter Researc	52.78	320	eP	P	08 25 19.5	-0.2
	comp=Z,5.4nm,0.9s,mb4.5						
MCMT	McKenzie Canyo	54.77	320	eP	P	08 25 34.5	+0.2
	comp=Z,1.0nm,0.7s,mb4.0						
MCMT	McKenzie Canyo	54.77	320	eP	P	08 25 34.5	+0.2
	comp=Z,1.0nm,0.7s,mb4.0						
IMW	Indian Meadow	55.41	319	eP	P	08 25 39.9	+1.0
	comp=Z,2.5nm,0.8s,mb4.3						
IMW	Indian Meadow	55.41	319	eP	P	08 25 39.9	+1.0
	comp=Z,2.5nm,0.8s,mb4.3						
PDAR	Pinedale Array	56.30	317	P	P	08 25 45.4	0.0
	comp=Z,0.4nm,0.9s,mb3.5,baz=20,slow=2.9,SNR=2.6						
ELK	Elko	59.11	322	LR	LR	08 52 43.6	
	comp=Z,91nm,20.5s,MS3.9,baz=270,slow=37						
PV01	Paradox Valley	60.68	315	eP	P	08 26 16.6	+0.6

PV01	**Paradox Valley**	**60.68**	**315**	*e*P	**P**	**08 26 16.6**	**+0.7**
GYA	**Guiyang**	**63.64**	**87**	P	**P**	**08 26 40.5**	**+4.6**
GYA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
TORD	**Torodi Ar. Bea**	**64.76**	**200**	P	**P**	**08 26 44.2**	**+0.9**
	comp=Z,0.3nm,0.5s,mb3.6,baz=360,slow=7.6,SNR=4.7						
HYB	**Hyderabad**	**66.34**	**117**	*i* P	**P**	**08 26 56.0**	**+2.5**
TXAR	**Lajitas Array**	**68.47**	**309**	P	**P**	**08 27 06.5**	**-0.4**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	**68.47**	**309**	P	**P**	**08 27 06.5**	**-0.5**
	comp=Z,1.0nm,0.7s,mb4.0,baz=41,slow=4.9,SNR=14						
ASAR	**Alice Springs**	**118.14**	**72**	PKP	PKPdf	08 34 50.8	-0.7
	comp=Z,0.2nm,0.3s,baz=17,slow=1.4,SNR=6.5						

IDC ***29*** *08:18:15.2±0.4, 3°.89N×93°.43E, h0^{km}, mb4.4/26, mb1 4.5/29, mb1mx4.4/35, mbtmp4.4/29, ML4.3/3, MS5.0/29, Ms1 5.0/29, ms1mx4.9/37, Error ellipse: s-maj=15.3km s-min=10.8km az=46.0*

BJI ***29*** *08:18:16.5, 3°.66N×93°.41E, h33^{km}, mB5.5/41, mb4.9/47, Ms5.6/65, Ms7 5.3/53*

ISCJB ***29*** *08:18:18.2±0.2, 3°.90N±0°.03×93°.45E±0°.02, h31^{km}, mb4.9/130, MS5.2/223, Error ellipse: s-maj=4.6km s-min=3.3km az=5.2*

MOS ***29*** *08:18:18.7±0.9, 3°.96N×93°.53E, h34^{km}, mb5.3/50, MS5.0/33, Error ellipse: s-maj=8.2km s-min=4.5km az=116.7*

GCMT ***29*** *08:18:20.6±0.1, 3°.81N×93°.26E, h12^{km}, MW5.4/99, Moment Tensor Solution. s50,c76; s99,c214; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.37±.02; $M_{\theta\theta}$-0.15±.02; $M_{\phi\phi}$-1.22±.02; $M_{r\theta}$0.33±.06; $M_{\theta\phi}$0.50±.02; $M_{\phi r}$-0.44±.05; Best double couple: $M_0$1.49800×10^{17} NP1:ϕ_s344.00000°, δ35.00000°, λ99.00000°. NP2: ϕ_s153.00000°, δ56.00000°, λ84.00000°. Principal axes: T 1.4820, Plg78.0000°, Azm40.0000°; N 0.0290, Plg5.0000°, Azm157.0000°; P -1.5140, Plg11.0000°, Azm248.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC ***29*** *08:18:20.6±0.2, 3°.93N×93°.48E, h35^{km}, mb5.1/55, MS5.3/171, MW5.6 Error ellipse: s-maj=5.9km s-min=4.3km az=36.0*

SZGRF ***29*** *08:18:20.1, 3°.49N×93°.04E, h33^{km}, mb5.2, MS4.8, Off west coast of northern Sumatera, Indonesia*

DJA ***29*** *08:18:23, 3°.92N×93°.56E, h42^{km}, Mw5.4/11*

ISC 29 08:18:20.5±0.2**, 3°.93N**±0°.03×**93°.43E**±0°.02**, h32^{km}, h32^{km}**±1.0^{km}**:pP-P, n524,** σ0^{s}**90**/382**, mb4.9**/130**, MS5.2**/223**, 26C-15D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BSI	**Banda Aceh**	**2.43**	**50**	⇑*e*P	**Pn**	**08 18 58.0**	**+0.1**
BSI				*e*S	**Sn**	**08 19 25.0**	**-1.5**
TSI	**Tuntungan**	**5.14**	**95**	*e*P	Px	08 19 54.7	
PSI	**Prapat**	**5.60**	**101**	Pn	**Pn**	**08 19 41.6**	**+0.1**
	22nm,0.3s,baz=285,slow=7.2,SNR=38						
KULM	**Kulim**	**7.33**	**79**	P	**Pn**	**08 20 06.1**	**+0.8**
KULM	**Kulim**	**7.33**	**79**	*e*Pn	**Pn**	**08 20 05.0**	**-0.3**
	67nm,0.6s						
IPM	**Ipoh**	**7.60**	**86**	P	**Pn**	**08 20 09.2**	**+0.1**
FRIM	**Kepong**	**8.21**	**95**	P	**Pn**	**08 20 17.4**	**0.0**
KTGM	**Kuala Trenggan**	**9.78**	**81**	P	**Pn**	**08 20 39.1**	**+0.2**
KGM	**Kluang**	**10.06**	**101**	P	**Pn**	**08 20 43.3**	**+0.5**
MYKOM	**Kota Tinggi**	**10.62**	**101**	P	**Pn**	**08 20 50.3**	**-0.2**
PALK	**Pallekele**	**13.09**	**285**	*e*P	**Pn**	**08 21 28.7**	**+4.4**
PALK				pmax	pmax		
	comp=Z,89nm,0.9s						
PALK	**Pallekele**	**13.09**	**285**	Pn	**Pn**	**08 21 22.3**	**-2.0**
	comp=Z,0.6nm,0.3s,baz=105,slow=15,SNR=3.1						
PALK				LR	LR	08 25 40.8	
	comp=Z,6µm,20.8s,baz=219,slow=34						
PALK	**Pallekele**	**13.09**	**285**	*e*Pn	**Pn**	**08 21 28.7**	**+4.4**
	comp=Z,90nm,0.9s						
PALK				LR	LR	08 25 40.8	
BDT	**Bhumibol Dam**	**14.32**	**22**	P	**Pn**	**08 21 40.0**	**-1.0**
	comp=Z,16nm,0.9s						
CMAR	**Chiang Mai Arr**	**15.42**	**20**	Pn	**Pn**	**08 21 53.9**	**-1.8**
	comp=Z,0.4nm,0.3s,baz=217,slow=14,SNR=32						
CMAR				LR	LR	08 28 32.0	
	comp=Z,6µm,18.7s,baz=208,slow=40						
CHG	**Chiang Mai**	**15.75**	**20**	⇑P	**Pn**	**08 21 58.6**	**-1.4**
	comp=Z,63nm,1.4s						
CHTO	**Chiang Mai**	**15.75**	**20**	*e*P	**Pn**	**08 21 57.7**	**-2.3**
CHTO				pmax	pmax		
	comp=Z,68nm,1.1s						
CHTO	**Chiang Mai**	**15.75**	**20**	*e*Pn	**Pn**	**08 21 57.7**	**-2.3**
	comp=Z,68nm,1.1s						
CHTO	**Chiang Mai**	**15.75**	**20**	P	**Pn**	**08 21 58.8**	**-1.1**
	SNR=30						
CHTO				P		08 21 58.8	
	SNR=30						
VIS	**Vishakhapatnam**	**16.91**	**325**	*e*PKP	**Pn**	**08 22 12.9**	**-1.8**
VIS				AMb	AMB	08 22 17.3	
	comp=Z,68nm,0.6s						
VIS				*e*x	x	08 25 06.2	
TRD	**Trivandrum**	**16.99**	**286**	⇑*e*PKP	**Pn**	**08 22 17.0**	**+1.2**
TRD				*e*x	x	08 26 01.0	
KSM	**Kuching**	**17.04**	**98**	P	**Pn**	**08 22 20.0**	**+3.6**
KSM	**Kuching**	**17.04**	**98**	*e*P	**Pn**	**08 22 18.7**	**+2.3**
	comp=Z,514nm,2.2s						
SBUM	**Sibu**	**18.82**	**94**	P	**Pn**	**08 22 42.1**	**+3.8**
CAL	**Calcutta**	**19.15**	**346**	⇓*i*P	**Pn**	**08 22 43.3**	**+1.0**
CAL				⇑*i*S	**Sn**	**08 26 19.5**	**+3.5**
HYB	**Hyderabad**	**19.81**	**314**	*i* P	**Pn**	**08 22 48.0**	**-2.1**
HYB				*e*S	**Sn**	**08 26 32.0**	**+0.1**
HYB				LR	LR	08 34 00.0	
	comp=Z,9.5nm,14.0s						
HYB	**Hyderabad**	**19.81**	**314**	*e*P	**Pn**	**08 22 48.0**	**-2.1**
HYB				*e*S	**Sn**	**08 26 40.0**	**+8.1**
HYB				*e*		08 31 00.0	
AGT	**Agartala**	**19.95**	**354**	*e*PKP	**Pn**	**08 22 48.0**	**-3.8**
AGT				*e*x	x	08 23 11.0	
IMP	**Imphal**	**20.74**	**1**	*e*x	x	08 23 01.0	
IMP				*e*x	x	08 26 57.0	
BOK	**Bokaro**	**21.05**	**340**	*e*PKP	**P**	**08 23 01.2**	**-0.6**
BOK				*e*x	x	08 28 49.2	
SHL	**Shillong**	**21.57**	**356**	IP	**P**	**08 23 05.5**	**-1.9**
SHL				IS	**S**	**08 27 10.0**	**+5.3**
QIZ	**Qiongzhong**	**21.97**	**46**	P	**P**	**08 23 09.5**	**-2.2**
QIZ				pP		08 23 19.5	
QIZ				S	**S**	**08 27 08.0**	**-4.6**
QIZ				sS	sS	08 27 25.0	-1.6
QIZ				pmax	pmax		
	comp=Z,940nm,6.6s						
QIZ				LR	LR		
	comp=N,17µm,14.3s,MS5.6						
QIZ				LR	LR		
	comp=E,9µm,15.2s,MS5.6						
QIZ				LR	LR		
	comp=Z,19µm,11.3s,MS5.8						
QIZ	**Qiongzhong**	**21.97**	**46**	*e*P	**P**	**08 23 11.6**	**-0.2**
	comp=Z,127nm,1.4s,mb5.2						
QIZ				LR	LR		
	comp=Z,9µm,20.0s,MS5.2						
NGP	**Nagpur**	**22.10**	**322**	*e*PKP	**P**	**08 23 09.6**	**-3.5**
NGP				*e*S	**S**	**08 27 12.3**	**-2.9**
KKM	**Kota Kinabalu**	**22.80**	**84**	P	**P**	**08 23 22.7**	**+2.0**
KKM	**Kota Kinabalu**	**22.80**	**84**	*e*P	**P**	**08 23 21.1**	**+0.5**
	comp=Z,761nm,2.7s,mb5.7						
KKM				LR	LR		
	comp=Z,5µm,19.0s,MS4.9						
KMI	**Kunming**	**22.90**	**22**	P	**P**	**08 23 22.5**	**+0.9**
KMI				pP		08 23 29.5	
KMI				PP		08 23 53.8	
KMI				S	**S**	**08 27 29.0**	**-0.4**
KMI				sS	sS	08 27 40.5	-4.1
KMI				SS		08 28 15.5	
KMI				pmax	pmax		
	comp=Z,44nm,1.3s,mb4.7						
KMI				pmax	pmax		
	comp=Z,1µm,7.2s						
KMI				LR	LR		
	comp=N,10µm,9.9s						
KMI				LR	LR		
	comp=E,8µm,11.4s						
KMI				LR	LR		
	comp=Z,10µm,10.2s,MS5.5						
KAD	**Karad**	**23.08**	**307**	*e*PKP	**P**	**08 23 24.0**	**+0.4**
KAD				AMb	AMB	08 23 32.9	
	comp=Z,44nm,0.9s,mb4.9						
KAD				*e*x	x	08 27 31.9	
KDM	**Kudat**	**23.49**	**82**	P	**P**	**08 23 28.3**	**+0.5**
ODAN	**Odare**	**23.52**	**346**	*e*P	**P**	**08 23 26.8**	**-1.2**
	comp=Z,152nm,0.9s,mb5.4						
SDKM	**Sandakan**	**23.75**	**85**	P	**P**	**08 23 31.0**	**+0.8**
DGAR	**Diego Garcia**	**23.77**	**242**	PFAKE		08 23 40.0	+10
DGAR				LR	LR		
	comp=Z,8µm,21.0s,MS5.2						
RAMN	**Ramite**	**23.81**	**345**	*e*P	**P**	**08 23 30.4**	**-0.2**
TAPN	**Taplejung**	**23.92**	**347**	*e*P	**P**	**08 23 30.2**	**-1.4**
	comp=Z,132nm,0.9s,mb5.3						
ALBI	**Allahabad**	**24.01**	**333**	*e*x	x	08 23 28.0	
POO	**Poona**	**24.02**	**309**	*e*PKP	**P**	**08 23 33.5**	**+0.8**
TSM	**Tawau**	**24.39**	**88**	P	**P**	**08 23 32.6**	**-3.4**
JIRN	**Jiri**	**24.59**	**344**	*e*P	**P**	**08 23 37.0**	**-0.7**
	comp=Z,110nm,1.0s,mb5.3						
BHPL	**Bhopal**	**24.66**	**323**	*e*PKP	**P**	**08 23 39.1**	**+0.7**
PKI	**Pulchoki**	**24.73**	**343**	*e*P	**P**	**08 23 39.0**	**+0.1**
PKIN	**Phulchoki**	**24.73**	**343**	*e*P	**P**	**08 23 38.7**	**-0.3**
GUN	**Gumba**	**24.91**	**344**	*e*P	**P**	**08 23 40.6**	**0.0**
	comp=Z,384nm,1.2s,mb5.8						
KKN	**Kakani**	**24.97**	**343**	*e*P	**P**	**08 23 41.1**	**-0.1**
	comp=Z,151nm,1.1s,mb5.4						
KKN	**Kakani**	**24.97**	**343**	*e*P	**P**	**08 23 41.1**	**-0.1**
KKN				pmax	pmax		
	comp=Z,151nm,1.1s,mb5.4						
GKN	**Gorkha**	**25.36**	**342**	*e*P	**P**	**08 23 44.7**	**-0.1**
	comp=Z,385nm,1.1s,mb5.8						
KOLN	**Koldanda**	**25.50**	**339**	*e*P	**P**	**08 23 45.8**	**-0.1**
	comp=Z,131nm,1.0s,mb5.4						
LSA	**Lhasa**	**25.72**	**355**	P	**P**	**08 23 49.0**	**+1.0**
LSA				pP	pP	08 23 57.8	+0.5
LSA				sP	sP	08 24 01.3	0.0
LSA				S	**S**	**08 28 19.8**	**+5.0**
LSA				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.2						
LSA				LR	LR		
	comp=N,3µm,15.0s,MS5.2						
LSA				LR	LR		
	comp=E,4µm,13.4s,MS5.2						
LSA				LR	LR		
	comp=Z,7µm,15.0s,MS5.3						
LSA	**Lhasa**	**25.72**	**355**	*e*P	**P**	**08 23 49.6**	**+1.6**
LSA				pmax	pmax		
	comp=Z,66nm,0.6s,mb5.3						
LSA				MLR	MLR		
	comp=Z,3µm,19.0s,MS4.9						
LSA	**Lhasa**	**25.72**	**355**	*e*P	**P**	**08 23 49.6**	**+1.6**
	comp=Z,66nm,0.6s,mb5.3						
LSA				LR	LR		
	comp=Z,3µm,19.0s,MS4.9						
GYA	**Guiyang**	**25.74**	**28**	⇑*i*P	**P**	**08 23 48.5**	**+0.3**
GYA				pP	pP	08 23 57.5	0.0
GYA				sP	sP	08 24 01.8	+0.3
GYA				S	**S**	**08 28 15.8**	**+0.6**
GYA				sS	sS	08 28 31.5	+0.8
GYA				SS		08 29 24.5	
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.7						
GYA				pmax	pmax		
	comp=Z,240nm,8.7s						
GYA				LR	LR		
	comp=N,4µm,17.8s,MS5.3						
GYA				LR	LR		
	comp=E,9µm,19.0s,MS5.3						
GYA				LR	LR		
	comp=Z,4µm,19.1s,MS5.0						
DANN	**Dangsing**	**25.97**	**340**	*e*P	**P**	**08 23 50.0**	**-0.3**
	comp=Z,114nm,0.8s,mb5.4						
GZH	**Guangzhou**	**27.09**	**44**	P	**P**	**08 24 03.8**	**+3.4**
GZH				LR	LR		
	comp=N,7µm,13.7s,MS5.7						
GZH				LR	LR		
	comp=E,13µm,14.9s,MS5.7						
GZH				LR	LR		
	comp=Z,20µm,12.3s,MS5.9						
HKC	**Hong Kong Obse**	**27.16**	**46**	P	**P**	**08 24 04.0**	**+2.9**
KAPI	**Kappang**	**27.76**	**108**	P	**P**	**08 24 04.4**	**-2.2**
	comp=Z,5.1nm,0.9s,mb4.2,baz=278,slow=15,SNR=2.9						
KAPI				LR	LR	08 36 48.4	
	comp=Z,7µm,18.1s,MS5.3,baz=306,slow=40						
CD2	**Chengdu**	**28.55**	**19**	P	**P**	**08 24 13.0**	**-0.4**
CD2				pP	pP	08 24 22.5	-0.3
CD2				sP	sP	08 24 26.5	-0.2
CD2				PP	PP	08 25 05.8	-12
CD2				S	**S**	**08 28 57.5**	**-2.0**
CD2				sS	sS	08 29 13.5	-1.5
CD2				SS	SS	08 30 24.8	-36
CD2				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.3						
CD2				pmax	pmax		
	comp=Z,940nm,12.5s						
CD2				LR	LR		
	comp=N,14µm,11.3s						
CD2				LR	LR		
	comp=Z,12µm,10.7s,MS5.8						
AJM	**Ajmer**	**28.75**	**323**	*e*PKP	**P**	**08 24 15.6**	**+0.4**
NDI	**New Delhi**	**29.05**	**330**	*e*PKP	**P**	**08 24 18.0**	**+0.2**
NDI				*e*x	x	08 31 08.0	
DDI	**Dehra Dun**	**30.00**	**333**	*e*PKP	**P**	**08 24 26.2**	**-0.1**
DDI				*e*x	x	08 30 28.7	
QZH	**Quanzhou**	**31.98**	**47**	P	**P**	**08 24 43.8**	**0.0**
QZH				S	**S**	**08 29 53.5**	**+0.2**
QZH				pmax	pmax		
	comp=Z,1µm,7.9s						
QZH				LR	LR		
	comp=N,15µm,10.6s,MS6.1						
QZH				LR	LR		
	comp=E,13µm,11.3s,MS6.1						
QZH				LR	LR		
	comp=Z,25µm,11.8s,MS6.1						
DAV	**Davao City (W)**	**32.15**	**83**	PFAKE		08 25 00.0	+15
DAV				LR	LR		
	comp=Z,4µm,20.0s,MS5.1						
THN	**Thein Dam**	**32.86**	**332**	*e*PKP	**P**	**08 24 48.6**	**-2.8**
WHN	**Wuhan**	**33.03**	**34**	⇓P	**P**	**08 24 53.5**	**+0.6**
WHN				S	**S**	**08 30 12.0**	**+2.4**
WHN				LR	LR		
	comp=N,20µm,10.6s,MS6.2						
WHN				LR	LR		
	comp=E,15µm,12.2s,MS6.2						
WHN				LR	LR		
	comp=Z,20µm,11.9s,MS6.1						
XAN	**Xi'an**	**33.25**	**24**	P	**P**	**08 24 53.8**	**-1.0**
XAN				PP	PP	08 26 11.0	+0.6
XAN				S	**S**	**08 30 15.3**	**+2.4**
XAN				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
XAN				pmax	pmax		
	comp=Z,160nm,15.2s						
XAN				LR	LR		
	comp=N,3µm,14.9s,MS5.3						
XAN				LR	LR		
	comp=E,3µm,18.5s,MS5.3						
XAN				LR	LR		
	comp=Z,2µm,12.3s						
LZH	**Lanzhou**	**33.41**	**15**	P	**P**	**08 24 56.0**	**-0.2**
LZH				pP	pP	08 25 08.0	+2.4
LZH				PP	PP	08 26 06.0	-6.2
LZH				S	**S**	**08 30 15.3**	**-0.1**
LZH				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.5						
LZH				pmax	pmax		
	comp=Z,270nm,4.0s						
LZH				LR	LR		
	comp=N,2µm,14.1s						
LZH				LR	LR		
	comp=Z,3µm,16.2s,MS5.2						
TATO	**Taipei**	**34.15**	**50**	PFAKE		08 25 10.0	+7.3
TATO				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
GTA	**Gaotai**	**35.79**	**8**	⇑P	**P**	**08 25 16.8**	**+0.1**
GTA				pP	pP	08 25 26.3	+0.1
GTA				sP	sP	08 25 30.0	-0.1
GTA				PP	PP	08 26 39.0	+0.5
GTA				S	**S**	**08 30 52.8**	**+0.8**
GTA				sS	sS	08 31 08.3	+0.7
GTA				SS	SS	08 33 16.0	-13
GTA				pmax	pmax		
	comp=Z,6.0nm,2.4s,mb4.1						
GTA				pmax	pmax		
	comp=Z,270nm,4.5s						
GTA				LR	LR		
	comp=N,1µm,14.9s,MS5.0						
GTA				LR	LR		
	comp=E,1µm,13.1s,MS5.0						
GTA				LR	LR		
	comp=Z,1µm,13.7s,MS4.8						
MBWA	**Marble Bar**	**35.87**	**135**	*e*P	**P**	**08 25 16.7**	**-0.9**
	comp=Z,12nm,1.0s,mb4.8						
MBWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.1						
NJ2	**Nanjing**	**36.77**	**38**	*e*P	**P**	**08 25 25.5**	**+0.3**
NJ2				pP	pP	08 25 35.8	+1.1
NJ2				sP	sP	08 25 39.5	+0.9
NJ2				PP	PP	08 26 50.5	+1.2
NJ2				S	**S**	**08 31 07.0**	**-0.1**
NJ2				sS	sS	08 31 23.0	+0.2
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
NJ2				pmax	pmax		
	comp=Z,540nm,9.2s						
NJ2				LR	LR		
	comp=N,11µm,11.0s,MS6.0						
NJ2				LR	LR		
	comp=E,10µm,11.3s,MS6.0						
NJ2				LR	LR		
	comp=Z,12µm,10.6s,MS6.0						
SSE	**Sheshan**	**37.60**	**41**	*e*P	**P**	**08 25 33.0**	**+0.8**
SSE				pP	pP	08 25 41.8	0.0
SSE				sP	sP	08 25 45.8	+0.1
SSE				S	**S**	**08 31 21.8**	**+2.0**
SSE				sS	sS	08 31 38.5	+3.0
SSE				ScS	ScS	08 35 40.3	-3.1
SSE				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.1						
SSE				pmax	pmax		
	comp=Z,360nm,6.1s						
SSE				LR	LR		
	comp=N,8µm,16.0s,MS5.6						
SSE				LR	LR		
	comp=E,3µm,16.0s,MS5.6						
SSE				LR	LR		
	comp=Z,11µm,11.7s,MS5.9						
KBL	**Kabul**	**37.95**	**326**	*e*P	**P**	**08 25 36.0**	**+0.8**
KBL				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
KBL	**Kabul**	**37.95**	**326**	*e*P	**P**	**08 25 36.0**	**+0.8**
	comp=Z,4.7nm,1.0s,mb4.2						
FITZ	**Fitzroy Crossi**	**38.57**	**126**	*e*P	**P**	**08 25 39.3**	**-1.3**
	comp=Z,11nm,0.7s,mb4.7						
FITZ	**Fitzroy Crossi**	**38.57**	**126**	P	**P**	**08 25 39.3**	**-1.2**
	comp=Z,6.6nm,0.8s,mb4.4,baz=245,slow=3.0,SNR=7.6						
FITZ	**Fitzroy Crossi**	**38.57**	**126**	*e*P	**P**	**08 25 38.7**	**-1.9**
	comp=Z,6.2nm,0.8s,mb4.4						
KSH	**Kashi**	**38.80**	**338**	P	**P**	**08 25 40.5**	**-1.7**
KSH				*e*pP	pP	08 25 49.5	-2.3
KSH				*e*PP	PP	08 27 11.8	+0.3
KSH				*e*PcP	PcP	08 27 53.5	+0.3
KSH				*e*S	**S**	**08 31 32.5**	**-5.2**
KSH				*e*ScP	ScP	08 31 37.5	-1.7
KSH				*e*PcS	PcS	08 31 41.5	-1.1
KSH				*e*ScS	ScS	08 35 46.5	-3.5
KSH				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.7						
KSH				LR	LR		
	comp=N,2µm,10.8s,MS5.4						
KSH				LR	LR		
	comp=E,3µm,11.4s,MS5.4						
KSH				LR	LR		
	comp=Z,3µm,10.3s,MS5.3						
TIA	**Tai'an**	**38.84**	**31**	P	**P**	**08 25 42.8**	**+0.1**
TIA				LR	LR		
	comp=N,3µm,10.0s						
MSEY	**Mahe Island**	**38.86**	**258**	PFAKE		08 26 00.0	+17
MSEY				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
BTO	**Baotou**	**39.46**	**20**	*e*P	**P**	**08 25 46.0**	**-1.7**
WMQ	**Urumqi**	**40.05**	**354**	⇑*i*P	**P**	**08 25 53.5**	**+0.9**
WMQ				pP	pP	08 26 03.0	+0.9
WMQ				sP	sP	08 26 07.0	+0.9
WMQ				PP	PP	08 27 31.0	+5.9
WMQ				PcP	PcP	08 27 57.0	-0.1
WMQ				S	**S**	**08 31 59.0**	**+2.6**
WMQ				sS	sS	08 32 14.0	+1.9
WMQ				SS	SS	08 34 50.0	-4.5
WMQ				pmax	pmax		
	comp=Z,43nm,1.6s,mb4.9						
WMQ				LR	LR		
	comp=N,3µm,11.8s,MS5.4						
WMQ				LR	LR		
	comp=E,2µm,15.7s,MS5.4						
WMQ				LR	LR		
	comp=Z,2µm,17.2s,MS5.1						
HHC	**Hu-ho-hao-te**	**40.22**	**21**	*e*P	**P**	**08 25 54.8**	**+0.8**
HHC				pP	pP	08 26 04.5	+0.9
HHC				sP	sP	08 26 08.5	+1.0
HHC				PP	PP	08 27 32.5	+5.5
HHC				PcP	PcP	08 27 59.5	+1.8
HHC				PcS	PcS	08 31 48.3	+0.3
HHC				S	**S**	**08 31 59.5**	**+0.5**
HHC				sS	sS	08 32 15.5	+0.7
HHC				SS	SS	08 34 52.0	-6.0
HHC				ScS	ScS	08 35 57.0	-1.2
HHC				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.8						
HHC				pmax	pmax		
	comp=Z,690nm,5.7s						
HHC				LR	LR		
	comp=N,2µm,13.7s,MS5.8						
HHC				LR	LR		
	comp=E,11µm,16.1s,MS5.8						
HHC				LR	LR		
	comp=Z,3µm,14.7s,MS5.3						
ULHL	**Ulahol**	**41.12**	**341**	P	**P**	**08 26 01.8**	**+0.3**
	SNR=17						
WHFO	**Wadi Hawf**	**41.23**	**293**	P	**P**	**08 26 03.7**	**+1.0**
	SNR=9.6						
KZA	**Kyzart**	**41.31**	**339**	P	**P**	**08 26 04.0**	**+1.0**
	SNR=9.1						
BJT	**Baijiatuau**	**41.39**	**27**	*e*P	**P**	**08 26 04.6**	**+0.9**
BJT				pmax	pmax		
	comp=Z,42nm,0.8s						
BJT				MLR	MLR		
	comp=Z,3µm,19.0s						
BJT	**Baijiatuau**	**41.39**	**27**	*e*P	**P**	**08 26 04.6**	**+0.9**
	comp=Z,42nm,0.8s,mb5.1						
BJT				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
BJI	**Beijing**	**41.41**	**27**	P	**P**	**08 26 04.8**	**+0.9**
BJI				S	**S**	**08 32 09.5**	**-7.3**
BJI				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.9						
BJI				pmax	pmax		
	comp=Z,640nm,3.2s						
BJI				LR	LR		
	comp=N,4µm,16.1s,MS5.5						
BJI				LR	LR		
	comp=E,2µm,15.0s,MS5.5						
BJI				LR	LR		
	comp=Z,2µm,17.9s,MS5.1						
UCH	**Uchtor**	**41.71**	**339**	P	**P**	**08 26 07.4**	**+1.1**
	SNR=19						
UCH	**Uchtor**	**41.71**	**339**	*e*P	**P**	**08 26 07.0**	**+0.7**
	comp=Z,38nm,1.1s,mb4.9						
UCH				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
AML	**Almayashu**	**41.92**	**338**	P	**P**	**08 26 09.0**	**+0.9**
	SNR=22						
AML	**Almayashu**	**41.92**	**338**	*e*P	**P**	**08 26 08.8**	**+0.8**
	comp=Z,27nm,0.8s,mb4.9						
AML				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
KBK	**Karagaybulak**	**41.93**	**340**	P	**P**	**08 26 09.2**	**+1.1**
	SNR=6.9						
TKM2	**Tokmak 2**	**41.94**	**340**	*e*P	**P**	**08 26 08.6**	**+0.4**
TKM2				pmax	pmax		
	comp=Z,36nm,1.2s,mb4.9						
TKM2				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.1						
TKM2	**Tokmak 2**	**41.94**	**340**	P	**P**	**08 26 08.9**	**+0.8**
	SNR=10						
TKM2	**Tokmak 2**	**41.94**	**340**	*e*P	**P**	**08 26 08.6**	**+0.5**
	comp=Z,36nm,1.2s,mb4.9						
TKM2				LR	LR		
	comp=Z,3µm,19.0s,MS5.1						
AAK	**Ala-Archa**	**42.07**	**339**	P	**P**	**08 26 10.4**	**+1.2**
	comp=Z,127nm,1.5s,mb5.3,SNR=12						
AAK	**Ala-Archa**	**42.07**	**339**	*c i*P	**P**	**08 26 10.0**	**+0.8**
AAK				pmax	pmax		
	comp=Z,25nm,2.5s,mb4.4						

AAK	Ala-Archa	42.07	339	P	P	08 26 10.1	+0.8
	SNR=7.3						
AAK	Ala-Archa	42.07	339	P	P	08 26 09.8	+0.6
	comp=Z,1.1nm,0.3s,mb3.9,baz=193,slow=4.1,SNR=12						
AAK	Ala-Archa	42.07	339	eP	P	08 26 10.3	+1.1
	comp=Z,69nm,1.6s,mb5.0						
AAK				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
AAK	Ala-Archa	42.07	339	P	P	08 26 10.4	+1.1
	SNR=24						
AAK				P		08 26 10.4	
	SNR=24						
FRU	Bishkek	42.20	339	eP	P	08 26 10.0	-0.3
FRU				e		08 26 28.0	
FRU				e		08 36 20.0	
FRU				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.2						
EKS2	Erkin-Say	42.35	338	P	P	08 26 12.2	+0.7
	SNR=17						
EKS2	Erkin-Say	42.35	338	eP	P	08 26 12.3	+0.8
	comp=Z,12nm,0.8s,mb4.6						
EKS2				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
USP	Ospenovka	42.62	340	P	P	08 26 14.1	+0.4
	SNR=20						
NWAO	Narrogin (SRO)	43.04	150	P	P	08 26 15.7	-1.6
	comp=Z,5.4nm,0.7s,mb4.4,baz=295,slow=9.3,SNR=4.1						
NWAO	Narrogin (SRO)	43.04	150	P	P	08 26 15.7	-1.6
NWAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
DL2	Dalian	43.23	33	P	P	08 26 19.5	+0.8
DL2				PP	PP	08 28 04.8	+5.2
DL2				eS	S	08 32 48.0	+4.3
DL2				pmax	pmax		
	comp=Z,30nm,1.3s,mb4.9						
DL2				pmax	pmax		
	comp=Z,280nm,5.5s						
DL2				LR	LR		
	comp=N,1µm,14.7s,MS5.3						
DL2				LR	LR		
	comp=E,2µm,15.3s,MS5.3						
DL2				LR	LR		
	comp=Z,2µm,11.8s,MS5.3						
MK31	Makanchi Array	43.78	349	i P	P	08 26 23.0	0.0
MK31				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
MKAR	Makanchi Array	43.78	349	P	P	08 26 23.3	+0.3
	comp=Z,11nm,0.8s,mb4.7,baz=167,slow=8.5,SNR=77						
MKAR				LR	LR	08 47 35.6	
	comp=Z,1µm,21.8s,MS4.8,baz=161,slow=40						
KK31	Karatay Array	44.00	336	i P	P	08 26 24.5	-0.3
KK31				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.8						
RER	Riviere de l'E	44.55	234	PFAKE		08 26 40.0	+10
RER				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
SONM	Songino Array	45.14	12	P	P	08 26 34.2	+0.3
SONM						08 28 15.1	
SONM	Songino Array	45.14	12	P	P	08 26 34.2	+0.3
	comp=Z,2.9nm,0.7s,mb4.2,baz=192,slow=8.4,SNR=27						
SONM				PcP	PcP	08 28 15.1	+1.1
	comp=Z,3.2nm,0.8s,baz=200,slow=3.9,SNR=3.9						
SONM				LR	LR	08 47 06.2	
	comp=Z,2µm,20.7s,MS5.1,baz=280,slow=38						
INCN	Inchon	45.15	38	PFAKE		08 26 50.0	+16
INCN				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
ULN	Ulaanbaatar	45.32	13	eP	P	08 26 35.0	-0.3
ULN				pmax	pmax		
	comp=Z,52nm,1.9s,mb5.0						
ULN				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
ULN	Ulaanbaatar	45.32	13	eP	P	08 26 35.0	-0.3
	comp=Z,52nm,1.9s,mb5.0						
ULN				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
ULN	Ulaanbaatar	45.32	13	P	P	08 26 35.8	+0.6
	SNR=7.4						
ULN				P		08 26 35.8	
	SNR=7.4						
KSRS	Korea Array	45.93	39	P	P	08 26 39.2	-1.1
	comp=Z,1.3nm,0.6s,mb4.0,baz=218,slow=7.7,SNR=3.4						
KSRS				LR	LR	08 47 23.2	
	comp=Z,3µm,18.6s,MS5.2,baz=233,slow=38						
SNY	Shenyang	46.37	31	⇑P	P	08 26 43.5	-0.2
SNY				S	S	08 33 26.0	-3.1
SNY				pmax	pmax		
	comp=Z,21nm,2.5s,mb4.6						
SNY				pmax	pmax		
	comp=Z,520nm,7.1s						
SNY				LR	LR		
	comp=N,2µm,11.8s,MS5.7						
SNY				LR	LR		
	comp=E,4µm,12.2s,MS5.7						
SNY				LR	LR		
	comp=Z,3µm,15.5s,MS5.3						
WRA	Warramunga Arr	46.67	122	P	P	08 26 45.8	-0.6
	comp=Z,13nm,0.7s,mb4.9,baz=299,slow=9.1,SNR=51						
WRA				LR	LR	08 49 14.3	
	comp=Z,1µm,18.5s,MS5.0,baz=300,slow=40						
WRAB	Tennant Creek	46.67	122	P	P	08 26 46.6	+0.2
	comp=Z,146nm,0.9s,mb5.9,SNR=7.8						
WRAB	Tennant Creek	46.67	122	eP	P	08 26 45.7	-0.7
WRAB				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
WRAB				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
WRAB	Tennant Creek	46.67	122	eP	P	08 26 45.7	-0.7
	comp=Z,35nm,1.1s,mb5.2						
WRAB				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
ABKT	Ailbek	46.73	321	P	P	08 26 47.5	+0.9
	comp=Z,127nm,0.6s,mb6.0,SNR=6.6						
ZAK	Zakamensk	47.03	9	eP	P	08 26 49.3	+0.6
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.8s,mb4.2						
FORT	Forrest	47.79	139	eP	P	08 26 55.3	+0.4
	comp=Z,19nm,0.8s,mb5.2						
MOY	Mondy	48.00	6	eP	P	08 26 46.5	-10
ASAR	Alice Springs	48.03	127	P	P	08 26 56.2	-0.8
	comp=Z,4.8nm,0.9s,mb4.5,baz=304,slow=7.4,SNR=24						
ASAR				PcP	PcP	08 28 25.4	+0.8
	comp=Z,2.2nm,0.8s,baz=308,slow=3.2,SNR=6.1						
KURK	Kurchatov	48.26	347	P	P	08 26 58.9	+0.6
	comp=Z,185nm,1.5s,mb5.9,SNR=15						
KURK	Kurchatov	48.26	347	eP	P	08 26 58.6	+0.3
KURK				pmax	pmax		
	comp=Z,90nm,1.5s,mb5.6						
KURK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.0						
KURK	Kurchatov	48.26	347	P	P	08 26 58.1	-0.1
	comp=Z,9.1nm,0.8s,mb4.9,baz=173,slow=7.2,SNR=56						
KURK	Kurchatov	48.26	347	eP	P	08 26 58.6	+0.4
	comp=Z,90nm,1.5s,mb5.6						
KURK				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
KURK	Kurchatov	48.26	347	⇓P	P	08 26 59.1	+0.8
	SNR=22						
KURK				⇓P		08 26 59.1	
	SNR=22						
TLY	Talaya	48.35	8	P	P	08 27 00.4	+1.5
	comp=Z,26nm,0.8s,mb5.3,SNR=6.7						
TLY	Talaya	48.35	8	eP	P	08 26 59.2	+0.3
TLY				ePPP		08 29 38.9	
TLY				eS	S	08 34 06.7	+10
TLY				pmax	pmax		
	comp=Z,25nm,2.1s,mb4.9						
TLY	Talaya	48.35	8	eP	P	08 27 00.5	+1.6
	comp=Z,63nm,2.1s,mb5.3						
TLY				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
TLY	Talaya	48.35	8	P	P	08 27 00.1	+1.1
	SNR=7.7						
TLY				P		08 27 00.1	
	SNR=7.7						
CN2	Changchun	48.75	31	eP	P	08 27 02.3	+0.2
CN2				epP	pP	08 27 12.3	+0.4
CN2				eS	S	08 34 03.0	+0.2
CN2				SS	SS	08 37 30.8	-2.8
CN2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
CN2				pmax	pmax		
	comp=Z,500nm,7.0s						
CN2				LR	LR		
	comp=N,4µm,15.0s,MS5.7						
CN2				LR	LR		
	comp=E,4µm,15.0s,MS5.7						
CN2				LR	LR		
	comp=Z,3µm,14.0s,MS5.4						
IRK	Irkutsk	48.99	9	eP	P	08 27 03.5	-0.3
IRK				pmax	pmax		
	comp=Z,72nm,2.4s,mb5.3						
QRN	Al-Qurain	49.72	305	eP	P	08 27 10.2	+0.3
QRN				AMb	AMB	08 27 12.7	
	comp=Z,57nm,0.9s,mb5.6						
ZAA0	Zalesovo Array	50.36	353	eP	P	08 27 14.2	-0.1
ZALV	Zalesovo Beam	50.36	353	P	P	08 27 14.8	+0.5
	comp=Z,6.7nm,0.5s,mb5.0,baz=191,slow=6.9,SNR=31						
ZALV				LR	LR	08 53 11.6	
	comp=Z,817nm,18.7s,MS4.8,baz=337,slow=42						
HIA	Hailar	50.41	22	eP	P	08 27 14.7	0.0
HIA				pmax	pmax		
	comp=Z,28nm,1.0s						
HIA				MLR	MLR		
	comp=Z,4µm,20.0s						
HIA	Hailar	50.41	22	eP	P	08 27 14.7	0.0
	comp=Z,28nm,1.0s,mb5.2						
HIA				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
NAY	Al-Naaiem	50.45	305	eP	P	08 27 15.4	0.0
NAY				AMb	AMB	08 27 20.6	
	comp=Z,35nm,0.9s,mb5.4						
MIB	Mutribah	50.58	306	eP	P	08 27 16.8	+0.5
MIB				AMb	AMB	08 27 26.7	
	comp=Z,104nm,0.8s,mb5.8						
OPO	Ambohidratompo	50.73	242	P	P	08 27 18.7	+1.1
	comp=Z,2.9nm,0.7s,mb4.3,baz=19,slow=4.9,SNR=5.9						
CIT	Chita	50.78	16	eP	P	08 27 16.7	-0.7
CIT				e		08 27 34.6	
ABPO	Ambohimpanom	50.85	242	eP	P	08 27 19.7	+1.1
ABPO				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.4						
ABPO				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
ABPO	Ambohimpanom	50.85	242	eP	P	08 27 19.7	+1.2
	comp=Z,62nm,1.3s,mb5.4						
ABPO				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
NVS	Novosibirsk	51.43	352	⇑iP	P	08 27 21.7	-0.5
NVS				i S	S	08 34 41.2	+1.4
NVS				i PS		08 34 49.9	
NVS				e		08 37 12.6	
NVS				pmax	pmax		
	comp=Z,61nm,1.7s,mb5.2						
NVS				pmax	pmax		
	comp=N,50nm,1.6s						
NVS				pmax	pmax		
	comp=E,33nm,1.7s						
NVS				smax			
	comp=N,5.0nm,1.7s						
NVS				smax			
	comp=E,88nm,2.4s						
MDJ	Mudanjiang	51.48	33	P	P	08 27 23.0	+0.2
MDJ				pP	pP	08 27 31.8	-0.8
MDJ				sP	sP	08 27 36.3	-0.2
MDJ				PcP	PcP	08 28 36.8	0.0
MDJ				PP	PP	08 29 22.0	+1.7
MDJ				ScP	ScP	08 32 30.8	-0.5
MDJ				PcS	PcS	08 32 34.5	0.0
MDJ				S	S	08 34 42.5	+1.7
MDJ				sS	sS	08 34 58.5	+1.6
MDJ				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,450nm,7.0s						
MDJ				LR	LR		
	comp=N,4µm,13.3s,MS5.6						
MDJ				LR	LR		
	comp=E,1µm,12.4s,MS5.6						
MDJ				LR	LR		
	comp=Z,5µm,12.4s,MS5.7						
MDJ	Mudanjiang	51.48	33	PFAKE		08 27 30.0	+7.2
MDJ				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
GUMO	Guam	51.64	76	PFAKE		08 27 40.0	+15
GUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
CBIJ	Chichi jima	51.89	58	LR	LR	08 49 48.4	
	comp=Z,1µm,18.8s,MS4.9,baz=287,slow=36						
VOSK	Vostochnaya	52.06	343	P	P	08 27 26.2	-0.8
VOSK				pmax	pmax		
	comp=Z,47nm,1.6s,mb5.2						
JHJ	Hachijo jima 2	52.06	50	LR	LR	08 53 30.2	
	comp=Z,1µm,18.6s,MS5.0,baz=127,slow=41						
MAJO	Matsushiro	52.36	46	PFAKE		08 27 40.0	+10
MAJO				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
MJAR	Matsushiro Arr	52.37	46	P	P	08 27 29.0	-0.6
MJAR						08 28 41.3	
MJAR	Matsushiro Arr	52.37	46	P	P	08 27 29.0	-0.6
	comp=Z,1.0nm,0.8s,mb3.8,baz=226,slow=7.9,SNR=3.1						
MJAR				PcP	PcP	08 28 41.3	+1.0
	comp=Z,2.3nm,0.8s,baz=247,slow=3.1,SNR=5.3						
MJAR				LR	LR	08 51 52.5	
	comp=Z,3µm,18.6s,MS5.3,baz=255,slow=38						
MJAR	Matsushiro Arr	52.37	46	P	P	08 27 29.0	-0.6
MJAR				PcP	PcP	08 28 41.3	+1.0
MJAR				LR	LR	08 51 52.5	
BVA0	Borovoye Array	52.50	343	i P	P	08 27 29.6	-0.6
BVA0				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.3						
BVAR	Borovoye Array	52.50	343	P	P	08 27 29.8	-0.5
	comp=Z,5.0nm,0.8s,mb4.5,baz=144,slow=8.5,SNR=23						
BRVK	Borovoye	52.56	343	eP	P	08 27 30.3	-0.4
BRVK				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
BRVK				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
BRVK	Borovoye	52.56	343	eP	P	08 27 30.2	-0.4
	comp=Z,27nm,1.2s,mb5.0						
BRVK				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
BRVK	Borovoye	52.56	343	⇓P	P	08 27 31.8	+1.1
	SNR=10.0						
BRVK				⇓P		08 27 31.8	
	SNR=10.0						
AKTO	Aktyubinsk	55.09	333	P	P	08 27 47.4	-1.9
AKTO				pmax	pmax		
	comp=Z,6.0nm,2.3s,mb4.2						
KLR	Kul'dur	55.63	30	eP	P	08 27 49.3	-3.9
KLR				eS	S	08 35 29.5	-7.6
KLR				pmax	pmax		
	comp=E,130nm,2.8s						
KLR				pmax	pmax		
	comp=Z,260nm,2.8s,mb5.8						
KLR				smax			
	comp=N,1µm,9.5s						
KLR				smax			
	comp=E,900nm,9.5s						
BOD	Bodaibo	56.13	13	eP	P	08 27 55.7	-0.9
BOD				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
MAK	Makhachkala	56.24	321	eP	P	08 27 56.5	-1.2
MAK				e		08 28 56.8	
MAK				ePPP		08 31 19.1	
MAK				eS	S	08 35 45.6	+0.2
MAK				e		08 37 39.8	
MAK				eSS	SS	08 39 38.0	+5.5
MAK				pmax	pmax		
	comp=Z,190nm,1.2s,mb6.0						
KMBO	Kilima Mbogo	56.36	266	P	P	08 27 58.5	-0.6
	comp=Z,2.3nm,0.7s,mb4.3,baz=135,slow=8.5,SNR=2.0						
KMBO				LR	LR	08 50 05.5	
	comp=Z,2µm,18.1s,MS5.2,baz=81,slow=34						
GNI	Garni	56.73	316	c iP	P	08 28 02.2	+1.0
GNI				pmax	pmax		
	comp=Z,31nm,1.7s						
GNI				MLR	MLR		
	comp=Z,600nm,18.0s						
GNI	Garni	56.73	316	PFAKE		08 28 10.0	+8.8
GNI				LR	LR		
	comp=Z,774nm,20.0s,MS4.8						
HABR	Khabarovsk	56.83	32	eP	P	08 27 59.7	-2.1
HABR				e*SP	sP	08 28 13.8	-1.7
HABR						08 28 55.2	
HABR				e		08 30 06.3	
HABR				ePPP		08 31 22.3	
HABR				eS	S	08 35 51.1	-1.9
HABR				e*SS	sS	08 36 08.5	-0.8
HABR				e		08 37 46.3	
HABR				eSS	SS	08 39 41.6	+0.1
HABR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
CTA	Charters Tower	57.09	117	eP	P	08 28 04.3	+0.2
	comp=Z,8.8nm,1.5s,mb4.6						
CTAO	Charters Tower	57.09	117	PFAKE		08 28 20.0	+16
CTAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
MTA	Mtatsminda	57.39	318	P	P	08 28 05.5	-0.4
TBLG	Delisi	57.45	318	eP	P	08 28 06.0	-0.3
TBLG	Delisi	57.45	318	P	P	08 28 06.0	-0.3
STKA	Stephens Creek	57.97	132	eP	P	08 28 09.5	-0.6
	comp=Z,5.6nm,0.8s,mb4.7						
STKA	Stephens Creek	57.97	132	P	P	08 28 10.0	-0.1
	comp=Z,5.1nm,0.7s,mb4.6,baz=309,slow=7.9,SNR=10						
STKA				LR	LR	08 55 44.0	
	comp=Z,1µm,18.1s,MS5.1,baz=310,slow=39						
STKA	Stephens Creek	57.97	132	P	P	08 28 10.0	-0.1
STKA				LR	LR	08 55 44.0	
NRGR	Nerungri	58.16	20	i P	P	08 28 11.8	+0.8
NRGR				S	S	08 36 18.4	+8.2
NRGR				smax			
	comp=N,26nm,0.7s						
ERM	Erimo	58.27	42	PFAKE		08 28 20.0	+8.0
ERM				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
CLNS	Chul'man	58.36	20	eP	P	08 28 12.9	+0.5
CLNS				e*PP	pP	08 28 23.1	+0.8
CLNS				e		08 28 59.9	
CLNS				eS	S	08 36 12.3	-0.5
CLNS				eSSS		08 42 27.2	
CLNS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
CLNS				pmax	pmax		
	comp=N,6.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
CLNS				pmax	pmax		
	comp=N,6.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,15nm,1.2s						
CLNS				smax			
	comp=N,147nm,10.8s						
CLNS				smax			
	comp=E,180nm,13.5s						
CLNS				MLR	MLR		
	comp=Z,2µm,13.0s,MS5.4						
CLNS				MLR	MLR		
	comp=N,1µm,13.0s,MS5.4						
CLNS				MLR	MLR		
	comp=E,2µm,15.0s,MS5.4						
MARD	Mardin	58.42	312	i P	P	08 28 13.6	+0.4
HOMI	Horasan	58.66	315	i P	P	08 28 10.9	-3.9
ONI	Oni	58.68	319	P	P	08 28 15.1	+0.2
SVE	Sverdlovsk	58.81	340	eP	P	08 28 14.9	-0.6
SVE				eS	S	08 36 19.4	+0.8
SVE				eSS	SS	08 40 11.4	-0.9
SVE				eSSS		08 42 31.4	
SVE				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
SVE				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.4						
ASAJ	Asahikawa	58.87	40	P	P	08 28 16.4	+0.3
	comp=Z,6.7nm,0.7s,mb4.8,baz=87,slow=11,SNR=4.2						
ASAJ				LR	LR	08 54 28.2	
	comp=Z,2µm,18.4s,MS5.3,baz=284,slow=37						
DIYA	Diyarbakir	59.13	312	i P	P	08 28 18.8	+0.7
ARU	Arti	59.25	338	d iP	P	08 28 19.8	+1.3
ARU				e		08 30 26.9	
ARU				S	S	08 36 27.0	+2.7
ARU				SS	SS	08 40 22.4	+3.2
ARU				pmax	pmax		
	comp=Z,49nm,2.5s,mb5.1						
ARU				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
ARU	Arti	59.25	338	PFAKE		08 28 30.0	+11
ARU				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
KOPT	Kop Dagi	59.64	315	i P	P	08 28 17.1	-4.5
KIV	Kislovodsk	59.80	320	⇓eP	P	08 28 22.6	0.0
KIV				e		08 28 29.9	
KIV				pmax	pmax		
	comp=Z,23nm,1.7s,mb4.9						
KIV	Kislovodsk	59.80	320	PFAKE		08 28 40.0	+17
KIV				LR	LR		
	comp=Z,664nm,20.0s,MS4.8						
YSS	Yuzh-Sakhalins	60.33	37	eP	P	08 28 27.0	+0.8
YSS				e	pP	08 28 35.0	-1.2
YSS				eS	S	08 36 42.0	+3.4
YSS				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
YSS				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.3						
YSS				MLR	MLR		
	comp=N,1µm,15.0s,MS5.5						
YSS				MLR	MLR		
	comp=E,2µm,12.0s,MS5.5						
YSS	Yuzh-Sakhalins	60.33	37	PFAKE		08 28 40.0	+14
YSS				LR	LR		
	comp=Z,553nm,19.0s,MS4.7						
MALT	Malatya	60.52	312	eP	P	08 28 27.6	0.0
MALT				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.0						
MALT				MLR	MLR		
	comp=Z,895nm,20.0s,MS4.9						
MALT	Malatya	60.52	312	⇓iP	P	08 28 28.9	+1.3
MALT	Malatya	60.52	312	eP	P	08 28 27.6	-0.1
	comp=Z,12nm,1.0s,mb5.0						
MALT				LR	LR		
	comp=Z,895nm,20.0s,MS4.9						
KEMA	Kemaliye	60.80	313	i P	P	08 28 30.1	+0.6
SOC	Sochi	61.59	318	eP	P	08 28 33.2	-1.6
SOC				e*PP	pP	08 28 44.7	-0.1
SOC				e		08 29 12.1	
SOC				e		08 30 56.9	
SOC				eS	S	08 36 55.1	+0.4
SOC				e*SS	sS	08 37 14.0	+2.8
SOC				e		08 38 22.2	
SOC				eSS	SS	08 40 59.4	+3.0
SOC				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.3						
SOC				MLR	MLR		
	comp=Z,315nm,16.0s,MS4.6						
PINB	Pinarbasi	62.13	312	i P	P	08 28 38.7	+0.1
SOKR	Solikamsk	62.22	340	⇑iP	P	08 28 38.3	-0.4
SOKR				S	S	08 37 06.6	+4.5
SOKR				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.3						
SOKR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
CSS	Prodhromos	63.43	307	PFAKE		08 29 00.0	+13
CSS				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
TOO	Toolangi	63.51	136	eP	P	08 28 49.2	+1.5
CDAG	Cicekdag	63.93	312	i P	P	08 28 50.1	-0.4
CTKT	Corum	63.94	314	i P	P	08 28 51.0	+0.4
YAK	Yakutsk	63.94	18	eP	P	08 28 46.1	-4.0
YAK				e*PP	pP	08 28 55.4	-4.7
YAK				e		08 29 21.5	
YAK				eS	S	08 37 19.6	-4.0
YAK				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
YAK				smax			
	comp=N,324nm,11.6s						
YAK				MLR	MLR		
	comp=Z,3µm,14.0s,MS5.6						
YAK				MLR	MLR		
	comp=N,1µm,13.0s,MS5.5						
YAK				MLR	MLR		
	comp=E,2µm,11.0s,MS5.5						
YAK	Yakutsk	63.94	18	PFAKE		08 29 00.0	+10
YAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
BRTR	Keskin Array B	64.50	312	P	P	08 28 53.6	-0.6
	comp=Z,4.5nm,0.8s,mb4.6						
BRTR				LR	LR	09 00 12.5	
	comp=Z,529nm,18.5s,MS4.8,baz=101,slow=39						
ILGA	Ilgaz	64.84	314	i P	P	08 28 55.9	-0.6
ELDT	Eldivan	64.88	313	i P	P	08 28 56.9	+0.2
CAN	Canberra	65.03	132	PFAKE		08 29 10.0	+12
CAN				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
KDHN	Kadinhani	65.30	311	i P	P	08 28 56.3	-3.2
ISP	Isparta	66.35	310	PFAKE		08 29 20.0	+14
ISP				LR	LR		

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      comp=Z,855nm,19.0s,MS5.0
AKAS  Kas              66.68 308  iP     P      08 28 59.1  -9.3
BORA  Eskisehir        66.90 312  iP     P      08 29 09.2  -0.6
GOLH  Golhisar         66.94 309  iP     P      08 29 05.6  -4.4
KHAL  Karahalli        67.25 310  iP     P      08 29 09.6  -2.4
TAU   Tasmania Unive   67.31 140   PFAKE        08 29 20.0  +7.8
TAU                                LR    LR
      comp=Z,760nm,19.0s,MS4.9
GDZ   Gediz            67.43 311  iP     P      08 29 12.7  -0.5
HNR   Honiara          67.60 102   PFAKE        08 29 30.0  +15
HNR                                LR    LR
      comp=Z,729nm,19.0s,MS4.9
PRGR  Permogore        67.68 338   P     P      08 29 09.1  -5.1
PRGR                               pmax  pmax
      comp=Z,46nm,0.9s,mb5.5
ULDT  Uludag           67.95 312  iP     P      08 29 16.2  -0.2
DURS  Dursunbey        68.31 311  iP     P      08 29 17.9  -0.7
AYDN  Tasoluk          68.34 309  iP     P      08 29 19.0  +0.2
OBN   Obninsk          68.34 329   PFAKE        08 29 30.0  +12
OBN                                LR    LR
      comp=Z,1µm,20.0s,MS5.1
BALY  Balya            68.99 311  iP     P      08 29 21.8  -1.1
TIRR  Tirgusor         69.56 316  eP     P      08 29 25.1  -1.2
TIRR                               pmax  pmax
      comp=Z,8.0nm,0.8s,mb4.7
TIRR  Tirgusor         69.56 316⇓iP     P      08 29 26.0  -0.3
TIRR  Tirgusor         69.56 316  eP     P      08 29 25.1  -1.2
      comp=Z,8.2nm,0.8s,mb4.7
KLMR  Klimovskoe       69.69 335  eP     P      08 29 31.8  +5.0
KLMR                               pmax  pmax
      comp=Z,24nm,1.5s,mb4.9
HARR  Harsova          69.95 316⇑iP     P      08 29 29.3  +0.6
HARR  Harsova          69.95 316 ⇑P     P      08 29 29.3  +0.6
KIS   Kishinev         69.98 319  eP     P      08 29 28.0  -0.8
KIS                               e             08 29 35.0
KIS                               ePPP          08 33 44.0
KIS                               eS     S      08 38 35.0  -2.0
KIS                               ePS           08 39 14.0
KIS   Kishinev         69.98 319  ePP    PP     08 32 39.0  +35
AKASG Malin Array Be   70.82 323   P     P      08 29 32.2  -1.6
      comp=Z,2.3nm,0.6s,mb4.3,baz=91,slow=4.8,SNR=5.9
AKASG                              LR    LR     09 03 20.9
      comp=Z,670nm,20.0s,MS4.9,baz=110,slow=38
VRI   Vrincioaia       71.07 317⇓iP     P      08 29 36.3  +0.8
VRI   Vrincioaia       71.07 317 ⇓P     P      08 29 36.3  +0.8
PLOR  Plostina         71.12 317⇑iP     P      08 29 36.9  +1.1
TIXI  Tiksi            71.22  11c iP    P      08 29 35.2  -0.7
TIXI                               pmax  pmax
      comp=Z,56nm,2.5s,mb5.0
TIXI                               MLR   MLR
      comp=Z,2µm,16.0s,MS5.5
TIXI  Tiksi            71.22  11  eP     P      08 29 34.9  -1.0
      comp=Z,19nm,0.7s,mb5.1
TIXI                               LR    LR
      comp=Z,2µm,20.0s,MS5.3
MLR   Muntele Rosu     71.51 317⇓iP     P      08 29 39.3  +1.1
MLR   Muntele Rosu     71.51 317 ⇓P     P      08 29 39.3  +1.1
PETK  Petropavlovsk-   71.62  35   LR    LR     09 01 35.4
      comp=Z,1µm,18.4s,MS5.2,baz=240,slow=36
LBTB  Lobatse          71.76 242   PFAKE        08 29 50.0  +10
LBTB                               LR    LR
      comp=Z,3µm,21.0s,MS5.5
VOIR                   72.11 317⇑iP     P      08 29 41.1  -0.7
VOIR                   72.11 317 ⇑P     P      08 29 41.1  -0.7
BURAR Bucovina Array   72.50 319⇑iP     P      08 29 45.3  +1.2
BURAR Bucovina Array   72.50 319 ⇑P     P      08 29 45.3  +1.2
BUR08 Bucovina Ar. S   72.52 319  eP     P      08 29 44.5  +0.3
SEY   Seymchan         72.79  24  iP     P      08 29 47.0  +1.5
BOSA  Boshof           72.92 239   P     P      08 29 47.1  +0.2
      comp=Z,5.4nm,0.8s,mb4.5,baz=83,slow=6.0,SNR=12
BOSA                               LR    LR     08 55 44.1
      comp=Z,1µm,21.1s,MS5.2,baz=74,slow=31
LVV   L'vov            73.78 321  eP     P      08 30 02.4  +11
MAW   Mawson           74.55 192   LR    LR     08 56 21.0
      comp=Z,396nm,19.9s,MS4.7,baz=20,slow=31
KWP   Kalwaria Pacla   74.58 320   PFAKE        08 30 10.0  +14
KWP                                LR    LR
      comp=Z,858nm,19.0s,MS5.1
UZH   Uzhgorod         74.64 319  eP     P      08 29 57.0  +0.4
UZH                               i             08 32 40.5
UZH                               iS     S      08 39 29.0  -1.3
KOLS  Kolonicke sedl   74.71 320  eP     P      08 29 57.7  +0.7
KOLS                              e      pP     08 30 06.1  -1.1
KOLS                              e             08 30 15.9
KOLS                               pmax  pmax
      comp=Z,123nm,2.8s,mb5.3
KOLS  Kolonicke sedl   74.71 320  eP     P      08 29 57.7  +0.7
      comp=Z,123nm,2.8s,mb5.3
KOLS                              ePP    pP     08 30 06.1  -1.1
KOLS                              e             08 30 15.9
LVZ   Lovozero         75.01 340   PFAKE        08 30 10.0  +12
LVZ                                LR    LR
      comp=Z,2µm,19.0s,MS5.5
TIR   Tirane           75.09 312   PFAKE        08 30 10.0  +11
TIR                                LR    LR
      comp=Z,735nm,19.0s,MS5.0
CRVS  Cervenica-Dubn   75.23 320  eP     P      08 30 01.1  +1.1
CRVS                              e      pP     08 30 09.1  -1.1
CRVS                               pmax  pmax
      comp=Z,62nm,2.5s,mb5.1
CRVS  Cervenica-Dubn   75.23 320  eP     P      08 30 01.1  +1.1
      comp=Z,62nm,2.5s,mb5.1
CRVS                              ePP    pP     08 30 09.1  -1.1
APA   Apatity          75.28 340⇑eP     P      08 30 04.5  +4.6
APA                               eS     S      08 39 36.0  -0.7
APA                               ePS           08 40 24.0
APA                               eSS    SS     08 44 31.0  +4.2
APA                                MLR   MLR
      comp=Z,3µm,18.0s,MS5.6
STHS  Stebnicka Huta   75.47 320  eP     P      08 30 02.5  +1.1
STHS                               pmax  pmax
      comp=Z,3.0nm,0.8s,mb4.3
STHS  Stebnicka Huta   75.47 320  eP     P      08 30 02.5  +1.1
      comp=Z,2.6nm,0.8s,mb4.2
KECS  Kecovo           75.79 319  eP     P      08 30 03.4  +0.2
KECS                               pmax  pmax
      comp=Z,2.0nm,1.0s,mb4.0
KECS  Kecovo           75.79 319  eP     P      08 30 03.4  +0.2
      comp=Z,2.4nm,1.0s,mb4.1
DZM   Mont Dzumac      75.82 114  eLR    LR     08 53 36.8
      comp=Z,1µm,22.1s
FINES FINESS Array B   75.86 333   P     P      08 30 02.6  -0.8
      comp=Z,3.0nm,0.8s,mb4.3,baz=127,slow=5.0,SNR=5.9
FINES                              LR    LR     09 10 45.2
      comp=Z,947nm,18.5s,MS5.1,baz=303,slow=42
PSZ   Piszkesteto      76.08 318   PFAKE        08 30 20.0  +15
PSZ                                LR    LR
      comp=Z,436nm,19.0s,MS4.8
OJC   Ojcow            76.54 321  eP     P      08 30 07.0  -0.5
OJC                               eS     S      08 39 53.8  +2.5
OJC                                L            09 13 12.1
      comp=Z,0.6nm,17.6s
VYHS  Vyhne            76.87 319  eP     P      08 30 09.8  +0.4
VYHS                               pmax  pmax
      comp=Z,45nm,2.5s,mb5.0
VYHS  Vyhne            76.87 319  eP     P      08 30 09.8  +0.4
      comp=Z,44nm,2.5s,mb5.0
TIP   Timpagrande      77.20 309  eP     P      08 30 11.1  -0.3
      comp=Z,48nm,1.8s,mb5.1
TIP                                LR    LR
      comp=Z,609nm,20.0s,MS4.9
SUR   Sutherland       77.53 236   PFAKE        08 30 30.0  +17
SUR                                LR    LR
      comp=Z,1µm,19.0s,MS5.2
CEL   Celeste          77.79 308   PFAKE        08 30 30.0  +15
CEL                                LR    LR
      comp=Z,331nm,19.0s,MS4.7
MODS  Modra-Piesok     77.88 319  eP     P      08 30 18.1  +3.1
MODS                               pmax  pmax
      comp=Z,8.0nm,1.2s,mb4.5
MODS  Modra-Piesok     77.88 319  eP     P      08 30 18.1  +3.1
      comp=Z,8.3nm,1.2s,mb4.5
MORC  Moravsky Berou   77.91 320  eP     P      08 30 14.0  -1.1
MORC                               pmax  pmax
      comp=Z,45nm,1.8s,mb5.1
MORC  Moravsky Berou   77.91 320  eP     P      08 30 14.0  -1.1
      comp=Z,45nm,1.8s,mb5.1
ZST   Bratislava       77.97 318  eP     P      08 30 16.2  +0.6
ZST                                pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.8
ZST   Bratislava       77.97 318  eP     P      08 30 16.1  +0.5
ZST   Bratislava       77.97 318  eP     P      08 30 16.2  +0.6
      comp=Z,8.6nm,0.7s,mb4.8
TSUM  Tsumeb           77.97 250   PFAKE        08 30 30.0  +14
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TSUM                               LR    LR
      comp=Z,2µm,20.0s,MS5.4
CUC   Castrocucco      78.00 310   PFAKE        08 30 30.0  +14
CUC                                LR    LR
      comp=Z,621nm,22.0s,MS4.9
KEV   Kevo             78.31 341   PFAKE        08 30 30.0  +13
KEV                                LR    LR
      comp=Z,1µm,19.0s,MS5.3
KOGS  Kog              78.33 316  eP     P      08 30 17.3  -0.3
WDD   Wield Dalam      78.72 306   PFAKE        08 30 30.0  +10
WDD                                LR    LR
      comp=Z,579nm,20.0s,MS4.9
ARCES ARCESS Array B   78.72 341   P     P      08 30 18.7  -0.6
      comp=Z,4.6nm,0.8s,mb4.5,baz=93,slow=4.9,SNR=8.2
ARCES                              LR    LR     09 08 53.3
      comp=Z,2µm,19.3s,MS5.4,baz=112,slow=39
DPC   Dobruska-Polom   78.76 320  eP     P      08 30 20.3  +0.4
DPC                               epP    pP     08 30 26.8  -3.3
DPC                                AMS   AMS    09 19 10.0
      comp=Z,600nm,16.1s
ARSA  Arzberg          78.92 317⇑iP     P      08 30 21.1  +0.3
      comp=Z,20nm,1.3s,mb4.9
BOJS  Bojanci          78.92 315  eP     P      08 30 20.6  -0.2
UPC   Upice            78.98 321  eP     P      08 30 21.7  +0.6
PERS  Pernice          79.13 317  iP     P      08 30 22.1  +0.1
SOKA  Soboth           79.19 317⇑iP     P      08 30 22.6  +0.3
      comp=Z,19nm,1.2s,mb4.9
PRU   Pruhonice        79.86 320  eP     P      08 30 25.5  -0.4
PRU                               ex     x      08 30 32.4
PRU                                AMS   AMS    09 20 00.0
      comp=Z,600nm,16.0s
PVCC  Panska Ves       79.90 320   AMS   AMS    09 22 30.0
      comp=Z,700nm,14.8s
VOY   Vojsko           79.92 316  eP     P      08 30 25.8  -0.5
BILL  Bilibino         80.00  21  iP     P      08 30 26.9  +0.7
BILL                              e      pP     08 30 37.8  +1.3
BILL                               pmax  pmax
      comp=Z,5.0nm,1.1s,mb4.4
GEC2  GERESS Array S   80.29 319  eP     P      08 30 28.3  +0.1
GEC2                               pmax  pmax
      comp=Z,58nm,1.7s,mb5.2
GEC2  GERESS Array S   80.29 319  eP     P      08 30 28.3  +0.1
      comp=Z,58nm,1.7s,mb5.2
GERES GERESS Array B   80.29 319   P     P      08 30 28.4  +0.2
      comp=Z,3.6nm,0.8s,mb4.3,baz=93,slow=5.3,SNR=28
GERES                              LR    LR     09 12 27.2
      comp=Z,598nm,20.1s,MS4.9,baz=351,slow=40
BRG   Berggiesshubel   80.33 321  eP     P      08 30 28.4   0.0
BRG                               e             08 30 34.3
BRG                               e             08 30 41.2
BRG                                S     S      08 40 35.0  +3.1
BRG                                pmax  pmax
      comp=Z,7.0nm,1.4s,mb4.4
BRG                                MLR   MLR
      comp=Z,430nm,17.9s,MS4.8
BRG   Berggiesshubel   80.33 321  eP     P      08 30 28.6  +0.2
      comp=Z,402nm,4.8s
BRG   Berggiesshubel   80.33 321  eP     P      08 30 28.4  +0.1
      comp=Z,12nm,1.4s,mb4.7
BRG                               e             08 30 34.3
      comp=Z,25nm,1.7s
BRG                               e             08 30 41.2
      comp=Z,31nm,1.8s
BRG                                S     S      08 40 35.0  +3.1
BRG                                SS    SS     08 45 25.0  -19
BRG
      comp=N,635nm,13.8s
BRG
      comp=E,506nm,12.0s
BRG
      comp=Z,710nm,17.9s
BRG   Berggiesshubel   80.33 321  eP     P      08 30 28.4  +0.1
      comp=Z,7.2nm,1.4s,mb4.4
BRG                               e             08 30 34.3
BRG                               e             08 30 41.2
BRG                                S     S      08 40 35.0  +3.1
BRG                                SS    SS     08 45 25.0  -19
BRG                                LR    LR
      comp=Z,430nm,17.9s,MS4.8
KHC   Kasperske Hory   80.40 319  eP     P      08 30 27.9  -0.9
KHC                               epP    pP     08 30 37.0  -2.1
KHC                                AMS   AMS    09 17 10.0
      comp=Z,500nm,17.0s
RJOB  Jochberg         80.80 318  eP     P      08 30 30.4  -0.6
      comp=Z,7.0nm,0.8s,mb4.6
WET   Wettzell         80.86 319  eP     P      08 30 31.3   0.0
WET                                pmax  pmax
      comp=Z,32nm,1.7s,mb5.0
WET   Wettzell         80.86 319  eP     P      08 30 31.3   0.0
      comp=Z,32nm,1.7s,mb5.0
CLL   Collm            80.96 321  eP     P      08 30 32.0  +0.2
CLL                               epP    pP     08 30 41.0  -1.0
CLL                               eS     S      08 40 36.0  -2.5
      comp=N,300nm,22.5s
CLL                               eS     S      08 40 36.0  -2.5
      comp=E,200nm,17.8s
CLL                               ePS           08 41 32.0
CLL                               e(SS)         08 45 30.0
CLL                               esSS          08 46 12.0
CLL                               eSSS          08 49 30.0
CLL                               e             08 51 00.0
CLL                               eSSSS         08 52 18.0
CLL   Collm            80.96 321  eP     P      08 30 34.0  +2.2
CLL                               e             08 30 56.0
CLL                               eS     S      08 40 36.0  -2.5
CLL                                LR    LR
      comp=Z,600nm,17.8s,MS5.0
TANN  Tannenbergstha   81.23 320  eP     P      08 30 32.9  -0.3
      comp=Z,44nm,2.2s,mb5.0
ROTZ  Rotzenmuhle      81.34 320  eP     P      08 30 34.2  +0.4
      comp=Z,36nm,2.0s,mb5.0
MANZ  Manzenberg       81.42 320  eP     P      08 30 34.9  +0.7
      comp=Z,57nm,1.9s,mb5.2
HFS   Hagfors          81.50 330   P     P      08 30 35.2  +0.8
      comp=Z,1.5nm,0.6s,mb4.1,baz=124,slow=7.2,SNR=3.3
MOX   Moxa             81.78 320  eP     P      08 30 42.7  +6.6
      comp=Z,36nm,1.9s,mb5.0
MOX
      comp=Z,400nm,18.0s
MOX   Moxa             81.78 320  eP     P      08 30 42.7  +6.6
MOX                                pmax  pmax
      comp=Z,36nm,1.9s,mb5.0
MOX                                MLR   MLR
      comp=Z,400nm,18.0s,MS4.8
MOTA  Moosalm          81.92 317⇑iP     P      08 30 37.1  +0.1
      comp=Z,8.4nm,0.9s,mb4.7
GRA1  Grafenberg Arr   81.97 319  eP     P      08 30 37.4  +0.2
      comp=Z,14nm,0.9s,mb4.9
GRA1                              eS     S      08 40 53.6  +4.6
GRA1                               LR    LR
      comp=Z,400nm,18.4s,MS4.8
GRF   Grafenberg Arr   81.97 319  eP     P      08 30 37.4  +0.2
GRF                               eS     S      08 40 53.6  +4.6
GRF                                pmax  pmax
      comp=Z,14nm,0.9s,mb4.9
GRF                                MLR   MLR
      comp=Z,400nm,18.4s,MS4.8
GRF   Grafenberg Arr   81.97 319  eP     P      08 30 37.4  +0.2
GRF                               eS     S      08 40 53.6  +4.6
GRF                                pmax  pmax
      comp=Z,14nm,0.9s,mb4.9
GRF                                MLR   MLR
      comp=Z,400nm,18.4s,MS4.8
GRF   Grafenberg Arr   81.97 319  eP     P      08 30 37.4  +0.2
      comp=Z,14nm,0.9s,mb4.9
GRF                               eS     S      08 40 53.6  +4.6
GRF                               eL            09 13 18.0
      comp=Z,427nm,18.4s
RETA  Reutte           82.16 317⇓iP     P      08 30 37.6  -0.6
      comp=Z,10.0nm,1.3s,mb4.6
FETA  Feichten         82.16 317⇑iP     P      08 30 37.8  -0.4
      comp=Z,17nm,1.5s,mb4.7
VLC   Villacollemand   82.28 314   PFAKE        08 30 50.0  +11
VLC                                LR    LR
      comp=Z,464nm,20.0s,MS4.8
DAVA  Damuels          82.75 317⇑iP     P      08 30 41.4  +0.2
      comp=Z,12nm,1.1s,mb4.8
NOA   NORSAR Array B   82.81 331   LR    LR     09 13 45.2
      comp=Z,506nm,18.8s,MS4.9,baz=100,slow=40
KEST  Kesra            82.92 305   P     P      08 30 42.4   0.0
      comp=Z,1.8nm,0.9s,mb4.1,baz=15,slow=4.6,SNR=6.8
KEST                               LR    LR     09 08 45.8
      comp=Z,282nm,19.8s,MS4.6,baz=13,slow=36
VSL   Villasalto       82.93 309   PFAKE        08 30 50.0  +7.6
VSL                                LR    LR
      comp=Z,296nm,20.0s,MS4.7
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TUE   Stuetta          83.09 316   PFAKE        08 30 50.0  +6.9
TUE                                LR    LR
      comp=Z,553nm,20.0s,MS4.9
PGF   Pioggiola        83.26 312  eP     P      08 30 43.7  -0.3
      comp=Z,32nm,1.2s,mb4.9
PGF   Pioggiola        83.26 312  eP     P      08 30 43.7  -0.3
PGF                                pmax  pmax
      comp=Z,16nm,1.2s,mb4.9
PGF   Pioggiola        83.26 312  eP     P      08 30 43.7  -0.3
      comp=Z,16nm,1.2s,mb4.9
KONO  Kongsberg        83.51 329   PFAKE        08 31 00.0  +15
KONO                               LR    LR
      comp=Z,624nm,19.0s,MS5.0
BFO   Black Forest     83.83 318   PFAKE        08 31 00.0  +13
BFO                                LR    LR
      comp=Z,490nm,19.0s,MS4.9
SBF   Sospel           84.41 314  eP     P      08 30 49.6  -0.3
CDF   Champ du Feu     84.53 318  eP     P      08 30 50.0  -0.4
KBS   Kingsbay         84.53 349   PFAKE        08 31 00.0  +10
KBS                                LR    LR
      comp=Z,1µm,19.0s,MS5.3
ECH   Echery           84.61 318   PFAKE        08 31 00.0  +9.2
ECH                                LR    LR
      comp=Z,454nm,19.0s,MS4.9
MBDF  Montbardon       84.88 314  eP     P      08 30 53.2  +1.0
LPG   La Plagne        84.89 315  eP     P      08 30 52.3   0.0
LPL   La Plagne        84.90 315  eP     P      08 30 52.3   0.0
      comp=Z,16nm,1.0s,mb4.8
LPL   La Plagne        84.90 315  eP     P      08 30 52.3   0.0
LPL                                pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.8
LPL   La Plagne        84.90 315  eP     P      08 30 52.3   0.0
      comp=Z,7.9nm,1.0s,mb4.8
BNI   Bardonecchia     84.95 315  eP     P      08 30 53.7  +1.2
BNI                                pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.8
BNI                                MLR   MLR
      comp=Z,700nm,19.0s,MS5.1
BNI   Bardonecchia     84.95 315  eP     P      08 30 53.7  +1.2
      comp=Z,9.0nm,1.1s,mb4.8
BNI                                LR    LR
      comp=Z,700nm,19.0s,MS5.1
FRF   La Foret Royal   84.98 313  eP     P      08 30 52.6  -0.2
LMR   La Mourre        85.09 313  eP     P      08 30 53.0  -0.3
HAU   Haudompre        85.15 318  eP     P      08 30 52.7  -0.8
HAU                               eMLR   MLR
      comp=Z,461nm,21.2s,MS4.5
HAU   Haudompre        85.15 318  eP     P      08 30 52.7  -0.8
HAU                                LR    LR
      comp=Z,460nm,21.3s,MS4.8
WLF   Walferdange      85.27 319   PFAKE        08 31 10.0  +16
WLF                                LR    LR
      comp=Z,562nm,20.0s,MS5.0
CABF  La Chapelle      85.34 316  eP     P      08 30 54.5   0.0
      comp=Z,56nm,1.5s,mb5.2
CABF  La Chapelle      85.34 316  eP     P      08 30 54.5   0.0
CABF                               pmax  pmax
      comp=Z,28nm,1.5s,mb5.2
CABF  La Chapelle      85.34 316  eP     P      08 30 54.5   0.0
      comp=Z,28nm,1.5s,mb5.2
ORIF  Oris-en-Rattie   85.51 315  eP     P      08 30 55.4   0.0
ORIF                              eMLR   MLR
      comp=Z,614nm,21.0s,MS4.7
SMRF  Simiane la Rot   85.75 314  eP     P      08 30 57.0  +0.4
      comp=Z,59nm,1.6s,mb5.2
SMRF  Simiane la Rot   85.75 314  eP     P      08 30 57.0  +0.4
      comp=Z,59nm,1.6s,mb5.6
SNZO  South Karori     86.03 132   PFAKE        08 31 10.0  +12
SNZO                               LR    LR
      comp=Z,1µm,20.0s,MS5.3
GIVF  Givet            86.12 320  eP     P      08 30 57.9  -0.4
VIVF  Saint-Julien-l   86.37 315  eP     P      08 30 59.4  -0.3
SSB   Saint Sauveur    86.45 315   PFAKE        08 31 10.0  +10
SSB                                LR    LR
      comp=Z,375nm,19.0s,MS4.8
BAIF  Baives           86.52 320  eP     P      08 30 59.9  -0.3
TAM   Tamanrasset      86.57 292  eP     P      08 31 02.3  +1.2
TAM                                pmax  pmax
      comp=Z,32nm,1.6s,mb5.3
TAM                                MLR   MLR
      comp=Z,541nm,20.0s,MS5.0
TAM   Tamanrasset      86.57 292  eP     P      08 31 02.3  +1.3
      comp=Z,32nm,1.6s,mb5.3
TAM                                LR    LR
      comp=Z,541nm,20.0s,MS5.0
LOR   Lormes           86.85 317  eP     P      08 31 01.4  -0.5
      comp=Z,10nm,0.9s,mb4.8
LOR                               eMLR   MLR
      comp=Z,429nm,17.0s,MS4.6
LOR   Lormes           86.85 317  eP     P      08 31 01.4  -0.5
LOR                                pmax  pmax
      comp=Z,5.0nm,0.9s,mb4.7
LOR                                MLR   MLR
      comp=Z,430nm,17.0s,MS4.9
LOR   Lormes           86.85 317  eP     P      08 31 01.4  -0.5
      comp=Z,5.1nm,0.9s,mb4.8
LOR                                LR    LR
      comp=Z,430nm,17.0s,MS4.9
SMF   Signal de Mont   86.89 316  eP     P      08 31 01.4  -0.7
LASF  Ste Croix        86.99 314  eP     P      08 31 02.8  +0.1
SSF   Saint Saulge     87.10 317  eP     P      08 31 02.8  -0.4
AVF   Avril sur Loir   87.22 317  eP     P      08 31 03.1  -0.6
      comp=Z,20nm,1.2s,mb4.9
AVF   Avril sur Loir   87.22 317  eP     P      08 31 03.1  -0.6
AVF                                pmax  pmax
      comp=Z,10.0nm,1.2s,mb4.9
AVF   Avril sur Loir   87.22 317  eP     P      08 31 03.1  -0.6
      comp=Z,9.9nm,1.2s,mb4.9
BGF   Bois d'Agland    87.58 316  eP     P      08 31 05.4  -0.1
MTLF  Montolieu        88.21 313  eP     P      08 31 08.7  +0.1
LFF   La Frestale      89.16 315  eP     P      08 31 13.3  +0.3
VNDA  Vanda            89.23 168   LR    LR     09 08 45.6
      comp=Z,330nm,18.3s,MS4.8,baz=299,slow=34
VNDA  Vanda            89.23 168   PFAKE        08 31 20.0  +7.4
VNDA                               LR    LR
      comp=Z,647nm,19.0s,MS5.1
LDF   La Druitiere     89.43 318  eP     P      08 31 13.9  -0.3
EPF   Esparros         89.61 313  eP     P      08 31 15.2  +0.1
GRR   Gorron           89.94 318  eP     P      08 31 16.4  -0.2
ESK   Eskdalemuir      90.58 325   PFAKE        08 31 30.0  +11
ESK                                LR    LR
      comp=Z,625nm,22.0s,MS5.0
RAO   Raoul Island     90.72 119   PFAKE        08 31 30.0  +9.4
RAO                                LR    LR
      comp=Z,1µm,20.0s,MS5.3
SJPF  Ste Jean         90.74 313  eP     P      08 31 19.5  -0.9
TORD  Torodi Ar. Bea   90.80 283   P     P      08 31 21.4  +0.2
      comp=Z,1.2nm,0.9s,mb4.2,baz=71,slow=5.5,SNR=7.5
TORD                               LR    LR     09 12 49.8
      comp=Z,776nm,18.3s,MS5.2,baz=90,slow=36
TORD  Torodi Ar. Bea   90.80 283   P     P      08 31 21.4  +0.2
TORD                               LR    LR     09 12 49.8
ESDC  Sonseca Array    93.20 310   LR    LR     09 16 19.1
      comp=Z,224nm,19.5s,MS4.6,baz=130,slow=37
ESLA  Sonseca Array    93.20 310   PFAKE        08 31 40.0  +8.1
ESLA                               LR    LR
      comp=Z,1µm,19.0s,MS5.3
PAB   San Pablo        93.51 310   PFAKE        08 31 40.0  +6.7
PAB                                LR    LR
      comp=Z,489nm,21.0s,MS4.9
QSPA  South Pole Qui   93.86 180   PFAKE        08 31 50.0  +16
QSPA                               LR    LR
      comp=Z,1µm,20.0s,MS5.3
SFS   San Fernando     95.41 307   PFAKE        08 31 50.0  +7.9
SFS                                LR    LR
      comp=Z,970nm,21.0s,MS5.2
IMA2  Indian Mountai   95.52  22  eP     P      08 31 42.8  +0.9
MTE   Manteigas        95.80 311   PFAKE        08 32 00.0  +16
MTE                                LR    LR
      comp=Z,378nm,20.0s,MS4.9
RTC   Rabat Centre     96.32 305   PFAKE        08 32 00.0  +14
RTC                                LR    LR
      comp=Z,710nm,22.0s,MS5.1
DBIC  Dimbokro         97.75 277   LR    LR     09 13 14.9
      comp=Z,972nm,19.8s,MS5.3,baz=68,slow=34
DBIC  Dimbokro         97.75 277   PFAKE        08 32 00.0  +6.8
DBIC                               LR    LR
      comp=Z,1µm,20.0s,MS5.3
COLA  College          98.23  22   PFAKE        08 32 10.0  +16
COLA                               LR    LR
      comp=Z,917nm,19.0s,MS5.3
KDAK  Kodiak Island    99.20  30   LR    LR     09 17 34.6
      comp=Z,722nm,19.2s,MS5.2,baz=310,slow=36
KDAK  Kodiak Island    99.20  30   PFAKE        08 32 10.0  +11
KDAK                               LR    LR
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       comp=Z,1µm,21.0s,MS5.4
SHEL   Horse Pasture    99.88 255  PFAKE               08 32 10.0 +8.2
SHEL                               LR        LR
       comp=Z,1µm,22.0s,MS5.4
EGAK   Eagle           100.73  21  PFAKE               08 32 20.0  +14
EGAK                               LR        LR
       comp=Z,899nm,19.0s,MS5.3
RES    Resolute Bay    101.35   2 eP         Pdif      08 32 09.0 +0.7
RES                                pmax      pmax
       comp=Z,2.0nm,0.8s
RES    Resolute Bay    101.35   2  P         Pdif      08 32 08.6 +0.3
       comp=Z,1.4nm,0.8s,baz=3.0,slow=5.5,SNR=8.0
RES    Resolute Bay    101.35   2 ePdif      Pdif      08 32 09.0 +0.7
       comp=Z,1.8nm,0.8s
SFJD   Kangerlussuaq   104.77 346  PFAKE               08 32 30.0 +6.5
SFJD                               LR        LR
       comp=Z,652nm,21.0s,MS5.2
WRAK   Wrangell Islan  109.28  25  PFAKE               08 37 00.0  +13
WRAK                               LR        LR
       comp=Z,923nm,19.0s,MS5.4
YKA    Yellowknife Ar  110.40  13  PP        PP        08 37 16.2  -7.6
       comp=Z,0.3nm,0.8s,baz=334,slow=7.3,SNR=3.9
YKA                                PKKPbc    PKKPbc    08 47 49.2  -2.6
       comp=Z,0.2nm,0.7s,baz=147,slow=3.4,SNR=4.0
YKA                                PKKP      PKKPbc    08 48 07.4  +16
       comp=Z,0.2nm,0.7s,baz=144,slow=4.1,SNR=5.6
PPT    Papeete         116.90 108 ePS        PS        08 47 57.0 +1.0
       comp=Z,203nm,23.2s
PPT                               eLR        LR        09 12 37.1
       comp=Z,468nm,23.0s
PMSA   Palmer Station  117.16 191  PFAKE               08 37 10.0 +8.1
PMSA                               LR        LR
       comp=Z,1µm,19.0s,MS5.5
NLWA   Neilton Lookou  119.30  28  PFAKE               08 37 20.0  +13
NLWA                               LR        LR
       comp=Z,620nm,19.0s,MS5.3
FFC    Flin Flon       120.17  10  PFAKE               08 37 20.0  +12
FFC                                LR        LR
       comp=Z,768nm,22.0s,MS5.3
NEW    Newport         121.57  23  PFAKE               08 37 20.0 +9.1
NEW                                LR        LR
       comp=Z,754nm,21.0s,MS5.3
HAWA   Hanford         122.03  26  PFAKE               08 37 20.0 +8.1
HAWA                               LR        LR
       comp=Z,717nm,21.0s,MS5.3
HUMO   Hull Mountain   123.17  32  PFAKE               08 37 30.0  +16
HUMO                               LR        LR
       comp=Z,498nm,21.0s,MS5.2
YBH    Yreka Blue Hor  123.92  32  PFAKE               08 37 30.0  +14
YBH                                LR        LR
       comp=Z,425nm,19.0s,MS5.1
MSO    Missoula        123.98  22  PFAKE               08 37 30.0  +14
MSO                                LR        LR
       comp=Z,604nm,20.0s,MS5.2
BMO    Blue Mountains  124.21  26  PFAKE               08 37 30.0  +14
BMO                                LR        LR
       comp=Z,714nm,19.0s,MS5.3
EGMT   Eagleton        124.42  19 ePKPdf     PKPdf     08 37 15.9  -0.5
EGMT                               LR        LR
       comp=Z,659nm,21.0s,MS5.3
WDC    Whiskeytown Da  124.82  33  PFAKE               08 37 30.0  +13
WDC                                LR        LR
       comp=Z,576nm,20.0s,MS5.2
MOD    Modoc           125.04  30  PFAKE               08 37 30.0  +12
MOD                                LR        LR
       comp=Z,440nm,19.0s,MS5.2
ULM    Lac du Bonnet   125.44   7  PKP       PKPdf     08 37 18.5 +0.1
       comp=Z,1.6nm,0.7s,baz=30,slow=5.9,SNR=3.5
WVOR   Wild Horse Val  125.47  29  PFAKE               08 37 30.0  +11
WVOR                               LR        LR
       comp=Z,405nm,20.0s,MS5.1
DGMT   Dagmar          125.59  14  PFAKE               08 37 30.0  +11
DGMT                               LR        LR
       comp=Z,923nm,19.0s,MS5.5
BOZ    Bozeman (W)     125.84  21  PFAKE               08 37 30.0  +11
BOZ                                LR        LR
       comp=Z,682nm,22.0s,MS5.3
HLID   Hailey          126.48  25  PFAKE               08 37 30.0 +9.5
HLID                               LR        LR
       comp=Z,755nm,19.0s,MS5.4
TAOE   Nuku Hiva Isla  126.57  98 eLR        LR        09 17 14.6
       comp=Z,533nm,23.4s
LAO    LASA Array      126.69  17  PFAKE               08 37 30.0 +9.2
LAO                                LR        LR
       comp=Z,1µm,19.0s,MS5.6
EFI    East Falkland   126.81 202  PFAKE               08 37 30.0 +9.1
EFI                                LR        LR
       comp=Z,432nm,19.0s,MS5.2
RLMT   Red Lodge       127.13  20  PFAKE               08 37 30.0 +8.3
RLMT                               LR        LR
       comp=Z,849nm,19.0s,MS5.4
LKWY   Lake            127.22  21  PFAKE               08 37 30.0 +8.1
LKWY                               LR        LR
       comp=Z,1µm,19.0s,MS5.6
AGMN   Agassiz Refuge  127.36   8  PFAKE               08 37 30.0 +7.9
AGMN                               LR        LR
       comp=Z,769nm,19.0s,MS5.4
BMN    Battle Mountai  127.68  29  PFAKE               08 37 30.0 +7.1
BMN                                LR        LR
       comp=Z,478nm,20.0s,MS5.2
CMB    Columbia Colle  127.79  34  PFAKE               08 37 30.0 +6.8
CMB                                LR        LR
       comp=Z,422nm,20.0s,MS5.1
SNOW   Snow King Moun  128.03  22 ePKPdf     PKPdf     08 37 24.7 +1.2
EYMN   Ely             128.16   4  PFAKE               08 37 40.0  +16
EYMN                               LR        LR
       comp=Z,673nm,19.0s,MS5.3
ELK    Elko            128.38  28  PFAKE               08 37 40.0  +16
ELK                                LR        LR
       comp=Z,637nm,20.0s,MS5.3
AHID   Auburn Hatcher  128.49  23  PFAKE               08 37 40.0  +16
AHID                               LR        LR
       comp=Z,792nm,20.0s,MS5.4
NVAR   Mina Array Bea  128.63  32  PKP       PKPdf     08 37 26.2 +1.4
       comp=Z,0.8nm,0.7s,baz=308,slow=3.1,SNR=7.1
NVAR   Mina Array Bea  128.63  32  PKP       PKPdf     08 37 26.2 +1.4
BW06   Boulder Array   129.07  22  PFAKE               08 37 40.0  +14
BW06                               LR        LR
       comp=Z,1µm,21.0s,MS5.5
PDAR   Pinedale Array  129.08  22  PKP       PKPdf     08 37 26.5 +1.0
       comp=Z,0.6nm,0.8s,baz=357,slow=3.0,SNR=5.5
RCBR   Riachuelo       129.49 266  PFAKE               08 37 40.0  +13
RCBR                               LR        LR
       comp=Z,981nm,21.0s,MS5.5
RSSD   Black Hills     129.66  16  PFAKE               08 37 40.0  +13
RSSD                               LR        LR
       comp=Z,835nm,19.0s,MS5.5
DUG    Dugway          129.92  26 ePKIKP     PKPdf     08 37 28.4 +1.2
DUG                                MLR       MLR
       comp=Z,418nm,19.0s,MS5.2
COWI   Conover         130.14   2  PFAKE               08 37 40.0  +13
COWI                               LR        LR
       comp=Z,713nm,20.0s,MS5.4
LBNH   Lisbon          130.28 346  PFAKE               08 37 40.0  +12
LBNH                               LR        LR
       comp=Z,1µm,20.0s,MS5.6
LONY   Lake Ozonia     130.49 349  PFAKE               08 37 40.0  +12
LONY                               LR        LR
       comp=Z,526nm,20.0s,MS5.2
NCB    Newcomb         131.04 348  PFAKE               08 37 40.0  +11
NCB                                LR        LR
       comp=Z,792nm,21.0s,MS5.4
GLMI   Grayling        131.44 358  PFAKE               08 37 40.0  +10
GLMI                               LR        LR
       comp=Z,770nm,19.0s,MS5.4
MVU    Marysvale       131.57  27  PFAKE               08 37 40.0  +10
MVU                                LR        LR
       comp=Z,508nm,21.0s,MS5.2
MSU    Marysvale       131.58  27 ePKIKP     PKPdf     08 37 33.0 +2.6
ECSD   EROS Data Cent  131.70  10  PFAKE               08 37 40.0  +10
ECSD                               LR        LR
       comp=Z,787nm,21.0s,MS5.4
BINY   Binghamton      133.09 349  PFAKE               08 37 40.0 +6.9
BINY                               LR        LR
       comp=Z,760nm,22.0s,MS5.4
ISCO   Idaho Springs   133.09  20  PFAKE               08 37 50.0  +17
ISCO                               LR        LR
       comp=Z,678nm,20.0s,MS5.4
OGNE   Ogallala        133.16  16  PFAKE               08 37 40.0 +6.7
OGNE                               LR        LR
       comp=Z,1µm,20.0s,MS5.5
PFO    Pinyon Flat Ob  133.19  35  PFAKE               08 37 50.0  +16
PFO                                LR        LR
       comp=Z,802nm,19.0s,MS5.5
JFWS   Jewell Farm     133.26   4  PFAKE               08 37 40.0 +6.6
JFWS                               LR        LR
       comp=Z,683nm,20.0s,MS5.4
ERPA   Erie            133.78 353  PFAKE               08 37 50.0  +16
ERPA                               LR        LR
       comp=Z,770nm,21.0s,MS5.4
AAM    Ann Arbor       133.91 357  PFAKE               08 37 50.0  +15
AAM                                LR        LR
       comp=Z,557nm,20.0s,MS5.3
SCIA   State Center    133.99   7  PFAKE               08 37 50.0  +15
SCIA                               LR        LR
       comp=Z,1µm,22.0s,MS5.6
MVCO   Mesa Verde      134.26  25  PFAKE               08 37 50.0  +15
MVCO                               LR        LR
       comp=Z,750nm,19.0s,MS5.4
WUAZ   Wupatki         134.39  29  PFAKE               08 37 50.0  +14
WUAZ                               LR        LR
       comp=Z,380nm,19.0s,MS5.1
SSPA   Standing Stone  134.94 351  PFAKE               08 37 50.0  +13
SSPA                               LR        LR
       comp=Z,619nm,19.0s,MS5.3
SDCO   Great Sand Dun  134.96  21  PFAKE               08 37 50.0  +13
SDCO                               LR        LR
       comp=Z,672nm,21.0s,MS5.3
HDIL   Hopedale        135.66   3  PFAKE               08 37 50.0  +12
HDIL                               LR        LR
       comp=Z,527nm,21.0s,MS5.2
CBKS   Cedar Bluff     135.76  15  PFAKE               08 37 50.0  +12
CBKS                               LR        LR
       comp=Z,663nm,20.0s,MS5.4
ACSO   Alum Creek Sta  135.93 356  PFAKE               08 37 50.0  +11
ACSO                               LR        LR
       comp=Z,713nm,20.0s,MS5.4
MCWV   Mont Chateau    136.19 352  PFAKE               08 37 50.0  +11
MCWV                               LR        LR
       comp=Z,761nm,20.0s,MS5.4
KSU1   Kansas State U  136.19  11  PFAKE               08 37 50.0  +11
KSU1                               LR        LR
       comp=Z,810nm,21.0s,MS5.4
ANMO   Albuquerque     137.04  24  PFAKE               08 37 50.0 +9.3
ANMO                               LR        LR
       comp=Z,547nm,21.0s,MS5.3
CBN    Corbin          137.22 349  PFAKE               08 37 50.0 +9.0
CBN                                LR        LR
       comp=Z,615nm,19.0s,MS5.4
TUC    Tucson          137.25  31  PFAKE               08 37 50.0 +8.8
TUC                                LR        LR
       comp=Z,471nm,21.0s,MS5.2
SPB    Sao Paulo       137.47 239  PFAKE               08 37 50.0 +8.2
SPB                                LR        LR
       comp=Z,933nm,20.0s,MS5.5
CCM    Cathedral Cave  138.01   6  PFAKE               08 37 50.0 +7.6
CCM                                LR        LR
       comp=Z,819nm,19.0s,MS5.5
WCI    Wyandotte Cave  138.06 360  PFAKE               08 37 50.0 +7.5
WCI                                LR        LR
       comp=Z,619nm,20.0s,MS5.3
BLA    Blacksburg      138.67 353  PFAKE               08 38 00.0  +16
BLA                                LR        LR
       comp=Z,632nm,20.0s,MS5.4
AMTX   Amarillo        138.86  19  PFAKE               08 38 00.0  +16
AMTX                               LR        LR
       comp=Z,742nm,21.0s,MS5.4
WVT    Waverly         140.14   2  PFAKE               08 38 00.0  +14
WVT                                LR        LR
       comp=Z,674nm,20.0s,MS5.4
CNNC   Cliffs of the   140.20 349  PFAKE               08 38 00.0  +13
CNNC                               LR        LR
       comp=Z,820nm,20.0s,MS5.5
PLCA   Paso Flores     140.62 199  PFAKE               08 38 00.0  +13
PLCA                               LR        LR
       comp=Z,588nm,20.0s,MS5.3
MIAR   Mount Ida       141.17   9  PFAKE               08 38 00.0  +12
MIAR                               LR        LR
       comp=Z,643nm,21.0s,MS5.3
PLAL   Pickwick Lake   141.27   2  PFAKE               08 38 00.0  +12
PLAL                               LR        LR
       comp=Z,906nm,20.0s,MS5.5
OXF    Oxford          141.67   4  PFAKE               08 38 00.0  +11
OXF                                LR        LR
       comp=Z,843nm,20.0s,MS5.5
NHSC   New Hope        142.67 351  PFAKE               08 38 00.0 +9.0
NHSC                               LR        LR
       comp=Z,694nm,21.0s,MS5.4
GOGA   Godfrey         142.75 356  PFAKE               08 38 00.0 +8.9
GOGA                               LR        LR
       comp=Z,797nm,20.0s,MS5.5
TXAR   Lajitas Array   143.09  25  PKP       PKPdf     08 37 49.2  -2.7
       comp=Z,0.4nm,0.6s,baz=160,slow=0.7,SNR=7.7
TXAR   Lajitas Array   143.09  25  PKP       PKPdf     08 37 49.2  -2.7
JCT    Junction City   143.53  19 ePKIKP     PKPdf     08 37 49.6  -3.0
JCT                                MLR       MLR
       comp=Z,717nm,21.0s,MS5.4
NATX   Nacogdoches     143.69  12  PFAKE               08 38 00.0 +7.2
NATX                               LR        LR
       comp=Z,731nm,19.0s,MS5.5
VBMS   Vicksburg       143.86   6  PFAKE               08 38 00.0 +6.9
VBMS                               LR        LR
       comp=Z,1µm,21.0s,MS5.6
CPUP   Villa Florida   144.22 229  PKP       PKPdf     08 37 51.7  -2.2
       comp=Z,7.3nm,0.8s,baz=91,slow=3.9,SNR=12
CPUP   Villa Florida   144.22 229  PKP       PKPdf     08 37 51.7  -2.2
HKT    Hockley         145.17  14  PFAKE               08 38 10.0  +15
HKT                                LR        LR
       comp=Z,797nm,19.0s,MS5.5
BRAL   Brewton         145.25   1  PFAKE               08 38 10.0  +15
BRAL                               LR        LR
       comp=Z,774nm,22.0s,MS5.4
KVTX   Kingsville      146.86  19  PFAKE               08 38 10.0  +12
KVTX                               LR        LR
       comp=Z,476nm,19.0s,MS5.3
ANWB   Willy Bob       147.46 312  PFAKE               08 38 10.0  +10
ANWB                               LR        LR
       comp=Z,351nm,19.0s,MS5.2
DWPF   Disney          147.77 351  PFAKE               08 38 10.0  +10
DWPF                               LR        LR
       comp=Z,650nm,19.0s,MS5.4
FDF    Fort de France  148.72 307  PFAKE               08 38 10.0 +8.2
FDF                                LR        LR
       comp=Z,521nm,20.0s,MS5.3
SJG    San Juan        150.25 318  PFAKE               08 38 20.0  +16
SJG                                LR        LR
       comp=Z,828nm,20.0s,MS5.5
GRGR   Grenville       150.53 303  PFAKE               08 38 20.0  +15
GRGR                               LR        LR
       comp=Z,437nm,21.0s,MS5.2
LCO    Las Campanas    150.85 209  PFAKE               08 38 20.0  +15
LCO                                LR        LR
       comp=Z,547nm,20.0s,MS5.3
SDDR   Presa de Saban  152.71 327  PFAKE               08 38 20.0  +12
SDDR                               LR        LR
       comp=Z,579nm,20.0s,MS5.4
GTBY   Guantanamo Bay  153.75 335  PFAKE               08 38 20.0  +11
GTBY                               LR        LR
       comp=Z,640nm,21.0s,MS5.4
TEIG   Tepich          155.94   4  PFAKE               08 38 20.0 +7.6
TEIG                               LR        LR
       comp=Z,817nm,22.0s,MS5.5
SDV    Santo Domingo   159.64 309  PFAKE               08 38 30.0  +13
SDV                                LR        LR
       comp=Z,258nm,21.0s,MS5.0
TGUH   Tegucigalpa,Un  162.12   2  PFAKE               08 38 30.0  +10
TGUH                               LR        LR
       comp=Z,636nm,19.0s
BCIP   Isla Barro Col  165.36 333  PFAKE               08 38 30.0 +7.2
BCIP                               LR        LR
       comp=Z,691nm,20.0s
JTS    JuntasAbangare  165.78 353  PFAKE               08 38 30.0 +6.9
JTS                                LR        LR
       comp=Z,988nm,21.0s
NNA    Nana            167.47 230  PFAKE               08 38 40.0  +16
NNA                                LR        LR
       comp=Z,731nm,21.0s
OTAV   Otavalo         170.89 297  PFAKE               08 38 40.0  +13
OTAV                               LR        LR
       comp=Z,644nm,20.0s
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KRSC 29 08:24:37.2±0.5**, 50°.42N×156°.84E, h10**^{km}±10^{km}**, ML3.8, Kuril Islands**

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Code   Station Name       Δ°  AZ°    Phase ID            Time       Res
                                     Op        ISC       h  m  s    ISC
MIPR   Malaya Ipel'ka   1.86 358    eP         Pn        08 25 09.7 +0.6
RUS    Russkaya         2.27  27    eP         Pn        08 25 14.8 +0.1
RUS                                 eS         Sn        08 25 42.9 +0.2
PET    Petropavlovsk    2.84  23    i P        Pn        08 25 23.4 +0.9
PET                                 eS         Sn        08 25 56.2 -0.6
SDLR   Sedlovina        3.13  23     P         Pn        08 25 28.4 +1.9
NLC    Nalytchevo       3.16  28     S         Sn        08 26 03.3 -1.4
SPN    Mys Shipunski    3.33  35    eP         Pn        08 25 30.1 +0.8
SPN                                  S         Sn        08 26 08.7 -0.2
GNL    Ganaly           3.35  11    eP         Pn        08 25 31.8 +2.3
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*ISCJB **29** 08:24:55.8±0.5, 42°.42N±0°.02×19°.83E±0°.03, h10^{km}, Error ellipse: s-maj=3.6km s-min=3.4km az=19.4*
*CSEM **29** 08:24:56.0±0.2, 42°.42N×19°.83E, h5^{km}, ML2.4/9, Error ellipse: s-maj=3.6km s-min=3.3km az=19.0*
*PDG **29** 08:24:56.6±0.2, 42°.43N×19°.79E, h0^{km}±11^{km}, MD2.5/2, ML2.4/9, Error ellipse: s-maj=0.4km s-min=0.6km az=0.0*
ISC 29 08:24:56.4±0.6**, 42°.41N**±0°.03×**19°.84E**±0°.04**, h5**^{km}±8^{km}**, n28, σ0**^{s}**.86**/52**, 16C-4D, Northwestern Balkan Peninsula**

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Code   Station Name       Δ°  AZ°    Phase ID            Time       Res
                                     Op        ISC       h  m  s    ISC
PVY    Plav             0.21  27 ⇓ iPg         Pg        08 25 00.2 -0.3
PVY                                 eSg        Sg        08 25 03.7 +0.4
PVY    Plav             0.21  27 ⇓ iPg         Pg        08 25 00.2 -0.3
PVY                                 eSg        Sg        08 25 03.7 +0.4
PDG    Podgorica        0.43 273 ⇑ iPg         Pg        08 25 03.4 -1.3
PDG                                 eSg        Sg        08 25 10.2 -0.1
TTG    Podgorica        0.43 273 ⇑ iPg         Pg        08 25 03.4 -1.3
TTG                                 eSg        Sg        08 25 10.2 -0.1
BEY    Berane           0.46   5 ⇑ iPg         Pg        08 25 05.0 -0.3
BEY                                 eSg        Sg        08 25 12.1 +0.7
IVA    Berane           0.46   5 ⇑ iPg         Pg        08 25 05.0 -0.3
IVA                                 eSg        Sg        08 25 12.1 +0.7
ULC    Ulcinj           0.63 225 ⇑ iPg         Pg        08 25 08.2 -0.2
ULC                                 eSg        Sg        08 25 17.5 +1.0
ULC    Ulcinj           0.63 225 ⇑ iPg         Pg        08 25 08.2 -0.2
ULC                                 eSg        Sg        08 25 17.5 +1.0
BUM    Brajici-Budva    0.71 262 ⇑ iPg         Pg        08 25 09.2 -0.8
BUM                                 eSg        Sg        08 25 19.9 +0.8
BUM    Brajici-Budva    0.71 262 ⇑ iPg         Pg        08 25 09.2 -0.8
BUM                                 eSg        Sg        08 25 19.9 +0.8
NKY    Niksic           0.74 303 ⇑ iPg         Pg        08 25 09.2 -1.4
NKY                                 eSg        Sg        08 25 20.5 +0.2
NKY    Niksic           0.74 303 ⇑ iPg         Pg        08 25 09.2 -1.4
NKY                                 eSg        Sg        08 25 20.5 +0.2
PLE    Pljevlja         0.98 340 ⇓ iPg         Pg        08 25 14.2 -0.9
PLE                                 eSg        Sg        08 25 28.8 +1.0
PLE    Pljevlja         0.98 340 ⇓ iPg         Pg        08 25 14.2 -0.9
PLE                                 eSg        Sg        08 25 28.8 +1.0
HCY    Herceg Novi      1.00 273 ⇑ iPg         Pg        08 25 14.1 -1.4
HCY                                 eSg        Sg        08 25 29.5 +1.1
HCY    Herceg Novi      1.00 273 ⇑ iPg         Pg        08 25 14.1 -1.4
HCY                                 eSg        Sg        08 25 29.5 +1.1
UPM    Unac-Piva        1.05 319 ⇑ iPg         Pg        08 25 15.7 -0.8
UPM                                 eSg        Sg        08 25 31.4 +1.3
UPM    Unac-Piva        1.05 319 ⇑ iPg         Pg        08 25 15.7 -0.8
UPM                                 eSg        Sg        08 25 31.4 +1.3
BRY    Bratogost        1.08 298 ⇑ iPg         Pg        08 25 15.8 -1.2
BRY                                 eSg        Sg        08 25 31.9 +0.9
BRY    Bratogost        1.08 298 ⇑ iPg         Pg        08 25 15.8 -1.2
BRY                                 eSg        Sg        08 25 31.9 +0.9
SKO    Skopje           1.26 110    ePn        Pn        08 25 19.9 -0.7
SKO    Skopje           1.26 110    ePn        Pn        08 25 19.9 -0.7
KRUS   Krusevo          1.48 134    ePn        Pn        08 25 23.8 +0.3
KRUS                                eSg        Sg        08 25 44.9 +1.1
KRUS   Krusevo          1.48 134    ePn        Pn        08 25 23.8 +0.2
KRUS                                eSg        Sg        08 25 44.8 +1.0
OHR    Ohrid            1.48 151    ePn        Pn        08 25 24.2 +0.6
OHR    Ohrid            1.48 151    ePn        Pn        08 25 24.1 +0.5
STON   Ston             1.65 287    ePn        Pn        08 25 25.8 -0.1
STON                                 Sn        Sn        08 25 51.8 +4.4
STON   Ston             1.65 287    ePn        Pn        08 25 25.8 -0.1
STON                                 Sn        Sn        08 25 51.8 +4.3
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*ISCJB **29** 08:48:09.8±0.7, 33°.66N±0°.03×140°.66E±0°.06, h54^{km}±6^{km}, mb3.6/8, Error ellipse: s-maj=8.1km s-min=5.5km az=15.1*
*JMA **29** 08:48:09.7±0.1, 33°.68N×140°.70E, h54^{km}±4^{km}, M3.7*
*IDC **29** 08:48:11.5±1.8, 33°.57N×140°.58E, h54^{km}±18^{km}, mb3.3/8, mb1 3.6/9, mb1mx3.5/24, mbtmp3.4/9, ML4.0/1, Error ellipse: s-maj=28.8km s-min=10.0km az=86.0*
ISC 29 08:48:10.3±0.8**, 33°.65N**±0°.04×**140°.70E**±0°.06**, h40**^{km}±9^{km}**, n25, σ0**^{s}**.94**/39**, mb3.6**/8**, Southeast of Honshu**

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Code   Station Name       Δ°  AZ°    Phase ID            Time       Res
                                     Op        ISC       h  m  s    ISC
JHJ2   Mitsune          0.91 234     P         Pn        08 48 26.9 +0.4
JHJ2                                eS         Sn        08 48 38.5 +0.1
JHJ    Hachijo jima 2   0.93 236     P         Pn        08 48 27.0 +0.2
       888nm,0.3s,baz=62,slow=21,SNR=436
JHJ                                  S         Sn        08 48 38.6 -0.3
       1µm,0.3s,baz=40,slow=19,SNR=50
BSO1   Boso 1           1.03  13     P         Pn        08 48 27.5 -0.7
BSO1                                eS         Sn        08 48 41.4  0.0
JMY    Miyakejima3      1.07 294     P         Pn        08 48 28.4 -0.4
BSO3   Boso 3           1.16 352     P         Pn        08 48 29.8 -0.2
BSO3                                eS         Sn        08 48 44.9 +0.3
BSO4   Boso 4           1.37 348     P         Pn        08 48 33.0 +0.1
BSO4                                eS         Sn        08 48 50.5 +0.7
NJJJ   Nii jima 2       1.39 303     P         Pn        08 48 33.3 +0.1
NJJJ                                eS         Sn        08 48 49.7 -0.7
JKO    Kozu shima       1.40 293     P         Pn        08 48 33.4 +0.1
JKO                                  S         Sn        08 48 50.9 +0.3
JIM2   Oshima 3         1.50 316     P         Pn        08 48 34.3 -0.3
JIM2                                eS         Sn        08 48 51.7 -1.2
JIZS   Izushimoda       1.85 306     P         Pn        08 48 39.8 +0.4
JIZS                                eS         Sn        08 49 01.0 -0.5
KTJJ   Kamata 2         1.86 314     P         Pn        08 48 39.4 -0.2
KTJJ                                eS         Sn        08 49 00.3 -1.5
JOD2   Odawara 2        2.09 321     P         Pn        08 48 42.6 -0.1
JOD2                                eS         Sn        08 49 05.5 -2.0
TK04   Tokai 4          2.46 288     P         Pn        08 48 48.9 +1.1
TK04                                eS         Sn        08 49 17.8 +1.3
SHZ3   Shizuoka 3       2.50 305     P         Pn        08 48 49.7 +1.4
MJAR   Matsushiro Arr   3.53 325     P         Pn        08 49 02.9 +0.3
       15nm,0.3s,baz=127,slow=11,SNR=91
MJAR                                 S         Sn        08 49 44.1 +1.0
       6.8nm,0.3s,baz=161,slow=24,SNR=8.0
MAT    Matsushiro       3.54 325     P         Pn        08 49 04.3 +1.7
MAT                                  S         Sn        08 49 43.7 +0.5
ASAJ   Asahikawa       10.56   7     P         Pn        08 50 36.2 -2.6
       0.9nm,0.3s,baz=201,slow=17,SNR=6.2
MKAR   Makanchi Array  45.49 305     P         P         08 56 24.4 -1.0
       0.4nm,0.7s,mb3.4,baz=85,slow=9.3,SNR=4.9
WRA    Warramunga Arr  53.63 187     P         P         08 57 26.3 -1.4
       1.2nm,0.5s,mb4.1,baz=4.8,slow=7.6,SNR=15
ASAR   Alice Springs   57.36 187     P         P         08 57 53.1 -1.3
       0.4nm,0.4s,mb3.8,baz=6.6,slow=6.8,SNR=13
INK    Inuvik          57.67  26     P         P         08 57 54.9 -1.2
       0.6nm,0.8s,mb3.7,baz=315,slow=2.9,SNR=3.9
ARCES  ARCESS Array B  66.96 340     P         P         08 58 59.8 +1.6
       2.4nm,1.0s,mb4.2,baz=24,slow=8.9,SNR=2.2
YKA    Yellowknife Ar  67.03  29     P         P         08 58 59.6 +0.8
       0.1nm,0.3s,mb3.3,baz=298,slow=6.4,SNR=5.7
NVAR   Mina Array Bea  77.50  52     P         P         09 00 02.7 +0.9
       0.3nm,0.7s,mb3.3,baz=302,slow=5.2,SNR=3.1
PDAR   Pinedale Array  80.47  45     P         P         09 00 19.2 +1.3
       0.2nm,0.6s,mb3.2,baz=251,slow=2.8,SNR=2.5
```

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*ISCJB **29** 08:49:47.6±0.1, 41°.07N±0°.01×114°.88W±0°.01, h10^{km}, Error ellipse: s-maj=1.6km s-min=1.4km az=155.6*
*NEIC **29** 08:49:47.8, 41°.11N×114°.90W, h9^{km}, ML3.2, After REN.*
*IDC **29** 08:49:47.7±0.7, 41°.11N×114°.90W, h0^{km}, mb3.1/1, mb1 3.6/5, mb1mx3.5/24, mbtmp3.2/5, ML3.6/3, Error ellipse: s-maj=16.0km s-min=4.5km az=137.0*
ISC 29 08:49:48.0±0.1**, 41°.09N**±0°.01×**114°.89W**±0°.01**, h10**^{km}**, n151, σ1**^{s}**.14**/247**, 48C-56D, Nevada**

```
Code   Station Name       Δ°  AZ°    Phase ID            Time       Res
                                     Op        ISC       h  m  s    ISC
N12A   Clover Valley,   0.27 206   ⇓P          Pg        08 49 53.7 +0.3
       baz=0.3,SNR=1000
N12A                               ⇑S          Sg        08 49 57.7 +0.6
       baz=0.3
N12A   Clover Valley,   0.27 206    ePg        Pg        08 49 53.5 +0.1
ELK    Elko             0.44 218     Pg        Pg        08 49 56.4 -0.2
       103nm,0.3s,baz=22,slow=13,SNR=491
ELK                                  Lg                  08 50 02.3
       398nm,0.3s,baz=126,slow=19,SNR=93
ELK    Elko             0.44 218    ePg        Pg        08 49 56.3 -0.3
ELK                                 eSg        Sg        08 50 02.3 -0.1
N13A   Wendover, West   0.57 115     P         Pg        08 49 59.2 +0.2
```

	baz=0.6,SNR=786						
N13A				⇓S	**Sg**	**08 50 06.9**	**+0.5**
	baz=0.6						
N13A	**Wendover, West**	**0.57**	**115**	*e*Pg	**Pg**	**08 49 59.1**	**+0.1**
N13A				*e*Sg	**Sg**	**08 50 08.6**	**+2.1**
M13A	**Montello**	**0.60**	**64**	⇑P	**Pg**	**08 49 59.2**	**-0.5**
	baz=0.6,SNR=518						
M13A				⇑S	**Sg**	**08 50 07.6**	**-0.1**
	baz=0.6						
M13A	**Montello**	**0.60**	**64**	*e*Pg	**Pg**	**08 49 59.3**	**-0.4**
M13A				*e*Sg	**Sg**	**08 50 07.0**	**-0.6**
N11A	**Elko Archery C**	**0.70**	**247**	⇓P	**Pg**	**08 50 01.0**	**-0.6**
	baz=0.7,SNR=451						
N11A				⇑S	**Sg**	**08 50 10.2**	**-0.5**
	baz=0.7						
M11A	**Holland Ranch,**	**0.76**	**297**	P	**Pg**	**08 50 01.7**	**-1.0**
	baz=0.7,SNR=574						
M11A				⇓S	**Sg**	**08 50 12.0**	**-0.7**
	baz=0.7						
O12A	**Currie**	**0.83**	**173**	P	**Pg**	**08 50 03.9**	**-0.2**
	baz=0.9,SNR=1000						
O12A				⇓S	**Sg**	**08 50 15.4**	**+0.5**
	baz=0.9						
L12A	**House Creek Ra**	**1.06**	**355**	⇑P	**Pg**	**08 50 07.1**	**-1.2**
	baz=1.0,SNR=75						
L12A				⇑S	**Sg**	**08 50 21.5**	**-0.6**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.13**	**212**	P	**Pb**	**08 50 09.4**	**-0.1**
	baz=1.1,SNR=1000						
O11A				⇓S	**Sb**	**08 50 24.1**	**-0.1**
	baz=1.1						
O13A	**Hicks Ranch, I**	**1.18**	**144**	⇑P	**Pb**	**08 50 10.1**	**-0.4**
	baz=1.2						
O13A				⇓S	**Sb**	**08 50 26.8**	**+1.0**
	baz=1.2						
L13A	**Double Diamond**	**1.22**	**35**	⇓P	**Pn**	**08 50 09.8**	**-1.3**
	baz=1.2,SNR=53						
L13A				⇓S	**Sb**	**08 50 26.4**	**-0.6**
	baz=1.2						
M14A	**Sheep Mountain**	**1.23**	**70**	P	**Pn**	**08 50 10.2**	**-1.0**
	baz=1.2,SNR=544						
M14A				⇓S	**Sb**	**08 50 26.8**	**-0.4**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.25**	**329**	⇓P	**Pn**	**08 50 10.2**	**-1.3**
	baz=1.2,SNR=532						
L11A				⇑S	**Sb**	**08 50 27.2**	**-0.8**
	baz=1.2						
N10A	**Dunphy**	**1.29**	**254**	⇑P	**Pn**	**08 50 11.3**	**-0.7**
	baz=1.3,SNR=31						
N10A				⇓S	**Sb**	**08 50 28.8**	**-0.1**
	baz=1.3						
N14A	**Grayback Hills**	**1.31**	**100**	P	**Pn**	**08 50 11.4**	**-0.9**
	baz=1.3,SNR=534						
N14A				⇓S	**Sb**	**08 50 30.1**	**+0.6**
	baz=1.3						
M10A	**I.L. Ranch, Tu**	**1.32**	**289**	⇑P	**Pn**	**08 50 11.6**	**-0.8**
	baz=1.3,SNR=639						
M10A				⇓S	**Sb**	**08 50 29.9**	**+0.2**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.41**	**96**	*e*Pn	**Pn**	**08 50 12.8**	**-1.0**
BGU				*e*Sg	**Sg**	**08 50 33.3**	**-0.2**
O10A	**Cortez Mining,**	**1.47**	**237**	⇑P	**Pn**	**08 50 14.0**	**-0.5**
	baz=1.5,SNR=229						
O10A				⇑S	**Sn**	**08 50 33.9**	**+0.2**
	baz=1.5						
K12A	**Draper Farm, C**	**1.54**	**360**	⇓P	**Pn**	**08 50 15.4**	**-0.1**
	baz=1.5,SNR=81						
K12A				⇓S	**Sn**	**08 50 35.2**	**-0.4**
	baz=1.5						
L10A	**Juniper Basin**	**1.54**	**310**	⇓P	**Pn**	**08 50 14.8**	**-0.8**
	baz=1.5,SNR=1000						
L10A				⇓Sb	**Sb**	**08 50 36.0**	**-0.2**
	baz=1.5						
L14A	**Malta**	**1.55**	**52**	⇑P	**Pn**	**08 50 15.3**	**-0.3**
	baz=1.5,SNR=144						
L14A				⇑S	**Sn**	**08 50 35.6**	**-0.3**
	baz=1.5						
K13A	**Stover Farm, H**	**1.67**	**21**	⇑P	**Pn**	**08 50 17.1**	**-0.2**
	baz=1.7,SNR=45						
K13A				⇓Sb	**Sb**	**08 50 39.5**	**-0.3**
	baz=1.7						
P11A	**Circle Ranch,**	**1.68**	**204**	⇓P	**Pn**	**08 50 17.3**	**-0.1**
	baz=1.7,SNR=43						
P11A				⇑S	**Sn**	**08 50 38.9**	**0.0**
	baz=1.7						
HVU	**Hansel Valley**	**1.73**	**66**	*e*Pn	**Pn**	**08 50 17.6**	**-0.5**
HVU				*e*Sg	**Sg**	**08 50 40.6**	**-2.9**
P13A	**Bates Ranch, G**	**1.77**	**158**	P	**Pn**	**08 50 17.9**	**-0.7**
	baz=1.8,SNR=363						
P13A				⇑S	**Sn**	**08 50 41.4**	**+0.2**
	baz=1.8						
N15A	**Stansbury Isla**	**1.80**	**96**	⇓P	**Pn**	**08 50 18.6**	**-0.5**
	baz=1.8,SNR=338						
DUG	**Dugway**	**1.81**	**119**	⇑P	**Pn**	**08 50 18.3**	**-1.0**
	baz=1.8,SNR=251						
DUG				⇓Sb	**Sb**	**08 50 45.4**	**+1.3**
	baz=1.8						
DUG	**Dugway**	**1.81**	**119**	*e*Pn	**Pn**	**08 50 18.0**	**-1.3**
DUG				*e*Sg	**Sg**	**08 50 39.0**	**-7.4**
SPUT	**South Promonto**	**1.85**	**83**	*e*Pn	**Pn**	**08 50 19.5**	**-0.3**
SPUT				*e*Sg	**Sg**	**08 50 45.0**	**-2.5**
M15A	**Larsen Ranch,**	**1.87**	**78**	⇑P	**Pn**	**08 50 19.5**	**-0.6**
	baz=1.9,SNR=233						
M15A				⇓Sb	**Sb**	**08 50 46.3**	**+0.5**
	baz=1.9						
K11A	**Parker Ranch,**	**1.88**	**333**	⇓P	**Pn**	**08 50 19.9**	**-0.3**
	baz=1.9,SNR=274						
K11A				⇓Sb	**Sb**	**08 50 45.8**	**-0.2**
	baz=1.9						
BMN	**Battle Mountai**	**1.89**	**250**	*e*Pn	**Pn**	**08 50 19.1**	**-1.3**
BMN				*e*Sg	**Sg**	**08 50 46.6**	**-2.3**
P10A	**Eureka**	**1.90**	**220**	⇓P	**Pn**	**08 50 20.5**	**0.0**
	baz=1.9,SNR=360						
K14A	**Jones Ranch, D**	**1.93**	**41**	⇓P	**Pn**	**08 50 20.8**	**-0.1**
	baz=1.9,SNR=28						
K14A				⇓Sb	**Sb**	**08 50 48.0**	**+0.6**
	baz=1.9						
M09A	**Marrel Ranch,**	**1.96**	**280**	⇓Sb	**Sb**	**08 50 48.7**	**+0.4**
	baz=1.9						
O09A	**Fish Creek Ran**	**1.98**	**243**	⇑P	**Pn**	**08 50 20.9**	**-0.7**
	baz=2.0,SNR=27						
O09A				⇓Sb	**Sb**	**08 50 49.9**	**+1.0**
	baz=2.0						
O15A	**The Old Anders**	**2.01**	**113**	⇑P	**Pn**	**08 50 21.2**	**-0.8**
	baz=2.0,SNR=102						
N09A	**Rock Creek Ran**	**2.01**	**264**	⇓P	**Pn**	**08 50 21.0**	**-1.0**
	baz=2.0,SNR=44						
N09A				⇓S	**Sn**	**08 50 46.5**	**-0.7**
	baz=2.0						
P14A	**Drum Mountains**	**2.04**	**137**	P	**Pn**	**08 50 22.0**	**-0.5**
	baz=2.1,SNR=196						
Q12A	**Willow Creek R**	**2.05**	**179**	P	**Pn**	**08 50 22.5**	**0.0**
	baz=2.1,SNR=44						
L15A	**Malad City**	**2.08**	**63**	⇑P	**Pn**	**08 50 22.9**	**-0.1**
	baz=2.1,SNR=133						
L15A				⇑Sb	**Sb**	**08 50 53.0**	**+1.2**
	baz=2.1						
NOQ	**North Oquirrh**	**2.14**	**101**	*e*Pn	**Pn**	**08 50 24.8**	**+1.0**
NOQ				*e*Sg	**Sg**	**08 50 58.3**	**+1.4**
J12A	**Stokes Ranch,**	**2.16**	**356**	⇑P	**Pn**	**08 50 24.6**	**+0.6**
	baz=2.1,SNR=107						
J12A				⇑Sb	**Sb**	**08 50 54.1**	**0.0**
	baz=2.1						
Q13A	**Wheeler Ranch,**	**2.24**	**162**	⇓P	**Pn**	**08 50 24.6**	**-0.4**
	baz=2.3,SNR=130						
Q13A				⇓S	**Sn**	**08 50 53.1**	**+0.4**
	baz=2.3						
K10A	**MacKenzie Ranc**	**2.24**	**319**	⇑P	**Pn**	**08 50 25.3**	**+0.1**
	baz=2.2,SNR=84						
K10A				⇓Sb	**Sb**	**08 50 56.4**	**0.0**
	baz=2.2						
L09A	**Wilkinson Ranc**	**2.28**	**295**	⇓P	**Pn**	**08 50 27.3**	**+1.6**
	baz=2.3,SNR=35						
L09A				⇑Sb	**Sb**	**08 50 57.8**	**+0.3**
	baz=2.3						
P09A	**Austin**	**2.31**	**229**	⇑P	**Pn**	**08 50 25.9**	**-0.2**
	baz=2.3,SNR=32						
Q11A	**Duckwater**	**2.32**	**195**	P	**Pn**	**08 50 26.4**	**+0.1**
	baz=2.3,SNR=115						
J13A	**Cove Ranch, Pi**	**2.36**	**13**	⇓P	**Pn**	**08 50 27.6**	**+0.8**
	baz=2.3,SNR=206						
J13A				⇑Sb	**Sb**	**08 50 59.8**	**0.0**
	baz=2.3						
K15A	**Arbon**	**2.37**	**47**	⇑P	**Pn**	**08 50 27.6**	**+0.7**
	baz=2.4,SNR=59						
CTU	**Camp Tracy**	**2.41**	**99**	*e*Pn	**Pn**	**08 50 29.0**	**+1.5**
CTU				*e*Sg	**Sg**	**08 51 05.3**	**-0.1**
NLU	**North Lily Min**	**2.43**	**117**	*e*Pn	**Pn**	**08 50 26.9**	**-0.7**
NLU				*e*Pg	**Pg**	**08 50 33.0**	**-1.5**
NLU				*e*Sg	**Sg**	**08 51 04.3**	**-1.7**
Q14A	**Sevier Lake (B**	**2.44**	**149**	⇑P	**Pn**	**08 50 27.1**	**-0.8**
	baz=2.5,SNR=88						
J14A	**Carey**	**2.45**	**24**	P	**Pn**	**08 50 29.0**	**+1.0**
	baz=2.4,SNR=76						
N08A	**GE Springer Mi**	**2.48**	**264**	⇑P	**Pn**	**08 50 27.4**	**-1.0**
	baz=2.5,SNR=39						
HLID	**Hailey**	**2.49**	**8**	P	**Pn**	**08 50 29.6**	**+1.0**
	baz=2.5,SNR=146						
HLID	**Hailey**	**2.49**	**8**	*e*Pn	**Pn**	**08 50 29.5**	**+0.9**
HLID				*e*Sg	**Sg**	**08 51 03.6**	**-4.4**
P15A	**Leamington**	**2.51**	**127**	P	**Pn**	**08 50 28.1**	**-0.7**
	baz=2.5,SNR=74						
Q10A	**Clear Creek Ra**	**2.55**	**208**	⇑P	**Pn**	**08 50 29.6**	**+0.2**
	baz=2.6,SNR=425						
O08A	**Rochester Mine**	**2.61**	**253**	P	**Pn**	**08 50 29.6**	**-0.7**
	baz=2.6,SNR=19						
K09A	**Rome**	**2.66**	**308**	⇓P	**Pn**	**08 50 32.6**	**+1.7**
	baz=2.6,SNR=76						
MPU	**Maple Canyon**	**2.70**	**112**	Pn	**Pn**	**08 50 31.5**	**0.0**
MPU				*e*Pg	**Pg**	**08 50 37.1**	**-2.7**
MPU				*e*Sg	**Sg**	**08 51 13.8**	**-0.9**
I12A	**Atlanta**	**2.71**	**356**	⇑P	**Pn**	**08 50 32.4**	**+0.9**
	baz=2.7						
O16A	**Springville**	**2.72**	**108**	P	**Pn**	**08 50 31.2**	**-0.6**
	baz=2.7,SNR=11						
L16A	**Fish Haven**	**2.75**	**69**	⇑P	**Pn**	**08 50 32.7**	**+0.6**
	baz=2.7						
R12A	**Pony Springs,**	**2.77**	**175**	P	**Pn**	**08 50 32.9**	**+0.4**
	baz=2.8,SNR=14						
R11A	**Troy Canyon, C**	**2.79**	**191**	P	**Pn**	**08 50 32.6**	**-0.1**
	baz=2.8,SNR=307						
P08A	**Dixie Valley**	**2.81**	**241**	⇑P	**Pn**	**08 50 32.7**	**-0.3**
	baz=2.8,SNR=13						
DAU	**Daniels Canyon**	**2.84**	**103**	Pn	**Pn**	**08 50 34.9**	**+1.5**
DAU				*e*Pg	**Pg**	**08 50 41.6**	**-0.8**
DAU				*e*Sg	**Sg**	**08 51 18.6**	**-0.6**
Q15A	**Fillmore**	**2.84**	**137**	⇑P	**Pn**	**08 50 32.9**	**-0.5**
	baz=2.9,SNR=20						
Q09A	**Carvers**	**2.87**	**219**	⇓P	**Pn**	**08 50 34.2**	**+0.4**
	baz=2.9,SNR=21						
I13A	**Wildhorse Cree**	**2.88**	**11**	⇓P	**Pn**	**08 50 35.2**	**+1.3**
	baz=2.9						
J15A	**Blackfoot**	**2.94**	**37**	⇓P	**Pn**	**08 50 35.4**	**+0.7**
	baz=2.9,SNR=21						
R13A	**O’Grain Ranch,**	**3.00**	**166**	P	**Pn**	**08 50 36.1**	**+0.6**
	baz=3.0,SNR=235						
R10A	**Warm Springs**	**3.01**	**202**	⇓P	**Pn**	**08 50 36.0**	**+0.3**
	baz=3.0,SNR=24						
WVOR	**Wild Horse Val**	**3.11**	**297**	*e*Pg	**Pg**	**08 50 40.7**	**-6.9**
WVOR				*e*Sg	**Sg**	**08 51 22.5**	**-5.4**
R14A	**James Farms, M**	**3.14**	**152**	⇑P	**Pn**	**08 50 37.3**	**-0.2**
	baz=3.2,SNR=6.2						
O07A	**Toulon**	**3.18**	**254**	⇑P	**Pn**	**08 50 37.1**	**-1.0**
	baz=3.2,SNR=19						
Q08A	**Gabbs**	**3.23**	**227**	⇓P	**Pn**	**08 50 38.5**	**-0.3**
	baz=3.2,SNR=23						
M07A	**Soldier Meadow**	**3.25**	**277**	⇑P	**Pn**	**08 50 38.7**	**-0.3**
	baz=3.2,SNR=12						
R09A	**Tonopah**	**3.31**	**211**	⇓P	**Pn**	**08 50 40.8**	**+0.9**
	baz=3.3,SNR=21						
MSU	**Marysvale**	**3.32**	**140**	*e*Pn	**Pn**	**08 50 39.9**	**-0.1**
MSU				*e*Sg	**Sg**	**08 51 38.4**	**+3.8**
TMUT	**Trail Mountain**	**3.34**	**121**	Pn	**Pn**	**08 50 43.5**	**+3.3**
TMUT				*e*Pg	**Pg**	**08 50 49.5**	**-2.5**
TMUT				*e*Sg	**Sg**	**08 51 36.2**	**+1.0**
S10A	**Tonopah Range,**	**3.43**	**203**	⇓P	**Pn**	**08 50 41.7**	**+0.2**
	baz=3.4,SNR=23						
RRI2	**Red Ridge**	**3.48**	**48**	*e*Pn	**Pn**	**08 50 43.2**	**+1.1**
RRI2				*e*Pg	**Pg**	**08 50 56.0**	**+1.4**
RRI2				*e*Sg	**Sg**	**08 51 36.7**	**-2.9**
S12A	**Delamar Landin**	**3.48**	**180**	P	**Pn**	**08 50 42.8**	**+0.6**
	baz=3.5,SNR=18						
ARUT	**Antelope Range**	**3.49**	**161**	*e*Pn	**Pn**	**08 50 42.6**	**+0.3**
ARUT				*e*Pg	**Pg**	**08 50 54.5**	**-0.3**
ARUT				*e*Sg	**Sg**	**08 51 37.5**	**-2.5**
S11A	**Rachel**	**3.51**	**191**	⇑P	**Pn**	**08 50 42.9**	**+0.3**
	baz=3.5,SNR=83						
R15A	**Junction**	**3.51**	**144**	⇑P	**Pn**	**08 50 42.9**	**+0.2**
	baz=3.5,SNR=7.9						
S14A	**Cedar City**	**3.58**	**158**	⇓P	**Pn**	**08 50 44.0**	**+0.4**
	baz=3.6,SNR=33						
S13A	**Holt Ranch, En**	**3.60**	**167**	⇑P	**Pn**	**08 50 44.1**	**+0.3**
	baz=3.6,SNR=18						
DCID1	**Drake Creek**	**3.71**	**46**	*e*Pn	**Pn**	**08 50 50.7**	**+5.3**
DCID1				*e*Sg	**Sg**	**08 51 45.3**	**-1.8**
CCUT	**Cedar City**	**3.73**	**161**	*e*Pn	**Pn**	**08 50 46.0**	**+0.4**
CCUT				*e*Pg	**Pg**	**08 50 58.2**	**-1.3**
CCUT				*e*Sg	**Sg**	**08 51 45.0**	**-2.8**
NVAR	**Mina Array Bea**	**3.74**	**226**	Pn	**Pn**	**08 50 45.8**	**0.0**
	3.4nm,0.3s,baz=40,slow=13,SNR=150						
NVAR				Pg	**Pg**	**08 50 54.2**	**-5.6**
	7.7nm,0.3s,baz=36,slow=14,SNR=31						
NVAR				Lg		08 51 45.2	
	44nm,0.3s,baz=342,slow=19,SNR=14						
NVAR	**Mina Array Bea**	**3.74**	**226**	Pn	**Pn**	**08 50 45.8**	**0.0**
NVAR				Pg	**Pg**	**08 50 54.2**	**-5.6**
NVAR				Lg		08 51 45.2	
REDW	**Red Top Meadow**	**3.76**	**52**	*e*Pn	**Pn**	**08 50 47.8**	**+1.8**
TPAW	**Teton Pass**	**3.77**	**49**	*e*Pn	**Pn**	**08 50 47.6**	**+1.4**
TPAW				*e*Sg	**Sg**	**08 51 46.9**	**-2.4**
T11A	**Corn Creek, Al**	**3.86**	**184**	⇑P	**Pn**	**08 50 47.7**	**+0.3**
	baz=3.9,SNR=24						
SNOW	**Snow King Moun**	**3.87**	**51**	Pn	**Pn**	**08 50 49.5**	**+1.9**
SRU	**San Rafael**	**3.89**	**119**	*e*Pn	**Pn**	**08 50 51.3**	**+3.5**
SRU				*e*Pg	**Pg**	**08 51 00.6**	**-1.8**
SRU				*e*Sg	**Sg**	**08 51 50.5**	**-2.3**
S15A	**Panguitch**	**3.93**	**149**	⇓P	**Pn**	**08 50 48.8**	**+0.4**
	baz=4.0,SNR=20						
MCMT	**McKenzie Canyo**	**4.02**	**21**	*e*Pn	**Pn**	**08 50 53.0**	**+3.5**
IMW	**Indian Meadow**	**4.04**	**45**	*e*Pn	**Pn**	**08 50 51.8**	**+1.8**
LOHW	**Long Hollow**	**4.05**	**50**	*e*Pn	**Pn**	**08 50 51.6**	**+1.6**
MOOW	**Moose Ponds**	**4.05**	**48**	*e*Pn	**Pn**	**08 50 51.7**	**+1.7**
MOOW				*e*Sg	**Sg**	**08 51 49.7**	**-8.4**
WCN	**Washoe City**	**4.14**	**246**	⇓P	**Pn**	**08 50 50.7**	**-0.5**
	baz=4.1,SNR=18						
T13A	**Saint George**	**4.14**	**169**	⇑P	**Pn**	**08 50 51.4**	**+0.2**
	baz=4.2,SNR=7.2						
MOD	**Modoc**	**4.15**	**283**	*e*Pn	**Pn**	**08 50 53.5**	**+2.1**
MOD				*e*Pg	**Pg**	**08 51 05.2**	**-2.2**
MOD				*e*Sg	**Sg**	**08 51 55.4**	**-5.8**
BMO	**Blue Mountains**	**4.16**	**336**	*e*Pn	**Pn**	**08 50 56.9**	**+5.5**
BMO				*e*Sg	**Sg**	**08 51 53.2**	**-8.2**
R17A	**Hanksville Air**	**4.18**	**128**	⇓P	**Pn**	**08 50 53.0**	**+1.2**
	baz=4.2						
T14A	**Hurricane**	**4.26**	**160**	⇓P	**Pn**	**08 50 53.4**	**+0.5**
	baz=4.3,SNR=56						
BW06	**Boulder Array**	**4.31**	**65**	*e*Pn	**Pn**	**08 50 55.8**	**+2.2**
BW06				*e*Pg	**Pg**	**08 51 05.6**	**-5.0**
BW06				*e*Sg	**Sg**	**08 52 01.6**	**-4.8**
PDAR	**Pinedale Array**	**4.31**	**65**	Pn	**Pn**	**08 50 56.1**	**+2.5**
	0.5nm,0.3s,baz=235,slow=12,SNR=17						
PDAR				Pg	**Pg**	**08 51 06.3**	**-4.2**
	1.4nm,0.3s,baz=236,slow=14,SNR=22						
PDAR				Lg		08 52 02.3	
	2.0nm,0.3s,baz=230,slow=28,SNR=6.4						
BEKR	**Beckwourth**	**4.35**	**255**	⇓P	**Pn**	**08 50 53.7**	**-0.4**
	baz=4.3,SNR=5.8						
R06C	**Coleville**	**4.35**	**235**	⇓P	**Pn**	**08 50 53.7**	**-0.5**
	baz=4.3,SNR=21						
YFT	**Old Faithful**	**4.49**	**40**	*e*Pg	**Pg**	**08 51 09.9**	**-4.0**
T15A	**Red Dirt Ranch**	**4.51**	**154**	P	**Pn**	**08 50 57.0**	**+0.7**
	baz=4.5,SNR=12						
DLMT	**Dillon**	**4.58**	**21**	*e*Pn	**Pn**	**08 51 00.2**	**+2.9**
DLMT				*e*Pg	**Pg**	**08 51 12.4**	**-3.4**
DLMT				*e*Sg	**Sg**	**08 52 17.1**	**+2.0**
YMR	**Madison River**	**4.59**	**38**	*e*Pn	**Pn**	**08 51 00.1**	**+2.7**
YMR				*e*Sg	**Sg**	**08 52 07.8**	**-7.5**
U13A	**Pakoon Wash**	**4.73**	**171**	⇓P	**Pn**	**08 50 59.9**	**+0.6**
	baz=4.8,SNR=13						
LKWY	**Lake**	**4.79**	**42**	*e*Pg	**Pg**	**08 51 11.0**	**-8.6**
U10A	**Ash Meadows, A**	**4.80**	**194**	⇓P	**Pn**	**08 51 01.5**	**+1.1**
	baz=4.8,SNR=14						
U14A	**Mt Trumbull**	**4.86**	**164**	⇑P	**Pn**	**08 51 02.3**	**+1.2**
	baz=4.9						
T16A	**Glen Canyon Da**	**4.88**	**146**	⇑P	**Pn**	**08 51 02.7**	**+1.3**
	baz=4.9						
LRM	**Limekiln Ridge**	**5.05**	**20**	*e*Pg	**Pg**	**08 51 15.3**	**-9.3**
	15nm,0.5s						
LRM				*e*Sg	**Sg**	**08 52 23.0**	**-7.0**
BOZ	**Bozeman (W)**	**5.13**	**26**	*e*Pn	**Pn**	**08 51 06.7**	**+1.8**
	3.4nm,0.6s						
CMB	**Columbia Colle**	**5.23**	**236**	*e*Pn	**Pn**	**08 51 06.9**	**+0.6**
	5.8nm,0.4s						
CMB				*e*Pg	**Pg**	**08 51 23.9**	**-4.3**
CMB				*e*Sn	**Sn**	**08 52 08.8**	**+2.2**
CMB				*e*Sg	**Sg**	**08 52 31.8**	**-4.3**
V11A	**Goodsprings**	**5.26**	**185**	⇓P	**Pn**	**08 51 07.8**	**+1.1**
	baz=5.3,SNR=11						
V13A	**Grand Canyon W**	**5.28**	**172**	⇓P	**Pn**	**08 51 08.0**	**+1.1**
	baz=5.3						
PV04	**Paradox Valley**	**5.34**	**118**	*e*Pn	**Pn**	**08 51 10.9**	**+3.1**
PV04				*e*Pg	**Pg**	**08 51 26.0**	**-4.3**
PV04				*e*Sg	**Sg**	**08 52 36.0**	**-3.4**
V12A	**Nelson**	**5.36**	**180**	⇑P	**Pn**	**08 51 08.8**	**+0.8**
	baz=5.4,SNR=14						
PV01	**Paradox Valley**	**5.70**	**119**	*e*Pn	**Pn**	**08 51 15.7**	**+3.0**
	478nm,0.4s						
PV01				*e*Pg	**Pg**	**08 51 33.3**	**-3.9**
PV01				*e*Sg	**Sg**	**08 52 51.4**	**+0.3**
YBH	**Yreka Blue Hor**	**5.92**	**279**	Pn	**Pn**	**08 51 19.3**	**+3.6**
	0.1nm,0.3s,baz=180,slow=3.0,SNR=3.1						
YBH				Pg	**Pg**	**08 51 35.6**	**-5.8**
	0.3nm,0.3s,baz=98,slow=10,SNR=7.4						
YBH				Lg		08 52 52.4	
	0.2nm,0.3s,baz=123,slow=17,SNR=3.7						
CHMT	**Chamberlain Mo**	**5.94**	**11**	*e*Pn	**Pn**	**08 51 18.6**	**+2.6**
	1.9nm,0.6s						
CHMT				*e*Sg	**Sg**	**08 52 55.6**	**-2.9**
GSC	**Goldstone**	**5.98**	**195**	*e*Pg	**Pg**	**08 51 41.0**	**-1.5**
	5.4nm,0.3s						
HRY	**Holter Researc**	**6.03**	**20**	*e*Pn	**Pn**	**08 51 21.9**	**+4.7**
	3.3nm,0.5s						
HRY				*e*Pg	**Pg**	**08 51 37.5**	**-6.0**
HRY				*e*Sg	**Sg**	**08 52 54.6**	**-7.0**
ISA	**Isabella**	**6.11**	**209**	*e*Pn	**Pn**	**08 51 20.2**	**+1.9**
	3.8nm,0.6s						
ISA				*e*Pg	**Pg**	**08 51 42.2**	**-2.8**
ISA				*e*Sg	**Sg**	**08 52 59.0**	**-5.2**
WUAZ	**Wupatki**	**6.21**	**153**	*e*Pg	**Pg**	**08 51 43.9**	**-3.1**
	28nm,0.8s						
WUAZ				*e*Sg	**Sg**	**08 53 03.5**	**-4.0**
SLMT	**Seeley Lake**	**6.23**	**9**	*e*Pn	**Pn**	**08 51 24.0**	**+4.1**
	5.1nm,0.8s						
SLMT				*e*Pg	**Pg**	**08 51 43.8**	**-3.4**
SLMT				*e*Sg	**Sg**	**08 52 49.1**	**-19**
MVCO	**Mesa Verde**	**6.30**	**126**	*e*Pg	**Pg**	**08 51 40.7**	**-7.9**
	18nm,0.6s						
SWMT	**Swartz Lake**	**6.45**	**5**	*e*Pn	**Pn**	**08 51 27.8**	**+4.9**
	2.4nm,0.8s						
SWMT				*e*Pg	**Pg**	**08 51 47.8**	**-3.6**
SWMT				*e*Sg	**Sg**	**08 53 03.6**	**-11**
PHWY	**Pilot Hill**	**7.11**	**85**	*e*Pn	**Pn**	**08 51 34.6**	**+2.5**
	3.9nm,0.7s						
ISCO	**Idaho Springs**	**7.19**	**97**	*e*Pg	**Pg**	**08 52 00.3**	**-5.3**
ISCO				*e*Sg	**Sg**	**08 53 27.4**	**-11**
RSSD	**Black Hills**	**8.55**	**66**	*e*Pn	**Pn**	**08 51 50.5**	**-1.4**
	2.6nm,0.6s						
RSSD				*e*Sn	Sn	08 54 03.7	+35
ANMO	**Albuquerque**	**9.04**	**130**	Pg	Px	08 52 35.7	
	0.1nm,0.3s,baz=328,slow=15,SNR=3.4						
ANMO				Lg		08 54 30.5	
	0.1nm,0.3s,baz=261,slow=13,SNR=3.4						
TXAR	**Lajitas Array**	**14.87**	**139**	Pn	**Pn**	**08 53 22.3**	**+4.0**
	baz=284,slow=7.3,SNR=3.4						
YKA	**Yellowknife Ar**	**21.43**	**0**	P	**P**	**08 54 36.1**	**+0.2**
	0.7nm,0.7s,baz=180,slow=9.6,SNR=10						

IDC 29 08:59:26.2±1.5, 9°.86S×127°.04E, h0^{km}, mb3.8/3, mb1 4.2/6, mb1mx3.9/17, mbtmp4.0/6, ML4.1/3, Error ellipse: s-maj=72.6km s-min=21.1km az=61.0, Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**8.30**	**189**	Pn	Pn	09 01 27.6	-0.4
	1.1nm,0.3s,baz=18,slow=13,SNR=28						
FITZ				Sn	Sn	09 02 54.1	-8.4
	2.2nm,0.3s,baz=139,slow=24,SNR=7.6						
WRA	**Warramunga Arr**	**12.25**	**146**	Pn	Pn	09 02 20.0	-2.1
	1.6nm,0.3s,baz=324,slow=13,SNR=63						
WRA				Sn	Sn	09 04 32.7	-6.8
	1.2nm,0.3s,baz=319,slow=26,SNR=5.7						
ASAR	**Alice Springs**	**15.21**	**155**	Pn	Pn	09 03 00.8	-1.7
	1.1nm,0.3s,baz=320,slow=11,SNR=64						
ASAR				Sn	Sn	09 05 43.6	-8.3
	0.6nm,0.3s,baz=315,slow=20,SNR=7.2						
STKA	**Stephens Creek**	**25.73**	**150**	P	P	09 04 59.7	+1.2
	2.3nm,0.7s,baz=305,slow=7.2,SNR=7.3						
CMAR	**Chiang Mai Arr**	**39.50**	**315**	P	P	09 06 58.0	-0.9
	1.0nm,0.4s,baz=143,slow=7.0,SNR=4.7						
MKAR	**Makanchi Array**	**69.07**	**329**	P	P	09 10 34.7	+0.7
	0.3nm,0.7s,baz=120,slow=10,SNR=1.7						

ISCJB ***29*** *09:10:40.3±0.7, 33°.33N±0°.03×35°.38E±0°.06, h4^{km}±10^{km}, Error ellipse: s-maj=8.3km s-min=4.4km az=21.4*

CSEM ***29*** *09:10:40.9±0.5, 33°.35N×35°.41E, h2^{km}, ML3.1, Error ellipse: s-maj=16.9km s-min=6.6km az=101.0*

GRAL ***29*** *09:10:40.8±0.3, 33°.30N×35°.39E, h15^{km}±5^{km}, MD3.1*

GII ***29*** *09:10:40.5±0.0, 33°.34N×35°.39E, h1^{km}, Md2.1/4*

ISC 29 09:10:40.9±0.7, 33°.34N±0°.03×35°.39E±0°.06, h5^{km}±9^{km}, n19, σ0^{s}63/25, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MATL	**Matirih**	**0.16**	**341**	*e*P	**Pg**	**09 10 45.1**	**+1.0**
MATL	**Matirih**	**0.16**	**341**	*e*P	**Pg**	**09 10 45.1**	**+1.0**
KSDI	**Kefar Szold**	**0.27**	**123**	Pg	**Pg**	**09 10 45.6**	**-0.5**
KSDI				Sg	**Sg**	**09 10 49.6**	**0.0**
MMA0	**Mount Meron ar**	**0.32**	**178**	Pg	**Pg**	**09 10 46.8**	**-0.4**
RCY	**Rachaya**	**0.39**	**68**	*e*P	**Pg**	**09 10 48.6**	**+0.3**
RCY				*e*S	**Sg**	**09 10 54.6**	**+1.2**
RCY	**Rachaya**	**0.39**	**68**	*e*P	**Pg**	**09 10 48.6**	**+0.3**
RCY				*e*S	**Sg**	**09 10 54.6**	**+1.2**
KSHT	**Keshet**	**0.50**	**135**	Pg	**Pg**	**09 10 50.3**	**-0.2**
BHL	**Bhannes**	**0.60**	**21**	*e*P	**Pg**	**09 10 52.3**	**-0.2**
BHL	**Bhannes**	**0.60**	**21**	*e*P	**Pg**	**09 10 52.3**	**-0.2**
BLGI	**Bet Lehem HaGe**	**0.63**	**196**	Sg	**Sg**	**09 11 01.8**	**+0.7**
OFRI	**‘Ofer**	**0.79**	**206**	Pg	**Pg**	**09 10 56.1**	**0.0**
MMLI	**Mount Malkishu**	**0.90**	**178**	Pg	**Pg**	**09 10 57.5**	**-0.7**
MMLI				Sg	**Sg**	**09 11 09.7**	**-0.1**
HWQ	**Hawqa**	**1.04**	**26**	*e*P	**Pg**	**09 10 59.5**	**-1.4**
HWQ	**Hawqa**	**1.04**	**26**	*e*P	**Pg**	**09 10 59.5**	**-1.4**
HMDT	**Nahal Hemdat**	**1.09**	**174**	Pg	**Pg**	**09 11 01.1**	**-0.7**
HMDT				Sg	**Sg**	**09 11 16.5**	**+0.6**
SLTI	**Sal’it**	**1.14**	**195**	Pg	**Pg**	**09 11 02.0**	**-0.7**
SLTI				Sg	**Sg**	**09 11 18.0**	**+0.6**
DSI	**Dead Sea**	**1.77**	**180**	Pn	**Pn**	**09 11 11.9**	**-0.2**
MZDA	**Masada**	**2.02**	**181**	Pn	**Pn**	**09 11 16.2**	**+0.6**
PRNI	**Paran**	**3.00**	**186**	Pn	**Pn**	**09 11 29.2**	**+0.2**

MAN 29 09:13:12, 5°.86N×125°.96E, h152^{km}, mb4.0, ML2.8, MS2.5, 1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GSPH	**General Santos**	**1.03**	**283**	⇑*e*P	Pn	09 13 36.6	-0.6
MATI	**Mati**	**1.12**	**16**	*e*P	Pn	09 13 38.8	+0.8
MATI				*e*S	Sn	09 13 45.7	-12
BUKP	**Musuan**	**2.19**	**336**	*e*P	Pn	09 13 50.3	+0.8
BUKP				*e*S	Sn	09 14 19.7	+1.3

IDC ***29*** *09:15:01.5±0.6, 0°.82S×134°.00E, h0^{km}, mb4.5/13, mb1 4.6/15, mb1mx4.5/24, mbtmp4.5/15, ML4.7/2, MS3.6/3, Ms1 3.6/3, ms1mx2.8/35, Error ellipse: s-maj=33.6km s-min=12.9km az=72.0*

MOS ***29*** *09:15:04.2±1.0, 0°.80S×134°.16E, h34^{km}, mb4.7/11, Error ellipse: s-maj=22.1km s-min=8.4km az=107.8*

ISCJB ***29*** *09:15:04.6±0.9, 0°.87S±0°.06×134°.08E±0°.05, h36^{km}±9^{km}, mb4.5/29, MS3.7/3, Error ellipse: s-maj=9.6km s-min=8.7km az=39.8*

BJI ***29*** *09:15:04.4, 0°.86S×134°.33E, h43^{km}, mB5.2/3, mb4.8/7*

DJA ***29*** *09:15:05, 0°.65S×134°.10E, h20^{km}, mb4.8/7*

NEIC ***29*** *09:15:06.8±0.5, 0°.80S×134°.12E, h35^{km}, mb4.6/5, Error ellipse: s-maj=18.3km s-min=9.1km az=70.0*

NEIC Felt [III] at Manokwari.

ISC 29 09:15:06.5±0.8, 0°.88S±0°.05×134°.11E±0°.06, h35^{km}±8^{km}, n77, σ1^{s}13/72, mb4.5/29, MS3.7/3, 2C-1D, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAKI	Biak	2.02	99	P	Pn	09 15 38.4	+0.3
SWI	Sorong	2.85	270	P	Pn	09 15 48.3	-1.1
SMPI	Sarmi	4.73	104	P	Pn	09 16 16.3	+0.9
AAI	Ambon	6.53	245	P	Pn	09 16 41.4	+1.3
	118nm,0.8s,2μm0.5nm						
LBMI	Labuha	6.61	272	P	Pn	09 16 39.6	-1.6
NLAI	Namlea	7.38	251	P	Pn	09 16 52.9	+1.1
	70nm,0.6s,950nm0.3nm						
KAPI	Kappang	14.91	254	Pn	Pn	09 18 38.4	+3.5
	1.3nm,0.3s,baz=101,slow=6.2,SNR=4.4						
KAPI	Kappang	14.91	254	Pn	Pn	09 18 38.4	+3.5
KNA	Kununurra	15.69	199	*e*P	Pn	09 18 43.3	-1.7
	68nm,0.4s						
KNA				*e*S	S	09 21 27.6	-24
GUMO	Guam	17.90	36	LR	LR	09 24 52.6	
	comp=Z,133nm,18.8s,baz=252,slow=33						
WRAB	Tennant Creek	18.94	179	*e*P	Pn	09 19 25.0	-0.4
WRAB				pmax	pmax		
	comp=Z,14nm,0.6s						
WRAB	Tennant Creek	18.94	179	*e*P	Pn	09 19 25.0	-0.3
	comp=Z,14nm,0.6s						
WRAB	Tennant Creek	18.94	179	P	Pn	09 19 25.0	-0.4
	comp=Z,23nm,0.8s						
WRA	Warramunga Arr	18.95	179	P	Pn	09 19 24.2	-1.3
	comp=Z,1.7nm,0.3s,baz=359,slow=12,SNR=61						
WRA				S	S	09 22 45.0	-13
	comp=Z,0.1nm,0.3s,baz=358,slow=23,SNR=3.7						
FITZ	Fitzroy Crossi	19.03	205	*e*P	Pn	09 19 24.6	-1.9
	comp=Z,21nm,0.7s						
FITZ				*e*S	S	09 22 40.0	-20
FITZ	Fitzroy Crossi	19.03	205	P	Pn	09 19 25.0	-1.6
	comp=Z,2.6nm,0.3s,baz=33,slow=10,SNR=35						
FITZ				S	S	09 22 44.9	-15
	comp=Z,0.7nm,0.3s,baz=99,slow=14,SNR=6.8						
FITZ	Fitzroy Crossi	19.03	205	P	Pn	09 19 26.3	-0.2
	comp=Z,38nm,0.7s						
CTA	Charters Tower	22.49	149	*e*P	P	09 20 06.2	+3.3
	comp=Z,8.1nm,0.6s,mb4.3						
CTA	Charters Tower	22.49	149	P	P	09 20 04.5	+1.6
	comp=Z,9.9nm,0.7s,mb4.4,baz=331,slow=11,SNR=16						
CTAO	Charters Tower	22.49	149	*e*P	P	09 20 06.7	+3.8
CTAO				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
CTAO	Charters Tower	22.49	149	*e*P	P	09 20 06.7	+3.8
	comp=Z,9.2nm,0.7s,mb4.3						
CTAO	Charters Tower	22.49	149	P	P	09 20 05.8	+2.9
	comp=Z,23nm,1.3s,mb4.5						
ASAR	Alice Springs	22.65	180	P	P	09 20 04.5	-0.2
	comp=Z,6.3nm,0.4s,mb4.4,baz=1.0,slow=12,SNR=72						
ASAR				S	S	09 24 09.3	-1.6
	comp=Z,1.5nm,0.7s,baz=5.4,slow=21,SNR=3.3						
MBWA	Marble Bar	24.56	214	P	P	09 20 25.4	+2.3
TPI	Tanjungpandan	26.50	266	P	Sx	09 26 03.9	
	comp=Z,161nm,1.2s						
JOW	Kunigami	28.12	349	LR	LR	09 30 13.5	
	comp=Z,124nm,19.4s,MS3.5,baz=288,slow=32						
STKA	Stephens Creek	31.63	168	*e*P	P	09 21 26.2	0.0
	comp=Z,3.1nm,0.8s,mb4.2						
STKA	Stephens Creek	31.63	168	P	P	09 21 26.7	+0.5
	comp=Z,1.6nm,0.4s,mb4.2,baz=334,slow=10,SNR=9.4						
RGRI	Rengat	31.78	271	P	S	09 26 30.3	-5.6
	comp=Z,759nm,0.4s						
PSI	Prapat	35.36	276	LR	LR	09 36 01.2	
	comp=Z,111nm,20.6s,MS3.6,baz=15,slow=36						
CMAR	Chiang Mai Arr	39.55	301	P	P	09 22 34.8	+0.4
	comp=Z,10nm,0.8s,mb4.6,baz=120,slow=6.8,SNR=23						
CHTO	Chiang Mai	39.70	301	*e*P	P	09 22 35.6	0.0
CHTO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
CHTO	Chiang Mai	39.70	301	*e*P	P	09 22 35.6	0.0
	comp=Z,9.5nm,0.8s,mb4.6						
BJI	Beijing	43.90	340	P	P	09 23 05.8	-3.8
BJI				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.8						
BJI				pmax	pmax		
	comp=Z,150nm,4.7s						
ASAJ	Asahikawa	45.43	9	P	P	09 23 21.5	-0.3
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ASAJ	Asahikawa	45.43	9	P	P	09 23 21.5	-0.3
	comp=Z,6.8nm,0.7s,mb4.6,baz=238,slow=7.0,SNR=4.0						
LZH	Lanzhou	46.32	326	*e*P	P	09 23 29.5	+0.5
LZH				pP	pP	09 23 38.0	-1.5
LZH				sP	sP	09 23 42.5	-1.2
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,170nm,6.5s						
YSS	Yuzh-Sakhalins	48.23	8	*e*P	P	09 23 43.0	-0.7
SHL	Shillong	48.53	306	*e*PKP	P	09 23 46.0	-0.3
HABR	Khabarovsk	49.16	1	*e*P	P	09 23 48.6	-2.1
HABR				*e**SP	sP	09 24 02.7	-2.8
HABR				*e*		09 25 11.5	
HABR						09 25 42.0	
HABR				*e*S	S	09 30 52.5	-1.2
HABR				*e**SS	sS	09 31 09.5	-1.6
HABR				*e*SS	SS	09 34 25.7	+0.2
HABR				*e*SSS		09 35 44.1	
HABR				MLR	MLR		
	comp=Z,112nm,17.0s,MS3.9						
GTA	Gaotai	50.92	326	P	P	09 24 05.0	+0.7
GTA				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
SONM	Songino Array	54.19	337	P	P	09 24 28.5	+0.2
	comp=Z,0.8nm,0.6s,mb3.8,baz=134,slow=8.4,SNR=4.3						
SONM				PcP	PcP	09 25 32.9	+0.4
	comp=Z,1.1nm,0.6s,baz=152,slow=5.3,SNR=4.8						
ZAK	Zakamensk	57.45	337	*e*P	P	09 24 51.0	-0.7
ZAK				*e*		09 25 44.7	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.0						
MOY	Mondy	59.36	337	*e*P	P	09 25 06.0	+1.1
BOD	Bodaibo	60.68	348	*e*P	P	09 25 13.5	-0.4
YAK	Yakutsk	62.83	358	*e*P	P	09 25 26.9	-1.4
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.2						
SEY	Seymchan	65.11	9 ⇓	*e*P	P	09 25 43.4	+0.1
MK31	Makanchi Array	65.57	324	*e*P	P	09 25 46.8	+0.2
MK31				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
MKAR	Makanchi Array	65.57	324	P	P	09 25 47.0	+0.5
	comp=Z,8.3nm,0.7s,mb4.9,baz=113,slow=8.1,SNR=69						
KSH	Kashi	66.50	314	*e*P	P	09 25 54.3	+1.5
KSH				*e*pP	pP	09 26 04.5	+0.8
KSH				*e*sP	sP	09 26 08.5	+0.7
KSH				*e*PcP	PcP	09 26 23.3	+1.2
KSH				*e*PP	PP	09 28 23.0	+3.4
KSH				*e*ScP		09 30 23.0	
KSH				*e*PcS		09 30 27.0	
KSH				*e*S	S	09 34 41.3	+0.2
KSH				*e*sS	sS	09 35 00.5	+1.4
KSH				*e*SS	SS	09 38 59.3	+0.6
KSH				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
KSH				pmax	pmax		
	comp=Z,200nm,6.6s						
TKM2	Tokmak 2	68.08	318	P	P	09 26 02.9	+0.2
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
ZAA0	Zalesovo Array	68.08	331	*e*P	P	09 26 01.5	-1.0
ZALV	Zalesovo Beam	68.08	331	P	P	09 26 01.5	-1.0
	comp=Z,3.1nm,0.8s,mb4.4,baz=104,slow=6.3,SNR=8.7						
UCH	Uchtor	68.55	317	*e*P	P	09 26 07.4	+1.8
	comp=Z,11nm,1.4s,mb4.6						
AAK	Ala-Archa	68.72	317 ⇑	*e*P	P	09 26 08.7	+2.0
AAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
AML	Almayashu	69.08	316	*e*P	P	09 26 10.4	+1.5
	comp=Z,12nm,1.3s,mb4.7						
NVS	Novosibirsk	69.36	331	*i*P	P	09 26 08.8	-1.5
KURK	Kurchatov	69.61	326	P	P	09 26 12.0	0.0
KURK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
KURK	Kurchatov	69.61	326	P	P	09 26 11.4	-0.6
	comp=Z,6.9nm,0.7s,mb4.7,baz=127,slow=6.0,SNR=7.5						
KK31	Karatay Array	71.62	316	*i*P	P	09 26 24.5	+0.1
KK31				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
TIXI	Tiksi	72.48	358	*i*P	P	09 26 29.4	+0.4
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
BVAR	Borovoye Array	75.21	326	P	P	09 26 45.4	+0.1
	comp=Z,4.2nm,0.6s,mb4.5,baz=122,slow=7.9,SNR=28						
VNDA	Vanda	78.03	174	P	P	09 27 02.5	+1.6
	comp=Z,1.9nm,0.8s,mb4.1,baz=326,slow=3.6,SNR=3.1						
VNDA	Vanda	78.03	174	P	P	09 27 02.5	+1.6
AB31	Akbulak array	80.37	320	P	P	09 27 13.9	-0.3
AB31				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
AKTK	Aktyubinsk	81.84	321	P	P	09 27 21.2	-0.7
AKTO	Aktyubinsk	81.84	321	P	P	09 27 22.4	+0.5
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
AKTO	Aktyubinsk	81.84	321	P	P	09 27 21.2	-0.7
	comp=Z,1.4nm,0.6s,mb4.1,baz=82,slow=6.9,SNR=4.9						
KIV	Kislovodsk	91.63	314 ⇑	*e*P	P	09 28 13.0	+2.9
KIV				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.7						
OBN	Obninsk	95.04	325	*i*P	P	09 28 29.1	+3.6
ARCES	ARCESS Array B	97.26	340	P	P	09 28 34.1	-1.2
	comp=Z,1.9nm,0.7s,mb4.6,baz=67,slow=6.7,SNR=6.8						
YKA	Yellowknife Ar	100.49	26	P	Pdif	09 28 49.4	-0.6
	comp=Z,0.2nm,0.6s,baz=296,slow=4.6,SNR=5.4						
YKA	Yellowknife Ar	100.49	26	P	Pdif	09 28 49.4	-0.6
KHC	Kasperske Hory	110.19	323	*e*PKIKP	PKiKP	09 33 40.9	+6.3
TORD	Torodi Ar. Bea	131.33	287	PKP	PKPdf	09 34 16.4	+0.4
	comp=Z,0.5nm,0.8s,baz=63,slow=0.6,SNR=3.1						
CPUP	Villa Florida	150.79	159	PKPbc	PKPbc	09 34 57.6	+1.7
	comp=Z,4.4nm,0.8s,baz=204,slow=5.9,SNR=7.3						
ROSC	El Rosal	151.33	82	PKPbc	PKPbc	09 34 59.9	+2.3
	comp=Z,4.8nm,0.4s,baz=103,slow=22,SNR=7.1						

DJA 29 09:17:31, 2°.13S×100°.08E, h8^{km}, MLv3.9/4**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPSI	Pulau Pagai	0.63	186	P	Pg	09 17 43.6	+0.4
PDSI	Padang	1.27	18	P	Pn	09 17 53.6	-1.4
SISI	Saibi	1.27	309	P	Pn	09 17 54.1	-1.0
PPI	Padang Panjang	1.69	11	P	Pn	09 18 00.9	0.0
SDSI	Sungai Dareh	1.80	49	P	Pn	09 18 02.7	+0.4
MNAI	Manna	3.63	128	P	Pn	09 18 28.1	+0.6

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*CSEM **29** 09:25:27.6, 36°.03N×21°.73E, h1^{km}, ML3.6/4, After THE*

*THE **29** 09:25:27.6, 36°.03N×21°.73E, h1^{km}±3^{km}, ML3.6/4, Error ellipse: s-maj=5.7km s-min=1.9km az=224.0*

*ISCJB **29** 09:25:29.2±0.7, 36°.16N±0°.04×21°.93E±0°.05, h10^{km}, Error ellipse: s-maj=7.1km s-min=4.1km az=139.9*

*ATH **29** 09:25:29.1, 36°.20N×21°.95E, h21^{km}±2^{km}, MD3.6/7*

ISC 29 09:25:29.8±0.8**, 36°.15N**±0°.04×**21°.92E**±0°.05**, h10^{km}, n39, σ1^{s}.30**/59**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYL	PYLOS	0.76	349	P	Pg	09 25 42.2	-2.2
PYL	PYLOS	0.76	349	*e*PB	Pg	09 25 42.3	-2.1
PYL				*e*SN	Sg	09 25 53.4	-0.9
PYL	PYLOS	0.76	349	P	Pg	09 25 42.2	-2.2
KYTH	Kithira	0.91	82	*e*PN	Pg	09 25 45.9	-1.4
VLI	Veliai	0.99	55	*e*PN	Pg	09 25 48.0	-0.9
VLI				*e*SN	Sg	09 26 00.3	-1.6
ITM	Ithomi	1.03	0	*e*PN	Pg	09 25 47.7	-1.8
ITM				*e*SN	Sg	09 26 01.3	-1.6
VLX	Vlachokerasia	1.27	17	*e*PN	Pn	09 25 52.2	-1.4
VLX				*e*SN	Sn	09 26 10.1	-0.6
DID	Didima	1.71	38	P	Pn	09 25 59.3	-0.4
DID				S	Sg	09 26 26.4	+1.5
DID	Didima	1.71	38	*e*PN	Pn	09 25 59.8	+0.1
DID	Didima	1.71	38	P	Pn	09 25 59.3	-0.4
DID				S	Sg	09 26 26.4	+1.5
KARN	Karanos	1.79	114	P	Pn	09 26 00.1	-0.6
KARN				S	Sn	09 26 25.1	+1.7
KARN	Karanos	1.79	114	P	Pn	09 26 00.1	-0.6
KARN				S	Sn	09 26 25.1	+1.7
GUR	Goura	1.81	11	*e*PB	Pn	09 25 59.9	-1.1
RLS	Riolos of Patr	1.94	349	*e*PN	Pn	09 26 02.5	-0.2
VAM	Vamos	2.00	111	*e*PN	Pn	09 26 04.0	+0.5
NAIG	Nisos Aigina	2.04	38	*e*PN	Pn	09 26 03.5	-0.6
LAKA	Lakka	2.08	1	P	Pn	09 26 06.0	+1.2
LAKA				S	Sn	09 26 33.2	+2.4
LAKA	Lakka	2.08	1	P	Pn	09 26 06.0	+1.2
LAKA				S	Sn	09 26 33.2	+2.4
TRIZ	Trizonia	2.21	3	P	Pn	09 26 07.2	+0.7
TRIZ	Trizonia	2.21	3	P	Pn	09 26 07.2	+0.7
KALE	Kalithea	2.24	4	P	Pn	09 26 07.3	+0.4
KALE	Kalithea	2.24	4	P	Pn	09 26 07.3	+0.4
VLY	Voula,Athens	2.26	41	*e*PN	Pn	09 26 06.8	-0.4
VLS	Valsamata	2.29	333	P	Pn	09 26 06.0	-1.5
VLS				S	Sn	09 26 35.6	-0.1
VLS	Valsamata	2.29	333	*e*PB	Pn	09 26 06.8	-0.7
VLS	Valsamata	2.29	333	P	Pn	09 26 06.0	-1.5
VLS				S	Sn	09 26 35.6	-0.1
LKR	Lokris	2.64	19	P	Pn	09 26 14.1	+1.7
LKR				S	Sn	09 26 47.7	+3.3
LKR	Lokris	2.64	19	P	Pn	09 26 14.1	+1.7
LKR				S	Sn	09 26 47.7	+3.3
LKD	Levkas	2.75	339	P	Pn	09 26 13.1	-0.7
LKD				S	Sn	09 26 49.0	+1.9
LKD	Levkas	2.75	339	P	Pn	09 26 13.1	-0.7
LKD				S	Sn	09 26 49.0	+1.9
EVR	Evrytania	2.76	358	*e*PN	Pn	09 26 14.0	-0.1
AGG	Agios Georgios	2.88	6	P	Pn	09 26 17.8	+2.0
AGG				S	Sn	09 26 53.7	+3.2
AGG	Agios Georgios	2.88	6	P	Pn	09 26 17.8	+2.0
AGG				S	Sn	09 26 53.7	+3.2
LAST	Lasithi	3.06	108	P	Pn	09 26 17.2	-1.0
LAST	Lasithi	3.06	108	P	Pn	09 26 17.2	-1.0
MEV	Metsovon	3.67	352	P	Pn	09 26 27.5	+1.0
MEV	Metsovon	3.67	352	P	Pn	09 26 27.5	+1.0
CHOS	Chios island	3.98	55	P	Pn	09 26 32.6	+1.8
CHOS				S	Sn	09 27 24.0	+6.5
CHOS	Chios island	3.98	55	P	Pn	09 26 32.6	+1.8
CHOS				S	Sn	09 27 24.0	+6.5

IDC 29 09:25:54.5±5.3**, 52°.30N×35°.73E, h0^{km}, mb1 3.9**/3**, mb1mx3.4**/23**, mbtmp3.8**/3**, ML3.4**/4**, Error ellipse: s-maj=67.2km s-min=15.3km az=124.0, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AKASG	Malin Array Be	4.37	251	Pn	Pn	09 27 00.3	-1.7
	1.2nm,0.3s,baz=54,slow=12,SNR=3.1						
AKASG				Pg	Pg	09 27 10.7	-7.4
	3.3nm,0.3s,baz=60,slow=15,SNR=9.4						
AKASG				Sn	Sn	09 27 50.8	-2.7
	2.1nm,0.3s,baz=63,slow=22,SNR=3.7						
AKASG				Lg		09 28 09.9	
	4.0nm,0.3s,baz=329,slow=19,SNR=5.4						
FINES	FINESS Array B	10.57	334	Pn	Pn	09 28 22.2	-4.7
	0.3nm,0.3s,baz=149,slow=12,SNR=6.7						
NOA	NORSAR Array B	15.97	313	Pn	Pn	09 29 32.5	-7.8
	0.2nm,0.3s,baz=121,slow=12,SNR=3.5						
ARCES	ARCESS Array B	17.95	348	P	Pn	09 30 04.0	-1.0
	0.4nm,0.3s,baz=164,slow=10,SNR=15						

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*MAN **29** 08:31:17, 5°.52N×126°.68E, h122^{km}, mb4.2, ML3.0, MS2.8*

*IDC **29** 09:31:07.1±1.3, 5°.47N×126°.17E, h0^{km}, mb3.8/6, mb1 3.9/6, mb1mx3.7/21, mbtmp3.8/6, Error ellipse: s-maj=142.5km s-min=18.1km az=66.0*

*ISCJB **29** 09:31:18.7±1.0, 5°.47N±0°.09×126°.4E±0°.1, h119^{km}±10^{km}, mb3.9/5, Error ellipse: s-maj=21.3km s-min=14.3km az=167.8*

ISC 29 09:31:19.9±1.1**, 5°.45N**±0°.09×**126°.4E**±0°.1**, h110^{km}**±11^{km}**, n9, σ0^{s}.78**/12**, mb3.9**/5**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	Mati	1.49	355	*e*P	Pn	09 31 43.8	-2.9
MATI				*e*S	Sn	09 32 07.4	+0.3
GSPH	General Santos	1.58	294 ⇑	*i*P	Pn	09 31 47.0	-0.7
GSPH				*e*S	Sn	09 32 08.8	0.0
BUKP	Musuan	2.76	331	*e*P	Pn	09 32 03.2	+0.5
BUKP				*e*S	Sn	09 32 36.7	+1.0
WRA	Warramunga Arr	26.41	163	P	P	09 36 46.5	+0.1
	0.9nm,0.3s,mb3.7,baz=342,slow=10.0,SNR=9.7						
ASAR	Alice Springs	29.85	166	P	P	09 37 17.6	+0.6
	0.4nm,0.3s,baz=339,slow=7.2,SNR=12						
ASAR				PcP	PcP	09 40 18.8	+1.0
	0.2nm,0.5s,baz=353,slow=2.3,SNR=4.9						
STKA	Stephens Creek	39.84	160	P	P	09 38 43.1	+0.4
	3.3nm,0.9s,mb4.2,baz=347,slow=6.7,SNR=4.1						
MKAR	Makanchi Array	55.97	325	P	P	09 40 46.3	-0.5
	0.3nm,0.4s,mb3.7,baz=116,slow=7.6,SNR=8.0						
MKAR				PcP	PcP	09 41 45.0	+0.9
	0.3nm,0.7s,baz=126,slow=3.1,SNR=3.7						
ZALV	Zalesovo Beam	58.92	333	P	P	09 41 07.2	-0.1
	0.7nm,0.3s,mb4.1,baz=116,slow=9.8,SNR=2.9						
KURK	Kurchatov	60.13	327	P	P	09 41 15.3	-0.4
	0.2nm,0.2s,mb3.7,baz=120,slow=7.1,SNR=2.8						

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*NEIC **29** 09:36:28.0, 19°.52N×66°.99W, h25^{km}, MD3.5(RSPR), After RSPR.*

RSPR 29 09:36:28.0, 19°.52N×66°.99W, h25^{km}±19^{km}**, MD3.5**/3**, MD3.5**/3**, 2C-3D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	1.05	186 ⇑	*e*P	Pn	09 36 44.7	-2.5
AGPR				*e*S	Sb	09 36 58.0	-3.0
AOPR	Arecibo Observ	1.19	169 ⇓	*e*P	Pn	09 36 46.7	-2.4
AOPR				*e*S	Sn	09 37 01.1	-3.3
LSP	Las Mesas	1.34	184 ⇓	*e*P	Pn	09 36 48.8	-2.4
LSP				*e*S	Sn	09 37 05.7	-2.4
CRPR	Cabo Rojo, PR	1.51	184 ⇓	*e*P	Pn	09 36 49.6	-3.9
CRPR				*e*S	Sn	09 37 09.4	-2.9
OBIP	Obispado Ponce	1.51	166	*e*S	Sn	09 37 09.8	-2.6
CBYP	Canovanas	1.64	139	*e*S	Sn	09 37 12.7	-2.9
HUMP	Col San Antoni	1.74	142	*e*S	Sn	09 37 15.3	-2.8
MTP	Monte Pirata	1.96	136 ⇑	*e*P	Pn	09 36 58.1	-1.7
MTP				*e*S	Sn	09 37 20.9	-2.7

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*UPP **29** 09:59:29.4, 64°.38N×32°.44E, h1^{km}, ML2.0, Suspected Mining explosion.*

*CSEM **29** 09:59:39.6±0.5, 64°.83N×30°.88E, h2^{km}, ML1.9, Error ellipse: s-maj=14.4km s-min=5.8km az=86.0, Mining explosion.*

HEL 29 09:59:39.9±0.3**, 64°.81N×30°.79E, h0^{km}, ML1.8, ML2.0**(UPP)**, Explosion, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KU6	Riekki	1.28	343	*e*P	Pg	10 00 03.3	-1.2
KU6				*e*SB	Sb	10 00 21.4	-0.4
KU6				MSG		10 00 21.4	
	comp=Z,3.9nm,0.4s						
KU6	Riekki	1.28	343	Pg	Pg	10 00 03.2	-1.2
KU6				Sg	Sg	10 00 21.4	+0.4
MSF	Maaselka	1.33	327	*e*P	Pg	10 00 04.0	-1.3
MSF				*e*SN	Sn	10 00 23.4	-0.6
MSF				MSG		10 00 23.4	
	comp=Z,4.6nm,0.2s						
MSF	Maaselka	1.33	327	Pg	Pg	10 00 04.0	-1.3
MSF				Sg	Sg	10 00 23.4	+0.8
JOF	Joensuu	1.91	173	*e*P	Pn	10 00 12.6	-1.0
	baz=348						
JOF				*e*S	Sn	10 00 37.7	-0.6
JOF				MSG		10 00 37.7	
	comp=Z,4.0nm,0.2s						
JOF	Joensuu	1.91	173	Pn	Pn	10 00 12.6	-1.0
JOF				Sg	Sg	10 00 37.7	-3.5
OUL	Oulu	2.10	280	*e*P	Pn	10 00 16.4	+0.2
	baz=95						
OUL				*e*S	Sn	10 00 43.1	+0.1
OUL				MSG		10 00 43.1	
	comp=Z,2.6nm,0.1s						
OUL	Oulu	2.10	280	Pn	Pn	10 00 16.4	+0.2
OUL				Sg	Sg	10 00 43.1	-4.2
RNF	Rovaniemi	2.68	315	*e*PB	Pb	10 00 25.6	-3.0
	baz=128						
RNF				MSG		10 00 59.5	
	comp=Z,3.3nm,0.2s						
RNF				*e*SB	Sb	10 00 59.5	-2.4
RNF	Rovaniemi	2.68	315	Pn	Pn	10 00 25.6	+1.4
RNF				Sg	Sg	10 00 59.5	-6.3
SUF	Sumiainen	2.94	227	*e*P	Pn	10 00 28.2	+0.5
VRF	Varrio	2.99	351	*e*P	Pn	10 00 28.4	-0.1
	baz=164						
VRF				MSG		10 01 13.2	
	comp=Z,2.9nm,0.4s						
VRF				*e*SG	Sg	10 01 13.2	-2.7
VRF	Varrio	2.99	351	Pn	Pn	10 00 28.4	-0.1
KALU	Kalix	3.29	292	*e*P	Pn	10 00 33.2	+0.6
KALU	Kalix	3.29	292	P	Pn	10 00 33.2	+0.6
KAF	Kangasniemi	3.37	219	*e*P	Pn	10 00 34.8	+1.1
KAF				*e*		10 01 29.2	
KAF				MSG		10 01 29.2	
	comp=Z,3.8nm,0.4s						
KAF	Kangasniemi	3.37	219	Pn	Pn	10 00 34.8	+1.1
KAF				Sg	Sg	10 01 29.2	+1.2
KEF	Keuruu	3.75	228	*e*P	Pn	10 00 38.7	-0.2
KEF	Keuruu	3.75	228	Pn	Pn	10 00 38.7	-0.2
PAJU	Pajala	3.85	309	*e*P	Pn	10 00 40.2	-0.1
PAJU	Pajala	3.85	309	P	Pn	10 00 40.2	-0.1
SJUU	Sjulsmark	3.94	284	*e*P	Pn	10 00 41.0	-0.5
SJUU	Sjulsmark	3.94	284	P	Pn	10 00 41.0	-0.5
ERTU	Ertsjaerv	3.96	300	*e*P	Pn	10 00 42.0	+0.1
ERTU	Ertsjaerv	3.96	300	P	Pn	10 00 42.0	+0.2
FIA1	FINESS Array S	3.99	214	MSG		10 01 43.2	
	comp=Z,6.8nm,0.4s						
FIA1				*e*SG	Sg	10 01 43.2	-4.8
FIA0	FINESS Array S	4.00	214	*e*P	Pn	10 00 43.1	+0.8
	baz=33						
FIA0				*e*SG	Sg	10 01 43.4	-4.7
FIA0				MSG		10 01 43.4	
	comp=Z,2.4nm,0.3s						
FIA0	FINESS Array S	4.00	214	Pn	Pn	10 00 43.1	+0.8
VAF	Ylistaro	4.00	247	*e*SG	Sg	10 01 42.3	-5.8
VAF				MSG		10 01 42.3	
	comp=Z,4.8nm,0.4s						
VAF	Ylistaro	4.00	247	Sg	Sg	10 01 42.3	-5.8
BURU	Burvik	4.05	271	*e*P	Pn	10 00 41.7	-1.3
BURU	Burvik	4.05	271	P	Pn	10 00 41.7	-1.3
LILU	Lilltraesk	4.66	281	*e*P	Pn	10 00 50.7	-0.6
LILU	Lilltraesk	4.66	281	P	Pn	10 00 50.7	-0.7

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*IDC **29** 10:01:35.5±0.9, 40°.19N×21°.71E, h0^{km}, mb3.7/9, mb1 3.8/13, mb1mx3.7/29, mbtmp3.7/13, ML3.5/2, Error ellipse: s-maj=18.3km s-min=15.9km az=54.0*

*CSEM **29** 10:01:37.7±0.1, 40°.09N×21°.90E, h2^{km}, ML4.2/11, Error ellipse: s-maj=2.9km s-min=2.4km az=38.0*

*NEIC **29** 10:01:37.0, 40°.11N×21°.67E, h10^{km}, ML3.3(ATH), After ATH.*

*ATH **29** 10:01:37.4, 40°.13N×21°.88E, h11^{km}±1^{km}, MD3.7/15, ML3.4*

*ISCJB **29** 10:01:37.6±0.2, 40°.13N±0°.01×21°.86E±0°.02, h10^{km}, mb3.8/7, Error ellipse: s-maj=1.9km s-min=1.6km az=148.4*

*THE **29** 10:01:37.8, 40°.13N×21°.87E, h3^{km}±1^{km}, ML4.2/11, Error ellipse: s-maj=1.1km s-min=0.5km az=109.0*

*SKO **29** 10:01:37.3, 40°.03N×21°.79E, h3^{km}, M3.2, ML3.6*

*TIR **29** 10:01:38.6, 40°.18N×21°.69E, h15^{km}*

*PDG **29** 10:01:38.3±0.6, 40°.11N×21°.93E, h10^{km}±1^{km}, ML3.6/10, Error ellipse: s-maj=0.9km s-min=1.3km az=0.0*

*SOF **29** 10:01:39.2, 40°.18N×21°.96E, h20^{km}, MD3.1*

ISC 29 10:01:38.5±0.2**, 40°.11N**±0°.01×**21°.90E**±0°.02**, h10^{km}, n207, σ1^{s}.31**/293**, mb3.8**/7**, 17C-25D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KZN	Kozani	0.22	334	*e*PG	Pg	10 01 41.8	-1.2
KZN				*e*SG	Sg	10 01 44.5	-1.5
KZN	Kozani	0.22	334	P	Pg	10 01 41.7	-1.3
KZN	Kozani	0.22	334	P	Pg	10 01 41.7	-1.3
LIT	Litokhoron	0.46	91	P	Pg	10 01 46.9	-0.5
LIT				S	Sg	10 01 54.2	+0.7
LIT	Litokhoron	0.46	91	*e*PB	Pg	10 01 47.0	-0.4
LIT				*e*SB	Sg	10 01 53.8	+0.3
LIT	Litokhoron	0.46	91	P	Pg	10 01 46.9	-0.5
LIT				S	Sg	10 01 54.2	+0.7
THL	Klokotos Trika	0.56	170	P	Pg	10 01 48.1	-1.2
THL				S	Sg	10 01 56.5	-0.1
THL	Klokotos Trika	0.56	170	*e*PB	Pg	10 01 48.1	-1.2
THL				*e*SB	Sg	10 01 56.2	-0.4
THL	Klokotos Trika	0.56	170	P	Pg	10 01 48.1	-1.2
THL				S	Sg	10 01 56.5	-0.1
MEV	Metsovon	0.61	238	P	Pg	10 01 48.9	-1.4

MEV	Metsovon	0.61	238	P	Pg	10 01 48.9	-1.4
FNA	Florina	0.78	330	P	Pg	10 01 51.4	-2.2
FNA				S	Sg	10 02 02.3	-1.4
FNA	Florina	0.78	330	P	Pg	10 01 51.4	-2.2
FNA				S	Sg	10 02 02.3	-1.4
JAN	Janina	0.92	241	ePG	Pg	10 01 54.6	-1.7
GRG	Griva	0.93	24	P	Pg	10 01 55.1	-1.3
GRG				S	Sg	10 02 08.2	-0.3
GRG	Griva	0.93	24	P	Pg	10 01 55.1	-1.3
GRG				S	Sg	10 02 08.2	-0.3
THE	Thessaloniki	0.97	57	P	Pg	10 01 56.5	-0.7
THE				S	Sg	10 02 11.1	+1.3
THE	Thessaloniki	0.97	57	P	Pg	10 01 56.5	-0.7
THE				S	Sg	10 02 11.1	+1.3
KBN	Korca	0.99	301	ePG	Pg	10 01 55.2	-2.3
KBN				i SG	Sg	10 02 06.3	-4.1
KBN	Korca	0.99	301	ePg	Pg	10 01 55.2	-2.3
	SNR=92						
KBN				i Sg	Sg	10 02 06.3	-4.1
	SNR=92						
BIA	Bitola	1.00	335	P	Pg	10 01 55.4	-2.5
BIA				S	Sg	10 02 11.2	+0.3
BIA	Bitola	1.00	335	ePg	Pg	10 01 56.0	-1.9
BIA				eSg	Sg	10 02 11.3	+0.4
BIA				eLg		10 02 11.6	
	comp=E,730nm,0.3s						
BIA				eLg		10 02 12.2	
	comp=N,638nm,0.3s						
BIA	Bitola	1.00	335	ePg	Pg	10 01 55.9	-2.0
BIA				eSg	Sg	10 02 11.3	+0.4
BIA				eLg		10 02 11.5	
	comp=N,730nm,0.3s						
HORT	Hortiatis	1.04	62	P	Pg	10 01 57.9	-0.6
HORT				S	Sg	10 02 13.2	+1.1
HORT	Hortiatis	1.04	62	P	Pg	10 01 57.9	-0.6
HORT				S	Sg	10 02 13.2	+1.1
AGG	Agios Georgios	1.14	163	P	Pg	10 01 59.4	-1.0
AGG				S	Sg	10 02 16.6	+1.4
AGG	Agios Georgios	1.14	163	ePB	Pg	10 01 59.7	-0.7
AGG				eSB	Sg	10 02 16.0	+0.8
AGG	Agios Georgios	1.14	163	P	Pg	10 01 59.4	-1.0
AGG				S	Sg	10 02 16.6	+1.4
EVR	Evrytania	1.20	183	ePG	Pg	10 02 00.0	-1.5
PLG	Polygyros	1.22	77	P	Pn	10 02 00.6	-0.9
PLG				S	Sn	10 02 18.3	+0.3
PLG	Polygyros	1.22	77	ePG	Pn	10 02 00.6	-0.9
PLG				eSB	Sb	10 02 17.2	-0.1
PLG	Polygyros	1.22	77	P	Pn	10 02 01.5	0.0
PLG	Polygyros	1.22	77	P	Pn	10 02 00.6	-0.9
PLG				S	Sn	10 02 18.3	+0.3
XOR	Xorichti	1.25	126	P	Pn	10 02 01.2	-0.8
XOR				S	Sn	10 02 19.6	+0.8
XOR	Xorichti	1.25	126	P	Pn	10 02 01.2	-0.8
XOR				S	Sn	10 02 19.6	+0.8
KNT	Kendrikon	1.30	36	P	Pn	10 02 02.0	-0.7
KNT				S	Sn	10 02 20.9	+0.8
KNT	Kendrikon	1.30	36	P	Pn	10 02 02.0	-0.7
KNT				S	Sn	10 02 20.9	+0.8
OHR	Ohrid	1.30	320	ePg	Pg	10 02 01.1	-2.4
OHR				eSg	Sg	10 02 20.5	+0.1
OHR				eLg		10 02 20.9	
	comp=E,3µm,1.2s						
OHR				eLg		10 02 21.3	
	comp=N,1µm,0.7s						
OHR	Ohrid	1.30	320	ePg	Pg	10 02 01.0	-2.5
OHR				eSg	Sg	10 02 20.4	0.0
OHR				eLg		10 02 20.9	
	comp=N,3µm,1.2s						
NEO	Neokhori	1.30	128	ePN	Pn	10 02 01.0	-1.7
VAY	Valandovo	1.31	23	P	Pn	10 02 01.4	-1.5
VAY				S	Sg	10 02 20.8	0.0
VAY	Valandovo	1.31	23	ePn	Pn	10 02 02.2	-0.7
VAY				eLg		10 02 22.4	
	comp=E,945nm,0.9s						
VAY				eSg	Sn	10 02 22.4	+2.0
VAY				eLg		10 02 24.6	
	comp=N,1µm,0.9s						
VAY	Valandovo	1.31	23	S	Sn	10 02 21.0	+0.6
VAY				i P		10 02 01.8	
VAY	Valandovo	1.31	23	ePn	Pn	10 02 02.1	-0.8
VAY				S	Sg	10 02 20.8	0.0
VAY				eLg		10 02 22.3	
	comp=N,945nm,0.9s						
VAY				eSg	Sn	10 02 22.4	+2.0
SOH	Sokhos	1.32	57	P	Pn	10 02 02.4	-0.6
SOH				S	Sn	10 02 21.3	+0.7
SOH	Sokhos	1.32	57	ePB	Pb	10 02 02.7	-0.7
SOH				eSB	Sb	10 02 20.2	-0.1
SOH	Sokhos	1.32	57	P	Pn	10 02 02.4	-0.6
SOH				S	Sn	10 02 21.3	+0.7
KRUS	Krusevo	1.35	339	ePg	Pg	10 02 02.4	-2.0
KRUS				eSg	Sg	10 02 21.1	-0.8
KRUS				eLg		10 02 22.0	
	comp=E,225nm,0.4s						
KRUS				eLg		10 02 22.9	
	comp=N,145nm,0.4s						
KRUS	Krusevo	1.35	339	ePg	Pg	10 02 02.3	-2.1
KRUS				eSg	Sg	10 02 21.1	-0.8
KRUS				eLg		10 02 22.0	
	comp=N,225nm,0.4s						
PAIG	Paliouri	1.38	97	P	Pn	10 02 03.1	-0.8
PAIG	Paliouri	1.38	97	P	Pn	10 02 03.1	-0.8
SRN	Sarande	1.47	262	ePG	Pg	10 02 05.7	-1.1
SRN				i SG	Sn	10 02 21.7	-2.7
SRN	Sarande	1.47	262	ePg	Pg	10 02 05.7	-1.1
	SNR=91						
SRN				i Sg	Sn	10 02 21.7	-2.7
	SNR=91						
OUR	Ouranopolis	1.61	81	P	Pn	10 02 06.9	-0.1
OUR	Ouranopolis	1.61	81	P	Pn	10 02 06.9	-0.1
SRS	Serrai	1.64	52	P	Pn	10 02 06.6	-0.7
SRS				S	Sn	10 02 28.5	+0.1
SRS	Serrai	1.64	52	P	Pn	10 02 06.6	-0.7
SRS				S	Sn	10 02 28.5	+0.1
KEK	Kerkira	1.66	257	ePB	Pb	10 02 08.5	-0.7
EFP	Efpalio	1.68	180	ePG	Pg	10 02 08.4	-2.4
LKR	Lokris	1.69	149	P	Pn	10 02 07.6	-0.5
LKR	Lokris	1.69	149	ePG	Pg	10 02 08.4	-2.6
LKR	Lokris	1.69	149	P	Pn	10 02 08.8	+0.7
LKR	Lokris	1.69	149	P	Pn	10 02 07.6	-0.5
LKD	Levkas	1.70	215	P	Pn	10 02 08.9	+0.7
LKD				S	Sn	10 02 30.9	+0.8
LKD	Levkas	1.70	215	P	Pn	10 02 08.9	+0.7
LKD				S	Sn	10 02 30.9	+0.8
KALE	Kalithea	1.73	174	P	Pn	10 02 08.1	-0.5
KALE	Kalithea	1.73	174	P	Pn	10 02 08.1	-0.5
TRIZ	Trizonia	1.75	175	P	Pn	10 02 08.5	-0.4
TRIZ	Trizonia	1.75	175	P	Pn	10 02 08.5	-0.4
AOS	Alonnisos	1.80	121	P	Pn	10 02 08.7	-0.9
AOS	Alonnisos	1.80	121	P	Pn	10 02 08.7	-0.9
LAKA	Lakka	1.87	178	P	Pn	10 02 10.5	-0.1
LAKA	Lakka	1.87	178	P	Pn	10 02 10.5	-0.1
SKO	Skopje	1.89	350	P	Pn	10 02 10.6	-0.2
SKO	Skopje	1.89	350	ePn	Pn	10 02 11.8	+1.0
SKO				eSg	Sg	10 02 39.6	+0.3
SKO				eLg		10 02 40.7	
	comp=E,540nm,0.9s						
SKO				eLg		10 02 42.1	
	comp=N,377nm,0.6s						
SKO	Skopje	1.89	350	i P	Pn	10 02 10.5	-0.3
SKO				S	Sg	10 02 39.1	-0.2
SKO	Skopje	1.89	350	P	Pn	10 02 10.6	-0.2
SKO	Skopje	1.89	350	ePn	Pn	10 02 11.7	+0.9
SKO				eSg	Sg	10 02 39.5	+0.2
SKO				eLg		10 02 40.6	
	comp=N,540nm,0.9s						
PHP	Peshkopia	1.92	325	ePN	Pg	10 02 15.4	+0.1
PHP				i SN	Sn	10 02 36.7	+1.3
PHP	Peshkopia	1.92	325	ePn	Pg	10 02 15.4	+0.1
	SNR=60						
PHP				i Sn	Sn	10 02 36.7	+1.3
	SNR=60						
NVR	Nevrokopi	1.94	50	ePN	Pn	10 02 11.4	-0.1
NVR	Nevrokopi	1.94	50	P	Pn	10 02 12.3	+0.8
NVR	Nevrokopi	1.94	50	P	Pn	10 02 12.3	+0.8
KKB	Krupnik	1.97	27	i P	Pn	10 02 12.0	+0.1
KKB				S	Sn	10 02 36.2	-0.5
TIR	Tirane	1.98	309	ePG	Pg	10 02 13.4	-3.0
TIR	Tirane	1.98	309	ePn	Pg	10 02 13.6	-2.8
TIR				eSn	Sg	10 02 42.4	+0.4
TIR	Tirane	1.98	309	ePn	Pg	10 02 13.6	-2.8
RLS	Riolos of Patr	2.08	189	ePN	Pn	10 02 14.6	+1.2
VLS	Valsamata	2.18	208	ePN	Pn	10 02 16.8	+2.0
GUR	Goura	2.20	171	ePN	Pn	10 02 16.4	+1.3
PUK	Puka	2.45	323	ePN	Pg	10 02 21.8	-3.7
PUK	Puka	2.45	323	ePn	Pg	10 02 21.8	-3.7
	SNR=60						
LIA	Limnos Island	2.54	94	P	Pn	10 02 19.3	-0.4
LIA	Limnos Island	2.54	94	ePB	Pn	10 02 20.6	+0.9
LIA	Limnos Island	2.54	94	P	Pn	10 02 19.3	-0.4
ATH	Athens Observa	2.56	146	ePB	Pn	10 02 21.2	+1.1
PTL	Penteli	2.57	143	ePN	Pn	10 02 22.5	+2.4
SCTE	Santa Cesarea	2.63	270	ePN	Pn	10 02 22.6	+1.6
RZN	Rozhen	2.66	53	i P	Pn	10 02 21.7	+0.4
RZN				S	Sn	10 02 53.7	+0.1
NAIG	Nisos Aigina	2.66	152	ePB	Pn	10 02 22.2	+0.8
VTS	Vitosha	2.67	21	P	Pn	10 02 21.9	+0.4
VTS	Vitosha	2.67	21	ePB	Pn	10 02 22.0	+0.5
VTS	Vitosha	2.67	21	i P	Pn	10 02 22.4	+0.9
VTS				S	Sn	10 02 53.0	-0.9
VTS	Vitosha	2.67	21	P	Pn	10 02 23.7	+2.2
VTS	Vitosha	2.67	21	P	Pn	10 02 21.9	+0.4
VLY	Voula,Athens	2.70	146	ePN	Pn	10 02 23.8	+1.9
BARS	Barje	2.70	359	ePn	Pn	10 02 22.0	0.0
ULC	Ulcinj	2.72	314	⇓iPn	Pn	10 02 23.4	+1.1
ULC				eSn	Sn	10 02 58.6	+3.3
ULC	Ulcinj	2.72	314	⇓iPn	Pn	10 02 23.4	+1.1
ULC				eSn	Sn	10 02 58.6	+3.3
VLX	Vlachokerasia	2.76	172	ePB	Pn	10 02 23.6	+0.8
DID	Didima	2.81	158	P	Pn	10 02 23.2	-0.2
DID	Didima	2.81	158	P	Pn	10 02 23.2	-0.2
PVY	Plav	2.87	330	⇑iPn	Pn	10 02 25.8	+1.5
PVY				eSn	Sn	10 03 02.1	+3.2
PVY	Plav	2.87	330	⇑iPn	Pn	10 02 25.8	+1.5
PVY				eSn	Sn	10 03 02.1	+3.2
ITM	Ithomi	2.93	180	ePB	Pb	10 02 28.3	-2.5
RDO	Rodhopi	2.96	68	ePN	Pn	10 02 26.5	+1.0
RDO	Rodhopi	2.96	68	P	Pn	10 02 26.5	+1.0
PGB	Panagyurishte	2.98	34	i P	Pn	10 02 23.5	-2.3
PGB				i S	Sg	10 03 07.6	-6.5
PDG	Podgorica	3.05	320	⇓iPn	Pn	10 02 28.5	+1.7
PDG				eSn	Sn	10 03 06.4	+3.1
TTG	Podgorica	3.05	320	⇓iPn	Pn	10 02 28.5	+1.7
TTG				eSn	Sn	10 03 06.4	+3.1
TTG	Podgorica	3.05	320	⇓iPn	Pn	10 02 28.5	+1.7
TTG				eSn	Sn	10 03 06.4	+3.1
KDZ	Kurdzhali	3.08	59	P	Pn	10 02 24.5	-2.7
KDZ				S	Sg	10 03 13.4	-4.0
BEY	Berane	3.14	332	⇑iPn	Pn	10 02 28.8	+0.8
BEY				eSn	Sn	10 03 08.7	+3.2
IVA	Berane	3.14	332	⇑iPn	Pn	10 02 28.8	+0.8
IVA				eSn	Sn	10 03 08.7	+3.2
IVA	Berane	3.14	332	⇑iPn	Pn	10 02 28.8	+0.8
IVA				eSn	Sn	10 03 08.7	+3.2
BUM	Brajici-Budva	3.15	315	⇑iPn	Pn	10 02 29.1	+1.0
BUM				eSn	Sn	10 03 08.7	+3.1
BUM	Brajici-Budva	3.15	315	⇑iPn	Pn	10 02 29.1	+1.0
BUM				eSn	Sn	10 03 08.7	+3.1
PYL	PYLOS	3.21	182	ePN	Pn	10 02 30.3	+1.3
ALN	Alexandroupoli	3.26	75	ePN	Pn	10 02 30.8	+1.1
NISS		3.29	1	ePn	Pn	10 02 29.7	-0.4
HCY	Herceg Novi	3.46	313	⇑iPn	Pn	10 02 34.3	+1.9
HCY				eSn	Sn	10 03 16.3	+2.8
HCY	Herceg Novi	3.46	313	⇑iPn	Pn	10 02 34.3	+1.9
HCY				eSn	Sn	10 03 16.3	+2.8
NKY	Niksic	3.47	322	⇓iPn	Pn	10 02 34.2	+1.7
NKY				eSn	Sn	10 03 16.2	+2.6
NKY	Niksic	3.47	322	⇓iPn	Pn	10 02 34.2	+1.7
NKY				eSn	Sn	10 03 16.2	+2.6
PE1	Pezze di Greco	3.48	283	ePn	Pn	10 02 32.5	-0.2
VLI	Veliai	3.49	166	ePN	Pn	10 02 34.8	+2.0
CHOS	Chios island	3.66	117	P	Pn	10 02 35.9	+0.7
CHOS	Chios island	3.66	117	ePN	Pn	10 02 36.3	+1.1
CHOS	Chios island	3.66	117	P	Pn	10 02 35.9	+0.7
PLE	Pljevlja	3.72	331	⇓iPn	Pn	10 02 37.1	+1.1
PLE				eSn	Sn	10 03 22.1	+2.3
PLE	Pljevlja	3.72	331	⇓iPn	Pn	10 02 37.1	+1.1
PLE				eSn	Sn	10 03 22.1	+2.3
BRY	Bratogost	3.75	319	⇓iPn	Pn	10 02 37.6	+1.2
BRY				eSn	Sn	10 03 23.1	+2.4
BRY	Bratogost	3.75	319	⇓iPn	Pn	10 02 37.6	+1.2
BRY				eSn	Sn	10 03 23.1	+2.4
UPM	Unac-Piva	3.81	325	⇓iPn	Pn	10 02 38.8	+1.6
UPM				eSn	Sn	10 03 24.8	+2.7
UPM	Unac-Piva	3.81	325	⇓iPn	Pn	10 02 38.8	+1.6
UPM				eSn	Sn	10 03 24.8	+2.7
GRUS	Gruza	3.87	347	ePn	Pn	10 02 37.5	-0.6
KYTH	Kithira	3.93	166	ePN	Pn	10 02 40.5	+1.6
SG1	Sgolgore (BA)	4.04	282	ePn	Pn	10 02 42.1	+1.7
TIP	Timpagrande	4.07	258	ePn	Pn	10 02 40.6	-0.2
TIP				eSn	Sn	10 03 29.1	+0.6
TIP	Timpagrande	4.07	258	ePn	Pn	10 02 40.6	-0.2
TIP				eSn	Sn	10 03 29.1	+0.5
BBLS	Lazići	4.18	334	ePn	Pn	10 02 42.1	-0.3
DIVS	Divibare	4.23	341	P	Pn	10 02 43.1	+0.2
DIVS	Divibare	4.23	341	i Pn	Pn	10 02 43.2	+0.3
TRUS	Trudelj	4.25	345	ePn	Pn	10 02 40.6	-2.7
ACER	Acerenza	4.59	280	Pn	Pn	10 02 49.0	+1.0
ACER	Acerenza	4.59	280	Pn	Pn	10 02 49.0	+1.0
CUC	Castrocucco	4.67	270	ePn	Pn	10 02 49.9	+0.9
CUC				eSn	Sn	10 03 35.4	-7.8
CUC	Castrocucco	4.67	270	ePn	Pn	10 02 49.8	+0.8
MS1	Monte Sant’Ang	4.78	291	ePn	Pn	10 02 49.4	-1.2
MS1				eSn	Sn	10 03 44.8	-1.2
RGNG	Rignano Grg	5.03	290	Pn	Pn	10 02 52.9	-1.1
RGNG	Rignano Grg	5.03	290	Pn	Pn	10 02 52.9	-1.1
GZR	Gura Zlata	5.32	7	⇑iP	Pn	10 02 59.0	+1.1
GZR	Gura Zlata	5.32	7	⇑P	Pn	10 02 59.0	+1.0
GZR	Gura Zlata	5.32	7	⇑P	Pn	10 02 59.0	+1.1
IDI	Anoyia	5.37	153	Pn	Pn	10 02 59.6	+1.0
	comp=N,0.6nm,0.3s,baz=354,slow=11,SNR=7.3						
IDI				Sn	Sn	10 04 04.2	+3.7
	comp=N,1.1nm,0.3s,baz=81,slow=19,SNR=2.8						
IDI	Anoyia	5.37	153	Pn	Pn	10 02 59.6	+0.9
BZS	Buzias	5.50	358	⇓iP	Pn	10 03 00.0	-0.5
BZS	Buzias	5.50	358	⇓P	Pn	10 02 60.0	-0.5
BZS	Buzias	5.50	358	⇓P	Pn	10 03 00.0	-0.5
VOIR		5.80	23	⇓iP	Pn	10 03 05.2	+0.6
VOIR		5.80	23	⇓P	Pn	10 03 05.2	+0.6
VOIR		5.80	23	⇓P	Pn	10 03 05.2	+0.6
MLR	Muntele Rosu	6.14	28	⇓iP	Pn	10 03 09.0	-0.3
MLR	Muntele Rosu	6.14	28	Pn	Pn	10 03 08.9	-0.4
	comp=N,0.8nm,0.3s,baz=210,slow=4.7,SNR=3.7						
MLR	Muntele Rosu	6.14	28	⇓P	Pn	10 03 09.0	-0.3
MLR	Muntele Rosu	6.14	28	⇓P	Pn	10 03 09.0	-0.3
SDI	San Donato	6.33	287	Pn	Pn	10 03 12.5	+0.7
	comp=N,14nm,0.5s						
SDI	San Donato	6.33	287	Pn	Pn	10 03 12.5	+0.7
	comp=N,14nm,0.5s						
PKSM	Moragy	6.54	340	⇑iP	Pn	10 03 15.3	+0.6
PKSM	Moragy	6.54	340	⇑P	Pn	10 03 15.3	+0.6
PKSM	Moragy	6.54	340	⇑P	Pn	10 03 15.3	+0.6
NRCA	Norcia	7.13	295	Pn	Pn	10 03 22.8	0.0
	comp=N,8.5nm,0.5s						
NRCA	Norcia	7.13	295	Pn	Pn	10 03 22.8	0.0
	comp=N,8.5nm,0.5s						
PSZ	Piszkesteto	7.94	350	⇓iP	Pn	10 03 25.8	-8.0
PSZ	Piszkesteto	7.94	350	⇑ePn	Pn	10 03 33.1	-0.7
PSZ	Piszkesteto	7.94	350	⇓P	Pn	10 03 25.8	-8.1
PSZ				ePn	Pn	10 03 35.2	+1.4
PSZ				eSn	Sn	10 05 03.3	-0.3
PSZ	Piszkesteto	7.94	350	⇑eP	Pn	10 03 33.1	-0.7
PSZ	Piszkesteto	7.94	350	ePn	Pn	10 03 35.2	+1.4
SOKA	Soboth	8.24	325	⇓iPn	Pn	10 03 38.0	-0.1
SOKA	Soboth	8.24	325	Pn	Pn	10 03 38.0	-0.1
BRTR	Keskin Array B	9.03	89	Pn	Pn	10 03 50.2	+1.3
BRTR	Keskin Array B	9.03	89	Pn	Pn	10 03 50.2	+1.3
GERES	GERESS Array B	10.51	329	Pn	Pn	10 04 06.2	-2.8
	comp=N,0.1nm,0.3s,baz=155,slow=14,SNR=3.8						
KHC	Kasperske Hory	10.78	329	eP	Pn	10 04 15.5	+2.7
KHC	Kasperske Hory	10.78	329	P	Pn	10 04 15.5	+2.7
HFS	Hagfors	20.69	348	P	P	10 06 16.3	-2.1
	comp=N,2.4nm,0.7s,baz=205,slow=6.4,SNR=2.9						
NB2	NORSAR Subarra	21.97	346	P	P	10 06 30.2	-2.0
	comp=Z,2.3nm,0.8s,mb3.7,baz=151,slow=11						
NB2	NORSAR Subarra	21.97	346	P	P	10 06 30.2	-2.0
	comp=Z,2.3nm,0.8s,mb3.7,SNR=5.6						
NOA	NORSAR Array B	21.97	346	P	P	10 06 30.6	-1.6
	comp=Z,1.2nm,0.6s,mb3.5,baz=161,slow=11,SNR=4.8						
EKA	Eskdalemuir Ar	22.54	321	P	P	10 06 34.9	-3.4
	comp=Z,2.4nm,0.7s,mb3.7,baz=116,slow=8.0,SNR=3.2						
TORD	Torodi Ar. Bea	32.20	219	P	P	10 08 05.5	-1.3
	comp=Z,1.2nm,0.7s,mb3.9,baz=20,slow=8.8,SNR=7.9						
KURK	Kurchatov	40.28	55	P	P	10 09 14.4	-1.1
	comp=Z,0.3nm,0.7s,baz=322,slow=12,SNR=2.5						
MKAR	Makanchi Array	43.40	60	P	P	10 09 39.8	-1.2
	comp=Z,0.6nm,0.5s,mb3.6,baz=276,slow=7.4,SNR=23						
ZALV	Zalesovo Beam	43.62	50	P	P	10 09 41.6	-1.2
	comp=Z,0.6nm,0.3s,mb3.8,baz=306,slow=3.4,SNR=3.3						
SCHQ	Schefferville	57.77	317	P	P	10 11 26.7	-2.7
	comp=Z,4.3nm,1.2s,mb4.4,baz=53,slow=5.1,SNR=2.8						
YKA	Yellowknife Ar	71.94	340	P	P	10 12 59.5	-2.1
	comp=Z,0.4nm,0.9s,mb3.4,baz=27,slow=4.8,SNR=4.7						
ASAR	Alice Springs	121.31	96	PKP	PKPdf	10 20 29.6	-2.3
	comp=Z,0.3nm,0.9s,baz=307,slow=1.7,SNR=4.1						

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*CSEM **29** 10:07:35.0, 38.°16N×37.°01E, h7^{km}, MD2.9*
*DDA **29** 10:07:35.0, 38.°16N×37.°01E, h7^{km}±1^{km}, Md2.9*
ISC 29 10:07:32.7±2.2**, 38.°0N**±0.°1×**36.°91E**±0.°08**, h4**^{km}±9^{km}**, n9,**
σ**0.^{s}65**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SARI	SarD1z-Kayseri	0.72	347	ePG	Pg	10 07 46.1	-0.4
SARI				eSG	Sg	10 07 54.7	-1.1
PINB	Pinarbasi	0.80	331	eP	Pg	10 07 49.0	+1.0
PINB				eS	Sg	10 07 58.9	+0.4
PINB	Pinarbasi	0.80	331	eP	Pg	10 07 49.0	+0.9
PINB				eS	Sg	10 07 58.9	+0.4
AKCD	Akcadag	0.86	68	eP	Pg	10 07 49.1	-0.1
AKCD				eS	Sg	10 08 00.9	+0.5
AKCD	Akcadag	0.86	68	eP	Pg	10 07 49.1	-0.1
AKCD				eS	Sg	10 08 00.9	+0.5
MALT	Malatya	1.25	74	ePN	Pn	10 07 55.9	-1.0
KEMA	Kemaliye	1.79	44	eP	Pn	10 08 04.2	-0.2
KEMA				eS	Sn	10 08 28.1	+0.5
KEMA	Kemaliye	1.79	44	eP	Pn	10 08 04.2	-0.2
KEMA				eS	Sn	10 08 28.1	+0.5
SVSK	Karacayir	1.94	2	ePN	Pn	10 08 06.9	+0.5

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*MOS **29** 10:13:53.0±1.0, 53.°70N×165.°53W, h39^{km}, mb4.9/73,*
Error ellipse: s-maj=8.7km s-min=4.5km az=85.1
*BJI **29** 10:13:53.1, 54.°14N×165.°88W, h27^{km}, mB5.2/24,*
mb4.9/33, Ms5.0/22, Ms7 4.6/21
*IDC **29** 10:13:53.5±3.5, 53.°70N×165.°54W, h31^{km}±24^{km}, mb4.4/34,*
mb1 4.5/35, mb1mx4.5/39, mbtmp4.4/35, ML4.4/1, MS3.8/17,
Ms1 3.8/17, ms1mx3.6/47, Error ellipse: s-maj=15.9km
s-min=9.7km az=2.0
*ISCJB **29** 10:13:54.8±0.3, 53.°63N±0.°03×165.°54W±0.°03, h56^{km}±2^{km},*
mb4.7/183, MS4.0/30, Error ellipse: s-maj=5.1km
s-min=2.4km az=13.3
*NEIC **29** 10:13:55.4±0.4, 53.°61N×165.°55W, h49^{km}±3^{km}, mb4.8/125,*
ML4.4(AEIC), ML4.8(PMR), Error ellipse: s-maj=5.0km
s-min=2.8km az=183.0
*SZGRF **29** 10:13:58.1, 54.°50N×166.°50W, h33^{km}, mb4.8, Fox*
Islands, Aleutian Islands, United States
ISC 29 10:13:56.4±0.3**, 53.°64N**±0.°03×**165.°59W**±0.°03**, h55**^{km}±2^{km}**,**
h47^{km}±.8^{km}**:pP-P, n595,** σ**0.^{s}80**/603**, mb4.7**/183**, MS4.0**/30**,**
122C-118D, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKUT	Akutan	0.50	348	P	Pn	10 14 07.0	-1.0
AKUT				S	Sn	10 14 17.6	+1.2
AKLV	Akutan Long Va	0.56	337	P	Pn	10 14 07.8	-0.9
AKLV				S	Sn	10 14 18.9	+1.3
UNV	Unalaska Valle	0.58	291	P	Pn	10 14 07.4	-1.5
UNV				S	Sn	10 14 18.6	+0.7
AKGG	Akutan Green G	0.60	337	P	Pn	10 14 08.5	-0.7
AKGG				S	Sn	10 14 20.7	+2.3
OKFG	Magazine Ridge	1.41	261	P	Pn	10 14 17.8	-1.9
OKFG				S	Sn	10 14 38.0	+0.9
FALS	False Pass	1.76	45	P	Pn	10 14 22.1	-2.3
FALS				S	Sn	10 14 47.4	+1.6
NIKO	Nikolski	2.07	252	P	Pn	10 14 26.5	-2.2
SDPT	Sand Point	3.44	58	P	Pn	10 14 45.6	-1.7
SDPT				S	Sn	10 15 25.3	-1.4
SPIA	Saint Paul Isl	4.42	325	P	Pn	10 15 02.4	+1.5
CHGN	Chignik	4.92	54	eP	Pn	10 15 06.3	-1.3
ATKA	Atka Island	5.40	258	P	Pn	10 15 13.8	-0.4
ADK	Adak	6.96	260	P	Pn	10 15 35.7	+0.1
SII	Sitkinak Islan	7.17	61	P	Pn	10 15 34.9	-3.5
OHAK	Old Harbor	7.86	58	ePn	Pn	10 15 44.2	-3.6
OHAK				eSn	Sn	10 17 11.9	-3.4
KDAK	Kodiak Island	8.43	55	Pn	Pn	10 15 52.6	-3.0
	4.3nm,0.3s,baz=252,slow=6.7,SNR=47						
KDAK				Sn	Sn	10 17 21.1	-8.1
	0.9nm,0.3s,baz=307,slow=20,SNR=3.5						
KDAK	Kodiak Island	8.43	55	ePn	Pn	10 15 52.7	-3.0
KDAK				eSn	Sn	10 17 22.7	-6.5
SVW2	Sparrevohn	9.21	32	eP	Pn	10 16 06.4	+0.1
RSO	Redoubt South	9.76	40	ePn	Pn	10 16 14.2	+0.3
TTA	Tatalina	10.57	25	eP	Pn	10 16 25.9	+1.0
GAMB	Gambell	10.64	345	ePn	Pn	10 16 26.8	+0.9
	21nm,0.5s						
SEW	Seward	10.93	47	ePn	Pn	10 16 27.1	-2.7
	29nm,0.7s						
SEW				eSn	Sn	10 18 25.0	-5.3
FIB	Fire Island	11.20	42	eP	Pn	10 16 31.9	-1.5
PPLA	Purkeypile	11.63	32	ePn	Pn	10 16 42.3	+3.0
	46nm,1.1s						
PMR	Palmer	11.86	41	eP	Pn	10 16 40.5	-1.9
PMR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
PMR	Palmer	11.86	41	eP	Pn	10 16 40.5	-1.9
	comp=Z,2.6nm,0.3s						
TNA	Tin City	12.01	355	ePn	Pn	10 16 46.7	+2.1
	comp=Z,12nm,0.5s						
CHUM	Lake Minchumin	12.33	28	ePn	Pn	10 16 50.3	+1.5
	comp=Z,15nm,0.6s						
KTH	Kantishna Hill	12.50	32	ePn	Pn	10 16 52.4	+1.3
	comp=Z,36nm,1.1s						
TRF	Thorofare Moun	12.63	33	ePn	Pn	10 16 53.9	+1.0
	comp=Z,19nm,0.9s						
BPAW	Bear Paw Mtn.	12.88	30	ePn	Pn	10 16 57.5	+1.2
	comp=Z,28nm,1.1s						
MCK	McKinley	13.26	34	eP	Pn	10 17 00.4	-1.2
IMA2	Indian Mountai	13.78	21	eP	Pn	10 17 10.5	+1.9
PAX	Paxson	14.05	40	eP	Pn	10 17 09.5	-2.7
PAX				pmax	pmax		
	comp=Z,11nm,0.6s						
PAX	Paxson	14.05	40	ePn	Pn	10 17 09.5	-2.6
	comp=Z,11nm,0.6s						
COLA	College	14.39	32	eP	Pn	10 17 14.4	-2.2
COLA				pmax	pmax		
	comp=Z,15nm,1.0s						
COLA	College	14.39	32	ePn	Pn	10 17 14.4	-2.2
	comp=Z,15nm,1.0s						
MENT	Mentasta	14.72	42	eP	Pn	10 17 18.1	-2.9
COLD	Coldfoot	15.52	23	eP	Pn	10 17 32.0	+0.6
	comp=Z,35nm,1.0s						
EGAK	Eagle	16.62	38	eP	Pn	10 17 45.8	+0.5
	comp=Z,12nm,0.8s						
HYT	Haines Junctio	16.71	53	eP	Pn	10 17 49.4	+3.0
DAWY	Dawson	16.96	42	eP	Pn	10 17 50.6	+1.2
SKAG	Skagway	17.56	59	eP	Pn	10 17 57.7	+0.8
	comp=Z,276nm,2.5s						
BILL	Bilibino	19.62	328	i P	Pn	10 18 18.4	-3.3
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BILL				MLR	MLR		
	comp=Z,2µm,17.0s						
DLBC	Dease Lake	20.27	62	P	P	10 18 27.6	+0.7
	comp=Z,5.9nm,0.7s,baz=262,slow=8.4,SNR=19						
DLBC				LR	LR	10 25 52.5	
	comp=Z,135nm,21.3s,MS3.3,baz=254,slow=36						
DLBC	Dease Lake	20.27	62	eP	P	10 18 28.0	+1.1
INK	Inuvik	21.02	33	P	P	10 18 32.1	-2.9
INK						10 22 39.6	
INK				pmax	pmax		
	comp=Z,15nm,0.6s						
INK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
INK				MLR	MLR		
	comp=Z,317nm,20.8s						
INK	Inuvik	21.02	33	P	P	10 18 32.1	-2.9
	comp=Z,15nm,0.6s,mb4.5,baz=232,slow=12,SNR=178						
INK				PcP	PcP	10 22 39.6	0.0
	comp=Z,4.0nm,1.0s,baz=275,slow=1.8,SNR=3.3						
INK				LR	LR	10 27 27.2	
	comp=Z,317nm,20.8s,MS3.7,baz=237,slow=39						
INK	Inuvik	21.02	33	eP	P	10 18 32.0	-3.0

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         comp=Z,20nm,0.8s,mb4.5
PETK Petropavlovsk-  21.76 284  P        P        10 18 42.8 -0.2
         comp=Z,6.5nm,0.5s,mb4.4,baz=80,slow=14,SNR=31
PETK                            LR       LR       10 26 38.6
         comp=Z,340nm,19.1s,MS3.8,baz=258,slow=35
BBB  Bella Bella     22.48  78  LR       LR       10 25 02.5
         comp=Z,160nm,19.9s,MS3.5,baz=280,slow=30
SEY  Seymchan        23.54 310⇑eP        P        10 19 01.4 +0.1
YKA  Yellowknife Ar  27.67  51  P        P        10 19 37.9 -0.7
YKA                                               10 22 53.7
YKA  Yellowknife Ar  27.67  51  P        P        10 19 37.9 -0.7
         comp=Z,9.1nm,0.6s,mb4.6,baz=274,slow=9.5,SNR=82
YKA                             PcP      PcP      10 22 53.7 -0.5
         comp=Z,0.9nm,0.7s,baz=293,slow=2.3,SNR=3.8
YKA                             LR       LR       10 30 16.8
         comp=Z,106nm,18.7s,MS3.4,baz=235,slow=36
YKA  Yellowknife Ar  27.67  51  P        P        10 19 37.9 -0.7
YKA                             PcP      PcP      10 22 53.7 -0.5
YKA                             LR       LR       10 30 16.8
A07A Ashnola River,  28.23  81 ⇓P        P        10 19 44.3 +0.5
         baz=28
B07A Winthrop        28.66  82 ⇑P        P        10 19 48.6 +1.1
         baz=28
C07A Waterville      29.06  83 ⇑P        P        10 19 51.1  0.0
         baz=29
E06A Yakima          29.08  86 ⇓P        P        10 19 52.1 +0.8
         baz=29
B08A Colville Reser  29.17  81 ⇑P        P        10 19 52.0  0.0
         baz=29
A09A Danville        29.32  80 ⇑P        P        10 19 53.5 +0.1
         baz=29
H04A Detroit Lake    29.35  90 ⇓P        P        10 19 54.2 +0.5
         baz=29
B09A Rice            29.83  81 ⇑P        P        10 19 57.9 -0.1
         baz=30
A10A Northport       29.92  79 ⇑P        P        10 19 59.0 +0.3
         baz=30
HAWA Hanford         30.02  85 eP        P        10 20 00.1 +0.5
         comp=Z,7.7nm,0.9s,mb4.4
D08A Wollman Farm,   30.04  83 ⇑P        P        10 19 59.4 -0.4
         baz=30
C09A Chrisman Ranch  30.06  82 ⇓P        P        10 19 59.7 -0.2
         baz=30
E08A Dider Farm, El  30.25  84 ⇑P        P        10 20 01.4 -0.2
         baz=30
H06A Lindquist Farm  30.43  88 ⇑P        P        10 20 03.8 +0.6
         baz=30
NEW  Newport         30.51  80 eP        P        10 20 04.0 +0.1
NEW                             pmax     pmax
         comp=Z,5.0nm,0.8s
NEW  Newport         30.51  80 eP        P        10 20 04.0 +0.1
         comp=Z,5.1nm,0.8s,mb4.4
G07A Ruggs Ranch, H  30.53  87 ⇓P        P        10 20 04.7 +0.6
         baz=30
A11A Hall Mountain,  30.63  78 ⇓P        P        10 20 05.6 +0.7
         baz=30
YBH  Yreka Blue Hor  30.75  95  P        P        10 20 06.0 -0.1
         comp=Z,2.7nm,1.0s,mb4.0,baz=319,slow=3.2,SNR=5.0
YBH                             LR       LR       10 30 57.0
         comp=Z,127nm,19.9s,MS3.6,baz=324,slow=33
E09A Wood Farm, Sta  30.78  84 ⇓P        P        10 20 06.8 +0.5
         baz=31
F08A Pendleton       30.78  85 ⇓P        P        10 20 06.7 +0.4
         baz=31
I06A Prineville      30.94  90 ⇓P        P        10 20 08.2 +0.4
         baz=31
A12A Yaak River Ran  31.05  78 ⇑P        P        10 20 08.9 +0.3
         baz=31
K05A Summer Lake     31.24  92 ⇓P        P        10 20 11.5 +1.1
         baz=31
I07A Izee            31.28  89 ⇑P        P        10 20 11.3 +0.6
         baz=31,SNR=6.4
B12A Libby           31.31  79 ⇑P        P        10 20 12.0 +1.0
         baz=31
J06A Christmas Vall  31.37  91 ⇑P        P        10 20 12.4 +0.8
         baz=31,SNR=7.3
E10A Myers Farm, Un  31.41  83 ⇓P        P        10 20 11.9 +0.1
         baz=31
H08A Prairie City    31.54  87 ⇓P        P        10 20 13.2 +0.2
         baz=31
D11A Klaveano Farm,  31.57  82 ⇑P        P        10 20 13.0 -0.3
         baz=31
G09A Cove            31.65  86 ⇓P        P        10 20 14.3 +0.4
         baz=32
C12B Naegeli Ranch,  31.75  80 ⇓P        P        10 20 14.7 -0.1
         baz=32
A13A Flathead Natio  31.77  77 ⇓P        P        10 20 15.1  0.0
         baz=32
J07A Hines           31.80  90 ⇑P        P        10 20 15.4  0.0
         baz=32
I08A Drewsey         31.94  88 ⇑P        P        10 20 16.5  0.0
         baz=32
E11A Bogner Ranch,   32.01  83 ⇑P        P        10 20 15.9 -1.2
         baz=32
B13A Whitefish       32.01  78 ⇑P        P        10 20 17.0 -0.2
         baz=32
G10A Bishop Farm, J  32.03  85 ⇑P        P        10 20 17.5 +0.2
         baz=32,SNR=6.2
BSMT Bassoo Peak     32.08  79 eP        P        10 20 18.1 +0.4
         comp=Z,6.0nm,1.1s,mb4.3
MOD  Modoc           32.08  93 eP        P        10 20 18.9 +1.1
         comp=Z,4.7nm,0.7s,mb4.4
D12A Red Ives Fores  32.15  81 ⇓P        P        10 20 17.8 -0.5
         baz=32
K07A Rock Creek Ran  32.24  91 ⇑P        P        10 20 19.0 -0.1
         baz=32
F11A Grangeville     32.28  83 ⇓P        P        10 20 18.9 -0.7
         baz=32
C13A Hot Springs     32.29  80 ⇓P        P        10 20 19.5 -0.1
         baz=32,SNR=7.7
J08A Circle Bar Ran  32.31  89 ⇑P        P        10 20 19.8  0.0
         baz=32
A14A Double T Ranch  32.33  77 ⇓P        P        10 20 19.9  0.0
         baz=32,SNR=12
JTMT Jette           32.43  79 eP        P        10 20 20.8  0.0
         comp=Z,2.3nm,0.7s,mb4.1
YBMT Yellow Bay      32.53  79 eP        P        10 20 21.8 +0.1
         comp=Z,6.3nm,1.0s,mb4.5
L07A Adell           32.58  92 ⇓P        P        10 20 23.0 +0.8
         baz=32,SNR=6.5
H10A Noah's Angus R  32.64  86 ⇓P        P        10 20 22.9 +0.2
         baz=32,SNR=14
K08A Mann Creek Ran  32.67  90 ⇑P        P        10 20 23.3 +0.3
         baz=32,SNR=6.1
A15A Johnson Ranch,  32.73  76 ⇓P        P        10 20 22.9 -0.5
         baz=33,SNR=7.5
J09A Fry Pan Ranch,  32.74  89 ⇓P        P        10 20 23.8 +0.2
         baz=33,SNR=5.4
WVOR Wild Horse Val  32.76  91 eP        P        10 20 24.2 +0.5
WVOR                            pmax     pmax
         comp=Z,11nm,1.0s,mb4.7
WVOR Wild Horse Val  32.76  91 eP        P        10 20 24.2 +0.5
         comp=Z,11nm,1.0s,mb4.7
TIXI Tiksi           32.85 328 i P       P        10 20 24.2  0.0
TIXI                            MLR      MLR
         comp=Z,200nm,17.0s,MS3.9
F12A Elk City        32.89  83 ⇓P        P        10 20 24.9  0.0
         baz=33,SNR=6.9
I10A Payette         32.89  87 ⇓P        P        10 20 25.2 +0.3
         baz=33
H11A Donnelly        33.01  85 ⇑P        P        10 20 26.0 +0.1
         baz=33
M07A Soldier Meadow  33.07  93 ⇓P        P        10 20 27.0 +0.5
         baz=33,SNR=10
N06A Buffalo Meadow  33.07  94 ⇓P        P        10 20 27.0 +0.5
         baz=33,SNR=8.0
L08A Fields          33.07  91 ⇓P        P        10 20 26.9 +0.4
         baz=33,SNR=9.4
MSO  Missoula        33.09  80 eP        P        10 20 26.1 -0.5
         comp=Z,4.4nm,1.3s,mb4.2
B15A Bradely Ranch,  33.15  77 ⇓P        P        10 20 26.7 -0.4
         baz=33
E13A Victor          33.15  81 ⇓P        P        10 20 26.6 -0.5
         baz=33
D14A Greenough       33.22  80 ⇓P        P        10 20 27.7  0.0
         baz=33,SNR=7.8
BEKR Beckwourth      33.31  96 ⇓P        P        10 20 28.2 -0.4
         baz=33
C15A Salmond Ranch,  33.39  78 ⇓P        P        10 20 29.3 +0.1
         baz=33,SNR=26
A16A West Butte Ran  33.40  76 ⇑P        P        10 20 28.5 -0.8
         baz=33,SNR=9.5
O06A Flanigan        33.44  95 ⇓P        P        10 20 30.0 +0.3
         baz=33
CHMT Chamberlain Mo  33.45  80 eP        P        10 20 29.2 -0.5
         comp=Z,2.7nm,1.0s,mb4.1
I11A Placerville     33.49  86 ⇑P        P        10 20 30.2 +0.1
         baz=33
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M08A Happy Creek Ra  33.50  92 ⇓P        P        10 20 31.0 +0.8
         baz=33
N07B Gerlach         33.56  93 ⇑P        P        10 20 31.1 +0.3
         baz=33,SNR=7.1
E14A Clinton         33.57  81 ⇓P        P        10 20 30.6 -0.2
         baz=33
K10A MacKenzie Ranc  33.60  89 ⇓P        P        10 20 31.4 +0.4
         baz=33
P06A Stead Airport,  33.71  96 ⇓P        P        10 20 32.3 +0.3
         baz=34
H12A Diamond D Ranc  33.78  85 ⇓P        P        10 20 32.3 -0.3
         baz=34
D15A Lincoln         33.82  79 ⇓P        P        10 20 32.2 -0.7
         baz=34,SNR=5.9
G13A Cobalt          33.85  83 ⇑P        P        10 20 32.9 -0.3
         baz=34
MFID Camas Ranch     33.85  87 ⇑P        P        10 20 33.4 +0.1
         baz=34
C16A Fuhringer Ranc  33.88  78 ⇓P        P        10 20 33.0 -0.4
         baz=34,SNR=19
A17A Triple J Farms  33.92  75 ⇓P        P        10 20 33.1 -0.6
         baz=34,SNR=11
F14A Wisdom          33.97  82 ⇓P        P        10 20 34.3 +0.1
         baz=34,SNR=6.5
PAHR Pah Rah Range   33.99  95 eP        P        10 20 35.1 +0.6
         comp=Z,11nm,0.7s,mb4.9
O07A Toulon          34.01  94 ⇓P        P        10 20 35.1 +0.5
         baz=34,SNR=10
WCN  Washoe City     34.03  96 ⇓P        P        10 20 35.0 +0.1
         baz=34
I12A Atlanta         34.05  86 ⇓P        P        10 20 34.8 -0.1
         baz=34
YAK  Yakutsk         34.07 310 i P       P        10 20 34.2 -0.7
YAK                             pmax     pmax
         comp=Z,19nm,1.0s,mb5.0
E15A Deer Lodge      34.07  80 ⇑P        P        10 20 34.6 -0.5
         baz=34,SNR=7.0
M09A Marrel Ranch,   34.07  91 ⇑P        P        10 20 35.7 +0.6
         baz=34
K11A Parker Ranch,   34.11  88 ⇓P        P        10 20 35.6 +0.1
         baz=34
H13A Challis         34.13  84 ⇑P        P        10 20 35.9 +0.2
         baz=34
B17A L&G Farms, Che  34.18  76 ⇑P        P        10 20 35.6 -0.5
         baz=34,SNR=6.3
RES  Resolute Bay    34.22  26  P        P        10 20 35.2 -0.9
RES                                               10 23 11.8
RES                             pmax     pmax
         comp=Z,4.0nm,0.7s,mb4.5
RES                             pmax     pmax
         comp=Z,1.0nm,0.5s,mb4.0
RES  Resolute Bay    34.22  26  P        P        10 20 35.1 -1.0
         comp=Z,3.7nm,0.7s,mb4.4,baz=259,slow=12,SNR=27
RES                             PcP      PcP      10 23 11.8 +0.4
         comp=Z,1.4nm,0.5s,baz=16,slow=2.2,SNR=4.9
RES  Resolute Bay    34.22  26 eP        P        10 20 35.4 -0.7
         comp=Z,9.8nm,1.3s,mb4.6
O08A Rochester Mine  34.35  93 ⇑P        P        10 20 37.6  0.0
         baz=34,SNR=6.6
J12A Stokes Ranch,   34.38  87 ⇑P        P        10 20 38.1 +0.3
         baz=34
D16A Dana Ranch, Ca  34.39  79 ⇓P        P        10 20 38.0 +0.1
         baz=34
HRY  Holter Researc  34.39  79 eP        P        10 20 37.9  0.0
         comp=Z,3.4nm,0.6s,mb4.5
A18A Metzger Ranch,  34.42  75 ⇓P        P        10 20 37.3 -0.8
         baz=34,SNR=14
C17A Wharram Farm,   34.54  77 ⇓P        P        10 20 38.4 -0.7
         baz=34,SNR=10
E16A East Helena     34.58  79 ⇑P        P        10 20 39.1 -0.4
         baz=34,SNR=5.5
I13A Wildhorse Cree  34.58  85 ⇓P        P        10 20 40.0 +0.4
         baz=34
HLID Hailey          34.61  86 ⇑P        P        10 20 39.5 -0.3
         baz=34
HLID Hailey          34.61  86 eP        P        10 20 40.5 +0.8
         comp=Z,32nm,2.6s,mb4.8
B18A Beardsley Farm  34.72  75 ⇓P        P        10 20 40.6 -0.1
         baz=34
R06C Coleville       34.72  97 ⇓P        P        10 20 40.9 +0.1
         baz=35
WAKR Walker          34.74  97 eP        P        10 20 42.1 +1.1
D17A Six Diamond Ra  34.83  78 ⇓P        P        10 20 41.5 -0.1
         baz=35,SNR=7.4
G15A Dillon          34.84  82 ⇓P        P        10 20 41.6 -0.2
         baz=35,SNR=8.1
J13A Cove Ranch, Pi  34.84  86 ⇓P        P        10 20 42.0 +0.2
         baz=35,SNR=5.8
EGMT Eagleton        34.92  76 ⇓P        P        10 20 42.1 -0.3
         baz=35,SNR=20
EGMT Eagleton        34.92  76 eP        P        10 20 42.0 -0.4
         comp=Z,20nm,0.8s,mb5.1
I14A Mackay          34.97  84 ⇑P        P        10 20 43.1 +0.2
         baz=35
O09A Fish Creek Ran  35.00  93 ⇓P        P        10 20 43.4 +0.2
         baz=35
H15A Lima            35.05  83 ⇑P        P        10 20 43.5 -0.1
         baz=35,SNR=5.7
BOZ  Bozeman (W)     35.08  81 eP        P        10 20 44.1 +0.3
BOZ                             pmax     pmax
         comp=Z,4.0nm,0.7s,mb4.5
BOZ  Bozeman (W)     35.08  81 eP        P        10 20 44.1 +0.2
         comp=Z,3.6nm,0.7s,mb4.4
E17A Martinsdale     35.09  79 ⇑P        P        10 20 44.0 +0.1
         baz=35,SNR=8.1
G16A Moss Hill, Enn  35.21  81 ⇑P        P        10 20 44.6 -0.3
         baz=35,SNR=9.5
J14A Carey           35.28  85 ⇑P        P        10 20 45.8 +0.2
         baz=35
D18A Linhart Farms,  35.32  77 ⇑P        P        10 20 46.1 +0.2
         baz=35,SNR=30
Q08A Gabbs           35.40  95 ⇑P        P        10 20 47.3 +0.7
         baz=35
NVAR Mina Array Bea  35.46  96  P        P        10 20 47.6 +0.5
         comp=Z,4.5nm,0.7s,mb4.5,baz=299,slow=8.9,SNR=39
NVAR                            PcP      PcP      10 23 15.9 +0.3
         comp=Z,0.5nm,0.5s,baz=73,slow=19,SNR=3.9
F17A Fitzpatrick Pl  35.51  80 ⇑P        P        10 20 47.5  0.0
         baz=35,SNR=9.0
E18A Harlowton       35.59  78 ⇓P        P        10 20 48.4 +0.3
         baz=35,SNR=8.3
L13A Double Diamond  35.75  87 ⇑P        P        10 20 50.1 +0.5
         baz=36
G17A Pierce Place,   35.78  81 ⇓P        P        10 20 50.0 +0.2
         baz=36
ELK  Elko            35.80  90 eP        P        10 20 50.8 +0.7
ELK                             pmax     pmax
         comp=Z,4.0nm,0.8s
ELK  Elko            35.80  90 eP        P        10 20 50.8 +0.7
         comp=Z,4.5nm,0.8s,mb4.5
H16A Russell Place,  35.83  82 ⇑P        P        10 20 50.2  0.0
         baz=36,SNR=6.7
N12A Clover Valley,  35.86  90 eP        P        10 20 51.1 +0.6
         comp=Z,9.7nm,0.6s,mb4.9
J15A Blackfoot       35.88  84 ⇓P        P        10 20 51.1 +0.4
         baz=36
YMR  Madison River   36.02  82 eP        P        10 20 52.2 +0.3
         comp=Z,4.3nm,0.6s,mb4.6
F18A Big Timber      36.06  79 ⇑P        P        10 20 52.4 +0.2
         baz=36,SNR=5.9
YNR  Norris Junctio  36.16  81 eP        P        10 20 54.6 +1.5
         comp=Z,8.8nm,0.8s,mb4.7
I16A Newdale         36.16  83 ⇑P        P        10 20 53.3 +0.2
         baz=36
K15A Arbon           36.24  86 ⇑P        P        10 20 54.2 +0.4
         baz=36
R09A Tonopah         36.31  95 ⇓P        P        10 20 54.8 +0.4
         baz=36,SNR=9.1
Q10A Clear Creek Ra  36.33  94 ⇓P        P        10 20 55.0 +0.4
         baz=36,SNR=8.3
H17A Grant Village   36.40  82 ⇓P        P        10 20 56.2 +1.1
         baz=36,SNR=6.2
LKWY Lake            36.41  81 eP        P        10 20 56.8 +1.6
LKWY                            pmax     pmax
         comp=Z,7.0nm,0.8s,mb4.6
LKWY Lake            36.41  81 eP        P        10 20 56.8 +1.6
         comp=Z,6.7nm,0.8s,mb4.6
J16A Bone            36.44  84 ⇓P        P        10 20 56.0 +0.6
         baz=36
IMW  Indian Meadow   36.47  83 eP        P        10 20 56.4 +0.6
         comp=Z,35nm,2.4s,mb4.9
G18A Lazy EL Ranch,  36.48  80 ⇓P        P        10 20 55.7 -0.1
         baz=36
S09A Goldfield       36.56  96 ⇑P        P        10 20 57.3 +0.7
         baz=36
RRI2 Red Ridge       36.57  84 eP        P        10 20 57.4 +0.9
         comp=Z,4.6nm,0.9s,mb4.3
I17A Pilgrim Ck.     36.67  82 ⇓P        P        10 20 58.2 +0.7
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         baz=36
HABR Khabarovsk      36.71 287c iP       P        10 20 55.6 -2.2
HABR                           e                  10 22 19.6
HABR                           e                  10 23 17.9
HABR                           eS        S        10 26 34.2 -2.9
HABR                           eSS       SS       10 29 09.3  -10
HABR                           e                  10 31 05.8
HABR                            pmax     pmax
         comp=Z,17nm,1.0s,mb4.8
HABR                            pmax     pmax
         comp=N,35nm,2.3s
HABR                            pmax     pmax
         comp=E,38nm,2.1s
HABR                            MLR      MLR
         comp=Z,161nm,18.0s,MS3.9
HABR                            MLR      MLR
         comp=N,162nm,16.0s,MS4.0
HABR                            MLR      MLR
         comp=E,163nm,19.0s,MS4.0
R10A Warm Springs    36.74  94 ⇓P        P        10 20 58.9 +0.8
         baz=37
RLMT Red Lodge       36.76  80 ⇓P        P        10 20 58.5 +0.4
         baz=37,SNR=14
RLMT Red Lodge       36.76  80 eP        P        10 20 58.3 +0.1
         comp=E,13nm,0.9s,mb4.8
Q11A Duckwater       36.76  93 ⇓P        P        10 20 58.9 +0.6
         baz=37
S10A Tonopah Range,  36.81  95 ⇑P        P        10 20 59.0 +0.4
         baz=37,SNR=7.0
REDW Red Top Meadow  36.83  83 eP        P        10 20 60.0 +1.2
         comp=E,56nm,2.6s,mb4.9
J17A Brown Place, J  36.92  83 ⇓P        P        10 20 59.7 +0.2
         baz=37
R11A Troy Canyon, C  37.12  94 ⇓P        P        10 21 01.6 +0.2
         baz=37
ISA  Isabella        37.22  99 ⇓P        P        10 21 02.4 +0.2
         baz=37
I18A Diamond G Ranc  37.25  82 ⇑P        P        10 21 02.6 +0.3
         baz=37,SNR=6.1
L16A Fish Haven      37.29  86 ⇓P        P        10 21 03.3 +0.6
         baz=37
P13A Bates Ranch, G  37.34  91 ⇑P        P        10 21 03.7 +0.5
         baz=37
J18A Kendall Valley  37.41  83 ⇓P        P        10 21 03.9 +0.2
         baz=37
S11A Rachel          37.49  95 ⇓P        P        10 21 05.1 +0.6
         baz=37
MPMC Manual Prospec  37.53  98 ⇑P        P        10 21 05.4 +0.6
         baz=37
DUG  Dugway          37.59  89 eP        P        10 21 06.1 +0.8
DUG                             pmax     pmax
         comp=Z,5.0nm,0.9s,mb4.2
DUG  Dugway          37.59  89 ⇑P        P        10 21 05.8 +0.5
         baz=37
DUG  Dugway          37.59  89 eP        P        10 21 06.1 +0.8
         comp=Z,4.8nm,0.9s,mb4.2
FURC Furnace Creek,  37.62  97 ⇓P        P        10 21 05.8 +0.2
         baz=38,SNR=6.4
LAO  LASA Array      37.66  76 eP        P        10 21 06.1 +0.3
         comp=Z,12nm,0.6s,mb4.8
K18A Toltan Ranch,   37.74  84 ⇓P        P        10 21 06.3 -0.2
         baz=38
DGMT Dagmar          37.87  72 ⇓P        P        10 21 07.1 -0.4
         baz=38
DGMT Dagmar          37.87  72 eP        P        10 21 07.3 -0.3
         comp=Z,9.7nm,0.8s,mb4.6
BW06 Boulder Array   37.95  83 ⇑P        P        10 21 08.2 -0.1
         baz=38,SNR=5.9
BW06 Boulder Array   37.95  83 eP        P        10 21 08.3  0.0
         comp=Z,28nm,2.2s,mb4.6
PDAR Pinedale Array  37.95  83  P        P        10 21 07.8 -0.5
         comp=Z,1.9nm,0.7s,mb3.9,baz=303,slow=5.1,SNR=19
PDAR                            PcP      PcP      10 23 22.1 -0.9
         comp=Z,0.2nm,0.5s,baz=216,slow=0.8,SNR=3.6
PDAR                            LR       LR       10 34 28.3
         comp=Z,90nm,19.3s,MS3.6,baz=347,slow=33
T11A Corn Creek, Al  38.07  95 ⇑P        P        10 21 09.5 +0.1
         baz=38,SNR=7.7
M17A Scullys Gap (B  38.08  86 ⇓P        P        10 21 09.4  0.0
         baz=38
Q14A Sevier Lake (B  38.08  91 ⇓P        P        10 21 10.0 +0.5
         baz=38
L18A Fontenelle, Gr  38.17  85 ⇑P        P        10 21 10.0 -0.2
         baz=38
KLR  Kul'dur         38.19 290 eP        P        10 21 04.8 -5.4
K19A Absolon Red Bu  38.34  83 ⇓P        P        10 21 11.3 -0.2
         baz=38,SNR=10
FCC  Fort Churchill  38.36  53 eP        P        10 21 11.1 -0.4
         comp=Z,0.3nm,1.0s
L19A Farson          38.47  84 ⇓P        P        10 21 12.3 -0.4
         baz=38
K20A Yellowstone Ra  38.73  83 ⇓P        P        10 21 14.1 -0.8
         baz=39
ARUT Antelope Range  38.77  92 eP        P        10 21 15.5 +0.3
ARUT                            pmax     pmax
         comp=Z,6.0nm,0.9s,mb4.3
ARUT Antelope Range  38.77  92 eP        P        10 21 15.5 +0.3
         comp=Z,5.8nm,0.9s,mb4.3
CCUT Cedar City      38.97  93 eP        P        10 21 20.5 +3.6
         comp=Z,28nm,2.4s,mb4.6
MSU  Marysvale       39.05  91 eP        P        10 21 18.5 +1.0
MSU                             pmax     pmax
         comp=Z,2.0nm,0.7s,mb4.0
MSU  Marysvale       39.05  91 eP        P        10 21 18.5 +1.0
         comp=Z,2.0nm,0.7s,mb4.0
TMUT Trail Mountain  39.12  89 eP        P        10 21 19.3 +1.2
         comp=Z,13nm,1.3s,mb4.5
V12A Nelson          39.32  96 ⇑P        P        10 21 20.1 +0.3
         baz=39
U13A Pakoon Wash     39.37  95 ⇑P        P        10 21 20.1 -0.1
         baz=39
P18A Preston Nutter  39.48  88 ⇓P        P        10 21 20.8 -0.3
         baz=39
GMRC Granite Mounta  39.49  98 ⇑P        P        10 21 21.0 -0.3
         baz=39
SRU  San Rafael      39.64  89 eP        P        10 21 23.5 +1.0
SRU                             pmax     pmax
         comp=Z,6.0nm,1.0s,mb4.3
SRU  San Rafael      39.64  89 ⇓P        P        10 21 22.4 -0.1
         baz=40
SRU  San Rafael      39.64  89 eP        P        10 21 23.5 +1.0
         comp=Z,6.4nm,1.0s,mb4.3
O19A Miners Draw (B  39.72  86 ⇑P        P        10 21 22.8 -0.4
         baz=40
L21A Rawlins         39.73  83 ⇑P        P        10 21 22.8 -0.3
         baz=40,SNR=6.9
V13A Grand Canyon W  39.74  95 ⇑P        P        10 21 24.0 +0.6
         baz=40
U14A Mt Trumbull     39.84  94 ⇓P        P        10 21 24.0 -0.2
         baz=40
BELC Belle Mtn.      39.84  99 ⇓P        P        10 21 24.2  0.0
         baz=40
Q18A Rafter H Ranch  39.88  88 ⇓P        P        10 21 24.5 +0.1
         baz=40
N20A Spence Gulch,   39.90  85 ⇓P        P        10 21 24.2 -0.4
         baz=40
M21A Separation Pea  39.95  83 ⇑P        P        10 21 25.2 +0.2
         baz=40
R17A Hanksville Air  39.98  90 ⇓P        P        10 21 25.2 -0.1
         baz=40
IRM  Iron Mountain   40.23  98 ⇓P        P        10 21 27.2 -0.2
         baz=40
P19A Cripple Cowboy  40.23  87 ⇓P        P        10 21 27.1 -0.2
         baz=40,SNR=7.4
W13A Hualapai Mount  40.32  96 ⇓P        P        10 21 28.0 -0.1
         baz=40
O20A White River Ci  40.35  86 ⇓P        P        10 21 28.0 -0.3
         baz=40,SNR=7.1
N21A Black Mountain  40.38  84 ⇓P        P        10 21 28.2 -0.4
         baz=40
RSSD Black Hills     40.39  78 eP        P        10 21 28.3 -0.3
RSSD                            pmax     pmax
         comp=Z,6.0nm,0.7s,mb4.4
RSSD Black Hills     40.39  78 eP        P        10 21 28.3 -0.4
         comp=Z,5.7nm,0.7s,mb4.4
V14A Boquillas Ranc  40.41  95 ⇑P        P        10 21 29.2 +0.3
         baz=40
S17A Black Ridge (B  40.44  91 ⇓P        P        10 21 29.4 +0.3
         baz=40
R18A Canyonlands Na  40.49  89 ⇑P        P        10 21 29.6 +0.1
         baz=40
Q19A Hogan Spring (  40.49  88 ⇓P        P        10 21 28.9 -0.6
         baz=40,SNR=5.9
M22A Cedar Creek Ra  40.53  83 ⇑P        P        10 21 29.7 -0.1
         baz=40,SNR=6.7
P20A De Beque        40.66  86 ⇓P        P        10 21 30.4 -0.5
         baz=40
V15A Kaibab Nationa  40.84  94 ⇓P        P        10 21 32.7 +0.2
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	baz=41						
S18A	**Hurst Farm, Bl**	**40.88**	**90**	⇑P	**P**	**10 21 32.9**	**+0.1**
	baz=41						
Y12C	**Blythe**	**40.88**	**98**	⇑P	**P**	**10 21 32.8**	**0.0**
	baz=41						
R19A	**Curley Farm, L**	**40.93**	**89**	⇓P	**P**	**10 21 32.2**	**-0.9**
	baz=41						
N22A	**Wattenberg Ran**	**40.99**	**83**	⇓P	**P**	**10 21 33.7**	**+0.2**
	baz=41						
Q20A	**Ridgley Place,**	**41.07**	**87**	⇑P	**P**	**10 21 33.8**	**-0.5**
	baz=41						
T18A	**Mexican Hat**	**41.32**	**90**	⇓P	**P**	**10 21 35.6**	**-0.8**
	baz=41						
S19A	**Harvey Farm, M**	**41.36**	**89**	⇓P	**P**	**10 21 36.0**	**-0.7**
	baz=41						
PV01	**Paradox Valley**	**41.44**	**88**	*e*P	**P**	**10 21 37.0**	**-0.3**
	comp=Z,469nm,0.8s						
R20A	**Redvale**	**41.52**	**88**	⇑P	**P**	**10 21 38.0**	**+0.1**
	baz=41						
WUAZ	**Wupatki**	**41.52**	**93**	*e*P	**P**	**10 21 38.1**	**+0.1**
	comp=Z,5.9nm,0.8s,mb4.3						
ULM	**Lac du Bonnet**	**41.54**	**65**	P	**P**	**10 21 37.0**	**-1.0**
	comp=Z,1.4nm,0.4s,mb4.0,baz=301,slow=7.4,SNR=4.2						
Q21A	**Lamborn Mesa,**	**41.58**	**87**	⇓P	**P**	**10 21 38.1**	**-0.3**
	baz=41						
X15A	**Humboldt**	**41.72**	**95**	⇑P	**P**	**10 21 39.9**	**+0.3**
	baz=42						
Z13A	**Yuma Proving G**	**41.78**	**98**	⇑P	**P**	**10 21 39.6**	**-0.6**
	baz=42						
MJAR	**Matsushiro Arr**	**42.01**	**269**	P	**P**	**10 21 41.7**	**-0.3**
	comp=Z,4.3nm,0.6s,mb4.3,baz=35,slow=6.2,SNR=13						
MJAR				LR	LR	10 36 15.4	
	comp=Z,103nm,21.3s,MS3.7,baz=170,slow=32						
MAJO	**Matsushiro**	**42.01**	**269**	*e*P	**P**	**10 21 41.9**	**-0.1**
MAJO				pmax	pmax		
	comp=Z,17nm,0.7s,mb4.8						
MAJO	**Matsushiro**	**42.01**	**269**	*e*P	**P**	**10 21 41.9**	**-0.1**
	comp=Z,17nm,0.7s,mb4.8						
MAT	**Matsushiro**	**42.01**	**269**	P	**P**	**10 21 41.6**	**-0.4**
T19A	**Beclabito**	**42.03**	**90**	⇑P	**P**	**10 21 41.8**	**-0.4**
	baz=42,SNR=11						
MVCO	**Mesa Verde**	**42.09**	**89**	⇓P	**P**	**10 21 42.8**	**+0.1**
	baz=42						
AGMN	**Agassiz Refuge**	**42.62**	**68**	*e*P	**P**	**10 21 45.8**	**-1.1**
	comp=Z,9.6nm,0.9s,mb4.5						
X17A	**Forest Lakes**	**42.67**	**94**	⇑P	**P**	**10 21 47.5**	**+0.1**
	baz=42						
BOD	**Bodaibo**	**42.96**	**309**	*e*P	**P**	**10 21 48.4**	**-1.1**
BOD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
214A	**Organ Pipe Nat**	**43.17**	**98**	⇓P	**P**	**10 21 51.6**	**+0.2**
	baz=43						
T22A	**Edith**	**43.17**	**88**	⇓P	**P**	**10 21 51.7**	**+0.3**
	baz=43						
SDCO	**Great Sand Dun**	**43.52**	**86**	*e*P	**P**	**10 21 54.4**	**+0.2**
	comp=Z,3.3nm,0.9s,mb4.1						
LAZ	**Ladron**	**44.81**	**91**	*e*P	**P**	**10 22 05.1**	**+0.5**
	comp=Z,0.4nm,0.6s						
ANMO	**Albuquerque**	**44.84**	**90**	P	**P**	**10 22 04.3**	**-0.4**
	comp=Z,0.5nm,0.6s,mb3.5,baz=333,slow=9.0,SNR=3.3						
ANMO				PcP	PcP	10 23 45.9	+0.2
	comp=Z,3.1nm,0.9s,baz=311,slow=4.4,SNR=7.9						
CN2	**Changchun**	**44.85**	**287**	*e*P	**P**	**10 22 03.5**	**-1.3**
CN2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.1						
ECSD	**EROS Data Cent**	**44.90**	**73**	*e*P	**P**	**10 22 03.5**	**-1.7**
	comp=Z,8.5nm,0.5s,mb4.8						
EYMN	**Ely**	**45.21**	**66**	*e*P	**P**	**10 22 06.5**	**-1.1**
	comp=Z,7.3nm,0.9s,mb4.5						
EYMN				*e*pP	pP	10 22 25.8	+3.7
BNM	**Barren Site**	**45.29**	**91**	*e*P	**P**	**10 22 09.2**	**+0.9**
	comp=Z,3.7nm,0.8s,mb4.3						
BNM				*e*pP	pP	10 22 21.3	-1.5
BNM				*e*sP	sP	10 22 26.8	-2.4
121A	**Cookes Peak, D**	**45.73**	**93**	⇑P	**P**	**10 22 11.8**	**-0.1**
	baz=46						
220A	**Playas Peak, P**	**45.74**	**95**	⇑P	**P**	**10 22 12.6**	**+0.7**
	baz=46						
122A	**Conniff Cattle**	**46.08**	**93**	⇓P	**P**	**10 22 14.9**	**+0.2**
	baz=46						
CBKS	**Cedar Bluff**	**46.23**	**81**	*e*P	**P**	**10 22 15.5**	**-0.2**
CBKS				*e**PP	pP	10 22 27.7	-2.5
CBKS				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
CBKS	**Cedar Bluff**	**46.23**	**81**	*e*P	**P**	**10 22 15.5**	**-0.2**
	comp=Z,14nm,0.9s,mb4.9						
CBKS				*e*pP	pP	10 22 27.7	-2.4
KSRS	**Korea Array**	**47.50**	**278**	P	**P**	**10 22 26.5**	**+0.8**
KSRS						10 23 55.5	
KSRS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
KSRS	**Korea Array**	**47.50**	**278**	P	**P**	**10 22 26.5**	**+0.8**
	comp=Z,8.8nm,0.8s,mb4.8,baz=53,slow=7.6,SNR=20						
KSRS				PcP	PcP	10 23 55.5	+0.5
	comp=Z,3.4nm,0.9s,baz=56,slow=3.6,SNR=5.4						
DAG	**Danmarks Havn**	**48.17**	**10**	⇓*i*P	**P**	**10 22 30.0**	**-0.3**
DAG				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
DAG	**Danmarks Havn**	**48.17**	**10**	⇓*i*P	**P**	**10 22 30.0**	**-0.3**
	comp=Z,13nm,0.9s,mb5.0						
SPITS	**Spitsbergen Ar**	**48.44**	**359**	P	**P**	**10 22 31.5**	**-0.9**
SPITS						10 23 57.6	
SPITS	**Spitsbergen Ar**	**48.44**	**359**	P	**P**	**10 22 31.4**	**-0.9**
	comp=Z,20nm,0.9s,mb5.1,baz=57,slow=7.2,SNR=8.2						
SPITS				PcP	PcP	10 23 57.6	-0.2
	comp=Z,2.0nm,0.5s,baz=66,slow=4.9,SNR=5.1						
SPITS				LR	LR	10 44 25.3	
	comp=Z,112nm,20.2s,MS3.8,baz=70,slow=38						
SUMG	**Summit**	**48.87**	**19**	*e*P	**P**	**10 22 36.1**	**+0.4**
	comp=Z,19nm,0.8s,mb5.2						
SUMG				*e*PcP	PcP	10 24 00.7	+1.3
WMOK	**Wichita Mounta**	**49.55**	**84**	*e*P	**P**	**10 22 40.5**	**-0.9**
WMOK				*e**PP	pP	10 22 53.3	-2.7
WMOK				*e**SP	sP	10 22 58.7	-3.7
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
WMOK	**Wichita Mounta**	**49.55**	**84**	*e*P	**P**	**10 22 40.5**	**-0.9**
	comp=Z,4.3nm,0.6s,mb4.7						
WMOK				*e*pP	pP	10 22 53.3	-2.7
WMOK				*e*sP	sP	10 22 58.7	-3.6
SFJD	**Kangerlussuaq**	**50.21**	**28**	*e*P	**P**	**10 22 43.9**	**-2.1**
SFJD				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
SFJD	**Kangerlussuaq**	**50.21**	**28**	*i* P	**P**	**10 22 43.9**	**-2.1**
	comp=Z,8.0nm,1.0s,mb4.7						
SFJD				*i*		10 22 44.1	
SFJD	**Kangerlussuaq**	**50.21**	**28**	P	**P**	**10 22 44.2**	**-1.8**
	comp=Z,2.8nm,0.5s,mb4.5,baz=307,slow=9.7,SNR=3.9						
SFJD	**Kangerlussuaq**	**50.21**	**28**	*e*P	**P**	**10 22 43.9**	**-2.1**
	comp=Z,8.0nm,1.0s,mb4.7						
SFJD				*i*		10 22 44.1	
TXAR	**Lajitas Array**	**50.48**	**93**	P	**P**	**10 22 48.0**	**-0.6**
	comp=Z,4.8nm,0.7s,mb4.6,baz=300,slow=5.4,SNR=62						
TXAR				ScP	ScP	10 27 59.0	+2.0
	comp=Z,1.1nm,1.1s,baz=316,slow=3.5,SNR=5.1						
TXAR				LR	LR	10 42 40.0	
	comp=Z,91nm,21.6s,MS3.8,baz=30,slow=34						
TXAR	**Lajitas Array**	**50.48**	**93**	P	**P**	**10 22 48.0**	**-0.6**
TXAR				ScP	ScP	10 27 59.0	+2.0
TXAR				LR	LR	10 42 40.0	
HDIL	**Hopedale**	**51.11**	**72**	*e*P	**P**	**10 22 51.5**	**-1.7**
	comp=Z,46nm,0.8s,mb5.5						
TLY	**Talaya**	**51.41**	**307**	*e*P	**P**	**10 22 55.2**	**0.0**
TLY				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
TLY				MLR	MLR		
	comp=Z,82nm,16.0s,MS3.9						
TLY	**Talaya**	**51.41**	**307**	*e*P	**P**	**10 22 55.3**	**+0.1**
	comp=Z,15nm,0.8s,mb5.0						
CCM	**Cathedral Cave**	**51.68**	**76**	*e*P	**P**	**10 22 54.9**	**-2.6**
CCM				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
CCM	**Cathedral Cave**	**51.68**	**76**	*e*P	**P**	**10 22 54.9**	**-2.5**
	comp=Z,6.9nm,0.9s,mb4.6						
JCT	**Junction City**	**51.95**	**89**	*e*P	**P**	**10 22 58.6**	**-1.0**
JCT				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
JCT	**Junction City**	**51.95**	**89**	*e*P	**P**	**10 22 58.6**	**-1.0**
	comp=Z,13nm,1.1s,mb4.8						
FVM	**French Village**	**52.20**	**75**	*e*P	**P**	**10 22 59.2**	**-2.1**
FVM				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
FVM	**French Village**	**52.20**	**75**	*e*P	**P**	**10 22 59.2**	**-2.1**
	comp=Z,16nm,1.0s,mb4.9						
ULN	**Ulaanbaatar**	**52.23**	**302**	*e*P	**P**	**10 23 01.5**	**+0.1**
ULN				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
ULN	**Ulaanbaatar**	**52.23**	**302**	*e*P	**P**	**10 23 01.5**	**+0.1**
	comp=Z,14nm,1.2s,mb4.8						
ZAK	**Zakamensk**	**52.43**	**306**	*e*P	**P**	**10 23 02.5**	**-0.4**
ZAK				*e*		10 24 13.4	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
BJI	**Beijing**	**52.55**	**289**	P	**P**	**10 23 04.0**	**+0.1**
BJI				S	**S**	**10 30 27.0**	**+0.5**
BJI				SS	SS	10 34 06.0	+1.3
BJI				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
BJI				LR	LR		
	comp=N,250nm,23.8s,MS4.4						
BJI				LR	LR		
	comp=E,300nm,24.4s,MS4.4						
BJI				LR	LR		
	comp=Z,200nm,25.0s,MS4.1						
SONM	**Songino Array**	**52.59**	**302**	P	**P**	**10 23 04.0**	**0.0**
	comp=Z,5.7nm,0.8s,mb4.5,baz=52,slow=7.8,SNR=19						
SONM				PcP	PcP	10 24 13.9	+0.4
	comp=Z,5.1nm,0.9s,baz=46,slow=2.5,SNR=8.4						
MOY	**Mondy**	**52.66**	**309**	*e*P	**P**	**10 23 04.8**	**+0.3**
MIAR	**Mount Ida**	**52.75**	**81**	*e*P	**P**	**10 23 04.0**	**-1.4**
MIAR				pmax	pmax		
	comp=Z,54nm,2.3s,mb5.1						
MIAR	**Mount Ida**	**52.75**	**81**	*e*P	**P**	**10 23 04.0**	**-1.4**
	comp=Z,54nm,2.3s,mb5.1						
SCHQ	**Schefferville**	**52.92**	**46**	P	**P**	**10 23 05.5**	**-0.9**
	comp=Z,4.0nm,0.8s,mb4.4,baz=293,slow=8.4,SNR=6.1						
SCHQ				LR	LR	10 44 56.3	
	comp=Z,152nm,21.4s,MS4.0,baz=9.9,slow=35						
OLIL	**Olney**	**53.02**	**73**	*e*P	**P**	**10 23 05.5**	**-1.8**
	comp=Z,23nm,0.8s,mb5.2						
SCO	**Scoresbysund**	**53.45**	**14**	*i* P	**P**	**10 23 10.1**	**+0.1**
SCO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
SCO	**Scoresbysund**	**53.45**	**14**	*i* P	**P**	**10 23 10.1**	**+0.1**
	comp=Z,4.2nm,0.7s,mb4.5						
USIN	**University of**	**53.80**	**73**	*e*P	**P**	**10 23 11.5**	**-1.6**
	comp=Z,39nm,0.6s,mb5.5						
HHC	**Hu-ho-hao-te**	**54.57**	**293**	*e*P	**P**	**10 23 19.5**	**+0.9**
HHC				pP	pP	10 23 31.8	-1.6
HHC				sP	sP	10 23 37.3	-2.4
HHC				PP	PP	10 25 22.5	+1.4
HHC				PcS	PcS	10 28 20.5	-0.3
HHC				*e*S	**S**	**10 30 52.5**	**-1.3**
HHC				sS	sS	10 31 13.8	-4.8
HHC				ScS	ScS	10 33 00.5	-2.1
HHC				SS	SS	10 34 34.5	-1.9
HHC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
HHC				pmax	pmax		
	comp=Z,160nm,4.6s						
HHC				LR	LR		
	comp=N,200nm,12.7s,MS4.6						
HHC				LR	LR		
	comp=E,260nm,12.9s,MS4.6						
HHC				LR	LR		
	comp=Z,280nm,11.9s,MS4.5						
WVT	**Waverly**	**54.98**	**75**	*e*P	**P**	**10 23 20.2**	**-1.5**
WVT				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
WVT	**Waverly**	**54.98**	**75**	*e*P	**P**	**10 23 20.2**	**-1.4**
	comp=Z,14nm,0.8s,mb5.0						
OXF	**Oxford**	**55.21**	**78**	*e*P	**P**	**10 23 21.6**	**-1.8**
OXF				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
OXF	**Oxford**	**55.21**	**78**	*e*P	**P**	**10 23 21.6**	**-1.7**
	comp=Z,40nm,0.9s,mb5.4						
ALLY	**Alegheny Colle**	**55.43**	**65**	*e*P	**P**	**10 23 23.8**	**-1.1**
	comp=Z,27nm,0.8s,mb5.3						
PLAL	**Pickwick Lake**	**55.65**	**76**	*e*P	**P**	**10 23 24.4**	**-2.1**
	comp=Z,7.2nm,0.8s,mb4.8						
KEV	**Kevo**	**56.57**	**355**	*e*P	**P**	**10 23 30.4**	**-2.2**
KEV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
KEV	**Kevo**	**56.57**	**355**	*e*p	**P**	**10 23 30.4**	**-2.2**
	comp=Z,8.1nm,0.6s,mb4.9						
NJ2	**Nanjing**	**56.60**	**280**	*e*P	**P**	**10 23 31.3**	**-2.1**
NJ2				pP	pP	10 23 44.5	-3.7
NJ2				sP	sP	10 23 48.8	-5.7
NJ2				PP	PP	10 25 39.8	+0.3
NJ2				S	**S**	**10 31 19.5**	**-1.6**
NJ2				sS	sS	10 31 38.5	-7.6
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
NJ2				pmax	pmax		
	comp=Z,300nm,4.4s						
NJ2				LR	LR		
	comp=N,580nm,24.4s,MS4.8						
NJ2				LR	LR		
	comp=E,510nm,20.5s,MS4.8						
ARCES	**ARCESS Array B**	**56.87**	**355**	P	**P**	**10 23 33.8**	**-0.9**
ARCES						10 24 29.6	
ARCES	**ARCESS Array B**	**56.87**	**355**	P	**P**	**10 23 33.8**	**-0.9**
	comp=E,6.1nm,0.7s,mb4.7,baz=16,slow=7.8,SNR=14						
ARCES				PcP	PcP	10 24 29.6	+0.1
	comp=E,2.2nm,0.8s,baz=9.8,slow=5.9,SNR=2.8						
ARCES				LR	LR	10 49 25.3	
	comp=E,103nm,19.1s,MS4.0,baz=125,slow=38						
SSPA	**Standing Stone**	**57.36**	**65**	*e*P	**P**	**10 23 36.8**	**-1.7**
	comp=E,11nm,0.8s,mb5.0						
ZALV	**Zalesovo Beam**	**57.99**	**319**	P	**P**	**10 23 42.7**	**-0.1**
ZALV						10 24 34.2	
ZALV	**Zalesovo Beam**	**57.99**	**319**	P	**P**	**10 23 42.7**	**-0.1**
	comp=E,0.9nm,0.3s,mb4.2,baz=38,slow=7.5,SNR=5.3						
ZALV				PcP	PcP	10 24 34.2	-0.1
	comp=E,2.9nm,0.6s,baz=48,slow=3.2,SNR=6.2						
ZALV				LR	LR	10 50 11.2	
	comp=E,97nm,18.9s,MS3.9,baz=47,slow=38						
ELN	**Prospectdale**	**58.21**	**69**	*e*P	**P**	**10 23 42.8**	**-1.8**
BLA	**Blacksburg**	**58.41**	**69**	*e*P	**P**	**10 23 44.4**	**-1.6**
BLA				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
BLA	**Blacksburg**	**58.41**	**69**	*e*P	**P**	**10 23 44.4**	**-1.6**
	comp=Z,15nm,1.0s,mb5.0						
GTA	**Gaotai**	**61.90**	**299**	⇑P	**P**	**10 24 09.5**	**-0.3**
GTA				pP	pP	10 24 22.8	-2.0
GTA				S	**S**	**10 32 29.3**	**0.0**
GTA				SS	SS	10 36 33.8	+2.4
GTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
GTA				pmax	pmax		
	comp=Z,95nm,5.0s						
GTA				LR	LR		
	comp=N,210nm,18.7s,MS4.5						
GTA				LR	LR		
	comp=E,290nm,19.6s,MS4.5						
GTA				LR	LR		
	comp=Z,140nm,18.4s,MS4.2						
LZH	**Lanzhou**	**62.20**	**294**	P	**P**	**10 24 11.8**	**-0.1**
LZH				pP	pP	10 24 24.0	-2.9
LZH				sP	sP	10 24 29.5	-3.7
LZH				PP	PP	10 26 30.0	+1.2
LZH				*e*S	**S**	**10 32 30.3**	**-2.9**
LZH				sS	sS	10 32 50.0	-8.5
LZH				SS	SS	10 36 35.0	-1.3
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.3						
LZH				pmax	pmax		
	comp=Z,150nm,8.3s						
LZH				LR	LR		
	comp=E,580nm,15.5s						
LZH				LR	LR		
	comp=Z,700nm,17.0s,MS4.9						
PRGR	**Permogore**	**62.44**	**344**	P	**P**	**10 24 11.3**	**-1.7**
PRGR				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.5						
KURK	**Kurchatov**	**62.90**	**320**	P	**P**	**10 24 17.4**	**+1.1**
KURK						10 24 54.2	
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
KURK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
KURK	**Kurchatov**	**62.90**	**320**	P	**P**	**10 24 17.4**	**+1.1**
	comp=Z,3.0nm,0.8s,mb4.5,baz=49,slow=7.1,SNR=14						
KURK				PcP	PcP	10 24 54.2	+0.2
	comp=Z,2.2nm,0.8s,baz=47,slow=4.0,SNR=4.8						
KURK	**Kurchatov**	**62.90**	**320**	*e*P	**P**	**10 24 16.7**	**+0.4**
	comp=Z,4.2nm,0.9s,mb4.6						
JOF	**Joensuu**	**63.03**	**351**	*e*p	**P**	**10 24 14.6**	**-2.3**
	comp=Z,5.8nm,0.7s,mb4.8						
BVAR	**Borovoye Array**	**63.96**	**326**	P	**P**	**10 24 22.9**	**-0.4**
	comp=Z,4.7nm,0.6s,mb4.7,baz=53,slow=6.8,SNR=26						
BVAR				PcP	PcP	10 24 58.5	+0.2
	comp=Z,3.5nm,0.6s,baz=48,slow=2.2,SNR=7.5						
BRVK	**Borovoye**	**63.96**	**326**	*e*P	**P**	**10 24 22.8**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
BRVK	**Borovoye**	**63.96**	**326**	*e*P	**P**	**10 24 22.8**	**-0.4**
	comp=Z,4.7nm,0.6s,mb4.7						
KLMR	**Klimovskoe**	**64.11**	**347**	*e*P	**P**	**10 24 22.4**	**-1.7**
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
KAF	**Kangasniemi**	**64.21**	**354**	*e*P	**P**	**10 24 23.2**	**-1.5**
KAF				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
KAF	**Kangasniemi**	**64.21**	**354**	*e*p	**P**	**10 24 23.2**	**-1.5**
	comp=Z,18nm,0.6s,mb5.3						
WMQ	**Urumqi**	**64.51**	**310**	P	**P**	**10 24 27.0**	**0.0**
WMQ				pP	pP	10 24 40.0	-2.1
WMQ				sP	sP	10 24 45.0	-3.4
WMQ				PcP	PcP	10 25 01.0	+0.2
WMQ				PP	PP	10 26 51.0	+2.1
WMQ				*e*S	**S**	**10 33 01.0**	**-0.7**
WMQ				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
WMQ				pmax	pmax		
	comp=Z,210nm,5.4s						
WMQ				LR	LR		
	comp=N,370nm,14.5s,MS4.8						
WMQ				LR	LR		
	comp=E,210nm,12.8s,MS4.8						
WMQ				LR	LR		
	comp=Z,290nm,20.8s						
MKAR	**Makanchi Array**	**64.55**	**315**	P	**P**	**10 24 26.8**	**-0.5**
	comp=Z,3.5nm,0.7s,mb4.5,baz=47,slow=6.2,SNR=42						
MKAR				LR	LR	10 53 57.9	
	comp=Z,136nm,19.4s,MS4.2,baz=219,slow=37						
MKAR	**Makanchi Array**	**64.55**	**315**	P	**P**	**10 24 26.8**	**-0.5**
MKAR				LR	LR	10 53 57.9	
FINES	**FINESS Array B**	**64.89**	**354**	P	**P**	**10 24 28.4**	**-0.7**
	comp=Z,11nm,0.6s,mb5.1,baz=18,slow=8.0,SNR=35						
FINES	**FINESS Array B**	**64.89**	**354**	P	**P**	**10 24 28.4**	**-0.8**
NB2	**NORSAR Subarra**	**65.64**	**2**	P	**P**	**10 24 33.6**	**-0.4**
	comp=Z,8.0nm,0.6s,mb4.9,baz=360,slow=6.2						
NOA	**NORSAR Array B**	**65.64**	**2**	P	**P**	**10 24 33.6**	**-0.5**
	comp=Z,8.9nm,0.8s,mb4.8,baz=360,slow=6.3,SNR=18						
NOA				LR	LR	10 50 12.1	
	comp=Z,52nm,20.5s,MS3.7,baz=165,slow=33						
TAOE	**Nuku Hiva Isla**	**65.89**	**152**	*e*T		11 36 00.5	
	comp=Z,33nm,0.2s						
CD2	**Chengdu**	**66.12**	**290**	P	**P**	**10 24 39.0**	**+1.4**
CD2				pP	pP	10 24 52.0	-0.8
CD2				PcP	PcP	10 25 09.3	+1.7
CD2				PP	PP	10 27 07.0	+3.7
CD2				S	S	10 33 22.0	+0.2
CD2				SS	SS	10 37 39.0	+1.4
CD2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
CD2				pmax	pmax		
	comp=Z,230nm,5.5s						
CD2				LR	LR		
	comp=N,430nm,11.9s						
CD2				LR	LR		
	comp=Z,340nm,13.7s,MS4.7						
HFS	**Hagfors**	**66.57**	**0**	P	**P**	**10 24 39.3**	**-0.8**
	comp=Z,17nm,0.5s,mb5.3,baz=22,slow=4.8,SNR=89						
GYA	**Guiyang**	**67.85**	**285**	⇑*i*P	**P**	**10 24 49.3**	**+0.6**
GYA				pP	pP	10 25 02.5	-1.4
GYA				sP	sP	10 25 07.8	-2.3
GYA				PP	PP	10 27 19.5	+1.0
GYA				ScP		10 29 15.3	
GYA				PcS		10 29 20.5	
GYA				S	S	10 33 39.5	-3.2
GYA				SS	SS	10 38 01.0	-3.6
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA				pmax	pmax		
	comp=Z,40nm,5.8s						
GYA				LR	LR		
	comp=N,200nm,15.8s,MS4.5						
GYA				LR	LR		
	comp=E,120nm,16.0s,MS4.5						
GYA				LR	LR		
	comp=Z,180nm,15.6s,MS4.4						
AKTK	**Aktyubinsk**	**70.00**	**332**	P	**P**	**10 25 01.4**	**-0.2**
AKTK				PcP	PcP	10 25 24.5	+0.9
AKTO	**Aktyubinsk**	**70.00**	**332**	P	**P**	**10 25 01.5**	**-0.2**
AKTO						10 25 24.5	
AKTO				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
AKTO	**Aktyubinsk**	**70.00**	**332**	P	**P**	**10 25 01.4**	**-0.2**
	comp=Z,4.4nm,0.9s,mb4.4,baz=50,slow=7.5,SNR=12						
AKTO				PcP	PcP	10 25 24.5	+0.9
	comp=Z,3.1nm,0.6s,baz=38,slow=6.7,SNR=6.0						
PMOR	**Pomariorio Ree**	**70.03**	**162**	*e*T		11 41 13.0	
	comp=Z,15nm,0.2s						
OBN	**Obninsk**	**70.08**	**347**	⇑*e*P	**P**	**10 25 01.7**	**-0.3**
OBN				*e*SS	SS	10 38 34.8	-2.5
OBN				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
OBN				MLR	MLR		
	comp=Z,200nm,22.0s,MS4.3						
EKA	**Eskdalemuir Ar**	**70.43**	**11**	P	**P**	**10 25 03.8**	**-0.4**
	comp=Z,8.4nm,0.7s,mb4.8,baz=340,slow=4.7,SNR=12						
AAK	**Ala-Archa**	**71.15**	**317**	*c* *i*P	**P**	**10 25 09.5**	**+0.7**
AAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
AAK	**Ala-Archa**	**71.15**	**317**	*e*P	**P**	**10 25 09.2**	**+0.4**
	comp=Z,4.6nm,0.8s,mb4.5						
EKS2	**Erkin-Say**	**71.42**	**318**	*e*P	**P**	**10 25 11.2**	**+0.8**
	comp=Z,2.2nm,0.6s,mb4.3						
AML	**Almayashu**	**71.90**	**318**	*e*P	**P**	**10 25 13.8**	**+0.5**
	comp=Z,5.0nm,0.8s,mb4.5						
PPT	**Papeete**	**72.25**	**164**	*e*LR	LR	10 47 00.0	
	comp=Z,192nm,23.2s						
PPT	**Papeete**	**72.25**	**164**	LR	LR	10 54 04.7	
	comp=Z,184nm,18.1s,MS4.4,baz=258,slow=33						
SUW	**Suwalki**	**72.47**	**355**	*e*P	**P**	**10 25 15.5**	**-1.0**
SUW				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.5						
SUW	**Suwalki**	**72.47**	**355**	*e*P	**P**	**10 25 15.5**	**-1.0**
	comp=Z,51nm,0.9s,mb5.5						
BSEG	**Bad Segeberg**	**72.74**	**3**	*e*P	**P**	**10 25 18.2**	**+0.1**
	comp=Z,20nm,1.0s,mb5.0						
KSH	**Kashi**	**73.15**	**315**	P	**P**	**10 25 24.3**	**+3.5**
KSH				*e*PcP	PcP	10 25 41.0	+3.8
KSH				*e*S	S	10 34 47.5	+3.4
KSH				*e*SKS		10 35 22.3	
KSH				*e*ScS	ScS	10 35 25.3	+1.1
KSH				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
KSH				pmax	pmax		
	comp=Z,100nm,8.2s						
KSH				LR	LR		
	comp=N,170nm,5.4s						
KSH				LR	LR		
	comp=E,220nm,5.3s						
KSH				LR	LR		
	comp=Z,240nm,7.3s						
LSA	**Lhasa**	**73.91**	**298**	P	**P**	**10 25 26.8**	**+1.4**
NRDL	**Niedersach Rie**	**74.17**	**3**	*e*P	**P**	**10 25 26.3**	**-0.2**
	comp=Z,10.0nm,1.1s,mb4.7						
CLZ	**Clausthal**	**74.83**	**3**	*e*P	**P**	**10 25 30.6**	**+0.2**
CLZ				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
CLZ	**Clausthal**	**74.83**	**3**	*e*P	**P**	**10 25 30.6**	**+0.2**
	comp=Z,15nm,1.0s,mb4.9						
AKASG	**Malin Array Be**	**75.28**	**350**	P	**P**	**10 25 32.1**	**-0.8**
	comp=Z,14nm,0.6s,mb5.1,baz=12,slow=5.7,SNR=37						
CLL	**Collm**	**75.42**	**1**	*i* P	**P**	**10 25 33.2**	**-0.5**
CLL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
CLL	**Collm**	**75.42**	**1**	*e*P	**P**	**10 25 33.4**	**-0.3**
	comp=Z,9.0nm,0.9s,mb4.7						
CLL	**Collm**	**75.42**	**1**	*i* P	**P**	**10 25 33.2**	**-0.5**
	comp=Z,9.0nm,0.9s,mb4.7						
CLL				*e*(sP)	sP	10 25 56.0	+0.7
UCC	**Uccle**	**75.59**	**7**	P	**P**	**10 25 34.9**	**+0.2**
BEBN	**Eben Emael**	**75.67**	**6**	P	**P**	**10 25 36.0**	**+0.8**
BRG	**Berggiesshubel**	**75.86**	**0**	*e*P	**P**	**10 25 35.9**	**-0.4**
BRG				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
BRG	**Berggiesshubel**	**75.86**	**0**	*e*P	**P**	**10 25 35.7**	**-0.6**
	comp=Z,5.0nm,0.8s,mb4.5						
BRG	**Berggiesshubel**	**75.86**	**0**	*e*P	**P**	**10 25 35.9**	**-0.3**
	comp=Z,4.8nm,1.1s,mb4.4						

MEM	Membach	75.88	6	P	P	10 25 35.6	-0.8
	comp=Z,14nm,1.0s,mb4.8						
BCLA	Clavier	76.03	6	P	P	10 25 37.5	+0.3
MOX	Moxa	76.06	2	*e*P	P	10 25 37.3	-0.1
	comp=Z,7.0nm,0.8s,mb4.6						
PVCC	Panska Ves	76.20	360	*e*P	P	10 25 38.6	+0.4
DOU	Dourbes	76.31	6	P	P	10 25 39.1	+0.3
GIVF	Givet	76.31	6	*e*P	P	10 25 38.8	-0.1
BAIF	Baives	76.31	7	*e*P	P	10 25 38.9	0.0
	comp=Z,13nm,0.6s,mb4.7						
BAIF	Baives	76.31	7	*e*P	P	10 25 38.9	0.0
BAIF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
BAIF	Baives	76.31	7	*e*P	P	10 25 38.9	0.0
	comp=Z,6.4nm,0.6s,mb4.7						
DPC	Dobruska-Polom	76.37	359	*e*P	P	10 25 39.5	+0.3
TNS	Taunus Mts	76.39	4	*e*P	P	10 25 39.4	+0.1
TNS				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
TNS	Taunus Mts	76.39	4	*e*P	P	10 25 39.4	+0.1
	comp=Z,17nm,1.2s,mb4.8						
NKC	Novy Kostel	76.48	1	*e*P	P	10 25 40.2	+0.4
PRU	Pruhonice	76.74	360	*e*P	P	10 25 42.2	+0.9
SHL	Shillong	76.81	295	*e*PKP	P	10 25 42.0	-0.1
KWP	Kalwaria Pacla	76.86	354	*e*P	P	10 25 42.6	+0.6
KWP				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.3						
KWP	Kalwaria Pacla	76.86	354	⇓*i*P	P	10 25 42.7	+0.7
KWP	Kalwaria Pacla	76.86	354	*e*P	P	10 25 42.6	+0.6
	comp=Z,38nm,0.9s,mb5.3						
MORC	Moravsky Berou	76.92	358	*e*P	P	10 25 41.2	-1.1
MORC				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.6						
MORC	Moravsky Berou	76.92	358	*e*P	P	10 25 41.2	-1.1
	comp=Z,44nm,0.6s,mb5.6						
ROTZ	Rotzenmuhle	76.95	1	*e*P	P	10 25 43.1	+0.6
	comp=Z,4.0nm,0.9s,mb4.3						
GRA1	Grafenberg Arr	77.00	2	*e*P	P	10 25 43.1	+0.3
	comp=Z,13nm,1.0s,mb4.8						
GRF	Grafenberg Arr	77.00	2	*e*P	P	10 25 43.1	+0.3
GRF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
GRF	Grafenberg Arr	77.00	2	*e*P	P	10 25 43.1	+0.3
GRF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
GRF	Grafenberg Arr	77.00	2	*e*P	P	10 25 43.1	+0.3
	comp=Z,13nm,1.0s,mb4.8						
STHS	Stebnicka Huta	77.15	355	*e*P	P	10 25 44.8	+1.2
STHS				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
STHS	Stebnicka Huta	77.15	355	*e*P	P	10 25 44.8	+1.2
	comp=Z,15nm,0.8s,mb5.0						
FLN	La Foliniere	77.19	10	*e*P	P	10 25 43.4	-0.4
ROSF	Rostrenen	77.30	12	*e*P	P	10 25 44.4	0.0
LDF	La Druitiere	77.40	10	⇑*i*P	P	10 25 44.5	-0.5
	comp=Z,11nm,0.8s,mb4.5						
LDF	La Druitiere	77.40	10	⇑*i*P	P	10 25 44.5	-0.5
LDF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
LDF	La Druitiere	77.40	10	⇑*i*P	P	10 25 44.5	-0.5
	comp=Z,5.6nm,0.8s,mb4.5						
SGMF	Saint Gilles	77.46	12	*e*P	P	10 25 45.1	-0.3
GRR	Gorron	77.52	10	*e*P	P	10 25 45.5	-0.2
	comp=Z,29nm,1.1s,mb4.8						
GRR	Gorron	77.52	10	*e*P	P	10 25 45.5	-0.2
GRR				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
GRR	Gorron	77.52	10	*e*P	P	10 25 45.5	-0.2
	comp=Z,15nm,1.1s,mb4.8						
KOLS	Kolonicke sedl	77.58	355	*e*P	P	10 25 46.3	+0.3
KOLS				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
KOLS	Kolonicke sedl	77.58	355	*e*P	P	10 25 46.3	+0.3
	comp=Z,8.3nm,1.1s,mb4.6						
TAPN	Taplejung	77.59	299	*e*P	P	10 25 46.6	+0.2
	comp=Z,37nm,0.9s,mb5.3						
KHC	Kasperske Hory	77.60	1	*e*P	P	10 25 46.5	+0.4
CRVS	Cervenica-Dubn	77.66	355	*e*P	P	10 25 46.6	+0.2
CRVS				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
CRVS	Cervenica-Dubn	77.66	355	*e*P	P	10 25 46.6	+0.2
	comp=Z,5.8nm,1.2s,mb4.4						
GEC2	GERESS Array S	77.89	0	*e*P	P	10 25 47.7	0.0
GEC2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
GEC2	GERESS Array S	77.89	0	*e*P	P	10 25 47.7	0.0
	comp=Z,4.0nm,1.0s,mb4.3						
GERES	GERESS Array B	77.89	0	P	P	10 25 47.7	0.0
	comp=Z,2.3nm,0.7s,mb4.2,baz=358,slow=4.0,SNR=14						
GUN	Gumba	78.08	301	*e*P	P	10 25 49.7	+0.6
	comp=Z,38nm,0.5s,mb5.6						
JIRN	Jiri	78.12	301	*e*P	P	10 25 50.0	+0.6
KECS	Kecovo	78.12	356	*e*P	P	10 25 49.5	+0.5
KECS				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
KECS	Kecovo	78.12	356	*e*P	P	10 25 49.5	+0.5
	comp=Z,4.8nm,0.7s,mb4.5						
CDF	Champ du Feu	78.14	5	*e*P	P	10 25 49.1	0.0
	comp=Z,8.0nm,0.7s,mb4.5						
CDF	Champ du Feu	78.14	5	*e*P	P	10 25 49.1	0.0
CDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
CDF	Champ du Feu	78.14	5	*e*P	P	10 25 49.1	0.0
	comp=Z,4.0nm,0.7s,mb4.5						
ODAN	Odare	78.15	299	*e*P	P	10 25 49.6	+0.1
VYHS	Vyhne	78.17	357	*e*P	P	10 25 49.9	+0.6
VYHS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
VYHS	Vyhne	78.17	357	*e*P	P	10 25 49.9	+0.6
	comp=Z,5.6nm,1.0s,mb4.5						
SMOL	Smolenice	78.19	358	*e*P	P	10 25 51.0	+1.6
BFO	Black Forest	78.27	4	*i* P	P	10 25 51.1	+1.2
BFO	Black Forest	78.27	4	*e*P	P	10 25 49.7	-0.2
	comp=Z,4.0nm,0.8s,mb4.4						
MODS	Modra-Piesok	78.33	358	*e*P	P	10 25 51.2	+1.0
MODS				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
MODS	Modra-Piesok	78.33	358	*e*P	P	10 25 51.1	+0.9
MODS	Modra-Piesok	78.33	358	*e*P	P	10 25 51.2	+1.0
	comp=Z,6.6nm,1.3s,mb4.4						
TRPA	Tarpa	78.37	354	⇓*i*P	P	10 25 50.9	+0.5
KKN	Kakani	78.48	301	*e*P	P	10 25 51.6	+0.3
RAMN	Ramite	78.49	300	*e*P	P	10 25 51.5	+0.1
	comp=Z,74nm,0.9s,mb5.6						
HAU	Haudompre	78.50	6	*e*P	P	10 25 51.1	0.0
	comp=Z,14nm,0.7s,mb4.7						
HAU	Haudompre	78.50	6	*e*P	P	10 25 51.1	0.0
HAU				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
HAU	Haudompre	78.50	6	*e*P	P	10 25 51.1	0.0
	comp=Z,6.8nm,0.7s,mb4.7						
ZST	Bratislava	78.51	358	*e*P	P	10 25 52.3	+1.1
ZST				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
ZST	Bratislava	78.51	358	*e*P	P	10 25 52.3	+1.1
	comp=Z,8.1nm,0.7s,mb4.8						
CMAR	Chiang Mai Arr	78.52	285	P	P	10 25 52.1	+0.5
	comp=Z,14nm,1.0s,mb4.8,baz=19,slow=5.4,SNR=51						
PKI	Pulchoki	78.59	301	*e*P	P	10 25 52.1	+0.1
	comp=Z,27nm,0.6s,mb5.3						
PKI	Pulchoki	78.59	301	*e*P	P	10 25 52.1	+0.1
PKI				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.3						
PKIN	Phulchoki	78.59	301	*e*P	P	10 25 52.1	+0.1
GKN	Gorkha	78.63	302	*e*P	P	10 25 52.3	+0.1
	comp=Z,43nm,0.7s,mb5.5						
BUR08	Bucovina Ar. S	78.67	353	*e*P	P	10 25 52.2	+0.1
BURAR	Bucovina Array	78.70	353	⇓*i*P	P	10 25 52.0	-0.2
PSZ	Piszkesteto	78.71	356	*e*P	P	10 25 53.1	+0.8
PSZ				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.9						
PSZ	Piszkesteto	78.71	356	⇑*i*P	P	10 25 53.2	+0.9
PSZ	Piszkesteto	78.71	356	*e*P	P	10 25 53.1	+0.9
	comp=Z,22nm,1.4s,mb4.9						
HINF	Hinteralfeld	78.71	5	*e*P	P	10 25 52.1	-0.2
	comp=Z,9.3nm,0.7s,mb4.5						
HINF	Hinteralfeld	78.71	5	*e*P	P	10 25 52.1	-0.2
HINF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
HINF	Hinteralfeld	78.71	5	*e*P	P	10 25 52.1	-0.2
	comp=Z,4.7nm,0.7s,mb4.5						
DMN	Daman	78.72	301	*e*P	P	10 25 53.1	+0.4
	comp=Z,71nm,1.0s,mb5.6						
DANN	Dangsing	78.79	303	*e*P	P	10 25 53.6	+0.6
	comp=Z,152nm,0.8s,mb6.0						
CONA	Conrad Observa	78.80	359	⇑*i*P	P	10 25 53.5	+0.7
	comp=Z,7.7nm,1.1s,mb4.5						
CSNA	Conrad Observa	78.80	359	⇑*i*P	P	10 25 53.4	+0.6
	comp=Z,7.4nm,1.1s,mb4.5						
RJOB	Jochberg	78.99	1	*e*P	P	10 25 54.3	+0.5
	comp=Z,8.0nm,0.8s,mb4.7						
LOR	Lormes	79.07	7	⇑*i*P	P	10 25 54.3	+0.1
	comp=Z,20nm,0.9s,mb4.8						
LOR	Lormes	79.07	7	⇑*i*P	P	10 25 54.3	+0.1
LOR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
LOR	Lormes	79.07	7	⇑*i*P	P	10 25 54.3	+0.1
	comp=Z,9.9nm,0.9s,mb4.7						
DZM	Mont Dzumac	79.19	206	*e*LR	LR	10 50 14.3	
	comp=Z,172nm,21.8s						
SSF	Saint Saulge	79.24	8	*e*P	P	10 25 55.2	0.0
	comp=Z,27nm,0.9s,mb4.9						
SSF	Saint Saulge	79.24	8	*e*P	P	10 25 55.2	0.0
SSF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
SSF	Saint Saulge	79.24	8	*e*P	P	10 25 55.2	0.0
	comp=Z,14nm,0.9s,mb4.9						
KOLN	Koldanda	79.34	303	*e*P	P	10 25 56.3	+0.2
	comp=Z,51nm,0.9s,mb5.5						
MFF	Saint Martin d	79.36	10	⇑*i*P	P	10 25 56.0	+0.1
	comp=Z,17nm,0.9s,mb4.7						
MFF	Saint Martin d	79.36	10	⇑*i*P	P	10 25 56.0	+0.1
MFF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
MFF	Saint Martin d	79.36	10	⇑*i*P	P	10 25 56.0	+0.1
	comp=Z,8.3nm,0.9s,mb4.7						
AVF	Avril sur Loir	79.50	8	⇑*i*P	P	10 25 56.4	-0.2
	comp=Z,21nm,0.8s,mb4.8						
AVF	Avril sur Loir	79.50	8	⇑*i*P	P	10 25 56.4	-0.2
AVF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
AVF	Avril sur Loir	79.50	8	⇑*i*P	P	10 25 56.4	-0.2
	comp=Z,10nm,0.8s,mb4.8						
KBA	Koelnbreinsper	79.65	1	⇑*i*P	P	10 25 58.5	+1.1
	comp=Z,18nm,0.8s,mb5.0						
FETA	Feichten	79.66	3	⇑*i*P	P	10 25 58.2	+0.7
	comp=Z,11nm,1.0s,mb4.8						
SMF	Signal de Mont	79.68	7	*e*P	P	10 25 57.5	-0.1
	comp=Z,27nm,0.8s,mb4.9						
SMF	Signal de Mont	79.68	7	*e*P	P	10 25 57.5	-0.1
SMF				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
SMF	Signal de Mont	79.68	7	*e*P	P	10 25 57.5	-0.1
	comp=Z,14nm,0.8s,mb4.9						
BGF	Bois d'Agland	79.69	8	*e*P	P	10 25 57.5	-0.2
KIV	Kislovodsk	79.81	340	⇓*e*P	P	10 25 59.4	+1.1
KIV				*e*		10 26 03.9	
KIV				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
KIV				MLR	MLR		
	comp=Z,100nm,23.0s,MS4.1						
KIV	Kislovodsk	79.81	340	*e*P	P	10 25 59.1	+0.8
	comp=Z,12nm,0.7s,mb4.9						
CABF	La Chapelle	79.87	6	⇑*i*P	P	10 25 59.1	+0.5
	comp=Z,21nm,0.8s,mb4.8						
CABF	La Chapelle	79.87	6	⇑*i*P	P	10 25 59.1	+0.5
CABF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
CABF	La Chapelle	79.87	6	⇑*i*P	P	10 25 59.1	+0.5
	comp=Z,10nm,0.8s,mb4.8						
DAVOX	Davos/Dischmat	79.88	3	P	P	10 25 59.6	+0.9
	baz=259,slow=5.2						
TCF	Toulx Ste Croi	79.90	9	⇑*i*P	P	10 25 58.6	-0.2
	comp=Z,17nm,1.0s,mb4.6						
TCF	Toulx Ste Croi	79.90	9	⇑*i*P	P	10 25 58.6	-0.2
TCF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
TCF	Toulx Ste Croi	79.90	9	⇑*i*P	P	10 25 58.6	-0.2
	comp=Z,8.4nm,1.0s,mb4.6						
ABTA	Abfaltersbach	79.97	1	⇓*i*P	P	10 26 00.2	+1.0
	comp=Z,9.3nm,1.0s,mb4.7						
SOKA	Soboth	80.06	360	⇑*i*P	P	10 26 00.2	+0.6
	comp=Z,18nm,1.2s,mb4.9						
PERS	Pernice	80.10	360	*e*P	P	10 26 00.4	+0.6
OBKA	Obir	80.22	360	⇑*i*P	P	10 26 01.2	+0.7
	comp=Z,23nm,0.9s,mb5.1						
ROBS	Robic	80.49	1	*i* P	P	10 26 01.5	-0.5
MLR	Muntele Rosu	80.75	352	⇓*i*P	P	10 26 03.0	-0.4
RJF	Les Rejaudoux	80.81	9	*e*P	P	10 26 03.5	-0.2
JAVS	Javornik	80.84	0	*i* P	P	10 26 03.3	-0.5
LPG	La Plagne	81.02	5	*e*P	P	10 26 05.4	+0.6
GZR	Gura Zlata	81.08	354	⇑*i*P	P	10 26 05.2	+0.1
LFF	La Frestale	81.10	10	*e*P	P	10 26 05.3	+0.1
	comp=Z,29nm,1.0s,mb4.9						
LFF	La Frestale	81.10	10	*e*P	P	10 26 05.3	+0.1
LFF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
LFF	La Frestale	81.10	10	*e*P	P	10 26 05.3	+0.1
	comp=Z,14nm,1.0s,mb4.9						
CAF	Calviac	81.24	9	*e*P	P	10 26 06.2	+0.2
VIVF	Saint-Julien-l	81.53	7	⇑*i*P	P	10 26 07.9	+0.4
	comp=Z,12nm,0.8s,mb4.6						
VIVF	Saint-Julien-l	81.53	7	⇑*i*P	P	10 26 07.9	+0.4
VIVF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
VIVF	Saint-Julien-l	81.53	7	⇑*i*P	P	10 26 07.9	+0.4
	comp=Z,5.9nm,0.8s,mb4.6						
TIRR	Tirgusor	81.54	350	⇓*i*P	P	10 26 07.3	-0.3
ORIF	Oris-en-Rattie	81.55	6	⇑*i*P	P	10 26 08.3	+0.7
	comp=Z,9.2nm,0.7s,mb4.5						
ORIF	Oris-en-Rattie	81.55	6	⇑*i*P	P	10 26 08.3	+0.7
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
ORIF	Oris-en-Rattie	81.55	6	⇑*i*P	P	10 26 08.3	+0.7
	comp=Z,4.6nm,0.7s,mb4.5						
MBDF	Montbardon	81.79	5	*e*P	P	10 26 10.2	+1.3
	comp=Z,21nm,0.7s,mb4.9						
MBDF	Montbardon	81.79	5	*e*P	P	10 26 10.2	+1.3
MBDF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
MBDF	Montbardon	81.79	5	*e*P	P	10 26 10.2	+1.3
	comp=Z,10nm,0.7s,mb4.9						
LASF	Ste Croix	82.24	8	*e*P	P	10 26 11.9	+0.6
	comp=Z,6.1nm,0.9s,mb4.2						
SMRF	Simiane la Rot	82.46	6	*e*P	P	10 26 13.4	+1.0
	comp=Z,13nm,1.0s,mb4.5						
SMRF	Simiane la Rot	82.46	6	*e*P	P	10 26 13.4	+1.0
	comp=Z,13nm,1.0s,mb4.8						
SBF	Sospel	82.69	5	*e*P	P	10 26 14.6	+1.0
	comp=Z,17nm,0.7s,mb4.9						
SBF	Sospel	82.69	5	*e*P	P	10 26 14.6	+1.0
SBF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
SBF	Sospel	82.69	5	*e*P	P	10 26 14.6	+1.0
	comp=Z,8.4nm,0.7s,mb4.9						
MTLF	Montolieu	82.83	9	⇑*i*P	P	10 26 14.6	+0.3
	comp=Z,14nm,0.8s,mb4.7						
MTLF	Montolieu	82.83	9	⇑*i*P	P	10 26 14.6	+0.3
MTLF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
MTLF	Montolieu	82.83	9	⇑*i*P	P	10 26 14.6	+0.3
	comp=Z,7.1nm,0.8s,mb4.8						
FRF	La Foret Royal	82.94	6	*e*P	P	10 26 15.2	+0.3
EPF	Esparros	82.95	10	*e*P	P	10 26 14.4	-0.6
ETSF	Etsaut	82.98	11	*e*P	P	10 26 15.7	+0.6
	comp=Z,5.6nm,0.7s,mb4.4						
ETSF	Etsaut	82.98	11	*e*P	P	10 26 15.7	+0.6
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ETSF	Etsaut	82.98	11	*e*P	P	10 26 15.7	+0.6
	comp=Z,2.8nm,0.7s,mb4.4						
LMR	La Mourre	83.16	6	*e*P	P	10 26 16.5	+0.4
PGF	Pioggiola	84.07	4	⇑*i*P	P	10 26 21.3	+0.6
	comp=Z,21nm,0.8s,mb5.0						
PGF	Pioggiola	84.07	4	⇑*i*P	P	10 26 21.3	+0.6
PGF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
PGF	Pioggiola	84.07	4	⇑*i*P	P	10 26 21.3	+0.6
	comp=Z,10nm,0.8s,mb5.0						
BRTR	Keskin Array B	85.53	345	P	P	10 26 28.6	+0.4
	comp=Z,8.2nm,0.8s,mb5.0						
BRTR				LR	LR	11 07 01.4	
	comp=Z,84nm,21.8s,MS4.1,baz=173,slow=37						
ESDC	Sonseca Array	85.71	14	P	P	10 26 28.9	-0.1
	comp=Z,0.3nm,0.3s,mb4.0,baz=351,slow=6.7,SNR=5.5						
MALT	Malatya	86.09	341	*e*P	P	10 26 31.9	+1.0
MALT				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.7						
MALT	Malatya	86.09	341	*e*P	P	10 26 31.9	+1.0
	comp=Z,5.4nm,0.9s,mb4.8						
CUC	Castrocucco	86.73	359	*e*P	P	10 26 33.4	-0.7
	comp=Z,5.6nm,0.6s,mb5.0						
TIP	Timpagrande	87.53	358	*e*P	P	10 26 37.9	0.0
	comp=Z,6.6nm,0.9s,mb4.9						
WRA	Warramunga Arr	89.60	235	P	P	10 26 46.4	-1.3
	comp=Z,1.6nm,1.0s,mb4.3,baz=35,slow=6.0,SNR=6.1						
HYB	Hyderabad	90.51	301	*i* P	P	10 26 52.5	+0.3
HYB	Hyderabad	90.51	301	*e*P	P	10 26 52.0	-0.2
FITZ	Fitzroy Crossi	92.47	243	P	P	10 27 00.6	-0.5
	comp=Z,4.0nm,0.8s,mb4.8,baz=90,slow=1.0,SNR=4.1						
ASAR	Alice Springs	92.98	233	P	P	10 27 02.6	-0.7
	comp=Z,1.2nm,0.8s,mb4.4,baz=32,slow=4.4,SNR=12						
QSPA	South Pole Qui	143.41	180	PKhKP		10 33 18.1	
	comp=Z,2.7nm,0.7s,baz=73,slow=2.5,SNR=17						
BOSA	Boshof	153.75	338	PKIKP	PKPdf	10 33 40.9	+0.1
BOSA				pmax	pmax		
	comp=Z,4.0nm,1.2s						
BOSA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
BOSA	Boshof	153.75	338	PKP	PKPdf	10 33 40.9	+0.1
	comp=Z,3.8nm,1.2s,baz=166,slow=4.2,SNR=2.6						
BOSA				PKPab	PKPab	10 34 02.1	+0.4
	comp=Z,9.0nm,0.9s,baz=52,slow=3.0,SNR=11						
SUR	Sutherland	158.26	345	PKPab	PKPab	10 34 22.1	+1.2
	comp=Z,2.5nm,0.7s,baz=75,slow=12,SNR=3.9						

IDC ***29*** *10:31:37.8±0.7, 13°.27N×120°.44E, h35^{km}±5^{km}, mb4.2/15, mb1 4.2/16, mb1mx4.1/26, mbtmp4.2/16, MS3.8/10, Ms1 3.9/10, ms1mx3.5/37, Error ellipse: s-maj=17.3km s-min=9.9km az=92.0*

ISCJB ***29*** *10:31:37.8±0.2, 13°.20N±0°.03×120°.40E±0°.03, h38^{km}, mb4.7/53, MS3.9/13, Error ellipse: s-maj=4.4km s-min=3.7km az=161.4*

MAN ***29*** *10:31:38, 13°.17N×120°.44E, h37^{km}, mb5.1, ML4.0, MS4.0*

MAN INTENSITY II - PTO GALERA; BATANGAS CITY.

MOS ***29*** *10:31:39.1±1.0, 13°.40N×120°.80E, h62^{km}, mb4.8/18, Error ellipse: s-maj=17.3km s-min=7.1km az=118.7*

NEIC ***29*** *10:31:40.4±0.9, 13°.37N×120°.74E, h58^{km}±8^{km}, mb5.0/14, Error ellipse: s-maj=10.5km s-min=7.1km az=51.0*

NEIC Felt [II PIVS] at Puerto Galera. Also felt [II PIVS] at Batangas, Luzon.

BJI ***29*** *10:31:40.1, 13°.45N×120°.80E, h61^{km}, mB4.7/7, mb4.5/14, Ms4.1/4, Ms7 3.9/3*

DJA ***29*** *10:31:49, 13°.59N×120°.17E, h30^{km}, mb4.4/9*

ISC 29 10:31:39.5±0.2**, 13°.21N**±0°.03×**120°.47E**±0°.03**, h40**^{km}**, h40**^{km}±1.5^{km}**:pP-P, n120,** $\sigma 1^{s}$**29**/115**, mb4.7**/53**, MS3.9**/13**, 6C-7D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PGP	Puerto Galera	0.55	58	*e*P	Pn	10 31 49.1	-1.9
LUBP	Lubang	0.56	337	*e*P	Pn	10 31 50.1	-1.0
SJMP	San Jose	0.98	140	*e*P	Pn	10 31 57.5	+0.8
TGY	Tagaytay City	1.00	27	Pg	Pn	10 31 56.9	-0.1
	4μm,0.3s,baz=226,slow=3.0,SNR=532						
TGY				Lg		10 32 11.1	
	6μm,0.3s,baz=30,slow=20,SNR=19						
TGY	Tagaytay City	1.00	27	⇑*e*P	Pn	10 31 56.8	-0.2
BUSP	Coron	1.23	192	*e*P	Pn	10 32 00.0	-0.2
BOAC	Boac	1.36	79	*e*P	Pn	10 32 02.9	+0.9
GQP	Guinayangan	2.04	70	⇑*e*P	Pn	10 32 12.0	+0.6
GQP				*e*S	Sn	10 32 36.6	+0.9
POLP	Polilio Island	2.08	43	*e*P	Pn	10 32 11.9	+0.1
AUQP	San Andres	2.15	87	*e*P	Pn	10 32 17.1	+4.2
ENPP	El Nido	2.24	207	*e*P	Pn	10 32 13.8	-0.3
KALP	Kalibo	2.38	130	⇑*e*P	Pn	10 32 15.8	-0.2
CUYO	Cuyo Island	2.41	167	*e*P	Pn	10 32 15.6	-0.8
SCZP	Santa Cruz	2.61	348	*e*P	Pn	10 32 20.7	+1.6
BALP	Baler	2.73	23	*e*P	Pn	10 32 22.4	+1.5
RCP	Roxas	2.76	126	⇑*e*P	Pn	10 32 22.2	+0.9
BCPH	Baguio City Da	3.15	2	⇓*e*P	Pn	10 32 25.9	-0.8
BOLP	Bolinao	3.20	350	*e*P	Pn	10 32 28.5	+1.2
PVCP	Virac	3.60	83	*e*P	Pn	10 32 34.2	+1.4
PPR	Puerto Princes	3.81	207	⇓*i*P	Pn	10 32 36.1	+0.3
PPR				*i* S	Sn	10 33 17.3	-2.1
CAUP	Cauayan	3.94	19	*e*P	Pn	10 32 39.1	+1.6
ABRA	Dolores	4.42	3	*e*P	Pn	10 32 46.6	+2.5
TBP	Tagbilaran	4.83	136	*e*P	Pn	10 32 52.7	+3.0
BATP	Bataraza	5.11	211	*e*P	Pn	10 32 53.3	-0.2
MSLP	Maasin	5.28	125	*e*P	Pn	10 32 57.7	+1.9
YULB	Yu-li	10.16	4	*e*Pn	Pn	10 33 59.5	-3.4
	24nm,0.8s						
QIZ	Qiongzhong	11.73	301	P	Pn	10 34 27.3	+2.9
QIZ				S	Sn	10 36 41.5	+7.3
QIZ				LR	LR		
	comp=E,560nm,18.3s						
QIZ				LR	LR		
	comp=Z,610nm,14.8s						
QIZ	Qiongzhong	11.73	301	*e*Pn	Pn	10 34 24.5	+0.1
JOW	Kunigami	15.40	27	Pn	Pn	10 35 11.2	-2.8
	baz=235,slow=12,SNR=5.0						
JOW				LR	LR	10 41 44.9	
	comp=Z,179nm,18.4s,baz=56,slow=40						
KAPI	Kappang	18.12	182	LR	LR	10 42 44.4	
	comp=Z,184nm,21.9s,baz=194,slow=37						
KMI	Kunming	20.49	308	P	P	10 36 20.5	+6.4
KMI				pmax	pmax		
	comp=Z,8.0nm,1.0s						
CMAR	Chiang Mai Arr	21.35	287	P	P	10 36 25.9	+2.5
	comp=Z,8.8nm,1.0s,mb4.0,baz=96,slow=8.8,SNR=44						
CHTO	Chiang Mai	21.42	288	*e*P	P	10 36 26.8	+2.6
CHTO				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.1						
CHTO	Chiang Mai	21.42	288	*e*P	P	10 36 26.8	+2.5
	comp=Z,8.1nm,0.8s,mb4.1						
XAN	Xi'an	23.24	335	P	P	10 36 41.8	-1.6
XAN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
CD2	Chengdu	23.40	322	P	P	10 36 45.8	+0.7
CD2				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.0						
CD2				pmax	pmax		
	comp=Z,150nm,4.9s						
GUMO	Guam	23.74	86	LR	LR	10 44 56.3	
	comp=Z,197nm,18.2s,MS3.6,baz=302,slow=34						
CBIJ	Chichi jima	24.57	52	LR	LR	10 45 01.9	
	comp=Z,291nm,21.4s,MS3.7,baz=119,slow=33						
JHJ	Hachijo jima 2	26.52	38	LR	LR	10 46 18.6	
	comp=Z,220nm,18.9s,MS3.7,baz=50,slow=33						
LZH	Lanzhou	27.25	330	*e*P	P	10 37 20.0	+0.1
LZH				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.5						
LZH				pmax	pmax		
	comp=Z,68nm,4.3s						
LZH				LR	LR		
	comp=N,440nm,13.9s						
LZH				LR	LR		
	comp=Z,550nm,15.0s,MS4.2						
GTA	Gaotai	31.84	329	*e*P	P	10 38 01.8	+1.2
GTA				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.0						
TAPN	Taplejung	33.67	300	*e*P	P	10 38 18.0	+1.2
ODAN	Odare	33.80	299	*e*P	P	10 38 18.9	+1.0
	comp=Z,31nm,0.7s,mb5.4						
RAMN	Ramite	34.50	299	*e*P	P	10 38 25.3	+1.3
	comp=Z,31nm,0.8s,mb5.3						
JIRN	Jiri	35.05	300	*e*P	P	10 38 30.0	+1.2
	comp=Z,47nm,0.7s,mb5.5						
GUN	Gumba	35.39	300	*e*P	P	10 38 32.8	+1.1
WRAB	Tennant Creek	35.65	157	P	P	10 38 33.6	-0.3
	comp=Z,120nm,0.8s,mb5.9,SNR=11						
WRAB	Tennant Creek	35.65	157	*e*P	P	10 38 33.6	-0.3
WRAB				*e**SP	sP	10 38 47.3	-2.5
WRAB				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
WRAB	Tennant Creek	35.65	157	*e*P	P	10 38 33.6	-0.3
	comp=Z,14nm,0.8s,mb4.9						
WRAB				*e*pP	pP	10 38 43.4	-1.7
WRAB				*e*sP	sP	10 38 47.2	-2.6
WRA	Warramunga Arr	35.66	157	P	P	10 38 33.2	-0.7
	comp=Z,6.9nm,0.6s,mb4.8,baz=341,slow=9.2,SNR=72						
PKI	Pulchoki	35.69	299	*e*P	P	10 38 34.8	+0.6
PKI	Pulchoki	35.69	299	*e*P	P	10 38 35.1	+0.9
PKIN	Phulchoki	35.70	299	*e*P	P	10 38 35.1	+0.8
DMN	Daman	35.96	299	*e*P	P	10 38 37.1	+0.6
	comp=Z,29nm,0.9s,mb5.2						
ULN	Ulaanbaatar	36.32	345	*e*P	P	10 38 36.5	-2.8
ULN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
ULN	Ulaanbaatar	36.32	345	*e*P	P	10 38 36.5	-2.8
	comp=Z,6.8nm,0.9s,mb4.6						
SONM	Songino Array	36.46	344	P	P	10 38 39.6	-0.9
	comp=Z,6.4nm,0.7s,mb4.6,baz=162,slow=10,SNR=21						
SONM				pP	pP	10 38 50.1	-1.6
	comp=Z,8.2nm,0.7s,baz=159,slow=9.9,SNR=11						

GKN	Gorkha	36.47	299	*e*P	P	10 38 41.1	+0.2
HABR	Khabarovsk	37.18	16	*e*P	P	10 38 39.1	-7.6
HABR				*e**SP	sP	10 39 02.1	-0.5
HABR				*e*		10 40 05.3	
HABR				*e*		10 41 00.4	
HABR				*e*S	S	10 44 19.6	-11
HABR				*e**SS	sS	10 44 45.3	-3.9
HABR				*e*		10 48 49.6	
HABR				pmax	pmax		
	comp=N,13nm,1.6s						
HABR				pmax	pmax		
	comp=E,18nm,1.9s						
HABR				pmax	pmax		
	comp=Z,19nm,1.8s,mb4.6						
HABR				MLR	MLR		
	comp=Z,40nm,16.0s,MS3.3						
KOLN	Koldanda	37.29	299	*e*P	P	10 38 48.5	+0.6
DANN	Dangsing	37.31	300	*e*P	P	10 38 48.5	+0.5
ASAR	Alice Springs	38.93	160	P	P	10 39 01.4	-0.2
	comp=Z,11nm,0.6s,mb4.8,baz=339,slow=6.9,SNR=165						
ZAK	Zakamensk	39.64	343	*e*P	P	10 39 05.5	-1.8
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.1						
MEEK	Meekatharra	39.65	183	*e*P	P	10 39 07.6	0.0
	comp=Z,13nm,0.8s,mb4.7						
TLY	Talaya	40.71	344	P	P	10 39 16.3	+0.2
TLY				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
TLY	Talaya	40.71	344	P	P	10 39 16.3	+0.2
	comp=Z,4.4nm,0.7s,mb4.2						
MOY	Mondy	41.45	342	*e*P	P	10 39 22.7	+0.5
WMQ	Urumqi	41.46	324	*e*P	P	10 39 23.0	+0.5
WMQ				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.6						
WMQ				pmax	pmax		
	comp=Z,230nm,4.2s						
CTA	Charters Tower	41.69	142	P	P	10 39 24.4	-0.1
	comp=Z,1.6nm,0.3s,mb4.1,baz=276,slow=9.2,SNR=3.4						
KMBL	Kambalda	44.34	178	*e*P	P	10 39 45.9	+0.1
	comp=Z,78nm,1.2s,mb5.3						
HNR	Honiara	45.19	118	LR	LR	10 58 07.6	
	comp=Z,127nm,19.7s,MS3.9,baz=305,slow=35						
NWAO	Narrogin (SRO)	45.98	184	*e*P	P	10 39 59.6	+0.8
	comp=Z,96nm,1.8s,mb5.4						
NWAO	Narrogin (SRO)	45.98	184	P	P	10 39 58.6	-0.2
	comp=Z,4.9nm,0.8s,mb4.5,baz=69,slow=19,SNR=5.6						
MK31	Makanchi Array	46.29	324	*i* P	P	10 40 01.1	-0.1
MK31				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
MKAR	Makanchi Array	46.29	324	P	P	10 40 01.4	+0.2
	comp=Z,6.5nm,0.7s,mb4.7,baz=132,slow=9.0,SNR=74						
MKAR				PP	PP	10 41 52.5	+2.2
	comp=Z,1.8nm,0.8s,baz=96,slow=7.8,SNR=3.7						
UCH	Uchtor	49.09	315	*e*P	P	10 40 24.4	+1.4
	comp=Z,26nm,0.9s,mb5.3						
STKA	Stephens Creek	49.19	156	*e*P	pP	10 40 33.8	-1.5
	comp=Z,5.5nm,1.0s						
STKA	Stephens Creek	49.19	156	P	P	10 40 23.4	-0.3
	comp=Z,1.1nm,0.3s,mb4.4,baz=340,slow=13,SNR=3.0						
STKA				pP	pP	10 40 33.5	-1.8
	comp=Z,4.3nm,0.6s,baz=341,slow=8.5,SNR=4.2						
STKA	Stephens Creek	49.19	156	P	P	10 40 23.4	-0.4
STKA				pP	pP	10 40 33.5	-1.8
AAK	Ala-Archa	49.26	316	⇓*e*P	P	10 40 25.8	+1.6
AAK				pmax	pmax		
	comp=Z,3.0nm,1.7s,mb4.0						
AAK				MLR	MLR		
	comp=Z,100nm,18.0s,MS3.9						
AAK	Ala-Archa	49.26	316	*e*P	P	10 40 24.9	+0.7
	comp=Z,13nm,1.1s,mb4.9						
ZALV	Zalesovo Beam	49.39	333	P	P	10 40 23.6	-1.4
	comp=Z,3.6nm,0.4s,mb4.7,baz=126,slow=7.5,SNR=10						
PETK	Petropavlovsk-	49.56	29	LR	LR	11 03 30.0	
	comp=Z,112nm,19.5s,MS3.9,baz=121,slow=39						
AML	Almayashu	49.62	315	*e*P	P	10 40 27.9	+0.9
	comp=Z,22nm,0.9s,mb5.2						
EKS2	Erkin-Say	49.76	315	*e*P	P	10 40 28.9	+0.9
	comp=Z,14nm,0.9s,mb5.0						
KURK	Kurchatov	50.47	327	*e*P	P	10 40 33.3	0.0
KURK				pmax	pmax		
	comp=Z,55nm,0.7s,mb5.7						
KURK	Kurchatov	50.47	327	*e*P	P	10 40 33.3	0.0
	comp=Z,55nm,0.7s,mb5.7						
CMSA	Cobar Meteorol	50.65	152	*e*P	P	10 40 34.9	+0.1
NVS	Novosibirsk	50.67	333	*i* P	P	10 40 32.8	-2.0
NVS				*e*	pP	10 40 44.2	-2.1
NVS				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
NVS				pmax	pmax		
	comp=N,7.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.3s						
KK31	Karatay Array	52.16	315	*i* P	P	10 40 45.7	-0.4
KK31				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
VOSK	Vostochnaya	55.60	326	P	P	10 41 09.7	-1.3
VOSK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
BRVK	Borovoye	56.12	326	*e*P	P	10 41 14.1	-0.7
BRVK				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
BRVK	Borovoye	56.12	326	*e*P	P	10 41 14.1	-0.7
	comp=Z,22nm,1.0s,mb5.1						
TIXI	Tiksi	58.63	3	⇓*e*P	P	10 41 29.3	-2.9
TIXI				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,100nm,22.0s,MS3.9						
AB31	Akbulak array	60.96	319	P	P	10 41 47.6	-0.9
AB31				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
BILL	Bilibino	62.24	18	⇑*e*P	P	10 41 54.3	-2.6
BILL				*e*		10 42 09.1	
BILL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
BILL				MLR	MLR		
	comp=Z,6μm,24.0s						
ARU	Arti	63.67	327	*c i*P	P	10 42 04.8	-1.8
ARU				S	S	10 50 34.0	-3.9
ARU				SS	SS	10 54 37.5	-8.3
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
GNI	Garni	70.74	308	⇓*e*P	P	10 42 53.4	+1.7
GNI				pmax	pmax		
	comp=Z,15nm,1.7s						
KIV	Kislovodsk	72.19	312	*d i*P	P	10 43 00.6	+0.2
KIV				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
KLMR	Klimovskoe	74.16	330	*e*P	Px	10 43 23.9	
KLMR				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
MALT	Malatya	75.75	307	*e*P	P	10 43 22.5	+1.2
MALT				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
MALT	Malatya	75.75	307	*e*P	P	10 43 22.5	+1.2
	comp=Z,2.4nm,0.9s,mb4.1						
OBN	Obninsk	75.80	324	*e*P	P	10 43 20.8	-0.5
OBN				*e*		10 43 36.7	
OBN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
OBN				MLR	MLR		
	comp=Z,100nm,14.0s,MS4.3						
ANN	Anapa	75.91	313	*e*P	P	10 43 16.4	-5.7
ANN				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
LVZ	Lovozero	76.29	337	⇓*e*P	P	10 43 22.2	-1.6
LVZ				pmax	pmax		
	comp=Z,70nm,1.9s,mb5.3						
ABPO	Ambohimpanom	78.92	247	*i* P	P	10 43 41.6	+2.2
BRTR	Keskin Array B	79.28	308	P	P	10 43 40.6	-0.5
	comp=Z,2.0nm,0.8s,mb4.1						
ARCES	ARCESS Array B	79.46	339	P	P	10 43 39.2	-2.2
	comp=Z,2.8nm,0.8s,mb4.2,baz=81,slow=7.5,SNR=6.9						
ARCES				LR	LR	11 23 50.6	
	comp=Z,93nm,18.3s,MS4.2,baz=80,slow=40						
ARCES	ARCESS Array B	79.46	339	P	P	10 43 39.2	-2.2
ARCES				LR	LR	11 23 50.6	
SPITS	Spitsbergen Ar	80.02	348	P	P	10 43 42.3	-2.0
	comp=Z,3.9nm,0.8s,mb4.4,baz=226,slow=5.1,SNR=2.6						
FINES	FINESS Array B	80.60	331	P	P	10 43 45.6	-2.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=62,slow=4.5,SNR=4.1						
FINES				pP	pP	10 43 57.5	-2.4
	comp=Z,2.9nm,0.8s,baz=60,slow=7.5,SNR=3.6						
FINES				LR	LR	11 19 04.2	
	comp=Z,95nm,19.7s,MS4.2,baz=69,slow=35						
FINES	FINESS Array B	80.60	331	P	P	10 43 45.6	-2.1
FINES				pP	pP	10 43 57.5	-2.4
FINES				LR	LR	11 19 04.2	
BUR08	Bucovina Ar. S	83.87	317	*e*P	P	10 44 03.2	-1.9
UZH	Uzhgorod	85.53	319	*e*P	P	10 44 05.7	-7.7
UZH				*i*		10 44 27.5	
HFS	Hagfors	86.80	331	P	P	10 44 16.3	-3.2
	comp=Z,2.2nm,0.9s,mb4.4,baz=122,slow=14,SNR=3.4						
NOA	NORSAR Array B	87.59	333	P	P	10 44 20.8	-2.5
	comp=Z,0.7nm,0.6s,mb4.1,baz=68,slow=6.7,SNR=3.3						
NOA				pP	pP	10 44 32.8	-2.7
	comp=Z,1.7nm,0.7s,baz=70,slow=4.5,SNR=3.3						
NOA				LR	LR	11 28 30.8	
	comp=Z,57nm,18.3s,MS4.0,baz=115,slow=39						
GERES	GERESS Array B	90.87	321	pP	pP	10 44 49.4	-1.9
	comp=Z,0.7nm,0.7s,baz=66,slow=7.5,SNR=2.9						
YKA	Yellowknife Ar	93.31	22	P	P	10 44 47.7	-2.2
	comp=Z,0.7nm,0.7s,mb4.2,baz=308,slow=4.8,SNR=9.1						
YKA				pP	pP	10 45 00.7	-1.6
	comp=Z,0.5nm,0.8s,baz=309,slow=5.0,SNR=4.0						
YKA	Yellowknife Ar	93.31	22	P	P	10 44 47.7	-2.2
YKA				pP	pP	10 45 00.7	-1.6
TXAR	Lajitas Array	119.98	45	PKP	PKPdf	10 50 23.7	-2.7
	comp=Z,0.2nm,0.5s,baz=282,slow=2.4,SNR=4.0						

ISCJB ***29*** *10:31:59.0±0.7, 60°.6S±0°.1×26°.3W±0°.3, h10^{km}, mb4.4/6, MS3.8/3, Error ellipse: s-maj=20.7km s-min=16.9km az=25.0*

IDC ***29*** *10:31:59.0±0.8, 60°.61S×26°.35W, h0^{km}, mb4.4/7, mb1 4.4/7, mb1mx4.2/15, mbtmp4.4/7, MS3.9/3, Ms1 3.8/3, ms1mx3.4/24, Error ellipse: s-maj=24.4km s-min=21.6km az=110.0*

NEIC ***29*** *10:32:00.6±0.5, 60°.61S×26°.33W, h10^{km}, Error ellipse: s-maj=14.7km s-min=12.7km az=121.0*

ISC 29 10:32:00.7±0.7**, 60°.6S**±0°.1×**26°.4W**±0°.3**, h10^{km}, n15, σ0^{s}.38**/10**, mb4.4**/6**, MS3.8**/3**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
USHA	Ushuaia	22.86	266	P	P	10 37 04.4	+0.6
	18nm,1.0s,mb4.4,baz=118,slow=15,SNR=3.7						
QSPA	South Pole Qui	29.64	180	P	P	10 38 05.6	0.0
	6.7nm,1.0s,mb4.3,baz=191,slow=6.8,SNR=14						
QSPA				LR	LR	10 49 52.1	
	comp=Z,127nm,18.2s,MS3.6,baz=158,slow=36						
CPUP	Villa Florida	40.22	314	P	P	10 39 36.6	-0.6
	4.1nm,0.4s,mb4.6,baz=135,slow=9.0,SNR=31						
CPUP				LR	LR	10 53 22.6	
	comp=Z,74nm,19.6s,MS3.5,baz=93,slow=32						
CPUP	Villa Florida	40.22	314	*e*P	P	10 39 36.5	-0.7
	38nm,0.4s,mb5.5						
CPUP				LR	LR	10 53 22.6	
VNDA	Vanda	42.04	183	P	P	10 39 51.3	-0.3
	3.7nm,1.1s,baz=180,slow=9.1,SNR=2.5						
BOSA	Boshof	46.88	71	P	P	10 40 31.1	+0.2
	1.4nm,0.7s,mb4.0,baz=199,slow=18,SNR=3.2						
RPN	Rapa Nui	63.35	262	LR	LR	11 04 57.5	
	comp=Z,219nm,18.5s,MS4.4,baz=120,slow=31						
DBIC	Dimbokro	69.17	23	P	P	10 43 06.9	-0.3
	2.9nm,0.7s,mb4.3,baz=153,slow=9.5,SNR=4.6						
TOA0	Torodi Ar. Sit	76.85	28	*e*P	P	10 43 52.9	+0.4
TORD	Torodi Ar. Bea	76.85	28	P	P	10 43 52.7	+0.1
	3.6nm,0.8s,mb4.4,baz=199,slow=6.4,SNR=27						
TORD	Torodi Ar. Bea	76.85	28	P	P	10 43 52.7	+0.1
YKA	Yellowknife Ar	139.74	314	PKP	PKPdf	10 51 28.1	+1.0
	0.5nm,0.7s,baz=124,slow=2.2,SNR=6.7						
YKA	Yellowknife Ar	139.74	314	PKP	PKPdf	10 51 28.1	+1.0
INK	Inuvik	149.48	316	PKPbc	PKPbc	10 51 48.4	+0.1
	9.1nm,1.0s,baz=98,slow=2.1,SNR=24						
SONM	Songino Array	150.29	94	PKPbc	PKPbc	10 51 50.0	-0.9
	0.4nm,0.3s,baz=263,slow=1.2,SNR=3.4						

BJI ***29*** *10:37:10.3, 3°.60S×100°.80E, h35^{km}, mb4.4/3*

IDC ***29*** *10:37:11.7±1.2, 3°.62S×100°.62E, h26^{km}±4^{km}, mb4.0/9, mb1 4.1/9, mb1mx3.9/22, mbtmp4.0/9, Error ellipse: s-maj=35.6km s-min=14.8km az=56.0*

DJA ***29*** *10:37:12, 3°.59S×100°.53E, h65^{km}, MLv4.2/5*

NEIC ***29*** *10:37:13.3±0.8, 3°.62S×100°.76E, h35^{km}, mb4.8/4, Error ellipse: s-maj=31.6km s-min=10.2km az=47.0*

ISC 29 10:37:11.2±2.6**, 3°.61S**±0°.08×**100°.62E**±0°.07**, h16^{km}**±16^{km}**, h28^{km}**±1.6^{km}**:pP-P, n35, σ1^{s}.13**/36**, mb4.3**/15**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPSI	Pulau Pagai	1.03	324	P	Pb	10 37 30.5	-0.2
KSI	Kapahiang	1.97	91	P	Pn	10 37 46.6	+2.6
KSI				S	Sn	10 38 10.5	+2.1
MNAI	Manna	2.45	108	P	Pn	10 37 50.3	-0.2
PDSI	Padang	2.68	357	P	Pn	10 37 52.8	-0.9
PDSI				S	Sn	10 38 24.9	-1.0
SDSI	Sungai Dareh	2.78	17	P	Pn	10 37 55.3	+0.3
PPI	Padang Panjang	3.14	356	P	Pn	10 38 00.0	0.0
MDSI	Maura Dua	3.66	104	P	Pn	10 38 06.9	-0.3
CMAR	Chiang Mai Arr	21.99	356	P	P	10 42 02.3	-2.4
	4.7nm,0.8s,mb4.0,baz=186,slow=8.5,SNR=23						
ODAN	Odare	32.88	338	*e*P	P	10 43 45.6	+1.0
	22nm,0.9s,mb5.1						
TAPN	Taplejung	33.20	339	*e*P	P	10 43 48.7	+1.3
	48nm,0.9s,mb5.4						
RAMN	Ramite	33.26	337	*e*P	P	10 43 49.3	+1.4
JIRN	Jiri	34.05	337	*e*P	P	10 43 56.1	+1.3
PKI	Pulchoki	34.29	336	*e*P	P	10 43 57.3	+0.4
PKIN	Phulchoki	34.30	336	*e*P	P	10 43 57.3	+0.3
GUN	Gumba	34.40	337	*e*P	P	10 43 58.9	+1.1
DMN	Daman	34.45	335	*e*P	P	10 43 59.6	+1.3
KKN	Kakani	34.54	336	*e*P	P	10 43 59.6	+0.6
GKN	Gorkha	34.99	335	*e*P	P	10 44 03.5	+0.5
KOLN	Koldanda	35.24	333	*e*P	P	10 44 06.0	+0.9
DANN	Dangsing	35.67	334	*e*P	P	10 44 10.3	+1.5
WRA	Warramunga Arr	36.67	119	P	P	10 44 15.9	-1.6
	1.2nm,0.5s,mb4.0,baz=309,slow=9.0,SNR=15						
ASAR	Alice Springs	37.83	125	P	P	10 44 25.6	-1.6
	0.8nm,0.4s,mb3.8,baz=302,slow=8.2,SNR=6.5						
ASAR				pP	pP	10 44 34.5	+2.2
	1.8nm,0.7s,baz=301,slow=8.0,SNR=7.7						
ASAR				PcP	PcP	10 46 43.0	-0.8
	0.6nm,0.9s,baz=292,slow=2.4,SNR=4.6						
XAN	Xi'an	38.26	11	P	P	10 44 28.5	-2.2
XAN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
GTA	Gaotai	42.81	359	*e*P	P	10 45 08.3	0.0
GTA				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.6						
KSRS	Korea Array	48.09	29	P	P	10 45 48.7	-1.5
	comp=Z,4.8nm,1.0s,mb4.5,baz=223,slow=8.9,SNR=9.1						
KSRS				pP	pP	10 45 56.7	+1.4
	comp=Z,4.8nm,1.0s,baz=220,slow=7.7,SNR=6.1						
SONM	Songino Array	51.48	5	P	P	10 46 15.7	-0.1
	comp=Z,6.7nm,0.9s,mb4.6,baz=188,slow=8.8,SNR=17						
SONM				pP	pP	10 46 24.1	+3.2
	comp=Z,7.2nm,0.8s,baz=183,slow=8.6,SNR=16						
TKM2	Tokmak 2	51.54	337	*e*P	P	10 46 16.8	+0.4
	comp=Z,4.2nm,0.8s,mb4.4						
AML	Almayashu	51.67	335	*e*P	P	10 46 17.9	+0.5
MKAR	Makanchi Array	52.73	344	P	P	10 46 24.2	-0.9
	comp=Z,3.9nm,0.7s,mb4.4,baz=146,slow=8.2,SNR=33						
MKAR				pP	pP	10 46 32.6	+2.4
	comp=Z,2.6nm,0.6s,baz=149,slow=8.0,SNR=9.7						
MJAR	Matsushiro Arr	53.14	38	P	P	10 46 28.4	+0.1
	comp=Z,1.4nm,0.9s,mb3.9,baz=222,slow=6.5,SNR=2.8						
MJAR				pP	pP	10 46 34.2	+0.7
	comp=Z,2.8nm,0.9s,baz=223,slow=7.8,SNR=4.6						
KURK	Kurchatov	57.31	344	*e*P	P	10 46 57.5	-0.7
	comp=Z,5.4nm,0.9s,mb4.6						
ZAA0	Zalesovo Array	58.85	349	*e*P	P	10 47 08.1	-0.8
ZALV	Zalesovo Beam	58.85	349	P	P	10 47 07.7	-1.2
	comp=Z,6.0nm,0.9s,mb4.6,baz=160,slow=4.7,SNR=15						
BRTR	Keskin Array B	74.86	313	P	P	10 48 49.8	-1.4
	comp=Z,0.4nm,0.4s,mb3.7						
BRTR				pP	pP	10 48 58.7	+2.2
TXAR	Lajitas Array	145.57	39	PKPbc	PKPbc	10 56 49.5	-0.1
	comp=Z,4.7nm,0.7s,baz=299,slow=0.8,SNR=62						

ISCJB ***29*** *10:40:27.4±0.8, 63°.33N±0°.03×145°.04W±0°.05, h10^{km}±6^{km}, Error ellipse: s-maj=5.2km s-min=3.9km az=159.3*

NEIC ***29*** *10:40:28.1, 63°.31N×145°.17W, h6^{km}, ML3.4(AEIC), ML3.8(PMR), After AEIC.*

PGC ***29*** *10:40:28.9±12.0, 63°.37N×145°.24W, h10^{km}, ML3.5/2, 202km Ese of Fairbanks, Ak Central Alaska*

ISC 29 10:40:27.9±0.6**, 63°.33N**±0°.03×**145°.04W**±0°.05**, h4^{km}**±5^{km}**, n39, σ1^{s}.09**/51**, 3D, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAX	Paxson	0.41	209	P	Pg	10 40 35.1	-0.8
PAX				S	Sg	10 40 40.2	-1.0
DOT	Dot Lake	0.54	54	P	Pg	10 40 39.6	+1.3
DOT				S	Sg	10 40 47.6	+2.3
MENT	Mentasta	0.72	123	P	Pg	10 40 42.2	+0.6
BCA3	Beaver Creek A	1.50	99	P	Pn	10 40 55.5	-0.1
IL1	Eielson Array	1.66	331	P	Pn	10 40 55.8	-2.0
MCK	McKinley	1.79	285	P	Pn	10 40 59.6	0.0
COLA	College	1.98	323	P	Pn	10 41 01.8	-0.4
COLA				S	Sn	10 41 28.5	+1.1
SML	Sawmill	2.16	226	P	Pn	10 41 04.4	-0.2
EGAK	Eagle	2.24	48	P	Pn	10 41 05.6	-0.1
TRF	Thorofare Moun	2.37	275	P	Pn	10 41 07.7	+0.2
KNK	Knik Glacier	2.50	221	P	Pn	10 41 09.4	+0.1
PMR	Palmer	2.58	229	P	Pn	10 41 10.9	+0.4
DAWY	Dawson	2.62	71	⇑Pn	Pn	10 41 11.4	+0.4
DAWY				⇓Sg	Sg	10 41 51.8	-0.2
DAWY	Dawson	2.62	71	P	Pn	10 41 11.2	+0.2
KTH	Kantishna Hill	2.65	277	P	Pn	10 41 11.1	-0.3
BPAW	Bear Paw Mtn.	2.76	289	P	Pn	10 41 11.5	-1.3
EYAK	Cordova Ski Ar	2.81	187	P	Pn	10 41 14.9	+1.2
FIB	Fire Island	3.24	230	*e*Pn	Pn	10 41 21.8	+2.3
FIB				*e*Sn	Sn	10 41 56.6	-1.9
PPLA	Purkeypile	3.28	266	*e*Pn	Pn	10 41 21.0	+1.0
PPLA				*e*Sn	Sn	10 41 56.7	-2.7
SKT	Skwentna	3.29	249	P	Pn	10 41 20.7	+0.5
CHUM	Lake Minchumin	3.30	283	P	Pn	10 41 19.4	-0.8
SLKM	Skilak Lake	3.75	223	P	Pn	10 41 27.8	+1.3
SEW	Seward	3.86	215	*e*Pn	Pn	10 41 29.4	+1.4
SEW				*e*Sn	Sn	10 42 13.2	-0.6
BM3	Burnt Mountain	4.11	2	P	Pn	10 41 31.1	-0.2
HYT	Haines Junctio	4.34	122	⇓Pn	Pn	10 41 35.2	+0.6
HYT				⇑Pg	Pg	10 41 48.6	-2.5
COLD	Coldfoot	4.47	333	P	Pn	10 41 35.7	-0.6
PNL	Peninsula	4.56	141	P	Pn	10 41 39.6	+2.0
IMA2	Indian Mountai	4.62	310	*e*P	Pn	10 41 38.1	-0.3
RSO	Redoubt South	4.65	235	*e*Pn	Pn	10 41 40.2	+1.3
RSO				*e*Sg	Sg	10 42 57.1	+0.1
TTA	Tatalina	5.00	270	*e*P	Pn	10 41 45.1	+1.5
TT01	Tatalina	5.00	270	P	Pn	10 41 43.5	-0.3
SVW2	Sparrevohn	5.42	250	*e*P	Pn	10 41 49.7	+0.3
WHY	Whitehorse	5.48	115	⇑Pn	Pn	10 41 50.9	+0.6
WHY				⇑Sn	Sn	10 42 52.5	-1.2
WHY				⇑Sg	Sg	10 43 21.9	-1.9
PLBC	Pleasant Camp	5.70	129	⇓Pn	Pn	10 41 54.2	+1.0
INK	Inuvik	6.87	38	⇑Pn	Pn	10 42 08.9	-0.4
INK	Inuvik	6.87	38	*e*Pn	Pn	10 42 09.0	-0.3
	9.6nm,1.1s						
INK				*e*Sg	Sg	10 44 07.0	-1.2
FNBB	Fort Nelson	11.52	103	⇑Pn	Pn	10 43 12.5	-0.4
CTLN	Castor Lake	12.78	72	⇑Pn	Pn	10 43 29.0	-1.1
KHC	Kasperske Hory	66.61	15	*e*P	P	10 51 26.5	+7.6

IDC ***29*** *10:46:44.6±7.0, 5°.19N×94°.87E, h0^{km}, mb3.5/4, mb1 3.6/4, mb1mx3.4/23, mbtmp3.5/4, Error ellipse: s-maj=342.9km s-min=23.6km az=58.0*

ISCJB ***29*** *10:46:48.9±5.2, 5°.0N±0°.2×94°.6E±0°.3, h51^{km}±38^{km}, mb3.7/5, Error ellipse: s-maj=60.5km s-min=23.9km az=153.0*

ISC 29 10:46:50.1±5.3**, 5°.0N**±0°.2×**94°.6E**±0°.3**, h42^{km}**±41^{km}**, n6, σ1^{s}.19**/7**, mb3.7**/5**, 1D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	0.82	54	⇓*e*P	Pn	10 47 06.0	+0.8
BSI				*e*S	Sn	10 47 15.5	-0.8
GYA	Guiyang	24.24	27	*e*P	P	10 52 04.8	+1.7
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.2						
MKAR	Makanchi Array	42.97	348	P	P	10 54 44.6	-0.4
	comp=Z,0.7nm,0.6s,mb3.5,baz=171,slow=7.8,SNR=10						
WRA	Warramunga Arr	46.24	124	P	P	10 55 11.4	-0.1
	comp=Z,0.2nm,0.5s,mb3.3,baz=303,slow=9.2,SNR=6.7						
ASAR	Alice Springs	47.74	128	P	P	10 55 22.9	-0.2
	comp=Z,0.2nm,0.5s,mb3.4,baz=301,slow=8.3,SNR=4.4						
ZALV	Zalesovo Beam	49.44	352	P	P	10 55 34.9	-0.9
	comp=Z,0.6nm,0.4s,mb3.9,baz=181,slow=10,SNR=2.6						

ATH 29 10:49:03.6, 36°.27N×21°.73E, h5^{km}, MD3.5/5**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.62	1	*e*PG	Pg	10 49 15.5	-0.1
PYL				*e*SB	Sg	10 49 25.4	+1.7
ITM	Ithomi	0.92	10	*e*PB	Pb	10 49 21.2	-0.9
ITM				*e*SB	Sb	10 49 33.9	-0.7
KYTH	Kithira	1.06	89	*e*PG	Pg	10 49 23.4	-0.4
VLI	Veliai	1.07	65	*e*PB	Pb	10 49 24.5	-0.1
VLI				*e*SB	Sb	10 49 39.3	+0.4
VLX	Vlachokerasia	1.22	25	*e*PG	Pg	10 49 26.5	-0.4
VLX				*e*SB	Sb	10 49 44.2	+1.1
GUR	Goura	1.73	16	*e*PN	Pn	10 49 36.3	+1.9
VAM	Vamos	2.18	113	*e*PG	Pg	10 49 44.5	-0.9
EVR	Evrytania	2.64	1	*e*PN	Pn	10 49 49.0	+2.1

NEIC ***29*** *10:56:00.9±0.9, 26°.83S×178°.06W, h188^{km}±9^{km}, Error ellipse: s-maj=18.0km s-min=10.9km az=119.0*

IDC ***29*** *10:56:01.1±2.1, 26°.84S×178°.02W, h188^{km}±19^{km}, mb3.6/9, mb1 3.9/10, mb1mx3.8/15, mbtmp3.6/10, Error ellipse: s-maj=22.2km s-min=19.4km az=171.0*

ISC 29 10:55:56.7±1.4**, 27°.0S**±0°.1×**178°.0W**±0°.2**, h145^{km}**±15^{km}**, n24, σ0^{s}.84**/15**, mb3.8**/9**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	2.28	178	P	Pn	10 56 42.9	+8.0
	158nm,0.3s,baz=264,slow=21,SNR=13						
RAO				S	Sn	10 57 03.8	-0.5
	308nm,0.3s,baz=83,slow=23,SNR=12						
URZ	Urewera	11.99	199	S	Sn	11 00 48.3	-6.9
	0.7nm,0.3s,baz=216,slow=19,SNR=5.2						
AFI	Afiamalu	14.24	25	S	Sn	11 01 30.5	-19
	3.6nm,0.3s,baz=76,slow=22,SNR=4.5						
AFI	Afiamalu	14.24	25	*e*Pn	Pn	10 59 13.1	+1.2
AFI				*e*Sn	Sn	11 01 34.1	-16
ASAR	Alice Springs	43.39	263	P	P	11 03 45.2	+0.2
	0.3nm,0.4s,mb3.2,baz=96,slow=6.9,SNR=11						
WRA	Warramunga Arr	44.06	269	P	P	11 03 50.5	+0.1
	0.6nm,0.6s,mb3.4,baz=104,slow=6.0,SNR=11						
VNDA	Vanda	51.50	185	P	P	11 04 48.6	+1.8
	1.0nm,0.5s,mb3.7,baz=75,slow=12,SNR=5.7						
MJAR	Matsushiro Arr	75.43	325	P	P	11 07 23.6	-0.9
	3.4nm,0.6s,mb4.2,baz=154,slow=5.5,SNR=9.6						
KSRS	Korea Array	81.74	319	P	P	11 07 59.4	+0.4
	2.0nm,0.6s,mb3.9,baz=130,slow=6.3,SNR=7.8						
PETK	Petropavlovsk-	82.49	346	P	P	11 08 01.9	-0.6
	5.5nm,1.0s,mb4.1,baz=120,slow=8.5,SNR=3.1						
NVAR	Mina Array Bea	85.73	43	P	P	11 08 18.8	-0.5
	1.1nm,0.7s,mb3.7,baz=227,slow=7.5,SNR=9.7						
TXAR	Lajitas Array	90.55	57	P	P	11 08 42.6	+0.2
	0.8nm,1.0s,mb3.7,baz=191,slow=6.0,SNR=4.6						
PDAR	Pinedale Array	93.66	43	P	P	11 08 55.3	-1.2
	0.8nm,0.8s,mb3.9,baz=222,slow=2.0,SNR=6.1						
MKAR	Makanchi Array	115.53	311	PKP	PKPdf	11 14 19.1	-2.1
	0.2nm,0.5s,baz=87,slow=1.5,SNR=3.0						
KURK	Kurchatov	118.64	315	PKP	PKPdf	11 14 24.9	-2.2
	0.9nm,0.9s,baz=100,slow=1.7,SNR=5.9						
BVAR	Borovoye Array	123.91	317	PKP	PKPdf	11 14 35.7	-1.4
	1.0nm,0.5s,baz=189,slow=2.7,SNR=5.1						
ARCES	ARCESS Array B	135.24	349	PKP	PKPdf	11 14 57.7	-0.4
	3.4nm,0.9s,baz=95,slow=1.5,SNR=6.9						
ARCES	ARCESS Array B	135.24	349	PKP	PKPdf	11 14 57.7	-0.4
FINES	FINESS Array B	141.91	341	PKhKP		11 15 03.3	
	1.2nm,0.5s,baz=56,slow=2.5,SNR=7.2						
NB2	NORSAR Subarra	145.36	352	PKPa	PKPbc	11 15 15.5	-1.3
	comp=Z,3.9nm,0.8s,baz=13,slow=3.0						
NOA	NORSAR Array B	145.36	352	PKPbc	PKPbc	11 15 15.6	-1.2
	comp=Z,2.9nm,0.7s,baz=17,slow=2.9,SNR=6.5						
AKASG	Malin Array Be	148.51	326	PKPbc	PKPbc	11 15 24.2	-1.7
	comp=Z,2.9nm,0.5s,baz=41,slow=3.6,SNR=6.8						
BRTR	Keskin Array B	150.81	304	PKPbc	PKPbc	11 15 30.7	-1.2
BRTR				PKPab	PKPab	11 15 38.8	-0.8
TORD	Torodi Ar. Bea	166.25	179	PKP	PKPdf	11 15 43.9	-1.3

	comp=Z,0.2nm,0.5s,baz=104,slow=0.2,SNR=2.6						
TORD				PKPab	PKPab	11 16 46.2	-0.5
	comp=Z,0.3nm,0.5s,baz=185,slow=2.5,SNR=4.5						

IDC 29 11:00:23.7±19.0, 22°.42S×174°.78W, h0km, mb4.3/5, mb1 4.5/5, mb1mx4.1/18, mbtmp4.3/5, Error ellipse: s-maj=362.2km s-min=155.4km az=81.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	36.32	266	P	P	11 07 30.6	+1.2
	5.9nm,0.4s,baz=94,slow=10,SNR=5.9						
STKA	**Stephens Creek**	39.72	247	P	P	11 07 57.1	-0.9
	0.7nm,0.4s,baz=117,slow=6.8,SNR=1.6						
ASAR	**Alice Springs**	47.03	258	P	P	11 08 56.2	-0.9
	1.8nm,0.5s,baz=98,slow=7.2,SNR=20						
WRA	**Warramunga Arr**	47.33	263	P	P	11 08 59.0	-0.5
	2.9nm,0.3s,baz=96,slow=8.3,SNR=19						
FITZ	**Fitzroy Crossi**	55.76	263	P	P	11 10 03.8	+1.2
	1.1nm,0.3s,baz=90,slow=11,SNR=2.0						

GUC 29 11:01:02.9±0.5, 32°.60S×71°.31W, h49km±30km, MD3.5, ML2.6, 1D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JACH	**Jahuel**	0.61	98	*e*P	Pn	11 01 16.1	+0.7
JACH				*i* S	Sn	11 01 25.8	+1.4
CHNG	**Los Chungos**	0.73	347	*e*P	Pn	11 01 17.2	+0.3
CHNG				*i* S	Sn	11 01 28.0	+0.8
PEL	**Peldehue**	0.76	136	⇓*i*P	Pn	11 01 18.1	+0.7
PEL				*i* S	Sn	11 01 29.1	+1.3
PEL				AML	AML	11 01 29.7	
	comp=E,439nm,0.4s						
FCH	**Farellones**	1.12	131	*e*P	Pn	11 01 22.7	+0.4
FCH				*i* S	Sn	11 01 38.0	+1.4
PCH	**Pirque**	1.22	147	*e*P	Pn	11 01 24.1	+0.6
PCH				*i* S	Sn	11 01 40.4	+1.5
CHCH	**Chadas Angostu**	1.44	158	*i* P	Pn	11 01 27.2	+0.7

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*ISCJB **29** 11:41:58.6±0.1, 46°.330N±0°.010×12°.99E±0°.01, h12km±1km, Error ellipse: s-maj=1.7km s-min=1.4km az=1.5*

*LDG **29** 11:41:58.8±0.1, 46°.31N×13°.11E, h2km, Ml3.4/19, Error ellipse: s-maj=2.6km s-min=2.3km az=18.0*

*VIE **29** 11:41:59.3±0.3, 46°.34N×13°.01E, h8km, mb2.6/9, ML3.6/12, Error ellipse: s-maj=2.9km s-min=1.2km az=13.0 7 km S of Tolmezzo*

*ROM **29** 11:41:59.4±0.1, 46°.28N×13°.17E, h11km±1km, Md3.2/11, Ml3.2/13, Error ellipse: s-maj=2.2km s-min=1.8km az=26.0*

*NEIC **29** 11:41:59.4, 46°.28N×13°.17E, h11km, ML3.1(LJU), ML3.4(LDG), ML3.2(ROM), ML3.5(STR), After ROM.*

NEIC Felt at Gemona del Friuli.

*CSEM **29** 11:41:59.1±0.1, 46°.31N×13°.00E, h2km, ML3.8/19, Error ellipse: s-maj=2.0km s-min=1.5km az=177.0*

*PRU **29** 11:42:00.8, 46°.39N×13°.08E, h0km*

*GEN **29** 11:42:01.2, 46°.29N×13°.31E, h40km, ML3.5*

*STR **29** 11:42:05.2±0.3, 46°.31N×12°.48E, h10km, Ml3.4, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 29 11:41:59.5±0.1, 46°.320N±0°.009×13°.00E±0°.01, h7km±1km, n278, σ1s.12/467, 39C-45D, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOO	**Bordano**	0.07	90	⇑*i*Pg	Pg	11 42 01.4	+0.1
BOO				*i* Sg	Sg	11 42 02.4	-0.2
BOO	**Bordano**	0.07	90	⇑*i*Pg	Pg	11 42 01.4	+0.1
BOO				*i* Sg	Sg	11 42 02.4	-0.2
MPRI	**Monte Prat**	0.08	186	⇑*e*Pg	Pg	11 42 01.6	+0.2
MPRI				*e*Sg	Sg	11 42 03.3	+0.5
MPRI	**Monte Prat**	0.08	186	⇑*e*Pg	Pg	11 42 01.6	+0.2
MPRI				*e*Sg	Sg	11 42 03.3	+0.5
FUSE	**Fusea**	0.09	1	⇓*e*Pg	Pg	11 42 01.8	+0.1
FUSE				*e*Sg	Sg	11 42 04.0	+0.9
FUSE	**Fusea**	0.09	1	⇓*e*Pg	Pg	11 42 01.8	+0.1
FUSE				*e*Sg	Sg	11 42 04.1	+0.9
GMNA	**Gemona**	0.17	105	⇓*i*Pg	Pg	11 42 01.9	-1.1
GMNA	**Gemona**	0.17	105	⇓*i*Pg	Pg	11 42 01.9	-1.1
BAD	**Bernadia**	0.19	116	⇓*e*Pg	Pg	11 42 03.1	-0.2
BAD				*e*Sg	Sg	11 42 06.0	+0.1
BAD	**Bernadia**	0.19	116	⇓*e*Pg	Pg	11 42 03.1	-0.2
BAD				*e*Sg	Sg	11 42 06.0	+0.1
VINO	**Villanova**	0.21	108	⇑*i*Pg	Pg	11 42 03.3	-0.3
VINO				*i* Sg	Sg	11 42 06.7	+0.3
VINO	**Villanova**	0.21	108	*i* Pg	Pg	11 42 03.3	-0.3
VINO				*i* Sg	Sg	11 42 06.7	+0.3
ZOU	**Zoufplan**	0.24	356	⇓*e*Pg	Pg	11 42 04.4	+0.2
ZOU				*e*Sg	Sg	11 42 08.1	+0.7
ZOU	**Zoufplan**	0.24	356	⇓*e*Pg	Pg	11 42 04.4	+0.2
ZOU				*e*Sg	Sg	11 42 08.1	+0.7
PLRO	**Paularo**	0.25	24	⇓*e*Pg	Pg	11 42 04.4	-0.1
PLRO				*e*Sg	Sg	11 42 08.5	+0.7
PLRO	**Paularo**	0.25	24	⇓*e*Pg	Pg	11 42 04.4	-0.1
PLRO				*e*Sg	Sg	11 42 08.5	+0.6
PTCC	**Patocco-Chiusa**	0.26	71	Pg	Pg	11 42 04.2	-0.4
PTCC	**Patocco-Chiusa**	0.26	71	Pg	Pg	11 42 04.2	-0.4
CSMI	**Casera Mimoias**	0.31	309	⇓*e*Pg	Pg	11 42 05.5	-0.1
CSMI				*e*Sg	Sg	11 42 10.1	+0.5
CSMI	**Casera Mimoias**	0.31	309	⇓*e*Pg	Pg	11 42 05.5	0.0
CSMI				*e*Sg	Sg	11 42 10.1	+0.5
MLNI	**Malnisio**	0.32	238	⇓*e*Pg	Pg	11 42 05.6	-0.1
MLNI				*e*Sg	Sg	11 42 11.0	+1.1
MLNI	**Malnisio**	0.32	238	⇓*e*Pg	Pg	11 42 05.6	-0.1
MLNI				*e*Sg	Sg	11 42 11.0	+1.0
COLI	**Coloredo**	0.32	125	⇓*e*Pg	Pg	11 42 05.6	-0.2
COLI				*e*Sg	Sg	11 42 10.6	+0.5
COLI	**Coloredo**	0.32	125	⇓*e*Pg	Pg	11 42 05.6	-0.2
COLI				*e*Sg	Sg	11 42 10.6	+0.6
ROBS	**Robic**	0.36	102	*i* Pg	Pg	11 42 05.9	-0.7
ROBS				*i* Sg	Sg	11 42 11.6	+0.3
ROBS							
	comp=Z,545nm,0.1s						
ROBS	**Robic**	0.36	102	*i* Pg	Pg	11 42 05.9	-0.7
ROBS				*i* Sg	Sg	11 42 11.6	+0.3
ROBS	**Robic**	0.36	102	Pg	Pg	11 42 05.9	-0.6
ROBS				*i* Sg	Sg	11 42 11.6	+0.3
	comp=Z,545nm,0.1s						
CIMO	**Cimolais**	0.39	269	⇓*i*Pg	Pg	11 42 06.4	-0.7
CIMO				*i* Sg	Sg	11 42 12.1	0.0
CIMO	**Cimolais**	0.39	269	*i* Pg	Pg	11 42 06.4	-0.6
CIMO				*i* Sg	Sg	11 42 12.1	0.0
LSR	**Lussari**	0.40	67	⇓*e*Pg	Pg	11 42 06.6	-0.6
LSR				*e*Sg	Sg	11 42 12.9	+0.5
LSR	**Lussari**	0.40	67	⇓*e*Pg	Pg	11 42 06.6	-0.6
LSR				*e*Sg	Sg	11 42 12.9	+0.5
TLI	**Talmassons**	0.41	170	⇓*e*Pg	Pg	11 42 06.9	-0.4
TLI	**Talmassons**	0.41	170	⇓*e*Pg	Pg	11 42 06.9	-0.5
ACOM	**Acomizza, Ital**	0.42	57	⇓*e*Pg	Pg	11 42 07.2	-0.5
ACOM				*e*Sg	Sg	11 42 14.2	+1.0
ACOM	**Acomizza, Ital**	0.42	57	*e*Pg	Pg	11 42 07.2	-0.5
ACOM				*e*Sg	Sg	11 42 14.2	+1.0
DRE	**Drenchia**	0.47	108	⇓*e*Pg	Pg	11 42 07.7	-0.9
DRE				*e*Sg	Sg	11 42 15.3	+0.6
DRE	**Drenchia**	0.47	108	⇓*e*Pg	Pg	11 42 07.7	-0.9
DRE				*e*Sg	Sg	11 42 15.3	+0.6
CSO	**Casso**	0.47	265	⇓*e*Pg	Pg	11 42 07.8	-0.8
CSO				*e*Sg	Sg	11 42 14.9	+0.2
CSO	**Casso**	0.47	265	⇓*e*Pg	Pg	11 42 07.8	-0.8
CSO				*e*Sg	Sg	11 42 14.9	+0.1
CAE	**Caneva**	0.50	231	⇑*e*Pg	Pg	11 42 09.0	-0.2
CAE				*e*Sg	Sg	11 42 16.4	+0.7
CAE	**Caneva**	0.50	231	⇑*e*Pg	Pg	11 42 09.0	-0.2
CAE				*e*Sg	Sg	11 42 16.5	+0.8
CADS	**Cadrg**	0.52	100	*i* Pg	Pg	11 42 08.5	-1.0
CADS				*i* Sg	Sg	11 42 17.4	+1.1
CADS							
	comp=Z,340nm,0.1s						
CADS	**Cadrg**	0.52	100	*i* Pg	Pg	11 42 08.5	-1.0
CADS				*i* Sg	Sg	11 42 17.4	+1.1
CADS	**Cadrg**	0.52	100	*i* Pg	Pg	11 42 08.5	-1.0
CADS				*i* Sg	Sg	11 42 17.4	+1.1
	comp=Z,340nm,0.1s						
SABO	**M.te Sabotino**	0.54	129	⇑*e*Pg	Pg	11 42 09.4	-0.4
SABO	**M.te Sabotino**	0.54	129	*e*Pg	Pg	11 42 09.4	-0.5
MYKA	**Terra Mystica**	0.54	55	⇓*i*Pg	Pg	11 42 09.4	-0.6
	comp=Z,118nm,0.1s						
MYKA				⇑*i*Sg	Sg	11 42 17.4	+0.4
	comp=Z,807nm,0.2s						
MYKA	**Terra Mystica**	0.54	55	Pg	Pg	11 42 09.4	-0.6
	comp=Z,118nm,0.1s						
MYKA				Sg	Sg	11 42 17.4	+0.4
	comp=Z,807nm,0.2s						
ABTA	**Abfaltersbach**	0.54	322	⇓*i*Pg	Pg	11 42 09.8	-0.2
	comp=Z,28nm,0.1s						
ABTA				⇓*i*Sg	Sg	11 42 17.7	+0.6
	comp=Z,400nm,0.2s						
ABTA	**Abfaltersbach**	0.54	322	Pg	Pg	11 42 09.8	-0.2
	comp=Z,28nm,0.1s						
ABTA				Sg	Sg	11 42 17.7	+0.6
	comp=Z,400nm,0.2s						
AFL	**Alpe Faloria**	0.60	291	⇓*e*Pg	Pg	11 42 12.1	+0.9
AFL	**Alpe Faloria**	0.60	291	⇓*e*Pg	Pg	11 42 12.1	+0.9
VOJS	**Vojsko**	0.68	115	*i* Pg	Pg	11 42 11.4	-1.1
VOJS				*i* Sg	Sg	11 42 22.4	+1.0
VOJS							
	comp=Z,139nm,0.1s						
VOJS	**Vojsko**	0.68	115	*i* Pg	Pg	11 42 11.4	-1.1
VOJS				*i* Sg	Sg	11 42 22.4	+1.0
VOJS	**Vojsko**	0.68	115	*i* Pg	Pg	11 42 11.4	-1.2
VOJS				*i* Sg	Sg	11 42 22.4	+1.0
	comp=Z,139nm,0.1s						
GORS	**Gorjuse**	0.69	90	*i* Pg	Pg	11 42 11.4	-1.4
GORS				*i* Sg	Sg	11 42 22.0	+0.3
GORS							
	comp=Z,272nm,0.1s						
GORS	**Gorjuse**	0.69	90	*i* Pg	Pg	11 42 11.4	-1.4
GORS				*i* Sg	Sg	11 42 22.0	+0.3
GORS	**Gorjuse**	0.69	90	*i* Pg	Pg	11 42 11.4	-1.4
GORS				*i* Sg	Sg	11 42 22.0	+0.3
	comp=Z,272nm,0.1s						
VARN	**Col Varnada, M**	0.70	243	⇑*e*Pg	Pg	11 42 11.9	-1.1
VARN	**Col Varnada, M**	0.70	243	⇑*e*Pg	Pg	11 42 11.9	-1.1
KBA	**Koelnbreinsper**	0.80	17	⇓*i*Pg	Pg	11 42 14.6	-0.2
	comp=Z,25nm,0.1s						
KBA				⇑*i*Sg	Sg	11 42 25.2	+0.1
	comp=Z,585nm,0.2s						
KBA	**Koelnbreinsper**	0.80	17	Pg	Pg	11 42 14.6	-0.2
	comp=Z,25nm,0.1s						
KBA				Sg	Sg	11 42 25.2	+0.1
	comp=Z,585nm,0.2s						
MTLO	**Montello**	0.81	231	⇑*e*Pg	Pg	11 42 14.6	-0.5
MTLO	**Montello**	0.81	231	⇑*e*Pg	Pg	11 42 14.6	-0.4
TRI	**Trieste**	0.81	139	*e*Pg	Pg	11 42 13.5	-1.6
TRI	**Trieste**	0.81	139	*e*Pg	Pg	11 42 13.5	-1.6
JAVS	**Javornik**	0.85	120	*i* Pg	Pg	11 42 14.4	-1.5
JAVS				*i* Sg	Sg	11 42 28.5	+1.5
JAVS							
	comp=Z,199nm,0.1s						
JAVS	**Javornik**	0.85	120	*i* Pg	Pg	11 42 14.4	-1.5
JAVS				*i* Sg	Sg	11 42 29.2	+2.2
JAVS	**Javornik**	0.85	120	*i* Pg	Pg	11 42 14.4	-1.5
JAVS				*i* Sg	Sg	11 42 29.2	+2.2
	comp=Z,199nm,0.1s						
IESO	**Jesolo**	0.86	202	⇑*e*Pg	Pg	11 42 15.8	-0.2
IESO	**Jesolo**	0.86	202	⇑*e*Pg	Pg	11 42 15.8	-0.2
CGRP	**Cima Grappa**	0.94	243	*e*Pg	Pg	11 42 17.1	-0.5
CGRP				*e*Sg	Sg	11 42 31.8	+1.9
CGRP	**Cima Grappa**	0.94	243	*e*Pg	Pg	11 42 17.1	-0.5
CGRP				*e*Sg	Sg	11 42 31.8	+1.9
CTI	**Castel Tesino**	0.98	254	Pg	Pg	11 42 18.9	+0.7
CTI				Sg	Sg	11 42 34.0	+3.1
CTI	**Castel Tesino**	0.98	254	Pg	Pg	11 42 18.9	+0.7
SKDS	**Skadanscina**	1.05	137	*i* Pg	Pg	11 42 20.3	+0.7
SKDS				*i* Sg	Sg	11 42 36.3	+3.1
SKDS							
	comp=Z,272nm,0.1s						
SKDS	**Skadanscina**	1.05	137	*i* Pg	Pg	11 42 20.3	+0.7
SKDS				*i* Sg	Sg	11 42 36.3	+3.1
SKDS	**Skadanscina**	1.05	137	*i* Pg	Pg	11 42 20.3	+0.7
SKDS				*i* Sg	Sg	11 42 36.3	+3.1
	comp=Z,272nm,0.1s						
OBKA	**Obir**	1.09	79	⇑*e*Pg	Pg	11 42 18.9	-1.5
OBKA				⇑*i*Sg	Sg	11 42 35.8	+1.3
	comp=Z,159nm,0.2s						
OBKA	**Obir**	1.09	79	Pg	Pg	11 42 18.9	-1.5
OBKA				Sg	Sg	11 42 35.8	+1.3
	comp=Z,159nm,0.2s						
LJU	**Ljubljana**	1.10	104	*e*Pg	Pg	11 42 19.6	-1.0
LJU				*e*		11 42 21.6	
LJU				*e*Sg	Sg	11 42 36.0	+1.2
SCE	**Schlegeis**	1.14	309	⇑*i*Pg	Pg	11 42 21.1	-0.3
SCE				*i* Sg	Sg	11 42 36.7	+0.5
SCE	**Schlegeis**	1.14	309	⇑*i*Pg	Pg	11 42 21.1	-0.3
SCE				*i* Sg	Sg	11 42 36.7	+0.5
APPI	**Appiano**	1.24	278	Pg	Pg	11 42 23.7	+0.5
APPI				Sg	Sg	11 42 42.4	+3.2
	comp=Z,749nm,0.2s						
APPI	**Appiano**	1.24	278	Pg	Pg	11 42 23.7	+0.5
WTTA	**Wattenberg**	1.33	316	⇑*i*Pg	Pg	11 42 25.1	+0.1
WTTA				⇑*e*Sg	Sg	11 42 42.3	0.0
	comp=Z,254nm,0.4s						
WTTA	**Wattenberg**	1.33	316	Pg	Pg	11 42 25.1	+0.1
WTTA				Sg	Sg	11 42 42.3	0.0
	comp=Z,254nm,0.4s						
BGLD	**Berchtesgaden**	1.33	0	⇓*i*Pg	Pg	11 42 24.4	-0.7
BGLD				*i* Sg	Sg	11 42 43.4	+1.0
BGLD	**Berchtesgaden**	1.33	0	⇓*i*Pg	Pg	11 42 24.4	-0.7
BGLD				*i* Sg	Sg	11 42 43.4	+1.0
TEOL	**Teolo**	1.34	225	⇓*e*Pg	Pg	11 42 24.2	-1.0
TEOL	**Teolo**	1.34	225	⇓*e*Pg	Pg	11 42 24.2	-0.9
WATA	**Walderalm**	1.41	317	⇑*i*Pg	Pg	11 42 26.6	+0.1
WATA				⇑*i*Sg	Sg	11 42 45.6	+0.8
	comp=Z,71nm,0.2s						
WATA	**Walderalm**	1.41	317	P	Pn	11 42 26.5	+0.9
	SNR=106						
WATA	**Walderalm**	1.41	317	Pg	Pg	11 42 26.6	+0.1
WATA				Sg	Sg	11 42 45.6	+0.8
	comp=Z,71nm,0.2s						
SOKA	**Soboth**	1.45	75	⇑*i*Pn	Pn	11 42 25.5	-0.7
	comp=Z,15nm,0.2s						
SOKA				⇑*i*Sg	Sg	11 42 47.5	+1.4
	comp=Z,60nm,0.3s						
SOKA	**Soboth**	1.45	75	Pn	Pn	11 42 25.5	-0.6
	comp=Z,15nm,0.2s						
SOKA				Sg	Sg	11 42 47.5	+1.4
	comp=Z,60nm,0.3s						
SQTA	**Sankt Quirin**	1.52	307	⇓*i*Pg	Pg	11 42 28.4	-0.4
SQTA	**Sankt Quirin**	1.52	307	Pg	Pg	11 42 28.4	-0.4
BALD	**Monte Baldo**	1.65	248	*e*Pg	Pg	11 42 29.2	-1.9
BALD				*e*Sg	Sg	11 42 51.7	-0.8
BALD	**Monte Baldo**	1.65	248	*e*Pg	Pg	11 42 29.2	-1.9
BALD				*e*Sg	Sg	11 42 51.7	-0.8
MOTA	**Moosalm**	1.66	309	⇓*i*Pg	Pg	11 42 30.6	-0.7
MOTA				⇑*i*Sg	Sg	11 42 52.9	+0.2
	comp=Z,105nm,0.3s						
MOTA	**Moosalm**	1.66	309	Pg	Pg	11 42 30.6	-0.7
MOTA				Sg	Sg	11 42 52.9	+0.2
	comp=Z,105nm,0.3s						
FETA	**Feichten**	1.71	295	⇑*e*Pg	Pg	11 42 31.7	-0.7
	comp=Z,46nm,0.4s						
FETA				⇓*e*Sg	Sg	11 42 55.4	+0.9
	comp=Z,81nm,0.4s						
FETA	**Feichten**	1.71	295	Pg	Pg	11 42 31.7	-0.7
	comp=Z,46nm,0.4s						
FETA				Sg	Sg	11 42 55.4	+0.8
	comp=Z,81nm,0.4s						
DOBS	**Dobrina**	1.72	95	*i* Pg	Pg	11 42 30.1	-2.4
DOBS	**Dobrina**	1.72	95	*i* Pg	Pg	11 42 30.1	-2.4
MAGA	**Magasa**	1.74	253	Pg	Pg	11 42 30.7	-2.1
MAGA				Sg	Sg	11 42 55.4	0.0
	comp=Z,2µm,0.5s						
MAGA	**Magasa**	1.74	253	Pg	Pg	11 42 30.7	-2.1
MAGA				Sg	Sg	11 42 55.4	0.0
	comp=Z,2µm,0.5s						
MOA	**Molln**	1.76	29	⇑*i*Pn	Pn	11 42 32.0	+1.6
	comp=Z,30nm,0.2s						
MOA				⇑*e*Sg	Sg	11 42 56.2	+0.2
	comp=Z,188nm,0.5s						
MOA	**Molln**	1.76	29	Pn	Pn	11 42 32.0	+1.6
	comp=Z,30nm,0.2s						
MOA				Sg	Sg	11 42 56.2	+0.2
	comp=Z,188nm,0.5s						
BOJS	**Bojanci**	1.77	117	*i* Pg	Pg	11 42 31.6	-1.9
BOJS	**Bojanci**	1.77	117	*i* Pg	Pg	11 42 31.6	-1.9
BRMO	**Bormio**	1.82	276	Pg	Pg	11 42 32.8	-1.7
BRMO				Sg	Sg	11 42 57.4	-0.7
	comp=Z,211nm,0.4s						
BRMO	**Bormio**	1.82	276	Pg	Pg	11 42 32.8	-1.7
BRMO				Sg	Sg	11 42 57.4	-0.7
	comp=Z,211nm,0.4s						
RETA	**Reutte**	1.93	308	⇑*i*Pg	Pg	11 42 35.4	-1.1
	comp=Z,67nm,0.2s						
RETA				⇑*e*Sg	Sg	11 43 03.0	+1.5
	comp=Z,134nm,0.3s						
RETA	**Reutte**	1.93	308	Pg	Pg	11 42 35.4	-1.1
	comp=Z,67nm,0.2s						
RETA				Sg	Sg	11 43 03.0	+1.6
	comp=Z,134nm,0.3s						
ARSA	**Arzberg**	1.97	61	⇑*i*Pn	Pn	11 42 33.8	+0.5
	comp=Z,6.0nm,0.2s						
ARSA				⇓*i*Sg	Sg	11 43 02.3	-0.4
	comp=Z,62nm,0.5s						
ARSA	**Arzberg**	1.97	61	Pn	Pn	11 42 33.8	+0.5
	comp=Z,6.0nm,0.2s						
ARSA				Sg	Sg	11 43 02.3	-0.4
	comp=Z,62nm,0.5s						
FIU	**Minerbio Fiu**	1.99	213	Pg	Pn	11 42 33.9	+0.4
FUR	**Furstenfeldbru**	2.19	328	*e*Pn	Pn	11 42 38.0	+1.7
FUR				*e*Sn	Sn	11 43 07.4	+3.8
FUR	**Furstenfeldbru**	2.19	328	*e*Pn	Pn	11 42 38.0	+1.7
FUR				*e*Sn	Sn	11 43 07.4	+3.8
NVLJ	**Novalja**	2.20	142	⇑*i*Pn	Pn	11 42 36.2	-0.2
NVLJ				Sn	Sn	11 43 03.7	-0.1
NVLJ	**Novalja**	2.20	142	⇑*i*Pn	Pn	11 42 36.2	-0.2
NVLJ				Sn	Sn	11 43 03.7	-0.1
DAVA	**Damuels**	2.35	295	⇓*i*Pn	Pn	11 42 41.2	+2.7
	comp=Z,5.3nm,0.2s						
DAVA				⇑*i*Sg	Sg	11 43 14.7	-0.3
	comp=Z,134nm,0.4s						
DAVA	**Damuels**	2.35	295	P	Pn	11 42 41.1	+2.6
	SNR=24						
DAVA	**Damuels**	2.35	295	Pn	Pn	11 42 41.2	+2.7
	comp=Z,5.3nm,0.2s						
DAVA				Sg	Sg	11 43 14.7	-0.3
	comp=Z,134nm,0.4s						
CONA	**Conrad Observa**	2.53	50	⇓*i*Pn	Pn	11 42 42.2	+1.2
	comp=Z,3.7nm,0.1s						
CONA				⇑*i*Sn	Sn	11 43 14.2	+2.1
	comp=Z,18nm,0.3s						
CONA	**Conrad Observa**	2.53	50	Pn	Pn	11 42 42.2	+1.2
	comp=Z,3.7nm,0.1s						
CONA				Sn	Sn	11 43 14.2	+2.1
	comp=Z,18nm,0.3s						
TUE	**Stuetta**	2.53	275	Pg	Pg	11 42 43.5	-4.5
SEI	**Scarperia**	2.55	208	Pg	Pn	11 42 42.2	+1.0
	comp=Z,106nm,0.3s						
SFI	**Santa Sofia**	2.55	199	Pg	Pn	11 42 40.6	-0.7
SFI				Sg	Sn	11 43 12.7	+0.2
	comp=Z,119nm,0.5s						
GEC2	**GERESS Array S**	2.57	10	*e*Pn	Pn	11 42 42.3	+0.8
GEC2				*e*Sn	Sn	11 43 14.7	+1.6
GEC2	**GERESS Array S**	2.57	10	*e*Pn	Pn	11 42 42.3	+0.8
GEC2				*e*Sn	Sn	11 43 14.6	+1.6
VMG	**Vicchio**	2.57	204	Pg	Pn	11 42 41.9	+0.3
VMG				Sg	Sn	11 43 13.3	+0.2
	comp=Z,43nm,0.4s						
GSCL	**Gusciola**	2.60	222	Pg	Pn	11 42 42.3	+0.3
FSSB	**Fossombrone**	2.63	184	Pg	Pn	11 42 41.9	-0.5
FSSB				Sg	Sn	11 43 12.7	-1.9
	comp=Z,49nm,0.2s						
ERBM	**Eremo**	2.63	225	Pg	Pn	11 42 43.6	+1.2
	comp=Z,88nm,0.7s						
GRAM	**Graiana**	2.76	230	P	Pn	11 42 45.6	+1.5
VALM	**Valbona**	2.77	226	P	Pn	11 42 45.2	+1.0
POPM	**Popiglio**	2.77	216	P	Pn	11 42 44.6	+0.3
CRE	**Caprese Michel**	2.80	196	Pg	Pn	11 42 44.9	+0.2
	comp=Z,32nm,0.4s						
AOI	**Ancona**	2.80	171	Pg	Pn	11 42 44.6	-0.1
	comp=Z,51nm,0.5s						
SARO	**Sassorosso**	2.82	222	P	Pn	11 42 46.0	+1.1
WET	**Wettzell**	2.83	358	*e*Pn	Pn	11 42 45.7	+0.6
WET				*e*Sn	Sn	11 43 19.9	+0.6
WET	**Wettzell**	2.83	358	*e*Pn	Pn	11 42 45.7	+0.6
WET				*e*Sn	Sn	11 43 19.9	+0.6
KHC	**Kasperske Hory**	2.84	8	*e*PN	Pn	11 42 46.0	+0.8
KHC				*e*PG	Pg	11 42 51.5	-2.4
KHC				*e*SN	Sn	11 43 19.6	-0.1
KHC				*e*SG	Sg	11 43 29.0	-1.7
	comp=Z,62nm,0.4s						
KHC	**Kasperske Hory**	2.84	8	Pn	Pn	11 42 46.0	+0.8
VLC	**Villacollemand**	2.84	221	Pg	Pn	11 42 47.1	+1.8
	comp=Z,37nm,0.7s						
BADI	**Badiali**	2.86	191	Pg	Pn	11 42 45.5	0.0
	comp=Z,114nm,0.8s						
CRMI	**Carmignano**	2.91	210	Pg	Pn	11 42 45.8	-0.4
	comp=Z,41nm,0.5s						
VAI	**Varese**	2.98	263	Pg	Pn	11 42 48.4	+1.2
	comp=Z,51nm,0.5s						
MAIM	**Mastiano**	2.99	217	P	Pn	11 42 47.6	+0.3
SNTG	**Esanatoglia**	3.06	181	Pg	Pn	11 42 47.9	-0.4
	comp=Z,24nm,0.3s						
CAFI	**Castiglion Fio**	3.08	194	Pg	Pn	11 42 47.8	-0.7
	comp=Z,101nm,1.1s						
CSNT	**Castellina Chi**	3.10	204	Pg	Pn	11 42 48.9	+0.1
	comp=Z,47nm,0.7s						
PII	**Pisa**	3.13	215	Pg	Pn	11 42 48.9	-0.4
	comp=Z,29nm,0.2s						
ASS	**Assisi**	3.27	184	Pg	Pn	11 42 51.1	0.0
	comp=Z,24nm,0.4s						
CESI	**CESI - Serrava**	3.32	181	Pg	Pn	11 42 51.2	-0.6
	comp=Z,34nm,0.7s						
ZST	**Bratislava**	3.37	55	*e*PN	Pn	11 42 53.9	+1.4
ZST				*e*PG	Pg	11 43 03.2	-0.8
ZST				*e*SN	Sn	11 43 31.4	-1.2
ZST				*e*SG	Sg	11 43 48.3	+0.7
ZST	**Bratislava**	3.37	55	*e*Pn	Pn	11 42 53.9	+1.4
SPAK	**Spaichingen-Ko**	3.38	303	P	Pn	11 42 54.2	+1.5
SPAK				S	Sn	11 43 33.6	+0.6
SPAK	**Spaichingen-Ko**	3.38	303	P	Pn	11 42 54.2	+1.5
SPAK				S	Sn	11 43 33.6	+0.6
MODS	**Modra-Piesok**	3.56	53	*e*PN	Pn	11 42 56.3	+1.2
MODS				*e*PG	Pg	11 43 07.4	-0.3
MODS				*e*SN	Sn	11 43 35.9	-1.5
MODS				*e*SG	Sg	11 43 51.7	-2.1
MODS	**Modra-Piesok**	3.56	53	*e*Pn	Pn	11 42 56.3	+1.2
PCP	**Piancastagn**	3.60	242	P	Pn	11 42 56.8	+1.0
FELD	**Feldberg im Sc**	3.75	296	P	Pn	11 42 58.8	+1.1
FELD				S	Sn	11 43 43.1	+1.0
FELD	**Feldberg im Sc**	3.75	296	P	Pn	11 42 58.8	+1.1
FELD				S	Sn	11 43 43.1	+1.0
BFO	**Black Forest**	3.76	304	*e*Pn	Pn	11 42 58.9	+1.0
BFO				*e*Sn	Sn	11 43 41.9	-0.4
BFO	**Black Forest**	3.76	304	*e*Pn	Pn	11 42 58.9	+1.0
BFO				*e*Sn	Sn	11 43 41.9	-0.4
PRU	**Pruhonice**	3.81	15	*e*PN	Pn	11 42 59.7	+1.1
PRU				*e*SN	Sn	11 43 41.9	-1.8
PRU				*e*SG	Sg	11 43 58.4	-3.5
	comp=Z,35nm,0.4s						
PRU	**Pruhonice**	3.81	15	Pn	Pn	11 42 59.7	+1.1
PRU				Sn	Sn	11 43 41.9	-1.8
PRU				Sg	Sg	11 43 58.4	-3.5
	comp=Z,35nm,0.4s						
VRAC	**Vranov**	3.85	38	⇑*i*P	Pn	11 42 59.5	+0.4
VRAC	**Vranov**	3.85	38	⇑P	Pn	11 42 59.5	+0.4
VRAC	**Vranov**	3.85	38	*e*Pn	Pn	11 42 59.4	+0.3
NKC	**Novy Kostel**	3.93	355	*e*PN	Pn	11 43 00.9	+0.6
NKC				*e*SN	Sn	11 43 46.0	-0.6
NKC				*e*SG	Sg	11 44 04.1	-1.7
	comp=Z,52nm,0.3s						
NKC	**Novy Kostel**	3.93	355	Pn	Pn	11 43 00.9	+0.6
NKC				Sn	Sn	11 43 46.0	-0.6
NKC				Sg	Sg	11 44 04.1	-1.7
	comp=Z,52nm,0.3s						
BBS	**Basel-Blauen**	3.94	289	P	Pn	11 43 01.4	+1.1
BBS	**Basel-Blauen**	3.94	289	P	Pn	11 43 01.4	+1.1
MOF	**Molkenrain**	4.29	293	P	Pn	11 43 06.1	+0.9
MOF				S	Sn	11 43 55.4	0.0
MOF	**Molkenrain**	4.29	293	P	Pn	11 43 06.1	+0.9
MOF				S	Sn	11 43 55.4	0.0
KOLL	**Kolacno**	4.31	56	*e*PN	Pn	11 43 05.5	+0.1
KOLL				*e*SN	Sn	11 43 52.0	-3.8
KOLL	**Kolacno**	4.31	56	*e*Pn	Pn	11 43 05.5	+0.1
KOLL				*e*Sn	Sn	11 43 52.0	-3.8
LOMF	**Lomont**	4.36	286	P	Pn	11 43 07.2	+1.1
LOMF				S	Sn	11 43 58.4	+1.3
LOMF	**Lomont**	4.36	286	P	Pn	11 43 07.2	+1.1
LOMF				S	Sn	11 43 58.4	+1.3
ECH	**Echery**	4.41	298	P	Pn	11 43 07.8	+1.1
ECH				S	Sn	11 43 58.9	+0.6
LANF	**Langenberg**	4.41	309	P	Pn	11 43 07.6	+0.9
LANF	**Langenberg**	4.41	309	P	Pn	11 43 07.6	+0.9
CDF	**Champ du Feu**	4.42	300	*e*Pn	Pn	11 43 07.3	+0.4
CDF				*e*Sn	Sn	11 43 55.5	-3.0

CDF				eSg	Sg	11 44 19.4	-1.9
	comp=Z,35nm,0.8s						
CDF	Champ du Feu	4.42	300	ePn	Pn	11 43 07.3	+0.4
CDF				eSn	Sn	11 43 55.5	-3.0
CDF				eSg	Sg	11 44 19.4	-1.9
	comp=Z,18nm,0.8s						
MOX	Moxa	4.42	349	ePN	Pn	11 43 06.5	-0.5
MOX				i SN	Sn	11 43 56.7	-2.0
MOX				eSG	Sg	11 44 21.7	+0.2
MOX	Moxa	4.42	349	ePn	Pn	11 43 06.5	-0.5
MOX				i Sn	Sn	11 43 56.7	-2.0
MOX				eSg	Sg	11 44 21.7	+0.2
MOX	Moxa	4.42	349	ePn	Pn	11 43 06.5	-0.5
MOX				i Sn	Sn	11 43 56.7	-2.0
LPG	La Plagne	4.44	262	eP	Pn	11 43 09.7	+2.5
LPG				eSn	Sn	11 43 57.1	-2.0
	comp=Z,15nm,0.5s						
LPG	La Plagne	4.44	262	eP	Pn	11 43 09.7	+2.5
LPG				eSn	Sn	11 43 57.1	-2.0
	comp=Z,7.4nm,0.5s						
LPL	La Plagne	4.45	262	ePn	Pn	11 43 07.0	-0.3
LPL				eSn	Sn	11 43 56.3	-3.0
	comp=Z,9.9nm,0.4s						
LPL	La Plagne	4.45	262	ePn	Pn	11 43 07.0	-0.3
LPL				eSn	Sn	11 43 56.3	-3.0
	comp=Z,4.9nm,0.4s						
HINF	Hinteralfeld	4.46	292	ePn	Pn	11 43 07.7	+0.2
HINF				eSn	Sn	11 43 56.6	-3.0
	comp=Z,25nm,0.2s						
HINF	Hinteralfeld	4.46	292	ePn	Pn	11 43 07.7	+0.2
HINF				eSn	Sn	11 43 56.6	-3.0
	comp=Z,12nm,0.2s						
SAOF	Saorge	4.50	241	P	Pn	11 43 08.4	+0.3
SAOF	Saorge	4.50	241	P	Pn	11 43 08.4	+0.3
VYHS	Vyhne	4.52	59	ePN	Pn	11 43 07.5	-0.8
VYHS				eSN	Sn	11 43 57.2	-3.9
VYHS				eSG	Sg	11 44 25.5	+0.9
VYHS	Vyhne	4.52	59	ePn	Pn	11 43 07.5	-0.8
VYHS				eSn	Sn	11 43 57.2	-3.9
VYHS				eSg	Sg	11 44 25.5	+0.9
AUTN	L'Aution	4.58	241	P	Pn	11 43 09.9	+0.8
AUTN	L'Aution	4.58	241	P	Pn	11 43 09.9	+0.8
BRG	Berggiesshubel	4.60	7	PN	Pn	11 43 09.6	+0.2
BRG				PG	Pg	11 43 27.5	-0.1
BRG				SN	Sn	11 44 01.0	-2.0
BRG				SG	Sg	11 44 24.8	-2.3
	comp=Z,24nm,0.8s						
BRG	Berggiesshubel	4.60	7	Pn	Pn	11 43 09.6	+0.2
DPC	Dobruska-Polom	4.60	28	ePN	Pn	11 43 10.4	+1.0
DPC				eSG	Sg	11 44 24.2	-3.0
	comp=Z,25nm,0.5s						
DPC	Dobruska-Polom	4.60	28	Pn	Pn	11 43 10.4	+1.0
DPC				Sg	Sg	11 44 24.2	-3.0
	comp=Z,25nm,0.5s						
BNI	Bardonecchia	4.61	256	ePn	Pn	11 43 11.8	+2.2
BNI				eSn	Sn	11 44 01.9	-1.4
BNI	Bardonecchia	4.61	256	ePn	Pn	11 43 11.8	+2.3
BNI				eSn	Sn	11 44 01.9	-1.4
MORC	Moravsky Berou	4.61	40	⇓iP	Pn	11 43 08.1	-1.4
MORC	Moravsky Berou	4.61	40	⇓P	Pn	11 43 08.1	-1.5
MORC	Moravsky Berou	4.61	40	⇓P	Pn	11 43 08.1	-1.4
MORC	Moravsky Berou	4.61	40	ePn	Pn	11 43 11.1	+1.6
SBF	Sospel	4.64	240	ePn	Pn	11 43 09.4	-0.6
SBF				eSn	Sn	11 44 01.2	-2.9
	comp=Z,55nm,0.4s						
SBF	Sospel	4.64	240	ePn	Pn	11 43 09.4	-0.6
SBF				eSn	Sn	11 44 01.2	-2.9
	comp=Z,27nm,0.4s						
UPC	Upice	4.64	24	ePN	Pn	11 43 10.8	+0.8
UPC	Upice	4.64	24	Pn	Pn	11 43 10.8	+0.8
MBDF	Montbardon	4.66	252	ePn	Pn	11 43 09.1	-1.1
MBDF				eSn	Sn	11 44 02.7	-1.8
	comp=Z,6.5nm,0.2s						
MBDF	Montbardon	4.66	252	ePn	Pn	11 43 09.1	-1.1
MBDF				eSn	Sn	11 44 02.7	-1.8
	comp=Z,3.2nm,0.2s						
TOUF	Mont Tournerai	4.67	243	P	Pn	11 43 11.2	+0.7
TOUF	Mont Tournerai	4.67	243	P	Pn	11 43 11.2	+0.7
LUCF	Luceram	4.68	241	P	Pn	11 43 11.8	+1.3
LUCF	Luceram	4.68	241	P	Pn	11 43 11.8	+1.3
PGF	Pioggiola	4.74	219	ePn	Pn	11 43 09.9	-1.4
PGF				eSn	Sn	11 44 03.2	-3.2
	comp=Z,6.1nm,0.3s						
PGF	Pioggiola	4.74	219	ePn	Pn	11 43 09.9	-1.4
PGF				eSn	Sn	11 44 03.2	-3.2
	comp=Z,3.0nm,0.3s						
CABF	La Chapelle	4.79	276	ePn	Pn	11 43 13.2	+1.2
CABF	La Chapelle	4.79	276	ePn	Pn	11 43 13.2	+1.2
MVIF	Mont Vial	4.80	242	P	Pn	11 43 13.0	+0.9
MVIF	Mont Vial	4.80	242	P	Pn	11 43 13.0	+0.9
STON	Ston	4.81	134	ePn	Pn	11 43 13.8	+1.4
STON				Sn	Sn	11 44 07.0	-1.3
STON	Ston	4.81	134	ePn	Pn	11 43 13.7	+1.4
STON				Sn	Sn	11 44 07.0	-1.3
HAU	Haudompre	4.84	293	ePn	Pn	11 43 13.1	+0.4
HAU				eSn	Sn	11 44 06.6	-2.4
	comp=Z,30nm,0.4s						
TNS	Taunus Mts	4.95	324	ePn	Pn	11 43 15.6	+1.4
TNS				eSn	Sn	11 44 11.1	-0.5
TNS	Taunus Mts	4.95	324	ePn	Pn	11 43 15.6	+1.4
TNS				eSn	Sn	11 44 11.1	-0.5
CLL	Collm	4.99	0	i Pn	Pn	11 43 15.5	+0.7
CLL				eSn	Sn	11 44 12.0	-0.7
CLL				eSg	Sg	11 44 38.0	-1.7
	comp=Z,33nm,0.6s						
CLL	Collm	4.99	0	i Pn	Pn	11 43 15.5	+0.7
CLL				eSn	Sn	11 44 12.0	-0.7
ABH	Alteburg	5.10	316	P	Pn	11 43 18.2	+1.9
ABH	Alteburg	5.10	316	P	Pn	11 43 18.2	+1.9
BBLS	Lazići	5.16	116	i Pn	Pn	11 43 18.5	+1.4
ORIF	Oris-en-Rattie	5.19	257	eP	Pn	11 43 19.9	+2.4
ORIF				eSn	Sn	11 44 13.8	-3.8
	comp=Z,8.3nm,0.3s						
ORIF	Oris-en-Rattie	5.19	257	eP	Pn	11 43 19.9	+2.4
ORIF				eSn	Sn	11 44 13.8	-3.8
	comp=Z,4.2nm,0.3s						
RUP	Ruppelstein	5.23	312	P	Pn	11 43 20.0	+2.0
RUP	Ruppelstein	5.23	312	P	Pn	11 43 20.0	+2.0
FRF	La Foret Royal	5.29	241	ePn	Pn	11 43 17.6	-1.3
FRF				eSn	Sn	11 44 16.9	-3.1
	comp=Z,8.6nm,0.3s						
FRF	La Foret Royal	5.29	241	ePn	Pn	11 43 17.6	-1.3
FRF				eSn	Sn	11 44 16.9	-3.1
	comp=Z,4.3nm,0.3s						
LMR	La Mourre	5.50	239	ePn	Pn	11 43 20.3	-1.5
LMR				eSn	Sn	11 44 20.1	-5.1
	comp=Z,11nm,0.3s						
LMR	La Mourre	5.50	239	ePn	Pn	11 43 20.3	-1.5
KECS	Kecovo	5.52	64	ePN	Pn	11 43 22.8	+0.7
KECS				eSN	Sn	11 44 24.0	-1.8
TRUS	Trudelj	5.63	109	i Pn	Pn	11 43 22.9	-0.7
SFTF	Sexfontaines	5.74	292	ePn	Pn	11 43 23.3	-1.7
	baz=114						
SFTF				eSn	Sn	11 44 27.1	-4.0
	comp=Z,12nm,0.4s						
SFTF	Sexfontaines	5.74	292	ePn	Pn	11 43 23.3	-1.7
	baz=114						
SMRF	Simiane la Rot	5.75	249	ePn	Pn	11 43 25.3	+0.1
SMRF				eSn	Sn	11 44 31.0	-0.4
	comp=Z,4.9nm,0.3s						
SMRF	Simiane la Rot	5.75	249	ePn	Pn	11 43 25.3	+0.1
SMRF				eSn	Sn	11 44 31.0	-0.4
	comp=Z,2.5nm,0.3s						
MEZF	Maizieres J'vi	5.82	295	ePn	Pn	11 43 24.7	-1.5
MEZF	Maizieres J'vi	5.82	295	ePn	Pn	11 43 24.7	-1.5
GRUS	Gruza	5.98	111	i Pn	Pn	11 43 29.0	+0.6
VIVF	Saint-Julien-l	6.03	259	ePn	Pn	11 43 28.9	-0.1
VIVF	Saint-Julien-l	6.03	259	ePn	Pn	11 43 28.9	-0.1
SMF	Signal de Mont	6.33	276	ePn	Pn	11 43 33.5	+0.3
SMF				eSn	Sn	11 44 41.3	-4.5
	comp=Z,3.4nm,0.2s						
SMF	Signal de Mont	6.33	276	ePn	Pn	11 43 33.5	+0.3
LOR	Lormes	6.35	282	ePn	Pn	11 43 33.4	0.0
	baz=101						
LOR				eSn	Sn	11 44 42.1	-4.0
	comp=Z,10.0nm,0.4s						
LOR	Lormes	6.35	282	ePn	Pn	11 43 33.4	0.0
	baz=101						
STHS	Stebnicka Huta	6.35	58	ePN	Pn	11 43 33.2	-0.3
STHS	Stebnicka Huta	6.35	58	ePn	Pn	11 43 33.2	-0.3
SSF	Saint Saulge	6.57	280	ePn	Pn	11 43 35.6	-0.9
GIVF	Givet	6.64	308	eP	Pn	11 43 40.2	+2.7
GIVF				eSn	Sn	11 44 48.8	-4.6
	comp=Z,6.9nm,0.3s						
GIVF	Givet	6.64	308	eP	Pn	11 43 40.2	+2.7
AVF	Avril sur Loir	6.67	278	ePn	Pn	11 43 37.7	-0.1
LASF	Ste Croix	6.84	254	ePn	Pn	11 43 39.8	-0.4
LASF				eSn	Sn	11 44 53.4	-4.8
	comp=Z,2.7nm,0.3s						
LASF	Ste Croix	6.84	254	ePn	Pn	11 43 39.8	-0.4
BAIF	Baives	6.96	306	eP	Pn	11 43 44.3	+2.4
BAIF	Baives	6.96	306	eP	Pn	11 43 44.3	+2.4
BGF	Bois d'Agland	7.02	276	ePn	Pn	11 43 42.6	-0.1
BGF				eSn	Sn	11 44 58.0	-4.7
	comp=Z,9.9nm,0.3s						
BARS	Barje	7.20	116	i Pn	Pn	11 43 46.5	+1.3
TCF	Toulx Ste Croi	7.47	274	ePn	Pn	11 43 47.1	-1.8
TCF				eSn	Sn	11 45 09.0	-4.8
	comp=Z,2.9nm,0.4s						
CAF	Calviac	7.79	264	ePn	Pn	11 43 51.6	-1.7
CAF	Calviac	7.79	264	ePn	Pn	11 43 51.6	-1.7

IDC 29 11:44:32.6±3.1**, 11°.46S**×**163°.31E, h0^{km}, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.6**/18**, mbtmp3.7**/4**, ML4.1**/1**, Error ellipse: s-maj=55.8km s-min=42.4km az=79.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	3.87	301	Pn	Pn	11 45 33.2	-0.2
	15nm,0.3s,baz=139,slow=9.3,SNR=4.3						
HNR				Sn	Sn	11 46 22.6	+2.9
	29nm,0.3s,baz=311,slow=19,SNR=4.7						
WRA	Warramunga Arr	29.10	250	P	P	11 50 35.3	0.0
	0.8nm,0.6s,baz=80,slow=9.2,SNR=12						
ASAR	Alice Springs	30.48	243	P	P	11 50 47.3	-0.1
	0.2nm,0.5s,baz=64,slow=10.0,SNR=5.5						
MKAR	Makanchi Array	92.19	317	P	P	11 57 44.4	+0.1
	0.1nm,0.5s,baz=90,slow=7.2,SNR=2.0						

GII ***29*** *12:17:48.2±0.0, 29°.73N×36°.45E, h1^{km}, Md2.2/3, Mining explosion.*
HLW ***29*** *12:17:49.9, 29°.84N×36°.62E, h15^{km}, Mb3.0*
CSEM ***29*** *12:17:52.0±0.5, 29°.92N×36°.20E, h2^{km}, ML3.6, Error ellipse: s-maj=12.7km s-min=5.4km az=112.0*
ISC 29 12:17:49.6±1.7**, 29°.78N**±0°.08×**36°.4E**±0°.1**, h0^{km}, n16,** σ**0^{s}.88**/20**, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HRFI	Mount Harif	1.20	283	Pg	Pg	12 18 11.8	-0.9
EIL	Elat	1.26	265	Pn	Pn	12 18 13.3	-1.1
EIL				Sn	Sn	12 18 31.8	-0.2
PRNI	Paran	1.33	296	Pn	Pn	12 18 13.8	-1.6
KRMI	Paran Flat	1.48	284	Pn	Pn	12 18 16.6	-0.9
HBST	Basata	1.55	249	P	Pn	12 18 19.1	+0.7
HBST	Basata	1.55	249	P	Pn	12 18 19.1	+0.7
MZDA	Masada	1.77	330	Pn	Pn	12 18 20.3	-1.1
YTIR	Yattir	1.92	325	Pn	Pn	12 18 23.9	+0.3
DSI	Dead Sea	1.99	334	Pn	Pn	12 18 24.9	+0.5
DSI				Sn	Sn	12 18 51.3	+1.3
KZIT	Kziot	2.06	304	Pn	Pn	12 18 25.2	-0.2
HNKL	Nakhl	2.10	275	P	Pn	12 18 26.5	+0.5
HNKL				S	Sn	12 18 53.5	+0.7
HNKL	Nakhl	2.10	275	P	Pn	12 18 26.5	+0.5
HNKL				S	Sn	12 18 53.5	+0.7
HKAT	Jabal Katrina	2.44	240	P	Pn	12 18 31.7	+1.0
HKAT	Jabal Katrina	2.44	240	P	Pn	12 18 31.7	+1.0
SUZ		3.09	272	P	Pn	12 18 40.6	+0.9
SUZ		3.09	272	P	Pn	12 18 40.6	+0.9

NEIC ***29*** *12:42:36.6±1.3, 3°.64S×143°.99E, h35^{km}, Error ellipse: s-maj=41.2km s-min=12.9km az=93.0*
IDC 29 12:42:31.0±1.3**, 3°.60S**×**144°.10E, h0^{km}, mb3.8**/9**, mb1 3.9**/10**, mb1mx3.9**/16**, mbtmp3.8**/10**, ML3.7**/1**, MS3.3**/1**, Ms1 3.2**/1**, ms1mx2.4**/25**, Error ellipse: s-maj=46.5km s-min=18.2km az=95.0, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.83	210	P	Pn	12 46 53.6	+0.7
	0.2nm,0.3s,baz=30,slow=11,SNR=16						
ASAR	Alice Springs	22.25	205	P	P	12 47 30.1	+0.5
	0.7nm,0.5s,baz=36,slow=8.6,SNR=17						
ASAR				PcP	PcP	12 51 26.4	+0.2
	0.5nm,0.7s,baz=40,slow=3.0,SNR=5.0						
FITZ	Fitzroy Crossi	23.12	230	P	P	12 47 38.1	-0.8
	2.1nm,0.5s,baz=48,slow=8.2,SNR=10.0						
STKA	Stephens Creek	28.23	185	P	P	12 48 25.6	-0.1
	1.8nm,0.8s,baz=126,slow=17,SNR=3.4						
STKA				LR	LR	13 01 13.1	
	comp=Z,57nm,20.4s,baz=192,slow=40						
KSRS	Korea Array	43.52	341	P	P	12 50 36.8	+0.3
	1.2nm,0.6s,baz=157,slow=8.3,SNR=4.7						
CMAR	Chiang Mai Arr	49.58	298	P	P	12 51 23.9	-0.4
	1.0nm,0.8s,baz=115,slow=7.4,SNR=4.4						
SONM	Songino Array	60.92	332	P	P	12 52 47.8	+2.2
	0.7nm,0.7s,baz=153,slow=4.4,SNR=3.5						
MK31	Makanchi Array	73.82	321	eP	P	12 54 07.8	+0.3
MKAR	Makanchi Array	73.82	321	P	P	12 54 07.7	+0.3
	0.7nm,0.6s,baz=99,slow=7.7,SNR=9.8						
ZALV	Zalesovo Beam	75.46	328	P	P	12 54 15.4	-1.4
	0.6nm,0.5s,baz=111,slow=8.1,SNR=4.3						
YKA	Yellowknife Ar	98.39	27	P	P	12 56 09.6	-1.1
	0.1nm,0.8s,baz=280,slow=4.5,SNR=3.9						
YKA	Yellowknife Ar	98.39	27	P	P	12 56 09.6	-1.1
DBIC	Dimbokro	148.94	277	PKPbc	PKPbc	13 02 21.1	-1.0
	1.4nm,0.6s,baz=93,slow=5.8,SNR=3.8						

CNRM ***29*** *12:45:25.9, 37°.07N×10°.12W, h30^{km}, MD3.6*
ISCJB ***29*** *12:45:26.8±0.7, 37°.41N±0°.03×9°.54W±0°.04, h10^{km}, Error ellipse: s-maj=6.0km s-min=3.3km az=142.4*
CSEM ***29*** *12:45:26.9±0.3, 37°.24N×9°.81W, h30^{km}, ML3.9/7, Error ellipse: s-maj=7.2km s-min=4.2km az=71.0*
MDD ***29*** *12:45:27.5±0.8, 37°.24N×9°.88W, h37^{km}±14^{km}, mbLg3.0/37, Error ellipse: s-maj=8.9km s-min=5.0km az=66.0, PRIMO*
NEIC ***29*** *12:45:27.9, 37°.47N×9°.62W, h0^{km}, MN2.8(MDD), After MDD.*
SFS ***29*** *12:45:27.0, 37°.47N×9°.62W, h0^{km}, ML2.8*
INMG ***29*** *12:45:29.2±1.2, 37°.33N×9°.71W, h17^{km}±3^{km}, MD2.7, ML2.7, Error ellipse: s-maj=5.1km s-min=2.4km az=52.0*
ISC 29 12:45:28.6±0.7**, 37°.44N**±0°.03×**9°.51W**±0°.04**, h10^{km}, n118,** σ**1^{s}.06**/222**, 2C-2D, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	Vila Bisbo	0.62	119	i P	Pg	12 45 42.2	+1.5
PFVI				eS	Sg	12 45 52.1	+3.2
PFVI				A		12 45 54.8	
	117nm,0.1s						
PFVI	Vila Bisbo	0.62	119	⇓P	Pg	12 45 42.2	+1.5
PFVI				S	Sg	12 45 52.1	+3.2
	58nm,0.1s						
PTEO	Sao Teotonio	0.64	80	eP	Pg	12 45 44.0	+3.1
PTEO				eS	Sg	12 45 55.1	+5.9
PTEO				A		12 46 00.2	
	131nm,0.2s						
PTEO	Sao Teotonio	0.64	80	P	Pg	12 45 44.0	+3.1
PTEO				S	Sg	12 45 55.1	+5.9
	66nm,0.2s						
PTEO	Sao Teotonio	0.64	80	eP	Pg	12 45 44.0	+3.1
PTEO				eS	Sg	12 45 55.1	+5.9
	131nm,0.2s						
MORF	Marmelete	0.70	100	i P	Pg	12 45 44.1	+2.0
MORF				A		12 46 04.3	
	215nm,0.2s						
PBDV	Barranco-do-Ve	1.27	98	eP	Pn	12 45 52.5	+0.1
PBDV				eS	Sb	12 46 09.6	+0.5
PBDV				A		12 46 17.6	
	68nm,0.2s						
PBDV	Barranco-do-Ve	1.27	98	P	Pn	12 45 52.5	+0.1
PBDV				S	Sb	12 46 09.6	+0.5
	68nm,0.2s						
PBDV	Barranco-do-Ve	1.27	98	eP	Pn	12 45 52.5	+0.1
PBDV				eS	Sb	12 46 09.6	+0.5
	68nm,0.2s						
MOE	Montemor	1.42	40	eP	Pn	12 45 55.3	+0.8
MOE				eS	Sn	12 46 15.1	+1.9
MOE	Montemor	1.42	40	eP	Pn	12 45 55.3	+0.8
MOE				eS	Sn	12 46 15.1	+1.9
PVAQ	Vaqueiros	1.43	91	eP	Pn	12 45 54.9	+0.3
PVAQ				eS	Sn	12 46 13.7	+0.3
PVAQ				A		12 46 24.0	
	74nm,0.1s						
PVAQ	Vaqueiros	1.43	91	P	Pn	12 45 54.9	+0.3
PVAQ				S	Sn	12 46 13.7	+0.3
	74nm,0.1s						
PVAQ	Vaqueiros	1.43	91	eP	Pn	12 45 54.9	+0.3
PVAQ				eS	Sn	12 46 13.7	+0.3
	74nm,0.1s						
PMAFR	Mafra	1.53	7	eP	Pn	12 45 55.5	-0.5
PMAFR				eS	Sn	12 46 15.9	0.0
PMAFR				A		12 46 17.3	
	110nm,0.2s						
PMAFR	Mafra	1.53	7	P	Pn	12 45 55.5	-0.5
PMAFR				S	Sn	12 46 15.9	0.0
	55nm,0.2s						
PMAFR	Mafra	1.53	7	eP	Pn	12 45 55.5	-0.5
PMAFR				eS	Sn	12 46 15.9	0.0
	110nm,0.2s						
EVO	Evora	1.61	47	eSn	Sn	12 46 20.1	+2.2
EVO				A		12 46 22.8	
	61nm,0.1s						
EVO	Evora	1.61	47	S	Sn	12 46 20.1	+2.2
	61nm,0.1s						
EVO	Evora	1.61	47	eSn	Sn	12 46 20.1	+2.2
	61nm,0.1s						
EGRO	El Granado	1.62	86	⇓P	Pn	12 45 57.2	0.0
	1.4nm,0.1s,SNR=18						
EGRO				S	Sn	12 46 17.8	-0.2
	39nm,0.1s,SNR=23						
EGRO	El Granado	1.62	86	P	Pn	12 45 57.2	0.0
PESTR	Estremoz	2.08	46	ePn	Pn	12 46 04.3	+0.7
PESTR				eSn	Sn	12 46 31.4	+1.9
PESTR				A		12 46 48.3	
	21nm,0.4s						
PESTR	Estremoz	2.08	46	P	Pn	12 46 04.3	+0.7
PESTR				S	Sn	12 46 31.4	+1.9
	21nm,0.4s						
PESTR	Estremoz	2.08	46	ePn	Pn	12 46 04.3	+0.7
PESTR				eSn	Sn	12 46 31.4	+1.9
	21nm,0.4s						
PBAR	Barrancos	2.09	69	ePn	Pn	12 46 04.2	+0.5
PBAR				eSn	Sn	12 46 30.1	+0.3
PBAR				A		12 46 48.8	
	27nm,0.1s						
PBAR	Barrancos	2.09	69	P	Pn	12 46 04.2	+0.5
PBAR				S	Sn	12 46 30.1	+0.3
	27nm,0.1s						
PBAR	Barrancos	2.09	69	ePn	Pn	12 46 04.2	+0.5
PBAR				eSn	Sn	12 46 30.1	+0.3
	27nm,0.1s						
EMIN	Mina Concepcio	2.28	81	P	Pn	12 46 06.5	+0.2
	2.5nm,0.0s,SNR=64						
EMIN				S	Sn	12 46 35.3	+0.9
	29nm,0.1s,SNR=25						
EMIN	Mina Concepcio	2.28	81	P	Pn	12 46 06.5	+0.2
EMIN				S	Sn	12 46 35.3	+0.9
PTOM	Tomar	2.34	21	ePn	Pn	12 46 07.5	+0.3
PTOM				eSn	Sn	12 46 35.7	-0.3
PTOM				A		12 46 39.8	
	36nm,0.1s						
PTOM	Tomar	2.34	21	P	Pn	12 46 07.5	+0.3
PTOM				S	Sn	12 46 35.7	-0.3
	18nm,0.1s						
PTOM	Tomar	2.34	21	ePn	Pn	12 46 07.5	+0.3
PTOM				eSn	Sn	12 46 35.7	-0.3
	36nm,0.1s						
EBAD	Badajoz	2.37	55	P	Pn	12 46 07.6	+0.1
	1.7nm,0.1s,SNR=13						
EBAD				S	Sn	12 46 37.3	+0.7
	10nm,0.1s,SNR=11						
PMRV	Marv??o	2.59	39	ePn	Pn	12 46 10.9	+0.3
PMRV				eSn	Sn	12 46 42.3	+0.1
PMRV				A		12 46 45.0	
	33nm,0.2s						
PMRV	Marv??o	2.59	39	P	Pn	12 46 10.9	+0.3
PMRV				S	Sn	12 46 42.3	+0.1
	16nm,0.2s						
PMRV	Marv??o	2.59	39	ePn	Pn	12 46 10.9	+0.3
PMRV				eSn	Sn	12 46 42.3	+0.1
	33nm,0.2s						
PCBR	Castelo Branco	2.88	33	ePn	Pn	12 46 15.1	+0.5
PCBR				eSn	Sn	12 46 49.8	+0.5
PCBR				A		12 46 52.5	
	10nm,0.2s						
PCBR	Castelo Branco	2.88	33	P	Pn	12 46 15.1	+0.5
PCBR				S	Sn	12 46 49.8	+0.5
	5.2nm,0.2s						
PCBR	Castelo Branco	2.88	33	ePn	Pn	12 46 15.1	+0.5
PCBR				eSn	Sn	12 46 49.8	+0.5
	10nm,0.2s						
ESPR	Espera	2.97	100	⇑P	Pn	12 46 15.9	+0.1
	3.9nm,0.1s,SNR=18						
ESPR				S	Sn	12 46 51.5	0.0
	21nm,0.2s						
ESPR	Espera	2.97	100	P	Pn	12 46 15.9	+0.1
ESPR				S	Sn	12 46 51.5	-0.1
ECAB	El Cabril	3.31	78	⇑P	Pn	12 46 21.0	+0.6
	1.9nm,0.0s,SNR=18						
ECAB				S	Sn	12 46 59.9	+0.2
	35nm,0.1s,SNR=25						
ECAB	El Cabril	3.31	78	P	Pn	12 46 21.0	+0.6
ECAB				S	Sn	12 47 00.0	+0.3
LIJA	Lijar	3.32	98	P	Pn	12 46 20.8	+0.1
LIJA				S	Sn	12 47 01.8	+1.6
LIJA	Lijar	3.32	98	eP	Pn	12 46 20.8	+0.2
LIJA				eS	Sn	12 47 01.8	+1.6
EJIF	Jimena Fronter	3.38	106	P	Pn	12 46 21.7	+0.3
	2.1nm,0.1s,SNR=7.9						
EJIF				S	Sn	12 47 01.1	-0.6
	1.8nm,0.2s,SNR=7.9						
EJIF	Jimena Fronter	3.38	106	P	Pn	12 46 21.7	+0.2
EJIF				S	Sn	12 47 01.1	-0.6
PVIS	Viseu	3.51	21	ePn	Pn	12 46 23.0	-0.2
PVIS				eSn	Sn	12 47 04.1	-0.6
PVIS				A		12 47 06.5	
	16nm,0.1s						
PVIS	Viseu	3.51	21	P	Pn	12 46 23.0	-0.2
PVIS				S	Sn	12 47 04.1	-0.6
	7.8nm,0.1s						
PVIS	Viseu	3.51	21	ePn	Pn	12 46 23.0	-0.2
PVIS				eSn	Sn	12 47 04.1	-0.6
	16nm,0.1s						
ECEU	Ceuta	3.66	114	P	Pn	12 46 24.9	-0.4
	5.1nm,0.1s,SNR=7.8						
ECEU				S	Sn	12 47 07.1	-1.4
	0.5nm,0.0s,SNR=7.9						
EMIJ	Mijas	3.89	101	P	Pn	12 46 28.8	+0.4
	1.2nm,0.1s,SNR=7.9						
EMIJ				S	Sn	12 47 12.6	-1.6
	2.9nm,0.2s,SNR=7.9						
EMIJ	Mijas	3.89	101	P	Pn	12 46 28.8	+0.4
EMIJ				S	Sn	12 47 12.6	-1.6
EADA	Adamuz	3.98	78	P	Pn	12 46 30.0	+0.5
	2.0nm,0.1s,SNR=19						
EADA				S	Sn	12 47 15.4	-0.8
	3.4nm,0.1s						
EADA	Adamuz	3.98	78	P	Pn	12 46 30.0	+0.4
EADA				S	Sn	12 47 15.4	-0.8
ELUQ	Luque	4.17	87	S	Sn	12 47 20.6	-0.5
	11nm,0.3s,SNR=7.9						
MVO	Moncorvo	4.19	27	ePn	Pn	12 46 32.7	+0.1
MVO				eSn	Sn	12 47 19.9	-1.7
MVO				A		12 47 23.5	
	20nm,0.2s						
MVO	Moncorvo	4.19	27	P	Pn	12 46 32.7	+0.1
MVO				S	Sn	12 47 19.9	-1.7
	10nm,0.2s						
MVO	Moncorvo	4.19	27	ePn	Pn	12 46 32.7	+0.1
MVO				eSn	Sn	12 47 19.9	-1.7
	20nm,0.2s						
ELOJ	Sierra Loja	4.28	92	S	Sn	12 47 23.2	-0.6
	4.6nm,0.1s,SNR=4.7						
PCAB	Cabril	4.42	15	ePn	Pn	12 46 35.7	0.0
PCAB				eSn	Sn	12 47 24.6	-2.6
PCAB				A		12 47 28.8	
	13nm,0.1s						
PCAB	Cabril	4.42	15	P	Pn	12 46 35.7	0.0
PCAB				S	Sn	12 47 24.6	-2.6
	6.6nm,0.1s						
PCAB	Cabril	4.42	15	ePn	Pn	12 46 35.7	0.0
PCAB				eSn	Sn	12 47 24.6	-2.6
	13nm,0.1s						
ELOB	Lobios	4.56	14	P	Pn	12 46 37.5	-0.2

	SNR=7.9						
ELOB				S	Sn	12 47 27.2	-3.6
	2.8nm,0.1s,SNR=7.9						
EBAN	**Banos Encina**	4.59	79	P	Pn	12 46 38.5	+0.4
	1.8nm,0.2s,SNR=7.9						
EBAN				S	Sn	12 47 30.0	-1.4
	6.8nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	4.59	79	P	Pn	12 46 38.5	+0.4
EBAN				S	Sn	12 47 30.0	-1.5
EZAM	**Zamans**	4.75	7	P	Pn	12 46 39.6	-0.6
	2.7nm,0.1s,SNR=7.9						
EZAM				S	Sn	12 47 31.6	-3.8
	4.6nm,0.2s,SNR=7.9						
EZAM	**Zamans**	4.75	7	P	Pn	12 46 39.6	-0.6
EZAM				S	Sn	12 47 31.6	-3.7
EGUA	**Guajares**	4.79	95	P	Pn	12 46 41.9	+1.1
	5.0nm,0.2s,SNR=7.9						
EGUA				S	Sn	12 47 37.3	+1.0
	0.5nm,0.3s,SNR=7.9						
EGUA	**Guajares**	4.79	95	P	Pn	12 46 42.3	+1.6
EGUA				S	Sn	12 47 37.3	+1.0
EGUA	**Guajares**	4.79	95	P	Pn	12 46 42.3	+1.5
EGUA				S	Sn	12 47 37.3	+1.0
EQUE	**Quentar**	4.84	91	P	Pn	12 46 42.5	+1.0
	0.1nm,0.0s,SNR=4.6						
EQUE				S	Sn	12 47 36.5	-1.2
	0.8nm,0.1s,SNR=7.9						
PBRG	**Braganca**	4.86	25	*e*Pn	Pn	12 46 42.2	+0.5
PBRG				*e*Sn	Sn	12 47 35.5	-2.5
PBRG	**Braganca**	4.86	25	*e*Pn	Pn	12 46 42.2	+0.5
PBRG				*e*Sn	Sn	12 47 35.5	-2.5
ESDC	**Sonseca Array**	4.89	61	P	Pn	12 46 42.1	0.0
	2.1nm,0.1s,baz=247,slow=13,SNR=4.8						
ESDC				S	Sn	12 47 35.3	-3.4
	3.4nm,0.3s,baz=246,slow=18,SNR=15						
ESDC	**Sonseca Array**	4.89	61	P	Pn	12 46 42.1	0.0
ESDC				S	Sn	12 47 38.7	-0.1
ESDC	**Sonseca Array**	4.89	61	P	Pn	12 46 42.1	-0.1
ESDC				S	Sn	12 47 38.7	-0.1
ECAL	**Calabor**	4.98	25	P	Pn	12 46 43.7	+0.3
	1.5nm,0.1s,SNR=7.1						
ECAL				S	Sn	12 47 38.9	-2.2
	9.4nm,0.2s,SNR=8.3						
ECAL	**Calabor**	4.98	25	P	Pn	12 46 43.7	+0.3
ECAL				S	Sn	12 47 39.2	-1.8
ECAL	**Calabor**	4.98	25	P	Pn	12 46 43.7	+0.3
ECAL				S	Sn	12 47 39.2	-1.9
EQES	**Quesada**	5.13	84	P	Pn	12 46 45.7	+0.3
	0.7nm,0.1s,SNR=7.9						
EQES				S	Sn	12 47 43.1	-1.5
	0.6nm,0.1s,SNR=6.2						
EQES	**Quesada**	5.13	84	P	Pn	12 46 45.8	+0.4
EQES				S	Sn	12 47 43.1	-1.5
EQES	**Quesada**	5.13	84	P	Pn	12 46 45.8	+0.4
EQES				S	Sn	12 47 43.2	-1.4
GUD	**Guadarrama**	5.26	51	P	Pn	12 46 47.8	+0.6
	0.0nm,0.1s,SNR=7.9						
GUD				S	Sn	12 47 47.1	-0.8
	2.9nm,0.3s,SNR=7.9						
GUD	**Guadarrama**	5.26	51	P	Pn	12 46 47.3	+0.1
GUD				S	Sn	12 47 47.1	-0.8
GUD	**Guadarrama**	5.26	51	P	Pn	12 46 47.3	+0.1
GUD				S	Sn	12 47 47.1	-0.8
EBER	**Berja**	5.32	94	P	Pn	12 46 49.5	+1.5
	0.1nm,0.1s,SNR=6.9						
EBER				S	Sn	12 47 47.9	-1.4
	0.1nm,0.1s						
EBER	**Berja**	5.32	94	P	Pn	12 46 49.5	+1.5
EBER				S	Sn	12 47 47.9	-1.4
MIF	**Mishlifen**	5.33	138	P	Pn	12 46 45.0	-3.2
MIF				S	Sn	12 47 42.0	-7.5
MIF	**Mishlifen**	5.33	138	*i* P	Pn	12 46 45.0	-3.2
MIF				*i* S	Sn	12 47 42.0	-7.5
EHUE	**Huescar**	5.50	84	P	Pn	12 46 50.9	+0.3
	0.3nm,0.1s,SNR=7.9						
EHUE				S	Sn	12 47 49.1	-4.8
	1.4nm,0.1s,SNR=7.9						
EHUE	**Huescar**	5.50	84	P	Pn	12 46 50.9	+0.3
EMAZ	**Mazaricos**	5.52	4	P	Pn	12 46 49.3	-1.5
	2.5nm,0.2s,SNR=12						
EMAZ				S	Sn	12 47 47.7	-6.7
	6.8nm,0.2s,SNR=7.4						
EMAZ	**Mazaricos**	5.52	4	P	Pn	12 46 49.3	-1.5
KIB	**El Ksiba**	5.62	149	P	Pn	12 46 47.0	-5.3
KIB				S	Sn	12 47 46.0	-11
KIB	**El Ksiba**	5.62	149	*i* P	Pn	12 46 47.0	-5.3
KIB				*i* S	Sn	12 47 46.0	-11
EVIA	**Vianos**	5.66	76	P	Pn	12 46 52.4	-0.4
	0.1nm,0.1s,SNR=7.9						
EVIA				S	Sn	12 47 56.0	-1.8
	2.6nm,0.1s,SNR=7.6						
EVIA	**Vianos**	5.66	76	P	Pn	12 46 52.4	-0.4
EVIA				S	Sn	12 47 56.0	-1.8
CZD	**Col de Zad**	5.71	139	P	Pn	12 46 49.0	-4.5
CZD				S	Sn	12 47 51.0	-8.1
CZD	**Col de Zad**	5.71	139	*i* P	Pn	12 46 49.0	-4.5
CZD				*i* S	Sn	12 47 51.0	-8.1
CIA	**Chichaoua**	5.89	174	P	Pn	12 46 46.0	-10
CIA				S	Sn	12 47 46.0	-17
CIA	**Chichaoua**	5.89	174	*e*P	Pn	12 46 46.0	-10
CIA				*i* S	Sn	12 47 46.0	-17
EPON	**Pontenova**	6.15	16	P	Pn	12 46 59.7	+0.2
	0.0nm,0.0s,SNR=6.0						
EPON				S	Sn	12 48 06.4	-3.6
	1.3nm,0.2s,SNR=6.2						
EPON	**Pontenova**	6.15	16	P	Pn	12 46 59.7	+0.2
OUK	**Oukaimeden**	6.36	167	P	Pn	12 46 55.0	-7.4
OUK				S	Sn	12 48 00.0	-15
OUK	**Oukaimeden**	6.36	167	*i* P	Pn	12 46 55.0	-7.4
OUK				*i* S	Sn	12 48 00.0	-15
ETOB	**Tobarra**	6.40	77	P	Pn	12 47 03.7	+0.8
	0.2nm,0.1s,SNR=7.9						
ETOB				S	Sn	12 48 14.3	-1.7
	1.2nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	6.40	77	P	Pn	12 47 03.7	+0.8
ETOB				S	Sn	12 48 14.3	-1.7
ETOR	**Torete**	6.71	57	P	Pn	12 47 07.5	+0.3
	6.4nm,0.2s,SNR=7.9						
ETOR				S	Sn	12 48 20.4	-3.2
	5.0nm,0.3s,SNR=7.9						
ETOR	**Torete**	6.71	57	P	Pn	12 47 07.5	+0.4
EARI	**Arriondas**	6.71	28	P	Pn	12 47 06.9	-0.4
	0.1nm,0.3s,SNR=7.9						
EARI				S	Sn	12 48 17.1	-6.7
	1.1nm,0.1s,SNR=7.9						
EARI	**Arriondas**	6.71	28	P	Pn	12 47 06.9	-0.3
ZFT	**Errachidia**	6.86	140	P	Pn	12 47 04.0	-5.2
ZFT				S	Sn	12 48 19.0	-8.4
ZFT	**Errachidia**	6.86	140	*i* P	Pn	12 47 04.0	-5.2
ZFT				*i* S	Sn	12 48 19.0	-8.4
ELAN	**Lanestosa**	7.42	37	P	Pn	12 47 17.3	+0.4
	0.1nm,0.1s,SNR=4.0						
ELAN				S	Sn	12 48 37.3	-3.8
	1.3nm,0.2s,SNR=5.9						
ELAN	**Lanestosa**	7.42	37	P	Pn	12 47 17.3	+0.4
EMOS	**Mosqueruela**	7.63	65	S	Sn	12 48 41.0	-5.2
	SNR=7.9						

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*ISCJB **29** 13:05:35.9±0.4, 50°.42N±0°.02×16°.38E±0°.03, h0^{km}, Error ellipse: s-maj=3.2km s-min=2.2km az=33.4*
*CSEM **29** 13:05:36.9±0.2, 50°.45N×16°.39E, h2^{km}, ML3.3/9, Error ellipse: s-maj=3.2km s-min=2.5km az=24.0, Suspected Mining induced.*
*IPEC **29** 13:05:37.4±0.1, 50°.46N×16°.39E, h8^{km}, ML2.1/4, Error ellipse: s-maj=0.7km s-min=0.5km az=23.0*
*VIE **29** 13:05:37.1±0.7, 50°.38N×16°.34E, h0^{km}, mb1.9/3, ML2.8/4, Error ellipse: s-maj=4.5km s-min=2.3km az=155.0 91 km SSW of Wroclaw Suspected Mining induced.*
*PRU **29** 13:05:37.7, 50°.46N×16°.41E, h0^{km}, Tectonic Event In Sudetes*
ISC 29 13:05:36.9±0.4**, 50°.45N**±0°.02×**16°.40E**±0°.03**, h0^{km}, n42, σ0^{s}.90**/72**, 4C-2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPC	**Dobruska-Polom**	0.12	205	*e*PG	Pg	13 05 40.7	+1.6
DPC				*e*SG	Sg	13 05 42.6	+2.1
	comp=Z,248nm,0.3s						
DPC	**Dobruska-Polom**	0.12	205	*e*Pg	Pg	13 05 40.6	+1.5
DPC				*e*Sg	Sg	13 05 42.5	+2.0
UPC	**Upice**	0.25	282	*e*PG	Pg	13 05 42.5	+0.8
UPC				*e*SG	Sg	13 05 45.2	+0.2
	comp=Z,68nm,0.3s						
UPC	**Upice**	0.25	282	*e*Pg	Pg	13 05 42.4	+0.7
UPC				*e*Sg	Sg	13 05 45.3	+0.3
KSP	**Ksiaz**	0.40	350	*i* Pgd		13 05 45.1	
KSP				*e*Sg	Sg	13 05 50.2	+0.6
KSP	**Ksiaz**	0.40	350	*e*Pg	Pg	13 05 44.9	+0.4
KSP				*e*Sg	Sg	13 05 49.8	+0.2
MORC	**Moravsky Berou**	1.00	132	*e*Pg	Pg	13 05 56.3	+0.2
MORC				*e*Sg	Sg	13 06 09.1	+0.1
	comp=Z,48nm,0.2s						
VRAC	**Vranov**	1.15	174	*e*Pg	Pg	13 05 59.2	+0.2
VRAC				*e*Sg	Sg	13 06 13.4	-0.5
	comp=Z,22nm,0.1s						
PVCC	**Panska Ves**	1.17	274	*e*PG	Pg	13 05 59.8	+0.5
PVCC				*e*SG	Sg	13 06 14.8	+0.3
	comp=Z,53nm,0.2s						
PVCC	**Panska Ves**	1.17	274	*e*Pg	Pg	13 05 59.2	-0.1
PVCC				Sg	Sg	13 06 14.8	+0.3
	comp=Z,53nm,0.2s						
PRU	**Pruhonice**	1.28	249	*e*PG	Pg	13 06 01.7	+0.3
PRU				*e*SG	Sg	13 06 18.4	+0.4
	comp=Z,32nm,0.2s						
PRU	**Pruhonice**	1.28	249	Pg	Pg	13 06 01.7	+0.3
PRU				Sg	Sg	13 06 18.4	+0.4
	comp=Z,32nm,0.2s						
OKC	**Ostrava-Krasne**	1.28	118	*e*PG	Pg	13 06 01.5	0.0
OKC				*e*SG	Sg	13 06 18.4	+0.3
	comp=Z,34nm,0.3s						
OKC	**Ostrava-Krasne**	1.28	118	Pg	Pg	13 06 01.5	0.0
OKC				*e*Sg	Sg	13 06 18.0	-0.1
TREC	**Trest**	1.30	207	*e*PG	Pg	13 06 02.0	+0.2
TREC	**Trest**	1.30	207	*e*Pg	Pg	13 06 01.6	-0.2
TREC				*e*Sg	Sg	13 06 18.2	-0.5
KRUC	**Moravsky**	1.39	180	*e*Pg	Pg	13 06 03.1	-0.5
KRUC				*e*Sg	Sg	13 06 21.2	-0.4
	comp=Z,19nm,0.2s						
BRG	**Berggiesshubel**	1.62	286	PG	Pg	13 06 06.9	-1.0
BRG				SG	Sg	13 06 27.8	-1.0
	comp=Z,23nm,0.3s						
BRG	**Berggiesshubel**	1.62	286	*e*Pn	Pn	13 06 06.4	-0.2
BRG				*e*Sg	Sg	13 06 27.9	-0.9
JAVC	**Velka Javorina**	1.80	152	*e*Pn	Pn	13 06 11.0	+1.9
JAVC				*e*Sg	Sg	13 06 36.0	+1.4
	comp=Z,7.5nm,0.3s						
MODS	**Modra-Piesok**	2.16	164	*e*	Pn	13 06 22.3	+8.2
MODS	**Modra-Piesok**	2.16	164	*e*SG	Sg	13 06 49.1	+2.8
MODS	**Modra-Piesok**	2.16	164	*e*Sg	Sg	13 06 49.1	+2.8
OJC	**Ojcow**	2.19	95	*e*Pg	Pg	13 06 18.9	0.0
OJC				*e*Sg	Sg	13 06 48.0	+0.7
OJC	**Ojcow**	2.19	95	*e*Pn	Pn	13 06 14.3	-0.2
OJC	**Ojcow**	2.19	95	*e*Pg	Pg	13 06 18.9	0.0
OJC				*e*Sg	Sg	13 06 46.4	-0.9
KHC	**Kasperske Hory**	2.26	235	*e*PN	Pn	13 06 15.7	+0.3
KHC				*e*PG	Pg	13 06 18.8	-1.3
KHC				*e*SN	Sn	13 06 45.3	+1.4
KHC	**Kasperske Hory**	2.26	235	*e*Pn	Pn	13 06 14.8	-0.6
KHC	**Kasperske Hory**	2.26	235	Pg	Pg	13 06 18.8	-1.3
KHC				*e*Sg	Sg	13 06 47.6	-1.7
KOLL	**Kolacno**	2.29	144	*e*SG	Sg	13 06 49.9	-0.4
KOLL	**Kolacno**	2.29	144	*e*Sg	Sg	13 06 49.9	-0.4
VYHS	**Vyhne**	2.53	140	*e*SG	Sg	13 06 56.5	-1.5
VYHS	**Vyhne**	2.53	140	*e*Sg	Sg	13 06 56.5	-1.5
NKC	**Novy Kostel**	2.54	267	*e*Sg	Sg	13 06 56.8	-1.6
CONA	**Conrad Observa**	2.55	188	⇑ *i*Pn	Pn	13 06 19.0	-0.5
CONA				⇓ *i*Sg	Sg	13 06 58.5	-0.4
	comp=Z,16nm,0.5s						
CONA	**Conrad Observa**	2.55	188	Pn	Pn	13 06 19.0	-0.5
CONA				Sg	Sg	13 06 58.5	-0.3
	comp=Z,16nm,0.5s						
CSNA	**Conrad Observa**	2.55	188	⇑ *i*Pn	Pn	13 06 19.3	-0.2
CSNA				⇓ *i*Sg	Sg	13 06 58.4	-0.5
	comp=Z,16nm,0.4s						
CSNA	**Conrad Observa**	2.55	188	Pn	Pn	13 06 19.3	-0.2
CSNA				Sg	Sg	13 06 58.4	-0.5
	comp=Z,16nm,0.4s						
MOA	**Molln**	2.96	209	⇑ *i*Pn	Pn	13 06 23.9	-1.1
MOA				⇑ *i*Sg	Sg	13 07 12.2	+0.3
	comp=Z,10.0nm,0.3s						
MOA	**Molln**	2.96	209	Pn	Pn	13 06 23.9	-1.2
MOA				Sg	Sg	13 07 12.2	+0.3
	comp=Z,10.0nm,0.3s						
MOX				*e*SG	Sg	13 07 15.5	+0.5
MOX	**Moxa**	3.06	275	*e*PG	Pg	13 06 36.2	+0.8
STHS	**Stebnicka Huta**	3.30	106	*e*SG	Sg	13 07 21.8	-1.0

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*NEIC **29** 13:43:04.5, 25°.53S×70°.00W, h45^{km}, MD4.2(GUC), After GUC.*
GUC 29 13:43:04.5±0.6**, 25°.53S×70°.00W, h45^{km}**±3^{km}**, MD4.2, ML3.2, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	**Cerro Paranal**	0.97	338	*e*P	Pn	13 43 23.0	+1.2
CPN1				*i* S	Sn	13 43 37.0	+2.6
CPN1				AML	AML	13 43 38.0	
	comp=E,2μm,0.2s						
CPCH	**Copiapo**	1.85	190	*e*P	Pn	13 43 34.9	+1.1
CPCH				*i* S	Sn	13 43 58.0	+2.1
CPCH	**Copiapo**	1.85	190	*e*P	Pn	13 43 34.9	+1.1
CPCH				*i* S	Sn	13 43 58.0	+2.1
ANCH	**Antofagasta**	1.88	348	*e*P	Pn	13 43 35.2	+1.0
ANCH				*i* S	Sn	13 43 58.8	+2.2
ANCH	**Antofagasta**	1.88	348	*e*P	Pn	13 43 35.2	+1.0
ANCH				*i* S	Sn	13 43 58.8	+2.2
CEN1	**Los Morros**	2.14	355	*e*P	Pn	13 43 36.8	-0.9
CEN1				*i* S	Sn	13 44 00.5	-2.6
CEN1				AML	AML	13 44 16.0	
	comp=N,159nm,0.7s						
LVC	**Limon Verde**	3.07	19	*e*Pn	Pn	13 43 58.2	+7.8
LVC				*e*Sn	Sn	13 44 40.1	+14
LCO	**Las Campanas**	3.52	190	*e*Pn	Pn	13 43 54.1	-2.7
LCO				*e*Sn	Sn	13 44 39.2	+2.0

GUC 29 14:53:51.2±0.9**, 22°.99S×70°.18W, h38^{km}**±10^{km}**, MD3.8, ML2.1, 2C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEN1	**Los Morros**	0.40	182	⇑ *i*P	Pn	14 54 03.5	+2.9
CEN1				*i* S	Sn	14 54 11.9	+4.8
CEN1				AML	AML	14 54 12.6	
	comp=N,175nm,0.2s						
PECH	**Pedro de Valdi**	0.61	51	*e*P	Pn	14 54 03.7	+0.3
PECH				*i* S	Sn	14 54 13.1	+1.0
PECH				AML	AML	14 54 13.9	
	comp=E,208nm,0.2s						
ANCH	**Antofagasta**	0.72	197	*e*P	Pn	14 54 04.7	-0.2
ANCH				*i* S	Sn	14 54 14.9	+0.1
PB04	**Plate Boundary**	0.96	42	⇑ *i*P	Pn	14 54 04.3	-4.0
PB04				*i* S	Sn	14 54 13.8	-7.0
LVC	**Limon Verde**	1.23	73	*e*P	Pn	14 54 13.5	+1.6
LVC				*i* S	Sn	14 54 29.8	+2.4

ATH 29 14:55:21.5, 36°.22N×21°.80E, h16^{km}±3^{km}**, MD3.5**/5**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	**PYLOS**	0.68	356	*e*PN	Pn	14 55 34.6	-1.8
PYL				*e*SN	Sg	14 55 44.1	+0.4
ITM	**Ithomi**	0.96	6	*e*PN	Pn	14 55 40.1	-0.3
ITM				*e*SN	Sn	14 55 52.3	-1.4
KYTH	**Kithira**	1.00	86	*e*PN	Pn	14 55 41.2	+0.3
VLI	**Veliai**	1.04	61	*e*PN	Pn	14 55 41.3	-0.1
VLI				*e*SN	Sn	14 55 56.1	+0.4
VLX	**Vlachokerasia**	1.24	22	*e*PN	Pn	14 55 44.7	+0.6
VLX				*e*SN	Sn	14 56 02.0	+1.5
DID	**Didima**	1.73	41	*e*PN	Pn	14 55 53.7	+2.9
GUR	**Goura**	1.77	14	*e*PN	Pn	14 55 55.2	+3.8
VAM	**Vamos**	2.11	112	*e*PB	Pb	14 55 58.0	-1.4
EVR	**Evrytania**	2.69	0	*e*PB	Pb	14 56 07.0	-2.3

IDC 29 15:03:11.9±3.6**, 6°.06S×149°.98E, h0^{km}, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.4**/15**, mbtmp3.5**/3**, Error ellipse: s-maj=110.2km s-min=47.8km az=119.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	20.53	226	P	P	15 07 51.7	-0.3
	1.0nm,0.5s,baz=51,slow=11,SNR=14						
WRA				pP		15 07 59.8	
	1.1nm,0.4s,baz=52,slow=11,SNR=8.5						
ASAR	**Alice Springs**	23.36	220	P	P	15 08 22.1	-0.3
	0.4nm,0.6s,baz=58,slow=8.6,SNR=7.4						
ASAR				pP		15 08 30.5	
	0.2nm,0.4s,baz=53,slow=9.0,SNR=7.2						
FITZ	**Fitzroy Crossi**	26.60	241	P	P	15 08 51.9	-0.3
	1.5nm,0.9s,baz=74,slow=15,SNR=2.0						
TORD	**Torodi Ar. Bea**	147.98	285	PKPbc	PKPbc	15 23 00.5	+0.1
	0.3nm,0.5s,baz=62,slow=2.7,SNR=4.9						

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*NEIC **29** 15:20:16.6, 32°.62S×71°.67W, h40^{km}, MD3.7(GUC), After GUC.*
GUC 29 15:20:16.6±0.5**, 32°.62S×71°.67W, h40^{km}**±3^{km}**, MD3.7, 2C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	**Los Chungos**	0.74	11	*e*P	Pn	15 20 31.1	+0.4
CHNG				*i* S	Sn	15 20 41.4	+0.7
JACH	**Jahuel**	0.91	94	*e*P	Pn	15 20 33.4	+0.5
JACH				*i* S	Sn	15 20 46.4	+1.7
JACH	**Jahuel**	0.91	94	*e*P	Pn	15 20 33.4	+0.5
JACH				*i* S	Sn	15 20 46.4	+1.7
PEL	**Peldehue**	0.98	123	*e*P	Pn	15 20 34.4	+0.6
PEL				*i* S	Sn	15 20 48.3	+1.8
TACH	**Talagante**	1.20	150	P	Pn	15 20 36.5	-0.4
TACH	**Talagante**	1.20	150	*e*P	Pn	15 20 36.5	-0.4
FCH	**Farellones**	1.36	122	*e*P	Pn	15 20 41.2	+2.1
FCH				*i* S	Sn	15 20 59.4	+3.6
PCH	**Pirque**	1.39	136	P	Pn	15 20 40.3	+0.8
PCH				*i* S	Sn	15 20 59.2	+2.5
PCH	**Pirque**	1.39	136	*e*P	Pn	15 20 40.3	+0.8
PCH				*i* S	Sn	15 20 59.2	+2.5
CHCH	**Chadas Angostu**	1.56	147	⇑ *i*P	Pn	15 20 43.0	+1.1
CHCH				*i* S	Sn	15 21 03.0	+2.1
CHCH	**Chadas Angostu**	1.56	147	⇑ *i*P	Pn	15 20 43.0	+1.1
CHCH				*i* S	Sn	15 21 03.0	+2.1

FUNV 29 15:20:37.7, 10°.86N×69°.74W, h2^{km}, MW3.5, 2C-1D, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIQV	**Siquisique**	0.21	197	⇑ *i*P	Pg	15 20 41.7	-0.1
SIQV				*e*S	Sg	15 20 45.2	+0.5
CURV	**Curarigua**	0.86	194	*e*P	Pg	15 20 53.8	-0.5
CURV				*e*S	Sg	15 21 06.5	+1.0
DABV	**Dabajuro**	0.88	274	*e*P	Pg	15 20 54.9	+0.3
DABV				*e*S	Sg	15 21 06.7	+0.7
JACV	**Jacura**	0.93	75	*e*P	Pg	15 20 54.9	-0.6
JACV				*e*S	Sg	15 21 07.9	+0.4
QARV	**Quebrada Arrib**	1.00	230	⇑ *i*P	Pg	15 20 56.3	-0.7
QARV				*e*S	Sg	15 21 10.6	+0.7
TEPV	**Terepaima**	1.04	148	*e*P	Pg	15 20 56.9	-0.7
TEPV				*e*S	Sg	15 21 11.3	+0.1
MONV	**Montecano**	1.12	349	⇓ *i*P	Pg	15 20 58.6	-0.5
MONV				*e*S	Sg	15 21 14.0	+0.4
SANV	**Sanarito**	1.36	171	*e*P	Pn	15 21 02.8	-0.9
SANV				*e*S	Sg	15 21 22.1	+0.6
MAPV	**Macapo**	1.62	129	*e*P	Pn	15 21 07.6	+0.2
BAUV	**El Baul**	2.53	138	*e*P	Pn	15 21 19.8	-0.1
BAUV				*e*S	Sn	15 21 49.6	-1.7
VIGV	**El Vigia**	2.56	219	*e*P	Pn	15 21 19.5	-0.7
VIGV				*e*S	Sn	15 21 49.9	-2.1
VIRV	**Villa del Rosa**	2.64	263	*e*P	Pn	15 21 20.2	-1.1
SOCV	**Socops**	2.78	203	*e*P	Pn	15 21 22.9	-0.4
CUPV	**Cœpira**	3.97	101	*e*P	Pn	15 21 38.6	-1.0
CAOV	**Caicara del Or**	4.87	136	*e*P	Pn	15 21 50.2	-1.8
PCRV	**Puerto La Cruz**	5.07	97	*e*P	Pn	15 21 54.0	-0.7

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*NIED **29** 15:32:00, 46°.00N×151°.80E, h20^{km}, Mw4.6 Best double couple: $M_0$8.75000×10^{15} NP1:ϕ_s16.00000°, δ80.00000°, λ-103.00000°. NP2:ϕ_s249.00000°, δ16.00000°, λ-38.00000°.*
*BJI **29** 15:32:56.7, 46°.22N×151°.55E, h47^{km}, mB5.0/28, mb4.8/41, Ms4.3/26, Ms7 4.1/28*
*NEIC **29** 15:32:57.4±0.2, 46°.26N×151°.37E, h35^{km}, mb4.8/94, MS4.5/3, Error ellipse: s-maj=5.9km s-min=3.4km az=156.0*
*JMA **29** 15:32:57.7±0.7, 46°.02N×151°.76E, h30^{km}, M5.2*
*SZGRF **29** 15:32:57.6, 46°.81N×152°.54E, h33^{km}, mb5.1, Kuril Islands, Russia*
*SKHL **29** 15:32:58.5±1.1, 46°.09N×151°.77E, h43^{km}±12^{km}, mb6.1/2, mbh5.5/1, Ms4.1/3*
*ISCJB **29** 15:32:59.3±0.4, 46°.15N±0°.03×151°.38E±0°.03, h67^{km}±4^{km}, mb4.6/141, Error ellipse: s-maj=5.8km s-min=2.7km az=166.5*
*MOS **29** 15:33:00.0±0.9, 46°.16N×151°.46E, h79^{km}, mb5.0/57, MS4.1/13, Error ellipse: s-maj=7.4km s-min=4.8km az=105.7*
*IDC **29** 15:33:01.1±0.5, 46°.25N×151°.31E, h69^{km}±4^{km}, mb4.1/27, mb1 4.3/30, mb1mx4.3/31, mbtmp4.2/30, MS4.0/25, Ms1 4.0/25, ms1mx3.8/48, Error ellipse: s-maj=13.0km s-min=9.8km az=142.0*
ISC 29 15:33:01.1±0.4**, 46°.24N**±0°.03×**151°.31E**±0°.03**, h65^{km}**±3^{km}**, h38^{km}**±3.3^{km}**:pP-P, n609, σ0^{s}.82**/638**, mb4.8**/141**, 130C-121D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	2.61	249	⇑ *i*PN	Pn	15 33 41.5	+0.6
KUR				*e*S	Sn	15 34 13.5	+2.0
KUR				pmax	pmax		
	comp=N,420nm,0.6s						
KUR				pmax	pmax		
	comp=E,340nm,0.6s						
KUR				pmax	pmax		
	comp=Z,800nm,0.6s						
KUR				smax			
	comp=N,25μm,1.6s						
KUR				smax			
	comp=E,12μm,1.6s						
KUR				smax			
	comp=N,5μm,0.6s						
KUR				smax			
	comp=E,5μm,0.6s						
KUR	**Kuril'sk**	2.61	249	⇑ *i*P	Pn	15 33 41.5	+0.6
KUR				AMB	AMB	15 33 42.6	
	comp=E,3μm,1.2s						
KUR				AMB	AMB	15 33 45.5	
	comp=E,418nm,0.6s						
KUR				AMB	AMB	15 33 45.5	
	comp=E,342nm,0.6s						
KUR				AMB	AMB	15 33 45.5	
	comp=E,790nm,0.6s						
KUR				*e*S	Sn	15 34 13.5	+2.0
KUR				A		15 34 17.5	
	comp=E,18μm,1.6s						
KUR				A		15 34 17.5	
	comp=E,10μm,1.6s						
KUR				A		15 34 17.5	
	comp=E,25μm,1.6s						
KUR				A		15 34 17.5	
	comp=E,12μm,1.6s						
KUR				A		15 34 19.2	
	comp=E,4μm,0.6s						
KUR				A		15 34 19.2	
	comp=E,5μm,0.6s						
YUK	**Yuzh-Kuril'sk**	4.44	242	*i* PN	Pn	15 34 06.7	+0.8
YUK				*e*S	Sn	15 34 56.9	+0.7
YUK				pmax	pmax		
	comp=N,170nm,0.4s						
YUK				pmax	pmax		
	comp=E,190nm,0.4s						
YUK				pmax	pmax		
	comp=N,2μm,2.0s						
YUK				pmax	pmax		
	comp=Z,2μm,2.0s						
YUK				pmax	pmax		
	comp=E,2μm,1.0s						
YUK				smax			
	comp=N,3μm,0.5s						
YUK				smax			
	comp=E,4μm,0.5s						
YUK				smax			

	comp=N,12µm,1.0s						
YUK				smax			
	comp=E,8µm,1.0s						
YUK	**Yuzh-Kuril'sk**	**4.44**	**242**	⇑*i*P	**Pn**	**15 34 06.7**	**+0.8**
YUK				AMB	AMB	15 34 09.3	
	comp=E,170nm,0.4s						
YUK				AMB	AMB	15 34 09.3	
	comp=E,190nm,0.4s						
YUK				AMB	AMB	15 34 09.3	
	comp=E,370nm,0.4s						
YUK				AMB	AMB	15 34 15.5	
	comp=E,2µm,2.0s						
YUK				AMB	AMB	15 34 15.5	
	comp=E,2µm,2.0s						
YUK				*e*S	**Sn**	**15 34 56.9**	**+0.7**
YUK				A		15 35 14.1	
	comp=E,3µm,0.5s						
YUK				A		15 35 14.1	
	comp=E,4µm,0.5s						
YUK				A		15 35 19.0	
	comp=E,12µm,1.0s						
YUK				A		15 35 19.0	
	comp=E,8µm,1.0s						
NEM2	**Nemuro 2**	**4.89**	**236**	P	**Pn**	**15 34 10.7**	**-1.4**
NEM2				*e*S	**Sn**	**15 35 04.1**	**-3.2**
JRA	**Rausu**	**4.95**	**245**	P	**Pn**	**15 34 14.3**	**+1.5**
JRA				*e*S	**Sn**	**15 35 13.2**	**+4.5**
JNK	**Nakash**	**5.38**	**243**	P	**Pn**	**15 34 19.6**	**+0.9**
JNK				*e*S	**Sn**	**15 35 19.5**	**+0.2**
SKR	**Severo-Kuril's**	**5.48**	**34**	*e*PN	**Pn**	**15 34 18.0**	**-2.0**
SKR				*e*S	**Sn**	**15 35 18.0**	**-3.6**
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,120nm,0.5s						
SKR				smax			
	comp=N,310nm,0.5s						
SKR				smax			
	comp=E,390nm,0.5s						
SKR	**Severo-Kuril's**	**5.48**	**34**	*e*P	**Pn**	**15 34 18.0**	**-2.0**
SKR				AMB	AMB	15 34 21.5	
	comp=E,90nm,0.5s						
SKR				AMB	AMB	15 34 21.5	
	comp=E,180nm,0.5s						
SKR				*e*S	**Sn**	**15 35 18.0**	**-3.6**
SKR				A		15 35 39.0	
	comp=E,310nm,0.5s						
SKR				A		15 35 39.0	
	comp=E,460nm,0.5s						
SKR				A		15 35 39.0	
	comp=E,220nm,0.5s						
JTKR	**Abashiri--Toko**	**5.71**	**249**	P	**Pn**	**15 34 25.2**	**+2.0**
JAK	**Akkeshi**	**5.72**	**238**	P	**Pn**	**15 34 22.4**	**-1.1**
YSS	**Yuzh-Sakhalins**	**5.94**	**280**	⇑*i*P	**Pn**	**15 34 30.0**	**+3.6**
YSS				*e*sP		15 34 44.7	
YSS				*i* S	**Sn**	**15 35 39.5**	**+6.6**
YSS				A		15 35 40.5	
	comp=E,170nm,1.0s						
YSS				*e*LQ		15 36 14.0	
YSS				AMS	AMS	15 36 50.0	
	comp=E,500nm,14.0s						
YSS				AMS	AMS	15 36 50.0	
	comp=E,800nm,18.0s						
YSS				AMS	AMS	15 36 50.0	
	comp=E,800nm,16.0s						
YSS	**Yuzh-Sakhalins**	**5.94**	**280**	*e*Pn	**Pn**	**15 34 30.0**	**+3.6**
YSS				*e*Sn	**Sn**	**15 35 39.7**	**+6.8**
JMP	**Maruseppu**	**6.05**	**251**	P	**Pn**	**15 34 30.2**	**+2.3**
JAR	**Ashorobuto**	**6.12**	**244**	P	**Pn**	**15 34 30.0**	**+1.1**
JAR				*e*S	**Sn**	**15 35 38.7**	**+1.3**
JSE	**Soyaes**	**6.25**	**261**	P	**Pn**	**15 34 34.1**	**+3.4**
JOB	**Onbets**	**6.29**	**241**	P	**Pn**	**15 34 31.2**	**0.0**
JOB				*e*S	**Sn**	**15 35 40.0**	**-1.7**
JKK2	**Kamakawa 2**	**6.51**	**252**	P	**Pn**	**15 34 36.5**	**+2.3**
ASAJ	**Asahikawa**	**6.51**	**254**	P	**Pn**	**15 34 37.4**	**+3.2**
ASAJ	**Asahikawa**	**6.51**	**254**	PN	**Pn**	**15 34 37.5**	**+3.3**
ASAJ				S	**Sn**	**15 35 51.9**	**+4.8**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,994nm,21.0s						
ASAJ	**Asahikawa**	**6.51**	**254**	P	**Pn**	**15 34 37.5**	**+3.3**
	comp=Z,7.1nm,0.3s,baz=80,slow=8.8,SNR=62						
ASAJ				S	**Sn**	**15 35 51.9**	**+4.8**
	baz=94,slow=29,SNR=1.4						
ASAJ				LR	LR	15 37 10.3	
	comp=Z,994nm,21.0s,baz=164,slow=38						
JWK2	**Keihoku**	**6.65**	**265**	P	**Pn**	**15 34 41.6**	**+5.5**
JCH	**Churui**	**6.74**	**240**	P	**Pn**	**15 34 36.4**	**-1.0**
JCH				*e*S	**Sn**	**15 35 49.7**	**-3.0**
UGL	**Uglegorsk**	**6.86**	**298**	*e*PN	**Pn**	**15 34 43.0**	**+4.1**
UGL				*e*S	**Sn**	**15 36 03.0**	**+7.6**
UGL				pmax	pmax		
	comp=Z,100nm,0.5s						
UGL				smax			
	comp=E,195nm,0.7s						
UGL				smax			
	comp=N,241nm,0.8s						
UGL				smax			
	comp=Z,87nm,0.6s						
UGL				MLR	MLR		
	comp=N,1µm,18.0s						
UGL				MLR	MLR		
	comp=E,1µm,18.0s						
UGL				MLR	MLR		
	comp=Z,2µm,18.0s						
UGL	**Uglegorsk**	**6.86**	**298**	*e*P	**Pn**	**15 34 43.0**	**+4.1**
UGL				AMB	AMB	15 34 44.5	
	comp=Z,100nm,0.5s						
UGL				*e*S	**Sn**	**15 36 03.0**	**+7.6**
UGL				A		15 36 04.5	
	comp=Z,241nm,0.8s						
UGL				A		15 36 04.5	
	comp=Z,195nm,0.7s						
UGL				A		15 36 04.5	
	comp=Z,87nm,0.6s						
UGL				AMS	AMS	15 37 22.0	
	comp=Z,1µm,18.0s						
UGL				AMS	AMS	15 37 22.0	
	comp=Z,1µm,18.0s						
UGL				AMS	AMS	15 37 22.0	
	comp=Z,2µm,18.0s						
JSS	**Shosan**	**6.92**	**258**	P	**Pn**	**15 34 45.4**	**+5.7**
JFR	**Furan**	**6.93**	**247**	P	**Pn**	**15 34 41.4**	**+1.5**
JAB	**Ashibetsu**	**7.01**	**250**	P	**Pn**	**15 34 44.1**	**+3.1**
ERM	**Erimo**	**7.22**	**237**	*e*Pn	**Pn**	**15 34 43.8**	**-0.2**
ERM				*e*Sn	**Sn**	**15 36 03.7**	**-0.9**
JEM	**Erimo**	**7.22**	**237**	P	**Pn**	**15 34 43.7**	**-0.3**
JBT2	**Biratori 2**	**7.27**	**245**	P	**Pn**	**15 34 44.6**	**0.0**
JNBK	**Urakawa-nobuka**	**7.30**	**240**	P	**Pn**	**15 34 43.3**	**-1.8**
TYV	**Tymovskoe**	**7.37**	**312**	*e*P	**Pn**	**15 34 48.0**	**+2.1**
TYV				AMB	AMB	15 34 50.0	
	comp=Z,88nm,1.0s						
TYV				AMB	AMB	15 34 50.0	
	comp=Z,143nm,1.0s						
TYV				AMB	AMB	15 34 51.0	
	comp=Z,500nm,4.0s						
TYV				AMB	AMB	15 34 51.0	
	comp=Z,600nm,4.0s						
TYV				AMB	AMB	15 34 51.0	
	comp=Z,1µm,4.0s						
TYV				*e*S	**Sn**	**15 36 16.5**	**+8.5**
TYV				A		15 36 17.0	
	comp=Z,197nm,1.4s						
TYV				A		15 36 17.0	
	comp=Z,21nm,0.5s						
JEW	**Eniwo**	**7.82**	**248**	P	**Pn**	**15 34 52.5**	**+0.4**
PEA0B	**Petropavlovsk-**	**8.03**	**29**	*e*Pn	**Pn**	**15 34 55.8**	**+0.9**
PETK	**Petropavlovsk-**	**8.03**	**29**	P	**Pn**	**15 34 55.3**	**+0.4**
	comp=Z,3.6nm,0.3s,baz=185,slow=10,SNR=60						
PETK				LR	LR	15 37 50.5	
	comp=Z,297nm,18.7s,baz=26,slow=36						
JNB	**Noboribetsu**	**8.27**	**247**	P	**Pn**	**15 34 57.9**	**-0.3**
JNB				*e*S	**Sn**	**15 36 28.3**	**-1.7**
PET	**Petropavlovsk**	**8.29**	**32**	*e*PN	**Pn**	**15 34 55.3**	**-3.2**
PET				MLR	MLR		
	comp=Z,1µm,20.0s						
PET	**Petropavlovsk**	**8.29**	**32**	*e*Pn	**Pn**	**15 34 55.5**	**-3.0**
PET				*e*Sn	**Sn**	**15 36 26.5**	**-4.1**
JKB	**Kayabe**	**8.58**	**243**	P	**Pn**	**15 35 00.9**	**-1.6**
JKB				*e*S	**Sn**	**15 36 32.3**	**-5.4**
JSH	**Shimam**	**8.82**	**250**	P	**Pn**	**15 35 06.7**	**+0.9**
JYM2	**Yakumo 2**	**8.87**	**246**	P	**Pn**	**15 35 06.0**	**-0.5**
OKH	**Okha**	**9.09**	**327**	*e*P	**Pn**	**15 35 14.0**	**+4.6**
JSR	**Shiriuchi**	**9.16**	**243**	P	**Pn**	**15 35 09.0**	**-1.5**
JTM	**Tenmabayashi**	**9.22**	**237**	P	**Pn**	**15 35 08.4**	**-2.8**
JTM				*e*S	**Sn**	**15 36 44.9**	**-8.4**
JANG	**Nango**	**9.23**	**234**	P	**Pn**	**15 35 07.6**	**-3.8**
JANG				*e*S	**Sn**	**15 36 43.2**	**-11**
JTH	**Tanohata**	**9.34**	**231**	P	**Pn**	**15 35 08.3**	**-4.7**
JOSM	**Okushiri--Mats**	**9.46**	**248**	P	**Pn**	**15 35 13.8**	**-0.8**
NKL	**Nikolayevsk**	**9.75**	**319**	*e*P	**Pn**	**15 35 17.0**	**-1.5**
NKL				AMB	AMB	15 35 20.0	
	comp=Z,130nm,1.5s						
NKL				AMB	AMB	15 35 20.0	
	comp=Z,190nm,1.5s						
NKL				*e*L		15 37 56.0	
NKL				AMS	AMS	15 39 38.0	
	comp=Z,600nm,16.0s						
NKL				AMS	AMS	15 39 38.0	
	comp=Z,400nm,16.0s						
NKL				AMS	AMS	15 39 38.0	
	comp=Z,1µm,16.0s						
OFUJ	**Ofunato**	**10.07**	**228**	P	**Pn**	**15 35 18.6**	**-4.3**
OFUJ				*e*S	**Sn**	**15 37 02.6**	**-12**
TEY	**Ternei**	**10.37**	**269**	*e*P	**Pn**	**15 35 32.2**	**+5.2**
TEY				AMB	AMB	15 35 33.1	
	comp=Z,30nm,0.8s						
TEY				AMB	AMB	15 35 33.1	
	comp=Z,22nm,0.6s						
JRG	**Rokugo**	**10.40**	**233**	P	**Pn**	**15 35 23.8**	**-3.5**
JRG				*e*S	**Sn**	**15 37 12.2**	**-10**
JIO	**Ouri**	**10.71**	**227**	P	**Pn**	**15 35 27.1**	**-4.5**
JIO				*e*S	**Sn**	**15 37 16.7**	**-13**
HABR	**Khabarovsk**	**11.26**	**287**	*e*PN	**Pn**	**15 35 42.3**	**+3.3**
HABR				pmax	pmax		
	comp=N,32nm,2.1s						
HABR				pmax	pmax		
	comp=Z,84nm,2.5s						
HABR				pmax	pmax		
	comp=E,99nm,2.4s						
HABR				MLR	MLR		
	comp=N,138nm,7.0s						
HABR				MLR	MLR		
	comp=Z,142nm,6.0s						
HABR				MLR	MLR		
	comp=E,176nm,8.0s						
JFK	**Kawauchi**	**11.79**	**225**	*e*S	**Sn**	**15 37 43.2**	**-13**
JFY	**Yanaizu**	**12.35**	**228**	P	**Pn**	**15 35 50.4**	**-3.6**
KLR	**Kul'dur**	**13.50**	**290**	*e*P	**Pn**	**15 36 09.9**	**+0.4**
KLR				pmax	pmax		
	comp=E,100nm,1.8s						
KLR				pmax	pmax		
	comp=Z,110nm,1.8s						
MJAR	**Matsushiro Arr**	**13.79**	**230**	P	**Pn**	**15 36 10.2**	**-3.2**
	comp=Z,0.7nm,0.3s,baz=26,slow=15,SNR=9.7						
MJAR				LR	LR	15 41 43.6	
	comp=Z,285nm,21.9s,baz=45,slow=38						
MAJO	**Matsushiro**	**13.79**	**230**	*e*P	**Pn**	**15 36 09.9**	**-3.5**
MAT	**Matsushiro**	**13.79**	**230**	P	**Pn**	**15 36 09.8**	**-3.6**
MDJ	**Mudanjiang**	**15.33**	**272**	P	**Pn**	**15 36 32.8**	**-0.6**
MDJ				pmax	pmax		
	comp=Z,9.0nm,0.9s						
MDJ				pmax	pmax		
	comp=Z,190nm,3.8s						
MDJ				LR	LR		
	comp=N,140nm,23.5s						
MDJ				LR	LR		
	comp=E,360nm,27.4s						
MDJ				LR	LR		
	comp=Z,510nm,26.3s						
MDJ	**Mudanjiang**	**15.33**	**272**	*e*P	**Pn**	**15 36 35.3**	**+1.9**
	comp=Z,40nm,0.9s						
FX1	**Attu Island--F**	**15.63**	**57**	P	**Pn**	**15 36 35.6**	**-1.5**
	comp=Z,3.5nm,0.3s,baz=256,slow=19,SNR=3.8						
FX1				S	S	15 39 14.2	-27
	comp=Z,3.7nm,0.3s,baz=274,slow=19,SNR=3.0						
SEY	**Seymchan**	**16.74**	**2**	⇓*e*P	**Pn**	**15 36 53.5**	**+2.5**
ZEA	**Zeya**	**17.14**	**305**	*e*P	**Pn**	**15 36 54.8**	**-1.2**
ZEA				AMB	AMB	15 36 57.3	
	comp=Z,55nm,0.9s						
ZEA				AMB	AMB	15 36 57.3	
	comp=Z,59nm,1.0s						
ZEA				AMB	AMB	15 36 57.3	
	comp=Z,70nm,1.0s						
CN2	**Changchun**	**18.42**	**272**	*e*P	**Pn**	**15 37 12.0**	**+0.3**
CN2				*e*S	**S**	**15 40 32.5**	**-5.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,300nm,18.0s						
CN2				LR	LR		
	comp=E,500nm,18.0s						
CN2				LR	LR		
	comp=Z,400nm,18.0s						
CLNS	**Chul'man**	**19.43**	**313**	*e*P	**Pn**	**15 37 25.0**	**+1.4**
CLNS				*e*S	**S**	**15 41 02.0**	**+4.2**
CLNS				pmax	pmax		
	comp=N,7.0nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,17nm,0.8s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
CLNS				smax			
	comp=N,71nm,12.3s						
CLNS				smax			
	comp=E,90nm,14.2s						
CLNS				MLR	MLR		
	comp=Z,365nm,18.0s						
CLNS				MLR	MLR		
	comp=E,476nm,17.0s						
CLNS				MLR	MLR		
	comp=N,458nm,15.0s						
NRGR	**Nerungri**	**19.45**	**312**	*i* P	pP	15 37 38.0	+2.3
KSRS	**Korea Array**	**19.45**	**252**	P	**Pn**	**15 37 22.7**	**-1.4**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSRS				MLR	MLR		
	comp=Z,297nm,21.8s						
KSRS	**Korea Array**	**19.45**	**252**	P	**Pn**	**15 37 22.6**	**-1.5**
	comp=Z,0.9nm,0.3s,baz=58,slow=11,SNR=33						
KSRS				LR	LR	15 44 00.9	
	comp=Z,297nm,21.8s,baz=44,slow=34						
YAK	**Yakutsk**	**20.11**	**330**	*e*P	**P**	**15 37 30.0**	**+0.8**
YAK				*e*		15 37 50.6	
YAK				*e*S	**S**	**15 41 07.4**	**-3.8**
YAK				*e*		15 41 36.7	
YAK				*e*		15 48 48.5	
YAK				pmax	pmax		
	comp=Z,157nm,0.8s						
YAK				pmax	pmax		
	comp=N,48nm,1.0s						
YAK				pmax	pmax		
	comp=E,19nm,0.6s						
YAK				pmax	pmax		
	comp=E,125nm,1.3s						
YAK				pmax	pmax		
	comp=Z,171nm,1.1s						
YAK				pmax	pmax		
	comp=N,154nm,1.3s						
YAK				smax			
	comp=E,125nm,2.0s						
YAK				smax			
	comp=N,72nm,1.5s						
YAK				MLR	MLR		
	comp=Z,413nm,21.0s						
YAK				MLR	MLR		
	comp=E,309nm,20.0s						
YAK				MLR	MLR		
	comp=N,273nm,17.0s						
YAK	**Yakutsk**	**20.11**	**330**	*e*P	**P**	**15 37 29.8**	**+0.6**
	comp=N,231nm,0.7s						
INCN	**Inchon**	**20.29**	**253**	*e*P	**P**	**15 37 33.9**	**+2.5**
	comp=N,22nm,0.7s						
SNY	**Shenyang**	**20.37**	**268**	⇑P	**P**	**15 37 35.0**	**+2.7**
SNY				S	**S**	**15 41 18.8**	**+2.0**
SNY				pmax	pmax		
	comp=Z,37nm,0.6s						
SNY				pmax	pmax		
	comp=Z,290nm,3.5s						
SNY				LR	LR		
	comp=E,430nm,16.1s						
SNY				LR	LR		
	comp=Z,440nm,17.5s						
HIA	**Hailar**	**21.36**	**290**	*e*P	**P**	**15 37 43.7**	**+0.9**
HIA				pmax	pmax		
	comp=Z,21nm,0.9s						
HIA	**Hailar**	**21.36**	**290**	*e*P	**P**	**15 37 43.7**	**+0.9**
	comp=Z,21nm,0.9s,mb4.5						
BILL	**Bilibino**	**23.18**	**14**	*i* P	**P**	**15 38 02.8**	**+0.9**
BILL				*e*		15 38 32.0	
BILL				*e*		15 41 48.0	
BILL				*e*S	**S**	**15 42 09.0**	**+0.8**
BILL				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.8						
BILL				MLR	MLR		
	comp=Z,1µm,17.0s						
BILL	**Bilibino**	**23.18**	**14**	*e*P	**P**	**15 38 00.4**	**-1.5**
	comp=Z,2.4nm,0.4s,mb4.0						
BOD	**Bodaibo**	**25.37**	**311**	*e*P	**P**	**15 38 22.7**	**+0.9**
BJI	**Beijing**	**26.22**	**269**	P	**P**	**15 38 33.5**	**+3.7**
BJI				S	**S**	**15 43 00.3**	**+3.1**
BJI				pmax	pmax		
	comp=Z,23nm,0.7s,mb4.8						
BJI				pmax	pmax		
	comp=Z,47nm,3.4s						
BJI				LR	LR		
	comp=N,230nm,15.6s						
BJI				LR	LR		
	comp=E,410nm,18.3s						
BJI				LR	LR		
	comp=Z,290nm,31.1s						
TIXI	**Tiksi**	**27.62**	**345**	⇓*e*P	**P**	**15 38 40.6**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.5s,mb4.0						
TIXI				MLR	MLR		
	comp=Z,200nm,26.0s						
TIXI	**Tiksi**	**27.62**	**345**	*e*P	**P**	**15 38 39.9**	**-2.1**
	comp=Z,3.5nm,0.5s,mb4.2						
NJ2	**Nanjing**	**28.65**	**252**	*e*P	**P**	**15 38 54.5**	**+2.9**
NJ2				pP	pP	15 39 03.5	-3.7
NJ2				sP	sP	15 39 07.8	-7.0
NJ2				PP	PP	15 39 47.5	-10
NJ2				S	**S**	**15 43 39.3**	**+3.6**
NJ2				sS	sS	15 43 55.3	-7.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
NJ2				pmax	pmax		
	comp=Z,300nm,4.3s						
NJ2				LR	LR		
	comp=N,360nm,12.0s						
NJ2				LR	LR		
	comp=E,290nm,12.7s						
HHC	**Hu-ho-hao-te**	**29.09**	**274**	*e*P	**P**	**15 38 57.3**	**+2.0**
HHC				pP	pP	15 39 06.5	-4.5
HHC				sP	sP	15 39 10.8	-7.7
HHC				PP	PP	15 39 51.3	-11
HHC				S	**S**	**15 43 43.5**	**+1.2**
HHC				sS	sS	15 44 00.8	-8.2
HHC				SS	SS	15 45 14.5	-33
HHC				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.8						
HHC				pmax	pmax		
	comp=Z,200nm,4.8s						
HHC				LR	LR		
	comp=N,240nm,10.4s						
HHC				LR	LR		
	comp=E,230nm,8.4s						
HHC				LR	LR		
	comp=Z,350nm,11.7s						
ULN	**Ulaanbaatar**	**29.89**	**289**	*e*P	**P**	**15 39 03.1**	**+0.7**
ULN				pmax	pmax		
	comp=Z,21nm,2.0s,mb4.5						
ULN	**Ulaanbaatar**	**29.89**	**289**	*e*P	**P**	**15 39 03.1**	**+0.7**
	comp=Z,21nm,2.0s,mb4.5						
SONM	**Songino Array**	**30.33**	**290**	P	**P**	**15 39 06.6**	**+0.3**
SONM						15 42 04.5	
SONM						15 45 39.9	
SONM	**Songino Array**	**30.33**	**290**	P	**P**	**15 39 06.6**	**+0.4**
	comp=Z,1.5nm,0.6s,mb3.9,baz=71,slow=7.8,SNR=7.3						
SONM				PcP	PcP	15 42 04.5	-0.3
	comp=Z,0.9nm,0.7s,baz=116,slow=3.4,SNR=2.8						
SONM				pPcP		15 42 23.6	
	comp=Z,1.8nm,1.0s,baz=79,slow=3.2,SNR=4.2						
SONM				ScP	ScP	15 45 39.9	-1.5
	comp=Z,1.7nm,0.9s,baz=84,slow=2.9,SNR=5.0						
SONM				LR	LR	15 52 36.7	
	comp=Z,236nm,18.1s,baz=51,slow=39						
TLY	**Talaya**	**31.31**	**298**	*e*P	**P**	**15 39 15.1**	**+0.3**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
TLY	**Talaya**	**31.31**	**298**	*e*P	**P**	**15 39 14.2**	**-0.6**
	comp=Z,3.3nm,0.7s,mb4.3						
ZAK	**Zakamensk**	**31.77**	**295**	*e*P	**P**	**15 39 17.9**	**-1.0**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
TATO	**Taipei**	**31.92**	**239**	*e*P	**P**	**15 39 19.2**	**-1.3**
	comp=Z,9.7nm,0.5s,mb4.9						
GUMO	**Guam**	**33.00**	**192**	LR	LR	15 52 06.5	
	comp=Z,107nm,18.1s,baz=26,slow=35						
XAN	**Xi'an**	**34.23**	**264**	P	**P**	**15 39 40.0**	**-0.5**
XAN				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
XAN				pmax	pmax		
	comp=Z,24nm,6.7s						
IMA2	**Indian Mountai**	**34.95**	**36**	*e*P	**P**	**15 39 46.1**	**-0.3**
KDAK	**Kodiak Island**	**35.39**	**50**	P	**P**	**15 39 48.5**	**-1.8**
	comp=Z,3.9nm,0.8s,mb4.4,baz=315,slow=1.4,SNR=3.5						
KDAK	**Kodiak Island**	**35.39**	**50**	P	**P**	**15 39 48.5**	**-1.8**
KTH	**Kantishna Hill**	**35.96**	**40**	*e*P	**P**	**15 39 54.1**	**-1.0**
	comp=Z,11nm,1.1s,mb4.7						
COLD	**Coldfoot**	**36.45**	**34**	*e*P	**P**	**15 39 58.6**	**-0.6**
	comp=Z,3.4nm,0.6s,mb4.5						
LZH	**Lanzhou**	**36.66**	**271**	*e*P	**P**	**15 40 02.0**	**+0.7**
LZH				pP	pP	15 40 11.0	-6.2
LZH				sP	sP	15 40 15.5	-9.2
LZH				*e*PP	PP	15 41 24.0	-1.7
LZH				*e*S	**S**	**15 45 45.0**	**+5.2**
LZH				SS	SS	15 48 11.0	-11
LZH				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.2						
LZH				pmax	pmax		
	comp=Z,170nm,4.7s						
LZH				LR	LR		
	comp=N,470nm,14.5s						
LZH				LR	LR		
	comp=Z,850nm,15.8s						
COLA	**College**	**37.31**	**38**	*e*P	**P**	**15 40 05.2**	**-1.3**
COLA				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
COLA	**College**	**37.31**	**38**	*e*P	**P**	**15 40 05.2**	**-1.3**
	comp=Z,15nm,0.8s,mb4.9						
GTA	**Gaotai**	**37.82**	**279**	*e*P	**P**	**15 40 12.0**	**+0.9**
GTA				pP	pP	15 40 21.8	-5.3
GTA				sP	sP	15 40 25.8	-8.8
GTA				PP	PP	15 41 42.0	+3.6
GTA				S	**S**	**15 46 01.8**	**+4.5**
GTA				sS	sS	15 46 17.5	-7.0
GTA				SS	SS	15 48 39.0	-6.1
GTA				pmax	pmax		
	comp=Z,48nm,4.8s						
GTA				LR	LR		
	comp=N,84nm,14.4s						
GTA				LR	LR		
	comp=E,79nm,15.9s						
GTA				LR	LR		
	comp=Z,96nm,16.5s						
CD2	**Chengdu**	**39.59**	**264**	P	**P**	**15 40 26.3**	**+0.2**
CD2				pP	pP	15 40 36.0	-6.1
CD2				sP	sP	15 40 40.0	-10
CD2				PP	PP	15 42 01.8	+3.9
CD2				PcP	PcP	15 42 33.5	+1.4
CD2				S	**S**	**15 46 26.8**	**+2.6**
CD2				SS	SS	15 49 15.5	-5.6
CD2				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.3						
CD2				pmax	pmax		
	comp=Z,210nm,8.3s						
CD2				LR	LR		
	comp=N,220nm,6.0s						
CD2				LR	LR		
	comp=Z,220nm,6.6s						
EGAK	**Eagle**	**40.17**	**38**	*e*P	**P**	**15 40 29.4**	**-1.1**
	comp=Z,7.3nm,0.7s,mb4.5						
GYA	**Guiyang**	**40.38**	**256**	P	**P**	**15 40 33.8**	**+1.1**
GYA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
ZALV	**Zalesovo Beam**	**41.90**	**306**	P	**P**	**15 40 43.1**	**-1.7**
ZALV						15 42 38.5	
ZALV						15 42 58.3	
ZALV	**Zalesovo Beam**	**41.90**	**306**	P	**P**	**15 40 43.1**	**-1.7**
	comp=Z,0.6nm,0.5s,mb3.5,baz=91,slow=7.2,SNR=2.7						
ZALV				PcP	PcP	15 42 38.5	-0.7
	comp=Z,1.5nm,0.5s,baz=61,slow=2.5,SNR=6.7						

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ZALV                                  pPcP              15 42 58.3
      comp=Z,2.7nm,0.8s,baz=41,slow=3.2,SNR=6.0
ZALV                                  LR       LR       15 59 18.2
      comp=Z,347nm,18.5s,baz=31,slow=38
INK   Inuvik              42.75  32   P        P        15 40 51.5  0.0
INK                                   pmax     pmax
      comp=Z,10.0nm,0.5s
INK   Inuvik              42.75  32   P        P        15 40 51.5  0.0
      comp=Z,9.8nm,0.5s,mb4.8,baz=306,slow=7.5,SNR=73
INK   Inuvik              42.75  32   eP       P        15 40 51.1 -0.4
      comp=Z,9.9nm,0.6s,mb4.7
KMI   Kunming             43.92 258   P        P        15 41 02.0 +0.5
KMI                                   pP       pP       15 41 12.0 -5.7
KMI                                   S        S        15 47 29.5 +1.3
KMI                                   SS       SS       15 50 38.8 -7.8
KMI                                   pmax     pmax
      comp=Z,14nm,1.5s,mb4.5
KMI                                   LR       LR
      comp=Z,66nm,34.4s
WMQ   Urumqi              43.95 291   P        P        15 41 03.5 +2.0
WMQ                                   pP       pP       15 41 13.5 -4.2
WMQ                                   sP       sP       15 41 17.5 -7.6
WMQ                                   PcP      PcP      15 42 49.0 +2.7
WMQ                                   eS       S        15 47 33.0 +4.8
WMQ                                   pmax     pmax
      comp=Z,13nm,0.8s,mb4.7
WMQ                                   pmax     pmax
      comp=Z,110nm,5.2s
WMQ                                   LR       LR
      comp=N,300nm,19.9s
WMQ                                   LR       LR
      comp=E,260nm,24.7s
WMQ                                   LR       LR
      comp=Z,390nm,28.4s
MKAR  Makanchi Array      46.07 297   P        P        15 41 18.1 -0.1
MKAR                                                    15 42 53.1
MKAR                                                    15 43 11.4
MKAR  Makanchi Array      46.07 297   P        P        15 41 18.1 -0.1
      comp=Z,6.7nm,0.7s,mb4.7,baz=66,slow=7.8,SNR=67
MKAR                                  PcP      PcP      15 42 53.1 -0.5
      comp=Z,1.4nm,0.5s,baz=53,slow=1.1,SNR=7.4
MKAR                                  pPcP              15 43 11.3
      comp=Z,0.7nm,0.5s,baz=69,slow=6.6,SNR=3.6
MKAR                                  ScP      ScP      15 46 39.6 -1.3
      comp=Z,1.6nm,0.8s,baz=56,slow=4.8,SNR=10.0
MKAR                                  LR       LR       16 01 47.1
      comp=Z,314nm,18.5s,baz=53,slow=38
KURK  Kurchatov           46.61 303   P        P        15 41 23.2 +0.8
KURK                                  pmax     pmax
      comp=Z,2.0nm,0.4s,mb4.4
KURK                                  MLR      MLR
      comp=Z,101nm,18.7s
KURK  Kurchatov           46.61 303   P        P        15 41 23.2 +0.8
      comp=Z,2.2nm,0.4s,mb4.4,baz=70,slow=8.8,SNR=7.2
KURK                                  LR       LR       16 01 53.8
      comp=Z,101nm,18.7s,baz=55,slow=37
KURK  Kurchatov           46.61 303   eP       P        15 41 20.8 -1.6
      comp=Z,2.6nm,0.4s,mb4.5
DLBC  Dease Lake          46.84  45   P        P        15 41 25.7 +1.6
      comp=Z,4.5nm,0.8s,mb4.5,baz=296,slow=8.9,SNR=7.3
LSA   Lhasa               49.05 272   P        P        15 41 43.5 +1.9
LSA   Lhasa               49.05 272   eP       P        15 41 43.1 +1.5
LSA                                   pmax     pmax
      comp=Z,18nm,0.6s,mb5.3
LSA   Lhasa               49.05 272   eP       P        15 41 43.1 +1.5
      comp=Z,18nm,0.6s,mb5.3
BVAR  Borovoye Array      50.22 309   P        P        15 41 49.3 -0.8
BVAR                                                    15 43 07.8
BVAR  Borovoye Array      50.22 309   P        P        15 41 49.3 -0.8
      comp=Z,1.0nm,0.3s,mb4.3,baz=61,slow=8.4,SNR=10
BVAR                                  PcP      PcP      15 43 07.8 -0.5
      comp=Z,2.0nm,0.4s,baz=107,slow=3.5,SNR=8.9
BVAR                                  LR       LR       16 04 57.2
      comp=Z,350nm,18.9s,baz=48,slow=38
BBB   Bella Bella         50.41  52   LR       LR       15 59 11.2
      comp=Z,192nm,21.2s,slow=31
CHTO  Chiang Mai          50.78 256   eP       P        15 41 54.9 +0.1
CHTO                                  pmax     pmax
      comp=Z,6.0nm,0.6s,mb4.7
CHTO  Chiang Mai          50.78 256   eP       P        15 41 54.9  0.0
      comp=Z,5.5nm,0.6s,mb4.7
CMAR  Chiang Mai Arr      51.04 255   P        P        15 41 57.1 +0.4
      comp=Z,2.2nm,0.4s,mb4.5,baz=32,slow=7.4,SNR=20
CMAR                                  ScP      ScP      15 47 03.3 +0.9
      comp=Z,0.8nm,0.3s,baz=16,slow=3.9,SNR=9.4
CMAR                                  LR       LR       16 04 57.3
      comp=Z,103nm,18.2s,baz=237,slow=38
SHL   Shillong            51.11 268   ePKP     P        15 41 58.0 +0.8
RES   Resolute Bay        51.71  18   P        P        15 42 00.4 -0.7
      comp=Z,8.0nm,0.9s,mb4.7,baz=324,slow=7.8,SNR=30
RES                                   LR       LR       16 07 05.6
      comp=Z,101nm,19.6s,baz=334,slow=40
ULHL  Ulahol              52.05 295   P        P        15 42 05.1 +1.1
      SNR=11
YKA   Yellowknife Ar      52.08  36   P        P        15 42 03.6 -0.3
      comp=Z,3.6nm,0.5s,mb4.5,baz=297,slow=7.1,SNR=52
YKA   Yellowknife Ar      52.08  36   P        P        15 42 03.6 -0.3
TKM2  Tokmak 2            52.10 296   eP       P        15 42 05.2 +0.8
TKM2                                  pmax     pmax
      comp=Z,2.0nm,0.6s,mb4.2
TKM2  Tokmak 2            52.10 296   eP       P        15 42 05.2 +0.8
      comp=Z,2.0nm,0.6s,mb4.2
USP   Ospenovka           52.60 296   P        P        15 42 06.4 -1.7
      SNR=18
KZA   Kyzart              52.76 295   P        P        15 42 10.0 +0.7
      SNR=15
TAPN  Taplejung           52.88 272   eP       P        15 42 11.3 +0.9
      comp=Z,27nm,0.6s,mb5.3
SPITS Spitsbergen Ar      52.89 349   LR       LR       16 06 42.3
      comp=Z,70nm,18.7s,baz=195,slow=38
AAK   Ala-Archa           52.94 296⇑eP       P        15 42 11.3 +0.7
AAK                                   pmax     pmax
      comp=Z,3.0nm,0.7s,mb4.3
AAK                                   MLR      MLR
      comp=Z,100nm,19.0s
AAK   Ala-Archa           52.94 296   P        P        15 42 11.3 +0.7
      SNR=9.6
AAK   Ala-Archa           52.94 296   LR       LR       16 06 00.3
      comp=Z,231nm,20.9s,baz=27,slow=37
AAK   Ala-Archa           52.94 296   eP       P        15 42 10.2 -0.4
      comp=Z,5.6nm,0.8s,mb4.5
SVE   Sverdlovsk          53.35 317   eP       P        15 42 13.6 +0.2
SVE                                   pmax     pmax
      comp=Z,9.0nm,0.8s,mb4.8
EKS2  Erkin-Say           53.37 296   P        P        15 42 14.6 +0.8
      SNR=15
EKS2  Erkin-Say           53.37 296   eP       P        15 42 13.3 -0.5
      comp=Z,5.8nm,0.7s,mb4.6
ODAN  Odare               53.41 272   eP       P        15 42 14.8 +0.6
      comp=Z,10nm,0.5s,mb5.0
KSH   Kashi               53.69 292   P        P        15 42 22.0 +5.9
KSH                                   pP       pP       15 42 32.3 -0.6
KSH                                   sP       sP       15 42 36.0 -4.2
KSH                                   ePcP     PcP      15 43 26.0 +4.4
KSH                                   ePP      PP       15 44 25.3 +8.0
KSH                                   ePcS     PcS      15 47 23.8 +3.0
KSH                                   eS       S        15 49 55.0  +10
KSH                                   esS      sS       15 50 12.0 -1.5
KSH                                   pmax     pmax
      comp=Z,13nm,0.5s,mb5.1
KSH                                   pmax     pmax
      comp=Z,210nm,4.7s
KSH                                   LR       LR
      comp=N,190nm,6.0s
KSH                                   LR       LR
      comp=E,210nm,7.5s
KSH                                   LR       LR
      comp=Z,190nm,5.8s
AML   Almayashu           53.71 296   P        P        15 42 15.0 -1.2
      SNR=8.0
AML   Almayashu           53.71 296   eP       P        15 42 16.6 +0.4
      comp=Z,4.2nm,0.8s,mb4.4
JIRN  Jiri                53.74 274   eP       P        15 42 17.6 +0.9
      comp=Z,46nm,0.5s,mb5.7
GUN   Gumba               53.80 274   eP       P        15 42 17.7 +0.6
      comp=Z,22nm,0.4s,mb5.4
RAMN  Ramite              53.90 273   eP       P        15 42 18.4 +0.6
      comp=Z,88nm,0.6s,mb5.8
KKN   Kakani              54.29 274   eP       P        15 42 21.2 +0.5
      comp=Z,30nm,0.6s,mb5.4
KKN   Kakani              54.29 274   eP       P        15 42 21.2 +0.5
KKN                                   pmax     pmax
      comp=Z,30nm,0.6s,mb5.4
PKI   Pulchoki            54.34 274   eP       P        15 42 21.6 +0.6
PKIN  Phulchoki           54.34 274   eP       P        15 42 21.5 +0.5
      comp=Z,19nm,0.5s,mb5.2
DMN   Daman               54.52 274   eP       P        15 42 23.1 +0.7
      comp=Z,38nm,0.6s,mb5.6
ARU   Arti                54.54 317c  iP       P        15 42 21.6 -0.5
ARU                                   e                 15 43 22.2
ARU                                   S        S        15 49 57.7 +1.5
ARU                                   SS       SS       15 53 38.8  0.0
ARU                                   pmax     pmax
      comp=Z,10.0nm,1.2s,mb4.7
ARU                                   MLR      MLR
      comp=Z,331nm,18.0s
GKN   Gorkha              54.60 275   eP       P        15 42 23.6 +0.7
      comp=Z,21nm,0.4s,mb5.6
DANN  Dangsing            54.99 276   eP       P        15 42 26.8 +1.1
      comp=Z,46nm,0.5s,mb5.8
KOLN  Koldanda            55.46 276   eP       P        15 42 29.9 +0.8
      comp=Z,62nm,0.8s,mb5.7
F03A  Seaside             56.17  57   ⇑P       P        15 42 33.7 -0.3
      baz=56
A07A  Ashnola River,      56.25  52   ⇓P       P        15 42 33.8 -0.7
      baz=56
B07A  Winthrop            56.72  53   ⇓P       P        15 42 37.4 -0.4
      baz=56
F04A  Amboy               56.83  56   ⇑P       P        15 42 38.6  0.0
      baz=56
D06A  Cle Elum            57.02  54   ⇓P       P        15 42 39.9  0.0
      baz=57
PRGR  Permogore           57.12 327   eP       P        15 42 39.5 -0.9
PRGR                                  pmax     pmax
      comp=Z,51nm,1.1s,mb5.5
C07A  Waterville          57.18  53   ⇑P       P        15 42 41.0  0.0
      baz=57
B08A  Colville Reser      57.21  52   ⇑P       P        15 42 41.2 -0.1
      baz=57
A09A  Danville            57.27  52   ⇓P       P        15 42 41.8 +0.1
      baz=57
KEV   Kevo                57.40 340   eP       P        15 42 42.1 -0.2
KEV                                   pmax     pmax
      comp=Z,2.0nm,0.6s,mb4.3
KEV   Kevo                57.40 340   ep       P        15 42 42.1 -0.2
      comp=Z,2.4nm,0.6s,mb4.4
HOOD  Mount Hood Mea      57.62  57   eP       P        15 42 43.0 -1.2
      comp=Z,23nm,1.0s,mb5.2
H04A  Detroit Lake        57.68  57   ⇑P       P        15 42 44.7 +0.1
      baz=57,SNR=5.2
C08A  Higginbotham F      57.69  53   ⇓P       P        15 42 44.3 -0.4
      baz=57
A10A  Northport           57.82  51   ⇓P       P        15 42 45.5  0.0
      baz=58
B09A  Rice                57.82  52   ⇑P       P        15 42 45.3 -0.3
      baz=58
G05A  Wamic               57.86  56   ⇓P       P        15 42 45.9  0.0
      baz=58
F06A  Goldendale          57.87  56   ⇓P       P        15 42 46.2 +0.2
      baz=58
ARCES ARCESS Array B      57.92 340   P        P        15 42 45.8 -0.2
      comp=Z,1.6nm,0.7s,mb4.2,baz=45,slow=7.3,SNR=9.9
ARCES                                 LR       LR       16 11 32.1
      comp=Z,64nm,18.4s,baz=25,slow=40
E07A  Sunnyside           57.94  54   ⇑P       P        15 42 46.4  0.0
      baz=58
C09A  Chrisman Ranch      58.11  53   ⇓P       P        15 42 47.3 -0.3
      baz=58
AKTO  Aktyubinsk          58.13 311   LR       LR       16 10 28.6
      comp=Z,432nm,18.1s,baz=85,slow=39
D08A  Wollman Farm,       58.18  54   ⇓P       P        15 42 47.8 -0.3
      baz=58
E08A  Dider Farm, El      58.43  54   ⇑P       P        15 42 50.0 +0.1
      baz=58
A11A  Hall Mountain,      58.48  51   ⇓P       P        15 42 50.1  0.0
      baz=58
H06A  Lindquist Farm      58.73  56   ⇑P       P        15 42 52.2 +0.2
      baz=58
B11A  Sandpoint           58.78  51   ⇓P       P        15 42 52.5 +0.2
      baz=58
G07A  Ruggs Ranch, H      58.80  56   ⇓P       P        15 42 52.8 +0.4
      baz=58
A12A  Yaak River Ran      58.87  50   ⇑P       P        15 42 53.1 +0.2
      baz=59
E09A  Wood Farm, Sta      58.93  54   ⇓P       P        15 42 53.6 +0.2
      baz=59
F08A  Pendleton           59.00  55   ⇓P       P        15 42 54.3 +0.5
      baz=59
YBH   Yreka Blue Hor      59.08  60   P        P        15 42 54.4  0.0
      comp=Z,2.1nm,0.8s,mb4.2,baz=11,slow=3.9,SNR=5.0
YBH                                   LR       LR       16 04 15.0
      comp=Z,124nm,21.9s,baz=244,slow=32
G08A  Pilot Rock          59.19  55   ⇑P       P        15 42 54.9 -0.3
      baz=59
I06A  Prineville          59.26  57   ⇑P       P        15 42 56.0 +0.4
      baz=59
E10A  Myers Farm, Un      59.52  53   ⇑P       P        15 42 57.4  0.0
      baz=59
A13A  Flathead Natio      59.53  50   ⇑P       P        15 42 57.4  0.0
      baz=59
K05A  Summer Lake         59.58  59   ⇑P       P        15 42 58.7 +0.8
      baz=59,SNR=5.4
I07A  Izee                59.59  57   ⇓P       P        15 42 58.3 +0.4
      baz=59
D11A  Klaveano Farm,      59.62  52   ⇑P       P        15 42 57.7 -0.4
      baz=59
C12B  Naegeli Ranch,      59.70  51   ⇑P       P        15 42 58.6  0.0
      baz=59
J06A  Christmas Vall      59.71  58   ⇑P       P        15 42 59.1 +0.4
      baz=59,SNR=6.7
H08A  Prairie City        59.81  56   ⇓P       P        15 42 59.6 +0.1
      baz=60
B13A  Whitefish           59.84  50   ⇓P       P        15 42 59.8 +0.2
      baz=60,SNR=5.9
G09A  Cove                59.87  55   ⇓P       P        15 43 00.1 +0.3
      baz=60
BSMT  Bassoo Peak         59.98  51   eP       P        15 42 59.7 -0.9
      comp=Z,6.5nm,1.2s,mb4.5
A14A  Double T Ranch      60.03  49   ⇑P       P        15 43 01.2 +0.4
      baz=60
E11A  Bogner Ranch,       60.10  53   ⇓P       P        15 43 01.6 +0.2
      baz=60
J07A  Hines               60.13  57   ⇓P       P        15 43 02.0 +0.4
      baz=60
C13A  Hot Springs         60.20  51   ⇑P       P        15 43 02.4 +0.4
      baz=60
G10A  Bishop Farm, J      60.23  54   ⇑P       P        15 43 02.7 +0.4
      baz=60
I08A  Drewsey             60.23  56   ⇑P       P        15 43 02.7 +0.4
      baz=60,SNR=5.1
H09A  Durkee              60.30  55   ⇑P       P        15 43 03.3 +0.5
      baz=60
F11A  Grangeville         60.41  53   ⇓P       P        15 43 03.8 +0.3
      baz=60
MOD   Modoc               60.42  59   eP       P        15 43 02.8 -0.9
      comp=Z,7.0nm,1.1s,mb4.6
K07A  Rock Creek Ran      60.57  58   ⇑P       P        15 43 04.8 +0.2
      baz=60,SNR=5.3
SWMT  Swartz Lake         60.61  51   eP       P        15 43 04.5 -0.4
      comp=Z,3.9nm,1.0s,mb4.5
D13A  Huson               60.62  51   ⇑P       P        15 43 05.1 +0.2
      baz=60
J08A  Circle Bar Ran      60.62  57   ⇑P       P        15 43 05.5 +0.5
      baz=60
H10A  Noah’s Angus R      60.87  55   ⇓P       P        15 43 06.9 +0.3
      baz=61
B15A  Bradely Ranch,      60.89  49   ⇑P       P        15 43 07.1 +0.4
      baz=61
L07A  Adell               60.93  58   ⇓P       P        15 43 07.5 +0.4
      baz=61,SNR=7.0
F12A  Elk City            60.99  53   ⇑P       P        15 43 07.4 -0.1
      baz=61,SNR=6.0
K08A  Mann Creek Ran      61.00  57   ⇓P       P        15 43 07.8 +0.3
      baz=61,SNR=7.6
A16A  West Butte Ran      61.00  48   ⇓P       P        15 43 07.5  0.0
      baz=61
J09A  Fry Pan Ranch,      61.05  56   ⇓P       P        15 43 08.2 +0.3
      baz=61
SLMT  Seeley Lake         61.05  51   eP       P        15 43 07.7 -0.1
      comp=Z,7.7nm,0.9s,mb4.8
MSO   Missoula            61.06  51   eP       P        15 43 07.8 -0.1
      comp=Z,7.2nm,1.2s,mb4.7
WVOR  Wild Horse Val      61.09  58   eP       P        15 43 07.5 -0.7
WVOR                                  pmax     pmax
      comp=Z,6.0nm,0.9s,mb4.7
WVOR  Wild Horse Val      61.09  58   eP       P        15 43 07.5 -0.7
      comp=Z,6.4nm,0.9s,mb4.8
KBL   Kabul               61.09 291   eP       P        15 43 07.4 -0.9
KBL                                   pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.7
KBL   Kabul               61.09 291   eP       P        15 43 07.4 -0.9
      comp=Z,4.5nm,0.6s,mb4.8
D14A  Greenough           61.14  51   ⇓P       P        15 43 08.4  0.0
      baz=61,SNR=11
I10A  Payette             61.14  55   ⇑P       P        15 43 09.0 +0.5
      baz=61
E13A  Victor              61.16  52   ⇑P       P        15 43 09.0 +0.4
      baz=61
C15A  Salmond Ranch,      61.19  50   ⇑P       P        15 43 09.3 +0.5
      baz=61,SNR=7.2
H11A  Donnelly            61.21  54   ⇑P       P        15 43 08.8 -0.2
      baz=61,SNR=6.6
JOF   Joensuu             61.23 333   ep       P        15 43 07.3 -1.5
      comp=Z,2.3nm,0.5s,mb4.6
N06A  Buffalo Meadow      61.41  60   ⇑P       P        15 43 10.5 +0.2
      baz=61,SNR=5.3
L08A  Fields              61.41  58   ⇑P       P        15 43 10.8 +0.4
      baz=61,SNR=6.9
M07A  Soldier Meadow      61.41  59   ⇓P       P        15 43 11.1 +0.7
      baz=61,SNR=19
K09A  Rome                61.46  57   ⇓P       P        15 43 10.7 +0.1
      baz=61
A17A  Triple J Farms      61.47  48   ⇓P       P        15 43 10.5 -0.1
      baz=61
E14A  Clinton             61.56  52   ⇑P       P        15 43 11.3  0.0
      baz=61,SNR=5.3
BEKR  Beckwourth          61.63  61   ⇓P       P        15 43 12.1 +0.2
      baz=61,SNR=7.3
C16A  Fuhringer Ranc      61.63  50   ⇓P       P        15 43 11.6 -0.1
      baz=61,SNR=8.0
I11A  Placerville         61.73  55   ⇓P       P        15 43 12.6 +0.2
      baz=61
O06A  Flanigan            61.77  60   ⇓P       P        15 43 13.0 +0.2
      baz=62
B17A  L&G Farms, Che      61.82  49   ⇑P       P        15 43 13.2 +0.1
      baz=62
M08A  Happy Creek Ra      61.84  59   ⇓P       P        15 43 13.6 +0.3
      baz=62
K10A  MacKenzie Ranc      61.91  57   ⇑P       P        15 43 13.9 +0.2
      baz=62
L09A  Wilkinson Ranc      61.91  58   ⇓P       P        15 43 14.3 +0.6
      baz=62
A18A  Metzger Ranch,      61.92  48   ⇑P       P        15 43 14.2 +0.5
      baz=62
FFC   Flin Flon           61.93  39   eP       P        15 43 13.6  0.0
FFC                                   pmax     pmax
      comp=Z,4.0nm,1.0s,mb4.5
FFC   Flin Flon           61.93  39   eP       P        15 43 13.6 -0.1
      comp=Z,4.0nm,1.0s,mb4.5
H12A  Diamond D Ranc      61.96  54   ⇑P       P        15 43 14.2 +0.2
      baz=62
G13A  Cobalt              61.97  53   ⇓P       P        15 43 13.8 -0.2
      baz=62,SNR=9.7
F14A  Wisdom              62.00  52   ⇑P       P        15 43 14.4 +0.2
      baz=62
E15A  Deer Lodge          62.01  51   ⇑P       P        15 43 14.4  0.0
      baz=62
MFID  Camas Ranch         62.11  55   ⇑P       P        15 43 15.2 +0.2
      baz=62
D16A  Dana Ranch, Ca      62.22  50   ⇑P       P        15 43 15.8 +0.1
      baz=62
C17A  Wharram Farm,       62.26  49   ⇑P       P        15 43 16.0  0.0
      baz=62
I12A  Atlanta             62.27  55   ⇓P       P        15 43 16.2 +0.1
      baz=62,SNR=9.8
H13A  Challis             62.29  54   ⇑P       P        15 43 16.2  0.0
      baz=62,SNR=8.8
B18A  Beardsley Farm      62.29  48   ⇑P       P        15 43 16.4 +0.3
      baz=62
G14A  Jackson             62.30  53   ⇑P       P        15 43 16.2 -0.1
      baz=62
O07A  Toulon              62.34  60   ⇑P       P        15 43 16.6  0.0
      baz=62,SNR=5.3
WCN   Washoe City         62.34  61   ⇑P       P        15 43 17.0 +0.4
      baz=62
FCC   Fort Churchill      62.37  32   eP       P        15 43 15.4 -1.0
      comp=Z,0.1nm,0.5s
K11A  Parker Ranch,       62.40  56   ⇓P       P        15 43 17.0 +0.1
      baz=62
N08A  GE Springer Mi      62.40  59   ⇓P       P        15 43 17.2 +0.2
      baz=62
F15A  Butte               62.46  52   ⇓P       P        15 43 17.2 -0.1
      baz=62
LRM   Limekiln Ridge      62.49  52   eP       P        15 43 17.6 +0.1
      comp=Z,58nm,1.2s,mb5.6
EGMT  Eagleton            62.54  48   ⇑P       P        15 43 17.8  0.0
      baz=62
L10A  Juniper Basin       62.57  57   ⇓P       P        15 43 18.5 +0.3
      baz=62
D17A  Six Diamond Ra      62.60  50   ⇓P       P        15 43 18.4 +0.2
      baz=62
J12A  Stokes Ranch,       62.63  55   ⇓P       P        15 43 18.6 +0.1
      baz=62,SNR=6.1
I13A  Wildhorse Cree      62.77  54   ⇑P       P        15 43 19.6 +0.2
      baz=62,SNR=6.5
HLID  Hailey              62.83  55   ⇓P       P        15 43 19.5 -0.3
      baz=62
M10A  I.L. Ranch, Tu      62.88  57   ⇑P       P        15 43 20.4 +0.2
      baz=63,SNR=5.2
G15A  Dillon              62.89  52   ⇓P       P        15 43 20.3 +0.2
      baz=63
L11A  Cat Creek Ranc      62.93  56   ⇓P       P        15 43 21.1 +0.6
      baz=63,SNR=7.8
E17A  Martinsdale         62.95  50   ⇑P       P        15 43 20.7 +0.2
      baz=63
F16A  Kennard Place,      62.97  51   ⇑P       P        15 43 21.1 +0.4
      baz=63
R06C  Coleville           63.02  62   ⇑P       P        15 43 21.8 +0.6
      baz=63,SNR=6.3
BOZ   Bozeman (W)         63.05  51   ⇑P       P        15 43 21.9 +0.7
      baz=63
J13A  Cove Ranch, Pi      63.06  55   ⇓P       P        15 43 21.7 +0.3
      baz=63,SNR=5.6
K12A  Draper Farm, C      63.13  56   ⇑P       P        15 43 22.4 +0.6
      baz=63
I14A  Mackay              63.13  54   ⇑P       P        15 43 22.4 +0.6
      baz=63,SNR=10
G16A  Moss Hill, Enn      63.22  52   ⇓P       P        15 43 22.7 +0.3
      baz=63,SNR=6.4
KAF   Kangasniemi         63.38 334   eP       P        15 43 21.8 -1.3
KAF                                   pmax     pmax
      comp=Z,5.0nm,0.7s,mb4.8
KAF   Kangasniemi         63.38 334   ep       P        15 43 21.8 -1.3
      comp=Z,5.3nm,0.7s,mb4.8
M11A  Holland Ranch,      63.38  57   ⇓P       P        15 43 24.1 +0.6
      baz=63,SNR=5.3
F17A  Fitzpatrick Pl      63.41  51   ⇑P       P        15 43 24.2 +0.5
      baz=63
J14A  Carey               63.48  54   ⇑P       P        15 43 24.7 +0.6
      baz=63,SNR=14
Q08A  Gabbs               63.73  61   ⇓P       P        15 43 26.2 +0.4
      baz=63,SNR=6.3
G17A  Pierce Place,       63.74  51   ⇑P       P        15 43 26.4 +0.6
      baz=63
NVAR  Mina Array Bea      63.77  61   P        P        15 43 26.7 +0.5
      comp=Z,3.9nm,0.8s,mb4.5,baz=289,slow=7.6,SNR=25
NVAR  Mina Array Bea      63.77  61   P        P        15 43 26.7 +0.5
H16A  Russell Place,      63.86  52   ⇑P       P        15 43 27.3 +0.7
      baz=64
F18A  Big Timber          63.91  50   ⇓P       P        15 43 27.2 +0.3
      baz=64,SNR=5.8
FINES FINESS Array B      63.96 334   P        P        15 43 25.4 -1.6
      comp=Z,4.7nm,0.5s,mb4.8,baz=33,slow=7.6,SNR=28
FINES                                 LR       LR       16 11 46.9
      comp=Z,190nm,19.2s,baz=106,slow=36
L13A  Double Diamond      64.03  56   ⇓P       P        15 43 28.5 +0.7
      baz=64
J15A  Blackfoot           64.04  54   ⇑P       P        15 43 28.3 +0.5
      baz=64
P10A  Eureka              64.13  59   ⇑P       P        15 43 28.8 +0.4
      baz=64
K14A  Jones Ranch, D      64.17  55   ⇑P       P        15 43 29.5 +0.8
      baz=64
N12A  Clover Valley,      64.18  57   ⇑P       P        15 43 29.1 +0.4
      baz=64
N12A  Clover Valley,      64.18  57   eP       P        15 43 26.9 -1.8
      comp=Z,4.5nm,0.4s,mb4.8
I16A  Newdale             64.26  53   ⇑P       P        15 43 30.0 +0.7
      baz=64
O11A  Cowboy Ranch,       64.28  58   ⇓P       P        15 43 30.1 +0.6
      baz=64
M13A  Montello            64.36  56   ⇑P       P        15 43 30.4 +0.5
      baz=64
M13A  Montello            64.36  56   eP       P        15 43 29.5 -0.4
      comp=Z,4.0nm,0.9s,mb4.5
G18A  Lazy EL Ranch,      64.38  51   ⇑P       P        15 43 29.9 -0.1
      baz=64
H17A  Grant Village       64.43  52   ⇑P       P        15 43 31.3 +0.9
      baz=64
K15A  Arbon               64.45  54   ⇑P       P        15 43 31.2 +0.7
      baz=64
J16A  Bone                64.58  53   ⇓P       P        15 43 31.8 +0.5
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	baz=64,SNR=8.0						
R09A	Tonopah	64.64	61	⇓P	P	15 43 32.0	+0.2
	baz=64,SNR=8.4						
RLMT	Red Lodge	64.66	51	⇓P	P	15 43 32.5	+0.7
	baz=64						
RLMT	Red Lodge	64.66	51	eP	P	15 43 31.7	-0.1
	comp=Z,7.3nm,1.1s,mb4.6						
N13A	Wendover, West	64.67	57	⇑P	P	15 43 32.3	+0.4
	baz=64						
Q10A	Clear Creek Ra	64.67	60	⇓P	P	15 43 32.4	+0.4
	baz=64						
RRI2	Red Ridge	64.70	53	eP	P	15 43 33.0	+0.9
	comp=Z,8.9nm,0.7s,mb4.9						
O12A	Currie	64.73	58	⇑P	P	15 43 32.6	+0.3
	baz=64,SNR=5.1						
I17A	Pilgrim Ck.	64.73	52	⇓P	P	15 43 33.4	+1.1
	baz=64						
M14A	Sheep Mountain	64.74	56	⇓P	P	15 43 33.2	+0.7
	baz=64						
TPAW	Teton Pass	64.81	53	eP	P	15 43 33.6	+0.7
	comp=Z,7.7nm,0.8s,mb4.8						
S09A	Goldfield	64.88	61	⇓P	P	15 43 33.8	+0.4
	baz=65						
K16A	Soda Springs	64.88	54	⇓P	P	15 43 34.1	+0.8
	baz=65						
LOHW	Long Hollow	64.92	53	eP	P	15 43 33.1	-0.4
	comp=Z,7.5nm,1.3s,mb4.6						
REDW	Red Top Meadow	64.95	53	eP	P	15 43 34.2	+0.5
	comp=Z,7.8nm,1.2s,mb4.6						
L15A	Malad City	64.97	55	⇑P	P	15 43 34.6	+0.7
	baz=65						
J17A	Brown Place, J	65.02	53	⇑P	P	15 43 35.1	+0.8
	baz=65						
DGMT	Dagmar	65.06	45	⇑P	P	15 43 34.5	+0.2
	baz=65						
R10A	Warm Springs	65.08	60	⇓P	P	15 43 34.9	+0.3
	baz=65						
Q11A	Duckwater	65.10	59	⇑P	P	15 43 34.7	-0.1
	baz=65						
S10A	Tonopah Range,	65.13	61	⇓P	P	15 43 34.6	-0.4
	baz=65,SNR=5.6						
CWC	Cottonwood Cre	65.18	63	⇑P	P	15 43 35.3	0.0
	baz=65						
GRAC	Grapevine Rang	65.26	62	⇑P	P	15 43 35.9	+0.1
	baz=65						
O13A	Hicks Ranch, I	65.26	57	⇓P	P	15 43 35.8	0.0
	baz=65						
M15A	Larsen Ranch,	65.28	55	⇑P	P	15 43 36.1	+0.1
	baz=65,SNR=12						
ISA	Isabella	65.44	64	⇓P	P	15 43 36.4	-0.6
	baz=65						
R11A	Troy Canyon, C	65.47	60	⇑P	P	15 43 37.0	-0.2
	baz=65,SNR=8.3						
Q12A	Willow Creek R	65.47	59	⇓P	P	15 43 37.5	+0.3
	baz=65						
L16A	Fish Haven	65.50	54	⇓P	P	15 43 37.7	+0.4
	baz=65						
P13A	Bates Ranch, G	65.68	58	⇓P	P	15 43 38.9	+0.4
	baz=65						
HYB	Hyderabad	65.76	270	i P	P	15 43 40.0	+0.7
HYB	Hyderabad	65.76	270	eP	P	15 43 40.0	+0.7
MPMC	Manual Prospec	65.79	63	⇑P	P	15 43 39.4	+0.1
	baz=66,SNR=7.3						
S11A	Rachel	65.83	60	⇓P	P	15 43 39.9	+0.4
	baz=66						
M16A	Huntsville	65.85	55	⇑P	P	15 43 40.0	+0.4
	baz=66						
SFJD	Kangerlussuaq	65.86	9	LR	LR	16 17 13.5	
	comp=Z,132nm,19.1s,baz=329,slow=40						
K18A	Toltan Ranch,	65.87	53	⇑P	P	15 43 40.2	+0.5
	baz=66						
DUG	Dugway	65.90	57	eP	P	15 43 40.1	+0.2
DUG				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.7						
DUG	Dugway	65.90	57	⇑P	P	15 43 40.1	+0.1
	baz=66,SNR=6.1						
DUG	Dugway	65.90	57	eP	P	15 43 40.1	+0.2
	comp=Z,11nm,1.3s,mb4.7						
FURC	Furnace Creek,	65.91	62	⇑P	P	15 43 40.3	+0.2
	baz=66						
Q13A	Wheeler Ranch,	66.00	58	⇓P	P	15 43 40.9	+0.3
	baz=66						
BW06	Boulder Array	66.05	53	⇑P	P	15 43 40.5	-0.4
	baz=66,SNR=8.5						
PDAR	Pinedale Array	66.05	53	P	P	15 43 41.0	+0.1
	comp=Z,4.2nm,0.8s,mb4.5,baz=303,slow=1.5,SNR=38						
PDAR				pP	pP	15 43 58.3	+0.2
	comp=Z,3.1nm,0.9s,baz=316,slow=4.1,SNR=6.2						
R12A	Pony Springs,	66.06	59	⇑P	P	15 43 41.2	+0.2
	baz=66						
P14A	Drum Mountains	66.15	57	⇓P	P	15 43 41.7	+0.2
	baz=66						
N16A	Rees Ranch, Co	66.24	55	⇓P	P	15 43 42.2	+0.1
	baz=66						
EDW2	Edwards Air Fo	66.25	64	⇓P	P	15 43 42.5	+0.2
	baz=66						
M17A	Scullys Gap (B	66.29	54	⇑P	P	15 43 42.4	0.0
	baz=66						
L18A	Fontenelle, Gr	66.34	54	⇓P	P	15 43 42.9	+0.1
	baz=66						
T11A	Corn Creek, Al	66.41	60	⇓P	P	15 43 43.2	0.0
	baz=66,SNR=5.3						
Q14A	Sevier Lake (B	66.42	58	⇑P	P	15 43 43.2	-0.1
	baz=66,SNR=5.5						
R13A	O'Grain Ranch,	66.54	59	⇑P	P	15 43 44.3	+0.2
	baz=66						
N17A	Moffit Pass	66.54	55	⇓P	P	15 43 43.9	-0.1
	baz=66,SNR=5.5						
O16A	Springville	66.65	56	⇑P	P	15 43 45.6	+0.9
	baz=66						
GSC	Goldstone	66.70	63	⇓P	P	15 43 45.5	+0.4
	baz=66						
TUQ	Turquoise Moun	67.16	62	⇑P	P	15 43 48.2	+0.1
	baz=67						
L20A	Wamsutter	67.23	53	⇓P	P	15 43 48.5	+0.1
	baz=67						
N19A	John Jarvie Ra	67.51	54	⇑P	P	15 43 50.3	+0.2
	baz=67						
WRAB	Tennant Creek	67.63	197	eP	P	15 43 50.2	-0.8
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
WRAB	Tennant Creek	67.63	197	eP	P	15 43 50.2	-0.8
	comp=Z,7.2nm,0.8s,mb4.8						
WRA	Warramunga Arr	67.64	197	P	P	15 43 49.8	-1.2
	comp=Z,9.5nm,0.8s,mb4.9,baz=16,slow=6.7,SNR=58						
M20A	Sweetwater, Wa	67.66	53	⇓P	P	15 43 51.4	+0.3
	baz=67						
U13A	Pakoon Wash	67.71	60	⇓P	P	15 43 51.5	0.0
	baz=67,SNR=7.2						
ULM	Lac du Bonnet	67.72	40	P	P	15 43 50.5	-0.9
	comp=Z,1.8nm,0.4s,mb4.4,baz=293,slow=6.5,SNR=4.8						
GMRC	Granite Mounta	67.75	63	⇑P	P	15 43 51.3	-0.5
	baz=68						
L21A	Rawlins	67.79	52	⇓P	P	15 43 51.8	-0.1
	baz=68						
R16A	Teasdale	67.94	57	⇑P	P	15 43 53.4	+0.5
	baz=68,SNR=6.9						
SRU	San Rafael	67.94	56	⇓P	P	15 43 53.0	+0.1
	baz=68						
O19A	Miners Draw (B	67.94	54	⇑P	P	15 43 52.7	-0.2
	baz=68						
M21A	Separation Pea	68.04	52	⇑P	P	15 43 53.3	-0.2
	baz=68						
N20A	Spence Gulch,	68.06	54	⇓P	P	15 43 54.1	+0.4
	baz=68,SNR=6.8						
V13A	Grand Canyon W	68.07	61	⇑P	P	15 43 53.8	0.0
	baz=68,SNR=5.4						
FITZ	Fitzroy Crossi	68.12	206	P	P	15 43 53.4	-0.7
	comp=Z,9.4nm,1.1s,mb4.7,baz=322,slow=5.2,SNR=5.4						
U14A	Mt Trumbull	68.18	60	⇓P	P	15 43 54.5	+0.1
	baz=68,SNR=5.5						
T15A	Red Dirt Ranch	68.25	59	⇑P	P	15 43 55.1	+0.2
	baz=68						
POO	Poona	68.26	274	ePKP	P	15 43 53.0	-2.2
R17A	Hanksville Air	68.30	57	⇓P	P	15 43 54.9	-0.3
	baz=68						
NB2	NORSAR Subarra	68.30	340	P	P	15 43 53.2	-1.6
	comp=Z,3.9nm,0.6s,mb4.6,baz=29,slow=6.5						
NOA	NORSAR Array B	68.30	340	P	P	15 43 54.2	-0.6
	comp=Z,4.8nm,0.8s,mb4.6,baz=29,slow=6.4,SNR=16						
NOA				LR	LR	16 18 57.8	
	comp=Z,93nm,18.6s,baz=10.0,slow=40						
NOA	NORSAR Array B	68.30	340	P	P	15 43 54.2	-0.6
NOA				LR	LR	16 18 57.8	
P19A	Cripple Cowboy	68.47	55	⇓P	P	15 43 56.3	+0.1
	baz=68						
IRM	Iron Mountain	68.48	63	⇑P	P	15 43 56.1	-0.3
	baz=68,SNR=5.3						
N21A	Black Mountain	68.53	53	⇓P	P	15 43 56.9	+0.3
	baz=68						
M22A	Cedar Creek Ra	68.60	52	⇑P	P	15 43 56.9	-0.1
	baz=68						
BC3	Big Chuckw Mtn	68.63	63	⇓P	P	15 43 57.2	-0.1
	baz=68						
W13A	Hualapai Mount	68.63	61	⇑P	P	15 43 57.3	0.0
	baz=68						
V14A	Boquillas Ranc	68.75	60	⇓P	P	15 43 58.1	+0.1
	baz=68,SNR=6.4						
Q19A	Hogan Spring (	68.77	56	⇓P	P	15 43 57.9	-0.2
	baz=68						
S17A	Black Ridge (B	68.77	58	⇑P	P	15 43 57.8	-0.3
	baz=68,SNR=7.8						
R18A	Canyonlands Na	68.79	56	⇓P	P	15 43 57.8	-0.4
	baz=68						
X13A	Yucca	69.00	62	⇓P	P	15 43 59.4	-0.2
	baz=69,SNR=5.2						
PDMCI	Parker Dam,Lak	69.01	62	⇑P	P	15 43 59.6	-0.1
	baz=69						
W14A	Seligman	69.04	61	⇑P	P	15 43 59.7	-0.1
	baz=69						
N22A	Wattenberg Ran	69.09	53	⇑P	P	15 44 00.3	+0.3
	baz=69						
V15A	Kaibab Nationa	69.18	60	⇓P	P	15 44 00.8	+0.1
	baz=69						
S18A	Hurst Farm, Bl	69.20	57	⇓P	P	15 44 00.7	-0.1
	baz=69						
U16A	Tuba City	69.59	59	⇓P	P	15 44 03.3	+0.1
	baz=69						
T18A	Mexican Hat	69.65	57	⇓P	P	15 44 03.6	0.0
	baz=69						
S19A	Harvey Farm, M	69.67	56	⇓P	P	15 44 03.4	-0.3
	baz=69,SNR=6.9						
PV01	Paradox Valley	69.73	56	eP	P	15 44 03.0	-1.0
Q21A	Lamborn Mesa,	69.81	55	⇑P	P	15 44 04.9	+0.3
	baz=70						
Y14A	Wickenburg	69.95	62	⇑P	P	15 44 05.4	-0.1
	baz=70						
X15A	Humboldt	70.04	61	⇓P	P	15 44 06.6	+0.5
	baz=70						
Z13A	Yuma Proving G	70.05	63	⇓P	P	15 44 06.1	+0.1
	baz=70						
KIV	Kislovodsk	70.25	313	⇑eP	P	15 44 08.1	+1.0
KIV				e	pP	15 44 28.5	+4.0
KIV				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
KIV				MLR	MLR		
	comp=Z,100nm,16.0s						
Y15A	Casa Rosa Ranc	70.35	61	⇑P	P	15 44 08.3	+0.4
	baz=70						
T19A	Beclabito	70.36	57	⇑P	P	15 44 08.2	+0.3
	baz=70						
MVCO	Mesa Verde	70.40	57	⇓P	P	15 44 08.4	+0.2
	baz=70						
X16A	Lo Mia Camp, P	70.57	60	⇑P	P	15 44 09.4	+0.2
	baz=70						
V18A	Ganado	70.59	59	⇑P	P	15 44 09.4	0.0
	baz=70						
R22A	Saguache, Gunn	70.70	55	⇓P	P	15 44 09.9	0.0
	baz=70						
114A	Black Gap (USA	70.83	63	⇑P	P	15 44 10.6	-0.3
	baz=70						
AKASG	Malin Array Be	71.27	325	P	P	15 44 11.7	-1.5
	comp=Z,4.7nm,0.5s,mb4.7,baz=36,slow=6.1,SNR=16						
AKBB	Malin Array Si	71.27	325	eP	P	15 44 10.8	-2.4
KIEV	Kiev	71.28	325	eP	P	15 44 11.3	-1.9
KIEV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
KIEV	Kiev	71.28	325	eP	P	15 44 11.3	-1.9
	comp=Z,6.3nm,0.8s,mb4.6						
ASAR	Alice Springs	71.34	197	P	P	15 44 13.2	-0.6
	comp=Z,4.8nm,0.8s,mb4.5,baz=12,slow=6.0,SNR=49						
ASAR				pP	pP	15 44 31.8	+0.5
	comp=Z,1.9nm,0.8s,baz=12,slow=6.1,SNR=4.7						
EYMN	Ely	71.36	39	eP	P	15 44 12.4	-1.4
	comp=Z,9.8nm,1.1s,mb4.7						
214A	Organ Pipe Nat	71.41	63	⇓P	P	15 44 14.4	0.0
	baz=71						
Y17A	Roosevelt	71.43	61	⇓P	P	15 44 14.8	+0.3
	baz=71						
T22A	Edith	71.46	56	⇑P	P	15 44 14.3	-0.2
	baz=71						
GNI	Garni	71.90	309	i P	P	15 44 18.7	+1.5
GNI				pmax	pmax		
	comp=Z,20nm,2.4s						
GNI				MLR	MLR		
	comp=Z,200nm,23.0s						
ECSD	EROS Data Cent	72.13	45	eP	P	15 44 17.6	-0.9
	comp=Z,5.1nm,0.9s,mb4.5						
ECSD				ePcP	PcP	15 44 35.5	-1.0
ANN	Anapa	72.21	317	eP	P	15 44 13.4	-5.5
ANN				e	pP	15 44 34.2	-2.2
ANN				eS	S	15 53 28.4	-8.0
ANN				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.0						
216A	Three Points,	72.22	62	⇓P	P	15 44 19.1	-0.1
	baz=72						
117A	Oracle	72.27	61	⇑P	P	15 44 19.5	0.0
	baz=72						
218A	Dragoon	73.10	61	⇑P	P	15 44 24.8	+0.4
	baz=73						
318A	Bisbee	73.51	62	⇑P	P	15 44 26.9	0.0
	baz=73						
319A	Douglas	73.98	61	⇓P	P	15 44 30.1	+0.4
	baz=74						
121A	Cookes Peak, D	74.08	60	⇑P	P	15 44 30.4	+0.3
	baz=74						
SCHQ	Schefferville	74.26	22	P	P	15 44 30.5	-0.3
	comp=Z,2.5nm,0.5s,mb4.4,baz=341,slow=7.8,SNR=14						
KWP	Kalwaria Pacla	74.61	328	eP	P	15 44 33.5	+0.6
KWP	Kalwaria Pacla	74.61	328	⇓iP	P	15 44 33.3	+0.3
KWP	Kalwaria Pacla	74.61	328	eP	P	15 44 33.5	+0.5
BSEG	Bad Segeberg	74.83	337	eP	P	15 44 33.7	-0.5
	comp=Z,13nm,1.0s,mb4.8						
OJC	Ojcow	75.16	330	eP	P	15 44 36.0	-0.1
BUR08	Bucovina Ar. S	75.30	326	eP	P	15 44 36.8	-0.2
BURAR	Bucovina Array	75.32	326	⇑iP	P	15 44 36.9	-0.2
BURAR	Bucovina Array	75.32	326	⇑P	P	15 44 36.9	-0.1
STHS	Stebnicka Huta	75.32	329	eP	P	15 44 37.9	+0.8
STHS				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
STHS	Stebnicka Huta	75.32	329	eP	P	15 44 37.9	+0.8
	comp=Z,6.9nm,0.6s,mb4.8						
KOLS	Kolonicke sedl	75.35	328	eP	P	15 44 37.4	+0.2
KOLS				pmax	pmax		
	comp=Z,15nm,1.8s,mb4.6						
KOLS	Kolonicke sedl	75.35	328	eP	P	15 44 37.4	+0.2
	comp=Z,15nm,1.8s,mb4.6						
CRVS	Cervenica-Dubn	75.67	328	eP	P	15 44 39.3	+0.2
CRVS				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
CRVS	Cervenica-Dubn	75.67	328	eP	P	15 44 39.3	+0.2
	comp=Z,4.5nm,0.7s,mb4.5						
TRPA	Tarpa	75.92	327	⇓iP	P	15 44 40.5	0.0
AMTX	Amarillo	75.94	54	eP	P	15 44 40.3	-0.6
	comp=Z,8.6nm,0.8s,mb4.7						
OKC	Ostrava-Krasne	76.04	331	eP	P	15 44 41.9	+0.7
UPC	Upice	76.17	332	eP	P	15 44 41.6	-0.3
DPC	Dobruska-Polom	76.21	332	eP	P	15 44 42.3	+0.2
MORC	Moravsky Berou	76.30	331	eP	P	15 44 41.8	-0.8
MORC				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MORC	Moravsky Berou	76.30	331	⇓iP	P	15 44 42.8	+0.2
MORC	Moravsky Berou	76.30	331	eP	P	15 44 41.8	-0.8
	comp=Z,2.7nm,0.6s,mb4.3						
KECS	Kecovo	76.38	329	eP	P	15 44 43.1	0.0
KECS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
KECS	Kecovo	76.38	329	eP	P	15 44 43.1	0.0
	comp=Z,3.4nm,0.8s,mb4.3						
CLL	Collm	76.40	335	⇓iP	P	15 44 42.5	-0.7
CLL				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.0						
CLL				MLR	MLR		
	comp=Z,200nm,17.6s						
CLL	Collm	76.40	335	eP	P	15 44 42.7	-0.5
	comp=Z,10.0nm,0.5s,mb5.0						
CLL	Collm	76.40	335	⇓iP	P	15 44 42.5	-0.7
	comp=Z,9.0nm,0.5s,mb5.0						
MALT	Malatya	76.58	312	eP	P	15 44 45.0	+0.6
MALT				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
MALT	Malatya	76.58	312	⇓iP	P	15 44 45.5	+1.1
MALT	Malatya	76.58	312	eP	P	15 44 45.0	+0.6
	comp=Z,3.2nm,0.8s,mb4.3						
CLZ	Clausthal	76.69	336	eP	P	15 44 45.0	+0.2
CLZ				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
CLZ	Clausthal	76.69	336	eP	P	15 44 45.0	+0.2
	comp=Z,14nm,1.1s,mb4.8						
MLR	Muntele Rosu	76.75	324	LR	LR	16 20 38.4	
	comp=Z,123nm,18.6s,baz=42,slow=37						
VYHS	Vyhne	76.95	330	eP	P	15 44 46.4	+0.1
VYHS				pmax	pmax		
	comp=Z,20nm,2.2s,mb4.7						
VYHS	Vyhne	76.95	330	eP	P	15 44 46.4	+0.1
	comp=Z,20nm,2.2s,mb4.7						
DRGR		76.97	327	⇑iP	P	15 44 46.5	+0.1
VRAC	Vranov	77.02	331	⇓iP	P	15 44 46.9	+0.2
VRAC	Vranov	77.02	331	⇓P	P	15 44 46.9	+0.3
KOLL	Kolacno	77.03	330	eP	P	15 44 47.3	+0.5
PSZ	Piszkesteto	77.07	329	⇓iP	P	15 44 47.1	+0.1
PSZ	Piszkesteto	77.07	329	⇓P	P	15 44 47.1	+0.2
PRU	Pruhonice	77.09	333	eP	P	15 44 46.6	-0.5
VOIR		77.16	324	⇓iP	P	15 44 48.1	+0.5
VOIR		77.16	324	⇓P	P	15 44 48.1	+0.5
NKC	Novy Kostel	77.52	334	eP	P	15 44 53.2	+3.7
MODS	Modra-Piesok	77.59	331	eP	P	15 44 50.8	+0.9
MODS				pmax	pmax		
	comp=Z,24nm,1.9s,mb4.8						
MODS	Modra-Piesok	77.59	331	eP	P	15 44 50.8	+0.9
	comp=Z,24nm,1.9s,mb4.8						
UMR	Umm Al-Rimmam	77.81	300	eP	P	15 44 51.3	-0.2
UMR				AMb	AMB	15 44 51.9	
	comp=Z,66nm,0.5s,mb5.8						
MANZ	Manzenberg	77.84	334	eP	P	15 44 51.1	-0.2
	comp=Z,19nm,1.9s,mb4.7						
MIB	Mutribah	77.86	300	eP	P	15 44 51.5	-0.2
MIB				AMb	AMB	15 44 52.1	
	comp=Z,56nm,0.6s,mb5.7						
BRTR	Keskin Array B	77.90	316	P	P	15 44 51.6	-0.2
	comp=Z,2.2nm,0.7s,mb4.2						
ROTZ	Rotzenmuhle	78.00	334	eP	P	15 44 52.4	+0.2
KHC	Kasperske Hory	78.14	333	eP	P	15 44 53.0	0.0
KHC				epP	pP	15 45 06.3	-4.3
KHC				ex	x	15 45 12.6	
STKA	Stephens Creek	78.25	188	P	P	15 44 53.1	-0.3
	comp=Z,2.6nm,1.0s,mb4.1,baz=85,slow=16,SNR=2.6						
NAY	Al-Naaiem	78.32	300	eP	P	15 44 53.9	-0.4
NAY				AMb	AMB	15 44 55.4	
	comp=Z,14nm,0.8s,mb4.9						
WET	Wettzell	78.35	334	eP	P	15 44 54.4	+0.3
WET				pmax	pmax		
	comp=Z,124nm,3.0s						
WET	Wettzell	78.35	334	eP	P	15 44 54.4	+0.3
	comp=Z,124nm,3.0s						
GEC2	GERESS Array S	78.36	333	eP	P	15 44 54.0	-0.1
GEC2				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
GEC2	GERESS Array S	78.36	333	eP	P	15 44 54.0	-0.1
	comp=Z,4.0nm,0.6s,mb4.5						
GERES	GERESS Array B	78.36	333	P	P	15 44 53.6	-0.6
	comp=Z,2.3nm,0.5s,mb4.4,baz=36,slow=5.8,SNR=26						
GERES				LR	LR	16 20 53.6	
	comp=Z,156nm,18.1s,baz=278,slow=37						
RDF	Al-Radifah	78.36	300	eP	P	15 44 54.3	-0.2
RDF				AMb	AMB	15 44 55.9	
	comp=Z,59nm,0.7s,mb5.6						
GRA1	Grafenberg Arr	78.36	335	eP	P	15 44 54.2	0.0
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	78.36	335	eP	P	15 44 54.2	0.0
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	78.36	335	eP	P	15 44 54.2	0.0
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	78.36	335	eP	P	15 44 54.2	0.0
	comp=Z,15nm,0.9s,mb4.9						
TNS	Taunus Mts	78.68	337	eP	P	15 44 55.3	-0.6
TNS				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
TNS	Taunus Mts	78.68	337	eP	P	15 44 55.3	-0.6
	comp=Z,11nm,0.7s,mb4.9						
TXAR	Lajitas Array	78.83	59	P	P	15 44 56.5	-0.6
	comp=Z,3.8nm,0.7s,mb4.4,baz=301,slow=4.0,SNR=46						
TXAR				pP	pP	15 45 15.9	+1.1
	comp=Z,2.4nm,0.6s,baz=292,slow=3.9,SNR=5.4						
MEM	Membach	78.97	338	P	P	15 44 57.5	0.0
BCLA	Clavier	79.33	339	P	P	15 44 59.2	-0.2
	comp=Z,16nm,2.2s,mb4.6						
PERS	Pernice	79.83	331	i P	P	15 45 01.9	-0.3
BAIF	Baives	79.93	339	eP	P	15 45 01.5	-1.2
GOLS	Golise	80.20	330	i P	P	15 45 03.7	-0.5
BFO	Black Forest	80.42	336	i P	P	15 45 05.7	+0.3
MIAR	Mount Ida	80.61	49	eP	P	15 45 05.0	-1.7
MIAR				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
MIAR	Mount Ida	80.61	49	eP	P	15 45 05.0	-1.6
	comp=Z,5.1nm,0.9s,mb4.5						
CDF	Champ du Feu	80.64	337	eP	P	15 45 05.4	-1.2
	comp=Z,12nm,0.7s,mb4.6						
CDF	Champ du Feu	80.64	337	eP	P	15 45 05.4	-1.2
CDF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
CDF	Champ du Feu	80.64	337	eP	P	15 45 05.4	-1.2
	comp=Z,5.8nm,0.7s,mb4.6						
CEY	Cerknica	80.85	331	eP	P	15 45 06.6	-1.1
MEZF	Maizieres J'vi	81.16	338	eP	P	15 45 08.4	-0.9
	comp=Z,16nm,0.5s,mb4.9						
MEZF	Maizieres J'vi	81.16	338	eP	P	15 45 08.4	-0.9
	comp=Z,16nm,0.5s,mb5.2						
HAU	Haudompre	81.27	337	eP	P	15 45 08.5	-1.4
HAU				eMLR	MLR		
	comp=Z,200nm,17.8s						
HAU	Haudompre	81.27	337	eP	P	15 45 08.5	-1.4
HAU				LR	LR		
	comp=Z,200nm,17.8s						
HINF	Hinteralfeld	81.30	337	eP	P	15 45 08.5	-1.6
TUE	Stuetta	81.81	335	eP	P	15 45 12.8	0.0
	comp=Z,6.0nm,0.6s,mb4.7						
FLN	La Foliniere	82.24	342	eP	P	15 45 13.7	-1.3
	comp=Z,23nm,0.7s,mb4.9						
FLN				eMLR	MLR		
	comp=Z,153nm,21.4s						
FLN	La Foliniere	82.24	342	eP	P	15 45 13.7	-1.3
FLN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
FLN				MLR	MLR		
	comp=Z,150nm,21.4s						
FLN	La Foliniere	82.24	342	eP	P	15 45 13.7	-1.3
	comp=Z,11nm,0.7s,mb4.9						
FLN				LR	LR		
	comp=Z,150nm,21.4s						
LDF	La Druitiere	82.32	341	eP	P	15 45 14.1	-1.3
	comp=Z,12nm,0.6s,mb4.7						
LDF	La Druitiere	82.32	341	eP	P	15 45 14.1	-1.3
LDF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
LDF	La Druitiere	82.32	341	eP	P	15 45 14.1	-1.3
	comp=Z,6.1nm,0.6s,mb4.7						
LOR	Lormes	82.61	338	eP	P	15 45 15.7	-1.2
	comp=Z,13nm,0.6s,mb4.8						
LOR				eMLR	MLR		
	comp=Z,259nm,19.0s						
LOR	Lormes	82.61	338	eP	P	15 45 15.7	-1.2
LOR				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
LOR				MLR	MLR		
	comp=Z,260nm,19.0s						
LOR	Lormes	82.61	338	eP	P	15 45 15.7	-1.2
	comp=Z,6.4nm,0.6s,mb4.8						
LOR				LR	LR		
	comp=Z,260nm,19.0s						
CABF	La Chapelle	82.62	337	eP	P	15 45 16.0	-1.0
GRR	Gorron	82.67	342	eP	P	15 45 16.2	-1.1
	comp=Z,22nm,0.6s,mb5.1						
GRR	Gorron	82.67	342	eP	P	15 45 16.2	-1.1
GRR				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
GRR	Gorron	82.67	342	eP	P	15 45 16.2	-1.1
	comp=Z,11nm,0.6s,mb5.1						
PPT	Papeete	82.88	124	LR	LR	16 18 31.5	
	comp=Z,222nm,19.9s,baz=19,slow=33						
SSF	Saint Saulge	82.89	338	eP	P	15 45 17.2	-1.2
	comp=Z,5.9nm,0.6s,mb4.5						
SSF	Saint Saulge	82.89	338	eP	P	15 45 17.2	-1.2
SSF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
SSF	Saint Saulge	82.89	338	eP	P	15 45 17.2	-1.2
	comp=Z,3.0nm,0.6s,mb4.5						
SGMF	Saint Gilles	83.16	343	eP	P	15 45 18.8	-1.0
	comp=Z,21nm,0.7s,mb5.0						

SGMF	Saint Gilles	83.16	343	*e*P	P	15 45 18.8	-1.0
SGMF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
SGMF	Saint Gilles	83.16	343	*e*P	P	15 45 18.8	-1.0
	comp=Z,10nm,0.7s,mb5.0						
AVF	Avril sur Loir	83.18	338	*e*P	P	15 45 18.8	-1.1
	comp=Z,11nm,0.6s,mb4.8						
AVF	Avril sur Loir	83.18	338	*e*P	P	15 45 18.8	-1.1
AVF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
AVF	Avril sur Loir	83.18	338	*e*P	P	15 45 18.8	-1.1
	comp=Z,5.6nm,0.6s,mb4.8						
SMF	Signal de Mont	83.19	338	*e*P	P	15 45 19.0	-1.0
	comp=Z,23nm,0.8s,mb5.0						
SMF	Signal de Mont	83.19	338	*e*P	P	15 45 19.0	-1.0
SMF				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
SMF	Signal de Mont	83.19	338	*e*P	P	15 45 19.0	-1.0
	comp=Z,12nm,0.8s,mb5.0						
ROSF	Rostrenen	83.23	343	*e*P	P	15 45 19.2	-0.9
LPL	La Plagne	83.44	336	*e*P	P	15 45 20.9	-0.4
LPG	La Plagne	83.45	336	*e*P	P	15 45 21.1	-0.2
	comp=Z,13nm,0.8s,mb4.7						
LPG	La Plagne	83.45	336	*e*P	P	15 45 21.1	-0.2
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
LPG	La Plagne	83.45	336	*e*P	P	15 45 21.1	-0.2
	comp=Z,6.6nm,0.8s,mb4.7						
BGF	Bois d'Agland	83.52	339	*e*P	P	15 45 20.6	-1.1
	comp=Z,14nm,0.7s,mb4.9						
BGF	Bois d'Agland	83.52	339	*e*P	P	15 45 20.6	-1.1
BGF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
BGF	Bois d'Agland	83.52	339	*e*P	P	15 45 20.6	-1.1
	comp=Z,6.8nm,0.7s,mb4.9						
TCF	Toulx Ste Croi	83.93	339	*e*P	P	15 45 23.0	-0.8
	comp=Z,12nm,0.8s,mb4.8						
TCF	Toulx Ste Croi	83.93	339	*e*P	P	15 45 23.0	-0.8
TCF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
TCF	Toulx Ste Croi	83.93	339	*e*P	P	15 45 23.0	-0.8
	comp=Z,5.8nm,0.8s,mb4.8						
MBDF	Montbardon	84.15	335	*e*P	P	15 45 23.9	-1.0
	comp=Z,8.0nm,0.5s,mb4.8						
MBDF	Montbardon	84.15	335	*e*P	P	15 45 23.9	-1.0
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.8						
MBDF	Montbardon	84.15	335	*e*P	P	15 45 23.9	-1.0
	comp=Z,4.0nm,0.5s,mb4.8						
MFF	Saint Martin d	84.20	341	*e*P	P	15 45 24.3	-0.8
	comp=Z,15nm,0.7s,mb4.9						
MFF	Saint Martin d	84.20	341	*e*P	P	15 45 24.3	-0.8
MFF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.0						
MFF	Saint Martin d	84.20	341	*e*P	P	15 45 24.3	-0.8
	comp=Z,7.7nm,0.7s,mb4.9						
ORIF	Oris-en-Rattie	84.23	336	*e*P	P	15 45 24.9	-0.4
	comp=Z,29nm,0.8s,mb5.2						
ORIF				*e*MLR	MLR		
	comp=Z,147nm,17.2s						
ORIF	Oris-en-Rattie	84.23	336	*e*P	P	15 45 24.9	-0.4
ORIF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
ORIF	Oris-en-Rattie	84.23	336	*e*P	P	15 45 24.9	-0.4
	comp=Z,14nm,0.8s,mb5.2						
VIVF	Saint-Julien-l	84.62	337	*e*P	P	15 45 26.6	-0.7
	comp=Z,9.6nm,0.7s,mb4.7						
VIVF	Saint-Julien-l	84.62	337	*e*P	P	15 45 26.6	-0.7
VIVF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
VIVF	Saint-Julien-l	84.62	337	*e*P	P	15 45 26.6	-0.7
	comp=Z,4.8nm,0.7s,mb4.7						
SBF	Sospel	84.75	335	*e*P	P	15 45 26.9	-1.0
	comp=Z,22nm,0.7s,mb5.1						
SBF	Sospel	84.75	335	*e*P	P	15 45 26.9	-1.0
SBF				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.1						
SBF	Sospel	84.75	335	*e*P	P	15 45 26.9	-1.0
	comp=Z,11nm,0.7s,mb5.1						
RJF	Les Rejaudoux	85.03	339	*e*P	P	15 45 28.1	-1.2
RJF				*e*MLR	MLR		
	comp=Z,227nm,21.8s						
RJF	Les Rejaudoux	85.03	339	*e*P	P	15 45 28.1	-1.2
RJF				LR	LR		
	comp=Z,230nm,21.8s						
SMRF	Simiane la Rot	85.18	336	*e*P	P	15 45 28.8	-1.3
CAF	Calviac	85.24	339	*e*P	P	15 45 30.2	-0.2
FRF	La Foret Royal	85.25	335	*e*P	P	15 45 29.7	-0.8
PGF	Pioggiola	85.46	333	*e*P	P	15 45 30.1	-1.4
	comp=Z,21nm,1.1s,mb4.9						
PGF	Pioggiola	85.46	333	*e*P	P	15 45 30.1	-1.4
PGF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.9						
PGF	Pioggiola	85.46	333	*e*P	P	15 45 30.1	-1.4
	comp=Z,11nm,1.1s,mb4.9						
LMR	La Mourre	85.50	335	*e*P	P	15 45 30.5	-1.2
LASF	Ste Croix	85.56	337	*e*P	P	15 45 31.8	-0.2
	comp=Z,22nm,1.1s,mb5.0						
TIP	Timpagrande	85.73	326	*e*P	P	15 45 31.0	-1.9
	comp=Z,19nm,1.1s,mb5.2						
MTLF	Montolieu	86.68	338	*e*P	P	15 45 36.3	-1.3
	comp=Z,7.2nm,0.8s,mb4.7						
MTLF	Montolieu	86.68	338	*e*P	P	15 45 36.3	-1.3
MTLF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
MTLF	Montolieu	86.68	338	*e*P	P	15 45 36.3	-1.3
	comp=Z,3.6nm,0.8s,mb4.7						
ETSF	Etsaut	87.80	340	*e*P	P	15 45 43.7	+0.8
	comp=Z,10nm,0.7s,mb4.8						
ETSF	Etsaut	87.80	340	*e*P	P	15 45 43.7	+0.8
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
ETSF	Etsaut	87.80	340	*e*P	P	15 45 43.7	+0.8
	comp=Z,5.1nm,0.7s,mb4.9						
KEST	Kesra	91.50	330	P	P	15 46 00.4	0.0
	comp=Z,2.6nm,1.2s,mb4.4,baz=9.9,slow=6.3,SNR=3.6						
KEST				LR	LR	16 29 47.4	
	comp=Z,48nm,20.8s,baz=242,slow=37						
TORD	Torodi Ar. Bea	114.87	327	PKP	PKiKP	15 51 33.2	-1.6
	comp=Z,0.2nm,0.4s,baz=352,slow=1.3,SNR=3.4						
TORD				pPKP		15 51 52.0	
	comp=Z,0.2nm,0.3s,baz=19,slow=2.2,SNR=2.1						
QSPA	South Pole Qui	135.97	180	PKP	PKPdf	15 52 12.8	-0.1
	comp=Z,5.8nm,1.2s,baz=186,slow=2.2,SNR=14						
QSPA				pPKP	pPKPdf	15 52 33.6	+1.9
	comp=Z,5.1nm,1.0s,baz=63,slow=0.9,SNR=5.5						
PLCA	Paso Flores	149.40	95	PKPbc	PKPbc	15 52 41.0	-1.2
	comp=Z,11nm,0.7s,baz=273,slow=2.7,SNR=20						
PLCA				pPKPbc	pPKPbc	15 53 01.3	+0.5
	comp=Z,7.6nm,0.8s,baz=257,slow=4.4,SNR=5.1						
PLCA	Paso Flores	149.40	95	PKPbc	PKPbc	15 52 41.0	-1.2
PLCA				pPKPbc	pPKPbc	15 53 01.3	+0.5
CPUP	Villa Florida	149.80	59	PKPbc	PKPbc	15 52 42.9	-0.7
	comp=Z,2.5nm,0.6s,baz=287,slow=2.1,SNR=6.7						

BJI **29** *15:41:19.8, 3°.54N×140°.14W, h4^{km}, mB5.6/18, mb5.5/14, Ms5.4/17, Ms7 4.8/17*

IDC **29** *15:41:20.9±0.3, 3°.22N×140°.25W, h0^{km}, mb5.1/28, mb1 5.2/28, mb1mx5.2/28, mbtmp5.1/28, MS4.2/20, Ms1 4.2/20, ms1mx4.1/34, Error ellipse: s-maj=14.8km s-min=11.7km az=125.0*

MOS **29** *15:41:21.6±1.0, 3°.32N×140°.32W, h10^{km}, mb5.6/53, Error ellipse: s-maj=11.0km s-min=5.1km az=62.2*

ISCJB **29** *15:41:21.2±0.2, 3°.21N±0°.04×140°.44W±0°.04, h10^{km}, mb5.3/174, MS4.4/30, Error ellipse: s-maj=6.3km s-min=4.2km az=39.7*

GCMT **29** *15:41:22.2±0.3, 2°.91N×140°.50W, h12^{km}, MW5.1/86, Moment Tensor Solution. s44,c62; s86,c118; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.26±.21; $M_{\theta\theta}$-3.61±.17; $M_{\phi\phi}$-1.65±.16; $M_{r\theta}$0.66±.39; $M_{\theta\phi}$-2.42±.11; $M_{\phi r}$-1.28±.41; Best double couple: $M_0$5.43400×10^{16} NP1:ϕ_s70.00000°, δ46.00000°, λ110.00000°. NP2: ϕ_s222.00000°, δ48.00000°, λ71.00000°. Principal axes: T 5.6240, Plg76.0000°, Azm60.0000°; N -0.3810, Plg14.0000°, Azm236.0000°; P -5.2440, Plg1.0000°, Azm326.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **29** *15:41:22.2±0.1, 3°.15N×140°.36W, h10^{km}, mb5.4/144 Error ellipse: s-maj=5.5km s-min=3.3km az=124.0*

DJA **29** *15:41:24, 3°.35N×140°.36W, h10^{km}, mb5.4/5*

ISC 29 15:41:23.0±0.2, **3°.19N**±0°.03×**140°.42W**±0°.04, **h10**^{km}, **(h12**^{km}±.8^{km}**:pP-P), n822**, σ**0^s.72**/690, **mb5.3**/174, **MS4.4**/30, **194C-196D, North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAOE	Nuku Hiva Isla	11.97	179	*e*Pn	Pn	15 44 15.0	+1.2
	317nm,0.2s						
TAOE				*e*Sn	Sn	15 46 14.3	-13
	67nm,0.1s						
TAOE				*e*LR	LR	15 46 44.7	
	3µm,26.0s						
TAOE				*e*T		15 56 16.4	
TAOE	Nuku Hiva Isla	11.97	179	*e*Pn	Pn	15 44 15.0	+1.2
TAOE				*e*Sn	Sn	15 46 14.3	-13
TAOE				*e*TT		15 56 16.4	
PMOR	Pomariorio Ree	19.54	202	*e*P	Pn	15 45 53.9	+1.8
PMOR				*e*T		16 05 43.9	
	8.2nm,0.4s						
PUH	Pauahi	21.63	319	*e*P	P	15 46 18.9	+5.4
PUH				S	S	15 50 14.0	+0.7
TIAR	Tiarei	22.42	203	*e*P	P	15 46 23.0	+1.0
	100nm,1.1s,mb5.2						
PPT	Papeete	22.52	203	*e*P	P	15 46 24.3	+1.2
	49nm,1.1s,mb4.8						
PPT				*e*LR	LR	15 51 36.6	
	1µm,27.0s						
PPT	Papeete	22.52	203	LR	LR	15 53 22.8	
	comp=Z,226nm,18.2s,MS3.6,baz=278,slow=32						
RKT	Rikitea	26.68	169	*e*LR	LR	15 53 44.9	
	1µm,27.0s						
RKT				*e*T		16 14 44.9	
SNCC	San Nicolas Is	35.72	31	⇓P	P	15 48 21.8	-0.1
	baz=36						
LPIG	La Paz	35.73	52	LR	LR	15 59 24.8	
	comp=Z,130nm,21.1s,MS3.7,slow=30						
SCI	San Clemente I	36.02	32	⇓P	P	15 48 24.2	-0.2
	baz=36						
BSC	Santa Cruz Isl	36.26	30	⇑P	P	15 48 26.4	-0.1
	baz=36						
CIS	Catalina Islan	36.42	32	⇑P	P	15 48 27.5	-0.4
	baz=37						
BLG	Laguna Peak	36.63	30	⇓P	P	15 48 29.7	0.0
	baz=37						
FMP	Fort Macarthur	36.72	32	⇑P	P	15 48 30.4	0.0
	baz=37						
109C	Camp Elliot, M	36.73	34	⇓P	P	15 48 30.3	-0.2
	baz=37						
DECC	Green Verdugo	37.12	31	⇑P	P	15 48 33.9	+0.1
	baz=37						
MONP	Monument Peak	37.12	35	⇑P	P	15 48 34.3	+0.4
	baz=37,SNR=46						
DVTC	Desert V Tower	37.13	35	⇓P	P	15 48 34.1	+0.2
	baz=37,SNR=15						
PASC	Pasadena Art C	37.13	31	*e*P	P	15 48 34.0	0.0
	293nm,1.3s,mb6.0						
SMMC	Simmler	37.14	28	⇑P	P	15 48 34.5	+0.5
	baz=37						
OSI	Osito Adit	37.20	30	⇑P	P	15 48 34.7	+0.1
	baz=37						
MURC	Murrieta	37.22	33	⇓P	P	15 48 34.6	-0.1
	baz=37,SNR=11						
MWC	Mount Wilson	37.24	31	*e*P	P	15 48 35.2	+0.3
MWC				*e*		15 50 54.9	
MWC				pmax	pmax		
	comp=Z,97nm,1.3s,mb5.5						
MWC	Mount Wilson	37.24	31	*e*P	P	15 48 35.2	+0.4
	comp=Z,97nm,1.3s,mb5.5						
MWC				*e*PcP	PcP	15 50 54.9	+0.2
MWC				*e*S	S	15 54 05.6	-16
BFSC	Mount Baldy St	37.46	32	⇑P	P	15 48 36.6	-0.1
	baz=38,SNR=28						
SWSC	Sam W. Stewart	37.51	35	⇓P	P	15 48 37.0	-0.2
	baz=38,SNR=8.5						
ARVC	Arvin	37.56	30	⇑P	P	15 48 37.4	-0.1
	baz=38,SNR=8.9						
PFO	Pinyon Flat Ob	37.63	34	P	P	15 48 38.5	+0.3
	comp=Z,160nm,1.1s,mb5.7,SNR=11						
PFO	Pinyon Flat Ob	37.63	34	*e*P	P	15 48 37.5	-0.7
PFO				*e*		15 50 55.4	
PFO				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.0						
PFO	Pinyon Flat Ob	37.63	34	⇓P	P	15 48 38.1	-0.1
	baz=38,SNR=14						
PFO	Pinyon Flat Ob	37.63	34	*e*P	P	15 48 37.5	-0.7
	comp=Z,32nm,1.1s,mb5.0						
PFO				*e*PcP	PcP	15 50 55.4	-0.4
SAO	San Andreas Ge	37.70	25	*e*P	P	15 48 38.4	-0.3
SAO				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.2						
SAO	San Andreas Ge	37.70	25	*e*P	P	15 48 38.4	-0.3
	comp=Z,45nm,0.9s,mb5.2						
EDW2	Edwards Air Fo	37.79	31	⇑P	P	15 48 39.3	-0.2
	baz=38,SNR=12						
BBRC	Big Bear Sol-O	37.87	33	⇑P	P	15 48 40.8	+0.6
	baz=38,SNR=11						
112A	Yuma	37.93	37	⇑P	P	15 48 41.0	+0.2
	baz=38						
VES	Vestal, Richgr	38.01	29	⇑P	P	15 48 41.1	-0.2
	baz=38,SNR=10						
GLA	Glamis	38.16	36	*e*P	P	15 48 42.9	+0.3
GLA				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.2						
GLA	Glamis	38.16	36	⇓P	P	15 48 42.9	+0.3
	baz=38,SNR=13						
GLA	Glamis	38.16	36	*e*P	P	15 48 42.9	+0.3
	comp=Z,45nm,0.9s,mb5.2						
ISA	Isabella	38.16	30	*e*P	P	15 48 42.6	0.0
ISA				*e*		15 50 57.7	
ISA				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.2						
ISA	Isabella	38.16	30	⇑P	P	15 48 42.9	+0.2
	baz=38,SNR=24						
ISA	Isabella	38.16	30	*e*P	P	15 48 42.6	0.0
	comp=Z,58nm,1.2s,mb5.2						
ISA				*e*PcP	PcP	15 50 57.7	+0.3
BELC	Belle Mtn.	38.18	34	⇑P	P	15 48 43.2	+0.4
	baz=38,SNR=38						
BC3	Big Chuckw Mtn	38.23	35	⇑P	P	15 48 43.6	+0.3
	baz=38,SNR=48						
RRX	Edison Barstow	38.30	32	⇓P	P	15 48 43.6	-0.2
	baz=38						
LRMC	Laurel Mountai	38.41	31	⇓P	P	15 48 44.9	+0.2
	baz=39,SNR=28						
113A	Mohawk Valley,	38.59	37	⇑P	P	15 48 46.6	+0.3
	baz=39,SNR=15						
HEC	Hector,Ludlow	38.62	33	⇓P	P	15 48 46.3	-0.2
	baz=39,SNR=15						
214A	Organ Pipe Nat	38.62	39	⇑P	P	15 48 47.0	+0.4
	baz=39,SNR=24						
GSC	Goldstone	38.73	32	*e*P	P	15 48 47.4	0.0
GSC				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.3						
GSC	Goldstone	38.73	32	⇓P	P	15 48 47.4	0.0
	baz=39,SNR=29						
GSC	Goldstone	38.73	32	*e*P	P	15 48 47.4	0.0
	comp=Z,58nm,1.0s,mb5.3						
IRM	Iron Mountain	38.77	34	⇑P	P	15 48 47.9	+0.1
	baz=39,SNR=30						
Y12C	Blythe	38.83	35	⇓P	P	15 48 48.8	+0.5
	baz=39,SNR=20						
GMRC	Granite Mounta	38.94	33	⇓P	P	15 48 49.3	+0.1
	baz=39,SNR=28						
Z13A	Yuma Proving G	38.95	37	⇓P	P	15 48 49.6	+0.2
	baz=39,SNR=43						
MPMC	Manual Prospec	38.96	30	⇓P	P	15 48 49.9	+0.6
	baz=39,SNR=56						
CWC	Cottonwood Cre	38.97	29	⇑P	P	15 48 49.9	+0.5
	baz=39,SNR=33						
HOPS	Hopland	38.98	22	*e*P	P	15 48 49.5	+0.1
114A	Black Gap (USA	39.12	38	⇑P	P	15 48 51.1	+0.4
	baz=39,SNR=32						
CMB	Columbia Colle	39.22	25	*e*P	P	15 48 51.6	+0.1
CMB				pmax	pmax		
	comp=Z,71nm,1.5s,mb5.2						
CMB	Columbia Colle	39.22	25	*e*P	P	15 48 51.6	0.0
	comp=Z,71nm,1.5s,mb5.2						
Y13A	Salome	39.28	36	⇓P	P	15 48 52.4	+0.3
	baz=39,SNR=7.7						
TUQ	Turquoise Moun	39.29	32	⇓P	P	15 48 52.4	+0.3
	baz=39,SNR=33						
TIN	Tinemaha	39.39	28	⇑P	P	15 48 53.5	+0.5
	baz=40						
KCPM	Cahto Peak	39.41	21	*e*P	P	15 48 53.7	+0.6
	comp=Z,37nm,1.2s,mb5.0						
PDMCI	Parker Dam,Lak	39.45	35	⇑P	P	15 48 53.6	+0.1
	baz=40,SNR=17						
SHOC	Shoshone	39.46	31	⇓P	P	15 48 53.5	0.0
	baz=40						
LDFC	Landfair	39.47	33	*e*P	P	15 48 54.3	+0.7
MTUM	Tungsten Hills	39.47	28	*e*P	P	15 48 54.1	+0.5
MTUM				*e*PcP	PcP	15 51 01.9	+0.4
115A	Sonoran Desert	39.49	39	⇑P	P	15 48 54.3	+0.5
	baz=40,SNR=8.0						
Z14A	Wintersburg	39.49	37	⇑P	P	15 48 54.1	+0.2
	baz=40						
NEE2	Needles Airpor	39.51	34	⇓P	P	15 48 54.2	+0.2
	baz=40						
216A	Three Points,	39.52	40	⇓P	P	15 48 54.6	+0.5
	baz=40,SNR=14						
MLAC	Mammoth Lakes	39.57	27	⇓P	P	15 48 55.3	+0.9
	baz=40,SNR=15						
FURC	Furnace Creek,	39.60	30	⇑P	P	15 48 54.8	+0.1
	baz=40,SNR=5.8						
116A	Eloy	39.73	39	⇓P	P	15 48 56.2	+0.4
	baz=40,SNR=13						
GRAC	Grapevine Rang	39.76	29	⇓P	P	15 48 56.6	+0.6
	baz=40,SNR=5.6						
W12A	Cal Nev Ari	39.76	33	⇓P	P	15 48 56.4	+0.3
	baz=40						
U10A	Ash Meadows, A	39.83	31	⇓P	P	15 48 57.2	+0.6
	baz=40						
X13A	Yucca	39.84	35	⇓P	P	15 48 57.0	+0.4
	baz=40,SNR=40						
Y14A	Wickenburg	39.86	37	⇑P	P	15 48 57.0	+0.1
	baz=40,SNR=11						
V11A	Goodsprings	39.86	32	⇑P	P	15 48 57.3	+0.4
	baz=40,SNR=6.4						
OHCM	Honcut	39.88	23	*e*P	P	15 48 55.5	-1.5
Z15A	Gila River Ind	39.93	38	⇑P	P	15 48 57.6	+0.1
	baz=40						
WAKR	Walker	40.02	26	*e*P	P	15 48 58.7	+0.5
R06C	Coleville	40.03	26	⇓P	P	15 48 58.8	+0.6
	baz=40,SNR=37						
V12A	Nelson	40.09	33	⇓P	P	15 48 59.4	+0.6
	baz=40,SNR=48						
318A	Bisbee	40.12	42	⇓P	P	15 48 59.4	+0.3
	baz=40,SNR=21						
TUC	Tucson	40.15	40	*e*P	P	15 48 59.7	+0.4
TUC				pmax	pmax		
	comp=Z,131nm,1.9s,mb5.3						
TUC	Tucson	40.15	40	*e*P	P	15 48 59.7	+0.4
	comp=Z,131nm,1.9s,mb5.3						
W13A	Hualapai Mount	40.17	35	⇓P	P	15 48 60.0	+0.6
	baz=40,SNR=36						
Y15A	Casa Rosa Ranc	40.27	37	⇓P	P	15 49 00.6	+0.3
	baz=40,SNR=44						
X14A	Yava	40.30	36	⇑P	P	15 49 00.8	+0.3
	baz=40,SNR=19						
U11A	Corn Creek	40.33	32	⇓P	P	15 49 01.1	+0.3
	baz=40,SNR=5.5						
117A	Oracle	40.35	40	⇓P	P	15 49 01.4	+0.4
	baz=40,SNR=25						
S09A	Goldfield	40.41	29	⇑P	P	15 49 01.8	+0.4
	baz=41,SNR=102						
Z16A	Peralta Trail,	40.41	39	⇑P	P	15 49 01.6	+0.1
	baz=40						
218A	Dragoon	40.42	42	⇑P	P	15 49 01.7	+0.1
	baz=40,SNR=7.0						
NVAR	Mina Array Bea	40.47	27	P	P	15 49 02.4	+0.5
	comp=Z,16nm,0.7s,mb4.8,baz=221,slow=11,SNR=100						
NVAR				PcP	PcP	15 51 04.8	+0.1
	comp=Z,17nm,0.8s,baz=216,slow=5.5,SNR=24						
R08A	Mina	40.49	27	⇑P	P	15 49 02.6	+0.6
	baz=41						
WCN	Washoe City	40.55	25	⇓P	P	15 49 03.2	+0.7
	baz=41,SNR=34						
319A	Douglas	40.57	43	⇑P	P	15 49 03.2	+0.4
	baz=41,SNR=18						
WDC	Whiskeytown Da	40.57	21	*e*P	P	15 49 03.1	+0.4
WDC				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.2						
WDC	Whiskeytown Da	40.57	21	*e*P	P	15 49 03.1	+0.4
	comp=Z,61nm,1.0s,mb5.2						
V13A	Grand Canyon W	40.66	34	⇓P	P	15 49 03.8	+0.3
	baz=41,SNR=34						
Q07A	Schurz	40.66	26	⇓P	P	15 49 04.0	+0.6
	baz=41						
X15A	Humboldt	40.70	37	⇑P	P	15 49 04.3	+0.5
	baz=41,SNR=16						
W14A	Seligman	40.71	35	⇓P	P	15 49 04.5	+0.6
	baz=41,SNR=33						
Y16A	Circle Bar Ran	40.74	38	⇑P	P	15 49 04.5	+0.3
	baz=41,SNR=28						
U12A	Valley of Fire	40.78	33	⇑P	P	15 49 04.9	+0.4
	baz=41,SNR=17						
BEKR	Beckwourth	40.78	24	⇓P	P	15 49 04.8	+0.4
	baz=41,SNR=34						
P06A	Stead Airport,	40.81	24	⇓P	P	15 49 05.4	+0.7
	baz=41						
S10A	Tonopah Range,	40.87	29	⇓P	P	15 49 05.7	+0.5
	baz=41,SNR=93						
R09A	Tonopah	40.89	28	⇓P	P	15 49 05.6	+0.3
	baz=41,SNR=17						
T12A	Moapa	40.91	32	⇑P	P	15 49 06.1	+0.6
	baz=41						
Q08A	Gabbs	40.99	27	⇓P	P	15 49 06.7	+0.6
	baz=41						
Z17A	San Carlos Hig	40.99	40	⇑P	P	15 49 06.8	+0.6
	baz=41,SNR=8.2						
V14A	Boquillas Ranc	40.99	35	⇑P	P	15 49 06.7	+0.4
	baz=41,SNR=58						
Y17A	Roosevelt	41.01	39	⇓P	P	15 49 06.9	+0.4
	baz=41,SNR=34						
T11A	Corn Creek, Al	41.03	31	⇓P	P	15 49 07.2	+0.6
	baz=41,SNR=49						
PAHR	Pah Rah Range	41.05	25	*e*P	P	15 49 07.0	+0.4
	comp=Z,42nm,1.0s,mb5.0						
PAHR				*e*PcP	PcP	15 51 06.6	+0.1
S11A	Rachel	41.07	30	⇓P	P	15 49 07.3	+0.4
	baz=41,SNR=33						
U13A	Pakoon Wash	41.08	33	⇑P	P	15 49 07.4	+0.5
	baz=41,SNR=58						
P07A	Fallon	41.12	26	⇑P	P	15 49 08.1	+0.8
	baz=41						
X16A	Lo Mia Camp, P	41.13	38	⇑P	P	15 49 07.9	+0.5
	baz=41,SNR=21						
Z18A	Geronimo	41.13	40	⇓P	P	15 49 08.2	+0.8
	baz=41						
W15A	Williams	41.16	36	⇓P	P	15 49 08.3	+0.7
	baz=41,SNR=24						
LBCM	Butte Creek Ri	41.23	22	P	P	15 49 08.5	+0.4
O06A	Flanigan	41.25	24	⇑P	P	15 49 08.6	+0.3
	baz=41,SNR=10						
R10A	Warm Springs	41.30	29	⇑P	P	15 49 09.6	+0.9
	baz=42,SNR=61						
Q09A	Carvers	41.31	28	⇓P	P	15 49 09.6	+0.8
	baz=42,SNR=5.6						
220A	Playas Peak, P	41.40	43	⇑P	P	15 49 10.2	+0.5
	baz=42,SNR=11						
119A	Ashpeak Ranch,	41.41	41	⇑P	P	15 49 10.3	+0.6
	baz=42,SNR=19						
X17A	Forest Lakes	41.46	38	⇓P	P	15 49 10.9	+0.8
	baz=42,SNR=36						
S12A	Delamar Landin	41.50	31	⇑P	P	15 49 11.4	+1.0
	baz=42,SNR=56						
U14A	Mt Trumbull	41.52	34	⇓P	P	15 49 11.0	+0.4
	baz=42,SNR=57						
YBH	Yreka Blue Hor	41.53	20	P	P	15 49 10.6	0.0
YBH						15 51 07.4	
YBH				pmax	pmax		
	comp=Z,24nm,1.1s						
YBH				pmax	pmax		
	comp=Z,5.0nm,0.8s						
YBH	Yreka Blue Hor	41.53	20	P	P	15 49 10.6	+0.1
	comp=Z,24nm,1.1s,mb4.7,baz=153,slow=11,SNR=23						
YBH				PcP	PcP	15 51 07.4	-0.6
	comp=Z,5.4nm,0.8s,baz=286,slow=2.6,SNR=6.7						
YBH	Yreka Blue Hor	41.53	20	*e*P	P	15 49 11.2	+0.7
	comp=Z,46nm,1.4s,mb4.9						
YBH				*e*PcP	PcP	15 51 07.8	-0.3
W16A	Flagstaff	41.53	37	⇑P	P	15 49 11.4	+0.7
	baz=42,SNR=9.6						
T13A	Saint George	41.56	33	⇑P	P	15 49 11.4	+0.5
	baz=42,SNR=23						
P08A	Dixie Valley	41.60	26	⇑P	P	15 49 12.0	+0.8
	baz=42						
O07A	Toulon	41.64	25	⇑P	P	15 49 11.9	+0.4
	baz=42,SNR=23						
V15A	Kaibab Nationa	41.66	35	⇓P	P	15 49 12.5	+0.7
	baz=42,SNR=30						
Q10A	Clear Creek Ra	41.67	29	⇓P	P	15 49 12.6	+0.8
	baz=42,SNR=80						
R11A	Troy Canyon, C	41.70	30	⇑P	P	15 49 12.1	+0.1
	baz=42,SNR=27						
120A	U Bar Ranch, L	41.72	42	⇑P	P	15 49 12.6	+0.4
	baz=42,SNR=9.7						

N06A	Buffalo Meadow	41.74	24	⇓P	P	15 49 12.8	+0.5
	baz=42,SNR=40						
Z19A	T-Link Ranch,	41.76	41	⇑P	P	15 49 13.0	+0.4
	baz=42,SNR=5.2						
P09A	Austin	41.91	27	⇓P	P	15 49 14.0	+0.3
	baz=42						
WUAZ	Wupatki	41.92	36	⇑P	P	15 49 14.6	+0.8
	baz=42						
WUAZ	Wupatki	41.92	36	*e*P	P	15 49 14.3	+0.5
	comp=Z,78nm,1.0s,mb5.3						
221A	Mesquite Ranch	41.97	43	⇓P	P	15 49 15.1	+0.7
	baz=42,SNR=9.4						
S13A	Holt Ranch, En	42.00	32	⇑P	P	15 49 15.0	+0.6
	baz=42,SNR=80						
W17A	Winslow	42.02	37	⇑P	P	15 49 15.2	+0.6
	baz=42						
T14A	Hurricane	42.03	33	⇓P	P	15 49 15.1	+0.3
	baz=42,SNR=12						
Q11A	Duckwater	42.05	29	⇑P	P	15 49 15.3	+0.4
	baz=42,SNR=47						
O08A	Rochester Mine	42.06	26	⇓P	P	15 49 15.4	+0.4
	baz=42,SNR=5.7						
Z20A	Nine Sixteen R	42.09	41	⇑P	P	15 49 15.9	+0.6
	baz=42,SNR=42						
X18A	Snowflake	42.12	39	⇓P	P	15 49 15.8	+0.3
	baz=42,SNR=13						
N07B	Gerlach	42.12	24	⇑P	P	15 49 15.7	+0.3
	baz=42,SNR=13						
R12A	Pony Springs,	42.17	31	⇑P	P	15 49 16.4	+0.5
	baz=42,SNR=63						
Y19A	Nutrioso	42.19	40	⇓P	P	15 49 17.0	+0.9
	baz=42,SNR=57						
HUMO	Hull Mountain	42.23	19	*e*P	P	15 49 16.6	+0.4
	comp=Z,20nm,0.9s,mb4.7						
HUMO				*e*PcP	PcP	15 51 10.5	+0.2
CCUT	Cedar City	42.24	33	*e*P	P	15 49 17.2	+0.8
	comp=Z,244nm,2.4s,mb5.4						
P10A	Eureka	42.27	28	⇑P	P	15 49 17.0	+0.4
	baz=42,SNR=24						
121A	Cookes Peak, D	42.28	43	⇓P	P	15 49 17.2	+0.4
	baz=42,SNR=11						
ARUT	Antelope Range	42.38	32	*e*P	P	15 49 18.1	+0.5
ARUT				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.2						
ARUT	Antelope Range	42.38	32	*e*P	P	15 49 18.1	+0.5
	comp=Z,54nm,0.9s,mb5.2						
O09A	Fish Creek Ran	42.38	27	⇓P	P	15 49 18.0	+0.5
	baz=43,SNR=42						
R13A	O'Grain Ranch,	42.39	31	⇓P	P	15 49 18.5	+0.8
	baz=42,SNR=29						
T15A	Red Dirt Ranch	42.39	34	⇑P	P	15 49 17.9	+0.2
	baz=42,SNR=30						
N08A	GE Springer Mi	42.47	25	⇓P	P	15 49 18.6	+0.3
	baz=43,SNR=44						
222A	Williams Famil	42.49	44	⇓P	P	15 49 19.0	+0.4
	baz=43,SNR=6.8						
U16A	Tuba City	42.49	36	⇓P	P	15 49 18.8	+0.3
	baz=43,SNR=16						
S14A	Cedar City	42.50	32	⇓P	P	15 49 19.2	+0.6
	baz=43						
MOD	Modoc	42.55	22	*e*P	P	15 49 19.4	+0.5
M07A	Soldier Meadow	42.55	24	⇓P	P	15 49 19.6	+0.7
	baz=43,SNR=49						
P11A	Circle Ranch,	42.55	28	⇑P	P	15 49 19.6	+0.6
	baz=43						
BMN	Battle Mountai	42.58	26	*e*P	P	15 49 19.6	+0.4
BMN				*e*		15 51 11.9	
BMN				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.1						
BMN	Battle Mountai	42.58	26	*e*P	P	15 49 19.6	+0.4
	comp=Z,57nm,1.3s,mb5.1						
BMN				*e*PcP	PcP	15 51 11.9	+0.4
Q12A	Willow Creek R	42.60	30	⇓P	P	15 49 19.9	+0.5
	baz=43,SNR=27						
W18A	Petrified Fore	42.64	38	⇑P	P	15 49 19.9	+0.1
	baz=43,SNR=9.0						
N09A	Rock Creek Ran	42.79	26	⇑P	P	15 49 21.5	+0.6
	baz=43						
O10A	Cortez Mining,	42.79	27	⇑P	P	15 49 21.3	+0.4
	baz=43						
W19A	Sanders	42.85	38	⇑P	P	15 49 21.7	+0.2
	baz=43,SNR=16						
T16A	Glen Canyon Da	42.86	35	⇑P	P	15 49 21.8	+0.3
	baz=43,SNR=12						
S15A	Panguitch	42.88	33	⇓P	P	15 49 23.1	+1.5
	baz=43,SNR=54						
122A	Conniff Cattle	42.91	43	⇑P	P	15 49 22.5	+0.6
	baz=43						
V18A	Ganado	42.91	37	⇓P	P	15 49 22.2	+0.2
	baz=43						
M08A	Happy Creek Ra	42.92	24	⇓P	P	15 49 22.8	+0.8
	baz=43,SNR=26						
Q13A	Wheeler Ranch,	42.95	31	⇓P	P	15 49 22.4	+0.2
	baz=43,SNR=23						
R14A	James Farms, M	42.98	32	⇓P	P	15 49 22.9	+0.5
	baz=43						
L07A	Adell	43.02	23	⇓P	P	15 49 23.5	+0.8
	baz=43,SNR=34						
K05A	Summer Lake	43.04	21	⇓P	P	15 49 23.8	+0.9
	baz=43,SNR=41						
O11A	Cowboy Ranch,	43.06	28	⇓P	P	15 49 23.3	+0.2
	baz=43,SNR=25						
U17A	Shonto	43.08	36	⇑P	P	15 49 23.9	+0.6
	baz=43,SNR=20						
N10A	Dunphy	43.13	27	⇓P	P	15 49 24.2	+0.5
	baz=43						
324A	Moseley Ranch,	43.25	46	⇑P	P	15 49 25.1	+0.3
	baz=43						
T17A	Navajo Res., N	43.27	35	⇑P	P	15 49 25.5	+0.6
	baz=43,SNR=69						
M09A	Marrel Ranch,	43.29	25	⇓P	P	15 49 25.7	+0.8
	baz=44,SNR=10						
R15A	Junction	43.31	33	⇑P	P	15 49 25.9	+0.8
	baz=44,SNR=8.3						
P13A	Bates Ranch, G	43.33	30	⇓P	P	15 49 25.7	+0.5
	baz=44,SNR=56						
Q14A	Sevier Lake (B	43.35	31	⇑P	P	15 49 26.0	+0.5
	baz=44,SNR=36						
W20A	Ramah	43.41	39	⇑P	P	15 49 26.5	+0.5
	baz=44,SNR=9.9						
U18A	Rough Rock, Ch	43.42	37	⇑P	P	15 49 26.3	+0.3
	baz=44,SNR=30						
V19A	Window Rock	43.45	38	⇓P	P	15 49 26.6	+0.3
	baz=44,SNR=12						
TXAR	Lajitas Array	43.48	49	P	P	15 49 27.0	+0.3
TXAR						15 51 13.6	
TXAR	Lajitas Array	43.48	49	P	P	15 49 27.0	+0.3
	comp=Z,38nm,0.8s,mb5.2,baz=219,slow=9.4,SNR=230						
TXAR				PcP	PcP	15 51 13.6	-1.2
	comp=Z,21nm,0.8s,baz=202,slow=6.3,SNR=27						
TXAR				LR	LR	16 03 14.6	
	comp=Z,123nm,18.8s,MS3.8,baz=185,slow=30						
L08A	Fields	43.56	24	⇑P	P	15 49 27.5	+0.5
	baz=44,SNR=46						
N11A	Elko Archery C	43.56	27	⇓P	P	15 49 27.7	+0.5
	baz=44,SNR=16						
MSU	Marysvale	43.58	33	*e*P	P	15 49 28.3	+1.0
O12A	Currie	43.60	29	⇑P	P	15 49 27.6	+0.2
	baz=44,SNR=20						
K07A	Rock Creek Ran	43.63	23	⇑P	P	15 49 28.0	+0.4
	baz=44,SNR=30						
WVOR	Wild Horse Val	43.65	23	P	P	15 49 28.1	+0.3
L09A	Wilkinson Ranc	43.70	25	⇓P	P	15 49 28.9	+0.7
	baz=44,SNR=19						
IRO	Indian Ridge	43.70	19	P	P	15 49 28.6	+0.3
S17A	Black Ridge (B	43.72	35	⇓P	P	15 49 28.7	+0.2
	baz=44,SNR=60						
ELK	Elko	43.74	28	*e*P	P	15 49 29.0	+0.5
ELK				pmax	pmax		
	comp=Z,108nm,0.9s						
ELK	Elko	43.74	28	*e*P	P	15 49 29.0	+0.5
	comp=Z,108nm,0.9s,mb5.6						
J06A	Christmas Vall	43.77	21	⇓P	P	15 49 29.0	+0.3
	baz=44,SNR=36						
M10A	I.L. Ranch, Tu	43.77	26	⇓P	P	15 49 29.7	+0.9
	baz=44,SNR=56						
Y22D	IRIS PASSCAL I	43.78	41	⇓P	P	15 49 29.8	+0.8
	baz=44						
R16A	Teasdale	43.80	33	⇑P	P	15 49 30.3	+1.2
	baz=44,SNR=70						
LENM	Lemitar	43.80	41	*e*P	P	15 49 29.3	+0.1
Q15A	Fillmore	43.83	32	⇓P	P	15 49 29.8	+0.5
	baz=44,SNR=11						
LAZ	Ladron	43.84	41	*e*P	P	15 49 29.4	0.0
	comp=Z,32nm,1.5s,mb4.8						
O13A	Hicks Ranch, I	43.86	30	⇑P	P	15 49 30.0	+0.4
	baz=44,SNR=34						
T18A	Mexican Hat	43.91	36	⇓P	P	15 49 30.1	+0.1
	baz=44,SNR=63						
P14A	Drum Mountains	43.91	31	⇓P	P	15 49 30.6	+0.7
	baz=44,SNR=41						
N12A	Clover Valley,	43.91	28	⇓P	P	15 49 30.3	+0.4
	baz=44,SNR=13						
N12A	Clover Valley,	43.91	28	*e*P	P	15 49 30.2	+0.3
	comp=Z,93nm,1.0s,mb5.5						
W21A	San Fidel	43.95	40	⇑P	P	15 49 30.9	+0.6
	baz=44						
K08A	Mann Creek Ran	43.96	23	⇑P	P	15 49 30.8	+0.5
	baz=44,SNR=25						
X22A	Bernardo	43.98	41	⇑P	P	15 49 31.5	+0.8
	baz=44,SNR=17						
BNM	Barren Site	44.02	42	*e*P	P	15 49 31.4	+0.5
	comp=Z,37nm,1.2s,mb5.0						
M11A	Holland Ranch,	44.03	27	⇓P	P	15 49 31.7	+0.8
	baz=44,SNR=48						
LPM	Los Pinos Moun	44.11	41	*e*P	P	15 49 31.5	-0.2
LPM				*e*PcP	PcP	15 51 16.0	-0.8
J07A	Hines	44.19	22	⇓P	P	15 49 32.6	+0.5
	baz=44,SNR=21						
T19A	Beclabito	44.20	37	⇑P	P	15 49 32.5	+0.2
	baz=44,SNR=53						
S18A	Hurst Farm, Bl	44.22	35	⇑P	P	15 49 32.8	+0.4
	baz=44,SNR=72						
K09A	Rome	44.24	24	⇑P	P	15 49 32.8	+0.3
	baz=44,SNR=42						
L10A	Juniper Basin	44.25	26	⇓P	P	15 49 33.1	+0.5
	baz=44,SNR=90						
P15A	Leamington	44.30	31	⇑P	P	15 49 33.4	+0.3
	baz=44,SNR=5.1						
N13A	Wendover, West	44.31	29	⇑P	P	15 49 33.8	+0.6
	baz=44,SNR=49						
N13A	Wendover, West	44.31	29	⇑*i*P	P	15 49 33.6	+0.5
	comp=Z,138nm,1.0s,mb5.6						
R17A	Hanksville Air	44.32	34	⇓P	P	15 49 33.2	0.0
	baz=44,SNR=26						
H04A	Detroit Lake	44.33	19	⇓P	P	15 49 33.4	+0.2
	baz=44,SNR=8.2						
I06A	Prineville	44.35	21	⇓P	P	15 49 34.1	+0.7
	baz=45,SNR=28						
Q16A	Castle Valley	44.42	33	⇑P	P	15 49 34.9	+0.8
	baz=45,SNR=26						
W22A	Albuquerque	44.42	40	⇑P	P	15 49 35.2	+1.0
	baz=44						
GDL2	Guadalupe Moun	44.46	45	*e*P	P	15 49 35.2	+0.7
GDL2				*e*PcP	PcP	15 51 17.1	-1.0
J08A	Circle Bar Ran	44.49	23	⇓P	P	15 49 35.0	+0.4
	baz=45,SNR=29						
DUG	Dugway	44.49	30	*e*P	P	15 49 35.0	+0.4
DUG				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.9						
DUG	Dugway	44.49	30	⇓P	P	15 49 34.9	+0.3
	baz=45,SNR=19						
DUG	Dugway	44.49	30	*e*P	P	15 49 35.0	+0.4
	comp=Z,22nm,0.9s,mb4.9						
ANMO	Albuquerque	44.61	41	*e*P	P	15 49 35.5	-0.2
ANMO				*e*		15 51 16.7	
ANMO				pmax	pmax		
	comp=Z,69nm,1.1s						
ANMO	Albuquerque	44.61	41	*e*P	P	15 49 35.5	-0.1
	comp=Z,69nm,1.1s,mb5.4						
ANMO				*e*PcP	PcP	15 51 16.7	-1.8
L11A	Cat Creek Ranc	44.64	26	⇑P	P	15 49 36.3	+0.6
	baz=45,SNR=47						
K10A	MacKenzie Ranc	44.65	25	⇓P	P	15 49 36.2	+0.4
	baz=45,SNR=28						
P16A	Fountain Green	44.66	32	⇓P	P	15 49 36.8	+0.9
	baz=45						
TMUT	Trail Mountain	44.67	33	*e*P	P	15 49 37.2	+1.2
	comp=Z,70nm,1.0s,mb5.5						
NLU	North Lily Min	44.69	31	*e*P	P	15 49 37.1	+0.9
	comp=Z,190nm,2.0s,mb5.6						
NLU				*e*PcP	PcP	15 51 18.9	+0.2
G04A	Mulino	44.71	18	⇓P	P	15 49 36.7	+0.4
	baz=45,SNR=5.5						
I07A	Izee	44.72	21	⇑P	P	15 49 36.8	+0.4
	baz=45,SNR=46						
M13A	Montello	44.72	28	⇑P	P	15 49 36.7	+0.3
	baz=45,SNR=25						
M13A	Montello	44.72	28	*e*P	P	15 49 36.8	+0.4
O15A	The Old Anders	44.73	31	⇑P	P	15 49 36.9	+0.4
	baz=45						
S19A	Harvey Farm, M	44.75	36	⇓P	P	15 49 36.9	+0.2
	baz=45,SNR=40						
R18A	Canyonlands Na	44.75	35	⇓P	P	15 49 36.6	-0.1
	baz=45,SNR=119						
J09A	Fry Pan Ranch,	44.77	24	⇑P	P	15 49 37.2	+0.5
	baz=45,SNR=36						
MVCO	Mesa Verde	44.77	37	⇓P	P	15 49 37.0	+0.2
	baz=45						
MVCO	Mesa Verde	44.77	37	*e*P	P	15 49 36.7	-0.1
	comp=Z,60nm,1.2s,mb5.3						
N14A	Grayback Hills	44.80	30	⇓P	P	15 49 37.4	+0.4
	baz=45,SNR=28						
SRU	San Rafael	44.91	33	*e*P	P	15 49 38.5	+0.5
SRU				pmax	pmax		
	comp=Z,71nm,0.9s,mb5.5						
SRU	San Rafael	44.91	33	⇑P	P	15 49 38.3	+0.4
	baz=45,SNR=67						
SRU	San Rafael	44.91	33	*e*P	P	15 49 38.5	+0.5
	comp=Z,71nm,0.9s,mb5.5						
I08A	Drewsey	44.92	22	⇑P	P	15 49 38.3	+0.3
	baz=45,SNR=21						
BGU	Big Grassy Mou	44.94	30	*e*P	P	15 49 38.0	-0.1
	comp=Z,46nm,1.2s,mb5.2						
L12A	House Creek Ra	44.95	27	⇑P	P	15 49 38.7	+0.5
	baz=45,SNR=15						
MPU	Maple Canyon	44.97	32	*e*P	P	15 49 39.5	+1.1
	comp=Z,51nm,1.1s,mb5.3						
H06A	Lindquist Farm	44.99	20	⇑P	P	15 49 38.8	+0.3
	baz=45,SNR=45						
K11A	Parker Ranch,	45.00	25	⇓P	P	15 49 38.8	+0.1
	baz=45,SNR=29						
F03A	Seaside	45.05	17	⇓P	P	15 49 39.6	+0.7
	baz=45						
P17A	Butcher Ranch,	45.05	33	⇓P	P	15 49 39.6	+0.6
	baz=45,SNR=18						
R19A	Curley Farm, L	45.05	35	⇑P	P	15 49 39.2	+0.1
	baz=45,SNR=20						
HOOD	Mount Hood Mea	45.07	19	*e*P	P	15 49 39.5	+0.3
	comp=Z,59nm,1.1s,mb5.3						
G05A	Wamic	45.11	19	⇑P	P	15 49 39.7	+0.3
	baz=45,SNR=9.5						
Q18A	Rafter H Ranch	45.12	34	⇑P	P	15 49 39.7	+0.1
	baz=45,SNR=36						
VFP	Flag Point	45.13	19	P	P	15 49 40.0	+0.4
O16A	Springville	45.17	31	⇑P	P	15 49 40.7	+0.6
	baz=45						
NOQ	North Oquirrh	45.19	31	*e*P	P	15 49 40.8	+0.6
	comp=Z,124nm,1.4s,mb5.5						
M14A	Sheep Mountain	45.22	29	⇑P	P	15 49 40.6	+0.2
	baz=45,SNR=44						
J10A	Berg Farm, Mel	45.23	24	⇑P	P	15 49 40.6	+0.2
	baz=45						
I09A	Lost Marbles R	45.30	23	⇓P	P	15 49 41.1	+0.1
	baz=46,SNR=6.7						
VTHM	Trough	45.31	20	P	P	15 49 41.2	+0.2
PV04	Paradox Valley	45.32	35	*e*P	P	15 49 41.6	+0.3
G06A	Carlson Farm,	45.33	20	⇓P	P	15 49 41.2	0.0
	baz=46,SNR=19						
PV01	Paradox Valley	45.34	36	*e*P	P	15 49 40.9	-0.5
	comp=Z,4μm,1.1s						
PV01				*e*		15 49 48.9	
F04A	Amboy	45.38	18	⇓P	P	15 49 41.3	-0.3
	baz=46,SNR=5.7						
K12A	Draper Farm, C	45.39	27	⇓P	P	15 49 41.7	0.0
	baz=46,SNR=22						
L13A	Double Diamond	45.39	28	⇑P	P	15 49 42.2	+0.4
	baz=46,SNR=37						
H08A	Prairie City	45.40	22	⇑P	P	15 49 42.1	+0.3
	baz=46,SNR=29						
P18A	Preston Nutter	45.43	33	⇑P	P	15 49 42.8	+0.7
	baz=46,SNR=45						
DAU	Daniels Canyon	45.45	31	*e*P	P	15 49 43.4	+1.1
R20A	Redvale	45.49	36	⇓P	P	15 49 42.6	0.0
	baz=46,SNR=19						
JLU	Jordanelle	45.49	31	*e*P	P	15 49 43.5	+0.9
	comp=Z,46nm,0.9s,mb5.3						
Q19A	Hogan Spring (	45.50	34	⇓P	P	15 49 43.1	+0.4
	baz=46,SNR=29						
SPUT	South Promonto	45.51	30	*e*P	P	15 49 43.0	+0.3
	comp=Z,38nm,0.9s,mb5.3						
O17A	Robinson Place	45.57	32	⇑P	P	15 49 44.2	+1.1
	baz=46,SNR=32						
E03A	Lebam	45.61	16	⇓P	P	15 49 43.6	+0.3
	baz=46						
T22A	Edith	45.61	38	⇓P	P	15 49 44.0	+0.4
	baz=46,SNR=79						
MFID	Camas Ranch	45.61	25	⇓P	P	15 49 43.6	+0.1
	baz=46,SNR=56						
M15A	Larsen Ranch,	45.63	30	⇑P	P	15 49 43.6	0.0
	baz=46,SNR=62						
L14A	Malta	45.68	28	⇓P	P	15 49 44.3	+0.2
	baz=46,SNR=27						
G07A	Ruggs Ranch, H	45.69	20	⇑P	P	15 49 44.2	+0.2
	baz=46,SNR=8.9						
N16A	Rees Ranch, Co	45.71	31	⇑P	P	15 49 44.7	+0.5
	baz=46,SNR=13						
HVU	Hansel Valley	45.71	29	*e*P	P	15 49 44.6	+0.3
HVU				pmax	pmax		
	comp=Z,142nm,1.8s,mb5.6						
HVU	Hansel Valley	45.71	29	*e*P	P	15 49 44.6	+0.3
	comp=Z,142nm,1.8s,mb5.6						
F06A	Goldendale	45.75	19	⇑P	P	15 49 44.5	0.0
	baz=46,SNR=15						
I10A	Payette	45.76	24	⇑P	P	15 49 45.3	+0.7
	baz=46						
K13A	Stover Farm, H	45.77	27	⇑P	P	15 49 44.9	+0.2
	baz=46,SNR=14						
J12A	Stokes Ranch,	45.79	26	⇓P	P	15 49 44.9	0.0
	baz=46,SNR=68						
H09A	Durkee	45.91	23	⇑P	P	15 49 45.7	0.0
	baz=46,SNR=17						
M16A	Huntsville	45.93	30	⇓P	P	15 49 46.2	+0.2
	baz=46,SNR=9.7						
G08A	Pilot Rock	45.96	21	⇑P	P	15 49 46.4	+0.3
	baz=46,SNR=17						
I11A	Placerville	45.96	25	⇑P	P	15 49 46.2	-0.1
	baz=46,SNR=15						
O18A	Roosevelt	46.01	33	⇑P	P	15 49 47.4	+0.7
	baz=46,SNR=7.9						
Q20A	Ridgley Place,	46.05	35	⇓P	P	15 49 47.0	0.0
	baz=46,SNR=19						
N17A	Moffit Pass	46.06	31	⇑P	P	15 49 47.8	+0.8
	baz=46,SNR=27						
L15A	Malad City	46.07	29	⇓P	P	15 49 47.1	0.0
	baz=46,SNR=22						
K14A	Jones Ranch, D	46.11	28	⇑P	P	15 49 47.6	+0.2
	baz=46,SNR=13						
P19A	Cripple Cowboy	46.13	34	⇓P	P	15 49 47.7	+0.1
	baz=46,SNR=34						
F07A	Phinny Hill Vi	46.15	20	⇑P	P	15 49 47.8	+0.2
	baz=46						
H10A	Noah's Angus R	46.20	23	⇓P	P	15 49 47.7	-0.4
	baz=46,SNR=13						
BMO	Blue Mountains	46.20	23	*e*P	P	15 49 47.8	-0.3
	comp=Z,42nm,1.4s,mb5.2						
BMO				*e*PcP	PcP	15 51 23.3	-0.5
I12A	Atlanta	46.22	25	⇓P	P	15 49 48.5	+0.3
	baz=46,SNR=49						
NLWA	Neilton Lookou	46.30	16	⇑P	P	15 49 49.5	+0.7
	baz=46,SNR=11						
NLWA	Neilton Lookou	46.30	16	*e*P	P	15 49 49.6	+0.8
	comp=Z,61nm,1.1s,mb5.4						
LON	Longmire	46.30	18	*e*P	P	15 49 48.5	-0.3
LON				*e*		15 49 56.4	
LON				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
LON	Longmire	46.30	18	*e*P	P	15 49 48.5	-0.3
	comp=Z,18nm,1.0s,mb5.0						
LON				*e*		15 49 56.4	
J13A	Cove Ranch, Pi	46.32	26	⇓P	P	15 49 49.3	+0.3
	baz=46,SNR=58						
HLID	Hailey	46.34	26	⇓P	P	15 49 49.3	+0.1
	baz=46,SNR=76						
HLID	Hailey	46.34	26	*e*P	P	15 49 48.5	-0.7
	comp=Z,40nm,0.9s,mb5.3						
P20A	De Beque	46.37	35	⇓P	P	15 49 49.5	0.0
	baz=46,SNR=12						
E06A	Yakima	46.38	18	⇑P	P	15 49 50.1	+0.6
	baz=47,SNR=21						
G09A	Cove	46.38	22	⇑P	P	15 49 49.5	0.0
	baz=47,SNR=44						
Q21A	Lamborn Mesa,	46.39	36	⇑P	P	15 49 49.9	+0.2
	baz=46,SNR=14						
F08A	Pendleton	46.46	21	⇓P	P	15 49 50.3	+0.2
	baz=47,SNR=30						
R22A	Saguache, Gunn	46.48	37	⇓P	P	15 49 51.4	+1.0
	baz=47						
O19A	Miners Draw (B	46.51	33	⇓P	P	15 49 50.4	-0.2
	baz=47,SNR=20						
K15A	Arbon	46.52	28	⇑P	P	15 49 50.6	0.0
	baz=47,SNR=42						
OOW	Octopus West	46.53	15	P	P	15 49 51.7	+1.1
M17A	Scullys Gap (B	46.53	31	⇑P	P	15 49 50.4	-0.4
	baz=47,SNR=14						
L16A	Fish Haven	46.55	30	⇑P	P	15 49 50.8	0.0
	baz=47,SNR=46						
J14A	Carey	46.55	27	⇑P	P	15 49 51.3	+0.5
	baz=47,SNR=78						
H11A	Donnelly	46.59	24	⇓P	P	15 49 51.1	0.0
	baz=47,SNR=44						
D05A	Enumclaw	46.64	17	⇓P	P	15 49 52.1	+0.6
	baz=47,SNR=8.1						
G10A	Bishop Farm, J	46.64	23	⇑P	P	15 49 51.6	0.0
	baz=47,SNR=70						
RSW	Rattlesnake Hi	46.70	20	*e*P	P	15 49 52.1	+0.2
HAWA	Hanford	46.72	20	*e*P	P	15 49 52.2	+0.1
	comp=Z,44nm,0.9s,mb5.4						
E07A	Sunnyside	46.75	19	⇑P	P	15 49 52.5	+0.1
	baz=47,SNR=8.1						
I13A	Wildhorse Cree	46.75	26	⇓P	P	15 49 52.8	+0.4
	baz=47,SNR=62						
CMIG	Matias Romero	46.76	70	P	P	15 49 52.0	-0.9
	comp=Z,29nm,0.8s,mb5.3,baz=258,slow=6.4,SNR=39						
Q22A	Crested Butte,	46.80	36	⇓P	P	15 49 53.6	+0.7
	baz=47,SNR=22						
M18A	Lyman	46.81	31	⇓P	P	15 49 52.6	-0.3
	baz=47,SNR=9.5						
O20A	White River Ci	46.89	34	⇓P	P	15 49 53.7	+0.2
	baz=47,SNR=11						
N19A	John Jarvie Ra	46.90	33	⇑P	P	15 49 53.4	-0.2
	baz=47,SNR=34						
SDCO	Great Sand Dun	46.94	38	*e*P	P	15 49 54.4	+0.4
	comp=Z,18nm,1.0s,mb5.0						
H12A	Diamond D Ranc	46.94	25	⇓P	P	15 49 53.8	-0.1
	baz=47,SNR=38						
E08A	Dider Farm, El	46.96	20	⇓P	P	15 49 53.6	-0.4
	baz=47,SNR=9.4						
JCT	Junction City	46.98	50	*e*P	P	15 49 53.7	-0.8
JCT				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
JCT	Junction City	46.98	50	*e*P	P	15 49 53.7	-0.8
	comp=Z,40nm,1.0s,mb5.3						
D06A	Cle Elum	46.99	18	⇓P	P	15 49 54.4	+0.2
	baz=47,SNR=11						
I14A	Mackay	47.06	27	⇑P	P	15 49 55.4	+0.5
	baz=47,SNR=59						
K16A	Soda Springs	47.08	29	⇑P	P	15 49 55.5	+0.4
	baz=47,SNR=20						
J15A	Blackfoot	47.11	28	⇓P	P	15 49 55.4	+0.2
	baz=47,SNR=25						
F10A	Beach Ranch, E	47.18	22	⇓P	P	15 49 55.0	-0.7
	baz=47,SNR=13						
L18A	Fontenelle, Gr	47.19	31	⇓P	P	15 49 55.5	-0.4
	baz=47,SNR=17						
H13A	Challis	47.21	25	⇓P	P	15 49 56.0	0.0
	baz=47,SNR=62						
AHID	Auburn Hatcher	47.27	29	*e*P	P	15 49 56.2	-0.3
	comp=Z,67nm,1.3s,mb5.4						
AHID				*e*pP	PcP	15 51 27.6	0.0
D07A	Quincy	47.27	19	⇑P	P	15 49 56.6	+0.1
	baz=48,SNR=15						
E09A	Wood Farm, Sta	47.30	21	⇓P	P	15 49 55.9	-0.8
	baz=48,SNR=7.2						
M19A	Rock Springs	47.34	32	⇓P	P	15 49 56.5	-0.6
	baz=48,SNR=8.0						
K17A	Gardner Place,	47.35	30	⇓P	P	15 49 56.9	-0.2
	baz=48						
N20A	Spence Gulch,	47.35	33	⇓P	P	15 49 57.5	+0.3
	baz=48,SNR=56						
O21A	Pagoda	47.37	34	⇓P	P	15 49 57.5	+0.2
	baz=48,SNR=7.4						
J16A	Bone	47.40	29	⇓P	P	15 49 57.7	+0.2
	baz=48,SNR=46						
D08A	Wollman Farm,	47.50	20	⇑P	P	15 49 57.7	-0.5
	baz=48,SNR=11						
F11A	Grangeville	47.52	23	⇑P	P	15 49 57.3	-1.1
	baz=48,SNR=16						
ETW	Entiat	47.52	18	*e*P	P	15 49 58.4	0.0
I15A	Monteview	47.55	27	⇑P	P	15 49 59.1	+0.4
	baz=48,SNR=6.4						
PGC	Sidney	47.57	15	*e*P	P	15 49 59.2	+0.5
	comp=Z,2.8nm,1.0s,mb4.2						
JCW	Jim Creek	47.57	17	*e*P	P	15 49 59.0	+0.3

RRI2	**Red Ridge**	**47.60**	**29**	*e*P	**P**	**15 49 58.9**	**-0.1**
	comp=Z,78nm,1.5s,mb5.5						
RRI2				*e*pP	PcP	15 51 28.8	0.0
C06A	**Tall Timber Ra**	**47.63**	**18**	⇑P	**P**	**15 49 58.7**	**-0.5**
	baz=48,SNR=5.5						
G13A	**Cobalt**	**47.64**	**25**	⇓P	**P**	**15 49 58.7**	**-0.7**
	baz=48,SNR=52						
E10A	**Myers Farm, Un**	**47.65**	**22**	⇑P	**P**	**15 49 58.6**	**-0.8**
	baz=48						
L19A	**Farson**	**47.66**	**31**	⇑P	**P**	**15 49 59.2**	**-0.3**
	baz=48,SNR=10.0						
C07A	**Waterville**	**47.68**	**19**	⇑P	**P**	**15 49 59.2**	**-0.4**
	baz=48,SNR=24						
K18A	**Toltan Ranch,**	**47.70**	**30**	⇓P	**P**	**15 49 59.7**	**-0.2**
	baz=48,SNR=17						
N21A	**Black Mountain**	**47.72**	**34**	⇑P	**P**	**15 50 00.5**	**+0.5**
	baz=48,SNR=144						
D09A	**Jones Farm, Ri**	**47.72**	**20**	⇑P	**P**	**15 49 59.0**	**-0.8**
	baz=48,SNR=5.8						
F12A	**Elk City**	**47.76**	**24**	⇑P	**P**	**15 49 59.7**	**-0.6**
	baz=48,SNR=35						
AMTX	**Amarillo**	**47.79**	**44**	*e*P	**P**	**15 50 00.8**	**+0.1**
	comp=Z,130nm,0.8s,mb6.0						
REDW	**Red Top Meadow**	**47.84**	**29**	*e*P	**P**	**15 50 00.6**	**-0.3**
	comp=Z,49nm,1.2s,mb5.4						
DCID1	**Drake Creek**	**47.85**	**29**	*e*P	**P**	**15 50 01.0**	**0.0**
	comp=Z,42nm,1.2s,mb5.3						
M20A	**Sweetwater, Wa**	**47.85**	**33**	⇑P	**P**	**15 50 00.8**	**-0.3**
	baz=48,SNR=10						
E11A	**Bogner Ranch,**	**47.88**	**23**	⇓P	**P**	**15 49 59.4**	**-1.8**
	baz=48,SNR=25						
TPAW	**Teton Pass**	**47.88**	**29**	*e*P	**P**	**15 50 01.0**	**-0.3**
	comp=Z,28nm,1.1s,mb5.2						
J17A	**Brown Place, J**	**47.91**	**29**	⇓P	**P**	**15 50 01.1**	**-0.3**
	baz=48,SNR=12						
I16A	**Newdale**	**47.92**	**28**	⇑P	**P**	**15 50 01.7**	**+0.2**
	baz=48,SNR=9.8						
SNOW	**Snow King Moun**	**47.96**	**29**	*e*P	**P**	**15 50 02.2**	**+0.4**
	comp=Z,26nm,1.0s,mb5.2						
SNOW				*e*pP	PcP	15 51 30.3	+0.2
H15A	**Lima**	**47.96**	**27**	⇓P	**P**	**15 50 01.8**	**-0.1**
	baz=48,SNR=38						
B06A	**Marblemount**	**47.99**	**17**	⇑P	**P**	**15 50 01.5**	**-0.4**
	baz=48						
MCMT	**McKenzie Canyo**	**48.03**	**26**	*e*P	**P**	**15 50 02.3**	**-0.1**
	comp=Z,12nm,1.1s,mb4.8						
BW06	**Boulder Array**	**48.04**	**31**	⇓P	**P**	**15 50 02.1**	**-0.4**
	baz=48,SNR=74						
BW06	**Boulder Array**	**48.04**	**31**	*e*P	**P**	**15 50 02.0**	**-0.5**
	comp=Z,58nm,0.9s,mb5.6						
PDAR	**Pinedale Array**	**48.04**	**31**	P	**P**	**15 50 02.0**	**-0.5**
	comp=Z,45nm,0.9s,mb5.5,baz=223,slow=6.6,SNR=262						
PDAR				PcP	PcP	15 51 29.4	-0.9
	comp=Z,6.6nm,0.9s,baz=193,slow=3.7,SNR=3.9						
PDAR				LR	LR	16 06 08.1	
	comp=Z,130nm,19.1s,MS3.9,baz=288,slow=31						
G14A	**Jackson**	**48.09**	**25**	⇑P	**P**	**15 50 02.7**	**-0.2**
	baz=48,SNR=24						
C08A	**Higginbotham F**	**48.09**	**19**	⇓P	**P**	**15 50 02.6**	**-0.2**
	baz=48,SNR=11						
L20A	**Wamsutter**	**48.13**	**32**	⇑P	**P**	**15 50 03.0**	**-0.2**
	baz=48,SNR=14						
J18A	**Kendall Valley**	**48.13**	**30**	⇑P	**P**	**15 50 02.9**	**-0.3**
	baz=48,SNR=45						
LOHW	**Long Hollow**	**48.14**	**29**	*e*P	**P**	**15 50 03.0**	**-0.3**
	comp=Z,70nm,1.5s,mb5.5						
ISCO	**Idaho Springs**	**48.17**	**36**	*e*P	**P**	**15 50 04.3**	**+0.7**
ISCO				*e**PP	PcP	15 51 30.4	-0.5
ISCO				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
ISCO	**Idaho Springs**	**48.17**	**36**	*e*P	**P**	**15 50 04.3**	**+0.7**
	comp=Z,19nm,0.9s,mb5.1						
ISCO				*e*pP	PcP	15 51 30.4	-0.5
MOOW	**Moose Ponds**	**48.18**	**29**	*e*P	**P**	**15 50 02.9**	**-0.7**
	comp=Z,85nm,2.0s,mb5.4						
MOOW				*e*pP	PcP	15 51 30.7	-0.1
IMW	**Indian Meadow**	**48.20**	**29**	*e*P	**P**	**15 50 03.6**	**0.0**
	comp=Z,34nm,1.3s,mb5.2						
A05A	**Maple Falls**	**48.25**	**16**	⇓P	**P**	**15 50 04.1**	**+0.1**
	baz=48,SNR=11						
N22A	**Wattenberg Ran**	**48.34**	**35**	⇑P	**P**	**15 50 05.2**	**+0.3**
	baz=48,SNR=44						
B07A	**Winthrop**	**48.35**	**18**	⇑P	**P**	**15 50 04.2**	**-0.5**
	baz=49,SNR=12						
C09A	**Chrisman Ranch**	**48.37**	**20**	⇓P	**P**	**15 50 04.5**	**-0.4**
	baz=49,SNR=15						
M21A	**Separation Pea**	**48.38**	**33**	⇑P	**P**	**15 50 04.5**	**-0.6**
	baz=48,SNR=20						
I17A	**Pilgrim Ck.**	**48.39**	**29**	⇑P	**P**	**15 50 05.4**	**+0.2**
	baz=49,SNR=18						
D11A	**Klaveano Farm,**	**48.41**	**22**	⇑P	**P**	**15 50 04.4**	**-0.9**
	baz=49,SNR=18						
K19A	**Absolon Red Bu**	**48.45**	**31**	⇑P	**P**	**15 50 04.6**	**-1.0**
	baz=49,SNR=17						
G15A	**Dillon**	**48.46**	**26**	⇑P	**P**	**15 50 05.5**	**-0.2**
	baz=49,SNR=21						
B08A	**Colville Reser**	**48.50**	**19**	⇓P	**P**	**15 50 05.2**	**-0.8**
	baz=49,SNR=18						
RWWY	**Rawlins**	**48.52**	**33**	*e*P	**P**	**15 50 05.8**	**-0.4**
	comp=Z,69nm,0.9s,mb5.7						
RWWY				*e*PcP	PcP	15 51 31.4	-0.7
DLMT	**Dillon**	**48.56**	**26**	*e*P	**P**	**15 50 06.4**	**-0.1**
	comp=Z,83nm,1.0s,mb5.7						
F14A	**Wisdom**	**48.58**	**25**	⇑P	**P**	**15 50 06.5**	**-0.1**
	baz=49,SNR=20						
I18A	**Diamond G Ranc**	**48.59**	**29**	⇓P	**P**	**15 50 06.5**	**-0.2**
	baz=49,SNR=54						
L21A	**Rawlins**	**48.62**	**33**	⇑P	**P**	**15 50 06.3**	**-0.7**
	baz=49,SNR=9.7						
H16A	**Russell Place,**	**48.66**	**28**	⇓P	**P**	**15 50 07.9**	**+0.7**
	baz=49,SNR=71						
YFT	**Old Faithful**	**48.66**	**28**	*e*P	**P**	**15 50 08.9**	**+1.7**
	comp=Z,30nm,0.9s,mb5.3						
M22A	**Cedar Creek Ra**	**48.66**	**34**	⇓P	**P**	**15 50 07.1**	**-0.2**
	baz=49,SNR=11						
QLMT	**Earthquake Lak**	**48.67**	**27**	*e*P	**P**	**15 50 07.9**	**+0.6**
C10A	**Spilker Farm,**	**48.72**	**21**	⇓P	**P**	**15 50 07.0**	**-0.6**
	baz=49						
H17A	**Grant Village**	**48.74**	**28**	⇑P	**P**	**15 50 08.8**	**+0.9**
	baz=49,SNR=24						
E13A	**Victor**	**48.75**	**24**	⇑P	**P**	**15 50 07.2**	**-0.7**
	baz=49,SNR=24						
YMR	**Madison River**	**48.77**	**28**	*e*P	**P**	**15 50 08.2**	**+0.2**
	comp=Z,21nm,0.8s,mb5.2						
YMR				*e*PcP	PcP	15 51 32.7	-0.3
A07A	**Ashnola River,**	**48.79**	**17**	⇓P	**P**	**15 50 08.0**	**-0.1**
	baz=49,SNR=15						
D12A	**Red Ives Fores**	**48.79**	**23**	⇓P	**P**	**15 50 07.4**	**-0.8**
	baz=49						
G16A	**Moss Hill, Enn**	**48.81**	**27**	⇑P	**P**	**15 50 08.0**	**-0.4**
	baz=49,SNR=6.8						
YNR	**Norris Junctio**	**48.93**	**28**	*e*P	**P**	**15 50 10.4**	**+1.1**
	comp=Z,10nm,1.0s,mb4.8						
B09A	**Rice**	**48.95**	**20**	⇑P	**P**	**15 50 08.9**	**-0.4**
	baz=49,SNR=27						
LKWY	**Lake**	**48.95**	**28**	*e*P	**P**	**15 50 10.9**	**+1.4**
LKWY				pmax	pmax		
	comp=Z,41nm,0.8s,mb5.5						
LKWY	**Lake**	**48.95**	**28**	*e*P	**P**	**15 50 10.9**	**+1.4**
	comp=Z,41nm,0.8s,mb5.5						
F15A	**Butte**	**48.98**	**26**	⇓P	**P**	**15 50 09.4**	**-0.3**
	baz=49,SNR=18						
LRM	**Limekiln Ridge**	**48.99**	**26**	*e*P	**P**	**15 50 09.5**	**-0.3**
E14A	**Clinton**	**49.02**	**25**	⇑P	**P**	**15 50 09.7**	**-0.2**
	baz=49,SNR=41						
B10A	**Chitwood Farm,**	**49.16**	**20**	⇑P	**P**	**15 50 10.6**	**-0.3**
	baz=49						
NEW	**Newport**	**49.16**	**20**	*e*P	**P**	**15 50 10.4**	**-0.6**
NEW				pmax	pmax		
	comp=Z,23nm,0.8s						
NEW	**Newport**	**49.16**	**20**	*e*P	**P**	**15 50 10.4**	**-0.6**
	comp=Z,23nm,0.8s,mb5.3						
MSO	**Missoula**	**49.16**	**24**	*e*P	**P**	**15 50 10.5**	**-0.5**
	comp=Z,48nm,1.5s,mb5.3						
D13A	**Huson**	**49.17**	**23**	⇑P	**P**	**15 50 10.3**	**-0.9**
	baz=49,SNR=16						
BOZ	**Bozeman (W)**	**49.21**	**26**	*e*P	**P**	**15 50 10.8**	**-0.6**
BOZ				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
BOZ	**Bozeman (W)**	**49.21**	**26**	⇓P	**P**	**15 50 10.7**	**-0.8**
	baz=49,SNR=7.8						
BOZ	**Bozeman (W)**	**49.21**	**26**	*e*P	**P**	**15 50 10.8**	**-0.6**
	comp=Z,15nm,1.2s,mb4.9						
PHWY	**Pilot Hill**	**49.24**	**35**	*e*P	**P**	**15 50 11.6**	**-0.1**
	comp=Z,23nm,0.9s,mb5.2						
A09A	**Danville**	**49.28**	**19**	⇑P	**P**	**15 50 11.0**	**-0.9**
	baz=50,SNR=18						
C12B	**Naegeli Ranch,**	**49.29**	**22**	⇓P	**P**	**15 50 11.2**	**-0.8**
	baz=50,SNR=7.5						
F16A	**Kennard Place,**	**49.32**	**26**	⇓P	**P**	**15 50 12.0**	**-0.3**
	baz=50,SNR=14						
G17A	**Pierce Place,**	**49.36**	**27**	⇑P	**P**	**15 50 13.0**	**+0.4**
	baz=50						
E15A	**Deer Lodge**	**49.38**	**25**	⇓P	**P**	**15 50 12.6**	**-0.1**
	baz=50,SNR=31						
CHMT	**Chamberlain Mo**	**49.51**	**24**	*e*P	**P**	**15 50 13.3**	**-0.4**
CHMT				*e*PcP	PcP	15 51 35.5	-0.1
D14A	**Greenough**	**49.54**	**24**	⇓P	**P**	**15 50 13.6**	**-0.4**
	baz=50,SNR=37						
B11A	**Sandpoint**	**49.57**	**21**	⇓P	**P**	**15 50 13.9**	**-0.2**
	baz=50,SNR=17						
C13A	**Hot Springs**	**49.61**	**23**	⇓P	**P**	**15 50 13.9**	**-0.6**
	baz=50,SNR=38						
A10A	**Northport**	**49.63**	**20**	⇓P	**P**	**15 50 13.5**	**-1.0**
	baz=50,SNR=5.2						
BSMT	**Bassoo Peak**	**49.67**	**22**	*e*P	**P**	**15 50 14.2**	**-0.7**
SLMT	**Seeley Lake**	**49.68**	**24**	*e*P	**P**	**15 50 14.4**	**-0.5**
SWMT	**Swartz Lake**	**49.69**	**23**	*e*P	**P**	**15 50 14.2**	**-0.9**
WMOK	**Wichita Mounta**	**49.76**	**46**	*e*P	**P**	**15 50 14.1**	**-1.8**
WMOK				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.2						
WMOK	**Wichita Mounta**	**49.76**	**46**	*e*P	**P**	**15 50 14.1**	**-1.7**
	comp=Z,40nm,1.6s,mb5.2						
JTMT	**Jette**	**49.77**	**23**	*e*P	**P**	**15 50 15.0**	**-0.7**
F17A	**Fitzpatrick Pl**	**49.84**	**27**	⇑P	**P**	**15 50 16.4**	**+0.1**
	baz=50,SNR=54						
HKT	**Hockley**	**49.86**	**53**	*e*P	**P**	**15 50 15.6**	**-1.1**
HKT				pmax	pmax		
	comp=Z,137nm,1.5s,mb5.8						
HKT	**Hockley**	**49.86**	**53**	*e*P	**P**	**15 50 15.6**	**-1.1**
	comp=Z,137nm,1.5s,mb5.8						
E16A	**East Helena**	**49.88**	**26**	⇑P	**P**	**15 50 16.2**	**-0.3**
	baz=50,SNR=13						
B12A	**Libby**	**49.88**	**21**	⇓P	**P**	**15 50 16.1**	**-0.4**
	baz=50,SNR=9.1						
RLMT	**Red Lodge**	**49.91**	**29**	⇓P	**P**	**15 50 17.1**	**+0.4**
	baz=50,SNR=40						
RLMT	**Red Lodge**	**49.91**	**29**	*e*P	**P**	**15 50 16.9**	**+0.1**
	comp=Z,46nm,1.1s,mb5.4						
G18A	**Lazy EL Ranch,**	**49.91**	**28**	⇓P	**P**	**15 50 17.0**	**+0.2**
	baz=50,SNR=43						
D15A	**Lincoln**	**49.92**	**25**	⇑P	**P**	**15 50 16.5**	**-0.3**
	baz=50,SNR=28						
HRY	**Holter Researc**	**49.95**	**25**	*e*P	**P**	**15 50 16.8**	**-0.3**
YBMT	**Yellow Bay**	**49.98**	**23**	*e*P	**P**	**15 50 16.4**	**-0.9**
A11A	**Hall Mountain,**	**50.02**	**21**	⇓P	**P**	**15 50 17.2**	**-0.4**
	baz=50,SNR=24						
E17A	**Martinsdale**	**50.18**	**26**	⇑P	**P**	**15 50 18.8**	**0.0**
	baz=50,SNR=26						
GCMT	**Greycliff**	**50.21**	**28**	*e*P	**P**	**15 50 18.8**	**-0.2**
	comp=Z,23nm,0.9s,mb5.2						
B13A	**Whitefish**	**50.22**	**22**	⇓P	**P**	**15 50 18.1**	**-1.0**
	baz=50,SNR=21						
A12A	**Yaak River Ran**	**50.25**	**21**	⇑P	**P**	**15 50 18.8**	**-0.5**
	baz=50						
F18A	**Big Timber**	**50.28**	**28**	⇓P	**P**	**15 50 19.6**	**0.0**
	baz=50,SNR=25						
D16A	**Dana Ranch, Ca**	**50.32**	**25**	⇓P	**P**	**15 50 19.3**	**-0.6**
	baz=50,SNR=40						
C15A	**Salmond Ranch,**	**50.47**	**24**	⇑P	**P**	**15 50 20.4**	**-0.5**
	baz=51,SNR=30						
E18A	**Harlowton**	**50.68**	**27**	⇓P	**P**	**15 50 22.3**	**-0.3**
	baz=51,SNR=16						
A13A	**Flathead Natio**	**50.70**	**22**	⇑P	**P**	**15 50 21.9**	**-0.8**
	baz=51,SNR=26						
D17A	**Six Diamond Ra**	**50.79**	**26**	⇑P	**P**	**15 50 22.9**	**-0.5**
	baz=51,SNR=36						
C16A	**Fuhringer Ranc**	**50.84**	**25**	⇑P	**P**	**15 50 23.2**	**-0.6**
	baz=51,SNR=30						
B15A	**Bradely Ranch,**	**50.91**	**24**	⇑P	**P**	**15 50 22.9**	**-1.4**
	baz=51,SNR=13						
WALA	**Waterton Lakes**	**50.99**	**22**	*e*P	**P**	**15 50 23.7**	**-1.2**
	comp=Z,0.8nm,0.9s						
A14A	**Double T Ranch**	**51.11**	**23**	⇓P	**P**	**15 50 24.7**	**-1.0**
	baz=51,SNR=13						
C17A	**Wharram Farm,**	**51.12**	**25**	⇓P	**P**	**15 50 25.2**	**-0.7**
	baz=51,SNR=14						
D18A	**Linhart Farms,**	**51.21**	**26**	⇑P	**P**	**15 50 26.5**	**-0.1**
	baz=51,SNR=21						
CBKS	**Cedar Bluff**	**51.24**	**41**	*e*P	**P**	**15 50 26.0**	**-0.9**
CBKS				pmax	pmax		
	comp=Z,88nm,0.9s,mb5.7						
CBKS	**Cedar Bluff**	**51.24**	**41**	*e*P	**P**	**15 50 26.0**	**-1.0**
	comp=Z,88nm,0.9s,mb5.7						
B16A	**M & M Farms, S**	**51.34**	**24**	⇑P	**P**	**15 50 26.4**	**-1.2**
	baz=52,SNR=20						
A15A	**Johnson Ranch,**	**51.38**	**23**	⇓P	**P**	**15 50 26.6**	**-1.2**
	baz=52,SNR=32						
NATX	**Nacogdoches**	**51.51**	**51**	*e*P	**P**	**15 50 28.4**	**-0.7**
	comp=Z,53nm,0.8s,mb5.5						
B17A	**L&G Farms, Che**	**51.62**	**25**	⇑P	**P**	**15 50 29.0**	**-0.7**
	baz=52,SNR=75						
A16A	**West Butte Ran**	**51.81**	**24**	⇓P	**P**	**15 50 30.0**	**-1.0**
	baz=52,SNR=13						
EGMT	**Eagleton**	**51.86**	**26**	⇓P	**P**	**15 50 31.2**	**-0.2**
	baz=52,SNR=27						
EGMT	**Eagleton**	**51.86**	**26**	*e*P	**P**	**15 50 31.2**	**-0.2**
	comp=Z,193nm,1.8s,mb5.7						
EGMT				*e*PcP	PcP	15 51 43.9	-0.3
RSSD	**Black Hills**	**51.88**	**33**	*e*P	**P**	**15 50 30.9**	**-0.7**
RSSD				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
RSSD	**Black Hills**	**51.88**	**33**	*e*P	**P**	**15 50 30.9**	**-0.8**
	comp=Z,27nm,0.8s,mb5.2						
B18A	**Beardsley Farm**	**52.13**	**25**	⇓P	**P**	**15 50 33.5**	**0.0**
	baz=52,SNR=16						
A17A	**Triple J Farms**	**52.17**	**24**	⇓P	**P**	**15 50 33.4**	**-0.4**
	baz=52,SNR=16						
LAO	**LASA Array**	**52.51**	**29**	*e*P	**P**	**15 50 35.5**	**-0.7**
	comp=Z,75nm,1.1s,mb5.5						
A18A	**Metzger Ranch,**	**52.51**	**25**	⇓P	**P**	**15 50 35.7**	**-0.5**
	baz=53,SNR=18						
KSU1	**Kansas State U**	**53.46**	**42**	*e*P	**P**	**15 50 42.6**	**-0.8**
	comp=Z,48nm,0.9s,mb5.4						
MIAR	**Mount Ida**	**53.49**	**49**	*e*P	**P**	**15 50 42.2**	**-1.6**
MIAR				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
MIAR	**Mount Ida**	**53.49**	**49**	*e*P	**P**	**15 50 42.2**	**-1.5**
	comp=Z,11nm,1.0s,mb4.8						
TGUH	**Tegucigalpa,Un**	**53.52**	**75**	*e*P	**P**	**15 50 43.5**	**-0.7**
	comp=Z,67nm,0.9s,mb5.6						
UALR	**University of**	**54.51**	**49**	*e*P	**P**	**15 50 51.8**	**+0.6**
	comp=Z,51nm,0.9s,mb5.5						
DGMT	**Dagmar**	**54.73**	**29**	⇓P	**P**	**15 50 52.4**	**-0.2**
	baz=55						
DGMT	**Dagmar**	**54.73**	**29**	*e*P	**P**	**15 50 51.0**	**-1.6**
	comp=Z,33nm,0.9s,mb5.4						
FALS	**False Pass**	**54.79**	**344**	*e*P	**P**	**15 50 53.3**	**+0.4**
	comp=Z,145nm,0.8s,mb6.1						
UNV	**Unalaska Valle**	**54.84**	**341**	*e*P	**P**	**15 50 53.6**	**+0.4**
	comp=Z,79nm,1.3s,mb5.6						
OHAK	**Old Harbor**	**54.84**	**351**	*e*P	**P**	**15 50 53.7**	**+0.5**
	comp=Z,186nm,2.1s,mb5.8						
CHGN	**Chignik**	**54.88**	**348**	*e*P	**P**	**15 50 53.2**	**-0.3**
NIKO	**Nikolski**	**54.90**	**339**	*e*P	**P**	**15 50 52.8**	**-0.8**
	comp=Z,59nm,0.9s,mb5.6						
KDAK	**Kodiak Island**	**55.28**	**352**	P	**P**	**15 50 57.6**	**+1.3**
	comp=Z,403nm,1.0s,mb6.4,SNR=6.1						
KDAK	**Kodiak Island**	**55.28**	**352**	P	**P**	**15 50 57.0**	**+0.6**
	comp=Z,55nm,0.9s,mb5.6,baz=178,slow=3.8,SNR=23						
KDAK				LR	LR	16 08 18.6	
	comp=Z,501nm,20.6s,MS4.6,baz=101,slow=29						
KDAK	**Kodiak Island**	**55.28**	**352**	P	**P**	**15 50 57.0**	**+0.6**
KDAK				LR	LR	16 08 18.6	
JTS	**JuntasAbangare**	**55.47**	**80**	P	**P**	**15 50 57.7**	**-0.8**
	comp=Z,573nm,0.9s,mb6.6,SNR=10						
JTS	**JuntasAbangare**	**55.47**	**80**	*e*P	**P**	**15 50 57.7**	**-0.8**
DLBC	**Dease Lake**	**55.69**	**7**	P	**P**	**15 50 59.7**	**+0.4**
	comp=Z,10nm,0.8s,mb4.9,baz=213,slow=7.4,SNR=20						
DLBC				PcP	PcP	15 51 57.0	-1.6
	comp=Z,5.8nm,0.8s,baz=232,slow=4.6,SNR=4.2						
DLBC				LR	LR	16 09 51.7	
	comp=Z,206nm,18.7s,MS4.2,baz=206,slow=31						
DLBC	**Dease Lake**	**55.69**	**7**	*e*P	**P**	**15 50 60.0**	**+0.7**
ECSD	**EROS Data Cent**	**55.91**	**37**	*e*P	**P**	**15 50 59.7**	**-1.5**
	comp=Z,41nm,1.0s,mb5.4						
SKAG	**Skagway**	**56.26**	**3**	*e*P	**P**	**15 51 01.9**	**-1.4**
	comp=Z,52nm,1.2s,mb5.4						
CCM	**Cathedral Cave**	**56.68**	**46**	*e*P	**P**	**15 51 04.9**	**-1.9**
CCM				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
CCM	**Cathedral Cave**	**56.68**	**46**	*e*P	**P**	**15 51 04.9**	**-1.9**
	comp=Z,32nm,1.0s,mb5.3						
URZ	**Urewera**	**56.93**	**219**	P	**P**	**15 51 10.1**	**+1.6**
	comp=Z,12nm,1.0s,mb4.9,baz=30,slow=9.7,SNR=3.4						
URZ				LR	LR	16 10 39.0	
	comp=Z,129nm,18.3s,MS4.1,baz=33,slow=31						
SCIA	**State Center**	**57.10**	**41**	*e*P	**P**	**15 51 08.1**	**-1.6**
	comp=Z,79nm,1.2s,mb5.6						
FVM	**French Village**	**57.24**	**46**	*e*P	**P**	**15 51 08.4**	**-2.3**
FVM				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
FVM	**French Village**	**57.24**	**46**	*e*P	**P**	**15 51 08.4**	**-2.3**
	comp=Z,19nm,0.8s,mb5.2						
PLAL	**Pickwick Lake**	**57.83**	**50**	*e*P	**P**	**15 51 13.2**	**-1.7**
RSO	**Redoubt South**	**57.90**	**353**	*e*P	**P**	**15 51 15.2**	**+0.3**
FIB	**Fire Island**	**58.30**	**354**	*e*P	**P**	**15 51 18.4**	**+0.6**
FIB				pmax	pmax		
	comp=Z,638nm,2.4s,mb6.2						
FIB	**Fire Island**	**58.30**	**354**	*e*P	**P**	**15 51 18.4**	**+0.6**
	comp=Z,638nm,2.4s,mb6.2						
WVT	**Waverly**	**58.43**	**49**	*e*P	**P**	**15 51 17.8**	**-1.3**
WVT				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
WVT	**Waverly**	**58.43**	**49**	*e*P	**P**	**15 51 17.8**	**-1.4**
	comp=Z,11nm,0.9s,mb4.9						
PMR	**Palmer**	**58.63**	**355**	*e*P	**P**	**15 51 19.5**	**-0.5**
PMR				pmax	pmax		
	comp=Z,91nm,0.8s,mb5.9						
PMR	**Palmer**	**58.63**	**355**	*e*P	**P**	**15 51 19.5**	**-0.5**
	comp=Z,91nm,0.8s,mb5.9						
SVW2	**Sparrevohn**	**58.90**	**351**	*e*P	**P**	**15 51 20.9**	**-1.0**
AGMN	**Agassiz Refuge**	**58.92**	**33**	*e*P	**P**	**15 51 20.8**	**-1.5**
	comp=Z,58nm,1.3s,mb5.5						
HDIL	**Hopedale**	**59.11**	**44**	*e*P	**P**	**15 51 21.3**	**-2.5**
	comp=Z,24nm,0.8s,mb5.3						
OLIL	**Olney**	**59.21**	**46**	*e*P	**P**	**15 51 22.8**	**-1.7**
	comp=Z,77nm,1.0s,mb5.7						
USIN	**University of**	**59.23**	**47**	*e*P	**P**	**15 51 23.5**	**-1.2**
	comp=Z,40nm,0.8s,mb5.5						
JFWS	**Jewell Farm**	**59.51**	**41**	*e*P	**P**	**15 51 24.5**	**-2.0**
JFWS				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.6						
JFWS	**Jewell Farm**	**59.51**	**41**	*e*P	**P**	**15 51 24.5**	**-2.0**
	comp=Z,50nm,0.8s,mb5.6						
SWET	**Sewanee**	**59.55**	**51**	*e*P	**P**	**15 51 25.4**	**-1.6**
MENT	**Mentasta**	**59.66**	**358**	*e*P	**P**	**15 51 26.9**	**-0.2**
PAX	**Paxson**	**59.76**	**357**	*e*P	**P**	**15 51 27.2**	**-0.6**
PAX				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
PAX	**Paxson**	**59.76**	**357**	*e*P	**P**	**15 51 27.2**	**-0.6**
	comp=Z,17nm,0.8s,mb5.1						
ULM	**Lac du Bonnet**	**60.05**	**31**	P	**P**	**15 51 28.3**	**-1.7**
	comp=Z,22nm,1.0s,mb5.2,baz=241,slow=7.4,SNR=23						
ULM				PcP	PcP	15 52 13.4	-2.6
	comp=Z,8.9nm,0.9s,baz=226,slow=5.6,SNR=4.6						
ULM				LR	LR	16 13 14.3	
	comp=Z,119nm,20.8s,MS4.0,baz=279,slow=32						
FFC	**Flin Flon**	**60.08**	**25**	*e*P	**P**	**15 51 27.8**	**-2.4**
FFC				pmax	pmax		
	comp=Z,156nm,2.8s,mb5.5						
FFC	**Flin Flon**	**60.08**	**25**	*e*P	**P**	**15 51 27.8**	**-2.4**
	comp=Z,156nm,2.8s,mb5.5						
PPLA	**Purkeypile**	**60.21**	**354**	⇑*e*P	**P**	**15 51 29.9**	**-1.0**
	comp=Z,230nm,1.3s,mb6.0						
WCI	**Wyandotte Cave**	**60.33**	**47**	*e*P	**P**	**15 51 30.9**	**-1.4**
WCI				pmax	pmax		
	comp=Z,230nm,2.1s,mb5.8						
WCI	**Wyandotte Cave**	**60.33**	**47**	*e*P	**P**	**15 51 30.9**	**-1.3**
	comp=Z,230nm,2.1s,mb5.8						
TRF	**Thorofare Moun**	**60.56**	**355**	⇑*e*P	**P**	**15 51 32.6**	**-0.7**
	comp=Z,86nm,0.8s,mb5.9						
TTA	**Tatalina**	**60.71**	**352**	*e*P	**P**	**15 51 33.8**	**-0.6**
CPCT	**Cooper Cave**	**60.72**	**51**	*e*P	**P**	**15 51 33.1**	**-1.9**
KTH	**Kantishna Hill**	**60.72**	**355**	*e*P	**P**	**15 51 33.5**	**-0.9**
	comp=Z,79nm,0.9s,mb5.8						
HNR	**Honiara**	**60.73**	**257**	LR	LR	16 10 39.2	
	comp=Z,222nm,21.8s,MS4.3,baz=312,slow=29						
MCK	**McKinley**	**60.73**	**356**	*e*P	**P**	**15 51 33.5**	**-1.0**
MCK				pmax	pmax		
	comp=Z,76nm,1.2s,mb5.7						
MCK	**McKinley**	**60.73**	**356**	*e*P	**P**	**15 51 33.5**	**-0.9**
	comp=Z,76nm,1.2s,mb5.7						
DAWY	**Dawson**	**60.75**	**1**	*e*P	**P**	**15 51 34.0**	**-0.6**
GOGA	**Godfrey**	**60.94**	**53**	*e*P	**P**	**15 51 35.2**	**-1.3**
GOGA				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.4						
GOGA	**Godfrey**	**60.94**	**53**	*e*P	**P**	**15 51 35.2**	**-1.2**
	comp=Z,40nm,1.2s,mb5.4						
EYMN	**Ely**	**61.18**	**35**	*e*P	**P**	**15 51 35.9**	**-2.0**
	comp=Z,22nm,0.8s,mb5.3						
CHUM	**Lake Minchumin**	**61.18**	**354**	*e*P	**P**	**15 51 36.4**	**-1.1**
	comp=Z,97nm,0.9s,mb5.9						
BPAW	**Bear Paw Mtn.**	**61.27**	**355**	*e*P	**P**	**15 51 36.7**	**-1.4**
	comp=Z,87nm,0.8s,mb5.9						
BPAW				*e*		15 51 44.4	
TKL	**Tuckaleechee C**	**61.37**	**51**	*e*P	**P**	**15 51 37.0**	**-2.3**
EGAK	**Eagle**	**61.46**	**360**	*e*P	**P**	**15 51 39.0**	**-0.4**
	comp=Z,59nm,0.9s,mb5.7						
COLA	**College**	**61.79**	**356**	*e*P	**P**	**15 51 39.9**	**-1.7**
COLA				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.3						
COLA	**College**	**61.79**	**356**	*e*P	**P**	**15 51 39.9**	**-1.7**
	comp=Z,24nm,1.0s,mb5.3						
TZTN	**Tazewell**	**61.82**	**50**	*e*P	**P**	**15 51 40.6**	**-1.7**
	comp=Z,164nm,1.8s,mb5.9						
OTAV	**Otavalo**	**62.00**	**91**	*e*P	**P**	**15 51 43.8**	**-0.2**
	comp=Z,13nm,0.9s,mb5.0						
YKA	**Yellowknife Ar**	**62.20**	**13**	P	**P**	**15 51 43.4**	**-1.0**
YKA						15 52 22.6	
YKA	**Yellowknife Ar**	**62.20**	**13**	P	**P**	**15 51 43.4**	**-1.0**
	comp=Z,17nm,0.8s,mb5.2,baz=205,slow=7.5,SNR=164						
YKA				PcP	PcP	15 52 22.5	-1.8
	comp=Z,2.9nm,0.8s,baz=213,slow=3.3,SNR=6.1						
YKA				PKPPKP		16 20 46.7	
	comp=Z,0.8nm,1.1s,baz=32,slow=2.5,SNR=4.6						
YKA	**Yellowknife Ar**	**62.20**	**13**	P	**P**	**15 51 43.4**	**-1.0**
YKA				PcP	PcP	15 52 22.6	-1.8
YKA				P’P’		16 20 46.7	
ATAH	**Atahualpa**	**62.72**	**99**	P	**P**	**15 51 46.8**	**-2.0**
	comp=Z,16nm,0.8s,mb5.2,baz=307,slow=5.4,SNR=12						
JSC	**Jenkinsville**	**62.94**	**53**	*e*P	**P**	**15 51 48.3**	**-1.6**
JSC				*e*		15 51 56.1	
ACSO	**Alum Creek Sta**	**63.45**	**46**	*e*P	**P**	**15 51 51.0**	**-2.2**
	comp=Z,79nm,1.7s,mb5.6						
IMA2	**Indian Mountai**	**63.45**	**354**	*e*P	**P**	**15 51 51.3**	**-1.4**
COLD	**Coldfoot**	**64.28**	**356**	*e*P	**P**	**15 51 57.3**	**-0.8**
	comp=Z,130nm,2.1s,mb5.6						
GAMB	**Gambell**	**64.62**	**345**	*e*P	**P**	**15 52 00.1**	**-0.3**
	comp=Z,88nm,1.5s,mb5.6						
INK	**Inuvik**	**65.17**	**3**	P	**P**	**15 52 02.5**	**-1.5**
	comp=Z,18nm,0.9s,mb5.1,baz=186,slow=5.9,SNR=55						
INK				LR	LR	16 14 24.9	
	comp=Z,184nm,19.9s,MS4.3,baz=318,slow=30						
INK	**Inuvik**	**65.17**	**3**	*e*P	**P**	**15 52 02.4**	**-1.5**
	comp=Z,54nm,1.4s,mb5.4						
TNA	**Tin City**	**65.25**	**348**	*e*P	**P**	**15 52 03.9**	**-0.6**
	comp=Z,37nm,1.3s,mb5.2						
TNA				*e*PcP	PcP	15 52 35.9	-0.9
MCWV	**Mont Chateau**	**65.55**	**48**	*e*P	**P**	**15 52 05.5**	**-1.5**
	comp=Z,24nm,0.9s,mb5.2						
ROSC	**El Rosal**	**65.92**	**86**	P	**P**	**15 52 10.5**	**+0.7**
	comp=Z,9.4nm,0.6s,mb5.0,baz=95,slow=19,SNR=9.5						
ROSC				LR	LR	16 14 56.8	
	comp=Z,90nm,21.3s,MS3.9,baz=213,slow=31						
ALLY	**Alegheny Colle**	**65.94**	**45**	*e*P	**P**	**15 52 08.0**	**-1.5**
	comp=Z,34nm,0.8s,mb5.4						
FCC	**Fort Churchill**	**66.01**	**24**	*e*P	**P**	**15 52 07.8**	**-1.7**
FCC				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FCC	**Fort Churchill**	**66.01**	**24**	*e*P	**P**	**15 52 07.8**	**-1.7**
	comp=Z,0.7nm,0.9s						
ERPA	**Erie**	**66.20**	**45**	*e*P	**P**	**15 52 09.3**	**-1.8**
	comp=Z,27nm,0.8s,mb5.3						
JSRW	**J. Sargeant Re**	**66.49**	**50**	*e*P	**P**	**15 52 11.8**	**-1.3**
SSPA	**Standing Stone**	**67.27**	**47**	*e*P	**P**	**15 52 16.4**	**-1.5**
	comp=Z,85nm,0.9s,mb5.8						
MVL	**Millersville**	**68.23**	**48**	*e*P	**P**	**15 52 22.3**	**-1.7**
	comp=Z,28nm,1.1s,mb5.2						
BINY	**Binghamton**	**69.07**	**46**	*e*P	**P**	**15 52 27.7**	**-1.5**
	comp=Z,30nm,1.1s,mb5.1						
SDDR	**Presa de Saban**	**69.23**	**71**	*e*P	**P**	**15 52 30.2**	**-0.5**
	comp=Z,36nm,1.0s,mb5.3						
SDV	**Santo Domingo**	**69.55**	**82**	LR	LR	16 16 04.9	
	comp=Z,170nm,21.7s,MS4.2,baz=342,slow=30						
SDV	**Santo Domingo**	**69.55**	**82**	*e*P	**P**	**15 52 31.2**	**-1.5**
	comp=Z,20nm,0.9s,mb5.0						
PET	**Petropavlovsk**	**70.30**	**326**	*e*P	**P**	**15 52 35.9**	**-0.7**
PET				*e*S	S	16 01 44.8	-3.9
PET				pmax	pmax		
	comp=Z,115nm,1.4s,mb5.6						

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PET    Petropavlovsk     70.30 326  eP        P         15 52 37.1 +0.5
       comp=Z,248nm,1.5s,mb5.9
LONY   Lake Ozonia       70.69  44  eP        P         15 52 37.0 -2.1
       comp=Z,16nm,0.8s,mb5.0
PETK   Petropavlovsk-    70.87 326   P        P         15 52 40.4 +0.4
       comp=Z,18nm,0.9s,mb5.0,baz=103,slow=12,SNR=11
PETK                                 LR       LR        16 17 31.1
       comp=Z,278nm,19.1s,MS4.5,baz=296,slow=31
PETK   Petropavlovsk-    70.87 326   P        P         15 52 40.4 +0.4
PETK                                 LR       LR        16 17 31.1
FRNY   Flat Rock         71.43  44  eP        P         15 52 42.1 -1.6
LCO    Las Campanas      73.95 121  eP        P         15 52 58.5 -0.5
       comp=Z,43nm,1.3s,mb5.2
BILL   Bilibino          74.00 342c iP        P         15 52 58.0 -0.5
BILL                                e                   15 53 13.4
BILL                                 pmax     pmax
       comp=Z,48nm,1.0s,mb5.4
BILL   Bilibino          74.00 342  eP        P         15 52 57.7 -0.7
       comp=Z,943nm,2.5s,mb6.3
LVC    Limon Verde       74.24 114  eP        P         15 53 01.3 +0.5
       comp=Z,19nm,1.0s,mb5.0
HUMP   Col San Antoni    74.35  72  eP        P         15 52 57.6 -3.9
       comp=Z,67nm,1.0s,mb5.5
GUMO   Guam              74.41 283   LR       LR        16 17 08.7
       comp=Z,152nm,21.8s,MS4.2,baz=92,slow=29
PCRV   Puerto La Cruz    75.45  80   LR       LR        16 21 31.7
       comp=Z,142nm,19.3s,MS4.3,baz=89,slow=32
CTA    Charters Tower    75.50 248  eP        P         15 53 09.3 +1.2
       comp=Z,15nm,1.0s,mb4.9
CTA                                 e                   15 53 17.4
CTA    Charters Tower    75.50 248   P        P         15 53 09.2 +1.0
       comp=Z,17nm,1.0s,mb4.9,baz=54,slow=7.9,SNR=10
CTA                                  LR       LR        16 18 58.5
       comp=Z,190nm,19.9s,MS4.4,baz=59,slow=30
CTAO   Charters Tower    75.50 248  eP        P         15 53 09.3 +1.2
CTAO                                 pmax     pmax
       comp=Z,45nm,1.2s,mb5.3
CTAO   Charters Tower    75.50 248  eP        P         15 53 09.3 +1.2
       comp=Z,45nm,1.2s,mb5.3
CNB    Canberra Magne    75.85 233  eP        P         15 53 11.4 +1.6
CNB                                 e                   15 53 19.1
RES    Resolute Bay      76.16  11   P        P         15 53 09.5 -1.3
RES                                  pmax     pmax
       comp=Z,13nm,0.8s,mb4.9
RES    Resolute Bay      76.16  11   P        P         15 53 09.5 -1.3
       comp=Z,13nm,0.8s,mb4.9,baz=224,slow=9.0,SNR=66
RES    Resolute Bay      76.16  11  eP        P         15 53 09.3 -1.5
       comp=Z,20nm,0.9s,mb5.0
SEY    Seymchan          76.93 334⇓eP        P         15 53 13.9 -1.5
PLCA   Paso Flores       76.98 133   P        P         15 53 15.4 -0.7
       comp=Z,17nm,0.8s,mb5.0,baz=281,slow=5.8,SNR=12
CBIJ   Chichi jima       77.34 297   LR       LR        16 19 27.7
       comp=Z,301nm,20.1s,MS4.6,baz=88,slow=30
SCHQ   Schefferville     77.97  35   P        P         15 53 19.5 -1.9
       comp=Z,17nm,0.9s,mb5.0,baz=272,slow=4.7,SNR=27
ASAJ   Asahikawa         78.45 314   P        P         15 53 25.2 +1.0
ASAJ                                 pmax     pmax
       comp=Z,40nm,0.9s
ASAJ   Asahikawa         78.45 314   P        P         15 53 25.2 +1.0
       comp=Z,40nm,0.9s,mb5.3,baz=207,slow=5.1,SNR=26
YSS    Yuzh-Sakhalins    78.69 317⇑iP        P         15 53 26.0 +0.5
YSS                                 e                   15 53 34.0
YSS                                  pmax     pmax
       comp=Z,190nm,1.6s,mb5.8
YSS    Yuzh-Sakhalins    78.69 317  eP        P         15 53 25.8 +0.3
       comp=Z,48nm,1.1s,mb5.3
MJAR   Matsushiro Arr    81.18 306   P        P         15 53 39.1 -0.2
       comp=Z,6.4nm,1.0s,mb4.5,baz=99,slow=2.9,SNR=12
MJAR                                 LR       LR        16 21 36.5
       comp=Z,164nm,21.6s,MS4.3,baz=125,slow=30
MAJO   Matsushiro        81.18 306  eP        P         15 53 39.3 +0.1
MAJO                                 pmax     pmax
       comp=Z,33nm,1.3s,mb5.1
MAJO   Matsushiro        81.18 306  eP        P         15 53 39.3 +0.1
       comp=Z,33nm,1.3s,mb5.1
MAT    Matsushiro        81.18 306   P        P         15 53 39.3 +0.1
STKA   Stephens Creek    81.51 237  eP        P         15 53 42.9 +1.8
       comp=Z,21nm,0.9s,mb5.1
STKA                                e                   15 53 50.8
STKA   Stephens Creek    81.51 237   P        P         15 53 42.8 +1.8
       comp=Z,26nm,1.0s,mb5.1,baz=64,slow=5.2,SNR=25
STKA   Stephens Creek    81.51 237  eP        P         15 53 40.4 -0.6
       comp=Z,13nm,1.3s,mb4.7
STKA                                e                   15 53 50.8
HABR   Khabarovsk        84.00 318  eP        P         15 53 51.7 -2.0
HABR                                e         pP        15 53 55.7 -1.3
HABR                                                    15 57 04.5
HABR                                i                   15 59 08.0
HABR                                eS        S         16 04 11.7 -6.2
HABR                                eSS       SS        16 09 41.4 -4.6
HABR                                eSSS                16 13 10.3
HABR                                 pmax     pmax
       comp=Z,60nm,1.3s,mb5.6
HABR                                 pmax     pmax
       comp=E,15nm,1.7s
HABR                                 pmax     pmax
       comp=N,5.0nm,0.8s
HABR                                 MLR      MLR
       comp=Z,50nm,19.0s,MS3.9
CPUP   Villa Florida     85.21 117   P        P         15 53 59.2 -1.0
       comp=Z,18nm,0.9s,mb5.2,baz=254,slow=5.4,SNR=12
ALE    Alert             85.30   7   P        P         15 53 58.3 -1.4
       comp=Z,112nm,1.0s,mb6.0,SNR=10
KLR    Kul'dur           86.19 319  eP        P         15 53 57.2 -7.4
VNDA   Vanda             86.45 191   P        P         15 54 06.3 +1.0
       comp=Z,8.1nm,1.1s,mb4.9,baz=18,slow=4.3,SNR=6.0
WRAB   Tennant Creek     86.60 250  eP        P         15 54 08.9 +1.6
WRAB                                 pmax     pmax
       comp=Z,16nm,0.9s,mb5.2
WRAB   Tennant Creek     86.60 250  eP        P         15 54 08.9 +1.7
       comp=Z,16nm,0.9s,mb5.3
WRA    Warramunga Arr    86.61 250   P        P         15 54 08.1 +0.7
       comp=Z,12nm,0.9s,mb5.2,baz=78,slow=5.0,SNR=75
SFJD   Kangerlussuaq     87.00  23  i P       Px        15 54 21.4
       comp=Z,6.3nm,1.1s
YAK    Yakutsk           87.16 332  eP        P         15 54 05.9 -3.2
YAK                                  pmax     pmax
       comp=Z,26nm,0.9s,mb5.5
YAK                                  pmax     pmax
       comp=E,9.0nm,1.1s
YAK    Yakutsk           87.16 332  eP        P         15 54 07.7 -1.4
       comp=E,22nm,0.8s,mb5.4
TIXI   Tiksi             87.22 342  eP        P         15 54 08.6 -0.6
TIXI                                 pmax     pmax
       comp=Z,64nm,0.9s,mb5.8
TIXI   Tiksi             87.22 342  eP        P         15 54 08.6 -0.6
       comp=Z,64nm,0.9s,mb5.9
ASAR   Alice Springs     87.31 246   P        P         15 54 11.7 +1.0
       comp=Z,13nm,0.9s,mb5.2,baz=91,slow=5.0,SNR=105
MDJ    Mudanjiang        87.78 314   P        P         15 54 12.3 -0.2
MDJ                                  pP       pP        15 54 15.5 -0.3
MDJ                                  sP       sP        15 54 16.5 -0.5
MDJ                                  pmax     pmax
       comp=Z,37nm,1.1s,mb5.5
MDJ                                  pmax     pmax
       comp=Z,110nm,3.5s
MDJ                                  LR       LR
       comp=Z,160nm,19.1s,MS4.5
MDJ    Mudanjiang        87.78 314  eP        P         15 54 12.2 -0.3
       comp=Z,39nm,1.2s,mb5.5
MDJ                                 e                   15 54 19.5
KSRS   Korea Array       89.40 307   P        P         15 54 21.2 +0.9
KSRS                                 pmax     pmax
       comp=Z,9.0nm,0.9s,mb5.1
KSRS                                 MLR      MLR
       comp=Z,172nm,18.2s,MS4.5
KSRS   Korea Array       89.40 307   P        P         15 54 21.1 +0.8
       comp=Z,8.9nm,0.9s,mb5.1,baz=94,slow=5.4,SNR=14
KSRS                                 LR       LR        16 30 21.2
       comp=Z,172nm,18.2s,MS4.5,baz=256,slow=33
SUMG   Summit            90.55  17  eP        P         15 54 23.6 -1.3
       comp=Z,613nm,3.0s
CN2    Changchun         90.80 314  eP        P         15 54 26.5 -0.2
FORT   Forrest           92.93 239  eP        P         15 54 37.6 +0.8
       comp=Z,43nm,0.8s,mb5.9
FORT                                e                   15 54 45.4
FORT   Forrest           92.93 239  eP        P         15 54 37.7 +0.9
QSPA   South Pole Qui    93.15 180   P        P         15 54 37.9 +1.1
       comp=Z,10nm,1.0s,mb5.2,baz=89,slow=1.7,SNR=13
QSPA                                 LR       LR        16 26 38.1
       comp=Z,424nm,21.0s,MS4.9,baz=336,slow=29
QSPA   South Pole Qui    93.15 180   P        P         15 54 37.9 +1.1
QSPA                                 LR       LR        16 26 38.1
FITZ   Fitzroy Crossi    94.73 252  eP        P         15 54 45.6 +0.2
       comp=Z,8.3nm,0.8s,mb5.2
FITZ   Fitzroy Crossi    94.73 252   P        P         15 54 45.7 +0.3
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       comp=Z,3.7nm,0.7s,mb4.9,baz=46,slow=0.6,SNR=6.1
BOD    Bodaibo           95.56 329  eP        P         15 54 45.5 -2.8
BOD                                  pmax     pmax
       comp=Z,26nm,0.9s,mb5.7
SCO    Scoresbysund      96.19  17  i P       P         15 54 49.3 -1.6
SCO                                  pmax     pmax
       comp=Z,8.0nm,0.9s,mb5.2
SCO    Scoresbysund      96.19  17  i P       P         15 54 49.3 -1.6
       comp=Z,8.0nm,0.9s,mb5.2
NJ2    Nanjing           97.39 303  eP        P         15 54 57.0 -0.2
NJ2                                  pP       pP        15 55 01.0 +0.4
NJ2                                  sP       sP        15 55 04.3 +2.5
NJ2                                  PP       PP        15 58 55.5 +1.4
NJ2                                  S        S         16 06 18.0 -4.1
NJ2                                  sS       sS        16 06 26.0 -1.6
NJ2                                  pmax     pmax
       comp=Z,20nm,0.7s,mb5.7
NJ2                                  LR       LR
       comp=N,900nm,21.7s,MS5.5
NJ2                                  LR       LR
       comp=E,2µm,23.6s,MS5.5
NJ2                                  LR       LR
       comp=Z,350nm,23.1s,MS4.8
BJI    Beijing           98.18 311   P        P         15 54 59.5 -1.1
BJI                                  SKS                16 05 34.8
BJI                                  S        S         16 06 26.8 -1.7
BJI                                  pmax     pmax
       comp=Z,5.0nm,0.9s,mb5.0
BJI                                  LR       LR
       comp=N,150nm,18.9s,MS4.6
BJI                                  LR       LR
       comp=E,110nm,21.3s,MS4.6
BJI                                  LR       LR
       comp=Z,130nm,28.6s
HHC    Hu-ho-hao-te     101.44 313  eP        Pdif      15 55 14.0 -0.7
HHC                                  pP                 15 55 18.5
HHC                                  PP       PP        15 59 26.5 +1.9
HHC                                  SKS                16 05 50.5
HHC                                  S        Sdif      16 06 49.0 -6.0
HHC                                  pmax     pmax
       comp=Z,10.0nm,0.8s
HHC                                  pmax     pmax
       comp=Z,89nm,5.3s
HHC                                  LR       LR
       comp=N,110nm,16.6s,MS5.0
HHC                                  LR       LR
       comp=E,430nm,19.0s,MS5.0
HHC                                  LR       LR
       comp=Z,250nm,17.8s,MS4.8
LZH    Lanzhou          108.59 310  ePdif     Pdif      15 55 44.5 -2.0
LZH                                  PP       PP        16 00 22.0 +4.2
LZH                                  SS       SS        16 15 33.0 -1.5
LZH                                  AMB      AMB
       comp=Z,150nm,8.2s
GYA    Guiyang          108.91 299   Pdif     Pdif      15 55 47.5 -0.5
GYA                                  PKP      PKiKP     15 59 51.0 -2.5
GYA                                  PP       PP        16 00 23.0 +2.5
GYA                                  PKS                16 03 26.0
GYA                                  SS       SS        16 15 40.5 +1.0
GYA                                  AMB      AMB
       comp=Z,150nm,8.3s
GYA                                  LR       LR
       comp=N,800nm,20.8s,MS5.4
GYA                                  LR       LR
       comp=E,620nm,21.0s,MS5.4
GYA                                  LR       LR
       comp=Z,680nm,22.6s,MS5.2
CD2    Chengdu          110.22 304   Pdif     Pdif      15 55 56.0 +2.2
CD2                                  SKS      SKSdf     16 07 06.8 -1.6
CD2                                  S        Sdif      16 08 08.3  0.0
CD2                                  SS       SS        16 16 00.8 +4.0
CD2                                  AMB      AMB
       comp=Z,250nm,4.9s
CD2                                  LR       LR
       comp=N,300nm,16.2s
CD2                                  LR       LR
       comp=Z,280nm,18.5s,MS4.9
GTA    Gaotai           110.43 314  ePKP      PKiKP     15 59 56.3 +0.3
GTA                                  PP       PP        16 00 36.3 +5.4
GTA                                  PKS                16 03 32.3
GTA                                  SKS      SKSdf     16 07 08.0 -0.4
GTA                                  SS       SS        16 16 02.3 +3.3
GTA                                  AMB      AMB
       comp=Z,93nm,5.1s
GTA                                  LR       LR
       comp=N,78nm,17.4s,MS4.5
GTA                                  LR       LR
       comp=E,68nm,17.1s,MS4.5
GTA                                  LR       LR
       comp=Z,97nm,19.2s,MS4.4
ZALV   Zalesovo Beam    111.78 333   PKiKP    PKiKP     15 59 56.8 -1.3
       comp=Z,0.9nm,0.8s,baz=338,slow=1.6,SNR=4.8
NOA    NORSAR Array B   112.29  14   PKKPbc   PKKPbc    16 10 55.3 +3.6
       comp=Z,1.6nm,0.8s,baz=290,slow=5.2,SNR=3.6
FINES  FINESS Array B   114.71   7   PKP      PKiKP     16 00 01.6 -1.9
       comp=Z,2.7nm,0.8s,baz=35,slow=4.7,SNR=3.7
PRGR   Permogore        115.19 357   PKIKP    PKiKP     16 00 03.4 -1.0
PRGR                                 pmax     pmax
       comp=Z,52nm,0.9s
WMQ    Urumqi           116.39 323  ePKP      PKPdf     16 00 02.0 -5.2
WMQ                                 ePP       PP        16 01 14.0 +1.1
WMQ                                  PKS                16 03 37.0
WMQ                                  AMB      AMB
       comp=Z,150nm,7.2s
WMQ                                  LR       LR
       comp=N,250nm,26.0s,MS4.9
WMQ                                  LR       LR
       comp=E,250nm,26.0s,MS4.9
WMQ                                  LR       LR
       comp=Z,250nm,22.0s,MS4.8
KURK   Kurchatov        116.77 333   PKIKP    PKPdf     16 00 05.7 -2.1
KURK                                                    16 01 17.4
KURK   Kurchatov        116.77 333   PKP      PKPdf     16 00 05.7 -2.1
       comp=Z,1.5nm,0.6s,baz=39,slow=1.6,SNR=7.3
KURK                                 PP       PP        16 01 17.4 +2.2
       comp=Z,0.8nm,0.5s,baz=54,slow=5.1,SNR=5.3
KURK                                 PKKPbc   PKKPbc    16 10 36.6 +0.6
       comp=Z,1.0nm,0.8s,baz=228,slow=4.8,SNR=5.8
MKAR   Makanchi Array   117.64 328   PKP      PKPdf     16 00 07.2 -2.3
       comp=Z,2.9nm,0.7s,baz=58,slow=1.5,SNR=32
MKAR                                 PKKPbc   PKKPbc    16 10 29.1 -3.7
       comp=Z,0.5nm,0.9s,baz=212,slow=4.3,SNR=3.6
MKAR   Makanchi Array   117.64 328   PKP      PKPdf     16 00 07.2 -2.3
MKAR                                 PKKPbc   PKKPbc    16 10 29.1 -3.7
CHTO   Chiang Mai       117.67 293  ePKIKP    PKPdf     16 00 09.7 -0.7
CM31   Chiang Mai Arr   117.75 293  ePKPdf    PKPdf     16 00 10.2 -0.4
CMAR   Chiang Mai Arr   117.75 293   PKP      PKPdf     16 00 10.2 -0.4
       comp=Z,5.8nm,0.9s,baz=57,slow=0.6,SNR=44
BVAR   Borovoye Array   118.29 339   PKIKP    PKPdf     16 00 09.5 -1.1
BVAR                                                    16 01 27.6
BVAR   Borovoye Array   118.29 339   PKP      PKPdf     16 00 09.5 -1.2
       comp=Z,5.3nm,0.8s,baz=112,slow=1.6,SNR=23
BVAR                                 PP       PP        16 01 27.6 +1.9
       comp=Z,1.6nm,0.9s,baz=45,slow=8.6,SNR=3.7
BVAR                                 PKKPbc   PKKPbc    16 10 26.7 -4.0
       comp=Z,2.0nm,0.8s,baz=228,slow=3.6,SNR=12
BRVK   Borovoye         118.30 340⇓ePKIKP    PKPdf     16 00 09.8 -0.8
BAIF   Baives           118.84  25  ePKP1     PKPdf     16 00 10.9 -0.9
MEZF   Maizieres J'vi   120.38  26  ePKP1     PKPdf     16 00 13.0 -1.8
TCF    Toulx Ste Croi   120.69  29  ePKP1     PKPdf     16 00 13.7 -1.7
SSF    Saint Saulge     120.75  28  ePKP1     PKPdf     16 00 14.2 -1.3
       comp=Z,15nm,0.9s
LOR    Lormes           120.77  28  ePKP1     PKPdf     16 00 14.4 -1.2
       comp=Z,19nm,1.1s
BGF    Bois d'Agland    120.81  29  ePKP1     PKPdf     16 00 14.2 -1.5
LSA    Lhasa            120.85 307  ePKIKP    PKPdf     16 00 16.7 +0.4
AVF    Avril sur Loir   120.88  28  ePKP1     PKPdf     16 00 14.0 -1.8
       comp=Z,10nm,1.0s
LFF    La Frestale      120.89  31  ePKP1     PKPdf     16 00 14.4 -1.5
       comp=Z,45nm,1.2s
SJPF   Ste Jean         121.05  34  ePKP1     PKPdf     16 00 15.3 -0.9
       comp=Z,5.7nm,0.7s
SMF    Signal de Mont   121.21  28  ePKP1     PKPdf     16 00 14.8 -1.6
HAU    Haudompre        121.32  26  ePKP1     PKPdf     16 00 15.6 -1.0
       comp=Z,13nm,0.7s
ESDC   Sonseca Array    121.56  39   PKP      PKPdf     16 00 16.3 -1.0
       comp=Z,1.7nm,0.6s,baz=331,slow=2.3,SNR=9.5
ETSF   Etsaut           121.56  34  ePKP1     PKPdf     16 00 16.4 -0.8
       comp=Z,23nm,0.9s
HINF   Hinteralfeld     121.68  25  ePKP1     PKPdf     16 00 16.3 -1.0
OBN    Obninsk          121.84   2  i PKIKP   PKPdf     16 00 16.3 -1.1
OBN                                 e                   16 07 18.0
OBN                                 ePS       PS        16 11 40.4 -3.4
OBN                                  pmax     pmax
       comp=Z,6.0nm,0.7s
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SHL    Shillong         121.86 303  ePKP      PKPdf     16 00 17.5 -0.8
GRA1   Grafenberg Arr   121.91  21  ePKPdf    PKPdf     16 00 17.1 -0.6
GRA1                                epPKPdf   pPKPdf    16 00 25.1 +4.0
GRF    Grafenberg Arr   121.91  21  ePKPdf    PKPdf     16 00 17.1 -0.6
GRF                                 epPKPdf   pPKPdf    16 00 25.1 +4.0
EPF    Esparros         121.97  33  ePKP1     PKPdf     16 00 16.8 -1.2
       comp=Z,22nm,1.0s
CABF   La Chapelle      122.27  27  ePKP1     PKPdf     16 00 17.9 -0.6
       comp=Z,34nm,1.0s
MTLF   Montolieu        122.76  32  ePKP1     PKPdf     16 00 18.4 -1.1
PRU    Pruhonice        122.80  19  ePKPDF    PKPdf     16 00 19.3 -0.1
UPC    Upice            122.81  18  ePKPDF    PKPdf     16 00 18.7 -0.7
VIVF   Saint-Julien-l   122.92  29  ePKP1     PKPdf     16 00 19.0 -0.8
       comp=Z,8.0nm,0.8s
DPC    Dobruska-Polom   123.04  18  ePKPDF    PKPdf     16 00 19.5 -0.3
DPC                                 ex        x         16 00 27.2
LASF   Ste Croix        123.08  30  ePKP1     PKPdf     16 00 19.2 -0.9
       comp=Z,26nm,1.2s
KHC    Kasperske Hory   123.21  20  ePKPDF    PKPdf     16 00 19.5 -0.7
KHC                                 ex        x         16 00 27.7
LPL    La Plagne        123.40  27  ePKP1     PKPdf     16 00 20.9 +0.2
       comp=Z,24nm,0.9s
LPG    La Plagne        123.42  27  ePKP1     PKPdf     16 00 21.1 +0.4
       comp=Z,32nm,1.0s
ORIF   Oris-en-Rattie   123.45  28  ePKP1     PKPdf     16 00 20.2 -0.6
TKM2   Tokmak 2         123.76 329   P        PKPdf     16 00 20.6 -0.9
       SNR=11
TKM2   Tokmak 2         123.76 329  ePKPdf    PKPdf     16 00 19.8 -1.7
TKM2                                e                   16 00 28.4
ULHL   Ulahol           123.90 328   P        PKPdf     16 00 21.3 -0.4
       SNR=12
SMRF   Simiane la Rot   124.01  29  ePKP1     PKPdf     16 00 21.7 -0.2
       comp=Z,28nm,1.2s
MBDF   Montbardon       124.01  28  ePKP1     PKPdf     16 00 21.7 -0.2
       comp=Z,23nm,1.1s
USP    Ospenovka        124.08 330   P        PKPdf     16 00 21.1 -1.0
       SNR=7.7
OJC    Ojcow            124.14  15  ePKPdf    PKPdf     16 00 21.1 -0.8
OJC                                 epPKPdf   pPKPdf    16 00 28.9 +3.5
KBK    Karagaybulak     124.29 329   P        PKPdf     16 00 21.8 -0.7
       SNR=7.6
AAK    Ala-Archa        124.54 329c iPKIKP    PKPdf     16 00 22.0 -1.0
AAK                                  pmax     pmax
       comp=Z,4.0nm,1.3s
AAK                                  MLR      MLR
       comp=Z,100nm,23.0s,MS4.4
AAK    Ala-Archa        124.54 329   P        PKPdf     16 00 22.1 -0.8
       SNR=6.2
AAK    Ala-Archa        124.54 329   PKP      PKPdf     16 00 21.5 -1.4
       comp=Z,2.2nm,0.7s,baz=154,slow=2.4,SNR=13
KZA    Kyzart           124.54 328   P        PKPdf     16 00 23.1 +0.1
       SNR=10
TAPN   Taplejung        124.58 306  ePKIKP    PKPdf     16 00 23.1 -0.4
UCH    Uchtor           124.82 329   P        PKPdf     16 00 23.6 +0.1
       SNR=13
UCH    Uchtor           124.82 329  ePKPdf    PKPdf     16 00 23.2 -0.3
UCH                                 e                   16 00 31.2
FRF    La Foret Royal   124.83  29  ePKP1     PKPdf     16 00 22.6 -0.9
       comp=Z,27nm,1.0s
EKS2   Erkin-Say        124.88 330   P        PKPdf     16 00 23.0 -0.6
       SNR=13
EKS2   Erkin-Say        124.88 330  ePKPdf    PKPdf     16 00 22.7 -1.0
EKS2                                e                   16 00 30.9
LMR    La Mourre        124.94  29  ePKP1     PKPdf     16 00 22.6 -1.1
SBF    Sospel           124.98  28  ePKP1     PKPdf     16 00 22.8 -1.0
ODAN   Odare            125.05 306  ePKIKP    PKPdf     16 00 23.8 -0.6
KOLL   Kolacno          125.23  17  ePKP      PKPdf     16 00 24.0 -0.1
STHS   Stebnicka Huta   125.25  15  ePKP      PKPdf     16 00 24.2 +0.1
AML    Almayashu        125.31 329   P        PKPdf     16 00 24.6 +0.1
       SNR=11
AML    Almayashu        125.31 329  ePKPdf    PKPdf     16 00 23.8 -0.6
AML                                 e                   16 00 32.0
VYHS   Vyhne            125.44  17  ePKP      PKPdf     16 00 23.7 -0.8
VYHS                                e                   16 00 31.6
VYHS   Vyhne            125.44  17  ePKP      PKPdf     16 00 23.7 -0.8
VYHS                                e                   16 00 31.7
AKASG  Malin Array Be   125.58   8   PKP      PKPdf     16 00 23.1 -1.6
       comp=Z,5.7nm,0.7s,baz=352,slow=2.2,SNR=24
AKASG                                PP       PP        16 02 12.7 -2.2
       comp=Z,3.3nm,0.9s,baz=347,slow=7.3,SNR=6.2
KIEV   Kiev             125.59   8  ePKIKP    PKPdf     16 00 22.9 -1.8
KIEV                                e                   16 00 30.7
RAMN   Ramite           125.64 307  ePKIKP    PKPdf     16 00 24.8 -0.7
JIRN   Jiri             125.66 308  ePKIKP    PKPdf     16 00 24.3 -1.2
CRVS   Cervenica-Dubn   125.78  15  ePKP      PKPdf     16 00 24.6 -0.5
GUN    Gumba            125.79 308  ePKIKP    PKPdf     16 00 24.6 -1.2
VSR    Storozhevoye     125.80   0  ePKIKP    PKPdf     16 00 24.0 -1.1
VSR                                  pmax     pmax
       comp=Z,10.0nm,0.6s
VSR                                  pmax     pmax
       comp=N,4.0nm,0.8s
VSR                                  pmax     pmax
       comp=E,3.0nm,0.7s
KECS   Kecovo           125.91  16  ePKP      PKPdf     16 00 30.7 +5.3
KECS                                e                   16 00 40.4
KSH    Kashi            125.92 325   PKP      PKPdf     16 00 26.3 +0.6
KSH                                  LR       LR
       comp=N,280nm,6.9s
KSH                                  LR       LR
       comp=E,300nm,5.8s
KOLS   Kolonicke sedl   125.95  14  ePKP      PKPdf     16 00 25.1 -0.4
VORD   Divnogorie       126.05   0  ePKIKP    PKPdf     16 00 23.9 -1.7
VORD                                 pmax     pmax
       comp=Z,10.0nm,0.5s
VORD                                 pmax     pmax
       comp=N,6.0nm,0.4s
VORD                                 pmax     pmax
       comp=E,10.0nm,0.4s
JAVS   Javornik         126.14  22  i P       PKPdf     16 00 24.7 -1.2
LJU    Ljubljana        126.18  21  eP        PKPdf     16 00 24.9 -1.1
PKI    Pulchoki         126.31 308  ePKIKP    PKPdf     16 00 25.5 -1.3
KKN    Kakani           126.31 308  ePKIKP    PKPdf     16 00 25.5 -1.3
       comp=E,35nm,1.2s
PKIN   Phulchoki        126.32 308  ePKIKP    PKPdf     16 00 25.2 -1.6
VISS   Visnje           126.50  21  i P       PKPdf     16 00 25.7 -0.9
DMN    Daman            126.53 308  ePKIKP    PKPdf     16 00 25.8 -1.4
GKN    Gorkha           126.72 309  ePKIKP    PKPdf     16 00 26.1 -1.5
PGF    Pioggiola        126.72  28  ePKP1     PKPdf     16 00 26.5 -0.6
       comp=E,44nm,1.2s
BOJS   Bojanci          126.91  21  i P       PKPdf     16 00 26.6 -0.8
BOJS                                i pP                16 00 34.8
DANN   Dangsing         127.23 310  ePKIKP    PKPdf     16 00 27.8 -0.7
       comp=E,44nm,0.8s
KOLN   Koldanda         127.64 309  ePKIKP    PKPdf     16 00 27.9 -1.4
BUR08  Bucovina Ar. S   127.83  12  ePKPdf    PKPdf     16 00 28.1 -1.0
MLR    Muntele Rosu     130.03  13   PKP      PKPdf     16 00 32.4 -1.0
       comp=E,3.9nm,0.9s,baz=271,slow=9.3,SNR=3.1
KEST   Kesra            132.04  33   PKP      PKPdf     16 00 36.9 -0.6
       comp=E,1.3nm,0.9s,baz=256,slow=1.0,SNR=5.1
ANN    Anapa            132.18   2  ePKIKP    PKPdf     16 00 34.6 -2.9
ANN                                  pmax     pmax
       comp=Z,28nm,1.6s
TIP    Timpagrande      132.88  24  ePKPdf    PKPdf     16 00 37.8 -1.1
TIP                                 e                   16 00 44.8
LIC    Lamto            134.48  78⇑iPKP1     PKPdf     16 00 40.8 -1.9
       comp=Z,23nm,1.0s
DBIC   Dimbokro         134.57  77   PKP      PKPdf     16 00 40.8 -2.0
       comp=Z,12nm,0.9s,baz=250,slow=1.8,SNR=17
HYB    Hyderabad        136.44 299  i PKP     PKPdf     16 00 45.0 -1.2
HYB    Hyderabad        136.44 299  eP        PKPdf     16 00 45.0 -1.2
GNI    Garni            136.61 354  i PKIKP   PKPdf     16 00 46.5 +0.6
BRTR   Keskin Array B   136.95   7   PKP      PKPdf     16 00 44.1 -2.4
       comp=Z,2.3nm,0.6s
TAM    Tamanrasset      137.91  50  ePKIKP    PKPdf     16 00 48.0 -0.8
TOA0   Torodi Ar. Sit   139.03  66  ePKPdf    PKPdf     16 00 47.1 -3.9
TORD   Torodi Ar. Bea   139.03  66   PKhKP              16 00 39.1
       comp=Z,2.0nm,1.0s,baz=306,slow=4.0,SNR=7.9
TORD                                 PKP      PKPdf     16 00 47.6 -3.4
       comp=Z,4.0nm,0.9s,baz=307,slow=4.3,SNR=8.4
SUR    Sutherland       146.03 151  ePKP      PKPdf     16 01 03.2 +0.2
SUR                                 e                   16 01 11.7
MIB    Mutribah         146.36 348  eP        PKPdf     16 01 02.6 -1.1
MIB                                  AMb      AMB       16 01 06.7
       comp=Z,234nm,1.1s
UMR    Umm Al-Rimmam    146.52 347  eP        PKPdf     16 01 03.4 -0.5
UMR                                  AMb      AMB       16 01 05.6
       comp=Z,172nm,1.6s
NAY    Al-Naaiem        146.92 348  eP        PKPdf     16 01 03.6 -1.0
NAY                                  AMb      AMB       16 01 07.2
       comp=Z,106nm,1.1s
EIL    Elat             147.03   7   PKPbc    PKPdf     16 01 04.3 -0.4
EIL    Elat             147.03   7   PKPbc    PKPdf     16 01 04.3 -0.4
RDF    Al-Radifah       147.16 347  eP        PKPdf     16 01 04.0 -1.0
RDF                                  AMb      AMB       16 01 07.0
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	comp=Z,270nm,0.8s						
BOSA	**Boshof**	151.27	153	PKP	PKPdf	16 01 09.8	-1.8
	comp=Z,7.4nm,0.9s,baz=163,slow=1.6,SNR=8.9						
BOSA				PKPbc	PKPbc	16 01 16.7	-0.9
	comp=Z,55nm,0.8s,baz=198,slow=2.6,SNR=66						
BOSA				PKPab	PKPab	16 01 24.5	-0.8
	comp=Z,40nm,0.9s,baz=204,slow=3.1,SNR=11						
BOSA	**Boshof**	151.27	153	PKP	PKPdf	16 01 09.8	-1.8
BOSA				PKPbc	PKPbc	16 01 16.7	-0.9
BOSA				PKPab	PKPab	16 01 24.5	-0.8
TSUM	**Tsumeb**	153.25	128	*e*PKPdf	PKPdf	16 01 13.7	-1.1
TSUM				*e*PKPbc	PKPbc	16 01 21.1	-1.1
TSUM				*e*PKPab	PKPab	16 01 29.1	-4.8
LBTB	**Lobatse**	154.46	149	*e*PKIKP	PKPdf	16 01 15.6	-0.8
LBTB				*e*		16 01 23.8	
KMBO	**Kilima Mbogo**	176.90	49	PKP	PKPdf	16 01 33.2	-1.6
	comp=Z,1.2nm,0.7s,baz=60,slow=11,SNR=3.8						
KMBO				PKPab	PKPab	16 03 17.3	-0.4
	comp=Z,3.7nm,1.0s,baz=283,slow=4.5,SNR=6.9						

ISCJB ***29*** *16:03:03.3±0.8, 14°.08N±0°.09×145°.1E±0°.2, h105^{km}±6^{km}, mb4.0/16, Error ellipse: s-maj=24.3km s-min=14.1km az=5.9*

NEIC ***29*** *16:03:04.4±0.8, 14°.09N×145°.11E, h100^{km}±7^{km}, mb4.5/4, Error ellipse: s-maj=14.9km s-min=8.7km az=92.0*

IDC ***29*** *16:03:04.0±0.7, 14°.05N×145°.15E, h94^{km}±5^{km}, mb3.8/14, mb1 4.0/14, mb1mx3.8/24, mbtmp3.8/14, Error ellipse: s-maj=22.3km s-min=11.9km az=90.0*

ISC 29 16:03:04.4±0.8**, 14°.07N**±0°.08×**145°.1E**±0°.1**, h100**^{km}±7^{km}**, h100**^{km}±1.8^{km}**:pP-P, n28,** σ**0**^{s}**.85**/26**, mb4.0**/16**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	0.54	208	P	Pn	16 03 20.8	+0.4
	3µm,0.3s,baz=61,slow=2.7,SNR=654						
GUMO				S	Sn	16 03 32.2	-0.2
	3µm,0.3s,baz=354,slow=19,SNR=151						
CTA	**Charters Tower**	33.96	178	P	P	16 09 38.5	+0.1
	2.3nm,0.6s,mb4.2,baz=23,slow=14,SNR=6.3						
CTAO	**Charters Tower**	33.96	178	*e*P	P	16 09 38.7	+0.3
	13nm,1.2s,mb4.6						
WRAB	**Tennant Creek**	35.41	198	*e*P	P	16 09 51.0	+0.1
	5.9nm,1.0s,mb4.4						
WRA	**Warramunga Arr**	35.42	198	P	P	16 09 51.2	+0.2
	2.0nm,0.6s,mb4.1,baz=22,slow=9.7,SNR=27						
WRA				pP	pP	16 10 13.1	-0.6
	1.0nm,0.7s,baz=21,slow=9.7,SNR=2.8						
WRA				PcP	PcP	16 12 20.0	+1.1
	0.4nm,0.4s,baz=7.4,slow=2.7,SNR=5.6						
ASAR	**Alice Springs**	39.08	196	P	P	16 10 21.9	+0.1
	0.6nm,0.7s,mb3.5,baz=20,slow=12,SNR=10						
ASAR				PcP	PcP	16 12 30.3	+0.4
	0.3nm,0.5s,baz=23,slow=2.1,SNR=5.1						
CMAR	**Chiang Mai Arr**	44.46	282	P	P	16 11 06.0	+0.1
	0.2nm,0.6s,mb3.0,baz=78,slow=9.4,SNR=2.8						
CMAR				pP	pP	16 11 29.4	+0.1
	1.1nm,1.0s,baz=87,slow=6.2,SNR=5.2						
STKA	**Stephens Creek**	45.81	184	*e*P	P	16 11 16.2	0.0
	4.2nm,0.8s,mb4.2						
STKA	**Stephens Creek**	45.81	184	P	P	16 11 15.5	-0.8
	5.7nm,0.8s,mb4.4,baz=348,slow=8.6,SNR=9.4						
STKA	**Stephens Creek**	45.81	184	*e*P	P	16 11 15.5	-0.7
	1.4nm,0.9s,mb3.7						
SONM	**Songino Array**	46.49	324	pP	pP	16 11 46.5	+1.5
	1.2nm,0.8s,baz=112,slow=6.4,SNR=4.5						
TOO	**Toolangi**	51.37	180	*e*P	P	16 11 55.9	-2.8
UNV	**Unalaska Valle**	54.79	33	*e*P	P	16 12 23.4	-0.4
	3.6nm,0.3s,mb4.9						
MK31	**Makanchi Array**	61.32	316	*e*P	P	16 13 08.2	-1.2
MKAR	**Makanchi Array**	61.32	316	P	P	16 13 10.1	+0.6
	0.4nm,0.6s,mb3.6,baz=86,slow=8.6,SNR=6.6						
MKAR				pP	pP	16 13 35.0	+0.8
	0.7nm,0.6s,baz=90,slow=8.5,SNR=5.2						
MKAR	**Makanchi Array**	61.32	316	P	P	16 13 10.1	+0.6
MKAR				pP	pP	16 13 35.0	+0.8
KDAK	**Kodiak Island**	63.53	32	P	P	16 13 23.8	-0.2
	4.0nm,0.8s,mb4.3,baz=70,slow=20,SNR=7.5						
BVAR	**Borovoye Array**	69.71	322	P	P	16 14 03.4	+0.1
	0.4nm,0.4s,mb3.6,baz=128,slow=6.7,SNR=3.8						
YKA	**Yellowknife Ar**	82.32	27	P	P	16 15 14.1	-0.7
	0.3nm,0.4s,mb3.5,baz=288,slow=5.2,SNR=7.5						
NVAR	**Mina Array Bea**	86.43	51	P	P	16 15 36.5	+0.4
	1.1nm,0.5s,mb4.0,baz=276,slow=6.3,SNR=10						
NVAR	**Mina Array Bea**	86.43	51	P	P	16 15 36.5	+0.4
ARCES	**ARCESS Array B**	86.71	342	P	P	16 15 38.6	+1.9
	2.5nm,0.8s,mb4.2,baz=323,slow=10,SNR=3.2						
FINES	**FINESS Array B**	90.83	335	P	P	16 15 55.2	-1.2
	5.3nm,1.1s,mb4.6,baz=104,slow=4.4,SNR=3.3						
FINES	**FINESS Array B**	90.83	335	P	P	16 15 55.2	-1.2
PDAR	**Pinedale Array**	91.45	45	P	P	16 16 00.1	+0.4
	0.5nm,0.7s,mb3.8,baz=262,slow=4.6,SNR=5.1						
VNDA	**Vanda**	91.93	176	P	P	16 16 02.4	+1.4
	1.7nm,0.9s,mb4.3,baz=342,slow=3.2,SNR=4.1						
CFAA	**Coronel Fontan**	144.84	125	PKP	PKPdf	16 22 29.7	-0.5
	1.1nm,0.6s,baz=250,slow=3.8,SNR=7.3						
LVC	**Limon Verde**	146.66	110	PKPbc	PKPbc	16 22 36.3	+1.0
	6.0nm,0.8s,baz=260,slow=4.4,SNR=7.9						

IDC 29 16:08:10.6±2.0**, 7°.20S**×**128°.19E, h0**^{km}**, mb3.4**/1**, mb1 3.4**/3**, mb1mx3.3**/16**, mbtmp3.3**/3**, ML3.4**/1**, Error ellipse: s-maj=130.0km s-min=32.3km az=65.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	14.00	155	Pn	Pn	16 11 29.8	-0.6
	0.2nm,0.3s,baz=334,slow=11,SNR=6.7						
WRA				Sn	Sn	16 13 52.2	-15
	0.2nm,0.3s,baz=326,slow=24,SNR=7.6						
ASAR	**Alice Springs**	17.27	162	P	Pn	16 12 13.9	+0.6
	0.1nm,0.3s,baz=334,slow=9.6,SNR=4.3						
MKAR	**Makanchi Array**	67.42	328	P	P	16 19 08.1	+0.1
	0.2nm,0.4s,baz=124,slow=7.2,SNR=6.0						

MDD 29 16:08:30.1±0.4**, 41°.93N**×**8°.40W, h12**^{km}±2^{km}**, mbLg1.9**/8**, 1D, Error ellipse: s-maj=8.2km s-min=2.0km az=34.0, PRIMO, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELOB	**Lobios**	0.26	103	Pg	Pg	16 08 35.3	-0.2
	21nm,0.1s,SNR=89						
ELOB				Lg	Sg	16 08 39.2	+0.1
	81nm,0.2s,SNR=4.7						
EZAM	**Zamans**	0.31	316	⇓Pg	Pg	16 08 36.1	-0.3
	6.2nm,0.1s,SNR=18						
EZAM				Lg	Sg	16 08 40.5	-0.1
	11nm,0.1s,SNR=7.9						
PCAB	**Cabril**	0.35	128	*e*Pg	Pg	16 08 36.7	-0.4
PCAB				*e*Sg	Sg	16 08 41.7	-0.2
PCAB				A		16 08 41.9	
	42nm,0.1s						
PCAB	**Cabril**	0.35	128	Pg	Pg	16 08 36.7	-0.4
PCAB				Lg	Sg	16 08 41.7	-0.2
	21nm,0.1s						
PVRL	**Vila Real**	0.83	141	*e*Sg	Sg	16 08 55.9	-1.0
PVRL	**Vila Real**	0.83	141	Lg	Sg	16 08 55.9	-1.0
STS	**Santiago**	0.96	353	Lg	Sg	16 09 00.2	-1.1
	7.0nm,0.2s,SNR=7.9						
ERUA	**La Rua**	1.05	63	Lg	Sg	16 09 02.1	-1.8
	5.2nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	1.11	338	Pg	Pg	16 08 49.9	-1.5
	1.4nm,0.1s,SNR=7.9						
EMAZ				Lg	Sg	16 09 05.0	-0.8
	8.7nm,0.1s,SNR=11						
ECAL	**Calabor**	1.24	89	Pg	Pg	16 08 52.8	-1.2
	0.4nm,0.1s,SNR=7.9						
ECAL				Lg	Sg	16 09 08.6	-1.5
	14nm,0.2s,SNR=14						
PBRG	**Braganca**	1.25	95	*e*S	Sb	16 09 09.0	-0.6
PBRG	**Braganca**	1.25	95	Sn	Sn	16 09 09.0	-1.1
PVIS	**Viseu**	1.27	162	*e*S	Sb	16 09 09.3	-0.9
PVIS				A		16 09 10.1	
	12nm,0.1s						
PVIS	**Viseu**	1.27	162	Sn	Sn	16 09 09.3	-1.3
	6.1nm,0.1s						
MVO	**Moncorvo**	1.28	126	*e*S	Sb	16 09 09.5	-1.1
MVO				A		16 09 10.8	
	4.6nm,0.1s						
MVO	**Moncorvo**	1.28	126	Sn	Sn	16 09 09.5	-1.4
	2.3nm,0.1s						
MTE	**Manteigas**	1.66	157	*e*Sg	Sg	16 09 21.1	-2.3
EPON	**Pontenova**	1.68	33	Pg	Pg	16 09 00.9	-1.4
	0.1nm,0.1s,SNR=7.9						
EPON				Lg	Sg	16 09 21.4	-2.6
	1.7nm,0.1s,SNR=7.9						

ISCJB ***29*** *16:10:27.6±0.3, 52°.95S±0°.06×46°.6W±0°.1, h10^{km}, mb5.1/30, MS5.0/148, Error ellipse: s-maj=10.6km s-min=7.3km az=147.5*

IDC ***29*** *16:10:27.3±0.4, 52°.97S×46°.52W, h0^{km}, mb4.9/21, mb1 4.9/22, mb1mx4.9/25, mbtmp4.9/22, ML4.7/1, MS4.8/19, Ms1 4.8/19, ms1mx4.8/21, Error ellipse: s-maj=15.7km s-min=12.1km az=45.0*

MOS ***29*** *16:10:27.6±1.4, 53°.02S×46°.54W, h10^{km}, mb5.5/11, MS5.0/10, Error ellipse: s-maj=26.5km s-min=14.7km az=101.3*

GCMT ***29*** *16:10:28.5±0.2, 53°.09S×46°.70W, h22^{km}±1^{km}, MW5.4/88, Moment Tensor Solution. s58,c89; s88,c148; Duration: 1^s.2 Moment tensor: Scale 10^{17}Nm; M_{rr}0.52±.03; $M_{\theta\theta}$0.00±.03; $M_{\phi\phi}$-0.51±.03; $M_{r\theta}$0.27±.04; $M_{\theta\phi}$0.89±.02; $M_{\phi r}$0.96±.07; Best double couple: $M_0$1.42800×10^{17} NP1:ϕ_s107.00000°, δ43.00000°, λ21.00000°. NP2: ϕ_s1.00000°, δ76.00000°, λ131.00000°. Principal axes: T 1.4490, Plg44.0000°, Azm310.0000°; N -0.0420, Plg39.0000°, Azm169.0000°; P -1.4070, Plg20.0000°, Azm61.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***29*** *16:10:28.5±0.2, 53°.01S×46°.44W, h10^{km}, mb5.5/16, MS5.0/131 Error ellipse: s-maj=9.0km s-min=7.5km az=46.0*

BJI ***29*** *16:10:28.5, 53°.00S×46°.40W, h10^{km}*

ISC 29 16:10:29.4±0.3**, 52°.98S**±0°.06×**46°.6W**±0°.1**, h10**^{km}**, n258,** σ**1**^{s}**.03**/67**, mb5.1**/30**, MS5.0**/148**, 2C-1D, South Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFI	**East Falkland**	7.14	276	*e*P	Pn	16 12 09.7	-4.0
EFI				pmax	pmax		
	comp=Z,356nm,0.6s						
EFI	**East Falkland**	7.14	276	*e*Pn	Pn	16 12 09.7	-4.0
	comp=Z,356nm,0.6s						
EFI				*e*Sn	Sn	16 13 24.7	-10
USHA	**Ushuaia**	12.99	253	Pn	Pn	16 13 23.2	-10
	comp=Z,3.2nm,0.3s,baz=71,slow=14,SNR=14						
USHA				Sn	Sn	16 15 45.5	-13
	comp=Z,50nm,0.3s,baz=290,slow=4.5,SNR=16						
PMSA	**Palmer Station**	14.79	210	Pn	Pn	16 13 57.6	-0.6
	comp=Z,0.3nm,0.3s,baz=5.7,slow=15,SNR=2.8						
PMSA				LR	LR	16 18 38.2	
	comp=Z,6µm,18.0s,baz=50,slow=33						
COYC	**Coyhaique**	18.12	284	*e*P	Pn	16 14 42.1	+1.1
COYC	**Coyhaique**	18.12	284	*e*P	Pn	16 14 42.1	+1.1
PLCA	**Paso Flores**	20.33	297	P	P	16 15 06.0	+0.5
	comp=Z,81nm,0.9s,baz=135,slow=11,SNR=80						
PLCA				LR	LR	16 24 11.9	
	comp=Z,8µm,18.2s,MS5.1,baz=134,slow=40						
VNA3	**Neumayer Olymp**	24.50	152	*e*	P	16 15 49.4	+1.2
VNA1	**Neumayer--Stat**	24.64	150	*e*	P	16 15 52.2	+2.7
VNA2	**Neumayer--Watz**	25.01	151	*e*	P	16 15 52.8	-0.1
	baz=293,slow=9.5						
FCH	**Farellones**	25.95	310	*e*P	P	16 16 01.0	-0.8
CFAA	**Coronel Fontan**	26.49	315	P	P	16 16 05.1	-1.6
	comp=Z,2.1nm,0.5s,mb3.9,baz=151,slow=10,SNR=30						
CFAA				LR	LR	16 27 51.7	
	comp=Z,169nm,18.2s,baz=150,slow=39						
CFAA	**Coronel Fontan**	26.49	315	P	P	16 16 05.1	-1.6
CFAA				LR	LR	16 27 51.7	
CPUP	**Villa Florida**	27.80	339	P	P	16 16 18.3	-0.2
	comp=Z,5.2nm,0.5s,mb4.4,baz=150,slow=8.0,SNR=14						
CPUP				LR	LR	16 27 43.1	
	comp=Z,2µm,19.0s,MS4.6,baz=151,slow=37						
SPB	**Sao Paulo**	29.35	358	*e*P	P	16 16 22.2	-10
	comp=Z,73nm,0.8s,mb5.5						
SPB				LR	LR		
	comp=Z,1µm,19.0s,MS4.6						
LCO	**Las Campanas**	29.79	314	PFAKE		16 16 50.0	+14
LCO				LR	LR		
	comp=Z,1µm,20.0s,MS4.6						
LVC	**Limon Verde**	34.77	322	LR	LR	16 31 57.7	
	comp=Z,1µm,20.1s,MS4.7,baz=350,slow=37						
LVC	**Limon Verde**	34.77	322	PFAKE		16 17 30.0	+10
LVC				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
QSPA	**South Pole Qui**	37.28	180	P	P	16 17 40.4	-0.3
	comp=Z,154nm,0.8s,mb5.9,baz=174,slow=2.8,SNR=630						
QSPA	**South Pole Qui**	37.28	180	*e*P	P	16 17 40.2	-0.5
	comp=Z,62nm,0.4s,mb5.8						
SYO	**Syowa Base**	40.77	147	⇑*e*P	P	16 18 12.0	+2.0
SYO	**Syowa Base**	40.77	147	⇑*e*P	P	16 18 15.4	+5.4
ARE	**Arequipa**	41.35	322	*e*P	P	16 18 17.0	+1.7
NNA	**Nana**	47.50	318	P	P	16 19 03.7	-0.8
	comp=Z,23nm,0.8s,mb5.3,baz=172,slow=15,SNR=5.2						
NNA				LR	LR	16 36 51.5	
	comp=Z,677nm,21.8s,MS4.6,baz=157,slow=33						
SBA	**Scott Base**	47.82	189	*e*P	P	16 19 05.9	-0.4
SBA				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.5						
SBA	**Scott Base**	47.82	189	*e*P	P	16 19 05.9	-0.5
	comp=Z,55nm,1.0s,mb5.5						
RCBR	**Riachuelo**	47.82	14	*e*P	P	16 19 07.2	+0.2
	comp=Z,56nm,1.4s,mb5.4						
VNDA	**Vanda**	48.56	188	*e*P	P	16 19 11.4	-0.7
VNDA				pmax	pmax		
	comp=Z,36nm,1.5s						
VNDA	**Vanda**	48.56	188	P	P	16 19 11.3	-0.8
	comp=Z,7.9nm,0.9s,mb4.8,baz=195,slow=5.0,SNR=12						
VNDA				LR	LR	16 39 28.3	
	comp=Z,1µm,19.4s,MS4.8,baz=159,slow=36						
VNDA	**Vanda**	48.56	188	*e*P	P	16 19 11.3	-0.7
	comp=Z,36nm,1.5s,mb5.2						
VNDA				LR	LR	16 39 28.3	
MAW	**Mawson**	48.82	151	LR	LR	16 38 41.2	
	comp=Z,747nm,18.5s,MS4.7,baz=235,slow=35						
SHEL	**Horse Pasture**	48.89	57	PFAKE		16 19 30.0	+15
SHEL				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
SUR	**Sutherland**	51.62	95	P	P	16 19 35.9	+0.1
	comp=Z,16nm,0.8s,mb5.0,baz=212,slow=6.8,SNR=14						
SUR	**Sutherland**	51.62	95	*e*P	P	16 19 34.8	-1.1
	comp=Z,72nm,1.3s,mb5.4						
SUR				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
ATAH	**Atahualpa**	52.65	319	P	P	16 19 43.2	-0.4
	comp=Z,34nm,1.1s,mb5.2,baz=172,slow=5.5,SNR=21						
BOSA	**Boshof**	56.99	95	*e*P	P	16 20 13.1	-1.8
BOSA				pmax	pmax		
	comp=Z,65nm,1.5s,mb5.4						
BOSA	**Boshof**	56.99	95	P	P	16 20 13.6	-1.3
	comp=Z,18nm,1.0s,mb5.0,baz=229,slow=7.4,SNR=26						
BOSA				LR	LR	16 40 50.1	
	comp=Z,2µm,19.5s,MS5.1,baz=227,slow=32						
BOSA	**Boshof**	56.99	95	*e*P	P	16 20 13.1	-1.9
	comp=Z,66nm,1.5s,mb5.4						
BOSA				LR	LR	16 40 50.1	
OTAV	**Otavalo**	59.31	322	*e*P	P	16 20 32.6	+1.3
	comp=Z,119nm,1.3s,mb5.8						
OTAV				LR	LR		
	comp=Z,940nm,21.0s,MS4.9						
TSUM	**Tsumeb**	59.40	81	*e*P	P	16 20 30.9	-1.1
	comp=Z,27nm,1.4s,mb5.1						
TSUM				LR	LR		
	comp=Z,849nm,22.0s,MS4.8						
LBTB	**Lobatse**	59.84	92	*e*P	P	16 20 33.6	-1.3
LBTB				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
LBTB	**Lobatse**	59.84	92	*e*P	P	16 20 33.6	-1.3
	comp=Z,23nm,0.6s,mb5.4						
LBTB				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
ROSC	**El Rosal**	62.20	328	P	P	16 20 51.5	+0.6
	comp=Z,16nm,0.8s,mb5.2,baz=286,slow=22,SNR=10						
ROSC				LR	LR	16 51 10.9	
	comp=Z,700nm,19.1s,MS4.8,baz=191,slow=39						
PCRV	**Puerto La Cruz**	64.77	340	P	P	16 21 08.0	+0.1
	comp=Z,9.6nm,0.5s,mb5.0,baz=226,slow=6.7,SNR=5.8						
SDV	**Santo Domingo**	64.94	334	P	P	16 21 09.1	0.0
	comp=Z,12nm,0.6s,mb5.1,baz=151,slow=8.7,SNR=13						
SDV	**Santo Domingo**	64.94	334	*e*P	P	16 21 09.1	+0.1
SDV				LR	LR		
	comp=Z,413nm,21.0s,MS4.6						
GRGR	**Grenville**	66.12	344	PFAKE		16 21 30.0	+13
GRGR				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
BCIP	**Isla Barro Col**	68.07	324	PFAKE		16 21 40.0	+11
BCIP				LR	LR		
	comp=Z,445nm,20.0s,MS4.7						
DBIC	**Dimbokro**	69.14	45	*e*P	P	16 21 35.0	-0.7
DBIC				pmax	pmax		
	comp=Z,44nm,1.4s						
DBIC	**Dimbokro**	69.14	45	P	P	16 21 35.4	-0.4
	comp=Z,5.2nm,0.6s,mb4.6,baz=178,slow=6.4,SNR=13						
DBIC				LR	LR	16 47 28.0	
	comp=Z,463nm,18.3s,MS4.8,baz=185,slow=32						
DBIC	**Dimbokro**	69.14	45	*e*P	P	16 21 35.0	-0.7
	comp=Z,44nm,1.4s,mb5.2						
DBIC				LR	LR	16 47 27.9	
RKT	**Rikitea**	70.92	257	*e*LR	LR	16 43 16.9	
	comp=Z,1µm,28.5s						
JTS	**JuntasAbangare**	71.01	320	P	P	16 21 48.7	+1.5
	comp=Z,354nm,0.9s,mb6.3,SNR=6.7						
JTS	**JuntasAbangare**	71.01	320	P	P	16 21 47.0	-0.2
	comp=Z,42nm,0.9s,mb5.4,baz=148,slow=0.8,SNR=9.0						
ANWB	**Willy Bob**	71.57	345	PFAKE		16 22 00.0	+10
ANWB				LR	LR		
	comp=Z,533nm,20.0s,MS4.8						
SJG	**San Juan**	72.79	341	PFAKE		16 22 10.0	+12
SJG				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
SDDR	**Presa de Saban**	74.78	336	PFAKE		16 22 20.0	+11
SDDR				LR	LR		
	comp=Z,521nm,19.0s,MS4.8						
TGUH	**Tegucigalpa,Un**	75.35	319	PFAKE		16 22 20.0	+7.2
TGUH				LR	LR		
	comp=Z,525nm,21.0s,MS4.8						
ABPO	**Ambohimpanom**	77.31	105	PFAKE		16 22 30.0	+5.9
ABPO				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
TOA0	**Torodi Ar. Sit**	77.78	48	*e*P	P	16 22 26.4	-0.2
TORD	**Torodi Ar. Bea**	77.78	48	P	P	16 22 26.6	+0.1
	comp=Z,6.6nm,0.5s,mb4.8,baz=196,slow=6.4,SNR=82						
TORD				S	S	16 32 17.8	-1.2
	comp=Z,1.8nm,1.2s,baz=227,slow=12,SNR=7.1						
TORD				LR	LR	16 51 44.0	
	comp=Z,542nm,19.0s,MS4.9,baz=200,slow=32						
RPZ	**Rata Peaks**	78.38	207	LR	LR	16 53 14.8	
	comp=Z,512nm,18.6s,MS4.9,baz=71,slow=33						
SNZO	**South Karori**	79.53	210	PFAKE		16 22 50.0	+14
SNZO				LR	LR		
	comp=Z,771nm,19.0s,MS5.1						
CMIG	**Matias Romero**	81.24	314	P	P	16 22 45.5	+0.1
	comp=Z,6.2nm,0.7s,mb4.7,baz=132,slow=3.4,SNR=11						
CMIG	**Matias Romero**	81.24	314	P	P	16 22 45.5	+0.1
TEIG	**Tepich**	81.34	321	P	P	16 22 46.1	+0.2
	comp=Z,62nm,0.9s,mb5.5,baz=152,slow=2.5,SNR=14						
TEIG	**Tepich**	81.34	321	*e*P	P	16 22 45.9	0.0
	comp=Z,133nm,1.3s,mb5.7						
URZ	**Urewera**	81.54	213	P	P	16 22 47.9	+1.0
	comp=Z,10.0nm,1.0s,mb4.7,baz=254,slow=6.2,SNR=3.2						
URZ				LR	LR	16 52 50.1	
	comp=Z,854nm,19.3s,MS5.1,baz=160,slow=31						
PPT	**Papeete**	83.71	249	*e*S	S	16 33 14.7	-6.5
	comp=Z,420nm,25.0s						
PPT				*e*LR	LR	16 49 10.2	
	comp=Z,1µm,27.8s,baz=150						
PPT	**Papeete**	83.71	249	LR	LR	16 51 29.5	
	comp=Z,562nm,20.1s,MS4.9,baz=125,slow=29						
TAU	**Tasmania Unive**	83.73	190	PFAKE		16 23 10.0	+12
TAU				LR	LR		
	comp=Z,443nm,19.0s,MS4.9						
TAOE	**Nuku Hiva Isla**	85.12	262	*e*LR	LR	16 50 34.7	
	comp=Z,793nm,26.7s						
KMBO	**Kilima Mbogo**	85.41	86	P	P	16 23 08.5	+1.5
	comp=Z,0.4nm,0.3s,mb4.0,baz=212,slow=22,SNR=6.6						
KMBO				LR	LR	16 59 54.0	
	comp=Z,554nm,18.1s,MS5.0,baz=98,slow=35						
KMBO	**Kilima Mbogo**	85.41	86	P	P	16 23 08.5	+1.5
KMBO				LR	LR	16 59 54.0	
DWPF	**Disney**	86.26	330	PFAKE		16 23 20.0	+9.2
DWPF				LR	LR		
	comp=Z,398nm,20.0s,MS4.8						
RAR	**Rarotonga**	86.29	239	LR	LR	16 54 39.9	
	comp=Z,552nm,20.0s,MS5.0,baz=123,slow=31						
BBSR	**BB Station**	86.44	345	PFAKE		16 23 20.0	+8.4
BBSR				LR	LR		
	comp=Z,757nm,19.0s,MS5.1						
RAO	**Raoul Island**	87.80	221	LR	LR	16 54 36.5	
	comp=Z,309nm,18.7s,MS4.8,baz=135,slow=30						
TAM	**Tamanrasset**	87.95	47	*e*P	P	16 23 21.7	+2.5
TAM				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.3						
TAM				MLR	MLR		
	comp=Z,655nm,19.0s,MS5.1						
TAM	**Tamanrasset**	87.95	47	*e*P	P	16 23 21.7	+2.5
	comp=Z,30nm,1.6s,mb5.3						
TAM				LR	LR		
	comp=Z,655nm,19.0s,MS5.1						
NHSC	**New Hope**	90.58	332	PFAKE		16 23 40.0	+8.8
NHSC				LR	LR		
	comp=Z,506nm,19.0s,MS5.0						
BRAL	**Brewton**	90.76	326	PFAKE		16 23 40.0	+7.9
BRAL				LR	LR		
	comp=Z,629nm,22.0s,MS5.0						
CAN	**Canberra**	91.02	193	PFAKE		16 23 40.0	+6.4
CAN				LR	LR		
	comp=Z,547nm,19.0s,MS5.0						
GOGA	**Godfrey**	91.82	330	PFAKE		16 23 50.0	+13
GOGA				LR	LR		
	comp=Z,465nm,19.0s,MS5.0						
CNNC	**Cliffs of the**	91.97	335	PFAKE		16 23 50.0	+12
CNNC				LR	LR		
	comp=Z,506nm,20.0s,MS5.0						
VBMS	**Vicksburg**	93.05	324	PFAKE		16 23 50.0	+7.3
VBMS				LR	LR		
	comp=Z,303nm,19.0s,MS4.8						
RTC	**Rabat Centre**	93.27	32	PFAKE		16 23 50.0	+6.3
RTC				LR	LR		
	comp=Z,309nm,19.0s,MS4.8						
NWAO	**Narrogin (SRO)**	93.30	166	PFAKE		16 23 50.0	+5.8
NWAO				LR	LR		
	comp=Z,404nm,19.0s,MS4.9						
MSEY	**Mahe Island**	93.55	102	PFAKE		16 24 00.0	+14
MSEY				LR	LR		
	comp=Z,527nm,19.0s,MS5.0						
NATX	**Nacogdoches**	94.18	321	PFAKE		16 24 00.0	+12
NATX				LR	LR		
	comp=Z,362nm,19.0s,MS4.9						
BLA	**Blacksburg**	94.50	334	PFAKE		16 24 00.0	+11
BLA				LR	LR		
	comp=Z,380nm,19.0s,MS4.9						
CBN	**Corbin**	94.66	336	PFAKE		16 24 00.0	+10
CBN				LR	LR		
	comp=Z,567nm,19.0s,MS5.1						
PLAL	**Pickwick Lake**	94.73	327	PFAKE		16 24 00.0	+10
PLAL				LR	LR		
	comp=Z,498nm,19.0s,MS5.0						
OXF	**Oxford**	94.75	326	PFAKE		16 24 00.0	+10
OXF				LR	LR		
	comp=Z,690nm,19.0s,MS5.1						
JCT	**Junction City**	95.12	316	*e*P	P	16 23 52.3	0.0
JCT				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.5						
JCT	**Junction City**	95.12	316	*e*P	P	16 23 52.3	0.0
	comp=Z,26nm,1.2s,mb5.5						
STKA	**Stephens Creek**	95.20	187	P	P	16 23 51.9	-1.1
	comp=Z,2.2nm,0.8s,mb4.7,baz=123,slow=13,SNR=3.4						
STKA				LR	LR	17 02 09.5	
	comp=Z,645nm,19.6s,MS5.1,baz=313,slow=33						
SFS	**San Fernando**	95.75	32	PFAKE		16 24 10.0	+15
SFS				LR	LR		
	comp=Z,775nm,19.0s,MS5.2						
TXAR	**Lajitas Array**	95.80	313	P	P	16 23 53.7	-1.7
	comp=Z,0.5nm,0.7s,mb4.1,baz=133,slow=8.7,SNR=8.1						
TXAR				PKKP	PKKPbc	16 40 43.9	+0.3
	comp=Z,0.6nm,1.0s,baz=108,slow=0.4,SNR=4.5						
MIAR	**Mount Ida**	96.25	323	PFAKE		16 24 10.0	+13
MIAR				LR	LR		
	comp=Z,269nm,19.0s,MS4.7						
MCWV	**Mont Chateau**	96.65	335	PFAKE		16 24 10.0	+11
MCWV				LR	LR		
	comp=Z,622nm,20.0s,MS5.1						
ACSO	**Alum Creek Sta**	98.03	333	PFAKE		16 24 20.0	+15
ACSO				LR	LR		
	comp=Z,521nm,20.0s,MS5.0						
BINY	**Binghamton**	98.13	338	PFAKE		16 24 20.0	+14
BINY				LR	LR		
	comp=Z,461nm,19.0s,MS5.0						

FVM	**French Village**	**98.24**	**326**	*e*P	**P**	**16 24 07.2**	**+1.0**
FVM				pmax	pmax		
	comp=Z,42nm,0.7s,mb6.1						
FVM	**French Village**	**98.24**	**326**	*e*P	**P**	**16 24 07.2**	**+1.0**
	comp=Z,42nm,0.7s,mb6.1						
CCM	**Cathedral Cave**	**98.58**	**326**	*e*P	**P**	**16 24 06.8**	**-1.0**
CCM				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.6						
CCM				MLR	MLR		
	comp=Z,353nm,21.0s,MS4.8						
CCM	**Cathedral Cave**	**98.58**	**326**	*e*P	**P**	**16 24 06.8**	**-1.0**
	comp=Z,20nm,1.1s,mb5.6						
CCM				LR	LR		
	comp=Z,353nm,21.0s,MS4.8						
MTE	**Manteigas**	**98.96**	**29**	PFAKE		16 24 20.0	+11
MTE				LR	LR		
	comp=Z,515nm,19.0s,MS5.0						
ERPA	**Erie**	**99.00**	**336**	PFAKE		16 24 20.0	+10
ERPA				LR	LR		
	comp=Z,351nm,21.0s,MS4.8						
LBNH	**Lisbon**	**99.26**	**342**	PFAKE		16 24 20.0	+9.4
LBNH				LR	LR		
	comp=Z,455nm,19.0s,MS5.0						
ESDC	**Sonseca Array**	**99.39**	**32**	LR	LR	17 09 27.6	
	comp=Z,128nm,18.1s,MS4.5,baz=140,slow=36						
ESLA	**Sonseca Array**	**99.39**	**32**	PFAKE		16 24 20.0	+8.6
ESLA				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
NCB	**Newcomb**	**99.45**	**340**	PFAKE		16 24 20.0	+8.5
NCB				LR	LR		
	comp=Z,682nm,19.0s,MS5.2						
DZM	**Mont Dzumac**	**99.93**	**211**	*e*LR	LR	16 56 48.0	
	comp=Z,1µm,36.1s						
AAM	**Ann Arbor**	**100.14**	**333**	PFAKE		16 24 30.0	+15
AAM				LR	LR		
	comp=Z,430nm,21.0s,MS4.9						
LONY	**Lake Ozonia**	**100.14**	**340**	PFAKE		16 24 30.0	+15
LONY				LR	LR		
	comp=Z,648nm,20.0s,MS5.1						
HDIL	**Hopedale**	**100.20**	**328**	PFAKE		16 24 30.0	+14
HDIL				LR	LR		
	comp=Z,554nm,19.0s,MS5.1						
KSU1	**Kansas State U**	**101.41**	**323**	PFAKE		16 24 30.0	+9.0
KSU1				LR	LR		
	comp=Z,235nm,20.0s,MS4.7						
TUC	**Tucson**	**101.57**	**309**	PFAKE		16 24 30.0	+8.3
TUC				LR	LR		
	comp=Z,508nm,20.0s,MS5.0						
ANMO	**Albuquerque**	**101.81**	**313**	PFAKE		16 24 30.0	+7.2
ANMO				LR	LR		
	comp=Z,505nm,19.0s,MS5.1						
CBKS	**Cedar Bluff**	**102.34**	**320**	PFAKE		16 24 40.0	+15
CBKS				LR	LR		
	comp=Z,296nm,19.0s,MS4.8						
JFWS	**Jewell Farm**	**102.64**	**329**	PFAKE		16 24 40.0	+14
JFWS				LR	LR		
	comp=Z,420nm,21.0s,MS4.9						
SCIA	**State Center**	**102.70**	**326**	PFAKE		16 24 40.0	+13
SCIA				LR	LR		
	comp=Z,462nm,21.0s,MS5.0						
GLMI	**Grayling**	**102.74**	**333**	PFAKE		16 24 40.0	+13
GLMI				LR	LR		
	comp=Z,497nm,22.0s,MS5.0						
WDD	**Wield Dalam**	**103.15**	**47**	PFAKE		16 24 40.0	+11
WDD				LR	LR		
	comp=Z,715nm,19.0s,MS5.2						
ASAR	**Alice Springs**	**103.68**	**180**	Pdiff	Pdif	16 24 29.4	-1.7
	comp=Z,3.9nm,1.0s,baz=169,slow=4.3,SNR=27						
ASAR				PP	PP	16 28 44.5	-1.9
	comp=Z,2.7nm,1.0s,baz=176,slow=8.7,SNR=9.1						
SDCO	**Great Sand Dun**	**103.76**	**316**	PFAKE		16 24 40.0	+8.6
SDCO				LR	LR		
	comp=Z,266nm,21.0s,MS4.8						
VSL	**Villasalto**	**104.06**	**41**	PFAKE		16 24 40.0	+7.2
VSL				LR	LR		
	comp=Z,695nm,20.0s,MS5.2						
MVCO	**Mesa Verde**	**104.60**	**313**	PFAKE		16 24 50.0	+15
MVCO				LR	LR		
	comp=Z,292nm,21.0s,MS4.8						
OGNE	**Ogallala**	**105.07**	**320**	PFAKE		16 29 00.0	+9.0
OGNE				LR	LR		
	comp=Z,314nm,20.0s,MS4.8						
MBWA	**Marble Bar**	**105.23**	**167**	*e*PKPdf	PKiKP	16 28 52.8	+0.7
MBWA				LR	LR		
	comp=Z,702nm,22.0s,MS5.2						
PFO	**Pinyon Flat Ob**	**105.36**	**306**	PFAKE		16 29 00.0	+8.2
PFO				LR	LR		
	comp=Z,524nm,20.0s,MS5.1						
ECSD	**EROS Data Cent**	**105.48**	**325**	PFAKE		16 29 00.0	+8.3
ECSD				LR	LR		
	comp=Z,292nm,19.0s,MS4.8						
ISCO	**Idaho Springs**	**105.54**	**317**	*e*PKPdf	PKiKP	16 28 51.1	-0.8
ISCO				LR	LR		
	comp=Z,360nm,19.0s,MS4.9						
CEL	**Celeste**	**105.75**	**47**	PFAKE		16 29 00.0	+7.6
CEL				LR	LR		
	comp=Z,662nm,19.0s,MS5.2						
CTAO	**Charters Tower**	**106.39**	**193**	PFAKE		16 29 00.0	+5.7
CTAO				LR	LR		
	comp=Z,616nm,19.0s,MS5.2						
TIP	**Timpagrande**	**106.89**	**47**	PFAKE		16 29 10.0	+16
TIP				LR	LR		
	comp=Z,802nm,19.0s,MS5.3						
CUC	**Castrocucco**	**107.15**	**45**	PFAKE		16 29 10.0	+15
CUC				LR	LR		
	comp=Z,371nm,20.0s,MS4.9						
MVU	**Marysvale**	**107.32**	**312**	PFAKE		16 29 10.0	+15
MVU				LR	LR		
	comp=Z,510nm,20.0s,MS5.1						
WRA	**Warramunga Arr**	**107.38**	**181**	Pdiff	Pdif	16 24 45.8	-1.7
	comp=Z,1.3nm,0.7s,baz=183,slow=4.3,SNR=9.3						
WRA				PKiKP	PKiKP	16 28 56.1	0.0
	comp=Z,0.4nm,0.6s,baz=204,slow=1.5,SNR=5.1						
WRA				PP	PP	16 29 06.6	-7.1
	comp=Z,0.9nm,0.7s,baz=194,slow=1.3,SNR=5.8						
WRAB	**Tennant Creek**	**107.39**	**181**	PFAKE		16 29 10.0	+14
WRAB				LR	LR		
	comp=Z,667nm,21.0s,MS5.2						
FUNA	**Funafuti**	**107.43**	**228**	PFAKE		16 29 10.0	+14
FUNA				LR	LR		
	comp=Z,7µm,19.0s,MS6.2						
EYMN	**Ely**	**107.55**	**330**	PFAKE		16 29 10.0	+15
EYMN				LR	LR		
	comp=Z,390nm,20.0s,MS5.0						
BNI	**Bardonecchia**	**107.80**	**37**	PFAKE		16 29 10.0	+14
BNI				LR	LR		
	comp=Z,325nm,19.0s,MS4.9						
DUG	**Dugway**	**108.97**	**312**	PFAKE		16 29 10.0	+12
DUG				LR	LR		
	comp=Z,437nm,19.0s,MS5.0						
AGMN	**Agassiz Refuge**	**109.23**	**328**	PFAKE		16 29 10.0	+12
AGMN				LR	LR		
	comp=Z,701nm,22.0s,MS5.2						
BW06	**Boulder Array**	**109.65**	**316**	PFAKE		16 29 10.0	+11
BW06				LR	LR		
	comp=Z,159nm,19.0s,MS4.6						
PDAR	**Pinedale Array**	**109.65**	**316**	PP	PP	16 29 35.7	+4.2
	comp=Z,1.3nm,1.1s,baz=53,slow=5.7,SNR=5.9						
TUE	**Stuetta**	**109.98**	**38**	PFAKE		16 29 10.0	+10
TUE				LR	LR		
	comp=Z,269nm,20.0s,MS4.8						
TIR	**Tirane**	**110.03**	**47**	PFAKE		16 29 10.0	+10
TIR				LR	LR		
	comp=Z,371nm,20.0s,MS5.0						
NVAR	**Mina Array Bea**	**110.11**	**307**	PP	PP	16 29 33.3	-1.5
	comp=Z,0.4nm,0.8s,baz=140,slow=7.2,SNR=5.5						
NVAR				PKKPbc	PKKPbc	16 40 03.2	+2.0
	comp=Z,0.3nm,0.5s,baz=342,slow=4.9,SNR=3.7						
AHID	**Auburn Hatcher**	**110.31**	**315**	PFAKE		16 29 10.0	+9.3
AHID				LR	LR		
	comp=Z,362nm,20.0s,MS5.0						
SAO	**San Andreas Ge**	**110.34**	**304**	PFAKE		16 29 10.0	+9.0
SAO				LR	LR		
	comp=Z,431nm,22.0s,MS5.0						
ELK	**Elko**	**110.51**	**311**	PFAKE		16 29 10.0	+8.8
ELK				LR	LR		
	comp=Z,425nm,22.0s,MS5.0						
CMB	**Columbia Colle**	**110.81**	**306**	PFAKE		16 29 10.0	+8.2
CMB				LR	LR		
	comp=Z,697nm,19.0s,MS5.3						
BMN	**Battle Mountai**	**111.18**	**309**	PFAKE		16 29 10.0	+7.6
BMN				LR	LR		
	comp=Z,541nm,19.0s,MS5.2						
RLMT	**Red Lodge**	**111.46**	**317**	PFAKE		16 29 10.0	+7.2
RLMT				LR	LR		
	comp=Z,268nm,19.0s,MS4.8						
LKWY	**Lake**	**111.47**	**316**	PFAKE		16 29 10.0	+7.1
LKWY				LR	LR		
	comp=Z,600nm,19.0s,MS5.2						
LAO	**LASA Array**	**111.54**	**320**	PFAKE		16 29 10.0	+7.1
LAO				LR	LR		
	comp=Z,263nm,19.0s,MS4.8						
CSS	**Prodhromos**	**111.57**	**60**	PFAKE		16 29 10.0	+6.6
CSS				LR	LR		
	comp=Z,256nm,19.0s,MS4.8						
WLF	**Walferdange**	**111.57**	**34**	PFAKE		16 29 10.0	+7.1
WLF				LR	LR		
	comp=Z,494nm,19.0s,MS5.1						
MCCM	**Marconi Confer**	**112.13**	**304**	PFAKE		16 29 20.0	+16
MCCM				LR	LR		
	comp=Z,607nm,20.0s,MS5.2						
DGMT	**Dagmar**	**112.25**	**323**	PFAKE		16 29 20.0	+16
DGMT				LR	LR		
	comp=Z,356nm,19.0s,MS5.0						
ISP	**Isparta**	**112.33**	**57**	PFAKE		16 29 20.0	+15
ISP				LR	LR		
	comp=Z,195nm,20.0s,MS4.7						
HLID	**Hailey**	**112.39**	**313**	PFAKE		16 29 20.0	+15
HLID				LR	LR		
	comp=Z,379nm,22.0s,MS4.9						
BOZ	**Bozeman (W)**	**112.86**	**316**	PFAKE		16 29 20.0	+15
BOZ				LR	LR		
	comp=Z,305nm,21.0s,MS4.9						
HOPS	**Hopland**	**112.88**	**305**	PFAKE		16 29 20.0	+14
HOPS				LR	LR		
	comp=Z,680nm,20.0s,MS5.2						
WVOR	**Wild Horse Val**	**113.41**	**310**	PFAKE		16 29 20.0	+13
WVOR				LR	LR		
	comp=Z,460nm,20.0s,MS5.1						
GERES	**GERESS Array B**	**113.59**	**39**	PKiKP	PKiKP	16 29 05.5	-1.2
	comp=Z,0.8nm,0.8s,baz=127,slow=2.6,SNR=4.8						
MOD	**Modoc**	**113.78**	**308**	PFAKE		16 29 20.0	+13
MOD				LR	LR		
	comp=Z,515nm,22.0s,MS5.1						
EGMT	**Eagleton**	**114.01**	**319**	PFAKE		16 29 20.0	+12
EGMT				LR	LR		
	comp=Z,269nm,19.0s,MS4.9						
BMO	**Blue Mountains**	**114.68**	**312**	PFAKE		16 29 20.0	+11
BMO				LR	LR		
	comp=Z,357nm,20.0s,MS5.0						
MSO	**Missoula**	**114.77**	**316**	PFAKE		16 29 20.0	+11
MSO				LR	LR		
	comp=Z,468nm,19.0s,MS5.1						
YBH	**Yreka Blue Hor**	**114.80**	**307**	PFAKE		16 29 20.0	+11
YBH				LR	LR		
	comp=Z,450nm,20.0s,MS5.1						
PSZ	**Piszkesteto**	**115.29**	**43**	PFAKE		16 29 20.0	+10
PSZ				LR	LR		
	comp=Z,208nm,19.0s,MS4.8						
BRTR	**Keskin Array B**	**115.35**	**57**	PKP	PKPdf	16 29 09.7	-0.7
	comp=Z,0.8nm,0.6s						
HUMO	**Hull Mountain**	**115.58**	**307**	PFAKE		16 29 20.0	+9.2
HUMO				LR	LR		
	comp=Z,685nm,20.0s,MS5.3						
FFC	**Flin Flon**	**116.70**	**328**	PFAKE		16 29 20.0	+7.5
FFC				LR	LR		
	comp=Z,421nm,20.0s,MS5.0						
MALT	**Malatya**	**116.79**	**61**	*e*PKIKP	PKPdf	16 29 12.9	-0.3
MALT				MLR	MLR		
	comp=Z,343nm,21.0s,MS4.9						
COR	**Corvallis**	**117.24**	**309**	PFAKE		16 29 20.0	+6.1
COR				LR	LR		
	comp=Z,552nm,19.0s,MS5.2						
NEW	**Newport**	**117.24**	**315**	PFAKE		16 29 20.0	+6.2
NEW				LR	LR		
	comp=Z,490nm,19.0s,MS5.2						
NLWA	**Neilton Lookou**	**119.59**	**310**	PFAKE		16 29 30.0	+12
NLWA				LR	LR		
	comp=Z,440nm,20.0s,MS5.1						
KAPI	**Kappang**	**121.08**	**164**	PFAKE		16 29 30.0	+7.6
KAPI				LR	LR		
	comp=Z,344nm,19.0s,MS5.0						
AKASG	**Malin Array Be**	**121.38**	**46**	PKP	PKPdf	16 29 19.6	-2.0
	comp=Z,1.5nm,0.6s,baz=252,slow=2.0,SNR=8.2						
GNI	**Garni**	**121.50**	**64**	*e*PKIKP	PKPdf	16 29 20.6	-1.7
GNI				MLR	MLR		
	comp=Z,209nm,19.0s						
NOA	**NORSAR Array B**	**122.62**	**29**	PKP	PKPdf	16 29 22.9	-0.8
	comp=Z,1.4nm,0.8s,baz=224,slow=1.3,SNR=4.4						
KIV	**Kislovodsk**	**123.07**	**60**	*i* PKIKP	PKPdf	16 29 24.5	-0.6
KIV				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KIV	**Kislovodsk**	**123.07**	**60**	PFAKE		16 29 40.0	+15
KIV				LR	LR		
	comp=Z,262nm,20.0s,MS4.9						
KSM	**Kuching**	**125.20**	**151**	PFAKE		16 29 40.0	+10
KSM				LR	LR		
	comp=Z,243nm,20.0s,MS4.9						
SUMG	**Summit**	**125.39**	**3**	*e*PKPdf	PKPdf	16 29 28.8	+0.1
KULM	**Kulim**	**125.41**	**139**	PFAKE		16 29 40.0	+9.3
KULM				LR	LR		
	comp=Z,418nm,19.0s,MS5.1						
YKA	**Yellowknife Ar**	**126.88**	**327**	PKP	PKPdf	16 29 31.1	-0.7
	comp=Z,2.1nm,0.9s,baz=134,slow=1.7,SNR=4.0						
YKA				PP	PP	16 31 28.5	-2.0
	comp=Z,1.4nm,0.9s,baz=126,slow=6.5,SNR=7.0						
OBN	**Obninsk**	**127.64**	**46**⇓	*i*PKIKP	PKPdf	16 29 32.3	-1.2
OBN				pmax	pmax		
	comp=Z,10.0nm,1.1s						
OBN	**Obninsk**	**127.64**	**46**	PFAKE		16 29 40.0	+6.5
OBN				LR	LR		
	comp=Z,587nm,19.0s,MS5.3						
FINES	**FINESS Array B**	**127.74**	**35**	PKP	PKPdf	16 29 32.8	-0.7
	comp=Z,12nm,1.0s,baz=178,slow=2.5,SNR=14						
KAF	**Kangasniemi**	**128.28**	**35**	*e*p	PKPdf	16 29 32.4	-2.1
	comp=Z,12nm,0.6s						
JOF	**Joensuu**	**130.56**	**36**	*e*p	PKPdf	16 29 37.4	-1.4
	comp=Z,5.4nm,0.5s						
KKM	**Kota Kinabalu**	**131.14**	**157**	PFAKE		16 29 50.0	+8.4
KKM				LR	LR		
	comp=Z,692nm,19.0s,MS5.4						
ARCES	**ARCESS Array B**	**132.87**	**27**	PKhKP		16 29 32.5	
	comp=Z,4.4nm,1.0s,baz=318,slow=1.6,SNR=5.3						
ARCES				PKP	PKPdf	16 29 42.9	-0.1
	comp=Z,7.3nm,0.7s,baz=215,slow=1.5,SNR=13						
NIL	**Nilore**	**133.67**	**90**	PFAKE		16 30 00.0	+14
NIL				LR	LR		
	comp=Z,79nm,21.0s,MS4.4						
DAV	**Davao City (W)**	**133.78**	**169**	PFAKE		16 30 00.0	+13
DAV				LR	LR		
	comp=Z,710nm,19.0s,MS5.4						
AKTO	**Aktyubinsk**	**135.24**	**61**	PKIKP	PKPdf	16 29 44.2	-3.8
AB31	**Akbulak array**	**135.61**	**64**	PKIKP	PKPdf	16 29 42.4	-6.4
AB31				pmax	pmax		
	comp=Z,9.0nm,0.6s						
KBS	**Kingsbay**	**136.09**	**14**	PFAKE		16 30 00.0	+11
KBS				LR	LR		
	comp=Z,419nm,20.0s,MS5.2						
CMAR	**Chiang Mai Arr**	**136.38**	**129**	PKP	PKPdf	16 29 51.5	+0.3
	comp=Z,1.2nm,0.7s,baz=229,slow=3.7,SNR=11						
CMAR				PP	PP	16 32 36.5	+4.6
	comp=Z,1.0nm,1.0s,baz=226,slow=3.8,SNR=4.4						
CHTO	**Chiang Mai**	**136.69**	**129**	PFAKE		16 30 00.0	+8.2
CHTO				LR	LR		
	comp=Z,434nm,20.0s,MS5.2						
EGAK	**Eagle**	**137.75**	**321**	*e*PKPdf	PKPdf	16 29 51.4	-0.8
EGAK				LR	LR		
	comp=Z,481nm,20.0s,MS5.2						
KK31	**Karatay Array**	**138.09**	**77**	PKIKP	PKPdf	16 29 50.7	-2.9
KK31				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ARU	**Arti**	**138.61**	**54**	PFAKE		16 30 00.0	+5.9
ARU				LR	LR		
	comp=Z,724nm,20.0s,MS5.4						
KSH	**Kashi**	**139.18**	**85**	*e*PKP	PKPdf	16 29 54.0	-1.7
KSH				*e*sPKP		16 30 04.5	
AML	**Almayashu**	**139.41**	**81**	*e*PKPdf	PKPdf	16 29 51.6	-4.4
AML				LR	LR		
	comp=Z,303nm,19.0s,MS5.1						
EKS2	**Erkin-Say**	**139.77**	**80**	*e*PKPdf	PKPdf	16 29 55.6	-1.0
EKS2				LR	LR		
	comp=Z,712nm,19.0s,MS5.4						
SVE	**Sverdlovsk**	**139.81**	**54**	*e*PKHKP		16 29 48.2	
SVE				pmax	pmax		
	comp=Z,16nm,1.2s						
UCH	**Uchtor**	**139.95**	**81**	*e*PKPdf	PKPdf	16 29 51.0	-6.0
UCH				LR	LR		
	comp=Z,460nm,19.0s,MS5.2						
AAK	**Ala-Archa**	**140.18**	**81**	*e*PKHKP		16 29 51.1	
AAK				MLR	MLR		
	comp=Z,660nm,20.0s,MS5.4						
COLA	**College**	**140.40**	**319**	PFAKE		16 30 10.0	+13
COLA				LR	LR		
	comp=Z,503nm,21.0s,MS5.2						
TKM2	**Tokmak 2**	**141.01**	**81**	PFAKE		16 30 10.0	+11
TKM2				LR	LR		
	comp=Z,633nm,20.0s,MS5.4						
LSA	**Lhasa**	**141.46**	**110**	P	PKPdf	16 29 53.0	-7.2
LSA	**Lhasa**	**141.46**	**110**	*e*PKPdf	PKPdf	16 29 54.2	-5.9
LSA				LR	LR		
	comp=Z,905nm,19.0s,MS5.5						
IMA2	**Indian Mountai**	**143.09**	**320**	*e*PKPdf	PKPdf	16 29 58.6	-3.3
BRVK	**Borovoye**	**143.15**	**64**	*e*PKIKP	PKPdf	16 29 59.2	-3.2
BRVK				MLR	MLR		
	comp=Z,349nm,19.0s,MS5.1						
BVA0	**Borovoye Array**	**143.19**	**64**	PKIKP	PKPdf	16 29 58.9	-3.5
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.1s						
VOSK	**Vostochnaya**	**143.38**	**65**	PKIKP	PKPdf	16 29 59.1	-3.7
VOSK				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KMI	**Kunming**	**143.89**	**128**	PKP	PKPdf	16 30 01.5	-3.1
KMI				pPKP	pPKPdf	16 30 10.0	+2.0
UNV	**Unalaska Valle**	**145.10**	**296**	*e*PKPdf	PKPdf	16 30 03.2	-2.6
NIKO	**Nikolski**	**146.03**	**294**	*e*PKPdf	PKPdf	16 30 07.2	-0.2
KURK	**Kurchatov**	**146.78**	**71**	PKP	PKPdf	16 30 06.6	-2.1
	comp=Z,21nm,0.9s,baz=240,slow=3.2,SNR=56						
KURK				PKPbc	PKPbc	16 30 09.9	-0.6
	comp=Z,21nm,0.9s,baz=243,slow=3.7,SNR=79						
KURK				SKP		16 33 45.0	
	comp=Z,2.4nm,0.8s,baz=233,slow=2.8,SNR=3.9						
KURK	**Kurchatov**	**146.78**	**71**	PKP	PKPdf	16 30 06.6	-2.2
KURK				PKPbc	PKPbc	16 30 09.9	-0.6
KURK				SKP		16 33 45.0	
KURK				LR	LR		
	comp=Z,348nm,21.0s,MS5.1						
MK31	**Makanchi Array**	**147.10**	**80**	PKP2	PKPdf	16 30 09.7	+0.3
MK31				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR	**Makanchi Array**	**147.10**	**80**	PKP	PKPdf	16 30 07.8	-1.6
	comp=Z,4.2nm,0.7s,baz=242,slow=2.6,SNR=32						
MKAR				PKPbc	PKPbc	16 30 10.3	-1.3
	comp=Z,4.2nm,0.7s,baz=240,slow=2.5,SNR=40						
MKAR				SKP		16 33 45.6	
	comp=Z,2.0nm,0.8s,baz=250,slow=2.5,SNR=4.5						
MKAR	**Makanchi Array**	**147.10**	**80**	PKP	PKPdf	16 30 07.8	-1.6
MKAR				PKPbc	PKPbc	16 30 10.3	-1.3
MKAR				SKP		16 33 45.6	
TNA	**Tin City**	**148.76**	**317**	*e*PKPdf	PKPbc	16 30 15.5	+0.1
WMQ	**Urumqi**	**148.79**	**88**	PKPbc	PKPbc	16 30 15.3	-0.9
SSLB	**Suanglung**	**149.36**	**157**	*e*PKPdf	PKPbc	16 30 16.4	-1.8
GAMB	**Gambell**	**150.22**	**313**	*e*PKPbc	PKPbc	16 30 18.7	-0.4
YHNB	**Yeheng**	**150.31**	**158**	PFAKE		16 30 30.0	+15
YHNB				LR	LR		
	comp=Z,273nm,20.0s,MS5.0						
NVS	**Novosibirsk**	**150.91**	**66**	*e*PKIKP	PKPdf	16 30 13.2	-2.1
NVS				pmax	pmax		
	comp=N,13nm,1.1s						
NVS				pmax	pmax		
	comp=Z,51nm,1.1s						
NVS				pmax	pmax		
	comp=E,15nm,1.3s						
ZAA0	**Zalesovo Array**	**151.52**	**68**	*e*PKPbc	PKPbc	16 30 19.1	-3.3
ZALV	**Zalesovo Beam**	**151.52**	**68**	PKP	PKPdf	16 30 14.0	-2.2
	comp=E,0.5nm,0.3s,baz=5.7,slow=3.0,SNR=3.9						
ZALV				PKPbc	PKPbc	16 30 20.2	-2.2
	comp=E,3.2nm,0.5s,baz=253,slow=4.0,SNR=20						
BILL	**Bilibino**	**158.28**	**327**	PFAKE		16 30 40.0	+15
BILL				LR	LR		
	comp=Z,653nm,21.0s,MS5.4						
ZAK	**Zakamensk**	**161.22**	**86**	*e*PKIKP	PKPdf	16 30 27.1	-1.8
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s						
TLY	**Talaya**	**161.84**	**82**	PFAKE		16 30 40.0	+10
TLY				LR	LR		
	comp=Z,388nm,20.0s						
SONM	**Songino Array**	**162.10**	**96**	PKP	PKPdf	16 30 28.8	-1.1
	comp=Z,1.0nm,0.8s,baz=196,slow=0.5,SNR=4.8						
BJT	**Baijiatuau**	**162.50**	**131**	PFAKE		16 30 40.0	+9.4
BJT				LR	LR		
	comp=Z,308nm,20.0s						
ULN	**Ulaanbaatar**	**162.51**	**96**	*e*PKIKP	PKPdf	16 30 29.0	-1.4
ULN				MLR	MLR		
	comp=Z,313nm,22.0s						
MAJO	**Matsushiro**	**163.22**	**194**	PFAKE		16 30 40.0	+8.6
MAJO				LR	LR		
	comp=Z,333nm,20.0s						
INCN	**Inchon**	**163.80**	**160**	PFAKE		16 30 40.0	+8.0
INCN				LR	LR		
	comp=Z,394nm,21.0s						
KSRS	**Korea Array**	**164.01**	**164**	PKPab	PKPab	16 31 22.3	-2.9
	comp=Z,2.7nm,1.1s,baz=123,slow=32,SNR=4.2						
PET	**Petropavlovsk**	**164.81**	**280**	*i* PKIKP	PKPdf	16 30 30.4	-1.9
PETK	**Petropavlovsk-**	**165.39**	**280**	PKPab	PKPab	16 31 30.3	-0.7
	comp=Z,18nm,0.8s,baz=100,slow=7.6,SNR=12						
ERM	**Erimo**	**167.21**	**215**	PFAKE		16 30 40.0	+5.4
ERM				LR	LR		
	comp=Z,389nm,21.0s						
BOD	**Bodaibo**	**167.98**	**59**	*e*PKIKP	PKPdf	16 30 31.5	-3.1
BOD				pmax	pmax		
	comp=Z,8.0nm,1.1s						
HIA	**Hailar**	**170.65**	**108**	PFAKE		16 30 50.0	+13
HIA				LR	LR		
	comp=Z,336nm,20.0s						
YAK	**Yakutsk**	**170.71**	**11**	*e*PKIKP	PKPdf	16 30 37.2	+1.0
YAK	**Yakutsk**	**170.71**	**11**	PFAKE		16 30 50.0	+14
YAK				LR	LR		
	comp=Z,345nm,20.0s						
MDJ	**Mudanjiang**	**171.26**	**162**	PFAKE		16 30 50.0	+13
MDJ				LR	LR		
	comp=Z,297nm,20.0s						
YSS	**Yuzh-Sakhalins**	**171.47**	**229**	*i* PKIKP	PKPdf	16 30 38.1	+1.0
KLR	**Kul’dur**	**176.10**	**164**	*e*PKIKP	PKPdf	16 30 38.3	-0.3

NIED ***29*** *16:58:00, 24°00N×122°50E, h38^{km}, Mw4.9 Best double couple: $M_0$2.44000×10^{16} NP1:ϕ_s63.00000°, δ79.00000°, λ52.00000°. NP2:ϕ_s319.00000°, δ40.00000°, λ163.00000°.*

MOS ***29*** *16:58:03.7±1.0, 24°21N×122°65E, h28^{km}, mb5.3/62, MS4.6/17, Error ellipse: s-maj=8.1km s-min=4.4km az=116.4*

BJI ***29*** *16:58:04.4, 24°11N×122°60E, h34^{km}, mB5.0/35, mb4.8/49, ML4.8/5, Ms4.7/54, Ms7 4.7/46*

TAP ***29*** *16:58:05.1, 24°00N×122°53E, h26^{km}, ML5.1, C*

JMA ***29*** *16:58:05.7±0.3, 24°02N×122°50E, h28^{km}, M5.2*

JMA Felt I J1.

SZGRF ***29*** *16:58:05.4, 23°33N×122°27E, h33^{km}, mb5.0, Taiwan region*

GCMT ***29*** *16:58:06.1±0.4, 23°85N×122°45E, h36^{km}±1^{km}, MW5.0/49, Moment Tensor Solution. s22,c28; s49,c77; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.60±.25; $M_{\theta\theta}$-2.65±.15; $M_{\phi\phi}$0.05±.15; $M_{r\theta}$1.73±.15; $M_{\theta\phi}$-0.12±.09; $M_{\phi r}$0.86±.14; Best double couple: $M_0$3.26100×10^{16} NP1:ϕ_s280.00000°, δ29.00000°, λ113.00000°. NP2: ϕ_s74.00000°, δ63.00000°, λ77.00000°. Principal axes: T 3.3120, Plg69.0000°, Azm318.0000°; N -0.0980, Plg11.0000°, Azm80.0000°; P -3.2110, Plg17.0000°, Azm173.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB ***29*** *16:58:06.4±0.2, 24°02N±0°02×122°50E±0°01, h45^{km}±1^{km}, mb5.0/157, MS4.5/42 Error ellipse: s-maj=2.7km s-min=1.8km az=159.9*

IDC ***29*** *16:58:06.9±0.7, 24°20N×122°59E, h40^{km}±6^{km}, mb4.6/24, mb1 4.6/27, mb1mx4.6/29, mbtmp4.5/27, ML4.2/3, MS4.3/22, Ms1 4.4/22, ms1mx4.1/44, Error ellipse: s-maj=15.1km s-min=11.1km az=79.0*

NEIC ***29*** *16:58:06.1±0.2, 24°09N×122°56E, h35^{km}, mb5.1/97, ML5.1(TAP), Error ellipse: s-maj=5.0km s-min=3.8km az=161.0*

NEIC Felt at Pan-ch’iao and Taipei. Recorded [2 TAP] in I-lan and [1 TAP] in Hua-lien and T’ai-pei. Recorded [1 JMA] on Yonaguni-jima, Ryukyu Islands.

DJA ***29*** *16:58:08, 24°16N×122°56E, h43^{km}, mb5.1/13*

ISC 29 16:58:07.1±0.2**, 24°04N**±0°02×**122°52E**±0°01**, h39**^{km}±1^{km}**, h41**^{km}±4.5^{km}**:pP-P, n654,** $\sigma 1^{s}07$/701**, mb5.0**/157**, MS4.5**/42**, 113C-101D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.62**	**47**	P	**Pn**	**16 58 18.1**	**-1.3**
YOJ				S	**Sn**	**16 58 26.6**	**-1.5**

YOJ	Yonaguni jima	0.62	47	⇓iP	Pn	16 58 18.1	-1.3	baz=43
YOJ				iS	Sn	16 58 26.4	-1.7	baz=43
EHP	Heping Village	0.76	291	eP	Pn	16 58 20.2	-1.1	baz=293
ENA	Nanau	0.81	299	⇑iP	Pn	16 58 20.9	-1.1	baz=300
ENA				eS	Sn	16 58 32.8	0.0	baz=300
TWC	Suao	0.83	313	⇑iP	Pn	16 58 21.3	-1.1	baz=314
HWA	Hwalien	0.84	266	⇓iP	Pn	16 58 20.9	-1.5	baz=254
TWD	Chiawan	0.84	273	⇓iP	Pn	16 58 20.9	-1.6	baz=275
NACB	Ninganchiao	0.85	279	eP	Pn	16 58 20.8	-1.8	
ESF	Shoufeng Towns	0.94	260	eP	Pn	16 58 21.5	-2.3	baz=261
TEGC	Jichi Village	0.95	250	eP	Pn	16 58 22.8	-1.1	baz=252
ILA	Ilan	1.01	316	⇑iP	Pn	16 58 25.1	+0.4	baz=308
ILA				eS	Sn	16 58 40.3	+2.5	baz=308
ESL	Shilin	1.02	258	⇓iP	Pn	16 58 22.7	-2.2	baz=248
TWE	Neicheng	1.03	311	⇑iP	Pn	16 58 25.0	-0.1	baz=312
ENTT	Nioudou	1.05	305	⇓iP	Pn	16 58 25.5	+0.1	baz=290
TWB1	Santiao Chiao	1.08	334	⇑iP	Pn	16 58 25.5	-0.2	baz=334
NNS	Nan Shan	1.12	291	⇓iP	Pn	16 58 25.9	-0.4	baz=292
NNS				eS	Sn	16 58 40.8	+0.3	baz=292
IRIF	Iriomote-Funau	1.15	75	P	Pn	16 58 26.5	-0.1	
IRIF				S	Sn	16 58 42.6	+1.5	
WHF	Hehuan Shan	1.15	276	⇓iP	Pn	16 58 25.9	-0.8	baz=264
HATJ	Hateruma jima	1.18	89	P	Pn	16 58 26.4	-0.6	
HATJ				S	Sn	16 58 43.0	+1.1	
EHY	Hungye	1.22	244	⇓iP	Pn	16 58 25.8	-1.8	baz=245
EHY				eS	Sn	16 58 40.0	-2.9	baz=245
YHNB	Yeheng	1.22	301	⇑iPn	Pn	16 58 27.3	-0.3	
YHNB				eSn	Sn	16 58 44.0	+1.2	
NWF	Wu-fen Shan	1.23	327	⇓iP	Pn	16 58 28.1	+0.3	baz=327
NWF				S	Sn	16 58 46.1	+2.9	baz=327
NSK	Sanguang	1.23	301	⇓iP	Pn	16 58 27.9	0.0	baz=286
NSK				eS	Sn	16 58 45.0	+1.8	baz=286
TWT	Tachien	1.25	280	⇓iP	Pn	16 58 27.9	-0.1	baz=269
TWA	Mucha	1.27	318	⇓iP	Pn	16 58 28.8	+0.5	baz=318
YULB	Yu-li	1.29	240	ePn	Pn	16 58 26.7	-1.9	
YULB				eSn	Sn	16 58 39.5	-5.2	
TWF1	Yuli	1.31	239	P	Pn	16 58 27.4	-1.5	baz=228
TATO	Taipei	1.32	315	ePn	Pn	16 58 28.5	-0.6	
TAP1	Taipei	1.35	318	⇓iP	Pn	16 58 29.8	+0.4	baz=334
JKRS	Kuro-shima	1.38	81	P	Pn	16 58 29.9	+0.1	
JKRS				eS	Sn	16 58 46.5	-0.3	
CHKT	Chengkung	1.41	229	⇑iP	Pn	16 58 27.8	-2.5	baz=229
SSLB	Suanglung	1.45	260	⇑iPn	Pn	16 58 29.5	-1.3	
SSLB				eSn	Sn	16 58 44.1	-4.6	
TWS1	Kuangyinshan	1.46	317	⇓iP	Pn	16 58 31.5	+0.6	baz=334
TWS1				eS	Sn	16 58 52.6	+3.8	baz=334
SMLT	Sun Moon Lake	1.49	264	⇓iP	Pn	16 58 30.9	-0.4	baz=255
TWY	Chenhua	1.49	326	⇓iP	Pn	16 58 31.2	-0.2	baz=326
NSTT	Nanjuang	1.50	293	⇓iP	Pn	16 58 32.5	+1.0	baz=293
NSTT				eS	Sn	16 58 51.6	+1.7	baz=293
JIJ	Ishigaki jima	1.52	77	P	Pn	16 58 31.3	-0.4	
JIJ				S	Sn	16 58 52.0	+1.7	
TYC	Yuchr	1.52	265	⇓iP	Pn	16 58 31.4	-0.4	baz=266
NCU	National Centr	1.53	308	⇓P	Pn	16 58 32.5	+0.7	baz=307
HSN	Hsinchu	1.60	299	⇓P	Pn	16 58 33.5	+0.6	baz=300
HSN				eS	Sn	16 58 54.0	+1.6	baz=300
ELDTW	Lidau	1.61	239	⇑iP	Pn	16 58 31.4	-1.7	baz=239
TWQ1	Liyutan	1.62	281	⇓iP	Pn	16 58 34.4	+1.2	baz=281
TWQ1				eS	Sn	16 58 55.1	+2.2	baz=281
PCYT	Pengchaiyu	1.64	346	⇑iP	Pn	16 58 33.5	+0.1	baz=346
PCYT				eS	Sn	16 58 53.0	-0.2	baz=346
NSY	Sanyi	1.65	284	⇓iP	Pn	16 58 34.9	+1.3	baz=283
NSY				eS	Sn	16 58 56.3	+2.9	baz=283
ALS	Alishan	1.66	252	⇓iP	Pn	16 58 33.5	-0.1	baz=252
ALS				eS	Sn	16 58 52.5	-1.1	baz=252
WNT	Mingjian	1.69	265	⇓iP	Pn	16 58 34.9	+0.8	baz=265
WNT				eS	Sn	16 58 55.2	+0.8	baz=265
TCU	Taichung	1.69	274	⇓iP	Pn	16 58 35.3	+1.3	baz=273
TCU				eS	Sn	16 58 56.0	+1.5	baz=273
CHN5	Tsauling	1.74	256	⇓iP	Pn	16 58 35.2	+0.4	baz=256
TTN	Taitung	1.79	225	eP	Pn	16 58 32.9	-2.6	baz=225
TTN				eS	Sn	16 58 55.6	-1.5	baz=225
TWG	Pinlang	1.80	228	ePn	Pn	16 58 33.1	-2.5	
TWG	Pinlang	1.80	228	eP	Pn	16 58 33.5	-2.1	baz=239
WGK	Gukeng	1.82	259	eP	Pn	16 58 36.4	+0.5	baz=259
STYT	Tauyuan	1.83	242	⇑iP	Pn	16 58 35.6	-0.5	baz=232
TPUB	Ta-pu	1.88	247	⇑ePn	Pn	16 58 36.8	+0.1	
CHN4	Tsaushan	1.89	249	eP	Pn	16 58 37.3	+0.4	baz=249
CHN4				eS	Sn	16 59 00.5	+1.0	baz=249
WTP	Ta-pu	1.92	246	⇓iP	Pn	16 58 37.5	+0.3	baz=237
WTP				eS	Sn	16 59 01.0	+0.9	baz=237
CHN2	Minshiung	1.94	255	eP	Pn	16 58 38.6	+1.1	baz=255
CHN2				eS	Sn	16 59 03.0	+2.4	baz=255
CHY	Chiayi	1.99	255	⇓eP	Pn	16 58 38.8	+0.5	baz=254
CHY				eS	Sn	16 59 03.1	+1.1	baz=254
CHN1	Nanshi	2.01	245	⇓eP	Pn	16 58 39.1	+0.5	baz=245
CHN1				eS	Sn	16 59 05.3	+2.8	baz=245
TWK	Hsinying	2.01	248	eP	Pn	16 58 39.2	+0.7	baz=248
TWK				eS	Sn	16 59 01.9	-0.6	baz=248
SGST	Jiashian	2.02	242	P	Pn	16 58 39.0	+0.5	baz=233
SGST				eS	Sn	16 59 03.4	+0.8	baz=233
ECL	Taimali	2.03	225	i P	Pn	16 58 36.1	-2.7	baz=236
WTCT	Ta-ch'eng	2.05	266	eP	Pn	16 58 38.9	-0.2	baz=279
WTCT				eS	Sn	16 59 06.1	+2.6	baz=279
JTJ	Tarama	2.08	73	P	Pn	16 58 39.3	-0.2	
JTJ				eS	Sn	16 59 06.3	+2.1	
WSF	Szhu	2.14	260	P	Pn	16 58 41.0	+0.7	baz=259
WSF				eS	Sn	16 59 08.1	+2.5	baz=259
SSD	Sandimen	2.16	234	eP	Pn	16 58 39.4	-1.1	baz=227
LAY	Lan-yu	2.18	204	⇑iP	Pn	16 58 37.7	-3.2	baz=204
LAY				eS	Sn	16 59 03.1	-3.5	baz=204
CHN3	Shinhua	2.19	245	eP	Pn	16 58 42.0	+0.9	baz=244
CHN3				eS	Sn	16 59 09.9	+2.9	baz=244
CHN8	Yiju	2.22	252	eP	Pn	16 58 41.8	+0.3	baz=252
CHN8				eS	Sn	16 59 08.6	+0.9	baz=252
TAW	Tawu	2.24	222	eP	Pn	16 58 39.3	-2.4	baz=233
EAST	Anshuo	2.25	223	eP	Pn	16 58 39.7	-2.2	baz=224
TWM1	Shoushan	2.27	238	eP	Pn	16 58 43.6	+1.5	baz=238
SGLT	Jiouru	2.27	235	eP	Pn	16 58 44.2	+2.0	baz=228
TAI1	Yung-k'ang	2.33	245	eP	Pn	16 58 43.9	+1.1	baz=258
TAI1				eS	Sn	16 59 11.7	+1.6	baz=258
SCZT	Fangliau	2.41	227	eP	Pn	16 58 43.3	-0.6	baz=233
KAU	Kaohsiung	2.50	235	eP	Pn	16 58 47.8	+2.5	baz=235
TSEB	Hengchuen, Pin	2.60	215	eP	Pn	16 58 45.5	-1.1	baz=216
TSEB				eS	Sn	16 59 16.3	-0.6	baz=216
TWP	Hsiaoliuchiu	2.60	230	eP	Pn	16 58 48.7	+2.0	baz=245
HEN	Hengchun	2.60	219	⇑P	Pn	16 58 45.8	-0.9	baz=219
HEN				eS	Sn	16 59 16.2	-0.8	baz=219
TWK1	Hengchun	2.62	217	P	Pn	16 58 45.4	-1.4	baz=217
TWK1				eS	Sn	16 59 15.0	-2.3	baz=217
JMJ	Miyako jima 2	2.65	72	P	Pn	16 58 48.7	+1.5	
JMJ				eS	Sn	16 59 20.5	+2.4	
JMJ	Miyako jima 2	2.65	72	eP	Pn	16 58 48.3	+1.0	baz=61
JOGS	Gusukube	2.73	74	P	Pn	16 58 49.3	+0.9	
JOGS				eS	Sn	16 59 20.4	+0.2	
WDGT	Dungji	2.73	254	⇓P	Pn	16 58 48.2	-0.2	baz=253
WDGT				eS	Sn	16 59 19.1	-1.1	baz=253
PNG	Penghu	2.75	261	⇓iP	Pn	16 58 48.5	-0.3	baz=259
PNG				eS	Sn	16 59 20.3	-0.5	baz=259
QZH	Quanzhou	3.69	285	⇑iP	Pn	16 59 02.0	+0.4	
QZH				S	Sn	16 59 42.0	-1.8	
QZH				smax				comp=N,3µm,0.8s
QZH				smax				comp=E,3µm,0.5s
KNM	Kinmen	3.75	277	⇓P	Pn	16 59 03.4	+1.0	baz=273
KNM				eS	Sn	16 59 45.7	+0.4	baz=273
JKE	Kume jima 2	4.49	59	P	Pn	16 59 12.4	-0.2	
JKE				eS	Sn	17 00 06.1	+2.6	
JAGN	Aguni-jima	4.97	58	P	Pn	16 59 21.2	+2.0	
JAGN				eS	Sn	17 00 19.0	+3.5	
JIH	Iheya	5.76	58	P	Pn	16 59 30.7	+0.7	
JIH				eS	Sn	17 00 35.7	+0.9	
JOW	Kunigami	5.90	61	P	Pn	16 59 30.5	-1.5	
JOW	Kunigami	5.90	61	P	Pn	16 59 30.6	-1.3	comp=E,18nm,0.3s,baz=223,slow=11,SNR=26
JOW	Kunigami	5.90	61	eP	Pn	16 59 30.0	-2.0	baz=62
JTK	Tokunoshima	6.89	56	P	Pn	16 59 43.7	-1.9	
JTK				eS	Sn	17 01 01.2	-1.5	
SSE	Sheshan	7.13	351	⇑P	Pn	16 59 48.5	-0.3	
SSE				S	Sn	17 01 09.8	+1.2	
SSE				pmax	pmax			comp=Z,180nm,3.5s
SSE				smax				comp=N,140nm,1.2s
SSE				smax				comp=E,180nm,1.1s
SSE				LR	LR			comp=N,3µm,14.3s
SSE				LR	LR			comp=E,710nm,14.2s
SSE				LR	LR			comp=Z,4µm,15.5s
JAM	Amami Oshima	7.71	54	P	Pn	16 59 54.5	-2.3	
JAM				eS	Sn	17 01 19.6	-3.3	
GZH	Guangzhou	8.47	265	Pg	Pn	17 00 02.5	-4.8	
GZH				Sg	Sn	17 01 27.8	-14	
GZH				smax				comp=N,330nm,1.0s
GZH				smax				comp=E,310nm,0.9s
NJ2	Nanjing	8.61	339	eP	Pn	17 00 08.0	-1.2	
NJ2				pP		17 00 15.0		
NJ2				sP		17 00 20.8		
NJ2				S	Sn	17 01 43.3	-1.8	
NJ2				sS		17 01 53.5		
NJ2				pmax	pmax			comp=Z,160nm,0.7s
NJ2				smax				comp=N,370nm,1.0s
NJ2				smax				comp=E,340nm,1.0s
NJ2				LR	LR			comp=N,4µm,11.0s
NJ2				LR	LR			comp=E,3µm,12.4s
NJ2				LR	LR			comp=Z,6µm,14.0s
WHN	Wuhan	9.73	314	P	Pn	17 00 25.8	+1.3	
WHN				S	Sn	17 02 12.3	-0.2	
WHN				LR	LR			comp=N,6µm,10.0s
WHN				LR	LR			comp=E,6µm,14.7s
WHN				LR	LR			comp=Z,7µm,12.7s
QIZ	Qiongzhong	12.80	250	P	Pn	17 01 04.5	-2.1	
QIZ				S	Sn	17 03 29.0	+1.2	
QIZ				pmax	pmax			comp=Z,160nm,4.3s
QIZ				LR	LR			comp=N,1µm,16.5s
QIZ				LR	LR			comp=Z,560nm,15.2s
QIZ	Qiongzhong	12.80	250	ePn	Pn	17 01 05.8	-0.8	comp=Z,281nm,2.0s
INCN	Inchon	13.86	14	ePn	Pn	17 01 25.3	+4.4	
KSRS	Korea Array	14.15	18	P	Pn	17 01 23.2	-1.7	comp=Z,2.0nm,0.3s,baz=201,slow=12,SNR=54
KSRS				LR	LR	17 07 15.8		comp=Z,1µm,19.8s,baz=334,slow=39
GYA	Guiyang	14.55	283	P	Pn	17 01 30.5	+0.1	
GYA				pP	pP	17 01 37.8	-8.1	
GYA				S	Sn	17 04 08.8	-1.6	
GYA				sS		17 04 22.5		
GYA				pmax	pmax			comp=Z,20nm,0.8s
GYA				pmax	pmax			comp=Z,70nm,5.6s
GYA				LR	LR			comp=N,860nm,11.0s
GYA				LR	LR			comp=E,3µm,11.6s
GYA				LR	LR			comp=Z,3µm,13.0s
DL2	Dalian	14.84	357	P	Pn	17 01 37.8	+3.6	
DL2				eS	Sn	17 04 18.3	+0.9	
DL2				pmax	pmax			comp=Z,20nm,1.6s
DL2				pmax	pmax			comp=Z,210nm,3.0s
DL2				LR	LR			comp=N,1µm,12.0s
DL2				LR	LR			comp=E,340nm,9.9s
DL2				LR	LR			comp=Z,1µm,13.3s
XAN	Xi'an	15.50	313	P	Pn	17 01 42.0	-0.8	
XAN				pP	pP	17 01 46.5	-10	
XAN				pmax	pmax			comp=Z,55nm,5.5s
XAN				LR	LR			comp=N,690nm,15.2s
XAN				LR	LR			comp=E,660nm,15.9s
XAN				LR	LR			comp=Z,760nm,15.5s
BJT	Baijiatuau	16.81	343	eP	Pn	17 02 00.9	+1.4	
BJT				pmax	pmax			comp=Z,23nm,0.5s
BJT	Baijiatuau	16.81	343	ePn	Pn	17 02 00.9	+1.5	comp=Z,23nm,0.5s
BJI	Beijing	16.83	343	P	Pn	17 02 00.3	+0.6	
BJI				S	S	17 05 06.0	-9.0	
BJI				pmax	pmax			comp=Z,20nm,1.1s
BJI				pmax	pmax			comp=Z,400nm,5.6s
BJI				LR	LR			comp=N,1µm,20.1s
BJI				LR	LR			comp=E,630nm,13.3s
BJI				LR	LR			comp=Z,1µm,23.8s
DAV	Davao City (W)	17.12	170	LR	LR	17 08 36.7		comp=Z,925nm,18.8s,baz=252,slow=36
JHJ	Hachijo jima 2	17.64	55	LR	LR	17 09 31.3		comp=Z,337nm,19.4s,baz=143,slow=39
SNY	Shenyang	17.76	3	⇓P	Pn	17 02 12.0	+0.7	
SNY				S	S	17 05 31.5	-2.5	
SNY				pmax	pmax			comp=Z,48nm,0.7s
SNY				pmax	pmax			comp=Z,490nm,4.9s
SNY				LR	LR			comp=E,1µm,21.1s
SNY				LR	LR			comp=Z,2µm,14.4s
KDM	Kudat	17.88	199	P	Pn	17 02 13.8	+0.9	
CD2	Chengdu	17.99	296	P	Pn	17 02 15.3	+1.2	
CD2				pP	pP	17 02 23.0	-1.1	
CD2				sP	sP	17 02 27.8	-1.2	
CD2				PP		17 02 30.3		
CD2				S	S	17 05 32.0	-6.7	
CD2				sS	sS	17 05 44.5	-10	
CD2				SS		17 05 55.3		
CD2				pmax	pmax			comp=Z,50nm,0.6s
CD2				pmax	pmax			comp=Z,160nm,4.2s
CD2				LR	LR			comp=N,2µm,9.7s
CD2				LR	LR			comp=Z,4µm,12.2s
CBIJ	Chichi jima	18.00	76	LR	LR	17 08 17.4		comp=Z,637nm,20.1s,baz=301,slow=34
KMI	Kunming	18.02	278	P	Pn	17 02 17.5	+2.9	
KMI				pP	pP	17 02 25.8	+1.3	
KMI				sP	sP	17 02 30.5	+1.0	
KMI				S	S	17 05 36.0	-3.5	
KMI				SS		17 05 55.5		
KMI				pmax	pmax			comp=Z,21nm,1.1s
KMI				LR	LR			comp=N,650nm,14.3s
KMI				LR	LR			comp=E,2µm,13.2s
KMI				LR	LR			comp=Z,2µm,14.3s
MAJO	Matsushiro	18.38	44	eP	Pn	17 02 15.1	-3.7	
MAJO				pmax	pmax			comp=Z,10.0nm,0.8s
MAJO	Matsushiro	18.38	44	eP	Pn	17 02 15.1	-3.8	comp=Z,10.0nm,0.8s
MAT	Matsushiro	18.38	44	P	Pn	17 02 15.3	-3.5	
MAT				S	S	17 05 40.0	-6.5	
MJAR	Matsushiro Arr	18.38	44	P	Pn	17 02 16.9	-2.0	comp=Z,0.4nm,0.3s,baz=248,slow=11,SNR=5.2
KKM	Kota Kinabalu	18.89	200	P	Pn	17 02 31.0	+5.8	
SDKM	Sandakan	18.99	196	P	Pn	17 02 31.9	+5.5	
HHC	Hu-ho-hao-te	19.11	334	eP	Pn	17 02 28.3	+0.6	
HHC				pP	pP	17 02 35.5	-0.9	
HHC				sP	sP	17 02 41.0	-0.4	
HHC				PP		17 02 45.3		
HHC				eS	S	17 05 55.5	-5.8	
HHC				sS	sS	17 06 07.8	-9.1	
HHC				SS		17 06 20.8		
HHC				PcP	PcP	17 06 52.5	+2.7	
HHC				pmax	pmax			comp=Z,32nm,1.0s
HHC				pmax	pmax			comp=Z,360nm,4.9s
HHC				LR	LR			comp=N,3µm,14.9s
HHC				LR	LR			comp=E,1µm,12.9s
HHC				LR	LR			comp=Z,3µm,14.1s
BTO	Baotou	19.57	331	eP	Pn	17 02 31.3	-1.9	
CN2	Changchun	19.86	6	eP	Pn	17 02 33.5	-3.0	
CN2				pmax	pmax			comp=Z,40nm,0.6s
CN2				pmax	pmax			comp=Z,200nm,5.0s
CN2				LR	LR			comp=N,2µm,16.0s
CN2				LR	LR			comp=E,1µm,16.0s
CN2				LR	LR			comp=Z,2µm,14.0s
LZH	Lanzhou	20.09	311	⇑P	P	17 02 39.3	+1.9	
LZH				pP		17 02 49.0		
LZH				sP	sP	17 02 54.5	+2.4	
LZH				PP		17 02 56.0		
LZH				S	S	17 06 14.0	-7.0	
LZH				sS	sS	17 06 28.0	-8.7	
LZH				pmax	pmax			comp=Z,59nm,1.0s
LZH				pmax	pmax			comp=Z,300nm,5.1s
LZH				LR	LR			comp=N,3µm,14.1s
LZH				LR	LR			comp=Z,3µm,15.7s,MS4.7
TSM	Tawau	20.13	194	P	P	17 02 39.5	+1.5	
MDJ	Mudanjiang	21.33	14	P	P	17 02 51.0	+0.4	
MDJ				pP		17 02 59.0		
MDJ				sP	sP	17 03 03.3	-2.1	
MDJ				S	S	17 06 46.5	+1.3	
MDJ				ScP	ScP	17 10 28.8	+1.1	
MDJ				PcS	PcS	17 10 31.8	0.0	
MDJ				ScS	ScS	17 14 12.5	+1.0	
MDJ				pmax	pmax			comp=Z,16nm,0.9s,mb4.3
MDJ				pmax	pmax			comp=Z,180nm,4.8s
MDJ				LR	LR			comp=N,750nm,19.7s,MS4.4
MDJ				LR	LR			comp=E,1µm,15.5s,MS4.4
MDJ				LR	LR			comp=Z,1µm,13.6s,MS4.5
MDJ	Mudanjiang	21.33	14	eP	P	17 02 49.4	-1.2	comp=Z,16nm,1.0s,mb4.3
CHRT	Chiangrai	21.48	263	⇑P	P	17 02 54.5	+2.0	comp=Z,218nm,1.1s,mb5.4
CHG	Chiang Mai	22.54	261	⇑P	P	17 03 06.5	+2.7	comp=Z,17nm,0.9s,mb4.5
CHTO	Chiang Mai	22.54	261	eP	P	17 03 05.1	+1.3	
CHTO				pmax	pmax			

	comp=Z,21nm,1.2s,mb4.4						
CHTO	**Chiang Mai**	**22.54**	**261**	*e*P	**P**	**17 03 05.1**	**+1.3**
	comp=Z,21nm,1.2s,mb4.4						
CHTO	**Chiang Mai**	**22.54**	**261**	P	**P**	**17 03 05.5**	**+1.8**
	SNR=6.4						
CHTO				P		17 03 05.5	
	SNR=6.4						
BTM	**Bintulu**	**22.63**	**205**	P	**P**	**17 03 05.5**	**+0.8**
CMAR	**Chiang Mai Arr**	**22.65**	**260**	P	**P**	**17 03 05.9**	**+1.0**
CMAR						17 06 57.9	
CMAR						17 07 09.1	
CMAR	**Chiang Mai Arr**	**22.65**	**260**	P	**P**	**17 03 05.8**	**+0.9**
	comp=Z,8.8nm,0.9s,mb4.2,baz=62,slow=8.4,SNR=57						
CMAR				PcP	PcP	17 06 57.9	+1.0
	comp=Z,2.1nm,0.9s,baz=37,slow=1.1,SNR=9.6						
CMAR				pPcP		17 07 09.1	
	comp=Z,1.4nm,0.6s,baz=26,slow=1.0,SNR=7.2						
CMAR				ScP	ScP	17 10 32.8	+1.2
	comp=Z,1.1nm,1.1s,baz=106,slow=1.1,SNR=4.5						
CMAR				LR	LR	17 12 36.9	
	comp=Z,454nm,18.7s,MS3.9,baz=65,slow=38						
GUMO	**Guam**	**23.54**	**112**	LR	LR	17 11 44.0	
	comp=Z,561nm,18.4s,MS4.1,baz=33,slow=35						
SBUM	**Sibu**	**23.66**	**206**	P	**P**	**17 03 16.9**	**+1.7**
GTA	**Gaotai**	**24.56**	**314**	⇑P	**P**	**17 03 23.0**	**-0.2**
GTA				pP		17 03 32.5	
GTA				sP	sP	17 03 36.3	-2.3
GTA				PcP	PcP	17 07 01.3	+0.7
GTA				S	**S**	**17 07 39.3**	**-2.1**
GTA				sS	sS	17 07 54.5	-4.7
GTA				SS		17 08 35.5	
GTA				ScP	ScP	17 10 37.0	+0.7
GTA				PcS	PcS	17 10 40.3	-0.2
GTA				ScS	ScS	17 14 23.5	-0.5
GTA				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.5						
GTA				pmax	pmax		
	comp=Z,110nm,4.2s						
GTA				LR	LR		
	comp=N,320nm,14.7s,MS4.3						
GTA				LR	LR		
	comp=E,680nm,13.2s,MS4.3						
GTA				LR	LR		
	comp=Z,890nm,15.0s,MS4.4						
HIA	**Hailar**	**25.28**	**356**	*e*P	**P**	**17 03 26.8**	**-2.8**
HIA				pmax	pmax		
	comp=Z,13nm,0.6s						
HIA	**Hailar**	**25.28**	**356**	*e*P	**P**	**17 03 26.8**	**-2.8**
	comp=Z,13nm,0.6s,mb4.6						
KSM	**Kuching**	**25.36**	**210**	P	**P**	**17 03 31.7**	**+1.1**
KSM	**Kuching**	**25.36**	**210**	*e*P	**P**	**17 03 30.1**	**-0.5**
	comp=Z,36nm,1.3s,mb4.7						
ASAJ	**Asahikawa**	**25.91**	**34**	P	**P**	**17 03 32.2**	**-3.2**
	comp=Z,7.9nm,0.4s,mb4.6,baz=229,slow=12,SNR=25						
ASAJ				LR	LR	17 13 36.4	
	comp=Z,576nm,21.7s,MS4.1,baz=328,slow=36						
KLR	**Kul'dur**	**26.17**	**14**	*e*P	**P**	**17 03 32.8**	**-4.9**
KLR				MLR	MLR		
	comp=E,700nm,13.0s						
KLR				MLR	MLR		
	comp=Z,6µm,13.0s,MS5.3						
HABR	**Khabarovsk**	**26.33**	**19**	*e*P	**P**	**17 03 35.9**	**-3.2**
HABR				*e**PP	pP	17 03 41.6	-8.3
HABR				*e*PPP		17 04 21.9	
HABR				*e*		17 07 00.5	
HABR				*e*SS		17 09 08.7	
HABR				*e*		17 14 30.2	
HABR				MLR	MLR		
	comp=Z,755nm,17.0s,MS4.3						
ULN	**Ulaanbaatar**	**26.77**	**337**	*e*P	**P**	**17 03 42.1**	**-1.0**
ULN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.5						
ULN	**Ulaanbaatar**	**26.77**	**337**	*e*P	**P**	**17 03 42.1**	**-1.0**
	comp=Z,11nm,0.7s,mb4.5						
ULN	**Ulaanbaatar**	**26.77**	**337**	P	**P**	**17 03 42.6**	**-0.5**
	SNR=7.4						
ULN				P		17 03 42.6	
	SNR=7.4						
SONM	**Songino Array**	**26.99**	**336**	P	**P**	**17 03 44.2**	**-0.9**
SONM						17 07 05.8	
SONM	**Songino Array**	**26.99**	**336**	P	**P**	**17 03 44.2**	**-0.9**
	comp=Z,14nm,0.7s,mb4.6,baz=150,slow=9.8,SNR=60						
SONM				PcP	PcP	17 07 05.8	-0.2
	comp=Z,1.9nm,0.6s,baz=162,slow=4.6,SNR=5.8						
SONM				ScP	ScP	17 10 43.4	+0.2
	comp=Z,1.1nm,0.9s,baz=149,slow=3.1,SNR=7.2						
SONM				LR	LR	17 15 38.2	
	comp=Z,2µm,19.0s,MS4.7,baz=230,slow=39						
SHL	**Shillong**	**27.82**	**280**	*e*x	x	17 03 54.0	
SHL				*e*x	x	17 09 16.0	
YSS	**Yuzh-Sakhalins**	**28.02**	**30**	*e*P	**P**	**17 03 54.3**	**-0.1**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.9						
YSS				MLR	MLR		
	comp=N,500nm,16.0s						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.2						
YSS	**Yuzh-Sakhalins**	**28.02**	**30**	*e*P	**P**	**17 03 52.1**	**-2.3**
	comp=Z,16nm,0.9s,mb4.7						
KULM	**Kulim**	**28.11**	**232**	P	**P**	**17 03 56.8**	**+1.4**
IPM	**Ipoh**	**28.41**	**230**	P	**P**	**17 03 58.6**	**+0.5**
LSA	**Lhasa**	**28.49**	**288**	P	**P**	**17 04 01.0**	**+2.3**
LSA				LR	LR		
	comp=E,980nm,18.9s						
LSA				LR	LR		
	comp=Z,1µm,17.3s,MS4.6						
LSA	**Lhasa**	**28.49**	**288**	*e*P	**P**	**17 04 00.2**	**+1.5**
LSA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
LSA	**Lhasa**	**28.49**	**288**	*e*P	**P**	**17 04 00.2**	**+1.4**
	comp=Z,10nm,0.6s,mb4.6						
ZAK	**Zakamensk**	**30.25**	**335**	*e*P	**P**	**17 04 11.6**	**-2.5**
ZAK				*e*		17 07 13.6	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.1						
TLY	**Talaya**	**31.17**	**337**	P	**P**	**17 04 21.0**	**-1.2**
	comp=Z,102nm,0.6s,mb5.8,SNR=5.3						
TLY	**Talaya**	**31.17**	**337**	*e*P	**P**	**17 04 20.7**	**-1.5**
TLY				*e*		17 05 17.4	
TLY				*e*S	**S**	**17 09 23.2**	**-2.2**
TLY				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.8						
TLY				MLR	MLR		
	comp=Z,1µm,15.0s,MS4.7						
TLY	**Talaya**	**31.17**	**337**	*e*P	**P**	**17 04 21.4**	**-0.8**
	comp=Z,11nm,0.6s,mb4.9						
TLY	**Talaya**	**31.17**	**337**	P	**P**	**17 04 21.3**	**-0.9**
	SNR=5.6						
TLY				P		17 04 21.3	
	SNR=5.6						
IRK	**Irkutsk**	**31.42**	**338**	*e*P	**P**	**17 04 22.4**	**-2.0**
IRK				pmax	pmax		
	comp=Z,20nm,1.7s,mb4.7						
TAPN	**Taplejung**	**31.48**	**284**	*e*P	**P**	**17 04 26.5**	**+1.3**
	comp=Z,45nm,0.7s,mb5.4						
ODAN	**Odare**	**31.78**	**283**	*e*P	**P**	**17 04 28.8**	**+0.9**
	comp=Z,44nm,0.7s,mb5.4						
MOY	**Mondy**	**32.15**	**335**	*e*P	**P**	**17 04 29.7**	**-1.1**
RAMN	**Ramite**	**32.48**	**283**	*e*P	**P**	**17 04 35.0**	**+0.9**
	comp=Z,49nm,0.9s,mb5.3						
JIRN	**Jiri**	**32.82**	**284**	*e*P	**P**	**17 04 38.0**	**+1.0**
	comp=Z,27nm,0.6s,mb5.3						
GUN	**Gumba**	**33.09**	**285**	*e*P	**P**	**17 04 40.3**	**+1.0**
	comp=Z,38nm,0.8s,mb5.4						
PKI	**Pulchoki**	**33.51**	**284**	*e*P	**P**	**17 04 43.4**	**+0.4**
PKI	**Pulchoki**	**33.51**	**284**	*e*P	**P**	**17 04 43.5**	**+0.5**
PKI				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
PKI	**Pulchoki**	**33.51**	**284**	*e*P	**P**	**17 04 43.5**	**+0.5**
	comp=Z,15nm,0.6s,mb5.1						
PKIN	**Phulchoki**	**33.52**	**284**	*e*P	**P**	**17 04 43.5**	**+0.4**
	comp=Z,15nm,0.6s,mb5.1						
KKN	**Kakani**	**33.62**	**284**	*e*P	**P**	**17 04 44.4**	**+0.4**
	comp=Z,29nm,0.7s,mb5.3						
KKN	**Kakani**	**33.62**	**284**	*e*P	**P**	**17 04 44.4**	**+0.4**
KKN				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.3						
DMN	**Daman**	**33.78**	**284**	*e*P	**P**	**17 04 45.7**	**+0.3**
	comp=Z,44nm,0.9s,mb5.4						
GKN	**Gorkha**	**34.18**	**285**	*e*P	**P**	**17 04 49.0**	**+0.2**
	comp=Z,58nm,1.0s,mb5.5						
WMQ	**Urumqi**	**34.64**	**313**	⇓*i*P	**P**	**17 04 53.3**	**+0.7**
WMQ				pP	pP	17 05 03.0	-0.5
WMQ				sP	sP	17 05 07.0	-1.2
WMQ				PP	PP	17 06 09.0	-2.5
WMQ				PcP	PcP	17 07 28.0	+1.8
WMQ				*e*S	**S**	**17 10 20.0**	**+0.5**
WMQ				sS	sS	17 10 39.0	+1.4
WMQ				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
WMQ				pmax	pmax		
	comp=Z,160nm,4.4s						
WMQ				LR	LR		
	comp=N,720nm,10.8s,MS4.8						
WMQ				LR	LR		
	comp=E,800nm,14.6s,MS4.8						
WMQ				LR	LR		
	comp=Z,660nm,14.0s,MS4.5						
DANN	**Dangsing**	**34.94**	**286**	*e*P	**P**	**17 04 56.0**	**+0.6**
	comp=Z,34nm,0.7s,mb5.4						
KOLN	**Koldanda**	**35.11**	**285**	*e*P	**P**	**17 04 57.3**	**+0.5**
	comp=Z,47nm,1.0s,mb5.4						
YAK	**Yakutsk**	**38.29**	**5**	*e*P	**P**	**17 05 20.0**	**-3.4**
YAK				*e**PP	pP	17 05 33.9	-0.5
YAK				*e*		17 07 34.9	
YAK				*e*S	**S**	**17 11 14.7**	**0.0**
YAK				*e*		17 15 27.7	
YAK				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.2						
YAK				pmax	pmax		
	comp=N,17nm,1.0s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
YAK				smax			
	comp=N,173nm,4.6s						
YAK				MLR	MLR		
	comp=Z,487nm,15.0s,MS4.4						
YAK				MLR	MLR		
	comp=N,413nm,16.0s						
YAK	**Yakutsk**	**38.29**	**5**	*e*P	**P**	**17 05 20.9**	**-2.6**
	comp=N,49nm,0.8s,mb5.3						
MK31	**Makanchi Array**	**39.29**	**316**	*e*P	**P**	**17 05 31.5**	**-0.6**
MK31				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.0						
MKAR	**Makanchi Array**	**39.29**	**316**	P	**P**	**17 05 31.7**	**-0.4**
MKAR						17 07 39.3	
MKAR						17 11 26.4	
MKAR	**Makanchi Array**	**39.29**	**316**	P	**P**	**17 05 31.7**	**-0.4**
	comp=Z,26nm,0.6s,mb5.1,baz=100,slow=10,SNR=451						
MKAR				PcP	PcP	17 07 39.3	-1.0
	comp=Z,5.3nm,0.8s,baz=91,slow=4.9,SNR=5.7						
MKAR				ScP	ScP	17 11 26.4	+0.5
	comp=Z,1.0nm,0.9s,baz=100,slow=5.4,SNR=7.1						
MKAR				LR	LR	17 23 07.9	
	comp=Z,661nm,18.2s,MS4.5,baz=138,slow=38						
PETK	**Petropavlovsk-**	**39.31**	**33**	P	**P**	**17 05 29.9**	**-2.3**
	comp=Z,2.0nm,0.7s,mb4.0,baz=209,slow=7.0,SNR=5.2						
PET	**Petropavlovsk**	**39.75**	**34**	*e*P	**P**	**17 05 33.6**	**-2.2**
PET				pmax	pmax		
	comp=Z,56nm,1.4s,mb5.1						
PET				MLR	MLR		
	comp=Z,300nm,20.0s,MS4.1						
NDI	**New Delhi**	**40.67**	**287**	*e*x	x	17 05 42.0	
SDNR	**Sundarnagar**	**40.75**	**291**	*e*x	x	17 05 40.4	
ZAA0	**Zalesovo Array**	**41.03**	**327**	*e*P	**P**	**17 05 44.0**	**-2.4**
ZALV	**Zalesovo Beam**	**41.03**	**327**	P	**P**	**17 05 44.3**	**-2.1**
ZALV						17 07 44.2	
ZALV	**Zalesovo Beam**	**41.03**	**327**	P	**P**	**17 05 44.3**	**-2.1**
	comp=Z,24nm,0.7s,mb4.9,baz=111,slow=8.1,SNR=104						
ZALV				PcP	PcP	17 07 44.2	-1.5
	comp=Z,6.7nm,0.6s,baz=112,slow=3.8,SNR=7.7						
ZALV				LR	LR	17 24 57.4	
	comp=Z,130nm,19.6s,MS3.8,baz=331,slow=39						
ZALV	**Zalesovo Beam**	**41.03**	**327**	P	**P**	**17 05 44.3**	**-2.1**
ZALV				PcP	PcP	17 07 44.2	-1.5
ZALV				LR	LR	17 24 57.4	
MDRS	**Chennai**	**41.39**	**262**	*e*x	x	17 06 10.2	
MDRS				*e*x	x	17 09 06.2	
HYB	**Hyderabad**	**41.52**	**269**	*i* P	**P**	**17 05 51.0**	**+0.2**
HYB	**Hyderabad**	**41.52**	**269**	*e*P	**P**	**17 05 51.0**	**+0.2**
FITZ	**Fitzroy Crossi**	**41.99**	**176**	*e*P	**P**	**17 05 53.2**	**-1.4**
	comp=Z,12nm,1.5s,mb4.3						
FITZ	**Fitzroy Crossi**	**41.99**	**176**	P	**P**	**17 05 53.5**	**-1.1**
	comp=Z,4.9nm,0.9s,mb4.2,baz=8.1,slow=8.5,SNR=3.2						
KSH	**Kashi**	**42.00**	**303**	⇑*i*P	**P**	**17 05 58.3**	**+3.7**
KSH				pP	pP	17 06 08.0	+2.4
KSH				sP	sP	17 06 12.0	+1.7
KSH				*e*PP	PP	17 07 39.0	+6.9
KSH				*e*PcP	PcP	17 07 52.3	+3.1
KSH				*e*ScP	ScP	17 11 39.0	+2.3
KSH				*e*PcS	PcS	17 11 43.3	+2.5
KSH				*e*S	**S**	**17 12 16.0**	**+5.2**
KSH				*e*sS	sS	17 12 32.0	+2.8
KSH				SS	SS	17 15 18.3	-0.4
KSH				*e*ScS	ScS	17 15 55.0	+1.0
KSH				pmax	pmax		
	comp=Z,52nm,0.5s,mb5.4						
KSH				pmax	pmax		
	comp=Z,90nm,3.5s						
KSH				LR	LR		
	comp=N,530nm,7.4s						
KSH				LR	LR		
	comp=E,2µm,15.9s						
KSH				LR	LR		
	comp=Z,2µm,14.9s,MS5.1						
ULHL	**Ulahol**	**42.22**	**307**	P	**P**	**17 05 57.8**	**+1.5**
	SNR=8.1						
NVS	**Novosibirsk**	**42.29**	**327**	*e*P	**P**	**17 05 54.1**	**-2.5**
NVS				*e*		17 07 47.5	
NVS				pmax	pmax		
	comp=Z,21nm,1.5s,mb4.5						
NVS				pmax	pmax		
	comp=N,24nm,1.9s						
NVS				pmax	pmax		
	comp=E,15nm,1.3s						
TKM2	**Tokmak 2**	**42.81**	**308**	⇑*i*P	**P**	**17 06 02.3**	**+1.2**
TKM2				pmax	pmax		
	comp=Z,91nm,0.9s,mb5.5						
TKM2	**Tokmak 2**	**42.81**	**308**	P	**P**	**17 06 02.5**	**+1.4**
	SNR=75						
TKM2	**Tokmak 2**	**42.81**	**308**	⇑*i*P	**P**	**17 06 02.2**	**+1.1**
	comp=Z,91nm,0.9s,mb5.5						
COEN	**Coen**	**42.82**	**150**	*e*P	**P**	**17 06 01.7**	**+0.3**
	comp=Z,255nm,0.9s,mb6.0						
KZA	**Kyzart**	**42.92**	**307**	P	**P**	**17 06 04.0**	**+2.0**
	SNR=47						
KURK	**Kurchatov**	**42.99**	**320**	P	**P**	**17 06 01.5**	**-0.9**
	comp=Z,206nm,1.0s,mb5.8,SNR=32						
KURK	**Kurchatov**	**42.99**	**320**	*e*P	**P**	**17 06 01.4**	**-1.0**
KURK				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.0						
KURK	**Kurchatov**	**42.99**	**320**	*e*P	**P**	**17 06 01.4**	**-1.0**
	comp=Z,32nm,1.0s,mb5.0						
KURK	**Kurchatov**	**42.99**	**320**	P	**P**	**17 06 01.7**	**-0.7**
	SNR=13						
KURK				P		17 06 01.7	
	SNR=13						
KBK	**Karagaybulak**	**43.24**	**307**	P	**P**	**17 06 06.0**	**+1.4**
	SNR=58						
CHMS	**Chumysh**	**43.44**	**308**	P	**P**	**17 06 06.9**	**+0.7**
	SNR=36						
UCH	**Uchtor**	**43.48**	**307**	P	**P**	**17 06 08.7**	**+2.1**
	SNR=125						
UCH	**Uchtor**	**43.48**	**307**	⇑*i*P	**P**	**17 06 08.5**	**+2.0**
	comp=Z,121nm,1.1s,mb5.5						
AAK	**Ala-Archa**	**43.56**	**307**	*e*P	**P**	**17 06 08.1**	**+0.9**
AAK				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.0						
AAK	**Ala-Archa**	**43.56**	**307**	P	**P**	**17 06 08.3**	**+1.1**
	SNR=28						
AAK	**Ala-Archa**	**43.56**	**307**	*e*P	**P**	**17 06 08.1**	**+1.0**
	comp=Z,37nm,1.1s,mb5.0						
AAK	**Ala-Archa**	**43.56**	**307**	⇑P	**P**	**17 06 08.4**	**+1.2**
	SNR=12						
AAK				⇑P		17 06 08.4	
	SNR=12						
USP	**Ospenovka**	**43.67**	**308**	P	**P**	**17 06 08.4**	**+0.4**
	SNR=22						
SEY	**Seymchan**	**43.70**	**19**	⇓*e*P	**P**	**17 06 06.7**	**-1.3**
AML	**Almayashu**	**44.07**	**306**	P	**P**	**17 06 13.1**	**+1.8**
	SNR=102						
EKS2	**Erkin-Say**	**44.09**	**307**	P	**P**	**17 06 12.4**	**+1.0**
	SNR=32						
EKS2	**Erkin-Say**	**44.09**	**307**	⇑*i*P	**P**	**17 06 12.2**	**+0.8**
	comp=Z,27nm,0.9s,mb5.0						
MBWA	**Marble Bar**	**45.01**	**184**	*e*P	**P**	**17 06 18.7**	**-0.1**
	comp=Z,5.4nm,0.7s,mb4.5						
WRAB	**Tennant Creek**	**45.20**	**164**	P	**P**	**17 06 20.0**	**-0.4**
	comp=Z,212nm,0.9s,mb6.0,SNR=12						
WRAB	**Tennant Creek**	**45.20**	**164**	*e*P	**P**	**17 06 19.7**	**-0.7**
WRAB				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.2						
WRAB	**Tennant Creek**	**45.20**	**164**	*e*P	**P**	**17 06 19.7**	**-0.6**
	comp=Z,45nm,1.1s,mb5.2						
WRA	**Warramunga Arr**	**45.21**	**164**	P	**P**	**17 06 20.3**	**-0.1**
	comp=Z,23nm,0.9s,mb5.0,baz=346,slow=8.7,SNR=82						
WB2	**Warramunga Arr**	**45.21**	**164**	*e*P	**P**	**17 06 20.2**	**-0.2**
KK31	**Karatay Array**	**46.53**	**307**	*i* P	**P**	**17 06 31.3**	**+0.6**
KK31				pmax	pmax		
	comp=Z,13nm,0.5s,mb5.1						
TIXI	**Tiksi**	**47.78**	**3**	*e*P	**P**	**17 06 37.0**	**-3.0**
TIXI				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
TIXI	**Tiksi**	**47.78**	**3**	*e*P	**P**	**17 06 37.0**	**-3.0**
	comp=Z,13nm,0.8s,mb5.0						
VOSK	**Vostochnaya**	**48.13**	**320**	P	**P**	**17 06 41.1**	**-1.9**
VOSK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
BVA0	**Borovoye Array**	**48.56**	**320**	*i* P	**P**	**17 06 45.1**	**-1.2**
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BRVK	**Borovoye**	**48.63**	**321**	P	**P**	**17 06 46.8**	**-0.1**
	comp=Z,121nm,0.6s,mb6.1,SNR=17						
BRVK	**Borovoye**	**48.63**	**321**	*e*P	**P**	**17 06 46.1**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
BRVK	**Borovoye**	**48.63**	**321**	*e*P	**P**	**17 06 46.1**	**-0.7**
	comp=Z,19nm,1.0s,mb5.1						
BRVK	**Borovoye**	**48.63**	**321**	P	**P**	**17 06 46.5**	**-0.3**
	SNR=7.1						
BRVK				P		17 06 46.5	
	SNR=7.1						
ASAR	**Alice Springs**	**48.69**	**166**	P	**P**	**17 06 48.0**	**+0.4**
	comp=Z,12nm,0.6s,mb5.1,baz=349,slow=8.8,SNR=168						
ASAR				pP	pP	17 06 60.0	+1.1
	comp=Z,6.6nm,0.5s,baz=345,slow=7.3,SNR=8.9						
CTA	**Charters Tower**	**49.58**	**150**	P	**P**	**17 06 54.8**	**+0.3**
CTA				*PP	pP	17 07 07.2	+1.4
CTA	**Charters Tower**	**49.58**	**150**	*e*P	**P**	**17 06 55.6**	**+1.1**
	comp=Z,7.5nm,0.9s,mb4.7						
CTA				*e*	pP	17 07 06.9	+1.1
CTA	**Charters Tower**	**49.58**	**150**	P	**P**	**17 06 54.8**	**+0.3**
	comp=Z,14nm,1.0s,mb4.9,baz=338,slow=9.7,SNR=3.6						
CTA				pP	pP	17 07 07.2	+1.4
	comp=Z,13nm,1.0s,baz=334,slow=12,SNR=3.6						
CTA				LR	LR	17 25 24.2	
	comp=Z,436nm,19.8s,MS4.5,baz=21,slow=33						
CTA	**Charters Tower**	**49.58**	**150**	P	**P**	**17 06 54.8**	**+0.3**
CTA				pP	pP	17 07 07.2	+1.4
CTA				LR	LR	17 25 24.2	
CTAO	**Charters Tower**	**49.58**	**150**	*e*P	**P**	**17 06 54.0**	**-0.5**
CTAO				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
CTAO	**Charters Tower**	**49.58**	**150**	*e*P	**P**	**17 06 54.0**	**-0.5**
	comp=Z,21nm,1.1s,mb5.1						
BILL	**Bilibino**	**51.41**	**19**	*e*P	**P**	**17 07 06.9**	**-0.8**
BILL				*e*		17 08 22.0	
BILL				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
BILL				MLR	MLR		
	comp=Z,700nm,21.0s,MS4.7						
AB31	**Akbulak array**	**54.41**	**314**	P	**P**	**17 07 29.6**	**-0.6**
AB31				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.3						
SVE	**Sverdlovsk**	**54.88**	**324**	⇓*e*P	**P**	**17 07 32.3**	**-1.1**
SVE				*e*		17 08 31.2	
SVE				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
SVE				MLR	MLR		
	comp=Z,898nm,14.0s,MS5.0						
AKTO	**Aktyubinsk**	**55.73**	**316**	P	**P**	**17 07 38.2**	**-1.5**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
ABKT	**Ailbek**	**55.92**	**301**	P	**P**	**17 07 42.0**	**+0.7**
	comp=Z,595nm,0.7s,SNR=41						
ARU	**Arti**	**55.96**	**323**	P	**P**	**17 07 40.1**	**-1.1**
	comp=Z,184nm,0.5s,mb6.4,SNR=8.0						
ARU	**Arti**	**55.96**	**323**	*d i*P	**P**	**17 07 40.0**	**-1.2**
ARU				*e*		17 08 36.0	
ARU				*e*		17 09 42.1	
ARU				S	**S**	**17 15 26.9**	**+0.6**
ARU				SS	SS	17 19 09.0	-3.3
ARU				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.2						
ARU				MLR	MLR		
	comp=Z,489nm,21.0s,MS4.6						
ARU	**Arti**	**55.96**	**323**	*e*P	**P**	**17 07 38.7**	**-2.5**
	comp=Z,18nm,0.6s,mb5.3						
STKA	**Stephens Creek**	**58.52**	**161**	*e*P	**P**	**17 08 00.1**	**+0.6**
	comp=Z,3.5nm,0.6s,mb4.6						
STKA				*e*	pP	17 08 12.2	+1.2
STKA	**Stephens Creek**	**58.52**	**161**	P	**P**	**17 07 59.9**	**+0.4**
	comp=Z,4.7nm,0.5s,mb4.8,baz=341,slow=4.8,SNR=16						
STKA				pP	pP	17 08 12.3	+1.4
	comp=Z,5.8nm,0.7s,baz=338,slow=9.3,SNR=9.3						
STKA				LR	LR	17 33 45.5	
	comp=Z,174nm,19.3s,MS4.2,baz=24,slow=36						
STKA	**Stephens Creek**	**58.52**	**161**	P	**P**	**17 07 59.9**	**+0.4**
STKA				pP	pP	17 08 12.3	+1.4
STKA				LR	LR	17 33 45.5	
HOQ	**Hoqain**	**59.14**	**284**	P	**P**	**17 08 05.3**	**+1.1**
	SNR=5.3						
PRGR	**Permogore**	**62.94**	**329**	*e*P	**P**	**17 08 26.8**	**-2.5**
PRGR				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.3						
MAK	**Makhachkala**	**63.34**	**307**	*e*P	**P**	**17 08 25.3**	**-7.0**
RBK	**Rabkut**	**63.67**	**278**	P	**P**	**17 08 35.1**	**+0.2**
	SNR=5.8						
SVW2	**Sparrevohn**	**65.38**	**32**	*e*P	**P**	**17 08 46.0**	**+0.7**
IMA2	**Indian Mountai**	**65.79**	**26**	*e*P	**P**	**17 08 47.0**	**-0.9**
GNI	**Garni**	**65.89**	**305**	*c i*P	**P**	**17 08 50.0**	**+1.0**
GNI				pmax	pmax		
	comp=Z,32nm,1.3s						
GNI				MLR	MLR		
	comp=Z,100nm,16.0s						
GNI	**Garni**	**65.89**	**305**	*e*P	**P**	**17 08 49.9**	**+1.0**
	comp=Z,23nm,1.0s,mb5.2						
GNI	**Garni**	**65.89**	**305**	⇓P	**P**	**17 08 50.0**	**+1.0**
	SNR=5.8						
GNI				⇓P		17 08 50.0	
	SNR=5.8						
UMR	**Umm Al-Rimmam**	**65.95**	**293**	*e*P	**P**	**17 08 48.8**	**-0.7**
KBD	**Kabd**	**66.06**	**293**	*e*P	**P**	**17 08 49.8**	**-0.5**
KBD				AMb	AMB	17 08 51.3	
	comp=Z,44nm,0.9s,mb5.5						
MIB	**Mutribah**	**66.20**	**293**	*e*P	**P**	**17 08 50.5**	**-0.6**
MIB				AMb	AMB	17 08 52.5	
	comp=Z,94nm,0.9s,mb5.8						
RDF	**Al-Radifah**	**66.25**	**292**	*e*P	**P**	**17 08 50.9**	**-0.5**
RDF				AMb	AMB	17 08 52.9	
	comp=Z,147nm,1.1s,mb5.9						
ONI	**Oni**	**66.35**	**308**	P	**P**	**17 08 52.5**	**+0.6**
NAY	**Al-Naaiem**	**66.42**	**293**	*e*P	**P**	**17 08 52.1**	**-0.5**
NAY				AMb	AMB	17 08 53.9	
	comp=Z,51nm,0.9s,mb5.6						
KIV	**Kislovodsk**	**66.63**	**309**	P	**P**	**17 08 54.8**	**+1.2**
	comp=Z,234nm,1.4s,mb6.0,SNR=8.0						
KIV	**Kislovodsk**	**66.63**	**309**	*c i*P	**P**	**17 08 53.8**	**+0.2**
KIV				*e*		17 11 18.6	
KIV				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.4						
KIV				MLR	MLR		
	comp=Z,200nm,20.0s,MS4.3						
KIV	**Kislovodsk**	**66.63**	**309**	*e*P	**P**	**17 08 54.1**	**+0.5**
	comp=Z,34nm,0.9s,mb5.4						
KIV	**Kislovodsk**	**66.63**	**309**	P	**P**	**17 08 54.4**	**+0.8**
	SNR=9.0						
KIV				P		17 08 54.4	
	SNR=9.0						
BPAW	**Bear Paw Mtn.**	**67.14**	**28**	*e*P	**P**	**17 08 56.0**	**-0.5**
	comp=Z,3.7nm,0.5s,mb4.7						
KTH	**Kantishna Hill**	**67.25**	**29**	*e*P	**P**	**17 08 56.9**	**-0.3**
	comp=Z,4.8nm,0.8s,mb4.6						
KDAK	**Kodiak Island**	**67.32**	**35**	P	**P**	**17 08 57.0**	**-0.7**
	comp=Z,5.3nm,0.6s,mb4.8,baz=353,slow=11,SNR=7.6						
VORD	**Divnogorie**	**67.54**	**317**	*e*P	**P**	**17 08 58.3**	**-1.0**
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
TRF	**Thorofare Moun**	**67.55**	**29**	*e*P	**P**	**17 08 59.2**	**+0.1**
	comp=E,24nm,1.3s,mb5.1						
VSR	**Storozhevoye**	**67.58**	**317**	*e*P	**P**	**17 08 58.5**	**-1.0**
VSR				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
VSR				pmax	pmax		

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       comp=N,10.0nm,1.3s
VSR                                pmax   pmax
       comp=E,10.0nm,1.1s
APA    Apatity           67.70 335⇑eP     P      17 08 58.0 -2.0
APA                                pmax   pmax
       comp=Z,30nm,1.3s,mb5.2
APA                                MLR    MLR
       comp=Z,1µm,18.0s,MS5.1
MCK    McKinley          68.10  29 eP     P      17 09 01.0 -1.5
MCK                                pmax   pmax
       comp=Z,19nm,1.4s,mb4.9
MCK    McKinley          68.10  29 eP     P      17 09 01.0 -1.6
       comp=Z,20nm,1.4s,mb4.9
COLA   College           68.36  27 eP     P      17 09 00.8 -3.4
COLA                               pmax   pmax
       comp=Z,6.0nm,1.0s,mb4.6
COLA   College           68.36  27 eP     P      17 09 00.8 -3.4
       comp=Z,6.3nm,1.0s,mb4.6
OBN    Obninsk           68.37 322 eP     P      17 09 03.8 -0.6
OBN                                e             17 09 29.0
OBN                                eSS    SS     17 22 27.5 +1.4
OBN                                pmax   pmax
       comp=Z,6.0nm,0.9s,mb4.6
OBN                                MLR    MLR
       comp=Z,500nm,20.0s,MS4.7
PMR    Palmer            68.39  31 eP     P      17 09 02.6 -1.8
PMR                                pmax   pmax
       comp=Z,8.0nm,0.8s,mb4.8
PMR    Palmer            68.39  31 eP     P      17 09 02.6 -1.8
       comp=Z,8.3nm,0.8s,mb4.8
SOC    Sochi             68.81 309 eP     P      17 09 05.6 -1.8
SOC                                e             17 09 31.0
SOC                                e             17 11 40.2
SOC                                eS     S      17 18 07.6 -0.8
SOC                                e             17 19 00.0
SOC                                eSS    SS     17 22 27.2 -6.2
SOC                                pmax   pmax
       comp=Z,31nm,0.9s,mb5.2
SOC                                MLR    MLR
       comp=Z,143nm,13.0s,MS4.4
JOF    Joensuu           69.43 331 ep     P      17 09 08.7 -2.2
       comp=Z,11nm,0.5s,mb5.0
KEV    Kevo              69.56 338 eP     P      17 09 09.3 -2.3
KEV                                pmax   pmax
       comp=Z,8.0nm,0.7s,mb4.8
KEV    Kevo              69.56 338 ep     P      17 09 09.3 -2.3
       comp=Z,8.0nm,0.7s,mb4.8
SPB4   Spitsbergen Ar    69.89 348 eP     P      17 09 12.1 -1.4
ANN    Anapa             70.11 311 eP     P      17 09 12.9 -2.5
ANN                                e*PP   pP     17 09 18.0 -9.1
ANN                                e             17 11 47.4
ANN                                eS     S      17 18 21.6 -2.1
ANN                                pmax   pmax
       comp=Z,66nm,1.2s,mb5.4
ARCES  ARCESS Array B    70.13 338 P      P      17 09 12.9 -2.2
       comp=Z,11nm,1.1s,mb4.7,baz=67,slow=9.3,SNR=8.5
ARCES                              LR     LR     17 45 04.6
       comp=Z,278nm,19.5s,MS4.5,baz=289,slow=40
MALT   Malatya           71.09 304⇑iP     P      17 09 22.4 +0.9
MALT                               pmax   pmax
       comp=Z,47nm,0.8s,mb5.5
MALT   Malatya           71.09 304⇓iP     P      17 09 22.6 +1.1
MALT   Malatya           71.09 304⇑iP     P      17 09 22.4 +0.9
       comp=Z,46nm,0.8s,mb5.5
EGAK   Eagle             71.17  27 eP     P      17 09 20.4 -1.0
       comp=Z,8.2nm,1.0s,mb4.6
KAF    Kangasniemi       71.88 331 eP     P      17 09 23.6 -2.2
KAF                                pmax   pmax
       comp=Z,5.0nm,0.5s,mb4.7
KAF    Kangasniemi       71.88 331 ep     P      17 09 23.6 -2.2
       comp=Z,4.5nm,0.5s,mb4.7
DAWY   Dawson            72.11  27 eP     P      17 09 26.6 -0.6
FINES  FINESS Array B    72.19 330 P      P      17 09 26.4 -1.2
       comp=Z,7.2nm,0.5s,mb4.9,baz=54,slow=5.7,SNR=72
FINES                              LR     LR     17 44 39.4
       comp=Z,798nm,19.4s,MS5.0,baz=90,slow=39
INK    Inuvik            72.90  22 eP     P      17 09 30.2 -1.6
INK                                pmax   pmax
       comp=Z,7.0nm,0.8s
INK    Inuvik            72.90  22 eP     P      17 09 30.2 -1.6
       comp=Z,7.4nm,0.8s,mb4.7
AKASG  Malin Array Be    73.79 319 P      P      17 09 35.3 -2.0
       comp=Z,5.3nm,0.6s,mb4.7,baz=60,slow=5.5,SNR=13
AKASG                              LR     LR     17 45 13.8
       comp=Z,236nm,18.4s,MS4.5,baz=55,slow=38
AKASG  Malin Array Be    73.79 319 P      P      17 09 35.3 -2.0
AKASG                              LR     LR     17 45 13.8
NACGM  Naroch            73.87 323 e      P      17 09 34.0 -3.7
BRTR   Keskin Array B    74.24 307 P      P      17 09 39.7 -0.5
       comp=Z,19nm,0.9s,mb5.0
SKAG   Skagway           75.53  31 eP     P      17 09 47.7 +0.5
       comp=Z,20nm,1.1s,mb5.0
TLCR                     75.84 313⇑iP     P      17 09 49.5 +0.2
TLCR                     75.84 313 ⇑P     P      17 09 49.5 +0.2
CSS    Prodhromos        76.01 302 eP     P      17 09 50.2 -0.3
       comp=Z,85nm,1.0s,mb5.6
SUW    Suwalki           76.15 323 eP     P      17 09 50.3 -0.6
SUW    Suwalki           76.15 323 eP     P      17 09 50.3 -0.6
TIRR   Tirgusor          76.36 313⇓iP     P      17 09 51.9 -0.4
TIRR   Tirgusor          76.36 313 ⇓P     P      17 09 51.9 -0.4
HARR   Harsova           76.60 313⇓iP     P      17 09 53.5 -0.1
HARR   Harsova           76.60 313 ⇓P     P      17 09 53.5 -0.2
ISP    Isparta           77.17 306 eP     P      17 09 55.4 -1.6
ISP                                pmax   pmax
       comp=Z,63nm,1.4s,mb5.3
ISP    Isparta           77.17 306⇓iP     P      17 09 55.9 -1.1
ISP    Isparta           77.17 306 eP     P      17 09 55.4 -1.6
       comp=Z,63nm,1.4s,mb5.3
BUR08  Bucovina Ar. S    77.31 317 eP     P      17 09 57.2 -0.4
BURAR  Bucovina Array    77.31 317⇑iP     P      17 09 57.6  0.0
BURAR  Bucovina Array    77.31 317 ⇑P     P      17 09 57.6  0.0
MLR    Muntele Rosu      77.63 314⇑iP     P      17 09 58.9 -0.5
MLR    Muntele Rosu      77.63 314 ⇑P     P      17 09 58.9 -0.5
RAO    Raoul Island      78.00 130 LR     LR     17 38 13.4
       comp=Z,122nm,20.6s,MS4.2,baz=142,slow=31
DLBC   Dease Lake        78.45  31 eP     P      17 10 04.6 +0.9
RES    Resolute Bay      78.61   9 eP     P      17 10 02.5 -1.8
RES                                pmax   pmax
       comp=Z,3.0nm,0.8s,mb4.3
RES    Resolute Bay      78.61   9 eP     P      17 10 02.5 -1.8
       comp=Z,3.2nm,0.8s,mb4.3
KOLS   Kolonicke sedl    78.62 319 eP     P      17 10 04.1 -0.7
NB2    NORSAR Subarra    78.92 332 P      P      17 10 05.0 -1.2
       comp=Z,11nm,0.8s,mb4.8,baz=59,slow=5.6
NOA    NORSAR Array B    78.92 332 P      P      17 10 05.6 -0.6
       comp=Z,9.8nm,0.9s,mb4.7,baz=58,slow=5.5,SNR=16
NOA                                LR     LR     17 48 42.4
       comp=Z,641nm,18.0s,MS5.0,baz=240,slow=38
NOA    NORSAR Array B    78.92 332 P      P      17 10 05.6 -0.6
NOA                                LR     LR     17 48 42.4
STHS   Stebnicka Huta    79.05 319 eP     P      17 10 06.6 -0.5
STHS                               pmax   pmax
       comp=Z,3.0nm,1.2s,mb4.1
STHS   Stebnicka Huta    79.05 319 eP     P      17 10 06.6 -0.5
       comp=Z,3.4nm,1.2s,mb4.2
CRVS   Cervenica-Dubn    79.13 319 eP     P      17 10 07.2 -0.4
OJC    Ojcow             79.57 320 eP     P      17 10 10.0  0.0
KECS   Kecovo            79.89 319 eP     P      17 10 12.2 +0.5
KECS                               pmax   pmax
       comp=Z,7.0nm,1.7s,mb4.3
KECS   Kecovo            79.89 319 eP     P      17 10 12.2 +0.5
       comp=Z,6.7nm,1.7s,mb4.3
URZ    Urewera           80.37 139 LR     LR     17 40 19.3
       comp=Z,167nm,20.4s,MS4.4,baz=279,slow=32
PSZ    Piszkesteto       80.48 318 eP     P      17 10 13.8 -1.2
PSZ                                pmax   pmax
       comp=Z,10.0nm,1.2s,mb4.6
PSZ    Piszkesteto       80.48 318⇑iP     P      17 10 14.5 -0.5
PSZ    Piszkesteto       80.48 318 eP     P      17 10 13.8 -1.1
       comp=Z,9.6nm,1.2s,mb4.6
OKC    Ostrava-Krasne    80.69 321 eP     P      17 10 14.7 -1.3
VYHS   Vyhne             80.88 319 eP     P      17 10 17.3 +0.3
VYHS                               pmax   pmax
       comp=Z,8.0nm,1.1s,mb4.6
VYHS   Vyhne             80.88 319 eP     P      17 10 17.3 +0.3
       comp=Z,7.6nm,1.1s,mb4.5
MORC   Moravsky Berou    81.07 321 eP     P      17 10 17.3 -0.8
MORC                               pmax   pmax
       comp=Z,96nm,3.0s
MORC   Moravsky Berou    81.07 321 eP     P      17 10 17.3 -0.8
       comp=Z,96nm,3.0s
KOLL   Kolacno           81.10 319 eP     P      17 10 19.0 +0.8
KSP    Ksiaz             81.30 322 eP     P      17 10 19.5 +0.2
DPC    Dobruska-Polom    81.51 322 eP     P      17 10 20.6 +0.2
PKSM   Moragy            82.00 317⇓iP     P      17 10 22.2 -0.8
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PKSM   Moragy            82.00 317 ⇓P     P      17 10 22.2 -0.8
YKA    Yellowknife Ar    82.63  23 P      P      17 10 24.8 -1.2
       comp=Z,10nm,0.7s,mb5.0,baz=311,slow=5.0,SNR=203
YKA    Yellowknife Ar    82.63  23 P      P      17 10 24.8 -1.2
PRU    Pruhonice         82.69 322 eP     P      17 10 26.5 -0.1
SUMG   Summit            82.77 354 eP     P      17 10 25.6 -1.0
       comp=Z,261nm,3.0s
FBE    Freiberg          82.90 323 eP     P      17 10 27.9 +0.3
       comp=Z,9.0nm,0.8s,mb4.8
CLL    Collm             82.90 323 eP     P      17 10 27.0 -0.6
CLL                                MLR    MLR
       comp=Z,500nm,17.2s,MS5.0
BSEG   Bad Segeberg      82.97 327 eP     P      17 10 29.1 +1.2
       comp=Z,18nm,1.1s,mb5.0
KHC    Kasperske Hory    83.66 321 eP     P      17 10 31.3 -0.3
WERD   Werda             83.71 323 eP     P      17 10 32.4 +0.6
       comp=Z,4.0nm,0.9s,mb4.5
GEC2   GERESS Array S    83.73 321 eP     P      17 10 31.4 -0.5
GEC2                               pmax   pmax
       comp=Z,12nm,1.0s,mb5.0
GEC2   GERESS Array S    83.73 321 eP     P      17 10 31.4 -0.5
       comp=Z,12nm,1.0s,mb5.0
GERES  GERESS Array B    83.73 321 P      P      17 10 31.8 -0.2
       comp=Z,6.2nm,0.8s,mb4.8,baz=57,slow=4.9,SNR=33
GERES                              LR     LR     17 51 59.6
       comp=Z,275nm,19.4s,MS4.6,baz=285,slow=39
GUNZ   Gunzen            83.74 323 eP     P      17 10 32.7 +0.7
       comp=Z,8.0nm,0.8s,mb4.9
NKC    Novy Kostel       83.74 323 eP     P      17 10 31.9 -0.1
WERN   Wernitzgruen      83.76 323 eP     P      17 10 32.7 +0.6
       comp=Z,7.0nm,0.9s,mb4.8
PERS   Pernice           83.97 319 eP     P      17 10 32.5 -0.8
MOX    Moxa              83.99 323 eP     P      17 10 33.8 +0.5
MOX
       comp=Z,400nm,16.0s
MOX    Moxa              83.99 323 eP     P      17 10 33.7 +0.4
CLZ    Clausthal         84.04 325 eP     P      17 10 34.7 +1.2
CLZ                                pmax   pmax
       comp=Z,9.0nm,0.6s,mb5.1
CLZ    Clausthal         84.04 325 eP     P      17 10 34.7 +1.2
       comp=Z,9.0nm,0.6s,mb5.1
WET    Wettzell          84.05 322 eP     P      17 10 33.8 +0.2
WET                                pmax   pmax
       comp=Z,13nm,1.4s,mb4.9
WET    Wettzell          84.05 322 eP     P      17 10 33.8 +0.2
       comp=Z,13nm,1.4s,mb4.9
MANZ   Manzenberg        84.06 323 eP     P      17 10 34.4 +0.8
       comp=Z,8.0nm,1.0s,mb4.8
ROTZ   Rotzenmuhle       84.11 322 eP     P      17 10 34.8 +0.9
       comp=Z,6.0nm,0.9s,mb4.7
PDKS   Podkum            84.31 318 i P    P      17 10 34.1 -0.9
BOJS   Bojanci           84.43 318 eP     P      17 10 35.0 -0.6
GRA1   Grafenberg Arr    84.70 323 eP     P      17 10 37.4 +0.5
       comp=Z,9.0nm,0.9s,mb4.9
GRF    Grafenberg Arr    84.70 323 eP     P      17 10 37.4 +0.5
GRF                                pmax   pmax
       comp=Z,9.0nm,0.9s,mb4.9
GRF    Grafenberg Arr    84.70 323 eP     P      17 10 37.4 +0.5
GRF                                pmax   pmax
       comp=Z,9.0nm,0.9s,mb4.9
GRF    Grafenberg Arr    84.70 323 eP     P      17 10 37.4 +0.5
       comp=Z,9.0nm,0.9s,mb4.9
UBBA   Unterbreizbach    84.78 324 eP     P      17 10 37.4 +0.2
       comp=Z,4.0nm,0.7s,mb4.7
RJOB   Jochberg          84.80 320 eP     P      17 10 37.3 -0.1
       comp=Z,12nm,1.0s,mb5.0
CADS   Cadrg             85.00 319 eP     P      17 10 36.7 -1.8
FUR    Furstenfeldbru    85.46 321 eP     P      17 10 41.1 +0.4
FUR                                pmax   pmax
       comp=Z,50nm,1.1s,mb5.6
FUR    Furstenfeldbru    85.46 321 eP     P      17 10 41.1 +0.4
       comp=Z,50nm,1.1s,mb5.6
BUG    Bochum--Univer    85.88 325 eP     P      17 10 42.5 -0.2
       comp=Z,12nm,0.9s,mb5.1
KMBO   Kilima Mbogo      86.13 267 P      P      17 10 46.0 +1.3
       comp=Z,6.4nm,0.9s,mb4.8,baz=41,slow=7.5,SNR=12
KMBO   Kilima Mbogo      86.13 267 P      P      17 10 46.0 +1.3
TIP    Timpagrande       86.45 311 eP     P      17 10 45.5 -0.3
       comp=Z,22nm,1.3s,mb5.2
A05A   Maple Falls       87.33  37 ⇑P     P      17 10 50.2 +0.3
       baz=87
WLF    Walferdange       87.48 324 P      P      17 10 50.6 +0.1
WLF    Walferdange       87.48 324 eP     P      17 10 50.2 -0.4
       comp=Z,27nm,1.3s,mb5.3
CEL    Celeste           87.49 311 eP     P      17 10 50.9  0.0
       comp=Z,31nm,1.0s,mb5.5
CDF    Champ du Feu      87.58 323 eP     P      17 10 50.3 -0.8
       comp=Z,40nm,1.3s,mb5.2
CDF    Champ du Feu      87.58 323 eP     P      17 10 50.3 -0.8
CDF                                pmax   pmax
       comp=Z,20nm,1.3s,mb5.2
CDF    Champ du Feu      87.58 323 eP     P      17 10 50.3 -0.8
       comp=Z,20nm,1.3s,mb5.2
E03A   Lebam             87.87  39 ⇓P     P      17 10 53.1 +0.6
       baz=88
JCW    Jim Creek         87.87  37 eP     P      17 10 53.2 +0.7
GIVF   Givet             87.92 325 eP     P      17 10 51.9 -0.8
B06A   Marblemount       87.93  37 ⇑P     P      17 10 53.0 +0.2
       baz=88,SNR=6.1
RAR    Rarotonga         87.94 114 LR     LR     17 43 50.0
       comp=Z,200nm,20.4s,MS4.5,baz=290,slow=31
RAR    Rarotonga         87.94 114 ePP    PP     17 14 25.6 +5.5
RPW    Rockport          87.96  37 P      P      17 10 53.3 +0.4
DOU    Dourbes           88.05 325 P      P      17 10 52.7 -0.5
HINF   Hinteralfeld      88.15 323 eP     P      17 10 52.6 -1.2
       comp=Z,9.3nm,0.8s,mb4.8
HINF   Hinteralfeld      88.15 323 eP     P      17 10 52.6 -1.2
HINF                               pmax   pmax
       comp=Z,5.0nm,0.8s,mb4.8
HINF   Hinteralfeld      88.15 323 eP     P      17 10 52.6 -1.2
       comp=Z,4.7nm,0.8s,mb4.8
HTW    Haystack Looko    88.18  37 P      P      17 10 54.6 +0.7
F03A   Seaside           88.21  40 ⇑P     P      17 10 54.7 +0.6
       baz=88
A07A   Ashnola River,    88.22  36 ⇓P     P      17 10 54.2 +0.1
       baz=88,SNR=6.4
BAIF   Baives            88.27 325 eP     P      17 10 53.4 -0.9
HAU    Haudompre         88.32 323 eP     P      17 10 53.4 -1.2
       comp=Z,16nm,1.1s,mb4.9
HAU                                eMLR   MLR
       comp=Z,134nm,19.8s,MS4.1
HAU    Haudompre         88.32 323 eP     P      17 10 53.4 -1.2
HAU                                pmax   pmax
       comp=Z,8.0nm,1.0s,mb4.9
HAU                                MLR    MLR
       comp=Z,130nm,19.8s,MS4.3
HAU    Haudompre         88.32 323 eP     P      17 10 53.4 -1.2
       comp=Z,7.9nm,1.0s,mb4.9
HAU                                LR     LR
       comp=Z,130nm,19.8s,MS4.3
D05A   Enumclaw          88.41  38 ⇑P     P      17 10 55.6 +0.6
       baz=88
C06A   Tall Timber Ra    88.60  37 ⇑P     P      17 10 56.4 +0.4
       baz=88
B07A   Winthrop          88.71  36 ⇓P     P      17 10 56.8 +0.3
       baz=88,SNR=10
MEZF   Maizieres J’vi    88.74 324 eP     P      17 10 54.8 -1.8
F04A   Amboy             88.87  39 ⇓P     P      17 10 57.7 +0.4
       baz=89
D06A   Cle Elum          89.04  38 ⇓P     P      17 10 58.4 +0.3
       baz=89
ETW    Entiat            89.09  37 eP     P      17 10 58.7 +0.4
C07A   Waterville        89.19  37 ⇑P     P      17 10 58.9 +0.2
       baz=89,SNR=11
B08A   Colville Reser    89.19  36 ⇑P     P      17 10 59.2 +0.4
       baz=89,SNR=23
A09A   Danville          89.22  35 ⇑P     P      17 10 59.3 +0.4
       baz=89,SNR=17
WTV    Waterville        89.24  37 P      P      17 10 59.4 +0.4
CABF   La Chapelle       89.26 322 eP     P      17 10 58.0 -1.1
E06A   Yakima            89.34  38 ⇑P     P      17 11 00.0 +0.6
       baz=89,SNR=10
LPG    La Plagne         89.52 321 eP     P      17 11 00.1 -0.2
       comp=Z,19nm,0.8s,mb5.2
LPG    La Plagne         89.52 321 eP     P      17 11 00.1 -0.2
LPG                                pmax   pmax
       comp=Z,10.0nm,0.8s,mb5.2
LPG    La Plagne         89.52 321 eP     P      17 11 00.1 -0.2
       comp=Z,9.6nm,0.8s,mb5.2
LPL    La Plagne         89.52 321 eP     P      17 10 59.9 -0.4
       comp=Z,22nm,0.8s,mb5.2
LPL    La Plagne         89.52 321 eP     P      17 10 59.9 -0.4
LPL                                pmax   pmax
       comp=Z,11nm,0.8s,mb5.2
LPL    La Plagne         89.52 321 eP     P      17 10 59.9 -0.4
       comp=Z,11nm,0.8s,mb5.2
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D07A   Quincy            89.53  37 ⇓P     P      17 11 00.5 +0.2
       baz=89,SNR=7.0
C08A   Higginbotham F    89.69  36 ⇓P     P      17 11 01.6 +0.6
       baz=89,SNR=13
H04A   Detroit Lake      89.70  40 ⇑P     P      17 11 01.7 +0.5
       baz=89
A10A   Northport         89.76  35 ⇑P     P      17 11 01.8 +0.4
       baz=89,SNR=12
B09A   Rice              89.79  36 ⇑P     P      17 11 02.2 +0.7
       baz=90,SNR=10.0
PGF    Pioggiola         89.81 317 eP     P      17 11 01.2 -0.6
       comp=Z,45nm,1.1s,mb5.4
PGF    Pioggiola         89.81 317 eP     P      17 11 01.2 -0.6
PGF                                pmax   pmax
       comp=Z,23nm,1.1s,mb5.4
PGF    Pioggiola         89.81 317 eP     P      17 11 01.2 -0.6
       comp=Z,23nm,1.1s,mb5.4
BNI    Bardonecchia      89.81 320 eP     P      17 11 01.4 -0.3
BNI                                pmax   pmax
       comp=Z,11nm,1.0s,mb5.1
BNI    Bardonecchia      89.81 320 eP     P      17 11 01.4 -0.3
       comp=Z,11nm,1.0s,mb5.2
G05A   Wamic             89.90  39 ⇓P     P      17 11 02.7 +0.7
       baz=90
F06A   Goldendale        89.90  39 ⇑P     P      17 11 02.9 +0.8
       baz=90
MBDF   Montbardon        89.94 320 eP     P      17 11 02.0 -0.3
       comp=Z,8.0nm,0.8s,mb4.8
MBDF   Montbardon        89.94 320 eP     P      17 11 02.0 -0.3
MBDF                               pmax   pmax
       comp=Z,4.0nm,0.8s,mb4.8
MBDF   Montbardon        89.94 320 eP     P      17 11 02.0 -0.3
       comp=Z,4.0nm,0.8s,mb4.8
E07A   Sunnyside         89.97  38 ⇓P     P      17 11 03.2 +0.8
       baz=90,SNR=9.0
SBF    Sospel            90.04 319 eP     P      17 11 01.5 -1.3
       comp=Z,34nm,0.8s,mb5.4
SBF    Sospel            90.04 319 eP     P      17 11 01.5 -1.3
SBF                                pmax   pmax
       comp=Z,17nm,0.8s,mb5.4
SBF    Sospel            90.04 319 eP     P      17 11 01.5 -1.3
       comp=Z,17nm,0.8s,mb5.4
C09A   Chrisman Ranch    90.09  36 ⇑P     P      17 11 03.4 +0.4
       baz=90,SNR=8.8
OD2    Odessa Site #2    90.10  37 P      P      17 11 03.5 +0.4
LOR    Lormes            90.12 323 eP     P      17 11 01.9 -1.2
       comp=Z,27nm,1.2s,mb5.2
LOR                                eMLR   MLR
       comp=Z,453nm,17.5s,MS4.7
LOR    Lormes            90.12 323 eP     P      17 11 01.9 -1.2
LOR                                pmax   pmax
       comp=Z,14nm,1.2s,mb5.2
LOR                                MLR    MLR
       comp=Z,450nm,17.5s,MS5.0
LOR    Lormes            90.12 323 eP     P      17 11 01.9 -1.2
       comp=Z,14nm,1.2s,mb5.2
LOR                                LR     LR
       comp=Z,450nm,17.5s,MS5.0
D08A   Wollman Farm,     90.19  37 ⇑P     P      17 11 03.8 +0.4
       baz=90,SNR=13
RSW    Rattlesnake Hi    90.21  38 eP     P      17 11 04.2 +0.7
HAWA   Hanford           90.24  38 eP     P      17 11 02.5 -1.1
       comp=Z,21nm,1.1s,mb5.4
G06A   Carlson Farm,     90.29  39 ⇓P     P      17 11 04.7 +0.8
       baz=90,SNR=7.1
F07A   Phinny Hill Vi    90.31  38 ⇓P     P      17 11 05.0 +1.0
       baz=90
B10A   Chitwood Farm,    90.35  35 ⇓P     P      17 11 04.9 +0.8
       baz=90
ORIF   Oris-en-Rattie    90.36 321 eP     P      17 11 03.5 -0.7
       comp=Z,12nm,0.9s,mb4.9
ORIF                               eMLR   MLR
       comp=Z,341nm,18.5s,MS4.5
ORIF   Oris-en-Rattie    90.36 321 eP     P      17 11 03.5 -0.7
ORIF                               pmax   pmax
       comp=Z,6.0nm,0.9s,mb4.9
ORIF   Oris-en-Rattie    90.36 321 eP     P      17 11 03.5 -0.7
       comp=Z,5.8nm,0.9s,mb4.9
A11A   Hall Mountain,    90.39  34 ⇑P     P      17 11 05.5 +1.2
       baz=90,SNR=15
NEW    Newport           90.42  35 eP     P      17 11 05.0 +0.5
NEW                                pmax   pmax
       comp=Z,22nm,0.8s
NEW    Newport           90.42  35 eP     P      17 11 05.0 +0.5
       comp=Z,22nm,0.8s,mb5.5
SSF    Saint Saulge      90.43 323 eP     P      17 11 03.4 -1.1
       comp=Z,18nm,1.1s,mb5.0
SSF    Saint Saulge      90.43 323 eP     P      17 11 03.4 -1.1
SSF                                pmax   pmax
       comp=Z,9.0nm,1.1s,mb5.0
SSF    Saint Saulge      90.43 323 eP     P      17 11 03.4 -1.1
       comp=Z,9.0nm,1.1s,mb5.0
E08A   Dider Farm, El    90.45  37 ⇓P     P      17 11 05.4 +0.8
       baz=90
SMF    Signal de Mont    90.50 323 eP     P      17 11 03.8 -1.1
       comp=Z,67nm,1.2s,mb5.5
SMF    Signal de Mont    90.50 323 eP     P      17 11 03.8 -1.1
SMF                                pmax   pmax
       comp=Z,33nm,1.2s,mb5.5
SMF    Signal de Mont    90.50 323 eP     P      17 11 03.8 -1.1
       comp=Z,33nm,1.2s,mb5.5
D09A   Jones Farm, Ri    90.52  37 ⇑P     P      17 11 05.6 +0.7
       baz=90,SNR=5.6
C10A   Spilker Farm,     90.60  36 ⇑P     P      17 11 06.1 +0.8
       baz=90
AVF    Avril sur Loir    90.68 323 eP     P      17 11 04.5 -1.2
       comp=Z,39nm,1.2s,mb5.3
AVF    Avril sur Loir    90.68 323 eP     P      17 11 04.5 -1.2
AVF                                pmax   pmax
       comp=Z,20nm,1.2s,mb5.3
AVF    Avril sur Loir    90.68 323 eP     P      17 11 04.5 -1.2
       comp=Z,20nm,1.2s,mb5.3
FRF    La Foret Royal    90.68 319 eP     P      17 11 04.6 -1.2
       comp=Z,32nm,1.1s,mb5.2
FRF    La Foret Royal    90.68 319 eP     P      17 11 04.6 -1.2
FRF                                pmax   pmax
       comp=Z,16nm,1.1s,mb5.3
FRF    La Foret Royal    90.68 319 eP     P      17 11 04.6 -1.2
       comp=Z,16nm,1.1s,mb5.3
B11A   Sandpoint         90.72  35 ⇑P     P      17 11 06.7 +0.9
       baz=90,SNR=11
H06A   Lindquist Farm    90.76  39 ⇑P     P      17 11 06.9 +0.8
       baz=90
A12A   Yaak River Ran    90.77  34 ⇑P     P      17 11 07.0 +0.9
       baz=90,SNR=9.3
G07A   Ruggs Ranch, H    90.83  39 ⇓P     P      17 11 07.2 +0.8
       baz=90
LMR    La Mourre         90.89 319 eP     P      17 11 05.7 -1.1
       comp=Z,64nm,1.3s,mb5.5
LMR    La Mourre         90.89 319 eP     P      17 11 05.7 -1.1
LMR                                pmax   pmax
       comp=Z,32nm,1.3s,mb5.5
LMR    La Mourre         90.89 319 eP     P      17 11 05.7 -1.1
       comp=Z,32nm,1.3s,mb5.5
E09A   Wood Farm, Sta    90.94  37 ⇑P     P      17 11 07.6 +0.6
       baz=91,SNR=7.0
F08A   Pendleton         91.02  38 ⇓P     P      17 11 08.1 +0.8
       baz=91,SNR=9.3
D10A   Wagner Farm, O    91.09  36 ⇑P     P      17 11 08.0 +0.4
       baz=91
VIVF   Saint-Julien-l    91.09 321 eP     P      17 11 06.7 -0.9
       comp=Z,26nm,1.1s,mb5.2
VIVF   Saint-Julien-l    91.09 321 eP     P      17 11 06.7 -0.9
VIVF                               pmax   pmax
       comp=Z,13nm,1.1s,mb5.2
VIVF   Saint-Julien-l    91.09 321 eP     P      17 11 06.7 -0.9
       comp=Z,13nm,1.1s,mb5.2
B12A   Libby             91.10  34 ⇑P     P      17 11 08.7 +1.1
       baz=91
VSL    Villasalto        91.23 315 eP     P      17 11 07.9 -0.5
I06A   Prineville        91.29  40 ⇑P     P      17 11 09.6 +1.0
       baz=91,SNR=6.3
A13A   Flathead Natio    91.40  34 ⇑P     P      17 11 09.9 +0.9
       baz=91
E10A   Myers Farm, Un    91.53  37 ⇑P     P      17 11 10.3 +0.6
       baz=91
WALA   Waterton Lakes    91.58  33 eP     P      17 11 09.8  0.0
K05A   Summer Lake       91.59  41 ⇓P     P      17 11 10.5 +0.5
       baz=91
D11A   Klaveano Farm,    91.60  36 ⇓P     P      17 11 10.7 +0.8
       baz=91
TCF    Toulx Ste Croi    91.61 323 eP     P      17 11 09.3 -0.7
I07A   Izee              91.62  40 ⇑P     P      17 11 11.1 +1.0
       baz=91
C12B   Naegeli Ranch,    91.64  35 ⇑P     P      17 11 11.1 +1.0
       baz=91
J06A   Christmas Vall    91.73  40 ⇑P     P      17 11 11.4 +0.7
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	baz=91,SNR=7.2						
B13A	**Whitefish**	**91.73**	**34**	⇑P	**P**	**17 11 11.6**	**+1.0**
	baz=91,SNR=12						
H08A	**Prairie City**	**91.84**	**39**	⇑P	**P**	**17 11 11.8**	**+0.6**
	baz=92						
A14A	**Double T Ranch**	**91.88**	**33**	⇑P	**P**	**17 11 12.1**	**+0.9**
	baz=92,SNR=28						
G09A	**Cove**	**91.89**	**38**	⇑P	**P**	**17 11 12.1**	**+0.7**
	baz=92,SNR=6.0						
BSMT	**Bassoo Peak**	**91.91**	**35**	*e*P	**P**	**17 11 11.7**	**+0.3**
GRR	**Gorron**	**91.91**	**326**	*e*P	**P**	**17 11 10.2**	**-1.2**
	comp=Z,55nm,1.2s,mb5.5						
GRR	**Gorron**	**91.91**	**326**	*e*P	**P**	**17 11 10.2**	**-1.2**
GRR				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.5						
GRR	**Gorron**	**91.91**	**326**	*e*P	**P**	**17 11 10.2**	**-1.2**
	comp=Z,28nm,1.2s,mb5.5						
LASF	**Ste Croix**	**92.02**	**321**	*e*P	**P**	**17 11 11.3**	**-0.7**
	comp=Z,23nm,1.2s,mb5.1						
E11A	**Bogner Ranch,**	**92.09**	**36**	⇑P	**P**	**17 11 12.4**	**+0.1**
	baz=92,SNR=5.4						
FCC	**Fort Churchill**	**92.11**	**18**	*e*P	**P**	**17 11 10.0**	**-2.1**
	comp=Z,0.4nm,0.8s,mb3.8						
D12A	**Red Ives Fores**	**92.12**	**35**	⇓P	**P**	**17 11 12.7**	**+0.4**
	baz=92						
C13A	**Hot Springs**	**92.13**	**35**	⇓P	**P**	**17 11 12.9**	**+0.5**
	baz=92,SNR=7.6						
J07A	**Hines**	**92.15**	**40**	⇓P	**P**	**17 11 13.8**	**+1.2**
	baz=92						
A15A	**Johnson Ranch,**	**92.22**	**33**	⇑P	**P**	**17 11 13.0**	**+0.2**
	baz=92						
JTMT	**Jette**	**92.23**	**34**	*e*P	**P**	**17 11 13.2**	**+0.3**
G10A	**Bishop Farm, J**	**92.25**	**38**	⇑P	**P**	**17 11 13.4**	**+0.4**
	baz=92,SNR=11						
YBMT	**Yellow Bay**	**92.30**	**34**	*e*P	**P**	**17 11 13.9**	**+0.7**
H09A	**Durkee**	**92.33**	**38**	⇑P	**P**	**17 11 14.0**	**+0.6**
	baz=92						
F11A	**Grangeville**	**92.42**	**37**	⇑P	**P**	**17 11 14.2**	**+0.5**
	baz=92						
BMO	**Blue Mountains**	**92.42**	**38**	*e*P	**P**	**17 11 13.6**	**-0.2**
	comp=Z,6.6nm,0.8s,mb5.0						
MOD	**Modoc**	**92.42**	**42**	*e*P	**P**	**17 11 14.3**	**+0.4**
CAF	**Calviac**	**92.53**	**322**	*e*P	**P**	**17 11 14.0**	**-0.3**
	comp=Z,48nm,1.2s,mb5.5						
CAF	**Calviac**	**92.53**	**322**	*e*P	**P**	**17 11 14.0**	**-0.3**
CAF				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.5						
CAF	**Calviac**	**92.53**	**322**	*e*P	**P**	**17 11 14.0**	**-0.3**
	comp=Z,24nm,1.2s,mb5.5						
SWMT	**Swartz Lake**	**92.53**	**34**	*e*P	**P**	**17 11 14.3**	**0.0**
D13A	**Huson**	**92.56**	**35**	⇑P	**P**	**17 11 14.6**	**+0.2**
	baz=92						
K07A	**Rock Creek Ran**	**92.59**	**41**	⇓P	**P**	**17 11 15.4**	**+0.7**
	baz=92,SNR=8.9						
RJF	**Les Rejaudoux**	**92.60**	**323**	*e*P	**P**	**17 11 14.4**	**-0.2**
	comp=Z,62nm,1.3s,mb5.6						
RJF				*e*MLR	MLR		
	comp=Z,349nm,17.8s,MS4.6						
RJF	**Les Rejaudoux**	**92.60**	**323**	*e*P	**P**	**17 11 14.4**	**-0.2**
RJF				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.6						
RJF				MLR	MLR		
	comp=Z,350nm,17.8s,MS4.9						
RJF	**Les Rejaudoux**	**92.60**	**323**	*e*P	**P**	**17 11 14.4**	**-0.2**
	comp=Z,31nm,1.3s,mb5.6						
RJF				LR	LR		
	comp=Z,350nm,17.8s,MS4.9						
J08A	**Circle Bar Ran**	**92.65**	**40**	⇑P	**P**	**17 11 15.8**	**+0.8**
	baz=92,SNR=6.2						
MFF	**Saint Martin d**	**92.69**	**324**	*e*P	**P**	**17 11 13.6**	**-1.4**
	comp=Z,26nm,1.3s,mb5.2						
MFF	**Saint Martin d**	**92.69**	**324**	*e*P	**P**	**17 11 13.6**	**-1.4**
MFF				pmax	pmax		
	comp=Z,13nm,1.3s,mb5.2						
MFF	**Saint Martin d**	**92.69**	**324**	*e*P	**P**	**17 11 13.6**	**-1.4**
	comp=Z,13nm,1.3s,mb5.2						
I09A	**Lost Marbles R**	**92.71**	**39**	⇓P	**P**	**17 11 15.9**	**+0.7**
	baz=92						
B15A	**Bradely Ranch,**	**92.74**	**33**	⇓P	**P**	**17 11 15.2**	**0.0**
	baz=92,SNR=6.5						
FFC	**Flin Flon**	**92.77**	**24**	P	**P**	**17 11 14.9**	**-0.3**
	comp=Z,156nm,0.8s,mb6.5,SNR=13						
FFC	**Flin Flon**	**92.77**	**24**	*e*P	**P**	**17 11 14.1**	**-1.1**
FFC				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.6						
FFC	**Flin Flon**	**92.77**	**24**	*e*P	**P**	**17 11 14.1**	**-1.1**
	comp=Z,21nm,0.8s,mb5.6						
A16A	**West Butte Ran**	**92.79**	**32**	⇓P	**P**	**17 11 15.3**	**-0.2**
	baz=92,SNR=9.0						
SGMF	**Saint Gilles**	**92.86**	**327**	*e*P	**P**	**17 11 14.7**	**-1.0**
H10A	**Noah’s Angus R**	**92.89**	**38**	⇑P	**P**	**17 11 16.1**	**+0.1**
	baz=93,SNR=9.4						
L07A	**Adell**	**92.94**	**41**	⇑P	**P**	**17 11 16.8**	**+0.6**
	baz=93,SNR=11						
SLMT	**Seeley Lake**	**92.97**	**34**	*e*P	**P**	**17 11 16.3**	**0.0**
F12A	**Elk City**	**92.99**	**36**	⇑P	**P**	**17 11 16.6**	**+0.2**
	baz=93,SNR=7.1						
MSO	**Missoula**	**93.00**	**35**	*e*P	**P**	**17 11 16.4**	**-0.1**
	comp=Z,4.3nm,0.9s,mb4.9						
K08A	**Mann Creek Ran**	**93.02**	**40**	⇓P	**P**	**17 11 17.3**	**+0.7**
	baz=93						
D14A	**Greenough**	**93.07**	**35**	⇓P	**P**	**17 11 16.7**	**0.0**
	baz=93						
C15A	**Salmond Ranch,**	**93.07**	**34**	⇑P	**P**	**17 11 17.1**	**+0.3**
	baz=93,SNR=5.9						
J09A	**Fry Pan Ranch,**	**93.08**	**39**	⇓P	**P**	**17 11 17.3**	**+0.5**
	baz=93,SNR=10						
B16A	**M & M Farms, S**	**93.10**	**33**	⇓P	**P**	**17 11 17.2**	**+0.3**
	baz=93						
A17A	**Triple J Farms**	**93.23**	**32**	⇓P	**P**	**17 11 17.4**	**0.0**
	baz=93,SNR=11						
H11A	**Donnelly**	**93.23**	**38**	⇑P	**P**	**17 11 17.8**	**+0.2**
	baz=93						
KEST	**Kesra**	**93.28**	**311**	P	**P**	**17 11 17.9**	**-0.1**
	comp=Z,3.5nm,0.9s,mb4.8,baz=355,slow=1.8,SNR=13						
KEST				LR	LR	18 00 12.7	
	comp=Z,74nm,18.6s,MS4.2,baz=210,slow=40						
CHMT	**Chamberlain Mo**	**93.31**	**35**	*e*P	**P**	**17 11 16.8**	**-1.0**
	comp=Z,0.6nm,0.4s,mb4.4						
G12A	**Big Creek, Yel**	**93.35**	**37**	⇑P	**P**	**17 11 18.2**	**+0.1**
	baz=93						
N06A	**Buffalo Meadow**	**93.38**	**42**	⇓P	**P**	**17 11 18.4**	**+0.1**
	baz=93						
M07A	**Soldier Meadow**	**93.41**	**42**	⇑P	**P**	**17 11 19.1**	**+0.7**
	baz=93						
L08A	**Fields**	**93.43**	**41**	⇓P	**P**	**17 11 19.1**	**+0.6**
	baz=93,SNR=8.3						
K09A	**Rome**	**93.49**	**40**	⇓P	**P**	**17 11 19.2**	**+0.4**
	baz=93,SNR=6.1						
C16A	**Fuhringer Ranc**	**93.49**	**33**	⇑P	**P**	**17 11 18.5**	**-0.2**
	baz=93						
E14A	**Clinton**	**93.51**	**35**	⇑P	**P**	**17 11 19.0**	**+0.2**
	baz=93,SNR=10						
BEKR	**Beckwourth**	**93.57**	**43**	⇑P	**P**	**17 11 19.4**	**+0.2**
	baz=93						
B17A	**L&G Farms, Che**	**93.63**	**32**	⇑P	**P**	**17 11 19.4**	**+0.1**
	baz=93,SNR=8.7						
A18A	**Metzger Ranch,**	**93.66**	**32**	⇓P	**P**	**17 11 19.4**	**-0.1**
	baz=93,SNR=5.2						
O06A	**Flanigan**	**93.72**	**43**	⇓P	**P**	**17 11 20.4**	**+0.4**
	baz=93						
I11A	**Placerville**	**93.76**	**38**	⇑P	**P**	**17 11 20.3**	**+0.3**
	baz=93,SNR=6.9						
M08A	**Happy Creek Ra**	**93.85**	**41**	⇑P	**P**	**17 11 21.2**	**+0.7**
	baz=94						
N07B	**Gerlach**	**93.89**	**42**	⇑P	**P**	**17 11 21.1**	**+0.4**
	baz=94						
K10A	**MacKenzie Ranc**	**93.94**	**39**	⇓P	**P**	**17 11 21.5**	**+0.7**
	baz=94						
E15A	**Deer Lodge**	**93.95**	**35**	⇓P	**P**	**17 11 21.4**	**+0.6**
	baz=94						
F14A	**Wisdom**	**93.96**	**35**	⇑P	**P**	**17 11 21.3**	**+0.4**
	baz=94						
H12A	**Diamond D Ranc**	**93.97**	**37**	⇓P	**P**	**17 11 21.1**	**+0.2**
	baz=94,SNR=9.1						
C17A	**Wharram Farm,**	**94.09**	**33**	⇓P	**P**	**17 11 21.1**	**-0.3**
	baz=94						
D16A	**Dana Ranch, Ca**	**94.10**	**34**	⇓P	**P**	**17 11 21.8**	**+0.3**
	baz=94						
MFID	**Camas Ranch**	**94.14**	**38**	⇑P	**P**	**17 11 22.3**	**+0.5**
	baz=94						
HRY	**Holter Researc**	**94.17**	**34**	*e*P	**P**	**17 11 18.9**	**-2.9**
	comp=Z,3.2nm,0.7s,mb4.9						
H13A	**Challis**	**94.29**	**37**	⇑P	**P**	**17 11 22.9**	**+0.4**
	baz=94						
I12A	**Atlanta**	**94.30**	**38**	⇑P	**P**	**17 11 23.1**	**+0.7**
	baz=94						
O07A	**Toulon**	**94.32**	**42**	⇑P	**P**	**17 11 23.3**	**+0.7**
	baz=94						
EGMT	**Eagleton**	**94.32**	**32**	⇑P	**P**	**17 11 22.5**	**0.0**
	baz=94,SNR=5.6						
EGMT	**Eagleton**	**94.32**	**32**	*e*P	**P**	**17 11 22.6**	**+0.1**
	comp=Z,9.4nm,1.0s,mb5.2						
E16A	**East Helena**	**94.37**	**34**	⇓P	**P**	**17 11 23.4**	**+0.7**
	baz=94						
N08A	**GE Springer Mi**	**94.40**	**42**	⇓P	**P**	**17 11 23.4**	**+0.4**
	baz=94						
F15A	**Butte**	**94.41**	**35**	⇓P	**P**	**17 11 22.9**	**-0.1**
	baz=94,SNR=5.7						
LRM	**Limekiln Ridge**	**94.44**	**35**	*e*P	**P**	**17 11 23.6**	**+0.5**
D17A	**Six Diamond Ra**	**94.46**	**33**	⇑P	**P**	**17 11 23.5**	**+0.4**
	baz=94						
L10A	**Juniper Basin**	**94.60**	**40**	⇓P	**P**	**17 11 24.4**	**+0.5**
	baz=94						
CMB	**Columbia Colle**	**94.61**	**45**	*e*P	**P**	**17 11 23.8**	**-0.2**
CMB				pmax	pmax		
	comp=Z,20nm,2.0s,mb5.2						
CMB	**Columbia Colle**	**94.61**	**45**	*e*P	**P**	**17 11 23.8**	**-0.3**
	comp=Z,20nm,2.0s,mb5.2						
J12A	**Stokes Ranch,**	**94.66**	**38**	⇑P	**P**	**17 11 25.2**	**+1.0**
	baz=94						
DLMT	**Dillon**	**94.67**	**35**	*e*P	**P**	**17 11 24.5**	**+0.3**
	comp=Z,5.5nm,0.8s,mb5.0						
EPF	**Esparros**	**94.68**	**321**	*e*P	**P**	**17 11 23.5**	**-0.8**
I13A	**Wildhorse Cree**	**94.79**	**37**	⇓P	**P**	**17 11 25.2**	**+0.5**
	baz=94,SNR=9.4						
E17A	**Martinsdale**	**94.84**	**34**	⇓P	**P**	**17 11 25.7**	**+0.8**
	baz=94						
HLID	**Hailey**	**94.85**	**38**	⇑P	**P**	**17 11 25.5**	**+0.5**
	baz=94,SNR=5.4						
HLID	**Hailey**	**94.85**	**38**	*e*P	**P**	**17 11 26.0**	**+1.0**
	comp=Z,3.4nm,0.9s,mb4.8						
G15A	**Dillon**	**94.86**	**36**	⇓P	**P**	**17 11 25.3**	**+0.3**
	baz=94,SNR=5.7						
D18A	**Linhart Farms,**	**94.87**	**33**	⇑P	**P**	**17 11 25.5**	**+0.5**
	baz=94						
F16A	**Kennard Place,**	**94.90**	**35**	⇑P	**P**	**17 11 25.9**	**+0.8**
	baz=95						
R06C	**Coleville**	**94.92**	**44**	⇑P	**P**	**17 11 26.1**	**+0.7**
	baz=95						
L11A	**Cat Creek Ranc**	**94.97**	**39**	⇓P	**P**	**17 11 26.6**	**+1.0**
	baz=95						
J13A	**Cove Ranch, Pi**	**95.09**	**38**	⇑P	**P**	**17 11 27.1**	**+1.0**
	baz=95						
PPT	**Papeete**	**95.14**	**107**	LR	LR	17 48 19.2	
	comp=Z,207nm,20.5s,MS4.6,baz=273,slow=32						
I14A	**Mackay**	**95.14**	**37**	⇓P	**P**	**17 11 26.6**	**+0.3**
	baz=95,SNR=7.4						
E18A	**Harlowton**	**95.25**	**33**	⇓P	**P**	**17 11 27.7**	**+1.0**
	baz=95						
F17A	**Fitzpatrick Pl**	**95.32**	**34**	⇑P	**P**	**17 11 27.6**	**+0.5**
	baz=95						
NVAR	**Mina Array Bea**	**95.70**	**44**	P	**P**	**17 11 29.7**	**+0.7**
	comp=Z,1.9nm,0.7s,mb4.6,baz=295,slow=5.0,SNR=15						
RLMT	**Red Lodge**	**96.57**	**34**	⇑P	**P**	**17 11 33.5**	**+0.7**
	baz=96						
RLMT	**Red Lodge**	**96.57**	**34**	*e*P	**P**	**17 11 33.5**	**+0.7**
	comp=Z,1.8nm,0.6s,mb4.7						
R09A	**Tonopah**	**96.59**	**43**	⇓P	**P**	**17 11 33.5**	**+0.5**
	baz=96						
DGMT	**Dagmar**	**96.60**	**29**	⇓P	**P**	**17 11 33.0**	**+0.2**
	baz=96						
Q10A	**Clear Creek Ra**	**96.65**	**42**	⇑P	**P**	**17 11 33.8**	**+0.5**
	baz=96						
M14A	**Sheep Mountain**	**96.78**	**39**	⇓P	**P**	**17 11 34.8**	**+0.9**
	baz=96						
S09A	**Goldfield**	**96.81**	**44**	⇓P	**P**	**17 11 34.6**	**+0.6**
	baz=96						
R10A	**Warm Springs**	**97.04**	**43**	⇑P	**P**	**17 11 35.5**	**+0.4**
	baz=97						
S10A	**Tonopah Range,**	**97.08**	**43**	⇑P	**P**	**17 11 35.5**	**+0.2**
	baz=97						
R11A	**Troy Canyon, C**	**97.44**	**42**	⇓P	**P**	**17 11 36.8**	**-0.1**
	baz=97						
J18A	**Kendall Valley**	**97.48**	**36**	⇑P	**P**	**17 11 37.0**	**0.0**
	baz=97						
PDAR	**Pinedale Array**	**98.03**	**36**	P	**P**	**17 11 39.2**	**-0.3**
	comp=Z,0.6nm,0.6s,mb4.3,baz=33,slow=2.4,SNR=5.2						
ULM	**Lac du Bonnet**	**98.60**	**24**	P	**P**	**17 11 40.6**	**-1.2**
	comp=Z,2.5nm,0.8s,mb4.8,baz=327,slow=3.9,SNR=3.8						
TXAR	**Lajitas Array**	**110.81**	**42**	PKiKP	PKiKP	17 16 35.3	-1.1
	comp=Z,0.8nm,0.9s,baz=252,slow=0.3,SNR=6.3						
ALLY	**Alegheny Colle**	**111.36**	**18**	*e*Pdif	Pdif	17 12 40.2	+1.7
TORD	**Torodi Ar. Bea**	**111.40**	**296**	PKiKP	PKiKP	17 16 37.2	-0.6
	comp=Z,0.7nm,0.6s,baz=15,slow=3.2,SNR=4.6						
TORD				PP	PP	17 17 20.1	+2.0
	comp=Z,1.9nm,0.9s,baz=47,slow=5.9,SNR=6.0						
PLAL	**Pickwick Lake**	**114.52**	**27**	*e*PP	PP	17 17 37.0	-2.2
SWET	**Sewanee**	**115.19**	**26**	*e*PP	PP	17 17 40.2	-3.7
GOGA	**Godfrey**	**117.74**	**24**	*e*PP	PP	17 18 03.6	+2.0
DBIC	**Dimbokro**	**120.30**	**294**	PKP	PKPdf	17 16 54.0	-0.9
	comp=Z,1.5nm,0.6s,baz=107,slow=1.2,SNR=4.1						
LIC	**Lamto**	**120.68**	**294**	*e*PKIKP	PKPdf	17 16 54.3	-1.4
	comp=Z,6.3nm,0.6s						
CMIG	**Matias Romero**	**125.19**	**45**	PKP	PKPdf	17 17 03.8	-0.5
	comp=Z,2.3nm,0.8s,baz=56,slow=7.3,SNR=2.6						
LRS	**Lares**	**136.95**	**13**	*e*PKPdf	PKPdf	17 17 28.0	+1.5
SDV	**Santo Domingo**	**144.85**	**23**	*e*PKPdf	PKPdf	17 17 39.5	-1.3
ROSC	**El Rosal**	**146.92**	**32**	PKPbc	PKPbc	17 17 44.7	-1.5
	comp=Z,8.7nm,0.5s,baz=272,slow=21,SNR=4.9						
OTAV	**Otavalo**	**148.44**	**43**	*e*PKPbc	PKPbc	17 17 49.3	-1.0
RCBR	**Riachuelo**	**152.46**	**308**	*e*PKPdf	PKPbc	17 17 59.3	-0.7

ISCJB ***29*** *17:05:19.7±0.9, 23.°89N±0.°02×122.°54E±0.°02, h15^{km}±6^{km},*
Error ellipse: s-maj=3.8km s-min=3.0km az=145.8
TAP ***29*** *17:05:19.2, 23.°90N×122.°49E, h15^{km}±1^{km}, ML3.1, D*
JMA ***29*** *17:05:20.7±0.5, 23.°98N×122.°56E, h13^{km}, M2.2*
ISC 29 17:05:18.9±0.6**, 23.°91N**±0.°02×**122.°53E**±0.°02**, h10**^{km}±3^{km}**,**
n41, σ0.^{s}83/69**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.71**	**39**	P	**Pg**	**17 05 32.9**	**+0.3**
YOJ				S	**Sg**	**17 05 41.3**	**-0.6**
TWD	**Chiawan**	**0.87**	**282**	*e*P	**Pg**	**17 05 35.7**	**0.0**
	baz=282						
TWD				*e*S	**Sg**	**17 05 47.4**	**+0.4**
	baz=282						
ENA	**Nanau**	**0.89**	**306**	P	**Pg**	**17 05 36.1**	**+0.1**
	baz=307						
ENA				*e*S	**Sg**	**17 05 48.3**	**+0.8**
	baz=307						
TWC	**Suao**	**0.93**	**319**	*e*P	**Pg**	**17 05 36.4**	**-0.6**
	baz=320						
TWC				*e*S	**Sg**	**17 05 48.0**	**-1.1**
	baz=320						
ESL	**Shilin**	**1.01**	**265**	*e*P	**Pg**	**17 05 38.4**	**0.0**
	baz=264						
ESL				*e*S	**Sg**	**17 05 51.2**	**-0.2**
	baz=264						
ILA	**Ilan**	**1.11**	**320**	*e*P	**Pb**	**17 05 40.6**	**+0.3**
	baz=322						
ILA				*e*S	**Sg**	**17 05 55.4**	**+0.7**
	baz=322						
TWE	**Neicheng**	**1.13**	**316**	*e*P	**Pb**	**17 05 40.3**	**-0.2**
	baz=317						
TWE				*e*S	**Sg**	**17 05 54.8**	**-0.5**
	baz=317						
ENTT	**Nioudou**	**1.14**	**310**	*e*P	**Pb**	**17 05 40.5**	**-0.2**
	baz=311						
ENTT				*e*S	**Sb**	**17 05 55.9**	**+0.2**
	baz=311						
EHY	**Hungye**	**1.18**	**250**	*e*P	**Pb**	**17 05 41.7**	**+0.3**
	baz=249						
EHY				*e*S	**Sb**	**17 05 56.1**	**-0.5**
	baz=249						
IRIF	**Iriomote-Funau**	**1.18**	**69**	P	**Pb**	**17 05 41.2**	**-0.2**
IRIF				*e*S	**Sb**	**17 05 56.9**	**+0.1**
WHF	**Hehuan Shan**	**1.18**	**282**	*e*P	**Pb**	**17 05 41.1**	**-0.3**
	baz=282						
WHF				*e*S	**Sb**	**17 05 56.1**	**-0.6**
	baz=282						
NNS	**Nan Shan**	**1.18**	**297**	*e*P	**Pb**	**17 05 41.1**	**-0.3**
	baz=297						
NNS				*e*S	**Sb**	**17 05 57.2**	**+0.4**
	baz=297						
TWB1	**Santiao Chiao**	**1.20**	**336**	*e*P	**Pb**	**17 05 41.1**	**-0.7**
	baz=337						
TWB1				*e*S	**Sb**	**17 05 56.2**	**-1.2**
	baz=337						
TWF1	**Yuli**	**1.26**	**244**	*e*P	**Pn**	**17 05 42.9**	**+0.3**
	baz=243						
TWF1				*e*S	**Sb**	**17 05 59.1**	**+0.1**
	baz=243						
TWT	**Tachien**	**1.28**	**286**	*e*P	**Pn**	**17 05 43.5**	**+0.5**
	baz=286						
TWT				*e*S	**Sb**	**17 05 60.0**	**+0.2**
	baz=286						
NSK	**Sanguang**	**1.31**	**306**	*e*P	**Pn**	**17 05 43.1**	**-0.2**
	baz=306						
NSK				*e*S	**Sb**	**17 06 00.3**	**-0.3**
	baz=306						
CHKT	**Chengkung**	**1.34**	**233**	*e*S	**Sb**	**17 05 58.9**	**-2.4**
	baz=232						
NWF	**Wu-fen Shan**	**1.34**	**330**	*e*P	**Pn**	**17 05 43.1**	**-0.7**
	baz=330						
NWF				*e*S	**Sb**	**17 06 01.6**	**+0.1**
	baz=330						
TWA	**Mucha**	**1.37**	**321**	*e*S	**Sb**	**17 06 02.4**	**+0.1**
	baz=322						
JKRS	**Kuro-shima**	**1.39**	**76**	*e*S	**Sb**	**17 06 03.8**	**+0.8**
TAP1	**Taipei**	**1.45**	**321**	*e*S	**Sn**	**17 06 05.0**	**+0.6**
	baz=321						
SMLT	**Sun Moon Lake**	**1.49**	**269**	*e*P	**Pn**	**17 05 45.9**	**+0.1**
	baz=269						
SMLT				*e*S	**Sn**	**17 06 03.9**	**-1.4**
	baz=269						
TYC	**Yuchr**	**1.53**	**270**	*e*S	**Sn**	**17 06 06.0**	**-0.3**
	baz=270						
JIJ	**Ishigaki jima**	**1.54**	**73**	P	**Pn**	**17 05 46.6**	**0.0**
JIJ				*e*S	**Sn**	**17 06 05.4**	**-1.3**
TWS1	**Kuangyinshan**	**1.56**	**320**	*e*S	**Sn**	**17 06 06.6**	**-0.5**
	baz=320						
ELDTW	**Lidau**	**1.56**	**243**	*e*P	**Pn**	**17 05 46.6**	**-0.2**
	baz=242						
ELDTW				*e*S	**Sn**	**17 06 04.5**	**-2.6**
	baz=242						
NSTT	**Nanjuang**	**1.57**	**298**	*e*P	**Pn**	**17 05 47.7**	**+0.8**
	baz=298						
NSTT				*e*S	**Sn**	**17 06 06.4**	**-0.9**
	baz=298						
TWY	**Chenhua**	**1.60**	**328**	*e*P	**Pn**	**17 05 48.9**	**+1.6**
	baz=329						
TWY				*e*S	**Sn**	**17 06 08.7**	**+0.6**
	baz=329						
ALS	**Alishan**	**1.63**	**256**	*e*P	**Pn**	**17 05 48.6**	**+0.9**
	baz=255						
ALS				*e*S	**Sn**	**17 06 08.1**	**-0.6**
	baz=255						
TWQ1	**Liyutan**	**1.66**	**286**	*e*P	**Pn**	**17 05 49.1**	**+0.9**
	baz=285						
TWQ1				*e*S	**Sn**	**17 06 10.4**	**+0.8**
	baz=285						
WNT	**Mingjian**	**1.69**	**269**	*e*S	**Sn**	**17 06 11.6**	**+1.4**
	baz=269						
TWG	**Pinlang**	**1.72**	**231**	*e*P	**Pn**	**17 05 49.5**	**+0.5**
	baz=230						
TWG				*e*S	**Sn**	**17 06 09.0**	**-2.0**
	baz=230						
CHN5	**Tsauling**	**1.72**	**260**	*e*P	**Pn**	**17 05 49.2**	**+0.2**
	baz=259						
CHN5				*e*S	**Sn**	**17 06 12.0**	**+0.9**
	baz=259						
PCYT	**Pengchaiyu**	**1.76**	**346**	*e*P	**Pn**	**17 05 49.0**	**-0.5**
	baz=347						
STYT	**Tauyuan**	**1.79**	**246**	*e*S	**Sn**	**17 06 12.6**	**0.0**
	baz=245						
CHN4	**Tsaushan**	**1.86**	**253**	*e*S	**Sn**	**17 06 16.6**	**+2.1**
	baz=252						
WTP	**Ta-pu**	**1.88**	**250**	*e*S	**Sn**	**17 06 15.3**	**+0.5**
	baz=249						
ECL	**Taimali**	**1.95**	**228**	*e*P	**Pn**	**17 05 52.2**	**+0.1**
	baz=227						
ECL				*e*S	**Sn**	**17 06 14.9**	**-1.8**
	baz=227						
SGST	**Jiashian**	**1.96**	**246**	*e*P	**Pn**	**17 05 53.7**	**+1.4**
	baz=245						
CHN1	**Nanshi**	**1.97**	**249**	*e*S	**Sn**	**17 06 16.9**	**-0.3**
	baz=248						
SSD	**Sandimen**	**2.09**	**237**	*e*P	**Pn**	**17 05 55.4**	**+1.3**
	baz=236						
SSD				*e*S	**Sn**	**17 06 21.6**	**+1.4**
	baz=236						

ISK ***29*** *17:05:53.8, 37.°14N×30.°42E, h8^{km}, MD2.9*
DDA ***29*** *17:05:54.5, 37.°12N×30.°64E, h7^{km}±7^{km}, Md2.9*
ISCJB ***29*** *17:05:55.0±0.5, 37.°15N±0.°03×30.°57E±0.°04, h10^{km}, Error*
ellipse: s-maj=5.1km s-min=4.3km az=1.8
CSEM ***29*** *17:05:55.2±0.2, 37.°15N×30.°58E, h2^{km}, MD2.9, Error*
ellipse: s-maj=6.1km s-min=4.9km az=93.0
ISC 29 17:05:55.4±0.6**, 37.°13N**±0.°03×**30.°55E**±0.°05**, h9**^{km}±7^{km}**,**
n19, σ1.^{s}27/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANTB	**Antalya**	**0.25**	**161**	*e*PG	**Pg**	**17 05 59.6**	**-0.8**
ANTB				*e*SG	**Sg**	**17 06 05.3**	**+1.6**
ANTB	**Antalya**	**0.25**	**161**	*e*Pg	**Pg**	**17 05 59.6**	**-0.7**
ANTB				*e*Sg	**Sg**	**17 06 05.3**	**+1.6**
BCK	**Bucak**	**0.33**	**5**	*e*PG	**Pg**	**17 06 00.8**	**-1.1**
BCK				*e*SG	**Sg**	**17 06 06.7**	**+0.4**
BCK	**Bucak**	**0.33**	**5**	*e*Pg	**Pg**	**17 06 00.8**	**-1.1**
BCK				*e*Sg	**Sg**	**17 06 06.7**	**+0.4**
ELL	**Elmali**	**0.64**	**234**	*e*PG	**Pg**	**17 06 05.3**	**-2.5**
ISP	**Isparta**	**0.71**	**357**	*e*PG	**Pg**	**17 06 08.0**	**-1.1**
GOLH	**Golhisar**	**0.80**	**278**	*i* P	**Pg**	**17 06 10.3**	**-0.4**
GOLH				*i* S	**Sg**	**17 06 23.2**	**+2.1**
GOLH	**Golhisar**	**0.80**	**278**	*i* P	**Pg**	**17 06 10.3**	**-0.5**
GOLH				*i* S	**Sg**	**17 06 23.2**	**+2.0**
AKAS	**Kas**	**1.18**	**221**	*e*P	**Pn**	**17 06 18.6**	**+0.5**
AKAS				*i* S	**Sn**	**17 06 41.0**	**+6.8**
AKAS	**Kas**	**1.18**	**221**	*e*P	**Pn**	**17 06 18.6**	**+0.6**
FETY	**Fethiye**	**1.28**	**248**	*e*PN	**Pn**	**17 06 16.9**	**-2.6**
KHAL	**Karahalli**	**1.49**	**326**	*i* P	**Pg**	**17 06 23.6**	**-0.4**
KHAL				*i* S	**Sg**	**17 06 46.5**	**+3.0**
KHAL	**Karahalli**	**1.49**	**326**	*i* P	**Pg**	**17 06 23.6**	**-0.5**
KHAL				*i* S	**Sg**	**17 06 46.5**	**+3.0**
HDMB	**Hadim**	**1.56**	**96**	*e*PN	**Pn**	**17 06 23.6**	**+0.4**
HDMB	**Hadim**	**1.56**	**96**	*e*Pn	**Pn**	**17 06 23.6**	**+0.3**
KONT	**Konya--Tatoy**	**1.65**	**60**	*e*PN	**Pn**	**17 06 25.7**	**+1.1**
KONT	**Konya--Tatoy**	**1.65**	**60**	*e*Pn	**Pn**	**17 06 25.7**	**+1.1**
KDHN	**Kadinhani**	**1.86**	**41**	*i* P	**Pn**	**17 06 27.4**	**-0.1**
KDHN				*i* S	**Sg**	**17 06 55.1**	**0.0**
KDHN	**Kadinhani**	**1.86**	**41**	*i* P	**Pn**	**17 06 27.4**	**0.0**
KDHN				*i* S	**Sg**	**17 06 55.1**	**0.0**

IDC ***29*** *17:06:16.1±1.9, 2.°46N×128.°91E, h0^{km}, mb3.5/5,*
mb1 3.6/5, mb1mx3.5/19, mbtmp3.5/5, Error ellipse:
s-maj=100.5km s-min=19.4km az=62.0
ISC 29 17:06:22.9±1.5**, 1.°9N**±0.°2×**127.°6E**±0.°4**, h35**^{km}**, n6, σ0.^{s}32**/6**,**
mb3.5/5**, 1C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNE	**Ternate**	**1.11**	**192**	⇑*e*P	**Pn**	**17 06 42.0**	**0.0**
WRA	**Warramunga Arr**	**22.67**	**163**	P	**P**	**17 11 21.6**	**+0.3**
	0.4nm,0.6s,mb3.0,baz=345,slow=10,SNR=3.3						
ASAR	**Alice Springs**	**26.12**	**167**	P	**P**	**17 11 53.4**	**-0.4**
	0.3nm,0.9s,mb2.8,baz=354,slow=8.4,SNR=2.9						
CMAR	**Chiang Mai Arr**	**32.57**	**302**	P	**P**	**17 12 57.6**	**+6.5**
	0.7nm,0.9s,mb3.6,baz=108,slow=7.2,SNR=5.5						
STKA	**Stephens Creek**	**36.10**	**160**	P	**P**	**17 13 21.6**	**0.0**
	1.4nm,0.7s,mb4.0,baz=354,slow=10,SNR=2.6						
MKAR	**Makanchi Array**	**59.56**	**325**	P	**P**	**17 16 23.0**	**0.0**
	0.6nm,0.6s,mb3.8,baz=114,slow=8.4,SNR=11						

TAP ***29*** *17:15:45.5, 23.°95N×122.°50E, h6^{km}±1^{km}, ML3.0, D*
JMA ***29*** *17:15:47.9±0.4, 24.°02N×122.°54E, h19^{km}, M2.2*
ISC 29 17:15:45.7±0.4**, 23.°92N**±0.°02×**122.°53E**±0.°02**, h2**^{km}±3^{km}**,**
n50, σ0.^{s}92/83**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.70**	**39**	P	**Pg**	**17 15 59.9**	**+0.9**
YOJ				S	**Sg**	**17 16 08.1**	**0.0**
TWD	**Chiawan**	**0.87**	**281**	*e*P	**Pg**	**17 16 02.8**	**+0.4**
	baz=279						
ENA	**Nanau**	**0.89**	**305**	*i* P	**Pg**	**17 16 03.0**	**+0.3**
	baz=304						
ENA				S	**Sg**	**17 16 15.1**	**+0.9**
	baz=304						
TWC	**Suao**	**0.93**	**318**	*i* P	**Pg**	**17 16 03.3**	**-0.3**
	baz=318						
TWC				S	**Sg**	**17 16 14.9**	**-0.8**
	baz=318						
ESL	**Shilin**	**1.01**	**264**	*e*P	**Pg**	**17 16 04.7**	**-0.5**

	baz=262						
ESL				eS	Sg	17 16 17.9	-0.4
	baz=262						
ILA	Ilan	1.11	320	eP	Pg	17 16 07.6	+0.6
	baz=319						
ILA				S	Sg	17 16 22.6	+1.2
	baz=319						
TWE	Neicheng	1.13	316	P	Pg	17 16 07.2	-0.1
	baz=315						
TWE				S	Sg	17 16 22.7	+0.7
	baz=315						
ENTT	Nioudou	1.14	309	iP	Pg	17 16 07.5	-0.1
	baz=308						
ENTT				S	Sg	17 16 22.8	+0.4
	baz=308						
IRIF	Iriomote-Funau	1.17	69	P	Pg	17 16 08.6	+0.5
IRIF				eS	Sg	17 16 23.8	+0.5
HATJ	Hateruma jima	1.17	83	P	Pg	17 16 08.6	+0.5
HATJ				eS	Sg	17 16 24.5	+1.2
NNS	Nan Shan	1.18	296	P	Pg	17 16 07.9	-0.5
	baz=295						
NNS				S	Sg	17 16 23.9	+0.2
	baz=295						
WHF	Hehuan Shan	1.18	281	iP	Pg	17 16 08.0	-0.4
	baz=279						
WHF				S	Sg	17 16 23.5	-0.2
	baz=279						
EHY	Hungye	1.18	250	P	Pg	17 16 08.1	-0.3
	baz=247						
EHY				eS	Sg	17 16 22.9	-0.9
	baz=247						
TWB1	Santiao Chiao	1.20	336	P	Pg	17 16 07.7	-0.9
	baz=336						
TWB1				S	Sg	17 16 23.7	-0.5
	baz=336						
TWF1	Yuli	1.27	244	iP	Pg	17 16 09.6	-0.4
	baz=241						
TWF1				S	Sg	17 16 26.2	-0.2
	baz=241						
TWT	Tachien	1.29	285	eS	Sg	17 16 28.2	+1.1
	baz=283						
NSK	Sanguang	1.31	305	iP	Pg	17 16 09.9	-0.9
	baz=304						
NSK				S	Sg	17 16 28.1	+0.2
	baz=304						
NWF	Wu-fen Shan	1.34	329	P	Pn	17 16 08.9	-2.5
	baz=329						
NWF				S	Sg	17 16 28.9	+0.1
	baz=329						
CHKT	Chengkung	1.35	233	P	Pn	17 16 11.7	+0.3
	baz=230						
CHKT				eS	Sg	17 16 26.2	-2.7
	baz=230						
TWA	Mucha	1.37	321	eP	Pn	17 16 11.0	-0.7
	baz=320						
JKRS	Kuro-shima	1.39	76	P	Pn	17 16 12.5	+0.5
JKRS				eS	Sg	17 16 30.6	+0.4
TAP1	Taipei	1.45	321	eS	Sb	17 16 32.5	+0.3
	baz=320						
SMLT	Sun Moon Lake	1.50	269	P	Pn	17 16 13.6	+0.1
	baz=267						
SMLT				eS	Sb	17 16 33.5	-0.1
	baz=267						
JIJ	Ishigaki jima	1.54	73	P	Pn	17 16 13.1	-0.9
JIJ				eS	Sn	17 16 32.1	-2.5
TYC	Yuchr	1.54	270	P	Pn	17 16 13.6	-0.5
	baz=268						
TYC				eS	Sn	17 16 34.2	-0.3
	baz=268						
TWS1	Kuangyinshan	1.56	319	eS	Sn	17 16 34.9	-0.2
	baz=319						
ELDTW	Lidau	1.57	243	iP	Pn	17 16 13.4	-1.1
	baz=240						
ELDTW				S	Sn	17 16 32.2	-3.2
	baz=240						
NSTT	Nanjuang	1.57	297	P	Pn	17 16 14.4	-0.1
	baz=296						
NSTT				eS	Sn	17 16 34.9	-0.5
	baz=296						
TWY	Chenhua	1.60	328	eP	Pn	17 16 14.7	-0.2
	baz=328						
ALS	Alishan	1.64	256	P	Pn	17 16 14.3	-1.1
	baz=254						
ALS				S	Sn	17 16 35.2	-1.8
	baz=254						
TWQ1	Liyutan	1.67	285	P	Pn	17 16 15.3	-0.5
	baz=284						
TWQ1				S	Sn	17 16 38.1	+0.4
	baz=284						
WNT	Mingjian	1.69	269	eP	Pn	17 16 16.1	-0.1
	baz=267						
WNT				S	Sn	17 16 38.4	-0.1
	baz=267						
TCU	Taichung	1.71	278	S	Sn	17 16 39.3	+0.3
	baz=276						
CHN5	Tsauling	1.73	260	P	Pn	17 16 14.9	-1.8
	baz=258						
CHN5				eS	Sn	17 16 40.5	+1.2
	baz=258						
TWG	Pinlang	1.73	231	eS	Sn	17 16 38.5	-0.8
	baz=229						
PCYT	Pengchaiyu	1.76	346	eP	Pn	17 16 15.7	-1.4
	baz=346						
STYT	Tauyuan	1.79	246	P	Pn	17 16 17.8	+0.2
	baz=243						
STYT				S	Sn	17 16 39.7	-1.3
	baz=243						
WGK	Gukeng	1.82	263	eS	Sn	17 16 42.2	+0.6
	baz=261						
CHN4	Tsaushan	1.87	253	eP	Pn	17 16 20.0	+1.4
	baz=251						
CHN4				S	Sn	17 16 43.8	+1.0
	baz=251						
WTP	Ta-pu	1.88	250	P	Pn	17 16 20.3	+1.5
	baz=247						
WTP				S	Sn	17 16 43.9	+0.8
	baz=247						
ECL	Taimali	1.96	228	eP	Pn	17 16 20.4	+0.5
	baz=226						
SGST	Jiashian	1.97	246	P	Pn	17 16 20.7	+0.6
	baz=243						
SGST				eS	Sn	17 16 45.7	+0.3
	baz=243						
CHY	Chiayi	1.98	258	eS	Sn	17 16 47.5	+2.0
	baz=256						
CHN1	Nanshi	1.98	249	P	Pn	17 16 21.6	+1.5
	baz=247						
CHN1				S	Sn	17 16 46.7	+1.2
	baz=247						
TWK	Hsinying	1.98	251	P	Pn	17 16 20.5	+0.3
	baz=249						
TWK				S	Sn	17 16 45.8	+0.1
	baz=249						
LAY	Lan-yu	2.08	206	P	Pn	17 16 21.4	-0.1
	baz=204						
SSD	Sandimen	2.10	237	eS	Sn	17 16 50.9	+2.4
	baz=235						
WSF	Szhu	2.14	263	S	Sn	17 16 51.2	+1.8
	baz=261						
TWM1	Shoushan	2.22	241	eS	Sn	17 16 51.9	+0.3
	baz=239						
PNG	Penghu	2.75	263	eS	Sn	17 17 03.1	-1.5
	baz=261						

ISCJB ***29*** *17:16:48.4±0.7, 23°.89N±0°.02×122°.53E±0°.02, h4^{km}±4^{km}, Error ellipse: s-maj=3.4km s-min=2.6km az=167.2*

TAP ***29*** *17:16:49.0, 23°.93N×122°.44E, h4^{km}±1^{km}, ML3.2, D*

JMA ***29*** *17:16:50.8±0.5, 24°.02N×122°.52E, h24^{km}, M2.5*

ISC 29 17:16:48.7±0.4,**23°.90N**±0°.02×**122°.53E**±0°.02,**h4**^{km}±2^{km}, **n54,** σ**0^{s}.91**/92,**Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.71	38	P	Pg	17 17 03.0	+0.7
YOJ				S	Sg	17 17 11.2	-0.3
TWD	Chiawan	0.87	282	eP	Pg	17 17 06.0	+0.6
	baz=281						
TWD				eS	Sg	17 17 17.3	+0.5
	baz=281						
ENA	Nanau	0.89	306	iP	Pg	17 17 05.9	+0.1
	baz=308						
ENA				S	Sg	17 17 18.2	+0.9
	baz=308						
TWC	Suao	0.94	319	iP	Pg	17 17 06.3	-0.4
	baz=322						
TWC				S	Sg	17 17 18.5	-0.4
	baz=322						
ESL	Shilin	1.01	265	P	Pg	17 17 07.7	-0.4
	baz=262						
ESL				eS	Sg	17 17 21.0	-0.1
	baz=262						
ILA	Ilan	1.12	320	P	Pg	17 17 10.3	+0.2
	baz=323						
ILA				S	Sg	17 17 26.4	+1.7
	baz=323						
TWE	Neicheng	1.13	316	iP	Pg	17 17 10.2	-0.3
	baz=318						
TWE				iS	Sg	17 17 25.7	+0.5
	baz=318						
ENTT	Nioudou	1.15	310	iP	Pg	17 17 10.3	-0.3
	baz=311						
ENTT				S	Sg	17 17 26.1	+0.5
	baz=311						
HATJ	Hateruma jima	1.18	82	P	Pg	17 17 11.3	+0.1
HATJ				eS	Sg	17 17 27.2	+0.7
IRIF	Iriomote-Funau	1.18	68	P	Pg	17 17 11.6	+0.4
IRIF				eS	Sg	17 17 27.8	+1.3
EHY	Hungye	1.18	251	iP	Pg	17 17 10.6	-0.7
	baz=247						
EHY				eS	Sg	17 17 25.9	-0.6
	baz=247						
WHF	Hehuan Shan	1.18	282	iP	Pg	17 17 10.9	-0.5
	baz=281						
WHF				S	Sg	17 17 26.1	-0.6
	baz=281						
NNS	Nan Shan	1.19	297	iP	Pg	17 17 10.9	-0.5
	baz=297						
NNS				S	Sg	17 17 26.2	-0.6
	baz=297						
TWB1	Santiao Chiao	1.21	336	P	Pg	17 17 11.1	-0.7
	baz=339						
TWB1				eS	Sg	17 17 27.3	-0.2
	baz=339						
TWF1	Yuli	1.26	244	iP	Pg	17 17 12.2	-0.6
	baz=241						
TWF1				S	Sg	17 17 28.8	-0.3
	baz=241						
TWT	Tachien	1.29	286	P	Pg	17 17 12.9	-0.5
	baz=285						
TWT				S	Sg	17 17 30.5	+0.4
	baz=285						
NSK	Sanguang	1.32	306	P	Pn	17 17 12.9	-0.9
	baz=307						
NSK				S	Sg	17 17 31.5	+0.4
	baz=307						
CHKT	Chengkung	1.34	233	eS	Sg	17 17 28.5	-3.2
	baz=229						
NWF	Wu-fen Shan	1.35	330	P	Pn	17 17 13.1	-1.2
	baz=332						
NWF				S	Sg	17 17 31.9	-0.2
	baz=332						
TWA	Mucha	1.38	321	eP	Pn	17 17 14.8	+0.2
	baz=323						
JKRS	Kuro-shima	1.39	76	P	Pn	17 17 15.2	+0.4
JKRS				eS	Sb	17 17 32.6	-0.7
TAP1	Taipei	1.46	321	eS	Sb	17 17 33.9	-1.3
	baz=322						
SMLT	Sun Moon Lake	1.49	270	iP	Pn	17 17 15.7	-0.6
	baz=268						
SMLT				S	Sn	17 17 34.4	-1.7
	baz=268						
TYC	Yuchr	1.53	270	P	Pn	17 17 16.9	+0.1
	baz=269						
TYC				eS	Sn	17 17 37.2	+0.1
	baz=269						
JIJ	Ishigaki jima	1.54	72	P	Pn	17 17 15.7	-1.2
JIJ				eS	Sn	17 17 35.0	-2.3
ELDTW	Lidau	1.56	243	iP	Pn	17 17 15.8	-1.4
	baz=240						
ELDTW				S	Sn	17 17 34.4	-3.4
	baz=240						
TWS1	Kuangyinshan	1.57	320	eP	Pn	17 17 16.8	-0.4
	baz=321						
TWS1				S	Sn	17 17 38.1	+0.1
	baz=321						
NSTT	Nanjuang	1.57	298	iP	Pn	17 17 17.6	+0.3
	baz=298						
NSTT				S	Sn	17 17 37.5	-0.7
	baz=298						
TWY	Chenhua	1.61	328	P	Pn	17 17 17.8	0.0
	baz=330						
ALS	Alishan	1.63	256	iP	Pn	17 17 18.0	-0.1
	baz=254						
ALS				S	Sn	17 17 38.9	-0.6
	baz=254						
TWQ1	Liyutan	1.67	286	P	Pn	17 17 19.6	+0.9
	baz=285						
TWQ1				S	Sn	17 17 40.5	+0.1
	baz=285						
WNT	Mingjian	1.69	270	P	Pn	17 17 19.3	+0.4
	baz=268						
WNT				S	Sn	17 17 41.8	+0.8
	baz=268						
NSY	Sanyi	1.70	288	eS	Sn	17 17 42.0	+0.8
	baz=287						
TTN	Taitung	1.71	228	eS	Sn	17 17 44.6	+3.1
	baz=225						
TCU	Taichung	1.71	279	P	Pn	17 17 19.4	+0.1
	baz=277						
TCU				eS	Sn	17 17 40.8	-0.8
	baz=277						
TWG	Pinlang	1.72	232	eS	Sn	17 17 39.2	-2.5
	baz=228						
CHN5	Tsauling	1.73	260	P	Pn	17 17 19.9	+0.5
	baz=258						
CHN5				S	Sn	17 17 43.2	+1.4
	baz=258						
PCYT	Pengchaiyu	1.77	346	eP	Pn	17 17 20.2	+0.2
	baz=349						
STYT	Tauyuan	1.79	246	P	Pn	17 17 20.4	+0.1
	baz=243						
STYT				S	Sn	17 17 42.5	-0.9
	baz=243						
WGK	Gukeng	1.82	264	eS	Sn	17 17 44.7	+0.6
	baz=261						
CHN4	Tsaushan	1.86	253	P	Pn	17 17 21.9	+0.7
	baz=251						
CHN4				S	Sn	17 17 45.5	+0.3
	baz=251						
WTP	Ta-pu	1.88	250	iP	Pn	17 17 22.8	+1.3
	baz=247						
WTP				S	Sn	17 17 45.5	-0.1
	baz=247						
ECL	Taimali	1.95	228	P	Pn	17 17 21.8	-0.7
	baz=225						
ECL				eS	Sn	17 17 45.1	-2.3
	baz=225						
SGST	Jiashian	1.97	246	P	Pn	17 17 23.7	+1.0
	baz=243						
SGST				S	Sn	17 17 48.8	+0.9
	baz=243						
CHN1	Nanshi	1.97	249	iP	Pn	17 17 23.9	+1.1
	baz=247						
CHN1				iS	Sn	17 17 49.2	+1.3
	baz=247						
CHY	Chiayi	1.97	259	eS	Sn	17 17 48.4	+0.4
	baz=256						
TWK	Hsinying	1.98	252	eP	Pn	17 17 23.6	+0.7
	baz=249						
TWK				eS	Sn	17 17 48.1	-0.1
	baz=249						
LAY	Lan-yu	2.06	206	eP	Pn	17 17 23.2	-0.9
	baz=203						
SSD	Sandimen	2.09	237	P	Pn	17 17 25.7	+1.2
	baz=234						
SSD				S	Sn	17 17 52.5	+1.6
	baz=234						
WSF	Szhu	2.13	263	eS	Sn	17 17 51.8	-0.1
	baz=261						
TWM1	Shoushan	2.22	241	eP	Pn	17 17 27.2	+1.0
	baz=239						
TWM1				eS	Sn	17 17 57.2	+3.2
	baz=239						
TWK1	Hengchun	2.52	220	eS	Sn	17 18 02.4	+1.0
	baz=217						
PNG	Penghu	2.75	264	eS	Sn	17 18 05.5	-1.6
	baz=262						
DZM	Mont Dzumac	62.54	134	eLR	LR	17 27 00.4	
	876nm,25.8s						

NEIC ***29*** *17:18:01.0, 32°.61S×70°.02W, h116^{km}, MD3.5(GUC), After GUC.*

GUC 29 17:18:01.0±0.7,**32°.61S**×**70°.02W**,**h116**^{km}±7^{km},**MD3.5, ML2.9,5C-1D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JACH	Jahuel	0.49	261	⇑iP	Pn	17 18 18.7	+0.3
JACH				iS	Sn	17 18 32.2	+0.8
JACH	Jahuel	0.49	261	⇑iP	Pn	17 18 18.7	+0.3
JACH				iS	Sn	17 18 32.2	+0.8
FCH	Farellones	0.75	197	⇓iP	Pn	17 18 17.7	-2.7
FCH				iS	Sn	17 18 33.3	-1.7
FCH				AML	AML	17 18 35.7	
	comp=N,219nm,0.2s						
PEL	Peldehue	0.77	226	⇑iP	Pn	17 18 20.7	+0.2
PEL				iS	Sn	17 18 35.9	+0.6
PEL				AML	AML	17 18 37.2	
	comp=E,515nm,0.3s						
CLCH	Cerro Calan	0.90	209	eP	Pn	17 18 22.7	+1.1
CLCH				iS	Sn	17 18 38.2	+0.9
CLCH	Cerro Calan	0.90	209	eP	Pn	17 18 22.7	+1.1
CLCH				iS	Sn	17 18 38.2	+0.9
CLCH				AML	AML	17 18 40.8	
	comp=E,470nm,0.5s						
ANTU	Antumapu	1.09	208	P	Pn	17 18 26.1	+2.6
ANTU				iS	Sn	17 18 40.9	+0.3
ANTU	Antumapu	1.09	208	eP	Pn	17 18 26.1	+2.6
ANTU				iS	Sn	17 18 40.9	+0.3
ANTU				AML	AML	17 18 43.6	
	comp=E,307nm,0.3s						
PCH	Pirque	1.09	202	eP	Pn	17 18 24.1	+0.5
PCH				eS	Sn	17 18 41.8	+1.0
PCH	Pirque	1.09	202	eP	Pn	17 18 24.1	+0.5
PCH				eS	Sn	17 18 41.8	+1.0
RCDM	Rinconada Maip	1.10	217	eP	Pn	17 18 23.9	+0.2
RCDM				iS	Sn	17 18 41.5	+0.7
RCDM	Rinconada Maip	1.10	217	eP	Pn	17 18 23.9	+0.2
RCDM				iS	Sn	17 18 41.5	+0.7
RCDM				AML	AML	17 18 44.3	
	comp=E,486nm,0.1s						
TACH	Talagante	1.29	216	⇑iP	Pn	17 18 26.2	+0.4
TACH				iS	Sn	17 18 45.3	+0.7
TACH	Talagante	1.29	216	⇑iP	Pn	17 18 26.2	+0.4
TACH				iS	Sn	17 18 45.3	+0.7

IDC 29 17:59:35.8±3.6,**5°.00S**×**152°.16E**,**h0**^{km},**mb3.9**/3, **mb1 4.2**/3,**mb1mx3.6**/17,**mbtmp4.0**/3,**Error ellipse: s-maj=124.9km s-min=50.0km az=122.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.83	228	P	P	18 04 40.5	-0.1
	1.7nm,0.4s,baz=53,slow=10,SNR=12						
ASAR	Alice Springs	25.57	222	P	P	18 05 06.7	0.0
	1.2nm,0.4s,baz=57,slow=9.3,SNR=48						
FITZ	Fitzroy Crossi	29.00	241	P	P	18 05 37.7	+0.2
	2.0nm,0.8s,baz=79,slow=16,SNR=3.3						
TORD	Torodi Ar. Bea	149.76	288	PKPbc	PKPbc	18 19 28.5	-0.3
	0.1nm,0.5s,baz=82,slow=2.8,SNR=2.5						

IDC 29 18:18:14.3±2.5,**5°.60S**×**130°.74E**,**h0**^{km},**mb3.4**/1, **mb1 3.6**/4,**mb1mx3.4**/16,**mbtmp3.4**/4,**ML3.3**/3,**Error ellipse: s-maj=112.9km s-min=28.8km az=77.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.39	201	Pn	Pn	18 21 25.3	-0.5
	0.1nm,0.3s,baz=31,slow=8.6,SNR=4.9						
FITZ				Sn	Sn	18 23 40.7	-15
	0.2nm,0.3s,baz=198,slow=14,SNR=3.3						
WRA	Warramunga Arr	14.68	167	Pn	Pn	18 21 42.4	-1.0
	0.1nm,0.3s,baz=348,slow=12,SNR=7.2						
WRA				Sn	Sn	18 24 13.2	-14
	0.2nm,0.3s,baz=344,slow=21,SNR=6.5						
ASAR	Alice Springs	18.22	171	P	Pn	18 22 29.5	+0.7
	0.2nm,0.3s,baz=347,slow=11,SNR=11						
MKAR	Makanchi Array	67.47	326	P	P	18 29 12.2	+0.1
	0.2nm,0.4s,baz=112,slow=8.3,SNR=5.4						

IDC ***29*** *18:40:47.2±0.9, 33°.75N×74°.77E, h0^{km}, mb3.8/9, mb1 3.9/13, mb1mx3.7/29, mbtmp3.8/13, ML3.5/4, Error ellipse: s-maj=24.8km s-min=15.8km az=67.0*

MOS ***29*** *18:40:50.1±1.1, 33°.76N×74°.89E, h33^{km}, mb4.1/3, Error ellipse: s-maj=18.1km s-min=8.7km az=96.8*

ISCJB ***29*** *18:40:52.4±0.6, 33°.85N±0°.03×75°.11E±0°.07, h57^{km}±8^{km}, mb3.7/8, Error ellipse: s-maj=9.9km s-min=4.0km az=161.5*

NEIC ***29*** *18:40:53.5±1.4, 33°.75N×75°.01E, h51^{km}±12^{km}, mb3.8/1, Error ellipse: s-maj=27.1km s-min=5.4km az=59.0*

NEIC Felt in the Srinagar area.

BJI ***29*** *18:40:53.4, 33°.98N×74°.76E, h53^{km}, mb4.0/2, ML3.6/4, Ms3.5/1*

NDI ***29*** *18:40:54.5±2.8, 33°.88N×74°.96E, h51^{km}, ML3.8, mb3.8(NEIC)*

NNC ***29*** *18:40:58.0±3.5, 34°.09N×74°.47E, h49^{km}±31^{km}, mb3.4, mpv3.9, Error ellipse: s-maj=28.7km s-min=27.5km az=55.0*

ISC 29 18:40:53.9±0.5,**33°.82N**±0°.03×**75°.03E**±0°.07,**h51**^{km}±7^{km}, **n65,** σ**1^{s}.35**/83,**mb3.7**/8,**4C-4D,Eastern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMU	Jammu	1.10	186	ex	x	18 41 09.5	
JMU				eS	Sn	18 41 30.0	+2.8
DLH	Dalhousie	1.50	148	ePKP	Pn	18 41 22.0	+3.6
DLH				ex	x	18 41 46.0	
THN	Thein Dam	1.50	157	ePKP	Pn	18 41 19.1	+0.7
THN				ex	x	18 41 42.2	
BHK	Bhakra	2.67	154	ePKP	Pn	18 41 40.0	+5.6
BHK				eS	Sn	18 42 10.4	+4.9
SDNR	Sundarnagar	2.83	144	ePKP	Pn	18 41 38.0	+1.3
SDNR				ex	x	18 42 20.0	
KLP	Kalpa	3.55	129	ePKP	Pn	18 41 48.7	+2.2
KLP				eS	Sn	18 42 26.9	-0.2
KLP				AML	AML	18 42 49.7	
	comp=E,525nm,0.9s						
KLP				AML	AML	18 42 49.8	
	comp=N,244nm,0.4s						
DDI	Dehra Dun	4.33	143	ePKP	Pn	18 42 00.1	+2.8
DDI				ex	x	18 42 55.4	
NDI	New Delhi	5.45	159	ePKP	Pn	18 42 13.0	+0.4
NDI				eS	Sn	18 43 12.0	-2.0
BISR	Bishrakh	5.62	158	eS	Sn	18 43 16.3	-2.0
KSH	Kashi	5.74	7	P	Pn	18 42 16.0	-0.4
KSH				S	Sn	18 43 16.3	-4.6
KSH				smax			
	comp=N,56nm,0.7s						
KSH				smax			
	comp=E,86nm,0.4s						
KHET	Khetri	5.77	173	ePKP	Pn	18 42 16.2	-0.7
KHET				eS	Sn	18 43 18.6	-3.1
KUDL	Kundal	5.79	167	ePKP	Pn	18 42 17.7	+0.4
KUDL				eS	Sn	18 43 18.7	-3.7
SONA	Sohna	5.83	162	ePKP	Pn	18 42 19.4	+1.7
SONA				eS	Sn	18 43 19.8	-3.4
SONA				eS	Sn	18 43 19.9	-3.3
AGRA	Agra	7.03	158	ePKP	Pn	18 42 35.1	+0.8
AGRA				eS	Sn	18 43 48.6	-4.3
AGRA				AML	AML	18 44 57.0	
	comp=N,93nm,0.4s						
AGRA				AML	AML	18 45 00.3	
	comp=E,84nm,0.4s						
AML	Almayashu	8.36	353	ePn	Pn	18 42 53.5	+1.1
	comp=E,11nm,0.6s						
UCH	Uchtor	8.40	357	ePn	Pn	18 42 54.9	+2.0
	comp=E,9.9nm,0.6s						
UCH				eSn	Sn	18 44 24.6	-1.8
AAK	Ala-Archa	8.81	357	Pn	Pn	18 43 00.0	+1.5
	comp=E,0.0nm,0.3s,baz=105,slow=6.5,SNR=10						
AAK				Sn	Sn	18 44 37.0	+0.6
	comp=E,0.0nm,0.3s,baz=16,slow=5.2,SNR=4.4						
AAK	Ala-Archa	8.81	357	Pn	Pn	18 43 00.0	+1.5
AAK				Sn	Sn	18 44 37.0	+0.6
EKS2	Erkin-Say	8.88	354	ePn	Pn	18 43 01.7	+2.2
	comp=E,2.0nm,0.5s						
EKS2				eSn	Sn	18 44 35.6	-2.5
TKM2	Tokmak 2	9.10	3	⇑P	Pn	18 43 04.3	+1.9
	comp=E,3.0nm,0.6s						

TKM2				⇑S	Sn	18 44 44.2	+0.8
	comp=E,3.4nm,0.7s						
TKM2	Tokmak 2	9.10	3	*e*P	Pn	18 43 03.7	+1.2
TKM2				*e*		18 44 44.4	
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.4s						
TKM2	Tokmak 2	9.10	3	*e*Pn	Pn	18 43 03.7	+1.2
	comp=Z,4.2nm,0.4s						
TKM2				*e*Sn	Sn	18 44 44.4	+1.0
DANN	Dangsing	9.26	124	*e*P	Pn	18 43 05.3	+0.5
KOLN	Koldanda	9.52	127	*e*P	Pn	18 43 08.7	+0.3
	comp=Z,8.1nm,0.3s						
KK31	Karatay Array	9.92	340	P	Pn	18 43 12.6	-1.1
	comp=Z,1.2nm,0.3s,baz=158,slow=11,SNR=56						
KK31				⇓S	Sn	18 44 57.2	-6.4
	comp=Z,3.8nm,0.5s,baz=169,slow=24,SNR=5.5						
GKN	Gorkha	10.08	123	*e*P	Pn	18 43 16.3	+0.3
	comp=Z,27nm,0.4s						
DMN	Daman	10.65	123	*e*P	Pn	18 43 23.6	-0.2
KKN	Kakani	10.67	122	*e*P	Pn	18 43 23.3	-0.7
PKIN	Phulchoki	10.88	122	*e*P	Pn	18 43 26.2	-0.7
	comp=Z,9.0nm,0.3s						
PKI	Pulchoki	10.89	122	*e*P	Pn	18 43 26.3	-0.8
GUN	Gumba	11.03	119	*e*P	Pn	18 43 28.4	-0.5
	comp=Z,19nm,0.3s						
JIRN	Jiri	11.39	120	*e*P	Pn	18 43 33.3	-0.7
	comp=Z,33nm,0.3s						
RAMN	Ramite	12.11	121	*e*P	Pn	18 43 42.0	-1.7
TAPN	Taplejung	12.68	117	*e*P	Pn	18 43 49.9	-1.6
	comp=Z,16nm,0.4s						
ODAN	Odare	12.73	120	*e*P	Pn	18 43 50.6	-1.6
	comp=Z,19nm,0.5s						
MK31	Makanchi Array	14.08	21	P	Pn	18 44 12.7	+2.2
	comp=Z,0.3nm,0.4s,baz=202,slow=13,SNR=9.3						
MKAR	Makanchi Array	14.08	21	Pn	Pn	18 44 10.6	+0.1
	comp=Z,0.2nm,0.3s,baz=201,slow=13,SNR=8.9						
MKAR				Sn	Sn	18 46 43.5	-1.7
	comp=Z,0.1nm,0.3s,baz=200,slow=25,SNR=4.0						
MKAR	Makanchi Array	14.08	21	Pn	Pn	18 44 10.6	+0.1
MKAR				Sn	Sn	18 46 43.5	-1.7
KURBB	Kurchatov Arra	16.99	8	⇓P	Pn	18 44 47.8	+0.1
	comp=Z,1.8nm,1.7s						
KURK	Kurchatov	17.09	8	⇑P	Pn	18 44 49.4	+0.4
	comp=Z,10nm,1.9s						
KURK	Kurchatov	17.09	8	P	Pn	18 44 46.8	-2.2
	comp=Z,0.1nm,0.3s,baz=194,slow=12,SNR=8.9						
AB01	Akbulak array	19.06	329	⇓P	Pn	18 45 11.1	-1.8
	comp=Z,1.4nm,0.8s						
BVA0	Borovoye Array	19.48	352	⇑P	Pn	18 45 17.4	-0.6
	comp=Z,0.8nm,1.2s,baz=0.0,slow=0.1,SNR=10						
BVAR	Borovoye Array	19.48	352	P	Pn	18 45 16.6	-1.4
	comp=Z,0.6nm,0.3s,baz=156,slow=8.7,SNR=9.6						
BRVK	Borovoye	19.53	351	*e*P	Pn	18 45 17.0	-1.5
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BRVK	Borovoye	19.53	351	*e*P	Pn	18 45 17.0	-1.5
	comp=Z,3.5nm,0.6s						
GTA	Gaotai	20.64	67	*e*P	P	18 45 37.3	+8.3
GTA				pP		18 45 40.8	
GTA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AKTK	Aktyubinsk	20.77	328	P	P	18 45 28.9	-1.5
AKTO	Aktyubinsk	20.77	328	⇓P	P	18 45 29.8	-0.6
	comp=Z,0.8nm,0.9s						
AKTO	Aktyubinsk	20.77	328	P	P	18 45 28.9	-1.5
	comp=Z,1.7nm,0.5s,baz=138,slow=8.1,SNR=9.2						
ZAA0	Zalesovo Array	21.29	16	*e*P	P	18 45 35.8	-0.1
ZALV	Zalesovo Beam	21.29	16	P	P	18 45 36.2	+0.4
	comp=Z,2.1nm,0.3s,mb3.9,baz=217,slow=9.5,SNR=8.7						
ZALV	Zalesovo Beam	21.29	16	P	P	18 45 36.2	+0.4
NVS	Novosibirsk	21.79	13	*e*P	P	18 45 41.5	+0.2
CMAR	Chiang Mai Arr	26.27	120	P	P	18 46 25.9	+1.4
	comp=Z,1.2nm,0.9s,mb3.4,baz=308,slow=9.9,SNR=11						
SONM	Songino Array	27.34	50	P	P	18 46 35.8	+2.0
	comp=Z,0.6nm,0.5s,mb3.4,baz=234,slow=10.0,SNR=5.0						
ARCES	ARCESS Array B	44.87	338	P	P	18 49 03.2	+0.5
	comp=Z,3.1nm,0.6s,mb4.3,baz=105,slow=7.9,SNR=15						
ARCES	ARCESS Array B	44.87	338	P	P	18 49 03.2	+0.5
TORD	Torodi Ar. Bea	69.03	272	P	P	18 51 53.5	-1.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=44,slow=5.3,SNR=7.5						
WRA	Warramunga Arr	77.77	124	P	P	18 52 47.5	+1.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	77.77	124	P	P	18 52 47.5	+1.8
	comp=Z,0.6nm,0.7s,mb3.7,baz=329,slow=5.3,SNR=6.1						
ASAR	Alice Springs	80.01	127	P	P	18 52 59.2	+1.2
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	80.01	127	P	P	18 52 59.1	+1.2
	comp=Z,0.5nm,0.8s,mb3.5,baz=320,slow=5.7,SNR=6.4						
YKA	Yellowknife Ar	83.71	4	P	P	18 53 18.1	+1.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	83.71	4	P	P	18 53 18.1	+1.2
	comp=Z,0.7nm,0.5s,mb4.1,baz=346,slow=5.1,SNR=12						

MAN 29 18:45:50, 13°.95N×123°.97E, h29^{km}, mb4.3, ML3.1, MS2.9, 1C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVCP	Virac	0.39	153	*e*P	Pb	18 46 00.5	+1.8
PVCP				*e*S	Sb	18 46 07.8	+3.1
GQP	Guinayangan	1.48	268	⇑*e*P	Pn	18 46 13.7	-1.1
GQP				*e*S	Sn	18 46 31.1	-2.1
POLP	Polilio Island	2.12	292	*e*P	Pn	18 46 24.2	+0.7
POLP				*e*S	Sn	18 46 49.8	+0.9
BOAC	Boac	2.13	257	*e*P	Pn	18 46 24.5	+0.9
BOAC				*e*S	Sn	18 46 50.1	+1.1

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*NEIC **29** 18:55:54.8, 71°.94N×74°.10W, h18^{km}, MN3.8(OTT), After OTT.*

*IDC **29** 18:55:56.3±1.3, 71°.89N×75°.20W, h0^{km}, mb3.6/3, mb1 3.7/7, mb1mx3.4/29, mbtmp3.5/7, ML3.1/4, Error ellipse: s-maj=28.9km s-min=14.7km az=62.0*

OTT 29 18:55:55.7±1.4, **71°.77N×74°.09W, h18^{km}, MN3.8**/14, **150km southeast from Pond Inlet, Nu Baffin Island Seismic Zone, Nt., Baffin Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GIFN	Gifford Fjord,	3.06	238	PN	Pn	18 56 43.2	+0.2
GIFN				SN	Sn	18 57 17.9	-1.0
GIFN				SG	Sg	18 57 23.3	-10
GIFN				Trac		18 57 32.3	
	comp=Z,99nm,0.2s						
GIFN	Gifford Fjord,	3.06	238	Pn	Pn	18 56 43.2	+0.2
ILON	Igloolik, Nuna	3.53	231	PN	Pn	18 56 50.2	+0.8
ILON				SN	Sn	18 57 30.7	+0.1
ILON				SG	Sg	18 57 38.7	-10
ILON				Trac		18 57 47.7	
	comp=Z,126nm,0.2s						
ILON	Igloolik, Nuna	3.53	231	Pn	Pn	18 56 50.2	+0.8
LAIN	Lailor River,	4.15	235	PN	Pn	18 56 57.9	0.0
LAIN				PG	Pg	18 57 07.7	-7.3
LAIN				SN	Sn	18 57 44.3	-1.5
LAIN				LG		18 57 56.1	
LAIN				Trac		18 58 02.2	
	comp=Z,152nm,0.5s						
LAIN	Lailor River,	4.15	235	Pn	Pn	18 56 57.9	0.0
RES	Resolute Bay	6.67	306	PN	Pn	18 57 29.1	-3.4
RES				SN	Sn	18 58 37.5	-10
RES				LG		18 59 13.5	
RES				Trac		18 59 30.2	
	comp=Z,47nm,1.1s						
RES	Resolute Bay	6.67	306	Pn	Pn	18 57 28.9	-3.6
	0.8nm,0.3s,baz=114,slow=10,SNR=17						
RES				Sn	Sn	18 58 37.6	-10
	1.3nm,0.3s,baz=0.2,slow=23,SNR=6.5						
RES				Lg		18 59 16.1	
	2.9nm,0.3s,baz=172,slow=22,SNR=8.4						
RES	Resolute Bay	6.67	306	*e*Pn	Pn	18 57 29.1	-3.4
	2.5nm,0.4s						
RES				*e*Sn	Sn	18 58 38.4	-10
QILN	Qililugaq Expl	6.73	226	PN	Pn	18 57 32.5	-0.9
QILN				SN	Sn	18 58 44.2	-5.2
QILN				LG		18 59 19.2	
QILN				Trac		18 59 23.9	
	comp=Z,64nm,0.5s						
WAGN	Wager Bay	8.09	231	PN	Pn	18 57 49.8	-2.1
WAGN				LG		19 00 03.8	
FRB	Frobisher Bay	8.32	163	PN	Pn	18 57 57.0	+1.8
FRB				SN	Sn	18 59 31.3	+2.8
FRB				LG		19 00 17.8	
FRB				Trac		19 00 32.6	
	comp=Z,32nm,0.3s						
FRB	Frobisher Bay	8.32	163	Pn	Pn	18 57 59.0	+3.9
	0.5nm,0.3s,baz=340,slow=14,SNR=6.7						
FRB				Sn	Sn	18 59 31.4	+3.0
	3.8nm,0.3s,baz=250,slow=14,SNR=11						
FRB				Lg		19 00 17.6	
	6.9nm,0.3s,baz=62,slow=18,SNR=6.8						
FRB	Frobisher Bay	8.32	163	Pn	Pn	18 57 57.0	+1.8
FRB				Sn	Sn	18 59 31.4	+3.0
FRB				Lg		19 00 17.6	
BULN	Bullion Camp,	8.65	241	PN	Pn	18 57 56.9	-2.7
BULN				SN	Sn	18 59 22.4	-14
BULN				LG		19 00 16.2	
BULN				Trac		19 00 18.2	
	comp=Z,29nm,0.4s						
BULN	Bullion Camp,	8.65	241	Pn	Pn	18 57 56.9	-2.7
EUNU	Eureka	8.82	346	PN	Pn	18 58 00.8	-1.2
EUNU				SN	Sn	18 59 36.4	-4.3
NUNN	Nunuq Camp, NU	9.03	232	PN	Pn	18 57 57.4	-7.4
NUNN				SN	Sn	18 59 38.0	-7.8
NUNN				LG		19 00 28.1	
NUNN				Trac		19 00 36.6	
	comp=Z,147nm,1.4s						
NUNN	Nunuq Camp, NU	9.03	232	Pn	Pn	18 57 57.4	-7.4
IVKQ	Ivujivik	9.50	191	PN	Pn	18 58 05.6	-5.8
IVKQ				SN	Sn	18 59 53.8	-3.7
IVKQ				LG		19 00 50.5	
IVKQ				Trac		19 01 02.4	
	comp=Z,56nm,0.8s						
SEDN	First Sedna Si	10.72	226	PN	Pn	18 58 25.0	-2.9
SEDN				SN	Sn	19 00 15.4	-12
SEDN				LG		19 01 18.0	
SEDN				Trac		19 01 32.4	
	comp=Z,29nm,0.5s						
SUMG	Summit	10.85	69	*e*Pn	Pn	18 58 32.9	+3.3
	6.3nm,0.5s						
SUMG				*e*Sn	Sn	19 00 29.0	-1.3
JOSN	Second Sedna S	10.87	226	PN	Pn	18 58 27.1	-2.9
JOSN				SN	Sn	19 00 20.2	-11
JOSN				LG		19 01 24.9	
AKVQ	Akulivik	11.12	190	SN	Sn	19 00 32.6	-4.6
AKVQ				LG		19 01 38.3	
ARVN	Arviat, NU	13.26	226	PN	Pn	18 59 00.1	-2.6
ARVN				SN	Sn	19 01 17.0	-12
ARVN				LG		19 02 38.7	
ARVN				Trac		19 02 56.7	
	comp=Z,56nm,1.1s						
INUQ	Inukjuak	13.47	189	PN	Pn	18 59 04.9	-0.7
INUQ				SN	Sn	19 01 28.8	-5.8
INUQ				LG		19 02 50.0	
INUQ				Trac		19 02 54.3	
	comp=Z,30nm,0.8s						
KUQ	Kuujjuuaa	13.91	167	PN	Pn	18 58 58.7	-13
KUQ				SN	Sn	19 01 37.3	-7.9
KUQ				LG		19 03 11.1	
KUQ				Trac		19 03 26.3	
	comp=Z,23nm,0.5s						
JERN	Jeri Cho Mine,	14.42	265	SN	Sn	19 01 37.0	-20
JERN				LG		19 03 00.4	
FCC	Fort Churchill	15.37	222	SN	Sn	19 02 08.1	-13
FCC				LG		19 03 43.3	
FCC				Trac		19 04 09.6	
	comp=Z,65nm,1.4s						
FCC	Fort Churchill	15.37	222	*e*Pn	Pn	18 59 21.1	-10
FCC				*e*Sn	Sn	19 02 05.0	-16
SNQN	Sanikiluaq	15.44	191	SN	Sn	19 02 13.5	-8.9
SNQN				LG		19 03 53.3	
SNQN				Trac		19 03 59.3	
	comp=Z,16nm,0.7s						
CTLN	Castor Lake	16.91	265	PN	Pn	18 59 39.6	-11
CTLN				SN	Sn	19 02 33.6	-25
CTLN				LG		19 04 22.0	
CTLN	Castor Lake	16.91	265	Pn	Pn	18 59 39.6	-11
SCHQ	Schefferville	17.28	166	Pn	Pn	18 59 56.7	+1.0
	0.1nm,0.3s,baz=357,slow=14,SNR=2.8						
SCHQ				Lg		19 04 55.3	
	0.5nm,0.3s,baz=59,slow=18,SNR=6.5						
SCHQ	Schefferville	17.28	166	Pn	Pn	18 59 56.7	+1.0
SCHQ				Lg		19 04 55.3	
YKW3	Yellowknife Ar	17.82	260	PN	Pn	18 59 55.7	-6.5
YKW3				SN	Sn	19 02 56.3	-24
YKW3				LG		19 04 49.2	
YKW3				Trac		19 05 01.9	
	comp=Z,23nm,1.1s						
YKA	Yellowknife Ar	17.87	259	Pn	Pn	18 59 56.8	-6.0
	0.2nm,0.3s,baz=45,slow=14,SNR=7.8						
YKA				Lg		19 04 48.7	
	0.3nm,0.3s,baz=39,slow=30,SNR=4.9						
YKA	Yellowknife Ar	17.87	259	Pn	Pn	18 59 56.8	-6.0
YKA				Lg		19 04 48.7	
SILO	Sutton Inlier	17.97	201	PN	Pn	19 00 03.5	-0.7
SILO				SN	Sn	19 03 07.8	-16
SILO				LG		19 05 06.8	
LG4Q	La Grande 4	18.21	180	PN	Pn	19 00 08.2	+1.2
LG4Q				SN	Sn	19 03 18.2	-11
LG4Q				LG		19 05 16.9	
LG4Q				Trac		19 05 39.0	
	comp=Z,7.0nm,0.5s						
INK	Inuvik	19.84	289	P	Pn	19 00 22.5	-4.1
	1.0nm,0.7s						
FFC	Flin Flon	20.85	230	LG		19 06 29.2	
DAWY	Dawson	24.45	285	P	P	19 01 10.3	-2.5
DLBC	Dease Lake	25.84	268	P	P	19 01 25.2	-0.3
	1.4nm,0.9s,baz=72,slow=16,SNR=2.7						
TXAR	Lajitas Array	45.44	217	P	P	19 04 17.0	+4.0
	0.1nm,0.4s,baz=14,slow=9.3,SNR=2.9						
ZALV	Zalesovo Beam	53.70	15	P	P	19 05 18.8	+3.1
	0.6nm,0.3s,baz=337,slow=6.3,SNR=3.1						

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*IDC **29** 19:06:09.8±6.0, 35°.34N×21°.08E, h0^{km}, mb3.7/5, mb1 3.7/6, mb1mx3.4/25, mbtmp3.6/6, ML4.2/1, Error ellipse: s-maj=110.0km s-min=44.5km az=31.0*

*NEIC **29** 19:06:20.9±1.3, 36°.48N×21°.91E, h10^{km}, Error ellipse: s-maj=22.2km s-min=9.7km az=174.0*

*ISCJB **29** 19:06:22.7±0.9, 36°.28N±0°.05×21°.60E±0°.05, h23^{km}±6^{km}, mb3.5/5, Error ellipse: s-maj=7.7km s-min=6.4km az=9.3*

*CSEM **29** 19:06:23.8±0.3, 36°.34N×21°.87E, h5^{km}, ML3.4/1, Error ellipse: s-maj=8.1km s-min=5.9km az=55.0*

*THE **29** 19:06:24.6, 36°.37N×21°.92E, h0^{km}±3^{km}, ML3.4/1, Error ellipse: s-maj=5.6km s-min=1.0km az=232.0*

*ATH **29** 19:06:24.3, 36°.40N×21°.72E, h31^{km}±2^{km}, MD3.6/6*

ISC 29 19:06:22.8±1.0, **36°.29N**±0°.05×**21°.66E**±0°.05, **h15**^{km}±5^{km}, **n50**, σ**1^{s}.22**/62, **mb3.5**/5, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.61	6	P	Pg	19 06 34.9	+0.1
PYL				S	Sg	19 06 42.8	0.0
PYL	PYLOS	0.61	6	*e*PN	Pg	19 06 34.9	+0.1
PYL				*e*SN	Sg	19 06 42.7	-0.1
PYL	PYLOS	0.61	6	P	Pg	19 06 34.9	+0.1
PYL				S	Sg	19 06 42.8	0.0
ITM	Ithomi	0.91	13	*e*PN	Pg	19 06 40.0	-0.5
ITM				*e*SN	Sg	19 06 52.6	+0.1
KYTH	Kithira	1.11	90	*e*PN	Pn	19 06 44.0	+0.2
VLI	Veliai	1.11	67	*e*PN	Pg	19 06 44.2	-0.1
VLI				*e*SN	Sg	19 06 58.2	-0.7
VLX	Vlachokerasia	1.22	28	*e*PN	Pn	19 06 45.1	-0.3
VLX				*e*SN	Sn	19 07 00.5	-1.1
GUR	Goura	1.73	18	*e*PN	Pn	19 06 53.5	+1.1
DID	Didima	1.75	46	P	Pn	19 06 52.0	-0.7
DID				S	Sn	19 07 14.2	-0.5
DID	Didima	1.75	46	*e*PB	Pn	19 06 52.1	-0.6
DID	Didima	1.75	46	P	Pn	19 06 52.0	-0.7
DID				S	Sn	19 07 14.2	-0.5
RLS	Riolos of Patr	1.77	355	*e*PB	Pn	19 06 53.2	+0.3
LAKA	Lakka	1.96	7	P	Pn	19 06 56.8	+1.3
LAKA	Lakka	1.96	7	P	Pn	19 06 56.8	+1.3
KARN	Karanos	2.04	115	P	Pn	19 06 57.6	+1.0
KARN	Karanos	2.04	115	P	Pn	19 06 57.6	+1.0
VLS	Valsamata	2.07	336	*e*PN	Pn	19 06 57.5	+0.5
NAIG	Nisos Aigina	2.07	44	*e*PN	Pn	19 06 57.6	+0.6
TRIZ	Trizonia	2.10	9	P	Pn	19 06 58.4	+1.0
TRIZ	Trizonia	2.10	9	P	Pn	19 06 58.4	+1.0
KALE	Kalithea	2.13	10	P	Pn	19 06 59.1	+1.2
KALE	Kalithea	2.13	10	P	Pn	19 06 59.1	+1.2
EFP	Efpalio	2.14	5	*e*PB	Pb	19 06 59.7	-1.6
VAM	Vamos	2.24	112	*e*PB	Pb	19 07 03.0	0.0
VLY	Voula,Athens	2.31	47	*e*PN	Pn	19 07 01.2	+0.9
LKR	Lokris	2.59	24	*e*PN	Pn	19 07 04.5	+0.4
AGG	Agios Georgios	2.78	11	P	Pn	19 07 08.4	+1.6
AGG				S	Sn	19 07 42.6	+2.6
AGG	Agios Georgios	2.78	11	*e*PN	Pn	19 07 07.1	+0.3
AGG	Agios Georgios	2.78	11	P	Pn	19 07 08.4	+1.6
AGG				S	Sn	19 07 42.6	+2.6
THL	Klokotos Trika	3.28	5	*e*PN	Pn	19 07 13.8	+0.1
LIT	Litokhoron	3.86	10	*e*PN	Pn	19 07 22.5	+0.9
SOI	Samo	4.82	293	Pn	Pn	19 07 38.9	+4.1
SOI	Samo	4.82	293	Pn	Pn	19 07 38.9	+4.1
TIP	Timpagrande	4.84	308	*e*Pn	Pn	19 07 34.8	-0.3
TIP				*e*Sn	Sn	19 08 16.5	-14
TIP	Timpagrande	4.84	308	*e*Pn	Pn	19 07 34.8	-0.3
CEL	Celeste	5.00	295	Pn	Pn	19 07 37.5	+0.2
	26nm,0.4s						
CEL	Celeste	5.00	295	Pn	Pn	19 07 37.5	+0.2
	26nm,0.4s						
HMDC	Modica	5.57	279	Pn	Pn	19 07 46.1	+1.0
	62nm,0.2s						
HMDC	Modica	5.57	279	Pn	Pn	19 07 46.1	+1.0
	62nm,0.2s						
LTRZ	Laterza	5.74	320	Pn	Pn	19 07 46.2	-1.3
LTRZ	Laterza	5.74	320	Pn	Pn	19 07 46.2	-1.3
CUC	Castrocucco	5.91	311	Pn	Pn	19 07 53.1	+3.4
NVLJ	Novalja	9.75	330	*e*Pn	Pn	19 08 39.6	-2.8
NVLJ				Sn	Sn	19 10 20.8	-11
AKASG	Malin Array Be	15.40	18	Pn	Pn	19 10 01.2	+1.8
	1.0nm,0.3s,baz=211,slow=9.1,SNR=5.1						
HFS	Hagfors	24.41	350	P	P	19 11 38.2	-2.2
	1.3nm,0.7s,mb3.5,baz=151,slow=9.2,SNR=6.1						
FINES	FINESS Array B	25.33	5	P	P	19 11 46.0	-2.8
	2.3nm,1.0s,mb3.6,baz=191,slow=9.1,SNR=5.1						
NOA	NORSAR Array B	25.65	348	P	P	19 11 49.0	-2.6
	0.8nm,0.8s,mb3.3,baz=160,slow=10.0,SNR=2.6						
ARCES	ARCESS Array B	33.37	2	P	P	19 12 57.0	-3.1
	1.2nm,0.7s,mb3.9,baz=175,slow=12,SNR=4.0						
MKAR	Makanchi Array	45.54	57	P	P	19 14 38.5	-3.3
	0.2nm,0.4s,mb3.4,baz=270,slow=7.8,SNR=11						
MKAR	Makanchi Array	45.54	57	P	P	19 14 38.5	-3.3

NEIC 29 19:11:29.3, 38°.01S×176°.12E, h158^{km}, MG3.8(WEL), **After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.82	108	P	Pn	19 11 53.4	0.0
MWZ	Matawai	1.16	107	P	Pn	19 11 56.4	+0.3
MWZ				S	Sn	19 12 16.7	+0.1
BKZ	Black Stump Fm	1.19	166	P	Pn	19 11 56.1	-0.3
WNVZ	Wahianoa	1.38	197	P	Pn	19 11 58.4	+0.2
MOVZ	Moawhango	1.43	192	P	Pn	19 11 58.3	-0.4
KNZ	Kokohu	1.58	130	P	Pn	19 12 00.1	-0.2
PUZ	Puketiti	1.69	93	P	Pn	19 12 00.8	-0.6
MXZ	Matakaoa Point	1.79	76	P	Pn	19 12 02.7	+0.2
WAZ	Wanganui	1.96	207	P	Pn	19 12 04.0	-0.3
TSZ	Takapari Road	2.05	183	P	Pn	19 12 04.3	-1.1
DVHZ	Dannevirke	2.29	179	P	Pn	19 12 06.7	-1.5
BFZ	Birch Farm	2.67	178	P	Pn	19 12 10.8	-2.0
MRZ	Mangatainoka R	2.68	189	P	Pn	19 12 10.9	-2.0
KIW	Kapiti Island	3.00	198	P	Pn	19 12 14.4	-2.5
MTW	Mount Morrison	3.18	188	P	Pn	19 12 16.1	-3.1
CAW	Cannon Point	3.20	194	P	Pn	19 12 16.5	-2.9
MRW	Makara Radio	3.40	198	P	Pn	19 12 18.9	-3.0
PAWZ	Paruwai Farm	3.41	189	P	Pn	19 12 18.9	-3.2
MSWZ	Moikau Station	3.47	191	P	Pn	19 12 19.5	-3.3
SNZO	South Karori	3.47	198	P	Pn	19 12 19.5	-3.4
TCW	Tory Channel	3.50	203	P	Pn	19 12 20.2	-3.0
BHW	Baring Head	3.53	195	P	Pn	19 12 20.1	-3.5
NNZ	Nelson	3.84	213	P	Pn	19 12 24.8	-2.8
QRZ	Quartz Range	3.96	224	P	Pn	19 12 25.7	-3.4
THZ	Tophouse	4.49	212	P	Pn	19 12 31.7	-4.4
KHZ	Kahutara	4.83	203	P	Pn	19 12 36.4	-4.0
LTZ	Lake Taylor	5.60	210	P	Pn	19 12 47.0	-3.6

MEX 29 19:17:29.4±0.7, **17°.19N×99°.74W, h7**^{km}±5^{km}, **MD3.5, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.36	208	*i* P	Pg	19 17 35.8	-0.7
ACX				*i* S	Sg	19 17 41.7	+0.5
CAIG	El Cayaco	0.53	255	*i* P	Pg	19 17 39.0	-0.5
CAIG				*i* S	Sg	19 17 46.8	+0.3
MEIG	Mezcala	0.74	9	*i* P	Pg	19 17 42.9	-0.9
MEIG				*i* S	Sg	19 17 51.9	-1.5
PNIG	Pinotepa	1.73	117	*i* P	Pn	19 17 56.7	-3.2
PNIG				*i* S	Sn	19 18 17.7	-4.5
UTMO	Huajuapan	1.95	71	*e*P	Pn	19 17 58.6	-4.3
UTMO				*i* S	Sn	19 18 22.7	-5.0

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*IDC **29** 19:29:31.6±1.5, 52°.70N×167°.38W, h0^{km}, mb3.5/8, mb1 3.8/9, mb1mx3.6/27, mbtmp3.6/9, ML3.4/1, MS3.4/2, Ms1 3.4/2, ms1mx2.9/43, Error ellipse: s-maj=40.5km s-min=19.2km az=9.0*

*ISCJB **29** 19:29:33.5±0.8, 52°.34N±0°.07×167°.39W±0°.09, h33^{km}, mb3.5/9, MS3.4/2, Error ellipse: s-maj=9.9km s-min=7.6km az=25.3*

*NEIC **29** 19:29:33.2, 52°.42N×167°.38W, h10^{km}, ML3.0(AEIC), After AEIC.*

ISC 29 19:29:35.7±0.8, **52°.43N**±0°.07×**167°.43W**±0°.09, **h35**^{km}, **n18**, σ**0^{s}.94**/21, **mb3.5**/8, **MS3.4**/2, **Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	Nikolski	1.03	303	P	Pn	19 29 52.5	-1.1
NIKO				S	Sn	19 30 07.2	+0.5
OKFG	Magazine Ridge	1.03	344	P	Pn	19 29 52.6	-1.0
OKFG				S	Sn	19 30 07.9	+1.1
UNV	Unalaska Valle	1.53	21	P	Pn	19 29 59.3	-1.2
UNV				S	Sn	19 30 20.4	+1.3
AKLV	Akutan Long Va	1.95	26	P	Pn	19 30 06.2	-0.1
AKUT	Akutan	1.98	29	*e*Pn	Pn	19 30 05.7	-0.9
KDAK	Kodiak Island	10.05	52	Pn	Pn	19 31 56.2	-1.1
	0.3nm,0.3s,baz=242,slow=7.6,SNR=3.6						
PETK	Petropavlovsk-	20.99	286	P	P	19 34 17.2	+1.5
	1.1nm,0.5s,baz=83,slow=15,SNR=7.7						
PETK	Petropavlovsk-	20.99	286	P	P	19 34 17.2	+1.5
INK	Inuvik	22.65	33	P	P	19 34 32.6	-0.6
	1.0nm,0.7s,mb3.4,baz=231,slow=6.5,SNR=3.7						
INK				LR	LR	19 43 44.0	
	comp=Z,74nm,21.2s,MS3.1,baz=315,slow=38						
YKA	Yellowknife Ar	29.31	49	P	P	19 35 35.4	+1.0
	0.1nm,0.4s,mb2.9,baz=275,slow=7.4,SNR=3.0						
NVAR	Mina Array Bea	36.48	93	P	P	19 36 38.4	+1.2
	1.2nm,0.6s,mb4.0,baz=306,slow=7.7,SNR=5.2						
NVAR	Mina Array Bea	36.48	93	P	P	19 36 38.4	+1.2
PDAR	Pinedale Array	39.22	80	P	P	19 37 01.3	+1.0
	0.4nm,0.8s,mb3.2,baz=288,slow=4.3,SNR=2.5						
TXAR	Lajitas Array	51.56	90	P	P	19 38 38.4	+0.3
	0.7nm,0.8s,mb3.6,baz=309,slow=5.7,SNR=6.0						
TXAR	Lajitas Array	51.56	90	P	P	19 38 38.4	+0.3
MKAR	Makanchi Array	64.62	314	P	P	19 40 08.6	-0.7
	0.3nm,0.7s,mb3.4,baz=39,slow=6.4,SNR=5.4						
MKAR				LR	LR	20 13 12.1	
	comp=Z,48nm,20.2s,MS3.7,baz=300,slow=41						
FINES	FINESS Array B	65.97	353	P	P	19 40 17.1	-0.7
	5.4nm,1.1s,mb4.5,baz=7.4,slow=7.5,SNR=4.1						
AKASG	Malin Array Be	76.29	349	P	P	19 41 19.9	-0.5
	0.2nm,0.3s,mb3.5,baz=9.2,slow=5.3,SNR=3.2						

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*ATH **29** 19:36:35.4, 36°.23N×21°.63E, h12^{km}±2^{km}, MD3.7/6, ML3.2*

*ISCJB **29** 19:36:37.4±0.6, 36°.32N±0°.04×21°.66E±0°.05, h10^{km}, Error ellipse: s-maj=5.8km s-min=4.8km az=150.3*

*NEIC **29** 19:36:38.0, 36°.17N×21°.84E, h10^{km}, ML3.1(ATH), After ATH.*

*CSEM **29** 19:36:39.0±0.5, 36°.40N×21°.77E, h2^{km}, ML3.1, Error ellipse: s-maj=11.9km s-min=7.7km az=41.0*

*THE **29** 19:36:39.1, 36°.41N×21°.73E, h0^{km}±3^{km}, Error ellipse: s-maj=3.9km s-min=0.8km az=244.0*

ISC 29 19:36:38.5±0.6, **36°.32N**±0°.04×**21°.69E**±0°.05, **h10**^{km}, **n46**, σ**1^{s}.18**/56, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYL	PYLOS	0.57	4	P	Pg	19 36 48.1	-1.5
PYL				S	Sg	19 36 55.8	-1.4
PYL	PYLOS	0.57	4	*e*PB	Pg	19 36 48.2	-1.4

PYL				eSB	Sg	19 36 57.7	+0.5
PYL	PYLOS	0.57	4	P	Pg	19 36 48.1	-1.5
PYL				S	Sg	19 36 55.8	-1.4
ITM	Ithomi	0.88	13	ePB	Pg	19 36 54.0	-1.4
ITM				eSB	Sg	19 37 07.8	+1.0
ITM	Ithomi	0.88	13	P	Pg	19 36 54.2	-1.2
ITM	Ithomi	0.88	13	P	Pg	19 36 54.2	-1.2
VLI	Veliai	1.08	68	ePN	Pg	19 36 56.7	-2.6
VLI				eSB	Sg	19 37 14.2	+0.9
VLI	Veliai	1.08	68	P	Pg	19 36 57.0	-2.3
VLI	Veliai	1.08	68	P	Pg	19 36 57.0	-2.3
KYTH	Kithira	1.09	92	ePN	Pg	19 36 56.7	-2.7
VLX	Vlachokerasia	1.18	28	ePN	Pg	19 36 58.8	-2.4
VLX				eSB	Sg	19 37 17.6	+1.0
GUR	Goura	1.69	18	ePN	Pn	19 37 08.2	+0.1
DID	Didima	1.71	46	P	Pn	19 37 08.2	-0.2
DID				S	Sn	19 37 31.0	+0.7
DID	Didima	1.71	46	ePN	Pn	19 37 08.2	-0.2
DID				eSN	Sn	19 37 32.3	+2.0
DID	Didima	1.71	46	P	Pn	19 37 08.2	-0.2
DID				S	Sn	19 37 31.0	+0.7
RLS	Riolos of Patr	1.74	354	ePG	Pg	19 37 10.2	-1.7
RLS	Riolos of Patr	1.74	354	P	Pg	19 37 11.7	-0.2
RLS	Riolos of Patr	1.74	354	P	Pg	19 37 11.7	-0.2
KARN	Karanos	2.03	116	P	Pn	19 37 14.0	+1.3
KARN	Karanos	2.03	116	ePN	Pn	19 37 11.6	-1.1
KARN	Karanos	2.03	116	P	Pn	19 37 14.0	+1.3
NAIG	Nisos Aigina	2.03	45	ePN	Pn	19 37 12.4	-0.4
VLS	Valsamata	2.05	335	P	Pn	19 37 13.3	+0.3
VLS	Valsamata	2.05	335	P	Pn	19 37 13.3	+0.3
TRIZ	Trizonia	2.06	8	P	Pn	19 37 12.9	-0.3
TRIZ	Trizonia	2.06	8	P	Pn	19 37 12.9	-0.3
VAM	Vamos	2.24	113	ePN	Pn	19 37 15.0	-0.5
VLY	Voula,Athens	2.27	47	ePB	Pn	19 37 16.0	-0.1
ATH	Athens Observa	2.31	44	ePN	Pn	19 37 17.0	+0.4
PTL	Penteli	2.45	45	ePB	Pn	19 37 18.0	-0.5
LKR	Lokris	2.55	24	ePN	Pn	19 37 20.4	+0.6
AGG	Agios Georgios	2.74	11	P	Pn	19 37 23.1	+0.6
AGG	Agios Georgios	2.74	11	ePB	Pn	19 37 24.3	+1.8
AGG	Agios Georgios	2.74	11	P	Pn	19 37 23.1	+0.6
IDI	Anoyia	2.80	111	ePB	Pn	19 37 22.9	-0.4
SIVA	Sivas	2.86	116	P	Pn	19 37 25.8	+1.7
SIVA	Sivas	2.86	116	P	Pn	19 37 25.8	+1.7
LAST	Lasithi	3.29	109	ePB	Pn	19 37 30.6	+0.5
LIT	Litokhoron	3.83	9	ePB	Pn	19 37 39.9	+2.5
CHOS	Chios island	4.04	58	ePN	Pn	19 37 40.7	+0.3
TIP	Timpagrande	4.84	308	P	Pn	19 37 53.1	+1.8
TIP	Timpagrande	4.84	308	P	Pn	19 37 53.1	+1.8
CEL	Celeste 5.4nm,0.5s	5.01	294	ePn	Pn	19 37 51.9	-1.8
CEL				eSn	Sn	19 38 44.9	-6.7
CEL	Celeste 5.3nm,0.5s	5.01	294	ePn	Pn	19 37 51.8	-1.8
CUC	Castrocucco 8.5nm,0.6s	5.90	310	ePn	Pn	19 38 06.7	+0.8
CUC	Castrocucco 8.5nm,0.6s	5.90	310	ePn	Pn	19 38 06.7	+0.8

*IDC **29** 19:40:43.2±1.5, 1°.16N×126°.45E, h0^{km}, mb3.5/4, mb1 3.8/5, mb1mx3.5/19, mbtmp3.6/5, ML3.5/1, Error ellipse: s-maj=54.1km s-min=23.0km az=64.0*

*ISCJB **29** 19:40:49.8±0.9, 1°.1N±0°.1×126°.15E±0°.06, h69^{km}±11^{km}, mb3.5/4, Error ellipse: s-maj=20.1km s-min=9.3km az=15.4*

*DJA **29** 19:40:50, 1°.12N×126°.14E, h41^{km}, MLv3.4/4*

ISC 29 19:40:50.7±1.0**, 1°.1N**±0°.1×**126°.16E**±0°.06**, h58**^{km}±12^{km}**, n10, σ0^{s}.86**/12**, mb3.5**/4**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.24	103	P	Pn	19 41 11.8	0.0
MNI	Manado	1.37	286	P	Pn	19 41 13.5	-0.1
MNI				S	Sn	19 41 30.1	-0.7
LBMI	Labuha	2.15	141	P	Pn	19 41 25.1	+0.9
KMSI	Cibinong	2.23	258	P	Pn	19 41 25.0	-0.2
KMSI				S	Sn	19 41 52.9	+1.2
APSI	Ampana	4.92	247	P	Pn	19 41 58.7	-3.3
KAPI	Kappang 0.5nm,0.3s,baz=53,slow=5.1,SNR=3.1	8.79	227	Pn	Pn	19 42 55.3	+0.2
WRA	Warramunga Arr 1.5nm,0.6s,mb3.6,baz=339,slow=11,SNR=9.4	22.36	159	P	P	19 45 42.6	-1.3
ASAR	Alice Springs 0.5nm,0.4s,mb3.4,baz=342,slow=8.1,SNR=19	25.70	163	P	P	19 46 15.8	+0.3
STKA	Stephens Creek 1.4nm,0.9s,mb3.9,baz=337,slow=8.5,SNR=2.6	35.87	157	P	P	19 47 44.9	-0.2
MKAR	Makanchi Array 0.1nm,0.3s,mb3.3,baz=134,slow=6.5,SNR=3.0	59.43	326	P	P	19 50 48.2	+0.9

*ISK **29** 19:42:00.8, 39°.54N×25°.94E, h11^{km}, MD3.5*

*CSEM **29** 19:42:02.6±0.1, 39°.54N×26°.01E, h10^{km}, ML4.4/3, Error ellipse: s-maj=2.9km s-min=2.0km az=58.0*

*SOF **29** 19:42:02.2, 39°.52N×25°.96E, h19^{km}, MD3.3*

*ATH **29** 19:42:02.0, 39°.55N×25°.98E, h26^{km}, MD3.8/9, ML3.3*

*DDA **29** 19:42:02.7, 39°.55N×26°.01E, h7^{km}±2^{km}, Md3.4*

*ISCJB **29** 19:42:02.0±0.3, 39°.55N±0°.01×25°.99E±0°.02, h12^{km}±2^{km}, Error ellipse: s-maj=2.8km s-min=2.1km az=154.2*

*NEIC **29** 19:42:03.0, 39°.51N×25°.98E, h10^{km}, ML3.3(ATH), After ATH.*

*THE **29** 19:42:03.3, 39°.54N×25°.98E, h11^{km}±1^{km}, ML4.4/3, Error ellipse: s-maj=1.5km s-min=0.6km az=229.0*

ISC 29 19:42:03.0±0.3**, 39°.55N**±0°.01×**25°.99E**±0°.02**, h13**^{km}±2^{km}**, n193, σ0^{s}.80**/232**, 11C-7D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	Bozcaada	0.30	10	i P	Pg	19 42 08.6	-0.5
BOZC				i S	Sg	19 42 13.6	+0.4
SIGR	SIGRI	0.35	197	P	Pg	19 42 09.8	-0.2
SIGR				S	Sg	19 42 15.6	+0.8
SIGR	SIGRI	0.35	197	P	Pg	19 42 09.8	-0.2
SIGR				S	Sg	19 42 15.6	+0.8
PRK	Paraskevi	0.37	144	P	Pg	19 42 10.6	+0.2
PRK				S	Sg	19 42 16.3	+0.9
PRK	Paraskevi	0.37	144	ePB	Pg	19 42 10.6	+0.2
PRK				eSB	Sg	19 42 16.3	+0.9
PRK	Paraskevi	0.37	144	P	Pg	19 42 10.5	+0.1
PRK	Paraskevi	0.37	144	P	Pg	19 42 10.5	+0.1
PRK				S	Sg	19 42 16.3	+0.9
EZN	Ezine	0.38	43	PG	Pg	19 42 09.5	-1.1
EZN				eSG	Sg	19 42 15.6	-0.1
EZN	Ezine	0.38	43	i Pg	Pg	19 42 09.5	-1.1
EZN				eSg	Sg	19 42 15.6	-0.1
AYVA	Ayvalik	0.59	113	i P	Pg	19 42 14.4	-0.1
AYVA				i S	Sg	19 42 26.4	+4.1
AYVA	Ayvalik	0.59	113	i P	Pg	19 42 14.4	-0.1
AYVA				i S	Sg	19 42 26.4	+4.0
GADA	Gvkgeada	0.65	354	PG	Pg	19 42 14.5	-1.1
GADA				eSG	Sg	19 42 23.3	-0.8
GADA	Gvkgeada	0.65	354	i Pg	Pg	19 42 14.5	-1.1
GADA				eSg	Sg	19 42 23.3	-0.8
LIA	Limnos Island	0.71	300	P	Pg	19 42 16.4	-0.4
LIA				S	Sg	19 42 28.1	+1.9
LIA	Limnos Island	0.71	300	ePN	Pg	19 42 16.4	-0.4
LIA				eSN	Sg	19 42 26.1	-0.1
LIA	Limnos Island	0.71	300	P	Pg	19 42 16.7	-0.1
LIA	Limnos Island	0.71	300	P	Pg	19 42 16.4	-0.4
LIA				S	Sg	19 42 28.1	+1.9
LOS	Limnos	0.80	299	P	Pg	19 42 18.5	+0.1
LOS	Limnos	0.80	299	P	Pg	19 42 18.5	+0.1
LPK	Lapseki	1.02	35	PG	Pg	19 42 21.0	-1.5
LPK	Lapseki	1.02	35	i Pg	Pg	19 42 21.0	-1.5
CHOS	Chios island	1.16	177	P	Pb	19 42 24.1	-0.8
CHOS	Chios island	1.16	177	ePN	Pn	19 42 24.9	0.0
CHOS				eSN	Sn	19 42 40.4	-0.2
CHOS	Chios island	1.16	177	P	Pb	19 42 24.1	-0.8
ENEZ	Enez	1.19	6	ePN	Pn	19 42 23.8	-1.5
ENEZ	Enez	1.19	6	ePn	Pn	19 42 23.8	-1.6
BALY	Balya	1.27	81	i P	Pn	19 42 26.7	+0.2
BALY				i S	Sb	19 42 42.9	-0.2
BALY	Balya	1.27	81	i P	Pn	19 42 26.7	+0.2
URLA	Izmir	1.28	158	i P	Pn	19 42 25.6	-0.9
URLA				i S	Sb	19 42 43.8	+0.6
URLA	Izmir	1.28	158	i P	Pn	19 42 25.6	-0.9
ALN	Alexandroupoli	1.35	2	ePN	Pn	19 42 27.1	-0.4
ALN				eSN	Sn	19 42 44.5	-0.8
ALN	Alexandroupoli	1.35	2	P	Pn	19 42 27.1	-0.4
BLCB	Balcova	1.42	144	ePN	Pn	19 42 28.0	-0.5
BLCB	Balcova	1.42	144	P	Pn	19 42 28.3	-0.2
BLCB				S	Sn	19 42 47.5	+0.5
BLCB	Balcova	1.42	144	ePn	Pn	19 42 28.0	-0.5
BLCB	Balcova	1.42	144	P	Pn	19 42 28.3	-0.2
BLCB				S	Sn	19 42 47.5	+0.5
SART	Tekirdag	1.46	38	i P	Pn	19 42 28.4	-0.6
SART				i S	Sn	19 42 49.2	+1.2
SART	Tekirdag	1.46	38	i P	Pn	19 42 28.4	-0.6
SART				i S	Sn	19 42 49.2	+1.1
BALB	Balikesir	1.46	86	ePN	Pn	19 42 28.2	-0.9
BALB	Balikesir	1.46	86	ePn	Pn	19 42 28.2	-0.9
IZM	Izmir	1.52	139	ePN	Pn	19 42 29.3	-0.5
AKS	Akhisar	1.57	115	ePN	Pn	19 42 29.5	-1.0
AKS	Akhisar	1.57	115	ePn	Pn	19 42 29.5	-1.0
AKHS	Akhisar	1.57	115	i P	Pn	19 42 30.2	-0.3
AKHS				eS	Sg	19 42 57.2	+3.8
AKHS	Akhisar	1.57	115	i P	Pn	19 42 30.2	-0.3
MFT	Murefte	1.58	38	ePN	Pn	19 42 29.4	-1.3
MFT	Murefte	1.58	38	ePn	Pn	19 42 29.4	-1.4
RDO	Rodhopi	1.63	348	ePN	Pn	19 42 31.0	-0.4
RDO	Rodhopi	1.63	348	P	Pn	19 42 31.6	+0.2
RDO	Rodhopi	1.63	348	P	Pn	19 42 31.6	+0.2
EDC	Edincik	1.65	60	ePN	Pn	19 42 31.6	-0.1
EDC	Edincik	1.65	60	ePn	Pn	19 42 31.6	0.0
AOS	Alonnisos	1.68	258	P	Pn	19 42 31.4	-0.6
AOS	Alonnisos	1.68	258	P	Pn	19 42 31.4	-0.6
BNT	Bandirma	1.69	61	ePN	Pn	19 42 31.6	-0.6
OUR	Ouranopolis	1.73	298	P	Pn	19 42 32.3	-0.5
OUR	Ouranopolis	1.73	298	P	Pn	19 42 32.3	-0.5
PAIG	Paliouri	1.82	283	P	Pn	19 42 33.1	-0.9
PAIG	Paliouri	1.82	283	P	Pn	19 42 33.1	-0.9
TKR	Tekirdag	1.86	39	ePN	Pn	19 42 34.8	+0.2
TKR	Tekirdag	1.86	39	ePn	Pn	19 42 34.8	+0.2
DURS	Dursunbey	1.92	88	eP	Pn	19 42 35.6	+0.3
DURS				i S	Sn	19 43 04.2	+4.7
DURS	Dursunbey	1.92	88	eP	Pn	19 42 35.7	+0.3
DURS				i S	Sn	19 43 04.2	+4.8
SMG	Samos	1.95	160	ePN	Pn	19 42 36.5	+0.7
SMG				eSN	Sn	19 42 59.9	-0.3
DST	Dursunbey	2.04	88	ePN	Pn	19 42 37.2	+0.2
DST	Dursunbey	2.04	88	ePn	Pn	19 42 37.2	+0.2
CRLT	Corlu	2.07	40	ePN	Pn	19 42 37.1	-0.3
CRLT	Corlu	2.07	40	ePn	Pn	19 42 37.1	-0.3
GCAM	G?zelcaml?	2.09	152	eP	Pg	19 42 42.1	-0.8
GCAM				i S	Sg	19 43 10.2	+0.1
GCAM	G?zelcaml?	2.09	152	eP	Pg	19 42 42.1	-0.9
PLG	Polygyros	2.12	294	ePB	Pn	19 42 38.0	-0.1
KDZ	Kurdzhali	2.15	348	P	Pn	19 42 41.4	+3.0
KDZ				S	Sn	19 43 09.3	+4.4
PTL	Penteli	2.23	229	ePN	Pn	19 42 38.4	-1.3
MANT	Manisa	2.26	117	i P	Pn	19 42 39.8	-0.3
MANT				eS	Sg	19 43 18.7	+3.0
MANT	Manisa	2.26	117	i P	Pn	19 42 39.8	-0.2
KULA	Kula-Manisa	2.32	116	ePN	Pn	19 42 40.5	-0.4
KULA	Kula-Manisa	2.32	116	ePn	Pn	19 42 40.5	-0.4
RZN	Rozhen	2.35	336	P	Pn	19 42 41.4	+0.2
RZN				S	Sn	19 43 06.6	-3.3
EDRB	Edirne	2.37	14	ePN	Pn	19 42 40.3	-1.2
EDRB	Edirne	2.37	14	ePn	Pn	19 42 40.3	-1.2
ATH	Athens Observa	2.37	229	ePB	Pn	19 42 43.0	+1.4
SOH	Sokhos	2.39	303	ePN	Pn	19 42 41.6	-0.2
SLVT	Silivri	2.39	45	ePN	Pn	19 42 41.4	-0.3
SLVT	Silivri	2.39	45	ePn	Pn	19 42 41.4	-0.4
AYDN	Tasoluk	2.40	141	i P	Pn	19 42 41.5	-0.4
AYDN				i S	Sg	19 43 20.3	+0.4
AYDN	Tasoluk	2.40	141	i P	Pn	19 42 41.5	-0.4
VLY	Voula,Athens	2.41	226	ePN	Pn	19 42 41.7	-0.4
NVR	Nevrokopi	2.42	319	ePN	Pn	19 42 42.2	-0.1
NVR	Nevrokopi	2.42	319	P	Pn	19 42 43.4	+1.1
NVR	Nevrokopi	2.42	319	P	Pn	19 42 43.4	+1.1
ELBA	Catalca	2.46	49	eP	Pn	19 42 42.0	-0.7
ELBA	Catalca	2.46	49	eP	Pn	19 42 42.0	-0.7
ULDT	Uludag	2.50	75	i P	Pn	19 42 43.7	+0.4
ULDT				eS	Sg	19 43 22.0	-1.1
ULDT	Uludag	2.50	75	i P	Pn	19 42 43.7	+0.5
DIM	Dimitrovgrad	2.52	352	i P	Pn	19 42 44.0	+0.3
DIM				S	Sn	19 43 06.5	-7.8
CTKS	Kestanelik-??a	2.56	48	ePN	Pn	19 42 43.9	-0.2
CTKS	Kestanelik-??a	2.56	48	ePn	Pn	19 42 43.9	-0.2
CTYL	Yal??k??y-??at	2.60	42	ePN	Pn	19 42 44.5	-0.3
CTYL	Yal??k??y-??at	2.60	42	ePn	Pn	19 42 44.5	-0.3
GEMT	Gemlik	2.61	69	ePN	Pn	19 42 45.3	+0.4
GEMT	Gemlik	2.61	69	ePn	Pn	19 42 45.3	+0.4
NAIG	Nisos Aigina	2.65	228	ePN	Pn	19 42 45.5	+0.1
MLSB	Milas	2.65	147	ePN	Pn	19 42 44.5	-0.9
MLSB	Milas	2.65	147	ePn	Pn	19 42 44.5	-0.9
MMB	Musomiste	2.67	321	i P	Pn	19 42 45.1	-0.6
MMB				i S	Sn	19 43 17.7	-0.2
BGKT	Bogazkoy	2.68	52	ePN	Pn	19 42 45.1	-0.7
BGKT	Bogazkoy	2.68	52	ePn	Pn	19 42 45.1	-0.7
BODT	Bodrum	2.69	157	ePN	Pn	19 42 45.1	-0.8
BODT	Bodrum	2.69	157	ePn	Pn	19 42 45.1	-0.8
GDZ	Gediz	2.75	98	eP	Pn	19 42 47.3	+0.5
GDZ				i S	Sg	19 43 31.4	+0.2
GDZ	Gediz	2.75	98	eP	Pn	19 42 47.3	+0.6
LIT	Litokhoron	2.75	283	ePN	Pn	19 42 46.9	+0.1
YLV	Yalova	2.79	68	ePN	Pn	19 42 46.6	-0.7
YLV	Yalova	2.79	68	ePn	Pn	19 42 46.7	-0.6
ISK	Istanbul-Kandi	2.79	56	ePN	Pn	19 42 48.0	+0.7
ISK	Istanbul-Kandi	2.79	56	ePn	Pn	19 42 48.0	+0.6
AGG	Agios Georgios	2.89	261	ePN	Pn	19 42 48.2	-0.4
KLYT	Kilyos	2.89	53	ePN	Pn	19 42 48.4	-0.2
KLYT	Kilyos	2.89	53	ePn	Pn	19 42 48.4	-0.2
DENT	Denizli	2.98	126	ePN	Pn	19 42 49.5	-0.5
DENT	Denizli	2.98	126	ePn	Pn	19 42 49.5	-0.4
YER	Yerkesik	3.01	142	ePN	Pn	19 42 49.9	-0.5
YER	Yerkesik	3.01	142	ePn	Pn	19 42 49.9	-0.4
ADVT	Abdulvahap	3.01	72	ePN	Pn	19 42 50.6	+0.2
ADVT	Abdulvahap	3.01	72	ePn	Pn	19 42 50.6	+0.2
KHL	Karahalli	3.02	113	ePN	Pn	19 42 50.5	+0.1
KHL	Karahalli	3.02	113	ePn	Pn	19 42 50.5	+0.1
CAVI	Cavuskoy	3.04	76	ePN	Pn	19 42 50.8	+0.1
CAVI	Cavuskoy	3.04	76	ePn	Pn	19 42 50.8	+0.1
THL	Klokotos Trika	3.07	272	ePN	Pn	19 42 51.1	-0.1
DAT	Datca	3.08	156	ePN	Pn	19 42 50.8	-0.5
DAT	Datca	3.08	156	ePn	Pn	19 42 50.8	-0.5
HRT	Hereke	3.09	65	ePN	Pn	19 42 52.2	+0.8
HRT	Hereke	3.09	65	ePn	Pn	19 42 52.2	+0.7
KKB	Krupnik	3.20	317	S	Sg	19 43 39.0	-6.7
KKB				P	Pn	19 42 53.2	+0.2
SILT	Sile	3.22	59	ePN	Pn	19 42 53.5	+0.3
SILT	Sile	3.22	59	ePn	Pn	19 42 53.5	+0.3
ALT	Altintas	3.23	97	ePN	Pn	19 42 53.3	-0.1
ALT	Altintas	3.23	97	ePn	Pn	19 42 53.3	-0.1
EVR	Evrytania	3.31	260	ePN	Pn	19 42 54.0	-0.4
BORA	Eskisehir	3.46	83	eP	Pn	19 42 57.3	+0.8
BORA				i S	Sg	19 43 55.4	+1.3
BORA	Eskisehir	3.46	83	eP	Pn	19 42 57.3	+0.8
DALT	Dalyan (Mudla)	3.47	142	ePN	Pn	19 42 56.3	-0.4
DALT	Dalyan (Mudla)	3.47	142	ePn	Pn	19 42 56.3	-0.4
SHUT	Suhut-Afyon	3.69	104	ePN	Pn	19 43 00.0	+0.4
SHUT	Suhut-Afyon	3.69	104	ePn	Pn	19 43 00.0	+0.3
VTS	Vitosha	3.70	326	S	Sg	19 43 57.6	-4.0
VTS				P	Pn	19 43 00.5	+0.7
VTS	Vitosha	3.70	326	P	Pn	19 43 01.6	+1.8
VTS	Vitosha	3.70	326	P	Pn	19 43 01.6	+1.8
VLI	Veliai	3.71	221	ePN	Pn	19 43 00.0	0.0
SZH	Strazhica	3.72	359	P	Pn	19 43 01.2	+1.2
ARG	Arkhangelos	3.73	152	P	Pn	19 43 01.1	+0.9
ARG	Arkhangelos	3.73	152	P	Pn	19 43 01.1	+0.9
ESKT	Eskisehir	3.76	89	ePN	Pn	19 43 01.1	+0.5
ESKT	Eskisehir	3.76	89	ePn	Pn	19 43 01.1	+0.5
FETY	Fethiye	3.80	139	ePN	Pn	19 43 00.5	-0.7
FETY	Fethiye	3.80	139	ePn	Pn	19 43 00.5	-0.6
ELL	Elmali	4.17	131	ePN	Pn	19 43 06.5	+0.3
ELL	Elmali	4.17	131	ePn	Pn	19 43 06.5	+0.3
SVRH	Sivrihisar-ESK	4.28	90	ePN	Pn	19 43 08.1	+0.2
SVRH	Sivrihisar-ESK	4.28	90	ePn	Pn	19 43 08.1	+0.3
NPS	Neapolis	4.29	184	ePN	Pn	19 43 08.0	+0.1
BARS	Barje	4.54	317	i Pn	Pn	19 43 12.3	+1.0
NISS		4.91	323	⇓iPn	Pn	19 43 17.2	+0.8
TIRR	Tirgusor	5.23	19	⇓iP	Pn	19 43 20.5	-0.3
TIRR	Tirgusor 7.9nm,0.8s	5.23	19	eP	Pn	19 43 19.9	-0.9
TIRR	Tirgusor 7.9nm,0.8s	5.23	19	eP	Pn	19 43 19.9	-0.9
BOLS	Boljevac	5.24	326	⇓iPn	Pn	19 43 21.0	+0.1
HARR	Harsova	5.34	15	⇓iP	Pn	19 43 22.3	0.0
HARR	Harsova	5.34	15	⇓P	Pn	19 43 22.3	0.0
HARR	Harsova	5.34	15	⇓P	Pn	19 43 22.3	0.0
VOIR		5.93	354	⇑iP	Pn	19 43 31.2	+0.8
VOIR		5.93	354	P	Pn	19 43 31.3	+0.9
VOIR		5.93	354	P	Pn	19 43 31.3	+0.9
MLR	Muntele Rosu	5.94	360	⇑iP	Pn	19 43 32.9	+2.3
MLR	Muntele Rosu	5.94	360	P	Pn	19 43 33.0	+2.4
MLR	Muntele Rosu	5.94	360	P	Pn	19 43 33.0	+2.4
PLOR	Plostina	6.32	4	⇑iP	Pn	19 43 37.3	+1.5
PLOR	Plostina	6.32	4	⇑iP	Pn	19 43 37.3	+1.5
VRI	Vrincioaia	6.34	5	⇑iP	Pn	19 43 37.6	+1.5
VRI	Vrincioaia	6.34	5	P	Pn	19 43 37.8	+1.7
VRI	Vrincioaia	6.34	5	P	Pn	19 43 37.8	+1.7
BZS	Buzias	6.87	333	⇓iP	Pn	19 43 43.5	+0.2
BZS	Buzias	6.87	333	P	Pn	19 43 43.3	0.0
BZS	Buzias	6.87	333	P	Pn	19 43 43.3	0.0
BURAR	Bucovina Array	8.08	356	⇑iP	Pn	19 44 02.8	+2.8
BURAR	Bucovina Array	8.08	356	⇑P	Pn	19 44 02.8	+2.8
BURAR	Bucovina Array	8.08	356	⇑P	Pn	19 44 02.8	+2.8
BUR08	Bucovina Ar. S	8.11	356	eP	Pn	19 44 02.0	+1.6
BUR08	Bucovina Ar. S	8.11	356	eP	Pn	19 44 02.0	+1.6
PKSM	Moragy	8.57	323	⇑iP	Pn	19 44 07.0	+0.4
PKSM	Moragy	8.57	323	⇑P	Pn	19 44 07.0	+0.4
PKSM	Moragy	8.57	323	⇑P	Pn	19 44 07.0	+0.4

*IDC **29** 19:57:40.6±0.7, 38°.34N×57°.13E, h0^{km}, mb4.1/22, mb1 4.3/29, mb1mx4.2/38, mbtmp4.2/29, ML3.8/4, MS3.6/18, Ms1 3.6/18, ms1mx3.4/41, Error ellipse: s-maj=14.6km s-min=8.4km az=170.0*

*ISCJB **29** 19:57:41.5±1.2, 38°.73N±0°.03×57°.42E±0°.03, h5^{km}±8^{km}, mb4.3/45, MS3.5/16, Error ellipse: s-maj=5.7km s-min=3.7km az=16.8*

*CSEM **29** 19:57:41.3±0.2, 38°.55N×57°.31E, h2^{km}, mb4.6/23, Error ellipse: s-maj=8.3km s-min=4.7km az=19.0*

*BJI **29** 19:57:42.2, 38°.50N×57°.30E, h10^{km}, mB4.8/3, mb4.2/7, Ms4.3/4, Ms7 4.1/4*

*NEIC **29** 19:57:42.2±0.3, 38°.50N×57°.26E, h10^{km}, mb4.7/19, Error ellipse: s-maj=8.9km s-min=5.0km az=189.0*

*MOS **29** 19:57:43.7±1.9, 38°.51N×57°.29E, h33^{km}, mb4.6/16, Error ellipse: s-maj=6.0km s-min=5.0km az=108.9*

*NNC **29** 19:57:50.3±3.1, 38°.85N×57°.73E, h46^{km}±42^{km}, mb4.2, Error ellipse: s-maj=24.8km s-min=18.4km az=41.0*

ISC 29 19:57:42.8±1.2**, 38°.71N**±0°.03×**57°.37E**±0°.03**, h4**^{km}±8^{km}**, n238, σ1^{s}.34**/281**, mb4.3**/45**, MS3.5**/16**, 17C-15D, Iran-Turkmenistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VAN	Vannovskaya	0.95	142	i P	Pg	19 57 55.6	-5.5
VAN				i S	Sg	19 58 07.6	-5.9
VAN	Vannovskaya	0.95	142	i P	Pg	19 57 55.6	-5.5
VAN				i S	Sg	19 58 07.6	-5.9
ASH	Ashkhabad	1.08	134	i P	Pg	19 57 59.0	-4.5
ASH				eS	Sg	19 58 15.0	-2.5
KRF	Krasnovodsk	3.63	292	i P	Pn	19 58 37.1	-2.6
KRF				eS	Sn	19 59 18.3	-4.6
KRF	Krasnovodsk	3.63	292	i P	Pn	19 58 37.1	-2.6
KRF				eS	Sn	19 59 18.3	-4.6
MAK	Makhachkala	8.60	303	eP	Pn	19 59 49.8	+1.8
MAK				e		20 01 25.4	
MAK	comp=Z,53nm,0.2s			pmax	pmax		
MAK	comp=E,246nm,0.9s			smax			
MAK	comp=N,308nm,0.6s			smax			
MAK	comp=Z,350nm,12.0s			MLR	MLR		
MAK	Makhachkala comp=Z,53nm,0.2s	8.60	303	eP	Pn	19 59 49.8	+1.8
GNI	Garni comp=Z,1.5nm,0.3s,baz=87,slow=3.6,SNR=17	9.88	282	Pn	Pn	20 00 03.1	-2.4
GNI	comp=Z,0.9nm,0.3s,baz=41,slow=19,SNR=6.3			Sn	Sn	20 01 55.5	-1.3
GNI	Garni	9.88	282	Pn	Pn	20 00 03.1	-2.4
GNI				eSn	Sn	20 01 51.4	-5.4
GNI				Sn	Sn	20 01 55.5	-1.3
GNI	Garni	9.88	282	P	Pn	20 00 03.1	-2.4
GNI				S	Sn	20 01 55.5	-1.3
KBL	Kabul	10.26	110	eP	Pn	20 00 09.1	-1.7
KBL	comp=Z,13nm,0.6s			pmax	pmax		
KBL	Kabul comp=Z,13nm,0.6s	10.26	110	ePn	Pn	20 00 09.1	-1.7
KBL	Kabul comp=Z,13nm,0.6s	10.26	110	eP	Pn	20 00 09.1	-1.7
AB01	Akbulak array comp=Z,6.2nm,0.5s	10.71	9	⇑Pn	Pn	20 00 18.3	+1.5
AB01	comp=Z,19nm,0.6s			⇓Sn	Sn	20 02 14.9	-2.2
AB01	Akbulak array comp=Z,6.2nm,0.5s	10.71	9	Pn	Pn	20 00 18.3	+1.4
AB01	comp=Z,19nm,0.6s			Sn	Sx	20 02 14.9	
AB31	Akbulak array	10.71	9	P	Pn	20 00 18.3	+1.4
AB31						20 02 16.1	
AB31	comp=Z,9.0nm,0.4s			pmax	pmax		
AB31	comp=Z,26nm,0.5s			smax			
AB31	Akbulak array comp=Z,9.0nm,0.4s	10.71	9	P	Pn	20 00 18.3	+1.4
AB31	comp=Z,26nm,0.5s			S	Sx	20 02 16.1	
KK31	Karatay Array comp=Z,3.0nm,0.3s,baz=247,slow=15,SNR=5.1	10.87	62	⇓Pn	Pn	20 00 19.8	+0.7
KK31	comp=Z,10nm,0.5s,baz=128,slow=31,SNR=6.0			⇑Sn	Sx	20 02 14.5	
KK31	Karatay Array comp=Z,3.0nm,0.3s,baz=247,SNR=5.1	10.87	62	Pn	Pn	20 00 19.8	+0.7
AKTK	Aktyubinsk	11.74	2	Pn	Pn	20 00 32.4	+1.4
AKTK				Sn	Sn	20 02 41.9	-0.4
AKTK				LR	LR	20 06 26.0	
AKTK	Aktyubinsk	11.74	2	P	Pn	20 00 32.4	+1.5
AKTK				S	Sn	20 02 41.9	-0.4
AKTO	Aktyubinsk	11.74	2	P	Pn	20 00 32.4	+1.5
AKTO						20 02 41.9	
AKTO	Aktyubinsk comp=Z,6.3nm,0.3s,baz=178,slow=13,SNR=74	11.74	2	Pn	Pn	20 00 32.4	+1.4
AKTO	comp=Z,1.6nm,0.3s,baz=180,slow=20,SNR=5.6			Sn	Sn	20 02 41.9	-0.4
AKTO	comp=Z,474nm,19.5s,baz=223,slow=43			LR	LR	20 06 26.0	
KIV	Kislovodsk	12.21	300	⇑eP	Pn	20 00 33.9	-3.6
KIV	comp=Z,13nm,0.7s			pmax	pmax		
KIV	comp=Z,100nm,16.0s			MLR	MLR		
KIV	Kislovodsk comp=Z,16nm,0.6s	12.21	300	ePn	Pn	20 00 32.3	-5.2
KIV				eSn	Sx	20 02 42.7	
KIV	Kislovodsk comp=Z,100nm,16.0s	12.21	300	eP	Pn	20 00 33.9	-3.6
AML	Almayashu SNR=25	12.90	69	P	Pn	20 00 45.9	-1.0
AML	Almayashu comp=Z,16nm,0.7s	12.90	69	ePn	Pn	20 00 45.8	-1.1
AML				eSn	Sn	20 03 05.2	-5.8
AML	Almayashu comp=Z,16nm,0.7s	12.90	69	ePn	Pn	20 00 45.8	-1.1
EKS2	Erkin-Say SNR=26	13.07	67	P	Pn	20 00 49.2	+0.1
EKS2	Erkin-Say comp=Z,7.3nm,0.4s	13.07	67	ePn	Pn	20 00 48.7	-0.4
EKS2				eSn	Sn	20 03 15.1	+0.2
EKS2	Erkin-Say comp=Z,7.3nm,0.4s	13.07	67	ePn	Pn	20 00 48.7	-0.4
EKS2				eSn	Sn	20 03 15.1	+0.2
UCH	Uchtor SNR=19	13.52	69	P	Pn	20 00 55.1	-0.3
UCH	Uchtor comp=Z,8.5nm,0.6s	13.52	69	ePn	Pn	20 00 54.7	-0.7
UCH				eSn	Sx	20 03 08.2	
UCH	Uchtor comp=Z,8.5nm,0.6s	13.52	69	ePn	Pn	20 00 54.7	-0.6
AAK	Ala-Archa	13.58	68	P	Pn	20 00 56.3	+0.2
AAK						20 03 26.9	
AAK	Ala-Archa SNR=15	13.58	68	P	Pn	20 00 56.9	+0.8
AAK	Ala-Archa comp=Z,0.0nm,0.3s,baz=245,slow=9.8,SNR=35	13.58	68	Pn	Pn	20 00 56.3	+0.2
AAK				Sn	Sn	20 03 26.9	-0.5

	comp=Z,0.0nm,0.3s,baz=249,slow=8.6,SNR=3.8						
AAK				LR	LR	20 06 50.1	
	comp=Z,275nm,18.3s,baz=78,slow=40						
AAK	**Ala-Archa**	13.58	68	Pn	Pn	20 00 56.3	+0.2
AAK				Sn	Sn	20 03 26.9	-0.5
AAK				LR	LR	20 06 50.1	
AAK	**Ala-Archa**	13.58	68	P	Pn	20 00 56.3	+0.2
AAK				S	Sn	20 03 26.9	-0.5
FRU	**Bishkek**	13.71	67	*e*P	Pn	20 01 00.0	+2.1
FRU				*e*		20 03 40.0	
FRU				pmax	pmax		
	comp=N,330nm,2.0s						
FRU	**Bishkek**	13.71	67	*e*P	Pn	20 01 00.0	+2.1
FRU				*e*S	Sn	20 03 40.0	+9.5
	comp=N,330nm,2.0s						
USP	**Ospenovka**	13.72	65	P	Pn	20 00 59.4	+1.4
	SNR=9.8						
KBK	**Karagaybulak**	13.91	68	P	Pn	20 01 00.9	+0.3
	SNR=11						
KZA	**Kyzart**	14.04	70	P	Pn	20 01 02.0	-0.4
	SNR=21						
SOC	**Sochi**	14.16	296	*e*P	Pn	20 00 55.9	-8.1
SOC				*e*SS		20 03 44.6	
SOC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SOC				MLR	MLR		
	comp=Z,175nm,11.0s						
SOC	**Sochi**	14.16	296	*e*P	Pn	20 00 55.9	-8.1
	comp=Z,175nm,11.0s						
SOC				*e*S	Sn	20 03 44.6	+3.0
TKM2	**Tokmak 2**	14.43	67	⇑Pn	Pn	20 01 07.0	-0.8
	comp=Z,5.9nm,0.6s						
TKM2				⇑Sn	Sn	20 03 46.0	-2.1
	comp=Z,16nm,0.9s						
TKM2	**Tokmak 2**	14.43	67	*e*P	Pn	20 01 05.7	-2.0
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
TKM2	**Tokmak 2**	14.43	67	P	Pn	20 01 06.7	-1.0
	SNR=6.3						
TKM2	**Tokmak 2**	14.43	67	*e*Pn	Pn	20 01 05.7	-2.0
	comp=Z,7.8nm,0.6s						
TKM2	**Tokmak 2**	14.43	67	*e*P	Pn	20 01 05.7	-2.0
	comp=Z,8.0nm,0.6s						
TKM2	**Tokmak 2**	14.43	67	Pn	Pn	20 01 07.0	-0.7
	comp=Z,5.9nm,0.6s						
TKM2				Sn	Sn	20 03 46.0	-2.2
	comp=Z,16nm,0.9s						
KSH	**Kashi**	14.47	81	⇓*i*P	Pn	20 01 02.5	-5.8
KSH				*e*pP	pP	20 01 07.3	-9.1
KSH				*e*sP	sP	20 01 09.5	-7.4
KSH				*e*PP		20 01 14.0	
KSH				*e*S	Sn	20 03 40.0	-9.2
KSH				*e*sS	sS	20 03 45.0	-26
KSH				*e*SS		20 03 57.3	
KSH				*e*PcP	PcP	20 06 21.0	-2.6
KSH				pmax	pmax		
	comp=Z,28nm,0.6s						
KSH				pmax	pmax		
	comp=Z,250nm,5.0s						
KSH				LR	LR		
	comp=N,3µm,14.0s						
KSH				LR	LR		
	comp=E,940nm,6.7s						
KSH				LR	LR		
	comp=Z,700nm,8.1s						
ULHL	**Ulahol**	14.79	70	P	Pn	20 01 14.6	+1.9
	SNR=8.1						
MALT	**Malatya**	14.84	274	P	Pn	20 01 09.2	-4.1
MALT	**Malatya**	14.84	274	P	Pn	20 01 09.2	-4.1
ANN	**Anapa**	16.06	299	*e*P	Pn	20 01 33.0	+3.6
ANN				pmax	pmax		
	comp=Z,49nm,0.9s						
ANN				MLR	MLR		
	comp=Z,185nm,13.0s						
ANN	**Anapa**	16.06	299	*e*P	Pn	20 01 33.0	+3.6
	comp=Z,185nm,13.0s						
VRHR	**Novokhopersk**	16.62	323	*e*P	Pn	20 01 35.3	-1.2
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=N,30nm,0.8s						
VOSK	**Vostochnaya**	16.89	30	⇑Pn	Pn	20 01 39.0	-0.9
	comp=N,13nm,0.9s						
VOSK				⇑Sn	Sn	20 04 45.2	-2.7
	comp=N,6.6nm,0.7s						
VOSK	**Vostochnaya**	16.89	30	P	Pn	20 01 39.5	-0.5
VOSK				pmax	pmax		
	comp=Z,13nm,1.0s						
VOSK	**Vostochnaya**	16.89	30	Pn	Pn	20 01 39.0	-1.0
	comp=Z,13nm,0.9s						
BRVK	**Borovoye**	16.90	28	*e*P	Pn	20 01 39.8	-0.2
BRVK				*e*		20 04 41.8	
BRVK				pmax	pmax		
	comp=Z,32nm,1.1s						
BRVK	**Borovoye**	16.90	28	*e*Pn	Pn	20 01 39.8	-0.2
	comp=Z,32nm,1.1s						
BRVK				*e*Sn	Sn	20 04 41.8	-6.2
BRVK	**Borovoye**	16.90	28	*e*P	Pn	20 01 39.8	-0.2
	comp=Z,32nm,1.1s						
BRVK				*e*S	Sn	20 04 41.8	-6.2
BVA0	**Borovoye Array**	16.91	28	⇑Pn	Pn	20 01 38.9	-1.2
	comp=Z,3.8nm,0.7s,baz=210,slow=10,SNR=9.8						
BVA0				⇓Sn	Sn	20 04 46.5	-1.8
	comp=Z,2.2nm,0.9s,baz=211,slow=29,SNR=3.6						
BVA0	**Borovoye Array**	16.91	28	*i* P	Pn	20 01 38.2	-1.9
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BVA0	**Borovoye Array**	16.91	28	*i* P	Pn	20 01 38.2	-1.9
	comp=Z,4.0nm,0.7s						
BVAR	**Borovoye Array**	16.91	28	P	Pn	20 01 39.8	-0.3
BVAR						20 04 42.7	
BVAR	**Borovoye Array**	16.91	28	Pn	Pn	20 01 39.8	-0.3
	comp=Z,1.2nm,0.3s,baz=209,slow=13,SNR=28						
BVAR				Sn	Sn	20 04 42.7	-5.6
	comp=Z,0.9nm,0.3s,baz=208,slow=24,SNR=5.1						
BVAR				LR	LR	20 09 13.8	
	comp=Z,197nm,18.4s,baz=314,slow=40						
BVAR	**Borovoye Array**	16.91	28	P	Pn	20 01 39.8	-0.3
BVAR				S	Sn	20 04 42.7	-5.6
BVAR				Sn	Sn	20 04 46.5	-1.8
	comp=Z,2.2nm,0.9s,baz=211,SNR=3.6						
VORD	**Divnogorie**	17.68	320	*e*P	Pn	20 01 47.7	-2.0
VORD				pmax	pmax		
	comp=Z,7.0nm,0.7s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.9s						
VORD				pmax	pmax		
	comp=E,3.0nm,0.4s						
VORD	**Divnogorie**	17.68	320	*e*P	Pn	20 01 47.7	-2.0
	comp=E,10.0nm,0.9s						
ARU	**Arti**	17.75	2	*d* *i*P	Pn	20 01 50.9	+0.3
ARU				S	Sn	20 05 12.5	+3.8
ARU				pmax	pmax		
	comp=Z,43nm,1.7s						
ARU	**Arti**	17.75	2	*e*Pn	Pn	20 01 48.7	-2.0
	comp=Z,24nm,0.9s						
ARU				*e*Sn	Sn	20 04 55.9	-13
ARU	**Arti**	17.75	2	*i* P	Pn	20 01 50.9	+0.3
	comp=Z,43nm,1.7s						
ASF	**Jabal al Asfar**	17.89	255	P	Pn	20 01 47.7	-4.8
	comp=Z,0.1nm,0.3s,baz=78,slow=9.3,SNR=2.4						
ASF				LR	LR	20 09 14.2	
	comp=Z,88nm,20.8s,baz=282,slow=39						
ASF	**Jabal al Asfar**	17.89	255	P	Pn	20 01 47.7	-4.8
ASF				LR	LR	20 09 14.2	
VSR	**Storozhevoye**	17.89	320	*e*P	Pn	20 01 50.6	-1.8
VSR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VSR				pmax	pmax		
	comp=N,10.0nm,1.0s						
VSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
VSR	**Storozhevoye**	17.89	320	*e*P	Pn	20 01 50.6	-1.8
	comp=E,10.0nm,1.0s						
VOR	**Voronezh**	18.19	322	P	Pn	20 01 54.0	-2.1
VOR				pmax	pmax		
	comp=Z,100nm,1.0s						
VOR	**Voronezh**	18.19	322	P	Pn	20 01 54.0	-2.1
	comp=Z,100nm,1.0s						
SVE	**Sverdlovsk**	18.26	6	*e*P	Pn	20 01 57.8	+0.9
SVE				*e*S	Sn	20 05 19.3	-1.7
SVE				pmax	pmax		
	comp=Z,23nm,1.1s						
SVE	**Sverdlovsk**	18.26	6	*e*P	Pn	20 01 57.8	+0.9
	comp=Z,23nm,1.1s						
BRTR	**Keskin Array B**	18.41	281	P	Pn	20 01 57.1	-1.7
BRTR	**Keskin Array B**	18.41	281	P	Pn	20 01 57.1	-1.7
KURBB	**Kurchatov Arra**	19.12	45	Pn	Pn	20 02 07.2	-0.2
	comp=Z,1.7nm,1.2s						
KURBB				⇓Sn	Sn	20 05 33.9	-7.9
	comp=Z,1.2nm,1.0s						
KURBB	**Kurchatov Arra**	19.12	45	Pn	Pn	20 02 07.2	-0.2
	comp=Z,1.7nm,1.2s						
KURK	**Kurchatov**	19.22	44	P	Pn	20 02 07.8	-0.7
KURK				*e*S	Sn	20 05 47.9	+3.8
KURK	**Kurchatov**	19.22	44	P	Pn	20 02 07.8	-0.7
	comp=Z,0.1nm,0.3s,baz=246,slow=12,SNR=44						
KURK				LR	LR	20 10 43.1	
	comp=Z,130nm,19.1s,baz=240,slow=40						
KURK	**Kurchatov**	19.22	44	P	Pn	20 02 07.8	-0.7
KURK				*e*Pn	Pn	20 02 08.3	-0.2
KURK				*e*S	Sn	20 05 47.9	+3.7
KURK				LR	LR	20 10 43.1	
KURK	**Kurchatov**	19.22	44	P	Pn	20 02 07.8	-0.7
KURK				*e*S	Sn	20 05 47.9	+3.8
MK31	**Makanchi Array**	19.95	58	*i* P	Pn	20 02 17.6	+0.3
MK31				pmax	pmax		
	comp=Z,4.0nm,0.5s						
MK31	**Makanchi Array**	19.95	58	*e*Pn	Pn	20 02 17.8	+0.5
MK31	**Makanchi Array**	19.95	58	*i* P	Pn	20 02 17.6	+0.3
	comp=Z,4.0nm,0.5s						
MKAR	**Makanchi Array**	19.95	58	P	Pn	20 02 18.1	+0.8
	comp=Z,2.8nm,0.5s,baz=248,slow=11,SNR=61						
MKAR				S	Sn	20 05 58.5	-3.3
	comp=Z,0.7nm,0.6s,baz=266,slow=20,SNR=3.3						
MKAR	**Makanchi Array**	19.95	58	P	Pn	20 02 18.1	+0.8
EIL	**Elat**	20.58	251	P	P	20 02 18.6	-4.1
	comp=Z,3.9nm,1.0s,baz=74,slow=12,SNR=2.4						
EIL				LR	LR	20 11 14.0	
	comp=Z,69nm,20.2s,MS3.0,baz=278,slow=40						
EIL	**Elat**	20.58	251	P	P	20 02 18.6	-4.1
EIL				LR	LR	20 11 14.0	
SOKR	**Solikamsk**	20.89	359	⇑*i*P	P	20 02 32.3	+6.6
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SOKR				MLR	MLR		
	comp=Z,320nm,20.0s,MS3.7						
ISP	**Isparta**	21.08	276	*e*P	P	20 02 24.1	-4.0
ISP				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.3						
ISP	**Isparta**	21.08	276	*e*P	P	20 02 24.1	-4.0
	comp=Z,13nm,0.9s,mb4.3						
OBN	**Obninsk**	21.57	326	⇑*e*P	P	20 02 34.4	+1.2
OBN				pmax	pmax		
	comp=Z,48nm,1.0s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,12.0s,MS3.4						
OBN	**Obninsk**	21.57	326	*e*P	P	20 02 32.9	-0.3
	comp=Z,24nm,0.8s,mb4.7						
OBN	**Obninsk**	21.57	326	*e*P	P	20 02 34.4	+1.2
	comp=Z,100nm,12.0s						
TIRR	**Tirgusor**	22.34	294	⇑*i*P	P	20 02 41.4	-0.1
TIRR	**Tirgusor**	22.34	294	⇑P	P	20 02 41.4	-0.1
TIRR	**Tirgusor**	22.34	294	P	P	20 02 41.4	-0.1
AKASG	**Malin Array Be**	23.17	310	P	P	20 02 50.1	-0.2
	comp=Z,11nm,0.8s,mb4.3,baz=108,slow=7.7,SNR=25						
AKASG	**Malin Array Be**	23.17	310	P	P	20 02 50.1	-0.1
KIEV	**Kiev**	23.18	310	*e*P	P	20 02 50.1	-0.2
KIEV				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.5						
KIEV	**Kiev**	23.18	310	*e*P	P	20 02 50.1	-0.2
	comp=Z,18nm,0.9s,mb4.5						
KIEV	**Kiev**	23.18	310	*e*P	P	20 02 50.1	-0.2
	comp=Z,18nm,0.9s,mb4.5						
WMQ	**Urumqi**	23.29	68	*e*P	P	20 02 53.5	+1.9
WMQ				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.1						
VRI	**Vrincioaia**	23.67	297	⇓*i*P	P	20 02 54.3	-1.1
VRI	**Vrincioaia**	23.67	297	P	P	20 02 54.3	-1.1
PLOR	**Plostina**	23.72	297	⇓*i*P	P	20 02 54.2	-1.7
PLOR	**Plostina**	23.72	297	P	P	20 02 54.2	-1.7
NVS	**Novosibirsk**	23.76	39	*e*P	P	20 02 55.6	-0.5
NVS				*e*S	S	20 07 02.1	-10
NVS				pmax	pmax		
	comp=Z,16nm,2.0s,mb4.1						
NVS				smax			
	comp=N,28nm,2.0s						
NVS				smax			
	comp=E,33nm,2.2s						
NVS	**Novosibirsk**	23.76	39	*e*P	P	20 02 55.6	-0.5
	comp=E,16nm,2.0s,mb4.1						
PRGR	**Permogore**	24.08	346	*e*P	P	20 02 52.7	-6.3
PRGR				*e*		20 06 34.8	
PRGR				*e*S	S	20 07 09.4	-7.4
PRGR				pmax	pmax		
	comp=Z,55nm,1.3s,mb4.8						
ZAA0	**Zalesovo Array**	24.12	42	*e*P	P	20 03 00.8	+1.4
ZAA0	**Zalesovo Array**	24.12	42	*e*P	P	20 03 00.8	+1.4
ZALV	**Zalesovo Beam**	24.12	42	P	P	20 03 01.4	+2.0
	comp=Z,3.0nm,0.5s,mb4.0,baz=253,slow=11,SNR=14						
ZALV				LR	LR	20 13 50.2	
	comp=Z,97nm,18.9s,MS3.3,baz=12,slow=40						
MLR	**Muntele Rosu**	24.18	296	⇓*i*P	P	20 03 01.5	+1.5
MLR	**Muntele Rosu**	24.18	296	P	P	20 02 59.7	-0.3
	comp=Z,5.6nm,0.8s,mb4.1,baz=110,slow=12,SNR=16						
MLR				LR	LR	20 15 23.8	
	comp=Z,86nm,18.4s,MS3.3,baz=295,slow=44						
MLR	**Muntele Rosu**	24.18	296	P	P	20 02 59.7	-0.3
DANN	**Dangsing**	24.23	107	*e*P	P	20 02 59.5	-1.2
DANN	**Dangsing**	24.23	107	*e*P	P	20 02 59.5	-1.2
KOLN	**Koldanda**	24.42	109	*e*P	P	20 03 00.9	-1.5
	comp=Z,16nm,0.9s,mb4.5						
KOLN	**Koldanda**	24.42	109	*e*P	P	20 03 00.9	-1.5
	comp=Z,16nm,0.9s,mb4.5						
VOIR		24.80	296	⇑*i*P	P	20 03 06.6	+0.9
VOIR		24.80	296	⇑P	P	20 03 06.6	+0.9
VOIR		24.80	296	P	P	20 03 06.6	+0.9
KLMR	**Klimovskoe**	24.82	339	⇓*i*P	P	20 03 06.6	+0.9
KLMR				*e*S	S	20 07 29.5	+0.8
KLMR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
KLMR	**Klimovskoe**	24.82	339	*i* P	P	20 03 06.6	+0.9
	comp=Z,20nm,0.9s,mb4.7						
KLMR				*e*S	S	20 07 29.5	+0.8
BURAR	**Bucovina Array**	24.94	301	⇓*i*P	P	20 03 06.8	-0.1
BURAR	**Bucovina Array**	24.94	301	⇓P	P	20 03 06.8	-0.1
BURAR	**Bucovina Array**	24.94	301	⇓P	P	20 03 06.8	-0.1
BUR08	**Bucovina Ar. S**	24.95	301	*e*P	P	20 03 07.0	0.0
BUR08	**Bucovina Ar. S**	24.95	301	*e*P	P	20 03 07.1	0.0
GKN	**Gorkha**	25.07	107	*e*P	P	20 03 08.0	-0.3
	comp=Z,44nm,1.0s,mb5.0						
GKN	**Gorkha**	25.07	107	*e*P	P	20 03 08.0	-0.3
	comp=Z,44nm,1.0s,mb4.9						
DMN	**Daman**	25.63	107	*e*P	P	20 03 13.5	+0.1
	comp=Z,25nm,0.9s,mb4.7						
DMN	**Daman**	25.63	107	*e*P	P	20 03 13.5	+0.1
	comp=Z,25nm,0.9s,mb4.7						
KKN	**Kakani**	25.66	107	*e*P	P	20 03 13.7	0.0
KKN	**Kakani**	25.66	107	*e*P	P	20 03 13.7	0.0
PKIN	**Phulchoki**	25.86	107	*e*P	P	20 03 15.7	+0.2
	comp=Z,20nm,0.9s,mb4.7						
PKI	**Pulchoki**	25.88	107	*e*P	P	20 03 16.0	+0.3
	comp=Z,36nm,1.0s,mb4.8						
PKI	**Pulchoki**	25.88	107	*e*P	P	20 03 16.0	+0.3
PKI				pmax	pmax		
	comp=Z,36nm,1.0s,mb4.9						
PKI	**Pulchoki**	25.88	107	*e*P	P	20 03 16.0	+0.3
	comp=Z,36nm,1.0s,mb4.9						
GUN	**Gumba**	26.05	106	*e*P	P	20 03 18.2	+1.0
	comp=Z,62nm,1.1s,mb5.0						
GUN	**Gumba**	26.05	106	*e*P	P	20 03 18.2	+1.0
	comp=Z,62nm,1.1s,mb5.0						
IDI	**Anoyia**	26.09	273	P	P	20 03 13.8	-3.8
	comp=Z,5.2nm,0.8s,mb4.1,baz=62,slow=11,SNR=11						
JIRN	**Jiri**	26.41	106	*e*P	P	20 03 20.7	+0.2
	comp=Z,47nm,1.2s,mb4.9						
JIRN	**Jiri**	26.41	106	*e*P	P	20 03 20.7	+0.2
	comp=Z,47nm,1.2s,mb4.9						
TRPA	**Tarpa**	26.80	302	⇑*i*P	P	20 03 26.9	+3.1
KWP	**Kalwaria Pacla**	26.93	305	*e*P	P	20 03 25.4	+0.5
KWP				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.5						
KWP	**Kalwaria Pacla**	26.93	305	*e*P	P	20 03 25.4	+0.5
	comp=Z,16nm,0.9s,mb4.5						
KWP	**Kalwaria Pacla**	26.93	305	*e*P	P	20 03 25.4	+0.5
	comp=Z,16nm,0.9s,mb4.5						
BZS	**Buzias**	27.22	296	⇓*i*P	P	20 03 30.8	+3.2
BZS	**Buzias**	27.22	296	⇓P	P	20 03 30.8	+3.2
TAPN	**Taplejung**	27.72	105	*e*P	P	20 03 32.9	+0.6
	comp=Z,64nm,1.3s,mb5.1						
TAPN	**Taplejung**	27.72	105	*e*P	P	20 03 32.9	+0.6
	comp=Z,64nm,1.3s,mb5.1						
ODAN	**Odare**	27.74	106	*e*P	P	20 03 32.4	-0.1
ODAN	**Odare**	27.74	106	*e*P	P	20 03 32.4	-0.1
JOF	**Joensuu**	28.91	335	*e*p	P	20 03 43.1	+0.6
	comp=Z,5.1nm,0.6s,mb4.4						
JOF	**Joensuu**	28.91	335	*e*P	P	20 03 43.1	+0.6
FINES	**FINESS Array B**	29.84	330	*e*P	P	20 03 55.0	+4.2
FINES	**FINESS Array B**	29.84	330	P	P	20 03 50.9	+0.2
	comp=Z,1.9nm,0.5s,mb4.1,baz=127,slow=10,SNR=12						
FINES	**FINESS Array B**	29.84	330	P	P	20 03 50.9	+0.2
KAF	**Kangasniemi**	30.14	331	*e*p	P	20 03 54.7	+1.2
KAF	**Kangasniemi**	30.14	331	*e*P	P	20 03 54.7	+1.2
ZAK	**Zakamensk**	34.22	55	*e*P	P	20 04 31.5	+2.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.8						
ZAK	**Zakamensk**	34.22	55	*e*P	P	20 04 31.5	+2.2
	comp=Z,2.0nm,1.6s,mb3.8						
HFS	**Hagfors**	34.68	323	P	P	20 04 33.7	+0.5
	comp=Z,4.1nm,0.6s,mb4.5,baz=104,slow=9.1,SNR=14						
HFS				LR	LR	20 22 37.4	
	comp=Z,179nm,18.2s,MS3.9,baz=299,slow=43						
HFS	**Hagfors**	34.68	323	P	P	20 04 33.7	+0.5
ARCES	**ARCESS Array B**	35.25	341	P	P	20 04 39.8	+1.8
	comp=Z,5.9nm,0.9s,mb4.5,baz=128,slow=7.9,SNR=5.9						
ARCES				LR	LR	20 21 04.3	
	comp=Z,118nm,20.1s,MS3.6,baz=134,slow=40						
ARCES	**ARCESS Array B**	35.25	341	P	P	20 04 39.8	+1.8
DAVOX	**Davos/Dischmat**	35.34	299	LR	LR	20 19 02.8	
	comp=Z,131nm,20.6s,MS3.7,baz=82,slow=36						
NB2	**NORSAR Subarra**	36.12	323	P	P	20 04 45.8	+0.3
	comp=Z,2.7nm,0.5s,mb4.4,baz=108,slow=8.6						
NB2	**NORSAR Subarra**	36.12	323	P	P	20 04 45.8	+0.3
	comp=Z,2.7nm,0.5s,mb4.4,SNR=2.9						
NOA	**NORSAR Array B**	36.12	323	P	P	20 04 45.7	+0.1
	comp=Z,8.0nm,0.9s,mb4.6,baz=109,slow=8.3,SNR=11						
NOA				LR	LR	20 20 57.7	
	comp=Z,96nm,18.3s,MS3.6,baz=355,slow=38						
NOA	**NORSAR Array B**	36.12	323	P	P	20 04 45.7	+0.1
NOA				LR	LR	20 20 57.7	
NOA	**NORSAR Array B**	36.12	323	P	P	20 04 45.7	+0.2
SONM	**Songino Array**	36.31	59	P	P	20 04 49.6	+2.3
	comp=Z,0.3nm,0.6s,mb3.4,baz=257,slow=11,SNR=2.4						
SONM				LR	LR	20 21 05.2	
	comp=Z,85nm,20.1s,MS3.5,baz=336,slow=38						
SONM	**Songino Array**	36.31	59	P	P	20 04 49.6	+2.2
ULN	**Ulaanbaatar**	36.75	59	*e*P	P	20 04 52.9	+1.8
ULN				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
ULN	**Ulaanbaatar**	36.75	59	*e*P	P	20 04 52.9	+1.8
	comp=Z,4.0nm,1.0s,mb4.2						
ULN	**Ulaanbaatar**	36.75	59	*e*P	P	20 04 52.9	+1.8
	comp=Z,4.0nm,1.0s,mb4.2						
KEST	**Kesra**	38.02	281	P	P	20 04 59.1	-2.9
	comp=Z,0.9nm,0.8s,mb3.6,baz=50,slow=7.9,SNR=4.4						
KEST				LR	LR	20 24 16.1	
	comp=Z,30nm,18.4s,MS3.1,baz=222,slow=42						
BOD	**Bodaibo**	40.86	43	*e*P	P	20 05 26.8	+1.4
BOD	**Bodaibo**	40.86	43	*e*P	P	20 05 26.8	+1.4
CMAR	**Chiang Mai Arr**	41.27	107	P	P	20 05 27.6	-1.7
	comp=Z,0.6nm,0.8s,mb3.3,baz=299,slow=8.5,SNR=6.6						
CMAR				LR	LR	20 25 19.2	
	comp=Z,45nm,21.7s,MS3.3,baz=0.0,slow=40						
CMAR	**Chiang Mai Arr**	41.27	107	P	P	20 05 27.7	-1.6
EKA	**Eskdalemuir Ar**	43.03	313	P	P	20 05 43.0	-0.2
	comp=Z,3.7nm,0.9s,mb4.1,baz=99,slow=8.7,SNR=3.2						
EKA	**Eskdalemuir Ar**	43.03	313	P	P	20 05 43.0	-0.2
TIXI	**Tiksi**	47.99	24	⇑*e*P	P	20 06 24.0	+1.8
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.9						
TIXI	**Tiksi**	47.99	24	*e*P	P	20 06 24.0	+1.8
	comp=Z,100nm,17.0s						
YAK	**Yakutsk**	48.60	37	*i* P	P	20 06 28.9	+1.8
YAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
YAK	**Yakutsk**	48.60	37	*i* P	P	20 06 28.9	+1.8
	comp=Z,3.0nm,0.7s,mb4.4						
KSRS	**Korea Array**	54.24	68	P	P	20 07 10.1	+0.3
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
KSRS				MLR	MLR		
	comp=Z,85nm,19.5s,MS3.8						
KSRS	**Korea Array**	54.24	68	P	P	20 07 10.1	+0.3
	comp=Z,2.6nm,0.9s,mb4.2,baz=292,slow=6.6,SNR=4.6						
KSRS				LR	LR	20 31 16.6	
	comp=Z,85nm,19.5s,MS3.8,baz=309,slow=37						
KSRS	**Korea Array**	54.24	68	P	P	20 07 10.1	+0.3
	comp=Z,85nm,19.5s						
TORD	**Torodi Ar. Bea**	55.21	258	P	P	20 07 11.8	-5.2
	comp=Z,1.3nm,1.0s,mb3.9,baz=47,slow=7.3,SNR=6.2						
TORD				LR	LR	20 33 01.9	
	comp=Z,51nm,19.2s,MS3.6,baz=20,slow=39						
TORD	**Torodi Ar. Bea**	55.21	258	P	P	20 07 11.8	-5.2
TORD				LR	LR	20 33 01.9	
SEY	**Seymchan**	58.50	32	⇑*e*P	P	20 07 40.6	+0.9
SEY	**Seymchan**	58.50	32	*e*P	P	20 07 40.6	+0.9
YSS	**Yuzh-Sakhalins**	60.21	52	*e*P	P	20 07 54.0	+2.2
RES	**Resolute Bay**	65.40	352	*e*P	P	20 08 26.7	+0.8
RES				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
RES	**Resolute Bay**	65.40	352	*e*P	P	20 08 26.7	+0.7
	comp=Z,3.2nm,0.9s,mb4.3						
RES	**Resolute Bay**	65.40	352	*e*P	P	20 08 26.7	+0.8
	comp=Z,3.0nm,0.9s,mb4.3						
FRB	**Frobisher Bay**	69.29	337	P	P	20 08 51.4	+0.7
	comp=Z,4.1nm,0.8s,mb4.4,baz=35,slow=7.6,SNR=11						
FRB	**Frobisher Bay**	69.29	337	P	P	20 08 51.4	+0.7
LBTB	**Lobatse**	70.02	211	P	P	20 08 52.3	-3.4
LBTB				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
LBTB	**Lobatse**	70.02	211	P	P	20 08 52.3	-3.4
	comp=Z,7.0nm,1.2s,mb4.5						
LBTB	**Lobatse**	70.02	211	P	P	20 08 52.3	-3.4
	comp=Z,7.0nm,1.2s,mb4.5						
COLD	**Coldfoot**	72.33	11	*e*P	P	20 09 06.7	-2.5
	comp=Z,3.3nm,0.6s,mb4.4						
INK	**Inuvik**	73.00	4	P	P	20 09 14.1	+1.0
INK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
INK	**Inuvik**	73.00	4	P	P	20 09 14.1	+1.0
	comp=Z,1.9nm,0.8s,mb4.1,baz=7.6,slow=3.2,SNR=5.8						
INK	**Inuvik**	73.00	4	*e*P	P	20 09 13.7	+0.6
	comp=Z,8.0nm,1.4s,mb4.5						
INK	**Inuvik**	73.00	4	P	P	20 09 14.1	+1.0
	comp=Z,2.0nm,0.8s,mb4.1						
COLA	**College**	74.88	11	P	P	20 09 22.1	-2.1
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
COLA	**College**	74.88	11	P	P	20 09 22.1	-2.1
	comp=Z,2.8nm,0.6s,mb4.4						
COLA	**College**	74.88	11	P	P	20 09 22.1	-2.1
	comp=Z,3.0nm,0.6s,mb4.4						
SCHQ	**Schefferville**	75.32	330	P	P	20 09 27.0	+0.1
	comp=Z,2.4nm,0.7s,mb4.2,baz=39,slow=4.0,SNR=5.9						
SCHQ	**Schefferville**	75.32	330	P	P	20 09 27.0	+0.1
SCHQ	**Schefferville**	75.32	330	P	P	20 09 27.0	+0.1
YKA	**Yellowknife Ar**	78.94	356	P	P	20 09 47.9	+0.8
	comp=Z,1.6nm,0.7s,mb4.0,baz=2.1,slow=6.3,SNR=27						
YKA				LR	LR	20 49 03.9	
	comp=Z,72nm,18.8s,MS4.0,baz=195,slow=39						
YKA	**Yellowknife Ar**	78.94	356	P	P	20 09 47.9	+0.8
YKA				LR	LR	20 49 03.9	
YKA	**Yellowknife Ar**	78.94	356	P	P	20 09 47.9	+0.8
FCC	**Fort Churchill**	80.02	345	P	P	20 09 53.8	+0.8
	comp=Z,0.1nm,0.7s						
FCC	**Fort Churchill**	80.02	345	P	P	20 09 53.8	+0.7
ULM	**Lac du Bonnet**	88.34	343	P	P	20 10 35.3	-0.3
	comp=Z,3.3nm,0.7s,mb4.7,baz=31,slow=2.4,SNR=5.7						
ULM	**Lac du Bonnet**	88.34	343	P	P	20 10 35.3	-0.2
WRA	**Warramunga Arr**	92.59	113	P	P	20 10 54.2	-1.5
	comp=Z,0.4nm,0.7s,mb4.0,baz=325,slow=5.0,SNR=3.3						
WRA	**Warramunga Arr**	92.59	113	P	P	20 10 54.2	-1.5

NNC 29 20:24:39.3±3.9, 38.41N×71.35E, h18km±15km, mb3.6, mpv3.3, 7C-2D, Error ellipse: s-maj=29.5km s-min=20.6km az=2.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KK31	**Karatay Array**	4.73	353	Pn	Pn	20 25 48.8	-1.0
	0.7nm,0.2s,baz=181,slow=15,SNR=72						
KK31				⇑Pg	Pg	20 26 06.9	-3.0
	4.2nm,0.6s,baz=169,slow=15,SNR=4.2						

KK31				⇑Sn	Sn	20 26 46.2	+2.1
	1.5nm,0.3s,baz=169,slow=15,SNR=4.2						
KK31				⇑Lg		20 27 05.7	
	4.4nm,0.5s,baz=166,slow=29,SNR=3.5						
TKM2	**Tokmak 2**	**5.54**	**34**	⇑Pn	Pn	20 26 02.2	+1.3
	2.7nm,0.8s						
TKM2				⇓Pg	Pg	20 26 21.1	-4.2
	2.7nm,0.7s						
TKM2				⇓Sn	Sn	20 27 04.6	+0.5
	3.2nm,0.8s						
TKM2				⇑Lg		20 27 35.0	
	7.2nm,1.2s						
AB01	**Akbulak array**	**13.60**	**327**	⇑P	Pn	20 27 47.5	-3.6
	0.7nm,0.7s						
AKTO	**Aktyubinsk**	**15.31**	**326**	⇑P	Pn	20 28 15.1	+0.8
	0.5nm,0.8s						

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*IDC **29** 20:49:10.6±0.5, 11°.83N×143°.50E, h0^{km}, mb4.9/34, mb1 4.9/35, mb1mx4.9/38, mbtmp4.9/35, ML4.9/1, MS4.3/27, Ms1 4.3/27, ms1mx4.1/36, Error ellipse: s-maj=15.5km s-min=11.8km az=110.0*

*BJI **29** 20:49:11.5, 11°.83N×143°.66E, h23^{km}, mB5.2/32, mb4.9/43, Ms4.7/39, Ms7 4.4/36*

*GCMT **29** 20:49:13.0±0.3, 11°.72N×143°.51E, h12^{km}, MW4.9/62, Moment Tensor Solution. s30,c41; s62,c100; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.45±.10; $M_{\theta\theta}$-2.57±.07; $M_{\phi\phi}$0.12±.10; $M_{r\theta}$1.11±.26; $M_{\theta\phi}$-0.98±.08; $M_{\phi r}$-0.07±.36; Best double couple: $M_0$2.89800×10^{16} NP1:ϕ_s241.00000°,δ35.00000°,λ73.00000°. NP2: ϕ_s82.00000°,δ56.00000°,λ102.00000°. Principal axes: T 2.7150, Plg76.0000°, Azm26.0000°; N 0.3700, Plg10.0000°, Azm255.0000°; P -3.0810, Plg11.0000°, Azm163.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **29** 20:49:13.0±3.6, 11°.86N×143°.48E, h15^{km}±22^{km}, mb5.2/82 Error ellipse: s-maj=5.9km s-min=5.0km az=157.0*

*MOS **29** 20:49:13.8±1.0, 11°.89N×143°.46E, h32^{km}, mb5.3/47, MS4.4/6, Error ellipse: s-maj=8.8km s-min=5.6km az=105.4*

*DJA **29** 20:49:14, 11°.74N×143°.73E, h10^{km}, Mw5.5/4*

*ISCJB **29** 20:49:15.1±0.2, 11°.92N±0°.04×143°.33E±0°.02, h33^{km}, mb5.0/152, MS4.4/49, Error ellipse: s-maj=5.3km s-min=3.4km az=1.8*

ISC 29 20:49:16.8±0.1**, 11°.89N**±0°.03×**143°.40E**±0°.02**, h35**^{km}**, (h16**^{km}±5.2^{km}**:pP-P), n519,** σ**0**^{s}**.82**/523**, mb5.0**/152**, MS4.4**/49**, 107C-139D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**2.21**	**40**	Pn	**Pn**	**20 49 49.6**	**-1.5**
	372nm,0.3s,baz=192,slow=10.0,SNR=104						
GUMO				Sn	**Sn**	**20 50 16.6**	**-0.6**
	382nm,0.3s,baz=1.2,slow=23,SNR=9.2						
GUMO	**Guam**	**2.21**	**40**	*e*Pn	**Pn**	**20 49 49.0**	**-2.1**
GUMO				*e*Sn	**Sn**	**20 50 17.8**	**+0.6**
CBIJ	**Chichi jima**	**15.17**	**356**	LR	LR	20 58 10.1	
	comp=Z,918nm,20.0s,baz=164,slow=35						
JOW	**Kunigami**	**20.57**	**318**	P	**P**	**20 53 53.5**	**+0.9**
	35nm,0.5s,baz=153,slow=7.5,SNR=8.5						
JOW				LR	LR	21 01 34.1	
	comp=Z,658nm,18.1s,MS4.0,baz=79,slow=36						
TGY	**Tagaytay City**	**22.00**	**278**	P	**P**	**20 54 08.0**	**-0.1**
	142nm,0.4s,mb5.8,baz=143,slow=6.5,SNR=7.1						
SSLB	**Suanglung**	**24.38**	**302**	*e*Pn	**P**	**20 54 31.3**	**-0.6**
	36nm,0.6s,mb5.0						
YHNB	**Yeheng**	**24.42**	**304**	*e*Pn	**P**	**20 54 31.6**	**-0.7**
	44nm,1.2s,mb4.8						
MJAR	**Matsushiro Arr**	**24.98**	**350**	P	**P**	**20 54 35.1**	**-2.1**
	12nm,0.9s,mb4.4,baz=175,slow=10,SNR=19						
MJAR				ScP	ScP	21 01 50.2	+1.9
	2.8nm,0.9s,baz=163,slow=3.5,SNR=4.3						
MJAR				LR	LR	21 03 47.5	
	comp=Z,1µm,18.5s,MS4.4,baz=185,slow=35						
MAJO	**Matsushiro**	**24.98**	**350**	*e*P	**P**	**20 54 34.7**	**-2.5**
MAJO				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.8						
MAJO	**Matsushiro**	**24.98**	**350**	*e*P	**P**	**20 54 34.7**	**-2.5**
	comp=Z,18nm,0.6s,mb4.8						
MAT	**Matsushiro**	**24.98**	**350**	P	**P**	**20 54 34.9**	**-2.3**
MAT				S	**S**	**20 59 05.0**	**+6.3**
COEN	**Coen**	**25.68**	**181**	*e*P	**P**	**20 54 41.8**	**-1.9**
COEN	**Coen**	**25.68**	**181**	*e*P	**P**	**20 54 41.7**	**-2.0**
	comp=Z,135nm,0.9s,mb5.5						
KDI	**Kendari**	**25.98**	**234**	⇓*e*P	**P**	**20 54 48.7**	**+2.2**
KDI				*e*S	**S**	**20 59 22.1**	**+7.1**
HNR	**Honiara**	**26.82**	**141**	LR	LR	21 04 08.2	
	comp=Z,209nm,21.3s,MS3.7,baz=102,slow=34						
SSE	**Sheshan**	**28.05**	**316**	*e*P	**P**	**20 55 05.0**	**+0.1**
SSE				S	**S**	**20 59 48.0**	**+0.7**
SSE				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.3						
SSE				pmax	pmax		
	comp=Z,86nm,4.6s						
SSE				LR	LR		
	comp=N,220nm,21.1s,MS4.0						
SSE				LR	LR		
	comp=E,310nm,21.1s,MS4.0						
SSE				LR	LR		
	comp=Z,410nm,19.0s,MS4.0						
KAPI	**Kappang**	**28.90**	**236**	P	**P**	**20 55 10.7**	**-2.0**
	comp=Z,13nm,1.0s,mb4.6,baz=68,slow=5.7,SNR=5.7						
KSRS	**Korea Array**	**28.99**	**334**	P	**P**	**20 55 12.6**	**-0.7**
	comp=Z,4.6nm,0.6s,mb4.4,baz=143,slow=8.9,SNR=15						
KSRS				LR	LR	21 06 15.6	
	comp=Z,204nm,19.6s,MS3.8,baz=164,slow=35						
NJ2	**Nanjing**	**30.21**	**315**	*e*P	**P**	**20 55 23.3**	**-0.8**
NJ2				pP	pP	20 55 27.8	-6.3
NJ2				sP	sP	20 55 31.3	-7.1
NJ2				PP	PP	20 56 21.3	-11
NJ2				S	**S**	**21 00 20.0**	**-1.2**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
NJ2				pmax	pmax		
	comp=Z,340nm,4.2s						
NJ2				LR	LR		
	comp=N,950nm,20.5s						
NJ2				LR	LR		
	comp=E,240nm,14.8s						
CTA	**Charters Tower**	**31.90**	**175**	*e*P	**P**	**20 55 37.5**	**-1.6**
	comp=E,8.4nm,1.0s,mb4.5						
CTAO	**Charters Tower**	**31.90**	**175**	*e*P	**P**	**20 55 37.4**	**-1.7**
CTAO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
CTAO	**Charters Tower**	**31.90**	**175**	*e*P	**P**	**20 55 37.4**	**-1.6**
	comp=Z,14nm,0.9s,mb4.8						
ASAJ	**Asahikawa**	**32.12**	**359**	P	**P**	**20 55 39.9**	**-0.9**
	comp=Z,4.7nm,0.6s,mb4.5,baz=236,slow=12,SNR=7.1						
ASAJ				LR	LR	21 08 46.2	
	comp=Z,245nm,20.9s,MS3.9,baz=125,slow=36						
WRAB	**Tennant Creek**	**32.86**	**196**	P	**P**	**20 55 46.3**	**-1.1**
	comp=Z,156nm,1.2s,mb5.8,SNR=11						
WRAB	**Tennant Creek**	**32.86**	**196**	*e*P	**P**	**20 55 45.7**	**-1.7**
WRAB				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
WRAB	**Tennant Creek**	**32.86**	**196**	*e*P	**P**	**20 55 45.7**	**-1.7**
	comp=Z,17nm,0.8s,mb5.0						
WRA	**Warramunga Arr**	**32.87**	**196**	P	**P**	**20 55 46.0**	**-1.5**
	comp=Z,16nm,0.8s,mb5.0,baz=17,slow=9.3,SNR=40						
WRA				LR	LR	21 09 34.6	
	comp=Z,1µm,18.2s,MS4.6,baz=20,slow=37						
QIZ	**Qiongzhong**	**33.07**	**287**	P	**P**	**20 55 47.0**	**-2.4**
QIZ				S	**S**	**21 01 08.0**	**+1.8**
QIZ				pmax	pmax		
	comp=Z,220nm,4.5s						
QIZ				LR	LR		
	comp=E,390nm,17.7s						
QIZ				LR	LR		
	comp=Z,370nm,20.9s,MS4.1						
DL2	**Dalian**	**33.14**	**328**	P	**P**	**20 55 50.0**	**+0.2**
DL2				*e*S	**S**	**21 01 12.5**	**+5.6**
DL2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
DL2				pmax	pmax		
	comp=Z,150nm,4.4s						
DL2				LR	LR		
	comp=N,190nm,18.3s,MS4.0						
DL2				LR	LR		
	comp=E,190nm,16.8s,MS4.0						
DL2				LR	LR		
	comp=Z,320nm,16.7s,MS4.1						
KSM	**Kuching**	**34.41**	**255**	P	**P**	**20 56 01.0**	**-0.1**
	comp=Z,15nm,1.2s,mb4.8						
MDJ	**Mudanjiang**	**34.70**	**343**	P	**P**	**20 56 02.8**	**-0.4**
MDJ				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
MDJ				pmax	pmax		
	comp=Z,200nm,4.4s						
MDJ				LR	LR		
	comp=N,190nm,18.7s,MS3.9						
MDJ				LR	LR		
	comp=E,120nm,21.2s,MS3.9						
MDJ				LR	LR		
	comp=Z,310nm,21.2s,MS4.0						
YSS	**Yuzh-Sakhalins**	**34.95**	**359**	*e*P	**P**	**20 56 03.5**	**-1.8**
YSS				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.4						
YSS				MLR	MLR		
	comp=N,500nm,14.0s						
YSS	**Yuzh-Sakhalins**	**34.95**	**359**	P	**P**	**20 56 02.6**	**-2.8**
	comp=N,77nm,2.2s,mb5.2						
CN2	**Changchun**	**35.37**	**337**	*e*P	**P**	**20 56 12.3**	**+3.3**
CN2				*e*S	**S**	**21 01 48.0**	**+6.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.5						
CN2				LR	LR		
	comp=E,400nm,15.0s,MS4.5						
CN2				LR	LR		
	comp=Z,600nm,16.0s,MS4.4						
ASAR	**Alice Springs**	**36.54**	**195**	P	**P**	**20 56 18.2**	**-1.0**
	comp=Z,4.8nm,0.6s,mb4.5,baz=16,slow=11,SNR=88						
BJT	**Baijiatuau**	**36.91**	**324**	*e*P	**P**	**20 56 21.5**	**-0.8**
BJT				pmax	pmax		
	comp=Z,40nm,0.8s						
BJT	**Baijiatuau**	**36.91**	**324**	*e*P	**P**	**20 56 21.5**	**-0.8**
	comp=Z,40nm,0.8s,mb5.3						
BJI	**Beijing**	**36.92**	**324**	P	**P**	**20 56 22.0**	**-0.4**
BJI				PP	PP	20 57 48.0	+1.1
BJI				S	**S**	**21 02 10.5**	**+5.4**
BJI				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.2						
BJI				pmax	pmax		
	comp=Z,230nm,3.9s						
BJI				LR	LR		
	comp=N,810nm,18.1s						
BJI				LR	LR		
	comp=E,470nm,23.8s						
BJI				LR	LR		
	comp=Z,580nm,20.0s,MS4.4						
HABR	**Khabarovsk**	**37.13**	**351**	*e*P	**P**	**20 56 21.3**	**-2.6**
HABR				*e**SS	sS	21 02 14.2	-10
HABR				*e*		21 02 29.3	
HABR				*e*SS	SS	21 04 45.1	-6.2
HABR				pmax	pmax		
	comp=E,24nm,1.4s						
HABR				pmax	pmax		
	comp=N,31nm,2.2s						
HABR				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.5						
HABR				MLR	MLR		
	comp=Z,327nm,21.0s,MS4.1						
GYA	**Guiyang**	**37.45**	**298**	P	**P**	**20 56 28.5**	**+1.5**
GYA				PP	PP	20 57 58.5	+5.7
GYA				S	**S**	**21 02 21.3**	**+7.9**
GYA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
GYA				pmax	pmax		
	comp=Z,190nm,5.2s						
GYA				LR	LR		
	comp=N,690nm,12.0s,MS4.8						
GYA				LR	LR		
	comp=E,470nm,12.3s,MS4.8						
GYA				LR	LR		
	comp=Z,780nm,13.0s,MS4.7						
XAN	**Xi'an**	**38.36**	**311**	P	**P**	**20 56 33.8**	**-0.8**
XAN				pP	pP	20 56 41.5	-3.3
XAN				sP	sP	20 56 45.3	-3.8
XAN				pmax	pmax		
	comp=Z,28nm,5.2s						
KLR	**Kul'dur**	**38.46**	**348**	*e*P	**P**	**20 56 30.7**	**-4.5**
KLR				*e*		20 58 43.2	
KLR				MLR	MLR		
	comp=N,500nm,14.0s						
KLR				MLR	MLR		
	comp=Z,1µm,14.0s,MS4.8						
HHC	**Hu-ho-hao-te**	**40.16**	**322**	*e*P	**P**	**20 56 49.8**	**+0.3**
HHC				pP	pP	20 56 54.3	-5.5
HHC				PP	PP	20 58 26.5	+4.2
HHC				*e*S	**S**	**21 02 53.5**	**-0.4**
HHC				SS	SS	21 05 45.0	-7.6
HHC				ScS	ScS	21 06 53.8	+0.2
HHC				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.6						
HHC				pmax	pmax		
	comp=Z,180nm,4.5s						
HHC				LR	LR		
	comp=N,330nm,19.0s,MS4.4						
HHC				LR	LR		
	comp=E,340nm,15.5s,MS4.4						
HHC				LR	LR		
	comp=Z,430nm,14.7s,MS4.4						
KMI	**Kunming**	**40.58**	**295**	P	**P**	**20 56 54.5**	**+1.3**
KMI				S	**S**	**21 03 04.5**	**+4.0**
KMI				LR	LR		
	comp=N,250nm,17.0s,MS4.2						
KMI				LR	LR		
	comp=E,140nm,16.4s,MS4.2						
KMI				LR	LR		
	comp=Z,190nm,19.4s,MS4.0						
DZM	**Mont Dzumac**	**40.62**	**146**	*e*LR	LR	21 07 57.4	
	comp=Z,632nm,33.2s						
DZM	**Mont Dzumac**	**40.62**	**146**	*e*P	**P**	**20 56 52.2**	**-1.3**
	comp=Z,39nm,0.9s,mb5.0						
BTO	**Baotou**	**40.97**	**320**	*e*P	**P**	**20 56 55.5**	**-0.7**
CD2	**Chengdu**	**41.19**	**304**	P	**P**	**20 56 58.8**	**+0.6**
CD2				PP	PP	20 58 36.5	+2.8
CD2				S	**S**	**21 03 11.8**	**+2.2**
CD2				SS	SS	21 06 09.0	-4.4
CD2				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.9						
CD2				pmax	pmax		
	comp=Z,140nm,3.9s						
CD2				LR	LR		
	comp=N,390nm,10.7s						
CD2				LR	LR		
	comp=Z,330nm,13.1s,MS4.4						
HIA	**Hailar**	**42.10**	**337**	*e*P	**P**	**20 57 05.3**	**0.0**
HIA				pmax	pmax		
	comp=Z,13nm,0.6s						
HIA	**Hailar**	**42.10**	**337**	*e*P	**P**	**20 57 05.3**	**0.0**
	comp=Z,13nm,0.6s,mb4.7						
PETK	**Petropavlovsk-**	**42.68**	**13**	P	**P**	**20 57 09.8**	**-0.2**
PETK						20 59 00.4	
PETK	**Petropavlovsk-**	**42.68**	**13**	P	**P**	**20 57 09.8**	**-0.2**
	comp=Z,2.7nm,0.8s,mb4.1,baz=140,slow=3.9,SNR=6.8						
PETK				PcP	PcP	20 59 00.4	-1.0
	comp=Z,4.0nm,0.8s,baz=118,slow=5.2,SNR=2.3						
PETK				LR	LR	21 17 23.7	
	comp=Z,346nm,18.1s,MS4.3,baz=195,slow=40						
PETK	**Petropavlovsk-**	**42.68**	**13**	P	**P**	**20 57 09.8**	**-0.2**
PETK				PcP	PcP	20 59 00.4	-1.0
PETK				LR	LR	21 17 23.6	
KULM	**Kulim**	**42.73**	**265**	*e*P	**P**	**20 57 12.5**	**+1.5**
	comp=Z,8.0nm,0.7s,mb4.6						
LZH	**Lanzhou**	**43.00**	**311**	⇑P	**P**	**20 57 14.3**	**+1.4**
LZH				PP	PP	20 58 57.0	+3.9
LZH				*e*S	**S**	**21 03 38.3**	**+2.2**
LZH				SS	SS	21 06 48.0	-0.9
LZH				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.1						
LZH				pmax	pmax		
	comp=Z,240nm,5.3s						
LZH				LR	LR		
	comp=E,460nm,14.8s						
LZH				LR	LR		
	comp=Z,730nm,15.8s,MS4.7						
CMSA	**Cobar Meteorol**	**43.24**	**177**	*e*P	**P**	**20 57 13.2**	**-1.6**
CMAR	**Chiang Mai Arr**	**43.31**	**284**	P	**P**	**20 57 17.4**	**+1.7**
	comp=Z,5.3nm,0.8s,mb4.3,baz=87,slow=6.0,SNR=47						
CMAR				LR	LR	21 14 17.6	
	comp=Z,180nm,19.1s,MS4.0,baz=273,slow=35						
CHTO	**Chiang Mai**	**43.33**	**285**	P	**P**	**20 57 16.1**	**+0.3**
CHTO				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
CHTO	**Chiang Mai**	**43.33**	**285**	P	**P**	**20 57 16.1**	**+0.3**
	comp=Z,3.4nm,1.1s,mb4.0						
STKA	**Stephens Creek**	**43.55**	**182**	*e*P	**P**	**20 57 14.5**	**-2.8**
	comp=Z,4.4nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**43.55**	**182**	P	**P**	**20 57 14.7**	**-2.6**
	comp=Z,5.6nm,0.9s,mb4.3,baz=321,slow=14,SNR=6.2						
STKA				LR	LR	21 16 36.1	
	comp=Z,328nm,19.4s,MS4.2,baz=19,slow=38						
STKA	**Stephens Creek**	**43.55**	**182**	*e*P	**P**	**20 57 14.0**	**-3.3**
	comp=Z,1.5nm,0.9s,mb3.7						
STKA				LR	LR	21 16 36.1	
FORT	**Forrest**	**44.92**	**199**	*e*P	**P**	**20 57 28.7**	**+0.5**
	comp=Z,18nm,0.7s,mb5.0						
BBOO	**Buckleboo**	**45.00**	**189**	*e*P	**P**	**20 57 27.1**	**-1.8**
	comp=Z,14nm,0.9s,mb4.8						
ULN	**Ulaanbaatar**	**46.98**	**327**	*e*P	**P**	**20 57 44.7**	**+0.4**
ULN				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
ULN	**Ulaanbaatar**	**46.98**	**327**	*e*P	**P**	**20 57 44.7**	**+0.3**
	comp=Z,18nm,1.1s,mb4.9						
ULN	**Ulaanbaatar**	**46.98**	**327**	⇓P	**P**	**20 57 45.1**	**+0.8**
	SNR=9.7						
ULN				⇓P		20 57 45.1	
	SNR=9.7						
GTA	**Gaotai**	**47.25**	**313**	⇑P	**P**	**20 57 47.3**	**+0.7**
GTA				pP	pP	20 57 51.5	-5.6
GTA				sP	sP	20 57 53.5	-7.7
GTA				PcP	PcP	20 59 18.5	+1.0
GTA				PP	PP	20 59 38.0	+0.1
GTA				S	**S**	**21 04 42.5**	**+4.9**
GTA				SS	SS	21 07 59.0	-6.2
GTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GTA				pmax	pmax		
	comp=Z,91nm,5.7s						
GTA				LR	LR		
	comp=N,90nm,18.3s,MS4.1						
GTA				LR	LR		
	comp=E,170nm,18.3s,MS4.1						
GTA				LR	LR		
	comp=Z,210nm,17.7s,MS4.2						
SONM	**Songino Array**	**47.31**	**327**	P	**P**	**20 57 47.8**	**+0.8**
SONM						20 59 17.8	
SONM	**Songino Array**	**47.31**	**327**	P	**P**	**20 57 47.8**	**+0.9**
	comp=Z,6.4nm,0.6s,mb4.8,baz=147,slow=7.3,SNR=44						
SONM				PcP	PcP	20 59 17.8	+0.3
	comp=Z,3.7nm,0.8s,baz=149,slow=4.1,SNR=4.4						
SONM				LR	LR	21 18 35.8	
	comp=Z,647nm,18.7s,MS4.6,baz=213,slow=37						
FX1	**Attu Island--F**	**47.33**	**24**	P	**P**	**20 57 45.0**	**-2.0**
	comp=Z,17nm,0.6s,mb5.2,baz=180,slow=2.0,SNR=2.6						
FX1	**Attu Island--F**	**47.33**	**24**	P	**P**	**20 57 45.0**	**-2.0**
MORW	**Morawa**	**48.54**	**212**	*e*P	**P**	**20 57 55.6**	**-1.1**
	comp=Z,19nm,0.9s,mb5.1						
TOO	**Toolangi**	**49.24**	**178**	*e*P	**P**	**20 58 00.7**	**-1.2**
ZAK	**Zakamensk**	**50.47**	**328**	*e*P	**P**	**20 58 10.9**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
BOD	**Bodaibo**	**51.00**	**340**	*e*P	**P**	**20 58 14.2**	**-0.8**
BOD				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
YAK	**Yakutsk**	**51.03**	**352**	*e*P	**P**	**20 58 13.4**	**-1.7**
YAK				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,6.0nm,1.2s						
YAK	**Yakutsk**	**51.03**	**352**	*e*P	**P**	**20 58 13.6**	**-1.5**
	comp=N,28nm,0.6s,mb5.4						
TLY	**Talaya**	**51.04**	**329**	P	**P**	**20 58 15.4**	**0.0**
	comp=N,60nm,0.7s,mb5.6,SNR=7.1						
TLY	**Talaya**	**51.04**	**329**	*e*P	**P**	**20 58 15.7**	**+0.3**
TLY				*e*S	**S**	**21 05 33.5**	**+3.2**
TLY				*e*SS	ScS	21 07 59.8	-3.4
TLY				pmax	pmax		
	comp=Z,28nm,1.8s,mb4.9						
TLY				MLR	MLR		
	comp=Z,197nm,17.0s,MS4.2						
TLY	**Talaya**	**51.04**	**329**	*e*P	**P**	**20 58 15.6**	**+0.2**
	comp=Z,41nm,1.5s,mb5.1						
TLY	**Talaya**	**51.04**	**329**	⇓P	**P**	**20 58 16.1**	**+0.7**
	SNR=9.5						
TLY				⇓P		20 58 16.1	
	SNR=9.5						
IRK	**Irkutsk**	**51.07**	**330**	⇑*i*P	**P**	**20 58 15.4**	**-0.2**
IRK				*e*S	**S**	**21 05 28.5**	**-2.2**
IRK				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
AFI	**Afiamalu**	**51.30**	**119**	LR	LR	21 16 19.0	
	comp=Z,215nm,20.8s,MS4.2,baz=310,slow=32						
SEY	**Seymchan**	**51.36**	**5**	⇓*e*P	**P**	**20 58 16.9**	**-0.7**
LSA	**Lhasa**	**51.51**	**298**	P	**P**	**20 58 21.5**	**+2.2**
LSA	**Lhasa**	**51.51**	**298**	*e*P	**P**	**20 58 21.0**	**+1.7**
LSA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
LSA	**Lhasa**	**51.51**	**298**	*e*P	**P**	**20 58 21.0**	**+1.6**
	comp=Z,8.3nm,0.6s,mb4.8						
MOY	**Mondy**	**52.39**	**328**	*e*P	**P**	**20 58 25.7**	**+0.3**
TAPN	**Taplejung**	**54.24**	**295**	*e*P	**P**	**20 58 40.3**	**+0.8**
	comp=Z,18nm,0.8s,mb5.1						
ODAN	**Odare**	**54.49**	**295**	*e*P	**P**	**20 58 41.9**	**+0.6**
RAMN	**Ramite**	**55.20**	**295**	*e*P	**P**	**20 58 47.3**	**+0.8**
JIRN	**Jiri**	**55.62**	**295**	*e*P	**P**	**20 58 50.4**	**+0.9**
	comp=Z,28nm,0.7s,mb5.4						
GUN	**Gumba**	**55.91**	**296**	*e*P	**P**	**20 58 52.4**	**+0.8**
	comp=Z,81nm,0.9s,mb5.7						
PKI	**Pulchoki**	**56.30**	**295**	*e*P	**P**	**20 58 54.8**	**+0.4**
PKIN	**Phulchoki**	**56.31**	**295**	*e*P	**P**	**20 58 54.7**	**+0.3**
	comp=Z,12nm,0.7s,mb5.1						
KKN	**Kakani**	**56.43**	**295**	*e*P	**P**	**20 58 55.3**	**0.0**
	comp=Z,28nm,0.9s,mb5.3						
KKN	**Kakani**	**56.43**	**295**	*e*P	**P**	**20 58 55.3**	**0.0**
KKN				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.3						
DMN	**Daman**	**56.57**	**295**	*e*P	**P**	**20 58 56.8**	**+0.5**
	comp=Z,37nm,0.9s,mb5.4						
GKN	**Gorkha**	**57.01**	**296**	*e*P	**P**	**20 58 59.7**	**+0.3**
WMQ	**Urumqi**	**57.28**	**315**	⇑*i*P	**P**	**20 59 02.0**	**+1.0**
WMQ				pP	pP	20 59 15.0	+3.3
WMQ				PcP	PcP	20 59 56.0	+1.0
WMQ				PP	PP	21 01 12.0	+3.6
WMQ				S	**S**	**21 06 53.0**	**-1.8**
WMQ				sS	sS	21 07 12.0	-0.3
WMQ				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.3						
WMQ				pmax	pmax		
	comp=Z,280nm,5.2s						
WMQ				LR	LR		
	comp=N,770nm,23.0s,MS4.9						
WMQ				LR	LR		
	comp=E,500nm,19.0s,MS4.9						
WMQ				LR	LR		
	comp=Z,650nm,19.2s,MS4.8						
UNV	**Unalaska Valle**	**57.52**	**33**	*e*P	**P**	**20 59 01.0**	**-1.6**
	comp=Z,33nm,1.0s,mb5.3						
DANN	**Dangsing**	**57.81**	**296**	*e*P	**P**	**20 59 05.7**	**+0.7**
KOLN	**Koldanda**	**57.91**	**295**	*e*P	**P**	**20 59 06.0**	**+0.2**
	comp=Z,37nm,0.8s,mb5.4						
BILL	**Bilibino**	**58.06**	**10**	*i* P	**P**	**20 59 07.1**	**+1.0**
BILL				*e*		20 59 59.7	
BILL				*e*SS	SS	21 11 00.5	+4.7
BILL				pmax	pmax		
	comp=Z,36nm,2.1s,mb5.0						
BILL				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
BILL	**Bilibino**	**58.06**	**10**	*e*P	**P**	**20 59 04.8**	**-1.3**
	comp=Z,15nm,0.9s,mb5.0						
URZ	**Urewera**	**59.02**	**149**	LR	LR	21 18 49.0	
	comp=Z,132nm,21.8s,MS4.0,baz=316,slow=30						
TIXI	**Tiksi**	**60.37**	**355**	⇑*e*P	**P**	**20 59 20.1**	**-1.9**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.3						
TIXI	**Tiksi**	**60.37**	**355**	*e*P	**P**	**20 59 19.8**	**-2.2**
	comp=Z,3.8nm,0.8s,mb4.5						
RPZ	**Rata Peaks**	**60.81**	**157**	LR	LR	21 20 02.3	
	comp=Z,403nm,20.7s,MS4.5,baz=277,slow=30						
SDPT	**Sand Point**	**61.34**	**33**	*e*P	**P**	**20 59 26.6**	**-2.3**
	comp=Z,79nm,1.0s,mb5.8						
MK31	**Makanchi Array**	**61.73**	**317**	*e*P	**P**	**20 59 32.0**	**+0.4**
MKAR	**Makanchi Array**	**61.73**	**317**	P	**P**	**20 59 32.2**	**+0.6**
	comp=Z,12nm,0.8s,mb5.1,baz=92,slow=8.8,SNR=140						
MKAR				LR	LR	21 28 01.3	
	comp=Z,204nm,18.9s,MS4.3,baz=345,slow=38						
PALK	**Pallekele**	**61.89**	**272**	LR	LR	21 26 24.2	
	comp=Z,72nm,18.2s,MS3.9,baz=70,slow=36						
ZAA0	**Zalesovo Array**	**62.17**	**325**	*e*P	**P**	**20 59 33.5**	**-1.0**

ZAA0				*e*PcP	PcP	21 00 13.6	-0.8
ZALV	**Zalesovo Beam**	62.17	325	P	P	20 59 34.3	-0.2
ZALV						21 00 13.8	
ZALV	**Zalesovo Beam**	62.17	325	P	P	20 59 34.3	-0.2
	comp=Z,13nm,0.6s,mb5.3,baz=105,slow=7.2,SNR=70						
ZALV				PcP	PcP	21 00 13.8	-0.6
	comp=Z,5.6nm,0.5s,baz=112,slow=3.7,SNR=6.7						
ZALV				LR	LR	21 27 11.2	
	comp=Z,212nm,18.6s,MS4.3,baz=22,slow=37						
ZALV	**Zalesovo Beam**	62.17	325	P	P	20 59 34.3	-0.2
ZALV				PcP	PcP	21 00 13.8	-0.6
ZALV				LR	LR	21 27 11.2	
HYB	**Hyderabad**	62.73	284	*i* P	P	20 59 39.0	+0.1
HYB	**Hyderabad**	62.73	284	*e*P	P	20 59 39.0	+0.1
TNA	**Tin City**	62.93	21	*e*P	P	20 59 38.0	-1.3
	comp=Z,16nm,1.0s,mb5.1						
NVS	**Novosibirsk**	63.34	326	⇑*i*P	P	20 59 41.6	-0.6
NVS				*e*S	S	21 08 14.9	+2.8
NVS				pmax	pmax		
	comp=N,20nm,1.5s						
NVS				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.4						
NVS				pmax	pmax		
	comp=E,31nm,1.3s						
NVS				smax			
	comp=E,20nm,2.1s						
RAR	**Rarotonga**	64.78	120	LR	LR	21 23 13.1	
	comp=E,171nm,21.4s,MS4.2,baz=302,slow=32						
KURK	**Kurchatov**	64.96	321	P	P	20 59 53.4	+0.4
	comp=E,494nm,0.7s,SNR=42						
KURK	**Kurchatov**	64.96	321	*e*P	P	20 59 52.7	-0.3
KURK				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.7						
KURK	**Kurchatov**	64.96	321	P	P	20 59 53.1	+0.1
	comp=Z,47nm,0.8s,mb5.6,baz=107,slow=6.5,SNR=58						
KURK				PcP	PcP	21 00 24.1	-1.8
	comp=Z,17nm,0.9s,baz=108,slow=6.3,SNR=4.7						
KURK	**Kurchatov**	64.96	321	*e*P	P	20 59 52.7	-0.2
	comp=Z,60nm,0.8s,mb5.7						
KSH	**Kashi**	65.14	308	⇓*i*P	P	20 59 57.3	+2.9
KSH				*e*pP	pP	21 00 01.8	-3.3
KSH				*e*sP	sP	21 00 04.0	-5.2
KSH				PcP	PcP	21 00 28.3	+1.5
KSH				*e*PP	PP	21 02 24.0	+6.1
KSH				*e*ScP		21 04 29.0	
KSH				*e*PcS		21 04 31.0	
KSH				*e*S	S	21 08 40.8	+5.9
KSH				*e*sS	sS	21 08 49.0	-3.7
KSH				*e*ScS	ScS	21 09 49.0	+2.0
KSH				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
KSH				pmax	pmax		
	comp=Z,200nm,3.0s						
KSH				LR	LR		
	comp=N,420nm,6.7s						
KSH				LR	LR		
	comp=E,360nm,7.0s						
KSH				LR	LR		
	comp=Z,430nm,6.4s						
ULHL	**Ulahol**	65.21	311	P	P	20 59 55.8	+1.0
	SNR=5.1						
TKM2	**Tokmak 2**	65.76	312	*e*P	P	20 59 58.8	+0.5
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
TKM2	**Tokmak 2**	65.76	312	P	P	20 59 59.2	+0.9
	SNR=8.7						
TKM2	**Tokmak 2**	65.76	312	*e*P	P	20 59 58.8	+0.5
	comp=Z,4.2nm,0.8s,mb4.5						
SVW2	**Sparrevohn**	65.83	28	*e*P	P	20 59 57.8	-0.6
KZA	**Kyzart**	65.93	311	P	P	21 00 01.3	+1.9
	SNR=20						
KBK	**Karagaybulak**	66.21	311	P	P	21 00 01.7	+0.5
	SNR=8.5						
KDAK	**Kodiak Island**	66.26	32	P	P	21 00 01.0	-0.2
	comp=Z,18nm,1.0s,mb5.1,baz=23,slow=4.4,SNR=12						
KDAK	**Kodiak Island**	66.26	32	P	P	21 00 01.0	-0.2
TTA	**Tatalina**	66.30	26	*e*P	P	21 00 00.6	-0.8
UCH	**Uchtor**	66.48	311	P	P	21 00 04.8	+1.8
	SNR=18						
AAK	**Ala-Archa**	66.54	311	P	P	21 00 03.8	+0.5
	SNR=5.6						
AAK	**Ala-Archa**	66.54	311	P	P	21 00 04.2	+0.9
	comp=Z,1.3nm,0.4s,mb4.3,baz=104,slow=5.5,SNR=11						
AAK				LR	LR	21 29 05.7	
	comp=Z,201nm,20.5s,MS4.3,baz=78,slow=36						
USP	**Ospenovka**	66.59	312	P	P	21 00 04.2	+0.5
	SNR=6.2						
EKS2	**Erkin-Say**	67.07	311	P	P	21 00 07.5	+0.8
	SNR=7.0						
EKS2	**Erkin-Say**	67.07	311	*e*P	P	21 00 06.9	+0.2
	comp=Z,6.9nm,1.2s,mb4.6						
AML	**Almayashu**	67.08	311	P	P	21 00 08.1	+1.3
	SNR=13						
AML	**Almayashu**	67.08	311	*e*P	P	21 00 07.8	+1.0
	comp=Z,6.4nm,0.8s,mb4.7						
POO	**Poona**	67.10	285	*e*PKP	P	21 00 05.0	-2.3
PPLA	**Purkeypile**	67.94	26	*e*P	P	21 00 10.6	-1.2
	comp=Z,118nm,1.7s,mb5.6						
CHUM	**Lake Minchumin**	68.19	25	*e*P	P	21 00 12.7	-0.6
	comp=Z,42nm,1.4s,mb5.3						
FIB	**Fire Island**	68.35	29	*e*P	P	21 00 13.5	-0.9
FIB				pmax	pmax		
	comp=Z,78nm,1.1s,mb5.7						
FIB	**Fire Island**	68.35	29	*e*P	P	21 00 13.5	-1.0
	comp=Z,78nm,1.1s,mb5.7						
IMA2	**Indian Mountai**	68.36	23	*e*P	P	21 00 13.4	-1.0
KTH	**Kantishna Hill**	68.68	26	*e*P	P	21 00 15.2	-1.2
	comp=Z,49nm,1.1s,mb5.3						
BPAW	**Bear Paw Mtn.**	68.81	25	*e*P	P	21 00 16.0	-1.2
	comp=Z,95nm,1.5s,mb5.5						
TRF	**Thorofare Moun**	68.92	26	*e*P	P	21 00 16.4	-1.6
	comp=Z,35nm,1.1s,mb5.2						
PMR	**Palmer**	68.95	28	*e*P	P	21 00 16.7	-1.4
PMR				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
PMR	**Palmer**	68.95	28	*e*P	P	21 00 16.7	-1.4
	comp=Z,26nm,1.0s,mb5.1						
KK31	**Karatay Array**	69.49	312	*i* P	P	21 00 21.5	-0.4
KK31				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
MCK	**McKinley**	69.58	26	*e*P	P	21 00 19.0	-3.0
MCK				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.2						
MCK	**McKinley**	69.58	26	*e*P	P	21 00 19.0	-3.0
	comp=Z,45nm,1.3s,mb5.2						
VOSK	**Vostochnaya**	69.98	322	P	P	21 00 23.9	-0.8
VOSK				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
COLD	**Coldfoot**	70.05	22	*e*P	P	21 00 24.5	-0.3
	comp=Z,78nm,1.0s,mb5.6						
COLA	**College**	70.33	25	*e*P	P	21 00 25.1	-1.5
COLA				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
COLA	**College**	70.33	25	*e*P	P	21 00 25.1	-1.5
	comp=Z,14nm,0.9s,mb4.9						
BVA0	**Borovoye Array**	70.37	322	*i* P	P	21 00 26.7	-0.3
BVA0				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
BVAR	**Borovoye Array**	70.37	322	P	P	21 00 27.3	+0.3
	comp=Z,27nm,0.6s,mb5.4,baz=104,slow=8.0,SNR=191						
BRVK	**Borovoye**	70.44	322	P	P	21 00 27.0	-0.5
	comp=Z,322nm,0.6s,mb6.4,SNR=31						
BRVK	**Borovoye**	70.44	322	*e*P	P	21 00 27.4	-0.1
BRVK				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
BRVK	**Borovoye**	70.44	322	*e*P	P	21 00 27.4	-0.1
	comp=Z,36nm,0.8s,mb5.4						
BRVK	**Borovoye**	70.44	322	P	P	21 00 28.1	+0.6
	SNR=18						
BRVK				P		21 00 28.1	
	SNR=18						
KBL	**Kabul**	70.52	303	*e*P	P	21 00 28.2	-0.1
	comp=Z,21nm,1.1s,mb5.0						
PAX	**Paxson**	70.93	27	*e*P	P	21 00 29.0	-1.2
PAX				pmax	pmax		
	comp=Z,49nm,1.3s,mb5.3						
PAX	**Paxson**	70.93	27	*e*P	P	21 00 29.0	-1.3
	comp=Z,49nm,1.3s,mb5.3						
MENT	**Mentasta**	71.71	27	*e*P	P	21 00 34.7	-0.3
PPT	**Papeete**	72.36	113	*e*LR	LR	21 22 22.1	
	comp=Z,114nm,21.5s						
PPT	**Papeete**	72.36	113	LR	LR	21 30 54.7	
	comp=Z,182nm,18.1s,MS4.4,baz=178,slow=35						
EGAK	**Eagle**	73.12	26	*e*P	P	21 00 42.4	-0.9
	comp=Z,21nm,0.9s,mb5.1						
DAWY	**Dawson**	73.79	27	*e*P	P	21 00 46.9	-0.4
SKAG	**Skagway**	75.41	31	*e*P	P	21 00 57.0	+0.2
	comp=Z,62nm,1.8s,mb5.2						
SVE	**Sverdlovsk**	76.18	326	⇓*e*P	P	21 01 01.1	-0.2
SVE				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
SVE				MLR	MLR		
	comp=Z,725nm,18.0s,MS5.0						
INK	**Inuvik**	76.47	22	*e*P	P	21 01 01.7	-1.0
INK				pmax	pmax		
	comp=Z,44nm,0.9s						
INK	**Inuvik**	76.47	22	P	P	21 01 02.0	-0.7
	comp=Z,34nm,0.9s,mb5.3,baz=275,slow=5.8,SNR=69						
INK	**Inuvik**	76.47	22	*e*P	P	21 01 01.7	-1.0
	comp=Z,44nm,0.9s,mb5.4						
AB31	**Akbulak array**	76.83	318	P	P	21 01 04.8	-0.3
AB31				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.3						
ARU	**Arti**	77.34	325	P	P	21 01 07.2	-0.6
	comp=Z,182nm,0.5s,mb6.3,SNR=9.3						
ARU	**Arti**	77.34	325	*c* *i*P	P	21 01 07.6	-0.2
ARU				*e*		21 03 57.7	
ARU				S	S	21 10 59.9	+4.5
ARU				SS	SS	21 15 57.0	+3.1
ARU				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.3						
ARU	**Arti**	77.34	325	*e*P	P	21 01 07.2	-0.6
	comp=Z,35nm,0.9s,mb5.3						
AKTK	**Aktyubinsk**	78.01	319	P	P	21 01 11.7	0.0
AKTO	**Aktyubinsk**	78.01	319	P	P	21 01 11.1	-0.5
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
AKTO	**Aktyubinsk**	78.01	319	P	P	21 01 11.7	0.0
	comp=Z,9.0nm,0.6s,mb4.8,baz=95,slow=8.2,SNR=34						
SOKR	**Solikamsk**	78.13	329	⇓*i*P	P	21 01 13.1	+1.0
SOKR				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.2						
DLBC	**Dease Lake**	78.17	32	*e*P	P	21 01 12.6	+0.1
ABKT	**Ailbek**	79.10	307	P	P	21 01 19.2	+1.2
	comp=Z,146nm,0.9s,mb5.9,SNR=9.3						
BIDO	**Bidbid**	81.06	292	P	P	21 01 30.0	+1.2
	SNR=11						
HOQ	**Hoqain**	81.80	292	P	P	21 01 33.6	+0.9
	SNR=10						
ARQ	**Araqi**	82.55	292	P	P	21 01 37.8	+1.2
	SNR=7.5						
NLWA	**Neilton Lookou**	83.19	43	⇑P	P	21 01 39.6	+0.1
	baz=83						
PRGR	**Permogore**	83.30	332	⇑*i*P	P	21 01 39.8	+0.1
PRGR				pmax	pmax		
	comp=Z,63nm,0.6s,mb5.8						
E03A	**Lebam**	83.55	44	⇓P	P	21 01 41.6	+0.2
	baz=83						
A05A	**Maple Falls**	84.07	41	⇓P	P	21 01 44.1	+0.1
	baz=84						
JCW	**Jim Creek**	84.33	42	P	P	21 01 46.0	+0.7
F04A	**Amboy**	84.44	44	⇑P	P	21 01 46.0	+0.1
	baz=84						
D05A	**Enumclaw**	84.49	43	⇓P	P	21 01 46.4	+0.2
	baz=84						
TDL	**Tradedollar La**	84.50	44	P	P	21 01 47.0	+0.8
G04A	**Mulino**	84.54	45	⇑P	P	21 01 46.5	+0.1
	baz=84						
B06A	**Marblemount**	84.55	42	⇑P	P	21 01 46.6	+0.1
	baz=84						
LON	**Longmire**	84.69	43	*e*P	P	21 01 45.5	-1.7
LON				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
LON	**Longmire**	84.69	43	*e*P	P	21 01 45.5	-1.7
	comp=Z,7.3nm,0.9s,mb4.8						
HUMO	**Hull Mountain**	84.71	48	*e*P	P	21 01 47.3	0.0
	comp=Z,10.0nm,0.8s,mb5.0						
H04A	**Detroit Lake**	84.85	46	⇑P	P	21 01 48.3	+0.3
	baz=85						
ALE	**Alert**	85.00	3	P	P	21 01 48.0	-0.1
	comp=Z,131nm,0.9s,mb6.1,SNR=10						
YKA	**Yellowknife Ar**	85.02	27	P	P	21 01 47.8	-0.6
	comp=Z,3.7nm,0.6s,mb4.7,baz=288,slow=5.2,SNR=51						
YBH	**Yreka Blue Hor**	85.06	49	*e*P	P	21 01 48.9	-0.2
YBH				pmax	pmax		
	comp=Z,8.0nm,0.7s						
YBH	**Yreka Blue Hor**	85.06	49	P	P	21 01 49.6	+0.5
	comp=Z,10nm,0.7s,mb5.1,baz=310,slow=2.3,SNR=18						
YBH	**Yreka Blue Hor**	85.06	49	*e*P	P	21 01 48.9	-0.3
	comp=Z,8.4nm,0.7s,mb5.0						
C06A	**Tall Timber Ra**	85.06	42	⇓P	P	21 01 49.1	+0.1
	baz=85						
LAMM	**Antelope Mount**	85.15	49	P	P	21 01 50.3	+0.7
A07A	**Ashnola River,**	85.16	41	⇑P	P	21 01 49.8	+0.4
	baz=85						
D06A	**Cle Elum**	85.25	43	⇑P	P	21 01 50.2	+0.2
	baz=85						
BUOR	**Burton Butte**	85.29	48	P	P	21 01 50.8	+0.5
E06A	**Yakima**	85.30	44	⇓P	P	21 01 50.5	+0.3
	baz=85						
G05A	**Wamic**	85.34	45	⇓P	P	21 01 50.8	+0.3
	baz=85						
WDC	**Whiskeytown Da**	85.42	50	*e*P	P	21 01 49.7	-1.2
WDC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
WDC	**Whiskeytown Da**	85.42	50	*e*P	P	21 01 49.7	-1.2
	comp=Z,5.8nm,0.8s,mb4.8						
TBM	**Table Mountain**	85.42	43	P	P	21 01 51.2	+0.4
B07A	**Winthrop**	85.45	42	⇑P	P	21 01 50.6	-0.4
	baz=85,SNR=9.9						
SPITS	**Spitsbergen Ar**	85.48	350	P	P	21 01 50.5	0.0
	comp=Z,11nm,0.8s,mb5.0,baz=21,slow=7.2,SNR=12						
F06A	**Goldendale**	85.60	44	⇓P	P	21 01 51.8	+0.1
	baz=85						
C07A	**Waterville**	85.66	42	⇑P	P	21 01 51.2	-0.8
	baz=86,SNR=6.8						
WTV	**Waterville**	85.73	42	P	P	21 01 52.3	0.0
RBK	**Rabkut**	85.74	287	P	P	21 01 53.5	+0.5
	SNR=6.5						
G06A	**Carlson Farm,**	85.81	45	⇓P	P	21 01 52.6	-0.2
	baz=86						
D07A	**Quincy**	85.83	43	⇓P	P	21 01 52.8	0.0
	baz=86						
LVZ	**Lovozero**	85.96	339	⇑*e*P	P	21 01 53.3	+0.2
B08A	**Colville Reser**	85.99	42	⇑P	P	21 01 53.3	-0.3
	baz=86,SNR=16						
EPH	**Ephrata**	86.05	43	P	P	21 01 54.0	+0.1
E07A	**Sunnyside**	86.05	43	⇑P	P	21 01 54.0	+0.1
	baz=86						
K05A	**Summer Lake**	86.18	47	⇓P	P	21 01 54.5	-0.1
	baz=86						
HAWA	**Hanford**	86.31	43	*e*P	P	21 01 54.2	-1.0
	comp=Z,17nm,1.0s,mb5.2						
C08A	**Higginbotham F**	86.31	42	⇓P	P	21 01 54.8	-0.4
	baz=86,SNR=18						
A09A	**Danville**	86.33	41	⇑P	P	21 01 55.4	+0.1
	baz=86						
KLMR	**Klimovskoe**	86.35	332	⇓*i*P	P	21 01 54.5	-0.6
KLMR				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.3						
I06A	**Prineville**	86.39	46	⇑P	P	21 01 55.9	+0.1
	baz=86						
G07A	**Ruggs Ranch, H**	86.47	45	⇓P	P	21 01 56.2	+0.2
	baz=86						
RES	**Resolute Bay**	86.52	13	*e*P	P	21 01 55.3	-0.4
RES				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.5						
RES	**Resolute Bay**	86.52	13	P	P	21 01 55.5	-0.2
	comp=Z,19nm,0.8s,mb5.3,baz=311,slow=5.6,SNR=73						
RES	**Resolute Bay**	86.52	13	*e*P	P	21 01 55.2	-0.5
	comp=Z,30nm,1.0s,mb5.5						
APA	**Apatity**	86.52	339	⇓*i*P	P	21 01 55.0	-0.8
APA				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.5						
APA				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.3						
D08A	**Wollman Farm,**	86.56	43	⇓P	P	21 01 56.3	-0.2
	baz=86,SNR=6.9						
J06A	**Christmas Vall**	86.59	47	⇑P	P	21 01 56.6	-0.1
	baz=86						
E08A	**Dider Farm, El**	86.60	43	⇓P	P	21 01 56.7	+0.1
	baz=86						
OD2	**Odessa Site #2**	86.62	42	P	P	21 01 56.8	0.0
H07A	**Lands Inn, Kim**	86.70	45	⇓P	P	21 01 57.1	-0.1
	baz=86						
B09A	**Rice**	86.74	41	⇓P	P	21 01 57.5	+0.2
	baz=87						
MOD	**Modoc**	86.78	48	*e*P	P	21 01 56.4	-1.2
C09A	**Chrisman Ranch**	86.81	42	⇓P	P	21 01 57.4	-0.3
	baz=87,SNR=7.0						
I07A	**Izee**	86.86	46	⇓P	P	21 01 58.0	0.0
	baz=87						
G08A	**Pilot Rock**	86.95	44	⇓P	P	21 01 58.5	0.0
	baz=87						
F08A	**Pendleton**	86.96	44	⇑P	P	21 01 58.7	+0.3
	baz=87						
D09A	**Jones Farm, Ri**	86.97	43	⇓P	P	21 01 58.3	-0.2
	baz=87,SNR=12						
A10A	**Northport**	86.98	41	⇑P	P	21 01 58.6	+0.1
	baz=87,SNR=13						
J07A	**Hines**	87.16	46	⇓P	P	21 01 59.5	0.0
	baz=87						
BEKR	**Beckwourth**	87.20	50	⇑P	P	21 01 59.6	-0.2
	baz=87						
E09A	**Wood Farm, Sta**	87.21	43	⇓P	P	21 01 59.6	-0.1
	baz=87						
H08A	**Prairie City**	87.34	45	⇓P	P	21 02 00.2	-0.1
	baz=87						
B10A	**Chitwood Farm,**	87.37	41	⇑P	P	21 02 00.7	+0.3
	baz=87						
K07A	**Rock Creek Ran**	87.37	47	⇓P	P	21 02 00.6	+0.1
	baz=87,SNR=8.0						
N06A	**Buffalo Meadow**	87.39	49	⇓P	P	21 02 01.0	+0.3
	baz=87						
L07A	**Adell**	87.46	48	⇑P	P	21 02 01.2	+0.2
	baz=87,SNR=6.3						
O06A	**Flanigan**	87.53	50	⇓P	P	21 02 01.5	+0.2
	baz=87						
I08A	**Drewsey**	87.56	46	⇓P	P	21 02 01.6	+0.3
	baz=87						
CMB	**Columbia Colle**	87.59	52	*e*P	P	21 02 01.2	-0.5
CMB				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.2						
CMB	**Columbia Colle**	87.59	52	*e*P	P	21 02 01.2	-0.5
	comp=Z,20nm,1.4s,mb5.2						
D10A	**Wagner Farm, O**	87.65	42	⇓P	P	21 02 01.3	-0.4
	baz=88,SNR=6.3						
KEV	**Kevo**	87.68	342	*e*P	P	21 02 00.0	-1.4
KEV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.0						
KEV	**Kevo**	87.68	342	*e*p	P	21 02 00.0	-1.4
	comp=Z,5.5nm,0.6s,mb5.0						
M07A	**Soldier Meadow**	87.73	48	⇓P	P	21 02 02.5	+0.2
	baz=88,SNR=9.4						
A11A	**Hall Mountain,**	87.75	40	⇑P	P	21 02 02.9	+0.7
	baz=88,SNR=14						
J08A	**Circle Bar Ran**	87.76	46	⇓P	P	21 02 02.3	0.0
	baz=88,SNR=11						
G09A	**Cove**	87.76	44	⇑P	P	21 02 02.5	+0.2
	baz=88						
WCN	**Washoe City**	87.78	50	⇑P	P	21 02 02.9	+0.3
	baz=88						
WVOR	**Wild Horse Val**	87.86	47	*e*P	P	21 02 02.7	-0.2
WVOR				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.2						
WVOR	**Wild Horse Val**	87.86	47	*e*P	P	21 02 02.7	-0.1
	comp=Z,17nm,1.1s,mb5.2						
B11A	**Sandpoint**	87.88	41	⇓P	P	21 02 03.0	+0.2
	baz=88,SNR=9.4						
K08A	**Mann Creek Ran**	87.90	47	⇑P	P	21 02 03.1	+0.1
	baz=88,SNR=14						
E10A	**Myers Farm, Un**	87.91	43	⇑P	P	21 02 03.0	0.0
	baz=88						
F10A	**Beach Ranch, E**	87.96	44	⇑P	P	21 02 03.4	+0.2
	baz=88,SNR=8.2						
H09A	**Durkee**	88.00	45	⇓P	P	21 02 03.8	+0.4
	baz=88						
N07B	**Gerlach**	88.02	49	⇑P	P	21 02 04.1	+0.4
	baz=88,SNR=23						
VRHR	**Novokhopersk**	88.11	322	*e*P	P	21 02 02.3	-1.5
VRHR				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.6						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
L08A	**Fields**	88.14	47	⇑P	P	21 02 04.4	+0.2
	baz=88,SNR=18						
BMO	**Blue Mountains**	88.20	45	*e*P	P	21 02 04.2	-0.2
BMO				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.3						
BMO	**Blue Mountains**	88.20	45	*e*P	P	21 02 04.2	-0.2
	comp=Z,21nm,1.0s,mb5.3						
R06C	**Coleville**	88.20	51	⇑P	P	21 02 05.0	+0.4
	baz=88						
A12A	**Yaak River Ran**	88.20	40	⇓P	P	21 02 04.8	+0.5
	baz=88						
G10A	**Bishop Farm, J**	88.21	44	⇓P	P	21 02 04.6	+0.1
	baz=88,SNR=13						
O07A	**Toulon**	88.24	49	⇓P	P	21 02 05.1	+0.4
	baz=88,SNR=8.8						
ARCES	**ARCESS Array B**	88.25	342	P	P	21 02 03.7	-0.4
	comp=Z,9.7nm,0.8s,mb5.1,baz=67,slow=5.9,SNR=38						
ARCES				LR	LR	21 45 35.5	
	comp=Z,247nm,18.1s,MS4.7,baz=302,slow=38						
ARCES	**ARCESS Array B**	88.25	342	P	P	21 02 03.7	-0.4
ARCES				LR	LR	21 45 35.5	
D11A	**Klaveano Farm,**	88.27	42	⇑P	P	21 02 04.5	-0.2
	baz=88						
M08A	**Happy Creek Ra**	88.29	48	⇑P	P	21 02 05.1	+0.2
	baz=88,SNR=7.3						
B12A	**Libby**	88.37	41	⇓P	P	21 02 05.5	+0.3
	baz=88						
K09A	**Rome**	88.45	47	⇓P	P	21 02 05.5	-0.1
	baz=88,SNR=9.1						
E11A	**Bogner Ranch,**	88.54	43	⇓P	P	21 02 05.7	-0.3
	baz=88,SNR=10						
N08A	**GE Springer Mi**	88.64	49	⇑P	P	21 02 06.8	+0.2
	baz=88,SNR=14						
H10A	**Noah's Angus R**	88.65	45	⇑P	P	21 02 06.2	-0.4
	baz=88,SNR=19						
O08A	**Rochester Mine**	88.74	49	⇑P	P	21 02 07.4	+0.3
	baz=89,SNR=13						
D12A	**Red Ives Fores**	88.92	42	⇑P	P	21 02 07.5	-0.2
	baz=89						
GNI	**Garni**	88.94	311	⇑*e*P	P	21 02 08.2	+0.2
GNI				pmax	pmax		
	comp=Z,12nm,1.7s						
GNI	**Garni**	88.94	311	*e*P	P	21 02 07.1	-0.9
	comp=Z,22nm,1.5s,mb5.3						
M09A	**Marrel Ranch,**	88.97	48	⇓P	P	21 02 08.3	+0.2
	baz=89						
A13A	**Flathead Natio**	88.99	40	⇓P	P	21 02 08.5	+0.4
	baz=89						
K10A	**MacKenzie Ranc**	89.04	47	⇑P	P	21 02 08.4	0.0
	baz=89,SNR=14						
BSMT	**Bassoo Peak**	89.06	41	*e*P	P	21 02 08.0	-0.4
	comp=Z,38nm,1.4s,mb5.5						
N09A	**Rock Creek Ran**	89.07	49	⇓P	P	21 02 09.0	+0.4
	baz=89						
NVAR	**Mina Array Bea**	89.09	51	P	P	21 02 09.4	+0.7
	comp=Z,12nm,0.8s,mb5.3,baz=271,slow=6.0,SNR=32						
VES	**Vestal, Richgr**	89.12	54	⇑P	P	21 02 08.8	-0.1
	baz=89						
H11A	**Donnelly**	89.12	45	⇓P	P	21 02 08.5	-0.2
	baz=89,SNR=14						
JOF	**Joensuu**	89.22	335	*e*p	P	21 02 06.5	-2.3
	comp=Z,6.5nm,0.6s,mb5.1						
ONI	**Oni**	89.25	313	P	P	21 02 08.6	-0.8
C13A	**Hot Springs**	89.25	41	⇑P	P	21 02 09.3	0.0
	baz=89						
WALA	**Waterton Lakes**	89.27	40	*e*P	P	21 02 09.0	-0.4
	comp=Z,0.9nm,1.5s,mb3.9						
Q08A	**Gabbs**	89.27	51	⇓P	P	21 02 09.9	+0.3
	baz=89						
F12A	**Elk City**	89.35	43	⇑P	P	21 02 09.7	-0.1
	baz=89,SNR=9.1						
I11A	**Placerville**	89.38	45	⇑P	P	21 02 10.1	+0.1
	baz=89,SNR=13						
KIV	**Kislovodsk**	89.41	315	⇑*e*P	P	21 02 09.5	-0.6
KIV				pmax	pmax		
	comp=Z,21nm,2.5s,mb5.0						
KIV				MLR	MLR		
	comp=Z,100nm,20.0s,MS4.2						
KIV	**Kislovodsk**	89.41	315	*e*P	P	21 02 07.2	-3.0
	comp=Z,3.8nm,0.8s,mb4.8						
O09A	**Fish Creek Ran**	89.49	49	⇑P	P	21 02 11.0	+0.4
	baz=89,SNR=6.2						
D13A	**Huson**	89.49	42	⇓P	P	21 02 10.4	-0.1
	baz=89						
L10A	**Juniper Basin**	89.51	47	⇑P	P	21 02 10.7	+0.1
	baz=89,SNR=12						
VSR	**Storozhevoye**	89.55	322	*e*P	P	21 02 08.8	-1.8
VSR				pmax	pmax		
	comp=N,3.0nm,0.6s						
VSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.3						
VSR				pmax	pmax		
	comp=E,8.0nm,0.9s						
VORD	**Divnogorie**	89.55	322	*e*P	P	21 02 08.5	-2.1
VORD				pmax	pmax		
	comp=N,30nm,0.7s						
VORD				pmax	pmax		

	comp=E,10.0nm,0.7s						
VORD				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.2						
A14A	Double T Ranch	89.60	40	⇑P	P	21 02 11.3	+0.4
	baz=89						
MFID	Camas Ranch	89.60	46	⇓P	P	21 02 11.3	+0.2
	baz=89,SNR=12						
M10A	I.L. Ranch, Tu	89.61	48	⇓P	P	21 02 11.2	+0.1
	baz=89						
K11A	Parker Ranch,	89.64	46	⇑P	P	21 02 11.3	+0.1
	baz=90						
ISA	Isabella	89.65	54	*e*P	P	21 02 11.3	-0.1
ISA				pmax	pmax		
	comp=Z,15nm,1.5s,mb5.1						
ISA	Isabella	89.65	54	⇑P	P	21 02 11.4	0.0
	baz=90						
ISA	Isabella	89.65	54	*e*P	P	21 02 11.3	-0.1
	comp=Z,15nm,1.5s,mb5.1						
OBN	Obninsk	89.73	327	⇓*e*P	P	21 02 10.4	-1.0
OBN				*e*		21 05 43.1	
OBN				*e*SS	SS	21 19 00.3	+3.4
OBN				pmax	pmax		
	comp=Z,50nm,1.7s,mb5.6						
OBN				MLR	MLR		
	comp=Z,200nm,16.0s,MS4.6						
OBN	Obninsk	89.73	327	P	P	21 02 09.5	-1.9
VNDA	Vanda	89.88	176	P	P	21 02 11.7	+0.2
	comp=Z,1.8nm,0.6s,mb4.6,baz=335,slow=4.6,SNR=6.9						
VNDA				LR	LR	21 44 20.2	
	comp=Z,167nm,18.1s,MS4.5,baz=283,slow=37						
H12A	Diamond D Ranc	89.96	44	⇑P	P	21 02 12.9	+0.2
	baz=90,SNR=5.2						
O10A	Cortez Mining,	89.97	49	⇑P	P	21 02 12.9	0.0
	baz=90						
I12A	Atlanta	89.98	45	⇓P	P	21 02 12.5	-0.3
	baz=90						
L11A	Cat Creek Ranc	90.00	47	⇓P	P	21 02 13.0	+0.1
	baz=90,SNR=7.4						
A15A	Johnson Ranch,	90.03	40	⇓P	P	21 02 13.2	+0.3
	baz=90						
SLMT	Seeley Lake	90.08	42	*e*P	P	21 02 10.9	-2.3
	comp=Z,6.4nm,1.1s,mb4.9						
R09A	Tonopah	90.08	51	⇑P	P	21 02 13.6	+0.3
	baz=90						
S09A	Goldfield	90.10	51	⇑P	P	21 02 13.7	+0.2
	baz=90						
J12A	Stokes Ranch,	90.16	46	⇓P	P	21 02 13.6	0.0
	baz=90,SNR=7.0						
M11A	Holland Ranch,	90.17	48	⇓P	P	21 02 14.1	+0.3
	baz=90						
G13A	Cobalt	90.23	44	⇓P	P	21 02 13.7	-0.3
	baz=90,SNR=19						
CIS	Catalina Islan	90.26	56	⇑P	P	21 02 14.6	+0.3
	baz=90						
LRMC	Laurel Mountai	90.31	54	⇑P	P	21 02 14.9	+0.4
	baz=90						
MPMC	Manual Prospec	90.32	53	⇓P	P	21 02 15.0	+0.5
	baz=90						
CHMT	Chamberlain Mo	90.33	42	*e*P	P	21 02 13.3	-1.0
	comp=Z,12nm,1.7s,mb5.0						
B15A	Bradely Ranch,	90.35	40	⇓P	P	21 02 14.7	+0.3
	baz=90						
H13A	Challis	90.37	44	⇓P	P	21 02 14.9	+0.3
	baz=90,SNR=11						
K12A	Draper Farm, C	90.47	46	⇓P	P	21 02 15.7	+0.6
	baz=90						
C15A	Salmond Ranch,	90.49	41	⇑P	P	21 02 15.5	+0.4
	baz=90						
S10A	Tonopah Range,	90.53	51	⇑P	P	21 02 16.1	+0.6
	baz=90						
L12A	House Creek Ra	90.53	47	⇑P	P	21 02 15.7	+0.3
	baz=90,SNR=9.0						
HLID	Hailey	90.55	45	⇑P	P	21 02 16.2	+0.7
	baz=90						
HLID	Hailey	90.55	45	*e*P	P	21 02 15.3	-0.1
	comp=Z,8.3nm,1.0s,mb5.0						
O11A	Cowboy Ranch,	90.63	49	⇑P	P	21 02 16.8	+0.9
	baz=90						
R10A	Warm Springs	90.65	51	⇓P	P	21 02 16.7	+0.6
	baz=90						
I13A	Wildhorse Cree	90.65	45	⇑P	P	21 02 16.6	+0.7
	baz=90,SNR=9.0						
A16A	West Butte Ran	90.75	40	⇑P	P	21 02 16.3	0.0
	baz=91						
J13A	Cove Ranch, Pi	90.77	45	⇓P	P	21 02 16.9	+0.4
	baz=91,SNR=6.1						
ELK	Elko	90.77	48	*e*P	P	21 02 15.8	-0.7
ELK				pmax	pmax		
	comp=Z,11nm,1.0s						
ELK	Elko	90.77	48	*e*P	P	21 02 15.8	-0.7
	comp=Z,11nm,1.0s,mb5.1						
D15A	Lincoln	90.77	42	⇑P	P	21 02 16.5	+0.1
	baz=91						
B16A	M & M Farms, S	90.86	40	⇑P	P	21 02 16.9	+0.2
	baz=91						
N12A	Clover Valley,	90.88	48	*e*P	P	21 02 16.3	-0.8
	comp=Z,18nm,1.3s,mb5.2						
E15A	Deer Lodge	90.89	42	⇑P	P	21 02 17.0	0.0
	baz=91						
Q11A	Duckwater	90.99	50	⇓P	P	21 02 17.6	0.0
	baz=91						
GSC	Goldstone	91.06	54	*e*P	P	21 02 17.7	-0.3
GSC				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.2						
GSC	Goldstone	91.06	54	⇑P	P	21 02 18.2	+0.2
	baz=91						
GSC	Goldstone	91.06	54	*e*P	P	21 02 17.7	-0.3
	comp=Z,12nm,1.0s,mb5.2						
I14A	Mackay	91.11	45	⇓P	P	21 02 18.7	+0.7
	baz=91,SNR=6.0						
F15A	Butte	91.17	43	⇑P	P	21 02 18.6	+0.3
	baz=91						
R11A	Troy Canyon, C	91.18	51	⇓P	P	21 02 18.6	+0.1
	baz=91						
LRM	Limekiln Ridge	91.20	43	*e*P	P	21 02 18.1	-0.3
	comp=Z,28nm,0.8s,mb5.6						
LRM				*e*	pP	21 02 28.6	-0.9
J14A	Carey	91.24	45	⇑P	P	21 02 19.4	+0.7
	baz=91,SNR=7.7						
S11A	Rachel	91.25	51	⇓P	P	21 02 19.2	+0.4
	baz=91						
O12A	Currie	91.26	49	⇓P	P	21 02 19.2	+0.4
	baz=91						
A17A	Triple J Farms	91.31	39	⇑P	P	21 02 19.4	+0.5
	baz=91						
L13A	Double Diamond	91.31	47	⇓P	P	21 02 19.7	+0.7
	baz=91						
M13A	Montello	91.37	47	*e*P	P	21 02 19.2	-0.1
	comp=Z,6.5nm,0.8s,mb5.0						
G15A	Dillon	91.38	43	⇑P	P	21 02 19.2	0.0
	baz=91						
D16A	Dana Ranch, Ca	91.41	41	⇓P	P	21 02 19.6	+0.2
	baz=91						
H15A	Lima	91.45	44	⇓P	P	21 02 20.2	+0.6
	baz=91,SNR=5.8						
B17A	L&G Farms, Che	91.47	40	⇓P	P	21 02 19.7	+0.1
	baz=91						
E16A	East Helena	91.48	42	⇑P	P	21 02 20.0	+0.2
	baz=91						
HEC	Hector,Ludlow	91.56	54	⇑P	P	21 02 20.6	+0.3
	baz=91						
KAF	Kangasniemi	91.66	335	*e*P	P	21 02 17.4	-2.8
KAF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb5.0						
KAF	Kangasniemi	91.66	335	*e*p	P	21 02 17.4	-2.8
	comp=Z,4.5nm,0.6s,mb5.0						
C17A	Wharram Farm,	91.71	41	⇑P	P	21 02 20.9	+0.1
	baz=92						
TUQ	Turquoise Moun	91.71	53	⇓P	P	21 02 21.1	+0.1
	baz=92						
K14A	Jones Ranch, D	91.72	46	⇓P	P	21 02 21.2	+0.3
	baz=92						
T11A	Corn Creek, Al	91.76	52	⇓P	P	21 02 21.2	0.0
	baz=92						
PFO	Pinyon Flat Ob	91.78	55	*e*P	P	21 02 20.9	-0.5
PFO				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb5.0						
PFO	Pinyon Flat Ob	91.78	55	⇓P	P	21 02 21.6	+0.1
	baz=92						
PFO	Pinyon Flat Ob	91.78	55	*e*P	P	21 02 20.9	-0.5
	comp=Z,10.0nm,1.2s,mb5.0						
BOZ	Bozeman (W)	91.80	43	⇓P	P	21 02 21.3	+0.1
	baz=92						
G16A	Moss Hill, Enn	91.82	43	⇑P	P	21 02 21.4	+0.1
	baz=92						
M14A	Sheep Mountain	91.91	47	⇑P	P	21 02 22.0	+0.1
	baz=92						
R12A	Pony Springs,	91.92	50	⇓P	P	21 02 22.5	+0.6
	baz=92						
D17A	Six Diamond Ra	91.92	41	⇑P	P	21 02 21.7	0.0
	baz=92						
J15A	Blackfoot	91.97	45	⇓P	P	21 02 23.0	+0.9
	baz=92,SNR=11						
V11A	Goodsprings	91.99	53	⇑P	P	21 02 23.0	+0.7
	baz=92						
MONP	Monument Peak	92.00	56	⇑P	P	21 02 22.8	+0.4
	baz=92						
E17A	Martinsdale	92.04	42	⇓P	P	21 02 22.9	+0.6
	baz=92						
BELC	Belle Mtn.	92.04	55	⇓P	P	21 02 23.1	+0.5
	baz=92						
FINES	FINESS Array B	92.08	335	P	P	21 02 20.8	-1.3
	comp=Z,7.6nm,0.7s,mb5.2,baz=69,slow=4.6,SNR=48						
FINES				LR	LR	21 48 10.6	
	comp=Z,174nm,18.7s,MS4.5,baz=150,slow=38						
GMRC	Granite Mounta	92.10	54	⇓P	P	21 02 23.1	+0.3
	baz=92						
Q13A	Wheeler Ranch,	92.18	50	⇓P	P	21 02 23.7	+0.6
	baz=92						
EGMT	Eagleton	92.22	40	⇑P	P	21 02 23.6	+0.5
	baz=92						
F17A	Fitzpatrick Pl	92.36	42	⇓P	P	21 02 24.2	+0.4
	baz=92						
H16A	Russell Place,	92.36	43	⇑P	P	21 02 25.0	+1.2
	baz=92,SNR=5.6						
L15A	Malad City	92.44	46	⇓P	P	21 02 24.7	+0.4
	baz=92						
I16A	Newdale	92.47	44	⇑P	P	21 02 25.3	+0.9
	baz=92						
V12A	Nelson	92.47	53	⇓P	P	21 02 25.6	+1.0
	baz=92,SNR=10.0						
SWSC	Sam W. Stewart	92.49	56	⇓P	P	21 02 24.6	-0.1
	baz=92						
G17A	Pierce Place,	92.50	43	⇑P	P	21 02 25.0	+0.6
	baz=92						
M15A	Larsen Ranch,	92.57	47	⇓P	P	21 02 25.1	+0.3
	baz=92						
BC3	Big Chuckw Mtn	92.57	55	⇓P	P	21 02 25.6	+0.5
	baz=92						
J16A	Bone	92.58	45	⇑P	P	21 02 25.4	+0.5
	baz=92						
E18A	Harlowton	92.62	41	⇓P	P	21 02 25.6	+0.6
	baz=92						
IRM	Iron Mountain	92.68	54	⇓P	P	21 02 26.1	+0.6
	baz=92						
P14A	Drum Mountains	92.69	49	⇓P	P	21 02 26.0	+0.5
	baz=92						
DUG	Dugway	92.70	48	*e*P	P	21 02 24.7	-0.8
DUG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
DUG	Dugway	92.70	48	⇓P	P	21 02 26.2	+0.7
	baz=92						
DUG	Dugway	92.70	48	*e*P	P	21 02 24.7	-0.8
	comp=Z,6.8nm,1.0s,mb5.0						
S13A	Holt Ranch, En	92.70	51	⇑P	P	21 02 26.3	+0.7
	baz=92						
Q14A	Sevier Lake (B	92.72	49	⇓P	P	21 02 26.2	+0.6
	baz=93						
K16A	Soda Springs	92.74	45	⇑P	P	21 02 27.1	+1.5
	baz=93,SNR=6.2						
YNR	Norris Junctio	92.74	43	*e*P	P	21 02 27.1	+1.5
	comp=Z,40nm,1.4s,mb5.7						
RRI2	Red Ridge	92.76	45	*e*P	P	21 02 25.8	+0.1
	comp=Z,4.7nm,0.7s,mb5.0						
T13A	Saint George	92.83	51	⇓P	P	21 02 26.9	+0.7
	baz=93						
IMW	Indian Meadow	92.84	44	*e*P	P	21 02 26.5	+0.4
	comp=Z,11nm,1.0s,mb5.2						
H17A	Grant Village	92.92	44	⇓P	P	21 02 28.2	+1.8
	baz=93,SNR=7.5						
ARUT	Antelope Range	92.96	51	*e*P	P	21 02 26.5	-0.3
ARUT				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb5.0						
ARUT	Antelope Range	92.96	51	*e*P	P	21 02 26.5	-0.3
	comp=Z,6.7nm,1.1s,mb5.0						
U13A	Pakoon Wash	92.96	52	⇓P	P	21 02 27.2	+0.4
	baz=93						
F18A	Big Timber	92.98	42	⇑P	P	21 02 27.1	+0.4
	baz=93						
MOOW	Moose Ponds	93.02	44	*e*P	P	21 02 26.8	-0.1
	comp=Z,5.3nm,1.0s,mb4.9						
I17A	Pilgrim Ck.	93.08	44	⇑P	P	21 02 27.7	+0.5
	baz=93						
V13A	Grand Canyon W	93.11	53	⇑P	P	21 02 27.9	+0.4
	baz=93,SNR=6.2						
L16A	Fish Haven	93.11	46	⇓P	P	21 02 28.0	+0.6
	baz=93						
J17A	Brown Place, J	93.17	45	⇓P	P	21 02 28.5	+0.9
	baz=93						
GLA	Glamis	93.24	55	⇓P	P	21 02 29.7	+1.5
	baz=93						
G18A	Lazy EL Ranch,	93.28	43	⇓P	P	21 02 29.6	+1.5
	baz=93						
Y12C	Blythe	93.29	55	⇓P	P	21 02 28.8	+0.4
	baz=93						
W13A	Hualapai Mount	93.41	53	⇓P	P	21 02 29.4	+0.5
	baz=93,SNR=6.1						
PDMCI	Parker Dam,Lak	93.44	54	⇓P	P	21 02 29.4	+0.4
	baz=93						
T14A	Hurricane	93.45	51	⇓P	P	21 02 29.6	+0.5
	baz=93						
RLMT	Red Lodge	93.55	43	⇓P	P	21 02 29.9	+0.6
	baz=93						
RLMT	Red Lodge	93.55	43	*e*P	P	21 02 29.2	-0.1
	comp=Z,8.1nm,0.6s,mb5.3						
U14A	Mt Trumbull	93.57	52	⇓P	P	21 02 29.9	+0.3
	baz=93						
X13A	Yucca	93.60	54	⇑P	P	21 02 30.0	+0.3
	baz=93,SNR=6.3						
O16A	Springville	93.65	48	⇑P	P	21 02 30.4	+0.6
	baz=94						
I18A	Diamond G Ranc	93.67	44	⇑P	P	21 02 30.3	+0.4
	baz=94						
J18A	Kendall Valley	93.70	45	⇓P	P	21 02 30.0	0.0
	baz=94						
M17A	Scullys Gap (B	93.83	46	⇓P	P	21 02 30.4	-0.3
	baz=94						
V14A	Boquillas Ranc	93.86	53	⇓P	P	21 02 31.6	+0.6
	baz=94,SNR=6.0						
T15A	Red Dirt Ranch	94.00	51	⇓P	P	21 02 31.9	+0.4
	baz=94						
FFC	Flin Flon	94.00	32	P	P	21 02 30.9	-0.3
	comp=Z,38nm,0.9s,mb5.8,SNR=5.5						
FFC	Flin Flon	94.00	32	*e*P	P	21 02 29.6	-1.6
FFC				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
FFC	Flin Flon	94.00	32	*e*P	P	21 02 29.6	-1.6
	comp=Z,8.8nm,1.1s,mb5.1						
W14A	Seligman	94.00	53	⇓P	P	21 02 32.1	+0.5
	baz=94						
L18A	Fontenelle, Gr	94.13	46	⇓P	P	21 02 32.6	+0.6
	baz=94						
Z13A	Yuma Proving G	94.14	55	⇓P	P	21 02 32.7	+0.4
	baz=94,SNR=8.7						
MALT	Malatya	94.16	310	*e*P	P	21 02 31.3	-1.0
MALT				pmax	pmax		
	comp=Z,30nm,1.9s,mb5.4						
MALT	Malatya	94.16	310	*e*P	P	21 02 31.3	-1.0
	comp=Z,30nm,1.9s,mb5.4						
PDAR	Pinedale Array	94.17	45	P	P	21 02 31.5	-0.7
	comp=Z,0.7nm,0.6s,mb4.2,baz=222,slow=2.0,SNR=4.5						
O17A	Robinson Place	94.20	48	⇓P	P	21 02 32.5	+0.1
	baz=94						
R16A	Teasdale	94.28	50	⇑P	P	21 02 33.3	+0.5
	baz=94						
X14A	Yava	94.38	54	⇑P	P	21 02 34.0	+0.6
	baz=94,SNR=5.0						
Y14A	Wickenburg	94.44	54	⇓P	P	21 02 34.4	+0.7
	baz=94						
V15A	Kaibab Nationa	94.53	52	⇓P	P	21 02 34.7	+0.7
	baz=94,SNR=5.2						
L19A	Farson	94.54	45	⇑P	P	21 02 34.7	+0.8
	baz=94						
W15A	Williams	94.65	53	⇓P	P	21 02 35.1	+0.5
	baz=94						
X15A	Humboldt	94.89	53	⇓P	P	21 02 36.3	+0.6
	baz=95						
LAO	LASA Array	94.94	40	*e*P	P	21 02 35.6	-0.1
	comp=Z,13nm,1.0s,mb5.3						
Y15A	Casa Rosa Ranc	94.97	54	⇑P	P	21 02 36.3	+0.2
	baz=95						
S17A	Black Ridge (B	95.00	50	⇑P	P	21 02 36.0	-0.1
	baz=95						
Q18A	Rafter H Ranch	95.01	49	⇓P	P	21 02 36.3	+0.1
	baz=95						
U16A	Tuba City	95.23	52	⇓P	P	21 02 37.4	+0.2
	baz=95						
AKASG	Malin Array Be	95.56	324	LR	LR	21 48 56.3	
	comp=Z,300nm,18.4s,MS4.8,baz=5.0,slow=38						
V17A	Tonalea, Kykot	95.65	52	⇓P	P	21 02 39.5	+0.3
	baz=96						
P19A	Cripple Cowboy	95.67	48	⇑P	P	21 02 39.3	+0.1
	baz=96						
Y16A	Circle Bar Ran	95.67	54	⇓P	P	21 02 39.4	+0.1
	baz=96						
FCC	Fort Churchill	95.71	26	*e*P	P	21 02 37.2	-1.7
	comp=Z,0.3nm,1.0s,mb3.7						
T18A	Mexican Hat	95.86	50	⇑P	P	21 02 39.9	-0.2
	baz=96						
Y17A	Roosevelt	96.23	54	⇑P	P	21 02 42.0	+0.2
	baz=96						
Q20A	Ridgley Place,	96.40	48	⇑P	P	21 02 42.2	-0.3
	baz=96						
T19A	Beclabito	96.60	50	⇓P	P	21 02 43.6	+0.2
	baz=96						
BRTR	Keskin Array B	97.17	313	P	P	21 02 44.1	-1.8
	comp=Z,1.3nm,0.8s,mb4.4						
BRTR				LR	LR	21 48 43.1	
	comp=Z,46nm,18.2s,MS4.0,baz=210,slow=37						
S21A	Coal Bank Pass	97.23	49	⇓P	P	21 02 46.9	+0.7
	baz=97						
MAW	Mawson	97.32	202	LR	LR	21 45 21.5	
	comp=Z,212nm,18.9s,MS4.7,baz=334,slow=35						
V20A	Brimhall	97.38	51	⇓P	P	21 02 47.6	+0.6
	baz=97						
Y19A	Nutrioso	97.40	53	⇑P	P	21 02 47.6	+0.5
	baz=97						
W20A	Ramah	97.58	52	⇓P	P	21 02 48.2	+0.2
	baz=97						
119A	Ashpeak Ranch,	97.75	54	⇓P	P	21 02 49.0	+0.2
	baz=98						
X20A	Quemado	97.79	52	⇓P	P	21 02 49.3	+0.5
	baz=98						
HFS	Hagfors	97.80	337	P	P	21 02 47.1	-1.2
	comp=Z,3.7nm,0.9s,mb4.9,baz=114,slow=3.6,SNR=7.9						
219A	White Tail Can	98.04	55	⇓P	P	21 02 50.4	+0.3
	baz=98						
NB2	NORSAR Subarra	98.11	339	P	P	21 02 47.8	-1.9
	comp=Z,1.4nm,0.7s,mb4.6,baz=49,slow=4.6						
NOA	NORSAR Array B	98.11	339	P	P	21 02 48.0	-1.7
	comp=Z,3.8nm,0.9s,mb4.9,baz=46,slow=4.5,SNR=4.5						
NOA				LR	LR	21 47 09.8	
	comp=Z,108nm,20.7s,MS4.3,baz=65,slow=35						
NOA	NORSAR Array B	98.11	339	P	P	21 02 48.0	-1.7
NOA				LR	LR	21 47 09.8	
Z20A	Nine Sixteen R	98.20	54	⇓P	P	21 02 50.9	+0.2
	baz=98						
121A	Cookes Peak, D	99.04	54	⇓P	P	21 02 55.0	+0.5
	baz=99						
ULM	Lac du Bonnet	99.44	34	P	P	21 02 54.8	-1.1
	comp=Z,1.8nm,0.6s,mb4.8,baz=265,slow=3.0,SNR=3.4						
TXAR	Lajitas Array	103.49	56	Pdiff	Pdif	21 03 15.5	+1.7
	comp=Z,0.6nm,1.0s,baz=146,slow=0.9,SNR=3.6						
TORD	Torodi Ar. Bea	134.59	302	PKP	PKPdf	21 08 30.7	-1.9
	comp=Z,0.6nm,0.6s,baz=35,slow=2.2,SNR=7.0						
TORD	Torodi Ar. Bea	134.59	302	PKP	PKPdf	21 08 30.7	-1.9
DBIC	Dimbokro	143.44	299	PKP	PKPdf	21 08 45.8	-3.0
	comp=Z,5.4nm,0.8s,baz=21,slow=3.7,SNR=8.3						

MOS ***29*** *20:50:11.7±2.1, 46°.44N×152°.91E, h75^{km}, mb4.3/5, Error ellipse: s-maj=17.9km s-min=13.4km az=76.4*

ISCJB ***29*** *20:50:12.4±2.1, 46°.6N±0°.2×152°.8E±0°.3, h71^{km}±13^{km}, mb3.6/7, Error ellipse: s-maj=49.0km s-min=11.8km az=141.8*

IDC ***29*** *20:50:18.2±4.0, 47°.09N×152°.14E, h75^{km}±29^{km}, mb3.4/7, mb1 3.5/9, mb1mx3.3/25, mbtmp3.4/9, Error ellipse: s-maj=84.1km s-min=22.4km az=154.0*

ISC 29 20:50:14.8±1.9**, 46°.6N**±0°.2×**152°.8E**±0°.3**, h74**^{km}±11^{km}**, n19,** σ**1**.^{s}**00**/18**, mb3.6**/7**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	4.62	28	*e*PN	Pn	20 51 21.0	-1.1
YSS	Yuzh-Sakhalins	6.88	276	*e*PN	Pn	20 51 54.0	+1.1
PETK	Petropavlovsk-	7.22	24	P	Pn	20 51 57.8	+0.3
	0.2nm,0.3s,baz=176,slow=10,SNR=5.7						
ASAJ	Asahikawa	7.59	254	PN	Pn	20 52 03.5	+0.9
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.59	254	P	Pn	20 52 03.5	+0.9
	comp=Z,0.7nm,0.3s,baz=114,slow=10.0,SNR=5.6						
ERM	Erimo	8.29	240	*i* PN	Pn	20 52 11.0	-1.1
YAK	Yakutsk	20.29	328	*i* P	P	20 54 49.5	+5.3
YAK				pmax	pmax		
	comp=Z,4.0nm,0.5s						
SONM	Songino Array	31.14	289	P	P	20 56 22.9	-3.4
	comp=Z,0.3nm,0.7s,mb3.2,baz=75,slow=6.1,SNR=3.5						
MKAR	Makanchi Array	46.78	297	P	P	20 58 35.8	-0.8
	comp=Z,0.2nm,0.5s,mb3.1,baz=61,slow=7.5,SNR=5.8						
YKA	Yellowknife Ar	51.16	37	P	P	20 59 11.7	+1.8
	comp=Z,0.1nm,0.3s,mb3.4,baz=301,slow=7.2,SNR=3.4						
FINES	FINESS Array B	64.04	335	P	P	21 00 40.3	+0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	FINESS Array B	64.04	335	P	P	21 00 40.3	+0.1
	comp=Z,1.9nm,0.8s,mb4.0,baz=20,slow=6.1,SNR=6.7						
NOA	NORSAR Array B	68.26	341	P	P	21 01 07.4	+0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	68.26	341	P	P	21 01 07.4	+0.2
	comp=Z,0.6nm,0.6s,mb3.6,baz=30,slow=6.7,SNR=2.9						
HFS	Hagfors	68.48	339	P	P	21 01 08.1	-0.5
HFS				pmax	pmax		
	comp=Z,3.0nm,1.0s						
HFS	Hagfors	68.48	339	P	P	21 01 08.1	-0.5
	comp=Z,3.4nm,0.9s,mb4.2,baz=60,slow=7.0,SNR=8.5						
AKASG	Malin Array Be	71.51	326	P	P	21 01 27.3	0.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.51	326	P	P	21 01 27.3	0.0
	comp=Z,0.7nm,0.4s,mb3.9,baz=34,slow=6.2,SNR=3.3						
TXAR	Lajitas Array	77.76	60	pP	pP	21 02 20.7	-2.8
	comp=Z,0.3nm,0.5s,baz=287,slow=3.3,SNR=4.0						

NEIC ***29*** *21:14:18.3±2.6, 23°.56S×179°.82W, h478^{km}±29^{km}, mb4.5/4, Error ellipse: s-maj=31.0km s-min=19.6km az=190.0*

ISCJB ***29*** *21:14:19.7±3.1, 23°.6S±0°.2×179°.9W±0°.2, h511^{km}±36^{km}, mb4.3/12, Error ellipse: s-maj=33.8km s-min=21.8km az=11.9*

IDC ***29*** *21:14:20.8±3.1, 23°.74S×179°.98E, h498^{km}±33^{km}, mb3.6/6, mb1 3.8/7, mb1mx3.5/17, mbtmp3.5/7, Error ellipse: s-maj=51.7km s-min=22.8km az=165.0*

ISC 29 21:14:19.6±2.5**, 23°.6S**±0°.2×**179°.8W**±0°.2**, h499**^{km}±29^{km}**, n20,** σ**0**.^{s}**87**/18**, mb4.2**/12**, 1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	12.74	274	*e*P	P	21 17 05.9	-0.1
URZ	Urewera	14.82	189	P	P	21 17 27.4	-0.3
	0.8nm,0.3s,baz=346,slow=4.2,SNR=4.6						
ARMA	Armidale	26.25	249	*e*P	P	21 19 16.3	+2.1
	2.0nm,0.5s,mb3.8						
CTA	Charters Tower	31.62	270	⇓*i*P	P	21 20 01.6	+0.6
	23nm,0.3s,mb5.1						
CTAO	Charters Tower	31.62	270	*e*P	P	21 20 01.9	+0.8
	20nm,0.4s,mb4.9						
STKA	Stephens Creek	34.96	248	*e*P	P	21 20 29.7	+0.5
	2.1nm,0.4s,mb3.9						
STKA	Stephens Creek	34.96	248	P	P	21 20 29.9	+0.7
	2.7nm,0.4s,mb4.0,baz=84,slow=9.8,SNR=7.7						
COEN	Coen	36.21	279	*e*P	P	21 20 40.0	+0.1
	8.3nm,0.4s,mb4.5						
ASAR	Alice Springs	42.22	260	P	P	21 21 28.1	-0.2
	5.1nm,0.4s,mb4.3,baz=95,slow=7.3,SNR=115						
ASAR				ScP	ScP	21 26 12.9	-1.1
	1.4nm,0.8s,baz=108,slow=4.3,SNR=11						
WRAB	Tennant Creek	42.56	266	*e*P	P	21 21 30.4	-0.6
	9.1nm,0.7s,mb4.3						
WRA	Warramunga Arr	42.57	266	P	P	21 21 30.3	-0.9
	5.8nm,0.3s,mb4.5,baz=90,slow=5.9,SNR=87						
FORT	Forrest	46.54	249	*e*P	P	21 22 00.7	-1.0
	26nm,0.7s,mb4.8						
KNA	Kununurra	48.80	269	*e*P	P	21 22 18.3	-0.6
	4.7nm,0.2s,mb4.5						
FITZ	Fitzroy Crossi	50.99	265	*e*P	P	21 22 34.4	-0.6
	7.5nm,0.7s,mb4.1						
FITZ	Fitzroy Crossi	50.99	265	P	P	21 22 34.5	-0.4
	2.6nm,0.4s,mb3.9,baz=69,slow=21,SNR=11						
ARUT	Antelope Range	87.26	47	*e*P	P	21 26 11.4	-1.2

CMAR	Chiang Mai Arr	89.56	290	P	P	21 26 24.8	+0.9
	0.7nm,0.9s,mb3.5,baz=149,slow=4.8,SNR=5.1						
TXAR	Lajitas Array	90.16	58	P	P	21 26 27.6	+1.2
	0.8nm,0.7s,mb3.7,baz=215,slow=6.8,SNR=12						
BRTR	Keskin Array B	147.52	308	PKPbc	PKPab	21 33 10.1	-1.1
GERES	GERESS Array B	152.65	340	PKPbc	PKPbc	21 33 21.2	+2.1
	1.6nm,0.7s,baz=51,slow=7.7,SNR=6.5						

IDC 29 21:19:15.8±1.0, 19°.96N×121°.69E, h0^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.5/21, mbtmp3.6/6, Error ellipse: s-maj=72.5km s-min=20.2km az=68.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	30.45	339	P	P	21 25 30.4	+0.3
	0.4nm,0.5s,baz=160,slow=10,SNR=3.8						
WRA	Warramunga Arr	41.55	162	P	P	21 27 04.5	-0.8
	0.6nm,0.6s,baz=342,slow=9.0,SNR=3.6						
MKAR	Makanchi Array	41.76	319	P	P	21 27 07.0	+0.2
	0.7nm,0.8s,baz=113,slow=9.1,SNR=7.4						
ZALV	Zalesovo Beam	44.07	329	P	P	21 27 24.8	-0.6
	0.5nm,0.3s,baz=128,slow=9.3,SNR=3.3						
ASAR	Alice Springs	44.97	164	P	P	21 27 33.4	+0.5
	0.3nm,0.3s,baz=342,slow=7.1,SNR=12						
YKA	Yellowknife Ar	86.66	23	P	P	21 32 01.3	+0.1
	0.1nm,0.4s,baz=304,slow=4.8,SNR=3.4						

DDA ***29*** *21:28:43.7, 39°.39N×26°.32E, h7^{km}±5^{km}, Md2.8*
ISCJB ***29*** *21:28:44.3±0.6, 39°.39N±0°.04×26°.31E±0°.04, h7^{km}±6^{km}, Error ellipse: s-maj=6.4km s-min=4.9km az=2.1*
CSEM ***29*** *21:28:44.4±0.2, 39°.37N×26°.31E, h2^{km}, ML2.6/2, Error ellipse: s-maj=5.8km s-min=4.4km az=173.0*
THE ***29*** *21:28:44.7, 39°.37N×26°.28E, h11^{km}±1^{km}, ML2.6/2, Error ellipse: s-maj=1.8km s-min=0.5km az=186.0*
ISC 29 21:28:44.3±0.6, 39°.38N±0°.04×26°.31E±0°.04, h11^{km}±7^{km}, n17, σ0^s.73/29, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.13	193	P	Pg	21 28 47.6	+0.1
PRK				S	Sg	21 28 50.4	+0.6
PRK	Paraskevi	0.13	193	P	Pg	21 28 47.6	+0.1
PRK				S	Sg	21 28 50.4	+0.6
AYVA	Ayvalik	0.30	103	*i* P	Pg	21 28 49.6	-0.8
AYVA				*i* S	Sg	21 28 54.9	+0.3
AYVA	Ayvalik	0.30	103	*i* P	Pg	21 28 49.7	-0.7
AYVA				*i* S	Sg	21 28 54.9	+0.3
SIGR	SIGRI	0.39	245	P	Pg	21 28 51.9	-0.1
SIGR				S	Sg	21 28 57.5	+0.3
SIGR	SIGRI	0.39	245	P	Pg	21 28 51.9	-0.1
SIGR				S	Sg	21 28 57.5	+0.3
BOZC	Bozcaada	0.51	337	*i* P	Pg	21 28 53.6	-0.6
CHOS	Chios island	1.01	191	P	Pg	21 29 03.4	-0.3
CHOS	Chios island	1.01	191	P	Pg	21 29 03.4	-0.3
LIA	Limnos Island	1.01	301	P	Pg	21 29 03.1	-0.7
LIA				S	Sg	21 29 17.8	+0.8
LIA	Limnos Island	1.01	301	P	Pg	21 29 03.1	-0.7
LIA				S	Sg	21 29 17.8	+0.8
URLA	Izmir	1.04	168	*i* P	Pb	21 29 03.5	-0.8
URLA				*i* S	Sg	21 29 17.8	-0.1
URLA	Izmir	1.04	168	*i* P	Pb	21 29 03.5	-0.8
URLA				*i* S	Sg	21 29 17.8	-0.1
BALY	Balya	1.08	70	*i* P	Pb	21 29 04.7	-0.3
BALY				*i* S	Sb	21 29 19.0	0.0
BALY	Balya	1.08	70	*i* P	Pb	21 29 04.7	-0.2
BALY				*i* S	Sb	21 29 19.0	0.0
DURS	Dursunbey	1.69	82	*i* P	Pn	21 29 16.3	+2.5
DURS	Dursunbey	1.69	82	*i* P	Pn	21 29 16.3	+2.5

ISCJB ***29*** *22:08:14.8±0.5, 39°.57N±0°.02×25°.99E±0°.04, h9^{km}±4^{km}, Error ellipse: s-maj=4.6km s-min=3.3km az=173.9*
CSEM ***29*** *22:08:15.0±0.2, 39°.56N×25°.97E, h12^{km}, MD3.1, Error ellipse: s-maj=3.7km s-min=3.0km az=71.0*
DDA ***29*** *22:08:15.7, 39°.60N×26°.05E, h7^{km}±3^{km}, Md3.0*
THE ***29*** *22:08:15.6, 39°.53N×25°.96E, h15^{km}±1^{km}, ML3.0/2, Error ellipse: s-maj=1.4km s-min=0.6km az=234.0*
ISK ***29*** *22:08:15.1, 39°.65N×25°.97E, h8^{km}, MD3.1*
ISC 29 22:08:15.1±0.4, 39°.57N±0°.02×25°.98E±0°.04, h13^{km}±3^{km}, n37, σ0^s.82/60, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	Bozcaada	0.28	11	*i* P	Pg	22 08 20.9	0.0
BOZC				*i* S	Sg	22 08 25.4	+0.4
SIGR	SIGRI	0.37	195	P	Pg	22 08 22.2	-0.3
SIGR				S	Sg	22 08 27.9	+0.4
SIGR	SIGRI	0.37	195	P	Pg	22 08 22.2	-0.3
SIGR				S	Sg	22 08 27.9	+0.4
EZN	Ezine	0.37	46	*e*PG	Pg	22 08 22.1	-0.6
EZN				*e*SG	Sg	22 08 27.3	-0.3
EZN	Ezine	0.37	46	*e*Pg	Pg	22 08 22.1	-0.5
EZN				*e*Sg	Sg	22 08 27.3	-0.3
PRK	Paraskevi	0.39	145	P	Pg	22 08 22.9	-0.1
PRK				S	Sg	22 08 28.7	+0.5
PRK	Paraskevi	0.39	145	P	Pg	22 08 22.9	-0.1
PRK				S	Sg	22 08 28.7	+0.5
AYVA	Ayvalik	0.61	115	*i* P	Pg	22 08 26.7	-0.3
AYVA				*i* S	Sg	22 08 35.7	+0.7
AYVA	Ayvalik	0.61	115	*i* P	Pg	22 08 26.7	-0.3
AYVA				*i* S	Sg	22 08 35.7	+0.7
GADA	Gvkgeada	0.63	354	*e*PG	Pg	22 08 26.3	-1.1
GADA				*e*SG	Sg	22 08 34.3	-1.4
GADA	Gvkgeada	0.63	354	*e*Pg	Pg	22 08 26.3	-1.1
GADA				*e*Sg	Sg	22 08 34.3	-1.4
LIA	Limnos Island	0.70	299	P	Pg	22 08 28.9	+0.2
LIA				S	Sg	22 08 39.0	+1.1
LIA	Limnos Island	0.70	299	P	Pg	22 08 28.9	+0.2
LIA				S	Sg	22 08 39.0	+1.1
LOS	Limnos	0.78	298	P	Pg	22 08 31.0	+0.7
LOS	Limnos	0.78	298	P	Pg	22 08 31.0	+0.7
LPK	Lapseki	1.00	36	*e*PG	Pg	22 08 33.7	-0.8
LPK	Lapseki	1.00	36	*e*Pg	Pg	22 08 33.7	-0.8
ENEZ	Enez	1.18	6	*e*PN	Pn	22 08 36.6	-0.7
ENEZ	Enez	1.18	6	*e*Pn	Pn	22 08 36.6	-0.7
CHOS	Chios island	1.18	177	P	Pn	22 08 36.4	-0.9
CHOS				S	Sb	22 08 51.4	-1.1
CHOS	Chios island	1.18	177	P	Pn	22 08 36.4	-0.9
CHOS				S	Sb	22 08 51.4	-1.1
BALY	Balya	1.28	82	*i* P	Pn	22 08 39.2	+0.6
BALY				*i* S	Sb	22 08 55.7	+0.4
BALY	Balya	1.28	82	*i* P	Pn	22 08 39.2	+0.6
BALY				*i* S	Sb	22 08 55.7	+0.4
URLA	Izmir	1.30	158	*i* P	Pn	22 08 38.2	-0.7
URLA				*i* S	Sb	22 08 54.6	-1.3
URLA	Izmir	1.30	158	*i* P	Pn	22 08 38.2	-0.7
URLA				*i* S	Sb	22 08 54.6	-1.3
ALN	Alexandroupoli	1.33	2	P	Pn	22 08 39.3	-0.1
ALN	Alexandroupoli	1.33	2	P	Pn	22 08 39.3	-0.1
BLCB	Balcova	1.44	145	*e*PN	Pn	22 08 43.6	+2.7
SART	Tekirdag	1.45	39	*i* P	Pn	22 08 41.4	+0.4
SART				*i* S	Sn	22 08 59.8	-0.1
SART	Tekirdag	1.45	39	*i* P	Pn	22 08 41.4	+0.4
SART				*i* S	Sn	22 08 59.8	-0.1
BALB	Balikesir	1.47	87	*e*PN	Pn	22 08 42.7	+1.4
BALB	Balikesir	1.47	87	*e*Pn	Pn	22 08 42.7	+1.4
BNT	Bandirma	1.69	62	*e*PN	Pn	22 08 45.0	+0.7
DURS	Dursunbey	1.93	88	*e*P	Pn	22 08 48.0	+0.4
DURS				*e*S	Sn	22 09 10.7	-1.0
DURS	Dursunbey	1.93	88	*e*P	Pn	22 08 48.0	+0.4
DURS				*e*S	Sn	22 09 10.7	-1.0
KCT	Karacabey	1.96	68	*e*PN	Pn	22 08 49.2	+1.2
KCT	Karacabey	1.96	68	*e*Pn	Pn	22 08 49.2	+1.2

NEIC ***29*** *22:18:35.9±2.3, 4°.11S×152°.95E, h10^{km}, mb3.9/2, Error ellipse: s-maj=92.5km s-min=29.1km az=122.0*
IDC 29 22:18:35.5±3.2, 4°.11S×152°.77E, h0^{km}, mb3.9/3, mb1 4.1/3, mb1mx3.6/17, mbtmp3.9/3, Error ellipse: s-maj=131.3km s-min=43.0km az=123.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	23.87	227	*e*P	P	22 23 51.1	+0.2
	1.4nm,0.4s						
WB2	Warramunga Arr	23.87	227	*e*P	P	22 23 50.9	0.0
WRA	Warramunga Arr	23.88	227	P	P	22 23 51.3	+0.3
	2.5nm,0.6s,baz=52,slow=9.2,SNR=14						
ASAR	Alice Springs	26.64	221	P	P	22 24 16.1	0.0
	0.6nm,0.5s,baz=53,slow=8.3,SNR=6.8						
FITZ	Fitzroy Crossi	29.97	240	P	P	22 24 45.9	+0.1
	0.7nm,0.3s,baz=79,slow=9.3,SNR=5.3						
FITZ	Fitzroy Crossi	29.97	240	P	P	22 24 45.9	+0.1
FITZ				*e*P		22 24 47.2	
MBWA	Marble Bar	36.29	239	*e*P	P	22 25 41.4	+0.4
	0.7nm,0.3s						
TORD	Torodi Ar. Bea	150.06	289	PKPbc	PKPbc	22 38 28.7	-0.6
	0.6nm,0.6s,baz=73,slow=2.3,SNR=19						

ISCJB ***29*** *22:31:26.1±0.6, 40°.60N±0°.03×22°.11E±0°.04, h7^{km}±7^{km}, Error ellipse: s-maj=6.4km s-min=4.4km az=135.9*
CSEM ***29*** *22:31:26.2±0.2, 40°.60N×22°.11E, h15^{km}, ML2.7/2, Error ellipse: s-maj=4.7km s-min=3.4km az=38.0*
THE ***29*** *22:31:26.7, 40°.58N×22°.13E, h9^{km}±1^{km}, ML2.7/2, Error ellipse: s-maj=1.5km s-min=0.6km az=342.0*
ISC 29 22:31:26.5±0.5, 40°.60N±0°.03×22°.12E±0°.04, h13^{km}±6^{km}, n20, σ0^s.80/37, Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRG	Griva	0.41	31	P	Pg	22 31 34.6	-0.2
GRG	Griva	0.41	31	P	Pg	22 31 34.6	-0.2
LIT	Litokhoron	0.58	150	P	Pg	22 31 36.5	-1.3
LIT				S	Sg	22 31 45.6	+0.2
LIT	Litokhoron	0.58	150	P	Pg	22 31 36.5	-1.3
LIT				S	Sg	22 31 45.6	+0.2
FNA	Florina	0.59	288	P	Pg	22 31 37.8	-0.3
FNA				S	Sg	22 31 47.4	+1.4
FNA	Florina	0.59	288	P	Pg	22 31 37.8	-0.3
FNA				S	Sg	22 31 47.4	+1.4
BIA	Bitola	0.73	305	*i* Pn	Pn	22 31 42.1	-0.5
BIA				*e*Sg	Sg	22 31 51.7	+1.3
BIA	Bitola	0.73	305	*i* Pn	Pn	22 31 42.0	-0.5
BIA				*e*Sg	Sg	22 31 51.6	+1.2
KNT	Kendrikon	0.81	46	P	Pg	22 31 42.2	-0.1
KNT	Kendrikon	0.81	46	P	Pg	22 31 42.2	-0.1
SOH	Sokhos	0.96	77	P	Pb	22 31 45.0	0.0
SOH				S	Sb	22 31 58.8	+1.1
SOH	Sokhos	0.96	77	P	Pb	22 31 45.0	0.0
SOH				S	Sb	22 31 58.8	+1.1
KRUS	Krusevo	1.01	320	*i* Pn	Pn	22 31 44.9	-1.5
KRUS				*e*Sg	Sg	22 31 58.5	-0.7
KRUS				*e*Sg	Sg	22 31 58.6	-0.5
KRUS	Krusevo	1.01	320	*i* Pn	Pn	22 31 44.8	-1.5
KRUS				*e*Sg	Sg	22 31 58.5	-0.7
PLG	Polygyros	1.04	102	P	Pb	22 31 46.0	-0.3
PLG				S	Sb	22 32 00.5	+0.7
PLG	Polygyros	1.04	102	P	Pb	22 31 46.0	-0.3
PLG				S	Sb	22 32 00.5	+0.7
THL	Klokotos Trika	1.04	184	P	Pb	22 31 45.9	-0.4
THL				S	Sb	22 32 00.5	+0.7
THL	Klokotos Trika	1.04	184	P	Pb	22 31 45.9	-0.4
THL				S	Sb	22 32 00.5	+0.7
XOR	Xorichti	1.49	146	P	Pn	22 31 52.1	-0.8
XOR				S	Sn	22 32 12.7	+0.6
XOR	Xorichti	1.49	146	P	Pn	22 31 52.1	-0.8
XOR				S	Sn	22 32 12.7	+0.6

NEIC ***29*** *22:40:27.4, 10°.42N×62°.35W, h6^{km}, MD2.9(TRN), After TRN.*
TRN ***29*** *22:40:27.3, 10°.41N×62°.35W, h3^{km}, MD2.9*
ISCJB ***29*** *22:40:28.3±1.0, 10°.35N±0°.04×62°.34W±0°.03, h13^{km}±7^{km}, Error ellipse: s-maj=7.5km s-min=4.4km az=168.1*
FUNV ***29*** *22:40:29.2, 10°.37N×62°.34W, h8^{km}, MW2.9*
ISC 29 22:40:28.4±0.6, 10°.37N±0°.04×62°.34W±0°.03, h11^{km}±5^{km}, n16, σ0^s.80/23, 5C, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	Guiria	0.30	22	⇑*e*P	Pg	22 40 35.4	+0.9
GUIV				*e*S	Sg	22 40 39.9	+1.4
GUNV	Guanoco	0.63	251	*e*P	Pg	22 40 40.9	+0.3
GUNV				*e*S	Sg	22 40 49.5	+0.6
TCE	Chacachacare	0.66	60	⇑*i*P	Pg	22 40 40.2	-1.0
TCE				*e*S	Sg	22 40 49.6	-0.3
TPP	Pointe-a-Pierr	0.87	93	*e*P	Pg	22 40 45.5	+0.3
CRUV	Carupano	0.94	289	⇑*e*P	Pg	22 40 45.9	-0.5
CRUV				*e*S	Sg	22 40 57.9	-0.7
TRN	Trinidad (W)	0.96	73	⇑*i*P	Pg	22 40 45.0	-1.9
TRN				*e*S	Sg	22 40 59.6	+0.2
TBH	Brigand Hill	1.25	85	*e*P	Pn	22 40 51.3	-0.5
ITEV	Isla Los Testi	1.25	322	⇑*e*P	Pn	22 40 51.6	-0.3
ITEV				*e*S	Sb	22 41 08.3	0.0
ORIV	Oritupano	1.67	219	*e*P	Pn	22 40 57.9	+0.4
ORIV				*e*S	Sn	22 41 19.8	+0.9
TPR	Prospect	1.73	62	*e*P	Pn	22 40 58.9	+0.4
BOT	Bacolet	1.78	63	*e*P	Pn	22 41 02.4	+3.4
PCRV	Puerto La Cruz	2.27	265	*e*P	Pn	22 41 05.7	-0.1
RIOV	Rio Grande	2.34	167	*e*P	Pn	22 41 07.2	+0.4
CUPV	Cœpira	3.41	265	*e*P	Pn	22 41 21.9	+0.3
CAOV	Caicara del Or	4.96	233	*e*P	Pn	22 41 42.1	-0.8
BAUV	El Baul	5.80	256	*e*P	Pn	22 41 53.5	-0.9

BJI ***29*** *22:51:31.2, 40°.42S×74°.89W, h10^{km}, mB5.3/9, Ms5.4/9, Ms7 5.1/10*
IDC ***29*** *22:51:32.5±0.4, 40°.35S×75°.24W, h0^{km}, mb4.8/16, mb1 4.8/20, mb1mx4.8/22, mbtmp4.7/20, ML4.7/4, MS4.1/17, Ms1 4.1/17, ms1mx4.0/25, Error ellipse: s-maj=17.5km s-min=13.8km az=92.0*
ISCJB ***29*** *22:51:33.3±3.1, 40°.21S±0°.05×74°.80W±0°.08, h7^{km}±19^{km}, mb5.0/73, MS4.2/16, Error ellipse: s-maj=9.9km s-min=7.8km az=9.1*
NEIC ***29*** *22:51:34.5±0.2, 40°.32S×75°.08W, h10^{km}, mb5.1/59, Error ellipse: s-maj=7.9km s-min=5.3km az=65.0*
GCMT ***29*** *22:51:34.5±0.3, 40°.56S×75°.49W, h20^{km}, MW5.0/65, Moment Tensor Solution. s21,c24; s65,c87; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-4.69±.24; M$_{\theta\theta}$2.26±.15; M$_{\phi\phi}$2.43±.17; M$_{r\theta}$-0.94±.36; M$_{\theta\phi}$1.70±.11; M$_{\phi r}$0.77±.32; Best double couple: M$_0$4.50100×10^{16} NP1:φ$_s$212.00000°, δ46.00000°, λ-107.00000°. NP2: φ$_s$56.00000°, δ47.00000°, λ-73.00000°. Principal axes: T 4.0480, Plg1.0000°, Azm134.0000°; N 0.9050, Plg12.0000°, Azm224.0000°; P -4.9530, Plg78.0000°, Azm41.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
MOS ***29*** *22:51:35.9±0.9, 40°.33S×75°.16W, h26^{km}, mb5.3/25 Error ellipse: s-maj=18.4km s-min=9.6km az=106.5*
ISC 29 22:51:37.5±2.9, 40°.24S±0°.04×74°.89W±0°.09, h23^{km}±20^{km}, h28^{km}±1.2^{km}:pP-P, n477, σ0^s.57/398, mb5.0/73, MS4.2/16, 125C-138D, Off coast of southern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLCA	Paso Flores	3.34	100	P	Pn	22 52 30.7	+2.5
PLCA						22 53 14.2	
PLCA	Paso Flores	3.34	100	Pn	Pn	22 52 30.7	+2.5
	38nm,0.3s,baz=270,slow=10,SNR=520						
PLCA				Sn	Sn	22 53 14.2	+7.0
	79nm,0.3s,baz=6.4,slow=16,SNR=7.1						
PLCA				LR	LR	22 54 00.2	
	comp=Z,4µm,19.8s,baz=277,slow=41						
CFAA	Coronel Fontan	10.16	34	Pn	Pn	22 54 01.4	-0.5
	0.7nm,0.3s,baz=204,slow=13,SNR=43						
CFAA				Sn	Sn	22 55 56.6	+1.6
	0.5nm,0.3s,baz=99,slow=22,SNR=7.5						
CFAA				LR	LR	22 57 51.2	
	comp=Z,69nm,21.9s,baz=220,slow=36						
LCO	Las Campanas	11.72	18	*e*Pn	Pn	22 54 21.4	-1.8
	27nm,0.4s						
LCO				*e*Sn	Sn	22 56 31.6	-1.7
USHA	Ushuaia	15.22	166	Pn	Pn	22 55 09.0	-1.7
	1.0nm,0.3s,baz=321,slow=6.9,SNR=8.4						
USHA				LR	LR	23 01 16.3	
	comp=Z,1µm,18.6s,baz=323,slow=38						
EFI	East Falkland	16.31	140	P	Pn	22 55 28.8	+4.0
	1µm,0.9s,SNR=5.3						
EFI	East Falkland	16.31	140	*e*P	Pn	22 55 25.0	+0.2
EFI				pmax	pmax		
	comp=Z,247nm,1.0s						
EFI	East Falkland	16.31	140	*e*Pn	Pn	22 55 25.0	+0.2
	comp=Z,247nm,1.0s						
LVC	Limon Verde	18.29	18	P	Pn	22 55 49.7	+0.1
	comp=Z,0.6nm,0.3s,baz=197,slow=6.2,SNR=6.7						
LVC				LR	LR	23 03 01.5	
	comp=Z,258nm,21.4s,baz=104,slow=37						
CPUP	Villa Florida	20.14	52	P	P	22 56 12.9	+2.9
	comp=Z,24nm,0.8s,baz=221,slow=9.6,SNR=21						
CPUP				LR	LR	23 04 33.7	
	comp=Z,269nm,20.4s,MS3.6,baz=206,slow=38						
ARE	Arequipa	23.88	8	*e*P	P	22 56 51.0	+1.7
PMSA	Palmer Station	25.37	169	LR	LR	23 06 15.5	
	comp=Z,570nm,19.8s,MS4.1,baz=242,slow=35						
SIV	San Ignacio	26.99	30	P	P	22 57 18.2	+0.7
	comp=Z,12nm,0.9s,mb4.4,baz=229,slow=10.0,SNR=23						
NNA	Nana	28.20	356	LR	LR	23 06 21.3	
	comp=Z,181nm,18.6s,MS3.7,baz=169,slow=31						
SPB	Sao Paulo	28.45	63	P	P	22 57 27.6	-3.0
RPN	Rapa Nui	31.31	284	LR	LR	23 06 33.5	
	comp=Z,640nm,21.0s,MS4.3,baz=291,slow=29						
OTAV	Otavalo	40.42	354	*e*P	P	22 59 13.3	-0.6
	comp=Z,20nm,1.2s,mb4.7						
VNA3	Neumayer Olymp	44.55	155	*e*P	P	22 59 47.5	+0.6
VNA3				*e*	pP	22 59 53.5	-0.5
ROSC	El Rosal	44.88	1	P	P	22 59 51.1	+1.0
	comp=Z,17nm,0.7s,mb5.0,baz=112,slow=13,SNR=7.6						
ROSC				LR	LR	23 17 00.8	
	comp=Z,178nm,20.7s,MS4.0,baz=13,slow=34						
VNA1	Neumayer--Stat	44.93	154	*e*P	P	22 59 57.0	+7.0
VNA2	Neumayer--Watz	45.25	155	*e*P	P	22 59 52.5	+0.1
VNA2				*e*	pP	22 59 59.4	-0.2
SDV	Santo Domingo	49.04	6	P	P	23 00 22.0	-0.6
	comp=Z,12nm,0.8s,mb5.0,baz=266,slow=7.1,SNR=11						
QSPA	South Pole Qui	50.00	180	P	P	23 00 28.1	-1.2
	comp=Z,23nm,0.8s,mb5.2,baz=140,slow=3.0,SNR=63						
QSPA				PcP	PcP	23 01 47.7	-1.1
	comp=Z,7.6nm,0.9s,baz=265,slow=0.6,SNR=3.1						
QSPA	South Pole Qui	50.00	180	P	P	23 00 28.1	-1.2
QSPA				PcP	PcP	23 01 47.7	-1.1
PCRV	Puerto La Cruz	51.05	13	P	P	23 00 38.7	+0.9
	comp=Z,8.4nm,0.6s,mb4.9,baz=284,slow=4.2,SNR=3.8						
VNDA	Vanda	57.54	192	P	P	23 01 23.2	-1.2
	comp=Z,4.8nm,1.1s,mb4.5,baz=46,slow=3.2,SNR=4.7						
VNDA				LR	LR	23 25 27.1	
	comp=Z,62nm,19.1s,MS3.7,baz=144,slow=36						
SYO	Syowa Base	60.92	158	⇑*e*P	P	23 01 43.6	-4.3
SYO	Syowa Base	60.92	158	⇑*e*pP	pP	23 01 45.4	-10
MAW	Mawson	67.84	164	LR	LR	23 30 16.8	
	comp=Z,147nm,19.3s,MS4.2,baz=52,slow=34						
HKT	Hockley	72.49	341	*e*P	P	23 02 55.8	-6.2
HKT				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.9						
HKT	Hockley	72.49	341	*e*P	P	23 02 55.8	-6.2
	comp=Z,6.7nm,0.4s,mb4.9						
GOGA	Godfrey	73.72	353	*e*P	P	23 03 08.1	-1.1
GOGA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
GOGA	Godfrey	73.72	353	*e*P	P	23 03 08.1	-1.0
	comp=Z,4.3nm,0.6s,mb4.6						
SUR	Sutherland	73.82	119	P	P	23 03 11.1	+1.0
	comp=Z,7.7nm,0.9s,mb4.7,baz=232,slow=10,SNR=4.2						
JCT	Junction City	74.06	338	*e*P	P	23 03 11.1	-0.2
JCT				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.0						
JCT	Junction City	74.06	338	*e*P	P	23 03 11.1	-0.2
	comp=Z,24nm,1.3s,mb5.0						
TXAR	Lajitas Array	74.21	334	P	P	23 03 11.7	-0.4
	comp=Z,5.4nm,0.8s,mb4.6,baz=158,slow=8.9,SNR=43						
TXAR				LR	LR	23 29 24.0	
	comp=Z,175nm,20.4s,MS4.3,baz=30,slow=31						
TXAR	Lajitas Array	74.21	334	P	P	23 03 11.7	-0.4
TXAR				LR	LR	23 29 24.0	
JSC	Jenkinsville	74.39	355	*e*P	P	23 03 12.4	-0.7
SWET	Sewanee	75.78	351	*e*P	P	23 03 20.5	-0.5
SWET				*e*pP	pP	23 03 29.1	+0.5
SWET				*e*sP	sP	23 03 34.2	+2.9
PLAL	Pickwick Lake	75.84	349	*e*P	P	23 03 20.0	-1.4
CPCT	Cooper Cave	75.84	352	*e*P	P	23 03 20.9	-0.5
MIAR	Mount Ida	76.39	344	*e*P	P	23 03 23.8	-0.8
MIAR				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.9						
MIAR	Mount Ida	76.39	344	*e*P	P	23 03 23.8	-0.7
	comp=Z,22nm,1.3s,mb4.9						
325A	Bean Ranch, Si	76.52	334	⇑P	P	23 03 24.3	-1.1
	baz=77						
324A	Moseley Ranch,	76.75	333	⇑P	P	23 03 25.0	-1.7
	baz=77						
TZTN	Tazewell	76.83	353	*e*P	P	23 03 25.5	-1.5
	comp=Z,38nm,1.5s,mb5.1						
WVT	Waverly	76.93	349	*e*P	P	23 03 26.3	-1.3
WVT				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.1						
WVT	Waverly	76.93	349	*e*P	P	23 03 26.3	-1.3
	comp=Z,36nm,1.4s,mb5.1						
GDL2	Guadalupe Moun	77.07	335	*e*P	P	23 03 28.4	-0.1
224A	Corundas Mount	77.35	334	⇓P	P	23 03 29.5	-0.5
	baz=78						
JSRW	J. Sargeant Re	77.61	358	*e*P	P	23 03 31.5	+0.1
PARMO	Parma	77.74	348	*e*P	P	23 03 32.1	0.0
WMOK	Wichita Mounta	77.80	340	*e*P	P	23 03 31.3	-1.2
WMOK				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.0						
WMOK	Wichita Mounta	77.80	340	*e*P	P	23 03 31.3	-1.2
	comp=Z,27nm,1.4s,mb5.0						
124A	Stringfield Ra	77.89	334	⇑P	P	23 03 33.0	-0.1
	baz=78						
222A	Williams Famil	77.92	332	⇑P	P	23 03 33.3	+0.1
	baz=78						
319A	Douglas	78.06	330	⇑P	P	23 03 34.3	+0.3
	baz=78,SNR=13						
221A	Mesquite Ranch	78.08	332	⇓P	P	23 03 34.3	+0.2
	baz=78						
220A	Playas Peak, P	78.25	331	⇑P	P	23 03 35.4	+0.3
	baz=79						
318A	Bisbee	78.39	330	⇑P	P	23 03 36.0	+0.2
	baz=79,SNR=22						
121A	Cookes Peak, D	78.55	332	⇑P	P	23 03 36.7	0.0
	baz=79						
219A	White Tail Can	78.61	331	⇑P	P	23 03 37.2	+0.2
	baz=79						
SIUC	Southern Illin	78.69	348	*e*P	P	23 03 36.5	-0.8
	comp=Z,36nm,1.2s,mb5.2						
AMTX	Amarillo	78.73	338	*e*P	P	23 03 37.3	-0.4
	comp=Z,47nm,1.2s,mb5.3						
120A	U Bar Ranch, L	78.87	331	⇓P	P	23 03 38.7	+0.3
	baz=79						
218A	Dragoon	78.89	330	⇑P	P	23 03 38.7	+0.2
	baz=79,SNR=17						
217A	Green Valley	79.01	329	⇑P	P	23 03 39.4	+0.1
	baz=80,SNR=10						
FVM	French Village	79.14	348	*e*P	P	23 03 38.9	-0.9
FVM				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						
FVM	French Village	79.14	348	*e*P	P	23 03 38.9	-0.9
	comp=Z,36nm,1.3s,mb5.1						
BOSA	Boshof	79.16	118	P	P	23 03 40.3	-0.1
	comp=Z,18nm,0.8s,mb5.0,baz=224,slow=4.3,SNR=35						
BOSA				LR	LR	23 31 43.1	
	comp=Z,174nm,20.5s,MS4.4,baz=190,slow=30						
DBIC	Dimbokro	79.31	72	P	P	23 03 42.2	+0.8
	comp=Z,5.8nm,0.7s,mb4.6,baz=198,slow=4.7,SNR=18						
DBIC				LR	LR	23 35 33.2	
	comp=Z,97nm,18.9s,MS4.2,baz=211,slow=33						
119A	Ashpeak Ranch,	79.31	331	⇓P	P	23 03 41.0	+0.1
	baz=80						
CCM	Cathedral Cave	79.35	347	*e*P	P	23 03 40.0	-0.9
CCM				*e*	pP	23 03 48.3	-0.2
CCM				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
CCM	Cathedral Cave	79.35	347	*e*P	P	23 03 40.0	-0.9
	comp=Z,28nm,1.0s,mb5.2						
CCM				*e*PcP	PcP	23 03 48.3	-0.7
Z20A	Nine Sixteen R	79.36	332	⇓P	P	23 03 41.5	+0.4
	baz=80						
216A	Three Points,	79.46	329	⇓P	P	23 03 41.9	+0.2
	baz=80						
TUC	Tucson	79.47	330	*e*P	P	23 03 41.8	+0.1
TUC				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
TUC	Tucson	79.47	330	*e*P	P	23 03 41.8	0.0
	comp=Z,16nm,1.4s,mb4.8						
BNM	Barren Site	79.61	334	*e*P	P	23 03 42.5	+0.1
	comp=Z,7.2nm,1.0s,mb4.6						
TSUM	Tsumeb	79.68	106	*e*P	P	23 03 44.0	+0.6
	comp=Z,17nm,1.4s,mb4.8						
117A	Oracle	79.68	330	⇑P	P	23 03 43.0	0.0
	baz=80,SNR=8.8						
LENM	Lemitar	79.75	333	*e*P	P	23 03 43.8	+0.6
BLO	Bloomington	79.75	351	*e*P	P	23 03 41.5	-1.6

LPM	Los Pinos Moun	79.76	334	*e*P	P	23 03 43.6	+0.3
Y21A	Point of Rocks	79.85	333	⇓P	P	23 03 44.4	+0.7
	baz=80						
MVL	Millersville	79.87	359	*e*P	P	23 03 44.0	+0.2
	comp=Z,21nm,1.2s,mb4.9						
Z18A	Geronimo	79.87	331	⇓P	P	23 03 43.9	0.0
	baz=80						
214A	Organ Pipe Nat	79.96	328	⇑P	P	23 03 44.7	+0.3
	baz=80						
Y20A	Horse Springs,	80.00	332	⇓P	P	23 03 44.9	+0.3
	baz=80						
LAZ	Ladron	80.02	333	*e*P	P	23 03 45.4	+0.7
	comp=Z,12nm,1.2s,mb4.7						
116A	Eloy	80.05	329	⇓P	P	23 03 45.3	+0.4
	baz=80						
X22A	Bernardo	80.07	334	⇑P	P	23 03 45.6	+0.7
	baz=80						
Z17A	San Carlos Hig	80.23	330	⇓P	P	23 03 46.4	+0.6
	baz=81						
X21A	Alamocita Cree	80.28	333	⇑P	P	23 03 46.8	+0.8
	baz=81						
Y19A	Nutrioso	80.36	332	⇓P	P	23 03 47.4	+0.8
	baz=81						
115A	Sonoran Desert	80.38	329	⇑P	P	23 03 47.2	+0.5
	baz=81						
ACSO	Alum Creek Sta	80.43	354	*e*P	P	23 03 45.8	-1.0
	comp=Z,96nm,2.0s,mb5.4						
W22A	Albuquerque	80.53	334	⇓P	P	23 03 47.8	+0.4
	baz=81						
X20A	Quemado	80.62	332	⇓P	P	23 03 48.3	+0.4
	baz=81						
Y17A	Roosevelt	80.72	330	⇑P	P	23 03 48.7	+0.2
	baz=81,SNR=8.7						
W21A	San Fidel	80.84	333	⇓P	P	23 03 49.7	+0.7
	baz=81						
113A	Mohawk Valley,	81.06	328	⇑P	P	23 03 50.6	+0.3
	baz=82						
Y16A	Circle Bar Ran	81.13	330	⇑P	P	23 03 50.8	+0.2
	baz=82,SNR=7.5						
X18A	Snowflake	81.13	331	⇑P	P	23 03 51.0	+0.4
	baz=82						
W20A	Ramah	81.14	333	⇑P	P	23 03 51.1	+0.4
	baz=82						
Z14A	Wintersburg	81.25	329	⇑P	P	23 03 51.6	+0.3
	baz=82						
Z13A	Yuma Proving G	81.39	328	⇑P	P	23 03 52.1	0.0
	baz=82						
KSU1	Kansas State U	81.42	343	*e*P	P	23 03 51.0	-1.0
	comp=Z,76nm,1.7s,mb5.3						
W19A	Sanders	81.45	332	⇑P	P	23 03 52.7	+0.4
	baz=82						
V21A	Milan	81.46	334	⇑P	P	23 03 53.0	+0.6
	baz=82						
HDIL	Hopedale	81.48	349	*e*P	P	23 03 51.3	-1.1
	comp=Z,64nm,1.4s,mb5.4						
Y15A	Casa Rosa Ranc	81.52	329	⇓P	P	23 03 53.1	+0.4
	baz=82,SNR=7.3						
W18A	Petrified Fore	81.58	332	⇑P	P	23 03 53.5	+0.5
	baz=82						
X16A	Lo Mia Camp, P	81.59	330	⇓P	P	23 03 53.6	+0.5
	baz=82,SNR=12						
LBTB	Lobatse	81.71	116	*e*P	P	23 03 54.2	0.0
LBTB				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
LBTB	Lobatse	81.71	116	*e*P	P	23 03 54.1	0.0
	comp=Z,31nm,1.1s,mb5.2						
V20A	Brimhall	81.74	333	⇑P	P	23 03 54.4	+0.6
	baz=82						
GLA	Glamis	81.75	327	⇓P	P	23 03 54.4	+0.5
	baz=82						
Y14A	Wickenburg	81.78	329	⇓P	P	23 03 54.5	+0.4
	baz=82						
V19A	Window Rock	81.87	333	⇑P	P	23 03 55.1	+0.6
	baz=82						
CBKS	Cedar Bluff	81.90	341	*e*P	P	23 03 53.7	-0.9
CBKS				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
CBKS	Cedar Bluff	81.90	341	*e*P	P	23 03 53.7	-0.9
	comp=Z,26nm,1.1s,mb5.1						
DVTC	Desert V Tower	81.94	326	⇓P	P	23 03 55.3	+0.3
	baz=82						
X15A	Humboldt	81.96	330	⇑P	P	23 03 55.5	+0.5
	baz=82,SNR=13						
Y13A	Salome	82.00	328	⇓P	P	23 03 55.7	+0.5
	baz=82						
SWSC	Sam W. Stewart	82.06	326	⇓P	P	23 03 56.1	+0.5
	baz=82						
V18A	Ganado	82.18	332	⇓P	P	23 03 56.1	0.0
	baz=83						
X14A	Yava	82.19	329	⇑P	P	23 03 56.5	+0.3
	baz=83						
W16A	Flagstaff	82.22	330	⇑P	P	23 03 57.0	+0.7
	baz=83,SNR=6.6						
Y12C	Blythe	82.22	328	⇓P	P	23 03 56.8	+0.3
	baz=83						
U20A	Newcomb	82.28	333	⇓P	P	23 03 56.9	+0.2
	baz=83						
MONP	Monument Peak	82.28	326	⇓P	P	23 03 57.2	+0.4
	baz=83						
T22A	Edith	82.31	335	⇑P	P	23 03 57.5	+0.7
	baz=83,SNR=22						
V17A	Tonalea, Kykot	82.42	331	⇓P	P	23 03 57.7	+0.3
	baz=83						
U19A	Dine' College,	82.44	333	⇓P	P	23 03 57.5	-0.1
	baz=83						
BC3	Big Chuckw Mtn	82.53	327	⇓P	P	23 03 58.3	+0.3
	baz=83						
SDCO	Great Sand Dun	82.53	336	*e*P	P	23 03 57.9	0.0
	comp=Z,7.6nm,1.0s,mb4.7						
WUAZ	Wupatki	82.54	331	⇓P	P	23 03 58.5	+0.4
	baz=83						
WUAZ	Wupatki	82.54	331	*e*P	P	23 03 58.6	+0.5
	comp=Z,21nm,1.5s,mb4.9						
PDMCI	Parker Dam,Lak	82.55	328	⇓P	P	23 03 58.2	+0.1
	baz=83						
W15A	Williams	82.58	330	⇑P	P	23 03 58.9	+0.6
	baz=83						
X13A	Yucca	82.68	328	⇑P	P	23 03 59.1	+0.3
	baz=83						
U18A	Rough Rock, Ch	82.79	332	⇓P	P	23 03 59.6	+0.3
	baz=83						
IRM	Iron Mountain	82.84	327	⇓P	P	23 03 59.8	+0.2
	baz=83						
T19A	Beclabito	82.86	333	⇓P	P	23 03 59.9	+0.3
	baz=83						
PFO	Pinyon Flat Ob	82.91	326	P	P	23 04 00.1	+0.1
	comp=Z,120nm,0.9s,mb5.9,SNR=12						
PFO	Pinyon Flat Ob	82.91	326	*e*P	P	23 04 00.5	+0.5
PFO				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
PFO	Pinyon Flat Ob	82.91	326	⇓P	P	23 04 00.5	+0.4
	baz=83						
PFO	Pinyon Flat Ob	82.91	326	*e*P	P	23 04 00.5	+0.5
	comp=Z,30nm,1.2s,mb5.2						
W14A	Seligman	82.92	329	⇑P	P	23 04 00.6	+0.5
	baz=83,SNR=9.2						
U16A	Tuba City	83.00	331	⇑P	P	23 04 00.8	+0.4
	baz=84						
MVCO	Mesa Verde	83.02	334	⇓P	P	23 04 00.6	+0.1
	baz=84						
MVCO	Mesa Verde	83.02	334	*e*P	P	23 04 00.8	+0.3
	comp=Z,23nm,1.2s,mb5.1						
BELC	Belle Mtn.	83.05	327	⇓P	P	23 04 01.1	+0.3
	baz=84						
V15A	Kaibab Nationa	83.11	330	⇑P	P	23 04 01.5	+0.5
	baz=84,SNR=14						
W13A	Hualapai Mount	83.14	329	⇓P	P	23 04 01.8	+0.6
	baz=84						
S21A	Coal Bank Pass	83.19	334	⇓P	P	23 04 01.8	+0.4
	baz=84,SNR=14						
MURC	Murrieta	83.22	326	⇑P	P	23 04 01.8	+0.2
	baz=84						
U17A	Shonto	83.24	332	⇓P	P	23 04 02.1	+0.4
	baz=84						
ACCN	Adirondack Com	83.25	1	*e*P	P	23 04 01.7	+0.2
V14A	Boquillas Ranc	83.30	330	⇑P	P	23 04 02.5	+0.5
	baz=84,SNR=11						
R22A	Saguache, Gunn	83.37	335	⇓P	P	23 04 02.8	+0.5
	baz=84,SNR=6.9						
T18A	Mexican Hat	83.44	333	⇑P	P	23 04 02.8	+0.1
	baz=84						
GMRC	Granite Mounta	83.58	327	⇑P	P	23 04 03.8	+0.4
	baz=84						
CIS	Catalina Islan	83.59	325	⇑P	P	23 04 03.5	0.0
	baz=84						
T17A	Navajo Res., N	83.64	332	⇑P	P	23 04 04.5	+0.8
	baz=84						
NCB	Newcomb	83.83	0	*e*P	P	23 04 03.9	-0.6
	comp=Z,11nm,0.8s,mb5.0						
V13A	Grand Canyon W	83.84	329	⇓P	P	23 04 04.9	+0.1
	baz=84						
R20A	Redvale	83.87	334	⇓P	P	23 04 05.2	+0.4
	baz=84,SNR=9.5						
PV01	Paradox Valley	83.88	334	*e*P	P	23 04 04.9	0.0
	comp=Z,1µm,1.0s						
T16A	Glen Canyon Da	83.89	331	⇓P	P	23 04 05.2	+0.3
	baz=84						
HEC	Hector,Ludlow	83.91	327	⇑P	P	23 04 05.6	+0.5
	baz=84						
SNCC	San Nicolas Is	83.96	324	⇑P	P	23 04 05.5	+0.1
	baz=84						
BFSC	Mount Baldy St	83.97	326	⇑P	P	23 04 05.8	+0.3
	baz=84						
S18A	Hurst Farm, Bl	83.97	333	⇑P	P	23 04 05.9	+0.5
	baz=84						
U14A	Mt Trumbull	84.02	330	⇓P	P	23 04 06.0	+0.4
	baz=84,SNR=14						
V12A	Nelson	84.07	328	⇓P	P	23 04 05.8	-0.1
	baz=84,SNR=12						
MWC	Mount Wilson	84.13	325	*e*P	P	23 04 07.2	+0.9
Q21A	Lamborn Mesa,	84.19	335	⇓P	P	23 04 06.7	+0.3
	baz=85						
S17A	Black Ridge (B	84.21	332	⇓P	P	23 04 06.9	+0.3
	baz=85						
PV04	Paradox Valley	84.23	334	*e*P	P	23 04 07.0	+0.3
T15A	Red Dirt Ranch	84.24	331	⇓P	P	23 04 07.3	+0.6
	baz=85						
R19A	Curley Farm, L	84.26	333	⇑P	P	23 04 06.6	-0.2
	baz=85						
TUQ	Turquoise Moun	84.26	327	⇑P	P	23 04 07.3	+0.4
	baz=85						
U13A	Pakoon Wash	84.32	329	⇑P	P	23 04 07.4	+0.2
	baz=85						
V11A	Goodsprings	84.40	328	⇓P	P	23 04 07.8	+0.2
	baz=85						
ISCO	Idaho Springs	84.45	337	*e*P	P	23 04 07.7	-0.1
ISCO				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.9						
ISCO	Idaho Springs	84.45	337	*e*P	P	23 04 07.7	0.0
	comp=Z,14nm,1.4s,mb4.9						
LONY	Lake Ozonia	84.48	0	*e*P	P	23 04 07.2	-0.6
	comp=Z,3.9nm,0.6s,mb4.7						
GSC	Goldstone	84.51	327	*e*P	P	23 04 08.4	+0.2
GSC				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
GSC	Goldstone	84.51	327	⇓P	P	23 04 08.6	+0.4
	baz=85						
GSC	Goldstone	84.51	327	*e*P	P	23 04 08.4	+0.3
	comp=Z,13nm,1.0s,mb5.0						
Q20A	Ridgley Place,	84.53	334	⇑P	P	23 04 08.3	+0.1
	baz=85						
T14A	Hurricane	84.55	330	⇑P	P	23 04 08.5	+0.2
	baz=85						
R18A	Canyonlands Na	84.56	333	⇓P	P	23 04 08.1	-0.3
	baz=85,SNR=5.7						
EDW2	Edwards Air Fo	84.66	326	⇑P	P	23 04 08.7	-0.2
	baz=85						
FRNY	Flat Rock	84.70	1	*e*P	P	23 04 08.6	-0.2
SHOC	Shoshone	84.80	327	⇓P	P	23 04 09.2	-0.4
	baz=85						
S15A	Panguitch	84.82	331	⇑P	P	23 04 09.9	+0.3
	baz=85						
T13A	Saint George	84.83	330	⇑P	P	23 04 09.9	+0.2
	baz=85						
Q19A	Hogan Spring (	84.86	334	⇑P	P	23 04 09.8	0.0
	baz=85						
R17A	Hanksville Air	84.88	333	⇓P	P	23 04 09.5	-0.4
	baz=85						
R16A	Teasdale	85.03	332	⇑P	P	23 04 10.9	+0.2
	baz=86						
LRMC	Laurel Mountai	85.03	326	⇓P	P	23 04 11.1	+0.3
	baz=86						
P20A	De Beque	85.06	335	⇓P	P	23 04 11.2	+0.4
	baz=86						
CCUT	Cedar City	85.08	330	*e*P	P	23 04 11.9	+0.9
	comp=Z,24nm,1.2s,mb5.2						
CCUT				*e*pP	pP	23 04 20.5	+1.9
CCUT				*e*sP	sP	23 04 25.6	+4.2
S14A	Cedar City	85.19	330	⇑P	P	23 04 12.1	+0.6
	baz=86						
R15A	Junction	85.26	331	⇑P	P	23 04 12.1	+0.3
	baz=86						
Q18A	Rafter H Ranch	85.28	333	⇑P	P	23 04 11.8	-0.2
	baz=86						
S13A	Holt Ranch, En	85.30	330	⇑P	P	23 04 12.4	+0.4
	baz=86,SNR=15						
ARUT	Antelope Range	85.32	330	*e*P	P	23 04 11.8	-0.4
ARUT				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
ARUT	Antelope Range	85.32	330	*e*P	P	23 04 11.8	-0.3
	comp=Z,10nm,0.9s,mb5.0						
P19A	Cripple Cowboy	85.37	334	⇑P	P	23 04 12.5	+0.1
	baz=86,SNR=16						
O21A	Pagoda	85.41	336	⇓P	P	23 04 12.9	+0.3
	baz=86						
SRU	San Rafael	85.43	333	*e*P	P	23 04 12.3	-0.4
SRU				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
SRU	San Rafael	85.43	333	⇓P	P	23 04 12.3	-0.4
	baz=86						
SRU	San Rafael	85.43	333	*e*P	P	23 04 12.3	-0.4
	comp=Z,13nm,1.0s,mb5.0						
MPMC	Manual Prospec	85.45	327	⇓P	P	23 04 12.7	-0.1
	baz=86						
Q16A	Castle Valley	85.48	332	⇓P	P	23 04 13.0	+0.1
	baz=86						
MSU	Marysvale	85.49	332	*e*P	P	23 04 13.7	+0.7
ISA	Isabella	85.53	326	*e*P	P	23 04 13.3	0.0
ISA				pmax	pmax		
	comp=Z,13nm,1.2s,mb5.0						
ISA	Isabella	85.53	326	⇑P	P	23 04 13.6	+0.4
	baz=86						
ISA	Isabella	85.53	326	*e*P	P	23 04 13.3	+0.1
	comp=Z,13nm,1.2s,mb5.0						
FURC	Furnace Creek,	85.53	327	⇓P	P	23 04 13.4	+0.1
	baz=86						
O20A	White River Ci	85.58	335	⇑P	P	23 04 13.5	+0.1
	baz=86						
N22A	Wattenberg Ran	85.63	337	⇓P	P	23 04 13.8	+0.1
	baz=86						
S12A	Delamar Landin	85.70	329	⇑P	P	23 04 14.5	+0.4
	baz=86						
PHWY	Pilot Hill	85.79	337	*e*P	P	23 04 14.2	-0.2
P18A	Preston Nutter	85.79	333	⇑P	P	23 04 14.6	+0.2
	baz=86,SNR=19						
P17A	Butcher Ranch,	85.83	333	⇓P	P	23 04 14.5	-0.2
	baz=86						
TMUT	Trail Mountain	85.83	333	*e*P	P	23 04 15.0	+0.3
	comp=Z,30nm,1.1s,mb5.4						
ECSD	EROS Data Cent	85.86	344	*e*P	P	23 04 13.9	-0.8
	comp=Z,43nm,1.2s,mb5.5						
R13A	O'Grain Ranch,	85.86	330	⇓P	P	23 04 15.3	+0.5
	baz=86						
N21A	Black Mountain	85.92	336	⇓P	P	23 04 15.6	+0.6
	baz=86						
VES	Vestal, Richgr	85.94	325	⇑P	P	23 04 15.2	-0.1
	baz=86						
O19A	Miners Draw (B	86.02	334	⇓P	P	23 04 15.2	-0.4
	baz=86,SNR=6.6						
S11A	Rachel	86.09	329	⇓P	P	23 04 16.4	+0.4
	baz=87						
GRAC	Grapevine Rang	86.20	327	⇑P	P	23 04 16.6	+0.1
	baz=87						
M22A	Cedar Creek Ra	86.22	337	⇓P	P	23 04 16.9	+0.4
	baz=87						
N20A	Spence Gulch,	86.22	335	⇓P	P	23 04 16.5	0.0
	baz=87						
R12A	Pony Springs,	86.24	330	⇑P	P	23 04 17.1	+0.4
	baz=87						
P16A	Fountain Green	86.27	332	⇑P	P	23 04 17.2	+0.4
	baz=87						
O18A	Roosevelt	86.28	334	⇓P	P	23 04 17.0	+0.2
	baz=87						
Q14A	Sevier Lake (B	86.31	331	⇓P	P	23 04 17.2	+0.2
	baz=87						
P15A	Leamington	86.46	332	⇓P	P	23 04 17.9	+0.1
	baz=87						
O17A	Robinson Place	86.47	333	⇑P	P	23 04 18.0	+0.2
	baz=87						
Q13A	Wheeler Ranch,	86.56	330	⇓P	P	23 04 18.4	+0.1
	baz=87						
N19A	John Jarvie Ra	86.57	335	⇓P	P	23 04 17.9	-0.4
	baz=87						
MPU	Maple Canyon	86.62	333	*e*P	P	23 04 18.1	-0.4
	comp=Z,31nm,1.0s,mb5.5						
MPU				*e*pP	pP	23 04 27.1	+0.9
R11A	Troy Canyon, C	86.64	329	⇓P	P	23 04 19.0	+0.3
	baz=87						
M21A	Separation Pea	86.64	336	⇓P	P	23 04 18.4	-0.2
	baz=87						
S10A	Tonopah Range,	86.67	328	⇑P	P	23 04 18.7	-0.1
	baz=87						
NLU	North Lily Min	86.72	332	*e*P	P	23 04 19.5	+0.5
	comp=Z,22nm,1.3s,mb5.2						
NLU				*e*pP	pP	23 04 28.3	+1.6
O16A	Springville	86.75	333	⇑P	P	23 04 19.2	0.0
	baz=87						
S09A	Goldfield	86.76	328	⇓P	P	23 04 19.4	+0.2
	baz=87						
P14A	Drum Mountains	86.76	331	⇑P	P	23 04 19.7	+0.4
	baz=87						
M20A	Sweetwater, Wa	86.79	336	⇓P	P	23 04 19.4	+0.1
	baz=87						
DAU	Daniels Canyon	86.84	333	*e*P	P	23 04 20.0	+0.4
DAU				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
DAU	Daniels Canyon	86.84	333	*e*P	P	23 04 20.0	+0.4
	comp=Z,16nm,0.9s,mb5.2						
R10A	Warm Springs	86.87	329	⇓P	P	23 04 20.2	+0.4
	baz=87						
L21A	Rawlins	86.97	336	⇓P	P	23 04 19.5	-0.7
	baz=87						
P13A	Bates Ranch, G	86.99	331	⇓P	P	23 04 20.5	+0.1
	baz=88						
JLU	Jordanelle	87.08	333	*e*P	P	23 04 21.0	+0.3
Q11A	Duckwater	87.09	329	⇓P	P	23 04 21.2	+0.3
	baz=88						
M19A	Rock Springs	87.12	335	⇑P	P	23 04 21.0	0.0
	baz=88						
R09A	Tonopah	87.14	328	⇓P	P	23 04 21.2	+0.1
	baz=88						
O15A	The Old Anders	87.15	332	⇓P	P	23 04 21.1	0.0
	baz=88						
N17A	Moffit Pass	87.17	334	⇑P	P	23 04 21.1	-0.1
	baz=88,SNR=12						
DUG	Dugway	87.20	332	*e*P	P	23 04 20.1	-1.3
DUG				*e**PP	pP	23 04 30.1	+1.1
DUG				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.4						
DUG	Dugway	87.20	332	⇑P	P	23 04 21.2	-0.2
	baz=88						
DUG	Dugway	87.20	332	*e*P	P	23 04 20.1	-1.3
	comp=Z,30nm,1.2s,mb5.4						
DUG				*e*pP	pP	23 04 30.1	+1.1
L20A	Wamsutter	87.31	336	⇓P	P	23 04 21.3	-0.6
	baz=88						
N16A	Rees Ranch, Co	87.33	333	⇓P	P	23 04 21.9	-0.1
	baz=88,SNR=5.1						
Q10A	Clear Creek Ra	87.37	329	⇓P	P	23 04 22.4	+0.2
	baz=88,SNR=6.4						
M17A	Scullys Gap (B	87.59	334	⇑P	P	23 04 22.6	-0.6
	baz=88,SNR=6.9						
L19A	Farson	87.72	335	⇓P	P	23 04 23.7	-0.1
	baz=88						
M16A	Huntsville	87.77	333	⇑P	P	23 04 23.6	-0.5
	baz=88						
L18A	Fontenelle, Gr	87.78	335	⇑P	P	23 04 23.8	-0.4
	baz=88,SNR=5.5						
NVAR	Mina Array Bea	87.80	327	P	P	23 04 24.4	+0.1
	comp=Z,3.6nm,0.8s,mb4.6,baz=156,slow=5.7,SNR=18						
N14A	Grayback Hills	87.91	332	⇑P	P	23 04 24.8	0.0
	baz=88						
SPUT	South Promonto	88.06	333	*e*P	P	23 04 24.8	-0.6
	comp=Z,29nm,1.1s,mb5.4						
P10A	Eureka	88.08	329	⇓P	P	23 04 25.7	+0.1
	baz=88,SNR=5.7						
M15A	Larsen Ranch,	88.19	333	⇓P	P	23 04 25.4	-0.7
	baz=89						
O11A	Cowboy Ranch,	88.20	330	⇓P	P	23 04 26.2	0.0
	baz=89						
K19A	Absolon Red Bu	88.21	336	⇓P	P	23 04 25.3	-0.8
	baz=89						
L16A	Fish Haven	88.33	334	⇑P	P	23 04 26.2	-0.5
	baz=89,SNR=15						
CMB	Columbia Colle	88.35	326	*e*P	P	23 04 26.8	-0.1
CMB				pmax	pmax		
	comp=Z,14nm,1.4s,mb5.0						
CMB	Columbia Colle	88.35	326	*e*P	P	23 04 26.8	-0.1
	comp=Z,14nm,1.4s,mb5.0						
R06C	Coleville	88.36	327	⇓P	P	23 04 27.7	+0.8
	baz=89						
BW06	Boulder Array	88.38	335	⇓P	P	23 04 26.3	-0.7
	baz=89						
BW06	Boulder Array	88.38	335	*e*P	P	23 04 26.1	-0.8
PDAR	Pinedale Array	88.38	335	P	P	23 04 26.0	-0.9
	comp=Z,4.4nm,0.9s,mb4.7,baz=145,slow=5.4,SNR=29						
PDAR				LR	LR	23 38 43.4	
	comp=Z,142nm,19.3s,MS4.4,baz=351,slow=32						
TORD	Torodi Ar. Bea	88.42	71	P	P	23 04 27.1	-0.7
	comp=Z,2.1nm,0.8s,mb4.4,baz=219,slow=5.3,SNR=14						
TORD				PP	PP	23 07 55.3	-0.7
	comp=Z,0.7nm,1.0s,baz=252,slow=9.1,SNR=3.5						
TORD				LR	LR	23 41 28.2	
	comp=Z,117nm,18.2s,MS4.3,baz=230,slow=34						
K18A	Toltan Ranch,	88.42	335	⇑P	P	23 04 27.0	-0.2
	baz=89,SNR=9.0						
M14A	Sheep Mountain	88.54	332	⇓P	P	23 04 27.2	-0.5
	baz=89,SNR=9.8						
ELK	Elko	88.58	331	*e*P	P	23 04 28.1	+0.2
ELK	Elko	88.58	331	LR	LR	23 38 55.4	
	comp=Z,100nm,21.5s,MS4.2,baz=88,slow=32						
HVU	Hansel Valley	88.58	333	*e*P	P	23 04 27.6	-0.3
HVU				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.5						
HVU	Hansel Valley	88.58	333	*e*P	P	23 04 27.6	-0.4
	comp=Z,25nm,1.1s,mb5.5						
N12A	Clover Valley,	88.59	331	⇑P	P	23 04 27.6	-0.4
	baz=89						
L15A	Malad City	88.65	333	⇑P	P	23 04 27.4	-0.8
	baz=89,SNR=7.1						
M13A	Montello	88.72	332	⇓P	P	23 04 27.9	-0.6
	baz=89						
J18A	Kendall Valley	88.93	335	⇑P	P	23 04 28.6	-0.9
	baz=89						
L14A	Malta	88.97	332	⇑P	P	23 04 29.4	-0.3
	baz=89						
K16A	Soda Springs	89.11	334	⇓P	P	23 04 30.3	-0.1
	baz=90,SNR=12						
L13A	Double Diamond	89.27	332	⇓P	P	23 04 31.3	+0.2
	baz=90						
J17A	Brown Place, J	89.29	335	⇑P	P	23 04 30.9	-0.3
	baz=90						
K15A	Arbon	89.30	333	⇓P	P	23 04 31.0	-0.2
	baz=90						
I18A	Diamond G Ranc	89.31	335	⇓P	P	23 04 31.0	-0.3
	baz=90						
O08A	Rochester Mine	89.32	328	⇓P	P	23 04 31.7	+0.2
	baz=90						
REDW	Red Top Meadow	89.34	335	*e*P	P	23 04 31.2	-0.2
	comp=Z,28nm,1.6s,mb5.3						
M11A	Holland Ranch,	89.38	330	⇑P	P	23 04 31.8	+0.2
	baz=90						
K14A	Jones Ranch, D	89.40	333	⇑P	P	23 04 31.0	-0.7
	baz=90,SNR=6.6						
RRI2	Red Ridge	89.48	334	*e*P	P	23 04 31.0	-1.0
	comp=Z,17nm,1.5s,mb5.2						
LOHW	Long Hollow	89.48	335	*e*P	P	23 04 31.7	-0.4
	comp=Z,13nm,1.6s,mb5.0						
TPAW	Teton Pass	89.48	335	*e*P	P	23 04 31.1	-0.9
	comp=Z,19nm,1.5s,mb5.2						
O07A	Toulon	89.50	328	⇑P	P	23 04 32.5	+0.2
	baz=90						
J16A	Bone	89.51	334	⇑P	P	23 04 32.5	+0.3
	baz=90						
DCID1	Drake Creek	89.65	335	*e*P	P	23 04 33.5	+0.6
	comp=Z,36nm,1.4s,mb5.5						
DCID1				*e*pP	pP	23 04 41.7	+1.2
DCID1				*e*sP	sP	23 04 47.6	+4.4
L12A	House Creek Ra	89.71	331	⇓P	P	23 04 33.4	+0.2
	baz=90						
N08A	GE Springer Mi	89.73	329	⇑P	P	23 04 32.9	-0.4
	baz=90						
M10A	I.L. Ranch, Tu	89.74	330	⇓P	P	23 04 33.3	-0.1
	baz=90						
I17A	Pilgrim Ck.	89.75	335	⇓P	P	23 04 33.2	-0.1
	baz=90						
IMW	Indian Meadow	89.84	335	*e*P	P	23 04 33.4	-0.4
	comp=Z,18nm,1.5s,mb5.2						
BEKR	Beckwourth	89.87	327	⇓P	P	23 04 34.3	+0.3
	baz=90						
J15A	Blackfoot	89.90	334	⇓P	P	23 04 34.3	+0.3
	baz=90						
O06A	Flanigan	89.90	327	⇑P	P	23 04 34.2	+0.1
	baz=90						

OHCM	Honcut	89.91	326	eP	P	23 04 34.0	-0.2
I16A	Newdale	90.00	334	⇑P	P	23 04 34.8	+0.3
	baz=90						
L11A	Cat Creek Ranc	90.00	331	⇑P	P	23 04 34.8	+0.2
	baz=90						
M09A	Marrel Ranch,	90.01	329	⇓P	P	23 04 34.8	+0.1
	baz=90						
N07B	Gerlach	90.06	328	⇓P	P	23 04 35.2	+0.3
	baz=90						
K12A	Draper Farm, C	90.10	332	⇓P	P	23 04 35.4	+0.4
	baz=91						
L10A	Juniper Basin	90.19	330	⇓P	P	23 04 35.3	-0.2
	baz=91						
J14A	Carey	90.20	333	⇓P	P	23 04 35.5	0.0
	baz=91						
YFT	Old Faithful	90.30	335	eP	P	23 04 37.9	+2.0
N06A	Buffalo Meadow	90.39	328	⇑P	P	23 04 36.4	0.0
	baz=91,SNR=8.3						
M08A	Happy Creek Ra	90.39	329	⇓P	P	23 04 36.4	0.0
	baz=91						
RLMT	Red Lodge	90.41	336	⇓P	P	23 04 36.4	0.0
	baz=91						
RLMT	Red Lodge	90.41	336	eP	P	23 04 36.1	-0.3
	comp=Z,12nm,1.2s,mb5.1						
I15A	Monteview	90.44	334	⇓P	P	23 04 36.5	-0.1
	baz=91						
J13A	Cove Ranch, Pi	90.50	333	⇑P	P	23 04 36.9	0.0
	baz=91,SNR=8.7						
YMR	Madison River	90.54	335	eP	P	23 04 37.2	+0.2
	comp=Z,18nm,1.1s,mb5.3						
H16A	Russell Place,	90.66	335	⇓P	P	23 04 38.0	+0.5
	baz=91						
J12A	Stokes Ranch,	90.70	332	⇓P	P	23 04 37.9	+0.1
	baz=91						
I14A	Mackay	90.71	333	⇑P	P	23 04 38.1	+0.2
	baz=91,SNR=8.4						
HLID	Hailey	90.73	332	⇑P	P	23 04 37.7	-0.2
	baz=91						
HLID	Hailey	90.73	332	eP	P	23 04 37.6	-0.3
	comp=Z,15nm,1.9s,mb5.0						
QLMT	Earthquake Lak	90.83	335	eP	P	23 04 39.1	+0.7
I13A	Wildhorse Cree	90.93	333	⇑P	P	23 04 39.1	+0.2
	baz=91						
L08A	Fields	91.01	329	⇑P	P	23 04 39.5	+0.2
	baz=92						
H15A	Lima	91.04	334	⇑P	P	23 04 39.6	+0.2
	baz=92						
GCMT	Greycliff	91.14	336	eP	P	23 04 39.4	-0.3
	comp=Z,7.5nm,1.4s,mb4.8						
I12A	Atlanta	91.19	332	⇓P	P	23 04 40.0	0.0
	baz=92						
K09A	Rome	91.20	330	⇑P	P	23 04 39.9	-0.2
	baz=92						
F18A	Big Timber	91.25	336	⇑P	P	23 04 40.1	-0.2
	baz=92						
L07A	Adell	91.26	329	⇑P	P	23 04 40.7	+0.2
	baz=92						
MCMT	McKenzie Canyo	91.30	334	eP	P	23 04 40.6	0.0
	comp=Z,7.6nm,1.3s,mb4.9						
G15A	Dillon	91.48	334	⇓P	P	23 04 41.5	+0.2
	baz=92						
H13A	Challis	91.55	333	⇑P	P	23 04 41.6	-0.1
	baz=92						
MOD	Modoc	91.55	328	eP	P	23 04 41.5	-0.2
BOZ	Bozeman (W)	91.62	335	⇓P	P	23 04 41.7	-0.4
	baz=92						
DLMT	Dillon	91.69	334	eP	P	23 04 43.1	+0.7
H12A	Diamond D Ranc	91.74	333	⇓P	P	23 04 42.6	0.0
	baz=92						
J09A	Fry Pan Ranch,	91.77	330	⇓P	P	23 04 42.7	0.0
	baz=92						
K07A	Rock Creek Ran	91.79	329	⇓P	P	23 04 42.7	-0.1
	baz=92						
E18A	Harlowton	91.91	337	⇓P	P	23 04 43.2	-0.1
	baz=92						
ULM	Lac du Bonnet	91.98	347	P	P	23 04 41.2	-2.3
	comp=Z,2.3nm,0.6s,mb4.7,baz=232,slow=1.7,SNR=5.1						
G13A	Cobalt	92.00	333	⇓P	P	23 04 43.8	0.0
	baz=92						
LRM	Limekiln Ridge	92.05	335	eP	P	23 04 44.0	+0.1
	comp=Z,24nm,1.1s,mb5.4						
J08A	Circle Bar Ran	92.05	330	⇑P	P	23 04 44.1	0.0
	baz=92						
F15A	Butte	92.08	335	⇑P	P	23 04 43.9	-0.2
	baz=92						
E17A	Martinsdale	92.11	336	⇓P	P	23 04 44.0	-0.2
	baz=93						
H11A	Donnelly	92.29	332	⇑P	P	23 04 44.7	-0.5
	baz=93,SNR=5.2						
J07A	Hines	92.39	329	⇑P	P	23 04 45.4	-0.2
	baz=93						
YBH	Yreka Blue Hor	92.41	326	LR	LR	23 40 12.1	
	comp=Z,119nm,20.9s,MS4.3,baz=171,slow=32						
E16A	East Helena	92.43	336	⇓P	P	23 04 45.2	-0.5
	baz=93						
D18A	Linhart Farms,	92.44	337	⇓P	P	23 04 45.3	-0.5
	baz=93						
J06A	Christmas Vall	92.62	329	⇑P	P	23 04 46.4	-0.3
	baz=93						
E15A	Deer Lodge	92.64	335	⇓P	P	23 04 46.5	-0.2
	baz=93						
D17A	Six Diamond Ra	92.67	336	⇓P	P	23 04 46.2	-0.7
	baz=93						
D16A	Dana Ranch, Ca	92.83	336	⇓P	P	23 04 47.1	-0.5
	baz=93						
F12A	Elk City	92.93	333	⇑P	P	23 04 47.6	-0.4
	baz=93						
I07A	Izee	93.06	330	⇑P	P	23 04 48.6	-0.1
	baz=94						
D15A	Lincoln	93.15	335	⇓P	P	23 04 48.9	-0.2
	baz=94						
E13A	Victor	93.17	334	⇓P	P	23 04 49.0	-0.1
	baz=94						
CHMT	Chamberlain Mo	93.27	335	eP	P	23 04 48.4	-1.2
	comp=Z,5.5nm,1.5s,mb4.8						
D14A	Greenough	93.50	335	⇓P	P	23 04 50.3	-0.4
	baz=94						
C16A	Fuhringer Ranc	93.58	336	⇓P	P	23 04 50.7	-0.3
	baz=94						
E11A	Bogner Ranch,	93.78	333	⇓P	P	23 04 51.5	-0.5
	baz=94						
D13A	Huson	93.83	334	⇑P	P	23 04 52.1	-0.1
	baz=94						
SWMT	Swartz Lake	94.04	335	eP	P	23 04 52.5	-0.6
D12A	Red Ives Fores	94.09	334	⇑P	P	23 04 52.8	-0.6
	baz=95						
B16A	M & M Farms, S	94.11	336	⇑P	P	23 04 52.7	-0.7
	baz=95						
G07A	Ruggs Ranch, H	94.12	330	⇑P	P	23 04 53.3	-0.2
	baz=95						
B15A	Bradely Ranch,	94.28	336	⇑P	P	23 04 53.1	-1.2
	baz=95						
JTMT	Jette	94.34	335	eP	P	23 04 54.2	-0.3
	comp=Z,6.3nm,1.2s,mb4.9						
YBMT	Yellow Bay	94.35	335	eP	P	23 04 54.1	-0.4
	comp=Z,2.2nm,0.7s,mb4.7						
SCHQ	Schefferville	94.95	5	P	P	23 04 55.5	-1.6
	comp=Z,4.0nm,0.7s,mb4.9,baz=151,slow=3.6,SNR=12						
D08A	Wollman Farm,	95.36	331	⇓P	P	23 04 59.1	0.0
	baz=96						
A13A	Flathead Natio	95.42	335	⇑P	P	23 04 59.5	+0.1
	baz=96						
YKA	Yellowknife Ar	107.25	342	Pdiff	Pdif	23 05 49.4	-3.5
	comp=Z,0.3nm,0.8s,baz=153,slow=5.2,SNR=5.4						
YKA				PKiKP	PKiKP	23 09 58.7	-1.9
	comp=Z,0.3nm,0.6s,baz=136,slow=2.3,SNR=4.8						
YKA	Yellowknife Ar	107.25	342	Pdif	Pdif	23 05 49.4	-3.5
YKA				PKPdf	PKiKP	23 09 58.7	-1.9
ASAR	Alice Springs	110.99	208	PKiKP	PKiKP	23 10 05.6	-3.5
	comp=Z,0.3nm,0.6s,baz=122,slow=2.5,SNR=4.0						
ASAR				PKKPbc	PKKPbc	23 21 04.1	-0.9
	comp=Z,0.9nm,0.9s,baz=359,slow=0.7,SNR=6.1						
WRA	Warramunga Arr	114.22	210	PKiKP	PKiKP	23 10 12.4	-2.9
	comp=Z,0.9nm,0.7s,baz=144,slow=1.7,SNR=3.4						
EGAK	Eagle	116.71	334	ePKPdf	PKPdf	23 10 17.5	-1.1
GERES	GERESS Array B	118.07	48	PKP	PKPdf	23 10 20.9	-0.8
	comp=Z,1.6nm,0.6s,baz=222,slow=1.8,SNR=4.7						
COLD	Coldfoot	121.14	334	ePKPdf	PKPdf	23 10 26.6	-0.4
IMA2	Indian Mountai	121.80	332	ePKPdf	PKPdf	23 10 27.2	-1.1
NOA	NORSAR Array B	122.47	35	PKP	PKPdf	23 10 28.9	-0.8
	comp=Z,2.8nm,0.9s,baz=248,slow=1.7,SNR=3.4						
NOA	NORSAR Array B	122.47	35	PKP	PKPdf	23 10 28.9	-0.8
SUW	Suwalki	125.65	46	ePKP	PKPdf	23 10 35.4	-0.6
SUW	Suwalki	125.65	46	ePKP	PKPdf	23 10 35.4	-0.6
BRTR	Keskin Array B	126.67	66	PKP	PKPdf	23 10 37.9	-0.6
	comp=Z,1.1nm,0.5s						
TNA	Tin City	127.02	329	ePKPdf	PKPdf	23 10 37.5	-0.8
AKASG	Malin Array Be	127.97	51	PKP	PKPdf	23 10 38.6	-1.9
	comp=Z,0.7nm,0.5s,baz=261,slow=2.4,SNR=4.6						
FINES	FINESS Array B	129.37	38	PKP	PKPdf	23 10 41.8	-1.1
	comp=Z,1.6nm,0.7s,baz=176,slow=7.3,SNR=3.7						
ARCES	ARCESS Array B	130.61	27	PKP	PKPdf	23 10 42.8	-2.3
	comp=Z,2.4nm,0.9s,baz=220,slow=0.9,SNR=4.9						
APA	Apatity	133.35	30	⇓iPKHKP		23 10 41.0	
APA				pmax	pmax		
	comp=Z,38nm,1.4s						
OBN	Obninsk	133.44	47	ePKIKP	PKPdf	23 10 50.0	-0.8
OBN				eSS	SS	23 31 29.9	+27
OBN				pmax	pmax		
	comp=Z,8.0nm,1.9s						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.7						
KIV	Kislovodsk	134.50	64	ePKIKP	PKPdf	23 10 52.4	-0.8
KIV				pmax	pmax		
	comp=Z,3.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,100nm,13.0s,MS4.7						
KLMR	Klimovskoe	135.72	40	ePKIKP	PKPdf	23 10 53.5	-1.4
KLMR				pmax	pmax		
	comp=Z,22nm,1.6s						
BILL	Bilibino	137.32	331	ePKIKP	PKPdf	23 10 57.4	-0.3
BILL				ePS	PS	23 24 06.4	-3.9
BILL				pmax	pmax		
	comp=Z,6.0nm,1.3s						
BILL				MLR	MLR		
	comp=Z,2µm,24.0s						
PRGR	Permogore	138.67	39	PKIKP	PKPdf	23 11 00.7	+0.4
PRGR				pmax	pmax		
	comp=Z,57nm,0.9s						
PETK	Petropavlovsk-	142.54	308	PKhKP		23 11 01.9	
	comp=Z,4.7nm,0.8s,baz=87,slow=6.9,SNR=5.3						
PETK				PKP	PKPdf	23 11 06.5	-1.1
	comp=Z,13nm,0.9s,baz=68,slow=4.3,SNR=7.6						
SEY	Seymchan	144.08	325	⇑iPKIKP	PKPdf	23 11 06.5	-3.5
SOKR	Solikamsk	144.39	41	c iPKIKP	PKPdf	23 11 10.1	-0.5
SOKR				pmax	pmax		
	comp=Z,50nm,1.2s						
ARU	Arti	145.84	46	i PKP2	PKPab	23 11 12.5	-1.8
ARU	Arti	145.84	46	ePKPdf	PKPdf	23 11 13.2	0.0
TIXI	Tiksi	146.33	347	⇑iPKIKP	PKPdf	23 11 11.8	-1.9
TIXI	Tiksi	146.33	347	ePKPdf	PKPdf	23 11 11.1	-2.5
SVE	Sverdlovsk	146.91	45	ePKP2	PKPab	23 11 17.4	-1.0
SVE				pmax	pmax		
	comp=Z,26nm,1.2s						
HYB	Hyderabad	147.68	127	i PKP	PKPdf	23 11 19.0	+1.4
	comp=Z,50nm,1.0s						
HYB	Hyderabad	147.68	127	eP	PKPdf	23 11 19.0	+1.4
YSS	Yuzh-Sakhalins	152.13	296	⇓ePKIKP	PKPbc	23 11 28.0	-2.3
YSS				e		23 11 38.2	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS	Yuzh-Sakhalins	152.13	296	ePKPbc	PKPbc	23 11 28.4	-1.9
YSS				ePKPab	PKPab	23 11 39.1	-1.0
BRVK	Borovoye	153.16	50	ePKIKP	PKPbc	23 11 32.6	+0.2
YAK	Yakutsk	153.60	334	ePKIKP	PKPbc	23 11 28.9	-4.2
YAK				pmax	pmax		
	comp=Z,48nm,0.9s						
YAK	Yakutsk	153.60	334	ePKPbc	PKPbc	23 11 31.4	-1.7
MJAR	Matsushiro Arr	153.89	273	PKPbc	PKPbc	23 11 32.4	-2.2
	comp=Z,2.5nm,0.6s,baz=119,slow=2.0,SNR=6.0						
MJAR				PKPab	PKPab	23 11 45.2	-2.6
	comp=Z,7.1nm,0.8s,baz=138,slow=3.8,SNR=9.5						
UCH	Uchtor	156.96	75	ePKPdf	PKPdf	23 11 31.3	+0.8
AAK	Ala-Archa	156.98	74	ePKIKP	PKPdf	23 11 30.4	-0.2
HABR	Khabarovsk	157.18	301	ePKP2	PKPab	23 11 58.8	-2.8
HABR				e		23 18 33.7	
HABR				ePPP		23 19 11.9	
HABR				eSS	SS	23 35 32.1	-2.2
HABR				eSSS		23 41 32.1	
HABR				pmax	pmax		
	comp=N,26nm,2.5s						
HABR				pmax	pmax		
	comp=Z,32nm,1.4s						
HABR				pmax	pmax		
	comp=E,29nm,1.6s						
CMAR	Chiang Mai Arr	157.65	164	PKP	PKPdf	23 11 30.6	-1.5
	comp=E,0.5nm,0.3s,baz=224,slow=3.8,SNR=3.6						
CMAR				PKPab	PKPab	23 12 01.4	-2.8
	comp=E,1.1nm,0.4s,baz=220,slow=4.1,SNR=7.9						
KSH	Kashi	157.66	82	ePKP	PKPdf	23 11 31.0	-0.5
KSH				ePKPab	PKPab	23 12 02.5	-1.5
KSH				ePKS		23 15 03.0	
KSH				ePP	PP	23 15 42.0	-1.9
KSH				eSKS	SKSdf	23 18 31.8	-4.0
KSH				AMB	AMB		
	comp=Z,280nm,5.8s						
KSH				LR	LR		
	comp=N,210nm,11.6s						
KSH				LR	LR		
	comp=E,71nm,4.9s						
KSH				LR	LR		
	comp=Z,300nm,5.3s						
KOLN	Koldanda	158.32	118	ePKIKP	PKPab	23 12 05.3	-1.8
KURK	Kurchatov	158.79	52	ePKIKP	PKPdf	23 11 32.0	-0.5
DANN	Dangsing	158.80	117	ePKIKP	PKPab	23 12 08.0	-1.1
	comp=Z,54nm,0.8s						
GKN	Gorkha	159.16	120	ePKIKP	PKPab	23 12 09.4	-1.3
DMN	Daman	159.21	121	ePKIKP	PKPab	23 12 10.1	-0.8
	comp=Z,28nm,1.0s						
NVS	Novosibirsk	159.36	38	ePKIKP	PKPdf	23 11 30.9	-2.1
NVS				e		23 12 09.5	
PKIN	Phulchoki	159.38	122	ePKIKP	PKPab	23 12 10.5	-1.2
PKI	Pulchoki	159.38	122	ePKIKP	PKPab	23 12 10.5	-1.2
KKN	Kakani	159.45	121	ePKIKP	PKPab	23 12 10.9	-1.1
	comp=Z,25nm,0.9s						
GUN	Gumba	159.92	122	ePKIKP	PKPab	23 12 13.0	-1.0
	comp=Z,44nm,1.2s						
JIRN	Jiri	159.95	123	ePKIKP	PKPab	23 12 13.4	-0.7
	comp=Z,31nm,0.8s						
ODAN	Odare	160.14	127	ePKIKP	PKPab	23 12 14.3	-0.7
	comp=Z,51nm,1.1s						
ZAA0	Zalesovo Array	160.63	38	ePKPdf	PKPdf	23 11 32.8	-1.7
ZAA0				ePKPab	PKPab	23 12 15.6	-0.7
ZALV	Zalesovo Beam	160.63	38	PKP	PKPdf	23 11 32.7	-1.8
	comp=Z,0.8nm,0.4s,baz=252,slow=0.5,SNR=9.2						
ZALV				PKPab	PKPab	23 12 15.6	-0.7
	comp=Z,3.6nm,0.8s,baz=297,slow=6.5,SNR=9.7						
ZALV	Zalesovo Beam	160.63	38	PKP	PKPdf	23 11 32.7	-1.8
ZALV				PKPab	PKPab	23 12 15.6	-0.7
TAPN	Taplejung	160.69	126	ePKIKP	PKPab	23 12 15.9	-1.5
MDJ	Mudanjiang	161.44	292	PKP	PKPdf	23 11 34.5	-1.2
KSRS	Korea Array	162.02	268	PKPab	PKPab	23 12 21.1	-2.0
	comp=Z,3.0nm,0.8s,baz=110,slow=4.9,SNR=6.1						
MKAR	Makanchi Array	162.23	61	PKP	PKPdf	23 11 35.4	-1.0
	comp=Z,0.7nm,0.8s,baz=0.0,slow=0.4,SNR=7.1						
MKAR				PKPab	PKPab	23 12 23.4	-0.2
	comp=Z,3.4nm,0.7s,baz=286,slow=4.3,SNR=19						
MKAR				PP	PP	23 16 09.2	+0.9
	comp=Z,1.0nm,0.9s,baz=292,slow=5.0,SNR=4.9						
CN2	Changchun	164.48	290	ePKP	PKPdf	23 11 34.0	-4.7
GYA	Guiyang	166.19	186	ePKP	PKPdf	23 11 40.5	-0.2
GYA				PKPab	PKPab	23 12 42.0	+0.7
GYA				PKS		23 15 10.5	
GYA				PP	PP	23 16 29.8	+1.9
GYA				SKS	SKSdf	23 18 40.3	-3.0
GYA				SKKS	SKKSac	23 23 16.0	+1.2
GYA				SS	SS	23 37 05.8	-0.4
GYA				AMB	AMB		
	comp=Z,120nm,8.8s						
GYA				LR	LR		
	comp=N,390nm,22.0s						
GYA				LR	LR		
	comp=E,270nm,22.3s						
GYA				LR	LR		
	comp=Z,280nm,23.0s						
NJ2	Nanjing	166.23	238	ePKP	PKPdf	23 11 35.5	-5.0
WMQ	Urumqi	166.57	69	ePKP	PKPdf	23 11 36.0	-4.4
ZAK	Zakamensk	169.78	7	ePKIKP	PKPdf	23 11 39.2	-3.1
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s						
BJI	Beijing	171.53	272	PKP	PKPdf	23 11 40.0	-3.6
ULN	Ulaanbaatar	172.25	350	ePKIKP	PKPdf	23 11 41.7	-2.0
SONM	Songino Array	172.35	354	PKP	PKPdf	23 11 41.7	-2.0
	comp=Z,2.4nm,0.9s,baz=335,slow=1.1,SNR=11						
SONM				PKPab	PKPab	23 13 08.0	-0.1
	comp=Z,2.2nm,1.1s,baz=334,slow=3.4,SNR=5.1						
XAN	Xi’an	173.10	207	PKP	PKPdf	23 11 42.0	-2.5
HHC	Hu-ho-hao-te	175.05	279	ePKP	PKPdf	23 11 41.0	-4.0
HHC				PKPab	PKPab	23 13 19.0	-1.6
HHC				PKS		23 15 11.0	
HHC				PP	PP	23 17 11.5	-2.2
HHC				SKS	SKSdf	23 18 36.3	-10
HHC				SKKS	SKKSac	23 23 52.0	-5.9
HHC				SS	SS	23 38 28.3	-8.2
HHC				AMB	AMB		
	comp=Z,53nm,5.5s						
HHC				LR	LR		
	comp=N,130nm,15.5s						
HHC				LR	LR		
	comp=E,180nm,17.8s						
HHC				LR	LR		
	comp=Z,210nm,15.5s						
LZH	Lanzhou	175.73	166	ePKP	PKPdf	23 11 40.0	-5.3
LZH				LR	LR		
	comp=E,230nm,17.8s						
LZH				LR	LR		
	comp=Z,250nm,19.9s						
GTA	Gaotai	175.84	100	ePKP	PKPdf	23 11 44.3	-0.9
GTA				PKS		23 15 16.3	
GTA				AMB	AMB		
	comp=Z,33nm,5.1s						
GTA				LR	LR		
	comp=N,66nm,15.6s						
GTA				LR	LR		
	comp=E,70nm,15.9s						
GTA				LR	LR		
	comp=Z,40nm,15.6s						

IDC 29 23:28:21.3±1.9, 33.°51S×178.°68W, h0^{km}, mb3.9/2, mb1 4.2/3, mb1mx3.9/16, mbtmp4.0/3, ML4.1/1, Error ellipse: s-maj=46.2km s-min=35.6km az=116.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	5.84	215	Pn	Pn	23 29 50.1	+1.0
	4.8nm,0.3s,baz=286,slow=8.2,SNR=23						
URZ				Sn	Sn	23 30 56.1	-0.6
	4.0nm,0.3s,baz=134,slow=23,SNR=13						
ASAR	Alice Springs	42.46	271	P	P	23 36 18.1	-0.1
	1.0nm,0.7s,baz=112,slow=7.6,SNR=11						
WRA	Warramunga Arr	43.73	276	P	P	23 36 28.5	0.0
	0.9nm,0.4s,baz=119,slow=7.2,SNR=4.7						
FINES	FINESS Array B	147.83	338	PKPbc	PKPbc	23 48 06.7	-0.7
	1.2nm,0.7s,baz=53,slow=5.4,SNR=8.4						
TORD	Torodi Ar. Bea	159.72	181	PKPab	PKPab	23 49 00.6	-0.5
	0.4nm,0.8s,baz=164,slow=1.2,SNR=4.5						

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*NEIC **29** 23:32:23.3±0.7, 33.°58S×178.°44W, h10^{km}, mb4.3/5, Error ellipse: s-maj=16.9km s-min=13.9km az=123.0*

*ISCJB **29** 23:32:25.5±0.9, 33.°60S±0.°07×178.°6W±0.°1, h33^{km}, mb4.2/11, Error ellipse: s-maj=16.8km s-min=9.3km az=21.3*

*IDC **29** 23:32:28.0±1.1, 33.°55S×178.°62W, h42^{km}±7^{km}, mb4.1/7, mb1 4.2/8, mb1mx4.0/19, mbtmp4.1/8, ML4.2/1, Error ellipse: s-maj=19.3km s-min=17.1km az=16.0*

ISC 29 23:32:27.6±0.9, 33.°56S±0.°07×178.°6W±0.°1, h35^{km}, (h43^{km}±.6^{km}:pP-P), n26, σ1^{s}03/20, mb4.2/11, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	Raoul Island	4.33	8	S	Sn	23 34 11.4	-8.7
	54nm,0.3s,baz=342,slow=20,SNR=2.6						
RAO	Raoul Island	4.33	8	ePn	Pn	23 33 30.6	-0.3
URZ	Urewera	5.86	216	P	Pn	23 33 51.2	-0.7
	6.0nm,0.3s,baz=34,slow=3.8,SNR=22						
URZ				S	Sn	23 34 57.7	-0.1
	4.9nm,0.3s,baz=170,slow=21,SNR=11						
CAN	Canberra	26.75	257	P	P	23 38 06.3	+2.4
	0.7nm,0.3s,mb3.7						
EIDS	Eidsvold	27.58	279	P	P	23 38 12.6	+1.1
	1.9nm,0.6s,mb3.9						
STKA	Stephens Creek	33.42	262	P	P	23 39 04.1	+1.1
	0.9nm,0.3s,mb4.2,baz=297,slow=9.0,SNR=3.0						
STKA	Stephens Creek	33.42	262	P	P	23 39 04.1	+1.1
CTA	Charters Tower	33.97	284	P	P	23 39 08.3	+0.5
	1.9nm,0.4s,mb4.3,baz=104,slow=12,SNR=5.2						
CTA	Charters Tower	33.97	284	P	P	23 39 08.3	+0.5
CTAO	Charters Tower	33.97	284	eP	P	23 39 08.8	+1.0
	1.8nm,0.5s,mb4.3						
COEN	Coen	39.78	290	eP	P	23 39 58.4	+1.0
	7.2nm,0.6s,mb4.6						
ASAR	Alice Springs	42.56	271	P	P	23 40 19.4	-0.7
	4.2nm,0.7s,mb4.3,baz=111,slow=7.3,SNR=39						
ASAR				pP	pP	23 40 30.9	+0.5
	4.0nm,0.9s,baz=110,slow=7.9,SNR=8.1						
ASAR				PcP	PcP	23 42 11.2	-0.9
	1.2nm,0.8s,baz=116,slow=3.9,SNR=5.3						
ASAR				S	S	23 46 39.2	-1.2
	0.8nm,0.9s,baz=117,slow=16,SNR=4.6						
WRAB	Tennant Creek	43.83	276	eP	P	23 40 28.9	-1.5
	4.9nm,0.7s,mb4.3						
WRA	Warramunga Arr	43.83	276	P	P	23 40 29.7	-0.7
	5.5nm,0.8s,mb4.3,baz=118,slow=7.6,SNR=15						
WRA				pP	pP	23 40 41.2	+0.4
	3.3nm,0.7s,baz=118,slow=7.9,SNR=5.5						
FITZ	Fitzroy Crossi	51.95	273	P	P	23 41 31.8	-1.5
	3.2nm,0.9s,mb4.2,baz=143,slow=10,SNR=2.8						
QSPA	South Pole Qui	56.56	180	P	P	23 42 06.5	+0.5
	2.3nm,1.1s,mb4.1,baz=178,slow=6.6,SNR=5.1						
QSPA				pP	pP	23 42 18.7	+2.1
	3.4nm,0.8s,baz=13,slow=3.4,SNR=6.2						
QSPA	South Pole Qui	56.56	180	P	P	23 42 06.5	+0.5
QSPA				pP	pP	23 42 18.7	+2.1
PLCA	Paso Flores	80.72	133	P	P	23 44 37.1	-0.1
	3.4nm,1.1s,mb4.2,baz=280,slow=11,SNR=3.2						
MKAR	Makanchi Array	119.40	309	PKP	PKPdf	23 51 11.1	-1.7
	0.5nm,0.9s,baz=90,slow=1.2,SNR=3.7						
JOF	Joensuu	145.14	336	ep	PKPbc	23 52 01.2	+1.1
	0.8nm,0.4s						
KAF	Kangasniemi	147.33	339	ep	PKPdf	23 52 04.9	+0.7
	2.2nm,0.6s						
FINES	FINESS Array B	147.91	338	PKPbc	PKPbc	23 52 07.1	-1.1
	1.6nm,0.5s,baz=19,slow=3.2,SNR=18						
MALT	Malatya	149.81	290	ePKPbc	PKPbc	23 52 14.2	+0.4
BRTR	Keskin Array B	153.53	293	PKPbc	PKPbc	23 52 21.9	-0.4
TORD	Torodi Ar. Bea	159.68	181	PKPab	PKPab	23 53 01.1	-0.5
	0.8nm,0.8s,baz=178,slow=2.8,SNR=5.8						
GERES	GERESS Array B	162.19	333	PKP	PKPdf	23 52 22.9	-2.0
	0.8nm,0.6s,baz=27,slow=9.0,SNR=1.4						

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*ISCJB **29** 23:39:13.8±0.4, 43.°82N±0.°04×105.°22W±0.°06, h0^{km}, Error ellipse: s-maj=5.8km s-min=5.3km az=9.7*

*IDC **29** 23:39:14.7±1.8, 43.°88N×105.°63W, h0^{km}, mb1 3.7/3, mb1mx3.4/24, mbtmp3.4/3, ML3.2/3, Error ellipse: s-maj=52.5km s-min=9.8km az=148.0*

*NEIC **29** 23:39:15.6±0.4, 43.°82N×105.°21W, h0^{km}, ML2.9, Error ellipse: s-maj=5.2km s-min=4.6km az=108.0, Suspected Mining explosion.*

NEIC 60 km [35 miles] SSE of Gillette.

ISC 29 23:39:15.6±0.4, 43.°82N±0.°04×105.°21W±0.°06, h0^{km}, n39, σ0^{s}96/40, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RSSD	Black Hills	0.90	70	ePn	Pn	23 39 33.8	-1.7
PHWY	Pilot Hill	2.52	184	ePn	Pn	23 39 56.9	-0.9
RWWY	Rawlins	2.59	215	ePn	Pn	23 39 58.7	0.0
LAO	LASA Array	2.96	346	ePn	Pn	23 40 04.8	+1.1
RLMT	Red Lodge	3.18	296	ePn	Pn	23 40 05.7	-1.2
BW06	Boulder Array	3.34	253	ePn	Pn	23 40 08.4	-0.7
PDAR	Pinedale Array	3.34	253	Pn	Pn	23 40 08.1	-1.0
	2.9nm,0.3s,baz=72,slow=16,SNR=52						
PDAR				Lg		23 40 50.8	
	4.0nm,0.3s,baz=71,slow=33,SNR=4.8						
OGNE	Ogallala	3.71	140	ePn	Pn	23 40 14.7	+0.5
LKWY	Lake	3.81	283	ePn	Pn	23 40 16.4	+1.0
LOHW	Long Hollow	3.92	269	ePn	Pn	23 40 17.2	+0.3
MOOW	Moose Ponds	4.01	271	ePn	Pn	23 40 18.4	+0.2
YNR	Norris Junctio	4.03	285	ePg	Pg	23 40 28.2	-4.5
ISCO	Idaho Springs	4.03	184	ePn	Pn	23 40 18.3	-0.2
SNOW	Snow King Moun	4.04	267	ePg	Pg	23 40 25.2	-7.8
YFT	Old Faithful	4.10	281	ePn	Pn	23 40 15.4	-4.0
REDW	Red Top Meadow	4.12	266	ePn	Pn	23 40 21.6	+1.8
IMW	Indian Meadow	4.14	273	ePn	Pn	23 40 20.3	+0.2
TPAW	Teton Pass	4.18	267	ePn	Pn	23 40 20.4	-0.1
RRI2	Red Ridge	4.46	266	ePn	Pn	23 40 24.2	-0.2
QLMT	Earthquake Lak	4.58	285	ePg	Pg	23 40 36.5	-6.8
DGMT	Dagmar	4.70	8	ePn	Pn	23 40 29.6	+1.8
EGMT	Eagleton	5.26	325	ePn	Pn	23 40 35.1	-0.3
HRY	Holter Researc	5.49	304	ePn	Pn	23 40 38.8	+0.2
LRM	Limekiln Ridge	5.53	294	ePn	Pn	23 40 38.4	-0.7

DAU	**Daniels Canyon**	**5.64**	**235**	*e*Pn	**Pn**	**23 40 42.5**	**+1.8**
JLU	**Jordanelle**	**5.64**	**237**	*e*Pn	**Pn**	**23 40 39.8**	**-0.8**
SDCO	**Great Sand Dun**	**6.07**	**182**	*e*Pn	**Pn**	**23 40 46.6**	**0.0**
PV04	**Paradox Valley**	**6.10**	**208**	*e*Pn	**Pn**	**23 40 46.8**	**-0.2**
SRU	**San Rafael**	**6.17**	**222**	*e*Pn	**Pn**	**23 40 47.1**	**-0.8**
ECSD	**EROS Data Cent**	**6.22**	**88**	*e*Pn	**Pn**	**23 40 49.7**	**+1.0**
TMUT	**Trail Mountain**	**6.38**	**227**	*e*Pn	**Pn**	**23 40 50.6**	**-0.1**
CHMT	**Chamberlain Mo**	**6.45**	**301**	*e*Pn	**Pn**	**23 40 51.3**	**-0.5**
	1.4nm,0.4s						
MVCO	**Mesa Verde**	**7.06**	**202**	*e*Pn	**Pn**	**23 41 01.4**	**+1.2**
YBMT	**Yellow Bay**	**7.36**	**306**	*e*Pn	**Pn**	**23 41 05.0**	**+0.9**
	3.4nm,0.3s						
MSU	**Marysvale**	**7.46**	**227**	Pn	**Pn**	**23 41 05.5**	**-0.2**
	1.8nm,0.4s						
ULM	**Lac du Bonnet**	**9.05**	**41**	Pn	**Pn**	**23 41 26.6**	**-0.7**
	0.7nm,0.3s,baz=223,slow=11,SNR=3.8						
ULM				Pg	**Pg**	**23 41 58.8**	**-10**
	0.8nm,0.3s,baz=225,slow=16,SNR=4.0						
ULM				Lg		23 43 58.5	
	0.3nm,0.3s,baz=315,slow=19,SNR=2.0						
WUAZ	**Wupatki**	**9.55**	**212**	*e*Pn	**Pn**	**23 41 36.0**	**+1.7**
FFC	**Flin Flon**	**11.12**	**10**	*e*Pg	**Pn**	**23 41 54.7**	**-0.9**
NVAR	**Mina Array Bea**	**11.24**	**246**	Pn	**Pn**	**23 41 55.6**	**-1.9**
	0.1nm,0.3s,baz=64,slow=11,SNR=2.6						

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*CSEM **29** 23:45:03.6, 39°.92N×40°.74E, h4^{km}, MD3.0*
*ISK **29** 23:45:03.6, 39°.92N×40°.74E, h4^{km}, MD3.0*
ISC 29 23:45:01.9±3.3, **40°.4N**±0°.2×**41°.08E**±0°.09, **h11**^{km}±21^{km}, **n6**, σ**0^s.41**/10, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZM	**Erzurum**	**0.58**	**158**	*e*PG	**Pg**	**23 45 13.6**	**+0.5**
EZM				*e*SG	**Sg**	**23 45 20.8**	**+0.1**
ERZM	**Erzurum**	**0.58**	**157**	*i* P	**Pg**	**23 45 12.4**	**-0.7**
KOPT	**Kop Dagi**	**0.61**	**227**	*i* P	**Pg**	**23 45 09.2**	**-4.6**
EZC	**Erzincan**	**1.19**	**235**	*e*PG	**Pg**	**23 45 24.7**	**-0.1**
EZC				*e*SG	**Sg**	**23 45 40.3**	**+0.1**
GUMT	**Gumushane**	**1.22**	**272**	*e*PN	**Pn**	**23 45 25.4**	**+0.4**
GUMT				*e*SN	**Sn**	**23 45 41.2**	**-0.3**
GUMT	**Gumushane**	**1.22**	**272**	*e*Pn	**Pn**	**23 45 25.4**	**+0.4**
GUMT				*e*Sn	**Sn**	**23 45 41.2**	**-0.3**

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*ISCJB **29** 23:52:41.2±1.2, 20°.3S±0°.1×177°.9W±0°.1, h486^{km}±17^{km}, mb3.9/13, Error ellipse: s-maj=24.4km s-min=11.8km az=143.7*
*NEIC **29** 23:52:42.7±1.1, 20°.32S×177°.80W, h504^{km}±13^{km}, mb4.1/5, Error ellipse: s-maj=20.2km s-min=10.4km az=149.0*
*IDC **29** 23:52:42.0±1.8, 20°.31S×177°.86W, h493^{km}±21^{km}, mb3.4/10, mb1 3.7/12, mb1mx3.5/20, mbtmp3.5/12, Error ellipse: s-maj=23.9km s-min=12.6km az=146.0*
ISC 29 23:52:41.6±1.2, **20°.3S**±0°.1×**177°.8W**±0°.1, **h480**^{km}±17^{km}, **n27**, σ**0^s.56**/21, **mb3.9**/13, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**8.63**	**43**	P	**P**	**23 54 44.7**	**+0.4**
	3.6nm,0.3s,baz=72,slow=6.4,SNR=4.6						
AFI				S	**S**	**23 56 24.6**	**-0.4**
	4.2nm,0.3s,baz=23,slow=22,SNR=6.0						
AFI	**Afiamalu**	**8.63**	**43**	P	**P**	**23 54 44.7**	**+0.4**
AFI				S	**S**	**23 56 24.6**	**-0.4**
DZM	**Mont Dzumac**	**14.76**	**260**	*e*P	**P**	**23 55 55.6**	**+6.0**
	2.2nm,0.5s						
URZ	**Urewera**	**18.39**	**193**	P	**P**	**23 56 26.0**	**-0.4**
	2.5nm,0.3s,baz=316,slow=4.2,SNR=13						
EIDS	**Eidsvold**	**29.03**	**254**	*e*P	**P**	**23 58 02.9**	**+1.0**
	1.6nm,0.5s,mb3.7						
CTA	**Charters Tower**	**33.65**	**264**	P	**P**	**23 58 41.2**	**-0.4**
	7.2nm,0.6s,mb4.2,baz=109,slow=11,SNR=6.3						
CTA	**Charters Tower**	**33.65**	**264**	P	**P**	**23 58 41.2**	**-0.4**
CTAO	**Charters Tower**	**33.65**	**264**	*e*P	**P**	**23 58 42.1**	**+0.5**
	3.2nm,0.6s,mb3.9						
COEN	**Coen**	**37.72**	**273**	*e*P	**P**	**23 59 16.1**	**+0.6**
	7.7nm,0.5s,mb4.4						
STKA	**Stephens Creek**	**37.99**	**244**	P	**P**	**23 59 17.1**	**-0.5**
	1.4nm,0.4s,mb3.7,baz=71,slow=10,SNR=6.7						
ASAR	**Alice Springs**	**44.70**	**257**	P	**P**	**00 00 10.9**	**-0.2**
	6.9nm,0.5s,mb4.4,baz=94,slow=7.6,SNR=124						
ASAR				PcP	PcP	00 01 42.3	-1.3
	1.1nm,0.6s,baz=102,slow=3.2,SNR=7.0						
WRAB	**Tennant Creek**	**44.76**	**262**	P	**P**	**00 00 11.7**	**+0.1**
	6.0nm,1.0s,mb4.0						
WRA	**Warramunga Arr**	**44.77**	**262**	P	**P**	**00 00 10.9**	**-0.8**
	3.0nm,0.3s,mb4.2,baz=96,slow=8.3,SNR=16						
WRA				PcP	PcP	00 01 42.7	-1.2
	0.6nm,0.5s,baz=95,slow=2.5,SNR=2.9						
QSPA	**South Pole Qui**	**69.73**	**180**	P	**P**	**00 03 02.1**	**+0.2**
	0.6nm,0.5s,mb3.4,baz=35,slow=2.1,SNR=4.6						
NVAR	**Mina Array Bea**	**80.81**	**43**	P	**P**	**00 04 05.1**	**+0.6**
	0.7nm,0.7s,mb3.3,baz=228,slow=8.0,SNR=5.6						
TXAR	**Lajitas Array**	**86.84**	**57**	P	**P**	**00 04 34.8**	**0.0**
	0.8nm,0.7s,mb3.6,baz=229,slow=5.8,SNR=5.1						
PDAR	**Pinedale Array**	**88.74**	**43**	P	**P**	**00 04 43.4**	**+0.1**
	0.7nm,0.6s,mb3.6,baz=219,slow=3.5,SNR=6.6						
CMAR	**Chiang Mai Arr**	**90.20**	**290**	P	**P**	**00 04 51.1**	**+0.5**
	1.8nm,0.6s,mb4.1,baz=128,slow=2.9,SNR=12						
SONM	**Songino Array**	**95.73**	**319**	P	**P**	**00 05 14.1**	**-1.2**
	0.2nm,0.4s,mb3.6,baz=146,slow=3.3,SNR=3.0						
MKAR	**Makanchi Array**	**111.19**	**313**	PKiKP	PKiKP	00 10 17.9	-2.1
	0.5nm,0.6s,baz=90,slow=1.2,SNR=4.1						
KURK	**Kurchatov**	**113.97**	**317**	PKiKP	PKiKP	00 10 22.3	-2.9
	0.6nm,0.6s,baz=90,slow=1.8,SNR=6.4						
KURK	**Kurchatov**	**113.97**	**317**	PKPdf	PKiKP	00 10 22.3	-2.9
BVAR	**Borovoye Array**	**119.05**	**320**	PKP	PKPdf	00 10 32.9	-2.0
	1.4nm,0.5s,baz=150,slow=1.6,SNR=9.9						
ARCES	**ARCESS Array B**	**128.79**	**350**	PKP	PKPdf	00 10 51.5	-1.6
	3.6nm,0.9s,baz=308,slow=6.0,SNR=3.8						
FINES	**FINESS Array B**	**135.66**	**344**	PKP	PKPdf	00 11 03.2	-3.0
	3.6nm,1.0s,baz=174,slow=1.9,SNR=5.3						
BRTR	**Keskin Array B**	**146.84**	**313**	PKPbc	PKPbc	00 11 27.9	-1.6
EJON	**La Jonquera**	**157.95**	**359**	P	PKPdf	00 11 37.0	-5.9

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*CNRM **29** 23:54:25.6, 32°.20N×4°.85W, h7^{km}, MD3.5*
*CSEM **29** 23:54:25.6, 32°.20N×4°.85W, h7^{km}, MD3.5, After CNRM*
MDD 29 23:54:25.3±0.9, **32°.20N**×**4°.85W**, **h6**^{km}±14^{km}, **mb3.4**/4, **Error ellipse: s-maj=11.0km s-min=6.4km az=38.0, PRIMO SIN SOLUCI, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZFT	**Errachidia**	**0.46**	**111**	P	Pg	23 54 33.0	-1.2
ZFT				S	Sg	23 54 41.0	+0.9
ZFT	**Errachidia**	**0.46**	**111**	*i* P	Pg	23 54 33.0	-1.2
ZFT				*i* S	Sg	23 54 41.0	+0.9
CZD	**Col de Zad**	**0.84**	**349**	P	Pg	23 54 41.5	0.0
CZD				S	Sg	23 54 52.0	-0.5
CZD	**Col de Zad**	**0.84**	**349**	*i* P	Pg	23 54 41.5	0.0
CZD				*i* S	Sg	23 54 52.0	-0.5
KIB	**El Ksiba**	**1.07**	**291**	P	Pg	23 54 45.0	-0.8
KIB				S	Sg	23 54 59.0	-0.7
KIB	**El Ksiba**	**1.07**	**291**	*i* P	Pg	23 54 45.0	-0.8
KIB				*i* S	Sg	23 54 59.0	-0.7
MIF	**Mishlifen**	**1.24**	**345**	P	Pb	23 54 48.0	-1.2
MIF				S	Sg	23 55 04.0	-1.3
MIF	**Mishlifen**	**1.24**	**345**	*i* P	Pb	23 54 48.0	-1.2
MIF				*i* S	Sg	23 55 04.0	-1.3
ESPR	**Espera**	**4.73**	**350**	P	Pn	23 55 36.9	-0.1
	0.5nm,0.3s,SNR=4.0						
ESPR				S	Sn	23 56 27.0	-5.1
	0.2nm,0.1s,SNR=4.0						
EGRO	**El Granado**	**5.74**	**339**	P	Pn	23 55 49.7	-1.3
	0.5nm,0.1s,SNR=7.9						
EGRO				S	Sn	23 56 52.4	-4.8
	0.5nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**5.75**	**345**	P	Pn	23 55 49.8	-1.3
	0.1nm,0.1s,SNR=7.9						
EMIN				S	Sn	23 56 55.3	-2.0
	0.1nm,0.3s,SNR=4.0						
EBAD	**Badajoz**	**6.77**	**346**	P	Pn	23 56 04.4	-0.7
	0.3nm,0.1s,SNR=7.9						
EBAD				S	Sn	23 57 20.1	-2.4
	0.9nm,0.2s,SNR=7.9						

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*ISCJB **29** 23:57:51.0±0.6, 40°.58N±0°.03×22°.10E±0°.05, h8^{km}±8^{km}, Error ellipse: s-maj=6.5km s-min=5.7km az=163.4*
*CSEM **29** 23:57:51.2±0.2, 40°.57N×22°.13E, h10^{km}, ML2.8/2, Error ellipse: s-maj=5.3km s-min=4.2km az=51.0*
*THE **29** 23:57:51.3, 40°.57N×22°.10E, h4^{km}±1^{km}, ML2.8/2, Error ellipse: s-maj=1.8km s-min=0.7km az=6.0*
ISC 29 23:57:51.3±0.5, **40°.57N**±0°.04×**22°.11E**±0°.05, **h7**^{km}±8^{km}, **n28**, σ**0^s.68**/38, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRG	**Griva**	**0.44**	**29**	P	**Pg**	**23 57 59.9**	**0.0**
GRG				S	**Sg**	**23 58 06.5**	**+0.8**
GRG	**Griva**	**0.44**	**29**	P	**Pg**	**23 57 59.9**	**0.0**
GRG				S	**Sg**	**23 58 06.5**	**+0.8**
LIT	**Litokhoron**	**0.55**	**148**	P	**Pg**	**23 58 01.5**	**-0.4**
LIT				S	**Sg**	**23 58 10.1**	**+1.0**
LIT	**Litokhoron**	**0.55**	**148**	P	**Pg**	**23 58 01.5**	**-0.4**
LIT				S	**Sg**	**23 58 10.1**	**+1.0**
FNA	**Florina**	**0.60**	**291**	P	**Pg**	**23 58 02.7**	**-0.2**
FNA				S	**Sg**	**23 58 10.4**	**-0.3**
FNA	**Florina**	**0.60**	**291**	P	**Pg**	**23 58 02.7**	**-0.2**
FNA				S	**Sg**	**23 58 10.4**	**-0.3**
BIA	**Bitola**	**0.75**	**307**	*e*Pg	**Pg**	**23 58 07.8**	**+2.1**
BIA	**Bitola**	**0.75**	**307**	*i* Pg	**Pg**	**23 58 12.5**	**+6.7**
BIA				*e*Sg	**Sg**	**23 58 22.2**	**+6.8**
BIA	**Bitola**	**0.75**	**307**	*e*Pg	**Pg**	**23 58 07.7**	**+2.0**
VAY	**Valandovo**	**0.83**	**25**	*i* Pg	**Pg**	**23 58 12.1**	**+4.9**
VAY	**Valandovo**	**0.83**	**25**	*i* Pg	**Pg**	**23 58 12.1**	**+4.9**
KNT	**Kendrikon**	**0.84**	**45**	P	**Pg**	**23 58 07.4**	**0.0**
KNT	**Kendrikon**	**0.84**	**45**	P	**Pg**	**23 58 07.4**	**0.0**
SOH	**Sokhos**	**0.98**	**75**	P	**Pg**	**23 58 09.8**	**-0.2**
SOH	**Sokhos**	**0.98**	**75**	P	**Pg**	**23 58 09.8**	**-0.2**
THL	**Klokotos Trika**	**1.01**	**184**	P	**Pg**	**23 58 10.4**	**-0.2**
THL	**Klokotos Trika**	**1.01**	**184**	P	**Pg**	**23 58 10.4**	**-0.2**
KRUS	**Krusevo**	**1.03**	**321**	*e*Pg	**Pg**	**23 58 10.0**	**-1.1**
KRUS	**Krusevo**	**1.03**	**321**	*i* Pg	**Pg**	**23 58 15.3**	**+4.2**
KRUS				*e*Sg	**Sg**	**23 58 29.6**	**+5.1**
KRUS	**Krusevo**	**1.03**	**321**	*e*Pg	**Pg**	**23 58 10.0**	**-1.1**
PLG	**Polygyros**	**1.03**	**100**	P	**Pg**	**23 58 10.1**	**-1.1**
PLG	**Polygyros**	**1.03**	**100**	P	**Pg**	**23 58 10.1**	**-1.1**
OUR	**Ouranopolis**	**1.45**	**99**	P	**Pn**	**23 58 17.9**	**+0.1**
OUR	**Ouranopolis**	**1.45**	**99**	P	**Pn**	**23 58 17.9**	**+0.1**
XOR	**Xorichti**	**1.46**	**145**	P	**Pn**	**23 58 17.6**	**-0.4**
XOR	**Xorichti**	**1.46**	**145**	P	**Pn**	**23 58 17.6**	**-0.4**
AGG	**Agios Georgios**	**1.56**	**174**	P	**Pn**	**23 58 19.2**	**-0.1**
AGG				S	**Sn**	**23 58 40.2**	**+0.5**
AGG	**Agios Georgios**	**1.56**	**174**	P	**Pn**	**23 58 19.2**	**-0.1**
AGG				S	**Sn**	**23 58 40.2**	**+0.5**

ISC Computed Locations for February 2008